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DoD Type I Data Package

Prepared for:

Tidewater, Inc.
3761 Attucks Drive
Powell OH 43065

Project: Great Kills Park Phase I RI OU2
Soil and Water Samples
Collected on 10/26/18

SDG# TID12

GROUP	SAMPLE NUMBERS
2003097	9872059-9872065

A2LA (DoD) Cert. # 0001.01
PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-18-27
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M. Kauffman

Dana M. Kauffman
Manager

Date: **12/07/2018**

Any questions or concerns you might have regarding this data package should be directed to your client representative, Kay Hower at (717) 556-7364.

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Sample Reference List for SDG Number TID12 with a Data Package Type of I-DOD

43062 - Tidewater, Inc.

Project: Great Kills Park Phase I RI OU2

Lab Sample Number	Client Sample ID	Collection Date	Date Received
9872059	OU2TB102618-001	10/26/2018 08:00	10/27/2018 09:50
9872060	OU2-1-SU005-06	10/26/2018 09:30	10/27/2018 09:50
9872061	OU2-1-SU005-06-DUP	10/26/2018 09:30	10/27/2018 09:50
9872062	OU2-1-SU005-16	10/26/2018 11:10	10/27/2018 09:50
9872063	OU2-1-SU006-05	10/26/2018 14:55	10/27/2018 09:50
9872064	OU2-1-SU006-14	10/26/2018 15:40	10/27/2018 09:50
9872065	OU2-1-SU008-02	10/26/2018 16:45	10/27/2018 09:50

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Sample pH Log

SDG: TID12

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
9872059	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	11/6/2018 11:12:23AM	9052

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11996 VOCs- 25ml Water by 8260C

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

11995 VOCs- Solid by 8260C

The soil sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

10638 Hg - SW, 7471B - U4
00159 Mercury

The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471B, February 2007

13499 Thorium

The solution resulting from the metals digestion is analyzed by Trace ICP.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010C, February 2007.

06123 Aluminum
06124 Antimony
06125 Arsenic
06126 Barium
06127 Beryllium
06128 Cadmium
06129 Calcium
06131 Chromium
06132 Cobalt
06133 Copper
06134 Iron
06135 Lead
06136 Magnesium
06137 Manganese
06139 Nickel
06140 Potassium
06141 Selenium
06142 Silver
06143 Sodium
06145 Thallium

13502 Uranium
06148 Vanadium
06149 Zinc

The solution resulting from the metals digestion is analyzed by ICP/MS.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6020A, February 2007.

10637 ICP/ICPMS-SW, 3050B - U4

The sample is digested with nitric acid, hydrochloric acid and hydrogen peroxide.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3050B, December 1996

10885 PCBs 8082A/3546

The sample is solvent extracted and exchanged to hexane. Sulfuric acid and florisil cleanups are performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8082A, February 2007.

14587 ocpest 8081B w/GPC & 3546

The sample is solvent extracted and exchanged to hexane. Florisil cleanup is performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8081B, February 2007.

10401 Herbicide soils 8151A Master

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8151A, December 1996.

04181 Herbicide Soil Extraction

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Methods 3550C & 8151A, February 2007.

10497 PCB Microwave Soil Extraction
10813 BNA Soil Microwave APP IX
10811 BNA Soil Microwave SIM

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546 Microwave Extraction, Revision 0, February 2007.

10496 PPL Pest. Microwave Extraction

The sample aliquot is extracted using microwave extraction with 1:1 hexane and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546 Microwave Extraction, Revision 0, February 2007.

12969 SIM SVOAs 8270D (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry with Selected Ion Monitoring (SIM).

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270D (SIM), February 2007.

10726 SVOA 8270D (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270D, February 2007.

13233 D/F in Solids 8290-Conf
12937 Dioxins/Furans in Solids-8290

The method provides procedures for the detection and quantitative measurement of polychlorinated dibenzo-p-dioxins (tetra- through octachlorinated homologues; PCDDs), and polychlorinated dibenzofurans (tetra- through octachlorinated homologues; PCDFs) in a variety of environmental matrices and at part-per-trillion (ppt) to part-per-quadrillion. The method requires the use of high-resolution gas chromatography and high-resolution mass spectrometry (HRGC/HRMS) on purified sample extracts.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8290A, Polychlorinated Dibenzo-p-Dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS)

11030 Dioxins/Furans in Solids - Sox

The samples are extracted with 1:1 Methylene Chloride:Hexane in a Soxhlet - Dean Stark extractor. The extract is concentrated for clean-up or instrumental analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8290A, Polychlorinated Dibenzo-p-Dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS)

07579 GC/MS-5g Field Preserv.MeOH-NC

The sample is collected and preserved with methanol in the field using vials that were prepared and pre-weighed at the laboratory. The vial preparation consists of adding 5 mls of methanol to a 40-ml vial. Once in the field, 5 +/- 0.5 g of soil is added to the vial and then iced at 4 +/- 2 degree C until the time they are returned to the lab. Upon receipt from the field, the container is re-weighed to determine the exact weight of the soil added to the vial. Since an approximate amount of soil is added to the vials in the field, the dilution factors may vary from sample to sample.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, Method 5035A, Revision 1, July 2002.

06176 GC/MS - LL Water Prep

The samples are collected in DI vials in the field. The vial preparation consists of adding 5 mLs of DI water and a stir bar to a 40-ml vial. Once in the field, 5 +/- 0.5 g of soil is to be added to the vial and then iced at 4 +/- 2 degree C until the time they are returned to the lab. Upon receipt from the field, the container is re-weighed to determine the exact weight of the soil added to the vial. The sample is then frozen at -10 to -20 degree C within 48 hours of collection.

Reference: Test Methods for Evaluating Solid Wastes, SW-846, Method 5035A, Revision 1, July 2002.

00111 Moisture

A well-mixed sample is heated by reflected infrared in an aluminum pan and dried to a constant weight. The decrease in weight in weight after drying is calculated as the moisture content.

Reference: SM 2540 G-2011 %Moisture Calculation for Dry Weight Determination

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Tidewater, Inc.
3761 Attucks Drive
Powell OH 43065

Report Date: November 29, 2018 14:53

Project: Great Kills Park Phase I RI OU2

Account #: 43062
Group Number: 2003097
SDG: TID12
PO Number: 2016-007-02
State of Sample Origin: NY

Electronic Copy To	AECOM	Attn: Devon Chicoine
Electronic Copy To	AECOM	Attn: Colleen Scott
Electronic Copy To	Tidewater, Inc.	Attn: Ryan Wensing
Electronic Copy To	AECOM	Attn: John Schroeder

Respectfully Submitted,

Kay Hower

Kay Hower

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE
OU2TB102618-001 Grab Water	10/26/2018 08:00	9872059
OU2-1-SU005-06 Grab Soil	10/26/2018 09:30	9872060
OU2-1-SU005-06-DUP Grab Soil	10/26/2018 09:30	9872061
OU2-1-SU005-16 Grab Soil	10/26/2018 11:10	9872062
OU2-1-SU006-05 Grab Soil	10/26/2018 14:55	9872063
OU2-1-SU006-14 Grab Soil	10/26/2018 15:40	9872064
OU2-1-SU008-02 Grab Soil	10/26/2018 16:45	9872065

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: Great Kills Park Phase I RI OU2
ELLE Group #: 2003097

General Comments:

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.
Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 9872060

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 9872061, 9872062, 9872063, 9872064

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Reporting limits were raised due to interference from the sample matrix.

Sample #s: 9872065

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

Batch #: B183101AA (Sample number(s): 9872065)

The relative percent difference(s) for the following analyte(s) in the LCS/LCSD were outside acceptance windows: 4-Methyl-2-pentanone

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9872065

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9872065

Batch #: Q183112AA (Sample number(s): 9872060-9872064)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9872060, 9872061, 9872062, 9872063, 9872064

SW-846 8260C 25mL purge, GC/MS Volatiles

Sample #s: 9872059

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

SW-846 8270D, GC/MS Semivolatiles

Sample #s: 9872065

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Sample #s: 9872060, 9872061, 9872062, 9872063

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Pyridine and 2,2'-oxybis(1-Chloropropane)

Batch #: 18302SLC026 (Sample number(s): 9872060-9872063)

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: Pyridine, 2,2'-oxybis(1-Chloropropane)

Batch #: 18317SLB026 (Sample number(s): 9872065)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: Pyridine

SW-846 8270D SIM, GC/MS Semivolatiles

Sample #s: 9872060, 9872061, 9872062

The stated QC limits for 1,4-dioxane are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample #s: 9872063

The stated QC limits for 1,4-dioxane are advisory only until sufficient data points can be obtained to calculate statistical limits.

bis(2-Ethylhexyl)phthalate was detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

Sample #s: 9872064

The stated QC limits for 1,4-dioxane are advisory only until sufficient data points can be obtained to calculate statistical limits.

The SECC exceeded the +/- 50% of the expected value from the ICAL. Sample and the SECC were reanalyzed and the SECC was once again outside client requirements which indicates a matrix effect.

Sample #s: 9872065

The stated QC limits for 1,4-dioxane are advisory only until sufficient data points can be obtained to calculate statistical limits.

The SECC exceeded the +/- 50% of the expected value from the ICAL. Sample and the SECC were reanalyzed and the SECC was once again outside client requirements which indicates a matrix effect.

Z=Benzo(b)fluoranthene and benzo(k)fluoranthene were not resolved under the sample analysis conditions. The result reported for benzo(b)fluoranthene represents the combined total of both isomers.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

Batch #: 18302SLE026 (Sample number(s): 9872060-9872063)

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9872062DL

Batch #: 18302SLH026 (Sample number(s): 9872064-9872065)

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

Batch #: 18317SLC026 (Sample number(s): 9872065)

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

SW-846 8081B, Pesticides

Sample #s: 9872064

Reporting limits were raised due to interference from the sample matrix.

Sample #s: 9872060, 9872061, 9872062

Reporting limits were raised due to interference from the sample matrix.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Batch #: 183020030A (Sample number(s): 9872060-9872065)

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9872060, 9872061, 9872062, 9872064, 9872065

SW-846 8082A Feb 2007 Rev 1, PCBs

Batch #: 183040031A (Sample number(s): 9872060-9872065)

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias

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for sample(s) 9872060, 9872062, 9872064, 9872065

SW-846 8151A, Herbicides

Sample #s: 9872060, 9872061, 9872062, 9872063, 9872064, 9872065

Reporting limits were raised due to interference from the sample matrix.

Batch #: 183030010A (Sample number(s): 9872060-9872065)

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9872060, 9872061, 9872062, 9872064, 9872065

SW-846 8290A Feb 2007 Rev 1, Dioxins/Furans

Sample #s: 9872060, 9872061, 9872062, 9872064

Due to the nature of the sample matrix, the recovery of 13C12-2378-TCDF was outside of the QC acceptance limits for the confirmation of this sample.

Batch #: 18302007 (Sample number(s): 9872060-9872065)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9872060, 9872061, 9872062, 9872064

SW-846 6010C, Metals

Sample #s: 9872060, 9872061, 9872062, 9872063, 9872064, 9872065

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5% for Thorium.
Outlier recovery/result: ICV RSDs > 5%; Acceptance limits: < 5%
ICV RSD%- 12.5%, reading 0.62, acceptance limits: 0.54-0.66

SW-846 7471B, Metals

Batch #: 183041063801 (Sample number(s): 9872060-9872065 UNSPK: 9872060 BKG: 9872060)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Mercury

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Mercury

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Sample Description: **OU2TB102618-001 Grab Water**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 08:00
SDG□: TID12-01TB

Tidewater, Inc.
ELLE Sample #: WW 9872059
ELLE Group #: 2003097
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Detection Limit*	Limit of Detection	Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C 25mL purge**		ug/l	ug/l	ug/l	ug/l	
11996	Acetone	67-64-1	N.D.	0.9	2.0	5.0	1
11996	Ben□ene	71-43-2	N.D.	0.05	0.2	0.5	1
11996	Bromodichloromethane	75-27-4	N.D.	0.05	0.2	0.5	1
11996	Bromoform	75-25-2	N.D.	0.3	0.5	1.0	1
11996	Bromomethane	74-83-9	N.D.	0.07	0.2	0.5	1
11996	2-Butanone	78-93-3	N.D.	0.6	2.0	5.0	1
11996	Carbon Disulfide	75-15-0	N.D.	0.06	0.2	1.0	1
11996	Carbon Tetrachloride	56-23-5	N.D.	0.07	0.2	0.5	1
11996	Chloroben□ene	108-90-7	N.D.	0.06	0.2	0.5	1
11996	Chloroethane	75-00-3	N.D.	0.07	0.2	0.5	1
11996	Chloroform	67-66-3	N.D.	0.09	0.2	0.5	1
11996	Chloromethane	74-87-3	N.D.	0.06	0.2	0.5	1
11996	C□clohexane	110-82-7	N.D.	0.05	0.2	0.5	1
11996	C□clohexanone	108-94-1	N.D.	1.8	7.2	25	1
11996	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.1	0.4	0.5	1
11996	Dibromochloromethane	124-48-1	N.D.	0.07	0.2	0.5	1
11996	1□2-Dibromoethane	106-93-4	N.D.	0.06	0.2	0.5	1
11996	1□2-Dichloroben□ene	95-50-1	N.D.	0.06	0.2	0.5	1
11996	1□3-Dichloroben□ene	541-73-1	N.D.	0.06	0.2	0.5	1
11996	1□4-Dichloroben□ene	106-46-7	N.D.	0.07	0.2	0.5	1
11996	Dichlorodifluoromethane	75-71-8	N.D.	0.05	0.2	0.5	1
11996	1□1-Dichloroethane	75-34-3	N.D.	0.07	0.2	0.5	1
11996	1□2-Dichloroethane	107-06-2	N.D.	0.05	0.2	0.5	1
11996	1□1-Dichloroethene	75-35-4	N.D.	0.06	0.2	0.5	1
11996	cis-1□2-Dichloroethene	156-59-2	N.D.	0.05	0.2	0.5	1
11996	trans-1□2-Dichloroethene	156-60-5	N.D.	0.06	0.2	0.5	1
11996	1□2-Dichloropropane	78-87-5	N.D.	0.06	0.2	0.5	1
11996	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.05	0.2	0.5	1
11996	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.06	0.2	0.5	1
11996	Eth□lben□ene	100-41-4	N.D.	0.06	0.2	0.5	1
11996	Freon 113	76-13-1	N.D.	0.06	0.2	0.5	1
11996	2-Hexanone	591-78-6	N.D.	0.6	2.0	5.0	1
11996	Isoprop□lben□ene	98-82-8	N.D.	0.05	0.2	0.5	1
11996	Meth□l Acetate	79-20-9	N.D.	0.1	0.2	1.0	1
11996	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.05	0.2	0.5	1
11996	4-Meth□l-2-Pentanone	108-10-1	N.D.	0.7	2.0	5.0	1
11996	Meth□lc□clohexane	108-87-2	N.D.	0.05	0.2	0.5	1
11996	Meth□lene Chloride	75-09-2	N.D.	0.07	0.2	0.5	1
11996	St□rene	100-42-5	N.D.	0.05	0.2	0.5	1
11996	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.07	0.2	0.5	1

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2TB102618-001 Grab Water**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 08:00
SDG□: TID12-01TB

Tidewater, Inc.
ELLE Sample #: WW 9872059
ELLE Group #: 2003097
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Detection Limit*	Limit of Detection	Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C 25mL purge**		ug/l	ug/l	ug/l	ug/l	
11996	Tetrachloroethene	127-18-4	N.D.	0.06	0.2	0.5	1
11996	Toluene	108-88-3	N.D.	0.07	0.2	0.5	1
11996	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.06	0.2	0.5	1
11996	1□1□1-Trichloroethane	71-55-6	N.D.	0.06	0.2	0.5	1
11996	1□1□2-Trichloroethane	79-00-5	N.D.	0.06	0.2	0.5	1
11996	Trichloroethene	79-01-6	N.D.	0.06	0.2	0.5	1
11996	Trichlorofluoromethane	75-69-4	N.D.	0.05	0.2	0.5	1
11996	Vin□l Chloride	75-01-4	N.D.	0.1	0.2	0.5	1
11996	□□lene (Total)	1330-20-7	N.D.	0.1	0.4	0.5	1

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□at or below the reporting limit.

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	VOCs- 25ml Water b□8260C	SW-846 8260C 25mL purge	1	H183094AA	11/06/2018 05:57	□oel G Chachapo□a	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	H183094AA	11/06/2018 05:57	□oel G Chachapo□a	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	N.D.	0.34	0.91	1.1	44.09
11995	Ben□ene	71-43-2	N.D.	0.028	0.11	0.28	44.09
11995	Bromodichloromethane	75-27-4	N.D.	0.023	0.057	0.28	44.09
11995	Bromoform	75-25-2	N.D.	0.28	0.45	0.57	44.09
11995	Bromomethane	74-83-9	N.D.	0.040	0.11	0.28	44.09
11995	2-Butanone	78-93-3	0.10 □	0.057	0.23	0.57	44.09
11995	Carbon Disulfide	75-15-0	0.068 □	0.034	0.11	0.28	44.09
11995	Carbon Tetrachloride	56-23-5	N.D.	0.028	0.11	0.28	44.09
11995	Chloroben□ene	108-90-7	N.D.	0.028	0.11	0.28	44.09
11995	Chloroethane	75-00-3	N.D.	0.057	0.23	0.28	44.09
11995	Chloroform	67-66-3	N.D.	0.034	0.11	0.28	44.09
11995	Chloromethane	74-87-3	N.D.	0.034	0.11	0.28	44.09
11995	C□clohexane	110-82-7	N.D.	0.028	0.11	0.28	44.09
11995	C□clohexanone	108-94-1	2.1 □	1.4	5.7	14	44.09
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.023	0.057	0.28	44.09
11995	Dibromochloromethane	124-48-1	N.D.	0.023	0.057	0.28	44.09
11995	1□2-Dibromoethane	106-93-4	N.D.	0.023	0.057	0.28	44.09
11995	1□2-Dichloroben□ene	95-50-1	0.040 □	0.028	0.11	0.28	44.09
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.028	0.11	0.28	44.09
11995	1□4-Dichloroben□ene	106-46-7	0.042 □	0.023	0.057	0.28	44.09
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.034	0.11	0.28	44.09
11995	1□1-Dichloroethane	75-34-3	N.D.	0.028	0.11	0.28	44.09
11995	1□2-Dichloroethane	107-06-2	N.D.	0.034	0.11	0.28	44.09
11995	1□1-Dichloroethene	75-35-4	N.D.	0.028	0.11	0.28	44.09
11995	cis-1□2-Dichloroethene	156-59-2	N.D.	0.028	0.11	0.28	44.09
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.028	0.11	0.28	44.09
11995	1□2-Dichloropropane	78-87-5	N.D.	0.028	0.11	0.28	44.09
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.023	0.057	0.28	44.09
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.017	0.057	0.28	44.09
11995	Eth□lben□ene	100-41-4	0.034 □	0.023	0.057	0.28	44.09
11995	Freon 113	76-13-1	N.D.	0.034	0.11	0.57	44.09
11995	2-Hexanone	591-78-6	N.D.	0.057	0.23	0.57	44.09
11995	Isoprop□lben□ene	98-82-8	0.032 □	0.023	0.057	0.28	44.09
11995	Meth□l Acetate	79-20-9	0.29	0.057	0.23	0.28	44.09
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.028	0.11	0.28	44.09
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.057	0.23	0.57	44.09
11995	Meth□lc□clohexane	108-87-2	N.D.	0.034	0.11	0.28	44.09
11995	Meth□lene Chloride	75-09-2	N.D.	0.11	0.23	0.28	44.09
11995	St□rene	100-42-5	N.D.	0.017	0.057	0.28	44.09
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.023	0.057	0.28	44.09
11995	Tetrachloroethene	127-18-4	N.D.	0.028	0.11	0.28	44.09

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	0.063 □	0.034	0.11	0.28	44.09
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.28	0.45	0.57	44.09
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.034	0.11	0.28	44.09
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.028	0.11	0.28	44.09
11995	Trichloroethene	79-01-6	N.D.	0.028	0.11	0.28	44.09
11995	Trichlorofluoromethane	75-69-4	N.D.	0.040	0.11	0.28	44.09
11995	Vin□l Chloride	75-01-4	N.D.	0.034	0.11	0.28	44.09
11995	□□lene (Total)	1330-20-7	0.15 □	0.057	0.11	0.28	44.09
	A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.						
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	0.21	0.42	0.64	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.21	0.42	0.64	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.025	0.051	0.064	1
10726	Carba□ole	86-74-8	0.22	0.021	0.042	0.047	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.021	0.042	0.047	1
10726	4-Chloroaniline	106-47-8	N.D.	0.042	0.085	0.21	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.021	0.042	0.047	1
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.030	0.059	0.064	1
10726	2-Chloronaphthalene	91-58-7	0.47	0.008	0.017	0.042	1
10726	2-Chlorophenol	95-57-8	N.D.	0.021	0.042	0.047	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.021	0.042	0.047	1
10726	2□2□-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.021	0.042	0.047	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□. The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	4.3	0.021	0.042	0.047	1
10726	1□2-Dichloroben□ene	95-50-1	0.25	0.025	0.051	0.064	1
10726	1□3-Dichloroben□ene	541-73-1	N.D.	0.021	0.042	0.047	1
10726	1□4-Dichloroben□ene	106-46-7	0.44	0.021	0.042	0.047	1
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	0.13	0.25	0.42	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.021	0.042	0.047	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.085	0.17	0.21	1
10726	2□4-Dimeth□lphenol	105-67-9	0.90	0.021	0.042	0.047	1
10726	Dimeth□lphthalate	131-11-3	N.D.	0.085	0.17	0.21	1
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	0.21	0.42	0.64	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.47	0.93	1.3	1
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.085	0.17	0.21	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.025	0.051	0.064	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.004	0.008	0.021	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.025	0.051	0.064	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.21	0.42	0.64	1
10726	Hexachloroethane	67-72-1	N.D.	0.042	0.085	0.21	1
10726	Isophorone	78-59-1	N.D.	0.021	0.042	0.047	1
10726	2-Meth□lnaphthalene	91-57-6	10	0.13	0.25	0.42	10
10726	2-Meth□lphenol	95-48-7	0.28	0.034	0.068	0.085	1
10726	4-Meth□lphenol	106-44-5	2.7	0.025	0.051	0.064	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.025	0.051	0.064	1
10726	3-Nitroaniline	99-09-2	N.D.	0.085	0.17	0.21	1
10726	4-Nitroaniline	100-01-6	N.D.	0.085	0.17	0.21	1
10726	Nitroben□ene	98-95-3	N.D.	0.034	0.068	0.085	1
10726	2-Nitrophenol	88-75-5	N.D.	0.021	0.042	0.047	1
10726	4-Nitrophenol	100-02-7	N.D.	0.21	0.42	0.64	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.025	0.051	0.064	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.021	0.042	0.047	1
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.085	0.17	0.21	1
10726	Pentachlorophenol	87-86-5	N.D.	0.047	0.17	0.21	1
10726	Phenol	108-95-2	0.62	0.030	0.059	0.064	1
10726	P□ridine	110-86-1	N.D.	0.085	0.17	0.21	1
10726	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.021	0.042	0.047	1
10726	2□4□5-Trichlorophenol	95-95-4	N.D.	0.025	0.051	0.064	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.025	0.051	0.064	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of □/- 4 standard deviations as defined in the TNI/DoD Standards. The following anal□tes are accepted based on this allowance: P□ridine and 2□2□-ox□bis(1-Chloropropane)						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	5.1	0.042	0.085	0.11	50
12969	Acenaphth□lene	208-96-8	0.17	0.004	0.017	0.021	10
12969	Anthracene	120-12-7	1.3	0.008	0.017	0.021	10
12969	Ben□o(a)anthracene	56-55-3	1.2	0.008	0.017	0.021	10
12969	Ben□o(a)p□rene	50-32-8	0.83	0.008	0.017	0.021	10
12969	Ben□o(b)fluoranthene	205-99-2	1.2	0.008	0.017	0.021	10
12969	Ben□o(g□h□i)per□lene	191-24-2	0.49	0.008	0.017	0.021	10

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Ben□o(□)fluoranthene	207-08-9	0.40	0.008	0.017	0.021	10
12969	Di-n-but□phthalate	84-74-2	0.61	0.085	0.17	0.25	10
12969	Chr□sene	218-01-9	1.2	0.004	0.017	0.021	10
12969	Diben□(a□h)anthracene	53-70-3	0.15	0.008	0.017	0.021	10
12969	1□4-Dioxane	123-91-1	0.011 □	0.008	0.017	0.021	10
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	0.65	0.13	0.25	0.30	10
12969	Fluoranthene	206-44-0	2.8	0.008	0.017	0.021	10
12969	Fluorene	86-73-7	4.7	0.042	0.085	0.11	50
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.46	0.008	0.017	0.021	10
12969	Naphthalene	91-20-3	11	0.085	0.17	0.21	50
12969	Phenanthrene	85-01-8	4.0	0.008	0.017	0.021	10
12969	P□rene	129-00-0	2.5	0.008	0.017	0.021	10
	The stated QC limits for 1□4-dioxane are advisor□onl□until sufficient data points can be obtained to calculate statistical limits.						
Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D. D2	3□100	6□200	9□200	200
10401	Dalapon	75-99-0	N.D. D1	11□000	23□000	23□000	200
10401	2□4-DB	94-82-6	N.D. D1	2□500	5□100	5□400	200
10401	Dicamba	1918-00-9	N.D. D1	1□000	2□100	3□100	200
10401	Dinoseb	88-85-7	N.D. D2	2□300	4□600	6□200	200
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.						
10401	2□4-DP (Dichloroprop)	120-36-5	N.D. D1	2□300	4□600	5□100	200
10401	MCPA	94-74-6	N.D. D1	200□000	390□000	640□000	200
10401	MCPP (Mecoprop)	93-65-2	N.D. D2	980□000	2□000□000	2□000□000	200
10401	2□4□5-T	93-76-5	N.D. D2	210	420	440	200
10401	2□4□5-TP	93-72-1	N.D. D1	190	390	440	200
	Reporting limits were raised due to interference from the sample matrix.						
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D. D1	0.023	0.063	0.11	5
10885	PCB-1221	11104-28-2	N.D. D1	0.029	0.063	0.11	5
10885	PCB-1232	11141-16-5	N.D. D1	0.051	0.10	0.11	5
10885	PCB-1242	53469-21-9	N.D. D1	0.021	0.063	0.11	5
10885	PCB-1248	12672-29-6	N.D. D1	0.021	0.063	0.11	5
10885	PCB-1254	11097-69-1	N.D. D1	0.021	0.063	0.11	5
10885	PCB-1260	11096-82-5	0.14 D2	0.031	0.063	0.11	5
10885	PCB-1262	37324-23-5	N.D. D1	0.021	0.063	0.11	5
10885	PCB-1268	11100-14-4	N.D. D1	0.021	0.063	0.11	5
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D. D1	2.2	7.7	11	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Pesticides	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
14587	Alpha BHC	319-84-6	N.D.	D2	2.2	7.7	11	10
14587	Beta BHC	319-85-7	N.D.	D2	5.6	12	13	10
14587	Gamma BHC - Lindane	58-89-9	N.D.	D2	2.7	7.7	11	10
14587	Alpha Chlordane	5103-71-9	N.D.	D2	2.2	7.7	11	10
14587	Chlordane	57-74-9	N.D.	D1	51	100	220	10
14587	Gamma Chlordane	5103-74-2	7.8	□D2	3.2	7.7	11	10
14587	p□p-DDD	72-54-8	11	□D1	4.2	15	22	10
14587	p□p-DDE	72-55-9	11	□PD1	4.2	15	22	10
14587	p□p-DDT	50-29-3	N.D.	D2	10	21	22	10
14587	Delta BHC	319-86-8	N.D.	D2	5.8	12	13	10
14587	Dieldrin	60-57-1	N.D.	D2	4.2	15	22	10
14587	Endosulfan I	959-98-8	N.D.	D2	2.8	7.7	11	10
14587	Endosulfan II	33213-65-9	N.D.	D1	14	28	29	10
14587	Endosulfan Sulfate	1031-07-8	5.5	□PD1	4.2	15	22	10
14587	Endrin	72-20-8	N.D.	D2	8.7	18	22	10
14587	Endrin Aldeh□de	7421-93-4	10	□PD1	4.2	15	22	10
14587	Endrin Ketone	53494-70-5	N.D.	D1	7.7	23	26	10
14587	Heptachlor	76-44-8	N.D.	D1	4.0	7.9	11	10
14587	Heptachlor Epoxide	1024-57-3	N.D.	D1	2.2	7.7	11	10
14587	Methox□chlor	72-43-5	N.D.	D2	23	83	86	10
14587	Toxaphene	8001-35-2	N.D.	D2	180	360	420	10

Reporting limits were raised due to interference from the sample matrix.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	60.8	□	40.1	95.8	239	5

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5□ for Thorium.
Outlier recover□/result: ICV RSDs □ 5□ □Acceptance limits: < 5□
ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66

	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	6□070		32.0	61.3	76.6	2
06124	Antimon□	7440-36-0	16.0		0.121	0.192	0.383	2
06125	Arsenic	7440-38-2	32.8		0.128	0.307	0.383	2
06126	Barium	7440-39-3	565		0.370	0.613	0.766	2
06127	Ber□llium	7440-41-7	0.361		0.0218	0.0766	0.0958	2
06128	Cadmium	7440-43-9	3.03		0.0483	0.0958	0.192	2
06129	Calcium	7440-70-2	28□800		65.3	107	134	2
06131	Chromium	7440-47-3	66.6		0.320	0.613	0.766	2

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06132	Cobalt	7440-48-4	17.0	0.0559	0.0958	0.192	2
06133	Copper	7440-50-8	483	3.43	6.13	7.66	2
06134	Iron	7439-89-6	142□000	18.0	38.3	47.9	5
06135	Lead	7439-92-1	1□270	0.241	0.718	2.87	10
06136	Magnesium	7439-95-4	2□560	3.01	9.58	19.2	2
06137	Manganese	7439-96-5	467	0.379	0.958	1.92	2
06139	Nic□el	7440-02-0	76.8	0.326	0.613	0.766	2
06140	Potassium	7440-09-7	794	34.7	61.3	76.6	2
06141	Selenium	7782-49-2	1.30	0.125	0.307	0.383	2
06142	Silver	7440-22-4	2.89	0.0389	0.0766	0.0958	2
06143	Sodium	7440-23-5	711	77.0	138	172	2
06145	Thallium	7440-28-0	0.171	0.0376	0.0766	0.0958	2
13502	Uranium	7440-61-1	0.451	0.0376	0.0958	0.0958	2
06148	Vanadium	7440-62-2	22.9	0.0822	0.153	0.192	2
06149	□inc	7440-66-6	1□600	1.16	2.30	2.87	2
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	1.25	0.197	0.421	0.842	5
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	22.1	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		mg/kg	mg/kg	mg/kg	mg/kg	
12937	2378-TCDD	1746-01-6	0.00000271	0.000000170	0.000000382	0.00000127	1
12937	12378-PeCDD	40321-76-4	0.00000955 Q	0.000000409	0.00000127	0.00000637	1
12937	123478-HxCDD	39227-28-6	0.00000693	0.000000319	0.00000127	0.00000637	1
12937	123678-HxCDD	57653-85-7	0.0000669	0.000000319	0.00000127	0.00000637	1
12937	123789-HxCDD	19408-74-3	0.0000253	0.000000319	0.00000127	0.00000637	1
12937	1234678-HpCDD	35822-46-9	0.00130	0.000000319	0.00000127	0.00000637	1
12937	OCDD	3268-87-9	0.00555	0.0000176	0.0000382	0.000127	10
13233	2378-TCDF-Conf	51207-31-9	0.0000119 C	0.000000192	0.000000395	0.00000127	1
12937	12378-PeCDF	57117-41-6	0.0000139	0.000000319	0.00000127	0.00000637	1
12937	23478-PeCDF	57117-31-4	0.0000281	0.000000319	0.00000127	0.00000637	1
12937	123478-HxCDF	70648-26-9	0.0000327	0.000000319	0.00000127	0.00000637	1
12937	123678-HxCDF	57117-44-9	0.0000404	0.000000319	0.00000127	0.00000637	1
12937	123789-HxCDF	72918-21-9	0.00000919	0.000000319	0.00000127	0.00000637	1
12937	234678-HxCDF	60851-34-5	0.0000418	0.000000319	0.00000127	0.00000637	1
12937	1234678-HpCDF	67562-39-4	0.000813	0.000000319	0.00000127	0.00000637	1
12937	1234789-HpCDF	55673-89-7	0.0000434	0.000000319	0.00000127	0.00000637	1
12937	OCDF	39001-02-0	0.000756	0.000000692	0.00000255	0.0000127	1

Due to the nature of the sample matrix□the recover□of 13C12-2378-TCDF was outside of the QC acceptance limits for the confirmation of this sample.

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	27	40 - 135	0.000000308
13C12-2378-TCDD	57	40 - 135	0.000000298
13C12-12378-PeCDD	58	40 - 135	0.000000993
13C12-123478-HxCDD	80	40 - 135	0.000000993
13C12-123678-HxCDD	74	40 - 135	0.000000993
13C12-123789-HxCDD	66	40 - 135	0.000000993
13C12-1234678-HpCDD	76	40 - 135	0.000000993
13C12-OCDD	95	40 - 135	0.0000298
13C12-12378-PeCDF	52	40 - 135	0.000000993
13C12-23478-PeCDF	44	40 - 135	0.000000993
13C12-123478-HxCDF	79	40 - 135	0.000000993
13C12-123678-HxCDF	79	40 - 135	0.000000993
13C12-234678-HxCDF	56	40 - 135	0.000000993
13C12-123789-HxCDF	57	40 - 135	0.000000993
13C12-1234678-HpCDF	85	40 - 135	0.000000993
13C12-1234789-HpCDF	70	40 - 135	0.000000993
13C12-OCDF	68	40 - 135	0.00000199

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	Q183112AA	11/07/2018 13:59	Stephen C Nolte	44.09
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/26/2018 09:30	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 11:20	Edward C Monborne	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 13:25	Edward C Monborne	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 17:30	Anthon□P Bauer	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 22:44	Anthon□P Bauer	50
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLC026	10/29/2018 22:00	Bradle□W VanLeuven	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLE026	10/29/2018 22:00	Bradle□W VanLeuven	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/16/2018 03:49	Richard A Shober	200
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 03:32	Kirb□B Turner	5
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/13/2018 22:25	Lisa A Reinert	10
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 21:33	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/06/2018 17:27	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 22:37	Michael □iegler	10
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:17	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 21:45	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 21:45	Bradle□M Berlot	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-02

Tidewater, Inc.
ELLE Sample #: SW 9872060
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020A	1	183041063701D	11/12/2018 21:45	Bradle□M Berlot	2
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 21:45	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/12/2018 21:48	Bradle□M Berlot	5
06135	Lead	SW-846 6020A	2	183041063701A	11/28/2018 07:50	Choon □ Tian	10
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:27	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:27	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/12/2018 21:45	Bradle□M Berlot	2
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 15:44	Par□er D Lindstrom	5
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	N.D.	0.33	0.88	1.1	42.81
11995	Ben□ene	71-43-2	N.D.	0.028	0.11	0.28	42.81
11995	Bromodichloromethane	75-27-4	N.D.	0.022	0.055	0.28	42.81
11995	Bromoform	75-25-2	N.D.	0.28	0.44	0.55	42.81
11995	Bromomethane	74-83-9	N.D.	0.039	0.11	0.28	42.81
11995	2-Butanone	78-93-3	0.13 □	0.055	0.22	0.55	42.81
11995	Carbon Disulfide	75-15-0	0.048 □	0.033	0.11	0.28	42.81
11995	Carbon Tetrachloride	56-23-5	N.D.	0.028	0.11	0.28	42.81
11995	Chloroben□ene	108-90-7	N.D.	0.028	0.11	0.28	42.81
11995	Chloroethane	75-00-3	N.D.	0.055	0.22	0.28	42.81
11995	Chloroform	67-66-3	N.D.	0.033	0.11	0.28	42.81
11995	Chloromethane	74-87-3	N.D.	0.033	0.11	0.28	42.81
11995	C□clohexane	110-82-7	N.D.	0.028	0.11	0.28	42.81
11995	C□clohexanone	108-94-1	N.D.	1.4	5.5	14	42.81
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.022	0.055	0.28	42.81
11995	Dibromochloromethane	124-48-1	N.D.	0.022	0.055	0.28	42.81
11995	1□2-Dibromoethane	106-93-4	N.D.	0.022	0.055	0.28	42.81
11995	1□2-Dichloroben□ene	95-50-1	0.075 □	0.028	0.11	0.28	42.81
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.028	0.11	0.28	42.81
11995	1□4-Dichloroben□ene	106-46-7	0.074 □	0.022	0.055	0.28	42.81
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.033	0.11	0.28	42.81
11995	1□1-Dichloroethane	75-34-3	N.D.	0.028	0.11	0.28	42.81
11995	1□2-Dichloroethane	107-06-2	N.D.	0.033	0.11	0.28	42.81
11995	1□1-Dichloroethene	75-35-4	N.D.	0.028	0.11	0.28	42.81
11995	cis-1□2-Dichloroethene	156-59-2	N.D.	0.028	0.11	0.28	42.81
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.028	0.11	0.28	42.81
11995	1□2-Dichloropropane	78-87-5	N.D.	0.028	0.11	0.28	42.81
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.022	0.055	0.28	42.81
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.017	0.055	0.28	42.81
11995	Eth□lben□ene	100-41-4	0.070 □	0.022	0.055	0.28	42.81
11995	Freon 113	76-13-1	N.D.	0.033	0.11	0.55	42.81
11995	2-Hexanone	591-78-6	N.D.	0.055	0.22	0.55	42.81
11995	Isoprop□lben□ene	98-82-8	0.049 □	0.022	0.055	0.28	42.81
11995	Meth□l Acetate	79-20-9	0.33	0.055	0.22	0.28	42.81
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.028	0.11	0.28	42.81
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.055	0.22	0.55	42.81
11995	Meth□lc□clohexane	108-87-2	N.D.	0.033	0.11	0.28	42.81
11995	Meth□lene Chloride	75-09-2	N.D.	0.11	0.22	0.28	42.81
11995	St□rene	100-42-5	N.D.	0.017	0.055	0.28	42.81
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.022	0.055	0.28	42.81
11995	Tetrachloroethene	127-18-4	N.D.	0.028	0.11	0.28	42.81

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	0.098 □	0.033	0.11	0.28	42.81
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.28	0.44	0.55	42.81
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.033	0.11	0.28	42.81
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.028	0.11	0.28	42.81
11995	Trichloroethene	79-01-6	N.D.	0.028	0.11	0.28	42.81
11995	Trichlorofluoromethane	75-69-4	N.D.	0.039	0.11	0.28	42.81
11995	Vin□l Chloride	75-01-4	N.D.	0.033	0.11	0.28	42.81
11995	□□lene (Total)	1330-20-7	0.32	0.055	0.11	0.28	42.81

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.

Reporting limits were raised due to interference from the sample matrix.

GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	0.21	0.43	0.64	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.21	0.43	0.64	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.026	0.051	0.064	1
10726	Carba□ole	86-74-8	0.25	0.021	0.043	0.047	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.021	0.043	0.047	1
10726	4-Chloroaniline	106-47-8	N.D.	0.043	0.086	0.21	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.021	0.043	0.047	1
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.030	0.060	0.064	1
10726	2-Chloronaphthalene	91-58-7	0.42	0.009	0.017	0.043	1
10726	2-Chlorophenol	95-57-8	N.D.	0.021	0.043	0.047	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.021	0.043	0.047	1
10726	2□2□ox□bis(1-Chloropropane)	108-60-1	N.D.	0.021	0.043	0.047	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□ The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	4.5	0.021	0.043	0.047	1
10726	1□2-Dichloroben□ene	95-50-1	0.20	0.026	0.051	0.064	1
10726	1□3-Dichloroben□ene	541-73-1	N.D.	0.021	0.043	0.047	1
10726	1□4-Dichloroben□ene	106-46-7	0.37	0.021	0.043	0.047	1
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	0.13	0.26	0.43	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.021	0.043	0.047	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.086	0.17	0.21	1
10726	2□4-Dimeth□lphenol	105-67-9	0.86	0.021	0.043	0.047	1
10726	Dimeth□lphthalate	131-11-3	N.D.	0.086	0.17	0.21	1
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	0.21	0.43	0.64	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.47	0.94	1.3	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU005-06-DUP Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.086	0.17	0.21	1
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.026	0.051	0.064	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.004	0.009	0.021	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.026	0.051	0.064	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.21	0.43	0.64	1
10726	Hexachloroethane	67-72-1	N.D.	0.043	0.086	0.21	1
10726	Isophorone	78-59-1	N.D.	0.021	0.043	0.047	1
10726	2-Meth□lnaphthalene	91-57-6	9.9	0.13	0.26	0.43	10
10726	2-Meth□lphenol	95-48-7	N.D.	0.034	0.068	0.086	1
10726	4-Meth□lphenol	106-44-5	1.9	0.026	0.051	0.064	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.026	0.051	0.064	1
10726	3-Nitroaniline	99-09-2	N.D.	0.086	0.17	0.21	1
10726	4-Nitroaniline	100-01-6	N.D.	0.086	0.17	0.21	1
10726	Nitroben□ene	98-95-3	N.D.	0.034	0.068	0.086	1
10726	2-Nitrophenol	88-75-5	N.D.	0.021	0.043	0.047	1
10726	4-Nitrophenol	100-02-7	N.D.	0.21	0.43	0.64	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.026	0.051	0.064	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.021	0.043	0.047	1
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.086	0.17	0.21	1
10726	Pentachlorophenol	87-86-5	N.D.	0.047	0.17	0.21	1
10726	Phenol	108-95-2	N.D.	0.030	0.060	0.064	1
10726	P□ridine	110-86-1	N.D.	0.086	0.17	0.21	1
10726	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.021	0.043	0.047	1
10726	2□4□5-Trichlorophenol	95-95-4	N.D.	0.026	0.051	0.064	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.026	0.051	0.064	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of □/- 4 standard deviations as defined in the TNI/DoD Standards. The following anal□tes are accepted based on this allowance: P□ridine and 2□2□-ox□bis(1-Chloropropane)						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	5.0	0.043	0.086	0.11	50
12969	Acenaphth□lene	208-96-8	0.18	0.004	0.017	0.021	10
12969	Anthracene	120-12-7	1.6	0.009	0.017	0.021	10
12969	Ben□o(a)anthracene	56-55-3	1.2	0.009	0.017	0.021	10
12969	Ben□o(a)p□rene	50-32-8	0.92	0.009	0.017	0.021	10
12969	Ben□o(b)fluoranthene	205-99-2	1.2	0.009	0.017	0.021	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU005-06-DUP Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Ben□o(g□h□i)per□lene	191-24-2	0.53	0.009	0.017	0.021	10
12969	Ben□o(□)fluoranthene	207-08-9	0.55	0.009	0.017	0.021	10
12969	Di-n-but□phthalate	84-74-2	0.41	0.086	0.17	0.26	10
12969	Chr□sene	218-01-9	1.3	0.004	0.017	0.021	10
12969	Diben□(a□h)anthracene	53-70-3	0.17	0.009	0.017	0.021	10
12969	1□4-Dioxane	123-91-1	0.012 □	0.009	0.017	0.021	10
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	0.48	0.13	0.26	0.30	10
12969	Fluoranthene	206-44-0	2.8	0.009	0.017	0.021	10
12969	Fluorene	86-73-7	4.6	0.043	0.086	0.11	50
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.52	0.009	0.017	0.021	10
12969	Naphthalene	91-20-3	10	0.086	0.17	0.21	50
12969	Phenanthrene	85-01-8	3.9	0.009	0.017	0.021	10
12969	P□rene	129-00-0	2.6	0.009	0.017	0.021	10
	The stated QC limits for 1□4-dioxane are advisor□onl□until sufficient data points can be obtained to calculate statistical limits.						
Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D. D2	3□100	6□200	9□200	200
10401	Dalapon	75-99-0	N.D. D1	11□000	23□000	23□000	200
10401	2□4-DB	94-82-6	N.D. D2	2□500	5□100	5□400	200
10401	Dicamba	1918-00-9	N.D. D1	1□000	2□100	3□100	200
10401	Dinoseb	88-85-7	N.D. D1	2□300	4□600	6□200	200
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.						
10401	2□4-DP (Dichloroprop)	120-36-5	N.D. D1	2□300	4□600	5□100	200
10401	MCPA	94-74-6	N.D. D1	200□000	390□000	640□000	200
10401	MCPP (Mecoprop)	93-65-2	N.D. D2	980□000	2□000□000	2□000□000	200
10401	2□4□5-T	93-76-5	N.D. D1	210	420	440	200
10401	2□4□5-TP	93-72-1	N.D. D1	190	390	440	200
	Reporting limits were raised due to interference from the sample matrix.						
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D. D1	0.023	0.064	0.11	5
10885	PCB-1221	11104-28-2	N.D. D1	0.030	0.064	0.11	5
10885	PCB-1232	11141-16-5	N.D. D1	0.051	0.10	0.11	5
10885	PCB-1242	53469-21-9	N.D. D1	0.021	0.064	0.11	5
10885	PCB-1248	12672-29-6	N.D. D1	0.021	0.064	0.11	5
10885	PCB-1254	11097-69-1	0.083 □D1	0.021	0.064	0.11	5
10885	PCB-1260	11096-82-5	0.11 □D2	0.031	0.064	0.11	5
10885	PCB-1262	37324-23-5	N.D. D1	0.021	0.064	0.11	5
10885	PCB-1268	11100-14-4	N.D. D1	0.021	0.064	0.11	5
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Pesticides	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D.	D1	2.2	7.7	11	10
14587	Alpha BHC	319-84-6	N.D.	D2	2.2	7.7	11	10
14587	Beta BHC	319-85-7	N.D.	D2	5.6	12	13	10
14587	Gamma BHC - Lindane	58-89-9	N.D.	D2	2.7	7.7	11	10
14587	Alpha Chlordane	5103-71-9	N.D.	D2	2.2	7.7	11	10
14587	Chlordane	57-74-9	N.D.	D1	51	100	220	10
14587	Gamma Chlordane	5103-74-2	N.D.	D2	3.2	7.7	11	10
14587	p□p-DDD	72-54-8	8.7	□D1	4.2	15	22	10
14587	p□p-DDE	72-55-9	12	□PD1	4.2	15	22	10
14587	p□p-DDT	50-29-3	N.D.	D2	10	20	22	10
14587	Delta BHC	319-86-8	N.D.	D2	5.8	12	13	10
14587	Dieldrin	60-57-1	N.D.	D2	4.2	15	22	10
14587	Endosulfan I	959-98-8	N.D.	D2	2.8	7.7	11	10
14587	Endosulfan II	33213-65-9	N.D.	D2	14	28	29	10
14587	Endosulfan Sulfate	1031-07-8	15	□PD2	4.2	15	22	10
14587	Endrin	72-20-8	N.D.	D2	8.7	18	22	10
14587	Endrin Aldeh□de	7421-93-4	12	□PD1	4.2	15	22	10
14587	Endrin Ketone	53494-70-5	N.D.	D1	7.7	23	26	10
14587	Heptachlor	76-44-8	N.D.	D1	4.0	7.9	11	10
14587	Heptachlor Epoxide	1024-57-3	N.D.	D1	2.2	7.7	11	10
14587	Methox□chlor	72-43-5	N.D.	D2	23	83	86	10
14587	Toxaphene	8001-35-2	N.D.	D2	180	360	420	10

Reporting limits were raised due to interference from the sample matrix.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	47.3	□	38.2	91.2	228	5

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5□ for Thorium.
Outlier recover□/result: ICV RSDs □ 5□ □Acceptance limits: < 5□
ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66

	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	6□200		30.4	58.3	72.9	2
06124	Antimon□	7440-36-0	12.7		0.115	0.182	0.365	2
06125	Arsenic	7440-38-2	115		0.122	0.292	0.365	2
06126	Barium	7440-39-3	889		0.352	0.583	0.729	2
06127	Ber□llium	7440-41-7	0.525		0.0208	0.0729	0.0912	2
06128	Cadmium	7440-43-9	4.47		0.0459	0.0912	0.182	2
06129	Calcium	7440-70-2	30□000		62.2	102	128	2

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06131	Chromium	7440-47-3	47.6	0.304	0.583	0.729	2
06132	Cobalt	7440-48-4	14.3	0.0532	0.0912	0.182	2
06133	Copper	7440-50-8	426	3.26	5.83	7.29	2
06134	Iron	7439-89-6	136□000	17.1	36.5	45.6	5
06135	Lead	7439-92-1	1□440	0.230	0.684	2.73	10
06136	Magnesium	7439-95-4	835	2.86	9.12	18.2	2
06137	Manganese	7439-96-5	369	0.361	0.912	1.82	2
06139	Nic□el	7440-02-0	79.1	0.310	0.583	0.729	2
06140	Potassium	7440-09-7	570	33.0	58.3	72.9	2
06141	Selenium	7782-49-2	1.15	0.119	0.292	0.365	2
06142	Silver	7440-22-4	3.41	0.0370	0.0729	0.0912	2
06143	Sodium	7440-23-5	591	73.3	131	164	2
06145	Thallium	7440-28-0	0.242	0.0357	0.0729	0.0912	2
13502	Uranium	7440-61-1	0.580	0.0357	0.0912	0.0912	2
06148	Vanadium	7440-62-2	24.4	0.0782	0.146	0.182	2
06149	□inc	7440-66-6	1□460	2.77	5.47	6.84	5
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	2.16	0.388	0.829	1.66	10
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	22.2	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12937	2378-TCDD	1746-01-6	0.00000257	0.000000169	0.000000382	0.00000127	1
12937	12378-PeCDD	40321-76-4	0.00000858	0.000000409	0.00000127	0.00000637	1
12937	123478-HxCDD	39227-28-6	0.00000447 □Q	0.000000318	0.00000127	0.00000637	1
12937	123678-HxCDD	57653-85-7	0.0000613	0.000000318	0.00000127	0.00000637	1
12937	123789-HxCDD	19408-74-3	0.0000208	0.000000318	0.00000127	0.00000637	1
12937	1234678-HpCDD	35822-46-9	0.00147	0.000000318	0.00000127	0.00000637	1
12937	OCDD	3268-87-9	0.00876	0.0000176	0.0000382	0.000127	10
13233	2378-TCDF-Conf	51207-31-9	0.00000895 CQ	0.000000192	0.000000395	0.00000127	1
12937	12378-PeCDF	57117-41-6	0.0000204	0.000000318	0.00000127	0.00000637	1
12937	23478-PeCDF	57117-31-4	N.D.	0.000000318	0.00000127	0.00000637	1
12937	123478-HxCDF	70648-26-9	0.0000537	0.000000318	0.00000127	0.00000637	1
12937	123678-HxCDF	57117-44-9	0.0000634	0.000000318	0.00000127	0.00000637	1
12937	123789-HxCDF	72918-21-9	0.0000167	0.000000318	0.00000127	0.00000637	1
12937	234678-HxCDF	60851-34-5	0.0000502	0.000000318	0.00000127	0.00000637	1
12937	1234678-HpCDF	67562-39-4	0.00118	0.000000318	0.00000127	0.00000637	1
12937	1234789-HpCDF	55673-89-7	0.0000904	0.000000318	0.00000127	0.00000637	1
12937	OCDF	39001-02-0	0.00134	0.000000692	0.00000255	0.0000127	1

Due to the nature of the sample matrix□the recover□of 13C12-2378-TCDF was outside of the QC acceptance limits for the confirmation of this sample.

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	35	40 - 135	0.000000307
13C12-2378-TCDD	61	40 - 135	0.000000297
13C12-12378-PeCDD	61	40 - 135	0.000000991
13C12-123478-HxCDD	78	40 - 135	0.000000991
13C12-123678-HxCDD	76	40 - 135	0.000000991
13C12-123789-HxCDD	72	40 - 135	0.000000991
13C12-1234678-HpCDD	82	40 - 135	0.000000991
13C12-OCDD	108	40 - 135	0.0000297
13C12-12378-PeCDF	56	40 - 135	0.000000991
13C12-23478-PeCDF	52	40 - 135	0.000000991
13C12-123478-HxCDF	77	40 - 135	0.000000991
13C12-123678-HxCDF	74	40 - 135	0.000000991
13C12-234678-HxCDF	64	40 - 135	0.000000991
13C12-123789-HxCDF	69	40 - 135	0.000000991
13C12-1234678-HpCDF	82	40 - 135	0.000000991
13C12-1234789-HpCDF	75	40 - 135	0.000000991
13C12-OCDF	67	40 - 135	0.00000198

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	Q183112AA	11/07/2018 14:22	Stephen C Nolte	42.81
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/26/2018 09:30	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 11:44	Edward C Monborne	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 13:50	Edward C Monborne	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 18:01	Anthon□P Bauer	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 23:15	Anthon□P Bauer	50
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLC026	10/29/2018 22:00	Bradle□W VanLeuven	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLE026	10/29/2018 22:00	Bradle□W VanLeuven	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/16/2018 04:55	Richard A Shober	200
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 18:53	Kirb□B Turner	5
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/13/2018 22:46	Lisa A Reinert	10
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 22:35	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/06/2018 18:23	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 23:34	Michael □iegler	10
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:19	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 21:53	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 21:53	Bradle□M Berlot	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-06-DUP Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 09:30
SDG□: TID12-03FD

Tidewater, Inc.
ELLE Sample #: SW 9872061
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020A	1	183041063701D	11/12/2018 21:53	Bradle□M Berlot	2
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 21:53	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/12/2018 21:53	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/12/2018 21:55	Bradle□M Berlot	5
06135	Lead	SW-846 6020A	1	183041063701A	11/27/2018 09:42	Choon □ Tian	10
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:30	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/12/2018 21:53	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/12/2018 21:53	Bradle□M Berlot	2
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:30	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/12/2018 21:55	Bradle□M Berlot	5
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 15:58	Par□er D Lindstrom	10
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	0.91 □	0.39	1.0	1.3	48.36
11995	Ben□ene	71-43-2	0.14 □	0.033	0.13	0.33	48.36
11995	Bromodichloromethane	75-27-4	N.D.	0.026	0.065	0.33	48.36
11995	Bromoform	75-25-2	N.D.	0.33	0.52	0.65	48.36
11995	Bromomethane	74-83-9	N.D.	0.046	0.13	0.33	48.36
11995	2-Butanone	78-93-3	0.37 □	0.065	0.26	0.65	48.36
11995	Carbon Disulfide	75-15-0	0.051 □	0.039	0.13	0.33	48.36
11995	Carbon Tetrachloride	56-23-5	N.D.	0.033	0.13	0.33	48.36
11995	Chloroben□ene	108-90-7	0.11 □	0.033	0.13	0.33	48.36
11995	Chloroethane	75-00-3	N.D.	0.065	0.26	0.33	48.36
11995	Chloroform	67-66-3	N.D.	0.039	0.13	0.33	48.36
11995	Chloromethane	74-87-3	N.D.	0.039	0.13	0.33	48.36
11995	C□clohexane	110-82-7	N.D.	0.033	0.13	0.33	48.36
11995	C□clohexanone	108-94-1	N.D.	1.6	6.5	16	48.36
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.026	0.065	0.33	48.36
11995	Dibromochloromethane	124-48-1	N.D.	0.026	0.065	0.33	48.36
11995	1□2-Dibromoethane	106-93-4	N.D.	0.026	0.065	0.33	48.36
11995	1□2-Dichloroben□ene	95-50-1	0.066 □	0.033	0.13	0.33	48.36
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.033	0.13	0.33	48.36
11995	1□4-Dichloroben□ene	106-46-7	0.094 □	0.026	0.065	0.33	48.36
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.039	0.13	0.33	48.36
11995	1□1-Dichloroethane	75-34-3	N.D.	0.033	0.13	0.33	48.36
11995	1□2-Dichloroethane	107-06-2	N.D.	0.039	0.13	0.33	48.36
11995	1□1-Dichloroethene	75-35-4	N.D.	0.033	0.13	0.33	48.36
11995	cis-1□2-Dichloroethene	156-59-2	0.094 □	0.033	0.13	0.33	48.36
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.033	0.13	0.33	48.36
11995	1□2-Dichloropropane	78-87-5	N.D.	0.033	0.13	0.33	48.36
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.026	0.065	0.33	48.36
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.020	0.065	0.33	48.36
11995	Eth□lben□ene	100-41-4	0.13 □	0.026	0.065	0.33	48.36
11995	Freon 113	76-13-1	N.D.	0.039	0.13	0.65	48.36
11995	2-Hexanone	591-78-6	N.D.	0.065	0.26	0.65	48.36
11995	Isoprop□lben□ene	98-82-8	0.060 □	0.026	0.065	0.33	48.36
11995	Meth□l Acetate	79-20-9	0.51	0.065	0.26	0.33	48.36
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.033	0.13	0.33	48.36
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.065	0.26	0.65	48.36
11995	Meth□lc□clohexane	108-87-2	N.D.	0.039	0.13	0.33	48.36
11995	Meth□lene Chloride	75-09-2	N.D.	0.13	0.26	0.33	48.36
11995	St□rene	100-42-5	N.D.	0.020	0.065	0.33	48.36
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.026	0.065	0.33	48.36
11995	Tetrachloroethene	127-18-4	0.099 □	0.033	0.13	0.33	48.36

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	0.23 □	0.039	0.13	0.33	48.36
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.33	0.52	0.65	48.36
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.039	0.13	0.33	48.36
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.033	0.13	0.33	48.36
11995	Trichloroethene	79-01-6	N.D.	0.033	0.13	0.33	48.36
11995	Trichlorofluoromethane	75-69-4	N.D.	0.046	0.13	0.33	48.36
11995	Vin□l Chloride	75-01-4	N.D.	0.039	0.13	0.33	48.36
11995	□□lene (Total)	1330-20-7	0.51	0.065	0.13	0.33	48.36

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.

Reporting limits were raised due to interference from the sample matrix.

GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	0.22	0.44	0.67	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.22	0.44	0.67	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.027	0.053	0.067	1
10726	Carba□ole	86-74-8	0.32	0.022	0.044	0.049	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.022	0.044	0.049	1
10726	4-Chloroaniline	106-47-8	N.D.	0.044	0.089	0.22	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.022	0.044	0.049	1
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.031	0.062	0.067	1
10726	2-Chloronaphthalene	91-58-7	N.D.	0.009	0.018	0.044	1
10726	2-Chlorophenol	95-57-8	N.D.	0.022	0.044	0.049	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.022	0.044	0.049	1
10726	2□2□-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.022	0.044	0.049	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□. The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	0.46	0.022	0.044	0.049	1
10726	1□2-Dichloroben□ene	95-50-1	0.86	0.027	0.053	0.067	1
10726	1□3-Dichloroben□ene	541-73-1	N.D.	0.022	0.044	0.049	1
10726	1□4-Dichloroben□ene	106-46-7	1.7	0.022	0.044	0.049	1
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	0.13	0.27	0.44	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.022	0.044	0.049	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.089	0.18	0.22	1
10726	2□4-Dimeth□lphenol	105-67-9	N.D.	0.022	0.044	0.049	1
10726	Dimeth□lphthalate	131-11-3	N.D.	0.089	0.18	0.22	1
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	0.22	0.44	0.67	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.49	0.98	1.3	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.089	0.18	0.22	1
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.027	0.053	0.067	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.004	0.009	0.022	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.027	0.053	0.067	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.22	0.44	0.67	1
10726	Hexachloroethane	67-72-1	N.D.	0.044	0.089	0.22	1
10726	Isophorone	78-59-1	N.D.	0.022	0.044	0.049	1
10726	2-Meth□lnaphthalene	91-57-6	2.9	0.013	0.027	0.044	1
10726	2-Meth□lphenol	95-48-7	0.16	0.036	0.071	0.089	1
10726	4-Meth□lphenol	106-44-5	4.2	0.027	0.053	0.067	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.027	0.053	0.067	1
10726	3-Nitroaniline	99-09-2	N.D.	0.089	0.18	0.22	1
10726	4-Nitroaniline	100-01-6	N.D.	0.089	0.18	0.22	1
10726	Nitroben□ene	98-95-3	N.D.	0.036	0.071	0.089	1
10726	2-Nitrophenol	88-75-5	N.D.	0.022	0.044	0.049	1
10726	4-Nitrophenol	100-02-7	N.D.	0.22	0.44	0.67	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.027	0.053	0.067	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.022	0.044	0.049	1
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.089	0.18	0.22	1
10726	Pentachlorophenol	87-86-5	N.D.	0.049	0.18	0.22	1
10726	Phenol	108-95-2	0.62	0.031	0.062	0.067	1
10726	P□ridine	110-86-1	N.D.	0.089	0.18	0.22	1
10726	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.022	0.044	0.049	1
10726	2□4□5-Trichlorophenol	95-95-4	N.D.	0.027	0.053	0.067	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.027	0.053	0.067	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of □/- 4 standard deviations as defined in the TNI/DoD Standards. The following anal□tes are accepted based on this allowance: P□ridine and 2□2□-ox□bis(1-Chloropropane)						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	0.95	0.009	0.018	0.022	10
12969	Acenaphth□lene	208-96-8	0.22	0.004	0.018	0.022	10
12969	Anthracene	120-12-7	1.0	0.009	0.018	0.022	10
12969	Ben□o(a)anthracene	56-55-3	1.5	0.009	0.018	0.022	10
12969	Ben□o(a)p□rene	50-32-8	1.3	0.009	0.018	0.022	10
12969	Ben□o(b)fluoranthene	205-99-2	1.7	0.009	0.018	0.022	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU005-16 Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Ben□o(g□h□i)per□lene	191-24-2	0.73	0.009	0.018	0.022	10
12969	Ben□o(□)fluoranthene	207-08-9	0.60	0.009	0.018	0.022	10
12969	Di-n-but□phthalate	84-74-2	1.9	0.089	0.18	0.27	10
12969	Chr□sene	218-01-9	1.8	0.004	0.018	0.022	10
12969	Diben□(a□h)anthracene	53-70-3	0.24	0.009	0.018	0.022	10
12969	1□4-Dioxane	123-91-1	0.017 □	0.009	0.018	0.022	10
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	0.23 □	0.13	0.27	0.31	10
12969	Fluoranthene	206-44-0	3.8	0.009	0.018	0.022	10
12969	Fluorene	86-73-7	1.1	0.009	0.018	0.022	10
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.66	0.009	0.018	0.022	10
12969	Naphthalene	91-20-3	14	0.089	0.18	0.22	50
12969	Phenanthrene	85-01-8	4.3	0.009	0.018	0.022	10
12969	P□rene	129-00-0	3.2	0.009	0.018	0.022	10
	The stated QC limits for 1□4-dioxane are advisor□onl□until sufficient data points can be obtained to calculate statistical limits.						
Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D. D2	3□200	6□400	9□600	200
10401	Dalapon	75-99-0	N.D. D1	12□000	23□000	24□000	200
10401	2□4-DB	94-82-6	N.D. D2	2□600	5□300	5□600	200
10401	Dicamba	1918-00-9	N.D. D1	1□100	2□100	3□200	200
10401	Dinoseb	88-85-7	N.D. D2	2□400	4□800	6□400	200
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.						
10401	2□4-DP (Dichloroprop)	120-36-5	N.D. D1	2□400	4□800	5□300	200
10401	MCPA	94-74-6	N.D. D1	200□000	400□000	660□000	200
10401	MCPP (Mecoprop)	93-65-2	N.D. D2	1□000□000	2□000□000	2□000□000	200
10401	2□4□5-T	93-76-5	N.D. D2	220	440	450	200
10401	2□4□5-TP	93-72-1	N.D. D1	200	400	450	200
	Reporting limits were raised due to interference from the sample matrix.						
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D. D1	0.024	0.067	0.11	5
10885	PCB-1221	11104-28-2	N.D. D1	0.031	0.067	0.11	5
10885	PCB-1232	11141-16-5	N.D. D1	0.054	0.11	0.11	5
10885	PCB-1242	53469-21-9	N.D. D1	0.022	0.067	0.11	5
10885	PCB-1248	12672-29-6	N.D. D1	0.022	0.067	0.11	5
10885	PCB-1254	11097-69-1	0.086 □D2	0.022	0.067	0.11	5
10885	PCB-1260	11096-82-5	0.097 □D1	0.033	0.067	0.11	5
10885	PCB-1262	37324-23-5	N.D. D1	0.022	0.067	0.11	5
10885	PCB-1268	11100-14-4	N.D. D1	0.022	0.067	0.11	5
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D. D1	2.3	8.0	11	10
14587	Alpha BHC	319-84-6	N.D. D2	2.3	8.0	11	10
14587	Beta BHC	319-85-7	14 PD2	5.9	12	13	10
14587	Gamma BHC - Lindane	58-89-9	N.D. D2	2.8	8.0	11	10
14587	Alpha Chlordane	5103-71-9	N.D. D2	2.3	8.0	11	10
14587	Chlordane	57-74-9	N.D. D1	54	110	230	10
14587	Gamma Chlordane	5103-74-2	N.D. VD2	6.1	12	12	10
14587	p□p-DDD	72-54-8	N.D. D2	4.4	16	23	10
14587	p□p-DDE	72-55-9	6.8 □PD1	4.4	16	23	10
14587	p□p-DDT	50-29-3	N.D. D2	11	21	23	10
14587	Delta BHC	319-86-8	11 □D2	6.0	12	13	10
14587	Dieldrin	60-57-1	N.D. D2	4.4	16	23	10
14587	Endosulfan I	959-98-8	N.D. D2	2.9	8.0	11	10
14587	Endosulfan II	33213-65-9	N.D. D2	15	29	31	10
14587	Endosulfan Sulfate	1031-07-8	N.D. D2	4.4	16	23	10
14587	Endrin	72-20-8	N.D. D2	9.1	19	23	10
14587	Endrin Aldeh□de	7421-93-4	N.D. D2	4.4	16	23	10
14587	Endrin Ketone	53494-70-5	N.D. D2	8.0	24	27	10
14587	Heptachlor	76-44-8	N.D. D2	4.1	8.3	11	10
14587	Heptachlor Epoxide	1024-57-3	N.D. VD2	3.6	7.3	11	10
14587	Methox□chlor	72-43-5	N.D. D2	24	87	90	10
14587	Toxaphene	8001-35-2	N.D. D2	190	370	440	10

Reporting limits were raised due to interference from the sample matrix.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	52.3 □	45.1	108	269	5

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5□ for Thorium.
Outlier recover□/result: ICV RSDs □ 5□ □Acceptance limits: < 5□
ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66

	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	5□540	36.0	68.9	86.1	2
06124	Antimon□	7440-36-0	10.3	0.136	0.215	0.431	2
06125	Arsenic	7440-38-2	31.0	0.144	0.345	0.431	2
06126	Barium	7440-39-3	1□170	0.416	0.689	0.861	2
06127	Ber□llium	7440-41-7	0.476	0.0245	0.0861	0.108	2
06128	Cadmium	7440-43-9	8.59	0.0543	0.108	0.215	2
06129	Calcium	7440-70-2	36□600	73.4	121	151	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06131	Chromium	7440-47-3	276	0.360	0.689	0.861	2
06132	Cobalt	7440-48-4	14.3	0.0629	0.108	0.215	2
06133	Copper	7440-50-8	538	3.85	6.89	8.61	2
06134	Iron	7439-89-6	127□000	40.4	86.1	108	10
06135	Lead	7439-92-1	1□040	0.136	0.404	1.62	5
06136	Magnesium	7439-95-4	2□550	3.38	10.8	21.5	2
06137	Manganese	7439-96-5	479	0.426	1.08	2.15	2
06139	Nic□el	7440-02-0	100	0.366	0.689	0.861	2
06140	Potassium	7440-09-7	1□340	39.0	68.9	86.1	2
06141	Selenium	7782-49-2	2.62	0.140	0.345	0.431	2
06142	Silver	7440-22-4	6.48	0.0437	0.0861	0.108	2
06143	Sodium	7440-23-5	959	86.6	155	194	2
06145	Thallium	7440-28-0	0.251	0.0422	0.0861	0.108	2
13502	Uranium	7440-61-1	0.588	0.0422	0.108	0.108	2
06148	Vanadium	7440-62-2	30.5	0.0924	0.172	0.215	2
06149	□inc	7440-66-6	2□010	6.54	12.9	16.2	10
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	0.875	0.0419	0.0897	0.179	1
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	25.7	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		mg/kg	mg/kg	mg/kg	mg/kg	
12937	2378-TCDD	1746-01-6	0.00000259 Q	0.000000178	0.000000402	0.00000134	1
12937	12378-PeCDD	40321-76-4	0.0000110	0.000000430	0.00000134	0.00000670	1
12937	123478-HxCDD	39227-28-6	0.00000747	0.000000335	0.00000134	0.00000670	1
12937	123678-HxCDD	57653-85-7	0.0000504	0.000000335	0.00000134	0.00000670	1
12937	123789-HxCDD	19408-74-3	0.0000227	0.000000335	0.00000134	0.00000670	1
12937	1234678-HpCDD	35822-46-9	0.00127	0.000000335	0.00000134	0.00000670	1
12937	OCDD	3268-87-9	0.00635	0.0000185	0.0000402	0.000134	10
13233	2378-TCDF-Conf	51207-31-9	0.00000820 C	0.000000202	0.000000416	0.00000134	1
12937	12378-PeCDF	57117-41-6	0.0000141	0.000000335	0.00000134	0.00000670	1
12937	23478-PeCDF	57117-31-4	0.0000319	0.000000335	0.00000134	0.00000670	1
12937	123478-HxCDF	70648-26-9	0.0000384	0.000000335	0.00000134	0.00000670	1
12937	123678-HxCDF	57117-44-9	0.0000446	0.000000335	0.00000134	0.00000670	1
12937	123789-HxCDF	72918-21-9	0.0000111	0.000000335	0.00000134	0.00000670	1
12937	234678-HxCDF	60851-34-5	0.0000337	0.000000335	0.00000134	0.00000670	1
12937	1234678-HpCDF	67562-39-4	0.000786	0.000000335	0.00000134	0.00000670	1
12937	1234789-HpCDF	55673-89-7	0.0000252	0.000000335	0.00000134	0.00000670	1
12937	OCDF	39001-02-0	0.000587	0.000000728	0.00000268	0.0000134	1

Due to the nature of the sample matrix□the recover□of 13C12-2378-TCDF was outside of the QC acceptance limits for the confirmation of this sample.

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	35	40 - 135	0.000000309
13C12-2378-TCDD	67	40 - 135	0.000000299
13C12-12378-PeCDD	65	40 - 135	0.000000996
13C12-123478-HxCDD	83	40 - 135	0.000000996
13C12-123678-HxCDD	80	40 - 135	0.000000996
13C12-123789-HxCDD	81	40 - 135	0.000000996
13C12-1234678-HpCDD	84	40 - 135	0.000000996
13C12-OCDD	92	40 - 135	0.0000299
13C12-12378-PeCDF	59	40 - 135	0.000000996
13C12-23478-PeCDF	61	40 - 135	0.000000996
13C12-123478-HxCDF	81	40 - 135	0.000000996
13C12-123678-HxCDF	80	40 - 135	0.000000996
13C12-234678-HxCDF	76	40 - 135	0.000000996
13C12-123789-HxCDF	79	40 - 135	0.000000996
13C12-1234678-HpCDF	87	40 - 135	0.000000996
13C12-1234789-HpCDF	76	40 - 135	0.000000996
13C12-OCDF	70	40 - 135	0.00000199

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	Q183112AA	11/07/2018 14:45	Stephen C Nolte	48.36
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/26/2018 11:10	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 12:09	Edward C Monborne	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 18:33	Anthon□P Bauer	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/06/2018 23:46	Anthon□P Bauer	50
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLC026	10/29/2018 22:00	Bradle□W VanLeuven	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLE026	10/29/2018 22:00	Bradle□W VanLeuven	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/16/2018 06:02	Richard A Shober	200
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 19:15	Kirb□B Turner	5
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/13/2018 23:38	Lisa A Reinert	10
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 23:38	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 00:21	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/08/2018 00:31	Michael □iegler	10
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:22	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 22:00	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 22:00	Bradle□M Berlot	2
06126	Barium	SW-846 6020A	1	183041063701D	11/08/2018 21:32	Bradle□M Berlot	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU005-16 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 11:10
SDG□: TID12-04

Tidewater, Inc.
ELLE Sample #: SW 9872062
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 22:00	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/12/2018 22:00	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/12/2018 22:02	Bradle□M Berlot	10
06135	Lead	SW-846 6020A	1	183041063701A	11/27/2018 09:44	Choon □ Tian	5
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:32	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:32	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/12/2018 22:02	Bradle□M Berlot	10
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 15:27	Par□er D Lindstrom	1
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	N.D.	0.45	1.2	1.5	59.38
11995	Ben□ene	71-43-2	N.D.	0.038	0.15	0.38	59.38
11995	Bromodichloromethane	75-27-4	N.D.	0.030	0.075	0.38	59.38
11995	Bromoform	75-25-2	N.D.	0.38	0.60	0.75	59.38
11995	Bromomethane	74-83-9	N.D.	0.053	0.15	0.38	59.38
11995	2-Butanone	78-93-3	N.D.	0.075	0.30	0.75	59.38
11995	Carbon Disulfide	75-15-0	N.D.	0.045	0.15	0.38	59.38
11995	Carbon Tetrachloride	56-23-5	N.D.	0.038	0.15	0.38	59.38
11995	Chloroben□ene	108-90-7	N.D.	0.038	0.15	0.38	59.38
11995	Chloroethane	75-00-3	N.D.	0.075	0.30	0.38	59.38
11995	Chloroform	67-66-3	N.D.	0.045	0.15	0.38	59.38
11995	Chloromethane	74-87-3	N.D.	0.045	0.15	0.38	59.38
11995	C□clohexane	110-82-7	N.D.	0.038	0.15	0.38	59.38
11995	C□clohexanone	108-94-1	N.D.	1.9	7.5	19	59.38
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.030	0.075	0.38	59.38
11995	Dibromochloromethane	124-48-1	N.D.	0.030	0.075	0.38	59.38
11995	1□2-Dibromoethane	106-93-4	N.D.	0.030	0.075	0.38	59.38
11995	1□2-Dichloroben□ene	95-50-1	N.D.	0.038	0.15	0.38	59.38
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.038	0.15	0.38	59.38
11995	1□4-Dichloroben□ene	106-46-7	0.035 □	0.030	0.075	0.38	59.38
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.045	0.15	0.38	59.38
11995	1□1-Dichloroethane	75-34-3	N.D.	0.038	0.15	0.38	59.38
11995	1□2-Dichloroethane	107-06-2	N.D.	0.045	0.15	0.38	59.38
11995	1□1-Dichloroethene	75-35-4	N.D.	0.038	0.15	0.38	59.38
11995	cis-1□2-Dichloroethene	156-59-2	0.092 □	0.038	0.15	0.38	59.38
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.038	0.15	0.38	59.38
11995	1□2-Dichloropropane	78-87-5	N.D.	0.038	0.15	0.38	59.38
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.030	0.075	0.38	59.38
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.023	0.075	0.38	59.38
11995	Eth□lben□ene	100-41-4	N.D.	0.030	0.075	0.38	59.38
11995	Freon 113	76-13-1	N.D.	0.045	0.15	0.75	59.38
11995	2-Hexanone	591-78-6	N.D.	0.075	0.30	0.75	59.38
11995	Isoprop□lben□ene	98-82-8	N.D.	0.030	0.075	0.38	59.38
11995	Meth□l Acetate	79-20-9	0.14 □	0.075	0.30	0.38	59.38
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.038	0.15	0.38	59.38
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.075	0.30	0.75	59.38
11995	Meth□lc□clohexane	108-87-2	N.D.	0.045	0.15	0.38	59.38
11995	Meth□lene Chloride	75-09-2	N.D.	0.15	0.30	0.38	59.38
11995	St□rene	100-42-5	N.D.	0.023	0.075	0.38	59.38
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.030	0.075	0.38	59.38
11995	Tetrachloroethene	127-18-4	0.50	0.038	0.15	0.38	59.38

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	0.14 □	0.045	0.15	0.38	59.38
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.38	0.60	0.75	59.38
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.045	0.15	0.38	59.38
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.038	0.15	0.38	59.38
11995	Trichloroethene	79-01-6	N.D.	0.038	0.15	0.38	59.38
11995	Trichlorofluoromethane	75-69-4	N.D.	0.053	0.15	0.38	59.38
11995	Vin□l Chloride	75-01-4	N.D.	0.045	0.15	0.38	59.38
11995	□□lene (Total)	1330-20-7	0.11 □	0.075	0.15	0.38	59.38

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.

Reporting limits were raised due to interference from the sample matrix.

GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	0.21	0.42	0.63	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.21	0.42	0.63	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.025	0.051	0.063	1
10726	Carba□ole	86-74-8	N.D.	0.021	0.042	0.046	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.021	0.042	0.046	1
10726	4-Chloroaniline	106-47-8	N.D.	0.042	0.084	0.21	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.021	0.042	0.046	1
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.030	0.059	0.063	1
10726	2-Chloronaphthalene	91-58-7	N.D.	0.008	0.017	0.042	1
10726	2-Chlorophenol	95-57-8	N.D.	0.021	0.042	0.046	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.021	0.042	0.046	1
10726	2□2□-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.021	0.042	0.046	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□. The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	0.094	0.021	0.042	0.046	1
10726	1□2-Dichloroben□ene	95-50-1	0.068	0.025	0.051	0.063	1
10726	1□3-Dichloroben□ene	541-73-1	N.D.	0.021	0.042	0.046	1
10726	1□4-Dichloroben□ene	106-46-7	0.16	0.021	0.042	0.046	1
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	0.13	0.25	0.42	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.021	0.042	0.046	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.084	0.17	0.21	1
10726	2□4-Dimeth□lphenol	105-67-9	N.D.	0.021	0.042	0.046	1
10726	Dimeth□lphthalate	131-11-3	N.D.	0.084	0.17	0.21	1
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	0.21	0.42	0.63	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.46	0.93	1.3	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.084	0.17	0.21	1
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.025	0.051	0.063	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.004	0.008	0.021	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.025	0.051	0.063	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.21	0.42	0.63	1
10726	Hexachloroethane	67-72-1	N.D.	0.042	0.084	0.21	1
10726	Isophorone	78-59-1	N.D.	0.021	0.042	0.046	1
10726	2-Meth□lnaphthalene	91-57-6	0.15	0.013	0.025	0.042	1
10726	2-Meth□lphenol	95-48-7	N.D.	0.034	0.068	0.084	1
10726	4-Meth□lphenol	106-44-5	0.37	0.025	0.051	0.063	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.025	0.051	0.063	1
10726	3-Nitroaniline	99-09-2	N.D.	0.084	0.17	0.21	1
10726	4-Nitroaniline	100-01-6	N.D.	0.084	0.17	0.21	1
10726	Nitroben□ene	98-95-3	N.D.	0.034	0.068	0.084	1
10726	2-Nitrophenol	88-75-5	N.D.	0.021	0.042	0.046	1
10726	4-Nitrophenol	100-02-7	N.D.	0.21	0.42	0.63	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.025	0.051	0.063	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.021	0.042	0.046	1
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.084	0.17	0.21	1
10726	Pentachlorophenol	87-86-5	N.D.	0.046	0.17	0.21	1
10726	Phenol	108-95-2	N.D.	0.030	0.059	0.063	1
10726	P□ridine	110-86-1	N.D.	0.084	0.17	0.21	1
10726	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.021	0.042	0.046	1
10726	2□4□5-Trichlorophenol	95-95-4	N.D.	0.025	0.051	0.063	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.025	0.051	0.063	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of □/- 4 standard deviations as defined in the TNI/DoD Standards. The following anal□tes are accepted based on this allowance: P□ridine and 2□2□-ox□bis(1-Chloropropane)						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	0.015	0.0008	0.002	0.002	1
12969	Acenaphth□lene	208-96-8	0.019	0.0004	0.002	0.002	1
12969	Anthracene	120-12-7	0.025	0.0008	0.002	0.002	1
12969	Ben□o(a)anthracene	56-55-3	0.065	0.0008	0.002	0.002	1
12969	Ben□o(a)p□rene	50-32-8	0.064	0.0008	0.002	0.002	1
12969	Ben□o(b)fluoranthene	205-99-2	0.15	0.0008	0.002	0.002	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU006-05 Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Ben□o(g□h□i)per□lene	191-24-2	0.059	0.0008	0.002	0.002	1
12969	Ben□o(□)fluoranthene	207-08-9	0.043	0.0008	0.002	0.002	1
12969	Di-n-but□lphthalate	84-74-2	0.074	0.008	0.017	0.025	1
12969	Chr□sene	218-01-9	0.11	0.0004	0.002	0.002	1
12969	Diben□(a□h)anthracene	53-70-3	0.020	0.0008	0.002	0.002	1
12969	1□4-Dioxane	123-91-1	0.007	0.0008	0.002	0.002	1
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	0.020 □	0.013	0.025	0.030	1
12969	Fluoranthene	206-44-0	0.13	0.0008	0.002	0.002	1
12969	Fluorene	86-73-7	0.025	0.0008	0.002	0.002	1
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.055	0.0008	0.002	0.002	1
12969	Naphthalene	91-20-3	0.31	0.002	0.003	0.004	1
12969	Phenanthrene	85-01-8	0.20	0.0008	0.002	0.002	1
12969	P□rene	129-00-0	0.092	0.0008	0.002	0.002	1

The stated QC limits for 1□4-dioxane are advisor□onl□until sufficient data points can be obtained to calculate statistical limits.

bis(2-Eth□lhex□l)phthalate was detected in the method blan□associated with the samples as noted on the QC Summar□. Since the result is within the acceptance range allowed b□the method□the data is reported.

Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D. D1	76	150	230	5
10401	Dalapon	75-99-0	N.D. D2	280	550	570	5
10401	2□4-DB	94-82-6	N.D. D2	62	130	130	5
10401	Dicamba	1918-00-9	N.D. D2	25	50	76	5
10401	Dinoseb	88-85-7	N.D. D1	57	110	150	5
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.						
10401	2□4-DP (Dichloroprop)	120-36-5	N.D. D1	57	110	130	5
10401	MCPA	94-74-6	N.D. D1	4□800	9□600	16□000	5
10401	MCPP (Mecoprop)	93-65-2	N.D. D1	24□000	48□000	48□000	5
10401	2□4□5-T	93-76-5	N.D. D1	5.2	10	11	5
10401	2□4□5-TP	93-72-1	N.D. D2	4.7	9.4	11	5

Reporting limits were raised due to interference from the sample matrix.

PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D. D1	0.0045	0.013	0.021	1
10885	PCB-1221	11104-28-2	N.D. D1	0.0058	0.013	0.021	1
10885	PCB-1232	11141-16-5	N.D. D1	0.010	0.020	0.021	1
10885	PCB-1242	53469-21-9	N.D. D1	0.0042	0.013	0.021	1
10885	PCB-1248	12672-29-6	N.D. D1	0.0042	0.013	0.021	1
10885	PCB-1254	11097-69-1	N.D. D1	0.0042	0.013	0.021	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1260	11096-82-5	0.028 D2	0.0062	0.013	0.021	1
10885	PCB-1262	37324-23-5	N.D. D1	0.0042	0.013	0.021	1
10885	PCB-1268	11100-14-4	N.D. D1	0.0042	0.013	0.021	1
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D. D2	0.22	0.76	1.0	1
14587	Alpha BHC	319-84-6	0.84 □D1	0.22	0.76	1.0	1
14587	Beta BHC	319-85-7	3.8 D1	0.56	1.1	1.3	1
14587	Gamma BHC - Lindane	58-89-9	N.D. D2	0.27	0.76	1.0	1
14587	Alpha Chlordane	5103-71-9	N.D. D2	0.22	0.76	1.0	1
14587	Chlordane	57-74-9	N.D. D1	5.1	10	22	1
14587	Gamma Chlordane	5103-74-2	0.50 □PD2	0.32	0.76	1.0	1
14587	p□p-DDD	72-54-8	5.3 D1	0.42	1.5	2.2	1
14587	p□p-DDE	72-55-9	4.9 D2	0.42	1.5	2.2	1
14587	p□p-DDT	50-29-3	2.0 □PD2	1.0	2.0	2.2	1
14587	Delta BHC	319-86-8	N.D. D2	0.57	1.1	1.3	1
14587	Dieldrin	60-57-1	N.D. D2	0.42	1.5	2.2	1
14587	Endosulfan I	959-98-8	N.D. D2	0.28	0.76	1.0	1
14587	Endosulfan II	33213-65-9	N.D. D2	1.4	2.8	2.9	1
14587	Endosulfan Sulfate	1031-07-8	N.D. VD2	0.84	1.7	2.2	1
14587	Endrin	72-20-8	1.1 □PD1	0.86	1.8	2.2	1
14587	Endrin Aldeh□de	7421-93-4	N.D. D2	0.42	1.5	2.2	1
14587	Endrin Ketone	53494-70-5	2.2 □D1	0.76	2.3	2.5	1
14587	Heptachlor	76-44-8	N.D. D2	0.39	0.78	1.0	1
14587	Heptachlor Epoxide	1024-57-3	N.D. D2	0.22	0.76	1.0	1
14587	Methox□chlor	72-43-5	N.D. D2	2.3	8.2	8.5	1
14587	Toxaphene	8001-35-2	N.D. D2	18	35	42	1
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	N.D.	39.3	93.9	235	5
	Reporting limits for metals were raised due to interference from the sample matrix. The ICV RSD is greater than 5□ for Thorium. Outlier recover□/result: ICV RSDs □5□ □Acceptance limits: < 5□ ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66						
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	9□490	31.4	60.1	75.1	2
06124	Antimon□	7440-36-0	14.5	0.119	0.188	0.376	2
06125	Arsenic	7440-38-2	35.1	0.126	0.300	0.376	2
06126	Barium	7440-39-3	786	0.362	0.601	0.751	2

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals		**SW-846 6020A**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06127	Ber□llium	7440-41-7	0.659	0.0214	0.0751	0.0939	2
06128	Cadmium	7440-43-9	12.8	0.0473	0.0939	0.188	2
06129	Calcium	7440-70-2	8□400	64.0	105	131	2
06131	Chromium	7440-47-3	111	0.314	0.601	0.751	2
06132	Cobalt	7440-48-4	8.23	0.0548	0.0939	0.188	2
06133	Copper	7440-50-8	1□600	3.36	6.01	7.51	2
06134	Iron	7439-89-6	90□600	17.6	37.6	46.9	5
06135	Lead	7439-92-1	6□100	0.473	1.41	5.63	20
06136	Magnesium	7439-95-4	3□770	2.95	9.39	18.8	2
06137	Manganese	7439-96-5	325	0.372	0.939	1.88	2
06139	Nic□el	7440-02-0	134	0.319	0.601	0.751	2
06140	Potassium	7440-09-7	1□250	34.0	60.1	75.1	2
06141	Selenium	7782-49-2	2.60	0.122	0.300	0.376	2
06142	Silver	7440-22-4	28.4	0.0381	0.0751	0.0939	2
06143	Sodium	7440-23-5	749	75.5	135	169	2
06145	Thallium	7440-28-0	0.130	0.0368	0.0751	0.0939	2
13502	Uranium	7440-61-1	0.542 □	0.368	0.939	0.939	20
06148	Vanadium	7440-62-2	38.4	0.0806	0.150	0.188	2
06149	□inc	7440-66-6	1□570	2.85	5.63	7.04	5
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	0.483	0.0389	0.0831	0.166	1
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	21.1	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		mg/kg	mg/kg	mg/kg	mg/kg	
12937	2378-TCDD	1746-01-6	0.00000172	0.000000166	0.000000375	0.00000125	1
12937	12378-PeCDD	40321-76-4	0.00000604 □Q	0.000000402	0.00000125	0.00000626	1
12937	123478-HxCDD	39227-28-6	0.00000572 □	0.000000313	0.00000125	0.00000626	1
12937	123678-HxCDD	57653-85-7	0.0000388	0.000000313	0.00000125	0.00000626	1
12937	123789-HxCDD	19408-74-3	0.0000146	0.000000313	0.00000125	0.00000626	1
12937	1234678-HpCDD	35822-46-9	0.00115	0.000000313	0.00000125	0.00000626	1
12937	OCDD	3268-87-9	0.00700	0.0000173	0.0000375	0.000125	10
13233	2378-TCDF-Conf	51207-31-9	0.0000126 C	0.000000189	0.000000388	0.00000125	1
12937	12378-PeCDF	57117-41-6	0.0000109	0.000000313	0.00000125	0.00000626	1
12937	23478-PeCDF	57117-31-4	0.0000269	0.000000313	0.00000125	0.00000626	1
12937	123478-HxCDF	70648-26-9	0.0000285	0.000000313	0.00000125	0.00000626	1
12937	123678-HxCDF	57117-44-9	0.0000448	0.000000313	0.00000125	0.00000626	1
12937	123789-HxCDF	72918-21-9	0.00000927	0.000000313	0.00000125	0.00000626	1
12937	234678-HxCDF	60851-34-5	0.0000271	0.000000313	0.00000125	0.00000626	1
12937	1234678-HpCDF	67562-39-4	0.000796	0.000000313	0.00000125	0.00000626	1
12937	1234789-HpCDF	55673-89-7	0.0000171	0.000000313	0.00000125	0.00000626	1
12937	OCDF	39001-02-0	0.000386	0.000000679	0.00000250	0.0000125	1

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	66	40 - 135	0.000000306
13C12-2378-TCDD	97	40 - 135	0.000000296
13C12-12378-PeCDD	86	40 - 135	0.000000987
13C12-123478-HxCDD	84	40 - 135	0.000000987
13C12-123678-HxCDD	83	40 - 135	0.000000987
13C12-123789-HxCDD	87	40 - 135	0.000000987
13C12-1234678-HpCDD	94	40 - 135	0.000000987
13C12-OCDD	101	40 - 135	0.0000296
13C12-12378-PeCDF	71	40 - 135	0.000000987
13C12-23478-PeCDF	78	40 - 135	0.000000987
13C12-123478-HxCDF	72	40 - 135	0.000000987
13C12-123678-HxCDF	78	40 - 135	0.000000987
13C12-234678-HxCDF	74	40 - 135	0.000000987
13C12-123789-HxCDF	82	40 - 135	0.000000987
13C12-1234678-HpCDF	81	40 - 135	0.000000987
13C12-1234789-HpCDF	78	40 - 135	0.000000987
13C12-OCDF	80	40 - 135	0.00000197

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*
E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	Q183112AA	11/07/2018 15:07	Stephen C Nolte	59.38
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/26/2018 14:55	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLC026	11/12/2018 12:33	Edward C Monborne	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLE026	11/07/2018 00:51	Anthon□P Bauer	1
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLC026	10/29/2018 22:00	Bradle□W VanLeuven	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLE026	10/29/2018 22:00	Bradle□W VanLeuven	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/03/2018 02:35	Richard A Shober	5
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 04:27	Kirb□B Turner	1
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/13/2018 23:59	Lisa A Reinert	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/04/2018 00:05	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/02/2018 20:52	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/05/2018 19:09	Michael □iegler	10
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:24	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 22:05	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 22:05	Bradle□M Berlot	2
06126	Barium	SW-846 6020A	1	183041063701D	11/08/2018 21:35	Bradle□M Berlot	2
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU006-05 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 14:55
SDG□: TID12-05

Tidewater, Inc.
ELLE Sample #: SW 9872063
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 22:05	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/12/2018 22:07	Bradle□M Berlot	5
06135	Lead	SW-846 6020A	1	183041063701A	11/27/2018 09:46	Choon □ Tian	20
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:35	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/12/2018 22:05	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/21/2018 09:02	Choon □ Tian	20
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:35	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/12/2018 22:07	Bradle□M Berlot	5
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 15:29	Par□er D Lindstrom	1
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	0.63 □	0.54	1.5	1.8	61.12
11995	Ben□ene	71-43-2	0.051 □	0.045	0.18	0.45	61.12
11995	Bromodichloromethane	75-27-4	N.D.	0.036	0.091	0.45	61.12
11995	Bromoform	75-25-2	N.D.	0.45	0.73	0.91	61.12
11995	Bromomethane	74-83-9	N.D.	0.063	0.18	0.45	61.12
11995	2-Butanone	78-93-3	0.26 □	0.091	0.36	0.91	61.12
11995	Carbon Disulfide	75-15-0	0.10 □	0.054	0.18	0.45	61.12
11995	Carbon Tetrachloride	56-23-5	N.D.	0.045	0.18	0.45	61.12
11995	Chloroben□ene	108-90-7	N.D.	0.045	0.18	0.45	61.12
11995	Chloroethane	75-00-3	N.D.	0.091	0.36	0.45	61.12
11995	Chloroform	67-66-3	N.D.	0.054	0.18	0.45	61.12
11995	Chloromethane	74-87-3	N.D.	0.054	0.18	0.45	61.12
11995	C□clohexane	110-82-7	N.D.	0.045	0.18	0.45	61.12
11995	C□clohexanone	108-94-1	N.D.	2.3	9.1	23	61.12
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.036	0.091	0.45	61.12
11995	Dibromochloromethane	124-48-1	N.D.	0.036	0.091	0.45	61.12
11995	1□2-Dibromoethane	106-93-4	N.D.	0.036	0.091	0.45	61.12
11995	1□2-Dichloroben□ene	95-50-1	N.D.	0.045	0.18	0.45	61.12
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.045	0.18	0.45	61.12
11995	1□4-Dichloroben□ene	106-46-7	0.055 □	0.036	0.091	0.45	61.12
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.054	0.18	0.45	61.12
11995	1□1-Dichloroethane	75-34-3	N.D.	0.045	0.18	0.45	61.12
11995	1□2-Dichloroethane	107-06-2	N.D.	0.054	0.18	0.45	61.12
11995	1□1-Dichloroethene	75-35-4	N.D.	0.045	0.18	0.45	61.12
11995	cis-1□2-Dichloroethene	156-59-2	N.D.	0.045	0.18	0.45	61.12
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.045	0.18	0.45	61.12
11995	1□2-Dichloropropane	78-87-5	N.D.	0.045	0.18	0.45	61.12
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.036	0.091	0.45	61.12
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.027	0.091	0.45	61.12
11995	Eth□lben□ene	100-41-4	N.D.	0.036	0.091	0.45	61.12
11995	Freon 113	76-13-1	N.D.	0.054	0.18	0.91	61.12
11995	2-Hexanone	591-78-6	N.D.	0.091	0.36	0.91	61.12
11995	Isoprop□lben□ene	98-82-8	N.D.	0.036	0.091	0.45	61.12
11995	Meth□l Acetate	79-20-9	0.92	0.091	0.36	0.45	61.12
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.045	0.18	0.45	61.12
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.091	0.36	0.91	61.12
11995	Meth□lc□clohexane	108-87-2	N.D.	0.054	0.18	0.45	61.12
11995	Meth□lene Chloride	75-09-2	N.D.	0.18	0.36	0.45	61.12
11995	St□rene	100-42-5	N.D.	0.027	0.091	0.45	61.12
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.036	0.091	0.45	61.12
11995	Tetrachloroethene	127-18-4	N.D.	0.045	0.18	0.45	61.12

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	0.098 □	0.054	0.18	0.45	61.12
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.45	0.73	0.91	61.12
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.054	0.18	0.45	61.12
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.045	0.18	0.45	61.12
11995	Trichloroethene	79-01-6	N.D.	0.045	0.18	0.45	61.12
11995	Trichlorofluoromethane	75-69-4	N.D.	0.063	0.18	0.45	61.12
11995	Vin□l Chloride	75-01-4	N.D.	0.054	0.18	0.45	61.12
11995	□□lene (Total)	1330-20-7	0.19 □	0.091	0.18	0.45	61.12

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.

Reporting limits were raised due to interference from the sample matrix.

GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	2.5	4.9	7.4	10
10726	Ben□□l alcohol	100-51-6	N.D.	2.5	4.9	7.4	10
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.29	0.59	0.74	10
10726	Carba□ole	86-74-8	N.D.	0.25	0.49	0.54	10
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.25	0.49	0.54	10
10726	4-Chloroaniline	106-47-8	N.D.	0.49	0.98	2.5	10
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.25	0.49	0.54	10
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.34	0.69	0.74	10
10726	2-Chloronaphthalene	91-58-7	N.D.	0.098	0.20	0.49	10
10726	2-Chlorophenol	95-57-8	N.D.	0.25	0.49	0.54	10
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.25	0.49	0.54	10
10726	2□2□-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.25	0.49	0.54	10
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□. The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	0.33 □	0.25	0.49	0.54	10
10726	1□2-Dichloroben□ene	95-50-1	N.D.	0.29	0.59	0.74	10
10726	1□3-Dichloroben□ene	541-73-1	N.D.	0.25	0.49	0.54	10
10726	1□4-Dichloroben□ene	106-46-7	0.48 □	0.25	0.49	0.54	10
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	1.5	2.9	4.9	10
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.25	0.49	0.54	10
10726	Dieth□lphthalate	84-66-2	N.D.	0.98	2.0	2.5	10
10726	2□4-Dimeth□lphenol	105-67-9	N.D.	0.25	0.49	0.54	10
10726	Dimeth□lphthalate	131-11-3	N.D.	0.98	2.0	2.5	10
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	2.5	4.9	7.4	10
10726	2□4-Dinitrophenol	51-28-5	N.D.	5.4	11	15	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.98	2.0	2.5	10
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.29	0.59	0.74	10
10726	Hexachloroben□ene	118-74-1	N.D.	0.049	0.098	0.25	10
10726	Hexachlorobutadiene	87-68-3	N.D.	0.29	0.59	0.74	10
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	2.5	4.9	7.4	10
10726	Hexachloroethane	67-72-1	N.D.	0.49	0.98	2.5	10
10726	Isophorone	78-59-1	N.D.	0.25	0.49	0.54	10
10726	2-Meth□lnaphthalene	91-57-6	0.92	0.15	0.29	0.49	10
10726	2-Meth□lphenol	95-48-7	N.D.	0.39	0.79	0.98	10
10726	4-Meth□lphenol	106-44-5	2.8	0.29	0.59	0.74	10
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.29	0.59	0.74	10
10726	3-Nitroaniline	99-09-2	N.D.	0.98	2.0	2.5	10
10726	4-Nitroaniline	100-01-6	N.D.	0.98	2.0	2.5	10
10726	Nitroben□ene	98-95-3	N.D.	0.39	0.79	0.98	10
10726	2-Nitrophenol	88-75-5	N.D.	0.25	0.49	0.54	10
10726	4-Nitrophenol	100-02-7	N.D.	2.5	4.9	7.4	10
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.29	0.59	0.74	10
10726	N-Nitrosodiphen□lamine	86-30-6	0.57	0.25	0.49	0.54	10
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.98	2.0	2.5	10
10726	Pentachlorophenol	87-86-5	N.D.	0.54	2.0	2.5	10
10726	Phenol	108-95-2	0.73 □	0.34	0.69	0.74	10
10726	P□ridine	110-86-1	N.D.	0.98	2.0	2.5	10
10726	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.25	0.49	0.54	10
10726	2□4□5-Trichlorophenol	95-95-4	N.D.	0.29	0.59	0.74	10
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.29	0.59	0.74	10
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	0.65	0.01	0.020	0.025	10
12969	Acenaphth□lene	208-96-8	0.039	0.005	0.020	0.025	10
12969	Anthracene	120-12-7	0.39	0.01	0.020	0.025	10
12969	Ben□o(a)anthracene	56-55-3	0.56	0.01	0.020	0.025	10
12969	Ben□o(a)p□rene	50-32-8	0.50	0.01	0.020	0.025	10
12969	Ben□o(b)fluoranthene	205-99-2	0.79	0.01	0.020	0.025	10
12969	Ben□o(g□h□i)per□lene	191-24-2	0.13	0.01	0.020	0.025	10
12969	Ben□o(□)fluoranthene	207-08-9	0.43	0.01	0.020	0.025	10
12969	Di-n-but□lphthalate	84-74-2	1.3	0.098	0.20	0.29	10
12969	Chr□sene	218-01-9	0.83	0.005	0.020	0.025	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12969	Diben□(a□h)anthracene	53-70-3	0.051		0.01	0.020	0.025	10
12969	1□4-Dioxane	123-91-1	N.D.		0.01	0.020	0.025	10
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	10		1.5	2.9	3.4	100
12969	Fluoranthene	206-44-0	1.9		0.01	0.020	0.025	10
12969	Fluorene	86-73-7	0.57		0.01	0.020	0.025	10
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.13		0.01	0.020	0.025	10
12969	Naphthalene	91-20-3	3.1		0.020	0.039	0.049	10
12969	Phenanthrene	85-01-8	0.97		0.01	0.020	0.025	10
12969	P□rene	129-00-0	1.4		0.01	0.020	0.025	10
	The stated QC limits for 1□4-dioxane are advisor□onl□until sufficient data points can be obtained to calculate statistical limits.							
	The SECC exceeded the □/- 50□ of the expected value from the ICAL. Sample and the SECC were reanal□□ed and the SECC was once again outside client requirements which indicates a matrix effect.							
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D.	D1	1□800	3□500	5□300	100
10401	Dalapon	75-99-0	N.D.	D2	6□500	13□000	13□000	100
10401	2□4-DB	94-82-6	N.D.	D2	1□400	2□900	3□100	100
10401	Dicamba	1918-00-9	N.D.	D1	590	1□200	1□800	100
10401	Dinoseb	88-85-7	N.D.	D1	1□300	2□700	3□500	100
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.							
10401	2□4-DP (Dichloroprop)	120-36-5	1□700	□PD1	1□300	2□700	2□900	100
10401	MCPA	94-74-6	N.D.	D1	110□000	220□000	370□000	100
10401	MCPP (Mecoprop)	93-65-2	N.D.	D2	560□000	1□100□000	1□100□000	100
10401	2□4□5-T	93-76-5	160	□PD2	120	240	250	100
10401	2□4□5-TP	93-72-1	N.D.	D1	110	220	250	100
	Reporting limits were raised due to interference from the sample matrix.							
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D.	D1	0.053	0.15	0.25	10
10885	PCB-1221	11104-28-2	N.D.	D1	0.067	0.15	0.25	10
10885	PCB-1232	11141-16-5	N.D.	D1	0.12	0.23	0.25	10
10885	PCB-1242	53469-21-9	N.D.	D1	0.048	0.15	0.25	10
10885	PCB-1248	12672-29-6	N.D.	D1	0.048	0.15	0.25	10
10885	PCB-1254	11097-69-1	0.29	D1	0.048	0.15	0.25	10
10885	PCB-1260	11096-82-5	0.15	□D1	0.072	0.15	0.25	10
10885	PCB-1262	37324-23-5	N.D.	D1	0.048	0.15	0.25	10
10885	PCB-1268	11100-14-4	N.D.	D1	0.048	0.15	0.25	10
Pesticides	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D. D2	13	44	61	50
14587	Alpha BHC	319-84-6	N.D. D1	13	44	61	50
14587	Beta BHC	319-85-7	N.D. VD1	37	74	74	50
14587	Gamma BHC - Lindane	58-89-9	N.D. D2	15	44	61	50
14587	Alpha Chlordane	5103-71-9	N.D. D2	13	44	61	50
14587	Chlordane	57-74-9	N.D. D1	290	590	1□300	50
14587	Gamma Chlordane	5103-74-2	N.D. D2	18	44	61	50
14587	p□p-DDD	72-54-8	N.D. D1	24	88	130	50
14587	p□p-DDE	72-55-9	N.D. D1	24	88	130	50
14587	p□p-DDT	50-29-3	N.D. D2	58	120	130	50
14587	Delta BHC	319-86-8	N.D. D1	33	66	74	50
14587	Dieldrin	60-57-1	N.D. D2	24	88	130	50
14587	Endosulfan I	959-98-8	N.D. D2	16	44	61	50
14587	Endosulfan II	33213-65-9	N.D. D2	81	160	170	50
14587	Endosulfan Sulfate	1031-07-8	N.D. D2	24	88	130	50
14587	Endrin	72-20-8	N.D. D2	50	100	130	50
14587	Endrin Aldeh□de	7421-93-4	N.D. D2	24	88	130	50
14587	Endrin Ketone	53494-70-5	N.D. D1	44	130	150	50
14587	Heptachlor	76-44-8	N.D. D2	23	46	61	50
14587	Heptachlor Epoxide	1024-57-3	N.D. D1	13	44	61	50
14587	Methox□chlor	72-43-5	N.D. D2	130	480	490	50
14587	Toxaphene	8001-35-2	N.D. D2	1□000	2□100	2□400	50

Reporting limits were raised due to interference from the sample matrix.

Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	N.D.	46.7	112	279	5

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5□ for Thorium.
Outlier recover□/result: ICV RSDs □ 5□ □Acceptance limits: < 5□
ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66

	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	8□840	37.3	71.4	89.2	2
06124	Antimon□	7440-36-0	10.8	0.141	0.223	0.446	2
06125	Arsenic	7440-38-2	27.7	0.149	0.357	0.446	2
06126	Barium	7440-39-3	1□130	0.431	0.714	0.892	2
06127	Ber□llium	7440-41-7	0.594	0.0254	0.0892	0.112	2
06128	Cadmium	7440-43-9	0.0748 □	0.0562	0.112	0.223	2
06129	Calcium	7440-70-2	18□900	76.1	125	156	2
06131	Chromium	7440-47-3	46.5	0.373	0.714	0.892	2
06132	Cobalt	7440-48-4	15.5	0.0651	0.112	0.223	2
06133	Copper	7440-50-8	30.4	3.99	7.14	8.92	2

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06134	Iron	7439-89-6	84□800	20.9	44.6	55.8	5
06135	Lead	7439-92-1	1□310	0.281	0.837	3.35	10
06136	Magnesium	7439-95-4	2□920	3.50	11.2	22.3	2
06137	Manganese	7439-96-5	163	0.442	1.12	2.23	2
06139	Nic□el	7440-02-0	125	0.379	0.714	0.892	2
06140	Potassium	7440-09-7	1□250	40.4	71.4	89.2	2
06141	Selenium	7782-49-2	N.D.	0.145	0.357	0.446	2
06142	Silver	7440-22-4	N.D.	0.0453	0.0892	0.112	2
06143	Sodium	7440-23-5	106 □	89.7	161	201	2
06145	Thallium	7440-28-0	0.103 □	0.0437	0.0892	0.112	2
13502	Uranium	7440-61-1	1.38	0.0437	0.112	0.112	2
06148	Vanadium	7440-62-2	29.6	0.0957	0.178	0.223	2
06149	□inc	7440-66-6	40.1	1.35	2.68	3.35	2
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	1.32	0.231	0.495	0.989	5
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	32.6	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: OU2-1-SU006-14 Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		mg/kg	mg/kg	mg/kg	mg/kg	
12937	2378-TCDD	1746-01-6	0.0000107	0.000000195	0.000000439	0.00000146	1
12937	12378-PeCDD	40321-76-4	0.000247	0.000000470	0.00000146	0.00000732	1
12937	123478-HxCDD	39227-28-6	0.0000985	0.000000366	0.00000146	0.00000732	1
12937	123678-HxCDD	57653-85-7	0.00103	0.000000366	0.00000146	0.00000732	1
12937	123789-HxCDD	19408-74-3	0.000666	0.000000366	0.00000146	0.00000732	1
12937	1234678-HpCDD	35822-46-9	0.00135	0.00000366	0.0000146	0.0000732	10
12937	OCDD	3268-87-9	0.00988	0.0000202	0.0000439	0.000146	10
13233	2378-TCDF-Conf	51207-31-9	0.0000136 C	0.000000221	0.000000454	0.00000146	1
12937	12378-PeCDF	57117-41-6	0.0000129	0.000000366	0.00000146	0.00000732	1
12937	23478-PeCDF	57117-31-4	0.0000400	0.000000366	0.00000146	0.00000732	1
12937	123478-HxCDF	70648-26-9	0.0000392	0.000000366	0.00000146	0.00000732	1
12937	123678-HxCDF	57117-44-9	0.0000470	0.000000366	0.00000146	0.00000732	1
12937	123789-HxCDF	72918-21-9	0.0000136	0.000000366	0.00000146	0.00000732	1
12937	234678-HxCDF	60851-34-5	0.0000398	0.000000366	0.00000146	0.00000732	1
12937	1234678-HpCDF	67562-39-4	0.00120	0.000000366	0.00000146	0.00000732	1
12937	1234789-HpCDF	55673-89-7	0.0000238	0.000000366	0.00000146	0.00000732	1
12937	OCDF	39001-02-0	0.000712	0.000000795	0.00000293	0.0000146	1

Due to the nature of the sample matrix□the recover□of 13C12-2378-TCDF was outside of the QC acceptance limits for the confirmation of this sample.

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	38	40 - 135	0.000000306
13C12-2378-TCDD	62	40 - 135	0.000000296
13C12-12378-PeCDD	62	40 - 135	0.000000986
13C12-123478-HxCDD	71	40 - 135	0.000000986
13C12-123678-HxCDD	73	40 - 135	0.000000986
13C12-123789-HxCDD	74	40 - 135	0.000000986
13C12-1234678-HpCDD	101	40 - 135	0.00000986
13C12-OCDD	114	40 - 135	0.0000296
13C12-12378-PeCDF	54	40 - 135	0.000000986
13C12-23478-PeCDF	59	40 - 135	0.000000986
13C12-123478-HxCDF	71	40 - 135	0.000000986
13C12-123678-HxCDF	68	40 - 135	0.000000986
13C12-234678-HxCDF	71	40 - 135	0.000000986
13C12-123789-HxCDF	73	40 - 135	0.000000986
13C12-1234678-HpCDF	74	40 - 135	0.000000986
13C12-1234789-HpCDF	69	40 - 135	0.000000986
13C12-OCDF	62	40 - 135	0.00000197

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	Q183112AA	11/07/2018 15:30	Stephen C Nolte	61.12
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/26/2018 15:40	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLI026	11/12/2018 01:51	Anthon□P Bauer	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLH026	11/07/2018 23:14	Anthon□P Bauer	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLH026	11/08/2018 13:34	□oseph M Gambler	100
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLI026	10/30/2018 07:00	□oshua S Ruth	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLH026	10/30/2018 07:00	□oshua S Ruth	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/09/2018 05:42	Richard A Shober	100
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 19:59	Kirb□B Turner	10
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/14/2018 00:20	Lisa A Reinert	50
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/08/2018 00:41	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/07/2018 01:18	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/08/2018 01:28	Michael □iegler	10
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:27	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 22:14	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 22:14	Bradle□M Berlot	2
06126	Barium	SW-846 6020A	1	183041063701D	11/12/2018 22:14	Bradle□M Berlot	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU006-14 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 15:40
SDG□: TID12-06

Tidewater, Inc.
ELLE Sample #: SW 9872064
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 22:14	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/18/2018 15:20	Choon □ Tian	5
06135	Lead	SW-846 6020A	1	183041063701A	11/27/2018 09:50	Choon □ Tian	10
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:37	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/08/2018 21:37	Bradle□M Berlot	2
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 16:00	Par□er D Lindstrom	5
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		mg/kg	mg/kg	mg/kg	mg/kg	
11995	Acetone	67-64-1	0.49	0.014	0.038	0.047	1.05
11995	Ben□ene	71-43-2	N.D.	0.001	0.005	0.012	1.05
11995	Bromodichloromethane	75-27-4	N.D.	0.0009	0.002	0.012	1.05
11995	Bromoform	75-25-2	N.D.	0.012	0.019	0.024	1.05
11995	Bromomethane	74-83-9	N.D.	0.002	0.005	0.012	1.05
11995	2-Butanone	78-93-3	0.11	0.002	0.009	0.024	1.05
11995	Carbon Disulfide	75-15-0	N.D.	0.001	0.005	0.012	1.05
11995	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.005	0.012	1.05
11995	Chloroben□ene	108-90-7	N.D.	0.001	0.005	0.012	1.05
11995	Chloroethane	75-00-3	N.D.	0.002	0.009	0.012	1.05
11995	Chloroform	67-66-3	N.D.	0.001	0.005	0.012	1.05
11995	Chloromethane	74-87-3	N.D.	0.001	0.005	0.012	1.05
11995	C□clohexane	110-82-7	N.D.	0.001	0.005	0.012	1.05
11995	C□clohexanone	108-94-1	N.D.	0.059	0.24	0.59	1.05
11995	1□2-Dibromo-3-chloropropane	96-12-8	N.D.	0.0009	0.002	0.012	1.05
11995	Dibromochloromethane	124-48-1	N.D.	0.0009	0.002	0.012	1.05
11995	1□2-Dibromoethane	106-93-4	N.D.	0.0009	0.002	0.012	1.05
11995	1□2-Dichloroben□ene	95-50-1	N.D.	0.001	0.005	0.012	1.05
11995	1□3-Dichloroben□ene	541-73-1	N.D.	0.001	0.005	0.012	1.05
11995	1□4-Dichloroben□ene	106-46-7	N.D.	0.0009	0.002	0.012	1.05
11995	Dichlorodifluoromethane	75-71-8	N.D.	0.001	0.005	0.012	1.05
11995	1□1-Dichloroethane	75-34-3	N.D.	0.001	0.005	0.012	1.05
11995	1□2-Dichloroethane	107-06-2	N.D.	0.001	0.005	0.012	1.05
11995	1□1-Dichloroethene	75-35-4	N.D.	0.001	0.005	0.012	1.05
11995	cis-1□2-Dichloroethene	156-59-2	N.D.	0.001	0.005	0.012	1.05
11995	trans-1□2-Dichloroethene	156-60-5	N.D.	0.001	0.005	0.012	1.05
11995	1□2-Dichloropropane	78-87-5	N.D.	0.001	0.005	0.012	1.05
11995	cis-1□3-Dichloropropene	10061-01-5	N.D.	0.0009	0.002	0.012	1.05
11995	trans-1□3-Dichloropropene	10061-02-6	N.D.	0.0007	0.002	0.012	1.05
11995	Eth□lben□ene	100-41-4	N.D.	0.0009	0.002	0.012	1.05
11995	Freon 113	76-13-1	N.D.	0.001	0.005	0.024	1.05
11995	2-Hexanone	591-78-6	N.D.	0.002	0.009	0.024	1.05
11995	Isoprop□lben□ene	98-82-8	N.D.	0.0009	0.002	0.012	1.05
11995	Meth□l Acetate	79-20-9	N.D.	0.002	0.009	0.012	1.05
11995	Meth□l Tertiar□But□l Ether	1634-04-4	N.D.	0.001	0.005	0.012	1.05
11995	4-Meth□l-2-pentanone	108-10-1	N.D.	0.002	0.009	0.024	1.05
11995	Meth□lc□clohexane	108-87-2	N.D.	0.001	0.005	0.012	1.05
11995	Meth□lene Chloride	75-09-2	N.D.	0.005	0.009	0.012	1.05
11995	St□rene	100-42-5	N.D.	0.0007	0.002	0.012	1.05
11995	1□1□2□2-Tetrachloroethane	79-34-5	N.D.	0.0009	0.002	0.012	1.05
11995	Tetrachloroethene	127-18-4	N.D.	0.001	0.005	0.012	1.05

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU008-02 Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Volatiles	**SW-846 8260C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
11995	Toluene	108-88-3	N.D.	0.001	0.005	0.012	1.05
11995	1□2□4-Trichloroben□ene	120-82-1	N.D.	0.012	0.019	0.024	1.05
11995	1□1□1-Trichloroethane	71-55-6	N.D.	0.001	0.005	0.012	1.05
11995	1□1□2-Trichloroethane	79-00-5	N.D.	0.001	0.005	0.012	1.05
11995	Trichloroethene	79-01-6	N.D.	0.001	0.005	0.012	1.05
11995	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.005	0.012	1.05
11995	Vin□l Chloride	75-01-4	N.D.	0.001	0.005	0.012	1.05
11995	□□lene (Total)	1330-20-7	N.D.	0.002	0.005	0.012	1.05

A Method Detection Limit (MDL) standard is anal□□ed to confirm sensitivit□ of the instrument for samples with non-detect anal□tes associated with a continuing calibration verification standard exhibiting low response (outside the 20□ D criteria). The MDL standard shows adequate sensitivit□ at or below the reporting limit.

The recover□ for the sample internal standard is outside the QC acceptance limits. The following action was ta□en: The sample was re-anal□□ed and the QC is again outside of the acceptance limits□ indicating a matrix effect. The data is reported from the initial trial.

GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Aniline	62-53-3	N.D.	0.37	0.74	1.1	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.37	0.74	1.1	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.045	0.089	0.11	1
10726	Carba□ole	86-74-8	N.D.	0.037	0.074	0.082	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.037	0.074	0.082	1
10726	4-Chloroaniline	106-47-8	N.D.	0.074	0.15	0.37	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.037	0.074	0.082	1
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.052	0.10	0.11	1
10726	2-Chloronaphthalene	91-58-7	N.D.	0.015	0.030	0.074	1
10726	2-Chlorophenol	95-57-8	N.D.	0.037	0.074	0.082	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.037	0.074	0.082	1
10726	2□2□-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.037	0.074	0.082	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2□-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□ The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	N.D.	0.037	0.074	0.082	1
10726	1□2-Dichloroben□ene	95-50-1	0.047 □	0.045	0.089	0.11	1
10726	1□3-Dichloroben□ene	541-73-1	0.057 □	0.037	0.074	0.082	1
10726	1□4-Dichloroben□ene	106-46-7	0.14	0.037	0.074	0.082	1
10726	3□3□-Dichloroben□idine	91-94-1	N.D.	0.22	0.45	0.74	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.037	0.074	0.082	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.15	0.30	0.37	1
10726	2□4-Dimeth□lphenol	105-67-9	N.D.	0.037	0.074	0.082	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	Dimeth□phthalate	131-11-3	N.D.	0.15	0.30	0.37	1
10726	4□6-Dinitro-2-meth□phenol	534-52-1	N.D.	0.37	0.74	1.1	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.82	1.6	2.2	1
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.15	0.30	0.37	1
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.045	0.089	0.11	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.007	0.015	0.037	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.045	0.089	0.11	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.37	0.74	1.1	1
10726	Hexachloroethane	67-72-1	N.D.	0.074	0.15	0.37	1
10726	Isophorone	78-59-1	N.D.	0.037	0.074	0.082	1
10726	2-Meth□lnaphthalene	91-57-6	0.12	0.022	0.044	0.074	1
10726	2-Meth□lphenol	95-48-7	N.D.	0.059	0.12	0.15	1
10726	4-Meth□lphenol	106-44-5	N.D.	0.045	0.089	0.11	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.045	0.089	0.11	1
10726	3-Nitroaniline	99-09-2	N.D.	0.15	0.30	0.37	1
10726	4-Nitroaniline	100-01-6	N.D.	0.15	0.30	0.37	1
10726	Nitroben□ene	98-95-3	N.D.	0.059	0.12	0.15	1
10726	2-Nitrophenol	88-75-5	N.D.	0.037	0.074	0.082	1
10726	4-Nitrophenol	100-02-7	N.D.	0.37	0.74	1.1	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.045	0.089	0.11	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.037	0.074	0.082	1
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.15	0.30	0.37	1
10726	Pentachlorophenol	87-86-5	N.D.	0.082	0.30	0.37	1
10726	Phenol	108-95-2	0.078 □	0.052	0.10	0.11	1
10726	P□ridine	110-86-1	N.D.	0.15	0.30	0.37	1
10726	1□2□4-Trichloroben□ene	120-82-1	0.056 □	0.037	0.074	0.082	1
10726	2□4□5-Trichlorophenol	95-95-4	0.17	0.045	0.089	0.11	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.045	0.089	0.11	1
Trial ID: RE							
10726	Aniline	62-53-3	N.D.	0.37	0.75	1.1	1
10726	Ben□□l alcohol	100-51-6	N.D.	0.37	0.75	1.1	1
10726	4-Bromophen□l-phen□lether	101-55-3	N.D.	0.045	0.089	0.11	1
10726	Carba□ole	86-74-8	N.D.	0.037	0.075	0.082	1
10726	4-Chloro-3-meth□lphenol	59-50-7	N.D.	0.037	0.075	0.082	1
10726	4-Chloroaniline	106-47-8	N.D.	0.075	0.15	0.37	1
10726	bis(2-Chloroethox□)methane	111-91-1	N.D.	0.037	0.075	0.082	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10726	bis(2-Chloroeth□l)ether	111-44-4	N.D.	0.052	0.10	0.11	1
10726	2-Chloronaphthalene	91-58-7	N.D.	0.015	0.030	0.075	1
10726	2-Chlorophenol	95-57-8	N.D.	0.037	0.075	0.082	1
10726	4-Chlorophen□l-phen□lether	7005-72-3	N.D.	0.037	0.075	0.082	1
10726	2□2-ox□bis(1-Chloropropane)	108-60-1	N.D.	0.037	0.075	0.082	1
	Bis(2-chloroisoprop□l) ether CAS □39638-32-9 and 2□2-Ox□bis(1-chloropropane) CAS □108-60-1 cannot be separated chromatographicall□ The reported result represents the combined total of both compounds.						
10726	Diben□ofuran	132-64-9	0.041 □	0.037	0.075	0.082	1
10726	1□2-Dichloroben□ene	95-50-1	0.051 □	0.045	0.089	0.11	1
10726	1□3-Dichloroben□ene	541-73-1	0.069 □	0.037	0.075	0.082	1
10726	1□4-Dichloroben□ene	106-46-7	0.15	0.037	0.075	0.082	1
10726	3□3-Dichloroben□idine	91-94-1	N.D.	0.22	0.45	0.75	1
10726	2□4-Dichlorophenol	120-83-2	N.D.	0.037	0.075	0.082	1
10726	Dieth□lphthalate	84-66-2	N.D.	0.15	0.30	0.37	1
10726	2□4-Dimeth□lphenol	105-67-9	N.D.	0.037	0.075	0.082	1
10726	Dimeth□lphthalate	131-11-3	N.D.	0.15	0.30	0.37	1
10726	4□6-Dinitro-2-meth□lphenol	534-52-1	N.D.	0.37	0.75	1.1	1
10726	2□4-Dinitrophenol	51-28-5	N.D.	0.82	1.6	2.2	1
10726	2□4-Dinitrotoluene	121-14-2	N.D.	0.15	0.30	0.37	1
10726	2□6-Dinitrotoluene	606-20-2	N.D.	0.045	0.089	0.11	1
10726	Hexachloroben□ene	118-74-1	N.D.	0.007	0.015	0.037	1
10726	Hexachlorobutadiene	87-68-3	N.D.	0.045	0.089	0.11	1
10726	Hexachloroc□clopentadiene	77-47-4	N.D.	0.37	0.75	1.1	1
10726	Hexachloroethane	67-72-1	N.D.	0.075	0.15	0.37	1
10726	Isophorone	78-59-1	N.D.	0.037	0.075	0.082	1
10726	2-Meth□lnaphthalene	91-57-6	0.12	0.022	0.045	0.075	1
10726	2-Meth□lphenol	95-48-7	N.D.	0.060	0.12	0.15	1
10726	4-Meth□lphenol	106-44-5	0.10 □	0.045	0.089	0.11	1
	3-Meth□lphenol and 4-meth□lphenol cannot be resolved under the chromatographic conditions used for sample anal□sis. The result reported for 4-meth□lphenol represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	N.D.	0.045	0.089	0.11	1
10726	3-Nitroaniline	99-09-2	N.D.	0.15	0.30	0.37	1
10726	4-Nitroaniline	100-01-6	N.D.	0.15	0.30	0.37	1
10726	Nitroben□ene	98-95-3	N.D.	0.060	0.12	0.15	1
10726	2-Nitrophenol	88-75-5	N.D.	0.037	0.075	0.082	1
10726	4-Nitrophenol	100-02-7	N.D.	0.37	0.75	1.1	1
10726	N-Nitroso-di-n-prop□lamine	621-64-7	N.D.	0.045	0.089	0.11	1
10726	N-Nitrosodiphen□lamine	86-30-6	N.D.	0.037	0.075	0.082	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
	N-nitrosodiphen□lamine decomposes in the GC inlet forming diphen□lamine. The result reported for N-nitrosodiphen□lamine represents the combined total of both compounds.						
10726	Di-n-oct□lphthalate	117-84-0	N.D.	0.15	0.30	0.37	1
10726	Pentachlorophenol	87-86-5	N.D.	0.082	0.30	0.37	1
10726	Phenol	108-95-2	N.D.	0.052	0.10	0.11	1
10726	P□ridine	110-86-1	N.D.	0.15	0.30	0.37	1
10726	1□2□4-Trichloroben□ene	120-82-1	0.067 □	0.037	0.075	0.082	1
10726	2□4□5-Trichlorophenol	95-95-4	0.075 □	0.045	0.089	0.11	1
10726	2□4□6-Trichlorophenol	88-06-2	N.D.	0.045	0.089	0.11	1
	Target anal□tes were detected in the method blan□ associated with the samples as noted on the QC Summar□. The following action was ta□en: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
12969	Acenaphthene	83-32-9	0.005	0.001	0.003	0.004	1
12969	Acenaphth□lene	208-96-8	0.020	0.0007	0.003	0.004	1
12969	Anthracene	120-12-7	0.031	0.001	0.003	0.004	1
12969	Ben□o(a)anthracene	56-55-3	0.12	0.001	0.003	0.004	1
12969	Ben□o(a)p□rene	50-32-8	0.17	0.001	0.003	0.004	1
12969	Ben□o(b)fluoranthene	205-99-2	0.63 □	0.001	0.003	0.004	1
12969	Ben□o(g□h□i)per□lene	191-24-2	0.096	0.001	0.003	0.004	1
12969	Ben□o(□)fluoranthene	207-08-9	N.D.	0.001	0.003	0.004	1
12969	Di-n-but□lphthalate	84-74-2	1.1E	0.015	0.030	0.045	1
12969	Chr□sene	218-01-9	0.19	0.0007	0.003	0.004	1
12969	Diben□(a□h)anthracene	53-70-3	0.029	0.001	0.003	0.004	1
12969	1□4-Dioxane	123-91-1	0.012	0.001	0.003	0.004	1
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	3.4E	0.022	0.045	0.052	1
12969	Fluoranthene	206-44-0	0.19	0.001	0.003	0.004	1
12969	Fluorene	86-73-7	0.009	0.001	0.003	0.004	1
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.096	0.001	0.003	0.004	1
12969	Naphthalene	91-20-3	0.098	0.003	0.006	0.007	1
12969	Phenanthrene	85-01-8	0.11	0.001	0.003	0.004	1
12969	P□rene	129-00-0	0.22	0.001	0.003	0.004	1
Trial ID: DL							
12969	Acenaphthene	83-32-9	N.D.	0.015	0.030	0.037	10
12969	Acenaphth□lene	208-96-8	0.023 □	0.007	0.030	0.037	10
12969	Anthracene	120-12-7	0.037 □	0.015	0.030	0.037	10
12969	Ben□o(a)anthracene	56-55-3	0.13	0.015	0.030	0.037	10
12969	Ben□o(a)p□rene	50-32-8	0.15	0.015	0.030	0.037	10
12969	Ben□o(b)fluoranthene	205-99-2	0.46	0.015	0.030	0.037	10

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
GC/MS Semivolatiles	**SW-846 8270D SIM**		mg/kg	mg/kg	mg/kg	mg/kg	
12969	Ben□o(g□h□i)per□lene	191-24-2	0.11	0.015	0.030	0.037	10
12969	Ben□o(□)fluoranthene	207-08-9	0.23	0.015	0.030	0.037	10
12969	Di-n-but□lphthalate	84-74-2	1.1	0.15	0.30	0.45	10
12969	Chr□sene	218-01-9	0.18	0.007	0.030	0.037	10
12969	Diben□(a□h)anthracene	53-70-3	0.037	0.015	0.030	0.037	10
12969	1□4-Dioxane	123-91-1	N.D.	0.015	0.030	0.037	10
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	3.7	0.22	0.45	0.52	10
12969	Fluoranthene	206-44-0	0.18	0.015	0.030	0.037	10
12969	Fluorene	86-73-7	N.D.	0.015	0.030	0.037	10
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.11	0.015	0.030	0.037	10
12969	Naphthalene	91-20-3	0.14	0.030	0.059	0.074	10
12969	Phenanthrene	85-01-8	0.12	0.015	0.030	0.037	10
12969	P□rene	129-00-0	0.19	0.015	0.030	0.037	10
Trial ID: RE							
12969	Acenaphthene	83-32-9	0.008	0.001	0.003	0.004	1
12969	Acenaphth□lene	208-96-8	0.028	0.0007	0.003	0.004	1
12969	Anthracene	120-12-7	0.048	0.001	0.003	0.004	1
12969	Ben□o(a)anthracene	56-55-3	0.12	0.001	0.003	0.004	1
12969	Ben□o(a)p□rene	50-32-8	0.14	0.001	0.003	0.004	1
12969	Ben□o(b)fluoranthene	205-99-2	0.43 □	0.001	0.003	0.004	1
12969	Ben□o(g□h□i)per□lene	191-24-2	0.10	0.001	0.003	0.004	1
12969	Ben□o(□)fluoranthene	207-08-9	N.D.	0.001	0.003	0.004	1
12969	Di-n-but□lphthalate	84-74-2	0.14	0.015	0.030	0.045	1
12969	Chr□sene	218-01-9	0.20	0.0007	0.003	0.004	1
12969	Diben□(a□h)anthracene	53-70-3	0.028	0.001	0.003	0.004	1
12969	1□4-Dioxane	123-91-1	0.009	0.001	0.003	0.004	1
12969	bis(2-Eth□lhex□l)phthalate	117-81-7	2.5E	0.022	0.045	0.052	1
12969	Fluoranthene	206-44-0	0.15	0.001	0.003	0.004	1
12969	Fluorene	86-73-7	0.011	0.001	0.003	0.004	1
12969	Indeno(1□2□3-cd)p□rene	193-39-5	0.099	0.001	0.003	0.004	1
12969	Naphthalene	91-20-3	0.10	0.003	0.006	0.007	1
12969	Phenanthrene	85-01-8	0.12	0.001	0.003	0.004	1
12969	P□rene	129-00-0	0.22	0.001	0.003	0.004	1

The stated QC limits for 1□4-dioxane are advisor□ onl□ until sufficient data points can be obtained to calculate statistical limits.

The SECC exceeded the □/- 50□ of the expected value from the ICAL. Sample and the SECC were reanal□□ed and the SECC was once again outside client requirements which indicates a matrix effect.

□□Ben□o(b)fluoranthene and ben□o(□)fluoranthene were not resolved under the sample anal□sis conditions. The result reported for ben□o(b)fluoranthene

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: OU2-1-SU008-02 Grab Soil
Great Kills Park, NY

Project Name: Great Kills Park Phase I RI OU2

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
	represents the combined total of both isomers.						
	Target anal□tes were detected in the method blan□associated with the samples as noted on the QC Summar□. The following action was ta□en: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.						
Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
10401	2□4-D	94-75-7	N.D. D1	270	540	800	10
10401	Dalapon	75-99-0	N.D. D2	980	2□000	2□000	10
10401	2□4-DB	94-82-6	N.D. D1	220	450	470	10
10401	Dicamba	1918-00-9	N.D. D1	89	180	270	10
10401	Dinoseb	88-85-7	N.D. D2	200	400	540	10
	The QC window for dinoseb is advisor□due to the erratic performance of the anal□te using this method.						
10401	2□4-DP (Dichloroprop)	120-36-5	N.D. D2	200	400	450	10
10401	MCPA	94-74-6	N.D. D1	17□000	34□000	56□000	10
10401	MCPP (Mecoprop)	93-65-2	N.D. D1	85□000	170□000	170□000	10
10401	2□4□5-T	93-76-5	N.D. D2	18	37	38	10
10401	2□4□5-TP	93-72-1	N.D. D1	17	33	38	10
	Reporting limits were raised due to interference from the sample matrix.						
PCBs	**SW-846 8082A Feb 2007 Rev 1**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
10885	PCB-1016	12674-11-2	N.D. D1	0.40	1.1	1.9	50
10885	PCB-1221	11104-28-2	N.D. D1	0.51	1.1	1.9	50
10885	PCB-1232	11141-16-5	N.D. D1	0.89	1.8	1.9	50
10885	PCB-1242	53469-21-9	N.D. D1	0.37	1.1	1.9	50
10885	PCB-1248	12672-29-6	N.D. D1	0.37	1.1	1.9	50
10885	PCB-1254	11097-69-1	5.5 D1	0.37	1.1	1.9	50
10885	PCB-1260	11096-82-5	2.6 D2	0.54	1.1	1.9	50
10885	PCB-1262	37324-23-5	N.D. D1	0.37	1.1	1.9	50
10885	PCB-1268	11100-14-4	N.D. D1	0.37	1.1	1.9	50
Pesticides	**SW-846 8081B**		**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	
14587	Aldrin	309-00-2	N.D. D1	7.5	26	37	20
14587	Alpha BHC	319-84-6	N.D. D2	7.5	26	37	20
14587	Beta BHC	319-85-7	N.D. D2	19	40	44	20
14587	Gamma BHC - Lindane	58-89-9	N.D. D2	9.3	26	37	20
14587	Alpha Chlordane	5103-71-9	330 D1	19	66	92	50
14587	Chlordane	57-74-9	4□900 D1	440	880	1□900	50
14587	Gamma Chlordane	5103-74-2	360 D1	28	66	92	50
14587	p□p-DDD	72-54-8	65 □D2	15	53	75	20
14587	p□p-DDE	72-55-9	210 D2	15	53	75	20
14587	p□p-DDT	50-29-3	500 D2	35	71	75	20
14587	Delta BHC	319-86-8	N.D. D1	20	40	44	20

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Pesticides	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
14587	Dieldrin	60-57-1	N.D.	VD2	100	210	210	20
14587	Endosulfan I	959-98-8	170	D2	9.7	26	37	20
14587	Endosulfan II	33213-65-9	N.D.	D2	49	97	100	20
14587	Endosulfan Sulfate	1031-07-8	29	□D2	15	53	75	20
14587	Endrin	72-20-8	N.D.	D2	30	62	75	20
14587	Endrin Aldeh□de	7421-93-4	54	□PD2	15	53	75	20
14587	Endrin Ketone	53494-70-5	240	D2	26	79	88	20
14587	Heptachlor	76-44-8	N.D.	D2	14	27	37	20
14587	Heptachlor Epoxide	1024-57-3	N.D.	D1	7.5	26	37	20
14587	Methox□chlor	72-43-5	N.D.	D2	79	290	300	20
14587	Toxaphene	8001-35-2	N.D.	D2	620	1□200	1□500	20
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
13499	Thorium	7440-29-1	N.D.		65.1	155	388	5

Reporting limits for metals were raised due to interference from the sample matrix.
The ICV RSD is greater than 5□ for Thorium.
Outlier recover□/result: ICV RSDs □ 5□ □Acceptance limits: < 5□
ICV RSD□ - 12.5□ □reading 0.62□acceptance limits: 0.54-0.66

	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06123	Aluminum	7429-90-5	9□110		51.9	99.4	124	2
06124	Antimon□	7440-36-0	5.09		0.196	0.311	0.621	2
06125	Arsenic	7440-38-2	12.2		0.208	0.497	0.621	2
06126	Barium	7440-39-3	1□030		0.600	0.994	1.24	2
06127	Ber□llium	7440-41-7	0.933		0.0354	0.124	0.155	2
06128	Cadmium	7440-43-9	3.58		0.0783	0.155	0.311	2
06129	Calcium	7440-70-2	25□900		106	174	217	2
06131	Chromium	7440-47-3	90.3		0.519	0.994	1.24	2
06132	Cobalt	7440-48-4	13.9		0.0907	0.155	0.311	2
06133	Copper	7440-50-8	382		5.56	9.94	12.4	2
06134	Iron	7439-89-6	50□000		11.7	24.9	31.1	2
06135	Lead	7439-92-1	890		0.196	0.583	2.33	5
06136	Magnesium	7439-95-4	3□050		4.88	15.5	31.1	2
06137	Manganese	7439-96-5	442		0.615	1.55	3.11	2
06139	Nic□el	7440-02-0	67.0		0.528	0.994	1.24	2
06140	Potassium	7440-09-7	2□230		56.2	99.4	124	2
06141	Selenium	7782-49-2	2.41		0.203	0.497	0.621	2
06142	Silver	7440-22-4	11.3		0.0631	0.124	0.155	2
06143	Sodium	7440-23-5	1□980		125	224	280	2
06145	Thallium	7440-28-0	0.190		0.0609	0.124	0.155	2
13502	Uranium	7440-61-1	0.847		0.0609	0.155	0.155	2

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Metals		**SW-846 6020A**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06148	Vanadium	7440-62-2	76.5	0.133	0.249	0.311	2
06149	□inc	7440-66-6	948	1.89	3.73	4.66	2
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	Mercur□	7439-97-6	12.9 □	3.37	7.22	14.4	50
Wet Chemistry		**SM 2540 G-2011 %Moisture Calc**	**%**	**%**	**%**	**%**	
00111	Moisture	n.a.	55.3	0.50	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven dr□ing at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		mg/kg	mg/kg	mg/kg	mg/kg	
12937	2378-TCDD	1746-01-6	0.0000132 Q	0.000000295	0.000000666	0.00000222	1
12937	12378-PeCDD	40321-76-4	0.0000454 Q	0.000000712	0.00000222	0.0000111	1
12937	123478-HxCDD	39227-28-6	0.0000653	0.000000555	0.00000222	0.0000111	1
12937	123678-HxCDD	57653-85-7	0.000326	0.000000555	0.00000222	0.0000111	1
12937	123789-HxCDD	19408-74-3	0.000106	0.000000555	0.00000222	0.0000111	1
12937	1234678-HpCDD	35822-46-9	0.00774	0.00000555	0.0000222	0.000111	10
12937	OCDD	3268-87-9	0.0554	0.0000306	0.0000666	0.000222	10
13233	2378-TCDF-Conf	51207-31-9	0.0000694 CQ	0.000000335	0.000000688	0.00000222	1
12937	12378-PeCDF	57117-41-6	0.0000385	0.000000555	0.00000222	0.0000111	1
12937	23478-PeCDF	57117-31-4	0.0000738	0.000000555	0.00000222	0.0000111	1
12937	123478-HxCDF	70648-26-9	0.000120	0.000000555	0.00000222	0.0000111	1
12937	123678-HxCDF	57117-44-9	0.0000748	0.000000555	0.00000222	0.0000111	1
12937	123789-HxCDF	72918-21-9	0.0000244	0.000000555	0.00000222	0.0000111	1
12937	234678-HxCDF	60851-34-5	0.0000762	0.000000555	0.00000222	0.0000111	1
12937	1234678-HpCDF	67562-39-4	0.000974	0.000000555	0.00000222	0.0000111	1
12937	1234789-HpCDF	55673-89-7	0.0000701	0.000000555	0.00000222	0.0000111	1
12937	OCDF	39001-02-0	0.00211	0.00000121	0.00000444	0.0000222	1

Labeled Compounds	%Rec	Windows	LOD (mg/kg)
13C12-2378-TCDF-Conf	66	40 - 135	0.000000308
13C12-2378-TCDD	83	40 - 135	0.000000298
13C12-12378-PeCDD	107	40 - 135	0.000000992
13C12-123478-HxCDD	85	40 - 135	0.000000992
13C12-123678-HxCDD	77	40 - 135	0.000000992
13C12-123789-HxCDD	88	40 - 135	0.000000992
13C12-1234678-HpCDD	109	40 - 135	0.00000992
13C12-OCDD	104	40 - 135	0.0000298
13C12-12378-PeCDF	87	40 - 135	0.000000992
13C12-23478-PeCDF	92	40 - 135	0.000000992
13C12-123478-HxCDF	81	40 - 135	0.000000992
13C12-123678-HxCDF	79	40 - 135	0.000000992
13C12-234678-HxCDF	78	40 - 135	0.000000992
13C12-123789-HxCDF	80	40 - 135	0.000000992
13C12-1234678-HpCDF	91	40 - 135	0.000000992
13C12-1234789-HpCDF	81	40 - 135	0.000000992
13C12-OCDF	75	40 - 135	0.00000198

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*
E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*
(3) *The Labeled Compound spike amount was less than the LOD.*

□□This limit was used in the evaluation of the final result

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Analysis Report

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

Sample Comments

The following anal□te(s) is not covered under our DoD ELAP accreditation:
Thorium b□SW-846 6010C
C□clohexanone b□SW-846 8260C
Bis(2-chloroeth□l)ether b□SW-846 8270D/SW-846 8270D SIM
Di-n-but□l phthalate b□SW-846 8270D SIM
Hexachloroben□ene b□SW-846 8270D SIM

Eurofins Lancaster Laboratories Environmental□LLC is responsible onl□for the certified testing of samples. We are not directl□responsible for the integrit□of the sample prior to laborator□receipt. An□reported concentrations less than 200 ug/□g ma□be biased low if the□were not collected according to EPA 5035/5035A specifications.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11995	VOCs- Solid b□8260C	SW-846 8260C	1	B183101AA	11/07/2018 00:50	Patric□T Herres	1.05
06176	GC/MS - LL Water Prep	SW-846 5035A	1	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
06176	GC/MS - LL Water Prep	SW-846 5035A	2	201830051726	10/27/2018 12:48	Anastasia K □a□nes	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201830051726	10/16/2018 16:45	Client Supplied	1
10726	SVOA 8270D (microwave)	SW-846 8270D	1	18302SLI026	11/12/2018 02:14	Anthon□P Bauer	1
10726	SVOA 8270D (microwave)	SW-846 8270D	2-RE	18317SLB026	11/16/2018 18:06	William H Saadeh	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	18302SLH026	11/07/2018 23:43	Anthon□P Bauer	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	2-DL	18302SLH026	11/08/2018 14:34	□oseph M Gambler	10
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	3-RE	18317SLC026	11/16/2018 09:55	□oseph M Gambler	1
10813	BNA Soil Microwave APP I□	SW-846 3546	1	18302SLI026	10/30/2018 07:00	□oshua S Ruth	1
10813	BNA Soil Microwave APP I□	SW-846 3546	2	18317SLB026	11/13/2018 19:20	Sall□L Apple□ard	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	18302SLH026	10/30/2018 07:00	□oshua S Ruth	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	18317SLC026	11/13/2018 19:25	Sall□L Apple□ard	1
10401	Herbicide soils 8151A Master	SW-846 8151A	1	183030010A	11/03/2018 04:14	Richard A Shober	10
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	183040031A	11/05/2018 04:59	Kirb□B Turner	50
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/14/2018 02:16	Lisa A Reinert	20
14587	ocpest 8081B w/GPC □ 3546	SW-846 8081B	1	183020030A	11/14/2018 02:26	Lisa A Reinert	50
10497	PCB Microwave Soil Extraction	SW-846 3546	1	183040031A	11/01/2018 08:00	Ka□la A □udits□□	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	183020030A	10/30/2018 07:00	□oshua S Ruth	1
04181	Herbicide Soil Extraction	SW-846 3550C/SW-846 8151A	1	183030010A	10/30/2018 20:00	Bradle□W VanLeuven	1
13233	D/F in Solids 8290-Conf	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/04/2018 01:08	Michael □iegler	1
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/05/2018 21:02	Michael □iegler	10
12937	Dioxins/Furans in Solids-8290	SW-846 8290A Feb 2007 Rev 1	1	18302007	11/06/2018 13:40	Michael □iegler	1

□□This limit was used in the evaluation of the final result

REVISED

Sample Description: **OU2-1-SU008-02 Grab Soil**
Great Kills Park, NY

Project Name: **Great Kills Park Phase I RI OU2**

Submittal Date/Time: 10/27/2018 09:50
Collection Date/Time: 10/26/2018 16:45
SDG□: TID12-07

Tidewater, Inc.
ELLE Sample #: SW 9872065
ELLE Group #: 2003097
Matrix: Soil

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	18302007	10/29/2018 15:45	Am□Girvin	1
13499	Thorium	SW-846 6010C	1	183041063701	11/27/2018 09:29	Lisa □Coo□e	5
06123	Aluminum	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06124	Antimon□	SW-846 6020A	1	183041063701A	11/12/2018 22:16	Bradle□M Berlot	2
06125	Arsenic	SW-846 6020A	1	183041063701A	11/12/2018 22:16	Bradle□M Berlot	2
06126	Barium	SW-846 6020A	1	183041063701D	11/08/2018 21:39	Bradle□M Berlot	2
06127	Ber□llium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06128	Cadmium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06129	Calcium	SW-846 6020A	1	183041063701B	11/12/2018 22:16	Bradle□M Berlot	2
06131	Chromium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06132	Cobalt	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06133	Copper	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06134	Iron	SW-846 6020A	1	183041063701A	11/12/2018 22:16	Bradle□M Berlot	2
06135	Lead	SW-846 6020A	1	183041063701A	11/27/2018 09:59	Choon □ Tian	5
06136	Magnesium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06137	Manganese	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06139	Nic□el	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06140	Potassium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06141	Selenium	SW-846 6020A	1	183041063701B	11/08/2018 21:39	Bradle□M Berlot	2
06142	Silver	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06143	Sodium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06145	Thallium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
13502	Uranium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06148	Vanadium	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
06149	□inc	SW-846 6020A	1	183041063701A	11/08/2018 21:39	Bradle□M Berlot	2
00159	Mercur□	SW-846 7471B	1	183041063801	11/01/2018 16:07	Par□er D Lindstrom	50
10637	ICP/ICPMS-SW□3050B - U4	SW-846 3050B	1	183041063701	11/01/2018 06:24	Annamaria Kuhns	1
10638	Hg - SW□7471B - U4	SW-846 7471B	1	183041063801	11/01/2018 07:20	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-2011 □ Moisture Calc	1	18303820001A	10/30/2018 10:35	Larr□E Bevins	1

□□This limit was used in the evaluation of the final result

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Quality Control Summary

Client Name: Tidewater Inc.
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Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Batch number: B183101AA	Sample number(s): 9872065			
Acetone	N.D.	0.006	0.016	0.020
Benzene	N.D.	0.0005	0.002	0.005
Bromodichloromethane	N.D.	0.0004	0.001	0.005
Bromoform	N.D.	0.005	0.008	0.010
Bromomethane	N.D.	0.0007	0.002	0.005
2-Butanone	N.D.	0.001	0.004	0.010
Carbon Disulfide	N.D.	0.0006	0.002	0.005
Carbon Tetrachloride	N.D.	0.0005	0.002	0.005
Chlorobenzene	N.D.	0.0005	0.002	0.005
Chloroethane	N.D.	0.001	0.004	0.005
Chloroform	N.D.	0.0006	0.002	0.005
Chloromethane	N.D.	0.0006	0.002	0.005
Cyclohexane	N.D.	0.0005	0.002	0.005
Cyclohexanone	N.D.	0.025	0.10	0.25
1,2-Dibromo-3-chloropropane	N.D.	0.0004	0.001	0.005
Dibromochloromethane	N.D.	0.0004	0.001	0.005
1,2-Dibromoethane	N.D.	0.0004	0.001	0.005
1,2-Dichlorobenzene	N.D.	0.0005	0.002	0.005
1,3-Dichlorobenzene	N.D.	0.0005	0.002	0.005
1,4-Dichlorobenzene	N.D.	0.0004	0.001	0.005
Dichlorodifluoromethane	N.D.	0.0006	0.002	0.005
1,1-Dichloroethane	N.D.	0.0005	0.002	0.005
1,2-Dichloroethane	N.D.	0.0006	0.002	0.005
1,1-Dichloroethene	N.D.	0.0005	0.002	0.005
cis-1,2-Dichloroethene	N.D.	0.0005	0.002	0.005
trans-1,2-Dichloroethene	N.D.	0.0005	0.002	0.005
1,2-Dichloropropane	N.D.	0.0005	0.002	0.005
cis-1,3-Dichloropropene	N.D.	0.0004	0.001	0.005
trans-1,3-Dichloropropene	N.D.	0.0003	0.001	0.005
Ethylbenzene	N.D.	0.0004	0.001	0.005
Freon 113	N.D.	0.0006	0.002	0.010
2-Hexanone	N.D.	0.001	0.004	0.010
Isopropylbenzene	N.D.	0.0004	0.001	0.005
Methyl Acetate	N.D.	0.001	0.004	0.005
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.002	0.005
4-Methyl-2-pentanone	N.D.	0.001	0.004	0.010
Methylcyclohexane	N.D.	0.0006	0.002	0.005
Methylene Chloride	N.D.	0.002	0.004	0.005
Styrene	N.D.	0.0003	0.001	0.005

* Outside of specification
** This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
(3) The surrogate spike amount was less than the LOD.

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Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

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Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
1 1 2 2-Tetrachloroethane	N.D.	0.0004	0.001	0.005
Tetrachloroethene	N.D.	0.0005	0.002	0.005
Toluene	N.D.	0.0006	0.002	0.005
1 2 4-Trichloroben ene	N.D.	0.005	0.008	0.010
1 1 1-Trichloroethane	N.D.	0.0006	0.002	0.005
1 1 2-Trichloroethane	N.D.	0.0005	0.002	0.005
Trichloroethene	N.D.	0.0005	0.002	0.005
Trichlorofluoromethane	N.D.	0.0007	0.002	0.005
Vin l Chloride	N.D.	0.0006	0.002	0.005
lene (Total)	N.D.	0.001	0.002	0.005
Batch number: Q183112AA	Sample number(s): 9872060-9872064			
Acetone	N.D.	0.30	0.80	1.0
Ben ene	N.D.	0.025	0.10	0.25
Bromodichloromethane	N.D.	0.020	0.050	0.25
Bromoform	N.D.	0.25	0.40	0.50
Bromomethane	N.D.	0.035	0.10	0.25
2-Butanone	N.D.	0.050	0.20	0.50
Carbon Disulfide	N.D.	0.030	0.10	0.25
Carbon Tetrachloride	N.D.	0.025	0.10	0.25
Chloroben ene	N.D.	0.025	0.10	0.25
Chloroethane	N.D.	0.050	0.20	0.25
Chloroform	N.D.	0.030	0.10	0.25
Chloromethane	N.D.	0.030	0.10	0.25
C clohexane	N.D.	0.025	0.10	0.25
C clohexanone	N.D.	1.3	5.0	13
1 2-Dibromo-3-chloropropane	N.D.	0.020	0.050	0.25
Dibromochloromethane	N.D.	0.020	0.050	0.25
1 2-Dibromoethane	N.D.	0.020	0.050	0.25
1 2-Dichloroben ene	N.D.	0.025	0.10	0.25
1 3-Dichloroben ene	N.D.	0.025	0.10	0.25
1 4-Dichloroben ene	N.D.	0.020	0.050	0.25
Dichlorodifluoromethane	N.D.	0.030	0.10	0.25
1 1-Dichloroethane	N.D.	0.025	0.10	0.25
1 2-Dichloroethane	N.D.	0.030	0.10	0.25
1 1-Dichloroethene	N.D.	0.025	0.10	0.25
cis-1 2-Dichloroethene	N.D.	0.025	0.10	0.25
trans-1 2-Dichloroethene	N.D.	0.025	0.10	0.25
1 2-Dichloropropane	N.D.	0.025	0.10	0.25
cis-1 3-Dichloropropene	N.D.	0.020	0.050	0.25
trans-1 3-Dichloropropene	N.D.	0.015	0.050	0.25
Eth lben ene	N.D.	0.020	0.050	0.25
Freon 113	N.D.	0.030	0.10	0.50
2-Hexanone	N.D.	0.050	0.20	0.50
Isoprop lben ene	N.D.	0.020	0.050	0.25

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

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Quality Control Summary

Client Name: Tidewater Inc.
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Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Meth l Acetate	N.D.	0.050	0.20	0.25
Meth l Tertiar But l Ether	N.D.	0.025	0.10	0.25
4-Meth l-2-pentanone	N.D.	0.050	0.20	0.50
Meth lc clohexane	N.D.	0.030	0.10	0.25
Meth lene Chloride	N.D.	0.10	0.20	0.25
St rene	N.D.	0.015	0.050	0.25
1 1 2 2-Tetrachloroethane	N.D.	0.020	0.050	0.25
Tetrachloroethene	N.D.	0.025	0.10	0.25
Toluene	N.D.	0.030	0.10	0.25
1 2 4-Trichloroben ene	N.D.	0.25	0.40	0.50
1 1 1-Trichloroethane	N.D.	0.030	0.10	0.25
1 1 2-Trichloroethane	N.D.	0.025	0.10	0.25
Trichloroethene	N.D.	0.025	0.10	0.25
Trichlorofluoromethane	N.D.	0.035	0.10	0.25
Vin l Chloride	N.D.	0.030	0.10	0.25
lene (Total)	N.D.	0.050	0.10	0.25
	ug/l	ug/l	ug/l	ug/l
Batch number: H183094AA	Sample number(s): 9872059			
Acetone	N.D.	0.9	2.0	5.0
Ben ene	N.D.	0.05	0.2	0.5
Bromodichloromethane	N.D.	0.05	0.2	0.5
Bromoform	N.D.	0.3	0.5	1.0
Bromomethane	N.D.	0.07	0.2	0.5
2-Butanone	N.D.	0.6	2.0	5.0
Carbon Disulfide	N.D.	0.06	0.2	1.0
Carbon Tetrachloride	N.D.	0.07	0.2	0.5
Chloroben ene	N.D.	0.06	0.2	0.5
Chloroethane	N.D.	0.07	0.2	0.5
Chloroform	N.D.	0.09	0.2	0.5
Chloromethane	N.D.	0.06	0.2	0.5
C clohexane	N.D.	0.05	0.2	0.5
C clohexanone	N.D.	1.8	7.2	25
1 2-Dibromo-3-chloropropane	N.D.	0.1	0.4	0.5
Dibromochloromethane	N.D.	0.07	0.2	0.5
1 2-Dibromoethane	N.D.	0.06	0.2	0.5
1 2-Dichloroben ene	N.D.	0.06	0.2	0.5
1 3-Dichloroben ene	N.D.	0.06	0.2	0.5
1 4-Dichloroben ene	N.D.	0.07	0.2	0.5
Dichlorodifluoromethane	N.D.	0.05	0.2	0.5
1 1-Dichloroethane	N.D.	0.07	0.2	0.5
1 2-Dichloroethane	N.D.	0.05	0.2	0.5
1 1-Dichloroethene	N.D.	0.06	0.2	0.5
cis-1 2-Dichloroethene	N.D.	0.05	0.2	0.5
trans-1 2-Dichloroethene	N.D.	0.06	0.2	0.5

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

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Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	ug/l	ug/l	ug/l	ug/l
1 2-Dichloropropane	N.D.	0.06	0.2	0.5
cis-1 3-Dichloropropene	N.D.	0.05	0.2	0.5
trans-1 3-Dichloropropene	N.D.	0.06	0.2	0.5
Eth lben ene	N.D.	0.06	0.2	0.5
Freon 113	N.D.	0.06	0.2	0.5
2-Hexanone	N.D.	0.6	2.0	5.0
Isoprop lben ene	N.D.	0.05	0.2	0.5
Meth l Acetate	N.D.	0.1	0.2	1.0
Meth l Tertiar But l Ether	N.D.	0.05	0.2	0.5
4-Meth l-2-Pentanone	N.D.	0.7	2.0	5.0
Meth lc clohexane	N.D.	0.05	0.2	0.5
Meth lene Chloride	N.D.	0.07	0.2	0.5
St rene	N.D.	0.05	0.2	0.5
1 1 2 2-Tetrachloroethane	N.D.	0.07	0.2	0.5
Tetrachloroethene	N.D.	0.06	0.2	0.5
Toluene	N.D.	0.07	0.2	0.5
1 2 4-Trichloroben ene	N.D.	0.06	0.2	0.5
1 1 1-Trichloroethane	N.D.	0.06	0.2	0.5
1 1 2-Trichloroethane	N.D.	0.06	0.2	0.5
Trichloroethene	N.D.	0.06	0.2	0.5
Trichlorofluoromethane	N.D.	0.05	0.2	0.5
Vin l Chloride	N.D.	0.1	0.2	0.5
lene (Total)	N.D.	0.1	0.4	0.5
	mg/kg	mg/kg	mg/kg	mg/kg
Batch number: 18302SLC026	Sample number(s): 9872060-9872063			
Aniline	N.D.	0.17	0.33	0.50
Ben l alcohol	N.D.	0.17	0.33	0.50
4-Bromophen l-phen lether	N.D.	0.020	0.040	0.050
Carba ole	N.D.	0.017	0.033	0.037
4-Chloro-3-meth lphenol	N.D.	0.017	0.033	0.037
4-Chloroaniline	N.D.	0.033	0.067	0.17
bis(2-Chloroethox)methane	N.D.	0.017	0.033	0.037
bis(2-Chloroeth l)ether	N.D.	0.023	0.047	0.050
2-Chloronaphthalene	N.D.	0.007	0.013	0.033
2-Chlorophenol	N.D.	0.017	0.033	0.037
4-Chlorophen l-phen lether	N.D.	0.017	0.033	0.037
2 2 ox bis(1-Chloropropane)	N.D.	0.017	0.033	0.037
Diben ofuran	N.D.	0.017	0.033	0.037
1 2-Dichloroben ene	N.D.	0.020	0.040	0.050
1 3-Dichloroben ene	N.D.	0.017	0.033	0.037
1 4-Dichloroben ene	N.D.	0.017	0.033	0.037
3 3 Dichloroben idine	N.D.	0.10	0.20	0.33
2 4-Dichlorophenol	N.D.	0.017	0.033	0.037
Dieth lphthalate	N.D.	0.067	0.13	0.17

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

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Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
2 4-Dimeth lphenol	N.D.	0.017	0.033	0.037
Dimeth lphthalate	N.D.	0.067	0.13	0.17
4 6-Dinitro-2-meth lphenol	N.D.	0.17	0.33	0.50
2 4-Dinitrophenol	N.D.	0.37	0.73	1.0
2 4-Dinitrotoluene	N.D.	0.067	0.13	0.17
2 6-Dinitrotoluene	N.D.	0.020	0.040	0.050
Hexachloroben ene	N.D.	0.003	0.007	0.017
Hexachlorobutadiene	N.D.	0.020	0.040	0.050
Hexachloroc clopentadiene	N.D.	0.17	0.33	0.50
Hexachloroethane	N.D.	0.033	0.067	0.17
Isophorone	N.D.	0.017	0.033	0.037
2-Meth lnaphthalene	N.D.	0.010	0.020	0.033
2-Meth lphenol	N.D.	0.027	0.053	0.067
4-Meth lphenol	N.D.	0.020	0.040	0.050
2-Nitroaniline	N.D.	0.020	0.040	0.050
3-Nitroaniline	N.D.	0.067	0.13	0.17
4-Nitroaniline	N.D.	0.067	0.13	0.17
Nitroben ene	N.D.	0.027	0.053	0.067
2-Nitrophenol	N.D.	0.017	0.033	0.037
4-Nitrophenol	N.D.	0.17	0.33	0.50
N-Nitroso-di-n-prop lamine	N.D.	0.020	0.040	0.050
N-Nitrosodiphen lamine	N.D.	0.017	0.033	0.037
Di-n-oct lphthalate	N.D.	0.067	0.13	0.17
Pentachlorophenol	N.D.	0.037	0.13	0.17
Phenol	N.D.	0.023	0.047	0.050
P ridine	N.D.	0.067	0.13	0.17
1 2 4-Trichloroben ene	N.D.	0.017	0.033	0.037
2 4 5-Trichlorophenol	N.D.	0.020	0.040	0.050
2 4 6-Trichlorophenol	N.D.	0.020	0.040	0.050
Batch number: 18302SLE026	Sample number(s): 9872060-9872063			
Acenaphthene	N.D.	0.0007	0.001	0.002
Acenaphth lene	N.D.	0.0003	0.001	0.002
Anthracene	N.D.	0.0007	0.001	0.002
Ben o(a)anthracene	N.D.	0.0007	0.001	0.002
Ben o(a)p rene	N.D.	0.0007	0.001	0.002
Ben o(b)fluoranthene	N.D.	0.0007	0.001	0.002
Ben o(g h i)per lene	N.D.	0.0007	0.001	0.002
Ben o( )fluoranthene	N.D.	0.0007	0.001	0.002
Di-n-but lphthalate	N.D.	0.007	0.013	0.020
Chr sene	N.D.	0.0003	0.001	0.002
Diben (a h)anthracene	N.D.	0.0007	0.001	0.002
1 4-Dioxane	N.D.	0.0007	0.001	0.002
bis(2-Eth lhex l)phthalate	0.010	0.010	0.020	0.023
Fluoranthene	N.D.	0.0007	0.001	0.002

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

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Quality Control Summary

Client Name: Tidewater Inc.
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Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Fluorene	N.D.	0.0007	0.001	0.002
Indeno(1 2 3-cd)p rene	N.D.	0.0007	0.001	0.002
Naphthalene	N.D.	0.001	0.003	0.003
Phenanthrene	N.D.	0.0007	0.001	0.002
P rene	N.D.	0.0007	0.001	0.002
Batch number: 18302SLH026	Sample number(s): 9872064-9872065			
Acenaphthene	0.002	0.0007	0.001	0.002
Acenaphth lene	N.D.	0.0003	0.001	0.002
Anthracene	0.0007	0.0007	0.001	0.002
Ben o(a)anthracene	N.D.	0.0007	0.001	0.002
Ben o(a)p rene	N.D.	0.0007	0.001	0.002
Ben o(b)fluoranthene	N.D.	0.0007	0.001	0.002
Ben o(g h i)per lene	N.D.	0.0007	0.001	0.002
Ben o( )fluoranthene	N.D.	0.0007	0.001	0.002
Di-n-but lphthalate	N.D.	0.007	0.013	0.020
Chr sene	N.D.	0.0003	0.001	0.002
Diben (a h)anthracene	N.D.	0.0007	0.001	0.002
1 4-Dioxane	N.D.	0.0007	0.001	0.002
bis(2-Eth hex l)phthalate	N.D.	0.010	0.020	0.023
Fluoranthene	N.D.	0.0007	0.001	0.002
Fluorene	0.002	0.0007	0.001	0.002
Indeno(1 2 3-cd)p rene	N.D.	0.0007	0.001	0.002
Naphthalene	0.031	0.001	0.003	0.003
Phenanthrene	0.003	0.0007	0.001	0.002
P rene	N.D.	0.0007	0.001	0.002
Batch number: 18302SLI026	Sample number(s): 9872064-9872065			
Aniline	N.D.	0.17	0.33	0.50
Ben l alcohol	N.D.	0.17	0.33	0.50
4-Bromophen l-phen lether	N.D.	0.020	0.040	0.050
Carba ole	N.D.	0.017	0.033	0.037
4-Chloro-3-meth lphenol	N.D.	0.017	0.033	0.037
4-Chloroaniline	N.D.	0.033	0.067	0.17
bis(2-Chloroethox)methane	N.D.	0.017	0.033	0.037
bis(2-Chloroeth l)ether	N.D.	0.023	0.047	0.050
2-Chloronaphthalene	N.D.	0.007	0.013	0.033
2-Chlorophenol	N.D.	0.017	0.033	0.037
4-Chlorophen l-phen lether	N.D.	0.017	0.033	0.037
2 2-ox bis(1-Chloropropane)	N.D.	0.017	0.033	0.037
Diben ofuran	N.D.	0.017	0.033	0.037
1 2-Dichloroben ene	N.D.	0.020	0.040	0.050
1 3-Dichloroben ene	N.D.	0.017	0.033	0.037
1 4-Dichloroben ene	N.D.	0.017	0.033	0.037
3 3-Dichloroben idine	N.D.	0.10	0.20	0.33
2 4-Dichlorophenol	N.D.	0.017	0.033	0.037

- Outside of specification
-This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Dieth phthalate	N.D.	0.067	0.13	0.17
2 4-Dimeth phenol	N.D.	0.017	0.033	0.037
Dimeth phthalate	N.D.	0.067	0.13	0.17
4 6-Dinitro-2-meth phenol	N.D.	0.17	0.33	0.50
2 4-Dinitrophenol	N.D.	0.37	0.73	1.0
2 4-Dinitrotoluene	N.D.	0.067	0.13	0.17
2 6-Dinitrotoluene	N.D.	0.020	0.040	0.050
Hexachloroben ene	N.D.	0.003	0.007	0.017
Hexachlorobutadiene	N.D.	0.020	0.040	0.050
Hexachloroc clopentadiene	N.D.	0.17	0.33	0.50
Hexachloroethane	N.D.	0.033	0.067	0.17
Isophorone	N.D.	0.017	0.033	0.037
2-Meth lnaphthalene	0.012	0.010	0.020	0.033
2-Meth lphenol	N.D.	0.027	0.053	0.067
4-Meth lphenol	N.D.	0.020	0.040	0.050
2-Nitroaniline	N.D.	0.020	0.040	0.050
3-Nitroaniline	N.D.	0.067	0.13	0.17
4-Nitroaniline	N.D.	0.067	0.13	0.17
Nitroben ene	N.D.	0.027	0.053	0.067
2-Nitrophenol	N.D.	0.017	0.033	0.037
4-Nitrophenol	N.D.	0.17	0.33	0.50
N-Nitroso-di-n-prop lamine	N.D.	0.020	0.040	0.050
N-Nitrosodiphen lamine	N.D.	0.017	0.033	0.037
Di-n-oct lphthalate	N.D.	0.067	0.13	0.17
Pentachlorophenol	N.D.	0.037	0.13	0.17
Phenol	N.D.	0.023	0.047	0.050
P ridine	N.D.	0.067	0.13	0.17
1 2 4-Trichloroben ene	N.D.	0.017	0.033	0.037
2 4 5-Trichlorophenol	N.D.	0.020	0.040	0.050
2 4 6-Trichlorophenol	N.D.	0.020	0.040	0.050
Batch number: 18317SLB026	Sample number(s): 9872065			
Aniline	N.D.	0.17	0.33	0.50
Ben l alcohol	N.D.	0.17	0.33	0.50
4-Bromophen l-phen lether	N.D.	0.020	0.040	0.050
Carba ole	N.D.	0.017	0.033	0.037
4-Chloro-3-meth lphenol	N.D.	0.017	0.033	0.037
4-Chloroaniline	N.D.	0.033	0.067	0.17
bis(2-Chloroethox)methane	N.D.	0.017	0.033	0.037
bis(2-Chloroeth l)ether	N.D.	0.023	0.047	0.050
2-Chloronaphthalene	N.D.	0.007	0.013	0.033
2-Chlorophenol	N.D.	0.017	0.033	0.037
4-Chlorophen l-phen lether	N.D.	0.017	0.033	0.037
2 2 ox bis(1-Chloropropane)	N.D.	0.017	0.033	0.037
Diben ofuran	N.D.	0.017	0.033	0.037

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
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REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
1 2-Dichloroben ene	N.D.	0.020	0.040	0.050
1 3-Dichloroben ene	N.D.	0.017	0.033	0.037
1 4-Dichloroben ene	N.D.	0.017	0.033	0.037
3 3 -Dichloroben idine	N.D.	0.10	0.20	0.33
2 4-Dichlorophenol	N.D.	0.017	0.033	0.037
Dieth phthalate	N.D.	0.067	0.13	0.17
2 4-Dimeth phenol	N.D.	0.017	0.033	0.037
Dimeth phthalate	N.D.	0.067	0.13	0.17
4 6-Dinitro-2-meth phenol	N.D.	0.17	0.33	0.50
2 4-Dinitrophenol	N.D.	0.37	0.73	1.0
2 4-Dinitrotoluene	N.D.	0.067	0.13	0.17
2 6-Dinitrotoluene	N.D.	0.020	0.040	0.050
Hexachloroben ene	N.D.	0.003	0.007	0.017
Hexachlorobutadiene	N.D.	0.020	0.040	0.050
Hexachloroc clopentadiene	N.D.	0.17	0.33	0.50
Hexachloroethane	N.D.	0.033	0.067	0.17
Isophorone	N.D.	0.017	0.033	0.037
2-Meth naphthalene	N.D.	0.010	0.020	0.033
2-Meth phenol	N.D.	0.027	0.053	0.067
4-Meth phenol	N.D.	0.020	0.040	0.050
2-Nitroaniline	N.D.	0.020	0.040	0.050
3-Nitroaniline	N.D.	0.067	0.13	0.17
4-Nitroaniline	N.D.	0.067	0.13	0.17
Nitroben ene	N.D.	0.027	0.053	0.067
2-Nitrophenol	N.D.	0.017	0.033	0.037
4-Nitrophenol	N.D.	0.17	0.33	0.50
N-Nitroso-di-n-prop lamine	N.D.	0.020	0.040	0.050
N-Nitrosodiphen lamine	N.D.	0.017	0.033	0.037
Di-n-oct phthalate	N.D.	0.067	0.13	0.17
Pentachlorophenol	N.D.	0.037	0.13	0.17
Phenol	N.D.	0.023	0.047	0.050
P ridine	N.D.	0.067	0.13	0.17
1 2 4-Trichloroben ene	N.D.	0.017	0.033	0.037
2 4 5-Trichlorophenol	N.D.	0.020	0.040	0.050
2 4 6-Trichlorophenol	N.D.	0.020	0.040	0.050
Batch number: 18317SLC026	Sample number(s): 9872065			
Acenaphthene	N.D.	0.0007	0.001	0.002
Acenaphth lene	0.0003	0.0003	0.001	0.002
Anthracene	N.D.	0.0007	0.001	0.002
Ben o(a)anthracene	N.D.	0.0007	0.001	0.002
Ben o(a)p rene	N.D.	0.0007	0.001	0.002
Ben o(b)fluoranthene	N.D.	0.0007	0.001	0.002
Ben o(g h i)per lene	N.D.	0.0007	0.001	0.002
Ben o( )fluoranthene	N.D.	0.0007	0.001	0.002

Outside of specification
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(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Di-n-but phthalate	N.D.	0.007	0.013	0.020
Chr sene	N.D.	0.0003	0.001	0.002
Diben (a h)anthracene	N.D.	0.0007	0.001	0.002
1 4-Dioxane	N.D.	0.0007	0.001	0.002
bis(2-Eth lhex l)phthalate	0.018	0.010	0.020	0.023
Fluoranthene	N.D.	0.0007	0.001	0.002
Fluorene	N.D.	0.0007	0.001	0.002
Indeno(1 2 3-cd)p rene	N.D.	0.0007	0.001	0.002
Naphthalene	N.D.	0.001	0.003	0.003
Phenanthrene	N.D.	0.0007	0.001	0.002
P rene	N.D.	0.0007	0.001	0.002
	ug/kg	ug/kg	ug/kg	ug/kg
Batch number: 183030010A	Sample number(s): 9872060-9872065			
2 4-D	N.D.	12	24	36
Dalapon	N.D.	44	88	90
2 4-DB	N.D.	9.8	20	21
Dicamba	N.D.	4.0	8.0	12
Dinoseb	N.D.	9.0	18	24
2 4-DP (Dichloroprop)	N.D.	9.0	18	20
MCPA	N.D.	760	1 500	2 500
MCPP (Mecoprop)	N.D.	3 800	7 600	7 700
2 4 5-T	N.D.	0.82	1.6	1.7
2 4 5-TP	N.D.	0.75	1.5	1.7
	mg/kg	mg/kg	mg/kg	mg/kg
Batch number: 183040031A	Sample number(s): 9872060-9872065			
PCB-1016	N.D.	0.0036	0.010	0.017
PCB-1221	N.D.	0.0046	0.010	0.017
PCB-1232	N.D.	0.0080	0.016	0.017
PCB-1242	N.D.	0.0033	0.010	0.017
PCB-1248	N.D.	0.0033	0.010	0.017
PCB-1254	N.D.	0.0033	0.010	0.017
PCB-1260	N.D.	0.0049	0.010	0.017
PCB-1262	N.D.	0.0033	0.010	0.017
PCB-1268	N.D.	0.0033	0.010	0.017
	ug/kg	ug/kg	ug/kg	ug/kg
Batch number: 183020030A	Sample number(s): 9872060-9872065			
Aldrin	N.D.	0.17	0.60	0.83
Alpha BHC	N.D.	0.17	0.60	0.83
Beta BHC	N.D.	0.44	0.90	1.0
Gamma BHC - Lindane	N.D.	0.21	0.60	0.83
Alpha Chlordane	N.D.	0.17	0.60	0.83
Chlordane	N.D.	4.0	8.0	17
Gamma Chlordane	N.D.	0.25	0.60	0.83

Outside of specification
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(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	ug/kg	ug/kg	ug/kg	ug/kg
p p-DDD	N.D.	0.33	1.2	1.7
p p-DDE	N.D.	0.33	1.2	1.7
p p-DDT	N.D.	0.79	1.6	1.7
Delta BHC	N.D.	0.45	0.90	1.0
Dieldrin	N.D.	0.33	1.2	1.7
Endosulfan I	N.D.	0.22	0.60	0.83
Endosulfan II	N.D.	1.1	2.2	2.3
Endosulfan Sulfate	N.D.	0.33	1.2	1.7
Endrin	N.D.	0.68	1.4	1.7
Endrin Aldeh de	N.D.	0.33	1.2	1.7
Endrin Ketone	N.D.	0.60	1.8	2.0
Heptachlor	N.D.	0.31	0.62	0.83
Heptachlor Epoxide	N.D.	0.17	0.60	0.83
Methox chlor	N.D.	1.8	6.5	6.7
Toxaphene	N.D.	14	28	33
	mg/kg	mg/kg	mg/kg	mg/kg
Batch number: 183041063701	Sample number(s): 9872060-9872065			
Thorium	N.D.	8.38	20.0	50.0
Batch number: 183041063701A	Sample number(s): 9872060-9872065			
Aluminum	N.D.	33.4	64.0	80.0
Antimon	N.D.	0.126	0.200	0.400
Arsenic	N.D.	0.134	0.320	0.400
Ber llium	N.D.	0.0228	0.0800	0.100
Cadmium	N.D.	0.0504	0.100	0.200
Chromium	N.D.	0.334	0.640	0.800
Cobalt	N.D.	0.0584	0.100	0.200
Copper	N.D.	3.58	6.40	8.00
Iron	N.D.	7.50	16.0	20.0
Lead	N.D.	0.0504	0.150	0.600
Magnesium	N.D.	3.14	10.0	20.0
Manganese	N.D.	0.396	1.00	2.00
Nic el	N.D.	0.340	0.640	0.800
Potassium	N.D.	36.2	64.0	80.0
Silver	N.D.	0.0406	0.0800	0.100
Sodium	N.D.	80.4	144	180
Thallium	N.D.	0.0392	0.0800	0.100
Uranium	N.D.	0.0392	0.100	0.100
Vanadium	N.D.	0.0858	0.160	0.200
inc	N.D.	1.21	2.40	3.00
Batch number: 183041063701B	Sample number(s): 9872060-9872065			
Calcium	N.D.	68.2	112	140
Selenium	N.D.	0.130	0.320	0.400
Batch number: 183041063701D	Sample number(s): 9872060-9872065			

Outside of specification
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REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Barium	N.D.	0.386	0.640	0.800
Batch number: 183041063801	Sample number(s): 9872060-9872065			
Mercur	N.D.	0.0312	0.0667	0.133

Analysis Name	Result	DL**	LOD	LOQ
	mg/kg	mg/kg	mg/kg	mg/kg
Batch number: 18302007	Sample number(s): 9872060-9872065			
2378-TCDD	N.D.	0.000000133	0.000000300	0.00000100
12378-PeCDD	N.D.	0.000000321	0.00000100	0.00000500
123478-HxCDD	N.D.	0.000000250	0.00000100	0.00000500
123678-HxCDD	N.D.	0.000000250	0.00000100	0.00000500
123789-HxCDD	N.D.	0.000000250	0.00000100	0.00000500
1234678-HpCDD	N.D.	0.000000250	0.00000100	0.00000500
OCDD	N.D.	0.00000138	0.00000300	0.0000100
2378-TCDF-Conf	N.D.	0.000000151	0.000000310	0.00000100
12378-PeCDF	N.D.	0.000000250	0.00000100	0.00000500
23478-PeCDF	N.D.	0.000000250	0.00000100	0.00000500
123478-HxCDF	N.D.	0.000000250	0.00000100	0.00000500
123678-HxCDF	N.D.	0.000000250	0.00000100	0.00000500
123789-HxCDF	N.D.	0.000000250	0.00000100	0.00000500
234678-HxCDF	N.D.	0.000000250	0.00000100	0.00000500
1234678-HpCDF	N.D.	0.000000250	0.00000100	0.00000500
1234789-HpCDF	N.D.	0.000000250	0.00000100	0.00000500
OCDF	N.D.	0.000000543	0.00000200	0.0000100

LCS/LCSD

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B183101AA	Sample number(s): 9872065								
Acetone	0.150	0.116	0.150	0.136	78	91	36-164	16	20
Ben ene	0.0200	0.0201	0.0200	0.0203	101	101	77-121	1	20
Bromodichloromethane	0.0200	0.0198	0.0200	0.0196	99	98	75-127	1	20
Bromoform	0.0200	0.0171	0.0200	0.0161	86	81	67-132	6	20
Bromomethane	0.0200	0.0160	0.0200	0.0164	80	82	53-143	3	20
2-Butanone	0.150	0.111	0.150	0.129	74	86	51-148	15	20
Carbon Disulfide	0.0200	0.0143	0.0200	0.0145	72	72	63-132	1	20
Carbon Tetrachloride	0.0200	0.0201	0.0200	0.0201	100	101	70-135	0	20
Chloroben ene	0.0200	0.0196	0.0200	0.0198	98	99	79-120	1	20
Chloroethane	0.0200	0.0176	0.0200	0.0178	88	89	59-139	1	20

Outside of specification
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(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroform	0.0200	0.0206	0.0200	0.0206	103	103	78-123	0	20
Chloromethane	0.0200	0.0190	0.0200	0.0187	95	94	50-136	1	20
C clohexane	0.0200	0.0209	0.0200	0.0210	105	105	67-131	0	20
C clohexanone	0.500	0.431	0.500	0.490	86	98	30-156	13	20
1 2-Dibromo-3-chloropropane	0.0200	0.0190	0.0200	0.0163	95	81	61-132	15	20
Dibromochloromethane	0.0200	0.0187	0.0200	0.0180	93	90	74-126	4	20
1 2-Dibromoethane	0.0200	0.0199	0.0200	0.0188	99	94	78-122	6	20
1 2-Dichloroben ene	0.0200	0.0194	0.0200	0.0196	97	98	78-121	1	20
1 3-Dichloroben ene	0.0200	0.0191	0.0200	0.0193	95	97	77-121	1	20
1 4-Dichloroben ene	0.0200	0.0193	0.0200	0.0195	97	97	75-120	1	20
Dichlorodifluoromethane	0.0200	0.0177	0.0200	0.0177	88	88	29-149	0	20
1 1-Dichloroethane	0.0200	0.0207	0.0200	0.0210	103	105	76-125	1	20
1 2-Dichloroethane	0.0200	0.0209	0.0200	0.0204	105	102	73-128	2	20
1 1-Dichloroethene	0.0200	0.0215	0.0200	0.0217	107	108	70-131	1	20
cis-1 2-Dichloroethene	0.0200	0.0213	0.0200	0.0215	106	107	77-123	1	20
trans-1 2-Dichloroethene	0.0200	0.0207	0.0200	0.0208	103	104	74-125	1	20
1 2-Dichloropropane	0.0200	0.0210	0.0200	0.0212	105	106	76-123	1	20
cis-1 3-Dichloropropene	0.0200	0.0201	0.0200	0.0199	100	99	74-126	1	20
trans-1 3-Dichloropropene	0.0200	0.0187	0.0200	0.0180	94	90	71-130	4	20
Eth lben ene	0.0200	0.0195	0.0200	0.0197	98	99	76-122	1	20
Freon 113	0.0200	0.0231	0.0200	0.0233	115	116	66-136	1	20
2-Hexanone	0.100	0.0832	0.100	0.0688	83	69	53-145	19	20
Isoprop lben ene	0.0200	0.0196	0.0200	0.0201	98	100	68-134	3	20
Meth l Acetate	0.0200	0.0216	0.0200	0.0181	108	91	53-144	17	20
Meth l Tertiar But l Ether	0.0200	0.0184	0.0200	0.0173	92	87	73-125	6	20
4-Meth l-2-pentanone	0.100	0.0921	0.100	0.0748	92	75	65-135	21	20
Meth lc clohexane	0.0200	0.0222	0.0200	0.0222	111	111	66-133	0	20
Meth lene Chloride	0.0200	0.0196	0.0200	0.0195	98	97	70-128	1	20
St rene	0.0200	0.0186	0.0200	0.0187	93	93	76-124	0	20
1 1 2 2-Tetrachloroethane	0.0200	0.0201	0.0200	0.0181	101	91	70-124	10	20
Tetrachloroethene	0.0200	0.0170	0.0200	0.0171	85	86	73-128	1	20
Toluene	0.0200	0.0193	0.0200	0.0196	96	98	77-121	2	20
1 2 4-Trichloroben ene	0.0200	0.0195	0.0200	0.0192	97	96	67-129	1	20
1 1 1-Trichloroethane	0.0200	0.0177	0.0200	0.0179	89	90	73-130	1	20
1 1 2-Trichloroethane	0.0200	0.0206	0.0200	0.0196	103	98	78-121	5	20
Trichloroethene	0.0200	0.0205	0.0200	0.0204	102	102	77-123	0	20
Trichlorofluoromethane	0.0200	0.0198	0.0200	0.0199	99	99	62-140	0	20
Vin l Chloride	0.0200	0.0186	0.0200	0.0186	93	93	56-135	0	20
lene (Total)	0.0600	0.0589	0.0600	0.0593	98	99	78-124	1	20
Batch number: Q183112AA	Sample number(s): 9872060-9872064								
Acetone	7.50	5.94	7.50	6.59	79	88	36-164	10	20
Ben ene	1.00	1.02	1.00	1.12	102	112	77-121	9	20
Bromodichloromethane	1.00	1.02	1.00	1.13	102	113	75-127	10	20

Outside of specification
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(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bromoform	1.00	0.983	1.00	1.09	98	109	67-132	10	20
Bromomethane	1.00	0.641	1.00	0.644	64	64	53-143	1	20
2-Butanone	7.50	5.39	7.50	6.00	72	80	51-148	11	20
Carbon Disulfide	1.00	0.885	1.00	0.953	89	95	63-132	7	20
Carbon Tetrachloride	1.00	1.08	1.00	1.16	108	116	70-135	7	20
Chloroben ene	1.00	0.990	1.00	1.09	99	109	79-120	10	20
Chloroethane	1.00	0.670	1.00	0.703	67	70	59-139	5	20
Chloroform	1.00	0.994	1.00	1.10	99	110	78-123	10	20
Chloromethane	1.00	0.681	1.00	0.752	68	75	50-136	10	20
C clohexane	1.00	0.993	1.00	1.08	99	108	67-131	8	20
C clohexanone	25	22.61	25	24.46	90	98	30-156	8	20
1 2-Dibromo-3-chloropropane	1.00	0.783	1.00	0.913	78	91	61-132	15	20
Dibromochloromethane	1.00	1.10	1.00	1.24	110	124	74-126	12	20
1 2-Dibromoethane	1.00	0.998	1.00	1.11	100	111	78-122	11	20
1 2-Dichloroben ene	1.00	0.992	1.00	1.11	99	111	78-121	12	20
1 3-Dichloroben ene	1.00	0.991	1.00	1.13	99	113	77-121	13	20
1 4-Dichloroben ene	1.00	0.986	1.00	1.10	99	110	75-120	11	20
Dichlorodifluoromethane	1.00	0.640	1.00	0.659	64	66	29-149	3	20
1 1-Dichloroethane	1.00	0.976	1.00	1.05	98	105	76-125	7	20
1 2-Dichloroethane	1.00	0.973	1.00	1.07	97	107	73-128	10	20
1 1-Dichloroethene	1.00	1.04	1.00	1.14	104	114	70-131	9	20
cis-1 2-Dichloroethene	1.00	1.07	1.00	1.16	107	116	77-123	8	20
trans-1 2-Dichloroethene	1.00	1.09	1.00	1.17	109	117	74-125	7	20
1 2-Dichloropropane	1.00	0.986	1.00	1.10	99	110	76-123	11	20
cis-1 3-Dichloropropene	1.00	1.02	1.00	1.11	102	111	74-126	9	20
trans-1 3-Dichloropropene	1.00	0.945	1.00	1.05	94	105	71-130	11	20
Eth lben ene	1.00	0.961	1.00	1.06	96	106	76-122	10	20
Freon 113	1.00	1.08	1.00	1.18	108	118	66-136	9	20
2-Hexanone	5.00	4.16	5.00	4.70	83	94	53-145	12	20
Isoprop lben ene	1.00	0.997	1.00	1.11	100	111	68-134	11	20
Meth l Acetate	1.00	0.920	1.00	1.04	92	104	53-144	12	20
Meth l Tertiar But l Ether	1.00	0.958	1.00	1.06	96	106	73-125	10	20
4-Meth l-2-pentanone	5.00	4.52	5.00	4.98	90	100	65-135	10	20
Meth lc clohexane	1.00	1.05	1.00	1.13	105	113	66-133	8	20
Meth lene Chloride	1.00	1.05	1.00	1.14	105	114	70-128	8	20
St rene	1.00	0.943	1.00	1.06	94	106	76-124	11	20
1 1 2 2-Tetrachloroethane	1.00	0.893	1.00	1.06	89	106	70-124	18	20
Tetrachloroethene	1.00	1.02	1.00	1.11	102	111	73-128	8	20
Toluene	1.00	1.01	1.00	1.10	101	110	77-121	9	20
1 2 4-Trichloroben ene	1.00	1.15	1.00	1.24	115	124	67-129	7	20
1 1 1-Trichloroethane	1.00	1.00	1.00	1.08	100	108	73-130	7	20
1 1 2-Trichloroethane	1.00	1.03	1.00	1.13	103	113	78-121	9	20
Trichloroethene	1.00	1.01	1.00	1.11	101	111	77-123	10	20
Trichlorofluoromethane	1.00	0.666	1.00	0.744	67	74	62-140	11	20

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vin l Chloride	1.00	0.751	1.00	0.791	75	79	56-135	5	20
lene (Total)	3.00	2.98	3.00	3.33	99	111	78-124	11	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: H183094AA	Sample number(s): 9872059								
Acetone	37.5	29.68			79		39-160		
Ben ene	5.00	4.53			91		79-120		
Bromodichloromethane	5.00	4.69			94		79-125		
Bromoform	5.00	4.93			99		66-130		
Bromomethane	5.00	3.37			67		53-141		
2-Butanone	37.5	32.99			88		56-143		
Carbon Disulfide	5.00	3.85			77		64-133		
Carbon Tetrachloride	5.00	4.53			91		72-136		
Chloroben ene	5.00	4.91			98		82-118		
Chloroethane	5.00	3.49			70		60-138		
Chloroform	5.00	4.67			93		79-124		
Chloromethane	5.00	3.38			68		50-139		
C clohexane	5.00	3.95			79		71-130		
C clohexanone	125	98.72	125	110.52	79	88	26-147	11	30
1 2-Dibromo-3-chloropropane	5.00	4.31			86		62-128		
Dibromochloromethane	5.00	4.97			99		74-126		
1 2-Dibromoethane	5.00	4.98			100		77-121		
1 2-Dichloroben ene	5.00	4.91			98		80-119		
1 3-Dichloroben ene	5.00	4.94			99		80-119		
1 4-Dichloroben ene	5.00	4.96			99		79-118		
Dichlorodifluoromethane	5.00	2.82			56		32-152		
1 1-Dichloroethane	5.00	4.55			91		77-125		
1 2-Dichloroethane	5.00	4.51			90		73-128		
1 1-Dichloroethene	5.00	4.52			90		71-131		
cis-1 2-Dichloroethene	5.00	4.67			93		78-123		
trans-1 2-Dichloroethene	5.00	4.54			91		75-124		
1 2-Dichloropropane	5.00	4.70			94		78-122		
cis-1 3-Dichloropropene	5.00	4.68			94		75-124		
trans-1 3-Dichloropropene	5.00	5.06			101		73-127		
Eth lben ene	5.00	4.93			99		79-121		
Freon 113	5.00	3.96			79		70-136		
2-Hexanone	25	21.46			86		57-139		
Isoprop lben ene	5.00	4.92			98		72-131		
Meth l Acetate	5.00	3.99			80		56-136		
Meth l Tertiar But l Ether	5.00	4.45			89		71-124		
4-Meth l-2-Pentanone	25	21.42			86		67-130		
Meth lc clohexane	5.00	3.74			75		72-132		
Meth lene Chloride	5.00	4.34			87		74-124		
St rene	5.00	5.04			101		78-123		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1 1 2 2-Tetrachloroethane	5.00	4.96			99		71-121		
Tetrachloroethene	5.00	4.82			96		74-129		
Toluene	5.00	4.89			98		80-121		
1 2 4-Trichloroben ene	5.00	4.54			91		69-130		
1 1 1-Trichloroethane	5.00	4.54			91		74-131		
1 1 2-Trichloroethane	5.00	5.18			104		80-119		
Trichloroethene	5.00	4.52			90		79-123		
Trichlorofluoromethane	5.00	3.45			69		65-141		
Vin l Chloride	5.00	3.47			69		58-137		
lene (Total)	15	14.9			99		79-121		
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 18302SLC026	Sample number(s): 9872060-9872063								
Aniline	1.67	1.15			69		44-113		
Ben l alcohol	1.67	1.42			85		29-122		
4-Bromophen l-phen lether	1.67	1.31			79		46-124		
Carba ole	1.67	1.42			85		50-123		
4-Chloro-3-meth lphenol	1.67	1.58			95		45-122		
4-Chloroaniline	1.67	1.01			61		17-106		
bis(2-Chloroethox)methane	1.67	1.49			90		36-121		
bis(2-Chloroeth l)ether	1.67	1.49			89		31-120		
2-Chloronaphthalene	1.67	1.48			89		41-114		
2-Chlorophenol	1.67	1.39			84		34-121		
4-Chlorophen l-phen lether	1.67	1.34			80		45-121		
2 2 -ox bis(1-Chloropropane)	1.67	1.09			65		68-112		
Diben ofuran	1.67	1.41			84		44-120		
1 2-Dichloroben ene	1.67	1.43			86		33-117		
1 3-Dichloroben ene	1.67	1.37			82		30-115		
1 4-Dichloroben ene	1.67	1.44			87		31-115		
3 3 -Dichloroben idine	1.67	1.13			68		22-121		
2 4-Dichlorophenol	1.67	1.60			96		40-122		
Dieth lphthalate	1.67	1.30			78		50-124		
2 4-Dimeth lphenol	1.67	1.20			72		30-127		
Dimeth lphthalate	1.67	1.35			81		48-124		
4 6-Dinitro-2-meth lphenol	1.67	1.69			101		29-132		
2 4-Dinitrophenol	3.33	3.25			97		41-136		
2 4-Dinitrotoluene	1.67	1.47			88		48-126		
2 6-Dinitrotoluene	1.67	1.52			91		46-124		
Hexachloroben ene	1.67	1.28			77		45-122		
Hexachlorobutadiene	1.67	1.52			91		32-123		
Hexachloroc clopentadiene	3.33	2.12			64		37-161		
Hexachloroethane	1.67	1.29			77		28-117		
Isophorone	1.67	1.44			86		30-122		
2-Meth lnaphthalene	1.67	1.45			87		38-122		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Meth phenol	1.67	1.58			95		32-122		
4-Meth phenol	1.67	1.56			94		42-126		
2-Nitroaniline	1.67	1.53			92		44-127		
3-Nitroaniline	1.67	1.45			87		33-119		
4-Nitroaniline	1.67	1.11			66		54-103		
Nitroben ene	1.67	1.35			81		34-122		
2-Nitrophenol	1.67	1.61			97		36-123		
4-Nitrophenol	1.67	1.08			65		30-132		
N-Nitroso-di-n-prop lamine	1.67	1.27			76		36-120		
N-Nitrosodiphen lamine	1.67	1.40			84		38-127		
Di-n-oct lphthalate	1.67	1.47			88		45-140		
Pentachlorophenol	1.67	1.20			72		25-133		
Phenol	1.67	1.59			96		34-121		
P ridine	1.67	0.927			56		57-96		
1 2 4-Trichloroben ene	1.67	1.48			89		34-118		
2 4 5-Trichlorophenol	1.67	1.46			88		41-124		
2 4 6-Trichlorophenol	1.67	1.53			92		39-126		
Batch number: 18302SLE026	Sample number(s): 9872060-9872063								
Acenaphthene	0.0333	0.0352			106		44-111		
Acenaphth lene	0.0333	0.0318			95		39-116		
Anthracene	0.0333	0.0336			101		50-114		
Ben o(a)anthracene	0.0333	0.0349			105		54-122		
Ben o(a)p rene	0.0333	0.0353			106		50-125		
Ben o(b)fluoranthene	0.0333	0.0351			105		53-128		
Ben o(g h i)per lene	0.0333	0.0330			99		49-127		
Ben o( )fluoranthene	0.0333	0.0347			104		56-123		
Di-n-but lphthalate	0.0333	0.0389			117		68-145		
Chr sene	0.0333	0.0332			100		57-118		
Diben (a h)anthracene	0.0333	0.0370			111		50-129		
1 4-Dioxane	0.0333	0.0196			59		70-130		
bis(2-Eth lhex l)phthalate	0.0333	0.0438			131		67-150		
Fluoranthene	0.0333	0.0337			101		55-119		
Fluorene	0.0333	0.0335			101		47-114		
Indeno(1 2 3-cd)p rene	0.0333	0.0360			108		49-130		
Naphthalene	0.0333	0.0318			95		38-111		
Phenanthrene	0.0333	0.0327			98		49-113		
P rene	0.0333	0.0332			99		55-117		
Batch number: 18302SLH026	Sample number(s): 9872064-9872065								
Acenaphthene	0.0333	0.0342			103		44-111		
Acenaphth lene	0.0333	0.0277			83		39-116		
Anthracene	0.0333	0.0307			92		50-114		
Ben o(a)anthracene	0.0333	0.0301			90		54-122		
Ben o(a)p rene	0.0333	0.0327			98		50-125		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Ben o(b)fluoranthene	0.0333	0.0339			102		53-128		
Ben o(g h i)per lene	0.0333	0.0324			97		49-127		
Ben o( )fluoranthene	0.0333	0.0326			98		56-123		
Di-n-but lphthalate	0.0333	0.0371			111		68-145		
Chr sene	0.0333	0.0315			94		57-118		
Diben (a h)anthracene	0.0333	0.0320			96		50-129		
1 4-Dioxane	0.0333	0.0228			69		70-130		
bis(2-Eth lhex l)phthalate	0.0333	0.0392			118		67-150		
Fluoranthene	0.0333	0.0311			93		55-119		
Fluorene	0.0333	0.0302			91		47-114		
Indeno(1 2 3-cd)p rene	0.0333	0.0319			96		49-130		
Naphthalene	0.0333	0.0367			110		38-111		
Phenanthrene	0.0333	0.0312			94		49-113		
P rene	0.0333	0.0301			90		55-117		
Batch number: 18302SLI026	Sample number(s): 9872064-9872065								
Aniline	1.67	0.843			51		44-113		
Ben l alcohol	1.67	1.42			85		29-122		
4-Bromophen l-phen lether	1.67	1.58			95		46-124		
Carba ole	1.67	1.58			95		50-123		
4-Chloro-3-meth lphenol	1.67	1.53			92		45-122		
4-Chloroaniline	1.67	0.936			56		17-106		
bis(2-Chloroethox)methane	1.67	1.48			89		36-121		
bis(2-Chloroeth l)ether	1.67	1.32			79		31-120		
2-Chloronaphthalene	1.67	1.54			92		41-114		
2-Chlorophenol	1.67	1.41			84		34-121		
4-Chlorophen l-phen lether	1.67	1.54			92		45-121		
2 2 -ox bis(1-Chloropropane)	1.67	1.30			78		68-112		
Diben ofuran	1.67	1.58			95		44-120		
1 2-Dichloroben ene	1.67	1.33			80		33-117		
1 3-Dichloroben ene	1.67	1.35			81		30-115		
1 4-Dichloroben ene	1.67	1.37			82		31-115		
3 3 -Dichloroben idine	1.67	1.23			74		22-121		
2 4-Dichlorophenol	1.67	1.51			91		40-122		
Dieth lphthalate	1.67	1.60			96		50-124		
2 4-Dimeth lphenol	1.67	1.16			70		30-127		
Dimeth lphthalate	1.67	1.60			96		48-124		
4 6-Dinitro-2-meth lphenol	1.67	1.56			94		29-132		
2 4-Dinitrophenol	3.33	3.39			102		41-136		
2 4-Dinitrotoluene	1.67	1.58			95		48-126		
2 6-Dinitrotoluene	1.67	1.56			94		46-124		
Hexachloroben ene	1.67	1.57			94		45-122		
Hexachlorobutadiene	1.67	1.54			93		32-123		
Hexachloroc clopentadiene	3.33	2.51			75		37-161		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachloroethane	1.67	1.35			81		28-117		
Isophorone	1.67	1.46			88		30-122		
2-Meth naphthalene	1.67	1.49			89		38-122		
2-Meth phenol	1.67	1.40			84		32-122		
4-Meth phenol	1.67	1.39			83		42-126		
2-Nitroaniline	1.67	1.60			96		44-127		
3-Nitroaniline	1.67	1.50			90		33-119		
4-Nitroaniline	1.67	1.30			78		54-103		
Nitroben ene	1.67	1.43			86		34-122		
2-Nitrophenol	1.67	1.48			89		36-123		
4-Nitrophenol	1.67	1.47			88		30-132		
N-Nitroso-di-n-prop lamine	1.67	1.35			81		36-120		
N-Nitrosodiphen lamine	1.67	1.56			94		38-127		
Di-n-oct phthalate	1.67	1.65			99		45-140		
Pentachlorophenol	1.67	1.64			99		25-133		
Phenol	1.67	1.42			85		34-121		
P ridine	1.67	0.993			60		57-96		
1 2 4-Trichloroben ene	1.67	1.48			89		34-118		
2 4 5-Trichlorophenol	1.67	1.66			99		41-124		
2 4 6-Trichlorophenol	1.67	1.65			99		39-126		
Batch number: 18317SLB026	Sample number(s): 9872065								
Aniline	1.67	0.873	1.67	0.851	52	51	44-113	3	30
Ben l alcohol	1.67	1.38	1.67	1.42	83	85	29-122	3	20
4-Bromophen l-phen lether	1.67	1.31	1.67	1.24	78	75	46-124	5	20
Carba ole	1.67	1.46	1.67	1.40	88	84	50-123	5	20
4-Chloro-3-meth lphenol	1.67	1.55	1.67	1.62	93	97	45-122	5	20
4-Chloroaniline	1.67	0.391	1.67	0.466	23	28	17-106	18	20
bis(2-Chloroethox)methane	1.67	1.34	1.67	1.36	80	81	36-121	2	20
bis(2-Chloroeth l)ether	1.67	1.23	1.67	1.24	74	74	31-120	1	20
2-Chloronaphthalene	1.67	1.29	1.67	1.28	78	77	41-114	1	20
2-Chlorophenol	1.67	1.50	1.67	1.45	90	87	34-121	4	20
4-Chlorophen l-phen lether	1.67	1.37	1.67	1.35	82	81	45-121	2	20
2 2 -ox bis(1-Chloropropane)	1.67	1.21	1.67	1.21	73	73	68-112	0	30
Diben ofuran	1.67	1.41	1.67	1.35	84	81	44-120	4	20
1 2-Dichloroben ene	1.67	1.23	1.67	1.21	74	73	33-117	2	20
1 3-Dichloroben ene	1.67	1.28	1.67	1.21	77	73	30-115	6	20
1 4-Dichloroben ene	1.67	1.30	1.67	1.19	78	71	31-115	10	20
3 3 -Dichloroben idine	1.67	0.994	1.67	0.989	60	59	22-121	1	20
2 4-Dichlorophenol	1.67	1.47	1.67	1.52	88	91	40-122	4	20
Dieth phthalate	1.67	1.40	1.67	1.41	84	84	50-124	0	20
2 4-Dimeth lphenol	1.67	1.14	1.67	1.19	68	71	30-127	4	20
Dimeth lphthalate	1.67	1.41	1.67	1.34	85	80	48-124	5	20
4 6-Dinitro-2-meth lphenol	1.67	1.36	1.67	1.33	82	80	29-132	2	20

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2 4-Dinitrophenol	3.33	2.48	3.33	2.55	74	77	41-136	3	30
2 4-Dinitrotoluene	1.67	1.43	1.67	1.46	86	88	48-126	2	20
2 6-Dinitrotoluene	1.67	1.44	1.67	1.47	86	88	46-124	2	20
Hexachloroben ene	1.67	1.36	1.67	1.25	82	75	45-122	9	20
Hexachlorobutadiene	1.67	1.33	1.67	1.38	80	83	32-123	4	20
Hexachloroc clopentadiene	3.33	2.14	3.33	1.99	64	60	37-161	7	30
Hexachloroethane	1.67	1.34	1.67	1.26	81	76	28-117	6	20
Isophorone	1.67	1.29	1.67	1.32	77	79	30-122	3	20
2-Meth naphthalene	1.67	1.36	1.67	1.42	82	85	38-122	4	20
2-Meth phenol	1.67	1.31	1.67	1.33	79	80	32-122	1	20
4-Meth phenol	1.67	1.47	1.67	1.48	88	89	42-126	1	20
2-Nitroaniline	1.67	1.50	1.67	1.52	90	91	44-127	1	20
3-Nitroaniline	1.67	1.27	1.67	1.30	76	78	33-119	2	20
4-Nitroaniline	1.67	1.10	1.67	1.07	66	64	54-103	3	30
Nitroben ene	1.67	1.27	1.67	1.28	76	77	34-122	1	20
2-Nitrophenol	1.67	1.41	1.67	1.41	85	84	36-123	0	20
4-Nitrophenol	1.67	1.46	1.67	1.36	88	81	30-132	7	20
N-Nitroso-di-n-prop lamine	1.67	1.28	1.67	1.28	77	77	36-120	0	20
N-Nitrosodiphen lamine	1.67	1.43	1.67	1.36	86	81	38-127	5	20
Di-n-oct lphthalate	1.67	1.46	1.67	1.48	88	89	45-140	1	20
Pentachlorophenol	1.67	1.15	1.67	1.11	69	66	25-133	4	20
Phenol	1.67	1.28	1.67	1.26	77	75	34-121	1	20
P ridine	1.67	0.921	1.67	0.834	55	50	57-96	10	30
1 2 4-Trichloroben ene	1.67	1.35	1.67	1.36	81	82	34-118	1	20
2 4 5-Trichlorophenol	1.67	1.49	1.67	1.41	89	85	41-124	5	20
2 4 6-Trichlorophenol	1.67	1.46	1.67	1.48	87	89	39-126	1	20
Batch number: 18317SLC026	Sample number(s): 9872065								
Acenaphthene	0.0333	0.0300			90		44-111		
Acenaphth lene	0.0333	0.0284			85		39-116		
Anthracene	0.0333	0.0295			88		50-114		
Ben o(a)anthracene	0.0333	0.0308			92		54-122		
Ben o(a)p rene	0.0333	0.0315			95		50-125		
Ben o(b)fluoranthene	0.0333	0.0305			92		53-128		
Ben o(g h i)per lene	0.0333	0.0296			89		49-127		
Ben o( )fluoranthene	0.0333	0.0308			92		56-123		
Di-n-but lphthalate	0.0333	0.0396			119		68-145		
Chr sene	0.0333	0.0291			87		57-118		
Diben (a h)anthracene	0.0333	0.0331			99		50-129		
1 4-Dioxane	0.0333	0.0224			67		70-130		
bis(2-Eth hex l)phthalate	0.0333	0.0437			131		67-150		
Fluoranthene	0.0333	0.0287			86		55-119		
Fluorene	0.0333	0.0294			88		47-114		
Indeno(1 2 3-cd)p rene	0.0333	0.0325			98		49-130		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Naphthalene	0.0333	0.0287			86		38-111		
Phenanthrene	0.0333	0.0288			87		49-113		
P rene	0.0333	0.0293			88		55-117		
	ug/kg	**ug/kg**	**ug/kg**	**ug/kg**					
Batch number: 183030010A	Sample number(s): 9872060-9872065								
2 4-D	83.33	85.1			102		28-144		
Dalapon	208.58	171.65			82		15-115		
2 4-DB	83.75	85.95			103		34-142		
Dicamba	8.33	7.85			94		38-132		
Dinoseb	41.75	7.74			19		10-115		
2 4-DP (Dichloroprop)	83.42	85.36			102		28-155		
MCPA	8366.67	8855.01			106		28-135		
MCPP (Mecoprop)	8352.5	10262.49			123		35-143		
2 4 5-T	8.33	8.94			107		31-138		
2 4 5-TP	8.33	9.21			111		43-129		
	mg/kg	**mg/kg**	**mg/kg**	**mg/kg**					
Batch number: 183040031A	Sample number(s): 9872060-9872065								
PCB-1016	0.167	0.162			97		47-134		
PCB-1260	0.167	0.181			109		53-140		
	ug/kg	**ug/kg**	**ug/kg**	**ug/kg**					
Batch number: 183020030A	Sample number(s): 9872060-9872065								
Aldrin	3.33	2.78			84		45-136		
Alpha BHC	3.40	2.75			81		45-137		
Beta BHC	3.33	3.13			94		50-136		
Gamma BHC - Lindane	3.40	2.87			84		49-135		
Alpha Chlordane	3.33	2.88			86		54-133		
Gamma Chlordane	3.33	2.91			87		53-135		
p p-DDD	6.80	6.23			92		56-139		
p p-DDE	6.67	5.63			84		56-134		
p p-DDT	6.80	6.49			95		50-141		
Delta BHC	3.33	2.95			89		47-139		
Dieldrin	6.80	5.94			87		56-136		
Endosulfan I	3.40	2.32			68		53-132		
Endosulfan II	6.67	4.99			75		53-134		
Endosulfan Sulfate	6.73	6.27			93		55-136		
Endrin	6.73	6.20			92		57-140		
Endrin Aldeh de	6.73	4.97			74		35-137		
Endrin Ketone	6.67	6.33			95		55-136		
Heptachlor	3.40	2.85			84		47-136		
Heptachlor Epoxide	3.33	2.89			87		52-136		
Methox chlor	33.87	31.37			93		52-143		

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 183041063701	Sample number(s): 9872060-9872065								
Thorium	50	50.96			102		92-114		
Batch number: 183041063701A	Sample number(s): 9872060-9872065								
Aluminum	200	206.16			103		78-124		
Antimon	0.600	0.586			98		72-124		
Arsenic	1.00	1.09			109		82-118		
Ber llium	0.400	0.411			103		80-120		
Cadmium	0.500	0.538			108		84-116		
Chromium	5.00	5.47			109		83-119		
Cobalt	25	27.35			109		84-115		
Copper	5.00	5.68			114		84-119		
Iron	100	105.67			106		81-124		
Lead	1.50	1.59			106		84-118		
Magnesium	200	207.39			104		80-123		
Manganese	5.00	5.01			100		85-116		
Nic el	5.00	5.68			114		84-119		
Potassium	1000	1069.21			107		85-119		
Silver	5.00	5.37			107		83-118		
Sodium	1000	1066.62			107		79-125		
Thallium	0.200	0.199			100		83-118		
Uranium	5.00	5.23			105		80-120		
Vanadium	5.00	5.54			111		82-116		
inc	50	56.88			114		82-119		
Batch number: 183041063701B	Sample number(s): 9872060-9872065								
Calcium	400	420.05			105		86-118		
Selenium	1.00	0.979			98		80-119		
Batch number: 183041063701D	Sample number(s): 9872060-9872065								
Barium	5.00	5.49			110		86-116		
Batch number: 183041063801	Sample number(s): 9872060-9872065								
Mercur	0.100	0.0940			94		80-124		
	%	%	%	%					
Batch number: 18303820001A	Sample number(s): 9872060-9872065								
Moisture	89.5	89.43			100		99-101		

Analysis Name	OPR Spike Added mg/kg	OPR Conc mg/kg	OPRD Spike Added mg/kg	OPRD Conc mg/kg	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 18302007	Sample number(s): 9872060-9872065								

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

OPR/OPRD (continued)

Analysis Name	OPR Spike Added mg/kg	OPR Conc mg/kg	OPRD Spike Added mg/kg	OPRD Conc mg/kg	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
2378-TCDD	0.0000200	0.0000170			85		70-128		
12378-PeCDD	0.000100	0.0000996			100		74-125		
123478-HxCDD	0.000100	0.000104			104		72-131		
123678-HxCDD	0.000100	0.000104			104		74-134		
123789-HxCDD	0.000100	0.000101			101		71-138		
1234678-HpCDD	0.000100	0.000104			104		76-125		
OCDD	0.000200	0.000210			105		73-135		
2378-TCDF-Conf	0.0000200	0.0000214			107		75-135		
12378-PeCDF	0.000100	0.000102			102		77-131		
23478-PeCDF	0.000100	0.000104			104		75-128		
123478-HxCDF	0.000100	0.000102			102		77-130		
123678-HxCDF	0.000100	0.000103			103		73-134		
123789-HxCDF	0.000100	0.0000997			100		74-135		
234678-HxCDF	0.000100	0.000101			101		74-133		
1234678-HpCDF	0.000100	0.000105			105		73-135		
1234789-HpCDF	0.000100	0.000105			105		72-131		
OCDF	0.000200	0.000211			106		66-144		

MS/MSD

Unspiked (UNSPK) the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 183041063801	Sample number(s): 9872060-9872065 UNSPK: 9872060									
Mercury	0.977	0.158	1.51	0.162	1.79	334 (2)	500 (2)	80-124	17	20

Laboratory Duplicate

Background (BKG) the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Batch number: 183041063801	Sample number(s): 9872060-9872065 BKG: 9872060			
Mercury	0.977	1.54	45 (1)	20

Outside of specification
This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
(3) The surrogate spike amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Anal sis Report.

Anal sis Name: VOCs- Solid b 8260C
Batch number: B183101AA

	Dibromofluoromethane %Rec	LOD (mg/kg)	1,2-Dichloroethane-d4 %Rec	LOD (mg/kg)	Toluene-d8 %Rec	LOD (mg/kg)	4-Bromofluorobenzene %Rec	LOD (mg/kg)
9872065	104	0.005	105	0.005	122	0.005	69	0.005
Blan	102	0.005	106	0.005	96	0.005	94	0.005
LCS	103	0.005	109	0.005	99	0.005	100	0.005
LCSD	102	0.005	105	0.005	99	0.005	100	0.005
Limits:	78-119		71-136		85-116		79-119	

Anal sis Name: VOCs- 25ml Water b 8260C
Batch number: H183094AA

	Dibromofluoromethane %Rec	LOD (ug/l)	1,2-Dichloroethane-d4 %Rec	LOD (ug/l)	Toluene-d8 %Rec	LOD (ug/l)	4-Bromofluorobenzene %Rec	LOD (ug/l)
9872059	96	0.5	102	0.5	103	0.5	97	0.5
Blan	97	0.5	103	0.5	103	0.5	98	0.5
LCS	96	0.5	102	0.5	104	0.5	100	0.5
LCSD	96	0.5	104	0.5	104	0.5	99	0.5
Limits:	80-119		81-118		89-112		85-114	

Anal sis Name: VOCs- Solid b 8260C
Batch number: Q183112AA

	Dibromofluoromethane %Rec	LOD (mg/kg)	1,2-Dichloroethane-d4 %Rec	LOD (mg/kg)	Toluene-d8 %Rec	LOD (mg/kg)	4-Bromofluorobenzene %Rec	LOD (mg/kg)
9872060	60	0.2 (3)	67	0.2 (3)	62	0.2 (3)	60	0.2 (3)
9872061	63	0.2 (3)	69	0.2 (3)	63	0.2 (3)	63	0.2 (3)
9872062	64	0.2 (3)	71	0.2 (3)	65	0.2 (3)	61	0.2 (3)
9872063	70	0.3 (3)	77	0.3 (3)	73	0.3 (3)	67	0.3 (3)
9872064	50	0.3 (3)	56	0.3 (3)	51	0.3 (3)	47	0.3 (3)
Blan	89	0.3 (3)	98	0.3 (3)	90	0.3 (3)	84	0.3 (3)
LCS	94	0.3 (3)	100	0.3 (3)	92	0.3 (3)	91	0.3 (3)
LCSD	104	0.3 (3)	109	0.3 (3)	102	0.3 (3)	101	0.3 (3)
Limits:	78-119		71-136		85-116		79-119	

Anal sis Name: SVOA 8270D (microwave)
Batch number: 18302SLC026

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Anal sis Report.

Anal sis Name: SVOA 8270D (microwave)
Batch number: 18302SLC026

	Phenol-d6		2-Fluorophenol		2,4,6-Tribromophenol		Nitrobenzene-d5		2-Fluorobiphenyl		Terphenyl-d14	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872060	90	0.7	96	0.7	72	0.7	90	0.3	90	0.3	81	0.3
9872061	84	0.7	87	0.7	68	0.7	94	0.3	83	0.3	87	0.3
9872062	86	0.7	90	0.7	67	0.7	95	0.3	81	0.3	82	0.3
9872063	80	0.7	81	0.7	71	0.7	94	0.3	95	0.3	94	0.3
Blan	94	1	102	1	88	1	90	0.7	89	0.7	89	0.7
LCS	87	1	90	1	74	1	82	0.7	77	0.7	78	0.7
Limits:	47-120		35-115		39-132		37-122		44-115		54-127	

Anal sis Name: SIM SVOAs 8270D (microwave)
Batch number: 18302SLE026

	Fluoranthene-d10		Benzo(a)pyrene-d12		1-Methylnaphthalene-d10	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872060	104	1 (3)	86	1 (3)	103	1 (3)
9872060DL	103	5 (3)	89	5 (3)	98	5 (3)
9872061	99	1 (3)	86	1 (3)	98	1 (3)
9872061DL	97	6 (3)	88	6 (3)	96	6 (3)
9872062	107	1 (3)	78	1 (3)	88	1 (3)
9872062DL	136	5 (3)	72	5 (3)	118	5 (3)
9872063	86	0.1 (3)	61	0.1 (3)	83	0.1 (3)
Blan	97	0.2 (3)	88	0.2 (3)	93	0.2 (3)
LCS	98	0.2 (3)	90	0.2 (3)	94	0.2 (3)
Limits:	54-122		54-122		61-111	

Anal sis Name: SIM SVOAs 8270D (microwave)
Batch number: 18302SLH026

	Fluoranthene-d10		Benzo(a)pyrene-d12		1-Methylnaphthalene-d10	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872064	122	1 (3)	80	1 (3)	84	1 (3)
9872065	85	0.1 (3)	73	0.1 (3)	78	0.1 (3)
9872065DL	85	1 (3)	61	1 (3)	79	1 (3)
Blan	88	0.2 (3)	84	0.2 (3)	88	0.2 (3)
LCS	86	0.2 (3)	82	0.2 (3)	85	0.2 (3)
Limits:	54-122		54-122		61-111	

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Anal sis Report.

Anal sis Name: SVOA 8270D (microwave)
Batch number: 18302SLI026

	Phenol-d6		2-Fluorophenol		2,4,6-Tribromophenol		Nitrobenzene-d5		2-Fluorobiphenyl		Terphenyl-d14	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872064	82	7	84	7	82	7	88	3	91	3	100	3
9872065	62	0.7	58	0.7	45	0.7	70	0.3	77	0.3	83	0.3
Blan	81	1	87	1	87	1	84	0.7	86	0.7	100	0.7
LCS	81	1	87	1	95	1	86	0.7	94	0.7	98	0.7
Limits:	47-120		35-115		39-132		37-122		44-115		54-127	

Anal sis Name: SVOA 8270D (microwave)
Batch number: 18317SLB026

	Phenol-d6		2-Fluorophenol		2,4,6-Tribromophenol		Nitrobenzene-d5		2-Fluorobiphenyl		Terphenyl-d14	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872065RE	59	0.7	60	0.7	54	0.7	62	0.3	64	0.3	67	0.3
Blan	73	1	78	1	96	1	74	0.7	75	0.7	82	0.7
LCS	80	1	85	1	98	1	77	0.7	75	0.7	82	0.7
LCSD	79	1	83	1	98	1	77	0.7	75	0.7	81	0.7
Limits:	47-120		35-115		39-132		37-122		44-115		54-127	

Anal sis Name: SIM SVOAs 8270D (microwave)
Batch number: 18317SLC026

	Fluoranthene-d10		Benzo(a)pyrene-d12		1-Methylnaphthalene-d10	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872065RE	81	0.1 (3)	61	0.1 (3)	74	0.1 (3)
Blan	107	0.2 (3)	96	0.2 (3)	107	0.2 (3)
LCS	90	0.2 (3)	82	0.2 (3)	94	0.2 (3)
Limits:	54-122		54-122		61-111	

Anal sis Name: ocpest 8081B w/GPC 3546
Batch number: 183020030A

	Tetrachloro-m-xylene-D1		Decachlorobiphenyl-D1		Tetrachloro-m-xylene-D2		Decachlorobiphenyl-D2	
	%Rec	LOD (ug/kg)	%Rec	LOD (ug/kg)	%Rec	LOD (ug/kg)	%Rec	LOD (ug/kg)
9872060	345	10	143	10 (3)	88	10	124	10 (3)
9872061	561	10	129	10 (3)	102	10	96	10 (3)
9872062	474	9.9	275	9.9	179	9.9	274	9.9
9872063	83	1.0	144	1.0	71	1.0	53	1.0
9872064	145	50 (3)	283	50 (3)	296	50 (3)	197	50 (3)

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Anal sis Report.

Anal sis Name: ocpest 8081B w/GPC 3546
Batch number: 183020030A

	Tetrachloro-m-xylene-D1 %Rec	LOD (ug/kg)	Decachlorobiphenyl-D1 %Rec	LOD (ug/kg)	Tetrachloro-m-xylene-D2 %Rec	LOD (ug/kg)	Decachlorobiphenyl-D2 %Rec	LOD (ug/kg)
9872065	105	20 (3)	268	20 (3)	90	20 (3)	107	20 (3)
Blan	87	1.0	105	1.0	81	1.0	112	1.0
LCS	87	1.0	102	1.0	85	1.0	109	1.0
Limits:	42-129		39-152		42-129		39-152	

Anal sis Name: Herbicide soils 8151A Master
Batch number: 183030010A

	2,4-DCAA-D1 %Rec	LOD (ug/kg)	2,4-DCAA-D2 %Rec	LOD (ug/kg)
9872060	1031	1 300 (3)	2892	1 300 (3)
9872061	801	1 300 (3)	1127	1 300 (3)
9872062	721	1 300 (3)	816	1 300 (3)
9872063	102	33	112	33
9872064	7220	660 (3)	172	660 (3)
9872065	98	66	128	66
Blan	89	6.7	84	6.7
LCS	95	6.7	97	6.7
Limits:	27-122		27-122	

Anal sis Name: PCBs 8082A/3546
Batch number: 183040031A

	Tetrachloro-m-xylene-D1 %Rec	LOD (mg/kg)	Decachlorobiphenyl-D1 %Rec	LOD (mg/kg)	Tetrachloro-m-xylene-D2 %Rec	LOD (mg/kg)	Decachlorobiphenyl-D2 %Rec	LOD (mg/kg)
9872060	74	0.0049	85	0.0049	69	0.0049	155	0.0049
9872061	74	0.0050	85	0.0050	72	0.0050	117	0.0050
9872062	73	0.0050	273	0.0050	61	0.0050	238	0.0050
9872063	89	0.00099	131	0.00099	88	0.00099	116	0.00099
9872064	109	0.0099	205	0.0099 (3)	77	0.0099	185	0.0099 (3)
9872065	90	0.050 (3)	133	0.050 (3)	92	0.050 (3)	165	0.050 (3)
Blan	107	0.0010	102	0.0010	104	0.0010	102	0.0010
LCS	108	0.0010	106	0.0010	107	0.0010	105	0.0010
Limits:	44-130		45-143		44-130		45-143	

Anal sis Name: Dioxins/Furans in Solids-8290
Batch number: 18302007

 Outside of specification
 This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

REVISED

Quality Control Summary

Client Name: Tidewater Inc.
Reported: 11/29/2018 14:53

Group Number: 2003097

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Anal sis Report.

Anal sis Name: Dioxins/Furans in Solids-8290
Batch number: 18302007

	13C12-2378-TCDD		13C12-12378-PeCDD		13C12-123478-HxCDD		13C12-123678-HxCDD		13C12-123789-HxCDD		13C12-1234678-HpCDD	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872060	57	0.000000298	58	0.000000993	80	0.000000993	74	0.000000993	66	0.000000993	76	0.000000993
9872061	61	0.000000297	61	0.000000991	78	0.000000991	76	0.000000991	72	0.000000991	82	0.000000991
9872062	67	0.000000299	65	0.000000996	83	0.000000996	80	0.000000996	81	0.000000996	84	0.000000996
9872063	97	0.000000296	86	0.000000987	84	0.000000987	83	0.000000987	87	0.000000987	94	0.000000987
9872064	62	0.000000296	62	0.000000986	71	0.000000986	73	0.000000986	74	0.000000986	101	0.00000986
9872065	83	0.000000298	107	0.000000992	85	0.000000992	77	0.000000992	88	0.000000992	109	0.00000992
Blan	92	0.000000300	83	0.00000100	82	0.00000100	79	0.00000100	83	0.00000100	81	0.00000100
OPR	80	0.000000300	69	0.00000100	76	0.00000100	75	0.00000100	77	0.00000100	83	0.00000100
Limits:	40-135		40-135		40-135		40-135		40-135		40-135	

	13C12-OCDD		13C12-12378-PeCDF		13C12-23478-PeCDF		13C12-123478-HxCDF		13C12-123678-HxCDF		13C12-234678-HxCDF	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872060	95	0.0000298	52	0.000000993	44	0.000000993	79	0.000000993	79	0.000000993	56	0.000000993
9872061	108	0.0000297	56	0.000000991	52	0.000000991	77	0.000000991	74	0.000000991	64	0.000000991
9872062	92	0.0000299	59	0.000000996	61	0.000000996	81	0.000000996	80	0.000000996	76	0.000000996
9872063	101	0.0000296	71	0.000000987	78	0.000000987	72	0.000000987	78	0.000000987	74	0.000000987
9872064	114	0.0000296	54	0.000000986	59	0.000000986	71	0.000000986	68	0.000000986	71	0.000000986
9872065	104	0.0000298	87	0.000000992	92	0.000000992	81	0.000000992	79	0.000000992	78	0.000000992
Blan	84	0.00000300	76	0.00000100	98	0.00000100	70	0.00000100	74	0.00000100	67	0.00000100
OPR	86	0.00000300	55	0.00000100	72	0.00000100	62	0.00000100	69	0.00000100	64	0.00000100
Limits:	40-135		40-135		40-135		40-135		40-135		40-135	

	13C12-123789-HxCDF		13C12-1234678-HpCDF		13C12-1234789-HpCDF		13C12-OCDF		13C12-2378-TCDF-Conf	
	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)	%Rec	LOD (mg/kg)
9872060	57	0.000000993	85	0.000000993	70	0.000000993	68	0.00000199	27	0.000000308
9872061	69	0.000000991	82	0.000000991	75	0.000000991	67	0.00000198	35	0.000000307
9872062	79	0.000000996	87	0.000000996	76	0.000000996	70	0.00000199	35	0.000000309
9872063	82	0.000000987	81	0.000000987	78	0.000000987	80	0.00000197	66	0.000000306
9872064	73	0.000000986	74	0.000000986	69	0.000000986	62	0.00000197	38	0.000000306
9872065	80	0.000000992	91	0.000000992	81	0.000000992	75	0.00000198	66	0.000000308
Blan	64	0.00000100	83	0.00000100	64	0.00000100	65	0.00000200	61	0.000000310
OPR	70	0.00000100	85	0.00000100	64	0.00000100	65	0.00000200	68	0.000000310
Limits:	40-135		40-135		40-135		40-135		40-135	

Outside of specification
This limit was used in the evaluation of the final result for the blan
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspi ed result was more than four times the spi e added.
(3) The surrogate spi e amount was less than the LOD.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 43062 Group # 2003091 Sample # 9872059-65

COC # 561374

Client Information

Client: Tidewater

Acct. #:

Project Name/#: GKP Phase I RI OU2/2016-007

PWSID #:

Project Manager: Ryan Wensink

P.O. #: 2016-007-02

Sampler: John C Schroeder

Quote #:

State where samples were collected: New York

For Compliance: Yes ☐ No ☒

Matrix

Soil ☒ Sediment ☐ Tissue ☐ Water ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested

Preservation and Filtration Codes

V

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	VOCs (8260C) Moisture	SVOCs (8270D)	AAs (8270D-SIM)	Inorganics (6020A)	Mercury (7471B)	Pesticides (8081B)	PCBs (8082A)	Herbicides (8151A)	Dioxins Furans (8290A)	Remarks
OU2TB102618-001	102618	0800	X		2	X									trip blank, VOCs only
OU2-1-SU005-06	102618	0930	X		6	X	X	X	X	X	X	X	X	X	subsurface soil
OU2-1-SU005-06-DUP	102618	0930	X		6	X	X	X	X	X	X	X	X	X	subsurface soil, duplicate
OU2-1-SU005-16	102618	1110	X		6	X	X	X	X	X	X	X	X	X	subsurface soil
OU2-1-SU006-05	102618	1455	X		6	X	X	X	X	X	X	X	X	X	subsurface soil
OU2-1-SU006-14	102618	1540	X		6	X	X	X	X	X	X	X	X	X	subsurface soil
OU2-1-SU008-02	102618	1645	X		6	X	X	X	X	X	X	X	X	X	subsurface soil

John C Schroeder 10/26/18

Remarks

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed:

E-mail address: colleen.scott@aecom.com ryan.wensink@tideh2o.net devon.chicoine@aecom.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
John C Schroeder	102618	1830	FedEx	102618	1830
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	10/27/18	9:50

EDD Required? Yes No

If yes, format: contact Ryan Wensink

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ✓ Other ____

Temperature upon receipt 1.0 °C

TIDEWATER INC
RADIOLOGICAL SERVICES

2003097

Location	Great Kills Park	Survey Type	Shipping		Survey Log #	GKP-015
Cooler No	GKP-015	Surveyor	H. White		Date	10/26/18

Shipping Survey

Smear Results in dpm/100 cm²			Dose Rate (microR)	
Location	α Result	β result	Location	γ result
Right	<MDA	<MDA	Right Side	4
Back	<MDA	<MDA	Back Side	4
Left	<MDA	<MDA	Left Side	4
Front Side	<MDA	<MDA	Front Side	4
Top	<MDA	<MDA	Top	4
Bottom	<MDA	<MDA	Bottom	4

Meter	3030 E	MircoRem
Serial No.	217607	19142
Detector	43-10	
Serial No.	229364	
Cal Due Date	9/10/2019	
MDA	2α/200βγ	

Comments

Dose Rate on contact 4

Surveyor:	H. White	10/26/18	Reviewer:	B. Cole	10/26/18
Signature:	Ham White	Date	Signature:	S Cole	Date

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Sample Administration Receipt Documentation Log

Doc Log ID: 231370

Group Number(s): 2003097

Client: Tidewater

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	10/27/2018 9:50
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Ariel Garcia (15 332) at 11:03 on 10/27/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-03	1.0	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-5994
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Volatiles

Fraction: Volatiles by GC/MS

VOCs- 25ml Water by 8260C

		Matrix			
Sample #	Client ID	Liquid	Solid	DF	Comments
9872059	OU2TB102618-001	X		1	Trip Blank
9872060	OU2-1-SU005-06		X	44.09	
9872061	OU2-1-SU005-06-DUP		X	42.81	Field Duplicate Sample
9872062	OU2-1-SU005-16		X	48.36	
9872063	OU2-1-SU006-05		X	59.38	
9872064	OU2-1-SU006-14		X	61.12	
9872065	OU2-1-SU008-02		X	1.05	

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.
See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

(Sample number(s): 9872060-9872061RE, 9872063-9872064RE: Analysis: 11995)
The VOA soil weight is outside the acceptable weight range.
See the VOA Prep Summary Sheet for the affected sample(s).

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

(Sample number(s): 9872059: Analysis: 11996)
The response for a target analyte(s) in the initial and/or continuing calibration verification criteria marginally exceeds the DoD acceptance criteria. Due to the marginal nature of the outlier(s), the data is reported.

(Sample number(s): 9872060RE, 9872062-9872065RE: Analysis: 11995)
The response for a target analyte(s) in the initial and/or continuing calibration verification criteria marginally exceeds the DoD acceptance

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Volatiles

Fraction: Volatiles by GC/MS

criteria. Due to the marginal nature of the outlier(s), the data is reported.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

The % RPD for target analyte(s) in the Laboratory Control Spike/Spike Duplicate is outside the QC acceptance limits as noted on the QC Summary. Since the individual % recovery is within the acceptance limits, the data is reported.

Batch#: B183101AA (Sample number(s): 9872065)
The relative percent difference(s) for the following analyte(s) in the LCS/LCSD is outside the acceptance window: 4-Methyl-2-pentanone

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

Surrogate

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

Batch#: Q183122AA
The recovery(ies) for the following surrogate(s) were below the acceptance window: 1,2-Dichloroethane-d4 (9872060RE, 9872061RE, 9872062RE, 9872063RE, 9872064RE), 4-Bromofluorobenzene (9872060RE, 9872061RE, 9872062RE, 9872063RE, 9872064RE), Dibromofluoromethane (9872060RE, 9872061RE, 9872062RE, 9872063RE, 9872064RE), Toluene-d8 (9872060RE, 9872061RE, 9872062RE, 9872063RE, 9872064RE)

Batch#: Q183112AA (Sample number(s): 9872060-9872064)
The recovery(ies) for the following surrogate(s) were below the acceptance window: 1,2-Dichloroethane-d4 (9872060, 9872061, 9872064), 4-Bromofluorobenzene (9872060, 9872061, 9872062, 9872063, 9872064), Dibromofluoromethane (9872060, 9872061, 9872062, 9872063, 9872064), Toluene-d8 (9872060, 9872061, 9872062, 9872063, 9872064)

Batch#: B183112AA
The recovery(ies) for the following surrogate(s) exceeded the acceptance window: Toluene-d8 (9872065RE)
The recovery(ies) for the following surrogate(s) were below the acceptance window: 4-Bromofluorobenzene (9872065RE)

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Batch#: B183101AA (Sample number(s): 9872065)
The recovery(ies) for the following surrogate(s) exceeded the acceptance window: Toluene-d8 (9872065)
The recovery(ies) for the following surrogate(s) were below the acceptance window: 4-Bromofluorobenzene (9872065)

SAMPLE ANALYSIS:

(Sample number(s): 9872065: Analysis: 11995)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

(Sample number(s): 9872061-9872064: Analysis: 11995)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
Reporting limits were raised due to interference from the sample matrix.

(Sample number(s): 9872059: Analysis: 11996)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

(Sample number(s): 9872060: Analysis: 11995)
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: Tidewater, Inc.
SDG: TID12

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 25ml Water by 8260C	H183094AA	VBLKH96	11/05/2018 22:48
		LCSH96	11/05/2018 21:22
		LCSH97	11/05/2018 21:43
		LCDH97	11/05/2018 22:05
		9872059	11/06/2018 05:57
VOCs- Solid by 8260C	B183101AA	VBLKB93	11/06/2018 20:41
		LCSB93	11/06/2018 21:07
		LCDB93	11/06/2018 21:29
		9872065	11/07/2018 00:50
VOCs- Solid by 8260C	B183112AA	VBLKB97	11/07/2018 10:32
		LCSB97	11/07/2018 09:01
		LCDB97	11/07/2018 09:24
		9872065RE	11/07/2018 11:58
VOCs- Solid by 8260C	Q183112AA	VBLKQ57	11/07/2018 10:18
		LCSQ57	11/07/2018 08:42
		LCDQ57	11/07/2018 09:05
		9872060	11/07/2018 13:59
		9872061	11/07/2018 14:22
		9872062	11/07/2018 14:45
		9872063	11/07/2018 15:07
		9872064	11/07/2018 15:30
VOCs- Solid by 8260C	Q183122AA	VBLKQ62	11/08/2018 10:51
		LCSQ62	11/08/2018 09:20
		LCDQ62	11/08/2018 09:43
		9872060RE	11/08/2018 11:26
		9872061RE	11/08/2018 11:49
		9872062RE	11/08/2018 12:43
		9872063RE	11/08/2018 13:27
		9872064RE	11/08/2018 13:49

Fraction: Volatiles by GC/MS

B183101AA / VBLKB93 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dichlorodifluoromethane	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Chloromethane	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Vinyl Chloride	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Bromomethane	11/06/18	N.D.	mg/kg	0.0007	0.002	0.005
Chloroethane	11/06/18	N.D.	mg/kg	0.001	0.004	0.005
Trichlorofluoromethane	11/06/18	N.D.	mg/kg	0.0007	0.002	0.005
1,1-Dichloroethene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Freon 113	11/06/18	N.D.	mg/kg	0.0006	0.002	0.010
Acetone	11/06/18	N.D.	mg/kg	0.006	0.016	0.020
Carbon Disulfide	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Methyl Acetate	11/06/18	N.D.	mg/kg	0.001	0.004	0.005
Methylene Chloride	11/06/18	N.D.	mg/kg	0.002	0.004	0.005
trans-1,2-Dichloroethene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Methyl Tertiary Butyl Ether	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
1,1-Dichloroethane	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
2-Butanone	11/06/18	N.D.	mg/kg	0.001	0.004	0.010
cis-1,2-Dichloroethene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Chloroform	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
1,1,1-Trichloroethane	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Cyclohexane	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Carbon Tetrachloride	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Benzene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
1,2-Dichloroethane	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
Trichloroethene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Methylcyclohexane	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
1,2-Dichloropropane	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Bromodichloromethane	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
cis-1,3-Dichloropropene	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
4-Methyl-2-pentanone	11/06/18	N.D.	mg/kg	0.001	0.004	0.010
Toluene	11/06/18	N.D.	mg/kg	0.0006	0.002	0.005
trans-1,3-Dichloropropene	11/06/18	N.D.	mg/kg	0.0003	0.001	0.005
1,1,2-Trichloroethane	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Tetrachloroethene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
2-Hexanone	11/06/18	N.D.	mg/kg	0.001	0.004	0.010
Dibromochloromethane	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2-Dibromoethane	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
Chlorobenzene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
Ethylbenzene	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
Xylene (Total)	11/06/18	N.D.	mg/kg	0.001	0.002	0.005
Styrene	11/06/18	N.D.	mg/kg	0.0003	0.001	0.005
Bromoform	11/06/18	N.D.	mg/kg	0.005	0.008	0.010
Isopropylbenzene	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
Cyclohexanone	11/06/18	N.D.	mg/kg	0.025	0.10	0.25
1,1,2,2-Tetrachloroethane	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
1,3-Dichlorobenzene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005

Fraction: Volatiles by GC/MS

B183101AA / VBLKB93 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,4-Dichlorobenzene	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2-Dichlorobenzene	11/06/18	N.D.	mg/kg	0.0005	0.002	0.005
1,2-Dibromo-3-chloropropane	11/06/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2,4-Trichlorobenzene	11/06/18	N.D.	mg/kg	0.005	0.008	0.010

B183112AA / VBLKB97 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dichlorodifluoromethane	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Chloromethane	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Vinyl Chloride	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Bromomethane	11/07/18	N.D.	mg/kg	0.0007	0.002	0.005
Chloroethane	11/07/18	N.D.	mg/kg	0.001	0.004	0.005
Trichlorofluoromethane	11/07/18	N.D.	mg/kg	0.0007	0.002	0.005
1,1-Dichloroethene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Freon 113	11/07/18	N.D.	mg/kg	0.0006	0.002	0.010
Acetone	11/07/18	N.D.	mg/kg	0.006	0.016	0.020
Carbon Disulfide	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Methyl Acetate	11/07/18	N.D.	mg/kg	0.001	0.004	0.005
Methylene Chloride	11/07/18	N.D.	mg/kg	0.002	0.004	0.005
trans-1,2-Dichloroethene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Methyl Tertiary Butyl Ether	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
1,1-Dichloroethane	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
2-Butanone	11/07/18	N.D.	mg/kg	0.001	0.004	0.010
cis-1,2-Dichloroethene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Chloroform	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
1,1,1-Trichloroethane	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Cyclohexane	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Carbon Tetrachloride	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Benzene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
1,2-Dichloroethane	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
Trichloroethene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Methylcyclohexane	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
1,2-Dichloropropane	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Bromodichloromethane	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
cis-1,3-Dichloropropene	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
4-Methyl-2-pentanone	11/07/18	N.D.	mg/kg	0.001	0.004	0.010
Toluene	11/07/18	N.D.	mg/kg	0.0006	0.002	0.005
trans-1,3-Dichloropropene	11/07/18	N.D.	mg/kg	0.0003	0.001	0.005
1,1,2-Trichloroethane	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Tetrachloroethene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
2-Hexanone	11/07/18	N.D.	mg/kg	0.001	0.004	0.010
Dibromochloromethane	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2-Dibromoethane	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
Chlorobenzene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
Ethylbenzene	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005

Fraction: Volatiles by GC/MS

B183112AA / VBLKB97 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Xylene (Total)	11/07/18	N.D.	mg/kg	0.001	0.002	0.005
Styrene	11/07/18	N.D.	mg/kg	0.0003	0.001	0.005
Bromoform	11/07/18	N.D.	mg/kg	0.005	0.008	0.010
Isopropylbenzene	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
Cyclohexanone	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
1,1,2,2-Tetrachloroethane	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
1,3-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
1,4-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.0005	0.002	0.005
1,2-Dibromo-3-chloropropane	11/07/18	N.D.	mg/kg	0.0004	0.001	0.005
1,2,4-Trichlorobenzene	11/07/18	N.D.	mg/kg	0.005	0.008	0.010

Q183112AA / VBLKQ57 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dichlorodifluoromethane	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Chloromethane	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Vinyl Chloride	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Bromomethane	11/07/18	N.D.	mg/kg	0.035	0.10	0.25
Chloroethane	11/07/18	N.D.	mg/kg	0.050	0.20	0.25
Trichlorofluoromethane	11/07/18	N.D.	mg/kg	0.035	0.10	0.25
1,1-Dichloroethene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Freon 113	11/07/18	N.D.	mg/kg	0.030	0.10	0.50
Acetone	11/07/18	N.D.	mg/kg	0.30	0.80	1.0
Carbon Disulfide	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Methyl Acetate	11/07/18	N.D.	mg/kg	0.050	0.20	0.25
Methylene Chloride	11/07/18	N.D.	mg/kg	0.10	0.20	0.25
trans-1,2-Dichloroethene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Methyl Tertiary Butyl Ether	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
1,1-Dichloroethane	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
2-Butanone	11/07/18	N.D.	mg/kg	0.050	0.20	0.50
cis-1,2-Dichloroethene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Chloroform	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
1,1,1-Trichloroethane	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Cyclohexane	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Carbon Tetrachloride	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Benzene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
1,2-Dichloroethane	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
Trichloroethene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Methylcyclohexane	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
1,2-Dichloropropane	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Bromodichloromethane	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
cis-1,3-Dichloropropene	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
4-Methyl-2-pentanone	11/07/18	N.D.	mg/kg	0.050	0.20	0.50
Toluene	11/07/18	N.D.	mg/kg	0.030	0.10	0.25
trans-1,3-Dichloropropene	11/07/18	N.D.	mg/kg	0.015	0.050	0.25

Fraction: Volatiles by GC/MS

Q183112AA / VBLKQ57 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,1,2-Trichloroethane	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Tetrachloroethene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
2-Hexanone	11/07/18	N.D.	mg/kg	0.050	0.20	0.50
Dibromochloromethane	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
1,2-Dibromoethane	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
Chlorobenzene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
Ethylbenzene	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
Xylene (Total)	11/07/18	N.D.	mg/kg	0.050	0.10	0.25
Styrene	11/07/18	N.D.	mg/kg	0.015	0.050	0.25
Bromoform	11/07/18	N.D.	mg/kg	0.25	0.40	0.50
Isopropylbenzene	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
Cyclohexanone	11/07/18	N.D.	mg/kg	1.3	5.0	13
1,1,2,2-Tetrachloroethane	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
1,3-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
1,4-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
1,2-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.025	0.10	0.25
1,2-Dibromo-3-chloropropane	11/07/18	N.D.	mg/kg	0.020	0.050	0.25
1,2,4-Trichlorobenzene	11/07/18	N.D.	mg/kg	0.25	0.40	0.50

Q183122AA / VBLKQ62 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dichlorodifluoromethane	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Chloromethane	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Vinyl Chloride	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Bromomethane	11/08/18	N.D.	mg/kg	0.035	0.10	0.25
Chloroethane	11/08/18	N.D.	mg/kg	0.050	0.20	0.25
Trichlorofluoromethane	11/08/18	N.D.	mg/kg	0.035	0.10	0.25
1,1-Dichloroethene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Freon 113	11/08/18	N.D.	mg/kg	0.030	0.10	0.50
Acetone	11/08/18	N.D.	mg/kg	0.30	0.80	1.0
Carbon Disulfide	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Methyl Acetate	11/08/18	N.D.	mg/kg	0.050	0.20	0.25
Methylene Chloride	11/08/18	N.D.	mg/kg	0.10	0.20	0.25
trans-1,2-Dichloroethene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Methyl Tertiary Butyl Ether	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
1,1-Dichloroethane	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
2-Butanone	11/08/18	N.D.	mg/kg	0.050	0.20	0.50
cis-1,2-Dichloroethene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Chloroform	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
1,1,1-Trichloroethane	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Cyclohexane	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Carbon Tetrachloride	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Benzene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
1,2-Dichloroethane	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
Trichloroethene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25

Fraction: Volatiles by GC/MS

Q183122AA / VBLKQ62 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Methylcyclohexane	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
1,2-Dichloropropane	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Bromodichloromethane	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
cis-1,3-Dichloropropene	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
4-Methyl-2-pentanone	11/08/18	N.D.	mg/kg	0.050	0.20	0.50
Toluene	11/08/18	N.D.	mg/kg	0.030	0.10	0.25
trans-1,3-Dichloropropene	11/08/18	N.D.	mg/kg	0.015	0.050	0.25
1,1,2-Trichloroethane	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Tetrachloroethene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
2-Hexanone	11/08/18	N.D.	mg/kg	0.050	0.20	0.50
Dibromochloromethane	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
1,2-Dibromoethane	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
Chlorobenzene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
Ethylbenzene	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
Xylene (Total)	11/08/18	N.D.	mg/kg	0.050	0.10	0.25
Styrene	11/08/18	N.D.	mg/kg	0.015	0.050	0.25
Bromoform	11/08/18	N.D.	mg/kg	0.25	0.40	0.50
Isopropylbenzene	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
Cyclohexanone	11/08/18	N.D.	mg/kg	1.3	5.0	13
1,1,2,2-Tetrachloroethane	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
1,3-Dichlorobenzene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
1,4-Dichlorobenzene	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
1,2-Dichlorobenzene	11/08/18	N.D.	mg/kg	0.025	0.10	0.25
1,2-Dibromo-3-chloropropane	11/08/18	N.D.	mg/kg	0.020	0.050	0.25
1,2,4-Trichlorobenzene	11/08/18	N.D.	mg/kg	0.25	0.40	0.50

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: TID12
Matrix: LIQUID

Fraction: Volatiles by GC/MS

H183094AA / VBLKH96 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dichlorodifluoromethane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Chloromethane	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Vinyl Chloride	11/05/18	N.D.	ug/l	0.1	0.2	0.5
Bromomethane	11/05/18	N.D.	ug/l	0.07	0.2	0.5
Chloroethane	11/05/18	N.D.	ug/l	0.07	0.2	0.5
Trichlorofluoromethane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
1,1-Dichloroethene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Freon 113	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Acetone	11/05/18	N.D.	ug/l	0.9	2.0	5.0
Carbon Disulfide	11/05/18	N.D.	ug/l	0.06	0.2	1.0
Methyl Acetate	11/05/18	N.D.	ug/l	0.1	0.2	1.0
Methylene Chloride	11/05/18	N.D.	ug/l	0.07	0.2	0.5
trans-1,2-Dichloroethene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Methyl Tertiary Butyl Ether	11/05/18	N.D.	ug/l	0.05	0.2	0.5
1,1-Dichloroethane	11/05/18	N.D.	ug/l	0.07	0.2	0.5
2-Butanone	11/05/18	N.D.	ug/l	0.6	2.0	5.0
cis-1,2-Dichloroethene	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Chloroform	11/05/18	N.D.	ug/l	0.09	0.2	0.5
1,1,1-Trichloroethane	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Cyclohexane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Carbon Tetrachloride	11/05/18	N.D.	ug/l	0.07	0.2	0.5
Benzene	11/05/18	N.D.	ug/l	0.05	0.2	0.5
1,2-Dichloroethane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Trichloroethene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Methylcyclohexane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
1,2-Dichloropropane	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Bromodichloromethane	11/05/18	N.D.	ug/l	0.05	0.2	0.5
cis-1,3-Dichloropropene	11/05/18	N.D.	ug/l	0.05	0.2	0.5
4-Methyl-2-Pentanone	11/05/18	N.D.	ug/l	0.7	2.0	5.0
Toluene	11/05/18	N.D.	ug/l	0.07	0.2	0.5
trans-1,3-Dichloropropene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
1,1,2-Trichloroethane	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Tetrachloroethene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
2-Hexanone	11/05/18	N.D.	ug/l	0.6	2.0	5.0
Dibromochloromethane	11/05/18	N.D.	ug/l	0.07	0.2	0.5
1,2-Dibromoethane	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Chlorobenzene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Ethylbenzene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
Xylene (Total)	11/05/18	N.D.	ug/l	0.1	0.4	0.5
Styrene	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Bromoform	11/05/18	N.D.	ug/l	0.3	0.5	1.0
Isopropylbenzene	11/05/18	N.D.	ug/l	0.05	0.2	0.5
Cyclohexanone	11/05/18	N.D.	ug/l	1.8	7.2	25
1,1,2,2-Tetrachloroethane	11/05/18	N.D.	ug/l	0.07	0.2	0.5
1,3-Dichlorobenzene	11/05/18	N.D.	ug/l	0.06	0.2	0.5

Fraction: Volatiles by GC/MS

H183094AA / VBLKH96 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,4-Dichlorobenzene	11/05/18	N.D.	ug/l	0.07	0.2	0.5
1,2-Dichlorobenzene	11/05/18	N.D.	ug/l	0.06	0.2	0.5
1,2-Dibromo-3-chloropropane	11/05/18	N.D.	ug/l	0.1	0.4	0.5
1,2,4-Trichlorobenzene	11/05/18	N.D.	ug/l	0.06	0.2	0.5

Fraction: Volatiles by GC/MS

B183101AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKB93	106	71 - 136	94	79 - 119	102	78 - 119	96	85 - 116
LCSB93	109	71 - 136	100	79 - 119	103	78 - 119	99	85 - 116
LCDB93	105	71 - 136	100	79 - 119	102	78 - 119	99	85 - 116
9872065	105	71 - 136	69 *	79 - 119	104	78 - 119	122 *	85 - 116

B183112AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKB97	104	71 - 136	94	79 - 119	101	78 - 119	95	85 - 116
LCSB97	104	71 - 136	99	79 - 119	100	78 - 119	99	85 - 116
LCDB97	105	71 - 136	99	79 - 119	102	78 - 119	99	85 - 116
9872065RE	105	71 - 136	60 *	79 - 119	105	78 - 119	134 *	85 - 116

Q183112AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKQ57	98	71 - 136	84	79 - 119	89	78 - 119	90	85 - 116
LCSQ57	100	71 - 136	91	79 - 119	94	78 - 119	92	85 - 116
LCDQ57	109	71 - 136	101	79 - 119	104	78 - 119	102	85 - 116
9872060	67 *	71 - 136	60 *	79 - 119	60 *	78 - 119	62 *	85 - 116
9872061	69 *	71 - 136	63 *	79 - 119	63 *	78 - 119	63 *	85 - 116
9872062	71	71 - 136	61 *	79 - 119	64 *	78 - 119	65 *	85 - 116
9872063	77	71 - 136	67 *	79 - 119	70 *	78 - 119	73 *	85 - 116
9872064	56 *	71 - 136	47 *	79 - 119	50 *	78 - 119	51 *	85 - 116

Q183122AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg	Spike Added	0.05 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKQ62	107	71 - 136	94	79 - 119	98	78 - 119	98	85 - 116
LCSQ62	99	71 - 136	89	79 - 119	95	78 - 119	92	85 - 116
LCDQ62	100	71 - 136	89	79 - 119	93	78 - 119	91	85 - 116
9872060RE	62 *	71 - 136	57 *	79 - 119	57 *	78 - 119	57 *	85 - 116
9872061RE	70 *	71 - 136	59 *	79 - 119	62 *	78 - 119	63 *	85 - 116
9872062RE	70 *	71 - 136	57 *	79 - 119	60 *	78 - 119	63 *	85 - 116
9872063RE	68 *	71 - 136	57 *	79 - 119	62 *	78 - 119	62 *	85 - 116
9872064RE	54 *	71 - 136	43 *	79 - 119	48 *	78 - 119	48 *	85 - 116

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: TID12
Matrix: LIQUID

Fraction: Volatiles by GC/MS

H183094AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l	Spike Added	10 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKH96	103	81 - 118	98	85 - 114	97	80 - 119	103	89 - 112
LCSH96	102	81 - 118	100	85 - 114	96	80 - 119	104	89 - 112
LCDH97	104	81 - 118	99	85 - 114	96	80 - 119	104	89 - 112
9872059	102	81 - 118	97	85 - 114	96	80 - 119	103	89 - 112

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSB93 LCSD: LCDB93 **Analyte**	Batch: **B183101AA** (Sample number(s): 9872065)							
	Spike Added mg/kg	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	0.0200	0.0177	0.0177	88	88	29-149	0	20
Chloromethane	0.0200	0.0190	0.0187	95	94	50-136	1	20
Vinyl Chloride	0.0200	0.0186	0.0186	93	93	56-135	0	20
Bromomethane	0.0200	0.0160	0.0164	80	82	53-143	3	20
Chloroethane	0.0200	0.0176	0.0178	88	89	59-139	1	20
Trichlorofluoromethane	0.0200	0.0198	0.0199	99	99	62-140	0	20
1,1-Dichloroethene	0.0200	0.0215	0.0217	107	108	70-131	1	20
Freon 113	0.0200	0.0231	0.0233	115	116	66-136	1	20
Acetone	0.150	0.116	0.136	78	91	36-164	16	20
Carbon Disulfide	0.0200	0.0143	0.0145	72	72	63-132	1	20
Methyl Acetate	0.0200	0.0216	0.0181	108	91	53-144	17	20
Methylene Chloride	0.0200	0.0196	0.0195	98	97	70-128	1	20
trans-1,2-Dichloroethene	0.0200	0.0207	0.0208	103	104	74-125	1	20
Methyl Tertiary Butyl Ether	0.0200	0.0184	0.0173	92	87	73-125	6	20
1,1-Dichloroethane	0.0200	0.0207	0.0210	103	105	76-125	1	20
2-Butanone	0.150	0.111	0.129	74	86	51-148	15	20
cis-1,2-Dichloroethene	0.0200	0.0213	0.0215	106	107	77-123	1	20
Chloroform	0.0200	0.0206	0.0206	103	103	78-123	0	20
1,1,1-Trichloroethane	0.0200	0.0177	0.0179	89	90	73-130	1	20
Cyclohexane	0.0200	0.0209	0.0210	105	105	67-131	0	20
Carbon Tetrachloride	0.0200	0.0201	0.0201	100	101	70-135	0	20
Benzene	0.0200	0.0201	0.0203	101	101	77-121	1	20
1,2-Dichloroethane	0.0200	0.0209	0.0204	105	102	73-128	2	20
Trichloroethene	0.0200	0.0205	0.0204	102	102	77-123	0	20
Methylcyclohexane	0.0200	0.0222	0.0222	111	111	66-133	0	20
1,2-Dichloropropane	0.0200	0.0210	0.0212	105	106	76-123	1	20
Bromodichloromethane	0.0200	0.0198	0.0196	99	98	75-127	1	20
cis-1,3-Dichloropropene	0.0200	0.0201	0.0199	100	99	74-126	1	20
4-Methyl-2-pentanone	0.100	0.0921	0.0748	92	75	65-135	21 *	20
Toluene	0.0200	0.0193	0.0196	96	98	77-121	2	20
trans-1,3-Dichloropropene	0.0200	0.0187	0.0180	94	90	71-130	4	20
1,1,2-Trichloroethane	0.0200	0.0206	0.0196	103	98	78-121	5	20
Tetrachloroethene	0.0200	0.0170	0.0171	85	86	73-128	1	20
2-Hexanone	0.100	0.0832	0.0688	83	69	53-145	19	20
Dibromochloromethane	0.0200	0.0187	0.0180	93	90	74-126	4	20
1,2-Dibromoethane	0.0200	0.0199	0.0188	99	94	78-122	6	20
Chlorobenzene	0.0200	0.0196	0.0198	98	99	79-120	1	20
Ethylbenzene	0.0200	0.0195	0.0197	98	99	76-122	1	20
Xylene (Total)	0.0600	0.0589	0.0593	98	99	78-124	1	20
Styrene	0.0200	0.0186	0.0187	93	93	76-124	0	20
Bromoform	0.0200	0.0171	0.0161	86	81	67-132	6	20
Isopropylbenzene	0.0200	0.0196	0.0201	98	100	68-134	3	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSB93 LCSD: LCDB93 **Analyte**	Batch: **B183101AA** (Sample number(s): 9872065) **Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Cyclohexanone	0.500	0.431	0.490	86	98	30-156	13	20
1,1,2,2-Tetrachloroethane	0.0200	0.0201	0.0181	101	91	70-124	10	20
1,3-Dichlorobenzene	0.0200	0.0191	0.0193	95	97	77-121	1	20
1,4-Dichlorobenzene	0.0200	0.0193	0.0195	97	97	75-120	1	20
1,2-Dichlorobenzene	0.0200	0.0194	0.0196	97	98	78-121	1	20
1,2-Dibromo-3-chloropropane	0.0200	0.0190	0.0163	95	81	61-132	15	20
1,2,4-Trichlorobenzene	0.0200	0.0195	0.0192	97	96	67-129	1	20

LCS: LCSB97 LCSD: LCDB97 **Analyte**	Batch: **B183112AA** (Sample number(s): 9872065) **Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	0.0200	0.0165	0.0169	82	84	29-149	2	20
Chloromethane	0.0200	0.0198	0.0197	99	99	50-136	0	20
Vinyl Chloride	0.0200	0.0188	0.0192	94	96	56-135	2	20
Bromomethane	0.0200	0.0172	0.0173	86	86	53-143	1	20
Chloroethane	0.0200	0.0184	0.0183	92	92	59-139	1	20
Trichlorofluoromethane	0.0200	0.0188	0.0188	94	94	62-140	0	20
1,1-Dichloroethene	0.0200	0.0230	0.0230	115	115	70-131	0	20
Freon 113	0.0200	0.0252	0.0254	126	127	66-136	1	20
Acetone	0.150	0.119	0.112	80	75	36-164	6	20
Carbon Disulfide	0.0200	0.0193	0.0197	96	99	63-132	2	20
Methyl Acetate	0.0200	0.0210	0.0214	105	107	53-144	2	20
Methylene Chloride	0.0200	0.0201	0.0205	101	103	70-128	2	20
trans-1,2-Dichloroethene	0.0200	0.0217	0.0220	109	110	74-125	1	20
Methyl Tertiary Butyl Ether	0.0200	0.0188	0.0199	94	99	73-125	6	20
1,1-Dichloroethane	0.0200	0.0218	0.0221	109	111	76-125	1	20
2-Butanone	0.150	0.114	0.110	76	73	51-148	3	20
cis-1,2-Dichloroethene	0.0200	0.0224	0.0226	112	113	77-123	1	20
Chloroform	0.0200	0.0213	0.0217	107	109	78-123	2	20
1,1,1-Trichloroethane	0.0200	0.0188	0.0191	94	95	73-130	2	20
Cyclohexane	0.0200	0.0231	0.0233	115	117	67-131	1	20
Carbon Tetrachloride	0.0200	0.0214	0.0217	107	108	70-135	1	20
Benzene	0.0200	0.0210	0.0216	105	108	77-121	3	20
1,2-Dichloroethane	0.0200	0.0212	0.0219	106	109	73-128	3	20
Trichloroethene	0.0200	0.0215	0.0216	108	108	77-123	0	20
Methylcyclohexane	0.0200	0.0242	0.0246	121	123	66-133	2	20
1,2-Dichloropropane	0.0200	0.0217	0.0222	109	111	76-123	2	20
Bromodichloromethane	0.0200	0.0201	0.0208	100	104	75-127	3	20
cis-1,3-Dichloropropene	0.0200	0.0201	0.0212	101	106	74-126	5	20
4-Methyl-2-pentanone	0.100	0.0753	0.0835	75	83	65-135	10	20
Toluene	0.0200	0.0205	0.0208	102	104	77-121	1	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSB97 LCSD: LCDB97 **Analyte**	Batch: **B183112AA** (Sample number(s): 9872065)							
	Spike Added mg/kg	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
trans-1,3-Dichloropropene	0.0200	0.0183	0.0196	92	98	71-130	7	20
1,1,2-Trichloroethane	0.0200	0.0203	0.0212	102	106	78-121	4	20
Tetrachloroethene	0.0200	0.0180	0.0183	90	91	73-128	2	20
2-Hexanone	0.100	0.0670	0.0750	67	75	53-145	11	20
Dibromochloromethane	0.0200	0.0183	0.0194	91	97	74-126	6	20
1,2-Dibromoethane	0.0200	0.0194	0.0201	97	101	78-122	4	20
Chlorobenzene	0.0200	0.0203	0.0208	102	104	79-120	2	20
Ethylbenzene	0.0200	0.0207	0.0208	104	104	76-122	0	20
Xylene (Total)	0.0600	0.0620	0.0625	103	104	78-124	1	20
Styrene	0.0200	0.0192	0.0195	96	98	76-124	2	20
Bromoform	0.0200	0.0162	0.0172	81	86	67-132	6	20
Isopropylbenzene	0.0200	0.0208	0.0211	104	105	68-134	1	20
Cyclohexanone	0.500	0.345	0.349	69	70	30-156	1	20
1,1,2,2-Tetrachloroethane	0.0200	0.0186	0.0197	93	99	70-124	6	20
1,3-Dichlorobenzene	0.0200	0.0198	0.0202	99	101	77-121	2	20
1,4-Dichlorobenzene	0.0200	0.0199	0.0203	100	101	75-120	2	20
1,2-Dichlorobenzene	0.0200	0.0199	0.0203	99	102	78-121	2	20
1,2-Dibromo-3-chloropropane	0.0200	0.0167	0.0176	84	88	61-132	5	20
1,2,4-Trichlorobenzene	0.0200	0.0199	0.0201	99	100	67-129	1	20

LCS: LCSQ57 LCSD: LCDQ57 **Analyte**	Batch: **Q183112AA** (Sample number(s): 9872060-9872064)							
	Spike Added mg/kg	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	1.00	0.640	0.659	64	66	29-149	3	20
Chloromethane	1.00	0.681	0.752	68	75	50-136	10	20
Vinyl Chloride	1.00	0.751	0.791	75	79	56-135	5	20
Bromomethane	1.00	0.641	0.644	64	64	53-143	1	20
Chloroethane	1.00	0.670	0.703	67	70	59-139	5	20
Trichlorofluoromethane	1.00	0.666	0.744	67	74	62-140	11	20
1,1-Dichloroethene	1.00	1.04	1.14	104	114	70-131	9	20
Freon 113	1.00	1.08	1.18	108	118	66-136	9	20
Acetone	7.50	5.94	6.59	79	88	36-164	10	20
Carbon Disulfide	1.00	0.885	0.953	89	95	63-132	7	20
Methyl Acetate	1.00	0.920	1.04	92	104	53-144	12	20
Methylene Chloride	1.00	1.05	1.14	105	114	70-128	8	20
trans-1,2-Dichloroethene	1.00	1.09	1.17	109	117	74-125	7	20
Methyl Tertiary Butyl Ether	1.00	0.958	1.06	96	106	73-125	10	20
1,1-Dichloroethane	1.00	0.976	1.05	98	105	76-125	7	20
2-Butanone	7.50	5.39	6.00	72	80	51-148	11	20
cis-1,2-Dichloroethene	1.00	1.07	1.16	107	116	77-123	8	20
Chloroform	1.00	0.994	1.10	99	110	78-123	10	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSQ57 LCSD: LCDQ57	Batch: **Q183112AA** (Sample number(s): 9872060-9872064)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,1,1-Trichloroethane	1.00	1.00	1.08	100	108	73-130	7	20
Cyclohexane	1.00	0.993	1.08	99	108	67-131	8	20
Carbon Tetrachloride	1.00	1.08	1.16	108	116	70-135	7	20
Benzene	1.00	1.02	1.12	102	112	77-121	9	20
1,2-Dichloroethane	1.00	0.973	1.07	97	107	73-128	10	20
Trichloroethene	1.00	1.01	1.11	101	111	77-123	10	20
Methylcyclohexane	1.00	1.05	1.13	105	113	66-133	8	20
1,2-Dichloropropane	1.00	0.986	1.10	99	110	76-123	11	20
Bromodichloromethane	1.00	1.02	1.13	102	113	75-127	10	20
cis-1,3-Dichloropropene	1.00	1.02	1.11	102	111	74-126	9	20
4-Methyl-2-pentanone	5.00	4.52	4.98	90	100	65-135	10	20
Toluene	1.00	1.01	1.10	101	110	77-121	9	20
trans-1,3-Dichloropropene	1.00	0.945	1.05	94	105	71-130	11	20
1,1,2-Trichloroethane	1.00	1.03	1.13	103	113	78-121	9	20
Tetrachloroethene	1.00	1.02	1.11	102	111	73-128	8	20
2-Hexanone	5.00	4.16	4.70	83	94	53-145	12	20
Dibromochloromethane	1.00	1.10	1.24	110	124	74-126	12	20
1,2-Dibromoethane	1.00	0.998	1.11	100	111	78-122	11	20
Chlorobenzene	1.00	0.990	1.09	99	109	79-120	10	20
Ethylbenzene	1.00	0.961	1.06	96	106	76-122	10	20
Xylene (Total)	3.00	2.98	3.33	99	111	78-124	11	20
Styrene	1.00	0.943	1.06	94	106	76-124	11	20
Bromoform	1.00	0.983	1.09	98	109	67-132	10	20
Isopropylbenzene	1.00	0.997	1.11	100	111	68-134	11	20
Cyclohexanone	25	22.61	24.46	90	98	30-156	8	20
1,1,2,2-Tetrachloroethane	1.00	0.893	1.06	89	106	70-124	18	20
1,3-Dichlorobenzene	1.00	0.991	1.13	99	113	77-121	13	20
1,4-Dichlorobenzene	1.00	0.986	1.10	99	110	75-120	11	20
1,2-Dichlorobenzene	1.00	0.992	1.11	99	111	78-121	12	20
1,2-Dibromo-3-chloropropane	1.00	0.783	0.913	78	91	61-132	15	20
1,2,4-Trichlorobenzene	1.00	1.15	1.24	115	124	67-129	7	20

LCS: LCSQ62 LCSD: LCDQ62	Batch: **Q183122AA** (Sample number(s): 9872060-9872064)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	1.00	0.509	0.463	51	46	29-149	10	20
Chloromethane	1.00	0.630	0.616	63	62	50-136	2	20
Vinyl Chloride	1.00	0.689	0.667	69	67	56-135	3	20
Bromomethane	1.00	0.624	0.589	62	59	53-143	6	20
Chloroethane	1.00	0.658	0.651	66	65	59-139	1	20
Trichlorofluoromethane	1.00	0.685	0.658	69	66	62-140	4	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSQ62 LCSD: LCDQ62	Batch: **Q183122AA** (Sample number(s): 9872060-9872064)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,1-Dichloroethene	1.00	1.04	1.03	104	103	70-131	1	20
Freon 113	1.00	1.06	1.01	106	101	66-136	5	20
Acetone	7.50	5.93	5.78	79	77	36-164	2	20
Carbon Disulfide	1.00	0.854	0.833	85	83	63-132	2	20
Methyl Acetate	1.00	0.914	0.887	91	89	53-144	3	20
Methylene Chloride	1.00	1.04	1.02	104	102	70-128	2	20
trans-1,2-Dichloroethene	1.00	1.05	1.06	105	106	74-125	1	20
Methyl Tertiary Butyl Ether	1.00	0.946	0.946	95	95	73-125	0	20
1,1-Dichloroethane	1.00	0.968	0.967	97	97	76-125	0	20
2-Butanone	7.50	5.47	5.35	73	71	51-148	2	20
cis-1,2-Dichloroethene	1.00	1.08	1.06	108	106	77-123	1	20
Chloroform	1.00	0.986	0.984	99	98	78-123	0	20
1,1,1-Trichloroethane	1.00	0.993	0.983	99	98	73-130	1	20
Cyclohexane	1.00	0.973	0.948	97	95	67-131	3	20
Carbon Tetrachloride	1.00	1.05	1.05	105	105	70-135	1	20
Benzene	1.00	1.01	1.03	101	103	77-121	1	20
1,2-Dichloroethane	1.00	0.955	0.969	95	97	73-128	1	20
Trichloroethene	1.00	1.03	1.03	103	103	77-123	0	20
Methylcyclohexane	1.00	1.05	1.01	105	101	66-133	4	20
1,2-Dichloropropane	1.00	0.996	1.00	100	100	76-123	1	20
Bromodichloromethane	1.00	1.03	1.03	103	103	75-127	0	20
cis-1,3-Dichloropropene	1.00	1.02	1.04	102	104	74-126	2	20
4-Methyl-2-pentanone	5.00	4.57	4.60	91	92	65-135	1	20
Toluene	1.00	1.01	0.998	101	100	77-121	1	20
trans-1,3-Dichloropropene	1.00	0.943	0.923	94	92	71-130	2	20
1,1,2-Trichloroethane	1.00	1.03	1.03	103	103	78-121	0	20
Tetrachloroethene	1.00	1.01	1.01	101	101	73-128	0	20
2-Hexanone	5.00	4.22	4.08	84	82	53-145	3	20
Dibromochloromethane	1.00	1.09	1.09	109	109	74-126	0	20
1,2-Dibromoethane	1.00	1.01	0.993	101	99	78-122	1	20
Chlorobenzene	1.00	0.996	0.981	100	98	79-120	2	20
Ethylbenzene	1.00	0.960	0.955	96	96	76-122	1	20
Xylene (Total)	3.00	2.98	2.96	99	99	78-124	0	20
Styrene	1.00	0.950	0.942	95	94	76-124	1	20
Bromoform	1.00	0.998	0.989	100	99	67-132	1	20
Isopropylbenzene	1.00	0.992	0.979	99	98	68-134	1	20
Cyclohexanone	25	21.38	22.91	86	92	30-156	7	20
1,1,2,2-Tetrachloroethane	1.00	0.942	0.931	94	93	70-124	1	20
1,3-Dichlorobenzene	1.00	1.01	0.976	101	98	77-121	3	20
1,4-Dichlorobenzene	1.00	0.996	0.966	100	97	75-120	3	20
1,2-Dichlorobenzene	1.00	1.00	0.967	100	97	78-121	4	20
1,2-Dibromo-3-chloropropane	1.00	0.804	0.764	80	76	61-132	5	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSQ62 LCSD: LCDQ62 **Analyte**	Batch: **Q183122AA** (Sample number(s): 9872060-9872064) **Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,2,4-Trichlorobenzene	1.00	1.24	1.08	124	108	67-129	13	20

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSH96	Batch: **H183094AA** (Sample number(s): 9872059)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dichlorodifluoromethane	5.00	2.82	NA	56	NA	32-152	NA	NA
Chloromethane	5.00	3.38	NA	68	NA	50-139	NA	NA
Vinyl Chloride	5.00	3.47	NA	69	NA	58-137	NA	NA
Bromomethane	5.00	3.37	NA	67	NA	53-141	NA	NA
Chloroethane	5.00	3.49	NA	70	NA	60-138	NA	NA
Trichlorofluoromethane	5.00	3.45	NA	69	NA	65-141	NA	NA
1,1-Dichloroethene	5.00	4.52	NA	90	NA	71-131	NA	NA
Freon 113	5.00	3.96	NA	79	NA	70-136	NA	NA
Acetone	37.5	29.68	NA	79	NA	39-160	NA	NA
Carbon Disulfide	5.00	3.85	NA	77	NA	64-133	NA	NA
Methyl Acetate	5.00	3.99	NA	80	NA	56-136	NA	NA
Methylene Chloride	5.00	4.34	NA	87	NA	74-124	NA	NA
trans-1,2-Dichloroethene	5.00	4.54	NA	91	NA	75-124	NA	NA
Methyl Tertiary Butyl Ether	5.00	4.45	NA	89	NA	71-124	NA	NA
1,1-Dichloroethane	5.00	4.55	NA	91	NA	77-125	NA	NA
2-Butanone	37.5	32.99	NA	88	NA	56-143	NA	NA
cis-1,2-Dichloroethene	5.00	4.67	NA	93	NA	78-123	NA	NA
Chloroform	5.00	4.67	NA	93	NA	79-124	NA	NA
1,1,1-Trichloroethane	5.00	4.54	NA	91	NA	74-131	NA	NA
Cyclohexane	5.00	3.95	NA	79	NA	71-130	NA	NA
Carbon Tetrachloride	5.00	4.53	NA	91	NA	72-136	NA	NA
Benzene	5.00	4.53	NA	91	NA	79-120	NA	NA
1,2-Dichloroethane	5.00	4.51	NA	90	NA	73-128	NA	NA
Trichloroethene	5.00	4.52	NA	90	NA	79-123	NA	NA
Methylcyclohexane	5.00	3.74	NA	75	NA	72-132	NA	NA
1,2-Dichloropropane	5.00	4.70	NA	94	NA	78-122	NA	NA
Bromodichloromethane	5.00	4.69	NA	94	NA	79-125	NA	NA
cis-1,3-Dichloropropene	5.00	4.68	NA	94	NA	75-124	NA	NA
4-Methyl-2-Pentanone	25	21.42	NA	86	NA	67-130	NA	NA
Toluene	5.00	4.89	NA	98	NA	80-121	NA	NA
trans-1,3-Dichloropropene	5.00	5.06	NA	101	NA	73-127	NA	NA
1,1,2-Trichloroethane	5.00	5.18	NA	104	NA	80-119	NA	NA
Tetrachloroethene	5.00	4.82	NA	96	NA	74-129	NA	NA
2-Hexanone	25	21.46	NA	86	NA	57-139	NA	NA
Dibromochloromethane	5.00	4.97	NA	99	NA	74-126	NA	NA
1,2-Dibromoethane	5.00	4.98	NA	100	NA	77-121	NA	NA
Chlorobenzene	5.00	4.91	NA	98	NA	82-118	NA	NA
Ethylbenzene	5.00	4.93	NA	99	NA	79-121	NA	NA
Xylene (Total)	15	14.9	NA	99	NA	79-121	NA	NA
Styrene	5.00	5.04	NA	101	NA	78-123	NA	NA
Bromoform	5.00	4.93	NA	99	NA	66-130	NA	NA
Isopropylbenzene	5.00	4.92	NA	98	NA	72-131	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSH96	Batch: **H183094AA** (Sample number(s): 9872059)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,1,2,2-Tetrachloroethane	5.00	4.96	NA	99	NA	71-121	NA	NA
1,3-Dichlorobenzene	5.00	4.94	NA	99	NA	80-119	NA	NA
1,4-Dichlorobenzene	5.00	4.96	NA	99	NA	79-118	NA	NA
1,2-Dichlorobenzene	5.00	4.91	NA	98	NA	80-119	NA	NA
1,2-Dibromo-3-chloropropane	5.00	4.31	NA	86	NA	62-128	NA	NA
1,2,4-Trichlorobenzene	5.00	4.54	NA	91	NA	69-130	NA	NA

LCS: LCSH97 LCSD: LCDH97	Batch: **H183094AA** (Sample number(s): 9872059)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Cyclohexanone	125	98.72	110.52	79	88	26-147	11	30

Fraction: Volatiles by GC/MS

11996: VOCs- 25ml Water by 8260C Analyte Name	Default DL	Default LOD	Default LOQ	Units
Dichlorodifluoromethane	.05	.2	0.5	ug/l
Chloromethane	.06	.2	0.5	ug/l
Vinyl Chloride	.1	.2	0.5	ug/l
Bromomethane	.07	.2	0.5	ug/l
Chloroethane	.07	.2	0.5	ug/l
Trichlorofluoromethane	.05	.2	0.5	ug/l
1,1-Dichloroethene	.06	.2	0.5	ug/l
Freon 113	.06	.2	0.5	ug/l
Acetone	.9	2	5.0	ug/l
Carbon Disulfide	.06	.2	1.0	ug/l
Methyl Acetate	.1	.2	1.0	ug/l
Methylene Chloride	.07	.2	0.5	ug/l
trans-1,2-Dichloroethene	.06	.2	0.5	ug/l
Methyl Tertiary Butyl Ether	.05	.2	0.5	ug/l
1,1-Dichloroethane	.07	.2	0.5	ug/l
2-Butanone	.6	2	5.0	ug/l
cis-1,2-Dichloroethene	.05	.2	0.5	ug/l
Chloroform	.09	.2	0.5	ug/l
1,1,1-Trichloroethane	.06	.2	0.5	ug/l
Cyclohexane	.05	.2	0.5	ug/l
Carbon Tetrachloride	.07	.2	0.5	ug/l
Benzene	.05	.2	0.5	ug/l
1,2-Dichloroethane	.05	.2	0.5	ug/l
Trichloroethene	.06	.2	0.5	ug/l
Methylcyclohexane	.05	.2	0.5	ug/l
1,2-Dichloropropane	.06	.2	0.5	ug/l
Bromodichloromethane	.05	.2	0.5	ug/l
cis-1,3-Dichloropropene	.05	.2	0.5	ug/l
4-Methyl-2-Pentanone	.7	2	5.0	ug/l
Toluene	.07	.2	0.5	ug/l
trans-1,3-Dichloropropene	.06	.2	0.5	ug/l
1,1,2-Trichloroethane	.06	.2	0.5	ug/l
Tetrachloroethene	.06	.2	0.5	ug/l
2-Hexanone	.6	2	5.0	ug/l
Dibromochloromethane	.07	.2	0.5	ug/l
1,2-Dibromoethane	.06	.2	0.5	ug/l
Chlorobenzene	.06	.2	0.5	ug/l
Ethylbenzene	.06	.2	0.5	ug/l
Xylene (Total)	.1	.4	0.5	ug/l
Styrene	.05	.2	0.5	ug/l
Bromoform	.3	.5	1.0	ug/l
Isopropylbenzene	.05	.2	0.5	ug/l
Cyclohexanone	1.8	7.2	25	ug/l
1,1,2,2-Tetrachloroethane	.07	.2	0.5	ug/l
1,3-Dichlorobenzene	.06	.2	0.5	ug/l
1,4-Dichlorobenzene	.07	.2	0.5	ug/l
1,2-Dichlorobenzene	.06	.2	0.5	ug/l

Fraction: Volatiles by GC/MS

11996: VOCs- 25ml Water by 8260C Analyte Name	Default DL	Default LOD	Default LOQ	Units
1,2-Dibromo-3-chloropropane	.1	.4	0.5	ug/l
1,2,4-Trichlorobenzene	.06	.2	0.5	ug/l

11995: VOCs- Solid by 8260C Analyte Name	Default DL	Default LOD	Default LOQ	Units
Dichlorodifluoromethane	0.0006	0.002	0.005	mg/kg
Chloromethane	0.0006	0.002	0.005	mg/kg
Vinyl Chloride	0.0006	0.002	0.005	mg/kg
Bromomethane	0.0007	0.002	0.005	mg/kg
Chloroethane	0.001	0.004	0.005	mg/kg
Trichlorofluoromethane	0.0007	0.002	0.005	mg/kg
1,1-Dichloroethene	0.0005	0.002	0.005	mg/kg
Freon 113	0.0006	0.002	0.010	mg/kg
Acetone	0.006	0.016	0.020	mg/kg
Carbon Disulfide	0.0006	0.002	0.005	mg/kg
Methyl Acetate	0.001	0.004	0.005	mg/kg
Methylene Chloride	0.002	0.004	0.005	mg/kg
trans-1,2-Dichloroethene	0.0005	0.002	0.005	mg/kg
Methyl Tertiary Butyl Ether	0.0005	0.002	0.005	mg/kg
1,1-Dichloroethane	0.0005	0.002	0.005	mg/kg
2-Butanone	0.001	0.004	0.010	mg/kg
cis-1,2-Dichloroethene	0.0005	0.002	0.005	mg/kg
Chloroform	0.0006	0.002	0.005	mg/kg
1,1,1-Trichloroethane	0.0006	0.002	0.005	mg/kg
Cyclohexane	0.0005	0.002	0.005	mg/kg
Carbon Tetrachloride	0.0005	0.002	0.005	mg/kg
Benzene	0.0005	0.002	0.005	mg/kg
1,2-Dichloroethane	0.0006	0.002	0.005	mg/kg
Trichloroethene	0.0005	0.002	0.005	mg/kg
Methylcyclohexane	0.0006	0.002	0.005	mg/kg
1,2-Dichloropropane	0.0005	0.002	0.005	mg/kg
Bromodichloromethane	0.0004	0.001	0.005	mg/kg
cis-1,3-Dichloropropene	0.0004	0.001	0.005	mg/kg
4-Methyl-2-pentanone	0.001	0.004	0.010	mg/kg
Toluene	0.0006	0.002	0.005	mg/kg
trans-1,3-Dichloropropene	0.0003	0.001	0.005	mg/kg
1,1,2-Trichloroethane	0.0005	0.002	0.005	mg/kg
Tetrachloroethene	0.0005	0.002	0.005	mg/kg
2-Hexanone	0.001	0.004	0.010	mg/kg
Dibromochloromethane	0.0004	0.001	0.005	mg/kg
1,2-Dibromoethane	0.0004	0.001	0.005	mg/kg
Chlorobenzene	0.0005	0.002	0.005	mg/kg
Ethylbenzene	0.0004	0.001	0.005	mg/kg
Xylene (Total)	0.001	0.002	0.005	mg/kg
Styrene	0.0003	0.001	0.005	mg/kg
Bromoform	0.005	0.008	0.010	mg/kg
Isopropylbenzene	0.0004	0.001	0.005	mg/kg

Fraction: Volatiles by GC/MS

11995: VOCs- Solid by 8260C Analyte Name	Default DL	Default LOD	Default LOQ	Units
Cyclohexanone	0.025	0.10	0.25	mg/kg
1,1,2,2-Tetrachloroethane	0.0004	0.001	0.005	mg/kg
1,3-Dichlorobenzene	0.0005	0.002	0.005	mg/kg
1,4-Dichlorobenzene	0.0004	0.001	0.005	mg/kg
1,2-Dichlorobenzene	0.0005	0.002	0.005	mg/kg
1,2-Dibromo-3-chloropropane	0.0004	0.001	0.005	mg/kg
1,2,4-Trichlorobenzene	0.005	0.008	0.010	mg/kg

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: bs12t10.d BFB Injection Date: 09/12/18

Instrument ID: HP09953 BFB Injection Time: 11:40

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.29
75	30.0 - 60.0% of mass 95	44.06
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.68
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	93.54
175	5.0 - 9.0% of mass 174	6.64 (7.10)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.38 (96.62)1
177	5.0 - 9.0% of mass 176	5.91 (6.54)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	bs12i10.d	09/12/18	13:13
02	VSTD100	bs12i11.d	09/12/18	13:36
03	VSTD50	bs12i13.d	09/12/18	13:59
04	VSTD20	bs12i14.d	09/12/18	14:22
05	VSTD10	bs12i15.d	09/12/18	14:45
06	VSTD4	bs12i16.d	09/12/18	15:08
07	VSTD1	bs12i17.d	09/12/18	15:30
08	MDL0.5 - MDL0.5	bs12m10.d	09/12/18	15:53
09	ICVB01	bs12v10.d	09/12/18	16:16
10	VSTD300	bs12i20.d	09/12/18	17:01
11	VSTD100	bs12i21.d	09/12/18	17:24
12	VSTD50	bs12i22.d	09/12/18	17:47
13	VSTD20	bs12i23.d	09/12/18	18:10
14	VSTD10	bs12i24.d	09/12/18	18:33
15	VSTD4	bs12i25.d	09/12/18	18:55
16	MDLB1.0 - MDLB1.0	bs12m20.d	09/12/18	19:18
17	ICVSM11	bs12v20.d	09/12/18	19:41

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: bn06t01.d BFB Injection Date: 11/06/18

Instrument ID: HP09953 BFB Injection Time: 19:12

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.70
75	30.0 - 60.0% of mass 95	44.52
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.88
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	93.46
175	5.0 - 9.0% of mass 174	6.67 (7.14)1
176	Greater than 95.0%, but less than 101.0% of mass 174	91.23 (97.62)1
177	5.0 - 9.0% of mass 176	6.14 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	bn06c01.d	11/06/18	19:51
02	MDL050 - MDL050	bn06m01.d	11/06/18	20:16
03	MDLB50 - MDLB50	bn06m10.d	11/06/18	20:16
04	VBLKB93	bn06b01.d	11/06/18	20:41
05	VBLKB94	bn06b05.d	11/06/18	20:41
06	LCSB93	bn06s01.d	11/06/18	21:07
07	LCSB94	bn06s31.d	11/06/18	21:07
08	LCDB93	bn06s02.d	11/06/18	21:29
09	LCDB94	bn06s32.d	11/06/18	21:29
10	9867761RE	bn06s03.d	11/06/18	22:32
11	9867766RE	bn06s04.d	11/06/18	22:55
12	9867767	bn06s05.d	11/06/18	23:18
13	9870251	bn06s06.d	11/06/18	23:41
14	9870252	bn06s07.d	11/07/18	00:04
15	9870253	bn06s08.d	11/07/18	00:27
16	9872065	bn06s09.d	11/07/18	00:50
17	SECC050	bn06ec5.d	11/07/18	01:16
18	9867824RE	bn06s33.d	11/07/18	02:01
19	9878580	bn06s34.d	11/07/18	02:24
20	9878581	bn06s35.d	11/07/18	02:46
21	9878584	bn06s36.d	11/07/18	03:09
22	9878585	bn06s37.d	11/07/18	03:32

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: bn06t01.d BFB Injection Date: 11/06/18

Instrument ID: HP09953 BFB Injection Time: 19:12

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.70
75	30.0 - 60.0% of mass 95	44.52
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.88
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	93.46
175	5.0 - 9.0% of mass 174	6.67 (7.14)1
176	Greater than 95.0%, but less than 101.0% of mass 174	91.23 (97.62)1
177	5.0 - 9.0% of mass 176	6.14 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	9882246	bn06s38.d	11/07/18	03:55
24	9883608	bn06s39.d	11/07/18	04:18
25	9883609	bn06s40.d	11/07/18	04:41
26	9883610	bn06s41.d	11/07/18	05:03
27	9878583	bn06s42.d	11/07/18	05:25
28	9878582	bn06s43.d	11/07/18	05:48

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: bn07t01.d BFB Injection Date: 11/07/18

Instrument ID: HP09953 BFB Injection Time: 07:35

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.97
75	30.0 - 60.0% of mass 95	44.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.08
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	90.87
175	5.0 - 9.0% of mass 174	6.51 (7.17)1
176	Greater than 95.0%, but less than 101.0% of mass 174	88.34 (97.22)1
177	5.0 - 9.0% of mass 176	5.85 (6.62)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	bn07c01.d	11/07/18	08:13
02	VSTD50	bn07c02.d	11/07/18	08:36
03	LCSB95	bn07l01.d	11/07/18	09:01
04	LCSB97	bn07l31.d	11/07/18	09:01
05	LCSB98	bn07l61.d	11/07/18	09:01
06	LCDB95	bn07l02.d	11/07/18	09:24
07	LCDB97	bn07l32.d	11/07/18	09:24
08	LCDB98	bn07l62.d	11/07/18	09:24
09	LCSB96	bn07l03.d	11/07/18	09:47
10	LCDB96	bn07l04.d	11/07/18	10:10
11	VBLKB95	bn07b01.d	11/07/18	10:32
12	VBLKB97	bn07b30.d	11/07/18	10:32
13	VBLKB98	bn07b60.d	11/07/18	10:32
14	9867767RE	bn07s33.d	11/07/18	11:35
15	9872065RE	bn07s34.d	11/07/18	11:58
16	9870252RE	bn07s35.d	11/07/18	12:21
17	9870253RE	bn07s36.d	11/07/18	12:44
18	9884806	bn07s37.d	11/07/18	13:07
19	9884807	bn07s38.d	11/07/18	13:30
20	9884808	bn07s39.d	11/07/18	13:52
21	9884809	bn07s40.d	11/07/18	14:15
22	9884810MS	bn07s41.d	11/07/18	14:38

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: bn07t01.d BFB Injection Date: 11/07/18

Instrument ID: HP09953 BFB Injection Time: 07:35

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.97
75	30.0 - 60.0% of mass 95	44.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.08
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	90.87
175	5.0 - 9.0% of mass 174	6.51 (7.17)1
176	Greater than 95.0%, but less than 101.0% of mass 174	88.34 (97.22)1
177	5.0 - 9.0% of mass 176	5.85 (6.62)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	9884811MSD	bn07s42.d	11/07/18	15:00
24	9884813	bn07s43.d	11/07/18	15:23
25	9884814	bn07s44.d	11/07/18	15:46
26	9884815	bn07s45.d	11/07/18	16:08
27	9878918	bn07s02.d	11/07/18	16:30
28	9878916MS	bn07s03.d	11/07/18	16:53
29	9878917MSD	bn07s04.d	11/07/18	17:16
30	9878916MS	bn07s05.d	11/07/18	17:38
31	9878917MSD	bn07s06.d	11/07/18	18:01
32	9878915	bn07s07.d	11/07/18	18:24
33	SECC050	bn07c03.d	11/07/18	18:47
34	9876025	bn07s61.d	11/07/18	19:10
35	9876033	bn07s62.d	11/07/18	19:32

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qc17t51.d BFB Injection Date: 10/17/18

Instrument ID: HP07536 BFB Injection Time: 11:12

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.04
75	30.0 - 60.0% of mass 95	48.88
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.73
173	Less than 2.0% of mass 174	0.25 (0.26)1
174	Greater than 50.0% of mass 95	97.20
175	5.0 - 9.0% of mass 174	7.11 (7.31)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.83 (96.53)1
177	5.0 - 9.0% of mass 176	6.28 (6.69)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	MDLC0.5 - MDLC0.5	qc17m51.d	10/17/18	13:28
02	VSTD1	qc17i51.d	10/17/18	13:51
03	VSTD4	qc17i52.d	10/17/18	14:15
04	VSTD10	qc17i53.d	10/17/18	14:38
05	VSTD20	qc17i54.d	10/17/18	15:01
06	VSTD50	qc17i55.d	10/17/18	15:24
07	VSTD100	qc17i56.d	10/17/18	15:47
08	VSTD300	qc17i57.d	10/17/18	16:10
09	QICVC	qc17v51.d	10/17/18	17:18

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qc23t10.d BFB Injection Date: 10/23/18

Instrument ID: HP07536 BFB Injection Time: 07:28

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.08
75	30.0 - 60.0% of mass 95	48.03
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.74
173	Less than 2.0% of mass 174	0.17 (0.18)1
174	Greater than 50.0% of mass 95	96.13
175	5.0 - 9.0% of mass 174	6.90 (7.18)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.65 (97.42)1
177	5.0 - 9.0% of mass 176	6.21 (6.63)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	qc23c10.d	10/23/18	08:14
02	QICVC2	qc23v52.d	10/23/18	09:01
03	LCSQ27	qc23l10.d	10/23/18	09:27
04	LCDQ27	qc23l11.d	10/23/18	10:00
05	VBLKQ27	qc23b10.d	10/23/18	12:21

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qn07t10.d BFB Injection Date: 11/07/18

Instrument ID: HP07536 BFB Injection Time: 07:29

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.93
75	30.0 - 60.0% of mass 95	46.18
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.10
173	Less than 2.0% of mass 174	0.19 (0.20)1
174	Greater than 50.0% of mass 95	96.97
175	5.0 - 9.0% of mass 174	6.97 (7.18)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.56 (96.49)1
177	5.0 - 9.0% of mass 176	6.30 (6.74)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	qn07c10.d	11/07/18	08:19
02	LCSQ56	qn07l10.d	11/07/18	08:42
03	LCSQ57	qn07l20.d	11/07/18	08:42
04	LCDQ56	qn07l11.d	11/07/18	09:05
05	LCDQ57	qn07l21.d	11/07/18	09:05
06	MDLQ56 - MDLQ56	qn07m10.d	11/07/18	09:32
07	MDLQ57 - MDLQ57	qn07m20.d	11/07/18	09:32
08	VBLKQ56	qn07b10.d	11/07/18	10:18
09	VBLKQ57	qn07b20.d	11/07/18	10:18
10	9872140	qn07s11.d	11/07/18	10:58
11	9872120	qn07s12.d	11/07/18	11:21
12	9872121DL	qn07s13.d	11/07/18	11:43
13	9872120DL	qn07s14.d	11/07/18	12:06
14	9872121	qn07s22.d	11/07/18	12:51
15	9874413	qn07s33.d	11/07/18	13:37
16	9872060	qn07s34.d	11/07/18	13:59
17	9872061	qn07s35.d	11/07/18	14:22
18	9872062	qn07s36.d	11/07/18	14:45
19	9872063	qn07s37.d	11/07/18	15:07
20	9872064	qn07s38.d	11/07/18	15:30
21	9874411	qn07s39.d	11/07/18	15:52
22	9874412	qn07s40.d	11/07/18	16:15

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qn07t10.d BFB Injection Date: 11/07/18

Instrument ID: HP07536 BFB Injection Time: 07:29

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.93
75	30.0 - 60.0% of mass 95	46.18
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.10
173	Less than 2.0% of mass 174	0.19 (0.20)1
174	Greater than 50.0% of mass 95	96.97
175	5.0 - 9.0% of mass 174	6.97 (7.18)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.56 (96.49)1
177	5.0 - 9.0% of mass 176	6.30 (6.74)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	9870254	qn07s41.d	11/07/18	16:38
24	SECC050	qn07ec1.d	11/07/18	17:00
25	9872012	qn07s16.d	11/07/18	17:23
26	9872017	qn07s17.d	11/07/18	17:46
27	9872020	qn07s18.d	11/07/18	18:09
28	9872025	qn07s19.d	11/07/18	18:31
29	9872027	qn07s20.d	11/07/18	18:54
30	9872029	qn07s21.d	11/07/18	19:17

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qn08t10.d BFB Injection Date: 11/08/18

Instrument ID: HP07536 BFB Injection Time: 08:09

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.79
75	30.0 - 60.0% of mass 95	45.48
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.97
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	96.57
175	5.0 - 9.0% of mass 174	7.28 (7.54)1
176	Greater than 95.0%, but less than 101.0% of mass 174	94.26 (97.61)1
177	5.0 - 9.0% of mass 176	6.41 (6.80)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	qn08c10.d	11/08/18	08:58
02	LCSQ61	qn08l10.d	11/08/18	09:20
03	LCSQ62	qn08l20.d	11/08/18	09:20
04	LCDQ61	qn08l11.d	11/08/18	09:43
05	LCDQ62	qn08l21.d	11/08/18	09:43
06	VBLKQ61	qn08b10.d	11/08/18	10:51
07	VBLKQ62	qn08b20.d	11/08/18	10:51
08	9872060RE	qn08s33.d	11/08/18	11:26
09	9872061RE	qn08s34.d	11/08/18	11:49
10	9872062RE	qn08s41.d	11/08/18	12:43
11	9872063RE	qn08s36.d	11/08/18	13:27
12	9872064RE	qn08s37.d	11/08/18	13:49
13	9874412RE	qn08s38.d	11/08/18	14:12
14	9874413RE	qn08s39.d	11/08/18	14:34
15	9870254RE	qn08s40.d	11/08/18	14:57
16	SECC050	qn08ec1.d	11/08/18	15:20
17	9874135	qn08s12.d	11/08/18	16:05
18	9874143	qn08s13.d	11/08/18	16:27
19	9878772	qn08s14.d	11/08/18	16:50
20	9878774	qn08s16.d	11/08/18	17:35
21	9881683	qn08s17.d	11/08/18	17:58
22	9874148	qn08s18.d	11/08/18	18:21

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: qn08t10.d BFB Injection Date: 11/08/18

Instrument ID: HP07536 BFB Injection Time: 08:09

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.79
75	30.0 - 60.0% of mass 95	45.48
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.97
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	96.57
175	5.0 - 9.0% of mass 174	7.28 (7.54)1
176	Greater than 95.0%, but less than 101.0% of mass 174	94.26 (97.61)1
177	5.0 - 9.0% of mass 176	6.41 (6.80)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	9874060	qn08s19.d	11/08/18	18:43
24	9874065	qn08s20.d	11/08/18	19:06
25	9874070	qn08s21.d	11/08/18	19:29
26	9874137	qn08s22.d	11/08/18	19:52

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Lab File ID: hy02t07.d BFB Injection Date: 05/02/18

Instrument ID: HP19094 BFB Injection Time: 18:32

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.13
75	30.0 - 60.0% of mass 95	52.51
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.69
173	Less than 2.0% of mass 174	0.74 (0.91)1
174	Greater than 50.0% of mass 95	81.35
175	5.0 - 9.0% of mass 174	6.02 (7.39)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.44 (96.43)1
177	5.0 - 9.0% of mass 176	5.34 (6.81)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD25	hy02i11.d	05/02/18	19:15
02	VSTD10	hy02i12.d	05/02/18	19:36
03	VSTD5	hy02i13.d	05/02/18	19:58
04	VSTD2	hy02i14.d	05/02/18	20:19
05	VSTD1	hy02i15.d	05/02/18	20:40
06	VSTD.5	hy02i16.d	05/02/18	21:02
07	VSTD.2	hy02i17.d	05/02/18	21:23
08	MDL0.1 - MDL0.1	hy02m11.d	05/02/18	21:45
09	LCSH88	hy02v11.d	05/02/18	22:07

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: hs24t05.d BFB Injection Date: 09/24/18

Instrument ID: HP19094 BFB Injection Time: 17:53

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.30
75	30.0 - 60.0% of mass 95	48.01
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.23
173	Less than 2.0% of mass 174	0.88 (0.99)1
174	Greater than 50.0% of mass 95	88.37
175	5.0 - 9.0% of mass 174	6.59 (7.45)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.23 (97.58)1
177	5.0 - 9.0% of mass 176	6.27 (7.28)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD25	hs24i01.d	09/24/18	18:29
02	VSTD10	hs24i02.d	09/24/18	18:50
03	VSTD5	hs24i03.d	09/24/18	19:11
04	VSTD2	hs24i04.d	09/24/18	19:33
05	VSTD1	hs24i05.d	09/24/18	19:54
06	VSTD.5	hs24i06.d	09/24/18	20:16
07	VSTD.2	hs24i07.d	09/24/18	20:37
08	MDL0.1 - MDL0.1	hs24m01.d	09/24/18	20:59
09	ICVHLG	hs24v01.d	09/24/18	21:20

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: hn05t05.d BFB Injection Date: 11/05/18

Instrument ID: HP19094 BFB Injection Time: 19:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.24
75	30.0 - 60.0% of mass 95	47.28
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.97
173	Less than 2.0% of mass 174	0.97 (1.10)1
174	Greater than 50.0% of mass 95	87.59
175	5.0 - 9.0% of mass 174	7.08 (8.08)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.77 (95.64)1
177	5.0 - 9.0% of mass 176	5.80 (6.92)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	hn05c01.d	11/05/18	20:18
02	VSTD10	hn05c02.d	11/05/18	20:39
03	LCSH94	hn05s42.d	11/05/18	21:22
04	LCSH96	hn05s72.d	11/05/18	21:22
05	LCSH95	hn05s43.d	11/05/18	21:43
06	LCSH97	hn05s73.d	11/05/18	21:43
07	LCDH95	hn05s44.d	11/05/18	22:05
08	LCDH97	hn05s74.d	11/05/18	22:05
09	MDL94 - MDL94	hn05m01.d	11/05/18	22:26
10	MDL96 - MDL96	hn05m05.d	11/05/18	22:26
11	VBLKH94	hn05b05.d	11/05/18	22:48
12	VBLKH96	hn05b10.d	11/05/18	22:48
13	9868189	hn05s45.d	11/05/18	23:09
14	9868190	hn05s46.d	11/05/18	23:31
15	9868188	hn05s47.d	11/05/18	23:52
16	9868184	hn05s48.d	11/06/18	00:14
17	9868185	hn05s49.d	11/06/18	00:35
18	9868186	hn05s50.d	11/06/18	00:56
19	9868187	hn05s51.d	11/06/18	01:18
20	9868187MS	hn05s52.d	11/06/18	01:39
21	9868187MSD	hn05s53.d	11/06/18	02:01
22	9876332	hn05s75.d	11/06/18	02:22

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: hn05t05.d BFB Injection Date: 11/05/18

Instrument ID: HP19094 BFB Injection Time: 19:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.24
75	30.0 - 60.0% of mass 95	47.28
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.97
173	Less than 2.0% of mass 174	0.97 (1.10)1
174	Greater than 50.0% of mass 95	87.59
175	5.0 - 9.0% of mass 174	7.08 (8.08)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.77 (95.64)1
177	5.0 - 9.0% of mass 176	5.80 (6.92)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	9876334	hn05s76.d	11/06/18	02:44
24	9876335MS	hn05s77.d	11/06/18	03:05
25	9876336MSD	hn05s78.d	11/06/18	03:26
26	9876335MS1	hn05s79.d	11/06/18	03:48
27	9876336MSD1	hn05s80.d	11/06/18	04:09
28	9876342	hn05s81.d	11/06/18	04:31
29	9866460	hn05s82.d	11/06/18	04:52
30	9867760	hn05s83.d	11/06/18	05:14
31	9870250	hn05s84.d	11/06/18	05:35
32	9872059	hn05s85.d	11/06/18	05:57
33	9874410	hn05s86.d	11/06/18	06:18
34	9876331	hn05s87.d	11/06/18	06:40
35	SECC010	hn05ec5.d	11/06/18	07:01
36	SECD010	hn05ec6.d	11/06/18	07:22

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date(s): 09/12/18 09/12/18

Heated Purge: (Y/N) Y Calibration Times: 13:13 15:30

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = bs12i17.d RRF 4 = bs12i16.d RRF 10= bs12i15.d
RRF 20= bs12i14.d RRF 50= bs12i13.d RRF100= bs12i11.d RRF300= bs12i10.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.3747	0.5345	0.5213	0.4622	0.4268	0.4236	0.4174	0.4515	13	AVG	#
Chloromethane	#0.4885	0.5120	0.5027	0.4785	0.4339	0.4285	0.4135	0.4654	8	AVG	#
Vinyl Chloride	#0.4014	0.3993	0.3971	0.3687	0.3371	0.3248	0.3098	0.3626	11	AVG	#
Bromomethane	#0.3523	0.3618	0.3665	0.3391	0.3100	0.2929	0.2366	0.3227	14	AVG	#
Chloroethane	#0.1934	0.2234	0.2246	0.2067	0.1906	0.1787	0.1480	0.1951	14	AVG	#
Dichlorofluoromethane	0.5145	0.5107	0.5127	0.4899	0.4473	0.4343	0.3926	0.4717	10	AVG	
Trichlorofluoromethane	#0.4443	0.5613	0.5614	0.5172	0.4812	0.4760	0.4529	0.4992	10	AVG	#
Ethanol	0.1767	0.1423	0.1294	0.1198	0.1163	0.1216	0.1068	0.1304	18	AVG	
Freon 123a	0.4350	0.3788	0.3345	0.3334	0.3007	0.2947	0.2624	0.3342	17	AVG	
Acrolein	3.3320	2.4427	2.7495	2.0904	2.1312	2.1258	2.0356	2.4153	20	AVG	
1,1-Dichloroethene	#0.2538	0.2720	0.2603	0.2655	0.2474	0.2402	0.2168	0.2508	7	AVG	#
Acetone	#2.8015	1.9546	1.8448	1.2443	1.0916	1.0933	1.0171	1.5782	42	2NDDEG	#
Freon 113	#0.2193	0.2773	0.2609	0.2738	0.2501	0.2499	0.2292	0.2515	9	AVG	#
2-Propanol	1.0384	0.9281	1.0157	0.9245	1.0054	0.9435	0.9056	0.9659	5	AVG	
Methyl Iodide	0.5945	0.6358	0.6223	0.6379	0.6045	0.5865	0.5407	0.6032	6	AVG	
Carbon Disulfide	#0.9555	1.0655	1.0403	1.0738	1.0031	0.9818	0.9060	1.0037	6	AVG	#
Methyl Acetate	#	0.1408	0.1289	0.1412	0.1262	0.1181	0.1166	0.1286	8	AVG	#
Allyl Chloride	0.3610	0.3471	0.3354	0.3545	0.3316	0.3214	0.2977	0.3355	6	AVG	
Methylene Chloride	#0.3504	0.3145	0.3034	0.3026	0.2798	0.2707	0.2538	0.2964	11	AVG	#
t-Butyl alcohol	1.4059	1.4144	1.3872	1.3059	1.3390	1.2215	1.1187	1.3132	8	AVG	
Acrylonitrile	0.1191	0.0867	0.0987	0.0875	0.0764	0.0704	0.0707	0.0871	20	AVG	
Methyl Tertiary Butyl Ether	#0.7663	0.7160	0.7167	0.7629	0.7291	0.6735	0.6301	0.7135	7	AVG	#
trans-1,2-Dichloroethene	#0.2984	0.3072	0.2993	0.3112	0.2909	0.2786	0.2564	0.2917	6	AVG	#
n-Hexane	0.3475	0.3636	0.3571	0.3489	0.3103	0.3188	0.2847	0.3330	9	AVG	
1,1-Dichloroethane	#0.4497	0.4868	0.4792	0.5011	0.4830	0.4733	0.4379	0.4730	5	AVG	#
di-Isopropyl ether	0.8675	0.9001	0.8924	0.9388	0.9028	0.8695	0.8089	0.8828	5	AVG	
2-Chloro-1,3-butadiene	0.3800	0.4426	0.4242	0.4471	0.4245	0.4168	0.3826	0.4168	6	AVG	
Ethyl t-butyl ether	0.8285	0.8355	0.8350	0.8878	0.8591	0.8160	0.7580	0.8314	5	AVG	
2-Butanone	#7.8272	6.6563	7.9535	5.5472	5.4154	5.8227	5.7689	6.4273	17	AVG	#
cis-1,2-Dichloroethene	#0.2944	0.3207	0.3164	0.3327	0.3258	0.3209	0.3057	0.3166	4	AVG	#
2,2-Dichloropropane	0.3289	0.3537	0.3512	0.3641	0.3492	0.3453	0.3214	0.3448	4	AVG	
Propionitrile	1.5511	1.7589	1.6675	1.7393	1.8505	1.7718	1.7305	1.7242	5	AVG	
Methacrylonitrile	0.1053	0.0900	0.0947	0.1036	0.1010	0.0932	0.0933	0.0973	6	AVG	
Bromochloromethane	0.1630	0.1628	0.1658	0.1753	0.1722	0.1713	0.1671	0.1682	3	AVG	
Tetrahydrofuran	1.2957	1.6561	1.9108	1.5240	1.5421	1.6362	1.6420	1.6010	12	AVG	
Chloroform	#0.4674	0.4910	0.4788	0.5034	0.4892	0.4777	0.4532	0.4801	3	AVG	#
1,1,1-Trichloroethane	#0.4719	0.5648	0.4966	0.5190	0.4727	0.4692	0.4468	0.4916	8	AVG	#
Cyclohexane	#0.4155	0.5013	0.4731	0.4951	0.4611	0.4584	0.4282	0.4618	7	AVG	#
Cyclohexane(2)	#0.3541	0.5197	0.4187	0.5125	0.4116	0.4103	0.3940	0.4316	14	AVG	#
Cyclohexane(3)	#0.1305	0.1590	0.1481	0.1547	0.1467	0.1458	0.1375	0.1460	7	AVG	#
1,1-Dichloropropene	0.3140	0.3749	0.3646	0.3826	0.3659	0.3603	0.3382	0.3572	7	AVG	
Carbon Tetrachloride	#0.3046	0.3774	0.3779	0.3980	0.3904	0.3907	0.3743	0.3733	8	AVG	#
Isobutyl Alcohol	0.4899	0.4740	0.4652	0.4382	0.4858	0.4535	0.4231	0.4614	5	AVG	
Benzene	#1.1963	1.1678	1.1374	1.1766	1.1450	1.1124	1.0475	1.1404	4	AVG	#
1,2-Dichloroethane	#0.3795	0.3293	0.3230	0.3395	0.3247	0.3122	0.2956	0.3291	8	AVG	#
1,2-Dichloroethane(2)	#0.0298	0.0343	0.0325	0.0346	0.0331	0.0323	0.0323	0.0327	5	AVG	#<-
t-Amyl methyl ether	0.7765	0.7584	0.7572	0.8262	0.7989	0.7473	0.7090	0.7676	5	AVG	
n-Heptane	0.2923	0.3070	0.3087	0.3398	0.3028	0.2967	0.2791	0.3037	6	AVG	
n-Butanol	0.3473	0.3600	0.3999	0.3717	0.4254	0.4183	0.3819	0.3864	8	AVG	
Trichloroethene	#0.2782	0.3061	0.2978	0.3126	0.2999	0.3017	0.2855	0.2974	4	AVG	#
Methylcyclohexane	#0.3789	0.4959	0.4632	0.4962	0.4710	0.4769	0.4577	0.4628	9	AVG	#
1,2-Dichloropropane	#0.2499	0.2766	0.2690	0.2843	0.2803	0.2743	0.2615	0.2708	4	AVG	#

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date(s): 09/12/18 09/12/18

Heated Purge: (Y/N) Y Calibration Times: 13:13 15:30

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = bs12i17.d RRF 4 = bs12i16.d RRF 10= bs12i15.d
RRF 20= bs12i14.d RRF 50= bs12i13.d RRF100= bs12i11.d RRF300= bs12i10.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Methyl Methacrylate	0.1781	0.1681	0.1657	0.1831	0.1847	0.1702	0.1720	0.1746	4	AVG
1,4-Dioxane	0.1255	0.1526	0.1624	0.1576	0.1777	0.1756	0.1694	0.1601	11	AVG
Dibromomethane	0.1724	0.1585	0.1610	0.1721	0.1688	0.1640	0.1624	0.1656	3	AVG
Bromodichloromethane	#0.2981	0.3196	0.3295	0.3558	0.3630	0.3547	0.3469	0.3382	7	AVG #
2-Nitropropane	3.1877	3.1997	4.3402	2.8752	2.9571	3.2660	3.3206	3.3067	15	AVG
2-Chloroethyl Vinyl Ether	0.1310	0.1292	0.1427	0.1517	0.1532	0.1450	0.1455	0.1426	7	AVG
cis-1,3-Dichloropropene	#0.3587	0.3867	0.3983	0.4326	0.4399	0.4280	0.4145	0.4084	7	AVG #
4-Methyl-2-pentanone	#0.2295	0.1875	0.3681	0.2264	0.2148	0.2304	0.2131	0.2385	25	2NDDEG #
Toluene	#0.9263	1.0000	0.9588	0.9975	0.9709	0.9552	0.8915	0.9571	4	AVG #
trans-1,3-Dichloropropene	#0.4080	0.4199	0.4408	0.4839	0.4996	0.4851	0.4721	0.4585	8	AVG #
Ethyl Methacrylate	0.4521	0.4201	0.4200	0.4649	0.4813	0.4394	0.4378	0.4451	5	AVG
1,1,2-Trichloroethane	#0.3306	0.3058	0.2989	0.3192	0.3223	0.3010	0.2964	0.3106	4	AVG #
Tetrachloroethene	#0.4006	0.4669	0.6352	0.5674	0.4461	0.6787	0.4750	0.5243	20	AVG #
1,3-Dichloropropane	0.5087	0.5009	0.4911	0.5203	0.5169	0.4905	0.4726	0.5001	3	AVG
2-Hexanone	#0.1962	0.1581	0.3739	0.2045	0.1935	0.2191	0.1891	0.2192	32	2NDDEG #
Dibromochloromethane	#0.2959	0.3248	0.3379	0.3724	0.3989	0.3865	0.3887	0.3578	11	AVG #
1,2-Dibromoethane	#0.3009	0.3144	0.3118	0.3358	0.3412	0.3231	0.3191	0.3209	4	AVG #
1-Chlorohexane	0.4109	0.4871	0.4804	0.5021	0.4919	0.4910	0.4658	0.4756	6	AVG
Chlorobenzene	#1.1024	1.1553	1.1129	1.1524	1.1564	1.1080	1.0352	1.1175	4	AVG #
1,1,1,2-Tetrachloroethane	0.3132	0.3667	0.3630	0.3937	0.4141	0.4020	0.3999	0.3789	9	AVG
Ethylbenzene	#1.7060	1.8609	1.8130	1.8902	1.8748	1.8094	1.6470	1.8002	5	AVG #
m+p-Xylene	#0.6926	0.7548	0.7394	0.7789	0.7774	0.7535	0.6454	0.7346	7	AVG #
o-Xylene	#0.6693	0.7414	0.7264	0.7749	0.7806	0.7584	0.6896	0.7344	6	AVG #
Styrene	#1.1056	1.2031	1.1960	1.2652	1.3106	1.2644	1.1299	1.2107	6	AVG #
Bromoform	#0.1825	0.1891	0.1942	0.2266	0.2562	0.2468	0.2656	0.2230	15	AVG #
Isopropylbenzene	#1.7082	1.9313	1.8621	1.9758	1.9546	1.8885	1.6373	1.8511	7	AVG #
Cyclohexanone	0.4266	0.5193	0.6541	0.6215	0.4989	0.6956	0.6398	0.5794	17	AVG
1,1,2,2-Tetrachloroethane	#0.7397	0.7006	0.6472	0.7152	0.7438	0.6524	0.6971	0.6994	5	AVG #
Bromobenzene	0.9289	0.9357	0.8946	0.9186	0.9374	0.8910	0.9065	0.9161	2	AVG
trans-1,4-Dichloro-2-butene	0.1653	0.1511	0.1742	0.1797	0.1868	0.1698	0.1743	0.1716	7	AVG
1,2,3-Trichloropropane	0.2155	0.2050	0.1925	0.2144	0.2191	0.1980	0.2072	0.2074	5	AVG
n-Propylbenzene	3.4084	3.8852	3.6981	3.8355	3.7714	3.6048	3.1498	3.6219	7	AVG
2-Chlorotoluene	0.8187	0.8910	0.8493	0.8504	0.8595	0.8341	0.8461	0.8499	3	AVG
1,3,5-Trimethylbenzene	2.4998	2.9618	2.8448	2.9621	2.9730	2.8657	2.5042	2.8016	8	AVG
4-Chlorotoluene	0.8296	0.8902	0.8592	0.8758	0.8970	0.8624	0.8130	0.8610	4	AVG
tert-Butylbenzene	0.5882	0.6980	0.6492	0.6833	0.7120	0.6608	0.6155	0.6581	7	AVG
Pentachloroethane	0.3929	0.4446	0.2223	0.3918	0.5646	0.2394	0.4991	0.3935	32	AVG
1,2,4-Trimethylbenzene	2.7950	3.0154	2.9294	3.0562	3.0798	2.9389	2.6361	2.9215	5	AVG
sec-Butylbenzene	3.2683	3.8336	3.6592	3.7861	3.7530	3.5952	3.0715	3.5667	8	AVG
1,3-Dichlorobenzene	#1.7612	1.7615	1.6669	1.7440	1.7631	1.6872	1.6512	1.7193	3	AVG #
p-Isopropyltoluene	2.9834	3.4229	3.2558	3.3581	3.4184	3.2530	2.6820	3.1962	9	AVG
1,4-Dichlorobenzene	#1.9863	1.8618	1.7710	1.8131	1.8204	1.7416	1.5532	1.7925	7	AVG #
1,2,3-Trimethylbenzene	3.0366	3.2948	3.1600	3.3292	3.2514	3.2047	2.7685	3.1493	6	AVG
Benzyl Chloride	0.1811	0.1940	0.2087	0.2488	0.2641	0.2530	0.2856	0.2336	17	AVG
1,3-Diethylbenzene	1.7618	2.0381	1.9545	2.0971	2.0437	2.0549	1.8813	1.9759	6	AVG
1,4-Diethylbenzene	1.9012	2.1240	2.0740	2.2052	2.1944	2.1574	1.6985	2.0506	9	AVG
n-Butylbenzene	1.3547	1.5230	1.5026	1.5773	1.5723	1.5091	1.3556	1.4849	6	AVG
1,2-Dichlorobenzene	#1.8498	1.7703	1.6636	1.7345	1.7788	1.6564	1.3127	1.6809	10	AVG #
1,2-Diethylbenzene	1.6130	1.8075	1.7142	1.8126	1.7669	1.7717	1.6146	1.7286	5	AVG
1,2-Dibromo-3-chloropropane	#0.1227	0.1088	0.1091	0.1272	0.1302	0.1199	0.1329	0.1215	8	AVG #
1,3,5-Trichlorobenzene	1.3019	1.3190	1.2522	1.3517	1.3707	1.3181	1.2925	1.3152	3	AVG
1,2,4-Trichlorobenzene	#1.3360	1.2529	1.1698	1.2671	1.2656	1.2044	1.1809	1.2395	5	AVG #

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date(s): 09/12/18 09/12/18

Heated Purge: (Y/N) Y Calibration Times: 13:13 15:30

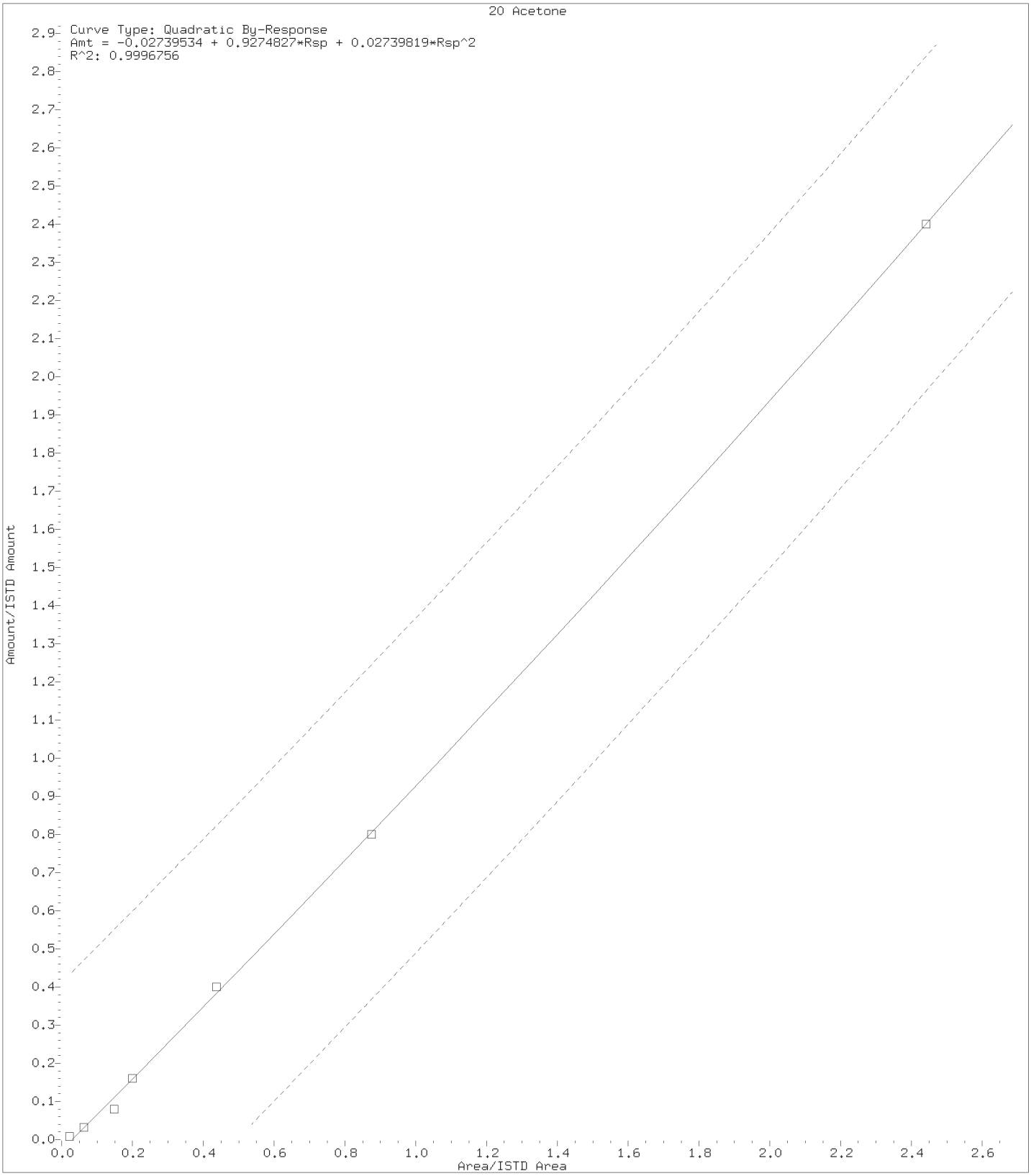
Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = bs12i17.d RRF 4 = bs12i16.d RRF 10= bs12i15.d
RRF 20= bs12i14.d RRF 50= bs12i13.d RRF100= bs12i11.d RRF300= bs12i10.d

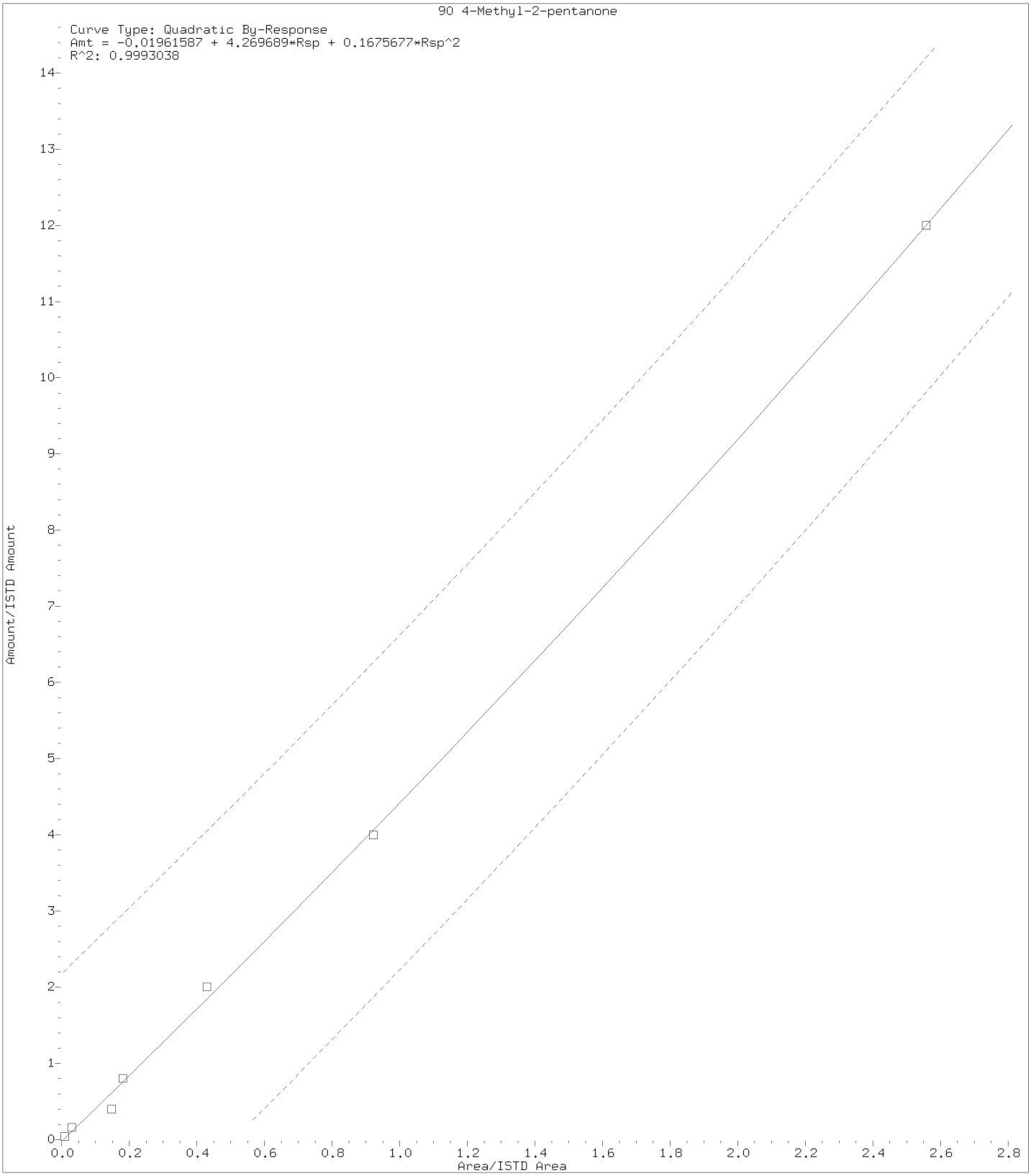
COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Hexachlorobutadiene	0.4921	0.5784	0.5406	0.6019	0.6022	0.5641	0.5795	0.5655	7	AVG
Naphthalene	3.7032	2.9888	2.7610	3.0552	2.9609	2.7000	2.4426	2.9445	13	AVG
1,2,3-Trichlorobenzene	1.2727	1.1930	1.1336	1.2280	1.2077	1.1337	1.1056	1.1820	5	AVG
2-Methylnaphthalene	2.4373	1.9503	1.9556	2.1216	1.9210	1.8973	1.6583	1.9916	12	AVG
Dibromofluoromethane	0.2513	0.2485	0.2478	0.2512	0.2501	0.2484	0.2469	0.2492	1	AVG
Dibromofluoromethane(2)	0.2525	0.2507	0.2507	0.2559	0.2545	0.2522	0.2519	0.2526	1	AVG
1,2-Dichloroethane-d4	0.0545	0.0524	0.0541	0.0568	0.0537	0.0523	0.0516	0.0536	3	AVG
1,2-Dichloroethane-d4(2)	0.2475	0.2333	0.2378	0.2462	0.2339	0.2271	0.2253	0.2359	4	AVG
1,2-Dichloroethane-d4(3)	0.0358	0.0338	0.0341	0.0348	0.0350	0.0337	0.0333	0.0344	3	AVG
Toluene-d8	1.2864	1.3052	1.2918	1.2901	1.2905	1.3007	1.2687	1.2905	1	AVG
Toluene-d8(2)	0.8327	0.8433	0.8354	0.8393	0.8393	0.8409	0.8311	0.8374	1	AVG
4-Bromofluorobenzene	0.4687	0.4679	0.4652	0.4710	0.4725	0.4669	0.4786	0.4701	1	AVG
4-Bromofluorobenzene(2)	0.4293	0.4280	0.4335	0.4324	0.4337	0.4347	0.4374	0.4327	1	AVG

Average %RSD 8

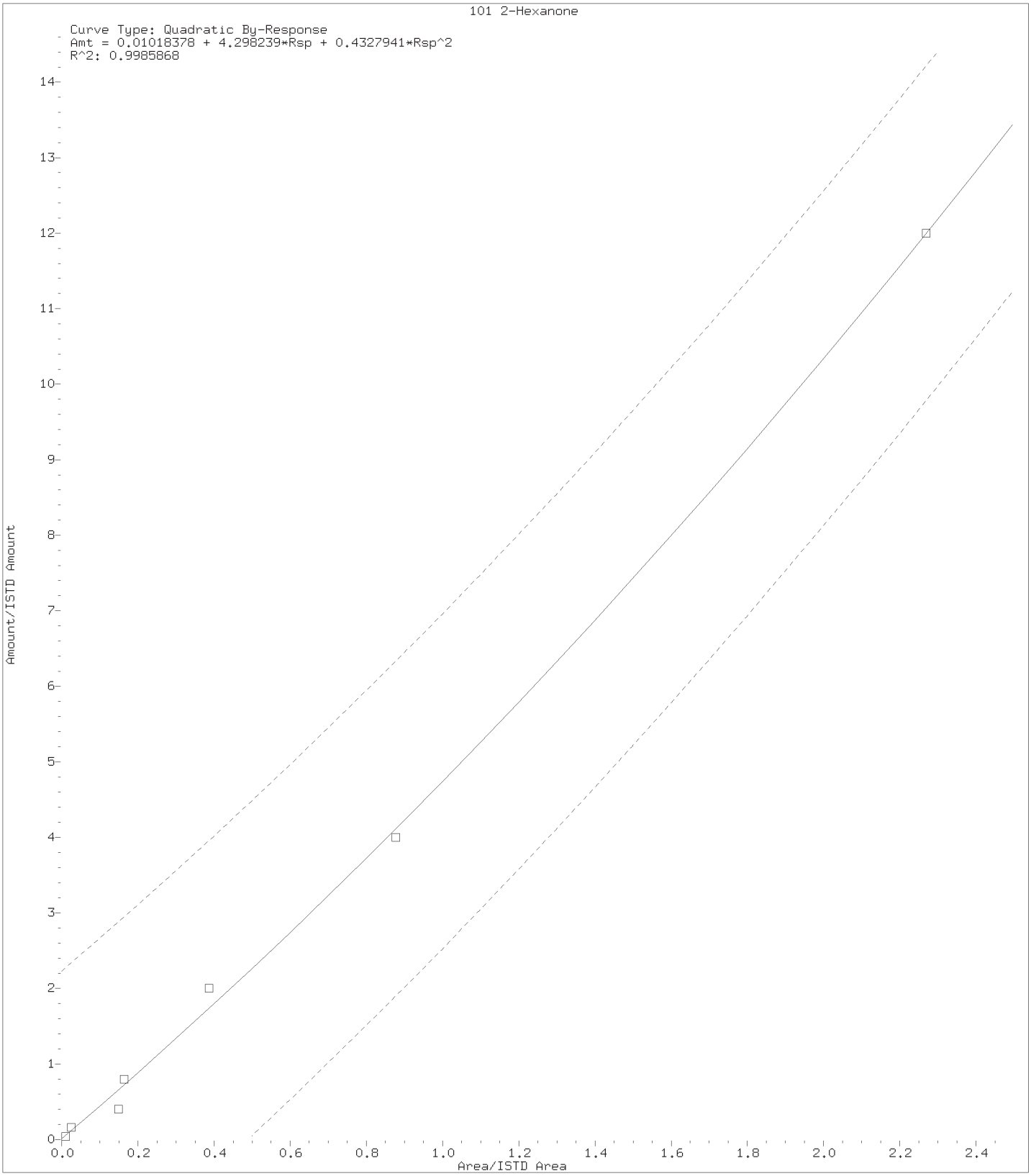
Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.



Digitally signed by Patrick T. Herres on 09/12/2018 at 20:06.
Target 3.5 esignature user ID: pth10165



Digitally signed by Patrick T. Herres on 09/12/2018 at 20:06.
Target 3.5 esignature user ID: pth10165



Digitally signed by Patrick T. Herres on 09/12/2018 at 20:06.
Target 3.5 esignature user ID: pth10165

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP09953.i/18sep12i.b/bs12i10.d	VSTD300
/chem2/HP09953.i/18sep12i.b/bs12i11.d	VSTD100
/chem2/HP09953.i/18sep12i.b/bs12i13.d	VSTD050
/chem2/HP09953.i/18sep12i.b/bs12i14.d	VSTD020
/chem2/HP09953.i/18sep12i.b/bs12i15.d	VSTD010
/chem2/HP09953.i/18sep12i.b/bs12i16.d	VSTD004
/chem2/HP09953.i/18sep12i.b/bs12i17.d	VSTD001

Area Summary

File ID:

Internal Standard Name	bs12i10.d	bs12i11.d	bs12i13.d	bs12i14.d	bs12i15.d	bs12i16.d	bs12i17.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	103473	100388	107301	112901	103557	91708	124933	106323	10	Yes
Fluorobenzene	1230156	1210132	1213056	1179216	1144543	1142455	1123003	1177509	4	Yes
Chlorobenzene-d5	957052	933610	940298	912072	888796	881395	879725	913278	3	Yes
1,4-Dichlorobenzene-d4	535094	539993	544910	525313	500174	492725	497298	519358	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	bs12i10.d	bs12i11.d	bs12i13.d	bs12i14.d	bs12i15.d	bs12i16.d	bs12i17.d	Avg. RT
t-Butyl alcohol-d10	1.924	1.924	1.930	1.924	1.936	1.924	1.924	1.927
Fluorobenzene	3.950	3.950	3.950	3.950	3.950	3.950	3.950	3.950
Chlorobenzene-d5	7.144	7.144	7.144	7.144	7.144	7.144	7.144	7.144
1,4-Dichlorobenzene-d4	9.230	9.224	9.224	9.224	9.230	9.230	9.230	9.228

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 09/12/2018 at 20:05.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 ICV Date: 09/12/18 Time: 16:16

Lab File ID: bs12v10.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4515	0.3415	15.13	20	-24	#
# Chloromethane	0.4654	0.4407	18.94	20	-5	#
# Vinyl Chloride	0.3626	0.3446	19.01	20	-5	#
# Bromomethane	0.3227	0.2742	16.99	20	-15	#
# Chloroethane	0.1951	0.1838	18.85	20	-6	#
Dichlorofluoromethane	0.4717	0.4774	20.24	20	1	
# Trichlorofluoromethane	0.4992	0.4383	17.56	20	-12	#
Ethanol	0.1304	0.1245	954.11	1000	-5	
Freon 123a	0.3342	0.3106	18.59	20	-7	
Acrolein	2.4153	2.1599	134.14	150	-11	
# 1,1-Dichloroethene	0.2508	0.2770	22.08	20	10	#
# Acetone	1.5782	1.0401	140.52	150	-6	#
# Freon 113	0.2515	0.2409	19.16	20	-4	#
2-Propanol	0.9659	0.8831	137.14	150	-9	
Methyl Iodide	0.6032	0.6055	20.08	20	0	
# Carbon Disulfide	1.0037	1.0039	20.00	20	0	#
# Methyl Acetate	0.1286	0.1315	20.45	20	2	#
Allyl Chloride	0.3355	0.3462	20.64	20	3	
# Methylene Chloride	0.2964	0.3171	21.40	20	7	#
t-Butyl alcohol	1.3132	1.2089	184.11	200	-8	
Acrylonitrile	0.0871	0.0712	81.82	100	-18	
# Methyl Tertiary Butyl Ether	0.7135	0.6945	19.47	20	-3	#
# trans-1,2-Dichloroethene	0.2917	0.3203	21.96	20	10	#
n-Hexane	0.3330	0.3041	18.26	20	-9	
# 1,1-Dichloroethane	0.4730	0.4886	20.66	20	3	#
di-Isopropyl ether	0.8828	0.8738	19.79	20	-1	
2-Chloro-1,3-butadiene	0.4168	0.4043	19.40	20	-3	
Ethyl t-butyl ether	0.8314	0.7930	19.08	20	-5	
# 2-Butanone	6.4273	5.3088	123.90	150	-17	#
# cis-1,2-Dichloroethene	0.3166	0.3382	21.36	20	7	#
2,2-Dichloropropane	0.3448	0.3638	21.10	20	5	
Propionitrile	1.7242	1.6921	147.21	150	-2	
Methacrylonitrile	0.0973	0.0933	143.81	150	-4	
Bromochloromethane	0.1682	0.1611	19.15	20	-4	
Tetrahydrofuran	1.6010	1.5247	95.24	100	-5	
# Chloroform	0.4801	0.5049	21.03	20	5	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 ICV Date: 09/12/18 Time: 16:16

Lab File ID: bs12v10.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# 1,1,1-Trichloroethane	0.4916	0.4897	19.92	20	0	#
# Cyclohexane	0.4618	0.4199	18.18	20	-9	#
1,1-Dichloropropene	0.3572	0.3681	20.61	20	3	
# Carbon Tetrachloride	0.3733	0.3824	20.49	20	2	#
Isobutyl Alcohol	0.4614	0.4081	442.22	500	-12	
# Benzene	1.1404	1.1510	20.19	20	1	#
# 1,2-Dichloroethane	0.3291	0.3430	20.84	20	4	#
t-Amyl methyl ether	0.7676	0.7373	19.21	20	-4	
n-Heptane	0.3037	0.2744	18.07	20	-10	
n-Butanol	0.3864	0.3420	885.09	1000	-11	
# Trichloroethene	0.2974	0.3048	20.50	20	2	#
# Methylcyclohexane	0.4628	0.4289	18.54	20	-7	#
# 1,2-Dichloropropane	0.2708	0.2858	21.10	20	6	#
Methyl Methacrylate	0.1746	0.1602	18.35	20	-8	
1,4-Dioxane	0.1601	0.1487	464.44	500	-7	
Dibromomethane	0.1656	0.1683	20.32	20	2	
# Bromodichloromethane	0.3382	0.3549	20.99	20	5	#
2-Nitropropane	3.3067	2.7552	16.66	20	-17	
2-Chloroethyl Vinyl Ether	0.1426	0.1401	19.65	20	-2	
# cis-1,3-Dichloropropene	0.4084	0.4259	20.85	20	4	#
# 4-Methyl-2-pentanone	0.2385	0.2047	87.83	100	-12	#
# Toluene	0.9571	0.9703	20.28	20	1	#
# trans-1,3-Dichloropropene	0.4585	0.4558	19.88	20	-1	#
Ethyl Methacrylate	0.4451	0.4043	18.17	20	-9	
# 1,1,2-Trichloroethane	0.3106	0.3197	20.58	20	3	#
# Tetrachloroethene	0.5243	0.5769	22.01	20	10	#
1,3-Dichloropropane	0.5001	0.4977	19.90	20	0	
# 2-Hexanone	0.2192	0.1838	82.47	100	-18	#
# Dibromochloromethane	0.3578	0.3642	20.35	20	2	#
# 1,2-Dibromoethane	0.3209	0.3241	20.20	20	1	#
1-Chlorohexane	0.4756	0.4704	19.78	20	-1	
# Chlorobenzene	1.1175	1.1299	20.22	20	1	#
1,1,1,2-Tetrachloroethane	0.3789	0.3838	20.26	20	1	
# Ethylbenzene	1.8002	1.8248	20.27	20	1	#
# m+p-Xylene	0.7346	0.7560	41.17	40	3	#
# o-Xylene	0.7344	0.7492	20.40	20	2	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 ICV Date: 09/12/18 Time: 16:16

Lab File ID: bs12v10.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Styrene	1.2107	1.2375	20.44	20	2	#
# Bromoform	0.2230	0.2060	18.48	20	-8	#
# Isopropylbenzene	1.8511	1.9212	20.76	20	4	#
Cyclohexanone	0.5794	0.5928	511.56	500	2	
# 1,1,2,2-Tetrachloroethane	0.6994	0.6832	19.54	20	-2	#
Bromobenzene	0.9161	0.9017	19.69	20	-2	
trans-1,4-Dichloro-2-butene	0.1716	0.1697	98.86	100	-1	
1,2,3-Trichloropropane	0.2074	0.2079	20.05	20	0	
n-Propylbenzene	3.6219	3.7521	20.72	20	4	
2-Chlorotoluene	0.8499	0.8517	20.04	20	0	
1,3,5-Trimethylbenzene	2.8016	2.9313	20.93	20	5	
4-Chlorotoluene	0.8610	0.8574	19.91	20	0	
tert-Butylbenzene	0.6581	0.6687	20.32	20	2	
Pentachloroethane	0.3935	0.3162	16.07	20	-20	
1,2,4-Trimethylbenzene	2.9215	2.9471	20.18	20	1	
sec-Butylbenzene	3.5667	3.6955	20.72	20	4	
# 1,3-Dichlorobenzene	1.7193	1.6950	19.72	20	-1	#
p-Isopropyltoluene	3.1962	3.3415	20.91	20	5	
# 1,4-Dichlorobenzene	1.7925	1.7676	19.72	20	-1	#
1,2,3-Trimethylbenzene	3.1493	3.1496	20.00	20	0	
Benzyl Chloride	0.2336	0.2073	17.75	20	-11	
1,3-Diethylbenzene	1.9759	1.9171	19.40	20	-3	
1,4-Diethylbenzene	2.0506	1.9761	19.27	20	-4	
n-Butylbenzene	1.4849	1.4955	20.14	20	1	
# 1,2-Dichlorobenzene	1.6809	1.7141	20.40	20	2	#
1,2-Diethylbenzene	1.7286	1.7013	19.68	20	-2	
# 1,2-Dibromo-3-chloropropane	0.1215	0.1141	18.78	20	-6	#
1,3,5-Trichlorobenzene	1.3152	1.2763	19.41	20	-3	
# 1,2,4-Trichlorobenzene	1.2395	1.2035	19.42	20	-3	#
Hexachlorobutadiene	0.5655	0.5816	20.57	20	3	
Naphthalene	2.9445	2.8149	19.12	20	-4	
1,2,3-Trichlorobenzene	1.1820	1.1729	19.84	20	-1	
2-Methylnaphthalene	1.9916	1.7706	17.78	20	-11	

Average %Drift 5

Compounds with required minimum RRF.
Maximum % Drift = 30 %

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date(s): 10/17/18 10/17/18

Heated Purge: (Y/N) N Calibration Times: 13:51 16:10

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = qc17i51.d RRF 4 = qc17i52.d RRF 10= qc17i53.d
RRF 20= qc17i54.d RRF 50= qc17i55.d RRF100= qc17i56.d RRF300= qc17i57.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.4082	0.5338	0.5212	0.5352	0.4780	0.4607	0.4705	0.4868	10	AVG	#
Chloromethane	#0.4934	0.5492	0.5919	0.5613	0.4927	0.4688	0.4730	0.5186	9	AVG	#
Vinyl Chloride	#0.4700	0.5461	0.5726	0.5609	0.4738	0.4536	0.4551	0.5046	10	AVG	#
Bromomethane	#	0.2331	0.2071	0.2064	0.1649	0.1569	0.1431	0.1852	19	AVG	#
Chloroethane	#0.2334	0.1926	0.1851	0.1938	0.1577	0.1515	0.1423	0.1795	18	AVG	#
Dichlorofluoromethane	0.7393	0.7215	0.6804	0.6668	0.5518	0.5499	0.4972	0.6295	15	AVG	
Trichlorofluoromethane	#0.4547	0.6792	0.7076	0.7328	0.5913	0.5899	0.5644	0.6171	16	AVG	#
n-Pentane	0.4303	0.4387	0.3363	0.3744	0.2891	0.3141	0.2658	0.3498	19	AVG	
Ethanol	0.1531	0.1561	0.1511	0.1610	0.1341	0.1263	0.1116	0.1419	13	AVG	
Freon 123a	0.3104	0.4504	0.4015	0.4381	0.3496	0.3623	0.3466	0.3798	14	AVG	
Acrolein	2.8825	2.9385	3.0836	3.2688	2.9286	2.9112	2.8340	2.9782	5	AVG	
1,1-Dichloroethene	#0.1997	0.2652	0.2478	0.2804	0.2418	0.2515	0.2505	0.2481	10	AVG	#
1,1-Dichloroethene(2)	#0.0979	0.1344	0.1311	0.1445	0.1233	0.1301	0.1263	0.1268	11	AVG	#
Acetone	#1.0609	1.1830	1.2339	1.3580	1.1849	1.2173	1.1810	1.2027	7	AVG	#
Freon 113	#0.1450	0.2302	0.2090	0.2367	0.2129	0.2274	0.2184	0.2114	15	AVG	#
2-Propanol	0.8108	0.8685	0.8889	1.0196	0.8224	0.7632	0.7240	0.8425	11	AVG	
Methyl Iodide	0.4632	0.5435	0.5319	0.5925	0.5249	0.5278	0.5105	0.5278	7	AVG	
Carbon Disulfide	#0.7670	0.9320	0.9042	1.0176	0.8930	0.9126	0.8884	0.9021	8	AVG	#
Methyl Acetate	#0.2850	0.2607	0.2310	0.2680	0.2281	0.2192	0.2101	0.2431	12	AVG	#
Allyl Chloride	0.4275	0.4709	0.4818	0.5092	0.4483	0.4649	0.4477	0.4643	6	AVG	
Methylene Chloride	#0.2725	0.3115	0.2975	0.3250	0.2926	0.2905	0.2843	0.2963	6	AVG	#
t-Butyl alcohol	1.2034	1.2059	1.2096	1.3876	1.2645	1.2060	1.0841	1.2230	7	AVG	
Acrylonitrile	0.1072	0.1217	0.1302	0.1343	0.1195	0.1204	0.1190	0.1218	7	AVG	
Methyl Tertiary Butyl Ether	#0.8378	0.8699	0.8336	0.9321	0.8260	0.8343	0.8084	0.8489	5	AVG	#
trans-1,2-Dichloroethene	#0.2330	0.2865	0.2831	0.3101	0.2778	0.2816	0.2887	0.2801	8	AVG	#
n-Hexane	0.1608	0.2138	0.2114	0.2403	0.2244	0.2340	0.2277	0.2160	12	AVG	
1,1-Dichloroethane	#0.4489	0.4991	0.5056	0.5660	0.4924	0.5041	0.4891	0.5007	7	AVG	#
di-Isopropyl ether	0.9233	0.9974	0.9764	1.1104	0.9688	0.9919	0.9543	0.9889	6	AVG	
2-Chloro-1,3-butadiene	0.3692	0.4641	0.4525	0.5190	0.4428	0.4615	0.4541	0.4519	10	AVG	
Ethyl t-butyl ether	0.8958	0.9319	0.9068	1.0469	0.8911	0.9137	0.8521	0.9198	7	AVG	
2-Butanone	#7.2777	6.4335	6.5038	7.1830	6.1330	5.9892	5.7887	6.4727	9	AVG	#
2-Butanone(2)	#1.3739	1.5062	1.6116	1.7561	1.6257	1.6104	1.5951	1.5827	7	AVG	#
cis-1,2-Dichloroethene	#0.2553	0.3165	0.3006	0.3482	0.3058	0.3157	0.3221	0.3092	9	AVG	#
2,2-Dichloropropane	0.3605	0.4124	0.4002	0.4494	0.3958	0.4075	0.4040	0.4043	6	AVG	
Propionitrile	0.0378	0.0403	0.0417	0.0486	0.0424	0.0432	0.0433	0.0425	8	AVG	
Methacrylonitrile	0.1175	0.1265	0.1272	0.1485	0.1304	0.1333	0.1316	0.1307	7	AVG	
Bromochloromethane	0.1476	0.1776	0.1700	0.1951	0.1715	0.1760	0.1745	0.1732	8	AVG	
Tetrahydrofuran	1.3345	1.5563	1.7095	1.8099	1.6441	1.6377	1.6174	1.6156	9	AVG	
Chloroform	#0.4244	0.4995	0.4720	0.5403	0.4687	0.4828	0.4690	0.4795	7	AVG	#
1,1,1-Trichloroethane	#0.3318	0.4042	0.3801	0.4370	0.3914	0.4058	0.4028	0.3933	8	AVG	#
Cyclohexane	#0.2740	0.3805	0.3348	0.3804	0.3393	0.3558	0.3470	0.3445	10	AVG	#
Cyclohexane(2)	#0.2513	0.3164	0.2728	0.3214	0.2777	0.2917	0.2849	0.2880	9	AVG	#
Cyclohexane(3)	#0.0655	0.1204	0.1005	0.1163	0.1019	0.1075	0.1055	0.1025	17	AVG	#
1,1-Dichloropropene	0.2835	0.3808	0.3564	0.3907	0.3487	0.3578	0.3585	0.3538	10	AVG	
Carbon Tetrachloride	#0.2185	0.2739	0.2685	0.3132	0.2913	0.3171	0.3288	0.2873	13	AVG	#
Isobutyl Alcohol	0.4288	0.4112	0.4106	0.4818	0.3999	0.4035	0.3648	0.4144	9	AVG	
Benzene	#0.9403	1.1454	1.0741	1.2033	1.0832	1.1286	1.1100	1.0978	7	AVG	#
1,2-Dichloroethane	#0.3537	0.4056	0.3766	0.4190	0.3743	0.3811	0.3516	0.3803	7	AVG	#
1,2-Dichloroethane(2)	#0.0155	0.0334	0.0359	0.0384	0.0356	0.0365	0.0351	0.0329	24	AVG	#<-
t-Amyl methyl ether	0.8283	0.9131	0.8593	0.9711	0.8599	0.8712	0.8072	0.8729	6	AVG	
n-Heptane	0.2141	0.2284	0.1938	0.2190	0.2054	0.2106	0.2057	0.2110	5	AVG	
n-Butanol	0.2509	0.2930	0.3032	0.3722	0.3307	0.3234	0.3022	0.3108	12	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date(s): 10/17/18 10/17/18

Heated Purge: (Y/N) N Calibration Times: 13:51 16:10

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = qc17i51.d RRF 4 = qc17i52.d RRF 10= qc17i53.d
RRF 20= qc17i54.d RRF 50= qc17i55.d RRF100= qc17i56.d RRF300= qc17i57.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2242	0.2812	0.2749	0.3063	0.2706	0.2779	0.2722	0.2725	9	AVG #
Methylcyclohexane	#0.1885	0.2676	0.2522	0.2967	0.2674	0.2802	0.2831	0.2622	14	AVG #
1,2-Dichloropropane	#0.2744	0.2946	0.2862	0.3261	0.2969	0.3063	0.3115	0.2994	6	AVG #
Methyl Methacrylate	0.1814	0.2141	0.2146	0.2457	0.2271	0.2325	0.2335	0.2213	9	AVG
1,4-Dioxane	0.0683	0.0991	0.1116	0.1365	0.1280	0.1195	0.1130	0.1108	20	AVG
Dibromomethane	0.1509	0.1781	0.1781	0.2042	0.1831	0.1890	0.1888	0.1817	9	AVG
Bromodichloromethane	#0.2549	0.2815	0.2853	0.3384	0.3217	0.3432	0.3508	0.3108	12	AVG #
2-Nitropropane	2.5824	1.7036	1.6799	1.9026	1.8928	2.1371	2.6355	2.0763	19	AVG
2-Chloroethyl Vinyl Ether	0.1360	0.1918	0.1914	0.2242	0.2010	0.2111	0.2072	0.1947	15	AVG
cis-1,3-Dichloropropene	#0.3493	0.4205	0.4255	0.4917	0.4459	0.4693	0.4651	0.4382	11	AVG #
4-Methyl-2-pentanone	#0.2932	0.2879	0.3105	0.3292	0.2949	0.3024	0.2903	0.3012	5	AVG #
Toluene	#0.7192	0.8926	0.8690	0.9785	0.8824	0.8915	0.8473	0.8686	9	AVG #
trans-1,3-Dichloropropene	#0.4555	0.5055	0.5181	0.5911	0.5684	0.5760	0.5397	0.5363	9	AVG #
Ethyl Methacrylate	0.4825	0.5440	0.5302	0.6222	0.5775	0.5750	0.5484	0.5542	8	AVG
1,1,2-Trichloroethane	#0.3470	0.3526	0.3306	0.3762	0.3385	0.3404	0.3195	0.3435	5	AVG #
Tetrachloroethene	#0.3000	0.3664	0.3483	0.3891	0.3487	0.3450	0.3287	0.3466	8	AVG #
1,3-Dichloropropane	0.5786	0.6049	0.5780	0.6414	0.5860	0.5790	0.5455	0.5876	5	AVG
2-Hexanone	#0.2533	0.2472	0.2810	0.3026	0.2711	0.2707	0.2600	0.2694	7	AVG #
Dibromochloromethane	#0.2287	0.2473	0.2600	0.3208	0.3340	0.3644	0.3764	0.3045	19	AVG #
1,2-Dibromoethane	#0.3252	0.3522	0.3585	0.4021	0.3669	0.3677	0.3492	0.3602	6	AVG #
1-Chlorohexane	0.3560	0.3750	0.3433	0.3774	0.3350	0.3439	0.3415	0.3531	5	AVG
Chlorobenzene	#0.8994	1.0229	0.9630	1.0763	0.9642	0.9788	0.9557	0.9800	6	AVG #
1,1,1,2-Tetrachloroethane	0.2549	0.2933	0.2943	0.3512	0.3399	0.3593	0.3724	0.3236	13	AVG
Ethylbenzene	#1.2479	1.5150	1.4641	1.6474	1.4951	1.5439	1.5223	1.4908	8	AVG #
m+p-Xylene	#0.4756	0.5899	0.5717	0.6448	0.5940	0.6060	0.5975	0.5828	9	AVG #
o-Xylene	#0.4708	0.5829	0.5737	0.6418	0.5911	0.6046	0.5965	0.5802	9	AVG #
Styrene	#0.8165	1.0098	0.9964	1.1439	1.0687	1.0963	1.0807	1.0303	10	AVG #
Bromoform	#0.1205	0.1339	0.1440	0.1926	0.2128	0.2396	0.2643	0.1868	30	2NDDEG #
Isopropylbenzene	#1.0398	1.2556	1.2324	1.3973	1.2651	1.2684	1.2083	1.2381	9	AVG #
Cyclohexanone	0.3762	0.3754	0.3965	0.4536	0.4263	0.4148	0.3970	0.4057	7	AVG
1,1,2,2-Tetrachloroethane	#1.1931	1.0844	0.9980	1.1960	1.0410	1.0107	1.0116	1.0764	8	AVG #
Bromobenzene	0.9574	1.0357	0.9819	1.1250	0.9929	1.0042	1.0104	1.0154	5	AVG
trans-1,4-Dichloro-2-butene	0.3057	0.3039	0.3074	0.3742	0.3218	0.3238	0.3127	0.3214	8	AVG
1,2,3-Trichloropropane	0.3441	0.3328	0.3215	0.3683	0.3188	0.3130	0.3071	0.3294	6	AVG
n-Propylbenzene	2.7992	3.2382	3.1724	3.5560	3.1112	3.1204	2.9774	3.1392	7	AVG
2-Chlorotoluene	0.6924	0.7454	0.7304	0.8328	0.7318	0.7219	0.7220	0.7395	6	AVG
1,3,5-Trimethylbenzene	2.0985	2.3739	2.3839	2.6588	2.3690	2.3809	2.3330	2.3712	7	AVG
4-Chlorotoluene	0.7175	0.8140	0.7831	0.8755	0.7815	0.7837	0.7744	0.7900	6	AVG
tert-Butylbenzene	0.5062	0.4887	0.4833	0.5269	0.4691	0.4781	0.4660	0.4883	4	AVG
Pentachloroethane	0.3158	0.3559	0.4137	0.5123	0.5207	0.5698	0.6036	0.4703	23	2NDDEG
1,2,4-Trimethylbenzene	2.1936	2.5392	2.4794	2.8423	2.5521	2.6006	2.5890	2.5423	8	AVG
sec-Butylbenzene	2.4176	2.7332	2.6144	2.9709	2.5571	2.5707	2.4365	2.6144	7	AVG
1,3-Dichlorobenzene	#1.3273	1.5068	1.4470	1.6984	1.4997	1.5244	1.4962	1.5000	7	AVG #
p-Isopropyltoluene	2.0433	2.3744	2.3013	2.7169	2.3756	2.4376	2.4070	2.3794	8	AVG
1,4-Dichlorobenzene	#1.7111	1.7682	1.6200	1.8365	1.6290	1.6406	1.5857	1.6844	5	AVG #
1,2,3-Trimethylbenzene	2.7443	2.7938	2.7943	3.1700	2.8454	2.9124	2.8826	2.8775	5	AVG
Benzyl Chloride	0.3033	0.3348	0.3776	0.4839	0.4605	0.4760	0.4905	0.4181	19	AVG
1,3-Diethylbenzene	1.2263	1.4243	1.4314	1.6394	1.4581	1.4810	1.4424	1.4433	8	AVG
1,4-Diethylbenzene	1.3014	1.4547	1.5157	1.7203	1.5243	1.5464	1.5121	1.5107	8	AVG
n-Butylbenzene	0.8883	1.1974	1.0508	1.2316	1.0936	1.1187	1.1046	1.0978	10	AVG
1,2-Dichlorobenzene	#1.5081	1.6353	1.4952	1.7333	1.5222	1.5145	1.4733	1.5546	6	AVG #
1,2-Diethylbenzene	1.2052	1.2918	1.2736	1.4547	1.2652	1.2889	1.2725	1.2931	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date(s): 10/17/18 10/17/18

Heated Purge: (Y/N) N Calibration Times: 13:51 16:10

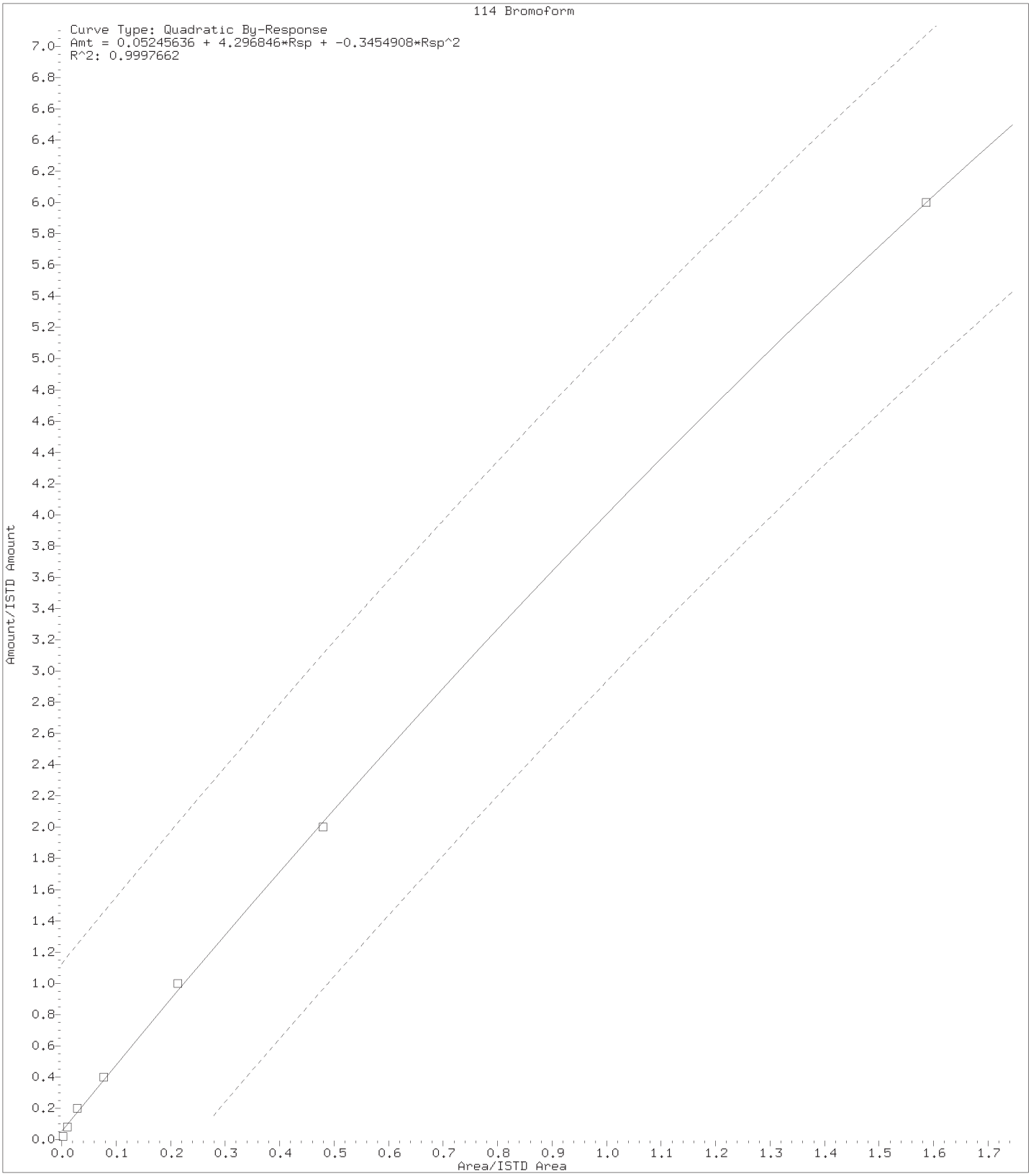
Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = qc17i51.d RRF 4 = qc17i52.d RRF 10= qc17i53.d
RRF 20= qc17i54.d RRF 50= qc17i55.d RRF100= qc17i56.d RRF300= qc17i57.d

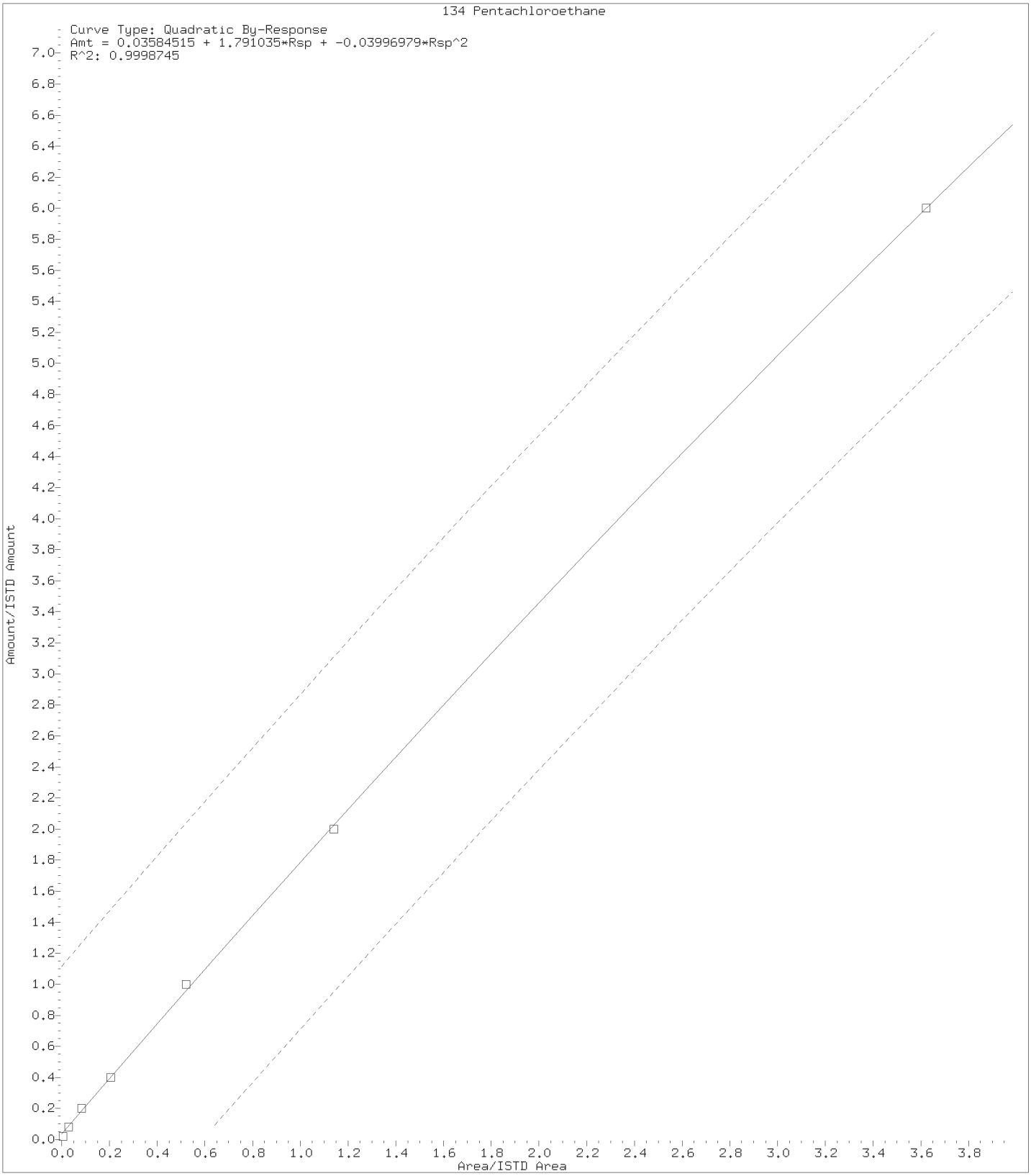
COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane#	0.1584	0.1469	0.1532	0.1879	0.1755	0.1771	0.1708	0.1671	9	AVG #
1,3,5-Trichlorobenzene	0.8924	1.0004	0.9539	1.1089	0.9646	0.9570	0.9408	0.9740	7	AVG
1,2,4-Trichlorobenzene #	0.8691	0.9495	0.9045	1.0796	0.9456	0.9230	0.8978	0.9384	7	AVG #
Hexachlorobutadiene	0.3972	0.4457	0.4078	0.4602	0.3988	0.3937	0.3913	0.4135	7	AVG
Naphthalene	2.9393	2.8135	2.6467	3.1519	2.7266	2.6953	2.5104	2.7834	8	AVG
1,2,3-Trichlorobenzene	0.8842	0.9056	0.8526	1.0204	0.8920	0.8826	0.8421	0.8971	7	AVG
2-Methylnaphthalene	1.1325	1.1780	1.2915	1.6210	1.4339	1.4761	1.4197	1.3647	13	AVG
Dibromofluoromethane	0.2298	0.2680	0.2750	0.3032	0.2674	0.2783	0.2823	0.2720	8	AVG
Dibromofluoromethane(2)	0.2403	0.2771	0.2913	0.3059	0.2747	0.2822	0.2896	0.2802	7	AVG
1,2-Dichloroethane-d4	0.0531	0.0688	0.0752	0.0799	0.0695	0.0739	0.0747	0.0707	12	AVG
1,2-Dichloroethane-d4(2)	0.3029	0.3555	0.3582	0.3728	0.3249	0.3342	0.3228	0.3388	7	AVG
1,2-Dichloroethane-d4(3)	0.0275	0.0440	0.0475	0.0521	0.0448	0.0469	0.0479	0.0444	18	AVG
Toluene-d8	1.1360	1.3640	1.4524	1.5505	1.3568	1.3840	1.3108	1.3649	9	AVG
Toluene-d8(2)	0.7219	0.8966	0.9458	1.0036	0.8814	0.8953	0.8603	0.8864	10	AVG
4-Bromofluorobenzene	0.3673	0.4072	0.4536	0.4895	0.4347	0.4427	0.4470	0.4346	9	AVG
4-Bromofluorobenzene(2)	0.3447	0.3931	0.4335	0.4671	0.4176	0.4169	0.4190	0.4131	9	AVG

Average %RSD 10

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.



Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072



Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP07536.i/18oct17z.b/qc17i51.d	VSTD001
/chem/HP07536.i/18oct17z.b/qc17i52.d	VSTD004
/chem/HP07536.i/18oct17z.b/qc17i53.d	VSTD010
/chem/HP07536.i/18oct17z.b/qc17i54.d	VSTD020
/chem/HP07536.i/18oct17z.b/qc17i55.d	VSTD050
/chem/HP07536.i/18oct17z.b/qc17i56.d	VSTD100
/chem/HP07536.i/18oct17z.b/qc17i57.d	VSTD300

Area Summary

File ID:

Internal Standard Name	qc17i51.d	qc17i52.d	qc17i53.d	qc17i54.d	qc17i55.d	qc17i56.d	qc17i57.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	127015	127724	128352	115865	127991	140725	152283	131422	9	Yes
Fluorobenzene	1116320	1101662	1091139	1013000	1144986	1222317	1289832	1139894	8	Yes
Chlorobenzene-d5	804181	815551	808011	756243	853346	935770	1026113	857031	11	Yes
1,4-Dichlorobenzene-d4	323892	341492	340975	326246	373806	412296	457182	367984	14	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	qc17i51.d	qc17i52.d	qc17i53.d	qc17i54.d	qc17i55.d	qc17i56.d	qc17i57.d	Avg. RT
t-Butyl alcohol-d10	3.994	3.996	4.004	4.010	4.020	4.009	4.019	4.007
Fluorobenzene	7.511	7.507	7.508	7.511	7.508	7.507	7.510	7.509
Chlorobenzene-d5	11.038	11.037	11.037	11.037	11.035	11.036	11.036	11.037
1,4-Dichlorobenzene-d4	12.931	12.930	12.930	12.930	12.928	12.930	12.930	12.930

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 10/20/2018 at 14:17.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 ICV Date: 10/17/18 Time: 17:18

Lab File ID: qc17v51.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4868	0.3485	14.32	20	-28	#
# Chloromethane	0.5186	0.4652	17.94	20	-10	#
# Vinyl Chloride	0.5046	0.4707	18.65	20	-7	#
# Bromomethane	0.1852	0.1327	14.32	20	-28	#
# Chloroethane	0.1795	0.1499	16.71	20	-16	#
Dichlorofluoromethane	0.6295	0.5838	18.55	20	-7	
# Trichlorofluoromethane	0.6171	0.5450	17.66	20	-12	#
n-Pentane	0.3498	0.3025	17.30	20	-14	
Ethanol	0.1419	0.1497	1055.11	1000	6	
Freon 123a	0.3798	0.3868	20.37	20	2	
# 1,1-Dichloroethene	0.2481	0.2751	22.17	20	11	#
# Acetone	1.2027	1.1258	140.41	150	-6	#
# Freon 113	0.2114	0.2207	20.89	20	4	#
2-Propanol	0.8425	0.7998	142.39	150	-5	
Methyl Iodide	0.5278	0.5283	20.02	20	0	
# Carbon Disulfide	0.9021	0.9132	20.25	20	1	#
# Methyl Acetate	0.2431	0.2266	18.63	20	-7	#
Allyl Chloride	0.4643	0.4581	19.73	20	-1	
# Methylene Chloride	0.2963	0.3182	21.48	20	7	#
t-Butyl alcohol	1.2230	1.3480	220.44	200	10	
Acrylonitrile	0.1218	0.1188	97.55	100	-2	
# Methyl Tertiary Butyl Ether	0.8489	0.8363	19.70	20	-1	#
# trans-1,2-Dichloroethene	0.2801	0.3128	22.33	20	12	#
n-Hexane	0.2160	0.2348	21.74	20	9	
# 1,1-Dichloroethane	0.5007	0.5431	21.69	20	8	#
di-Isopropyl ether	0.9889	1.0193	20.62	20	3	
2-Chloro-1,3-butadiene	0.4519	0.4667	20.66	20	3	
Ethyl t-butyl ether	0.9198	0.9103	19.79	20	-1	
# 2-Butanone	6.4727	5.9134	137.04	150	-9	#
# cis-1,2-Dichloroethene	0.3092	0.3456	22.36	20	12	#
2,2-Dichloropropane	0.4043	0.4433	21.93	20	10	
Propionitrile	0.0425	0.0455	160.63	150	7	
Methacrylonitrile	0.1307	0.1367	156.92	150	5	
Bromochloromethane	0.1732	0.1723	19.90	20	-1	
Tetrahydrofuran	1.6156	1.5793	97.75	100	-2	
# Chloroform	0.4795	0.5194	21.66	20	8	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 ICV Date: 10/17/18 Time: 17:18

Lab File ID: qc17v51.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
# 1,1,1-Trichloroethane	0.3933	0.4359	22.17	20	11	#
# Cyclohexane	0.3445	0.3575	20.75	20	4	#
1,1-Dichloropropene	0.3538	0.3827	21.63	20	8	
# Carbon Tetrachloride	0.2873	0.3324	23.14	20	16	#
Isobutyl Alcohol	0.4144	0.4542	548.07	500	10	
# Benzene	1.0978	1.1694	21.30	20	7	#
# 1,2-Dichloroethane	0.3803	0.4197	22.07	20	10	#
t-Amyl methyl ether	0.8729	0.8785	20.13	20	1	
n-Heptane	0.2110	0.2123	20.12	20	1	
n-Butanol	0.3108	0.3302	1062.36	1000	6	
# Trichloroethene	0.2725	0.2879	21.13	20	6	#
# Methylcyclohexane	0.2622	0.2601	19.83	20	-1	#
# 1,2-Dichloropropane	0.2994	0.3103	20.73	20	4	#
Methyl Methacrylate	0.2213	0.2118	19.14	20	-4	
1,4-Dioxane	0.1108	0.1240	559.46	500	12	
Dibromomethane	0.1817	0.1920	21.13	20	6	
# Bromodichloromethane	0.3108	0.3481	22.40	20	12	#
2-Nitropropane	2.0763	1.6792	16.18	20	-19	
2-Chloroethyl Vinyl Ether	0.1947	0.1955	20.09	20	0	
# cis-1,3-Dichloropropene	0.4382	0.4733	21.60	20	8	#
# 4-Methyl-2-pentanone	0.3012	0.2970	98.61	100	-1	#
# Toluene	0.8686	0.9542	21.97	20	10	#
# trans-1,3-Dichloropropene	0.5363	0.5850	21.82	20	9	#
Ethyl Methacrylate	0.5542	0.5523	19.93	20	0	
# 1,1,2-Trichloroethane	0.3435	0.3756	21.86	20	9	#
# Tetrachloroethene	0.3466	0.3749	21.63	20	8	#
1,3-Dichloropropane	0.5876	0.6180	21.03	20	5	
# 2-Hexanone	0.2694	0.2747	101.96	100	2	#
# Dibromochloromethane	0.3045	0.3521	23.13	20	16	#
# 1,2-Dibromoethane	0.3602	0.3830	21.27	20	6	#
1-Chlorohexane	0.3531	0.3630	20.56	20	3	
# Chlorobenzene	0.9800	1.0164	20.74	20	4	#
1,1,1,2-Tetrachloroethane	0.3236	0.3542	21.89	20	9	
# Ethylbenzene	1.4908	1.5609	20.94	20	5	#
# m+p-Xylene	0.5828	0.6285	43.14	40	8	#
# o-Xylene	0.5802	0.6238	21.50	20	8	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 ICV Date: 10/17/18 Time: 17:18

Lab File ID: qc17v51.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Styrene	1.0303	1.0986	21.33	20	7	#
# Bromoform	0.1868	0.2070	20.29	20	1	#
# Isopropylbenzene	1.2381	1.3332	21.54	20	8	#
Cyclohexanone	0.4057	0.3594	442.94	500	-11	
# 1,1,2,2-Tetrachloroethane	1.0764	1.0475	19.46	20	-3	#
Bromobenzene	1.0154	1.0395	20.48	20	2	
trans-1,4-Dichloro-2-butene	0.3214	0.3599	112.00	100	12	
1,2,3-Trichloropropane	0.3294	0.3375	20.49	20	2	
n-Propylbenzene	3.1392	3.3167	21.13	20	6	
2-Chlorotoluene	0.7395	0.7720	20.88	20	4	
1,3,5-Trimethylbenzene	2.3712	2.4780	20.90	20	5	
4-Chlorotoluene	0.7900	0.8114	20.54	20	3	
tert-Butylbenzene	0.4883	0.5006	20.50	20	3	
Pentachloroethane	0.4703	0.4899	19.26	20	-4	
1,2,4-Trimethylbenzene	2.5423	2.5826	20.32	20	2	
sec-Butylbenzene	2.6144	2.7716	21.20	20	6	
# 1,3-Dichlorobenzene	1.5000	1.5409	20.55	20	3	#
p-Isopropyltoluene	2.3794	2.5232	21.21	20	6	
# 1,4-Dichlorobenzene	1.6844	1.7415	20.68	20	3	#
1,2,3-Trimethylbenzene	2.8775	2.8379	19.72	20	-1	
Benzyl Chloride	0.4181	0.4114	19.68	20	-2	
1,3-Diethylbenzene	1.4433	1.4777	20.48	20	2	
1,4-Diethylbenzene	1.5107	1.5106	20.00	20	0	
n-Butylbenzene	1.0978	1.1747	21.40	20	7	
# 1,2-Dichlorobenzene	1.5546	1.5904	20.46	20	2	#
1,2-Diethylbenzene	1.2931	1.3161	20.36	20	2	
# 1,2-Dibromo-3-chloropropane	0.1671	0.1811	21.68	20	8	#
1,3,5-Trichlorobenzene	0.9740	1.0903	22.39	20	12	
# 1,2,4-Trichlorobenzene	0.9384	1.0587	22.56	20	13	#
Naphthalene	2.7834	2.8523	20.50	20	2	
1,2,3-Trichlorobenzene	0.8971	1.0262	22.88	20	14	
2-Methylnaphthalene	1.3647	1.6448	24.11	20	21	
			Average %Drift		7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 ICV Date: 10/23/18 Time: 09:01

Lab File ID: qc23v52.d Init. Calib. Date(s): 10/23/18 10/23/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Acrolein	2.9782	2.5517	128.52	150	-14
Hexachlorobutadiene	0.4135	0.4651	22.49	20	12

Average %Drift 13

Compounds with required minimum RRF.
Maximum % Drift = 30 %

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 09/24/18 09/24/18

Heated Purge: (Y/N) Y Calibration Times: 18:29 20:37

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hs24i07.d RRF0.5= hs24i06.d RRF 1 = hs24i05.d
RRF 2 = hs24i04.d RRF 5 = hs24i03.d RRF 10= hs24i02.d RRF 25= hs24i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.3380	0.3844	0.3955	0.3840	0.4097	0.4153	0.4089	0.3908	7	AVG	#
Chloromethane	#0.3666	0.3812	0.3853	0.3730	0.3900	0.3939	0.3892	0.3827	3	AVG	#
Vinyl Chloride	#0.3437	0.3452	0.3656	0.3476	0.3655	0.3717	0.3695	0.3584	3	AVG	#
1,3-Butadiene	0.4071	0.3994	0.4295	0.4025	0.4024	0.4033	0.3977	0.4060	3	AVG	
Bromomethane	#0.2658	0.2790	0.2802	0.2752	0.2802	0.2863	0.2838	0.2786	2	AVG	#
Chloroethane	#0.2153	0.2148	0.2244	0.2134	0.2173	0.2205	0.2162	0.2174	2	AVG	#
Dichlorofluoromethane	0.4863	0.4967	0.5291	0.5160	0.5340	0.5250	0.5325	0.5171	4	AVG	
Trichlorofluoromethane	#0.4040	0.4488	0.4614	0.4428	0.4717	0.4709	0.4699	0.4528	5	AVG	#
Ethyl ether	0.1522	0.1489	0.1504	0.1542	0.1545	0.1583	0.1563	0.1535	2	AVG	
Freon 123a	0.2447	0.2821	0.2934	0.2879	0.3015	0.3019	0.2965	0.2869	7	AVG	
Acrolein	2.1198	2.0592	2.1962	2.0635	2.3423	2.4323	2.3181	2.2188	7	AVG	
1,1-Dichloroethene	#0.1600	0.1855	0.2038	0.1994	0.2077	0.2075	0.2086	0.1961	9	AVG	#
Freon 113	#0.1774	0.2175	0.2391	0.2337	0.2475	0.2531	0.2494	0.2311	11	AVG	#
Acetone	#3.2559	2.8395	2.9519	2.8356	2.9753	3.0172	2.9856	2.9801	5	AVG	#
Methyl Iodide	0.3727	0.3995	0.4135	0.4033	0.4227	0.4255	0.4237	0.4087	5	AVG	
Carbon Disulfide	#0.5967	0.6051	0.6303	0.6060	0.6379	0.6471	0.6440	0.6239	3	AVG	#
Allyl Chloride	0.3543	0.3501	0.3714	0.3743	0.3829	0.3890	0.3870	0.3727	4	AVG	
Methyl Acetate	#	8.0473	8.9174	8.2822	8.4178	8.3747	8.1582	8.3663	4	AVG	#
Methylene Chloride	#0.2543	0.2082	0.2246	0.2127	0.2144	0.2186	0.2156	0.2212	7	AVG	#
t-Butyl Alcohol	0.8075	0.8290	0.8990	0.8853	0.8581	0.9014	0.7939	0.8535	5	AVG	
Acrylonitrile	3.6046	3.6151	3.8689	3.5796	4.0954	4.1849	3.9920	3.8486	7	AVG	
trans-1,2-Dichloroethene	#0.2055	0.2092	0.2290	0.2160	0.2279	0.2325	0.2290	0.2213	5	AVG	#
Methyl Tertiary Butyl Ether	#0.3525	0.3879	0.4149	0.4082	0.4218	0.4292	0.4083	0.4032	6	AVG	#
n-Hexane	0.2565	0.3255	0.3632	0.3491	0.3833	0.3933	0.3923	0.3519	14	AVG	
1,1-Dichloroethane	#0.3762	0.4022	0.4348	0.4176	0.4398	0.4430	0.4357	0.4213	6	AVG	#
di-Isopropyl Ether	0.7011	0.7115	0.7555	0.7496	0.7609	0.7819	0.7771	0.7482	4	AVG	
2-Chloro-1,3-Butadiene	0.3109	0.3474	0.3840	0.3818	0.4066	0.4138	0.4095	0.3791	10	AVG	
Ethyl t-butyl ether	0.5277	0.5761	0.6125	0.6028	0.6146	0.6262	0.5944	0.5935	6	AVG	
cis-1,2-Dichloroethene	#0.2191	0.2336	0.2512	0.2409	0.2547	0.2573	0.2548	0.2445	6	AVG	#
2,2-Dichloropropane	0.2529	0.2750	0.3029	0.3083	0.3200	0.3278	0.3195	0.3009	9	AVG	
2-Butanone	#4.7407	4.4717	4.8604	4.4839	5.2815	5.3633	4.9464	4.8783	7	AVG	#
Propionitrile	1.1750	1.3038	1.3751	1.2700	1.4479	1.4295	1.2676	1.3241	7	AVG	
Methacrylonitrile	4.3615	4.3517	4.7414	4.3969	5.1979	5.2827	5.0894	4.7745	9	AVG	
Bromochloromethane	0.1024	0.0949	0.1024	0.1048	0.1062	0.1068	0.1056	0.1033	4	AVG	
Tetrahydrofuran	1.2361	1.1778	1.2836	1.2200	1.3946	1.4399	1.3263	1.2969	7	AVG	
Chloroform	#0.3416	0.3782	0.4144	0.3892	0.4020	0.4101	0.4064	0.3917	6	AVG	#
1,1,1-Trichloroethane	#0.2842	0.3160	0.3433	0.3371	0.3555	0.3569	0.3525	0.3351	8	AVG	#
Cyclohexane	#0.3470	0.4028	0.4493	0.4389	0.4704	0.4796	0.4739	0.4374	11	AVG	#
Cyclohexane(2)	#0.2914	0.3151	0.3783	0.3668	0.3893	0.3943	0.3892	0.3606	11	AVG	#
Cyclohexane(3)	#0.1022	0.1183	0.1318	0.1288	0.1387	0.1419	0.1407	0.1289	11	AVG	#
1,1-Dichloropropene	0.2759	0.2910	0.3278	0.3191	0.3346	0.3387	0.3371	0.3177	8	AVG	
Carbon Tetrachloride	#0.2319	0.2693	0.2968	0.2885	0.3032	0.3144	0.3103	0.2878	10	AVG	#
Isobutyl Alcohol	0.2897	0.3375	0.3434	0.3190	0.3348	0.3491	0.3379	0.3302	6	AVG	
Benzene	#0.8848	0.9069	0.9593	0.9138	0.9669	0.9701	0.9685	0.9386	4	AVG	#
1,2-Dichloroethane	#0.2384	0.2152	0.2154	0.2064	0.2100	0.2143	0.2124	0.2160	5	AVG	#
t-Amyl methyl ether	0.4510	0.4674	0.5059	0.4955	0.5077	0.5220	0.4947	0.4920	5	AVG	
n-Heptane	0.2678	0.3330	0.3732	0.3588	0.3968	0.4037	0.4063	0.3628	14	AVG	
n-Butanol	0.2534	0.2553	0.2725	0.2718	0.2920	0.3060	0.3017	0.2790	8	AVG	
Trichloroethene	#0.2151	0.2224	0.2471	0.2423	0.2494	0.2532	0.2529	0.2403	6	AVG	#
Methylcyclohexane	#0.4063	0.4157	0.4453	0.4529	0.4752	0.4906	0.4911	0.4539	8	AVG	#
1,2-Dichloropropane	#0.2175	0.2096	0.2288	0.2255	0.2362	0.2385	0.2379	0.2277	5	AVG	#
Methyl Methacrylate	7.4866	7.5623	8.6561	8.1346	9.7939	10.147	10.081	8.8375	13	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 09/24/18 09/24/18

Heated Purge: (Y/N) Y Calibration Times: 18:29 20:37

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hs24i07.d RRF0.5= hs24i06.d RRF 1 = hs24i05.d
RRF 2 = hs24i04.d RRF 5 = hs24i03.d RRF 10= hs24i02.d RRF 25= hs24i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dibromomethane	0.0859	0.0918	0.0963	0.0957	0.0964	0.0974	0.0982	0.0945	5	AVG
1,4-Dioxane		0.0512	0.0674	0.0735	0.0717	0.0692	0.0699	0.0672	12	AVG
Bromodichloromethane	#0.2375	0.2374	0.2531	0.2486	0.2658	0.2725	0.2772	0.2560	6	AVG #
2-Nitropropane	2.1943	2.1326	2.3103	2.2662	2.7615	2.9069	2.9516	2.5034	14	AVG
cis-1,3-Dichloropropene	#0.2646	0.2677	0.2918	0.2956	0.3133	0.3253	0.3282	0.2981	9	AVG #
4-Methyl-2-Pentanone	#10.423	10.703	12.049	11.150	13.294	13.683	13.638	12.134	12	AVG #
Toluene	#0.6968	0.7194	0.7473	0.7411	0.7565	0.7709	0.7625	0.7421	4	AVG #
trans-1,3-Dichloropropene	#0.2330	0.2716	0.2792	0.2845	0.2990	0.3169	0.3174	0.2859	10	AVG #
Ethyl Methacrylate	0.2095	0.2309	0.2354	0.2500	0.2537	0.2684	0.2669	0.2450	9	AVG
1,1,2-Trichloroethane	#0.1691	0.1575	0.1727	0.1725	0.1711	0.1785	0.1739	0.1708	4	AVG #
Tetrachloroethene	#0.2956	0.3305	0.3401	0.3373	0.3460	0.3515	0.3460	0.3353	6	AVG #
1,3-Dichloropropane	0.2838	0.2841	0.3046	0.3097	0.3104	0.3149	0.3111	0.3026	4	AVG
2-Hexanone	#7.3199	7.3166	8.1580	7.5786	9.0091	9.2952	9.1412	8.2598	11	AVG #
Dibromochloromethane	#0.1948	0.1857	0.1947	0.2070	0.2115	0.2179	0.2208	0.2046	6	AVG #
1,2-Dibromoethane	#0.1471	0.1541	0.1589	0.1562	0.1643	0.1719	0.1680	0.1601	5	AVG #
1-Chlorohexane	0.4437	0.4223	0.4433	0.4259	0.4476	0.4585	0.4569	0.4426	3	AVG
Chlorobenzene	#0.7275	0.7494	0.8164	0.7808	0.8015	0.8151	0.8204	0.7873	5	AVG #
1,1,1,2-Tetrachloroethane	0.2148	0.2441	0.2605	0.2596	0.2721	0.2837	0.2840	0.2598	9	AVG
Ethylbenzene	#1.2688	1.3813	1.4741	1.4462	1.4984	1.5393	1.5444	1.4504	7	AVG #
m+p-Xylene	#0.4752	0.5146	0.5391	0.5376	0.5603	0.5690	0.5701	0.5380	6	AVG #
o-Xylene	#0.4328	0.4897	0.5241	0.5154	0.5368	0.5477	0.5536	0.5143	8	AVG #
Styrene	#0.6878	0.7466	0.8289	0.8287	0.8757	0.8924	0.9000	0.8229	10	AVG #
Bromoform	#0.0962	0.1042	0.1113	0.1109	0.1171	0.1227	0.1250	0.1125	9	AVG #
Isopropylbenzene	#1.1958	1.3049	1.4259	1.4006	1.4806	1.4990	1.5215	1.4040	8	AVG #
1,1,2,2-Tetrachloroethane	#0.3905	0.3709	0.3819	0.3843	0.4123	0.4144	0.4225	0.3967	5	AVG #
Bromobenzene	0.5278	0.5708	0.6063	0.6016	0.6293	0.6307	0.6550	0.6030	7	AVG
trans-1,4-Dichloro-2-butene	3.2707	3.2389	3.7050	3.4423	4.2002	4.3536	4.3928	3.8005	13	AVG
1,2,3-Trichloropropane	0.0983	0.1022	0.1028	0.1034	0.1042	0.1033	0.1036	0.1025	2	AVG
n-Propylbenzene	2.8181	3.0518	3.2914	3.2490	3.4590	3.4886	3.5948	3.2790	8	AVG
2-Chlorotoluene	0.5518	0.6185	0.6460	0.6324	0.6632	0.6645	0.6753	0.6360	7	AVG
1,3,5-Trimethylbenzene	1.8494	2.0479	2.2234	2.2089	2.3773	2.3691	2.4731	2.2213	10	AVG
4-Chlorotoluene	0.5465	0.6043	0.6553	0.6366	0.6706	0.6636	0.6842	0.6373	7	AVG
tert-Butylbenzene	0.3899	0.4598	0.4952	0.4960	0.5055	0.5106	0.5245	0.4831	9	AVG
Pentachloroethane	0.3255	0.3274	0.3543	0.3751	0.4049	0.4175	0.4346	0.3770	12	AVG
1,2,4-Trimethylbenzene	1.8578	2.1050	2.2557	2.2683	2.4136	2.4170	2.5493	2.2667	10	AVG
sec-Butylbenzene	2.3074	2.5867	2.9178	2.8538	3.0767	3.1336	3.2726	2.8784	12	AVG
1,3-Dichlorobenzene	#1.0200	1.1416	1.2276	1.1973	1.2481	1.2485	1.3039	1.1981	8	AVG #
p-Isopropyltoluene	1.8768	2.1348	2.3564	2.3843	2.5700	2.6128	2.7544	2.3842	13	AVG
1,4-Dichlorobenzene	#1.0899	1.0941	1.1950	1.1603	1.2155	1.2175	1.2607	1.1761	6	AVG #
1,2,3-Trimethylbenzene	1.0207	0.9774	1.0183	1.0334	1.0455	1.0757	1.1084	1.0399	4	AVG
Benzyl Chloride		0.1092	0.1229	0.1383	0.1502	0.1669	0.1729	0.1434	17	AVG
n-Butylbenzene	0.9426	1.0785	1.2030	1.1681	1.2616	1.2878	1.3425	1.1834	12	AVG
1,2-Dichlorobenzene	#0.9680	1.0221	1.0665	1.0569	1.0918	1.0822	1.1123	1.0571	5	AVG #
1,2-Dibromo-3-chloropropane	#1.6120	1.6792	2.1671	1.8688	2.3036	2.3298	2.4378	2.0569	16	AVG #
1,3,5-Trichlorobenzene	0.7724	0.8416	0.8987	0.8625	0.9221	0.9492	0.9929	0.8913	8	AVG
1,2,4-Trichlorobenzene	#0.6328	0.6854	0.7128	0.7113	0.7490	0.7750	0.8160	0.7260	8	AVG #
Hexachlorobutadiene	0.2548	0.2553	0.2675	0.2668	0.2841	0.2891	0.3032	0.2744	7	AVG
Naphthalene	0.9415	1.0203	1.1133	1.1358	1.2217	1.2836	1.3262	1.1489	12	AVG
1,2,3-Trichlorobenzene	0.5182	0.5589	0.5959	0.5792	0.6174	0.6490	0.6602	0.5970	8	AVG
Dibromofluoromethane	0.2512	0.2521	0.2524	0.2530	0.2528	0.2517	0.2511	0.2520	0	AVG
Dibromofluoromethane(2)	0.2598	0.2573	0.2615	0.2599	0.2578	0.2618	0.2579	0.2594	1	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 09/24/18 09/24/18

Heated Purge: (Y/N) Y Calibration Times: 18:29 20:37

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hs24i07.d RRF0.5= hs24i06.d RRF 1 = hs24i05.d
RRF 2 = hs24i04.d RRF 5 = hs24i03.d RRF 10= hs24i02.d RRF 25= hs24i01.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
1,2-Dichloroethane-d4	0.0442	0.0434	0.0434	0.0451	0.0436	0.0447	0.0432	0.0439	2	AVG
1,2-Dichloroethane-d4(2)	0.2145	0.2128	0.2150	0.2127	0.2086	0.2137	0.2105	0.2125	1	AVG
1,2-Dichloroethane-d4(3)	0.0282	0.0281	0.0289	0.0277	0.0280	0.0285	0.0276	0.0281	2	AVG
Toluene-d8	1.3052	1.2869	1.2788	1.3015	1.2877	1.2898	1.2594	1.2870	1	AVG
Toluene-d8(2)	0.8344	0.8306	0.8301	0.8441	0.8303	0.8321	0.8133	0.8307	1	AVG
4-Bromofluorobenzene	0.4770	0.4703	0.4684	0.4767	0.4646	0.4676	0.4556	0.4686	2	AVG
4-Bromofluorobenzene(2)	0.4124	0.4112	0.4059	0.4114	0.4017	0.4081	0.3976	0.4069	1	AVG

Average %RSD 7

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19094.i/18sep24i.b/hs24i01.d	VSTD025
/chem2/HP19094.i/18sep24i.b/hs24i02.d	VSTD010
/chem2/HP19094.i/18sep24i.b/hs24i03.d	VSTD005
/chem2/HP19094.i/18sep24i.b/hs24i04.d	VSTD002
/chem2/HP19094.i/18sep24i.b/hs24i05.d	VSTD001
/chem2/HP19094.i/18sep24i.b/hs24i06.d	VSTD0.5
/chem2/HP19094.i/18sep24i.b/hs24i07.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	hs24i01.d	hs24i02.d	hs24i03.d	hs24i04.d	hs24i05.d	hs24i06.d	hs24i07.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	123769	126410	127180	147863	137024	140183	136477	134129	6	Yes
Fluorobenzene	2609636	2675616	2745022	2771401	2758903	2743076	2763999	2723950	2	Yes
Chlorobenzene-d5	2080614	2091043	2142668	2139668	2171615	2144655	2139400	2129952	2	Yes
1,4-Dichlorobenzene-d4	1041754	1077251	1089195	1109693	1123390	1119082	1132249	1098945	3	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	hs24i01.d	hs24i02.d	hs24i03.d	hs24i04.d	hs24i05.d	hs24i06.d	hs24i07.d	Avg. RT
t-Butyl Alcohol-d10	4.470	4.483	4.482	4.476	4.470	4.477	4.482	4.477
Fluorobenzene	7.970	7.970	7.963	7.964	7.963	7.964	7.970	7.966
Chlorobenzene-d5	11.384	11.384	11.384	11.384	11.383	11.384	11.384	11.384
1,4-Dichlorobenzene-d4	13.255	13.249	13.249	13.249	13.249	13.249	13.249	13.250

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 09/25/2018 at 07:39.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 09/24/18 Time: 21:20

Lab File ID: hs24v01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3908	0.3172	4.06	5	-19	#
# Chloromethane	0.3827	0.3497	4.57	5	-9	#
# Vinyl Chloride	0.3584	0.3392	4.73	5	-5	#
1,3-Butadiene	0.4060	0.3387	4.17	5	-17	
# Bromomethane	0.2786	0.2311	4.15	5	-17	#
# Chloroethane	0.2174	0.1959	4.51	5	-10	#
Dichlorofluoromethane	0.5171	0.4978	4.81	5	-4	
# Trichlorofluoromethane	0.4528	0.4031	4.45	5	-11	#
Ethyl ether	0.1535	0.1414	4.61	5	-8	
Freon 123a	0.2869	0.2963	5.16	5	3	
Acrolein	2.2188	1.8796	31.77	37.5	-15	
# 1,1-Dichloroethene	0.1961	0.2212	5.64	5	13	#
# Freon 113	0.2311	0.2437	5.27	5	5	#
# Acetone	2.9801	2.5719	32.36	37.5	-14	#
Methyl Iodide	0.4087	0.3967	4.85	5	-3	
# Carbon Disulfide	0.6239	0.5961	4.78	5	-4	#
Allyl Chloride	0.3727	0.3366	4.52	5	-10	
# Methyl Acetate	8.3663	7.1758	4.29	5	-14	#
# Methylene Chloride	0.2212	0.2191	4.95	5	-1	#
t-Butyl Alcohol	0.8535	0.8243	48.29	50	-3	
Acrylonitrile	3.8486	3.5584	23.11	25	-8	
# trans-1,2-Dichloroethene	0.2213	0.2368	5.35	5	7	#
# Methyl Tertiary Butyl Ether	0.4032	0.3967	4.92	5	-2	#
n-Hexane	0.3519	0.3623	5.15	5	3	
# 1,1-Dichloroethane	0.4213	0.4392	5.21	5	4	#
di-Isopropyl Ether	0.7482	0.7508	5.02	5	0	
2-Chloro-1,3-Butadiene	0.3791	0.3807	5.02	5	0	
Ethyl t-butyl ether	0.5935	0.5760	4.85	5	-3	
# cis-1,2-Dichloroethene	0.2445	0.2605	5.33	5	7	#
2,2-Dichloropropane	0.3009	0.3204	5.32	5	6	
# 2-Butanone	4.8783	4.5905	35.29	37.5	-6	#
Propionitrile	1.3241	1.3362	37.84	37.5	1	
Methacrylonitrile	4.7745	4.5420	35.67	37.5	-5	
Bromochloromethane	0.1033	0.0938	4.54	5	-9	
Tetrahydrofuran	1.2969	1.2254	23.62	25	-6	
# Chloroform	0.3917	0.4191	5.35	5	7	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 09/24/18 Time: 21:20

Lab File ID: hs24v01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
# 1,1,1-Trichloroethane	0.3351	0.3556	5.31	5	6	#
# Cyclohexane	0.4374	0.4418	5.05	5	1	#
1,1-Dichloropropene	0.3177	0.3305	5.20	5	4	
# Carbon Tetrachloride	0.2878	0.3045	5.29	5	6	#
Isobutyl Alcohol	0.3302	0.3194	120.92	125	-3	
# Benzene	0.9386	0.9606	5.12	5	2	#
# 1,2-Dichloroethane	0.2160	0.2161	5.00	5	0	#
t-Amyl methyl ether	0.4920	0.4796	4.87	5	-3	
n-Heptane	0.3628	0.3736	5.15	5	3	
n-Butanol	0.2790	0.2586	231.70	250	-7	
# Trichloroethene	0.2403	0.2508	5.22	5	4	#
# Methylcyclohexane	0.4539	0.4251	4.68	5	-6	#
# 1,2-Dichloropropane	0.2277	0.2359	5.18	5	4	#
Methyl Methacrylate	8.8375	8.4056	4.76	5	-5	
Dibromomethane	0.0945	0.0974	5.15	5	3	
1,4-Dioxane	0.0672	0.0678	126.10	125	1	
# Bromodichloromethane	0.2560	0.2699	5.27	5	5	#
2-Nitropropane	2.5034	2.0564	4.11	5	-18	
# cis-1,3-Dichloropropene	0.2981	0.3034	5.09	5	2	#
# 4-Methyl-2-Pentanone	12.134	11.2665	23.21	25	-7	#
# Toluene	0.7421	0.7621	5.14	5	3	#
# trans-1,3-Dichloropropene	0.2859	0.2900	5.07	5	1	#
Ethyl Methacrylate	0.2450	0.2371	4.84	5	-3	
# 1,1,2-Trichloroethane	0.1708	0.1782	5.22	5	4	#
# Tetrachloroethene	0.3353	0.3454	5.15	5	3	#
1,3-Dichloropropane	0.3026	0.3017	4.98	5	0	
# 2-Hexanone	8.2598	7.5207	22.76	25	-9	#
# Dibromochloromethane	0.2046	0.2117	5.17	5	3	#
# 1,2-Dibromoethane	0.1601	0.1646	5.14	5	3	#
1-Chlorohexane	0.4426	0.4372	4.94	5	-1	
# Chlorobenzene	0.7873	0.7981	5.07	5	1	#
1,1,1,2-Tetrachloroethane	0.2598	0.2675	5.15	5	3	
# Ethylbenzene	1.4504	1.4813	5.11	5	2	#
# m+p-Xylene	0.5380	0.5552	10.32	10	3	#
# o-Xylene	0.5143	0.5235	5.09	5	2	#
# Styrene	0.8229	0.8625	5.24	5	5	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 09/24/18 Time: 21:20

Lab File ID: hs24v01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
# Bromoform	0.1125	0.1136	5.05	5	1	#
# Isopropylbenzene	1.4040	1.4667	5.22	5	4	#
# 1,1,2,2-Tetrachloroethane	0.3967	0.3962	4.99	5	0	#
Bromobenzene	0.6030	0.6209	5.15	5	3	
trans-1,4-Dichloro-2-butene	3.8005	3.6717	24.15	25	-3	
1,2,3-Trichloropropane	0.1025	0.1010	4.92	5	-2	
n-Propylbenzene	3.2790	3.4213	5.22	5	4	
2-Chlorotoluene	0.6360	0.6495	5.11	5	2	
1,3,5-Trimethylbenzene	2.2213	2.2866	5.15	5	3	
4-Chlorotoluene	0.6373	0.6518	5.11	5	2	
tert-Butylbenzene	0.4831	0.4924	5.10	5	2	
Pentachloroethane	0.3770	0.3672	4.87	5	-3	
1,2,4-Trimethylbenzene	2.2667	2.3009	5.08	5	2	
sec-Butylbenzene	2.8784	3.0190	5.24	5	5	
# 1,3-Dichlorobenzene	1.1981	1.2031	5.02	5	0	#
p-Isopropyltoluene	2.3842	2.5039	5.25	5	5	
# 1,4-Dichlorobenzene	1.1761	1.1959	5.08	5	2	#
1,2,3-Trimethylbenzene	1.0399	0.9939	4.78	5	-4	
Benzyl Chloride	0.1434	0.1356	4.73	5	-5	
n-Butylbenzene	1.1834	1.2376	5.23	5	5	
# 1,2-Dichlorobenzene	1.0571	1.0599	5.01	5	0	#
# 1,2-Dibromo-3-chloropropane	2.0569	2.1820	5.30	5	6	#
1,3,5-Trichlorobenzene	0.8913	0.9013	5.06	5	1	
# 1,2,4-Trichlorobenzene	0.7260	0.7345	5.06	5	1	#
Hexachlorobutadiene	0.2744	0.2834	5.16	5	3	
Naphthalene	1.1489	1.1935	5.19	5	4	
1,2,3-Trichlorobenzene	0.5970	0.6118	5.12	5	2	
			Average %Drift		5	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date(s): 05/02/18 05/02/18

Heated Purge: (Y/N) Y Calibration Times: 19:15 21:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

LAB FILE ID: RRF0.2= hy02i17.d RRF0.5= hy02i16.d RRF 1 = hy02i15.d
RRF 2 = hy02i14.d RRF 5 = hy02i13.d RRF 10= hy02i12.d RRF 25= hy02i11.d

COMPOUND	RRF0.2	RRF0.5	RRF 1	RRF 2	RRF 5	RRF 10	RRF 25	RRF	% RSD	CAL. METHOD
Dimethyl ether	0.3386	0.3353	0.2933	0.3164	0.3235	0.3148	0.3253	0.3210	5	AVG
Acetonitrile	1.3045	1.3808	1.2557	1.1805	1.1636	1.0924	1.0738	1.2073	9	AVG
Vinyl Acetate	0.3155	0.2879	0.2935	0.3123	0.2982	0.3172	0.3162	0.3058	4	AVG
Methyl Acrylate	0.0917	0.0916	0.0965	0.0933	0.0946	0.0954	0.0975	0.0944	2	AVG
1-Chlorobutane	0.4459	0.3974	0.3542	0.4876	0.4909	0.4956	0.4897	0.4516	12	AVG
Chloroacetonitrile	0.0036	0.0030	0.0039	0.0040	0.0031	0.0041	0.0046	0.0038	15	AVG
2-Chloroethyl vinyl ether	0.0762	0.0858	0.0872	0.0926	0.0953	0.0974	0.0984	0.0904	9	AVG
cis-1,4-Dichloro-2-butene	5.6633	6.5513	5.6636	6.1849	7.9391	6.6860	6.6395	6.4754	12	AVG
Cyclohexanone	0.3645	0.2849	0.3292	0.3093	0.3122	0.3993	0.3058	0.3293	12	AVG
Hexachloroethane	0.3743	0.3585	0.3237	0.4363	0.4562	0.4921	0.5058	0.4210	17	AVG

Average %RSD 10

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP19094.i/18may02b.b/hy02i11.d	VSTD025
/chem2/HP19094.i/18may02b.b/hy02i12.d	VSTD010
/chem2/HP19094.i/18may02b.b/hy02i13.d	VSTD005
/chem2/HP19094.i/18may02b.b/hy02i14.d	VSTD002
/chem2/HP19094.i/18may02b.b/hy02i15.d	VSTD001
/chem2/HP19094.i/18may02b.b/hy02i16.d	VSTD0.5
/chem2/HP19094.i/18may02b.b/hy02i17.d	VSTD0.2

Area Summary

File ID:

Internal Standard Name	hy02i11.d	hy02i12.d	hy02i13.d	hy02i14.d	hy02i15.d	hy02i16.d	hy02i17.d	Avg. Area	%RSD	In Spec
t-Butyl Alcohol-d10	98437	91579	74336	92293	90627	78931	87604	87687	9	Yes
Fluorobenzene	2303816	2321054	2326423	2301576	2267030	2334989	2247400	2300327	1	Yes
Chlorobenzene-d5	1683927	1697976	1698280	1681083	1663736	1693467	1641487	1679994	1	Yes
1,4-Dichlorobenzene-d4	883503	883093	890934	885161	872428	891691	866486	881899	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	hy02i11.d	hy02i12.d	hy02i13.d	hy02i14.d	hy02i15.d	hy02i16.d	hy02i17.d	Avg. RT
t-Butyl Alcohol-d10	4.458	4.489	4.495	4.470	4.483	4.464	4.476	4.476
Fluorobenzene	7.970	7.976	7.976	7.970	7.970	7.970	7.970	7.971
Chlorobenzene-d5	11.396	11.396	11.396	11.396	11.396	11.396	11.396	11.396
1,4-Dichlorobenzene-d4	13.267	13.267	13.268	13.268	13.268	13.267	13.267	13.267

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 05/02/2018 at 22:25.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 ICV Date: 05/02/18 Time: 22:07

Lab File ID: hy02v11.d Init. Calib. Date(s): 05/02/18 05/02/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dimethyl ether	0.3210	0.3151	4.91	5	-2
Acetonitrile	1.2073	1.3135	40.80	37.5	9
Vinyl Acetate	0.3058	0.2888	11.80	12.5	-6
Methyl Acrylate	0.0944	0.0999	26.46	25	6
1-Chlorobutane	0.4516	0.4576	5.07	5	1
Chloroacetonitrile	0.0038	0.0037	247.49	250	-1
2-Chloroethyl vinyl ether	0.0904	0.0919	5.08	5	2
cis-1,4-Dichloro-2-butene	6.4754	6.7681	13.06	12.5	5
Cyclohexanone	0.3293	0.3493	132.59	125	6
Hexachloroethane	0.4210	0.4432	5.26	5	5

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

page 1 of 1 FORM VII VOA

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09953.i/18sep12i.b/bs12i17.d
/chem2/HP09953.i/18sep12i.b/bs12i16.d
/chem2/HP09953.i/18sep12i.b/bs12i15.d
/chem2/HP09953.i/18sep12i.b/bs12i14.d
/chem2/HP09953.i/18sep12i.b/bs12i13.d
/chem2/HP09953.i/18sep12i.b/bs12i11.d
/chem2/HP09953.i/18sep12i.b/bs12i10.d

File /chem2/HP09953.i/18sep12i.b/bs12i13.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09953.i/18nov06a.b/bn06c01.d

RT Summary

Internal Standard Name	File ID: bn06c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	1.924	1.930	Yes
Fluorobenzene	3.944	3.950	Yes
Chlorobenzene-d5	7.144	7.144	Yes
1,4-Dichlorobenzene-d4	9.224	9.224	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: bn06c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	121316	107301	53650	214602	Yes
Fluorobenzene	1367264	1213056	606528	2426112	Yes
Chlorobenzene-d5	1101888	940298	470149	1880596	Yes
1,4-Dichlorobenzene-d4	661749	544910	272455	1089820	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 11/06/2018 at 20:25

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/06/18 Time: 19:51

Lab File ID: bn06c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4515	0.5742	63.59	50	27	#<-
# Chloromethane	0.4654	0.4886	52.50	50	5	#
# Vinyl Chloride	0.3626	0.3871	53.38	50	7	#
# Bromomethane	0.3227	0.3465	53.68	50	7	#
# Chloroethane	0.1951	0.2111	54.10	50	8	#
# Trichlorofluoromethane	0.4992	0.6065	60.75	50	22	#<-
Ethanol	0.1304	0.1180	2262.51	2500	-9	
Freon 123a	0.3342	0.3056	45.73	50	-9	
Acrolein	2.4153	2.0260	419.40	500	-16	
# 1,1-Dichloroethene	0.2508	0.2428	48.40	50	-3	#
# Acetone	1.5782	1.0167	88.59	100	-11	#
# Freon 113	0.2515	0.3005	59.75	50	20	#
2-Propanol	0.9659	0.9063	234.58	250	-6	
Methyl Iodide	0.6032	0.5754	47.70	50	-5	
# Carbon Disulfide	1.0037	0.7629	38.00	50	-24	#<-
# Methyl Acetate	0.1286	0.1417	55.10	50	10	#
Allyl Chloride	0.3355	0.3894	58.02	50	16	
# Methylene Chloride	0.2964	0.2618	44.15	50	-12	#
t-Butyl alcohol	1.3132	1.0548	200.81	250	-20	
Acrylonitrile	0.0871	0.0700	40.22	50	-20	
# Methyl Tertiary Butyl Ether	0.7135	0.6444	45.16	50	-10	#
# trans-1,2-Dichloroethene	0.2917	0.2762	47.34	50	-5	#
n-Hexane	0.3330	0.4215	63.30	50	27	<-
# 1,1-Dichloroethane	0.4730	0.4683	49.50	50	-1	#
di-Isopropyl ether	0.8828	0.8481	48.03	50	-4	
2-Chloro-1,3-butadiene	0.4168	0.4163	49.93	50	0	
Ethyl t-butyl ether	0.8314	0.7502	45.12	50	-10	
# 2-Butanone	6.4273	5.1528	80.17	100	-20	#
# cis-1,2-Dichloroethene	0.3166	0.3087	48.75	50	-2	#
2,2-Dichloropropane	0.3448	0.3648	52.89	50	6	
Propionitrile	1.7242	1.6617	240.93	250	-4	
Methacrylonitrile	0.0973	0.0909	116.83	125	-7	
Bromochloromethane	0.1682	0.1841	54.73	50	9	
Tetrahydrofuran	1.6010	1.4165	88.48	100	-12	
# Chloroform	0.4801	0.4627	48.19	50	-4	#
# 1,1,1-Trichloroethane	0.4916	0.4199	42.71	50	-15	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/06/18 Time: 19:51

Lab File ID: bn06c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Cyclohexane	0.4618	0.5111	55.34	50	11	#
# Cyclohexane(2)	0.4316	0.5275	61.12	50	22	#<-
# Cyclohexane(3)	0.1460	0.1594	54.58	50	9	#
1,1-Dichloropropene	0.3572	0.3651	51.10	50	2	
# Carbon Tetrachloride	0.3733	0.3728	49.92	50	0	#
Isobutyl Alcohol	0.4614	0.3886	526.41	625	-16	
# Benzene	1.1404	1.0801	47.36	50	-5	#
# 1,2-Dichloroethane	0.3291	0.3048	46.31	50	-7	#
# 1,2-Dichloroethane(2)	0.0327	0.0306	46.81	50	-6	#<-
t-Amyl methyl ether	0.7676	0.6920	45.07	50	-10	
n-Heptane	0.3037	0.4453	73.30	50	47	<-
n-Butanol	0.3864	0.3087	998.86	1250	-20	
# Trichloroethene	0.2974	0.2901	48.76	50	-2	#
# Methylcyclohexane	0.4628	0.6363	68.75	50	37	#<-
# 1,2-Dichloropropane	0.2708	0.2657	49.05	50	-2	#
Methyl Methacrylate	0.1746	0.1577	45.18	50	-10	
1,4-Dioxane	0.1601	0.1481	578.28	625	-7	
Dibromomethane	0.1656	0.1562	47.16	50	-6	
# Bromodichloromethane	0.3382	0.3203	47.35	50	-5	#
2-Nitropropane	3.3067	2.3008	69.58	100	-30	<-
2-Chloroethyl Vinyl Ether	0.1426	0.1229	43.11	50	-14	
# cis-1,3-Dichloropropene	0.4084	0.3993	48.89	50	-2	#
# 4-Methyl-2-pentanone	0.2385	0.1883	80.61	100	-19	#
# Toluene	0.9571	0.8753	45.73	50	-9	#
# trans-1,3-Dichloropropene	0.4585	0.4289	46.77	50	-6	#
Ethyl Methacrylate	0.4451	0.3803	42.73	50	-15	
# 1,1,2-Trichloroethane	0.3106	0.2822	45.42	50	-9	#
# Tetrachloroethene	0.5243	0.4344	41.43	50	-17	#
1,3-Dichloropropane	0.5001	0.4604	46.03	50	-8	
# 2-Hexanone	0.2192	0.1645	73.59	100	-26	#<-
# Dibromochloromethane	0.3578	0.3292	45.99	50	-8	#
# 1,2-Dibromoethane	0.3209	0.2952	46.00	50	-8	#
1-Chlorohexane	0.4756	0.4836	50.84	50	2	
# Chlorobenzene	1.1175	1.0346	46.29	50	-7	#
1,1,1,2-Tetrachloroethane	0.3789	0.3494	46.10	50	-8	
# Ethylbenzene	1.8002	1.7132	47.58	50	-5	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/06/18 Time: 19:51

Lab File ID: bn06c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	m+p-Xylene	0.7346	0.6991	95.17	100	-5	#
#	o-Xylene	0.7344	0.6727	45.80	50	-8	#
#	Styrene	1.2107	1.1076	45.74	50	-9	#
#	Bromoform	0.2230	0.1990	44.61	50	-11	#
#	Isopropylbenzene	1.8511	1.7588	47.51	50	-5	#
	Cyclohexanone	0.5794	0.4982	537.43	625	-14	
#	1,1,2,2-Tetrachloroethane	0.6994	0.6029	43.10	50	-14	#
	Bromobenzene	0.9161	0.7852	42.86	50	-14	
	trans-1,4-Dichloro-2-butene	0.1716	0.1602	116.70	125	-7	
	1,2,3-Trichloropropane	0.2074	0.1850	44.61	50	-11	
	n-Propylbenzene	3.6219	3.4423	47.52	50	-5	
	2-Chlorotoluene	0.8499	0.7448	43.82	50	-12	
	1,3,5-Trimethylbenzene	2.8016	2.5493	45.50	50	-9	
	4-Chlorotoluene	0.8610	0.7845	45.56	50	-9	
	tert-Butylbenzene	0.6581	0.6192	47.04	50	-6	
	Pentachloroethane	0.3935	0.5318	67.56	50	35	<-
	1,2,4-Trimethylbenzene	2.9215	2.6404	45.19	50	-10	
	sec-Butylbenzene	3.5667	3.3254	46.62	50	-7	
#	1,3-Dichlorobenzene	1.7193	1.5623	45.44	50	-9	#
	p-Isopropyltoluene	3.1962	3.0536	47.77	50	-4	
#	1,4-Dichlorobenzene	1.7925	1.5900	44.35	50	-11	#
	1,2,3-Trimethylbenzene	3.1493	3.0613	48.60	50	-3	
	Benzyl Chloride	0.2336	0.2657	56.86	50	14	
	1,3-Diethylbenzene	1.9759	2.0694	52.37	50	5	
	1,4-Diethylbenzene	2.0506	2.2520	54.91	50	10	
	n-Butylbenzene	1.4849	1.4784	49.78	50	0	
#	1,2-Dichlorobenzene	1.6809	1.5209	45.24	50	-10	#
	1,2-Diethylbenzene	1.7286	1.7210	49.78	50	0	
#	1,2-Dibromo-3-chloropropane	0.1215	0.0979	40.28	50	-19	#
	1,3,5-Trichlorobenzene	1.3152	1.2455	47.35	50	-5	
#	1,2,4-Trichlorobenzene	1.2395	1.1155	45.00	50	-10	#
	Hexachlorobutadiene	0.5655	0.5562	49.17	50	-2	
	Naphthalene	2.9445	2.3873	40.54	50	-19	
	1,2,3-Trichlorobenzene	1.1820	1.0358	43.81	50	-12	
	2-Methylnaphthalene	1.9916	1.7210	43.21	50	-14	
	Dibromofluoromethane	0.2492	0.2563	51.43	50	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/06/18 Time: 19:51

Lab File ID: bn06c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane(2)	0.2526	0.2615	51.75	50	3
1,2-Dichloroethane-d4	0.0536	0.0543	50.64	50	1
1,2-Dichloroethane-d4(2)	0.2359	0.2360	50.03	50	0
1,2-Dichloroethane-d4(3)	0.0344	0.0356	51.81	50	4
Toluene-d8	1.2905	1.2683	49.14	50	-2
Toluene-d8(2)	0.8374	0.8223	49.10	50	-2
4-Bromofluorobenzene	0.4701	0.4697	49.96	50	0
4-Bromofluorobenzene(2)	0.4327	0.4425	51.13	50	2

Average %Drift 10

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d
Report Date: 11/07/2018 04:29

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP09953.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 07-NOV-2018 01:16
Initial Calibration Date(s): 12-SEP-2018 12-SEP-2018
Initial Calibration Time(s): 13:13 18:55
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dichlorodifluoromethane	0.45147	0.53031	0.01	17.5	50.0
Chloromethane	0.46535	0.46219	0.01	-0.7	50.0
Vinyl Chloride	0.36261	0.36320	0.01	0.2	50.0
Bromomethane	0.32273	0.33440	0.01	3.6	50.0
Chloroethane	0.19506	0.20225	0.01	3.7	50.0
Trichlorofluoromethane	0.49918	0.57239	0.01	14.7	50.0
1,1-Dichloroethene	0.25085	0.23326	0.01	-7.0	50.0
Acetone	100.000	89.307	0.01	-10.7	50.0
Freon 113	0.25150	0.28240	0.01	12.3	50.0
Carbon Disulfide	1.00370	0.73663	0.01	-26.6	50.0
Methyl Acetate	0.12863	0.13770	0.01	7.1	50.0
Methylene Chloride	0.29644	0.25418	0.01	-14.3	50.0
Methyl Tertiary Butyl Ether	0.71352	0.62809	0.01	-12.0	50.0
trans-1,2-Dichloroethene	0.29171	0.26446	0.01	-9.3	50.0
1,1-Dichloroethane	0.47301	0.44711	0.01	-5.5	50.0
2-Butanone	6.42731	5.32314	0.01	-17.2	50.0
cis-1,2-Dichloroethene	0.31664	0.29722	0.01	-6.1	50.0
Chloroform	0.48010	0.44381	0.01	-7.6	50.0
1,1,1-Trichloroethane	0.49157	0.39913	0.01	-18.8	50.0
Cyclohexane	0.46181	0.48308	0.01	4.6	50.0
Carbon Tetrachloride	0.37334	0.35102	0.01	-6.0	50.0
Benzene	1.14044	1.04183	0.01	-8.6	50.0
1,2-Dichloroethane	0.32911	0.29276	0.01	-11.0	50.0
Trichloroethene	0.29740	0.27772	0.01	-6.6	50.0
Methylcyclohexane	0.46282	0.58712	0.01	26.9	50.0
1,2-Dichloropropane	0.27083	0.25426	0.01	-6.1	50.0
Bromodichloromethane	0.33821	0.30780	0.01	-9.0	50.0
cis-1,3-Dichloropropene	0.40839	0.38307	0.01	-6.2	50.0
4-Methyl-2-pentanone	100.000	79.158	0.01	-20.8	50.0
Toluene	0.95715	0.84923	0.01	-11.3	50.0
trans-1,3-Dichloropropene	0.45848	0.40827	0.01	-11.0	50.0
1,1,2-Trichloroethane	0.31061	0.27609	0.01	-11.1	50.0
Tetrachloroethene	0.52428	0.43739	0.01	-16.6	50.0
2-Hexanone	100.000	72.654	0.01	-27.3	50.0
Dibromochloromethane	0.35786	0.32248	0.01	-9.9	50.0
1,2-Dibromoethane	0.32089	0.28936	0.01	-9.8	50.0
Chlorobenzene	1.11751	1.00162	0.01	-10.4	50.0
Ethylbenzene	1.80019	1.64646	0.01	-8.5	50.0
m+p-Xylene	0.73459	0.67738	0.01	-7.8	50.0
o-Xylene	0.73438	0.66386	0.01	-9.6	50.0
Xylene (Total)	0.73452	0.67287	0.01	-8.4	50.0
Styrene	1.21068	1.08377	0.01	-10.5	50.0
Bromoform	0.22299	0.19489	0.01	-12.6	50.0
Isopropylbenzene	1.85113	1.70746	0.01	-7.8	50.0
Cyclohexanone	0.57941	0.50427	0.01	-13.0	50.0
1,1,2,2-Tetrachloroethane	0.69943	0.59163	0.01	-15.4	50.0
1,3-Dichlorobenzene	1.71930	1.47769	0.01	-14.1	50.0
1,4-Dichlorobenzene	1.79250	1.51993	0.01	-15.2	50.0

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d
Report Date: 11/07/2018 04:29

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP09953.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 07-NOV-2018 01:16
Initial Calibration Date(s): 12-SEP-2018 12-SEP-2018
Initial Calibration Time(s): 13:13 18:55
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,2-Dichlorobenzene	1.68089	1.45880	0.01	-13.2	50.0
1,2-Dibromo-3-chloropropane	0.12152	0.09724	0.01	-20.0	50.0
1,2,4-Trichlorobenzene	1.23953	1.07824	0.01	-13.0	50.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
Dibromofluoromethane	0.24919	0.25620	0.01	2.8	20.5
1,2-Dichloroethane-d4	0.05364	0.05529	0.01	3.1	20.5
Toluene-d8	1.29048	1.27932	0.01	-0.9	20.5
4-Bromofluorobenzene	0.47011	0.46529	0.01	-1.0	20.5

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09953.i/18sep12i.b/bs12i17.d
/chem2/HP09953.i/18sep12i.b/bs12i16.d
/chem2/HP09953.i/18sep12i.b/bs12i15.d
/chem2/HP09953.i/18sep12i.b/bs12i14.d
/chem2/HP09953.i/18sep12i.b/bs12i13.d
/chem2/HP09953.i/18sep12i.b/bs12i11.d
/chem2/HP09953.i/18sep12i.b/bs12i10.d

File /chem2/HP09953.i/18sep12i.b/bs12i13.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09953.i/18nov07a.b/bn07c01.d

RT Summary

Internal Standard Name	File ID: bn07c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	1.930	1.930	Yes
Fluorobenzene	3.950	3.950	Yes
Chlorobenzene-d5	7.144	7.144	Yes
1,4-Dichlorobenzene-d4	9.224	9.224	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: bn07c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	112993	107301	53650	214602	Yes
Fluorobenzene	1318042	1213056	606528	2426112	Yes
Chlorobenzene-d5	1051055	940298	470149	1880596	Yes
1,4-Dichlorobenzene-d4	630040	544910	272455	1089820	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 11/07/2018 at 08:52

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/07/18 Time: 08:13

Lab File ID: bn07c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4515	0.5195	57.54	50	15	#
# Chloromethane	0.4654	0.4633	49.78	50	0	#
# Vinyl Chloride	0.3626	0.3695	50.95	50	2	#
# Bromomethane	0.3227	0.3421	53.01	50	6	#
# Chloroethane	0.1951	0.2051	52.56	50	5	#
# Trichlorofluoromethane	0.4992	0.5658	56.67	50	13	#
Ethanol	0.1304	0.1227	2350.88	2500	-6	
Freon 123a	0.3342	0.3144	47.04	50	-6	
Acrolein	2.4153	2.3202	480.31	500	-4	
# 1,1-Dichloroethene	0.2508	0.2439	48.61	50	-3	#
# Acetone	1.5782	1.0867	95.24	100	-5	#
# Freon 113	0.2515	0.3010	59.85	50	20	#
2-Propanol	0.9659	0.9889	255.96	250	2	
Methyl Iodide	0.6032	0.5803	48.11	50	-4	
# Carbon Disulfide	1.0037	0.7626	47.10	50	-6	#
# Methyl Acetate	0.1286	0.1323	51.44	50	3	#
Allyl Chloride	0.3355	0.3677	54.79	50	10	
# Methylene Chloride	0.2964	0.2690	45.37	50	-9	#
t-Butyl alcohol	1.3132	1.0991	209.24	250	-16	
Acrylonitrile	0.0871	0.0748	42.97	50	-14	
# Methyl Tertiary Butyl Ether	0.7135	0.6760	47.37	50	-5	#
# trans-1,2-Dichloroethene	0.2917	0.2851	48.86	50	-2	#
n-Hexane	0.3330	0.4306	64.66	50	29	<-
# 1,1-Dichloroethane	0.4730	0.4896	51.76	50	4	#
di-Isopropyl ether	0.8828	0.8862	50.19	50	0	
2-Chloro-1,3-butadiene	0.4168	0.4273	51.25	50	3	
Ethyl t-butyl ether	0.8314	0.7967	47.91	50	-4	
# 2-Butanone	6.4273	5.8449	90.94	100	-9	#
# cis-1,2-Dichloroethene	0.3166	0.3241	51.17	50	2	#
2,2-Dichloropropane	0.3448	0.3852	55.86	50	12	
Propionitrile	1.7242	1.7865	259.02	250	4	
Methacrylonitrile	0.0973	0.0960	123.29	125	-1	
Bromochloromethane	0.1682	0.1791	53.22	50	6	
Tetrahydrofuran	1.6010	1.6177	101.05	100	1	
# Chloroform	0.4801	0.4914	51.18	50	2	#
# 1,1,1-Trichloroethane	0.4916	0.4429	45.05	50	-10	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/07/18 Time: 08:13

Lab File ID: bn07c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Cyclohexane	0.4618	0.5297	57.35	50	15	#
# Cyclohexane(2)	0.4316	0.4741	54.93	50	10	#
# Cyclohexane(3)	0.1460	0.1658	56.75	50	13	#
1,1-Dichloropropene	0.3572	0.3824	53.52	50	7	
# Carbon Tetrachloride	0.3733	0.3921	52.52	50	5	#
Isobutyl Alcohol	0.4614	0.4058	549.69	625	-12	
# Benzene	1.1404	1.1451	50.21	50	0	#
# 1,2-Dichloroethane	0.3291	0.3241	49.24	50	-2	#
# 1,2-Dichloroethane(2)	0.0327	0.0328	50.12	50	0	#<-
t-Amyl methyl ether	0.7676	0.7168	46.69	50	-7	
n-Heptane	0.3037	0.4669	76.85	50	54	<-
n-Butanol	0.3864	0.3124	1010.61	1250	-19	
# Trichloroethene	0.2974	0.3055	51.35	50	3	#
# Methylcyclohexane	0.4628	0.5995	64.77	50	30	#<-
# 1,2-Dichloropropane	0.2708	0.2819	52.05	50	4	#
Methyl Methacrylate	0.1746	0.1611	46.15	50	-8	
1,4-Dioxane	0.1601	0.1519	592.88	625	-5	
Dibromomethane	0.1656	0.1658	50.05	50	0	
# Bromodichloromethane	0.3382	0.3399	50.25	50	1	#
2-Nitropropane	3.3067	2.6762	80.93	100	-19	
2-Chloroethyl Vinyl Ether	0.1426	0.1260	44.19	50	-12	
# cis-1,3-Dichloropropene	0.4084	0.4245	51.98	50	4	#
# 4-Methyl-2-pentanone	0.2385	0.2092	89.79	100	-10	#
# Toluene	0.9571	0.9359	48.89	50	-2	#
# trans-1,3-Dichloropropene	0.4585	0.4454	48.57	50	-3	#
Ethyl Methacrylate	0.4451	0.3975	44.66	50	-11	
# 1,1,2-Trichloroethane	0.3106	0.2994	48.19	50	-4	#
# Tetrachloroethene	0.5243	0.4529	43.19	50	-14	#
1,3-Dichloropropane	0.5001	0.4831	48.30	50	-3	
# 2-Hexanone	0.2192	0.1790	80.24	100	-20	#
# Dibromochloromethane	0.3578	0.3488	48.73	50	-3	#
# 1,2-Dibromoethane	0.3209	0.3117	48.56	50	-3	#
1-Chlorohexane	0.4756	0.5072	53.32	50	7	
# Chlorobenzene	1.1175	1.0897	48.76	50	-2	#
1,1,1,2-Tetrachloroethane	0.3789	0.3742	49.38	50	-1	
# Ethylbenzene	1.8002	1.8220	50.61	50	1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/07/18 Time: 08:13

Lab File ID: bn07c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.7346	0.7480	101.82	100	2	#
# o-Xylene	0.7344	0.7229	49.22	50	-2	#
# Styrene	1.2107	1.1787	48.68	50	-3	#
# Bromoform	0.2230	0.2054	46.06	50	-8	#
# Isopropylbenzene	1.8511	1.8888	51.02	50	2	#
Cyclohexanone	0.5794	0.4735	510.73	625	-18	
# 1,1,2,2-Tetrachloroethane	0.6994	0.6373	45.56	50	-9	#
Bromobenzene	0.9161	0.8352	45.59	50	-9	
trans-1,4-Dichloro-2-butene	0.1716	0.1631	118.81	125	-5	
1,2,3-Trichloropropane	0.2074	0.1881	45.36	50	-9	
n-Propylbenzene	3.6219	3.6552	50.46	50	1	
2-Chlorotoluene	0.8499	0.7940	46.71	50	-7	
1,3,5-Trimethylbenzene	2.8016	2.7567	49.20	50	-2	
4-Chlorotoluene	0.8610	0.8261	47.97	50	-4	
tert-Butylbenzene	0.6581	0.6738	51.19	50	2	
Pentachloroethane	0.3935	0.5309	67.45	50	35	<-
1,2,4-Trimethylbenzene	2.9215	2.8153	48.18	50	-4	
sec-Butylbenzene	3.5667	3.6254	50.82	50	2	
# 1,3-Dichlorobenzene	1.7193	1.6469	47.89	50	-4	#
p-Isopropyltoluene	3.1962	3.2872	51.42	50	3	
# 1,4-Dichlorobenzene	1.7925	1.6876	47.07	50	-6	#
1,2,3-Trimethylbenzene	3.1493	3.0134	47.84	50	-4	
Benzyl Chloride	0.2336	0.2738	58.61	50	17	
1,3-Diethylbenzene	1.9759	2.0234	51.20	50	2	
1,4-Diethylbenzene	2.0506	2.1885	53.36	50	7	
n-Butylbenzene	1.4849	1.5814	53.25	50	6	
# 1,2-Dichlorobenzene	1.6809	1.6000	47.59	50	-5	#
1,2-Diethylbenzene	1.7286	1.6807	48.61	50	-3	
# 1,2-Dibromo-3-chloropropane	0.1215	0.1015	41.78	50	-16	#
1,3,5-Trichlorobenzene	1.3152	1.3403	50.96	50	2	
# 1,2,4-Trichlorobenzene	1.2395	1.2040	48.57	50	-3	#
Hexachlorobutadiene	0.5655	0.6145	54.33	50	9	
Naphthalene	2.9445	2.5639	43.54	50	-13	
1,2,3-Trichlorobenzene	1.1820	1.1321	47.89	50	-4	
2-Methylnaphthalene	1.9916	1.7220	43.23	50	-14	
Dibromofluoromethane	0.2492	0.2533	50.83	50	2	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09953 Calibration Date: 11/07/18 Time: 08:13

Lab File ID: bn07c01.d Init. Calib. Date(s): 09/12/18 09/12/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane(2)	0.2526	0.2586	51.18	50	2
1,2-Dichloroethane-d4	0.0536	0.0557	51.95	50	4
1,2-Dichloroethane-d4(2)	0.2359	0.2376	50.37	50	1
1,2-Dichloroethane-d4(3)	0.0344	0.0353	51.40	50	3
Toluene-d8	1.2905	1.2723	49.30	50	-1
Toluene-d8(2)	0.8374	0.8294	49.52	50	-1
4-Bromofluorobenzene	0.4701	0.4685	49.83	50	0
4-Bromofluorobenzene(2)	0.4327	0.4411	50.97	50	2

Average %Drift 7

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d
Report Date: 11/07/2018 23:00

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP09953.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: B183112.sub

Injection Date and Time: 07-NOV-2018 18:47
Initial Calibration Date(s): 12-SEP-2018 12-SEP-2018
Initial Calibration Time(s): 13:13 18:55
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dichlorodifluoromethane	0.45147	0.41398	0.01	-8.3	50.0
Chloromethane	0.46535	0.41121	0.01	-11.6	50.0
Vinyl Chloride	0.36261	0.33227	0.01	-8.4	50.0
Bromomethane	0.32273	0.32187	0.01	-0.3	50.0
Chloroethane	0.19506	0.19590	0.01	0.4	50.0
Trichlorofluoromethane	0.49918	0.53899	0.01	8.0	50.0
1,1-Dichloroethene	0.25085	0.23707	0.01	-5.5	50.0
Acetone	100.000	99.154	0.01	-0.8	50.0
Freon 113	0.25150	0.28464	0.01	13.2	50.0
Carbon Disulfide	1.00370	0.88941	0.01	-11.4	50.0
Methyl Acetate	0.12863	0.13383	0.01	4.0	50.0
Methylene Chloride	0.29644	0.26631	0.01	-10.2	50.0
Methyl Tertiary Butyl Ether	0.71352	0.64666	0.01	-9.4	50.0
trans-1,2-Dichloroethene	0.29171	0.27296	0.01	-6.4	50.0
1,1-Dichloroethane	0.47301	0.47522	0.01	0.5	50.0
2-Butanone	6.42731	5.93774	0.01	-7.6	50.0
cis-1,2-Dichloroethene	0.31664	0.31668	0.01	0.0	50.0
Chloroform	0.48010	0.47488	0.01	-1.1	50.0
1,1,1-Trichloroethane	0.49157	0.42231	0.01	-14.1	50.0
Cyclohexane	0.46181	0.50031	0.01	8.3	50.0
Carbon Tetrachloride	0.37334	0.37076	0.01	-0.7	50.0
Benzene	1.14044	1.10238	0.01	-3.3	50.0
1,2-Dichloroethane	0.32911	0.31574	0.01	-4.1	50.0
Trichloroethene	0.29740	0.28952	0.01	-2.7	50.0
Methylcyclohexane	0.46282	0.56589	0.01	22.3	50.0
1,2-Dichloropropane	0.27083	0.27060	0.01	-0.1	50.0
Bromodichloromethane	0.33821	0.32715	0.01	-3.3	50.0
cis-1,3-Dichloropropene	0.40839	0.40240	0.01	-1.5	50.0
4-Methyl-2-pentanone	100.000	88.209	0.01	-11.8	50.0
Toluene	0.95715	0.89050	0.01	-7.0	50.0
trans-1,3-Dichloropropene	0.45848	0.42090	0.01	-8.2	50.0
1,1,2-Trichloroethane	0.31061	0.28952	0.01	-6.8	50.0
Tetrachloroethene	0.52428	0.42843	0.01	-18.3	50.0
2-Hexanone	100.000	78.522	0.01	-21.5	50.0
Dibromochloromethane	0.35786	0.33375	0.01	-6.7	50.0
1,2-Dibromoethane	0.32089	0.30250	0.01	-5.7	50.0
Chlorobenzene	1.11751	1.05058	0.01	-6.0	50.0
Ethylbenzene	1.80019	1.72704	0.01	-4.1	50.0
m+p-Xylene	0.73459	0.70706	0.01	-3.7	50.0
o-Xylene	0.73438	0.68969	0.01	-6.1	50.0
Xylene (Total)	0.73452	0.70127	0.01	-4.5	50.0
Styrene	1.21068	1.12865	0.01	-6.8	50.0
Bromoform	0.22299	0.19866	0.01	-10.9	50.0
Isopropylbenzene	1.85113	1.77441	0.01	-4.1	50.0
Cyclohexanone	0.57941	0.50331	0.01	-13.1	50.0
1,1,2,2-Tetrachloroethane	0.69943	0.60982	0.01	-12.8	50.0
1,3-Dichlorobenzene	1.71930	1.54876	0.01	-9.9	50.0
1,4-Dichlorobenzene	1.79250	1.59059	0.01	-11.3	50.0

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d
Report Date: 11/07/2018 23:00

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP09953.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: B183112.sub

Injection Date and Time: 07-NOV-2018 18:47
Initial Calibration Date(s): 12-SEP-2018 12-SEP-2018
Initial Calibration Time(s): 13:13 18:55
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,2-Dichlorobenzene	1.68089	1.54161	0.01	-8.3	50.0
1,2-Dibromo-3-chloropropane	0.12152	0.10006	0.01	-17.7	50.0
1,2,4-Trichlorobenzene	1.23953	1.09256	0.01	-11.9	50.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
Dibromofluoromethane	0.24919	0.25484	0.01	2.3	20.5
1,2-Dichloroethane-d4	0.05364	0.05429	0.01	1.2	20.5
Toluene-d8	1.29048	1.26866	0.01	-1.7	20.5
4-Bromofluorobenzene	0.47011	0.52807	0.01	12.3	20.5

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07536.i/18oct17z.b/qc17i51.d
/chem/HP07536.i/18oct17z.b/qc17i52.d
/chem/HP07536.i/18oct17z.b/qc17i53.d
/chem/HP07536.i/18oct17z.b/qc17i54.d
/chem/HP07536.i/18oct17z.b/qc17i55.d
/chem/HP07536.i/18oct17z.b/qc17i56.d
/chem/HP07536.i/18oct17z.b/qc17i57.d

File /chem/HP07536.i/18oct17z.b/qc17i55.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07536.i/18nov07a.b/qn07c10.d

RT Summary

Internal Standard Name	File ID: qn07c10.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.993	4.020	Yes
Fluorobenzene	7.507	7.508	Yes
Chlorobenzene-d5	11.036	11.035	Yes
1,4-Dichlorobenzene-d4	12.926	12.928	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: qn07c10.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	147749	127991	63996	255982	Yes
Fluorobenzene	1233519	1144986	572493	2289972	Yes
Chlorobenzene-d5	967374	853346	426673	1706692	Yes
1,4-Dichlorobenzene-d4	432719	373806	186903	747612	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 11/07/2018 at 08:56

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/07/18 Time: 08:19

Lab File ID: qn07c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4868	0.4065	41.75	50	-17	#
# Chloromethane	0.5186	0.4087	39.41	50	-21	#<-
# Vinyl Chloride	0.5046	0.3993	39.57	50	-21	#<-
# Bromomethane	0.1852	0.1587	42.83	50	-14	#
# Chloroethane	0.1795	0.1422	39.62	50	-21	#<-
# Trichlorofluoromethane	0.6171	0.4797	38.86	50	-22	#<-
n-Pentane	0.3498	0.2316	33.10	50	-34	<-
Ethanol	0.1419	0.1118	1969.19	2500	-21	<-
Freon 123a	0.3798	0.3253	42.82	50	-14	
Acrolein	2.9782	2.6896	451.55	500	-10	
# 1,1-Dichloroethene	0.2481	0.2415	48.67	50	-3	#
# 1,1-Dichloroethene(2)	0.1268	0.1181	46.57	50	-7	#
# Acetone	1.2027	1.1351	94.37	100	-6	#
# Freon 113	0.2114	0.2135	50.52	50	1	#
2-Propanol	0.8425	0.8059	239.13	250	-4	
Methyl Iodide	0.5278	0.5249	49.73	50	-1	
# Carbon Disulfide	0.9021	0.8378	46.43	50	-7	#
# Methyl Acetate	0.2431	0.2198	45.20	50	-10	#
Allyl Chloride	0.4643	0.4126	44.43	50	-11	
# Methylene Chloride	0.2963	0.2909	49.10	50	-2	#
t-Butyl alcohol	1.2230	1.0149	207.45	250	-17	
Acrylonitrile	0.1218	0.1178	48.36	50	-3	
# Methyl Tertiary Butyl Ether	0.8489	0.8353	49.20	50	-2	#
# trans-1,2-Dichloroethene	0.2801	0.2845	50.79	50	2	#
n-Hexane	0.2160	0.2188	50.63	50	1	
# 1,1-Dichloroethane	0.5007	0.4812	48.05	50	-4	#
di-Isopropyl ether	0.9889	0.9084	45.93	50	-8	
2-Chloro-1,3-butadiene	0.4519	0.4036	44.66	50	-11	
Ethyl t-butyl ether	0.9198	0.8527	46.35	50	-7	
# 2-Butanone	6.4727	5.5077	85.09	100	-15	#
# 2-Butanone(2)	1.5827	1.5378	97.16	100	-3	#
# cis-1,2-Dichloroethene	0.3092	0.3111	50.32	50	1	#
2,2-Dichloropropane	0.4043	0.3745	46.32	50	-7	
Propionitrile	0.0425	0.0411	242.14	250	-3	
Methacrylonitrile	0.1307	0.1331	127.24	125	2	
Bromochloromethane	0.1732	0.1777	51.32	50	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/07/18 Time: 08:19

Lab File ID: qn07c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.6156	1.5632	96.75	100	-3	
# Chloroform	0.4795	0.4562	47.57	50	-5	#
# 1,1,1-Trichloroethane	0.3933	0.3770	47.92	50	-4	#
# Cyclohexane	0.3445	0.3254	47.23	50	-6	#
# Cyclohexane(2)	0.2880	0.2839	49.28	50	-1	#
# Cyclohexane(3)	0.1025	0.1001	48.81	50	-2	#
1,1-Dichloropropene	0.3538	0.3418	48.31	50	-3	
# Carbon Tetrachloride	0.2873	0.3026	52.66	50	5	#
Isobutyl Alcohol	0.4144	0.3362	507.13	625	-19	
# Benzene	1.0978	1.0944	49.84	50	0	#
# 1,2-Dichloroethane	0.3803	0.3446	45.31	50	-9	#
# 1,2-Dichloroethane(2)	0.0329	0.0367	55.78	50	12	#<-
t-Amyl methyl ether	0.8729	0.8496	48.67	50	-3	
n-Heptane	0.2110	0.1855	43.96	50	-12	
n-Butanol	0.3108	0.3087	1241.59	1250	-1	
# Trichloroethene	0.2725	0.2692	49.40	50	-1	#
# Methylcyclohexane	0.2622	0.2600	49.58	50	-1	#
# 1,2-Dichloropropane	0.2994	0.2880	48.10	50	-4	#
Methyl Methacrylate	0.2213	0.2212	49.98	50	0	
1,4-Dioxane	0.1108	0.1322	745.53	625	19	
Dibromomethane	0.1817	0.1804	49.63	50	-1	
# Bromodichloromethane	0.3108	0.3215	51.72	50	3	#
2-Nitropropane	2.0763	2.5107	120.92	100	21	<-
2-Chloroethyl Vinyl Ether	0.1947	0.2076	53.33	50	7	
# cis-1,3-Dichloropropene	0.4382	0.4436	50.62	50	1	#
# 4-Methyl-2-pentanone	0.3012	0.2748	91.22	100	-9	#
# Toluene	0.8686	0.8506	48.96	50	-2	#
# trans-1,3-Dichloropropene	0.5363	0.5172	48.21	50	-4	#
Ethyl Methacrylate	0.5542	0.5342	48.20	50	-4	
# 1,1,2-Trichloroethane	0.3435	0.3313	48.22	50	-4	#
# Tetrachloroethene	0.3466	0.3396	48.99	50	-2	#
1,3-Dichloropropane	0.5876	0.5598	47.63	50	-5	
# 2-Hexanone	0.2694	0.2414	89.60	100	-10	#
# Dibromochloromethane	0.3045	0.3516	57.73	50	15	#
# 1,2-Dibromoethane	0.3602	0.3593	49.86	50	0	#
1-Chlorohexane	0.3531	0.3131	44.33	50	-11	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/07/18 Time: 08:19

Lab File ID: qn07c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chlorobenzene	0.9800	0.9347	47.69	50	-5	#
1,1,1,2-Tetrachloroethane	0.3236	0.3302	51.02	50	2	
# Ethylbenzene	1.4908	1.4117	47.35	50	-5	#
# m+p-Xylene	0.5828	0.5629	96.58	100	-3	#
# o-Xylene	0.5802	0.5594	48.21	50	-4	#
# Styrene	1.0303	0.9815	47.63	50	-5	#
# Bromoform	0.1868	0.2306	51.24	50	2	#
# Isopropylbenzene	1.2381	1.1820	47.73	50	-5	#
Cyclohexanone	0.4057	0.3423	527.29	625	-16	
# 1,1,2,2-Tetrachloroethane	1.0764	0.9344	43.40	50	-13	#
Bromobenzene	1.0154	0.9384	46.21	50	-8	
trans-1,4-Dichloro-2-butene	0.3214	0.2818	109.60	125	-12	
1,2,3-Trichloropropane	0.3294	0.3017	45.81	50	-8	
n-Propylbenzene	3.1392	2.8552	45.48	50	-9	
2-Chlorotoluene	0.7395	0.6869	46.44	50	-7	
1,3,5-Trimethylbenzene	2.3712	2.1534	45.41	50	-9	
4-Chlorotoluene	0.7900	0.7292	46.16	50	-8	
tert-Butylbenzene	0.4883	0.4510	46.17	50	-8	
Pentachloroethane	0.4703	0.5210	47.90	50	-4	
1,2,4-Trimethylbenzene	2.5423	2.3139	45.51	50	-9	
sec-Butylbenzene	2.6144	2.3218	44.40	50	-11	
# 1,3-Dichlorobenzene	1.5000	1.3859	46.20	50	-8	#
p-Isopropyltoluene	2.3794	2.1227	44.61	50	-11	
# 1,4-Dichlorobenzene	1.6844	1.4931	44.32	50	-11	#
1,2,3-Trimethylbenzene	2.8775	2.5890	44.99	50	-10	
Benzyl Chloride	0.4181	0.4178	49.96	50	0	
1,3-Diethylbenzene	1.4433	1.3237	45.86	50	-8	
1,4-Diethylbenzene	1.5107	1.3726	45.43	50	-9	
n-Butylbenzene	1.0978	0.9335	42.51	50	-15	
# 1,2-Dichlorobenzene	1.5546	1.3915	44.76	50	-10	#
1,2-Diethylbenzene	1.2931	1.1428	44.19	50	-12	
# 1,2-Dibromo-3-chloropropane	0.1671	0.1319	39.48	50	-21	#<-
1,3,5-Trichlorobenzene	0.9740	0.8729	44.81	50	-10	
# 1,2,4-Trichlorobenzene	0.9384	0.8207	43.73	50	-13	#
Hexachlorobutadiene	0.4135	0.3591	43.42	50	-13	
Naphthalene	2.7834	2.1435	38.50	50	-23	<-

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/07/18 Time: 08:19

Lab File ID: qm07c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
1,2,3-Trichlorobenzene	0.8971	0.7051	39.30	50	-21	<-
2-Methylnaphthalene	1.3647	0.5741	21.04	50	-58	<-
Dibromofluoromethane	0.2720	0.2742	50.39	50	1	
Dibromofluoromethane(2)	0.2802	0.2808	50.12	50	0	
1,2-Dichloroethane-d4	0.0707	0.0761	53.82	50	8	
1,2-Dichloroethane-d4(2)	0.3388	0.3168	46.76	50	-6	
1,2-Dichloroethane-d4(3)	0.0444	0.0491	55.33	50	11	
Toluene-d8	1.3649	1.3517	49.52	50	-1	
Toluene-d8(2)	0.8864	0.8754	49.38	50	-1	
4-Bromofluorobenzene	0.4346	0.4191	48.22	50	-4	
4-Bromofluorobenzene(2)	0.4131	0.4157	50.31	50	1	

Average %Drift 8

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d
Report Date: 11/07/2018 21:07

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP07536.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 07-NOV-2018 17:00
Initial Calibration Date(s): 17-OCT-2018 17-OCT-2018
Initial Calibration Time(s): 13:51 16:10
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dichlorodifluoromethane	0.48678	0.46694	0.01	-4.1	50.0
Chloromethane	0.51862	0.44474	0.01	-14.2	50.0
Vinyl Chloride	0.50459	0.43643	0.01	-13.5	50.0
Bromomethane	0.18525	0.15151	0.01	-18.2	50.0
Chloroethane	0.17950	0.16386	0.01	-8.7	50.0
Trichlorofluoromethane	0.61713	0.54337	0.01	-12.0	50.0
1,1-Dichloroethene	0.24813	0.25186	0.01	1.5	50.0
Acetone	1.20271	1.34444	0.01	11.8	50.0
Freon 113	0.21136	0.22875	0.01	8.2	50.0
Carbon Disulfide	0.90211	0.83212	0.01	-7.8	50.0
Methyl Acetate	0.24316	0.23722	0.01	-2.4	50.0
Methylene Chloride	0.29627	0.31382	0.01	5.9	50.0
Methyl Tertiary Butyl Ether	0.84886	0.89171	0.01	5.0	50.0
trans-1,2-Dichloroethene	0.28011	0.30108	0.01	7.5	50.0
1,1-Dichloroethane	0.50073	0.51768	0.01	3.4	50.0
2-Butanone	6.47271	6.33920	0.01	-2.1	50.0
cis-1,2-Dichloroethene	0.30917	0.33954	0.01	9.8	50.0
Chloroform	0.47952	0.50144	0.01	4.6	50.0
1,1,1-Trichloroethane	0.39330	0.40870	0.01	3.9	50.0
Cyclohexane	0.34454	0.35794	0.01	3.9	50.0
Carbon Tetrachloride	0.28733	0.32956	0.01	14.7	50.0
Benzene	1.09785	1.20084	0.01	9.4	50.0
1,2-Dichloroethane	0.38027	0.38234	0.01	0.5	50.0
Trichloroethene	0.27248	0.30327	0.01	11.3	50.0
Methylcyclohexane	0.26224	0.29738	0.01	13.4	50.0
1,2-Dichloropropane	0.29943	0.31820	0.01	6.3	50.0
Bromodichloromethane	0.31081	0.35492	0.01	14.2	50.0
cis-1,3-Dichloropropene	0.43818	0.48744	0.01	11.2	50.0
4-Methyl-2-pentanone	0.30120	0.31924	0.01	6.0	50.0
Toluene	0.86863	0.91673	0.01	5.5	50.0
trans-1,3-Dichloropropene	0.53634	0.55484	0.01	3.5	50.0
1,1,2-Trichloroethane	0.34355	0.36122	0.01	5.1	50.0
Tetrachloroethene	0.34659	0.37218	0.01	7.4	50.0
2-Hexanone	0.26943	0.27552	0.01	2.3	50.0
Dibromochloromethane	0.30452	0.37923	0.01	24.5	50.0
1,2-Dibromoethane	0.36024	0.39400	0.01	9.4	50.0
Chlorobenzene	0.98004	1.03151	0.01	5.3	50.0
Ethylbenzene	1.49081	1.55515	0.01	4.3	50.0
m+p-Xylene	0.58278	0.61847	0.01	6.1	50.0
o-Xylene	0.58019	0.61872	0.01	6.6	50.0
Xylene (Total)	0.58191	0.61855	0.01	6.3	50.0
Styrene	1.03034	1.07644	0.01	4.5	50.0
Bromoform	50.000	54.170	0.01	8.3	50.0
Isopropylbenzene	1.23813	1.30966	0.01	5.8	50.0
Cyclohexanone	0.40568	0.36735	0.01	-9.5	50.0
1,1,2,2-Tetrachloroethane	1.07640	1.06299	0.01	-1.2	50.0
1,3-Dichlorobenzene	1.49997	1.52874	0.01	1.9	50.0
1,4-Dichlorobenzene	1.68443	1.63821	0.01	-2.7	50.0

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d
Report Date: 11/07/2018 21:07

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP07536.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 07-NOV-2018 17:00
Initial Calibration Date(s): 17-OCT-2018 17-OCT-2018
Initial Calibration Time(s): 13:51 16:10
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,2-Dichlorobenzene	1.55456	1.53683	0.01	-1.1	50.0
1,2-Dibromo-3-chloropropane	0.16711	0.14698	0.01	-12.0	50.0
1,2,4-Trichlorobenzene	0.93845	0.89835	0.01	-4.3	50.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
Dibromofluoromethane	0.27201	0.31131	0.01	14.4	20.0
1,2-Dichloroethane-d4	0.07073	0.08548	0.01	20.9	20.0
Toluene-d8	1.36494	1.48183	0.01	8.6	20.0
4-Bromofluorobenzene	0.43456	0.46749	0.01	7.6	20.0

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07536.i/18oct17z.b/qc17i51.d
/chem/HP07536.i/18oct17z.b/qc17i52.d
/chem/HP07536.i/18oct17z.b/qc17i53.d
/chem/HP07536.i/18oct17z.b/qc17i54.d
/chem/HP07536.i/18oct17z.b/qc17i55.d
/chem/HP07536.i/18oct17z.b/qc17i56.d
/chem/HP07536.i/18oct17z.b/qc17i57.d

File /chem/HP07536.i/18oct17z.b/qc17i55.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07536.i/18nov08a.b/qn08c10.d

RT Summary

Internal Standard Name	File ID: qn08c10.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.004	4.020	Yes
Fluorobenzene	7.508	7.508	Yes
Chlorobenzene-d5	11.034	11.035	Yes
1,4-Dichlorobenzene-d4	12.927	12.928	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: qn08c10.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	134095	127991	63996	255982	Yes
Fluorobenzene	1093325	1144986	572493	2289972	Yes
Chlorobenzene-d5	862657	853346	426673	1706692	Yes
1,4-Dichlorobenzene-d4	382237	373806	186903	747612	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 11/08/2018 at 09:29

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/08/18 Time: 08:58

Lab File ID: qn08c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Dichlorodifluoromethane	0.4868	0.4219	43.33	50	-13	#
#	Chloromethane	0.5186	0.4251	40.98	50	-18	#
#	Vinyl Chloride	0.5046	0.4171	41.33	50	-17	#
#	Bromomethane	0.1852	0.1764	47.62	50	-5	#
#	Chloroethane	0.1795	0.1498	41.74	50	-17	#
#	Trichlorofluoromethane	0.6171	0.5123	41.51	50	-17	#
	n-Pentane	0.3498	0.2117	30.25	50	-39	<-
	Ethanol	0.1419	0.1195	2104.65	2500	-16	
	Freon 123a	0.3798	0.3474	45.73	50	-9	
	Acrolein	2.9782	2.9328	492.38	500	-2	
#	1,1-Dichloroethene	0.2481	0.2532	51.03	50	2	#
#	1,1-Dichloroethene(2)	0.1268	0.1216	47.97	50	-4	#
#	Acetone	1.2027	1.2852	106.86	100	7	#
#	Freon 113	0.2114	0.2193	51.88	50	4	#
	2-Propanol	0.8425	0.7038	208.84	250	-16	
	Methyl Iodide	0.5278	0.5549	52.57	50	5	
#	Carbon Disulfide	0.9021	0.8374	46.41	50	-7	#
#	Methyl Acetate	0.2431	0.2483	51.05	50	2	#
	Allyl Chloride	0.4643	0.4617	49.72	50	-1	
#	Methylene Chloride	0.2963	0.3164	53.39	50	7	#
	t-Butyl alcohol	1.2230	1.1112	227.15	250	-9	
	Acrylonitrile	0.1218	0.1375	56.45	50	13	
#	Methyl Tertiary Butyl Ether	0.8489	0.8984	52.92	50	6	#
#	trans-1,2-Dichloroethene	0.2801	0.3034	54.16	50	8	#
	n-Hexane	0.2160	0.2304	53.33	50	7	
#	1,1-Dichloroethane	0.5007	0.5219	52.12	50	4	#
	di-Isopropyl ether	0.9889	0.9969	50.40	50	1	
	2-Chloro-1,3-butadiene	0.4519	0.4288	47.45	50	-5	
	Ethyl t-butyl ether	0.9198	0.9384	51.01	50	2	
#	2-Butanone	6.4727	6.0344	93.23	100	-7	#
#	2-Butanone(2)	1.5827	1.7481	110.45	100	10	#
#	cis-1,2-Dichloroethene	0.3092	0.3427	55.42	50	11	#
	2,2-Dichloropropane	0.4043	0.4045	50.03	50	0	
	Propionitrile	0.0425	0.0496	292.19	250	17	
	Methacrylonitrile	0.1307	0.1481	141.58	125	13	
	Bromochloromethane	0.1732	0.2060	59.49	50	19	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/08/18 Time: 08:58

Lab File ID: qn08c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.6156	1.7388	107.63	100	8	
# Chloroform	0.4795	0.5099	53.17	50	6	#
# 1,1,1-Trichloroethane	0.3933	0.4147	52.72	50	5	#
# Cyclohexane	0.3445	0.3493	50.69	50	1	#
# Cyclohexane(2)	0.2880	0.3009	52.24	50	4	#
# Cyclohexane(3)	0.1025	0.1074	52.39	50	5	#
1,1-Dichloropropene	0.3538	0.3773	53.33	50	7	
# Carbon Tetrachloride	0.2873	0.3299	57.41	50	15	#
Isobutyl Alcohol	0.4144	0.4060	612.36	625	-2	
# Benzene	1.0978	1.2148	55.32	50	11	#
# 1,2-Dichloroethane	0.3803	0.3784	49.75	50	0	#
# 1,2-Dichloroethane(2)	0.0329	0.0406	61.63	50	23	#<-
t-Amyl methyl ether	0.8729	0.9361	53.62	50	7	
n-Heptane	0.2110	0.2072	49.09	50	-2	
n-Butanol	0.3108	0.3384	1360.86	1250	9	
# Trichloroethene	0.2725	0.3009	55.22	50	10	#
# Methylcyclohexane	0.2622	0.2971	56.66	50	13	#
# 1,2-Dichloropropane	0.2994	0.3187	53.22	50	6	#
Methyl Methacrylate	0.2213	0.2436	55.04	50	10	
1,4-Dioxane	0.1108	0.1436	809.51	625	30	<-
Dibromomethane	0.1817	0.2029	55.83	50	12	
# Bromodichloromethane	0.3108	0.3569	57.42	50	15	#
2-Nitropropane	2.0763	2.8004	134.88	100	35	<-
2-Chloroethyl Vinyl Ether	0.1947	0.2329	59.82	50	20	
# cis-1,3-Dichloropropene	0.4382	0.4944	56.42	50	13	#
# 4-Methyl-2-pentanone	0.3012	0.3164	105.05	100	5	#
# Toluene	0.8686	0.9348	53.81	50	8	#
# trans-1,3-Dichloropropene	0.5363	0.5714	53.27	50	7	#
Ethyl Methacrylate	0.5542	0.5832	52.61	50	5	
# 1,1,2-Trichloroethane	0.3435	0.3673	53.45	50	7	#
# Tetrachloroethene	0.3466	0.3719	53.66	50	7	#
1,3-Dichloropropane	0.5876	0.6131	52.16	50	4	
# 2-Hexanone	0.2694	0.2717	100.84	100	1	#
# Dibromochloromethane	0.3045	0.3869	63.53	50	27	#<-
# 1,2-Dibromoethane	0.3602	0.3966	55.05	50	10	#
1-Chlorohexane	0.3531	0.3418	48.40	50	-3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/08/18 Time: 08:58

Lab File ID: qn08c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Chlorobenzene	0.9800	1.0349	52.80	50	6	#
	1,1,1,2-Tetrachloroethane	0.3236	0.3674	56.77	50	14	
#	Ethylbenzene	1.4908	1.5608	52.35	50	5	#
#	m+p-Xylene	0.5828	0.6174	105.95	100	6	#
#	o-Xylene	0.5802	0.6183	53.29	50	7	#
#	Styrene	1.0303	1.0862	52.71	50	5	#
#	Bromoform	0.1868	0.2529	55.85	50	12	#
#	Isopropylbenzene	1.2381	1.3008	52.53	50	5	#
	Cyclohexanone	0.4057	0.4092	630.46	625	1	
#	1,1,2,2-Tetrachloroethane	1.0764	1.0460	48.59	50	-3	#
	Bromobenzene	1.0154	1.0508	51.75	50	3	
	trans-1,4-Dichloro-2-butene	0.3214	0.2998	116.62	125	-7	
	1,2,3-Trichloropropane	0.3294	0.3363	51.05	50	2	
	n-Propylbenzene	3.1392	3.1917	50.84	50	2	
	2-Chlorotoluene	0.7395	0.7614	51.48	50	3	
	1,3,5-Trimethylbenzene	2.3712	2.4330	51.31	50	3	
	4-Chlorotoluene	0.7900	0.8107	51.31	50	3	
	tert-Butylbenzene	0.4883	0.4959	50.78	50	2	
	Pentachloroethane	0.4703	0.7266	65.80	50	32	<-
	1,2,4-Trimethylbenzene	2.5423	2.6023	51.18	50	2	
	sec-Butylbenzene	2.6144	2.6414	50.52	50	1	
#	1,3-Dichlorobenzene	1.5000	1.5603	52.01	50	4	#
	p-Isopropyltoluene	2.3794	2.4384	51.24	50	2	
#	1,4-Dichlorobenzene	1.6844	1.6785	49.82	50	0	#
	1,2,3-Trimethylbenzene	2.8775	3.5761	62.14	50	24	<-
	Benzyl Chloride	0.4181	0.4606	55.08	50	10	
	1,3-Diethylbenzene	1.4433	1.8435	63.86	50	28	<-
	1,4-Diethylbenzene	1.5107	1.9175	63.46	50	27	<-
	n-Butylbenzene	1.0978	1.0982	50.02	50	0	
#	1,2-Dichlorobenzene	1.5546	1.5765	50.71	50	1	#
	1,2-Diethylbenzene	1.2931	1.6040	62.02	50	24	<-
#	1,2-Dibromo-3-chloropropane	0.1671	0.1487	44.50	50	-11	#
	1,3,5-Trichlorobenzene	0.9740	0.9935	51.00	50	2	
#	1,2,4-Trichlorobenzene	0.9384	0.8956	47.72	50	-5	#
	Hexachlorobutadiene	0.4135	0.4143	50.10	50	0	
	Naphthalene	2.7834	2.4438	43.90	50	-12	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07536 Calibration Date: 11/08/18 Time: 08:58

Lab File ID: qn08c10.d Init. Calib. Date(s): 10/17/18 10/17/18

Matrix: (soil/water) SOIL Level: (low/med) MED GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
1,2,3-Trichlorobenzene	0.8971	0.7135	39.77	50	-20	
2-Methylnaphthalene	1.3647	0.8136	29.81	50	-40	<-
Dibromofluoromethane	0.2720	0.3079	56.60	50	13	
Dibromofluoromethane(2)	0.2802	0.3136	55.97	50	12	
1,2-Dichloroethane-d4	0.0707	0.0852	60.23	50	20	
1,2-Dichloroethane-d4(2)	0.3388	0.3479	51.34	50	3	
1,2-Dichloroethane-d4(3)	0.0444	0.0543	61.14	50	22	
Toluene-d8	1.3649	1.4789	54.17	50	8	
Toluene-d8(2)	0.8864	0.9576	54.02	50	8	
4-Bromofluorobenzene	0.4346	0.4533	52.16	50	4	
4-Bromofluorobenzene(2)	0.4131	0.4504	54.51	50	9	

Average %Drift 9

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d
Report Date: 11/09/2018 08:14

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP07536.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 08-NOV-2018 15:20
Initial Calibration Date(s): 17-OCT-2018 17-OCT-2018
Initial Calibration Time(s): 13:51 16:10
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dichlorodifluoromethane	0.48678	0.44244	0.01	-9.1	50.0
Chloromethane	0.51862	0.42248	0.01	-18.5	50.0
Vinyl Chloride	0.50459	0.42191	0.01	-16.4	50.0
Bromomethane	0.18525	0.15294	0.01	-17.4	50.0
Chloroethane	0.17950	0.13982	0.01	-22.1	50.0
Trichlorofluoromethane	0.61713	0.51210	0.01	-17.0	50.0
1,1-Dichloroethene	0.24813	0.27389	0.01	10.4	50.0
Acetone	1.20271	1.24707	0.01	3.7	50.0
Freon 113	0.21136	0.24482	0.01	15.8	50.0
Carbon Disulfide	0.90211	0.91468	0.01	1.4	50.0
Methyl Acetate	0.24316	0.25696	0.01	5.7	50.0
Methylene Chloride	0.29627	0.33193	0.01	12.0	50.0
Methyl Tertiary Butyl Ether	0.84886	0.93311	0.01	9.9	50.0
trans-1,2-Dichloroethene	0.28011	0.31905	0.01	13.9	50.0
1,1-Dichloroethane	0.50073	0.53555	0.01	7.0	50.0
2-Butanone	6.47271	5.70053	0.01	-11.9	50.0
cis-1,2-Dichloroethene	0.30917	0.34995	0.01	13.2	50.0
Chloroform	0.47952	0.51538	0.01	7.5	50.0
1,1,1-Trichloroethane	0.39330	0.42191	0.01	7.3	50.0
Cyclohexane	0.34454	0.36949	0.01	7.2	50.0
Carbon Tetrachloride	0.28733	0.33503	0.01	16.6	50.0
Benzene	1.09785	1.23469	0.01	12.5	50.0
1,2-Dichloroethane	0.38027	0.38466	0.01	1.2	50.0
Trichloroethene	0.27248	0.30743	0.01	12.8	50.0
Methylcyclohexane	0.26224	0.30481	0.01	16.2	50.0
1,2-Dichloropropane	0.29943	0.32002	0.01	6.9	50.0
Bromodichloromethane	0.31081	0.36598	0.01	17.8	50.0
cis-1,3-Dichloropropene	0.43818	0.50929	0.01	16.2	50.0
4-Methyl-2-pentanone	0.30120	0.32388	0.01	7.5	50.0
Toluene	0.86863	0.94108	0.01	8.3	50.0
trans-1,3-Dichloropropene	0.53634	0.57760	0.01	7.7	50.0
1,1,2-Trichloroethane	0.34355	0.37242	0.01	8.4	50.0
Tetrachloroethene	0.34659	0.37741	0.01	8.9	50.0
2-Hexanone	0.26943	0.27545	0.01	2.2	50.0
Dibromochloromethane	0.30452	0.38450	0.01	26.3	50.0
1,2-Dibromoethane	0.36024	0.39558	0.01	9.8	50.0
Chlorobenzene	0.98004	1.03917	0.01	6.0	50.0
Ethylbenzene	1.49081	1.55974	0.01	4.6	50.0
m+p-Xylene	0.58278	0.62385	0.01	7.0	50.0
o-Xylene	0.58019	0.62100	0.01	7.0	50.0
Xylene (Total)	0.58191	0.62290	0.01	7.0	50.0
Styrene	1.03034	1.09686	0.01	6.5	50.0
Bromoform	50.000	54.837	0.01	9.7	50.0
Isopropylbenzene	1.23813	1.31349	0.01	6.1	50.0
Cyclohexanone	0.40568	0.43934	0.01	8.3	50.0
1,1,2,2-Tetrachloroethane	1.07640	1.04889	0.01	-2.6	50.0
1,3-Dichlorobenzene	1.49997	1.55326	0.01	3.6	50.0
1,4-Dichlorobenzene	1.68443	1.66759	0.01	-1.0	50.0

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d
Report Date: 11/09/2018 08:14

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP07536.i
Client ID: SECC050
Lab Sample ID: SECC050
Sublist used: 25809.sub

Injection Date and Time: 08-NOV-2018 15:20
Initial Calibration Date(s): 17-OCT-2018 17-OCT-2018
Initial Calibration Time(s): 13:51 16:10
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,2-Dichlorobenzene	1.55456	1.55215	0.01	-0.2	50.0
1,2-Dibromo-3-chloropropane	0.16711	0.14704	0.01	-12.0	50.0
1,2,4-Trichlorobenzene	0.93845	0.90330	0.01	-3.7	50.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
Dibromofluoromethane	0.27201	0.30658	0.01	12.7	20.0
1,2-Dichloroethane-d4	0.07073	0.08439	0.01	19.3	20.0
Toluene-d8	1.36494	1.47411	0.01	8.0	20.0
4-Bromofluorobenzene	0.43456	0.45792	0.01	5.4	20.0

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19094.i/18sep24i.b/hs24i07.d
/chem2/HP19094.i/18sep24i.b/hs24i06.d
/chem2/HP19094.i/18sep24i.b/hs24i05.d
/chem2/HP19094.i/18sep24i.b/hs24i04.d
/chem2/HP19094.i/18sep24i.b/hs24i03.d
/chem2/HP19094.i/18sep24i.b/hs24i02.d
/chem2/HP19094.i/18sep24i.b/hs24i01.d

File /chem2/HP19094.i/18sep24i.b/hs24i02.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19094.i/18nov05b.b/hn05c01.d

RT Summary

Internal Standard Name	File ID: hn05c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.483	4.483	Yes
Fluorobenzene	7.970	7.970	Yes
Chlorobenzene-d5	11.384	11.384	Yes
1,4-Dichlorobenzene-d4	13.249	13.249	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: hn05c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	122842	126410	63205	252820	Yes
Fluorobenzene	2556545	2675616	1337808	5351232	Yes
Chlorobenzene-d5	1866671	2091043	1045522	4182086	Yes
1,4-Dichlorobenzene-d4	922290	1077251	538626	2154502	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 11/05/18 Time: 20:18

Lab File ID: hn05c01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3908	0.3030	7.75	10	-22	#<-
# Chloromethane	0.3827	0.2964	7.74	10	-23	#<-
# Vinyl Chloride	0.3584	0.2774	7.74	10	-23	#<-
| 1,3-Butadiene	0.4060	0.2831	6.97	10	-30	|<-
# Bromomethane	0.2786	0.2196	7.88	10	-21	#<-
# Chloroethane	0.2174	0.1681	7.73	10	-23	#<-
| Dichlorofluoromethane	0.5171	0.3910	7.56	10	-24	|<-
# Trichlorofluoromethane	0.4528	0.3529	7.79	10	-22	#<-
| Ethyl ether	0.1535	0.1363	8.88	10	-11	|
| Freon 123a	0.2869	0.2425	8.45	10	-15	|
| Acrolein	2.2188	1.9700	443.93	500	-11	|
# 1,1-Dichloroethene	0.1961	0.1734	8.85	10	-12	#
# Freon 113	0.2311	0.1860	8.05	10	-20	#
# Acetone	2.9801	2.3026	77.27	100	-23	#<-
| Methyl Iodide	0.4087	0.3510	8.59	10	-14	|
# Carbon Disulfide	0.6239	0.5302	8.50	10	-15	#
| Allyl Chloride	0.3727	0.3291	8.83	10	-12	|
# Methyl Acetate	8.3663	7.3450	8.78	10	-12	#
# Methylene Chloride	0.2212	0.1845	8.34	10	-17	#
| t-Butyl Alcohol	0.8535	0.7623	178.64	200	-11	|
| Acrylonitrile	3.8486	3.5613	46.27	50	-7	|
# trans-1,2-Dichloroethene	0.2213	0.1916	8.66	10	-13	#
# Methyl Tertiary Butyl Ether	0.4032	0.3586	8.89	10	-11	#
| n-Hexane	0.3519	0.2908	8.26	10	-17	|
# 1,1-Dichloroethane	0.4213	0.3777	8.96	10	-10	#
| di-Isopropyl Ether	0.7482	0.6586	8.80	10	-12	|
| 2-Chloro-1,3-Butadiene	0.3791	0.3438	9.07	10	-9	|
| Ethyl t-butyl ether	0.5935	0.5109	8.61	10	-14	|
# cis-1,2-Dichloroethene	0.2445	0.2179	8.91	10	-11	#
| 2,2-Dichloropropane	0.3009	0.2692	8.95	10	-11	|
# 2-Butanone	4.8783	4.6474	95.27	100	-5	#
| Propionitrile	1.3241	1.3262	200.32	200	0	|
| Methacrylonitrile	4.7745	4.4432	93.06	100	-7	|
| Bromochloromethane	0.1033	0.0905	8.77	10	-12	|
| Tetrahydrofuran	1.2969	1.2164	93.80	100	-6	|
# Chloroform	0.3917	0.3470	8.86	10	-11	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 11/05/18 Time: 20:18

Lab File ID: hn05c01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
	COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
#	1,1,1-Trichloroethane	0.3351	0.2901	8.66	10	-13	#
#	Cyclohexane	0.4374	0.3653	8.35	10	-16	#
#	Cyclohexane(2)	0.3606	0.2980	8.26	10	-17	#
#	Cyclohexane(3)	0.1289	0.1084	8.41	10	-16	#
	1,1-Dichloropropene	0.3177	0.2801	8.82	10	-12	
#	Carbon Tetrachloride	0.2878	0.2505	8.70	10	-13	#
	Isobutyl Alcohol	0.3302	0.3108	470.65	500	-6	
#	Benzene	0.9386	0.8279	8.82	10	-12	#
#	1,2-Dichloroethane	0.2160	0.1836	8.50	10	-15	#
	t-Amyl methyl ether	0.4920	0.4229	8.59	10	-14	
	n-Heptane	0.3628	0.3028	8.34	10	-17	
	n-Butanol	0.2790	0.2751	985.97	1000	-1	
#	Trichloroethene	0.2403	0.2119	8.82	10	-12	#
#	Methylcyclohexane	0.4539	0.3682	8.11	10	-19	#
#	1,2-Dichloropropane	0.2277	0.2038	8.95	10	-10	#
	Methyl Methacrylate	8.8375	8.3724	9.47	10	-5	
	Dibromomethane	0.0945	0.0844	8.93	10	-11	
	1,4-Dioxane	0.0672	0.0692	514.83	500	3	
#	Bromodichloromethane	0.2560	0.2312	9.03	10	-10	#
	2-Nitropropane	2.5034	2.5405	101.48	100	1	
#	cis-1,3-Dichloropropene	0.2981	0.2742	9.20	10	-8	#
#	4-Methyl-2-Pentanone	12.134	11.5838	95.46	100	-5	#
#	Toluene	0.7421	0.6955	9.37	10	-6	#
#	trans-1,3-Dichloropropene	0.2859	0.2843	9.94	10	-1	#
	Ethyl Methacrylate	0.2450	0.2451	10.01	10	0	
#	1,1,2-Trichloroethane	0.1708	0.1610	9.43	10	-6	#
#	Tetrachloroethene	0.3353	0.3068	9.15	10	-8	#
	1,3-Dichloropropane	0.3026	0.2858	9.44	10	-6	
#	2-Hexanone	8.2598	7.8228	94.71	100	-5	#
#	Dibromochloromethane	0.2046	0.1989	9.72	10	-3	#
#	1,2-Dibromoethane	0.1601	0.1531	9.57	10	-4	#
	1-Chlorohexane	0.4426	0.3956	8.94	10	-11	
#	Chlorobenzene	0.7873	0.7379	9.37	10	-6	#
	1,1,1,2-Tetrachloroethane	0.2598	0.2503	9.63	10	-4	
#	Ethylbenzene	1.4504	1.3709	9.45	10	-5	#
#	m+p-Xylene	0.5380	0.5077	18.88	20	-6	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 11/05/18 Time: 20:18

Lab File ID: hn05c01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF10	CONC.	CONC.	DRIFT	
o-Xylene	0.5143	0.4876	9.48	10	-5	#
Styrene	0.8229	0.8031	9.76	10	-2	#
Bromoform	0.1125	0.1087	9.66	10	-3	#
Isopropylbenzene	1.4040	1.3183	9.39	10	-6	#
1,1,2,2-Tetrachloroethane	0.3967	0.3849	9.70	10	-3	#
Bromobenzene	0.6030	0.5886	9.76	10	-2	
trans-1,4-Dichloro-2-butene	3.8005	3.5678	93.88	100	-6	
1,2,3-Trichloropropane	0.1025	0.1003	9.78	10	-2	
n-Propylbenzene	3.2790	3.2470	9.90	10	-1	
2-Chlorotoluene	0.6360	0.6174	9.71	10	-3	
1,3,5-Trimethylbenzene	2.2213	2.1738	9.79	10	-2	
4-Chlorotoluene	0.6373	0.6216	9.75	10	-2	
tert-Butylbenzene	0.4831	0.4787	9.91	10	-1	
Pentachloroethane	0.3770	0.3789	10.05	10	0	
1,2,4-Trimethylbenzene	2.2667	2.2341	9.86	10	-1	
sec-Butylbenzene	2.8784	2.8582	9.93	10	-1	
1,3-Dichlorobenzene	1.1981	1.1518	9.61	10	-4	#
p-Isopropyltoluene	2.3842	2.3828	9.99	10	0	
1,4-Dichlorobenzene	1.1761	1.1173	9.50	10	-5	#
1,2,3-Trimethylbenzene	1.0399	0.9838	9.46	10	-5	
Benzyl Chloride	0.1434	0.1511	10.54	10	5	
n-Butylbenzene	1.1834	1.1787	9.96	10	0	
1,2-Dichlorobenzene	1.0571	0.9839	9.31	10	-7	#
1,2-Dibromo-3-chloropropane	2.0569	1.7398	8.46	10	-15	#
1,3,5-Trichlorobenzene	0.8913	0.8117	9.11	10	-9	
1,2,4-Trichlorobenzene	0.7260	0.6252	8.61	10	-14	#
Hexachlorobutadiene	0.2744	0.2478	9.03	10	-10	
Naphthalene	1.1489	0.9917	8.63	10	-14	
1,2,3-Trichlorobenzene	0.5970	0.4906	8.22	10	-18	
Dibromofluoromethane	0.2520	0.2412	9.57	10	-4	
Dibromofluoromethane(2)	0.2594	0.2467	9.51	10	-5	
1,2-Dichloroethane-d4	0.0439	0.0433	9.86	10	-1	
1,2-Dichloroethane-d4(2)	0.2125	0.2146	10.10	10	1	
1,2-Dichloroethane-d4(3)	0.0281	0.0276	9.81	10	-2	
Toluene-d8	1.2870	1.3311	10.34	10	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 11/05/18 Time: 20:18

Lab File ID: hn05c01.d Init. Calib. Date(s): 09/24/18 09/24/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT
Toluene-d8(2)	0.8307	0.8499	10.23	10	2
4-Bromofluorobenzene	0.4686	0.4594	9.80	10	-2
4-Bromofluorobenzene(2)	0.4069	0.3942	9.69	10	-3

Average %Drift 9

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d
Report Date: 11/06/2018 07:41

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP19094.i
Client ID: SECC010
Lab Sample ID: SECC010
Sublist used: 25789-SM.sub
Injection Date and Time: 06-NOV-2018 07:01
Initial Calibration Date(s): 02-MAY-2018 24-SEP-2018
Initial Calibration Time(s): 19:15 20:37
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dichlorodifluoromethane	0.39081	0.32731	0.01	-16.2	50.0
Chloromethane	0.38274	0.30371	0.01	-20.6	50.0
Vinyl Chloride	0.35841	0.28691	0.01	-19.9	50.0
Bromomethane	0.27864	0.23124	0.01	-17.0	50.0
Chloroethane	0.21739	0.16989	0.01	-21.8	50.0
Trichlorofluoromethane	0.45279	0.36993	0.01	-18.3	50.0
1,1-Dichloroethene	0.19607	0.18371	0.01	-6.3	50.0
Freon 113	0.23109	0.20694	0.01	-10.5	50.0
Acetone	2.98014	2.64497	0.01	-11.2	50.0
Carbon Disulfide	0.62388	0.55636	0.01	-10.8	50.0
Methyl Acetate	8.36626	7.10296	0.01	-15.1	50.0
Methylene Chloride	0.22120	0.19546	0.01	-11.6	50.0
trans-1,2-Dichloroethene	0.22129	0.18823	0.01	-14.9	50.0
Methyl Tertiary Butyl Ether	0.40325	0.36074	0.01	-10.5	50.0
1,1-Dichloroethane	0.42133	0.39233	0.01	-6.9	50.0
cis-1,2-Dichloroethene	0.24451	0.22508	0.01	-7.9	50.0
2-Butanone	4.87826	4.53031	0.01	-7.1	50.0
Chloroform	0.39172	0.31987	0.01	-18.3	50.0
1,1,1-Trichloroethane	0.33506	0.27419	0.01	-18.2	50.0
Cyclohexane	0.43741	0.34409	0.01	-21.3	50.0
Carbon Tetrachloride	0.28777	0.23734	0.01	-17.5	50.0
Benzene	0.93862	0.76876	0.01	-18.1	50.0
1,2-Dichloroethane	0.21601	0.16808	0.01	-22.2	50.0
Trichloroethene	0.24033	0.22012	0.01	-8.4	50.0
Methylcyclohexane	0.45388	0.39848	0.01	-12.2	50.0
1,2-Dichloropropane	0.22773	0.21515	0.01	-5.5	50.0
Bromodichloromethane	0.25602	0.24490	0.01	-4.3	50.0
cis-1,3-Dichloropropene	0.29807	0.28444	0.01	-4.6	50.0
4-Methyl-2-Pentanone	12.13435	11.60228	0.01	-4.4	50.0
Toluene	0.74209	0.68904	0.01	-7.1	50.0
trans-1,3-Dichloropropene	0.28594	0.28508	0.01	-0.3	50.0
1,1,2-Trichloroethane	0.17076	0.16274	0.01	-4.7	50.0
Tetrachloroethene	0.33529	0.30517	0.01	-9.0	50.0
2-Hexanone	8.25980	8.13105	0.01	-1.6	50.0
Dibromochloromethane	0.20466	0.19891	0.01	-2.8	50.0
1,2-Dibromoethane	0.16005	0.15645	0.01	-2.3	50.0
Chlorobenzene	0.78730	0.73569	0.01	-6.6	50.0
Ethylbenzene	1.45036	1.36459	0.01	-5.9	50.0
m+p-Xylene	0.53796	0.50733	0.01	-5.7	50.0
o-Xylene	0.51431	0.48674	0.01	-5.4	50.0
Xylene (Total)	0.53008	0.50046	0.01	-5.6	50.0
Styrene	0.82286	0.79008	0.01	-4.0	50.0
Bromoform	0.11248	0.11022	0.01	-2.0	50.0
Isopropylbenzene	1.40404	1.31111	0.01	-6.6	50.0
1,1,2,2-Tetrachloroethane	0.39667	0.38854	0.01	-2.0	50.0
1,3-Dichlorobenzene	1.19815	1.16099	0.01	-3.1	50.0
1,4-Dichlorobenzene	1.17614	1.12474	0.01	-4.4	50.0
1,2-Dichlorobenzene	1.05712	0.88795	0.01	-16.0	50.0

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d
Report Date: 11/06/2018 07:41

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP19094.i Injection Date and Time: 06-NOV-2018 07:01
Client ID: SECC010 Initial Calibration Date(s): 02-MAY-2018 24-SEP-2018
Lab Sample ID: SECC010 Initial Calibration Time(s): 19:15 20:37
Sublist used: 25789-SM.sub Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,2-Dibromo-3-chloropropane	2.05690	1.63444	0.01	-20.5	50.0
1,2,4-Trichlorobenzene	0.72604	0.57576	0.01	-20.7	50.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
Dibromofluoromethane	0.25204	0.22546	0.01	-10.5	20.5
1,2-Dichloroethane-d4	0.04394	0.04125	0.01	-6.1	20.5
Toluene-d8	1.28704	1.31750	0.01	2.4	20.5
4-Bromofluorobenzene	0.46859	0.45671	0.01	-2.5	20.5

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP19094.i/18may02b.b/hy02i17.d
/chem2/HP19094.i/18may02b.b/hy02i16.d
/chem2/HP19094.i/18may02b.b/hy02i15.d
/chem2/HP19094.i/18may02b.b/hy02i14.d
/chem2/HP19094.i/18may02b.b/hy02i13.d
/chem2/HP19094.i/18may02b.b/hy02i12.d
/chem2/HP19094.i/18may02b.b/hy02i11.d

File /chem2/HP19094.i/18may02b.b/hy02i12.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP19094.i/18nov05b.b/hn05c02.d

RT Summary

Internal Standard Name	File ID: hn05c02.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.482	4.489	Yes
Fluorobenzene	7.963	7.976	Yes
Chlorobenzene-d5	11.377	11.396	Yes
1,4-Dichlorobenzene-d4	13.249	13.267	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: hn05c02.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	119910	91579	45790	183158	Yes
Fluorobenzene	2569937	2321054	1160527	4642108	Yes
Chlorobenzene-d5	1862937	1697976	848988	3395952	Yes
1,4-Dichlorobenzene-d4	923209	883093	441546	1766186	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP19094 Calibration Date: 11/05/18 Time: 20:39

Lab File ID: hn05c02.d Init. Calib. Date(s): 05/02/18 05/02/18

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: RXI-624SILM.25

COMPOUND	RRF	RRF10	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Acetonitrile	1.2073	0.8551	283.29	400	-29	<-
Vinyl Acetate	0.3058	0.2541	8.31	10	-17	
Methyl Acrylate	0.0944	0.0902	47.80	50	-4	
1-Chlorobutane	0.4516	0.3955	8.76	10	-12	
Chloroacetonitrile	0.0038	0.0051	683.19	500	37	
2-Chloroethyl vinyl ether	0.0904	0.0824	9.11	10	-9	
cis-1,4-Dichloro-2-butene	6.4754	3.8651	11.94	20	-40	<-
Cyclohexanone	0.3293	0.3453	524.25	500	5	
Hexachloroethane	0.4210	0.4328	10.28	10	3	

Average %Drift 17

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec6.d
Report Date: 11/06/2018 07:41

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP19094.i
Client ID: SECD010
Lab Sample ID: SECD010
Sublist used: 25789SM.sub

Injection Date and Time: 06-NOV-2018 07:22
Initial Calibration Date(s): 02-MAY-2018 24-SEP-2018
Initial Calibration Time(s): 19:15 20:37
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Cyclohexanone	0.32931	0.32534	0.01	-1.2	50.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Dibromofluoromethane	0.25204	0.24097	0.01	-4.4	20.5
1,2-Dichloroethane-d4	0.04394	0.04495	0.01	2.3	20.5
Toluene-d8	1.28704	1.32295	0.01	2.8	20.5
4-Bromofluorobenzene	0.46859	0.45844	0.01	-2.2	20.5

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): bn06c01.d Date Analyzed: 11/06/18

Instrument ID: HP09953 Time Analyzed: 19:51

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)			IS2(FBZ)			IS3(CBZ)			IS4(DCB)		
	AREA	#	RT	AREA	#	RT	AREA	#	RT	AREA	#	RT
12 HOUR STD	121316		1.924	1367264		3.944	1101888		7.144	661749		9.224
UPPER LIMIT	242632		2.424	2734528		4.444	2203776		7.644	1323498		9.724
LOWER LIMIT	60658		1.424	683632		3.444	550944		6.644	330874		8.724
LAB SAMPLE ID												
01 MDL050 - MD	126430		1.918	1316180		3.944	1065107		7.144	602098		9.224
02 MDLB50 - MD	126430		1.918	1316180		3.944	1065107		7.144	602098		9.224
03 VBLKB93	106420		1.924	1179305		3.944	959320		7.144	538378		9.230
04 VBLKB94	106420		1.924	1179305		3.944	959320		7.144	538378		9.230
05 LCSB93	142440		1.924	1348442		3.944	1093863		7.144	639786		9.224
06 LCSB94	142440		1.924	1348442		3.944	1093863		7.144	639786		9.224
07 LCDB93	99308		1.924	1323832		3.944	1063185		7.144	622740		9.224
08 LCDB94	99308		1.924	1323832		3.944	1063185		7.144	622740		9.224
09 9867761RE	36060	*	1.918	1267208		3.944	744155		7.144	194760	*	9.230
10 9867766RE	37500	*	1.912	1172636		3.944	650337		7.144	163287	*	9.230
11 9867767	69214		1.918	909232		3.944	408623	*	7.144	105116	*	9.230
12 9870251	86399		1.912	1231270		3.944	933285		7.144	416749		9.230
13 9870252	56493	*	1.924	1177955		3.944	765773		7.144	271312	*	9.230
14 9870253	84604		1.918	1205911		3.944	772988		7.144	277499	*	9.230
15 9872065	82209		1.936	1254924		3.944	712048		7.144	208843	*	9.230
16 SECC050	119430		1.918	1389195		3.944	1099731		7.144	668359		9.224
17 9867824RE	90046		1.918	1211642		3.950	851462		7.144	319589	*	9.230
18 9878580	120224		1.918	1225842		3.944	861601		7.144	370347		9.230
19 9878581	115390		1.906	1064267		3.944	635351		7.144	181356	*	9.230
20 9878584	125730		1.918	1238790		3.944	975047		7.144	493160		9.230
21 9878585	113686		1.906	1166870		3.944	847735		7.144	369518		9.230
22 9882246	93004		1.918	1227191		3.944	918165		7.144	406201		9.230

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): bn06c01.d Date Analyzed: 11/06/18

Instrument ID: HP09953 Time Analyzed: 19:51

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	121316	1.924	1367264	3.944	1101888	7.144	661749	9.224
UPPER LIMIT	242632	2.424	2734528	4.444	2203776	7.644	1323498	9.724
LOWER LIMIT	60658	1.424	683632	3.444	550944	6.644	330874	8.724
LAB SAMPLE ID								
23 9883608	121571	1.912	1266413	3.938	1017960	7.144	565885	9.230
24 9883609	121027	1.924	1291044	3.950	1058363	7.144	574377	9.230
25 9883610	112045	1.918	1247627	3.938	998937	7.144	536785	9.224
26 9878583	104761	1.912	1150910	3.944	865458	7.144	428719	9.224
27 9878582	124946	1.924	1198609	3.944	951738	7.144	510541	9.230

IS1 (TBA)=t-Butyl alcohol-d10 UPPER LIMIT = + 100%
IS2 (FBZ)=Fluorobenzene of internal standard area.
IS3 (CBZ)=Chlorobenzene-d5 LOWER LIMIT = - 50%
IS4 (DCB)=1,4-Dichlorobenzene-d4 of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): bn07c01.d Date Analyzed: 11/07/18

Instrument ID: HP09953 Time Analyzed: 08:13

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	112993	1.930	1318042	3.950	1051055	7.144	630040	9.224
UPPER LIMIT	225986	2.430	2636084	4.450	2102110	7.644	1260080	9.724
LOWER LIMIT	56496	1.430	659021	3.450	525528	6.644	315020	8.724
LAB SAMPLE ID								
01 LCSB95	117629	1.918	1327711	3.944	1052922	7.144	628677	9.224
02 LCSB97	117629	1.918	1327711	3.944	1052922	7.144	628677	9.224
03 LCSB98	117629	1.918	1327711	3.944	1052922	7.144	628677	9.224
04 LCDB95	129391	1.912	1318617	3.944	1068273	7.144	633484	9.224
05 LCDB97	129391	1.912	1318617	3.944	1068273	7.144	633484	9.224
06 LCDB98	129391	1.912	1318617	3.944	1068273	7.144	633484	9.224
07 LCSB96	116967	1.924	1309126	3.944	1047266	7.144	582498	9.224
08 LCDB96	109267	1.912	1285302	3.938	1035323	7.144	569212	9.224
09 VBLKB95	112643	1.924	1220326	3.944	999590	7.144	564314	9.230
10 VBLKB97	112643	1.924	1220326	3.944	999590	7.144	564314	9.230
11 VBLKB98	112643	1.924	1220326	3.944	999590	7.144	564314	9.230
12 9867767RE	19896 *	1.918	907622	3.950	388536 *	7.150	84453 *	9.230
13 9872065RE	14610 *	1.918	1068481	3.950	528647	7.144	111309 *	9.230
14 9870252RE	67907	1.918	1122707	3.950	726755	7.144	253204 *	9.230
15 9870253RE	83249	1.924	1150260	3.950	758402	7.144	273395 *	9.230
16 9884806	70210	1.924	1066065	3.950	539681	7.144	147802 *	9.230
17 9884807	57415	1.912	792482	3.944	347450 *	7.144	94597 *	9.230
18 9884808	100448	1.912	1227829	3.944	888596	7.144	354812	9.230
19 9884809	85747	1.918	882245	3.944	634349	7.144	242551 *	9.230
20 9884810MS	88376	1.906	1249549	3.938	904919	7.144	377574	9.224
21 9884811MSD	64093	1.912	956740	3.950	670449	7.144	265568 *	9.230
22 9884813	86593	1.918	1008578	3.944	525043 *	7.144	145882 *	9.230

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): bn07c01.d Date Analyzed: 11/07/18

Instrument ID: HP09953 Time Analyzed: 08:13

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	112993	1.930	1318042	3.950	1051055	7.144	630040	9.224
UPPER LIMIT	225986	2.430	2636084	4.450	2102110	7.644	1260080	9.724
LOWER LIMIT	56496	1.430	659021	3.450	525528	6.644	315020	8.724
LAB SAMPLE ID								
23 9884814	55580 *	1.924	1020642	3.950	549405	7.144	145365 *	9.230
24 9884815	102670	1.930	1229998	3.950	901769	7.144	359042	9.230
25 9878918	100582	1.912	1224725	3.944	984078	7.144	533266	9.230
26 9878916MS	68248	1.906	995631	3.938	759392	7.144	422761	9.224
27 9878917MSD	100094	1.930	1279804	3.950	1005412	7.144	557040	9.230
28 9878916MS	99518	1.918	1288828	3.950	1040711	7.144	560923	9.230
29 9878917MSD	114818	1.918	1169177	3.950	954735	7.144	527386	9.230
30 9878915	104908	1.930	1252840	3.950	1016426	7.144	548612	9.230
31 SECC050	103899	1.912	1259287	3.944	1010657	7.144	613454	9.224
32 9876025	113302	1.912	1247369	3.944	1002877	7.144	548706	9.224
33 9876033	120329	1.918	1232794	3.944	1010238	7.144	558185	9.230

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): qn07c10.d Date Analyzed: 11/07/18

Instrument ID: HP07536 Time Analyzed: 08:19

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	147749	3.993	1233519	7.506	967374	11.036	432719	12.926
UPPER LIMIT	295498	4.493	2467038	8.006	1934748	11.536	865438	13.426
LOWER LIMIT	73874	3.493	616760	7.006	483687	10.536	216360	12.426
LAB SAMPLE ID								
01 LCSQ56	160297	4.006	1245086	7.510	969940	11.037	428915	12.930
02 LCSQ57	160297	4.006	1245086	7.510	969940	11.037	428915	12.930
03 LCDQ56	140506	3.991	1114071	7.504	857261	11.034	367825	12.927
04 LCDQ57	140506	3.991	1114071	7.504	857261	11.034	367825	12.927
05 MDLQ56 - MD	148166	3.988	1232307	7.514	933587	11.034	402230	12.930
06 MDLQ57 - MD	148166	3.988	1232307	7.514	933587	11.034	402230	12.930
07 VBLKQ56	142355	4.006	1174112	7.507	901227	11.037	394144	12.930
08 VBLKQ57	142355	4.006	1174112	7.507	901227	11.037	394144	12.930
09 9872140	126985	4.003	1189289	7.507	916901	11.034	419454	12.930
10 9872120	137640	3.999	1095340	7.510	861797	11.036	368941	12.930
11 9872121DL	144388	4.002	1195043	7.510	916778	11.036	396432	12.929
12 9872120DL	126462	3.994	1191734	7.511	925361	11.037	398148	12.930
13 9872121	141929	4.013	1172576	7.508	919031	11.038	403983	12.931
14 9874413	148222	4.010	1195830	7.511	918065	11.035	405968	12.928
15 9872060	148729	4.006	1184046	7.510	926633	11.036	419284	12.929
16 9872061	148014	4.010	1184290	7.511	920902	11.037	418154	12.930
17 9872062	154531	4.013	1183728	7.510	923442	11.037	412296	12.930
18 9872063	133998	3.997	1081815	7.510	832077	11.037	367434	12.930
19 9872064	151597	3.988	1190069	7.511	916495	11.037	414204	12.930
20 9874411	145220	4.001	1174430	7.512	916764	11.038	468925	12.928
21 9874412	146768	4.010	1177999	7.511	929802	11.034	413538	12.928
22 9870254	146886	4.006	1175932	7.507	926077	11.037	412214	12.930

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): qn07c10.d Date Analyzed: 11/07/18

Instrument ID: HP07536 Time Analyzed: 08:19

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

	IS1(TBA) AREA #	IS1(TBA) RT #	IS2(FBZ) AREA #	IS2(FBZ) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #	IS4(DCB) AREA #	IS4(DCB) RT #
12 HOUR STD	147749	3.993	1233519	7.506	967374	11.036	432719	12.926
UPPER LIMIT	295498	4.493	2467038	8.006	1934748	11.536	865438	13.426
LOWER LIMIT	73874	3.493	616760	7.006	483687	10.536	216360	12.426
LAB SAMPLE ID								
23 SECC050	130143	3.995	1073488	7.512	857240	11.036	385047	12.929
24 9872012	144324	4.007	1165248	7.511	916602	11.034	412088	12.928
25 9872017	133714	4.009	1186337	7.510	948617	11.036	451235	12.929
26 9872020	144630	4.004	1178270	7.508	930563	11.037	411479	12.930
27 9872025	138531	3.990	1184793	7.510	930743	11.036	404727	12.929
28 9872027	130609	4.010	1066875	7.507	835300	11.037	372569	12.930
29 9872029	141371	4.009	1188180	7.510	939262	11.036	424885	12.929

IS1 (TBA)=t-Butyl alcohol-d10 UPPER LIMIT = + 100%
IS2 (FBZ)=Fluorobenzene of internal standard area.
IS3 (CBZ)=Chlorobenzene-d5 LOWER LIMIT = - 50%
IS4 (DCB)=1,4-Dichlorobenzene-d4 of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): qn08c10.d Date Analyzed: 11/08/18

Instrument ID: HP07536 Time Analyzed: 08:58

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	134095	4.004	1093325	7.508	862657	11.034	382237	12.927
UPPER LIMIT	268190	4.504	2186650	8.008	1725314	11.534	764474	13.427
LOWER LIMIT	67048	3.504	546662	7.008	431328	10.534	191118	12.427
LAB SAMPLE ID								
01 LCSQ61	147631	3.991	1199151	7.508	942100	11.034	406561	12.928
02 LCSQ62	147631	3.991	1199151	7.508	942100	11.034	406561	12.928
03 LCDQ61	148986	4.003	1206956	7.507	955652	11.034	412303	12.927
04 LCDQ62	148986	4.003	1206956	7.507	955652	11.034	412303	12.927
05 VBLKQ61	127172	3.989	1045223	7.509	819968	11.036	356039	12.929
06 VBLKQ62	127172	3.989	1045223	7.509	819968	11.036	356039	12.929
07 9872060RE	125114	3.983	1162655	7.503	899993	11.033	419615	12.929
08 9872061RE	144799	3.991	1162261	7.508	906494	11.034	398594	12.927
09 9872062RE	147573	3.996	1193296	7.510	919972	11.033	402955	12.929
10 9872063RE	149992	3.983	1196083	7.500	924646	11.030	399390	12.926
11 9872064RE	136787	3.987	1172732	7.507	919239	11.033	411301	12.926
12 9874412RE	148532	3.996	1157740	7.506	926939	11.033	404729	12.926
13 9874413RE	146577	3.999	1186000	7.506	919290	11.036	413413	12.929
14 9870254RE	146884	3.990	1181134	7.510	929918	11.034	407623	12.927
15 SECC050	138966	3.992	1057223	7.506	853359	11.036	376327	12.929
16 9874135	143782	3.987	1170039	7.510	927029	11.036	405750	12.930
17 9874143	138941	3.990	1170932	7.510	905104	11.036	390175	12.930
18 9878772	141442	4.010	1153786	7.508	916018	11.037	419793	12.927
19 9878774	141109	4.008	1133864	7.506	922581	11.036	405161	12.929
20 9881683	129975	3.993	1154740	7.510	925826	11.033	410614	12.930
21 9874148	148192	3.999	1159710	7.506	923253	11.033	409734	12.929
22 9874060	149425	4.003	1179621	7.507	943228	11.037	424145	12.930

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): qn08c10.d Date Analyzed: 11/08/18

Instrument ID: HP07536 Time Analyzed: 08:58

Matrix: (soil/water) SOIL Level: (low/med) MED Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	134095	4.004	1093325	7.508	862657	11.034	382237	12.927
UPPER LIMIT	268190	4.504	2186650	8.008	1725314	11.534	764474	13.427
LOWER LIMIT	67048	3.504	546662	7.008	431328	10.534	191118	12.427
LAB SAMPLE ID								
23 9874065	124780	3.990	1073914	7.507	852295	11.034	389126	12.927
24 9874070	134232	4.016	1154211	7.507	923048	11.037	431952	12.930
25 9874137	141760	3.997	1135152	7.508	897720	11.034	396213	12.930

IS1 (TBA)=t-Butyl alcohol-d10 UPPER LIMIT = + 100%
IS2 (FBZ)=Fluorobenzene of internal standard area.
IS3 (CBZ)=Chlorobenzene-d5 LOWER LIMIT = - 50%
IS4 (DCB)=1,4-Dichlorobenzene-d4 of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): hn05c01.d Date Analyzed: 11/05/18

Instrument ID: HP19094 Time Analyzed: 20:18

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	122842	4.483	2556545	7.970	1866671	11.384	922290	13.249
UPPER LIMIT	245684	4.983	5113090	8.470	3733342	11.884	1844580	13.749
LOWER LIMIT	61421	3.983	1278272	7.470	933336	10.884	461145	12.749
LAB SAMPLE ID								
01 LCSH94	131378	4.476	2595876	7.964	1875552	11.378	945698	13.249
02 LCSH96	131378	4.476	2594120	7.964	1875552	11.378	945698	13.249
03 LCSH95	122558	4.489	2570241	7.964	1839489	11.378	937740	13.249
04 LCSH97	122558	4.489	2570449	7.964	1839489	11.378	937740	13.249
05 LCDH95	122312	4.482	2585990	7.964	1868311	11.377	942166	13.249
06 LCDH97	125004	4.482	2585990	7.964	1868311	11.377	942166	13.249
07 MDL94 - MDL	119847	4.483	2568972	7.964	1846609	11.378	930548	13.249
08 MDL96 - MDL	119847	4.483	2568972	7.964	1846609	11.378	930548	13.249
09 VBLKH94	116767	4.476	2555930	7.963	1855788	11.377	936548	13.249
10 VBLKH96	116767	4.476	2555930	7.963	1855788	11.377	936548	13.249
11 9868189	99710	4.470	2552394	7.970	1856307	11.377	941709	13.249
12 9868190	112931	4.470	2510183	7.964	1837063	11.378	928830	13.249
13 9868188	87610	4.488	2512432	7.964	1805403	11.377	923535	13.249
14 9868184	107291	4.477	2462750	7.964	1808254	11.378	919564	13.249
15 9868185	115373	4.489	2500029	7.964	1828006	11.378	908528	13.249
16 9868186	77363	4.489	2457368	7.964	1800805	11.378	912392	13.249
17 9868187	107645	4.495	2473499	7.964	1795896	11.377	918200	13.249
18 9868187MS	115721	4.464	2529341	7.964	1818126	11.377	923765	13.249
19 9868187MSD	134353	4.482	2566752	7.964	1850435	11.377	932549	13.249
20 9876332	72413	4.483	2522280	7.964	1831375	11.378	936825	13.249
21 9876334	120833	4.488	2270871	7.964	1835228	11.377	937159	13.249
22 9876335MS	99126	4.470	2488944	7.964	1818323	11.378	926876	13.249

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): hn05c01.d Date Analyzed: 11/05/18

Instrument ID: HP19094 Time Analyzed: 20:18

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	122842	4.483	2556545	7.970	1866671	11.384	922290	13.249
UPPER LIMIT	245684	4.983	5113090	8.470	3733342	11.884	1844580	13.749
LOWER LIMIT	61421	3.983	1278272	7.470	933336	10.884	461145	12.749
LAB SAMPLE ID								
23 9876336MSD	102631	4.483	2492076	7.970	1702614	11.384	915365	13.249
24 9876335MS1	116899	4.483	2507483	7.964	1839540	11.378	932013	13.249
25 9876336MSD1	86414	4.452	2420278	7.964	1774386	11.378	919226	13.249
26 9876342	119137	4.495	2519988	7.970	1843317	11.378	927171	13.249
27 9866460	119159	4.495	2525981	7.964	1832790	11.378	924904	13.249
28 9867760	107790	4.482	2399521	7.964	1813313	11.377	923440	13.249
29 9870250	115666	4.489	2171726	7.964	1612124	11.378	854926	13.249
30 9872059	115080	4.470	2494666	7.964	1829287	11.378	920815	13.249
31 9874410	120264	4.483	2488544	7.964	1835826	11.378	932154	13.249
32 9876331	111627	4.470	2439294	7.964	1804412	11.378	904519	13.249
33 SECC010	121222	4.476	2378952	7.964	1843369	11.378	906263	13.249
34 SECD010	98836	4.470	2124872	7.964	1564857	11.378	799490	13.249

IS1 (TBA)=t-Butyl Alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

Sample Data

Volatiles by GC/MS

Data file: /chem2/HP19094.i/18nov05b.b/hn05s85.d Injection date and time: **06-NOV-2018 05:57**
Data file Sample Info. Line: 12T01;9872059;1;0;;TID12;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 10:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789**
Calibration date and time (Last Method Edit): 05-NOV-2018 22:04
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:9367;9274

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.470	(0.012)	473	65	115080	(-6)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2494666	(-2)	10.00	
97) Chlorobenzene-d5	11.378	(0.006)	1606	117	1829287	(-2)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	920815	(0)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.073	(-0.001)	113	602252	9.579	96%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.001)	102	111940	10.212	102%		81 - 118
82) Toluene-d8	(3)	9.945	(0.000)	98	2422057	10.288	103%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	834090	9.730	97%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	0.5
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.1	0.5
7) Bromomethane	(2)				Not Detected					0.07	0.5
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.05	0.5
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	0.5
16) Freon 113	(2)				Not Detected					0.06	0.5
14) Acetone	(1)				Not Detected					0.9	5
18) Carbon Disulfide	(2)				Not Detected					0.06	1
21) Methyl Acetate	(1)				Not Detected					0.1	1
23) Methylene Chloride	(2)				Not Detected					0.07	0.5
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.06	0.5
30) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.05	0.5
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	0.5
39) cis-1,2-Dichloroethene	(2)				Not Detected					0.05	0.5
38) 2-Butanone	(1)				Not Detected					0.6	5
49) Chloroform	(2)				Not Detected					0.09	0.5
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	0.5
52) Cyclohexane	(2)				Not Detected					0.05	0.5
54) Carbon Tetrachloride	(2)				Not Detected					0.07	0.5
58) Benzene	(2)				Not Detected					0.05	0.5
59) 1,2-Dichloroethane	(2)				Not Detected					0.05	0.5
67) Trichloroethene	(2)				Not Detected					0.06	0.5
69) Methylcyclohexane	(2)				Not Detected					0.05	0.5
70) 1,2-Dichloropropane	(2)				Not Detected					0.06	0.5
74) Bromodichloromethane	(2)				Not Detected					0.05	0.5
80) cis-1,3-Dichloropropene	(2)				Not Detected					0.05	0.5
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.7	5
83) Toluene	(3)				Not Detected					0.07	0.5

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:53. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05s85.d Injection date and time: **06-NOV-2018 05:57**
Data file Sample Info. Line: 12T01;9872059;1;0;;TID12;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 10:50 jkh09052

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789**
Calibration date and time (Last Method Edit): 05-NOV-2018 22:04
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

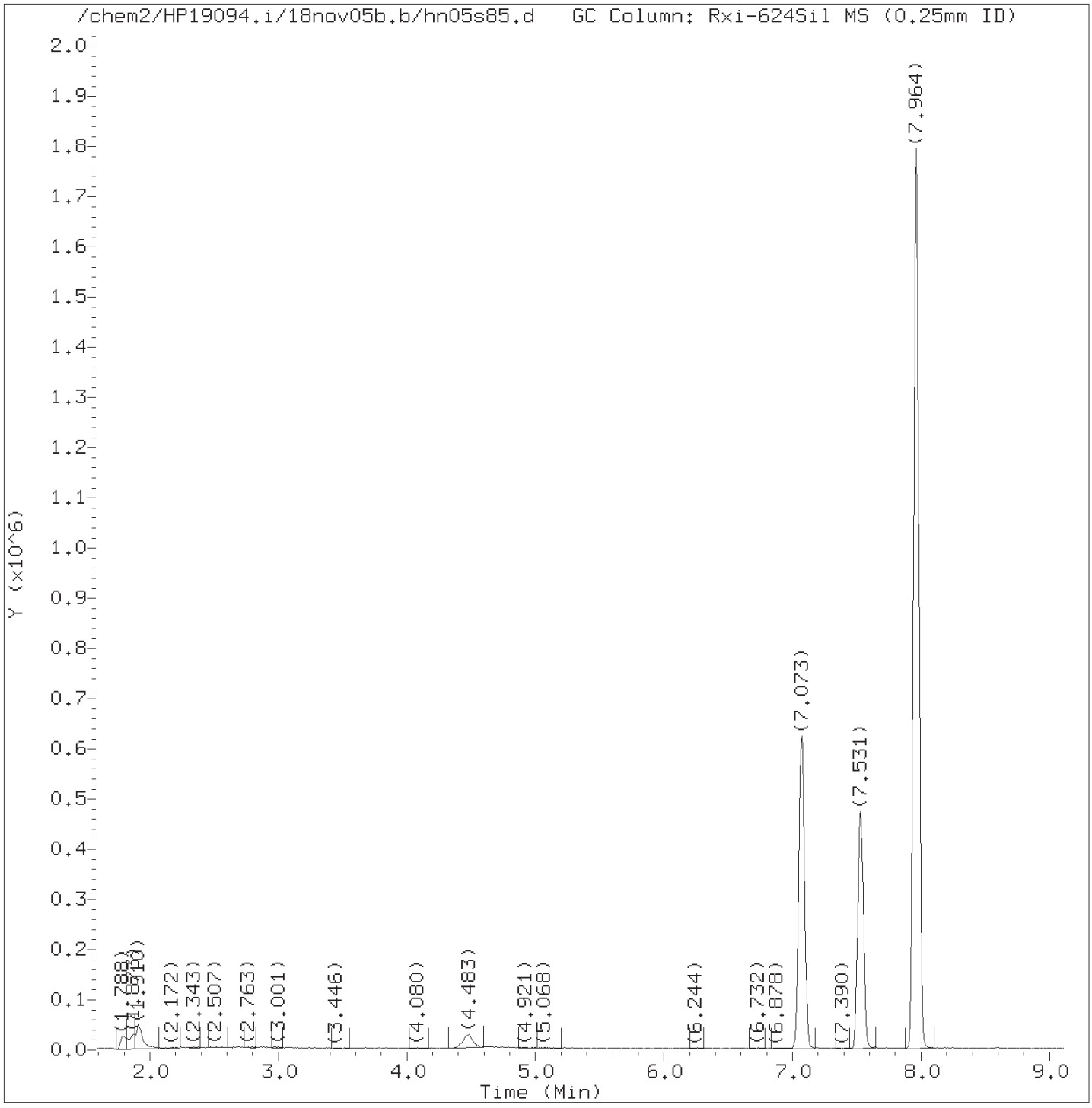
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.06	0.5
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.06	0.5
89) Tetrachloroethene	(3)				Not Detected					0.06	0.5
91) 2-Hexanone	(1)				Not Detected					0.6	5
93) Dibromochloromethane	(3)				Not Detected					0.07	0.5
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	0.5
98) Chlorobenzene	(3)				Not Detected					0.06	0.5
100) Ethylbenzene	(3)				Not Detected					0.06	0.5
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	0.5
106) Styrene	(3)				Not Detected					0.05	0.5
107) Bromoform	(3)				Not Detected					0.3	1
108) Isopropylbenzene	(3)				Not Detected					0.05	0.5
112) Cyclohexanone	(1)				Not Detected					2	25
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.07	0.5
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	0.5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	0.5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.06	0.5
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.1	0.5
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.06	0.5

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:53. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

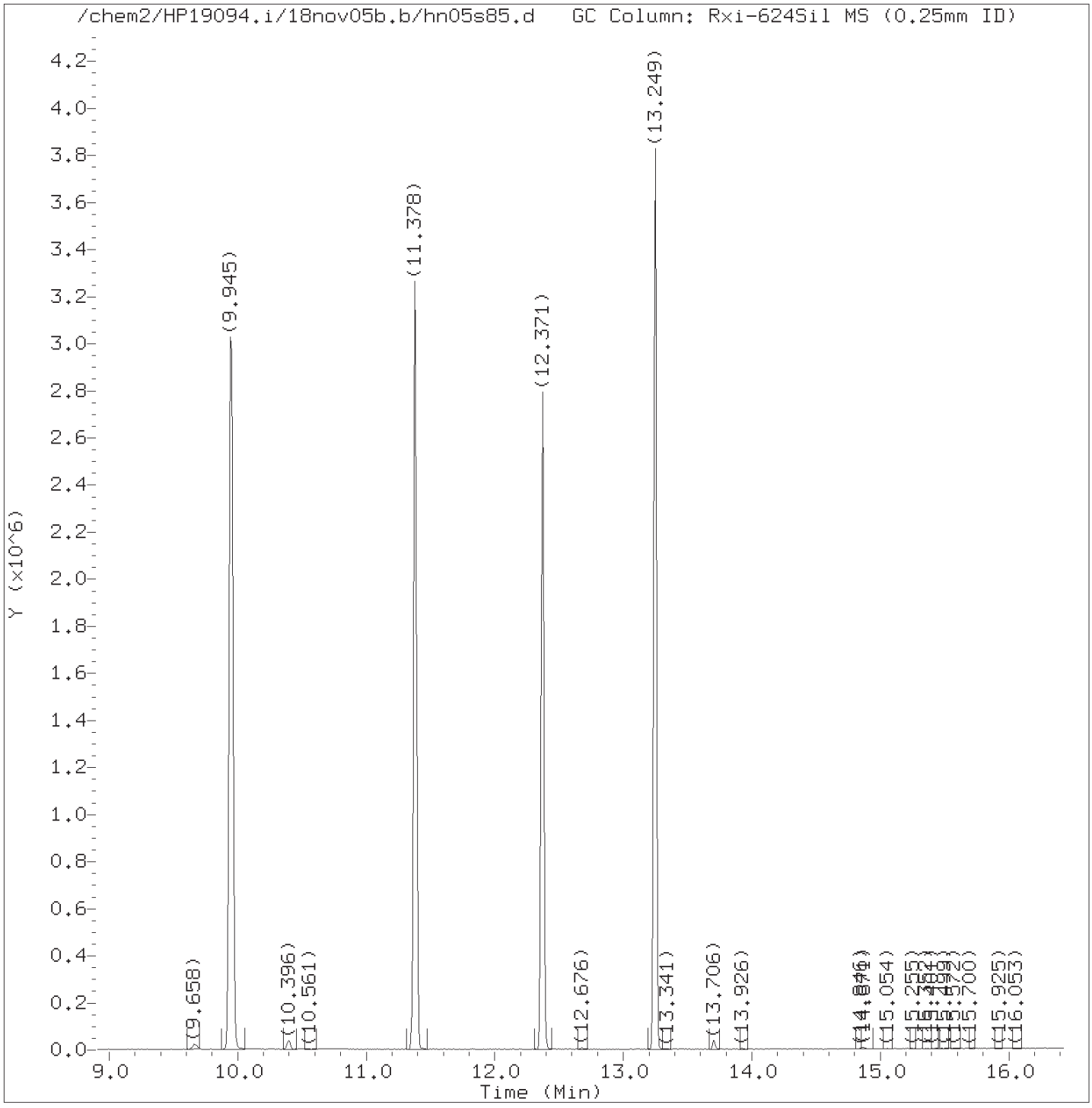
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s85.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 05:57 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 10:50 jkh09052

Sample Name: 12T01 Lab Sample ID: 9872059

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:53.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s85.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 05:57 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 10:50 jkh09052

Sample Name: 12T01 Lab Sample ID: 9872059

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:53.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s85.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 05:57 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 10:50 jkh09052

Sample Name: 12T01 Lab Sample ID: 9872059

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.470	65	115080	50.000
50)$Dibromofluoromethane	(2)	7.073	113	602252	9.579
57)$1,2-Dichloroethane-d4	(2)	7.531	102	111940	10.212
63)*Fluorobenzene	(2)	7.964	96	2494666	10.000
82)$Toluene-d8	(3)	9.945	98	2422057	10.288
97)*Chlorobenzene-d5	(3)	11.378	117	1829287	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	834090	9.730
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	920815	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:53.
Target 3.5 esignature user ID: jkh09052

Data file: /chem/HP07536.i/18nov07a.b/qn07s34.d Injection date and time: **07-NOV-2018 13:59**
Data file Sample Info. Line: 12T02;9872060;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **44.09**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.67 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:9274, 9367. 2706-664.

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.006	(-0.013)	753	65	148729	(1)	250.00	
70) Fluorobenzene	7.510	(-0.003)	1845	96	1184046	(-4)	50.00	
105) Chlorobenzene-d5	11.036	(0.000)	2944	117	926633	(-4)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929	(-0.003)	3534	152	419284	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.615	(0.000)	113	194651	30.218	60%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.077	(-0.001)	102	55912	33.382	67%	*	71 - 136
91) Toluene-d8	(3)	9.551	(0.000)	98	778188	30.763	62%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.047	(0.000)	95	240989	29.923	60%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					26	220
4) Chloromethane	(2)				Not Detected					26	220
5) Vinyl Chloride	(2)				Not Detected					26	220
9) Bromomethane	(2)				Not Detected					31	220
10) Chloroethane	(2)				Not Detected					44	220
13) Trichlorofluoromethane	(2)				Not Detected					31	220
19) 1,1-Dichloroethene	(2)				Not Detected					22	220
20) Acetone	(1)				Not Detected					260	880
22) Freon 113	(2)				Not Detected					26	440
25) Carbon Disulfide	(2)	3.675	(-0.001)	76	25750	1.205	53.15		J	26	220
27) Methyl Acetate	(2)	3.778	(-0.000)	43	29980	5.206	229.56			44	220
31) Methylene Chloride	(2)				Not Detected					88	220
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					22	220
35) trans-1,2-Dichloroethene	(2)				Not Detected					22	220
40) 1,1-Dichloroethane	(2)				Not Detected					22	220
44) 2-Butanone	(1)	5.909	(-0.005)	43	7013	1.821	80.30		J	44	440
45) cis-1,2-Dichloroethene	(2)				Not Detected					22	220
54) Chloroform	(2)				Not Detected					26	220
57) 1,1,1-Trichloroethane	(2)				Not Detected					26	220
58) Cyclohexane	(2)				Not Detected					22	220
61) Carbon Tetrachloride	(2)				Not Detected					22	220
64) Benzene	(2)				Not Detected					22	220
67) 1,2-Dichloroethane	(2)				Not Detected					26	220
75) Trichloroethene	(2)				Not Detected					22	220
76) Methylcyclohexane	(2)				Not Detected					26	220
77) 1,2-Dichloropropane	(2)				Not Detected					22	220

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07s34.d Injection date and time: **07-NOV-2018 13:59**
Data file Sample Info. Line: 12T02;9872060;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **44.09**

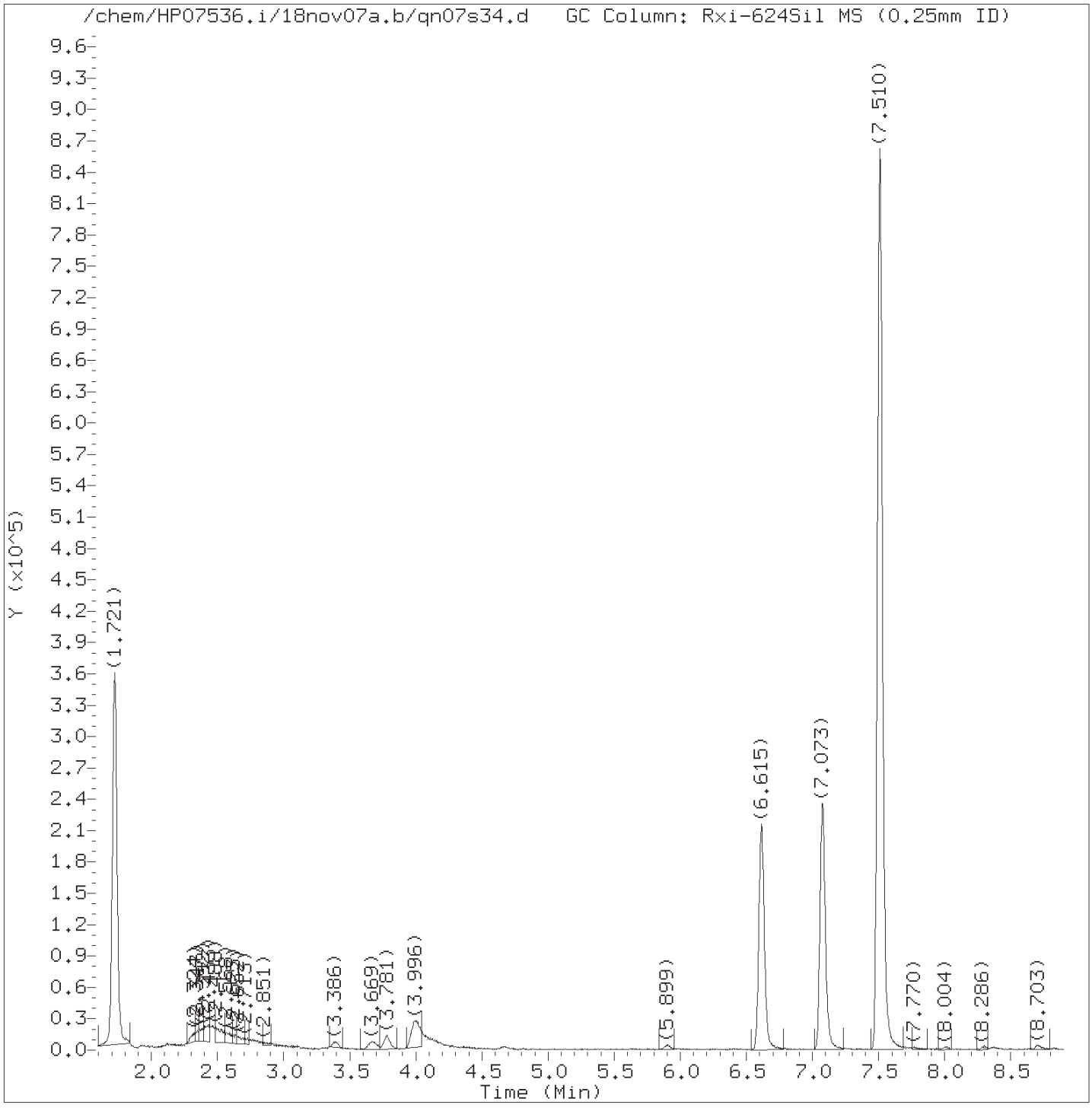
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.67 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
84) Bromodichloromethane	(2)			Not Detected					18	220
89) cis-1,3-Dichloropropene	(2)			Not Detected					18	220
90) 4-Methyl-2-pentanone	(2)			Not Detected					44	440
92) Toluene	(3)	9.637(-0.000)	92	18056	1.122	49.45		J	26	220
93) trans-1,3-Dichloropropene	(3)			Not Detected					13	220
96) 1,1,2-Trichloroethane	(3)			Not Detected					22	220
98) Tetrachloroethene	(3)			Not Detected					22	220
101) 2-Hexanone	(3)			Not Detected					44	440
103) Dibromochloromethane	(3)			Not Detected					18	220
104) 1,2-Dibromoethane	(3)			Not Detected					18	220
107) Chlorobenzene	(3)			Not Detected					22	220
109) Ethylbenzene	(3)	11.155(-0.000)	91	16444	0.595	26.24		J	18	220
110) m+p-Xylene	(3)	11.267(-0.000)	106	22056	2.042	90.04		J	44	220
111) o-Xylene	(3)	11.598(-0.000)	106	6349	0.590	26.03		J	18	220
112) Xylene (Total)	(3)		106	28405	2.633	116.08		J	44	220
113) Styrene	(3)			Not Detected					13	220
114) Bromoform	(3)			Not Detected					220	440
115) Isopropylbenzene	(3)	11.899(-0.000)	105	13167	0.574	25.30		J	18	220
118) Cyclohexanone	(1)	11.992(0.004)	55	8968	37.158	1638.36		J	1100	11000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					18	220
138) 1,3-Dichlorobenzene	(4)			Not Detected					22	220
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	10358	0.733	32.33		J	18	220
147) 1,2-Dichlorobenzene	(4)	13.212(-0.000)	146	9164	0.703	31.00		J	22	220
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					18	220
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					220	440

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 12:13. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

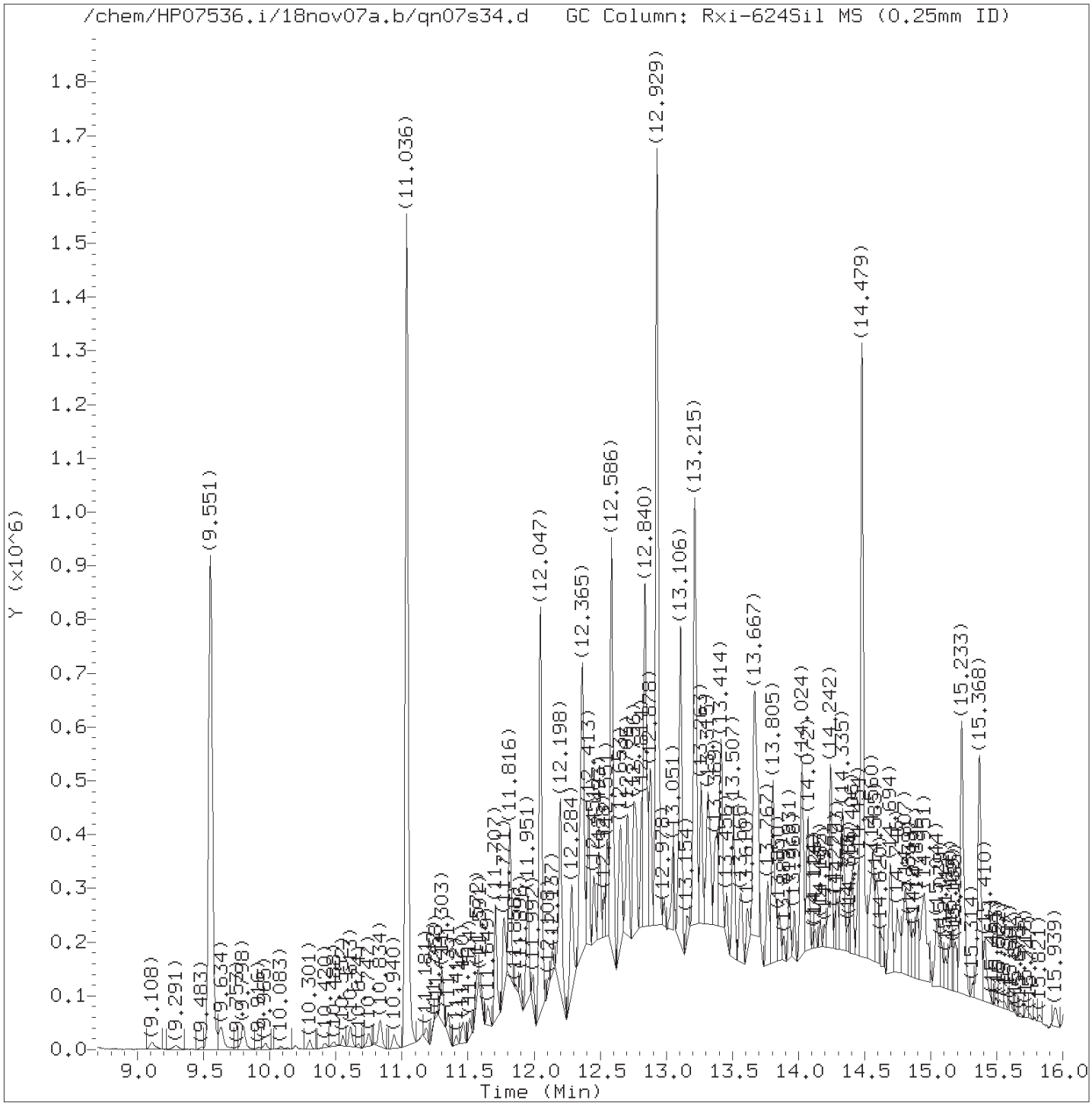
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

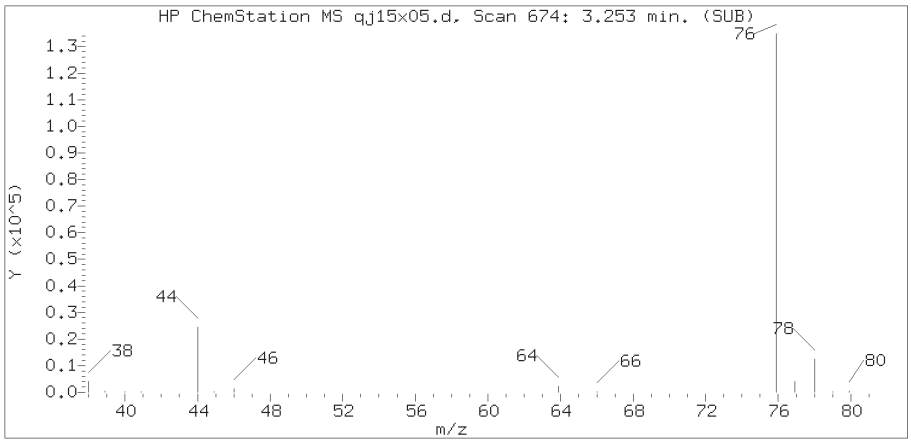
Sample Name: 12T02 Lab Sample ID: 9872060

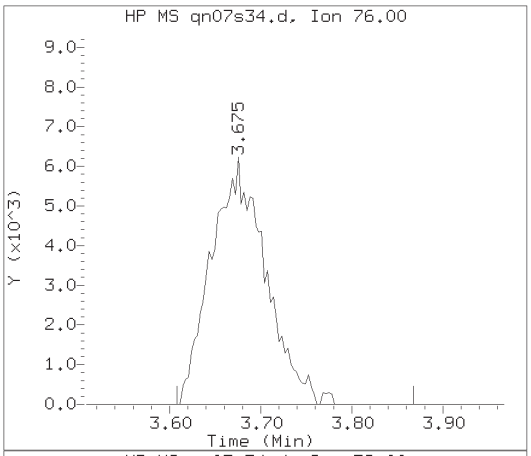
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Carbon Disulfide	(2)	3.675	76	25750	1.205
27) Methyl Acetate	(2)	3.778	43	29980	5.206
30)*t-Butyl alcohol-d10	(1)	4.006	65	148729	250.000
44) 2-Butanone	(1)	5.909	43	7013	1.821
56)$Dibromofluoromethane	(2)	6.615	113	194651	30.218
63)$1,2-Dichloroethane-d4	(2)	7.077	102	55912	33.382
70)*Fluorobenzene	(2)	7.510	96	1184046	50.000
91)$Toluene-d8	(3)	9.551	98	778188	30.763
92) Toluene	(3)	9.637	92	18056	1.122
105)*Chlorobenzene-d5	(3)	11.036	117	926633	50.000
109) Ethylbenzene	(3)	11.155	91	16444	0.595
110) m+p-Xylene	(3)	11.267	106	22056	2.042
111) o-Xylene	(3)	11.598	106	6349	0.590
112) Xylene (Total)	(3)		106	28405	2.633
115) Isopropylbenzene	(3)	11.899	105	13167	0.574
118) Cyclohexanone	(1)	11.992	55	8968	37.158
119)$4-Bromofluorobenzene	(3)	12.047	95	240989	29.923
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	419284	50.000
141) 1,4-Dichlorobenzene	(4)	12.945	146	10358	0.733
147) 1,2-Dichlorobenzene	(4)	13.212	146	9164	0.703

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

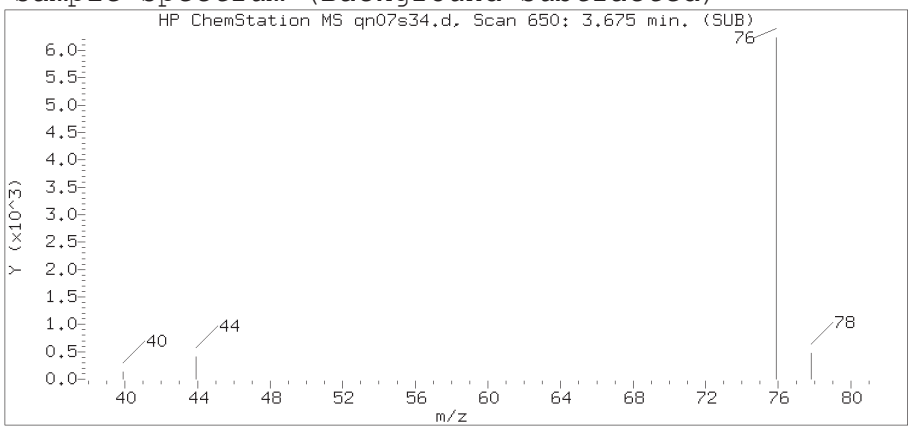
Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

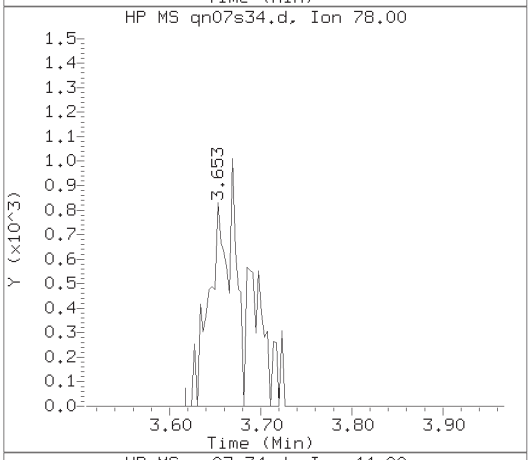
Reference Standard Spectrum for Carbon Disulfide



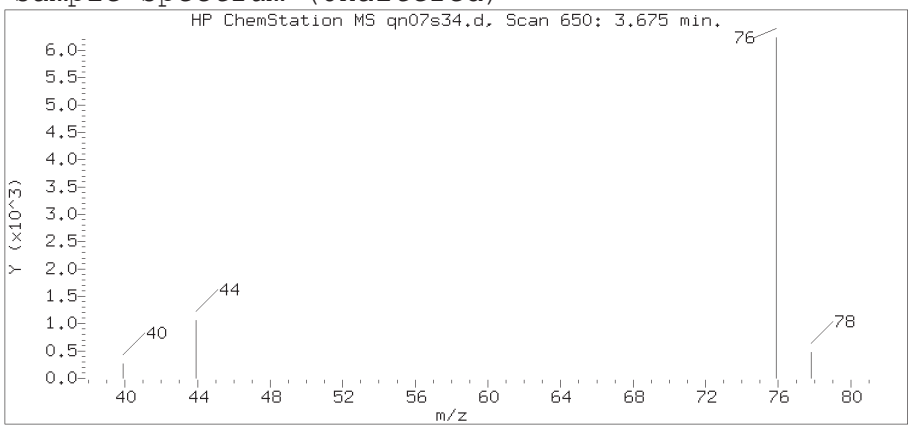


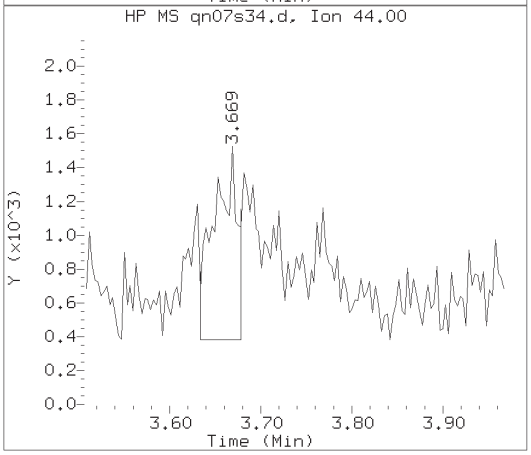
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

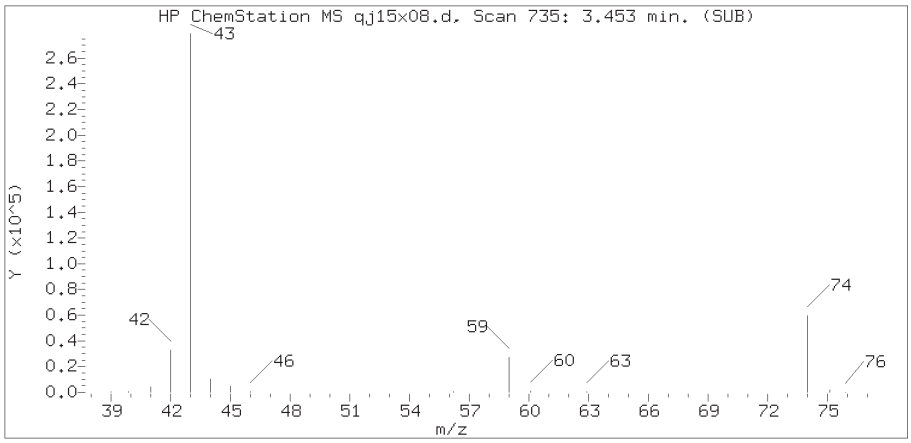
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

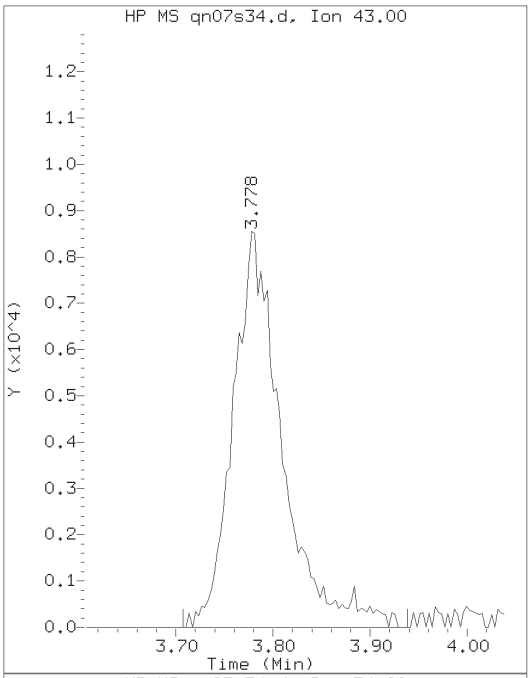
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 650
Retention Time (minutes): 3.675
Relative Retention Time :-0.00108
Quant Ion : 76.00
Area (flag) : 25750
On-Column Amount (ng) : 1.2054

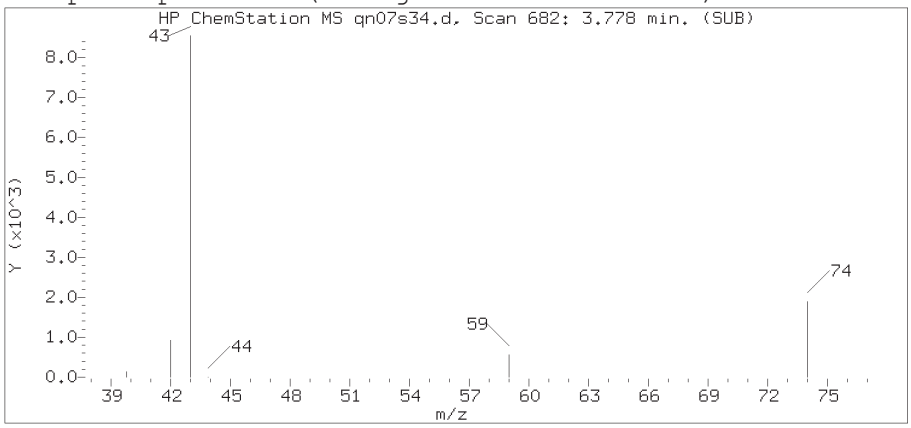
Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

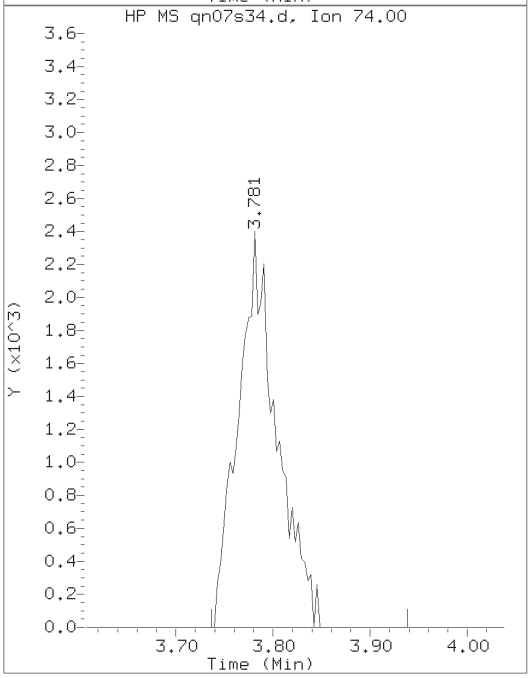
Reference Standard Spectrum for Methyl Acetate



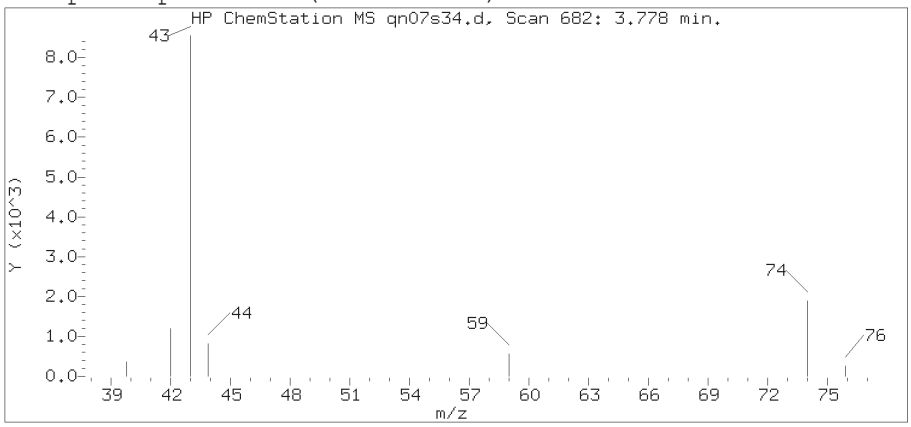


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 682
Retention Time (minutes): 3.778
Relative Retention Time :-0.00022
Quant Ion : 43.00
Area (flag) : 29980
On-Column Amount (ng) : 5.2065

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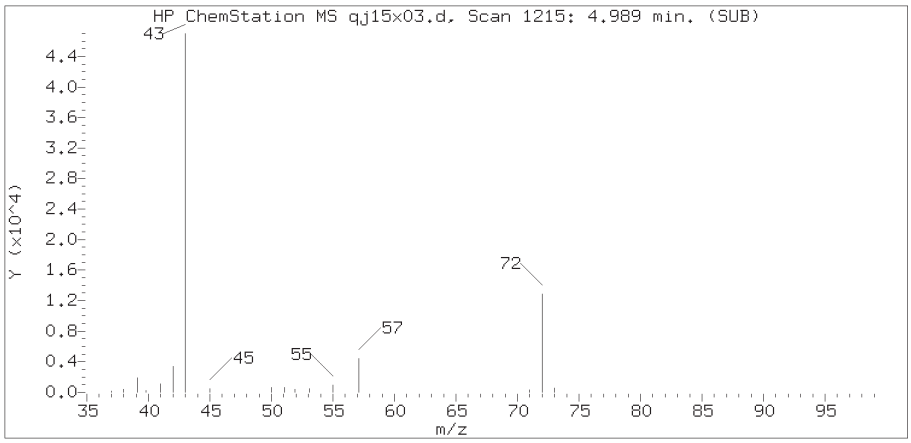
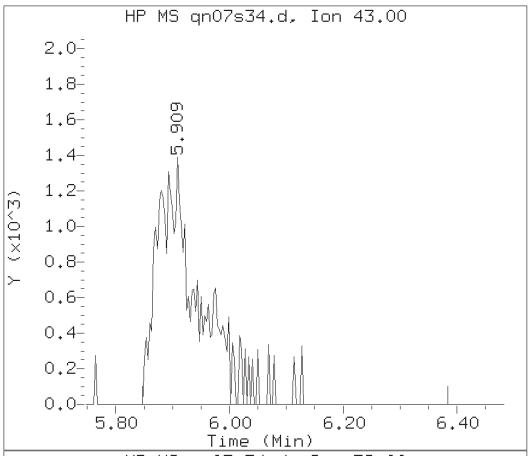
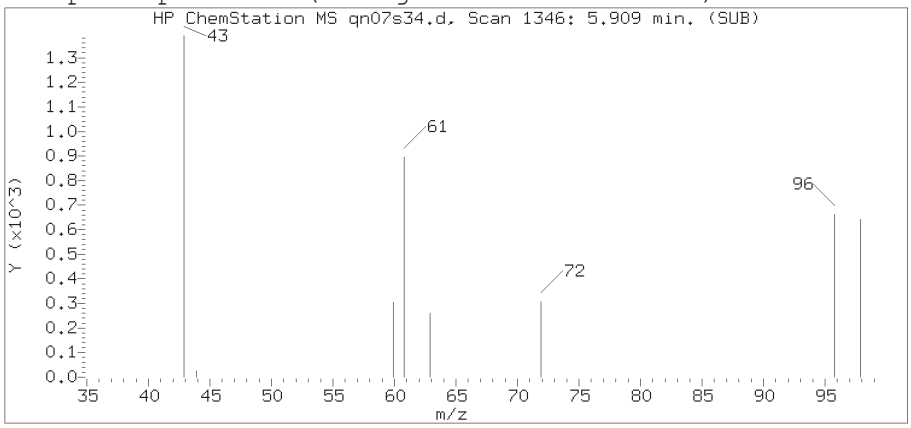
Target 3.5 esignature user ID: scn10072

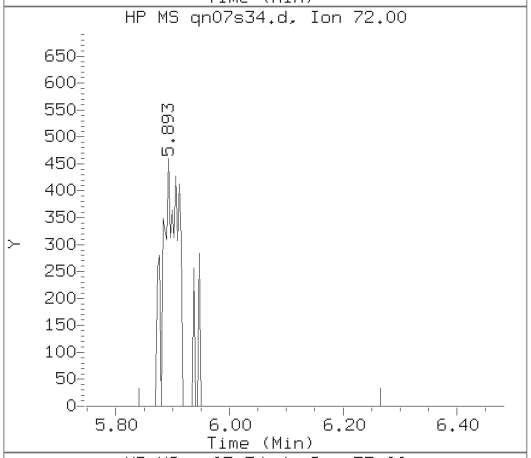
Reference Standard Spectrum for 2-Butanone



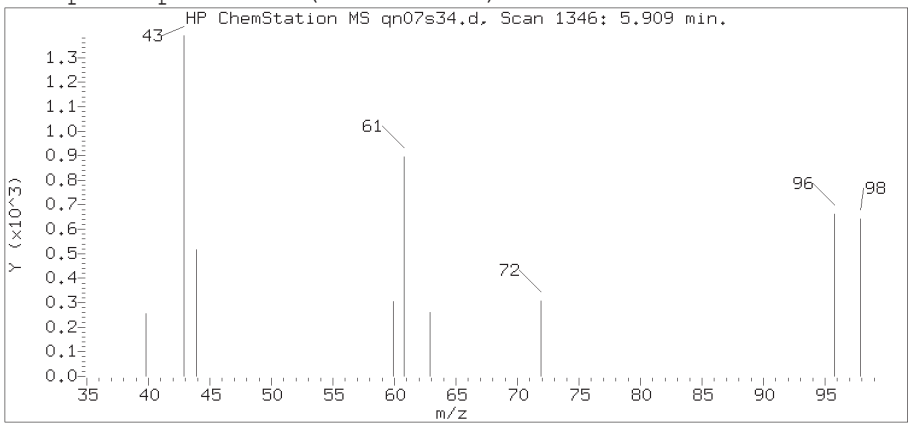


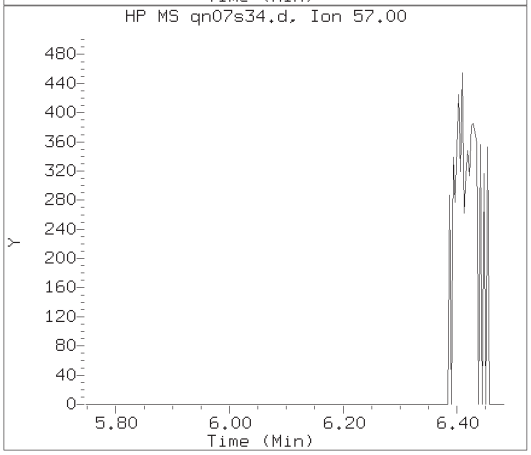
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1346
Retention Time (minutes): 5.909
Relative Retention Time :-0.00570
Quant Ion : 43.00
Area (flag) : 7013
On-Column Amount (ng) : 1.8212

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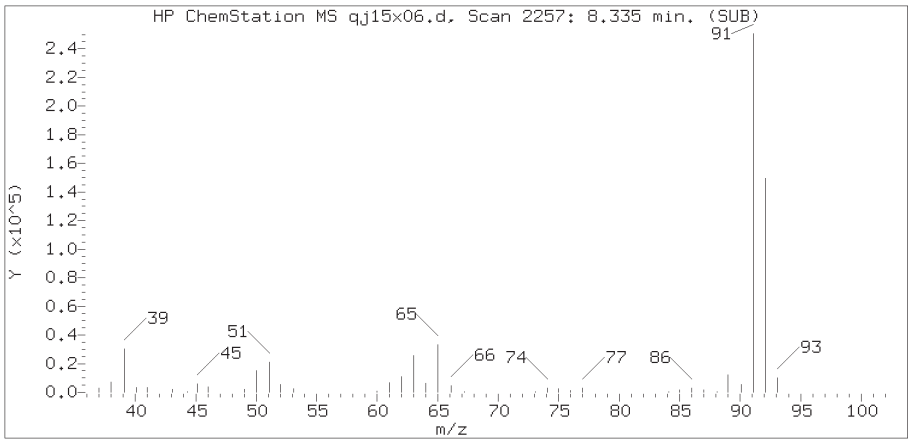
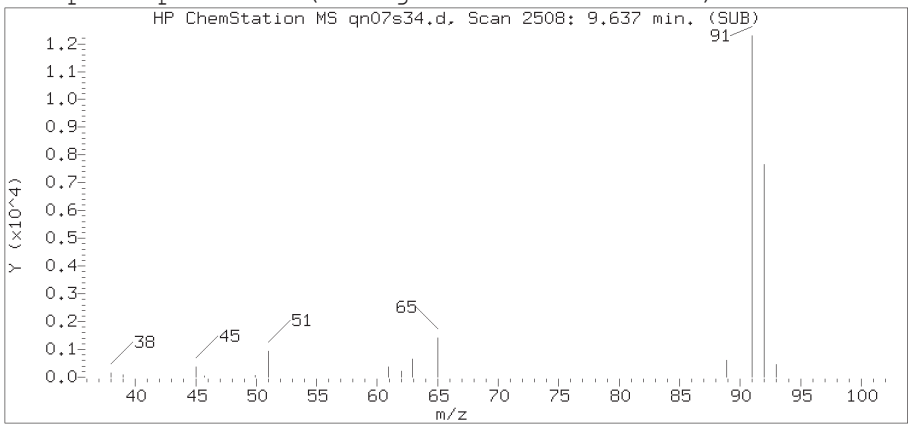
Target 3.5 esignature user ID: scn10072

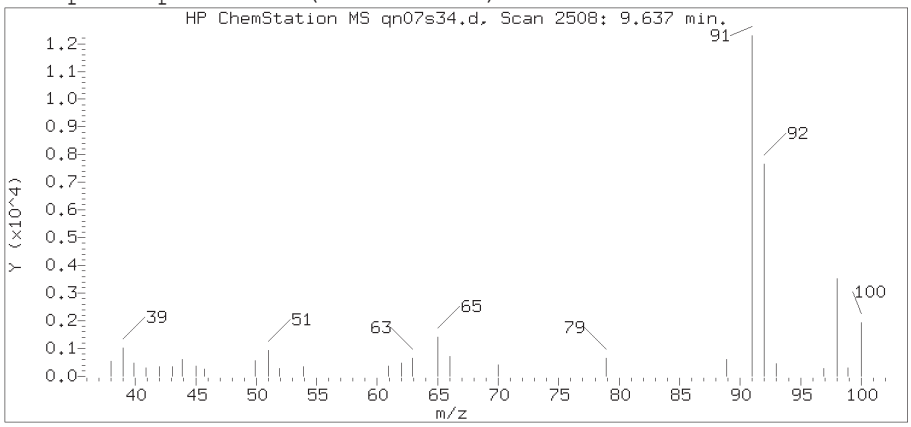
Reference Standard Spectrum for Toluene

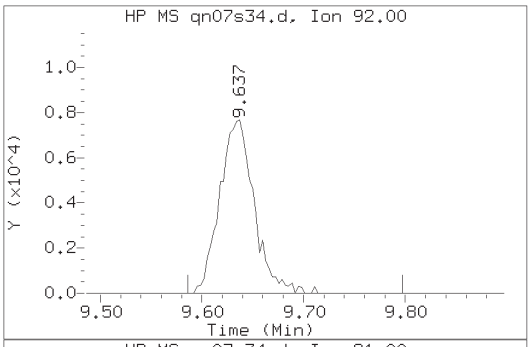


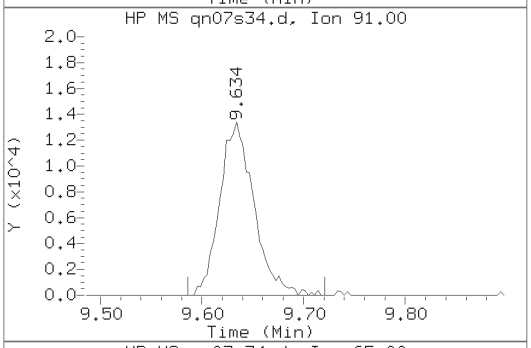
Sample Spectrum (Background Subtracted)

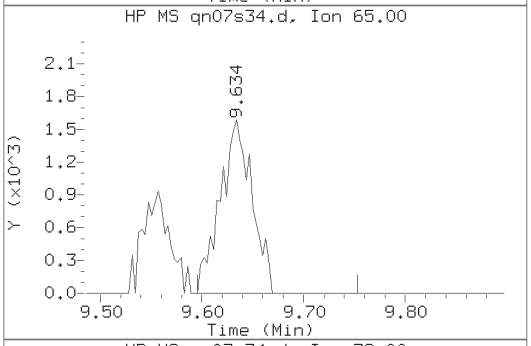


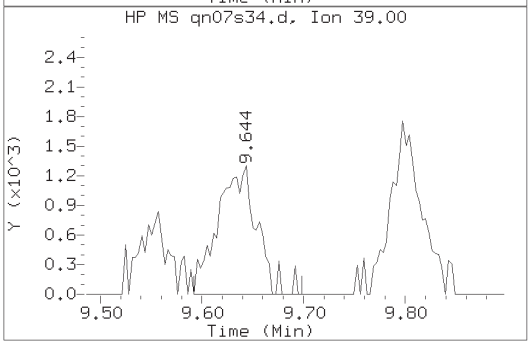
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 92
Compound Name : Toluene
Scan Number : 2508
Retention Time (minutes): 9.637
Relative Retention Time :-0.00087
Quant Ion : 92.00
Area (flag) : 18056
On-Column Amount (ng) : 1.1216

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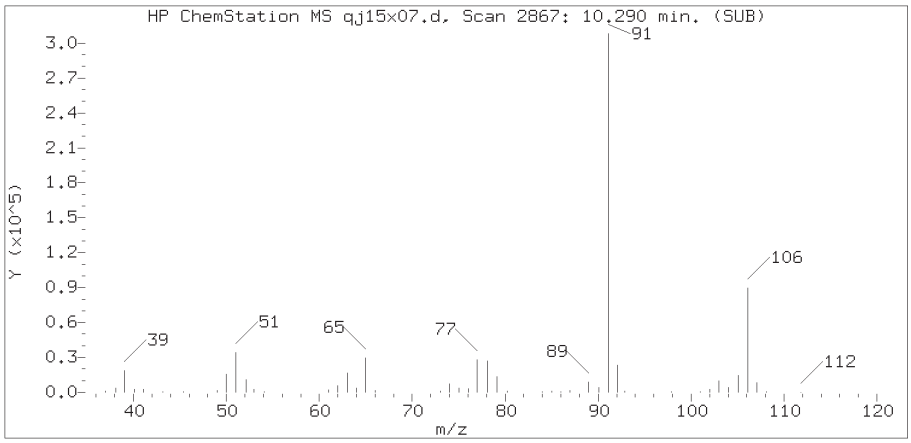
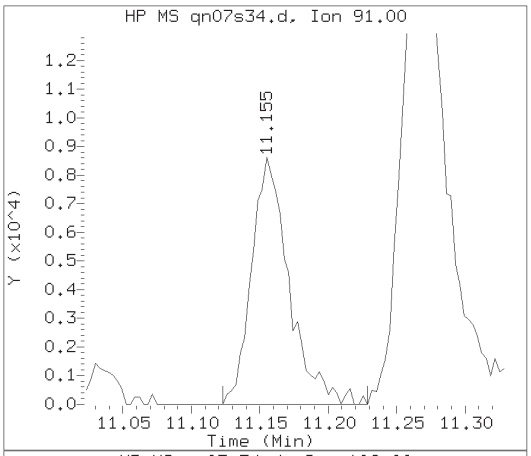
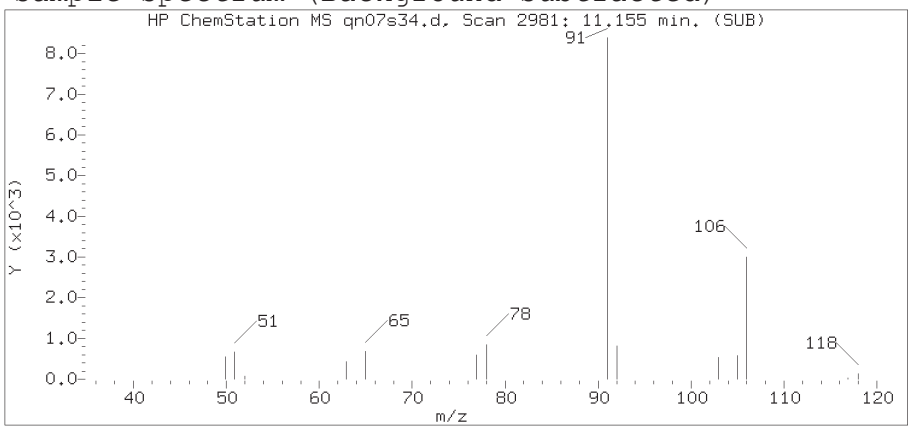
Target 3.5 esignature user ID: scn10072

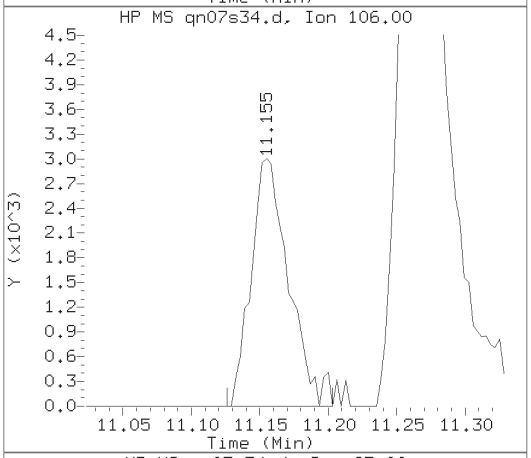
Reference Standard Spectrum for Ethylbenzene



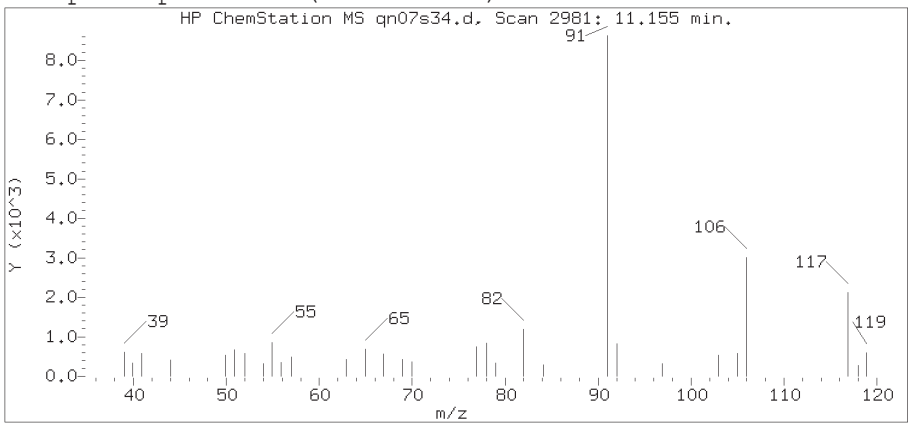


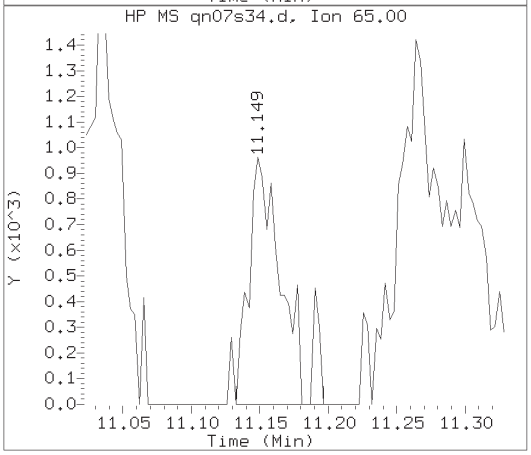
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2981
Retention Time (minutes): 11.155
Relative Retention Time :-0.00058
Quant Ion : 91.00
Area (flag) : 16444
On-Column Amount (ng) : 0.5952

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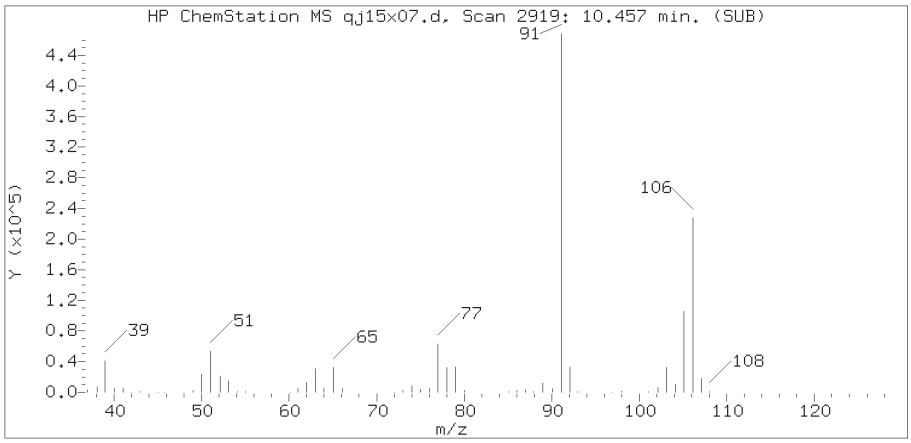
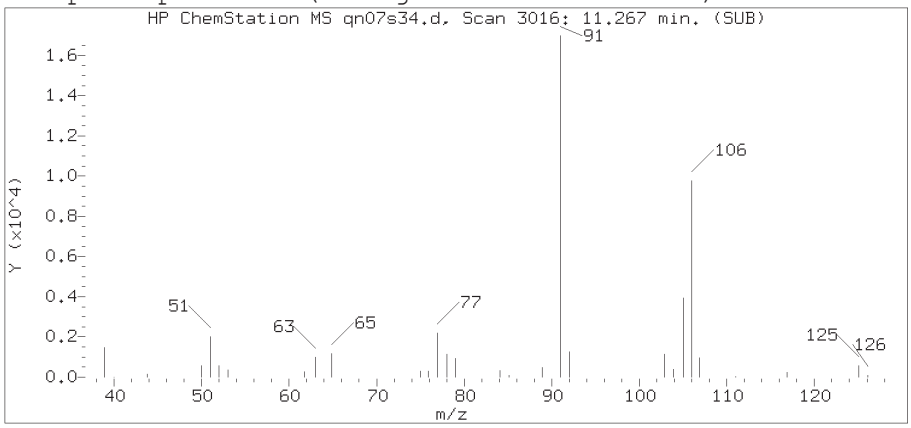
Target 3.5 esignature user ID: scn10072

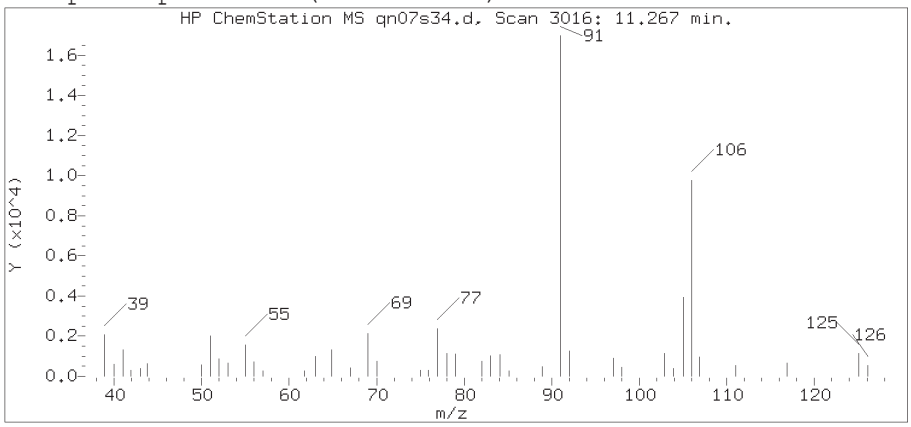
Reference Standard Spectrum for m+p-Xylene

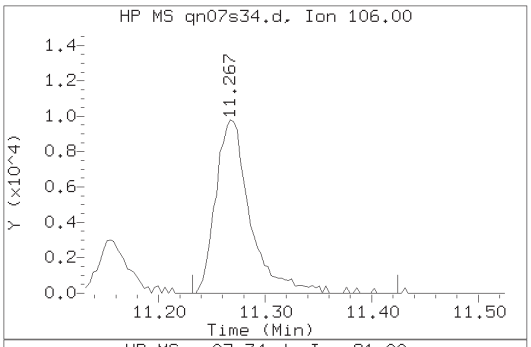


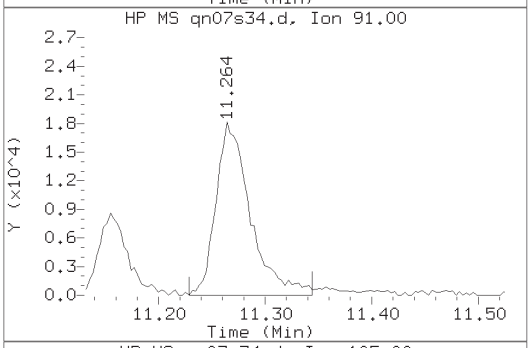
Sample Spectrum (Background Subtracted)

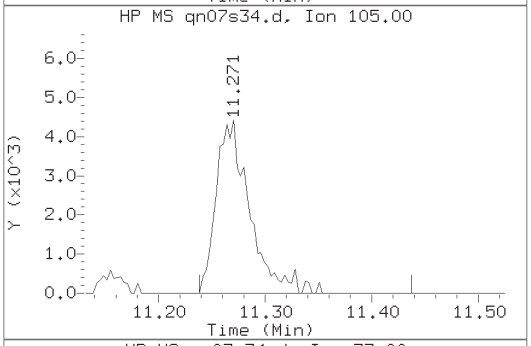


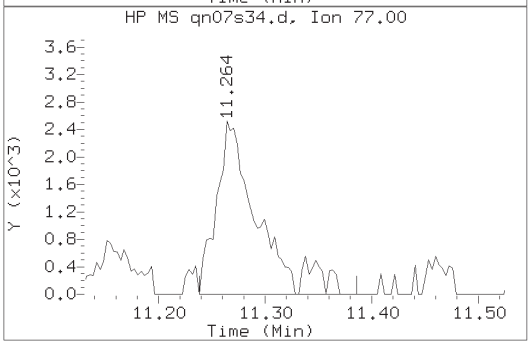
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3016
Retention Time (minutes): 11.267
Relative Retention Time :-0.00029
Quant Ion : 106.00
Area (flag) : 22056
On-Column Amount (ng) : 2.0421

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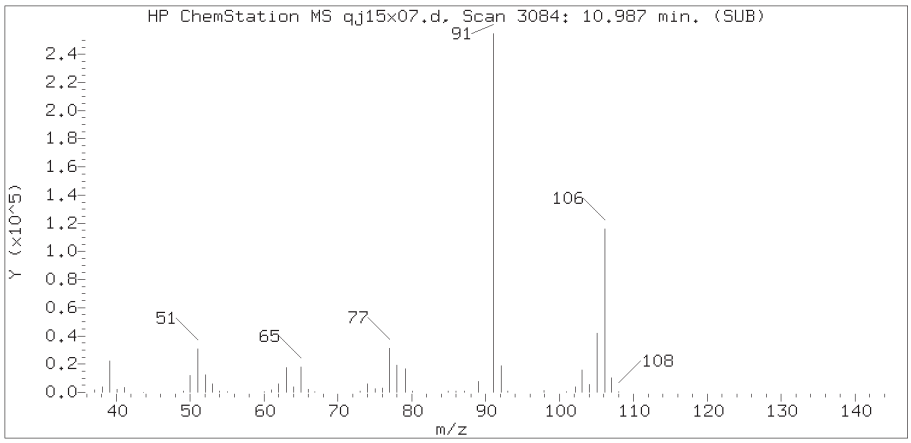
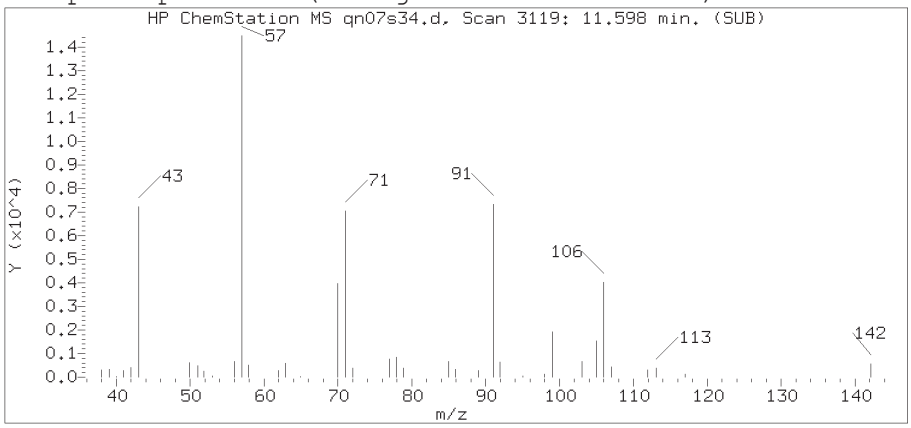
Target 3.5 esignature user ID: scn10072

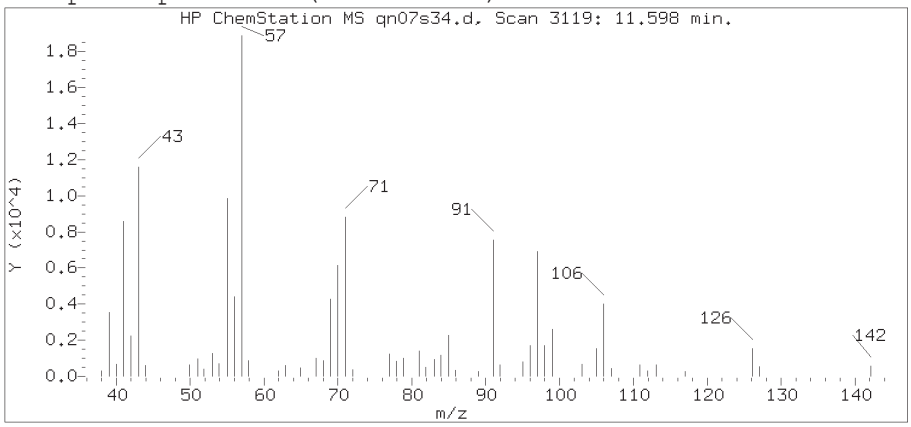
Reference Standard Spectrum for o-Xylene

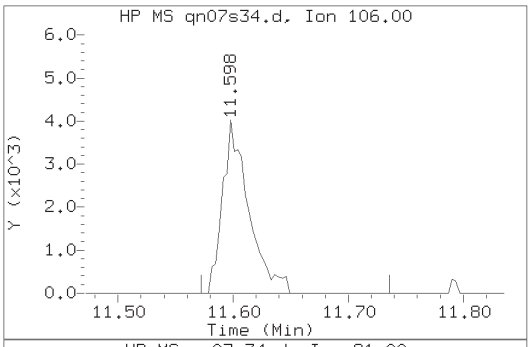


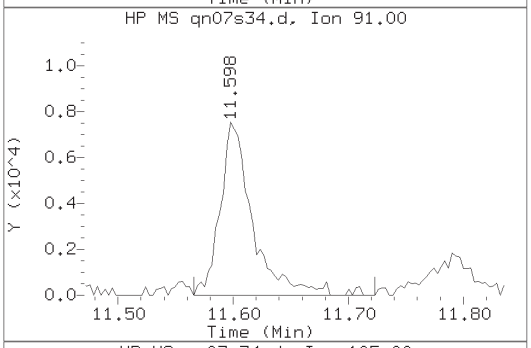
Sample Spectrum (Background Subtracted)

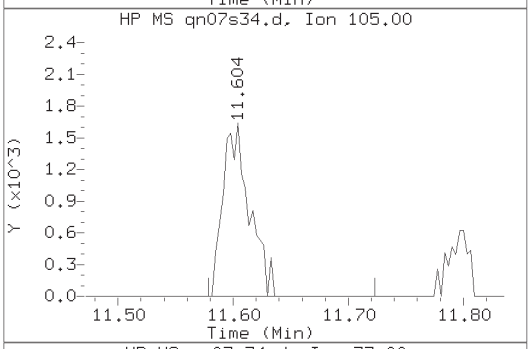


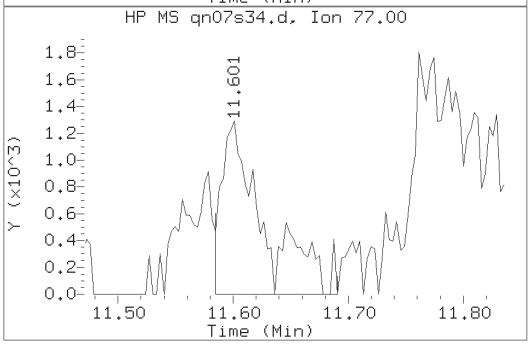
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3119
Retention Time (minutes): 11.598
Relative Retention Time :-0.00029
Quant Ion : 106.00
Area (flag) : 6349
On-Column Amount (ng) : 0.5905

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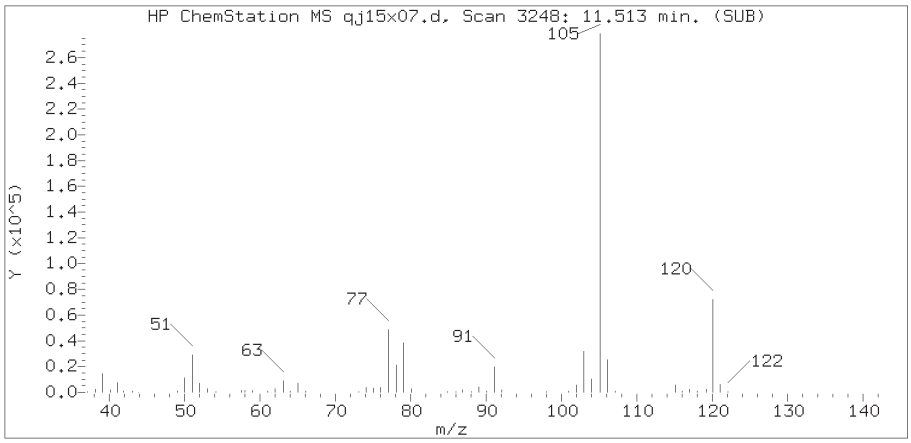
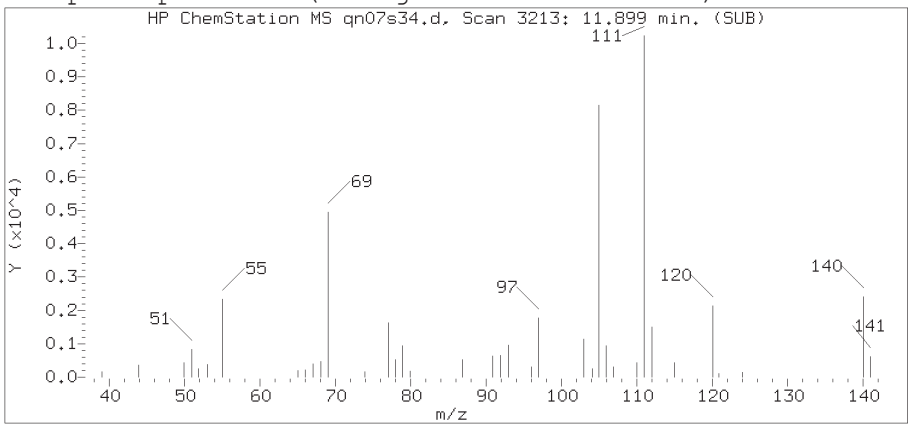
Target 3.5 esignature user ID: scn10072

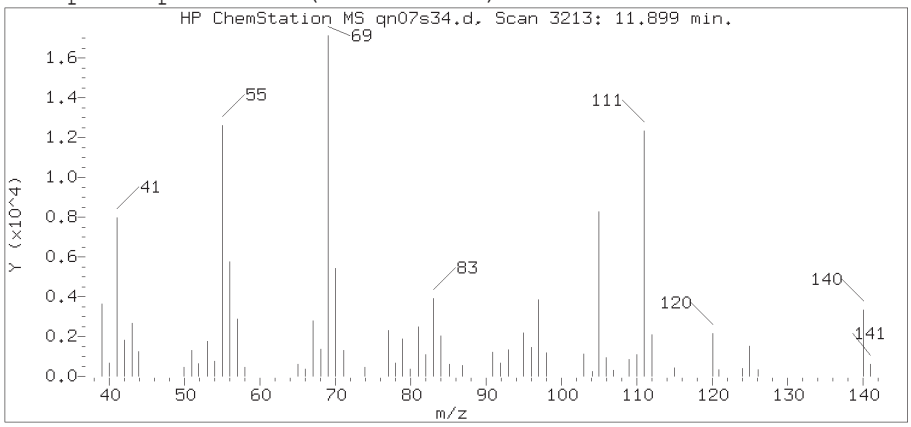
Reference Standard Spectrum for Isopropylbenzene

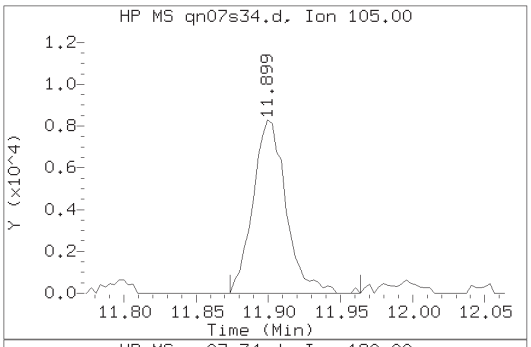


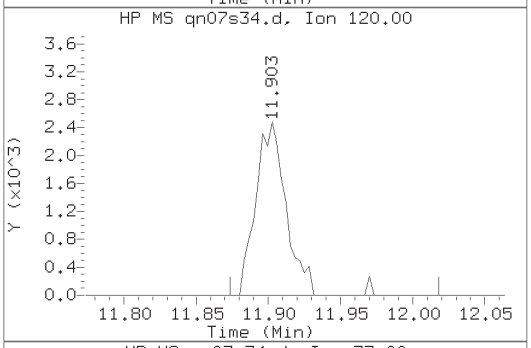
Sample Spectrum (Background Subtracted)

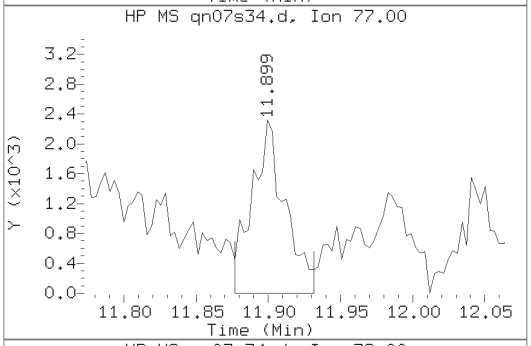


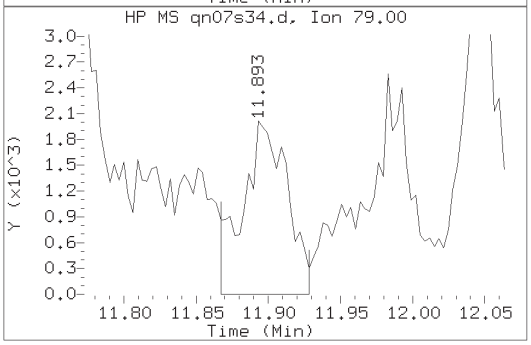
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

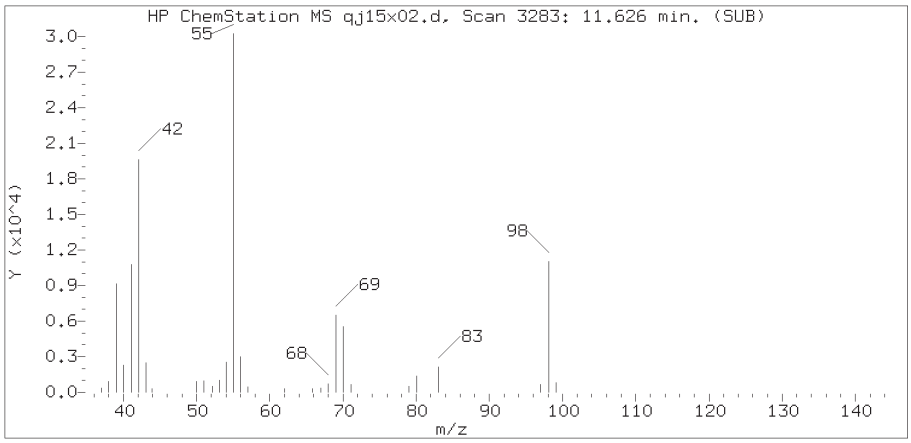
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

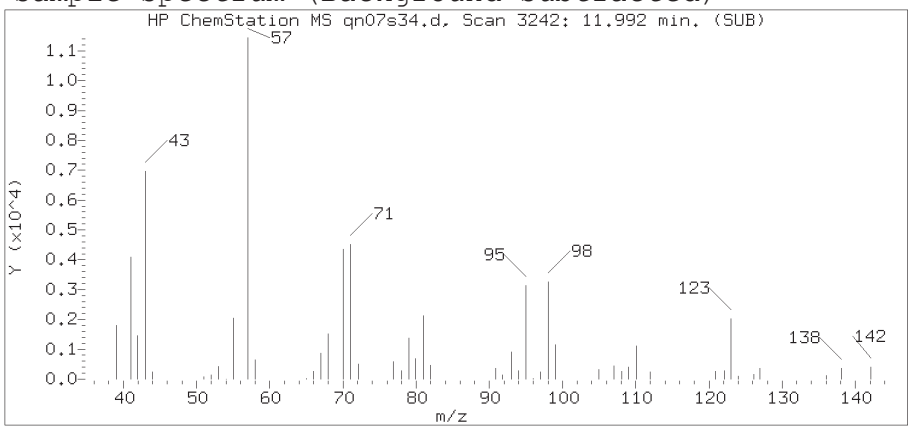
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3213
Retention Time (minutes): 11.899
Relative Retention Time :-0.00029
Quant Ion : 105.00
Area (flag) : 13167
On-Column Amount (ng) : 0.5738

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

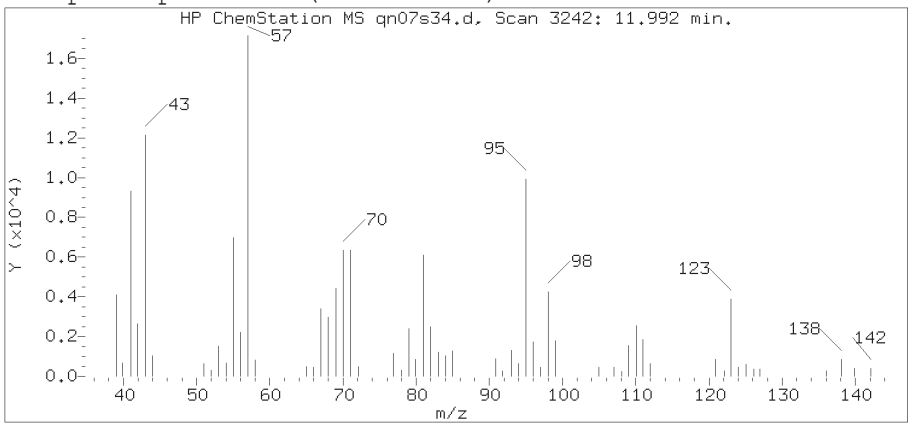
Reference Standard Spectrum for Cyclohexanone

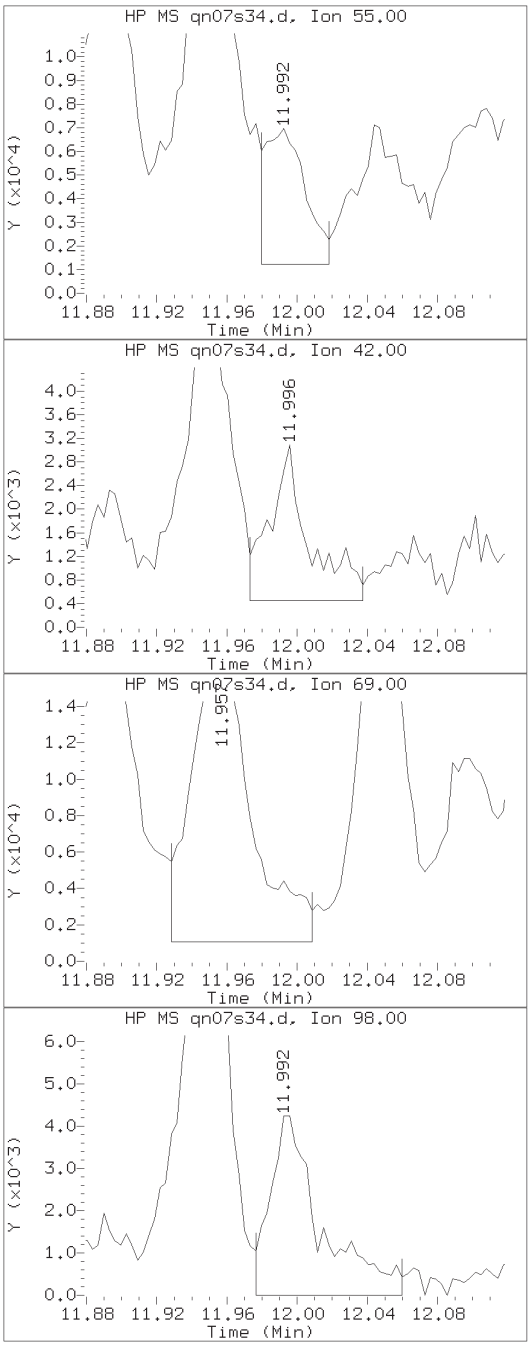


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

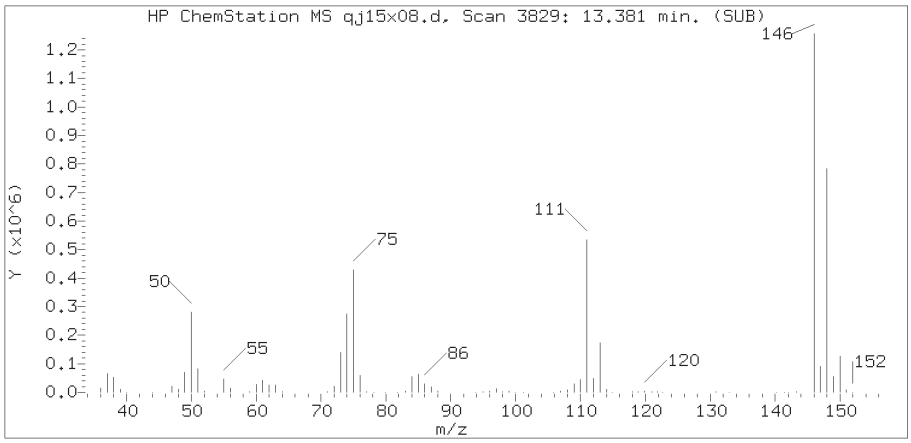
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

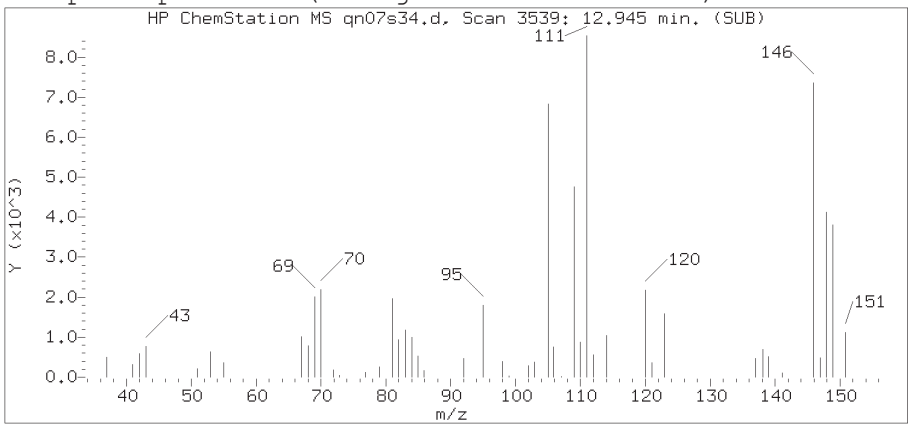
Compound Number	: 118
Compound Name	: Cyclohexanone
Scan Number	: 3242
Retention Time (minutes)	: 11.992
Relative Retention Time	: 0.00483
Quant Ion	: 55.00
Area (flag)	: 8968
On-Column Amount (ng)	: 37.1579

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

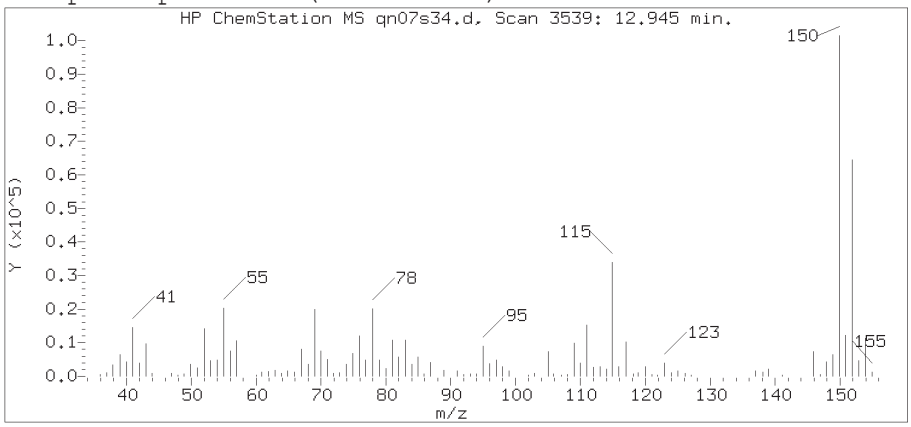
Reference Standard Spectrum for 1,4-Dichlorobenzene

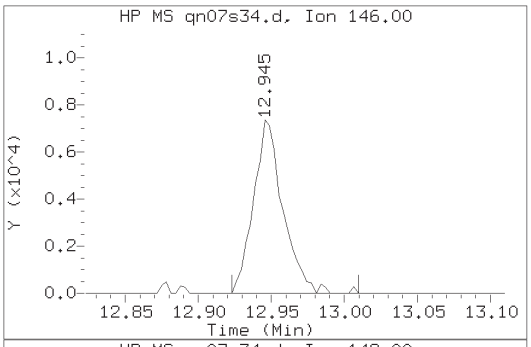


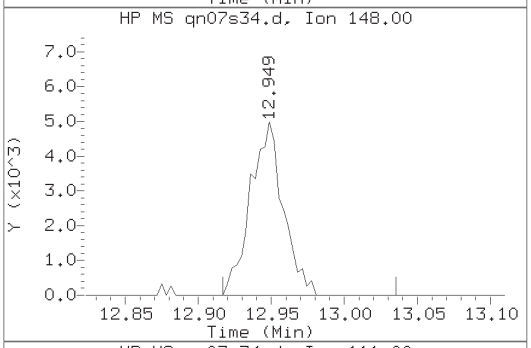
Sample Spectrum (Background Subtracted)

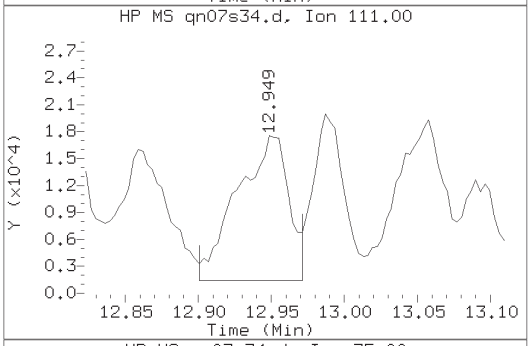


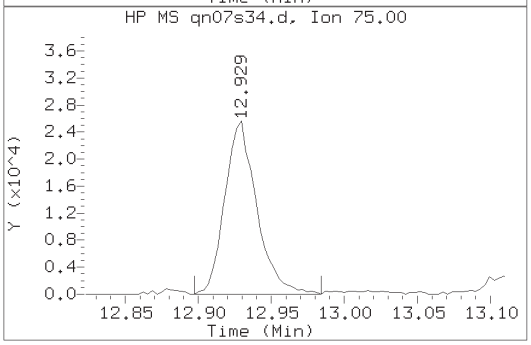
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.945
Relative Retention Time : 0.00025
Quant Ion : 146.00
Area (flag) : 10358
On-Column Amount (ng) : 0.7333

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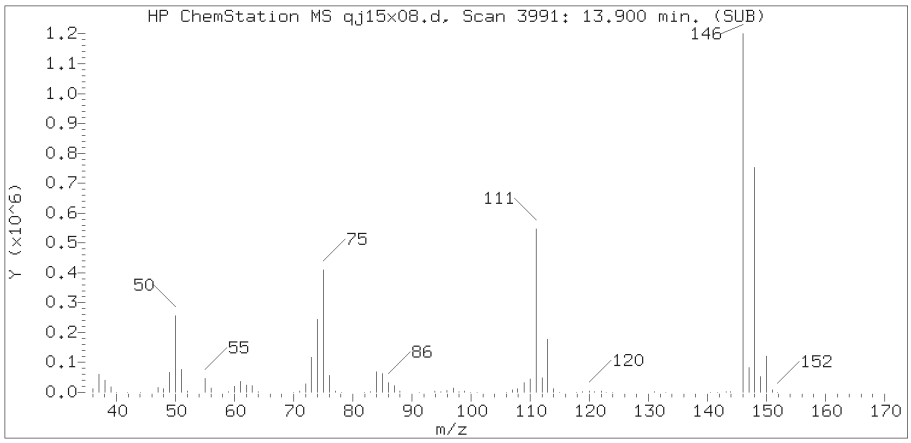
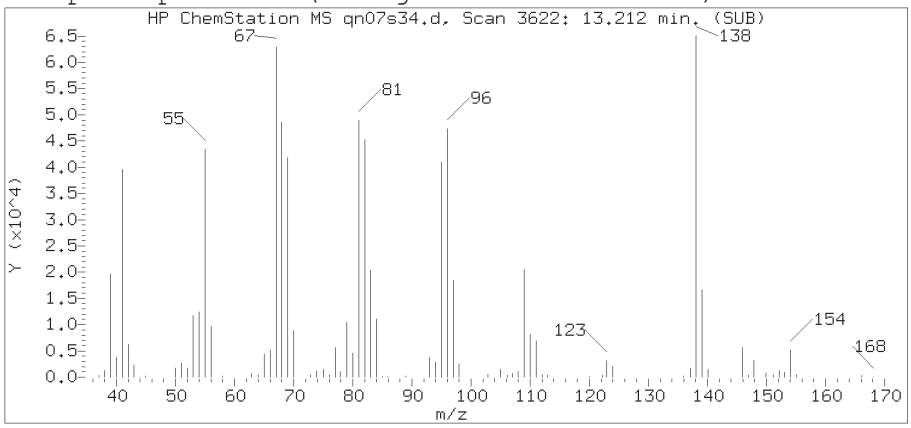
Target 3.5 esignature user ID: scn10072

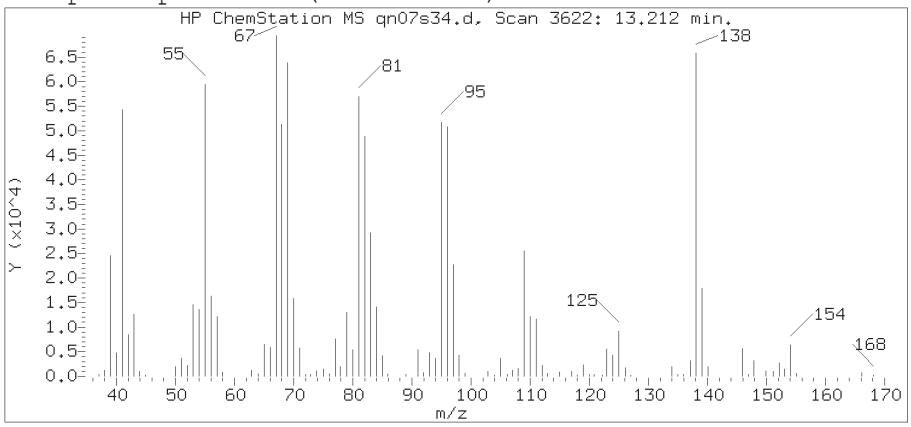
Reference Standard Spectrum for 1,2-Dichlorobenzene

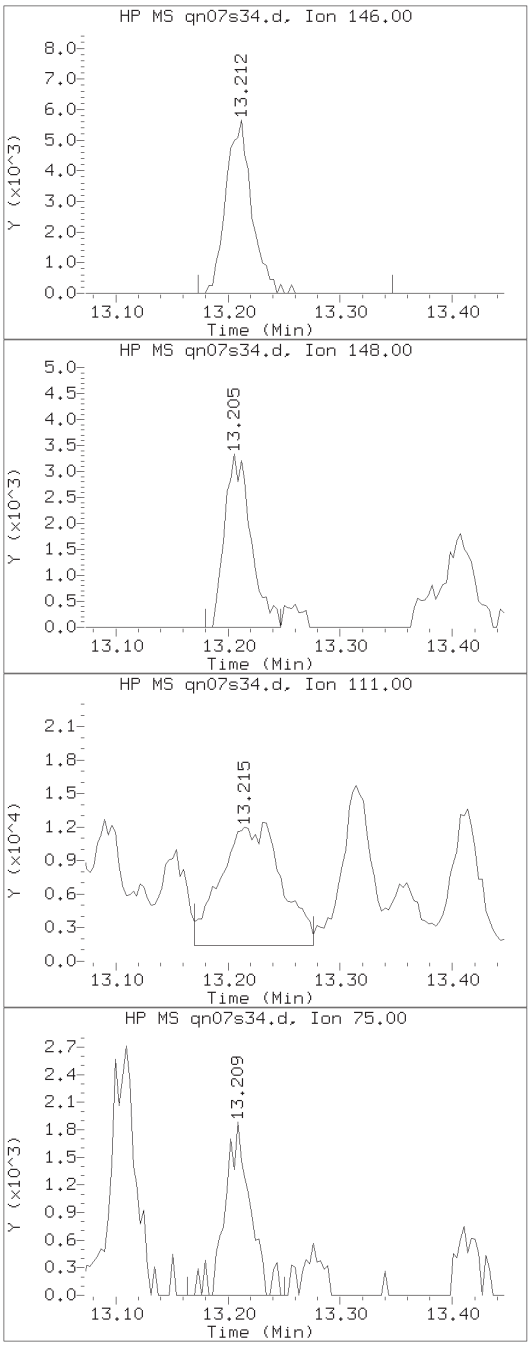


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s34.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 13:59 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:42 pth10165

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3622
Retention Time (minutes): 13.212
Relative Retention Time :-0.00049
Quant Ion : 146.00
Area (flag) : 9164
On-Column Amount (ng) : 0.7030

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08s33.d Injection date and time: **08-NOV-2018 11:26**
Data file Sample Info. Line: 12T02RE;9872060RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **44.09**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.67 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.983(0.020)	745	65	125114 (-7)	250.00	
70) Fluorobenzene	7.503(0.004)	1842	96	1162655 (6)	50.00	
105) Chlorobenzene-d5	11.033(0.001)	2942	117	899993 (4)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929(-0.002)	3533	152	419615 (10)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.605(0.001)	113	179918	28.445	57%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.064(0.000)	102	51317	31.203	62%	*	71 - 136
91) Toluene-d8	(3)	9.551(0.000)	98	702599	28.597	57%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.044(0.000)	95	224636	28.718	57%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)			Not Detected					26	220
4) Chloromethane	(2)			Not Detected					26	220
5) Vinyl Chloride	(2)			Not Detected					26	220
9) Bromomethane	(2)			Not Detected					31	220
10) Chloroethane	(2)			Not Detected					44	220
13) Trichlorofluoromethane	(2)			Not Detected					31	220
19) 1,1-Dichloroethene	(2)			Not Detected					22	220
20) Acetone	(1)			Not Detected					260	880
22) Freon 113	(2)			Not Detected					26	440
25) Carbon Disulfide	(2)	3.659(0.000)	76	21844	1.041	45.91		J	26	220
27) Methyl Acetate	(2)	3.775(-0.000)	43	27130	4.798	211.56		J	44	220
31) Methylene Chloride	(2)			Not Detected					88	220
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					22	220
35) trans-1,2-Dichloroethene	(2)			Not Detected					22	220
40) 1,1-Dichloroethane	(2)			Not Detected					22	220
44) 2-Butanone	(1)	5.883(-0.012)	43	6077M	1.876	82.72		J	44	440
45) cis-1,2-Dichloroethene	(2)			Not Detected					22	220
54) Chloroform	(2)			Not Detected					26	220
57) 1,1,1-Trichloroethane	(2)			Not Detected					26	220
58) Cyclohexane	(2)			Not Detected					22	220
61) Carbon Tetrachloride	(2)			Not Detected					22	220
64) Benzene	(2)			Not Detected					22	220
67) 1,2-Dichloroethane	(2)			Not Detected					26	220
75) Trichloroethene	(2)			Not Detected					22	220
76) Methylcyclohexane	(2)			Not Detected					26	220
77) 1,2-Dichloropropane	(2)			Not Detected					22	220
84) Bromodichloromethane	(2)			Not Detected					18	220

M = Compound was manually integrated.

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08s33.d Injection date and time: **08-NOV-2018 11:26**
Data file Sample Info. Line: 12T02RE;9872060RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **44.09**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.67 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

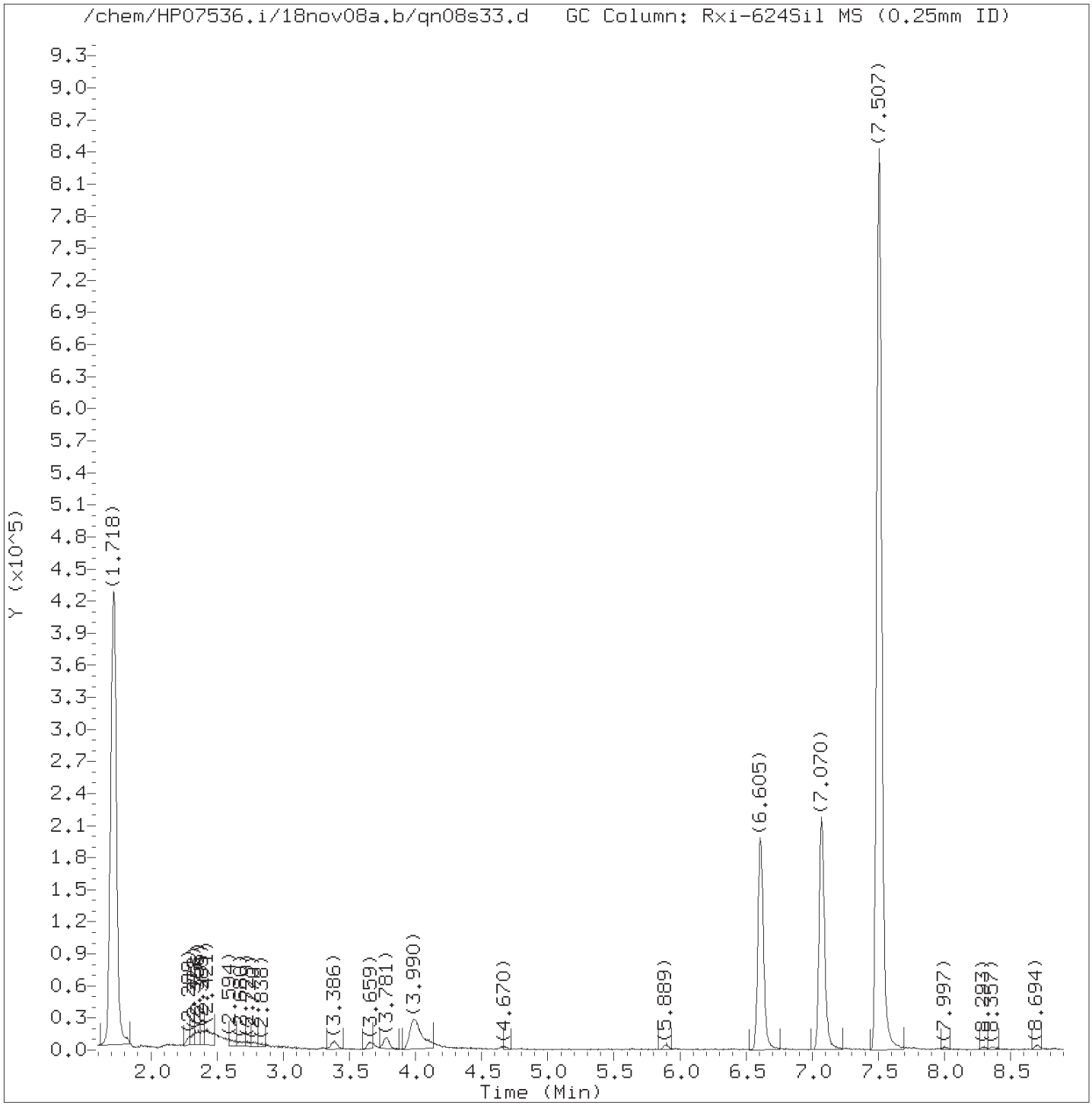
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
89) cis-1,3-Dichloropropene	(2)			Not Detected					18	220
90) 4-Methyl-2-pentanone	(2)			Not Detected					44	440
92) Toluene	(3)	9.631(-0.000)	92	16821	1.076	47.44		J	26	220
93) trans-1,3-Dichloropropene	(3)			Not Detected					13	220
96) 1,1,2-Trichloroethane	(3)			Not Detected					22	220
98) Tetrachloroethene	(3)			Not Detected					22	220
101) 2-Hexanone	(3)			Not Detected					44	440
103) Dibromochloromethane	(3)			Not Detected					18	220
104) 1,2-Dibromoethane	(3)			Not Detected					18	220
107) Chlorobenzene	(3)			Not Detected					22	220
109) Ethylbenzene	(3)	11.152(-0.000)	91	13031	0.486	21.41		J	18	220
110) m+p-Xylene	(3)	11.264(-0.000)	106	15331M	1.462	64.44		J	44	220
111) o-Xylene	(3)	11.604(-0.001)	106	4753	0.455	20.07		J	18	220
112) Xylene (Total)	(3)		106	20084	1.917	84.51		J	44	220
113) Styrene	(3)			Not Detected					13	220
114) Bromoform	(3)			Not Detected					220	440
115) Isopropylbenzene	(3)	11.899(-0.000)	105	12819	0.575	25.36		J	18	220
118) Cyclohexanone	(1)			Not Detected					1100	11000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					18	220
138) 1,3-Dichlorobenzene	(4)			Not Detected					22	220
141) 1,4-Dichlorobenzene	(4)	12.949(-0.000)	146	9926	0.702	30.96		J	18	220
147) 1,2-Dichlorobenzene	(4)	13.208(-0.000)	146	8505	0.652	28.74		J	22	220
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					18	220
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					220	440

M = Compound was manually integrated.

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

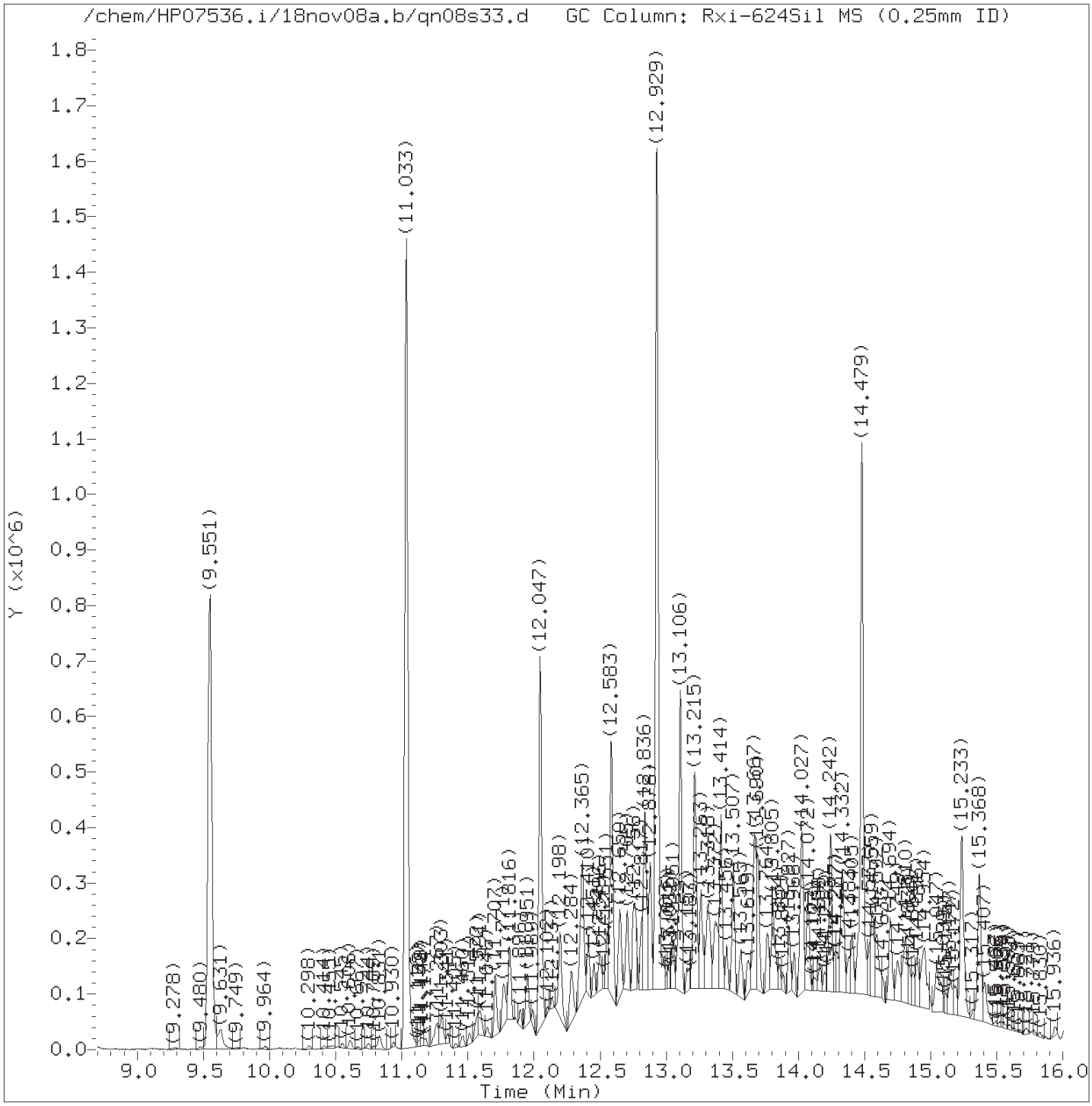
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

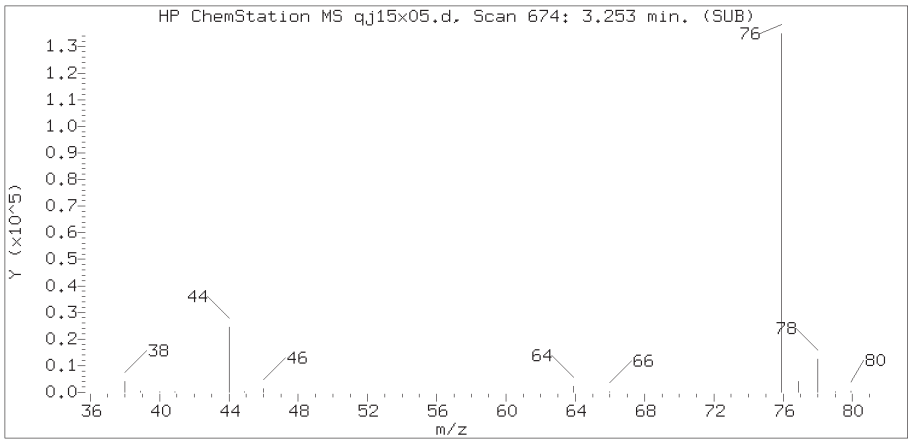
Sample Name: 12T02RE Lab Sample ID: 9872060RE

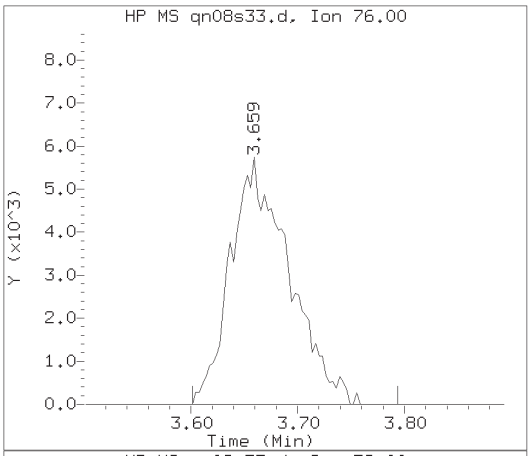
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Carbon Disulfide	(2)	3.659	76	21844	1.041
27) Methyl Acetate	(2)	3.775	43	27130	4.798
30)*t-Butyl alcohol-d10	(1)	3.983	65	125114	250.000
44) 2-Butanone	(1)	5.883	43	6077M	1.876
56)$Dibromofluoromethane	(2)	6.605	113	179918	28.445
63)$1,2-Dichloroethane-d4	(2)	7.064	102	51317	31.203
70)*Fluorobenzene	(2)	7.503	96	1162655	50.000
91)$Toluene-d8	(3)	9.551	98	702599	28.597
92) Toluene	(3)	9.631	92	16821	1.076
105)*Chlorobenzene-d5	(3)	11.033	117	899993	50.000
109) Ethylbenzene	(3)	11.152	91	13031	0.486
110) m+p-Xylene	(3)	11.264	106	15331M	1.462
111) o-Xylene	(3)	11.604	106	4753	0.455
112) Xylene (Total)	(3)		106	20084	1.917
115) Isopropylbenzene	(3)	11.899	105	12819	0.575
119)$4-Bromofluorobenzene	(3)	12.044	95	224636	28.718
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	419615	50.000
141) 1,4-Dichlorobenzene	(4)	12.949	146	9926	0.702
147) 1,2-Dichlorobenzene	(4)	13.209	146	8505	0.652

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

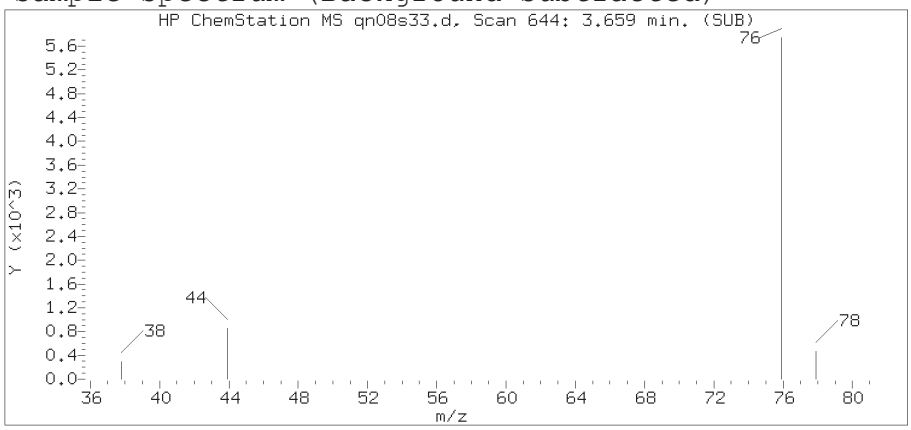
Digitally signed by Stephen C. Nolte
on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

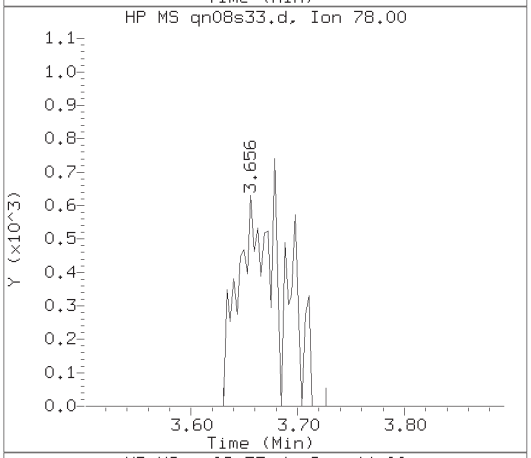
Reference Standard Spectrum for Carbon Disulfide



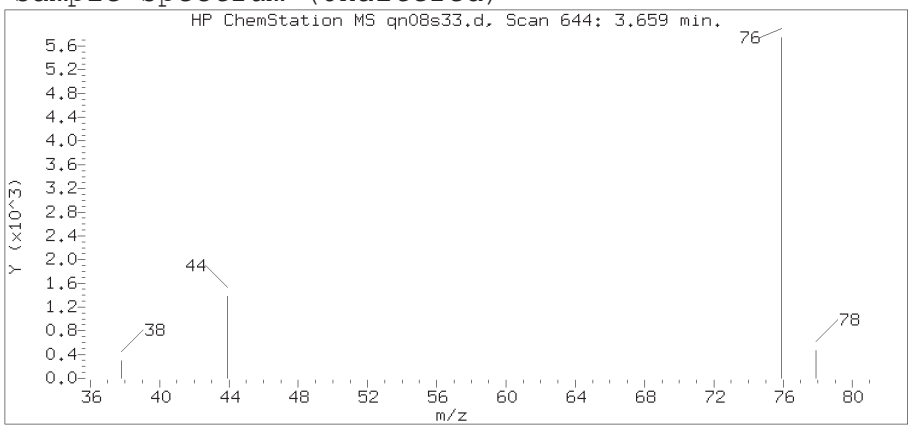


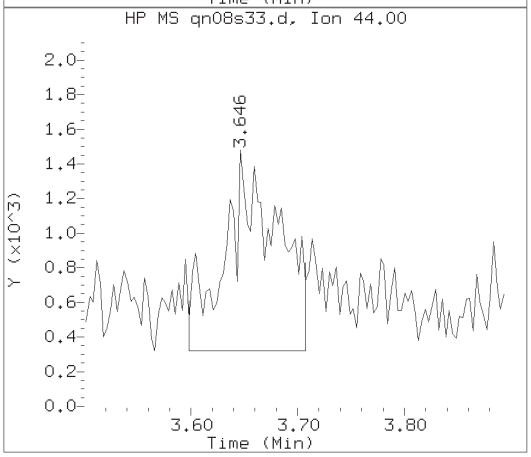
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 644
Retention Time (minutes): 3.659
Relative Retention Time : 0.00030
Quant Ion : 76.00
Area (flag) : 21844
On-Column Amount (ng) : 1.0413

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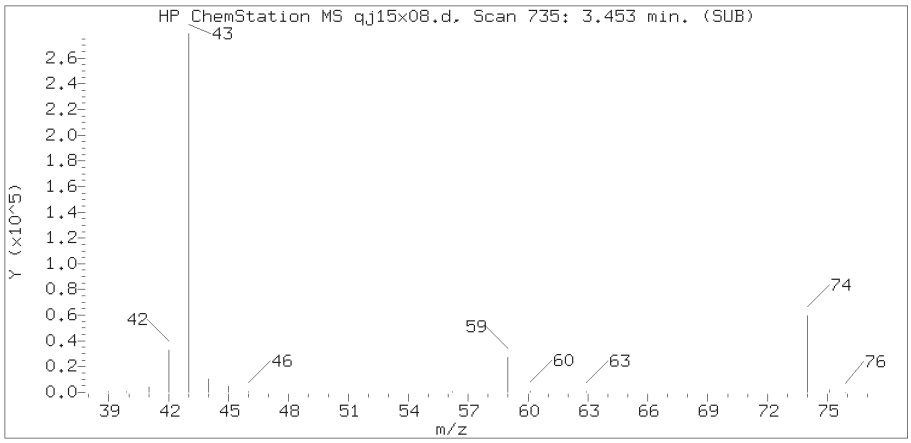
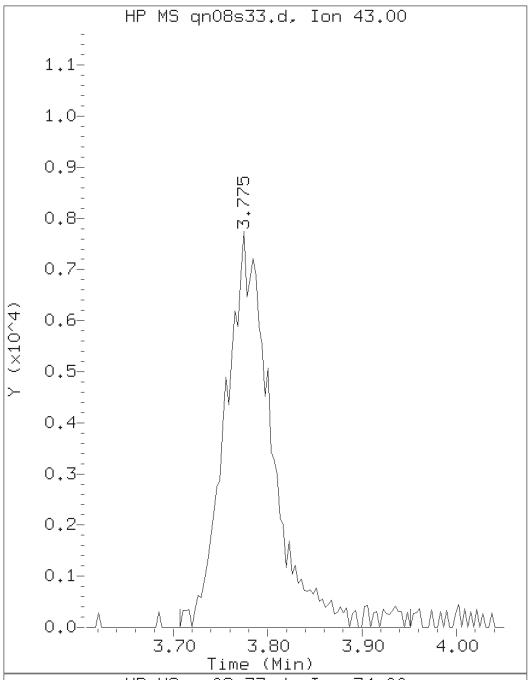
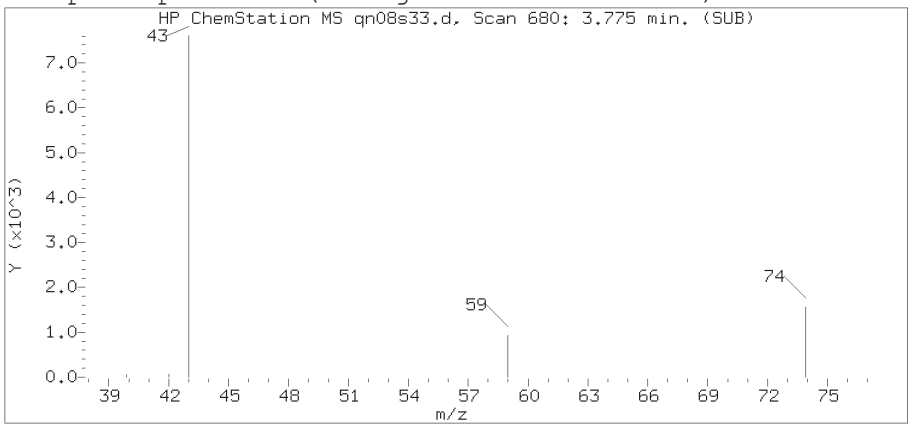
Target 3.5 esignature user ID: scn10072

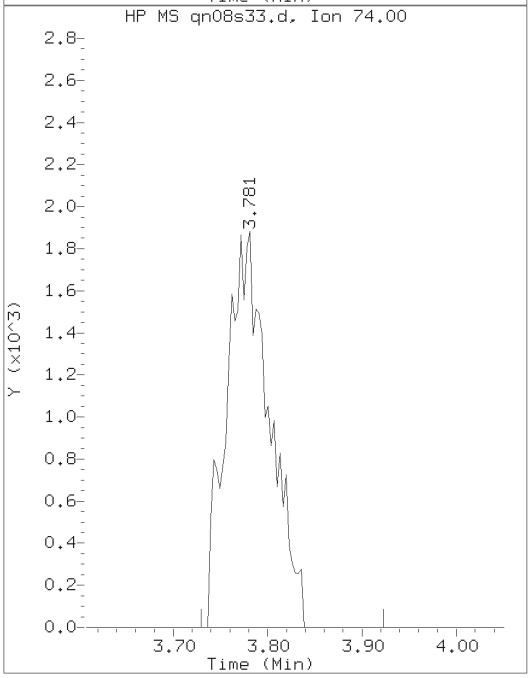
Reference Standard Spectrum for Methyl Acetate



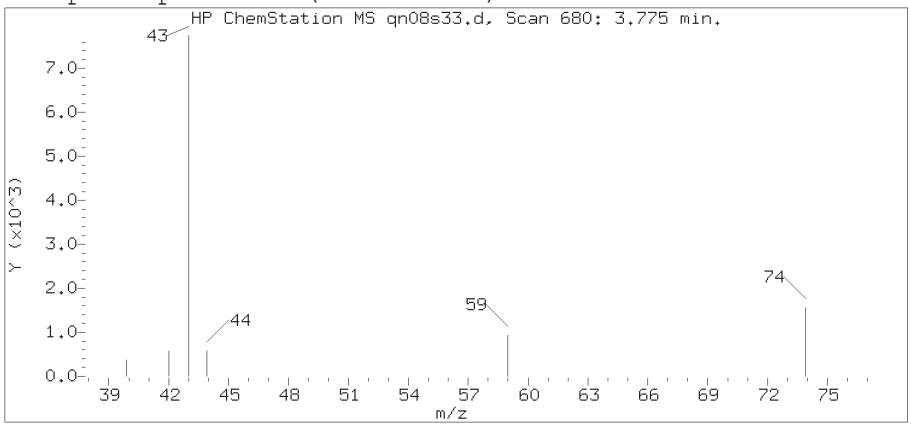


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 680
Retention Time (minutes): 3.775
Relative Retention Time :-0.00056
Quant Ion : 43.00
Area (flag) : 27130
On-Column Amount (ng) : 4.7982

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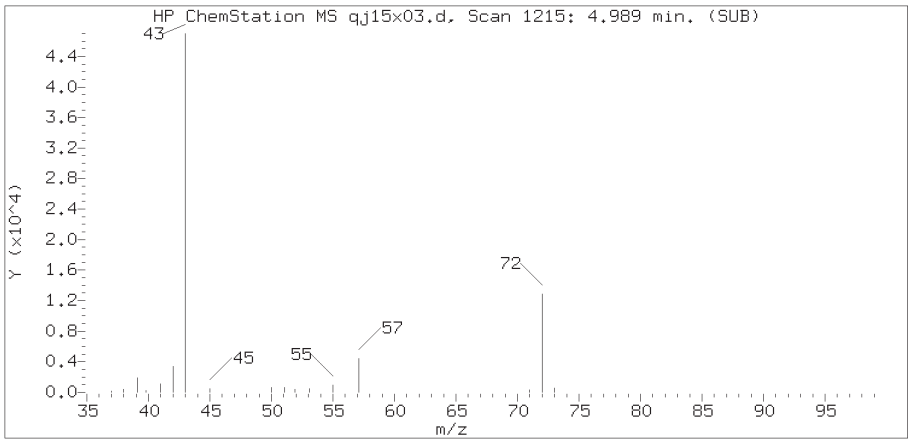
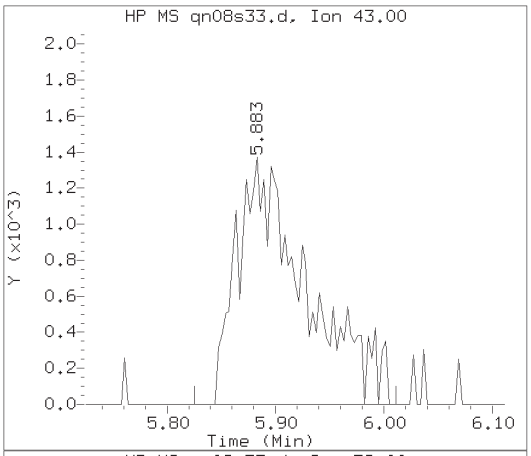
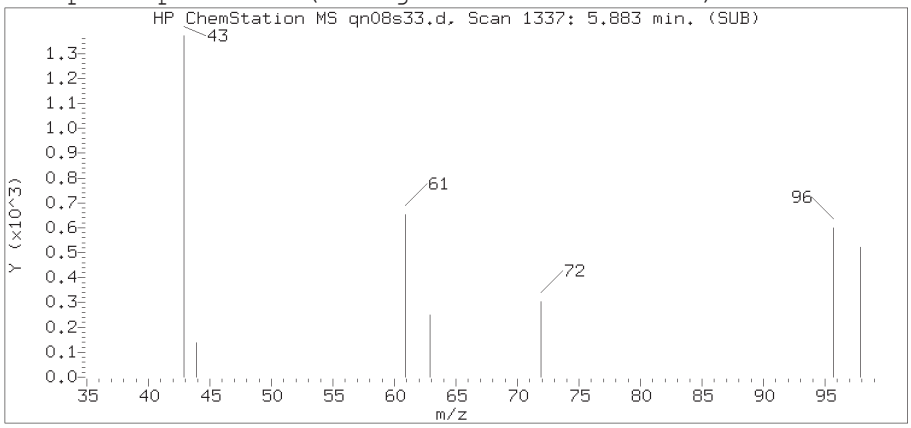
Target 3.5 esignature user ID: scn10072

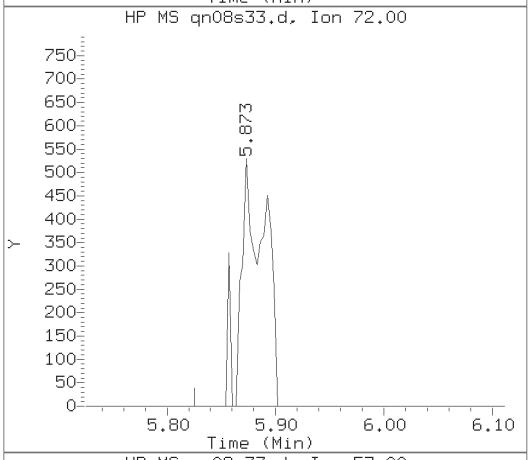
Reference Standard Spectrum for 2-Butanone



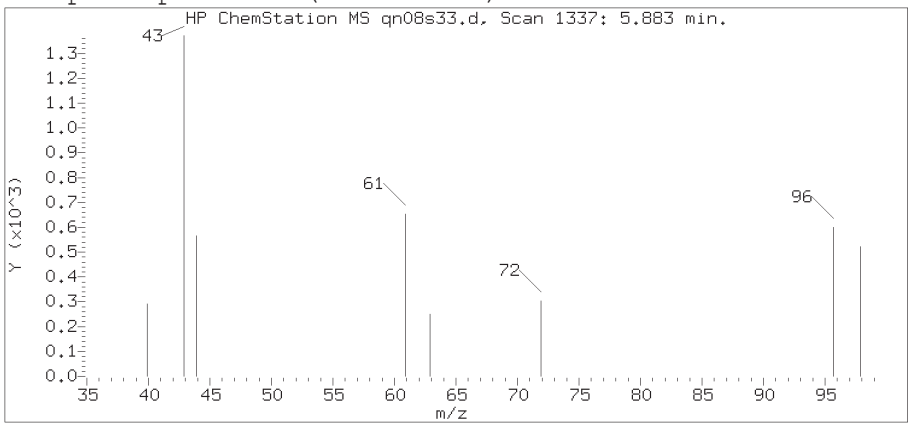


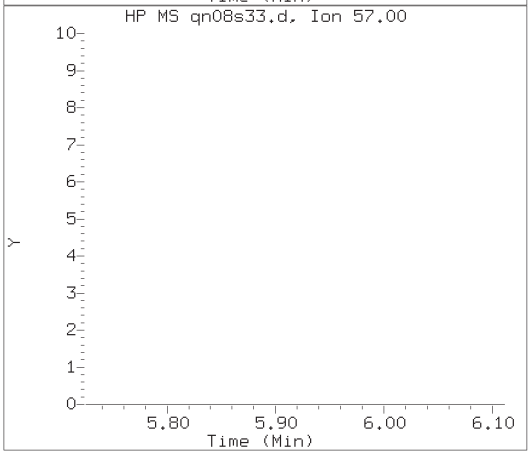
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1337
Retention Time (minutes): 5.883
Relative Retention Time :-0.01206
Quant Ion : 43.00
Area (flag) : 6077M
On-Column Amount (ng) : 1.8761

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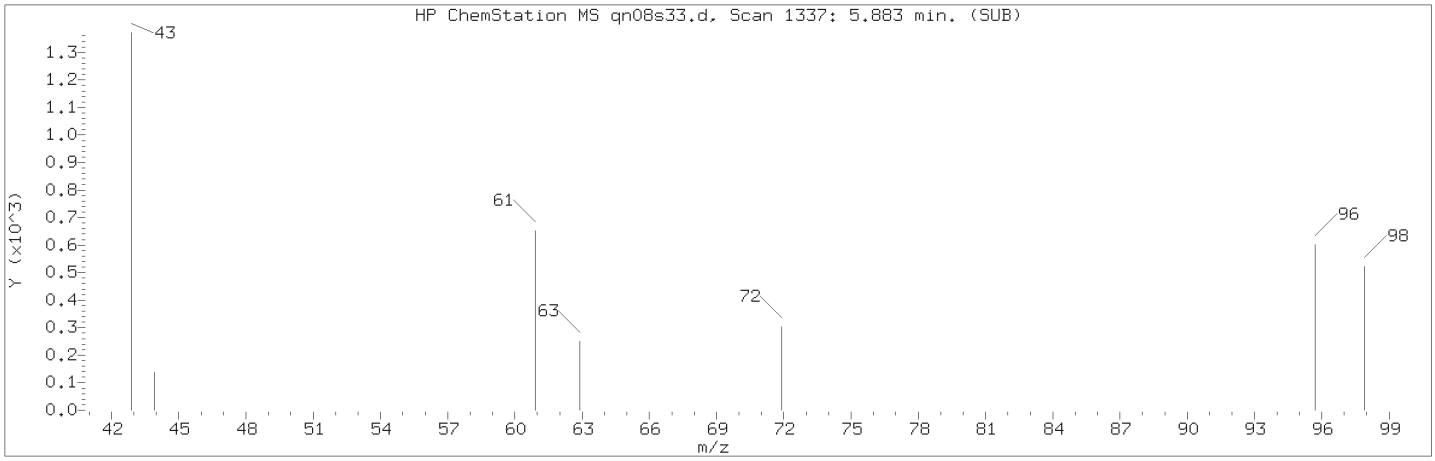
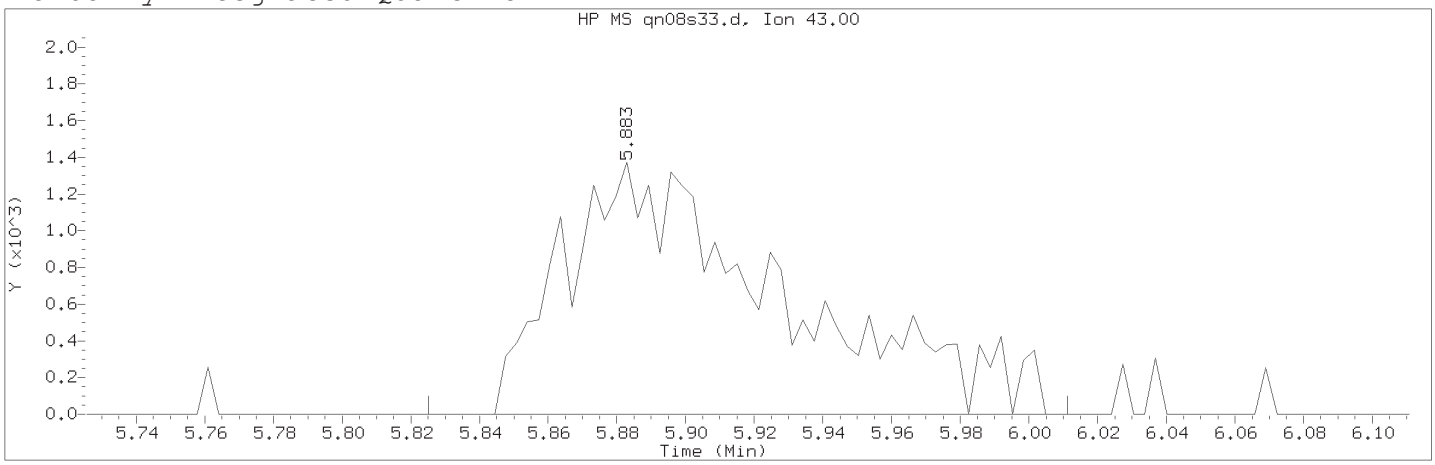
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

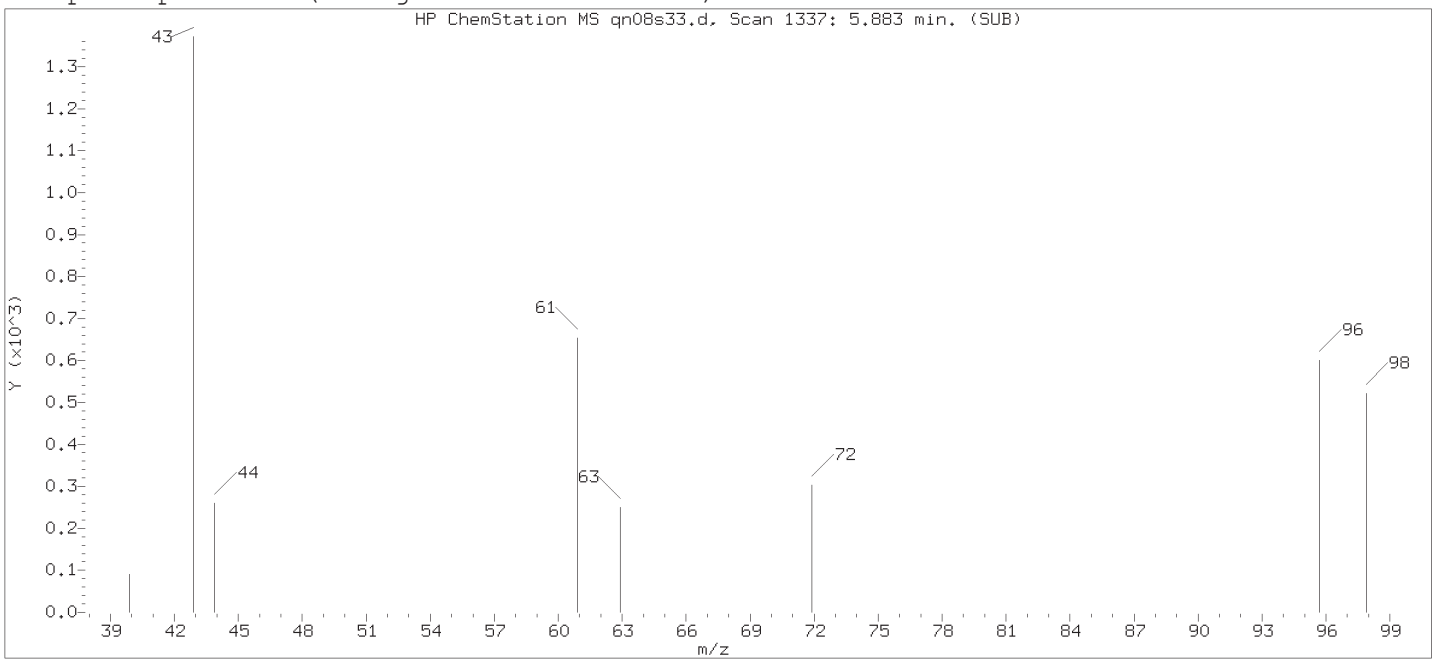
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1337
Retention Time (minutes): 5.883
Quant Ion : 43.00
Area (flag) : 6077M
On-Column Amount (ng) : 1.8761
Integration start scan : 1318 Integration stop scan: 1376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

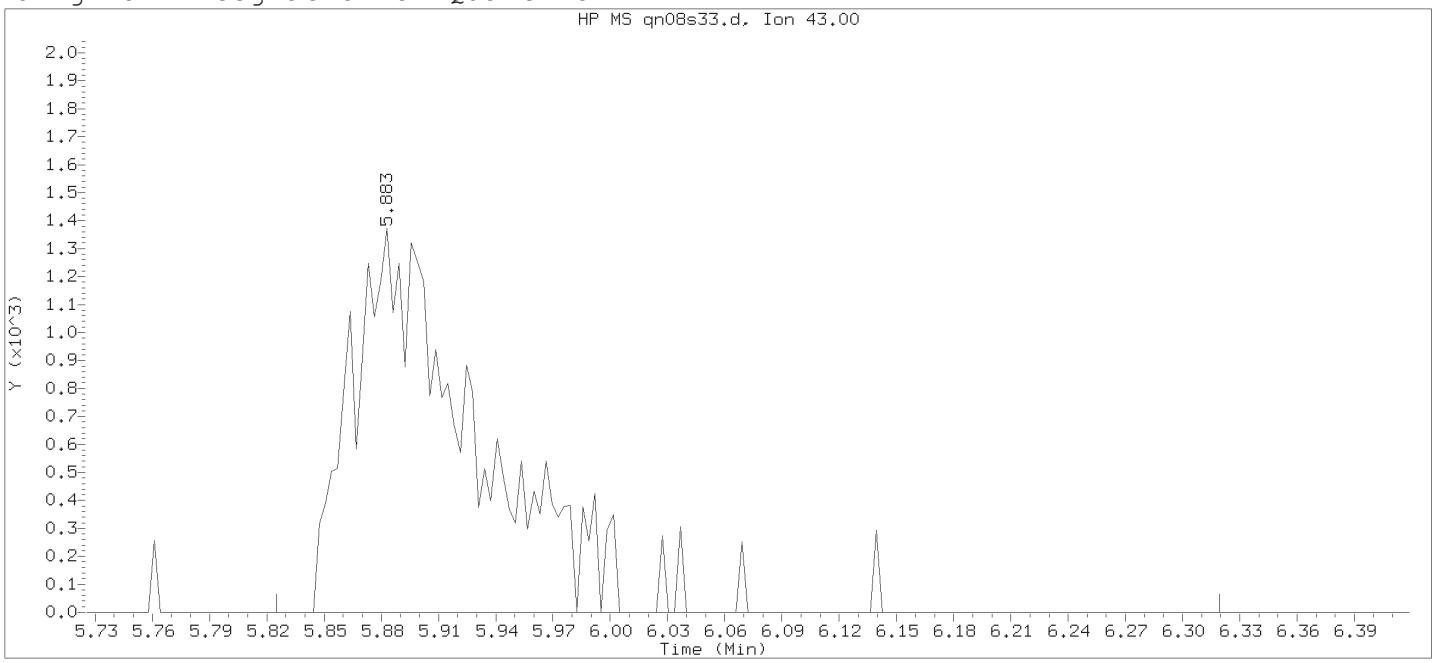
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

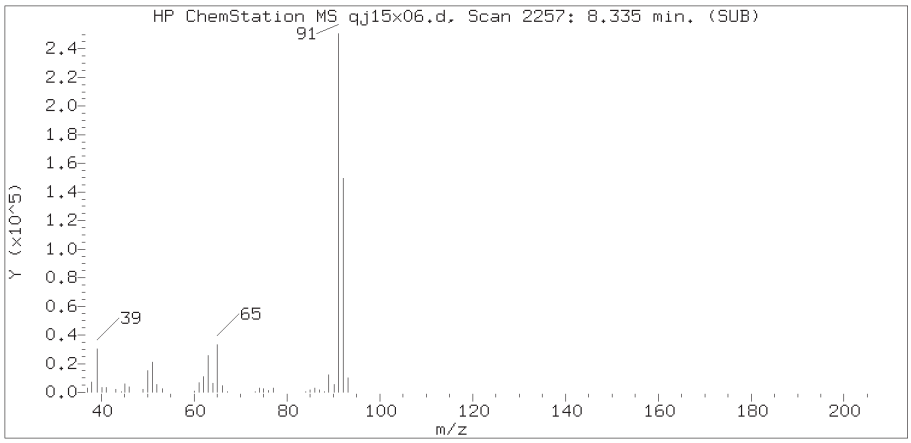
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:54 Automation

Sample Name: 12T02RE Lab Sample ID: 9872060RE

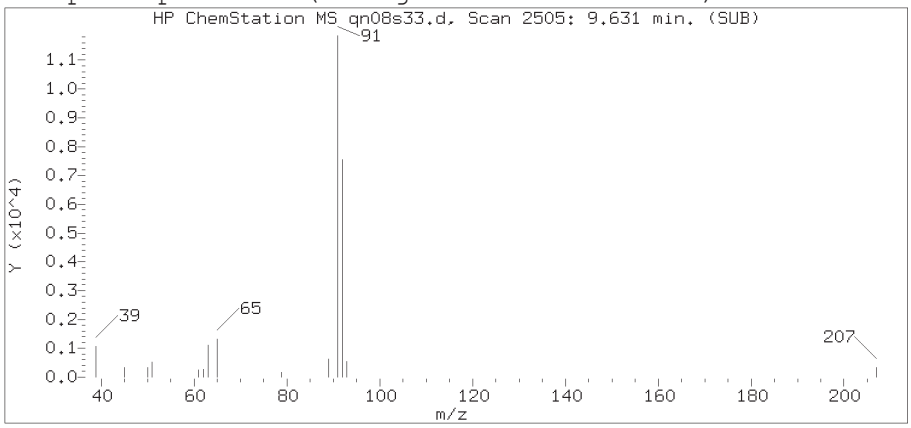
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1337
Retention Time (minutes): 5.883
Quant Ion : 43.00
Area : 6293
On-column Amount (ng) : 1.9428
Integration start scan : 1318 Integration stop scan: 1472
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: SCN10072

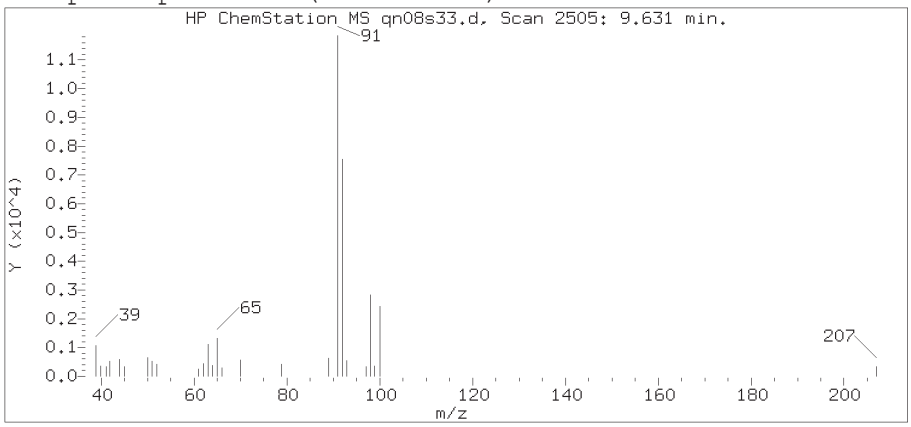
Reference Standard Spectrum for Toluene

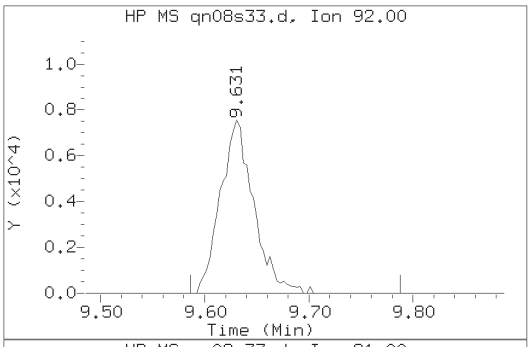


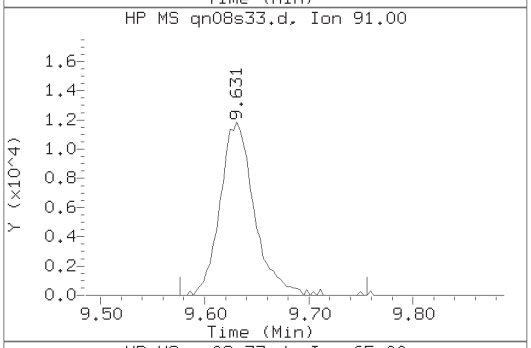
Sample Spectrum (Background Subtracted)

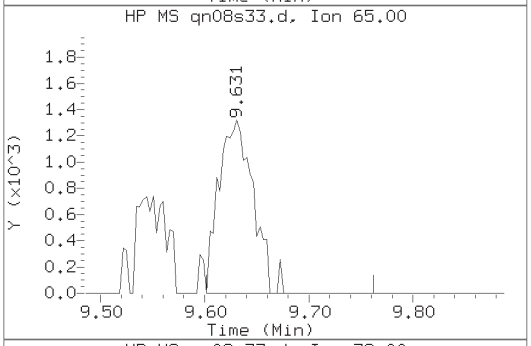


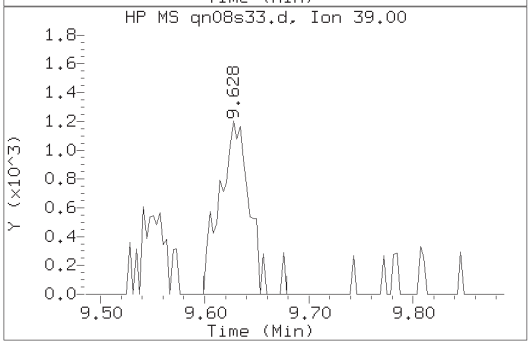
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 92
Compound Name : Toluene
Scan Number : 2505
Retention Time (minutes): 9.631
Relative Retention Time :-0.00028
Quant Ion : 92.00
Area (flag) : 16821
On-Column Amount (ng) : 1.0758

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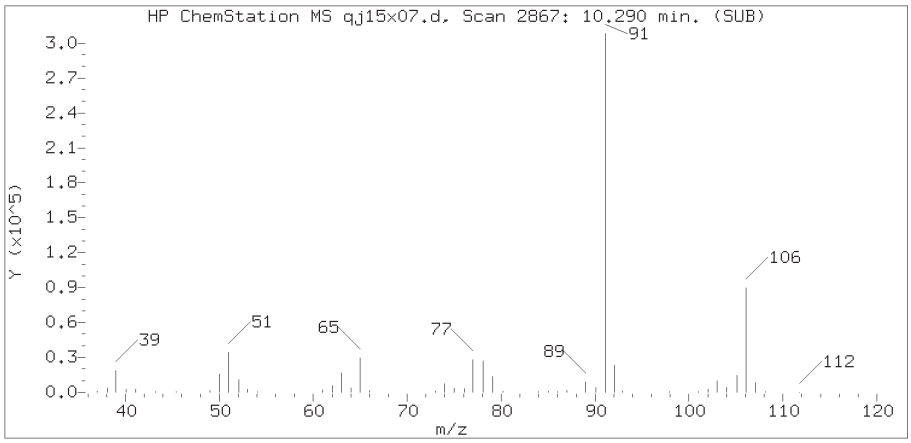
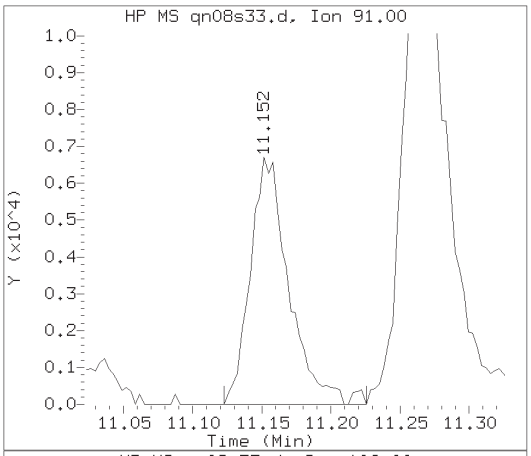
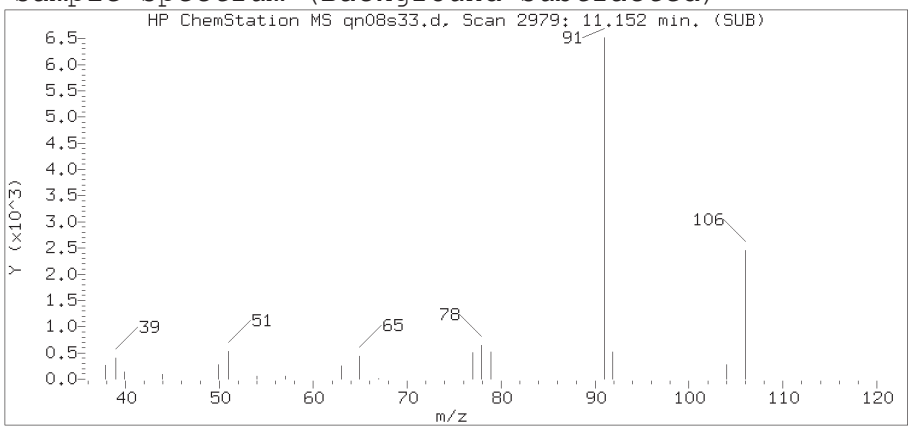
Target 3.5 esignature user ID: scn10072

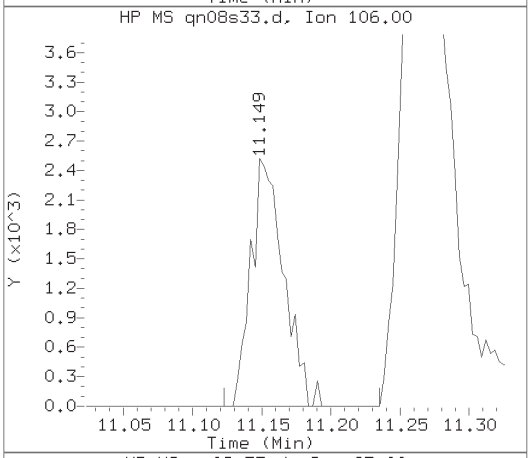
Reference Standard Spectrum for Ethylbenzene



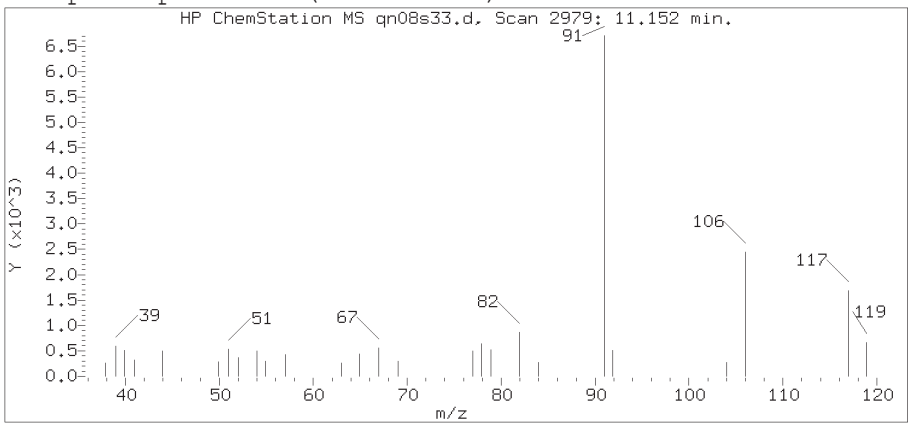


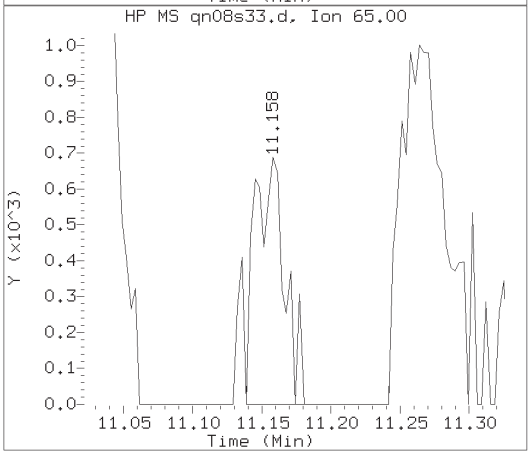
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2979
Retention Time (minutes): 11.152
Relative Retention Time :-0.00058
Quant Ion : 91.00
Area (flag) : 13031
On-Column Amount (ng) : 0.4856

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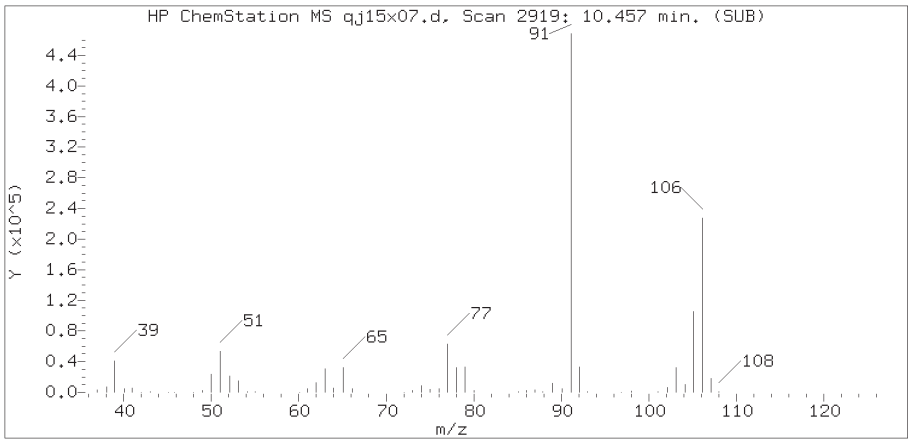
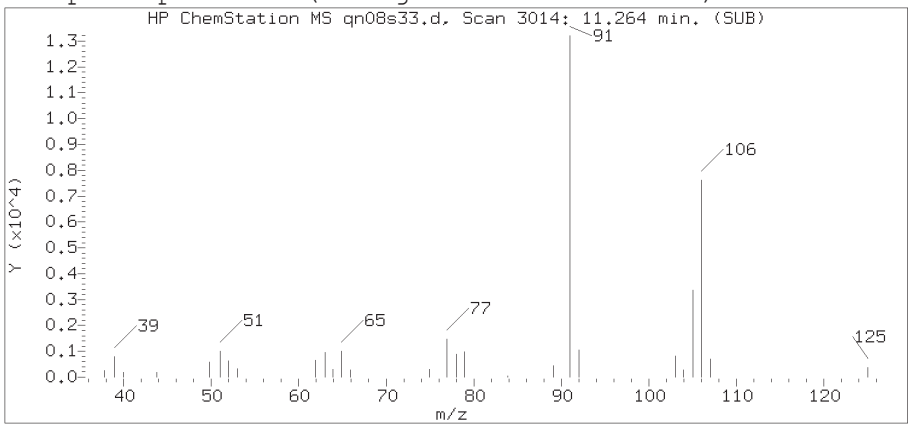
Target 3.5 esignature user ID: scn10072

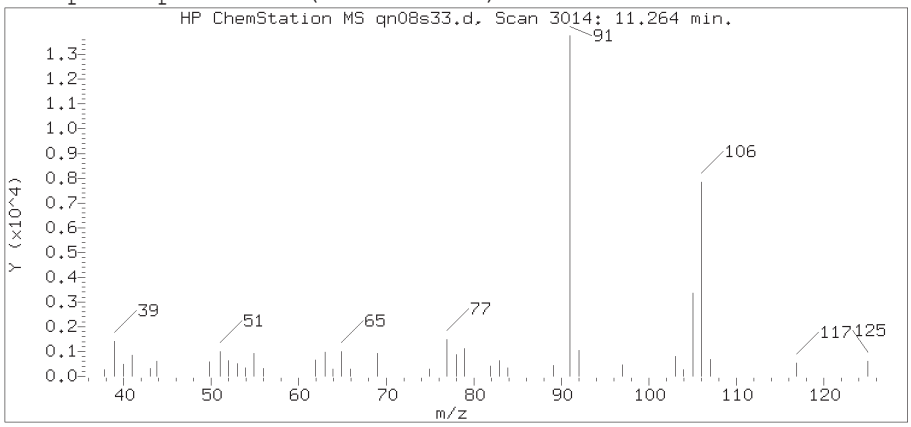
Reference Standard Spectrum for m+p-Xylene

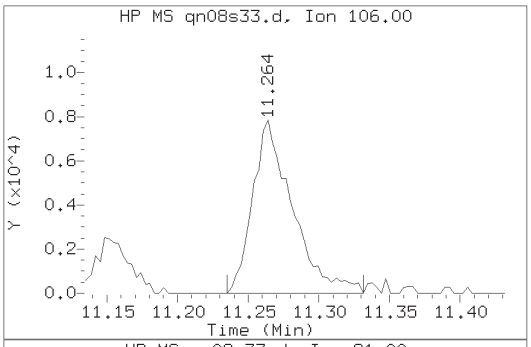


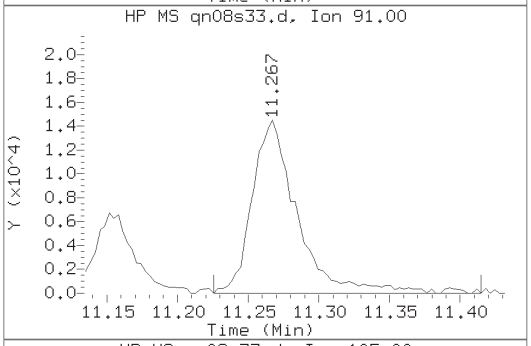
Sample Spectrum (Background Subtracted)

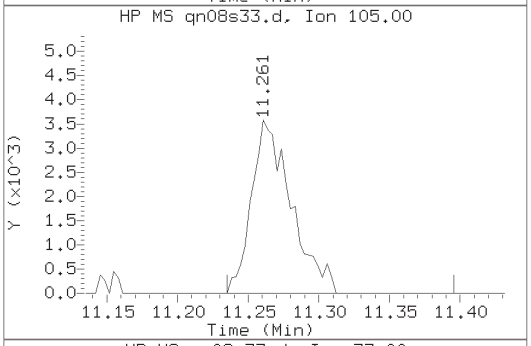


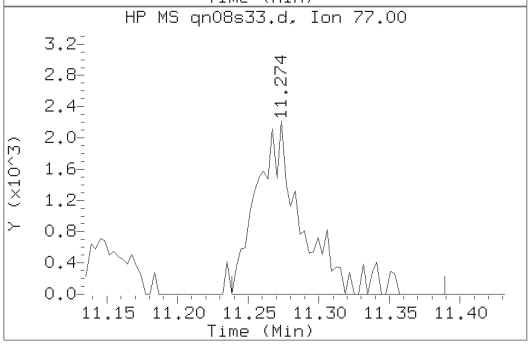
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

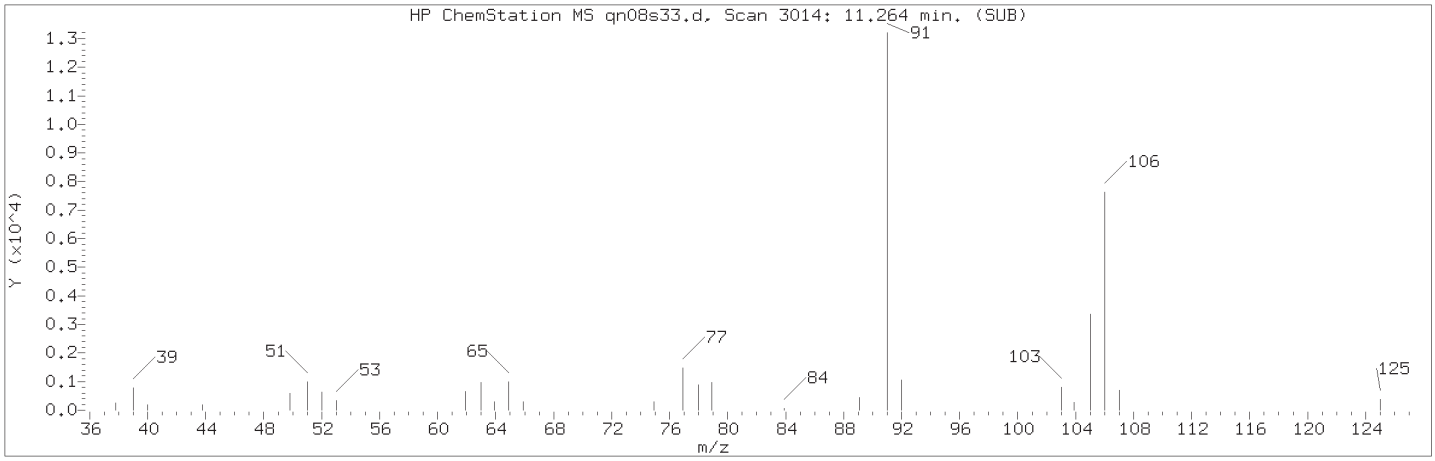
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

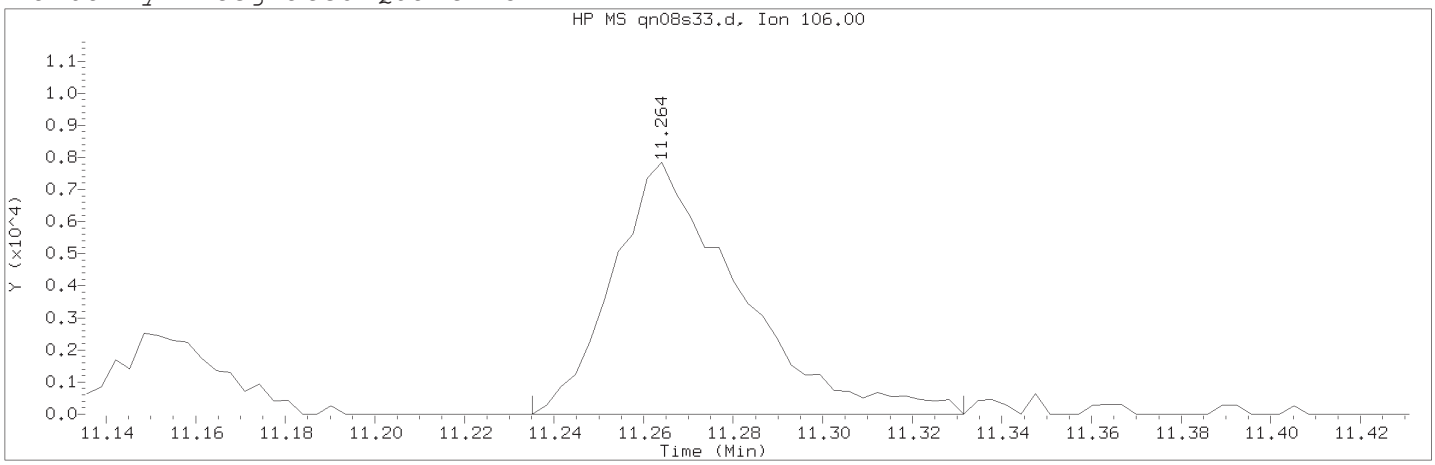
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3014
Retention Time (minutes): 11.264
Relative Retention Time :-0.00000
Quant Ion : 106.00
Area (flag) : 15331M
On-Column Amount (ng) : 1.4615

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

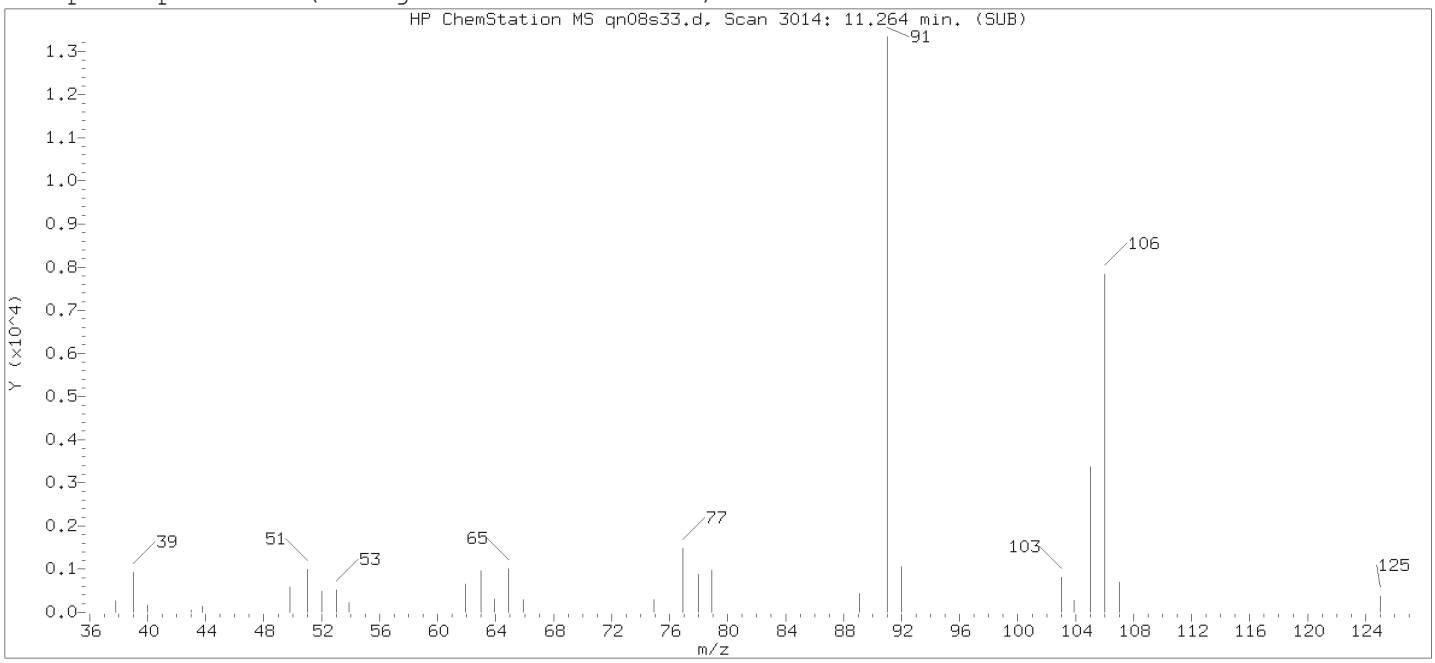
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3014
Retention Time (minutes): 11.264
Quant Ion : 106.00
Area (flag) : 15331M
On-Column Amount (ng) : 1.4615
Integration start scan : 3004 Integration stop scan: 3034
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

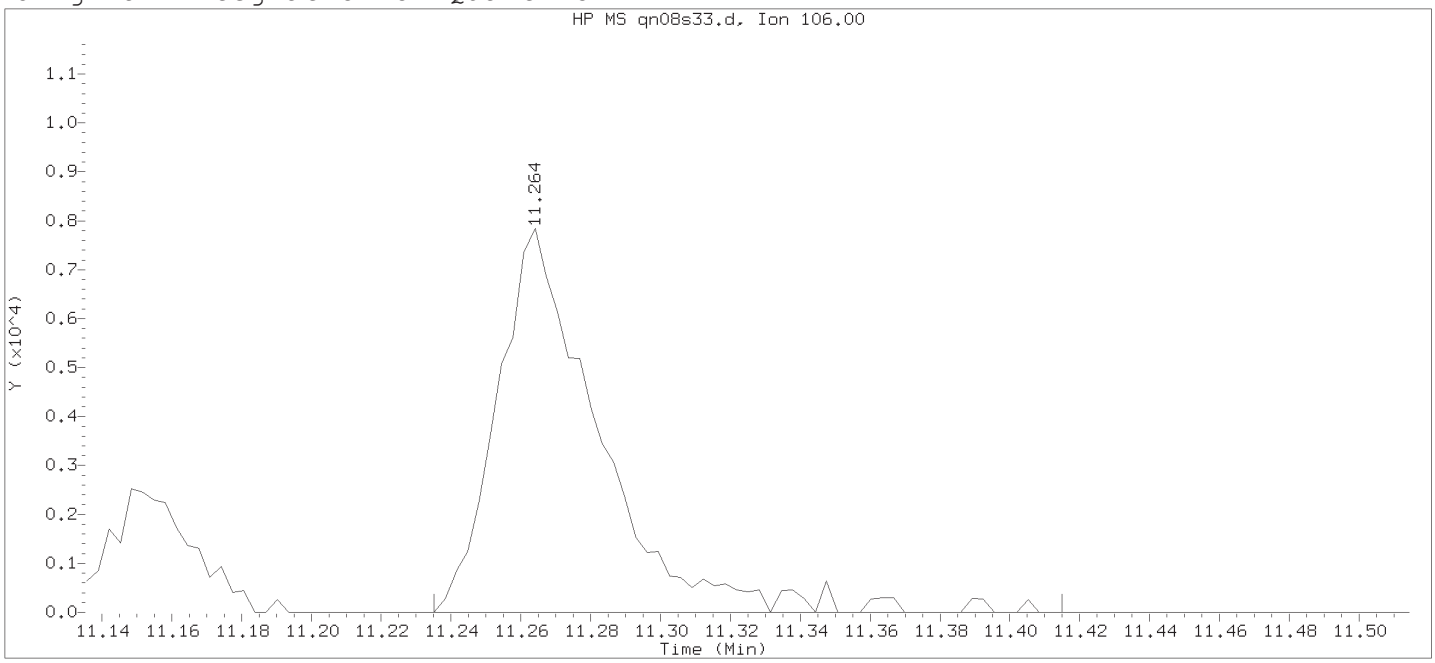
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

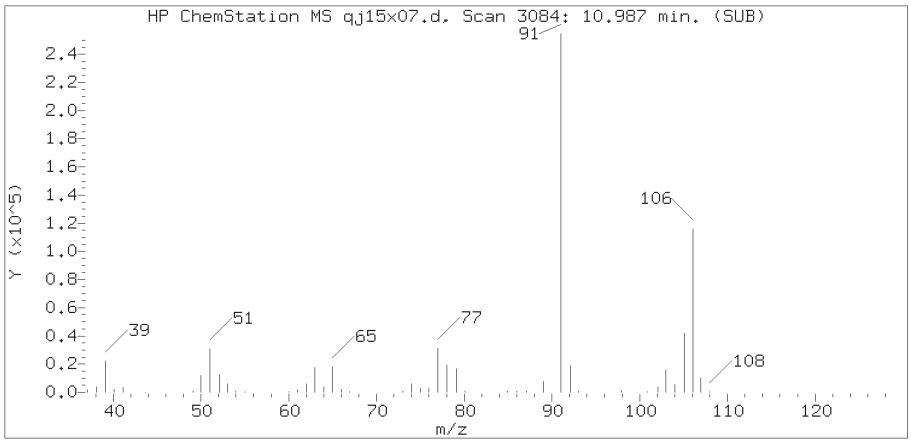
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:54 Automation

Sample Name: 12T02RE Lab Sample ID: 9872060RE

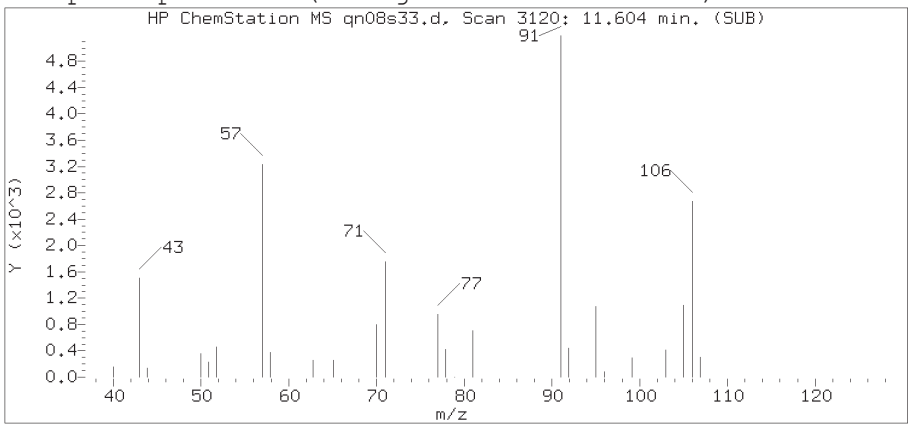
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3014
Retention Time (minutes): 11.264
Quant Ion : 106.00
Area : 16008
On-column Amount (ng) : 1.5261
Integration start scan : 3004 Integration stop scan: 3060
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: SCN10072

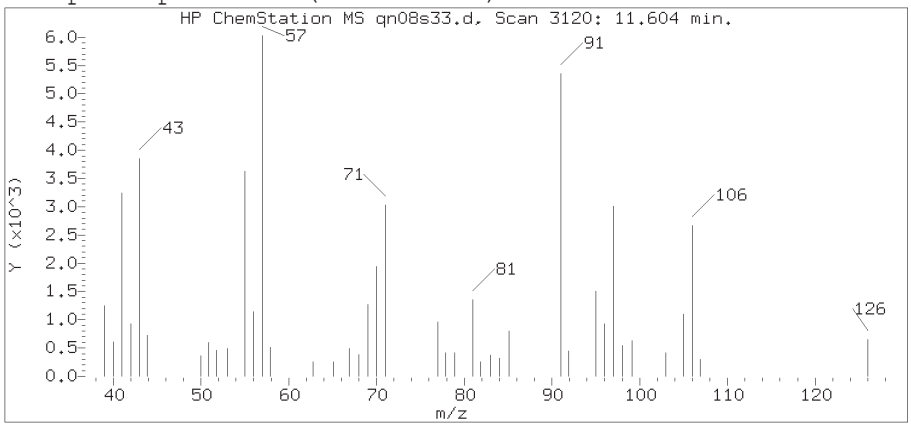
Reference Standard Spectrum for o-Xylene

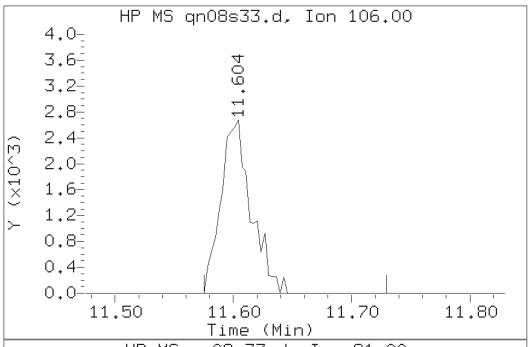


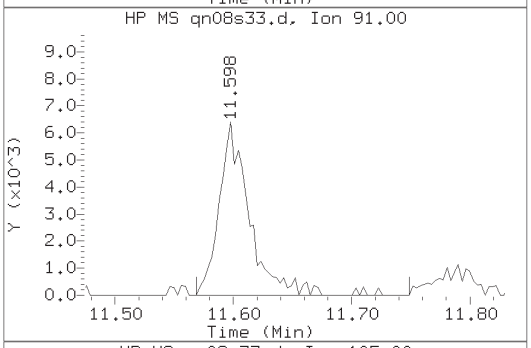
Sample Spectrum (Background Subtracted)

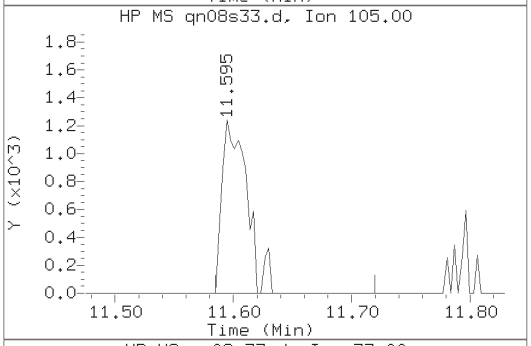


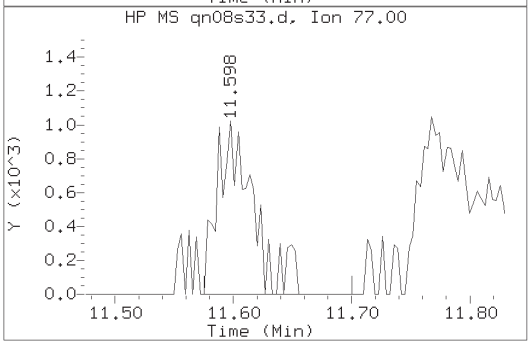
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

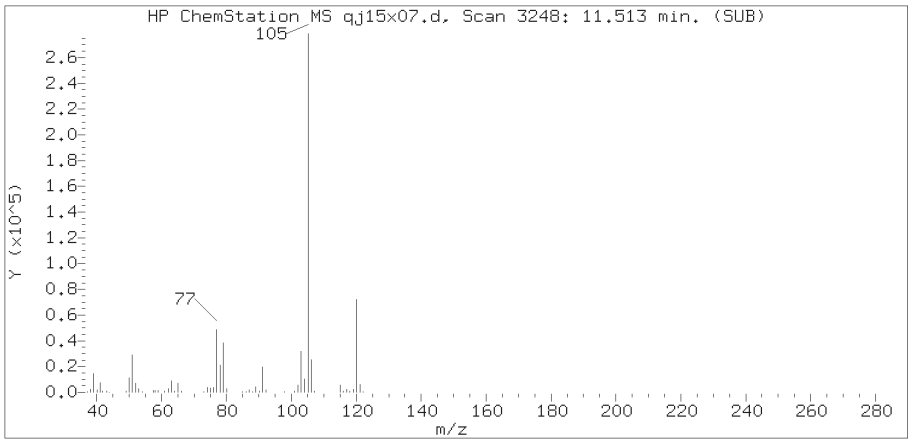
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

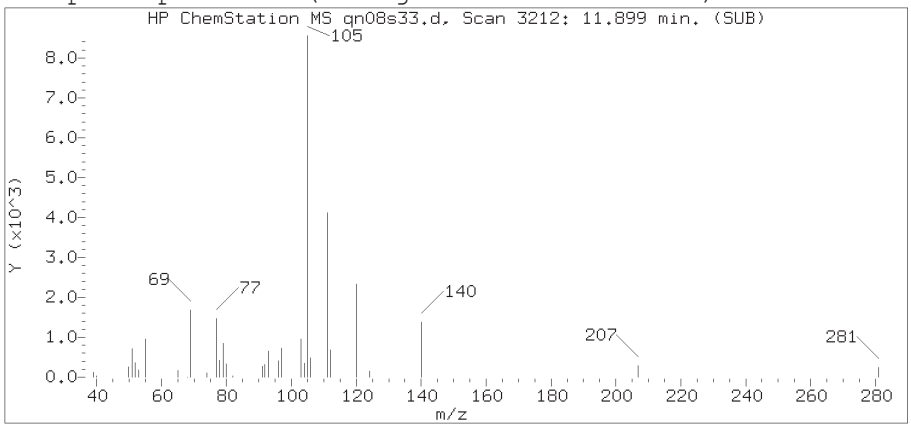
Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3120
Retention Time (minutes): 11.604
Relative Retention Time :-0.00117
Quant Ion : 106.00
Area (flag) : 4753
On-Column Amount (ng) : 0.4551

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

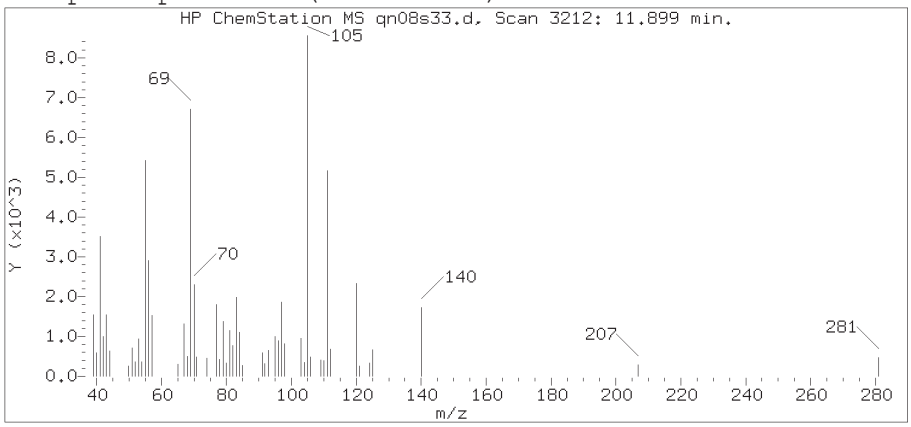
Reference Standard Spectrum for Isopropylbenzene

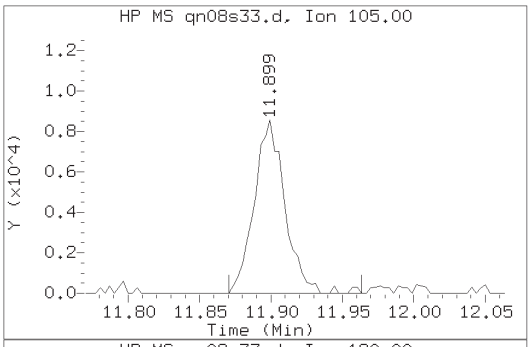


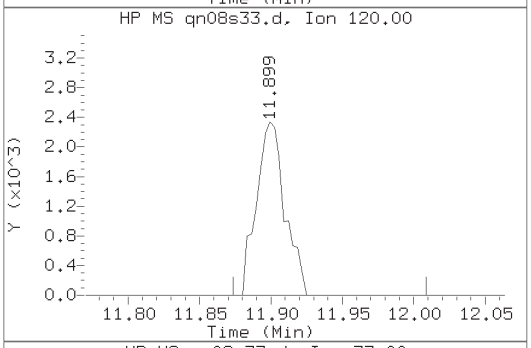
Sample Spectrum (Background Subtracted)

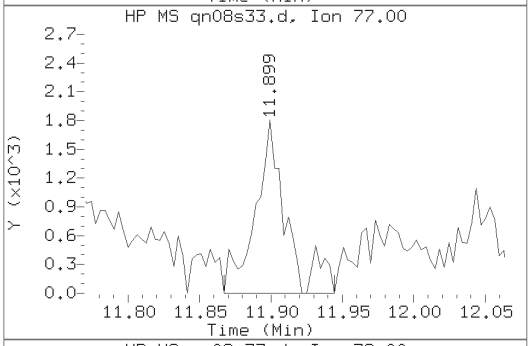


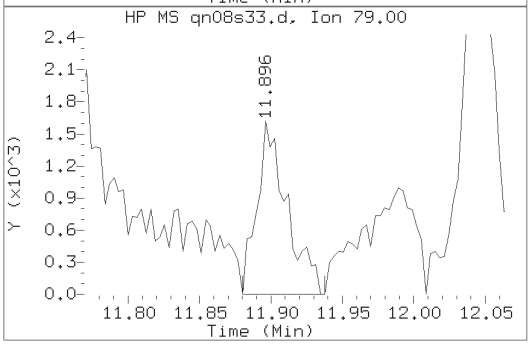
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

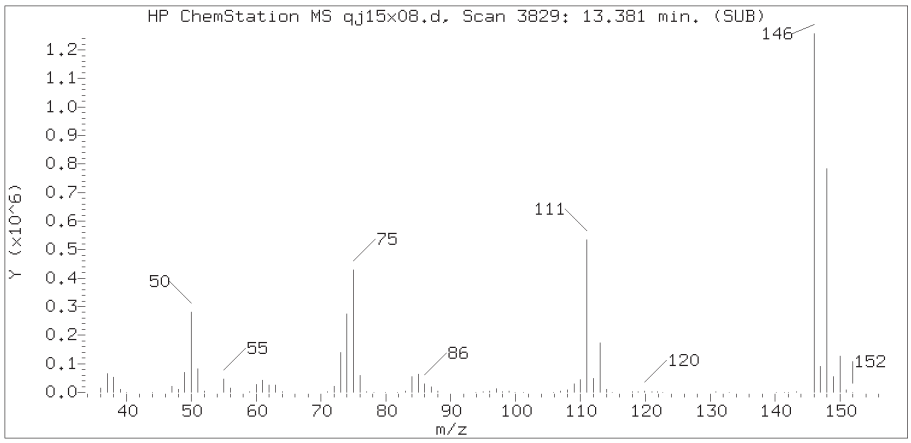
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

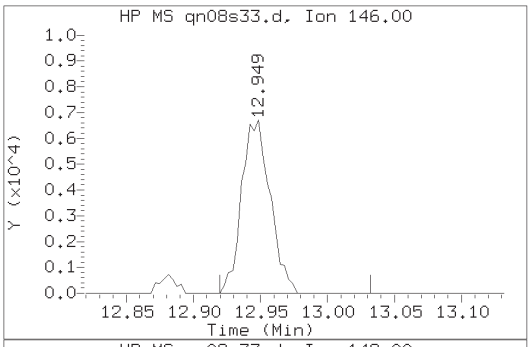
Sample Name: 12T02RE Lab Sample ID: 9872060RE

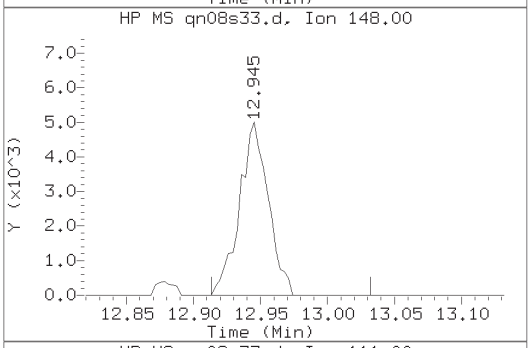
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3212
Retention Time (minutes): 11.899
Relative Retention Time :-0.00030
Quant Ion : 105.00
Area (flag) : 12819
On-Column Amount (ng) : 0.5752

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

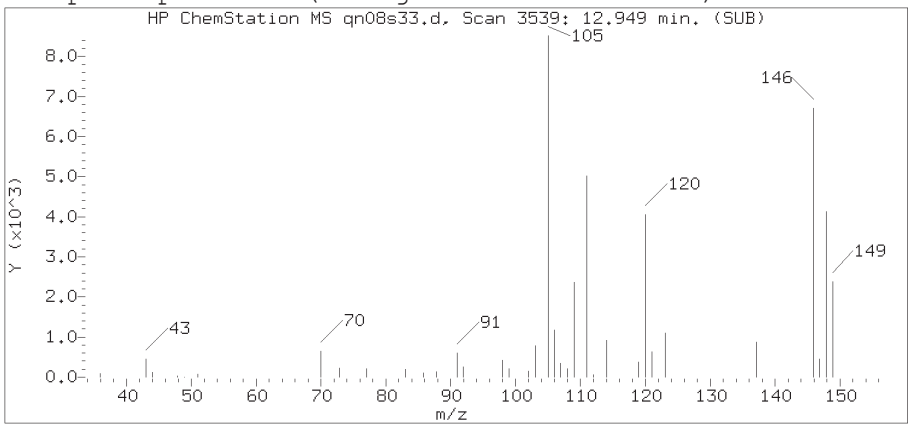
Reference Standard Spectrum for 1,4-Dichlorobenzene

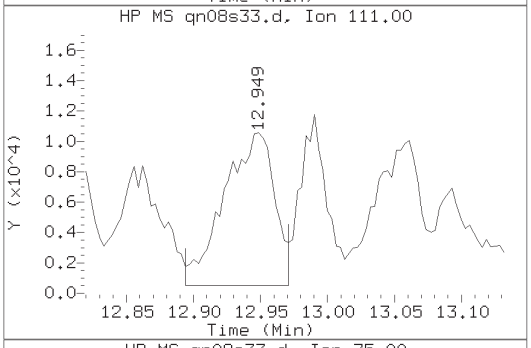




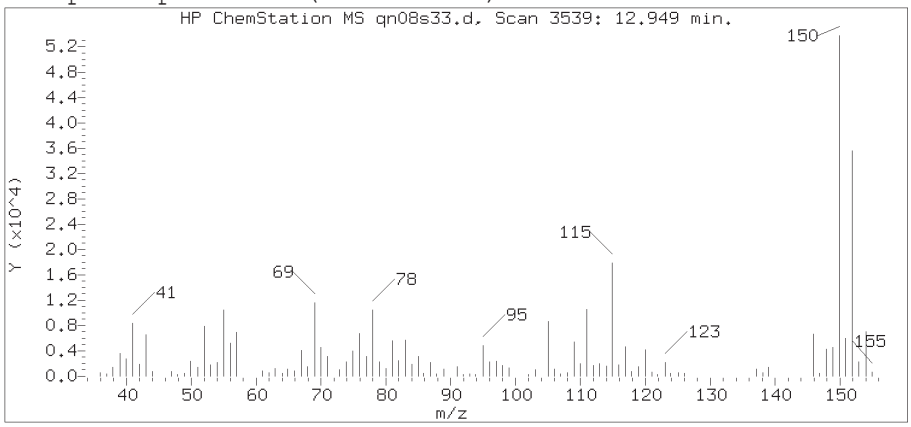


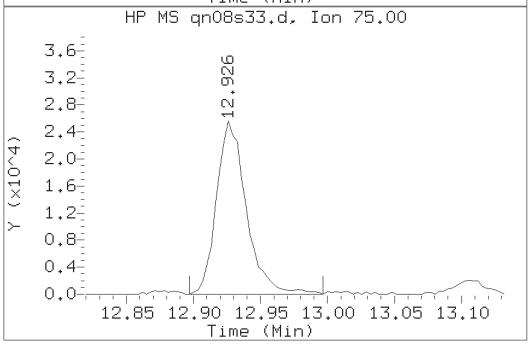
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

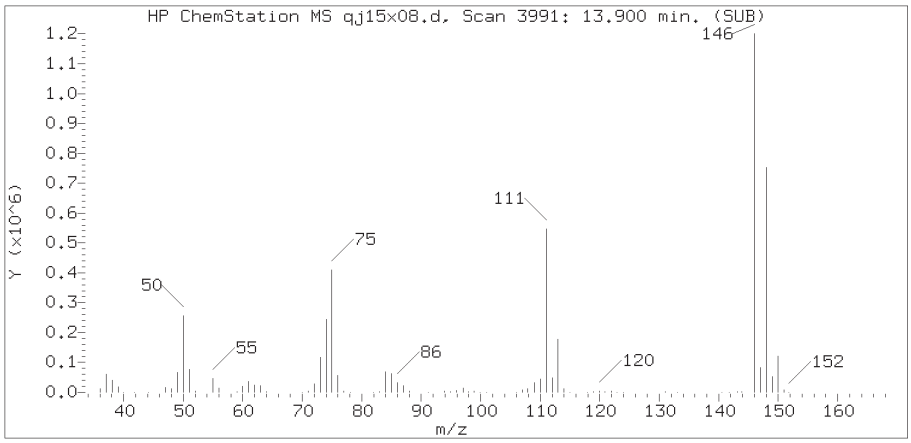
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

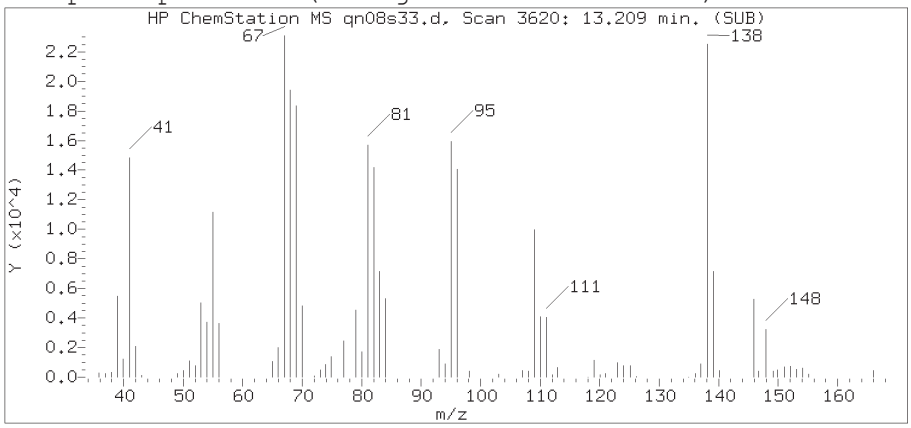
Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.949
Relative Retention Time :-0.00025
Quant Ion : 146.00
Area (flag) : 9926
On-Column Amount (ng) : 0.7022

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

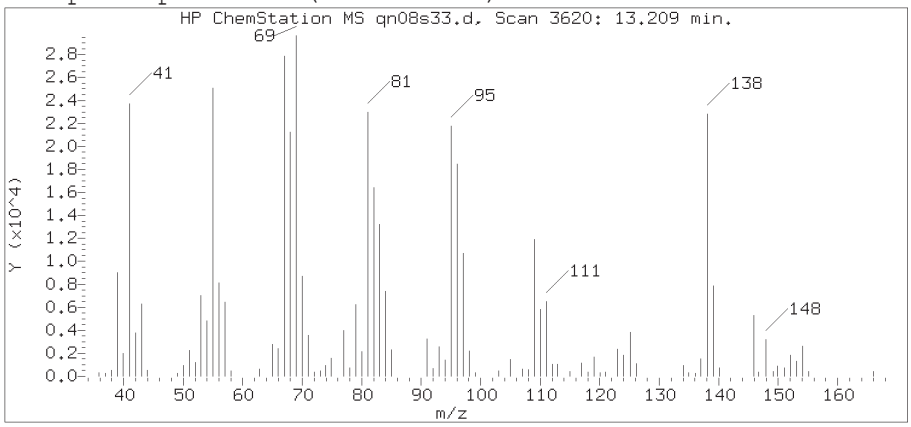
Reference Standard Spectrum for 1,2-Dichlorobenzene

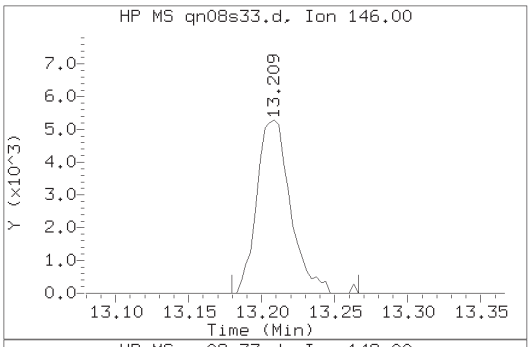


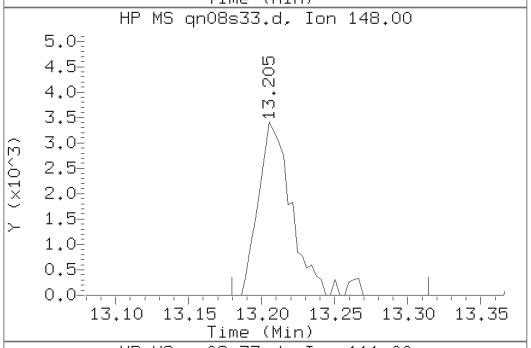
Sample Spectrum (Background Subtracted)

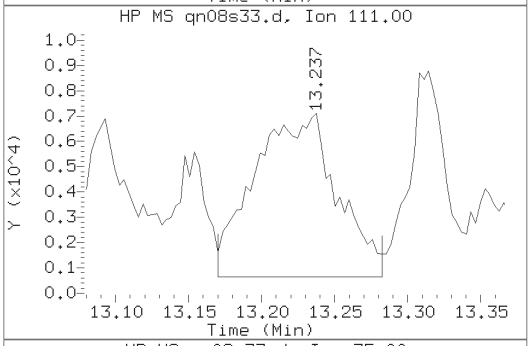


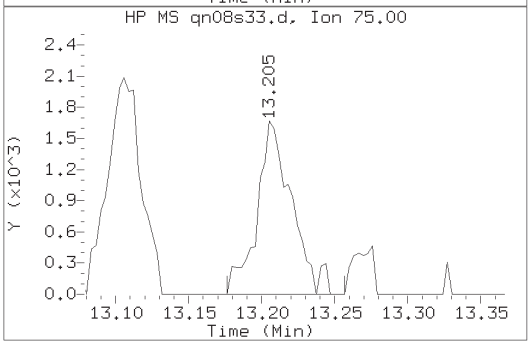
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s33.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:26 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:15 scn10072

Sample Name: 12T02RE Lab Sample ID: 9872060RE

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3620
Retention Time (minutes): 13.209
Relative Retention Time :-0.00024
Quant Ion : 146.00
Area (flag) : 8505
On-Column Amount (ng) : 0.6519

Digitally signed by Stephen C. Nolte on 11/09/2018 at 10:01.
Target 3.5 esignature user ID: scn10072

Data file: /chem/HP07536.i/18nov07a.b/qn07s35.d Injection date and time: **07-NOV-2018 14:22**
Data file Sample Info. Line: 12T03;9872061;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **42.81**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.84 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:9274, 9367, 2706-664

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.010	(-0.017)	754	65	148014	(0)	250.00	
70) Fluorobenzene	7.511	(-0.004)	1845	96	1184290	(-4)	50.00	
105) Chlorobenzene-d5	11.037	(-0.001)	2944	117	920902	(-5)	50.00	
140) 1,4-Dichlorobenzene-d4	12.930	(-0.004)	3534	152	418154	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.615	(0.000)	113	201959	31.346	63%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.074	(0.000)	102	57894	34.559	69%	*	71 - 136
91) Toluene-d8	(3)	9.551	(0.000)	98	797364	31.718	63%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.045	(0.000)	95	251422	31.413	63%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					26	210
4) Chloromethane	(2)				Not Detected					26	210
5) Vinyl Chloride	(2)				Not Detected					26	210
9) Bromomethane	(2)				Not Detected					30	210
10) Chloroethane	(2)				Not Detected					43	210
13) Trichlorofluoromethane	(2)				Not Detected					30	210
19) 1,1-Dichloroethene	(2)				Not Detected					21	210
20) Acetone	(1)				Not Detected					260	860
22) Freon 113	(2)				Not Detected					26	430
25) Carbon Disulfide	(2)	3.660	(0.001)	76	18734	0.877	37.53		J	26	210
27) Methyl Acetate	(2)	3.776	(0.000)	43	34688	6.023	257.83			43	210
31) Methylene Chloride	(2)				Not Detected					86	210
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					21	210
35) trans-1,2-Dichloroethene	(2)				Not Detected					21	210
40) 1,1-Dichloroethane	(2)				Not Detected					21	210
44) 2-Butanone	(1)	5.880	(0.002)	43	9008	2.351	100.63		J	43	430
45) cis-1,2-Dichloroethene	(2)				Not Detected					21	210
54) Chloroform	(2)				Not Detected					26	210
57) 1,1,1-Trichloroethane	(2)				Not Detected					26	210
58) Cyclohexane	(2)				Not Detected					21	210
61) Carbon Tetrachloride	(2)				Not Detected					21	210
64) Benzene	(2)				Not Detected					21	210
67) 1,2-Dichloroethane	(2)				Not Detected					26	210
75) Trichloroethene	(2)				Not Detected					21	210
76) Methylcyclohexane	(2)				Not Detected					26	210
77) 1,2-Dichloropropane	(2)				Not Detected					21	210

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:50. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07s35.d Injection date and time: **07-NOV-2018 14:22**
Data file Sample Info. Line: 12T03;9872061;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **42.81**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.84 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
84) Bromodichloromethane	(2)			Not Detected					17	210
89) cis-1,3-Dichloropropene	(2)			Not Detected					17	210
90) 4-Methyl-2-pentanone	(2)			Not Detected					43	430
92) Toluene	(3)	9.632(-0.000)	92	28495	1.781	76.25		J	26	210
93) trans-1,3-Dichloropropene	(3)			Not Detected					13	210
96) 1,1,2-Trichloroethane	(3)			Not Detected					21	210
98) Tetrachloroethene	(3)			Not Detected					21	210
101) 2-Hexanone	(3)			Not Detected					43	430
103) Dibromochloromethane	(3)			Not Detected					17	210
104) 1,2-Dibromoethane	(3)			Not Detected					17	210
107) Chlorobenzene	(3)			Not Detected					21	210
109) Ethylbenzene	(3)	11.152(-0.000)	91	35149	1.280	54.80		J	17	210
110) m+p-Xylene	(3)	11.262(0.000)	106	48374	4.507	192.93		J	43	210
111) o-Xylene	(3)	11.602(-0.000)	106	13803	1.292	55.30		J	17	210
112) Xylene (Total)	(3)		106	62177	5.798	248.22			43	210
113) Styrene	(3)			Not Detected					13	210
114) Bromoform	(3)			Not Detected					210	430
115) Isopropylbenzene	(3)	11.903(-0.000)	105	20172	0.885	37.87		J	17	210
118) Cyclohexanone	(1)			Not Detected					1100	11000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					17	210
138) 1,3-Dichlorobenzene	(4)			Not Detected					21	210
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	19035	1.351	57.84		J	17	210
147) 1,2-Dichlorobenzene	(4)	13.209(-0.000)	146	17726	1.363	58.37		J	21	210
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					17	210
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					210	430

Total number of targets = 51

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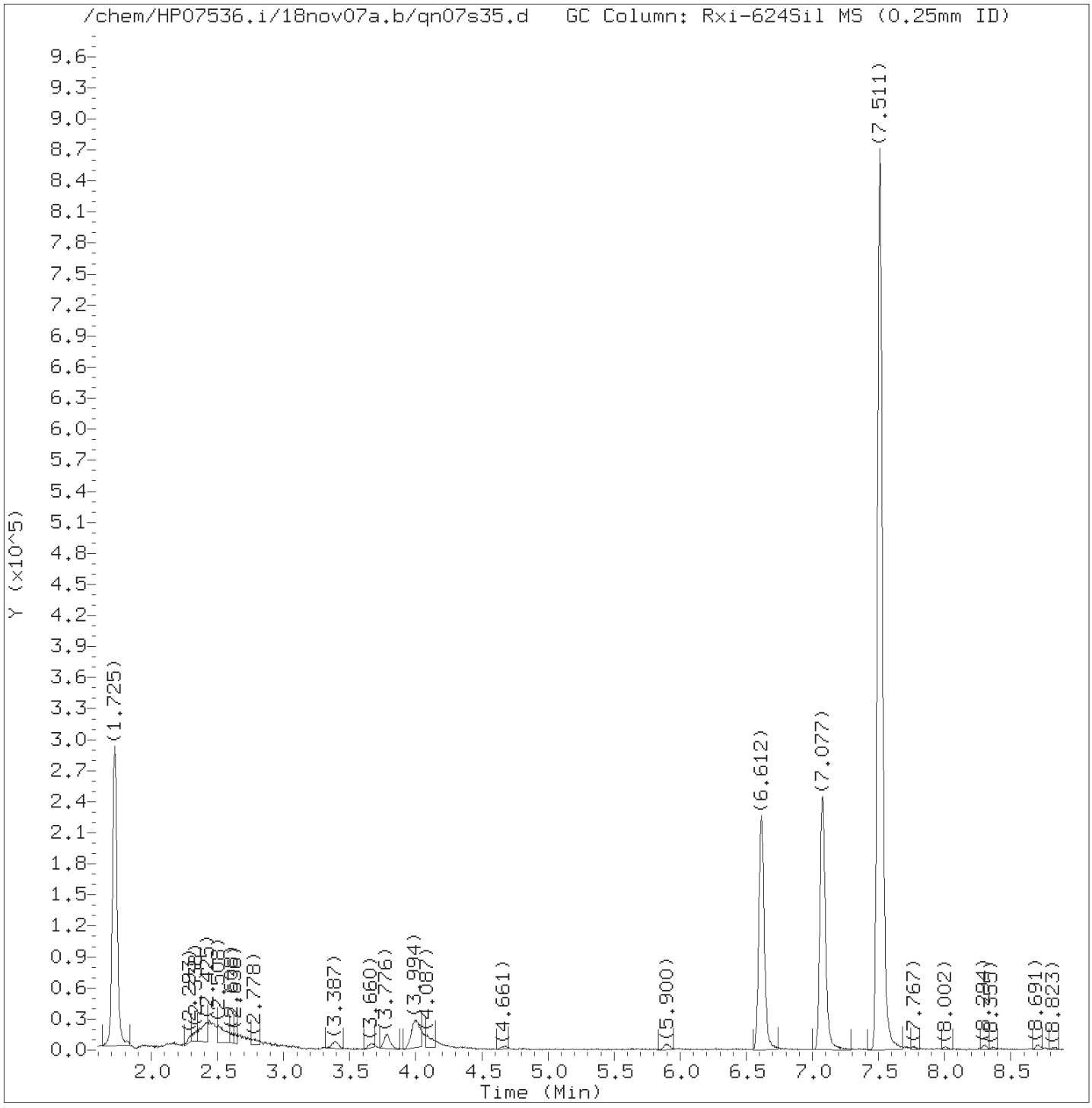
Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

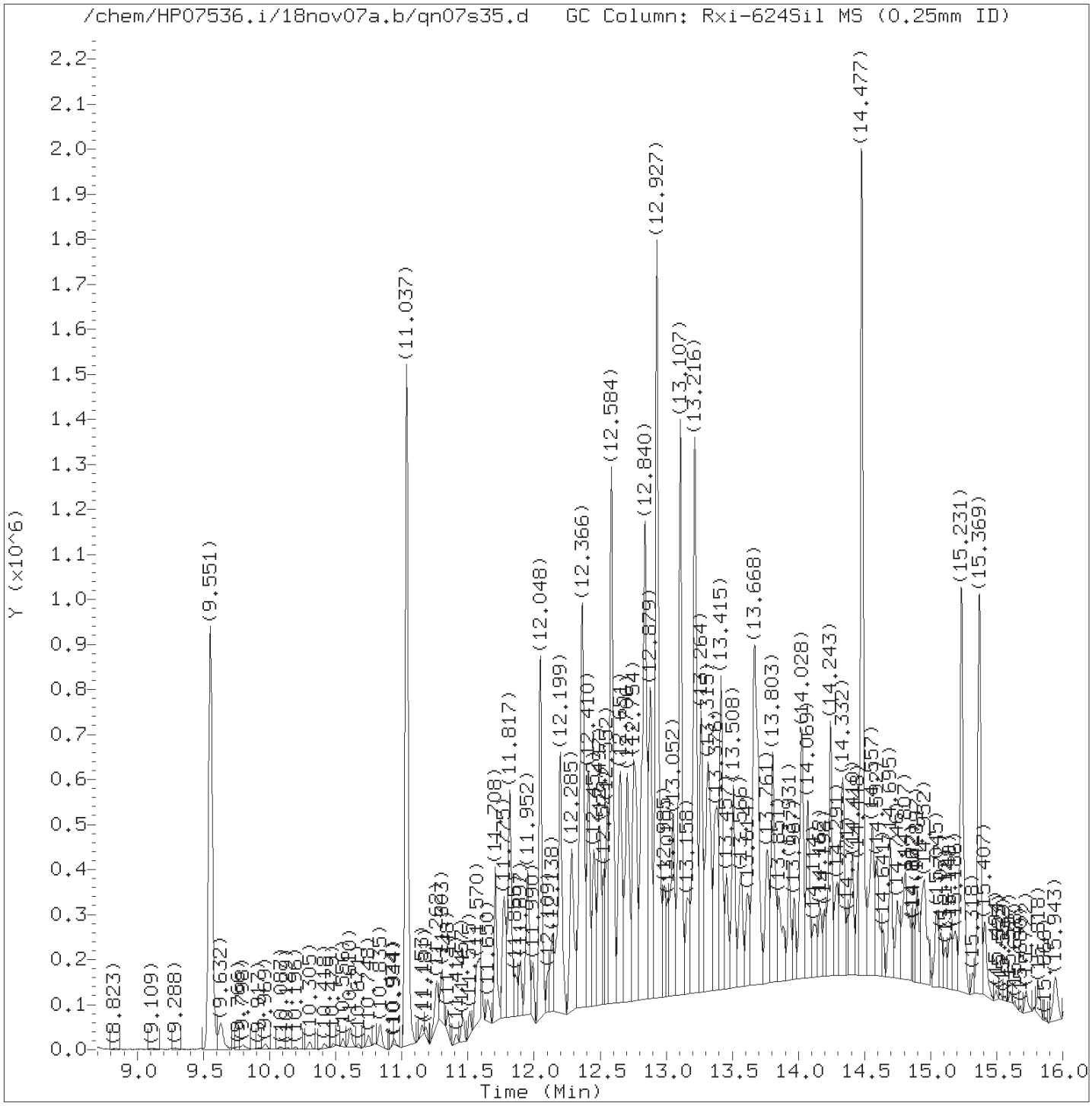
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Carbon Disulfide	(2)	3.660	76	18734	0.877
27) Methyl Acetate	(2)	3.776	43	34688	6.023
30)*t-Butyl alcohol-d10	(1)	4.010	65	148014	250.000
44) 2-Butanone	(1)	5.881	43	9008	2.351
56)$Dibromofluoromethane	(2)	6.615	113	201959	31.346
63)$1,2-Dichloroethane-d4	(2)	7.074	102	57894	34.559
70)*Fluorobenzene	(2)	7.511	96	1184290	50.000
91)$Toluene-d8	(3)	9.551	98	797364	31.718
92) Toluene	(3)	9.632	92	28495	1.781
105)*Chlorobenzene-d5	(3)	11.037	117	920902	50.000
109) Ethylbenzene	(3)	11.153	91	35149	1.280
110) m+p-Xylene	(3)	11.262	106	48374	4.507
111) o-Xylene	(3)	11.602	106	13803	1.292
112) Xylene (Total)	(3)		106	62177	5.798
115) Isopropylbenzene	(3)	11.903	105	20172	0.885
119)$4-Bromofluorobenzene	(3)	12.045	95	251422	31.413
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	418154	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	19035	1.351
147) 1,2-Dichlorobenzene	(4)	13.209	146	17726	1.363

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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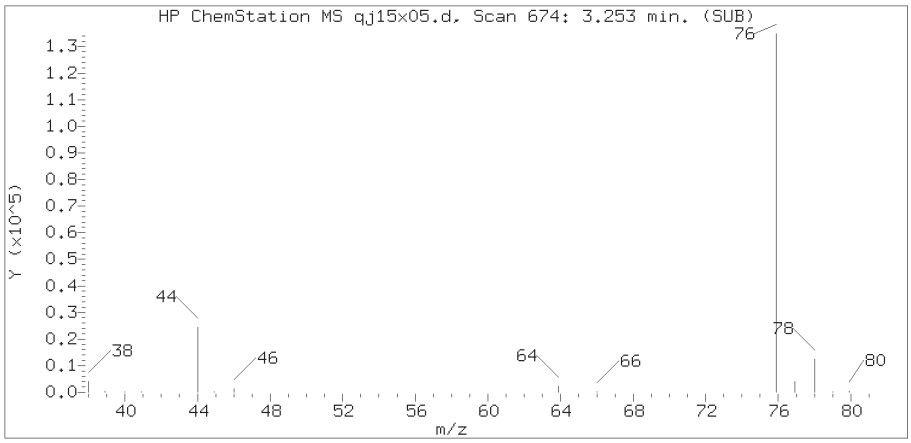
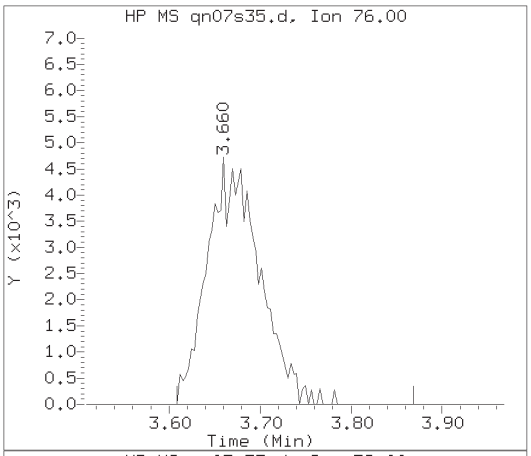
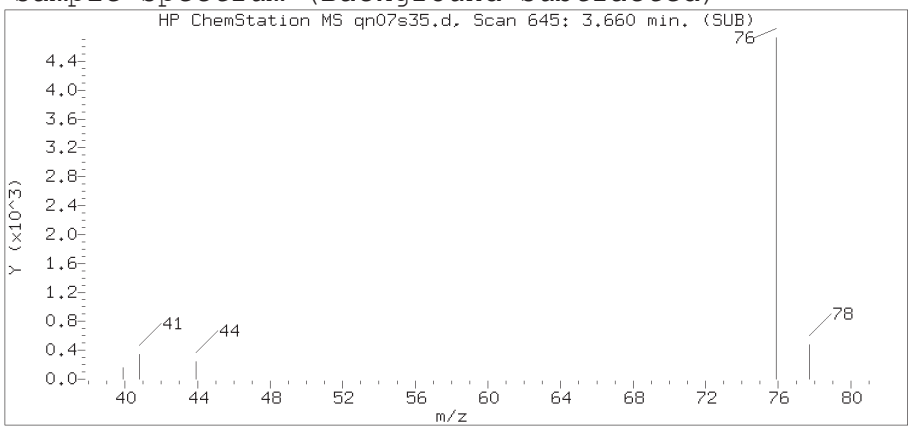
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165

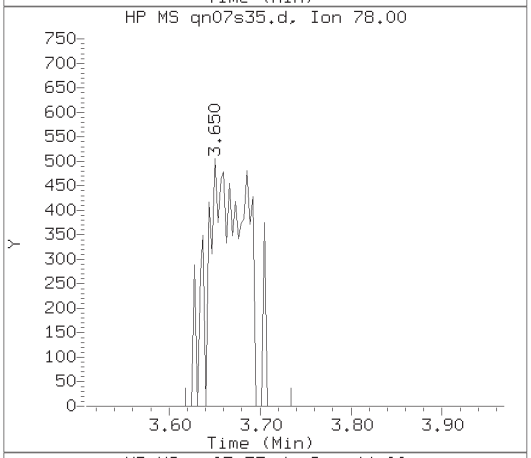
Reference Standard Spectrum for Carbon Disulfide



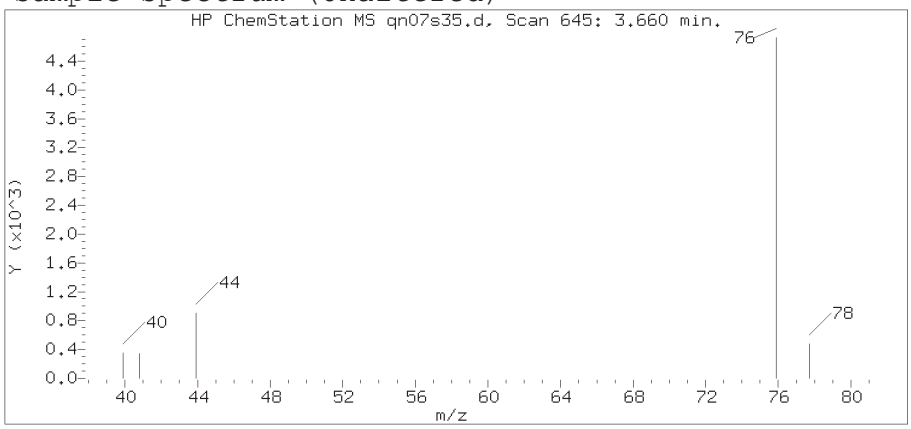


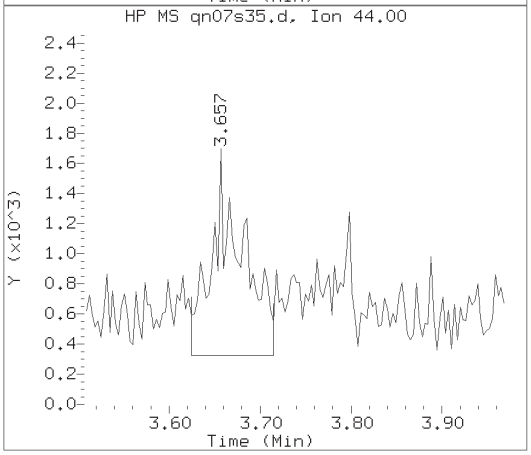
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 645
Retention Time (minutes): 3.660
Relative Retention Time : 0.00101
Quant Ion : 76.00
Area (flag) : 18734
On-Column Amount (ng) : 0.8768

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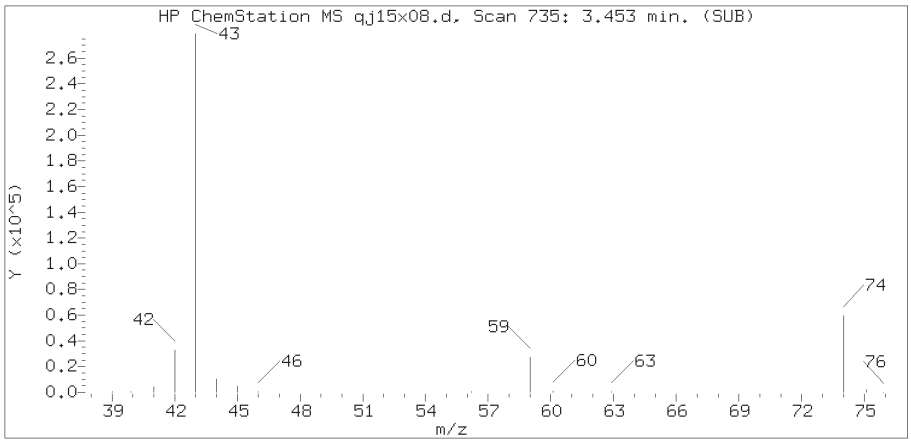
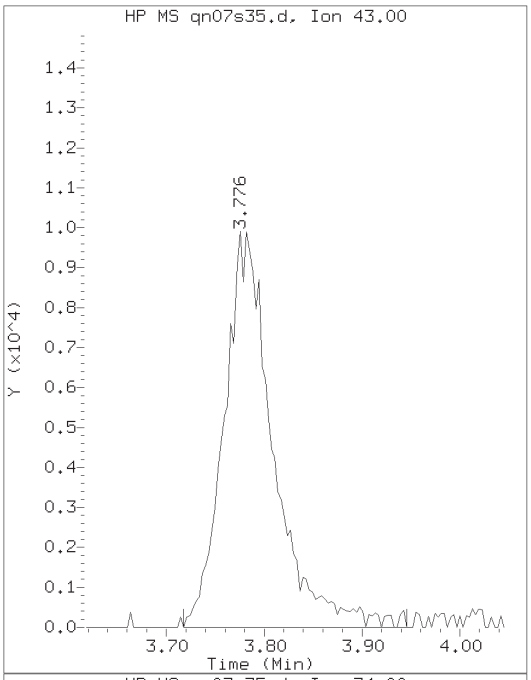
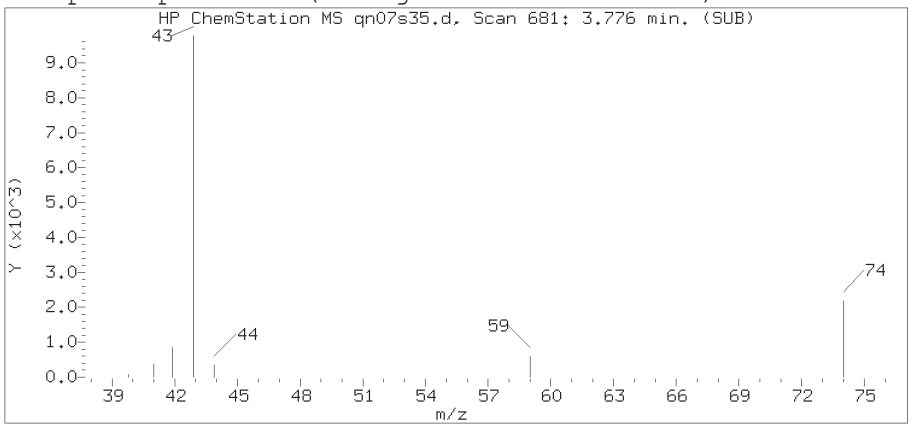
Target 3.5 esignature user ID: pth10165

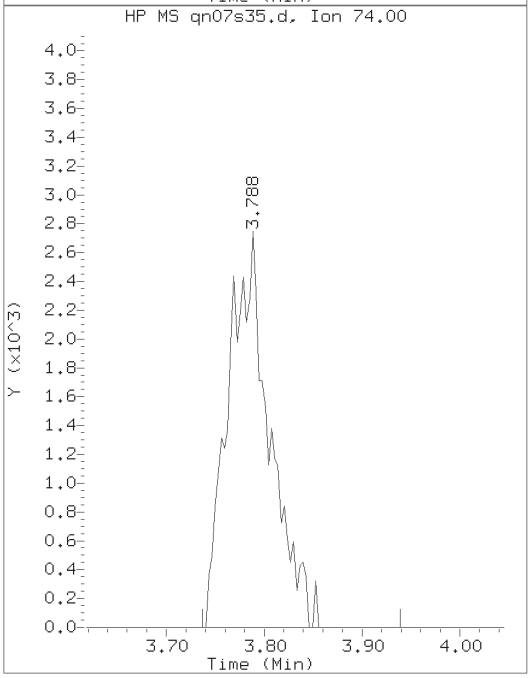
Reference Standard Spectrum for Methyl Acetate



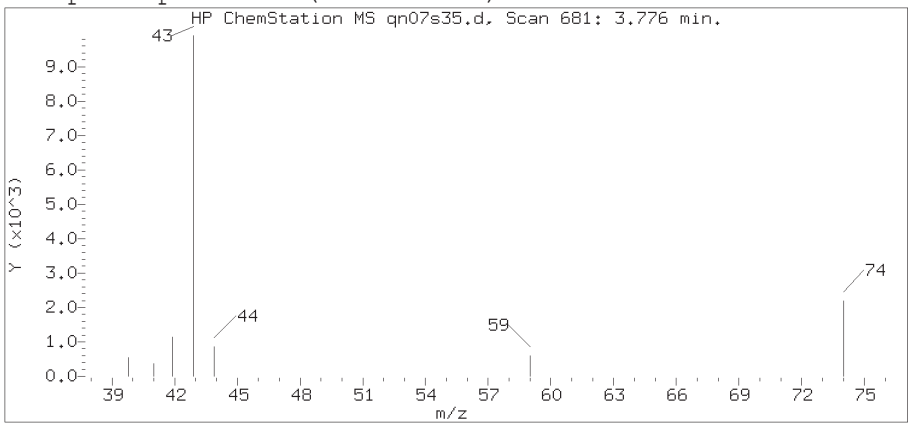


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 681
Retention Time (minutes): 3.776
Relative Retention Time : 0.00016
Quant Ion : 43.00
Area (flag) : 34688
On-Column Amount (ng) : 6.0229

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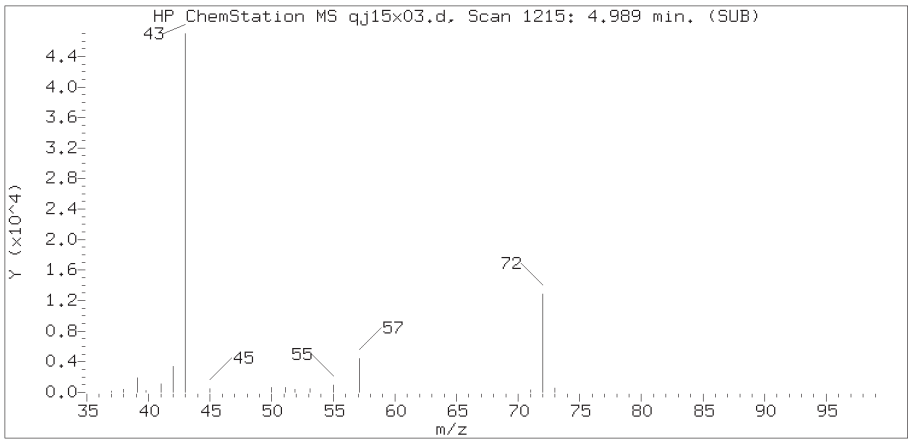
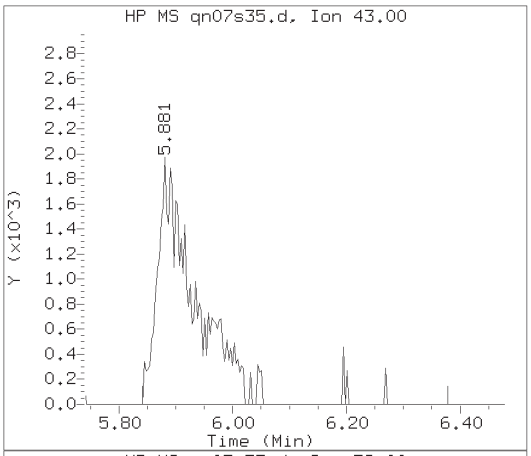
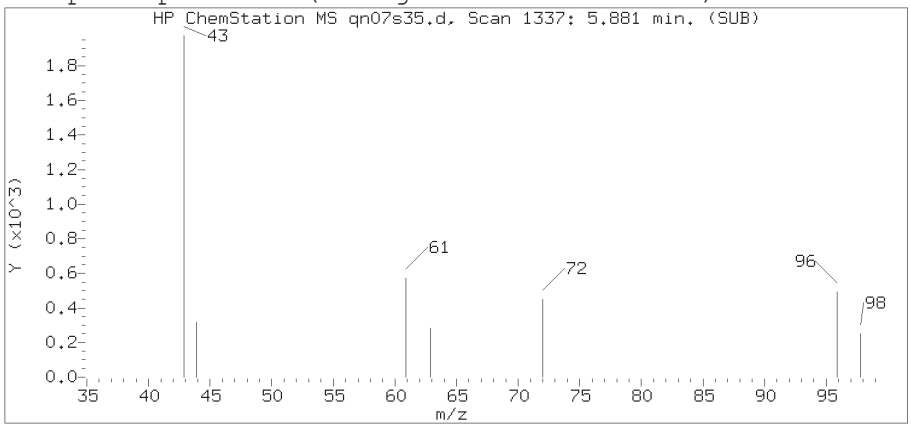
Target 3.5 esignature user ID: pth10165

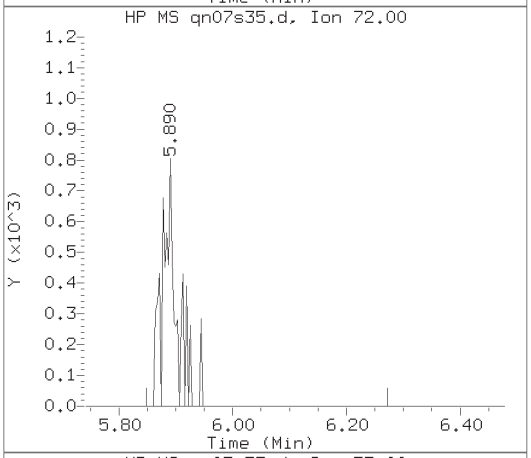
Reference Standard Spectrum for 2-Butanone



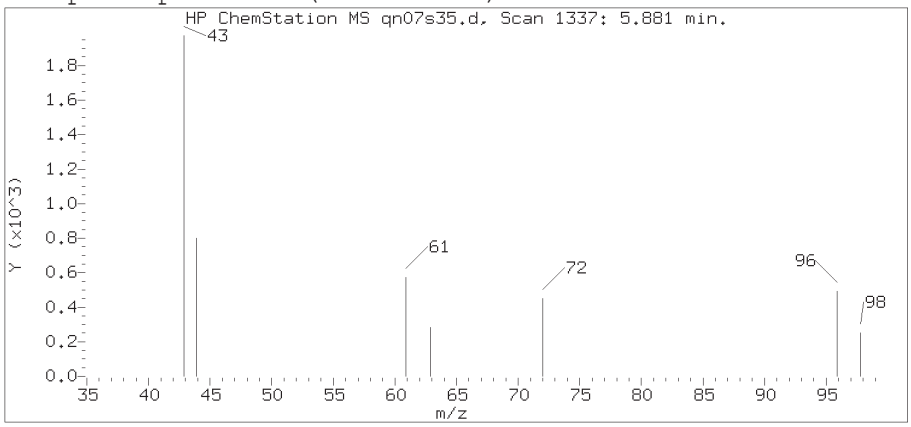


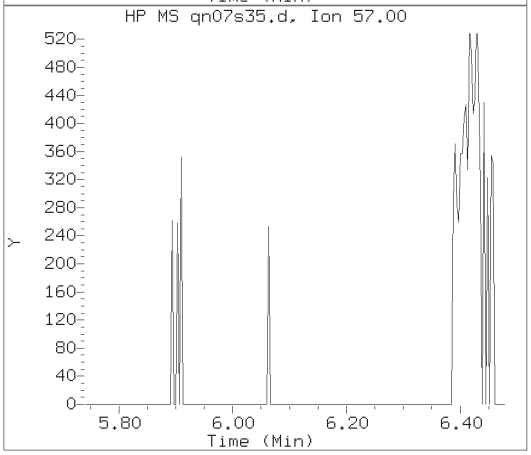
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 44
Compound Name	: 2-Butanone
Scan Number	: 1337
Retention Time (minutes)	: 5.881
Relative Retention Time	: 0.00278
Quant Ion	: 43.00
Area (flag)	: 9008
On-Column Amount (ng)	: 2.3506

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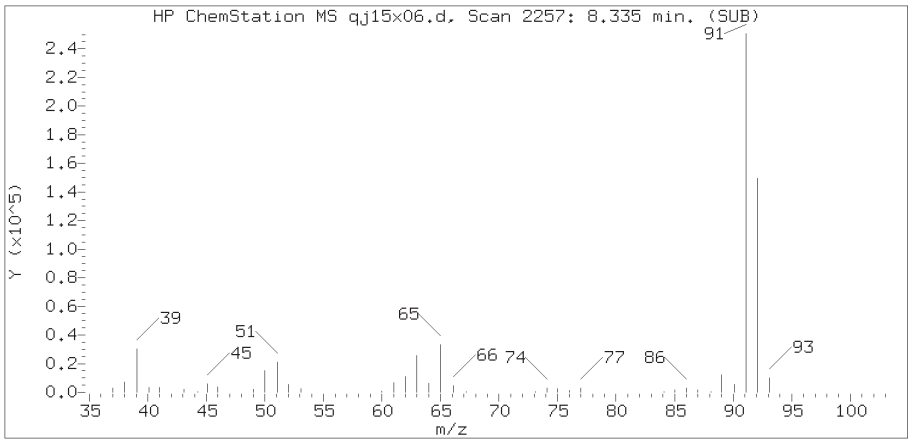
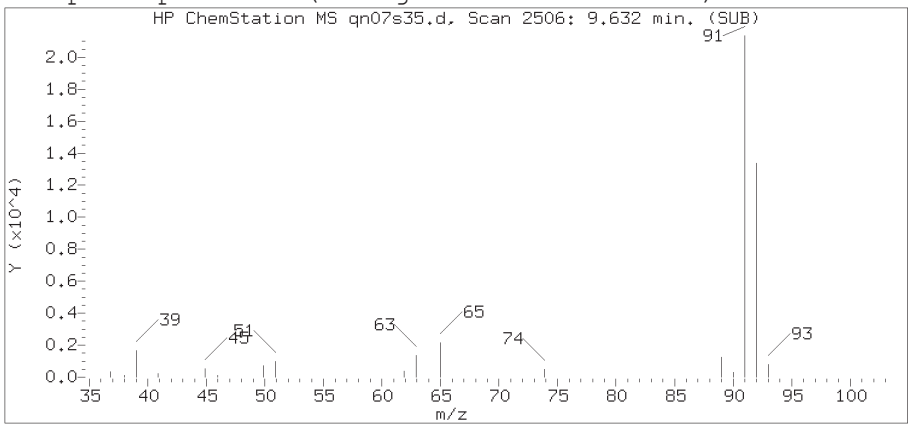
Target 3.5 esignature user ID: pth10165

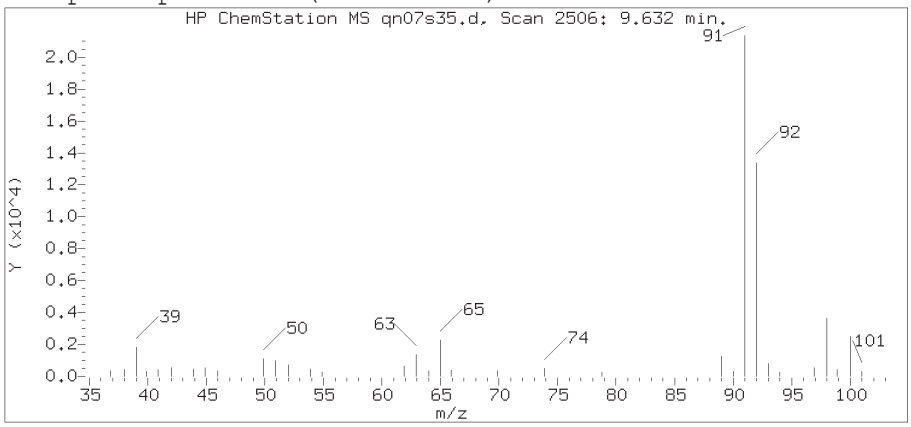
Reference Standard Spectrum for Toluene

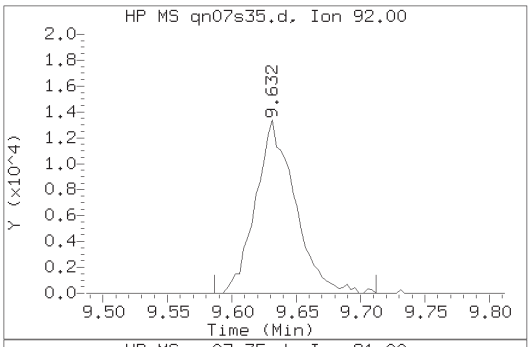


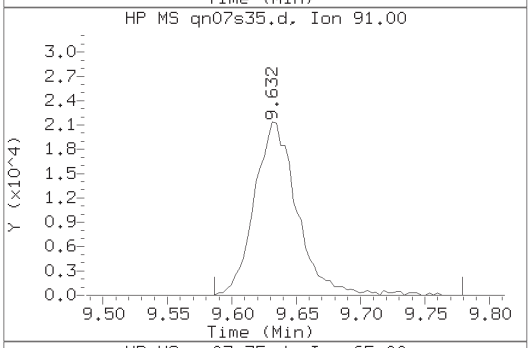
Sample Spectrum (Background Subtracted)

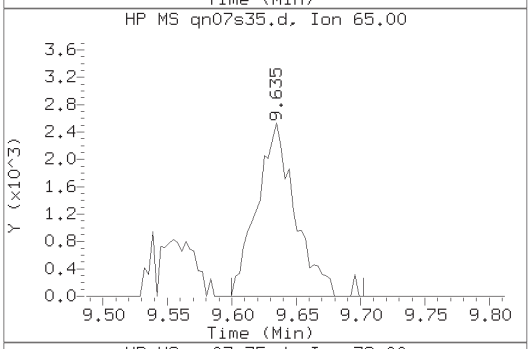


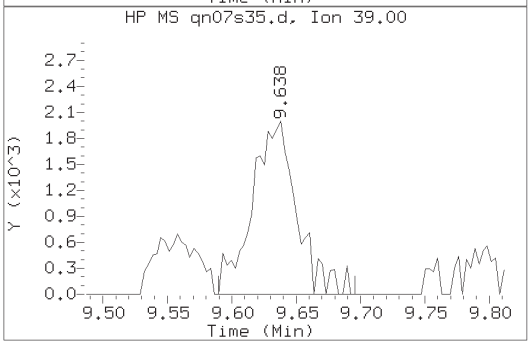
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 92
Compound Name : Toluene
Scan Number : 2506
Retention Time (minutes): 9.632
Relative Retention Time :-0.00030
Quant Ion : 92.00
Area (flag) : 28495
On-Column Amount (ng) : 1.7811

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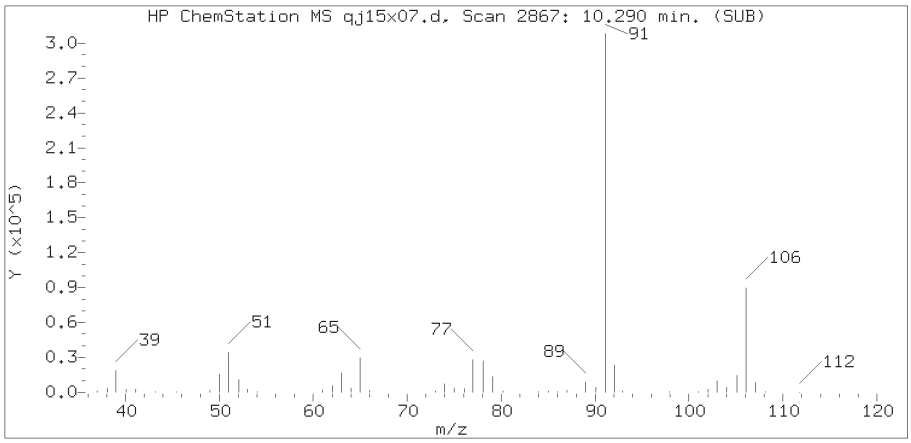
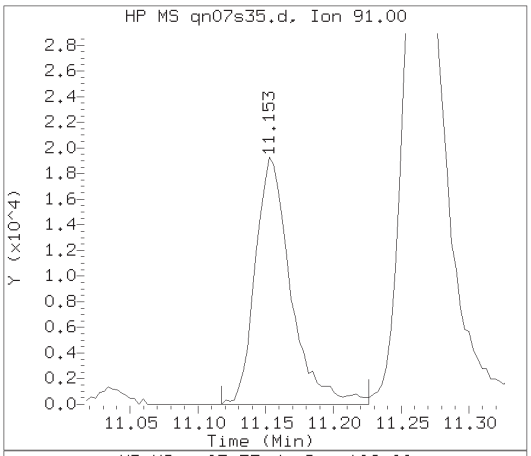
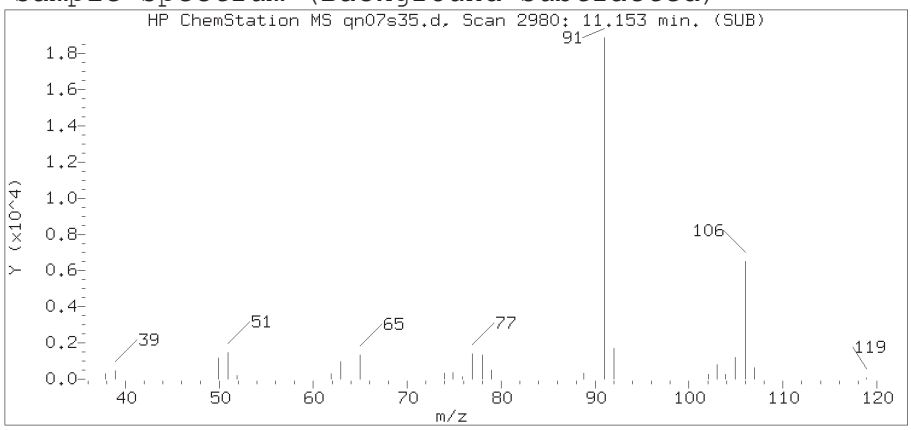
Target 3.5 esignature user ID: pth10165

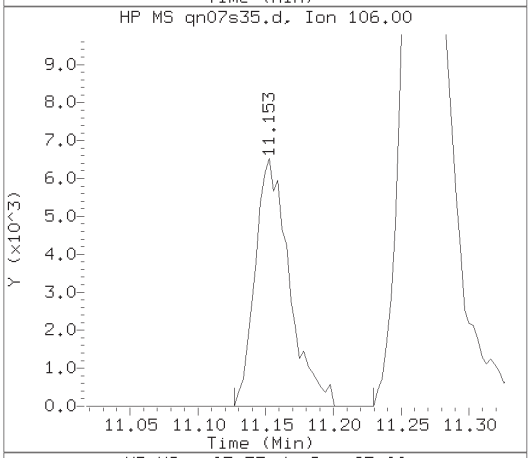
Reference Standard Spectrum for Ethylbenzene



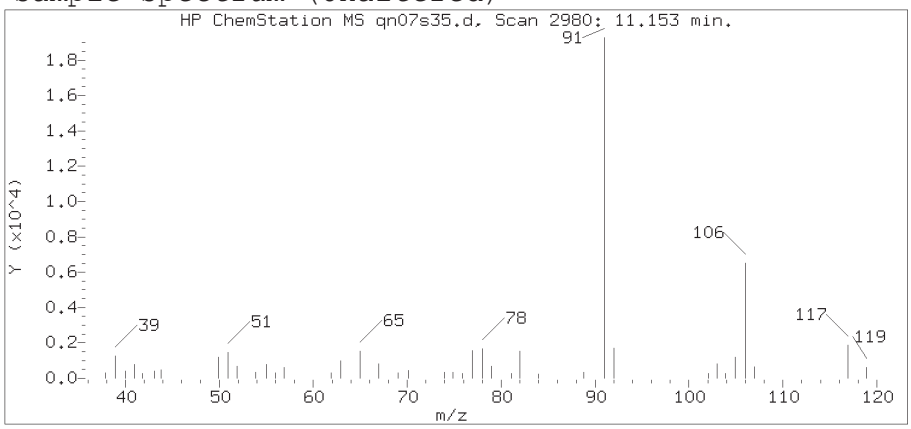


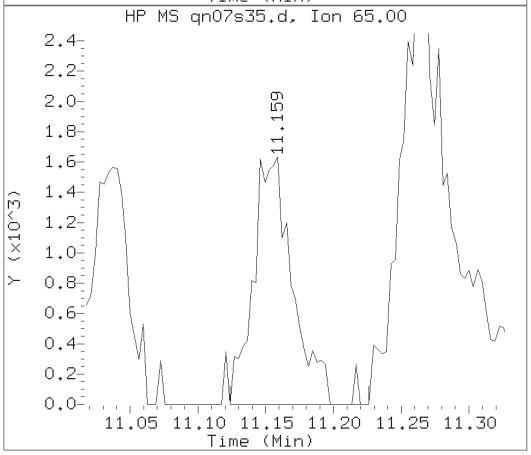
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

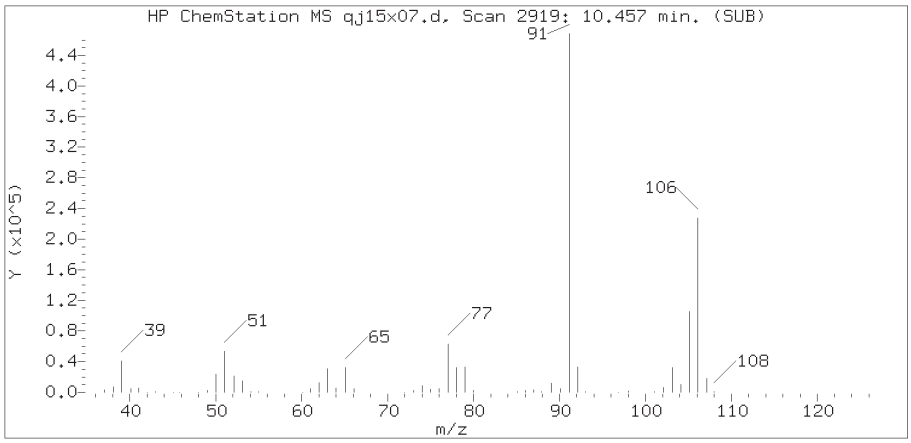
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

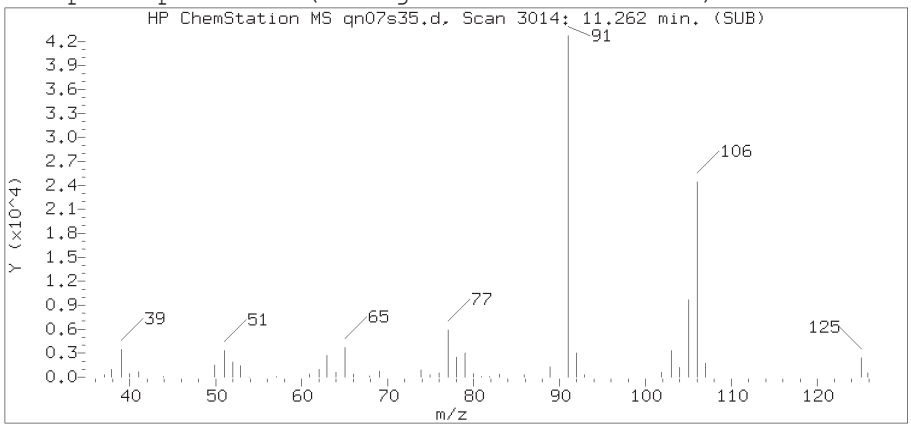
Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2980
Retention Time (minutes): 11.153
Relative Retention Time :-0.00029
Quant Ion : 91.00
Area (flag) : 35149
On-Column Amount (ng) : 1.2801

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165

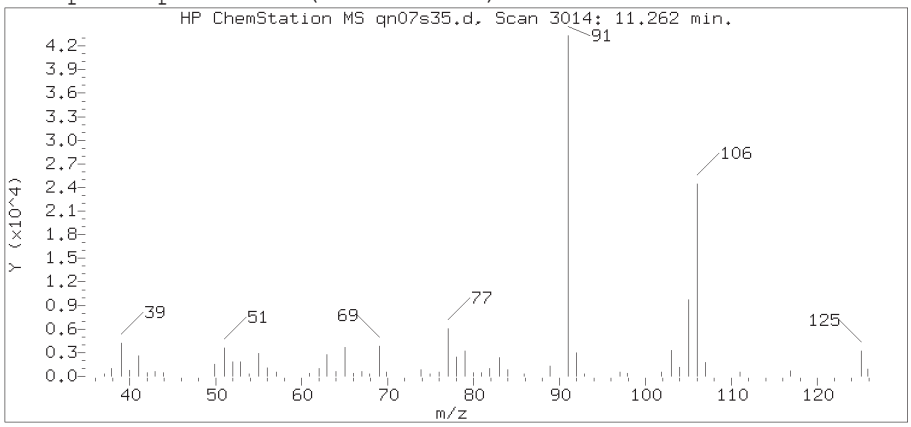
Reference Standard Spectrum for m+p-Xylene

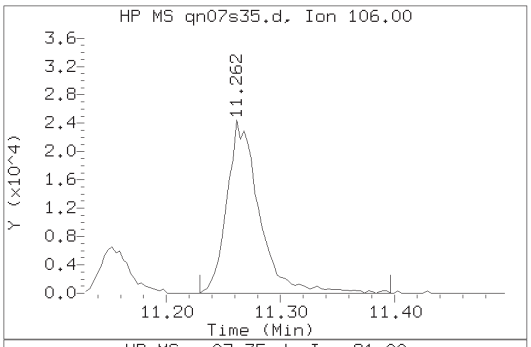


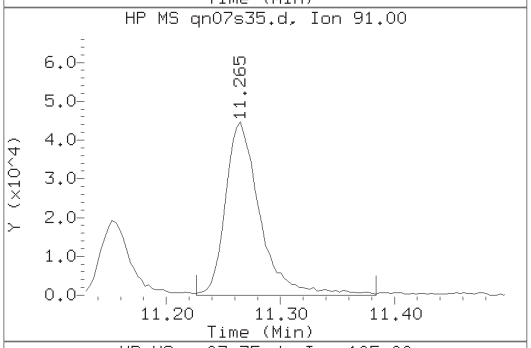
Sample Spectrum (Background Subtracted)

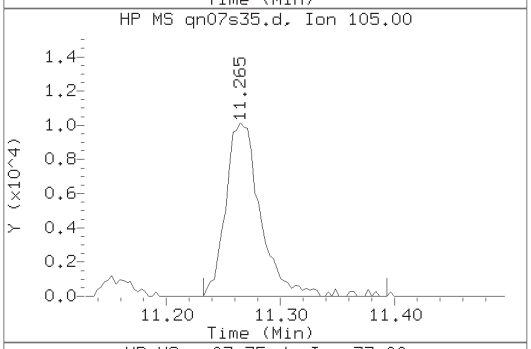


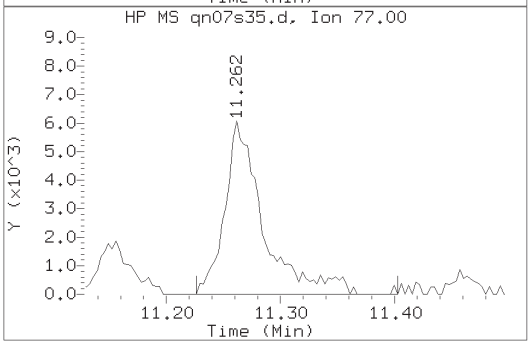
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

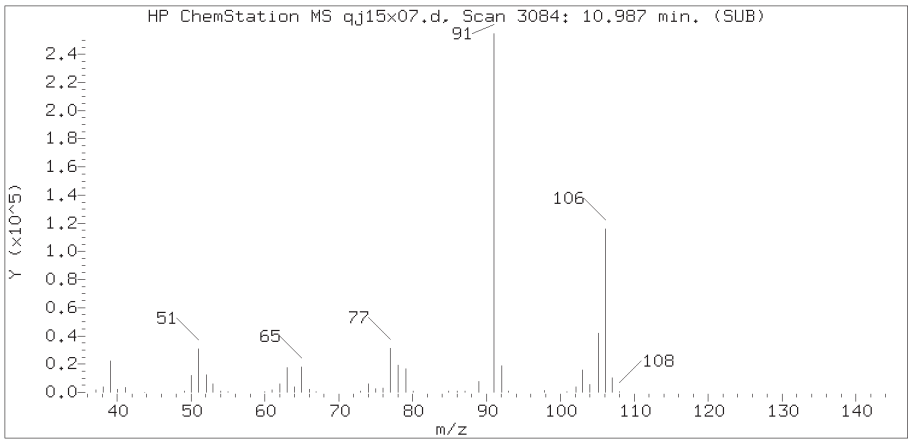
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

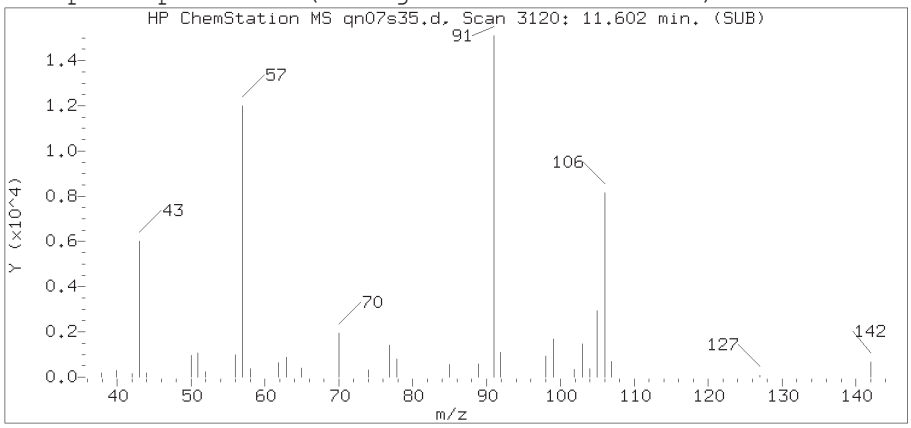
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3014
Retention Time (minutes): 11.262
Relative Retention Time : 0.00029
Quant Ion : 106.00
Area (flag) : 48374
On-Column Amount (ng) : 4.5068

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165

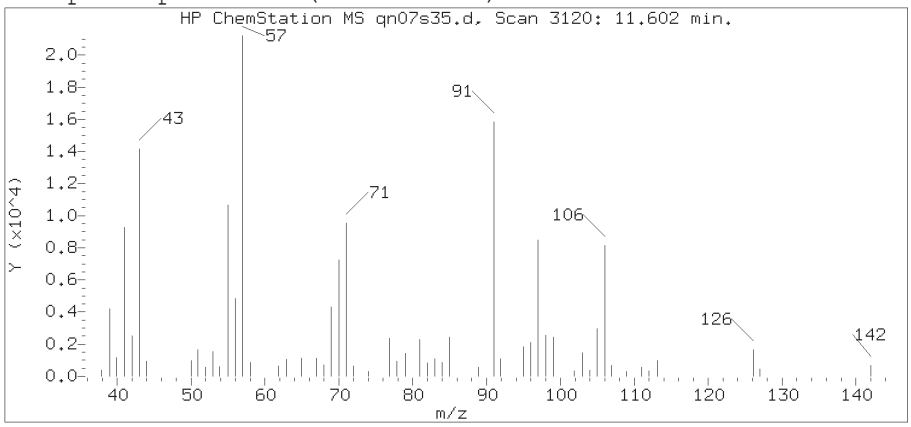
Reference Standard Spectrum for o-Xylene

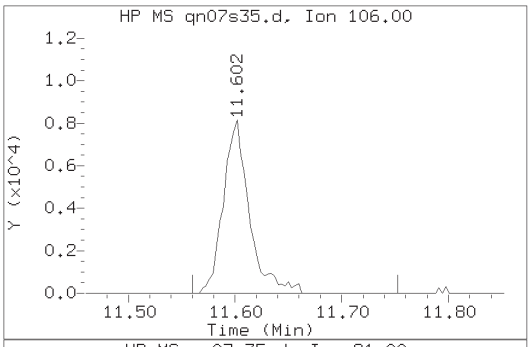


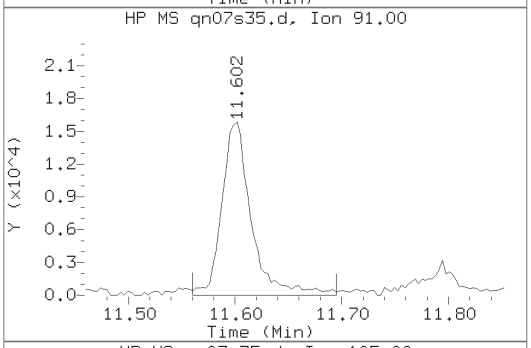
Sample Spectrum (Background Subtracted)

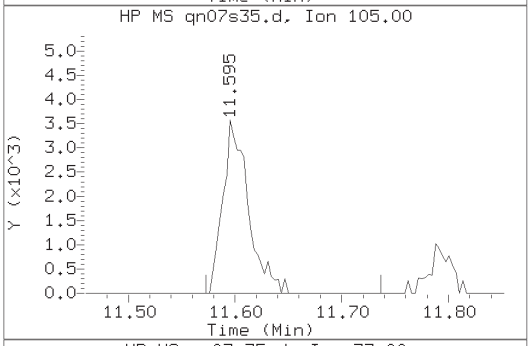


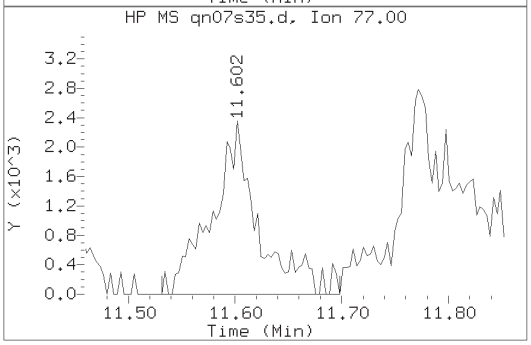
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3120
Retention Time (minutes): 11.602
Relative Retention Time :-0.00058
Quant Ion : 106.00
Area (flag) : 13803
On-Column Amount (ng) : 1.2917

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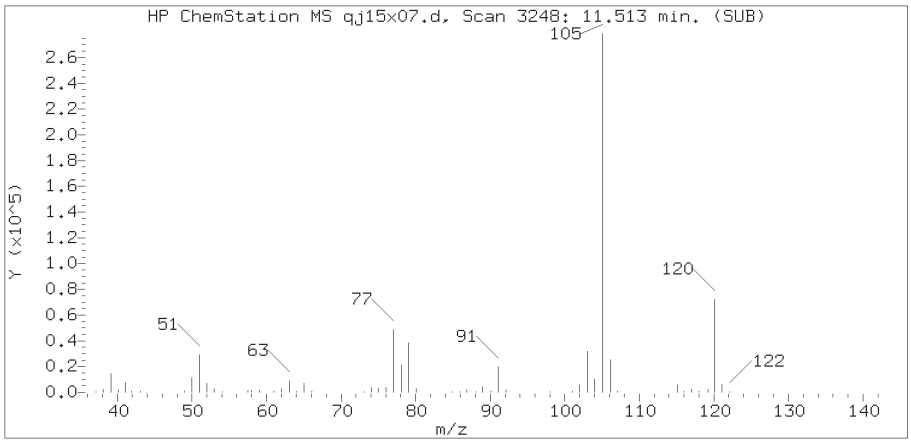
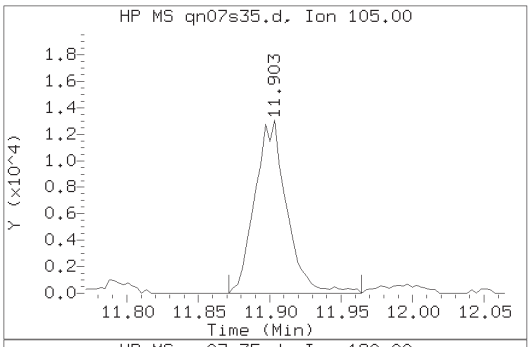
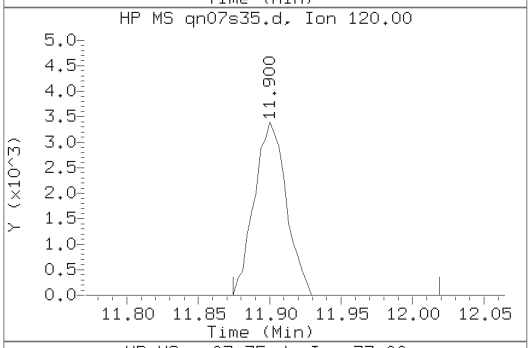
Target 3.5 esignature user ID: pth10165

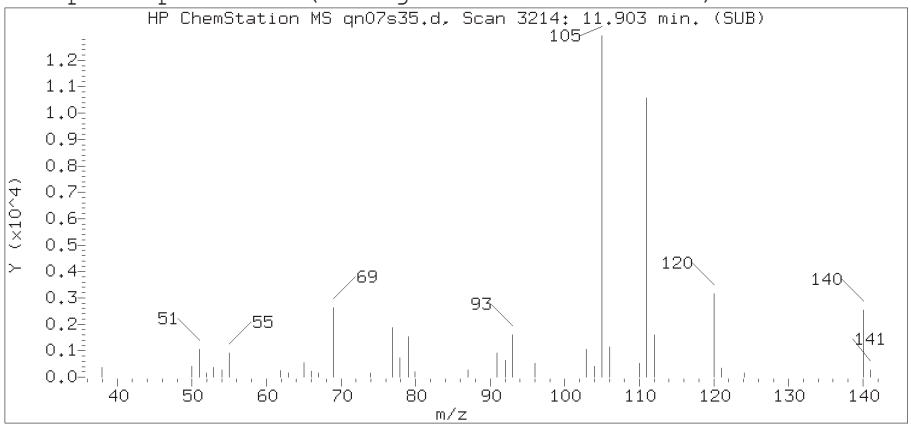
Reference Standard Spectrum for Isopropylbenzene

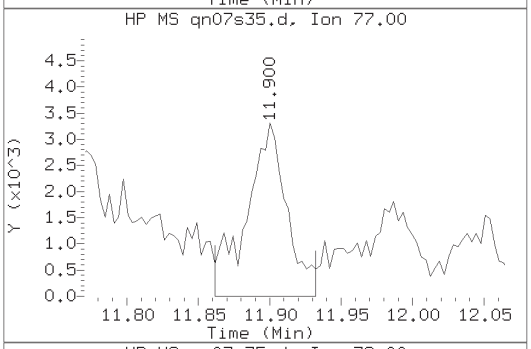




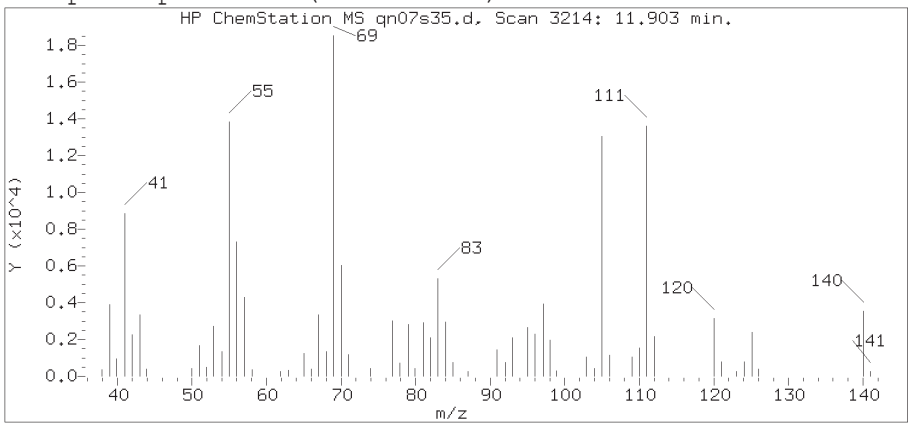


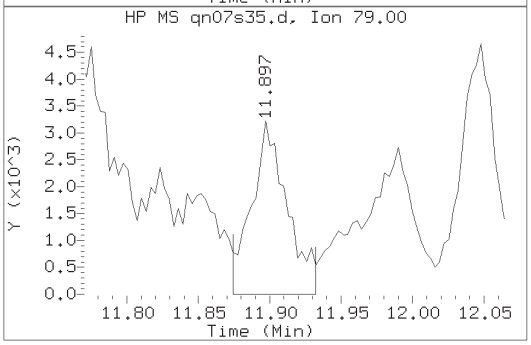
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3214
Retention Time (minutes): 11.903
Relative Retention Time :-0.00058
Quant Ion : 105.00
Area (flag) : 20172
On-Column Amount (ng) : 0.8846

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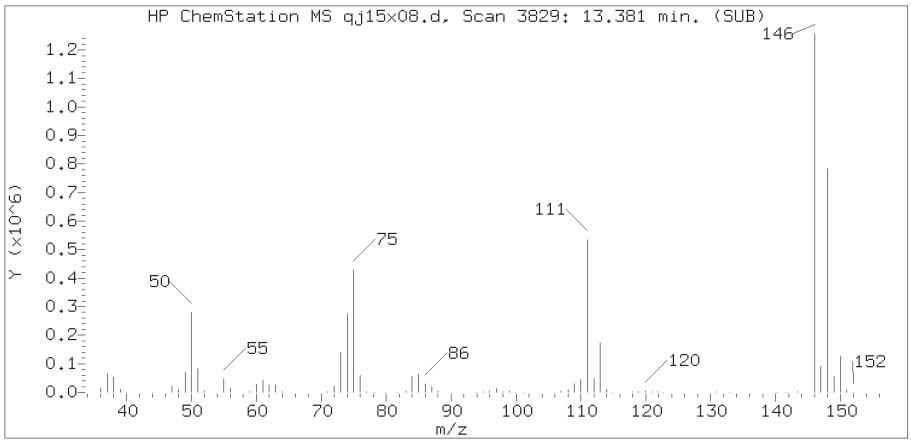
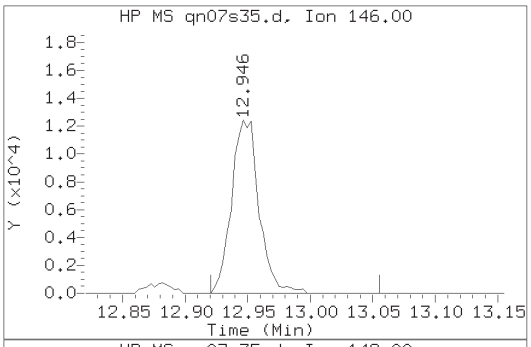
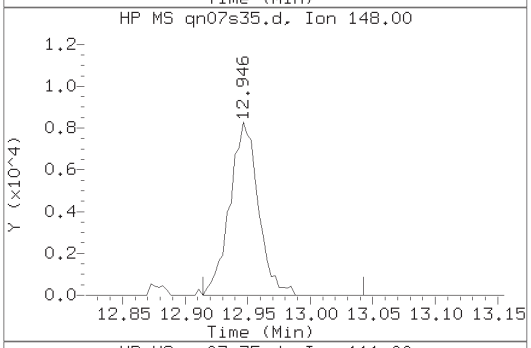
Target 3.5 esignature user ID: pth10165

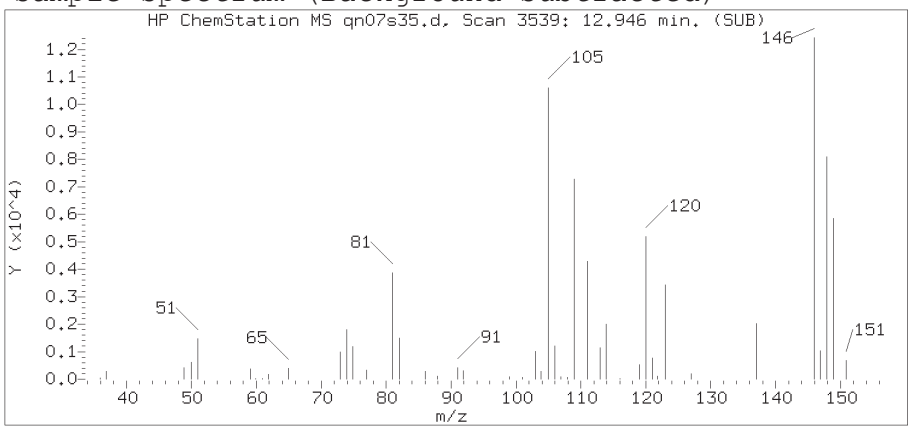
Reference Standard Spectrum for 1,4-Dichlorobenzene

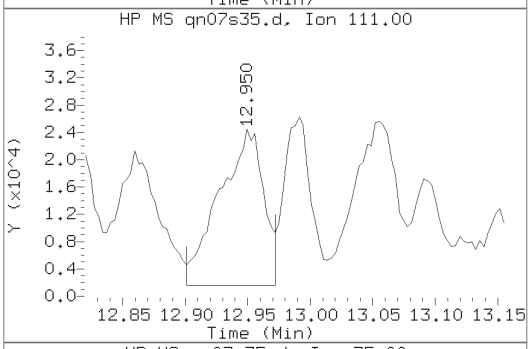




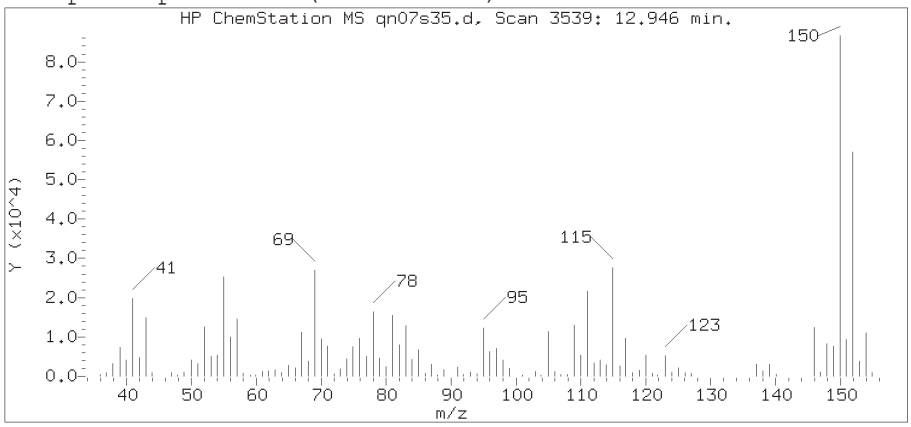


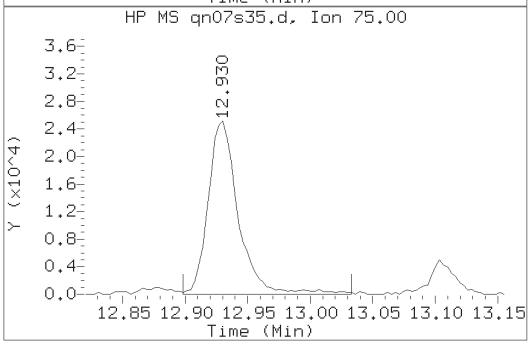
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.946
Relative Retention Time : 0.00025
Quant Ion : 146.00
Area (flag) : 19035
On-Column Amount (ng) : 1.3512

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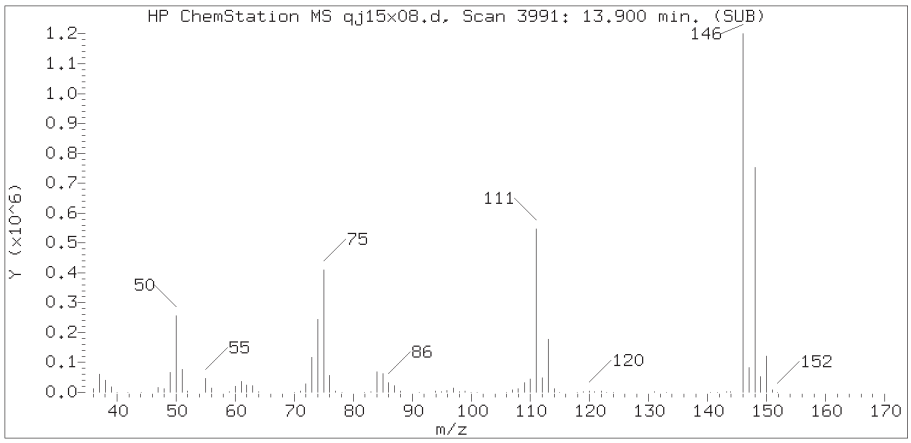
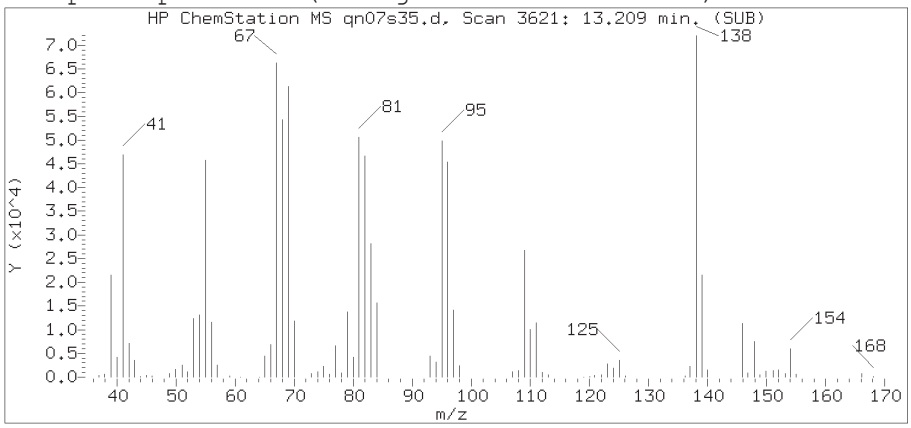
Target 3.5 esignature user ID: pth10165

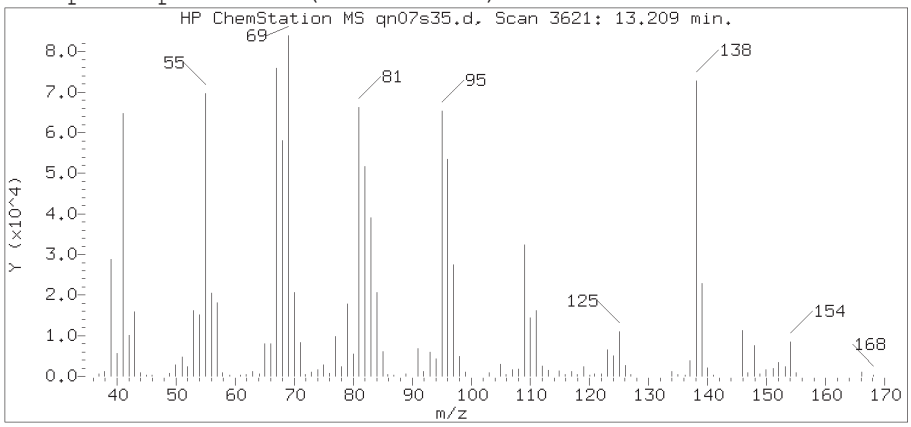
Reference Standard Spectrum for 1,2-Dichlorobenzene

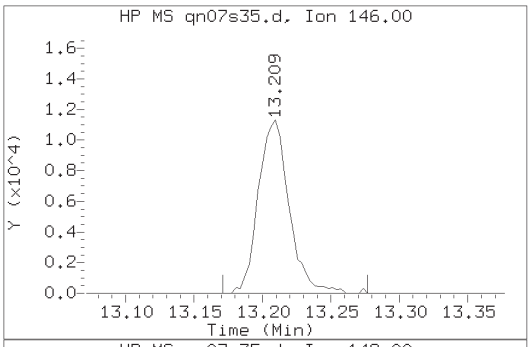


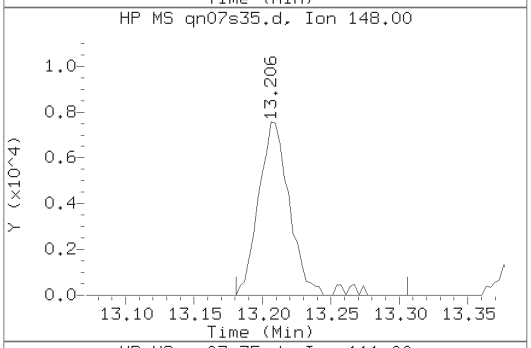
Sample Spectrum (Background Subtracted)

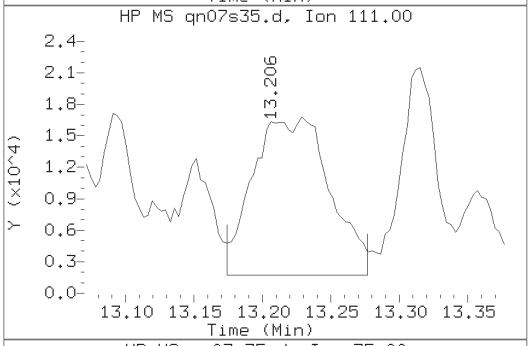


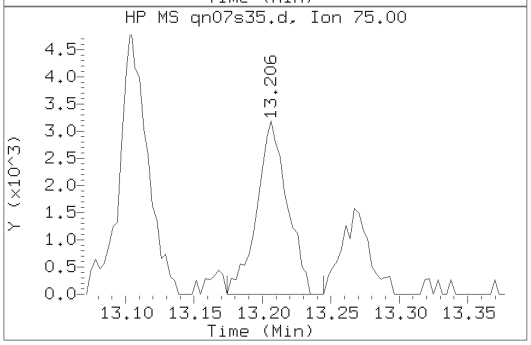
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s35.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:22 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:49 pth10165

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3621
Retention Time (minutes): 13.209
Relative Retention Time :-0.00024
Quant Ion : 146.00
Area (flag) : 17726
On-Column Amount (ng) : 1.3634

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: pth10165

12T03RE

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

9872061RE

Data file: /chem/HP07536.i/18nov08a.b/qn08s34.d Injection date and time: **08-NOV-2018 11:49**
Data file Sample Info. Line: 12T03RE;9872061RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **42.81**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.84 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.991(0.013)	747	65	144799 (8)	250.00	
70) Fluorobenzene	7.508(0.000)	1843	96	1162261 (6)	50.00	
105) Chlorobenzene-d5	11.034(0.000)	2942	117	906494 (5)	50.00	
140) 1,4-Dichlorobenzene-d4	12.927(0.000)	3532	152	398594 (4)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.612(0.000)	113	195376	30.899	62%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.074(0.000)	102	57178	34.778	70%	*	71 - 136
91) Toluene-d8	(3)	9.548(0.000)	98	774814	31.311	63%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.045(0.000)	95	233622	29.653	59%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)			Not Detected					26	210
4) Chloromethane	(2)			Not Detected					26	210
5) Vinyl Chloride	(2)			Not Detected					26	210
9) Bromomethane	(2)			Not Detected					30	210
10) Chloroethane	(2)			Not Detected					43	210
13) Trichlorofluoromethane	(2)			Not Detected					30	210
19) 1,1-Dichloroethene	(2)			Not Detected					21	210
20) Acetone	(1)			Not Detected					260	860
22) Freon 113	(2)			Not Detected					26	430
25) Carbon Disulfide	(2)	3.657(0.000)	76	18566	0.885	37.90		J	26	210
27) Methyl Acetate	(2)	3.772(0.000)	43	35200	6.228	266.59			43	210
31) Methylene Chloride	(2)			Not Detected					86	210
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					21	210
35) trans-1,2-Dichloroethene	(2)			Not Detected					21	210
40) 1,1-Dichloroethane	(2)			Not Detected					21	210
44) 2-Butanone	(1)			Not Detected					43	430
45) cis-1,2-Dichloroethene	(2)			Not Detected					21	210
54) Chloroform	(2)			Not Detected					26	210
57) 1,1,1-Trichloroethane	(2)			Not Detected					26	210
58) Cyclohexane	(2)			Not Detected					21	210
61) Carbon Tetrachloride	(2)			Not Detected					21	210
64) Benzene	(2)			Not Detected					21	210
67) 1,2-Dichloroethane	(2)			Not Detected					26	210
75) Trichloroethene	(2)			Not Detected					21	210
76) Methylcyclohexane	(2)			Not Detected					26	210
77) 1,2-Dichloropropane	(2)			Not Detected					21	210
84) Bromodichloromethane	(2)			Not Detected					17	210

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08s34.d Injection date and time: **08-NOV-2018 11:49**
Data file Sample Info. Line: 12T03RE;9872061RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **42.81**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.84 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

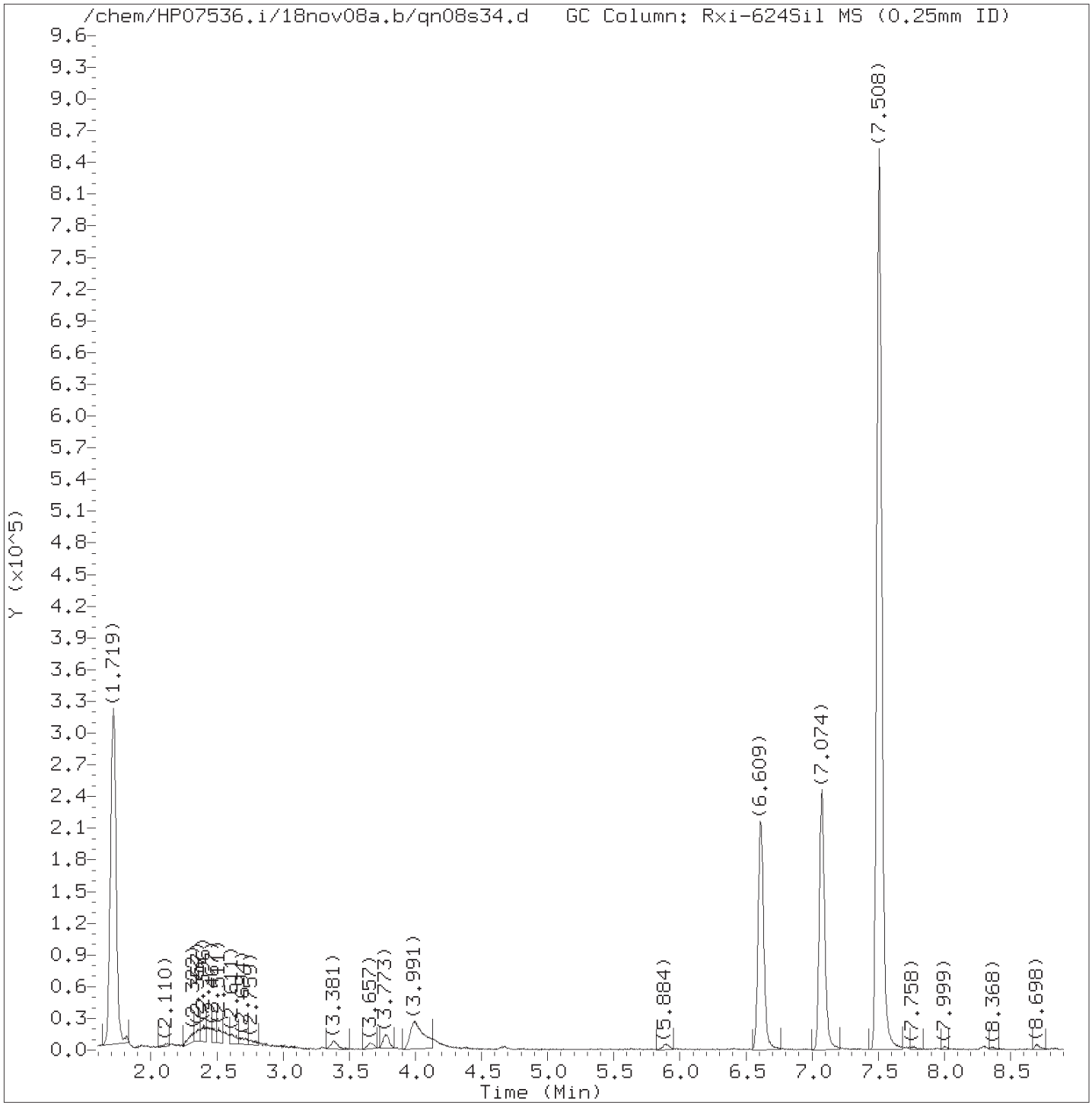
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
89) cis-1,3-Dichloropropene	(2)			Not Detected					17	210
90) 4-Methyl-2-pentanone	(2)			Not Detected					43	430
92) Toluene	(3)	9.635(-0.000)	92	27655	1.756	75.17		J	26	210
93) trans-1,3-Dichloropropene	(3)			Not Detected					13	210
96) 1,1,2-Trichloroethane	(3)			Not Detected					21	210
98) Tetrachloroethene	(3)			Not Detected					21	210
101) 2-Hexanone	(3)			Not Detected					43	430
103) Dibromochloromethane	(3)			Not Detected					17	210
104) 1,2-Dibromoethane	(3)			Not Detected					17	210
107) Chlorobenzene	(3)			Not Detected					21	210
109) Ethylbenzene	(3)	11.156(-0.000)	91	32545	1.204	51.55		J	17	210
110) m+p-Xylene	(3)	11.262(0.000)	106	45487	4.305	184.30		J	43	210
111) o-Xylene	(3)	11.596(-0.000)	106	12679	1.205	51.60		J	17	210
112) Xylene (Total)	(3)		106	58166	5.511	235.90			43	210
113) Styrene	(3)			Not Detected					13	210
114) Bromoform	(3)			Not Detected					210	430
115) Isopropylbenzene	(3)	11.900(-0.000)	105	17707M	0.789	33.77		J	17	210
118) Cyclohexanone	(1)			Not Detected					1100	11000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					17	210
138) 1,3-Dichlorobenzene	(4)			Not Detected					21	210
141) 1,4-Dichlorobenzene	(4)	12.946(-0.000)	146	18071	1.346	57.61		J	17	210
147) 1,2-Dichlorobenzene	(4)	13.203(0.000)	146	17759	1.433	61.34		J	21	210
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					17	210
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					210	430

M = Compound was manually integrated.

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 12:08. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

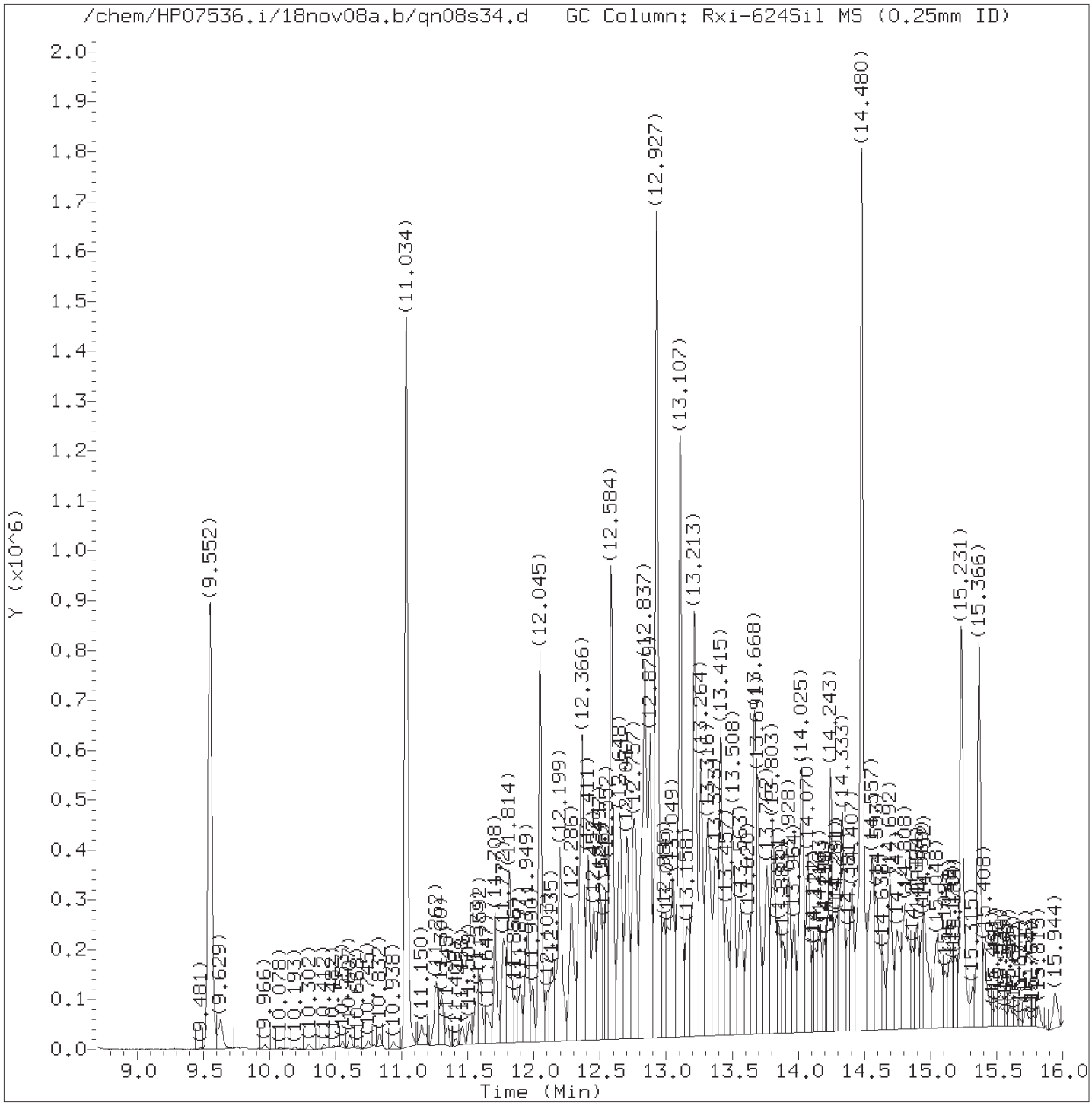
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Carbon Disulfide	(2)	3.657	76	18566	0.885
27) Methyl Acetate	(2)	3.773	43	35200	6.228
30)*t-Butyl alcohol-d10	(1)	3.991	65	144799	250.000
56)$Dibromofluoromethane	(2)	6.612	113	195376	30.899
63)$1,2-Dichloroethane-d4	(2)	7.074	102	57178	34.778
70)*Fluorobenzene	(2)	7.508	96	1162261	50.000
91)$Toluene-d8	(3)	9.548	98	774814	31.311
92) Toluene	(3)	9.635	92	27655	1.756
105)*Chlorobenzene-d5	(3)	11.034	117	906494	50.000
109) Ethylbenzene	(3)	11.156	91	32545	1.204
110) m+p-Xylene	(3)	11.262	106	45487	4.305
111) o-Xylene	(3)	11.596	106	12679	1.205
112) Xylene (Total)	(3)		106	58166	5.511
115) Isopropylbenzene	(3)	11.900	105	17707M	0.789
119)$4-Bromofluorobenzene	(3)	12.045	95	233622	29.653
140)*1,4-Dichlorobenzene-d4	(4)	12.927	152	398594	50.000
141) 1,4-Dichlorobenzene	(4)	12.947	146	18071	1.346
147) 1,2-Dichlorobenzene	(4)	13.203	146	17759	1.433

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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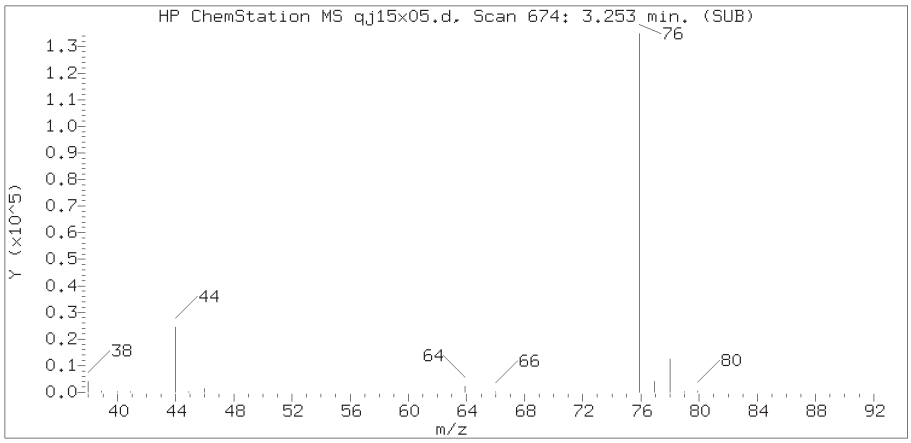
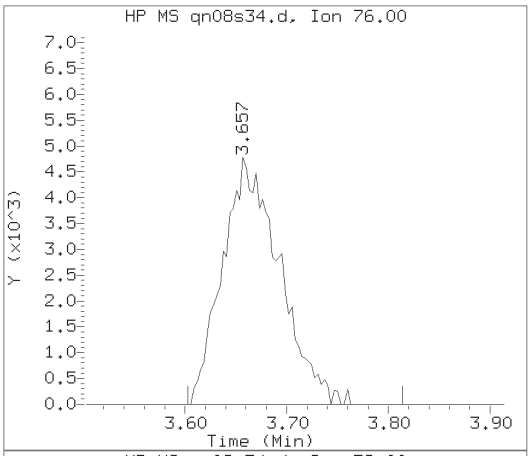
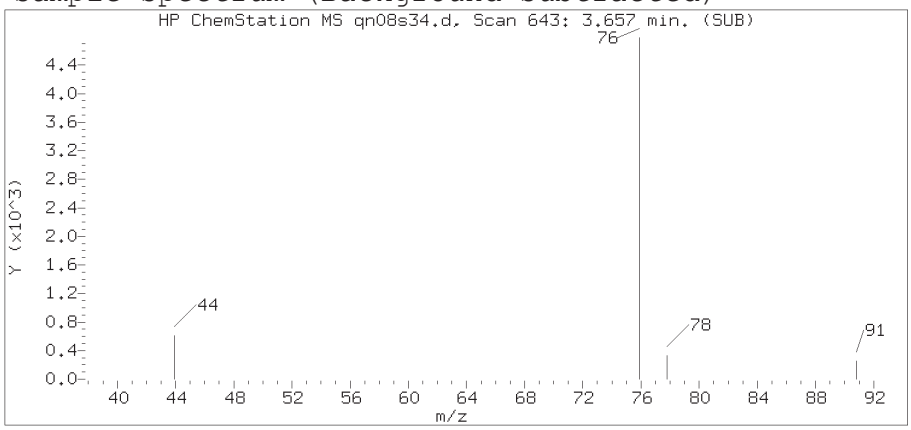
on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

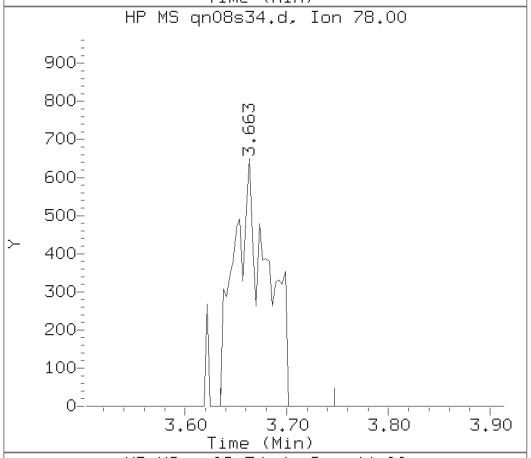
Reference Standard Spectrum for Carbon Disulfide



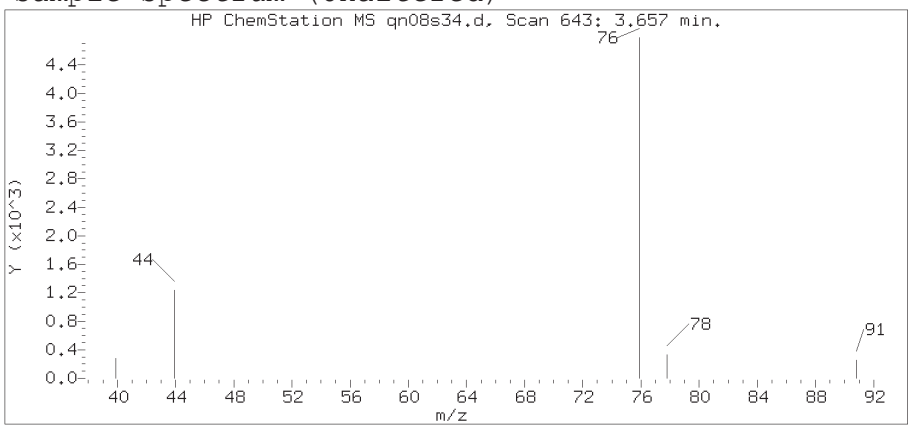


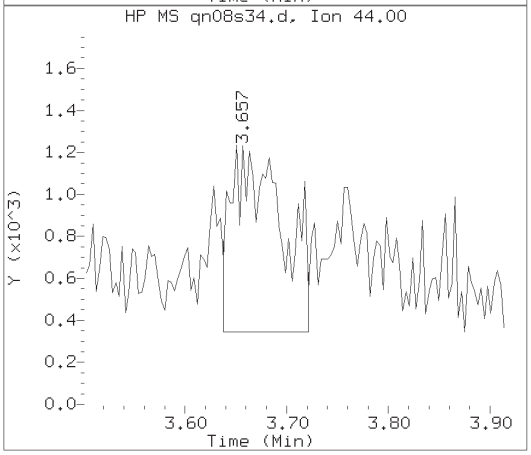
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 643
Retention Time (minutes): 3.657
Relative Retention Time : 0.00087
Quant Ion : 76.00
Area (flag) : 18566
On-Column Amount (ng) : 0.8854

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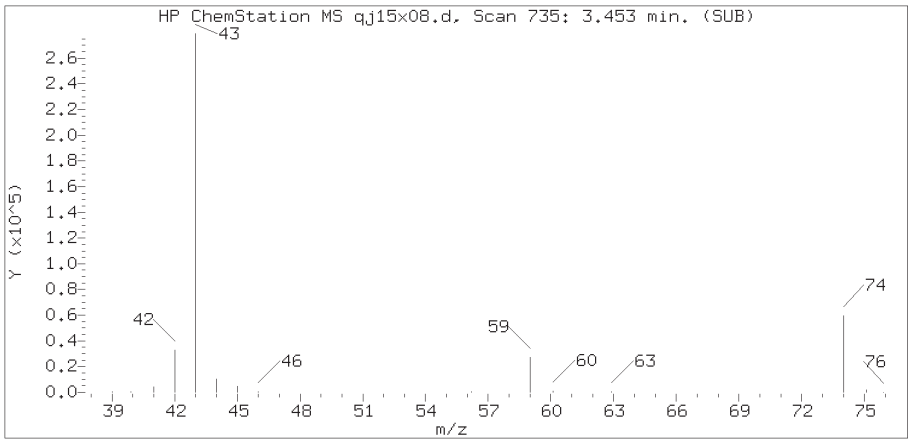
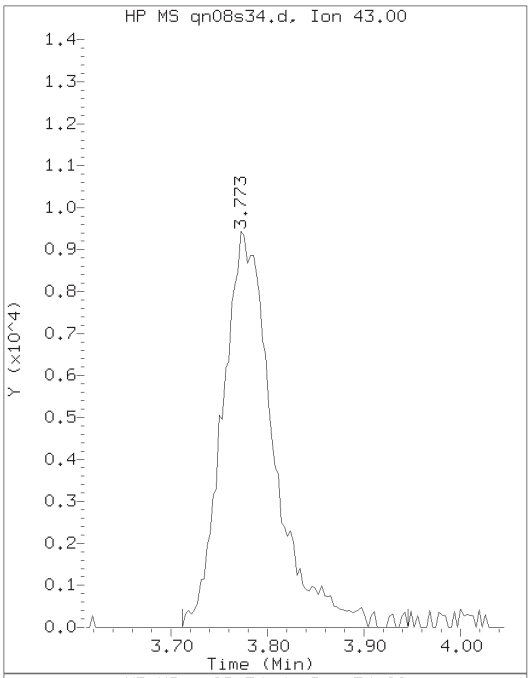
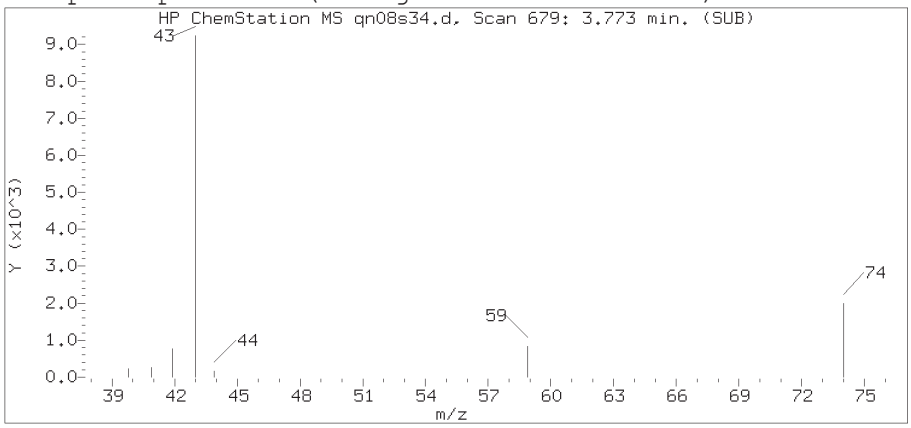
Target 3.5 esignature user ID: scn10072

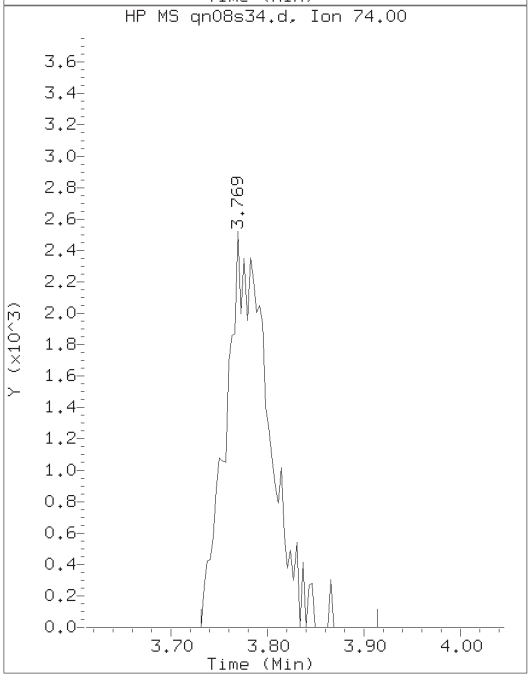
Reference Standard Spectrum for Methyl Acetate



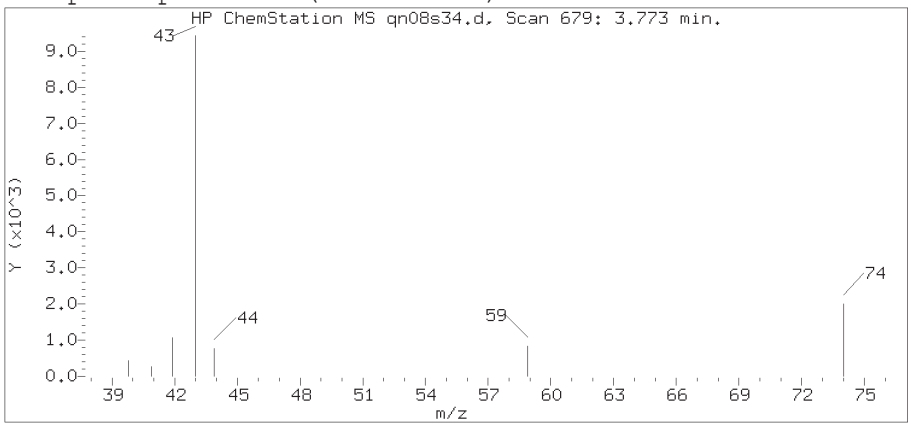


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 679
Retention Time (minutes): 3.773
Relative Retention Time : 0.00001
Quant Ion : 43.00
Area (flag) : 35200
On-Column Amount (ng) : 6.2276

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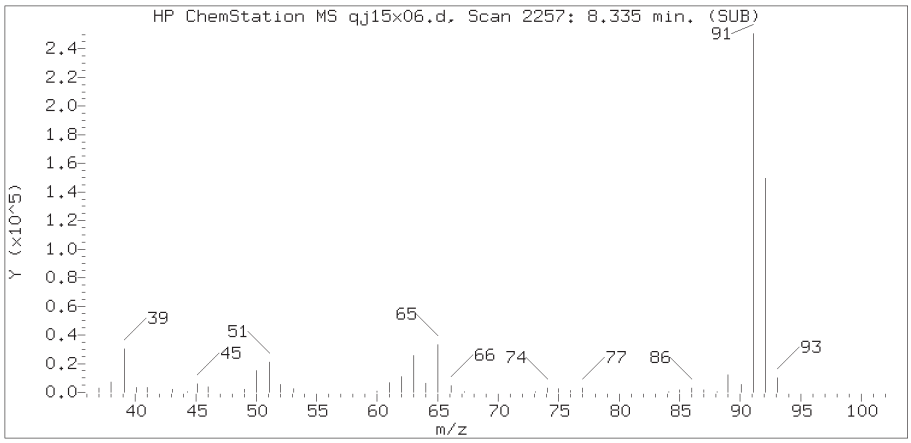
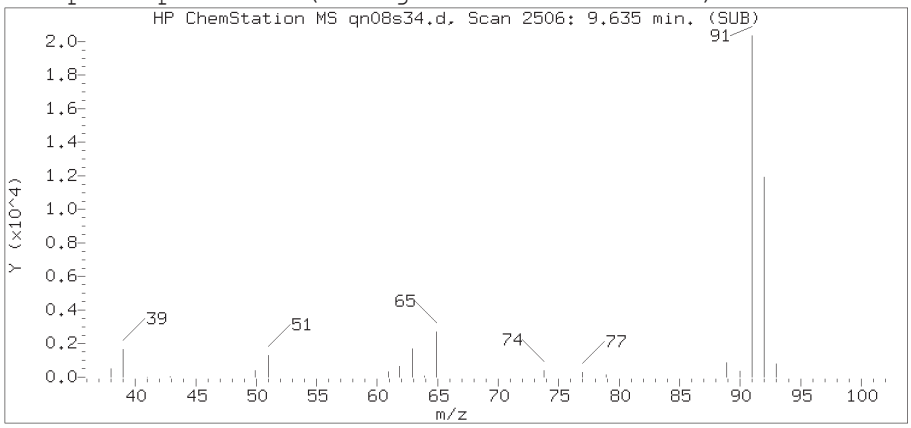
Target 3.5 esignature user ID: scn10072

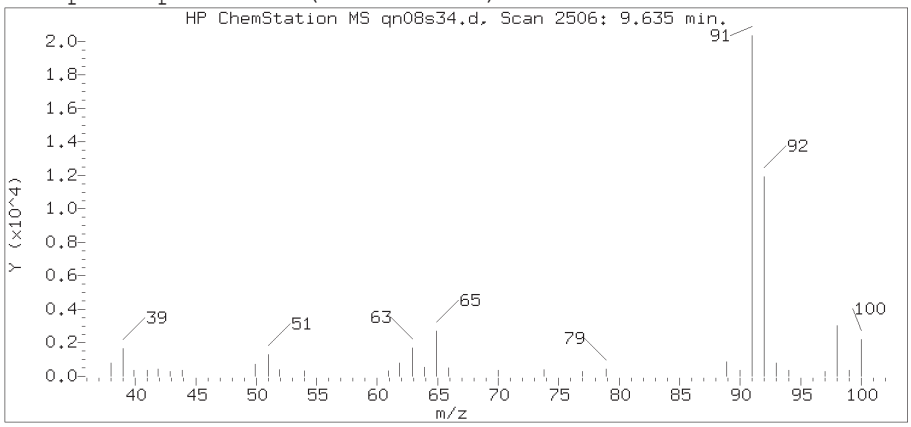
Reference Standard Spectrum for Toluene

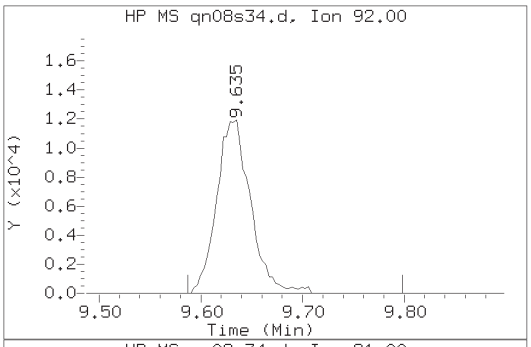


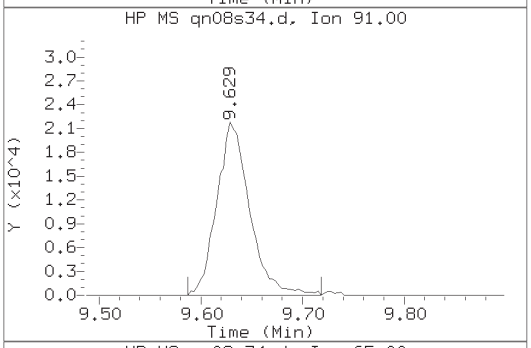
Sample Spectrum (Background Subtracted)

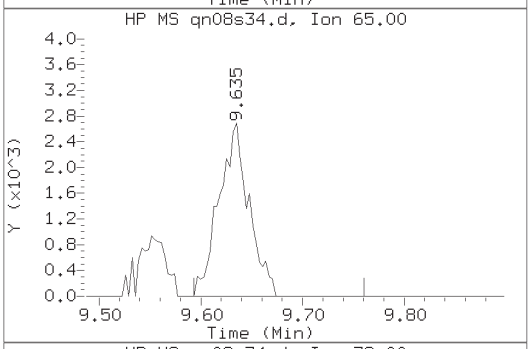


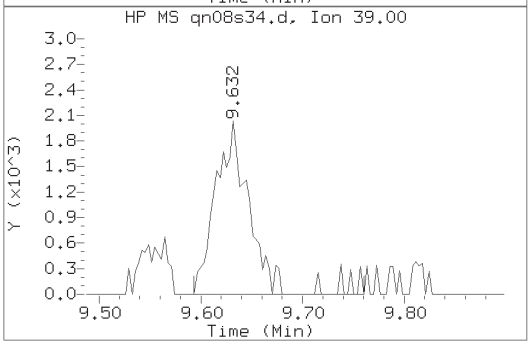
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compound Number : 92
Compound Name : Toluene
Scan Number : 2506
Retention Time (minutes): 9.635
Relative Retention Time :-0.00058
Quant Ion : 92.00
Area (flag) : 27655
On-Column Amount (ng) : 1.7561

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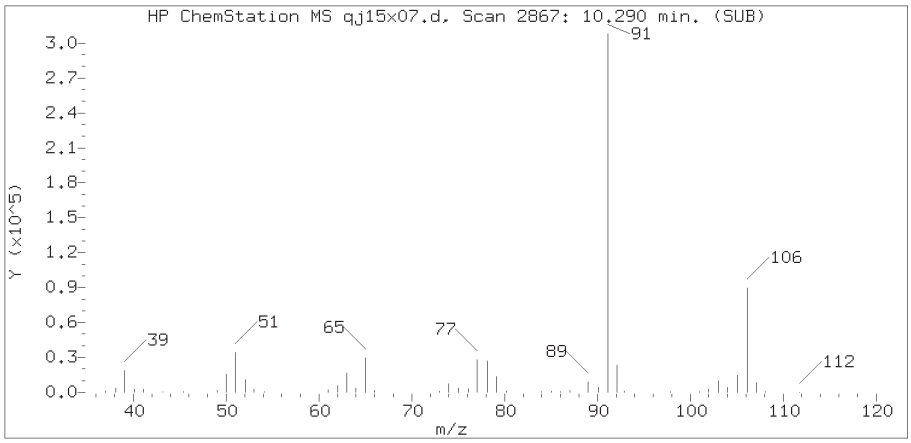
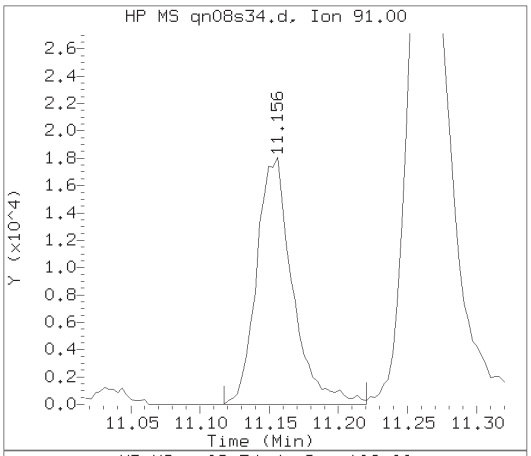
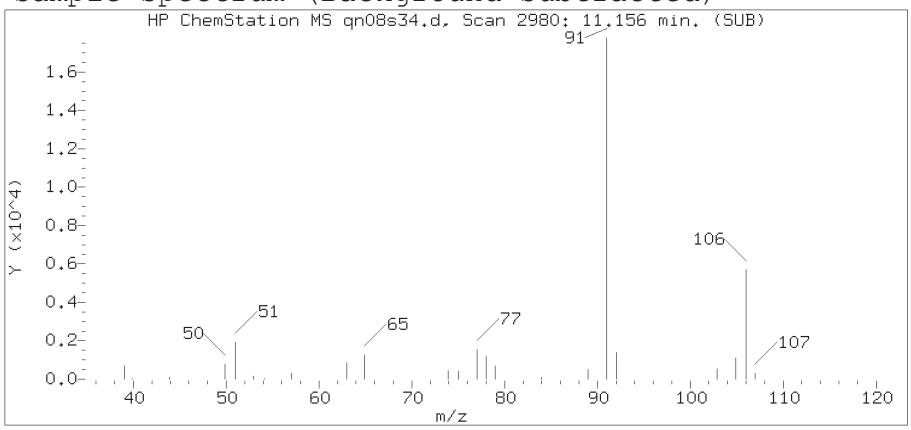
Target 3.5 esignature user ID: scn10072

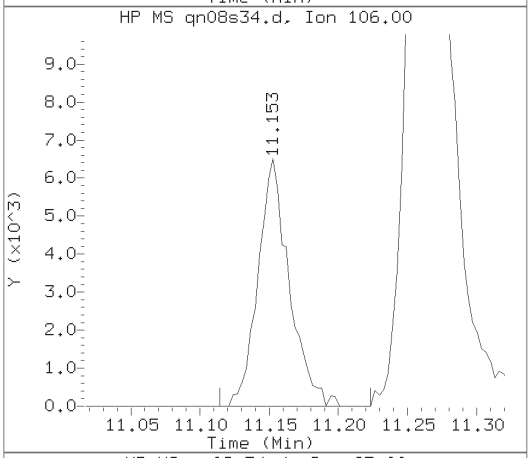
Reference Standard Spectrum for Ethylbenzene



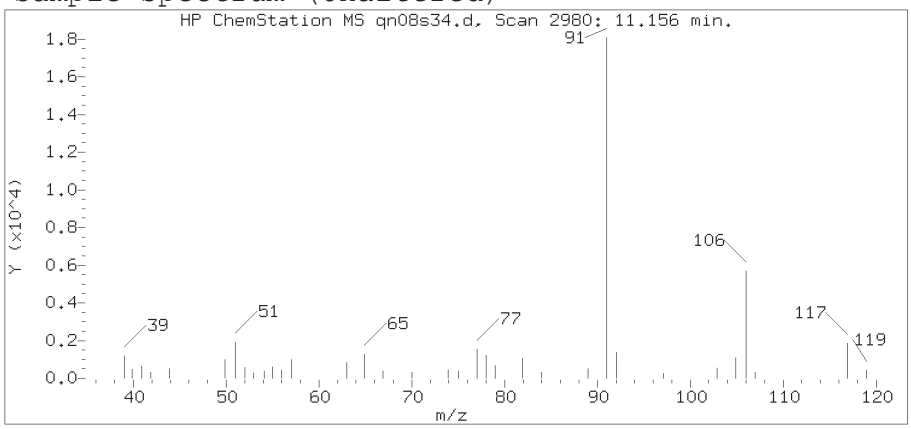


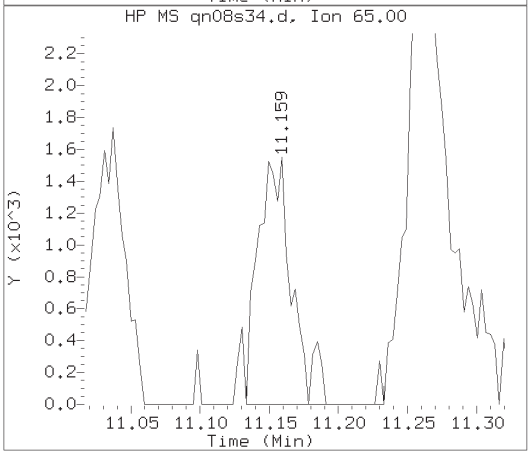
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2980
Retention Time (minutes): 11.156
Relative Retention Time :-0.00087
Quant Ion : 91.00
Area (flag) : 32545
On-Column Amount (ng) : 1.2041

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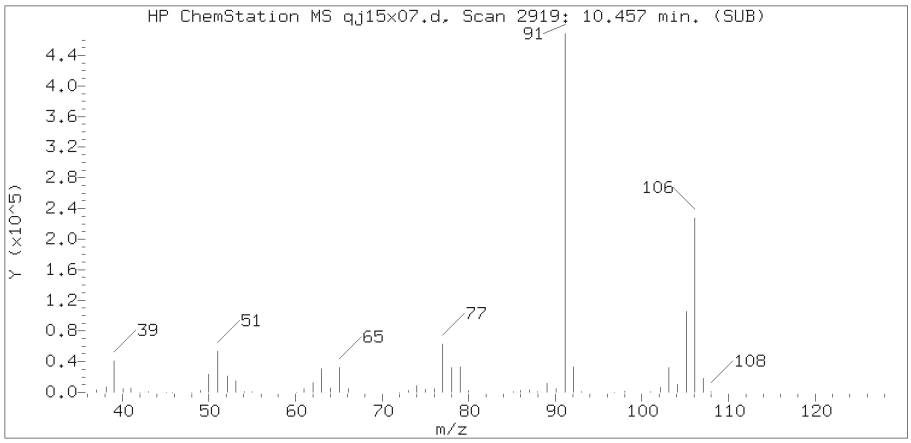
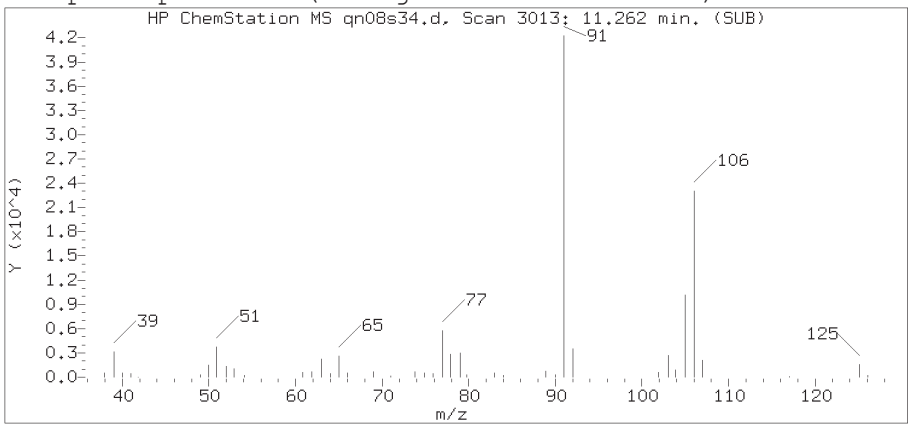
Target 3.5 esignature user ID: scn10072

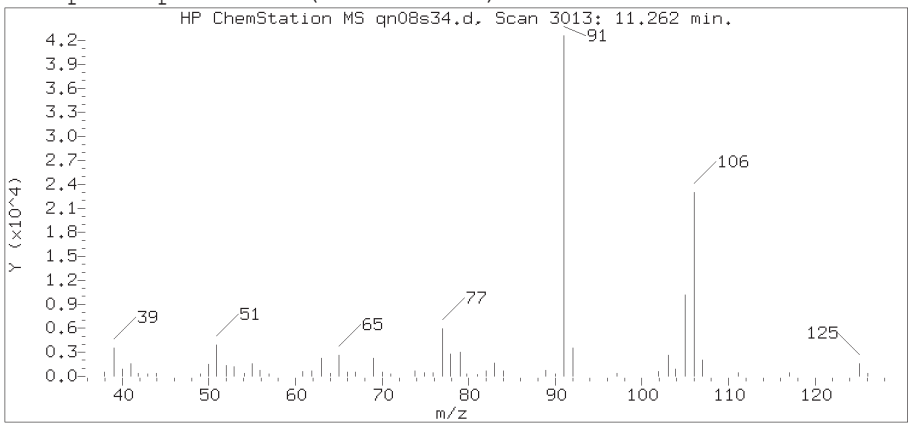
Reference Standard Spectrum for m+p-Xylene

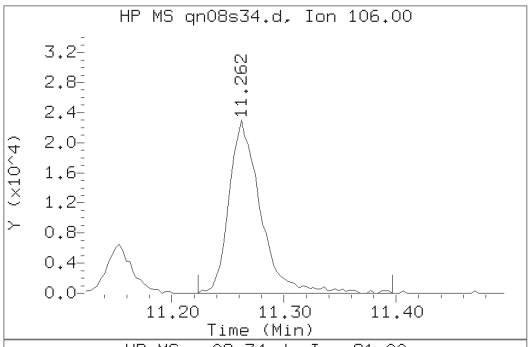


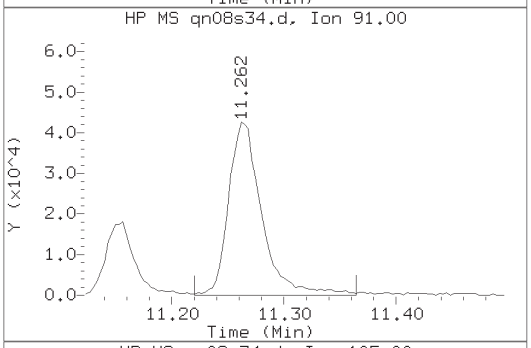
Sample Spectrum (Background Subtracted)

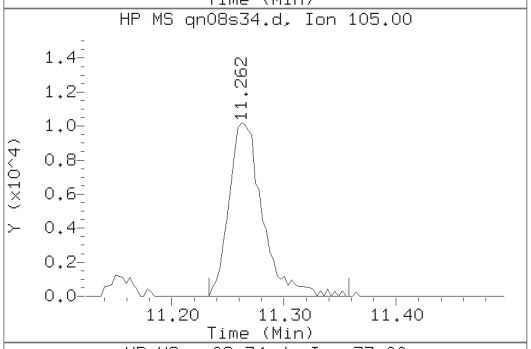


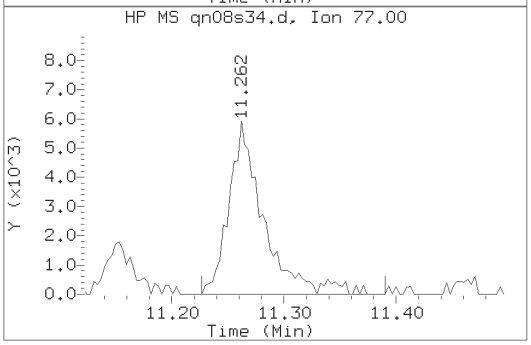
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

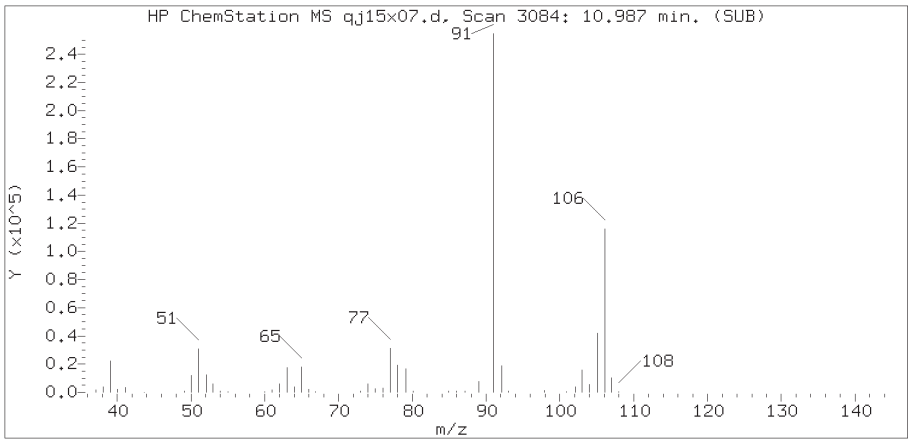
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

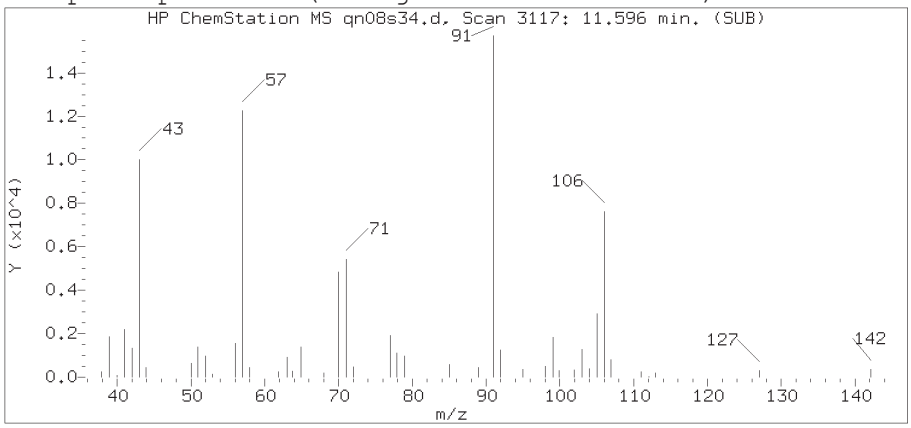
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3013
Retention Time (minutes): 11.262
Relative Retention Time : 0.00029
Quant Ion : 106.00
Area (flag) : 45487
On-Column Amount (ng) : 4.3052

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

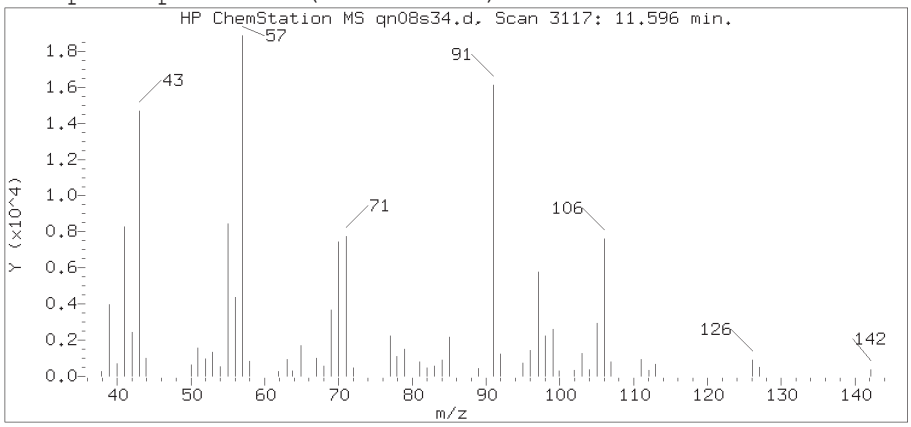
Reference Standard Spectrum for o-Xylene

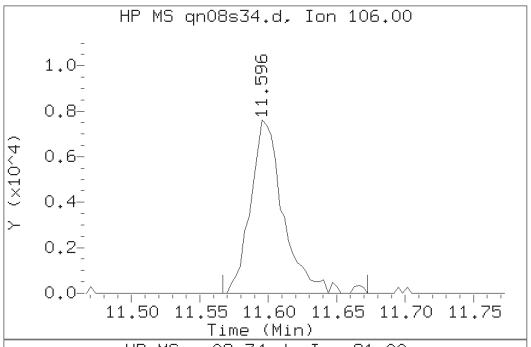


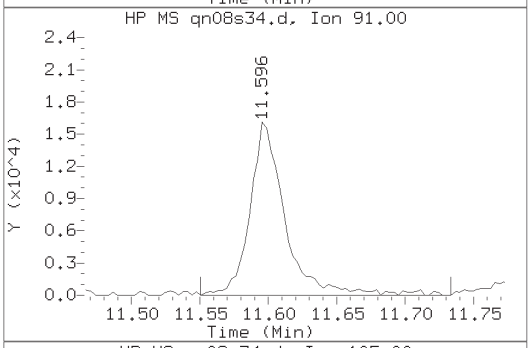
Sample Spectrum (Background Subtracted)

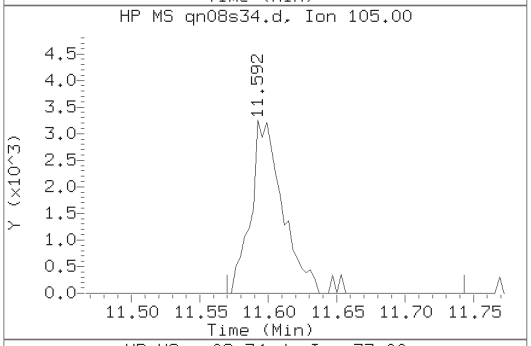


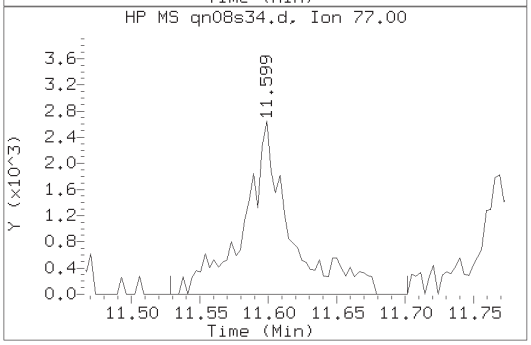
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

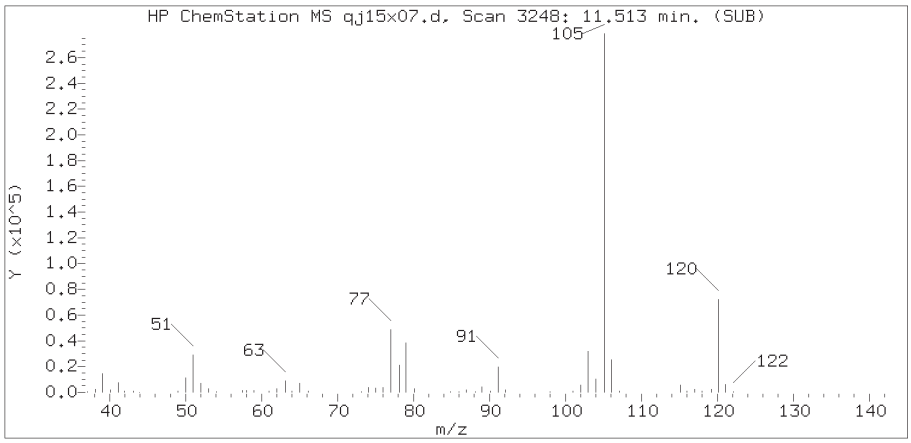
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

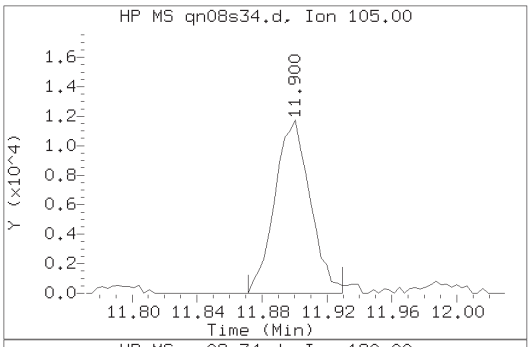
Sample Name: 12T03RE Lab Sample ID: 9872061RE

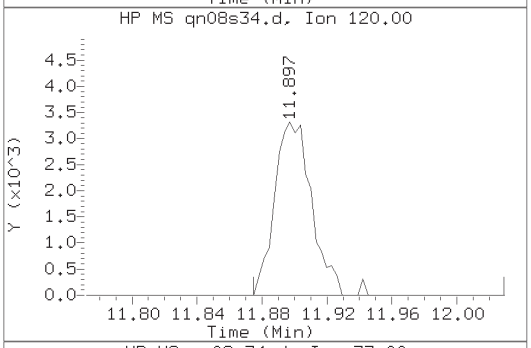
Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3117
Retention Time (minutes): 11.596
Relative Retention Time :-0.00029
Quant Ion : 106.00
Area (flag) : 12679
On-Column Amount (ng) : 1.2054

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

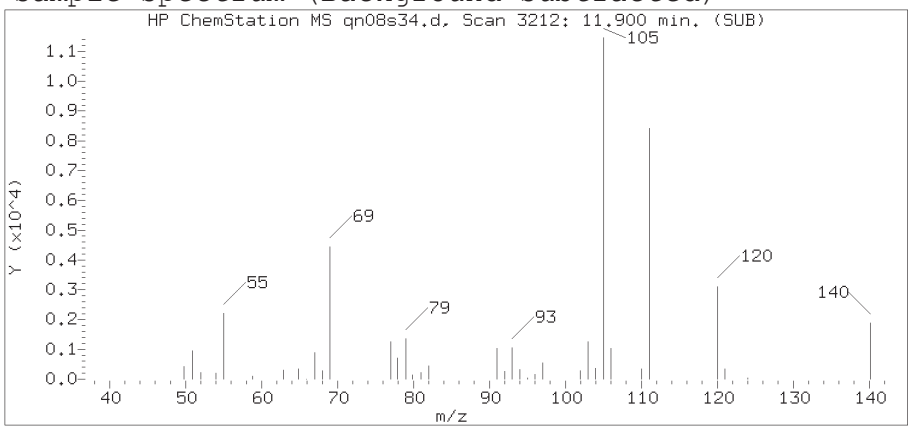
Reference Standard Spectrum for Isopropylbenzene

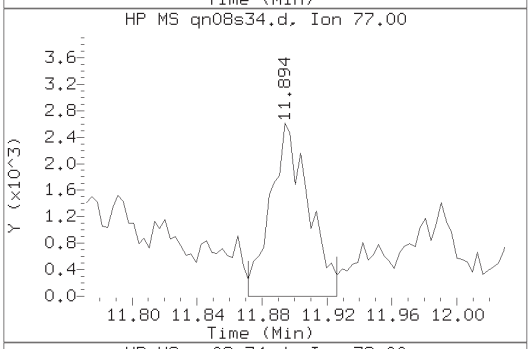




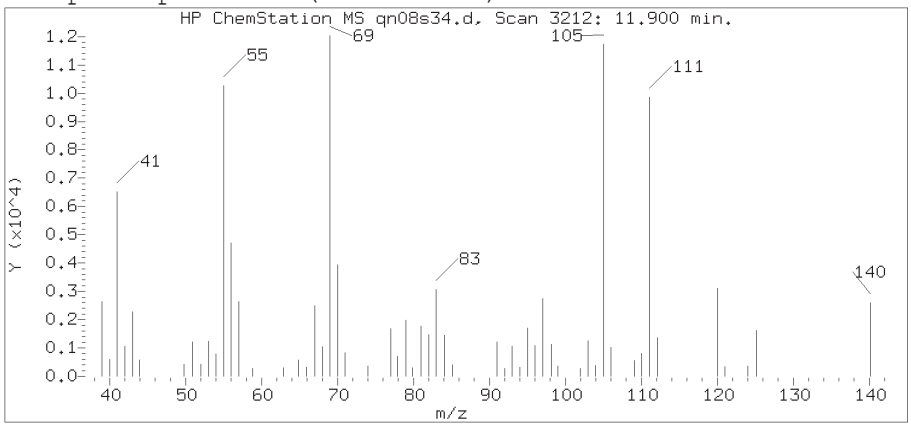


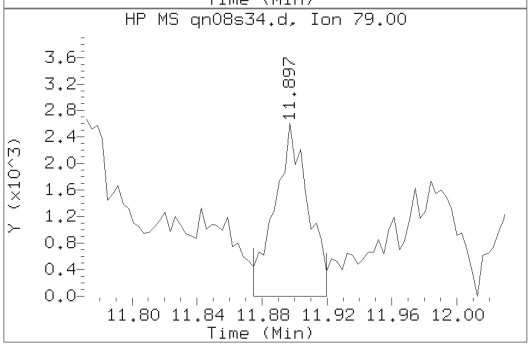
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

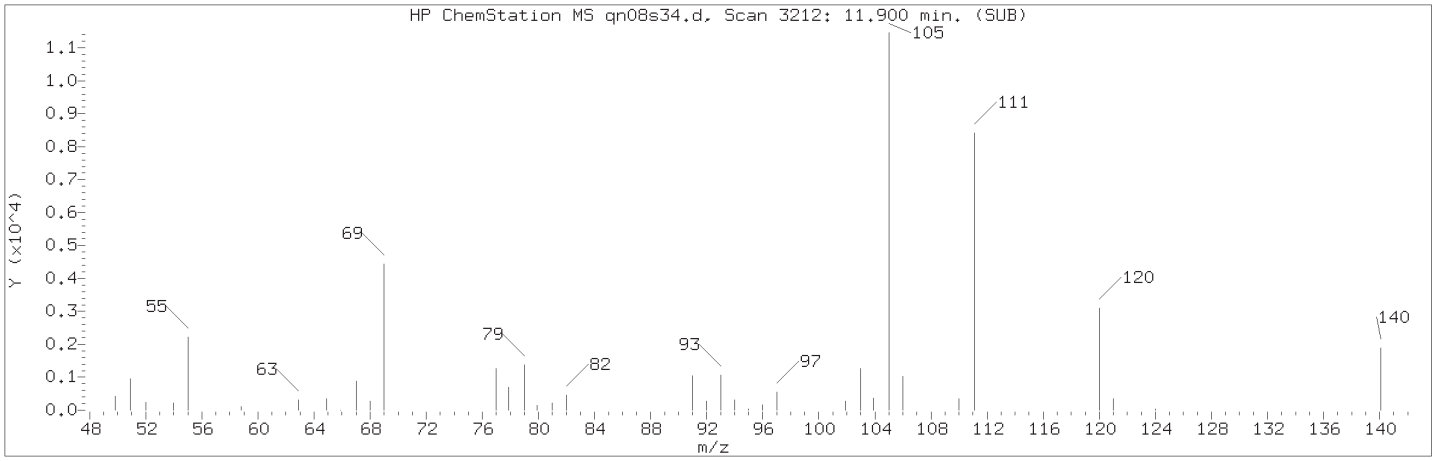
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

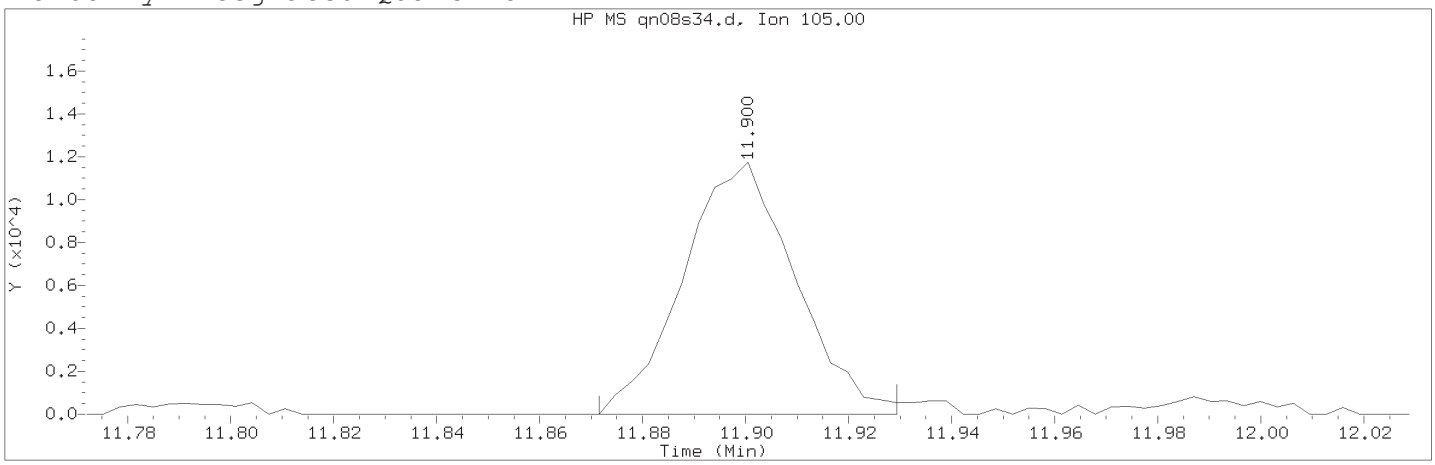
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3212
Retention Time (minutes): 11.900
Relative Retention Time :-0.00029
Quant Ion : 105.00
Area (flag) : 17707M
On-Column Amount (ng) : 0.7888

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

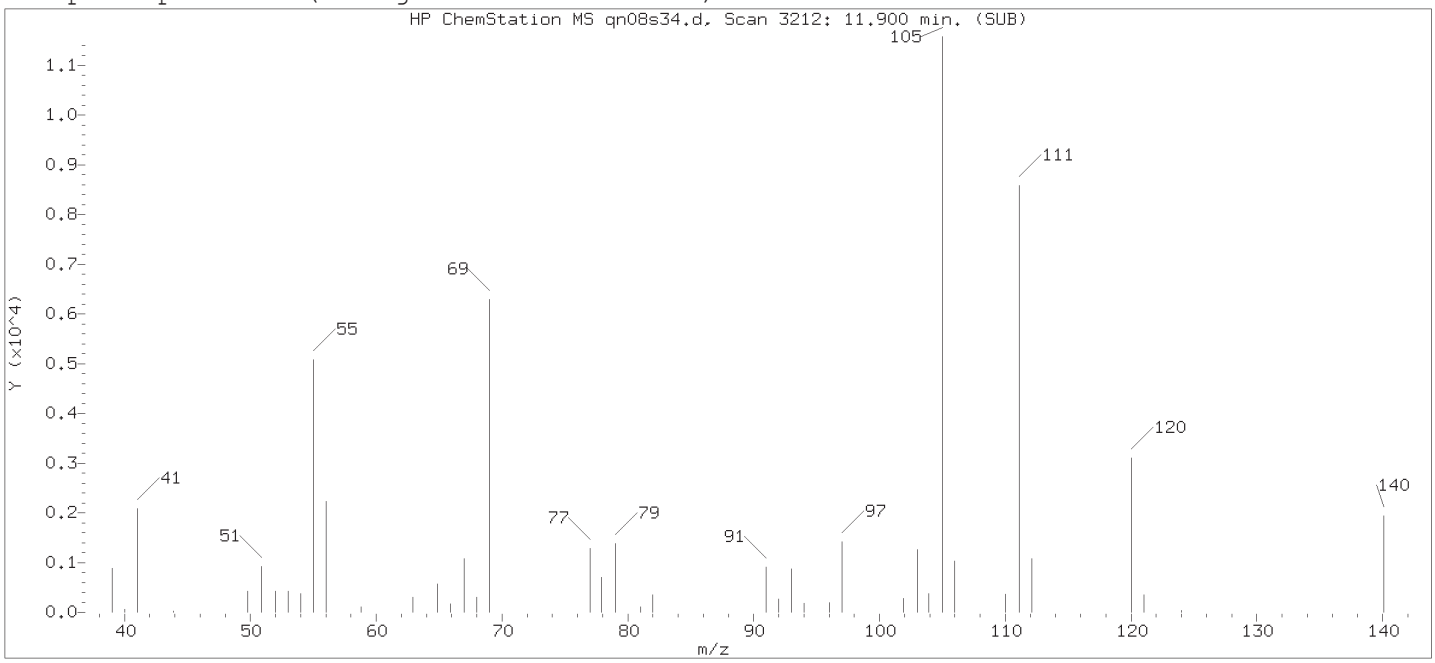
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3212
Retention Time (minutes): 11.900
Quant Ion : 105.00
Area (flag) : 17707M
On-Column Amount (ng) : 0.7888
Integration start scan : 3202 Integration stop scan: 3220
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

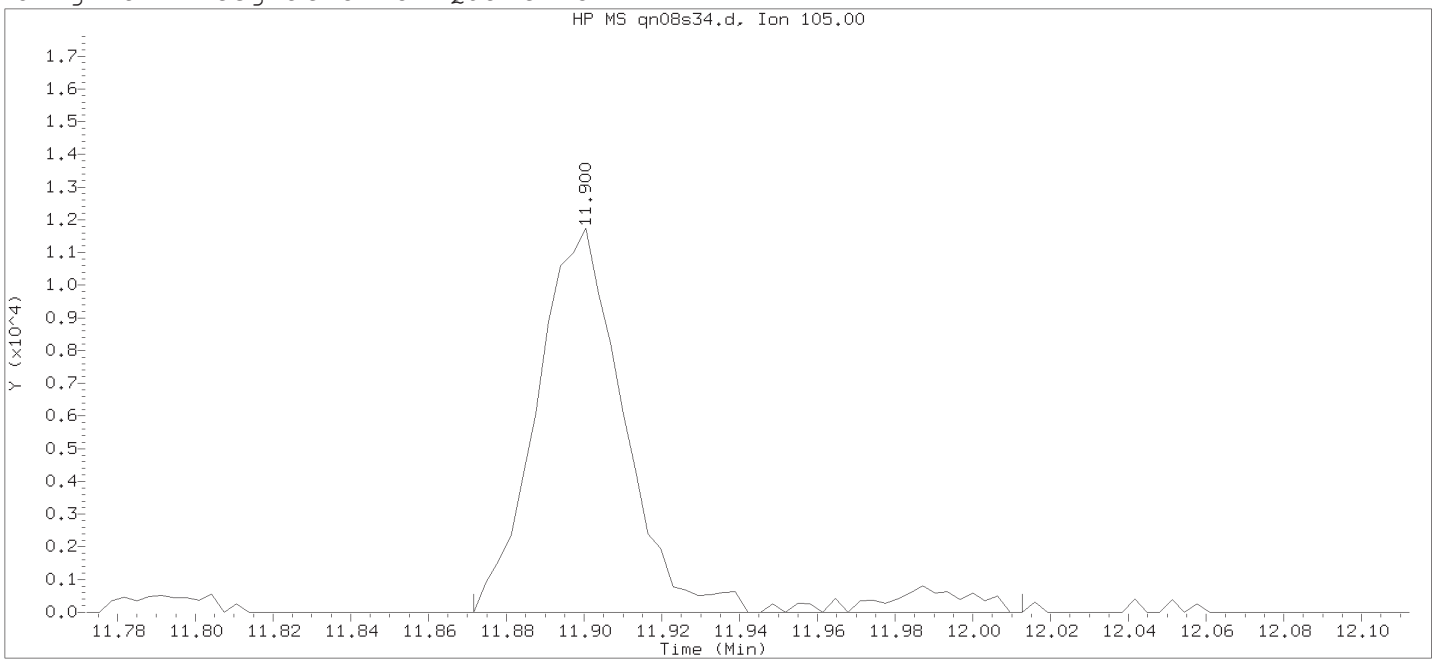
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 12:08.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

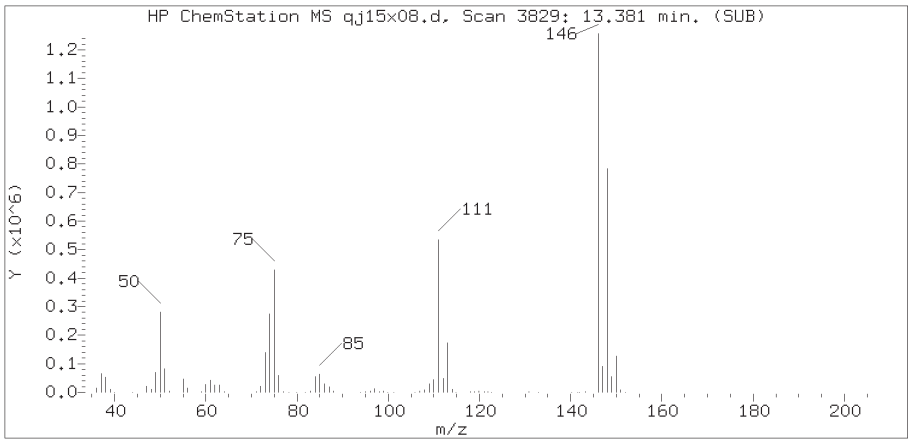
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 12:17 Automation

Sample Name: 12T03RE Lab Sample ID: 9872061RE

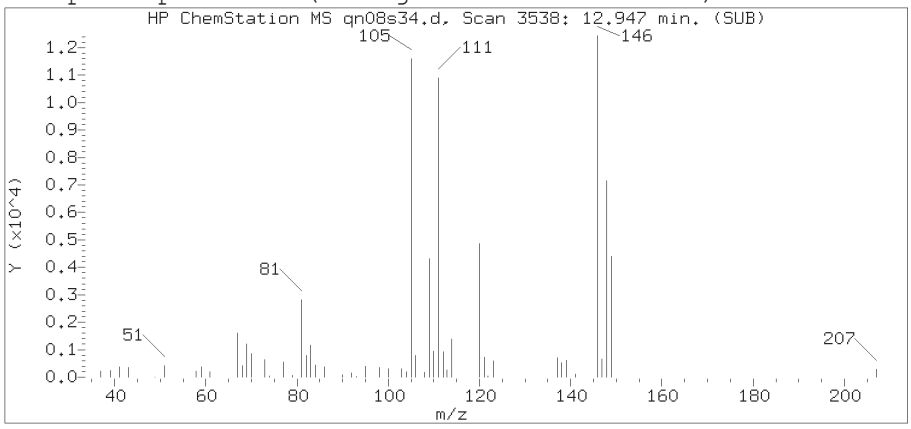
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3212
Retention Time (minutes): 11.900
Quant Ion : 105.00
Area : 19410
On-column Amount (ng) : 0.8647
Integration start scan : 3202 Integration stop scan: 3246
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: SCN0082

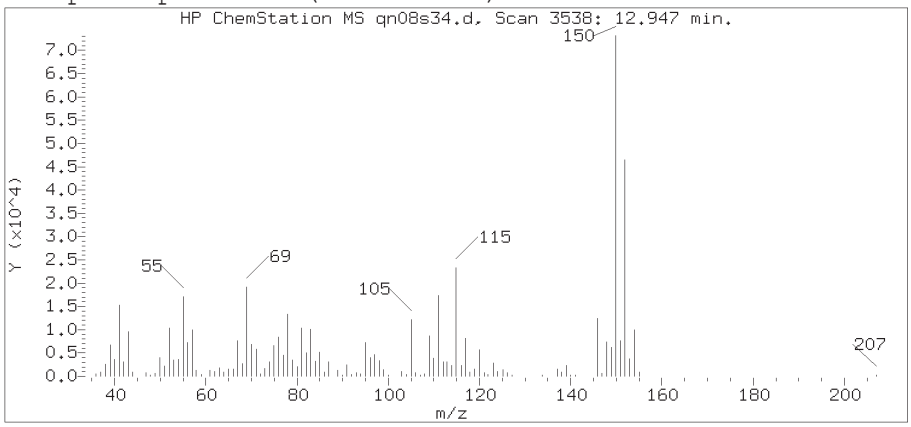
Reference Standard Spectrum for 1,4-Dichlorobenzene

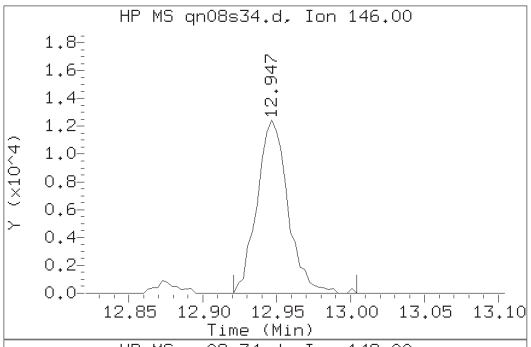


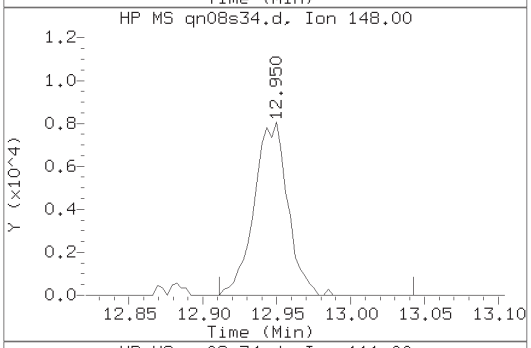
Sample Spectrum (Background Subtracted)

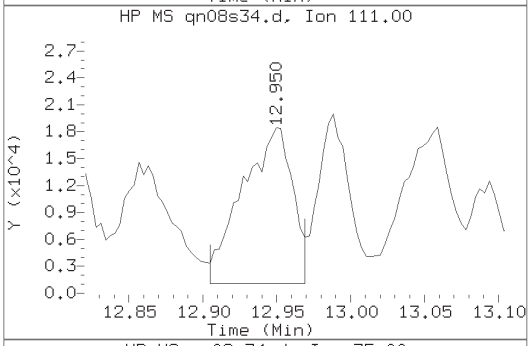


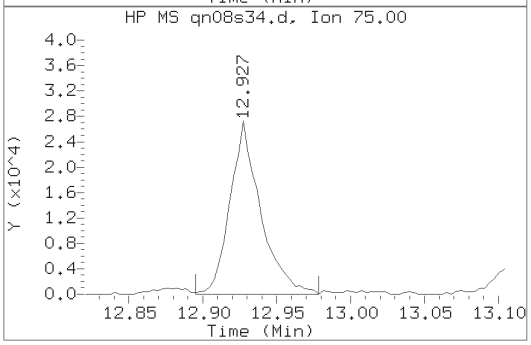
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

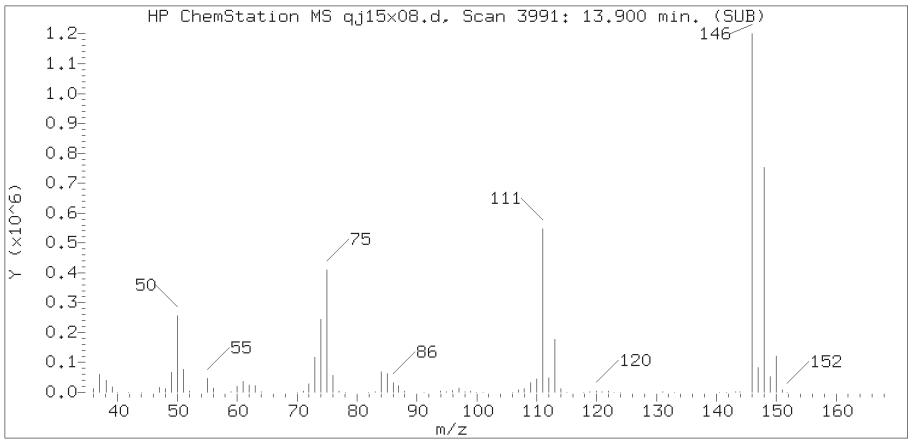
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

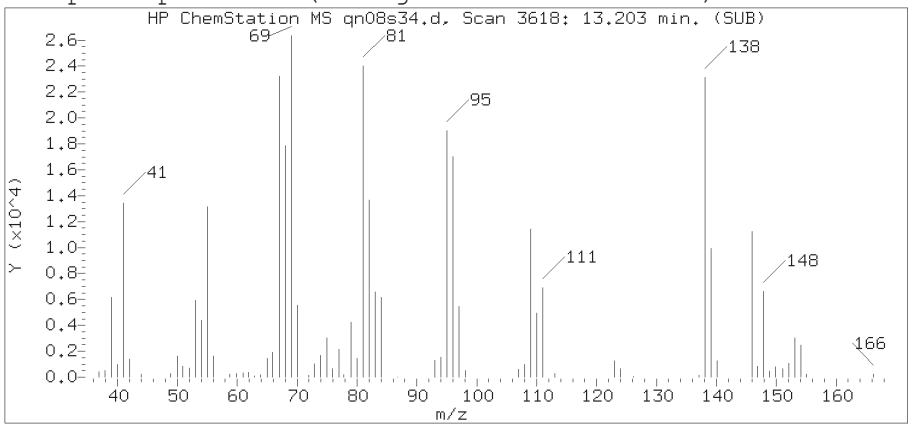
Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3538
Retention Time (minutes): 12.947
Relative Retention Time :-0.00025
Quant Ion : 146.00
Area (flag) : 18071
On-Column Amount (ng) : 1.3458

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

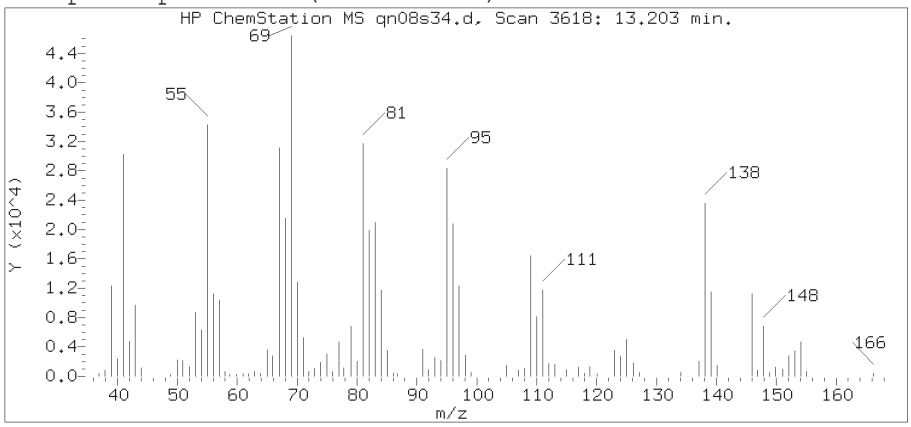
Reference Standard Spectrum for 1,2-Dichlorobenzene

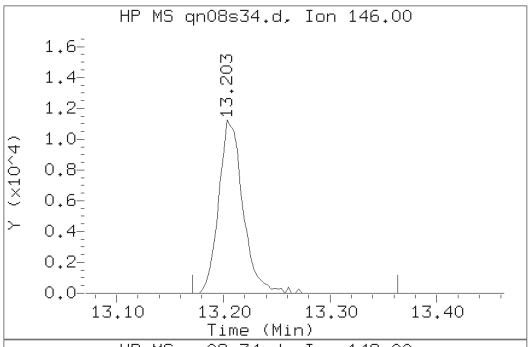


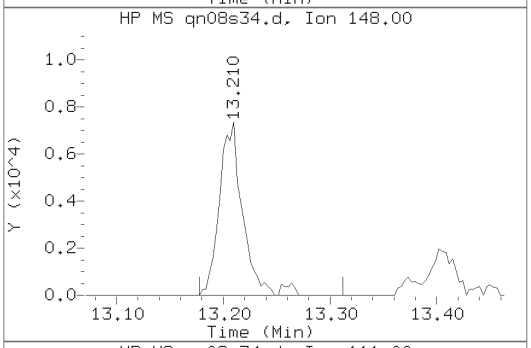
Sample Spectrum (Background Subtracted)

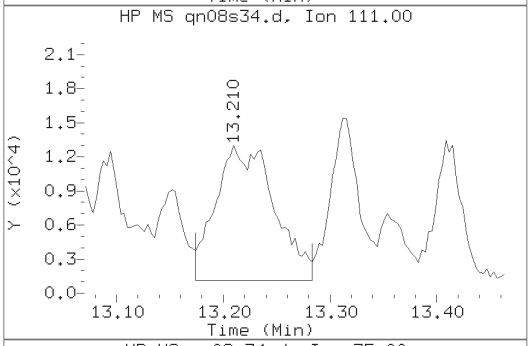


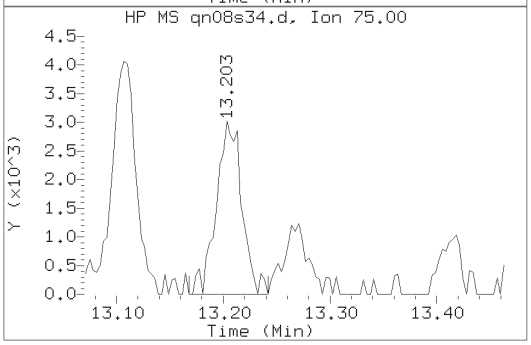
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s34.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 11:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 12-Nov-2018 08:18 scn10072

Sample Name: 12T03RE Lab Sample ID: 9872061RE

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3618
Retention Time (minutes): 13.203
Relative Retention Time : 0.00000
Quant Ion : 146.00
Area (flag) : 17759
On-Column Amount (ng) : 1.4330

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:18.
Target 3.5 esignature user ID: scn10072

12T04 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 9872062

Data file: /chem/HP07536.i/18nov07a.b/qn07s36.d Injection date and time: **07-NOV-2018 14:45**
Data file Sample Info. Line: 12T04;9872062;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **48.36**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.17 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:9274, 9367, 2706-664

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.013	(-0.020)	755	65	154531	(5)	250.00	
70) Fluorobenzene	7.510	(-0.004)	1845	96	1183728	(-4)	50.00	
105) Chlorobenzene-d5	11.037	(-0.001)	2944	117	923442	(-5)	50.00	
140) 1,4-Dichlorobenzene-d4	12.930	(-0.004)	3534	152	412296	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.612	(0.000)	113	205581	31.923	64%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.077	(-0.001)	102	59038	35.258	71%		71 - 136
91) Toluene-d8	(3)	9.554	(-0.001)	98	816379	32.385	65%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.048	(0.000)	95	245832	30.630	61%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					29	240
4) Chloromethane	(2)				Not Detected					29	240
5) Vinyl Chloride	(2)				Not Detected					29	240
9) Bromomethane	(2)				Not Detected					34	240
10) Chloroethane	(2)				Not Detected					48	240
13) Trichlorofluoromethane	(2)				Not Detected					34	240
19) 1,1-Dichloroethene	(2)				Not Detected					24	240
20) Acetone	(1)	3.381	(0.002)	58	10362M	13.939	674.01		J	290	970
22) Freon 113	(2)				Not Detected					29	480
25) Carbon Disulfide	(2)	3.657	(0.001)	76	16841M	0.789	38.13		J	29	240
27) Methyl Acetate	(2)	3.782	(-0.000)	43	45061	7.828	378.51			48	240
31) Methylene Chloride	(2)				Not Detected					97	240
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					24	240
35) trans-1,2-Dichloroethene	(2)				Not Detected					24	240
40) 1,1-Dichloroethane	(2)				Not Detected					24	240
44) 2-Butanone	(1)	5.880	(0.003)	43	22867	5.715	276.37		J	48	480
45) cis-1,2-Dichloroethene	(2)	5.896	(-0.000)	96	10609	1.449	70.09		J	24	240
54) Chloroform	(2)				Not Detected					29	240
57) 1,1,1-Trichloroethane	(2)				Not Detected					29	240
58) Cyclohexane	(2)				Not Detected					24	240
61) Carbon Tetrachloride	(2)				Not Detected					24	240
64) Benzene	(2)	7.096	(0.000)	78	55617	2.140	103.47		J	24	240
67) 1,2-Dichloroethane	(2)				Not Detected					29	240
75) Trichloroethene	(2)				Not Detected					24	240
76) Methylcyclohexane	(2)				Not Detected					29	240
77) 1,2-Dichloropropane	(2)				Not Detected					24	240

M = Compound was manually integrated.

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07s36.d Injection date and time: **07-NOV-2018 14:45**
Data file Sample Info. Line: 12T04;9872062;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **48.36**

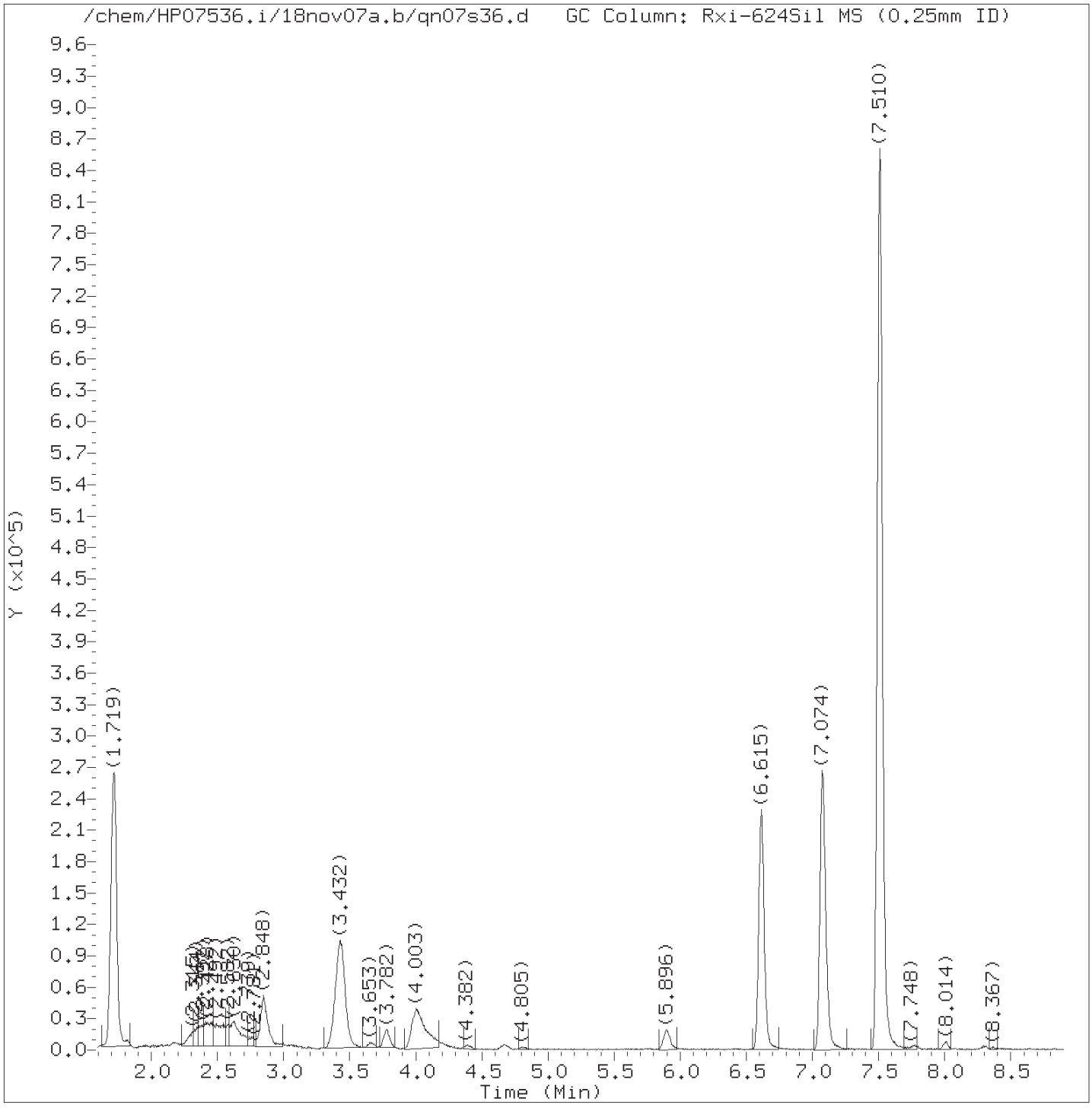
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.17 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
84) Bromodichloromethane	(2)			Not Detected					19	240
89) cis-1,3-Dichloropropene	(2)			Not Detected					19	240
90) 4-Methyl-2-pentanone	(2)			Not Detected					48	480
92) Toluene	(3)	9.631(-0.000)	92	57478	3.583	173.25		J	29	240
93) trans-1,3-Dichloropropene	(3)			Not Detected					15	240
96) 1,1,2-Trichloroethane	(3)			Not Detected					24	240
98) Tetrachloroethene	(3)	10.196(-0.000)	166	9703	1.516	73.30		J	24	240
101) 2-Hexanone	(3)			Not Detected					48	480
103) Dibromochloromethane	(3)			Not Detected					19	240
104) 1,2-Dibromoethane	(3)			Not Detected					19	240
107) Chlorobenzene	(3)	11.062(0.000)	112	29885	1.651	79.84		J	24	240
109) Ethylbenzene	(3)	11.156(-0.000)	91	54311	1.973	95.38		J	19	240
110) m+p-Xylene	(3)	11.265(0.000)	106	69108	6.421	310.48			48	240
111) o-Xylene	(3)	11.598(-0.000)	106	15612	1.457	70.45		J	19	240
112) Xylene (Total)	(3)		106	84720	7.878	380.93			48	240
113) Styrene	(3)			Not Detected					15	240
114) Bromoform	(3)			Not Detected					240	480
115) Isopropylbenzene	(3)	11.903(-0.000)	105	21156	0.925	44.74		J	19	240
118) Cyclohexanone	(1)			Not Detected					1200	12000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					19	240
138) 1,3-Dichlorobenzene	(4)			Not Detected					24	240
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	20148	1.451	70.14		J	19	240
147) 1,2-Dichlorobenzene	(4)	13.212(-0.000)	146	13094	1.021	49.39		J	24	240
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					19	240
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					240	480

Total number of targets = 51

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53. Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

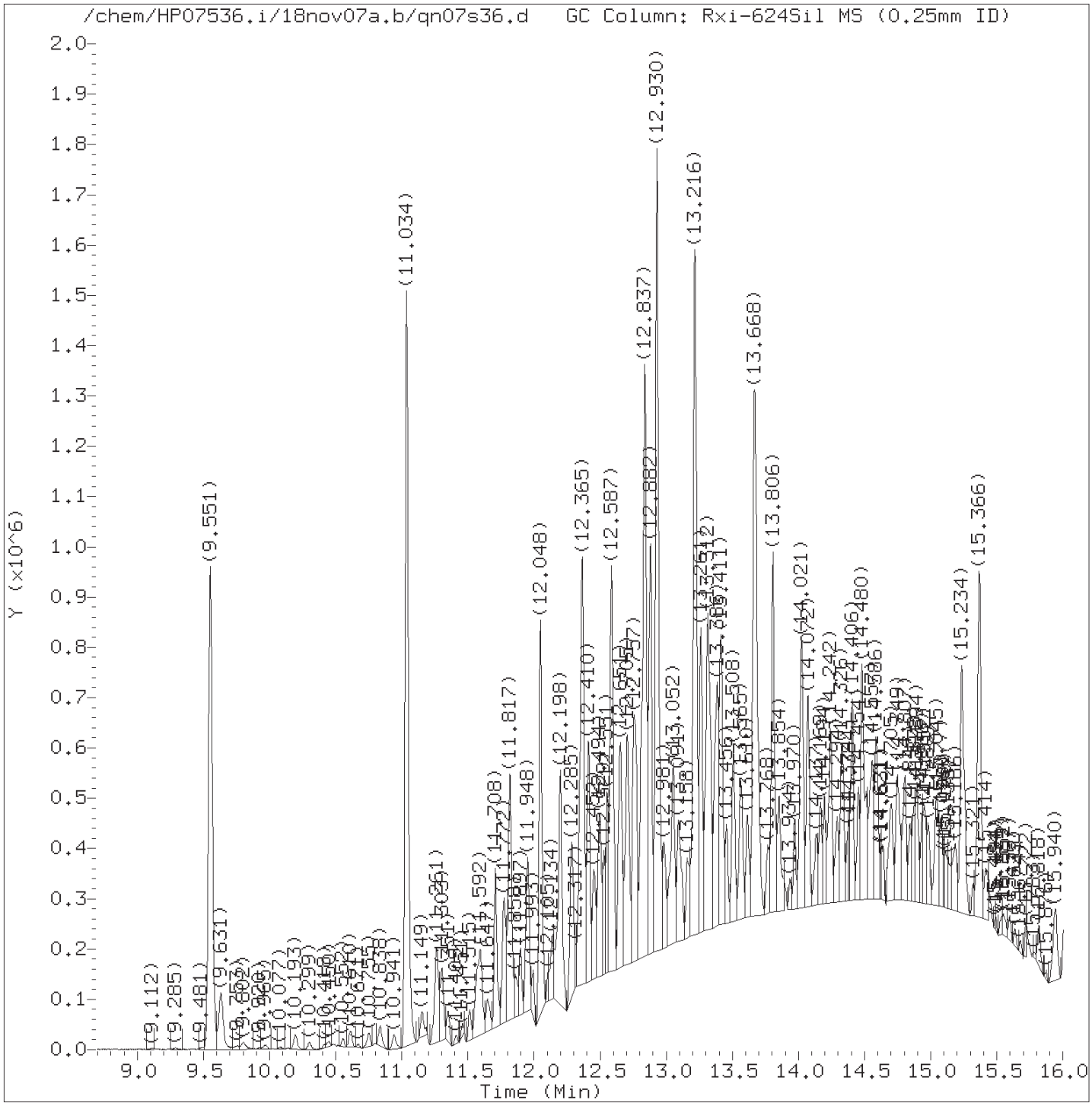
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
20) Acetone	(1)	3.381	58	10362M	13.939
25) Carbon Disulfide	(2)	3.657	76	16841M	0.789
27) Methyl Acetate	(2)	3.782	43	45061	7.828
30)*t-Butyl alcohol-d10	(1)	4.013	65	154531	250.000
44) 2-Butanone	(1)	5.880	43	22867	5.715
45) cis-1,2-Dichloroethene	(2)	5.896	96	10609	1.449
56)$Dibromofluoromethane	(2)	6.612	113	205581	31.923
63)$1,2-Dichloroethane-d4	(2)	7.077	102	59038	35.258
64) Benzene	(2)	7.096	78	55617	2.140
70)*Fluorobenzene	(2)	7.510	96	1183728	50.000
91)$Toluene-d8	(3)	9.554	98	816379	32.385
92) Toluene	(3)	9.631	92	57478	3.583
98) Tetrachloroethene	(3)	10.196	166	9703	1.516
105)*Chlorobenzene-d5	(3)	11.037	117	923442	50.000
107) Chlorobenzene	(3)	11.063	112	29885	1.651
109) Ethylbenzene	(3)	11.156	91	54311	1.973
110) m+p-Xylene	(3)	11.265	106	69108	6.421
111) o-Xylene	(3)	11.598	106	15612	1.457
112) Xylene (Total)	(3)		106	84720	7.878
115) Isopropylbenzene	(3)	11.903	105	21156	0.925
119)$4-Bromofluorobenzene	(3)	12.048	95	245832	30.630
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	412296	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	20148	1.451
147) 1,2-Dichlorobenzene	(4)	13.212	146	13094	1.021

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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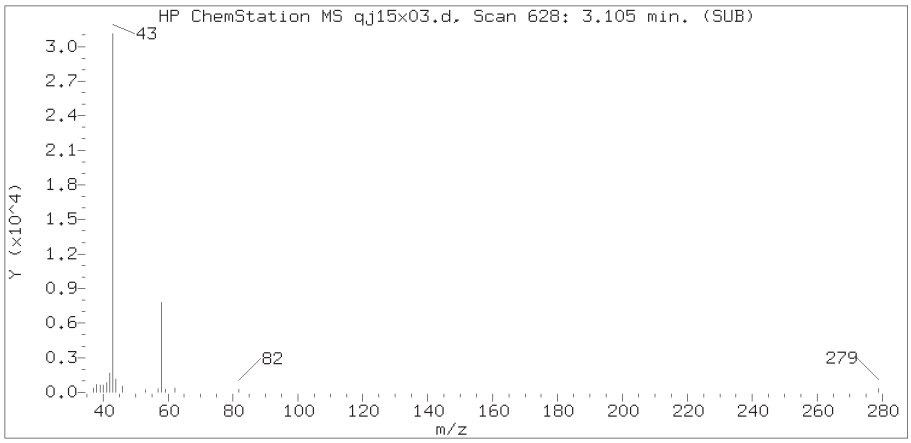
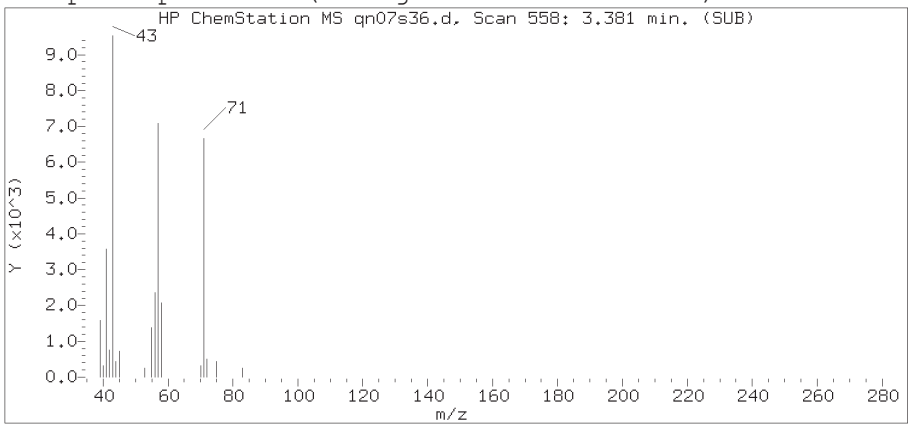
on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

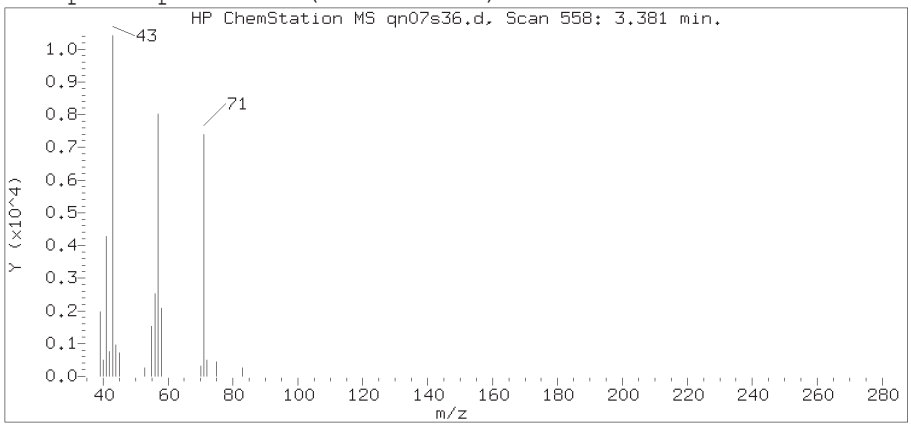
Reference Standard Spectrum for Acetone

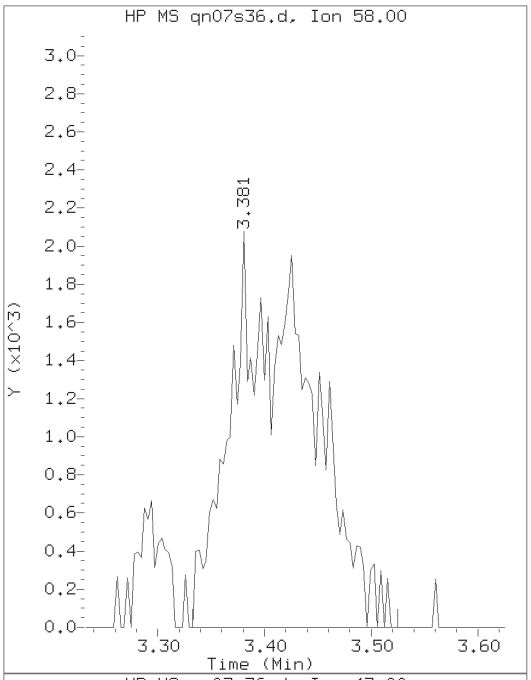


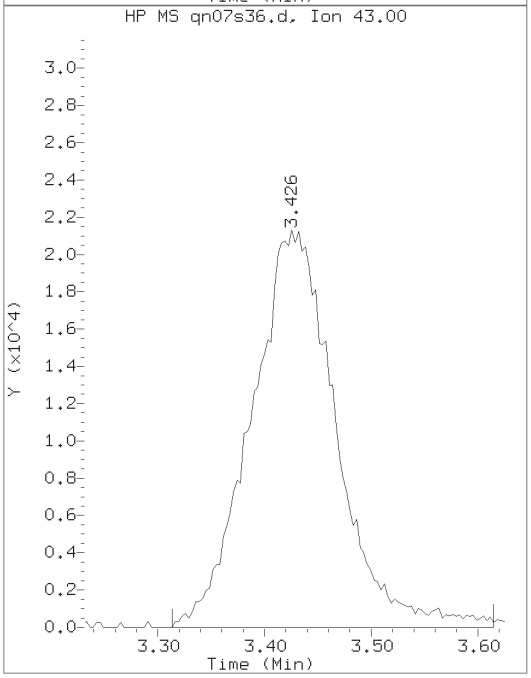
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

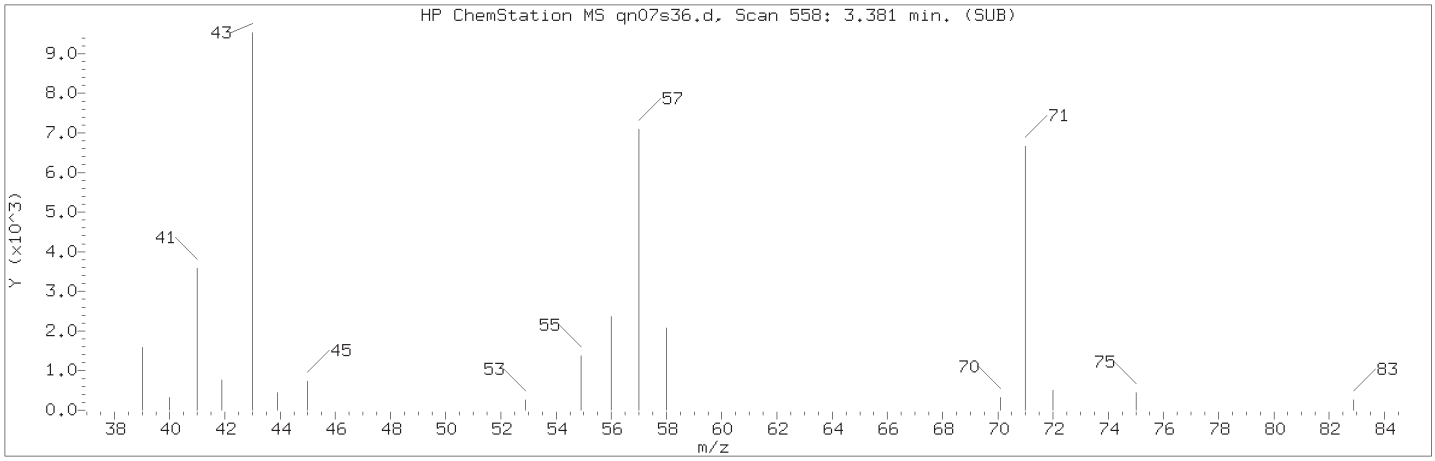
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

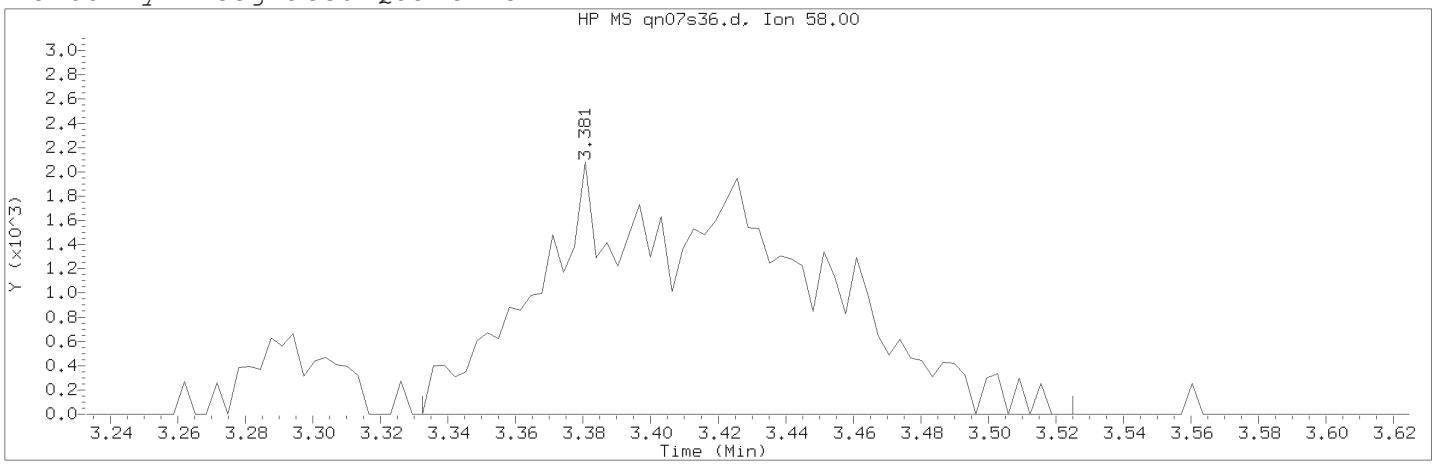
Compound Number	: 20
Compound Name	: Acetone
Scan Number	: 558
Retention Time (minutes)	: 3.381
Relative Retention Time	: 0.00243
Quant Ion	: 58.00
Area (flag)	: 10362M
On-Column Amount (ng)	: 13.9385

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

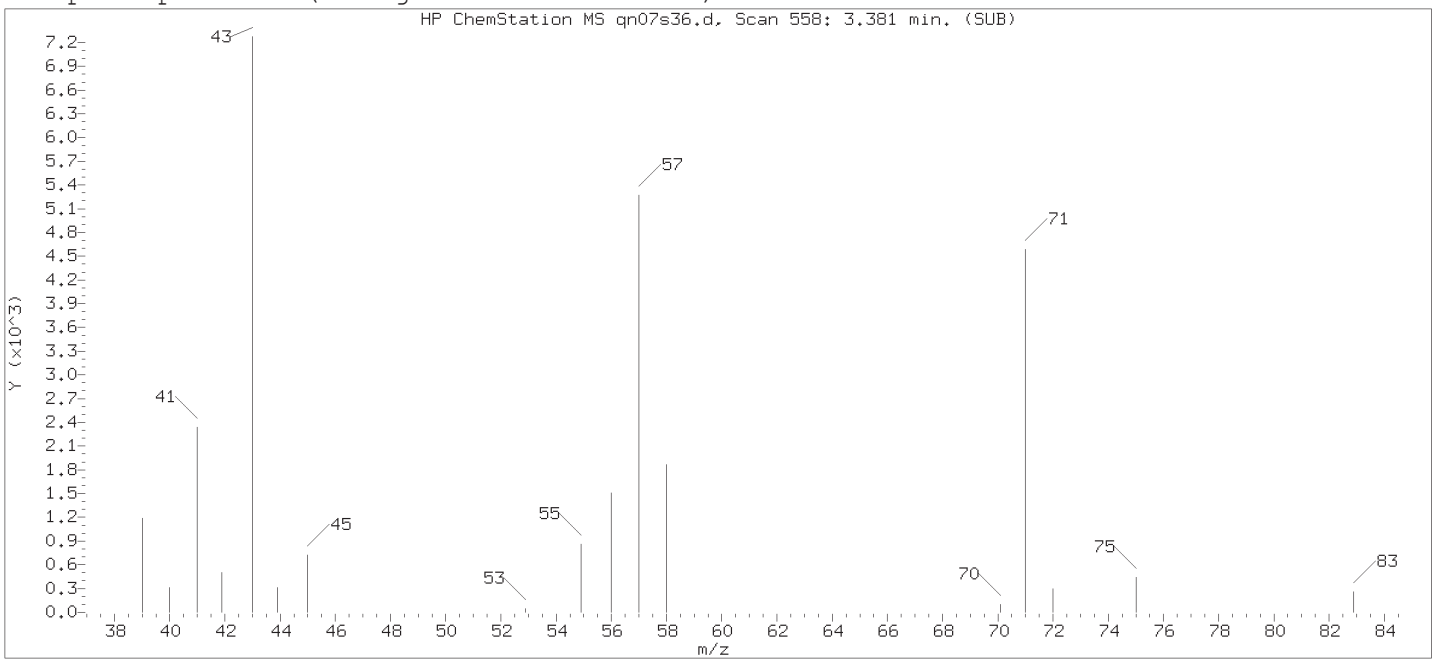
Compound Number : 20
Compound Name : Acetone
Scan Number : 558
Retention Time (minutes): 3.381
Quant Ion : 58.00
Area (flag) : 10362M
On-Column Amount (ng) : 13.9385
Integration start scan : 542 Integration stop scan: 602
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

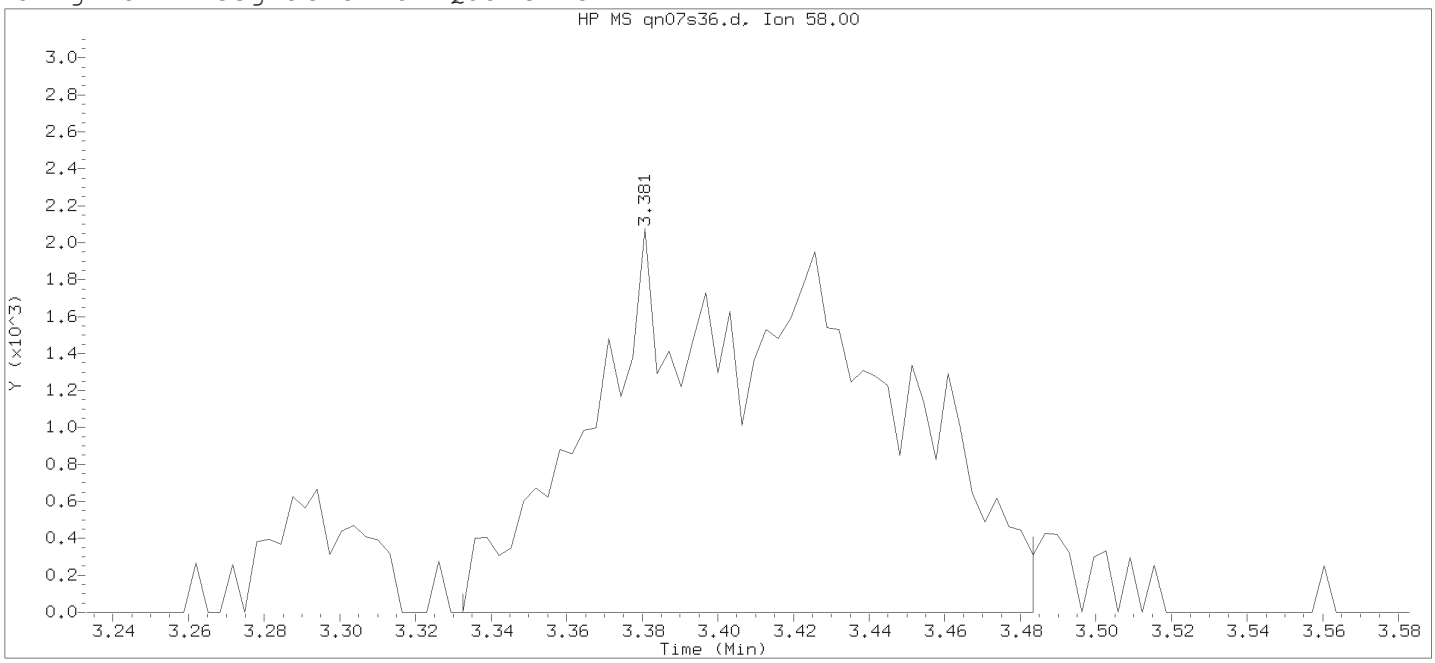
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

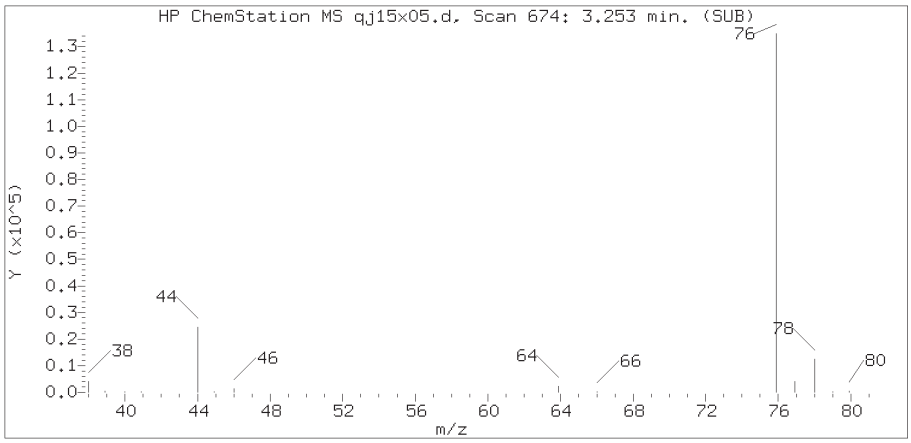
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 Automation

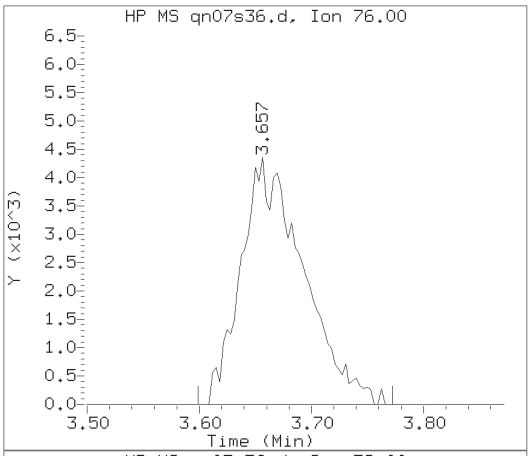
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 20
Compound Name : Acetone
Scan Number : 558
Retention Time (minutes): 3.381
Quant Ion : 58.00
Area : 9878
On-column Amount (ng) : 13.2881
Integration start scan : 542 Integration stop scan: 589
Y at integration start : 0 Y at integration end: 0

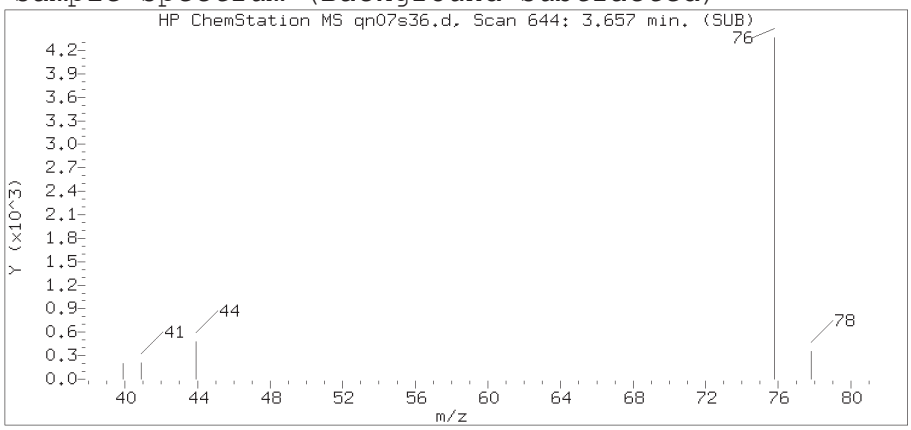
Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: PTHERRES

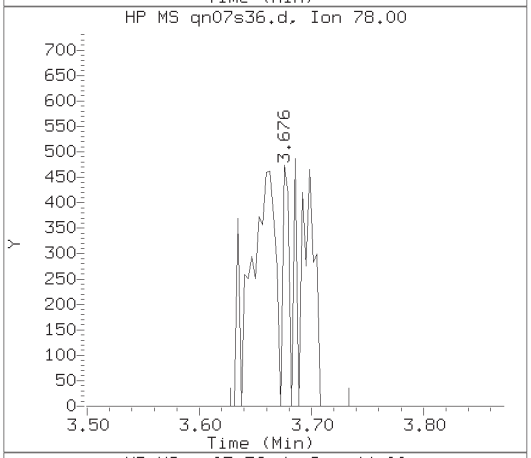
Reference Standard Spectrum for Carbon Disulfide



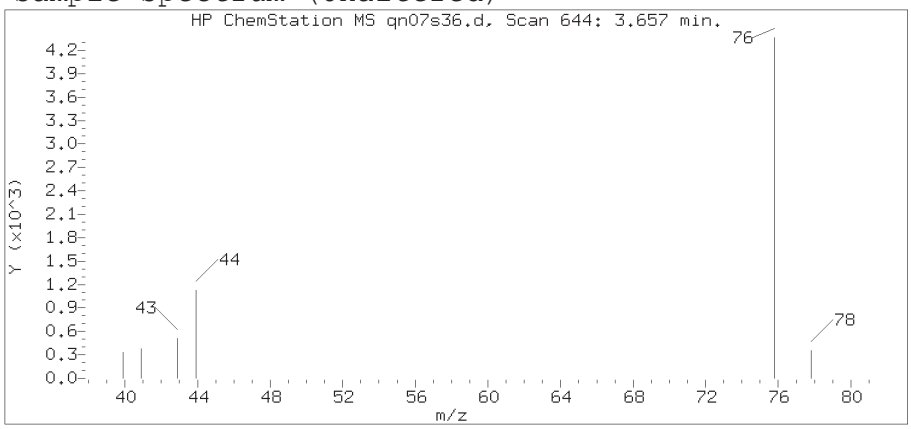


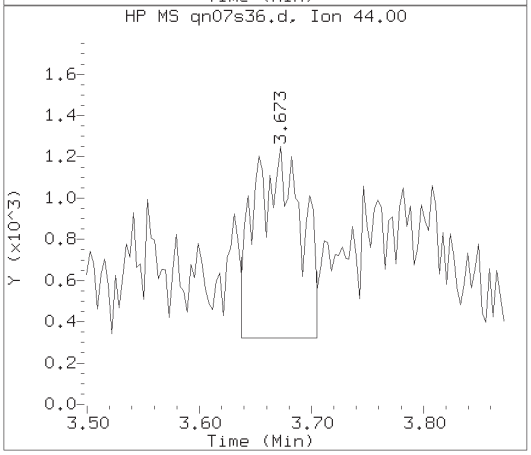
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

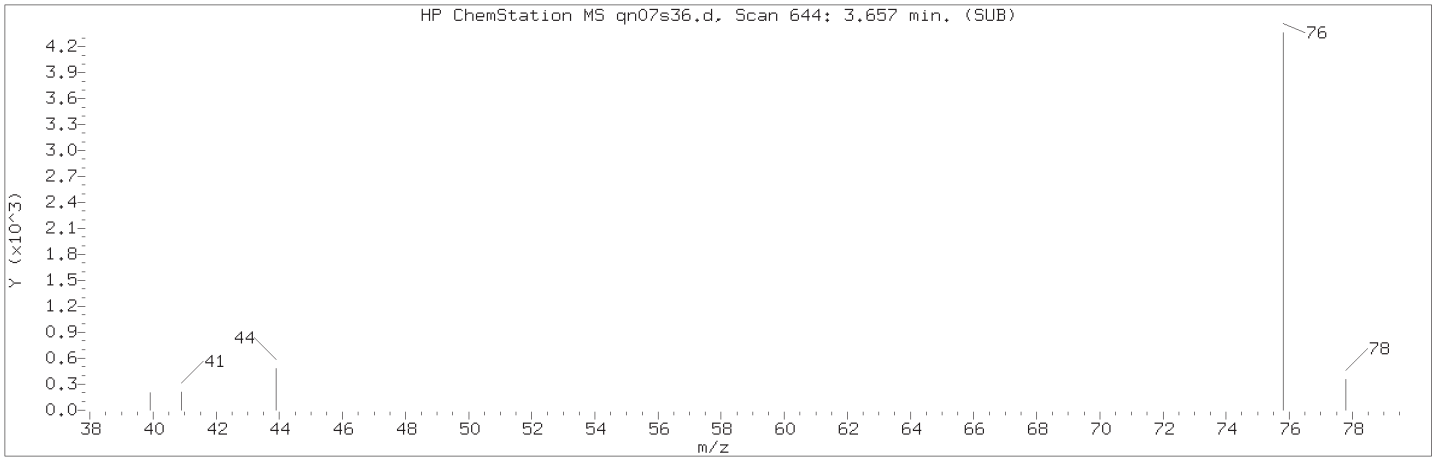
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

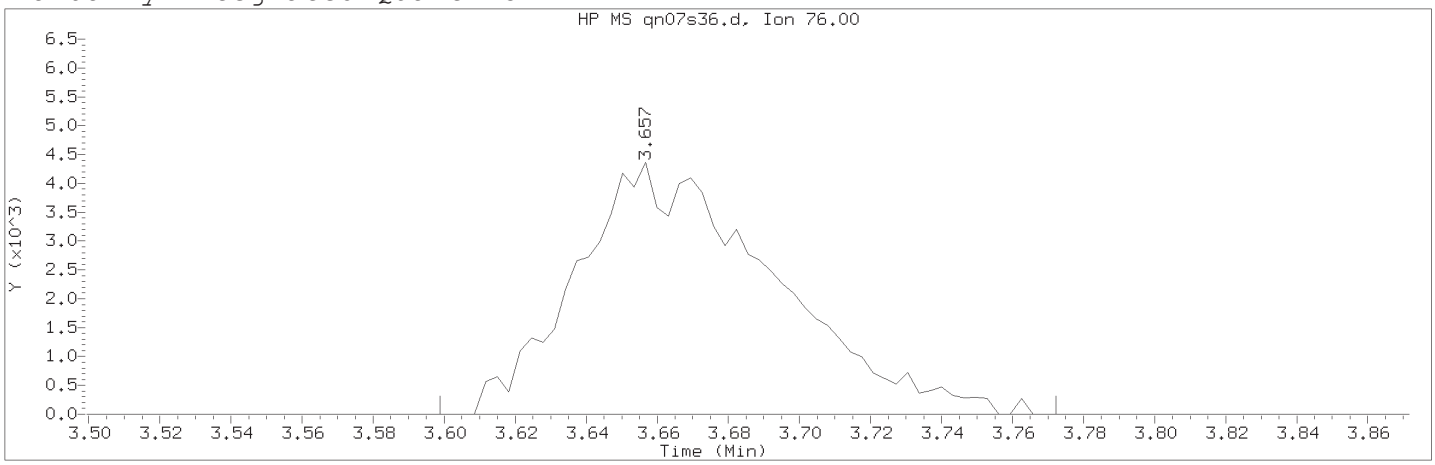
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 644
Retention Time (minutes): 3.657
Relative Retention Time : 0.00144
Quant Ion : 76.00
Area (flag) : 16841M
On-Column Amount (ng) : 0.7885

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

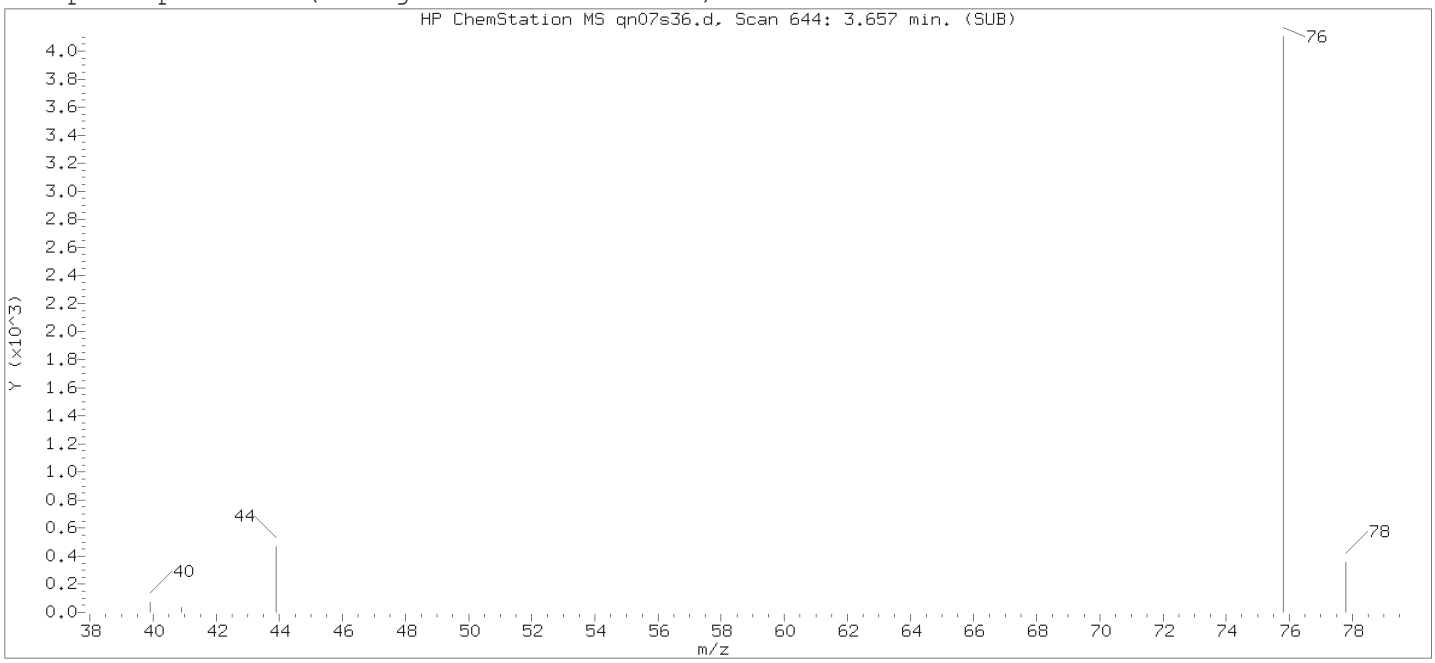
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 644
Retention Time (minutes): 3.657
Quant Ion : 76.00
Area (flag) : 16841M
On-Column Amount (ng) : 0.7885
Integration start scan : 625 Integration stop scan: 679
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

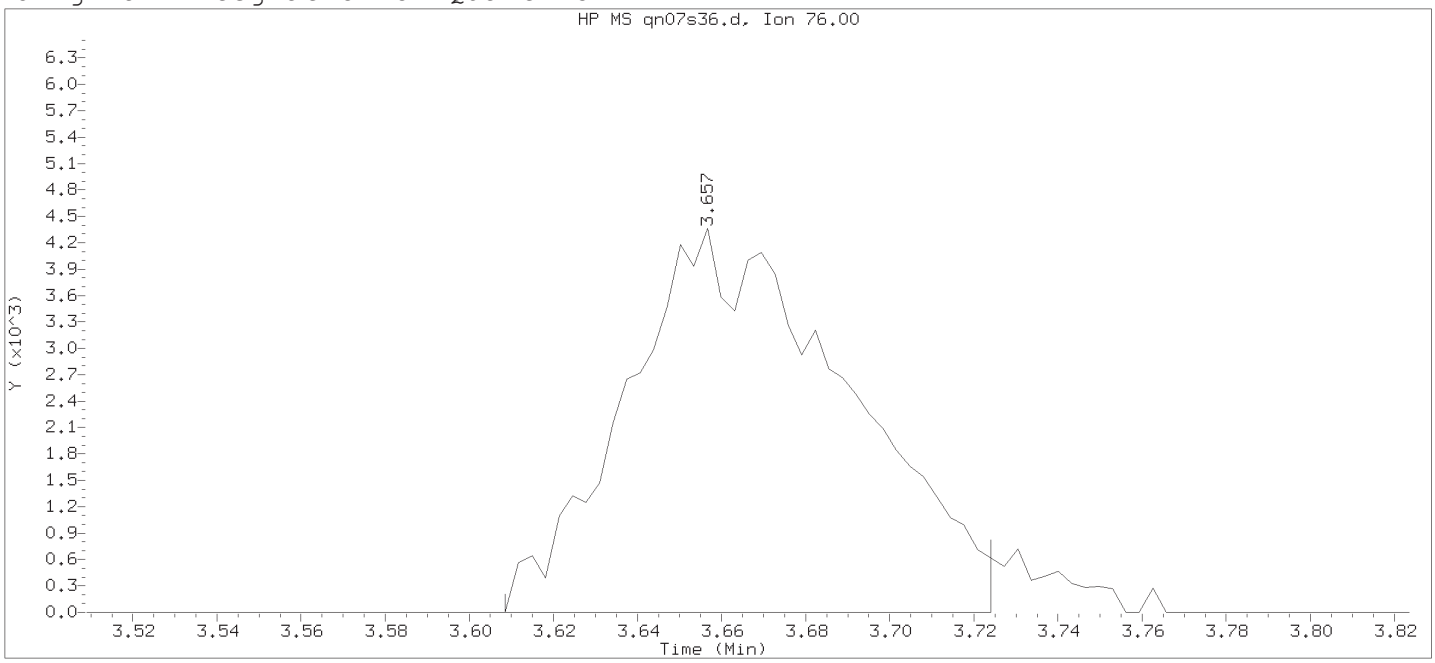
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

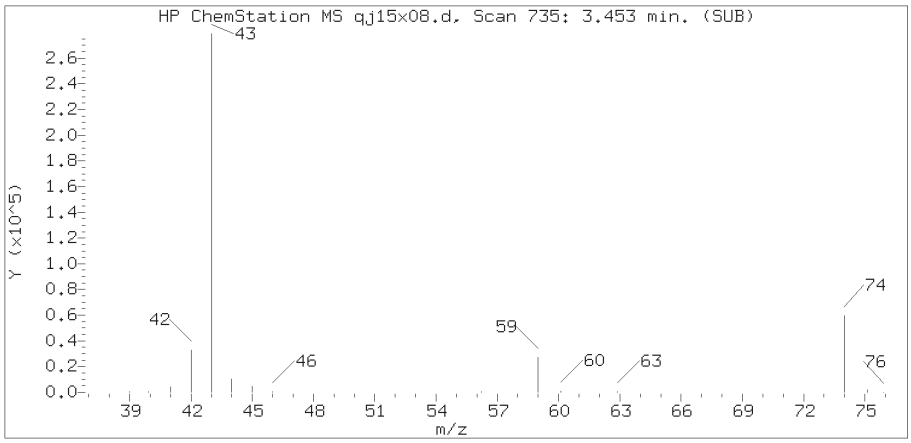
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 Automation

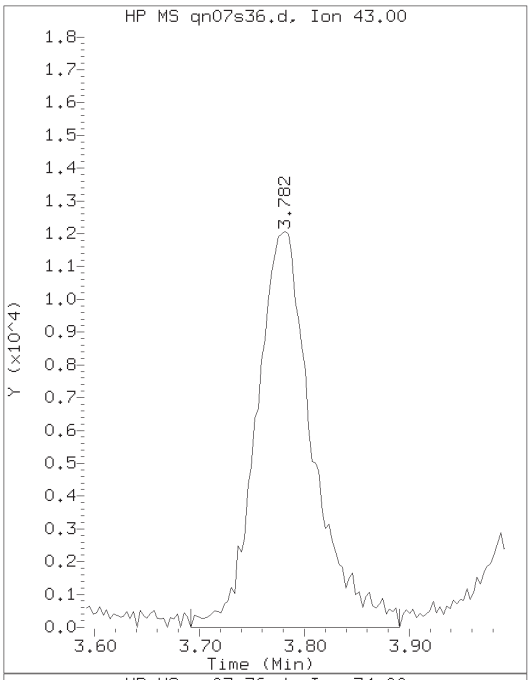
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 644
Retention Time (minutes): 3.657
Quant Ion : 76.00
Area : 16024
On-column Amount (ng) : 0.7503
Integration start scan : 628 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

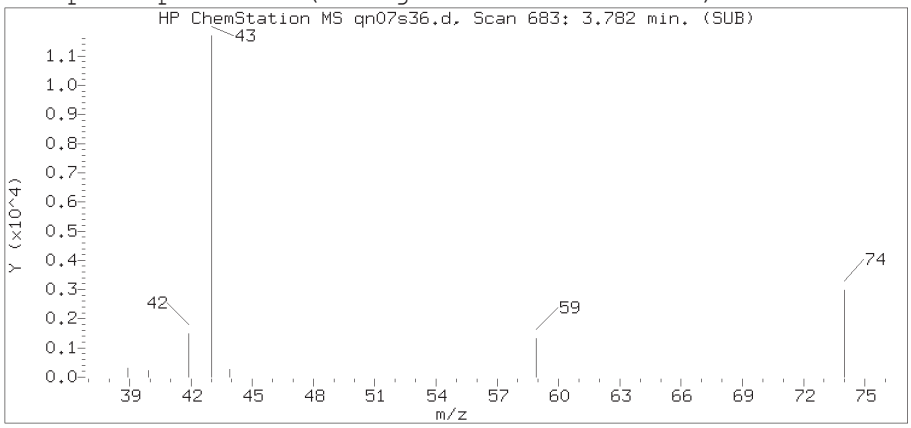
Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: PTH0215

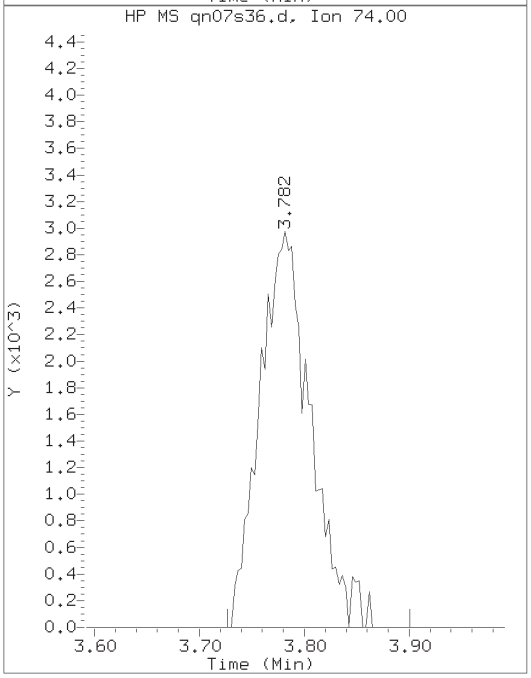
Reference Standard Spectrum for Methyl Acetate



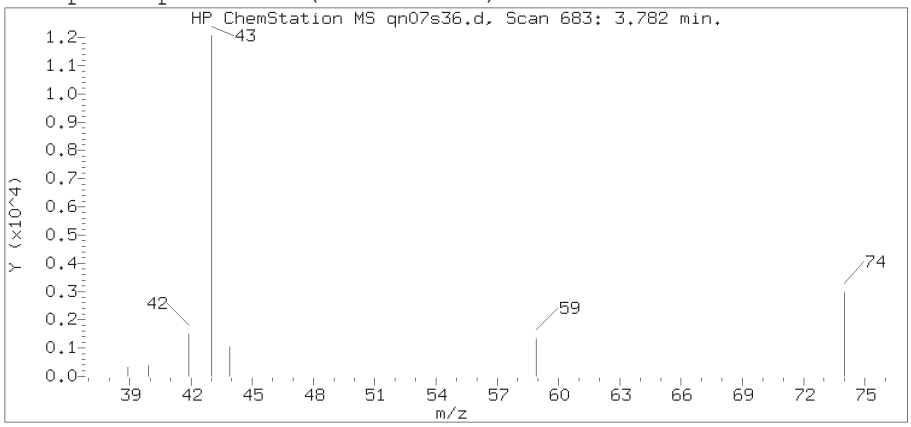


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 683
Retention Time (minutes): 3.782
Relative Retention Time :-0.00068
Quant Ion : 43.00
Area (flag) : 45061
On-Column Amount (ng) : 7.8276

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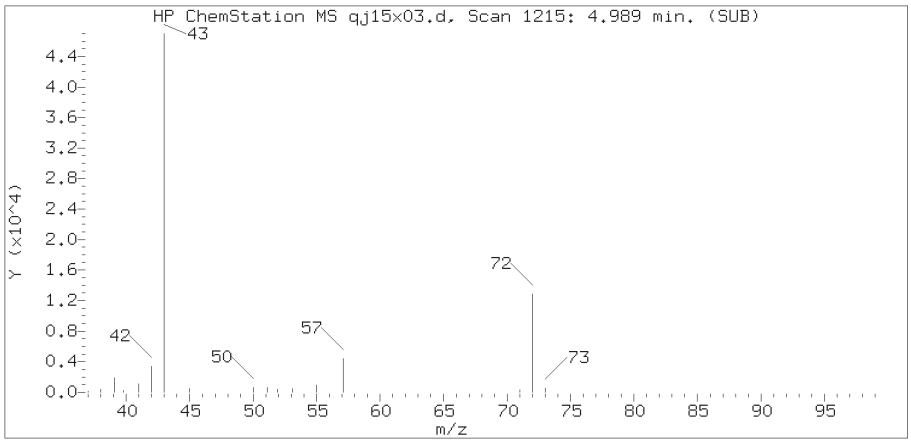
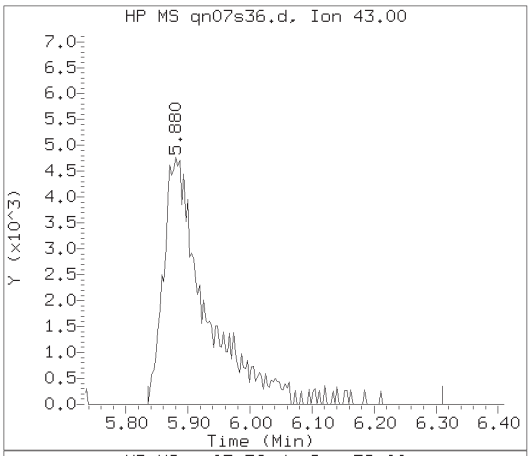
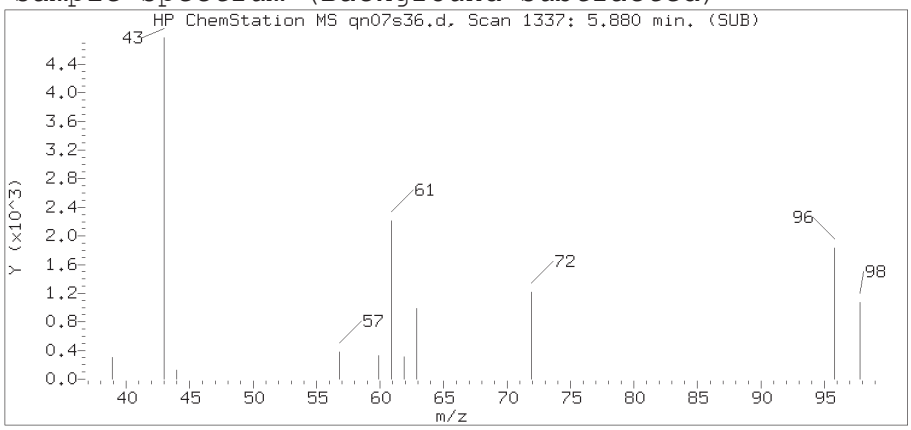
Target 3.5 esignature user ID: pth10165

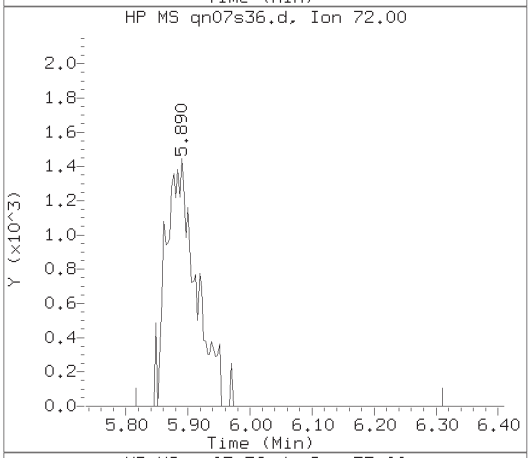
Reference Standard Spectrum for 2-Butanone



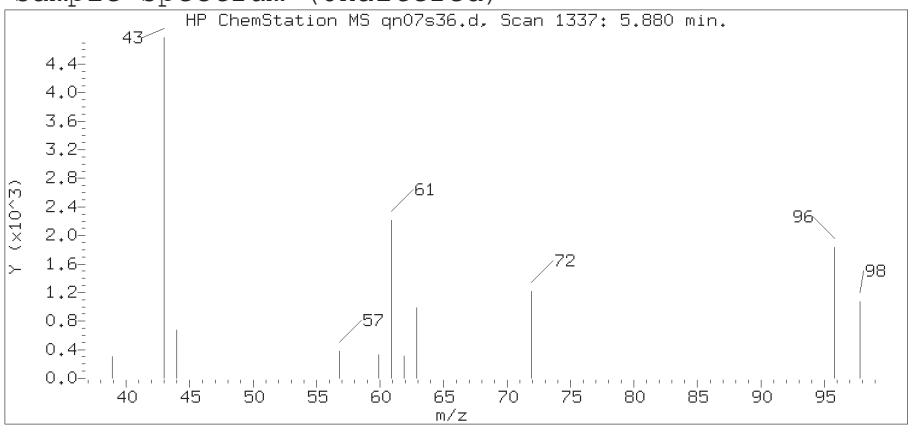


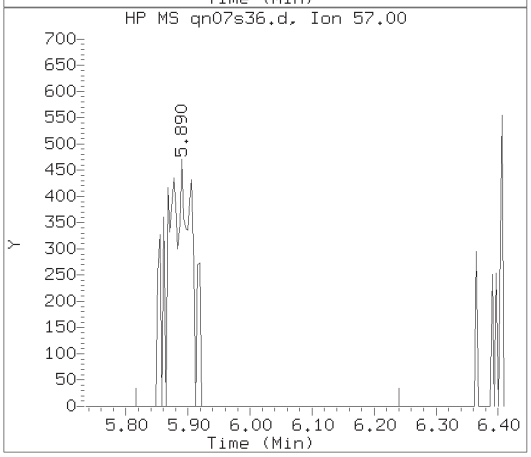
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1337
Retention Time (minutes): 5.880
Relative Retention Time : 0.00392
Quant Ion : 43.00
Area (flag) : 22867
On-Column Amount (ng) : 5.7154

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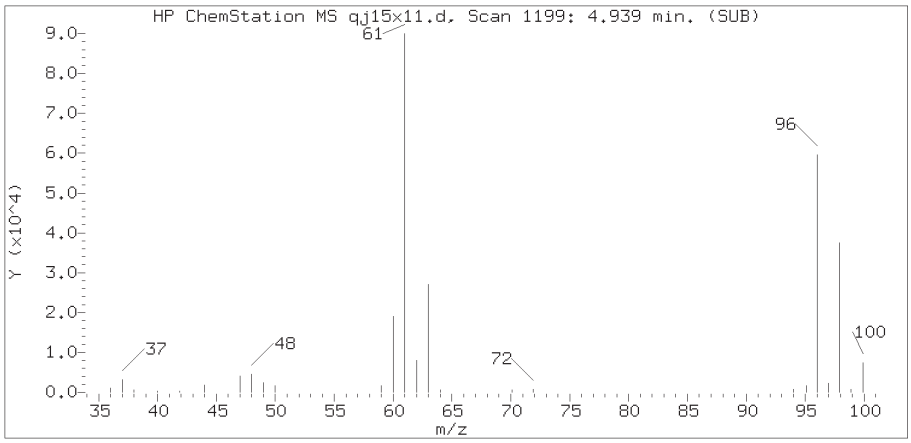
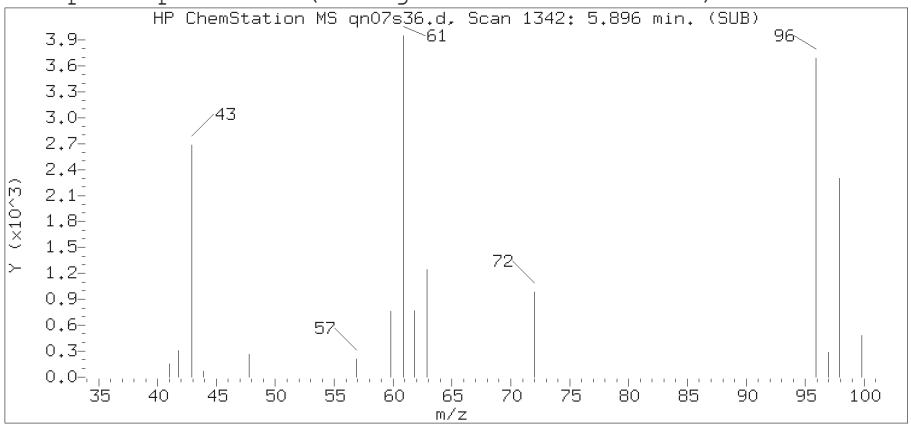
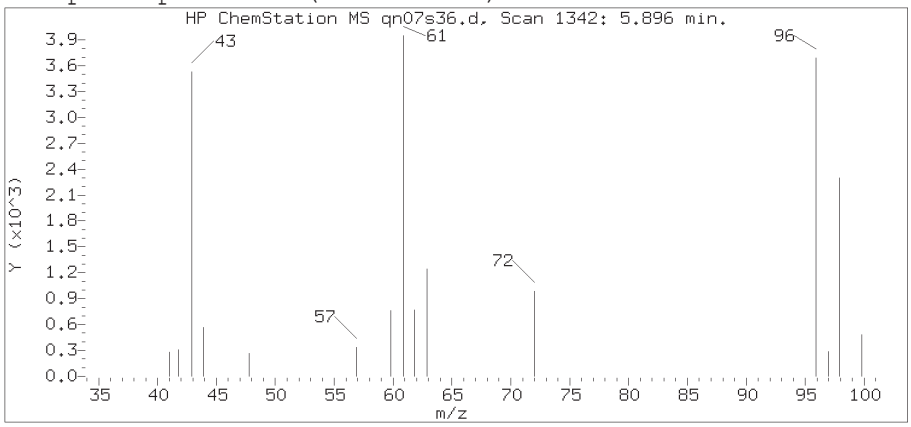
Reference Standard Spectrum for cis-1,2-Dichloroethene

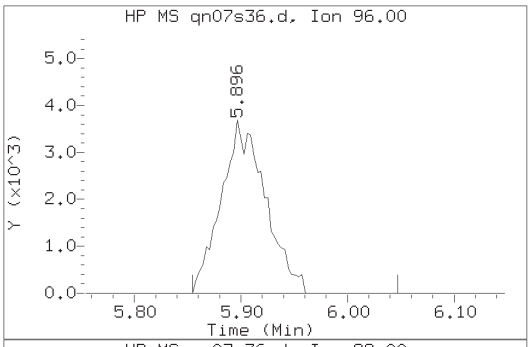


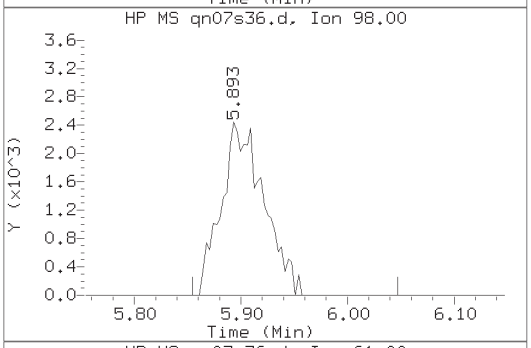
Sample Spectrum (Background Subtracted)

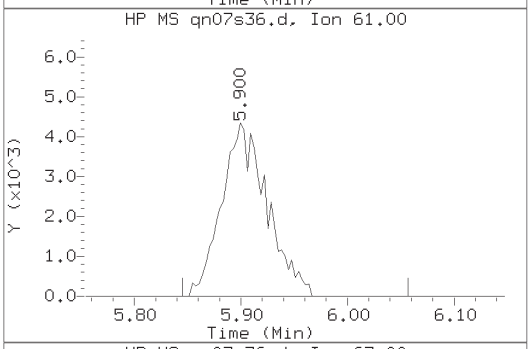


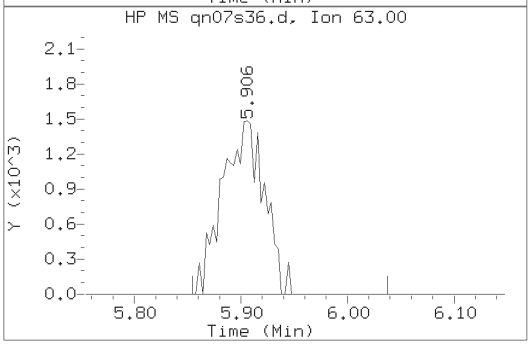
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1342
Retention Time (minutes): 5.896
Relative Retention Time :-0.00011
Quant Ion : 96.00
Area (flag) : 10609
On-Column Amount (ng) : 1.4494

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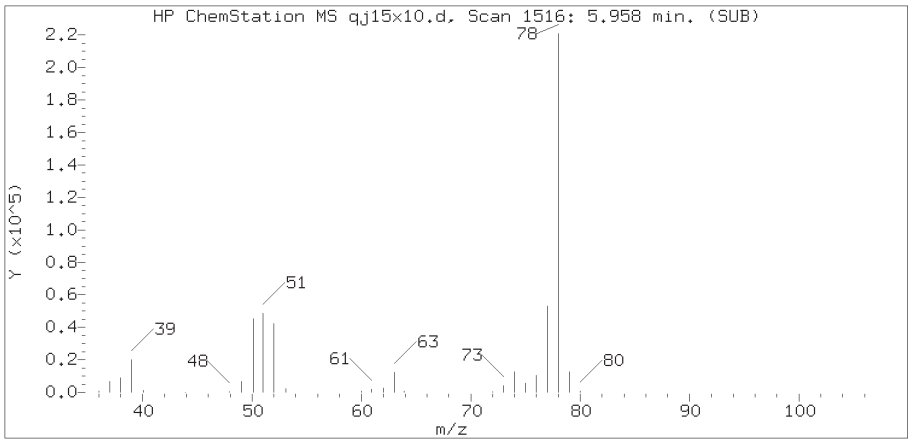
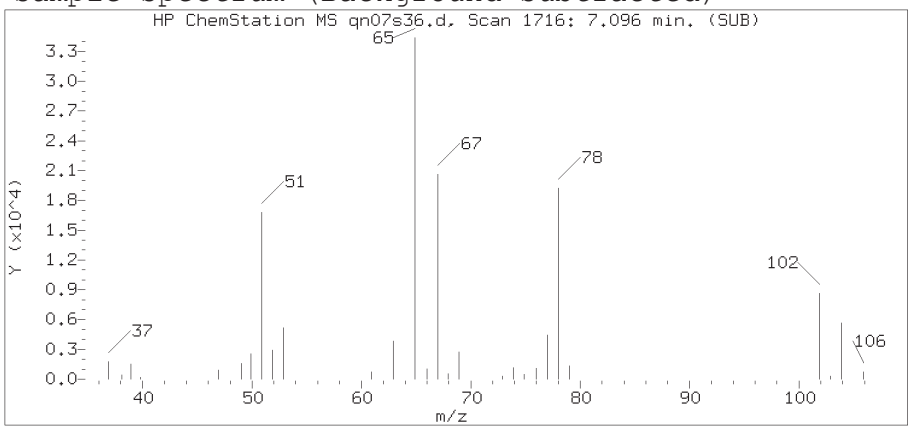
Target 3.5 esignature user ID: pth10165

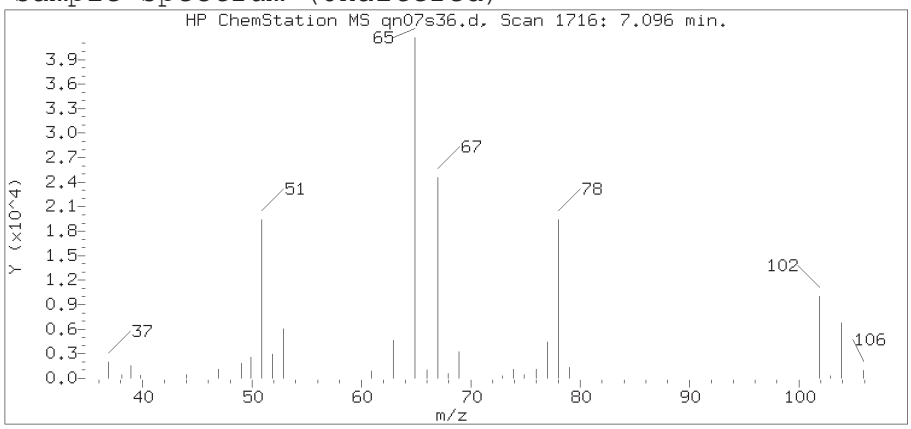
Reference Standard Spectrum for Benzene

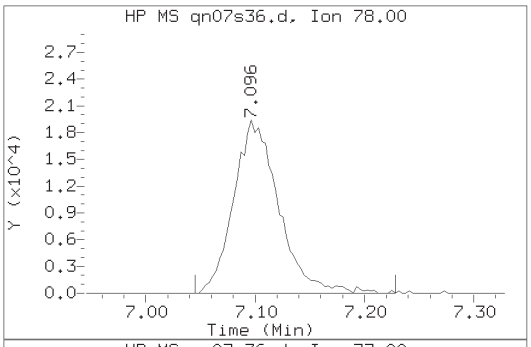


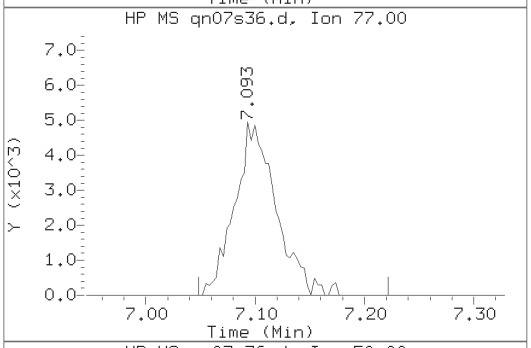
Sample Spectrum (Background Subtracted)

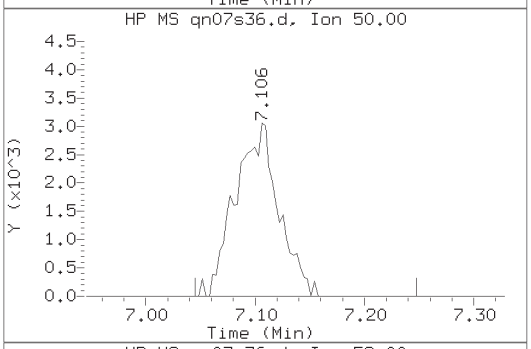


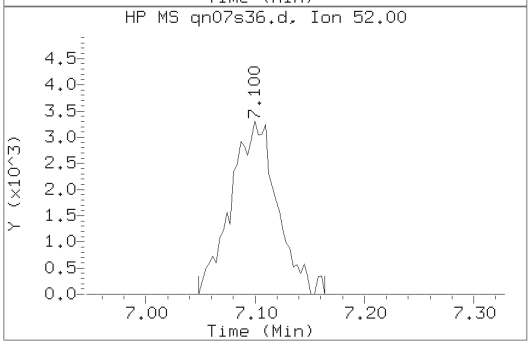
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 64
Compound Name	: Benzene
Scan Number	: 1716
Retention Time (minutes)	: 7.096
Relative Retention Time	: 0.00040
Quant Ion	: 78.00
Area (flag)	: 55617
On-Column Amount (ng)	: 2.1398

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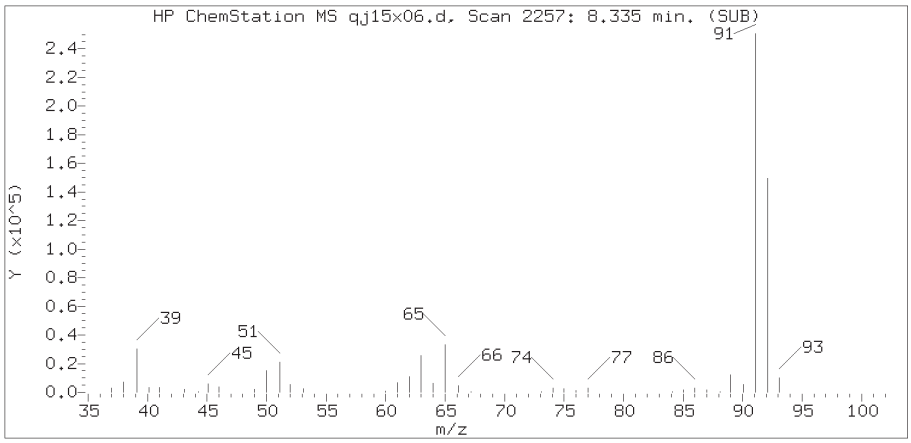
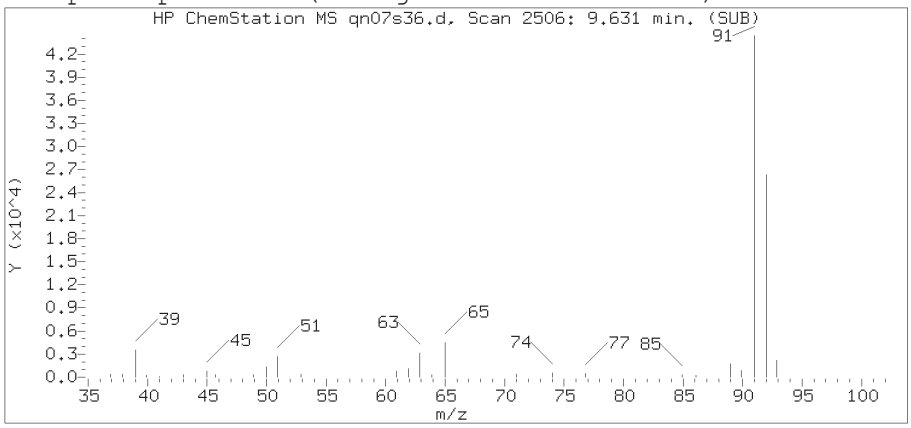
Target 3.5 esignature user ID: pth10165

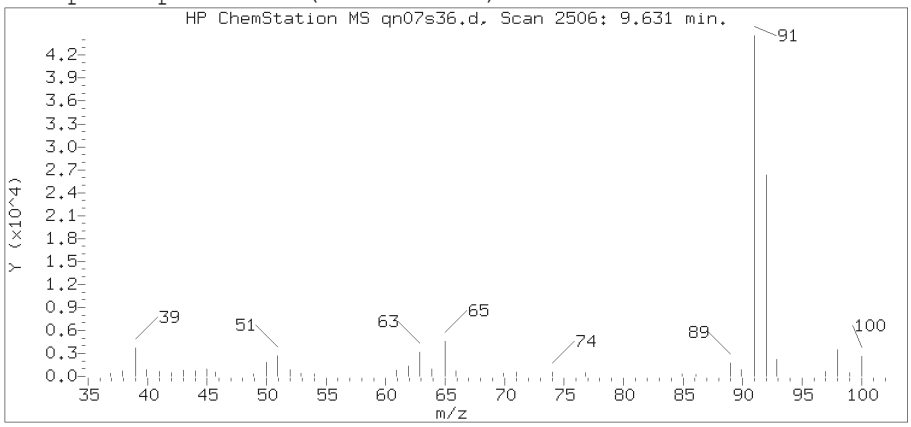
Reference Standard Spectrum for Toluene

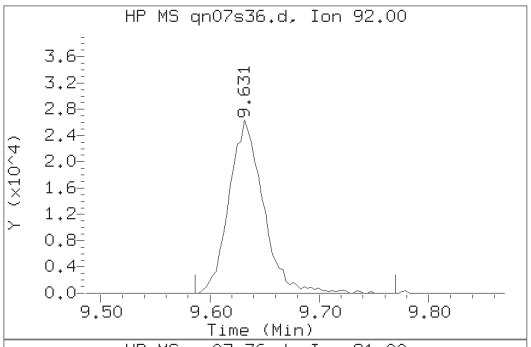


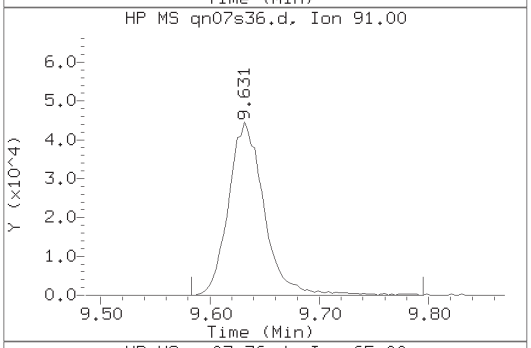
Sample Spectrum (Background Subtracted)

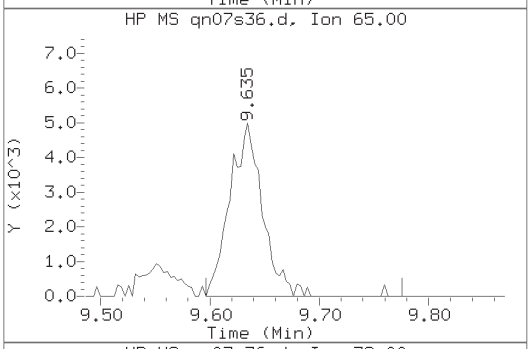


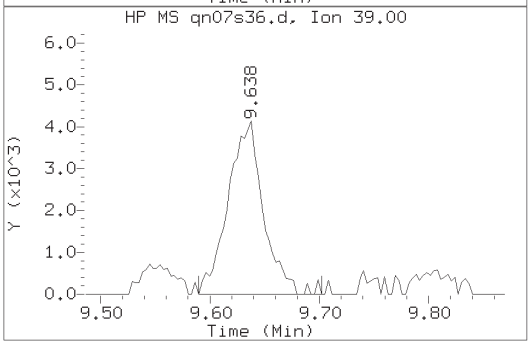
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 92
Compound Name : Toluene
Scan Number : 2506
Retention Time (minutes): 9.631
Relative Retention Time :-0.00030
Quant Ion : 92.00
Area (flag) : 57478
On-Column Amount (ng) : 3.5828

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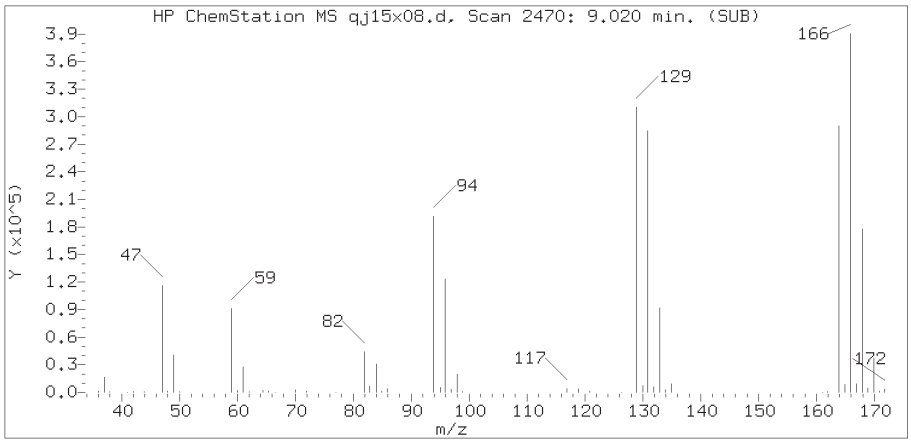
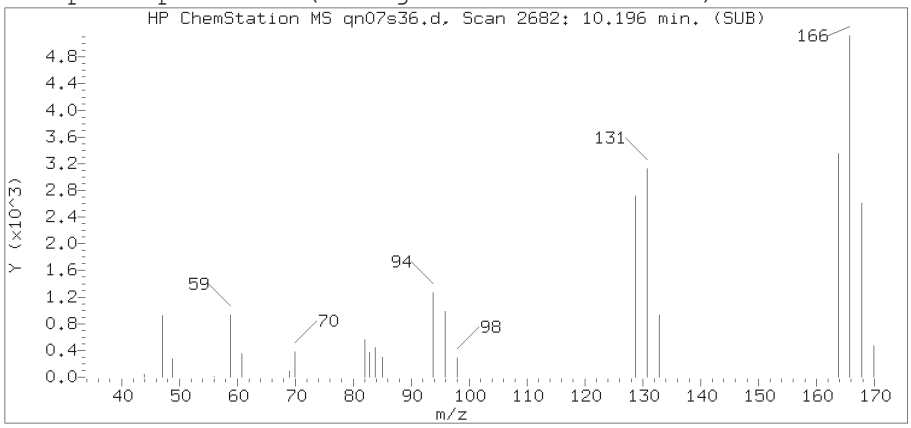
Target 3.5 esignature user ID: pth10165

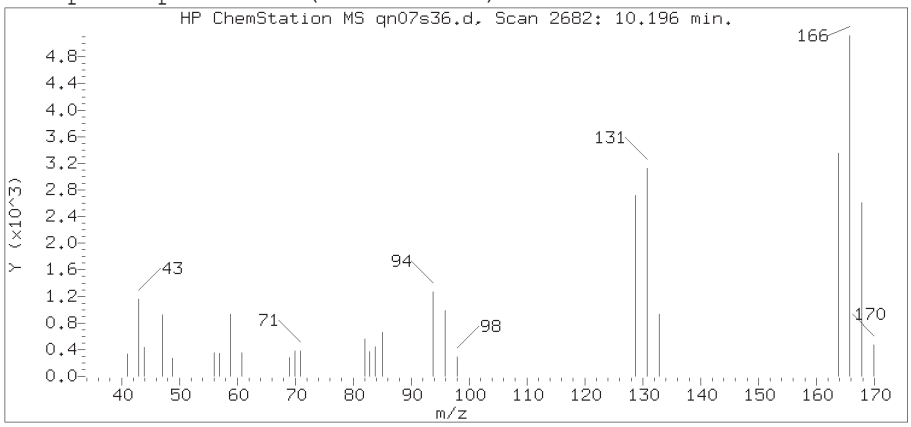
Reference Standard Spectrum for Tetrachloroethene

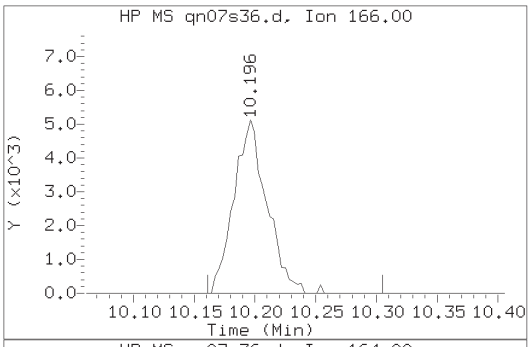


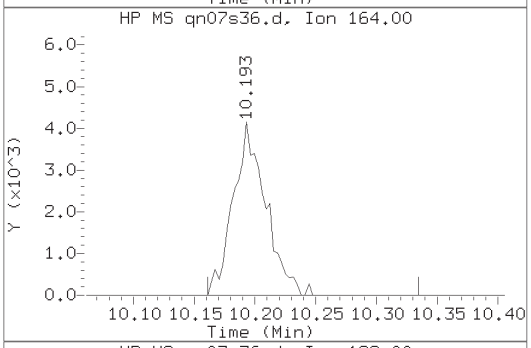
Sample Spectrum (Background Subtracted)

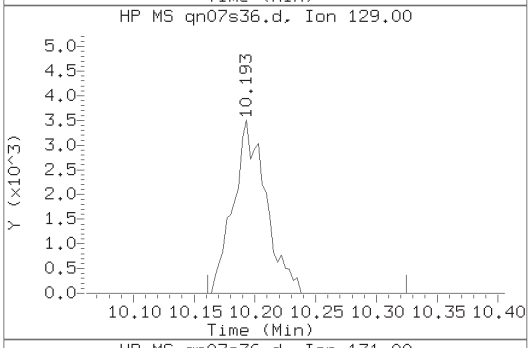


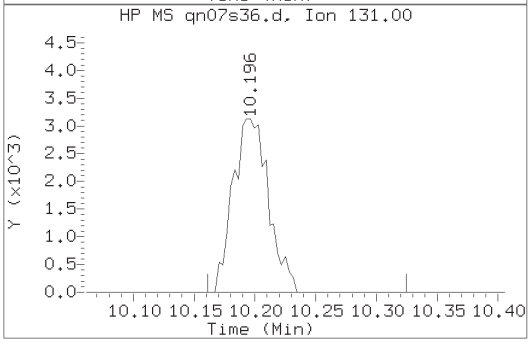
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 98
Compound Name : Tetrachloroethene
Scan Number : 2682
Retention Time (minutes): 10.196
Relative Retention Time :-0.00030
Quant Ion : 166.00
Area (flag) : 9703
On-Column Amount (ng) : 1.5158

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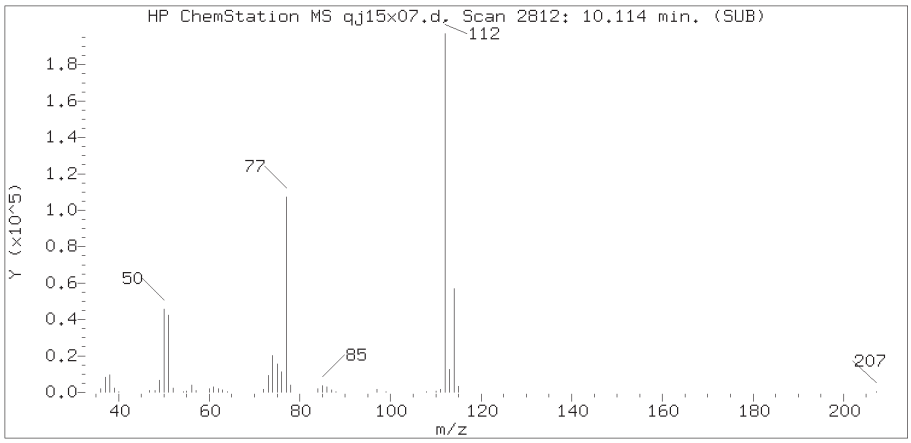
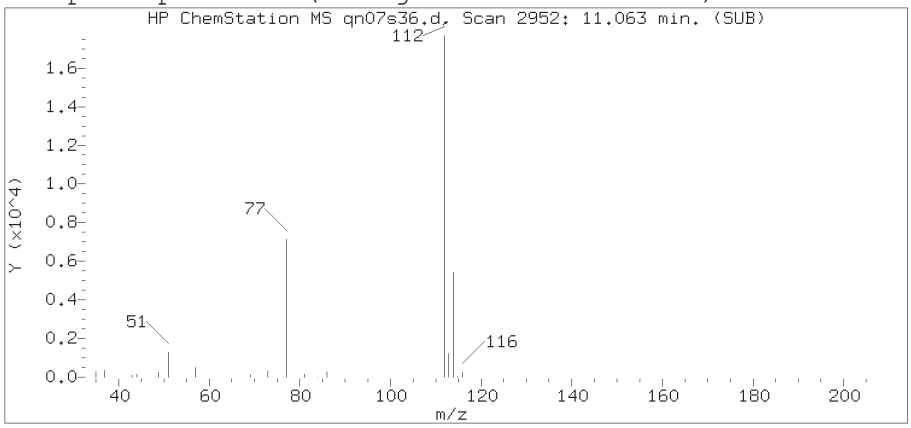
Target 3.5 esignature user ID: pth10165

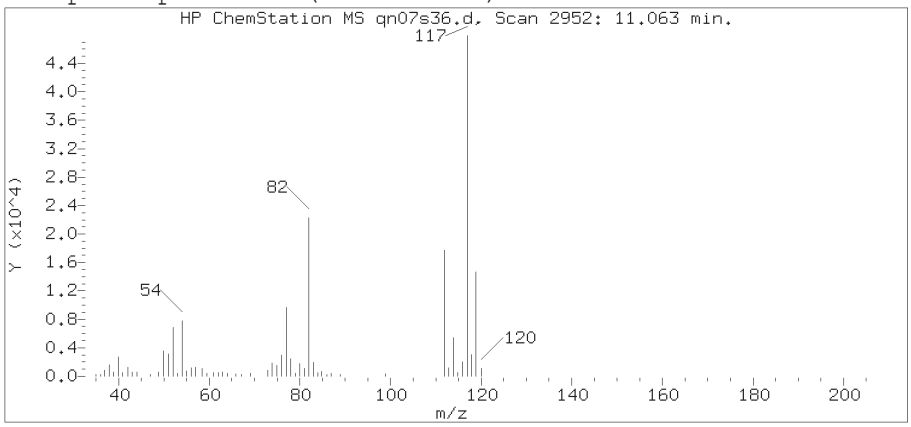
Reference Standard Spectrum for Chlorobenzene

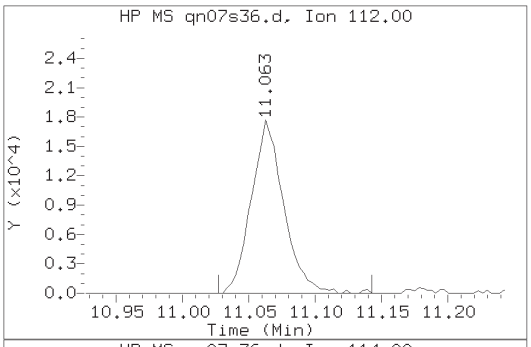


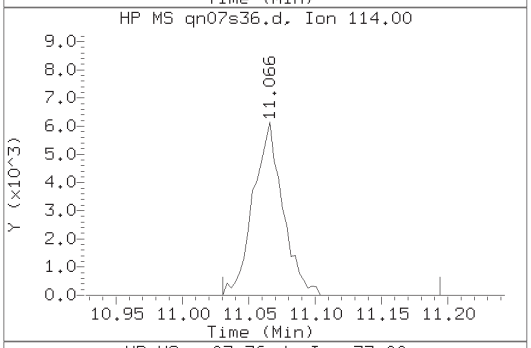
Sample Spectrum (Background Subtracted)

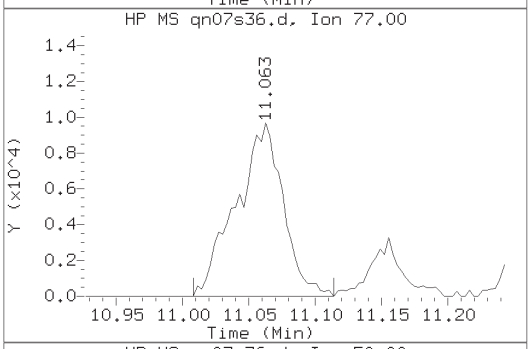


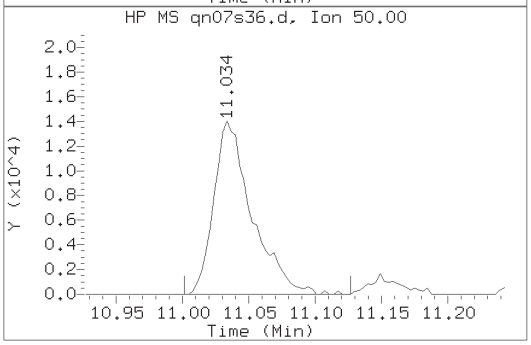
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 107
Compound Name : Chlorobenzene
Scan Number : 2952
Retention Time (minutes): 11.063
Relative Retention Time : 0.00000
Quant Ion : 112.00
Area (flag) : 29885
On-Column Amount (ng) : 1.6511

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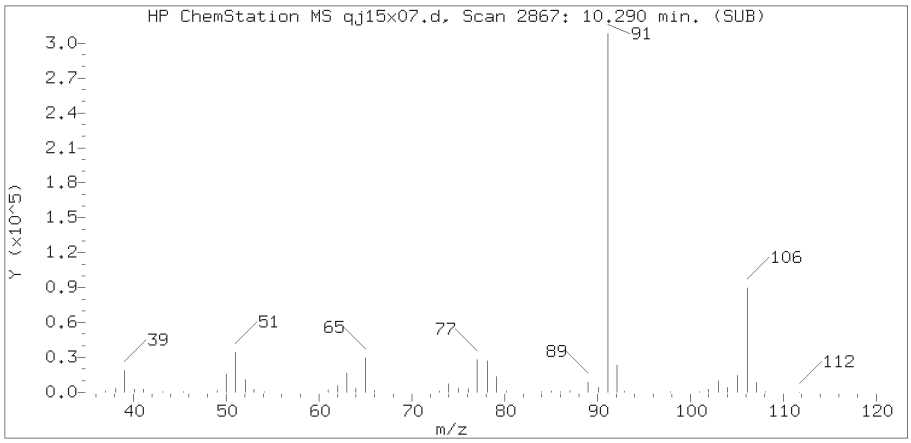
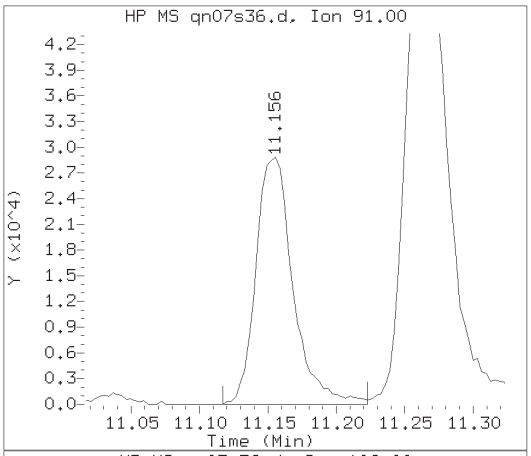
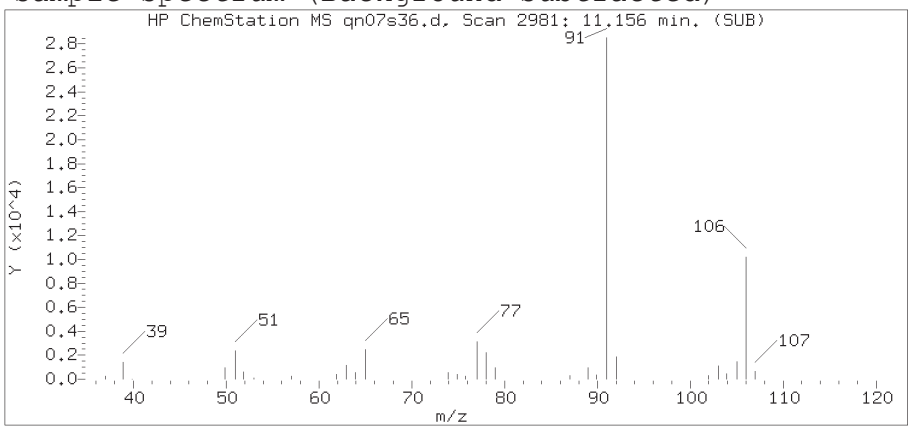
Target 3.5 esignature user ID: pth10165

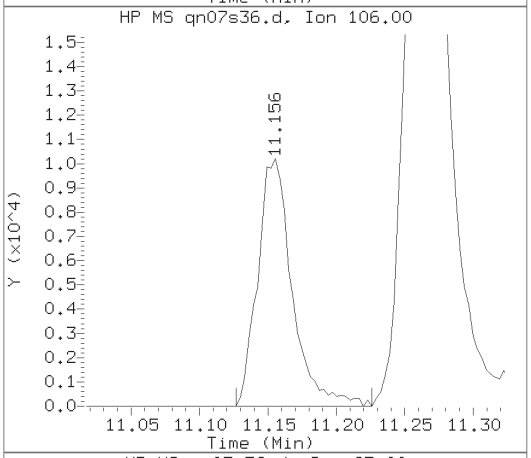
Reference Standard Spectrum for Ethylbenzene



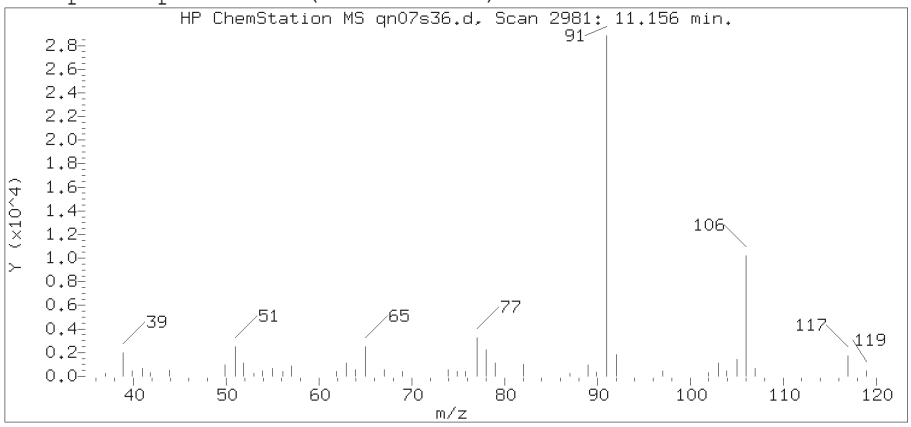


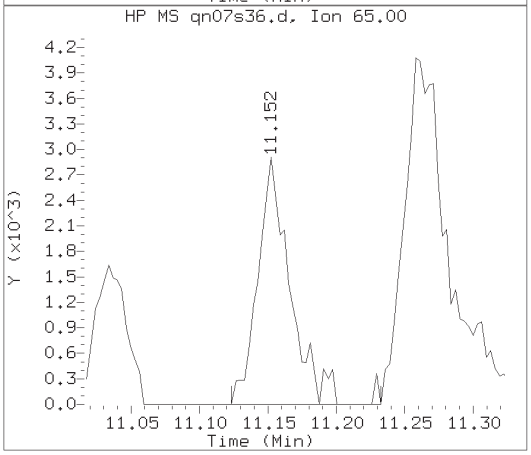
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2981
Retention Time (minutes): 11.156
Relative Retention Time :-0.00058
Quant Ion : 91.00
Area (flag) : 54311
On-Column Amount (ng) : 1.9725

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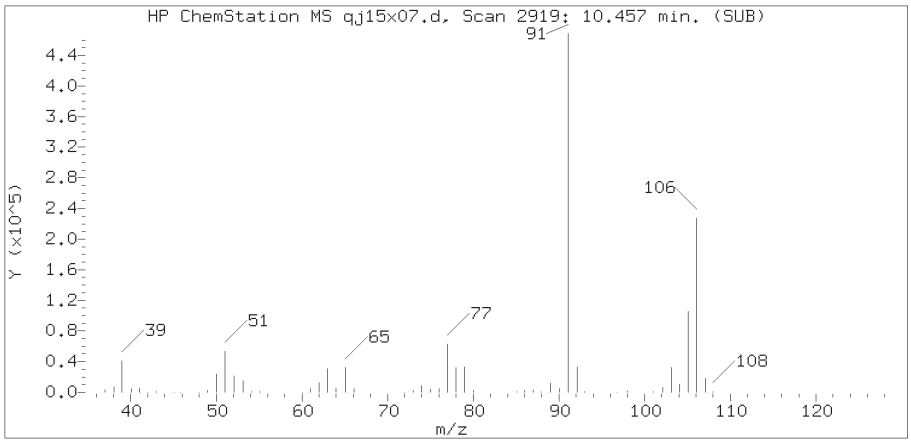
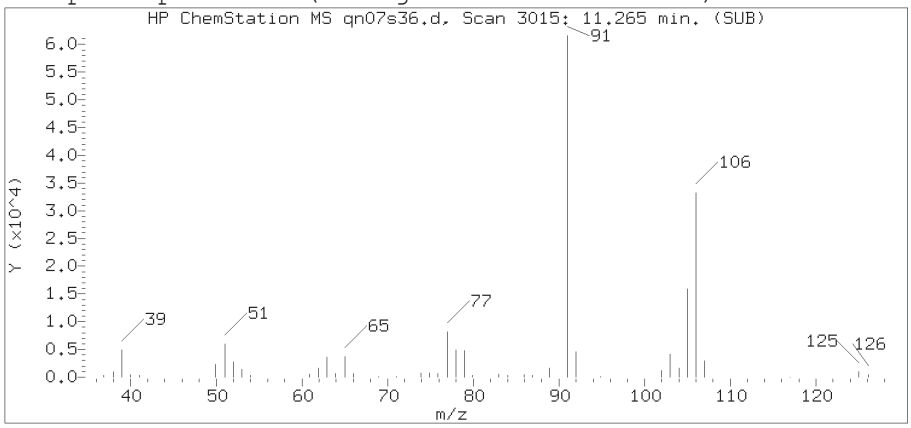
Target 3.5 esignature user ID: pth10165

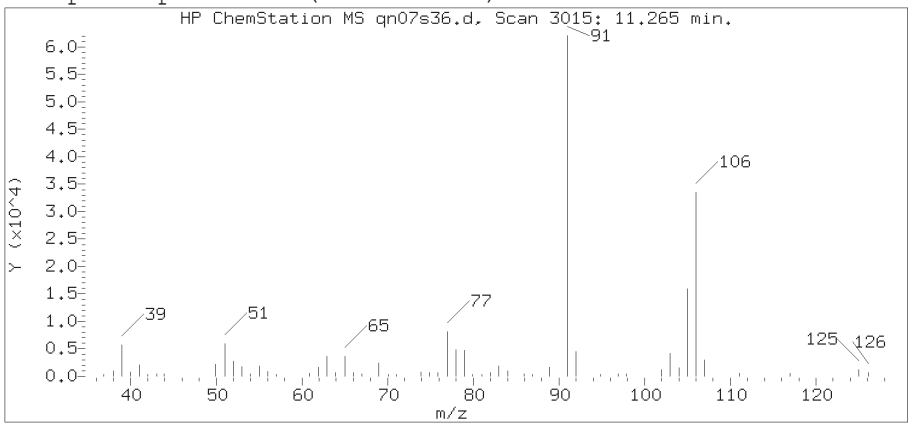
Reference Standard Spectrum for m+p-Xylene

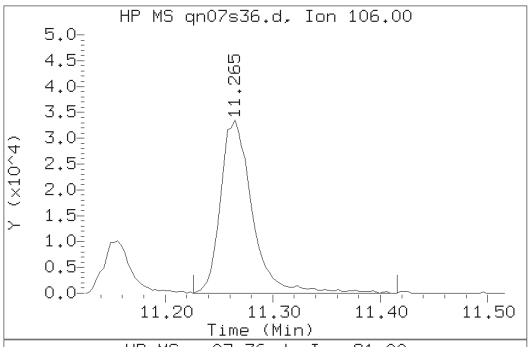


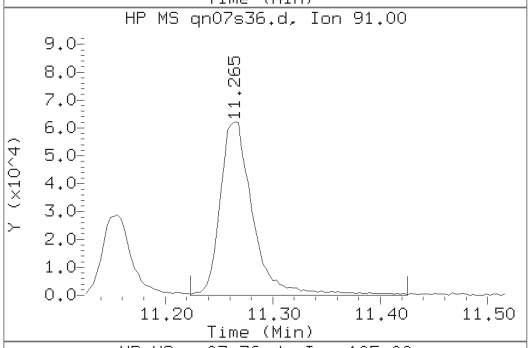
Sample Spectrum (Background Subtracted)

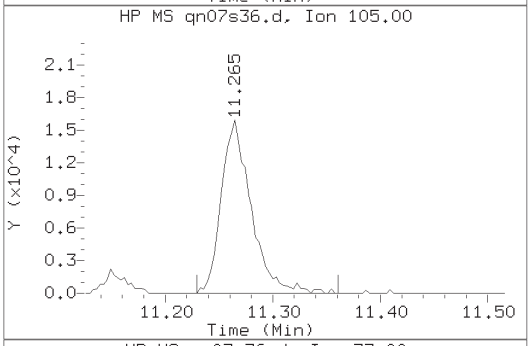


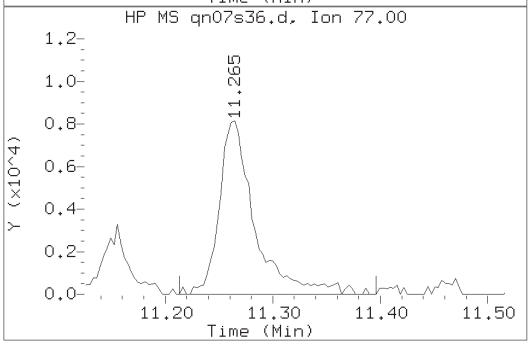
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3015
Retention Time (minutes): 11.265
Relative Retention Time : 0.00000
Quant Ion : 106.00
Area (flag) : 69108
On-Column Amount (ng) : 6.4208

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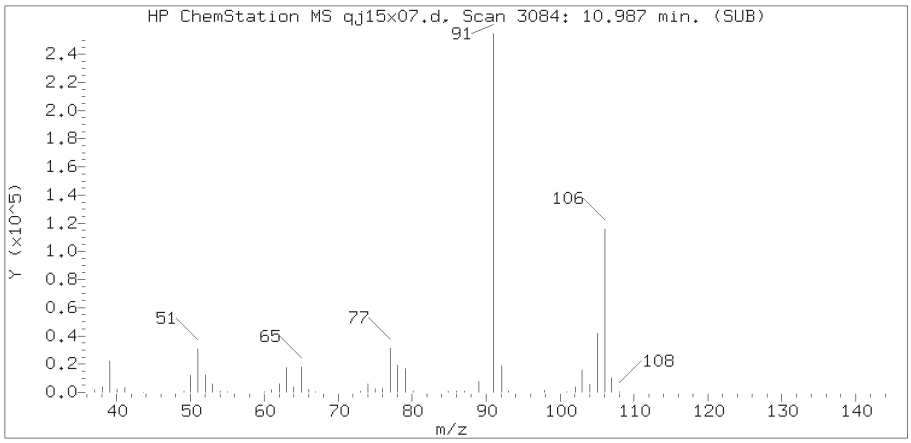
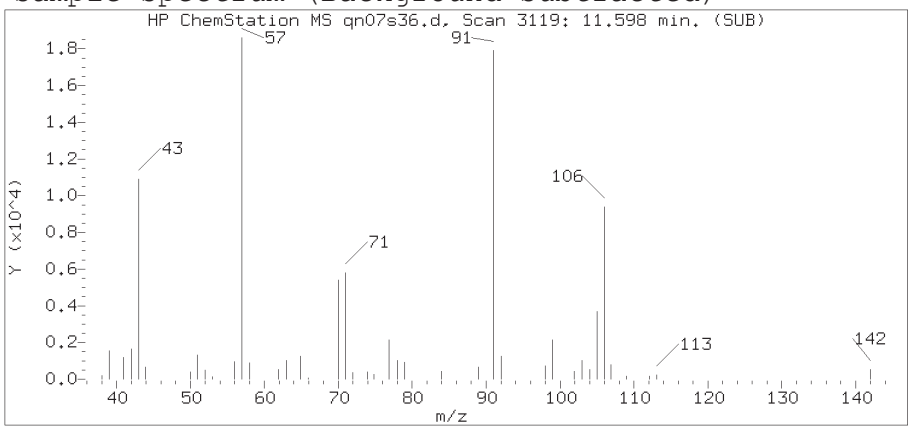
Target 3.5 esignature user ID: pth10165

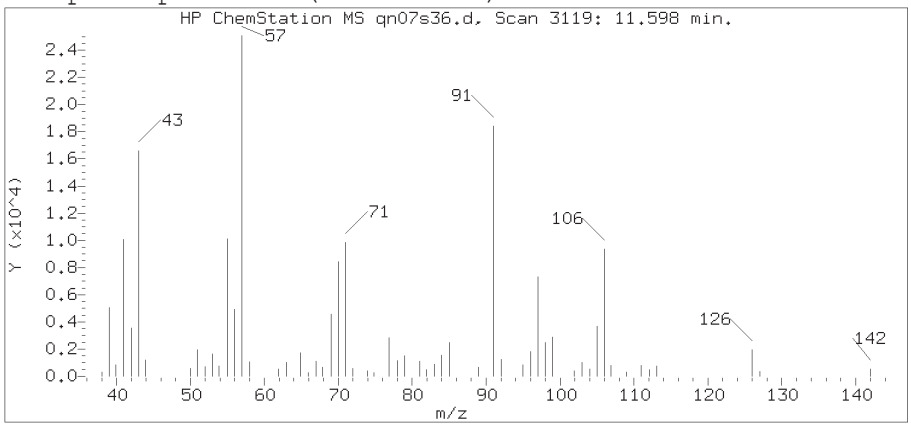
Reference Standard Spectrum for o-Xylene

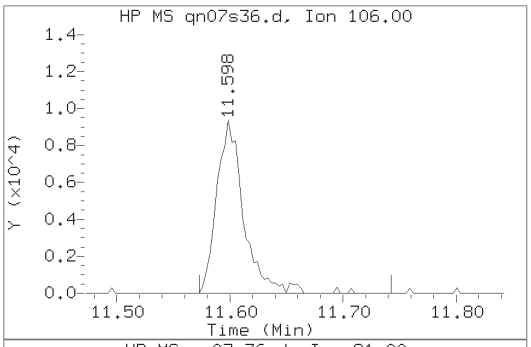


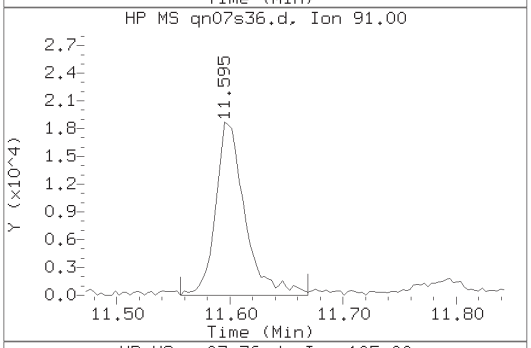
Sample Spectrum (Background Subtracted)

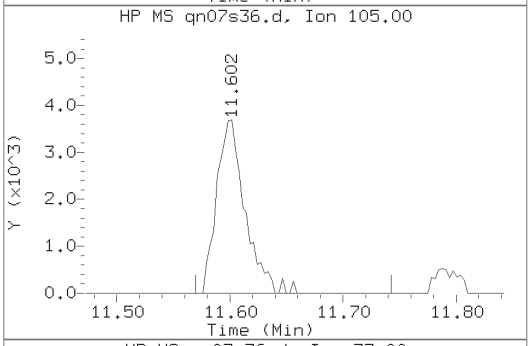


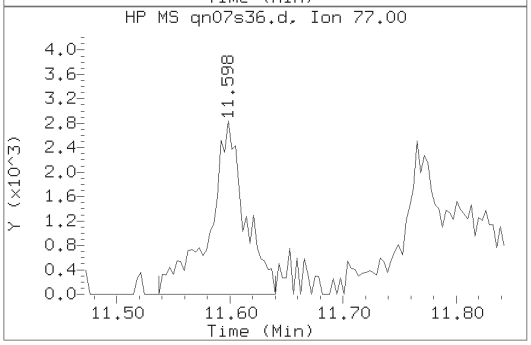
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3119
Retention Time (minutes): 11.598
Relative Retention Time :-0.00029
Quant Ion : 106.00
Area (flag) : 15612
On-Column Amount (ng) : 1.4570

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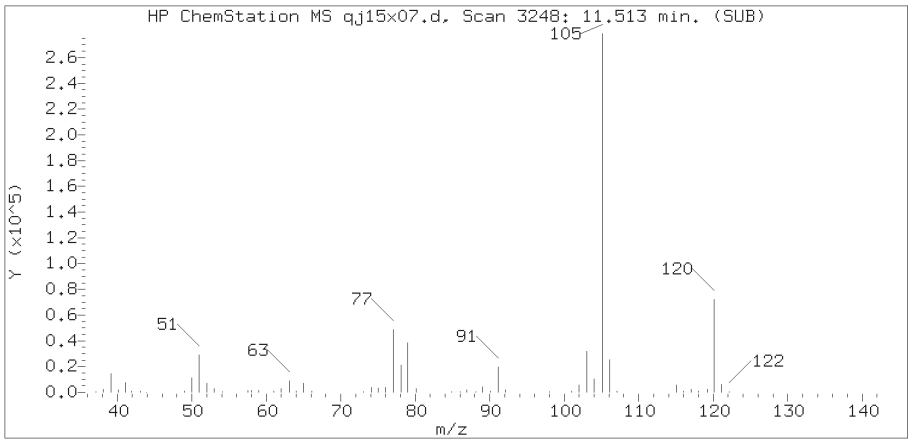
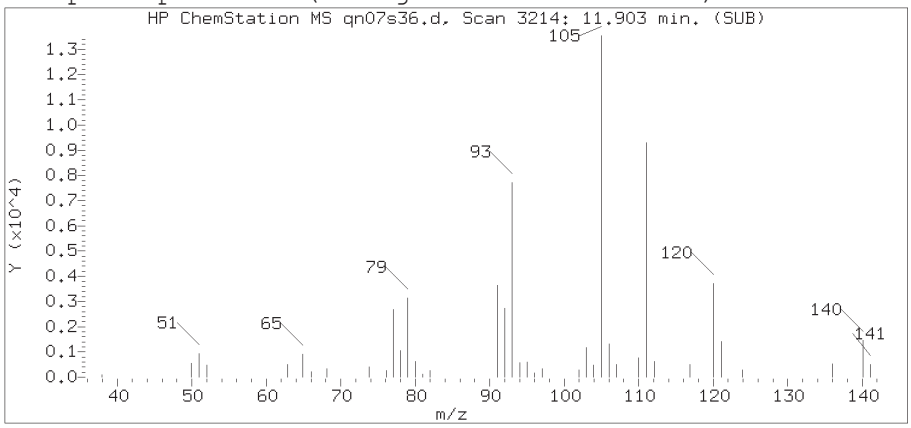
Target 3.5 esignature user ID: pth10165

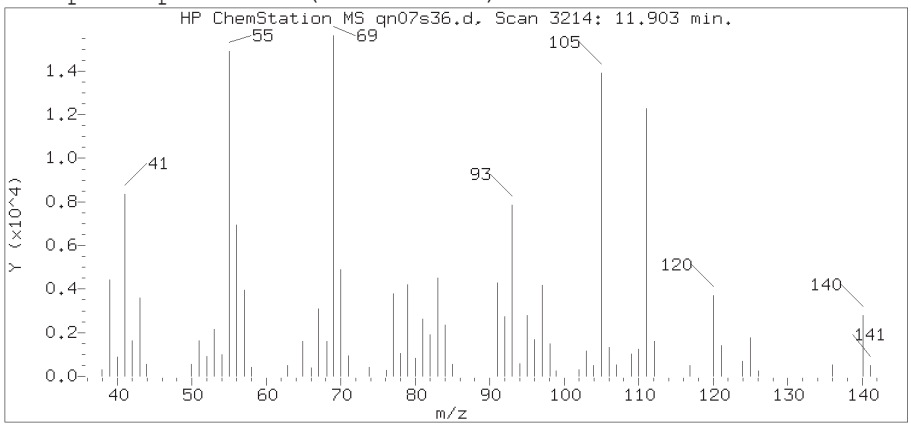
Reference Standard Spectrum for Isopropylbenzene

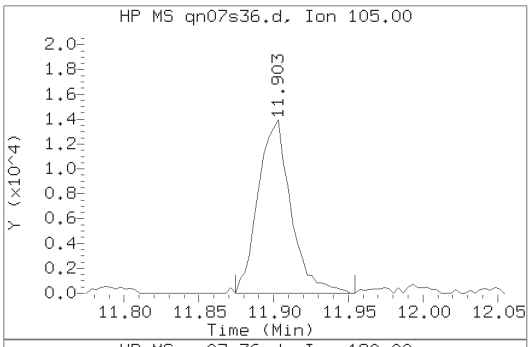


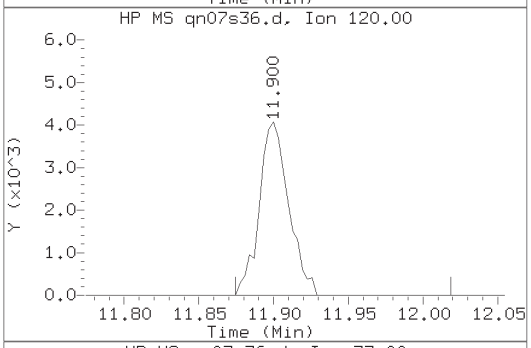
Sample Spectrum (Background Subtracted)

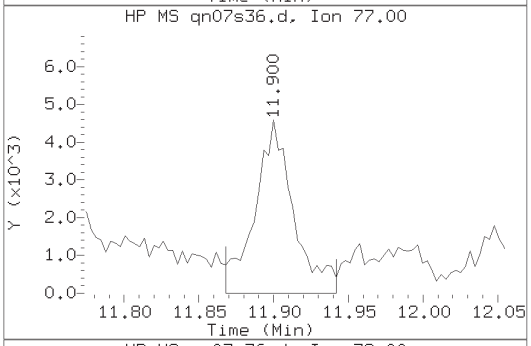


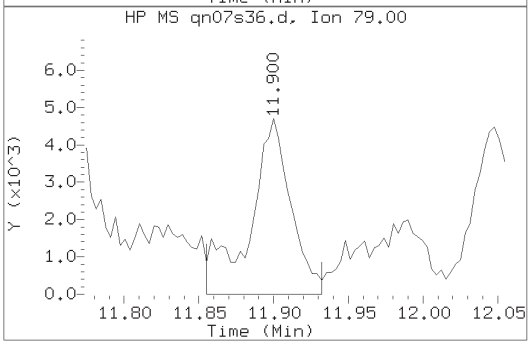
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

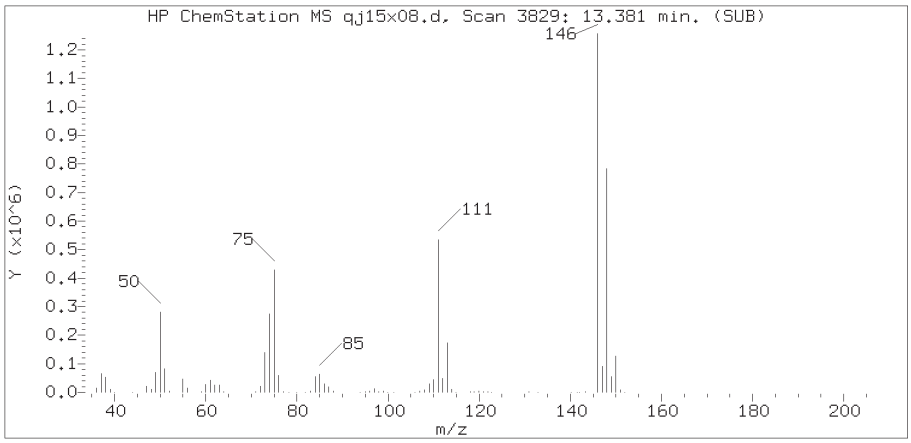
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

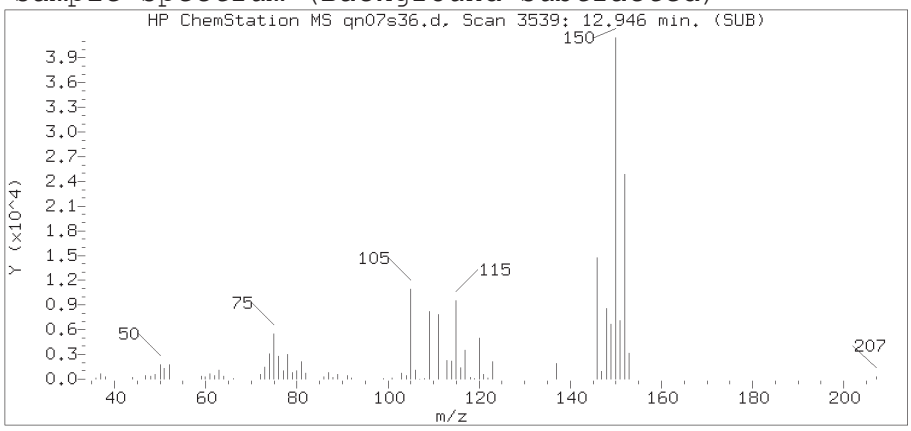
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3214
Retention Time (minutes): 11.903
Relative Retention Time :-0.00058
Quant Ion : 105.00
Area (flag) : 21156
On-Column Amount (ng) : 0.9252

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

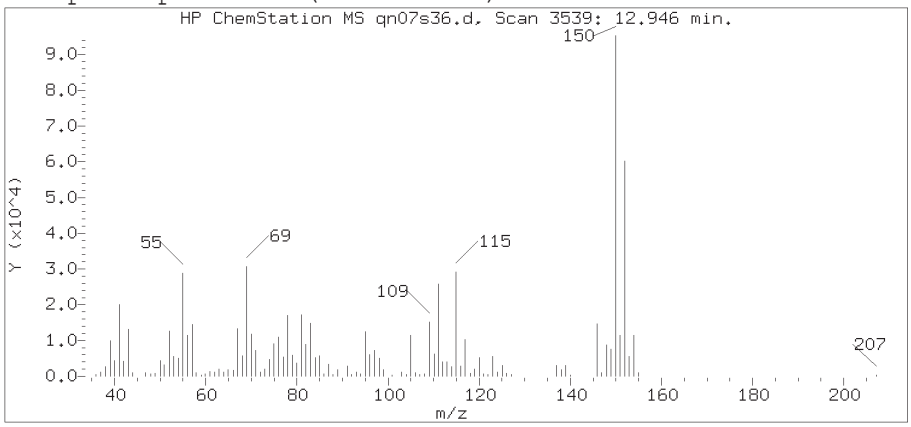
Reference Standard Spectrum for 1,4-Dichlorobenzene

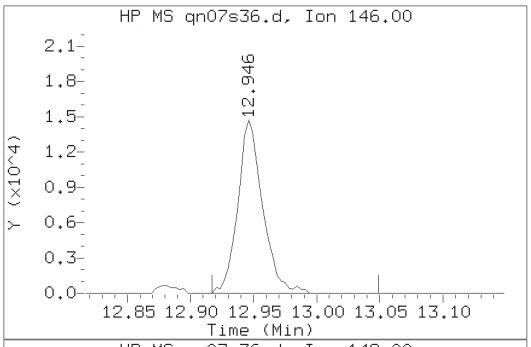


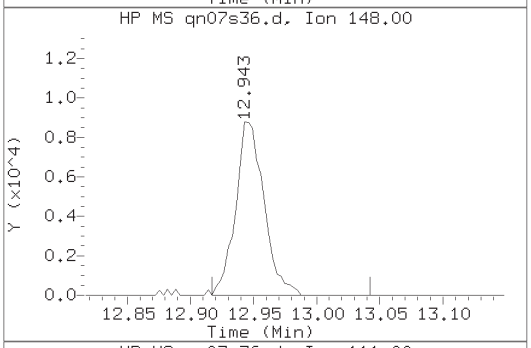
Sample Spectrum (Background Subtracted)

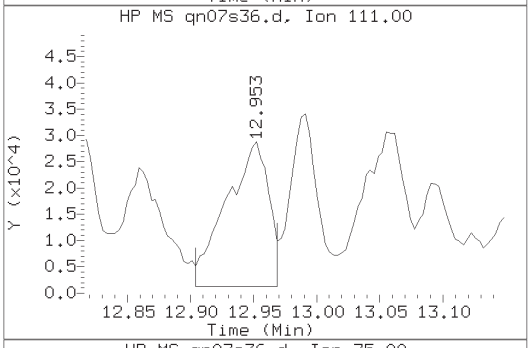


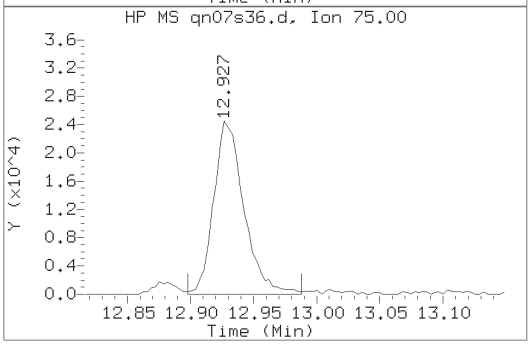
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.946
Relative Retention Time : 0.00025
Quant Ion : 146.00
Area (flag) : 20148
On-Column Amount (ng) : 1.4506

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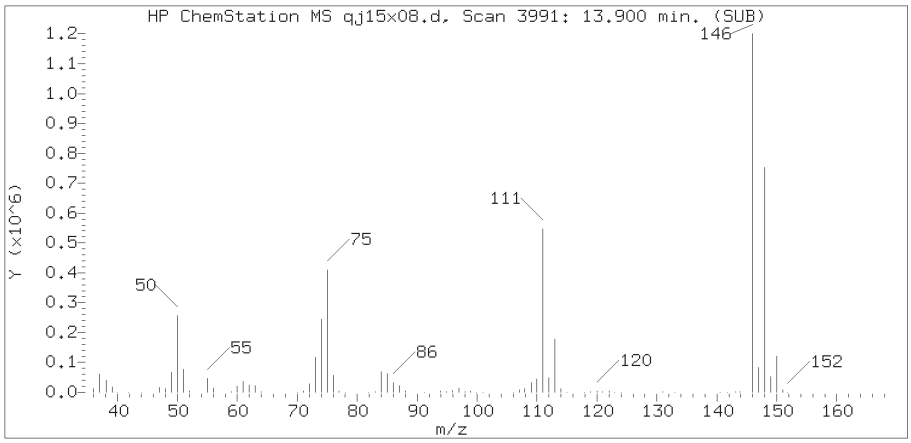
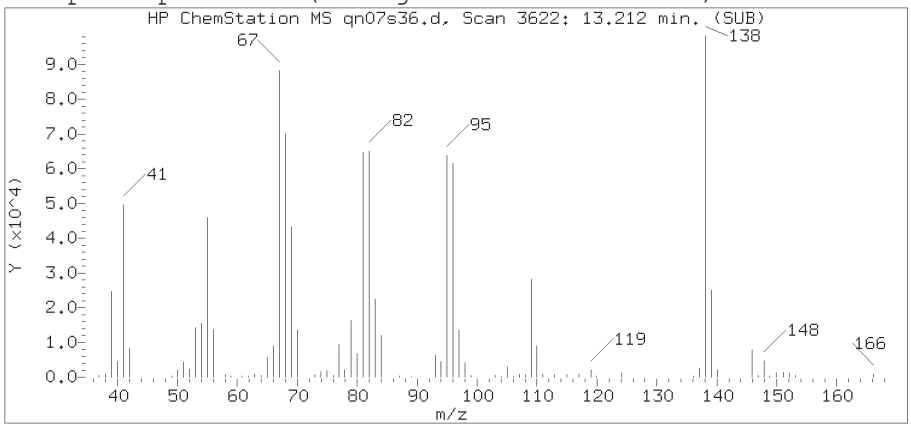
Target 3.5 esignature user ID: pth10165

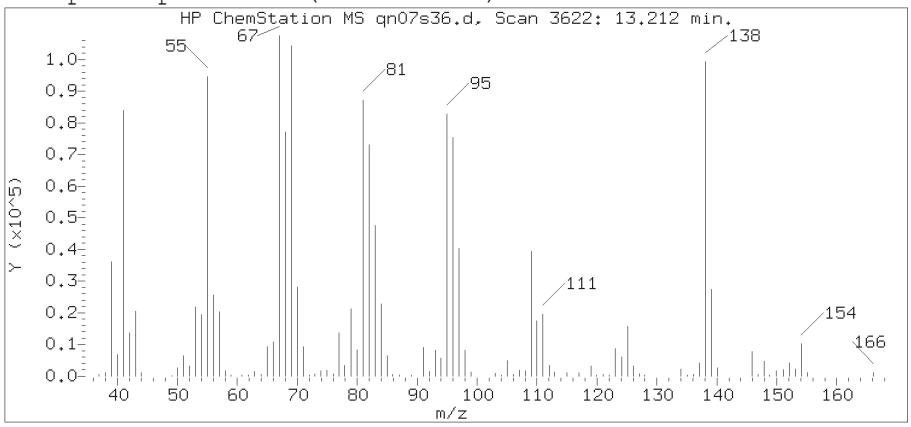
Reference Standard Spectrum for 1,2-Dichlorobenzene

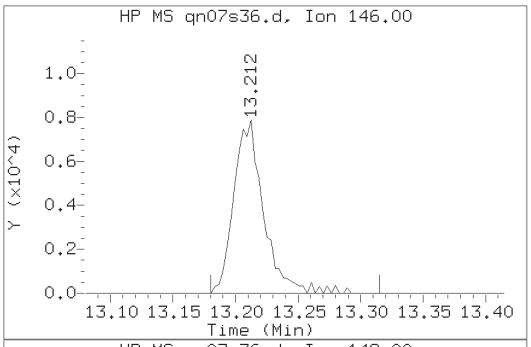


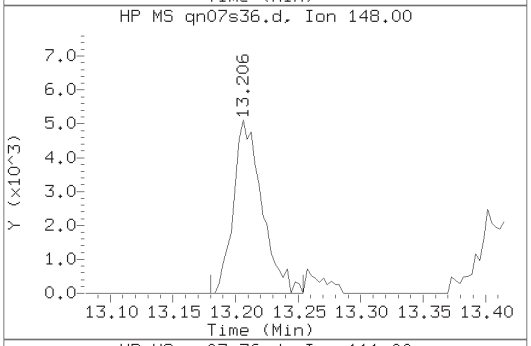
Sample Spectrum (Background Subtracted)

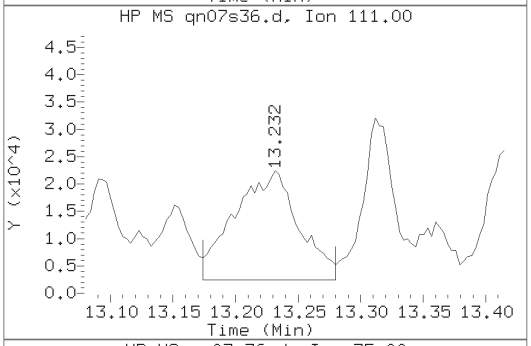


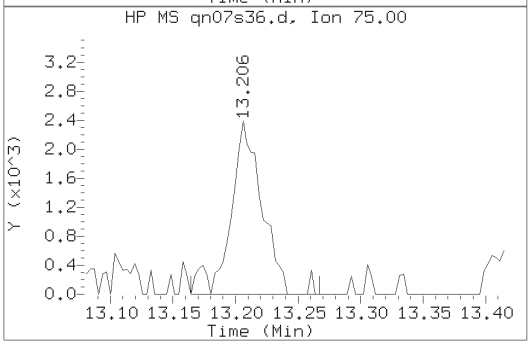
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s36.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 14:45 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:52 pth10165

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3622
Retention Time (minutes): 13.212
Relative Retention Time :-0.00049
Quant Ion : 146.00
Area (flag) : 13094
On-Column Amount (ng) : 1.0215

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:53.
Target 3.5 esignature user ID: pth10165

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08s41.d Injection date and time: **08-NOV-2018 12:43**
Data file Sample Info. Line: 12T04RE;9872062RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **48.36**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.17 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.996	(0.008)	749	65	147573	(10)	250.00	
70) Fluorobenzene	7.510	(-0.002)	1844	96	1193296	(9)	50.00	
105) Chlorobenzene-d5	11.033	(0.001)	2942	117	919972	(7)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929	(-0.002)	3533	152	402955	(5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.614	(0.000)	113	196110	30.209	60%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.076	(0.000)	102	59399	35.189	70%	*	71 - 136
91) Toluene-d8	(3)	9.547	(0.000)	98	786024	31.298	63%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.044	(0.000)	95	226904M	28.378	57%	*	79 - 119

M = Surrogate Standard was manually integrated. * = Surrogate Standard % recovery outside QC limits.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)				Not Detected					29	240
4) Chloromethane	(2)				Not Detected					29	240
5) Vinyl Chloride	(2)				Not Detected					29	240
9) Bromomethane	(2)				Not Detected					34	240
10) Chloroethane	(2)				Not Detected					48	240
13) Trichlorofluoromethane	(2)				Not Detected					34	240
19) 1,1-Dichloroethene	(2)				Not Detected					24	240
20) Acetone	(1)				Not Detected					290	970
22) Freon 113	(2)				Not Detected					29	480
25) Carbon Disulfide	(2)	3.681	(-0.002)	76	15038	0.698	33.78		J	29	240
27) Methyl Acetate	(2)	3.778	(-0.000)	43	40645	7.004	338.68			48	240
31) Methylene Chloride	(2)				Not Detected					97	240
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					24	240
35) trans-1,2-Dichloroethene	(2)				Not Detected					24	240
40) 1,1-Dichloroethane	(2)				Not Detected					24	240
44) 2-Butanone	(1)	5.873	(-0.004)	43	23750	6.216	300.58		J	48	480
45) cis-1,2-Dichloroethene	(2)	5.899	(-0.000)	96	10583	1.434	69.36		J	24	240
54) Chloroform	(2)				Not Detected					29	240
57) 1,1,1-Trichloroethane	(2)				Not Detected					29	240
58) Cyclohexane	(2)				Not Detected					24	240
61) Carbon Tetrachloride	(2)				Not Detected					24	240
64) Benzene	(2)	7.099	(-0.000)	78	56561	2.159	104.39		J	24	240
67) 1,2-Dichloroethane	(2)				Not Detected					29	240
75) Trichloroethene	(2)				Not Detected					24	240
76) Methylcyclohexane	(2)				Not Detected					29	240
77) 1,2-Dichloropropane	(2)				Not Detected					24	240
84) Bromodichloromethane	(2)				Not Detected					19	240

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08s41.d Injection date and time: **08-NOV-2018 12:43**
Data file Sample Info. Line: 12T04RE;9872062RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **48.36**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5.17 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
89) cis-1,3-Dichloropropene	(2)			Not Detected					19	240
90) 4-Methyl-2-pentanone	(2)			Not Detected					48	480
92) Toluene	(3)	9.630(-0.000)	92	55843	3.494	168.96		J	29	240
93) trans-1,3-Dichloropropene	(3)			Not Detected					15	240
96) 1,1,2-Trichloroethane	(3)			Not Detected					24	240
98) Tetrachloroethene	(3)	10.195(-0.000)	166	9144	1.434	69.34		J	24	240
101) 2-Hexanone	(3)			Not Detected					48	480
103) Dibromochloromethane	(3)			Not Detected					19	240
104) 1,2-Dibromoethane	(3)			Not Detected					19	240
107) Chlorobenzene	(3)	11.062(-0.000)	112	28338M	1.572	75.99		J	24	240
109) Ethylbenzene	(3)	11.148(-0.000)	91	50957	1.858	89.83		J	19	240
110) m+p-Xylene	(3)	11.261(0.000)	106	62922	5.868	283.76			48	240
111) o-Xylene	(3)	11.598(-0.000)	106	14901	1.396	67.50		J	19	240
112) Xylene (Total)	(3)		106	77823	7.264	351.25			48	240
113) Styrene	(3)			Not Detected					15	240
114) Bromoform	(3)			Not Detected					240	480
115) Isopropylbenzene	(3)	11.896(-0.000)	105	19264	0.846	40.89		J	19	240
118) Cyclohexanone	(1)			Not Detected					1200	12000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					19	240
138) 1,3-Dichlorobenzene	(4)			Not Detected					24	240
141) 1,4-Dichlorobenzene	(4)	12.948(-0.000)	146	18995	1.399	67.66		J	19	240
147) 1,2-Dichlorobenzene	(4)	13.205(0.000)	146	11952	0.954	46.13		J	24	240
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					19	240
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					240	480

M = Compound was manually integrated.

Total number of targets = 51

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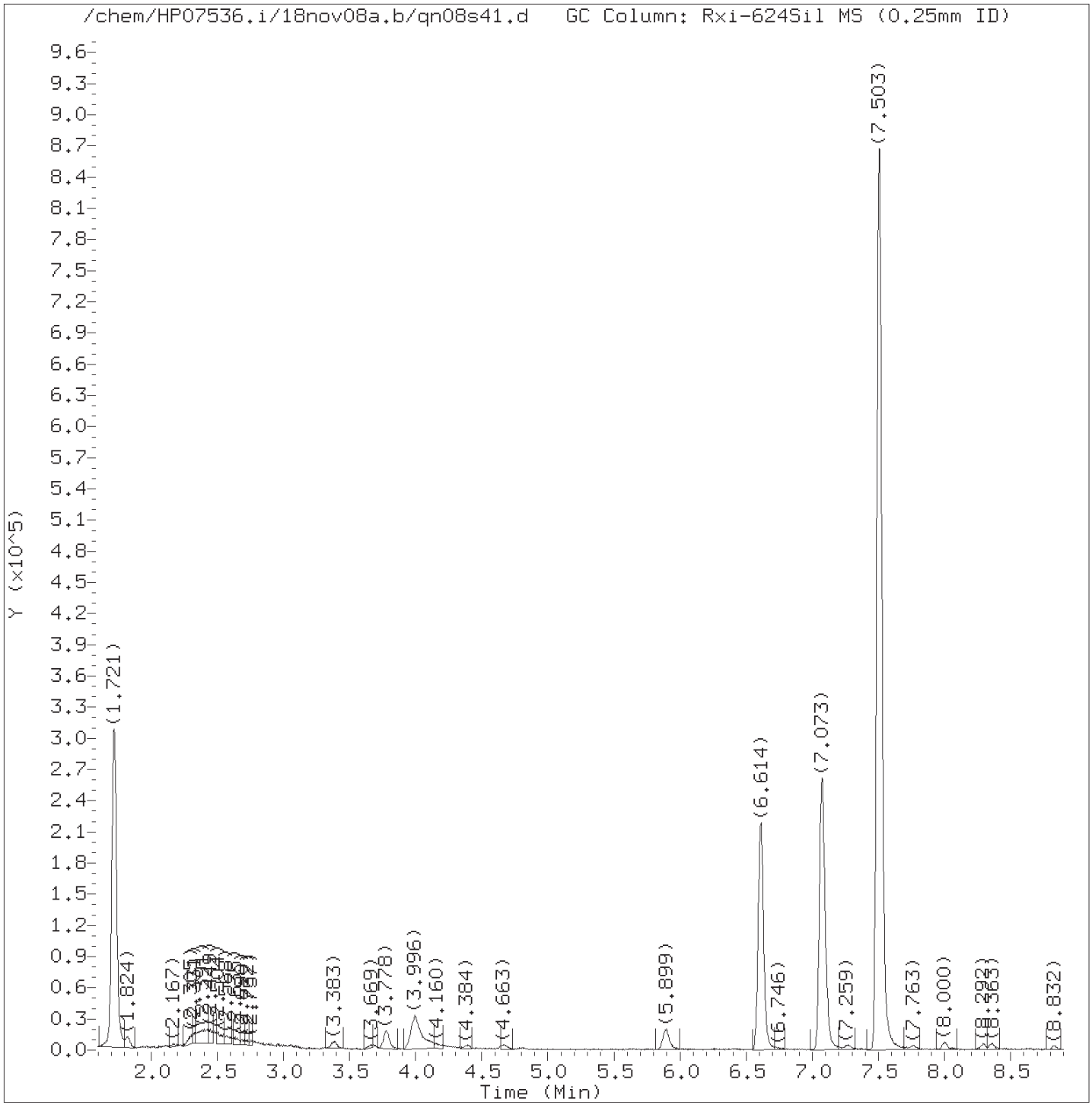
Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:19. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

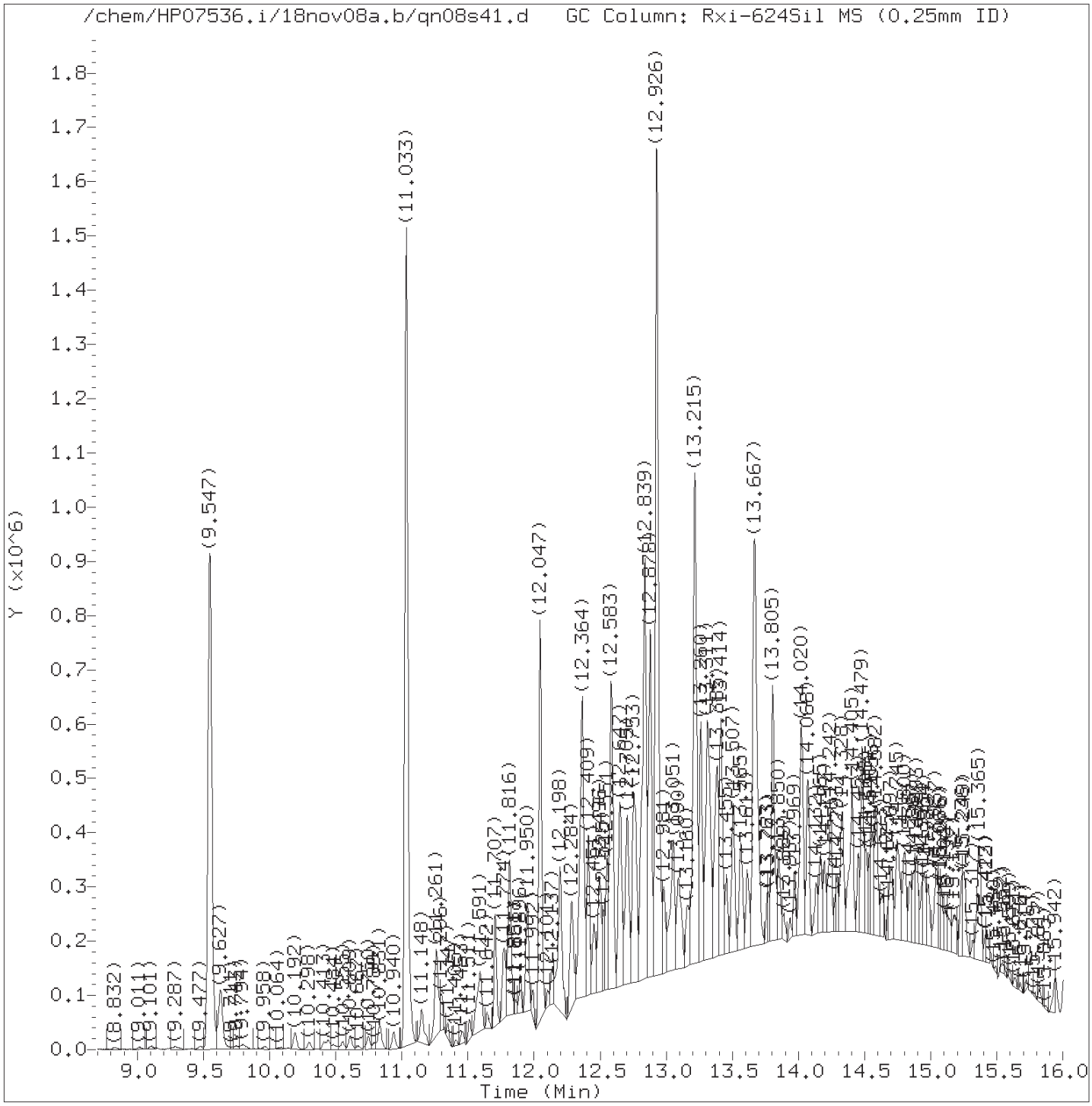
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Carbon Disulfide	(2)	3.681	76	15038	0.698
27) Methyl Acetate	(2)	3.778	43	40645	7.004
30)*t-Butyl alcohol-d10	(1)	3.996	65	147573	250.000
44) 2-Butanone	(1)	5.873	43	23750	6.216
45) cis-1,2-Dichloroethene	(2)	5.899	96	10583	1.434
56)$Dibromofluoromethane	(2)	6.614	113	196110	30.209
63)$1,2-Dichloroethane-d4	(2)	7.076	102	59399	35.189
64) Benzene	(2)	7.099	78	56561	2.159
70)*Fluorobenzene	(2)	7.510	96	1193296	50.000
91)$Toluene-d8	(3)	9.547	98	786024	31.298
92) Toluene	(3)	9.631	92	55843	3.494
98) Tetrachloroethene	(3)	10.195	166	9144	1.434
105)*Chlorobenzene-d5	(3)	11.033	117	919972	50.000
107) Chlorobenzene	(3)	11.062	112	28338M	1.572
109) Ethylbenzene	(3)	11.148	91	50957	1.858
110) m+p-Xylene	(3)	11.261	106	62922	5.868
111) o-Xylene	(3)	11.598	106	14901	1.396
112) Xylene (Total)	(3)		106	77823	7.264
115) Isopropylbenzene	(3)	11.896	105	19264	0.846
119)$4-Bromofluorobenzene	(3)	12.044	95	226904M	28.378
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	402955	50.000
141) 1,4-Dichlorobenzene	(4)	12.948	146	18995	1.399
147) 1,2-Dichlorobenzene	(4)	13.205	146	11952	0.954

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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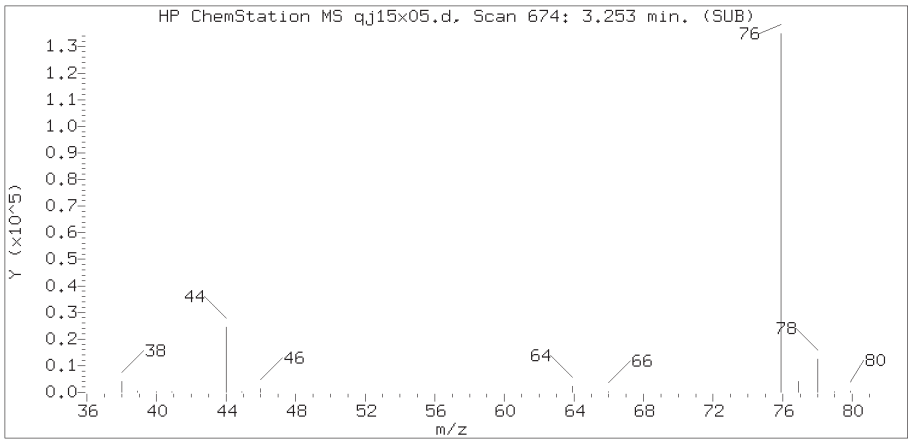
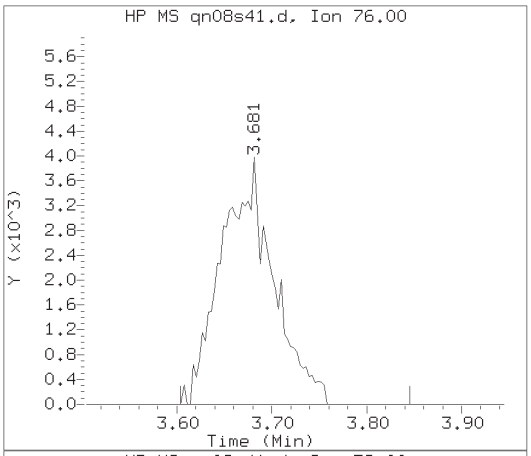
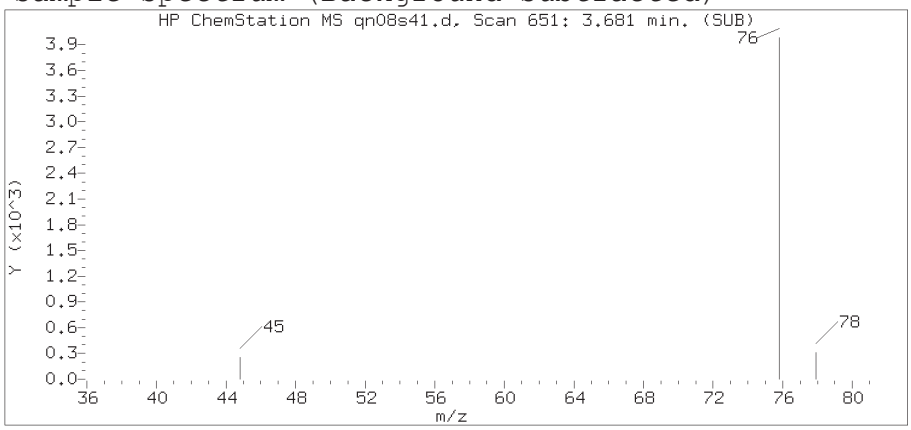
on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

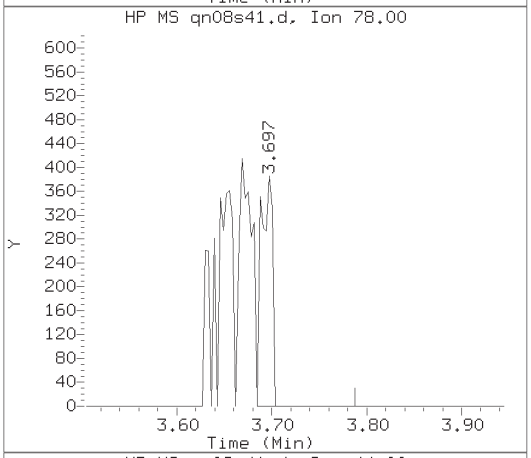
Reference Standard Spectrum for Carbon Disulfide



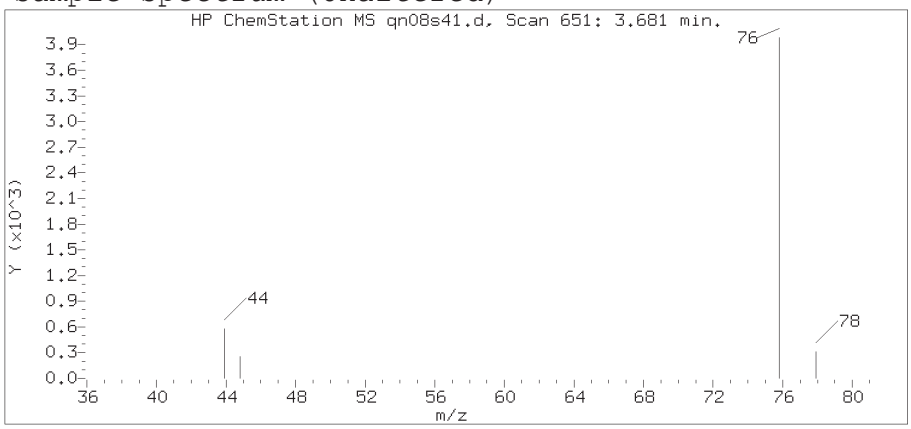


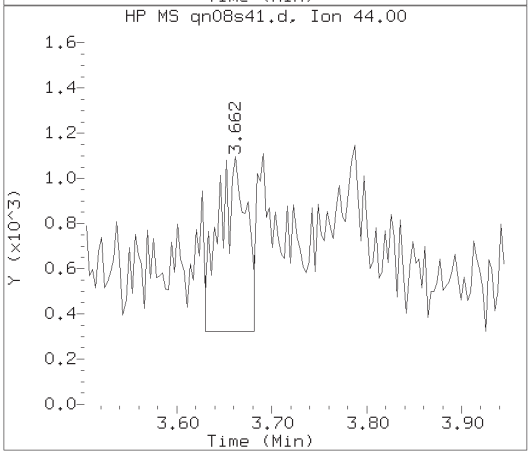
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 651
Retention Time (minutes): 3.681
Relative Retention Time :-0.00226
Quant Ion : 76.00
Area (flag) : 15038
On-Column Amount (ng) : 0.6985

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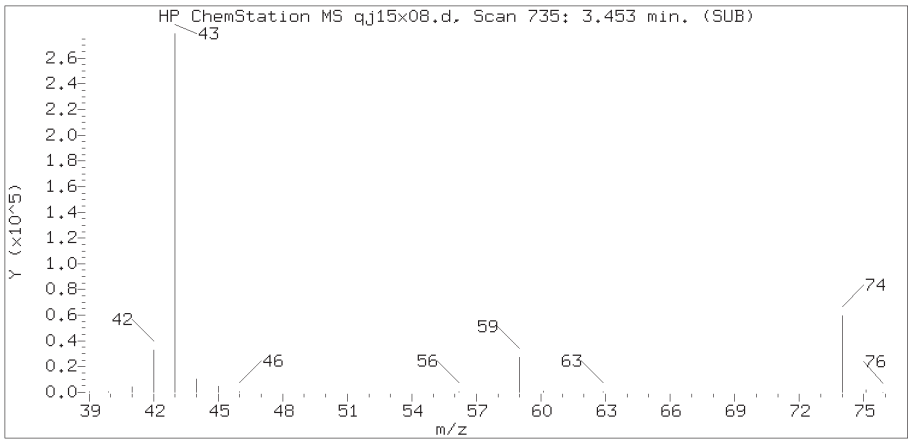
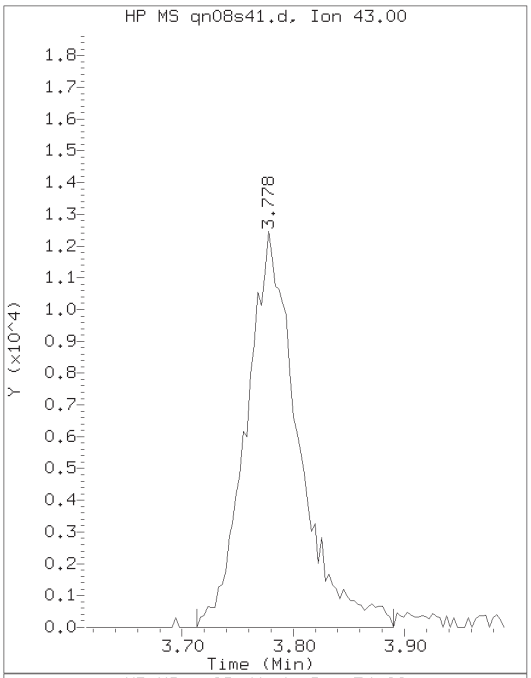
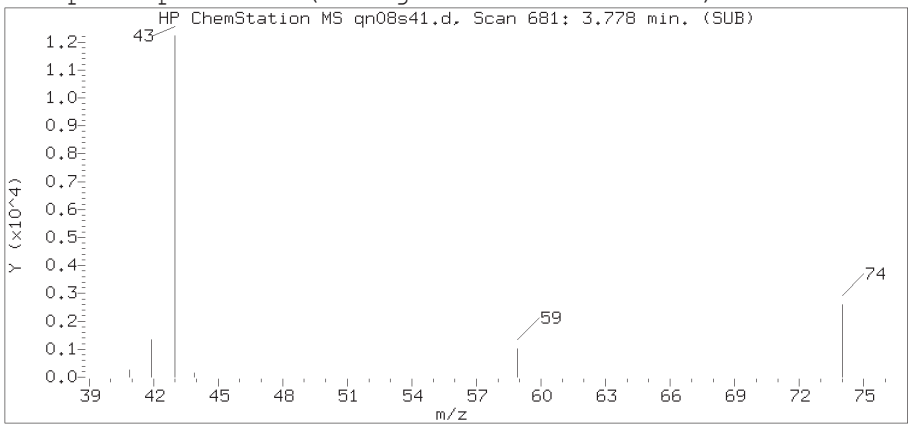
Target 3.5 esignature user ID: scn10072

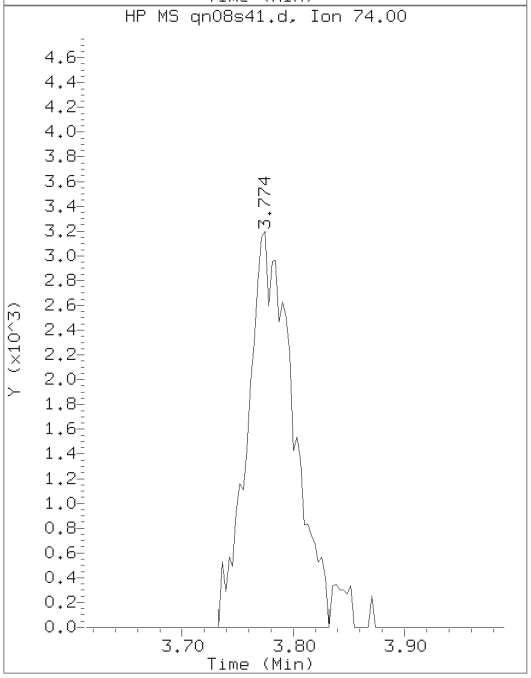
Reference Standard Spectrum for Methyl Acetate



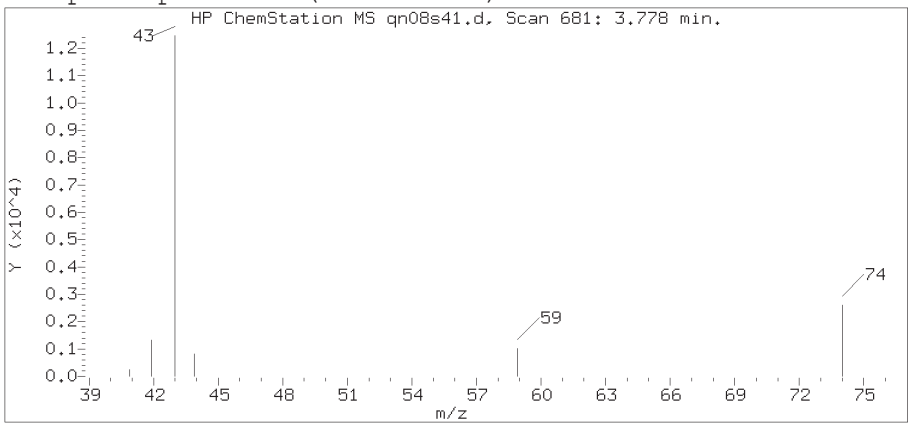


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 681
Retention Time (minutes): 3.778
Relative Retention Time :-0.00054
Quant Ion : 43.00
Area (flag) : 40645
On-Column Amount (ng) : 7.0039

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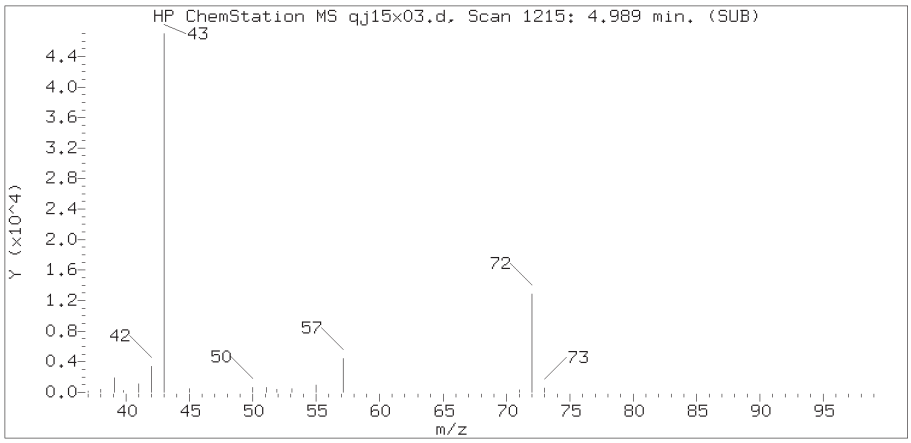
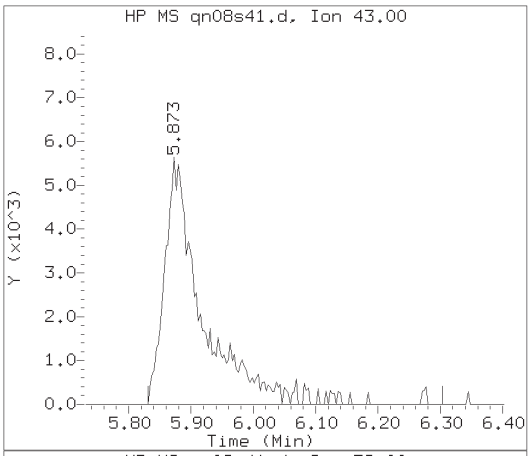
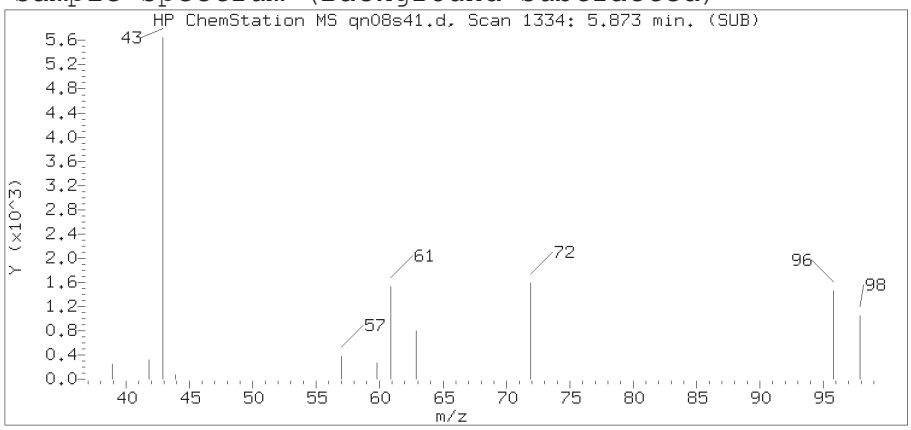
Target 3.5 esignature user ID: scn10072

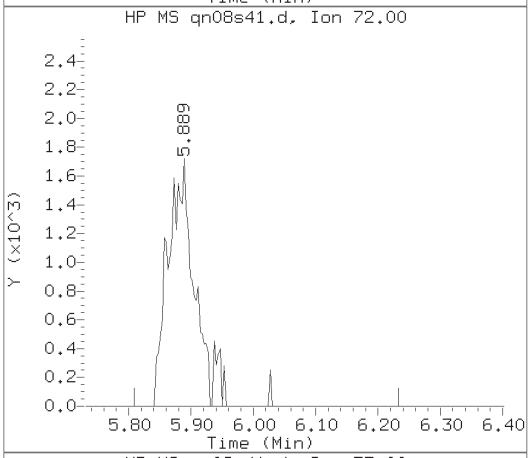
Reference Standard Spectrum for 2-Butanone



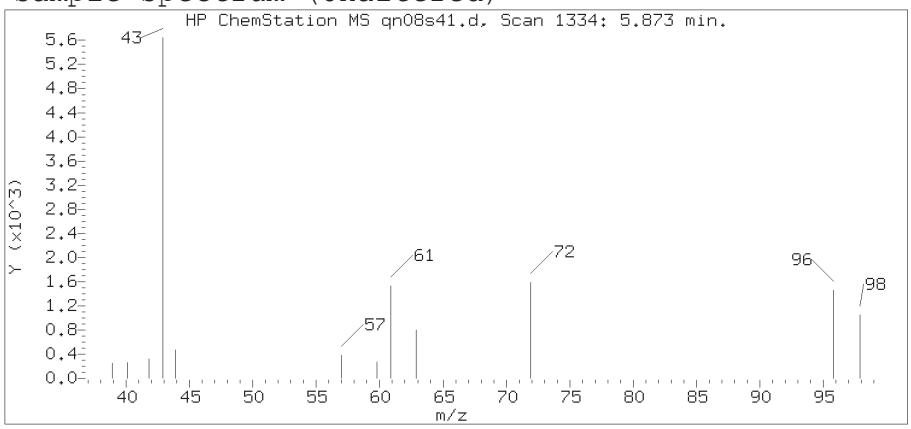


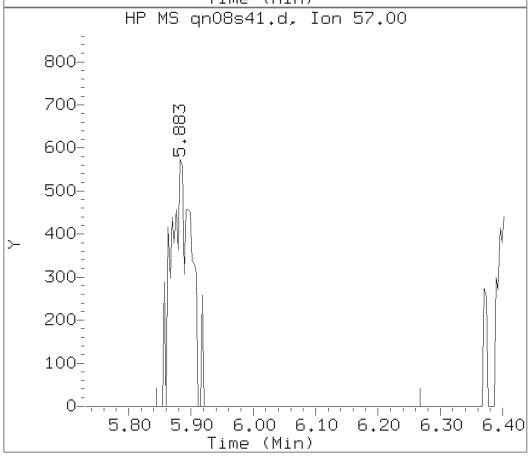
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1334
Retention Time (minutes): 5.873
Relative Retention Time :-0.00493
Quant Ion : 43.00
Area (flag) : 23750
On-Column Amount (ng) : 6.2160

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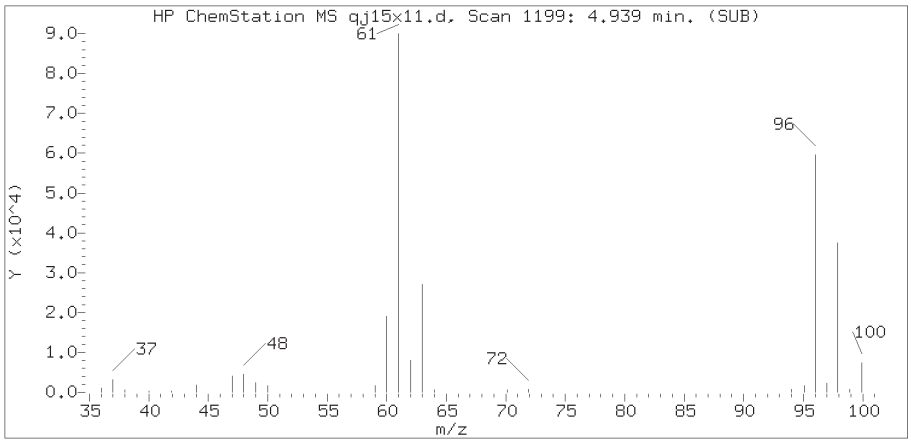
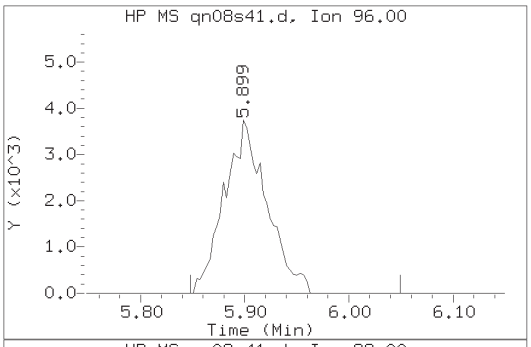
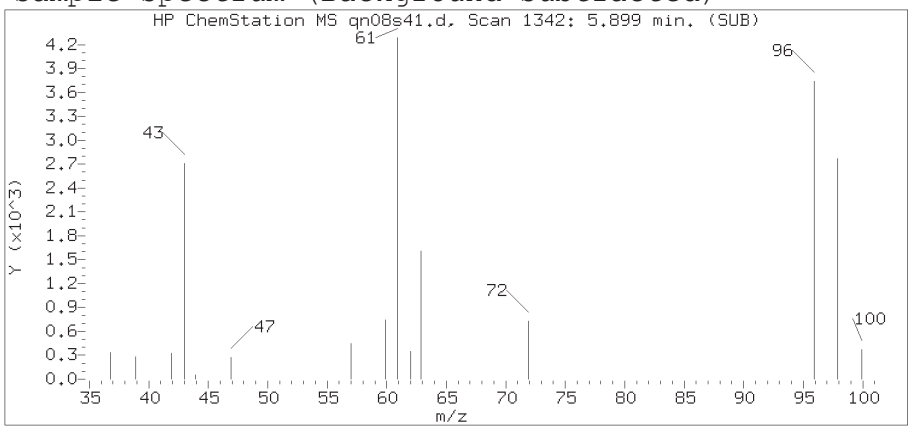
Target 3.5 esignature user ID: scn10072

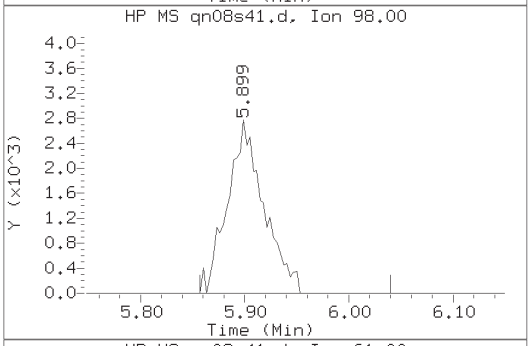
Reference Standard Spectrum for cis-1,2-Dichloroethene

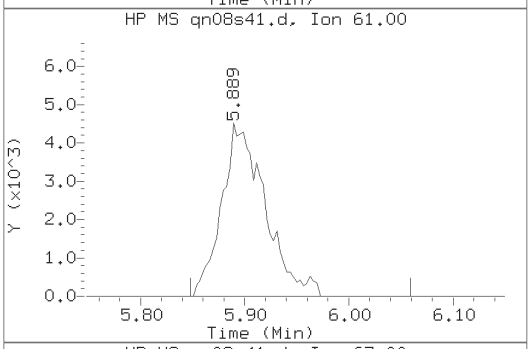




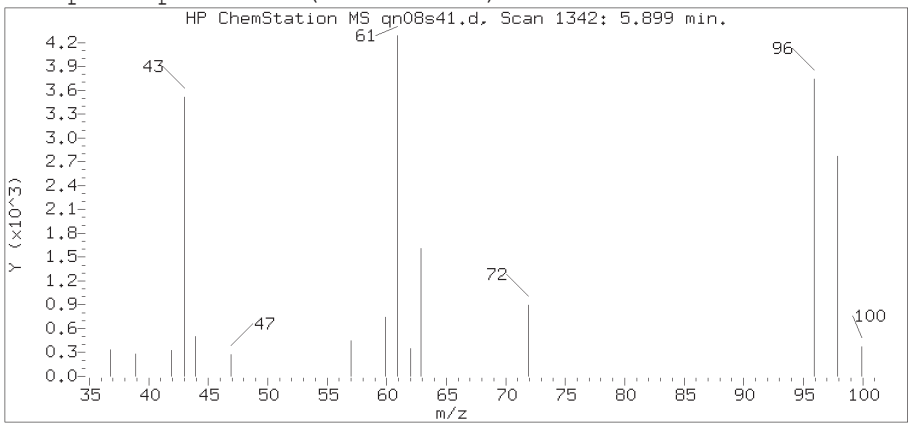
Sample Spectrum (Background Subtracted)

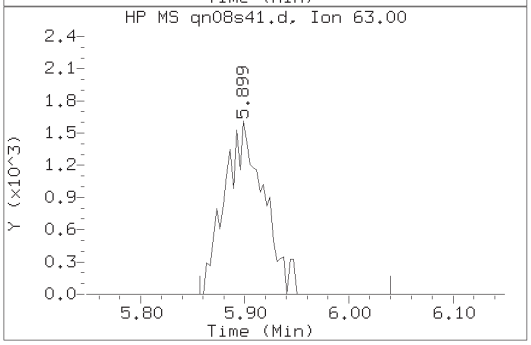






Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

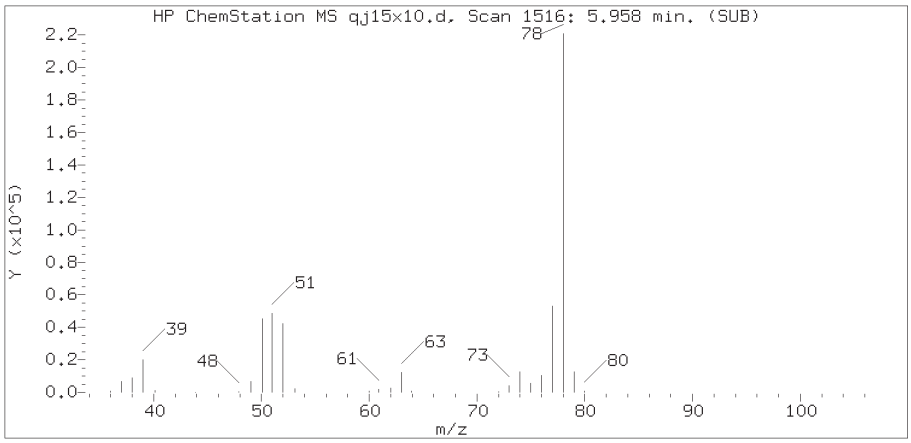
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

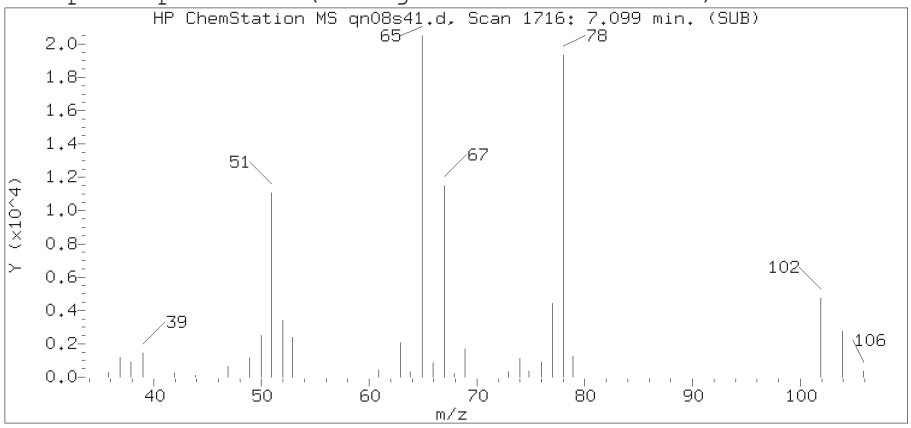
Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1342
Retention Time (minutes): 5.899
Relative Retention Time :-0.00005
Quant Ion : 96.00
Area (flag) : 10583
On-Column Amount (ng) : 1.4343

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

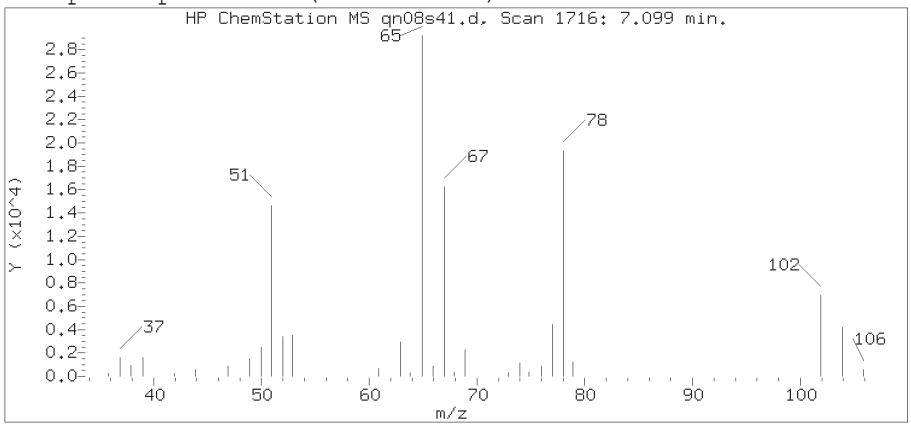
Reference Standard Spectrum for Benzene

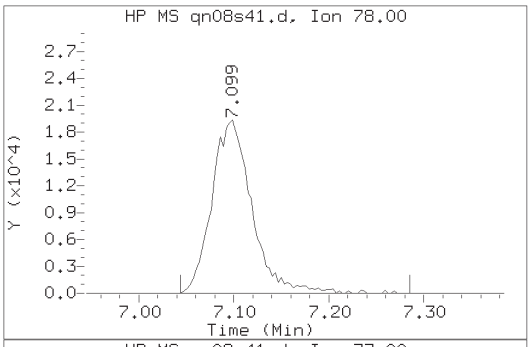


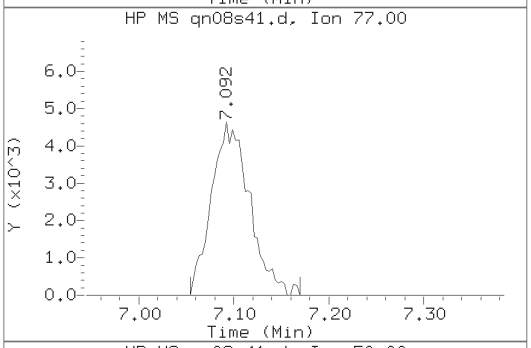
Sample Spectrum (Background Subtracted)

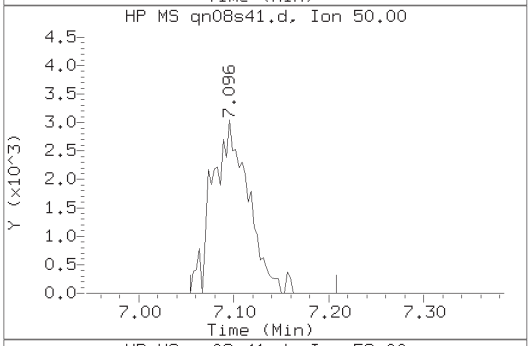


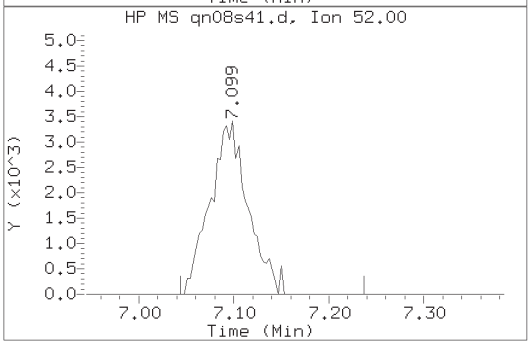
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 64
Compound Name : Benzene
Scan Number : 1716
Retention Time (minutes): 7.099
Relative Retention Time :-0.00044
Quant Ion : 78.00
Area (flag) : 56561
On-Column Amount (ng) : 2.1587

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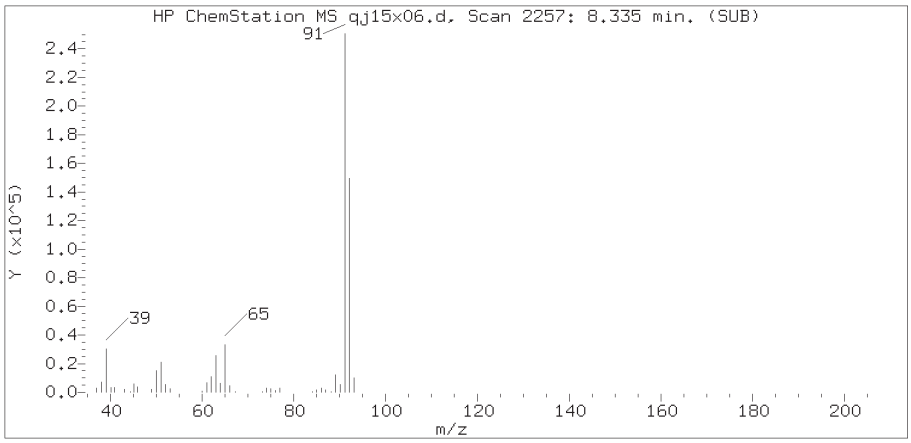
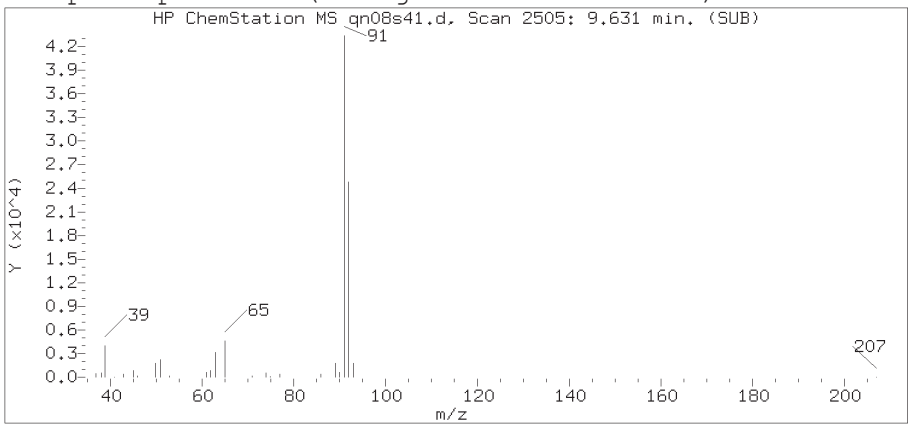
Target 3.5 esignature user ID: scn10072

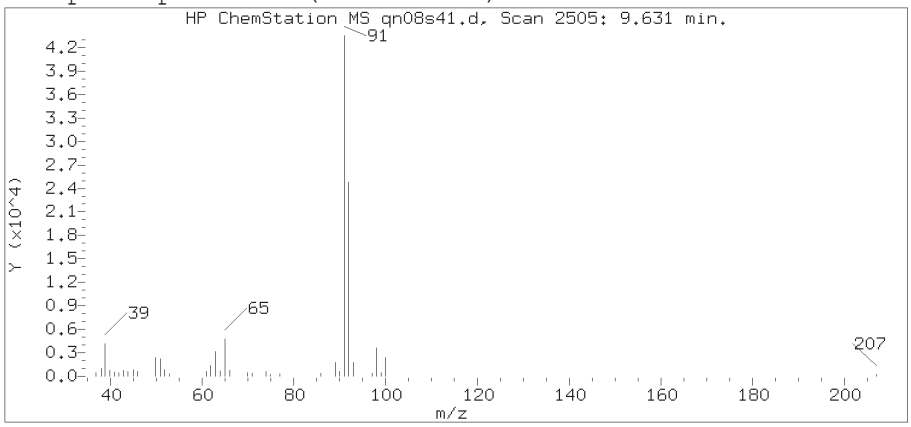
Reference Standard Spectrum for Toluene

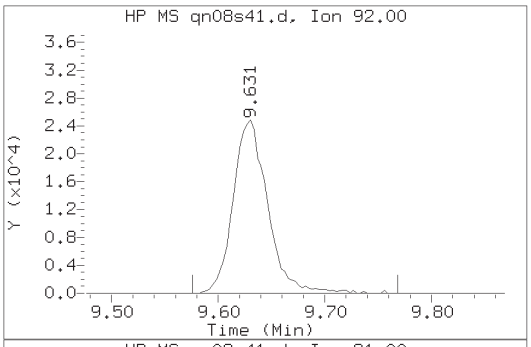


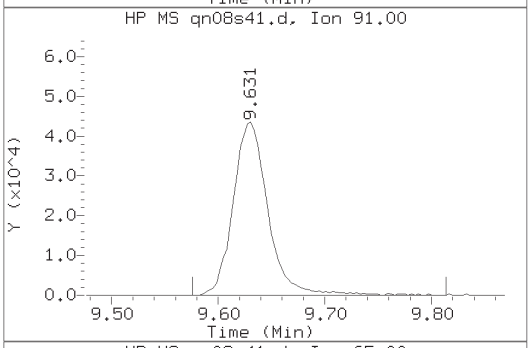
Sample Spectrum (Background Subtracted)

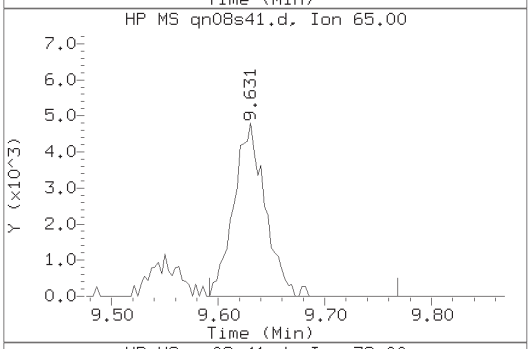


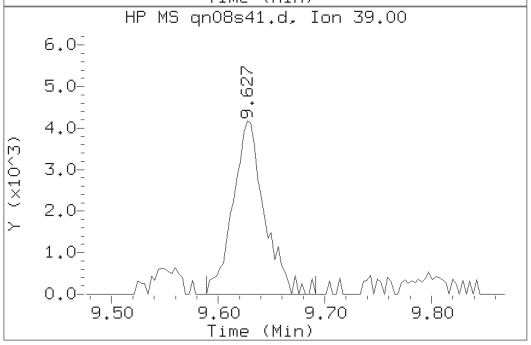
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

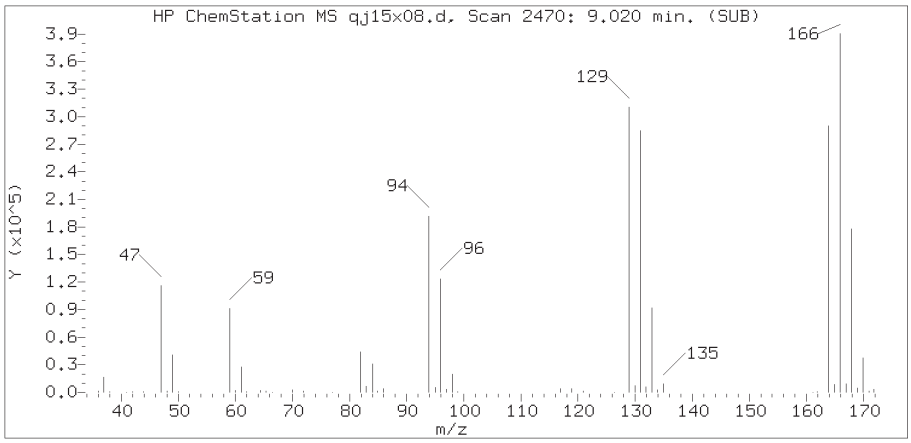
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

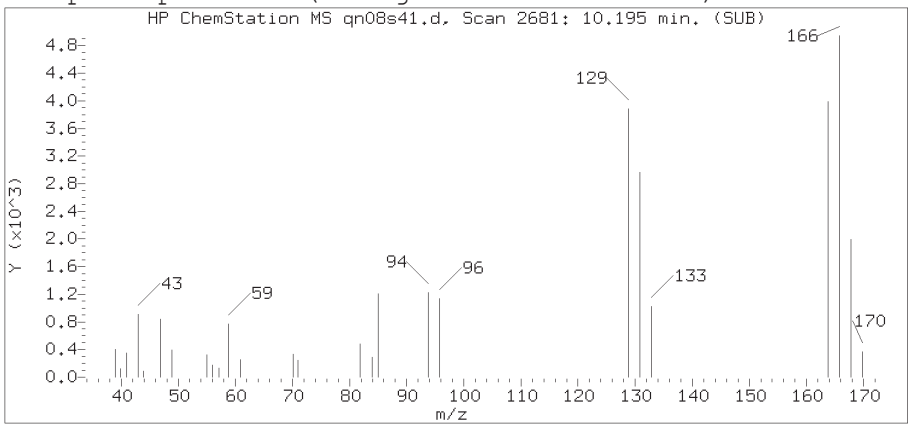
Compound Number : 92
Compound Name : Toluene
Scan Number : 2505
Retention Time (minutes): 9.631
Relative Retention Time :-0.00027
Quant Ion : 92.00
Area (flag) : 55843
On-Column Amount (ng) : 3.4940

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

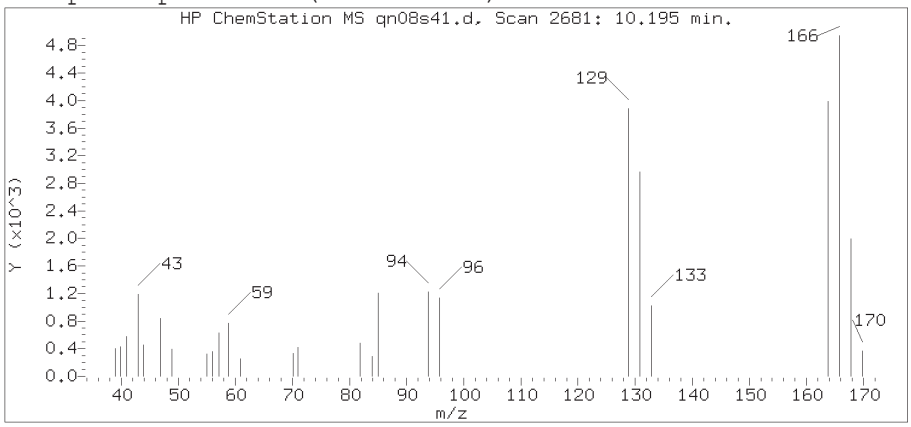
Reference Standard Spectrum for Tetrachloroethene

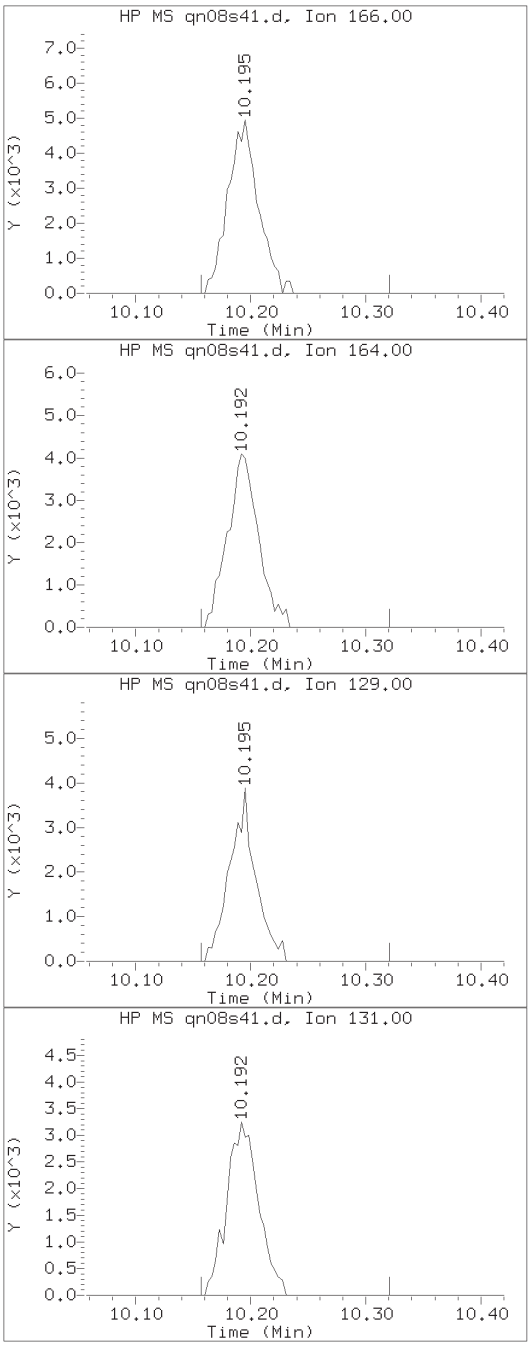


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

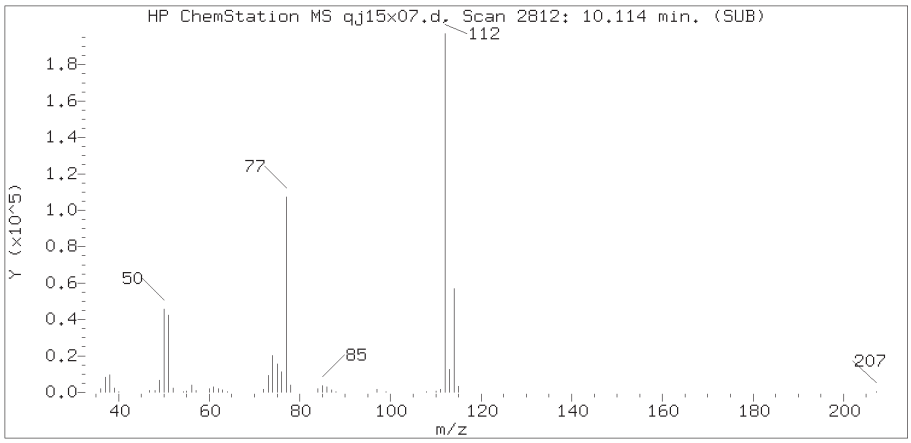
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

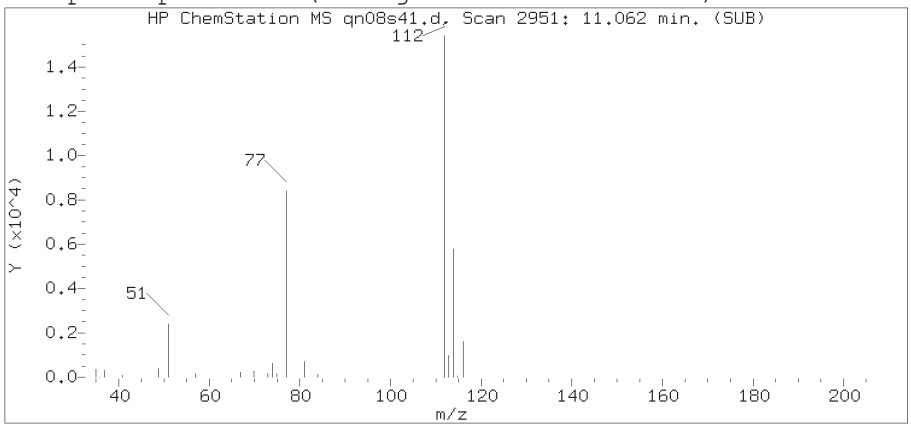
Compound Number : 98
Compound Name : Tetrachloroethene
Scan Number : 2681
Retention Time (minutes): 10.195
Relative Retention Time :-0.00057
Quant Ion : 166.00
Area (flag) : 9144
On-Column Amount (ng) : 1.4339

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

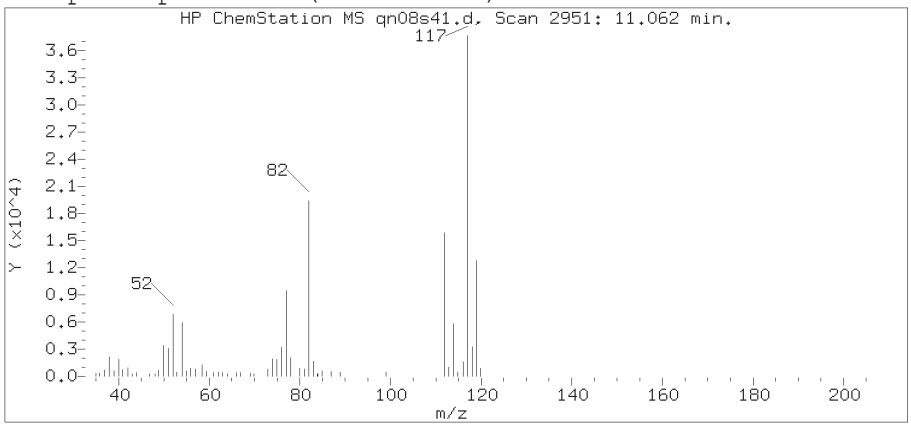
Reference Standard Spectrum for Chlorobenzene

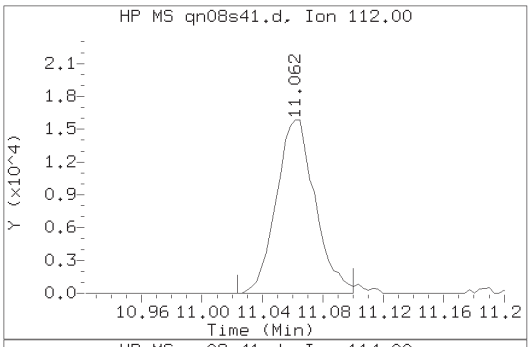


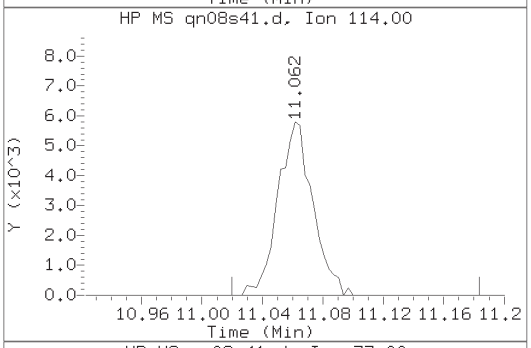
Sample Spectrum (Background Subtracted)

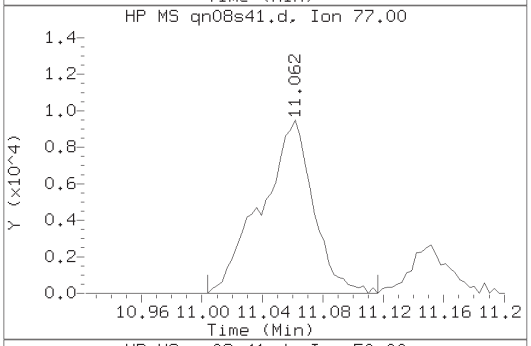


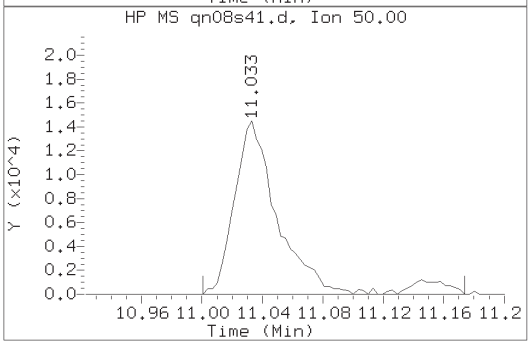
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

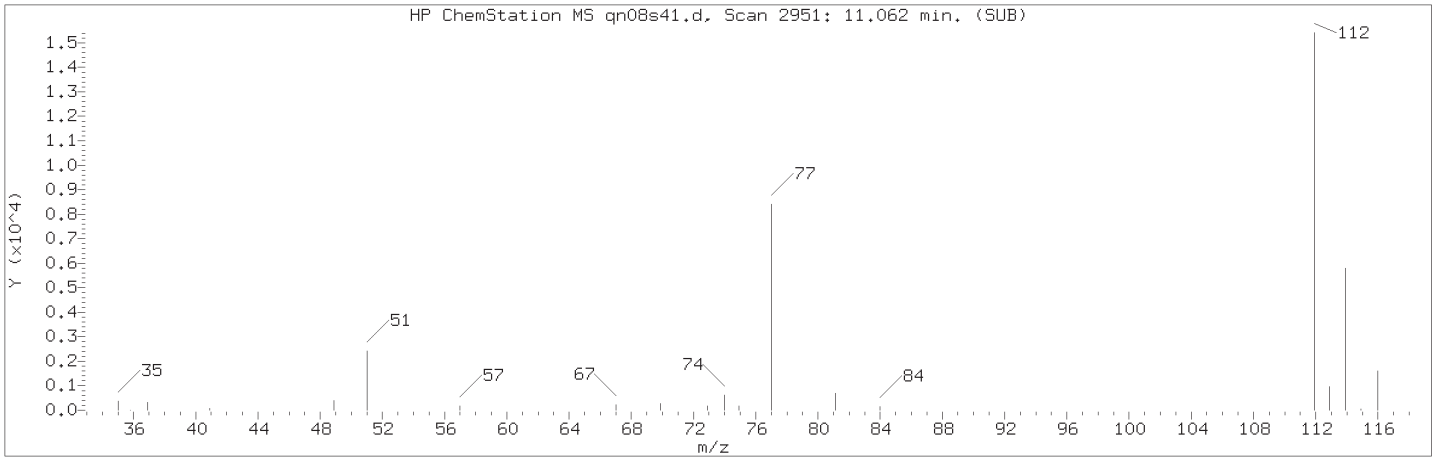
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

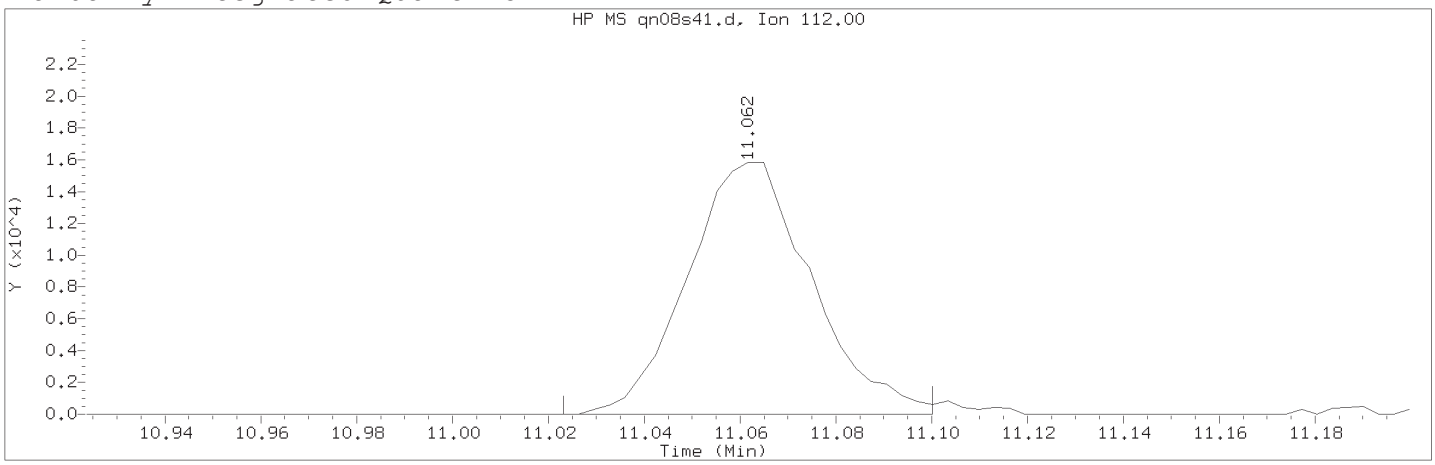
Compound Number : 107
Compound Name : Chlorobenzene
Scan Number : 2951
Retention Time (minutes): 11.062
Relative Retention Time :-0.00000
Quant Ion : 112.00
Area (flag) : 28338M
On-Column Amount (ng) : 1.5716

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

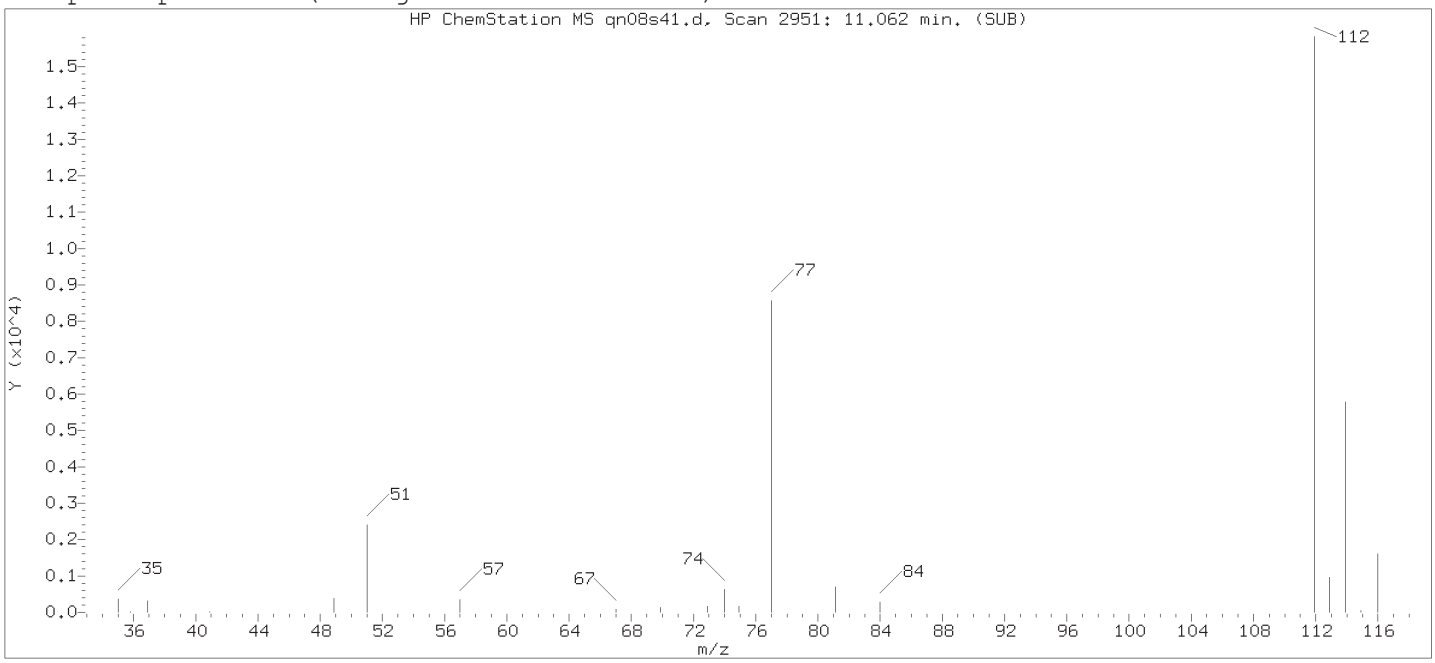
Compound Number : 107
Compound Name : Chlorobenzene
Scan Number : 2951
Retention Time (minutes): 11.062
Quant Ion : 112.00
Area (flag) : 28338M
On-Column Amount (ng) : 1.5716
Integration start scan : 2938 Integration stop scan: 2962
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

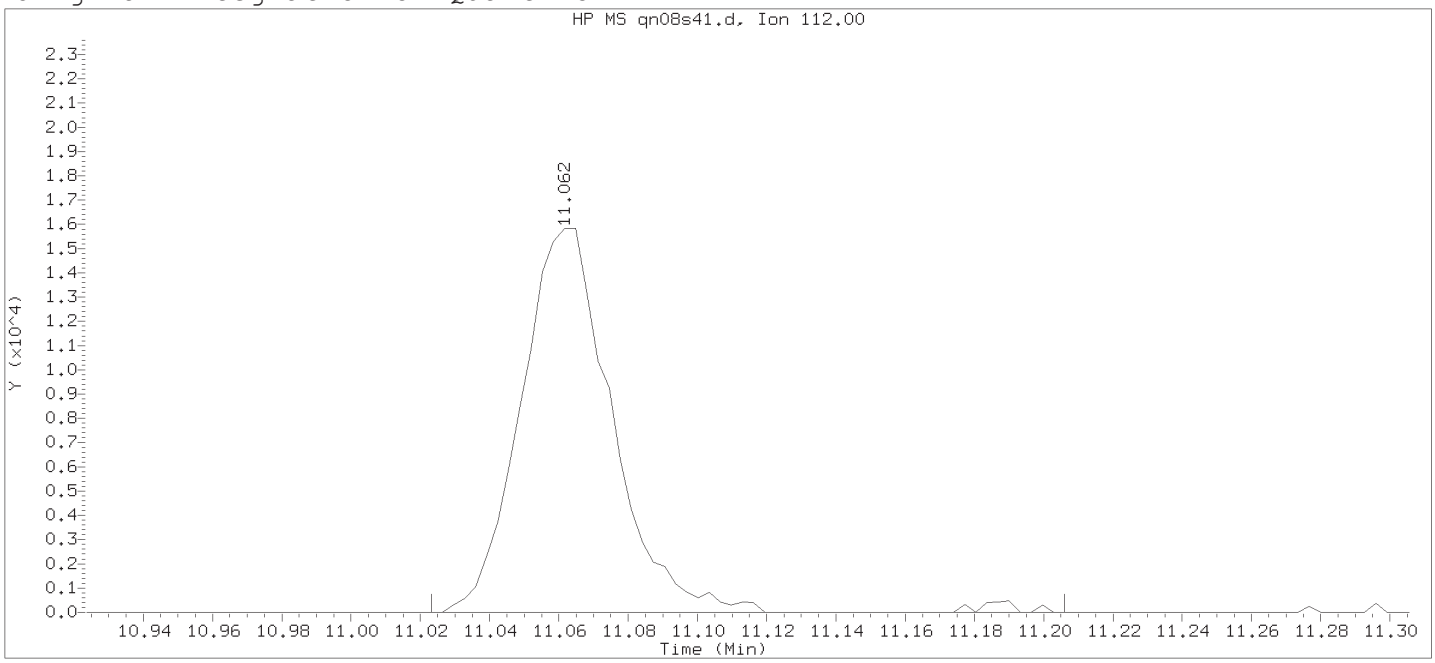
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:19.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

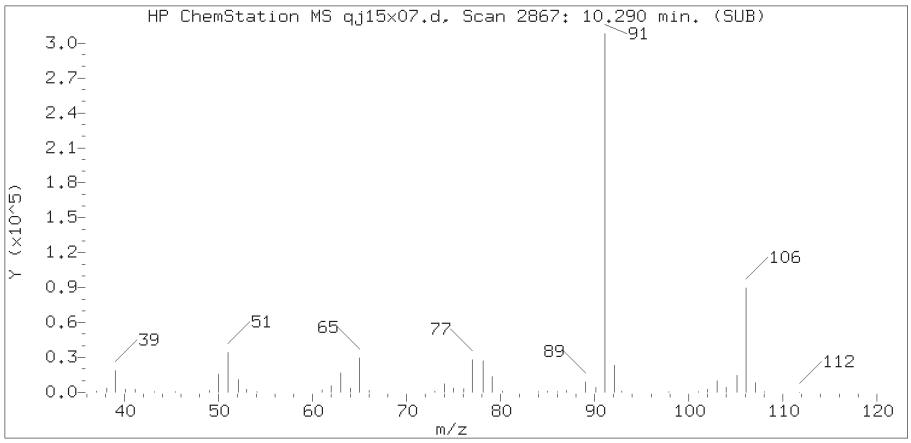
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 13:10 Automation

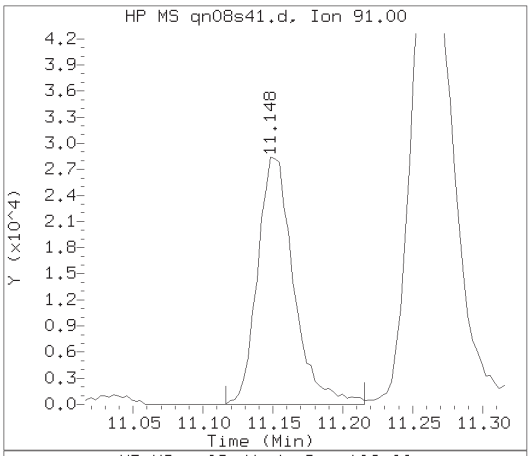
Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 107
Compound Name : Chlorobenzene
Scan Number : 2951
Retention Time (minutes): 11.062
Quant Ion : 112.00
Area : 29163
On-column Amount (ng) : 1.6173
Integration start scan : 2938 Integration stop scan: 2995
Y at integration start : 0 Y at integration end: 0

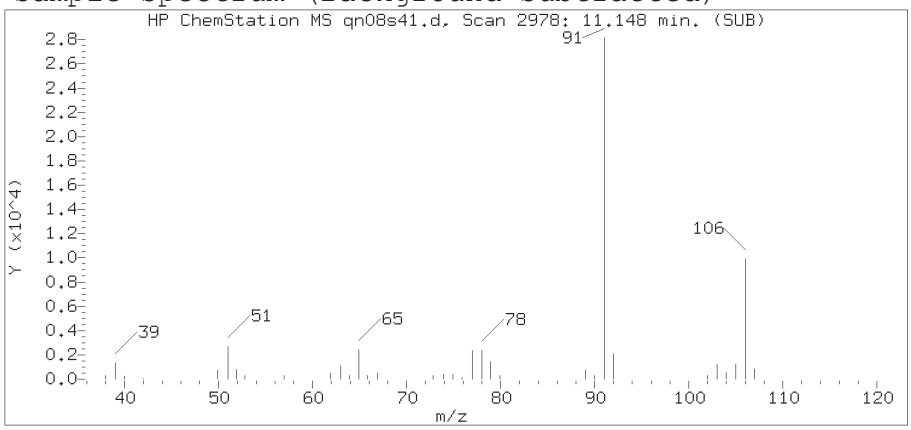
Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: SCN0392

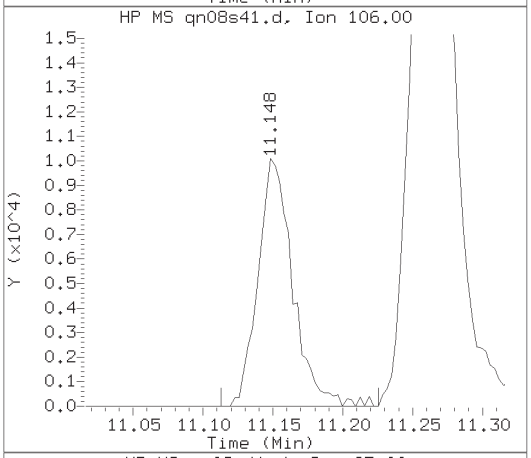
Reference Standard Spectrum for Ethylbenzene



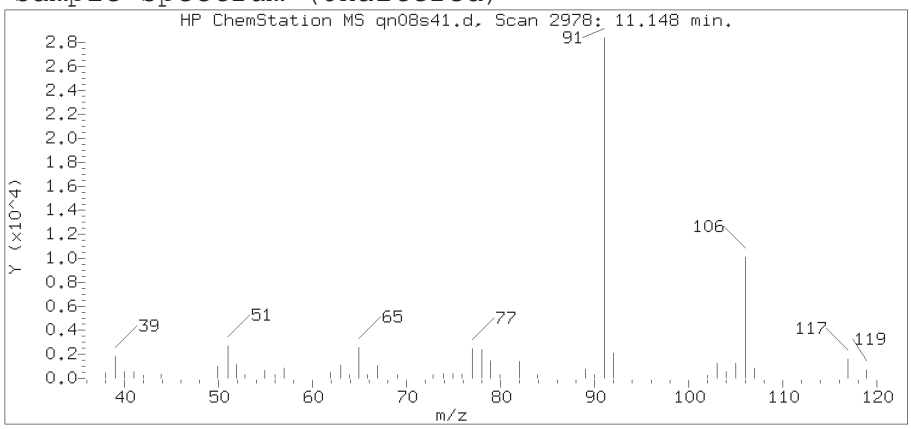


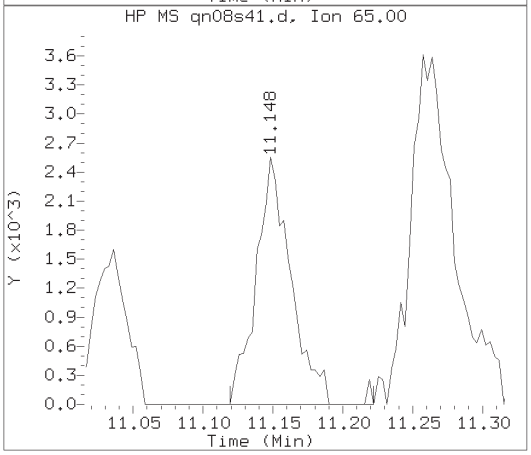
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

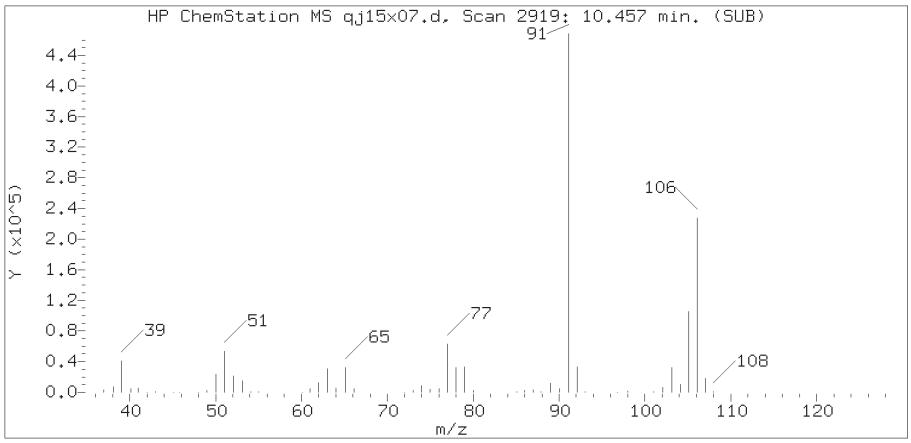
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

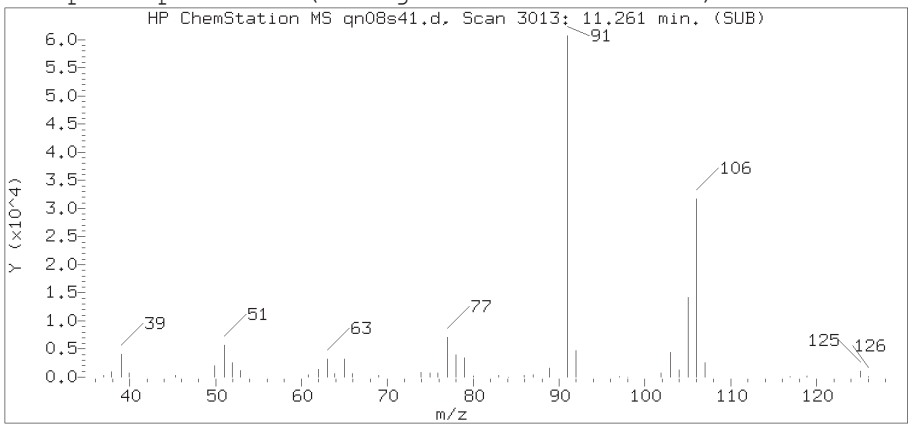
Compound Number : 109
Compound Name : Ethylbenzene
Scan Number : 2978
Retention Time (minutes): 11.148
Relative Retention Time :-0.00029
Quant Ion : 91.00
Area (flag) : 50957
On-Column Amount (ng) : 1.8577

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

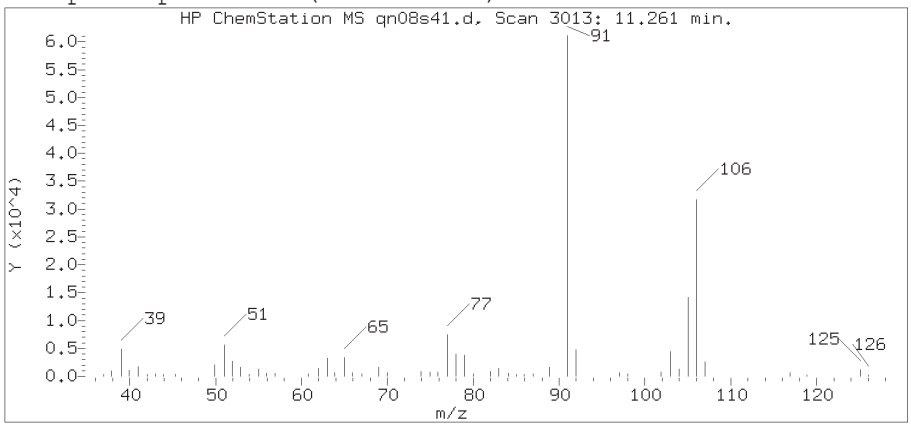
Reference Standard Spectrum for m+p-Xylene

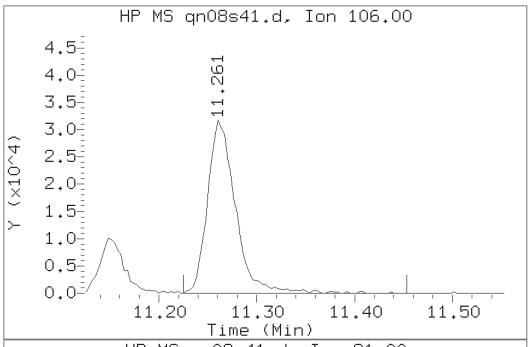


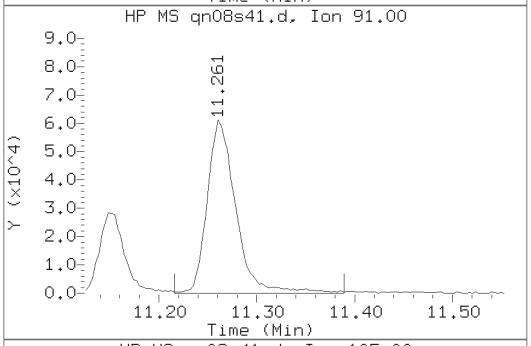
Sample Spectrum (Background Subtracted)

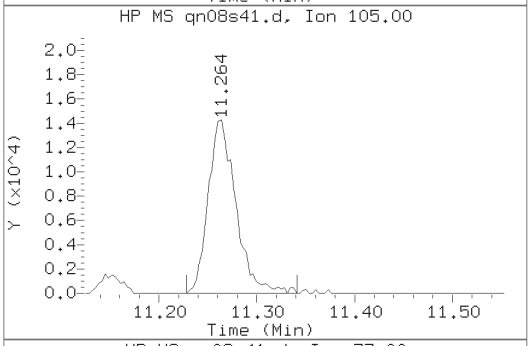


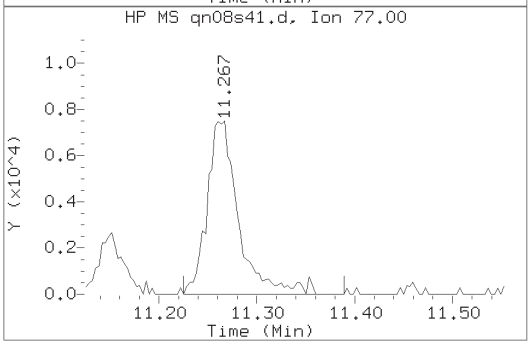
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

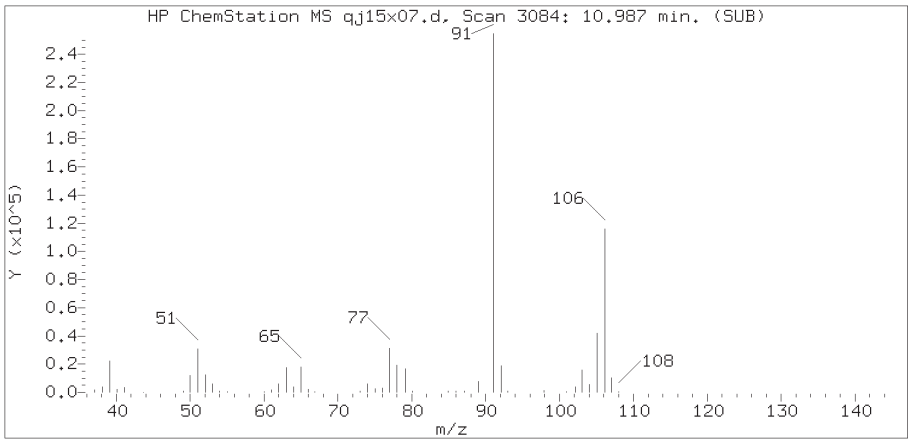
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

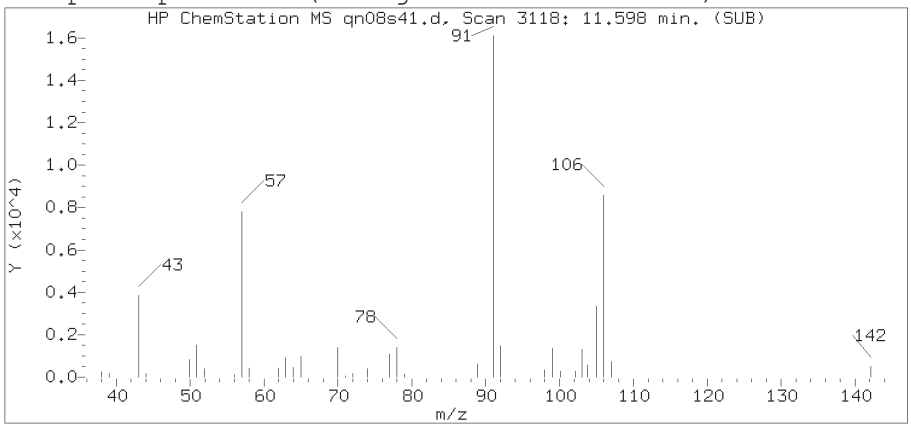
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3013
Retention Time (minutes): 11.261
Relative Retention Time : 0.00029
Quant Ion : 106.00
Area (flag) : 62922
On-Column Amount (ng) : 5.8681

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

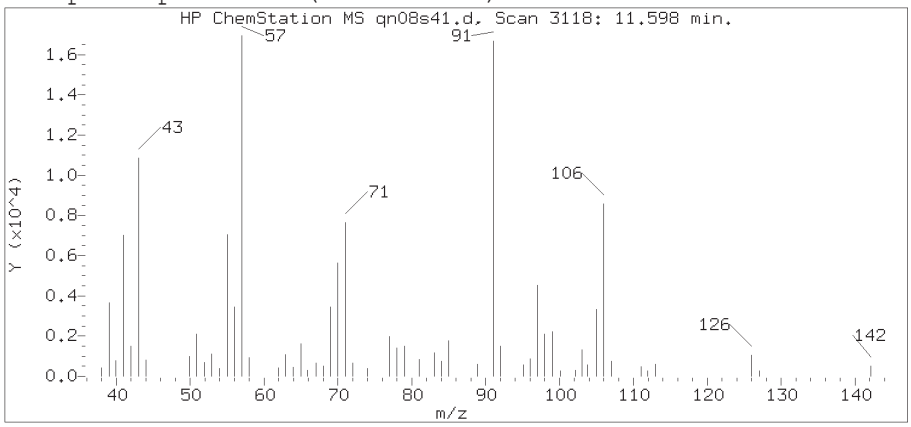
Reference Standard Spectrum for o-Xylene

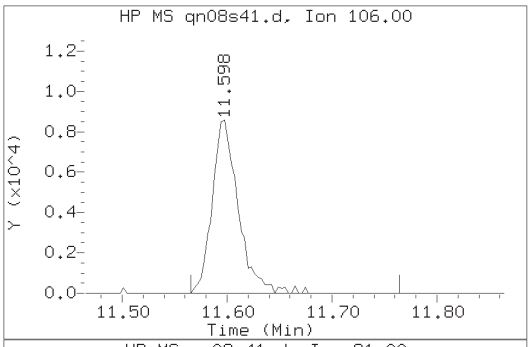


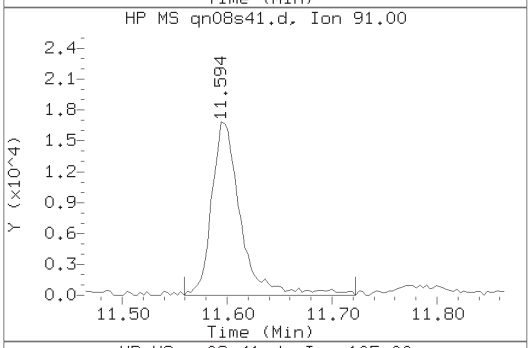
Sample Spectrum (Background Subtracted)

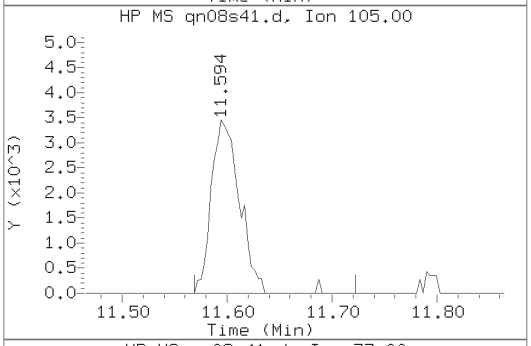


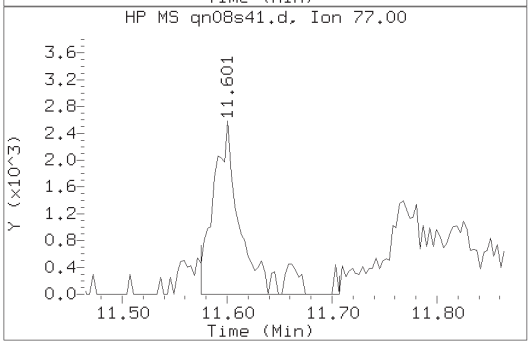
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

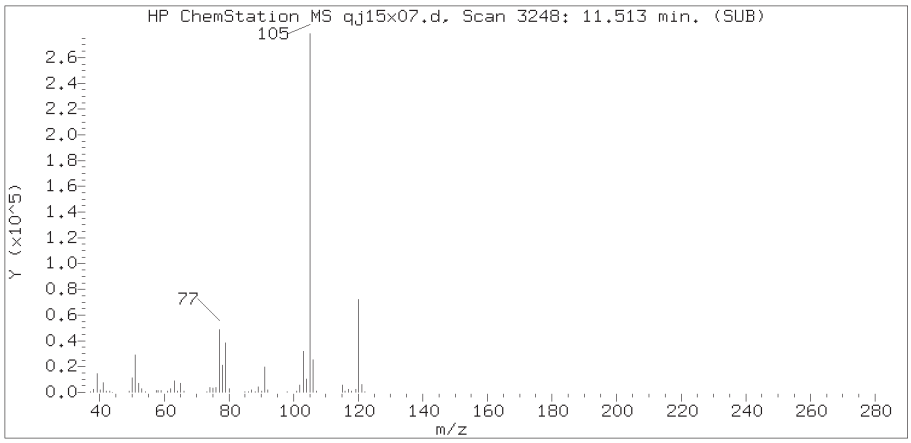
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

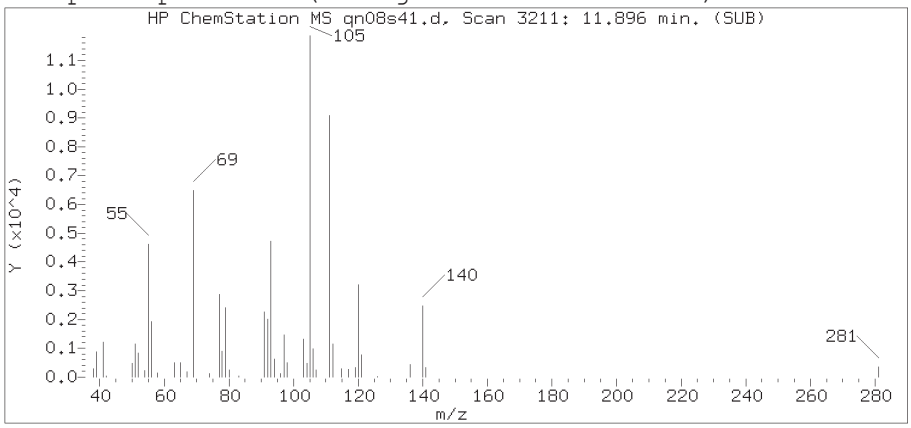
Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3118
Retention Time (minutes): 11.598
Relative Retention Time :-0.00059
Quant Ion : 106.00
Area (flag) : 14901
On-Column Amount (ng) : 1.3959

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

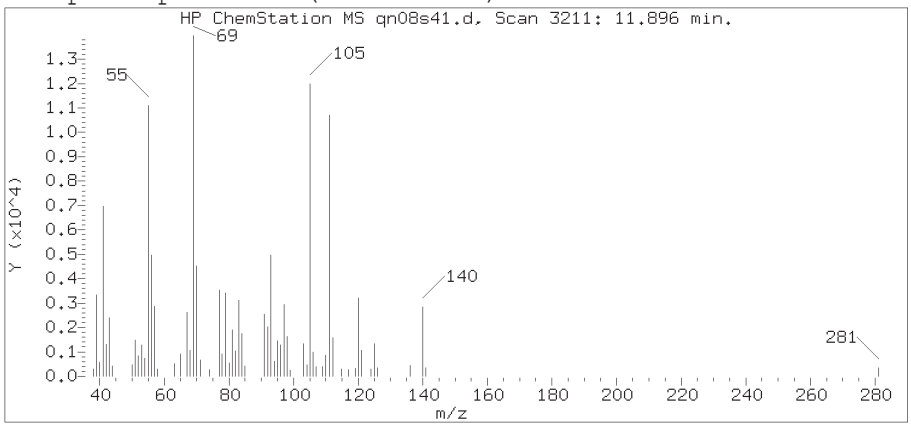
Reference Standard Spectrum for Isopropylbenzene

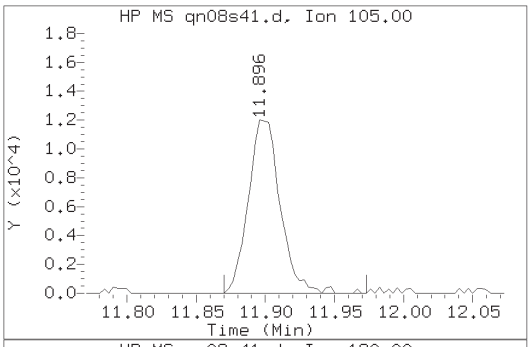


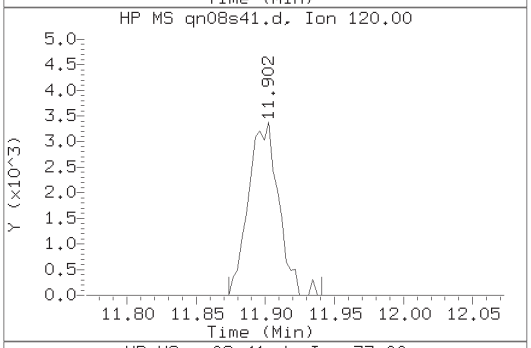
Sample Spectrum (Background Subtracted)

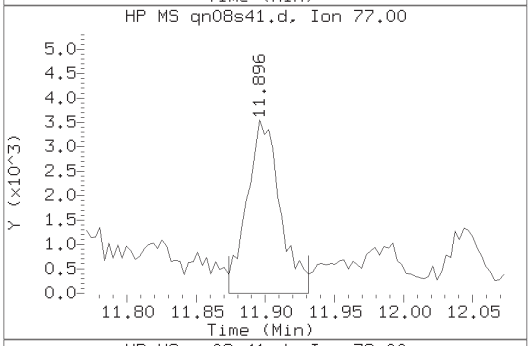


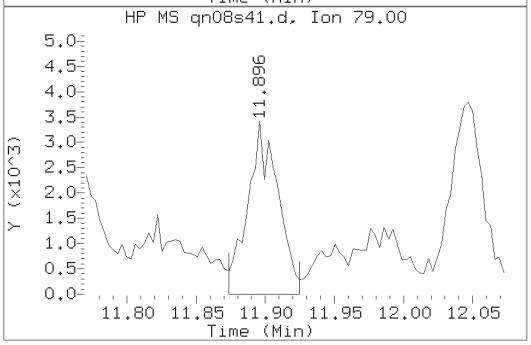
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

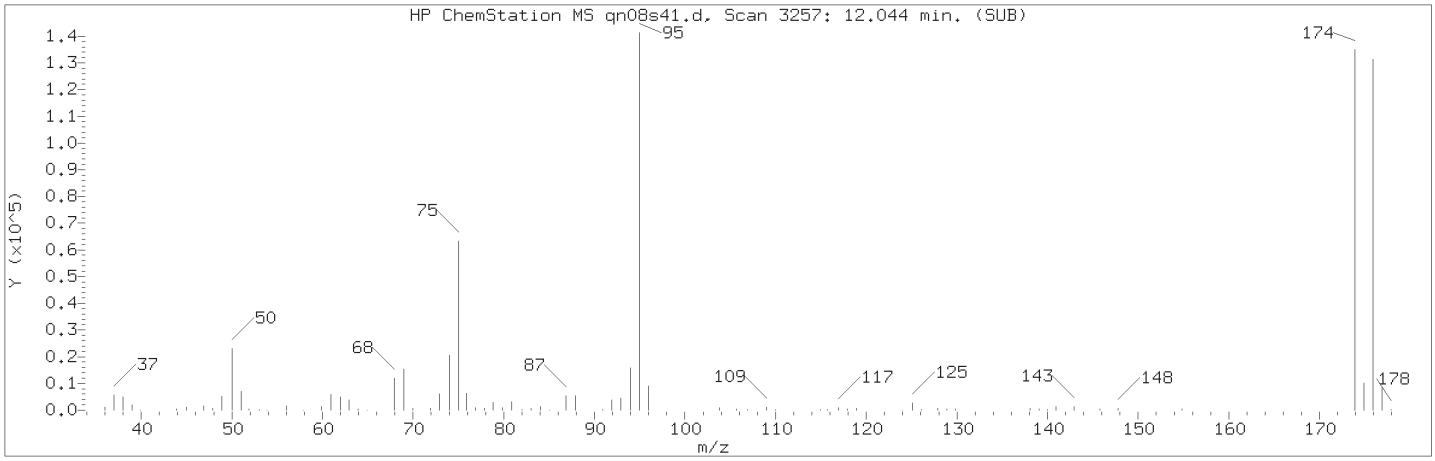
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

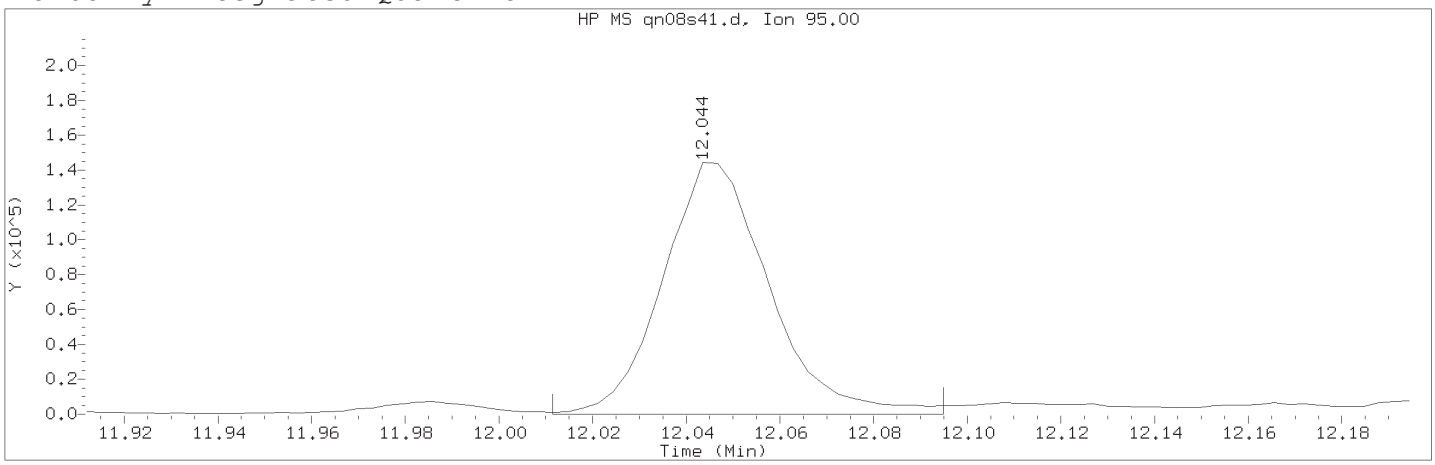
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 3211
Retention Time (minutes): 11.896
Relative Retention Time :-0.00001
Quant Ion : 105.00
Area (flag) : 19264
On-Column Amount (ng) : 0.8456

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

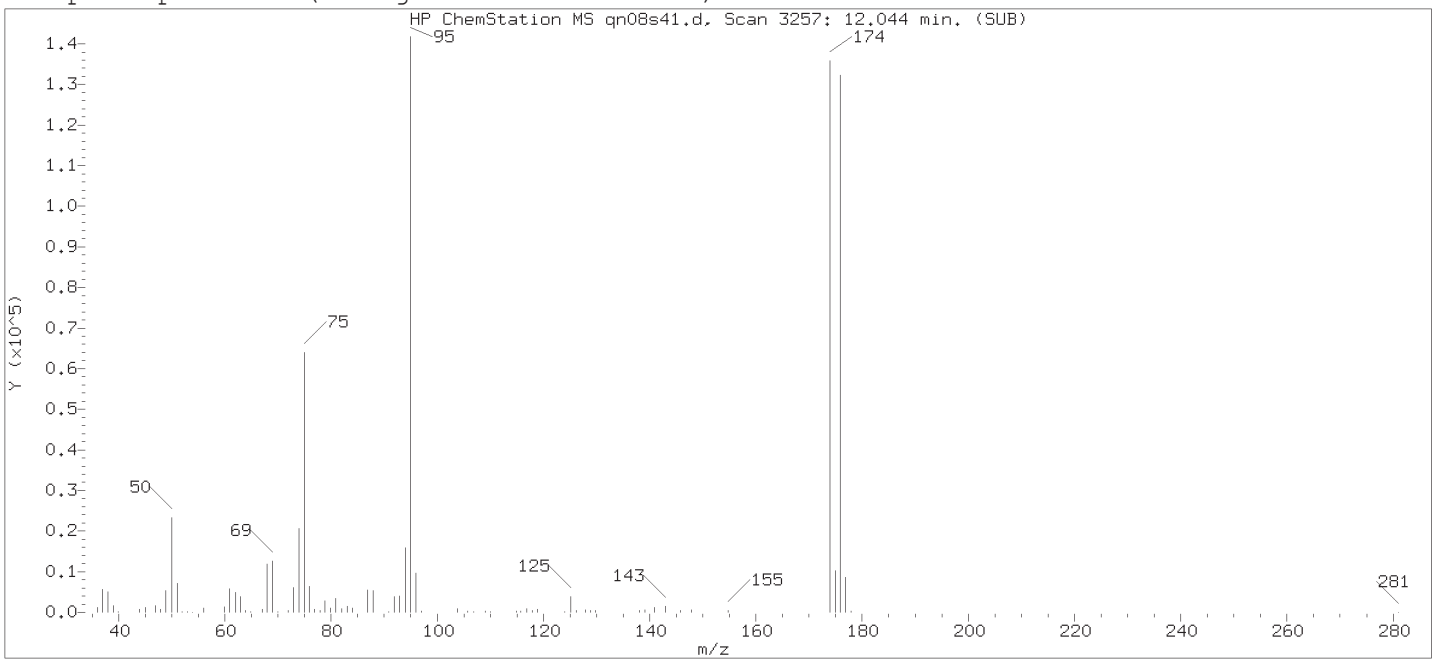
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 3257
Retention Time (minutes): 12.044
Quant Ion : 95.00
Area (flag) : 226904M
On-Column Amount (ng) : 28.3784
Integration start scan : 3246 Integration stop scan: 3272
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

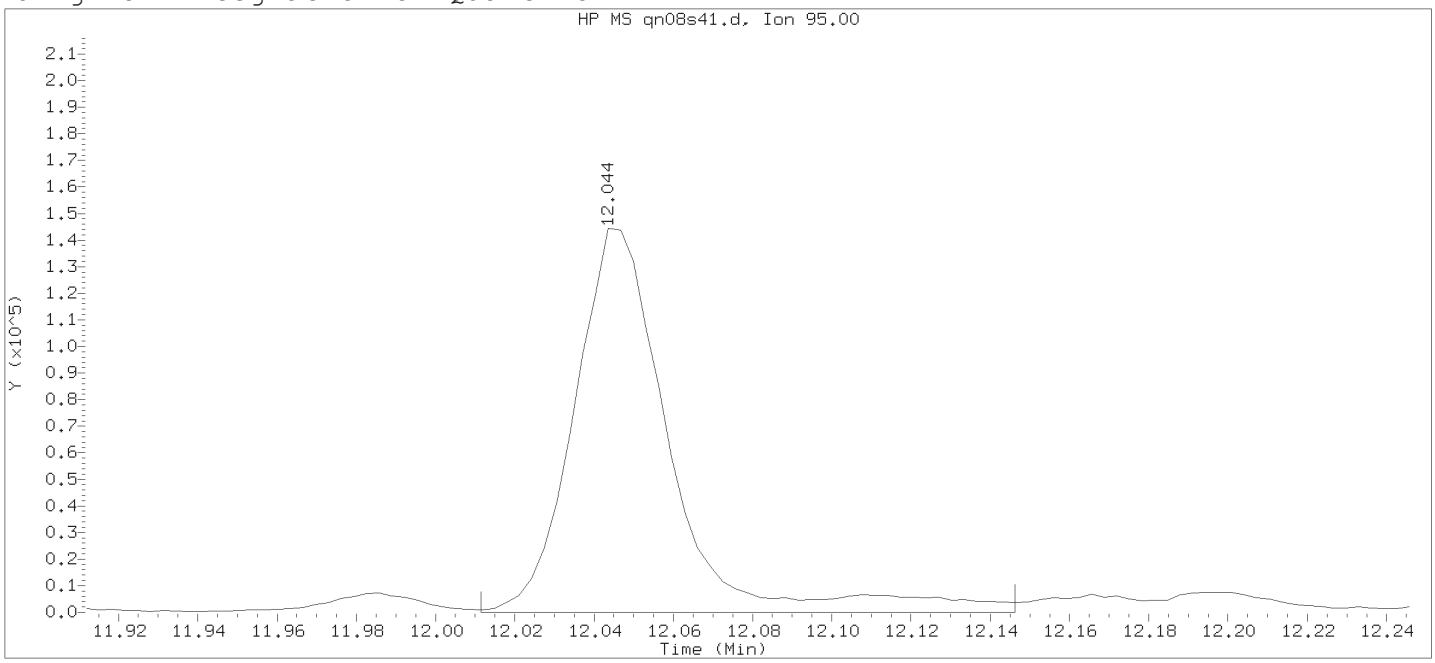
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:19.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

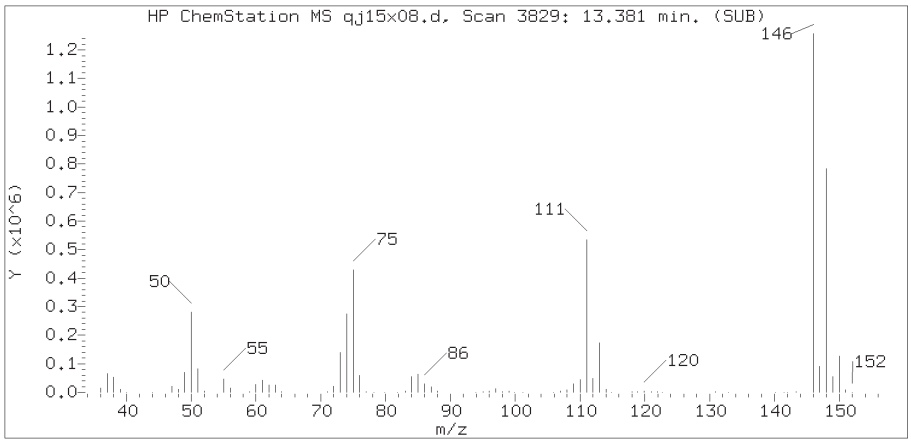
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 13:10 Automation

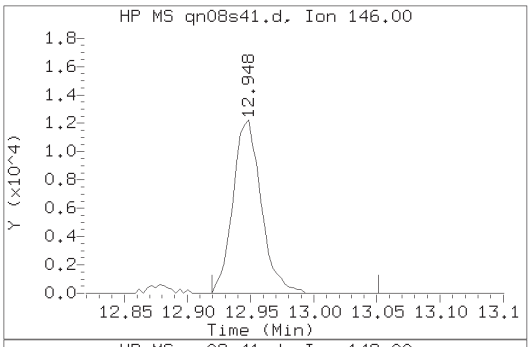
Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 3257
Retention Time (minutes): 12.044
Quant Ion : 95.00
Area : 242385
On-column Amount (ng) : 30.3146
Integration start scan : 3246 Integration stop scan: 3288
Y at integration start : 0 Y at integration end: 0

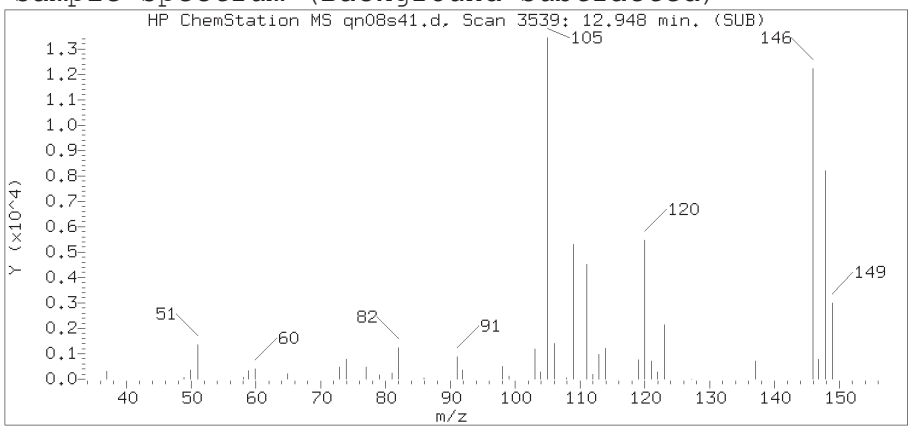
Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: SCN0052

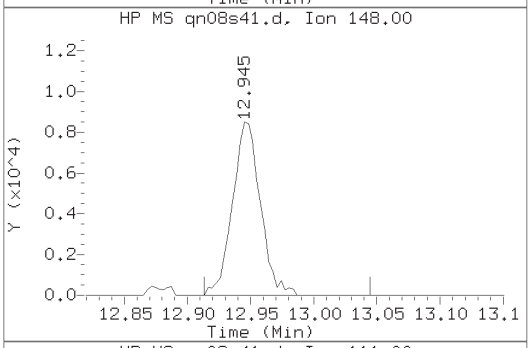
Reference Standard Spectrum for 1,4-Dichlorobenzene

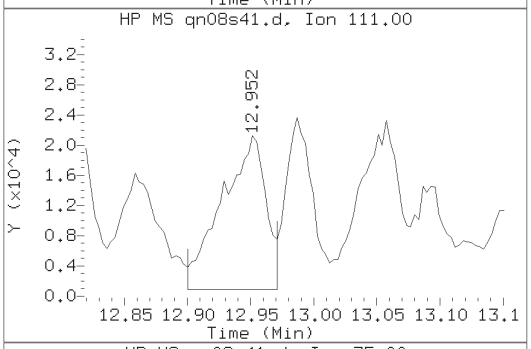




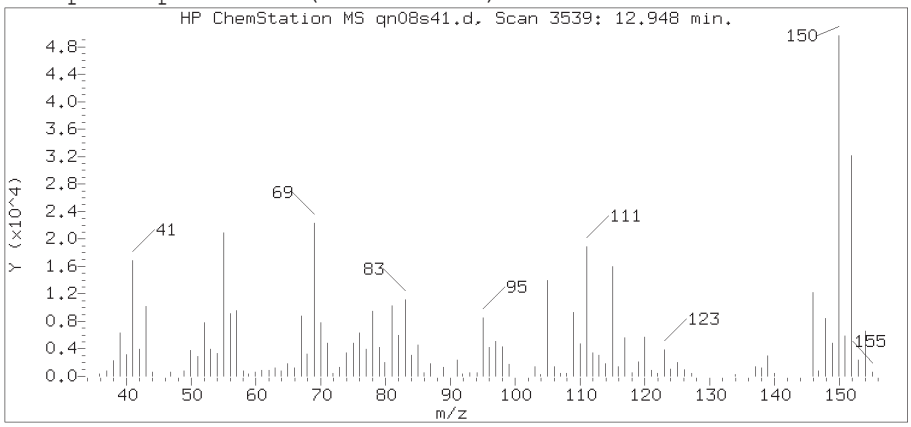
Sample Spectrum (Background Subtracted)

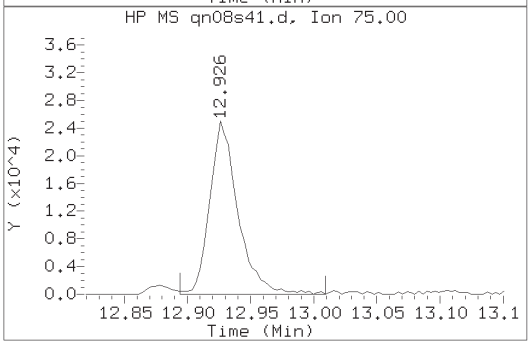






Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

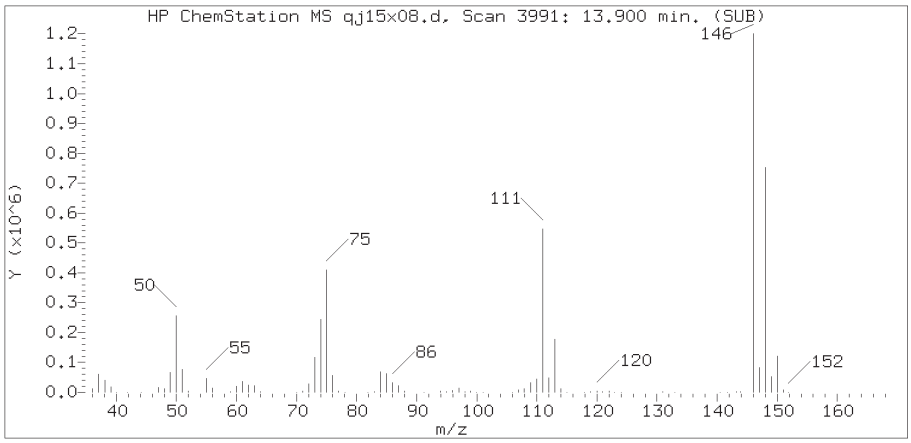
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

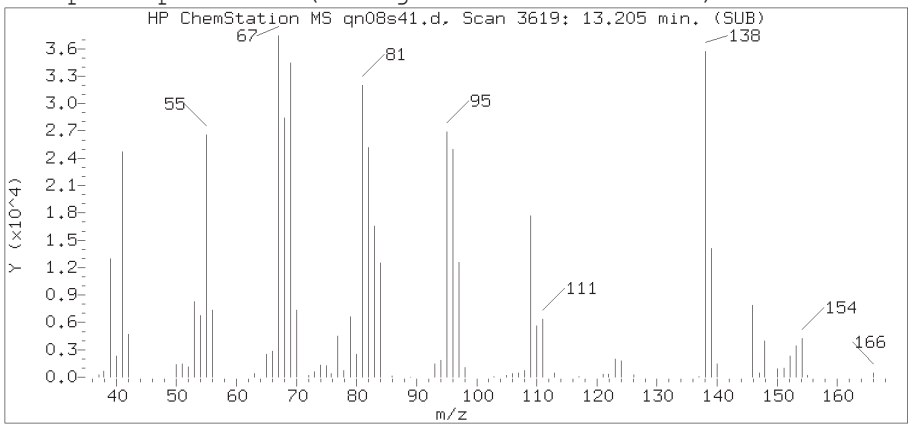
Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.948
Relative Retention Time :-0.00025
Quant Ion : 146.00
Area (flag) : 18995
On-Column Amount (ng) : 1.3993

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

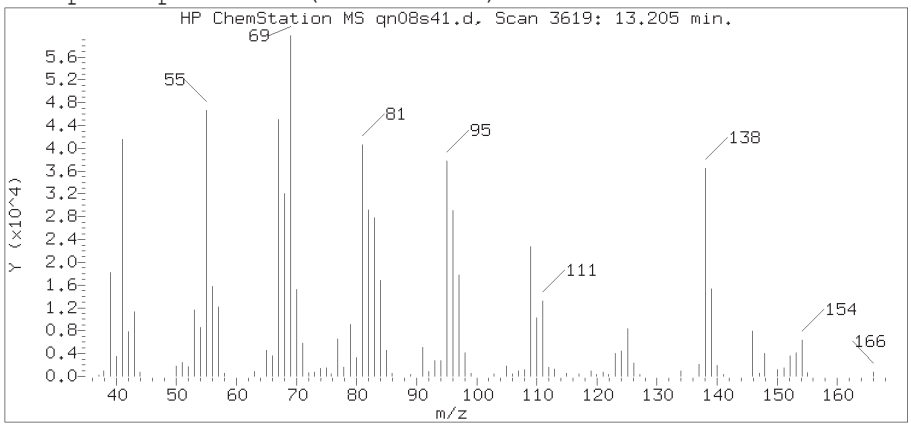
Reference Standard Spectrum for 1,2-Dichlorobenzene

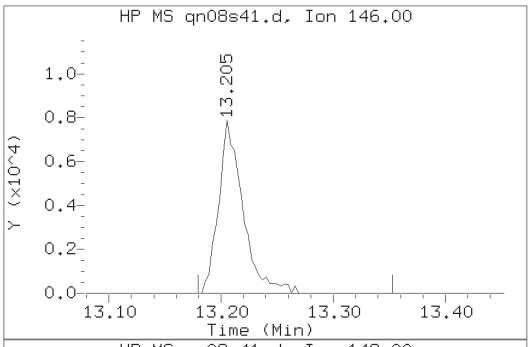


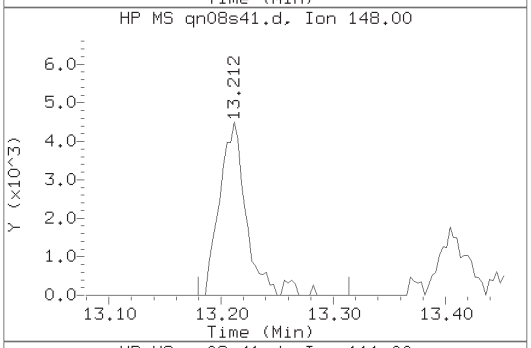
Sample Spectrum (Background Subtracted)

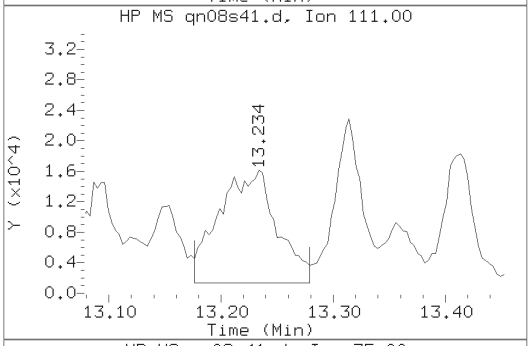


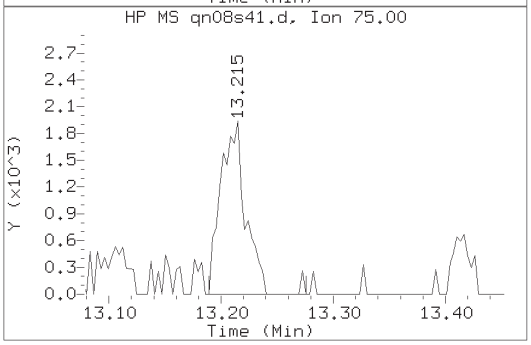
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s41.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 12:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:01 scn10072

Sample Name: 12T04RE Lab Sample ID: 9872062RE

Compound Number : 147
Compound Name : 1,2-Dichlorobenzene
Scan Number : 3619
Retention Time (minutes): 13.205
Relative Retention Time : 0.00000
Quant Ion : 146.00
Area (flag) : 11952
On-Column Amount (ng) : 0.9540

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:07.
Target 3.5 esignature user ID: scn10072

12T05 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 9872063

Data file: /chem/HP07536.i/18nov07a.b/qn07s37.d Injection date and time: **07-NOV-2018 15:07**
Data file Sample Info. Line: 12T05;9872063;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **59.38**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.21 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:9274, 9367, 2706-664

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.997	(-0.004)	749	65	133998	(-9)	250.00	
70) Fluorobenzene	7.510	(-0.004)	1844	96	1081815	(-12)	50.00	
105) Chlorobenzene-d5	11.037	(-0.001)	2943	117	832077	(-14)	50.00	
140) 1,4-Dichlorobenzene-d4	12.930	(-0.004)	3533	152	367434	(-15)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.612	(0.000)	113	206578	35.100	70%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.071	(0.000)	102	58979	38.541	77%		71 - 136
91) Toluene-d8	(3)	9.551	(0.000)	98	825358	36.336	73%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.047	(0.000)	95	241096	33.339	67%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					36	300
4) Chloromethane	(2)				Not Detected					36	300
5) Vinyl Chloride	(2)				Not Detected					36	300
9) Bromomethane	(2)				Not Detected					42	300
10) Chloroethane	(2)				Not Detected					59	300
13) Trichlorofluoromethane	(2)				Not Detected					42	300
19) 1,1-Dichloroethene	(2)				Not Detected					30	300
20) Acetone	(1)				Not Detected					360	1200
22) Freon 113	(2)				Not Detected					36	590
25) Carbon Disulfide	(2)				Not Detected					36	300
27) Methyl Acetate	(2)	3.785	(-0.001)	43	9891	1.880	111.64		J	59	300
31) Methylene Chloride	(2)				Not Detected					120	300
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					30	300
35) trans-1,2-Dichloroethene	(2)				Not Detected					30	300
40) 1,1-Dichloroethane	(2)				Not Detected					30	300
44) 2-Butanone	(1)				Not Detected					59	590
45) cis-1,2-Dichloroethene	(2)	5.909	(-0.001)	96	8157	1.219	72.41		J	30	300
54) Chloroform	(2)				Not Detected					36	300
57) 1,1,1-Trichloroethane	(2)				Not Detected					36	300
58) Cyclohexane	(2)				Not Detected					30	300
61) Carbon Tetrachloride	(2)				Not Detected					30	300
64) Benzene	(2)				Not Detected					30	300
67) 1,2-Dichloroethane	(2)				Not Detected					36	300
75) Trichloroethene	(2)				Not Detected					30	300
76) Methylcyclohexane	(2)				Not Detected					36	300
77) 1,2-Dichloropropane	(2)				Not Detected					30	300

Digitally signed by Patrick T. Herres on 11/07/2018 at 20:55. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07s37.d Injection date and time: **07-NOV-2018 15:07**
Data file Sample Info. Line: 12T05;9872063;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **59.38**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.21 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
84) Bromodichloromethane	(2)			Not Detected					24	300
89) cis-1,3-Dichloropropene	(2)			Not Detected					24	300
90) 4-Methyl-2-pentanone	(2)			Not Detected					59	590
92) Toluene	(3)	9.634(-0.000)	92	26063	1.803	107.07		J	36	300
93) trans-1,3-Dichloropropene	(3)			Not Detected					18	300
96) 1,1,2-Trichloroethane	(3)			Not Detected					30	300
98) Tetrachloroethene	(3)	10.196(-0.000)	166	38132	6.611	392.59			30	300
101) 2-Hexanone	(3)			Not Detected					59	590
103) Dibromochloromethane	(3)			Not Detected					24	300
104) 1,2-Dibromoethane	(3)			Not Detected					24	300
107) Chlorobenzene	(3)			Not Detected					30	300
109) Ethylbenzene	(3)			Not Detected					24	300
110) m+p-Xylene	(3)	11.274(-0.000)	106	10227	1.055	62.62		J	59	300
111) o-Xylene	(3)	11.598(-0.000)	106	4302	0.446	26.46		J	24	300
112) Xylene (Total)	(3)		106	14529	1.500	89.08		J	59	300
113) Styrene	(3)			Not Detected					18	300
114) Bromoform	(3)			Not Detected					300	590
115) Isopropylbenzene	(3)			Not Detected					24	300
118) Cyclohexanone	(1)			Not Detected					1500	15000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					24	300
138) 1,3-Dichlorobenzene	(4)			Not Detected					30	300
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	5831	0.471	27.97		J	24	300
147) 1,2-Dichlorobenzene	(4)			Not Detected					30	300
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					24	300
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					300	590

Total number of targets = 51

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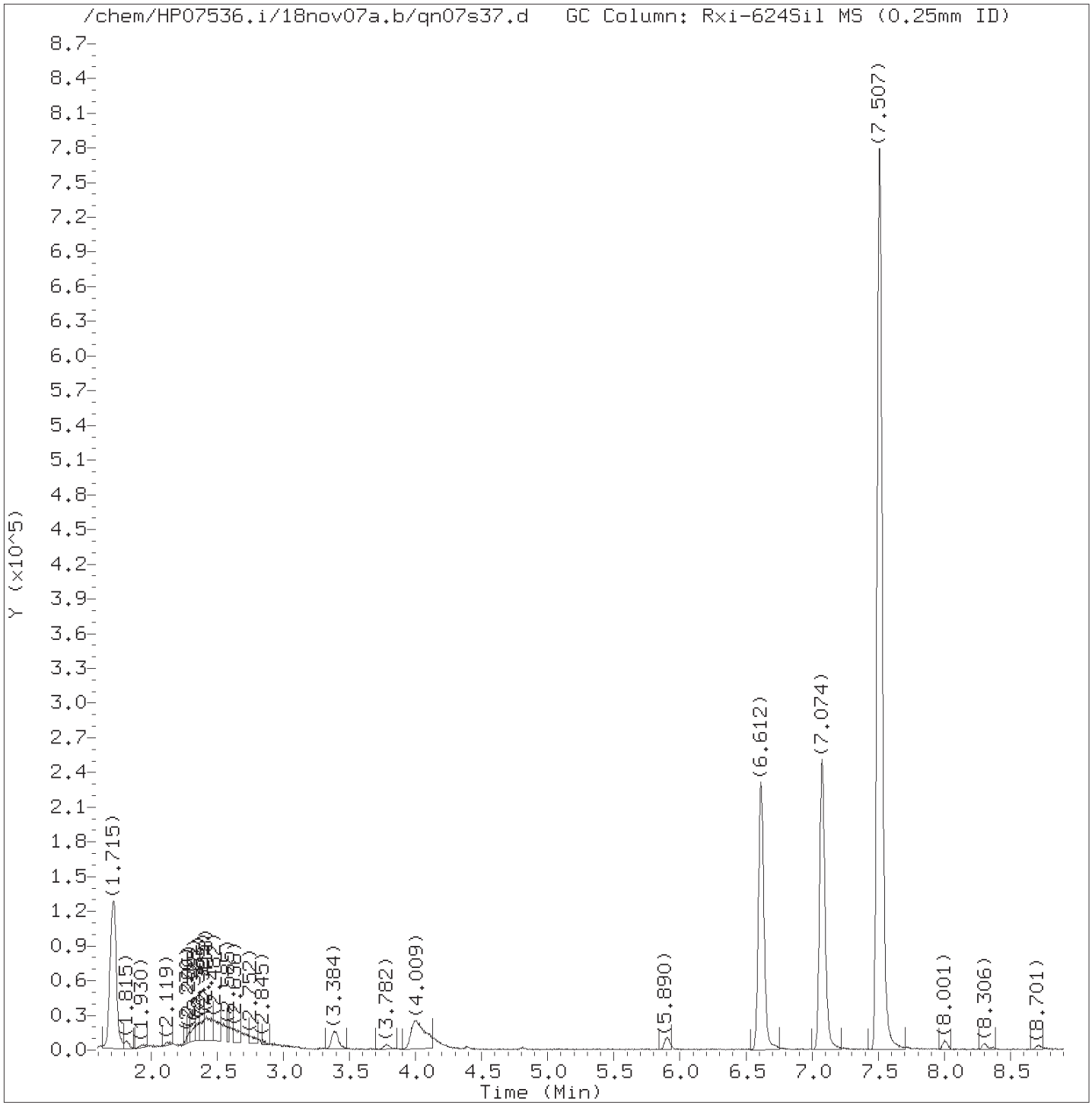
Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

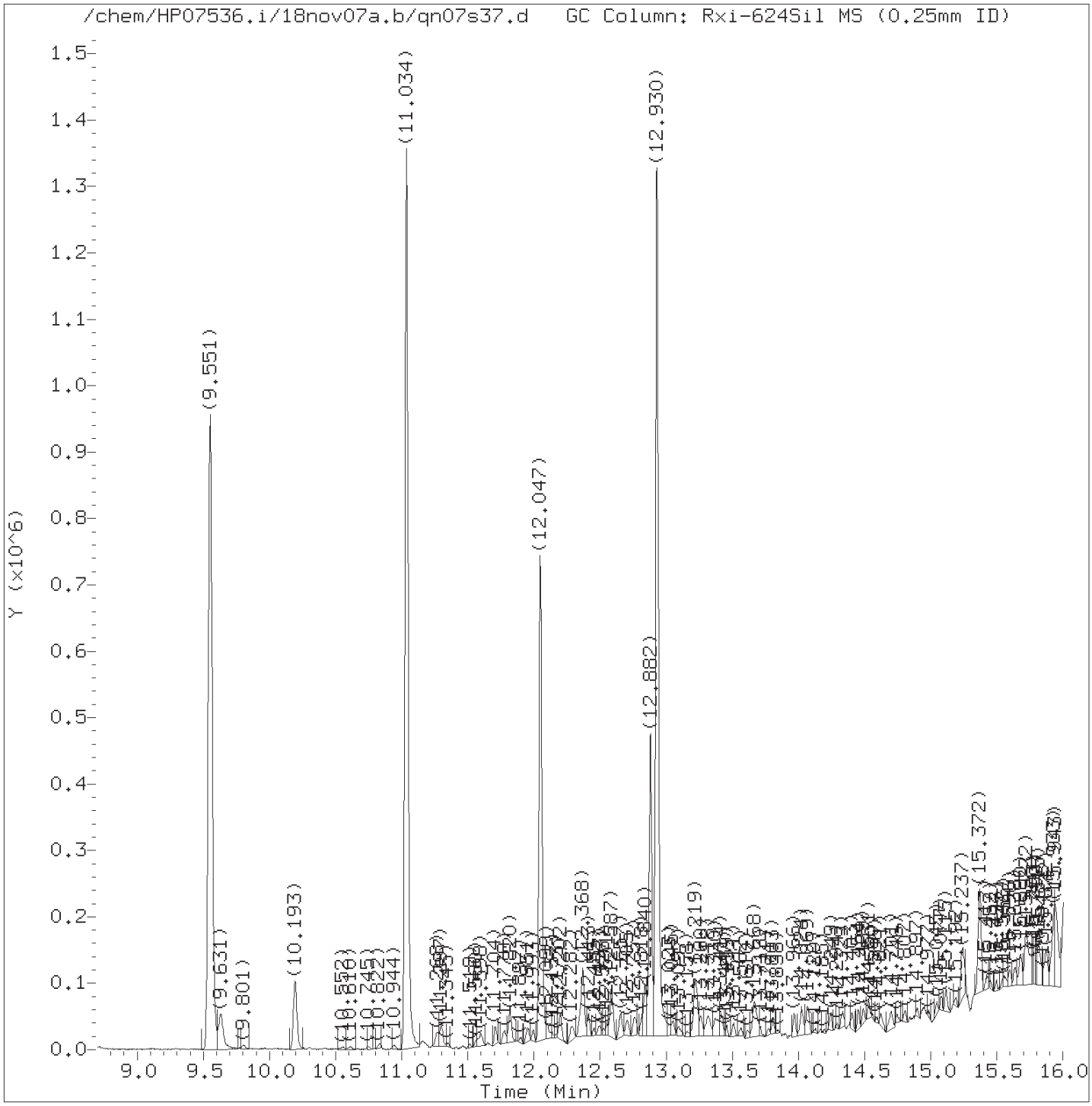
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:55.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Digitally signed by Patrick T. Herres
on 11/07/2018 at 20:55.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
27) Methyl Acetate	(2)	3.785	43	9891	1.880
30)*t-Butyl alcohol-d10	(1)	3.997	65	133998	250.000
45) cis-1,2-Dichloroethene	(2)	5.909	96	8157	1.219
56)$Dibromofluoromethane	(2)	6.612	113	206578	35.100
63)$1,2-Dichloroethane-d4	(2)	7.071	102	58979	38.541
70)*Fluorobenzene	(2)	7.510	96	1081815	50.000
91)$Toluene-d8	(3)	9.551	98	825358	36.336
92) Toluene	(3)	9.634	92	26063	1.803
98) Tetrachloroethene	(3)	10.196	166	38132	6.611
105)*Chlorobenzene-d5	(3)	11.037	117	832077	50.000
110) m+p-Xylene	(3)	11.274	106	10227	1.055
111) o-Xylene	(3)	11.598	106	4302	0.446
112) Xylene (Total)	(3)		106	14529	1.500
119)$4-Bromofluorobenzene	(3)	12.047	95	241096	33.339
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	367434	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	5831	0.471

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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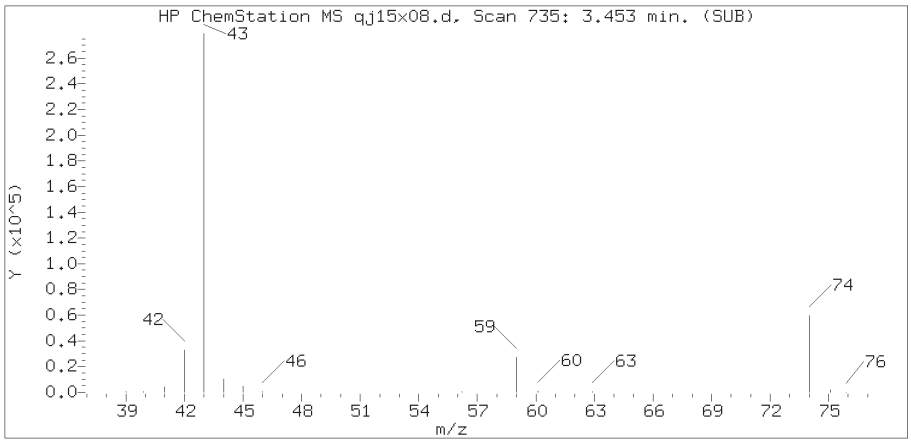
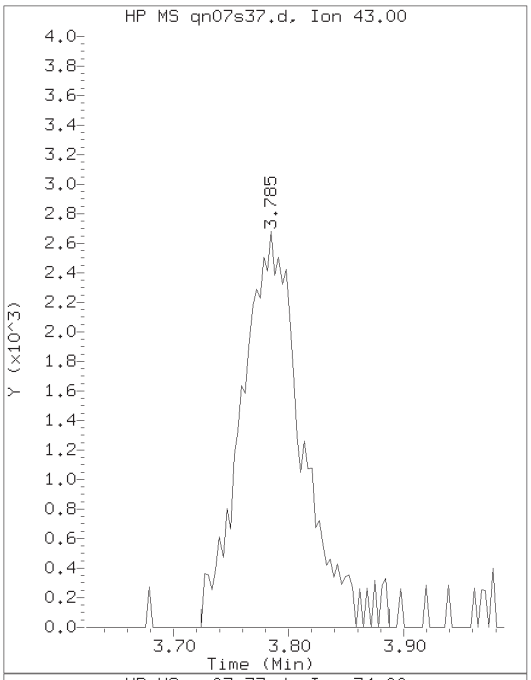
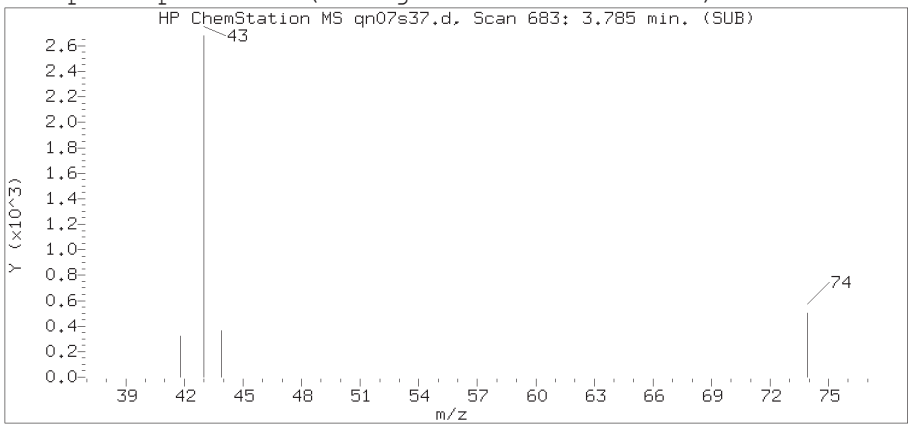
on 11/07/2018 at 20:55.
Target 3.5 esignature user ID: pth10165

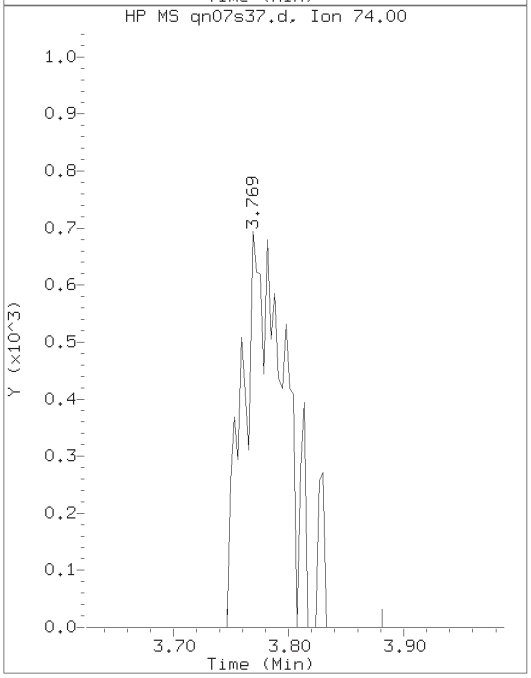
Reference Standard Spectrum for Methyl Acetate



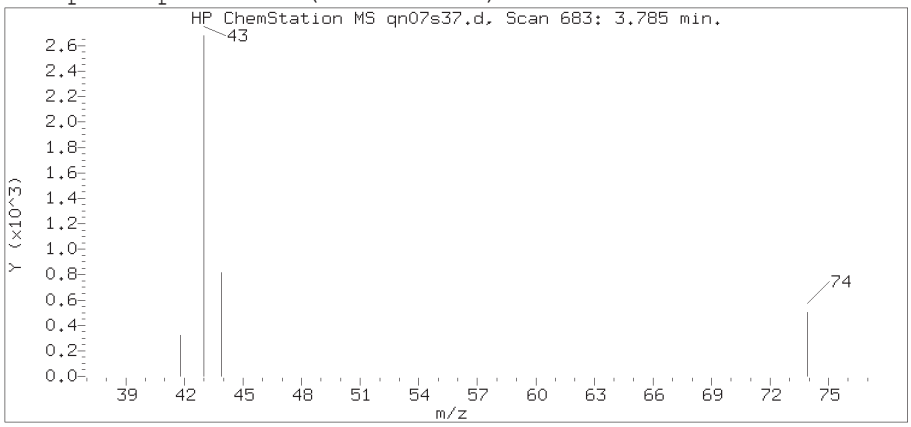


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 683
Retention Time (minutes): 3.785
Relative Retention Time :-0.00110
Quant Ion : 43.00
Area (flag) : 9891
On-Column Amount (ng) : 1.8800

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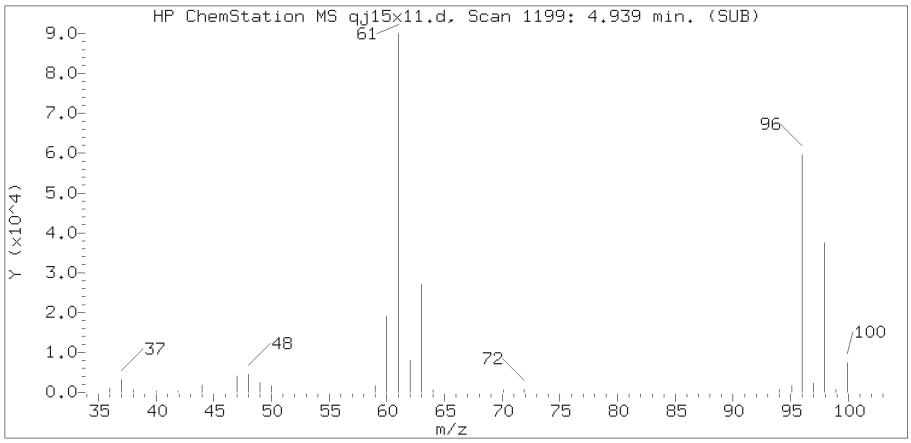
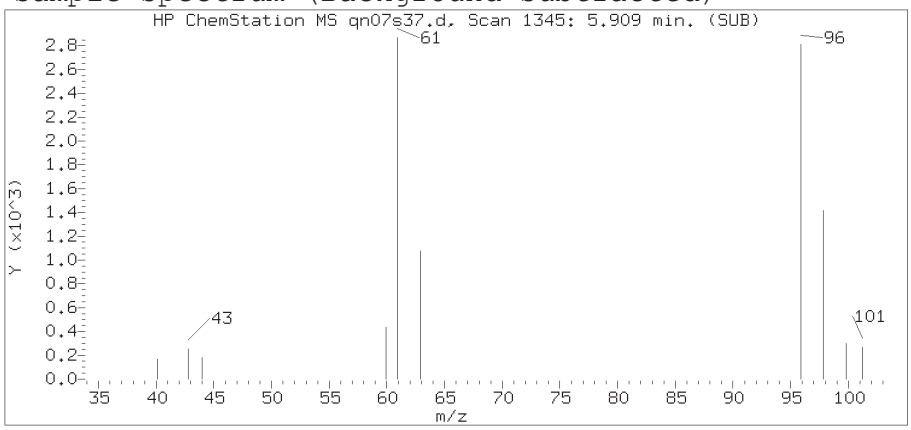
Target 3.5 esignature user ID: pth10165

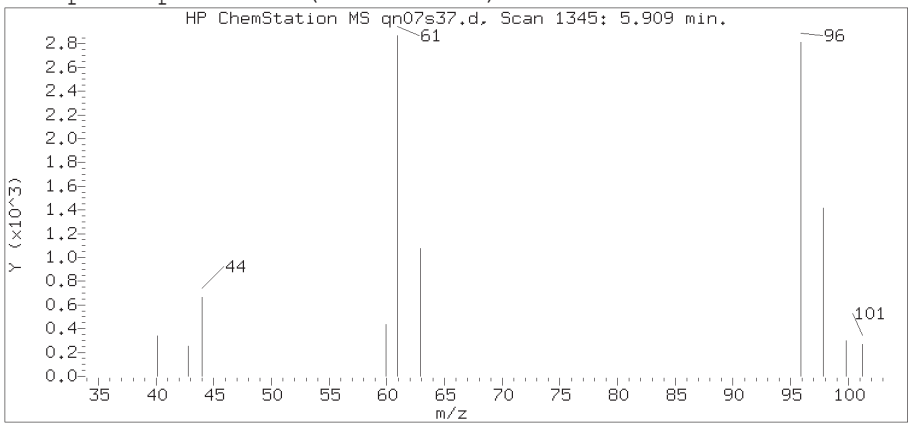
Reference Standard Spectrum for cis-1,2-Dichloroethene

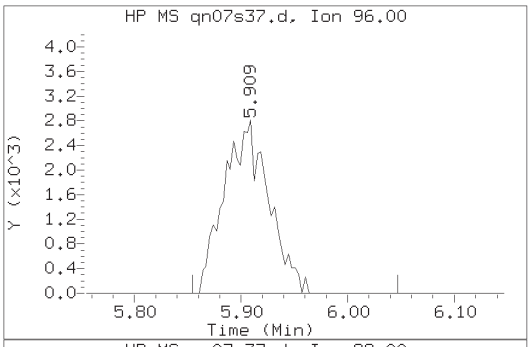


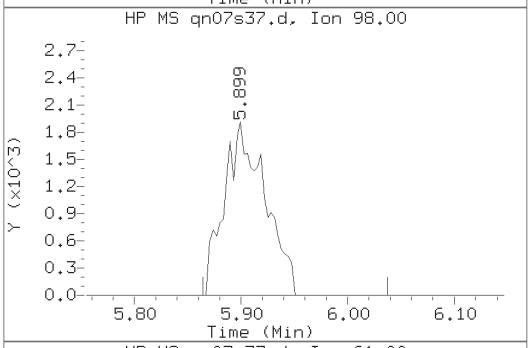
Sample Spectrum (Background Subtracted)

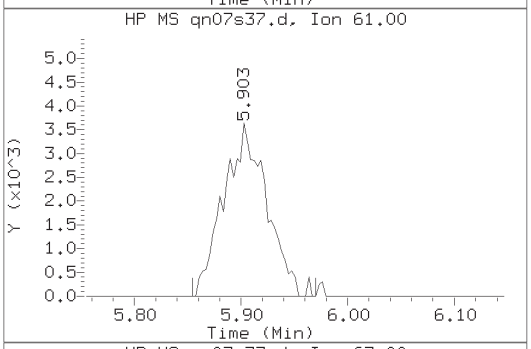


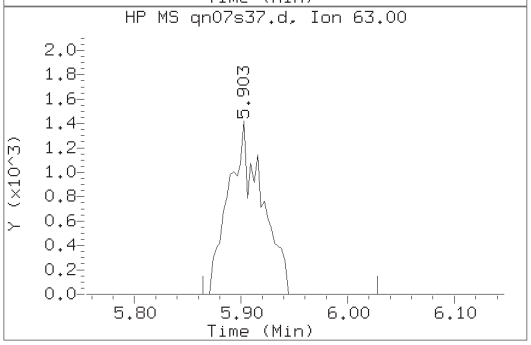
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1345
Retention Time (minutes): 5.909
Relative Retention Time :-0.00182
Quant Ion : 96.00
Area (flag) : 8157
On-Column Amount (ng) : 1.2194

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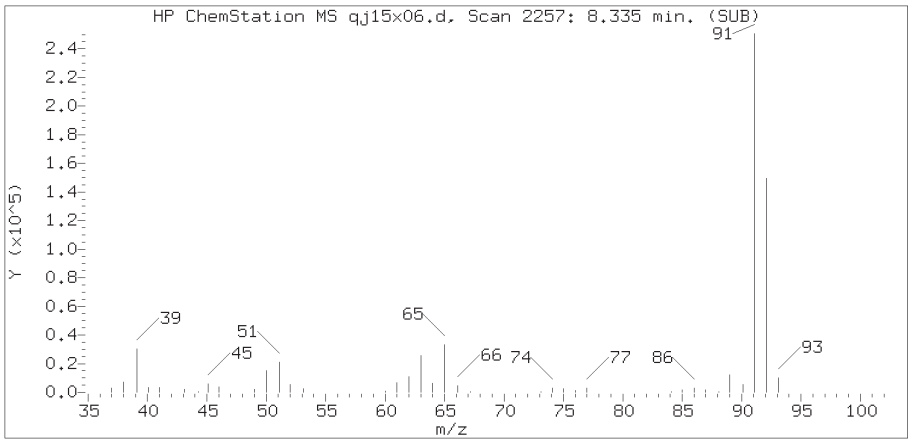
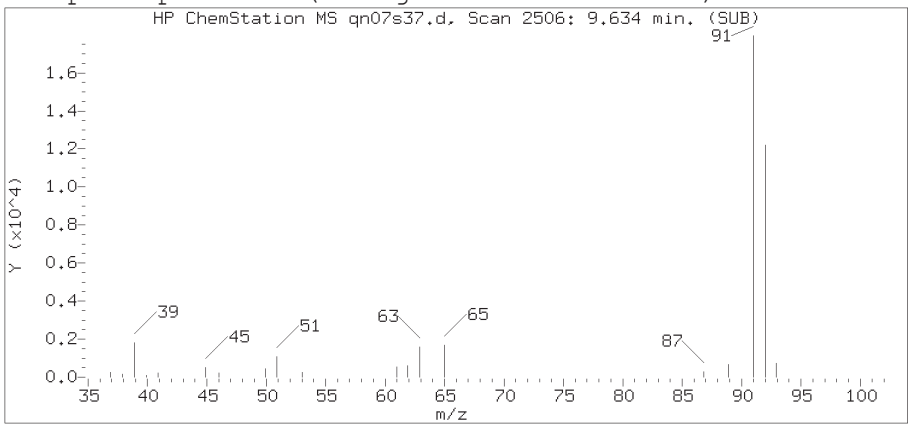
Target 3.5 esignature user ID: pth10165

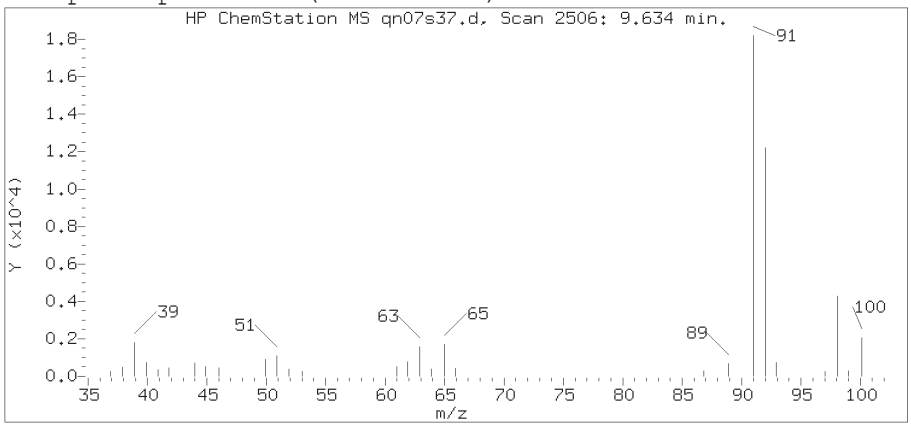
Reference Standard Spectrum for Toluene

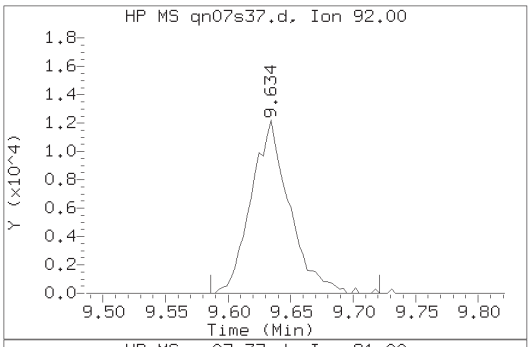


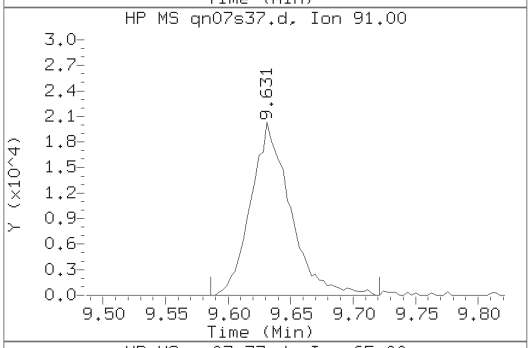
Sample Spectrum (Background Subtracted)

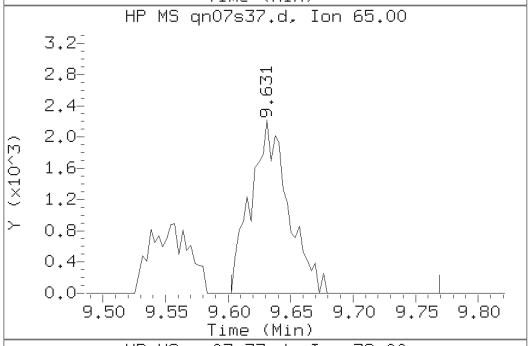


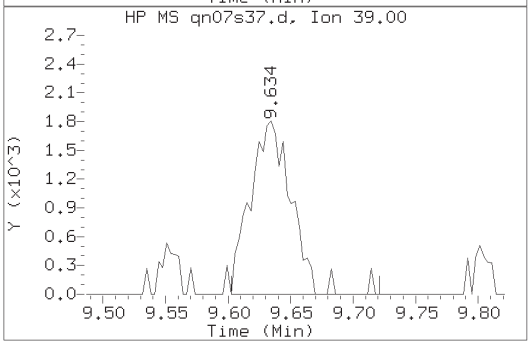
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 92
Compound Name : Toluene
Scan Number : 2506
Retention Time (minutes): 9.634
Relative Retention Time :-0.00059
Quant Ion : 92.00
Area (flag) : 26063
On-Column Amount (ng) : 1.8030

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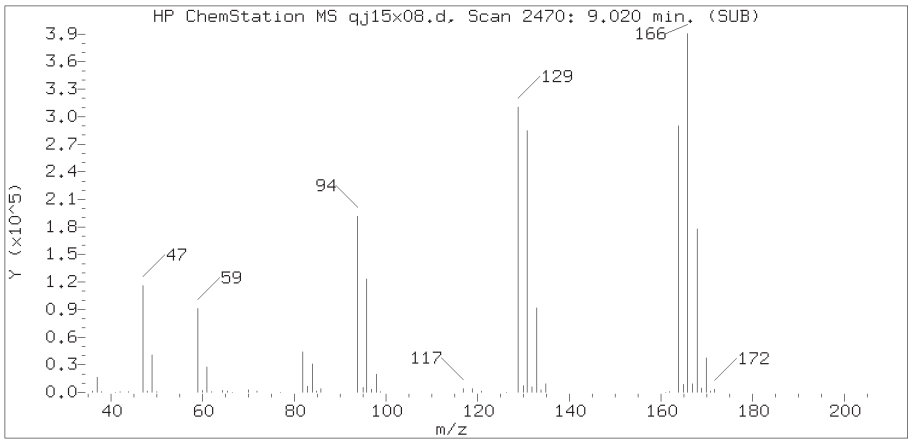
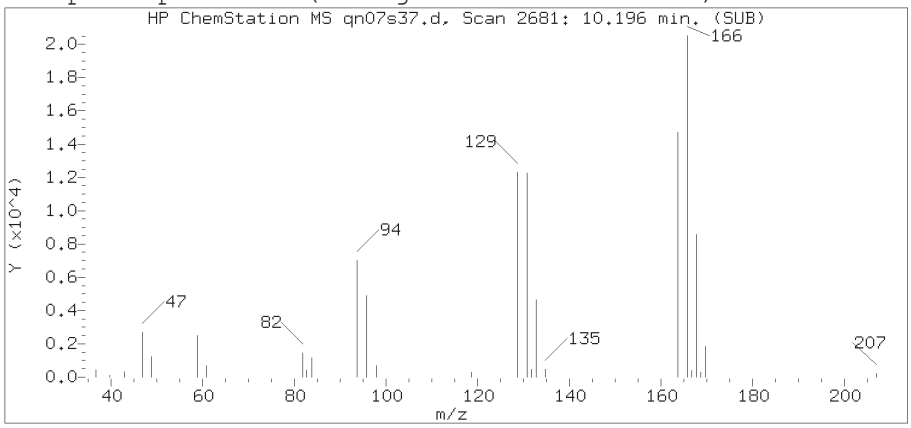
Target 3.5 esignature user ID: pth10165

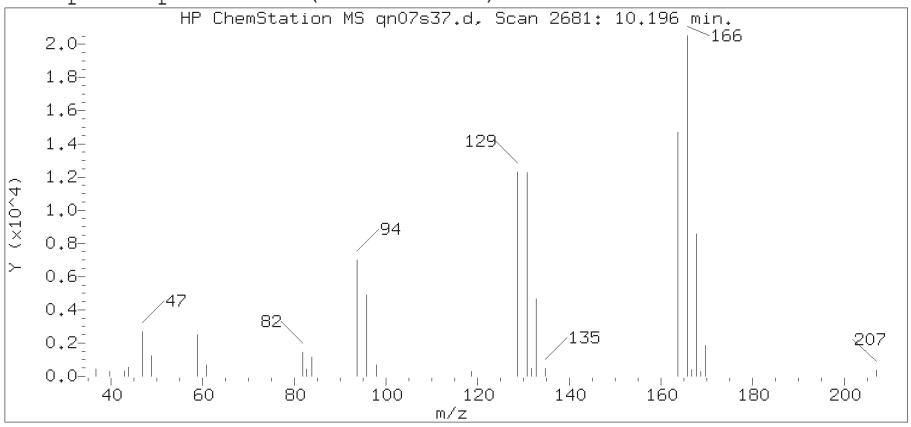
Reference Standard Spectrum for Tetrachloroethene

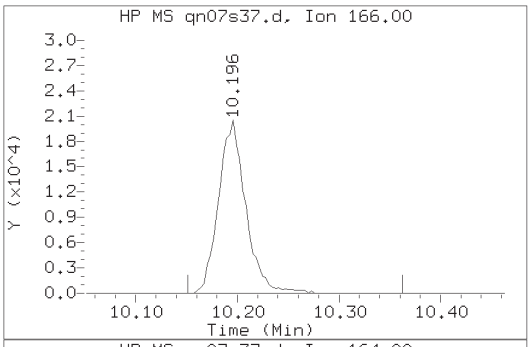


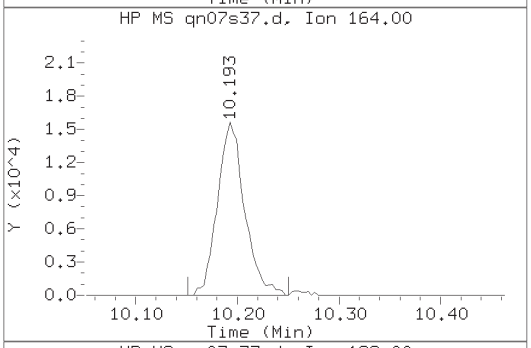
Sample Spectrum (Background Subtracted)

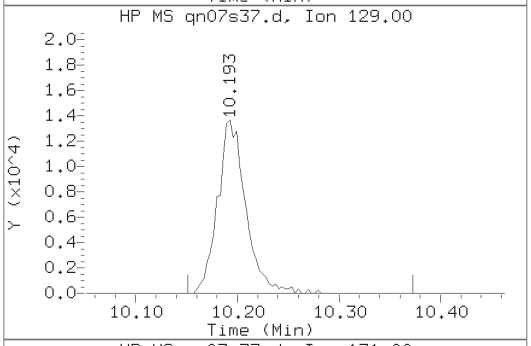


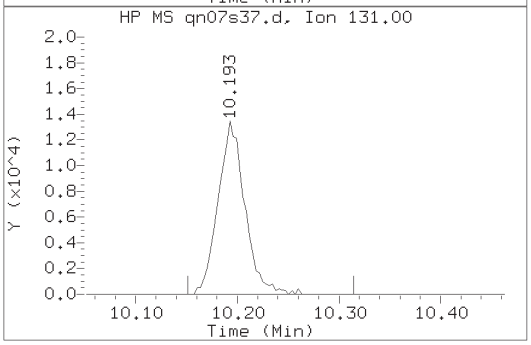
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 98
Compound Name : Tetrachloroethene
Scan Number : 2681
Retention Time (minutes): 10.196
Relative Retention Time :-0.00029
Quant Ion : 166.00
Area (flag) : 38132
On-Column Amount (ng) : 6.6112

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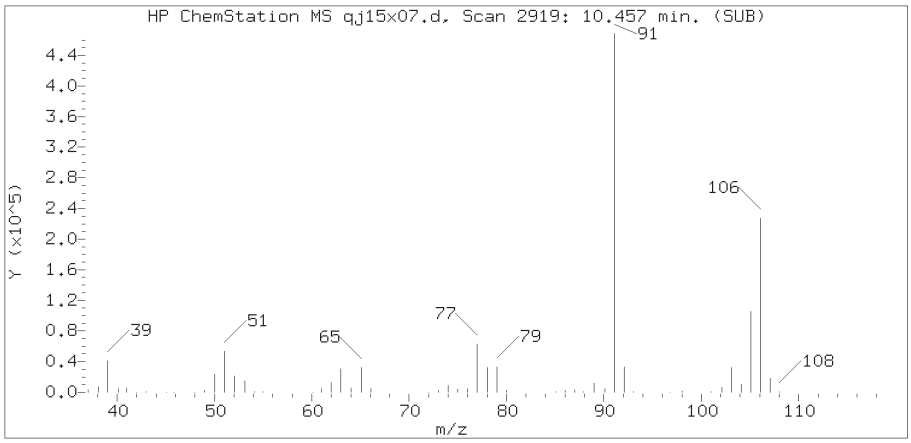
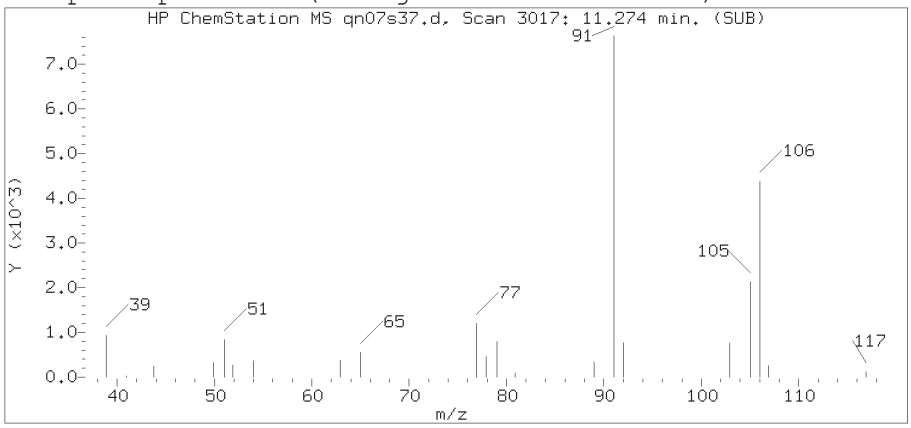
Target 3.5 esignature user ID: pth10165

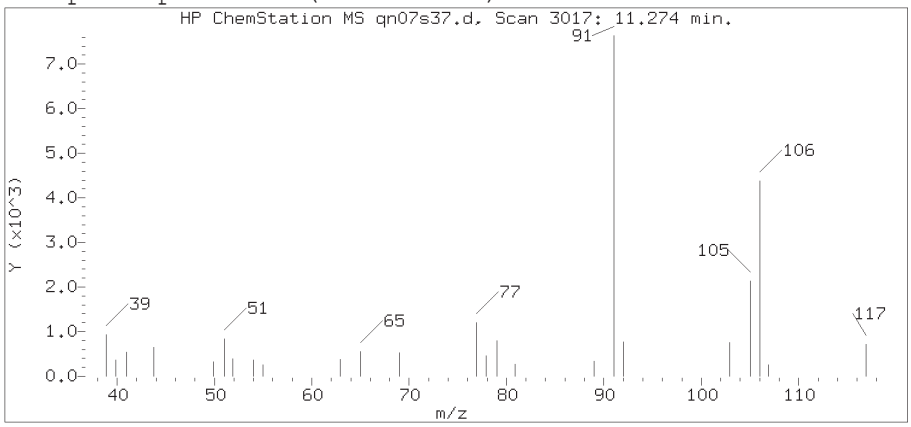
Reference Standard Spectrum for m+p-Xylene

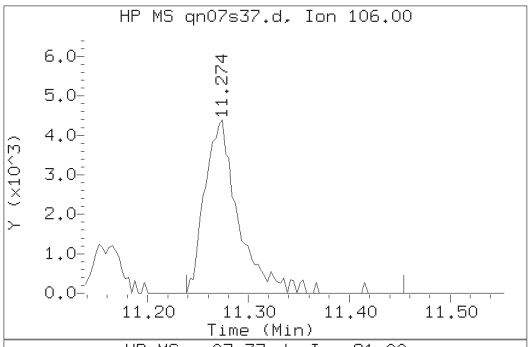


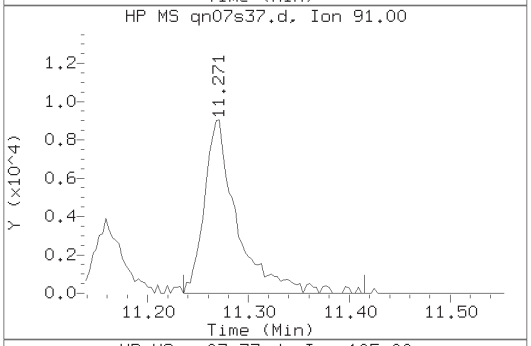
Sample Spectrum (Background Subtracted)

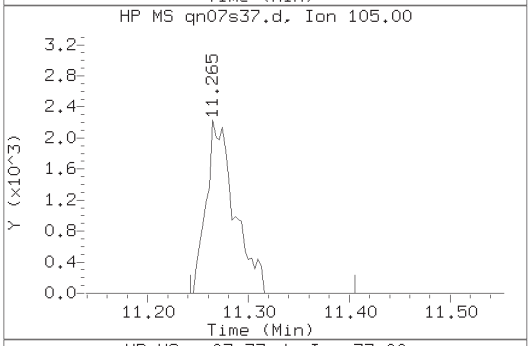


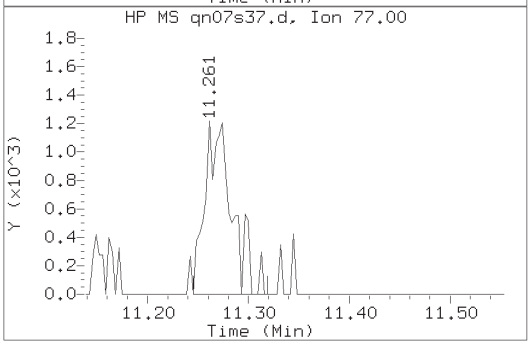
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3017
Retention Time (minutes): 11.274
Relative Retention Time :-0.00087
Quant Ion : 106.00
Area (flag) : 10227
On-Column Amount (ng) : 1.0545

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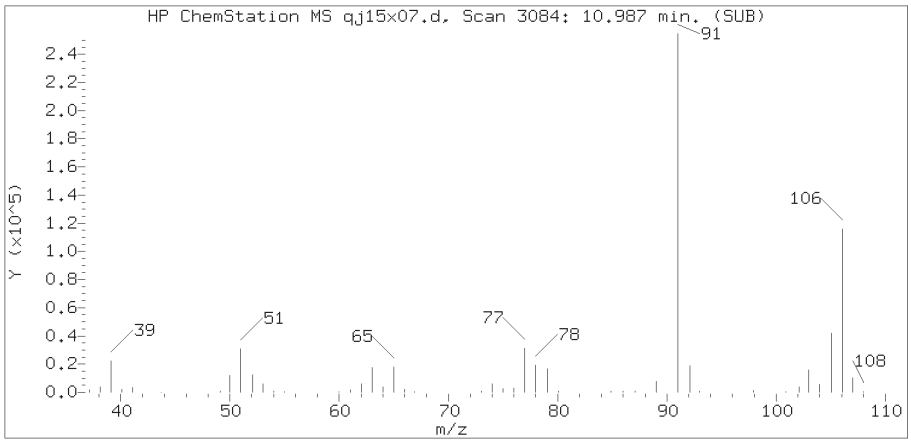
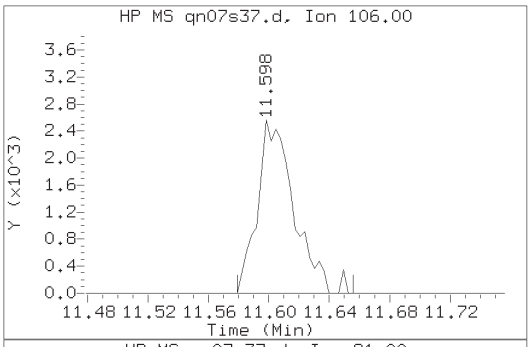
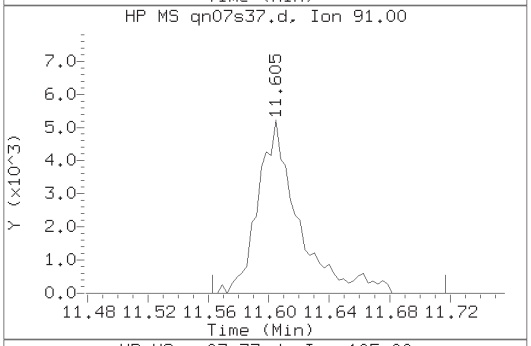
Target 3.5 esignature user ID: pth10165

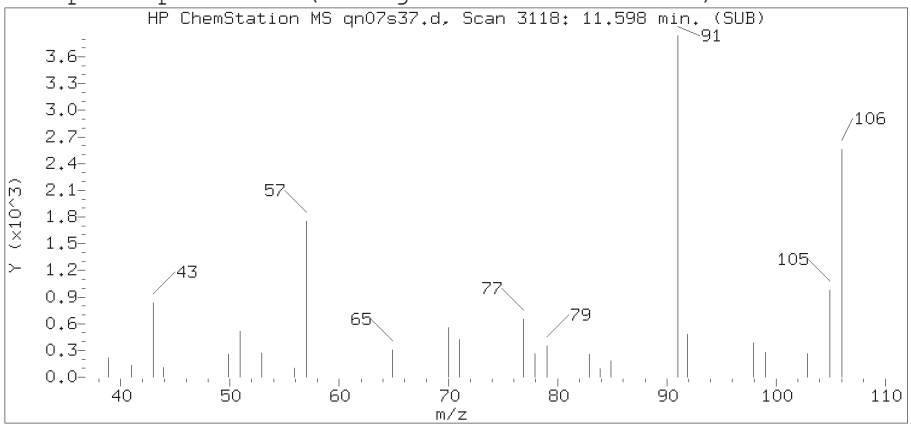
Reference Standard Spectrum for o-Xylene

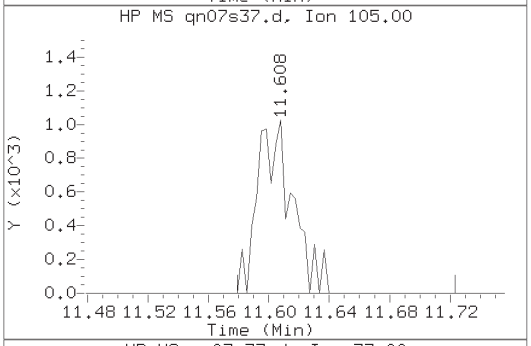




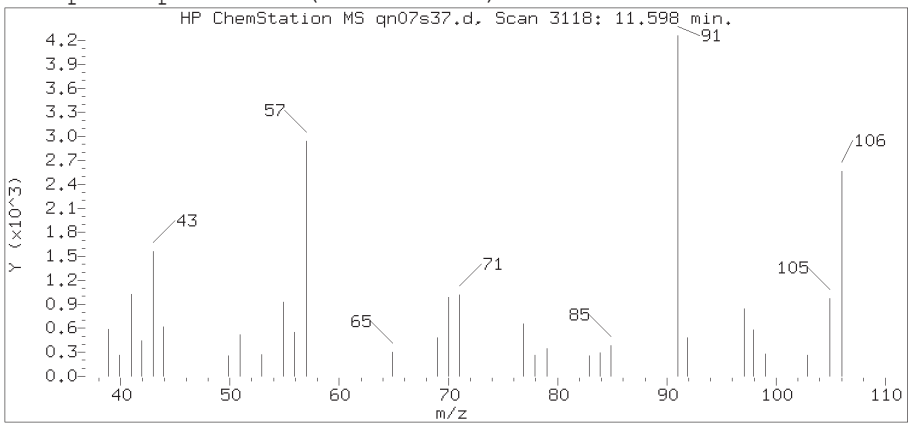


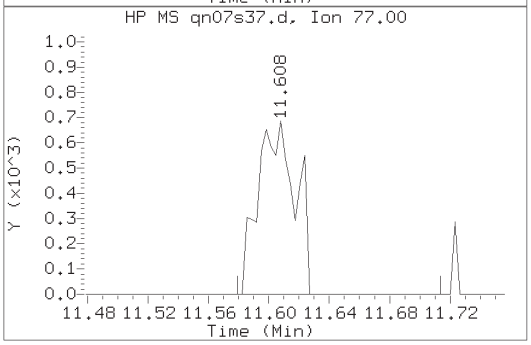
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3118
Retention Time (minutes): 11.598
Relative Retention Time :-0.00029
Quant Ion : 106.00
Area (flag) : 4302
On-Column Amount (ng) : 0.4456

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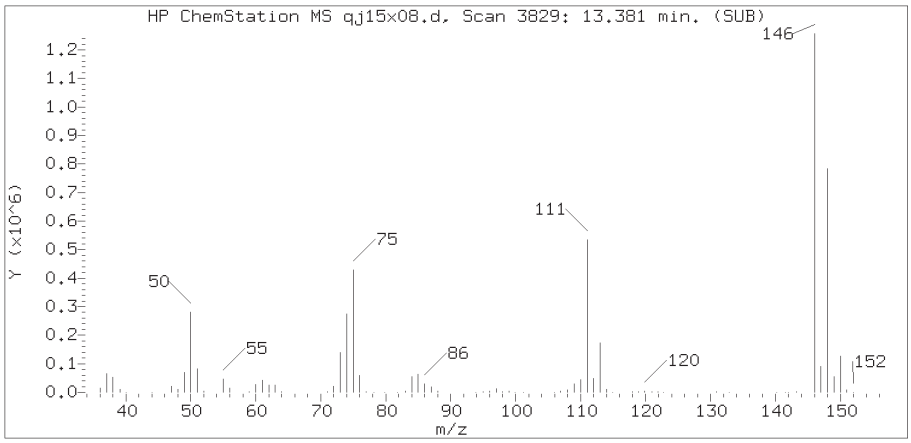
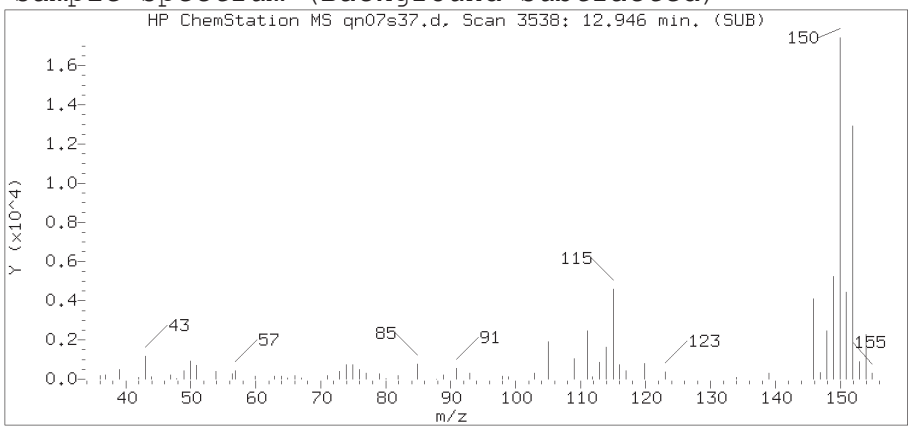
Target 3.5 esignature user ID: pth10165

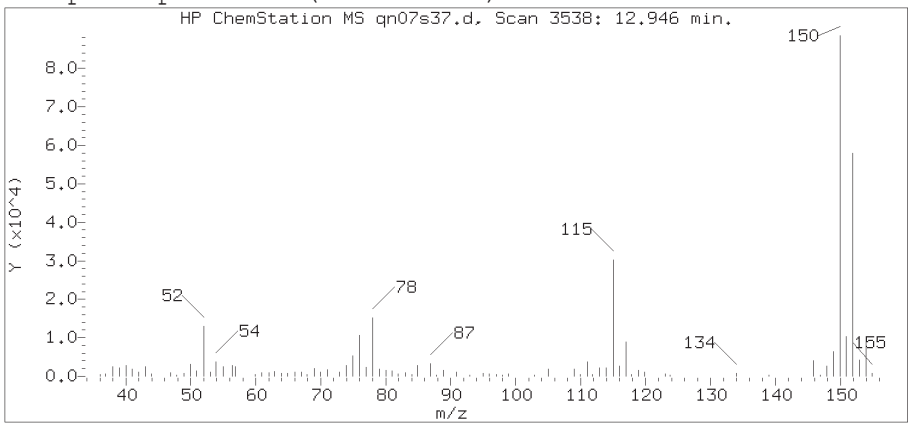
Reference Standard Spectrum for 1,4-Dichlorobenzene

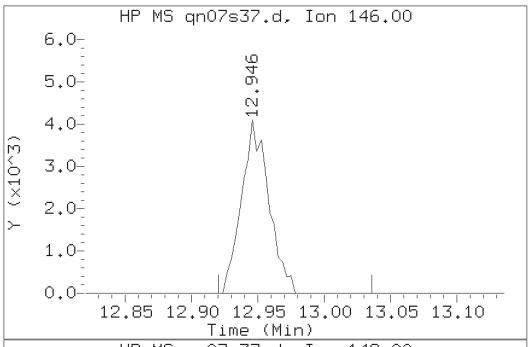


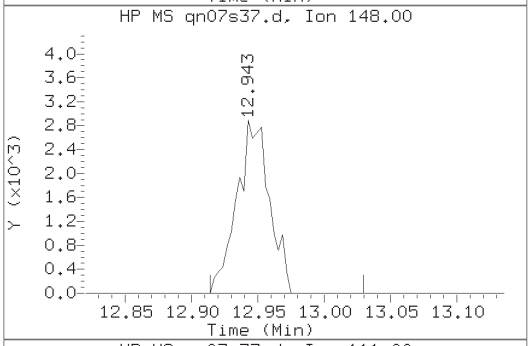
Sample Spectrum (Background Subtracted)

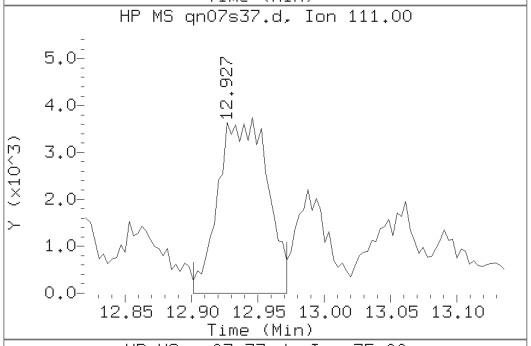


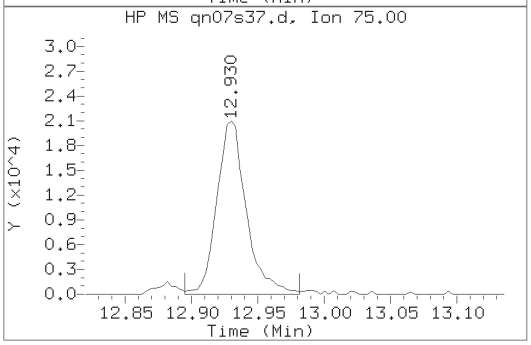
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s37.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:07 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 20:54 pth10165

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3538
Retention Time (minutes): 12.946
Relative Retention Time : 0.00025
Quant Ion : 146.00
Area (flag) : 5831
On-Column Amount (ng) : 0.4711

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Target 3.5 esignature user ID: pth10165

12T05RE

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

9872063RE

Data file: /chem/HP07536.i/18nov08a.b/qn08s36.d Injection date and time: **08-NOV-2018 13:27**
Data file Sample Info. Line: 12T05RE;9872063RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **59.38**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.21 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.983	(0.020)	745	65	149992	(12)	250.00	
70) Fluorobenzene	7.500	(0.008)	1841	96	1196083	(9)	50.00	
105) Chlorobenzene-d5	11.030	(0.004)	2941	117	924646	(7)	50.00	
140) 1,4-Dichlorobenzene-d4	12.926	(0.001)	3532	152	399390	(4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.605	(0.000)	113	200950	30.882	62%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.067	(0.000)	102	57697	34.101	68%	*	71 - 136
91) Toluene-d8	(3)	9.544	(0.000)	98	783695	31.048	62%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.044	(0.000)	95	230540	28.687	57%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)				Not Detected					36	300
4) Chloromethane	(2)				Not Detected					36	300
5) Vinyl Chloride	(2)				Not Detected					36	300
9) Bromomethane	(2)				Not Detected					42	300
10) Chloroethane	(2)				Not Detected					59	300
13) Trichlorofluoromethane	(2)				Not Detected					42	300
19) 1,1-Dichloroethene	(2)				Not Detected					30	300
20) Acetone	(1)				Not Detected					360	1200
22) Freon 113	(2)				Not Detected					36	590
25) Carbon Disulfide	(2)				Not Detected					36	300
27) Methyl Acetate	(2)	3.772	(-0.000)	43	9438	1.623	96.35		J	59	300
31) Methylene Chloride	(2)				Not Detected					120	300
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					30	300
35) trans-1,2-Dichloroethene	(2)				Not Detected					30	300
40) 1,1-Dichloroethane	(2)				Not Detected					30	300
44) 2-Butanone	(1)				Not Detected					59	590
45) cis-1,2-Dichloroethene	(2)	5.886	(0.000)	96	7972	1.078	64.01		J	30	300
54) Chloroform	(2)				Not Detected					36	300
57) 1,1,1-Trichloroethane	(2)				Not Detected					36	300
58) Cyclohexane	(2)				Not Detected					30	300
61) Carbon Tetrachloride	(2)				Not Detected					30	300
64) Benzene	(2)				Not Detected					30	300
67) 1,2-Dichloroethane	(2)				Not Detected					36	300
75) Trichloroethene	(2)	7.991	(-0.001)	95	3355	0.515	30.57		J	30	300
76) Methylcyclohexane	(2)				Not Detected					36	300
77) 1,2-Dichloropropane	(2)				Not Detected					30	300
84) Bromodichloromethane	(2)				Not Detected					24	300

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06. Target 3.5 esignature user ID: scn10072

Data file: /chem/HP07536.i/18nov08a.b/qn08s36.d Injection date and time: **08-NOV-2018 13:27**
Data file Sample Info. Line: 12T05RE;9872063RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **59.38**

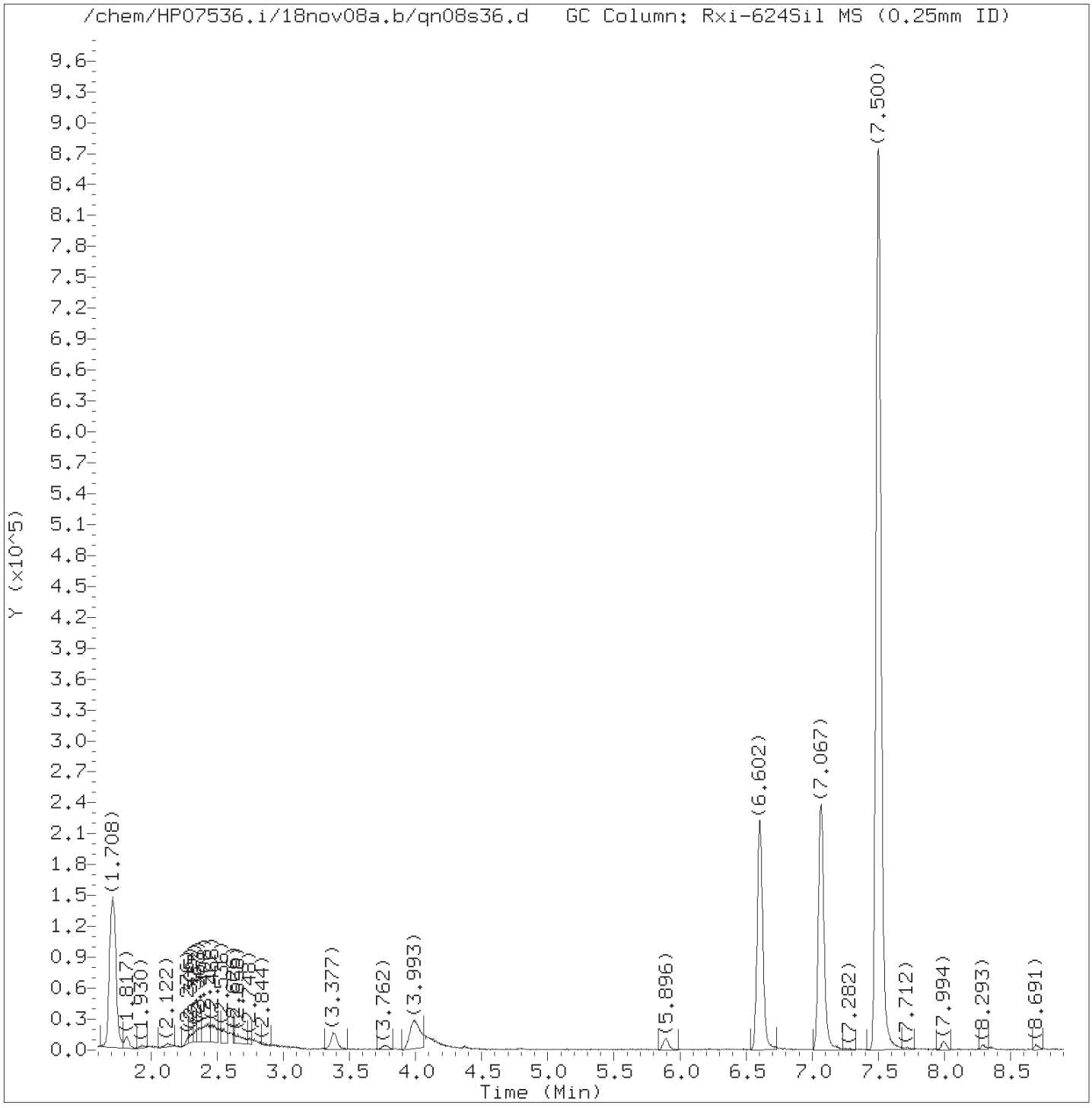
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.21 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
89) cis-1,3-Dichloropropene	(2)			Not Detected					24	300
90) 4-Methyl-2-pentanone	(2)			Not Detected					59	590
92) Toluene	(3)	9.628(-0.000)	92	24687	1.537	91.26		J	36	300
93) trans-1,3-Dichloropropene	(3)			Not Detected					18	300
96) 1,1,2-Trichloroethane	(3)			Not Detected					30	300
98) Tetrachloroethene	(3)	10.189(-0.000)	166	35482	5.536	328.73			30	300
101) 2-Hexanone	(3)			Not Detected					59	590
103) Dibromochloromethane	(3)			Not Detected					24	300
104) 1,2-Dibromoethane	(3)			Not Detected					24	300
107) Chlorobenzene	(3)			Not Detected					30	300
109) Ethylbenzene	(3)			Not Detected					24	300
110) m+p-Xylene	(3)			Not Detected					59	300
111) o-Xylene	(3)			Not Detected					24	300
112) Xylene (Total)	(3)			Not Detected					59	300
113) Styrene	(3)			Not Detected					18	300
114) Bromoform	(3)			Not Detected					300	590
115) Isopropylbenzene	(3)			Not Detected					24	300
118) Cyclohexanone	(1)			Not Detected					1500	15000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					24	300
138) 1,3-Dichlorobenzene	(4)			Not Detected					30	300
141) 1,4-Dichlorobenzene	(4)	12.949(-0.000)	146	5802	0.431	25.61		J	24	300
147) 1,2-Dichlorobenzene	(4)			Not Detected					30	300
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					24	300
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					300	590

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

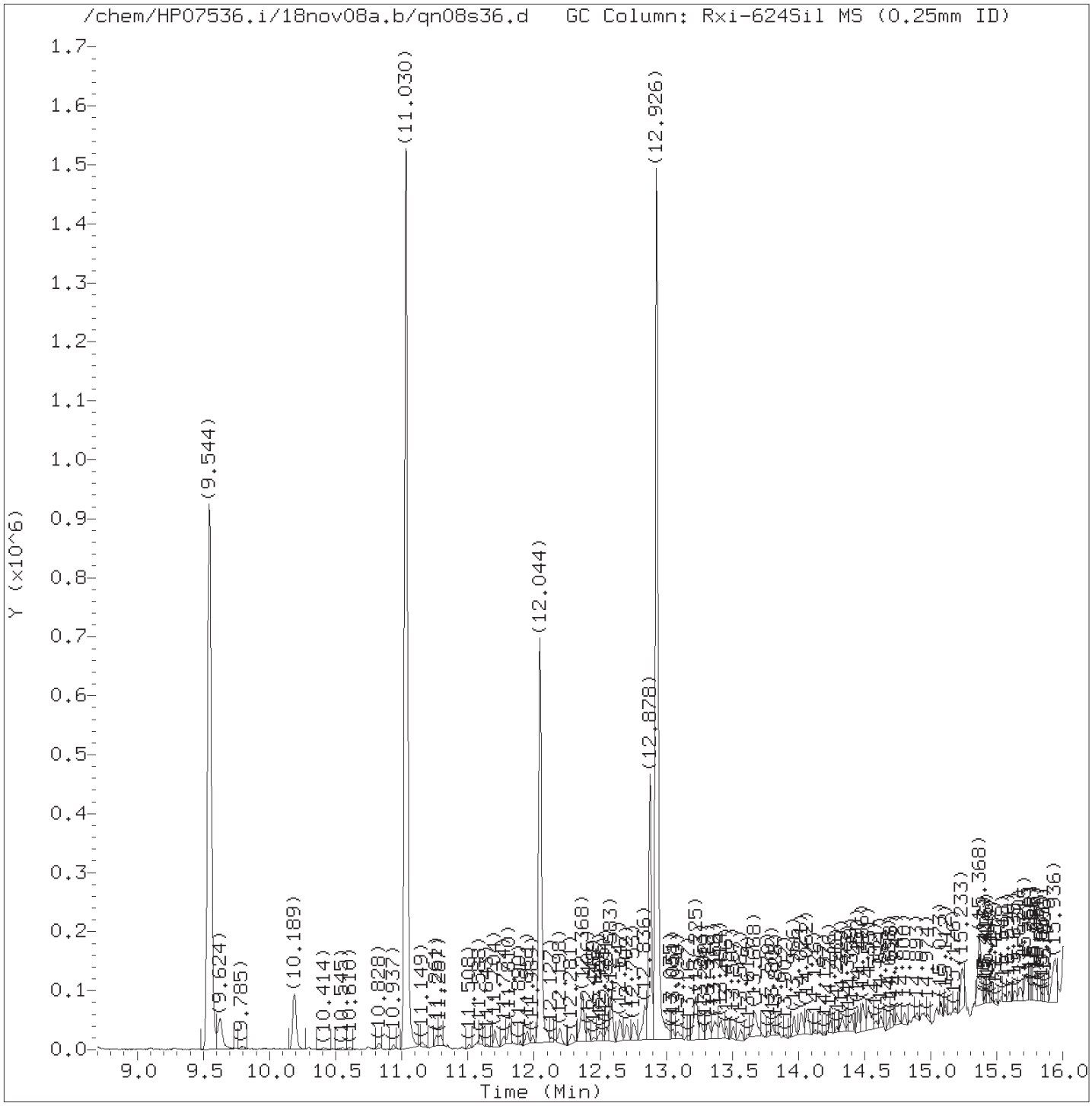
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

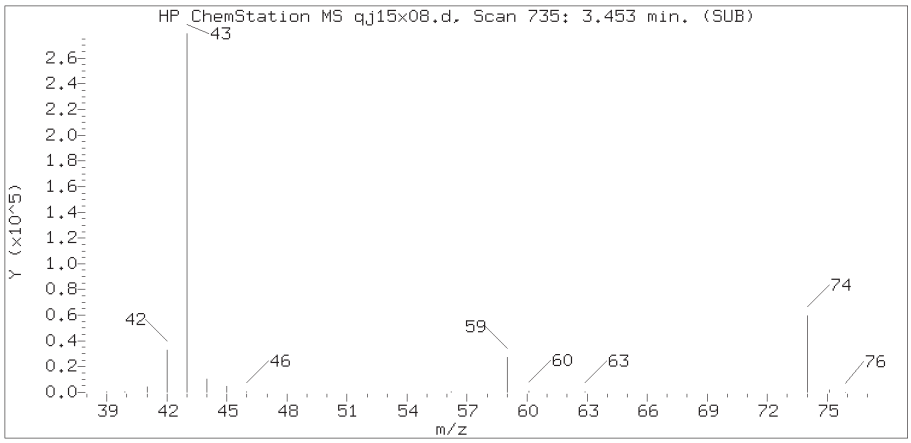
Sample Name: 12T05RE Lab Sample ID: 9872063RE

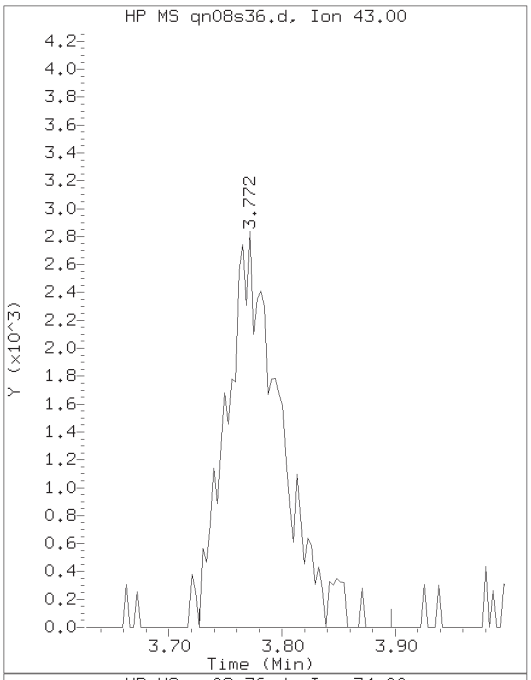
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
27) Methyl Acetate	(2)	3.772	43	9438	1.623
30)*t-Butyl alcohol-d10	(1)	3.983	65	149992	250.000
45) cis-1,2-Dichloroethene	(2)	5.886	96	7972	1.078
56)$Dibromofluoromethane	(2)	6.605	113	200950	30.882
63)$1,2-Dichloroethane-d4	(2)	7.067	102	57697	34.101
70)*Fluorobenzene	(2)	7.500	96	1196083	50.000
75) Trichloroethene	(2)	7.991	95	3355	0.515
91)$Toluene-d8	(3)	9.544	98	783695	31.048
92) Toluene	(3)	9.628	92	24687	1.537
98) Tetrachloroethene	(3)	10.189	166	35482	5.536
105)*Chlorobenzene-d5	(3)	11.030	117	924646	50.000
119)$4-Bromofluorobenzene	(3)	12.044	95	230540	28.687
140)*1,4-Dichlorobenzene-d4	(4)	12.926	152	399390	50.000
141) 1,4-Dichlorobenzene	(4)	12.949	146	5802	0.431

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

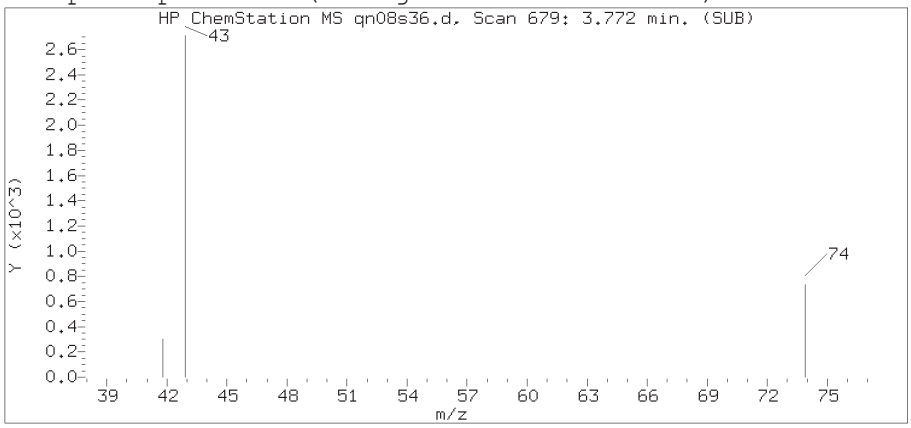
Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

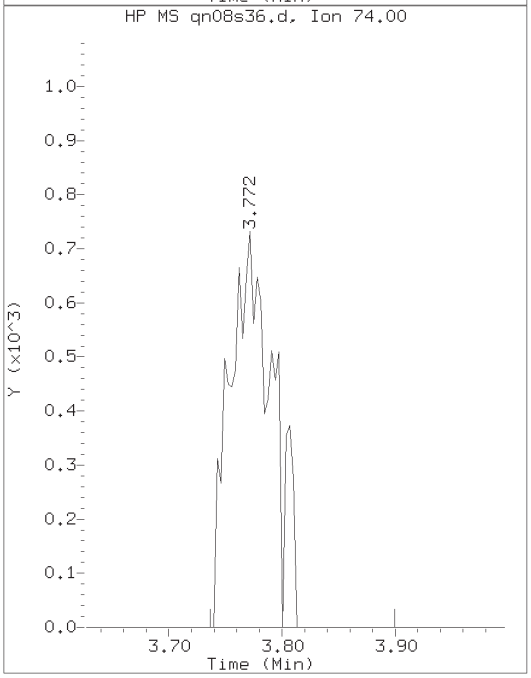
Reference Standard Spectrum for Methyl Acetate



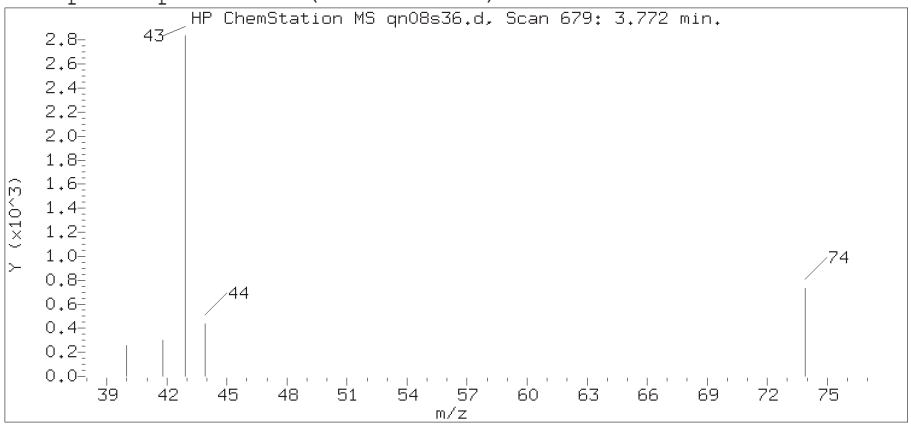


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 679
Retention Time (minutes): 3.772
Relative Retention Time :-0.00036
Quant Ion : 43.00
Area (flag) : 9438
On-Column Amount (ng) : 1.6226

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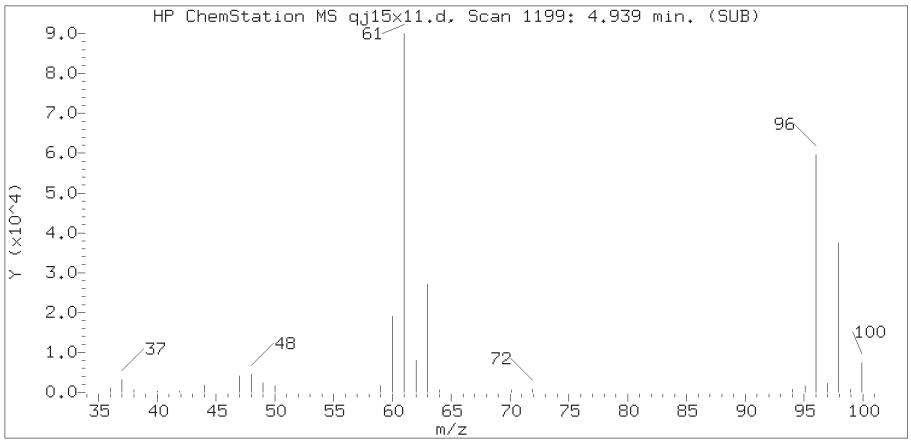
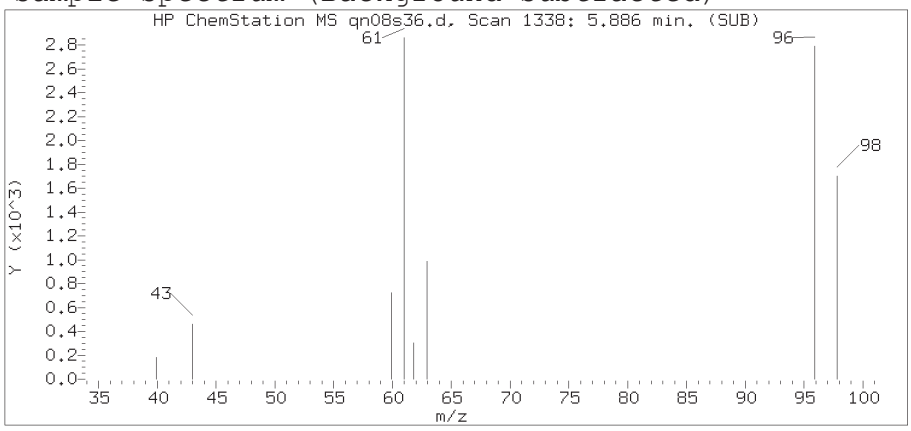
Target 3.5 esignature user ID: scn10072

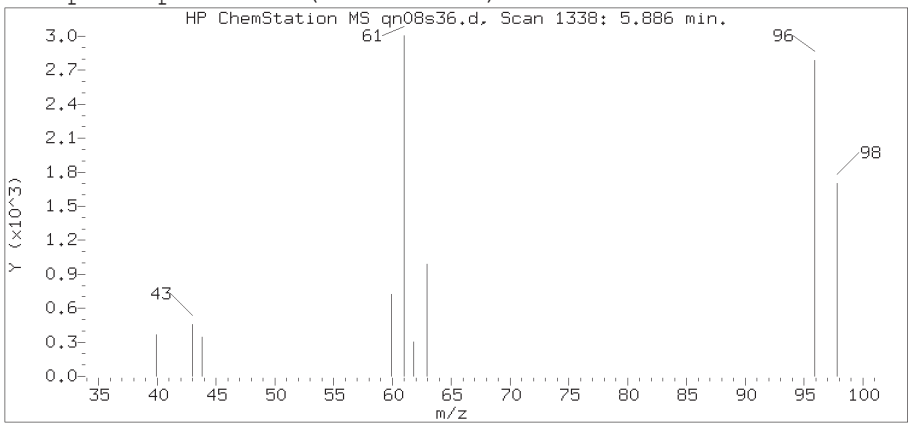
Reference Standard Spectrum for cis-1,2-Dichloroethene

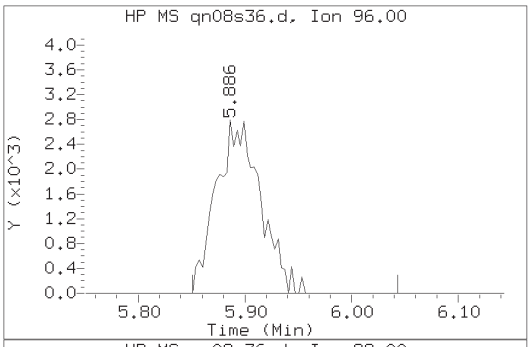


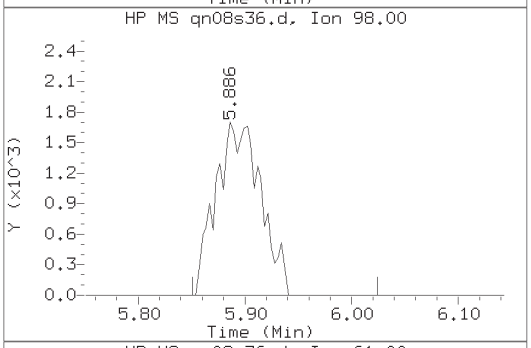
Sample Spectrum (Background Subtracted)

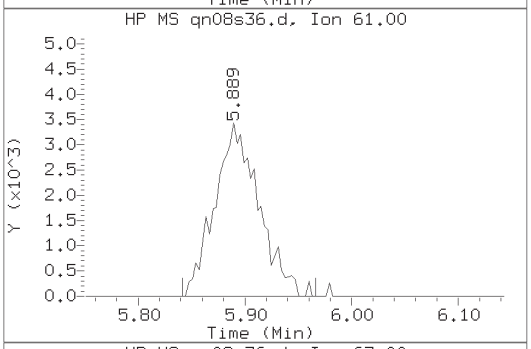


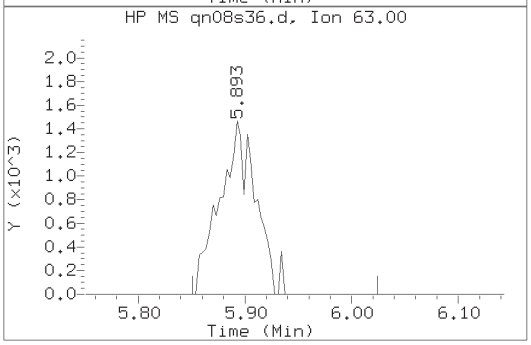
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1338
Retention Time (minutes): 5.886
Relative Retention Time : 0.00064
Quant Ion : 96.00
Area (flag) : 7972
On-Column Amount (ng) : 1.0779

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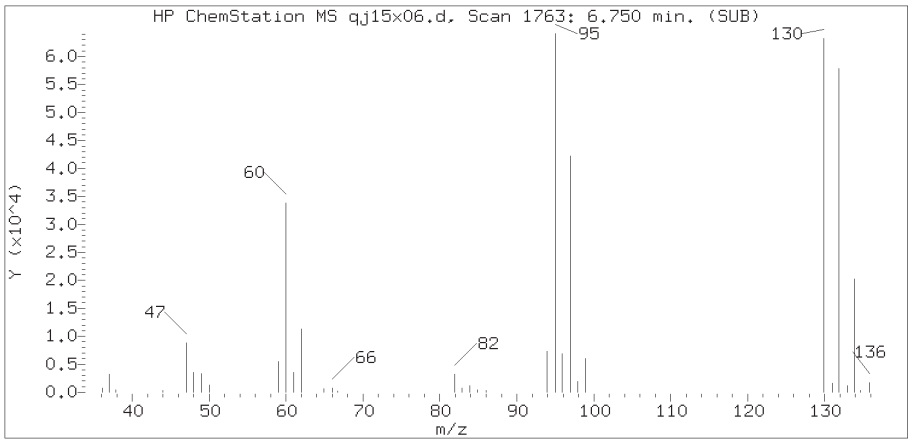
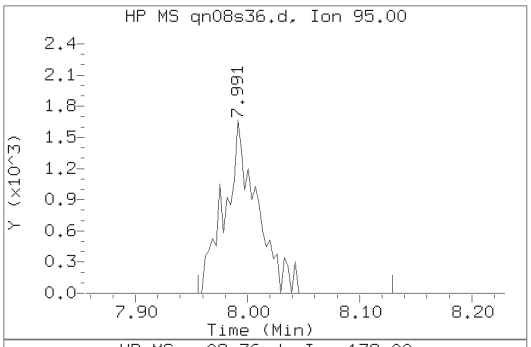
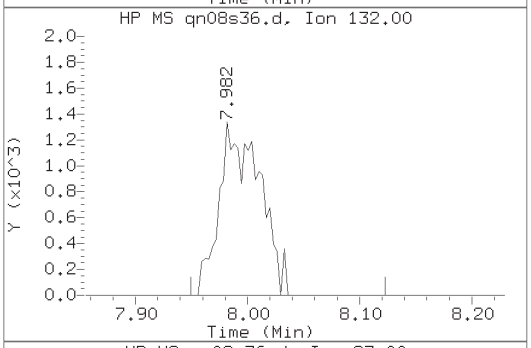
Target 3.5 esignature user ID: scn10072

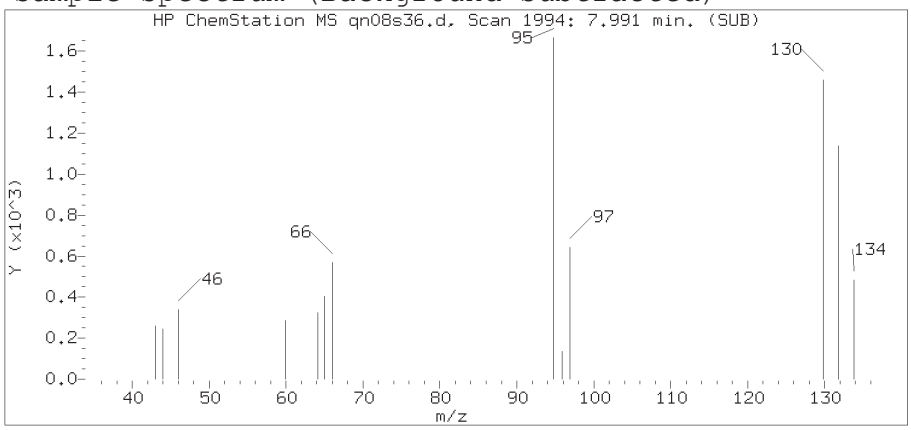
Reference Standard Spectrum for Trichloroethene

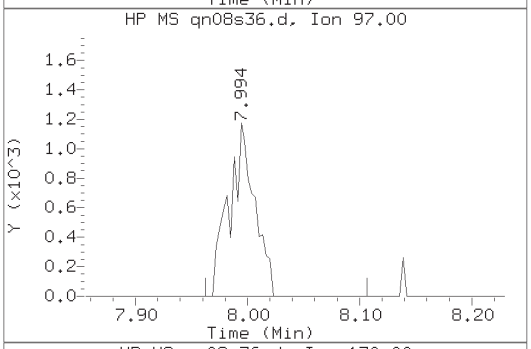




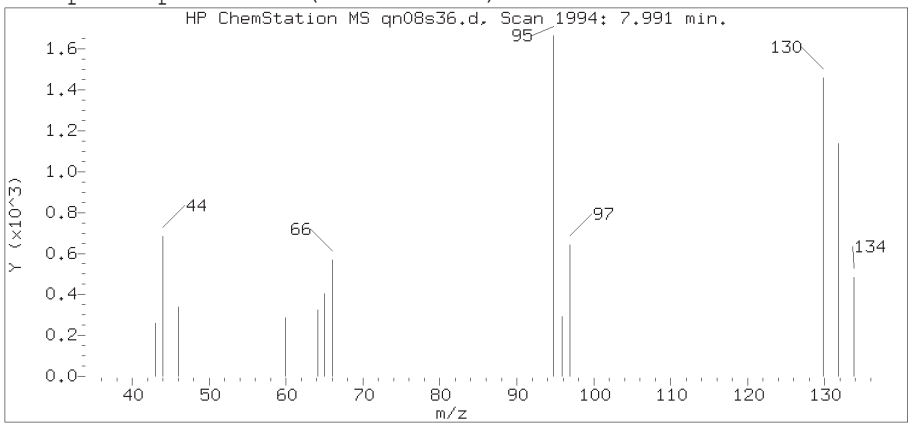


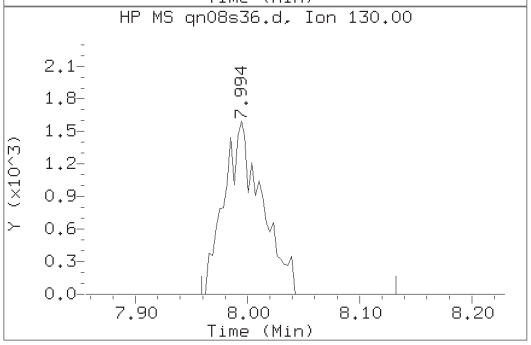
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 75
Compound Name : Trichloroethene
Scan Number : 1994
Retention Time (minutes): 7.991
Relative Retention Time :-0.00135
Quant Ion : 95.00
Area (flag) : 3355
On-Column Amount (ng) : 0.5147

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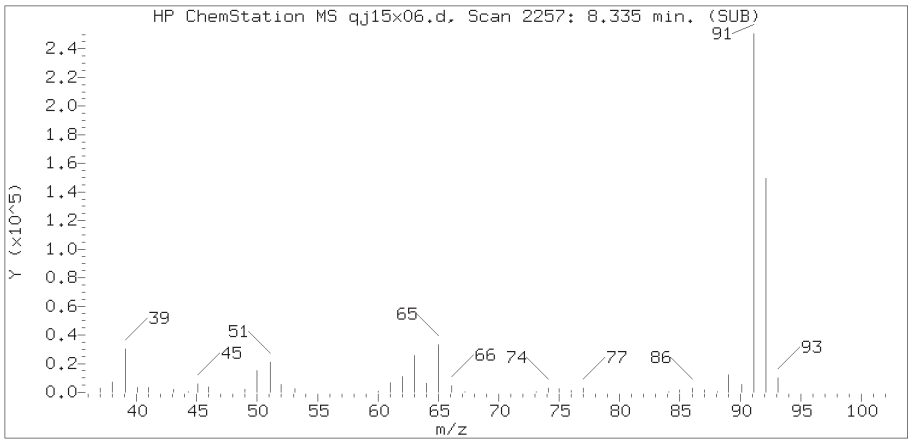
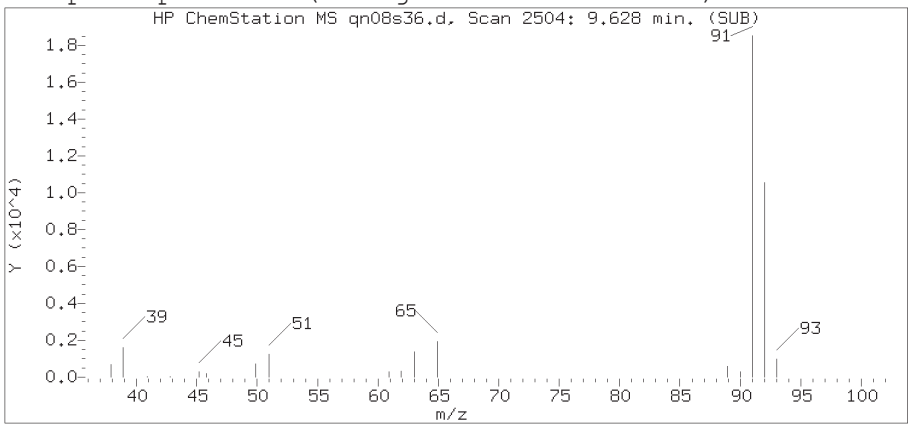
Target 3.5 esignature user ID: scn10072

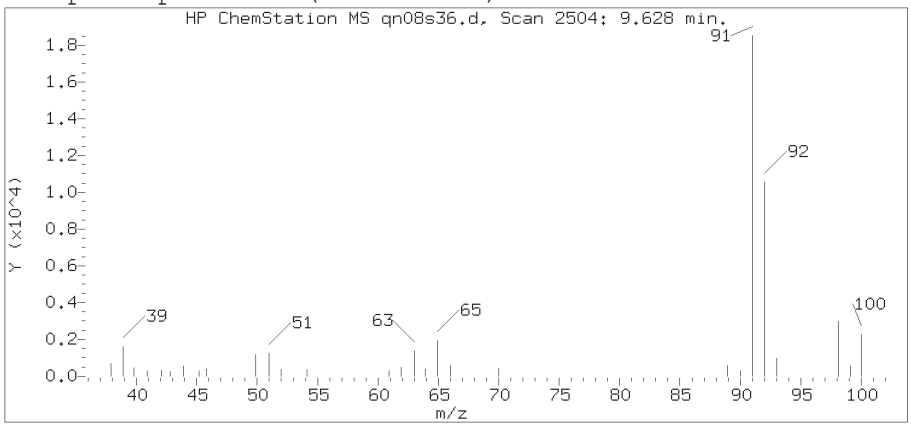
Reference Standard Spectrum for Toluene

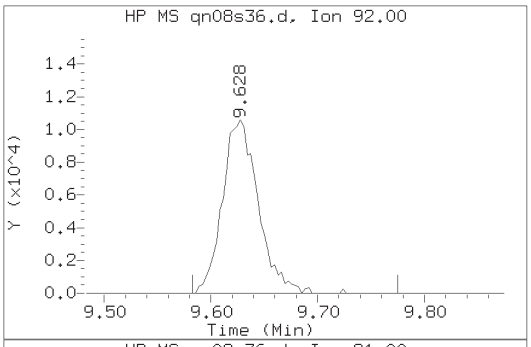


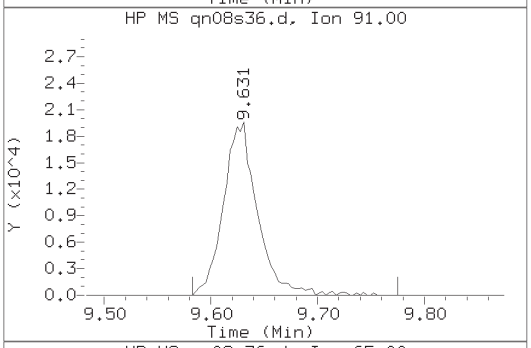
Sample Spectrum (Background Subtracted)

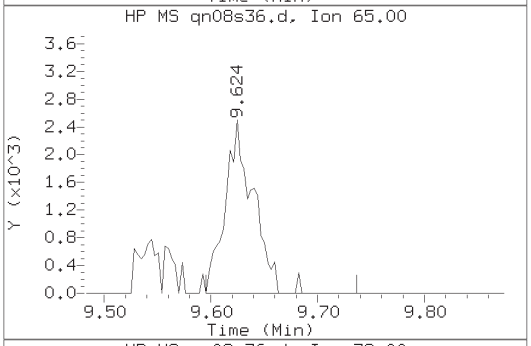


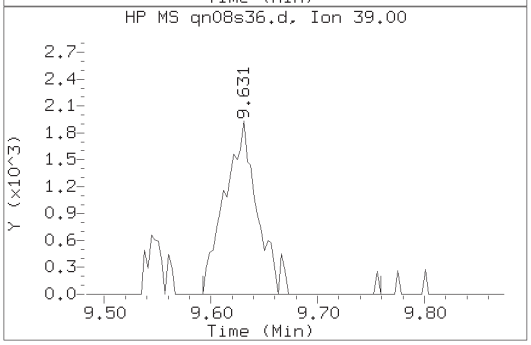
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 92
Compound Name : Toluene
Scan Number : 2504
Retention Time (minutes): 9.628
Relative Retention Time :-0.00024
Quant Ion : 92.00
Area (flag) : 24687
On-Column Amount (ng) : 1.5368

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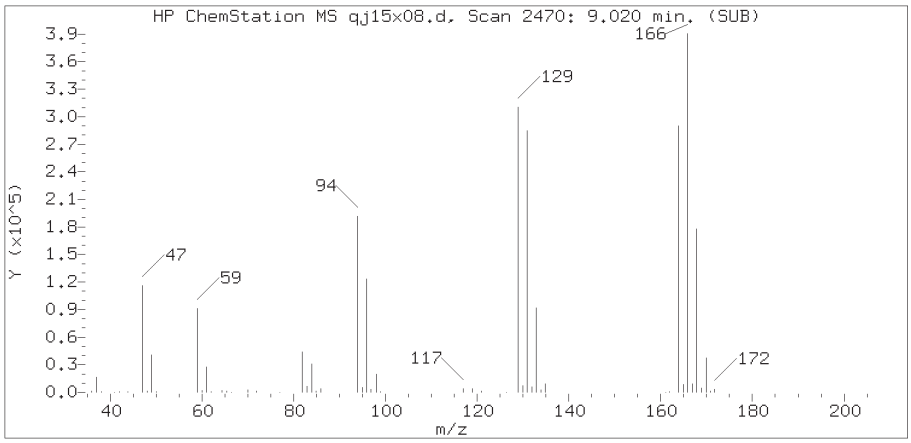
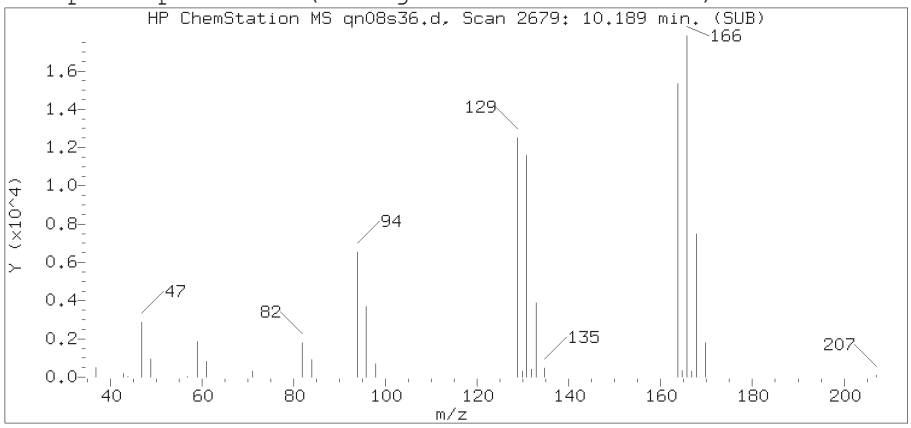
Target 3.5 esignature user ID: scn10072

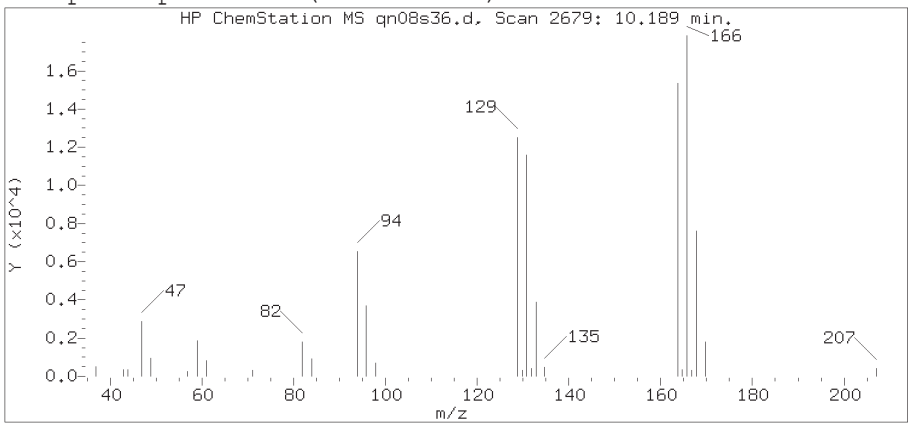
Reference Standard Spectrum for Tetrachloroethene

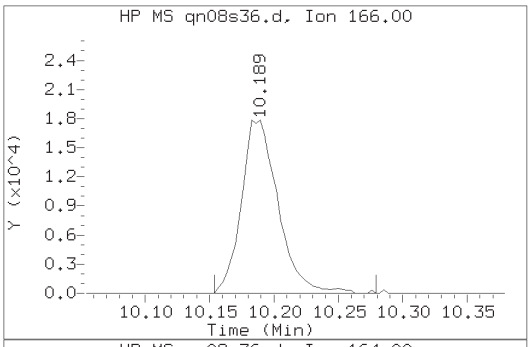


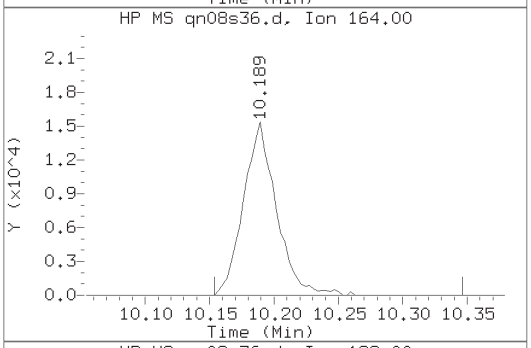
Sample Spectrum (Background Subtracted)

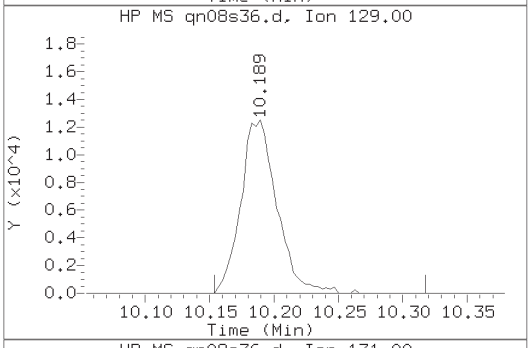


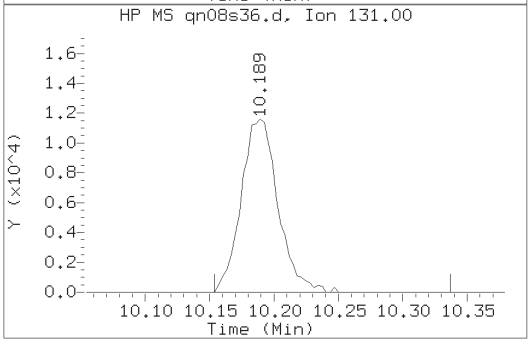
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 98
Compound Name : Tetrachloroethene
Scan Number : 2679
Retention Time (minutes): 10.189
Relative Retention Time :-0.00026
Quant Ion : 166.00
Area (flag) : 35482
On-Column Amount (ng) : 5.5359

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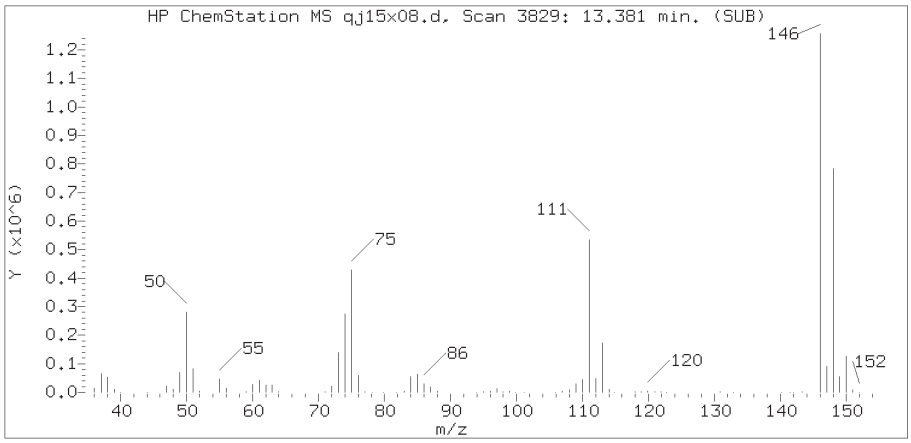
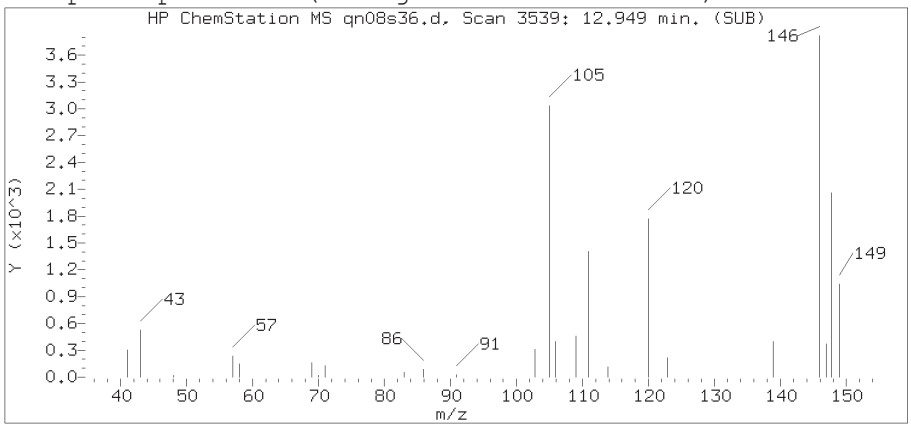
Target 3.5 esignature user ID: scn10072

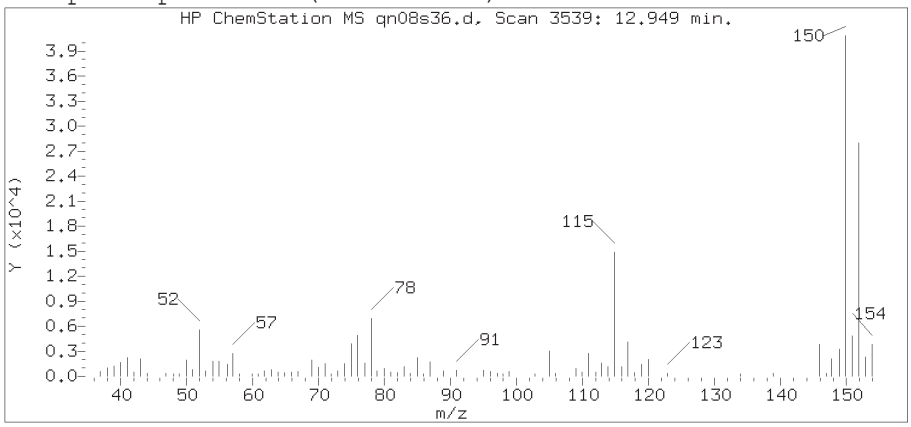
Reference Standard Spectrum for 1,4-Dichlorobenzene

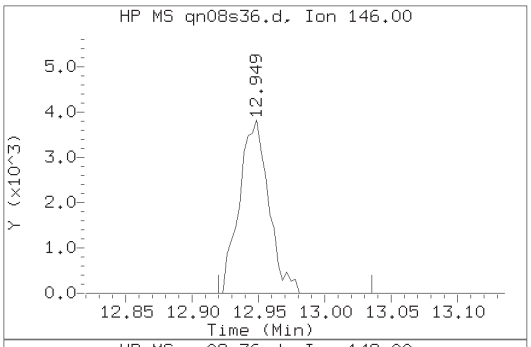


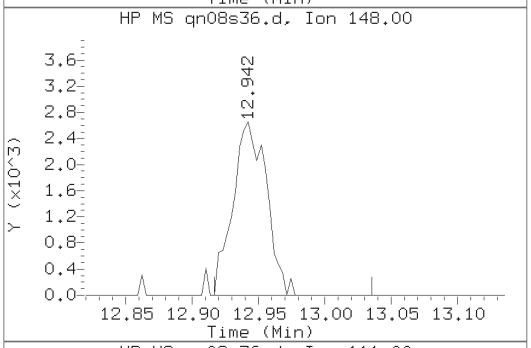
Sample Spectrum (Background Subtracted)

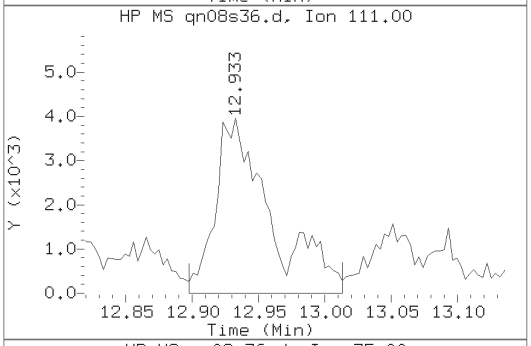


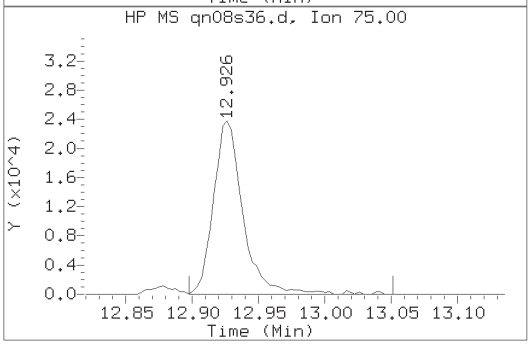
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s36.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:27 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 08:59 scn10072

Sample Name: 12T05RE Lab Sample ID: 9872063RE

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3539
Retention Time (minutes): 12.949
Relative Retention Time :-0.00050
Quant Ion : 146.00
Area (flag) : 5802
On-Column Amount (ng) : 0.4312

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Target 3.5 esignature user ID: scn10072

Data file: /chem/HP07536.i/18nov07a.b/qn07s38.d Injection date and time: **07-NOV-2018 15:30**
Data file Sample Info. Line: 12T06;9872064;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **61.12**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.09 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:9274, 9367. 2706-664.

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.988	(0.005)	747	65	151597	(3)	250.00	
70) Fluorobenzene	7.511	(-0.004)	1845	96	1190069	(-4)	50.00	
105) Chlorobenzene-d5	11.037	(-0.001)	2944	117	916495	(-5)	50.00	
140) 1,4-Dichlorobenzene-d4	12.931	(-0.004)	3534	152	414204	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.612	(0.000)	113	162844	25.152	50%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.071	(0.000)	102	46793	27.796	56%	*	71 - 136
91) Toluene-d8	(3)	9.552	(0.000)	98	637739	25.490	51%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.048	(0.000)	95	185278	23.260	47%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					37	310
4) Chloromethane	(2)				Not Detected					37	310
5) Vinyl Chloride	(2)				Not Detected					37	310
9) Bromomethane	(2)				Not Detected					43	310
10) Chloroethane	(2)				Not Detected					61	310
13) Trichlorofluoromethane	(2)				Not Detected					43	310
19) 1,1-Dichloroethene	(2)				Not Detected					31	310
20) Acetone	(1)	3.388	(-0.004)	58	5089	6.978	426.52		J	370	1200
22) Freon 113	(2)				Not Detected					37	610
25) Carbon Disulfide	(2)	3.673	(-0.000)	76	24618	1.147	70.08		J	37	310
27) Methyl Acetate	(2)	3.779	(-0.000)	43	58718	10.146	620.15			61	310
31) Methylene Chloride	(2)				Not Detected					120	310
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					31	310
35) trans-1,2-Dichloroethene	(2)				Not Detected					31	310
40) 1,1-Dichloroethane	(2)				Not Detected					31	310
44) 2-Butanone	(1)	5.881	(-0.005)	43	11308	2.881	176.10		J	61	610
45) cis-1,2-Dichloroethene	(2)				Not Detected					31	310
54) Chloroform	(2)				Not Detected					37	310
57) 1,1,1-Trichloroethane	(2)				Not Detected					37	310
58) Cyclohexane	(2)				Not Detected					31	310
61) Carbon Tetrachloride	(2)				Not Detected					31	310
64) Benzene	(2)	7.103	(-0.000)	78	14831	0.568	34.69		J	31	310
67) 1,2-Dichloroethane	(2)				Not Detected					37	310
75) Trichloroethene	(2)				Not Detected					31	310
76) Methylcyclohexane	(2)				Not Detected					37	310
77) 1,2-Dichloropropane	(2)				Not Detected					31	310

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07s38.d Injection date and time: **07-NOV-2018 15:30**
Data file Sample Info. Line: 12T06;9872064;2;0;;TID12;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **61.12**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.09 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
84) Bromodichloromethane	(2)			Not Detected					24	310
89) cis-1,3-Dichloropropene	(2)			Not Detected					24	310
90) 4-Methyl-2-pentanone	(2)			Not Detected					61	610
92) Toluene	(3)	9.632(-0.000)	92	17179	1.079	65.95		J	37	310
93) trans-1,3-Dichloropropene	(3)			Not Detected					18	310
96) 1,1,2-Trichloroethane	(3)			Not Detected					31	310
98) Tetrachloroethene	(3)			Not Detected					31	310
101) 2-Hexanone	(3)			Not Detected					61	610
103) Dibromochloromethane	(3)			Not Detected					24	310
104) 1,2-Dibromoethane	(3)			Not Detected					24	310
107) Chlorobenzene	(3)			Not Detected					31	310
109) Ethylbenzene	(3)			Not Detected					24	310
110) m+p-Xylene	(3)	11.262(0.000)	106	17347	1.624	99.26		J	61	310
111) o-Xylene	(3)	11.602(-0.000)	106	4858	0.457	27.92		J	24	310
112) Xylene (Total)	(3)		106	22205	2.081	127.18		J	61	310
113) Styrene	(3)			Not Detected					18	310
114) Bromoform	(3)			Not Detected					310	610
115) Isopropylbenzene	(3)			Not Detected					24	310
118) Cyclohexanone	(1)			Not Detected					1500	15000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					24	310
138) 1,3-Dichlorobenzene	(4)			Not Detected					31	310
141) 1,4-Dichlorobenzene	(4)	12.950(0.000)	146	8434	0.604	36.94		J	24	310
147) 1,2-Dichlorobenzene	(4)			Not Detected					31	310
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					24	310
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					310	610

Total number of targets = 51

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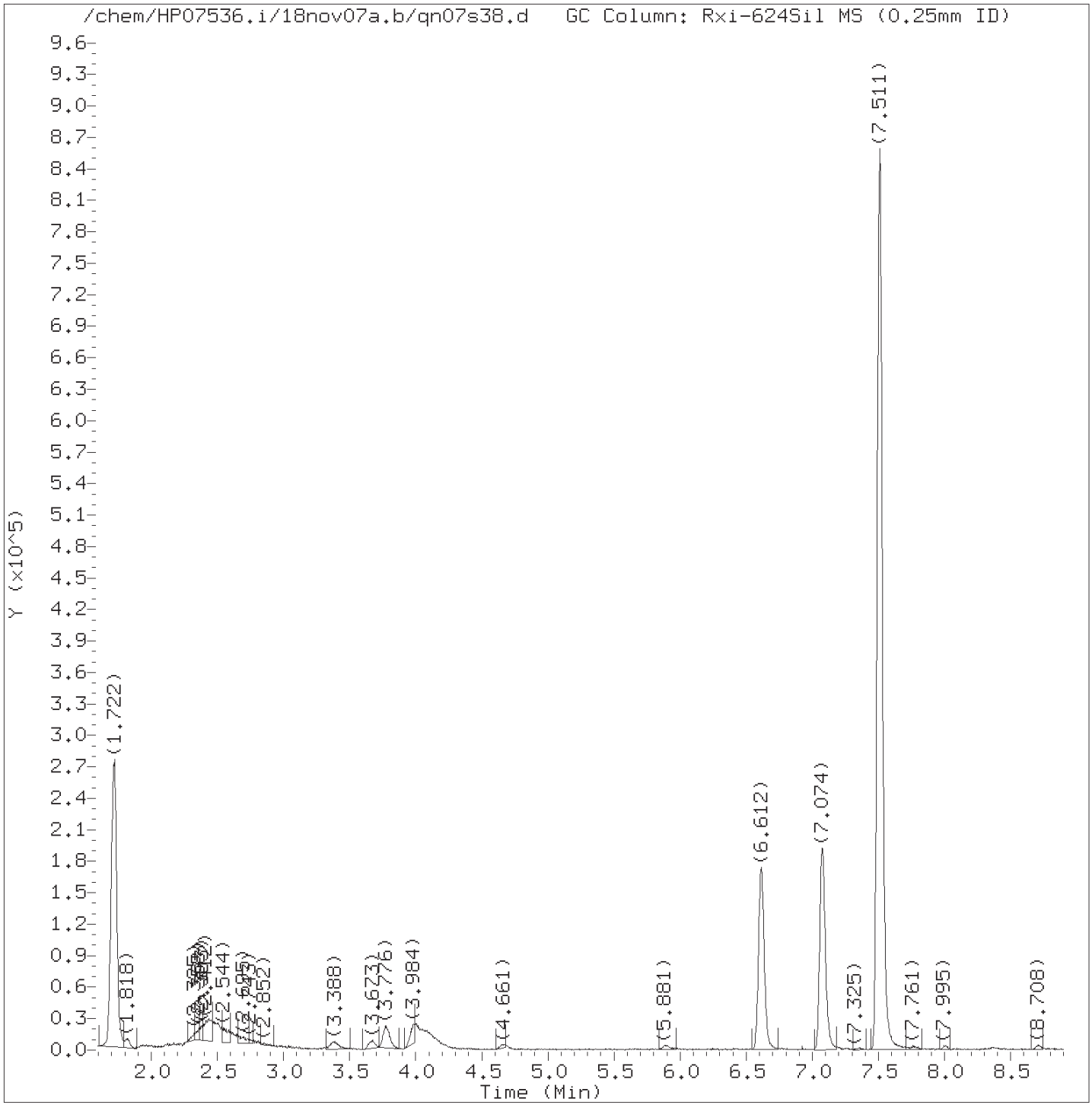
Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 12:13. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

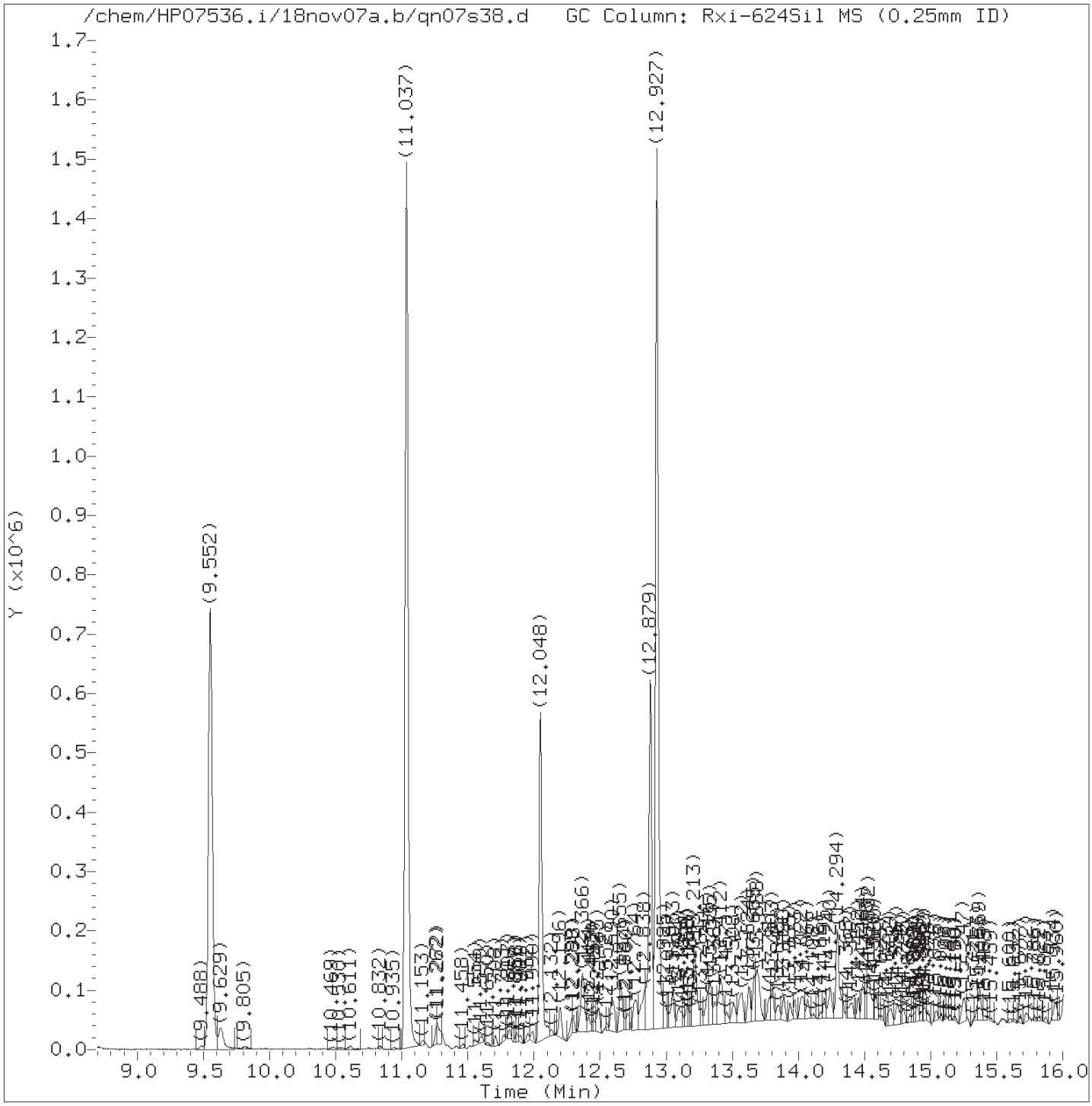
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Stephen C. Nolte
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
20) Acetone	(1)	3.388	58	5089	6.978
25) Carbon Disulfide	(2)	3.673	76	24618	1.147
27) Methyl Acetate	(2)	3.779	43	58718	10.146
30)*t-Butyl alcohol-d10	(1)	3.988	65	151597	250.000
44) 2-Butanone	(1)	5.881	43	11308	2.881
56)$Dibromofluoromethane	(2)	6.612	113	162844	25.152
63)$1,2-Dichloroethane-d4	(2)	7.071	102	46793	27.796
64) Benzene	(2)	7.103	78	14831	0.568
70)*Fluorobenzene	(2)	7.511	96	1190069	50.000
91)$Toluene-d8	(3)	9.552	98	637739	25.490
92) Toluene	(3)	9.632	92	17179	1.079
105)*Chlorobenzene-d5	(3)	11.037	117	916495	50.000
110) m+p-Xylene	(3)	11.262	106	17347	1.624
111) o-Xylene	(3)	11.602	106	4858	0.457
112) Xylene (Total)	(3)		106	22205	2.081
119)$4-Bromofluorobenzene	(3)	12.048	95	185278	23.260
140)*1,4-Dichlorobenzene-d4	(4)	12.931	152	414204	50.000
141) 1,4-Dichlorobenzene	(4)	12.950	146	8434	0.604

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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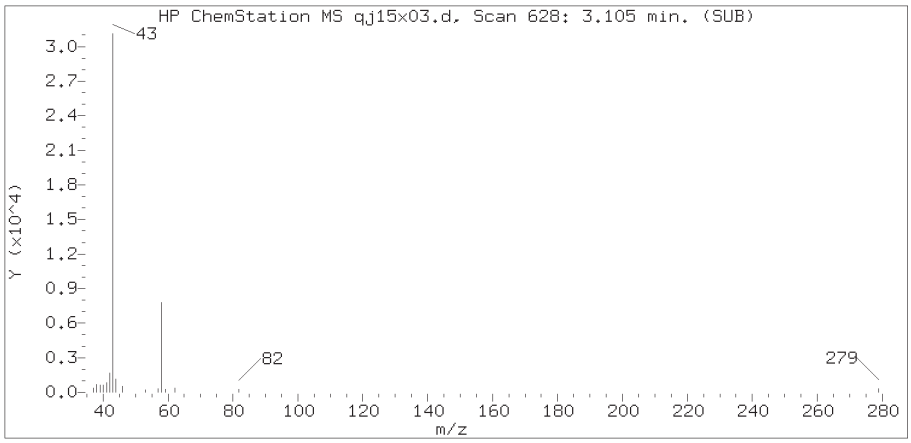
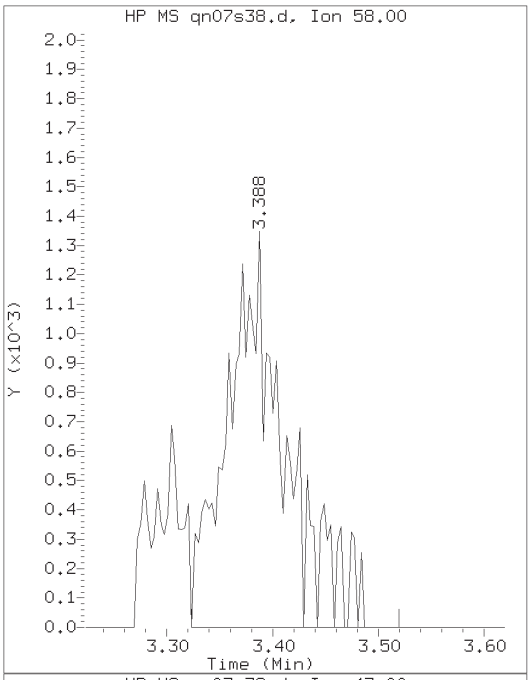
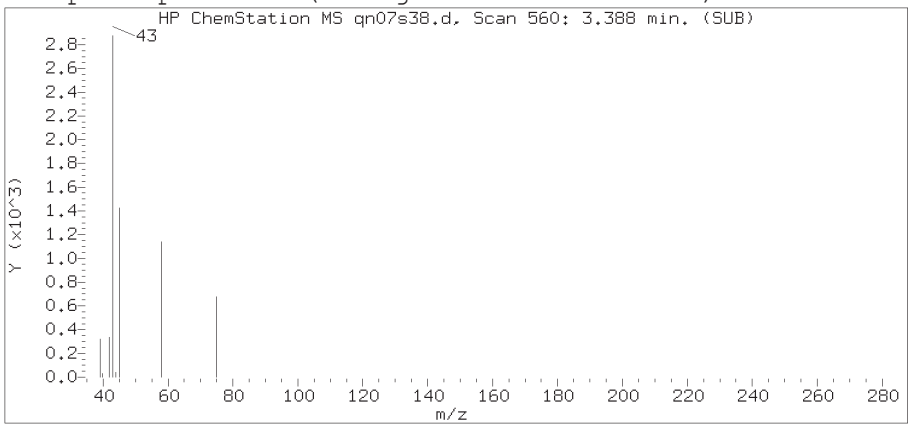
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

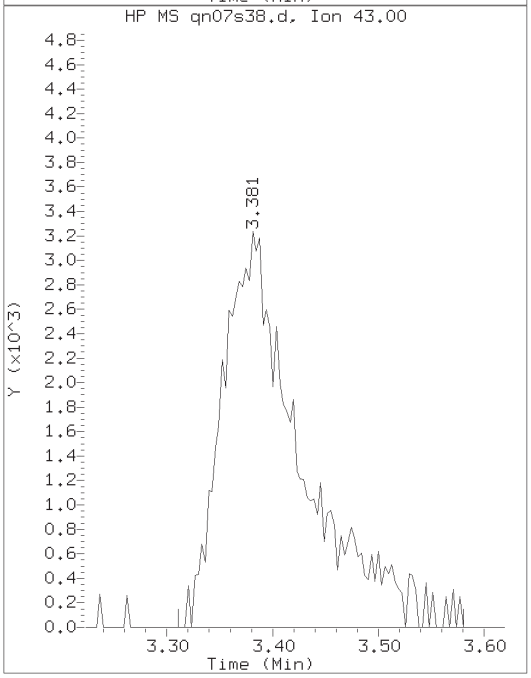
Reference Standard Spectrum for Acetone



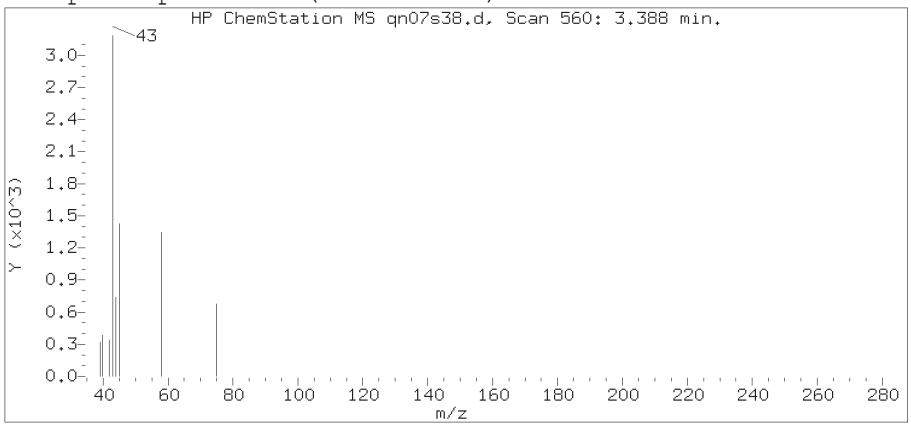


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 20
Compound Name : Acetone
Scan Number : 560
Retention Time (minutes): 3.388
Relative Retention Time :-0.00462
Quant Ion : 58.00
Area (flag) : 5089
On-Column Amount (ng) : 6.9778

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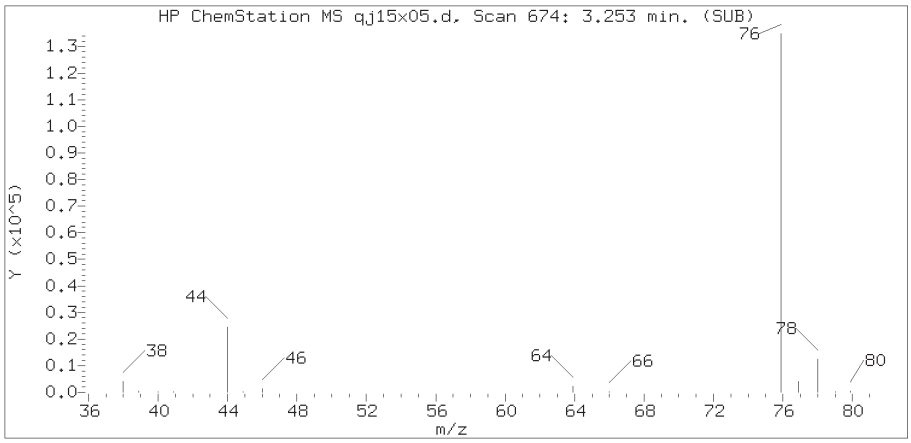
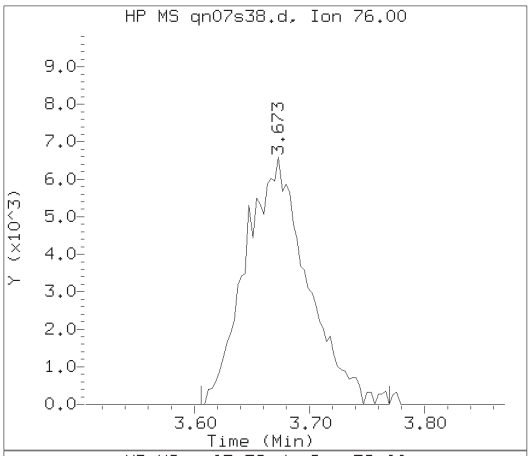
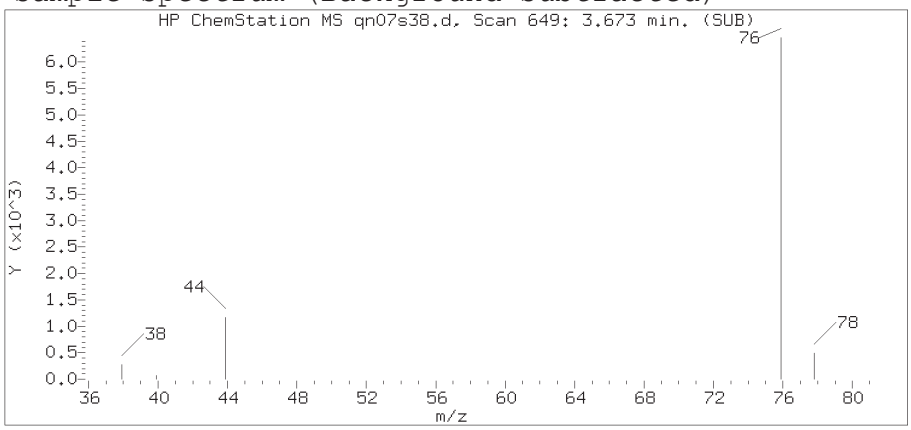
Target 3.5 esignature user ID: scn10072

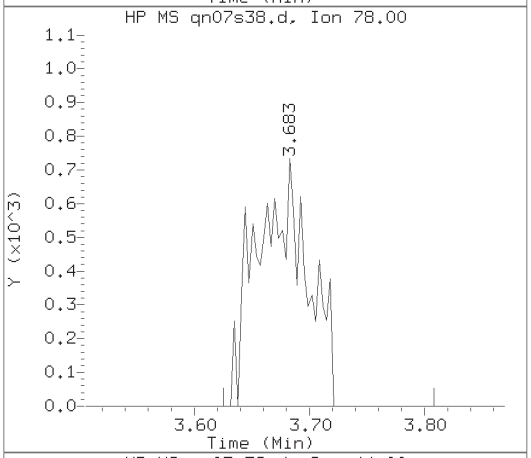
Reference Standard Spectrum for Carbon Disulfide



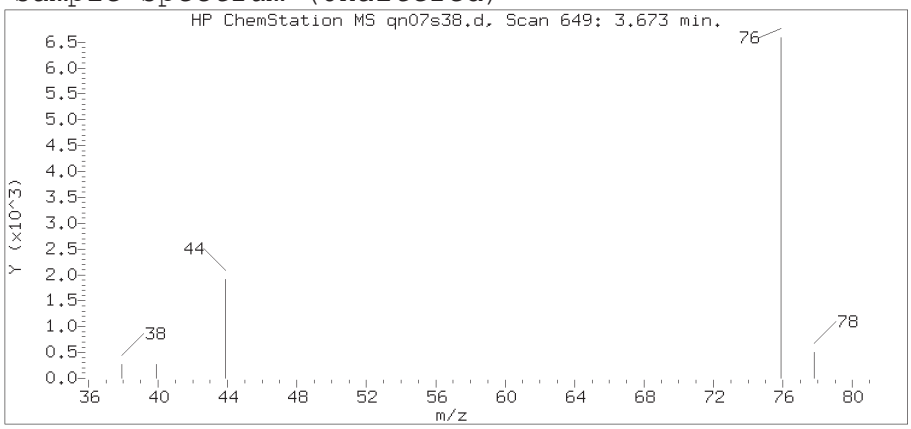


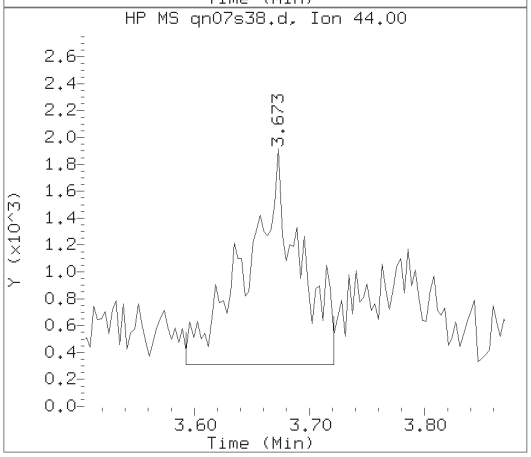
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 649
Retention Time (minutes): 3.673
Relative Retention Time :-0.00072
Quant Ion : 76.00
Area (flag) : 24618
On-Column Amount (ng) : 1.1465

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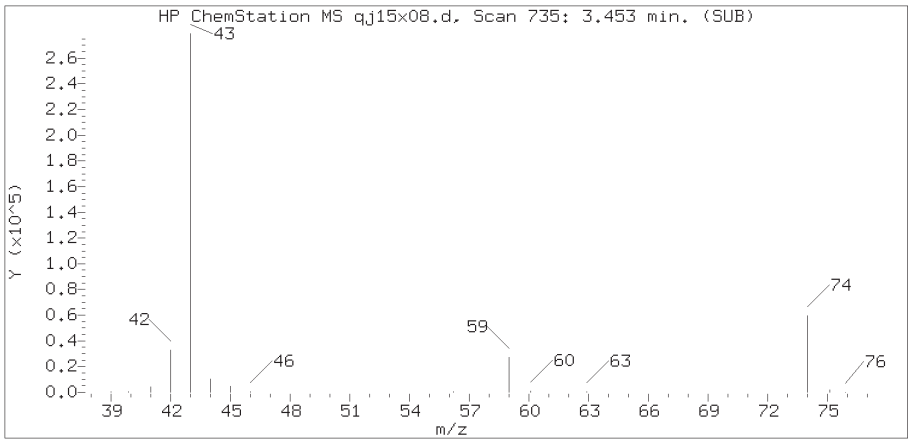
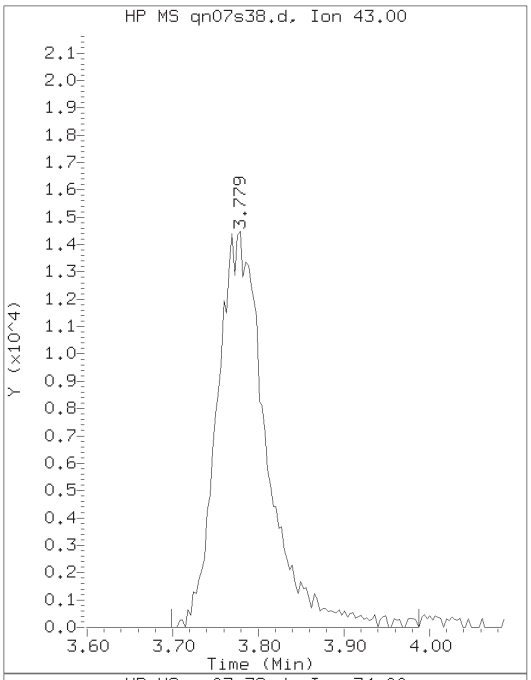
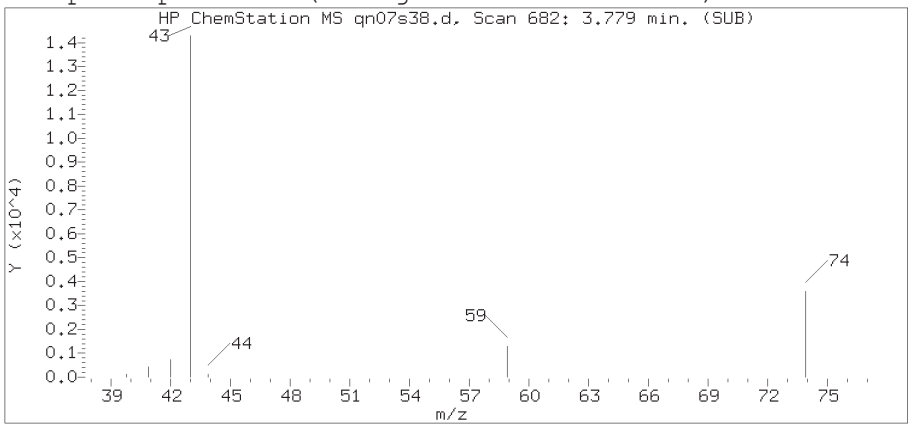
Target 3.5 esignature user ID: scn10072

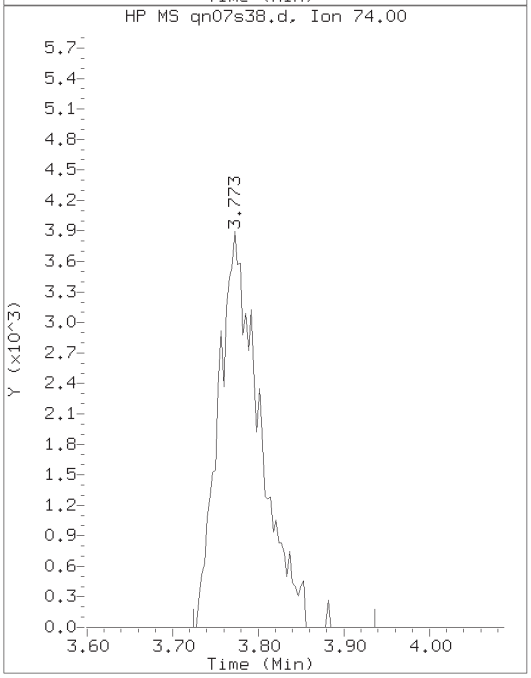
Reference Standard Spectrum for Methyl Acetate



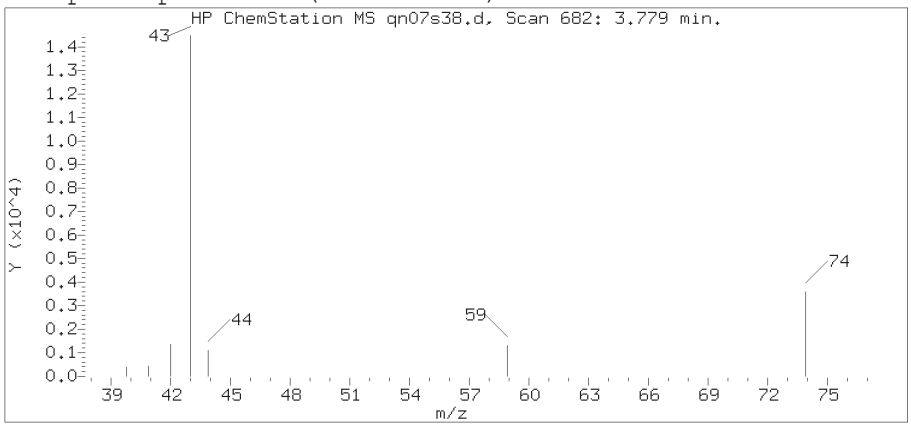


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

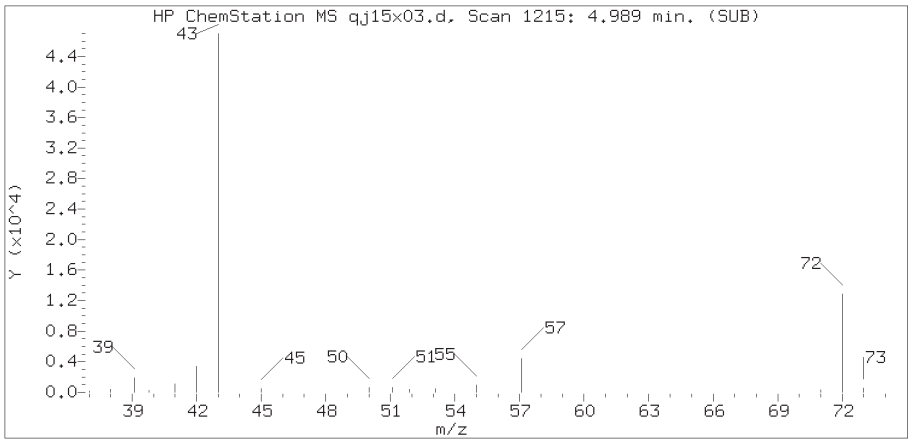
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

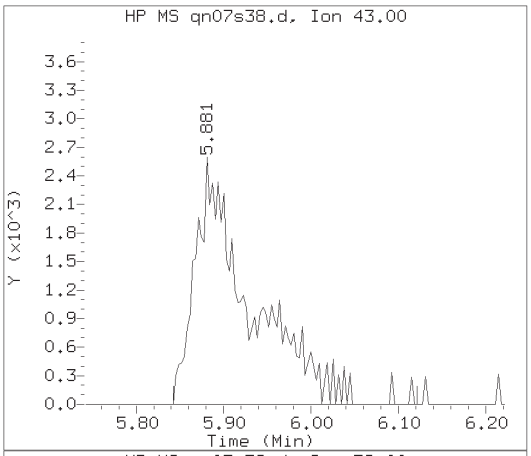
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 682
Retention Time (minutes): 3.779
Relative Retention Time :-0.00029
Quant Ion : 43.00
Area (flag) : 58718
On-Column Amount (ng) : 10.1457

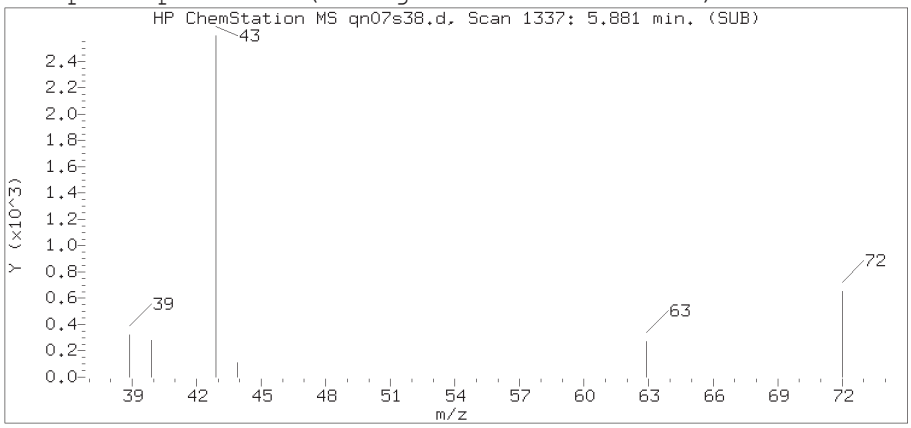
Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

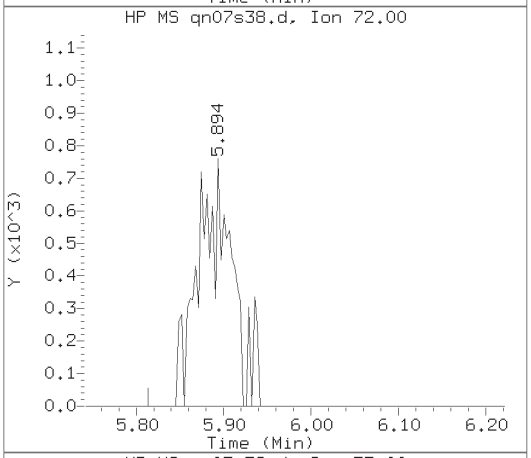
Reference Standard Spectrum for 2-Butanone



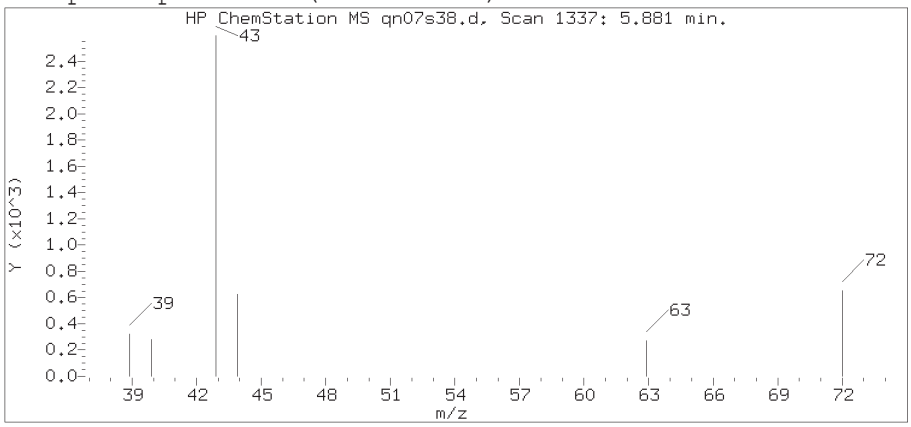


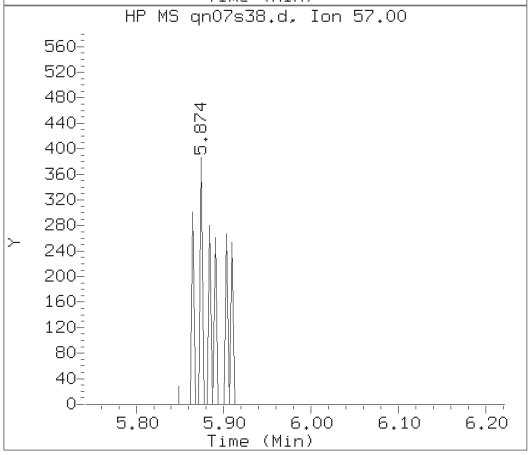
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

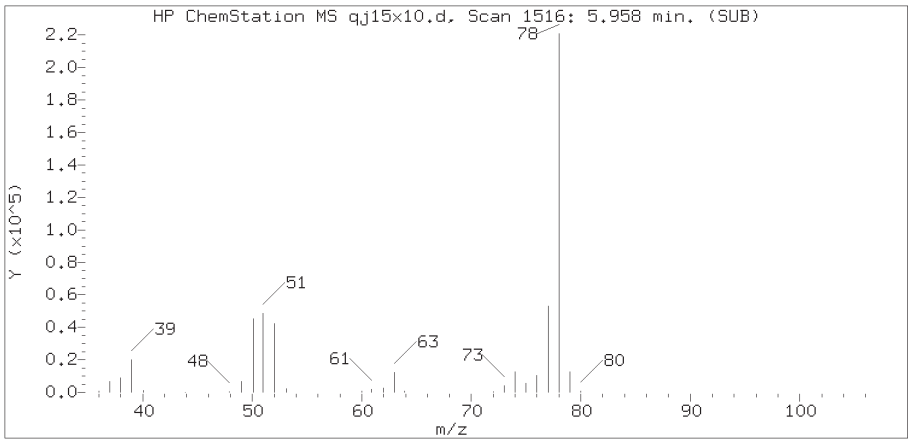
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

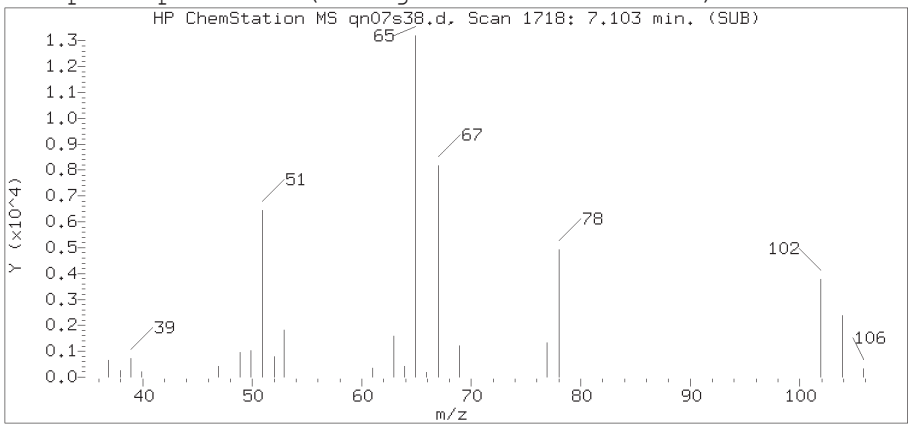
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1337
Retention Time (minutes): 5.881
Relative Retention Time :-0.00545
Quant Ion : 43.00
Area (flag) : 11308
On-Column Amount (ng) : 2.8810

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

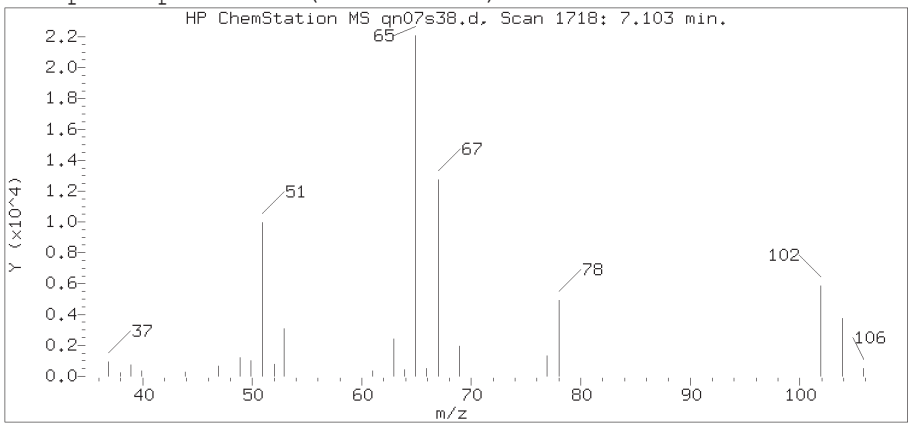
Reference Standard Spectrum for Benzene

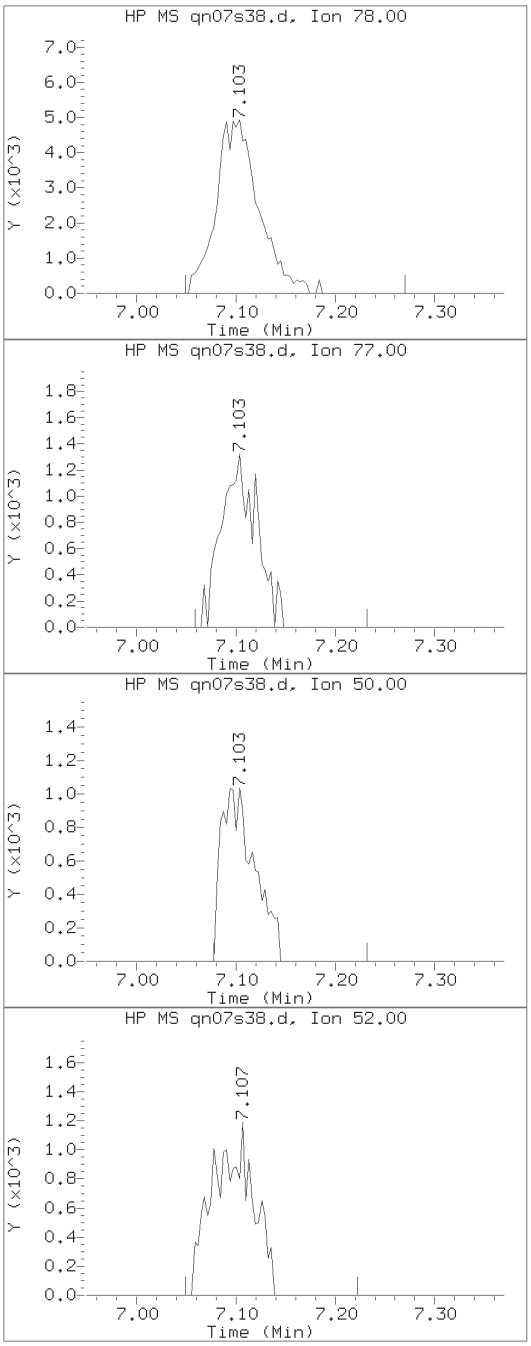


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

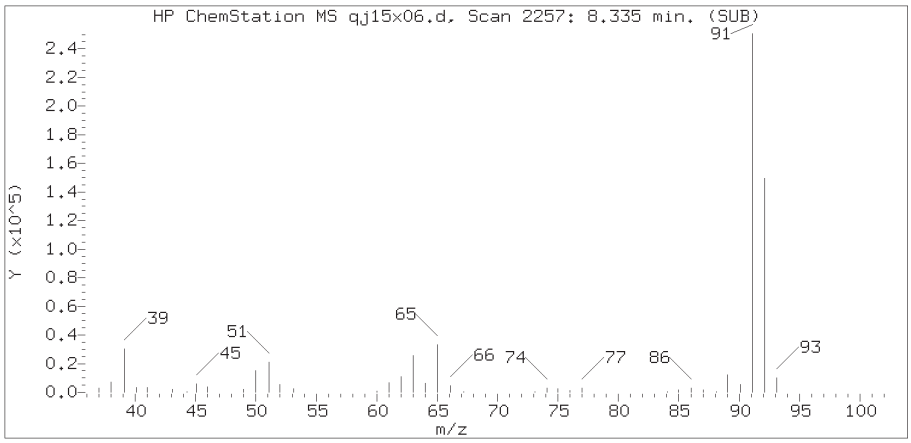
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

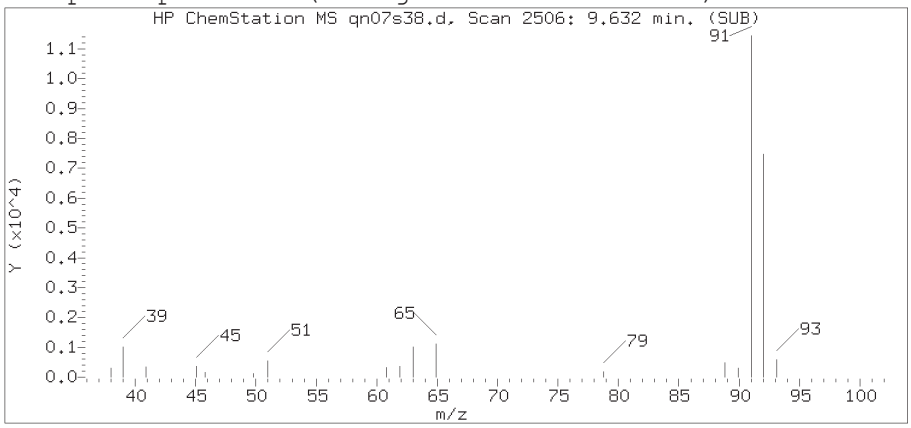
Compound Number : 64
Compound Name : Benzene
Scan Number : 1718
Retention Time (minutes): 7.103
Relative Retention Time :-0.00046
Quant Ion : 78.00
Area (flag) : 14831
On-Column Amount (ng) : 0.5676

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

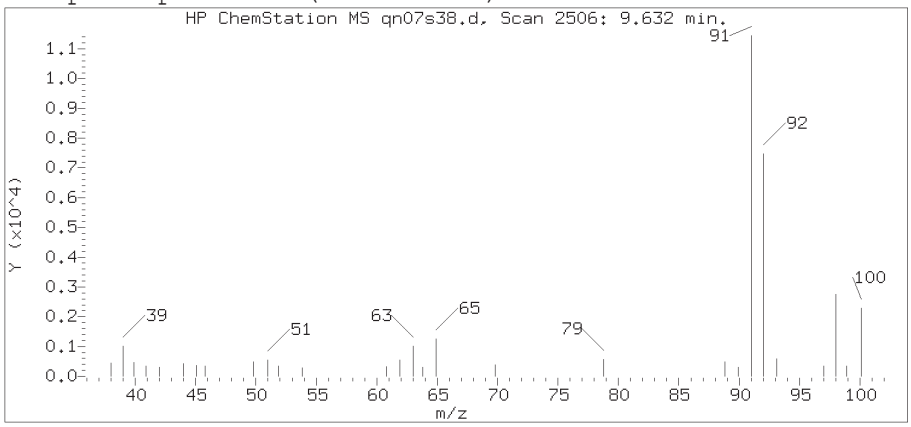
Reference Standard Spectrum for Toluene

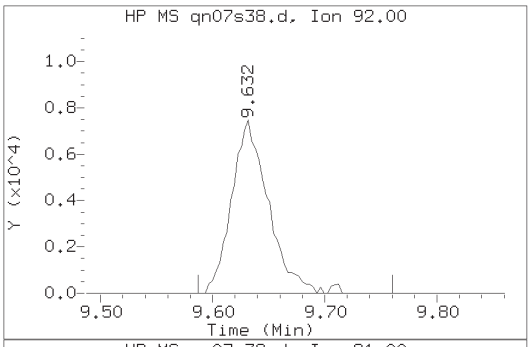


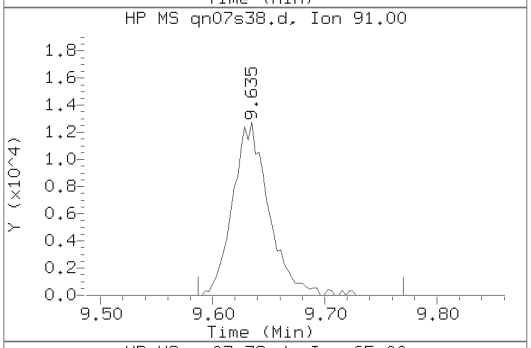
Sample Spectrum (Background Subtracted)

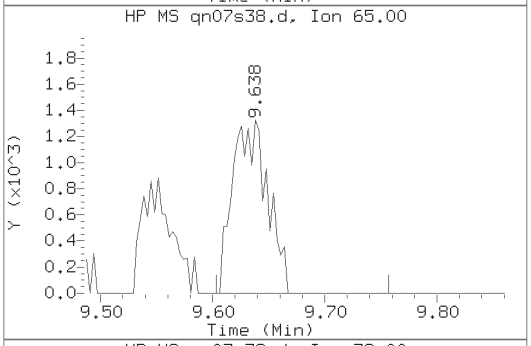


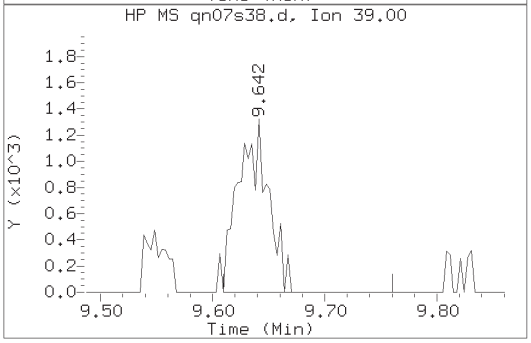
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 92
Compound Name : Toluene
Scan Number : 2506
Retention Time (minutes): 9.632
Relative Retention Time :-0.00030
Quant Ion : 92.00
Area (flag) : 17179
On-Column Amount (ng) : 1.0790

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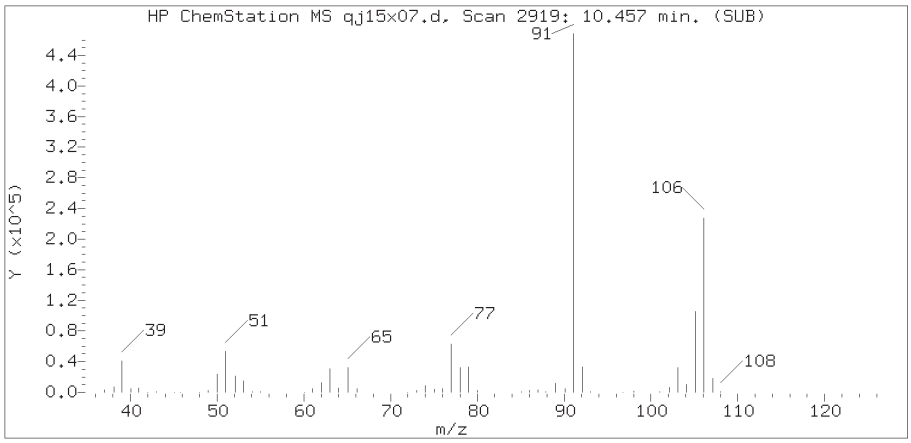
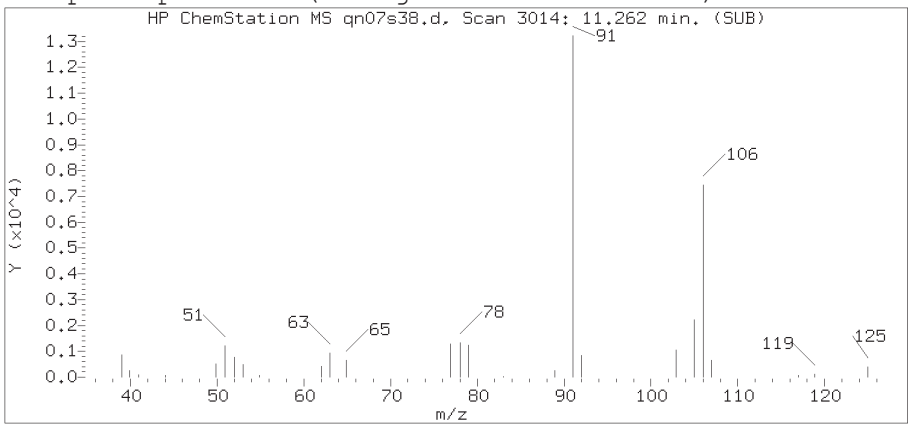
Target 3.5 esignature user ID: scn10072

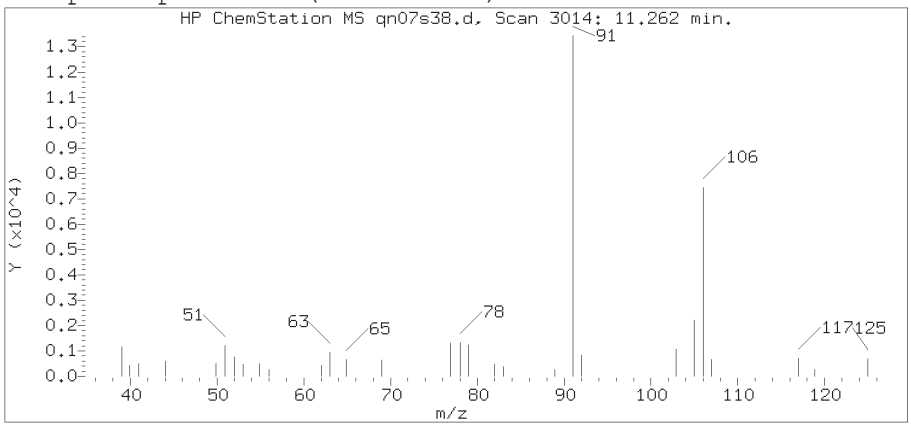
Reference Standard Spectrum for m+p-Xylene

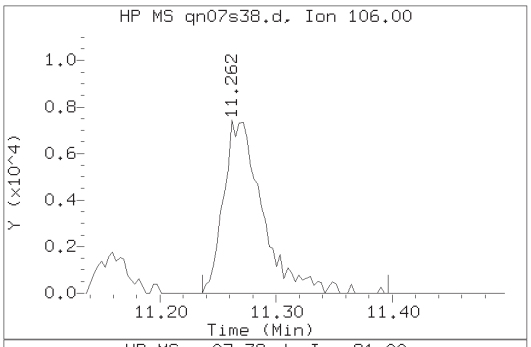


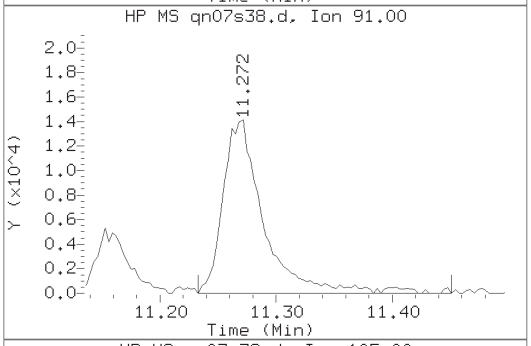
Sample Spectrum (Background Subtracted)

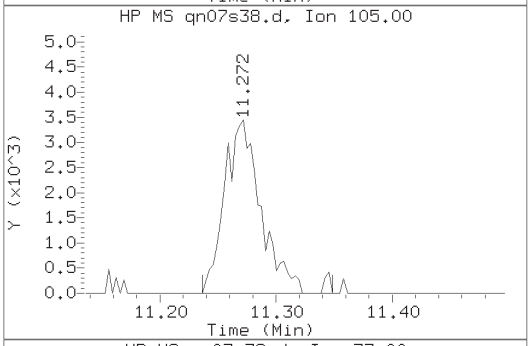


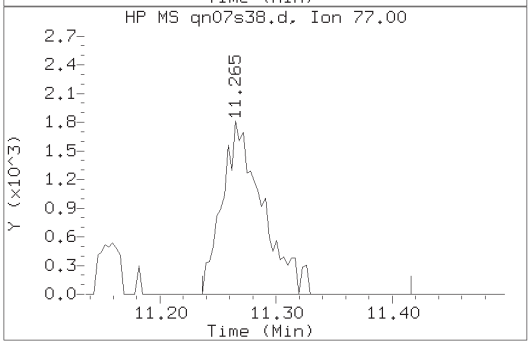
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 110
Compound Name	: m+p-Xylene
Scan Number	: 3014
Retention Time (minutes)	: 11.262
Relative Retention Time	: 0.00029
Quant Ion	: 106.00
Area (flag)	: 17347
On-Column Amount (ng)	: 1.6239

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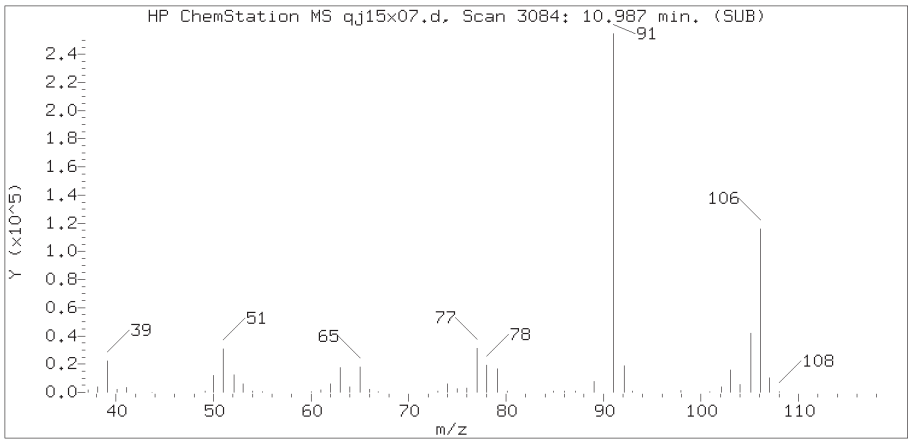
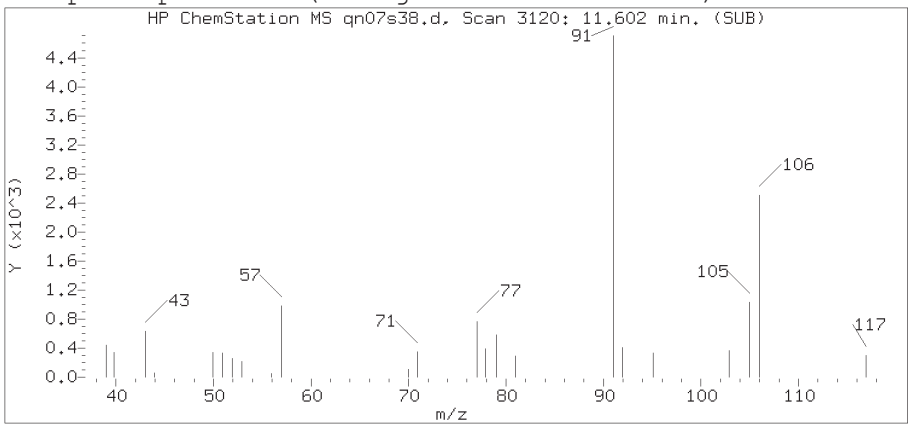
Target 3.5 esignature user ID: scn10072

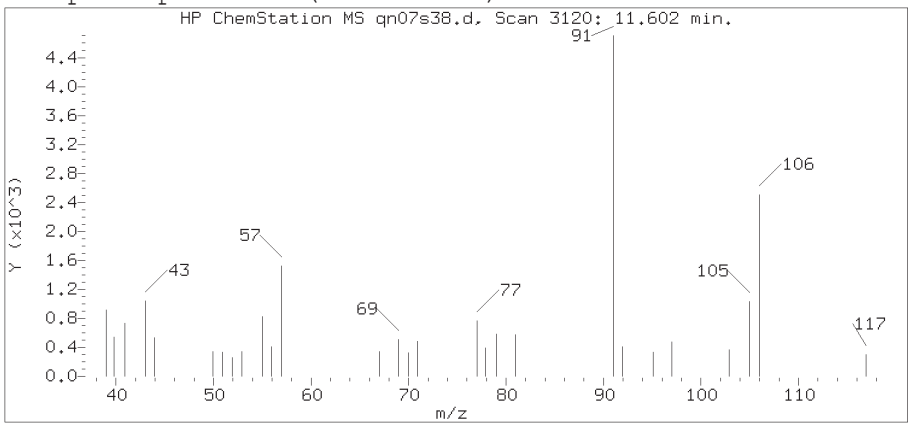
Reference Standard Spectrum for o-Xylene

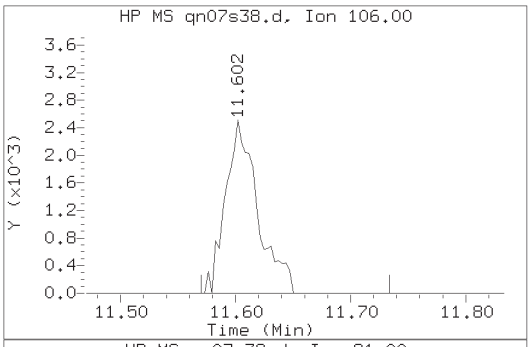


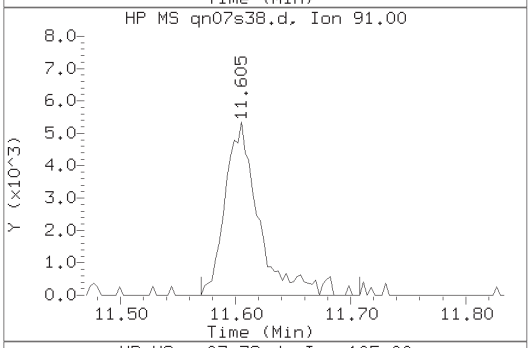
Sample Spectrum (Background Subtracted)

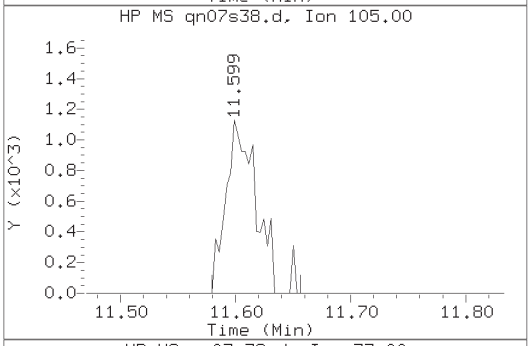


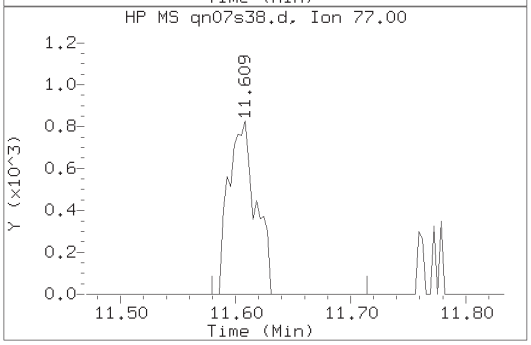
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 111
Compound Name : o-Xylene
Scan Number : 3120
Retention Time (minutes): 11.602
Relative Retention Time :-0.00058
Quant Ion : 106.00
Area (flag) : 4858
On-Column Amount (ng) : 0.4568

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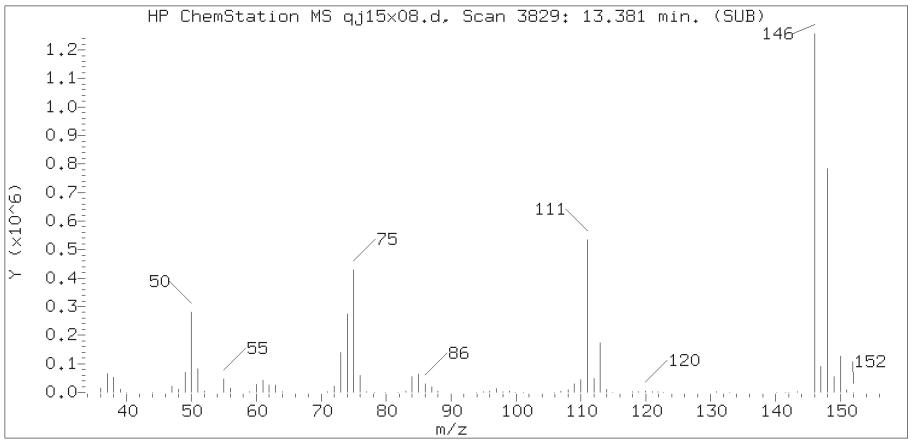
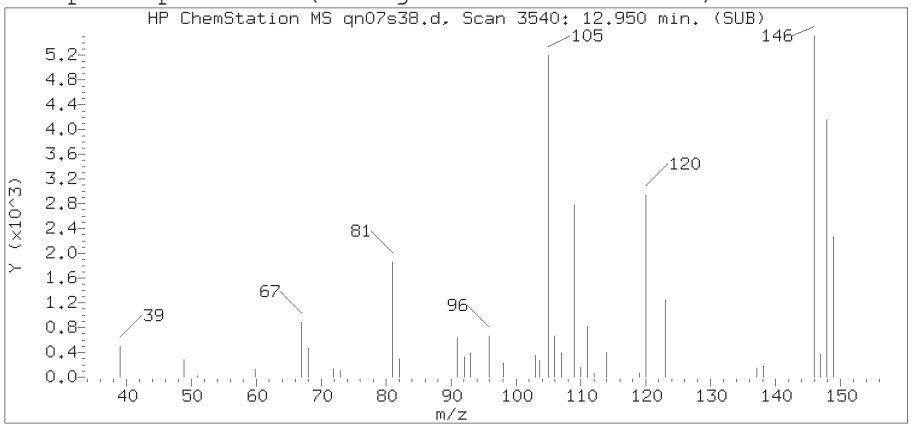
Target 3.5 esignature user ID: scn10072

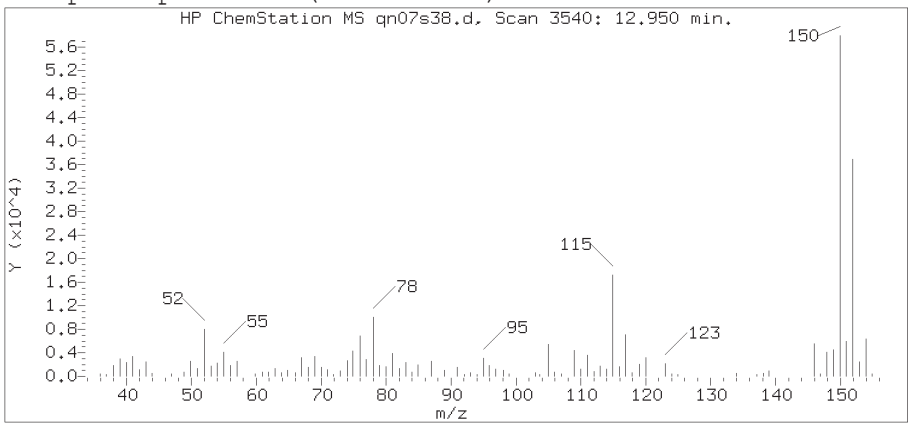
Reference Standard Spectrum for 1,4-Dichlorobenzene

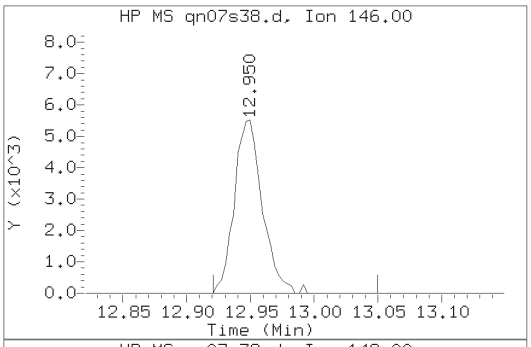


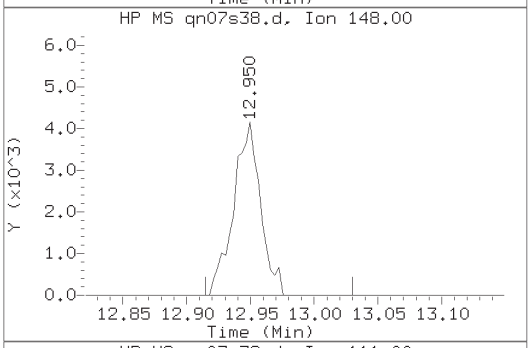
Sample Spectrum (Background Subtracted)

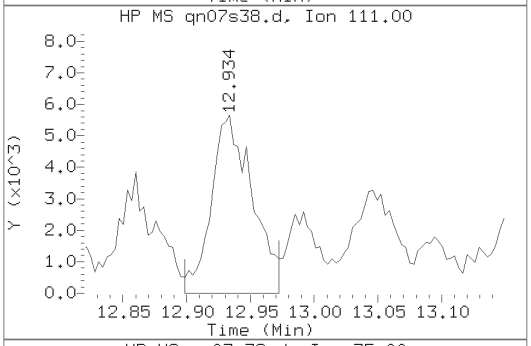


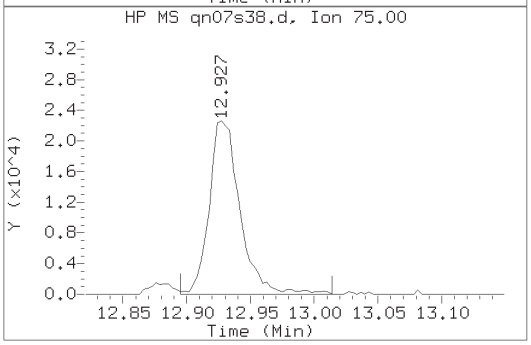
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov07a.b/qn07s38.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 15:30 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 12-Nov-2018 08:22 scn10072

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3540
Retention Time (minutes): 12.950
Relative Retention Time : 0.00000
Quant Ion : 146.00
Area (flag) : 8434
On-Column Amount (ng) : 0.6044

Digitally signed by Stephen C. Nolte on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: scn10072

12T06RE

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

9872064RE

Data file: /chem/HP07536.i/18nov08a.b/qn08s37.d Injection date and time: **08-NOV-2018 13:49**
Data file Sample Info. Line: 12T06RE;9872064RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **61.12**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.09 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.987(0.017)	747	65	136787 (2)	250.00	
70) Fluorobenzene	7.507(0.001)	1844	96	1172732 (7)	50.00	
105) Chlorobenzene-d5	11.033(0.001)	2943	117	919239 (7)	50.00	
140) 1,4-Dichlorobenzene-d4	12.927(0.001)	3533	152	411301 (8)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.615(0.000)	113	153533	24.065	48%	*	78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.070(0.000)	102	44754	26.978	54%	*	71 - 136
91) Toluene-d8	(3)	9.551(0.000)	98	607643	24.215	48%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	12.047(0.000)	95	172602	21.604	43%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)			Not Detected					37	310
4) Chloromethane	(2)			Not Detected					37	310
5) Vinyl Chloride	(2)			Not Detected					37	310
9) Bromomethane	(2)			Not Detected					43	310
10) Chloroethane	(2)			Not Detected					61	310
13) Trichlorofluoromethane	(2)			Not Detected					43	310
19) 1,1-Dichloroethene	(2)			Not Detected					31	310
20) Acetone	(1)	3.384(-0.005)	58	4769	7.247	442.97		J	370	1200
22) Freon 113	(2)			Not Detected					37	610
25) Carbon Disulfide	(2)	3.672(-0.001)	76	18111	0.856	52.32		J	37	310
27) Methyl Acetate	(2)	3.778(-0.000)	43	54647	9.582	585.69			61	310
31) Methylene Chloride	(2)			Not Detected					120	310
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					31	310
35) trans-1,2-Dichloroethene	(2)			Not Detected					31	310
40) 1,1-Dichloroethane	(2)			Not Detected					31	310
44) 2-Butanone	(1)	5.874(-0.008)	43	11840M	3.343	204.37		J	61	610
45) cis-1,2-Dichloroethene	(2)			Not Detected					31	310
54) Chloroform	(2)			Not Detected					37	310
57) 1,1,1-Trichloroethane	(2)			Not Detected					37	310
58) Cyclohexane	(2)			Not Detected					31	310
61) Carbon Tetrachloride	(2)			Not Detected					31	310
64) Benzene	(2)	7.093(0.000)	78	14378M	0.558	34.13		J	31	310
67) 1,2-Dichloroethane	(2)			Not Detected					37	310
75) Trichloroethene	(2)			Not Detected					31	310
76) Methylcyclohexane	(2)			Not Detected					37	310
77) 1,2-Dichloropropane	(2)			Not Detected					31	310
84) Bromodichloromethane	(2)			Not Detected					24	310

M = Compound was manually integrated.

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06. Target 3.5 esignature user ID: scn10072

Data file: /chem/HP07536.i/18nov08a.b/qn08s37.d Injection date and time: **08-NOV-2018 13:49**
Data file Sample Info. Line: 12T06RE;9872064RE;2;0;;TID12;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: **014A** Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **61.12**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 4.09 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

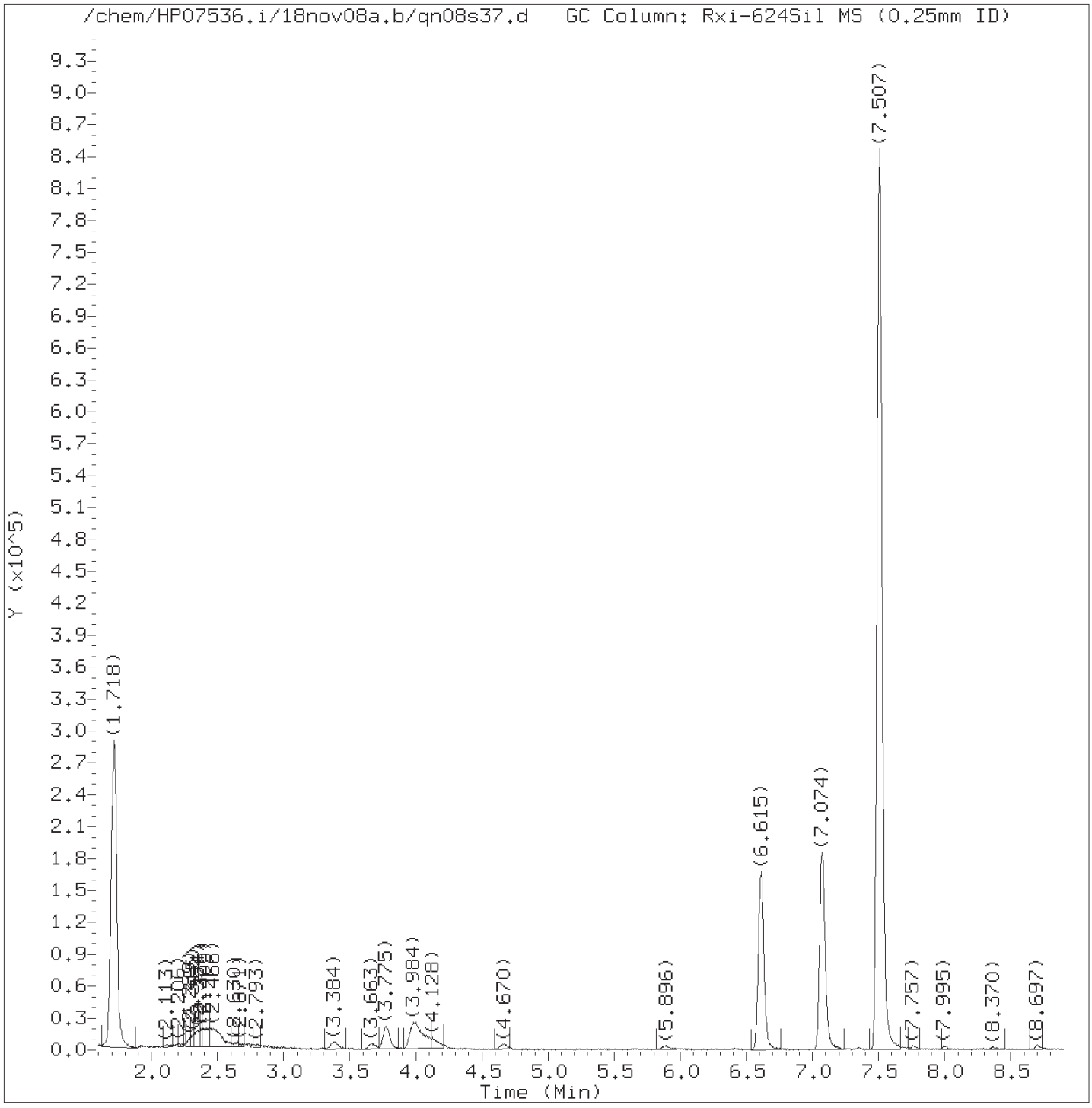
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
89) cis-1,3-Dichloropropene	(2)			Not Detected					24	310
90) 4-Methyl-2-pentanone	(2)			Not Detected					61	610
92) Toluene	(3)	9.638(-0.000)	92	15640	0.979	59.86		J	37	310
93) trans-1,3-Dichloropropene	(3)			Not Detected					18	310
96) 1,1,2-Trichloroethane	(3)			Not Detected					31	310
98) Tetrachloroethene	(3)			Not Detected					31	310
101) 2-Hexanone	(3)			Not Detected					61	610
103) Dibromochloromethane	(3)			Not Detected					24	310
104) 1,2-Dibromoethane	(3)			Not Detected					24	310
107) Chlorobenzene	(3)			Not Detected					31	310
109) Ethylbenzene	(3)			Not Detected					24	310
110) m+p-Xylene	(3)	11.264(-0.000)	106	15032M	1.403	85.76		J	61	310
111) o-Xylene	(3)			Not Detected					24	310
112) Xylene (Total)	(3)		106	15032	1.403	85.76		J	61	310
113) Styrene	(3)			Not Detected					18	310
114) Bromoform	(3)			Not Detected					310	610
115) Isopropylbenzene	(3)			Not Detected					24	310
118) Cyclohexanone	(1)			Not Detected					1500	15000
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					24	310
138) 1,3-Dichlorobenzene	(4)			Not Detected					31	310
141) 1,4-Dichlorobenzene	(4)	12.949(-0.000)	146	8188	0.591	36.12		J	24	310
147) 1,2-Dichlorobenzene	(4)			Not Detected					31	310
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					24	310
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					310	610

M = Compound was manually integrated.

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

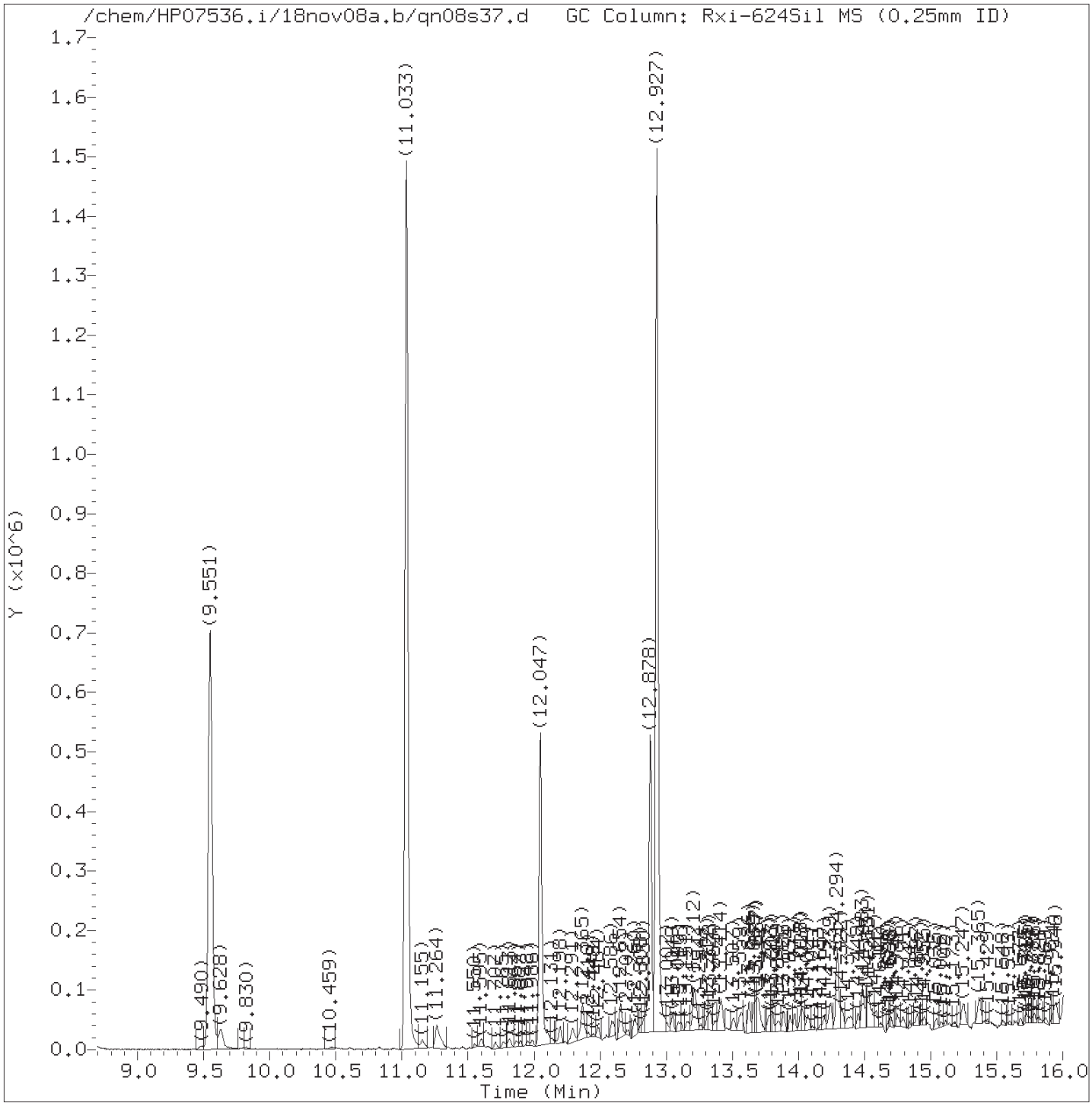
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
20) Acetone	(1)	3.384	58	4769	7.247
25) Carbon Disulfide	(2)	3.672	76	18111	0.856
27) Methyl Acetate	(2)	3.778	43	54647	9.582
30)*t-Butyl alcohol-d10	(1)	3.987	65	136787	250.000
44) 2-Butanone	(1)	5.874	43	11840M	3.343
56)$Dibromofluoromethane	(2)	6.615	113	153533	24.065
63)$1,2-Dichloroethane-d4	(2)	7.070	102	44754	26.978
64) Benzene	(2)	7.093	78	14378M	0.558
70)*Fluorobenzene	(2)	7.507	96	1172732	50.000
91)$Toluene-d8	(3)	9.551	98	607643	24.215
92) Toluene	(3)	9.638	92	15640	0.979
105)*Chlorobenzene-d5	(3)	11.033	117	919239	50.000
110) m+p-Xylene	(3)	11.264	106	15032M	1.403
112) Xylene (Total)	(3)		106	15032	1.403
119)$4-Bromofluorobenzene	(3)	12.047	95	172602	21.604
140)*1,4-Dichlorobenzene-d4	(4)	12.927	152	411301	50.000
141) 1,4-Dichlorobenzene	(4)	12.949	146	8188	0.591

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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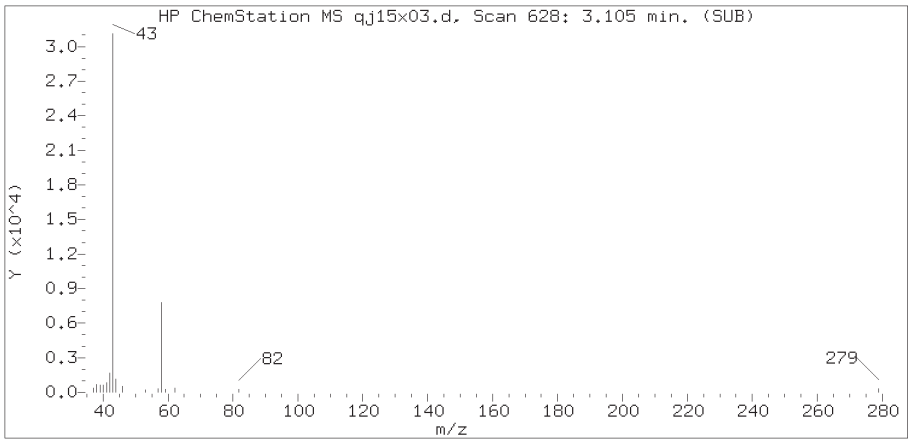
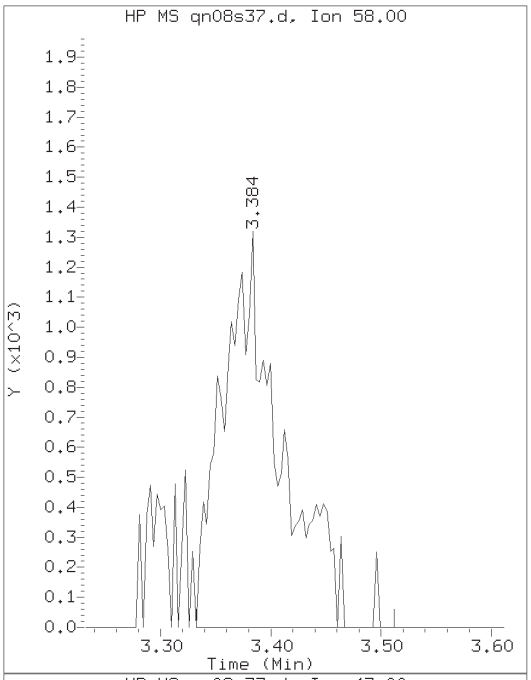
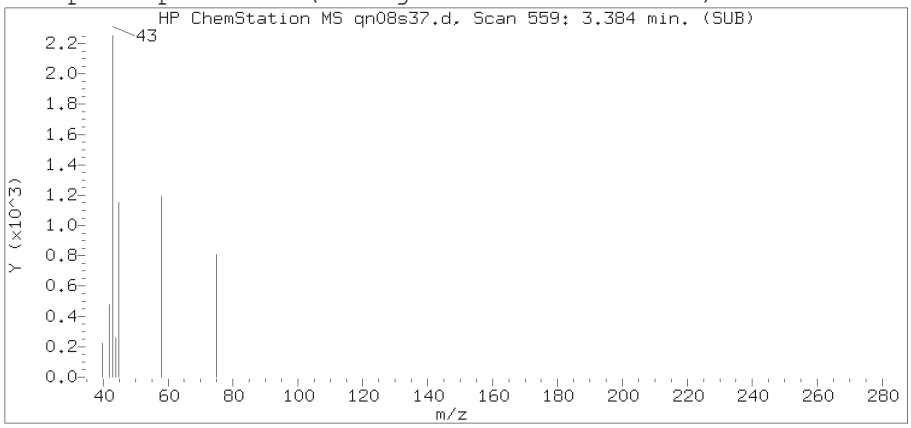
Target 3.5 esignature user ID: scn10072

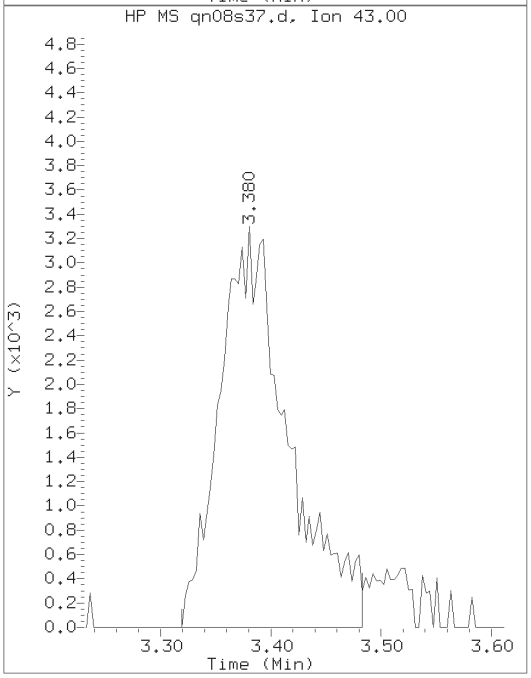
Reference Standard Spectrum for Acetone



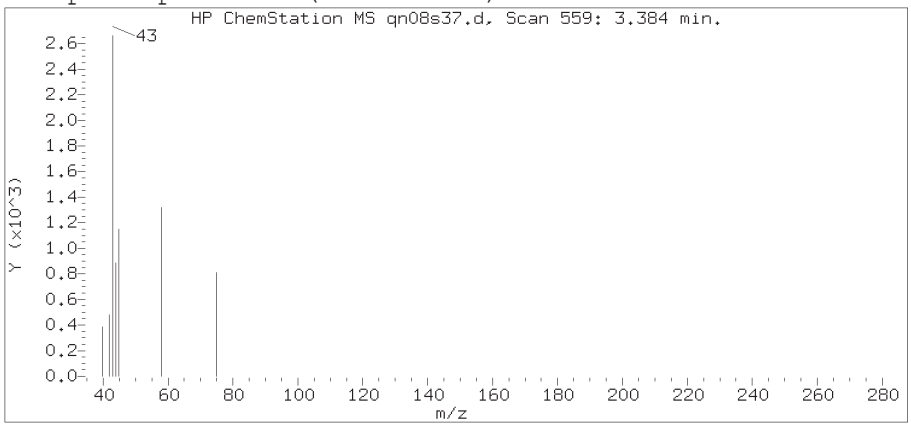


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compound Number : 20
Compound Name : Acetone
Scan Number : 559
Retention Time (minutes): 3.384
Relative Retention Time :-0.00578
Quant Ion : 58.00
Area (flag) : 4769
On-Column Amount (ng) : 7.2470

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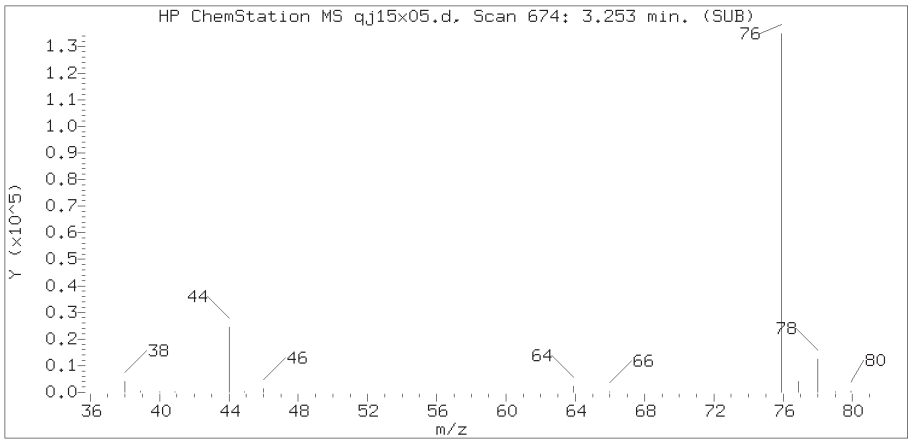
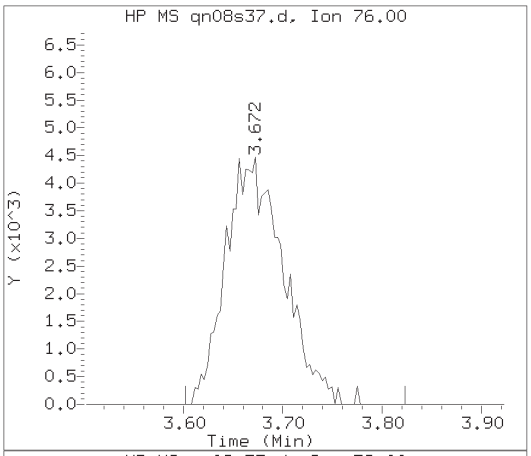
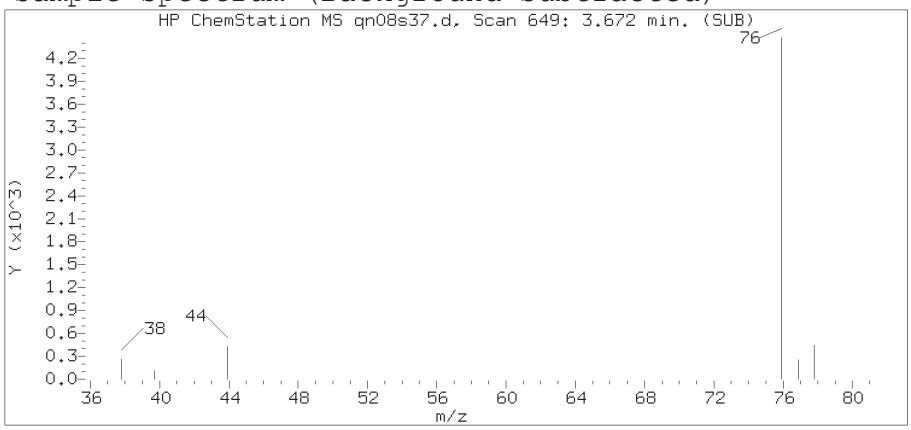
Target 3.5 esignature user ID: scn10072

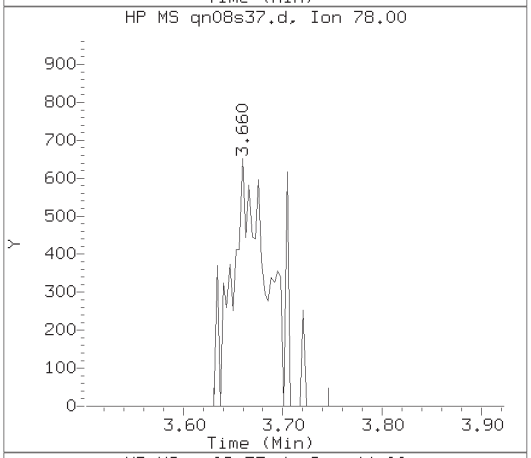
Reference Standard Spectrum for Carbon Disulfide



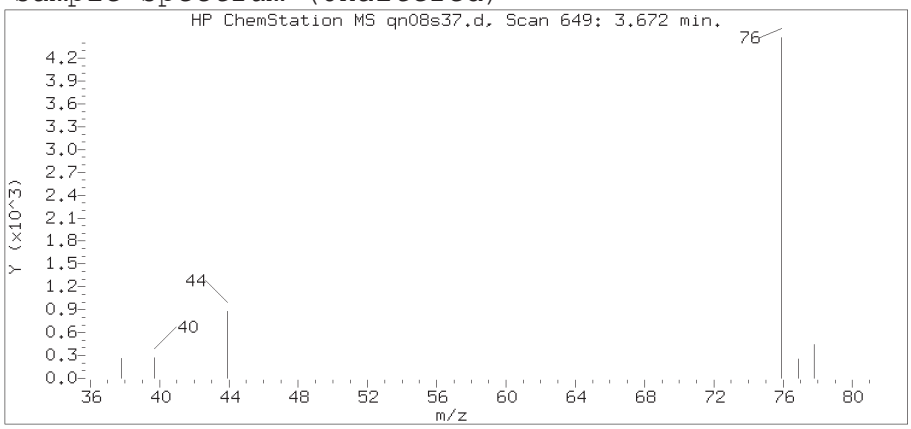


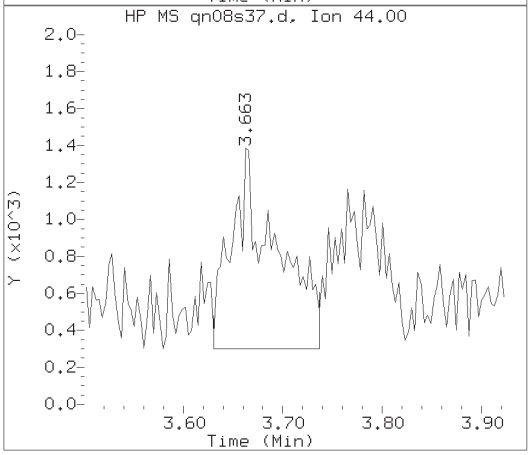
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 649
Retention Time (minutes): 3.672
Relative Retention Time :-0.00122
Quant Ion : 76.00
Area (flag) : 18111
On-Column Amount (ng) : 0.8560

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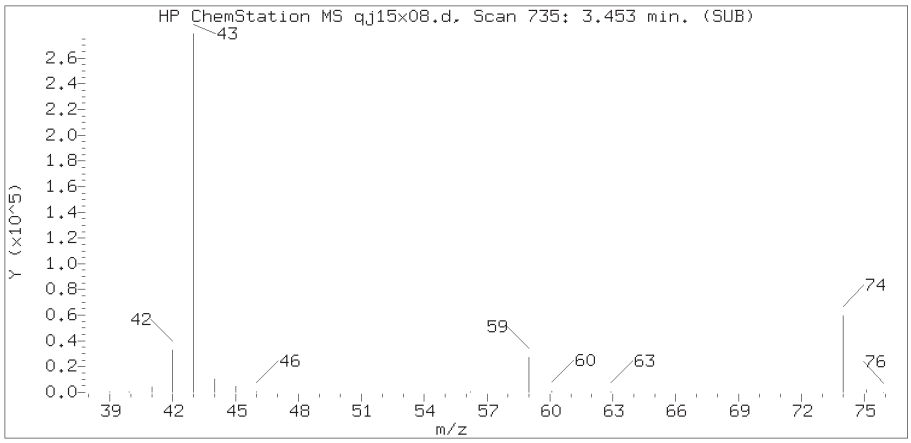
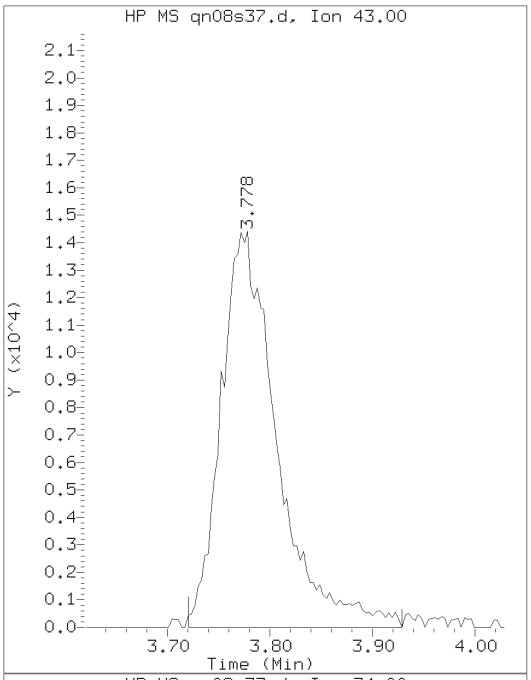
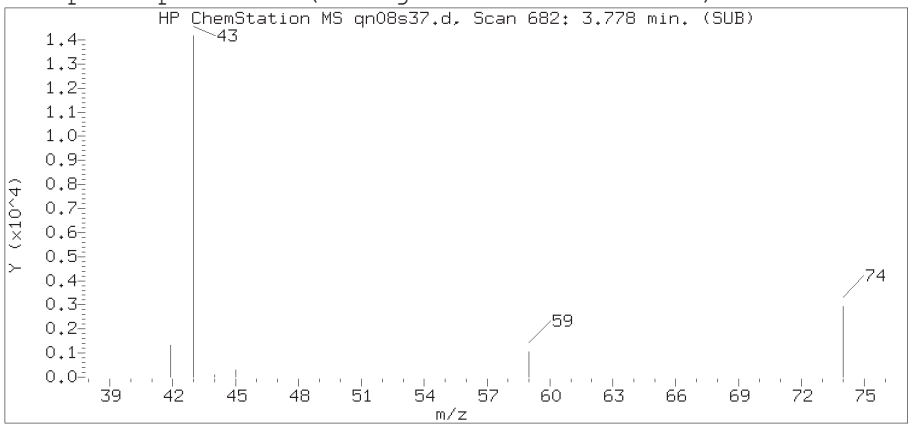
Target 3.5 esignature user ID: scn10072

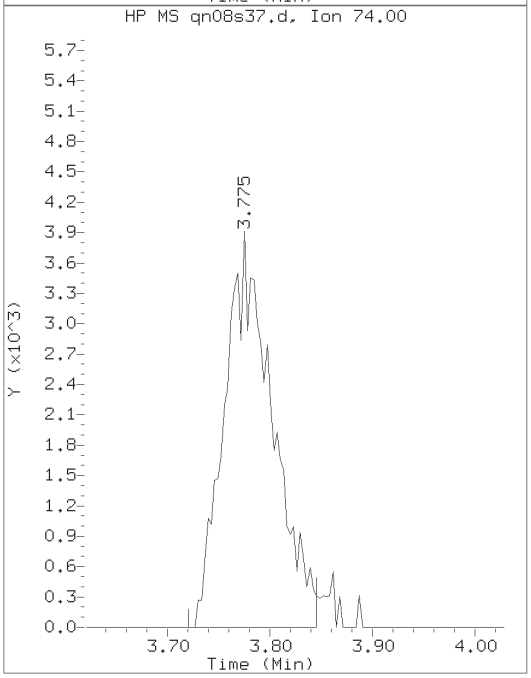
Reference Standard Spectrum for Methyl Acetate



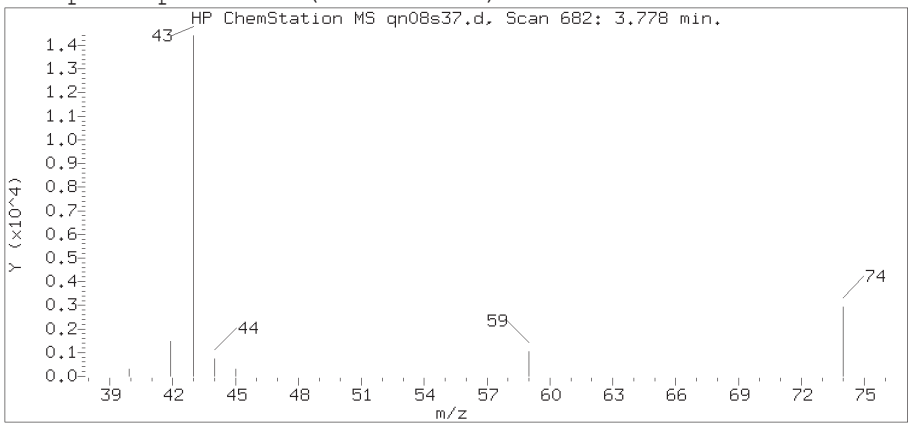


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 682
Retention Time (minutes): 3.778
Relative Retention Time :-0.00080
Quant Ion : 43.00
Area (flag) : 54647
On-Column Amount (ng) : 9.5818

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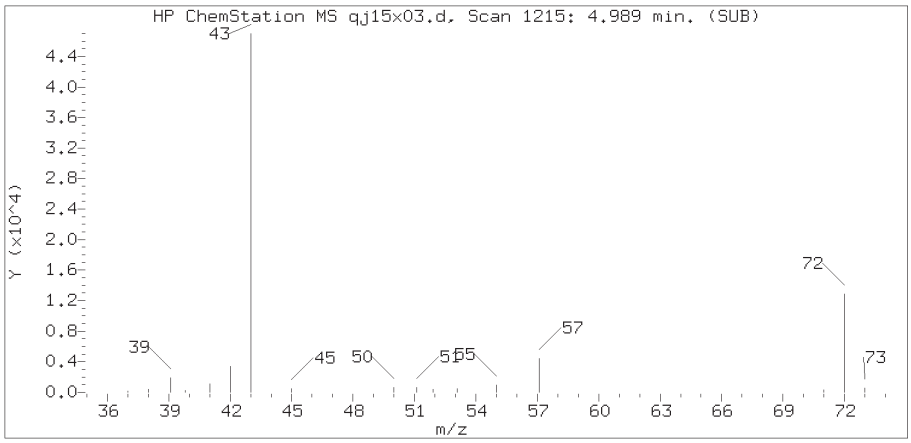
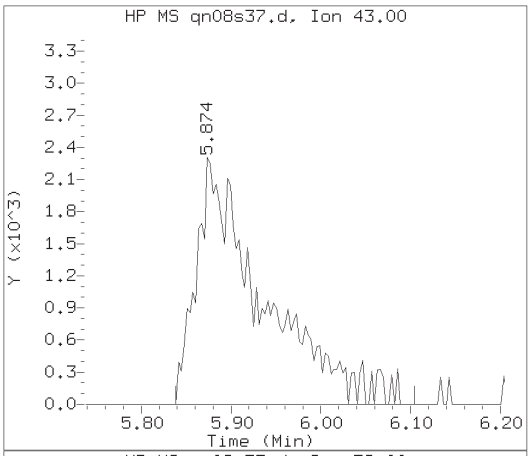
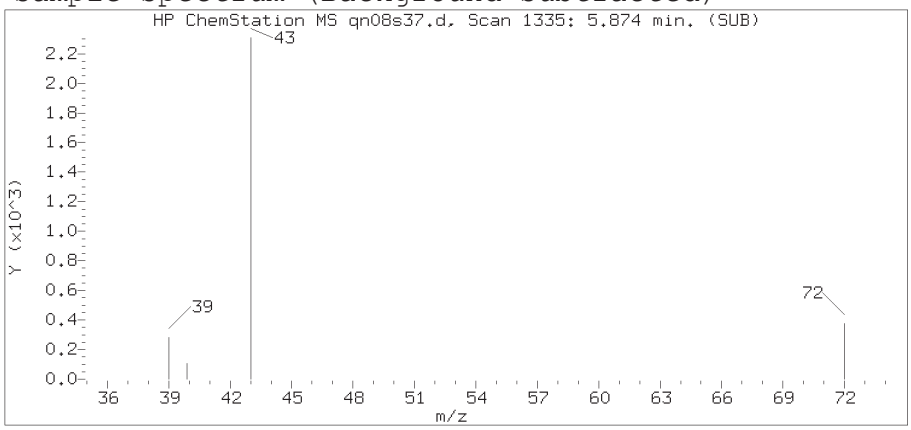
Target 3.5 esignature user ID: scn10072

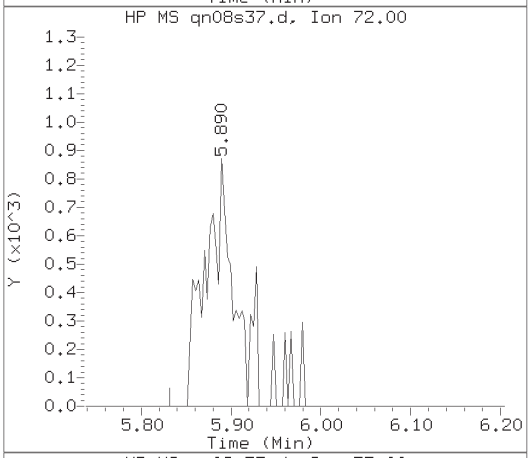
Reference Standard Spectrum for 2-Butanone



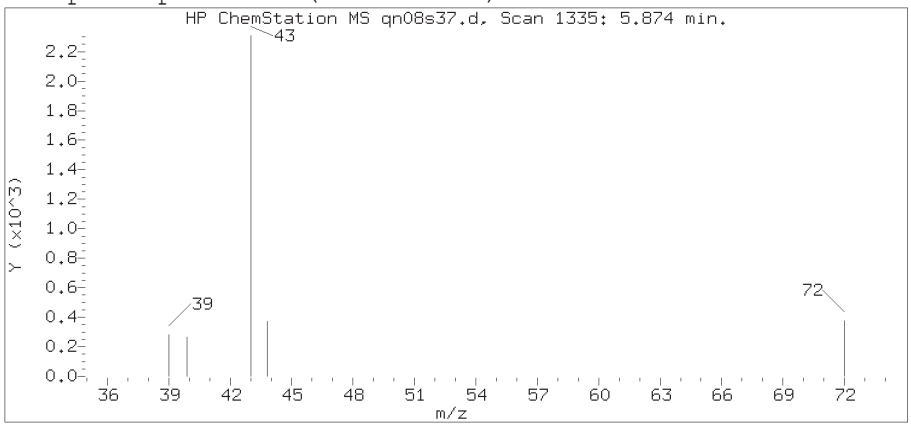


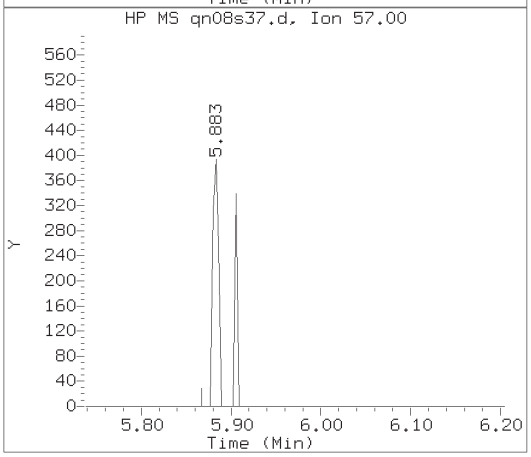
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

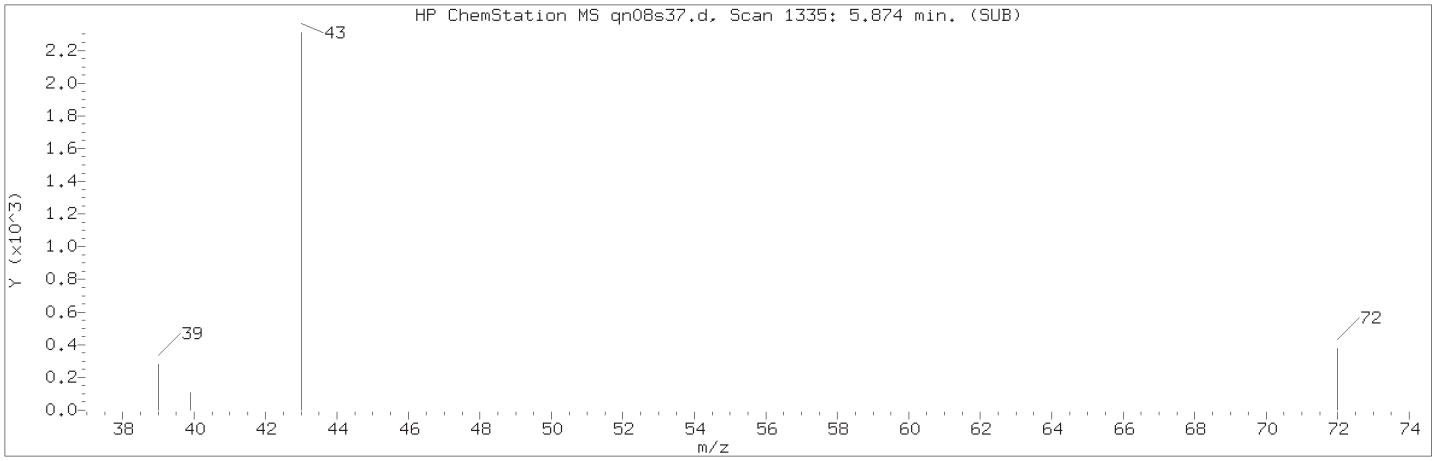
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

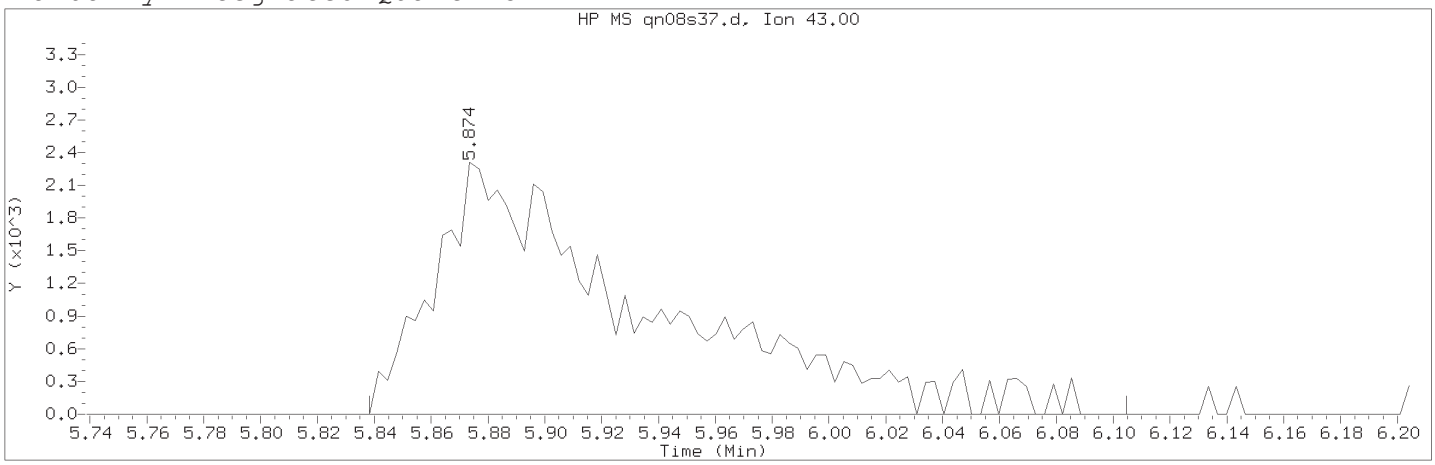
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1335
Retention Time (minutes): 5.874
Relative Retention Time :-0.00841
Quant Ion : 43.00
Area (flag) : 11840M
On-Column Amount (ng) : 3.3434

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

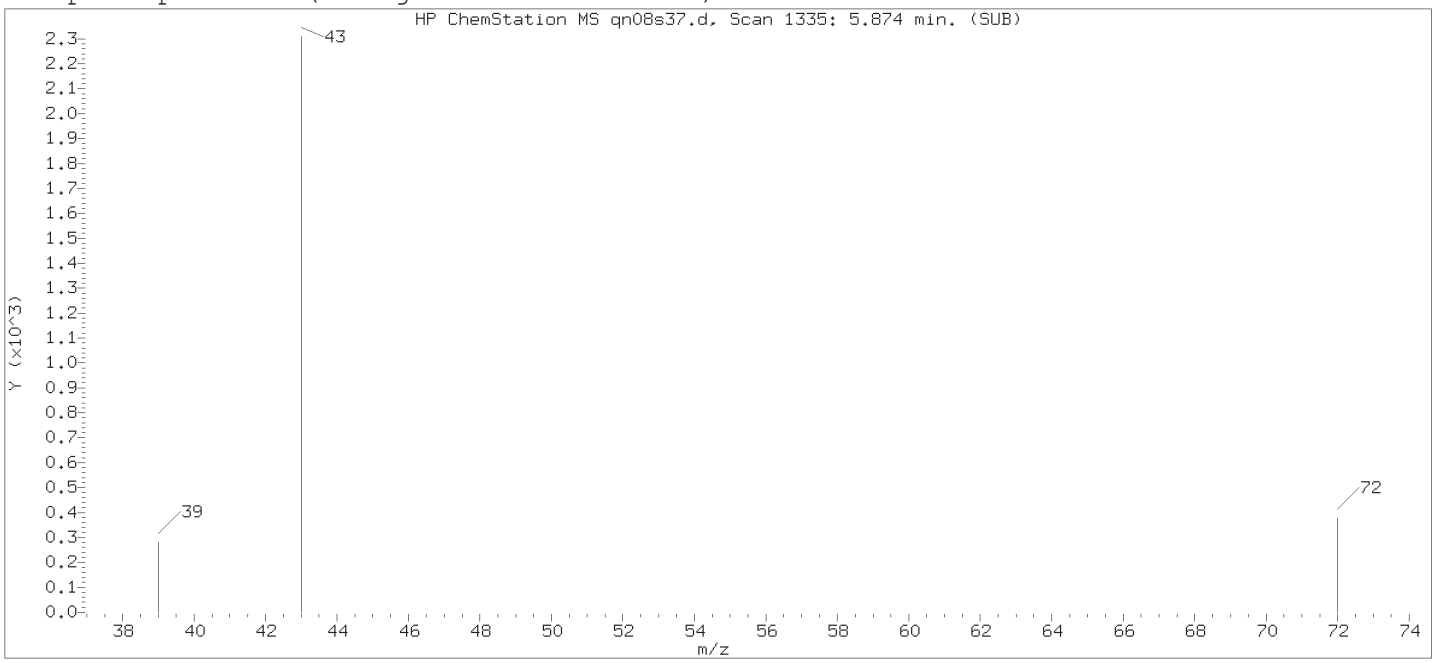
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1335
Retention Time (minutes): 5.874
Quant Ion : 43.00
Area (flag) : 11840M
On-Column Amount (ng) : 3.3434
Integration start scan : 1323 Integration stop scan: 1406
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

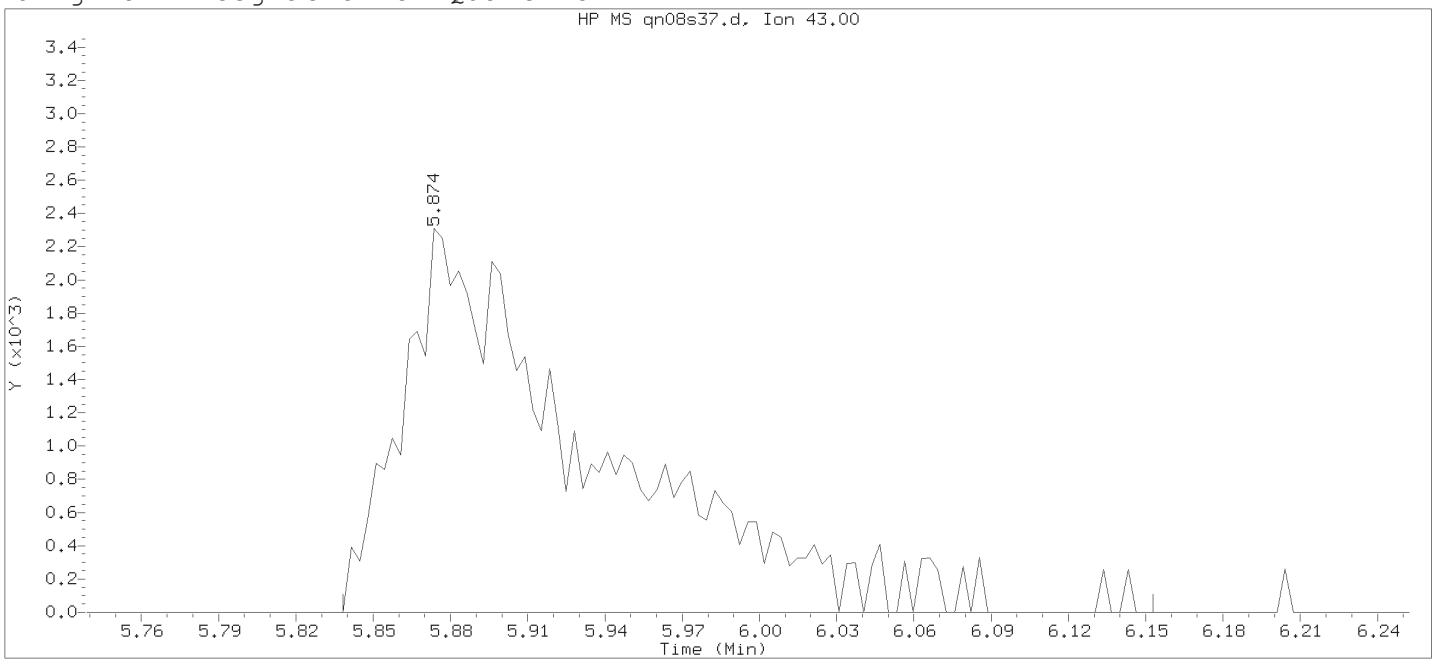
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 14:17 Automation

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1335
Retention Time (minutes): 5.874
Quant Ion : 43.00
Area : 11939
On-column Amount (ng) : 3.3712
Integration start scan : 1323 Integration stop scan: 1421
Y at integration start : 0 Y at integration end: 0

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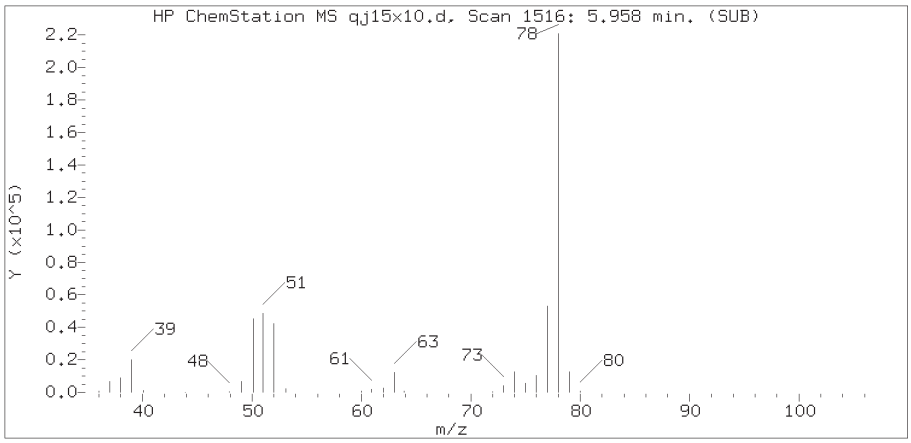
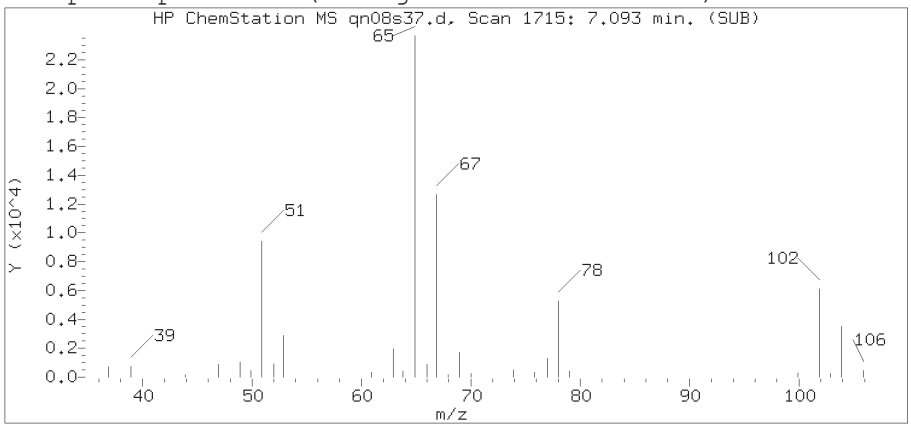
Target 3.5 esignature user ID: SCN10072

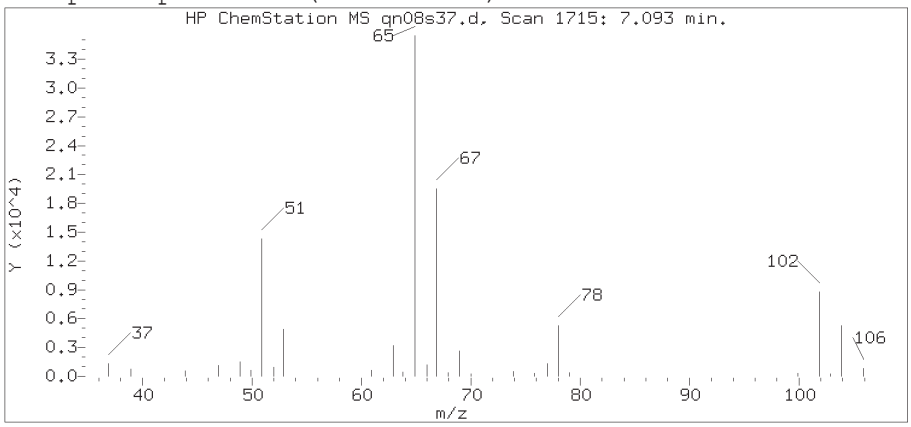
Reference Standard Spectrum for Benzene

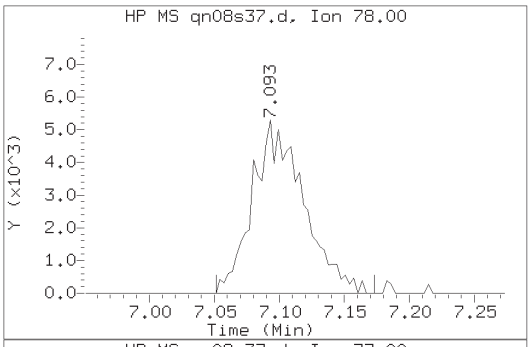


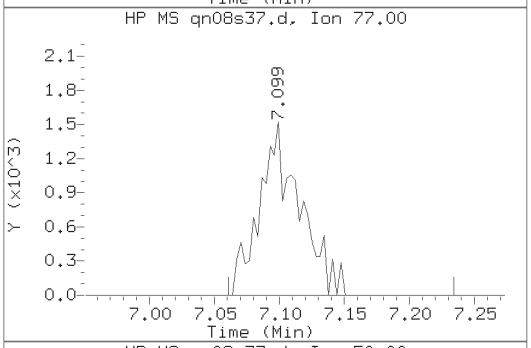
Sample Spectrum (Background Subtracted)

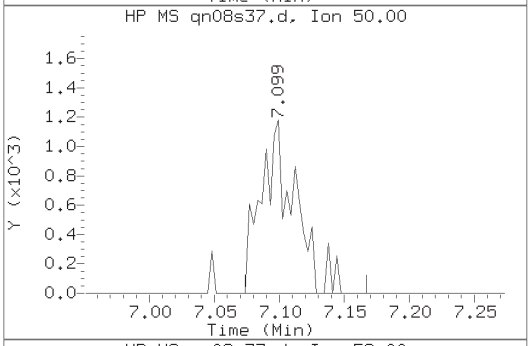


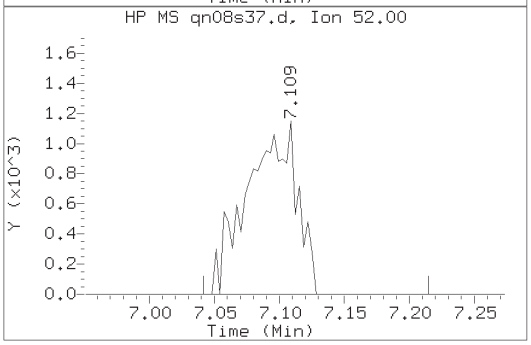
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

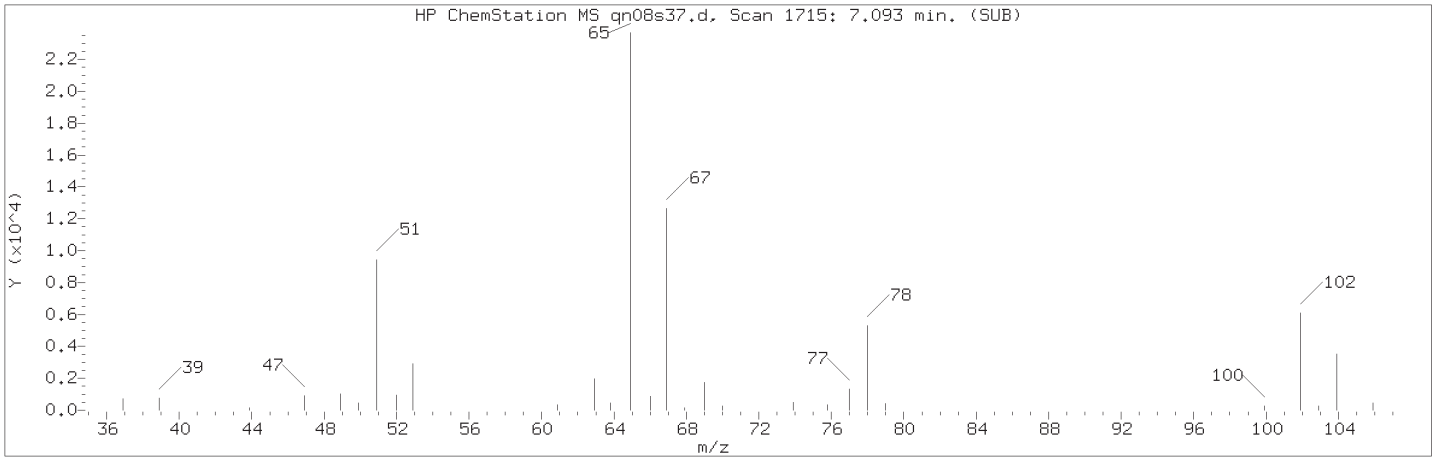
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

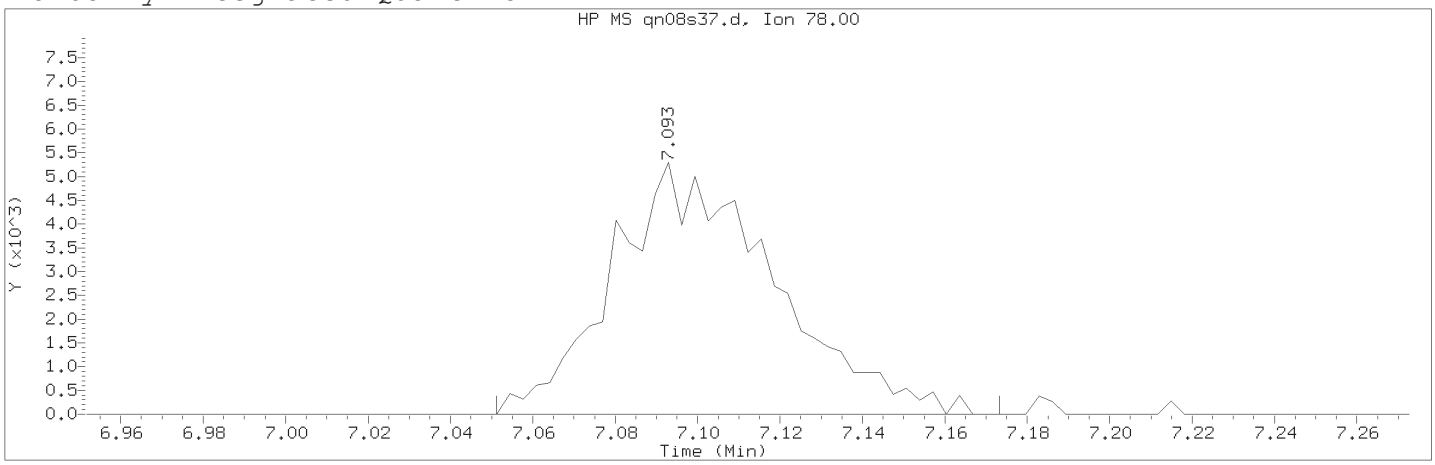
Compound Number : 64
Compound Name : Benzene
Scan Number : 1715
Retention Time (minutes): 7.093
Relative Retention Time : 0.00001
Quant Ion : 78.00
Area (flag) : 14378M
On-Column Amount (ng) : 0.5584

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

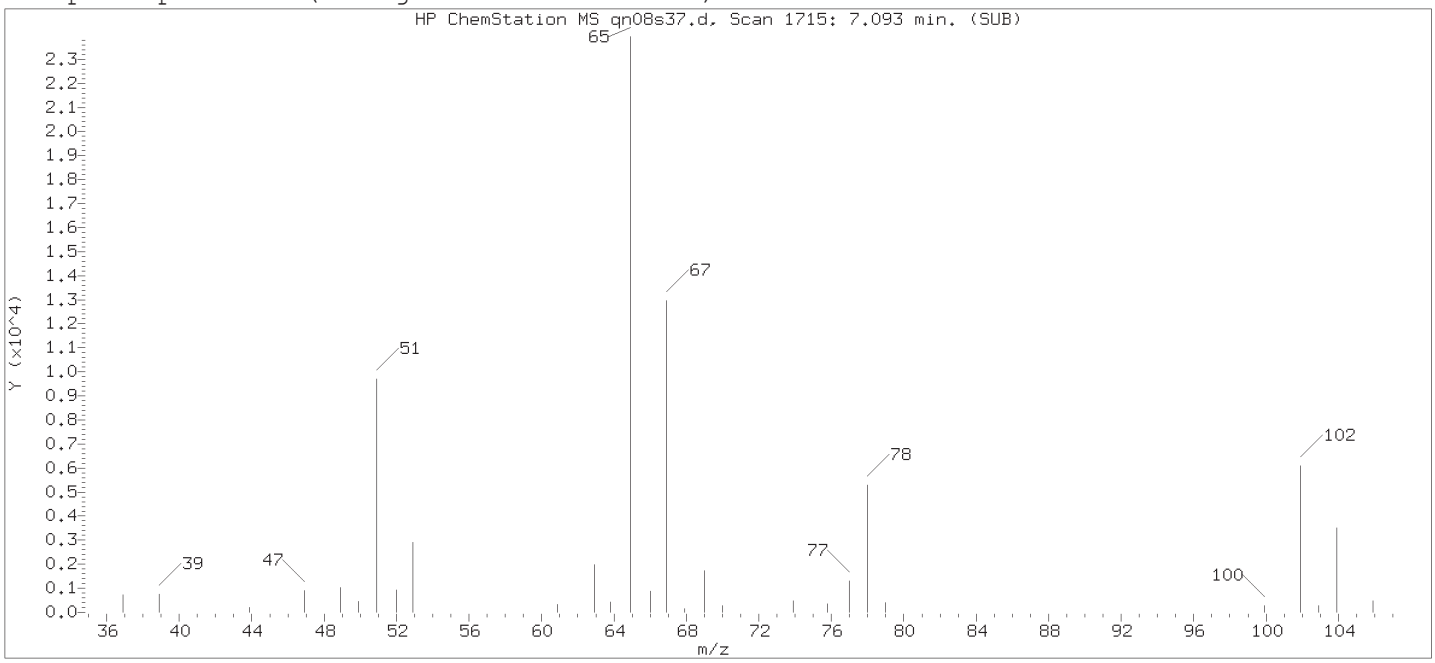
Compound Number : 64
Compound Name : Benzene
Scan Number : 1715
Retention Time (minutes): 7.093
Quant Ion : 78.00
Area (flag) : 14378M
On-Column Amount (ng) : 0.5584
Integration start scan : 1701 Integration stop scan: 1739
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

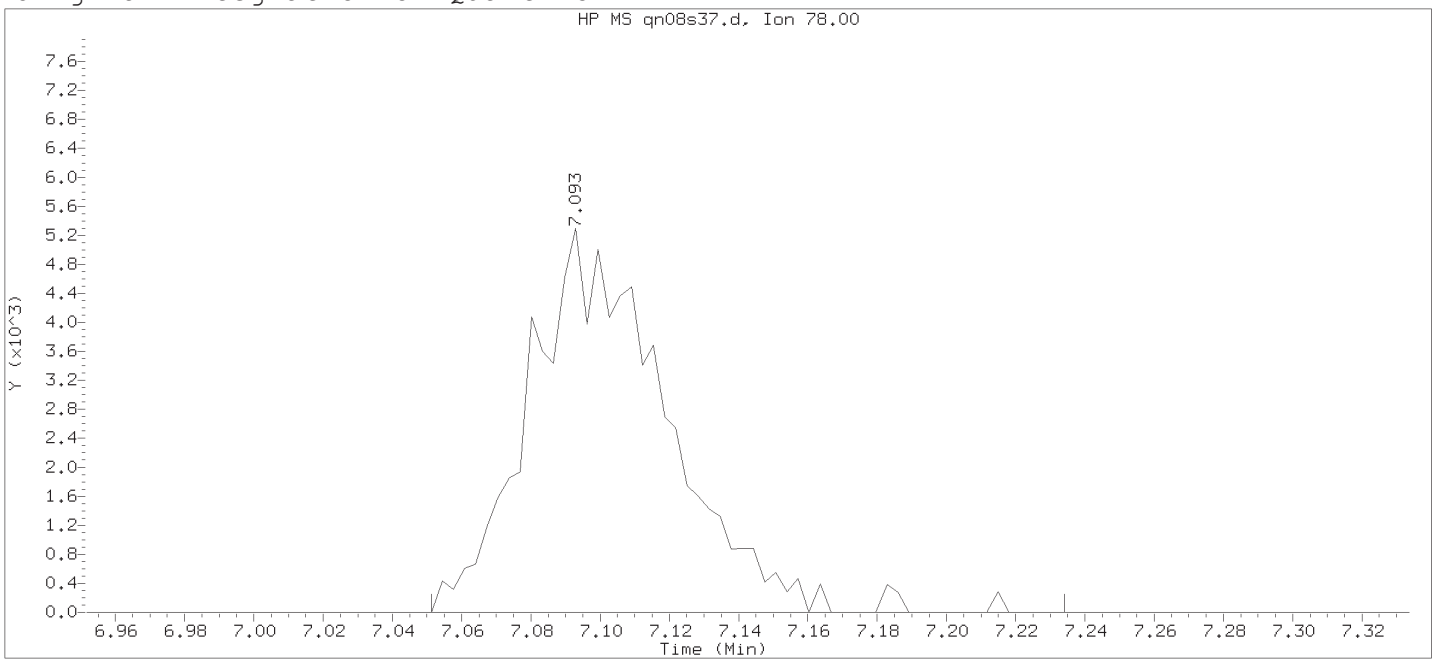
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

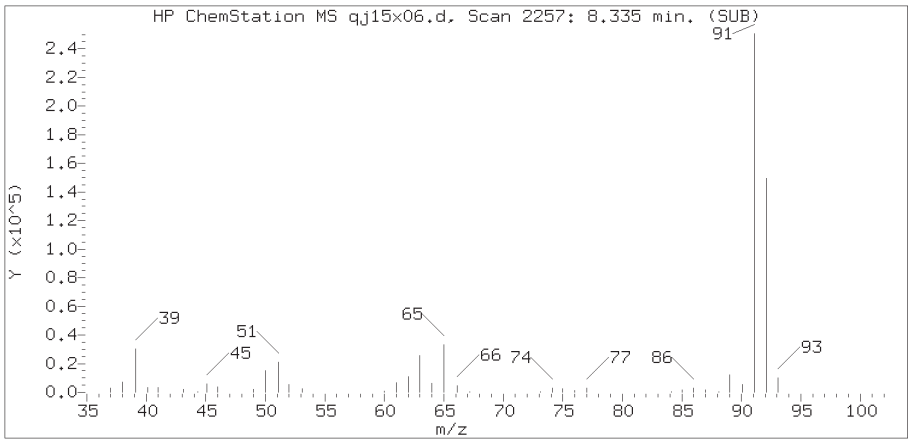
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 14:17 Automation

Sample Name: 12T06RE Lab Sample ID: 9872064RE

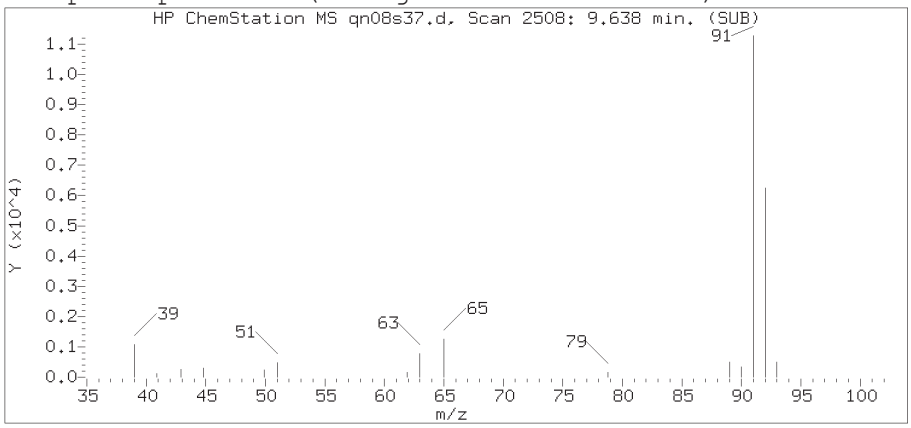
Compound Number	: 64		
Compound Name	: Benzene		
Scan Number	: 1715		
Retention Time (minutes)	: 7.093		
Quant Ion	: 78.00		
Area	: 14557		
On-column Amount (ng)	: 0.5653		
Integration start scan	: 1701	Integration stop scan:	1758
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: SCN0082

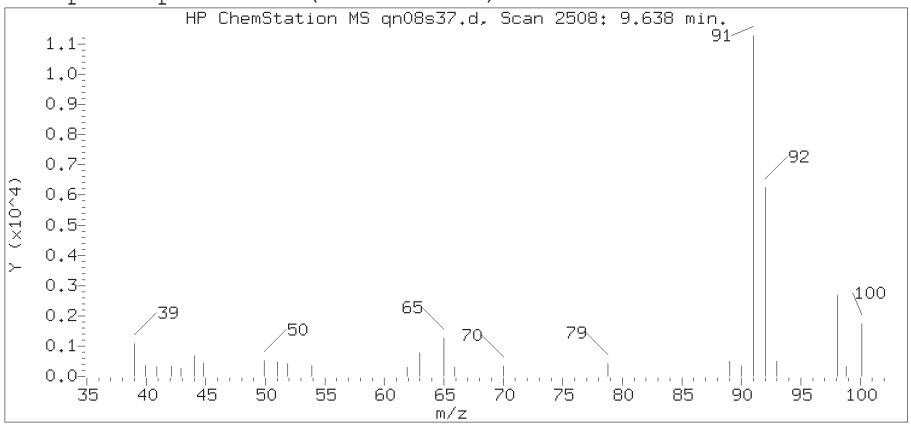
Reference Standard Spectrum for Toluene

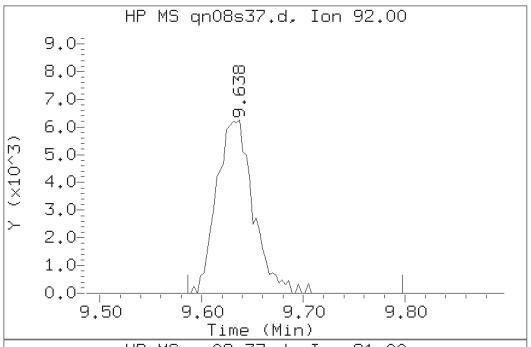


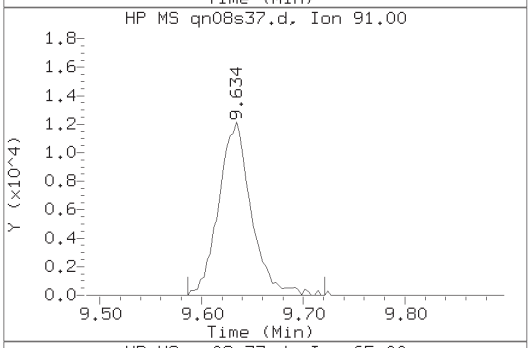
Sample Spectrum (Background Subtracted)

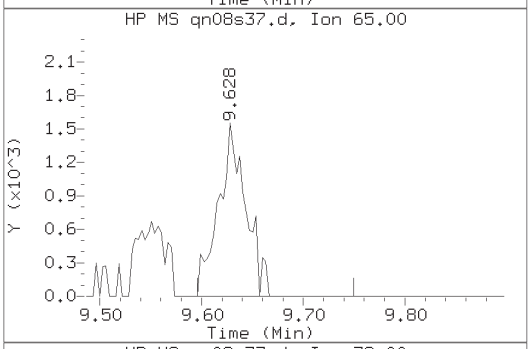


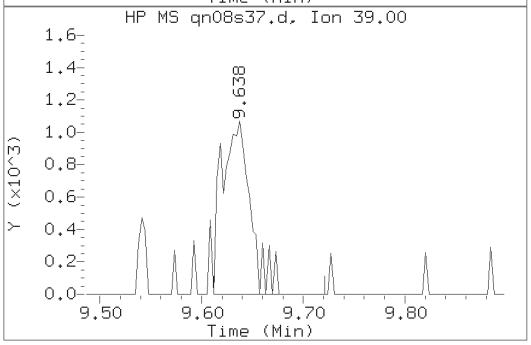
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

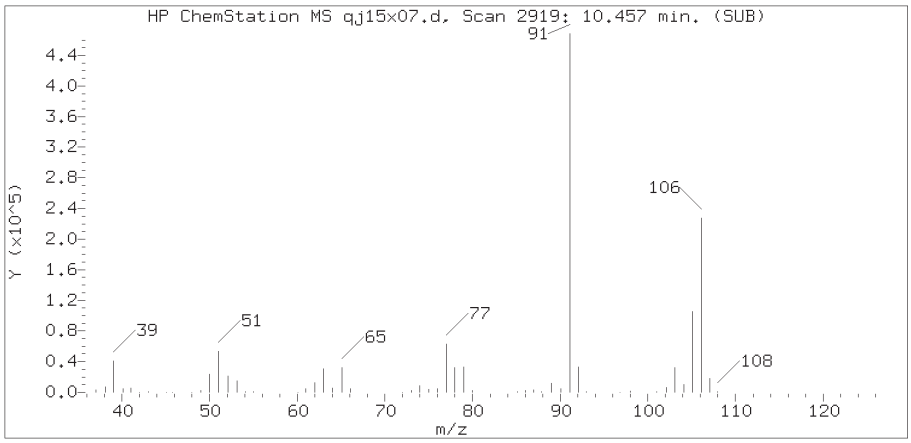
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

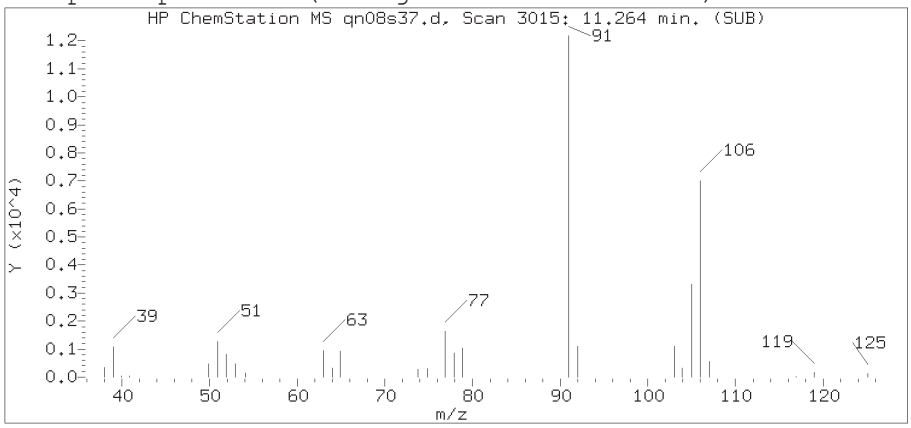
Compound Number : 92
Compound Name : Toluene
Scan Number : 2508
Retention Time (minutes): 9.638
Relative Retention Time :-0.00086
Quant Ion : 92.00
Area (flag) : 15640
On-Column Amount (ng) : 0.9794

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

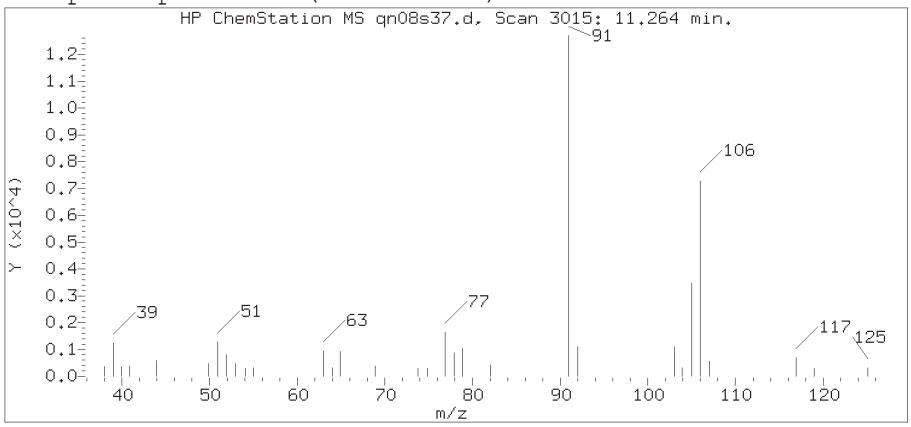
Reference Standard Spectrum for m+p-Xylene

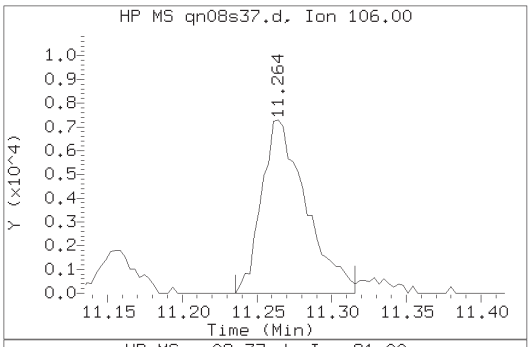


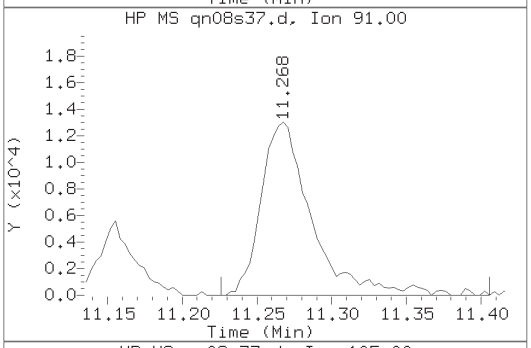
Sample Spectrum (Background Subtracted)

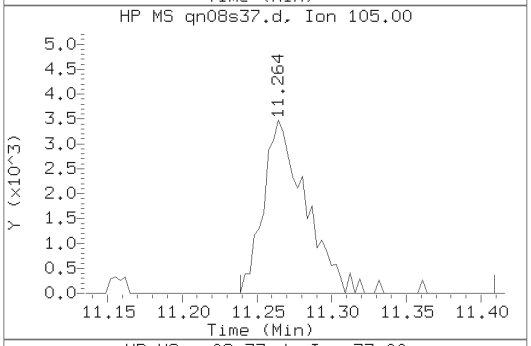


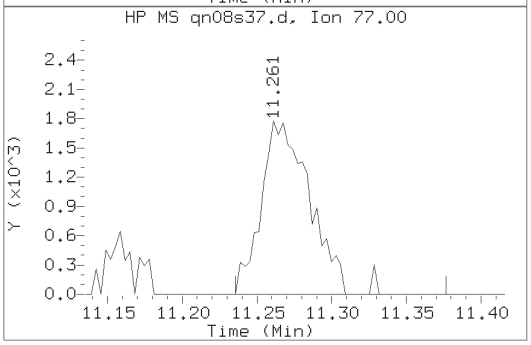
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

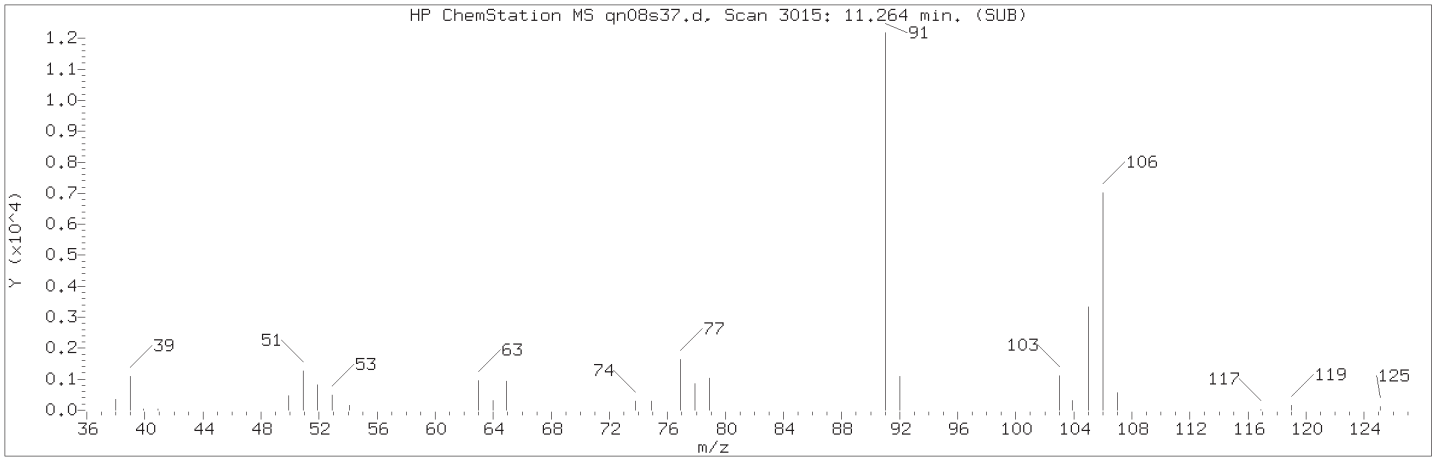
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

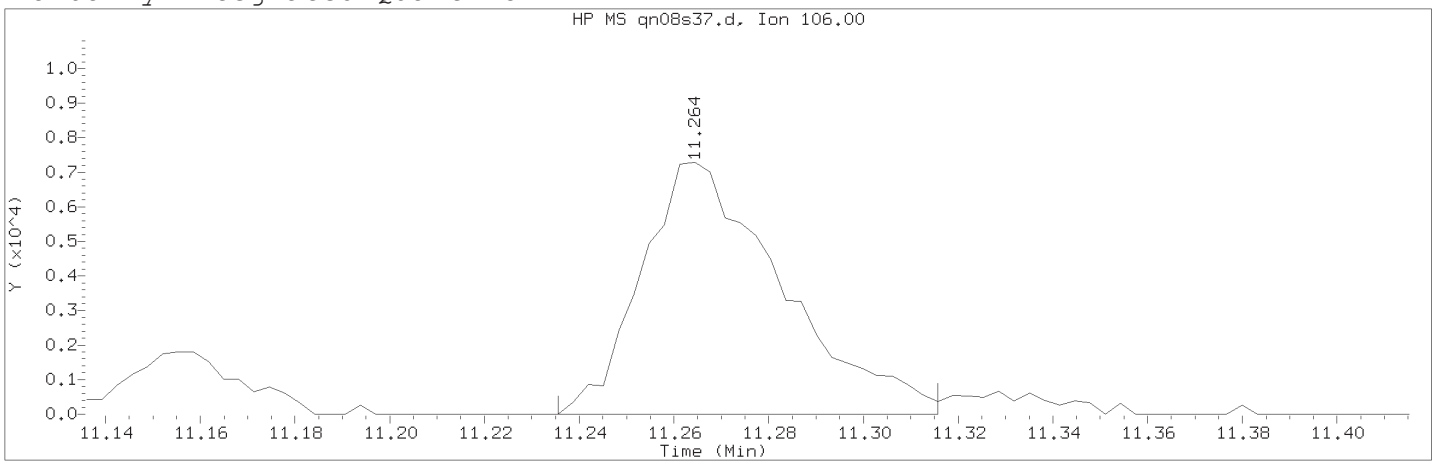
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3015
Retention Time (minutes): 11.264
Relative Retention Time :-0.00000
Quant Ion : 106.00
Area (flag) : 15032M
On-Column Amount (ng) : 1.4030

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

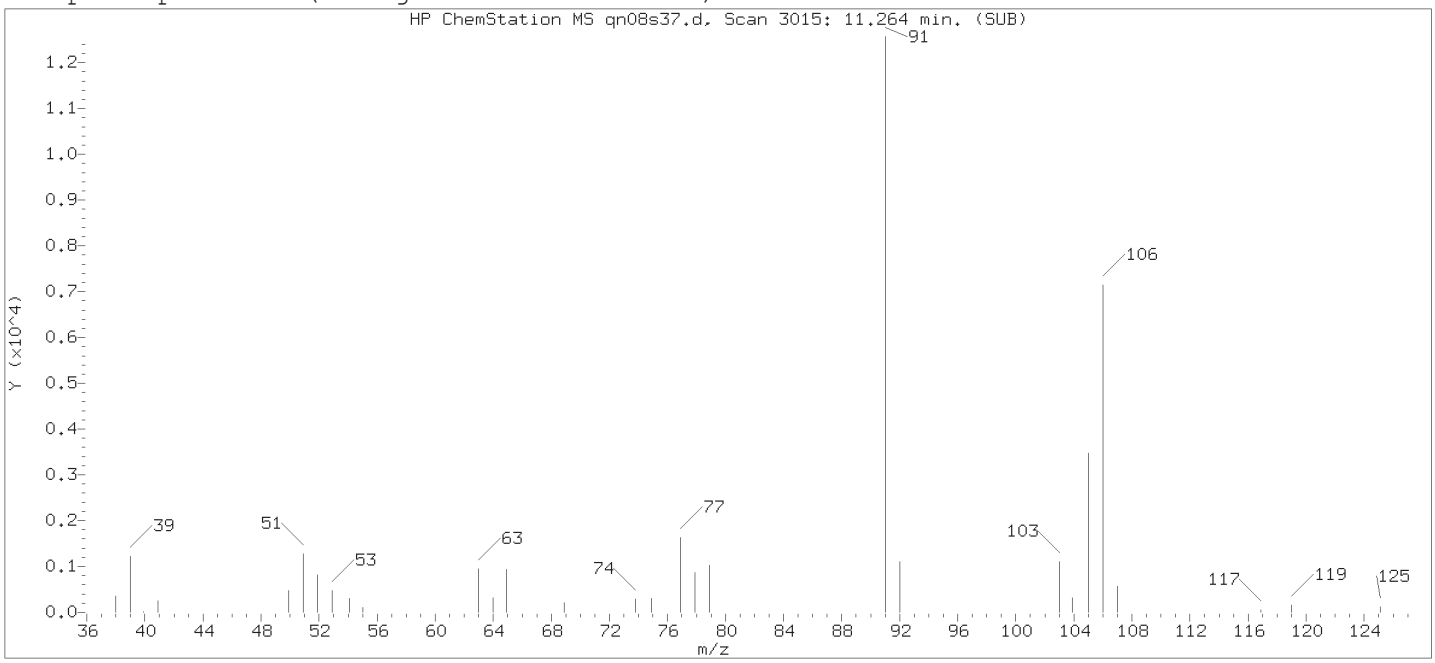
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3015
Retention Time (minutes): 11.264
Quant Ion : 106.00
Area (flag) : 15032M
On-Column Amount (ng) : 1.4030
Integration start scan : 3005 Integration stop scan: 3030
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

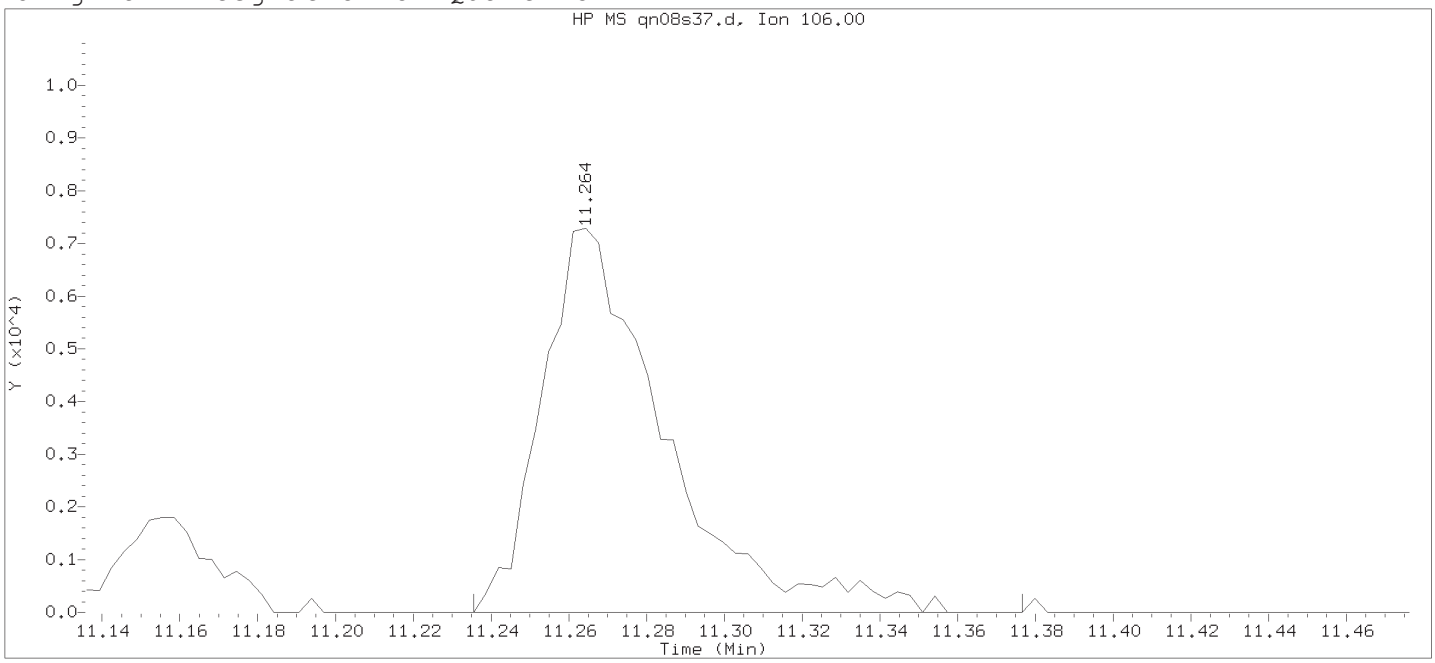
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 08:06.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

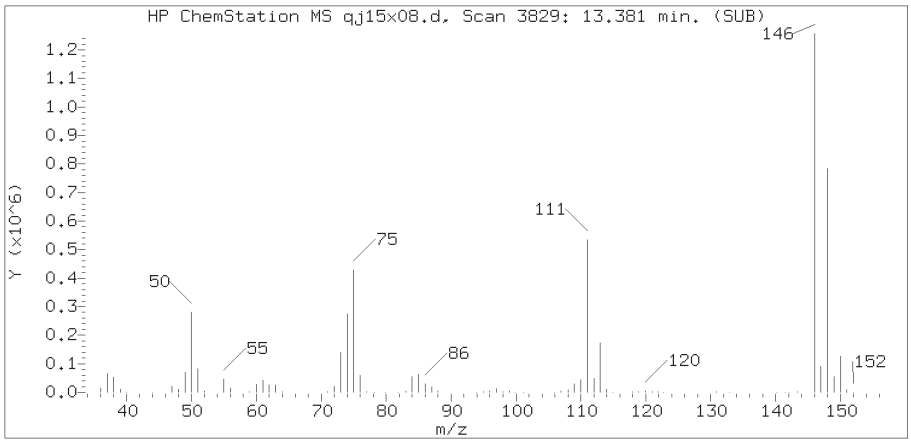
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 14:17 Automation

Sample Name: 12T06RE Lab Sample ID: 9872064RE

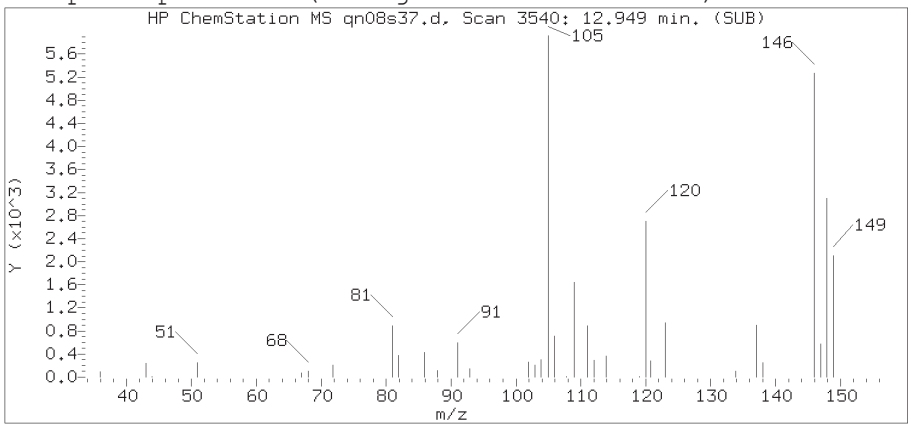
Compound Number : 110
Compound Name : m+p-Xylene
Scan Number : 3015
Retention Time (minutes): 11.264
Quant Ion : 106.00
Area : 15969
On-column Amount (ng) : 1.4905
Integration start scan : 3005 Integration stop scan: 3049
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: SCN10072

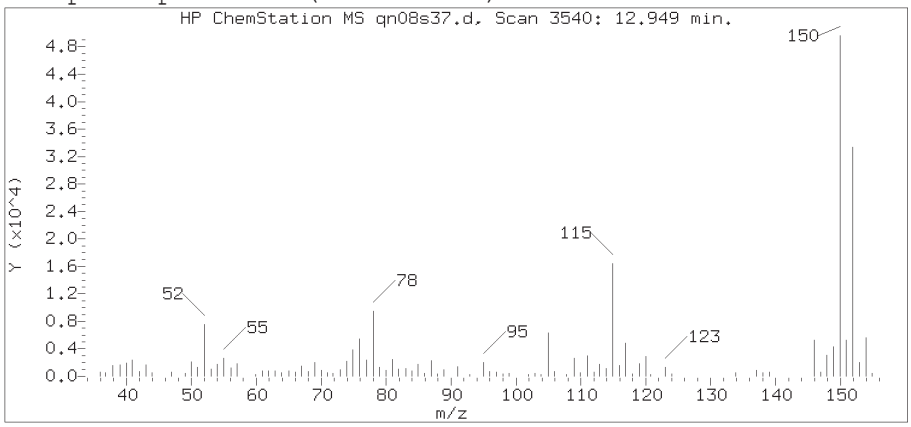
Reference Standard Spectrum for 1,4-Dichlorobenzene

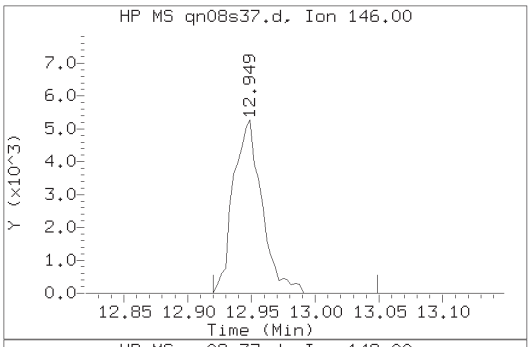


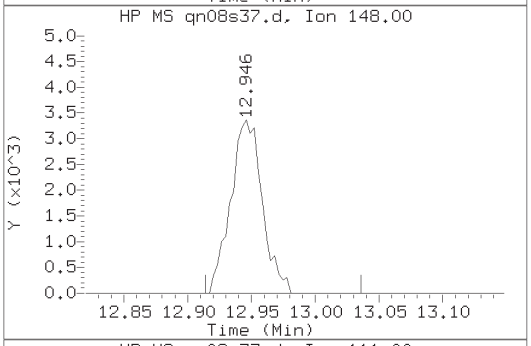
Sample Spectrum (Background Subtracted)

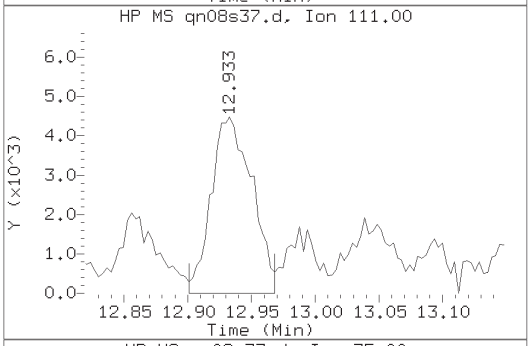


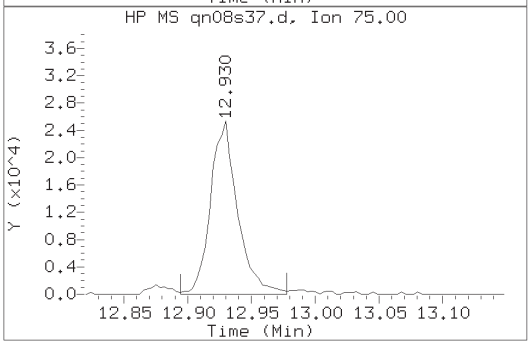
Sample Spectrum (Unaltered)











Data File: /chem/HP07536.i/18nov08a.b/qn08s37.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 13:49 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 09-Nov-2018 09:02 scn10072

Sample Name: 12T06RE Lab Sample ID: 9872064RE

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 3540
Retention Time (minutes): 12.949
Relative Retention Time :-0.00050
Quant Ion : 146.00
Area (flag) : 8188
On-Column Amount (ng) : 0.5909

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:06.
Target 3.5 esignature user ID: scn10072

Data file: /chem2/HP09953.i/18nov06a.b/bn06s09.d Injection date and time: **07-NOV-2018 00:50**
Data file Sample Info. Line: 12T07;9872065;2;0;;TID12;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: **050B** Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.05**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.75 g

Analysis Comments:9274;9367

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.936(-0.012)	182	65	82209	(-32)	250.00	
70) Fluorobenzene	3.944(0.000)	512	96	1254924	(-8)	50.00	
105) Chlorobenzene-d5	7.144(0.000)	1038	117	712048	(-35)	50.00	
140) 1,4-Dichlorobenzene-d4	9.230(-0.006)	1381	152	208843	(-68)	50.00	*

*** = Internal Standard area outside QC limits**

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.317(0.000)	113	324794	51.931	104%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.621(0.000)	102	70418	52.310	105%		71 - 136
91) Toluene-d8	(3)	5.568(0.000)	98	1123357	61.126	122%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	8.300(0.000)	95	232376	34.710	69%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)			Not Detected					0.6	5
4) Chloromethane	(2)			Not Detected					0.6	5
5) Vinyl Chloride	(2)			Not Detected					0.6	5
9) Bromomethane	(2)			Not Detected					0.7	5
10) Chloroethane	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					0.7	5
19) 1,1-Dichloroethene	(2)			Not Detected					0.5	5
20) Acetone	(1)	1.644(0.005)	58	74692	209.474	220.50			6	21
22) Freon 113	(2)			Not Detected					0.6	11
25) Carbon Disulfide	(2)			Not Detected					0.6	5
27) Methyl Acetate	(2)			Not Detected					1	5
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.5	5
40) 1,1-Dichloroethane	(2)			Not Detected					0.5	5
44) 2-Butanone	(1)	2.897(0.006)	43	101055	47.813	50.33			1	11
45) cis-1,2-Dichloroethene	(2)			Not Detected					0.5	5
54) Chloroform	(2)			Not Detected					0.6	5
57) 1,1,1-Trichloroethane	(2)			Not Detected					0.6	5
58) Cyclohexane	(2)			Not Detected					0.5	5
61) Carbon Tetrachloride	(2)			Not Detected					0.5	5
64) Benzene	(2)			Not Detected					0.5	5
67) 1,2-Dichloroethane	(2)			Not Detected					0.6	5
75) Trichloroethene	(2)			Not Detected					0.5	5
76) Methylcyclohexane	(2)			Not Detected					0.6	5
77) 1,2-Dichloropropane	(2)			Not Detected					0.5	5
84) Bromodichloromethane	(2)			Not Detected					0.4	5

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06s09.d Injection date and time: **07-NOV-2018 00:50**
Data file Sample Info. Line: 12T07;9872065;2;0;;TID12;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: **050B** Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.05**

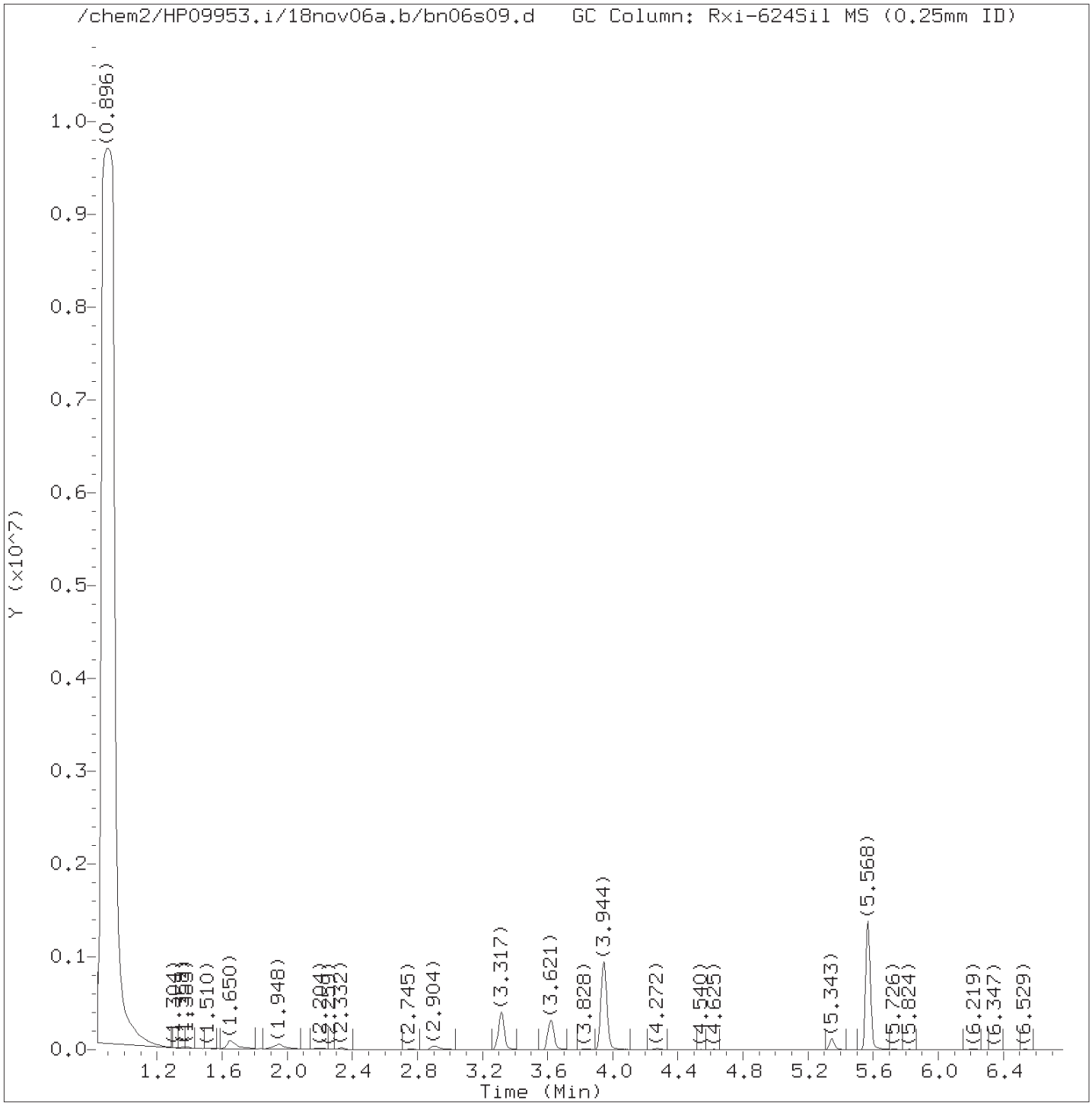
Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.75 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
89) cis-1,3-Dichloropropene	(2)				Not Detected					0.4	5
90) 4-Methyl-2-pentanone	(2)				Not Detected					1	11
92) Toluene	(3)				Not Detected					0.6	5
93) trans-1,3-Dichloropropene	(3)				Not Detected					0.3	5
96) 1,1,2-Trichloroethane	(3)				Not Detected					0.5	5
98) Tetrachloroethene	(3)				Not Detected					0.5	5
101) 2-Hexanone	(3)				Not Detected					1	11
103) Dibromochloromethane	(3)				Not Detected					0.4	5
104) 1,2-Dibromoethane	(3)				Not Detected					0.4	5
107) Chlorobenzene	(3)				Not Detected					0.5	5
109) Ethylbenzene	(3)				Not Detected					0.4	5
110) m+p-Xylene	(3)				Not Detected					1	5
111) o-Xylene	(3)				Not Detected					0.4	5
112) Xylene (Total)	(3)				Not Detected					1	5
113) Styrene	(3)				Not Detected					0.3	5
114) Bromoform	(3)				Not Detected					5	11
115) Isopropylbenzene	(3)				Not Detected					0.4	5
118) Cyclohexanone	(1)				Not Detected					26	260
120) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.4	5
138) 1,3-Dichlorobenzene	(4)				Not Detected					0.5	5
141) 1,4-Dichlorobenzene	(4)				Not Detected					0.4	5
147) 1,2-Dichlorobenzene	(4)				Not Detected					0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.4	5
153) 1,2,4-Trichlorobenzene	(4)				Not Detected					5	11

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

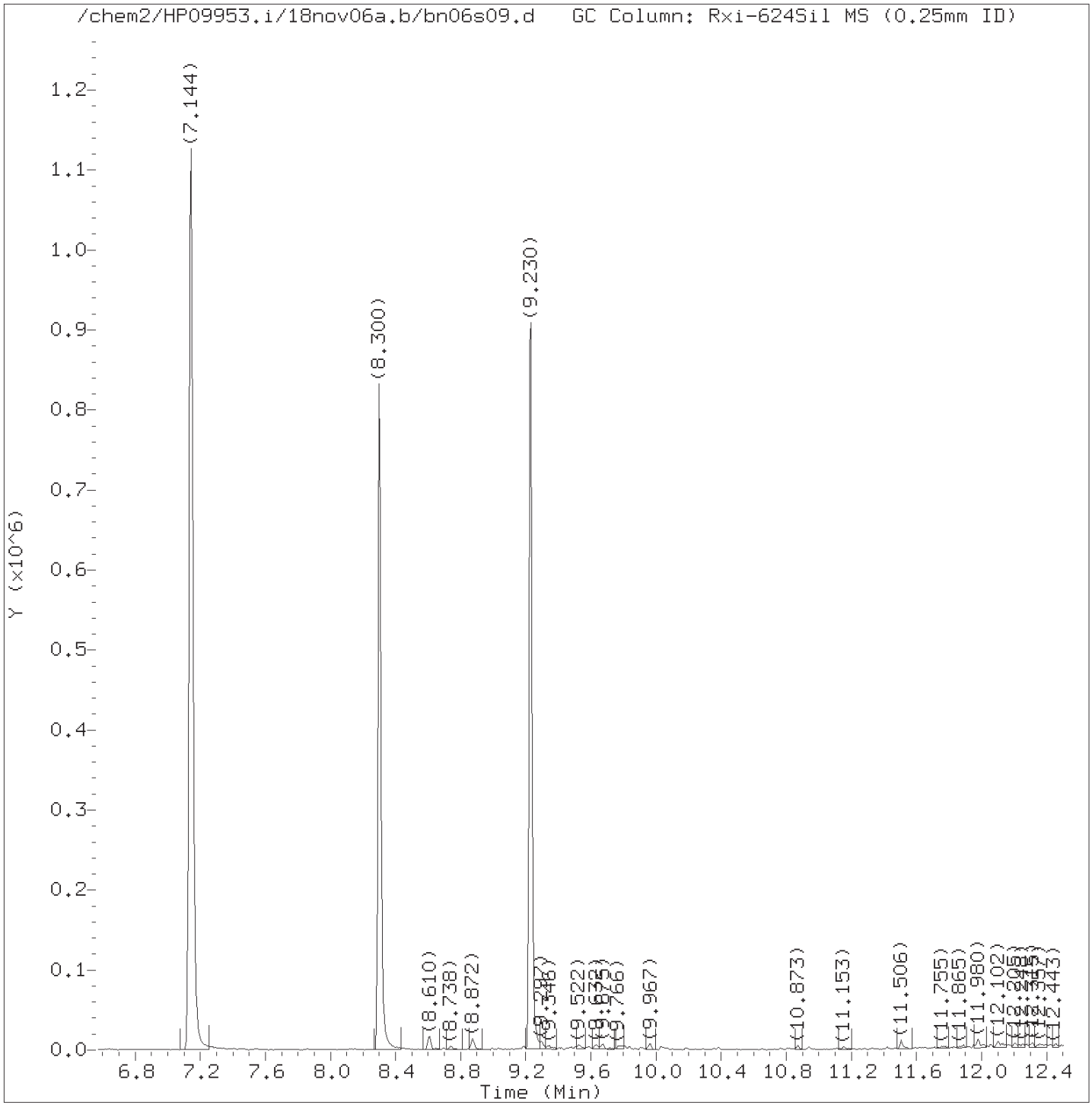
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s09.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 00:50 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s09.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 00:50 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s09.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 00:50 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Sample Name: 12T07 Lab Sample ID: 9872065

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
20) Acetone	(1)	1.644	58	74692	209.474
30)*t-Butyl alcohol-d10	(1)	1.936	65	82209	250.000
44) 2-Butanone	(1)	2.897	43	101055	47.813
56)$Dibromofluoromethane	(2)	3.317	113	324794	51.931
63)$1,2-Dichloroethane-d4	(2)	3.621	102	70418	52.310
70)*Fluorobenzene	(2)	3.944	96	1254924	50.000
91)$Toluene-d8	(3)	5.568	98	1123357	61.126
105)*Chlorobenzene-d5	(3)	7.144	117	712048	50.000
119)$4-Bromofluorobenzene	(3)	8.300	95	232376	34.710
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	208843	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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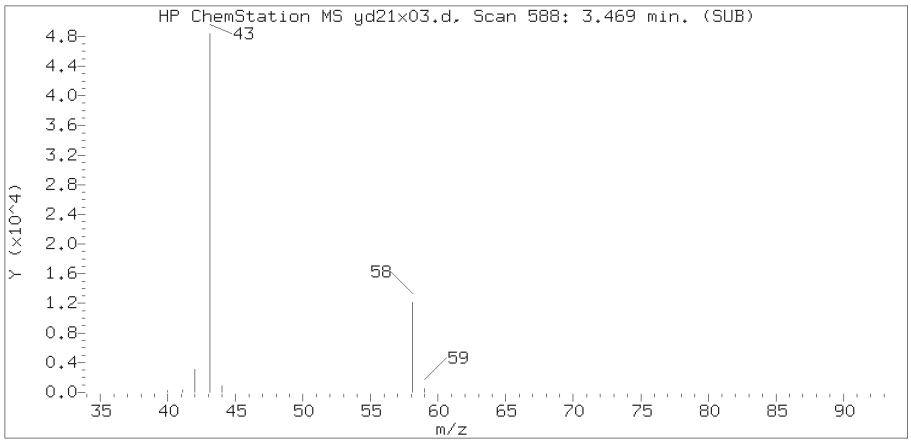
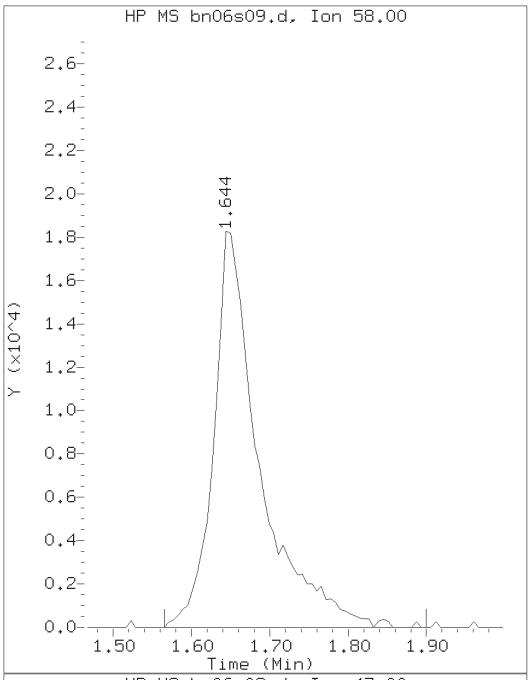
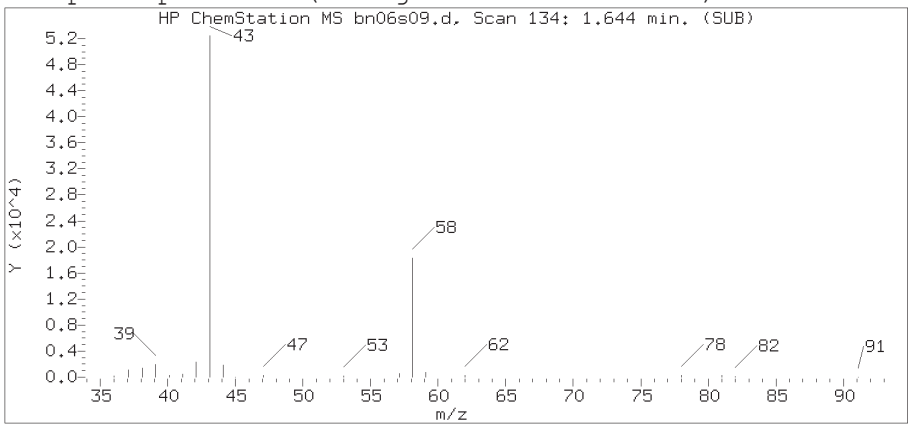
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

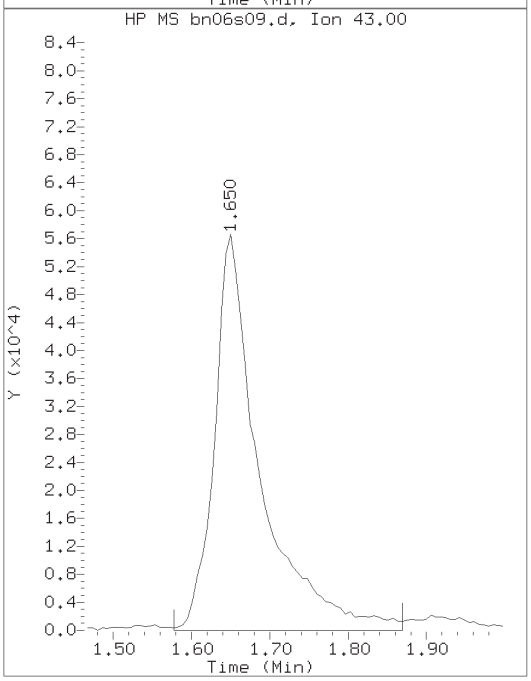
Reference Standard Spectrum for Acetone



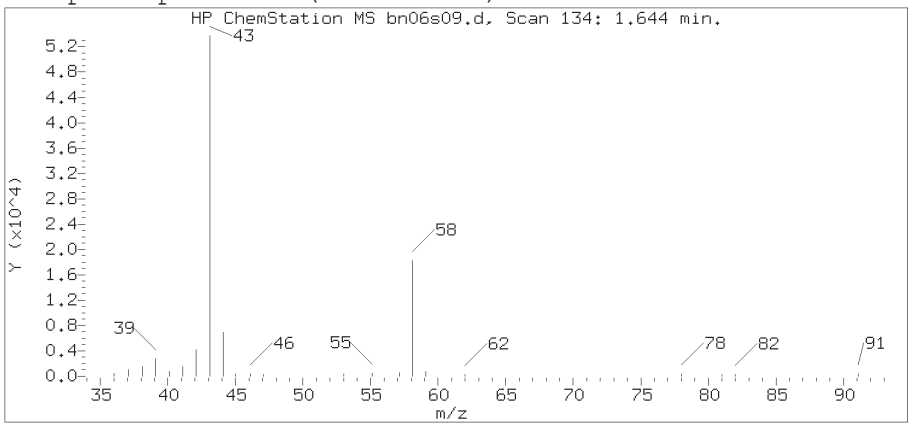


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09953.i/18nov06a.b/bn06s09.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 00:50 Analyst ID: PTH10165

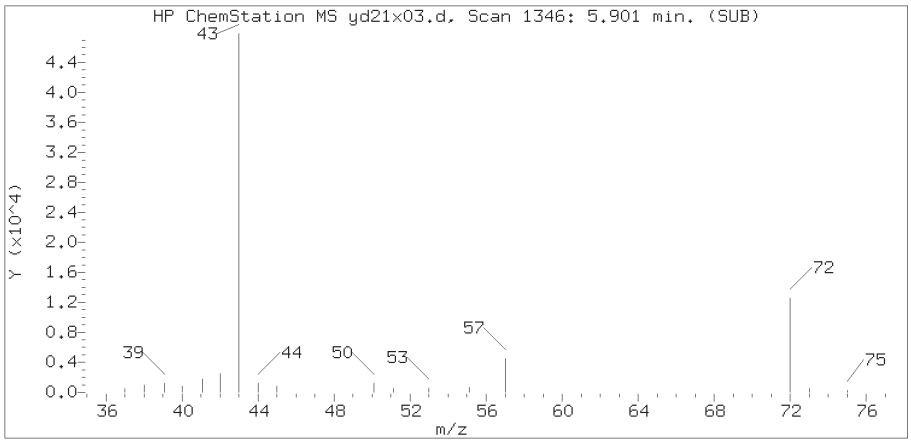
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

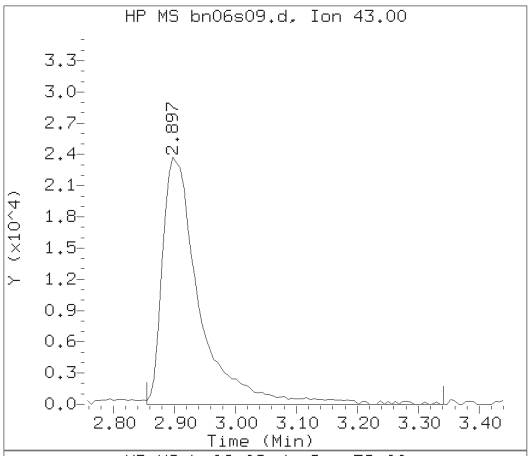
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number : 20
Compound Name : Acetone
Scan Number : 134
Retention Time (minutes): 1.644
Relative Retention Time : 0.00535
Quant Ion : 58.00
Area (flag) : 74692
On-Column Amount (ng) : 209.4743

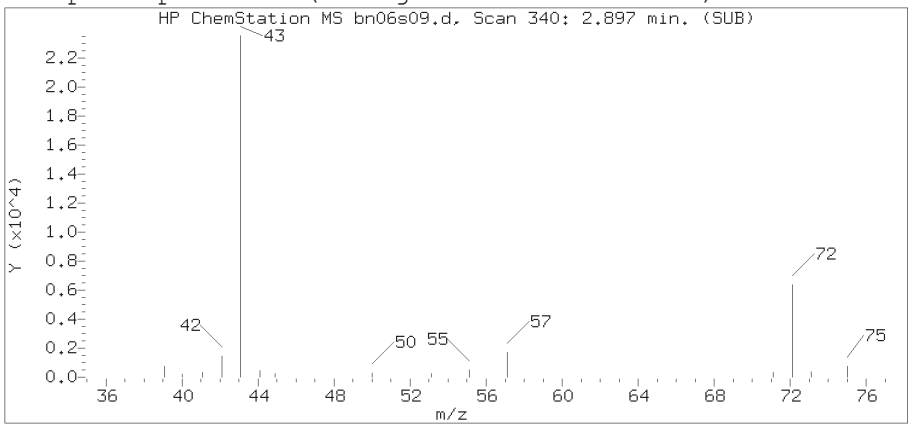
Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

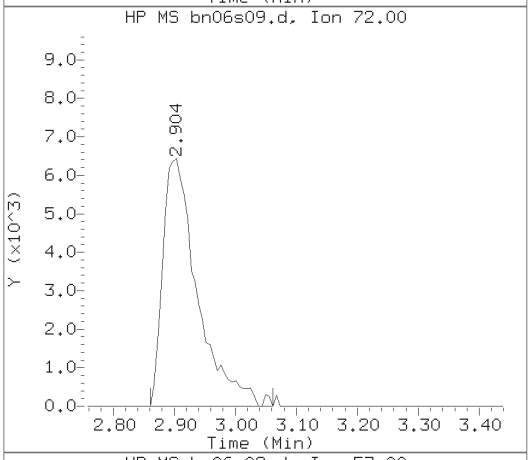
Reference Standard Spectrum for 2-Butanone



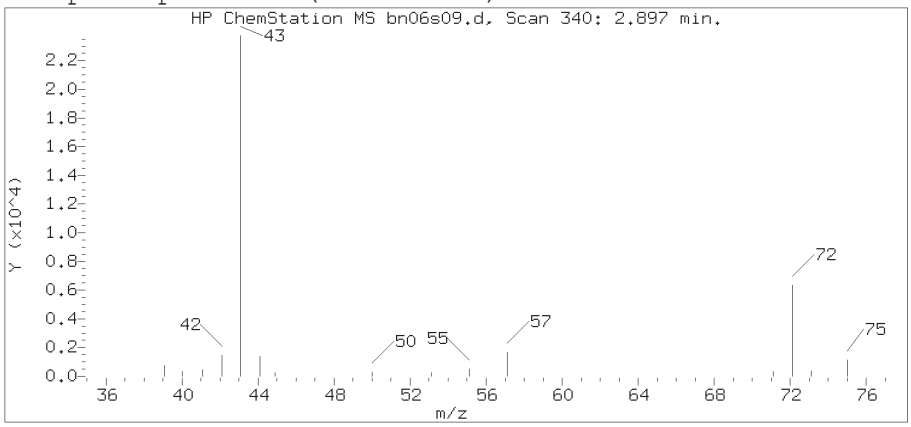


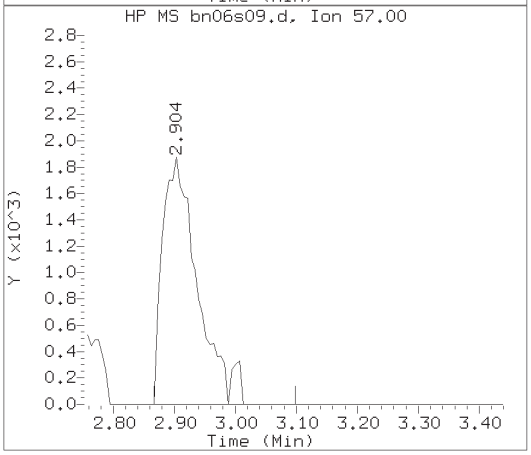
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09953.i/18nov06a.b/bn06s09.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 00:50 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 10:19 jkh09052

Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 340
Retention Time (minutes): 2.897
Relative Retention Time : 0.00637
Quant Ion : 43.00
Area (flag) : 101055
On-Column Amount (ng) : 47.8134

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Data file: /chem2/HP09953.i/18nov07a.b/bn07s34.d Injection date and time: **07-NOV-2018 11:58**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;;TID12;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: **050A** Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.09**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.59 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.918	(0.012)	179	65	14610	(-87)	250.00	*
70) Fluorobenzene	3.950	(0.000)	513	96	1068481	(-19)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	528647	(-50)	50.00	
140) 1,4-Dichlorobenzene-d4	9.230	(-0.006)	1381	152	111309	(-82)	50.00	*

*** = Internal Standard area outside QC limits**

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.311	(0.002)	113	278374	52.276	105%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.621	(0.000)	102	60075	52.414	105%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	912355	66.868	134%	*	85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	149886	30.155	60%	*	79 - 119

*** = Surrogate Standard % recovery outside QC limits.**

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)				Not Detected					0.7	5
4) Chloromethane	(2)				Not Detected					0.7	5
5) Vinyl Chloride	(2)				Not Detected					0.7	5
9) Bromomethane	(2)				Not Detected					0.8	5
10) Chloroethane	(2)				Not Detected					1	5
13) Trichlorofluoromethane	(2)				Not Detected					0.8	5
19) 1,1-Dichloroethene	(2)				Not Detected					0.5	5
20) Acetone	(1)	1.644	(-0.005)	58	157250	3282.309	3575.50		E	7	22
22) Freon 113	(2)				Not Detected					0.7	11
25) Carbon Disulfide	(2)				Not Detected					0.7	5
27) Methyl Acetate	(2)				Not Detected					1	5
31) Methylene Chloride	(2)				Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)				Not Detected					0.5	5
40) 1,1-Dichloroethane	(2)				Not Detected					0.5	5
44) 2-Butanone	(1)	2.891	(-0.009)	43	201567	536.636	584.57			1	11
45) cis-1,2-Dichloroethene	(2)				Not Detected					0.5	5
54) Chloroform	(2)				Not Detected					0.7	5
57) 1,1,1-Trichloroethane	(2)				Not Detected					0.7	5
58) Cyclohexane	(2)				Not Detected					0.5	5
61) Carbon Tetrachloride	(2)				Not Detected					0.5	5
64) Benzene	(2)				Not Detected					0.5	5
67) 1,2-Dichloroethane	(2)				Not Detected					0.7	5
75) Trichloroethene	(2)				Not Detected					0.5	5
76) Methylcyclohexane	(2)				Not Detected					0.7	5
77) 1,2-Dichloropropane	(2)				Not Detected					0.5	5
84) Bromodichloromethane	(2)				Not Detected					0.4	5
89) cis-1,3-Dichloropropene	(2)				Not Detected					0.4	5

E = Compound concentration above calibration range.

Digitally signed by Jennifer K. Howe on 11/07/2018 at 14:50. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07s34.d Injection date and time: **07-NOV-2018 11:58**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;;TID12;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: **050A** Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.09**

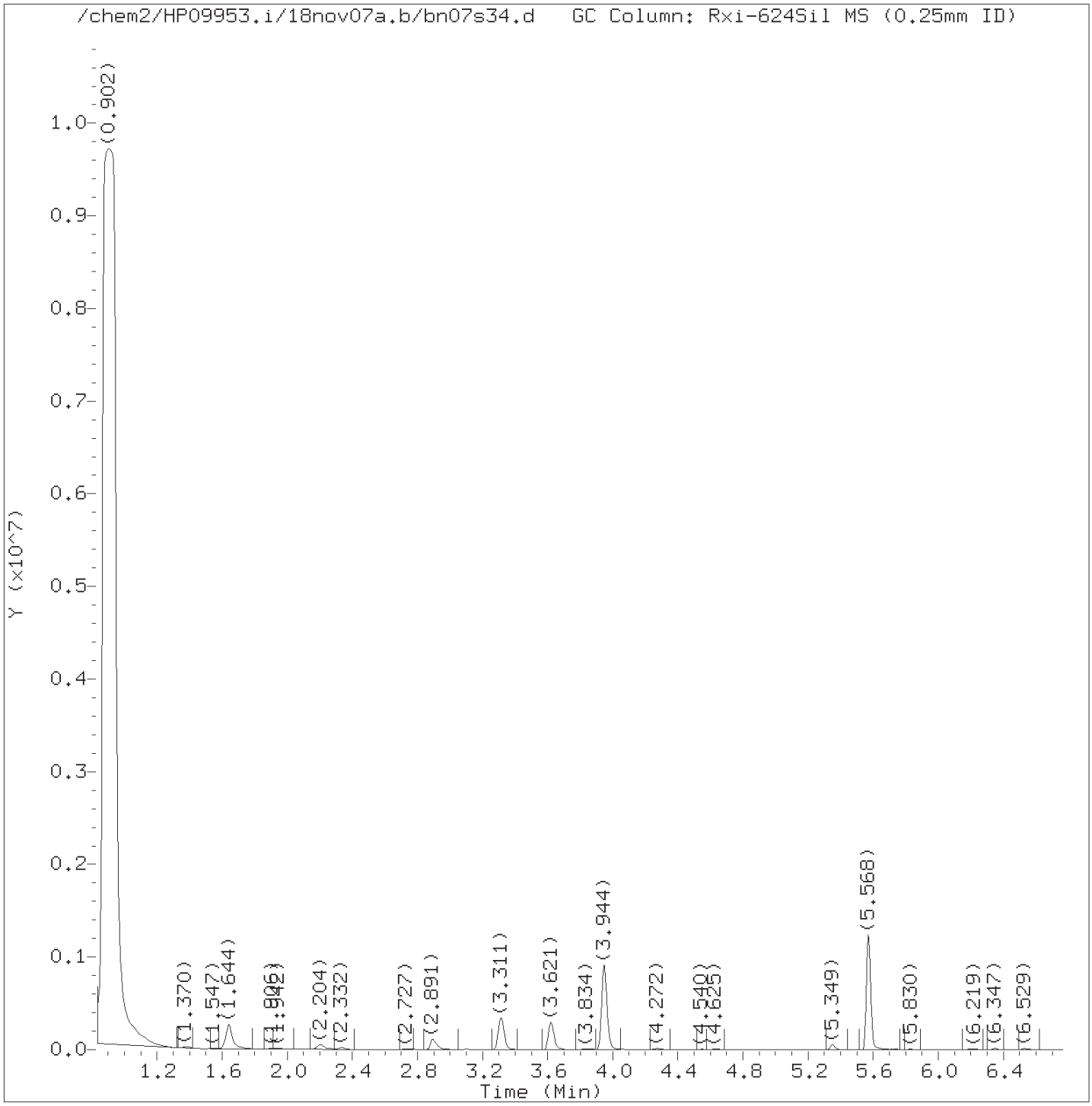
Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.59 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
90) 4-Methyl-2-pentanone	(2)			Not Detected					1	11
92) Toluene	(3)			Not Detected					0.7	5
93) trans-1,3-Dichloropropene	(3)			Not Detected					0.3	5
96) 1,1,2-Trichloroethane	(3)			Not Detected					0.5	5
98) Tetrachloroethene	(3)			Not Detected					0.5	5
101) 2-Hexanone	(3)			Not Detected					1	11
103) Dibromochloromethane	(3)			Not Detected					0.4	5
104) 1,2-Dibromoethane	(3)			Not Detected					0.4	5
107) Chlorobenzene	(3)			Not Detected					0.5	5
109) Ethylbenzene	(3)			Not Detected					0.4	5
110) m+p-Xylene	(3)			Not Detected					1	5
111) o-Xylene	(3)			Not Detected					0.4	5
112) Xylene (Total)	(3)			Not Detected					1	5
113) Styrene	(3)			Not Detected					0.3	5
114) Bromoform	(3)			Not Detected					5	11
115) Isopropylbenzene	(3)			Not Detected					0.4	5
118) Cyclohexanone	(1)			Not Detected					27	270
120) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					0.4	5
138) 1,3-Dichlorobenzene	(4)			Not Detected					0.5	5
141) 1,4-Dichlorobenzene	(4)	9.249(0.000)	146	1637	0.410	0.45		J	0.4	5
147) 1,2-Dichlorobenzene	(4)			Not Detected					0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					0.4	5
153) 1,2,4-Trichlorobenzene	(4)			Not Detected					5	11

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 14:50. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:18. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

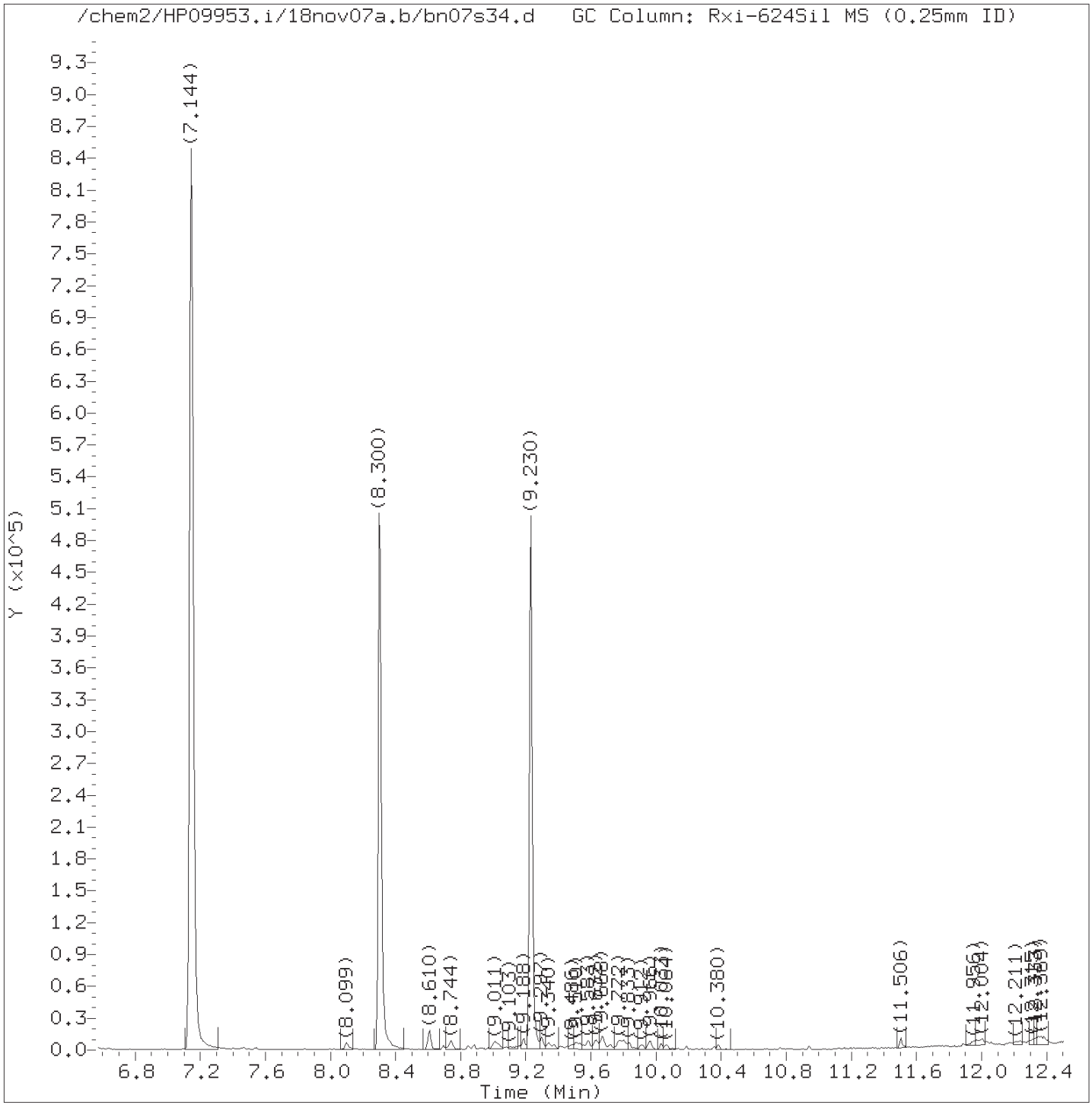
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 14:50.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 14:50.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

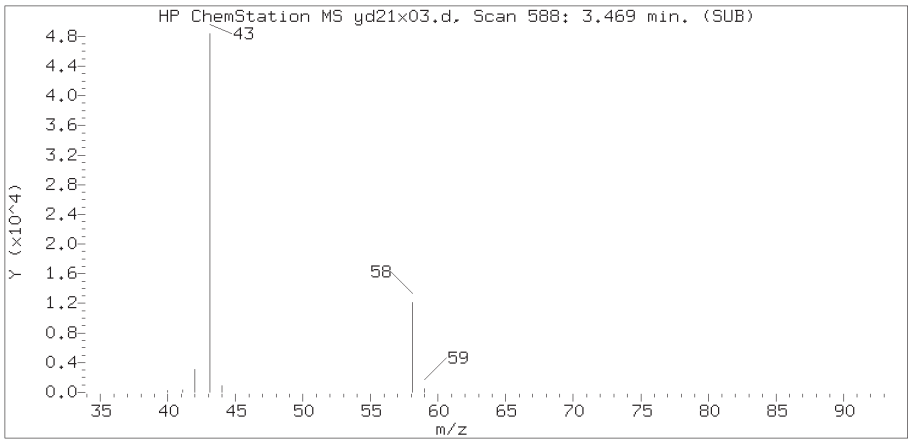
Sample Name: 12T07RE Lab Sample ID: 9872065RE

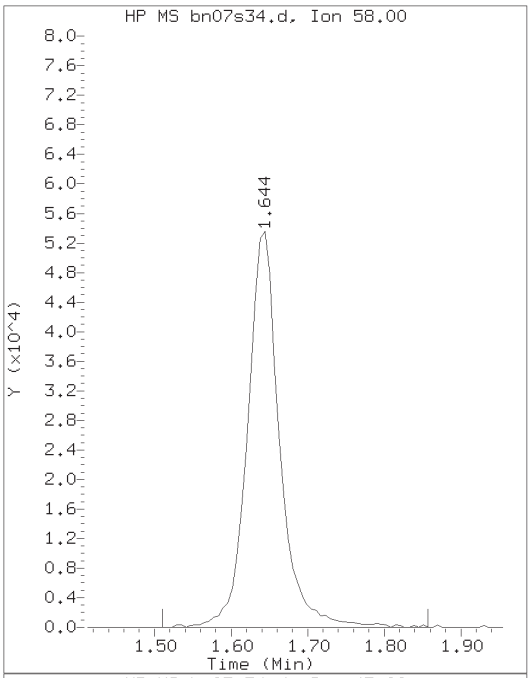
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
20) Acetone	(1)	1.644	58	157250	3282.309
30)*t-Butyl alcohol-d10	(1)	1.918	65	14610	250.000
44) 2-Butanone	(1)	2.891	43	201567	536.636
56)$Dibromofluoromethane	(2)	3.311	113	278374	52.276
63)$1,2-Dichloroethane-d4	(2)	3.621	102	60075	52.414
70)*Fluorobenzene	(2)	3.950	96	1068481	50.000
91)$Toluene-d8	(3)	5.568	98	912355	66.868
105)*Chlorobenzene-d5	(3)	7.144	117	528647	50.000
119)$4-Bromofluorobenzene	(3)	8.300	95	149886	30.155
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	111309	50.000
141) 1,4-Dichlorobenzene	(4)	9.249	146	1637	0.410

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

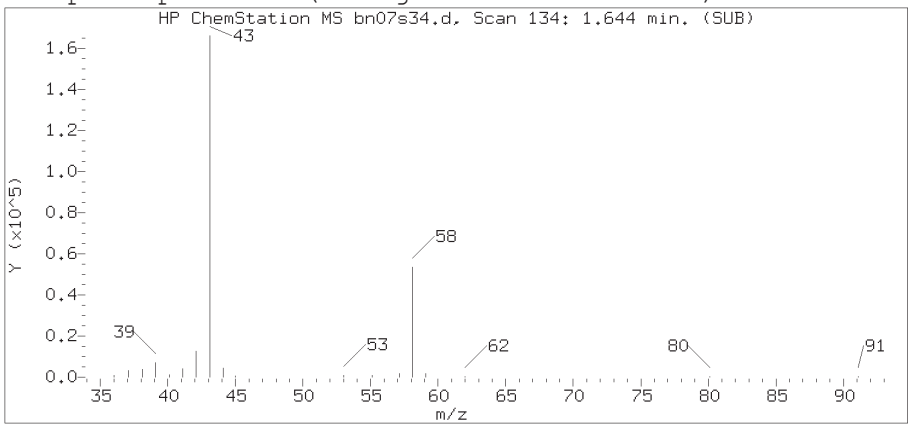
Digitally signed by Jennifer K. Howe
on 11/07/2018 at 14:50.
Target 3.5 esignature user ID: jkh09052

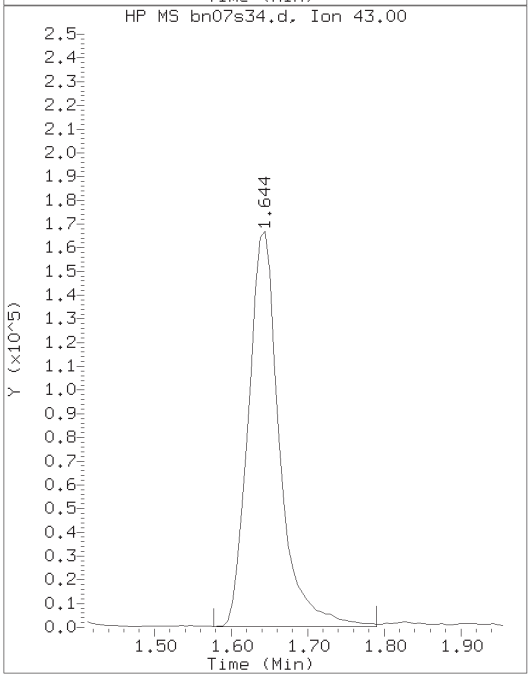
Reference Standard Spectrum for Acetone



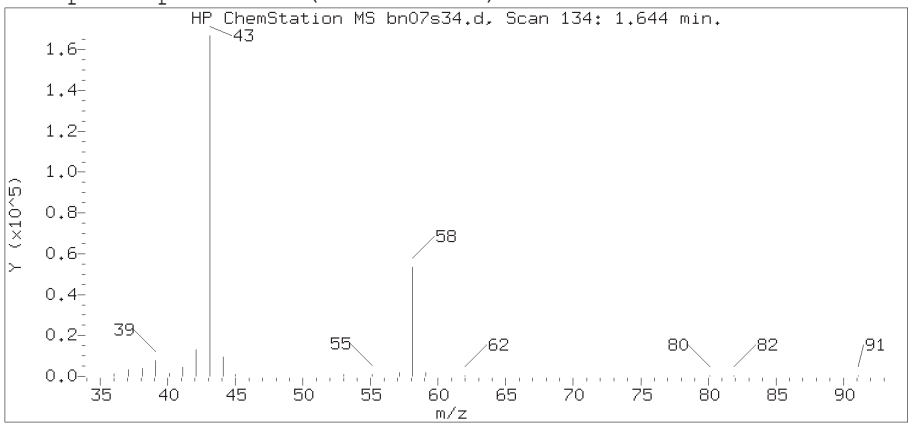


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number : 20
Compound Name : Acetone
Scan Number : 134
Retention Time (minutes): 1.644
Relative Retention Time :-0.00540
Quant Ion : 58.00
Area (flag) : 157250
On-Column Amount (ng) : 3282.3086

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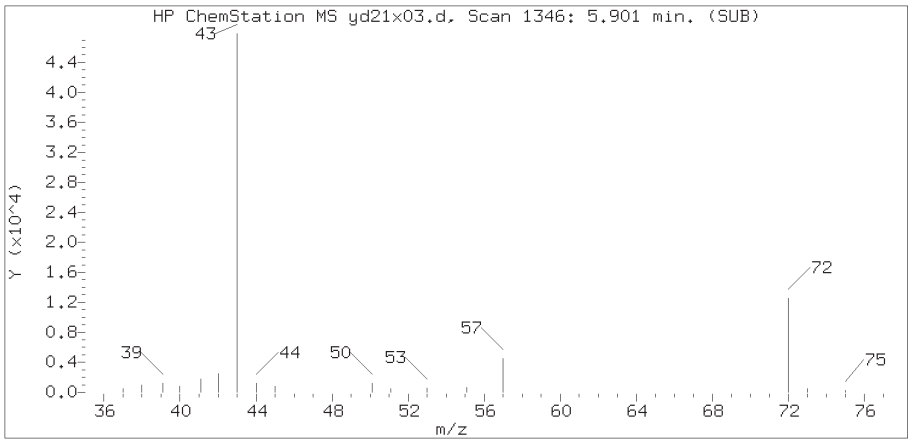
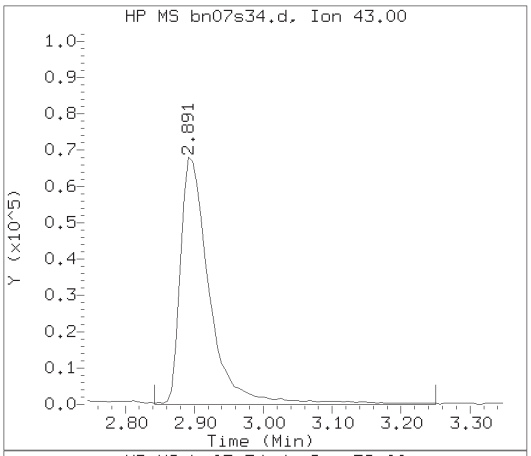
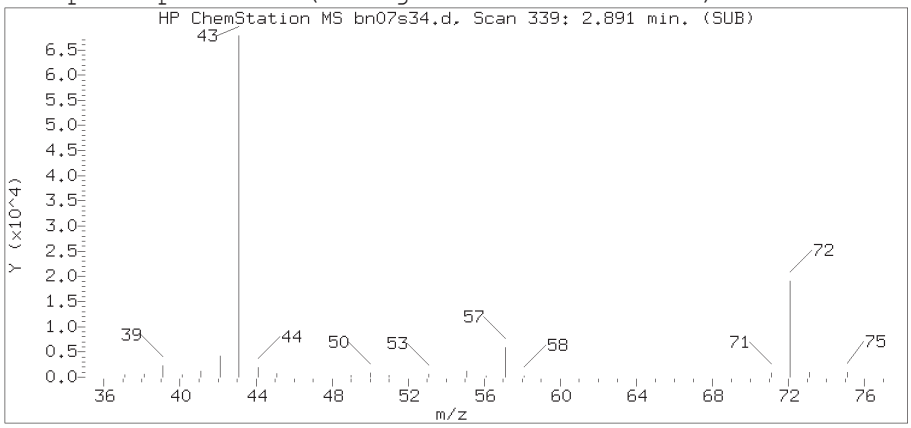
Target 3.5 esignature user ID: jkh09052

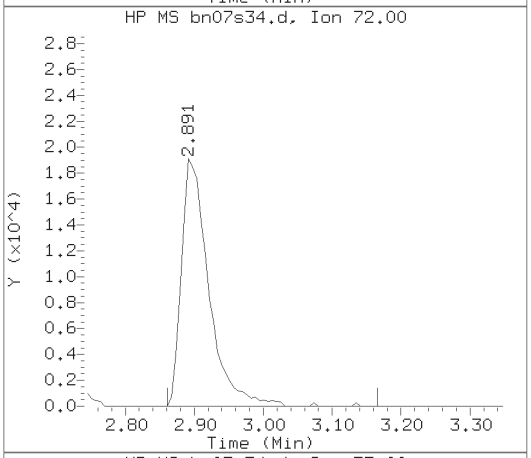
Reference Standard Spectrum for 2-Butanone



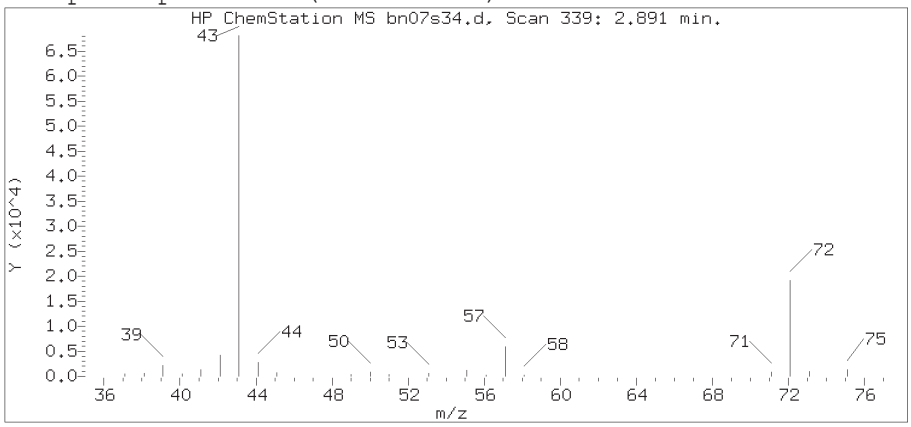


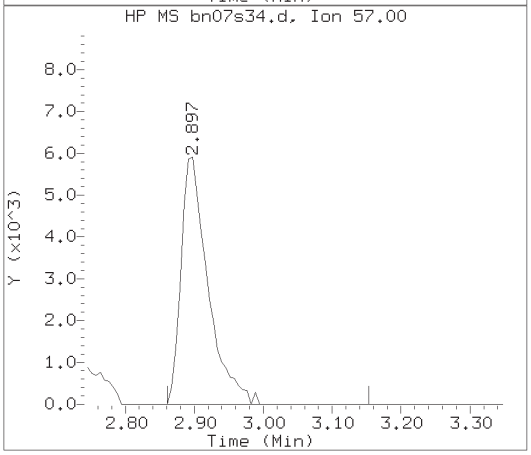
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

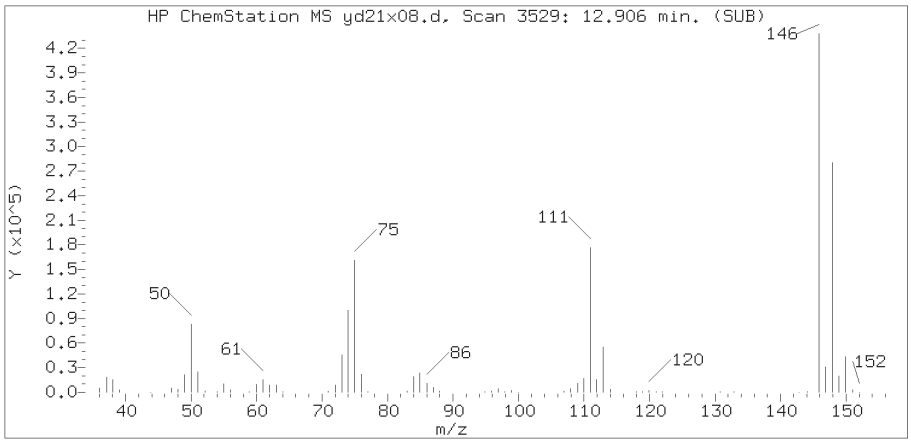
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

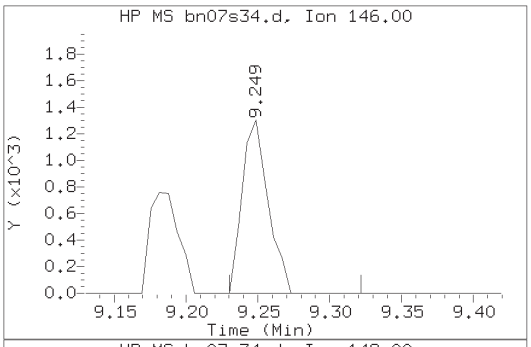
Sample Name: 12T07RE Lab Sample ID: 9872065RE

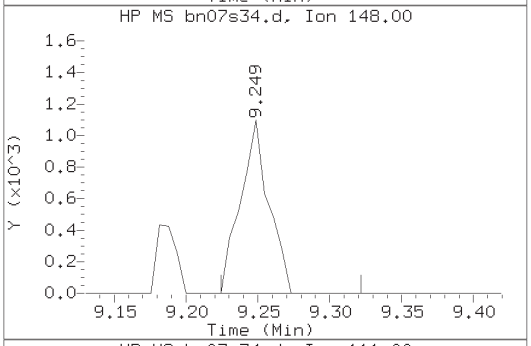
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 339
Retention Time (minutes): 2.891
Relative Retention Time :-0.00952
Quant Ion : 43.00
Area (flag) : 201567
On-Column Amount (ng) : 536.6362

Digitally signed by Jennifer K. Howe on 11/07/2018 at 14:50.
Target 3.5 esignature user ID: jkh09052

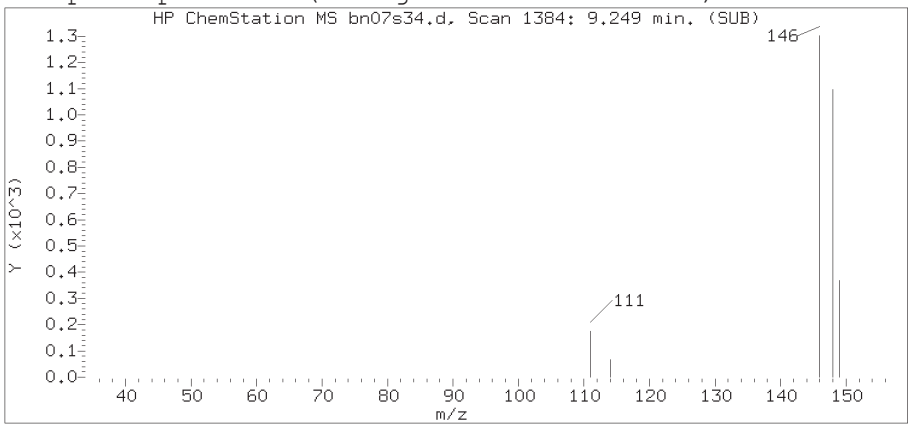
Reference Standard Spectrum for 1,4-Dichlorobenzene

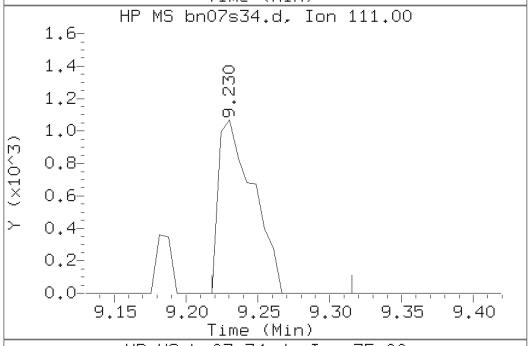




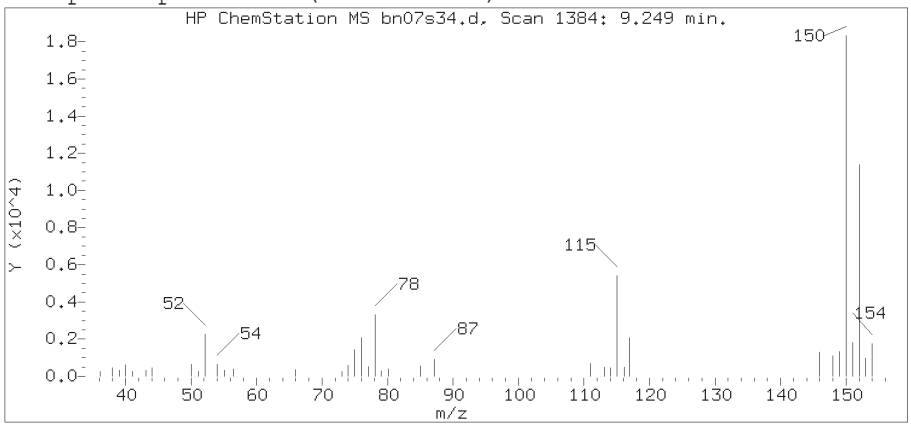


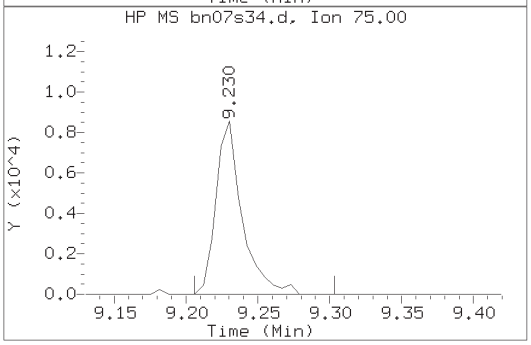
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09953.i/18nov07a.b/bn07s34.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 11:58 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 14:45 jkh09052

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number : 141
Compound Name : 1,4-Dichlorobenzene
Scan Number : 1384
Retention Time (minutes): 9.249
Relative Retention Time : 0.00000
Quant Ion : 146.00
Area (flag) : 1637
On-Column Amount (ng) : 0.4102

Digitally signed by Jennifer K. Howe on 11/07/2018 at 14:50.
Target 3.5 esignature user ID: jkh09052

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09953 **HP #24**

Data Directory Path is - C:\MSDCHEM\1\DATA\18sep12i\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
scn10072	BS12T10.D	50NGBFB	09/12/2018	11:40		
scn10072	BS12X10.D	CLNBLK	09/12/2018	12:04		
scn10072	BS12X11.D	CLNBLK	09/12/2018	12:27		
scn10072	BS12X12.D	CLNBLK	09/12/2018	12:50		
scn10072	BS12I10.D	VSTD300	09/12/2018	13:13		
scn10072	BS12I11.D	VSTD100	09/12/2018	13:36		
scn10072	BS12I13.D	VSTD050	09/12/2018	13:59		
scn10072	BS12I14.D	VSTD020	09/12/2018	14:22		
scn10072	BS12I15.D	VSTD010	09/12/2018	14:45		
scn10072	BS12I16.D	VSTD004	09/12/2018	15:08		
scn10072	BS12I17.D	VSTD001	09/12/2018	15:30		
scn10072	BS12M10.D	MDL0.5	09/12/2018	15:53		
scn10072	BS12V10.D	ICVB01	09/12/2018	16:16		
scn10072	BS12X13.D	CLNBLK	09/12/2018	16:38		
scn10072	BS12I20.D	VSTD300	09/12/2018	17:01		
scn10072	BS12I21.D	VSTD100	09/12/2018	17:24		
scn10072	BS12I22.D	VSTD050	09/12/2018	17:47		
scn10072	BS12I23.D	VSTD020	09/12/2018	18:10		
scn10072	BS12I24.D	VSTD010	09/12/2018	18:33		
scn10072	BS12I25.D	VSTD004	09/12/2018	18:55		
scn10072	BS12M20.D	MDL1.0	09/12/2018	19:18		
scn10072	BS12V20.D	ICVB11	09/12/2018	19:41		

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07536 **HP #14**

Data Directory Path is - d:\data\18oct17z\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
SCN10072	QC17T10.D	50NGBFB	10/17/2018	11:12		
SCN10072	QC17X10.D	CBLK	10/17/2018	11:56		
SCN10072	QC17X11.D	CBLK	10/17/2018	12:19		
SCN10072	QC17X12.D	CBLK	10/17/2018	12:42		
SCN10072	QC17X13.D	CBLK	10/17/2018	13:05		
SCN10072	QC17M20.D	MDLC0.5	10/17/2018	13:28		
SCN10072	QC17I51.D	VSTD001	10/17/2018	13:51		
SCN10072	QC17I52.D	VSTD004	10/17/2018	14:15		
SCN10072	QC17I53.D	VSTD010	10/17/2018	14:38		
SCN10072	QC17I54.D	VSTD020	10/17/2018	15:01		
SCN10072	QC17I55.D	VSTD050	10/17/2018	15:24		
SCN10072	QC17I56.D	VSTD100	10/17/2018	15:47		
SCN10072	QC17I57.D	VSTD300	10/17/2018	16:10		
SCN10072	QC17X15.D	CBLK	10/17/2018	16:32		
SCN10072	QC17X16.D	CBLK	10/17/2018	16:55		
SCN10072	QC17V10.D	QICVB	10/17/2018	17:18		
SCN10072	QC17X17.D	CBLK	10/17/2018	17:41		
SCN10072	QC17I30.D	VSTD004	10/17/2018	18:03		
SCN10072	QC17I31.D	VSTD010	10/17/2018	18:26		
SCN10072	QC17I32.D	VSTD020	10/17/2018	18:49		
SCN10072	QC17I33.D	VSTD050	10/17/2018	19:12		
SCN10072	QC17I34.D	VSTD100	10/17/2018	19:35		
SCN10072	QC17I35.D	VSTD300	10/17/2018	19:59		
SCN10072	QC17X18.D	CBLK	10/17/2018	20:22		
SCN10072	QC17M30.D	MDLBSM	10/17/2018	20:44		
SCN10072	QC17V30.D	ICVBSM	10/17/2018	21:07		

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Volatiles
Runlog for Hewlett Packard GC/MS System HP07536 **HP #14**

Data Directory Path is - D:\DATA\18oct23a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
scn10072	QC23T10.D	50NGBFB	10/23/2018	07:28	Q182961AA	
scn10072	QC23X10.D	VBLKQ27	10/23/2018	07:51	Q182961AA	
scn10072	QC23C10.D	VSTD050	10/23/2018	08:14	Q182961AA	
scn10072	QC23X11.D	VBLKQ27	10/23/2018	08:37	Q182961AA	
scn10072	QC23V52.D	QICVC2	10/23/2018	09:01	Q182961AA	
scn10072	QC23L10.D	LCSQ27	10/23/2018	09:27	Q182961AA	
scn10072	QC23L11.D	LCDQ27	10/23/2018	10:00	Q182961AA	
scn10072	QC23M10.D	MDLQ27	10/23/2018	11:35	Q182961AA	
scn10072	QC23X12.D	VBLKQ28	10/23/2018	11:58	Q182962AA	
scn10072	QC23B10.D	VBLKQ27	10/23/2018	12:21	Q182961AA	
scn10072	QC23S11.D	9856151	10/23/2018	13:28	Q182961AA	50
scn10072	QC23S12.D	9856152	10/23/2018	13:51	Q182961AA	50
scn10072	QC23S13.D	9856153	10/23/2018	14:14	Q182961AA	50
scn10072	QC23S14.D	9856154	10/23/2018	14:37	Q182961AA	50
scn10072	QC23S15.D	9856155	10/23/2018	15:00	Q182961AA	50
scn10072	QC23S16.D	9856156	10/23/2018	15:23	Q182961AA	50
scn10072	QC23S17.D	9856157	10/23/2018	15:46	Q182961AA	50
scn10072	QC23S18.D	9856158	10/23/2018	16:10	Q182961AA	50
scn10072	QC23S19.D	9856159	10/23/2018	16:32	Q182961AA	50
scn10072	QC23X24.D	VBLKQ27	10/23/2018	16:55	Q182961AA	
scn10072	QC23X25.D	VBLKQ27	10/23/2018	17:17	Q182961AA	
scn10072	QC23S20.D	9856157DL	10/23/2018	17:48	Q182961AA	200

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - D:\DATA\18SEP24I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jkh09052	HS24T05.D	BFB AUG07-18	09/24/2018	17:53		
JKH09052	HS24X01.D	blk	09/24/2018	18:07		
JKH09052	HS24i01.D	VSTD025	09/24/2018	18:29		
JKH09052	HS24i02.D	VSTD010	09/24/2018	18:50		
JKH09052	HS24i03.D	VSTD005	09/24/2018	19:11		
JKH09052	HS24i04.D	VSTD002	09/24/2018	19:33		
JKH09052	HS24i05.D	VSTD001	09/24/2018	19:54		
JKH09052	HS24i06.D	VSTD0.5	09/24/2018	20:16		
JKH09052	HS24i07.D	VSTD0.2	09/24/2018	20:37		
JKH09052	HS24M01.D	MDL0.1	09/24/2018	20:59		
JKH09052	HS24V01.D	ICVHLG	09/24/2018	21:20		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - D:\DATA\18MAY02B\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
DVV10203	HY02T05.D	BFB FEB13-18	05/02/2018	18:06		
DVV10203	HY02T06.D	BFB FEB13-18	05/02/2018	18:15		
DVV10203	HY02T07.D	BFB FEB13-18	05/02/2018	18:32		
DVV10203	HY02X11.D	blk	05/02/2018	18:54		
DVV10203	HY02I11.D	VSTD025	05/02/2018	19:15		
DVV10203	HY02I12.D	VSTD010	05/02/2018	19:36		
DVV10203	HY02I13.D	VSTD005	05/02/2018	19:58		
DVV10203	HY02I14.D	VSTD002	05/02/2018	20:19		
DVV10203	HY02I15.D	VSTD001	05/02/2018	20:40		
DVV10203	HY02I16.D	VSTD0.5	05/02/2018	21:02		
DVV10203	HY02I17.D	VSTD0.2	05/02/2018	21:23		
DVV10203	HY02M11.D	MDL0.1	05/02/2018	21:45		
DVV10203	HY02V11.D	ICVHSM	05/02/2018	22:07		
DVV10203	HY02V12.D	ICVDHSM	05/02/2018	22:28		
DVV10203	HY02C01.D	VSTD010	05/02/2018	22:49	H181221AA	
DVV10203	HY02S01.D	LCSH87	05/02/2018	23:11	H181221AA	
DVV10203	HY02S02.D	LCDH87	05/02/2018	23:32	H181221AA	
DVV10203	HY02X60.D	BLK	05/02/2018	23:53	H181221AA	
DVV10203	HY02B01.D	VBLKH87	05/03/2018	00:15	H181221AA	
DVV10203	HY02S05.D	9571212DL	05/03/2018	00:36	H181221AA	10
DVV10203	HY02S06.D	9573419	05/03/2018	00:58	H181221AA	
DVV10203	HY02S07.D	9583593	05/03/2018	01:20	H181221AA	
DVV10203	HY02S08.D	9583706	05/03/2018	01:41	H181221AA	
DVV10203	HY02S09.D	9583587	05/03/2018	02:03	H181221AA	
DVV10203	HY02S10.D	9583594	05/03/2018	02:24	H181221AA	
DVV10203	HY02S11.D	9583707	05/03/2018	02:46	H181221AA	
DVV10203	HY02S12.D	9583590	05/03/2018	03:07	H181221AA	
DVV10203	HY02S13.D	9583592	05/03/2018	03:28	H181221AA	
DVV10203	HY02S14.D	9583708	05/03/2018	03:50	H181221AA	
DVV10203	HY02S15.D	9583709	05/03/2018	04:11	H181221AA	
DVV10203	HY02S16.D	9583710	05/03/2018	04:33	H181221AA	
DVV10203	HY02S17.D	9583713	05/03/2018	04:55	H181221AA	
DVV10203	HY02S18.D	9583711	05/03/2018	05:16	H181221AA	10
DVV10203	HY02S19.D	9583711DL	05/03/2018	05:38	H181221AA	100
DVV10203	HY02S20.D	9583712	05/03/2018	05:59	H181221AA	1000
DVV10203	HY02S21.D	9583712DL	05/03/2018	06:21	H181221AA	10000

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09953 **HP #24**

Data Directory Path is - c:\msdchem\1\data\18nov06A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
PTH10165	BN06T01.D	NG50 BFB	11/06/2018	19:12		
PTH10165	BN06X05.D	VBLKB93	11/06/2018	19:28	B183101AA	
PTH10165	BN06C01.D	VSTD050	11/06/2018	19:51	B183101AA	
PTH10165	BN06M01.D	MDL050	11/06/2018	20:16	B183101AA	
PTH10165	BN06B01.D	VBLKB93	11/06/2018	20:41	B183101AA	
PTH10165	BN06S01.D	LCSB93	11/06/2018	21:07	B183101AA	
PTH10165	BN06S02.D	LCDB93	11/06/2018	21:29	B183101AA	
PTH10165	BN06S03.D	9867761RE	11/06/2018	22:32	B183101AA	
PTH10165	BN06S04.D	9867766RE	11/06/2018	22:55	B183101AA	
PTH10165	BN06S05.D	9867767	11/06/2018	23:18	B183101AA	
PTH10165	BN06S06.D	9870251	11/06/2018	23:41	B183101AA	
PTH10165	BN06S07.D	9870252	11/07/2018	00:04	B183101AA	
PTH10165	BN06S08.D	9870253	11/07/2018	00:27	B183101AA	
PTH10165	BN06S09.D	9872065	11/07/2018	00:50	B183101AA	
PTH10165	BN06EC5.D	SECC050	11/07/2018	01:16	B183101AA	
PTH10165	BN06X18.D	CLNBLANK	11/07/2018	01:38	B183101AA	
PTH10165	BN06S33.D	9867824RE	11/07/2018	02:01	B183102AA	
PTH10165	BN06S34.D	9878580	11/07/2018	02:24	B183102AA	
PTH10165	BN06S35.D	9878581	11/07/2018	02:46	B183102AA	
PTH10165	BN06S36.D	9878584	11/07/2018	03:09	B183102AA	
PTH10165	BN06S37.D	9878585	11/07/2018	03:32	B183102AA	
PTH10165	BN06S38.D	9882246	11/07/2018	03:55	B183102AA	
PTH10165	BN06S39.D	9883608	11/07/2018	04:18	B183102AA	
PTH10165	BN06S40.D	9883609	11/07/2018	04:41	B183102AA	
PTH10165	BN06S41.D	9883610	11/07/2018	05:03	B183102AA	
PTH10165	BN06S42.D	9878583	11/07/2018	05:25	B183102AA	
PTH10165	BN06S43.D	9878582	11/07/2018	05:48	B183102AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09953 **HP #24**

Data Directory Path is - c:\msdchem\1\data\18nov07A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jkh09052	BN07T01.D	NG50 BFB	11/07/2018	07:35		
JKH09052	BN07X00.D	VBLKB95	11/07/2018	07:50	B183111AA	
JKH09052	BN07C01.D	VSTD050	11/07/2018	08:13	B183111AA	
JKH09052	BN07C02.D	VSTD050	11/07/2018	08:36	B183111AA	
JKH09052	BN07L01.D	LCSB95	11/07/2018	09:01	B183111AA	
JKH09052	BN07L02.D	LCDB95	11/07/2018	09:24	B183111AA	
JKH09052	BN07L03.D	LCSB96	11/07/2018	09:47	B183111AA	
JKH09052	BN07L04.D	LCDB96	11/07/2018	10:10	B183111AA	
JKH09052	BN07B01.D	VBLKB95	11/07/2018	10:32	B183111AA	
JKH09052	BN07S33.D	9867767RE	11/07/2018	11:35	B183112AA	
JKH09052	BN07S34.D	9872065RE	11/07/2018	11:58	B183112AA	
JKH09052	BN07S35.D	9870252RE	11/07/2018	12:21	B183112AA	
JKH09052	BN07S36.D	9870253RE	11/07/2018	12:44	B183112AA	
JKH09052	BN07S37.D	9884806	11/07/2018	13:07	B183112AA	
JKH09052	BN07S38.D	9884807	11/07/2018	13:30	B183112AA	
JKH09052	BN07S39.D	9884808	11/07/2018	13:52	B183112AA	
JKH09052	BN07S40.D	9884809	11/07/2018	14:15	B183112AA	
JKH09052	BN07S41.D	9884810MS	11/07/2018	14:38	B183112AA	
JKH09052	BN07S42.D	9884811MSD	11/07/2018	15:00	B183112AA	
JKH09052	BN07S43.D	9884813	11/07/2018	15:23	B183112AA	
JKH09052	BN07S44.D	9884814	11/07/2018	15:46	B183112AA	
JKH09052	BN07S45.D	9884815	11/07/2018	16:08	B183112AA	
JKH09052	BN07S02.D	9878918	11/07/2018	16:30	B183111AA	
JKH09052	BN07S03.D	9878916MS	11/07/2018	16:53	B183111AA	
JKH09052	BN07S04.D	9878917MSD	11/07/2018	17:16	B183111AA	
JKH09052	BN07S05.D	9878916MS	11/07/2018	17:38	B183111AA	
JKH09052	BN07S06.D	9878917MSD	11/07/2018	18:01	B183111AA	
JKH09052	BN07S07.D	9878915	11/07/2018	18:24	B183111AA	
JKH09052	BN07C03.D	SECC050	11/07/2018	18:47	B183112AA	
JKH09052	BN07S61.D	9876025	11/07/2018	19:10	B183111AA	
JKH09052	BN07S62.D	9876033	11/07/2018	19:32	B183111AA	

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07536 **HP #14**

Data Directory Path is - D:\DATA\18nov07a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
scn10072	QN07T10.D	50NGBFB	11/07/2018	07:29	Q183111AA	
scn10072	QN07X10.D	VBLKQ56	11/07/2018	07:55	Q183111AA	
scn10072	QN07C10.D	VSTD050	11/07/2018	08:19	Q183111AA	
scn10072	QN07L10.D	LCSQ56	11/07/2018	08:42	Q183111AA	
scn10072	QN07L11.D	LCDQ56	11/07/2018	09:05	Q183111AA	
scn10072	QN07M10.D	MDLQ56	11/07/2018	09:32	Q183111AA	
scn10072	QN07X11.D	VBLKQ56	11/07/2018	09:55	Q183111AA	
scn10072	QN07B10.D	VBLKQ56	11/07/2018	10:18	Q183111AA	
scn10072	QN07S11.D	9872140	11/07/2018	10:58	Q183111AA	50
scn10072	QN07S12.D	9872120	11/07/2018	11:21	Q183111AA	5000
scn10072	QN07S13.D	9872121	11/07/2018	11:43	Q183111AA	5000
scn10072	QN07S14.D	9872120DL	11/07/2018	12:06	Q183111AA	50000
scn10072	QN07S15.D	9872121DL	11/07/2018	12:29	Q183111AA	50000
scn10072	QN07S22.D	9872121	11/07/2018	12:51	Q183111AA	1000
scn10072	QN07X14.D	VBLKQ57	11/07/2018	13:14	Q183112AA	
scn10072	QN07S33.D	9874413	11/07/2018	13:37	Q183112AA	50
scn10072	QN07S34.D	9872060	11/07/2018	13:59	Q183112AA	50
scn10072	QN07S35.D	9872061	11/07/2018	14:22	Q183112AA	50
scn10072	QN07S36.D	9872062	11/07/2018	14:45	Q183112AA	50
scn10072	QN07S37.D	9872063	11/07/2018	15:07	Q183112AA	50
scn10072	QN07S38.D	9872064	11/07/2018	15:30	Q183112AA	50
scn10072	QN07S39.D	9874411	11/07/2018	15:52	Q183112AA	50
scn10072	QN07S40.D	9874412	11/07/2018	16:15	Q183112AA	50
scn10072	QN07S41.D	9870254	11/07/2018	16:38	Q183112AA	100
scn10072	QN07EC1.D	SECC050	11/07/2018	17:00	Q183112AA	
scn10072	QN07S16.D	9872012	11/07/2018	17:23	Q183111AA	200
scn10072	QN07S17.D	9872017	11/07/2018	17:46	Q183111AA	200
scn10072	QN07S18.D	9872020	11/07/2018	18:09	Q183111AA	200
scn10072	QN07S19.D	9872025	11/07/2018	18:31	Q183111AA	50
scn10072	QN07S20.D	9872027	11/07/2018	18:54	Q183111AA	100
scn10072	QN07S21.D	9872029	11/07/2018	19:17	Q183111AA	100

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07536 **HP #14**

Data Directory Path is - D:\DATA\18nov08a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
scn10072	QN08T10.D	50NGBFB	11/08/2018	08:09	Q183121AA	
scn10072	QN08X10.D	VBLKQ61	11/08/2018	08:35	Q183121AA	
scn10072	QN08C10.D	VSTD050	11/08/2018	08:58	Q183121AA	
scn10072	QN08L10.D	LCSQ61	11/08/2018	09:20	Q183121AA	
scn10072	QN08L11.D	LCDQ61	11/08/2018	09:43	Q183121AA	
scn10072	QN08X11.D	VBLKQ61	11/08/2018	10:05	Q183121AA	
scn10072	QN08X12.D	VBLKQ61	11/08/2018	10:28	Q183121AA	
scn10072	QN08B10.D	VBLKQ61	11/08/2018	10:51	Q183121AA	
scn10072	QN08S33.D	9872060RE	11/08/2018	11:26	Q183122AA	50
scn10072	QN08S34.D	9872061RE	11/08/2018	11:49	Q183122AA	50
scn10072	QN08S35.D	9872062RE	11/08/2018	12:11	Q183122AA	50
scn10072	QN08S41.D	9872062RE	11/08/2018	12:43	Q183122AA	50
scn10072	QN08S36.D	9872063RE	11/08/2018	13:27	Q183122AA	50
scn10072	QN08S37.D	9872064RE	11/08/2018	13:49	Q183122AA	50
scn10072	QN08S38.D	9874412RE	11/08/2018	14:12	Q183122AA	50
scn10072	QN08S39.D	9874413RE	11/08/2018	14:34	Q183122AA	50
scn10072	QN08S40.D	9870254RE	11/08/2018	14:57	Q183122AA	100
scn10072	QN08EC1.D	SECC050	11/08/2018	15:20	Q183122AA	
scn10072	QN08S11.D	9874129	11/08/2018	15:42	Q183121AA	50
scn10072	QN08S12.D	9874135	11/08/2018	16:05	Q183121AA	50
scn10072	QN08S13.D	9874143	11/08/2018	16:27	Q183121AA	50
scn10072	QN08S14.D	9878772	11/08/2018	16:50	Q183121AA	50
scn10072	QN08S15.D	9878773	11/08/2018	17:13	Q183121AA	50
scn10072	QN08S16.D	9878774	11/08/2018	17:35	Q183121AA	50
scn10072	QN08S17.D	9881683	11/08/2018	17:58	Q183121AA	50
scn10072	QN08S18.D	9874148	11/08/2018	18:21	Q183121AA	50
scn10072	QN08S19.D	9874060	11/08/2018	18:43	Q183121AA	100
scn10072	QN08S20.D	9874065	11/08/2018	19:06	Q183121AA	100
scn10072	QN08S21.D	9874070	11/08/2018	19:29	Q183121AA	200
scn10072	QN08S22.D	9874137	11/08/2018	19:52	Q183121AA	200

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP19094 **HP #30**

Data Directory Path is - d:\data\18nov05B\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
JGC14951	HN05T05.D	50NGBFB	11/05/2018	19:34	H183093AA	
JGC14951	HN05X01.D	VBLKH94	11/05/2018	19:57	H183093AA	
JGC14951	HN05C01.D	VSTD010	11/05/2018	20:18	H183093AA	
JGC14951	HN05C02.D	VSTD010	11/05/2018	20:39	H183093AA	
JGC14951	HN05S41.D	LCSH94	11/05/2018	21:00	H183093AA	
JGC14951	HN05S42.D	LCDH94	11/05/2018	21:22	H183093AA	
JGC14951	HN05S43.D	LCSH95	11/05/2018	21:43	H183093AA	
JGC14951	HN05S44.D	LCDH95	11/05/2018	22:05	H183093AA	
JGC14951	HN05M01.D	MDL94	11/05/2018	22:26	H183093AA	
JGC14951	HN05B05.D	VBLKH94	11/05/2018	22:48	H183093AA	
JGC14951	HN05S45.D	9868189	11/05/2018	23:09	H183093AA	
JGC14951	HN05S46.D	9868190	11/05/2018	23:31	H183093AA	
JGC14951	HN05S47.D	9868188	11/05/2018	23:52	H183093AA	
JGC14951	HN05S48.D	9868184	11/06/2018	00:14	H183093AA	
JGC14951	HN05S49.D	9868185	11/06/2018	00:35	H183093AA	
JGC14951	HN05S50.D	9868186	11/06/2018	00:56	H183093AA	
JGC14951	HN05S51.D	9868187	11/06/2018	01:18	H183093AA	
JGC14951	HN05S52.D	9868187MS	11/06/2018	01:39	H183093AA	
JGC14951	HN05S53.D	9868187MSD	11/06/2018	02:01	H183093AA	
JGC14951	HN05S75.D	9876332	11/06/2018	02:22	H183094AA	
JGC14951	HN05S76.D	9876334	11/06/2018	02:44	H183094AA	
JGC14951	HN05S77.D	9876335MS	11/06/2018	03:05	H183094AA	
JGC14951	HN05S78.D	9876336MSD	11/06/2018	03:26	H183094AA	
JGC14951	HN05S79.D	9876335MS	11/06/2018	03:48	H183094AA	
JGC14951	HN05S80.D	9876335MSD	11/06/2018	04:09	H183094AA	
JGC14951	HN05S81.D	9876342	11/06/2018	04:31	H183094AA	
JGC14951	HN05S82.D	9866460	11/06/2018	04:52	H183094AA	
JGC14951	HN05S83.D	9867760	11/06/2018	05:14	H183094AA	
JGC14951	HN05S84.D	9870250	11/06/2018	05:35	H183094AA	
JGC14951	HN05S85.D	9872059	11/06/2018	05:57	H183094AA	
JGC14951	HN05S86.D	9874410	11/06/2018	06:18	H183094AA	
JGC14951	HN05S87.D	9876331	11/06/2018	06:40	H183094AA	
JGC14951	HN05EC5.D	SECC010	11/06/2018	07:01	H183094AA	
JGC14951	HN05EC6.D	SECD010	11/06/2018	07:22	H183094AA	

Data File: /chem2/HP09953.i/18sep12i.b/bs12t10.d

Date : 12-SEP-2018 11:40

Client ID: AUG0718

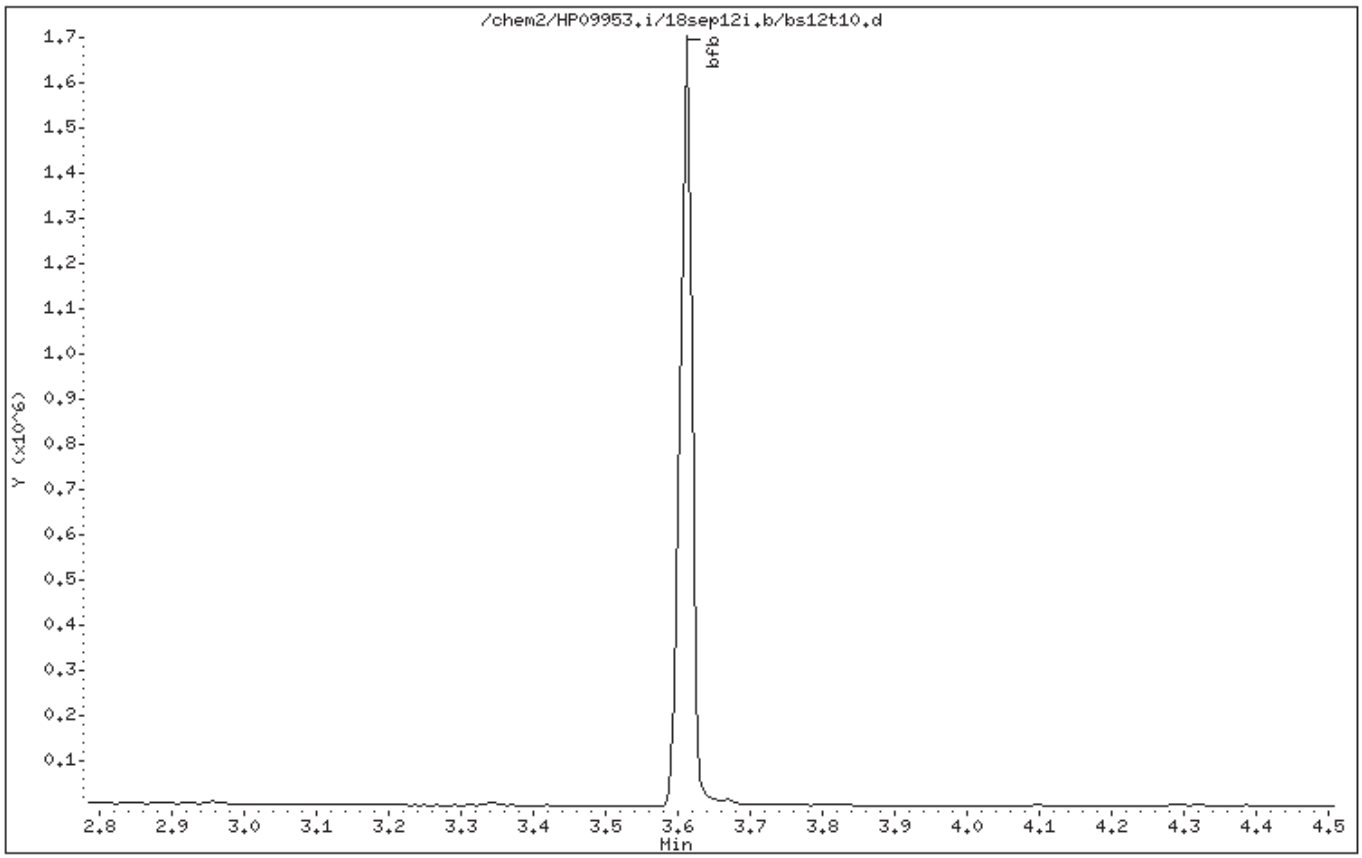
Instrument: HP09953.i

Sample Info: AUG0718;50NGBFB;2;3;;;;

Operator: scn10072

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Stephen C. Nolte on 09/12/2018 at 11:49.
Target 3.5 esignature user ID: scn10072

Data File: /chem2/HP09953.i/18sep12i.b/bs12t10.d

Date : 12-SEP-2018 11:40

Client ID: AUG0718

Instrument: HP09953.i

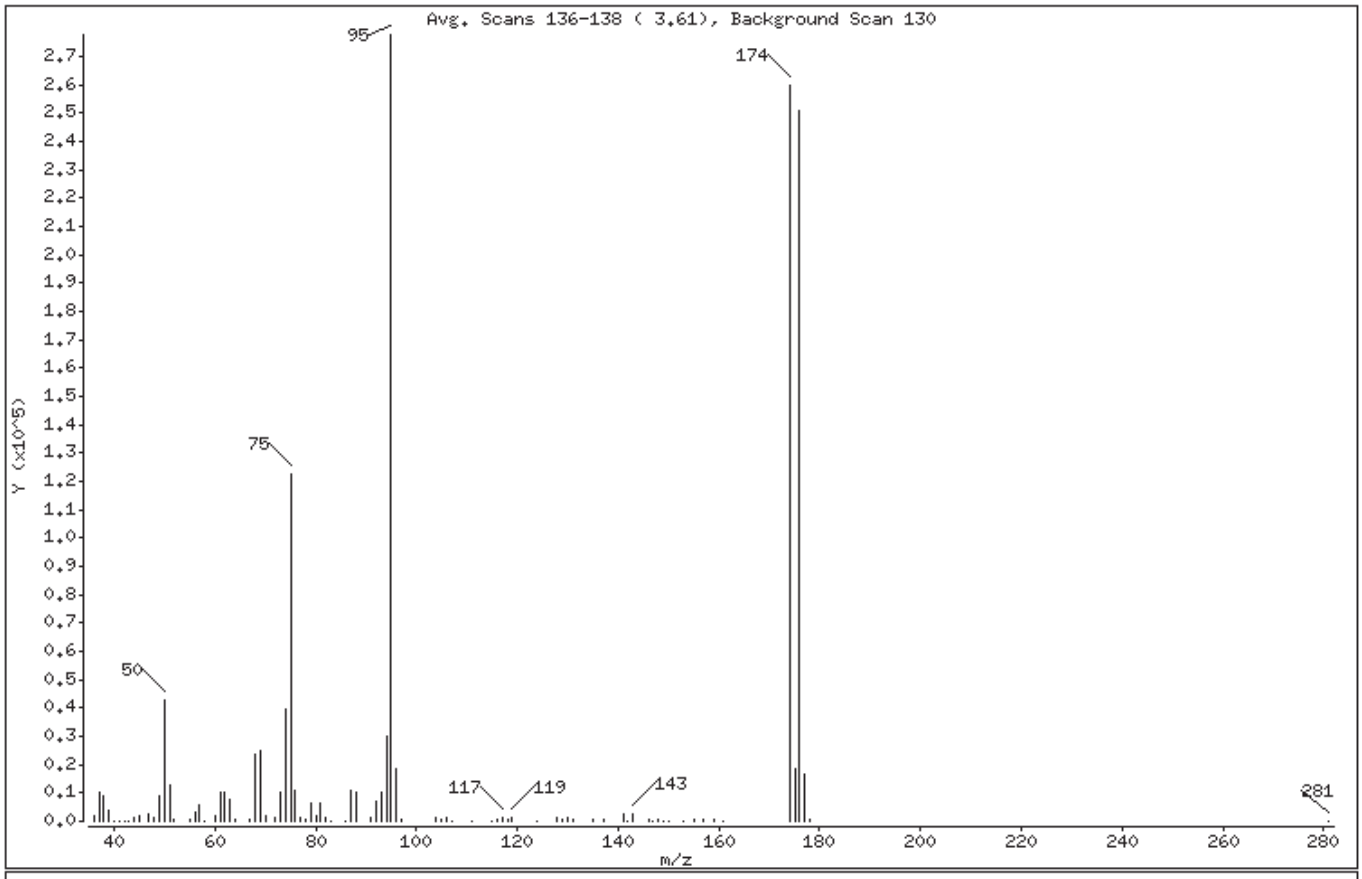
Sample Info: AUG0718;50NGBFB;2;3;;;;

Operator: scn10072

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.29
75	30.00 - 60.00% of mass 95	44.06
96	5.00 - 9.00% of mass 95	6.68
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	93.54
175	5.00 - 9.00% of mass 174	6.64 (7.10)
176	95.00 - 101.00% of mass 174	90.38 (96.62)
177	5.00 - 9.00% of mass 176	5.91 (6.54)

Digitally signed by Stephen C. Nolte on 09/12/2018 at 11:49.
Target 3.5 esignature user ID: scn10072

Date : 12-SEP-2018 11:40

Client ID: AUG0718 Instrument: HP09953.i

Sample Info: AUG0718;50NGBFB;2;3;;;;

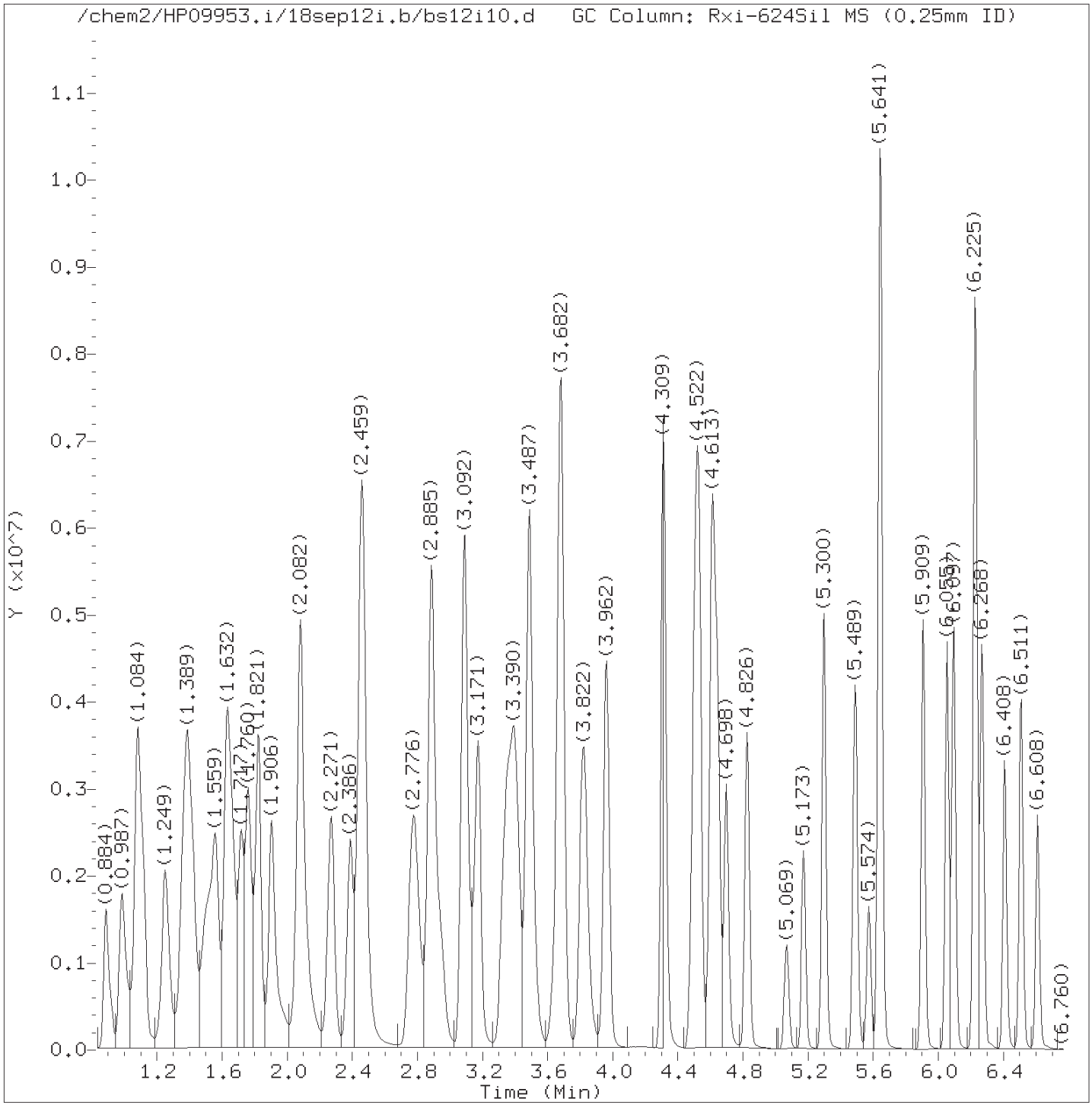
Operator: scn10072

Column phase: DB-624 Column diameter: 0.18

Data File: bs12t10.d
Spectrum: Avg. Scans 136-138 (3.61), Background Scan 130
Location of Maximum: 95.00
Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2020	62.00	10237	91.00	986	135.00	427
37.00	10377	63.00	7694	92.00	6986	137.00	426
38.00	9243	64.00	770	93.00	10505	141.00	2380
39.00	3788	67.00	687	94.00	29872	142.00	232
40.00	207	68.00	23736	95.00	277696	143.00	2643
41.00	11	69.00	24600	96.00	18536	146.00	390
42.00	87	70.00	1948	97.00	659	147.00	86
43.00	131	72.00	1271	104.00	1064	148.00	656
44.00	1131	73.00	10314	105.00	489	149.00	89
45.00	2100	74.00	39400	106.00	1098	150.00	226
47.00	2405	75.00	122376	107.00	99	153.00	122
48.00	1206	76.00	10756	111.00	173	155.00	696
49.00	8651	77.00	1421	115.00	227	157.00	516
50.00	42456	78.00	869	116.00	908	159.00	366
51.00	12926	79.00	6330	117.00	1595	161.00	121
52.00	633	80.00	1945	118.00	882	174.00	259776
55.00	553	81.00	6502	119.00	1435	175.00	18448
56.00	3429	82.00	1409	124.00	85	176.00	251008
57.00	5912	83.00	95	128.00	994	177.00	16408
58.00	224	86.00	237	129.00	492	178.00	447
60.00	1950	87.00	10914	130.00	1032	281.00	83
61.00	10311	88.00	10407	131.00	398		

Digitally signed by Stephen C. Nolte on 09/12/2018 at 11:49.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

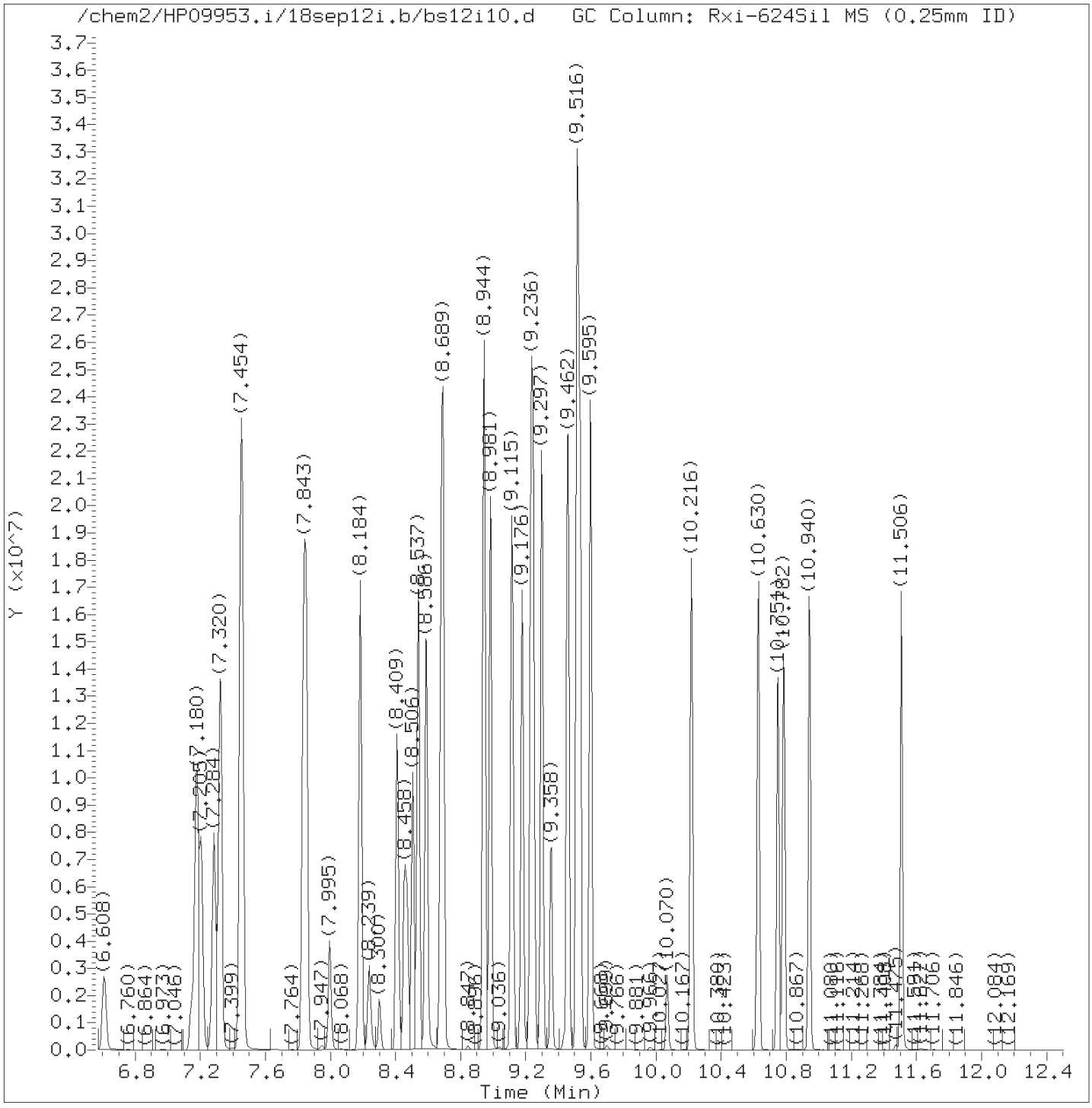
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.981	85	3080787	277.358
4) Chloromethane	(2)	1.072	50	3051945	266.566
5) Vinyl Chloride	(2)	1.121	62	2286633	256.309
9) Bromomethane	(2)	1.249	94	1746152	219.914
10) Chloroethane	(2)	1.267	64	1092179	227.584
11) Dichlorofluoromethane	(2)	1.370	67	2897912	249.692
13) Trichlorofluoromethane	(2)	1.413	101	3342963	272.196
15) Ethanol	(1)	1.443	45	663222	12284.657
17) Freon 123a	(2)	1.516	67	1936467	235.518
18) Acrolein	(1)	1.559	56	2527613	2528.401
19) 1,1-Dichloroethene	(2)	1.626	96	1599960	259.247
20) Acetone	(1)	1.644	58	252577	599.959
22) Freon 113	(2)	1.656	101	1691741	273.407
23) 2-Propanol	(1)	1.717	45	562235	1406.384
24) Methyl Iodide	(2)	1.717	142	3990575	268.915
25) Carbon Disulfide	(2)	1.766	76	6686876	270.787
27) Methyl Acetate	(2)	1.827	43	860964M	272.051
29) Allyl Chloride	(2)	1.827	41	2197397M	266.178
31) Methylene Chloride	(2)	1.906	84	1872953	256.802
30)*t-Butyl alcohol-d10	(1)	1.924	65	103473	250.000
32) t-Butyl alcohol	(1)	1.979	59	694534	1277.809
33) Acrylonitrile	(2)	2.052	53	521644	243.486
35) trans-1,2-Dichloroethene	(2)	2.082	96	1892160	263.641
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	4651054	264.945
38) n-Hexane	(2)	2.271	57	2101008	256.468
40) 1,1-Dichloroethane	(2)	2.386	63	3232199	277.739
41) di-Isopropyl ether	(2)	2.459	45	5970536	274.873
42) 2-Chloro-1,3-butadiene	(2)	2.459	53	2823815	275.354
43) Ethyl t-butyl ether	(2)	2.776	59	5595074	273.524
45) cis-1,2-Dichloroethene	(2)	2.885	96	2256347	289.633
44) 2-Butanone	(1)	2.897	43	1432625	538.538
47) 2,2-Dichloropropane	(2)	2.903	77	2372605	279.656
49) Propionitrile	(1)	2.946	54	1074342	1505.417
46) 1,2-Dichloroethene (Total)	(2)		96	4148507	553.273
51) Methacrylonitrile	(2)	3.086	67	1721999	719.302
52) Bromochloromethane	(2)	3.092	128	1233466	298.024
53) Tetrahydrofuran	(1)	3.135	71	407778	615.391
54) Chloroform	(2)	3.171	83	3345376	283.218

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	303763	49.546
56)$Dibromofluoromethane	(2)	3.317	111	309827	49.850
57) 1,1,1-Trichloroethane	(2)	3.348	97	3297703	272.668
58) Cyclohexane	(2)	3.396	56	3160269	278.144
58) Cyclohexane	(2)	3.396	84	2907987	273.869
58) Cyclohexane	(2)	3.396	69	1014671	282.379
60) 1,1-Dichloropropene	(2)	3.487	75	2496231	284.029
61) Carbon Tetrachloride	(2)	3.494	117	2762680	300.772
63)$1,2-Dichloroethane-d4	(2)	3.627	102	63485	48.110
63)$1,2-Dichloroethane-d4	(2)	3.621	65	277186	47.765
63)$1,2-Dichloroethane-d4	(2)	3.621	104	41025	48.527
62) Isobutyl Alcohol	(1)	3.652	41	656685	3438.756
64) Benzene	(2)	3.676	78	7731834	275.563
67) 1,2-Dichloroethane	(2)	3.694	62	2181967	269.470
67) 1,2-Dichloroethane	(2)	3.694	98	238107	296.010
68) t-Amyl methyl ether	(2)	3.822	73	5232773	277.064
70)*Fluorobenzene	(2)	3.950	96	1230156	50.000
72) n-Heptane	(2)	3.962	43	2059871	275.640
75) Trichloroethene	(2)	4.309	95	2107240	287.990
73) n-Butanol	(1)	4.315	56	1185542	7413.883
76) Methylcyclohexane	(2)	4.510	83	3378204	296.675
77) 1,2-Dichloropropane	(2)	4.528	63	1929835	289.622
81) Dibromomethane	(2)	4.649	93	1198792	294.192
80) 1,4-Dioxane	(1)	4.686	88	262862M	3966.558
79) Methyl Methacrylate	(2)	4.698	69	1269410	295.564
84) Bromodichloromethane	(2)	4.826	83	2560691	307.734
85) 2-Nitropropane	(1)	5.069	41	824628	602.534
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	1074111	306.142
89) cis-1,3-Dichloropropene	(2)	5.300	75	3059710	304.516
90) 4-Methyl-2-pentanone	(2)	5.489	43	3146162	599.815
91)$Toluene-d8	(3)	5.574	98	1214180	49.155
91)$Toluene-d8	(3)	5.574	100	795416	49.623
92) Toluene	(3)	5.641	92	5119307	279.425
93) trans-1,3-Dichloropropene	(3)	5.909	75	2711085	308.927
94) 1,3-Dichloropropene (total)	(3)		100	5770795	613.443
95) Ethyl Methacrylate	(3)	6.055	69	2513765	295.083
96) 1,1,2-Trichloroethane	(3)	6.097	97	1702105	286.290
98) Tetrachloroethene	(3)	6.225	166	2727692	271.813

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.268	76	2713939	283.497
101) 2-Hexanone	(3)	6.408	43	2171445	599.528
103) Dibromochloromethane	(3)	6.511	129	2231751	325.816
104) 1,2-Dibromoethane	(3)	6.608	107	1832136	298.284
105)*Chlorobenzene-d5	(3)	7.144	117	957052	50.000
107) Chlorobenzene	(3)	7.174	112	5944730	277.916
106) 1-Chlorohexane	(3)	7.205	91	2674699	293.818
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	2296075	316.555
109) Ethylbenzene	(3)	7.320	91	9457855	274.478
110) m+p-Xylene	(3)	7.454	106	7412693	527.185
111) o-Xylene	(3)	7.837	106	3960184	281.726
113) Styrene	(3)	7.849	104	6488206	279.982
112) Xylene (Total)	(3)		106	11372877	808.911
114) Bromoform	(3)	7.995	173	1525174	357.321
115) Isopropylbenzene	(3)	8.184	105	9402149	265.354
118) Cyclohexanone	(1)	8.239	55	993019A	4140.833
119)$4-Bromofluorobenzene	(3)	8.300	95	458031	50.901
119)$4-Bromofluorobenzene	(3)	8.300	174	418633	50.544
121) Bromobenzene	(4)	8.409	156	2910525	296.873
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	2238120	299.004
123) 1,2,3-Trichloropropane	(4)	8.470	110	665320M	299.775
122) trans-1,4-Dichloro-2-butene	(4)	8.506	53	1399372	761.884
124) n-Propylbenzene	(4)	8.543	91	10112785	260.900
126) 2-Chlorotoluene	(4)	8.592	126	2716538	298.678
130) 4-Chlorotoluene	(4)	8.683	126	2610273	283.269
129) 1,3,5-Trimethylbenzene	(4)	8.695	105	8040053	268.156
133) tert-Butylbenzene	(4)	8.944	134	1976135	280.567
134) Pentachloroethane	(4)	8.944	167	1602509	380.491
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	8463279	270.687
136) sec-Butylbenzene	(4)	9.115	105	9861110	258.345
138) 1,3-Dichlorobenzene	(4)	9.176	146	5301157	288.111
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	535094	50.000
139) p-Isopropyltoluene	(4)	9.236	119	8610791	251.736
141) 1,4-Dichlorobenzene	(4)	9.249	146	4986557	259.946
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	8888584	263.728
143) Benzyl Chloride	(4)	9.358	126	916823	366.713
144) 1,3-Diethylbenzene	(4)	9.462	119	6039928	285.631
145) 1,4-Diethylbenzene	(4)	9.516	119	5453105	248.480

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

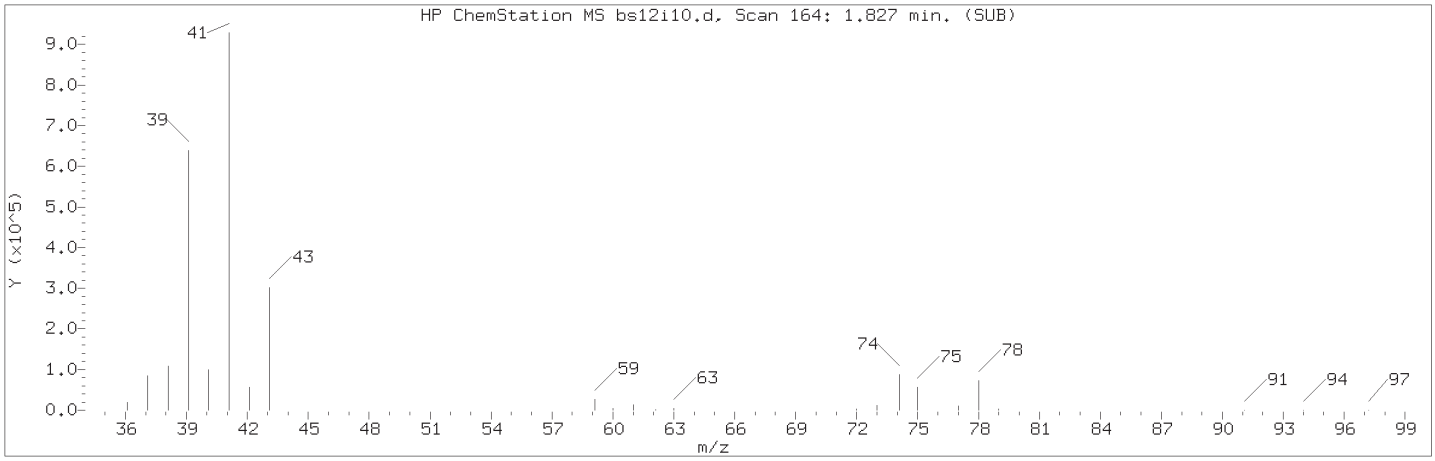
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

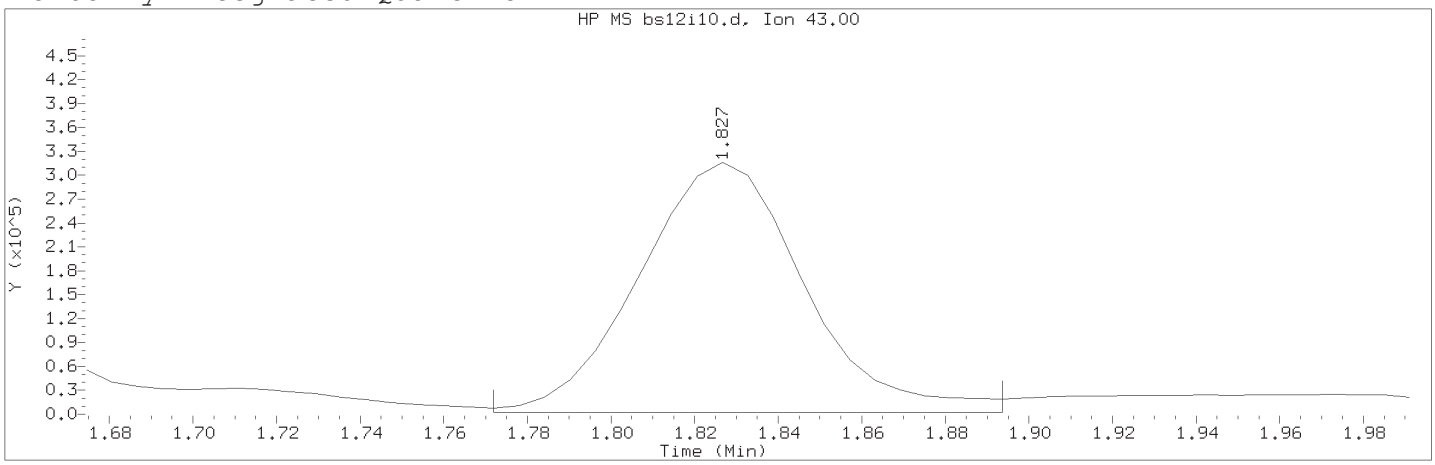
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	4214666	234.296
146) n-Butylbenzene	(4)	9.535	92	4352277	273.869
148) 1,2-Diethylbenzene	(4)	9.595	119	5183778	280.210
149) Diethylbenzene (total)	(4)		100	16676811	814.321
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	426564	328.000
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	4149530	294.823
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	3791375	285.812
154) Hexachlorobutadiene	(4)	10.751	225	1860668	307.429
155) Naphthalene	(4)	10.782	128	7842133	248.863
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	3549716	280.611
157) 2-Methylnaphthalene	(4)	11.506	142	5324175	249.796

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

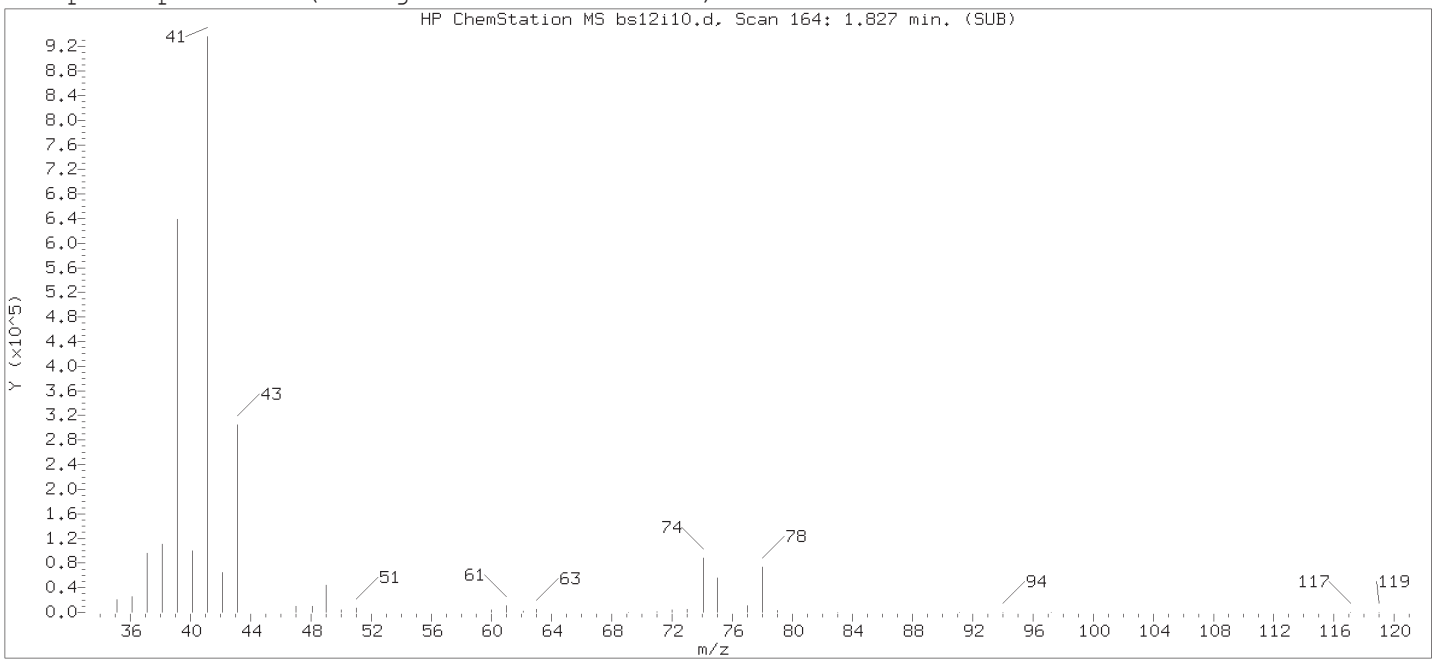
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 43.00
Area (flag) : 860964M
On-Column Amount (ng) : 272.0508
Integration start scan : 154 Integration stop scan: 174
Y at integration start : 2458 Y at integration end: 2458

Reason for manual integration: improper integration

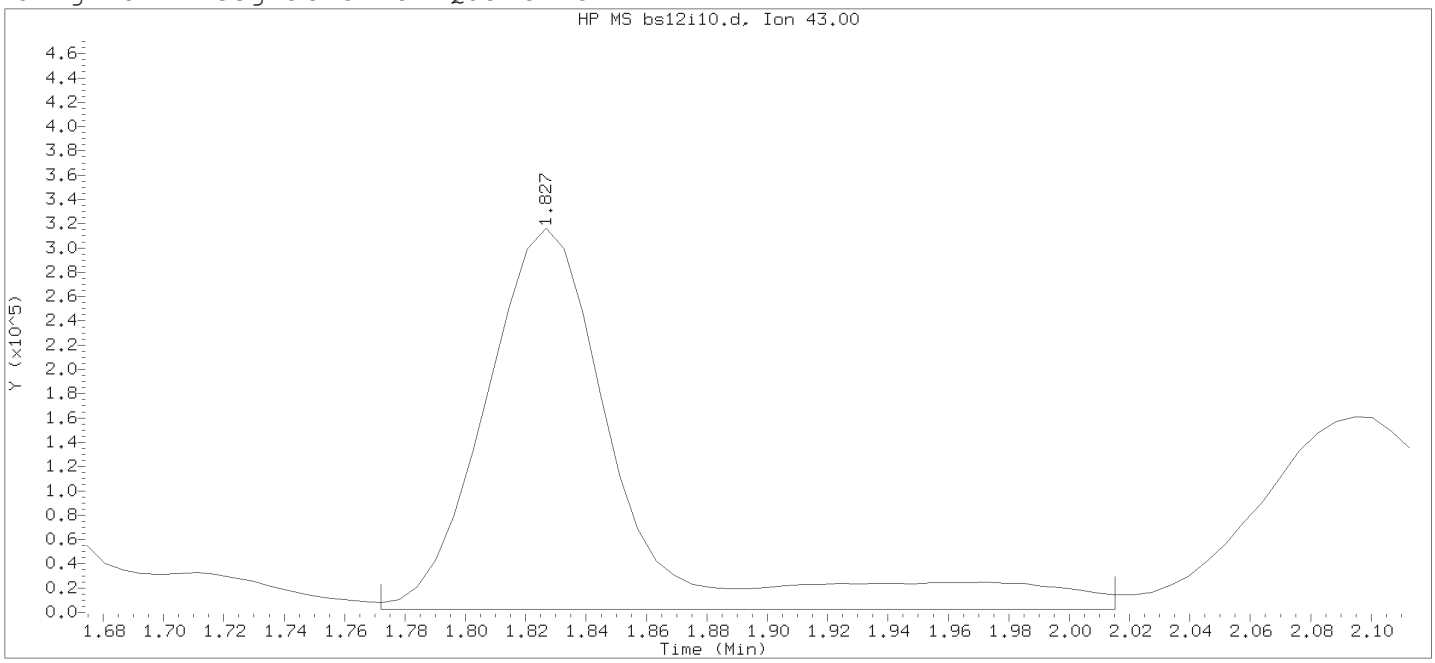
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

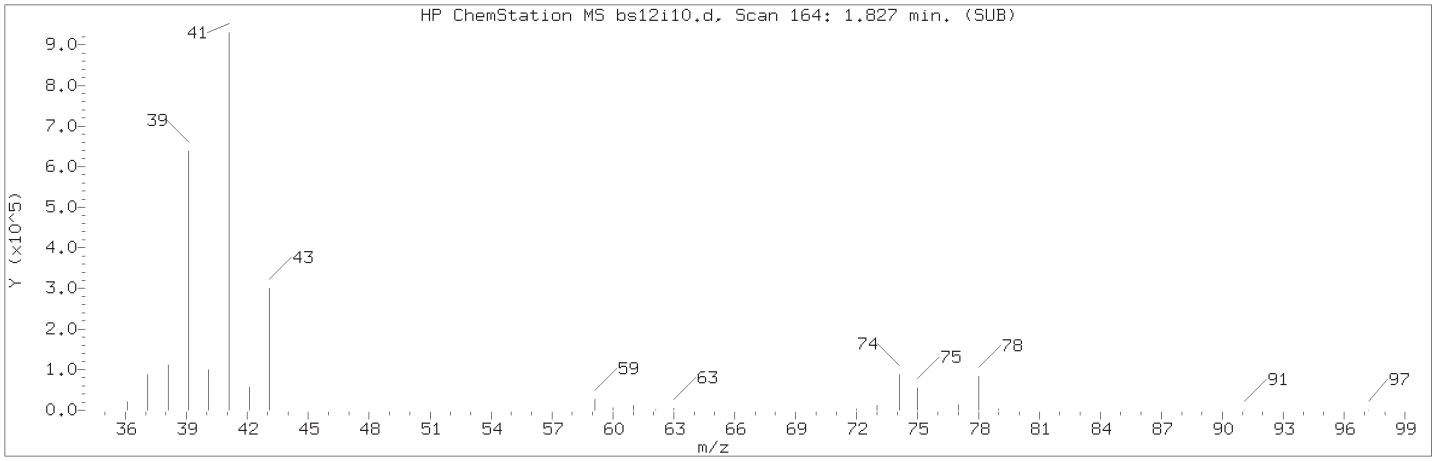
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:28
Date, time and analyst ID of latest file update: 12-Sep-2018 13:28 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

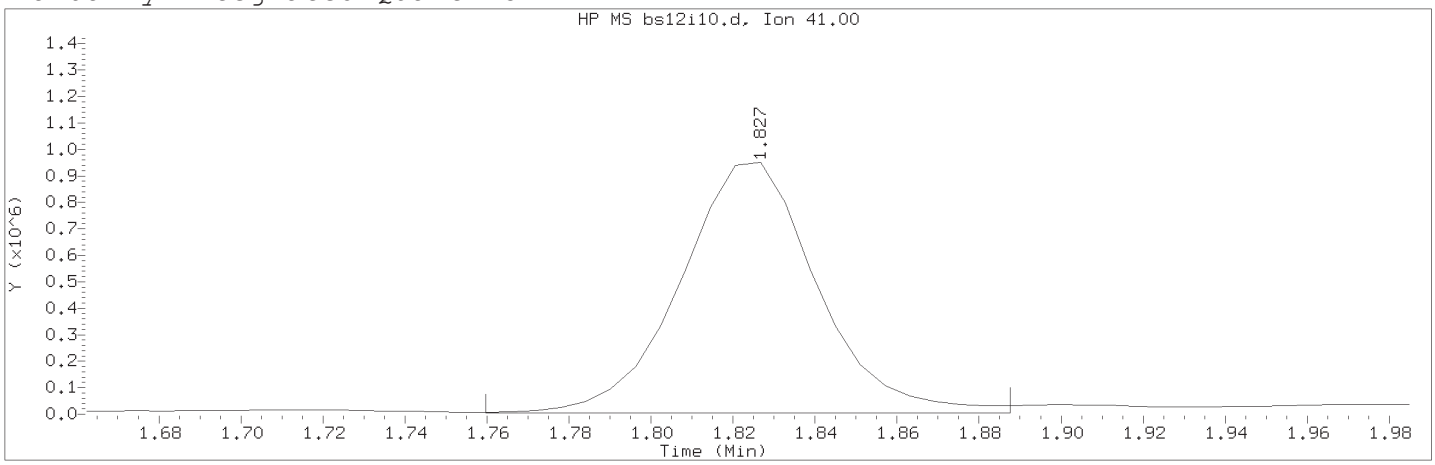
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 43.00
Area : 1001508
On-column Amount (ng) : 208.2576
Integration start scan : 154 Integration stop scan: 194
Y at integration start : 2458 Y at integration end: 2458

Digitally signed by Jennifer K. Howe on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

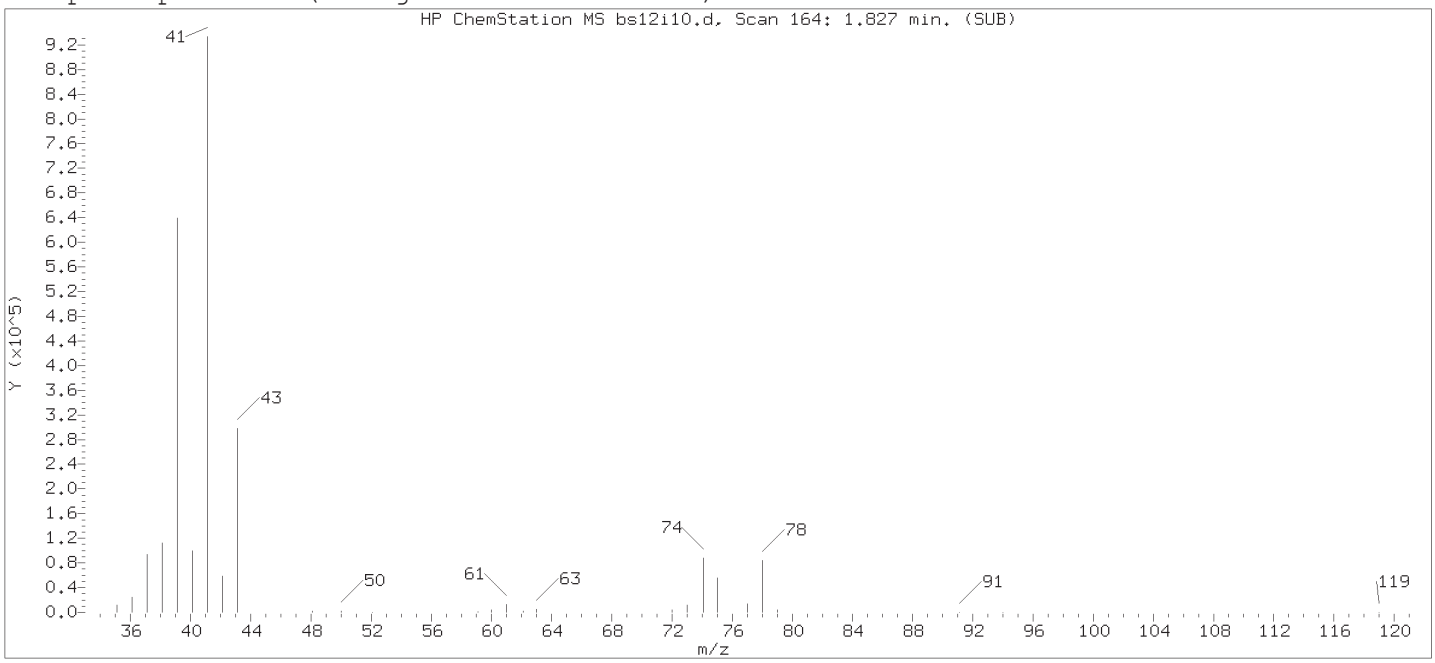
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area (flag) : 2197397M
On-Column Amount (ng) : 266.1780
Integration start scan : 152 Integration stop scan: 173
Y at integration start : 4837 Y at integration end: 4837

Reason for manual integration: improper integration

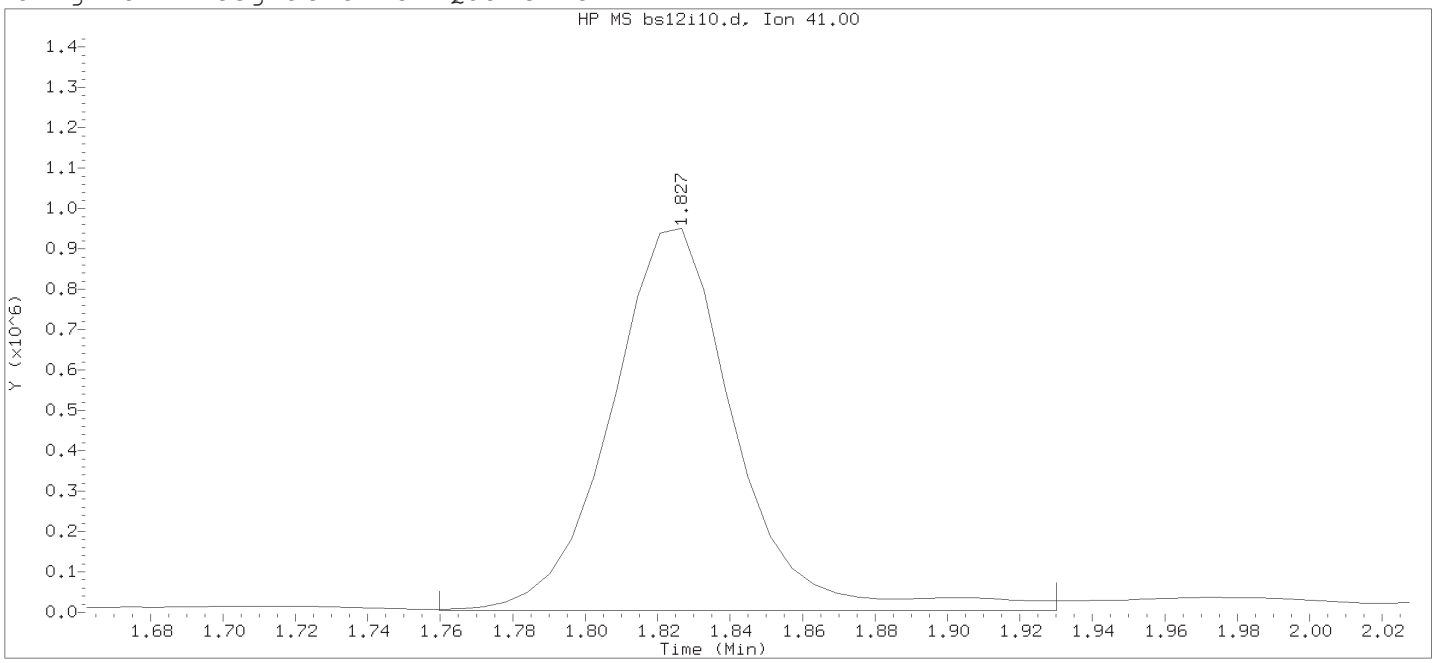
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

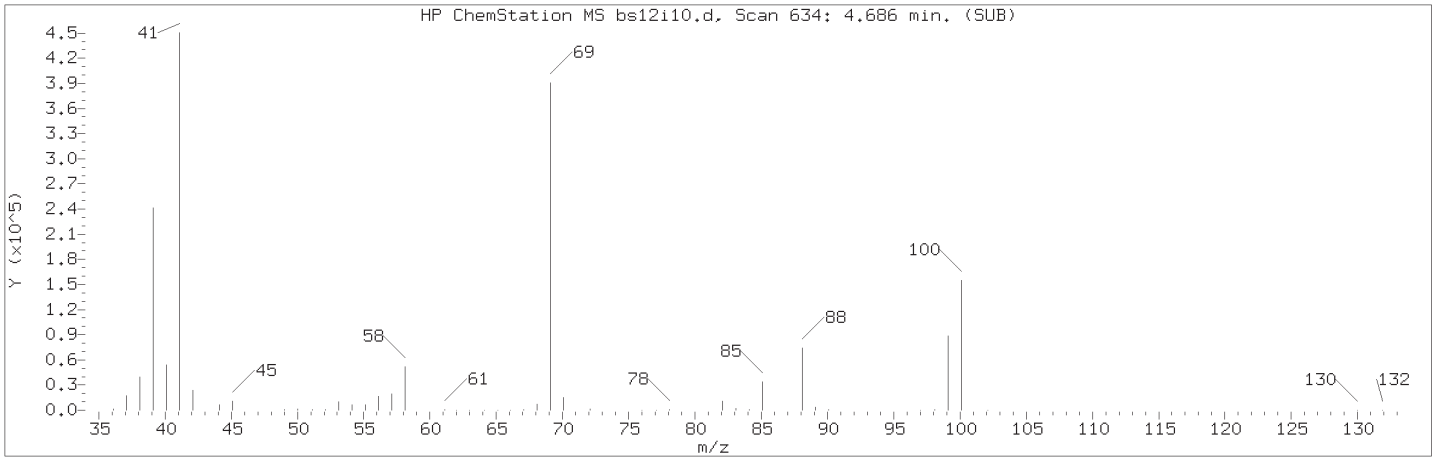
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:28
Date, time and analyst ID of latest file update: 12-Sep-2018 13:28 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

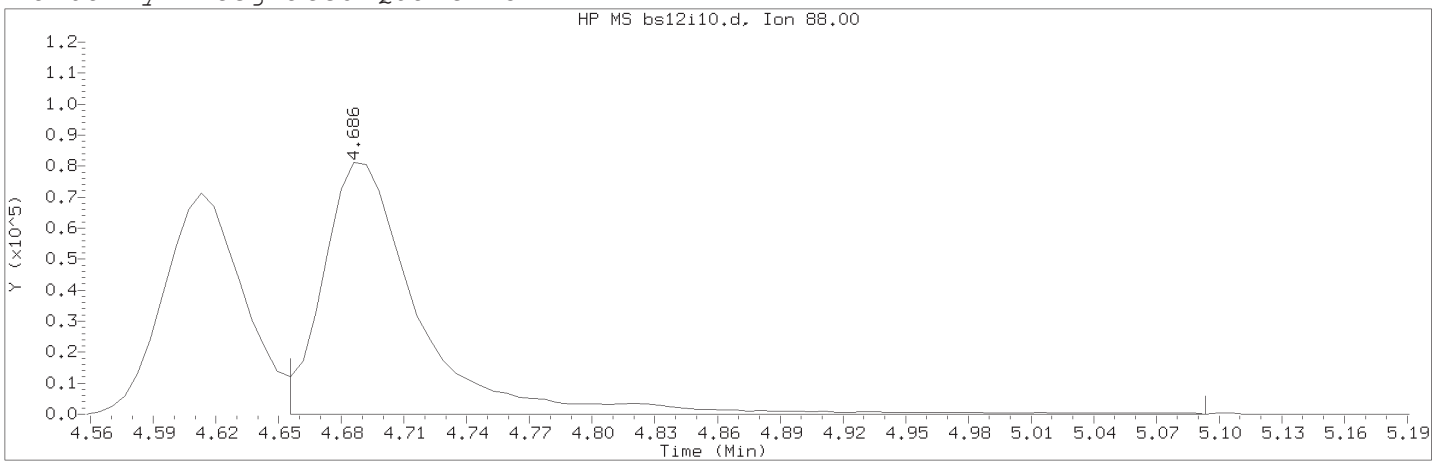
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area : 2262713
On-column Amount (ng) : 210.4982
Integration start scan : 152 Integration stop scan: 180
Y at integration start : 4837 Y at integration end: 4837

Digitally signed by Jennifer K. Howe on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

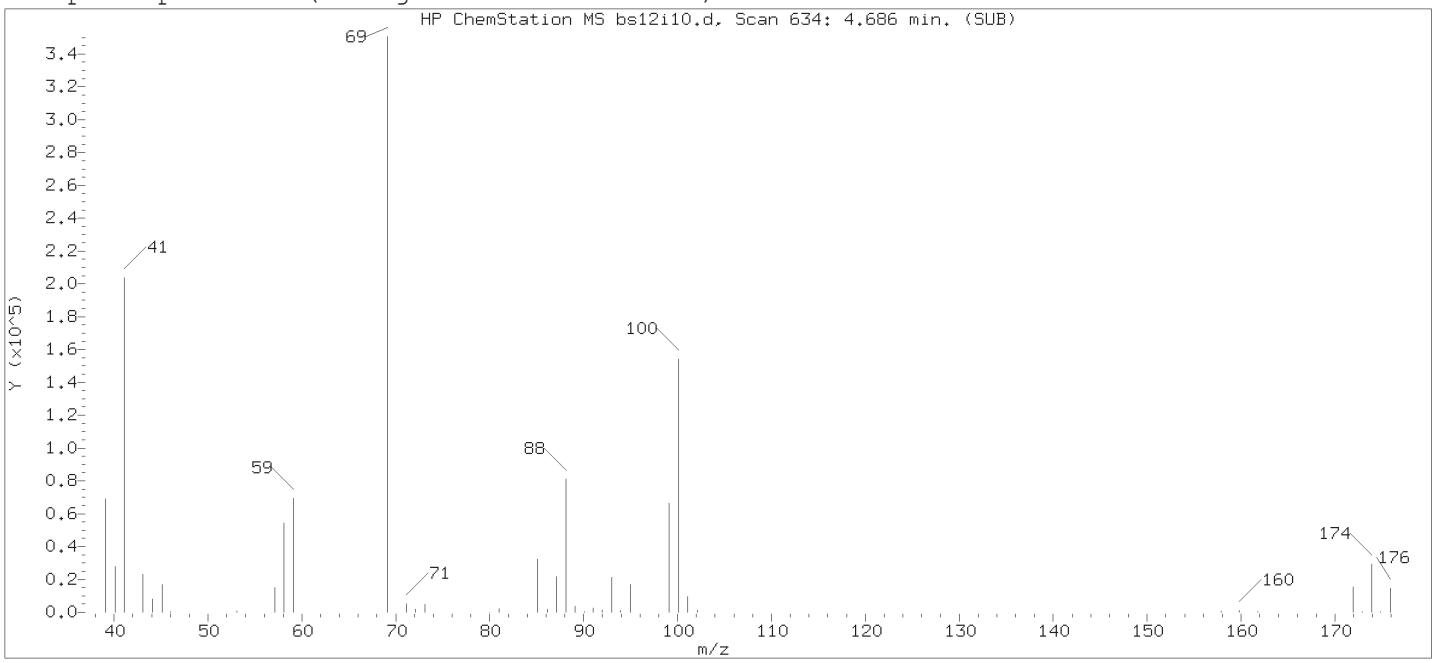
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 634
Retention Time (minutes): 4.686
Quant Ion : 88.00
Area (flag) : 262862M
On-Column Amount (ng) : 3966.5579
Integration start scan : 628 Integration stop scan: 700
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

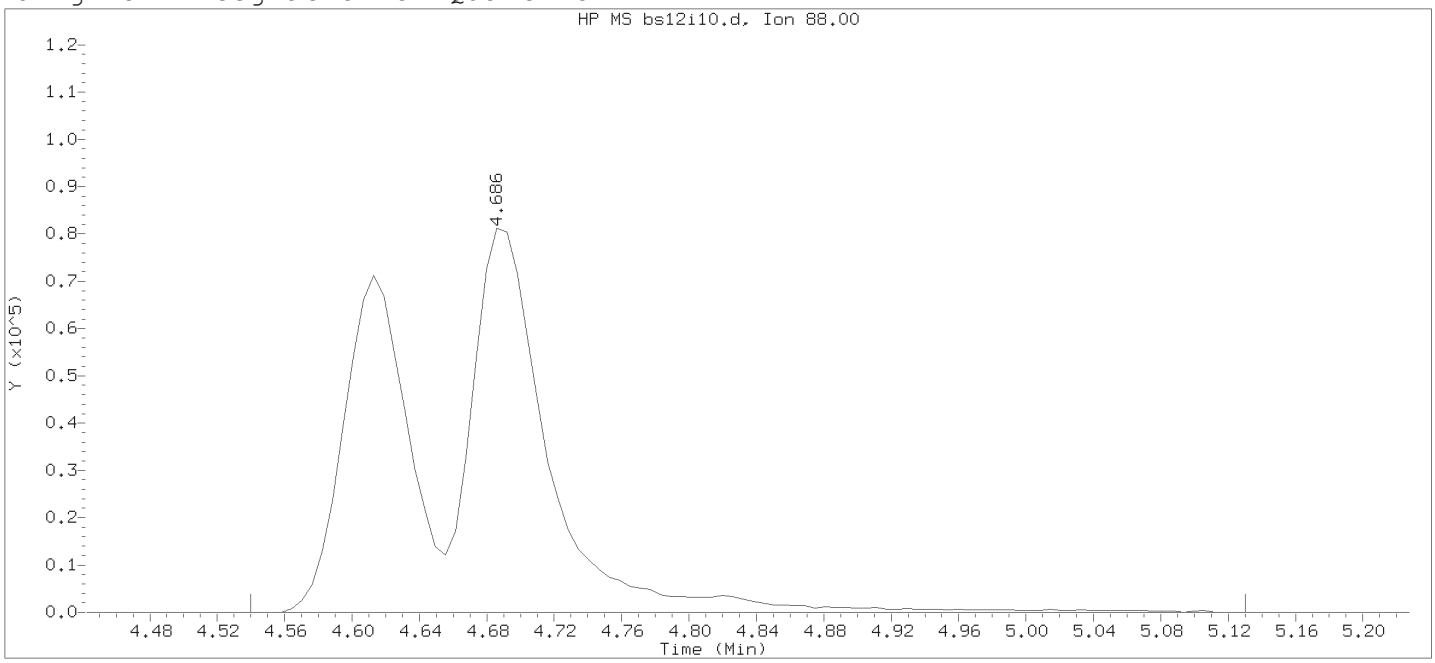
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

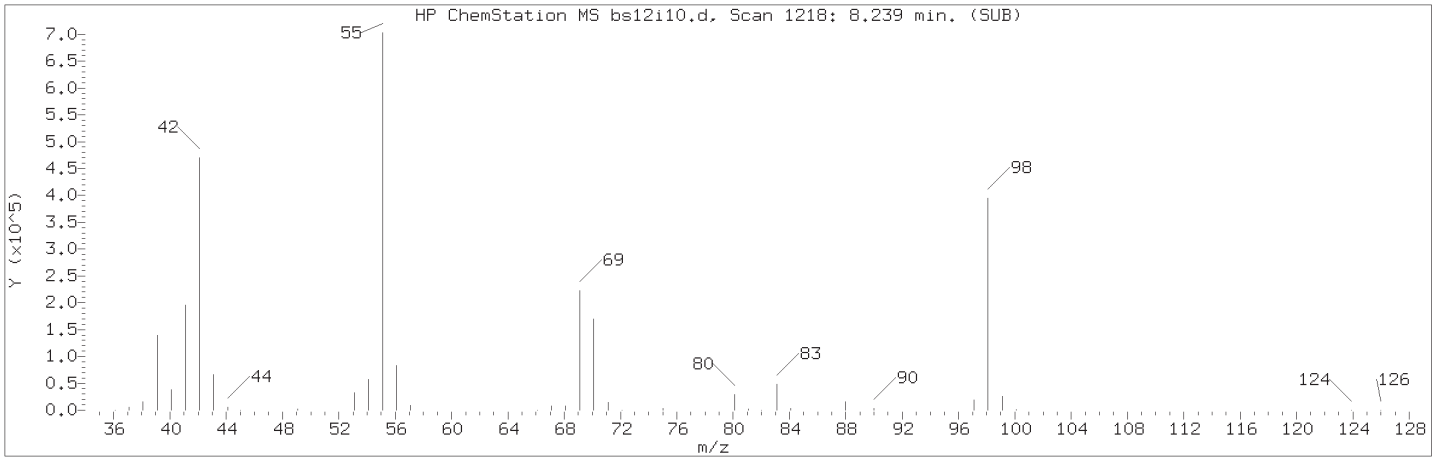
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:28
Date, time and analyst ID of latest file update: 12-Sep-2018 13:28 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

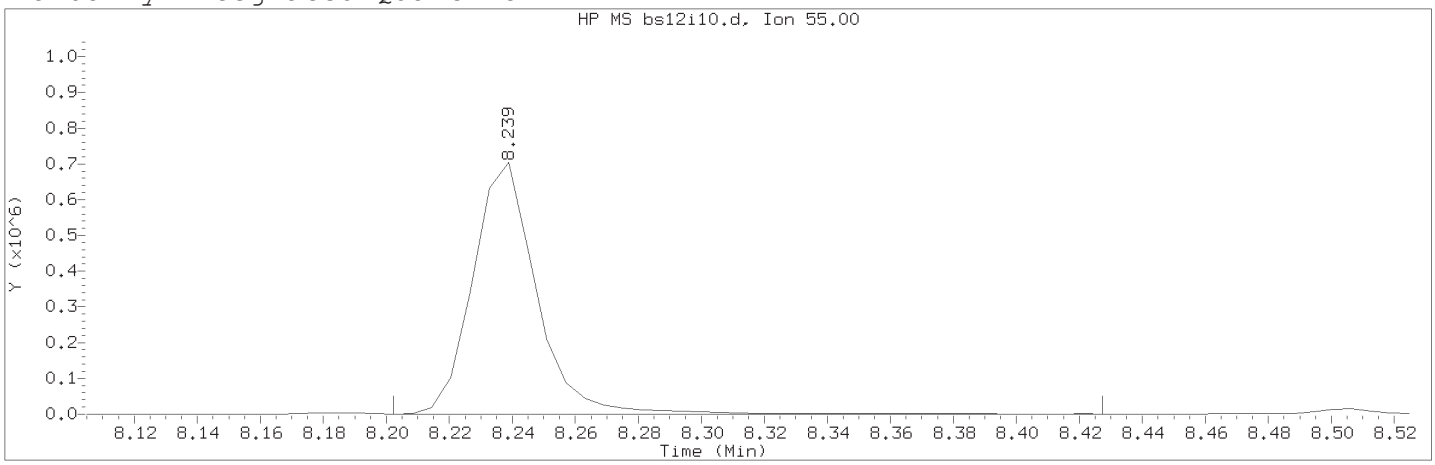
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 634
Retention Time (minutes): 4.686
Quant Ion : 88.00
Area : 448350
On-column Amount (ng) : 6565.7648
Integration start scan : 609 Integration stop scan: 706
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkhowe0542

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

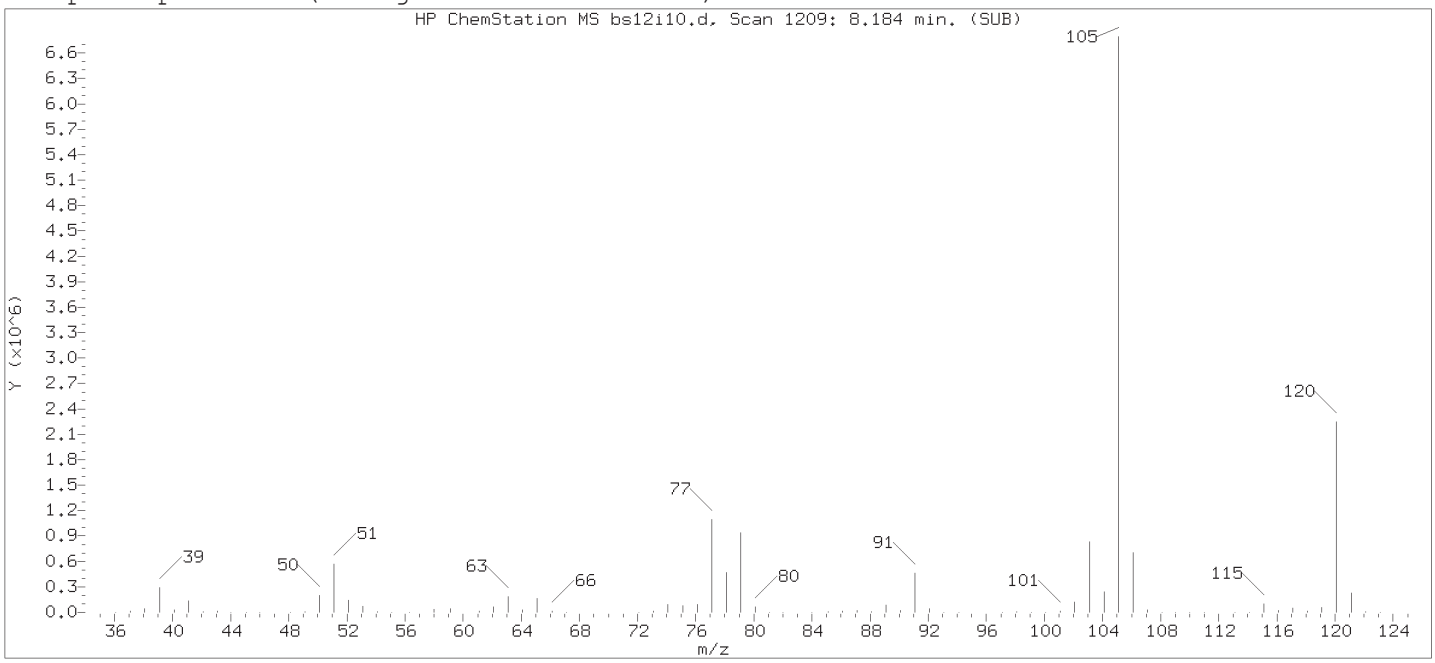
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1218
Retention Time (minutes): 8.239
Quant Ion : 55.00
Area (flag) : 993019A
On-Column Amount (ng) : 4140.8325
Integration start scan : 1211 Integration stop scan: 1248
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

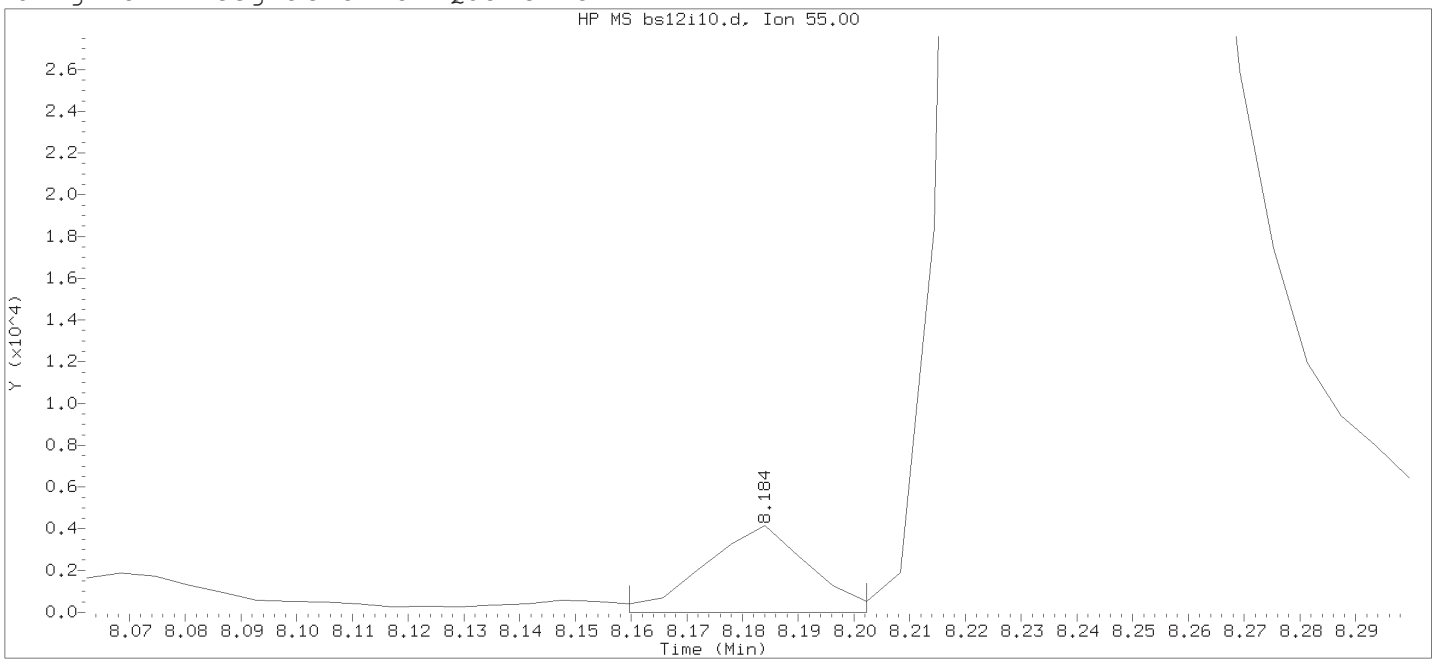
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

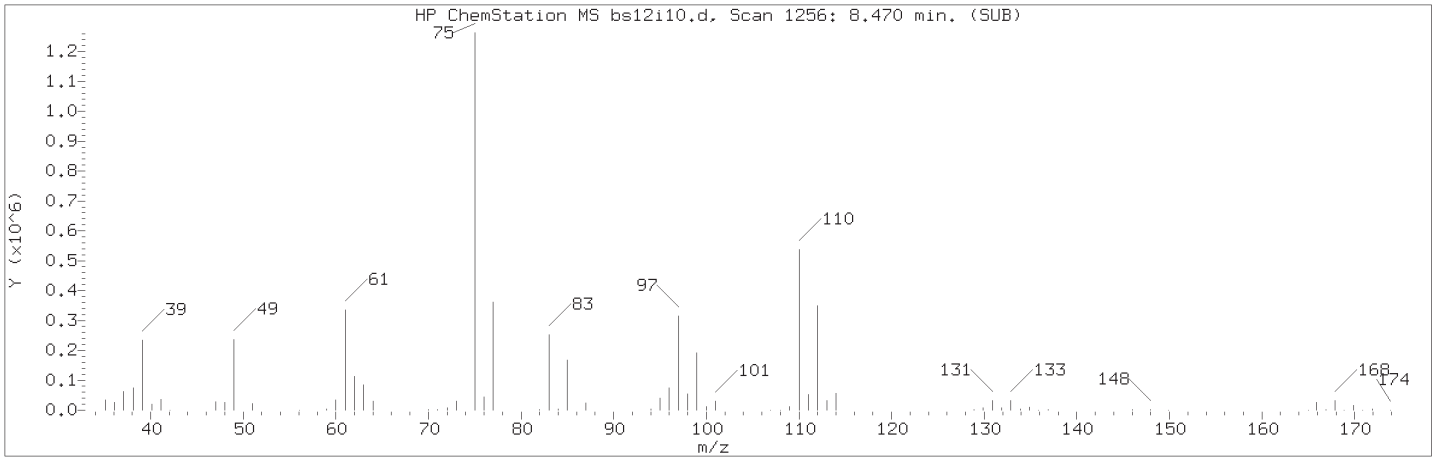
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:28
Date, time and analyst ID of latest file update: 12-Sep-2018 13:28 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

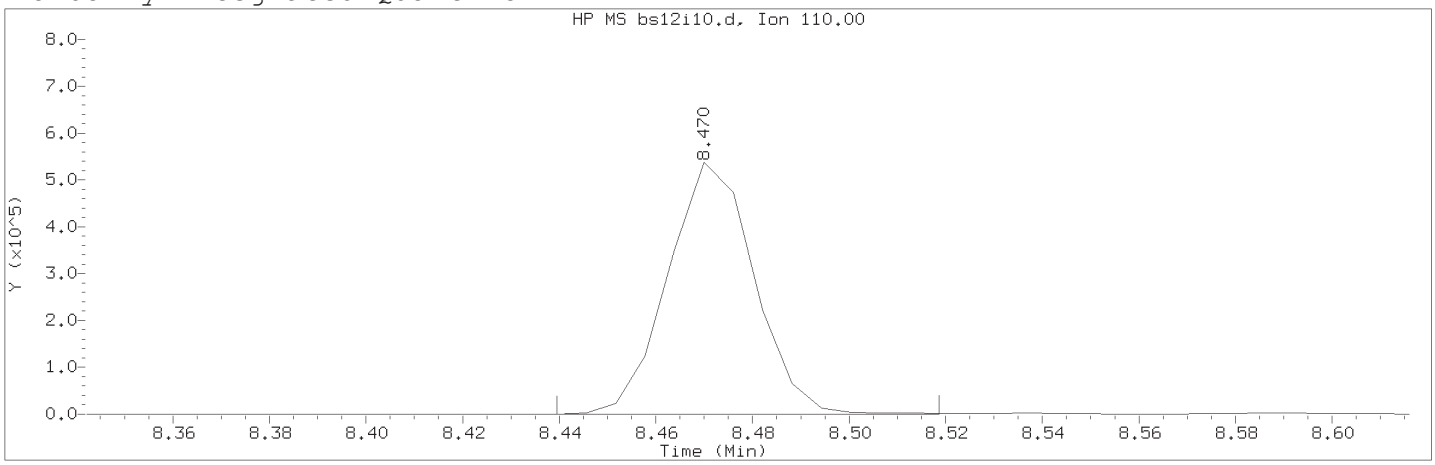
Compound Number	: 118		
Compound Name	: Cyclohexanone		
Scan Number	: 1209		
Retention Time (minutes)	: 8.184		
Quant Ion	: 55.00		
Area	: 5331		
On-column Amount (ng)	: 16.1464		
Integration start scan	: 1204	Integration stop scan:	1211
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

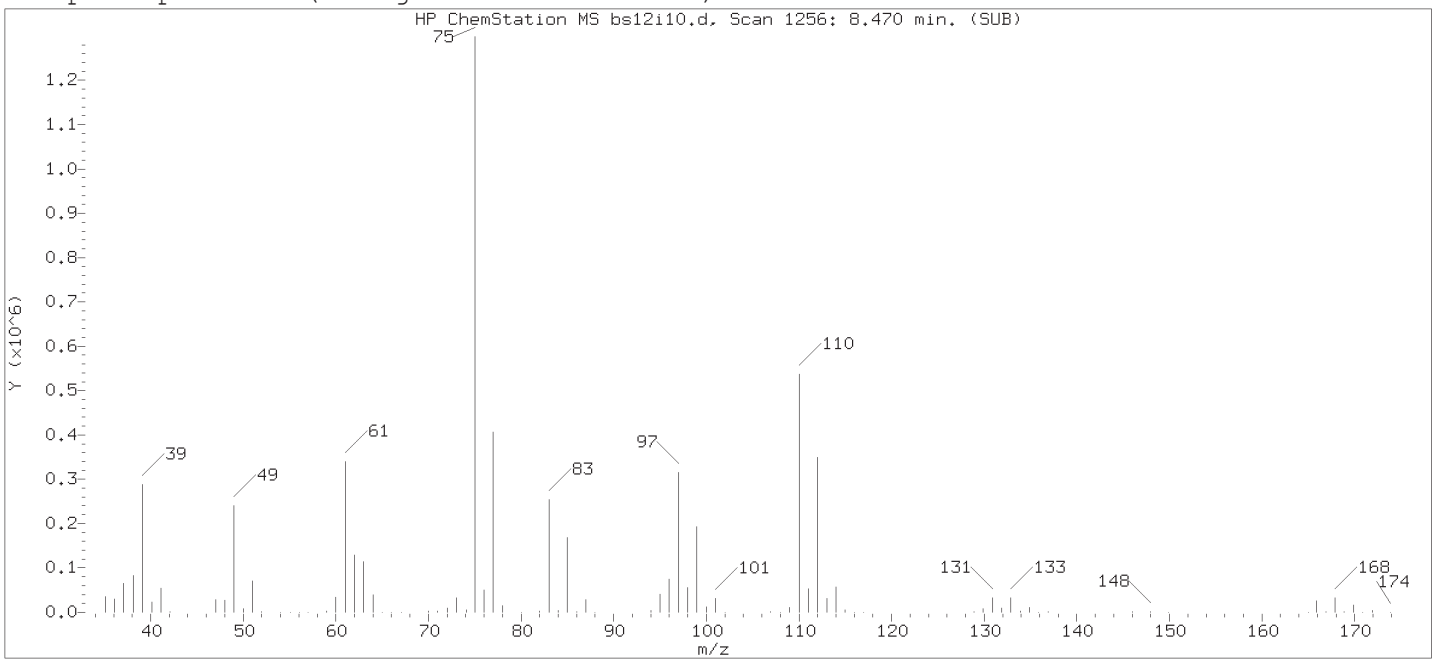
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1256
Retention Time (minutes): 8.470
Quant Ion : 110.00
Area (flag) : 665320M
On-Column Amount (ng) : 299.7754
Integration start scan : 1250 Integration stop scan: 1263
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

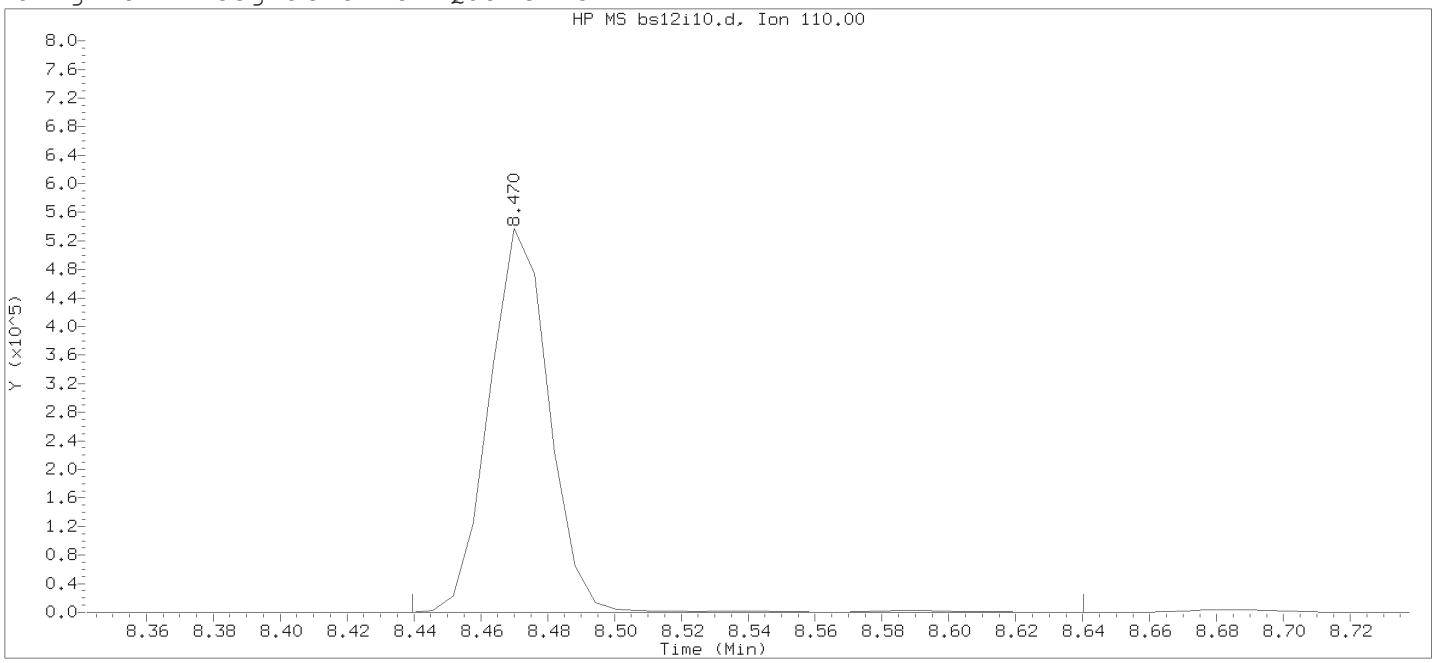
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



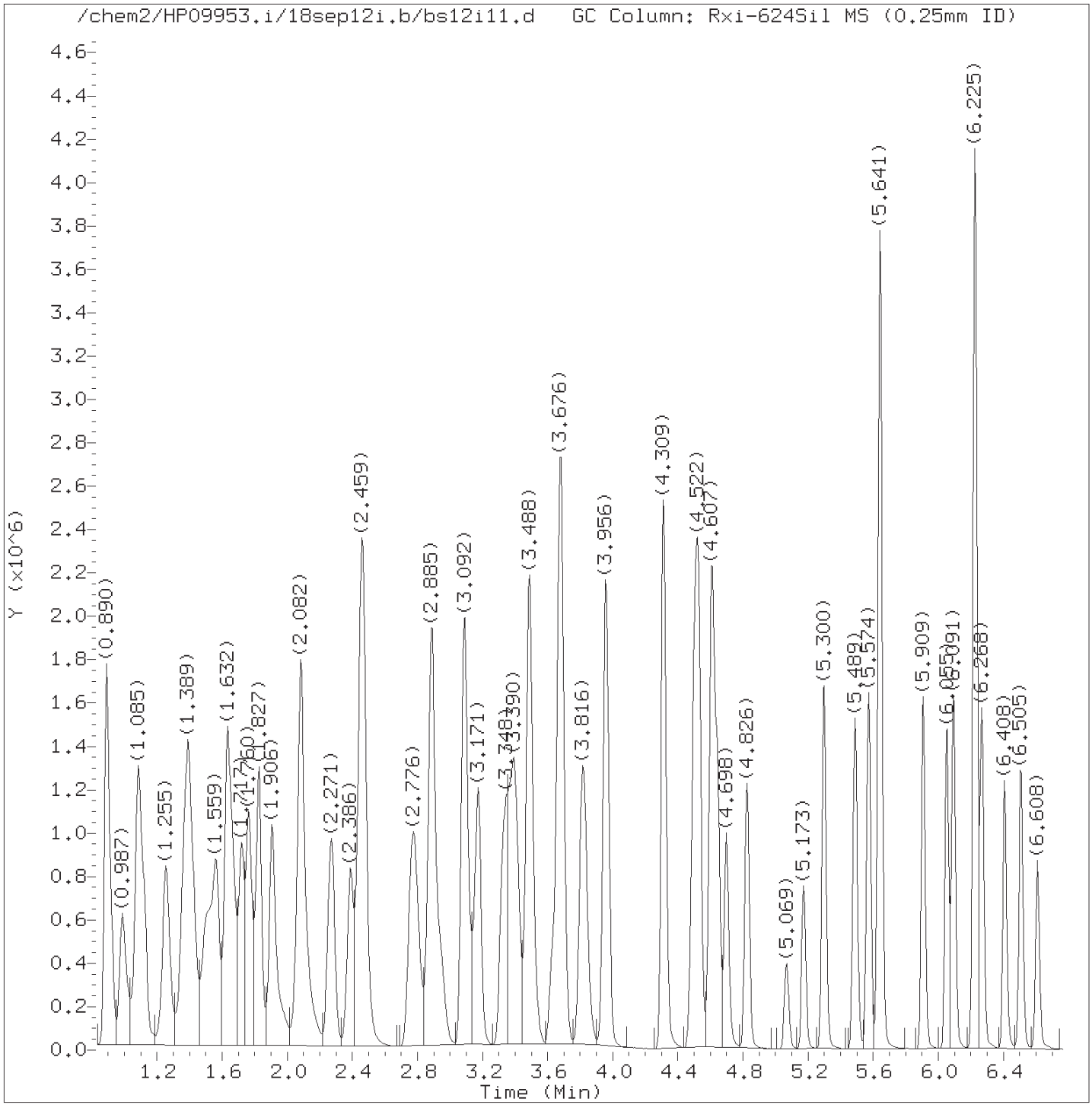
Data File: /chem2/HP09953.i/18sep12i.b/bs12i10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:13 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:28
Date, time and analyst ID of latest file update: 12-Sep-2018 13:28 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1256
Retention Time (minutes): 8.470
Quant Ion : 110.00
Area : 673154
On-column Amount (ng) : 290.5198
Integration start scan : 1250 Integration stop scan: 1283
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 09:59.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

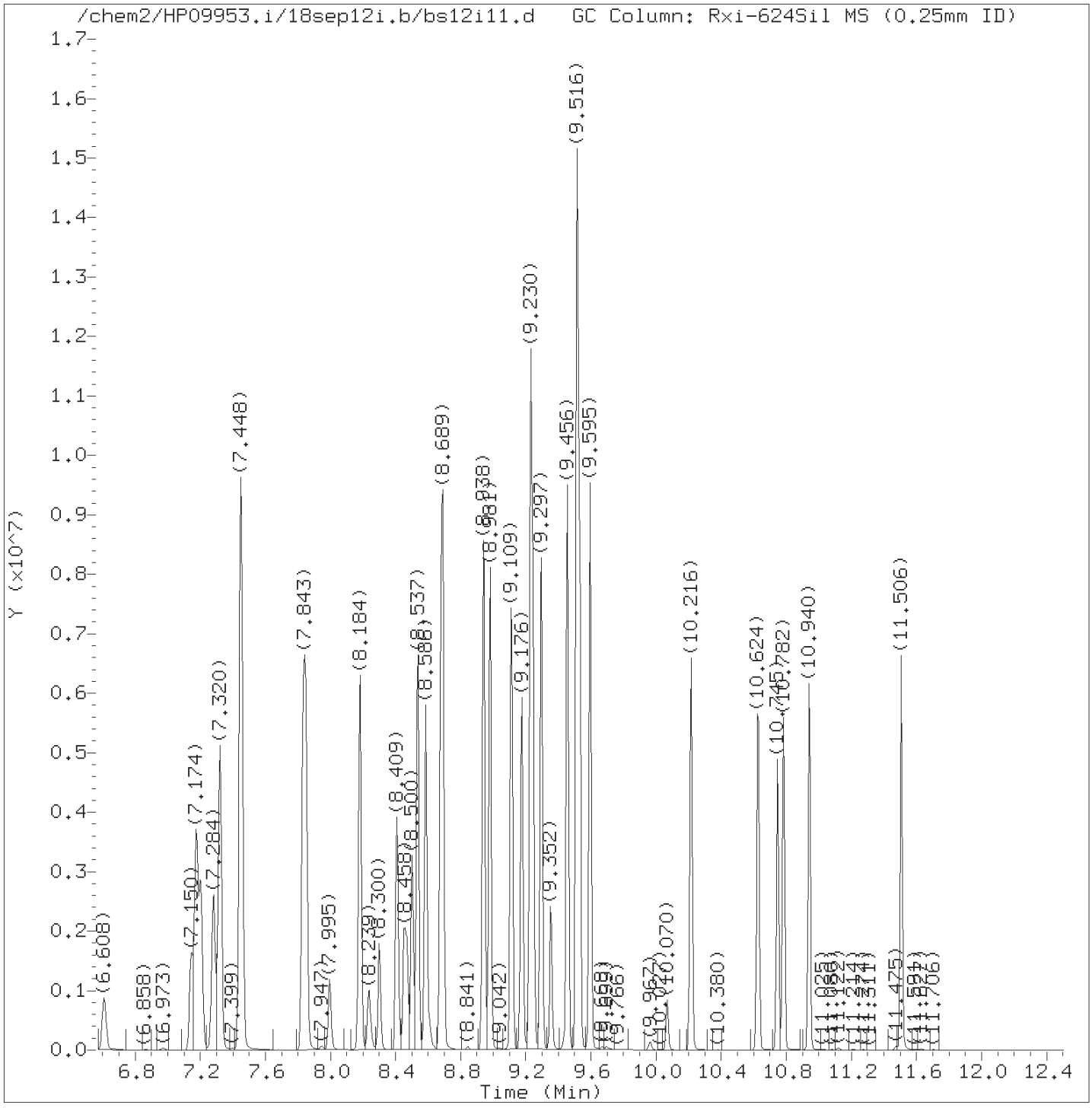
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	1025105	93.816
4) Chloromethane	(2)	1.078	50	1036965	92.070
5) Vinyl Chloride	(2)	1.121	62	786218	89.586
9) Bromomethane	(2)	1.249	94	709007	90.771
10) Chloroethane	(2)	1.267	64	432417	91.597
11) Dichlorofluoromethane	(2)	1.370	67	1051154	92.069
13) Trichlorofluoromethane	(2)	1.419	101	1151957	95.349
15) Ethanol	(1)	1.443	45	244207	4662.378
17) Freon 123a	(2)	1.516	67	713185	88.175
18) Acrolein	(1)	1.565	56	853637	880.144
19) 1,1-Dichloroethene	(2)	1.632	96	581381	95.762
20) Acetone	(1)	1.644	58	87807	201.203
22) Freon 113	(2)	1.656	101	604755	99.353
23) 2-Propanol	(1)	1.717	45	189432	488.410
24) Methyl Iodide	(2)	1.723	142	1419423	97.234
25) Carbon Disulfide	(2)	1.766	76	2376290	97.821
29) Allyl Chloride	(2)	1.827	41	777983M	95.799
27) Methyl Acetate	(2)	1.833	43	285749	91.786
31) Methylene Chloride	(2)	1.906	84	655189	91.320
30)*t-Butyl alcohol-d10	(1)	1.924	65	100388	250.000
32) t-Butyl alcohol	(1)	1.979	59	245256	465.090
33) Acrylonitrile	(2)	2.058	53	170470	80.886
35) trans-1,2-Dichloroethene	(2)	2.082	96	674380	95.518
34) Methyl Tertiary Butyl Ether	(2)	2.100	73	1630064	94.392
38) n-Hexane	(2)	2.271	57	771671	95.756
40) 1,1-Dichloroethane	(2)	2.386	63	1145625	100.071
41) di-Isopropyl ether	(2)	2.459	45	2104307	98.482
42) 2-Chloro-1,3-butadiene	(2)	2.465	53	1008793	99.997
43) Ethyl t-butyl ether	(2)	2.776	59	1974842	98.141
45) cis-1,2-Dichloroethene	(2)	2.885	96	776553	101.330
47) 2,2-Dichloropropane	(2)	2.897	77	835695	100.132
44) 2-Butanone	(1)	2.897	43	467620	181.185
49) Propionitrile	(1)	2.946	54	355738	513.795
46) 1,2-Dichloroethene (Total)	(2)		96	1450933	196.849
51) Methacrylonitrile	(2)	3.086	67	563665	239.346
52) Bromochloromethane	(2)	3.098	128	414624	101.837
53) Tetrahydrofuran	(1)	3.135	71	131403	204.399
54) Chloroform	(2)	3.171	83	1156216	99.504

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	300603	49.842
56)$Dibromofluoromethane	(2)	3.317	111	305137	49.908
57) 1,1,1-Trichloroethane	(2)	3.348	97	1135699	95.458
58) Cyclohexane	(2)	3.396	56	1109538	99.269
58) Cyclohexane	(2)	3.396	84	993120	95.078
58) Cyclohexane	(2)	3.396	69	352970	99.856
60) 1,1-Dichloropropene	(2)	3.481	75	872004	100.861
61) Carbon Tetrachloride	(2)	3.494	117	945700	104.662
63)$1,2-Dichloroethane-d4	(2)	3.627	102	63243	48.719
63)$1,2-Dichloroethane-d4	(2)	3.621	65	274762	48.131
63)$1,2-Dichloroethane-d4	(2)	3.621	104	40750	48.999
62) Isobutyl Alcohol	(1)	3.652	41	227646	1228.710
64) Benzene	(2)	3.676	78	2692413	97.546
67) 1,2-Dichloroethane	(2)	3.694	62	755585	94.858
67) 1,2-Dichloroethane	(2)	3.694	98	78164	98.780
68) t-Amyl methyl ether	(2)	3.816	73	1808625	97.347
70)*Fluorobenzene	(2)	3.950	96	1210132	50.000
72) n-Heptane	(2)	3.962	43	718143	97.688
73) n-Butanol	(1)	4.309	56	419940	2706.832
75) Trichloroethene	(2)	4.309	95	730142	101.437
76) Methylcyclohexane	(2)	4.503	83	1154114	103.032
77) 1,2-Dichloropropane	(2)	4.528	63	663907	101.285
81) Dibromomethane	(2)	4.643	93	396991	99.037
80) 1,4-Dioxane	(1)	4.692	88	88148M	1371.020
79) Methyl Methacrylate	(2)	4.698	69	411841	97.478
84) Bromodichloromethane	(2)	4.826	83	858359	104.861
85) 2-Nitropropane	(1)	5.069	41	262295	197.542
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	350880	101.662
89) cis-1,3-Dichloropropene	(2)	5.300	75	1035760	104.789
90) 4-Methyl-2-pentanone	(2)	5.489	43	1115427	202.915
91)$Toluene-d8	(3)	5.574	98	1214365	50.397
91)$Toluene-d8	(3)	5.574	100	785056	50.206
92) Toluene	(3)	5.641	92	1783498	99.792
93) trans-1,3-Dichloropropene	(3)	5.909	75	905761	105.803
94) 1,3-Dichloropropene (total)	(3)		100	1941521	210.592
95) Ethyl Methacrylate	(3)	6.055	69	820389	98.721
96) 1,1,2-Trichloroethane	(3)	6.091	97	562018	96.904
98) Tetrachloroethene	(3)	6.225	166	1267351	129.462

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.268	76	915802	98.066
101) 2-Hexanone	(3)	6.408	43	818369	205.449
103) Dibromochloromethane	(3)	6.511	129	721590	107.991
104) 1,2-Dibromoethane	(3)	6.608	107	603389	100.702
105)*Chlorobenzene-d5	(3)	7.144	117	933610	50.000
107) Chlorobenzene	(3)	7.174	112	2068821	99.146
106) 1-Chlorohexane	(3)	7.205	91	916829	103.243
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	750692	106.095
109) Ethylbenzene	(3)	7.320	91	3378588	100.513
110) m+p-Xylene	(3)	7.448	106	2814060	205.159
111) o-Xylene	(3)	7.831	106	1416131	103.273
113) Styrene	(3)	7.849	104	2360880	104.436
112) Xylene (Total)	(3)		106	4230191	308.431
114) Bromoform	(3)	7.995	173	460769	110.661
115) Isopropylbenzene	(3)	8.184	105	3526164	102.017
118) Cyclohexanone	(1)	8.233	55	349174A	1500.781
119)$4-Bromofluorobenzene	(3)	8.300	95	435886M	49.657
119)$4-Bromofluorobenzene	(3)	8.300	174	405858	50.232
121) Bromobenzene	(4)	8.409	156	962300	97.264
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	704613	93.279
123) 1,2,3-Trichloropropane	(4)	8.470	110	213873	95.491
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	458424	247.323
124) n-Propylbenzene	(4)	8.537	91	3893123	99.528
126) 2-Chlorotoluene	(4)	8.586	126	900795	98.142
130) 4-Chlorotoluene	(4)	8.677	126	931409	100.160
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	3094931	102.287
133) tert-Butylbenzene	(4)	8.944	134	713622	100.399
134) Pentachloroethane	(4)	8.944	167	258558	60.834
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	3174000	100.595
136) sec-Butylbenzene	(4)	9.109	105	3882732	100.799
138) 1,3-Dichlorobenzene	(4)	9.176	146	1822187	98.135
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	539993	50.000
139) p-Isopropyltoluene	(4)	9.230	119	3513141	101.775
141) 1,4-Dichlorobenzene	(4)	9.243	146	1880902	97.160
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	3460991	101.758
143) Benzyl Chloride	(4)	9.352	126	273286	108.318
144) 1,3-Diethylbenzene	(4)	9.456	119	2219269	103.998
145) 1,4-Diethylbenzene	(4)	9.516	119	2329919	105.204

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

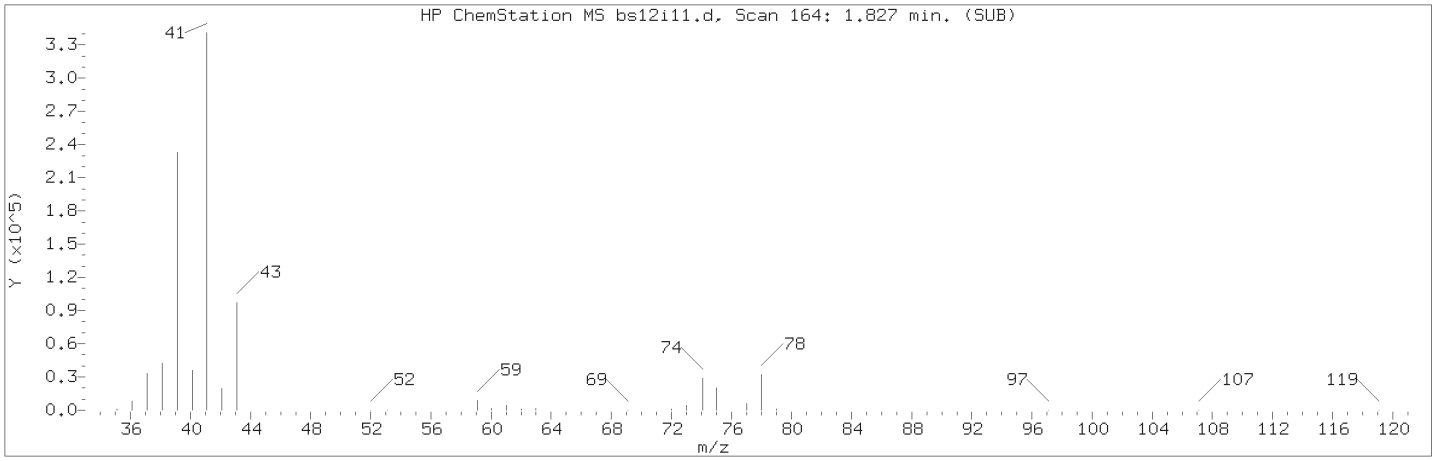
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

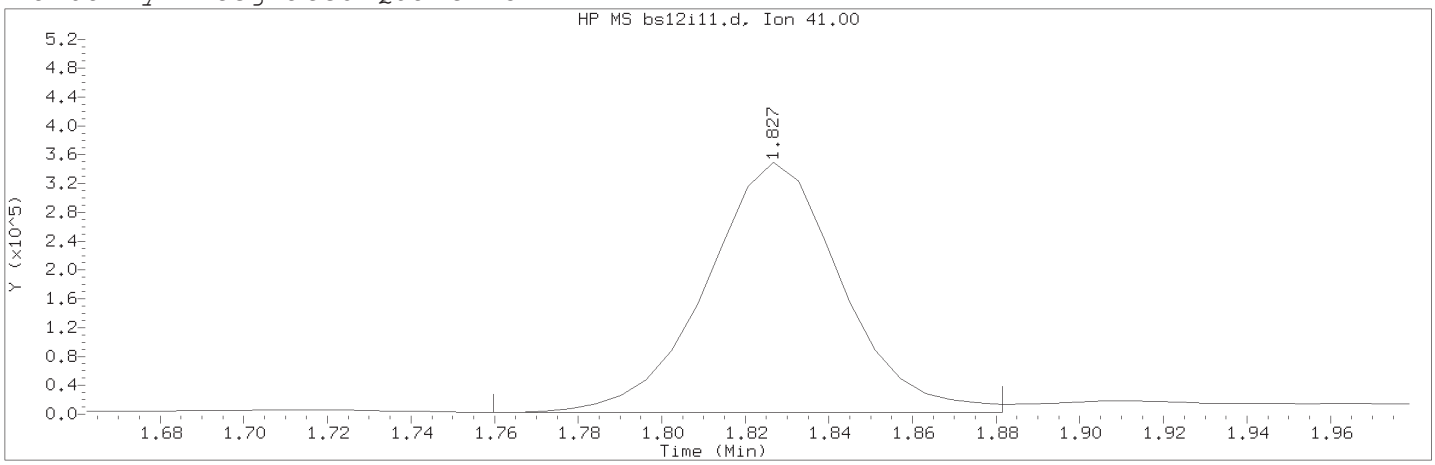
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	1788896	98.544
146) n-Butylbenzene	(4)	9.528	92	1629811	101.626
148) 1,2-Diethylbenzene	(4)	9.595	119	1913391	102.490
149) Diethylbenzene (total)	(4)		100	6462579	311.692
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	129490	98.666
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	1423486	100.221
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	1300685	97.162
154) Hexachlorobutadiene	(4)	10.745	225	609227	99.746
155) Naphthalene	(4)	10.782	128	2915926	91.695
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	1224399	95.913
157) 2-Methylnaphthalene	(4)	11.506	142	2049080	95.265

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

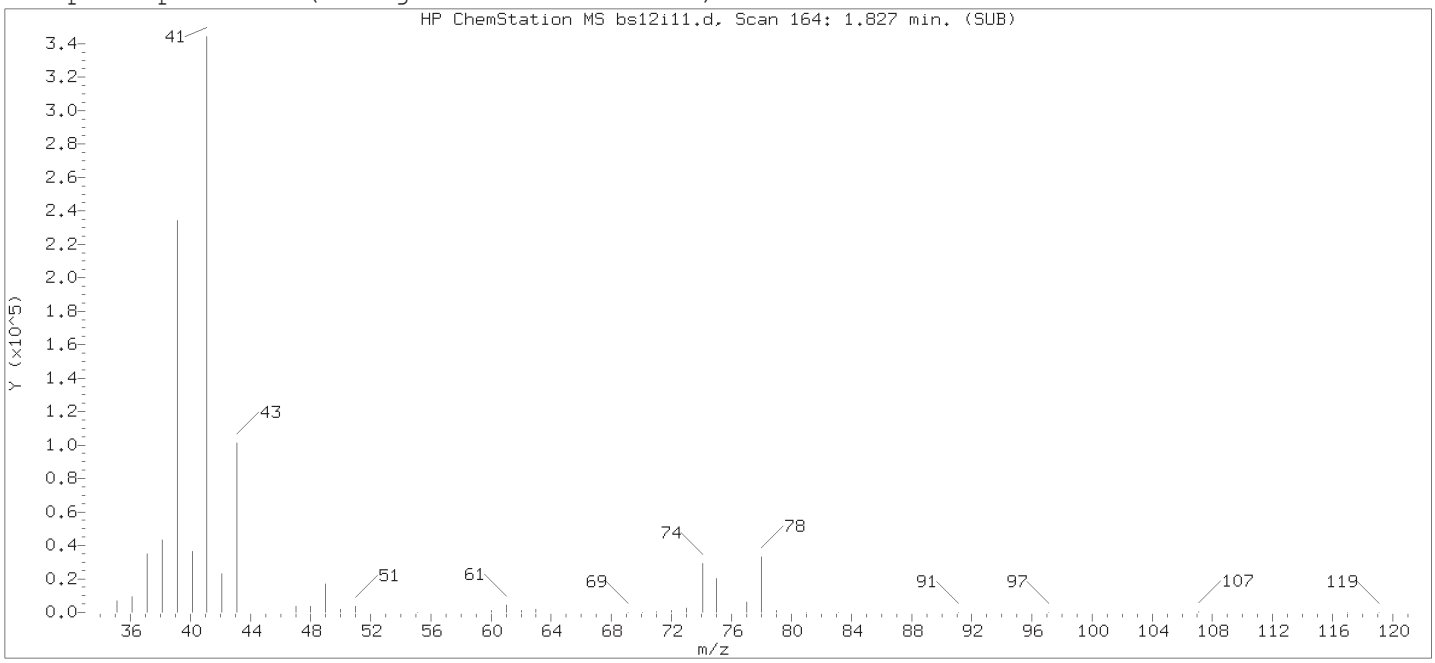
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area (flag) : 777983M
On-Column Amount (ng) : 95.7990
Integration start scan : 152 Integration stop scan: 172
Y at integration start : 2433 Y at integration end: 2433

Reason for manual integration: improper integration

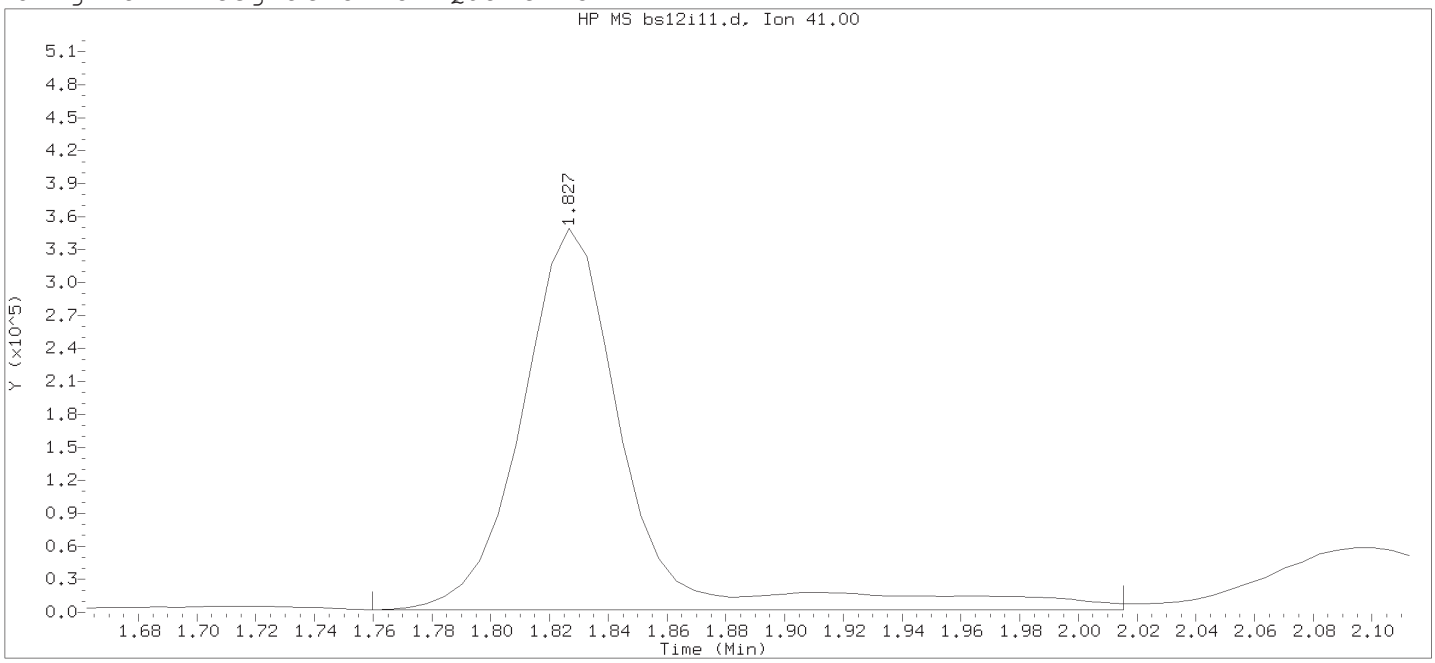
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

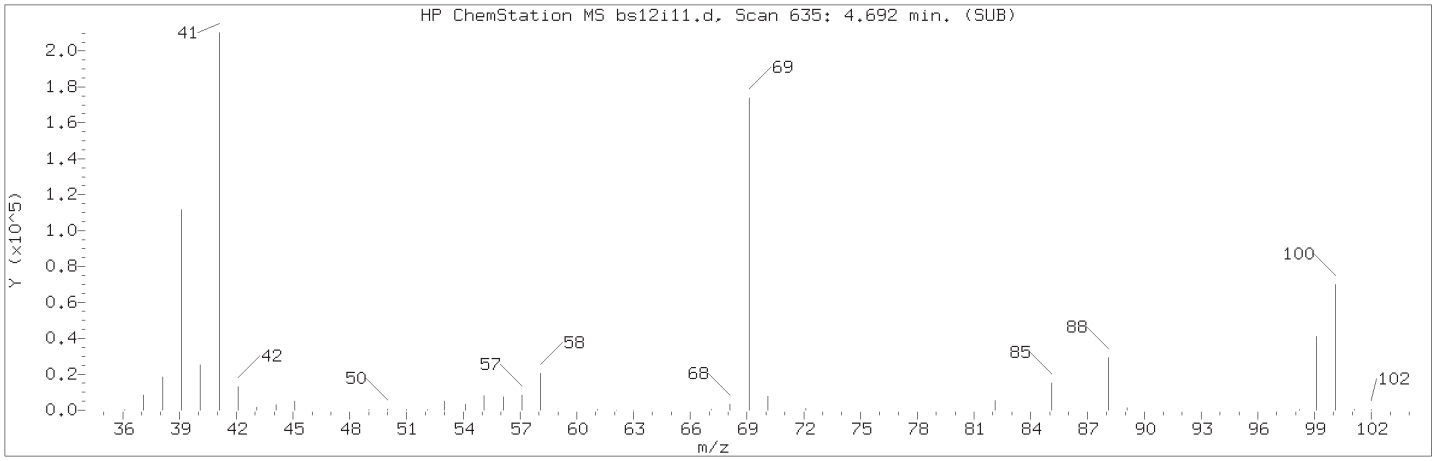
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:51
Date, time and analyst ID of latest file update: 12-Sep-2018 13:51 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

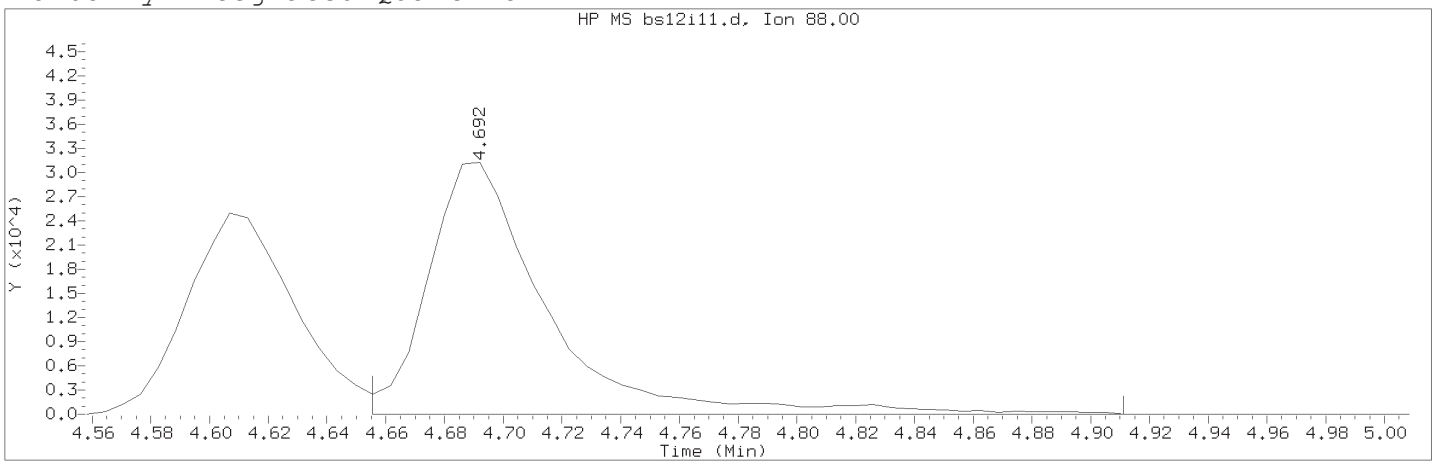
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area : 872570
On-column Amount (ng) : 85.8683
Integration start scan : 152 Integration stop scan: 194
Y at integration start : 2433 Y at integration end: 2433

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

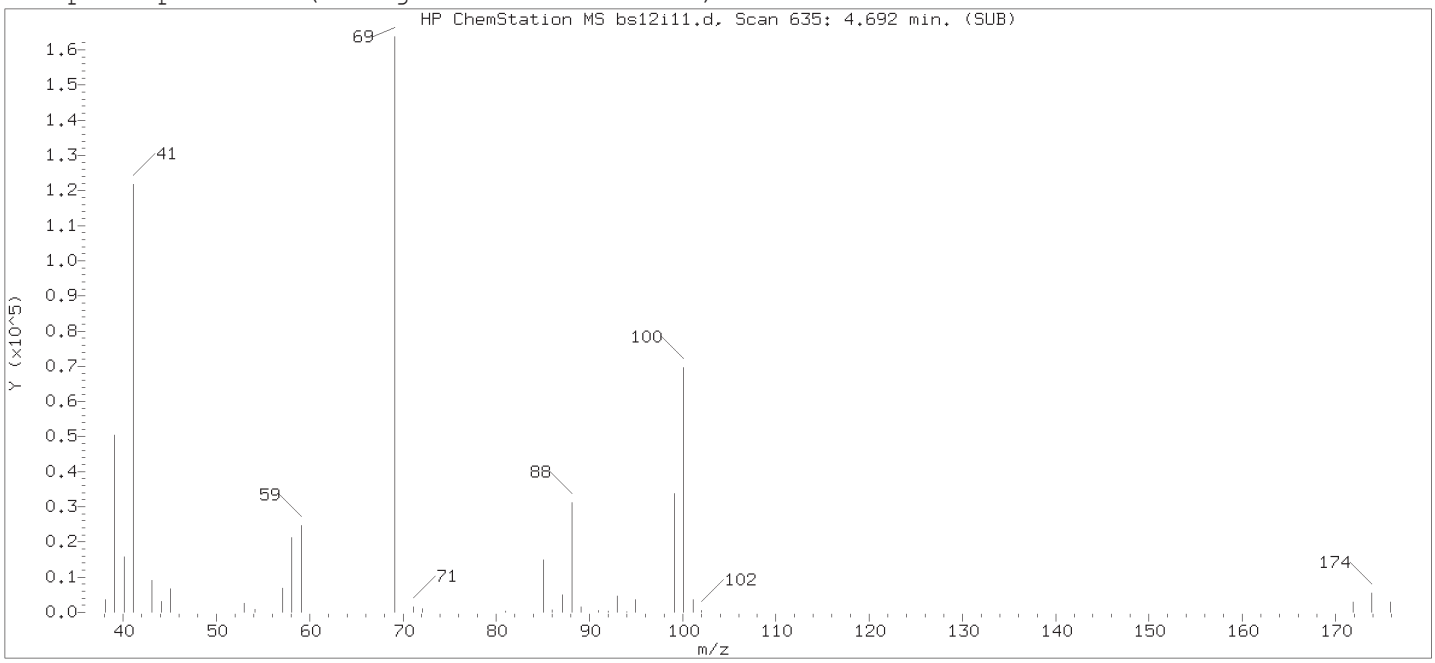
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 88148M
On-Column Amount (ng) : 1371.0197
Integration start scan : 628 Integration stop scan: 670
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

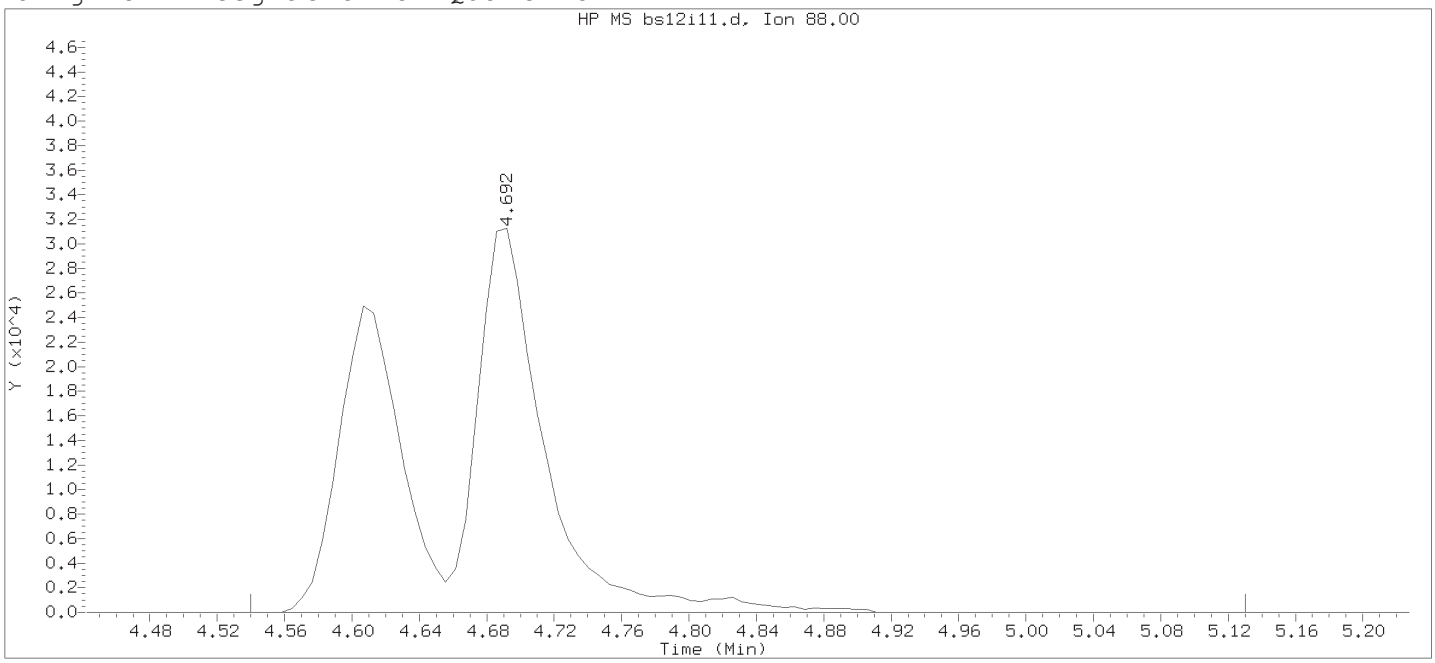
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

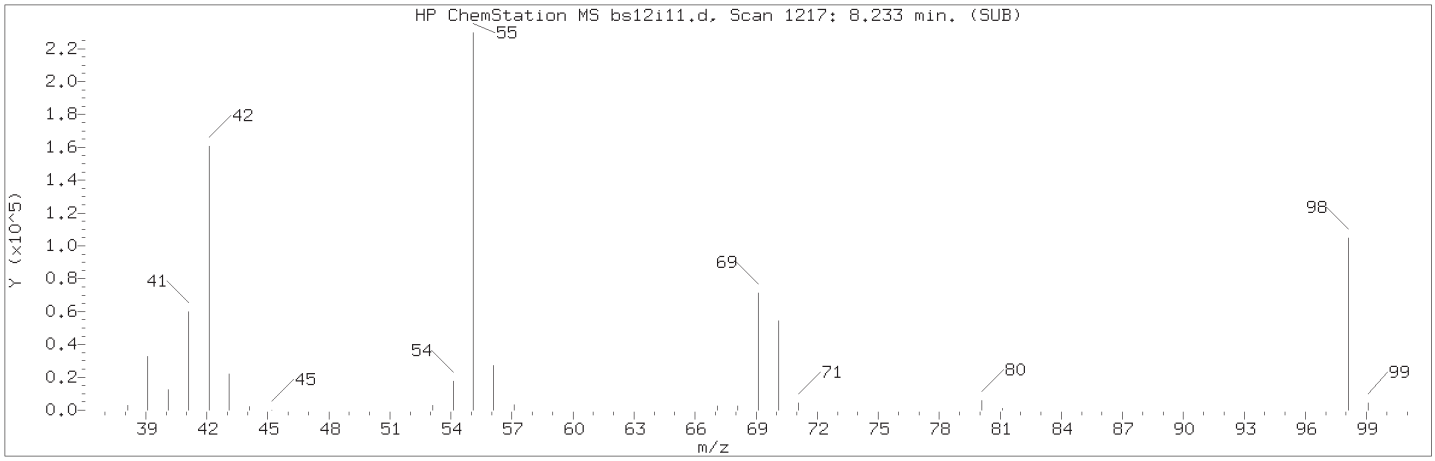
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:51
Date, time and analyst ID of latest file update: 12-Sep-2018 13:51 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

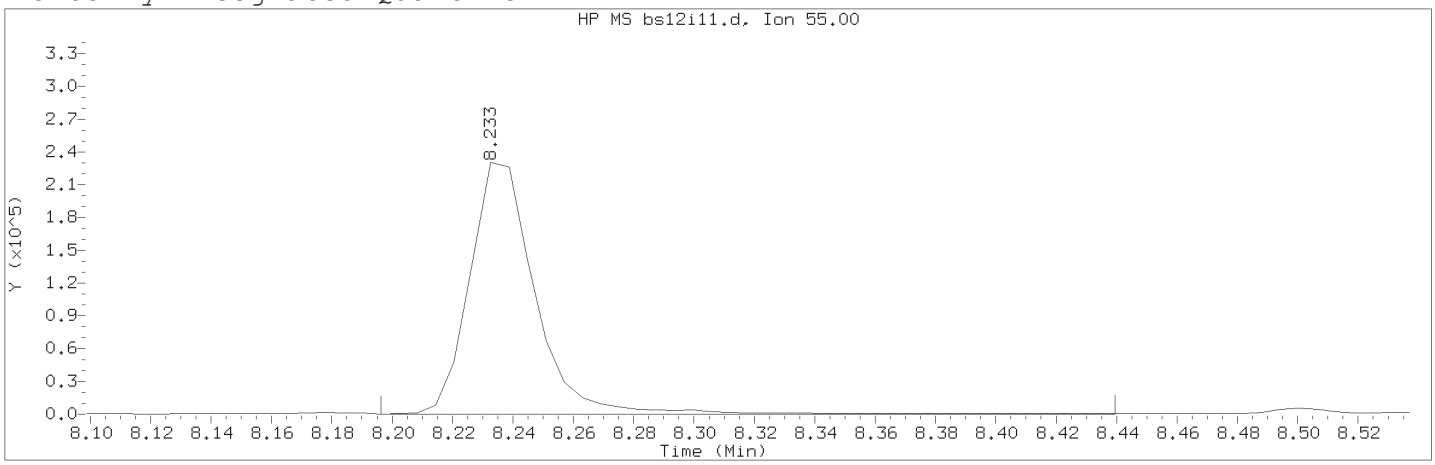
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 151385
On-column Amount (ng) : 1983.2627
Integration start scan : 609 Integration stop scan: 706
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

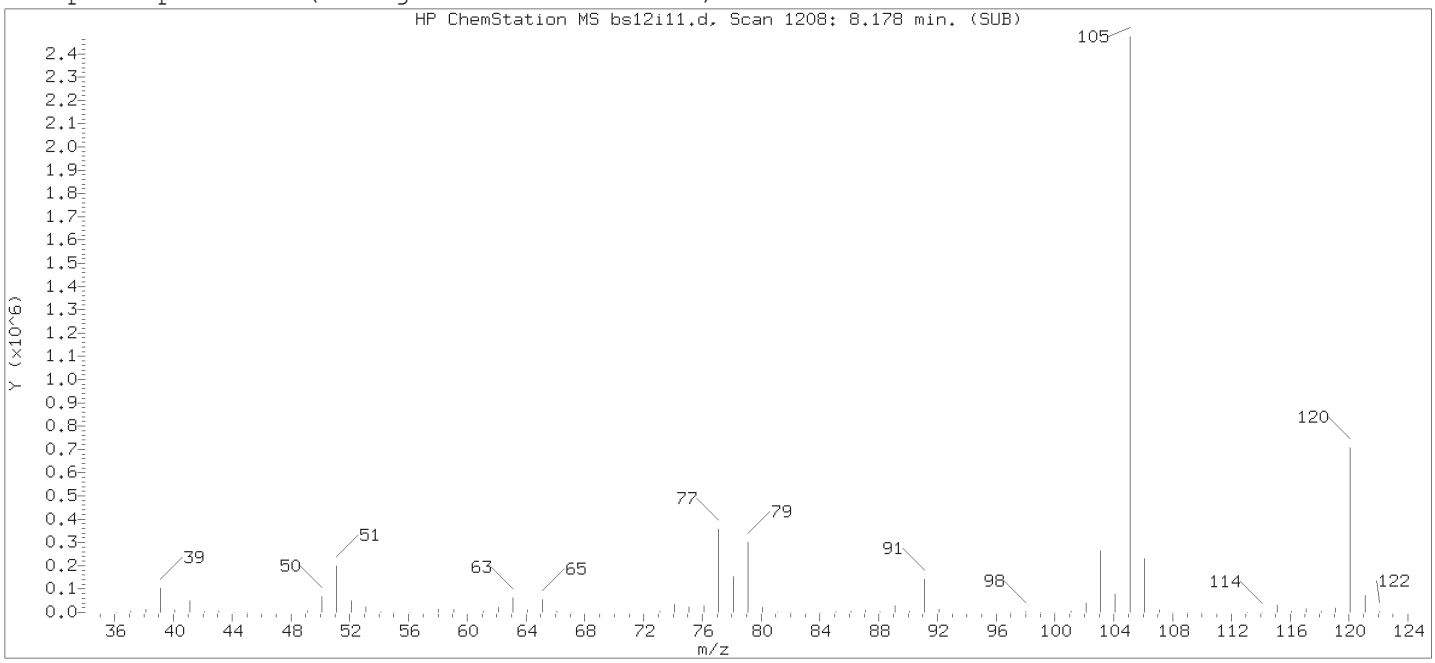
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area (flag) : 349174A
On-Column Amount (ng) : 1500.7807
Integration start scan : 1210 Integration stop scan: 1250
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

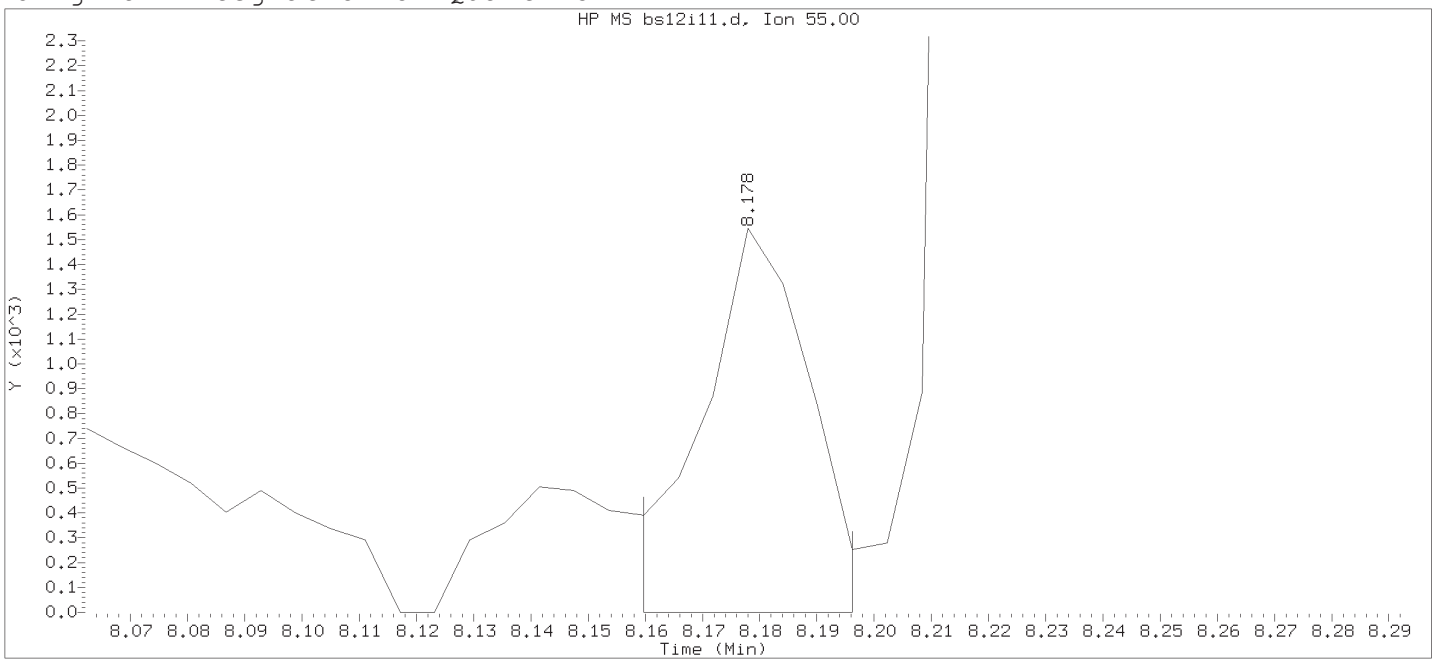
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:51
Date, time and analyst ID of latest file update: 12-Sep-2018 13:51 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1208
Retention Time (minutes): 8.178
Quant Ion : 55.00
Area : 1983
On-column Amount (ng) : 7.6026
Integration start scan : 1204 Integration stop scan: 1210
Y at integration start : 0 Y at integration end: 0

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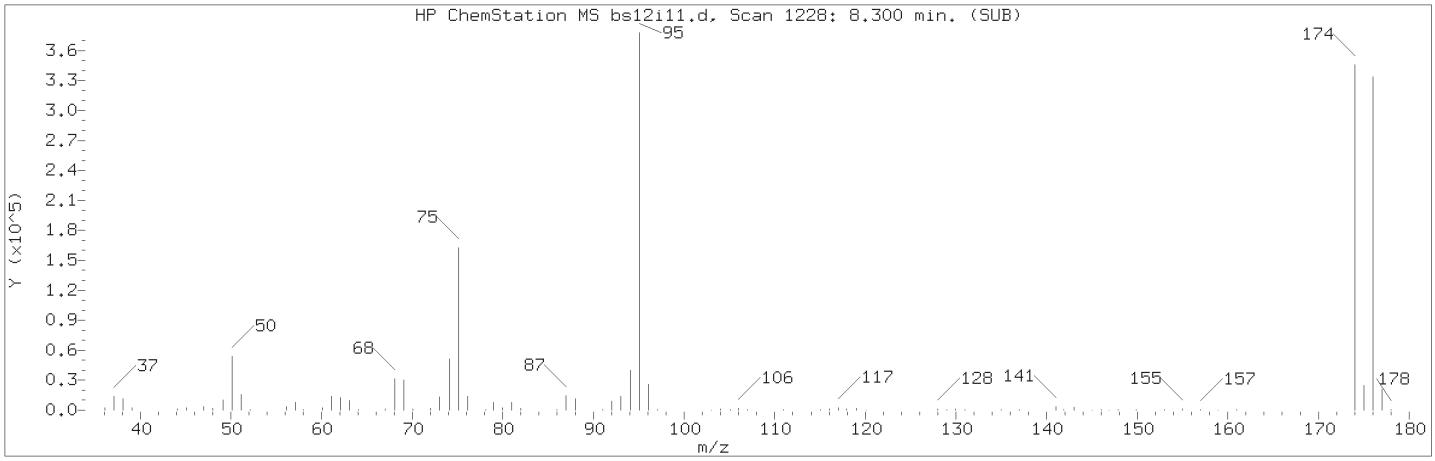
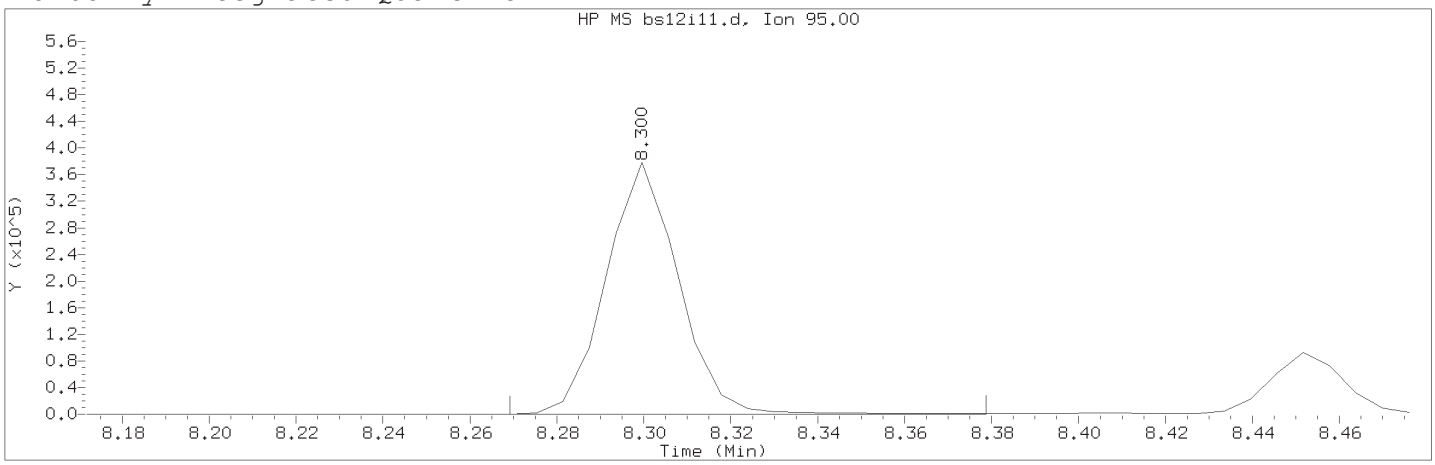
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

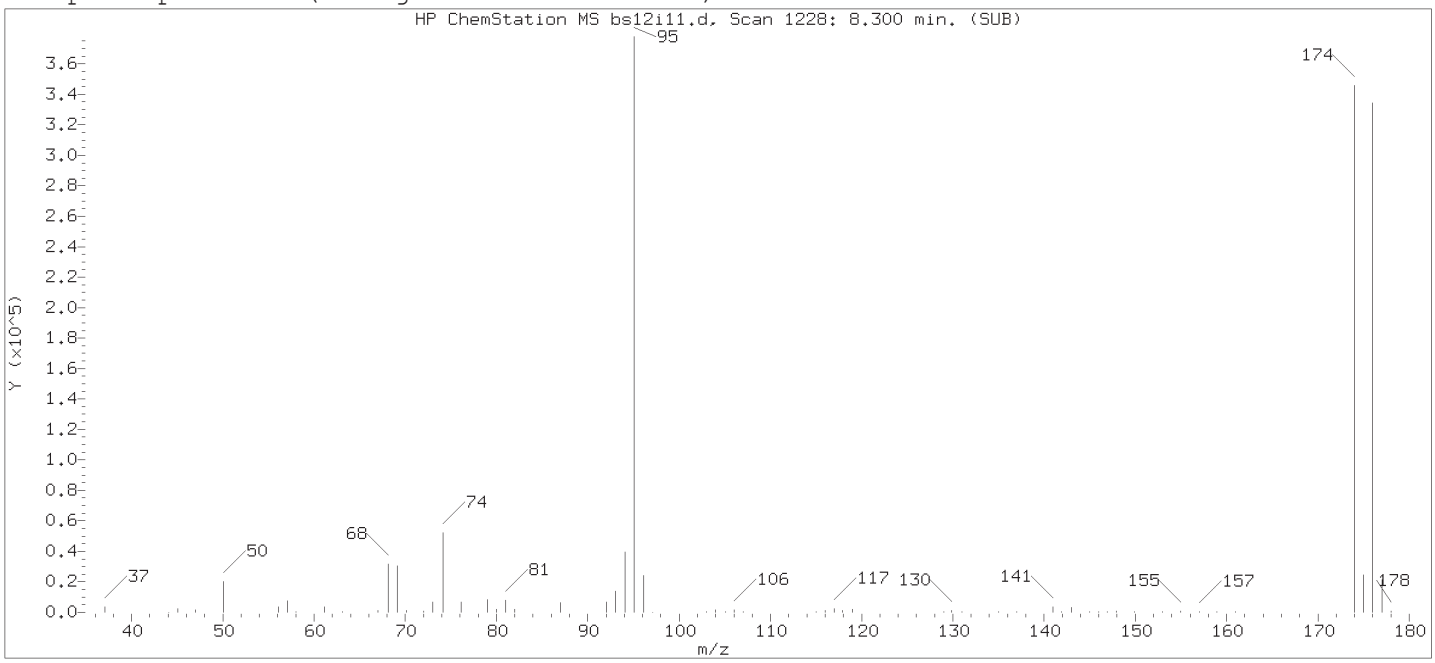
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area (flag) : 435886M
On-Column Amount (ng) : 49.6566
Integration start scan : 1222 Integration stop scan: 1240
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

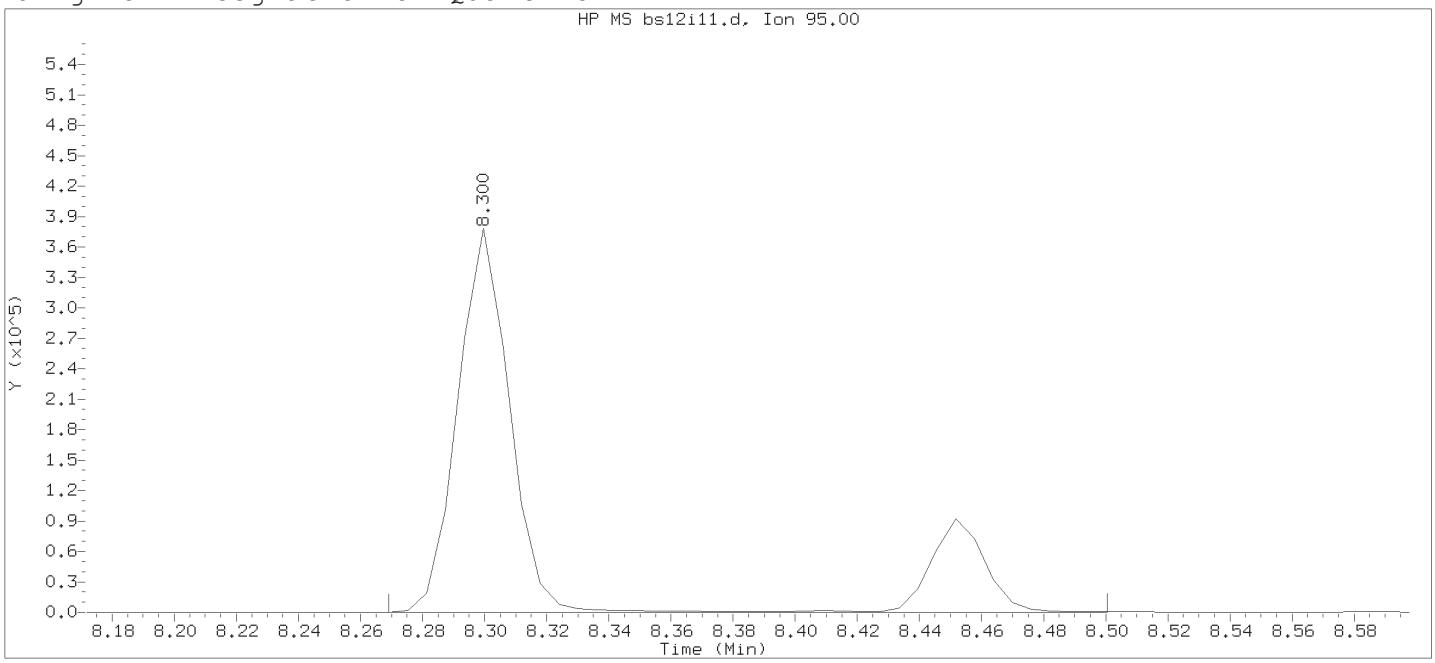
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i11.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:36 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 13:51
Date, time and analyst ID of latest file update: 12-Sep-2018 13:51 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 119		
Compound Name	: 4-Bromofluorobenzene		
Scan Number	: 1228		
Retention Time (minutes)	: 8.300		
Quant Ion	: 95.00		
Area	: 548389		
On-column Amount (ng)	: 58.1311		
Integration start scan	: 1222	Integration stop scan:	1260
Y at integration start	: 0	Y at integration end:	0

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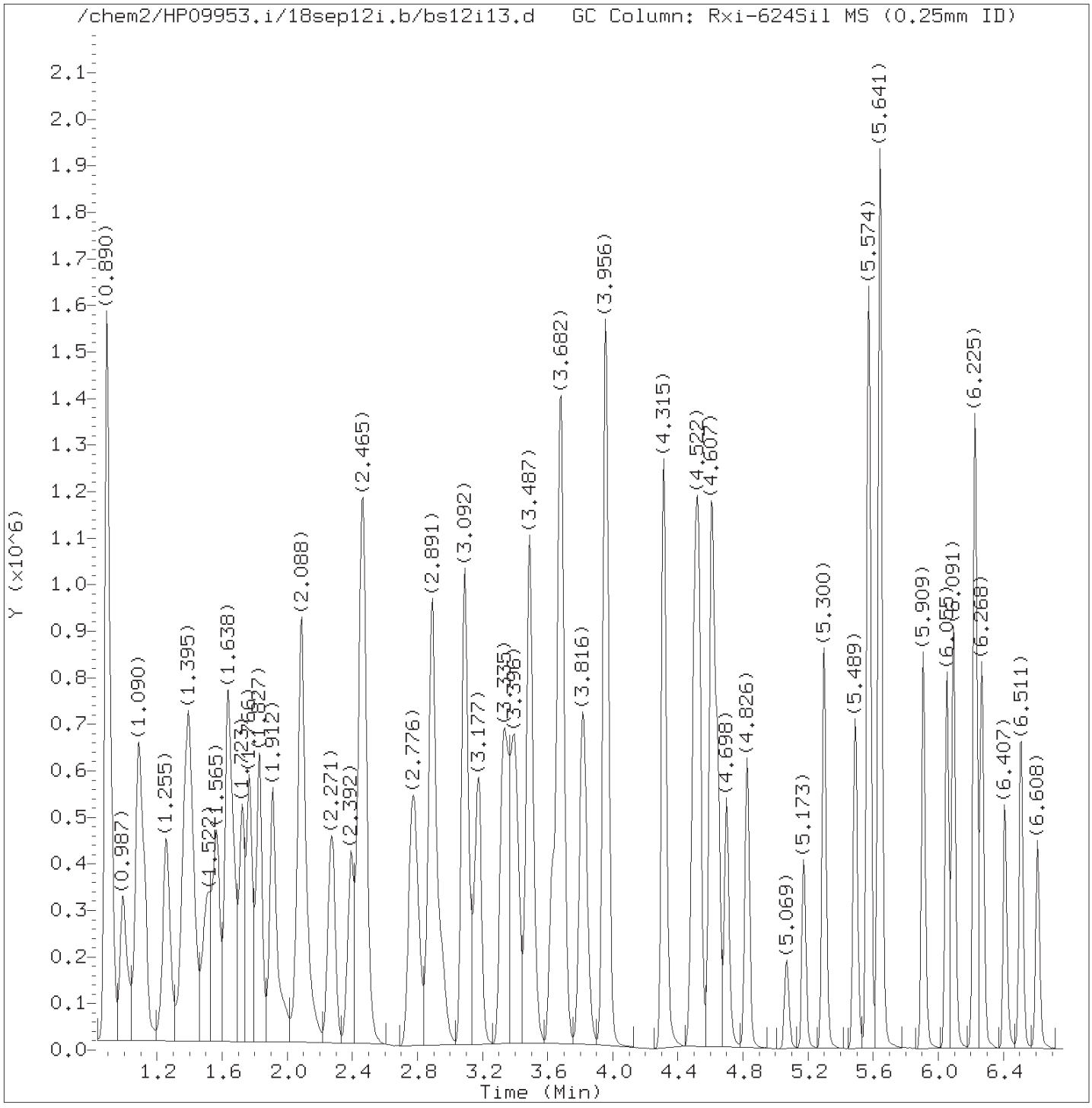
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

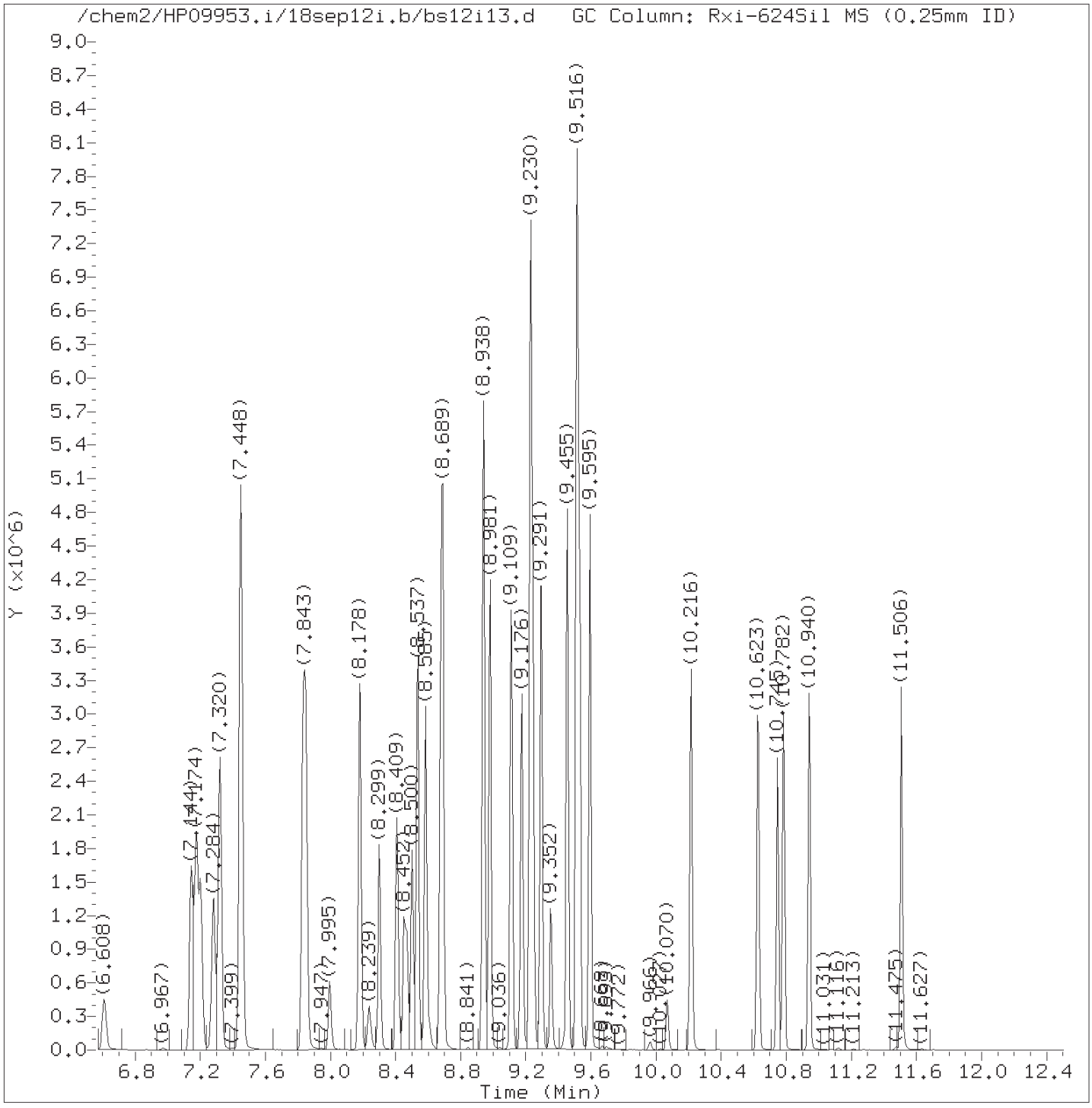
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	517738	47.268
4) Chloromethane	(2)	1.078	50	526359	46.622
5) Vinyl Chloride	(2)	1.127	62	408925	46.483
9) Bromomethane	(2)	1.255	94	376048	48.028
10) Chloroethane	(2)	1.273	64	231180	48.852
11) Dichlorofluoromethane	(2)	1.376	67	542599	47.411
13) Trichlorofluoromethane	(2)	1.419	101	583726	48.199
15) Ethanol	(1)	1.455	45	124784	2228.878
17) Freon 123a	(2)	1.516	67	364730	44.985
18) Acrolein	(1)	1.571	56	457364	441.185
19) 1,1-Dichloroethene	(2)	1.632	96	300077	49.308
20) Acetone	(1)	1.650	58	46851	95.699
22) Freon 113	(2)	1.662	101	303415	49.727
23) 2-Propanol	(1)	1.723	45	107878	260.221
24) Methyl Iodide	(2)	1.723	142	733254	50.109
25) Carbon Disulfide	(2)	1.766	76	1216787	49.969
29) Allyl Chloride	(2)	1.827	41	402274M	49.416
27) Methyl Acetate	(2)	1.833	43	153058	49.046
31) Methylene Chloride	(2)	1.912	84	339367	47.187
30)*t-Butyl alcohol-d10	(1)	1.930	65	107301	250.000
32) t-Butyl alcohol	(1)	1.979	59	143674	254.902
33) Acrylonitrile	(2)	2.064	53	92633	43.848
35) trans-1,2-Dichloroethene	(2)	2.088	96	352918	49.866
34) Methyl Tertiary Butyl Ether	(2)	2.100	73	884472	51.094
38) n-Hexane	(2)	2.277	57	376357	46.589
40) 1,1-Dichloroethane	(2)	2.392	63	585928	51.058
41) di-Isopropyl ether	(2)	2.459	45	1095189	51.131
42) 2-Chloro-1,3-butadiene	(2)	2.465	53	514890	50.915
43) Ethyl t-butyl ether	(2)	2.776	59	1042155	51.666
45) cis-1,2-Dichloroethene	(2)	2.885	96	395198	51.444
47) 2,2-Dichloropropane	(2)	2.897	77	423618	50.635
44) 2-Butanone	(1)	2.897	43	232433	84.257
49) Propionitrile	(1)	2.952	54	198561	268.307
46) 1,2-Dichloroethene (Total)	(2)		96	748116	101.310
51) Methacrylonitrile	(2)	3.086	67	306415	129.798
52) Bromochloromethane	(2)	3.098	128	208878	51.180
53) Tetrahydrofuran	(1)	3.141	71	66188	96.323
54) Chloroform	(2)	3.177	83	593415	50.946

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.323	113	303438	50.191
56)$Dibromofluoromethane	(2)	3.317	111	308740	50.375
57) 1,1,1-Trichloroethane	(2)	3.347	97	573359	48.076
58) Cyclohexane	(2)	3.396	56	559281	49.918
58) Cyclohexane	(2)	3.396	84	499349	47.691
58) Cyclohexane	(2)	3.396	69	177991	50.232
60) 1,1-Dichloropropene	(2)	3.487	75	443874	51.217
61) Carbon Tetrachloride	(2)	3.500	117	473550	52.282
63)$1,2-Dichloroethane-d4	(2)	3.627	102	65163M	50.077
63)$1,2-Dichloroethane-d4	(2)	3.627	65	283686	49.575
63)$1,2-Dichloroethane-d4	(2)	3.621	104	42453	50.924
62) Isobutyl Alcohol	(1)	3.652	41	130322	658.090
64) Benzene	(2)	3.676	78	1388964	50.201
67) 1,2-Dichloroethane	(2)	3.694	62	393860	49.327
67) 1,2-Dichloroethane	(2)	3.700	98	40138	50.602
68) t-Amyl methyl ether	(2)	3.816	73	969094	52.035
70)*Fluorobenzene	(2)	3.950	96	1213056	50.000
72) n-Heptane	(2)	3.962	43	367260	49.837
73) n-Butanol	(1)	4.315	56	228249	1376.452
75) Trichloroethene	(2)	4.315	95	363777	50.417
76) Methylcyclohexane	(2)	4.503	83	571335	50.882
77) 1,2-Dichloropropane	(2)	4.528	63	340031	51.750
81) Dibromomethane	(2)	4.643	93	204792	50.966
80) 1,4-Dioxane	(1)	4.692	88	47660M	693.527
79) Methyl Methacrylate	(2)	4.698	69	224091	52.912
84) Bromodichloromethane	(2)	4.826	83	440305	53.660
85) 2-Nitropropane	(1)	5.069	41	126922	89.430
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	185838	53.714
89) cis-1,3-Dichloropropene	(2)	5.300	75	533639	53.859
90) 4-Methyl-2-pentanone	(2)	5.489	43	521027	92.260
91)$Toluene-d8	(3)	5.574	98	1213492	50.002
91)$Toluene-d8	(3)	5.574	100	789204	50.112
92) Toluene	(3)	5.641	92	912919	50.717
93) trans-1,3-Dichloropropene	(3)	5.909	75	469763	54.483
94) 1,3-Dichloropropene (total)	(3)		100	1003402	108.342
95) Ethyl Methacrylate	(3)	6.055	69	452531	54.068
96) 1,1,2-Trichloroethane	(3)	6.091	97	303081	51.886
98) Tetrachloroethene	(3)	6.225	166	419479	42.546

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.268	76	486043	51.677
101) 2-Hexanone	(3)	6.407	43	363984	86.972
103) Dibromochloromethane	(3)	6.511	129	375086	55.735
104) 1,2-Dibromoethane	(3)	6.608	107	320862	53.169
105)*Chlorobenzene-d5	(3)	7.144	117	940298	50.000
107) Chlorobenzene	(3)	7.174	112	1087318	51.738
106) 1-Chlorohexane	(3)	7.204	91	462535	51.715
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	389333	54.633
109) Ethylbenzene	(3)	7.320	91	1762847	52.072
110) m+p-Xylene	(3)	7.448	106	1462042	105.832
111) o-Xylene	(3)	7.831	106	734000	53.147
113) Styrene	(3)	7.849	104	1232376	54.128
112) Xylene (Total)	(3)		106	2196042	158.979
114) Bromoform	(3)	7.995	173	240914	57.448
115) Isopropylbenzene	(3)	8.178	105	1837936	52.796
118) Cyclohexanone	(1)	8.239	55	133827	538.142
119)$4-Bromofluorobenzene	(3)	8.299	95	444281M	50.253
119)$4-Bromofluorobenzene	(3)	8.299	174	407782	50.112
121) Bromobenzene	(4)	8.409	156	510787	51.162
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	405311	53.173
123) 1,2,3-Trichloropropane	(4)	8.470	110	119395	52.827
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	254523	136.078
124) n-Propylbenzene	(4)	8.537	91	2055081	52.064
126) 2-Chlorotoluene	(4)	8.585	126	468343	50.566
130) 4-Chlorotoluene	(4)	8.677	126	488794	52.089
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	1619998	53.058
133) tert-Butylbenzene	(4)	8.938	134	387985	54.093
134) Pentachloroethane	(4)	8.944	167	307672	71.736
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	1678196	52.708
136) sec-Butylbenzene	(4)	9.109	105	2045037	52.612
138) 1,3-Dichlorobenzene	(4)	9.176	146	960719	51.273
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	544910	50.000
139) p-Isopropyltoluene	(4)	9.230	119	1862718	53.475
141) 1,4-Dichlorobenzene	(4)	9.242	146	991943	50.778
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	1771707	51.620
143) Benzyl Chloride	(4)	9.352	126	143889	56.516
144) 1,3-Diethylbenzene	(4)	9.455	119	1113615	51.715
145) 1,4-Diethylbenzene	(4)	9.516	119	1195739	53.504

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

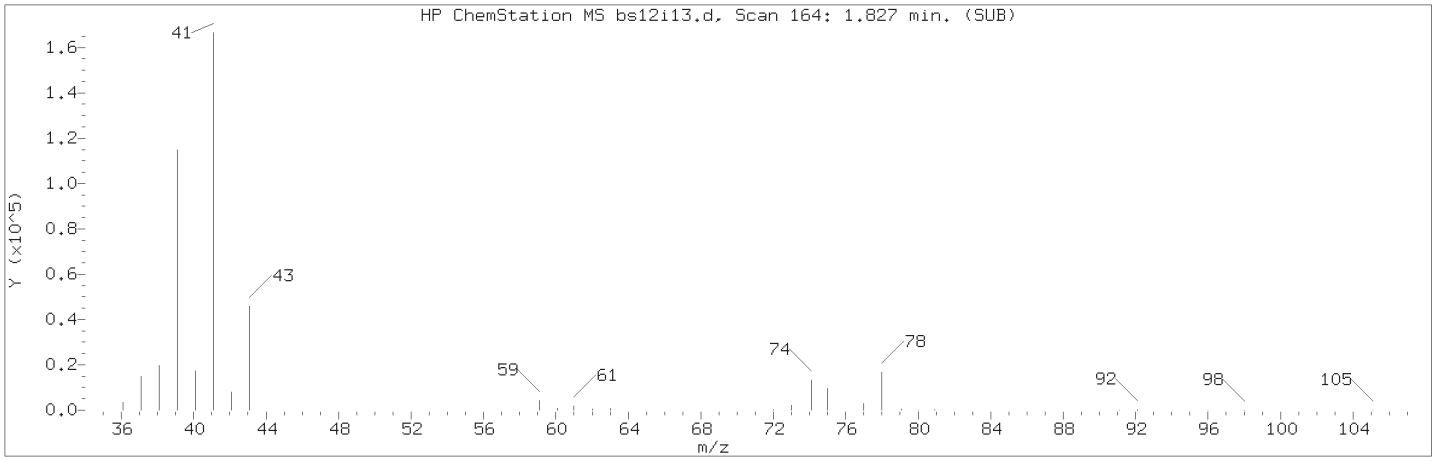
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

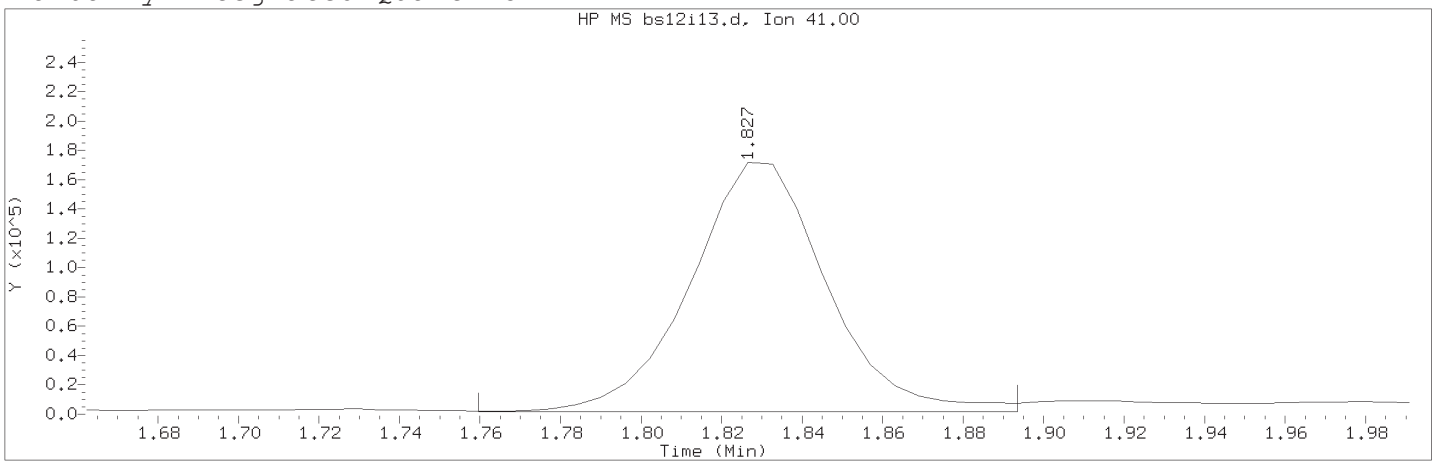
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	969281	52.912
146) n-Butylbenzene	(4)	9.528	92	856761	52.941
148) 1,2-Diethylbenzene	(4)	9.595	119	962791	51.106
149) Diethylbenzene (total)	(4)		100	3272145	156.325
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	70932	53.560
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	746931	52.113
153) 1,2,4-Trichlorobenzene	(4)	10.629	180	689655	51.053
154) Hexachlorobutadiene	(4)	10.745	225	328164	53.244
155) Naphthalene	(4)	10.782	128	1613423	50.278
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	658066	51.084
157) 2-Methylnaphthalene	(4)	11.506	142	1046747	48.226

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

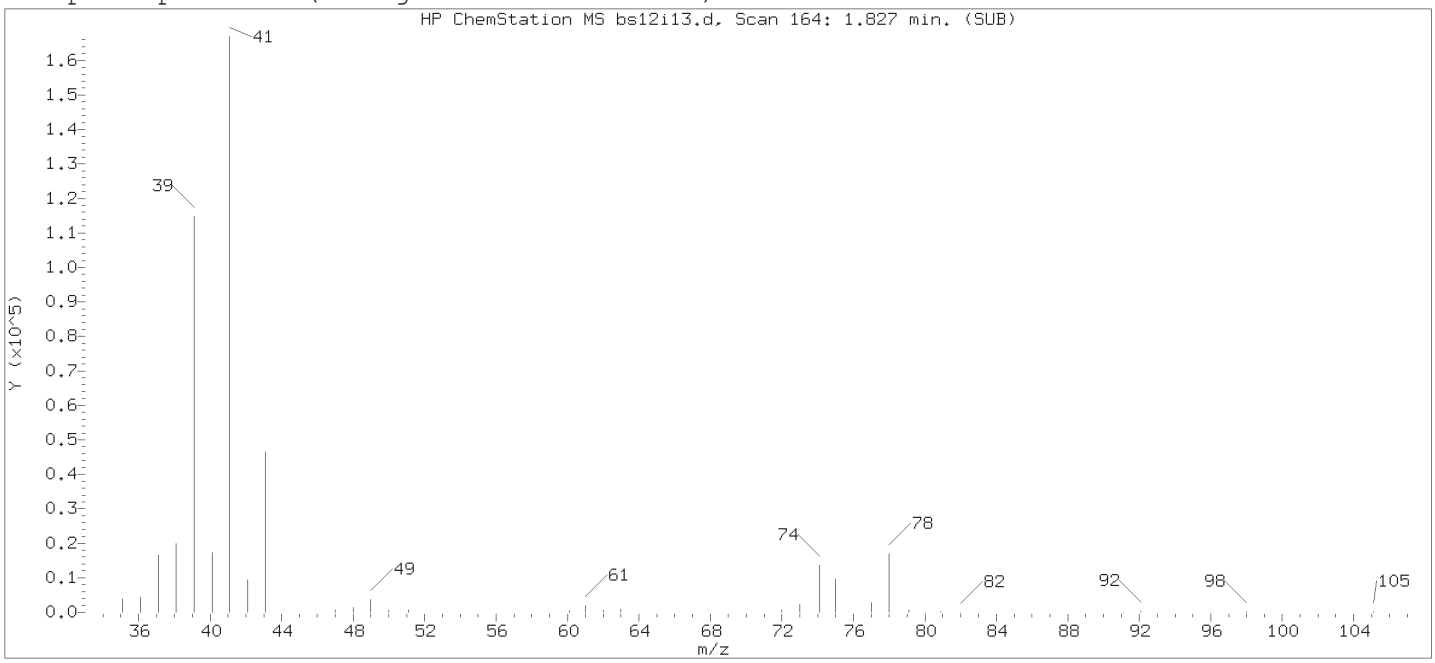
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area (flag) : 402274M
On-Column Amount (ng) : 49.4157
Integration start scan : 152 Integration stop scan: 174
Y at integration start : 1538 Y at integration end: 1538

Reason for manual integration: improper integration

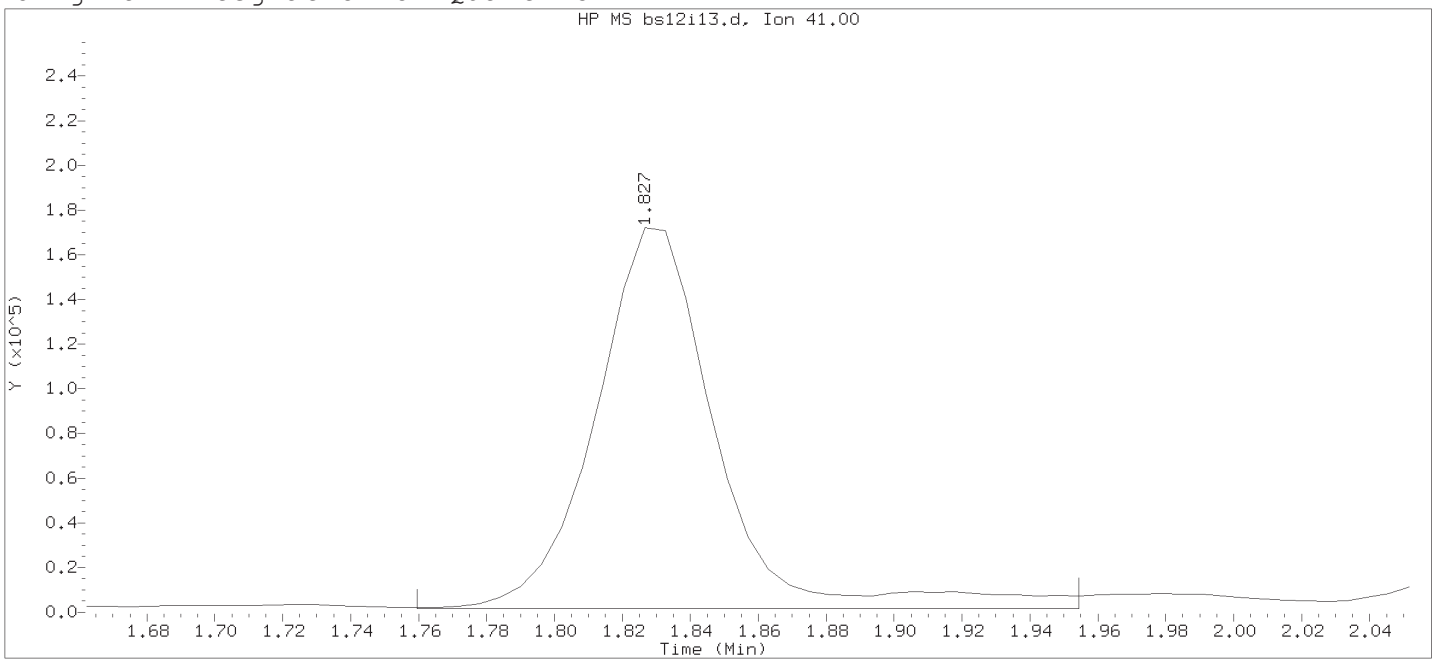
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

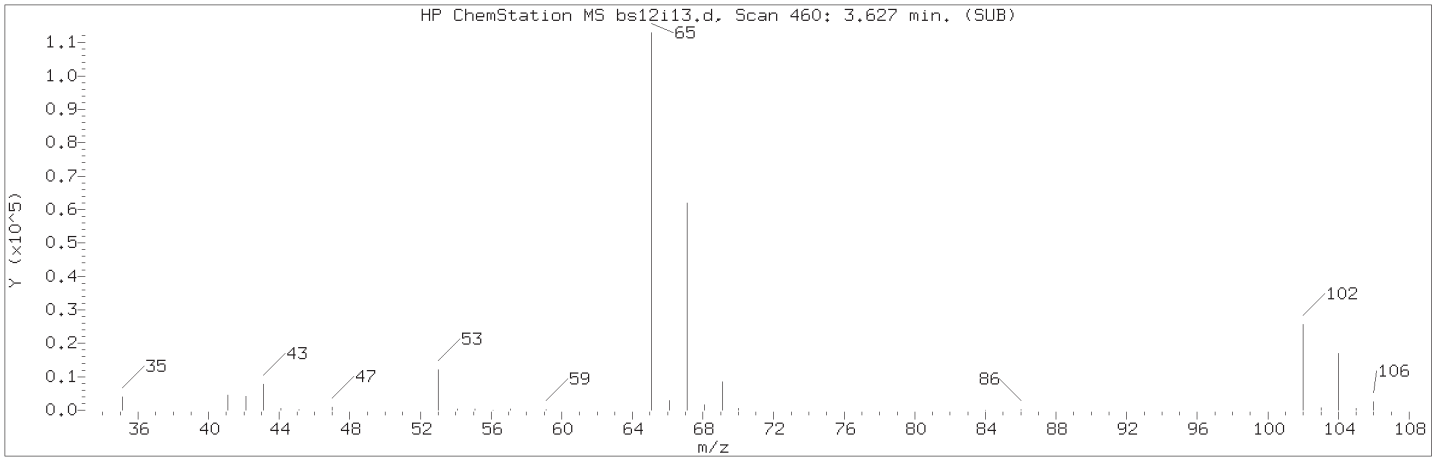
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:14
Date, time and analyst ID of latest file update: 12-Sep-2018 14:14 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

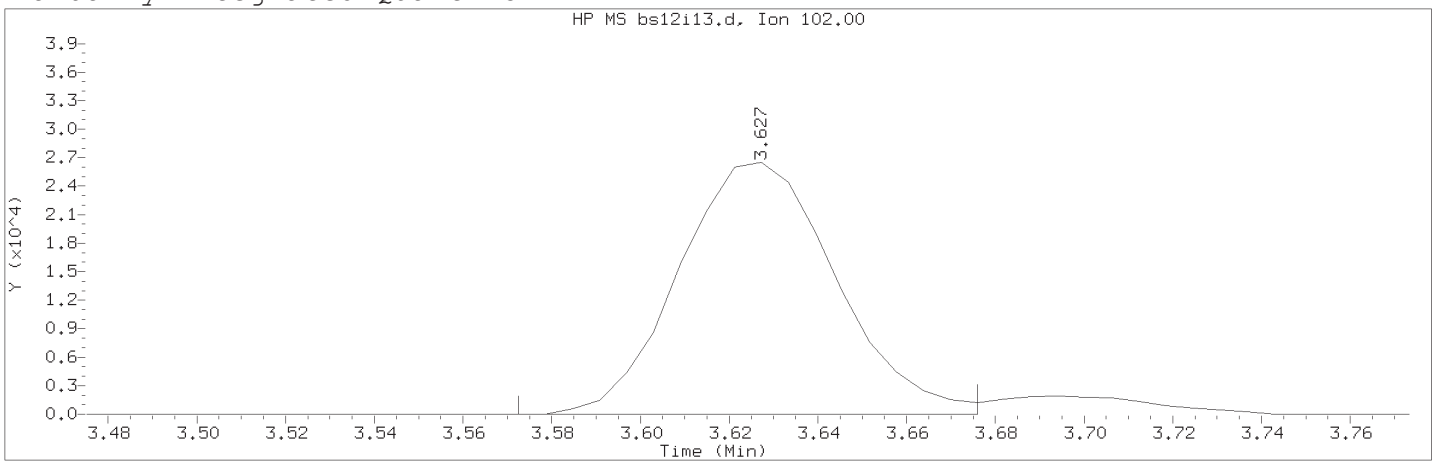
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area : 425458
On-column Amount (ng) : 43.9800
Integration start scan : 152 Integration stop scan: 184
Y at integration start : 1538 Y at integration end: 1538

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

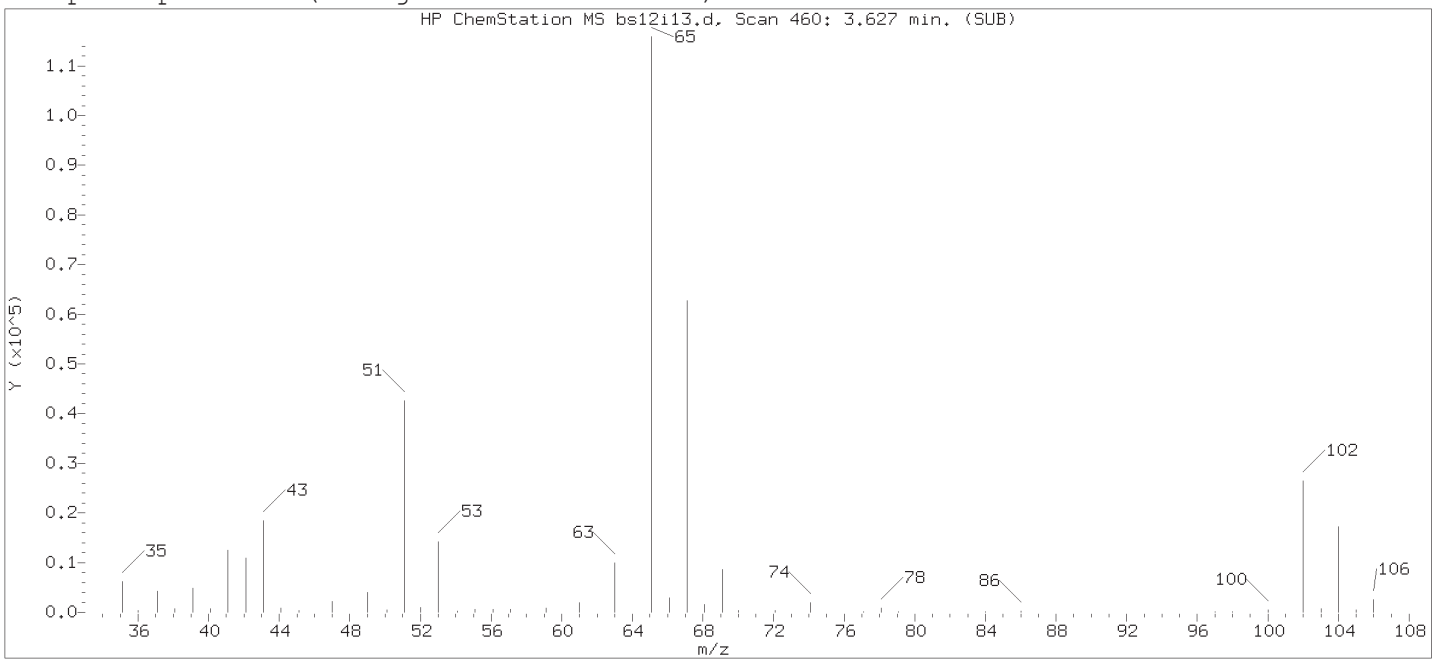
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 460
Retention Time (minutes): 3.627
Quant Ion : 102.00
Area (flag) : 65163M
On-Column Amount (ng) : 50.0774
Integration start scan : 450 Integration stop scan: 467
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

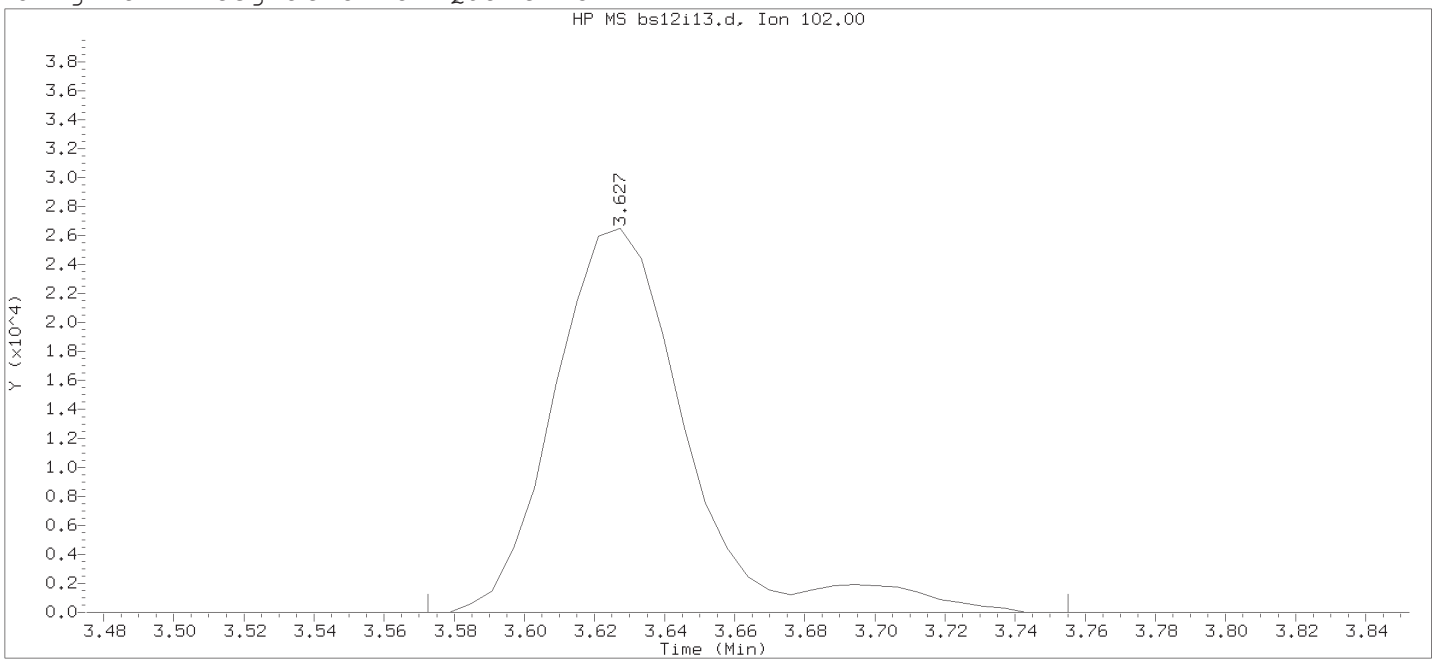
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

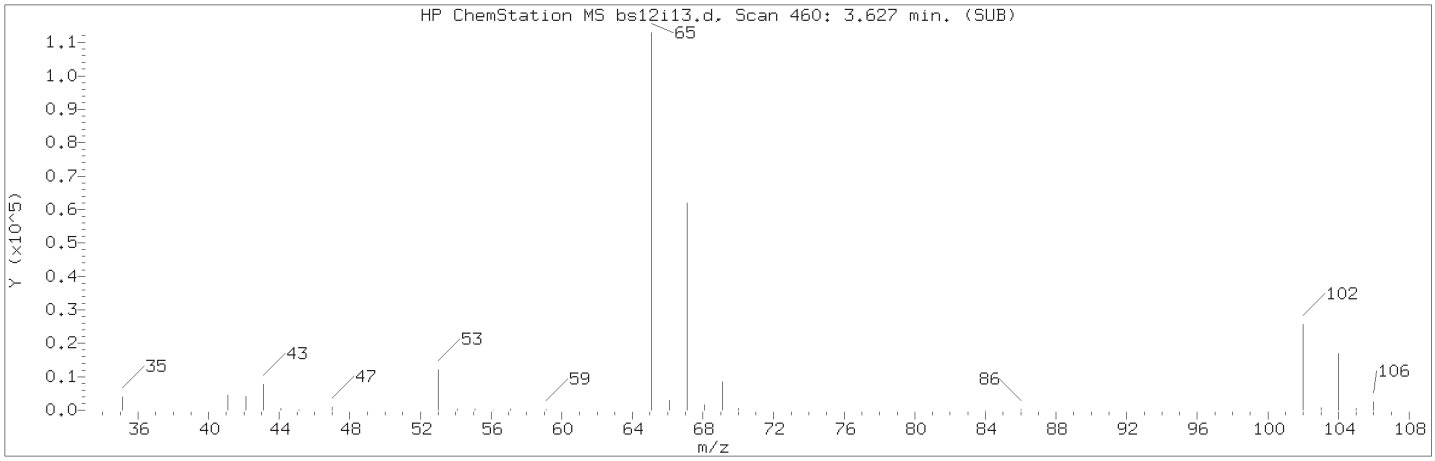
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:14
Date, time and analyst ID of latest file update: 12-Sep-2018 14:14 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

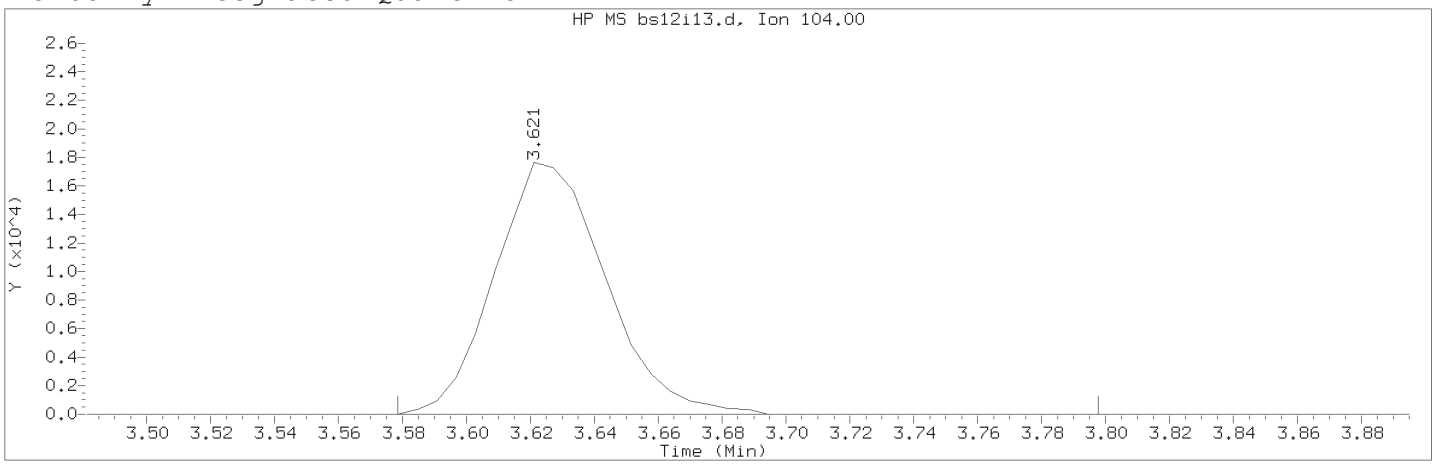
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 460
Retention Time (minutes): 3.627
Quant Ion : 102.00
Area : 69709
On-column Amount (ng) : 52.2918
Integration start scan : 450 Integration stop scan: 480
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

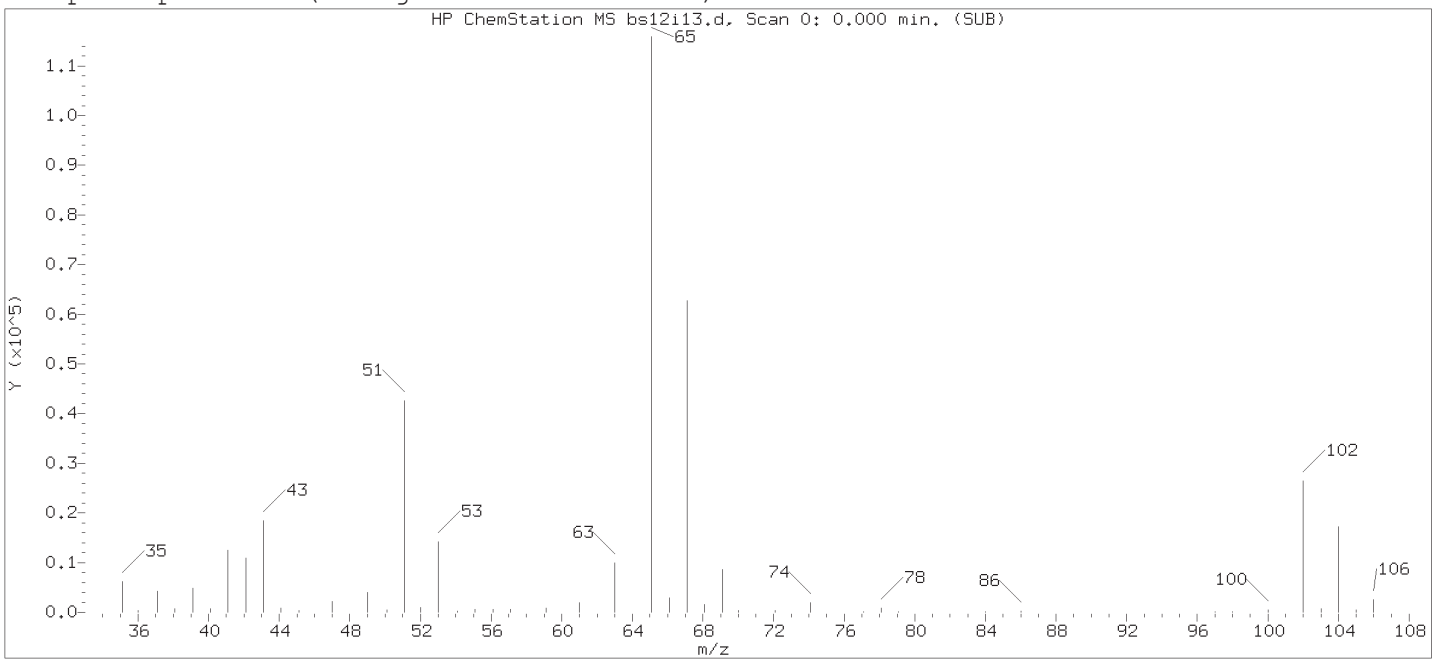
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 459
Retention Time (minutes): 3.621
Quant Ion : 104.00
Area (flag) : 42453M
On-Column Amount (ng) : 50.9237
Integration start scan : 451 Integration stop scan: 487
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

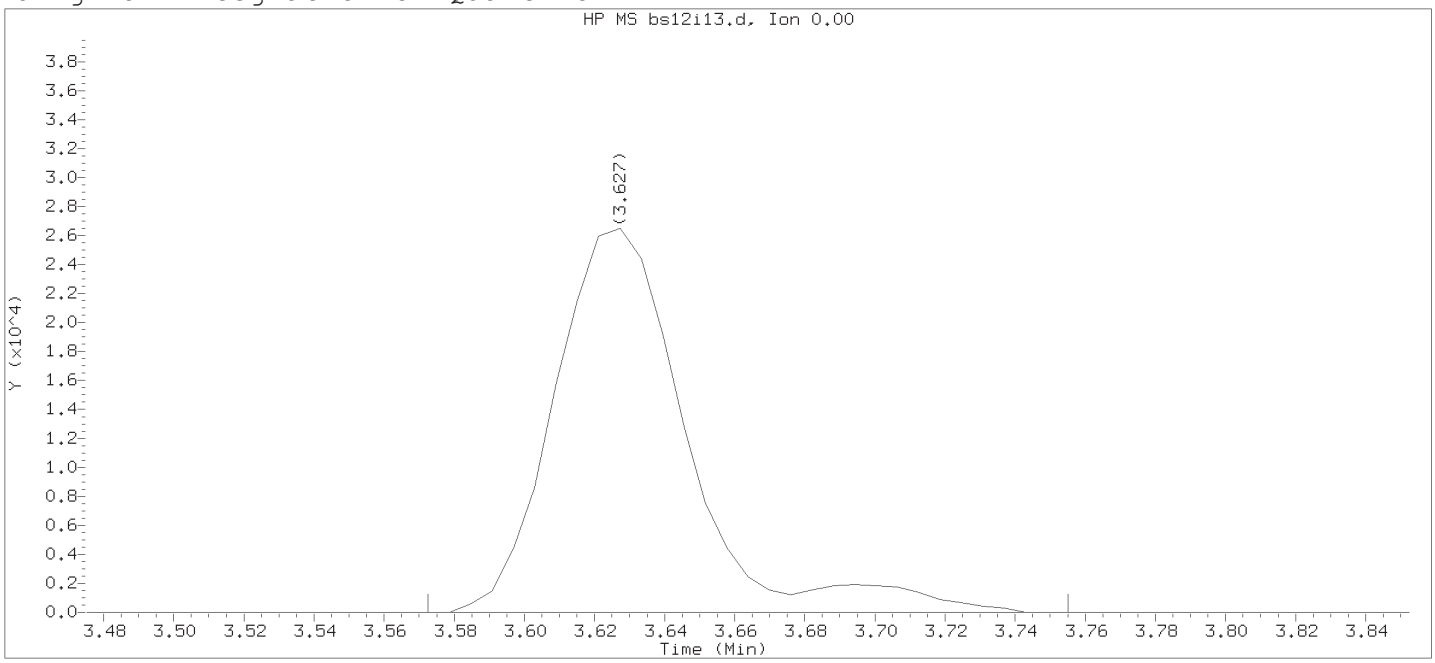
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

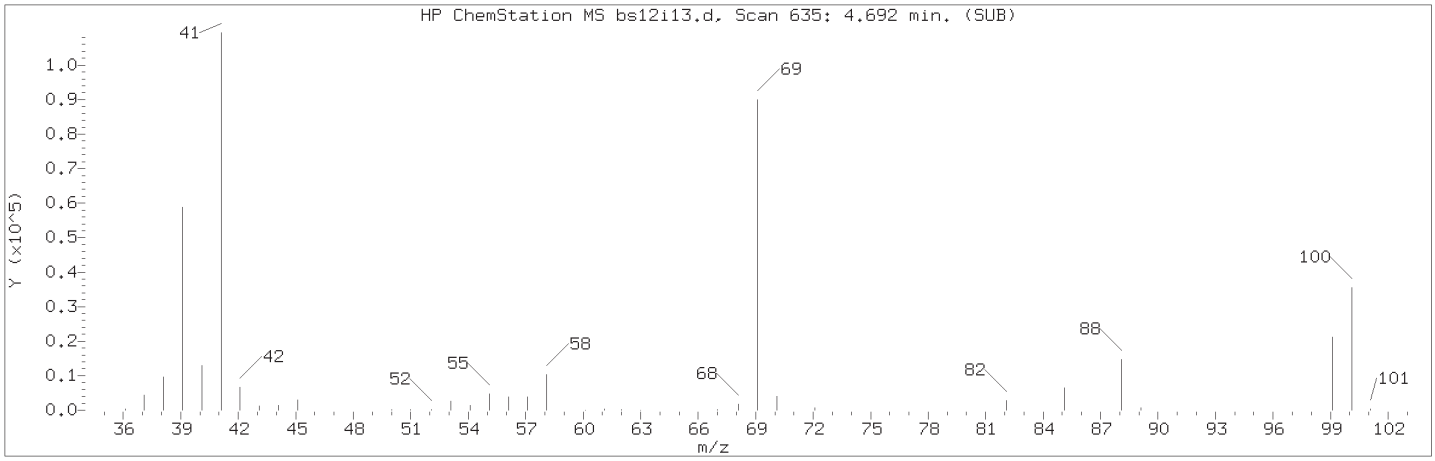
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:14
Date, time and analyst ID of latest file update: 12-Sep-2018 14:14 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

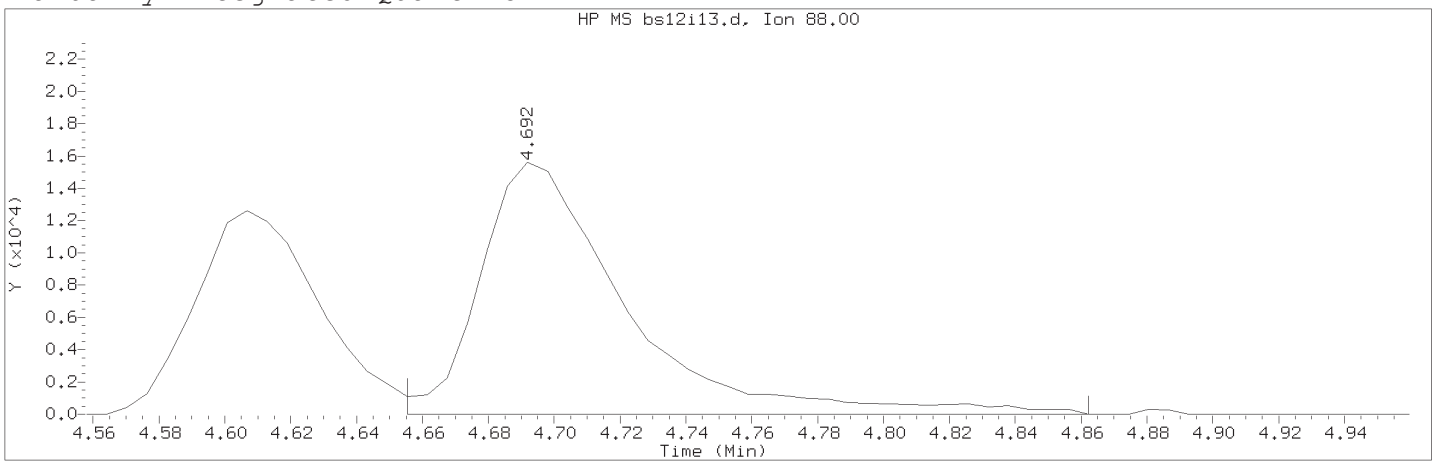
Compound Number : 0
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 0 Integration stop scan: 0
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jhowe0942

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

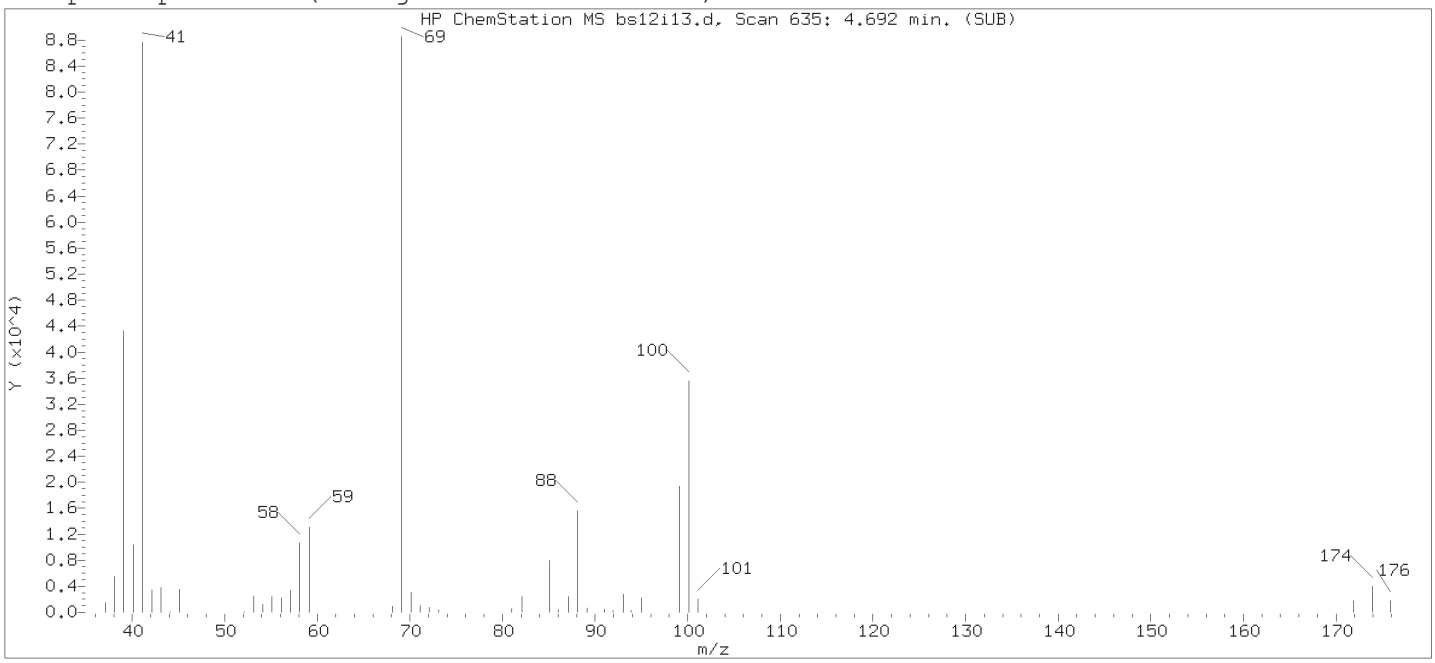
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 47660M
On-Column Amount (ng) : 693.5269
Integration start scan : 628 Integration stop scan: 662
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

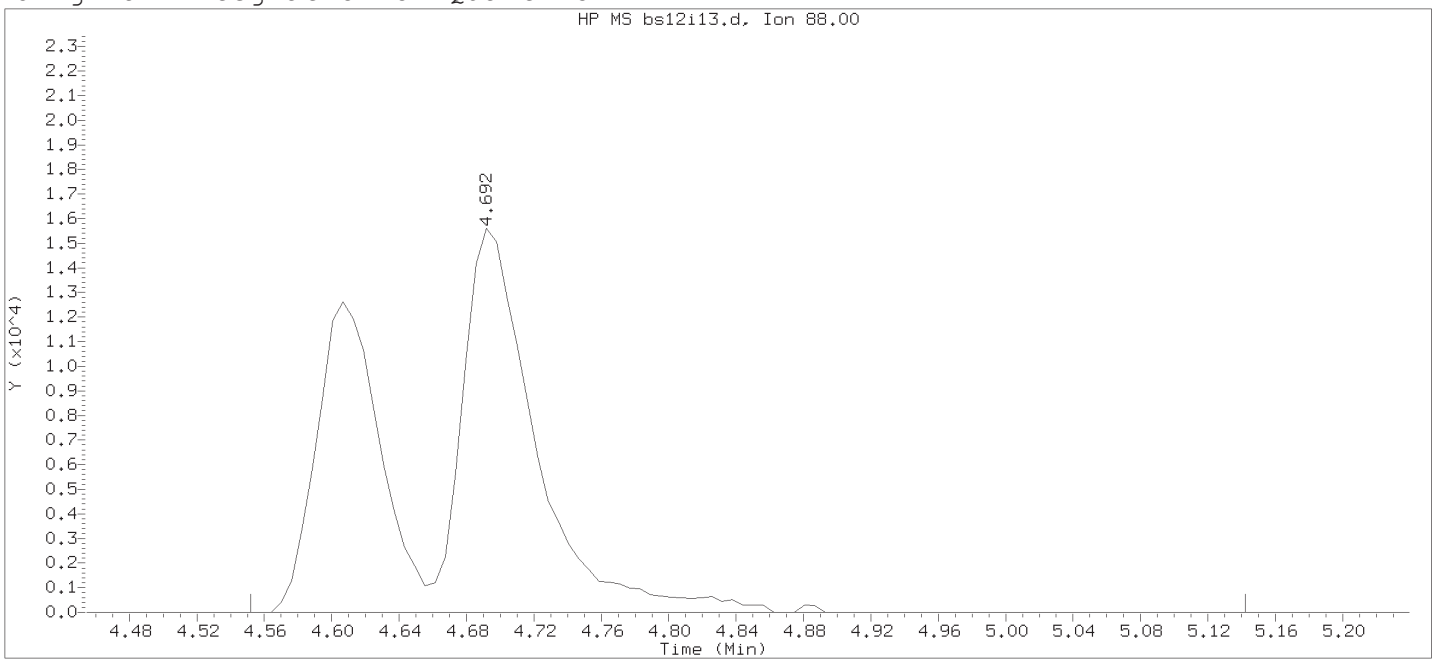
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

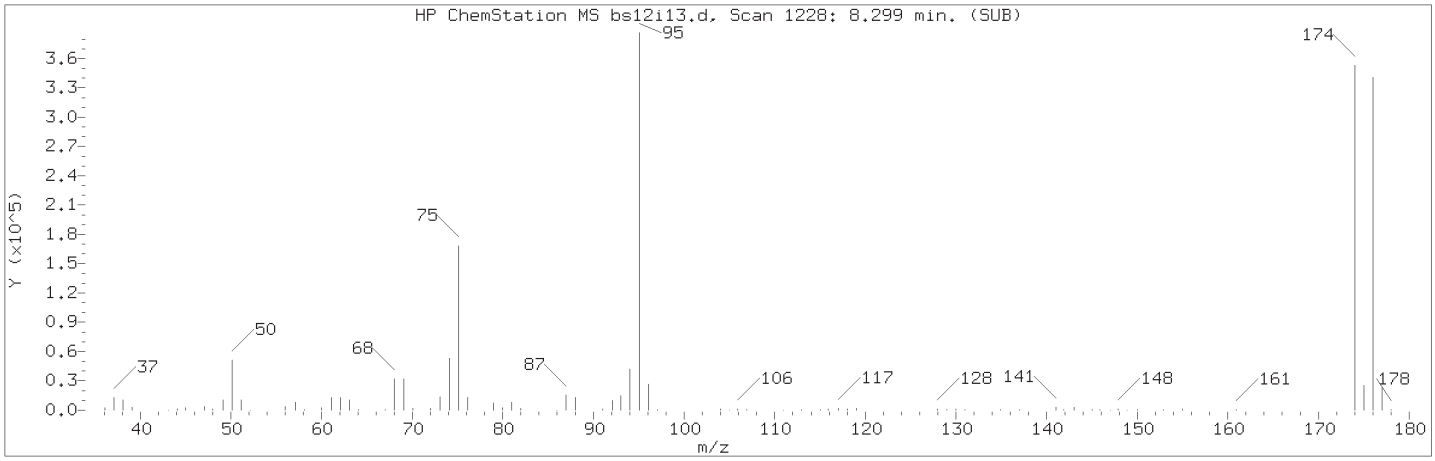
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:14
Date, time and analyst ID of latest file update: 12-Sep-2018 14:14 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

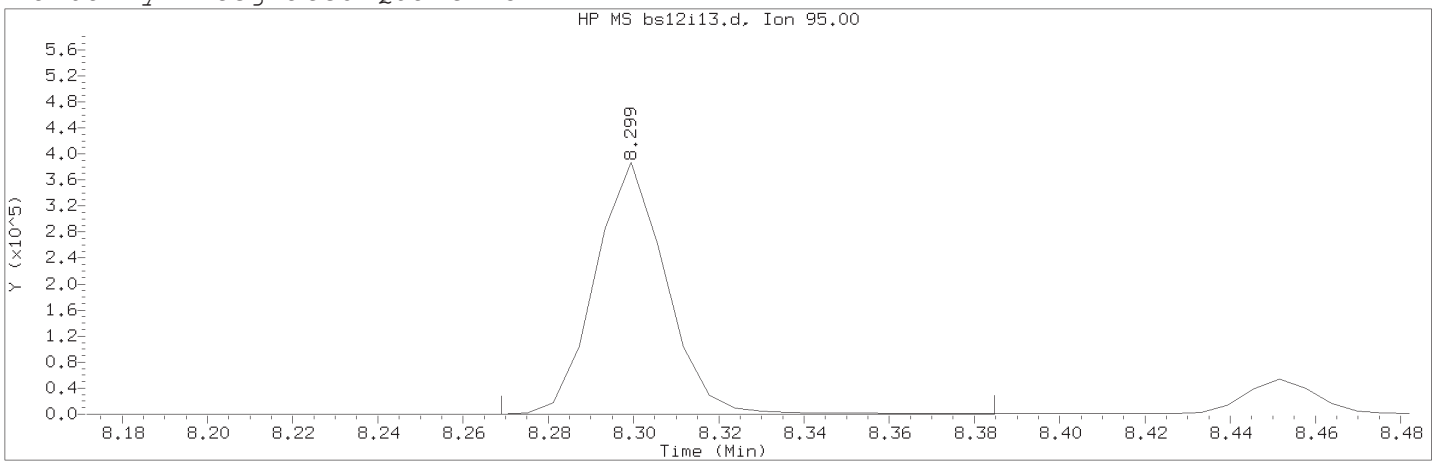
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 80509
On-column Amount (ng) : 880.1982
Integration start scan : 611 Integration stop scan: 708
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

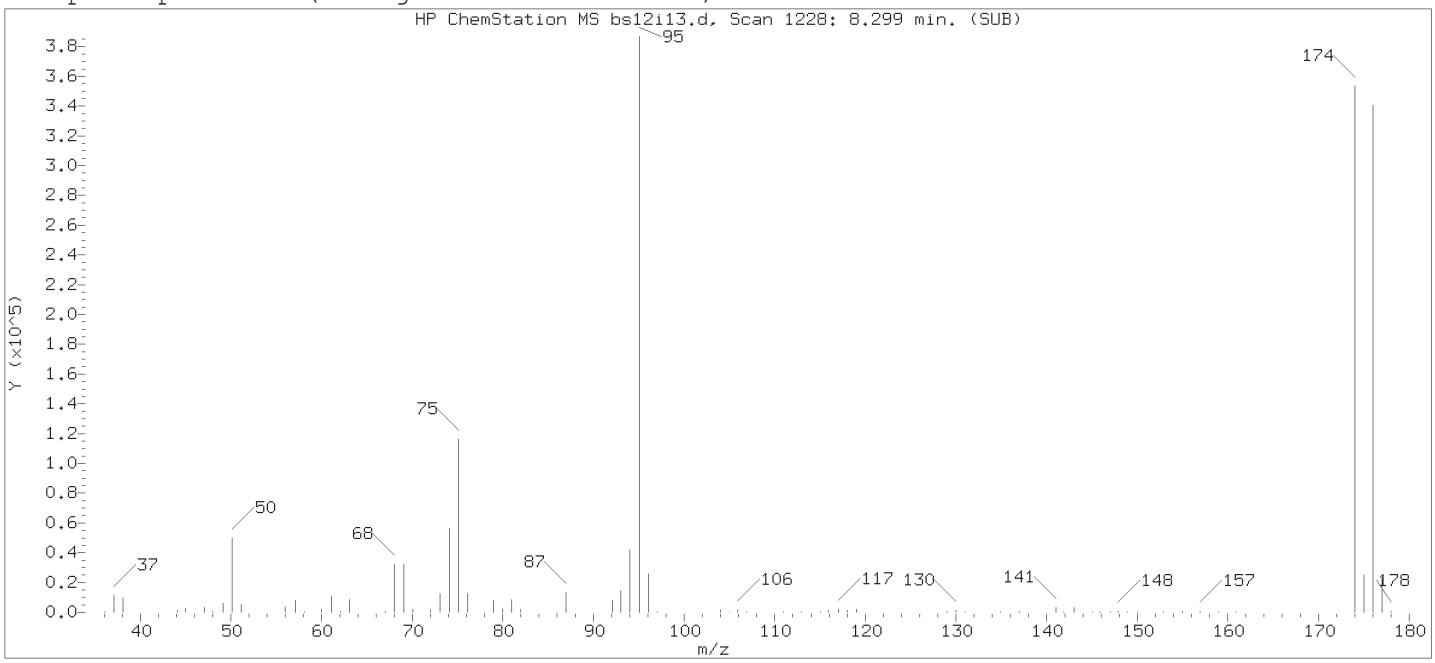
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.299
Quant Ion : 95.00
Area (flag) : 444281M
On-Column Amount (ng) : 50.2530
Integration start scan : 1222 Integration stop scan: 1241
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

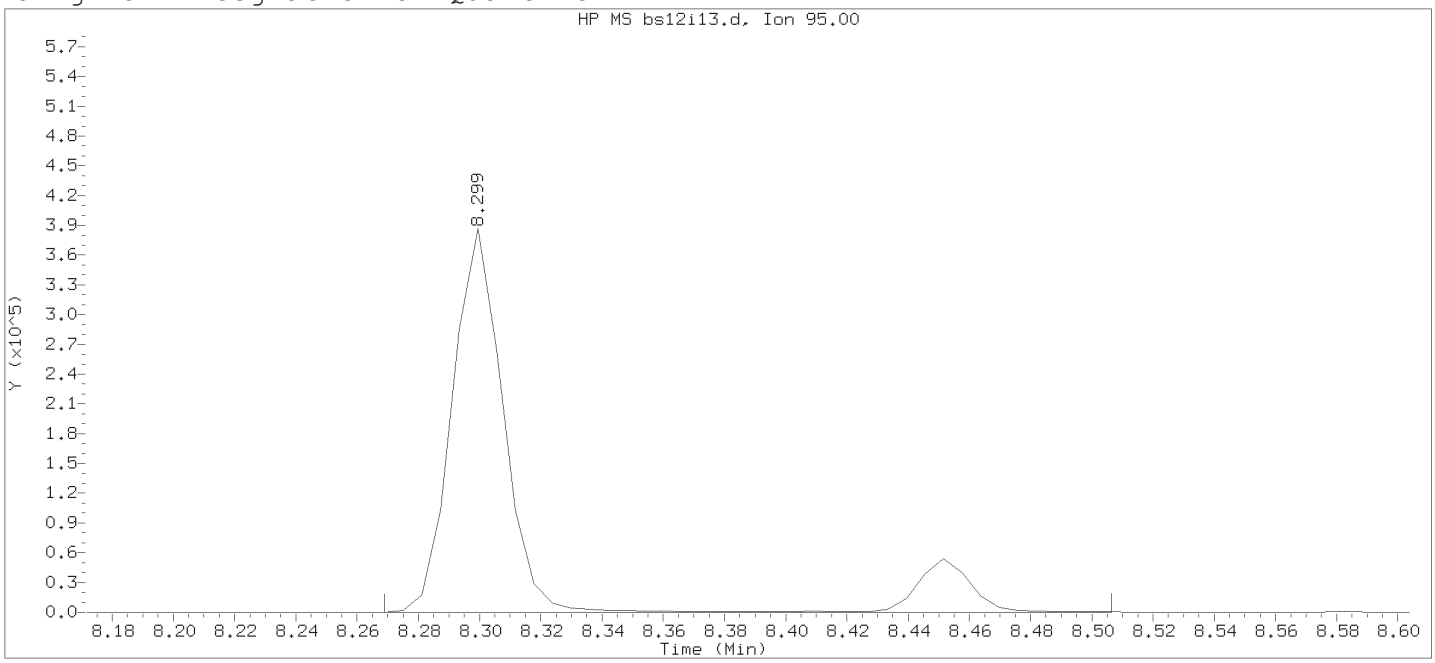
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



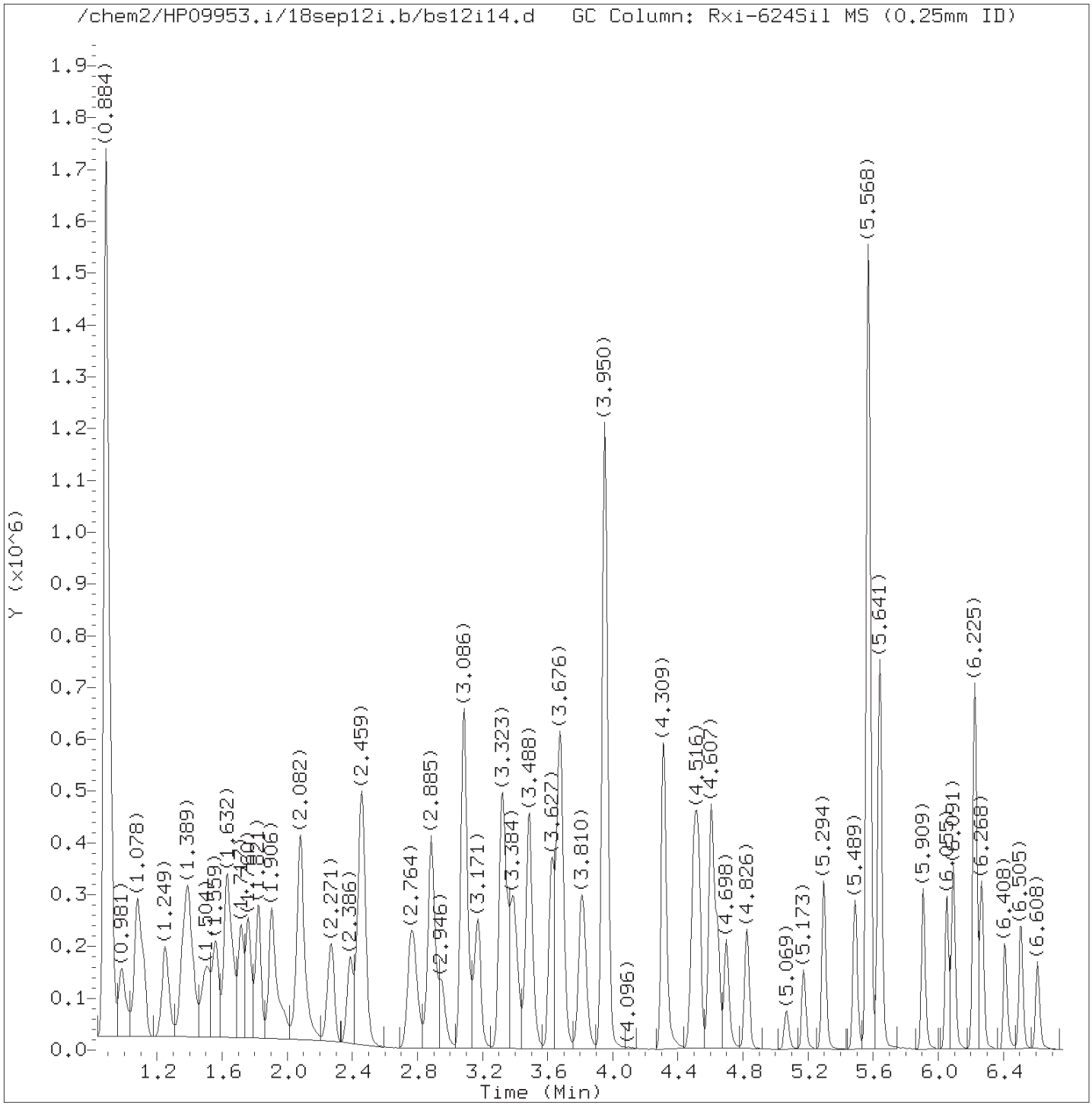
Data File: /chem2/HP09953.i/18sep12i.b/bs12i13.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 13:59 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:14
Date, time and analyst ID of latest file update: 12-Sep-2018 14:14 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.299
Quant Ion : 95.00
Area : 510197
On-column Amount (ng) : 52.8672
Integration start scan : 1222 Integration stop scan: 1261
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

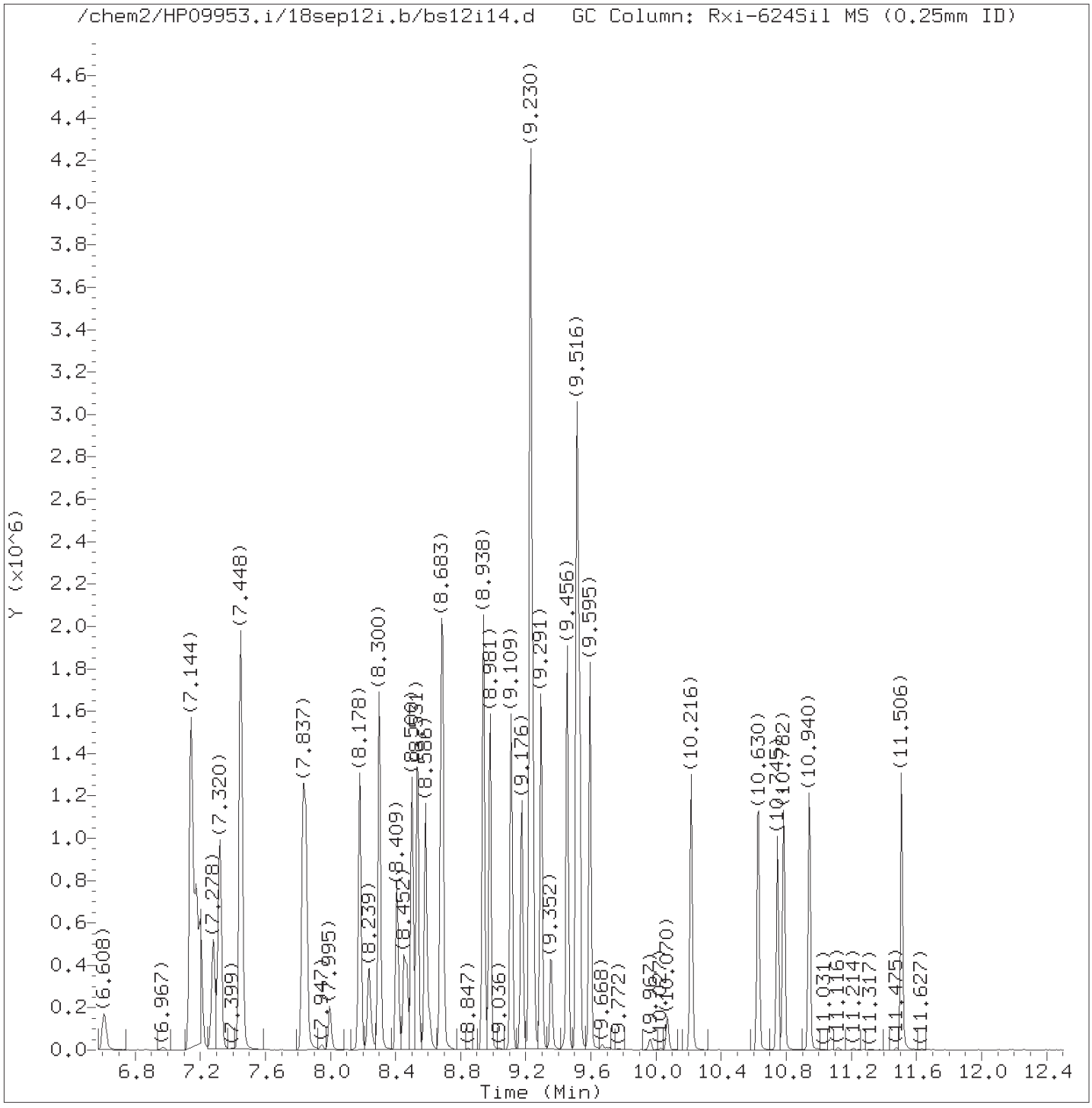
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	217997	20.474
4) Chloromethane	(2)	1.072	50	225709	20.566
5) Vinyl Chloride	(2)	1.121	62	173889	20.333
9) Bromomethane	(2)	1.249	94	159926	21.011
10) Chloroethane	(2)	1.267	64	97509	21.196
11) Dichlorofluoromethane	(2)	1.370	67	231074	20.770
13) Trichlorofluoromethane	(2)	1.413	101	243966	20.723
15) Ethanol	(1)	1.450	45	108233	1837.355
17) Freon 123a	(2)	1.504	67	157259	19.952
18) Acrolein	(1)	1.565	56	188810	173.097
19) 1,1-Dichloroethene	(2)	1.626	96	125222	21.167
20) Acetone	(1)	1.638	58	22478	39.587
22) Freon 113	(2)	1.650	101	129133	21.771
23) 2-Propanol	(1)	1.717	45	83500	191.426
24) Methyl Iodide	(2)	1.717	142	300881	21.152
25) Carbon Disulfide	(2)	1.760	76	506487	21.396
27) Methyl Acetate	(2)	1.827	43	66625	21.962
29) Allyl Chloride	(2)	1.827	41	167221	21.131
31) Methylene Chloride	(2)	1.906	84	142721	20.414
30)*t-Butyl alcohol-d10	(1)	1.924	65	112901	250.000
32) t-Butyl alcohol	(1)	1.979	59	117952	198.887
33) Acrylonitrile	(2)	2.058	53	41284	20.102
35) trans-1,2-Dichloroethene	(2)	2.082	96	146766	21.333
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	359831	21.383
38) n-Hexane	(2)	2.271	57	164580	20.958
40) 1,1-Dichloroethane	(2)	2.386	63	236353	21.187
41) di-Isopropyl ether	(2)	2.453	45	442826	21.268
42) 2-Chloro-1,3-butadiene	(2)	2.459	53	210908	21.454
43) Ethyl t-butyl ether	(2)	2.764	59	418786	21.357
45) cis-1,2-Dichloroethene	(2)	2.885	96	156913	21.012
47) 2,2-Dichloropropane	(2)	2.897	77	171749	21.118
44) 2-Butanone	(1)	2.897	43	100205	34.523
49) Propionitrile	(1)	2.952	54	157095	201.747
46) 1,2-Dichloroethene (Total)	(2)		96	303679	42.345
51) Methacrylonitrile	(2)	3.086	67	244448	106.520
52) Bromochloromethane	(2)	3.092	128	82708	20.847
53) Tetrahydrofuran	(1)	3.141	71	27529	38.076
54) Chloroform	(2)	3.171	83	237444	20.970

* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	296234	50.406
56)$Dibromofluoromethane	(2)	3.317	111	301792	50.655
57) 1,1,1-Trichloroethane	(2)	3.342	97	244815	21.117
58) Cyclohexane	(2)	3.390	56	233537	21.442
58) Cyclohexane	(2)	3.390	84	241732	23.749
58) Cyclohexane	(2)	3.390	69	72985	21.189
60) 1,1-Dichloropropene	(2)	3.481	75	180479	21.423
61) Carbon Tetrachloride	(2)	3.494	117	187746	21.323
63)$1,2-Dichloroethane-d4	(2)	3.621	102	66984	52.954
63)$1,2-Dichloroethane-d4	(2)	3.621	65	290306	52.187
63)$1,2-Dichloroethane-d4	(2)	3.621	104	41001	50.593
62) Isobutyl Alcohol	(1)	3.652	41	98948	474.876
64) Benzene	(2)	3.676	78	554969	20.634
67) 1,2-Dichloroethane	(2)	3.694	62	160140	20.631
67) 1,2-Dichloroethane	(2)	3.694	98	16316	21.160
68) t-Amyl methyl ether	(2)	3.816	73	389705	21.525
70)*Fluorobenzene	(2)	3.950	96	1179216	50.000
72) n-Heptane	(2)	3.962	43	160267	22.372
75) Trichloroethene	(2)	4.309	95	147466	21.024
73) n-Butanol	(1)	4.315	56	167841	961.958
76) Methylcyclohexane	(2)	4.503	83	234042	21.442
77) 1,2-Dichloropropane	(2)	4.528	63	134084	20.992
81) Dibromomethane	(2)	4.643	93	81190	20.785
80) 1,4-Dioxane	(1)	4.692	88	35590M	492.202
79) Methyl Methacrylate	(2)	4.698	69	86375	20.980
84) Bromodichloromethane	(2)	4.826	83	167807	21.038
85) 2-Nitropropane	(1)	5.069	41	51938	34.781
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	71550	21.274
89) cis-1,3-Dichloropropene	(2)	5.294	75	204068	21.187
90) 4-Methyl-2-pentanone	(2)	5.489	43	213612	37.966
91)$Toluene-d8	(3)	5.568	98	1176681	49.986
91)$Toluene-d8	(3)	5.568	100	765504	50.112
92) Toluene	(3)	5.641	92	363899	20.842
93) trans-1,3-Dichloropropene	(3)	5.909	75	176524	21.107
94) 1,3-Dichloropropene (total)	(3)		100	380592	42.294
95) Ethyl Methacrylate	(3)	6.055	69	169601M	20.891
96) 1,1,2-Trichloroethane	(3)	6.091	97	116469	20.556
98) Tetrachloroethene	(3)	6.225	166	207015	21.646

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.268	76	189813	20.806
101) 2-Hexanone	(3)	6.408	43	149251	36.354
103) Dibromochloromethane	(3)	6.511	129	135862	20.813
104) 1,2-Dibromoethane	(3)	6.608	107	122496	20.927
105)*Chlorobenzene-d5	(3)	7.144	117	912072	50.000
107) Chlorobenzene	(3)	7.174	112	420425	20.624
106) 1-Chlorohexane	(3)	7.205	91	183176	21.114
108) 1,1,1,2-Tetrachloroethane	(3)	7.278	131	143640	20.780
109) Ethylbenzene	(3)	7.320	91	689604	21.000
110) m+p-Xylene	(3)	7.448	106	568364	42.415
111) o-Xylene	(3)	7.831	106	282697	21.103
113) Styrene	(3)	7.849	104	461574M	20.900
112) Xylene (Total)	(3)		106	851061	63.518
114) Bromoform	(3)	7.995	173	82674	20.324
115) Isopropylbenzene	(3)	8.178	105	720830	21.347
118) Cyclohexanone	(1)	8.233	55	140336	536.326
119)$4-Bromofluorobenzene	(3)	8.300	95	429577	50.094
119)$4-Bromofluorobenzene	(3)	8.300	174	394370	49.963
121) Bromobenzene	(4)	8.409	156	193012	20.054
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	150280	20.451
123) 1,2,3-Trichloropropane	(4)	8.470	110	45055	20.679
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	188841	104.728
124) n-Propylbenzene	(4)	8.531	91	805945	21.180
126) 2-Chlorotoluene	(4)	8.586	126	178682	20.012
130) 4-Chlorotoluene	(4)	8.677	126	184030	20.343
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	622418	21.146
133) tert-Butylbenzene	(4)	8.938	134	143583	20.765
134) Pentachloroethane	(4)	8.938	167	82330	19.912
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	642194	20.922
136) sec-Butylbenzene	(4)	9.109	105	795561	21.231
138) 1,3-Dichlorobenzene	(4)	9.176	146	366465	20.288
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	525313	50.000
139) p-Isopropyltoluene	(4)	9.230	119	705621	21.013
141) 1,4-Dichlorobenzene	(4)	9.243	146	380980	20.230
142) 1,2,3-Trimethylbenzene	(4)	9.291	105	699542	21.142
143) Benzyl Chloride	(4)	9.358	126	52288	21.304
144) 1,3-Diethylbenzene	(4)	9.456	119	440648	21.226
145) 1,4-Diethylbenzene	(4)	9.516	119	463361	21.507

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

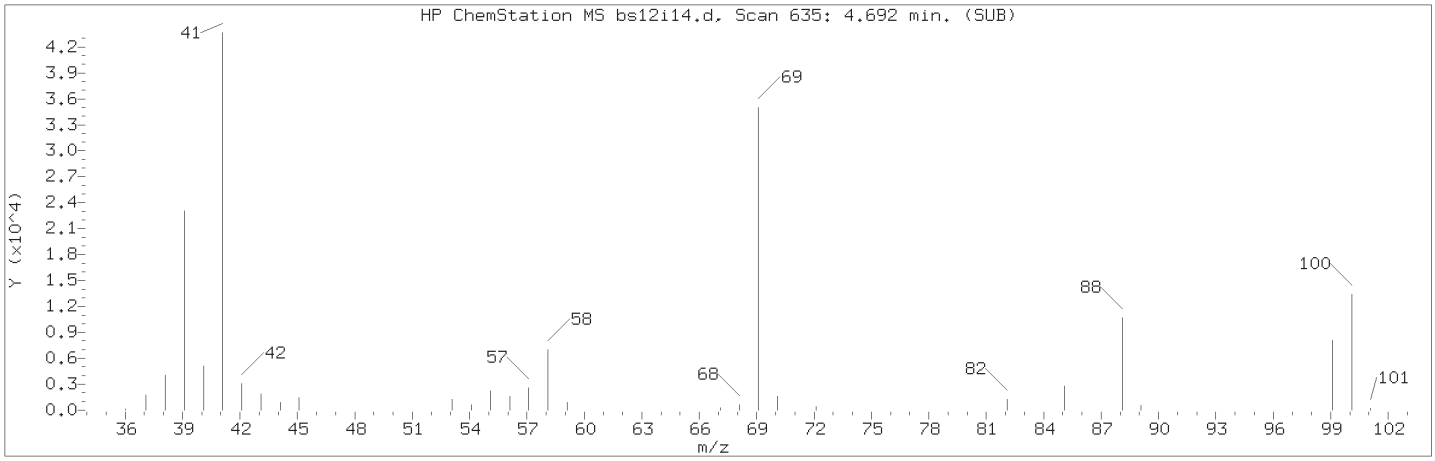
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

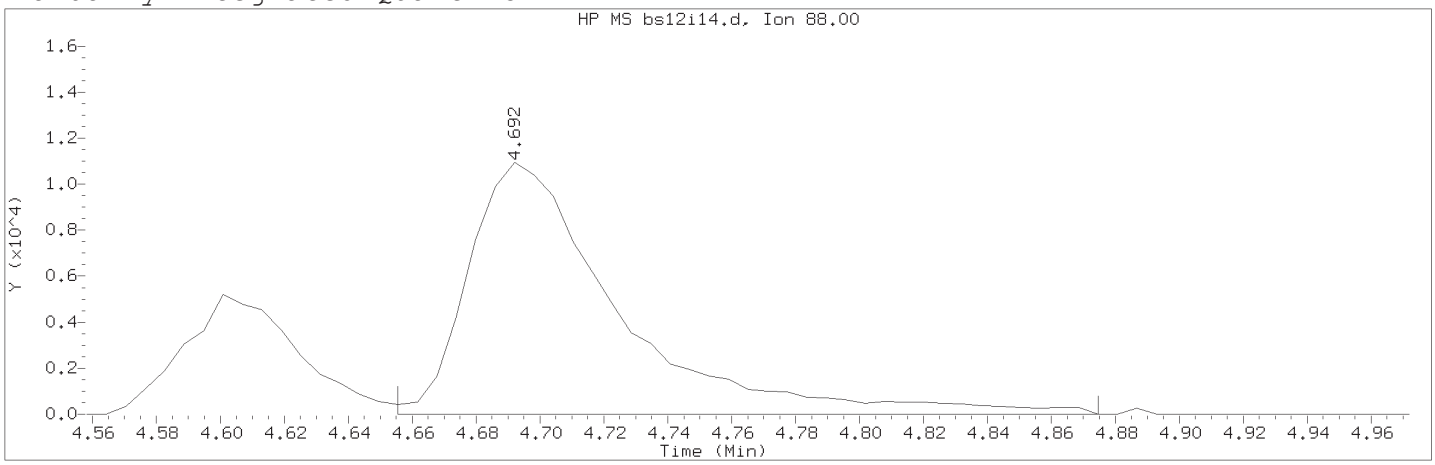
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	364466	20.638
146) n-Butylbenzene	(4)	9.529	92	331426	21.243
148) 1,2-Diethylbenzene	(4)	9.595	119	380864	20.971
149) Diethylbenzene (total)	(4)		100	1284873	63.704
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	26721	20.929
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	284034	20.556
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	266257	20.445
154) Hexachlorobutadiene	(4)	10.745	225	126479	21.287
155) Naphthalene	(4)	10.782	128	641966	20.752
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	258033	20.778
157) 2-Methylnaphthalene	(4)	11.506	142	445804	21.305

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

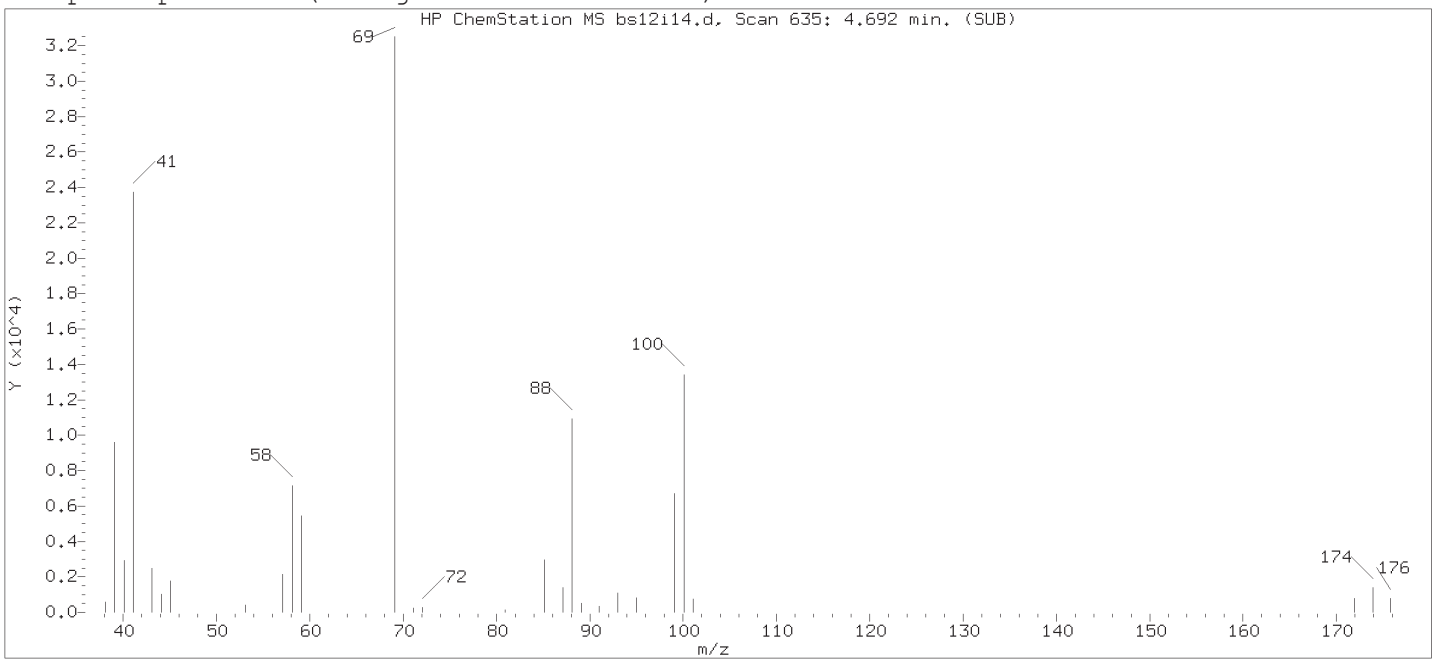
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 35590M
On-Column Amount (ng) : 492.2018
Integration start scan : 628 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

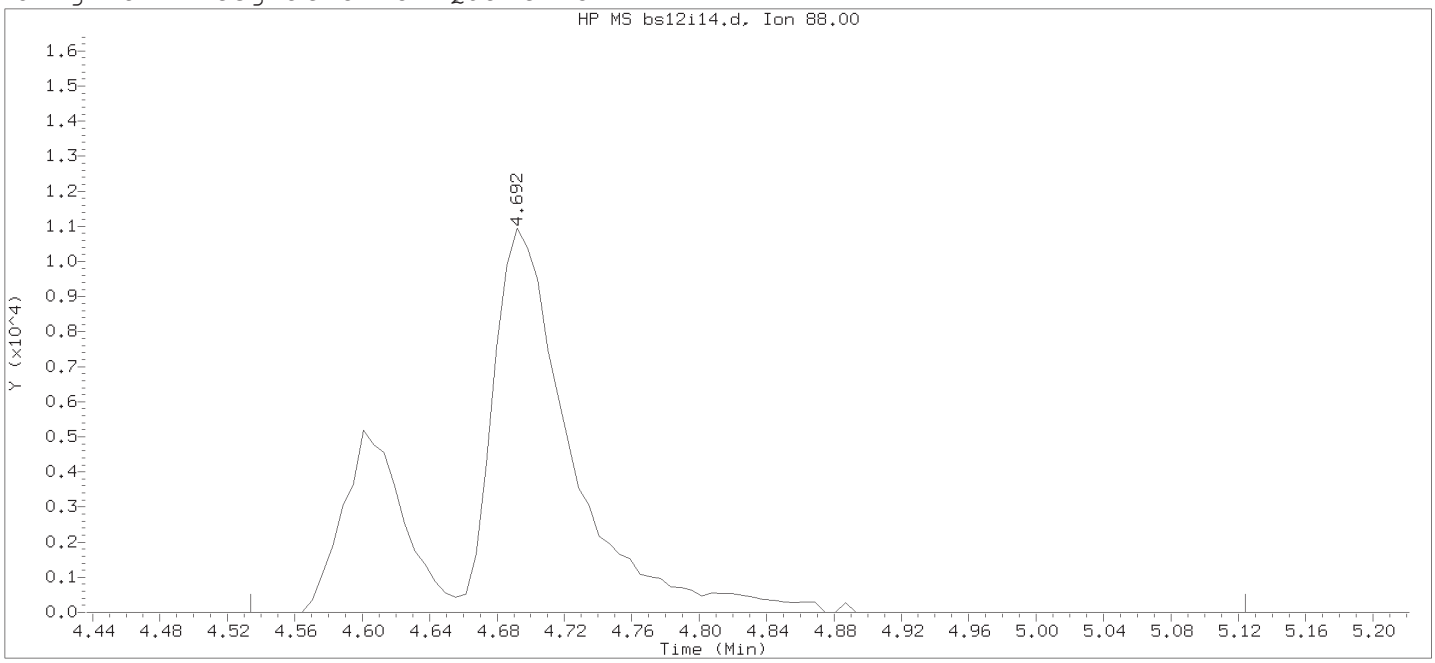
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

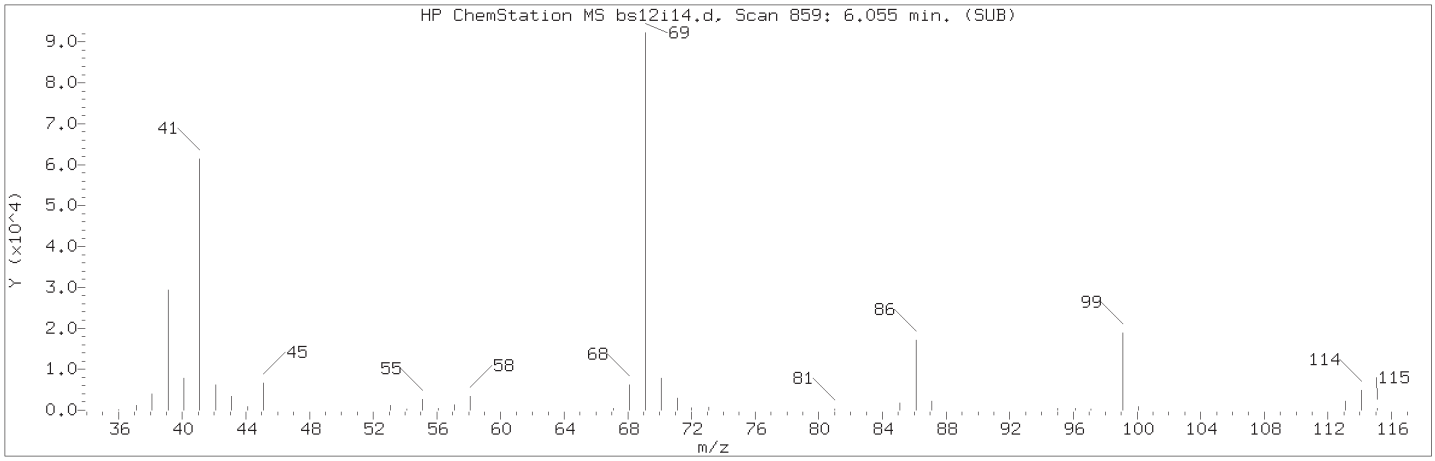
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:37
Date, time and analyst ID of latest file update: 12-Sep-2018 14:37 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

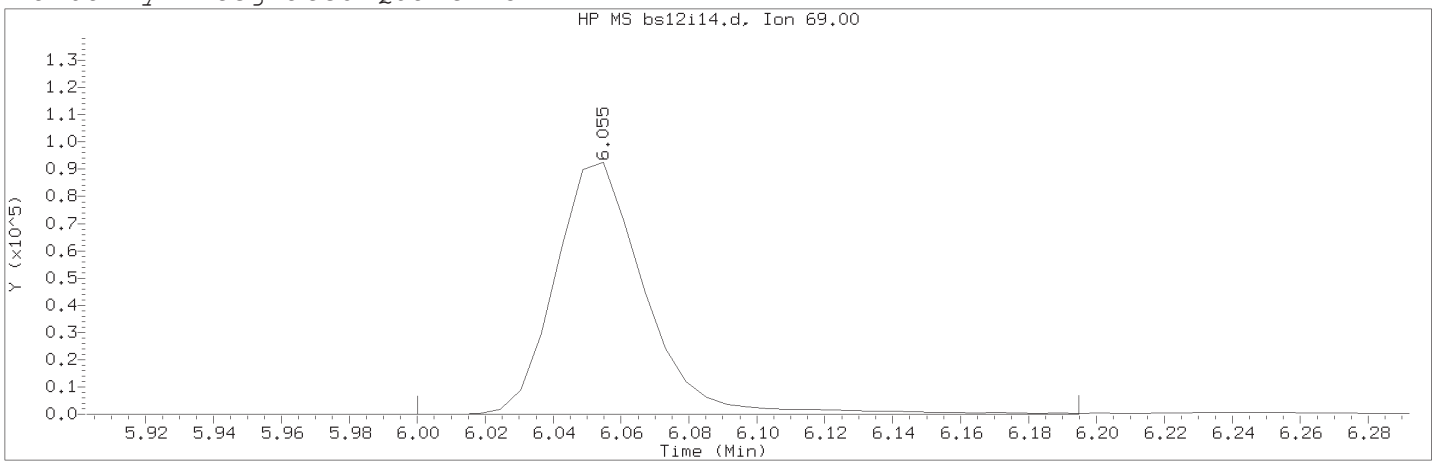
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 48561
On-column Amount (ng) : 484.2561
Integration start scan : 608 Integration stop scan: 705
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

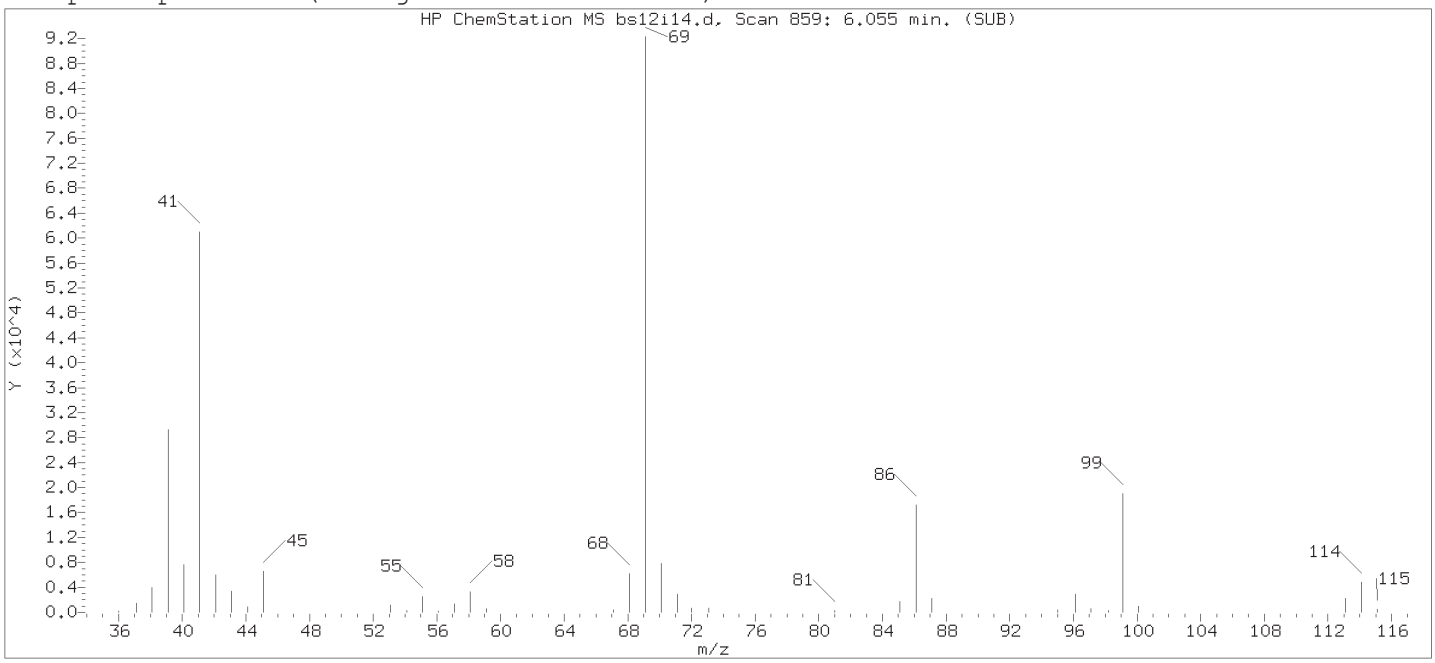
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 859
Retention Time (minutes): 6.055
Quant Ion : 69.00
Area (flag) : 169601M
On-Column Amount (ng) : 20.8908
Integration start scan : 849 Integration stop scan: 881
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

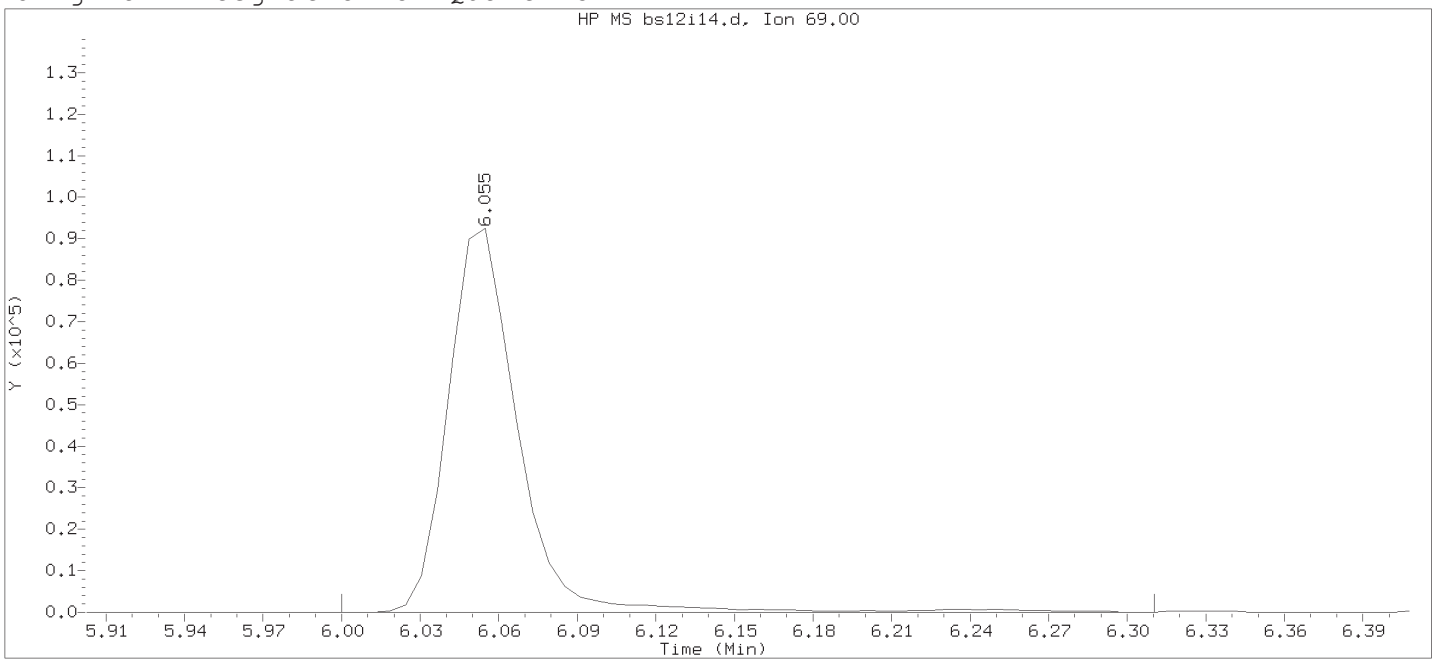
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

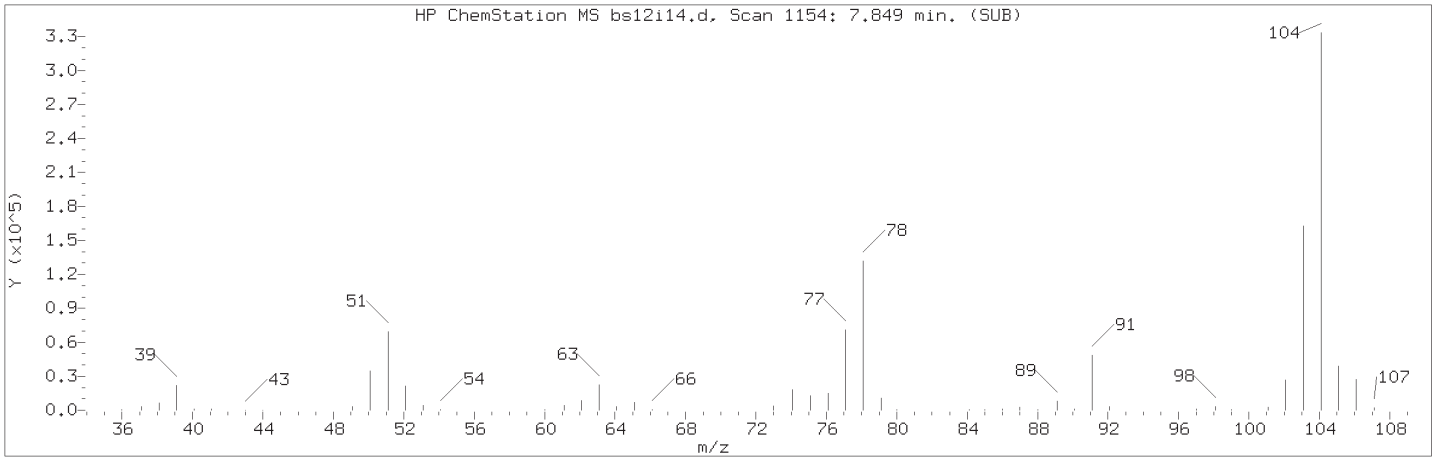
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:37
Date, time and analyst ID of latest file update: 12-Sep-2018 14:37 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

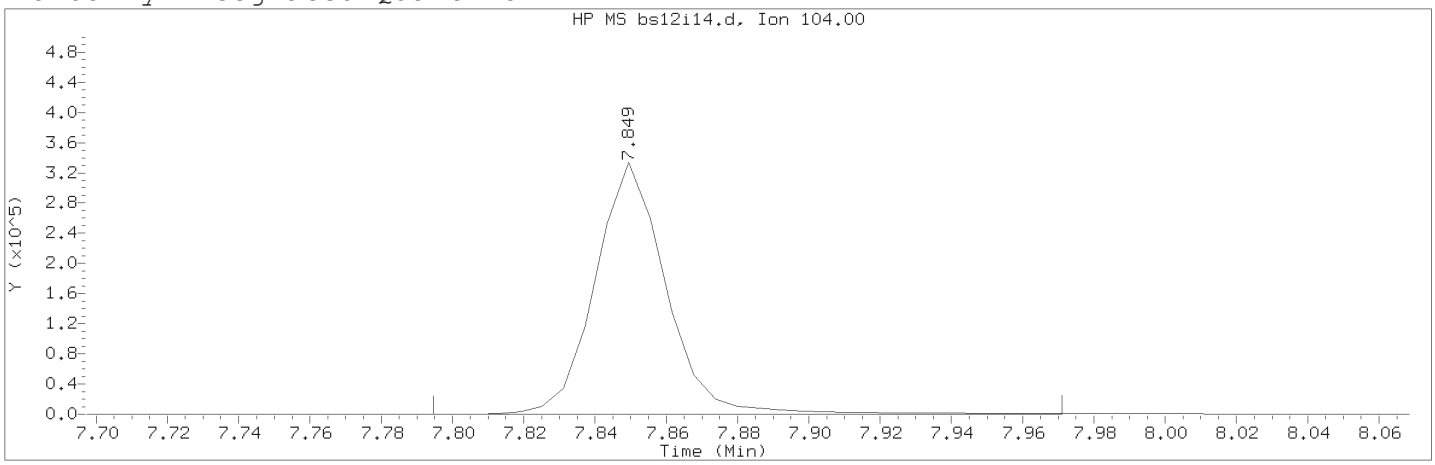
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 859
Retention Time (minutes): 6.055
Quant Ion : 69.00
Area : 172211
On-column Amount (ng) : 21.9821
Integration start scan : 849 Integration stop scan: 900
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

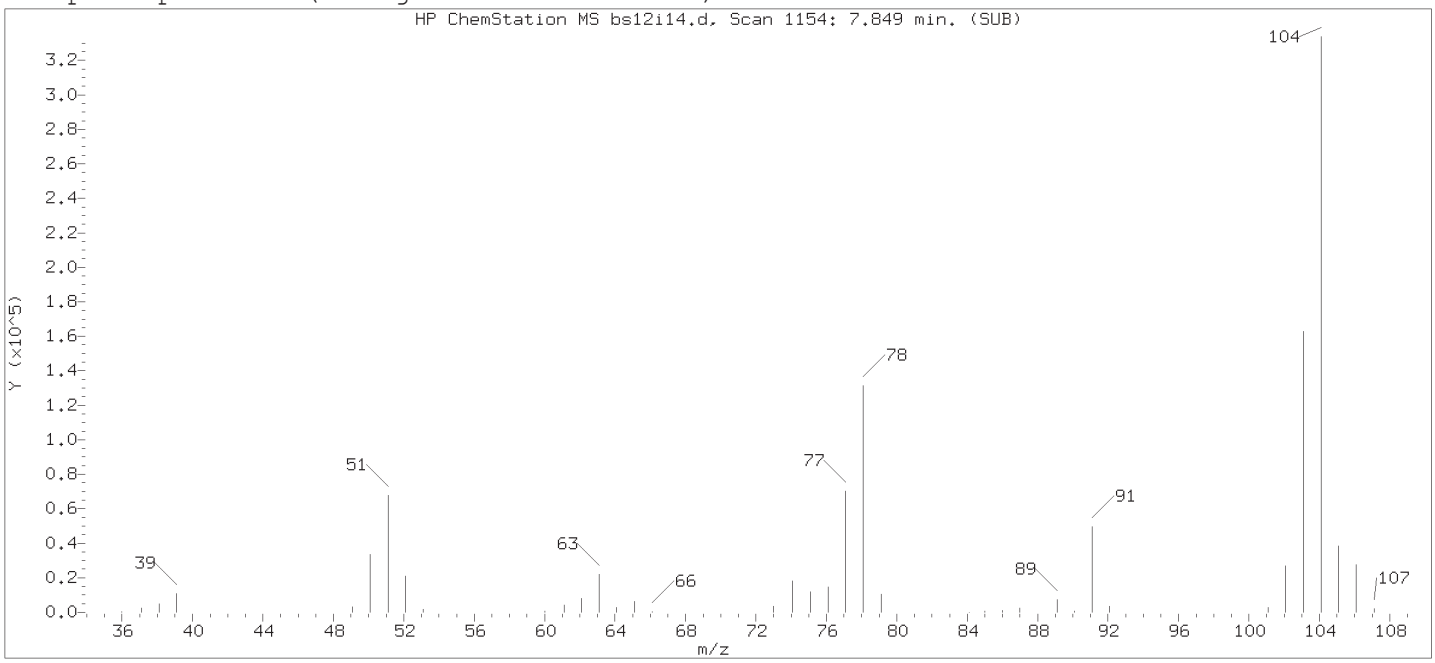
Compound Number : 113
Compound Name : Styrene
Scan Number : 1154
Retention Time (minutes): 7.849
Quant Ion : 104.00
Area (flag) : 461574M
On-Column Amount (ng) : 20.9004
Integration start scan : 1144 Integration stop scan: 1173
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

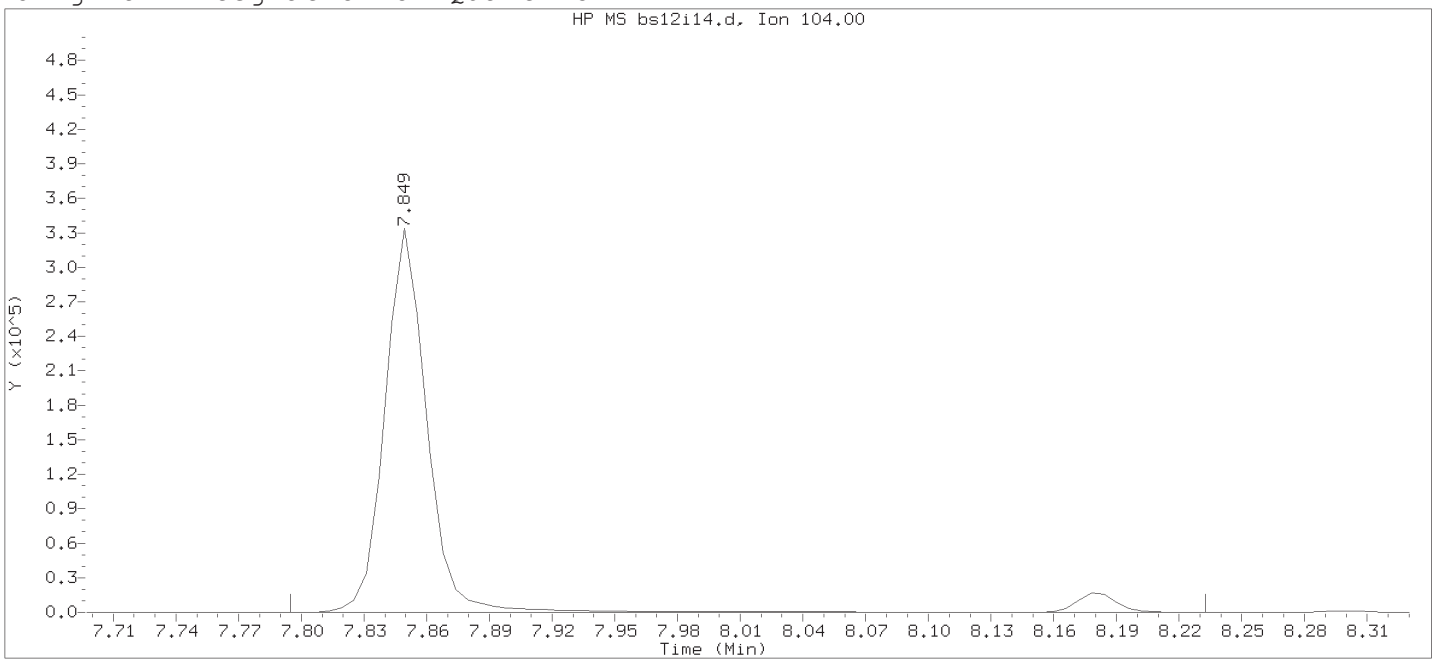
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



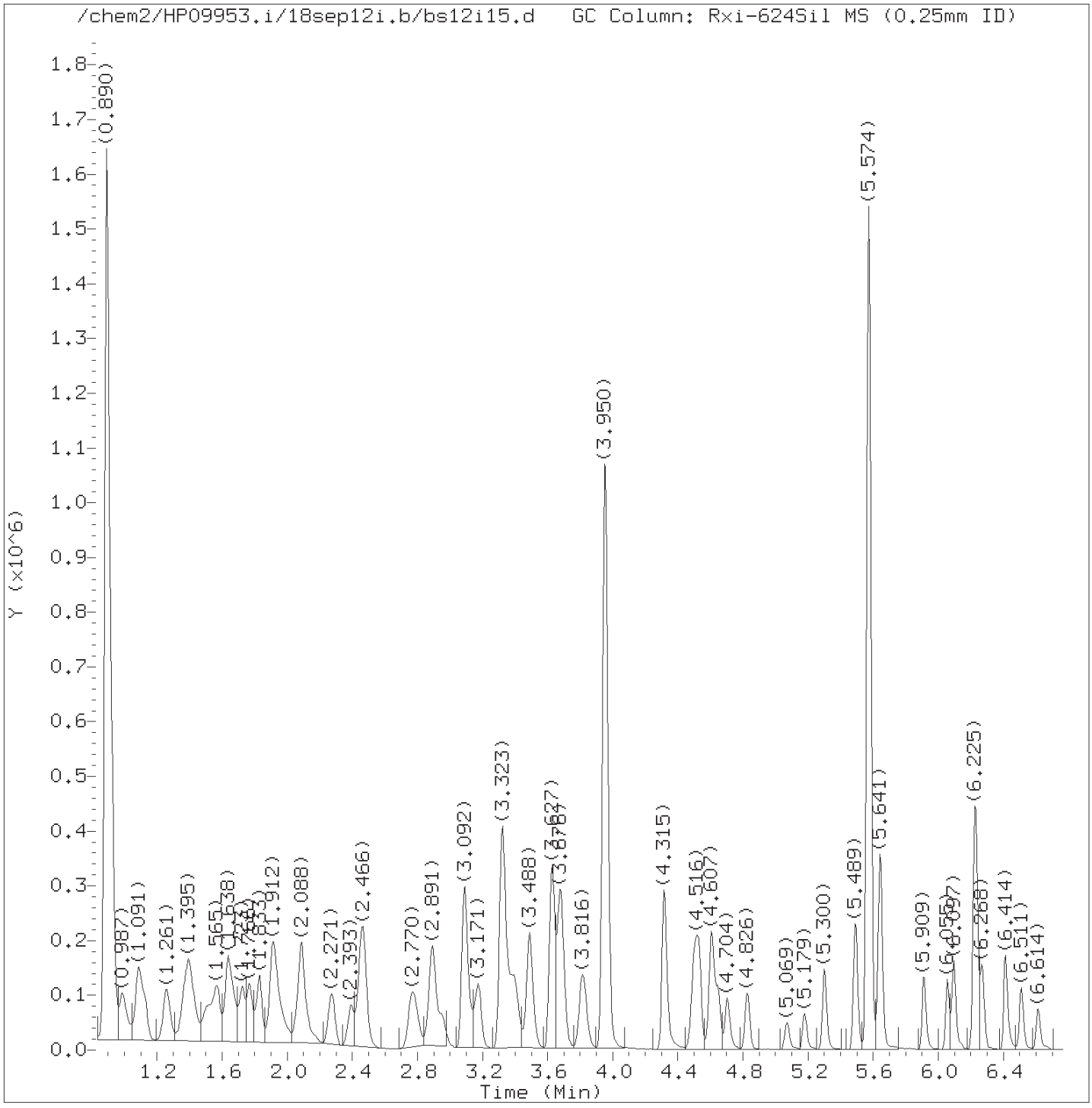
Data File: /chem2/HP09953.i/18sep12i.b/bs12i14.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:22 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 14:37
Date, time and analyst ID of latest file update: 12-Sep-2018 14:37 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number	: 113		
Compound Name	: Styrene		
Scan Number	: 1154		
Retention Time (minutes)	: 7.849		
Quant Ion	: 104.00		
Area	: 485521		
On-column Amount (ng)	: 23.6331		
Integration start scan	: 1144	Integration stop scan:	1216
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

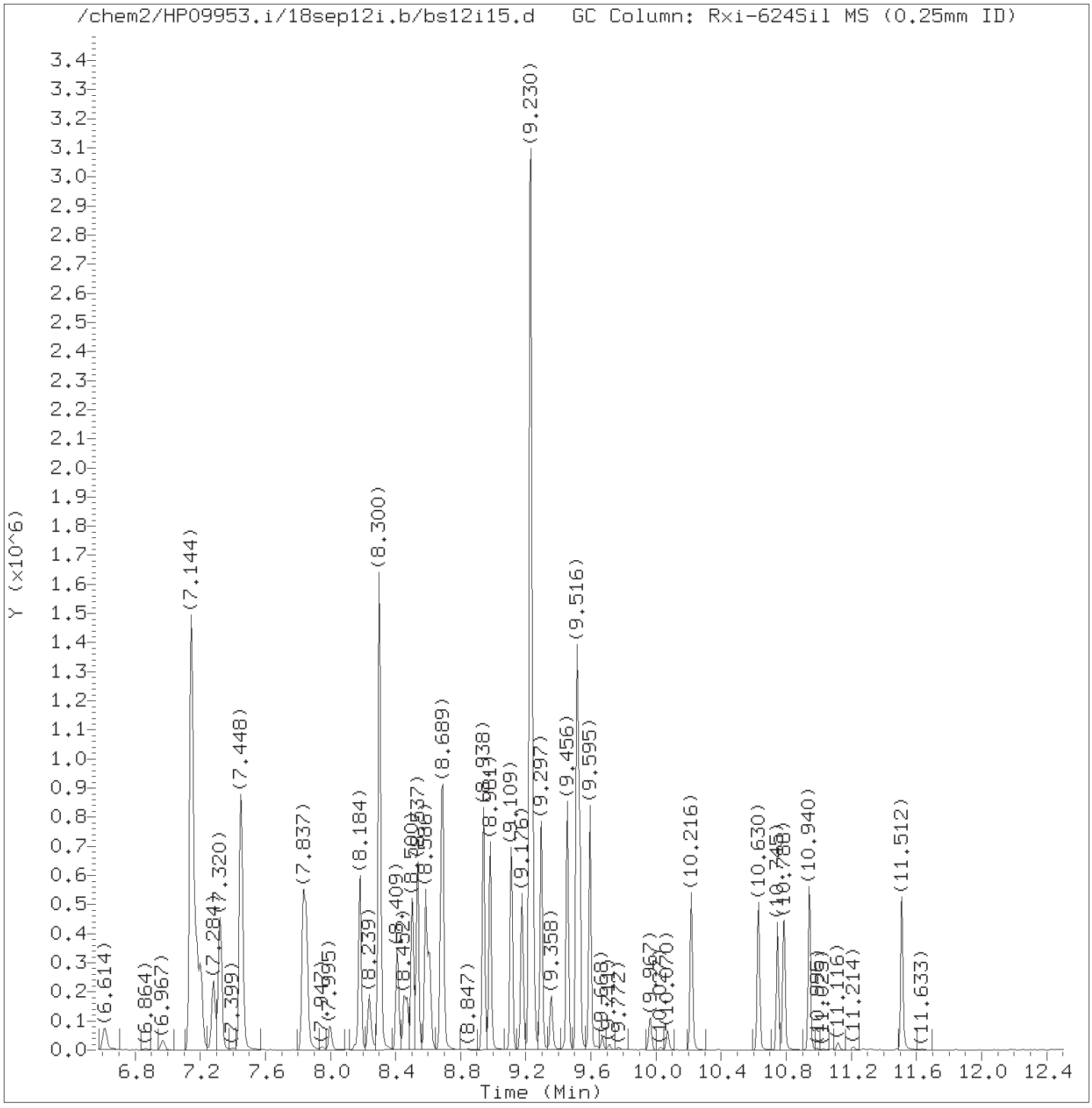
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.993	85	119322	11.546
4) Chloromethane	(2)	1.078	50	115062	10.802
5) Vinyl Chloride	(2)	1.127	62	90910	10.952
9) Bromomethane	(2)	1.255	94	83885	11.355
10) Chloroethane	(2)	1.273	64	51424	11.517
11) Dichlorofluoromethane	(2)	1.377	67	117365	10.869
13) Trichlorofluoromethane	(2)	1.419	101	128504	11.246
15) Ethanol	(1)	1.450	45	53616	992.307
17) Freon 123a	(2)	1.516	67	76561	10.008
18) Acrolein	(1)	1.571	56	113894	113.837
19) 1,1-Dichloroethene	(2)	1.632	96	59587	10.377
20) Acetone	(1)	1.650	58	15283	27.520
22) Freon 113	(2)	1.656	101	59729	10.375
23) 2-Propanol	(1)	1.723	45	42075	105.162
24) Methyl Iodide	(2)	1.723	142	142452	10.318
25) Carbon Disulfide	(2)	1.772	76	238128	10.364
27) Methyl Acetate	(2)	1.833	43	29501	10.019
29) Allyl Chloride	(2)	1.833	41	76780	9.996
31) Methylene Chloride	(2)	1.912	84	69443	10.234
30)*t-Butyl alcohol-d10	(1)	1.936	65	103557	250.000
32) t-Butyl alcohol	(1)	1.991	59	57460M	105.630
33) Acrylonitrile	(2)	2.064	53	22595	11.336
35) trans-1,2-Dichloroethene	(2)	2.088	96	68522	10.262
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	164051	10.044
38) n-Hexane	(2)	2.271	57	81732	10.723
40) 1,1-Dichloroethane	(2)	2.393	63	109700	10.131
41) di-Isopropyl ether	(2)	2.453	45	204279	10.108
42) 2-Chloro-1,3-butadiene	(2)	2.466	53	97100	10.177
43) Ethyl t-butyl ether	(2)	2.776	59	191141	10.043
45) cis-1,2-Dichloroethene	(2)	2.891	96	72426	9.992
47) 2,2-Dichloropropane	(2)	2.904	77	80385	10.184
44) 2-Butanone	(1)	2.904	43	65891	24.749
49) Propionitrile	(1)	2.952	54	69074	96.711
46) 1,2-Dichloroethene (Total)	(2)		96	140948	20.254
51) Methacrylonitrile	(2)	3.086	67	108354	48.646
52) Bromochloromethane	(2)	3.098	128	37958	9.857
53) Tetrahydrofuran	(1)	3.141	71	15830	23.870
54) Chloroform	(2)	3.177	83	109597	9.972

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.323	113	283652M	49.727
56)$Dibromofluoromethane	(2)	3.323	111	286968	49.626
57) 1,1,1-Trichloroethane	(2)	3.348	97	113684	10.103
58) Cyclohexane	(2)	3.396	56	108296	10.244
58) Cyclohexane	(2)	3.396	84	95849	9.702
58) Cyclohexane	(2)	3.396	69	33910	10.143
60) 1,1-Dichloropropene	(2)	3.488	75	83462	10.207
61) Carbon Tetrachloride	(2)	3.500	117	86512	10.123
63)$1,2-Dichloroethane-d4	(2)	3.621	102	61931	50.443
63)$1,2-Dichloroethane-d4	(2)	3.627	65	272164	50.408
63)$1,2-Dichloroethane-d4	(2)	3.627	104	39038	49.630
62) Isobutyl Alcohol	(1)	3.652	41	48172	252.050
64) Benzene	(2)	3.676	78	260353	9.973
67) 1,2-Dichloroethane	(2)	3.700	62	73940	9.815
67) 1,2-Dichloroethane	(2)	3.700	98	7441	9.942
68) t-Amyl methyl ether	(2)	3.816	73	173340	9.865
70)*Fluorobenzene	(2)	3.950	96	1144543	50.000
72) n-Heptane	(2)	3.962	43	70656	10.162
75) Trichloroethene	(2)	4.315	95	68176	10.014
73) n-Butanol	(1)	4.321	56	82816	517.476
76) Methylcyclohexane	(2)	4.503	83	106038	10.009
77) 1,2-Dichloropropane	(2)	4.528	63	61580	9.933
81) Dibromomethane	(2)	4.649	93	36857M	9.722
80) 1,4-Dioxane	(1)	4.692	88	16813M	253.500
79) Methyl Methacrylate	(2)	4.704	69	37925	9.491
84) Bromodichloromethane	(2)	4.826	83	75420	9.742
85) 2-Nitropropane	(1)	5.069	41	35957	26.252
87) 2-Chloroethyl Vinyl Ether	(2)	5.179	63	32665	10.007
89) cis-1,3-Dichloropropene	(2)	5.300	75	91178	9.753
90) 4-Methyl-2-pentanone	(2)	5.489	43	168523	30.634
91)$Toluene-d8	(3)	5.574	98	1148103	50.049
91)$Toluene-d8	(3)	5.574	100	742543	49.882
92) Toluene	(3)	5.641	92	170428	10.017
93) trans-1,3-Dichloropropene	(3)	5.915	75	78349	9.613
94) 1,3-Dichloropropene (total)	(3)		100	169527	19.367
95) Ethyl Methacrylate	(3)	6.055	69	74650	9.436
96) 1,1,2-Trichloroethane	(3)	6.097	97	53140	9.624
98) Tetrachloroethene	(3)	6.225	166	112906	12.115

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.274	76	87303	9.820
101) 2-Hexanone	(3)	6.414	43	132933	33.239
103) Dibromochloromethane	(3)	6.511	129	60057	9.441
104) 1,2-Dibromoethane	(3)	6.614	107	55427	9.717
105)*Chlorobenzene-d5	(3)	7.144	117	888796	50.000
107) Chlorobenzene	(3)	7.174	112	197832	9.959
106) 1-Chlorohexane	(3)	7.205	91	85393	10.101
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	64523	9.579
109) Ethylbenzene	(3)	7.320	91	322276	10.071
110) m+p-Xylene	(3)	7.448	106	262885	20.132
111) o-Xylene	(3)	7.831	106	129124	9.891
113) Styrene	(3)	7.849	104	212604	9.879
112) Xylene (Total)	(3)		106	392009	30.023
114) Bromoform	(3)	7.995	173	34523	8.709
115) Isopropylbenzene	(3)	8.184	105	331007	10.059
118) Cyclohexanone	(1)	8.239	55	67734	282.218
119)$4-Bromofluorobenzene	(3)	8.300	95	413507	49.482
119)$4-Bromofluorobenzene	(3)	8.300	174	385320	50.095
121) Bromobenzene	(4)	8.409	156	89488	9.765
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	64745	9.254
123) 1,2,3-Trichloropropane	(4)	8.470	110	19254M	9.281
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	87133	50.751
124) n-Propylbenzene	(4)	8.537	91	369937	10.210
126) 2-Chlorotoluene	(4)	8.586	126	84957	9.993
130) 4-Chlorotoluene	(4)	8.677	126	85954	9.979
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	284579	10.154
133) tert-Butylbenzene	(4)	8.938	134	64945	9.864
134) Pentachloroethane	(4)	8.944	167	22237	5.648
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	293039	10.027
136) sec-Butylbenzene	(4)	9.109	105	366051M	10.259
138) 1,3-Dichlorobenzene	(4)	9.176	146	166746	9.695
139) p-Isopropyltoluene	(4)	9.230	119	325696	10.186
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	500174	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	177166	9.880
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	316109	10.034
143) Benzyl Chloride	(4)	9.358	126	20881	8.935
144) 1,3-Diethylbenzene	(4)	9.456	119	195519	9.892
145) 1,4-Diethylbenzene	(4)	9.516	119	207470	10.114

M = Compound was manually integrated.
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Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

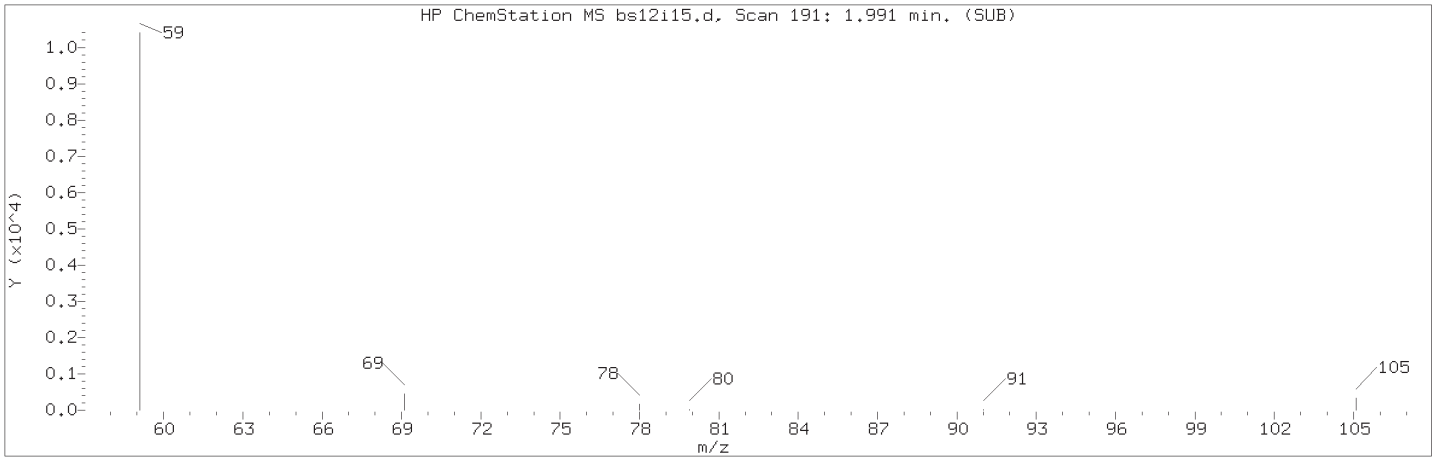
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

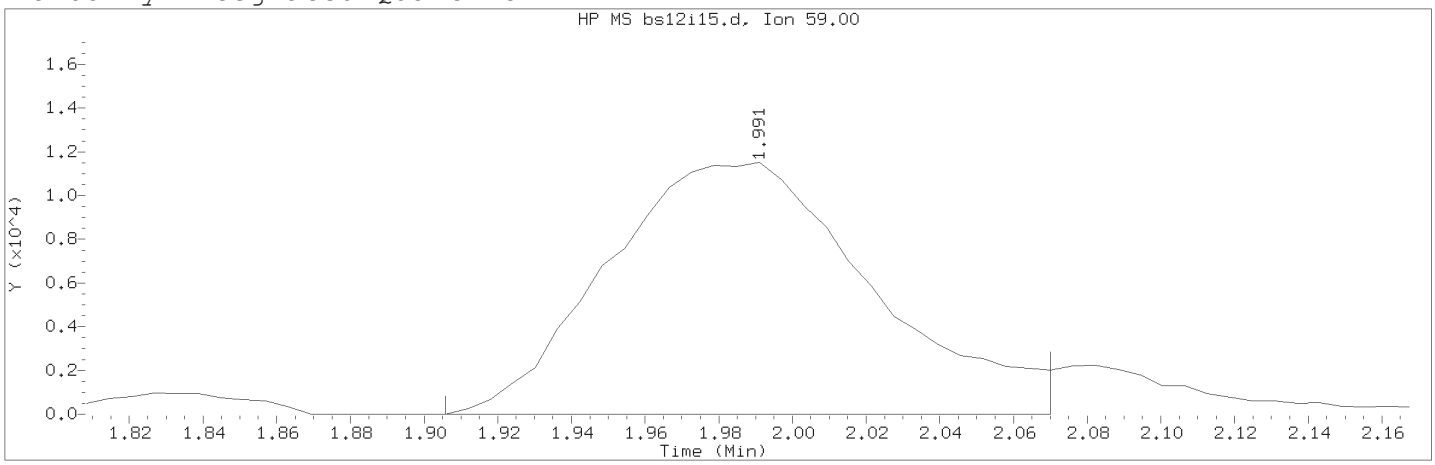
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	166420	9.897
146) n-Butylbenzene	(4)	9.529	92	150316	10.119
148) 1,2-Diethylbenzene	(4)	9.595	119	171481	9.917
149) Diethylbenzene (total)	(4)		100	574470	29.922
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	10916	8.980
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	125262	9.521
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	117020	9.437
154) Hexachlorobutadiene	(4)	10.745	225	54074	9.558
155) Naphthalene	(4)	10.788	128	276196	9.377
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	113397	9.590
157) 2-Methylnaphthalene	(4)	11.512	142	195624	9.819

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

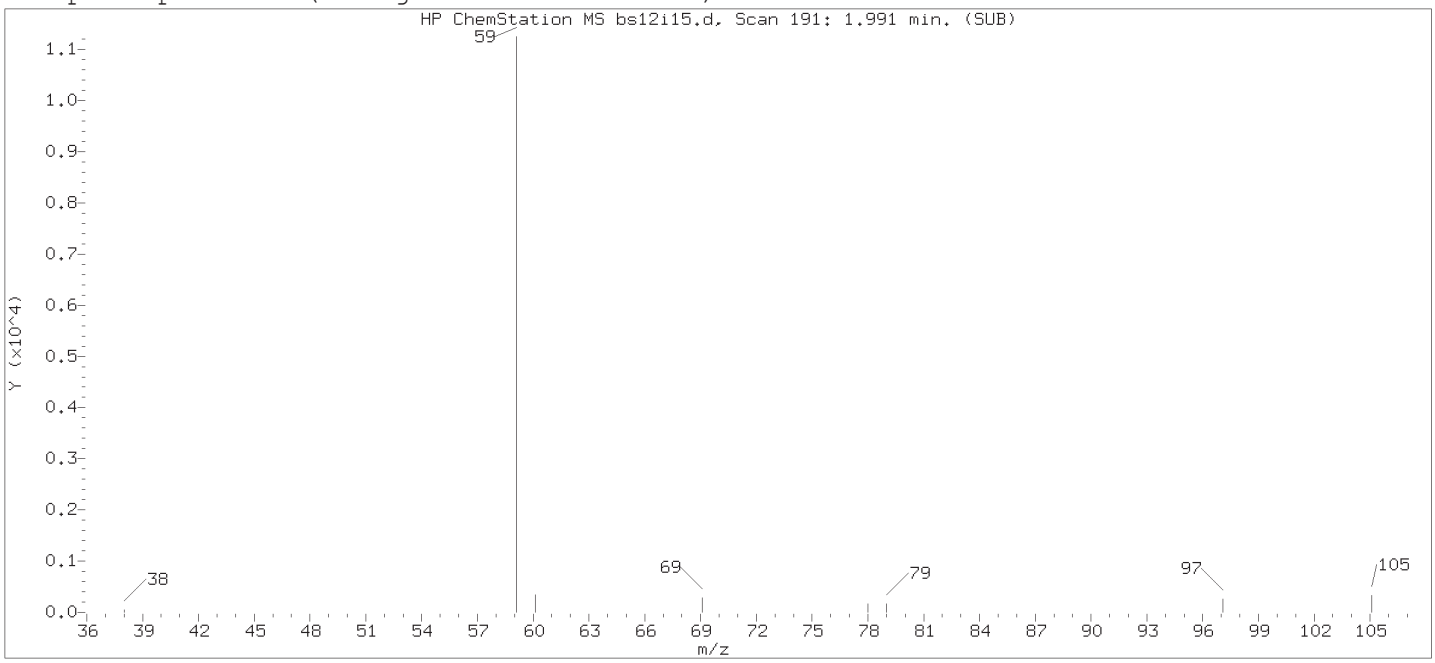
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 191
Retention Time (minutes): 1.991
Quant Ion : 59.00
Area (flag) : 57460M
On-Column Amount (ng) : 105.6296
Integration start scan : 176 Integration stop scan: 203
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

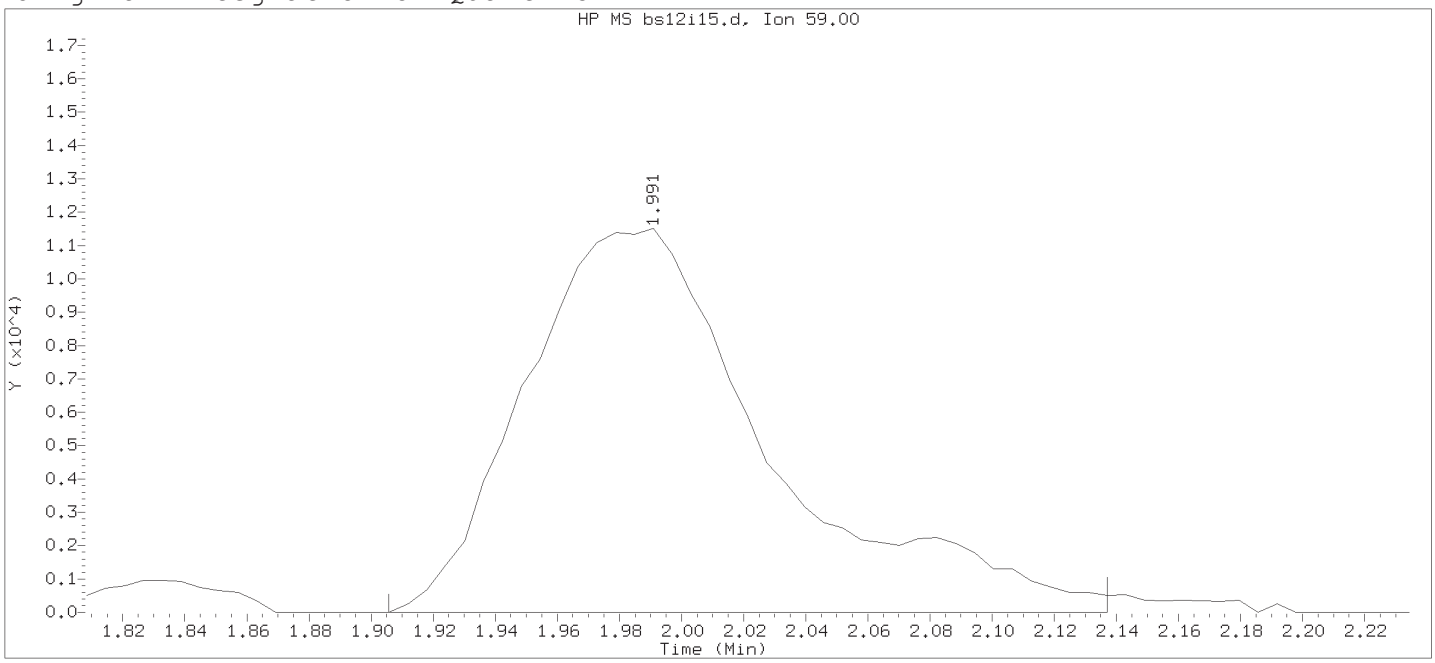
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

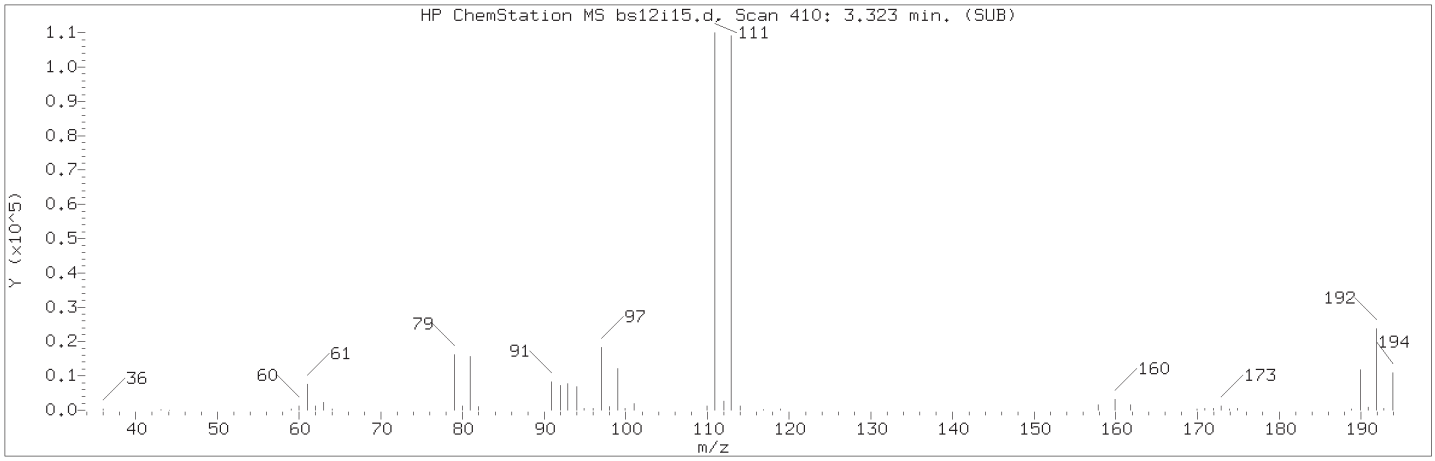
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

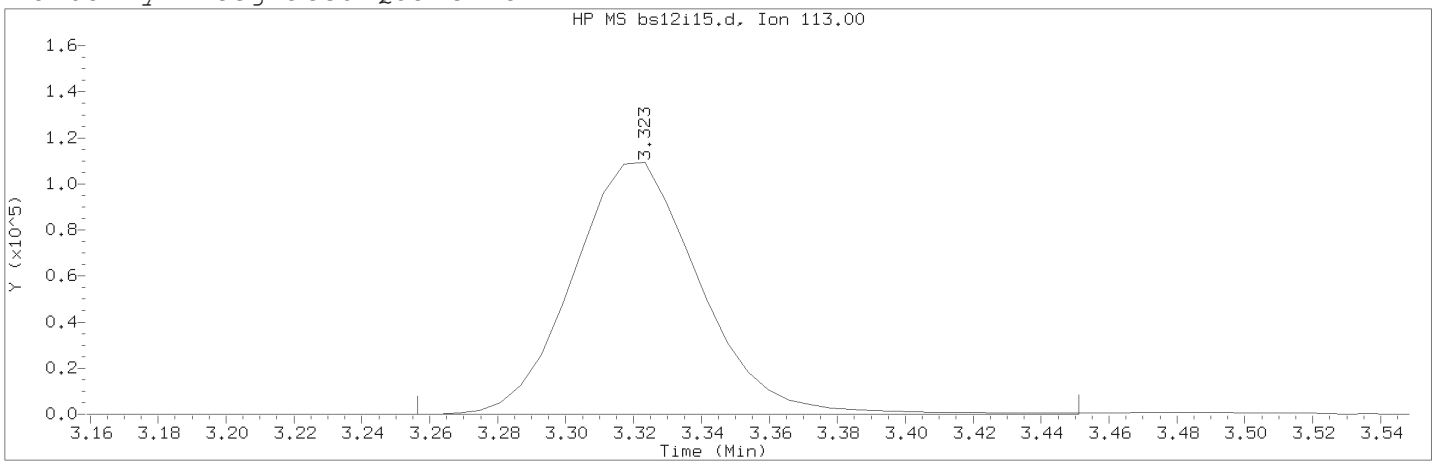
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 191
Retention Time (minutes): 1.991
Quant Ion : 59.00
Area : 62591
On-column Amount (ng) : 117.1464
Integration start scan : 176 Integration stop scan: 214
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jhowe0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

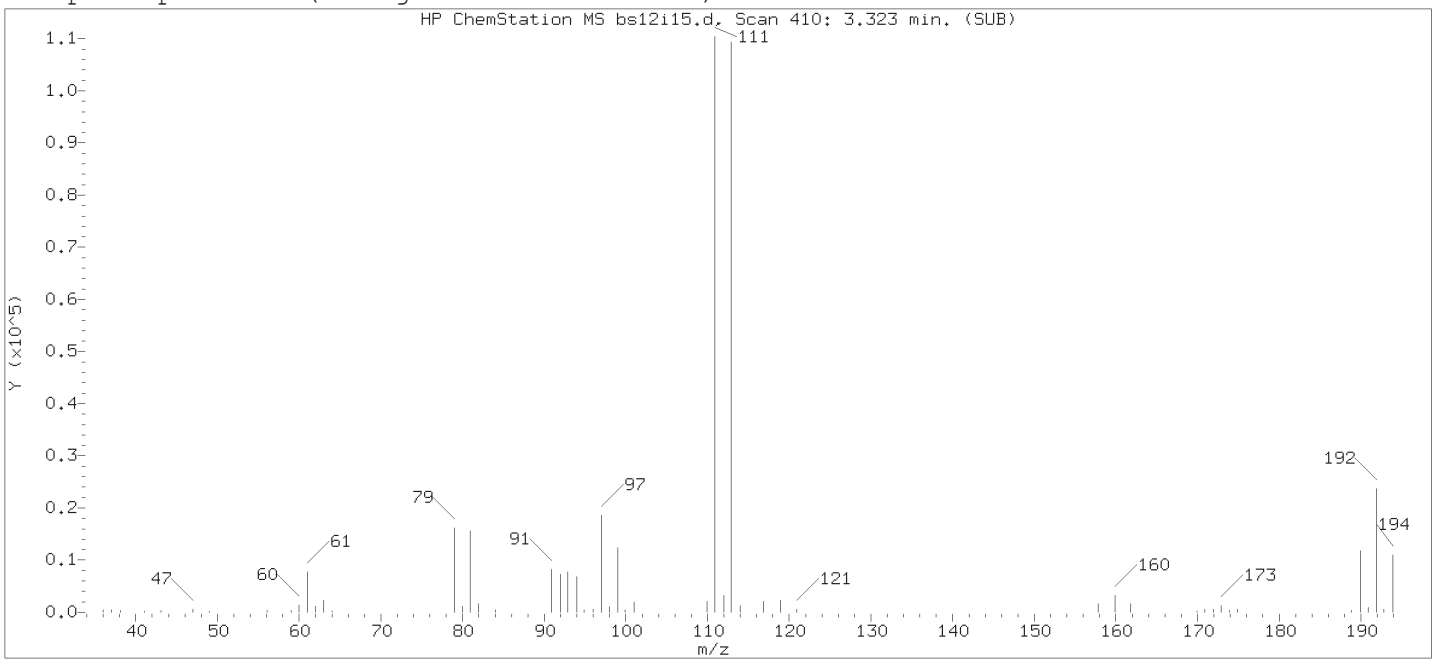
Compound Number : 56
Compound Name : Dibromofluoromethane
Scan Number : 410
Retention Time (minutes): 3.323
Quant Ion : 113.00
Area (flag) : 283652M
On-Column Amount (ng) : 49.7269
Integration start scan : 398 Integration stop scan: 430
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

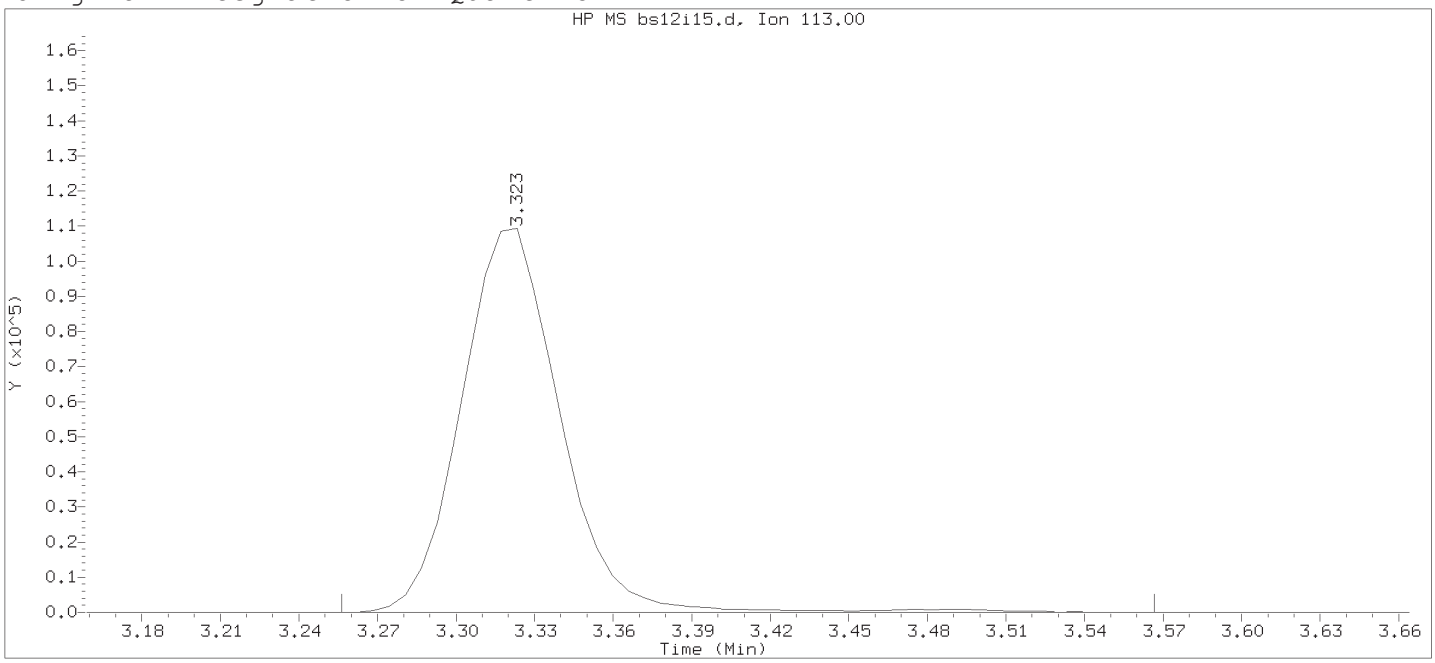
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

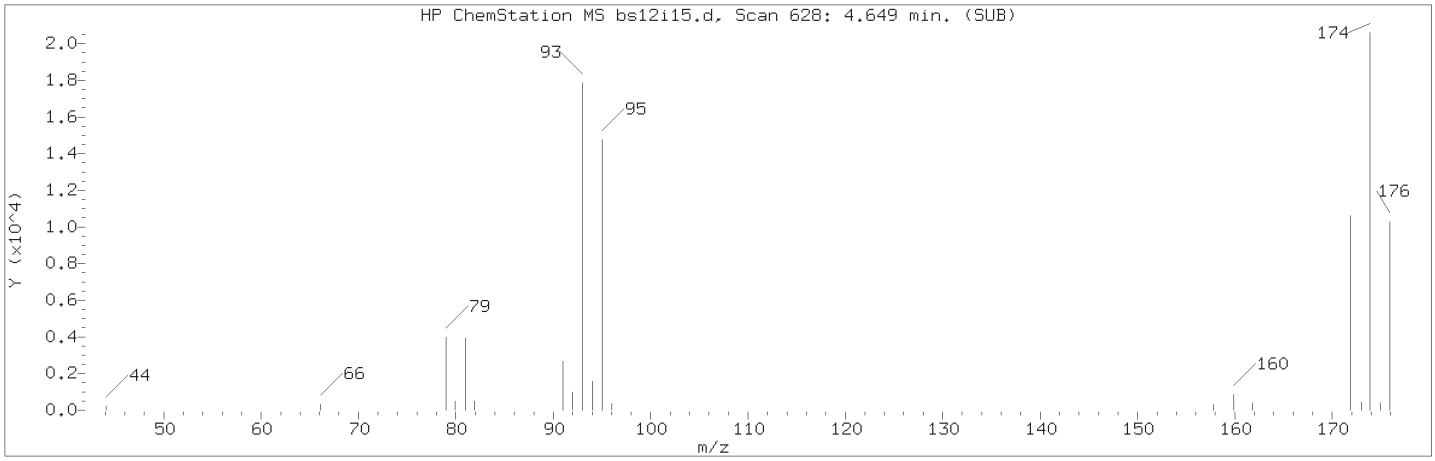
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

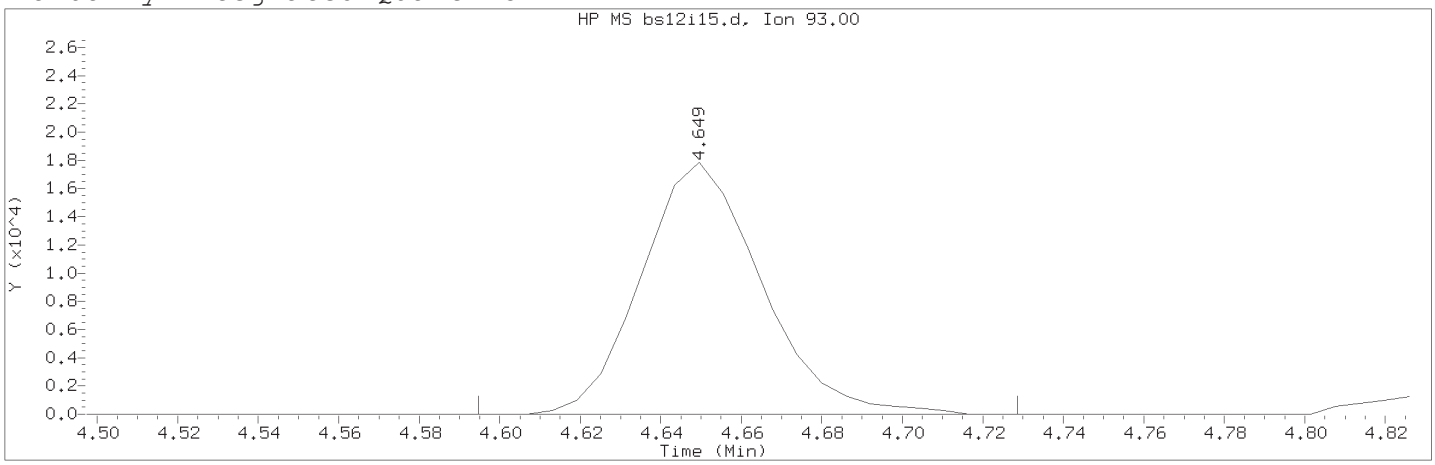
Compound Number	: 56		
Compound Name	: Dibromofluoromethane		
Scan Number	: 410		
Retention Time (minutes)	: 3.323		
Quant Ion	: 113.00		
Area	: 286341		
On-column Amount (ng)	: 50.2629		
Integration start scan	: 398	Integration stop scan:	449
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

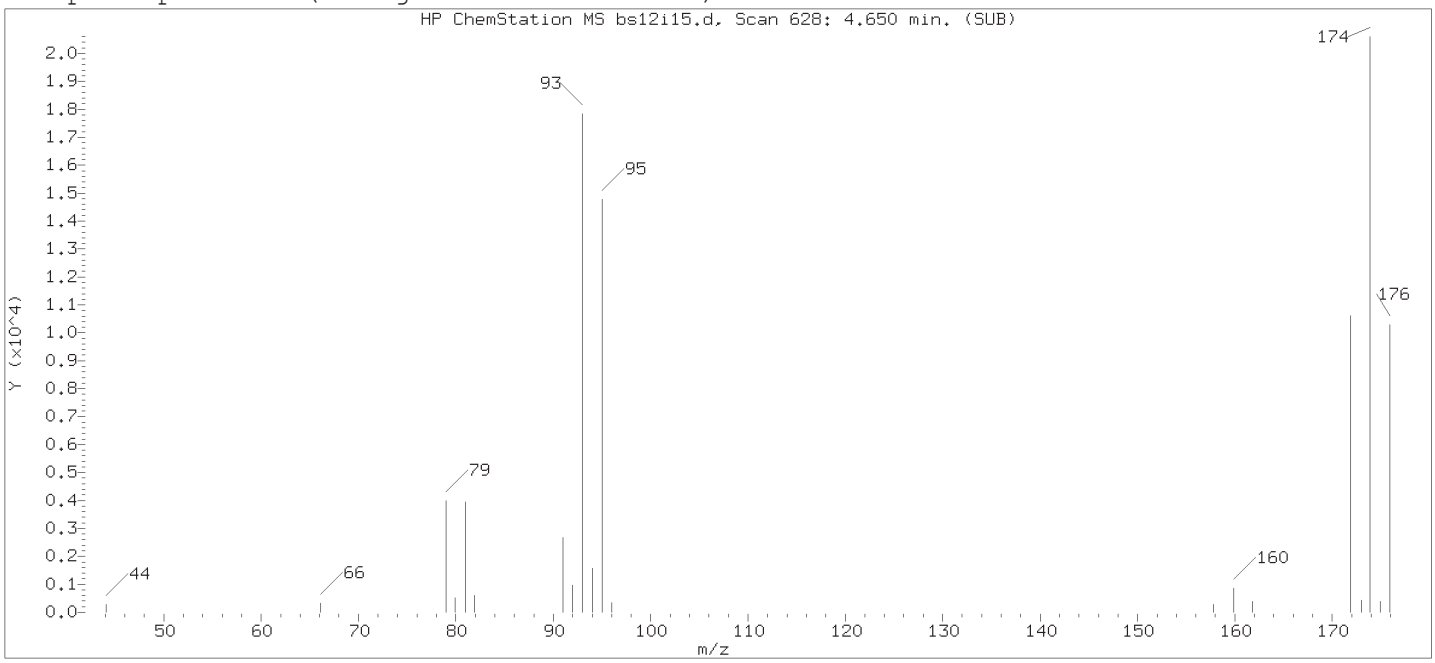
Compound Number : 81
Compound Name : Dibromomethane
Scan Number : 628
Retention Time (minutes): 4.649
Quant Ion : 93.00
Area (flag) : 36857M
On-Column Amount (ng) : 9.7216
Integration start scan : 618 Integration stop scan: 640
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

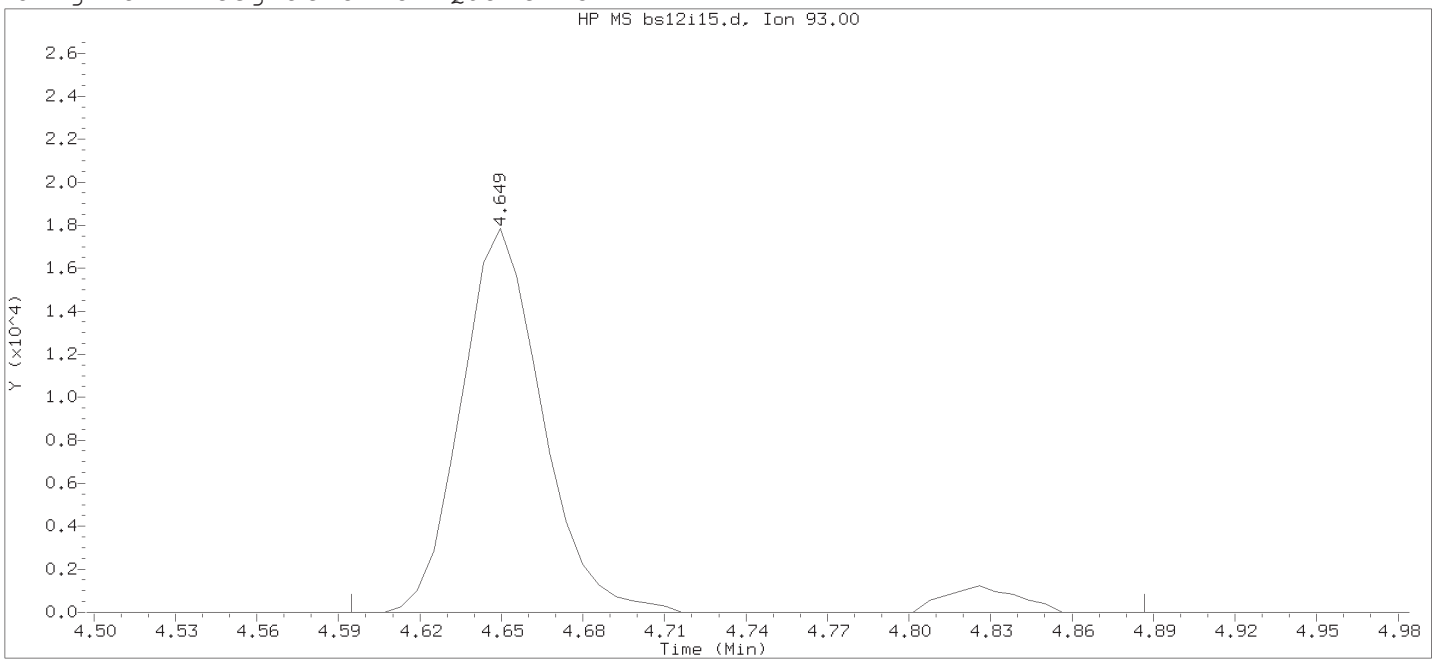
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

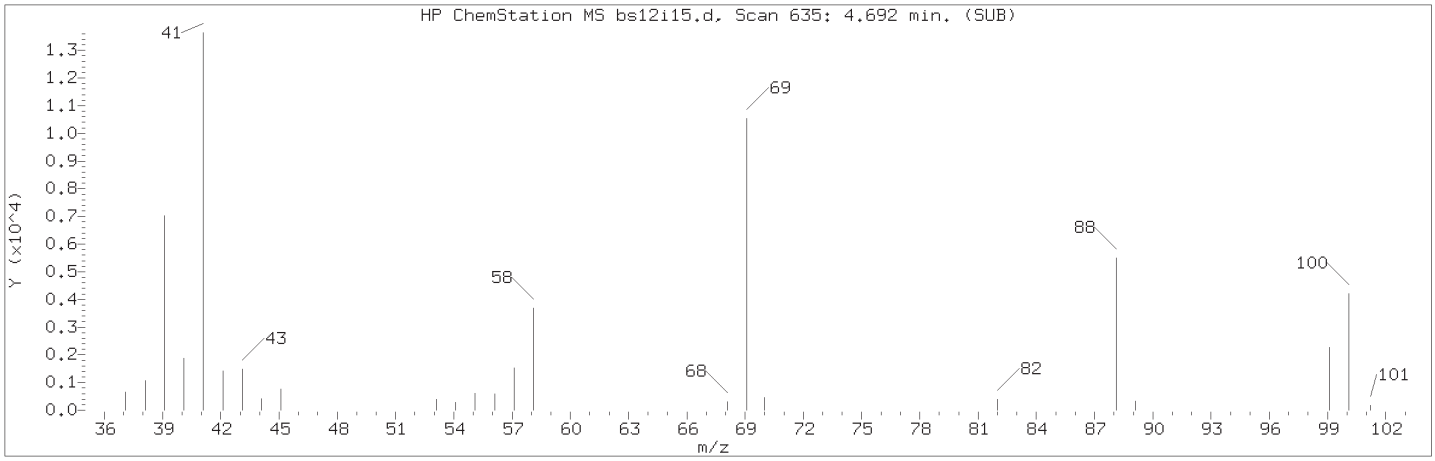
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

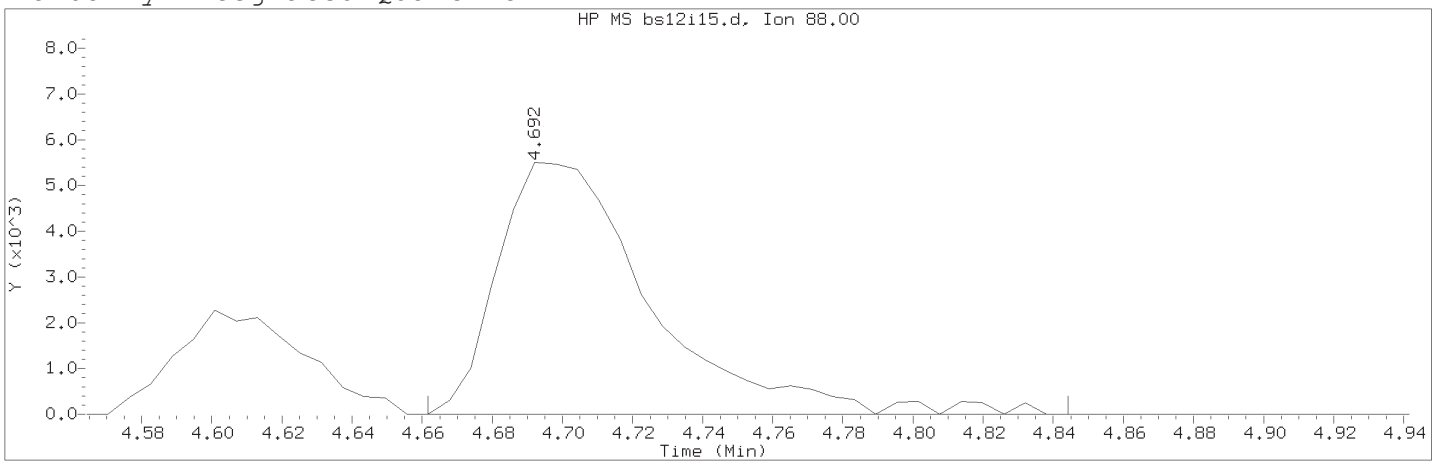
Compound Number : 81
Compound Name : Dibromomethane
Scan Number : 628
Retention Time (minutes): 4.649
Quant Ion : 93.00
Area : 39163
On-column Amount (ng) : 10.5178
Integration start scan : 618 Integration stop scan: 666
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

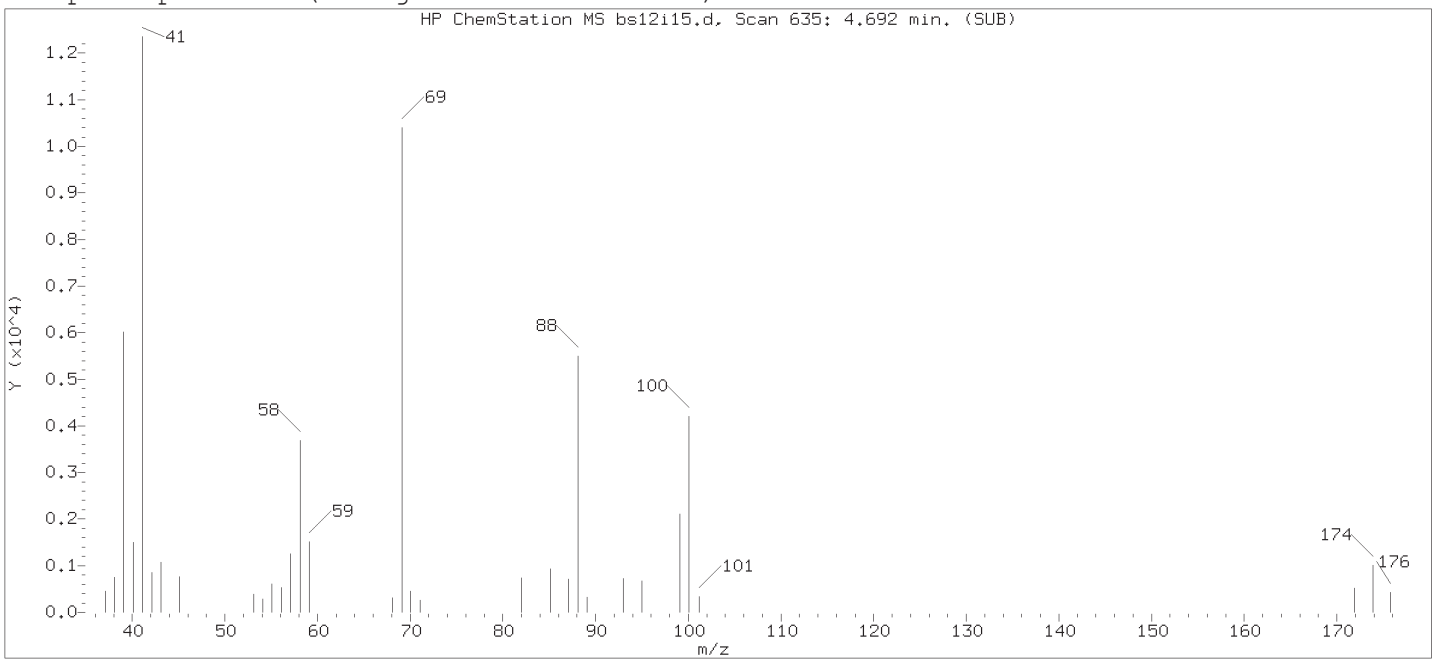
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 16813M
On-Column Amount (ng) : 253.5005
Integration start scan : 629 Integration stop scan: 659
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

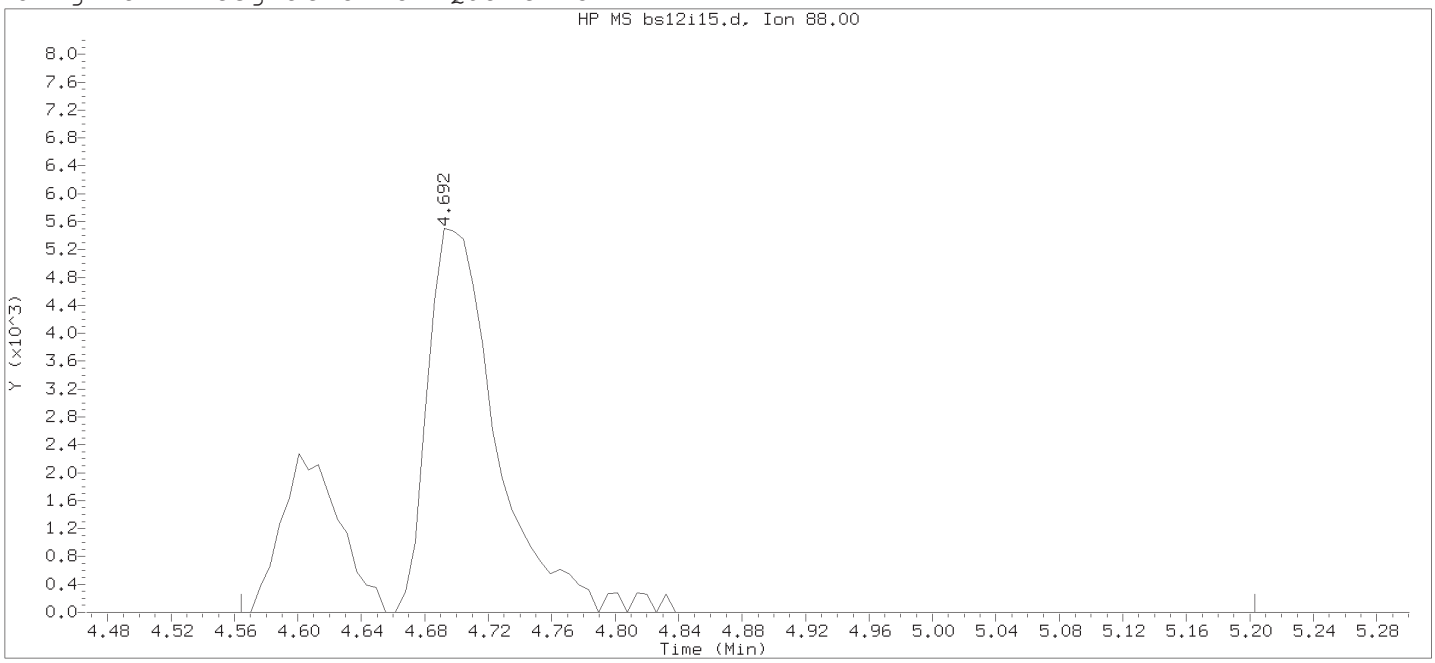
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

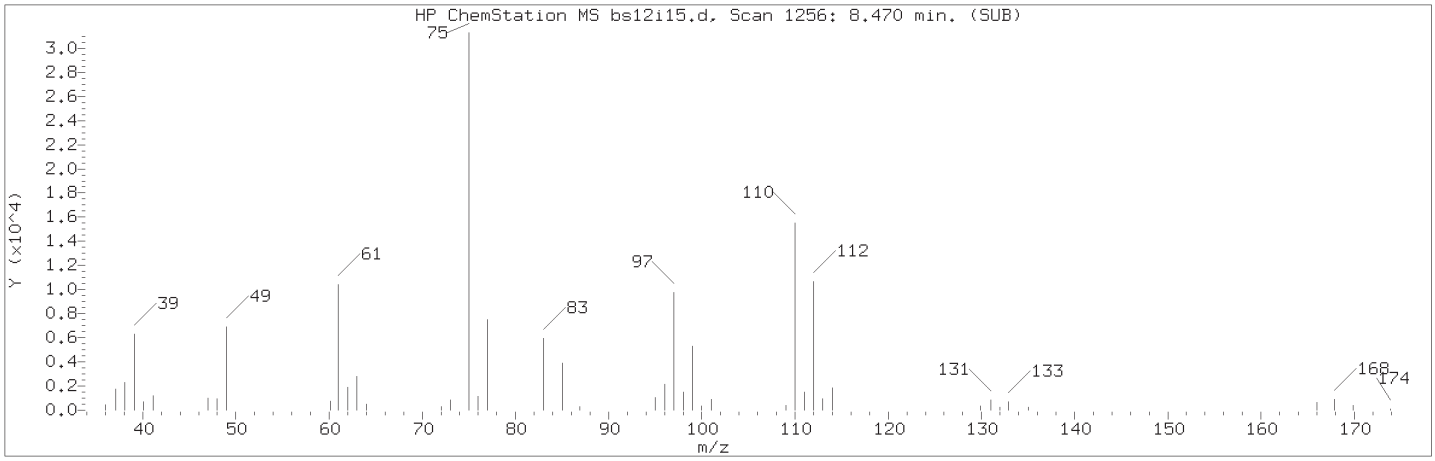
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

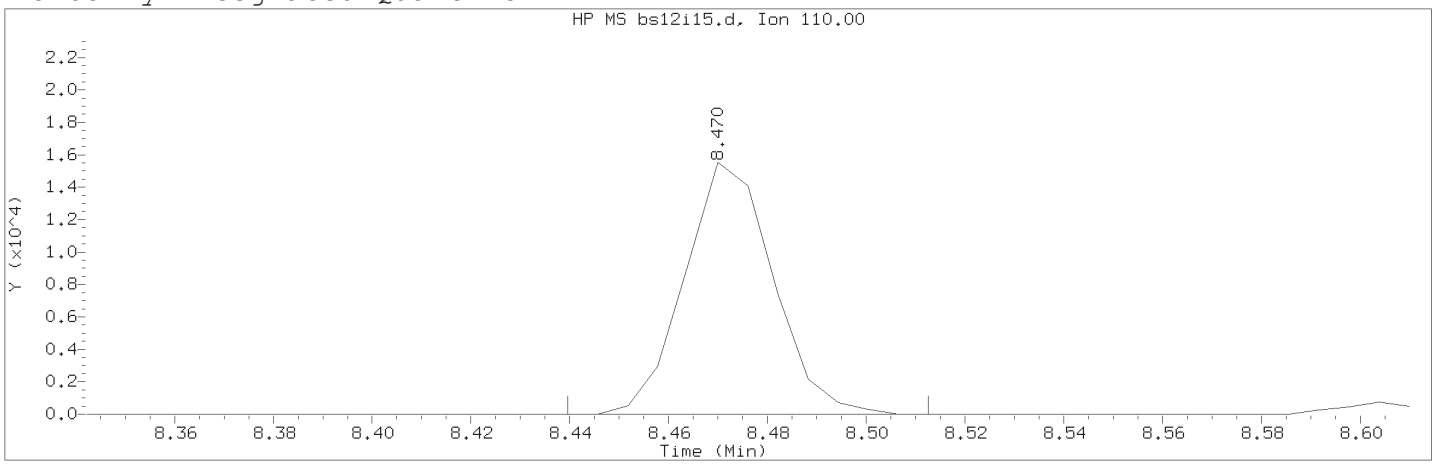
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 22608
On-column Amount (ng) : 229.4064
Integration start scan : 613 Integration stop scan: 718
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09142

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

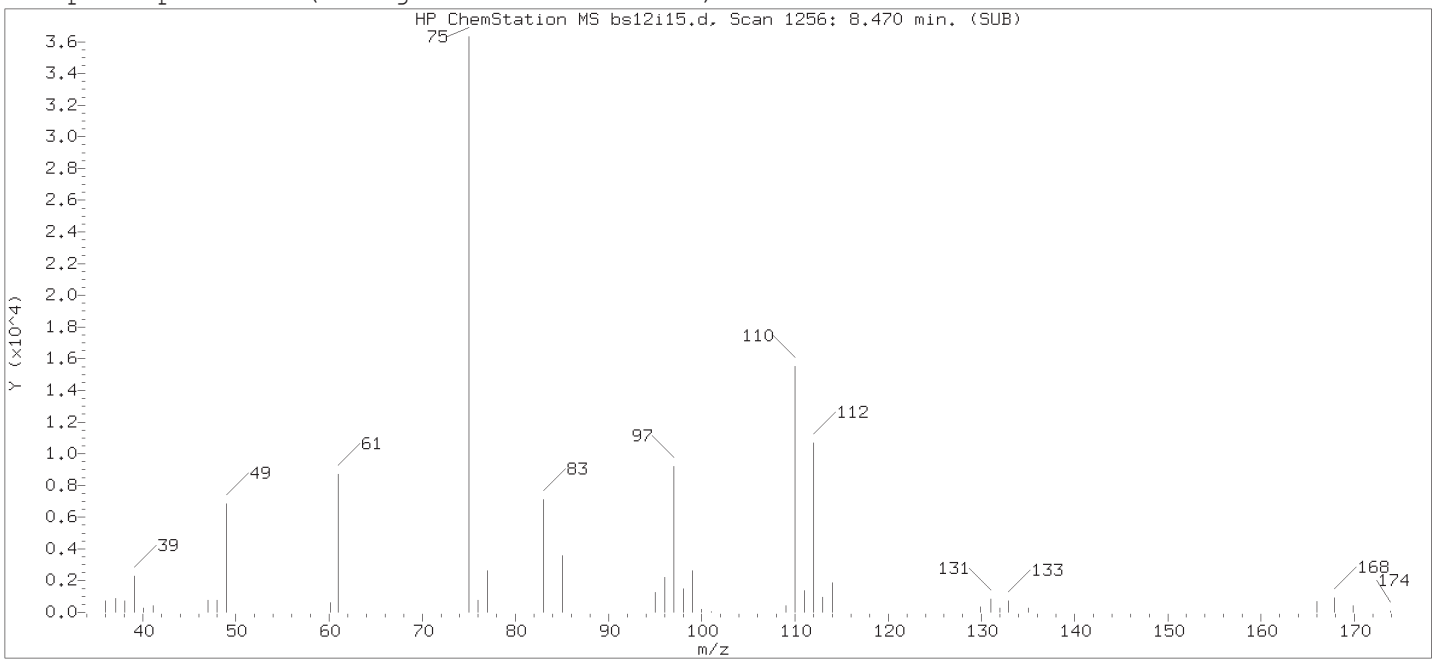
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1256
Retention Time (minutes): 8.470
Quant Ion : 110.00
Area (flag) : 19254M
On-Column Amount (ng) : 9.2810
Integration start scan : 1250 Integration stop scan: 1262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

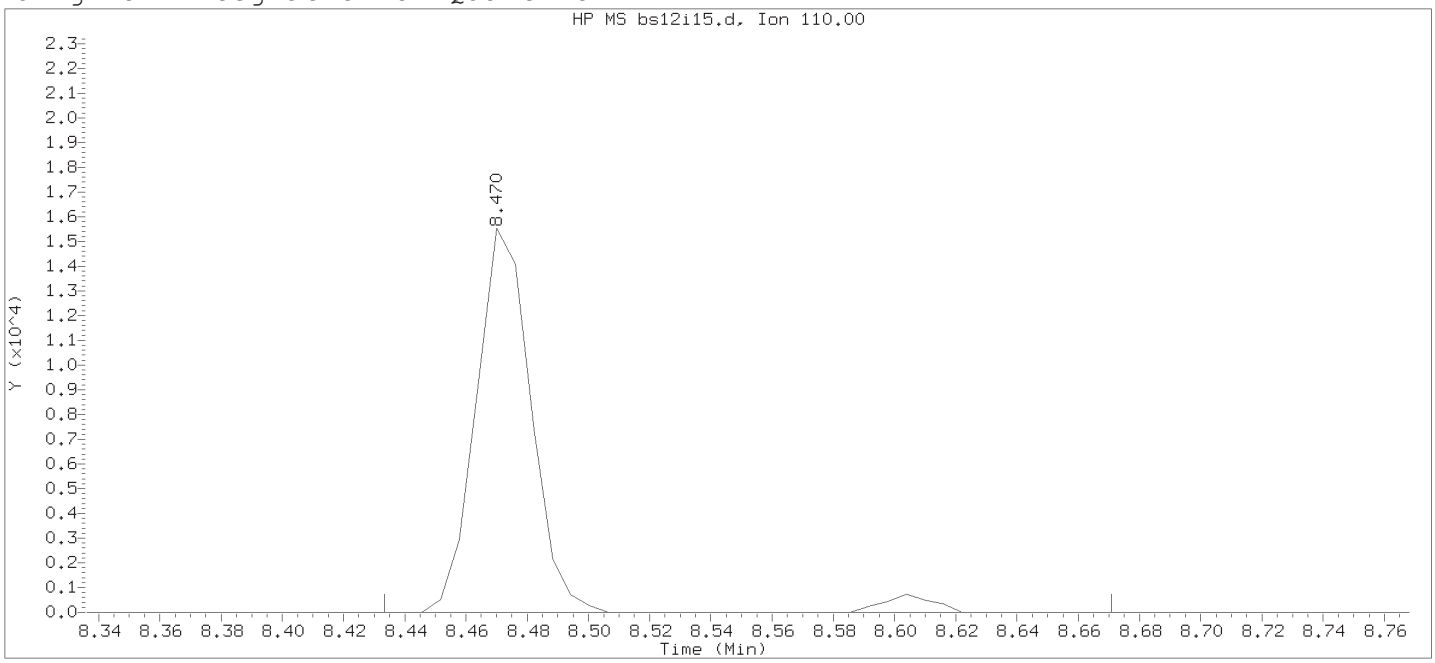
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

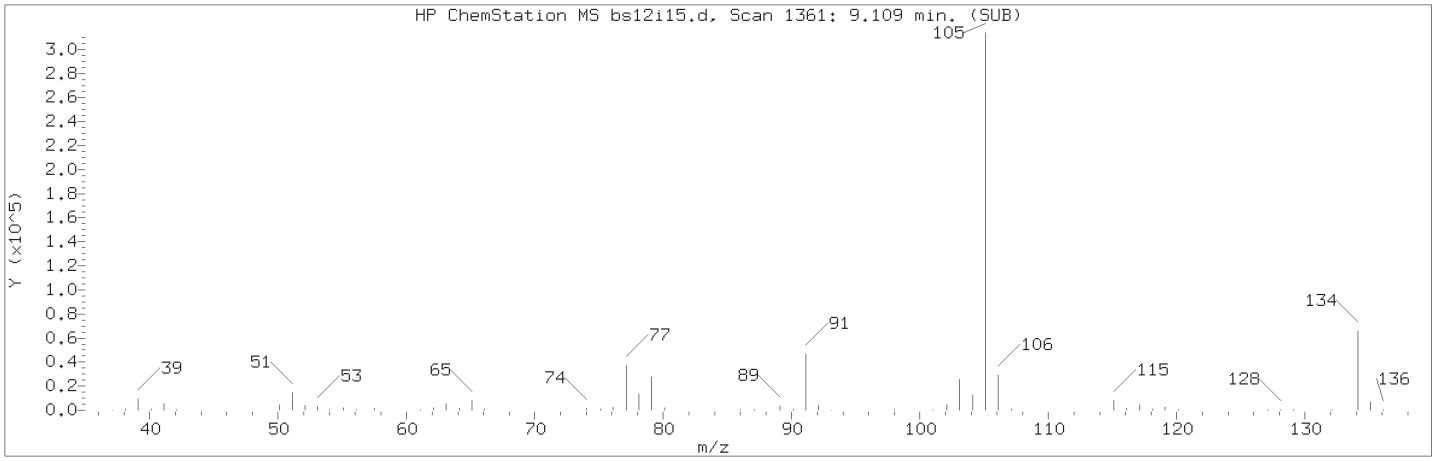
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

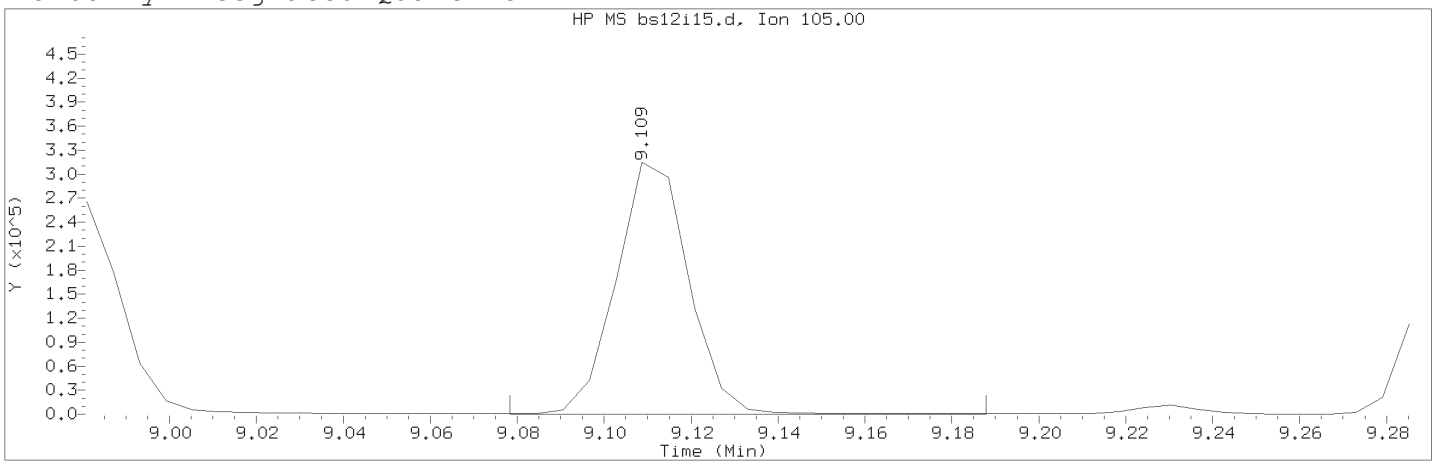
Compound Number	: 123		
Compound Name	: 1,2,3-Trichloropropane		
Scan Number	: 1256		
Retention Time (minutes)	: 8.470		
Quant Ion	: 110.00		
Area	: 20073		
On-column Amount (ng)	: 9.8750		
Integration start scan	: 1249	Integration stop scan:	1288
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

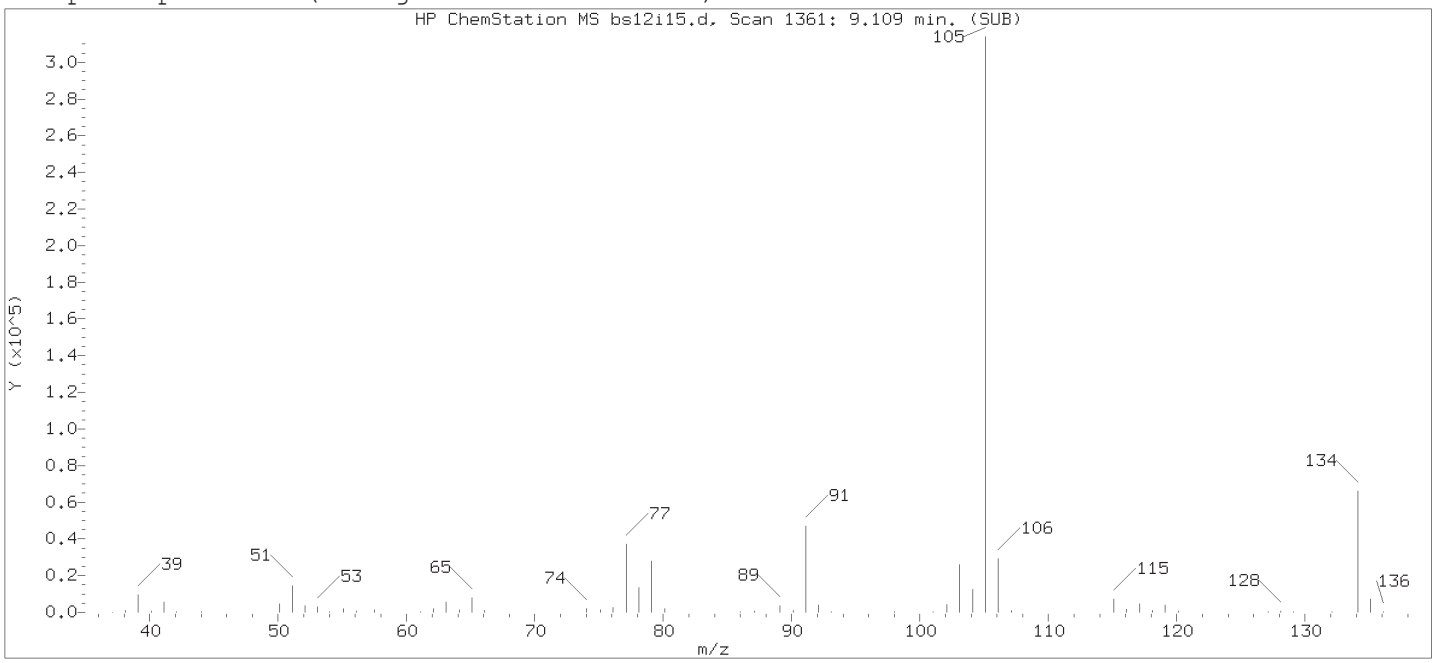
Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1361
Retention Time (minutes): 9.109
Quant Ion : 105.00
Area (flag) : 366051M
On-Column Amount (ng) : 10.2595
Integration start scan : 1355 Integration stop scan: 1373
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

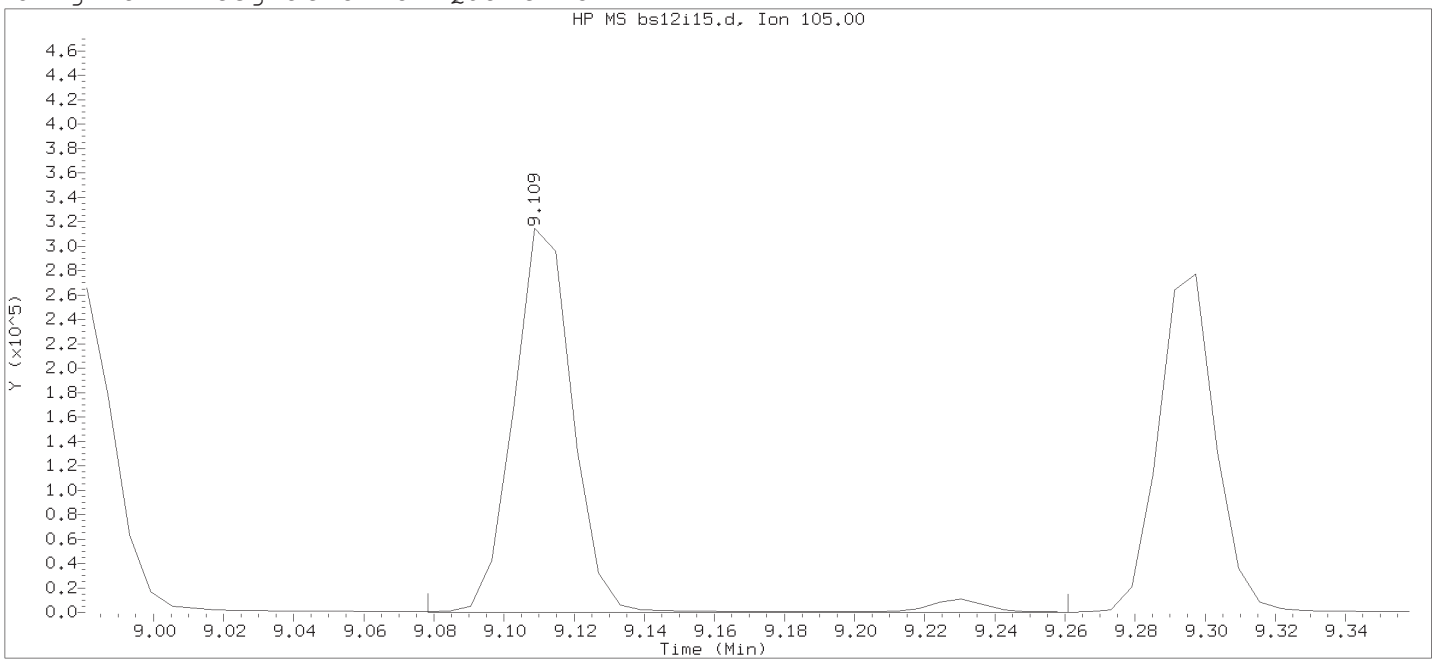
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



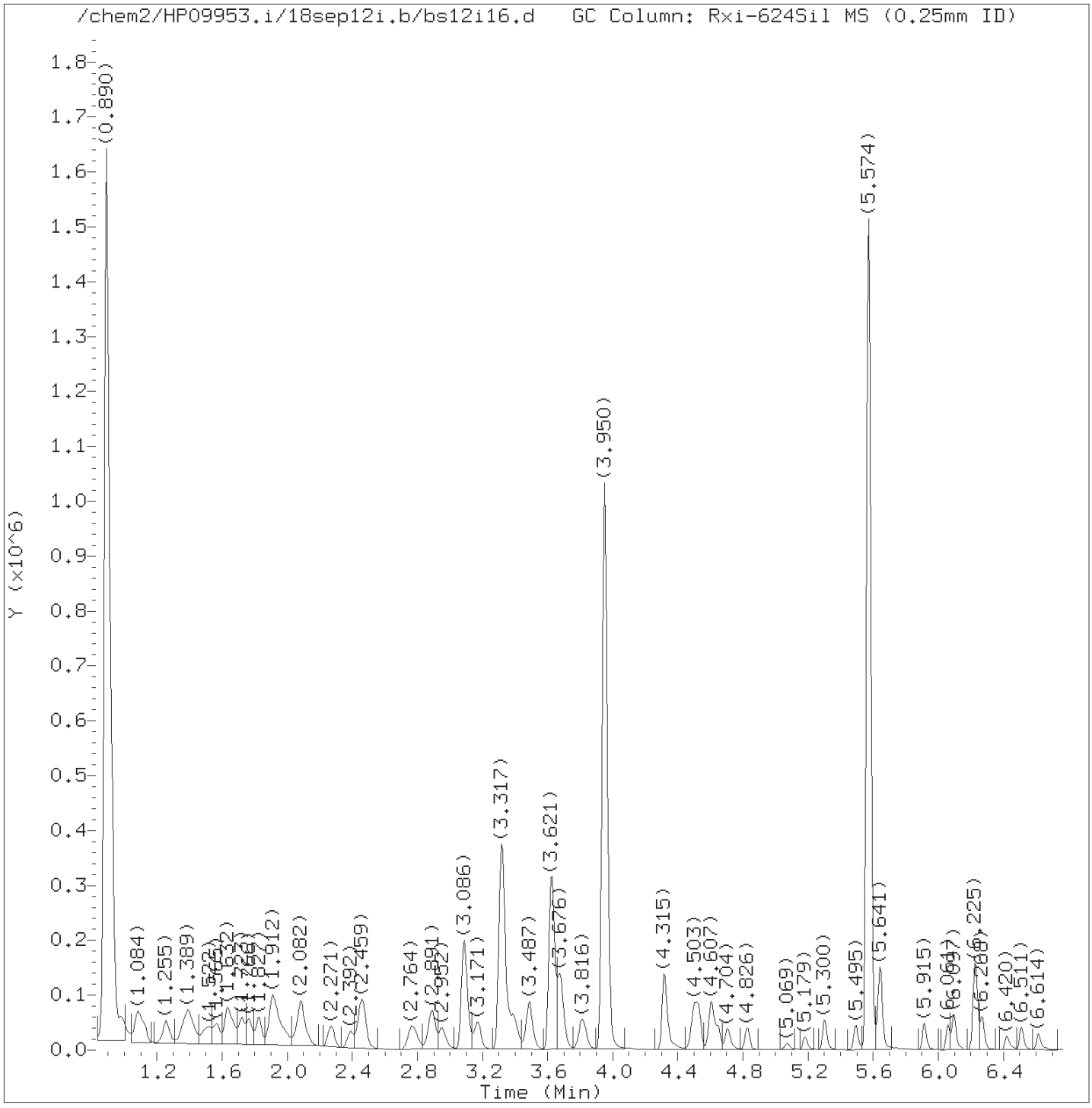
Data File: /chem2/HP09953.i/18sep12i.b/bs12i15.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 14:45 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:00
Date, time and analyst ID of latest file update: 12-Sep-2018 15:00 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1361
Retention Time (minutes): 9.109
Quant Ion : 105.00
Area : 378283
On-column Amount (ng) : 10.8880
Integration start scan : 1355 Integration stop scan: 1385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

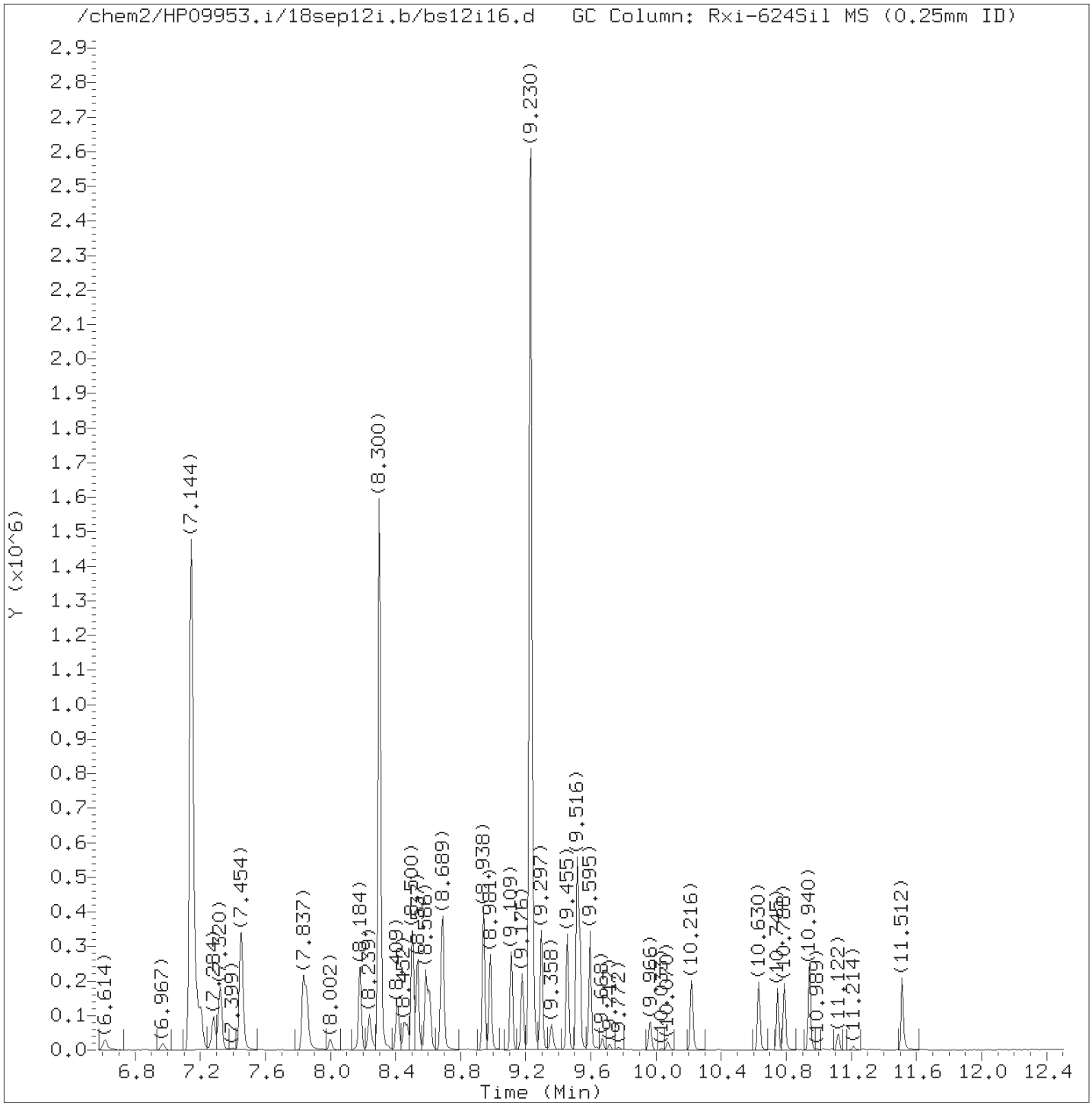
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	48847M	4.735
4) Chloromethane	(2)	1.078	50	46793	4.401
5) Vinyl Chloride	(2)	1.127	62	36495M	4.405
9) Bromomethane	(2)	1.255	94	33064	4.484
10) Chloroethane	(2)	1.273	64	20422	4.582
11) Dichlorofluoromethane	(2)	1.370	67	46679	4.331
13) Trichlorofluoromethane	(2)	1.419	101	51300	4.498
15) Ethanol	(1)	1.450	45	26107	545.608
17) Freon 123a	(2)	1.516	67	34620	4.534
18) Acrolein	(1)	1.571	56	35842	40.453
19) 1,1-Dichloroethene	(2)	1.632	96	24859	4.337
20) Acetone	(1)	1.650	58	5736	7.681
22) Freon 113	(2)	1.656	101	25341	4.410
23) 2-Propanol	(1)	1.723	45	27238	76.874
24) Methyl Iodide	(2)	1.723	142	58108	4.216
25) Carbon Disulfide	(2)	1.766	76	97380	4.246
27) Methyl Acetate	(2)	1.827	43	12866	4.378
29) Allyl Chloride	(2)	1.827	41	31726	4.138
31) Methylene Chloride	(2)	1.906	84	28742	4.243
30)*t-Butyl alcohol-d10	(1)	1.924	65	91708	250.000
32) t-Butyl alcohol	(1)	1.985	59	41509	86.166
33) Acrylonitrile	(2)	2.064	53	7928	3.985
35) trans-1,2-Dichloroethene	(2)	2.082	96	28074	4.212
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	65438	4.014
38) n-Hexane	(2)	2.271	57	33233	4.368
40) 1,1-Dichloroethane	(2)	2.386	63	44488	4.116
41) di-Isopropyl ether	(2)	2.447	45	82269	4.078
42) 2-Chloro-1,3-butadiene	(2)	2.459	53	40456	4.248
43) Ethyl t-butyl ether	(2)	2.764	59	76358	4.019
45) cis-1,2-Dichloroethene	(2)	2.885	96	29311	4.051
47) 2,2-Dichloropropane	(2)	2.897	77	32328	4.103
44) 2-Butanone	(1)	2.903	43	19534	8.285
49) Propionitrile	(1)	2.952	54	51619	81.610
46) 1,2-Dichloroethene (Total)	(2)		96	57385	8.263
51) Methacrylonitrile	(2)	3.086	67	82272	37.004
52) Bromochloromethane	(2)	3.098	128	14877	3.870
53) Tetrahydrofuran	(1)	3.141	71	4860	8.275
54) Chloroform	(2)	3.171	83	44874	4.091

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	283949	49.870
56)$Dibromofluoromethane	(2)	3.317	111	286363	49.611
57) 1,1,1-Trichloroethane	(2)	3.348	97	51617	4.596
58) Cyclohexane	(2)	3.390	56	45815	4.342
58) Cyclohexane	(2)	3.402	84	47502	4.817
58) Cyclohexane	(2)	3.396	69	14531	4.354
60) 1,1-Dichloropropene	(2)	3.487	75	34260	4.197
61) Carbon Tetrachloride	(2)	3.494	117	34489	4.043
63)$1,2-Dichloroethane-d4	(2)	3.621	102	59869	48.852
63)$1,2-Dichloroethane-d4	(2)	3.621	65	266571	49.463
63)$1,2-Dichloroethane-d4	(2)	3.621	104	38650	49.227
62) Isobutyl Alcohol	(1)	3.652	41	34776	205.468
64) Benzene	(2)	3.676	78	106731	4.096
67) 1,2-Dichloroethane	(2)	3.694	62	30094	4.002
67) 1,2-Dichloroethane	(2)	3.694	98	3134	4.195
68) t-Amyl methyl ether	(2)	3.816	73	69317	3.952
70)*Fluorobenzene	(2)	3.950	96	1142455	50.000
72) n-Heptane	(2)	3.962	43	28055	4.042
75) Trichloroethene	(2)	4.315	95	27974	4.117
73) n-Butanol	(1)	4.321	56	52824	372.718
76) Methylcyclohexane	(2)	4.503	83	45325	4.286
77) 1,2-Dichloropropane	(2)	4.528	63	25279	4.085
81) Dibromomethane	(2)	4.649	93	14488M	3.828
80) 1,4-Dioxane	(1)	4.698	88	11198M	190.654
79) Methyl Methacrylate	(2)	4.710	69	15368	3.853
84) Bromodichloromethane	(2)	4.826	83	29212	3.780
85) 2-Nitropropane	(1)	5.075	41	9390	7.741
87) 2-Chloroethyl Vinyl Ether	(2)	5.179	63	11805	3.623
89) cis-1,3-Dichloropropene	(2)	5.300	75	35345	3.788
90) 4-Methyl-2-pentanone	(2)	5.495	43	34269	5.430
91)$Toluene-d8	(3)	5.574	98	1150416	50.571
91)$Toluene-d8	(3)	5.574	100	743261	50.349
92) Toluene	(3)	5.641	92	70511	4.179
93) trans-1,3-Dichloropropene	(3)	5.915	75	29610	3.664
94) 1,3-Dichloropropene (total)	(3)		100	64955	7.451
95) Ethyl Methacrylate	(3)	6.061	69	29622	3.776
96) 1,1,2-Trichloroethane	(3)	6.097	97	21562M	3.938
98) Tetrachloroethene	(3)	6.231	166	32921	3.562

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.268	76	35316	4.006
101) 2-Hexanone	(3)	6.420	43	22296	6.107
103) Dibromochloromethane	(3)	6.511	129	22905	3.631
104) 1,2-Dibromoethane	(3)	6.614	107	22166	3.919
105)*Chlorobenzene-d5	(3)	7.144	117	881395	50.000
107) Chlorobenzene	(3)	7.174	112	81464	4.135
106) 1-Chlorohexane	(3)	7.205	91	34344	4.097
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	25858	3.871
109) Ethylbenzene	(3)	7.320	91	131212	4.135
110) m+p-Xylene	(3)	7.454	106	106441	8.220
111) o-Xylene	(3)	7.831	106	52280	4.038
113) Styrene	(3)	7.856	104	84830	3.975
112) Xylene (Total)	(3)		106	158721	12.258
114) Bromoform	(3)	7.995	173	13331	3.391
115) Isopropylbenzene	(3)	8.184	105	136181	4.173
118) Cyclohexanone	(1)	8.239	55	38100	179.256
119)$4-Bromofluorobenzene	(3)	8.300	95	412385M	49.762
119)$4-Bromofluorobenzene	(3)	8.300	174	377195	49.451
121) Bromobenzene	(4)	8.415	156	36882	4.085
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	27615	4.006
123) 1,2,3-Trichloropropane	(4)	8.476	110	8079M	3.953
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	59570	35.222
124) n-Propylbenzene	(4)	8.537	91	153146	4.291
126) 2-Chlorotoluene	(4)	8.586	126	35123	4.194
130) 4-Chlorotoluene	(4)	8.683	126	35091	4.136
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	116748	4.229
133) tert-Butylbenzene	(4)	8.938	134	27513	4.242
134) Pentachloroethane	(4)	8.944	167	17526	4.519
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	118860	4.128
136) sec-Butylbenzene	(4)	9.109	105	151112	4.299
138) 1,3-Dichlorobenzene	(4)	9.176	146	69434	4.098
139) p-Isopropyltoluene	(4)	9.230	119	134924	4.284
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	492725	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	73390	4.155
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	129876	4.185
143) Benzyl Chloride	(4)	9.358	126	7646	3.321
144) 1,3-Diethylbenzene	(4)	9.455	119	80337	4.126
145) 1,4-Diethylbenzene	(4)	9.516	119	83724	4.143

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

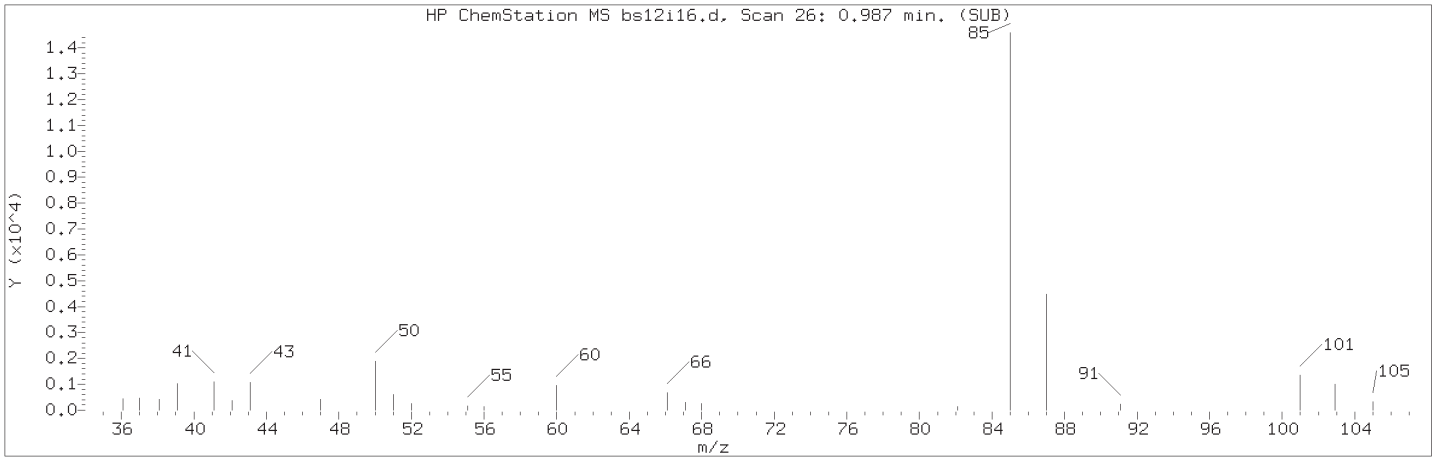
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

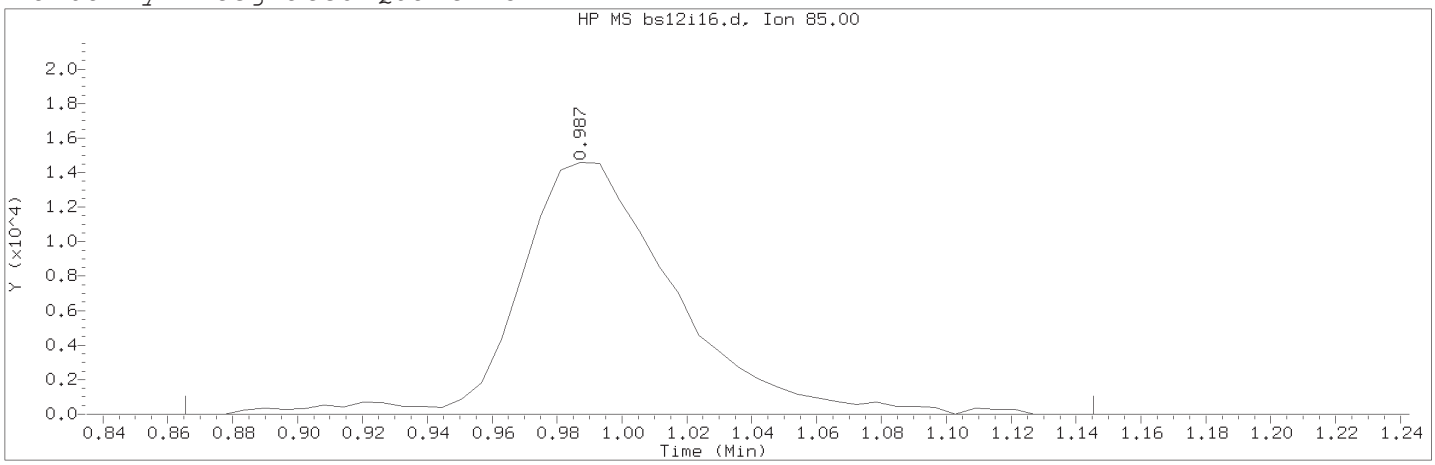
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.516	146	69783	4.213
146) n-Butylbenzene	(4)	9.535	92	60035	4.103
148) 1,2-Diethylbenzene	(4)	9.595	119	71248	4.182
149) Diethylbenzene (total)	(4)		100	235309	12.451
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	4287	3.580
152) 1,3,5-Trichlorobenzene	(4)	10.222	180	51991	4.012
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	49385	4.043
154) Hexachlorobutadiene	(4)	10.745	225	22798	4.091
155) Naphthalene	(4)	10.788	128	117811	4.060
156) 1,2,3-Trichlorobenzene	(4)	10.946	180	47024	4.037
157) 2-Methylnaphthalene	(4)	11.512	142	76878	3.917

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

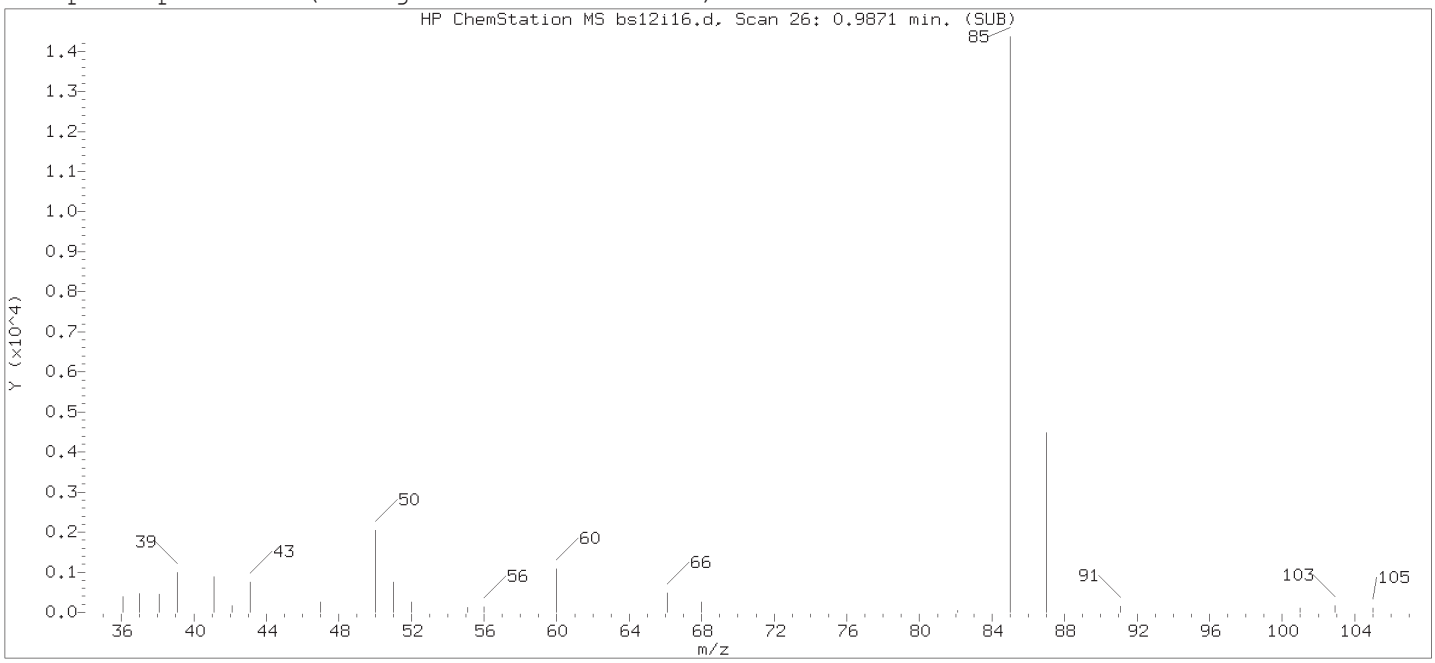
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 26
Retention Time (minutes): 0.987
Quant Ion : 85.00
Area (flag) : 48847M
On-Column Amount (ng) : 4.7352
Integration start scan : 5 Integration stop scan: 51
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

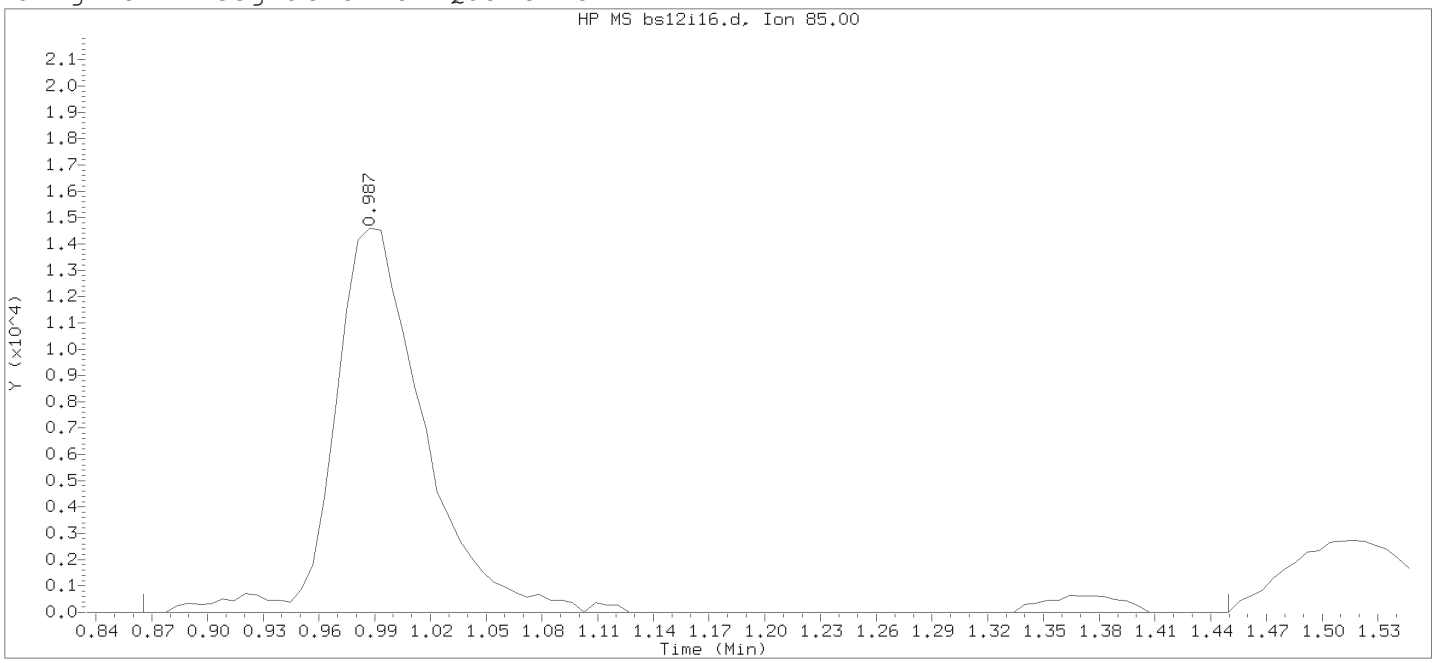
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

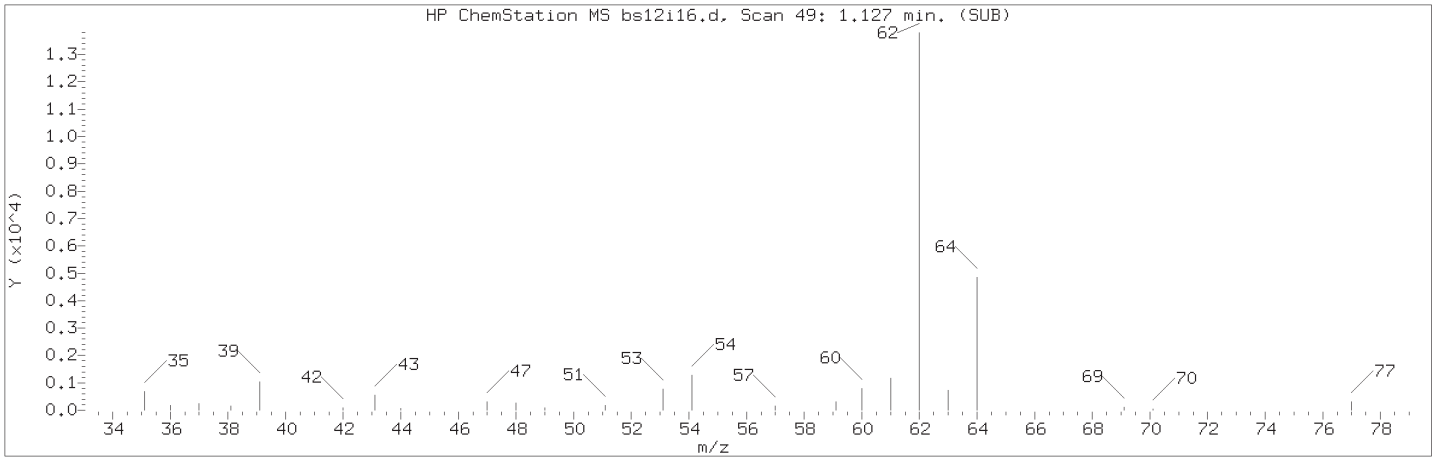
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

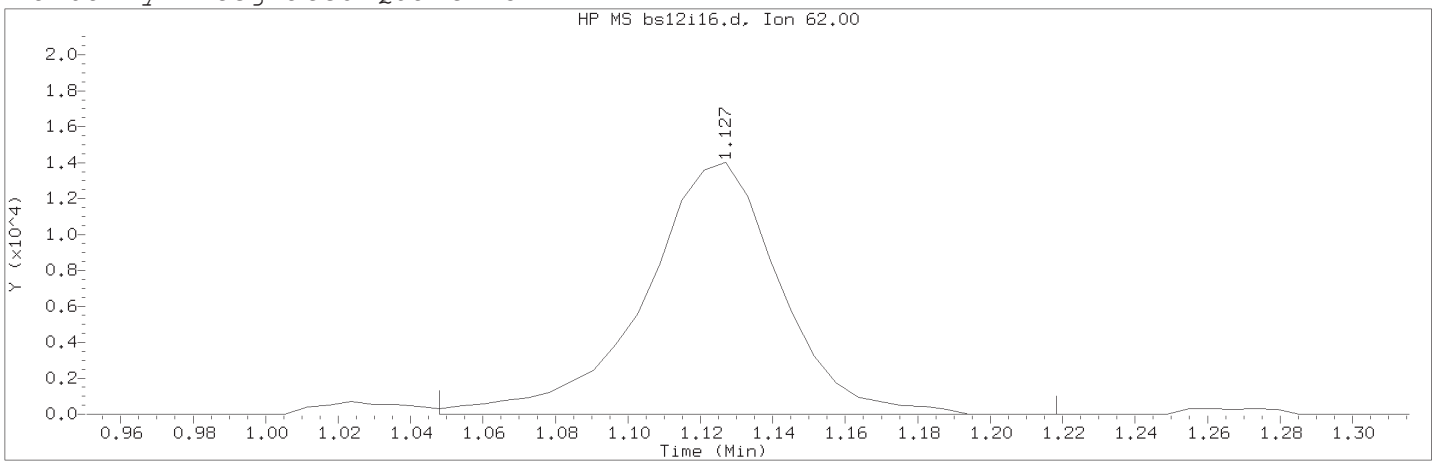
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 26
Retention Time (minutes): 0.987
Quant Ion : 85.00
Area : 50749
On-column Amount (ng) : 4.9498
Integration start scan : 5 Integration stop scan: 101
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

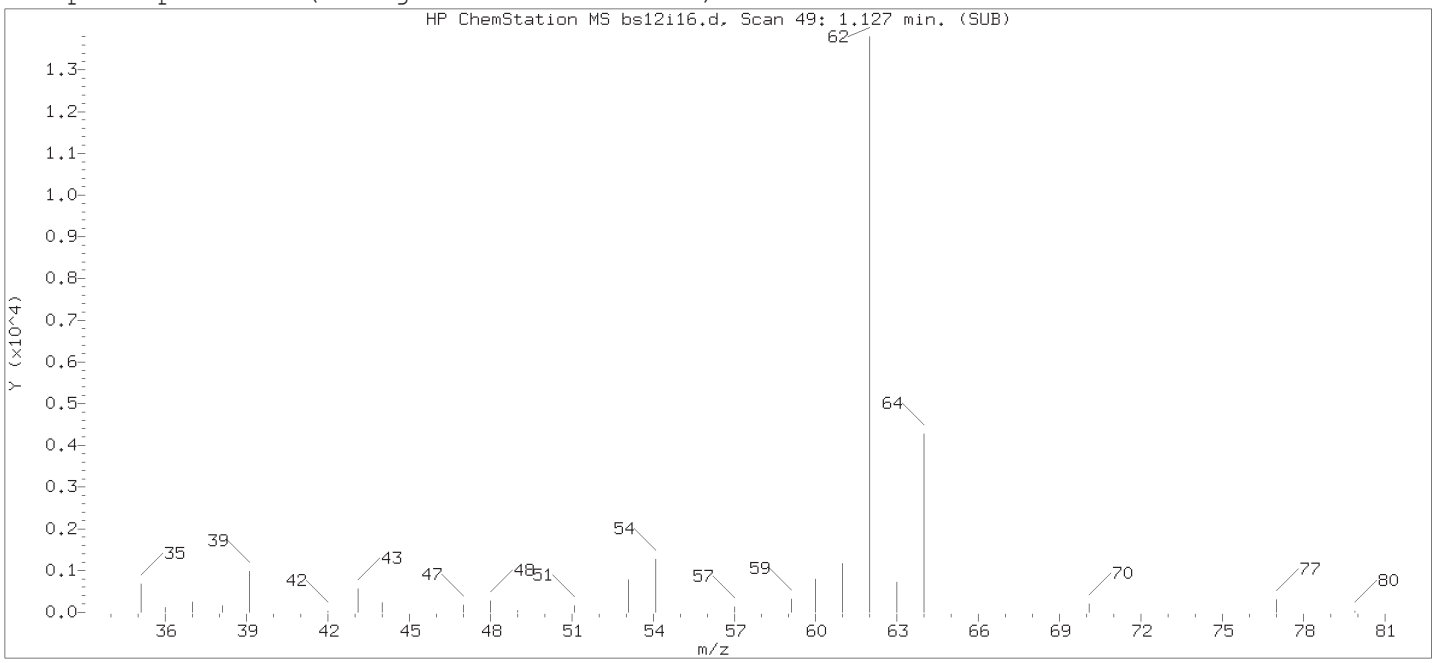
Compound Number : 5
Compound Name : Vinyl Chloride
Scan Number : 49
Retention Time (minutes): 1.127
Quant Ion : 62.00
Area (flag) : 36495M
On-Column Amount (ng) : 4.4048
Integration start scan : 35 Integration stop scan: 63
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

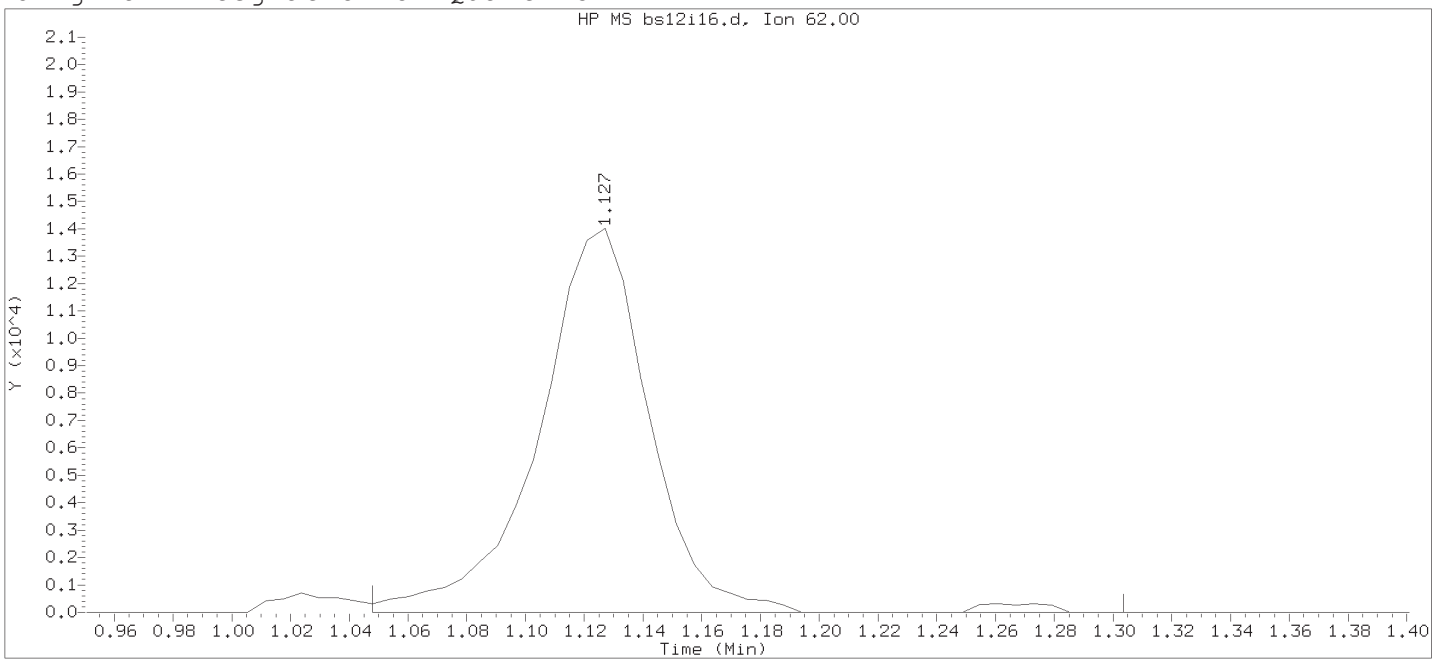
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

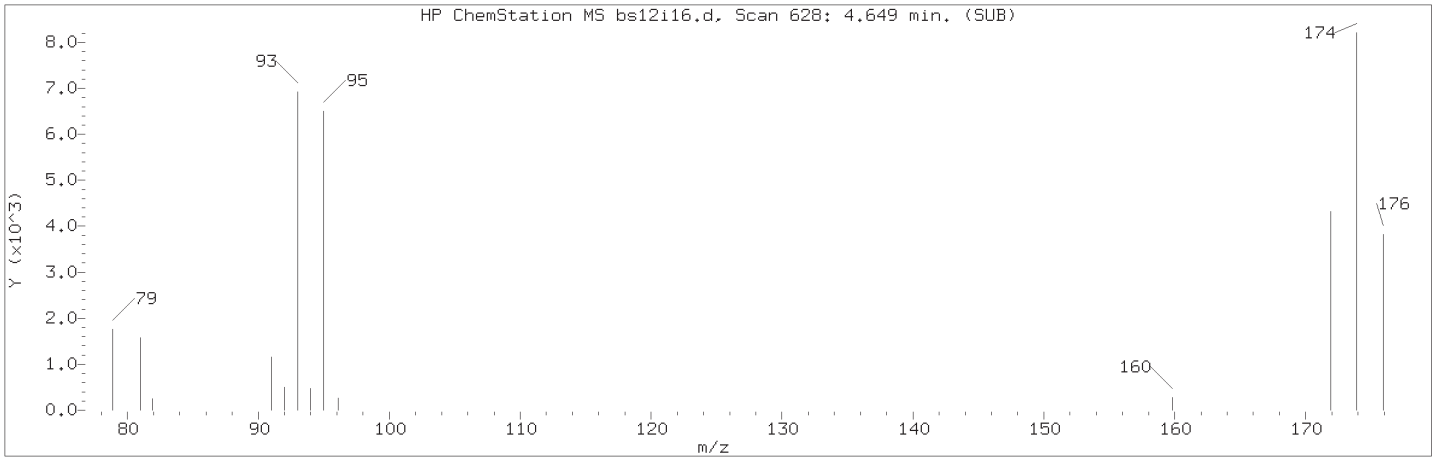
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

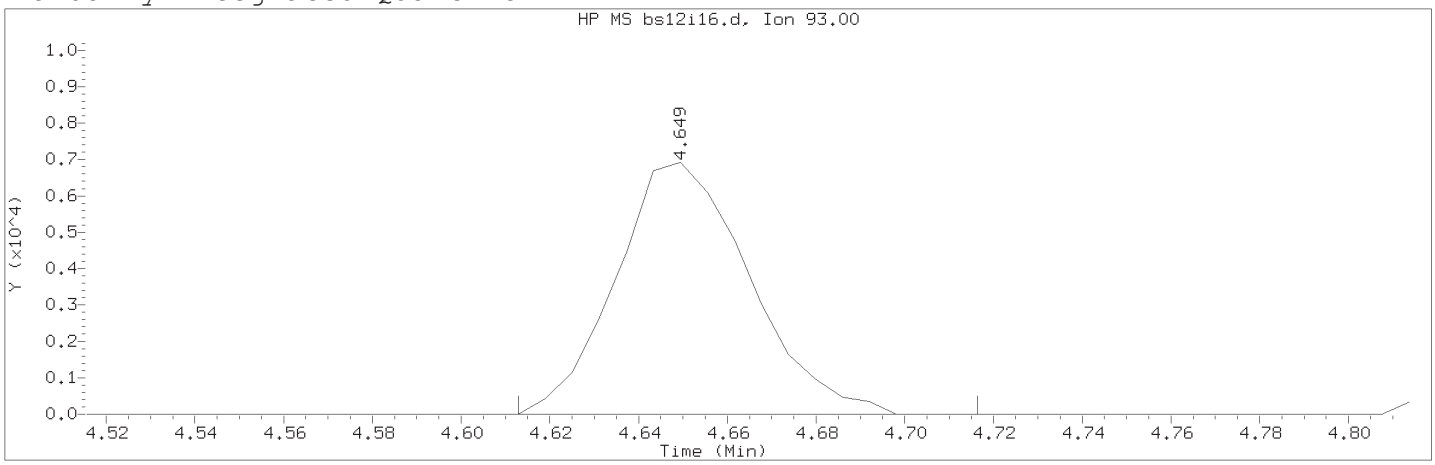
Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 49		
Retention Time (minutes)	: 1.127		
Quant Ion	: 62.00		
Area	: 36968		
On-column Amount (ng)	: 4.4383		
Integration start scan	: 35	Integration stop scan:	77
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

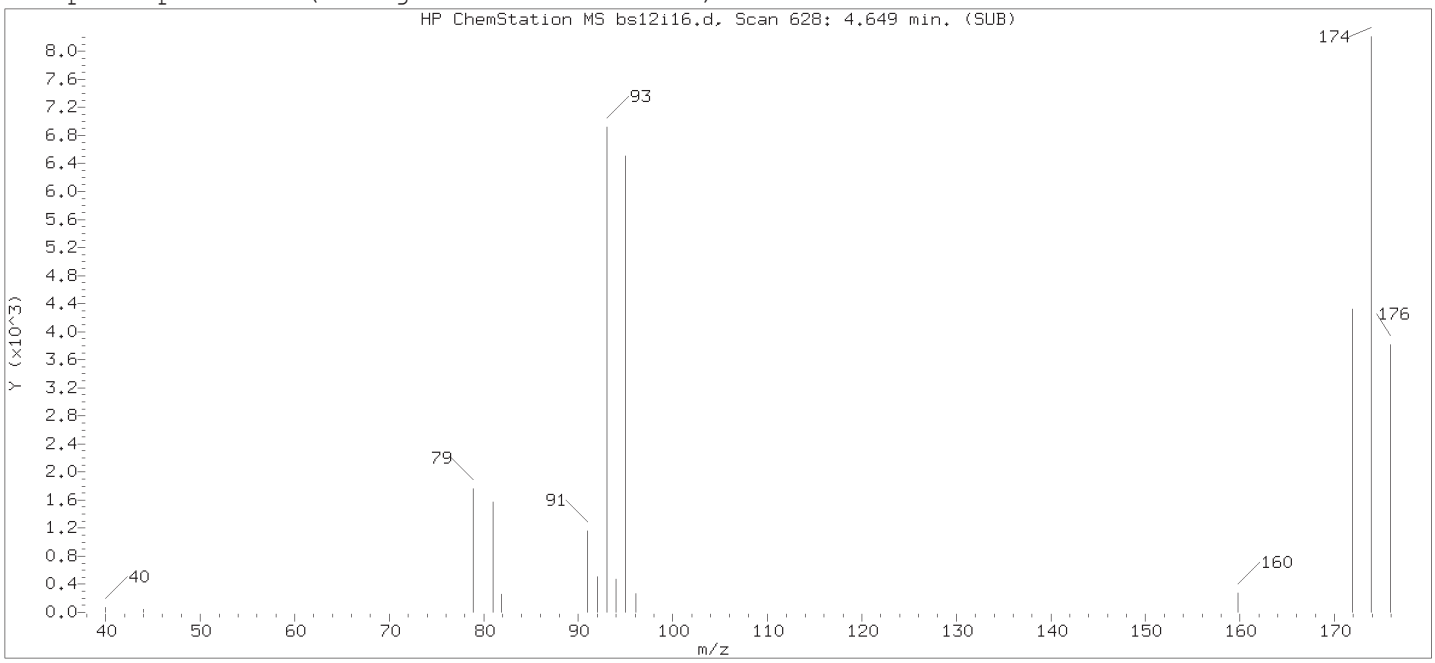
Compound Number : 81
Compound Name : Dibromomethane
Scan Number : 628
Retention Time (minutes): 4.649
Quant Ion : 93.00
Area (flag) : 14488M
On-Column Amount (ng) : 3.8284
Integration start scan : 621 Integration stop scan: 638
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

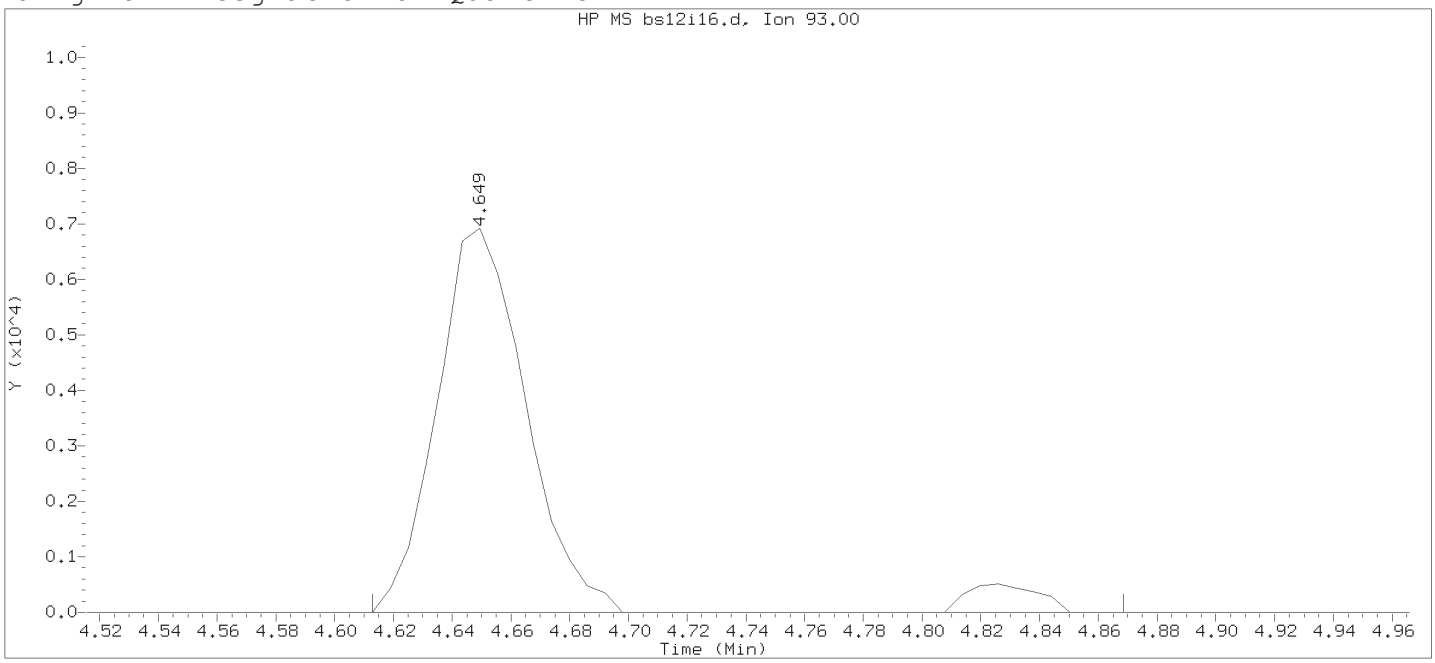
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

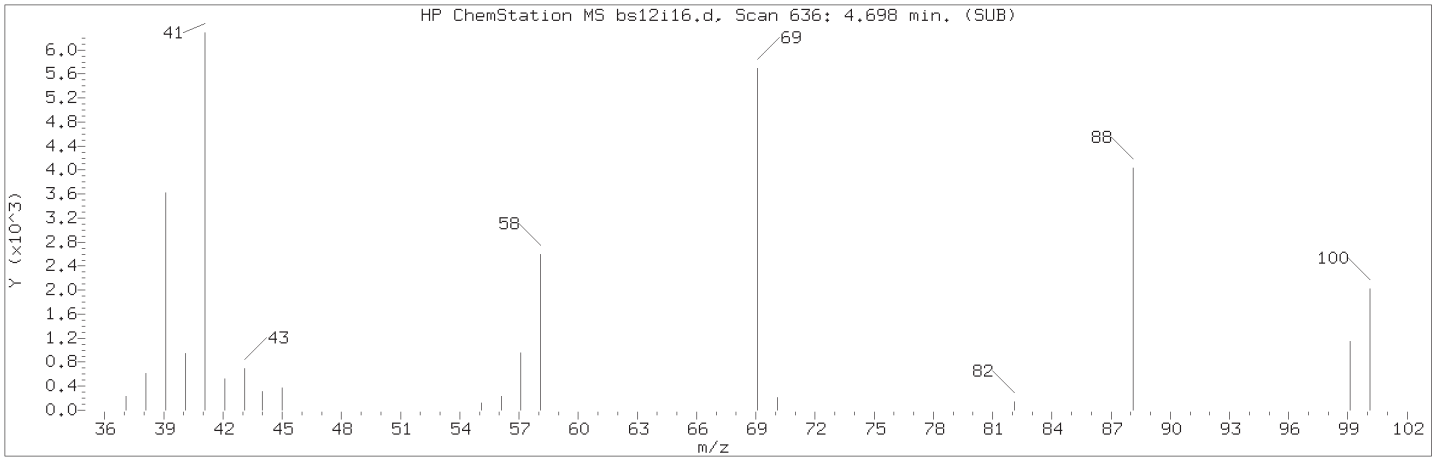
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

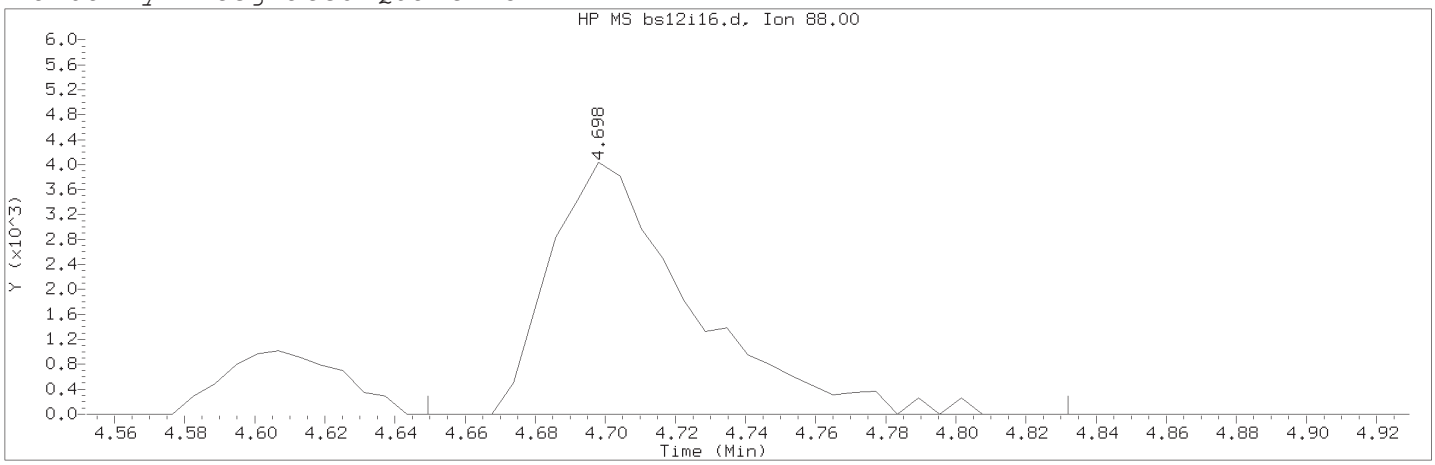
Compound Number : 81
Compound Name : Dibromomethane
Scan Number : 628
Retention Time (minutes): 4.649
Quant Ion : 93.00
Area : 15367
On-column Amount (ng) : 4.1124
Integration start scan : 621 Integration stop scan: 663
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

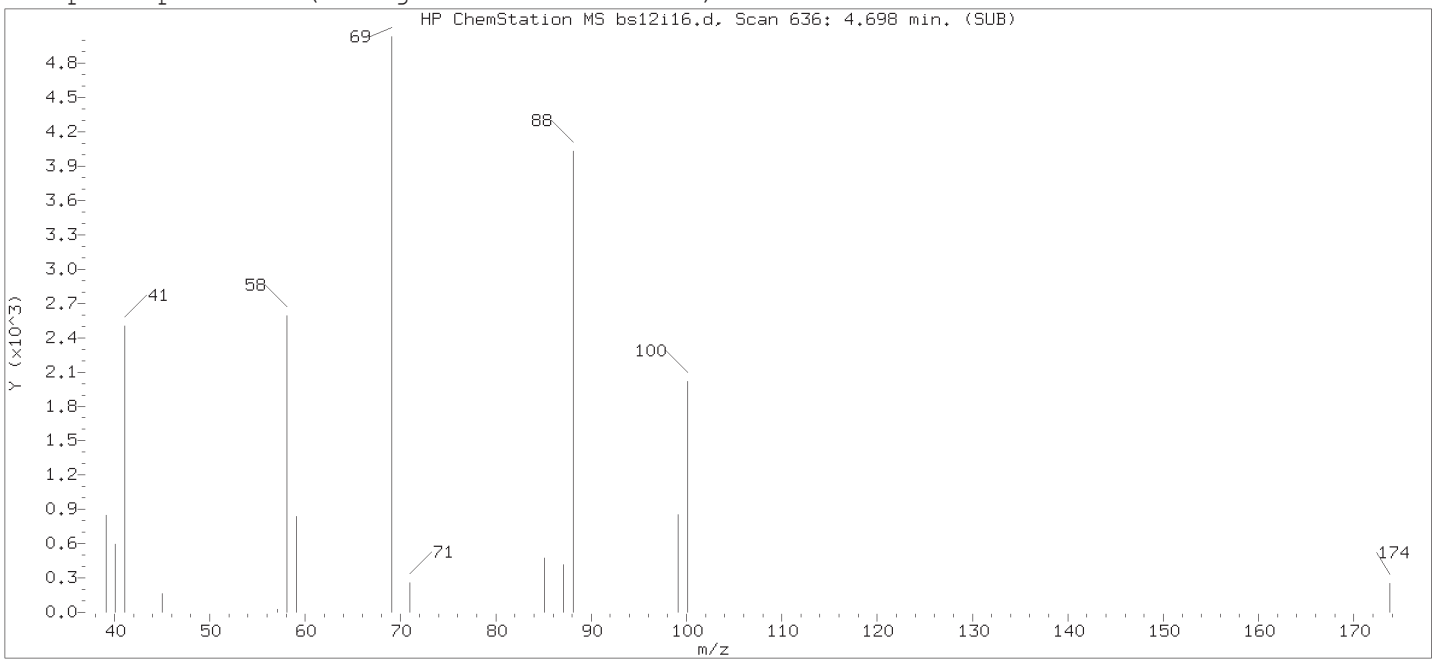
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 636
Retention Time (minutes): 4.698
Quant Ion : 88.00
Area (flag) : 11198M
On-Column Amount (ng) : 190.6542
Integration start scan : 627 Integration stop scan: 657
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

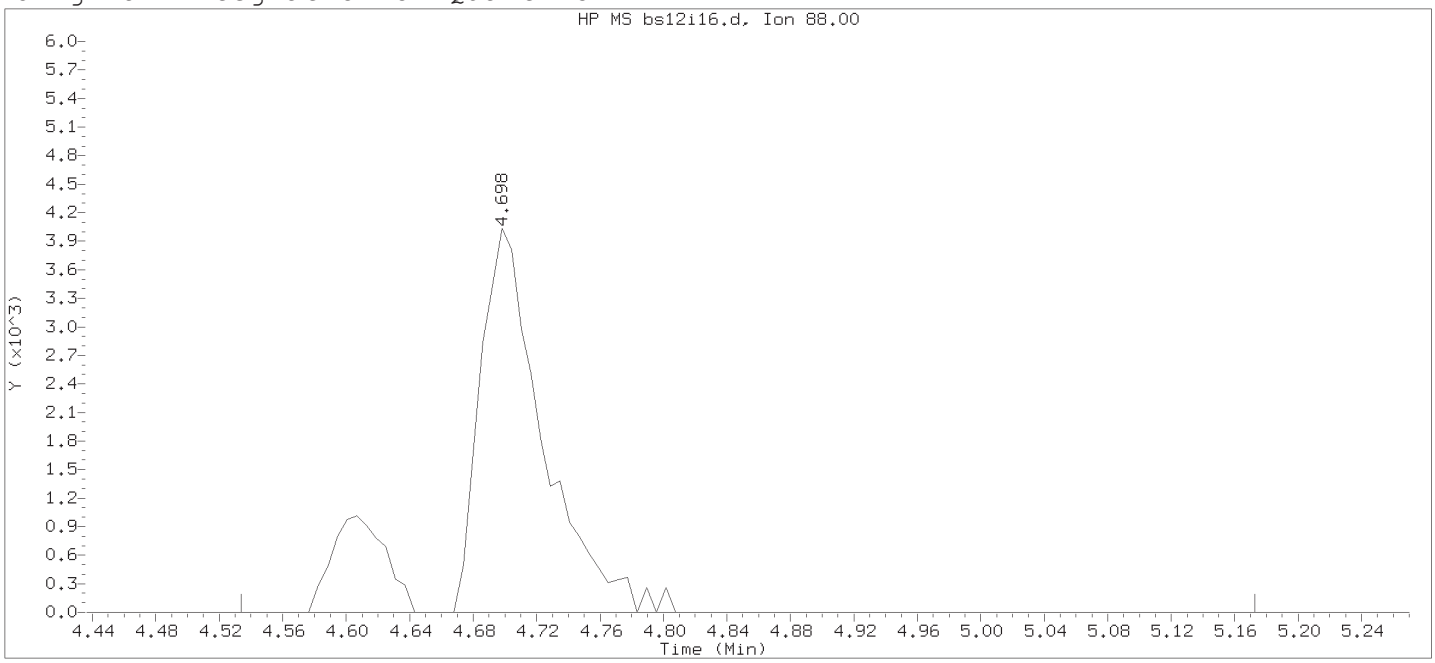
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

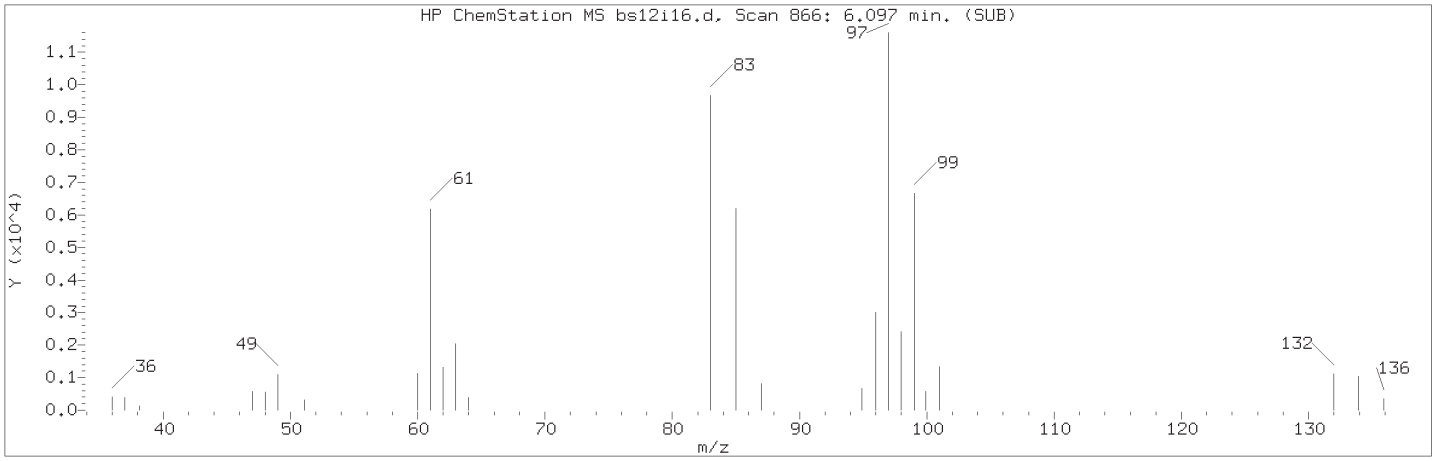
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

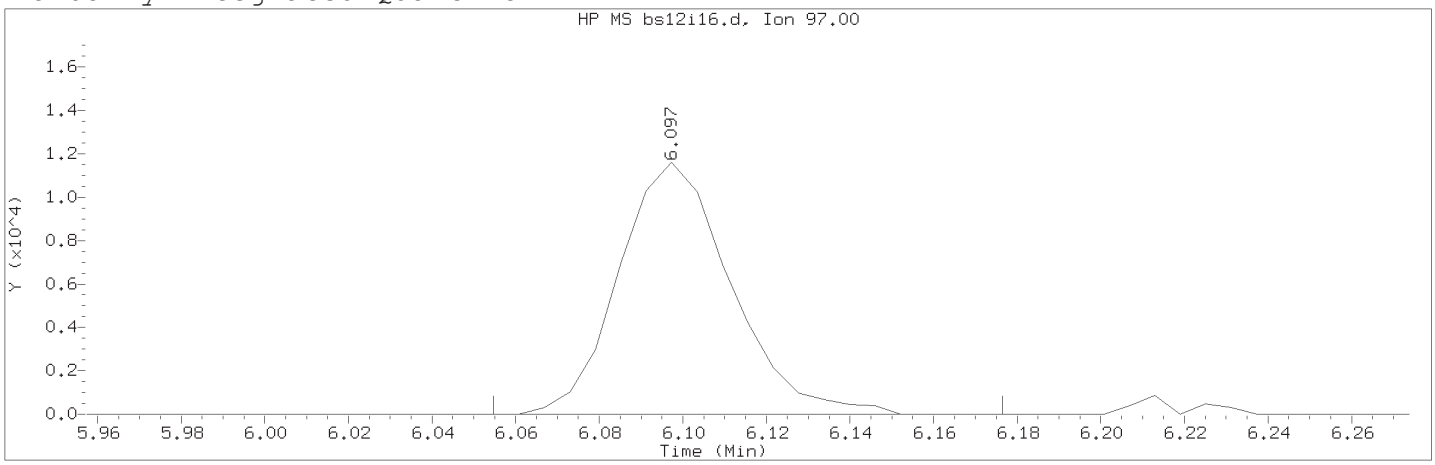
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 636
Retention Time (minutes): 4.698
Quant Ion : 88.00
Area : 13597
On-column Amount (ng) : 147.3581
Integration start scan : 608 Integration stop scan: 713
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

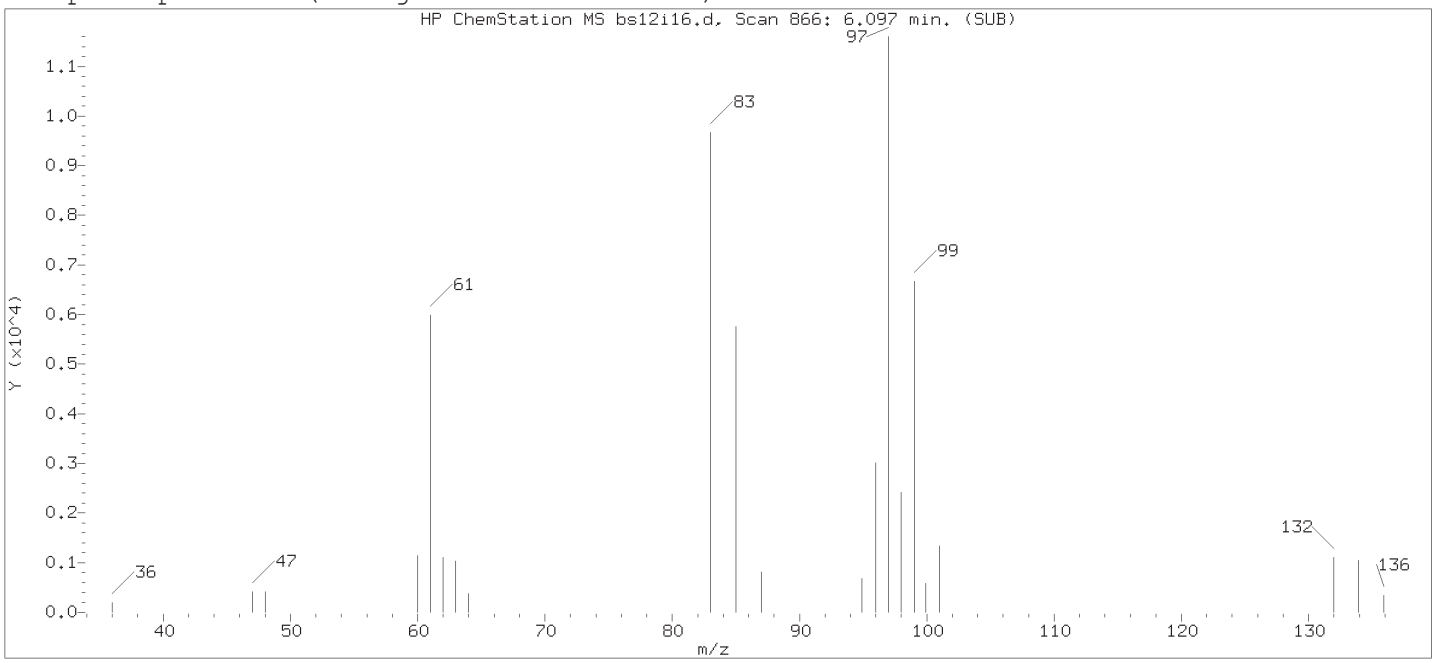
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 866
Retention Time (minutes): 6.097
Quant Ion : 97.00
Area (flag) : 21562M
On-Column Amount (ng) : 3.9380
Integration start scan : 858 Integration stop scan: 878
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

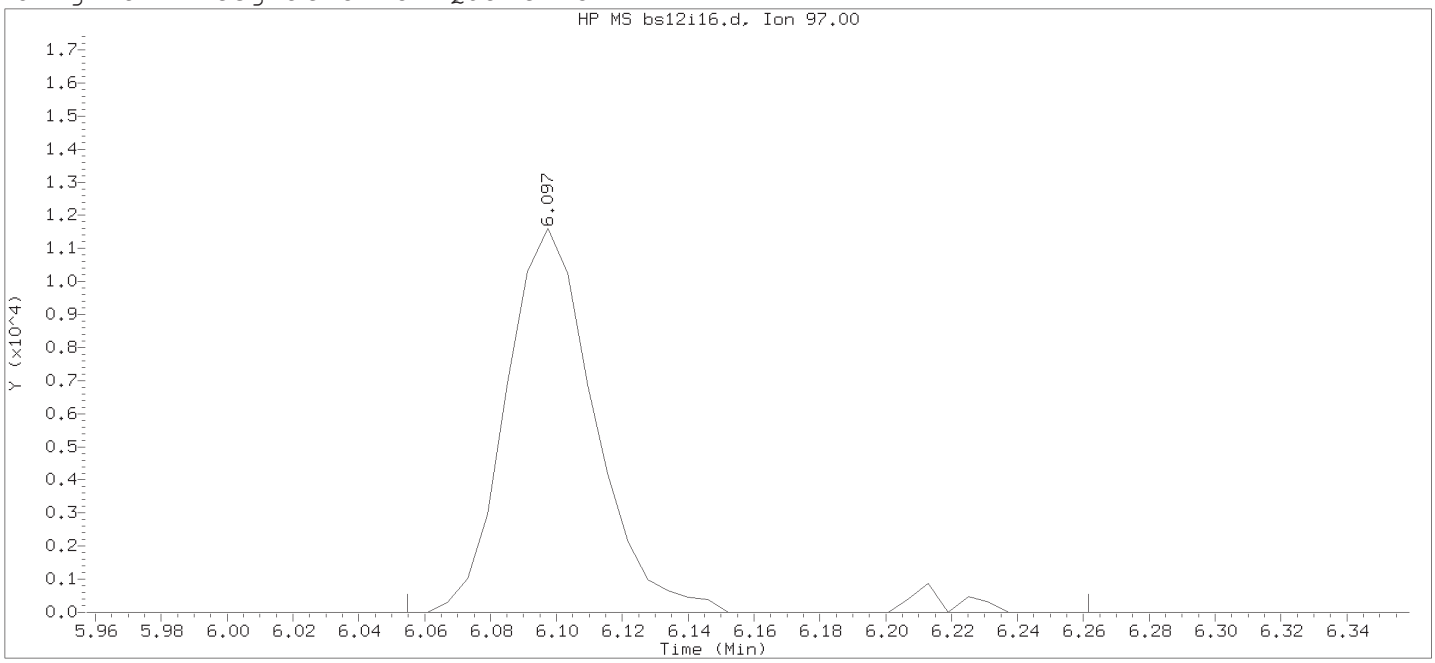
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

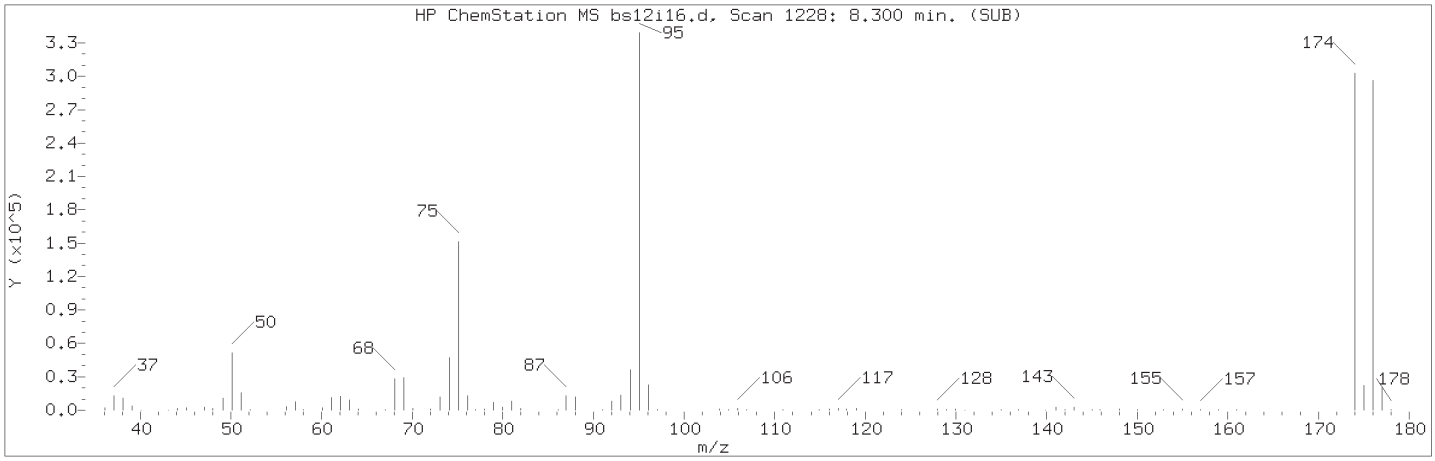
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

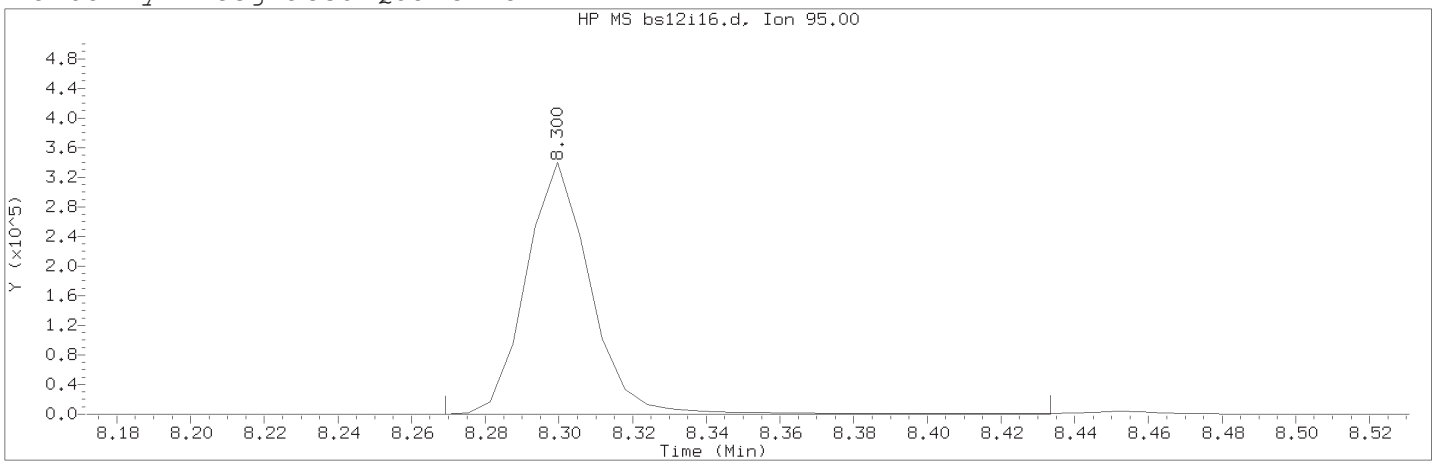
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 866
Retention Time (minutes): 6.097
Quant Ion : 97.00
Area : 22317
On-column Amount (ng) : 4.1700
Integration start scan : 858 Integration stop scan: 892
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

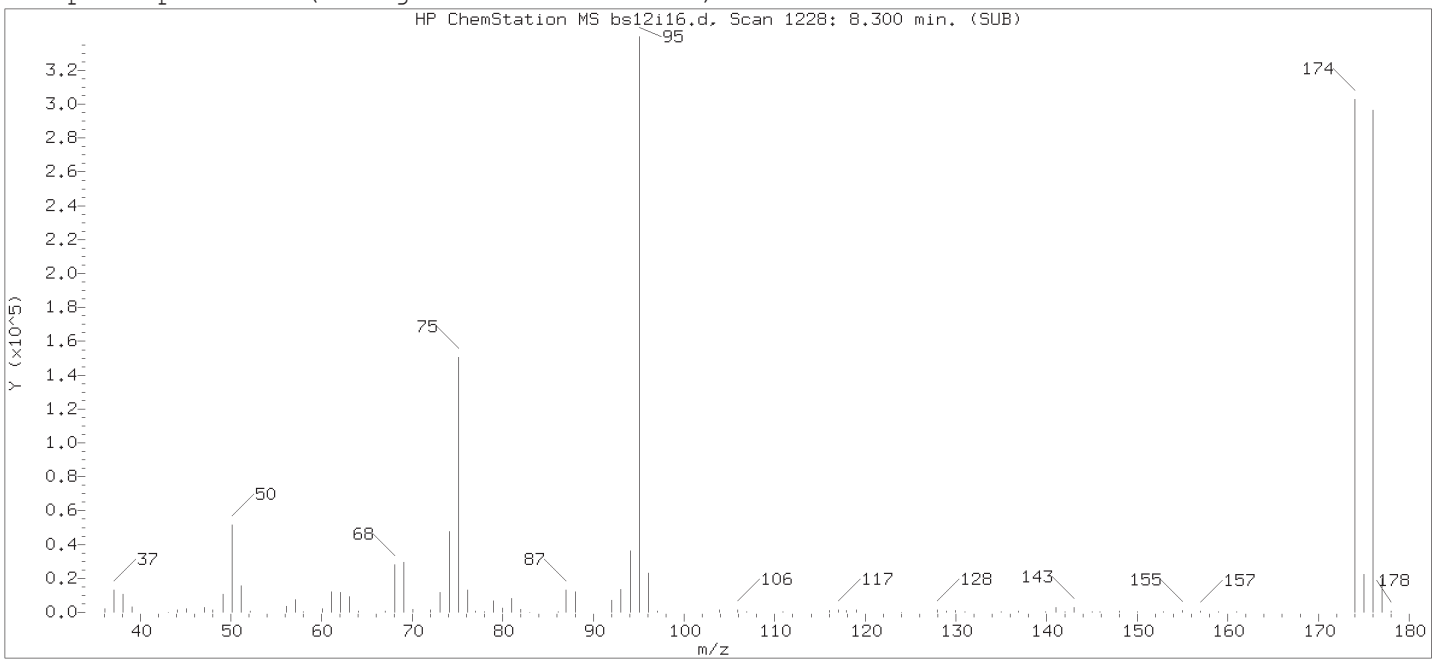
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area (flag) : 412385M
On-Column Amount (ng) : 49.7625
Integration start scan : 1222 Integration stop scan: 1249
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

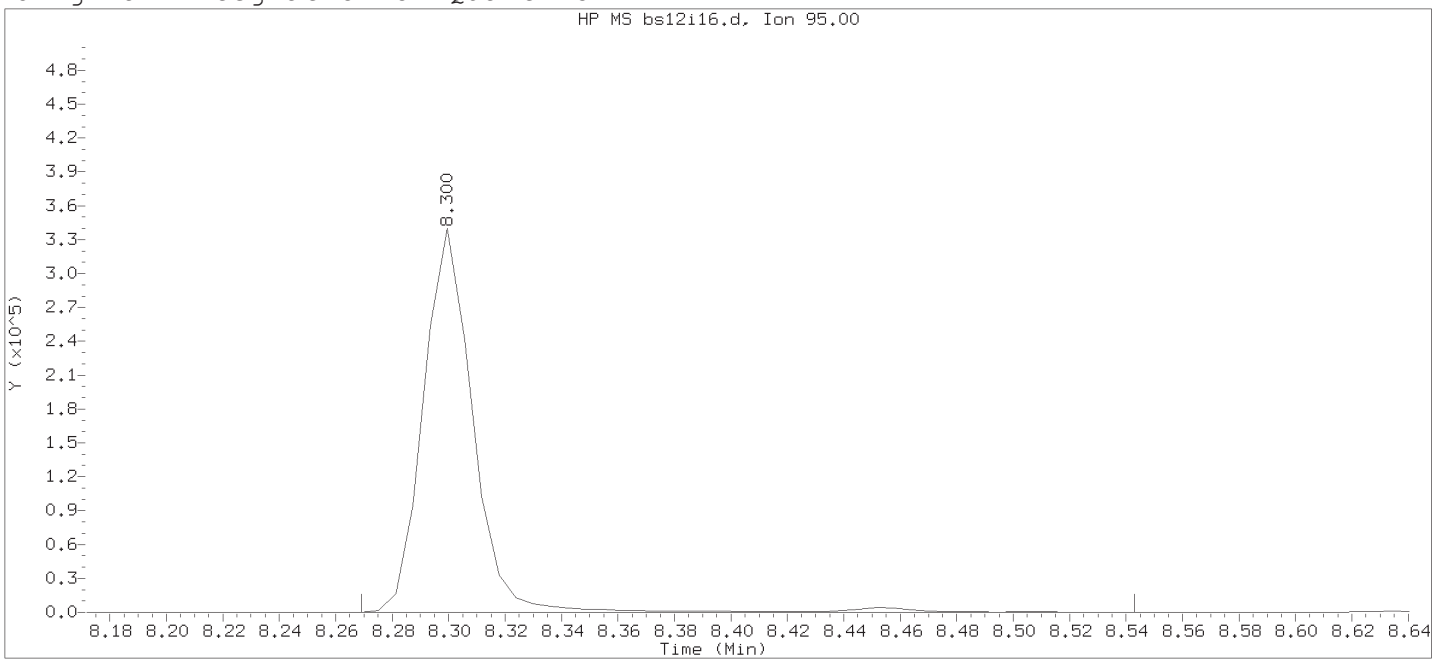
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

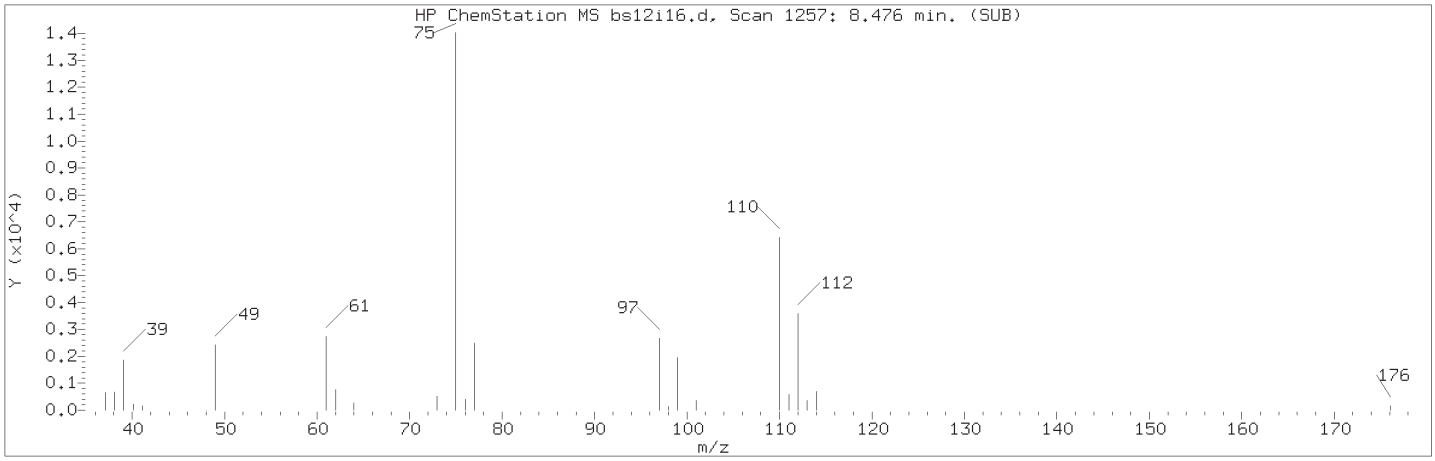
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

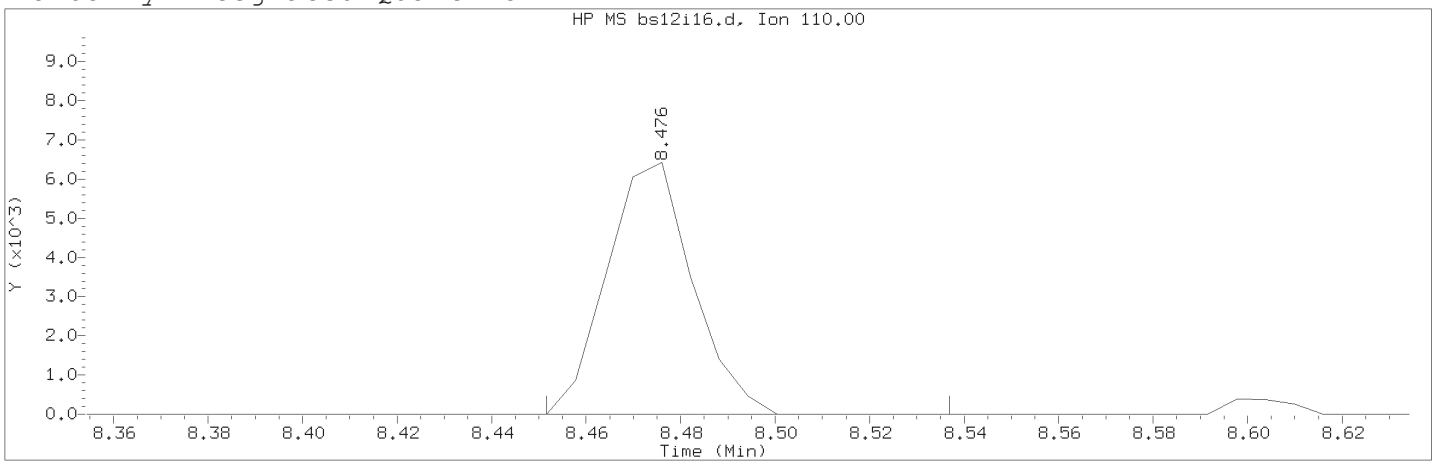
Compound Number	: 119		
Compound Name	: 4-Bromofluorobenzene		
Scan Number	: 1228		
Retention Time (minutes)	: 8.300		
Quant Ion	: 95.00		
Area	: 418619		
On-column Amount (ng)	: 47.3704		
Integration start scan	: 1222	Integration stop scan:	1267
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

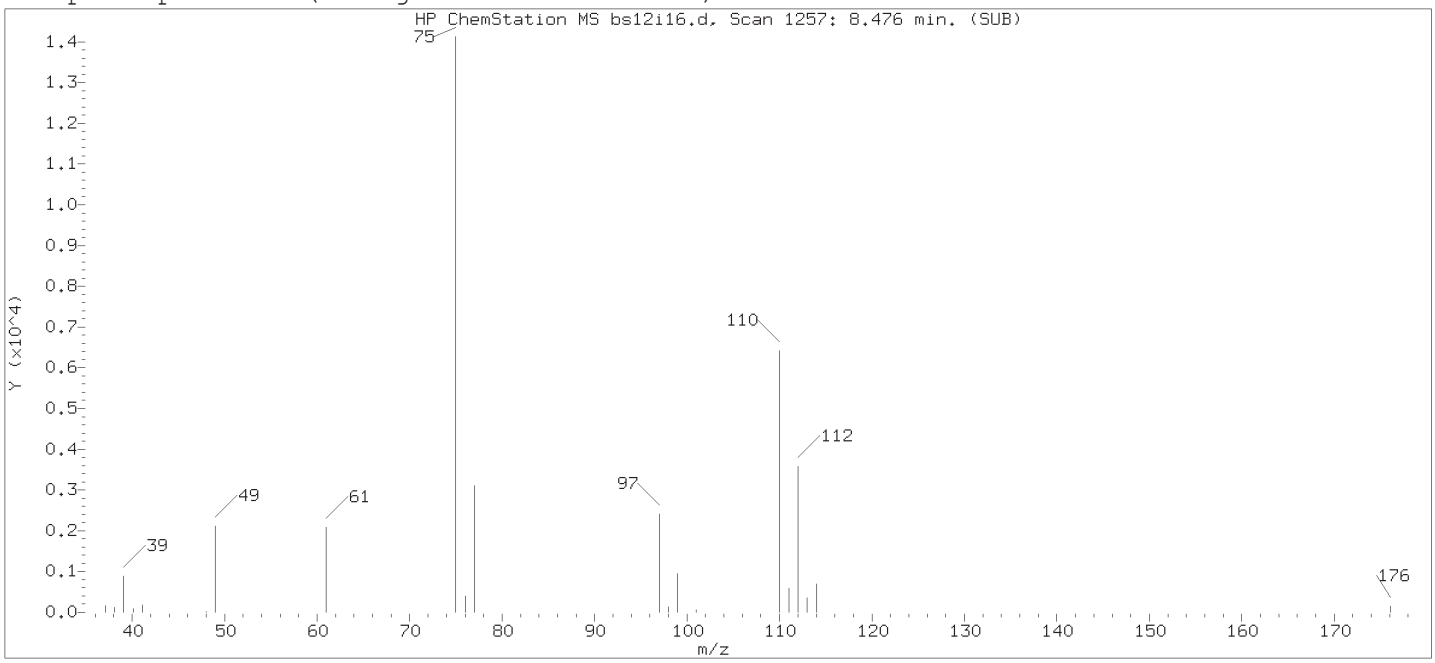
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area (flag) : 8079M
On-Column Amount (ng) : 3.9532
Integration start scan : 1252 Integration stop scan: 1266
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

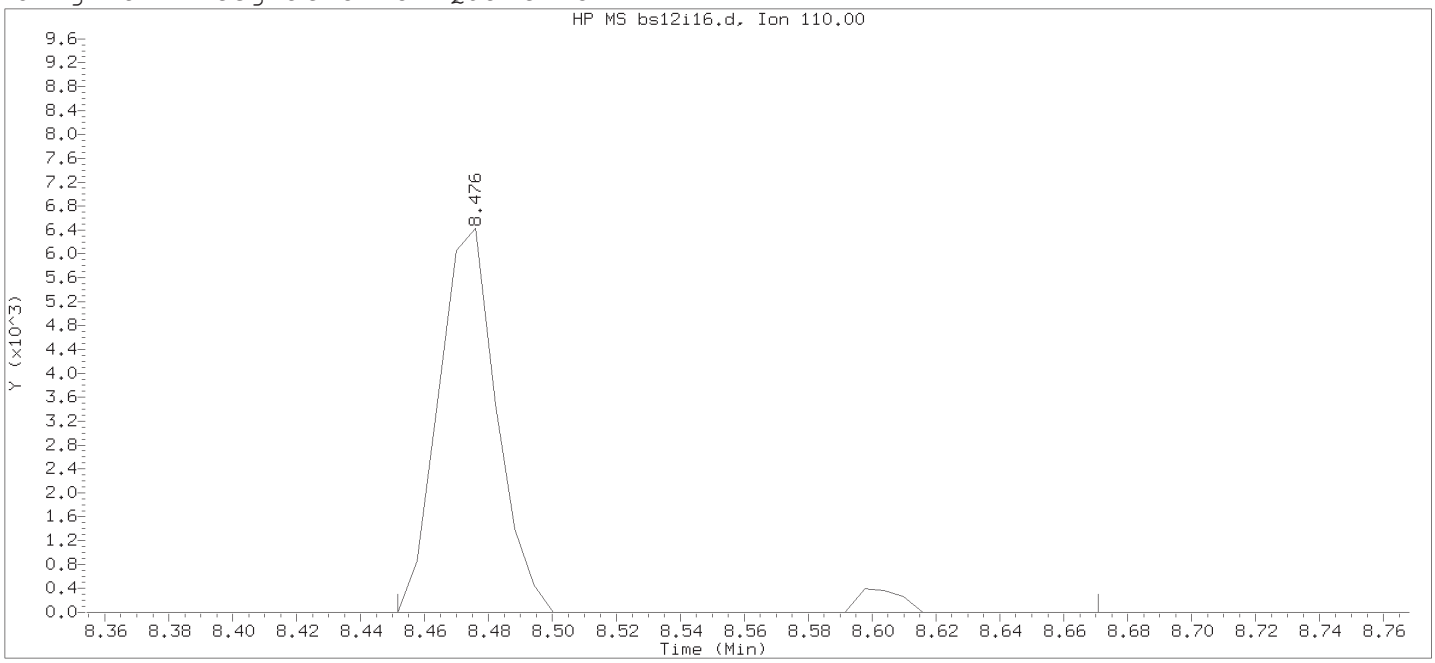
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



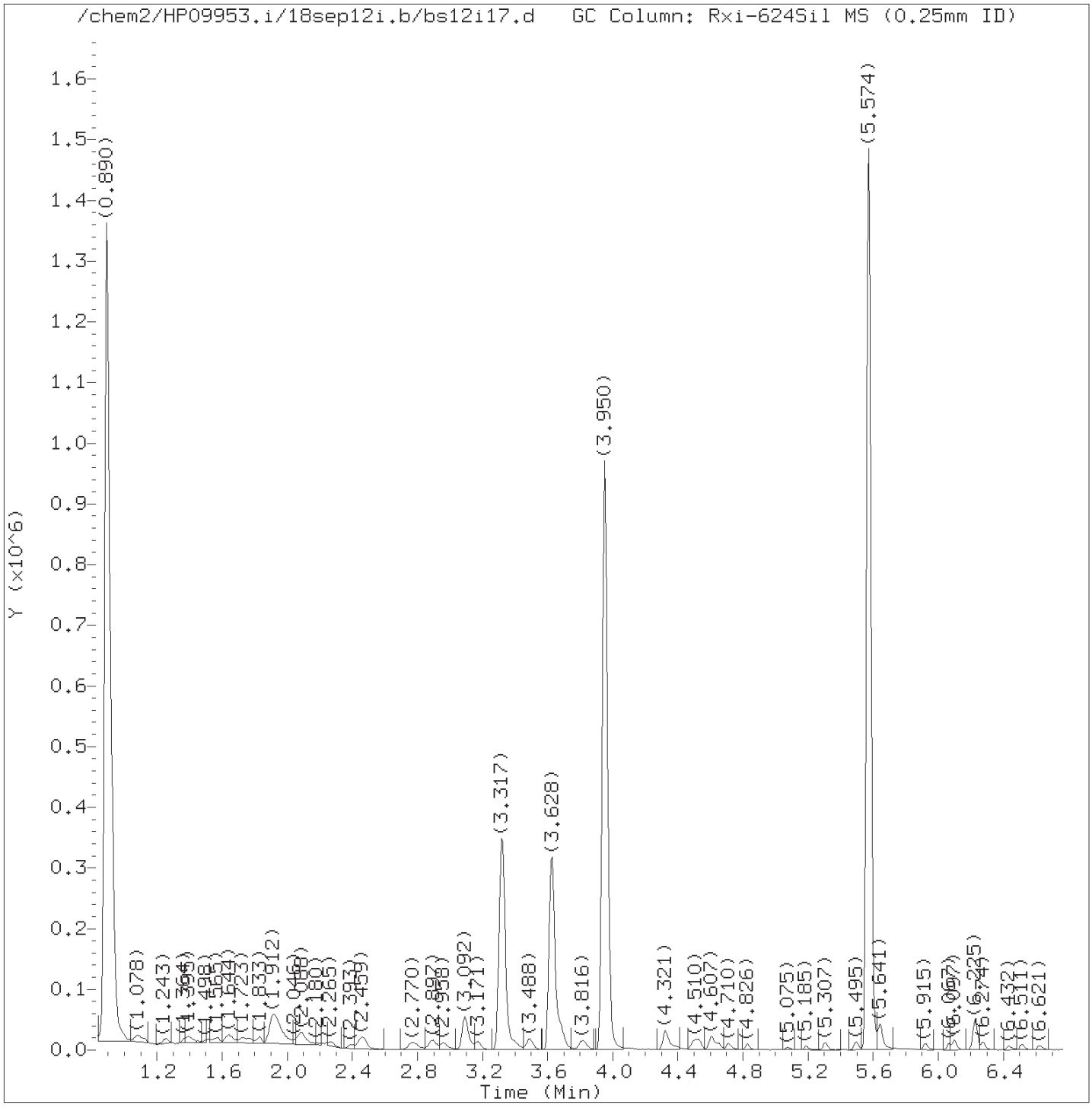
Data File: /chem2/HP09953.i/18sep12i.b/bs12i16.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:08 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:23
Date, time and analyst ID of latest file update: 12-Sep-2018 15:23 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area : 8452
On-column Amount (ng) : 4.1931
Integration start scan : 1252 Integration stop scan: 1288
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

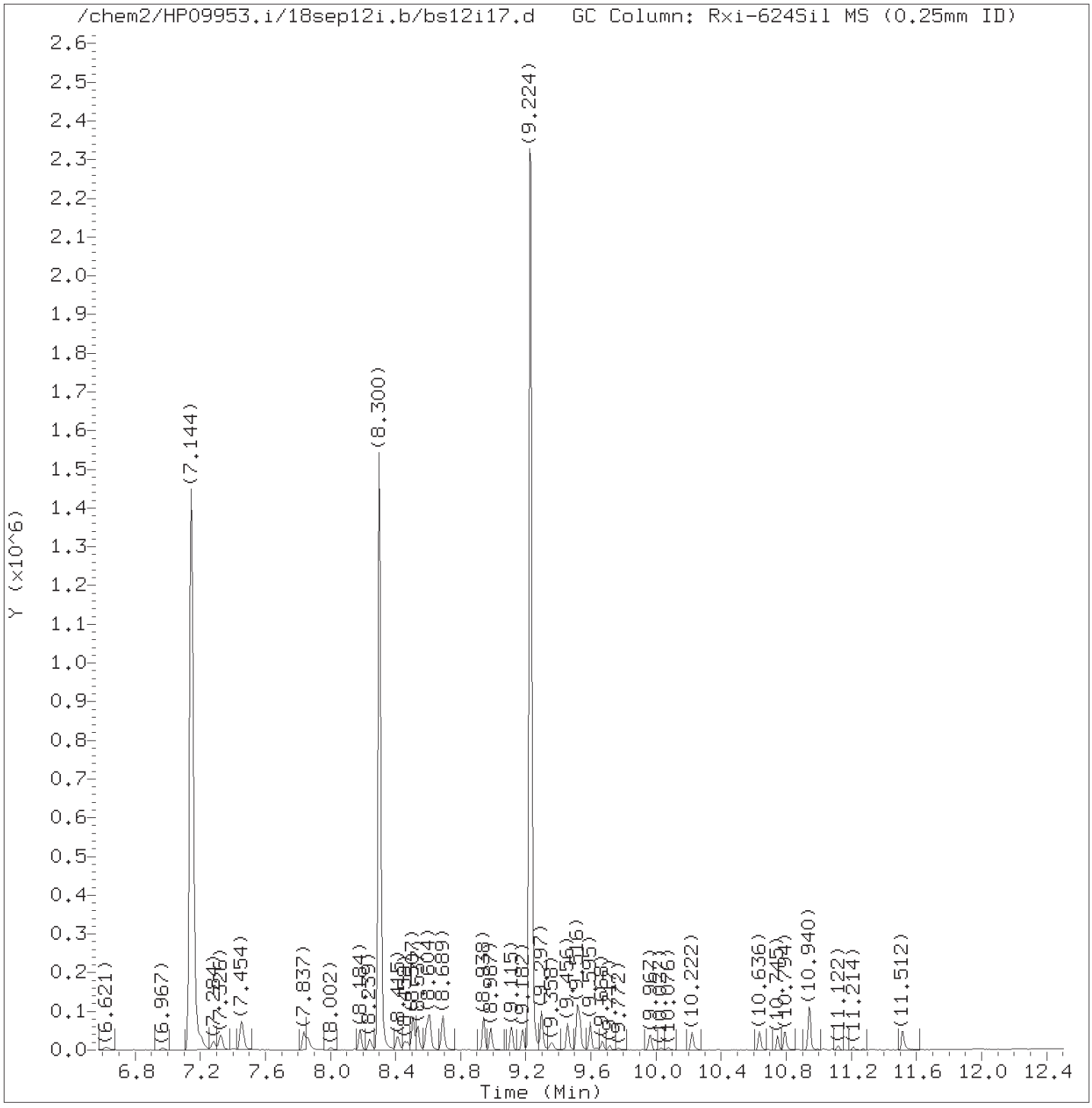
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.993	85	8415	0.830
4) Chloromethane	(2)	1.072	50	10971M	1.050
5) Vinyl Chloride	(2)	1.127	62	9016	1.107
9) Bromomethane	(2)	1.255	94	7913	1.092
10) Chloroethane	(2)	1.267	64	4343M	0.991
11) Dichlorofluoromethane	(2)	1.383	67	11556	1.091
13) Trichlorofluoromethane	(2)	1.419	101	9979M	0.890
15) Ethanol	(1)	1.468	45	11039	169.349
17) Freon 123a	(2)	1.510	67	9770	1.302
18) Acrolein	(1)	1.571	56	16651	13.795
19) 1,1-Dichloroethene	(2)	1.632	96	5700	1.012
20) Acetone	(1)	1.650	58	2800	0.000
22) Freon 113	(2)	1.656	101	4926	0.872
23) 2-Propanol	(1)	1.717	45	10378	21.501
24) Methyl Iodide	(2)	1.723	142	13353	0.986
25) Carbon Disulfide	(2)	1.772	76	21461	0.952
29) Allyl Chloride	(2)	1.833	41	8107	1.076
27) Methyl Acetate	(2)	1.839	43	5090	1.762
31) Methylene Chloride	(2)	1.912	84	7871	1.182
30)*t-Butyl alcohol-d10	(1)	1.924	65	124933	250.000
32) t-Butyl alcohol	(1)	1.979	59	14051	21.411
33) Acrylonitrile	(2)	2.070	53	2675	1.368
34) Methyl Tertiary Butyl Ether	(2)	2.088	73	17212	1.074
35) trans-1,2-Dichloroethene	(2)	2.088	96	6702	1.023
38) n-Hexane	(2)	2.277	57	7804	1.044
40) 1,1-Dichloroethane	(2)	2.393	63	10101	0.951
41) di-Isopropyl ether	(2)	2.453	45	19483	0.983
42) 2-Chloro-1,3-butadiene	(2)	2.466	53	8534	0.912
43) Ethyl t-butyl ether	(2)	2.770	59	18608	0.996
45) cis-1,2-Dichloroethene	(2)	2.885	96	6612	0.930
47) 2,2-Dichloropropane	(2)	2.897	77	7387	0.954
44) 2-Butanone	(1)	2.910	43	7823	2.436
49) Propionitrile	(1)	2.958	54	15503	17.992
46) 1,2-Dichloroethene (Total)	(2)		96	13314	1.953
51) Methacrylonitrile	(2)	3.092	67	23645	10.819
52) Bromochloromethane	(2)	3.098	128	3661	0.969
53) Tetrahydrofuran	(1)	3.153	71	1295	1.619
54) Chloroform	(2)	3.177	83	10498	0.974

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	282179	50.418
56)$Dibromofluoromethane	(2)	3.317	111	283554	49.976
57) 1,1,1-Trichloroethane	(2)	3.348	97	10599	0.960
58) Cyclohexane	(2)	3.390	56	9333	0.900
58) Cyclohexane	(2)	3.402	84	7954	0.821
58) Cyclohexane	(2)	3.402	69	2930	0.893
60) 1,1-Dichloropropene	(2)	3.488	75	7053	0.879
61) Carbon Tetrachloride	(2)	3.500	117	6842	0.816
63)$1,2-Dichloroethane-d4	(2)	3.628	102	61250	50.845
63)$1,2-Dichloroethane-d4	(2)	3.621	65	277966	52.470
63)$1,2-Dichloroethane-d4	(2)	3.621	104	40209	52.100
62) Isobutyl Alcohol	(1)	3.658	41	12241	53.090
64) Benzene	(2)	3.676	78	26870	1.049
67) 1,2-Dichloroethane	(2)	3.700	62	8524	1.153
67) 1,2-Dichloroethane	(2)	3.700	98	670	0.912
68) t-Amyl methyl ether	(2)	3.810	73	17441	1.012
70)*Fluorobenzene	(2)	3.950	96	1123003	50.000
72) n-Heptane	(2)	3.962	43	6564	0.962
75) Trichloroethene	(2)	4.315	95	6249	0.936
73) n-Butanol	(1)	4.327	56	17355	89.888
76) Methylcyclohexane	(2)	4.504	83	8510	0.819
77) 1,2-Dichloropropane	(2)	4.528	63	5612	0.923
81) Dibromomethane	(2)	4.650	93	3873	1.041
80) 1,4-Dioxane	(1)	4.698	88	3137M	39.206
79) Methyl Methacrylate	(2)	4.710	69	4001	1.020
84) Bromodichloromethane	(2)	4.826	83	6695	0.881
85) 2-Nitropropane	(1)	5.075	41	3186	1.928
87) 2-Chloroethyl Vinyl Ether	(2)	5.185	63	2942	0.919
89) cis-1,3-Dichloropropene	(2)	5.307	75	8056	0.878
90) 4-Methyl-2-pentanone	(2)	5.495	43	10307	0.979
91)$Toluene-d8	(3)	5.574	98	1131654	49.841
91)$Toluene-d8	(3)	5.574	100	732521	49.716
92) Toluene	(3)	5.641	92	16298	0.968
93) trans-1,3-Dichloropropene	(3)	5.915	75	7179	0.890
94) 1,3-Dichloropropene (total)	(3)		100	15235	1.768
95) Ethyl Methacrylate	(3)	6.067	69	7954	1.016
96) 1,1,2-Trichloroethane	(3)	6.104	97	5816M	1.064
98) Tetrachloroethene	(3)	6.225	166	7048	0.764

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
99) 1,3-Dichloropropane	(3)	6.280	76	8950	1.017
101) 2-Hexanone	(3)	6.432	43	6904M	2.351
103) Dibromochloromethane	(3)	6.511	129	5206	0.827
104) 1,2-Dibromoethane	(3)	6.621	107	5294	0.938
105)*Chlorobenzene-d5	(3)	7.144	117	879725	50.000
107) Chlorobenzene	(3)	7.174	112	19396	0.986
106) 1-Chlorohexane	(3)	7.205	91	7229	0.864
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	5511	0.827
109) Ethylbenzene	(3)	7.326	91	30017	0.948
110) m+p-Xylene	(3)	7.454	106	24371	1.886
111) o-Xylene	(3)	7.837	106	11776	0.911
113) Styrene	(3)	7.862	104	19452	0.913
112) Xylene (Total)	(3)		106	36147	2.797
114) Bromoform	(3)	8.002	173	3211	0.818
115) Isopropylbenzene	(3)	8.184	105	30055	0.923
118) Cyclohexanone	(1)	8.239	55	10660M	36.816
119)$4-Bromofluorobenzene	(3)	8.300	95	412333	49.851
119)$4-Bromofluorobenzene	(3)	8.300	174	377639	49.603
121) Bromobenzene	(4)	8.415	156	9239	1.014
120) 1,1,2,2-Tetrachloroethane	(4)	8.458	83	7357	1.058
123) 1,2,3-Trichloropropane	(4)	8.476	110	2143M	1.039
122) trans-1,4-Dichloro-2-butene	(4)	8.507	53	16445	9.634
124) n-Propylbenzene	(4)	8.537	91	33900	0.941
126) 2-Chlorotoluene	(4)	8.592	126	8143	0.963
130) 4-Chlorotoluene	(4)	8.683	126	8251	0.963
129) 1,3,5-Trimethylbenzene	(4)	8.695	105	24863	0.892
133) tert-Butylbenzene	(4)	8.938	134	5850	0.894
134) Pentachloroethane	(4)	8.945	167	3908	0.998
135) 1,2,4-Trimethylbenzene	(4)	8.987	105	27799	0.957
136) sec-Butylbenzene	(4)	9.115	105	32506M	0.916
138) 1,3-Dichlorobenzene	(4)	9.182	146	17517	1.024
139) p-Isopropyltoluene	(4)	9.230	119	29673	0.933
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	497298	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	19756	1.108
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	30202	0.964
143) Benzyl Chloride	(4)	9.364	126	1801	0.775
144) 1,3-Diethylbenzene	(4)	9.456	119	17523	0.892
145) 1,4-Diethylbenzene	(4)	9.516	119	18909	0.927

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

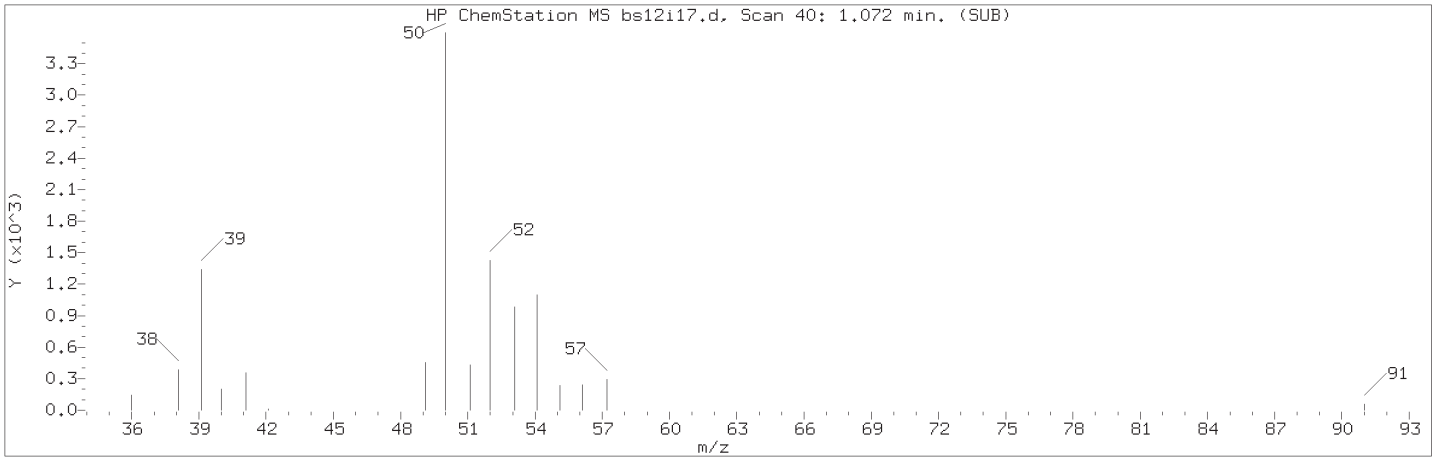
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

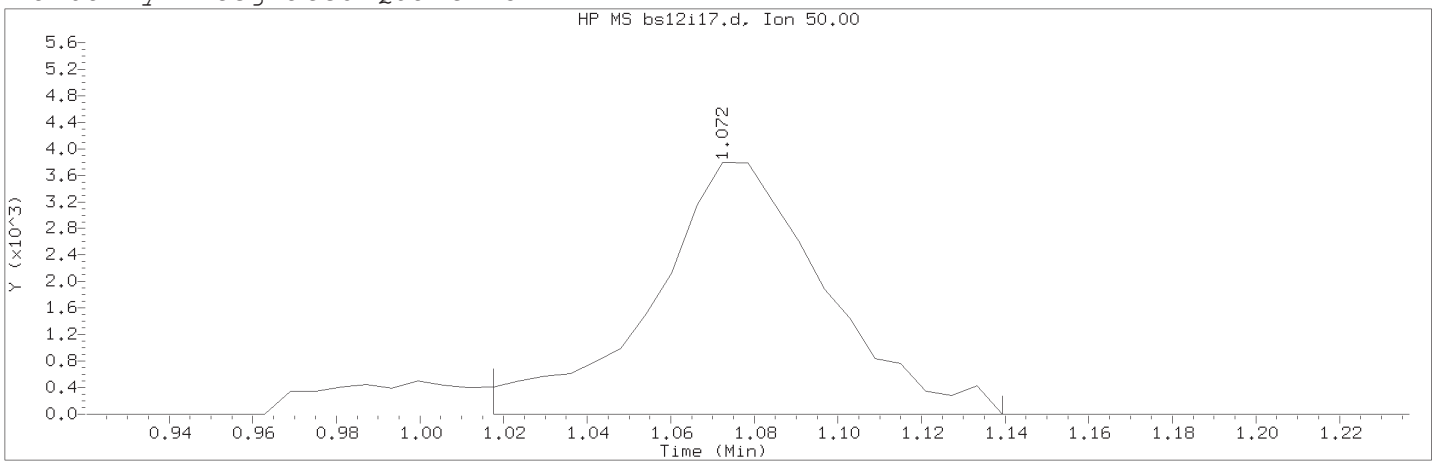
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2-Dichlorobenzene	(4)	9.522	146	18398	1.100
146) n-Butylbenzene	(4)	9.535	92	13474	0.912
148) 1,2-Diethylbenzene	(4)	9.595	119	16043	0.933
149) Diethylbenzene (total)	(4)		100	52475	2.752
151) 1,2-Dibromo-3-chloropropane	(4)	10.076	75	1220	1.009
152) 1,3,5-Trichlorobenzene	(4)	10.222	180	12949	0.990
153) 1,2,4-Trichlorobenzene	(4)	10.636	180	13288	1.078
154) Hexachlorobutadiene	(4)	10.745	225	4894	0.870
155) Naphthalene	(4)	10.794	128	36832	1.258
156) 1,2,3-Trichlorobenzene	(4)	10.946	180	12658	1.077
157) 2-Methylnaphthalene	(4)	11.518	142	24241	1.224

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

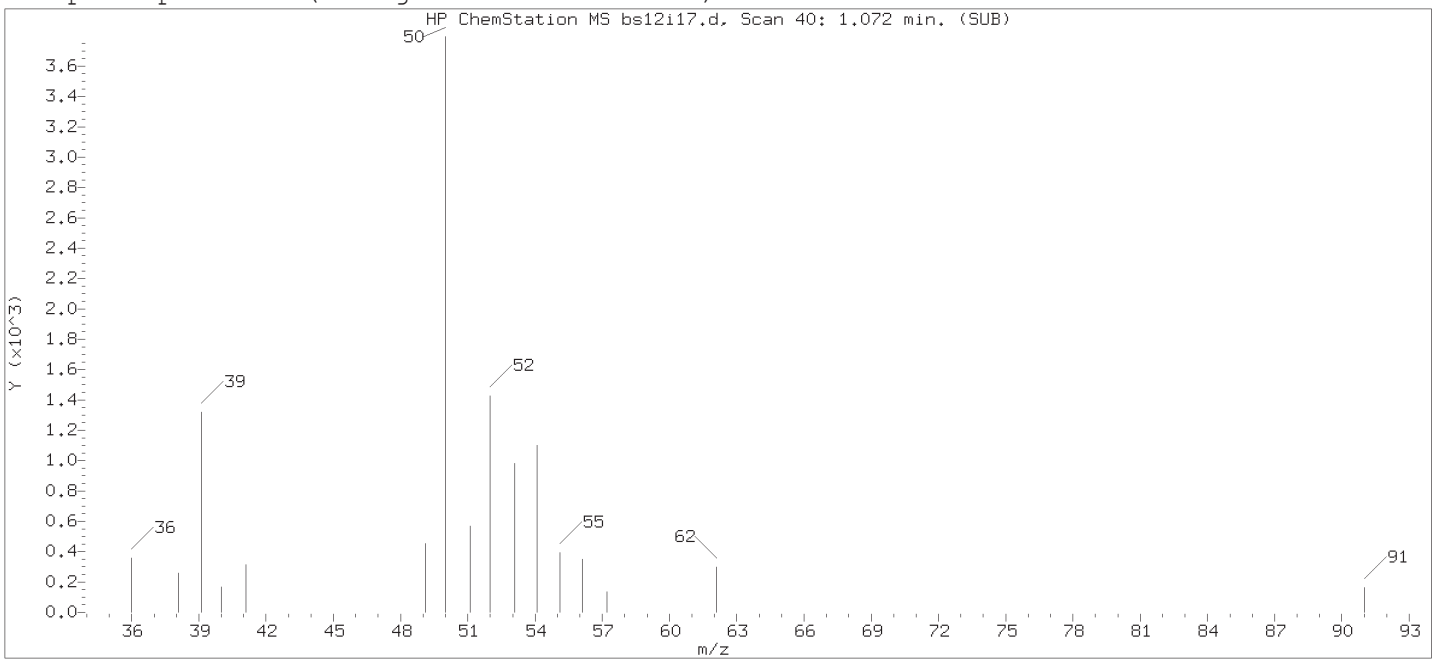
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 40
Retention Time (minutes): 1.072
Quant Ion : 50.00
Area (flag) : 10971M
On-Column Amount (ng) : 1.0497
Integration start scan : 30 Integration stop scan: 50
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

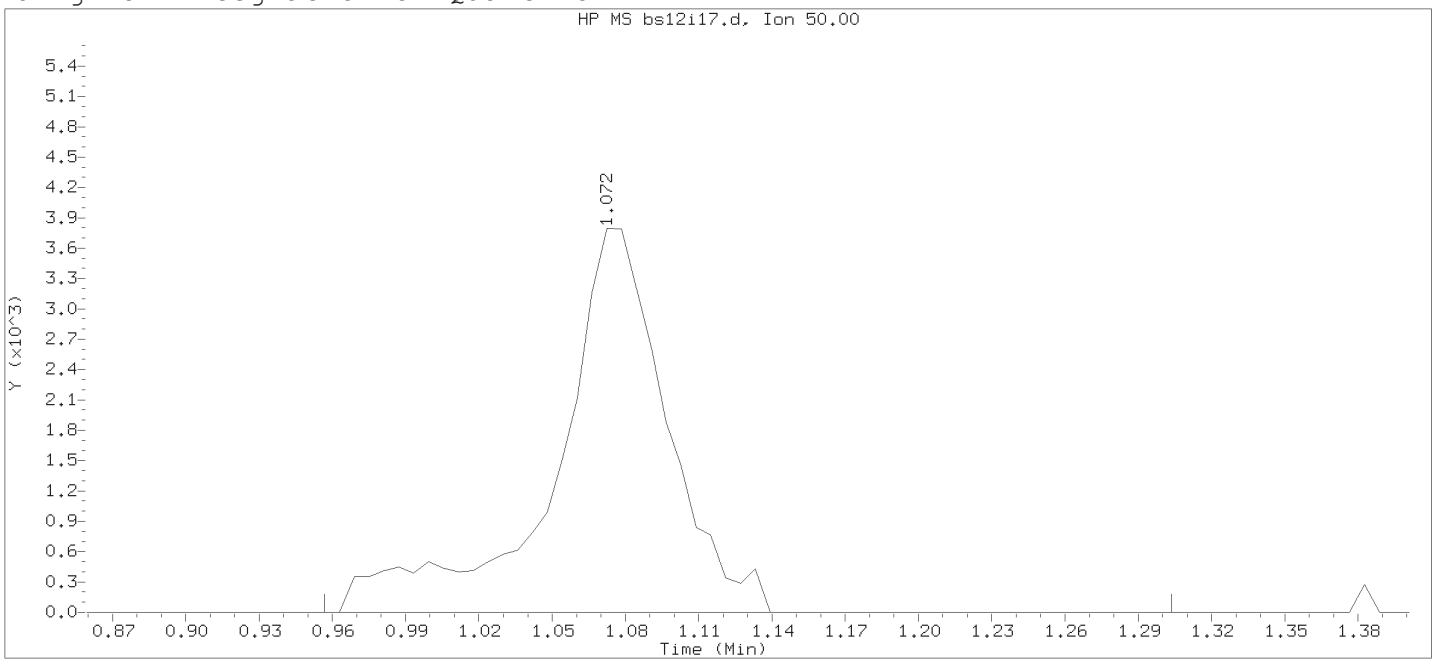
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

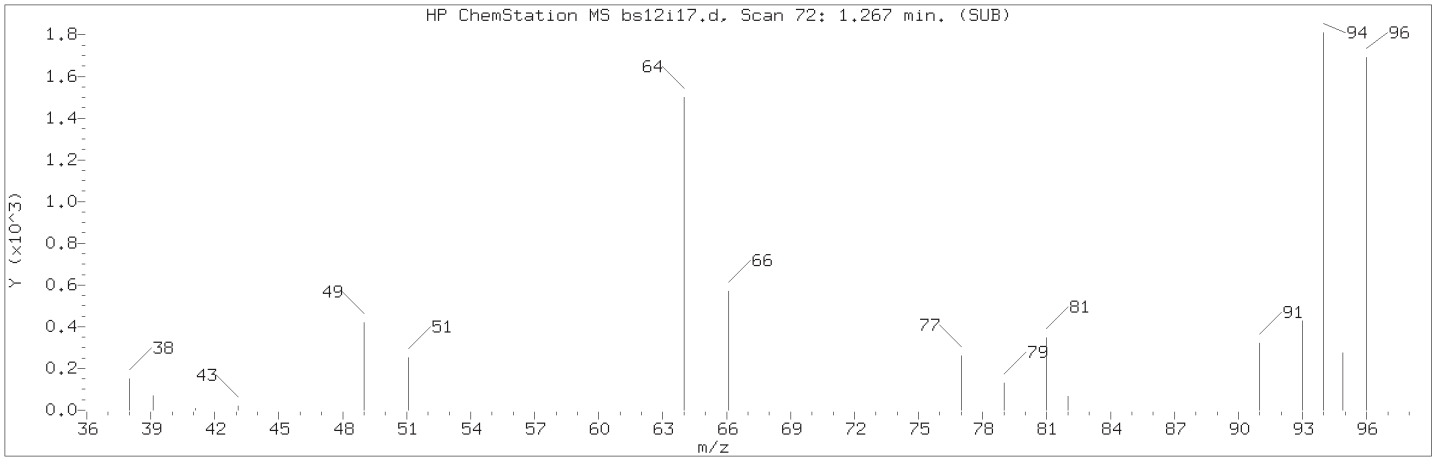
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

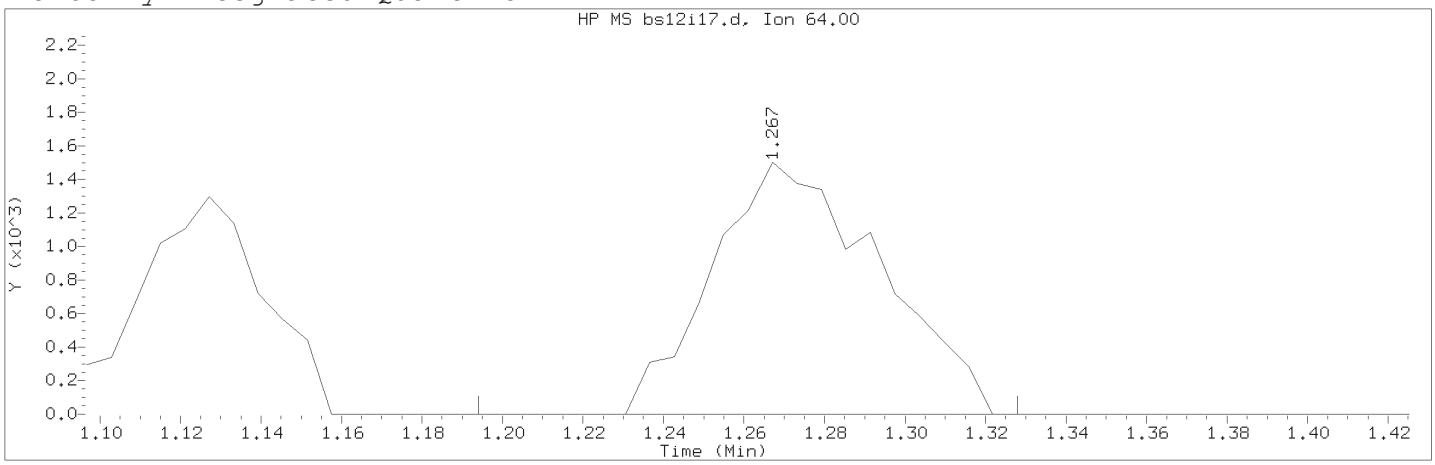
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 40
Retention Time (minutes): 1.072
Quant Ion : 50.00
Area : 12170
On-column Amount (ng) : 1.1456
Integration start scan : 20 Integration stop scan: 77
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

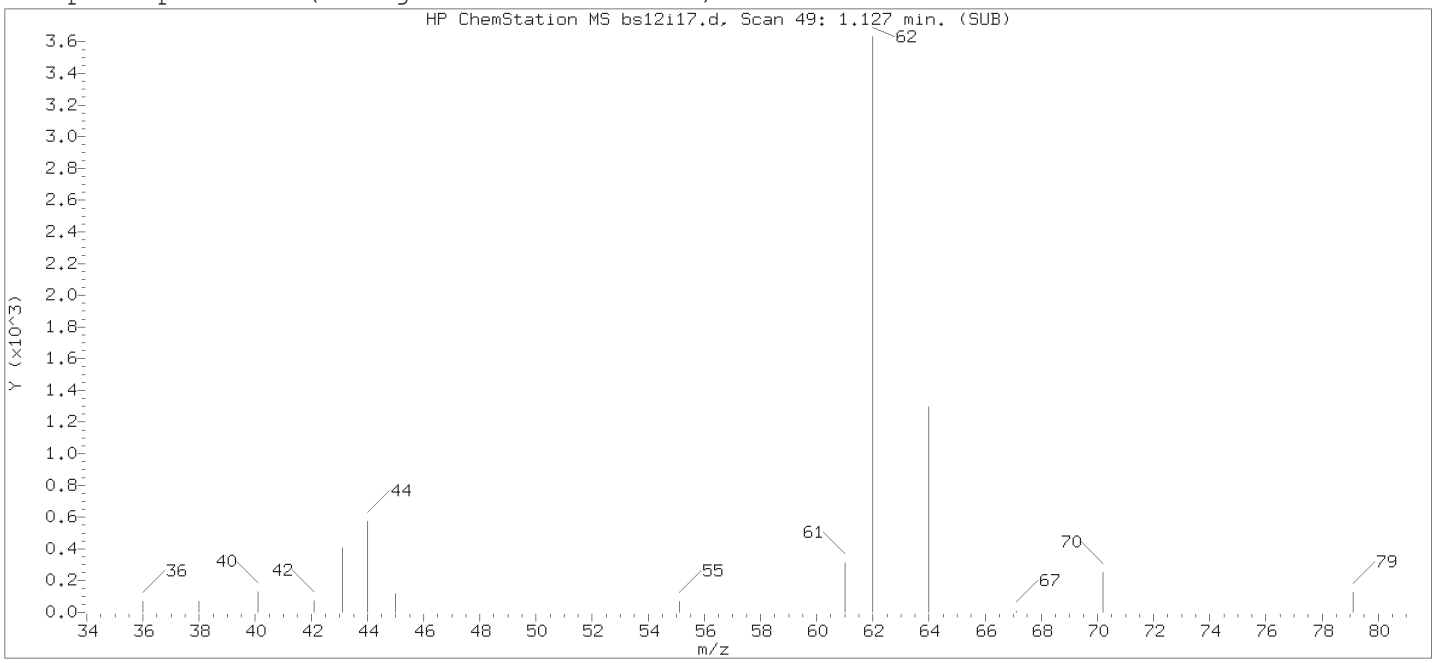
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 72
Retention Time (minutes): 1.267
Quant Ion : 64.00
Area (flag) : 4343M
On-Column Amount (ng) : 0.9913
Integration start scan : 59 Integration stop scan: 81
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

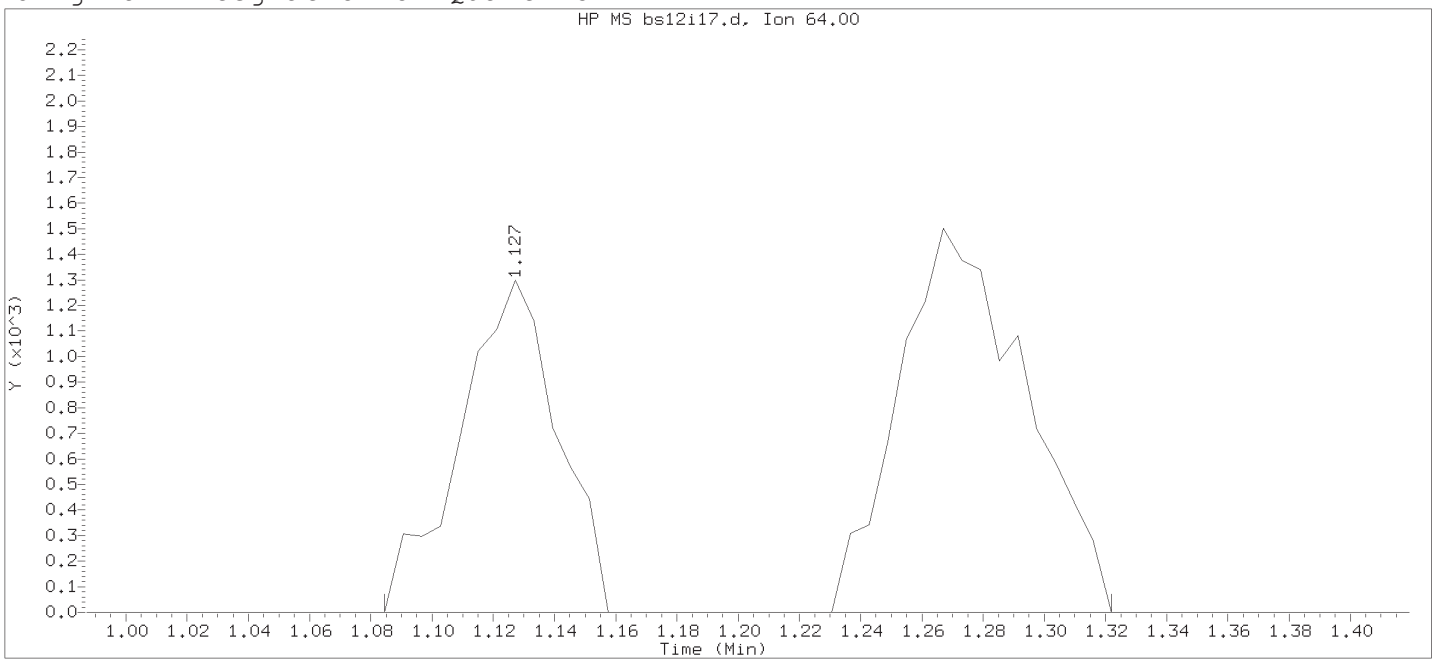
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

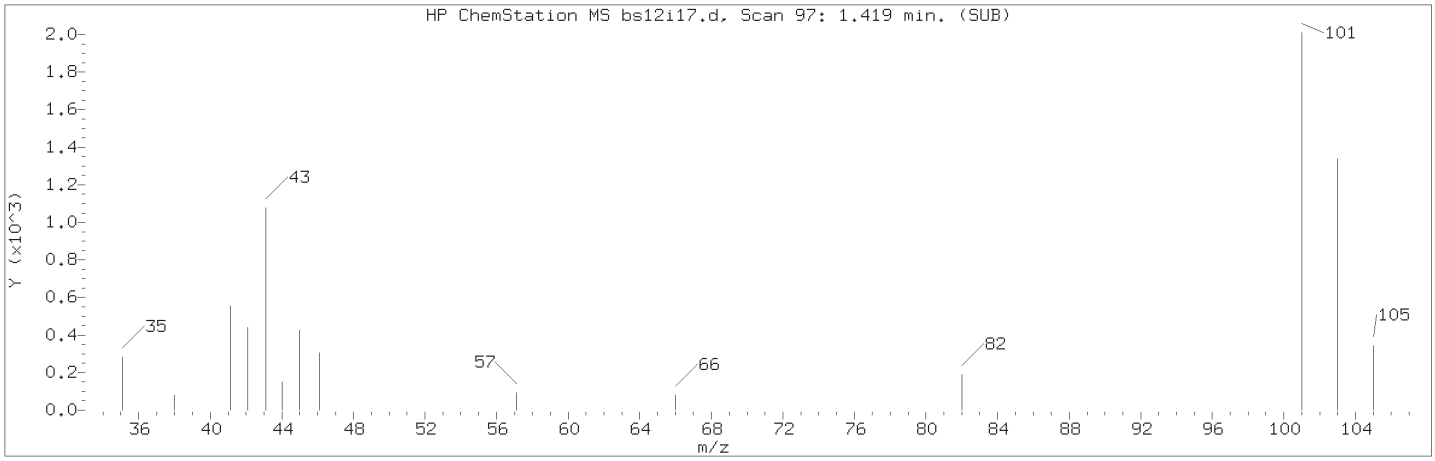
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

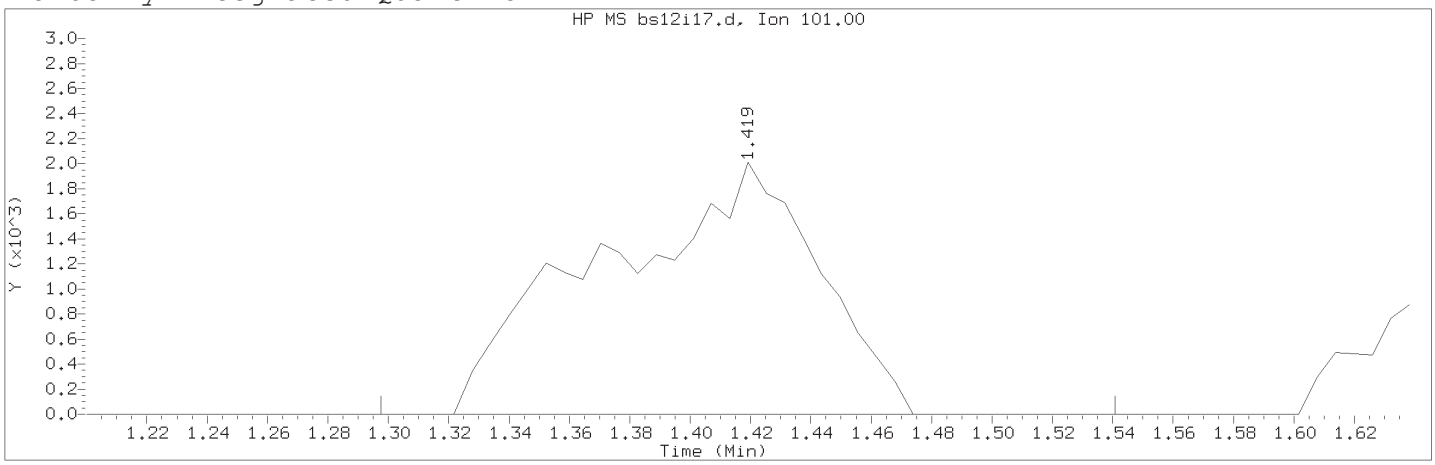
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 49
Retention Time (minutes): 1.127
Quant Ion : 64.00
Area : 7229
On-column Amount (ng) : 1.5082
Integration start scan : 41 Integration stop scan: 80
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

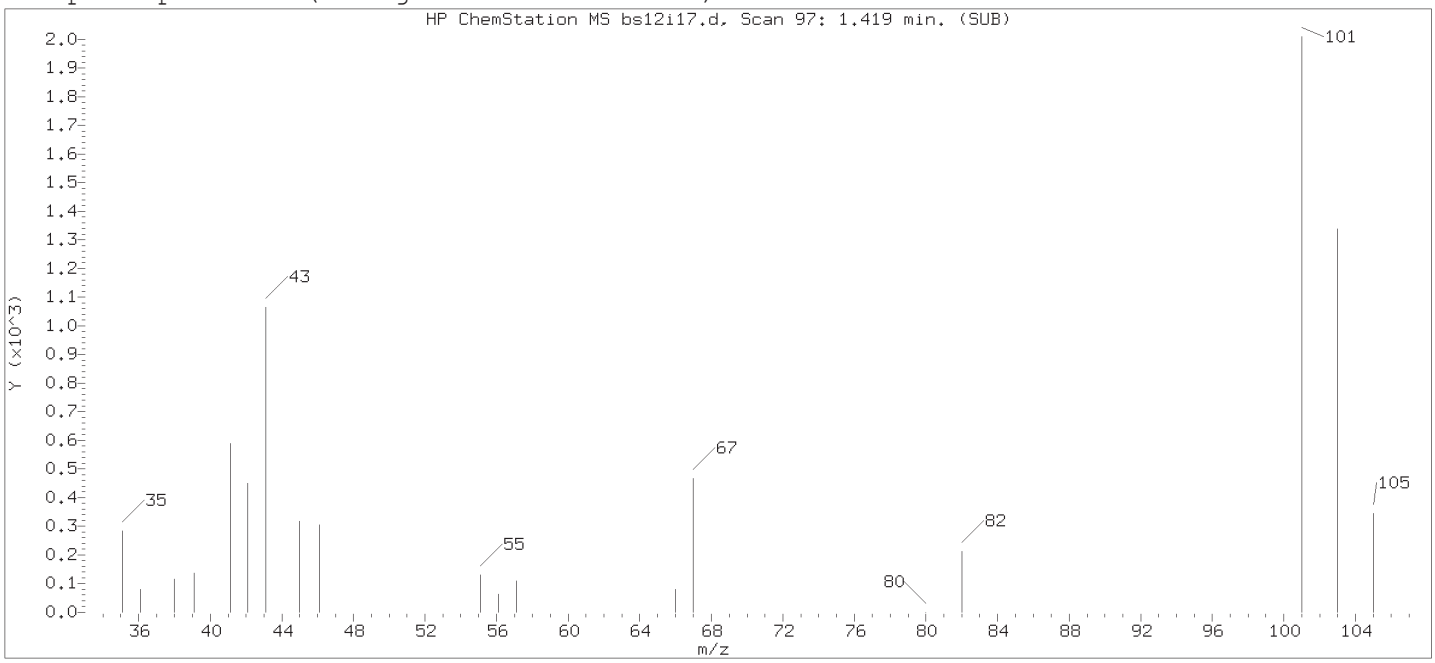
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 97
Retention Time (minutes): 1.419
Quant Ion : 101.00
Area (flag) : 9979M
On-Column Amount (ng) : 0.8901
Integration start scan : 76 Integration stop scan: 116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

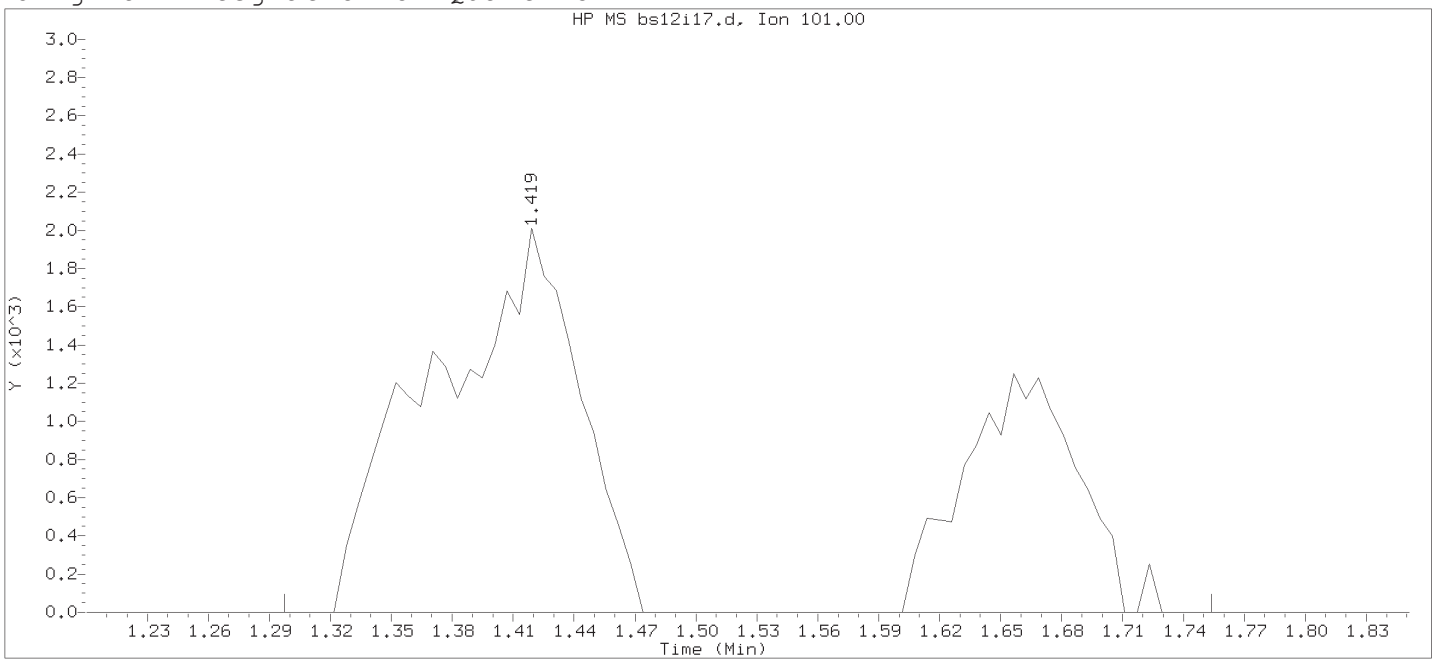
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

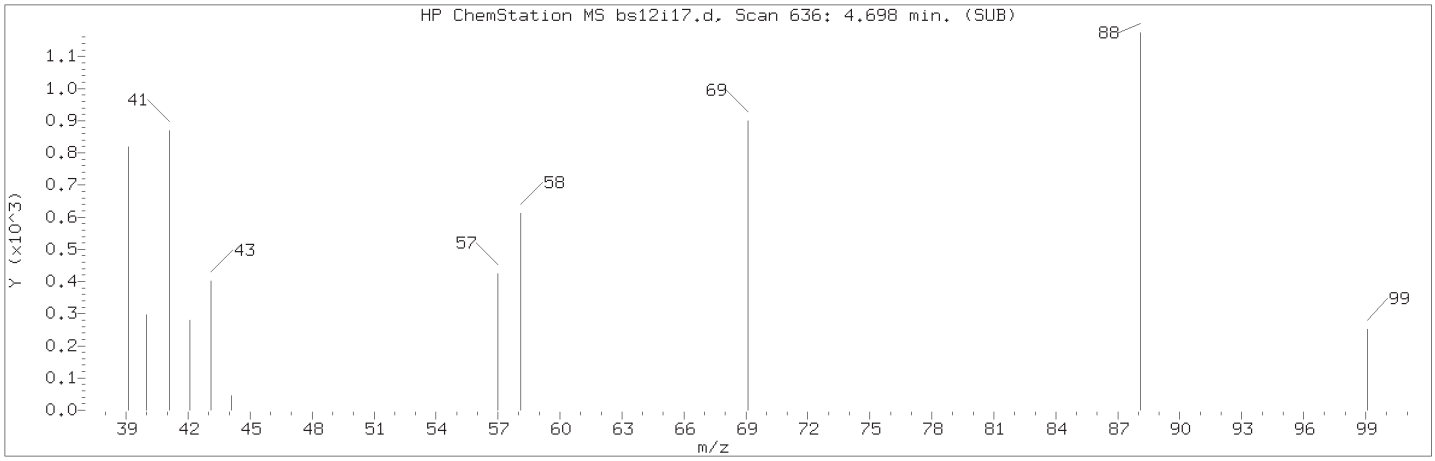
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

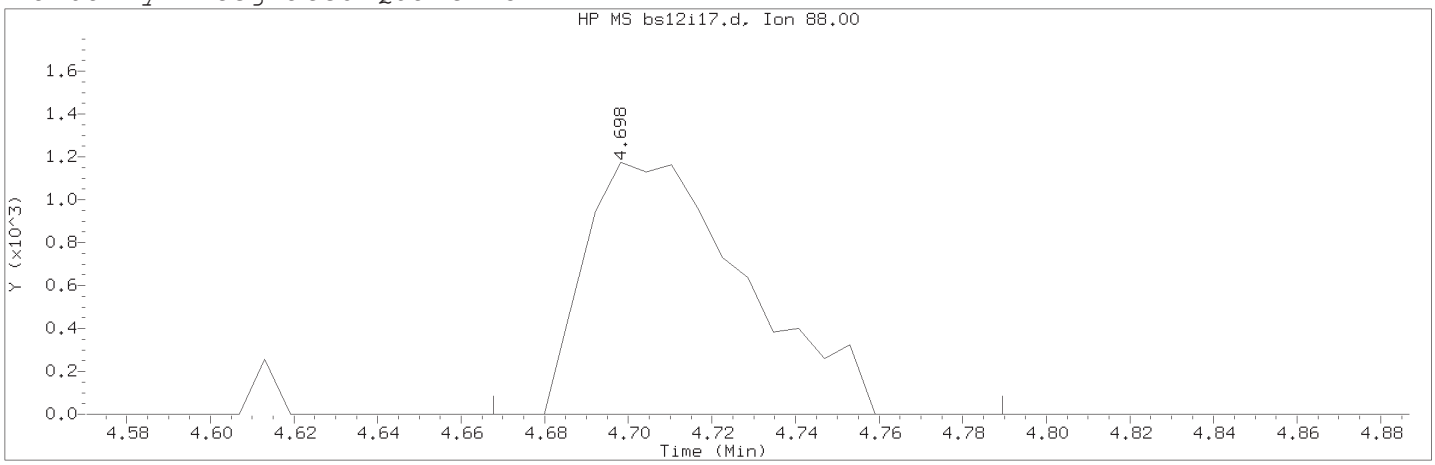
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 97
Retention Time (minutes): 1.419
Quant Ion : 101.00
Area : 14906
On-column Amount (ng) : 1.2510
Integration start scan : 76 Integration stop scan: 151
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

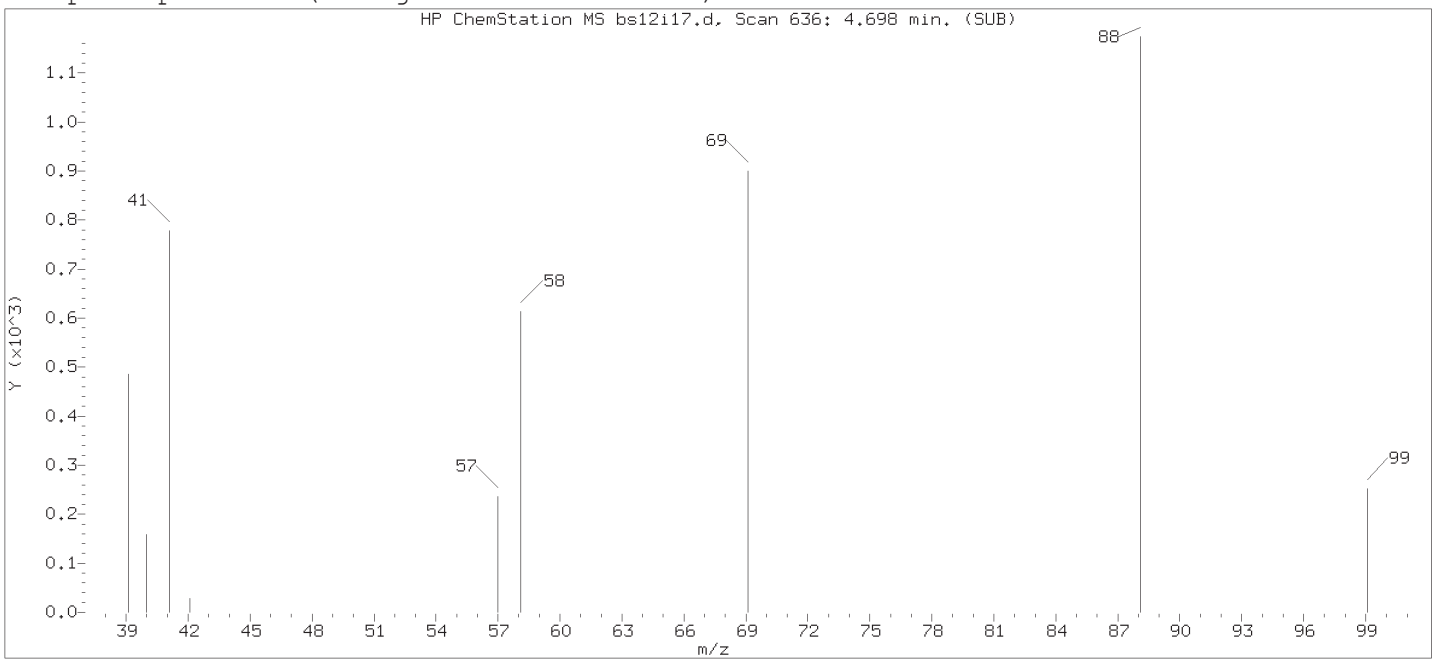
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 636
Retention Time (minutes): 4.698
Quant Ion : 88.00
Area (flag) : 3137M
On-Column Amount (ng) : 39.2058
Integration start scan : 630 Integration stop scan: 650
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

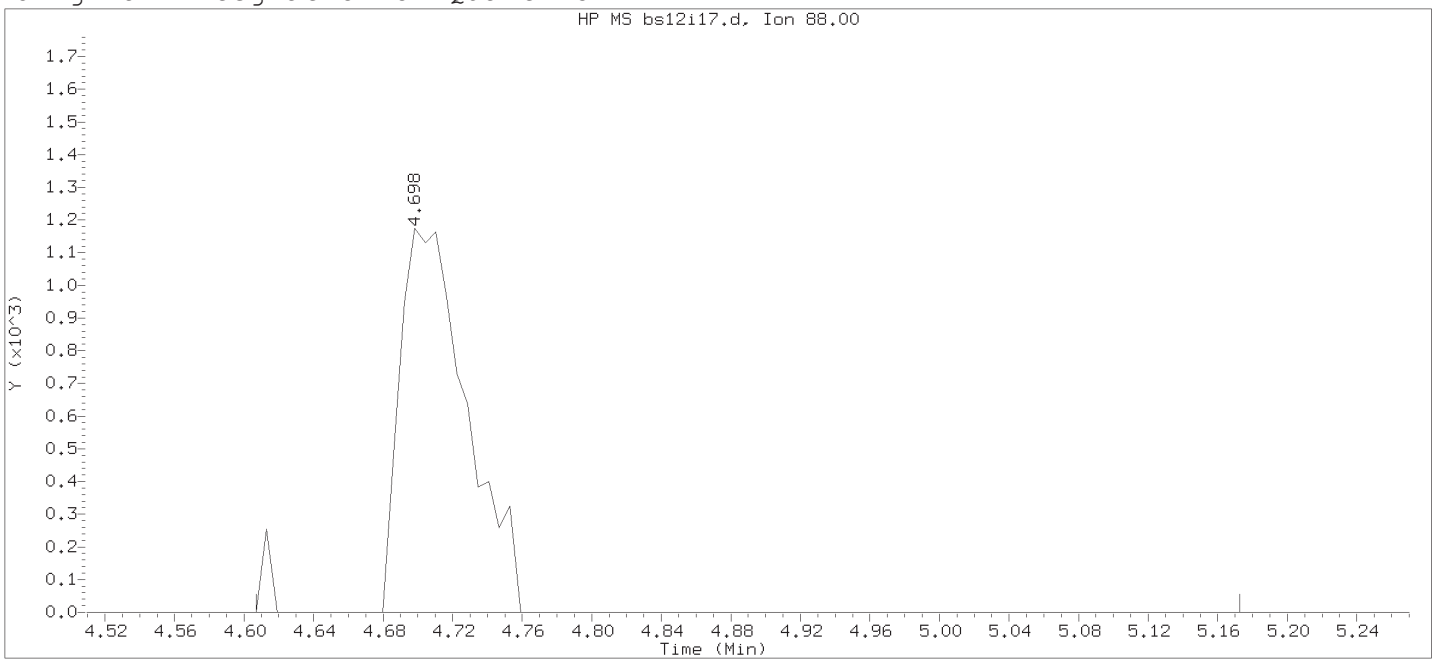
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

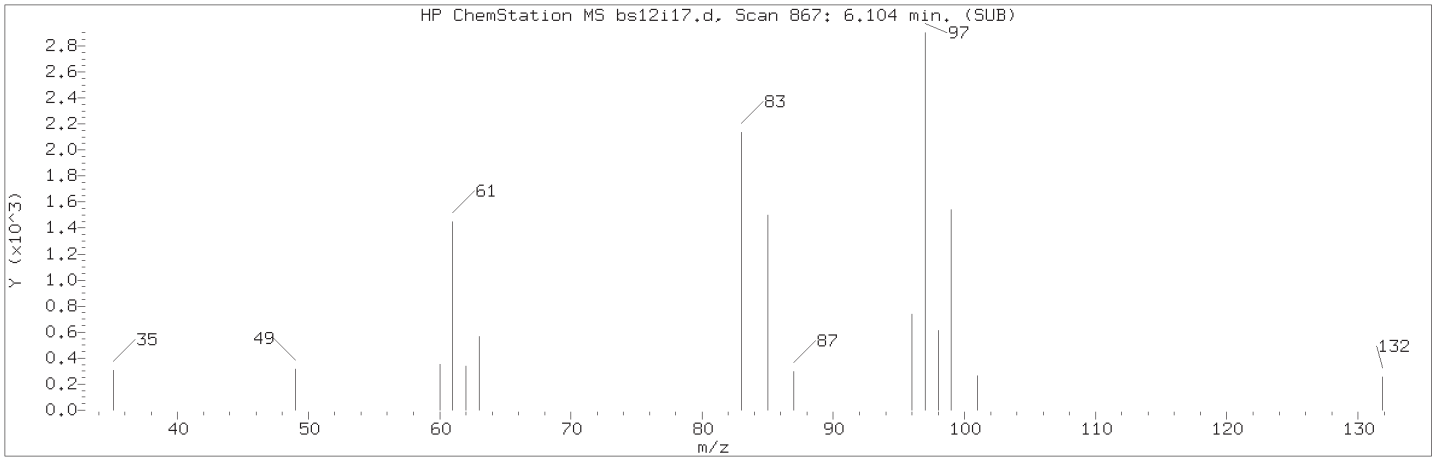
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

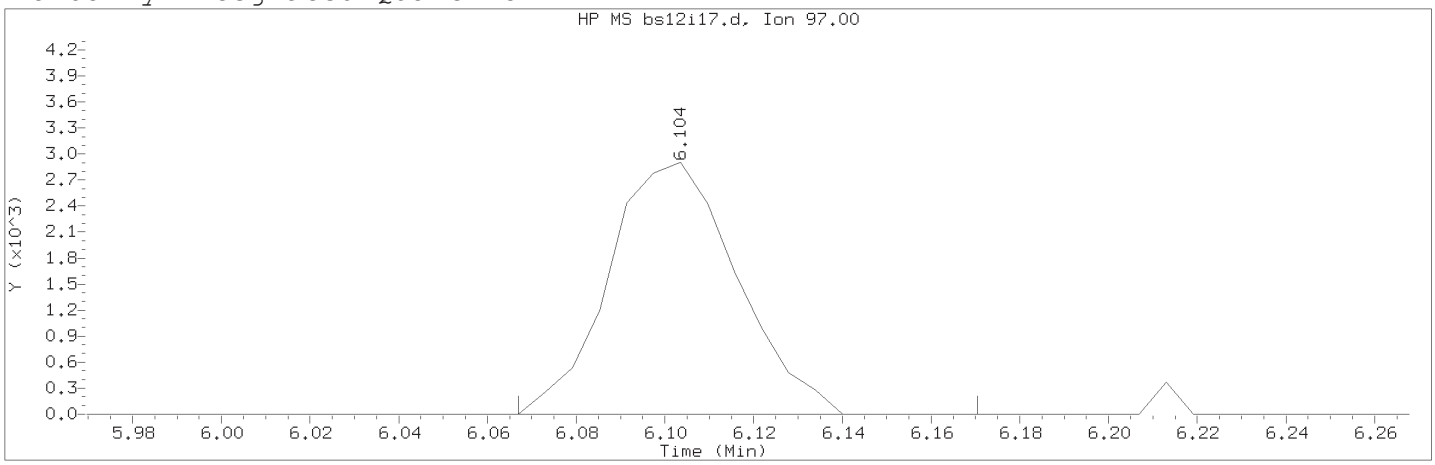
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 636
Retention Time (minutes): 4.698
Quant Ion : 88.00
Area : 3230
On-column Amount (ng) : 25.7002
Integration start scan : 620 Integration stop scan: 713
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

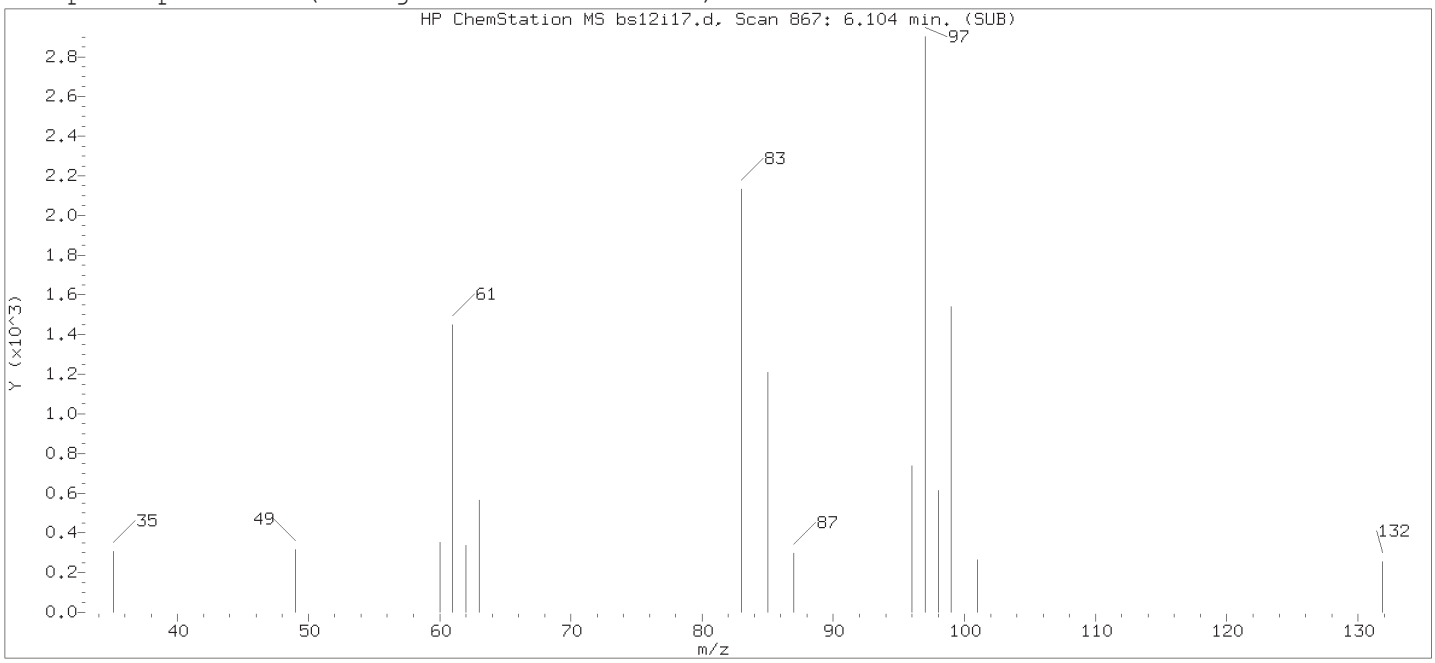
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 867
Retention Time (minutes): 6.104
Quant Ion : 97.00
Area (flag) : 5816M
On-Column Amount (ng) : 1.0642
Integration start scan : 860 Integration stop scan: 877
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

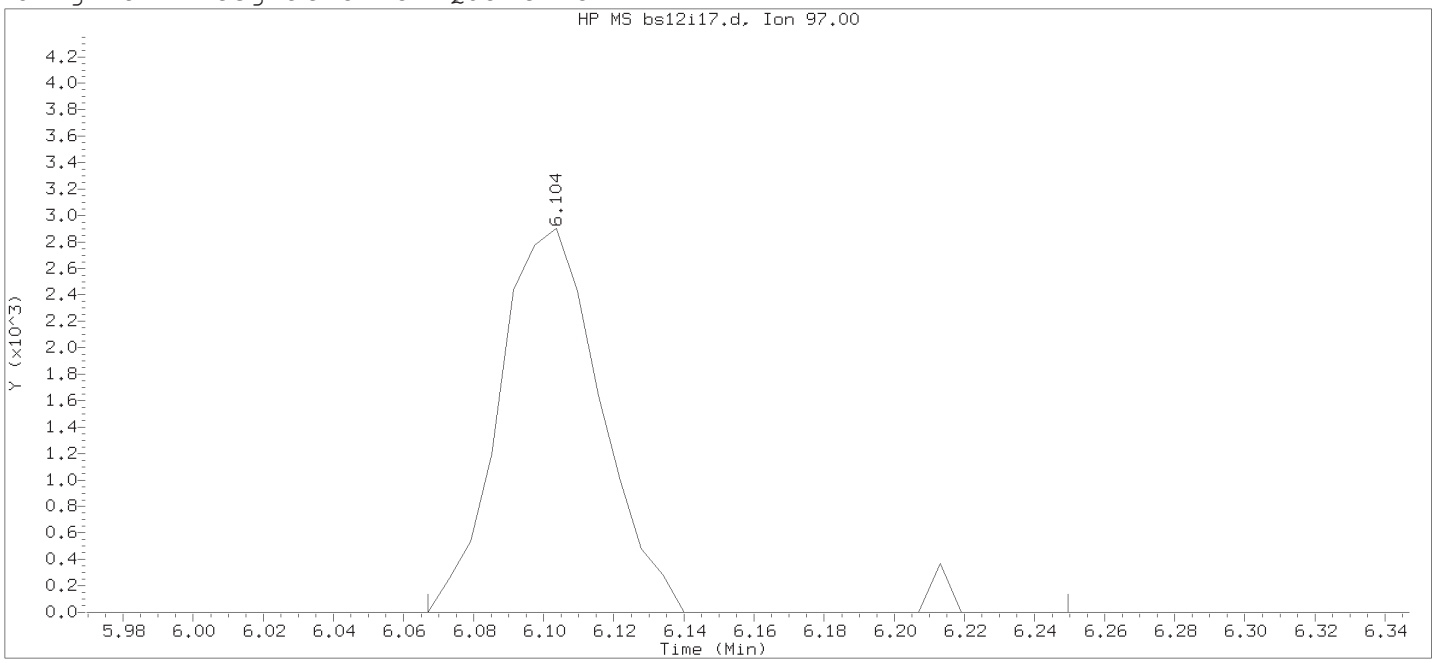
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

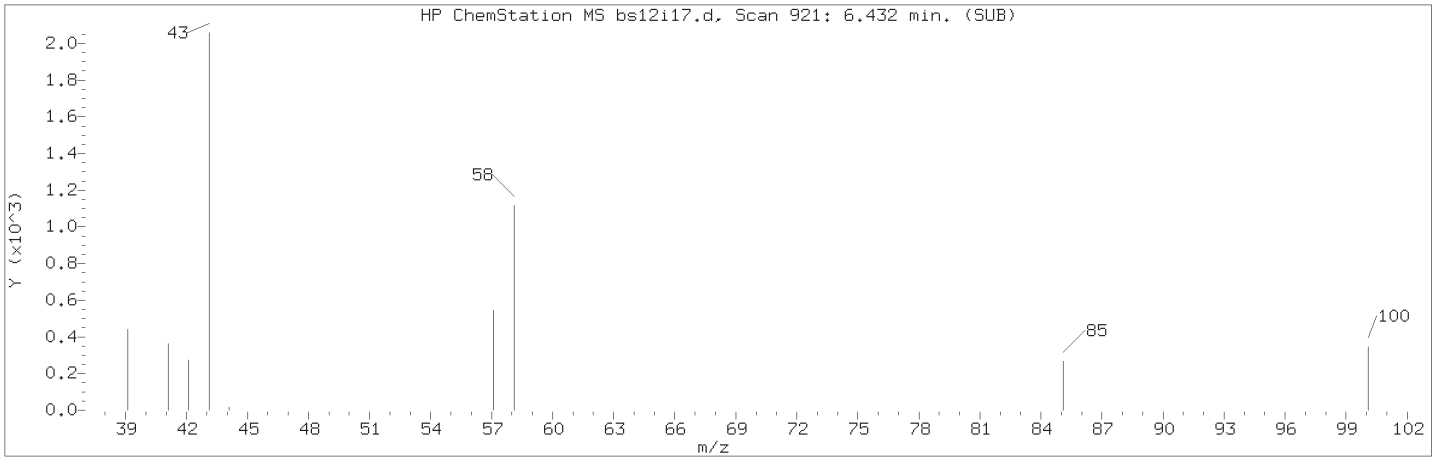
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

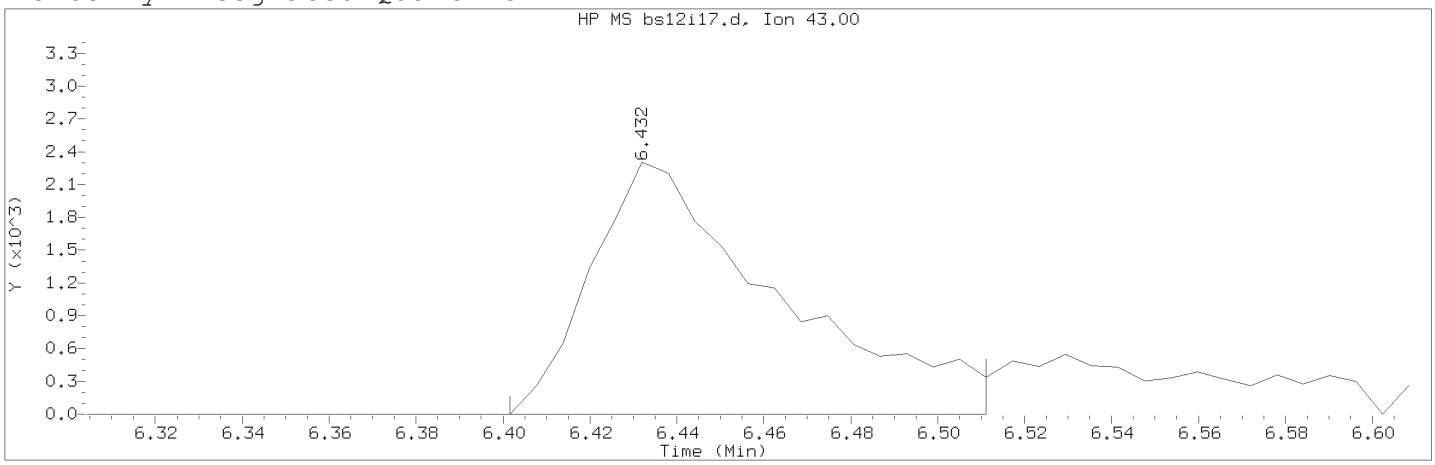
Compound Number	: 96		
Compound Name	: 1,1,2-Trichloroethane		
Scan Number	: 867		
Retention Time (minutes)	: 6.104		
Quant Ion	: 97.00		
Area	: 5951		
On-column Amount (ng)	: 1.0799		
Integration start scan	: 860	Integration stop scan:	890
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe2

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

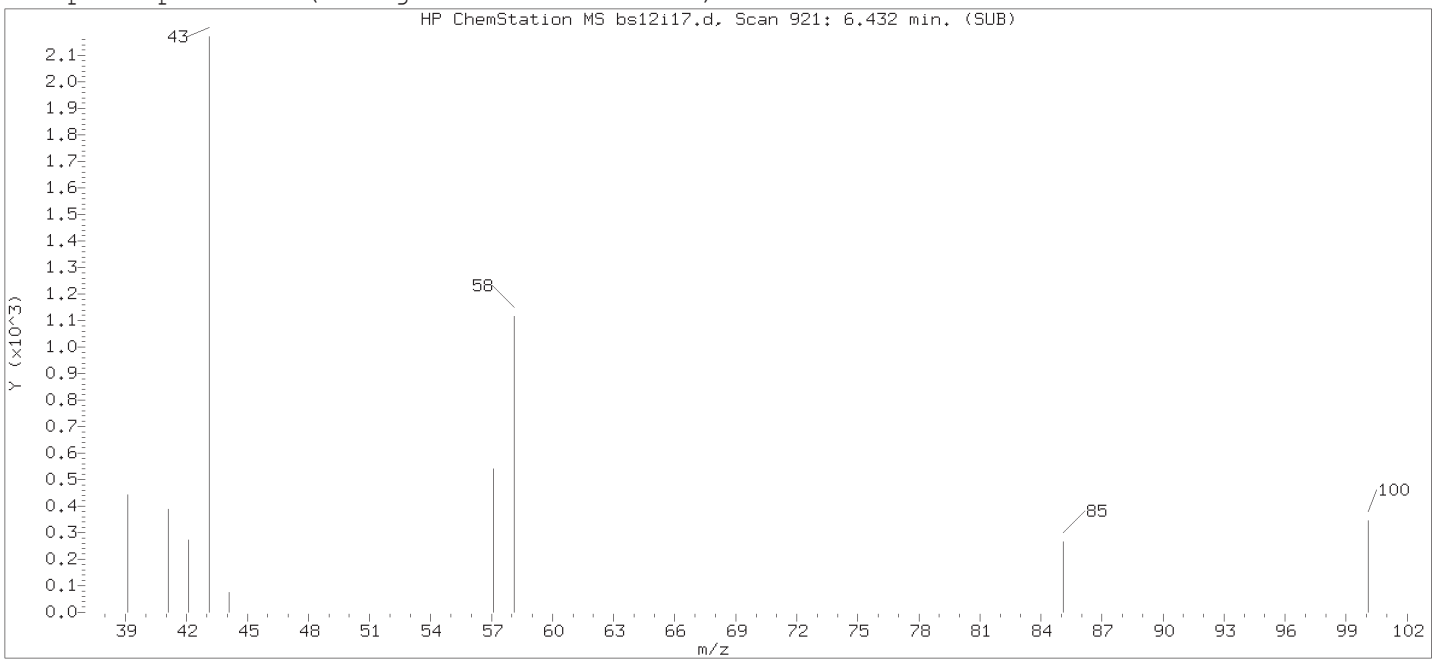
Compound Number : 101
Compound Name : 2-Hexanone
Scan Number : 921
Retention Time (minutes): 6.432
Quant Ion : 43.00
Area (flag) : 6904M
On-Column Amount (ng) : 2.3508
Integration start scan : 915 Integration stop scan: 933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

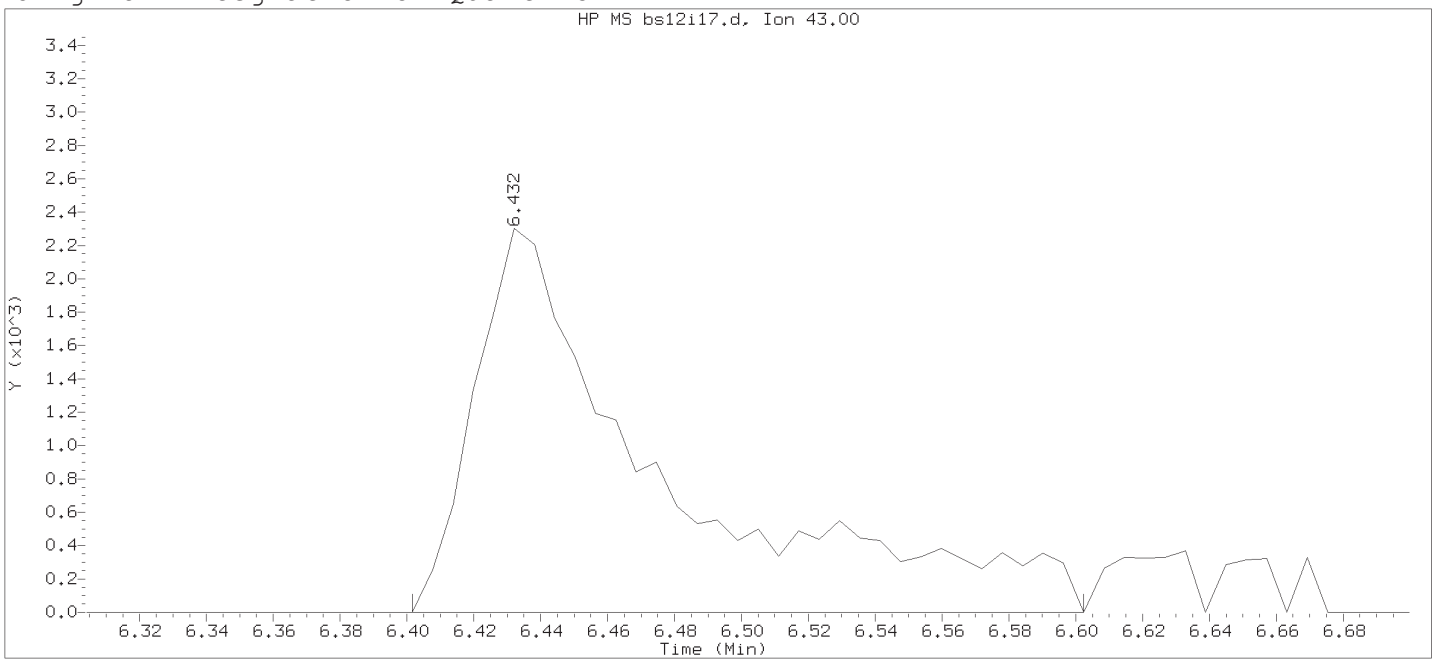
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

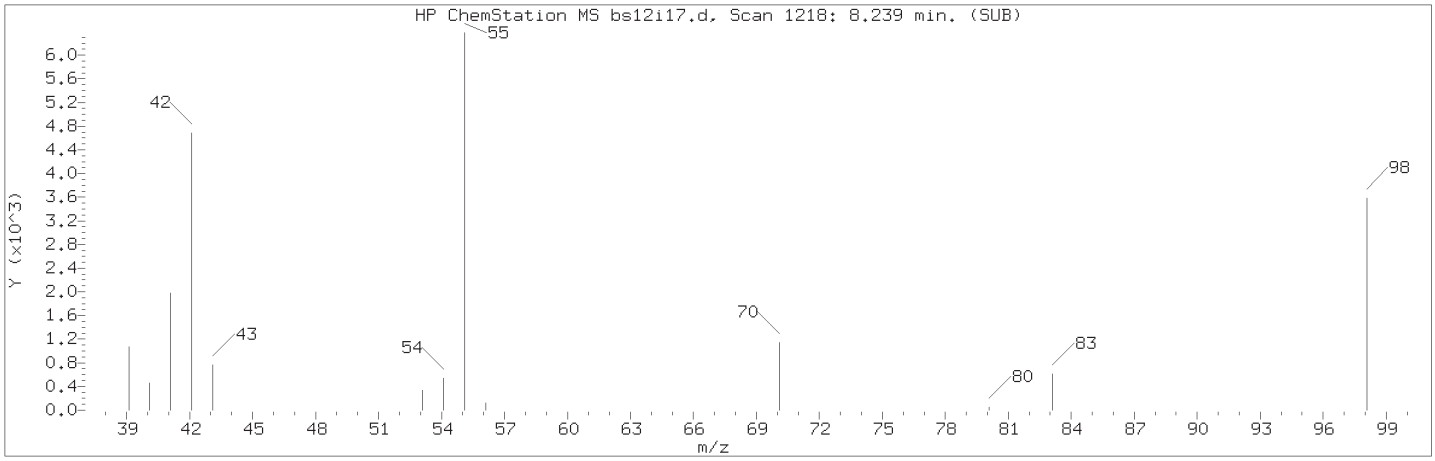
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

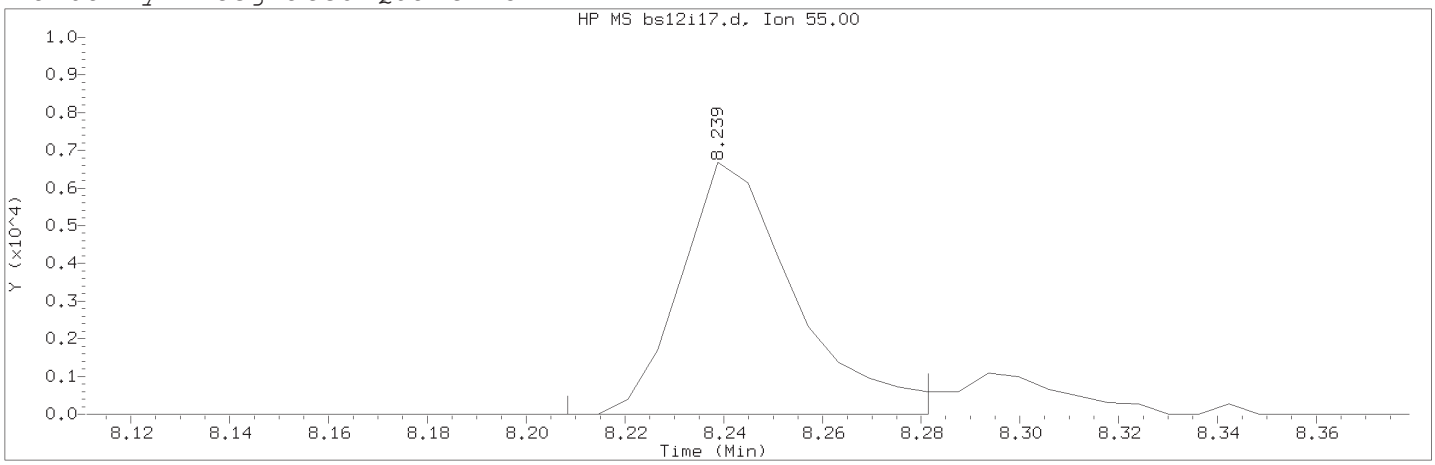
Compound Number : 101
Compound Name : 2-Hexanone
Scan Number : 921
Retention Time (minutes): 6.432
Quant Ion : 43.00
Area : 8816
On-column Amount (ng) : 2.2076
Integration start scan : 915 Integration stop scan: 948
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

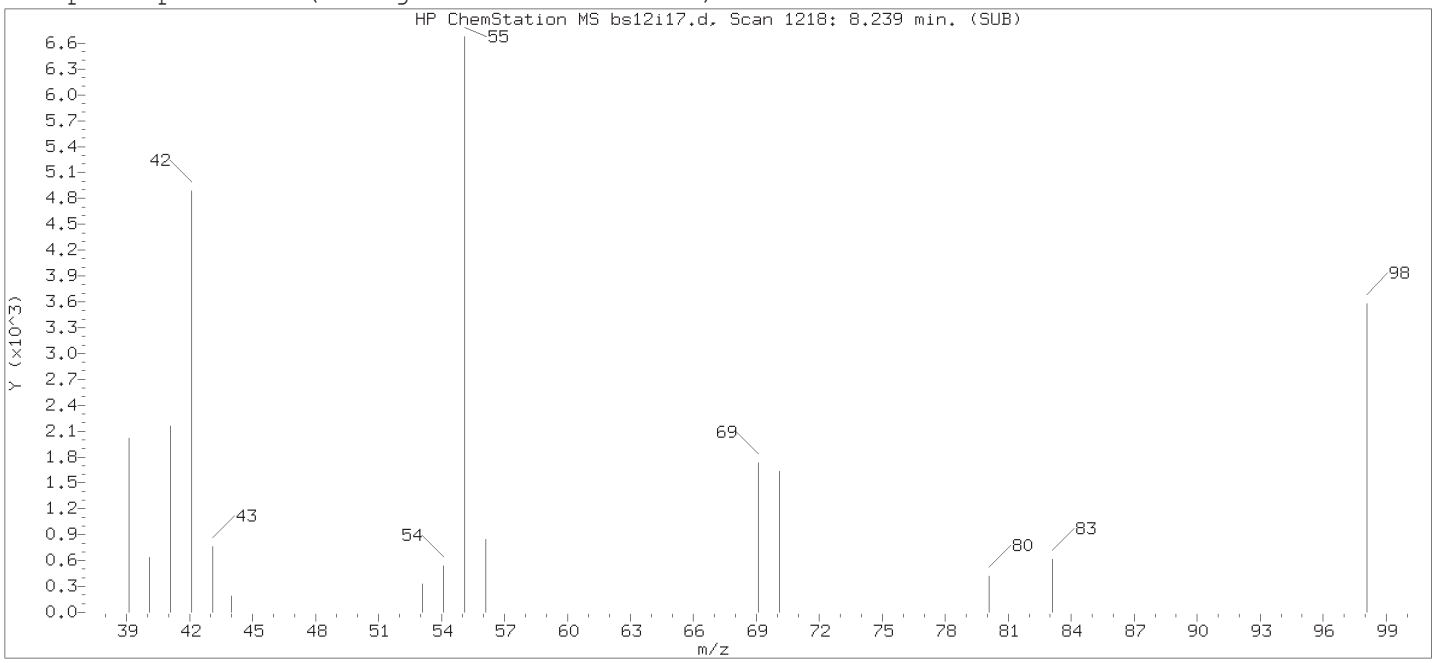
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1218
Retention Time (minutes): 8.239
Quant Ion : 55.00
Area (flag) : 10660M
On-Column Amount (ng) : 36.8160
Integration start scan : 1212 Integration stop scan: 1224
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

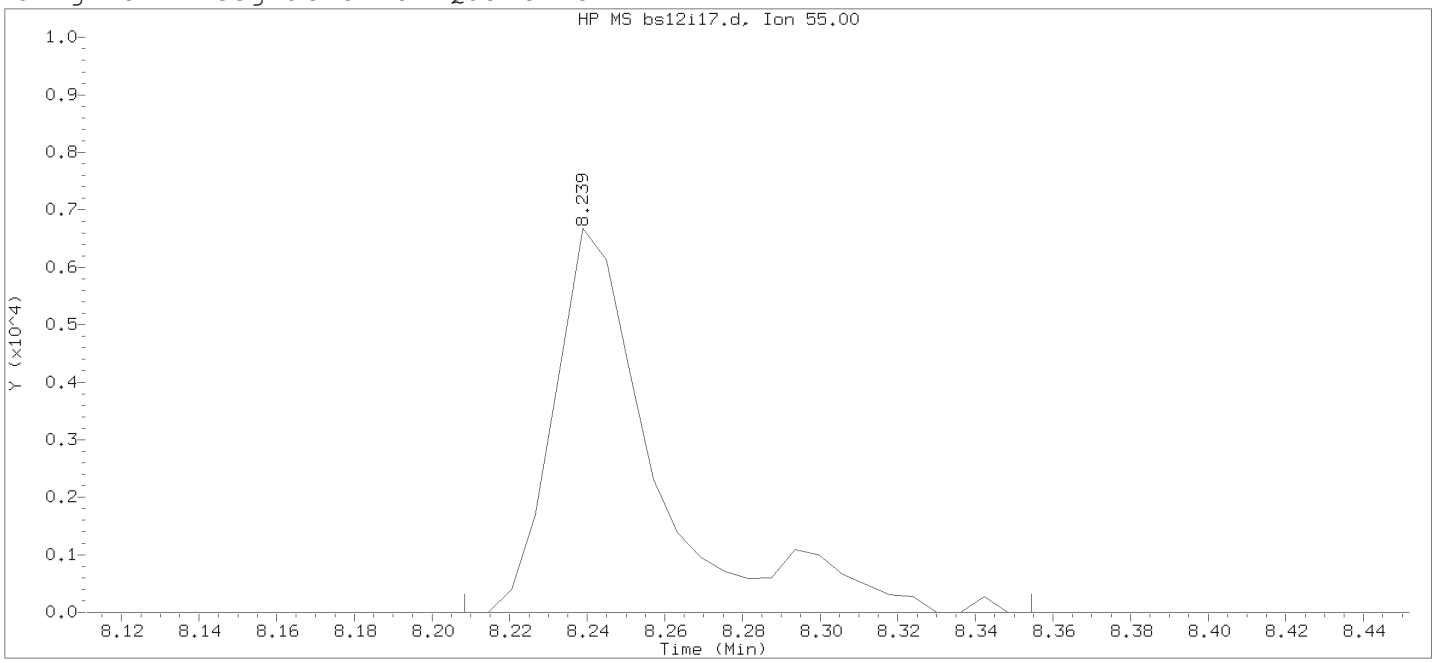
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

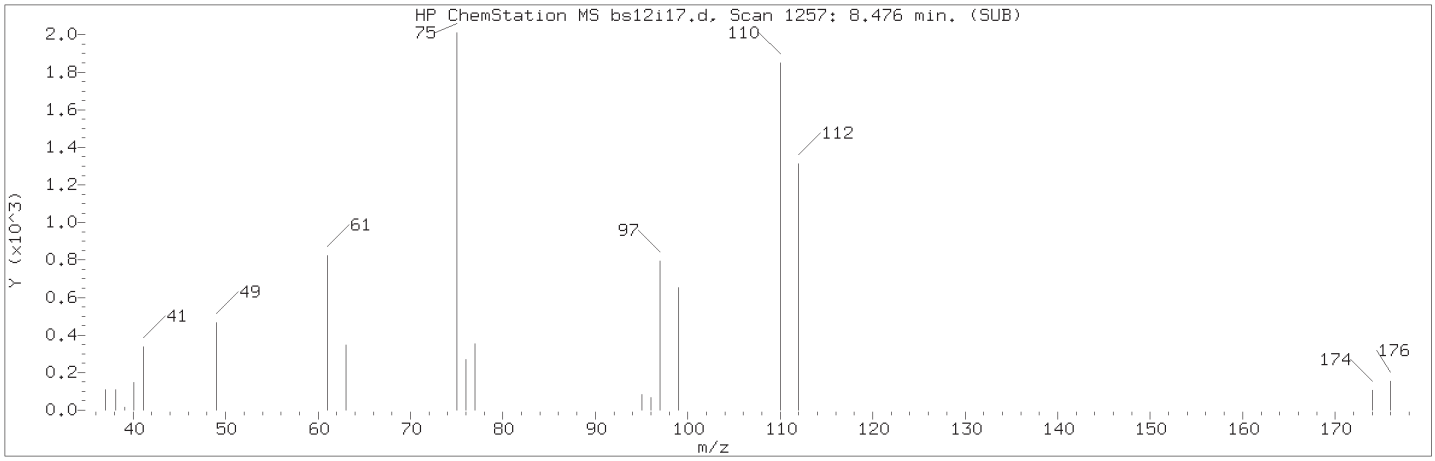
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

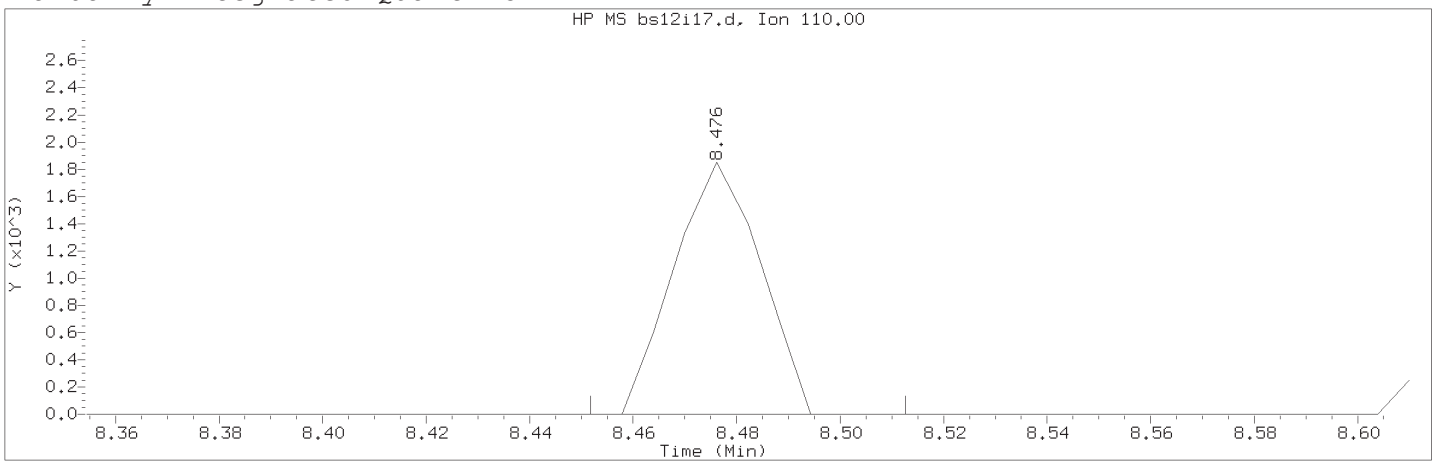
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1218
Retention Time (minutes): 8.239
Quant Ion : 55.00
Area : 12363
On-column Amount (ng) : 53.1566
Integration start scan : 1212 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

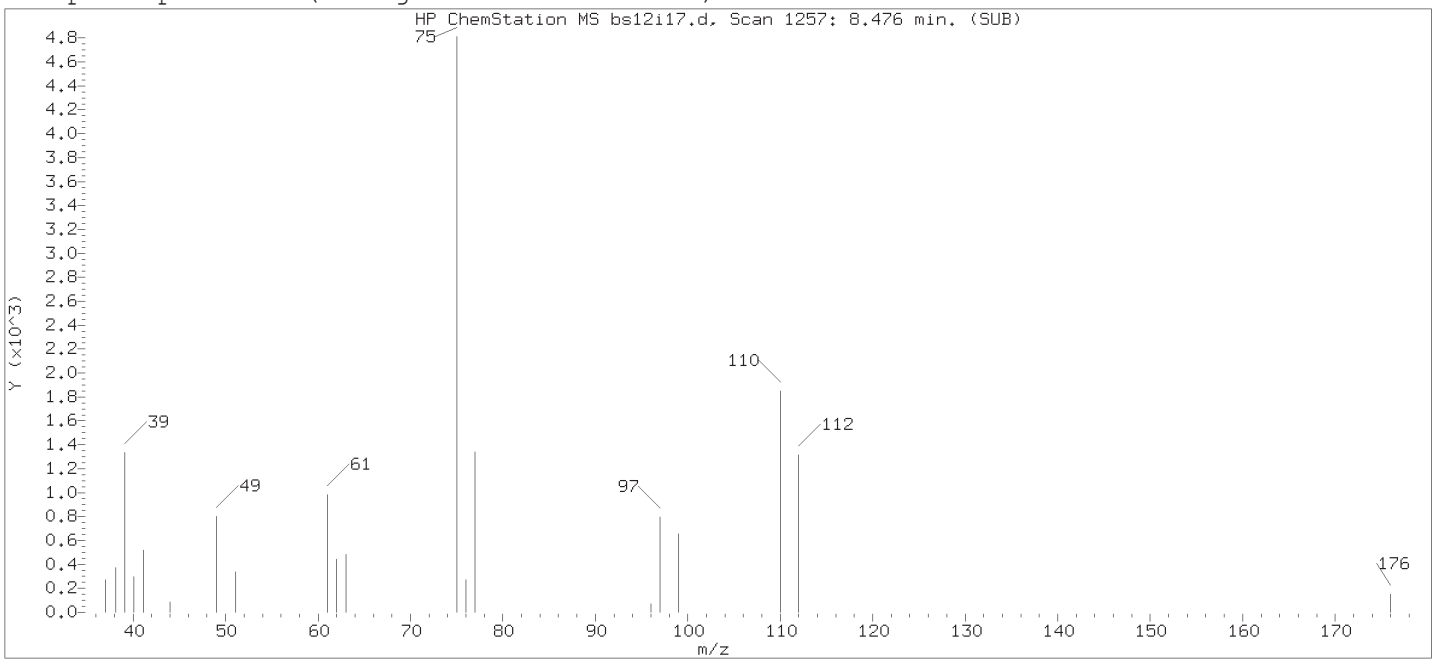
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area (flag) : 2143M
On-Column Amount (ng) : 1.0390
Integration start scan : 1252 Integration stop scan: 1262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

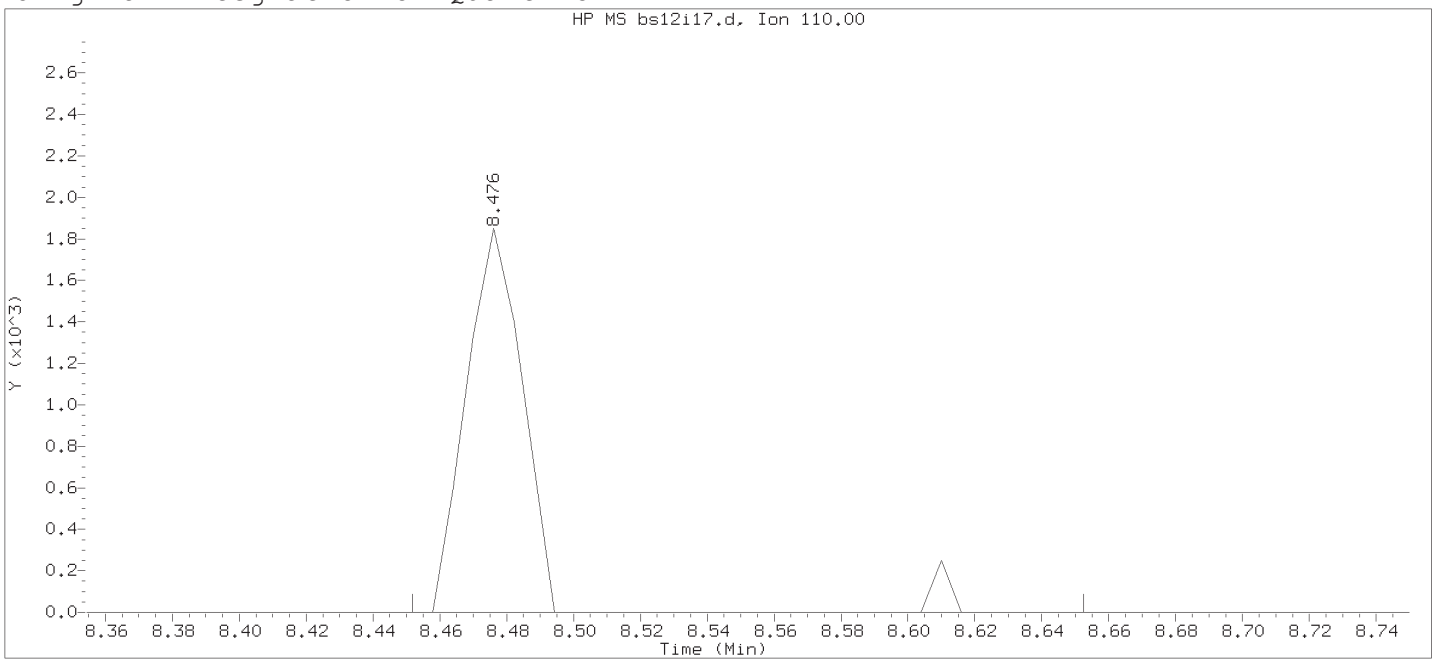
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

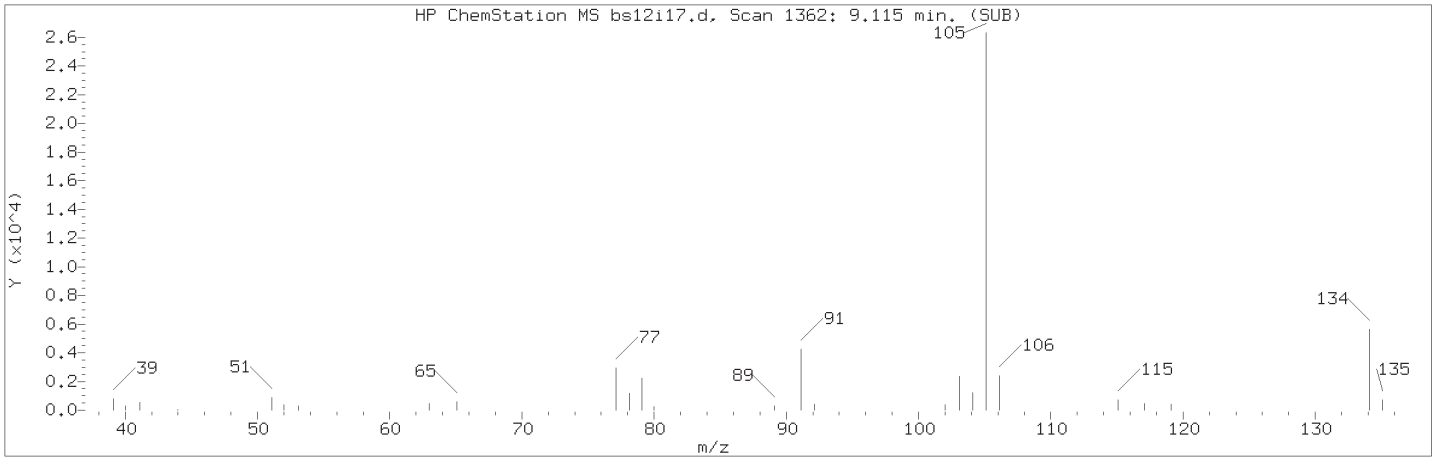
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

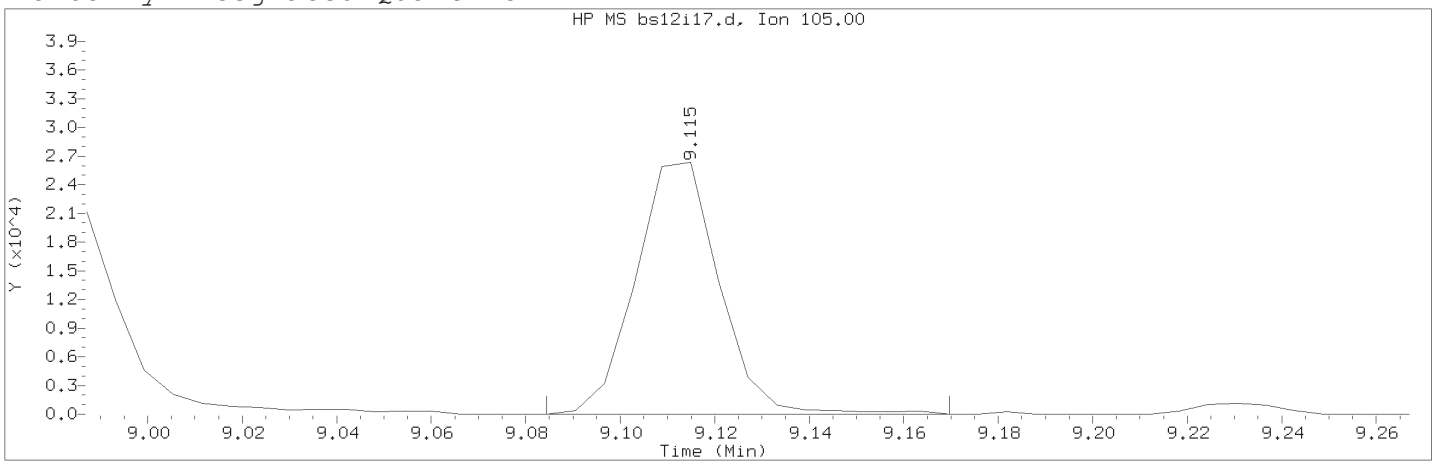
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area : 2234
On-column Amount (ng) : 1.0618
Integration start scan : 1252 Integration stop scan: 1285
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 09:57 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

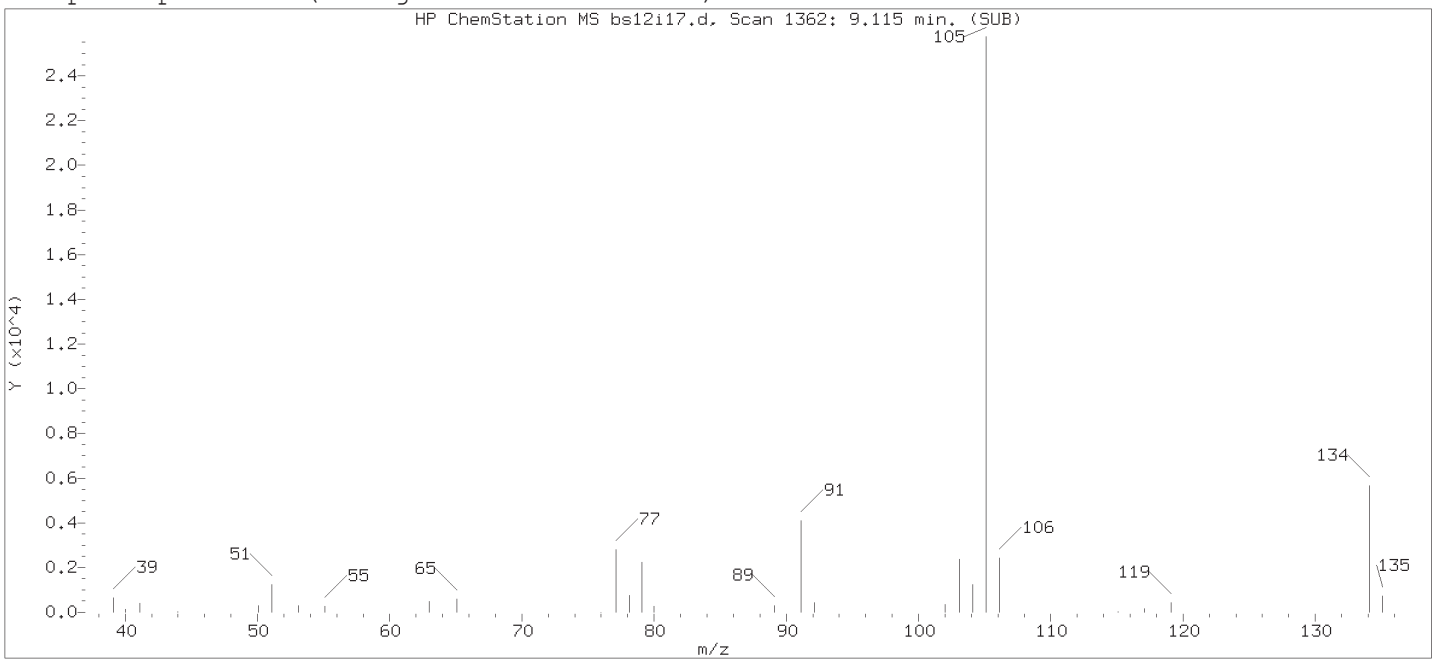
Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1362
Retention Time (minutes): 9.115
Quant Ion : 105.00
Area (flag) : 32506M
On-Column Amount (ng) : 0.9163
Integration start scan : 1356 Integration stop scan: 1370
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

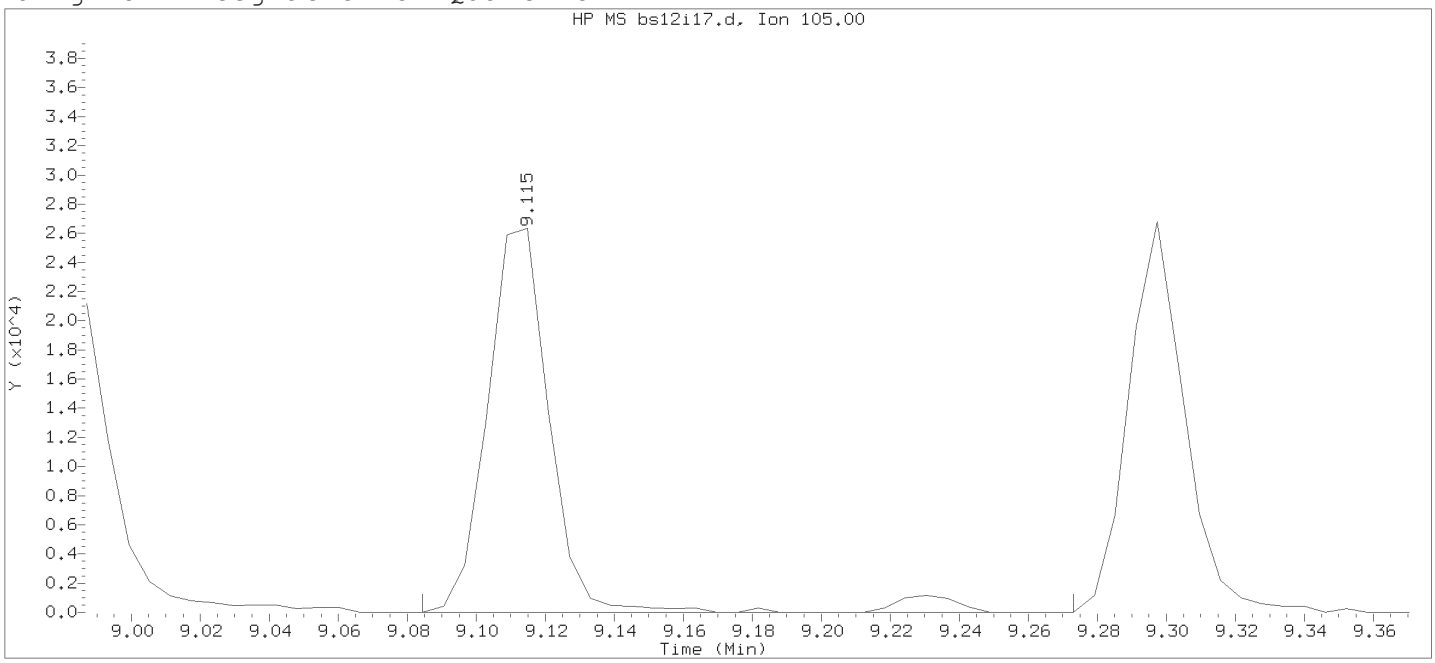
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



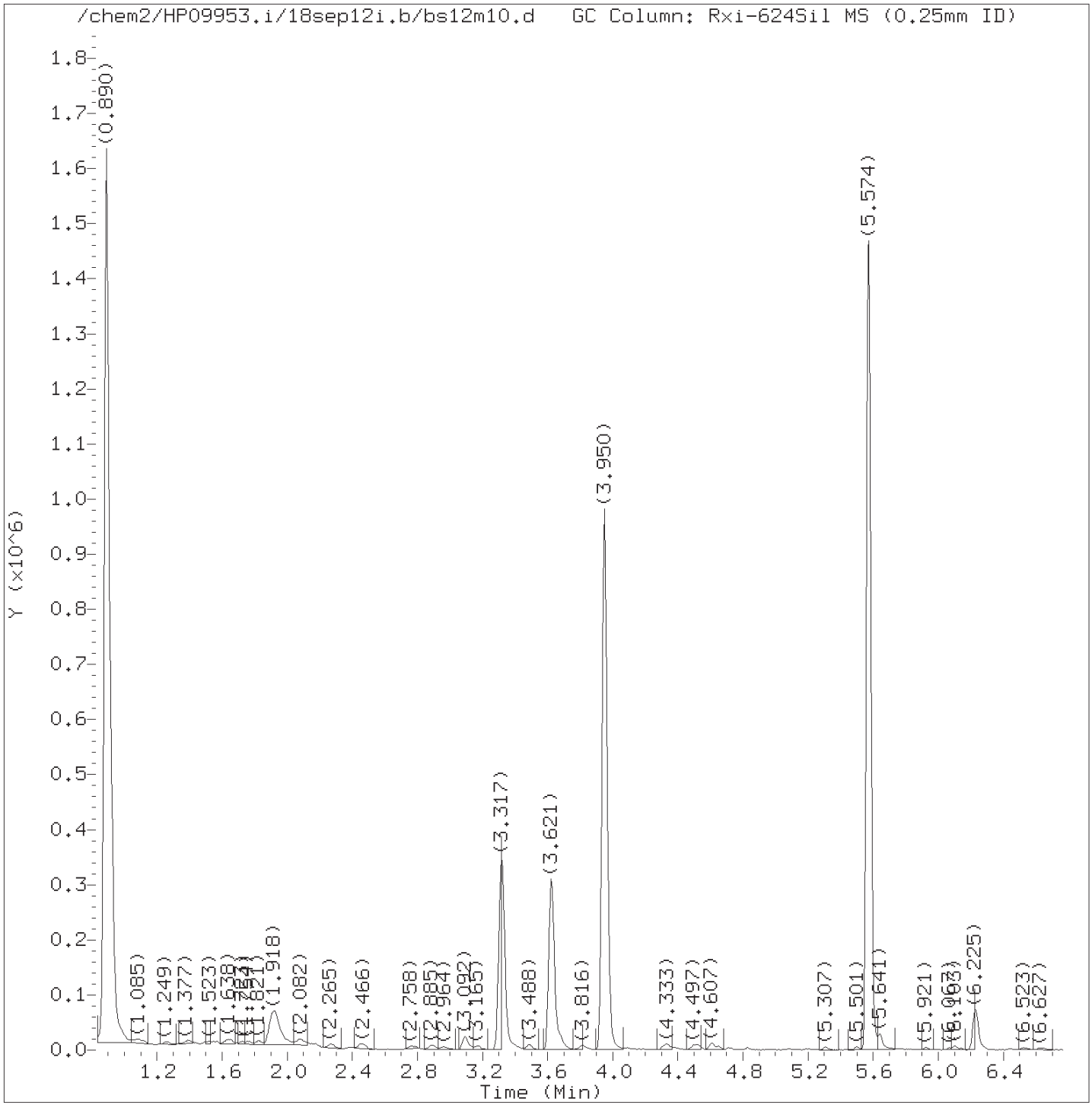
Data File: /chem2/HP09953.i/18sep12i.b/bs12i17.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:30 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 15:45 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1362
Retention Time (minutes): 9.115
Quant Ion : 105.00
Area : 33984
On-column Amount (ng) : 0.9477
Integration start scan : 1356 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

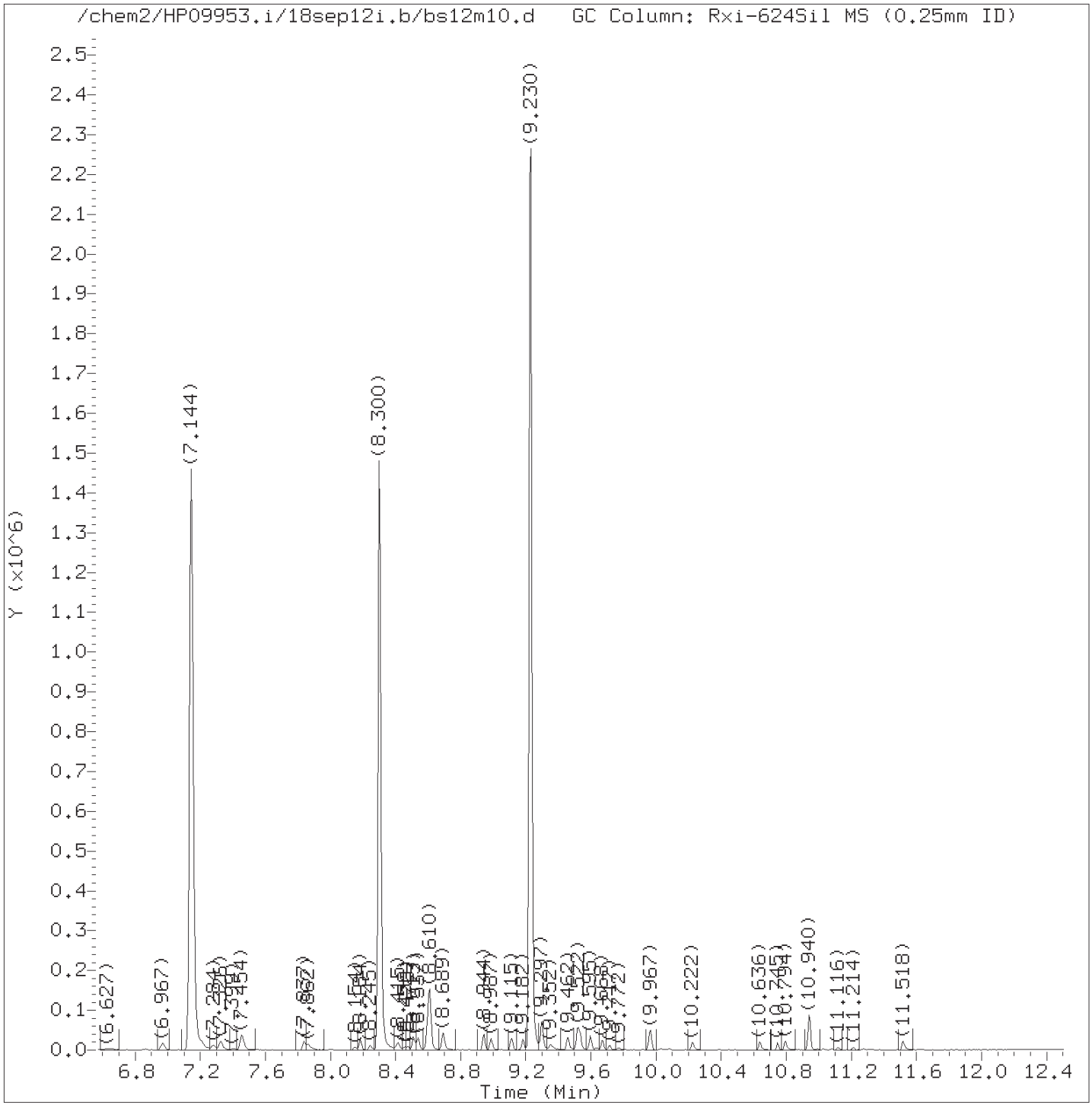
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.981	85	8817	0.872
4) Chloromethane	(2)	1.078	50	6548	0.628
5) Vinyl Chloride	(2)	1.127	62	5503	0.677
9) Bromomethane	(2)	1.243	94	3926	0.543
10) Chloroethane	(2)	1.279	64	2311M	0.529
11) Dichlorofluoromethane	(2)	1.370	67	7093	0.671
13) Trichlorofluoromethane	(2)	1.413	101	5036M	0.450
15) Ethanol	(1)	1.456	45	5284	108.320
17) Freon 123a	(2)	1.510	67	6439	0.860
18) Acrolein	(1)	1.565	56	7469	8.269
19) 1,1-Dichloroethene	(2)	1.632	96	2960	0.527
20) Acetone	(1)	1.644	58	2875	0.288
22) Freon 113	(2)	1.656	101	2370	0.421
23) 2-Propanol	(1)	1.717	45	4926	13.637
24) Methyl Iodide	(2)	1.717	142	6774	0.501
25) Carbon Disulfide	(2)	1.772	76	11536	0.513
27) Methyl Acetate	(2)	1.827	43	3741A	1.298
29) Allyl Chloride	(2)	1.827	41	5258	0.699
31) Methylene Chloride	(2)	1.906	84	5341	0.804
30)*t-Butyl alcohol-d10	(1)	1.924	65	93494	250.000
32) t-Butyl alcohol	(1)	1.973	59	5038	10.258
33) Acrylonitrile	(2)	2.070	53	1392	0.714
34) Methyl Tertiary Butyl Ether	(2)	2.088	73	7612	0.476
35) trans-1,2-Dichloroethene	(2)	2.088	96	3702	0.566
38) n-Hexane	(2)	2.271	57	6940	0.930
40) 1,1-Dichloroethane	(2)	2.380	63	5078	0.479
41) di-Isopropyl ether	(2)	2.453	45	9903	0.501
42) 2-Chloro-1,3-butadiene	(2)	2.459	53	4506	0.483
43) Ethyl t-butyl ether	(2)	2.770	59	8917	0.479
45) cis-1,2-Dichloroethene	(2)	2.885	96	3155	0.445
47) 2,2-Dichloropropane	(2)	2.891	77	3670	0.475
44) 2-Butanone	(1)	2.922	43	4824	2.007
49) Propionitrile	(1)	2.964	54	6412	9.944
46) 1,2-Dichloroethene (Total)	(2)		96	6857	1.011
51) Methacrylonitrile	(2)	3.098	67	10103	4.635
52) Bromochloromethane	(2)	3.098	128	1495	0.397
53) Tetrahydrofuran	(1)	3.135	71	298	0.498
54) Chloroform	(2)	3.177	83	5344	0.497

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	276502	49.530
57) 1,1,1-Trichloroethane	(2)	3.342	97	5677	0.516
58) Cyclohexane	(2)	3.384	56	5095	0.492
60) 1,1-Dichloropropene	(2)	3.488	75	3837	0.479
61) Carbon Tetrachloride	(2)	3.500	117	3423	0.409
63)$1,2-Dichloroethane-d4	(2)	3.621	102	58655	48.816
62) Isobutyl Alcohol	(1)	3.658	41	5802	33.625
64) Benzene	(2)	3.676	78	14401	0.564
67) 1,2-Dichloroethane	(2)	3.700	62	4225	0.573
68) t-Amyl methyl ether	(2)	3.816	73	8276	0.481
70)*Fluorobenzene	(2)	3.950	96	1120125	50.000
72) n-Heptane	(2)	3.962	43	4135	0.608
75) Trichloroethene	(2)	4.315	95	3404	0.511
73) n-Butanol	(1)	4.333	56	6788	46.980
76) Methylcyclohexane	(2)	4.497	83	4664	0.450
77) 1,2-Dichloropropane	(2)	4.534	63	2908	0.479
81) Dibromomethane	(2)	4.649	93	1623	0.437
80) 1,4-Dioxane	(1)	4.704	88	849	14.179
79) Methyl Methacrylate	(2)	4.716	69	1656	0.423
84) Bromodichloromethane	(2)	4.826	83	3431	0.453
85) 2-Nitropropane	(1)	5.081	41	1945M	1.573
87) 2-Chloroethyl Vinyl Ether	(2)	5.191	63	1029	0.322
89) cis-1,3-Dichloropropene	(2)	5.307	75	3719	0.406
91)$Toluene-d8	(3)	5.574	98	1126189	49.881
92) Toluene	(3)	5.641	92	9115	0.544
93) trans-1,3-Dichloropropene	(3)	5.921	75	3175	0.396
94) 1,3-Dichloropropene (total)	(3)		100	6894	0.802
95) Ethyl Methacrylate	(3)	6.073	69	3571M	0.459
96) 1,1,2-Trichloroethane	(3)	6.097	97	2345M	0.432
98) Tetrachloroethene	(3)	6.231	166	3693	0.403
99) 1,3-Dichloropropane	(3)	6.274	76	4036	0.461
101) 2-Hexanone	(3)	6.444	43	2875M	1.371
103) Dibromochloromethane	(3)	6.517	129	2458	0.393
104) 1,2-Dibromoethane	(3)	6.621	107	2209	0.393
105)*Chlorobenzene-d5	(3)	7.144	117	874777	50.000
107) Chlorobenzene	(3)	7.174	112	10302	0.527
106) 1-Chlorohexane	(3)	7.211	91	4065	0.489
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	2678	0.404

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
109) Ethylbenzene	(3)	7.326	91	15837	0.503
110) m+p-Xylene	(3)	7.454	106	12282	0.956
111) o-Xylene	(3)	7.837	106	5968	0.464
113) Styrene	(3)	7.868	104	9456	0.446
112) Xylene (Total)	(3)		106	18250	1.420
114) Bromoform	(3)	8.002	173	1322	0.339
115) Isopropylbenzene	(3)	8.184	105	15165M	0.468
118) Cyclohexanone	(1)	8.245	55	4243	19.582
119)$4-Bromofluorobenzene	(3)	8.300	95	405052	49.247
121) Bromobenzene	(4)	8.415	156	4786	0.541
120) 1,1,2,2-Tetrachloroethane	(4)	8.458	83	3273	0.485
123) 1,2,3-Trichloropropane	(4)	8.476	110	854M	0.426
122) trans-1,4-Dichloro-2-butene	(4)	8.513	53	6673	4.027
124) n-Propylbenzene	(4)	8.537	91	16866	0.482
126) 2-Chlorotoluene	(4)	8.592	126	4149M	0.506
130) 4-Chlorotoluene	(4)	8.689	126	4160	0.500
129) 1,3,5-Trimethylbenzene	(4)	8.695	105	13363M	0.494
133) tert-Butylbenzene	(4)	8.944	134	3181	0.501
134) Pentachloroethane	(4)	8.944	167	1774	0.467
135) 1,2,4-Trimethylbenzene	(4)	8.987	105	14278	0.506
136) sec-Butylbenzene	(4)	9.115	105	16802M	0.488
138) 1,3-Dichlorobenzene	(4)	9.182	146	8835	0.532
139) p-Isopropyltoluene	(4)	9.230	119	14810	0.480
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	482788	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	10383	0.600
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	15109M	0.497
143) Benzyl Chloride	(4)	9.370	126	570	0.253
144) 1,3-Diethylbenzene	(4)	9.456	119	8597	0.451
145) 1,4-Diethylbenzene	(4)	9.516	119	9197	0.464
147) 1,2-Dichlorobenzene	(4)	9.522	146	9470	0.583
146) n-Butylbenzene	(4)	9.535	92	7315	0.510
148) 1,2-Diethylbenzene	(4)	9.595	119	7710	0.462
149) Diethylbenzene (total)	(4)		100	25504	1.377
151) 1,2-Dibromo-3-chloropropane	(4)	10.076	75	385	0.328
152) 1,3,5-Trichlorobenzene	(4)	10.222	180	6276	0.494
153) 1,2,4-Trichlorobenzene	(4)	10.636	180	6662	0.557
154) Hexachlorobutadiene	(4)	10.745	225	2713	0.497
155) Naphthalene	(4)	10.794	128	17711M	0.623

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

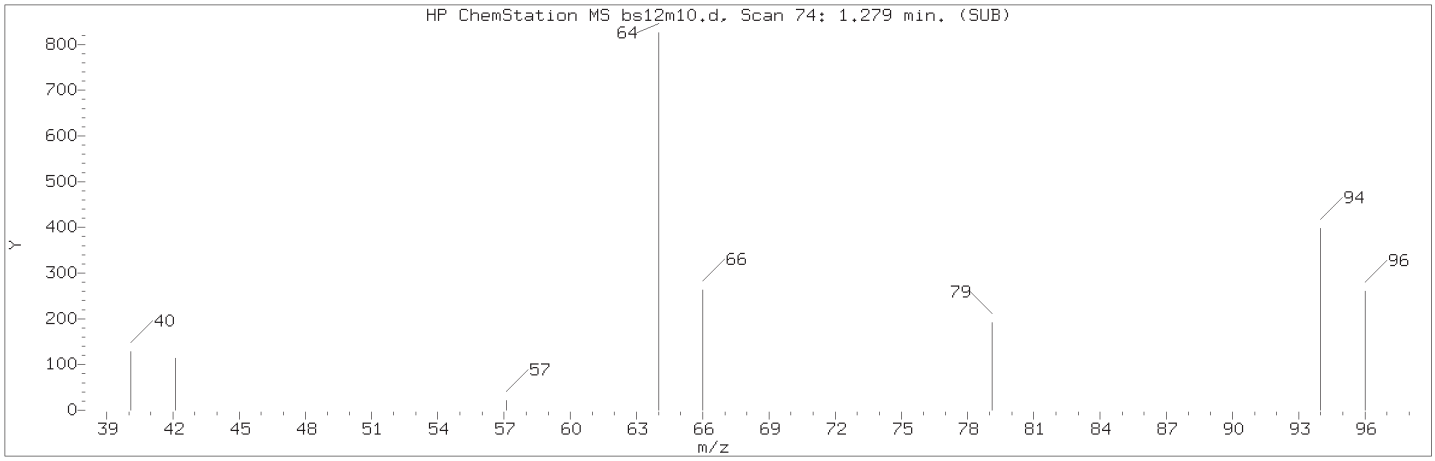
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

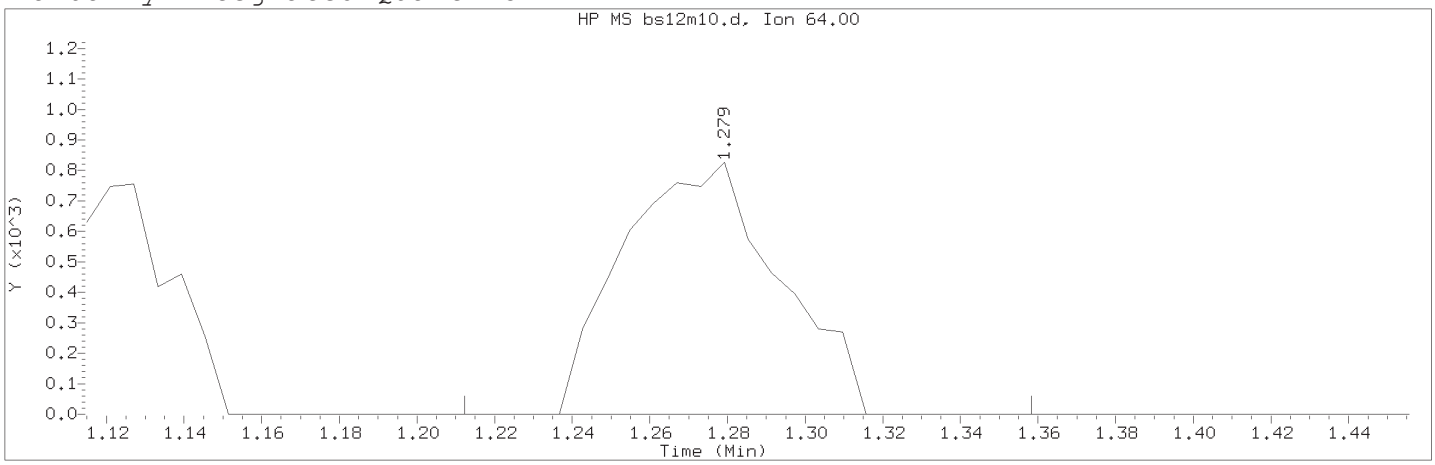
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
156) 1,2,3-Trichlorobenzene	(4)	10.946	180	6647	0.582
157) 2-Methylnaphthalene	(4)	11.518	142	11400	0.593

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

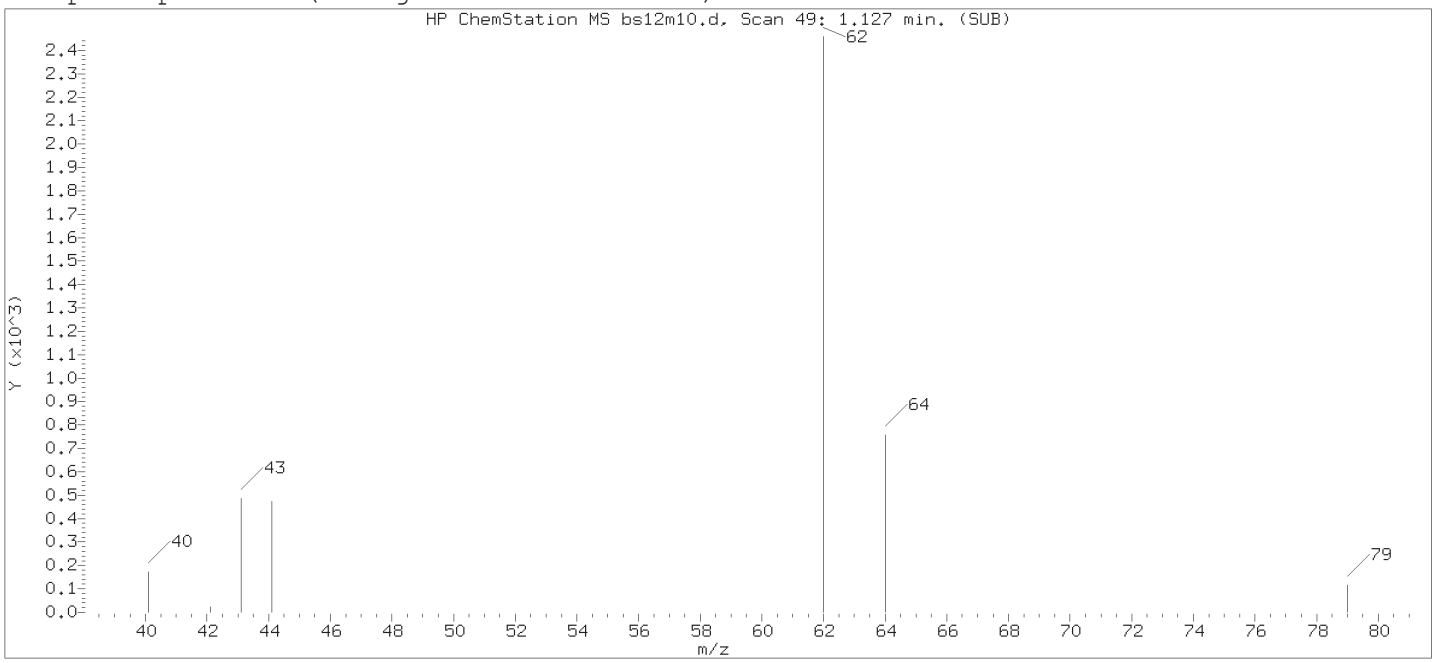
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 74
Retention Time (minutes): 1.279
Quant Ion : 64.00
Area (flag) : 2311M
On-Column Amount (ng) : 0.5289
Integration start scan : 62 Integration stop scan: 86
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

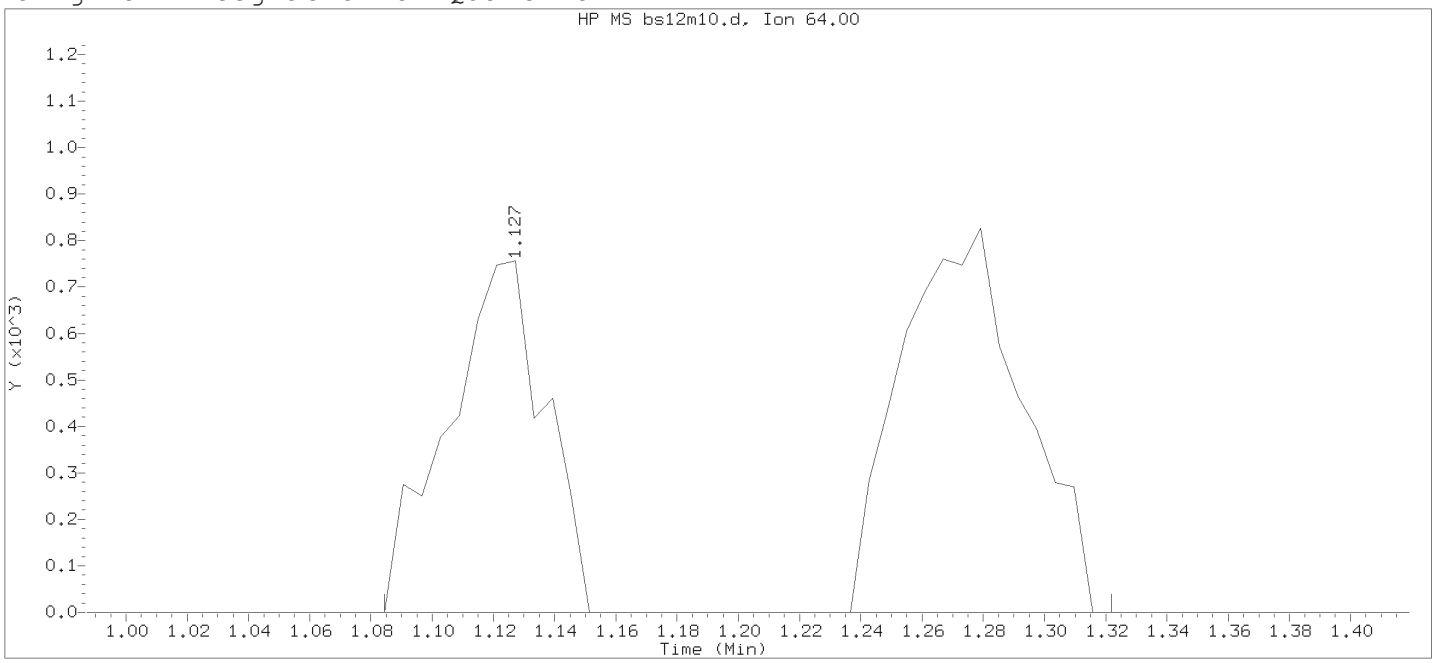
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

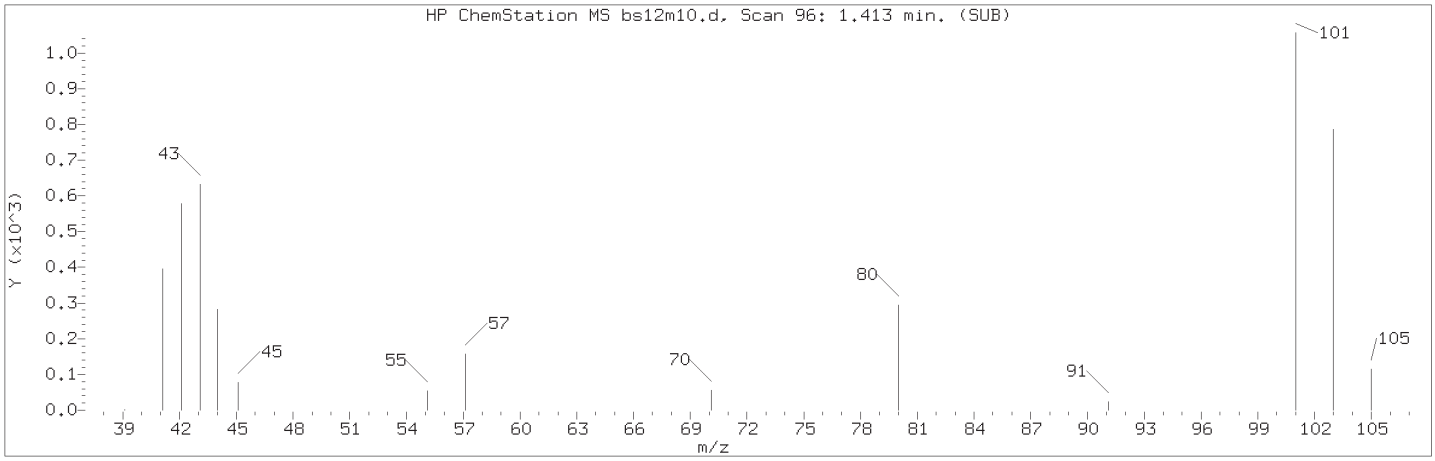
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

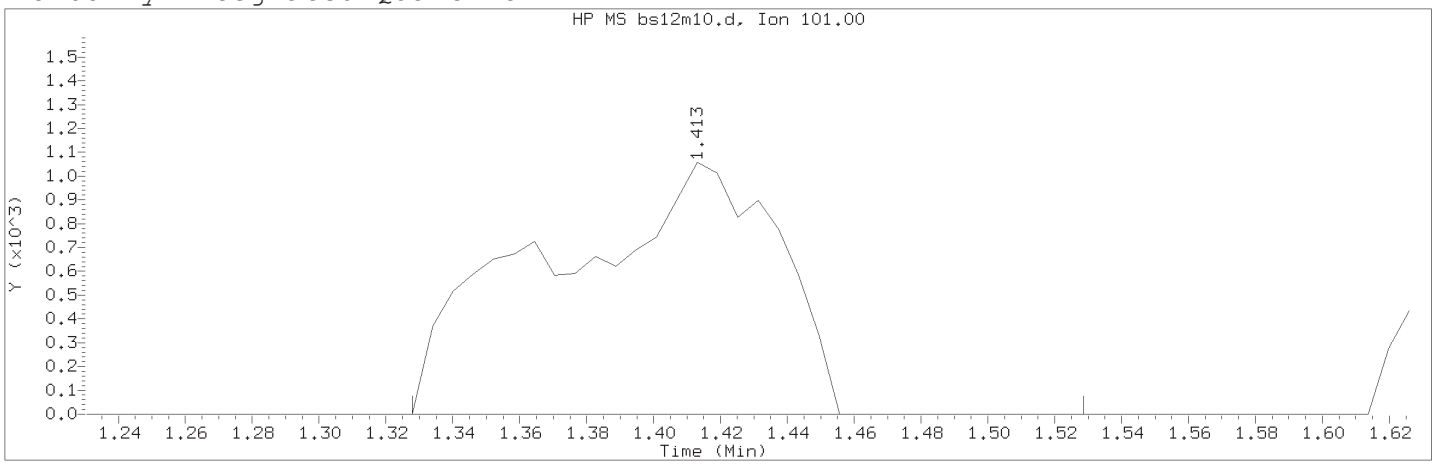
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 49
Retention Time (minutes): 1.127
Quant Ion : 64.00
Area : 3987
On-column Amount (ng) : 0.8341
Integration start scan : 41 Integration stop scan: 80
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

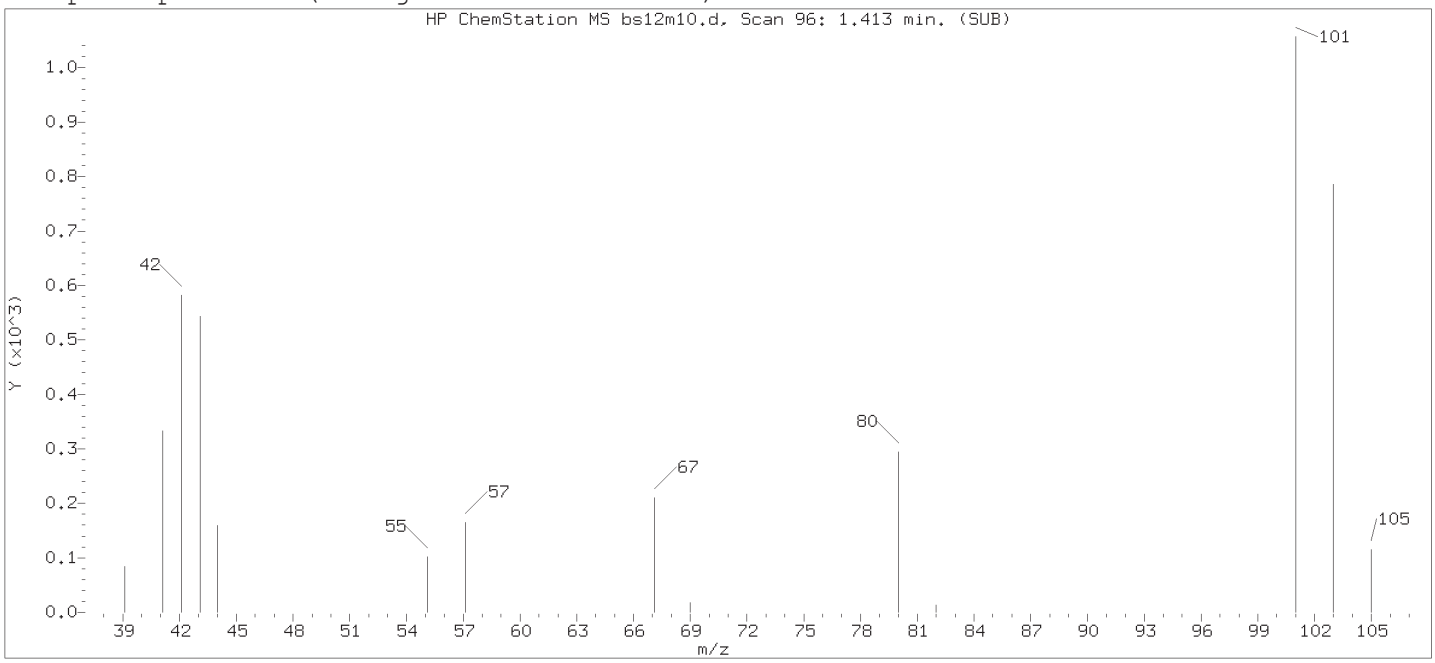
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 96
Retention Time (minutes): 1.413
Quant Ion : 101.00
Area (flag) : 5036M
On-Column Amount (ng) : 0.4503
Integration start scan : 81 Integration stop scan: 114
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

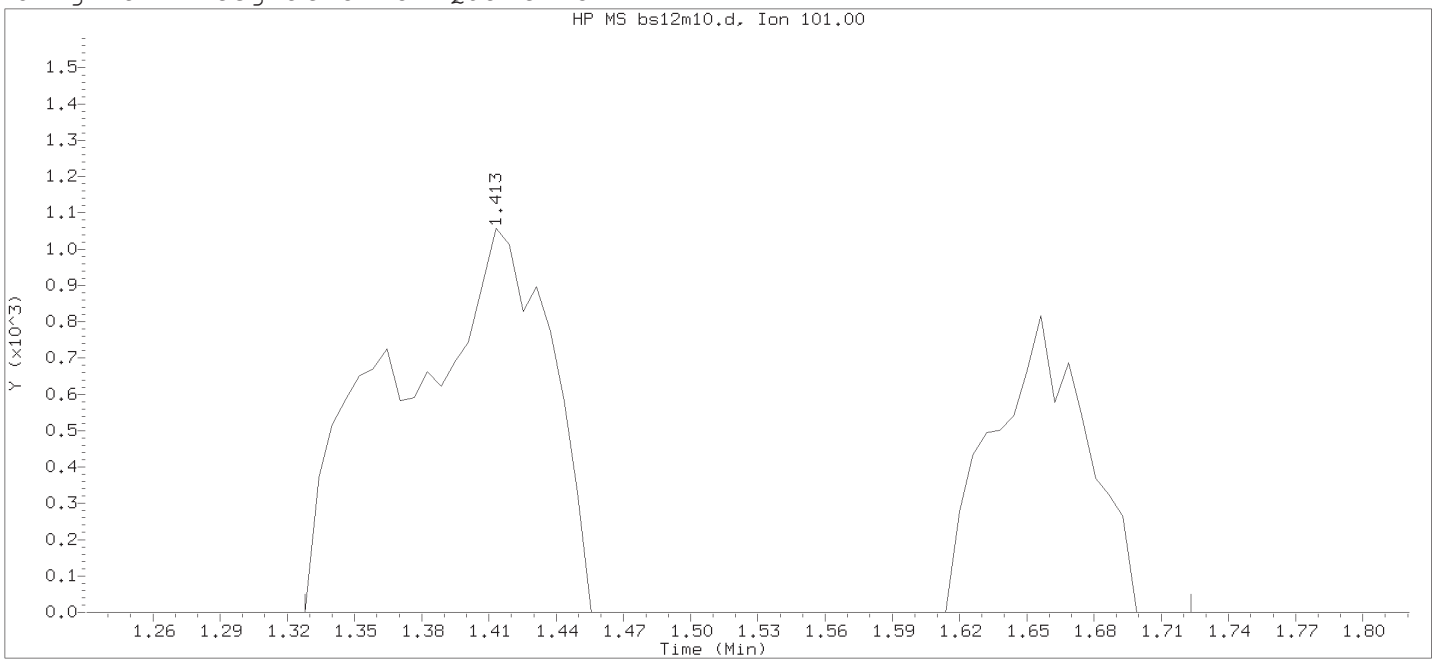
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

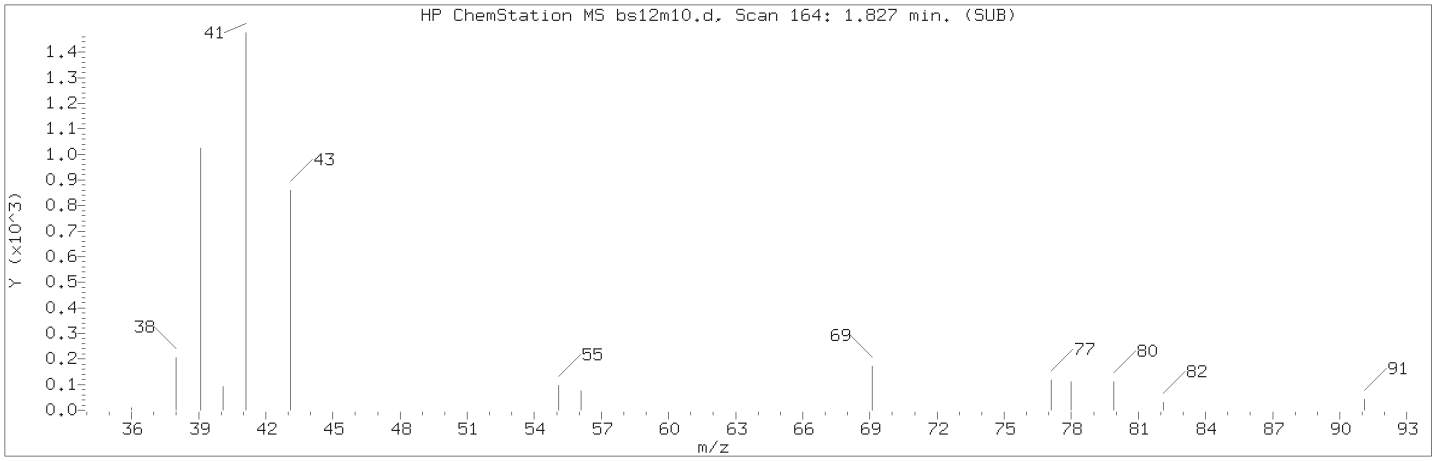
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

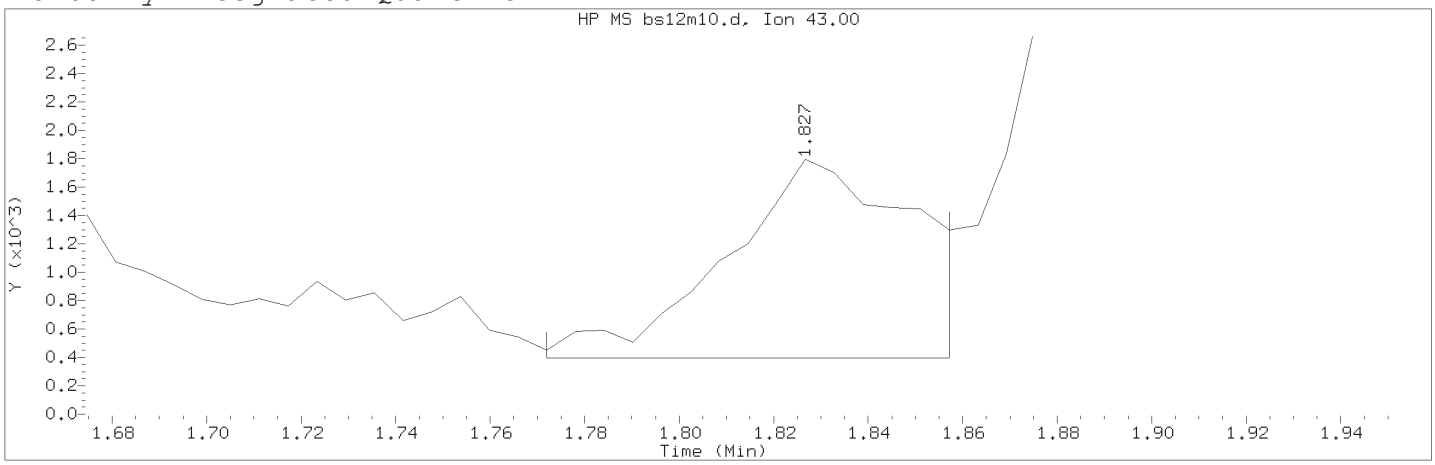
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 96
Retention Time (minutes): 1.413
Quant Ion : 101.00
Area : 7407
On-column Amount (ng) : 0.6232
Integration start scan : 81 Integration stop scan: 146
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

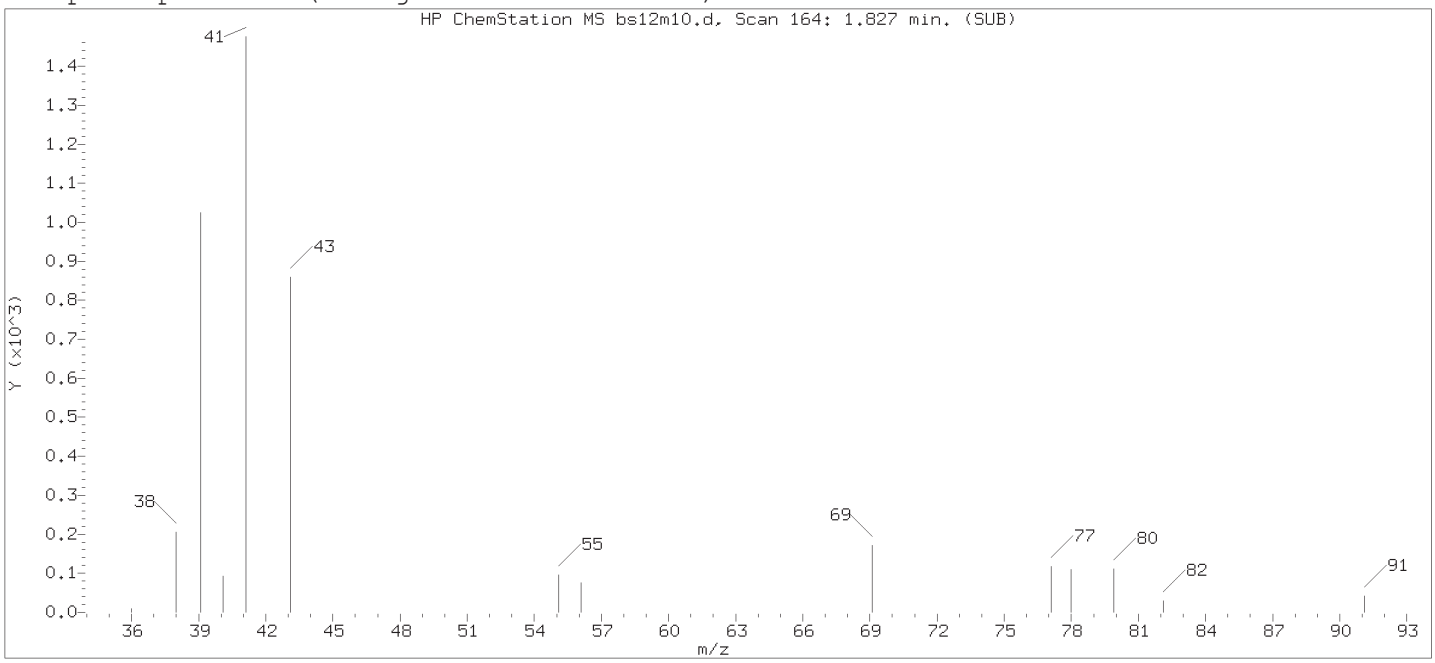
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 43.00
Area (flag) : 3741A
On-Column Amount (ng) : 1.2982
Integration start scan : 154 Integration stop scan: 168
Y at integration start : 394 Y at integration end: 394

Reason for manual integration: improper integration

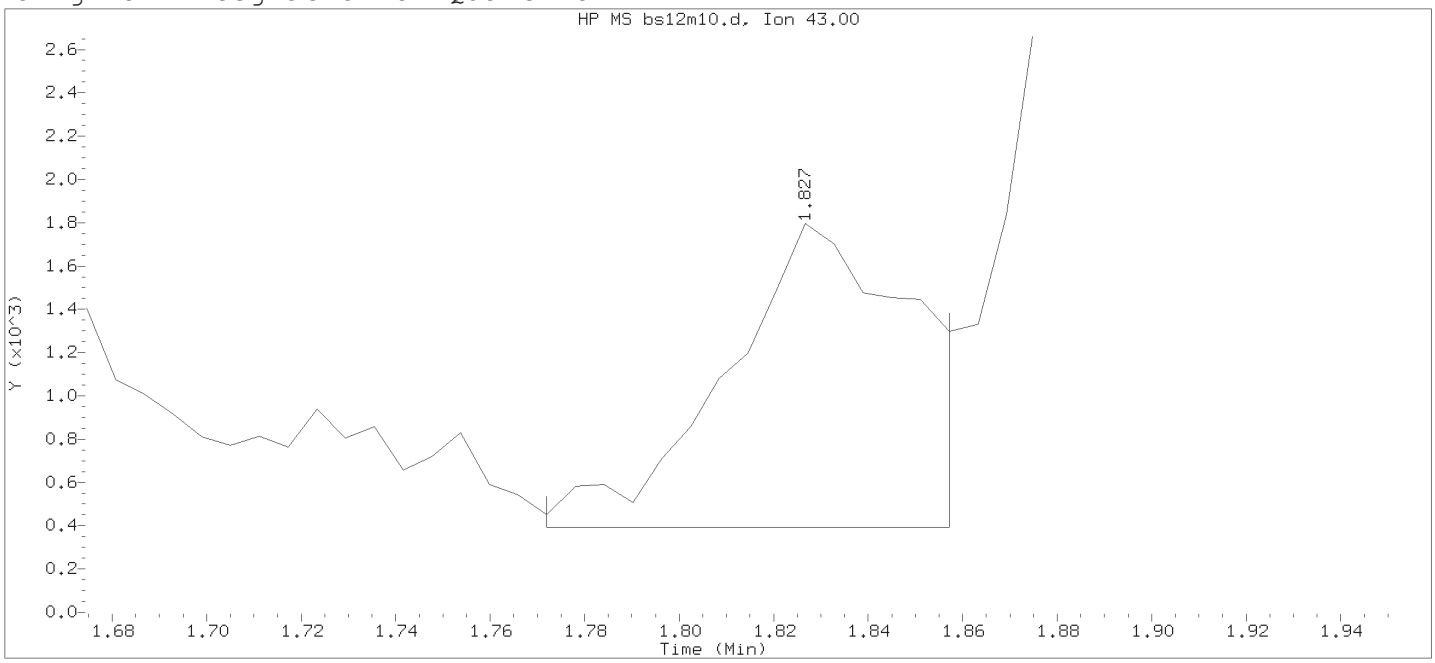
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

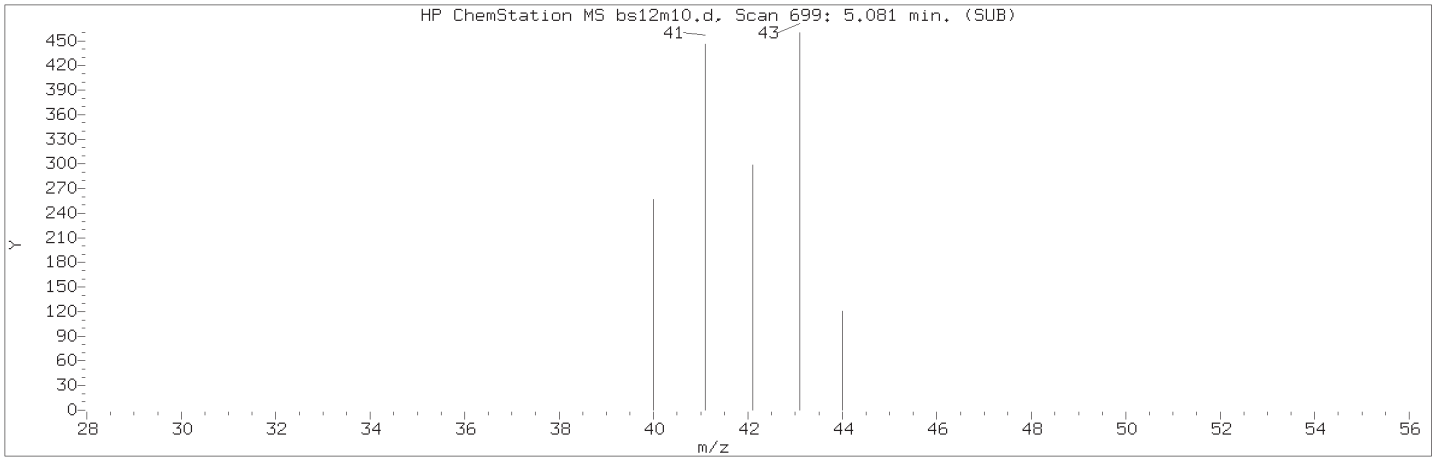
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

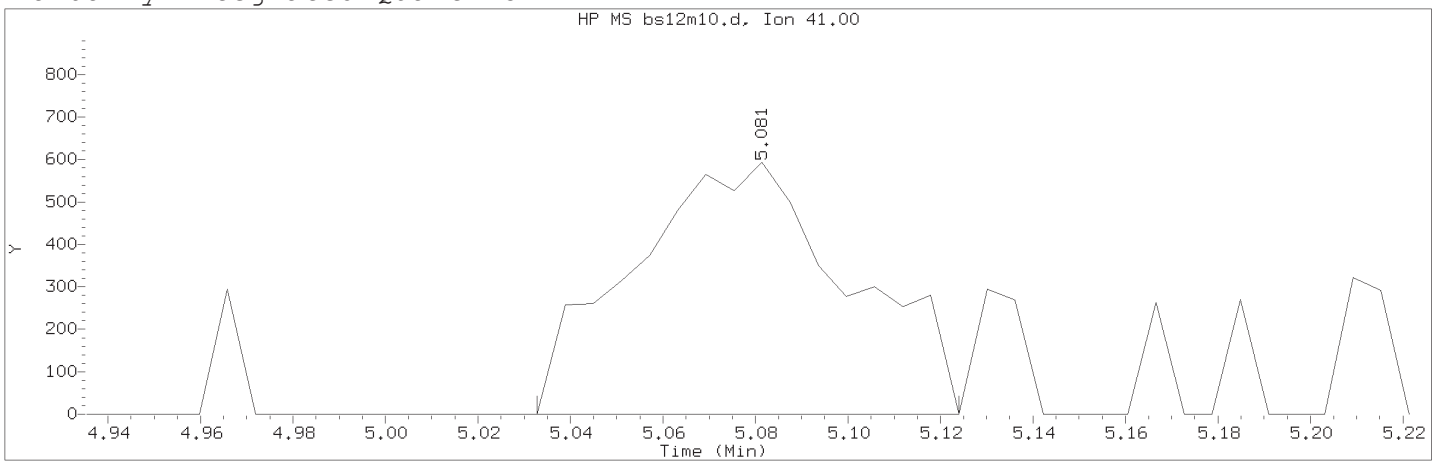
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 43.00
Area : 3741
On-column Amount (ng) : 1.2673
Integration start scan : 154 Integration stop scan: 168
Y at integration start : 394 Y at integration end: 394

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

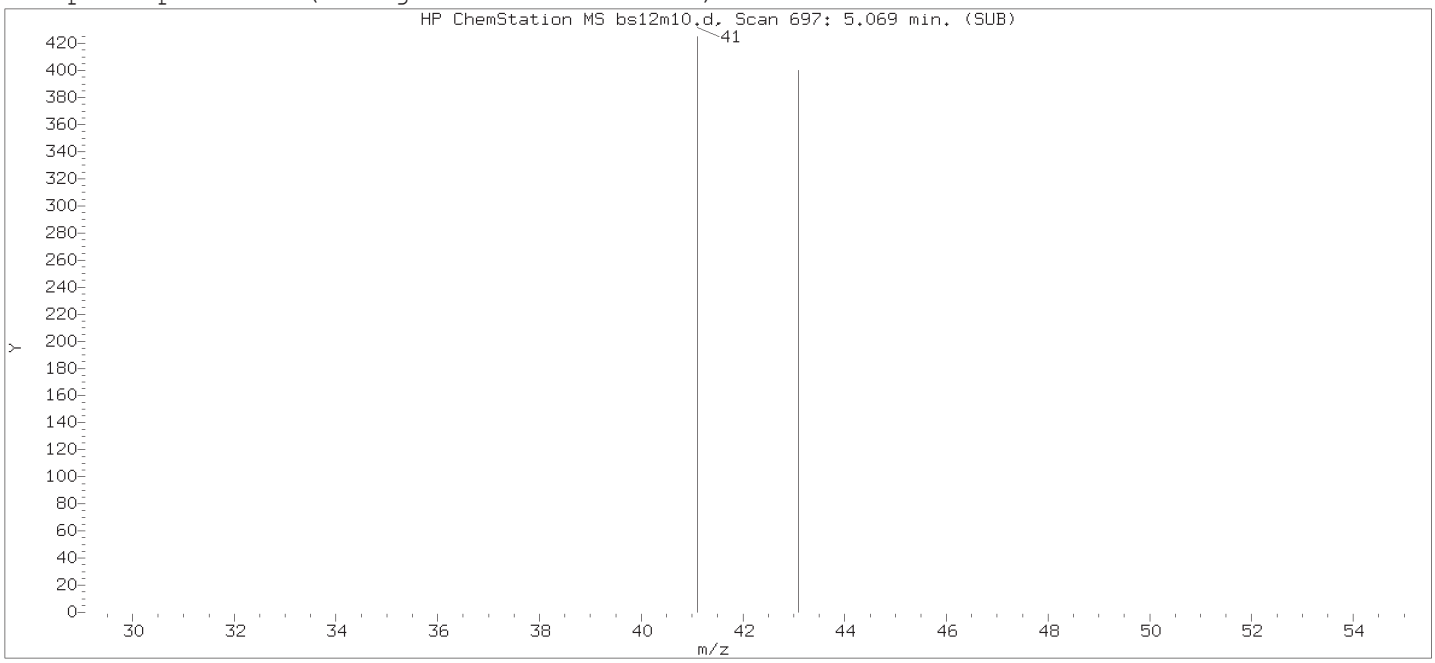
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 699
Retention Time (minutes): 5.081
Quant Ion : 41.00
Area (flag) : 1945M
On-Column Amount (ng) : 1.5728
Integration start scan : 690 Integration stop scan: 705
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

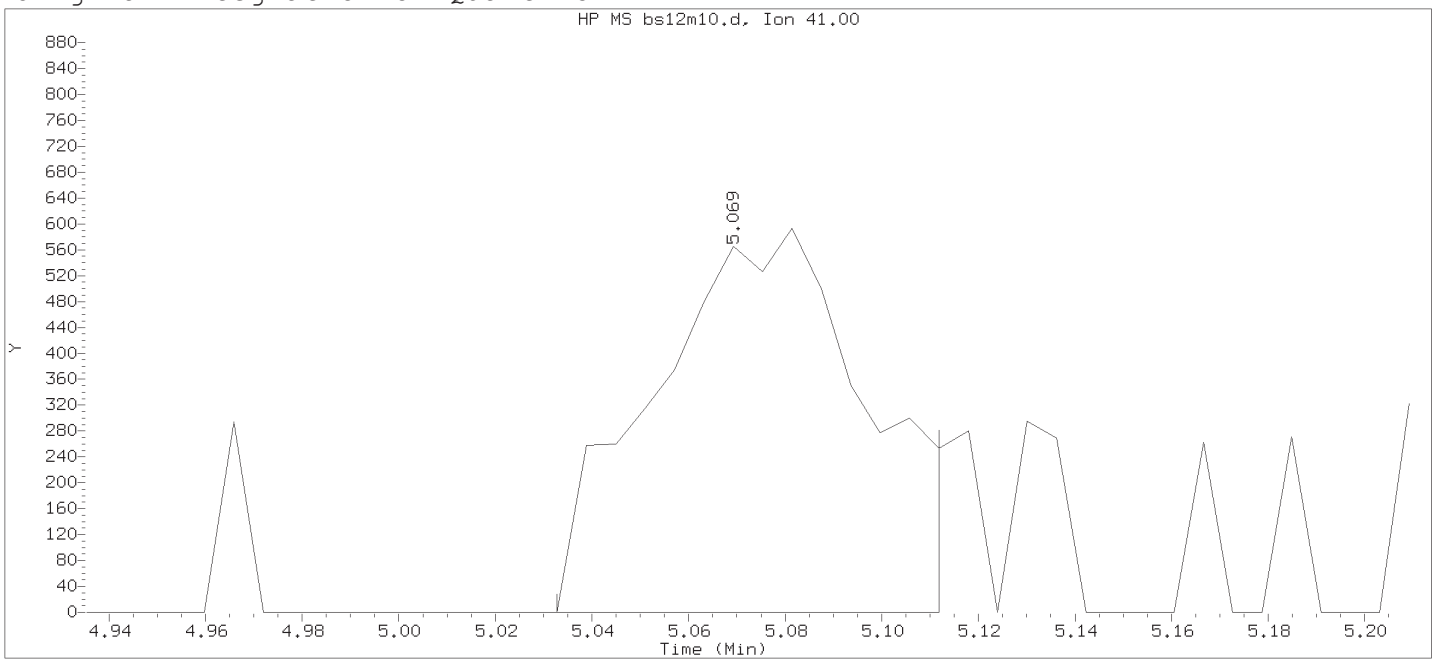
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

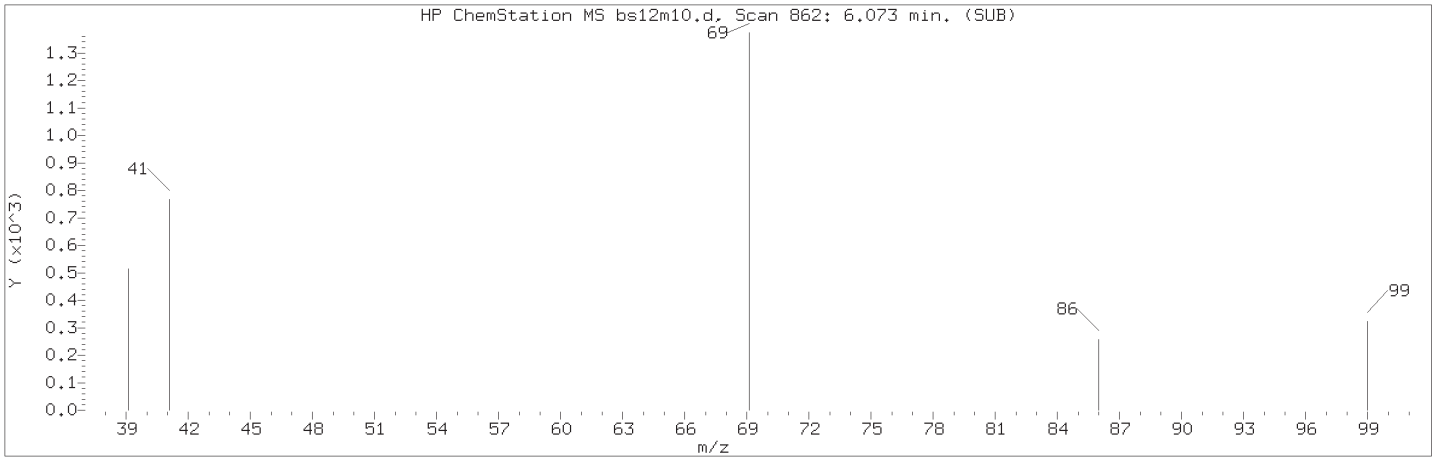
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

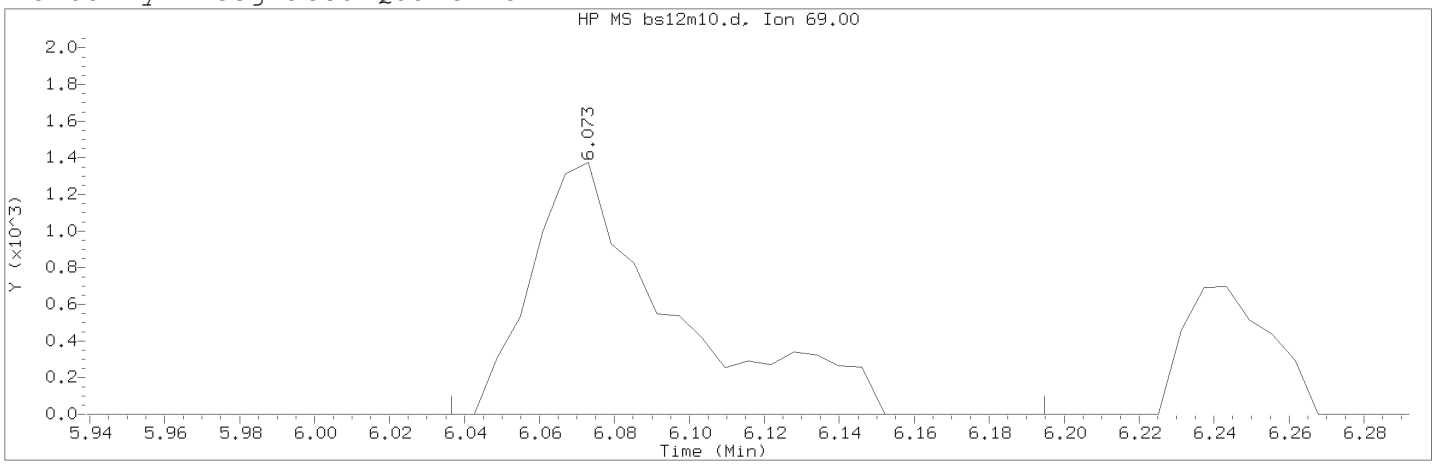
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 697
Retention Time (minutes): 5.069
Quant Ion : 41.00
Area : 1797
On-column Amount (ng) : 1.4535
Integration start scan : 690 Integration stop scan: 703
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

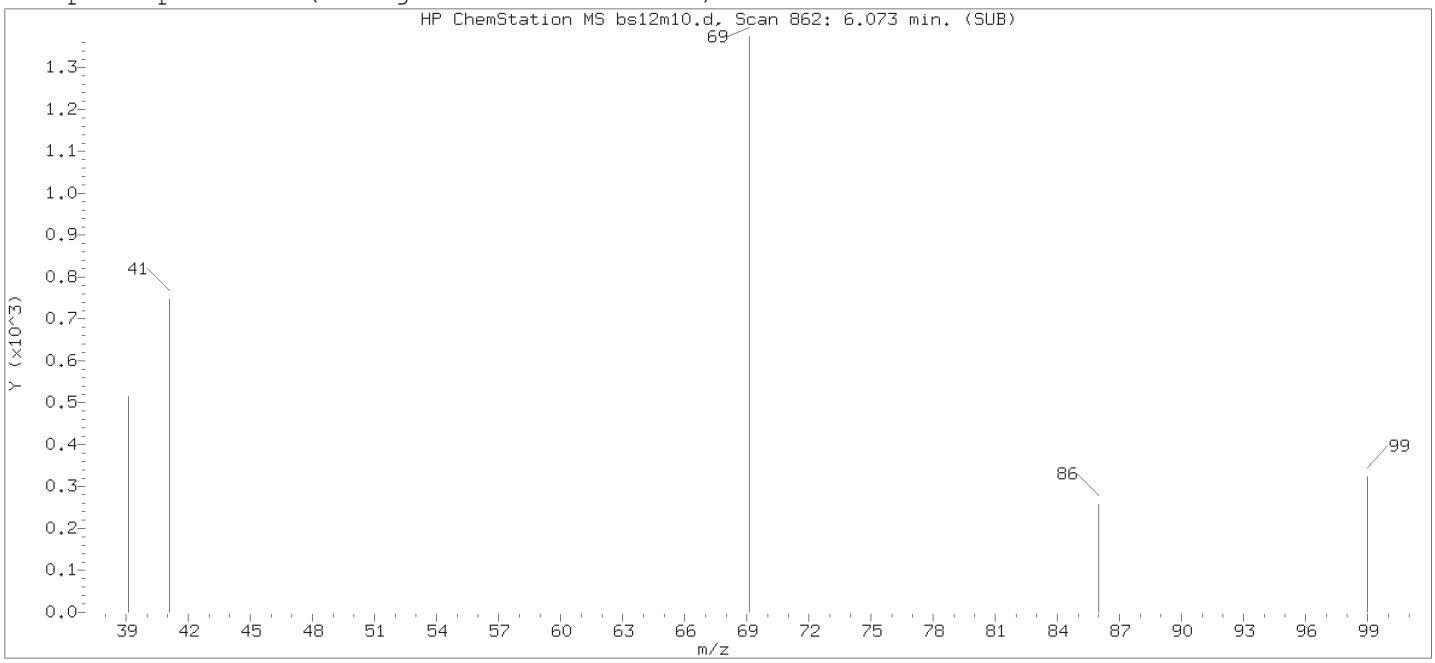
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 862
Retention Time (minutes): 6.073
Quant Ion : 69.00
Area (flag) : 3571M
On-Column Amount (ng) : 0.4586
Integration start scan : 855 Integration stop scan: 881
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

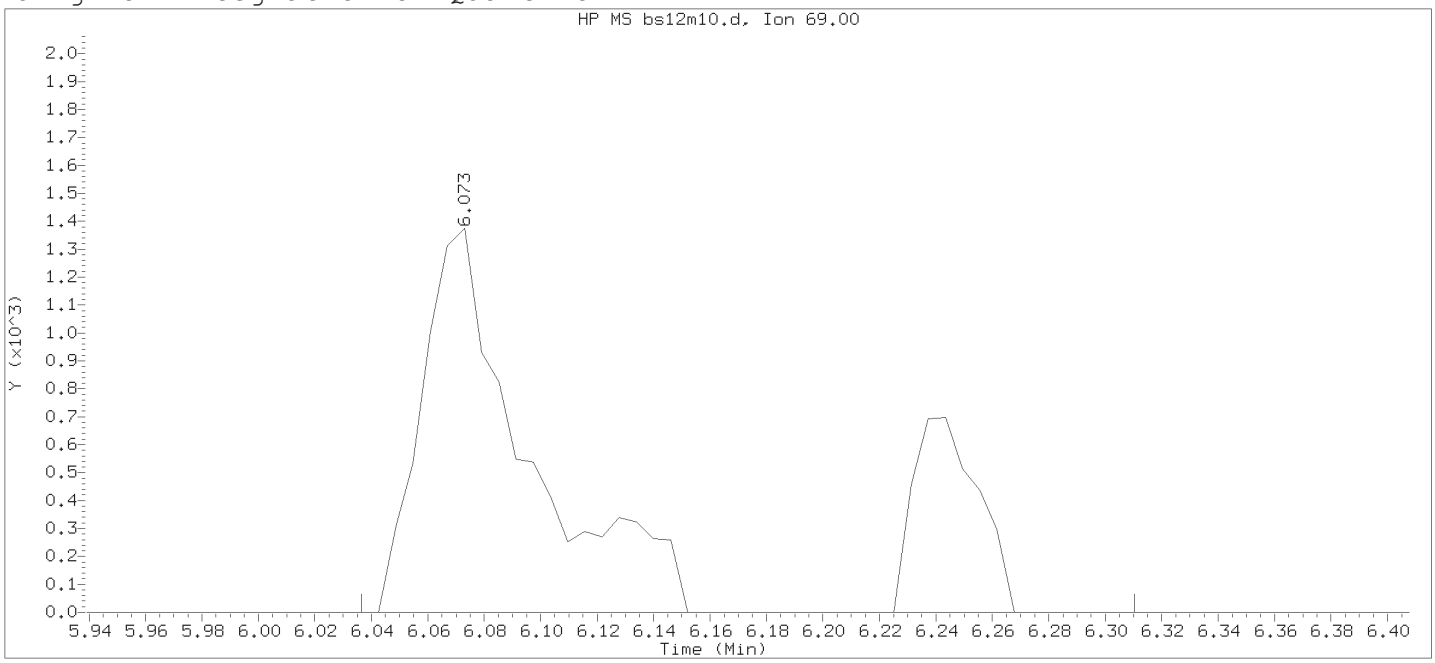
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

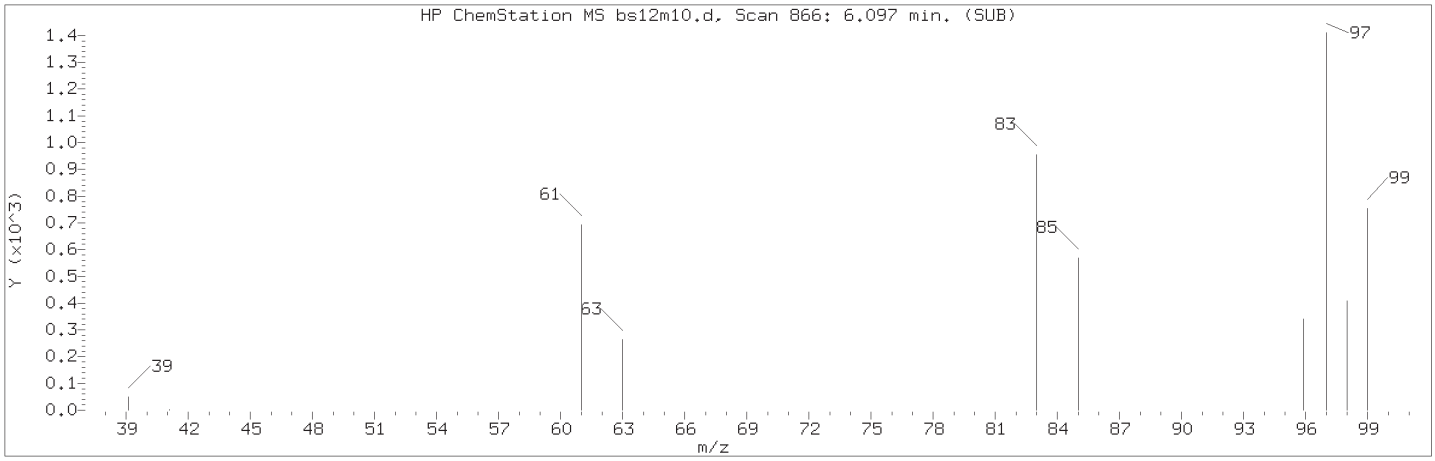
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

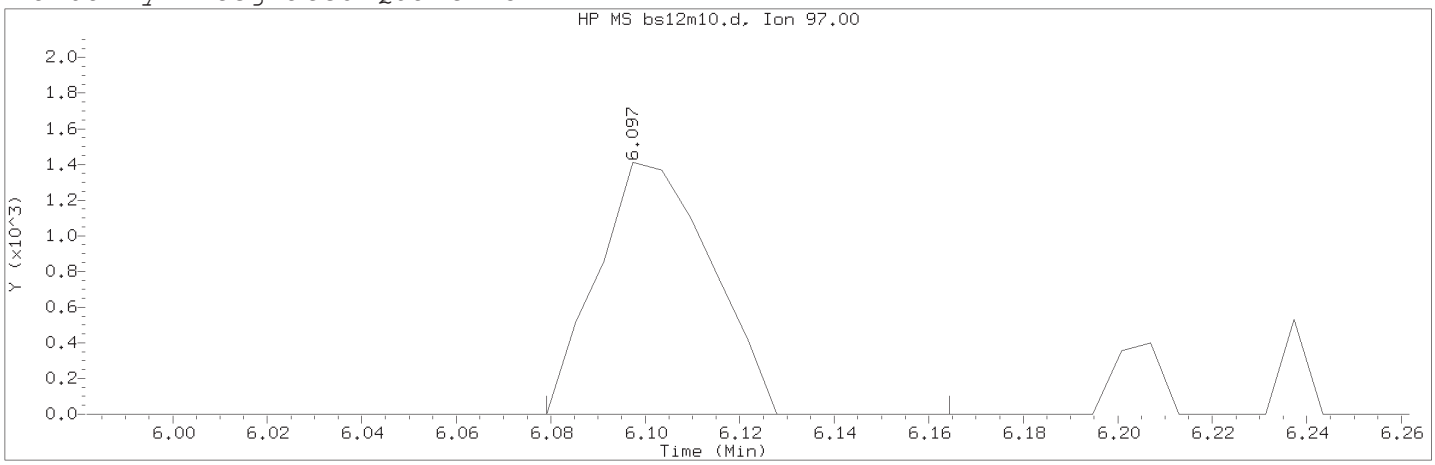
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 862
Retention Time (minutes): 6.073
Quant Ion : 69.00
Area : 4699
On-column Amount (ng) : 0.6035
Integration start scan : 855 Integration stop scan: 900
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

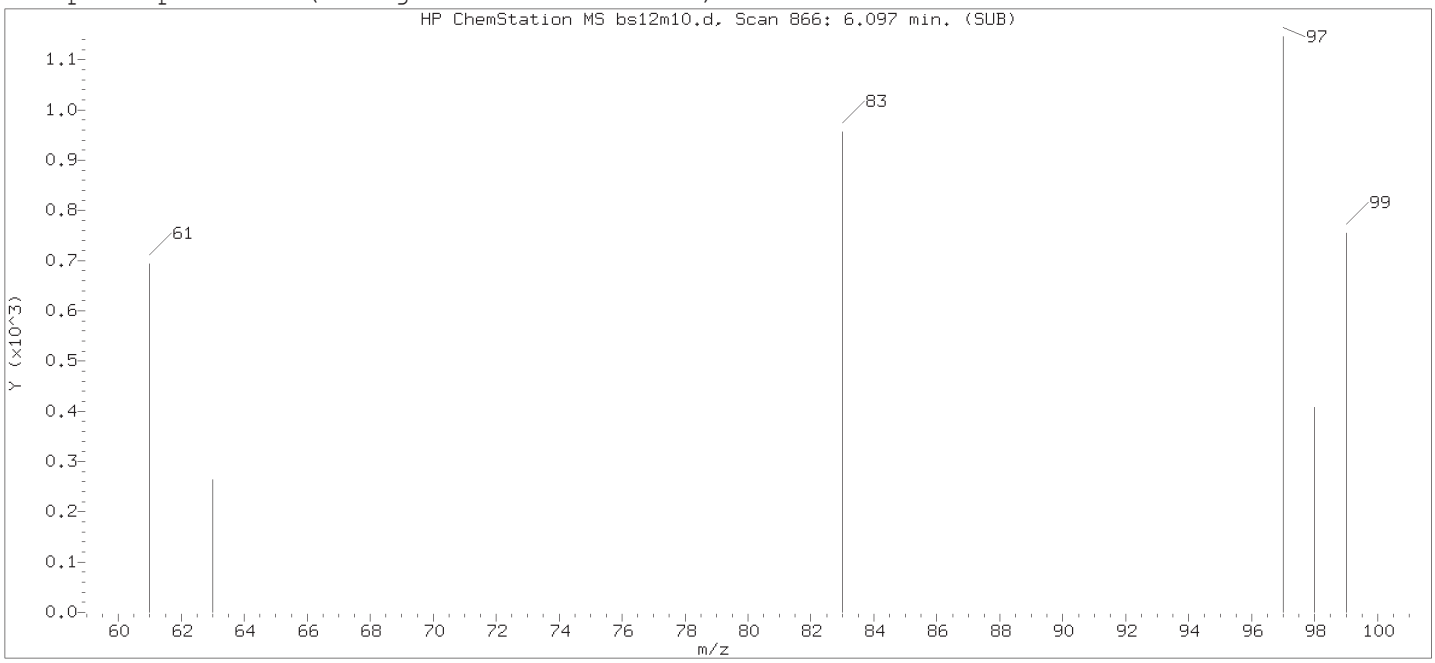
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 866
Retention Time (minutes): 6.097
Quant Ion : 97.00
Area (flag) : 2345M
On-Column Amount (ng) : 0.4315
Integration start scan : 862 Integration stop scan: 876
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

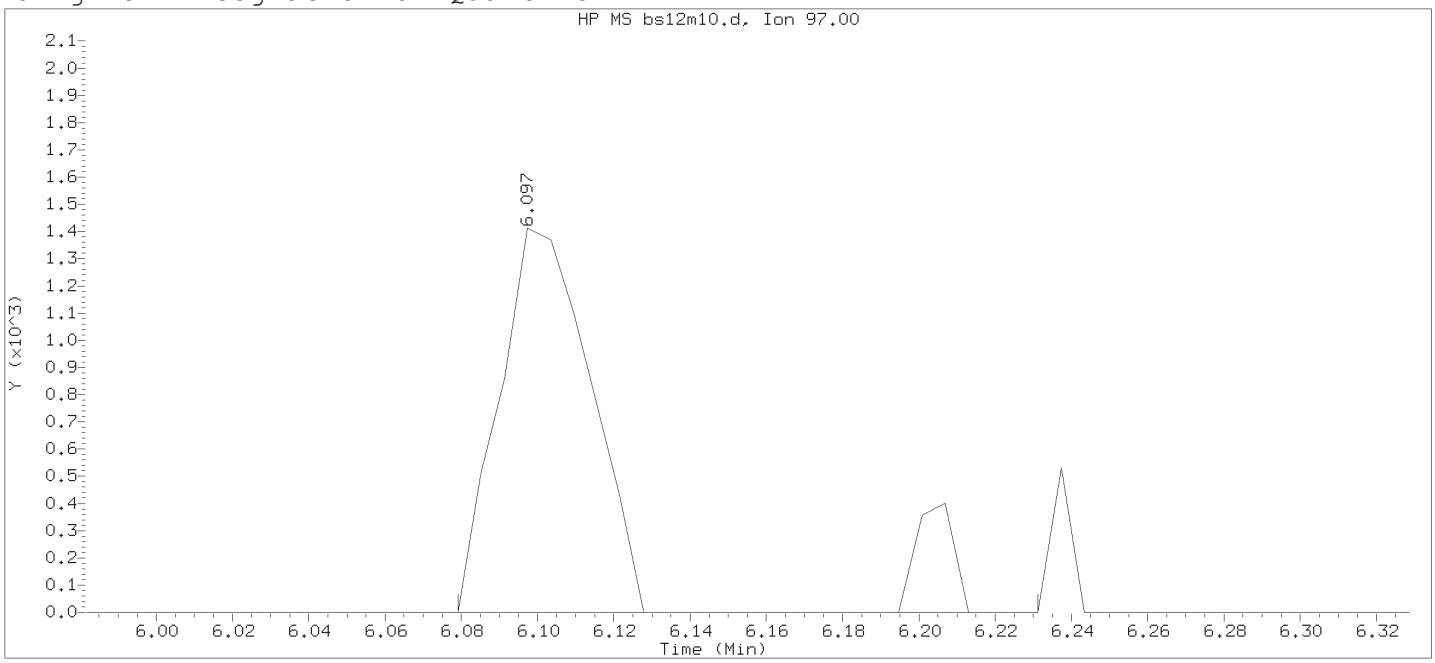
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

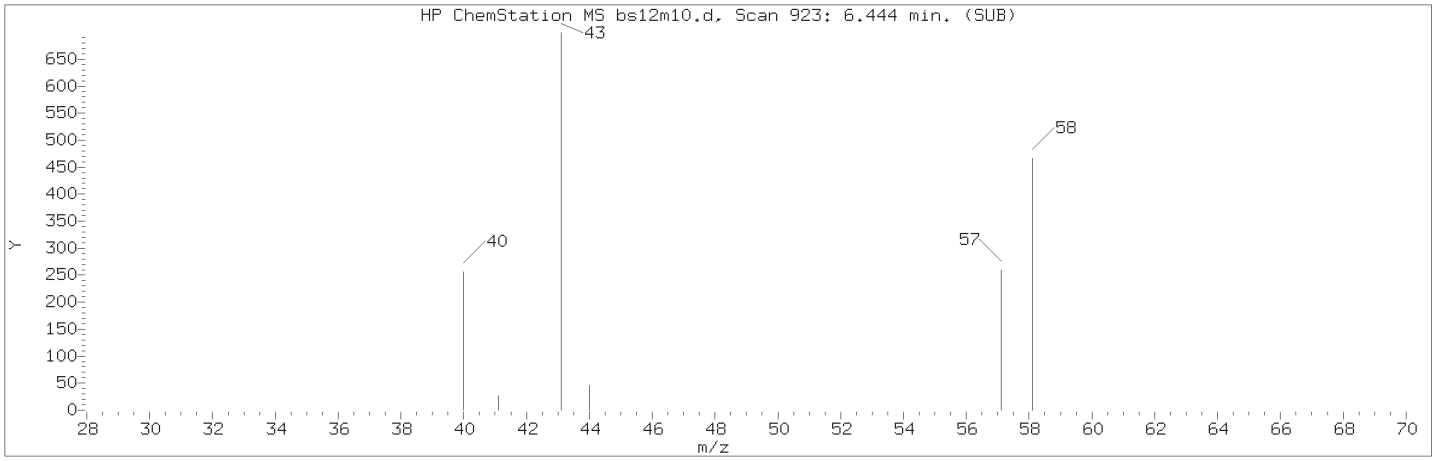
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

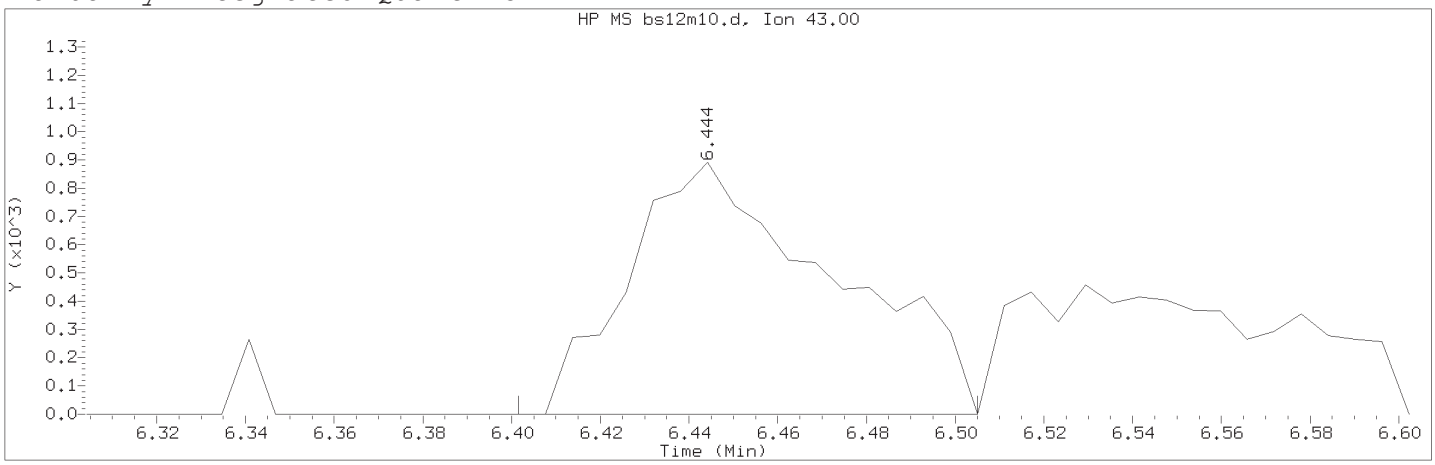
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 866
Retention Time (minutes): 6.097
Quant Ion : 97.00
Area : 2622
On-column Amount (ng) : 0.4785
Integration start scan : 862 Integration stop scan: 887
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

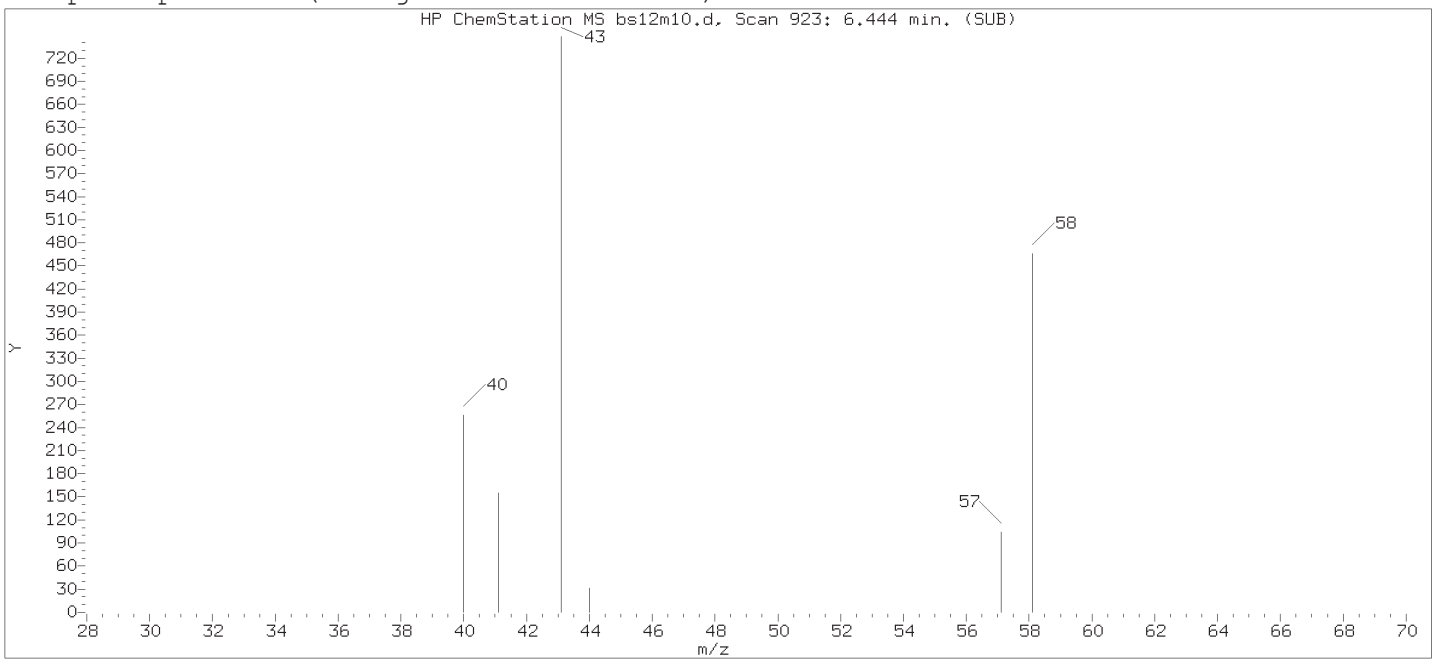
Compound Number : 101
Compound Name : 2-Hexanone
Scan Number : 923
Retention Time (minutes): 6.444
Quant Ion : 43.00
Area (flag) : 2875M
On-Column Amount (ng) : 1.3712
Integration start scan : 915 Integration stop scan: 932
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

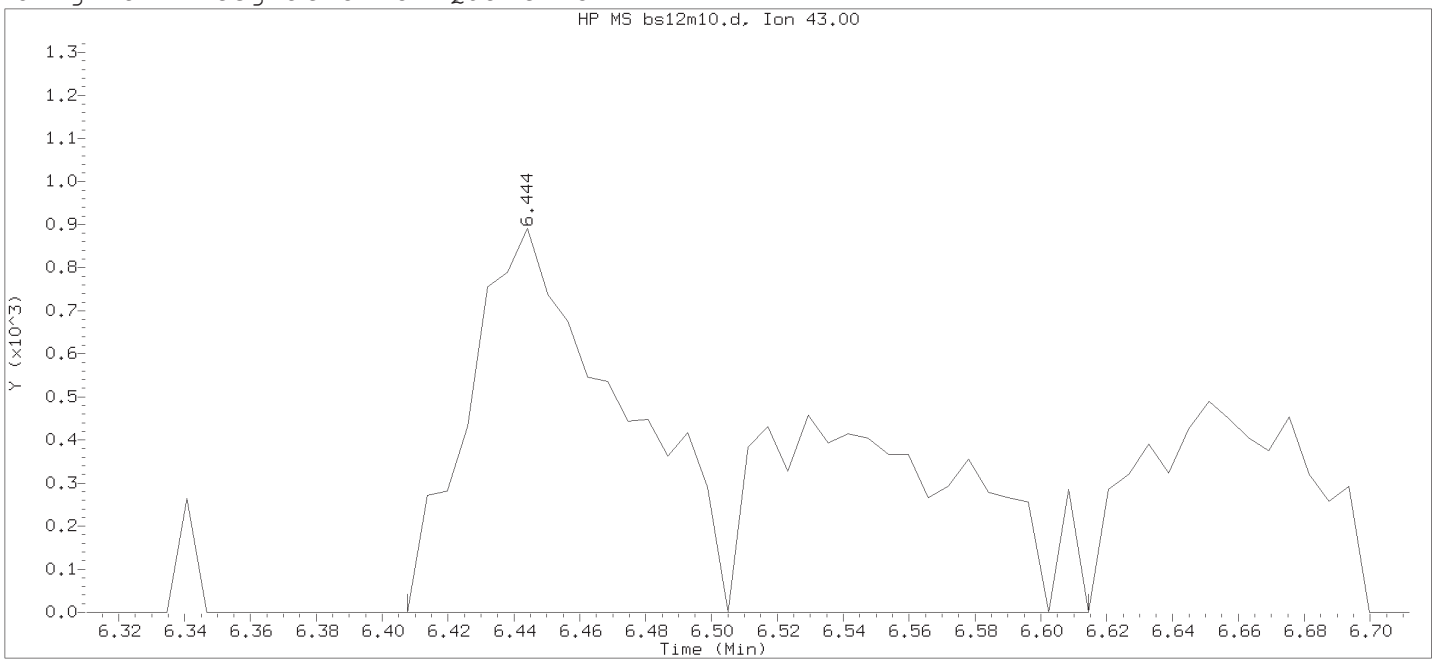
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

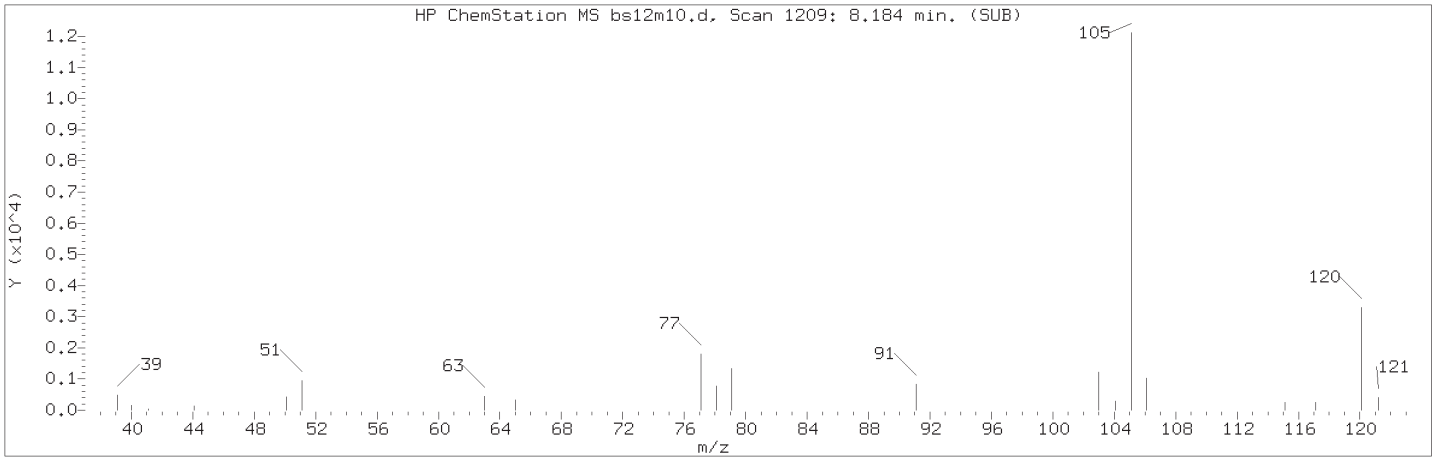
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

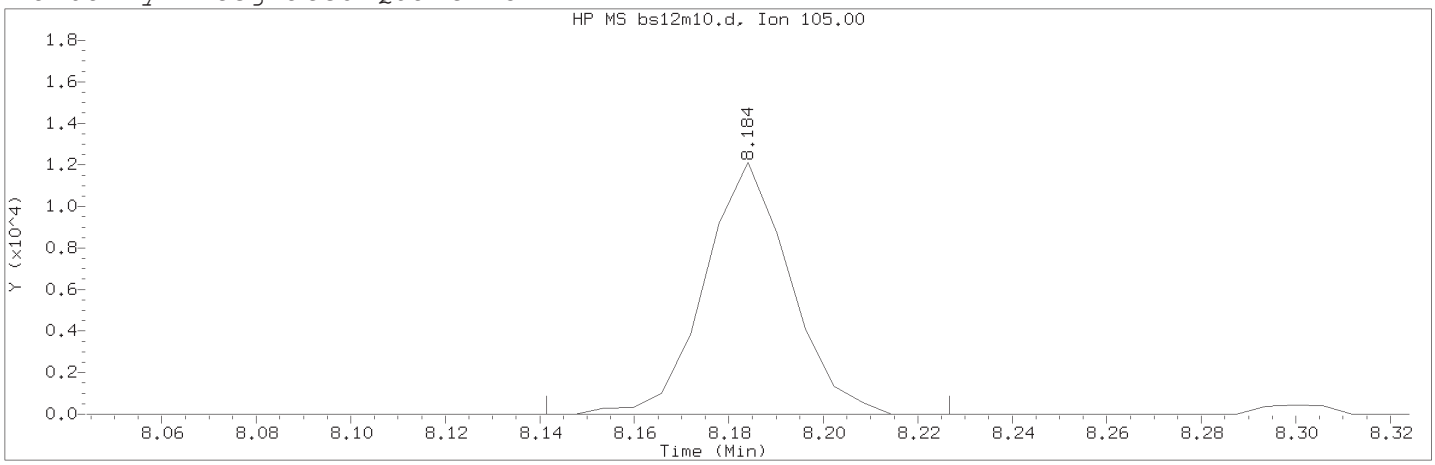
Compound Number	: 101		
Compound Name	: 2-Hexanone		
Scan Number	: 923		
Retention Time (minutes)	: 6.444		
Quant Ion	: 43.00		
Area	: 4900		
On-column Amount (ng)	: 1.2340		
Integration start scan	: 916	Integration stop scan:	950
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

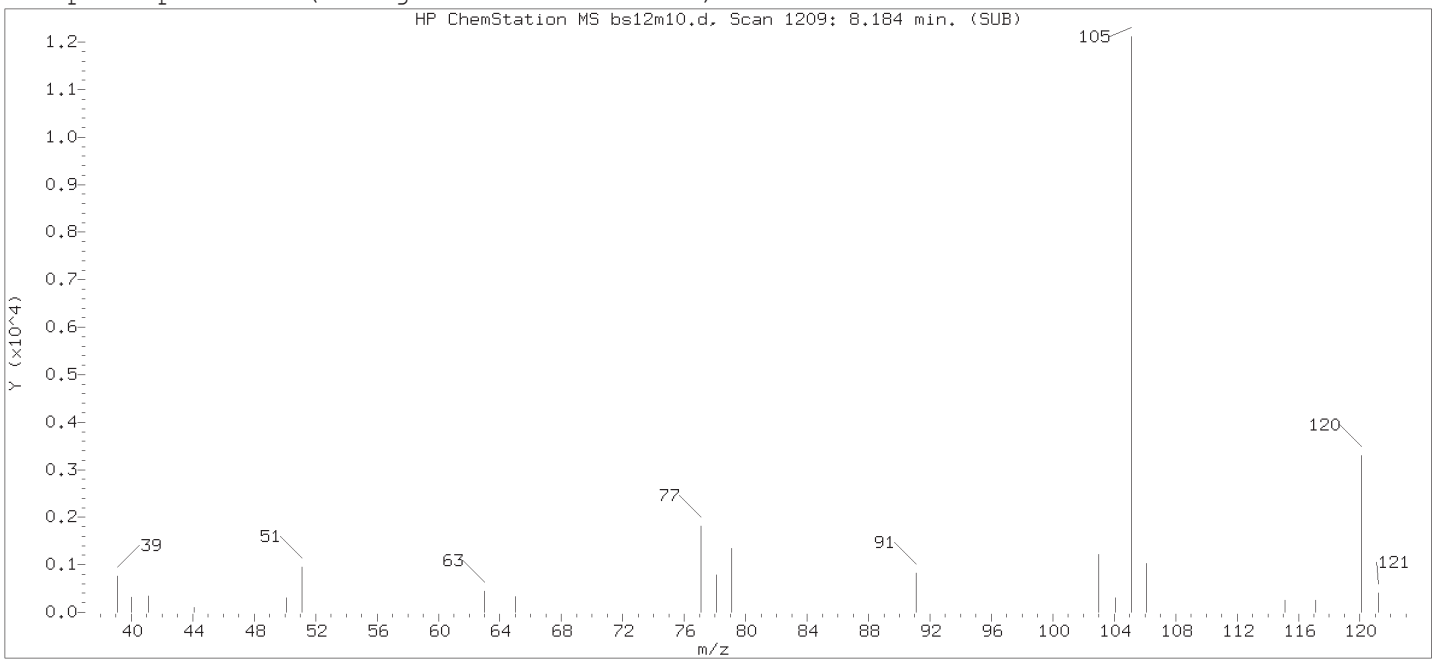
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 1209
Retention Time (minutes): 8.184
Quant Ion : 105.00
Area (flag) : 15165M
On-Column Amount (ng) : 0.4683
Integration start scan : 1201 Integration stop scan: 1215
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

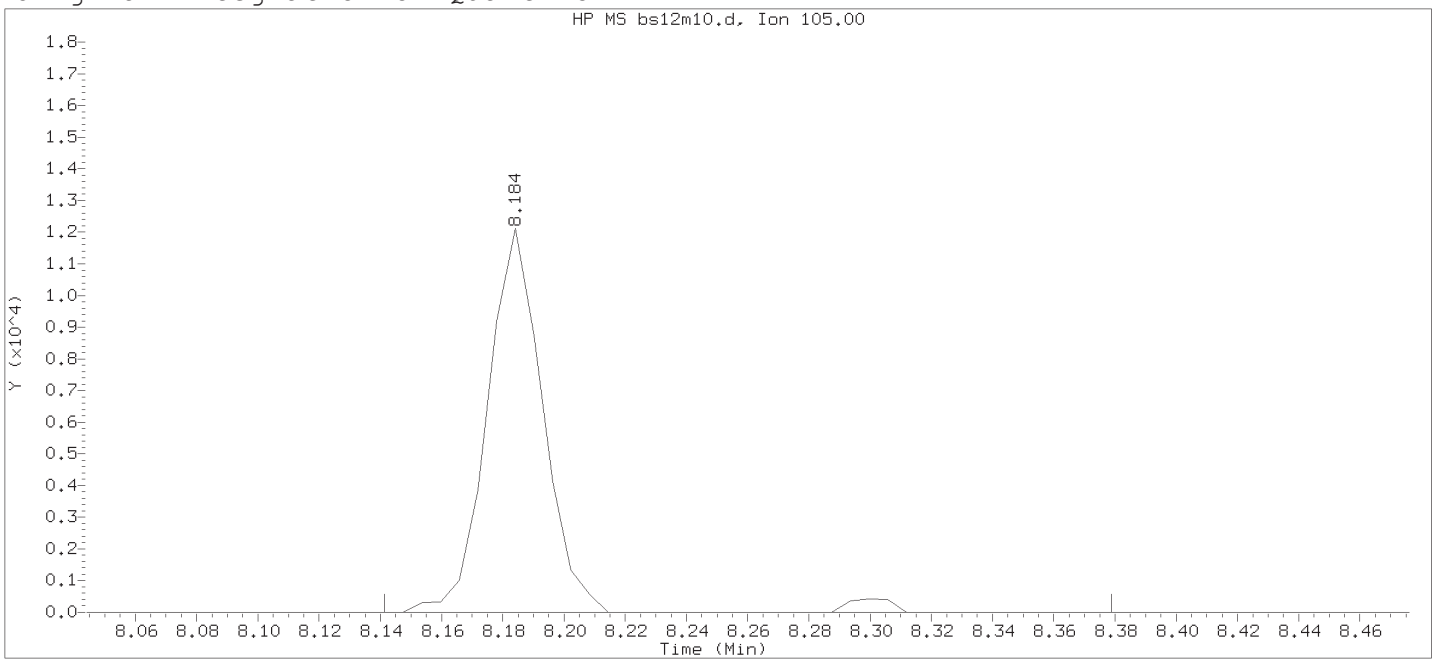
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

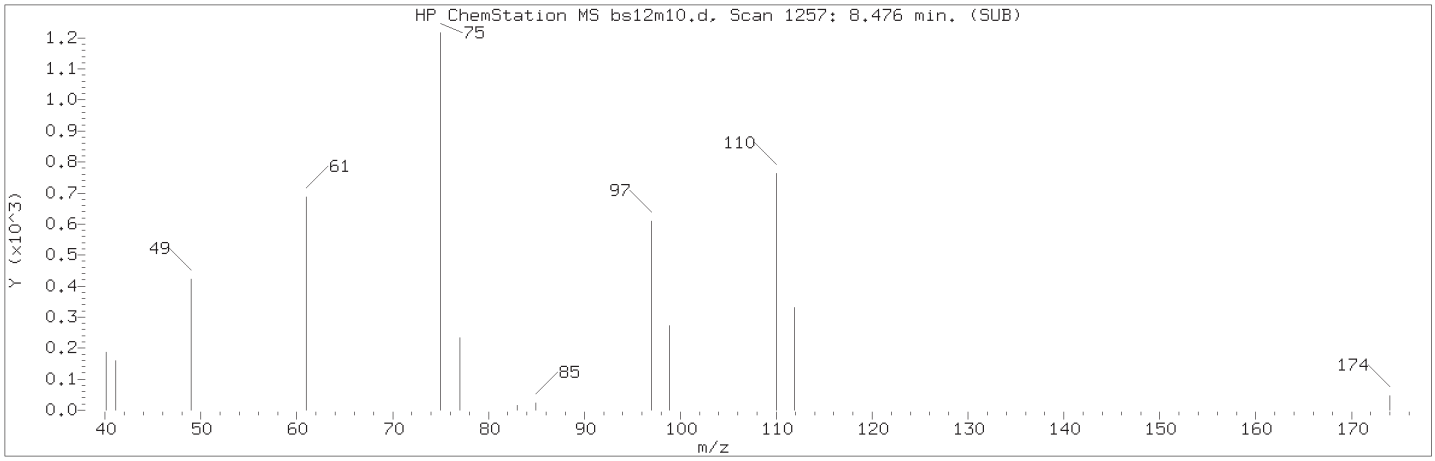
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

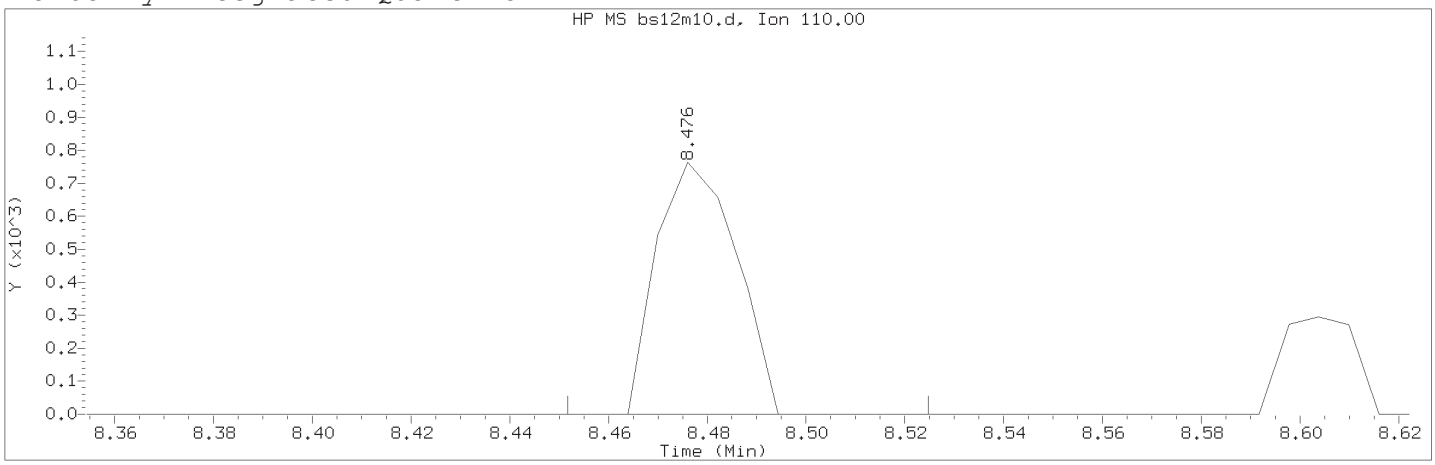
Compound Number : 115
Compound Name : Isopropylbenzene
Scan Number : 1209
Retention Time (minutes): 8.184
Quant Ion : 105.00
Area : 15600
On-column Amount (ng) : 0.4817
Integration start scan : 1201 Integration stop scan: 1240
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

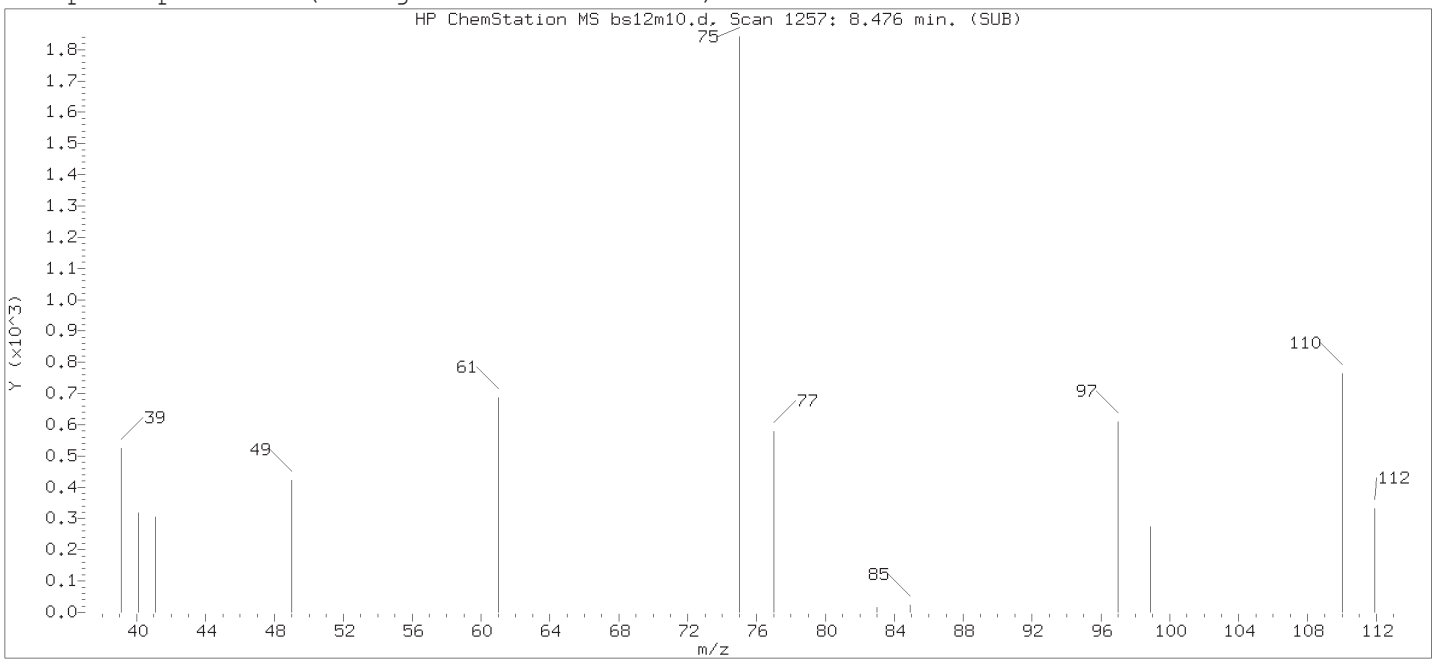
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area (flag) : 854M
On-Column Amount (ng) : 0.4265
Integration start scan : 1252 Integration stop scan: 1264
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

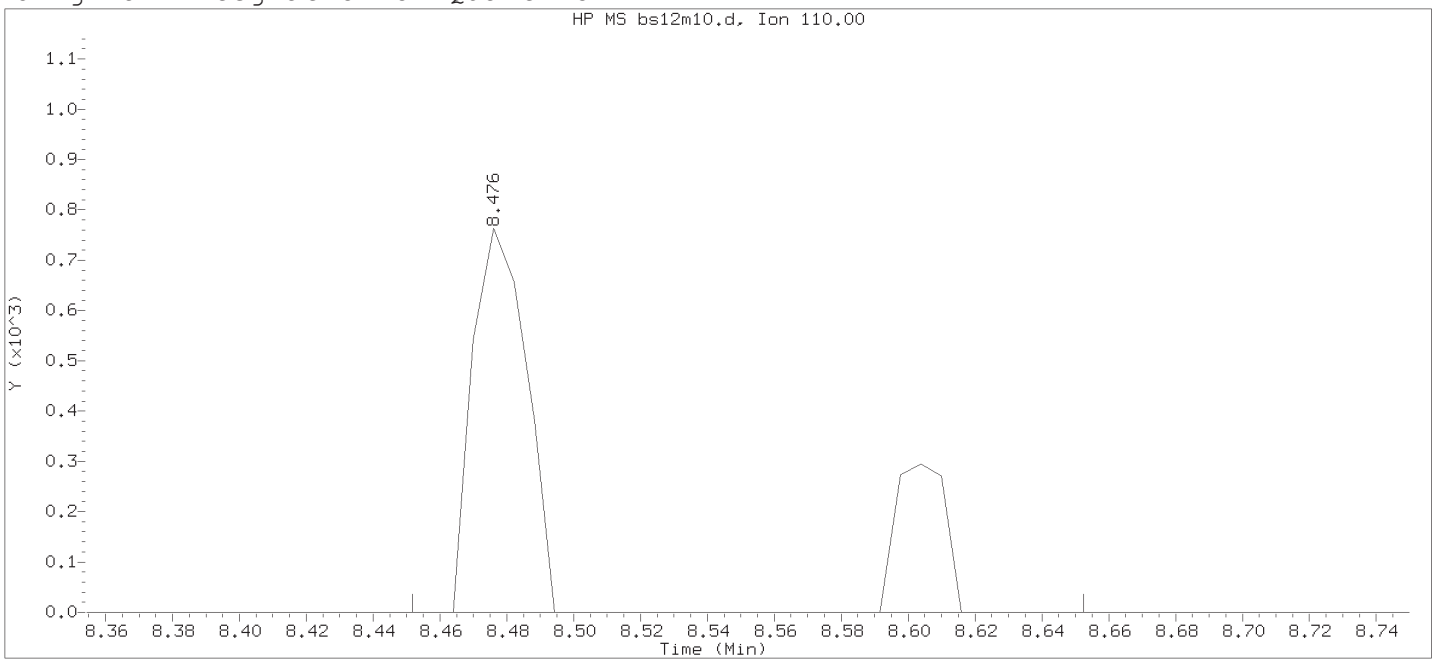
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

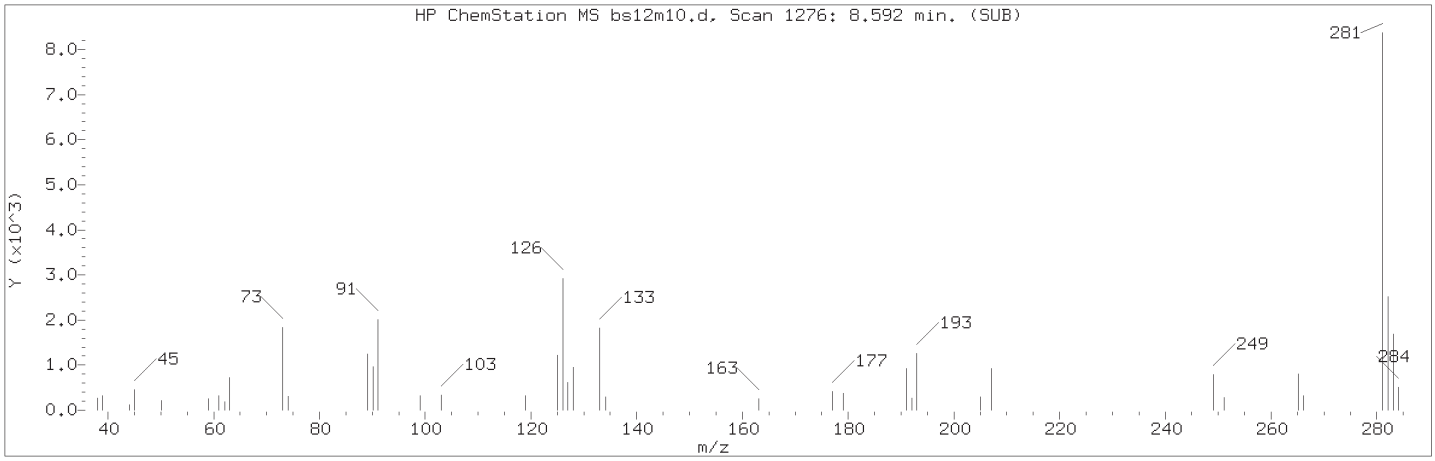
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

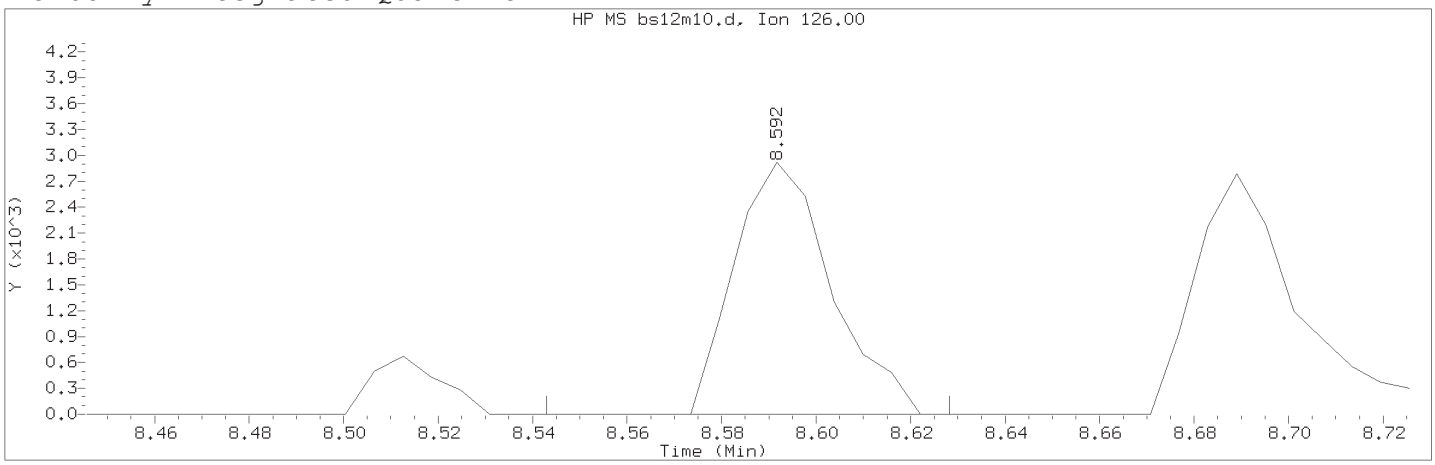
Compound Number : 123
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1257
Retention Time (minutes): 8.476
Quant Ion : 110.00
Area : 1161
On-column Amount (ng) : 0.5684
Integration start scan : 1252 Integration stop scan: 1285
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

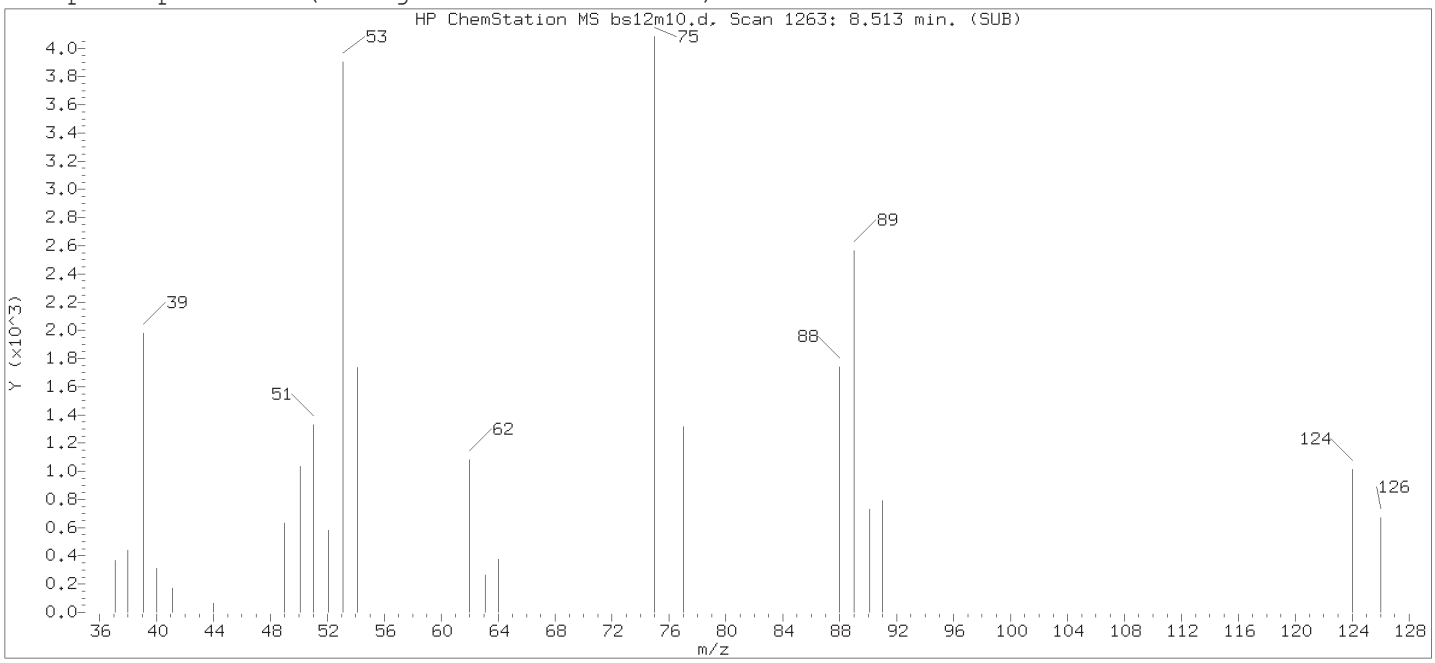
Compound Number : 126
Compound Name : 2-Chlorotoluene
Scan Number : 1276
Retention Time (minutes): 8.592
Quant Ion : 126.00
Area (flag) : 4149M
On-Column Amount (ng) : 0.5056
Integration start scan : 1267 Integration stop scan: 1281
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

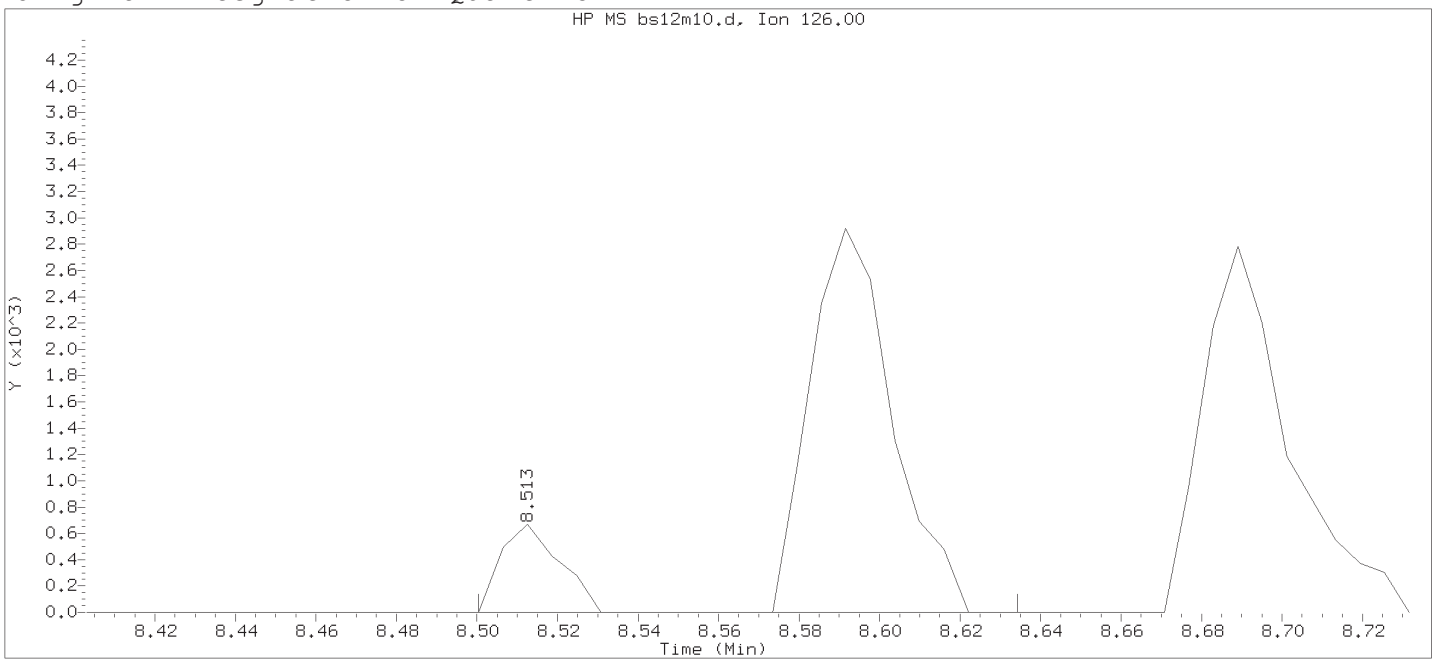
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

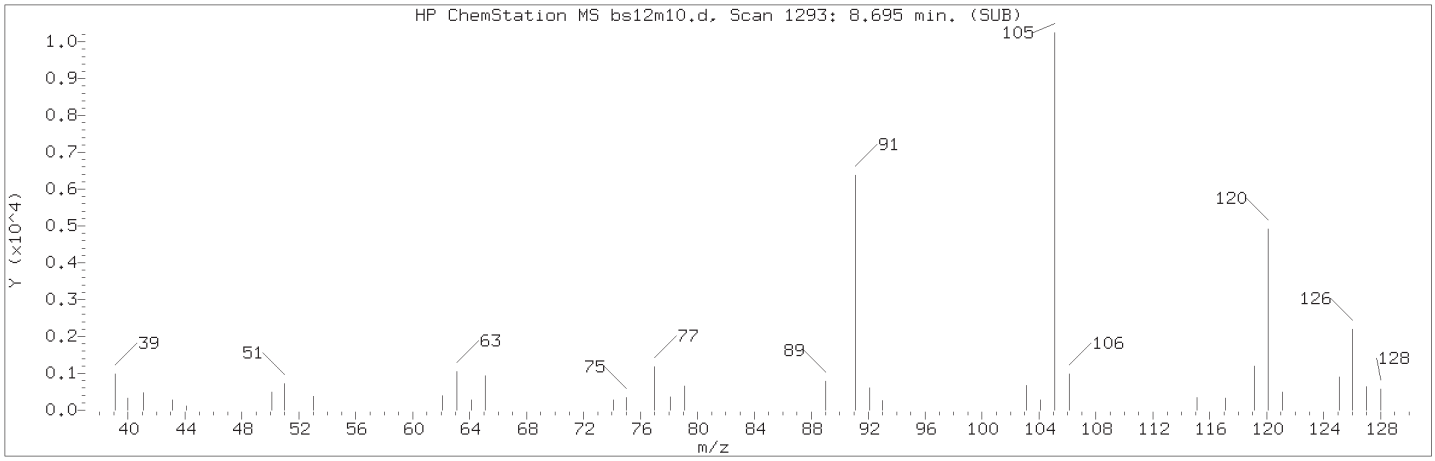
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

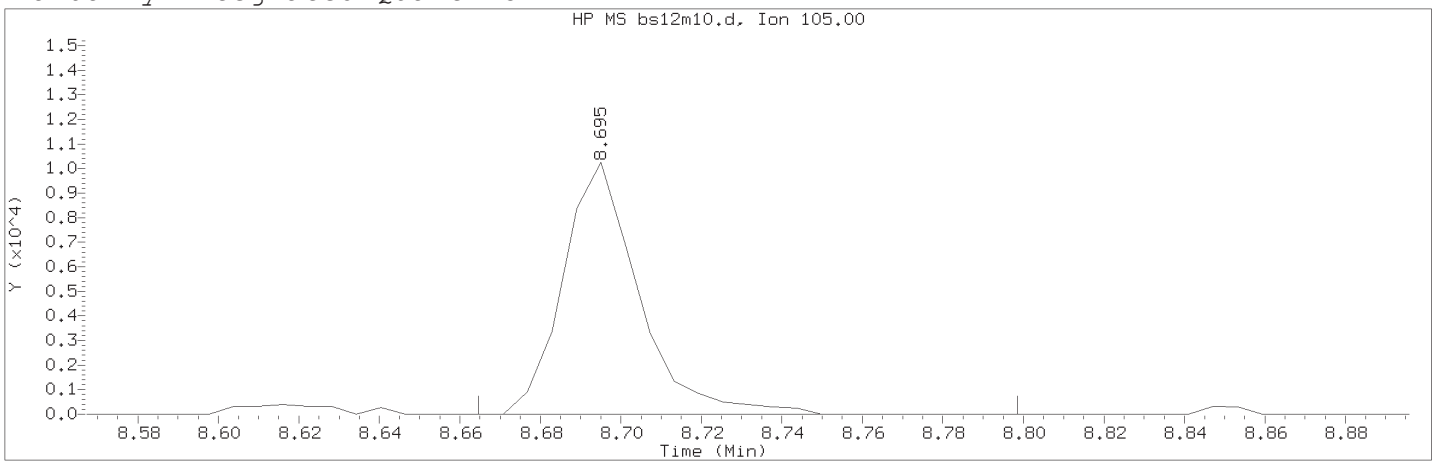
Compound Number : 126
Compound Name : 2-Chlorotoluene
Scan Number : 1263
Retention Time (minutes): 8.513
Quant Ion : 126.00
Area : 4833
On-column Amount (ng) : 0.5890
Integration start scan : 1260 Integration stop scan: 1282
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

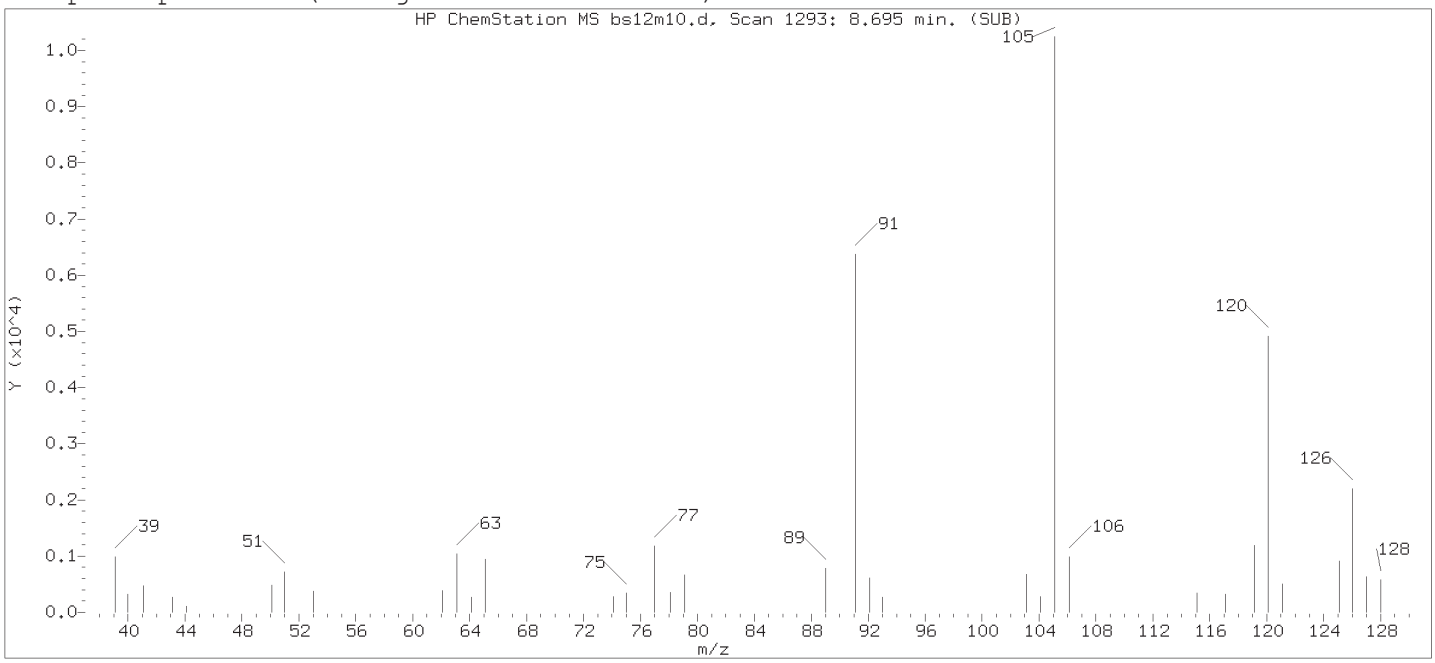
Compound Number : 129
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1293
Retention Time (minutes): 8.695
Quant Ion : 105.00
Area (flag) : 13363M
On-Column Amount (ng) : 0.4940
Integration start scan : 1287 Integration stop scan: 1309
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

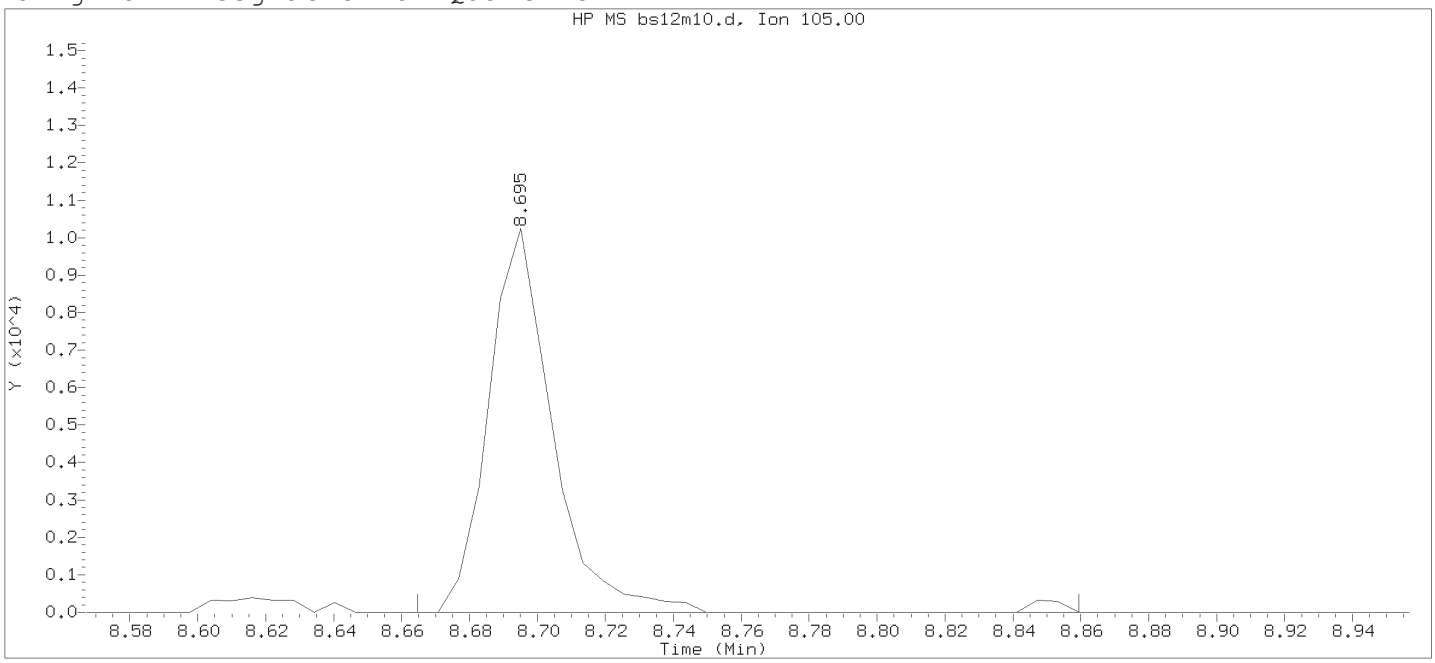
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

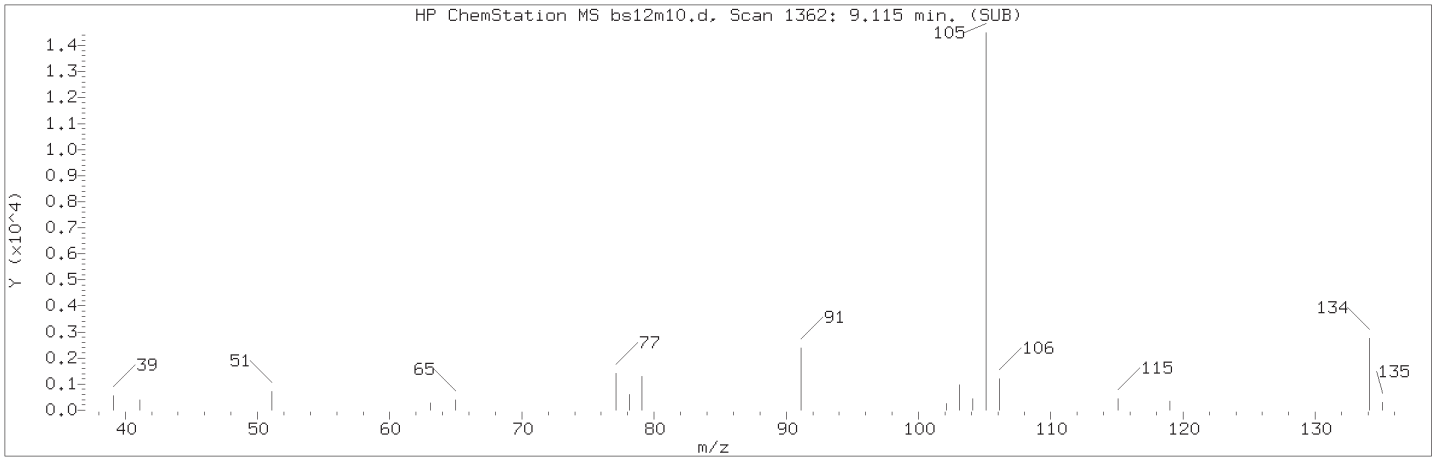
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

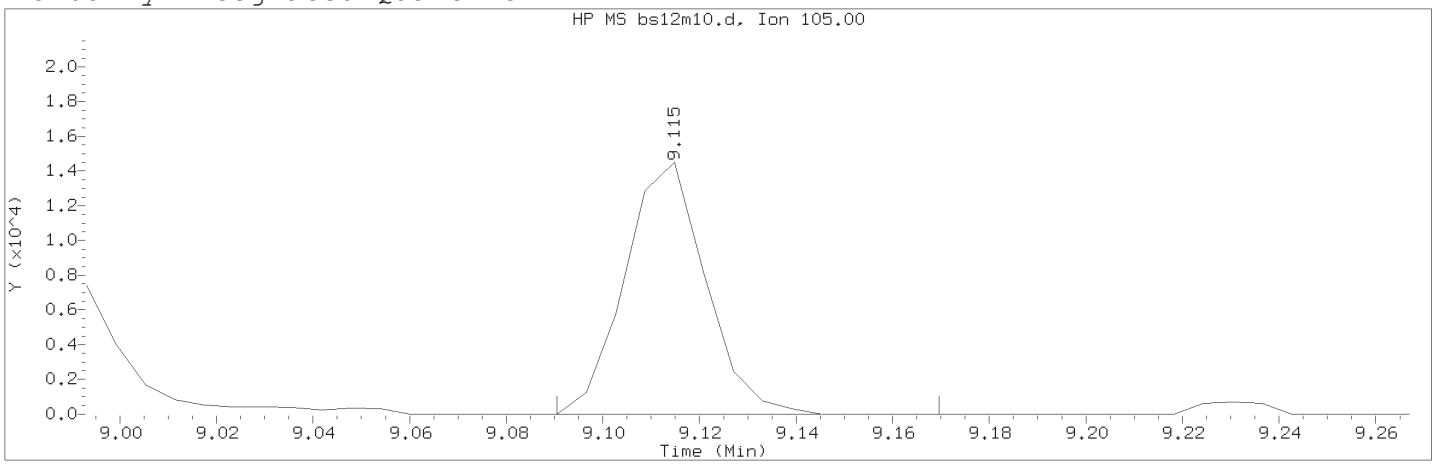
Compound Number : 129
Compound Name : 1,3,5-Trimethylbenzene
Scan Number : 1293
Retention Time (minutes): 8.695
Quant Ion : 105.00
Area : 13586
On-column Amount (ng) : 0.5022
Integration start scan : 1287 Integration stop scan: 1319
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

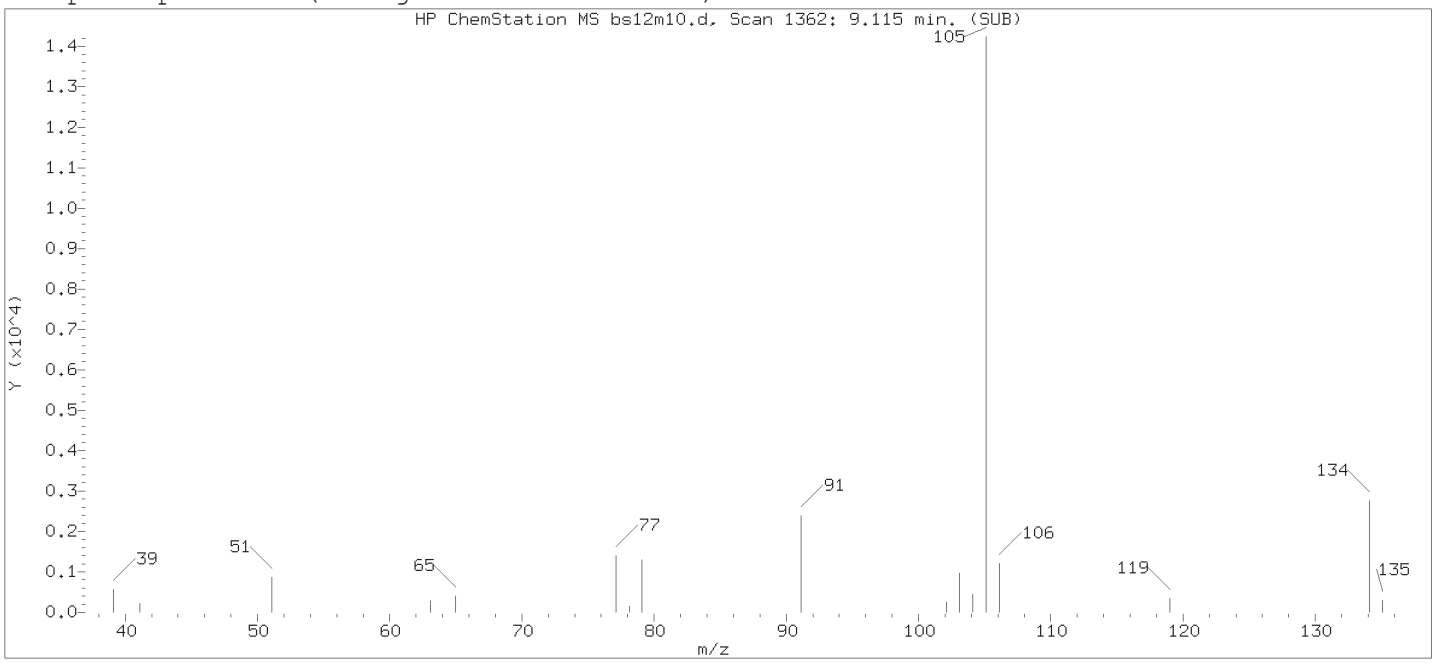
Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1362
Retention Time (minutes): 9.115
Quant Ion : 105.00
Area (flag) : 16802M
On-Column Amount (ng) : 0.4879
Integration start scan : 1357 Integration stop scan: 1370
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

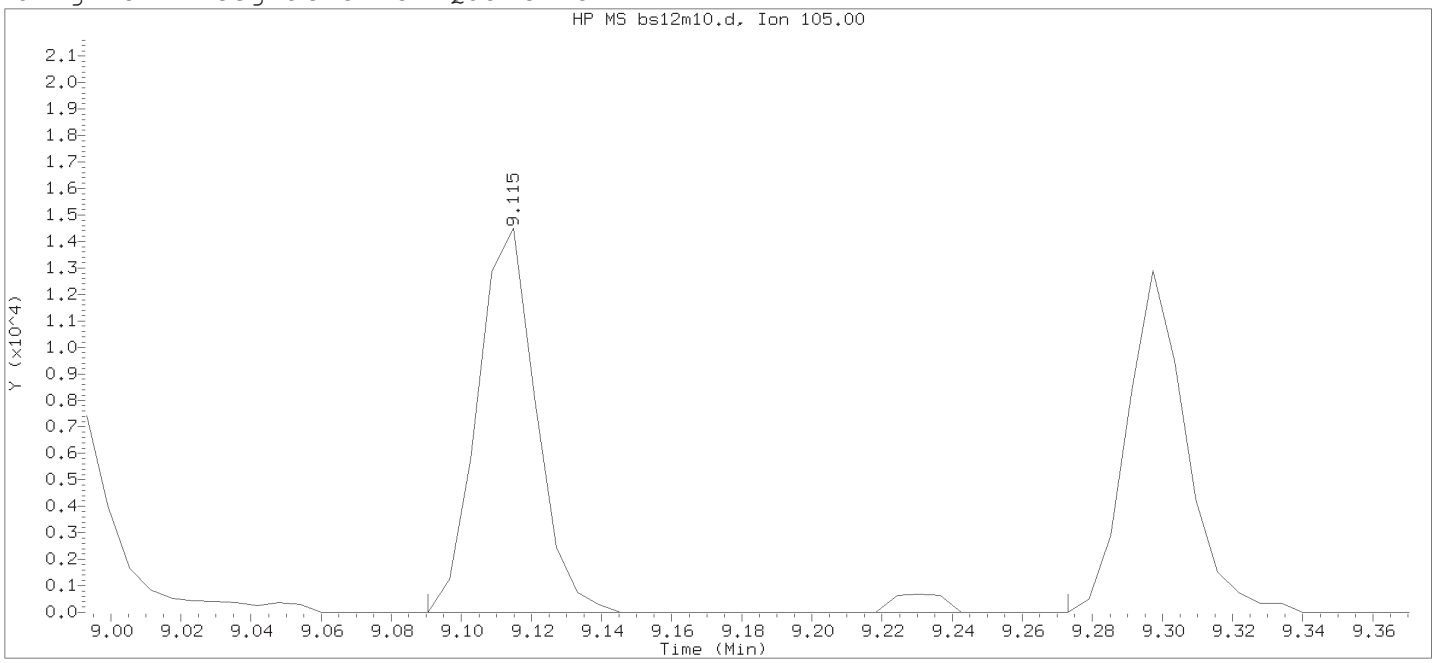
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

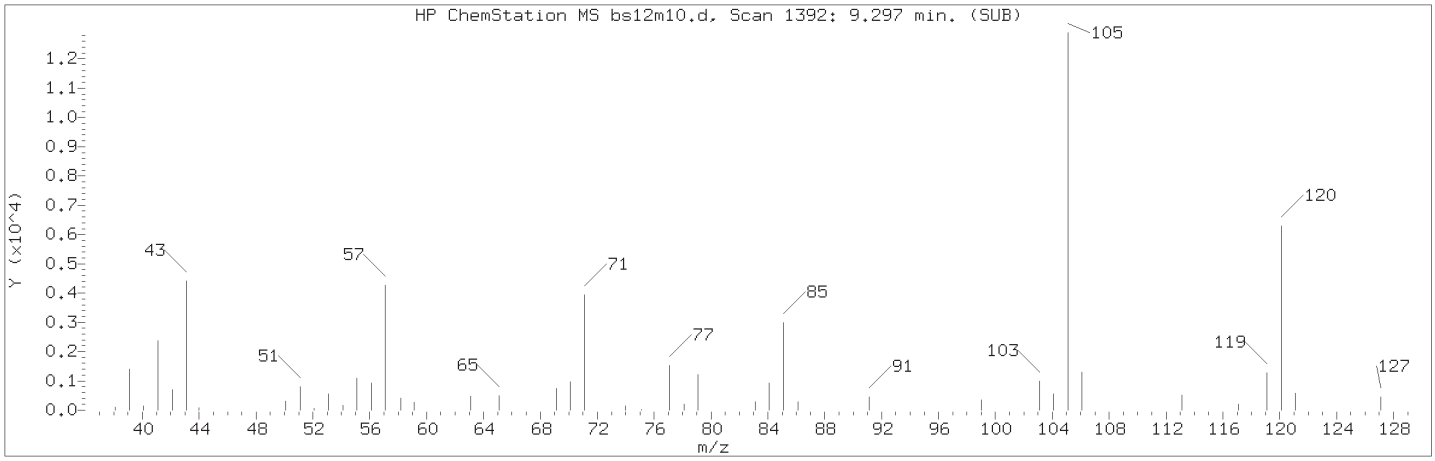
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

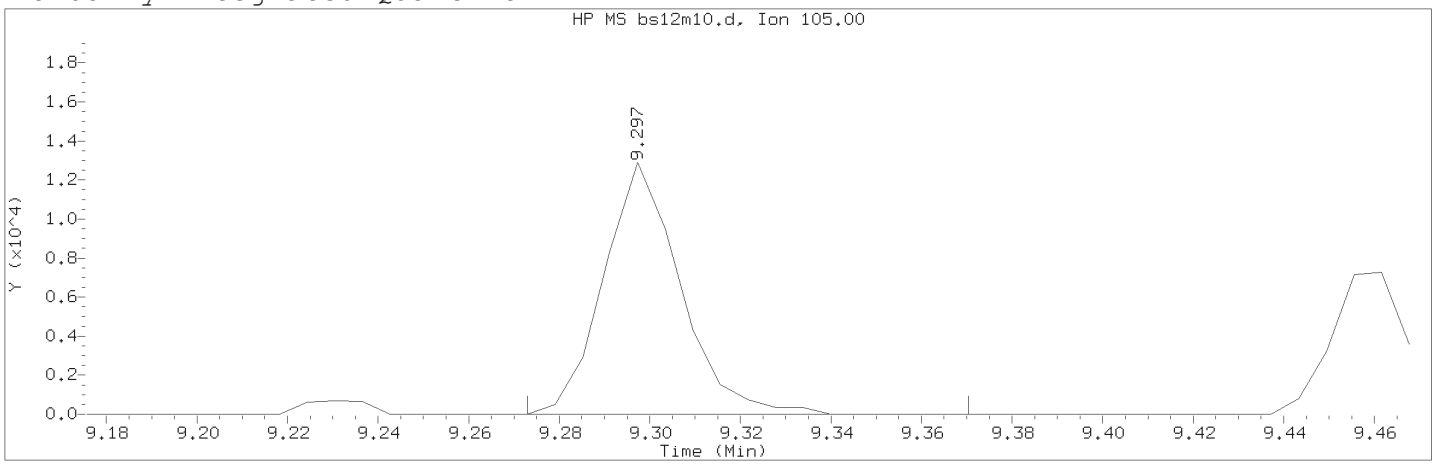
Compound Number : 136
Compound Name : sec-Butylbenzene
Scan Number : 1362
Retention Time (minutes): 9.115
Quant Ion : 105.00
Area : 17517
On-column Amount (ng) : 0.5032
Integration start scan : 1357 Integration stop scan: 1387
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

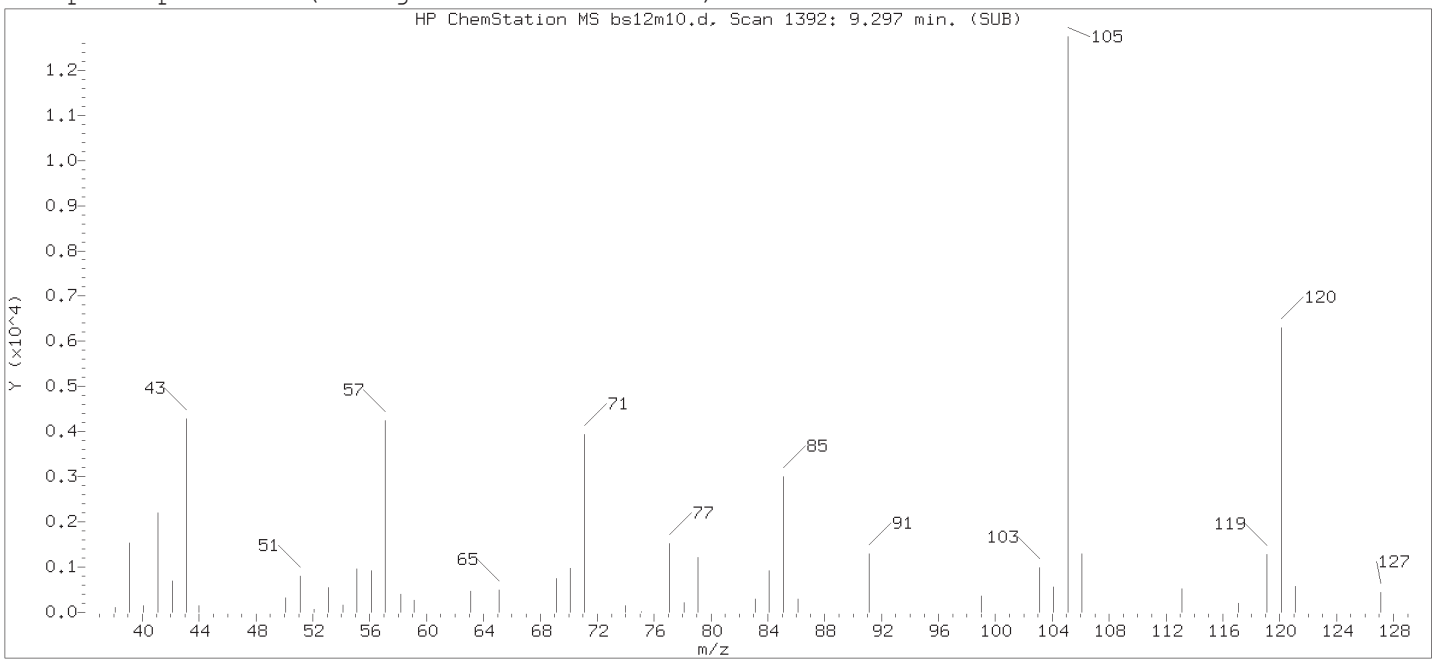
Compound Number : 142
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1392
Retention Time (minutes): 9.297
Quant Ion : 105.00
Area (flag) : 15109M
On-Column Amount (ng) : 0.4969
Integration start scan : 1387 Integration stop scan: 1403
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

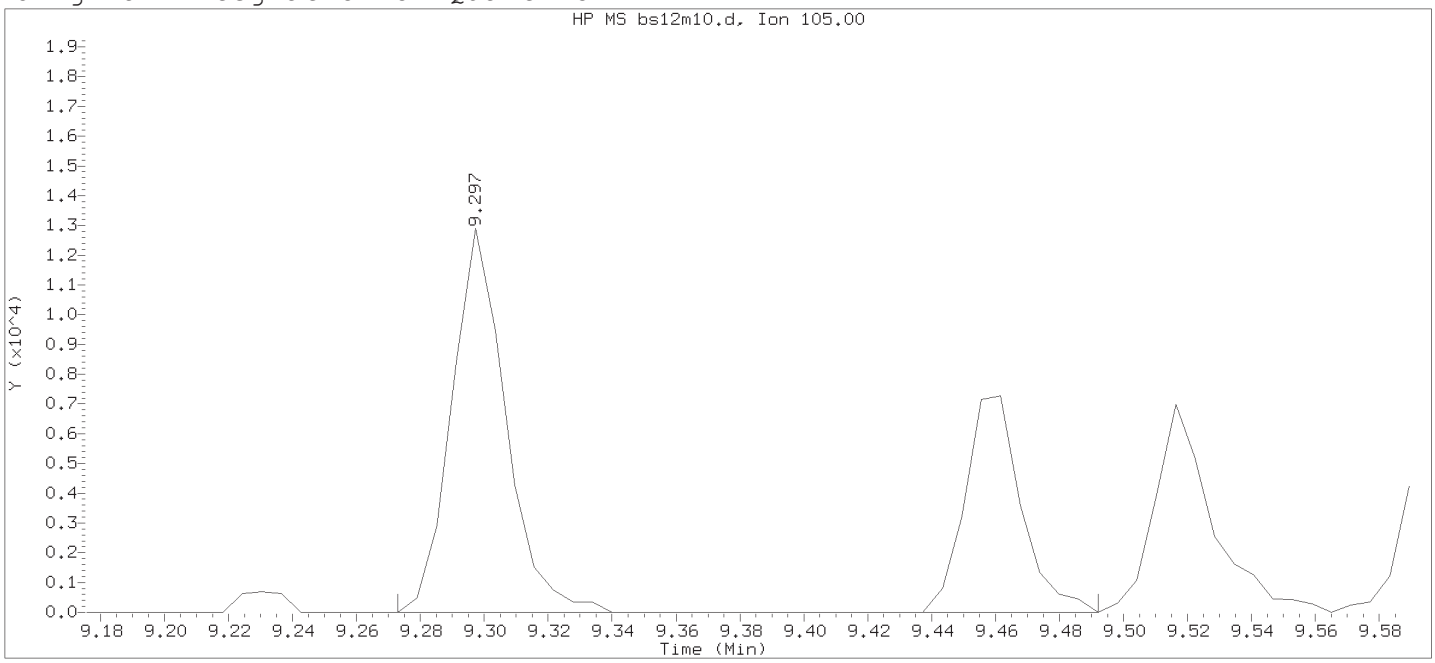
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

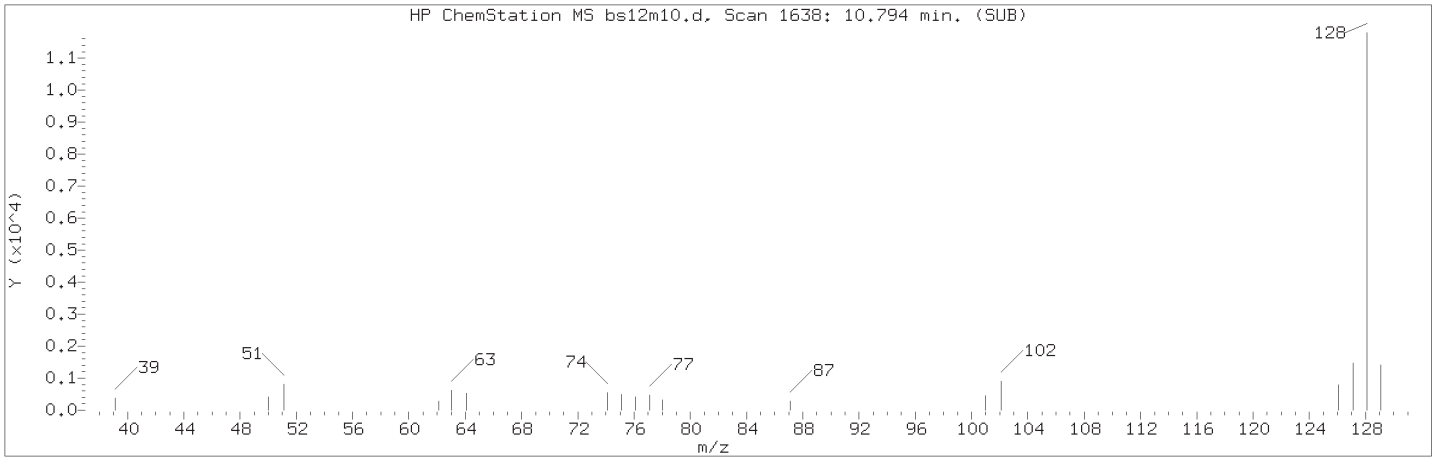
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

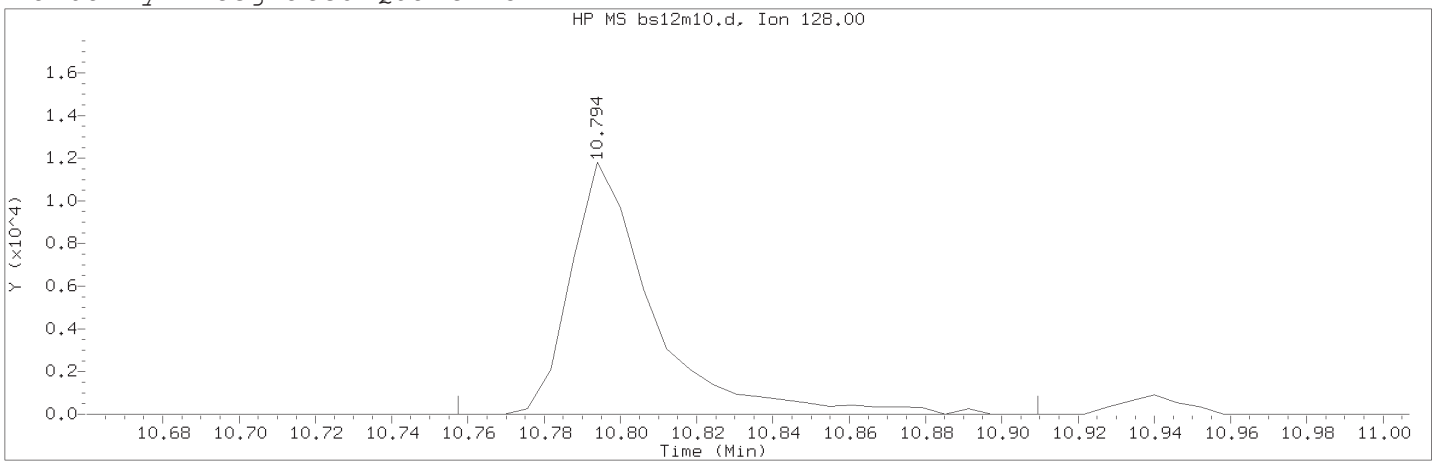
Compound Number : 142
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1392
Retention Time (minutes): 9.297
Quant Ion : 105.00
Area : 24026
On-column Amount (ng) : 0.7901
Integration start scan : 1387 Integration stop scan: 1423
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

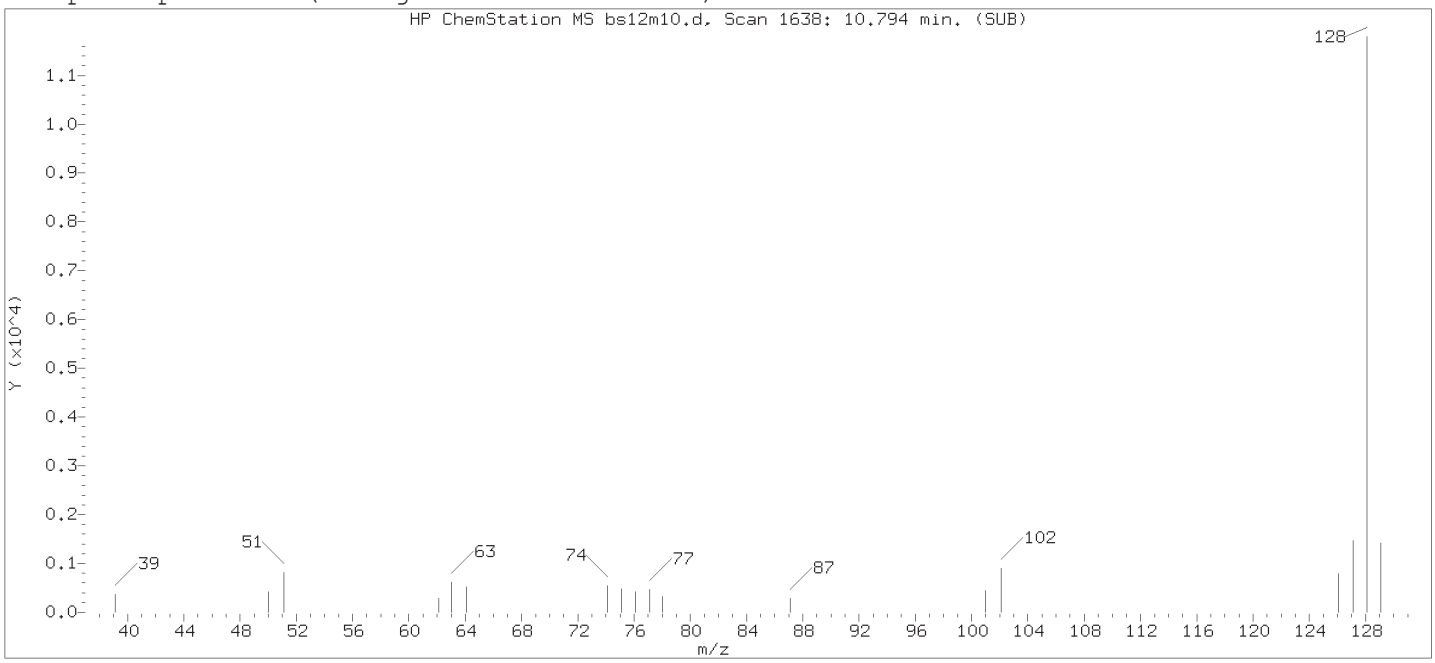
Compound Number : 155
Compound Name : Naphthalene
Scan Number : 1638
Retention Time (minutes): 10.794
Quant Ion : 128.00
Area (flag) : 17711M
On-Column Amount (ng) : 0.6229
Integration start scan : 1631 Integration stop scan: 1656
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

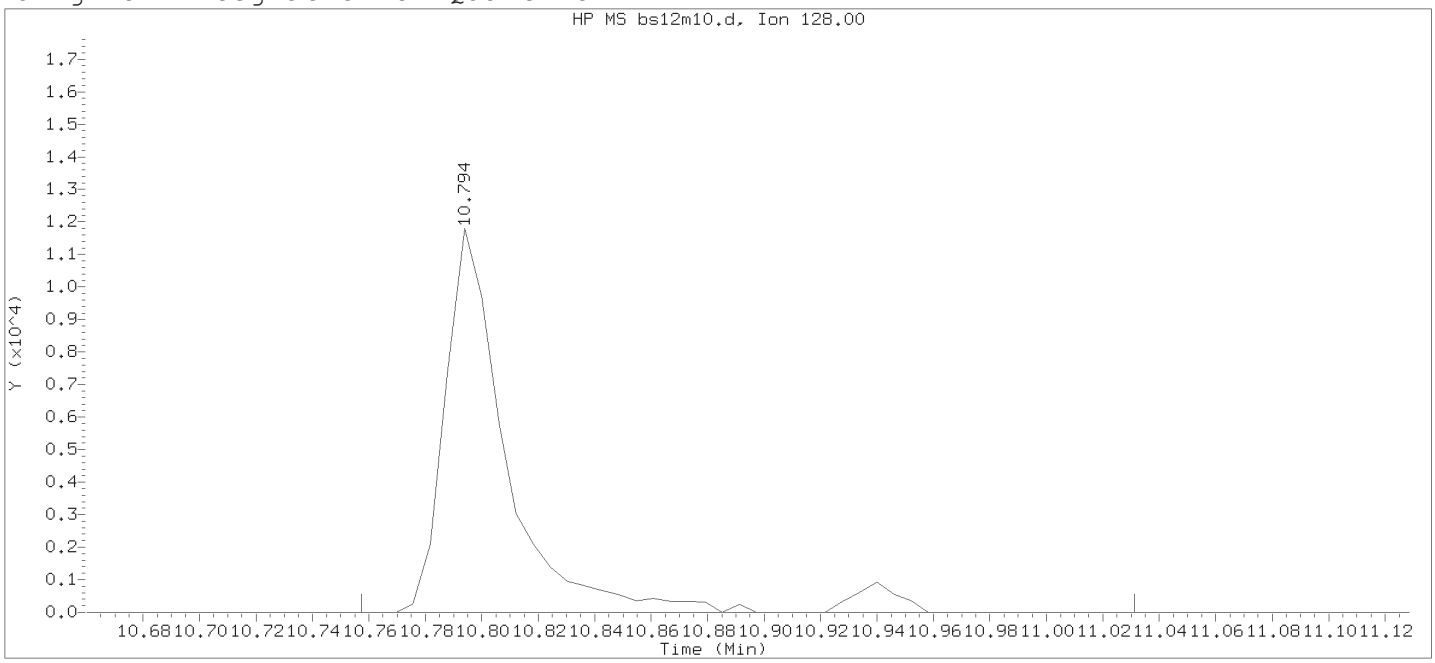
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 11:44.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



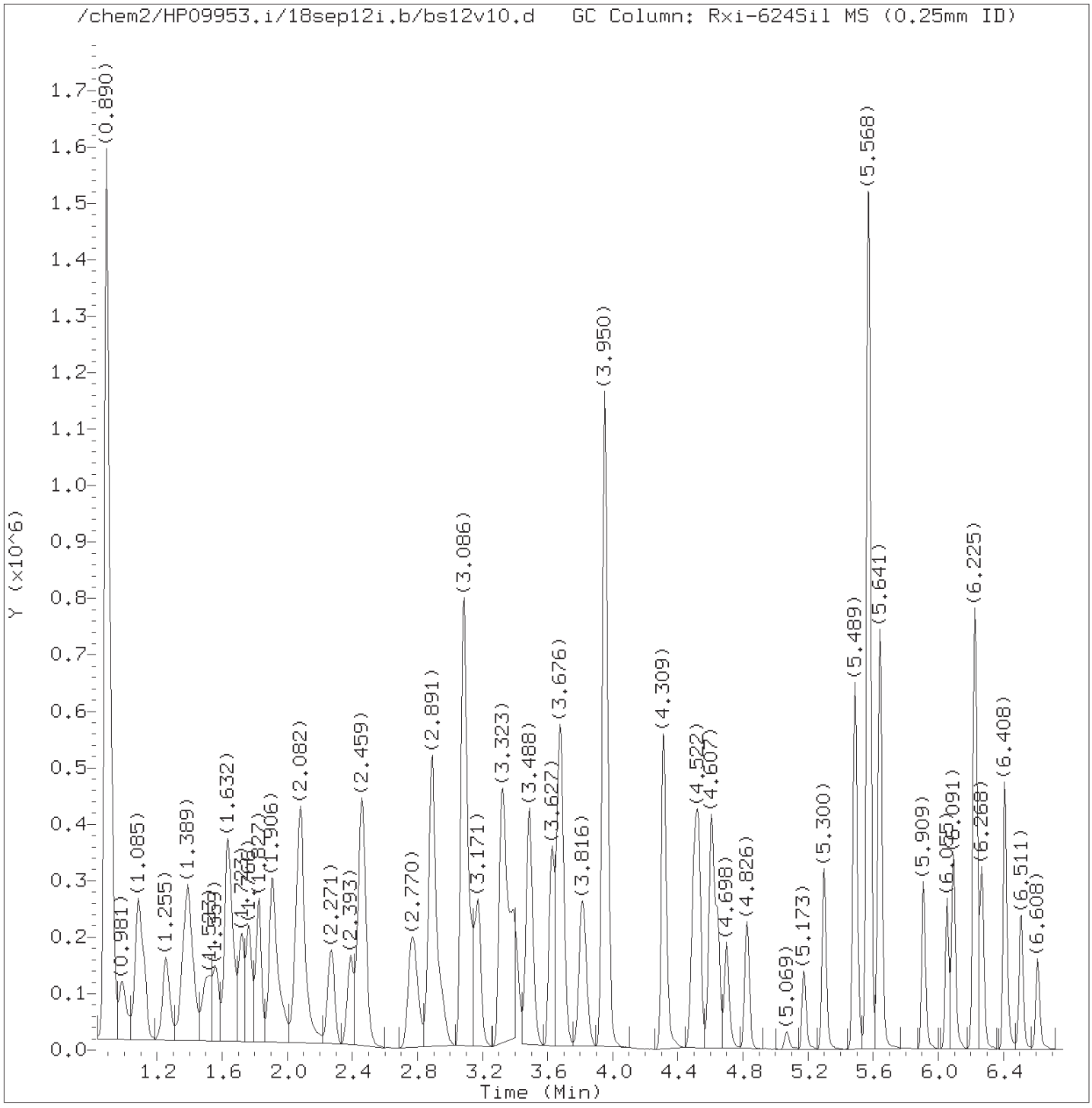
Data File: /chem2/HP09953.i/18sep12i.b/bs12m10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 15:53 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:08 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number : 155
Compound Name : Naphthalene
Scan Number : 1638
Retention Time (minutes): 10.794
Quant Ion : 128.00
Area : 18719
On-column Amount (ng) : 0.6584
Integration start scan : 1631 Integration stop scan: 1676
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:01.
Target 3.5 esignature user ID: jkhowe



Total Ion Chromatogram (TIC)

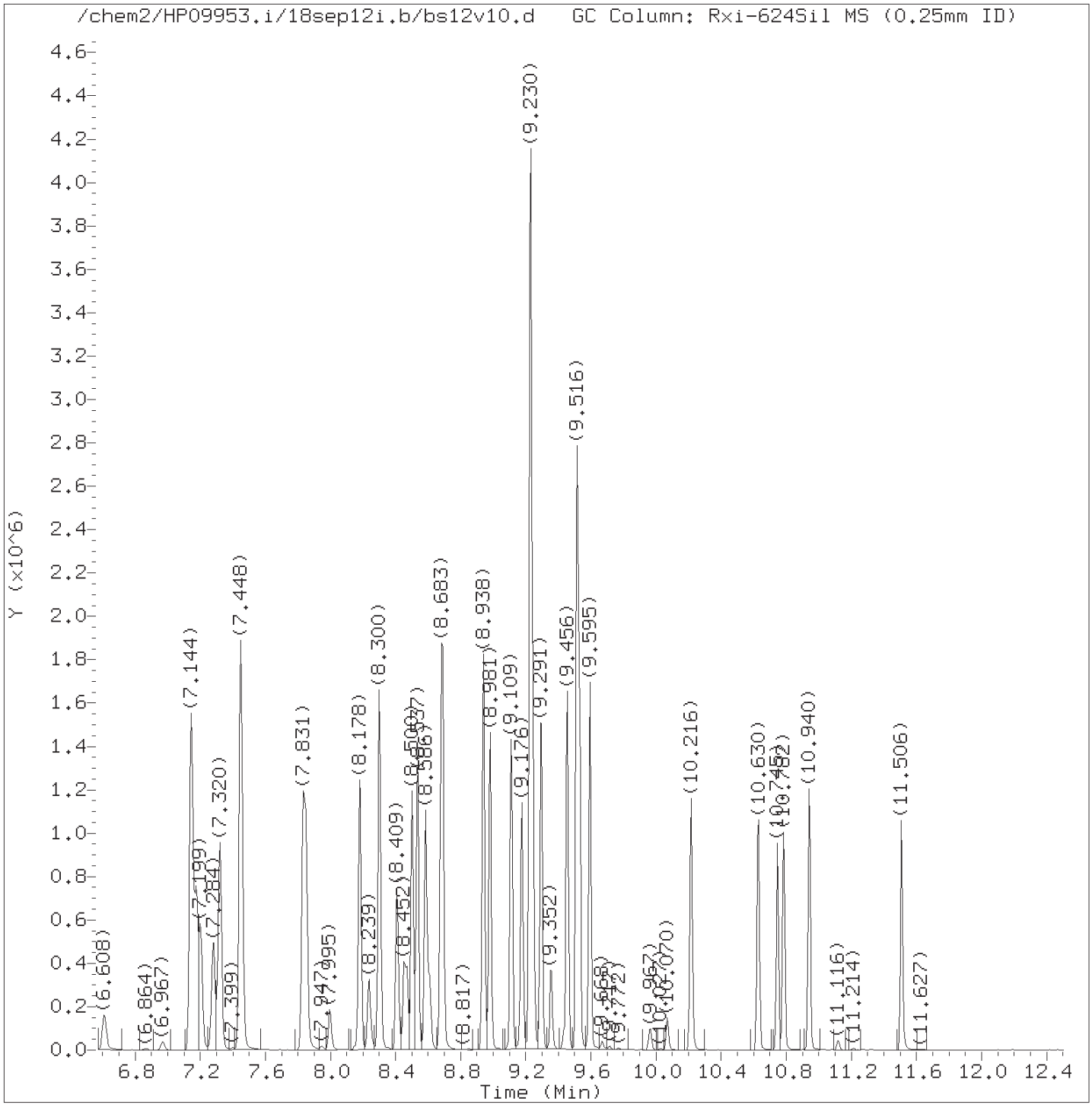
Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	156778	15.127
4) Chloromethane	(2)	1.078	50	202327	18.940
5) Vinyl Chloride	(2)	1.121	62	158219	19.007
9) Bromomethane	(2)	1.249	94	125900	16.994
10) Chloroethane	(2)	1.273	64	84389	18.846
11) Dichlorofluoromethane	(2)	1.370	67	219165	20.239
13) Trichlorofluoromethane	(2)	1.419	101	201214	17.559
15) Ethanol	(1)	1.437	45	49475	954.114
17) Freon 123a	(2)	1.516	67	142595	18.587
18) Acrolein	(1)	1.565	56	128795	134.136
19) 1,1-Dichloroethene	(2)	1.632	96	127162	22.083
20) Acetone	(1)	1.638	58	62023	140.523
22) Freon 113	(2)	1.656	101	110595	19.156
23) 2-Propanol	(1)	1.717	45	52658	137.139
24) Methyl Iodide	(2)	1.723	142	277981	20.076
25) Carbon Disulfide	(2)	1.766	76	460934	20.005
27) Methyl Acetate	(2)	1.827	43	60382	20.449
29) Allyl Chloride	(2)	1.827	41	158957	20.636
31) Methylene Chloride	(2)	1.906	84	145600	21.396
30)*t-Butyl alcohol-d10	(1)	1.924	65	99384	250.000
32) t-Butyl alcohol	(1)	1.973	59	96118M	184.114
33) Acrylonitrile	(2)	2.058	53	163550	81.817
35) trans-1,2-Dichloroethene	(2)	2.082	96	147067	21.962
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	318870	19.468
38) n-Hexane	(2)	2.271	57	139605	18.264
40) 1,1-Dichloroethane	(2)	2.386	63	224348	20.661
41) di-Isopropyl ether	(2)	2.459	45	401168	19.794
42) 2-Chloro-1,3-butadiene	(2)	2.466	53	185640	19.401
43) Ethyl t-butyl ether	(2)	2.770	59	364071	19.075
45) cis-1,2-Dichloroethene	(2)	2.885	96	155258	21.359
47) 2,2-Dichloropropane	(2)	2.891	77	167027	21.100
44) 2-Butanone	(1)	2.891	43	316565	123.896
49) Propionitrile	(1)	2.952	54	100903	147.207
46) 1,2-Dichloroethene (Total)	(2)		96	302325	43.321
51) Methacrylonitrile	(2)	3.080	67	321231	143.810
52) Bromochloromethane	(2)	3.092	128	73942	19.147
53) Tetrahydrofuran	(1)	3.135	71	60613	95.237
54) Chloroform	(2)	3.177	83	231796	21.032

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	113	286803	50.136
57) 1,1,1-Trichloroethane	(2)	3.342	97	224844	19.925
58) Cyclohexane	(2)	3.396	56	192779	18.184
60) 1,1-Dichloropropene	(2)	3.488	75	169015	20.611
61) Carbon Tetrachloride	(2)	3.500	117	175571	20.486
63)$1,2-Dichloroethane-d4	(2)	3.621	102	63995	51.976
62) Isobutyl Alcohol	(1)	3.652	41	81112	442.222
64) Benzene	(2)	3.676	78	528454	20.185
67) 1,2-Dichloroethane	(2)	3.694	62	157467	20.842
68) t-Amyl methyl ether	(2)	3.816	73	338507	19.209
70)*Fluorobenzene	(2)	3.950	96	1147804	50.000
72) n-Heptane	(2)	3.962	43	126001	18.070
75) Trichloroethene	(2)	4.309	95	139958	20.500
73) n-Butanol	(1)	4.315	56	135940	885.088
76) Methylcyclohexane	(2)	4.503	83	196939	18.536
77) 1,2-Dichloropropane	(2)	4.528	63	131206	21.104
81) Dibromomethane	(2)	4.649	93	77276	20.325
80) 1,4-Dioxane	(1)	4.692	88	29562M	464.441
79) Methyl Methacrylate	(2)	4.698	69	73551	18.354
84) Bromodichloromethane	(2)	4.826	83	162965	20.990
85) 2-Nitropropane	(1)	5.069	41	21906	16.665
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	64316	19.646
89) cis-1,3-Dichloropropene	(2)	5.300	75	195518	20.855
90) 4-Methyl-2-pentanone	(2)	5.489	43	469964	87.834
91)$Toluene-d8	(3)	5.568	98	1151842	49.592
92) Toluene	(3)	5.641	92	349283	20.275
93) trans-1,3-Dichloropropene	(3)	5.909	75	164063	19.882
94) 1,3-Dichloropropene (total)	(3)		100	359581	40.737
95) Ethyl Methacrylate	(3)	6.055	69	145544	18.170
96) 1,1,2-Trichloroethane	(3)	6.091	97	115062M	20.582
98) Tetrachloroethene	(3)	6.225	166	207661	22.007
99) 1,3-Dichloropropane	(3)	6.268	76	179156	19.903
101) 2-Hexanone	(3)	6.408	43	330800	82.469
103) Dibromochloromethane	(3)	6.511	129	131091	20.354
104) 1,2-Dibromoethane	(3)	6.608	107	116657	20.199
105)*Chlorobenzene-d5	(3)	7.144	117	899903	50.000
107) Chlorobenzene	(3)	7.174	112	406730	20.222
106) 1-Chlorohexane	(3)	7.205	91	169329	19.782

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
108) 1,1,1,2-Tetrachloroethane	(3)	7.284	131	138149	20.256
109) Ethylbenzene	(3)	7.320	91	656862	20.274
110) m+p-Xylene	(3)	7.448	106	544292	41.168
111) o-Xylene	(3)	7.831	106	269680	20.403
113) Styrene	(3)	7.849	104	445457	20.443
112) Xylene (Total)	(3)		106	813972	61.571
114) Bromoform	(3)	7.995	173	74162	18.478
115) Isopropylbenzene	(3)	8.178	105	691548	20.757
118) Cyclohexanone	(1)	8.239	55	117831	511.564
119)$4-Bromofluorobenzene	(3)	8.300	95	420158	49.658
121) Bromobenzene	(4)	8.409	156	184156	19.686
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	139536	19.537
123) 1,2,3-Trichloropropane	(4)	8.470	110	42452	20.046
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	173252	98.856
124) n-Propylbenzene	(4)	8.537	91	766292	20.719
126) 2-Chlorotoluene	(4)	8.586	126	173937	20.042
130) 4-Chlorotoluene	(4)	8.677	126	175100	19.914
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	598664	20.926
133) tert-Butylbenzene	(4)	8.938	134	136578	20.322
134) Pentachloroethane	(4)	8.938	167	64585	16.071
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	601896	20.175
136) sec-Butylbenzene	(4)	9.109	105	754743	20.723
138) 1,3-Dichlorobenzene	(4)	9.176	146	346175	19.718
139) p-Isopropyltoluene	(4)	9.230	119	682445	20.909
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	510576	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	360998	19.722
142) 1,2,3-Trimethylbenzene	(4)	9.297	105	643253	20.002
143) Benzyl Chloride	(4)	9.358	126	42347	17.751
144) 1,3-Diethylbenzene	(4)	9.456	119	391531	19.405
145) 1,4-Diethylbenzene	(4)	9.516	119	403575	19.273
147) 1,2-Dichlorobenzene	(4)	9.516	146	350069	20.395
146) n-Butylbenzene	(4)	9.529	92	305420	20.142
148) 1,2-Diethylbenzene	(4)	9.595	119	347453	19.683
149) Diethylbenzene (total)	(4)		100	1142559	58.361
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	23305	18.781
152) 1,3,5-Trichlorobenzene	(4)	10.216	180	260666	19.410
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	245801	19.419
154) Hexachlorobutadiene	(4)	10.745	225	118785	20.569

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

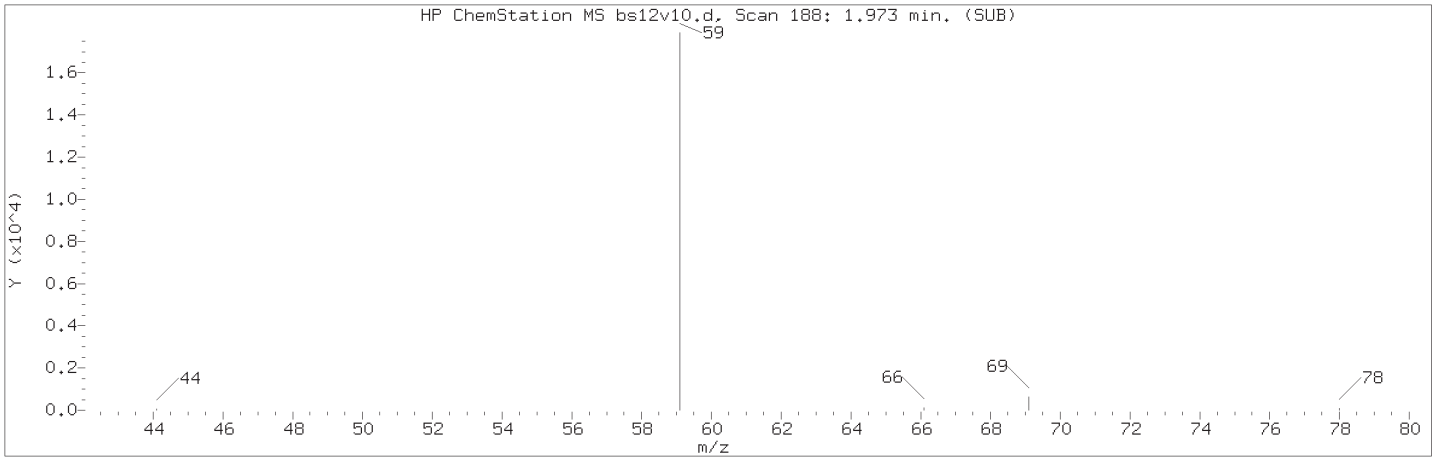
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

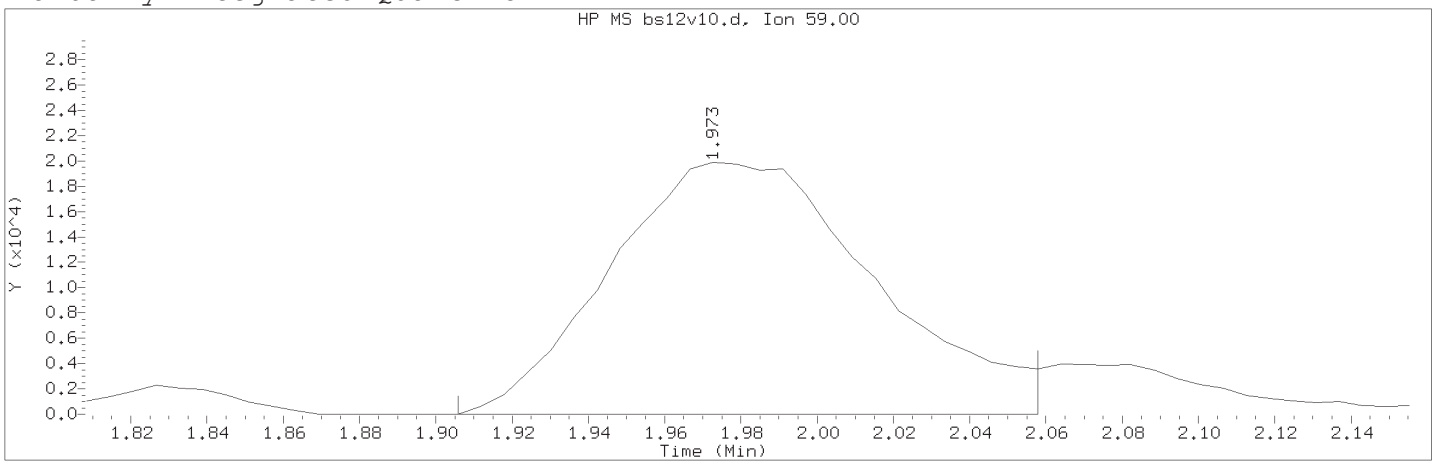
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
155) Naphthalene	(4)	10.782	128	574890	19.120
156) 1,2,3-Trichlorobenzene	(4)	10.940	180	239534	19.845
157) 2-Methylnaphthalene	(4)	11.506	142	361602	17.780

Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

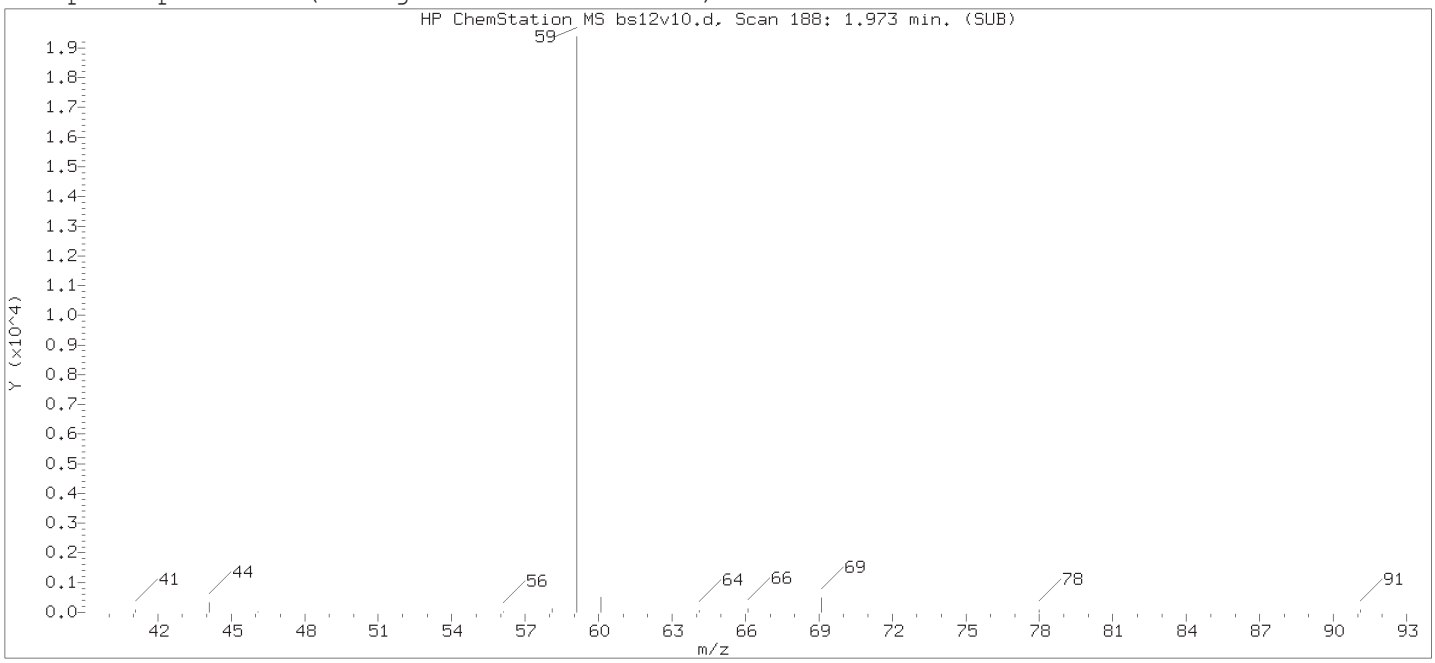
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 188
Retention Time (minutes): 1.973
Quant Ion : 59.00
Area (flag) : 96118M
On-Column Amount (ng) : 184.1144
Integration start scan : 176 Integration stop scan: 201
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

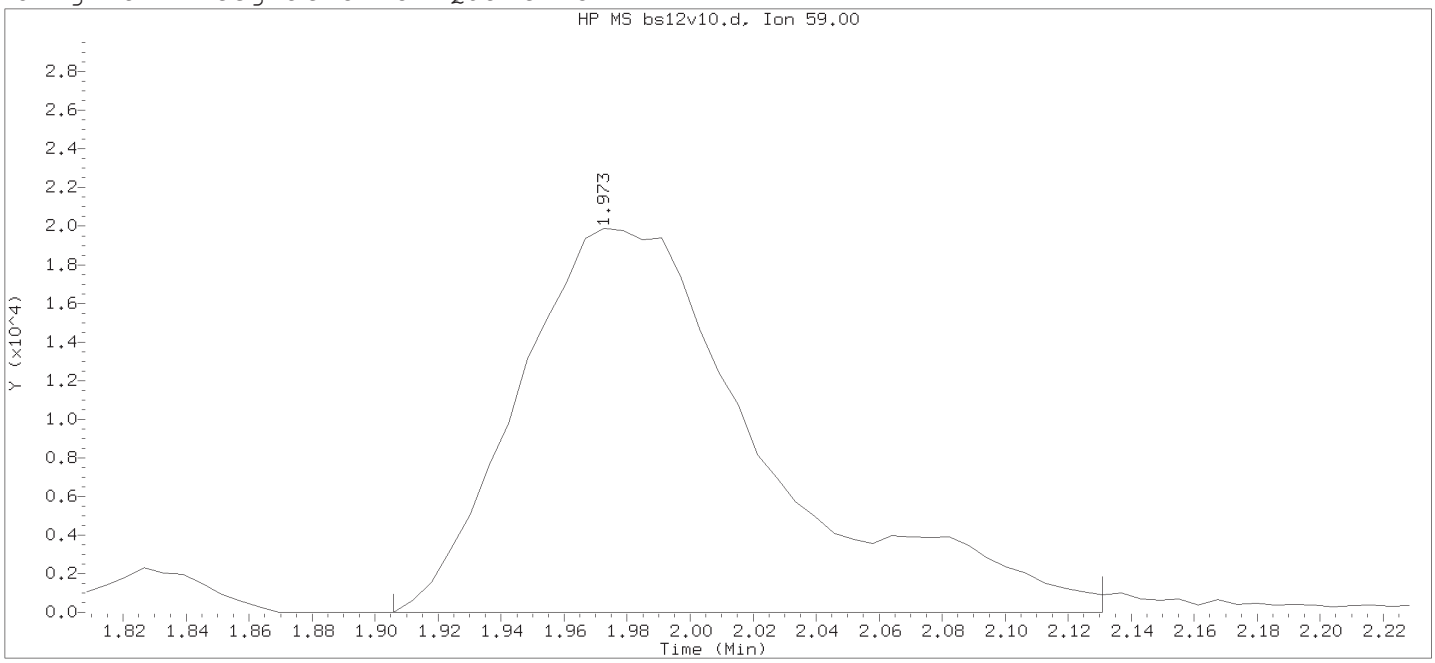
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 12:04.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

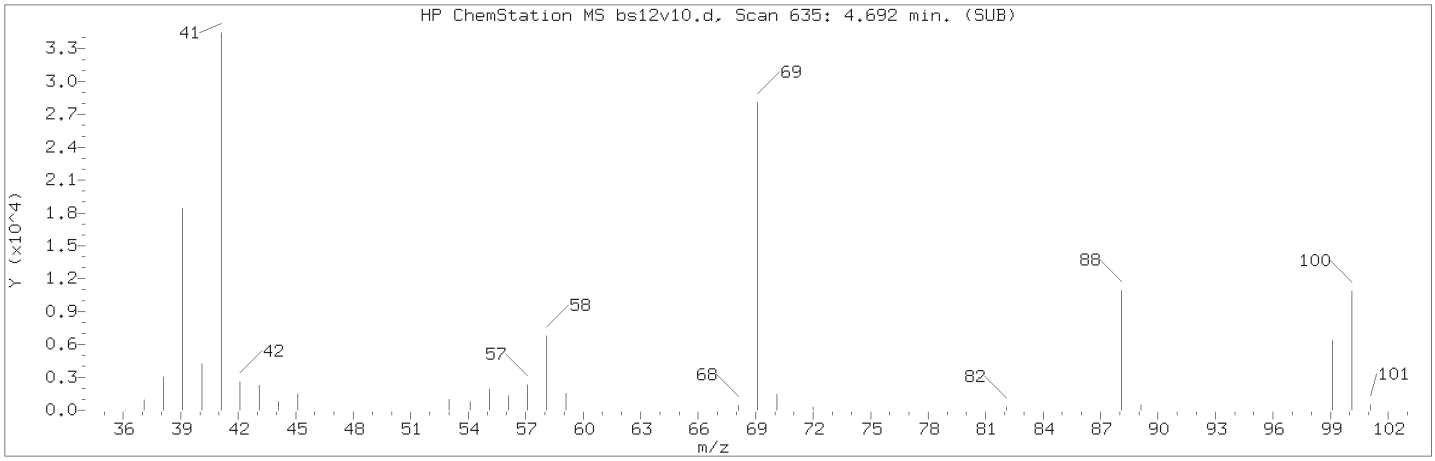
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:31 Automation

Sample Name: ICVB01 Lab Sample ID: ICVB01

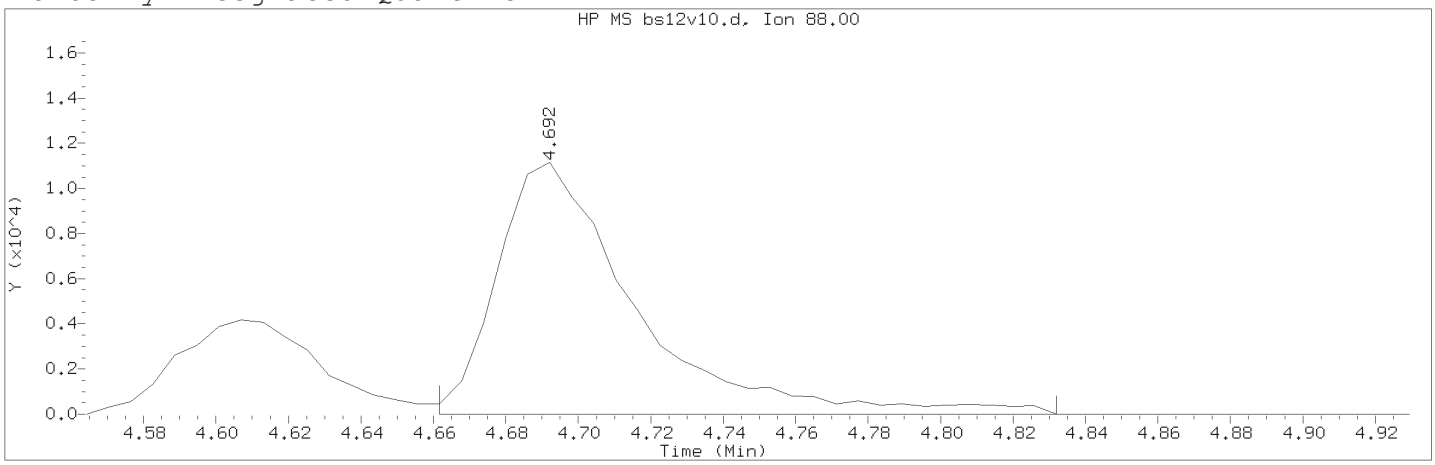
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 188
Retention Time (minutes): 1.973
Quant Ion : 59.00
Area : 107261
On-column Amount (ng) : 202.7258
Integration start scan : 176 Integration stop scan: 213
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

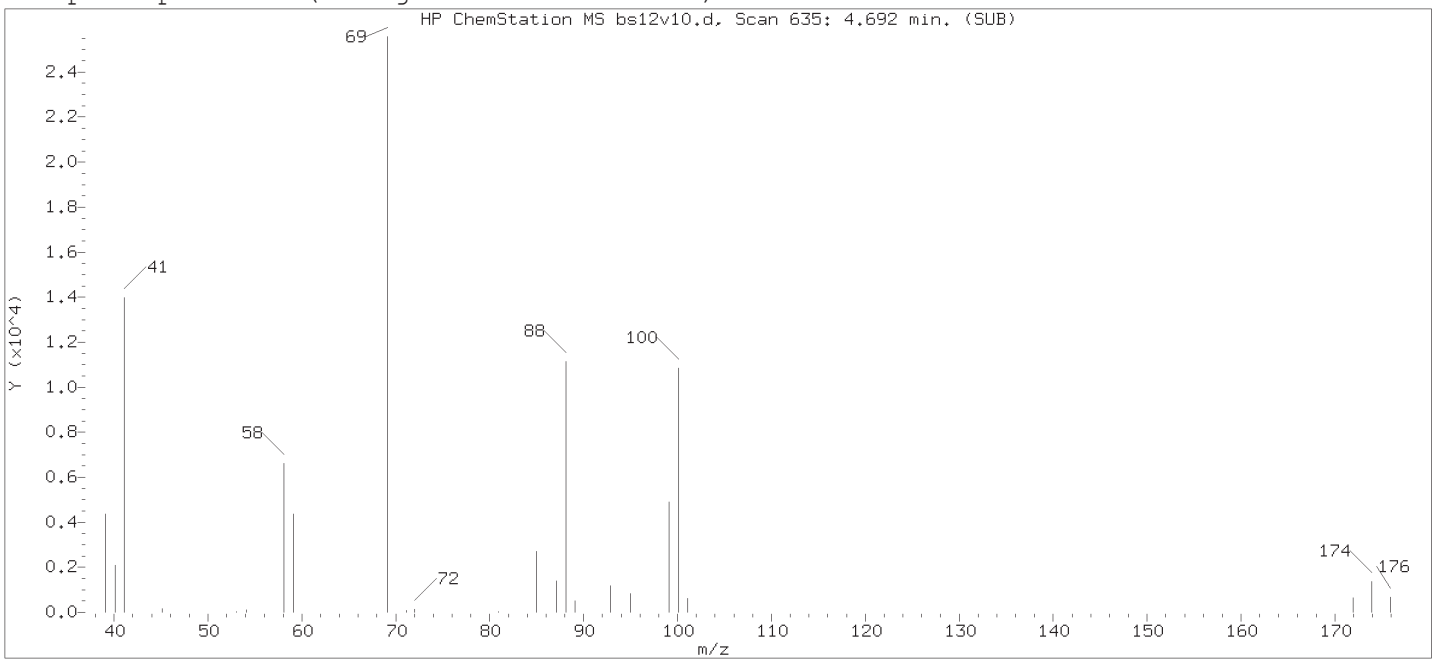
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 29562M
On-Column Amount (ng) : 464.4408
Integration start scan : 629 Integration stop scan: 657
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

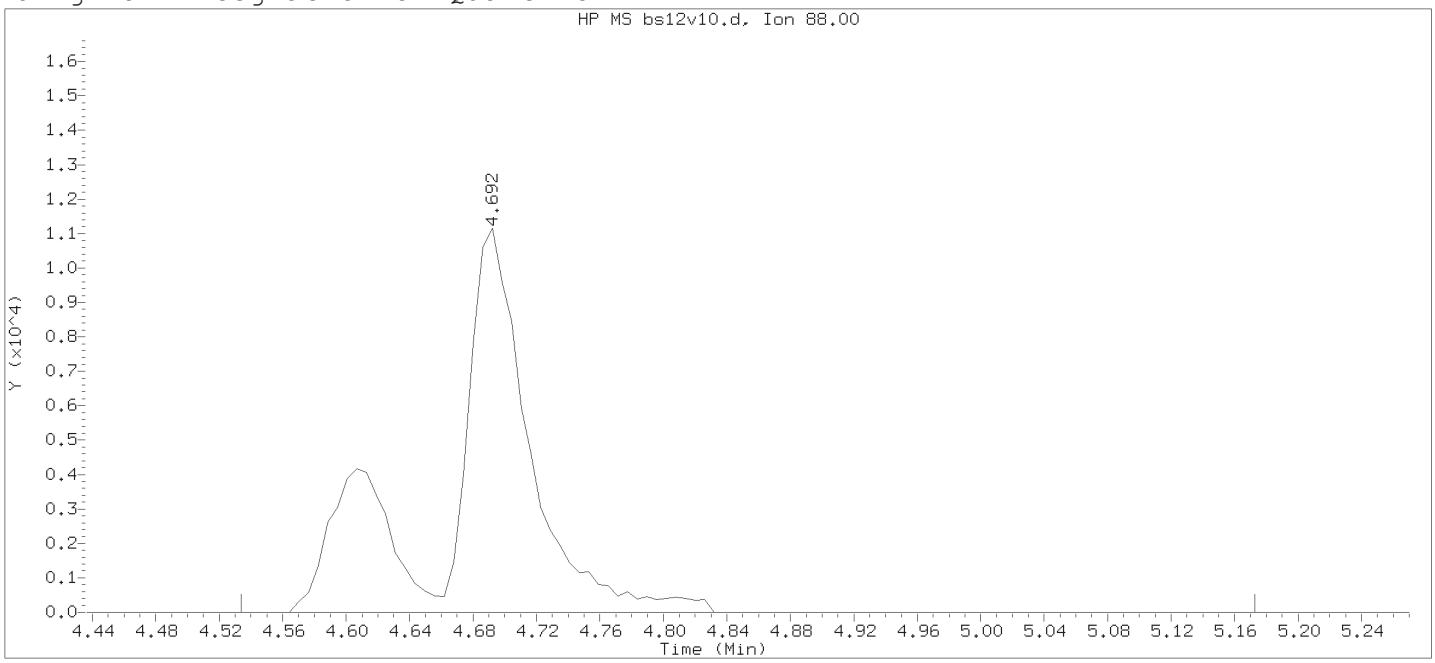
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 12:04.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

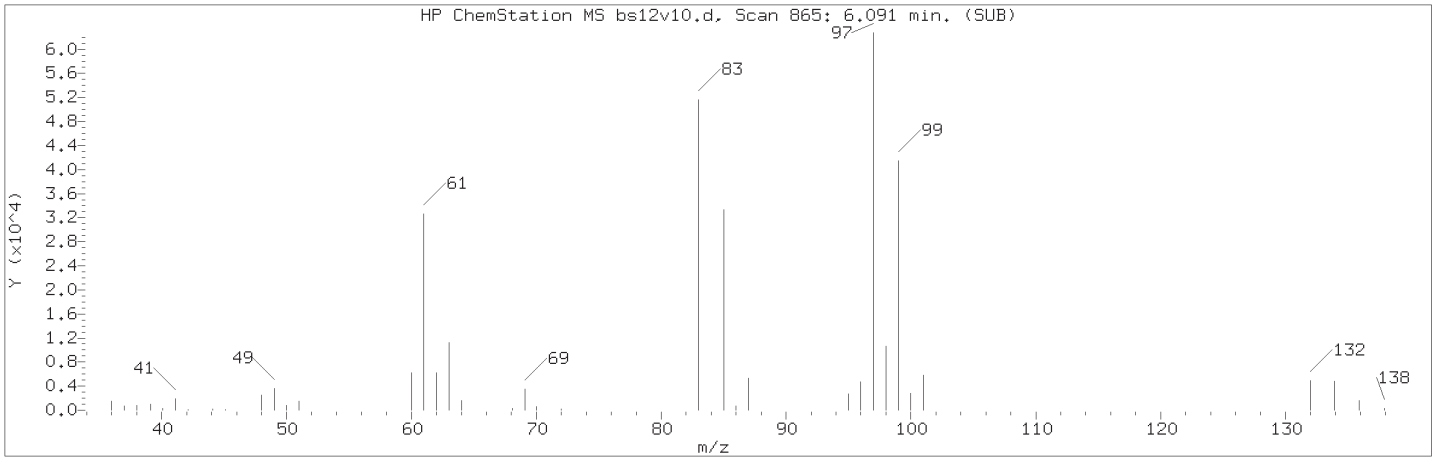
Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:31 Automation

Sample Name: ICVB01 Lab Sample ID: ICVB01

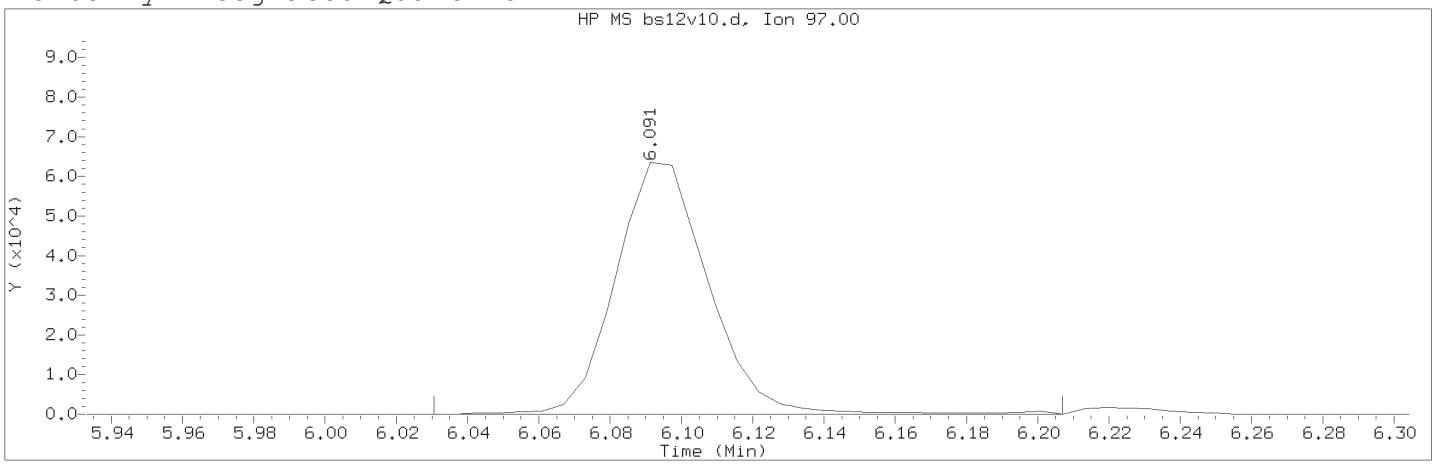
Compound Number	: 80		
Compound Name	: 1,4-Dioxane		
Scan Number	: 635		
Retention Time (minutes)	: 4.692		
Quant Ion	: 88.00		
Area	: 40957		
On-column Amount (ng)	: 409.5730		
Integration start scan	: 608	Integration stop scan:	713
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jhowe0962

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 13-SEP-2018 09:57
Date, time and analyst ID of latest file update: 13-Sep-2018 10:00 jkh09052

Sample Name: ICVB01 Lab Sample ID: ICVB01

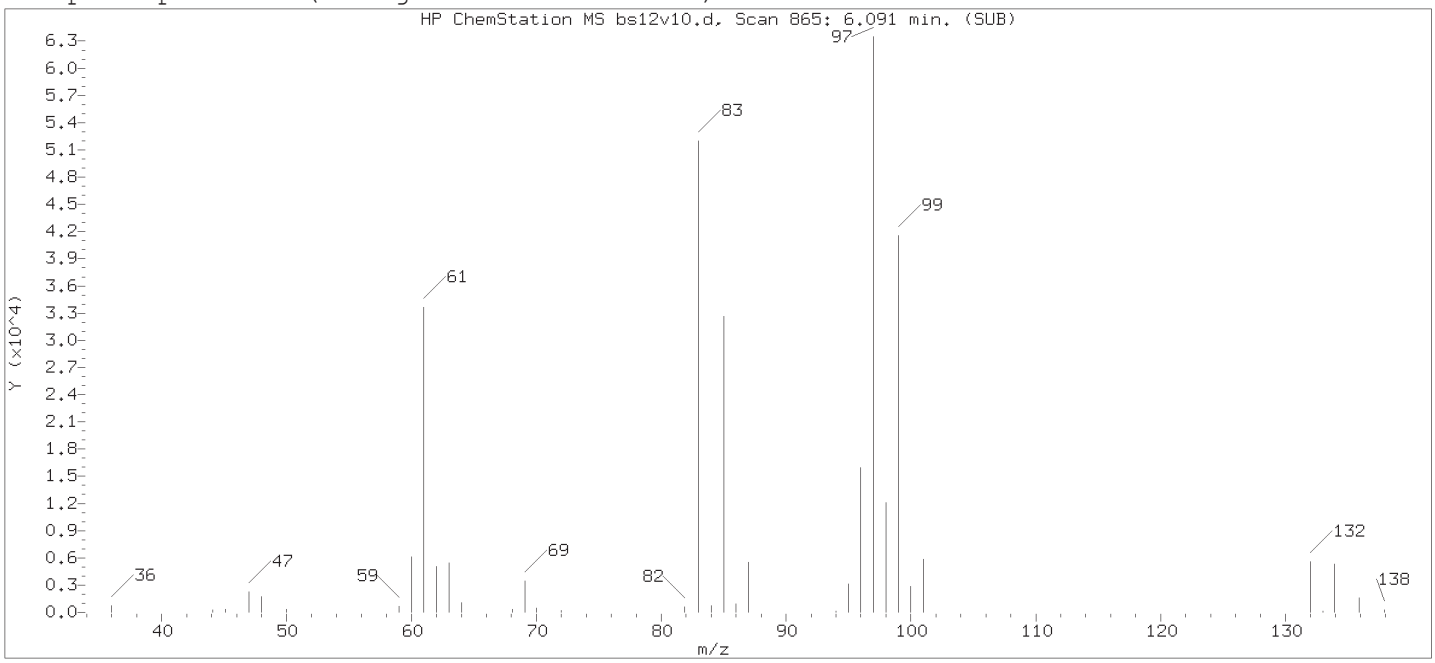
Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 865
Retention Time (minutes): 6.091
Quant Ion : 97.00
Area (flag) : 115062M
On-Column Amount (ng) : 20.5822
Integration start scan : 854 Integration stop scan: 883
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

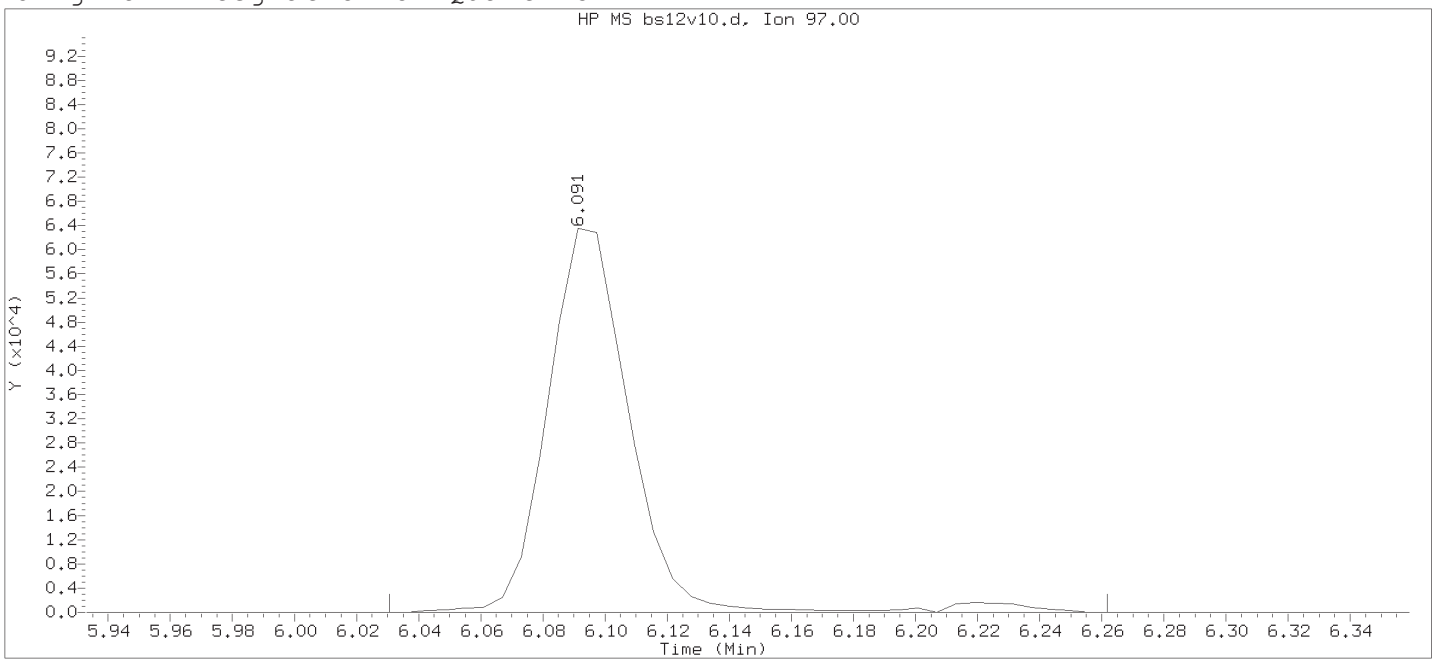
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kelly E. Keller on 09/13/2018 at 12:04.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18sep12i.b/bs12v10.d Instrument ID: HP09953.i
Injection date and time: 12-SEP-2018 16:16 Analyst ID: scn10072

Method used: /chem2/HP09953.i/18sep12i.b/di8260c.m Sublist used: 8260S
Calibration date and time: 12-SEP-2018 15:45
Date, time and analyst ID of latest file update: 12-Sep-2018 16:31 Automation

Sample Name: ICVB01 Lab Sample ID: ICVB01

Compound Number : 96
Compound Name : 1,1,2-Trichloroethane
Scan Number : 865
Retention Time (minutes): 6.091
Quant Ion : 97.00
Area : 117803
On-column Amount (ng) : 20.8955
Integration start scan : 854 Integration stop scan: 892
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/13/2018 at 10:00.
Target 3.5 esignature user ID: jkhowe

Data File: /chem2/HP09953.i/18nov06a.b/bn06t01.d

Date : 06-NOV-2018 19:12

Client ID: BFB Aug07-18

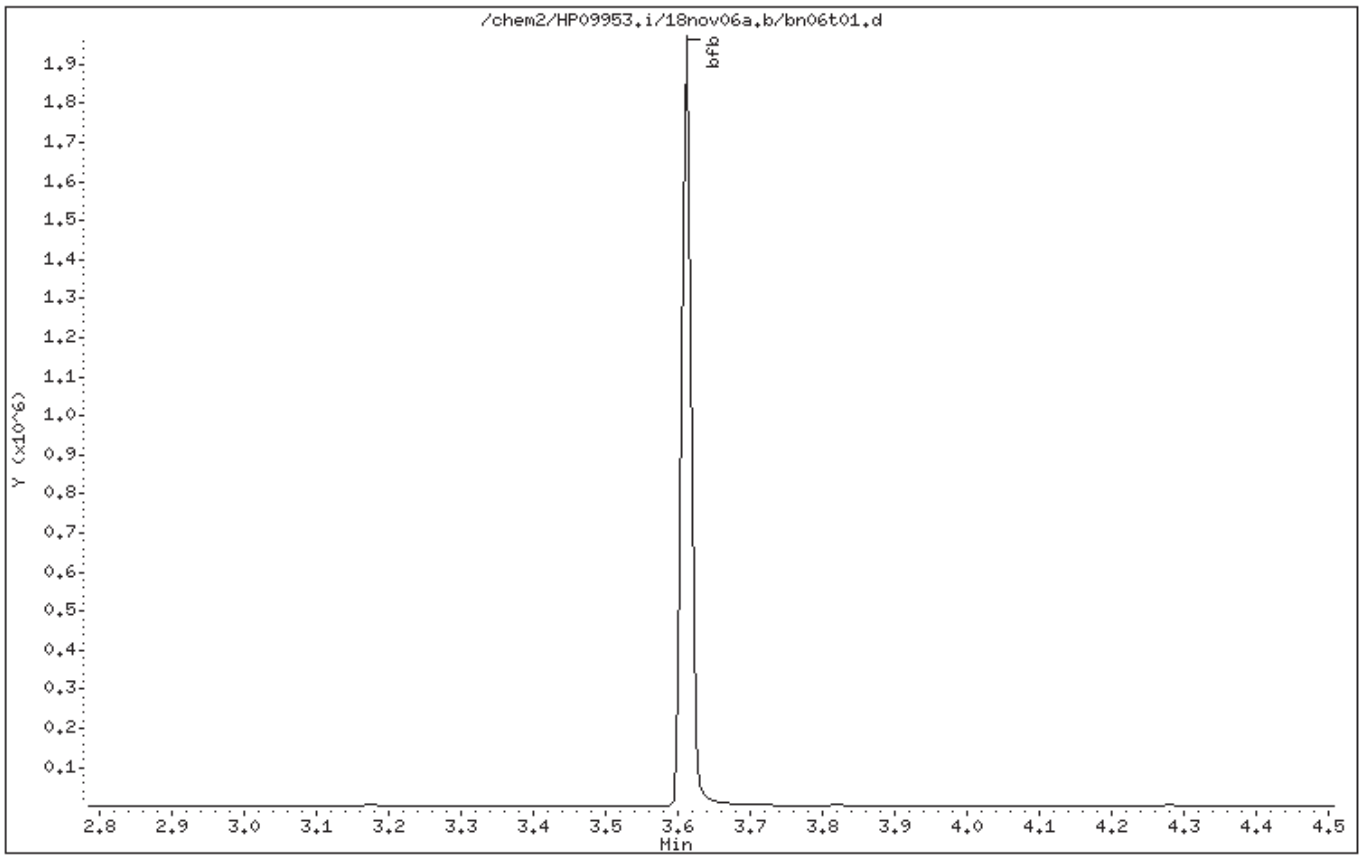
Instrument: HP09953.i

Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

Operator: PTH10165

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Patrick T. Herres on 11/06/2018 at 20:25.
Target 3.5 esignature user ID: pth10165

Data File: /chem2/HP09953.i/18nov06a.b/bn06t01.d

Date : 06-NOV-2018 19:12

Client ID: BFB Aug07-18

Instrument: HP09953.i

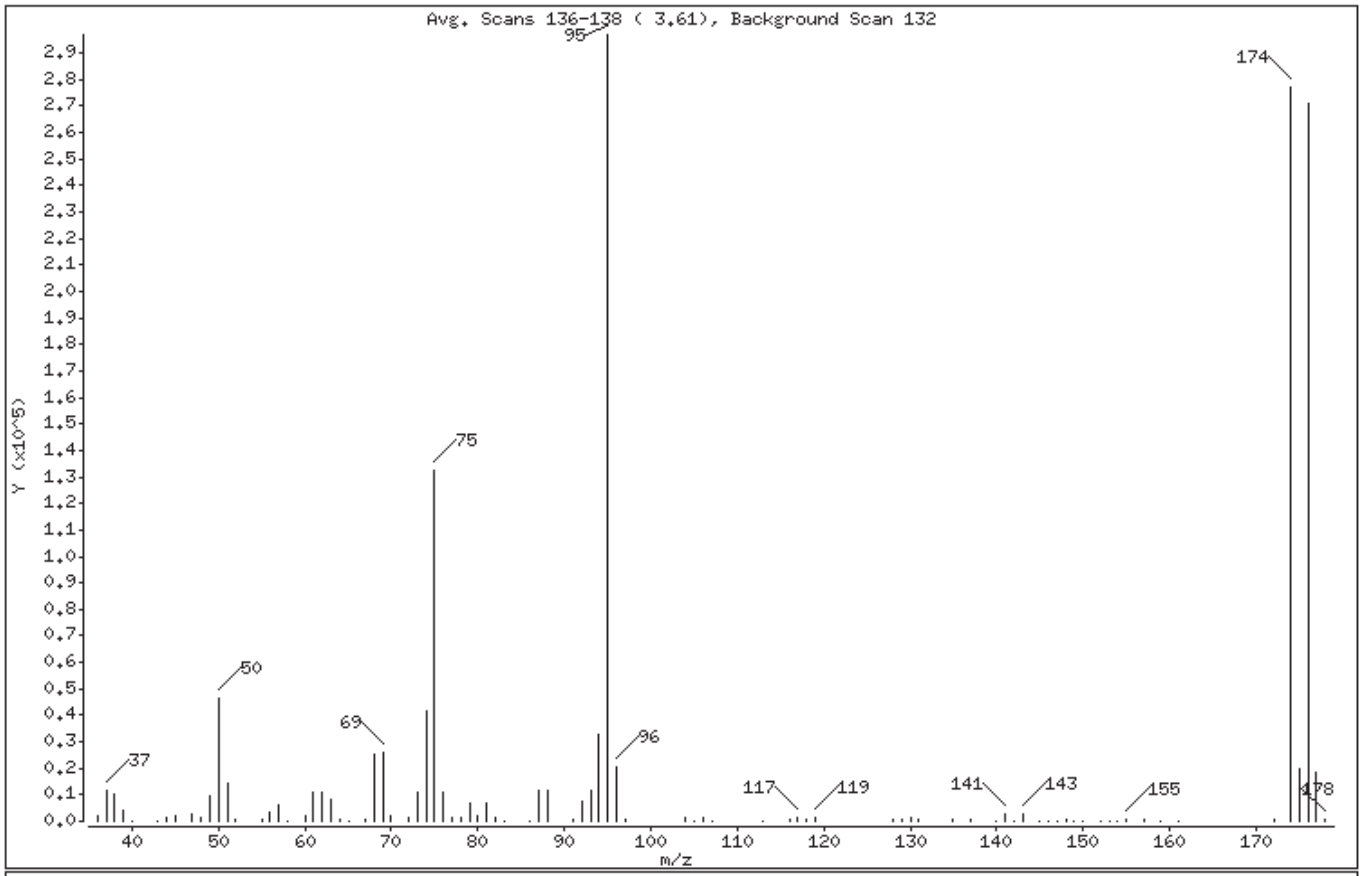
Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

Operator: PTH10165

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.70
75	30.00 - 60.00% of mass 95	44.52
96	5.00 - 9.00% of mass 95	6.88
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	93.46
175	5.00 - 9.00% of mass 174	6.67 (7.14)
176	95.00 - 101.00% of mass 174	91.23 (97.62)
177	5.00 - 9.00% of mass 176	6.14 (6.73)

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:25.
Target 3.5 esignature user ID: pth10165

Date : 06-NOV-2018 19:12

Client ID: BFB Aug07-18 Instrument: HP09953.i

Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

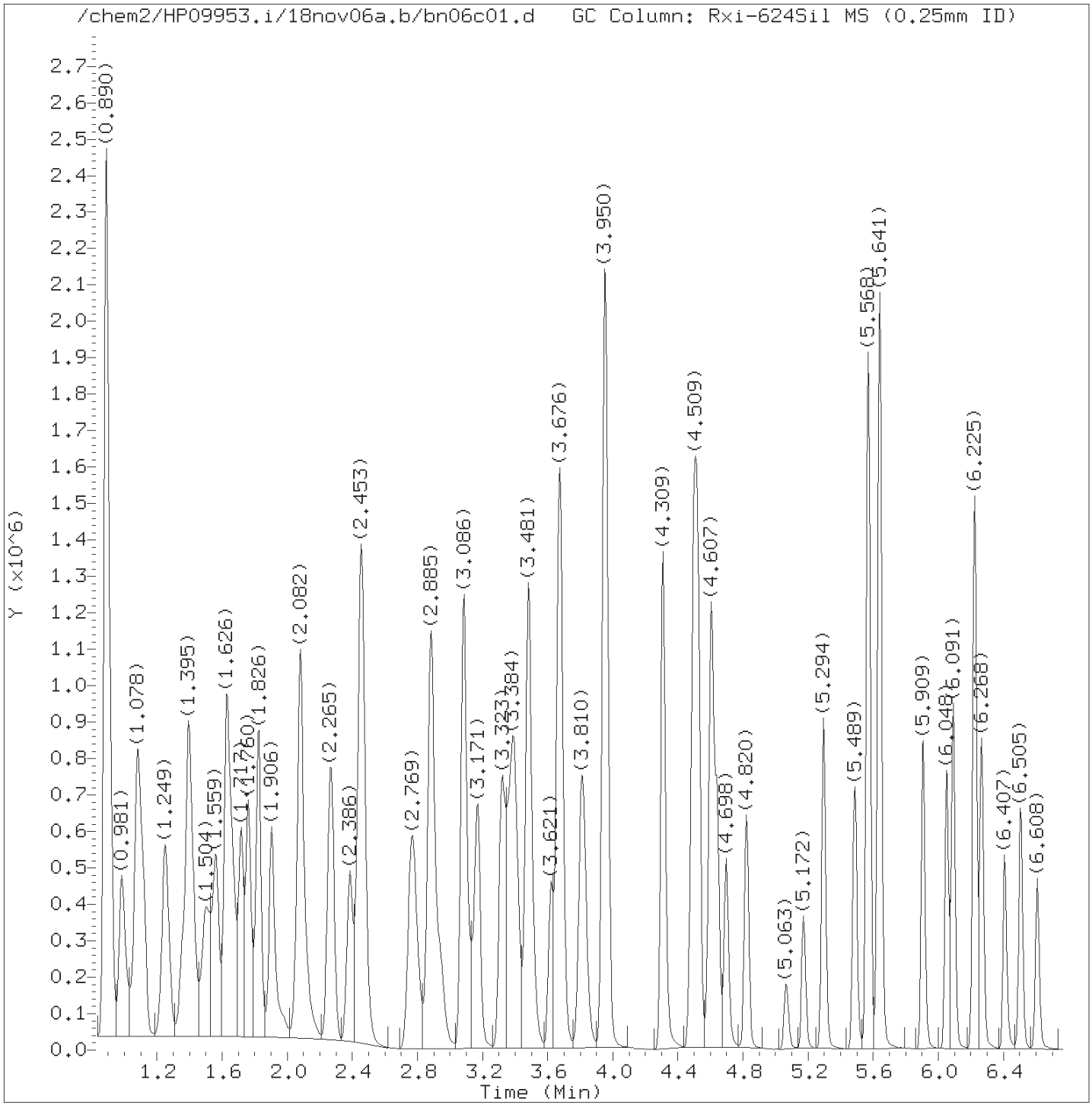
Operator: PTH10165

Column phase: DB-624 Column diameter: 0.18

Data File: bn06t01.d
Spectrum: Avg. Scans 136-138 (3.61), Background Scan 132
Location of Maximum: 95.00
Number of points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2184	65.00	216	94.00	32448	145.00	213
37.00	11381	67.00	642	95.00	296960	146.00	336
38.00	9946	68.00	25328	96.00	20432	147.00	127
39.00	4140	69.00	25688	97.00	621	148.00	760
40.00	80	70.00	2074	104.00	1038	149.00	105
43.00	96	72.00	1484	105.00	287	150.00	227
44.00	1128	73.00	10726	106.00	1072	152.00	90
45.00	2060	74.00	41744	107.00	282	153.00	86
47.00	2981	75.00	132160	113.00	97	154.00	89
48.00	1322	76.00	11052	116.00	901	155.00	802
49.00	9505	77.00	1614	117.00	1584	157.00	627
50.00	46624	78.00	1301	118.00	995	159.00	221
51.00	14458	79.00	6651	119.00	1416	161.00	276
52.00	572	80.00	1767	128.00	991	172.00	416
55.00	650	81.00	6673	129.00	529	174.00	277504
56.00	3707	82.00	1348	130.00	1045	175.00	19816
57.00	6152	83.00	83	131.00	435	176.00	270912
58.00	258	86.00	284	135.00	502	177.00	18232
60.00	2303	87.00	11903	137.00	433	178.00	456
61.00	11014	88.00	11502	140.00	187		
62.00	10918	91.00	954	141.00	2685		
63.00	8289	92.00	7316	142.00	292		
64.00	745	93.00	11328	143.00	2703		

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:25.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

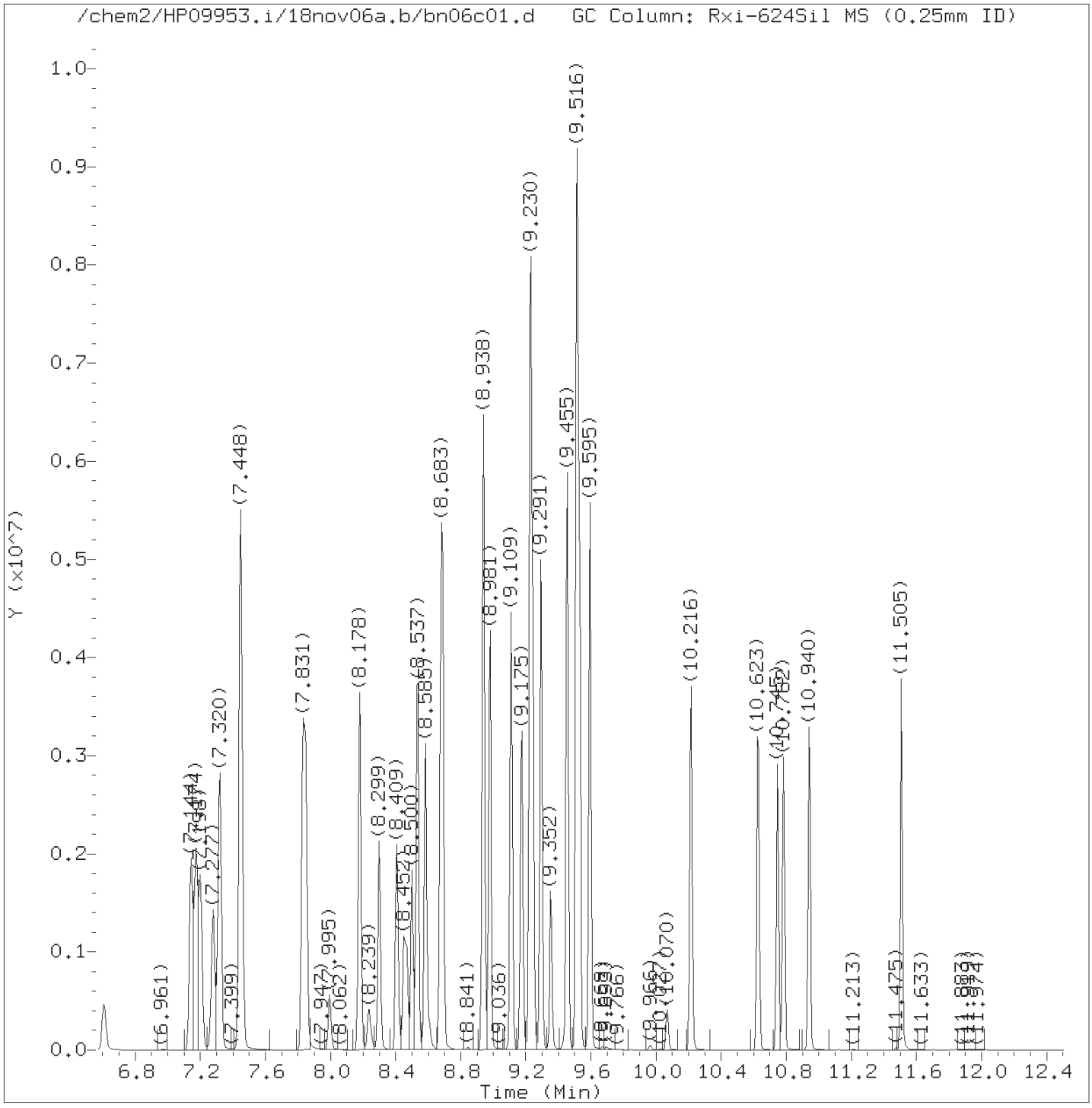
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	785105	63.594
4) Chloromethane	(2)	1.072	50	668056	52.499
5) Vinyl Chloride	(2)	1.121	62	529267	53.377
9) Bromomethane	(2)	1.242	94	473695A	53.676
10) Chloroethane	(2)	1.267	64	288566	54.101
13) Trichlorofluoromethane	(2)	1.413	101	829306	60.754
15) Ethanol	(1)	1.449	45	143212	2262.511
17) Freon 123a	(2)	1.510	67	417896	45.729
18) Acrolein	(1)	1.565	56	491569	419.399
19) 1,1-Dichloroethene	(2)	1.626	96	331986	48.398
20) Acetone	(1)	1.644	58	49339	88.585
22) Freon 113	(2)	1.656	101	410919	59.750
23) 2-Propanol	(1)	1.717	45	109950	234.579
24) Methyl Iodide	(2)	1.717	142	786678	47.696
25) Carbon Disulfide	(2)	1.760	76	1043092M	38.005
27) Methyl Acetate	(2)	1.826	43	193801	55.097
29) Allyl Chloride	(2)	1.826	41	532362	58.020
31) Methylene Chloride	(2)	1.906	84	357917	44.153
30)*t-Butyl alcohol-d10	(1)	1.924	65	121316M	250.000
32) t-Butyl alcohol	(1)	1.979	59	127968	200.808
33) Acrylonitrile	(2)	2.058	53	95774	40.221
35) trans-1,2-Dichloroethene	(2)	2.082	96	377615	47.338
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	881091	45.158
38) n-Hexane	(2)	2.265	57	576323	63.296
40) 1,1-Dichloroethane	(2)	2.386	63	640306	49.503
41) di-Isopropyl ether	(2)	2.453	45	1159636	48.034
42) 2-Chloro-1,3-butadiene	(2)	2.459	53	569158	49.934
43) Ethyl t-butyl ether	(2)	2.769	59	1025747	45.117
45) cis-1,2-Dichloroethene	(2)	2.879	96	422140	48.753
44) 2-Butanone	(1)	2.891	43	250049	80.171
47) 2,2-Dichloropropane	(2)	2.897	77	498763	52.893
49) Propionitrile	(1)	2.946	54	201592	240.932
46) 1,2-Dichloroethene (Total)	(2)		96	799755	96.092
51) Methacrylonitrile	(2)	3.080	67	310850	116.825
52) Bromochloromethane	(2)	3.092	128	251742	54.725
53) Tetrahydrofuran	(1)	3.128	71	68740	88.480
54) Chloroform	(2)	3.171	83	632676	48.191
56)$Dibromofluoromethane	(2)	3.317	113	350460	51.431

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.311	111	357472	51.748
57) 1,1,1-Trichloroethane	(2)	3.341	97	574101	42.709
58) Cyclohexane	(2)	3.396	56	698867	55.341
58) Cyclohexane	(2)	3.390	84	721286	61.117
58) Cyclohexane	(2)	3.390	69	217973	54.578
60) 1,1-Dichloropropene	(2)	3.481	75	499194	51.104
61) Carbon Tetrachloride	(2)	3.493	117	509679	49.924
63)$1,2-Dichloroethane-d4	(2)	3.621	102	74271	50.639
63)$1,2-Dichloroethane-d4	(2)	3.621	65	322687	50.030
63)$1,2-Dichloroethane-d4	(2)	3.621	104	48684	51.812
62) Isobutyl Alcohol	(1)	3.652	41	117862	526.411
64) Benzene	(2)	3.670	78	1476817	47.356
67) 1,2-Dichloroethane	(2)	3.688	62	416776	46.310
67) 1,2-Dichloroethane	(2)	3.694	98	41849	46.809
68) t-Amyl methyl ether	(2)	3.810	73	946094	45.070
70)*Fluorobenzene	(2)	3.944	96	1367264	50.000
72) n-Heptane	(2)	3.962	43	608808	73.298
75) Trichloroethene	(2)	4.309	95	396580	48.764
73) n-Butanol	(1)	4.315	56	187271	998.865
76) Methylcyclohexane	(2)	4.503	83	870059	68.747
77) 1,2-Dichloropropane	(2)	4.528	63	363257	49.049
81) Dibromomethane	(2)	4.643	93	213600	47.162
80) 1,4-Dioxane	(1)	4.692	88	44930M	578.279
79) Methyl Methacrylate	(2)	4.698	69	215680	45.182
84) Bromodichloromethane	(2)	4.820	83	437936	47.352
85) 2-Nitropropane	(1)	5.063	41	111652	69.582
87) 2-Chloroethyl Vinyl Ether	(2)	5.172	63	168104	43.108
89) cis-1,3-Dichloropropene	(2)	5.294	75	546002	48.891
90) 4-Methyl-2-pentanone	(2)	5.489	43	514954	80.613
91)$Toluene-d8	(3)	5.568	98	1397553	49.141
91)$Toluene-d8	(3)	5.568	100	906061	49.096
92) Toluene	(3)	5.641	92	964533	45.727
93) trans-1,3-Dichloropropene	(3)	5.909	75	472554	46.769
94) 1,3-Dichloropropene (total)	(3)		100	1018556	95.661
95) Ethyl Methacrylate	(3)	6.048	69	419086	42.729
96) 1,1,2-Trichloroethane	(3)	6.091	97	310915	45.421
98) Tetrachloroethene	(3)	6.225	166	478701	41.432
99) 1,3-Dichloropropane	(3)	6.268	76	507352	46.032

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.407	43	362450	73.589
103) Dibromochloromethane	(3)	6.505	129	362711	45.992
104) 1,2-Dibromoethane	(3)	6.608	107	325294	45.999
105)*Chlorobenzene-d5	(3)	7.144	117	1101888	50.000
107) Chlorobenzene	(3)	7.174	112	1140034	46.291
106) 1-Chlorohexane	(3)	7.204	91	532894	50.844
108) 1,1,1,2-Tetrachloroethane	(3)	7.277	131	384954	46.097
109) Ethylbenzene	(3)	7.320	91	1887762	47.584
110) m+p-Xylene	(3)	7.448	106	1540650	95.168
111) o-Xylene	(3)	7.831	106	741280	45.803
113) Styrene	(3)	7.849	104	1220438	45.743
112) Xylene (Total)	(3)		106	2281930	140.970
114) Bromoform	(3)	7.995	173	219242	44.613
115) Isopropylbenzene	(3)	8.178	105	1937992	47.506
118) Cyclohexanone	(1)	8.232	55	151108	537.434
119)$4-Bromofluorobenzene	(3)	8.299	95	517605M	49.961
119)$4-Bromofluorobenzene	(3)	8.299	174	487604	51.133
121) Bromobenzene	(4)	8.409	156	519623	42.857
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	398940	43.096
123) 1,2,3-Trichloropropane	(4)	8.470	110	122441	44.610
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	265088	116.703
124) n-Propylbenzene	(4)	8.537	91	2277931	47.521
126) 2-Chlorotoluene	(4)	8.585	126	492843	43.816
130) 4-Chlorotoluene	(4)	8.677	126	519151	45.556
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	1686993	45.497
133) tert-Butylbenzene	(4)	8.938	134	409760	47.042
134) Pentachloroethane	(4)	8.938	167	351892	67.560
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	1747264	45.188
136) sec-Butylbenzene	(4)	9.109	105	2200584	46.618
138) 1,3-Dichlorobenzene	(4)	9.175	146	1033868	45.435
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	661749	50.000
139) p-Isopropyltoluene	(4)	9.230	119	2020745	47.769
141) 1,4-Dichlorobenzene	(4)	9.242	146	1052213	44.353
142) 1,2,3-Trimethylbenzene	(4)	9.291	105	2025797	48.602
143) Benzyl Chloride	(4)	9.352	126	175797	56.858
144) 1,3-Diethylbenzene	(4)	9.455	119	1369421	52.366
145) 1,4-Diethylbenzene	(4)	9.516	119	1490247	54.909
147) 1,2-Dichlorobenzene	(4)	9.516	146	1006429	45.240

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

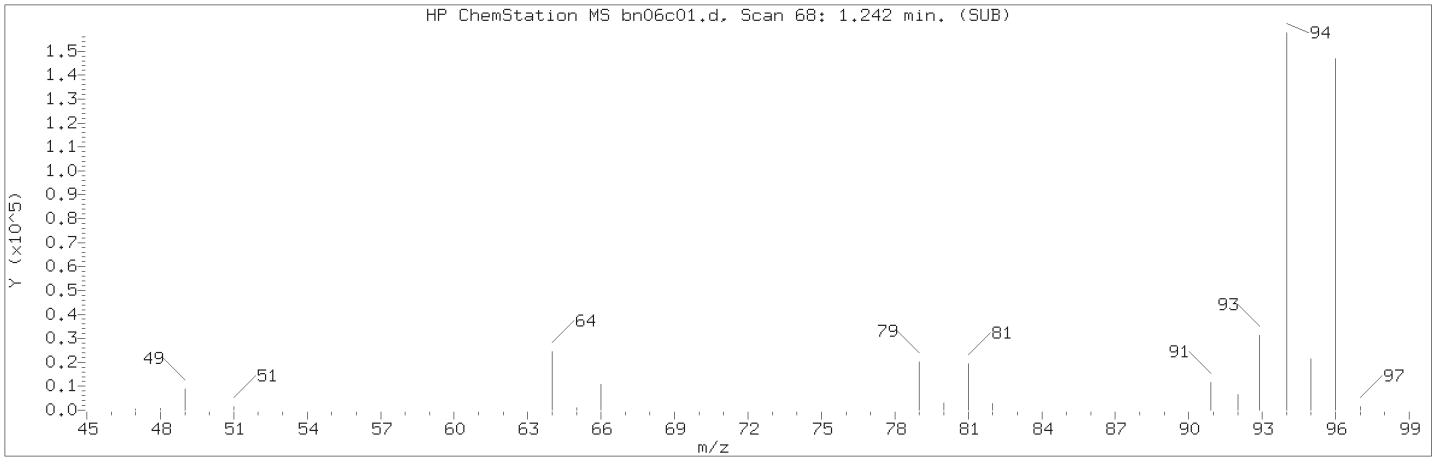
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

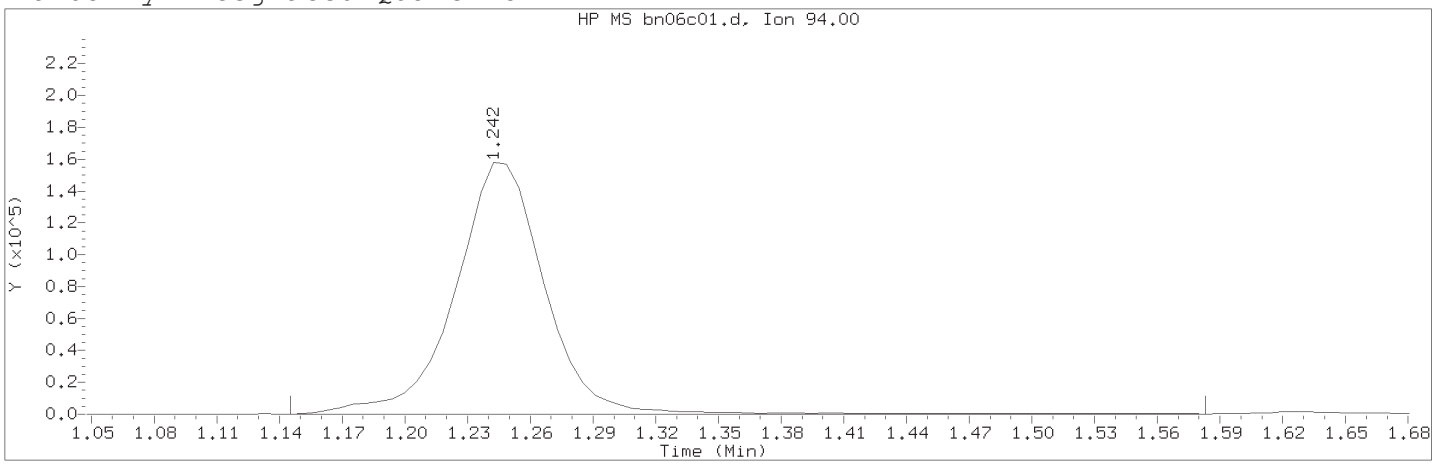
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146)	n-Butylbenzene	(4)	9.528	92	978303	49.778
148)	1,2-Diethylbenzene	(4)	9.595	119	1138840	49.778
149)	Diethylbenzene (total)	(4)		100	3998508	157.053
151)	1,2-Dibromo-3-chloropropane	(4)	10.070	75	64787	40.282
152)	1,3,5-Trichlorobenzene	(4)	10.216	180	824215	47.352
153)	1,2,4-Trichlorobenzene	(4)	10.629	180	738156	44.995
154)	Hexachlorobutadiene	(4)	10.745	225	368069	49.175
155)	Naphthalene	(4)	10.782	128	1579765	40.537
156)	1,2,3-Trichlorobenzene	(4)	10.940	180	685408	43.812
157)	2-Methylnaphthalene	(4)	11.505	142	1138900	43.207

Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

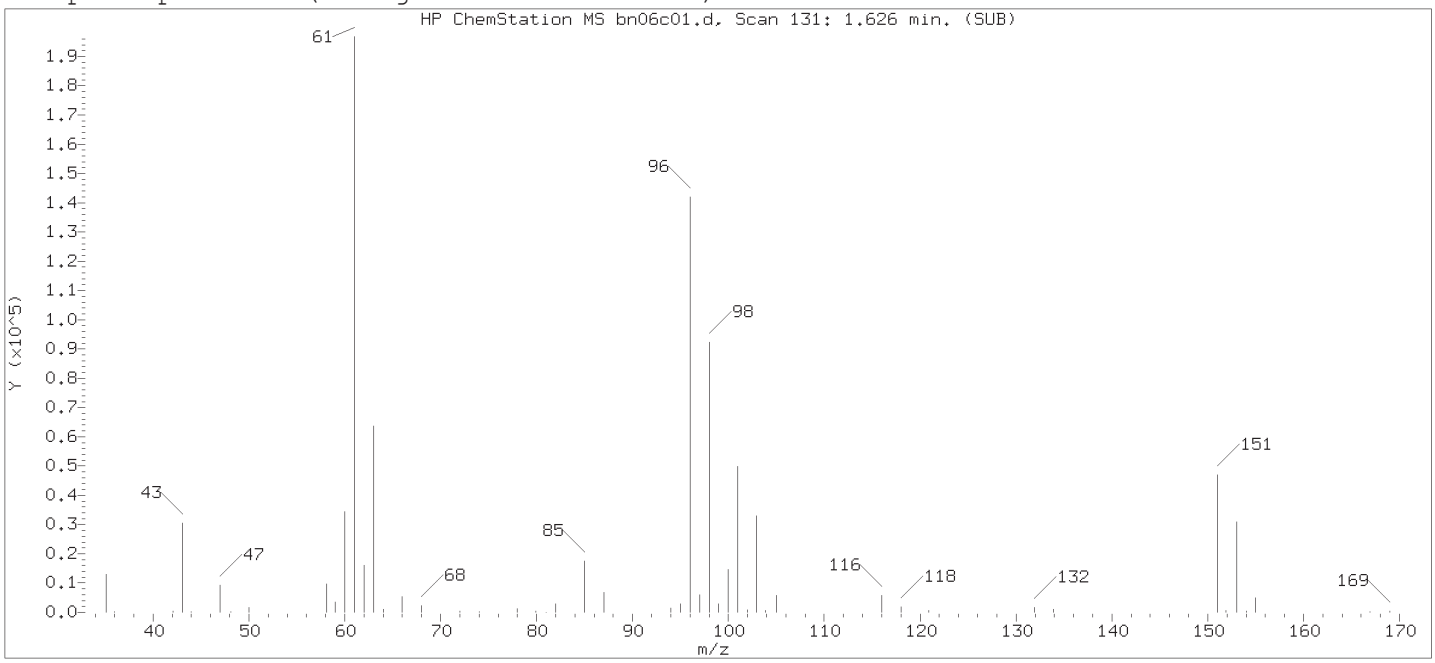
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 68
Retention Time (minutes): 1.242
Quant Ion : 94.00
Area (flag) : 473695A
On-Column Amount (ng) : 53.6756
Integration start scan : 51 Integration stop scan: 123
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

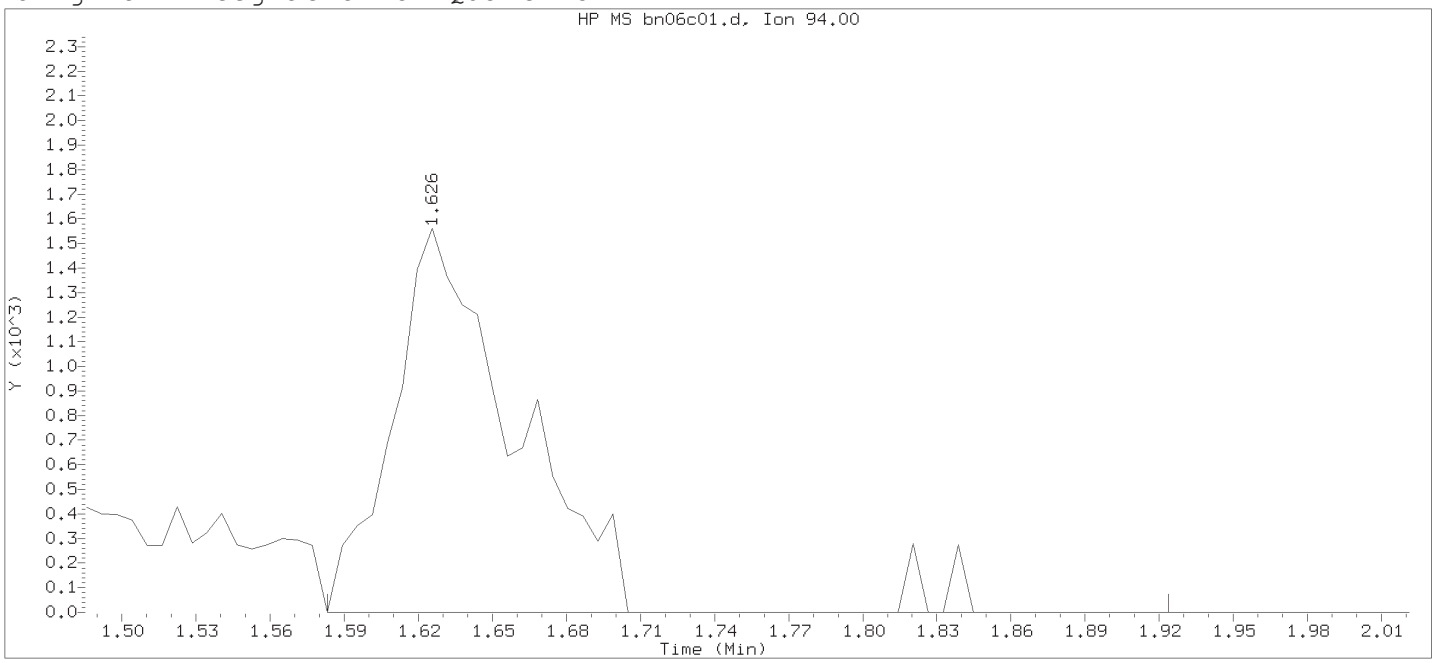
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Joshua E. Berrios on 11/09/2018 at 22:46.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

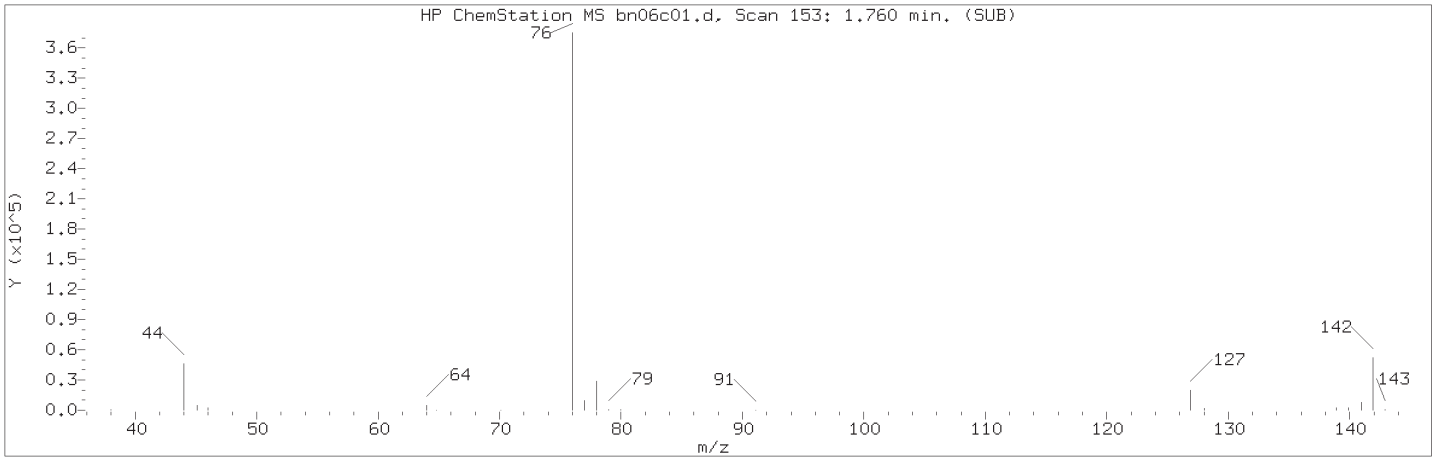
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:23 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

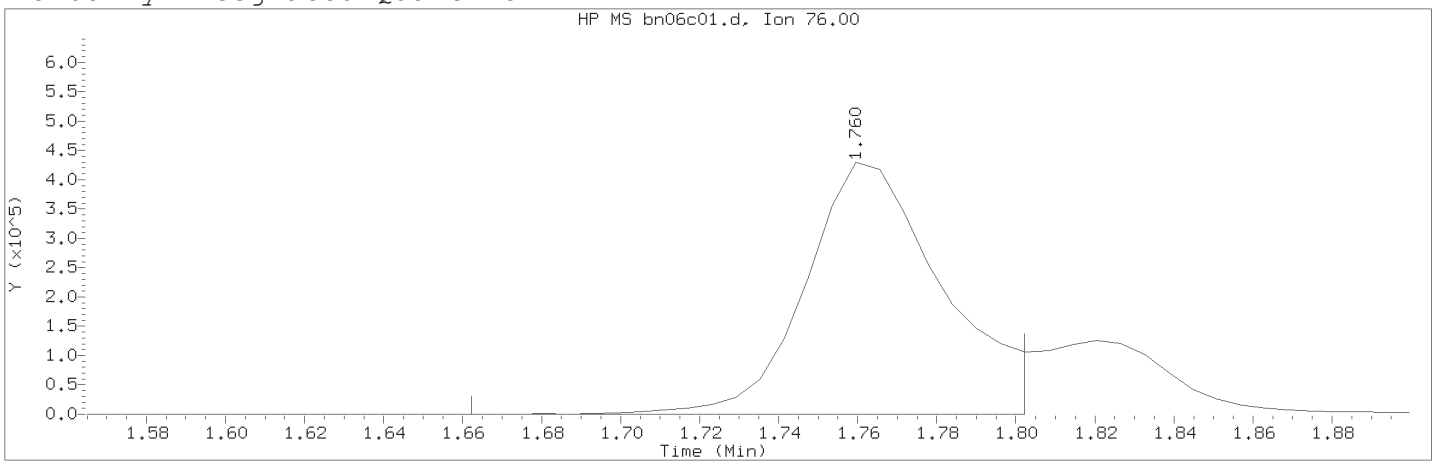
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 131
Retention Time (minutes): 1.626
Quant Ion : 94.00
Area : 5509
On-column Amount (ng) : 0.6243
Integration start scan : 123 Integration stop scan: 179
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

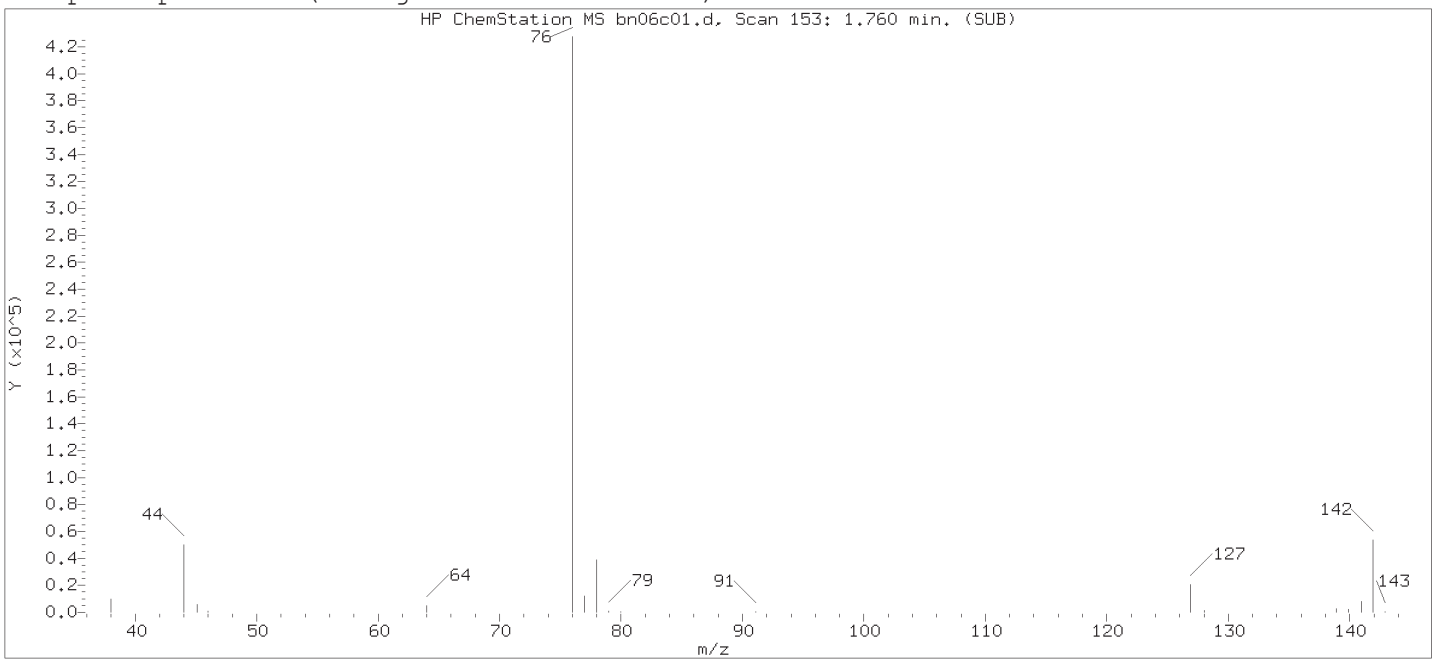
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 153
Retention Time (minutes): 1.760
Quant Ion : 76.00
Area (flag) : 1043092M
On-Column Amount (ng) : 38.0045
Integration start scan : 136 Integration stop scan: 159
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

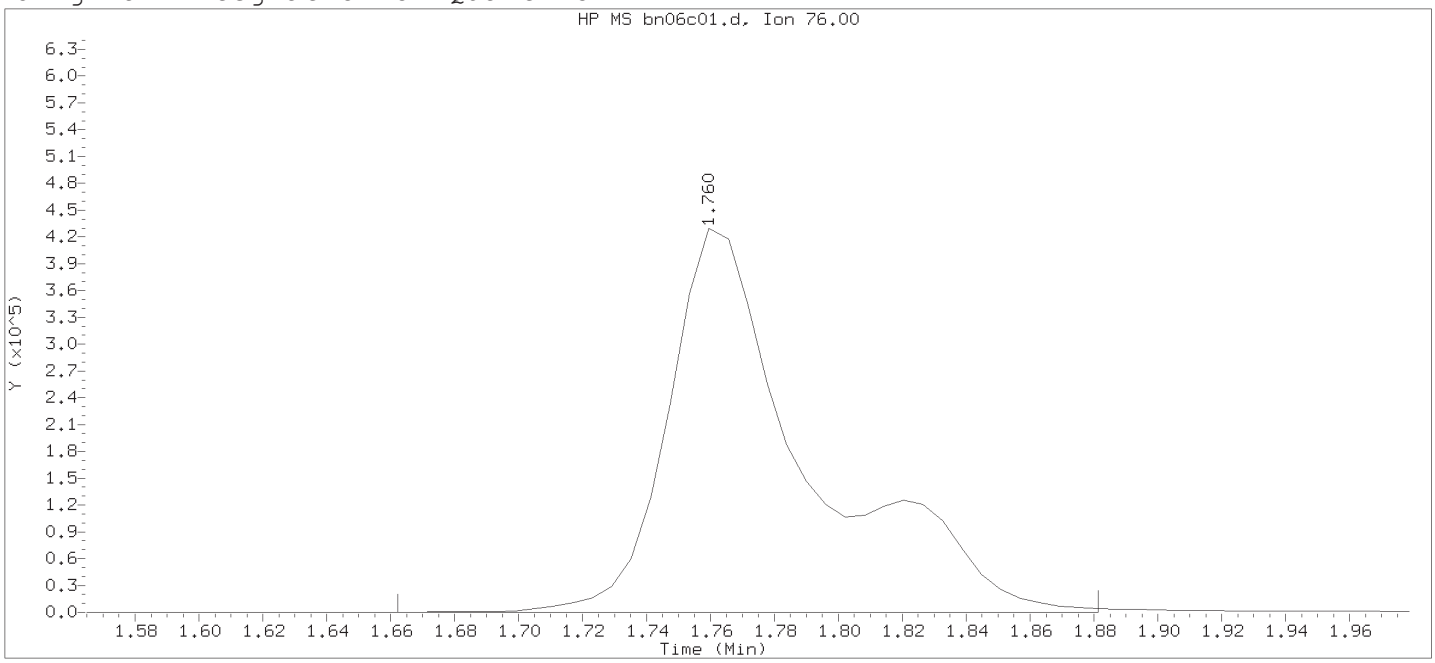
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Joshua E. Berrios on 11/09/2018 at 22:46.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

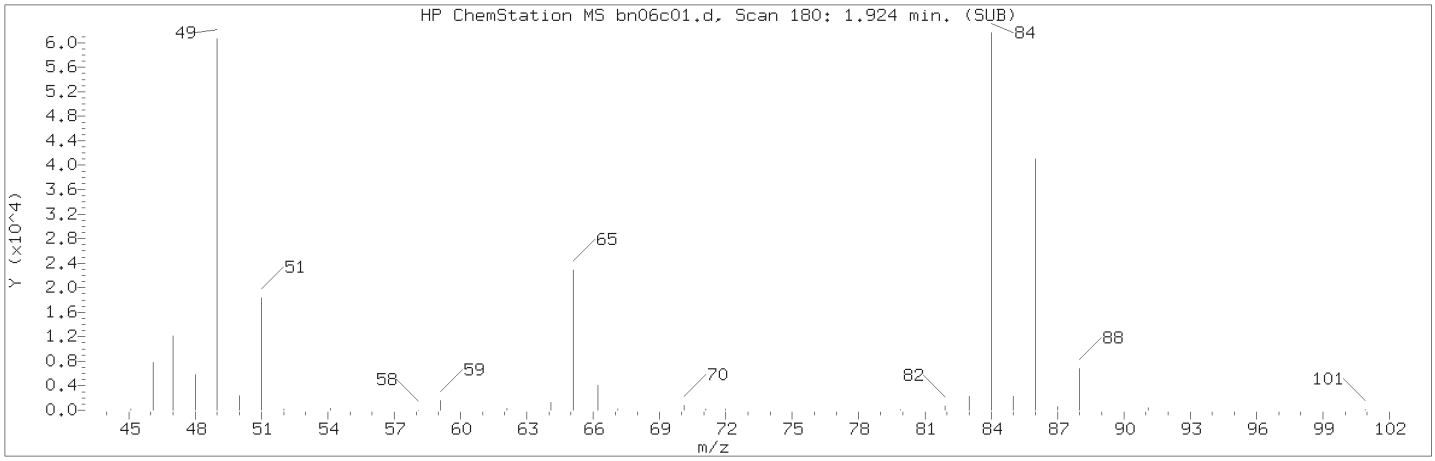
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:23 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

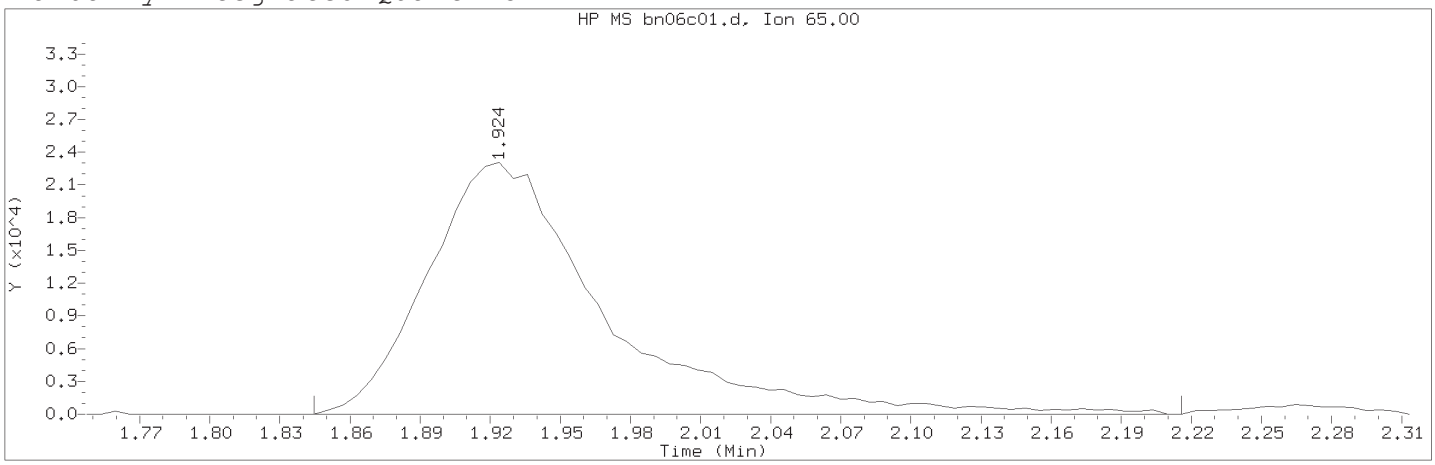
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 153
Retention Time (minutes): 1.760
Quant Ion : 76.00
Area : 1318957
On-column Amount (ng) : 48.0555
Integration start scan : 136 Integration stop scan: 172
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

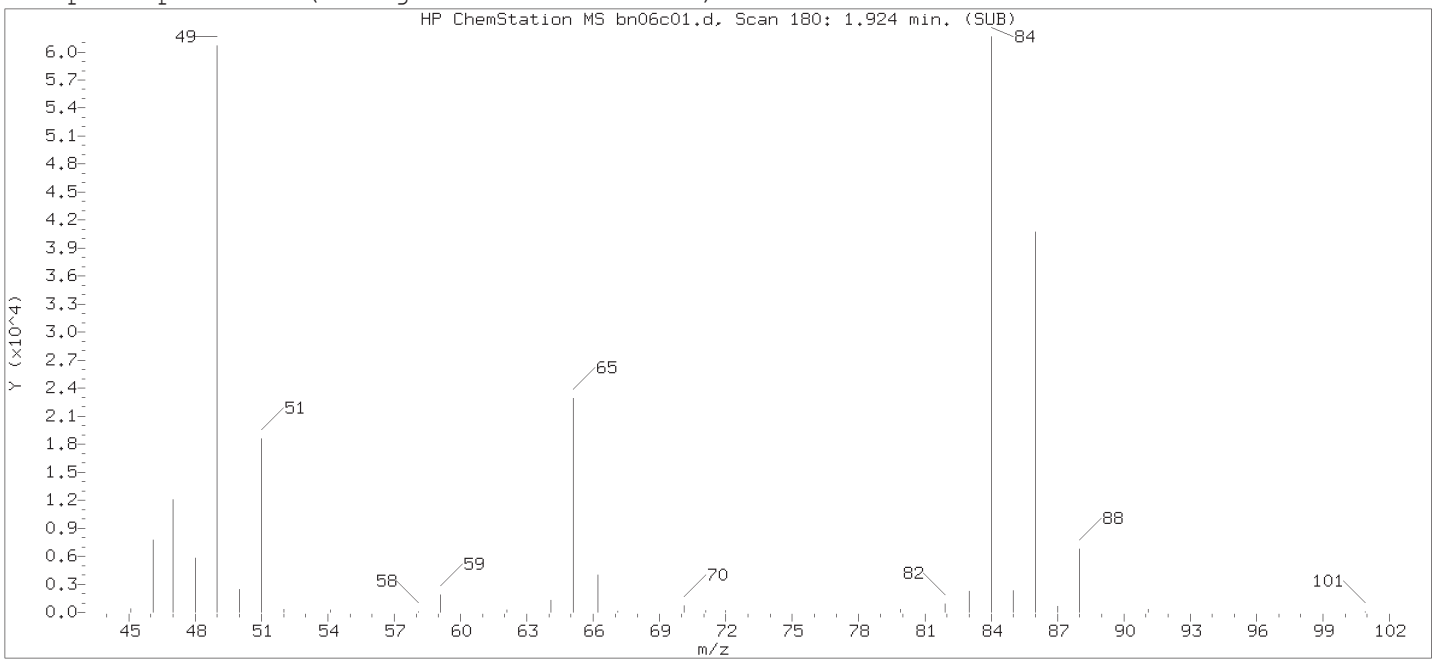
Compound Number : 30
Compound Name : t-Butyl alcohol-d10
Scan Number : 180
Retention Time (minutes): 1.924
Quant Ion : 65.00
Area (flag) : 121316M
On-Column Amount (ng) : 250.0000
Integration start scan : 166 Integration stop scan: 227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

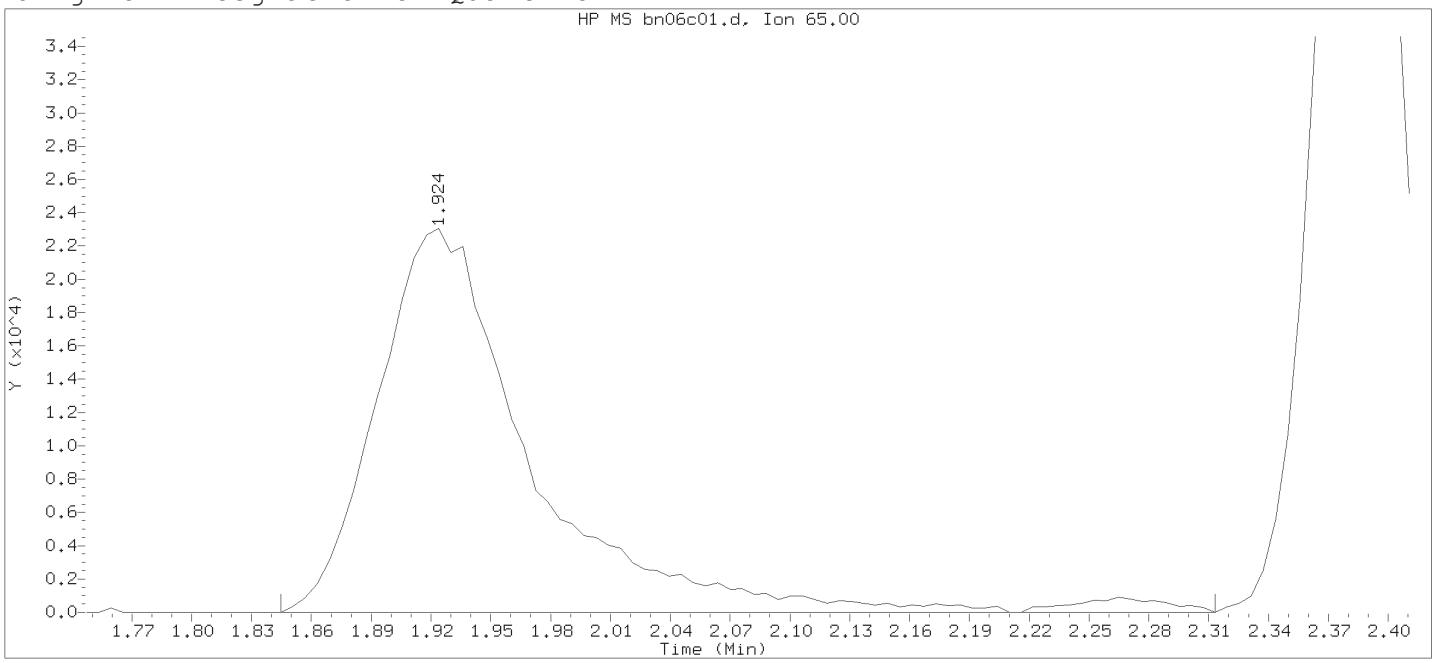
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Joshua E. Berrios on 11/09/2018 at 22:46.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

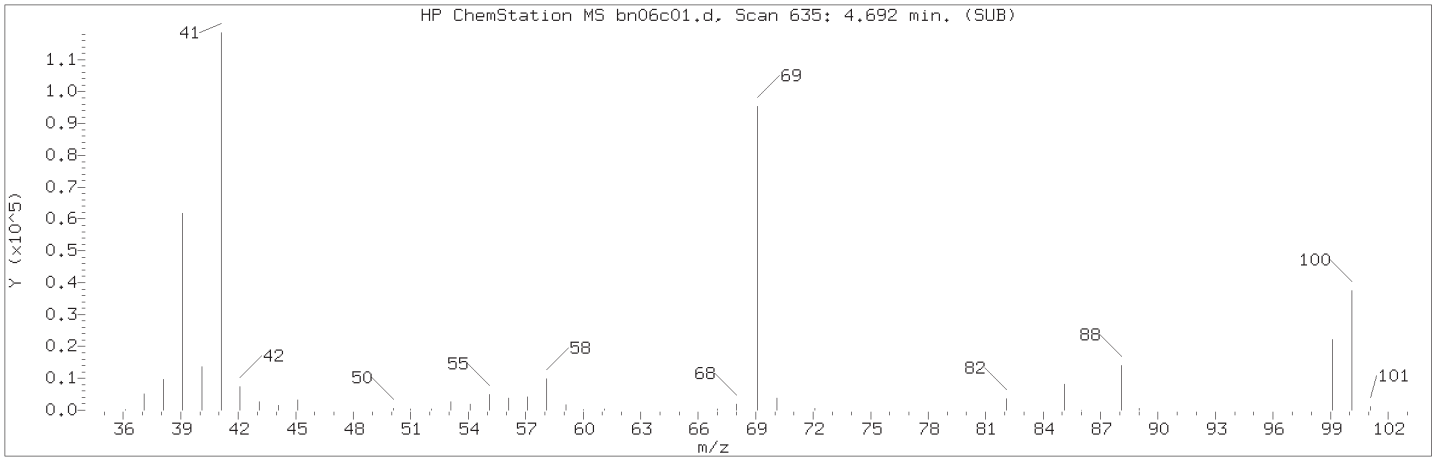
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:23 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

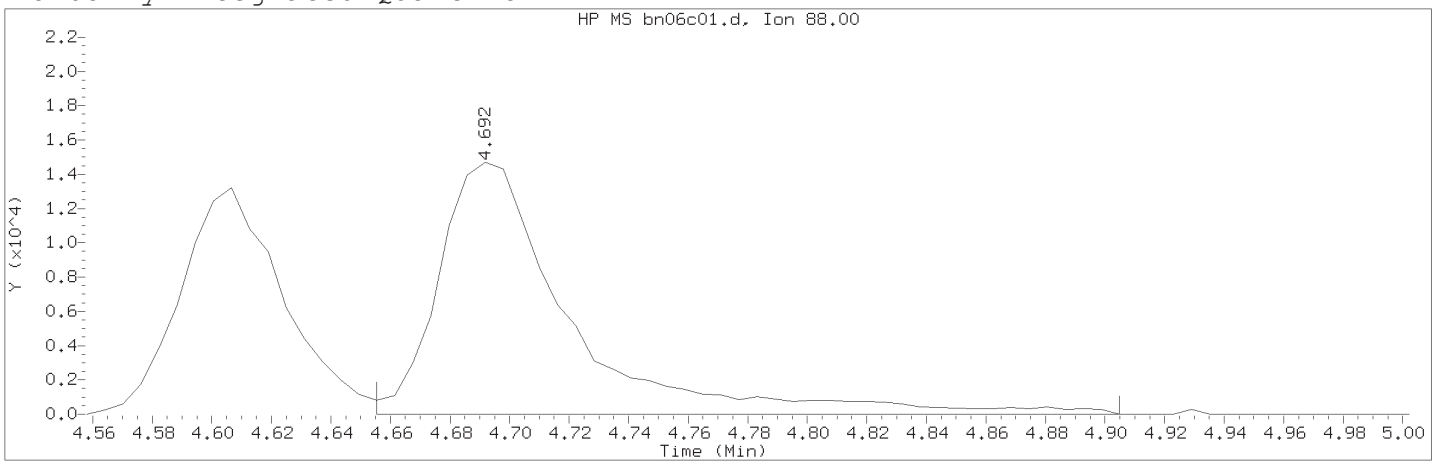
Compound Number : 30
Compound Name : t-Butyl alcohol-d10
Scan Number : 180
Retention Time (minutes): 1.924
Quant Ion : 65.00
Area : 124252
On-column Amount (ng) : 250.0000
Integration start scan : 166 Integration stop scan: 243
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

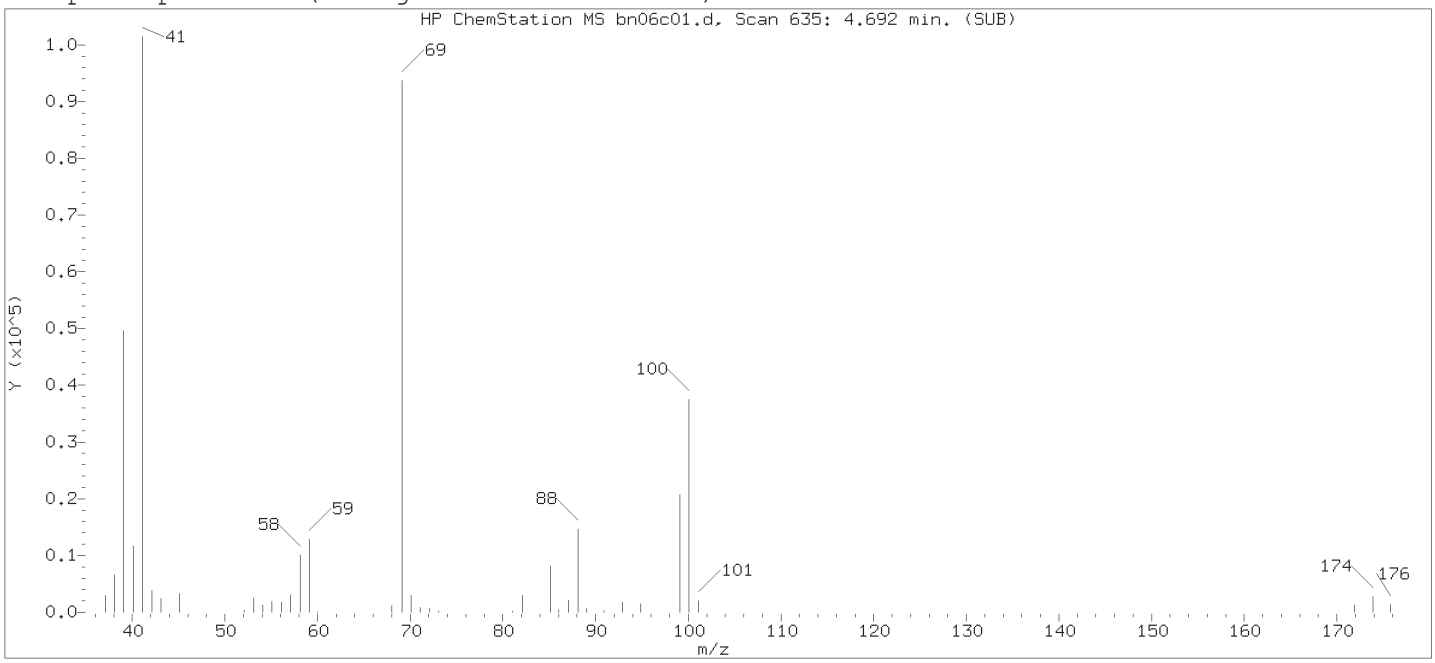
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 44930M
On-Column Amount (ng) : 578.2793
Integration start scan : 628 Integration stop scan: 669
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

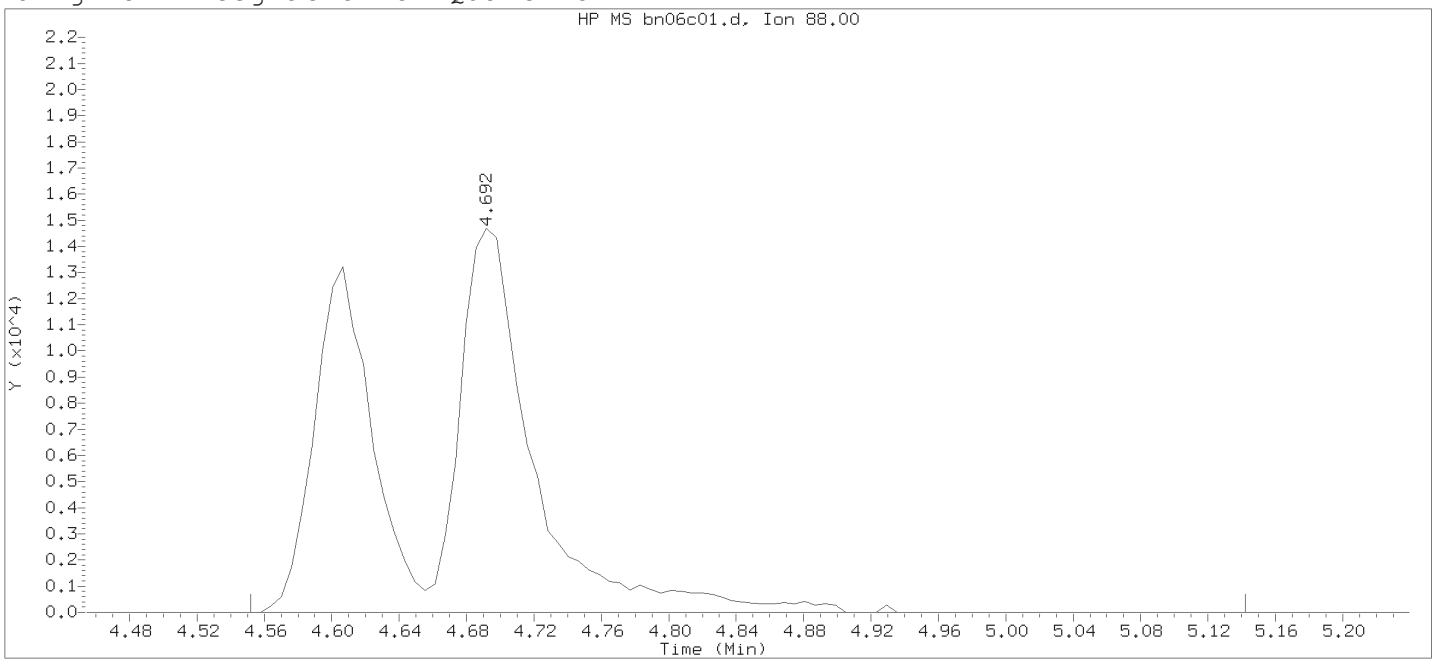
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Joshua E. Berrios on 11/09/2018 at 22:46.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

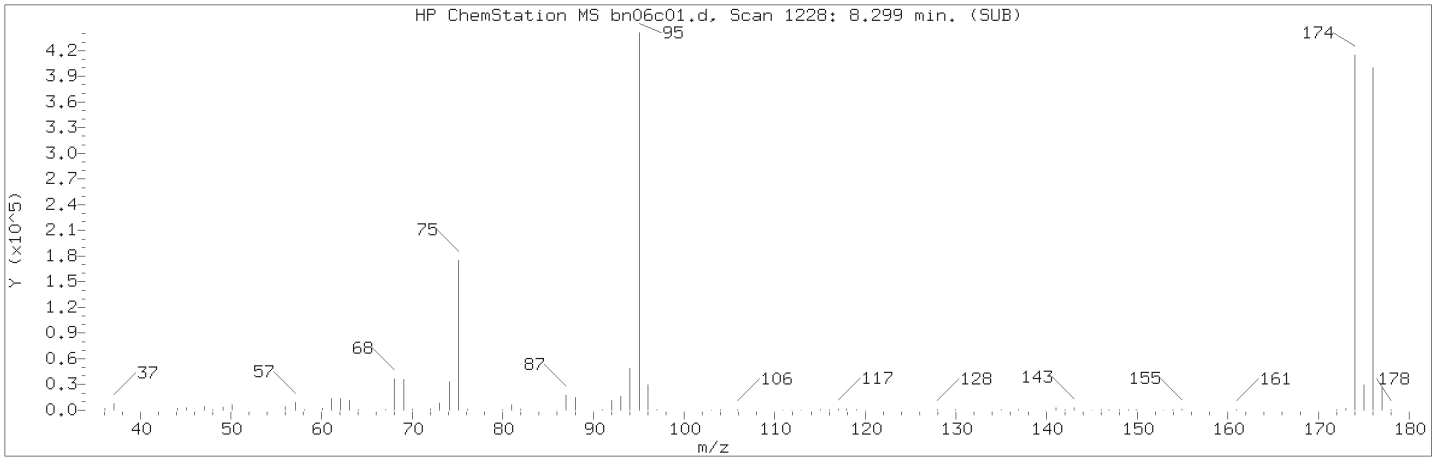
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:23 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

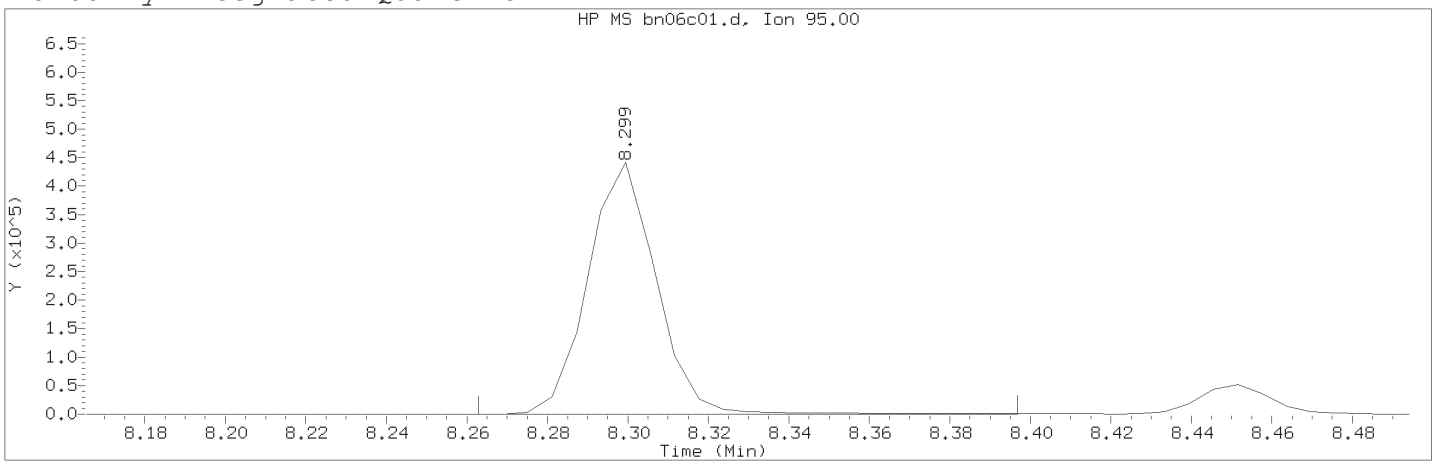
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 76319
On-column Amount (ng) : 959.0512
Integration start scan : 611 Integration stop scan: 708
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:24 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

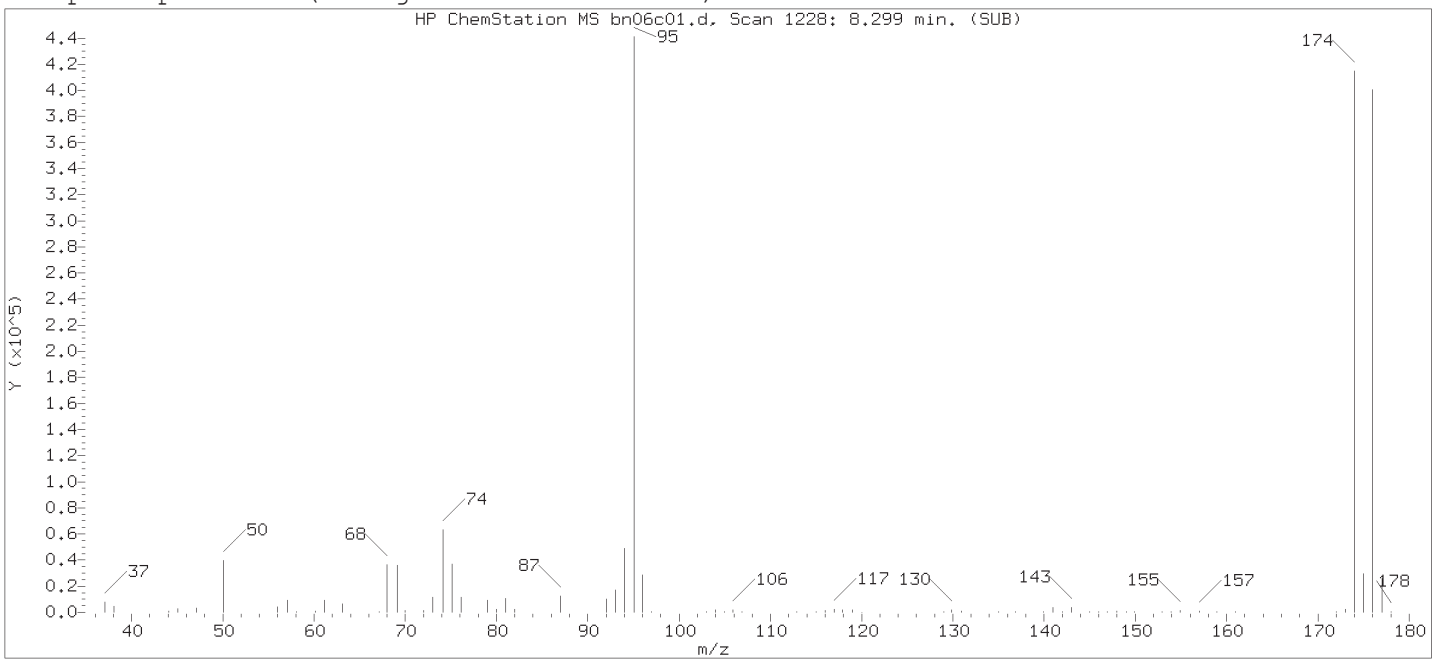
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.299
Quant Ion : 95.00
Area (flag) : 517605M
On-Column Amount (ng) : 49.9610
Integration start scan : 1221 Integration stop scan: 1243
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

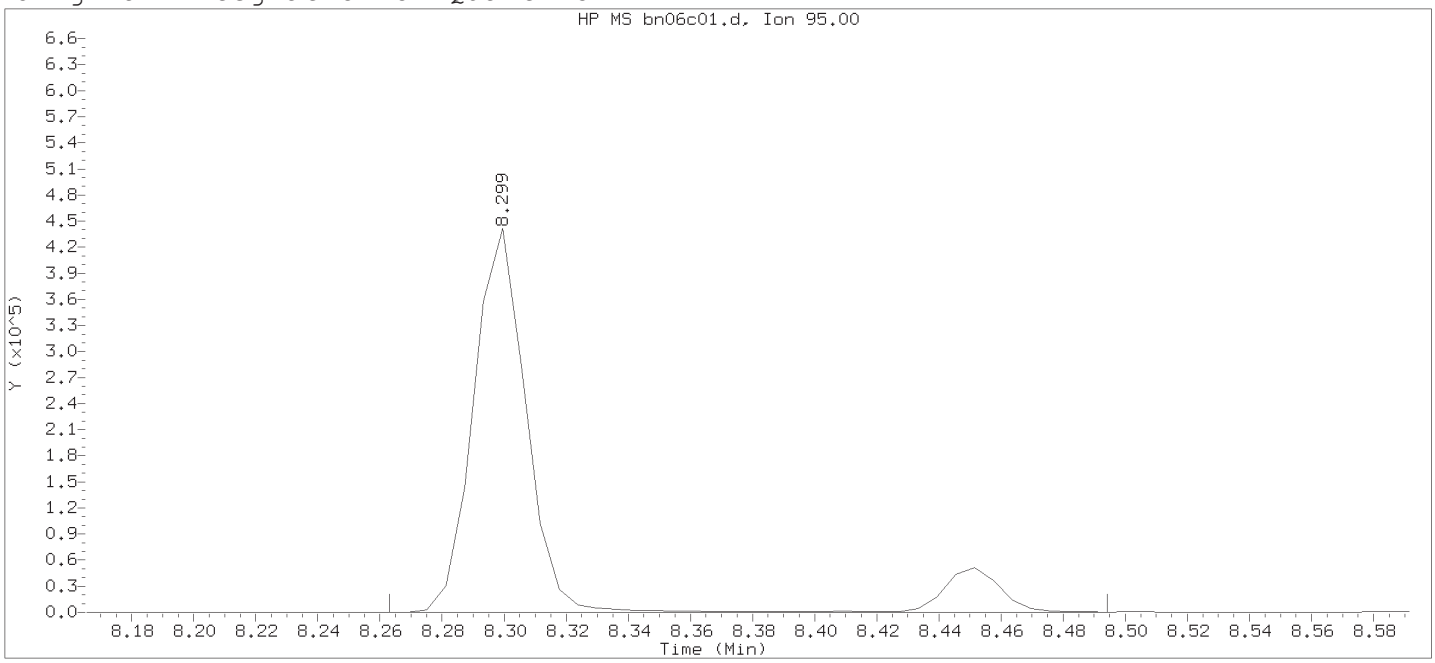
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Joshua E. Berrios on 11/09/2018 at 22:46.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06c01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 19:51 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 06-NOV-2018 20:23
Date, time and analyst ID of latest file update: 06-Nov-2018 20:23 pth10165

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 119		
Compound Name	: 4-Bromofluorobenzene		
Scan Number	: 1228		
Retention Time (minutes)	: 8.299		
Quant Ion	: 95.00		
Area	: 582776		
On-column Amount (ng)	: 56.2515		
Integration start scan	: 1221	Integration stop scan:	1259
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Patrick T. Herres on 11/06/2018 at 20:24.
Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Injection date and time: **07-NOV-2018 01:16**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.918	(0.006)	179	65	119430M	(-2)	250.00	
70) Fluorobenzene	3.944	(0.000)	512	96	1389195	(2)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1099731	(0)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	668359	(1)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.311	(0.002)	113	355913	51.407	103%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.002)	102	76806M	51.541	103%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1406910	49.568	99%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.299	(0.000)	95	511698M	49.488	99%		79 - 119

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.975	(0.003)	85	736704	58.731	58.73			0.6	5
4) Chloromethane	(2)	1.066	(0.001)	50	642077	49.661	49.66			0.6	5
5) Vinyl Chloride	(2)	1.109	(0.003)	62	504558	50.081	50.08			0.6	5
9) Bromomethane	(2)	1.236	(0.001)	94	464551	51.808	51.81			0.7	5
10) Chloroethane	(2)	1.261	(0.001)	64	280967	51.844	51.84			1	5
13) Trichlorofluoromethane	(2)	1.407	(0.001)	101	795156	57.332	57.33			0.7	5
19) 1,1-Dichloroethene	(2)	1.620	(0.001)	96	324041	46.494	46.49			0.5	5
20) Acetone	(1)	1.638	(0.000)	58	48935	89.307	89.31			6	20
22) Freon 113	(2)	1.644	(0.003)	101	392313	56.144	56.14			0.6	10
25) Carbon Disulfide	(2)	1.754	(0.001)	76	1023325	36.696	36.70			0.6	5
27) Methyl Acetate	(2)	1.820	(0.001)	43	191298M	53.527	53.53			1	5
31) Methylene Chloride	(2)	1.900	(0.001)	84	353104	42.872	42.87			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.082	(0.003)	73	872543	44.014	44.01			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.076	(0.001)	96	367388	45.329	45.33			0.5	5
40) 1,1-Dichloroethane	(2)	2.380	(0.001)	63	621122	47.262	47.26			0.5	5
44) 2-Butanone	(1)	2.885	(-0.001)	43	254297	82.820	82.82			1	10
45) cis-1,2-Dichloroethene	(2)	2.873	(0.001)	96	412903	46.934	46.93			0.5	5
54) Chloroform	(2)	3.165	(0.001)	83	616541	46.220	46.22			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.335	(0.001)	97	554463	40.597	40.60			0.6	5
58) Cyclohexane	(2)	3.384	(0.003)	56	671087	52.302	52.30			0.5	5
61) Carbon Tetrachloride	(2)	3.487	(0.001)	117	487638	47.011	47.01			0.5	5
64) Benzene	(2)	3.664	(0.001)	78	1447308	45.677	45.68			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	406698	44.477	44.48			0.6	5
75) Trichloroethene	(2)	4.302	(0.001)	95	385813	46.691	46.69			0.5	5
76) Methylcyclohexane	(2)	4.497	(0.001)	83	815621	63.428	63.43			0.6	5
77) 1,2-Dichloropropane	(2)	4.522	(0.001)	63	353210	46.940	46.94			0.5	5
84) Bromodichloromethane	(2)	4.820	(0.000)	83	427597	45.504	45.50			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.294	(0.000)	75	532157	46.899	46.90			0.4	5

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Injection date and time: **07-NOV-2018 01:16**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

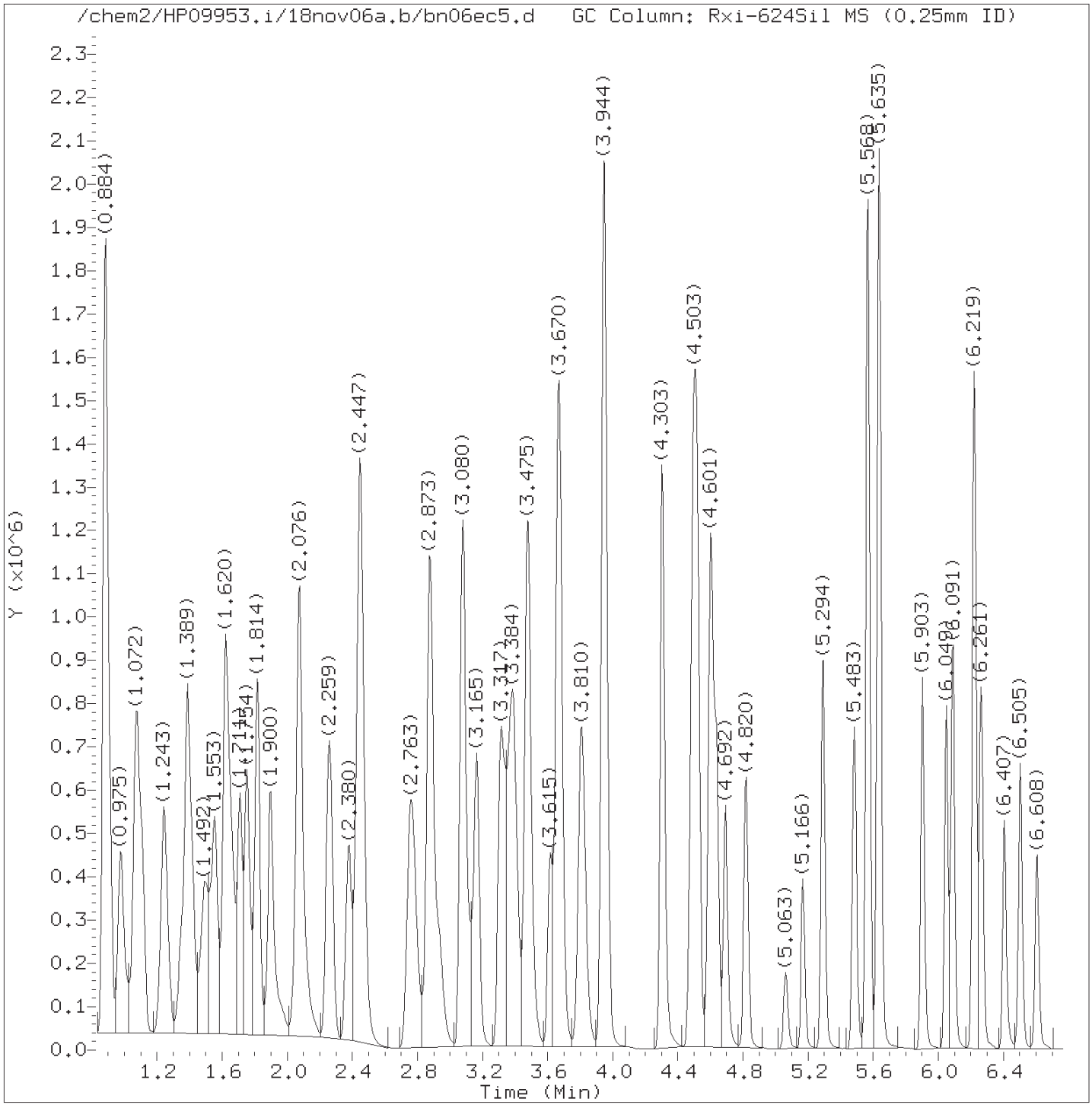
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
90) 4-Methyl-2-pentanone	(2)	5.483(0.001)	43	514019	79.158	79.16			1	10
92) Toluene	(3)	5.635(0.000)	92	933922	44.362	44.36			0.6	5
93) trans-1,3-Dichloropropene	(3)	5.902(0.000)	75	448989	44.524	44.52			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(-0.000)	97	303623	44.443	44.44			0.5	5
98) Tetrachloroethene	(3)	6.219(0.000)	166	481010	41.714	41.71			0.5	5
101) 2-Hexanone	(3)	6.408(-0.000)	43	357246	72.654	72.65			1	10
103) Dibromochloromethane	(3)	6.505(-0.000)	129	354636	45.057	45.06			0.4	5
104) 1,2-Dibromoethane	(3)	6.608(-0.000)	107	318220	45.087	45.09			0.4	5
107) Chlorobenzene	(3)	7.174(0.000)	112	1101508	44.814	44.81			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	1810665	45.730	45.73			0.4	5
110) m+p-Xylene	(3)	7.448(0.000)	106	1489874	92.212	92.21			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	730070	45.199	45.20			0.4	5
112) Xylene (Total)	(3)		106	2219944	137.410	137.41			1	5
113) Styrene	(3)	7.849(0.000)	104	1191860	44.759	44.76			0.3	5
114) Bromoform	(3)	7.995(0.000)	173	214331	43.699	43.70			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	1877750	46.120	46.12			0.4	5
118) Cyclohexanone	(1)	8.232(-0.013)	55	150561	543.943	543.94			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(-0.000)	83	395424	42.294	42.29			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.176(-0.000)	146	987626	42.974	42.97			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(0.000)	146	1015862	42.397	42.40			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	975000	43.394	43.39			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(0.000)	75	64991	40.010	40.01			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.629(0.000)	180	720654	43.494	43.49			5	10

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

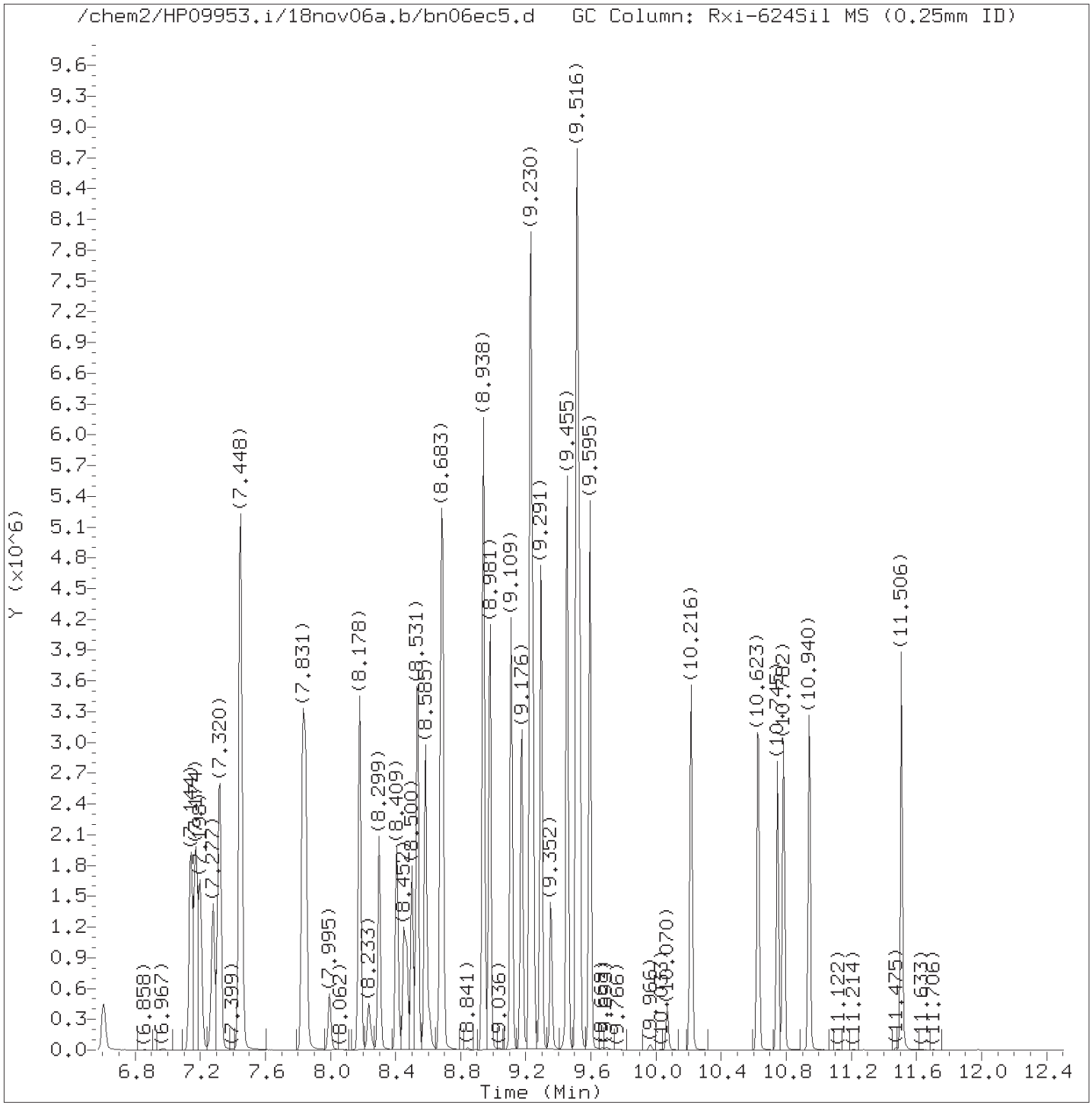
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.975	85	736704	58.731
4) Chloromethane	(2)	1.066	50	642077	49.661
5) Vinyl Chloride	(2)	1.109	62	504558	50.081
9) Bromomethane	(2)	1.236	94	464551	51.808
10) Chloroethane	(2)	1.261	64	280967	51.844
13) Trichlorofluoromethane	(2)	1.407	101	795156	57.332
19) 1,1-Dichloroethene	(2)	1.620	96	324041	46.494
20) Acetone	(1)	1.638	58	48935	89.307
22) Freon 113	(2)	1.644	101	392313	56.144
25) Carbon Disulfide	(2)	1.754	76	1023325	36.696
27) Methyl Acetate	(2)	1.820	43	191298M	53.527
31) Methylene Chloride	(2)	1.900	84	353104	42.872
30)*t-Butyl alcohol-d10	(1)	1.918	65	119430M	250.000
35) trans-1,2-Dichloroethene	(2)	2.076	96	367388	45.329
34) Methyl Tertiary Butyl Ether	(2)	2.082	73	872543	44.014
40) 1,1-Dichloroethane	(2)	2.380	63	621122	47.262
45) cis-1,2-Dichloroethene	(2)	2.873	96	412903	46.934
44) 2-Butanone	(1)	2.885	43	254297	82.820
54) Chloroform	(2)	3.165	83	616541	46.220
56)$Dibromofluoromethane	(2)	3.311	113	355913	51.407
57) 1,1,1-Trichloroethane	(2)	3.335	97	554463	40.597
58) Cyclohexane	(2)	3.384	56	671087	52.302
61) Carbon Tetrachloride	(2)	3.487	117	487638	47.011
63)$1,2-Dichloroethane-d4	(2)	3.615	102	76806M	51.541
64) Benzene	(2)	3.664	78	1447308	45.677
67) 1,2-Dichloroethane	(2)	3.688	62	406698	44.477
70)*Fluorobenzene	(2)	3.944	96	1389195	50.000
75) Trichloroethene	(2)	4.303	95	385813	46.691
76) Methylcyclohexane	(2)	4.497	83	815621	63.428
77) 1,2-Dichloropropane	(2)	4.522	63	353210	46.940
84) Bromodichloromethane	(2)	4.820	83	427597	45.504
89) cis-1,3-Dichloropropene	(2)	5.294	75	532157	46.899
90) 4-Methyl-2-pentanone	(2)	5.483	43	514019	79.158
91)$Toluene-d8	(3)	5.568	98	1406910	49.568
92) Toluene	(3)	5.635	92	933922	44.362
93) trans-1,3-Dichloropropene	(3)	5.903	75	448989	44.524
96) 1,1,2-Trichloroethane	(3)	6.091	97	303623	44.443
98) Tetrachloroethene	(3)	6.219	166	481010	41.714

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

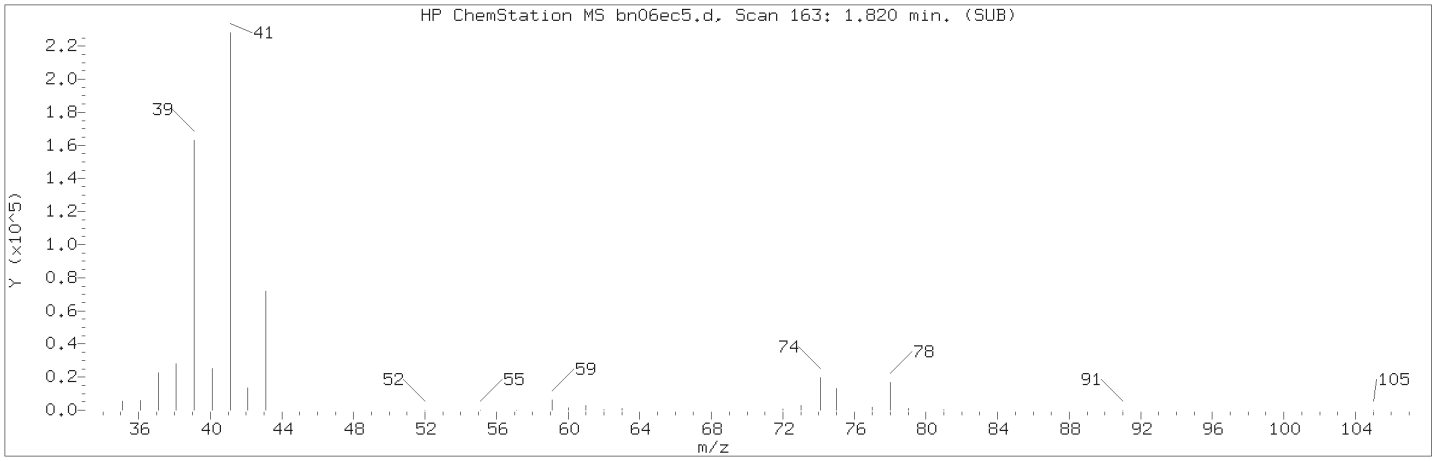
Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.407	43	357246	72.654
103) Dibromochloromethane	(3)	6.505	129	354636	45.057
104) 1,2-Dibromoethane	(3)	6.608	107	318220	45.087
105)*Chlorobenzene-d5	(3)	7.144	117	1099731	50.000
107) Chlorobenzene	(3)	7.174	112	1101508	44.814
109) Ethylbenzene	(3)	7.320	91	1810665	45.730
110) m+p-Xylene	(3)	7.448	106	1489874	92.212
111) o-Xylene	(3)	7.831	106	730070	45.199
113) Styrene	(3)	7.849	104	1191860	44.759
112) Xylene (Total)	(3)		106	2219944	137.410
114) Bromoform	(3)	7.995	173	214331	43.699
115) Isopropylbenzene	(3)	8.178	105	1877750	46.120
118) Cyclohexanone	(1)	8.233	55	150561	543.943
119)$4-Bromofluorobenzene	(3)	8.299	95	511698M	49.488
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	395424	42.294
138) 1,3-Dichlorobenzene	(4)	9.176	146	987626	42.974
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	668359	50.000
141) 1,4-Dichlorobenzene	(4)	9.242	146	1015862	42.397
147) 1,2-Dichlorobenzene	(4)	9.516	146	975000	43.394
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	64991	40.010
153) 1,2,4-Trichlorobenzene	(4)	10.629	180	720654	43.494

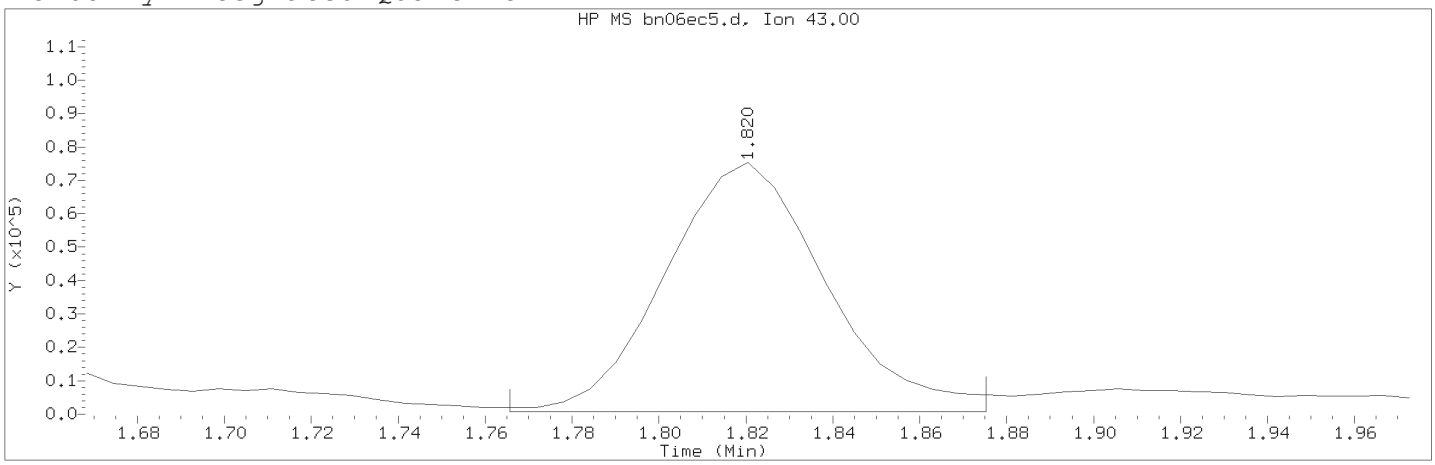
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

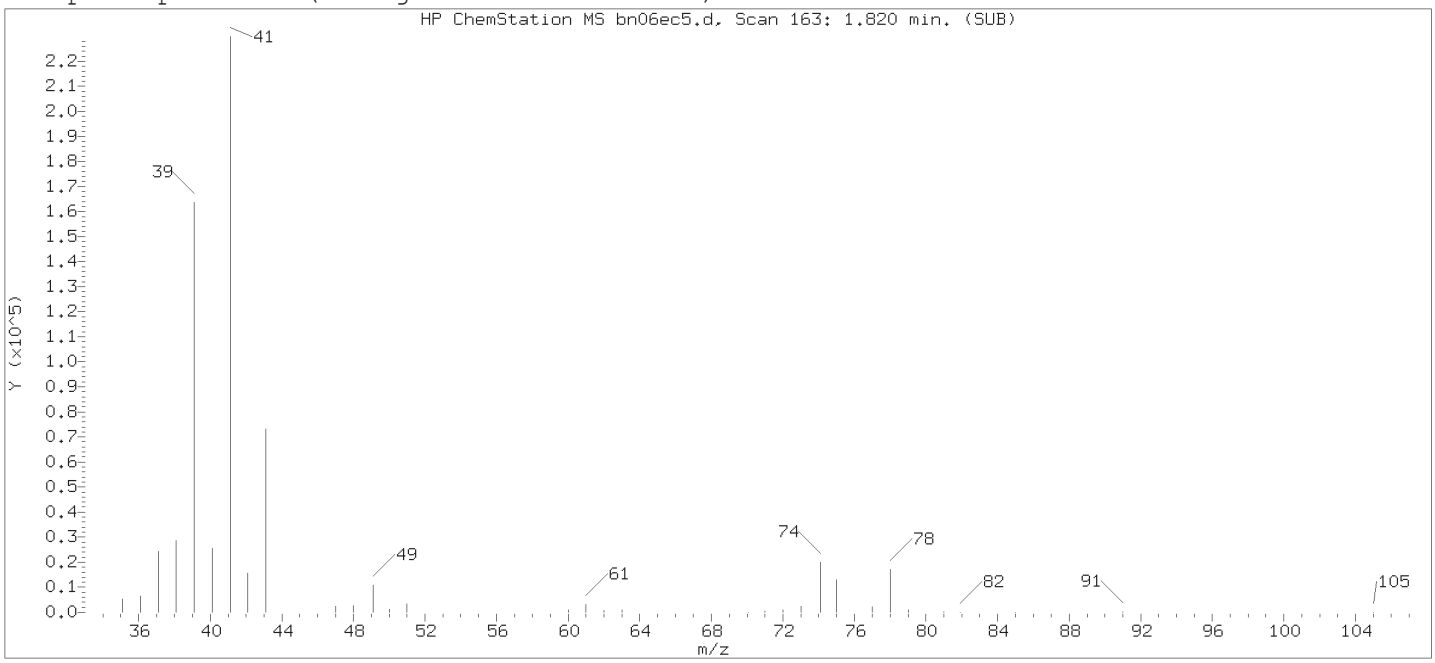
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 163
Retention Time (minutes): 1.820
Quant Ion : 43.00
Area (flag) : 191298M
On-Column Amount (ng) : 53.5271
Integration start scan : 153 Integration stop scan: 171
Y at integration start : 750 Y at integration end: 750

Reason for manual integration: improper integration

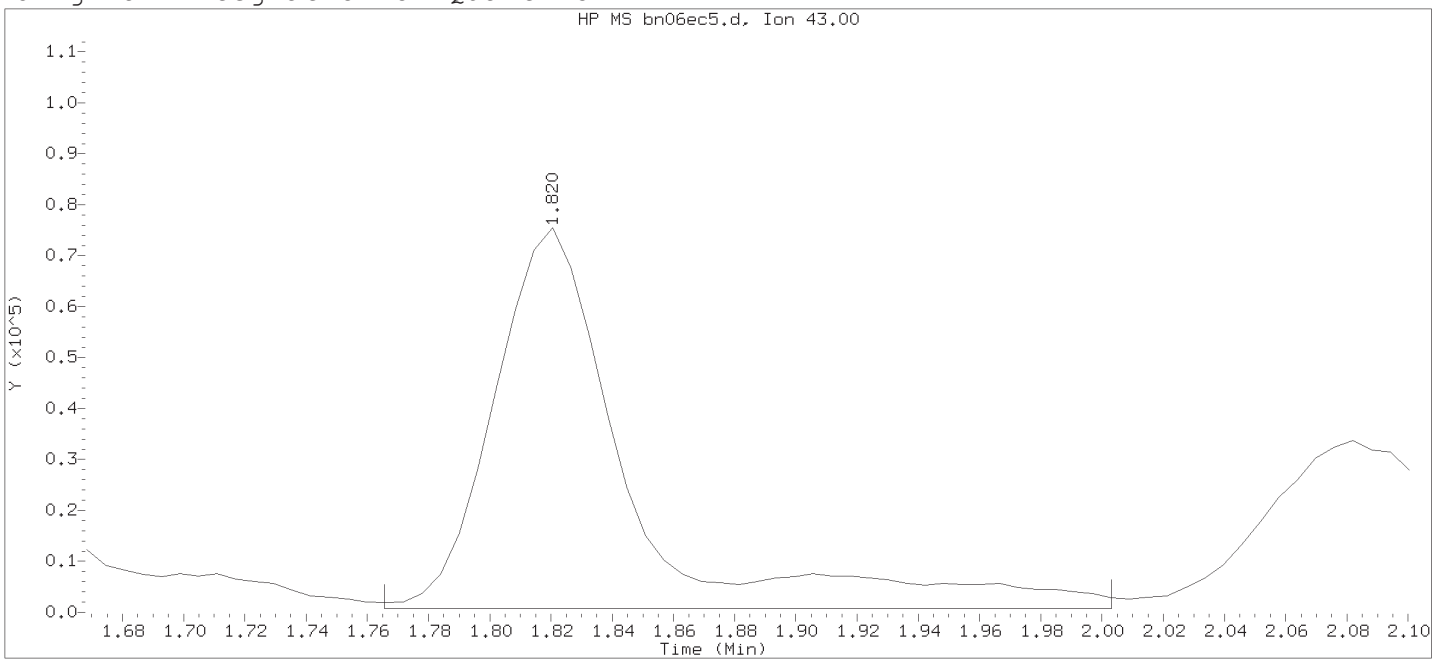
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

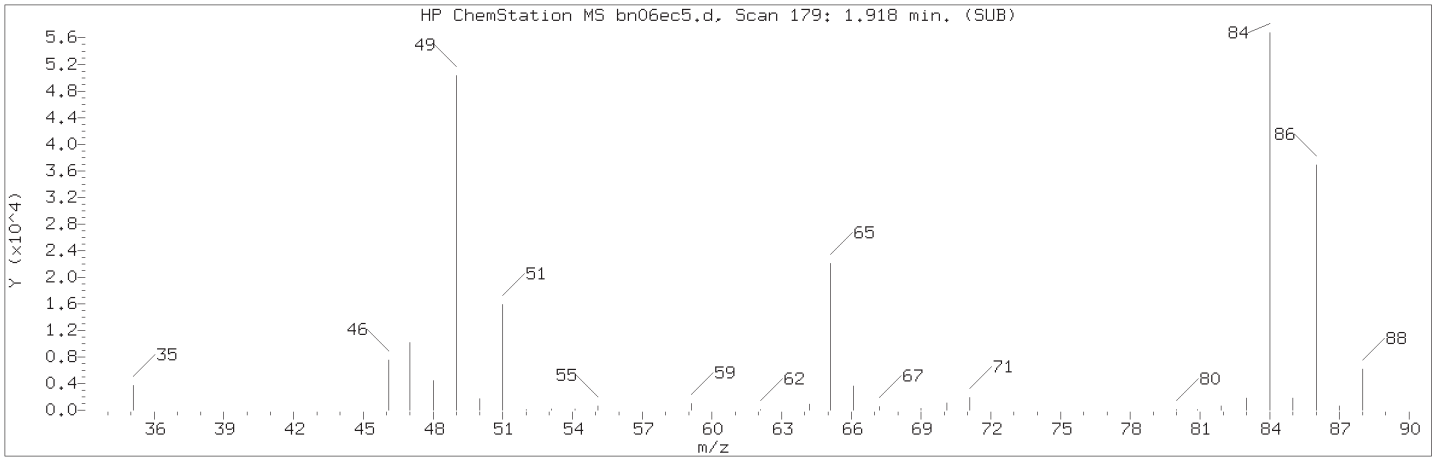
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 01:31 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

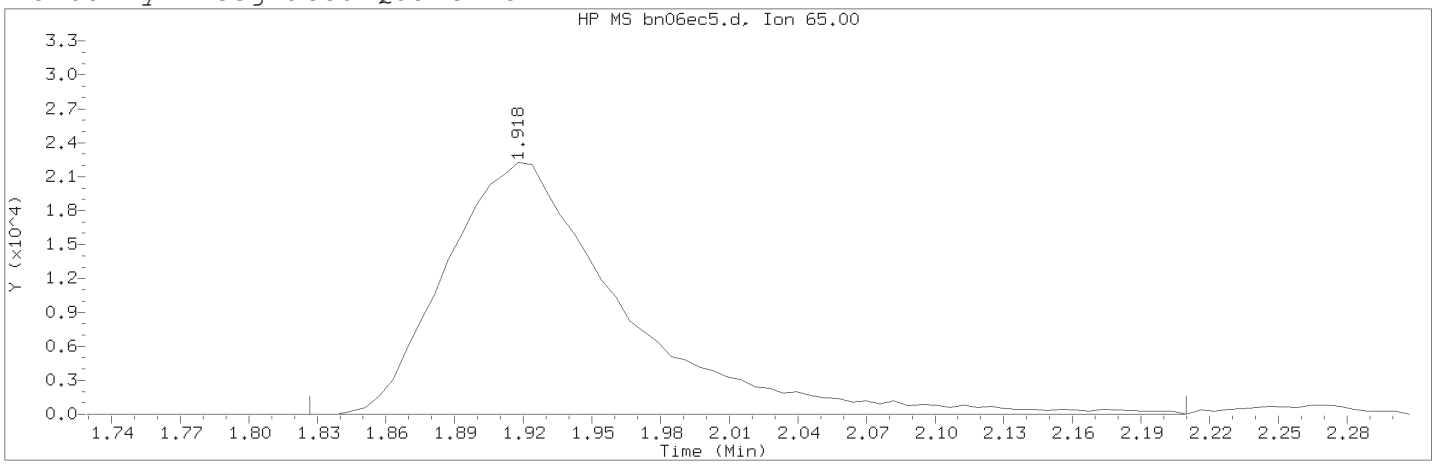
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 163
Retention Time (minutes): 1.820
Quant Ion : 43.00
Area : 227889
On-column Amount (ng) : 63.7655
Integration start scan : 153 Integration stop scan: 192
Y at integration start : 750 Y at integration end: 750

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jhowe0352

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

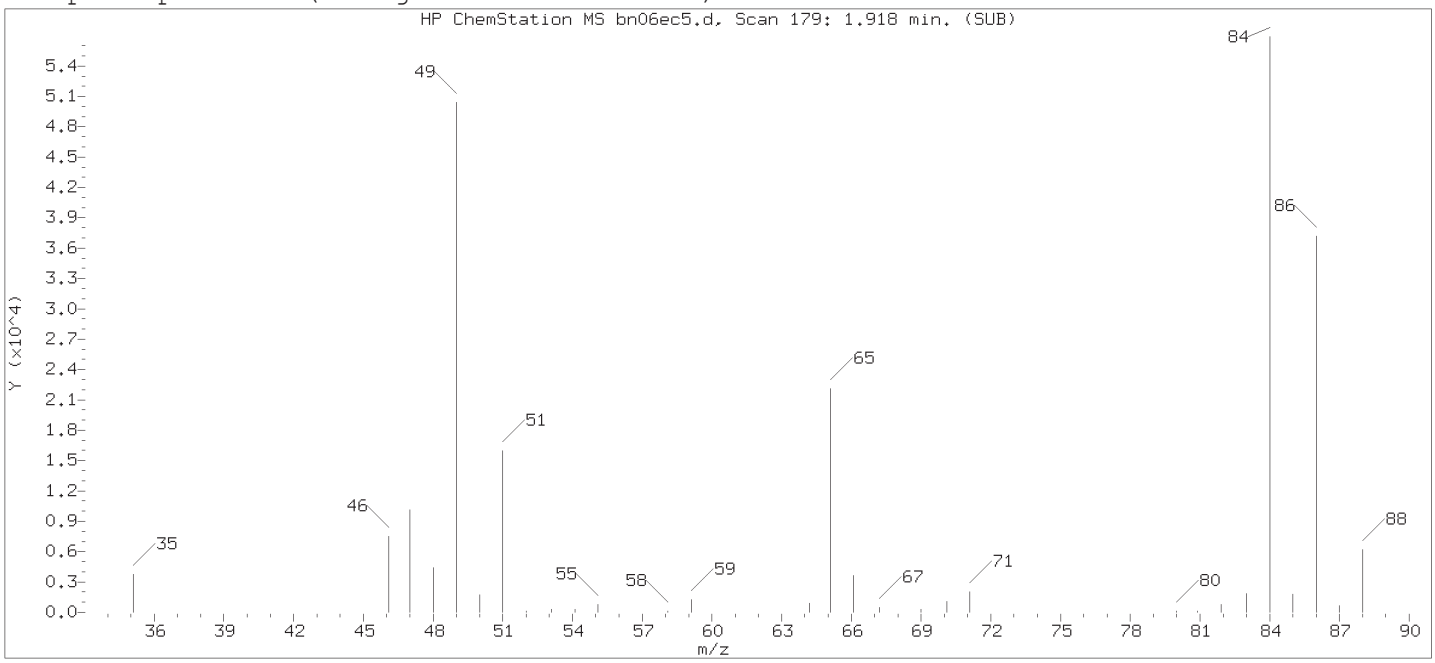
Compound Number : 30
Compound Name : t-Butyl alcohol-d10
Scan Number : 179
Retention Time (minutes): 1.918
Quant Ion : 65.00
Area (flag) : 119430M
On-Column Amount (ng) : 250.0000
Integration start scan : 163 Integration stop scan: 226
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

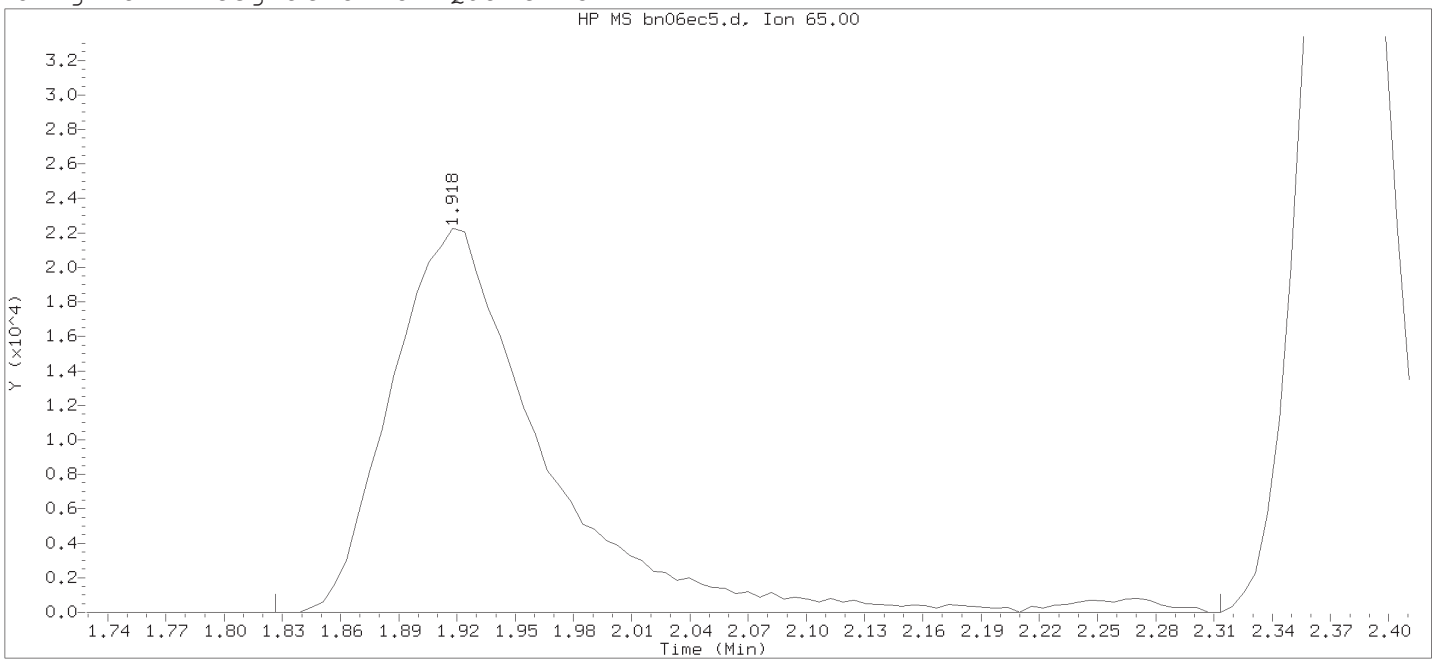
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

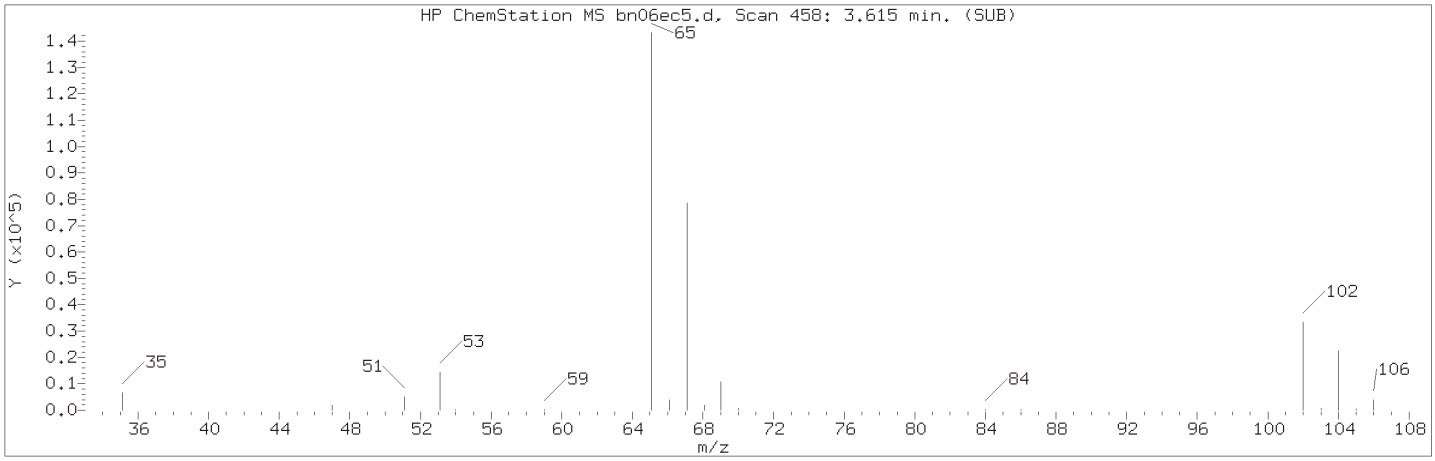
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 01:31 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

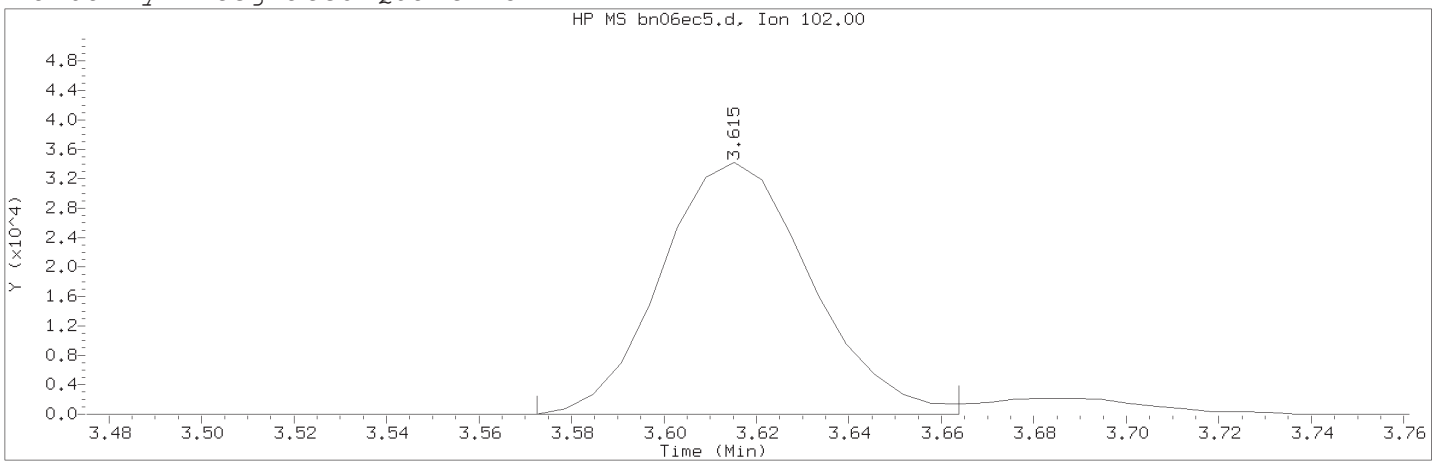
Compound Number : 30
Compound Name : t-Butyl alcohol-d10
Scan Number : 179
Retention Time (minutes): 1.918
Quant Ion : 65.00
Area : 122196
On-column Amount (ng) : 250.0000
Integration start scan : 163 Integration stop scan: 243
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jhowe0372

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

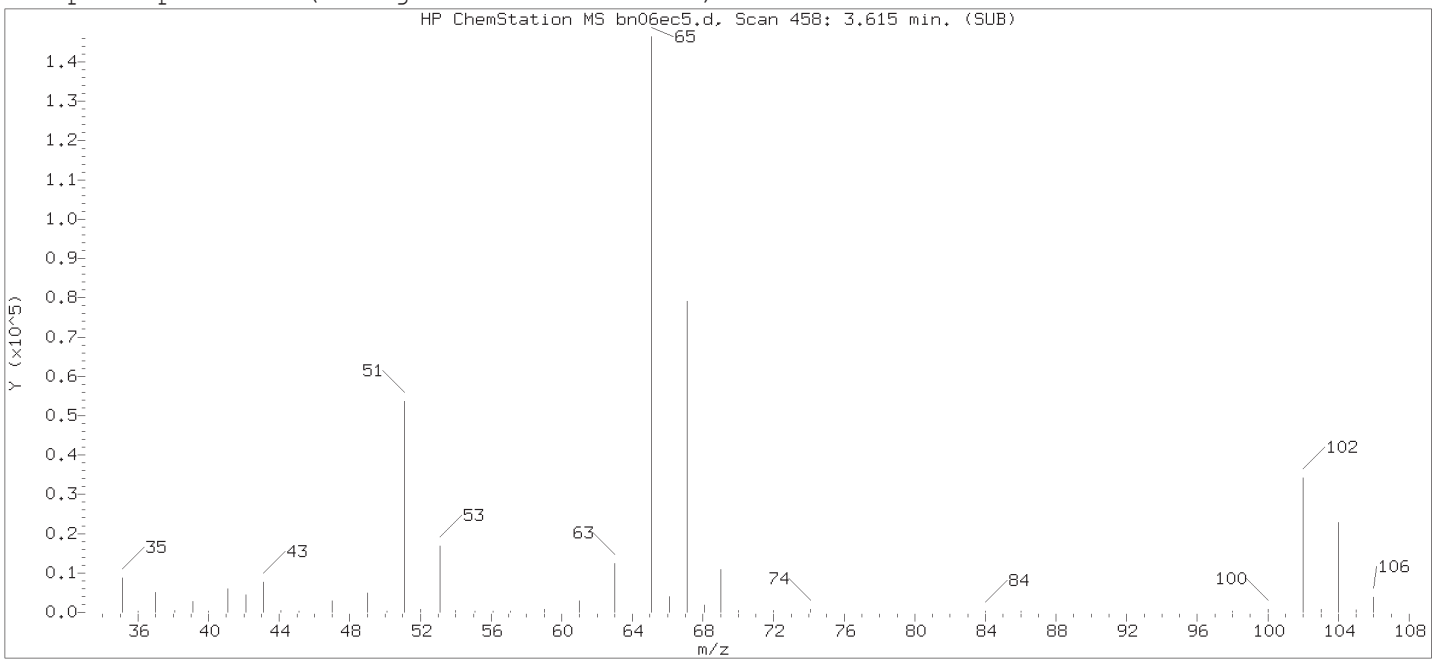
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area (flag) : 76806M
On-Column Amount (ng) : 51.5412
Integration start scan : 450 Integration stop scan: 465
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

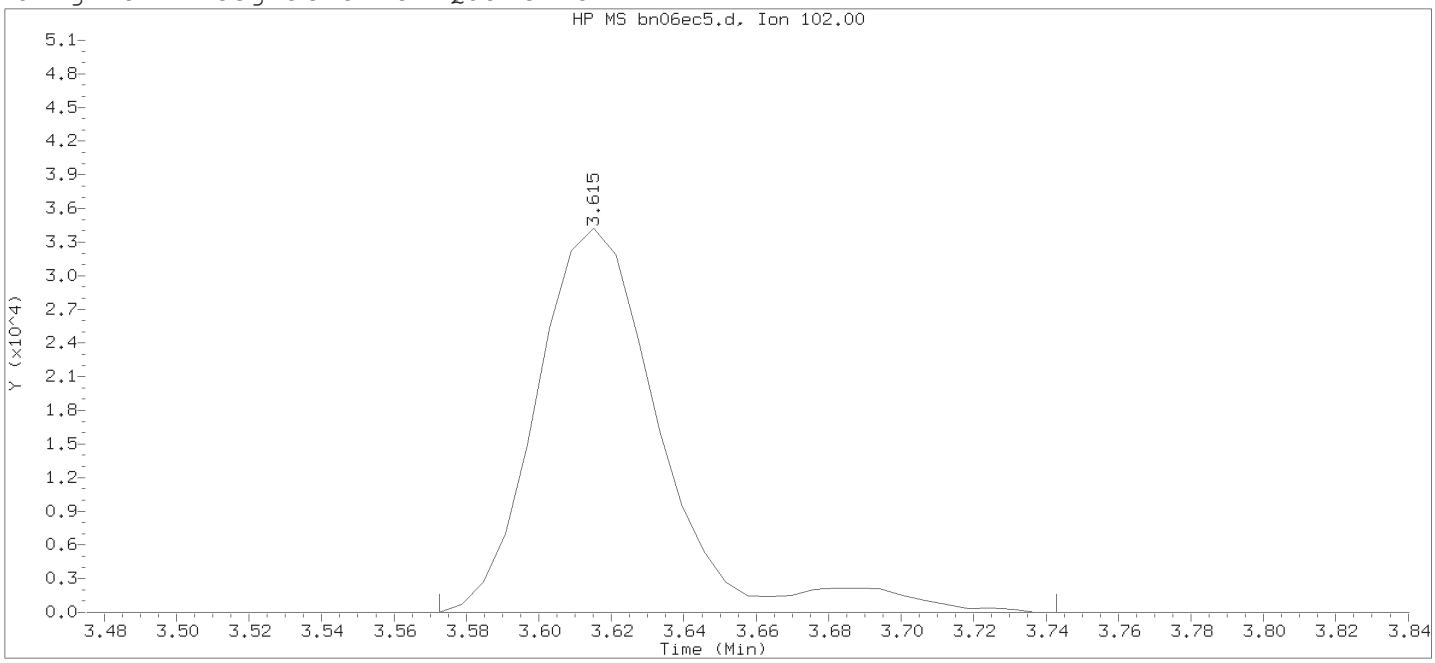
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

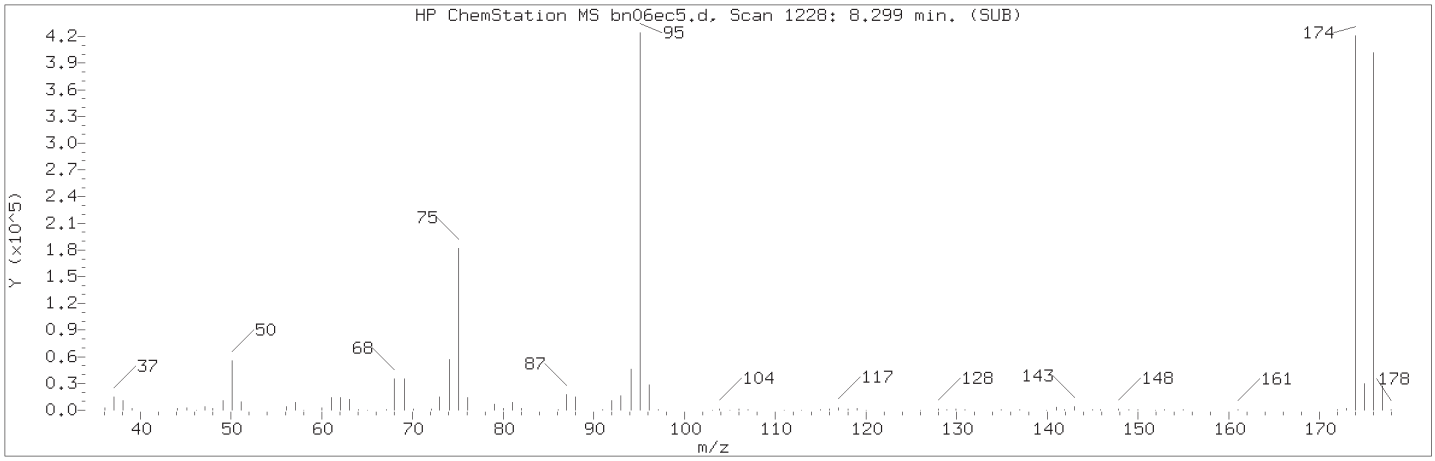
Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 01:31 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

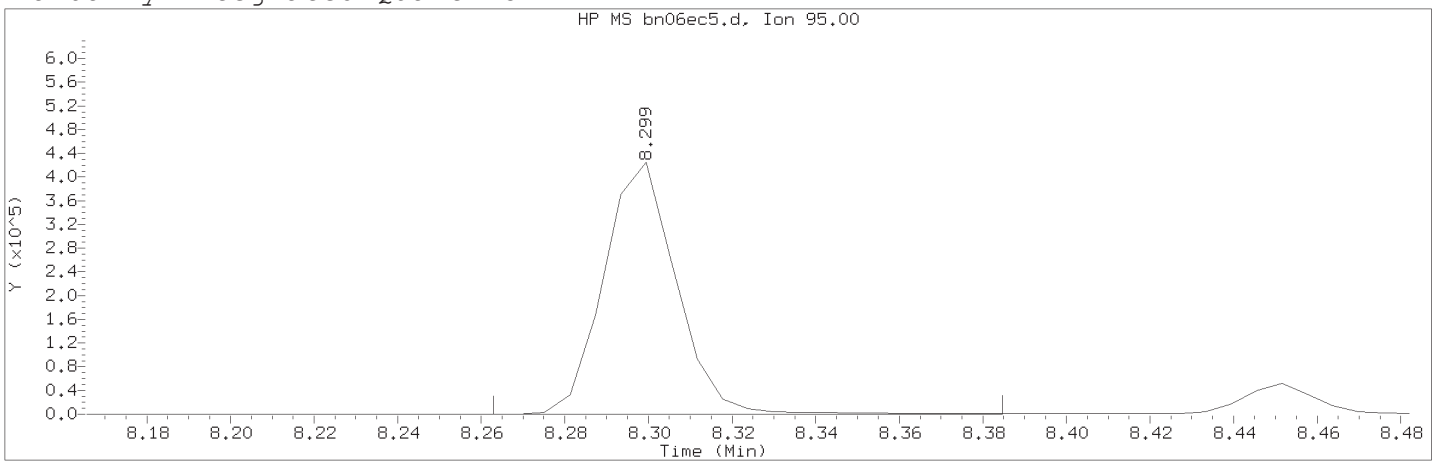
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area : 81951
On-column Amount (ng) : 54.9937
Integration start scan : 450 Integration stop scan: 478
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jhowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 04:28 amd00492

Sample Name: SECC050 Lab Sample ID: SECC050

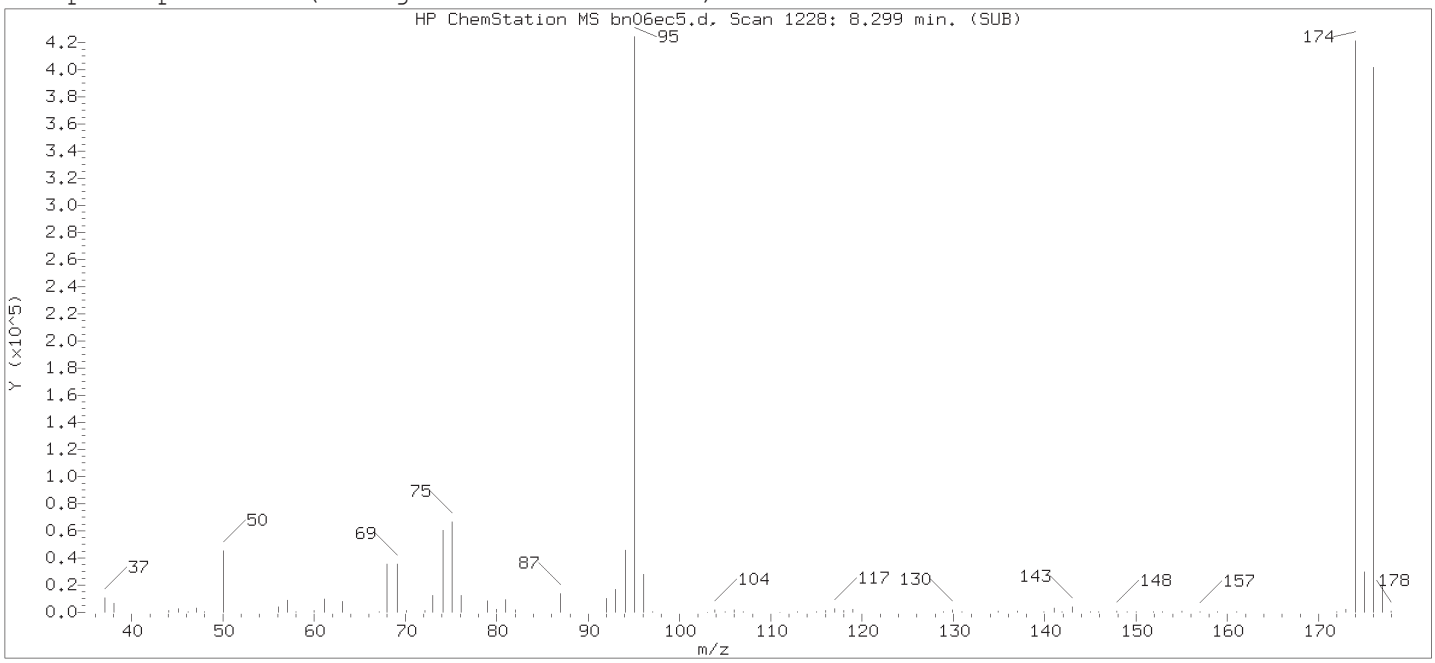
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.299
Quant Ion : 95.00
Area (flag) : 511698M
On-Column Amount (ng) : 49.4878
Integration start scan : 1221 Integration stop scan: 1241
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

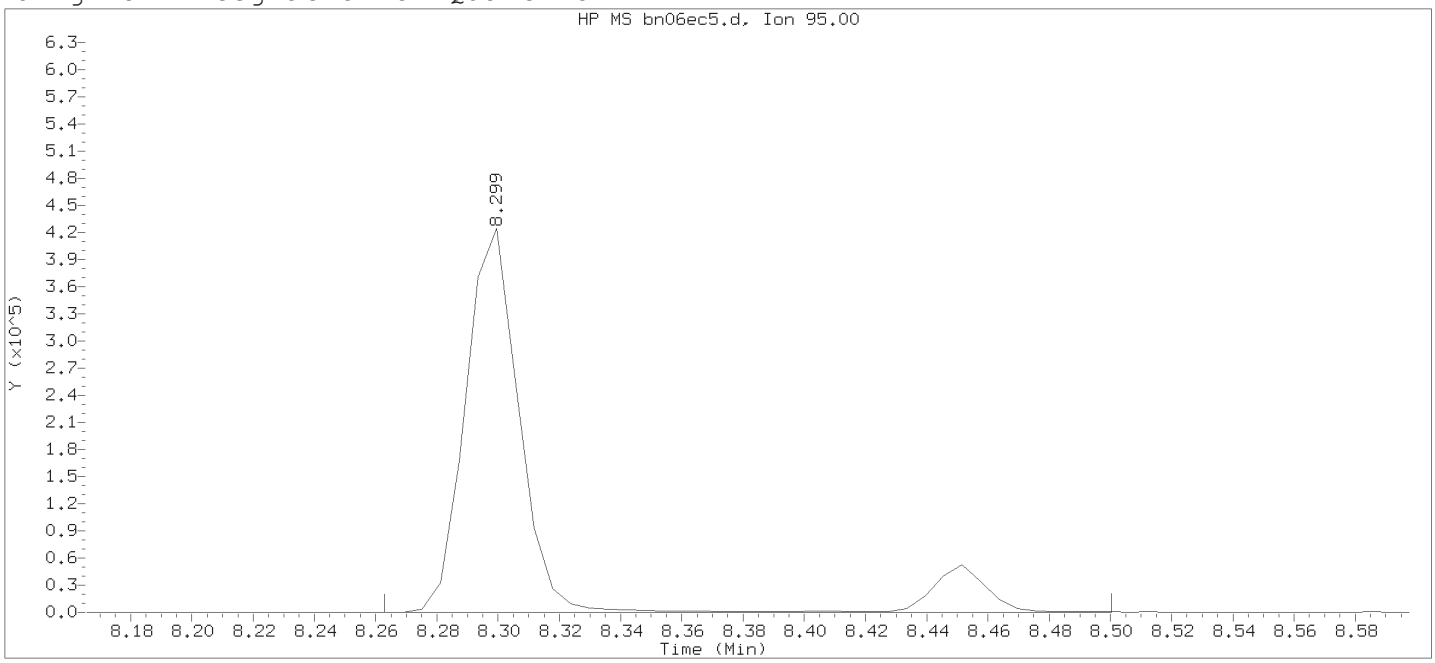
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06ec5.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 01:16 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 07-Nov-2018 01:31 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.299
Quant Ion : 95.00
Area : 575784
On-column Amount (ng) : 55.6856
Integration start scan : 1221 Integration stop scan: 1260
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:20.
Target 3.5 esignature user ID: jhowe0512

Data File: /chem2/HP09953.i/18nov07a.b/bn07t01.d

Date : 07-NOV-2018 07:35

Client ID: BFB Aug07-18

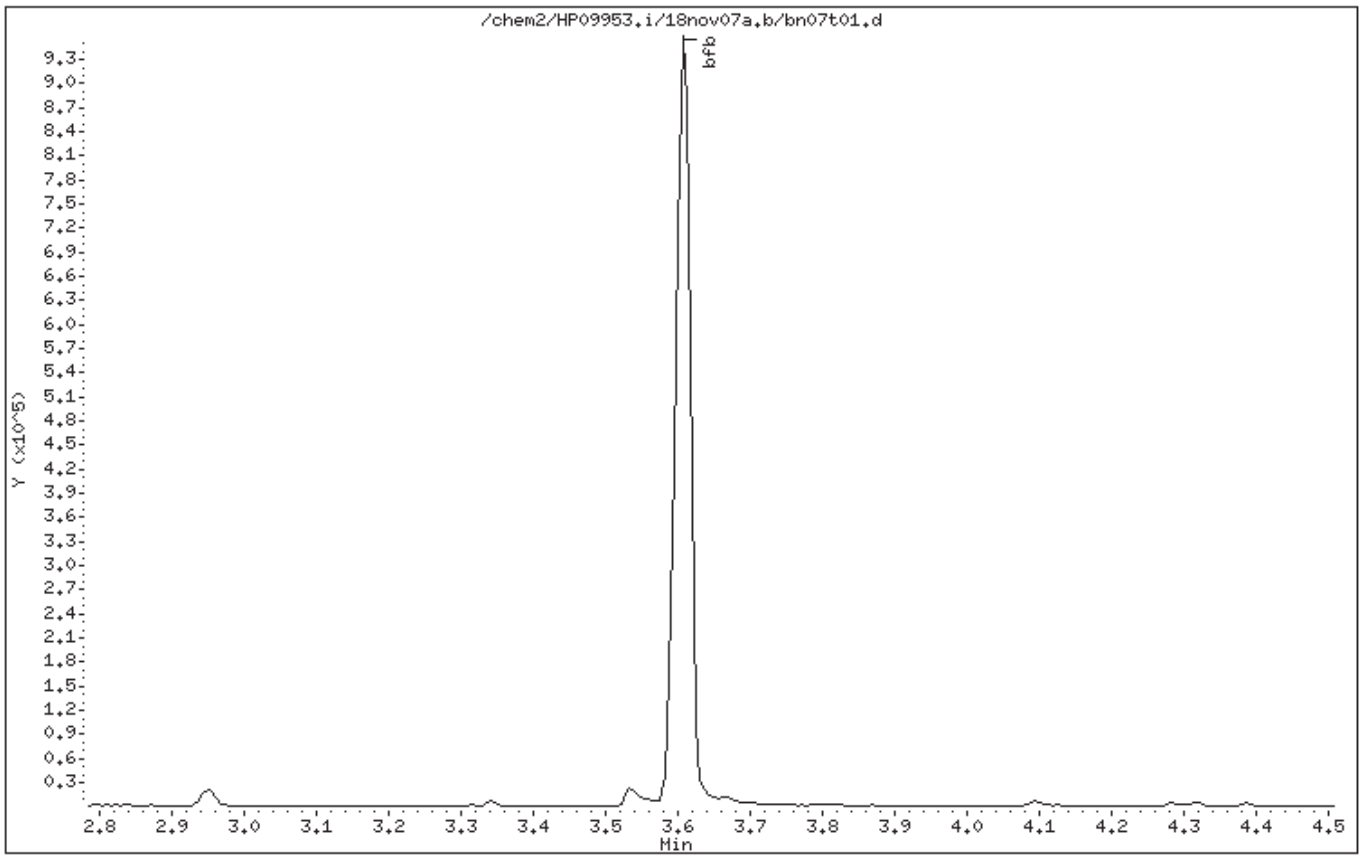
Instrument: HP09953.i

Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

Operator: jkh09052

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Jennifer K. Howe on 11/07/2018 at 07:40.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP09953.i/18nov07a.b/bn07t01.d

Date : 07-NOV-2018 07:35

Client ID: BFB Aug07-18

Instrument: HP09953.i

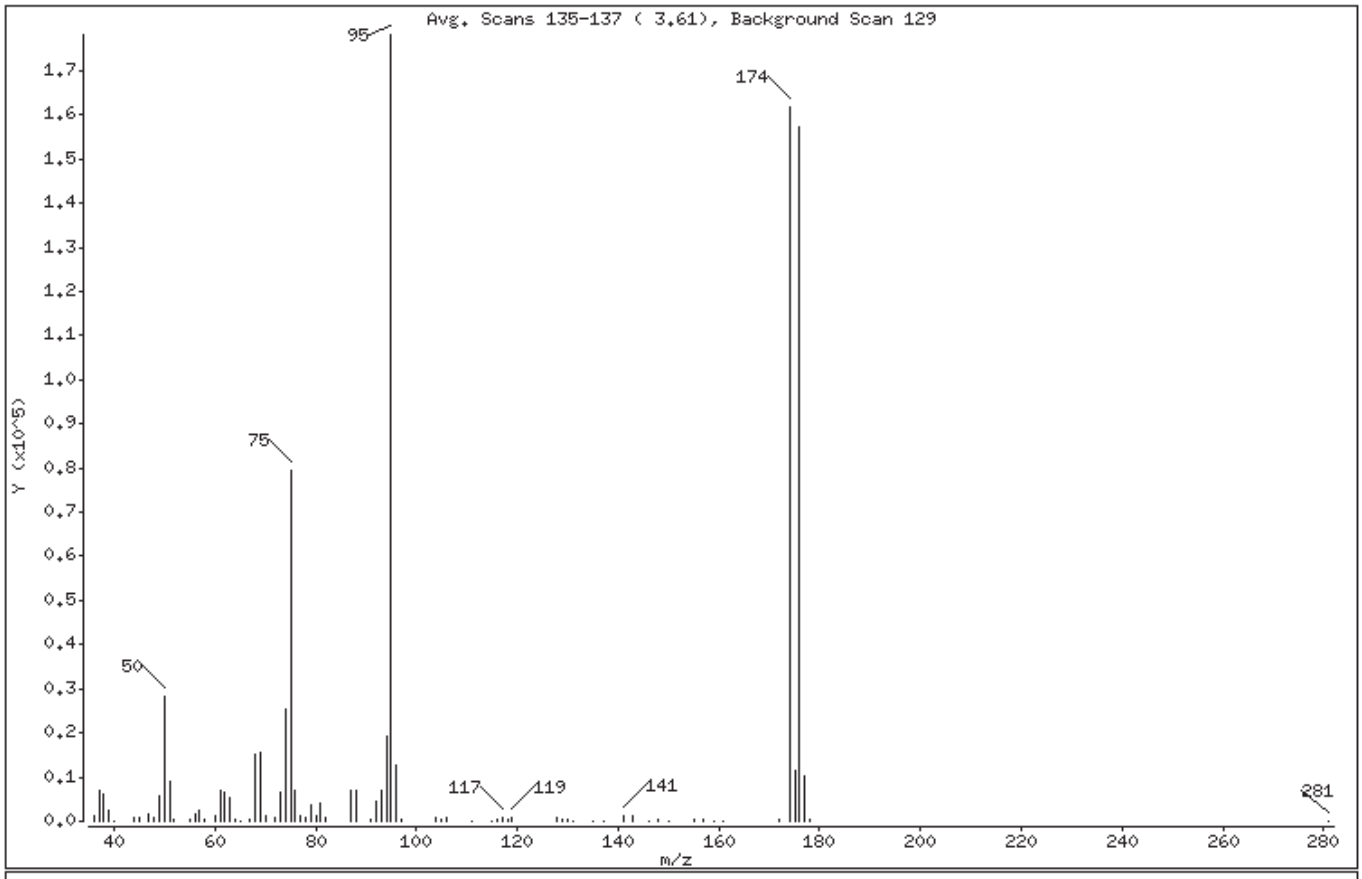
Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

Operator: jkh09052

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.97
75	30.00 - 60.00% of mass 95	44.55
96	5.00 - 9.00% of mass 95	7.08
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	90.87
175	5.00 - 9.00% of mass 174	6.51 (7.17)
176	95.00 - 101.00% of mass 174	88.34 (97.22)
177	5.00 - 9.00% of mass 176	5.85 (6.62)

Digitally signed by Jennifer K. Howe on 11/07/2018 at 07:40.
Target 3.5 esignature user ID: jkh09052

Date : 07-NOV-2018 07:35

Client ID: BFB Aug07-18 Instrument: HP09953.i

Sample Info: BFB Aug07-18;NG50 BFB;2;3;;;;;;

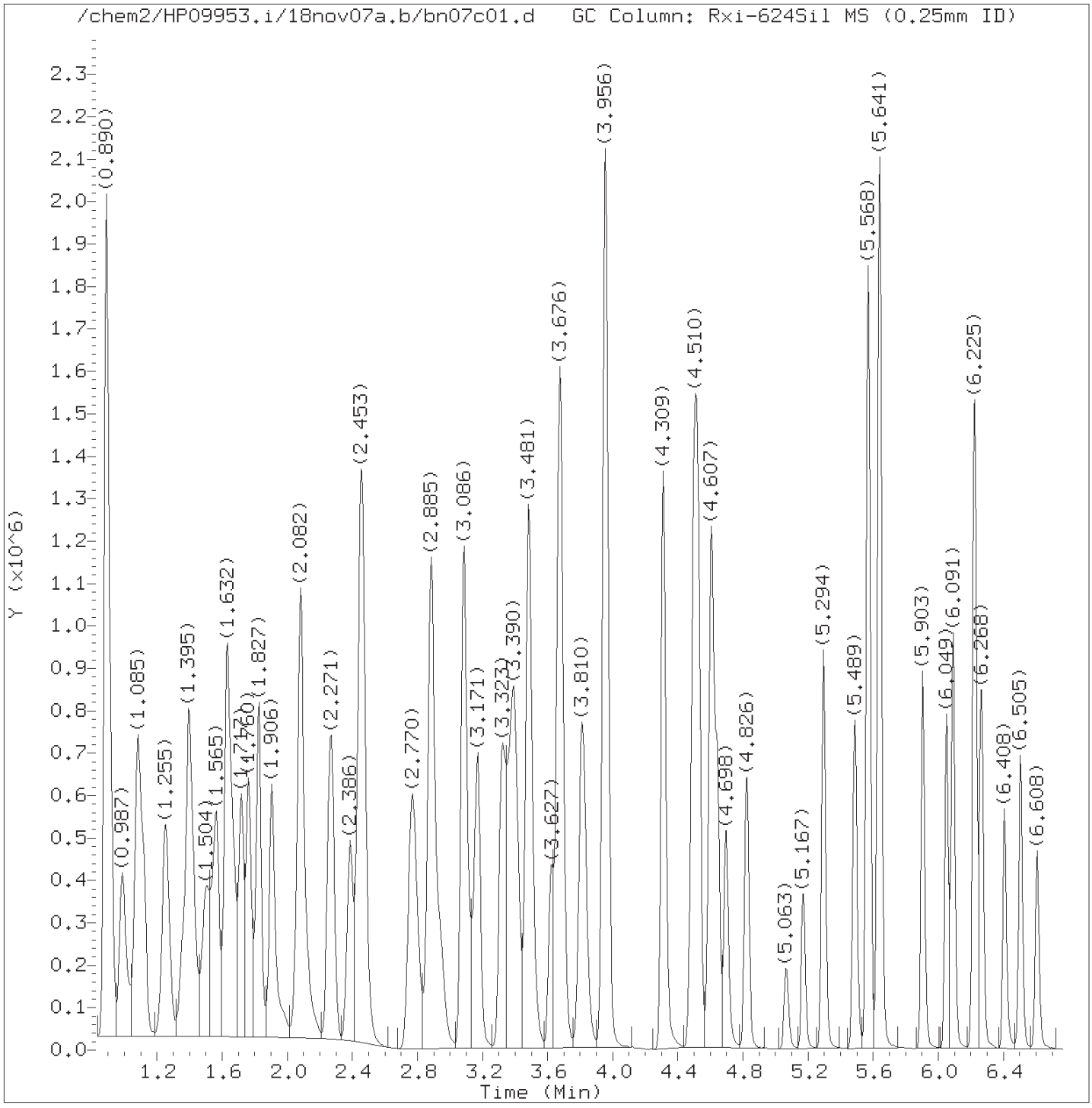
Operator: jkh09052

Column phase: DB-624 Column diameter: 0.18

Data File: bn07t01.d
Spectrum: Avg. Scans 135-137 (3.61), Background Scan 129
Location of Maximum: 95.00
Number of points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1309	63.00	5328	91.00	541	135.00	202
37.00	7129	64.00	557	92.00	4540	137.00	118
38.00	5983	65.00	91	93.00	6978	141.00	1416
39.00	2410	67.00	423	94.00	19320	143.00	1368
40.00	1	68.00	15233	95.00	178112	146.00	114
44.00	732	69.00	15597	96.00	12608	148.00	427
45.00	622	70.00	1362	97.00	422	150.00	174
47.00	1790	72.00	847	104.00	680	155.00	454
48.00	921	73.00	6630	105.00	270	157.00	347
49.00	5767	74.00	25360	106.00	685	159.00	94
50.00	28448	75.00	79344	111.00	86	161.00	87
51.00	8872	76.00	6923	115.00	95	172.00	319
52.00	456	77.00	1036	116.00	517	174.00	161792
55.00	480	78.00	656	117.00	972	175.00	11602
56.00	1837	79.00	3797	118.00	549	176.00	157312
57.00	2655	80.00	1129	119.00	805	177.00	10421
58.00	214	81.00	4053	128.00	616	178.00	264
60.00	1303	82.00	911	129.00	304	281.00	111
61.00	6843	87.00	6822	130.00	540		
62.00	6704	88.00	7032	131.00	95		

Digitally signed by Jennifer K. Howe on 11/07/2018 at 07:40.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

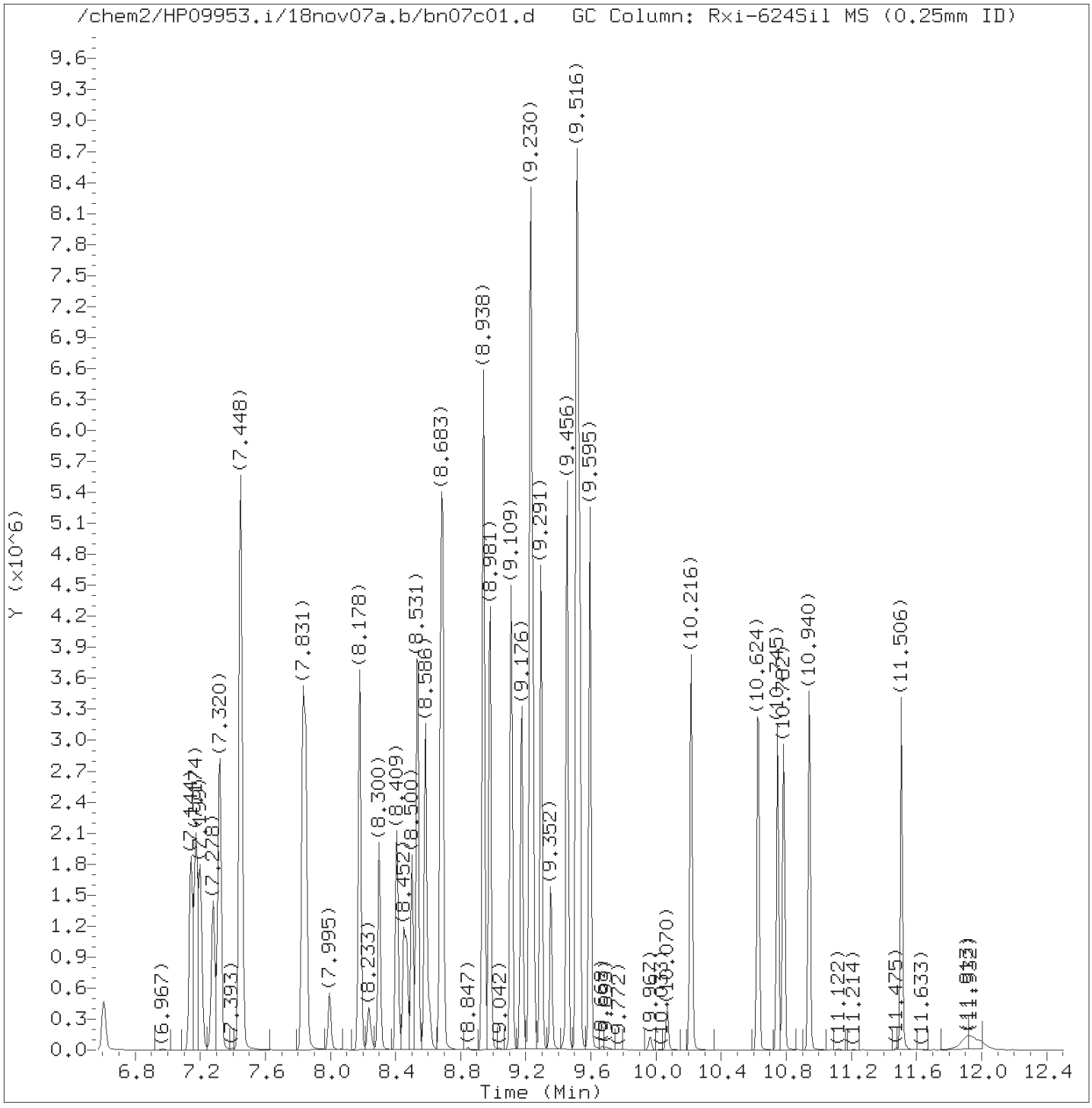
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	684761	57.537
4) Chloromethane	(2)	1.072	50	610707	49.784
5) Vinyl Chloride	(2)	1.121	62	486999	50.948
9) Bromomethane	(2)	1.249	94	450945A	53.006
10) Chloroethane	(2)	1.267	64	270272	52.563
13) Trichlorofluoromethane	(2)	1.413	101	745682	56.668
15) Ethanol	(1)	1.450	45	138596	2350.879
17) Freon 123a	(2)	1.510	67	414381	47.037
18) Acrolein	(1)	1.565	56	524337	480.310
19) 1,1-Dichloroethene	(2)	1.626	96	321427	48.609
20) Acetone	(1)	1.644	58	49118	95.240
22) Freon 113	(2)	1.656	101	396760	59.846
23) 2-Propanol	(1)	1.717	45	111742	255.964
24) Methyl Iodide	(2)	1.717	142	764894	48.107
25) Carbon Disulfide	(2)	1.766	76	1246147M	47.098
27) Methyl Acetate	(2)	1.827	43	174408	51.435
29) Allyl Chloride	(2)	1.827	41	484648M	54.792
31) Methylene Chloride	(2)	1.906	84	354507	45.366
30)*t-Butyl alcohol-d10	(1)	1.930	65	112993	250.000
32) t-Butyl alcohol	(1)	1.973	59	124190	209.235
33) Acrylonitrile	(2)	2.058	53	98633	42.969
35) trans-1,2-Dichloroethene	(2)	2.082	96	375732	48.861
34) Methyl Tertiary Butyl Ether	(2)	2.094	73	890981	47.370
38) n-Hexane	(2)	2.265	57	567509	64.656
40) 1,1-Dichloroethane	(2)	2.386	63	645366	51.758
41) di-Isopropyl ether	(2)	2.453	45	1168000	50.187
42) 2-Chloro-1,3-butadiene	(2)	2.453	53	563163	51.253
43) Ethyl t-butyl ether	(2)	2.770	59	1050055	47.911
45) cis-1,2-Dichloroethene	(2)	2.879	96	427112	51.170
44) 2-Butanone	(1)	2.891	43	264175	90.939
47) 2,2-Dichloropropane	(2)	2.897	77	507737	55.856
49) Propionitrile	(1)	2.946	54	201859	259.023
46) 1,2-Dichloroethene (Total)	(2)		96	802844	100.031
51) Methacrylonitrile	(2)	3.080	67	316251	123.294
52) Bromochloromethane	(2)	3.092	128	236015	53.222
53) Tetrahydrofuran	(1)	3.135	71	73116	101.045
54) Chloroform	(2)	3.171	83	647702	51.178
56)$Dibromofluoromethane	(2)	3.317	113	333914	50.833

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	3.317	111	340788	51.175
57) 1,1,1-Trichloroethane	(2)	3.342	97	583707	45.045
58) Cyclohexane	(2)	3.396	56	698171	57.351
58) Cyclohexane	(2)	3.390	84	624919	54.929
58) Cyclohexane	(2)	3.390	69	218477	56.747
60) 1,1-Dichloropropene	(2)	3.481	75	504007	53.524
61) Carbon Tetrachloride	(2)	3.494	117	516841	52.516
63)$1,2-Dichloroethane-d4	(2)	3.621	102	73456M	51.954
63)$1,2-Dichloroethane-d4	(2)	3.621	65	313190	50.371
63)$1,2-Dichloroethane-d4	(2)	3.621	104	46558	51.399
62) Isobutyl Alcohol	(1)	3.646	41	114629	549.685
64) Benzene	(2)	3.676	78	1509321	50.205
67) 1,2-Dichloroethane	(2)	3.694	62	427201	49.241
67) 1,2-Dichloroethane	(2)	3.694	98	43197	50.121
68) t-Amyl methyl ether	(2)	3.810	73	944762	46.688
70)*Fluorobenzene	(2)	3.950	96	1318042	50.000
72) n-Heptane	(2)	3.962	43	615365	76.854
75) Trichloroethene	(2)	4.309	95	402605	51.354
73) n-Butanol	(1)	4.315	56	176474	1010.613
76) Methylcyclohexane	(2)	4.503	83	790206	64.769
77) 1,2-Dichloropropane	(2)	4.528	63	371612	52.051
81) Dibromomethane	(2)	4.643	93	218507	50.048
80) 1,4-Dioxane	(1)	4.692	88	42905M	592.884
79) Methyl Methacrylate	(2)	4.698	69	212387	46.154
84) Bromodichloromethane	(2)	4.820	83	448048	50.254
85) 2-Nitropropane	(1)	5.063	41	120955	80.932
87) 2-Chloroethyl Vinyl Ether	(2)	5.173	63	166116	44.189
89) cis-1,3-Dichloropropene	(2)	5.294	75	559546	51.975
90) 4-Methyl-2-pentanone	(2)	5.489	43	551361	89.790
91)$Toluene-d8	(3)	5.568	98	1337256	49.295
91)$Toluene-d8	(3)	5.568	100	871715	49.519
92) Toluene	(3)	5.641	92	983653	48.888
93) trans-1,3-Dichloropropene	(3)	5.903	75	468127	48.572
94) 1,3-Dichloropropene (total)	(3)		100	1027673	100.547
95) Ethyl Methacrylate	(3)	6.049	69	417805	44.658
96) 1,1,2-Trichloroethane	(3)	6.091	97	314658	48.191
98) Tetrachloroethene	(3)	6.225	166	475978	43.189
99) 1,3-Dichloropropane	(3)	6.268	76	507779	48.298

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.408	43	376182	80.238
103) Dibromochloromethane	(3)	6.505	129	366583	48.731
104) 1,2-Dibromoethane	(3)	6.608	107	327595	48.565
105)*Chlorobenzene-d5	(3)	7.144	117	1051055	50.000
107) Chlorobenzene	(3)	7.174	112	1145334	48.755
106) 1-Chlorohexane	(3)	7.199	91	533061	53.320
108) 1,1,1,2-Tetrachloroethane	(3)	7.278	131	393320	49.376
109) Ethylbenzene	(3)	7.320	91	1915035	50.606
110) m+p-Xylene	(3)	7.448	106	1572373	101.825
111) o-Xylene	(3)	7.831	106	759793	49.217
113) Styrene	(3)	7.849	104	1238849	48.678
112) Xylene (Total)	(3)		106	2332166	151.042
114) Bromoform	(3)	7.995	173	215923	46.063
115) Isopropylbenzene	(3)	8.178	105	1985260	51.018
118) Cyclohexanone	(1)	8.233	55	133747M	510.728
119)$4-Bromofluorobenzene	(3)	8.300	95	492441M	49.831
119)$4-Bromofluorobenzene	(3)	8.300	174	463608	50.968
121) Bromobenzene	(4)	8.409	156	526240	45.587
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	401542	45.560
123) 1,2,3-Trichloropropane	(4)	8.470	110	118530	45.358
122) trans-1,4-Dichloro-2-butene	(4)	8.500	53	256934M	118.806
124) n-Propylbenzene	(4)	8.531	91	2302932	50.460
126) 2-Chlorotoluene	(4)	8.586	126	500263	46.714
130) 4-Chlorotoluene	(4)	8.677	126	520494	47.972
129) 1,3,5-Trimethylbenzene	(4)	8.689	105	1736861	49.199
133) tert-Butylbenzene	(4)	8.938	134	424543	51.192
134) Pentachloroethane	(4)	8.938	167	334497	67.453
135) 1,2,4-Trimethylbenzene	(4)	8.981	105	1773738	48.181
136) sec-Butylbenzene	(4)	9.109	105	2284173	50.824
138) 1,3-Dichlorobenzene	(4)	9.176	146	1037601	47.894
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	630040	50.000
139) p-Isopropyltoluene	(4)	9.230	119	2071054	51.423
141) 1,4-Dichlorobenzene	(4)	9.243	146	1063254	47.074
142) 1,2,3-Trimethylbenzene	(4)	9.291	105	1898585	47.843
143) Benzyl Chloride	(4)	9.352	126	172535	58.611
144) 1,3-Diethylbenzene	(4)	9.456	119	1274851	51.203
145) 1,4-Diethylbenzene	(4)	9.516	119	1378853	53.362
147) 1,2-Dichlorobenzene	(4)	9.516	146	1008037	47.593

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

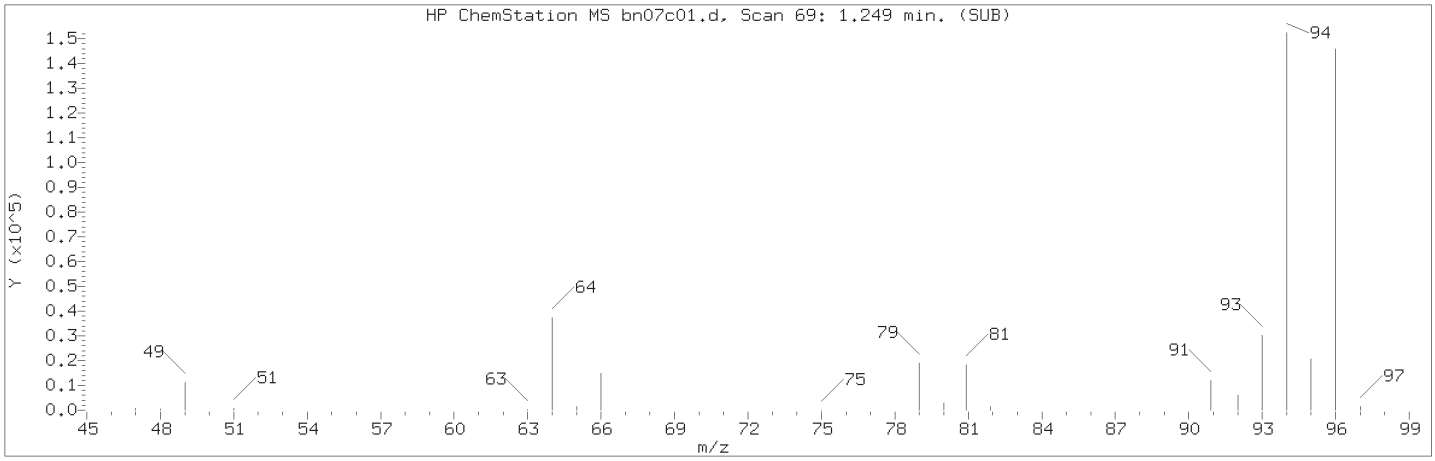
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

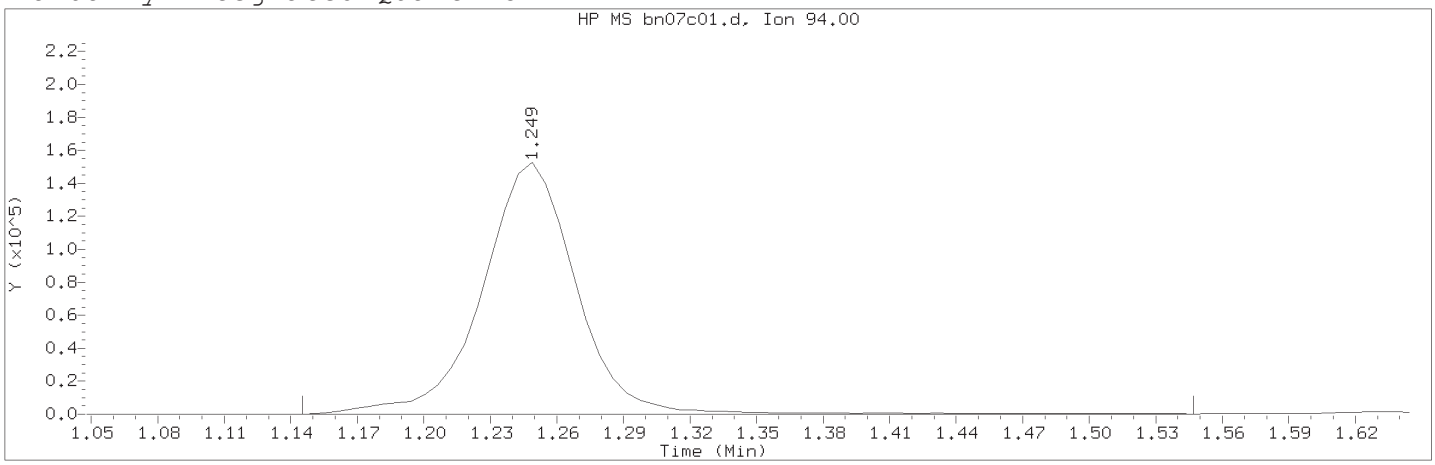
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146)	n-Butylbenzene	(4)	9.529	92	996331	53.247
148)	1,2-Diethylbenzene	(4)	9.595	119	1058915	48.614
149)	Diethylbenzene (total)	(4)		100	3712619	153.178
151)	1,2-Dibromo-3-chloropropane	(4)	10.070	75	63978	41.781
152)	1,3,5-Trichlorobenzene	(4)	10.216	180	844451	50.956
153)	1,2,4-Trichlorobenzene	(4)	10.630	180	758572	48.567
154)	Hexachlorobutadiene	(4)	10.745	225	387150	54.327
155)	Naphthalene	(4)	10.782	128	1615383	43.538
156)	1,2,3-Trichlorobenzene	(4)	10.940	180	713245	47.886
157)	2-Methylnaphthalene	(4)	11.506	142	1084950	43.232

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

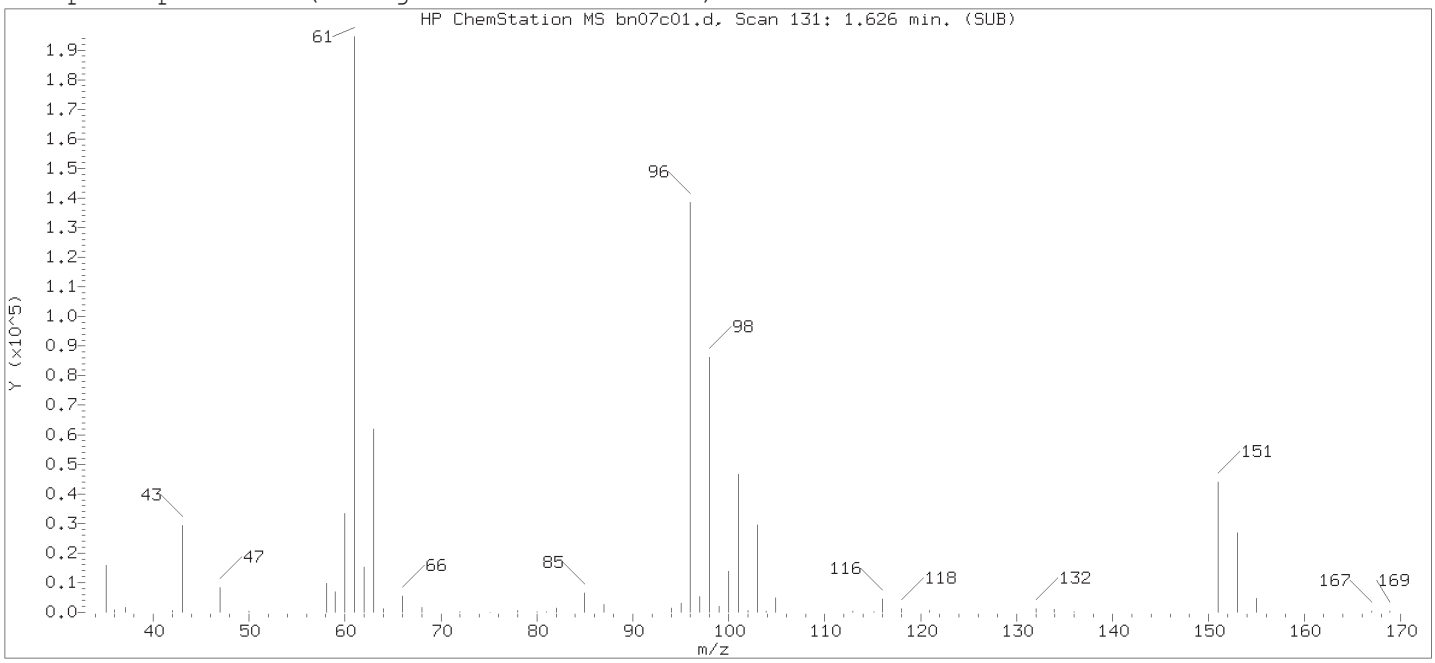
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 69
Retention Time (minutes): 1.249
Quant Ion : 94.00
Area (flag) : 450945A
On-Column Amount (ng) : 53.0060
Integration start scan : 51 Integration stop scan: 117
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

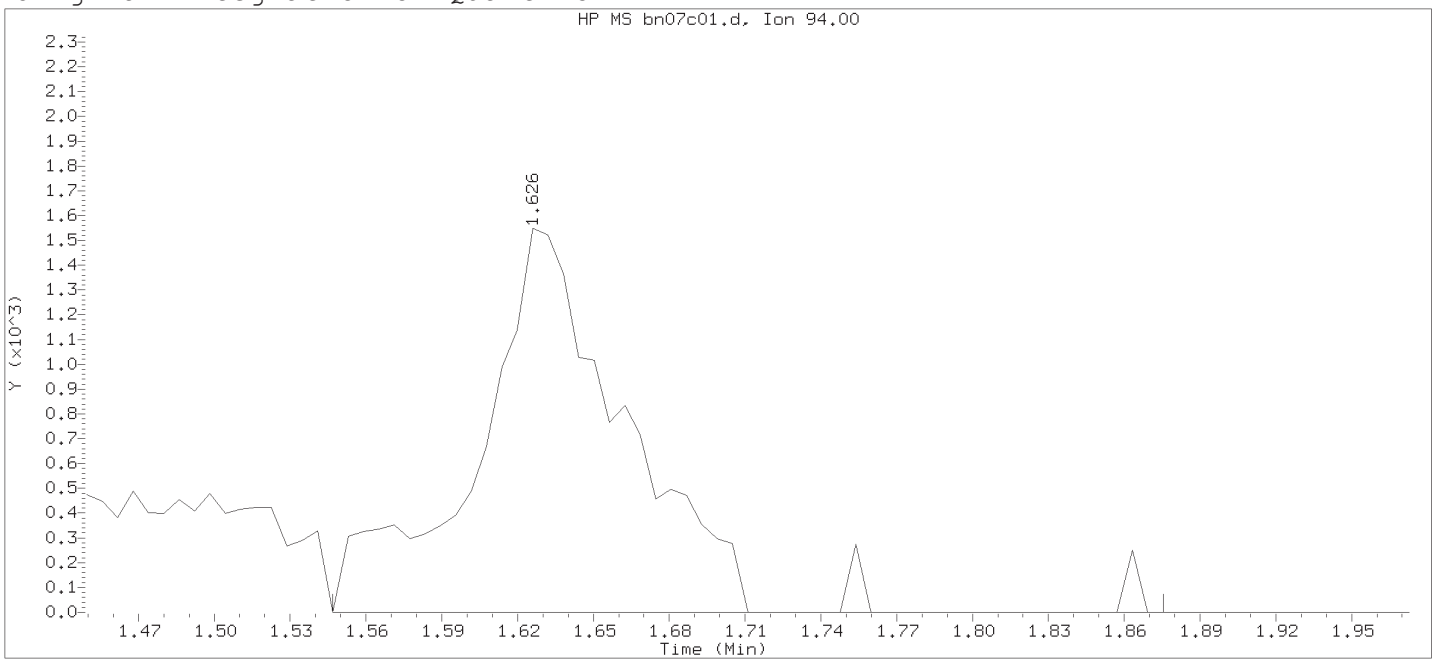
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

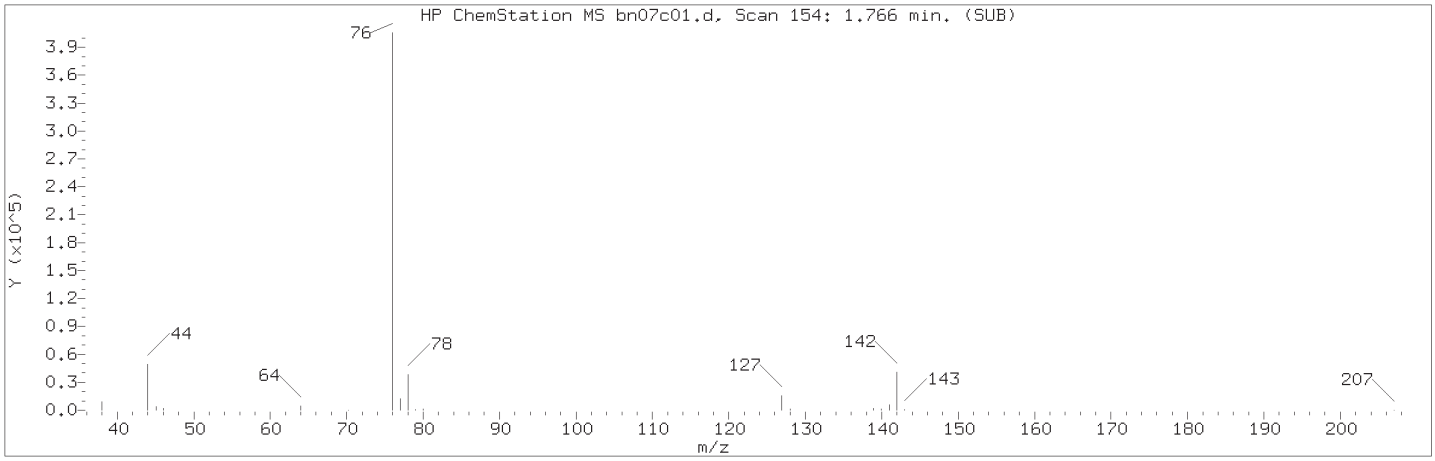
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

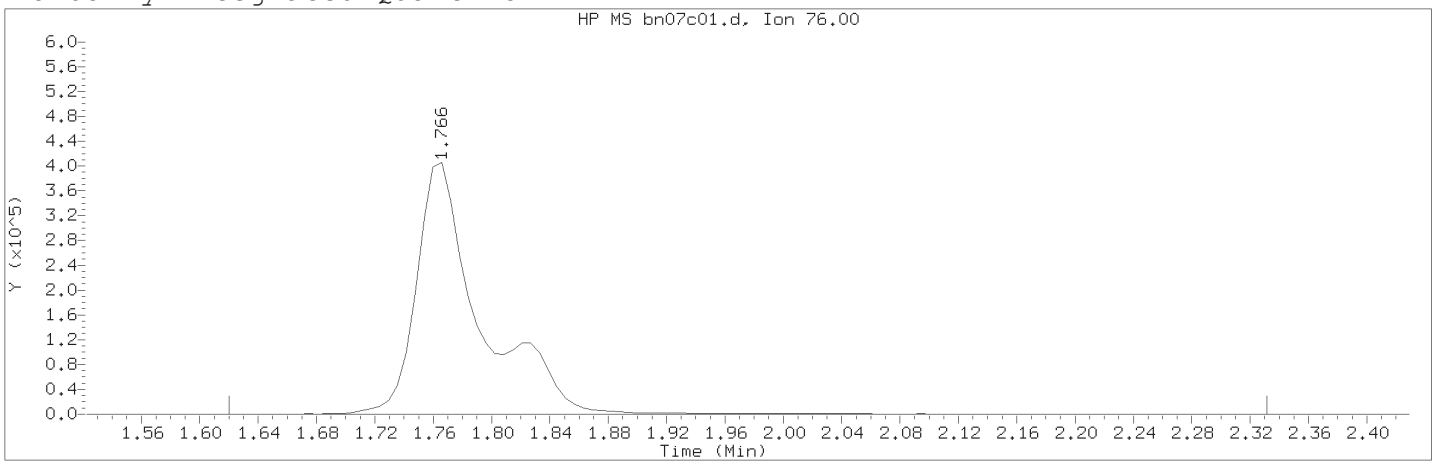
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 131
Retention Time (minutes): 1.626
Quant Ion : 94.00
Area : 6436
On-column Amount (ng) : 0.7565
Integration start scan : 117 Integration stop scan: 171
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

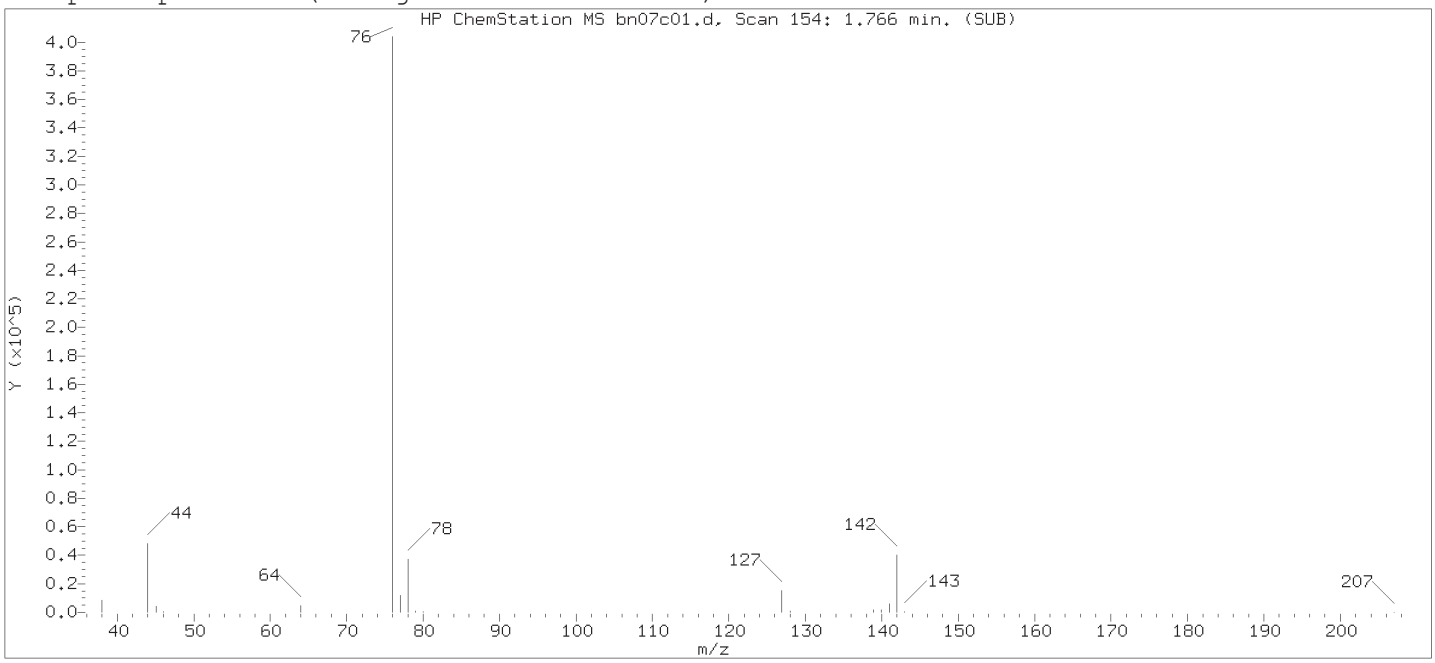
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 154
Retention Time (minutes): 1.766
Quant Ion : 76.00
Area (flag) : 1246147M
On-Column Amount (ng) : 47.0983
Integration start scan : 129 Integration stop scan: 246
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

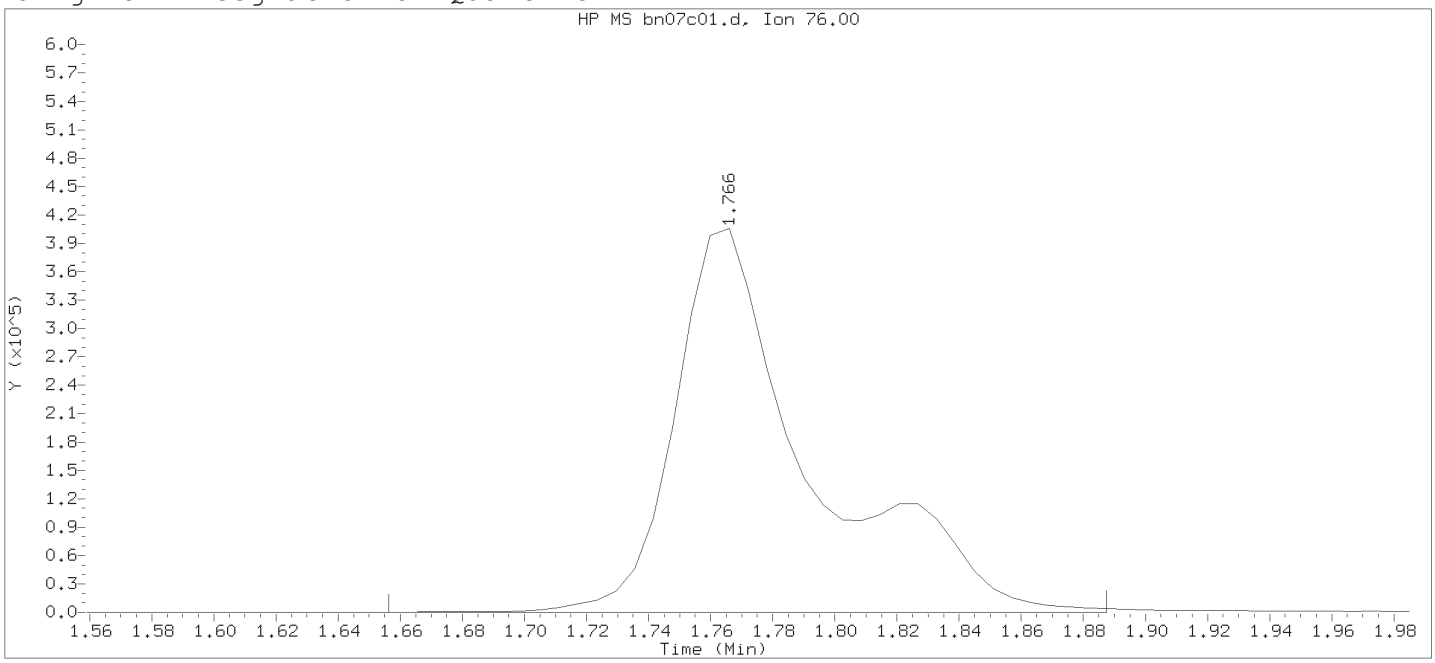
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

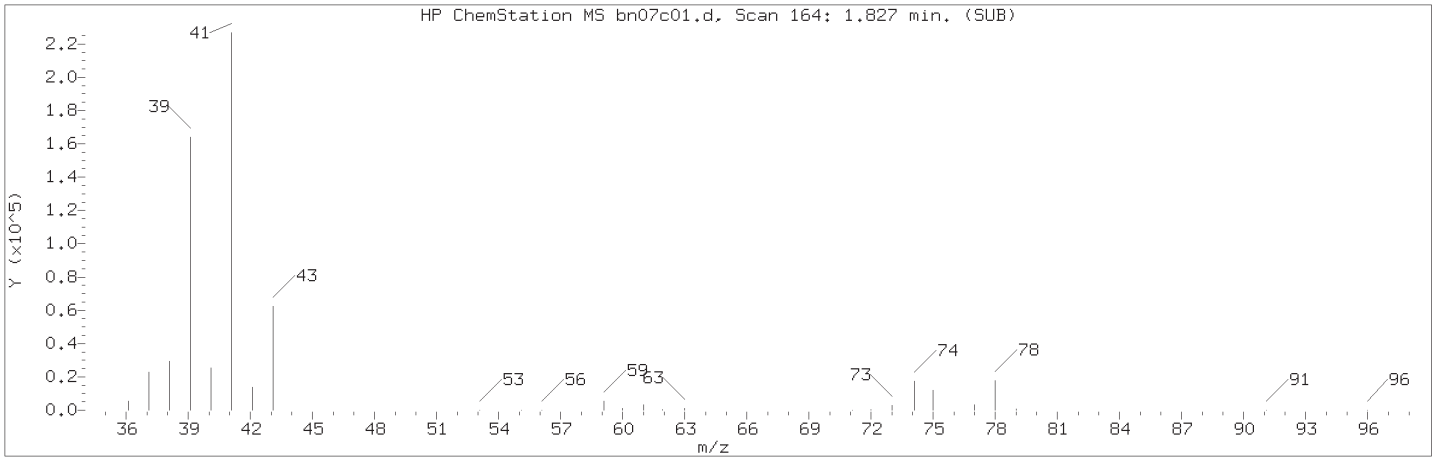
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

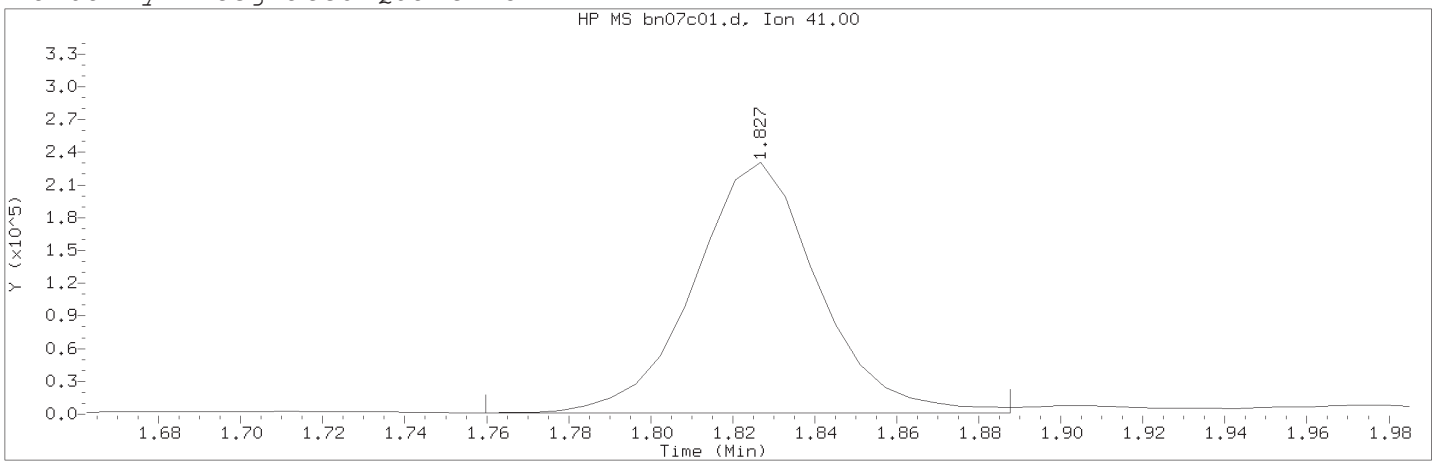
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 154
Retention Time (minutes): 1.766
Quant Ion : 76.00
Area : 1229811
On-column Amount (ng) : 46.4809
Integration start scan : 135 Integration stop scan: 173
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

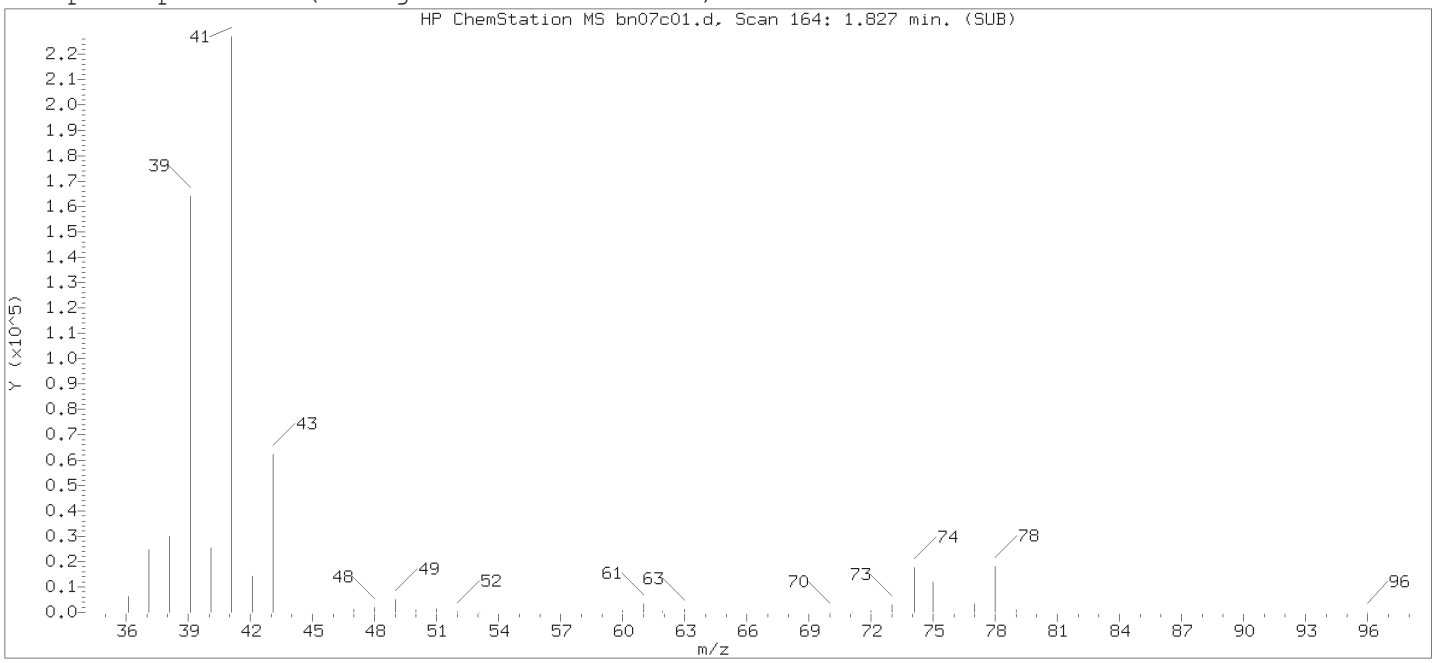
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area (flag) : 484648M
On-Column Amount (ng) : 54.7925
Integration start scan : 152 Integration stop scan: 173
Y at integration start : 1097 Y at integration end: 1097

Reason for manual integration: improper integration

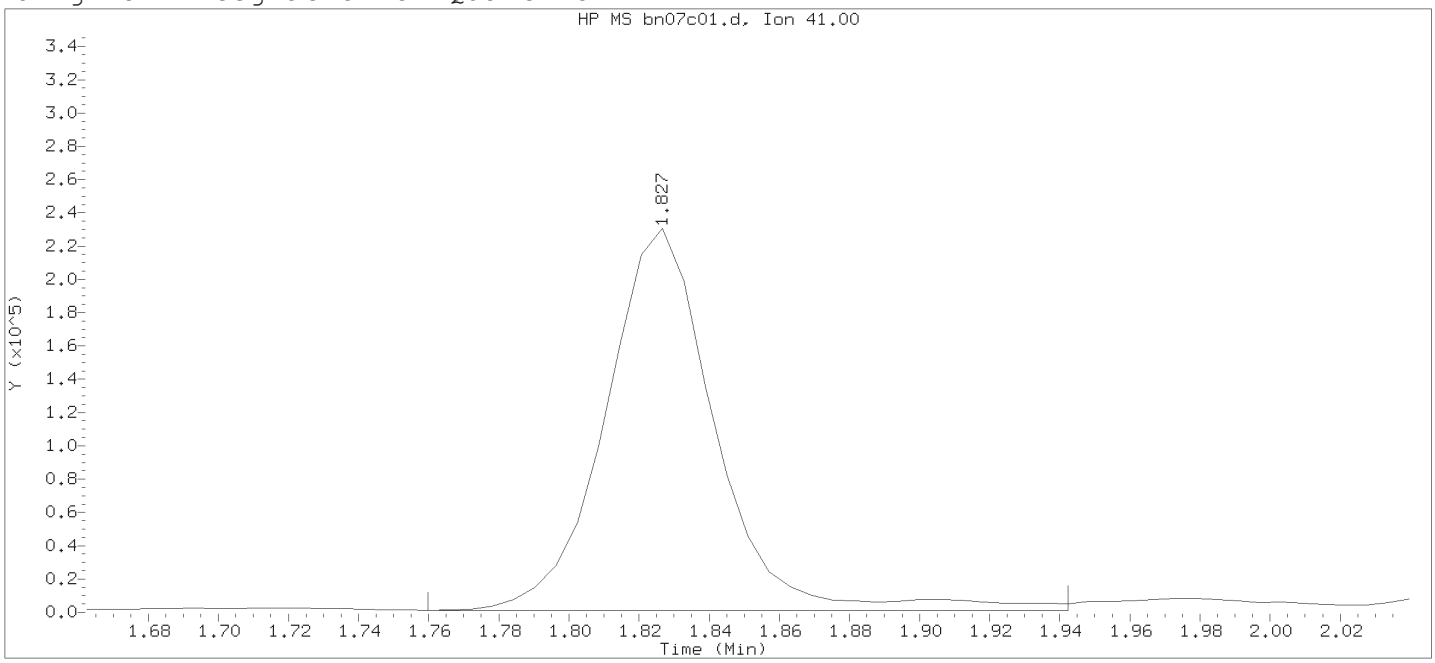
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

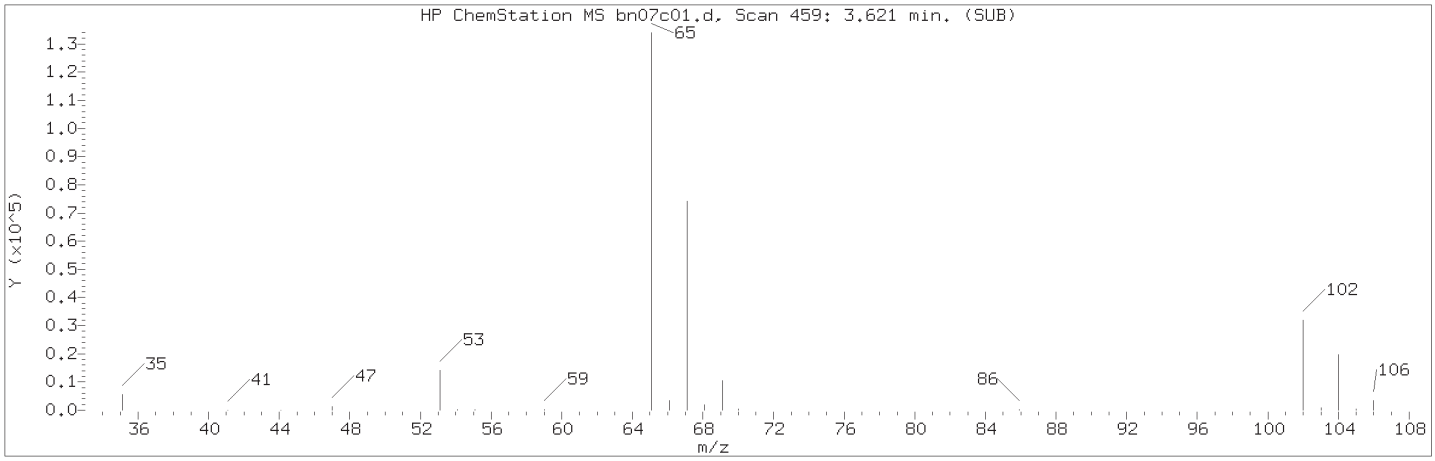
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

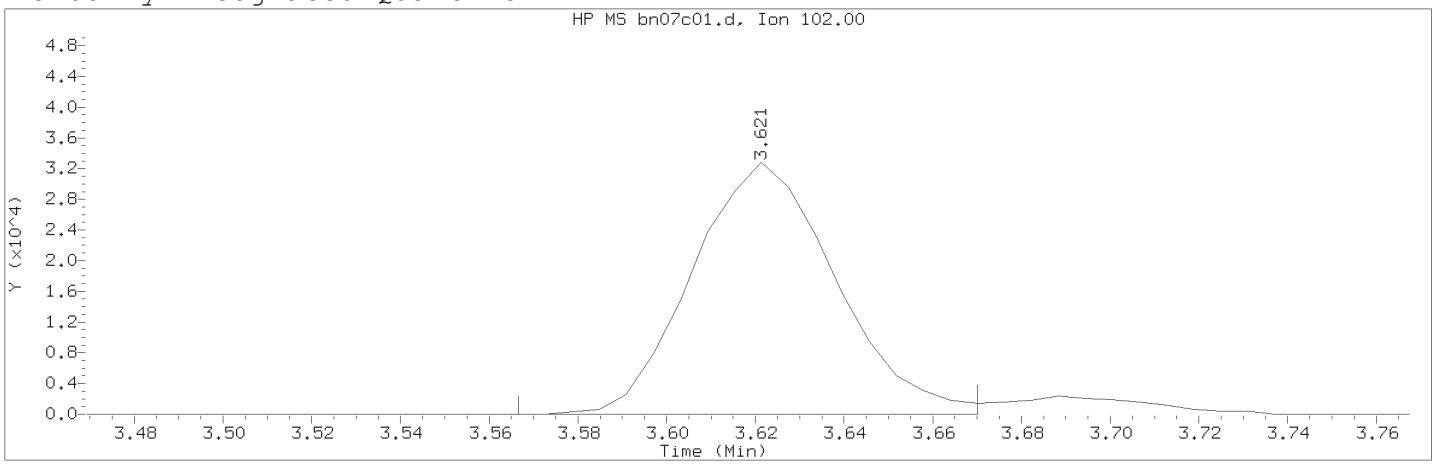
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 164
Retention Time (minutes): 1.827
Quant Ion : 41.00
Area : 500986
On-column Amount (ng) : 56.6396
Integration start scan : 152 Integration stop scan: 182
Y at integration start : 1097 Y at integration end: 1097

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

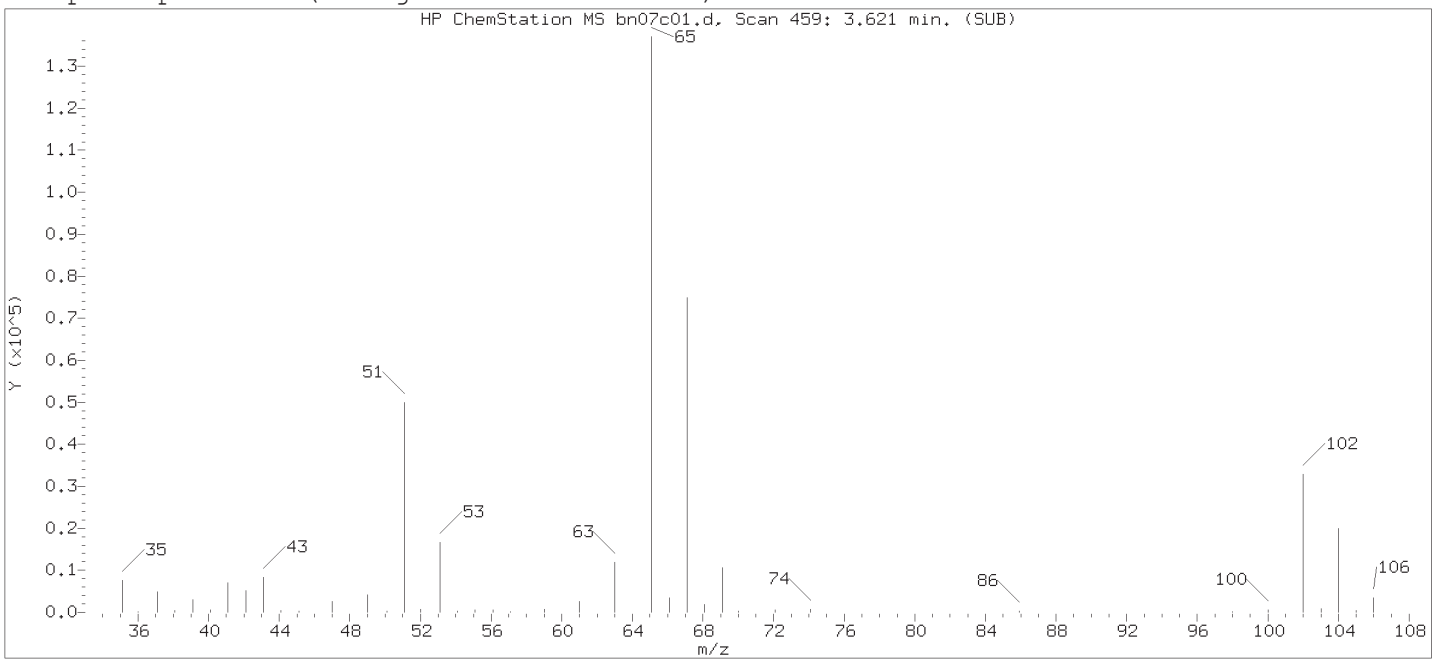
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 459
Retention Time (minutes): 3.621
Quant Ion : 102.00
Area (flag) : 73456M
On-Column Amount (ng) : 51.9541
Integration start scan : 449 Integration stop scan: 466
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

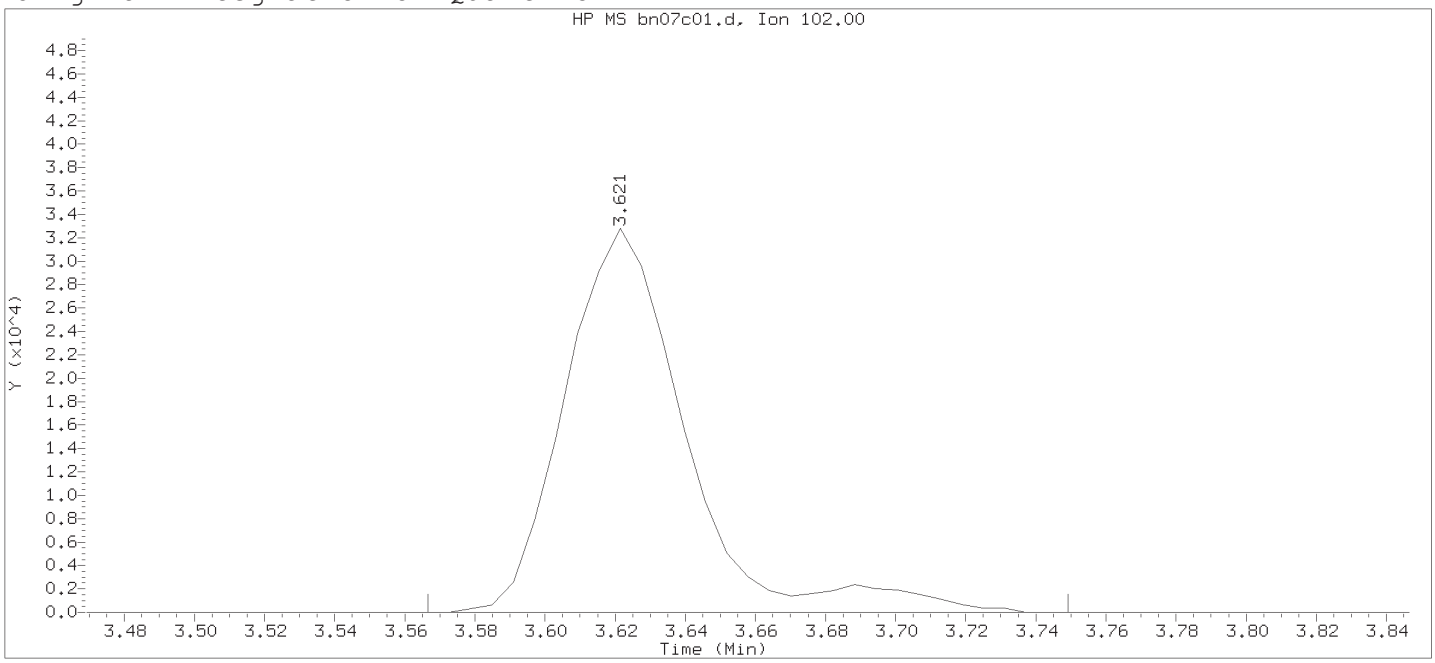
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

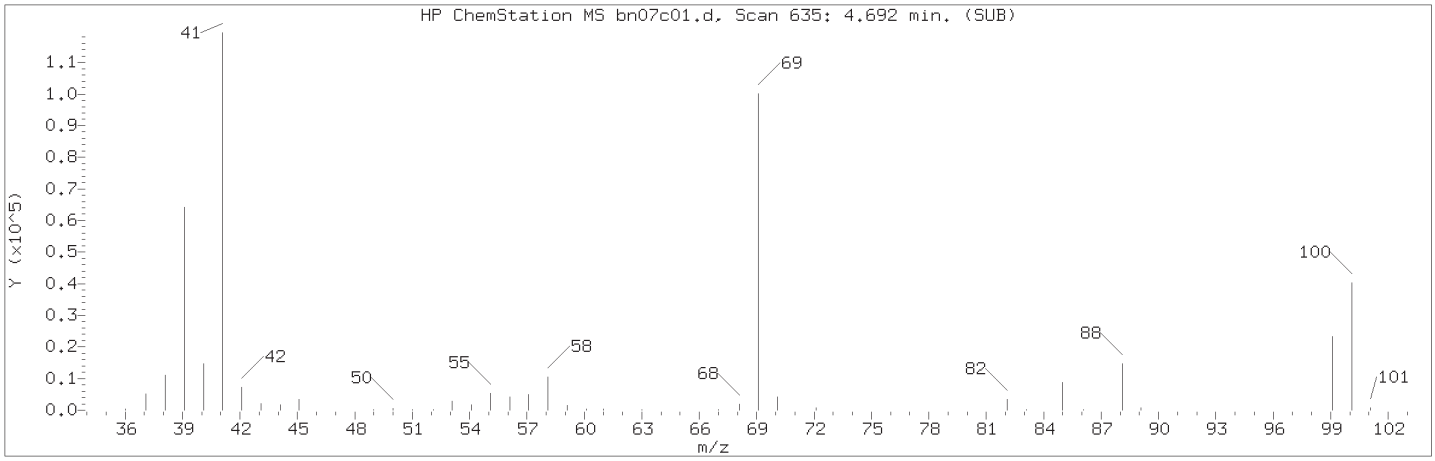
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

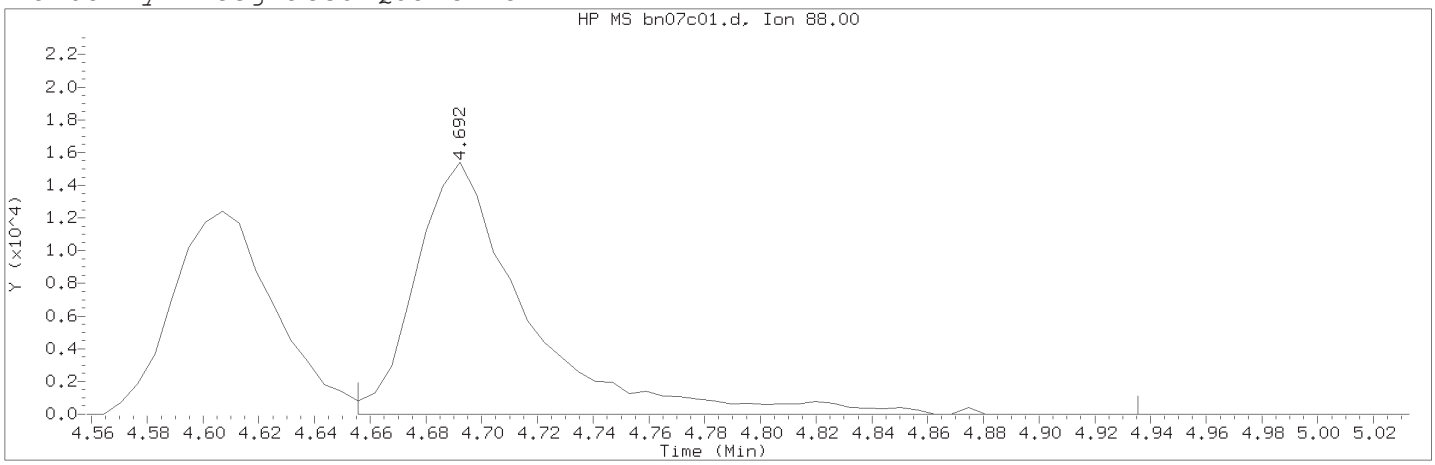
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 459
Retention Time (minutes): 3.621
Quant Ion : 102.00
Area : 78507
On-column Amount (ng) : 55.5271
Integration start scan : 449 Integration stop scan: 479
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

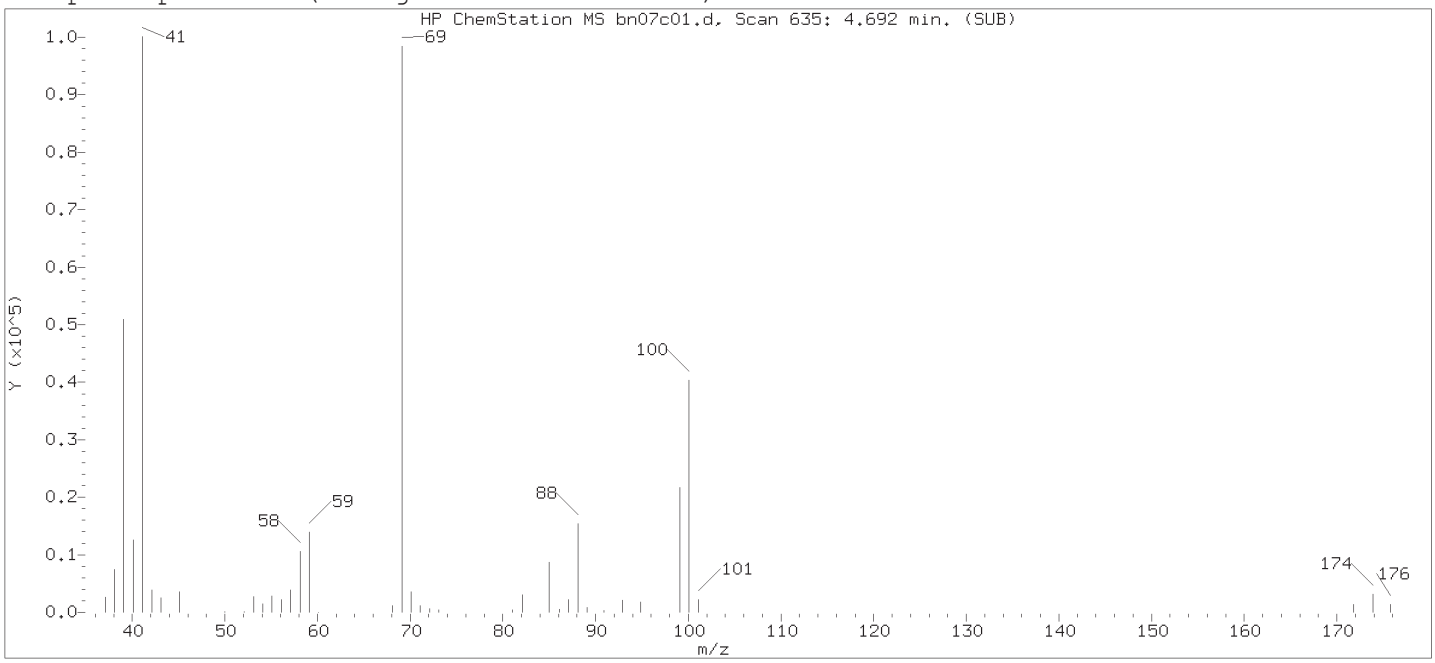
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area (flag) : 42905M
On-Column Amount (ng) : 592.8835
Integration start scan : 628 Integration stop scan: 674
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

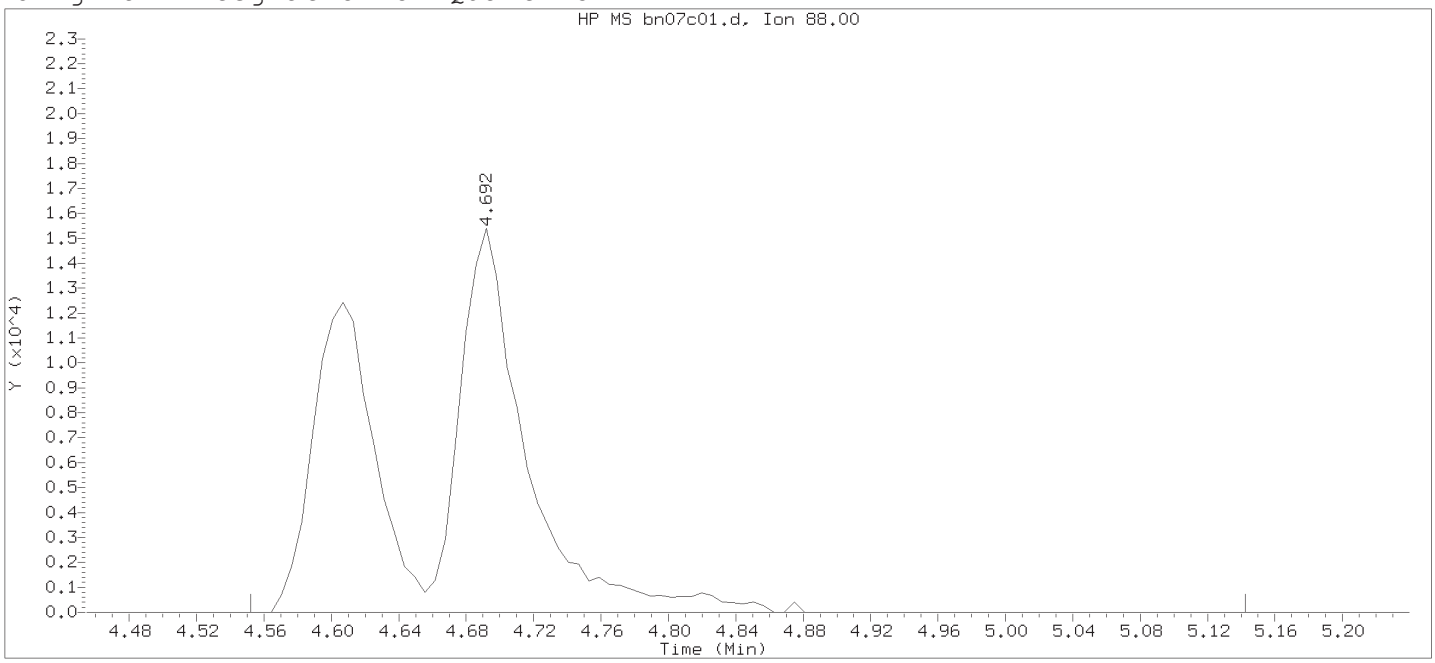
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

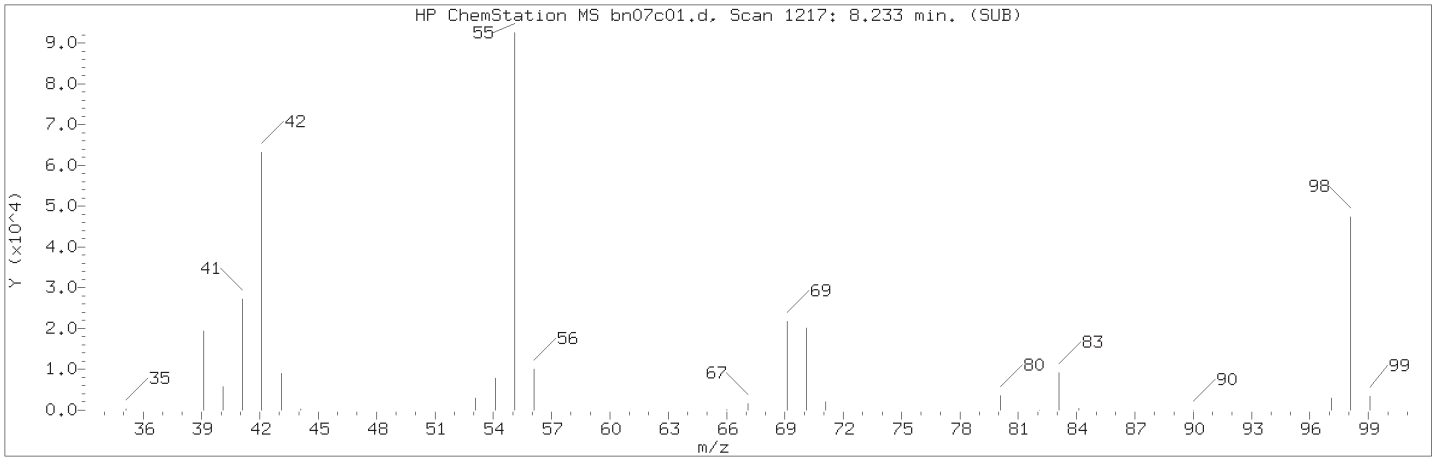
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

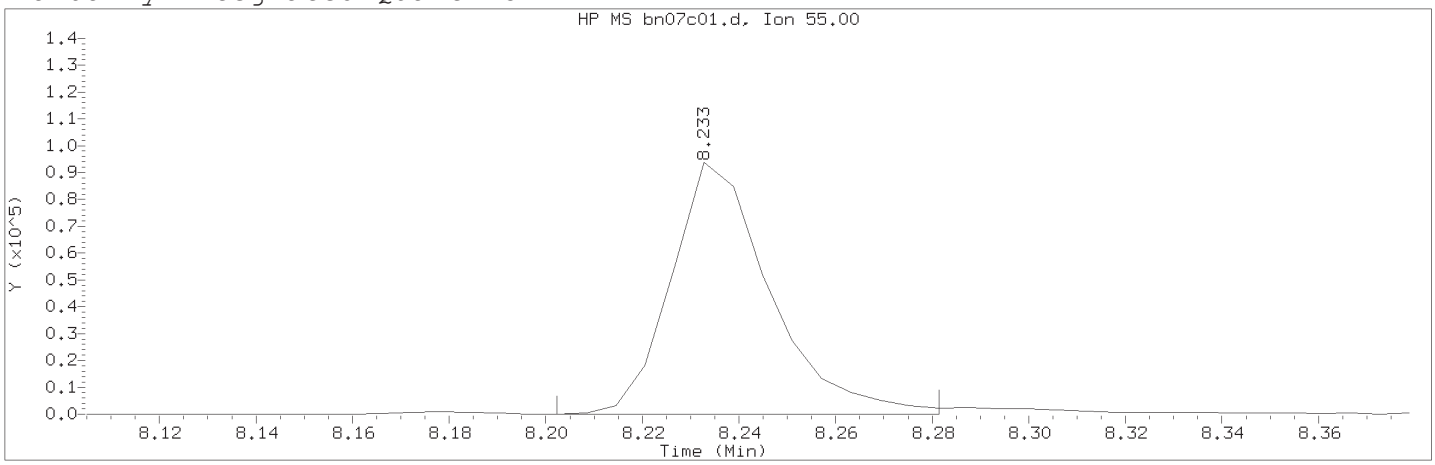
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 635
Retention Time (minutes): 4.692
Quant Ion : 88.00
Area : 74227
On-column Amount (ng) : 1025.7044
Integration start scan : 611 Integration stop scan: 708
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

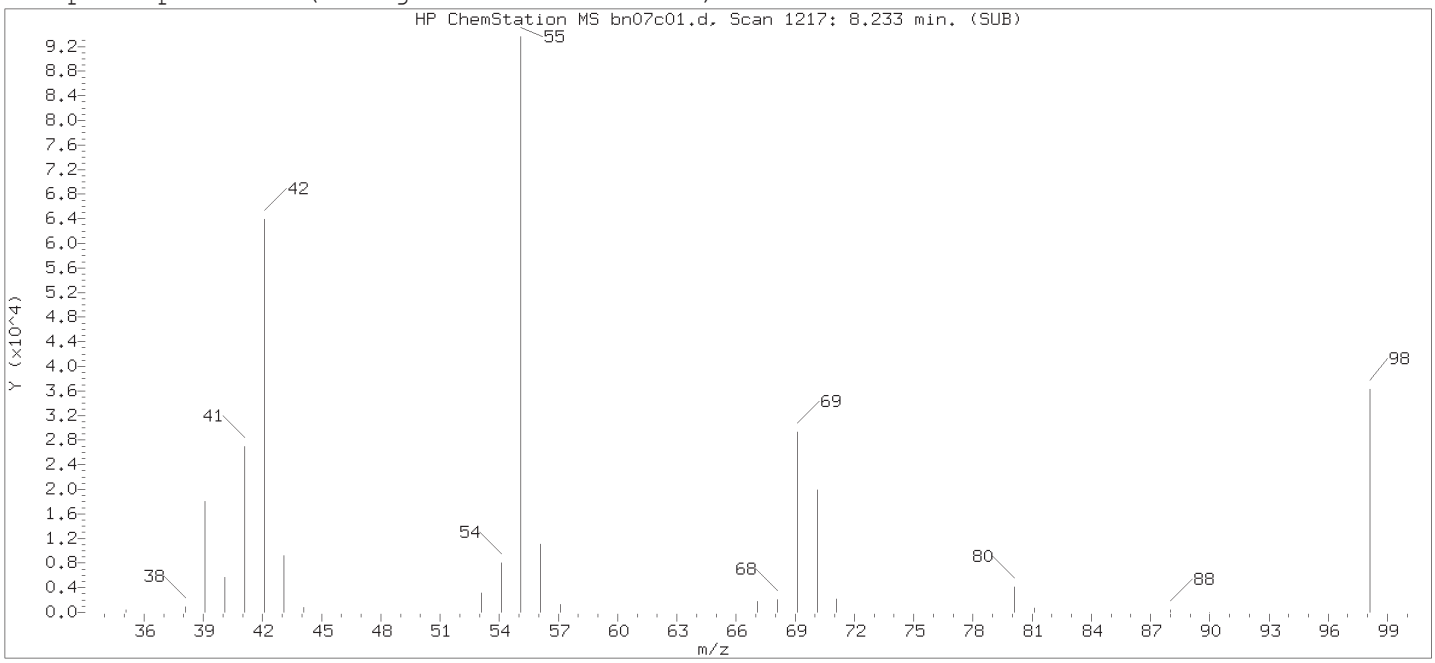
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area (flag) : 133747M
On-Column Amount (ng) : 510.7280
Integration start scan : 1211 Integration stop scan: 1224
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

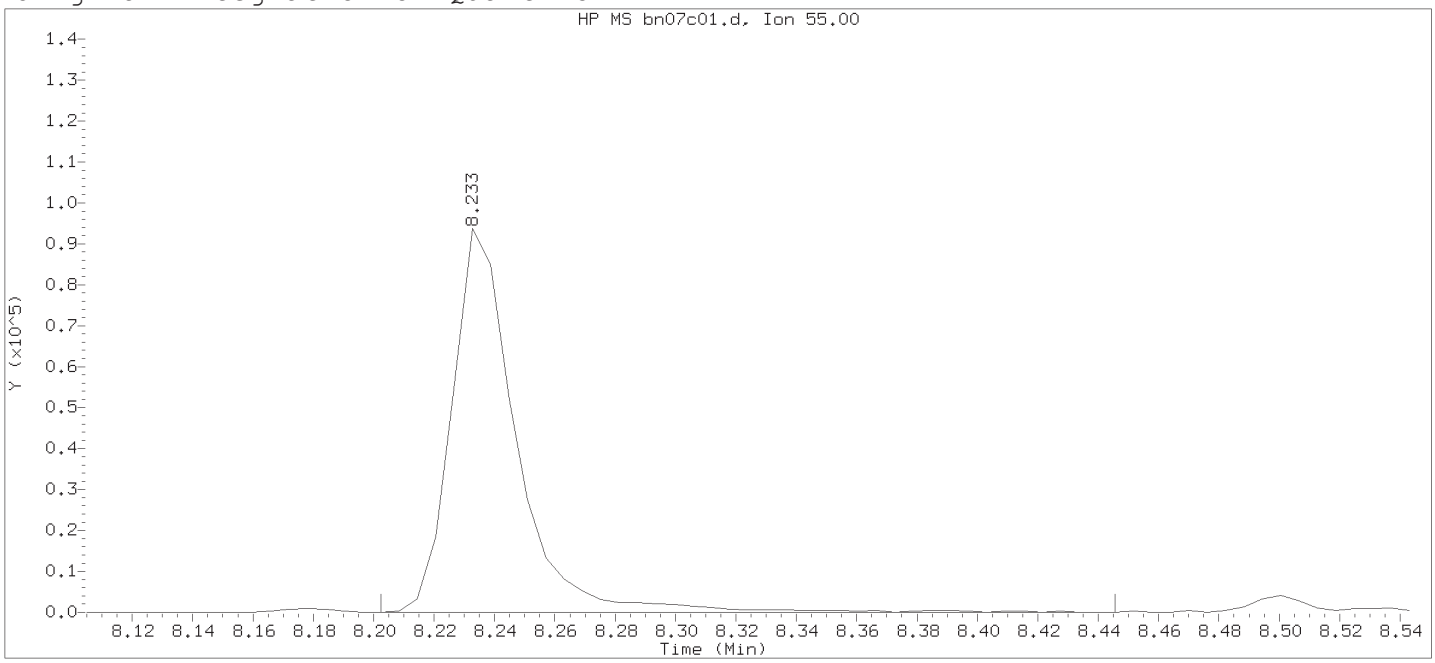
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

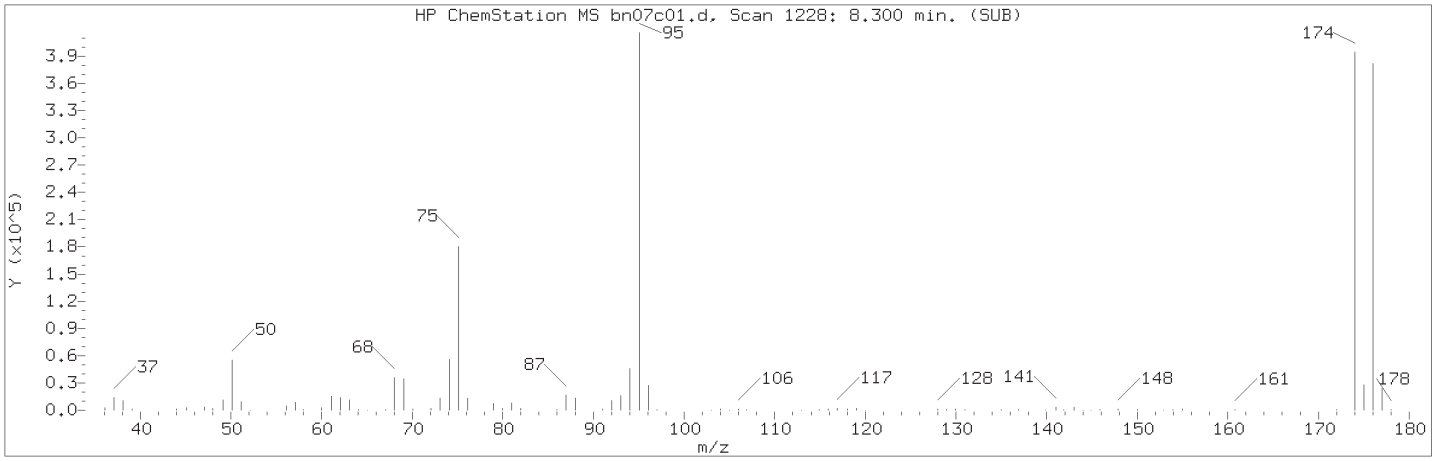
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

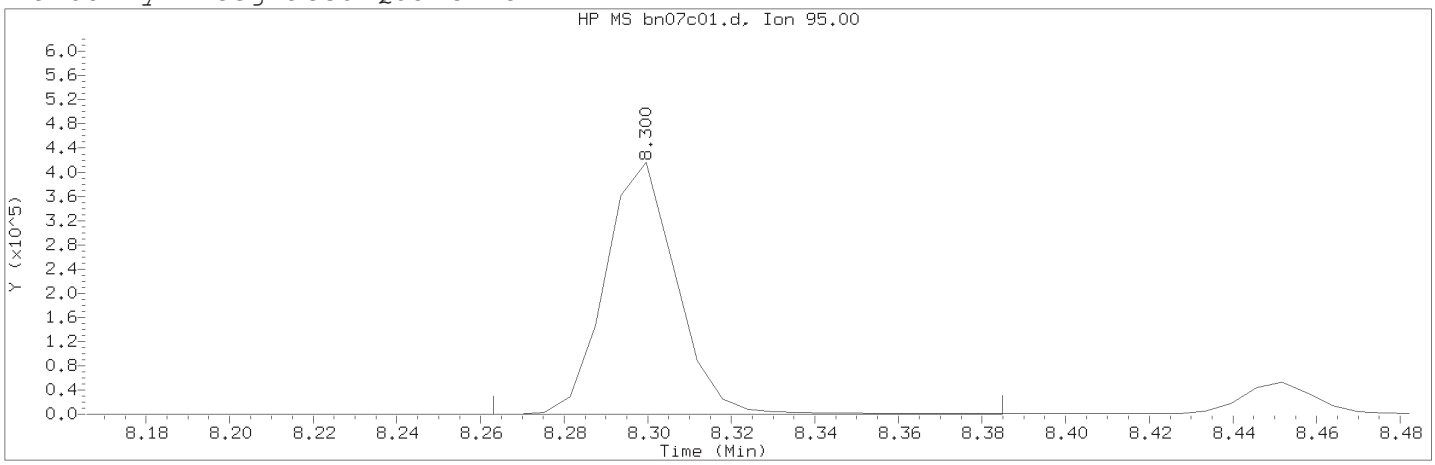
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area : 139512
On-column Amount (ng) : 532.7434
Integration start scan : 1211 Integration stop scan: 1251
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

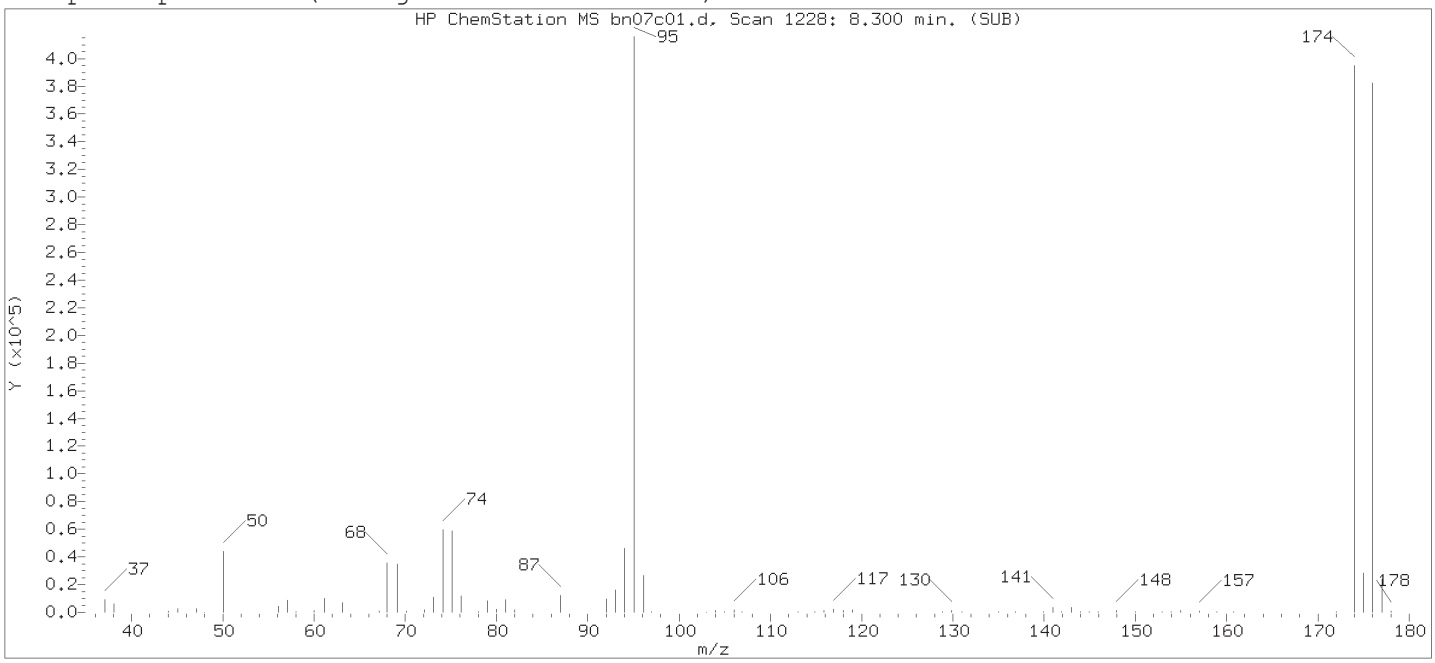
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area (flag) : 492441M
On-Column Amount (ng) : 49.8309
Integration start scan : 1221 Integration stop scan: 1241
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

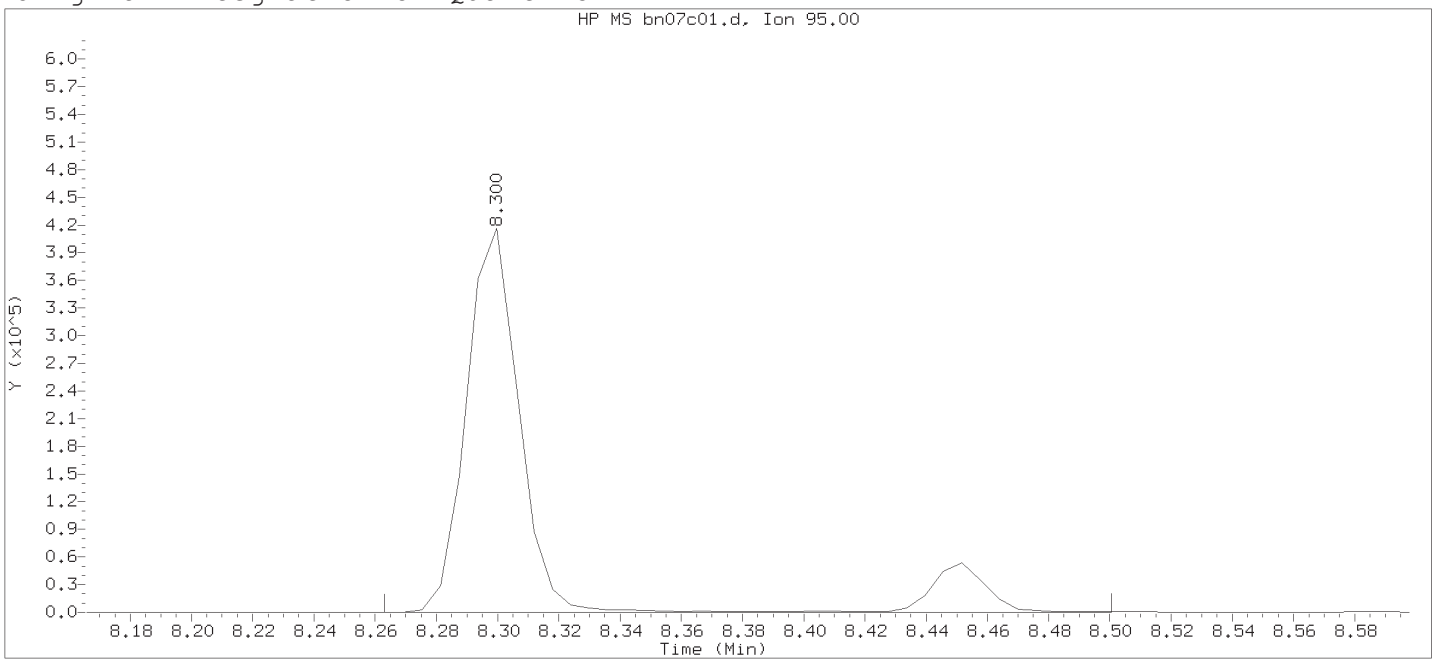
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

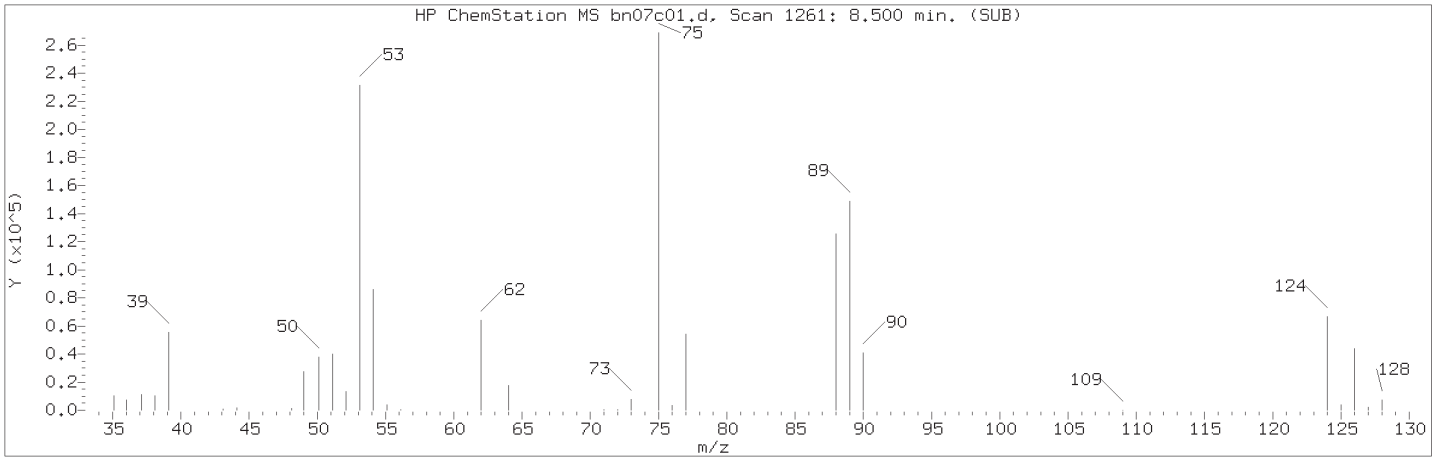
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

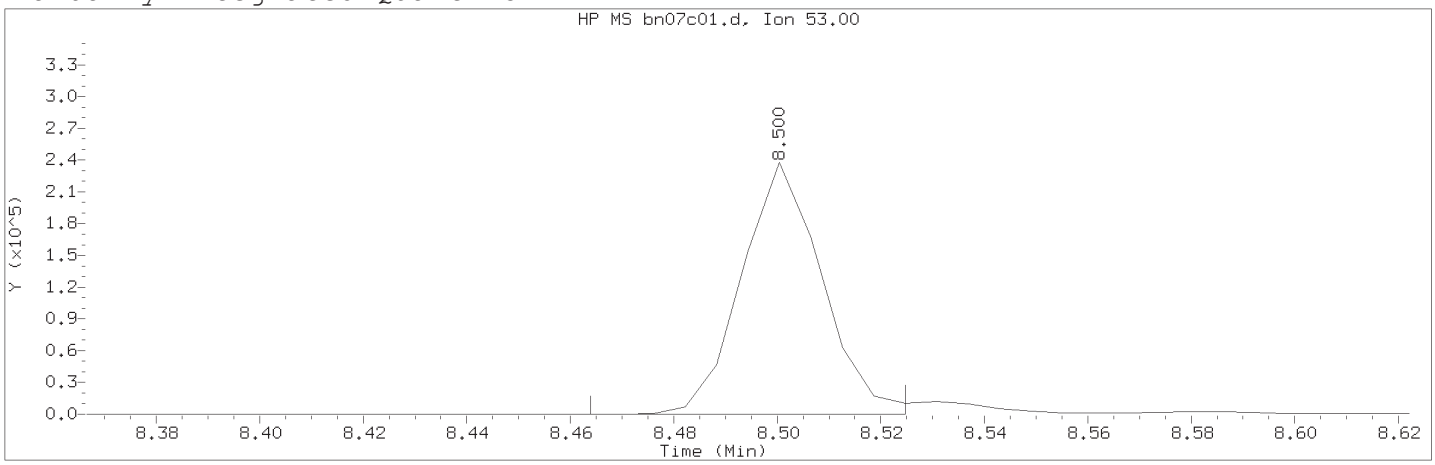
Compound Number	: 119		
Compound Name	: 4-Bromofluorobenzene		
Scan Number	: 1228		
Retention Time (minutes)	: 8.300		
Quant Ion	: 95.00		
Area	: 559125		
On-column Amount (ng)	: 56.5788		
Integration start scan	: 1221	Integration stop scan:	1260
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:53
Date, time and analyst ID of latest file update: 07-Nov-2018 09:47 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

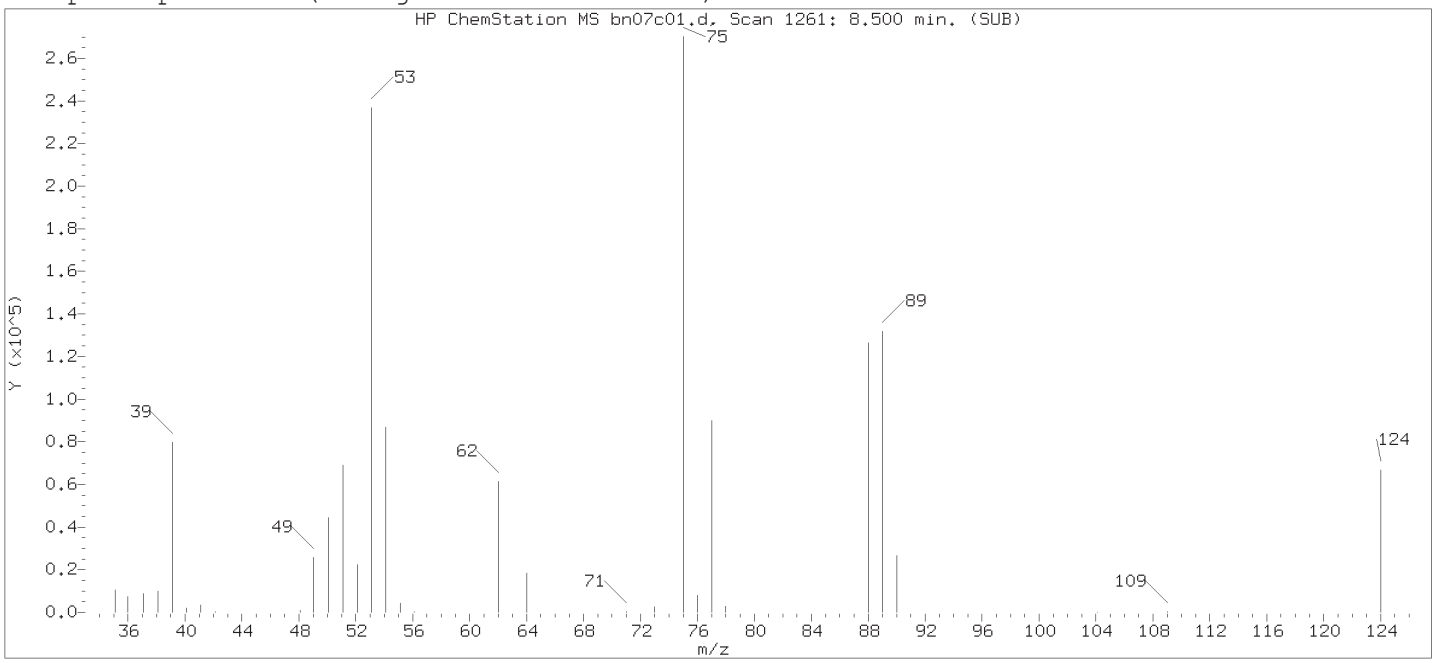
Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1261
Retention Time (minutes): 8.500
Quant Ion : 53.00
Area (flag) : 256934M
On-Column Amount (ng) : 118.8062
Integration start scan : 1254 Integration stop scan: 1264
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

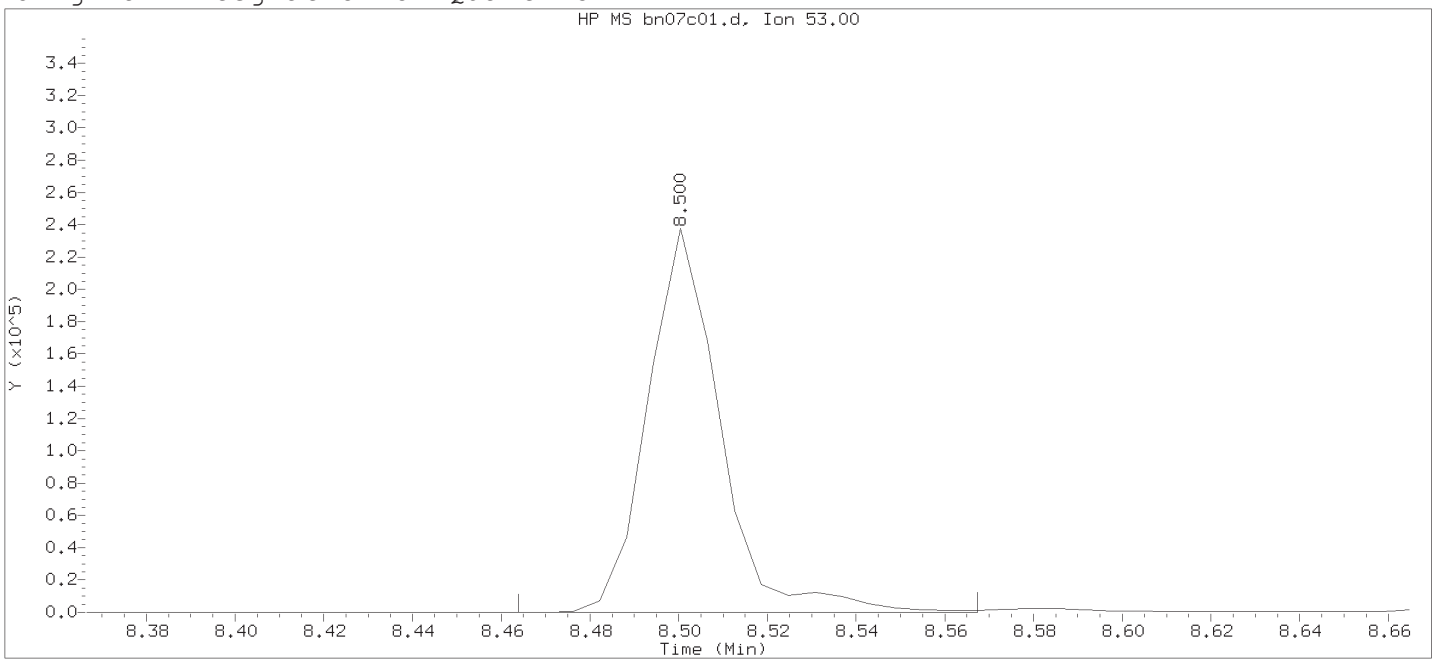
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 11/08/2018 at 10:37.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c01.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 08:13 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:45
Date, time and analyst ID of latest file update: 07-Nov-2018 08:45 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1261
Retention Time (minutes): 8.500
Quant Ion : 53.00
Area : 268938
On-column Amount (ng) : 124.3570
Integration start scan : 1254 Integration stop scan: 1271
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 09:47.
Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07c03.d Injection date and time: **07-NOV-2018 18:47**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;BN07B30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 14:43
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.912	(0.018)	178	65	103899	(-8)	250.00	
70) Fluorobenzene	3.944	(0.006)	512	96	1259287	(-4)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1010657	(-4)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	613454	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.305	(0.002)	113	320912	51.133	102%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.000)	102	68361	50.606	101%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1282178	49.154	98%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	533701	56.165	112%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.981	(0.001)	85	521325	45.848	45.85			0.6	5
4) Chloromethane	(2)	1.066	(0.001)	50	517827	44.182	44.18			0.6	5
5) Vinyl Chloride	(2)	1.115	(0.001)	62	418422	45.816	45.82			0.6	5
9) Bromomethane	(2)	1.243	(0.001)	94	405327	49.867	49.87			0.7	5
10) Chloroethane	(2)	1.261	(0.001)	64	246697	50.217	50.22			1	5
13) Trichlorofluoromethane	(2)	1.407	(0.000)	101	678740	53.987	53.99			0.7	5
19) 1,1-Dichloroethene	(2)	1.620	(0.000)	96	298539	47.254	47.25			0.5	5
20) Acetone	(1)	1.632	(-0.001)	58	46874	99.154	99.15			6	20
22) Freon 113	(2)	1.644	(0.002)	101	358443	56.589	56.59			0.6	10
25) Carbon Disulfide	(2)	1.754	(0.002)	76	1120019	44.306	44.31			0.6	5
27) Methyl Acetate	(2)	1.821	(0.000)	43	168527	52.020	52.02			1	5
31) Methylene Chloride	(2)	1.900	(0.000)	84	335356	44.917	44.92			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.082	(0.002)	73	814334	45.315	45.32			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.070	(0.002)	96	343737	46.786	46.79			0.5	5
40) 1,1-Dichloroethane	(2)	2.374	(0.002)	63	598435	50.233	50.23			0.5	5
44) 2-Butanone	(1)	2.885	(-0.011)	43	246770	92.383	92.38			1	10
45) cis-1,2-Dichloroethene	(2)	2.873	(0.000)	96	398791	50.006	50.01			0.5	5
54) Chloroform	(2)	3.165	(0.000)	83	598008	49.456	49.46			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.335	(0.000)	97	531811	42.955	42.96			0.6	5
58) Cyclohexane	(2)	3.384	(0.001)	56	630039	54.169	54.17			0.5	5
61) Carbon Tetrachloride	(2)	3.488	(0.000)	117	466896	49.655	49.65			0.5	5
64) Benzene	(2)	3.670	(0.000)	78	1388208	48.331	48.33			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	397609	47.968	47.97			0.6	5
75) Trichloroethene	(2)	4.303	(-0.000)	95	364590	48.675	48.67			0.5	5
76) Methylcyclohexane	(2)	4.497	(-0.000)	83	712617	61.135	61.13			0.6	5
77) 1,2-Dichloropropane	(2)	4.522	(-0.000)	63	340765	49.958	49.96			0.5	5
84) Bromodichloromethane	(2)	4.820	(-0.001)	83	411971	48.364	48.36			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.288	(-0.000)	75	506731	49.265	49.27			0.4	5
90) 4-Methyl-2-pentanone	(2)	5.483	(-0.000)	43	517751	88.209	88.21			1	10
92) Toluene	(3)	5.635	(0.000)	92	899992	46.518	46.52			0.6	5

Digitally signed by Stephen C. Nolte on 11/08/2018 at 14:03. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07c03.d Injection date and time: **07-NOV-2018 18:47**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;BN07B30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 14:43
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

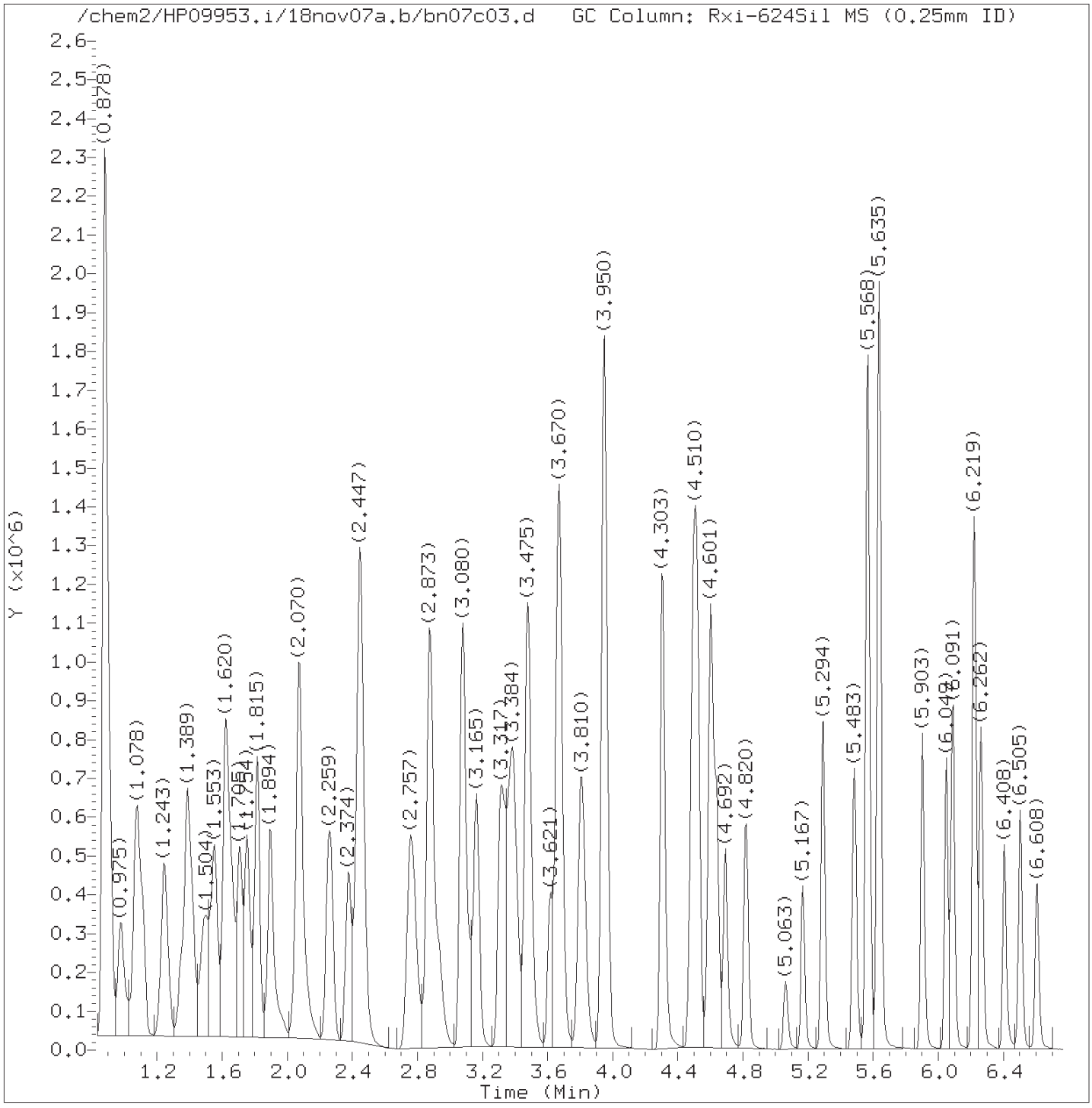
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) trans-1,3-Dichloropropene	(3)	5.903(0.000)	75	425390	45.902	45.90			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(-0.000)	97	292602	46.605	46.60			0.5	5
98) Tetrachloroethene	(3)	6.219(0.000)	166	432997	40.859	40.86			0.5	5
101) 2-Hexanone	(3)	6.408(0.000)	43	354181	78.522	78.52			1	10
103) Dibromochloromethane	(3)	6.505(-0.000)	129	337308	46.632	46.63			0.4	5
104) 1,2-Dibromoethane	(3)	6.602(0.000)	107	305721	47.133	47.13			0.4	5
107) Chlorobenzene	(3)	7.174(-0.000)	112	1061773	47.005	47.01			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	1745446	47.968	47.97			0.4	5
110) m+p-Xylene	(3)	7.448(-0.000)	106	1429186	96.251	96.25			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	697044	46.957	46.96			0.4	5
112) Xylene (Total)	(3)		106	2126230	143.209	143.21			1	5
113) Styrene	(3)	7.849(-0.000)	104	1140681	46.612	46.61			0.3	5
114) Bromoform	(3)	7.995(-0.000)	173	200778	44.544	44.54			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	1793320	47.928	47.93			0.4	5
118) Cyclohexanone	(1)	8.233(-0.040)	55	130734A	542.918	542.92			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(0.000)	83	374097	43.594	43.59			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.176(-0.000)	146	950096	45.041	45.04			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(-0.000)	146	975752	44.368	44.37			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	945705	45.857	45.86			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(-0.000)	75	61383	41.171	41.17			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.630(-0.000)	180	670234	44.072	44.07			5	10

A = User selected an alternate peak.

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/08/2018 at 14:03. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 15:07. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

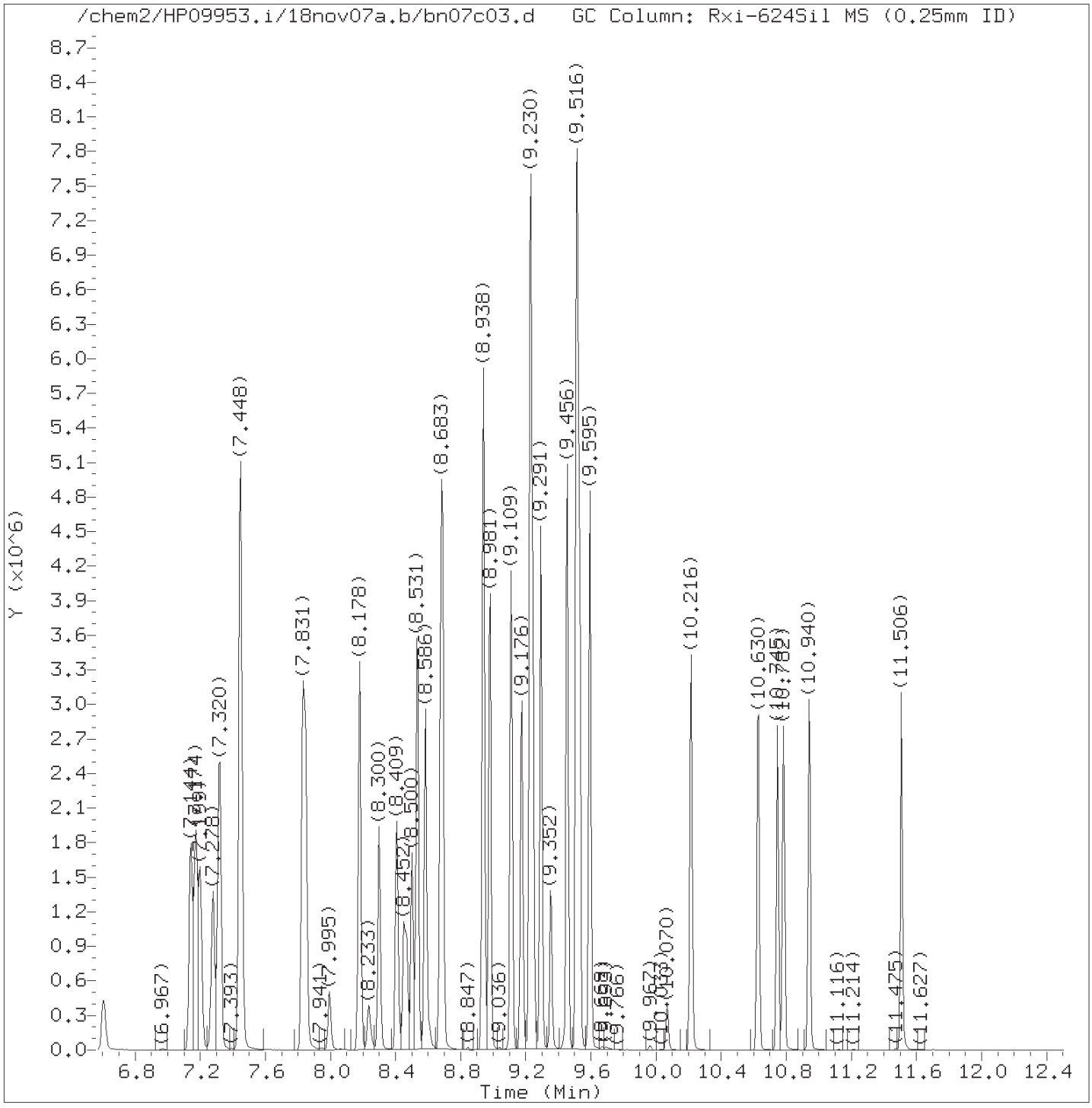
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.981	85	521325	45.848
4) Chloromethane	(2)	1.066	50	517827	44.182
5) Vinyl Chloride	(2)	1.115	62	418422	45.816
9) Bromomethane	(2)	1.243	94	405327	49.867
10) Chloroethane	(2)	1.261	64	246697	50.217
13) Trichlorofluoromethane	(2)	1.407	101	678740	53.987
19) 1,1-Dichloroethene	(2)	1.620	96	298539	47.254
20) Acetone	(1)	1.632	58	46874	99.154
22) Freon 113	(2)	1.644	101	358443	56.589
25) Carbon Disulfide	(2)	1.754	76	1120019	44.306
27) Methyl Acetate	(2)	1.821	43	168527	52.020
31) Methylene Chloride	(2)	1.900	84	335356	44.917
30)*t-Butyl alcohol-d10	(1)	1.912	65	103899	250.000
35) trans-1,2-Dichloroethene	(2)	2.070	96	343737	46.786
34) Methyl Tertiary Butyl Ether	(2)	2.082	73	814334	45.315
40) 1,1-Dichloroethane	(2)	2.374	63	598435	50.233
45) cis-1,2-Dichloroethene	(2)	2.873	96	398791	50.006
44) 2-Butanone	(1)	2.885	43	246770	92.383
54) Chloroform	(2)	3.165	83	598008	49.456
56)$Dibromofluoromethane	(2)	3.305	113	320912	51.133
57) 1,1,1-Trichloroethane	(2)	3.335	97	531811	42.955
58) Cyclohexane	(2)	3.384	56	630039	54.169
61) Carbon Tetrachloride	(2)	3.488	117	466896	49.655
63)$1,2-Dichloroethane-d4	(2)	3.615	102	68361	50.606
64) Benzene	(2)	3.670	78	1388208	48.331
67) 1,2-Dichloroethane	(2)	3.688	62	397609	47.968
70)*Fluorobenzene	(2)	3.944	96	1259287	50.000
75) Trichloroethene	(2)	4.303	95	364590	48.675
76) Methylcyclohexane	(2)	4.497	83	712617	61.135
77) 1,2-Dichloropropane	(2)	4.522	63	340765	49.958
84) Bromodichloromethane	(2)	4.820	83	411971	48.364
89) cis-1,3-Dichloropropene	(2)	5.288	75	506731	49.265
90) 4-Methyl-2-pentanone	(2)	5.483	43	517751	88.209
91)$Toluene-d8	(3)	5.568	98	1282178	49.154
92) Toluene	(3)	5.635	92	899992	46.518
93) trans-1,3-Dichloropropene	(3)	5.903	75	425390	45.902
96) 1,1,2-Trichloroethane	(3)	6.091	97	292602	46.605
98) Tetrachloroethene	(3)	6.219	166	432997	40.859

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

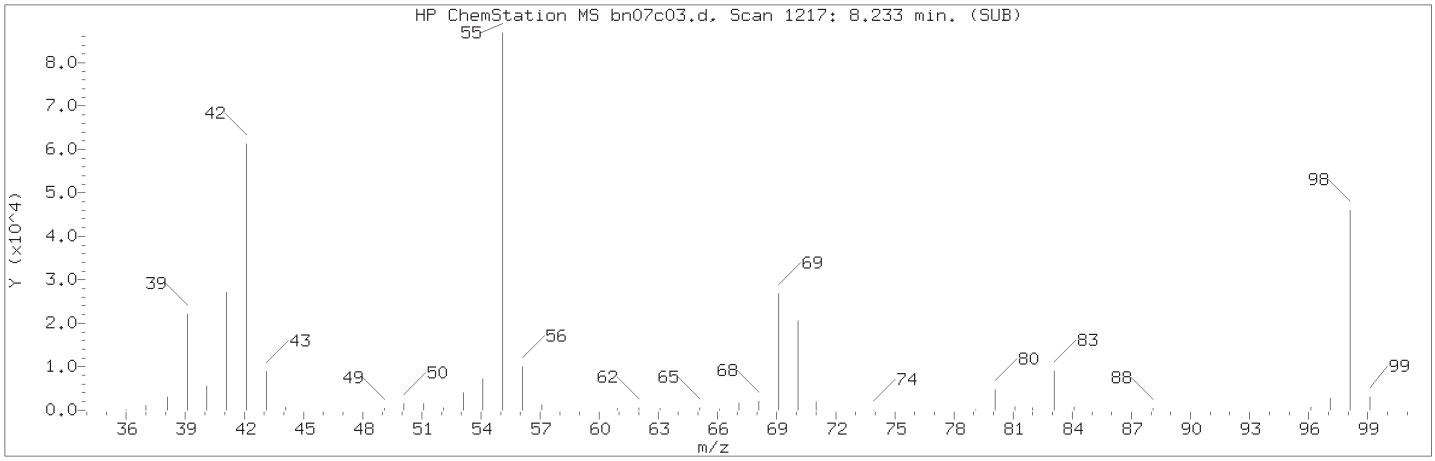
Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.408	43	354181	78.522
103) Dibromochloromethane	(3)	6.505	129	337308	46.632
104) 1,2-Dibromoethane	(3)	6.602	107	305721	47.133
105)*Chlorobenzene-d5	(3)	7.144	117	1010657	50.000
107) Chlorobenzene	(3)	7.174	112	1061773	47.005
109) Ethylbenzene	(3)	7.320	91	1745446	47.968
110) m+p-Xylene	(3)	7.448	106	1429186	96.251
111) o-Xylene	(3)	7.831	106	697044	46.957
113) Styrene	(3)	7.849	104	1140681	46.612
112) Xylene (Total)	(3)		106	2126230	143.209
114) Bromoform	(3)	7.995	173	200778	44.544
115) Isopropylbenzene	(3)	8.178	105	1793320	47.928
118) Cyclohexanone	(1)	8.233	55	130734A	542.918
119)$4-Bromofluorobenzene	(3)	8.300	95	533701	56.165
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	374097	43.594
138) 1,3-Dichlorobenzene	(4)	9.176	146	950096	45.041
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	613454	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	975752	44.368
147) 1,2-Dichlorobenzene	(4)	9.516	146	945705	45.857
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	61383	41.171
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	670234	44.072

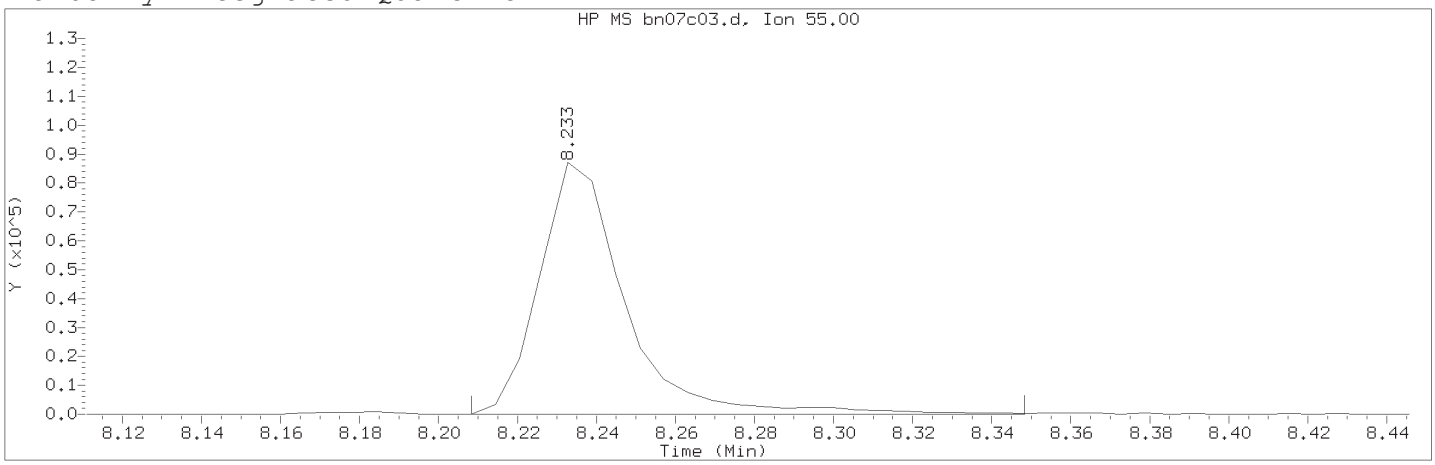
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 22:59 kas02648

Sample Name: SECC050 Lab Sample ID: SECC050

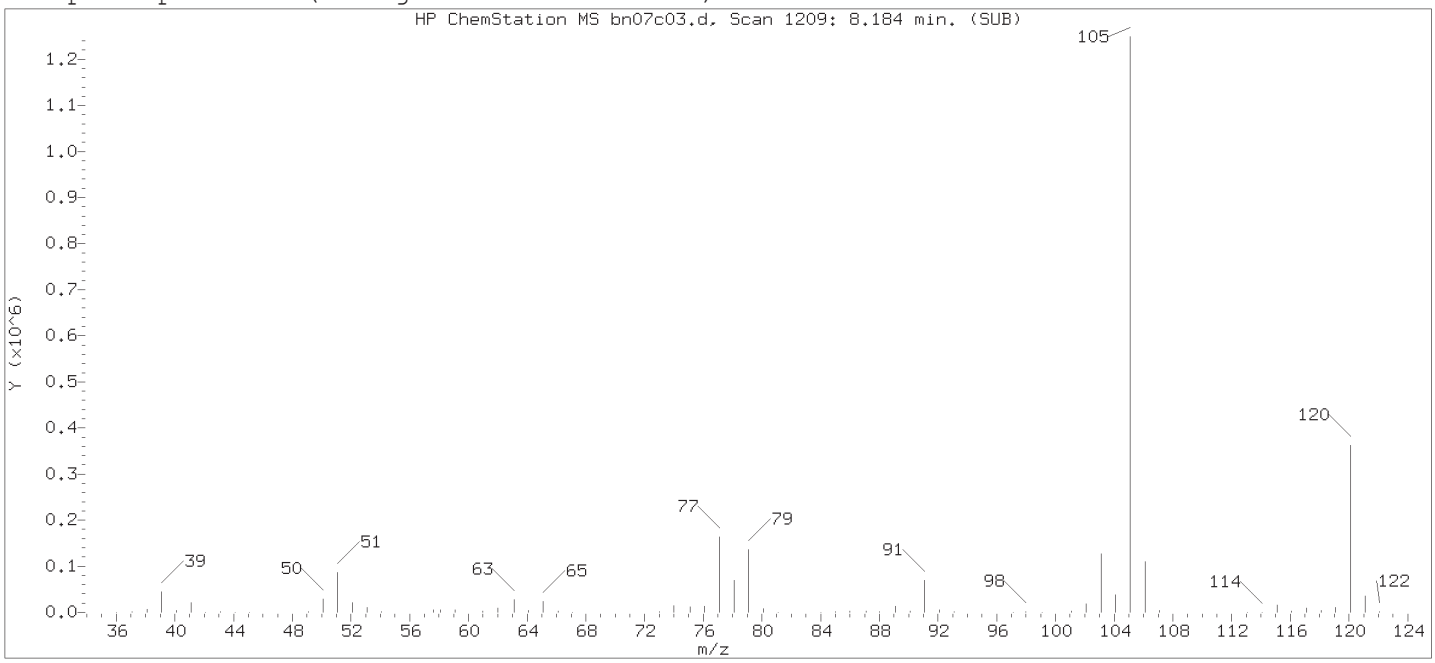
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area (flag) : 130734A
On-Column Amount (ng) : 542.9181
Integration start scan : 1212 Integration stop scan: 1235
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

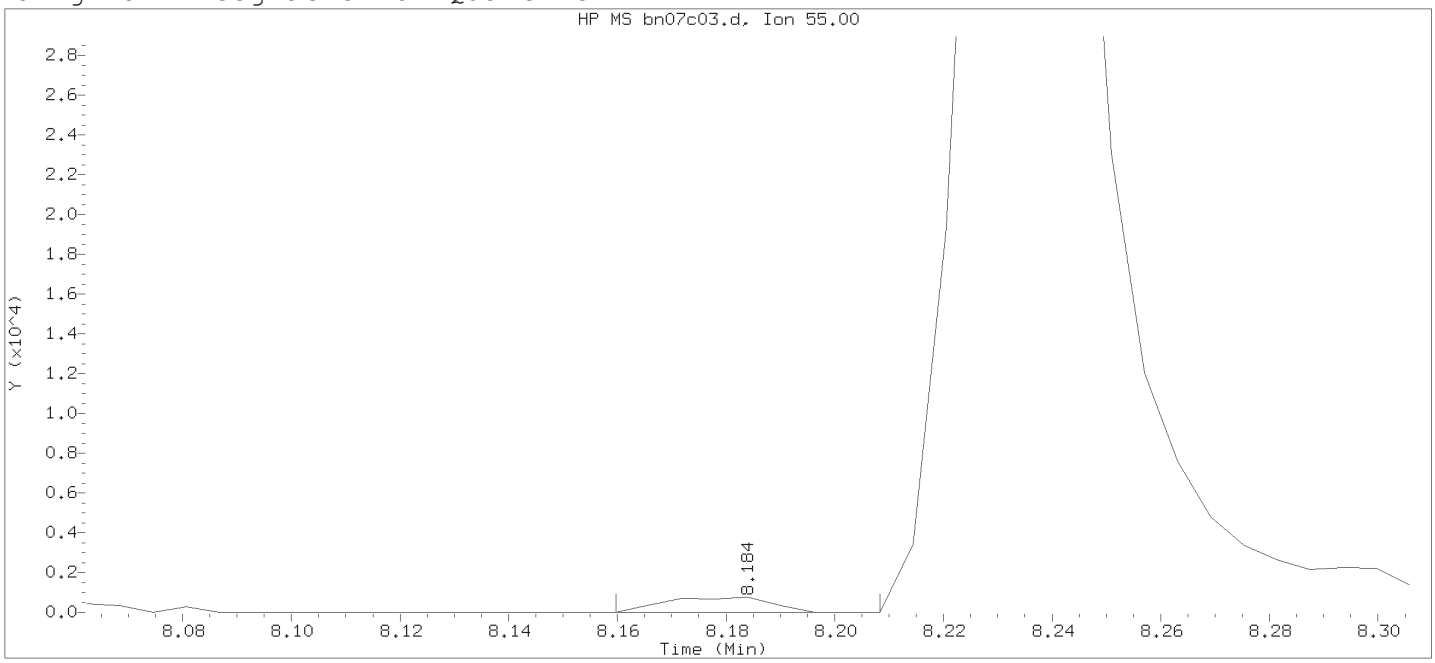
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 15:07.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07c03.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 18:47 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 14:43
Date, time and analyst ID of latest file update: 07-Nov-2018 19:02 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1209
Retention Time (minutes): 8.184
Quant Ion : 55.00
Area : 1028
On-column Amount (ng) : 4.2732
Integration start scan : 1204 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 14:03.
Target 3.5 esignature user ID: SCNolte

Data File: /chem/HP07536.i/18oct17z.b/qc17t51.d

Date : 17-OCT-2018 11:12

Client ID: AUG0718

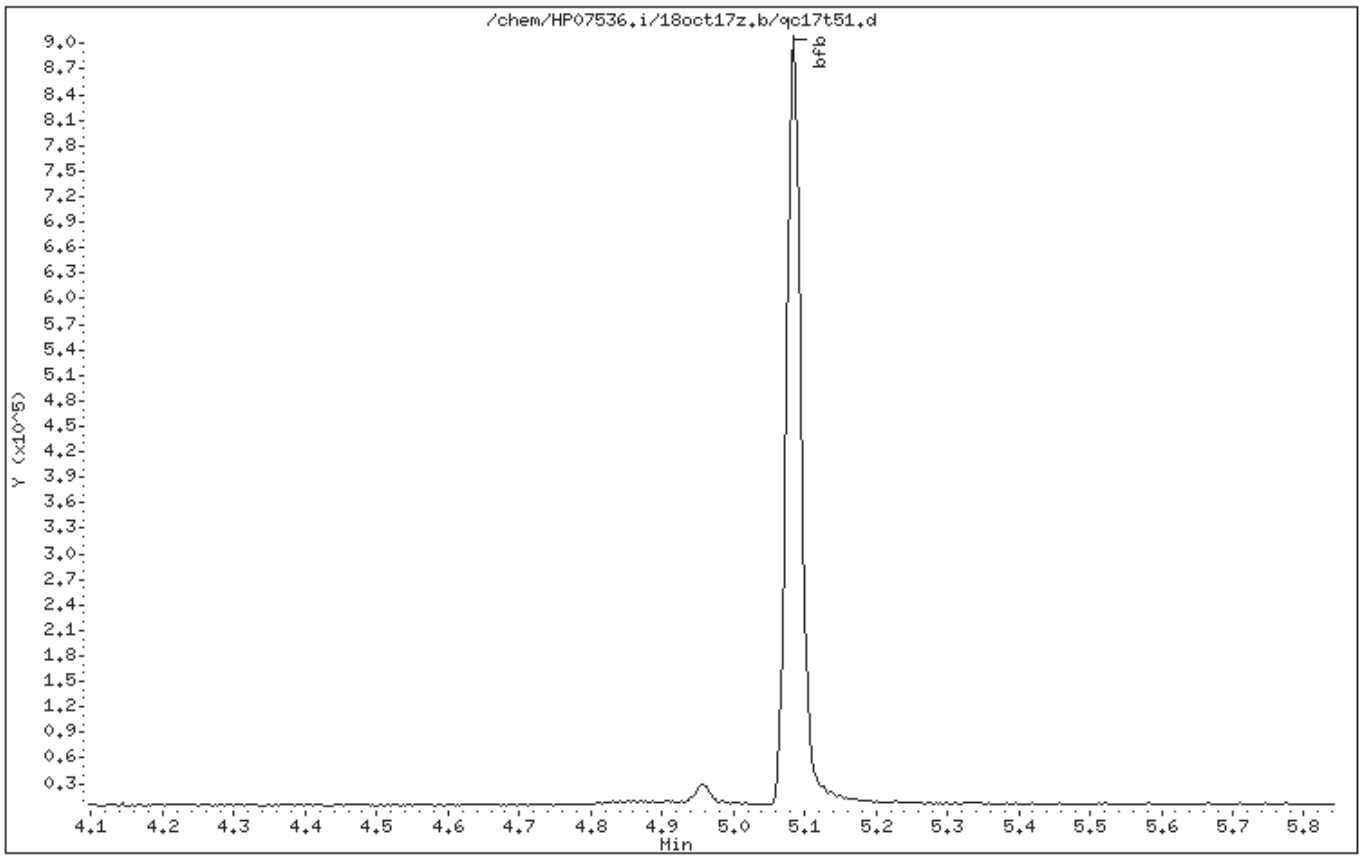
Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;

Operator: SCN10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Stephen C. Nolte on 10/18/2018 at 11:21.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18oct17z.b/qc17t51.d

Date : 17-OCT-2018 11:12

Client ID: AUG0718

Instrument: HP07536.i

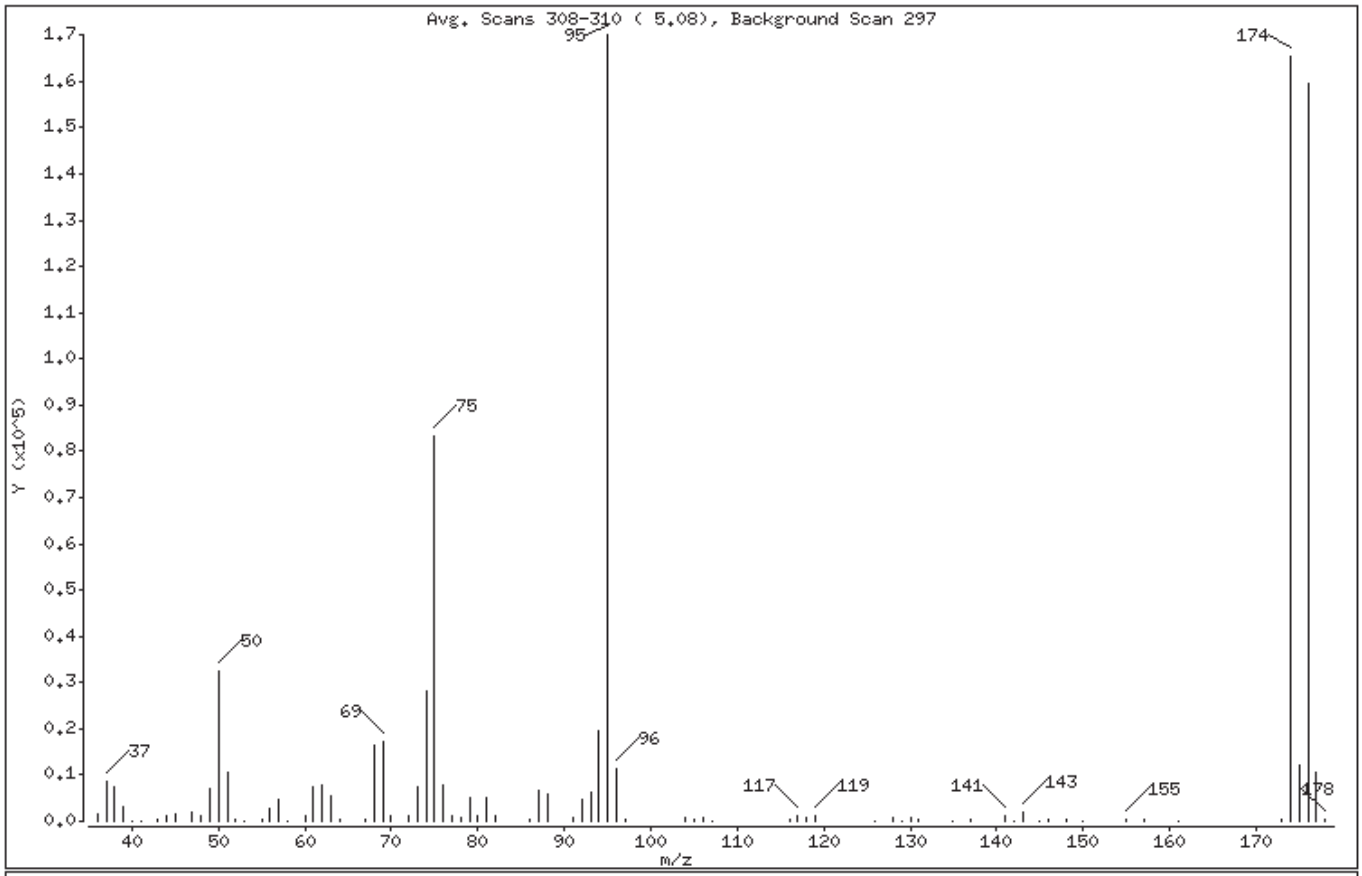
Sample Info: AUG0718;50NGBFB;2;3;;

Operator: SCN10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.04
75	30.00 - 60.00% of mass 95	48.88
96	5.00 - 9.00% of mass 95	6.73
173	Less than 2.00% of mass 174	0.25 (0.26)
174	50.00 - 100.00% of mass 95	97.20
175	5.00 - 9.00% of mass 174	7.11 (7.31)
176	95.00 - 101.00% of mass 174	93.83 (96.53)
177	5.00 - 9.00% of mass 176	6.28 (6.69)

Digitally signed by Stephen C. Nolte on 10/18/2018 at 11:21.
Target 3.5 esignature user ID: scn10072

Date : 17-OCT-2018 11:12

Client ID: AUG0718 Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;

Operator: SCN10072

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: qc17t51.d
Spectrum: Avg. Scans 308-310 (5.08), Background Scan 297
Location of Maximum: 95.00
Number of points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1673	61.00	7565	88.00	6039	135.00	94
37.00	8746	62.00	7964	91.00	873	137.00	303
38.00	7381	63.00	5530	92.00	4687	141.00	1279
39.00	3096	64.00	568	93.00	6440	142.00	102
40.00	20	67.00	348	94.00	19592	143.00	1903
41.00	66	68.00	16568	95.00	170112	145.00	118
43.00	415	69.00	17232	96.00	11449	146.00	266
44.00	1054	70.00	1361	97.00	371	148.00	397
45.00	1531	72.00	1142	104.00	740	150.00	94
47.00	1802	73.00	7325	105.00	201	155.00	462
48.00	985	74.00	28304	106.00	914	157.00	320
49.00	7051	75.00	83168	107.00	89	161.00	86
50.00	32392	76.00	7835	116.00	486	173.00	428
51.00	10490	77.00	1005	117.00	1099	174.00	165376
52.00	383	78.00	692	118.00	606	175.00	12096
53.00	93	79.00	5205	119.00	1042	176.00	159616
55.00	556	80.00	1365	126.00	92	177.00	10686
56.00	2655	81.00	4902	128.00	604	178.00	301
57.00	4512	82.00	1112	129.00	107		
58.00	95	86.00	210	130.00	720		
60.00	1332	87.00	6575	131.00	238		

Digitally signed by Stephen C. Nolte on 10/18/2018 at 11:21.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18oct23a.b/qc23t10.d

Date : 23-OCT-2018 07:28

Client ID: AUG0718

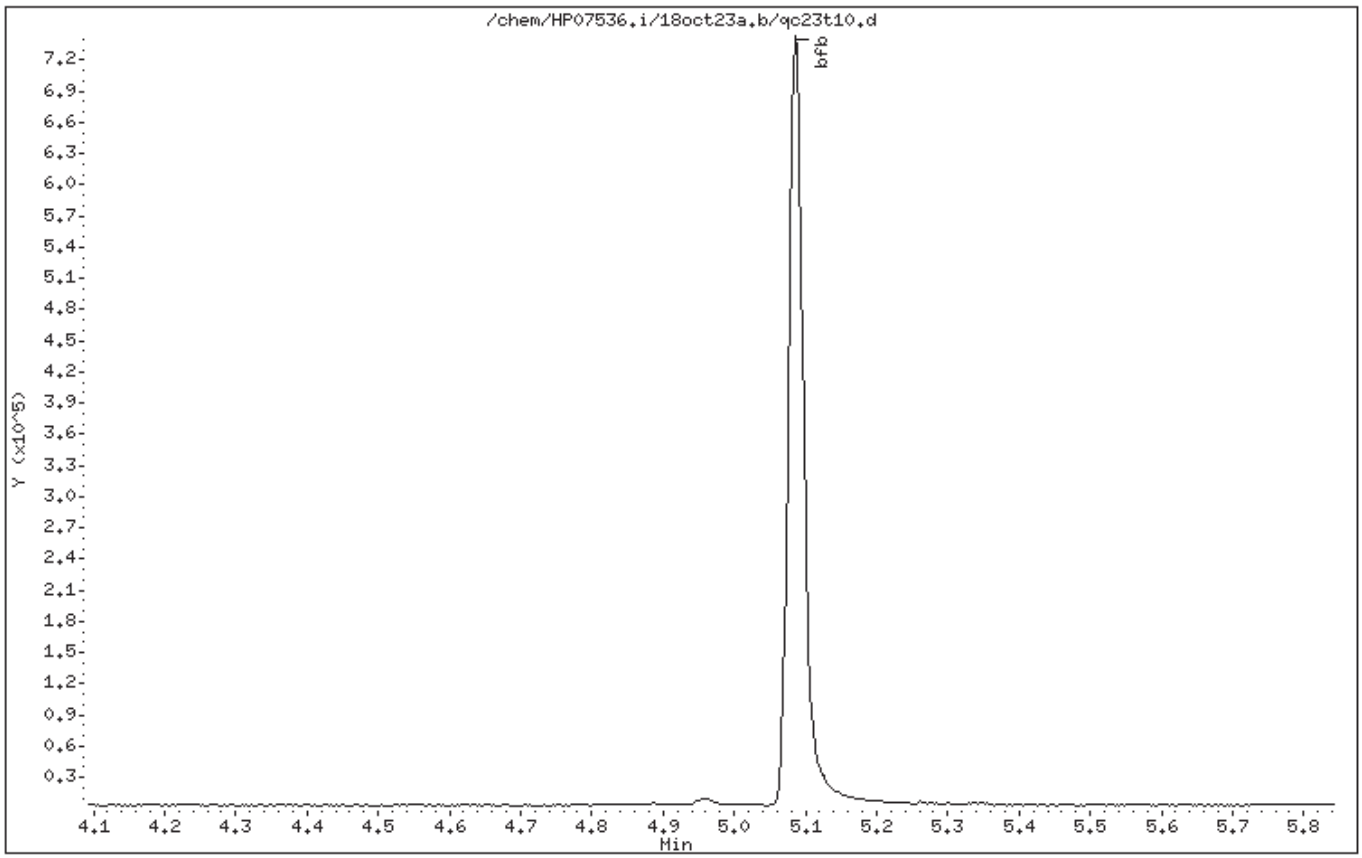
Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Stephen C. Nolte on 10/23/2018 at 07:44.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18oct23a.b/qc23t10.d

Date : 23-OCT-2018 07:28

Client ID: AUG0718

Instrument: HP07536.i

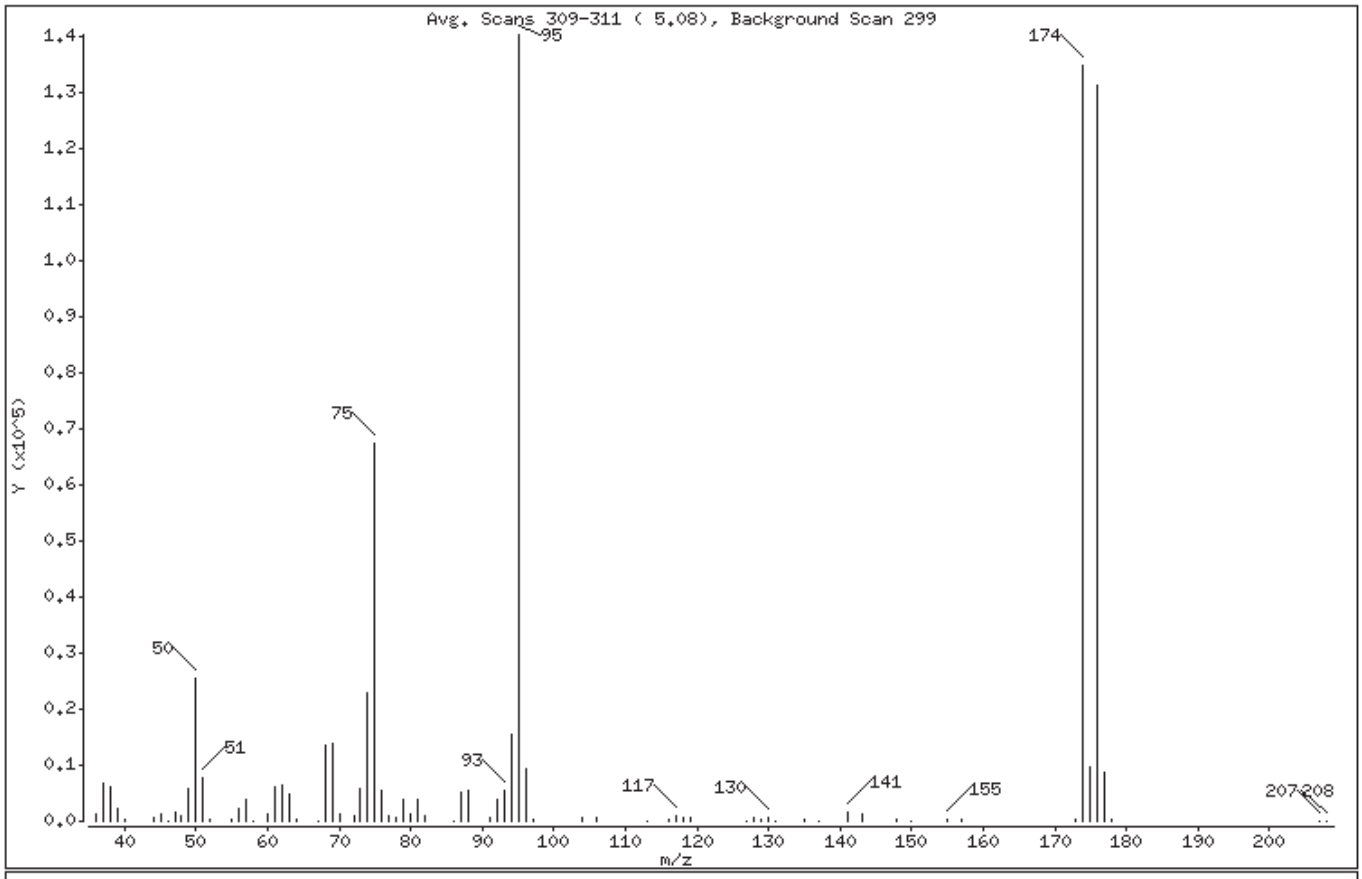
Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.08
75	30.00 - 60.00% of mass 95	48.03
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.17 (0.18)
174	50.00 - 100.00% of mass 95	96.13
175	5.00 - 9.00% of mass 174	6.90 (7.18)
176	95.00 - 101.00% of mass 174	93.65 (97.42)
177	5.00 - 9.00% of mass 176	6.21 (6.63)

Digitally signed by Stephen C. Nolte on 10/23/2018 at 07:44.
Target 3.5 esignature user ID: scn10072

Date : 23-OCT-2018 07:28

Client ID: AUG0718 Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

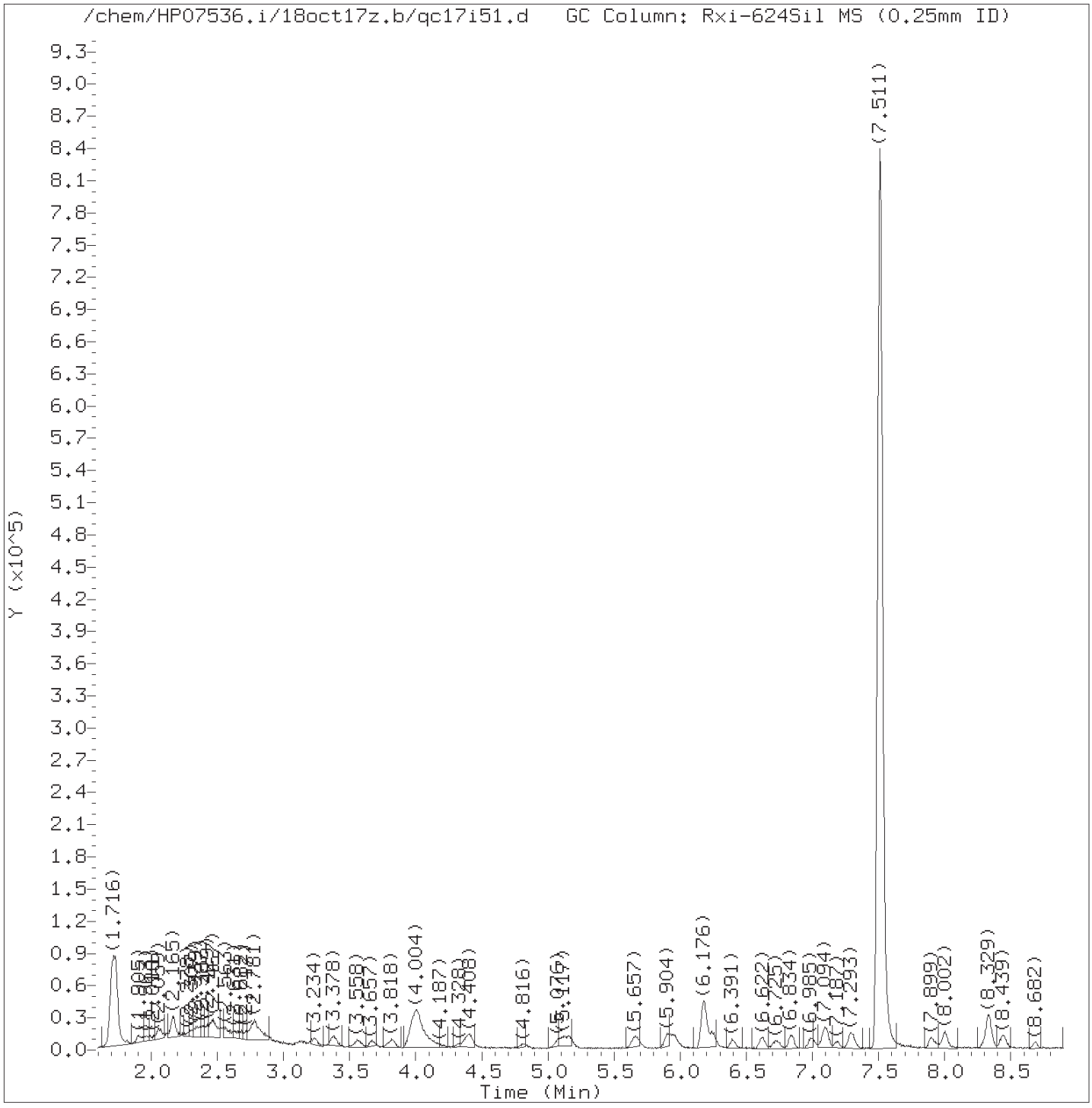
Operator: scn10072

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: qc23t10.d
Spectrum: Avg. Scans 309-311 (5.08), Background Scan 299
Location of Maximum: 95.00
Number of points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1308	62.00	6370	88.00	5391	135.00	339
37.00	6732	63.00	4740	91.00	607	137.00	98
38.00	6251	64.00	473	92.00	3714	141.00	1454
39.00	2331	67.00	152	93.00	5639	143.00	1412
40.00	211	68.00	13693	94.00	15321	148.00	345
44.00	708	69.00	13751	95.00	140224	150.00	92
45.00	1170	70.00	1359	96.00	9459	155.00	375
46.00	103	72.00	877	97.00	265	157.00	194
47.00	1586	73.00	5902	104.00	577	173.00	241
48.00	866	74.00	23000	106.00	761	174.00	134784
49.00	5741	75.00	67376	113.00	89	175.00	9678
50.00	25360	76.00	5489	116.00	467	176.00	131328
51.00	7819	77.00	833	117.00	895	177.00	8704
52.00	410	78.00	607	118.00	546	178.00	313
55.00	467	79.00	3885	119.00	715	207.00	65
56.00	2300	80.00	1374	127.00	85	208.00	84
57.00	3890	81.00	3761	128.00	552		
58.00	87	82.00	911	129.00	236		
60.00	1262	86.00	84	130.00	639		
61.00	6259	87.00	5291	131.00	118		

Digitally signed by Stephen C. Nolte on 10/23/2018 at 07:44.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

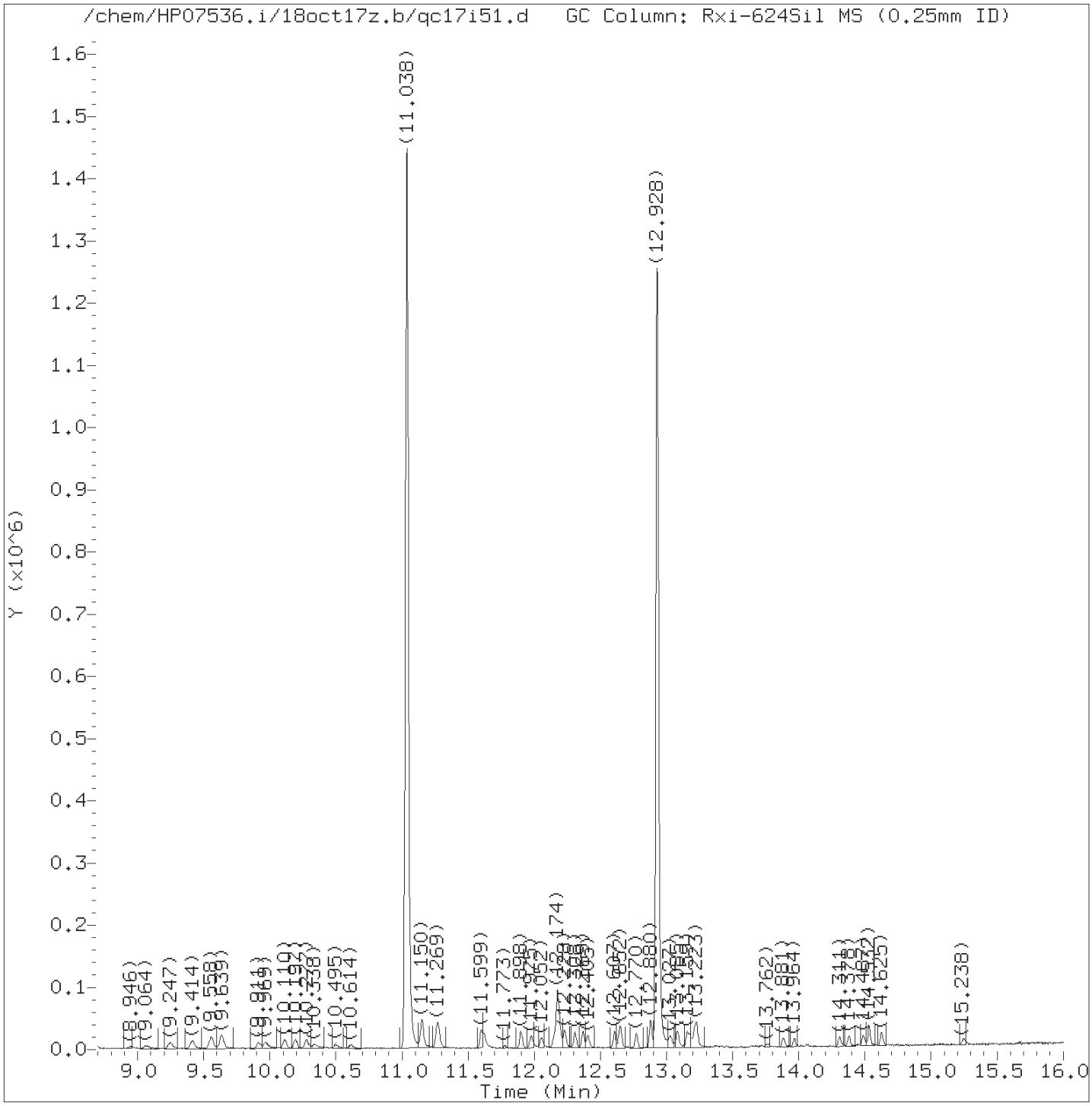
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.889	85	9113M	0.839
4) Chloromethane	(2)	2.056	50	11015	0.951
5) Vinyl Chloride	(2)	2.172	62	10494	0.931
9) Bromomethane	(2)	2.464	94	8360M	2.021
10) Chloroethane	(2)	2.550	64	5212	0.037
11) Dichlorofluoromethane	(2)	2.778	67	16506MA	1.174
13) Trichlorofluoromethane	(2)	2.823	101	10151	0.737
14) n-Pentane	(2)	2.875	43	9607	1.230
15) Ethanol	(1)	2.929	45	9722M	134.857
17) Freon 123a	(2)	3.144	67	6929	0.817
18) Acrolein	(1)	3.234	56	14645	9.679
19) 1,1-Dichloroethene	(2)	3.369	96	4459	0.805
19) 1,1-Dichloroethene	(2)	3.375	63	2185	0.772
20) Acetone	(1)	3.369	58	1078M	1.764
22) Freon 113	(2)	3.382	101	3238M	0.686
23) 2-Propanol	(1)	3.542	45	8239M	19.248
24) Methyl Iodide	(2)	3.568	142	10342	0.878
25) Carbon Disulfide	(2)	3.667	76	17124	0.850
27) Methyl Acetate	(2)	3.773	43	6363M	1.172
29) Allyl Chloride	(2)	3.821	41	9545M	0.921
30)*t-Butyl alcohol-d10	(1)	3.994	65	127015	250.000
31) Methylene Chloride	(2)	4.014	84	6084	0.920
32) t-Butyl alcohol	(1)	4.126	59	12228M	19.679
33) Acrylonitrile	(2)	4.328	53	2394M	0.881
34) Methyl Tertiary Butyl Ether	(2)	4.383	73	18705	0.987
35) trans-1,2-Dichloroethene	(2)	4.415	96	5202	0.832
38) n-Hexane	(2)	4.816	57	3589	0.744
40) 1,1-Dichloroethane	(2)	5.066	63	10022	0.896
41) di-Isopropyl ether	(2)	5.127	45	20613	0.934
42) 2-Chloro-1,3-butadiene	(2)	5.166	53	8243	0.817
43) Ethyl t-butyl ether	(2)	5.663	59	20001	0.974
44) 2-Butanone	(1)	5.884	43	7395M	2.249
44) 2-Butanone	(1)	5.891	72	1396	1.736
45) cis-1,2-Dichloroethene	(2)	5.894	96	5699	0.826
47) 2,2-Dichloropropane	(2)	5.913	77	8049	0.892
49) Propionitrile	(2)	5.955	54	16890M	17.813
46) 1,2-Dichloroethene (Total)	(2)		96	10901	1.657
51) Methacrylonitrile	(2)	6.183	67	26238M	8.991

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) Tetrahydrofuran	(1)	6.237	71	1356	1.652
52) Bromochloromethane	(2)	6.247	128	3296	0.852
54) Chloroform	(2)	6.388	83	9476	0.885
56)$Dibromofluoromethane	(2)	6.610	113	5131	0.845
56)$Dibromofluoromethane	(2)	6.622	111	5366	0.858
57) 1,1,1-Trichloroethane	(2)	6.626	97	7407	0.844
58) Cyclohexane	(2)	6.731	56	6117	0.795
58) Cyclohexane	(2)	6.719	84	5610	0.872
58) Cyclohexane	(2)	6.728	69	1463	0.639
61) Carbon Tetrachloride	(2)	6.831	117	4878	0.760
60) 1,1-Dichloropropene	(2)	6.837	75	6330	0.801
62) Isobutyl Alcohol	(1)	6.985	41	10892M	51.737
63)$1,2-Dichloroethane-d4	(2)	7.059	102	1185	0.750
63)$1,2-Dichloroethane-d4	(2)	7.075	65	6763	0.894
63)$1,2-Dichloroethane-d4	(2)	7.081	104	613	0.619
64) Benzene	(2)	7.107	78	20994	0.857
67) 1,2-Dichloroethane	(2)	7.197	62	7897	0.930
67) 1,2-Dichloroethane	(2)	7.200	98	345	0.470
68) t-Amyl methyl ether	(2)	7.293	73	18493	0.949
70)*Fluorobenzene	(2)	7.511	96	1116320	50.000
72) n-Heptane	(2)	7.518	43	4780	1.015
73) n-Butanol	(1)	7.899	56	12749M	80.736
75) Trichloroethene	(2)	7.999	95	5006	0.823
76) Methylcyclohexane	(2)	8.297	83	4209	0.719
77) 1,2-Dichloropropane	(2)	8.333	63	6127	0.917
79) Methyl Methacrylate	(2)	8.419	69	4049	0.820
80) 1,4-Dioxane	(1)	8.442	88	1735M	30.806
81) Dibromomethane	(2)	8.448	93	3370	0.831
84) Bromodichloromethane	(2)	8.682	83	5690	0.820
85) 2-Nitropropane	(1)	8.939	41	2624	2.488
87) 2-Chloroethyl Vinyl Ether	(2)	9.064	63	3037	0.699
89) cis-1,3-Dichloropropene	(2)	9.247	75	7799	0.797
90) 4-Methyl-2-pentanone	(2)	9.414	43	13091	1.947
91)$Toluene-d8	(3)	9.558	98	18271	0.832
91)$Toluene-d8	(3)	9.555	100	11610	0.814
92) Toluene	(3)	9.632	92	11568	0.828
93) trans-1,3-Dichloropropene	(3)	9.915	75	7326	0.849
95) Ethyl Methacrylate	(3)	9.966	69	7760M	0.871

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	15125	1.646
96) 1,1,2-Trichloroethane	(3)	10.117	97	5581	1.010
98) Tetrachloroethene	(3)	10.191	166	4825	0.866
99) 1,3-Dichloropropane	(3)	10.277	76	9306	0.985
101) 2-Hexanone	(3)	10.341	43	8149	1.881
103) Dibromochloromethane	(3)	10.495	129	3678	0.751
104) 1,2-Dibromoethane	(3)	10.614	107	5231	0.903
105)*Chlorobenzene-d5	(3)	11.038	117	804181	50.000
106) 1-Chlorohexane	(3)	11.044	91	5725	1.008
107) Chlorobenzene	(3)	11.063	112	14466	0.918
108) 1,1,1,2-Tetrachloroethane	(3)	11.150	131	4100	0.788
109) Ethylbenzene	(3)	11.150	91	20070	0.837
110) m+p-Xylene	(3)	11.269	106	15298	1.632
111) o-Xylene	(3)	11.599	106	7572	0.811
113) Styrene	(3)	11.622	104	13132M	0.792
112) Xylene (Total)	(3)		106	22870	2.444
114) Bromoform	(3)	11.779	173	1938	3.140
115) Isopropylbenzene	(3)	11.898	105	16724	0.840
118) Cyclohexanone	(1)	11.975	55	9557	46.368
119)$4-Bromofluorobenzene	(3)	12.058	95	5907	0.845
119)$4-Bromofluorobenzene	(3)	12.061	174	5544	0.834
120) 1,1,2,2-Tetrachloroethane	(4)	12.148	83	7729	1.108
121) Bromobenzene	(4)	12.170	156	6202	0.943
122) trans-1,4-Dichloro-2-butene	(4)	12.177	53	19803	9.513
123) 1,2,3-Trichloropropane	(4)	12.193	110	2229	1.045
124) n-Propylbenzene	(4)	12.231	91	18133	0.892
126) 2-Chlorotoluene	(4)	12.308	126	4485	0.936
129) 1,3,5-Trimethylbenzene	(4)	12.369	105	13594	0.885
130) 4-Chlorotoluene	(4)	12.398	126	4648	0.908
133) tert-Butylbenzene	(4)	12.607	134	3279	1.037
134) Pentachloroethane	(4)	12.639	167	2046	2.358
135) 1,2,4-Trimethylbenzene	(4)	12.655	105	14210	0.863
136) sec-Butylbenzene	(4)	12.770	105	15661	0.925
138) 1,3-Dichlorobenzene	(4)	12.876	146	8598	0.885
139) p-Isopropyltoluene	(4)	12.880	119	13236	0.859
140)*1,4-Dichlorobenzene-d4	(4)	12.931	152	323892	50.000
141) 1,4-Dichlorobenzene	(4)	12.944	146	11084	1.016
142) 1,2,3-Trimethylbenzene	(4)	12.957	105	17777	0.954

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

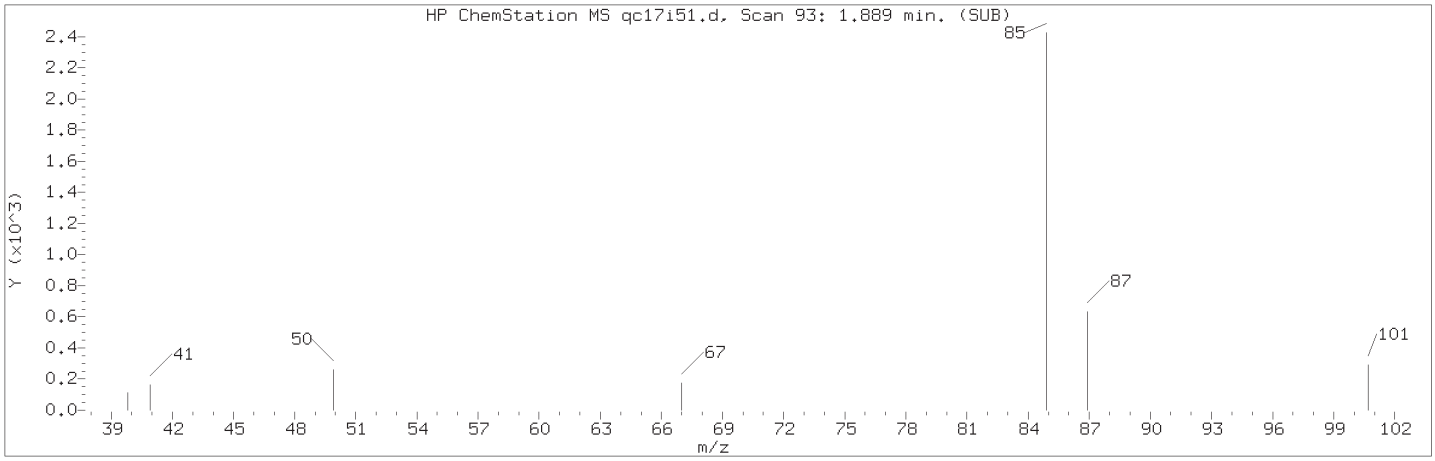
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.027	126	1965	0.726
144) 1,3-Diethylbenzene	(4)	13.085	119	7944	0.850
145) 1,4-Diethylbenzene	(4)	13.156	119	8430	0.861
146) n-Butylbenzene	(4)	13.175	92	5754M	0.809
147) 1,2-Dichlorobenzene	(4)	13.207	146	9769	0.970
148) 1,2-Diethylbenzene	(4)	13.223	119	7807	0.932
151) 1,2-Dibromo-3-chloropropane	(4)	13.759	75	1026	0.948
152) 1,3,5-Trichlorobenzene	(4)	13.887	180	5781M	0.916
153) 1,2,4-Trichlorobenzene	(4)	14.311	180	5630	0.926
154) Hexachlorobutadiene	(4)	14.378	225	2573	0.961
155) Naphthalene	(4)	14.487	128	19040	1.056
156) 1,2,3-Trichlorobenzene	(4)	14.628	180	5728M	0.986
157) 2-Methylnaphthalene	(4)	15.251	142	7336	0.830

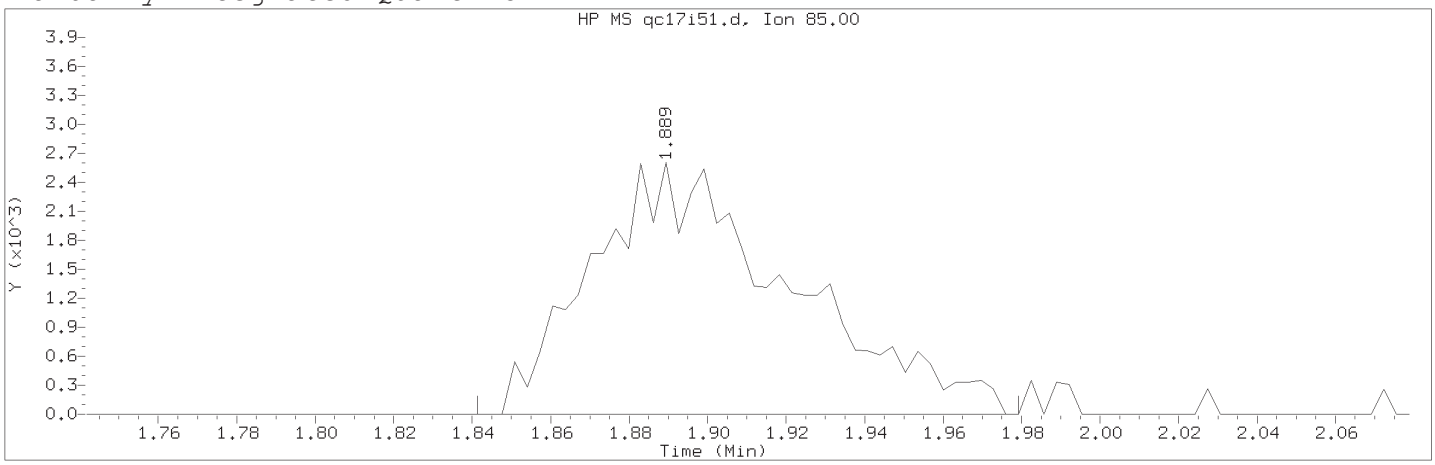
M = Compound was manually integrated.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

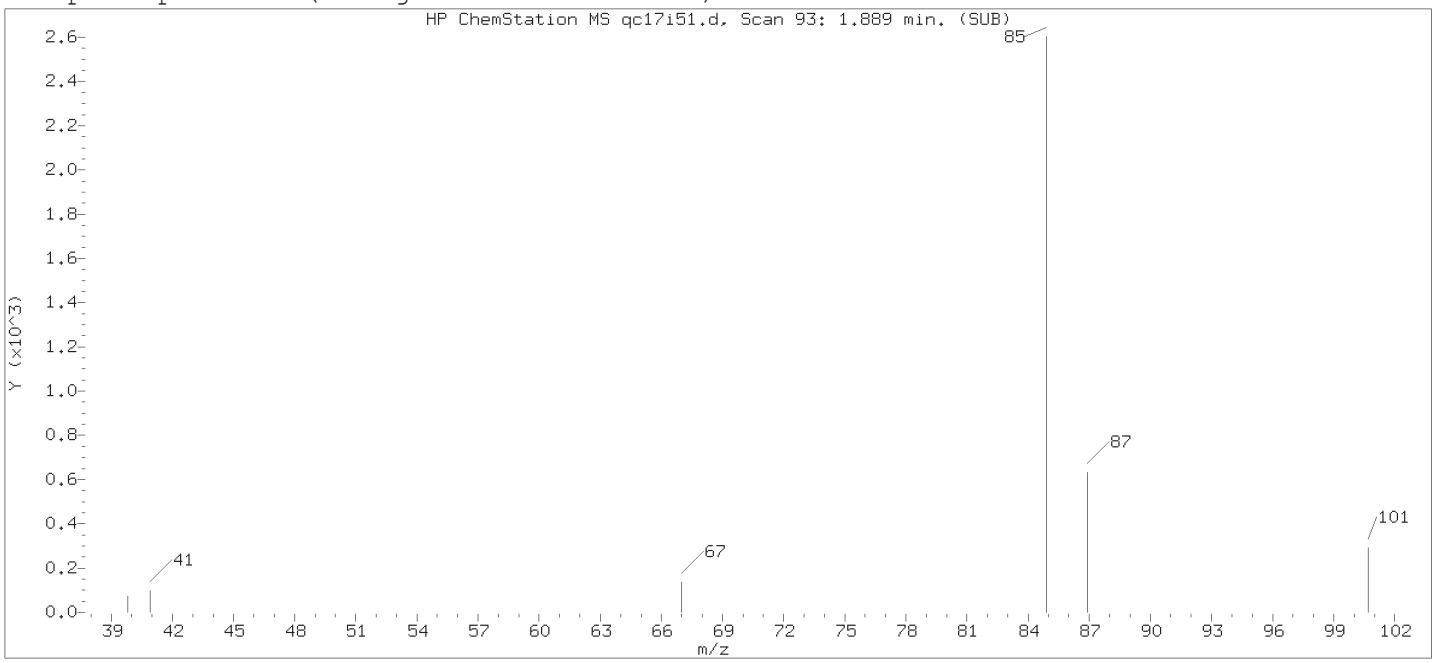
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 93
Retention Time (minutes): 1.889
Quant Ion : 85.00
Area (flag) : 9113M
On-Column Amount (ng) : 0.8385
Integration start scan : 77 Integration stop scan: 120
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

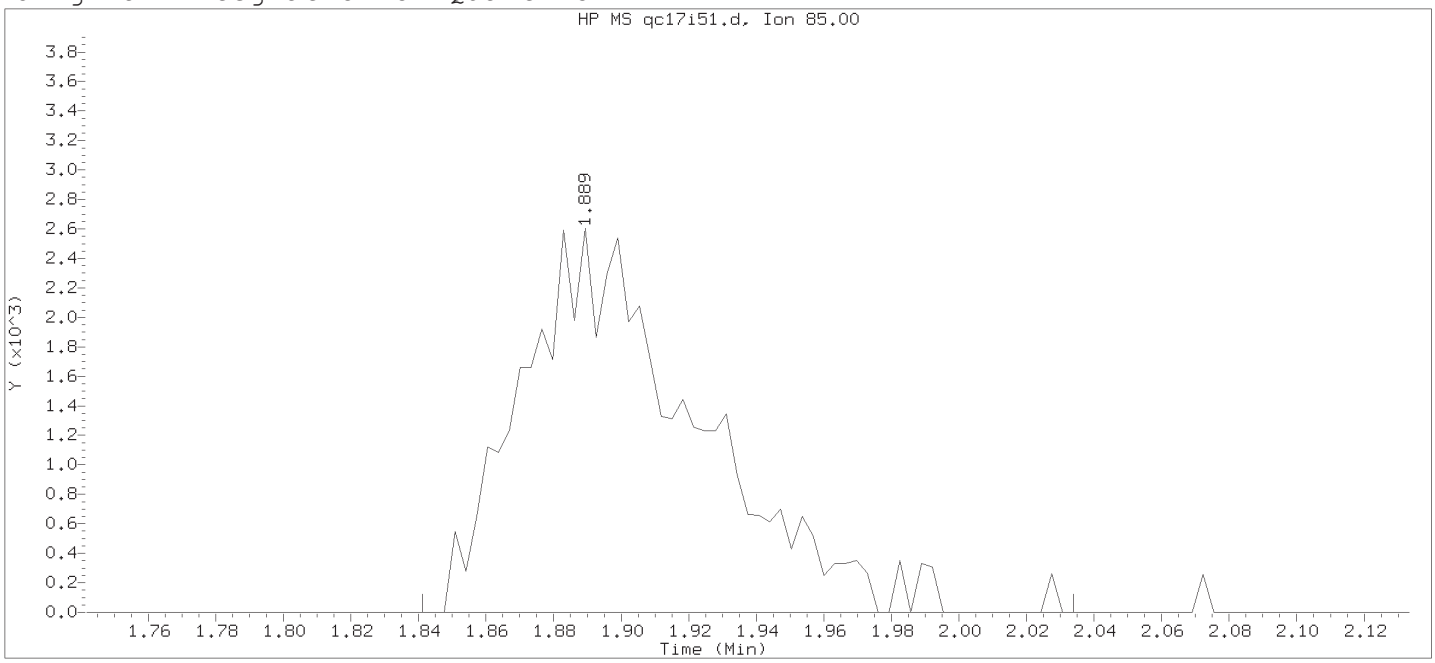
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

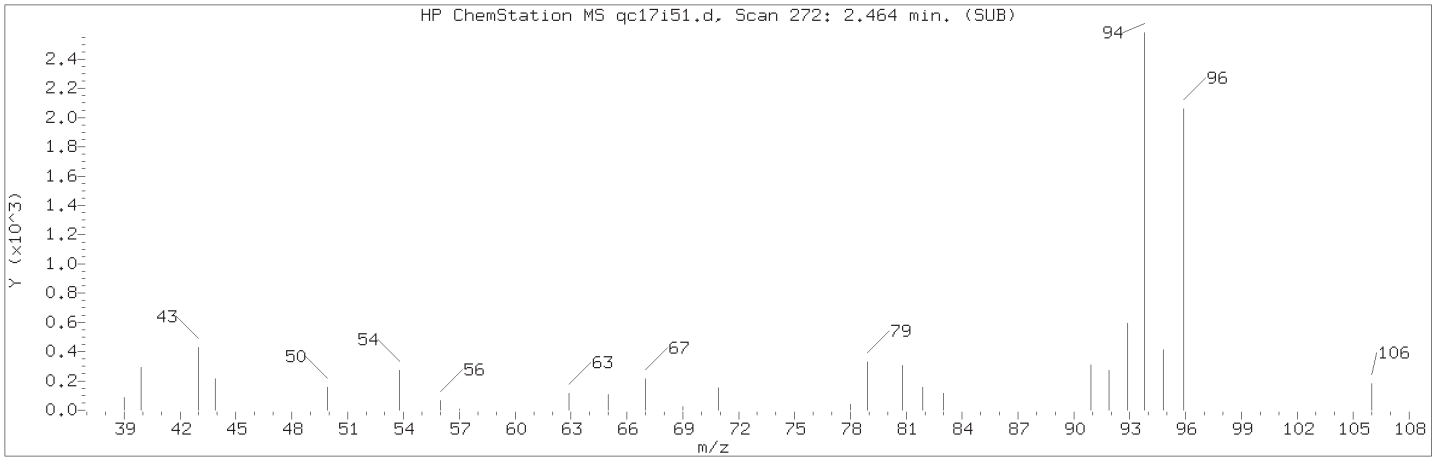
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

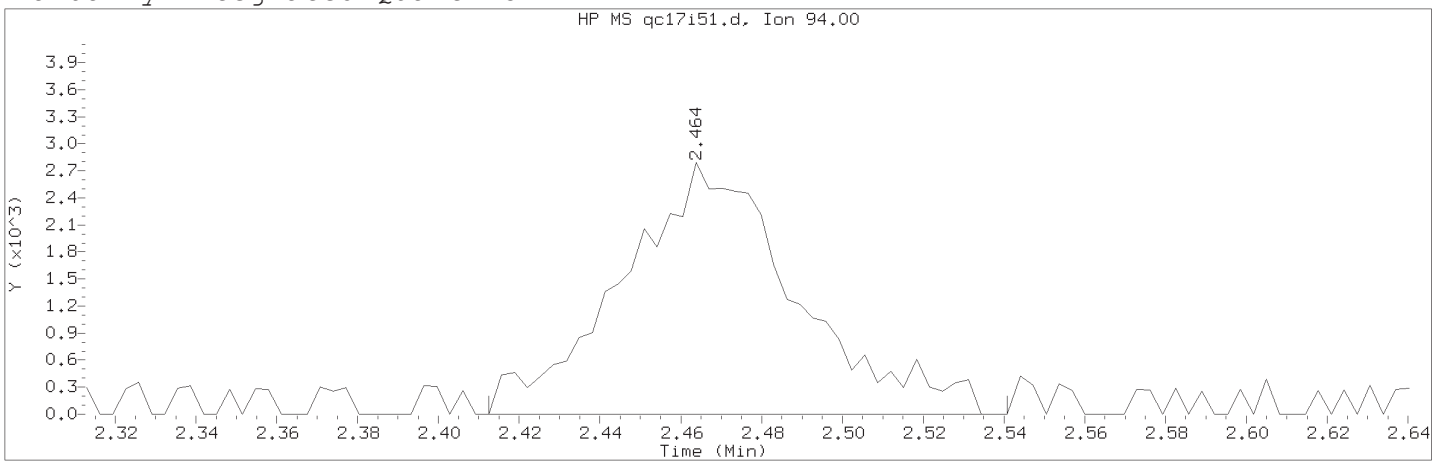
Compound Number : 2
Compound Name : Dichlorodifluoromethane
Scan Number : 93
Retention Time (minutes): 1.889
Quant Ion : 85.00
Area : 9354
On-column Amount (ng) : 0.8580
Integration start scan : 77 Integration stop scan: 137
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

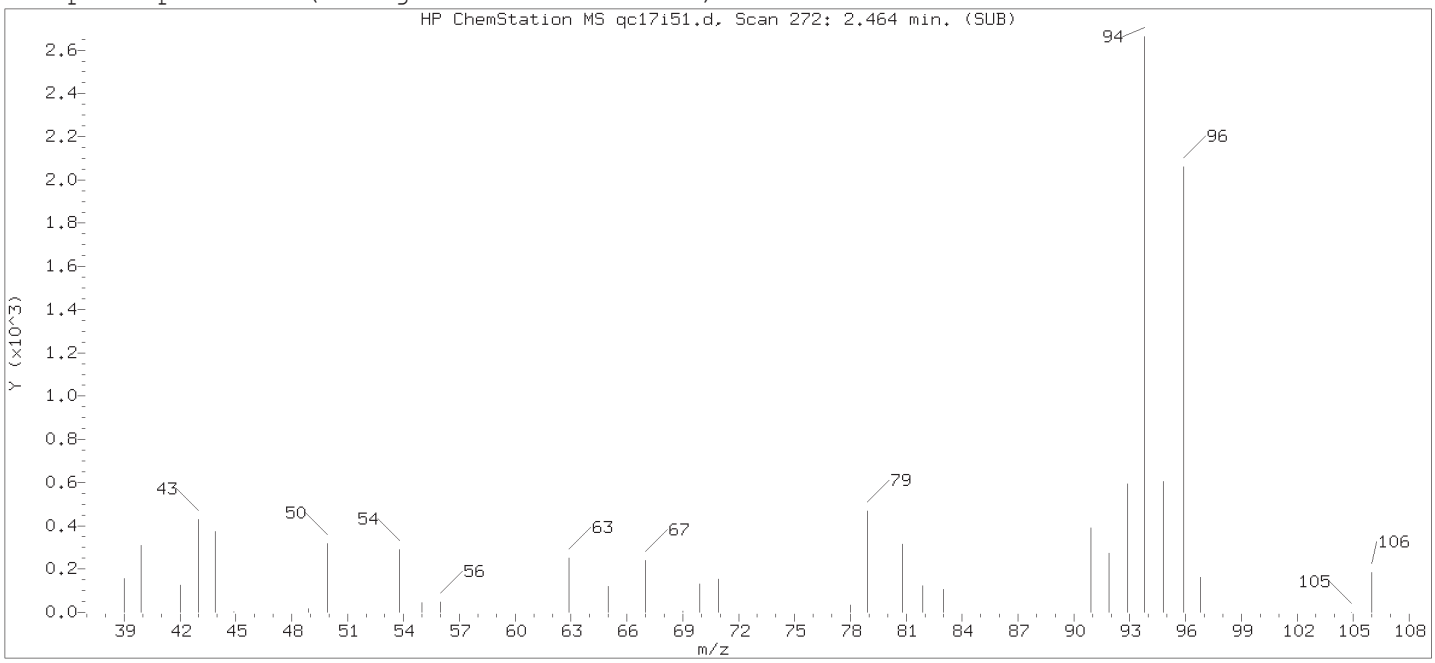
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 272
Retention Time (minutes): 2.464
Quant Ion : 94.00
Area (flag) : 8360M
On-Column Amount (ng) : 2.0213
Integration start scan : 255 Integration stop scan: 295
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

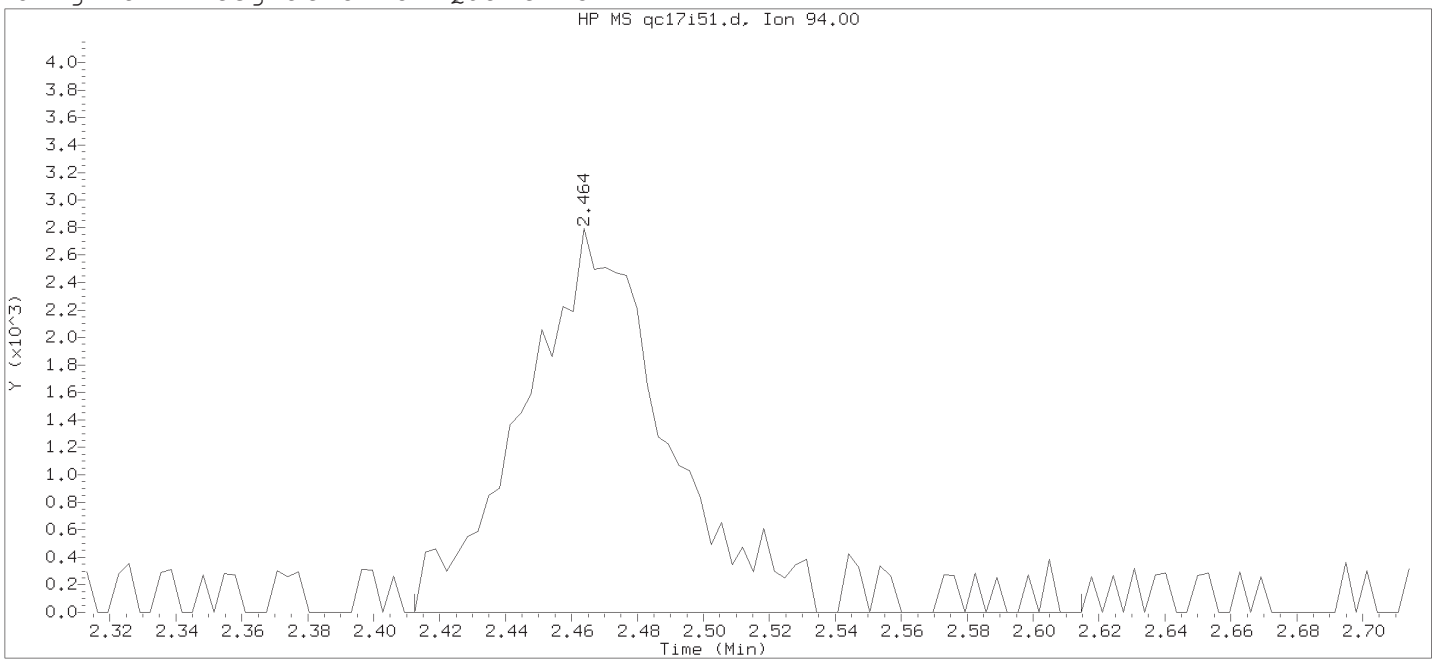
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

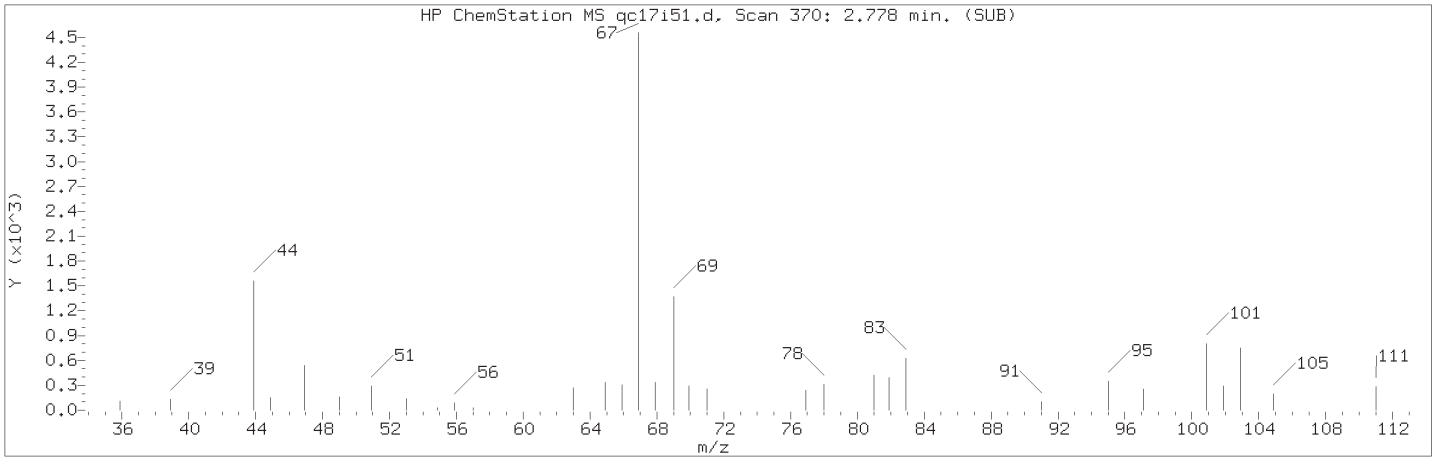
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

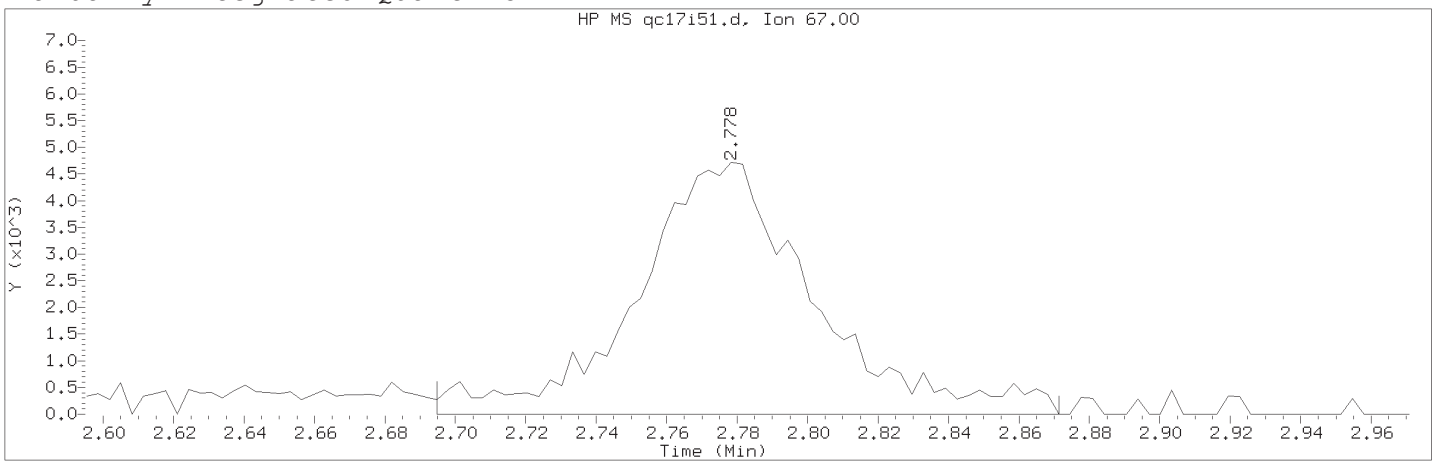
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 272
Retention Time (minutes): 2.464
Quant Ion : 94.00
Area : 8955
On-column Amount (ng) : 1.8797
Integration start scan : 255 Integration stop scan: 318
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

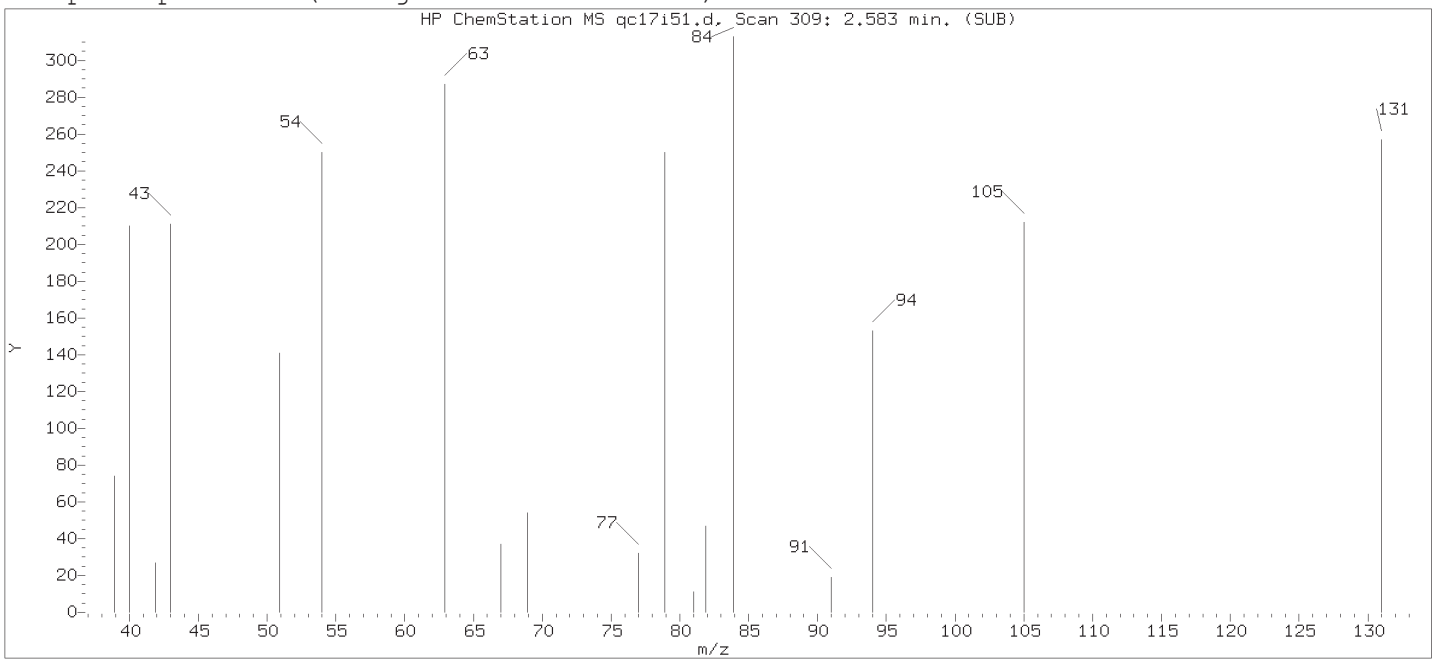
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 370
Retention Time (minutes): 2.778
Quant Ion : 67.00
Area (flag) : 16506MA
On-Column Amount (ng) : 1.1743
Integration start scan : 343 Integration stop scan: 398
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

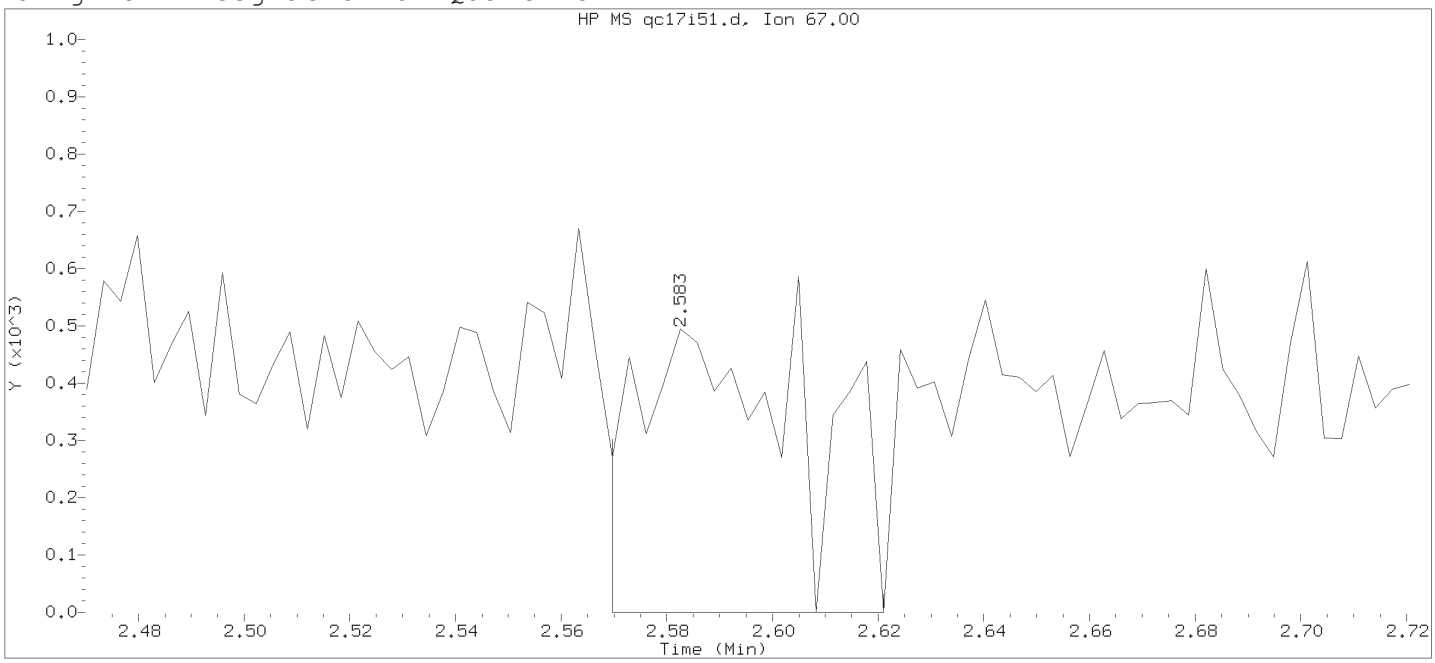
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

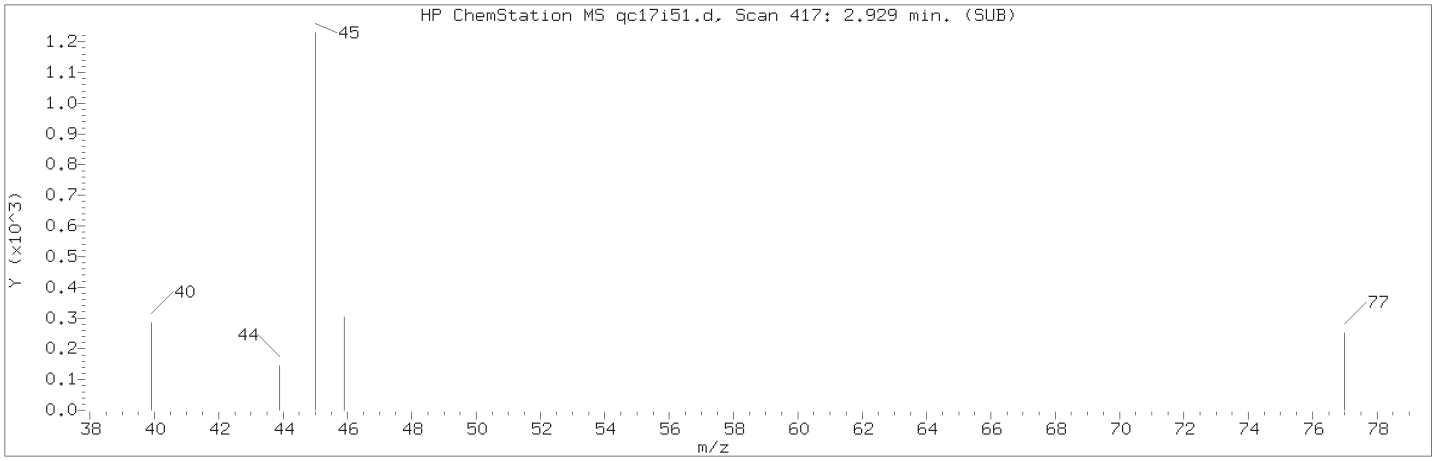
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

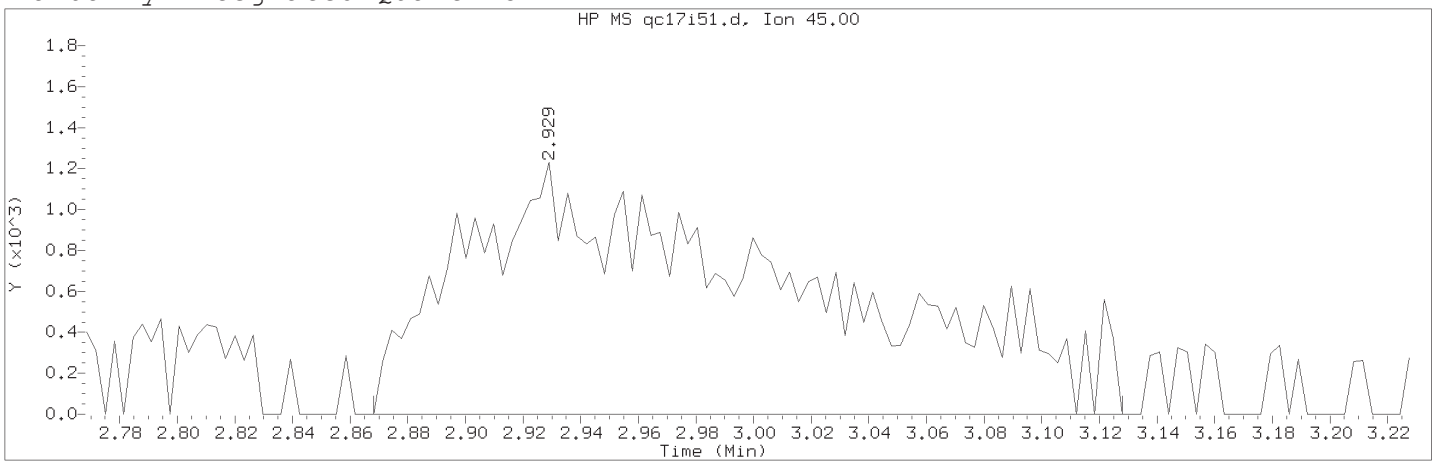
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 309
Retention Time (minutes): 2.583
Quant Ion : 67.00
Area : 1118
On-column Amount (ng) : 4.5640
Integration start scan : 304 Integration stop scan: 320
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

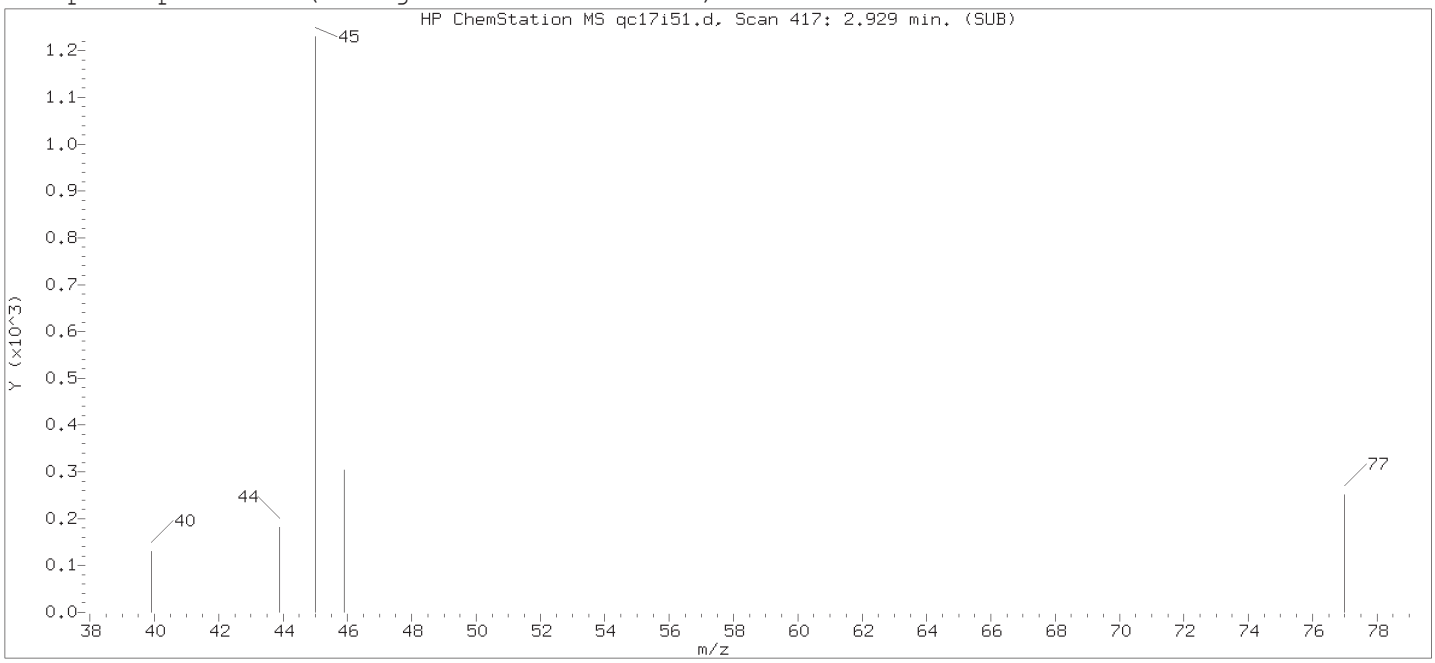
Compound Number : 15
Compound Name : Ethanol
Scan Number : 417
Retention Time (minutes): 2.929
Quant Ion : 45.00
Area (flag) : 9722M
On-Column Amount (ng) : 134.8573
Integration start scan : 397 Integration stop scan: 478
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

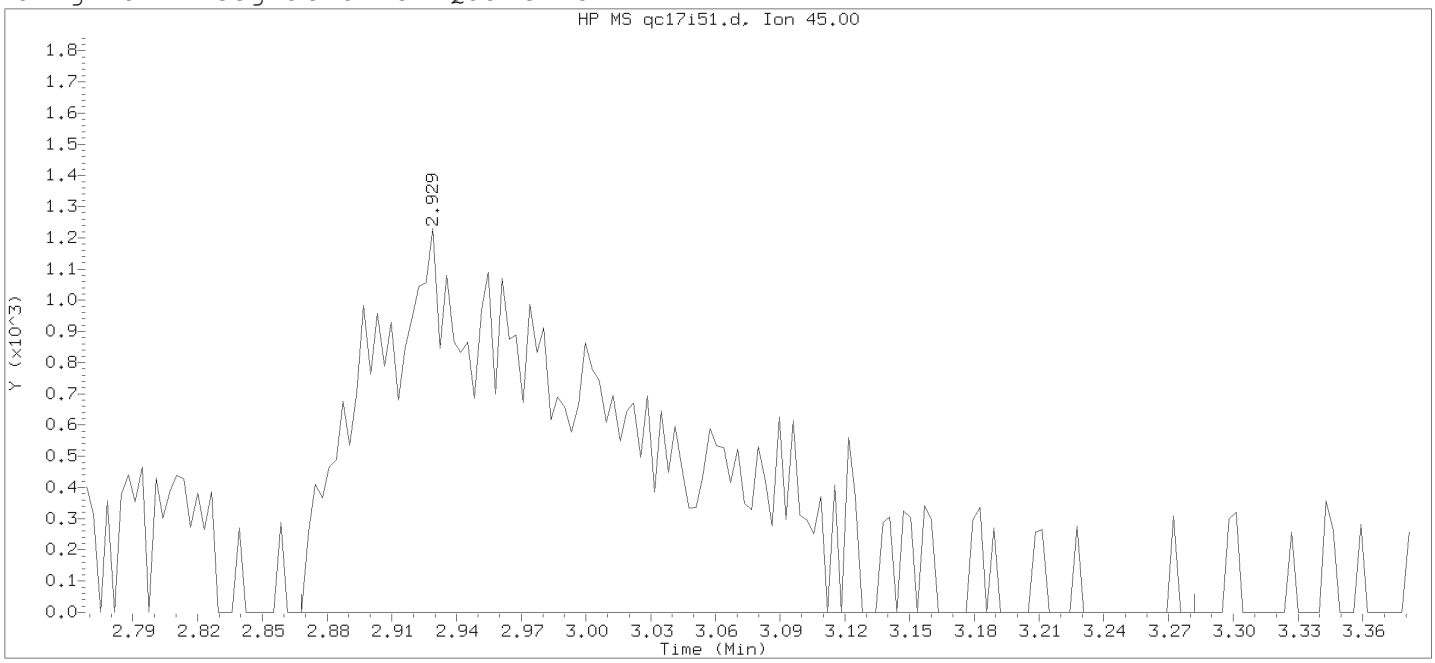
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

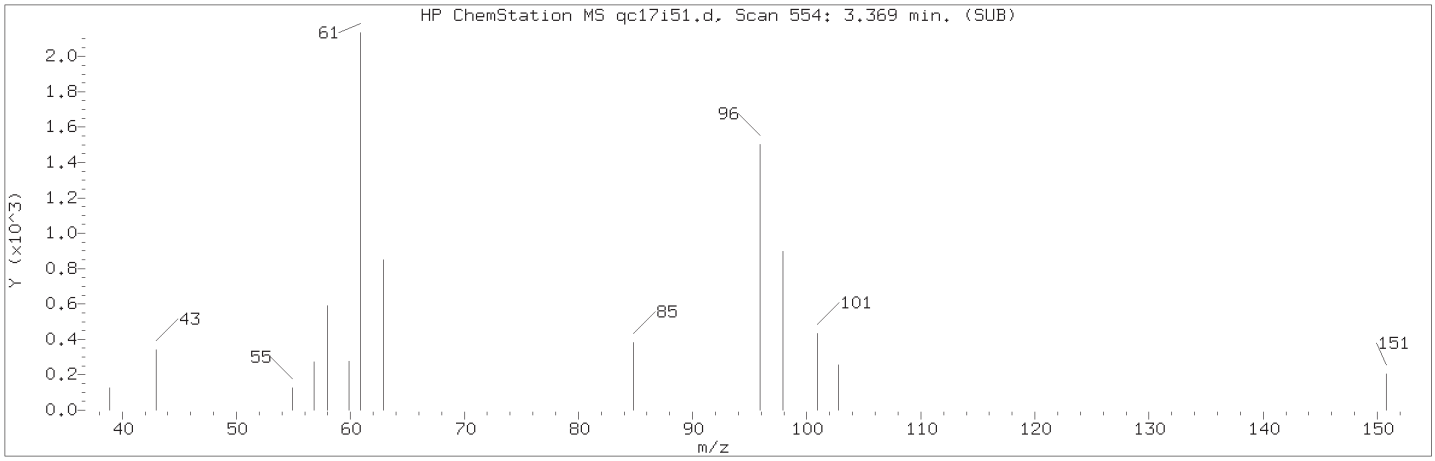
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

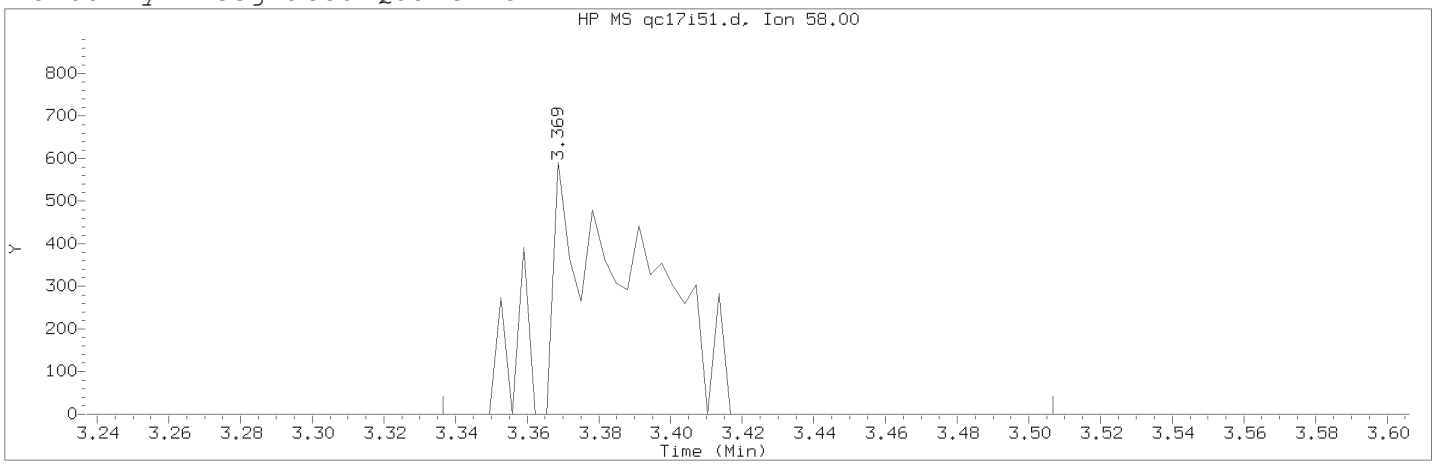
Compound Number : 15
Compound Name : Ethanol
Scan Number : 417
Retention Time (minutes): 2.929
Quant Ion : 45.00
Area : 10467
On-column Amount (ng) : 144.1962
Integration start scan : 397 Integration stop scan: 526
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

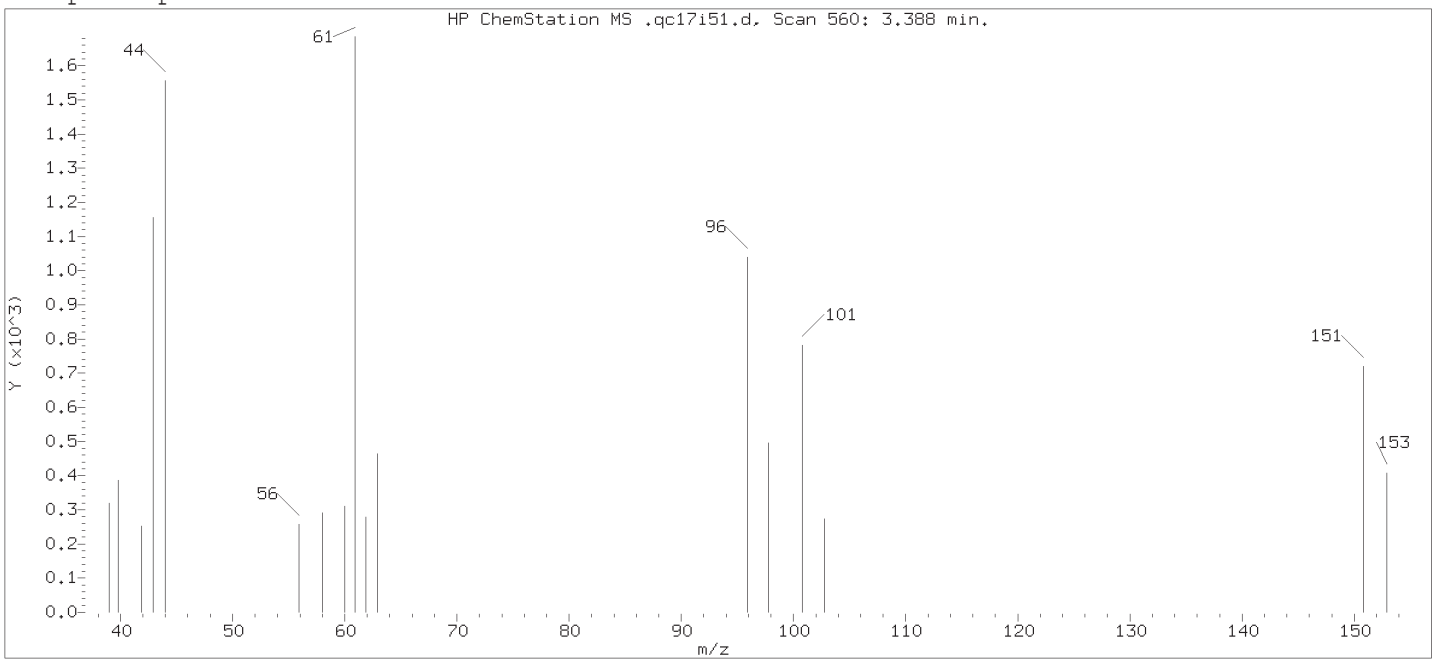
Compound Number : 20
Compound Name : Acetone
Scan Number : 554
Retention Time (minutes): 3.369
Quant Ion : 58.00
Area (flag) : 1078M
On-Column Amount (ng) : 1.7642
Integration start scan : 543 Integration stop scan: 596
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

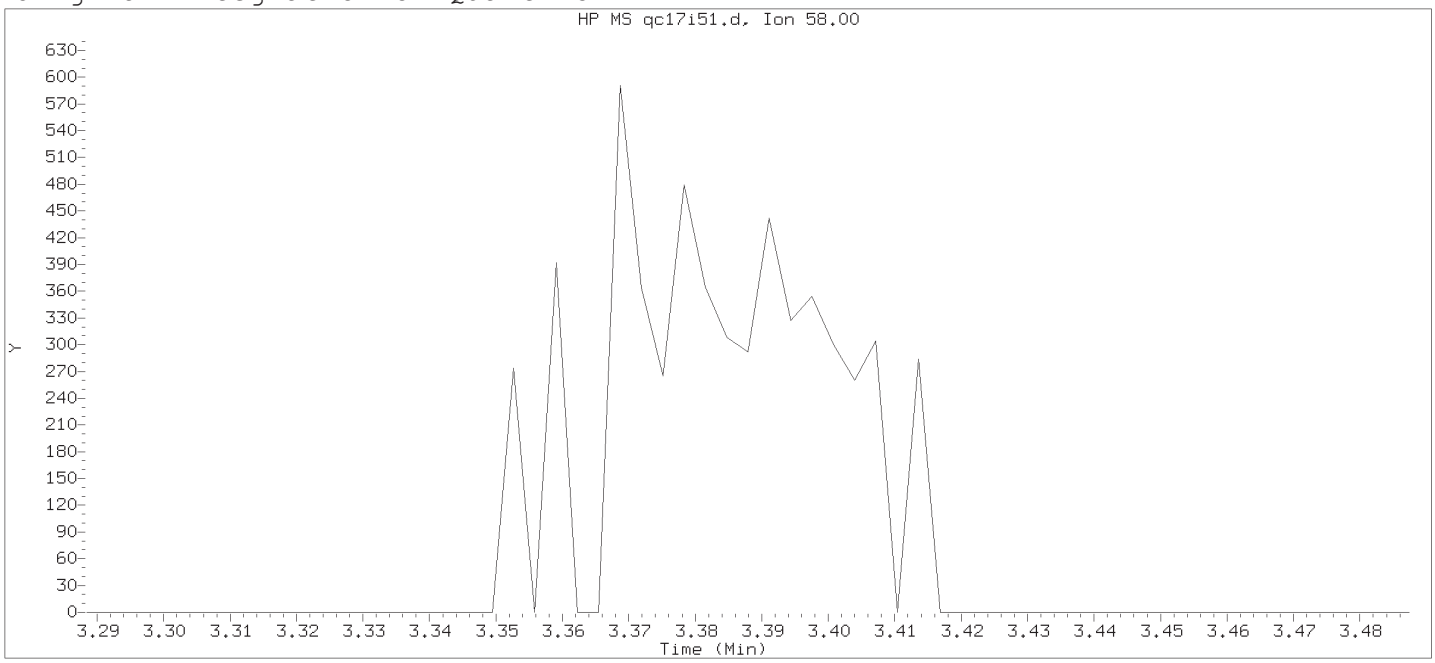
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

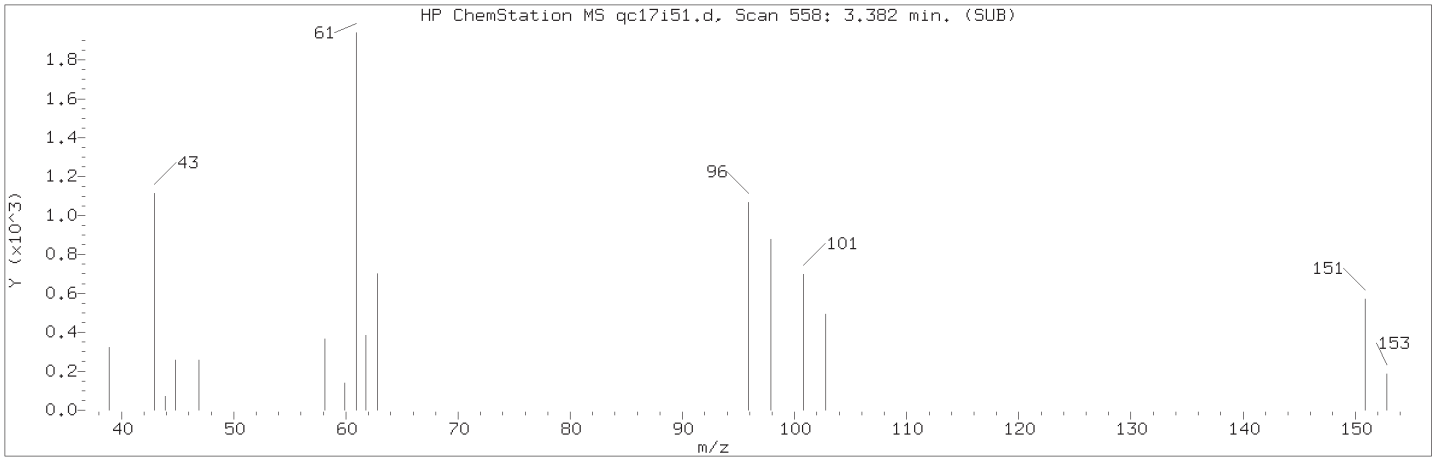
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

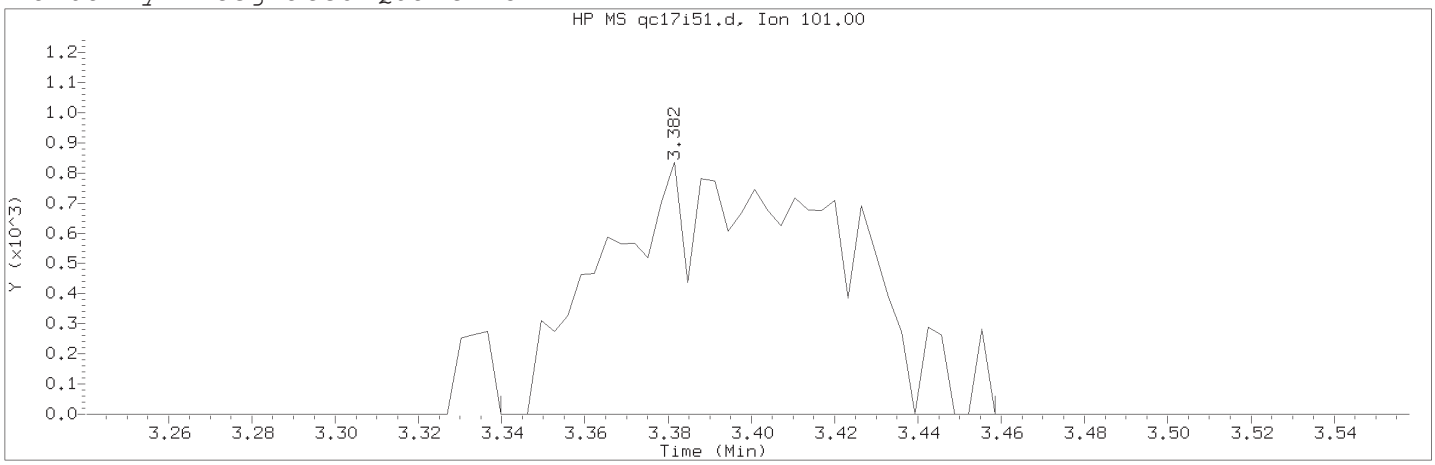
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

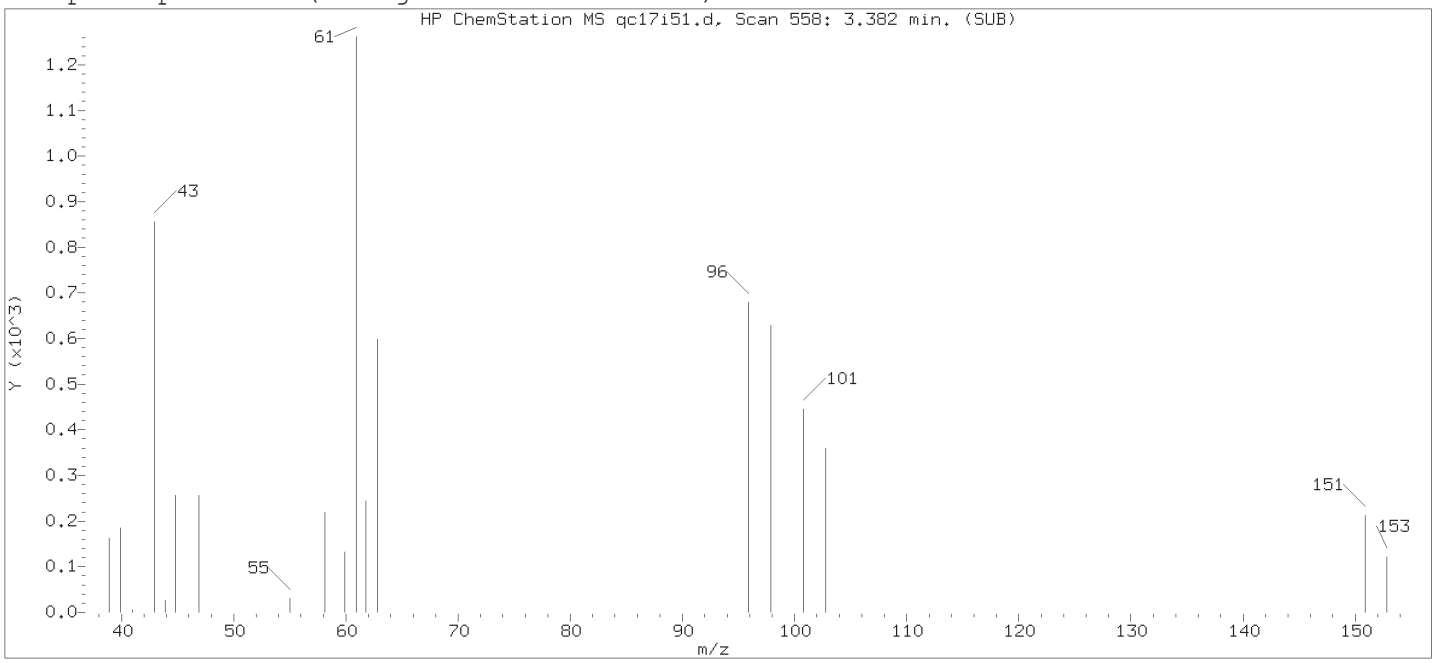
Compound Number : 22
Compound Name : Freon 113
Scan Number : 558
Retention Time (minutes): 3.382
Quant Ion : 101.00
Area (flag) : 3238M
On-Column Amount (ng) : 0.6862
Integration start scan : 544 Integration stop scan: 581
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

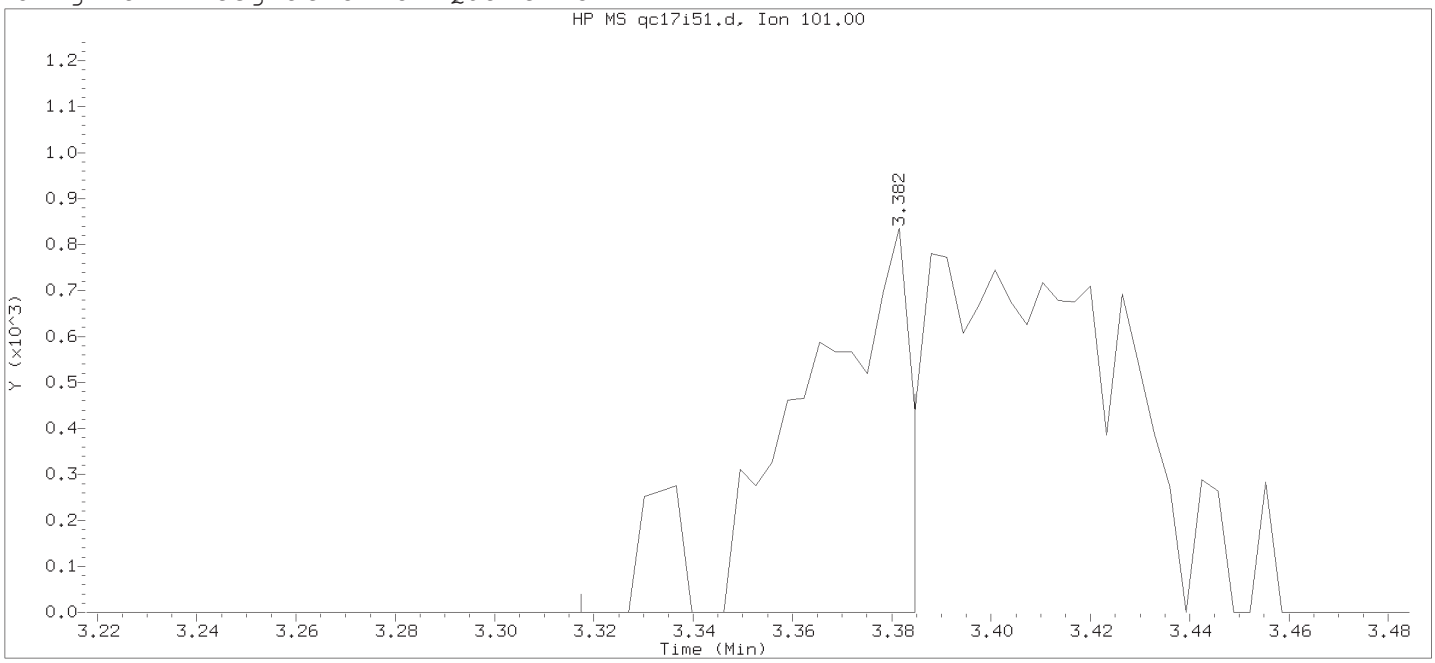
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

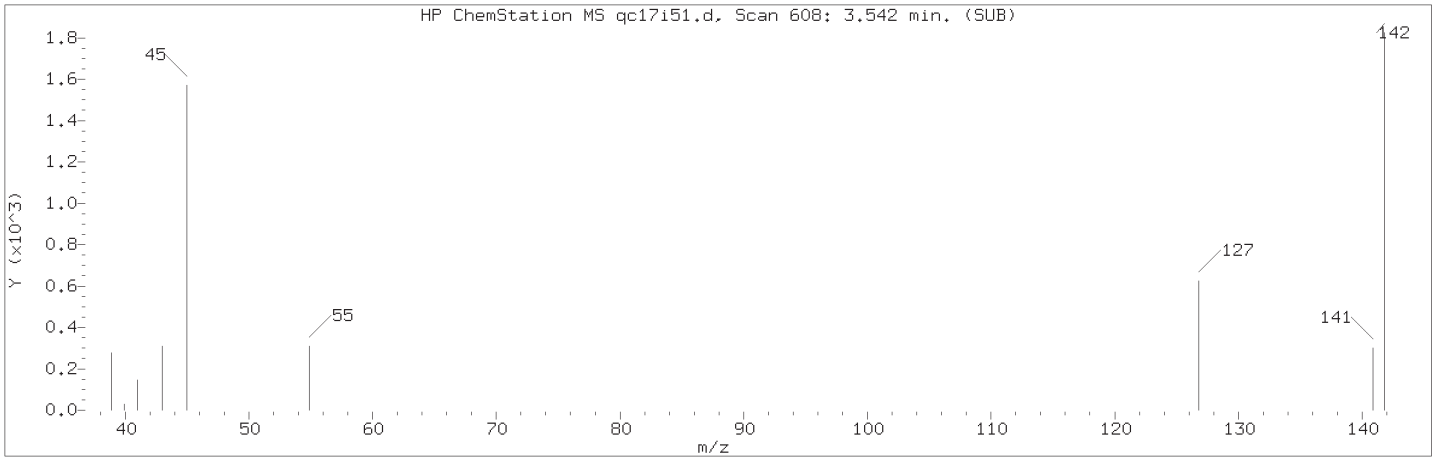
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

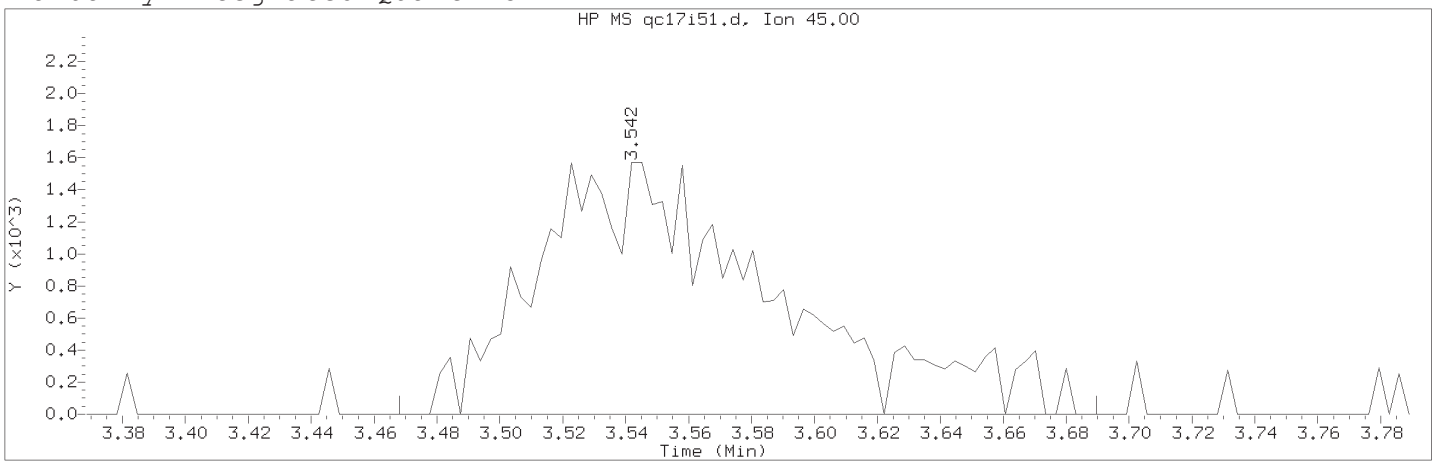
Compound Number	: 22
Compound Name	: Freon 113
Scan Number	: 558
Retention Time (minutes)	: 3.382
Quant Ion	: 101.00
Area	: 1275
On-column Amount (ng)	: 0.2870
Integration start scan	: 537 Integration stop scan: 558
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

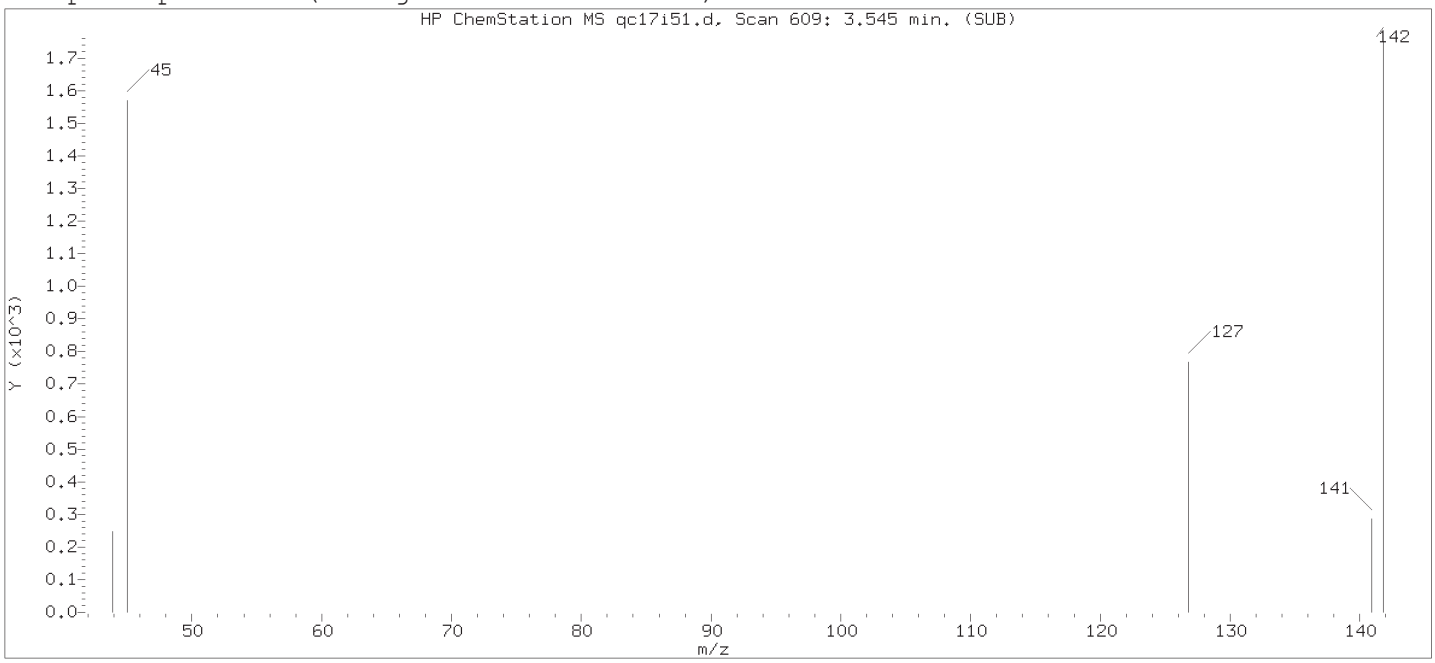
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 608
Retention Time (minutes): 3.542
Quant Ion : 45.00
Area (flag) : 8239M
On-Column Amount (ng) : 19.2482
Integration start scan : 584 Integration stop scan: 653
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

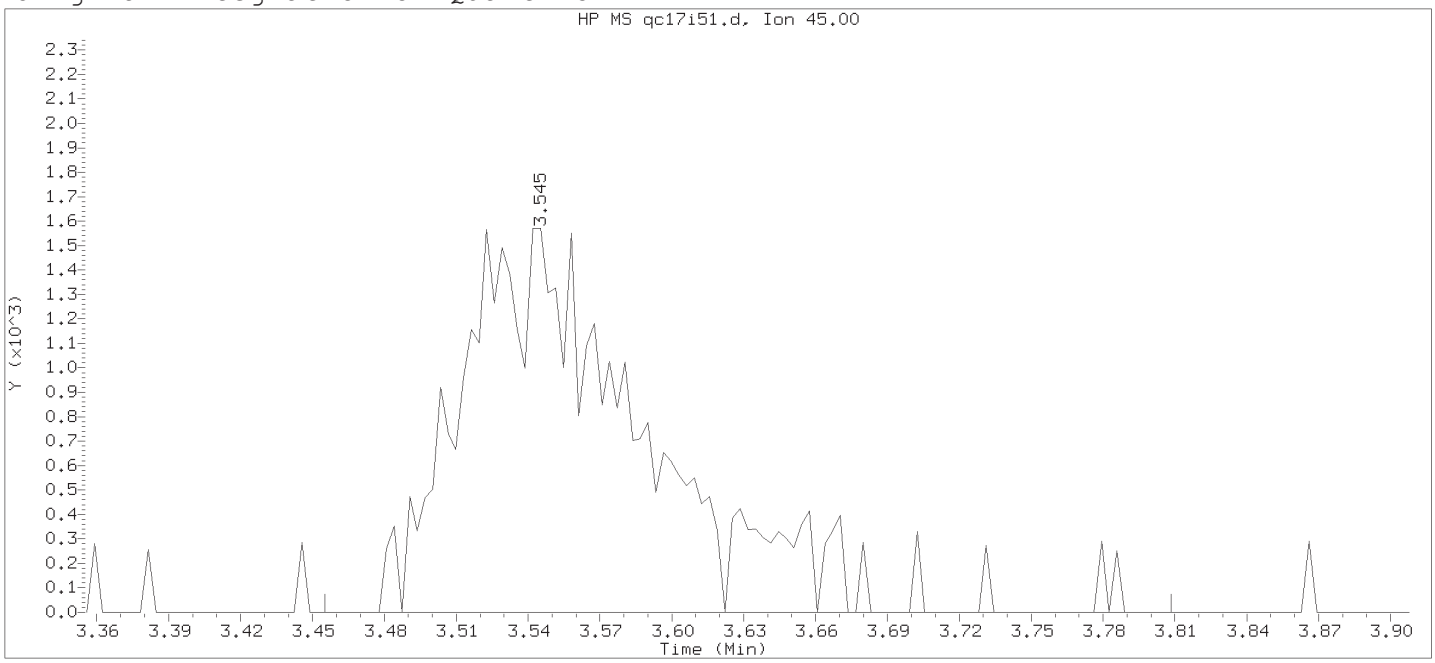
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

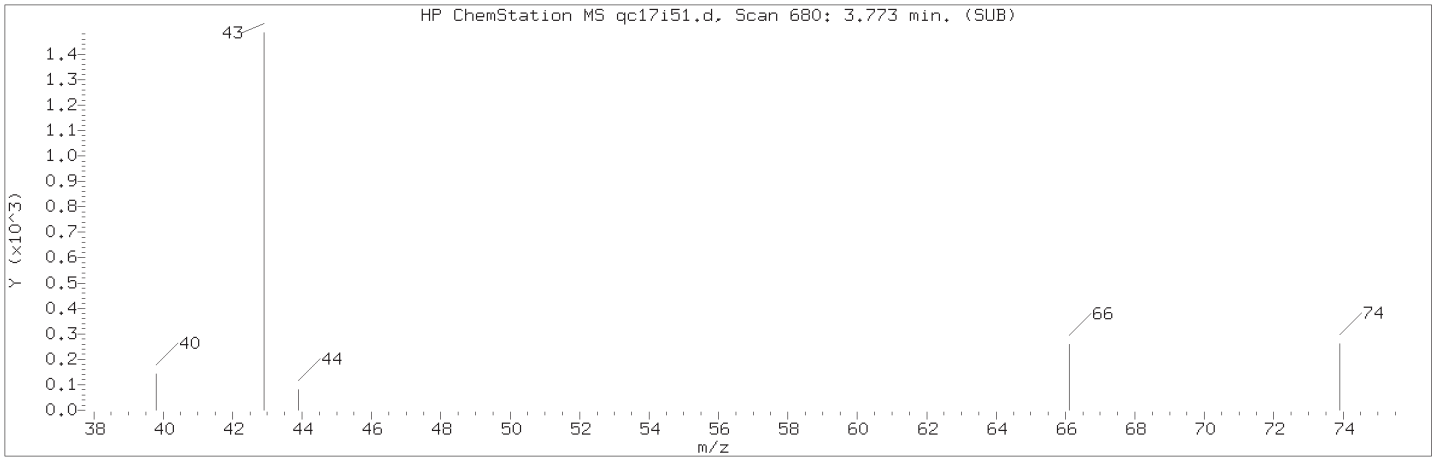
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

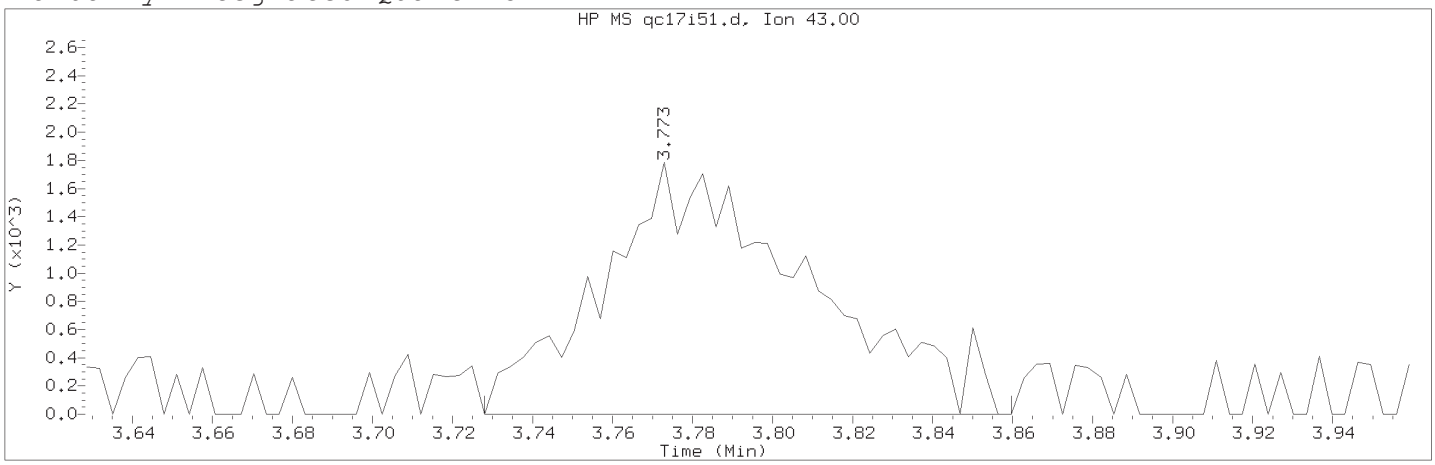
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 609
Retention Time (minutes): 3.545
Quant Ion : 45.00
Area : 8460
On-column Amount (ng) : 19.3188
Integration start scan : 580 Integration stop scan: 690
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

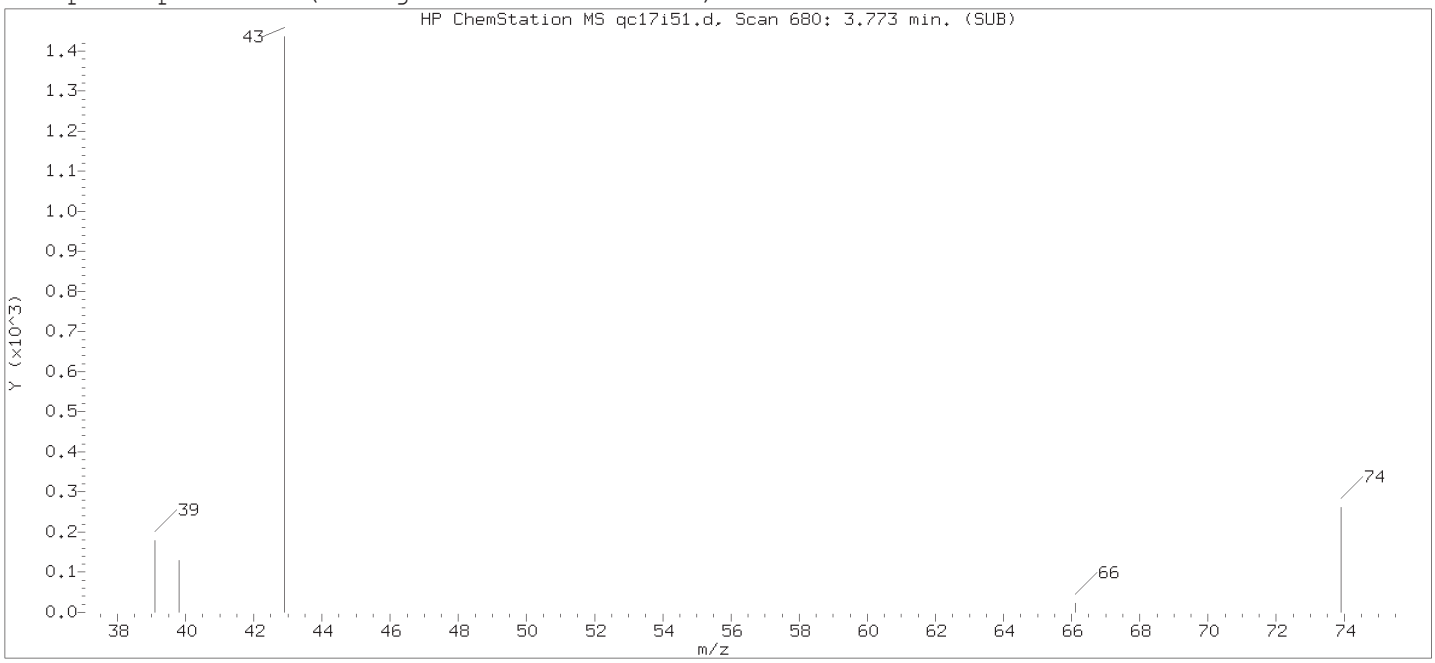
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 680
Retention Time (minutes): 3.773
Quant Ion : 43.00
Area (flag) : 6363M
On-Column Amount (ng) : 1.1721
Integration start scan : 665 Integration stop scan: 706
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

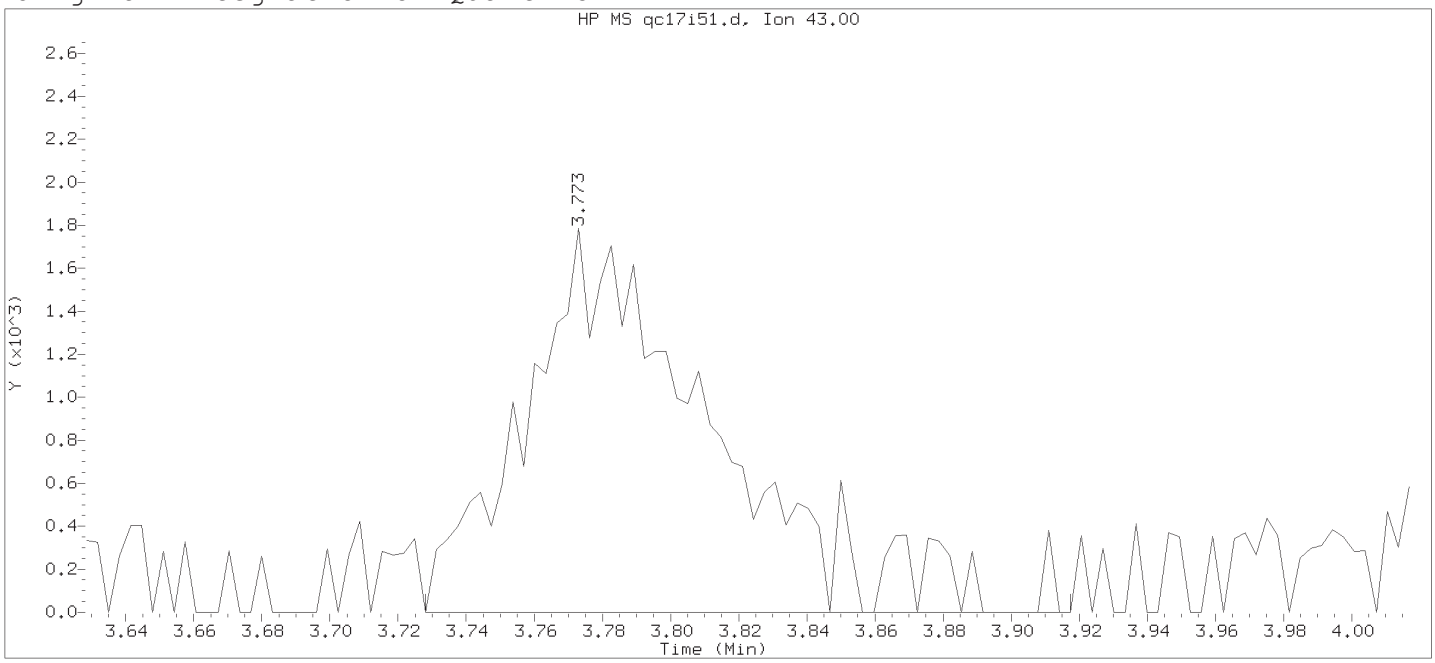
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

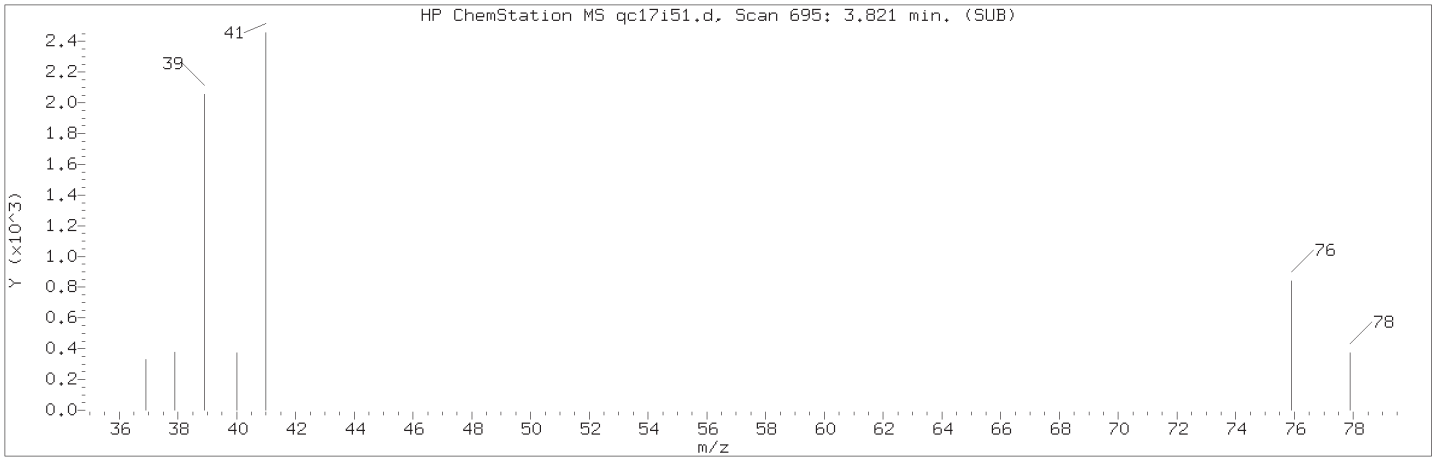
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

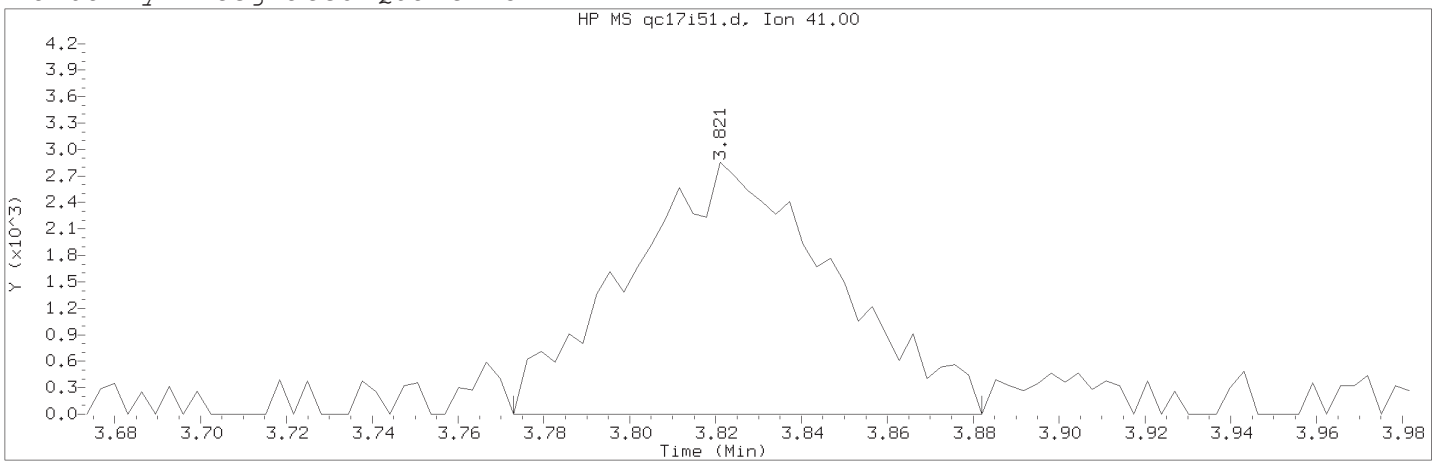
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 680
Retention Time (minutes): 3.773
Quant Ion : 43.00
Area : 6859
On-column Amount (ng) : 1.7098
Integration start scan : 665 Integration stop scan: 724
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

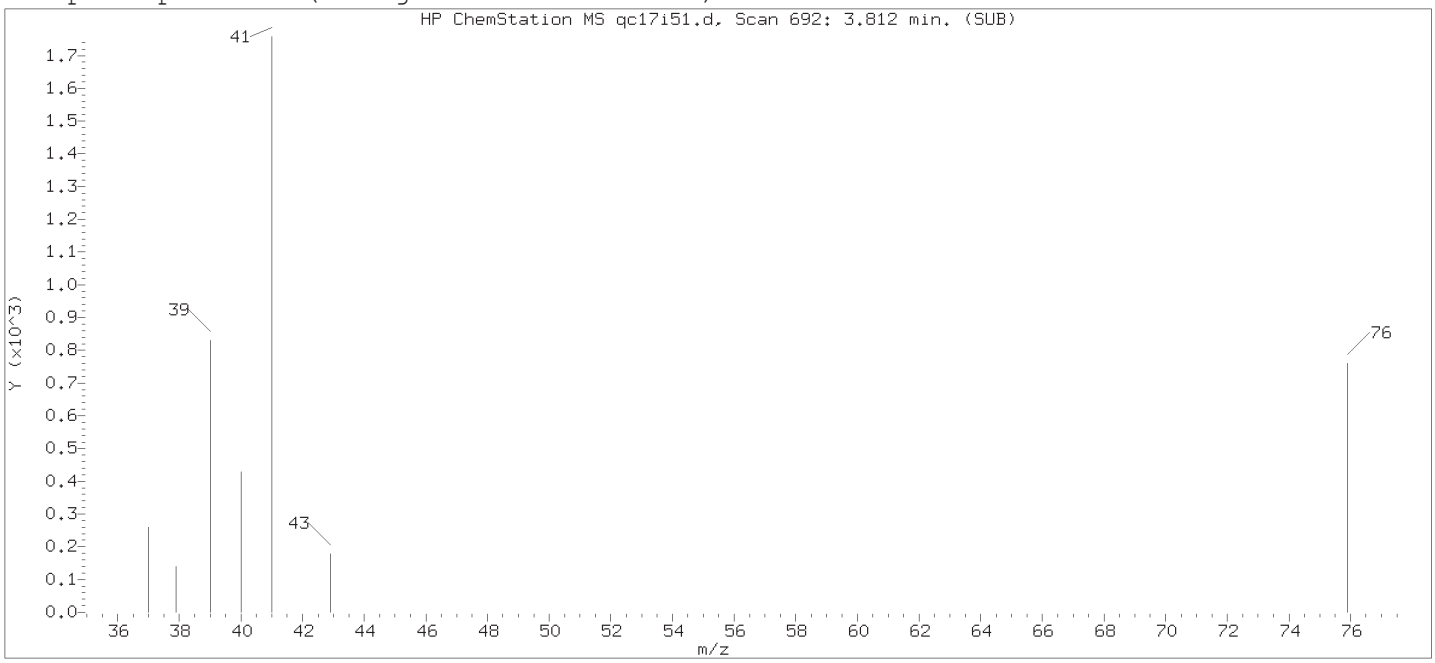
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 695
Retention Time (minutes): 3.821
Quant Ion : 41.00
Area (flag) : 9545M
On-Column Amount (ng) : 0.9207
Integration start scan : 679 Integration stop scan: 713
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

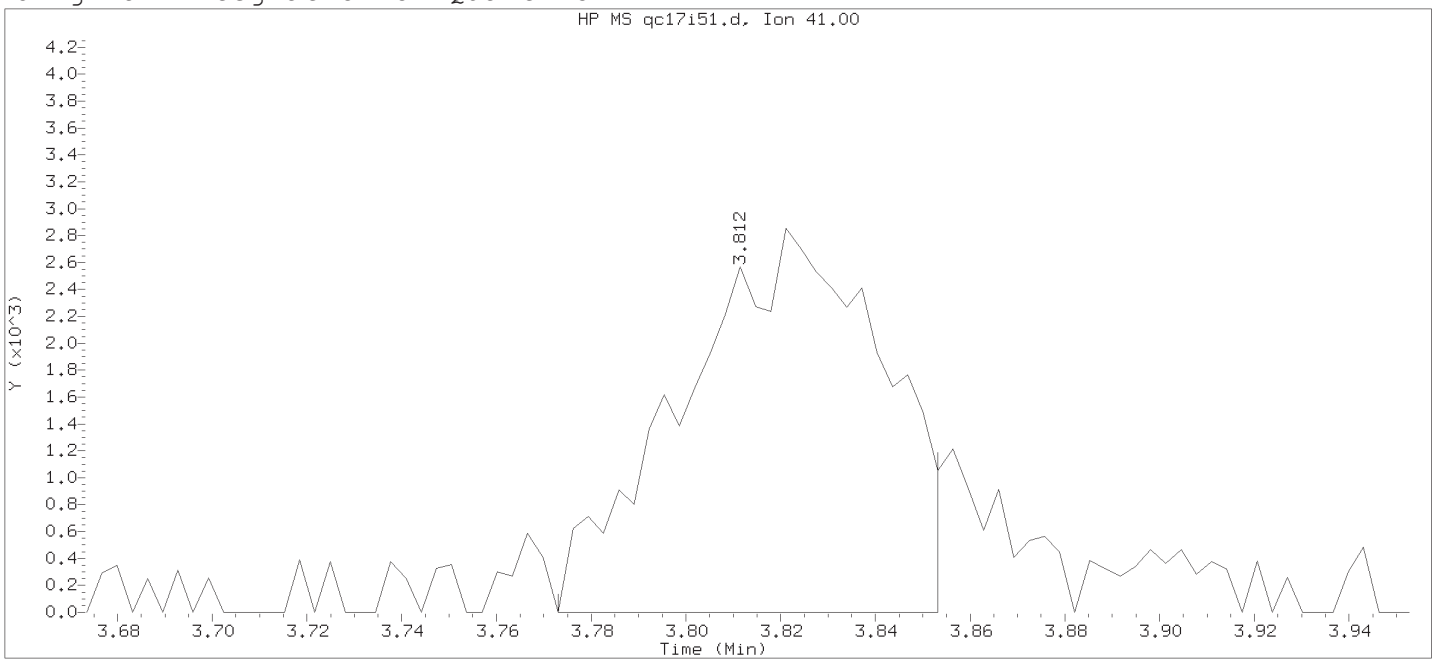
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

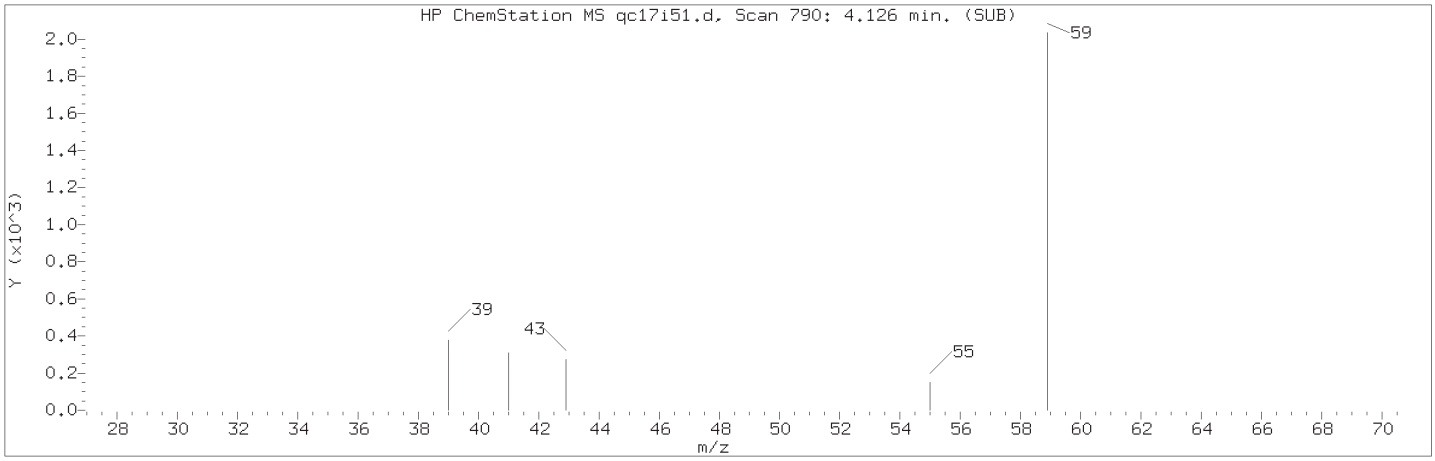
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

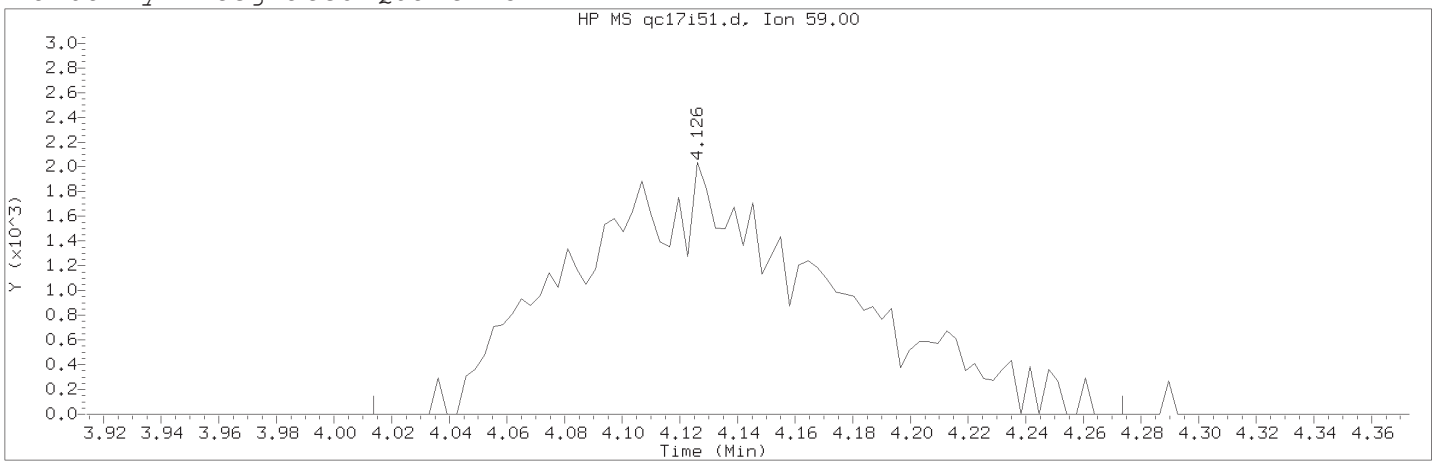
Compound Number : 29
Compound Name : Allyl Chloride
Scan Number : 692
Retention Time (minutes): 3.812
Quant Ion : 41.00
Area : 8365
On-column Amount (ng) : 1.1842
Integration start scan : 679 Integration stop scan: 704
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

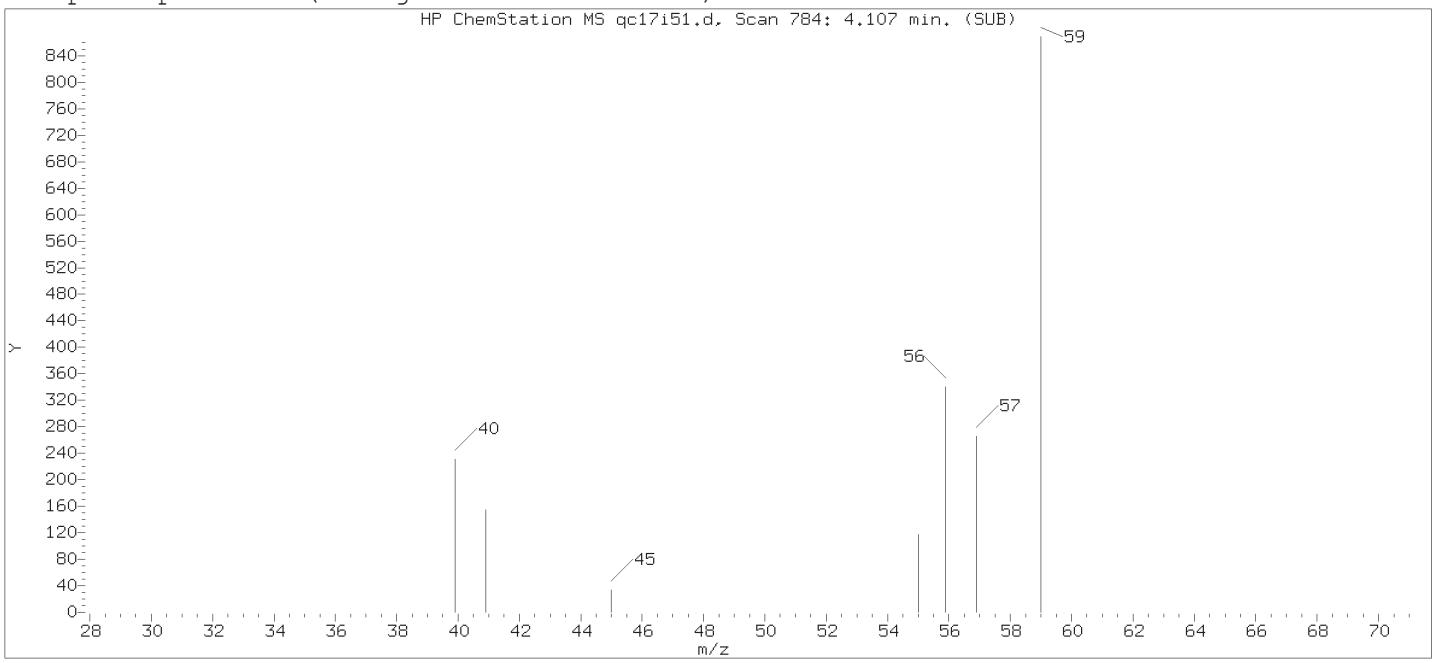
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 790
Retention Time (minutes): 4.126
Quant Ion : 59.00
Area (flag) : 12228M
On-Column Amount (ng) : 19.6792
Integration start scan : 754 Integration stop scan: 835
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

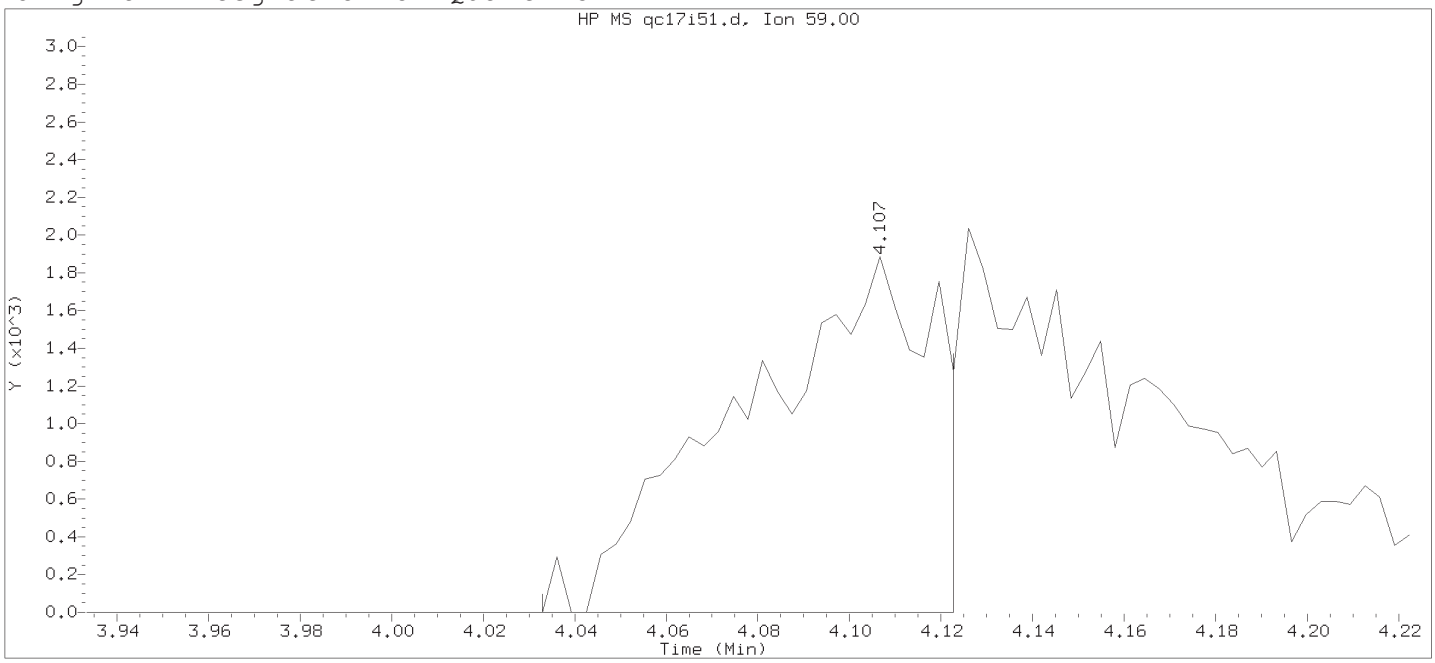
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

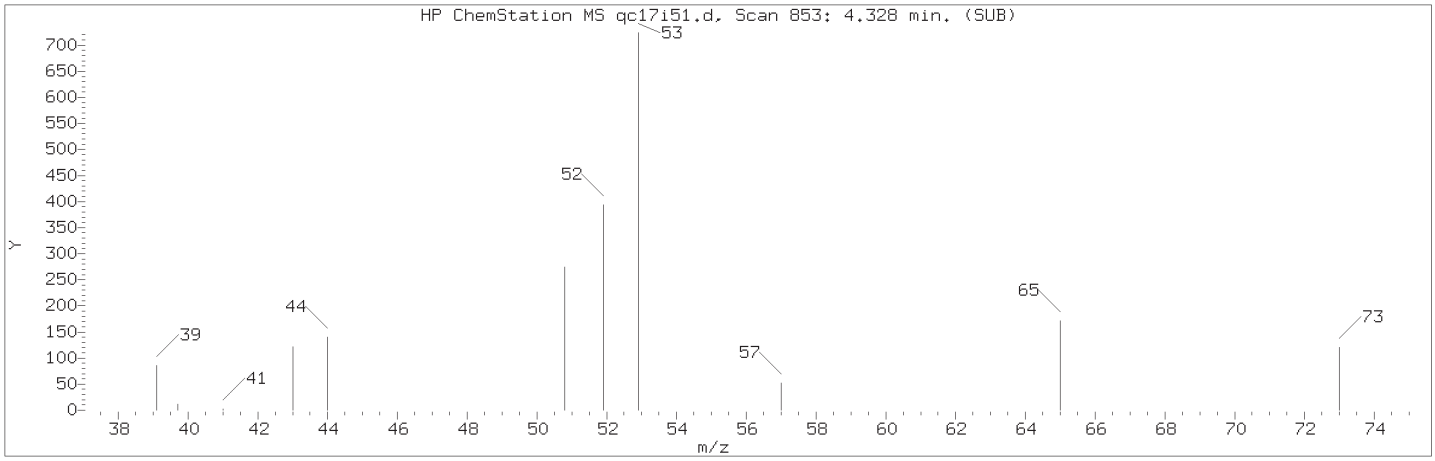
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

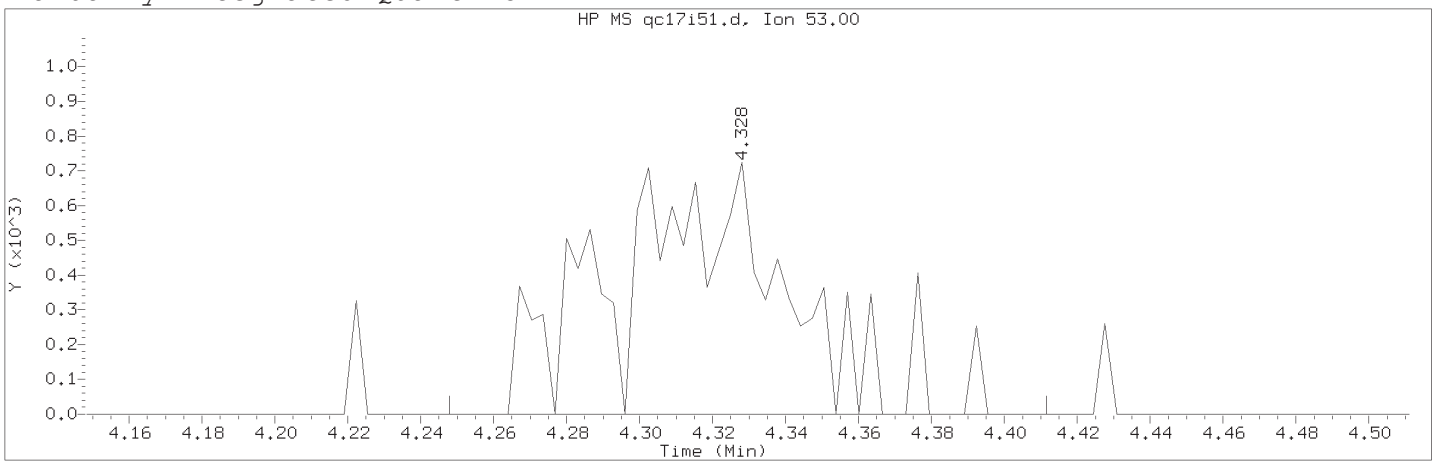
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 784
Retention Time (minutes): 4.107
Quant Ion : 59.00
Area : 5431
On-column Amount (ng) : 9.5373
Integration start scan : 760 Integration stop scan: 788
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

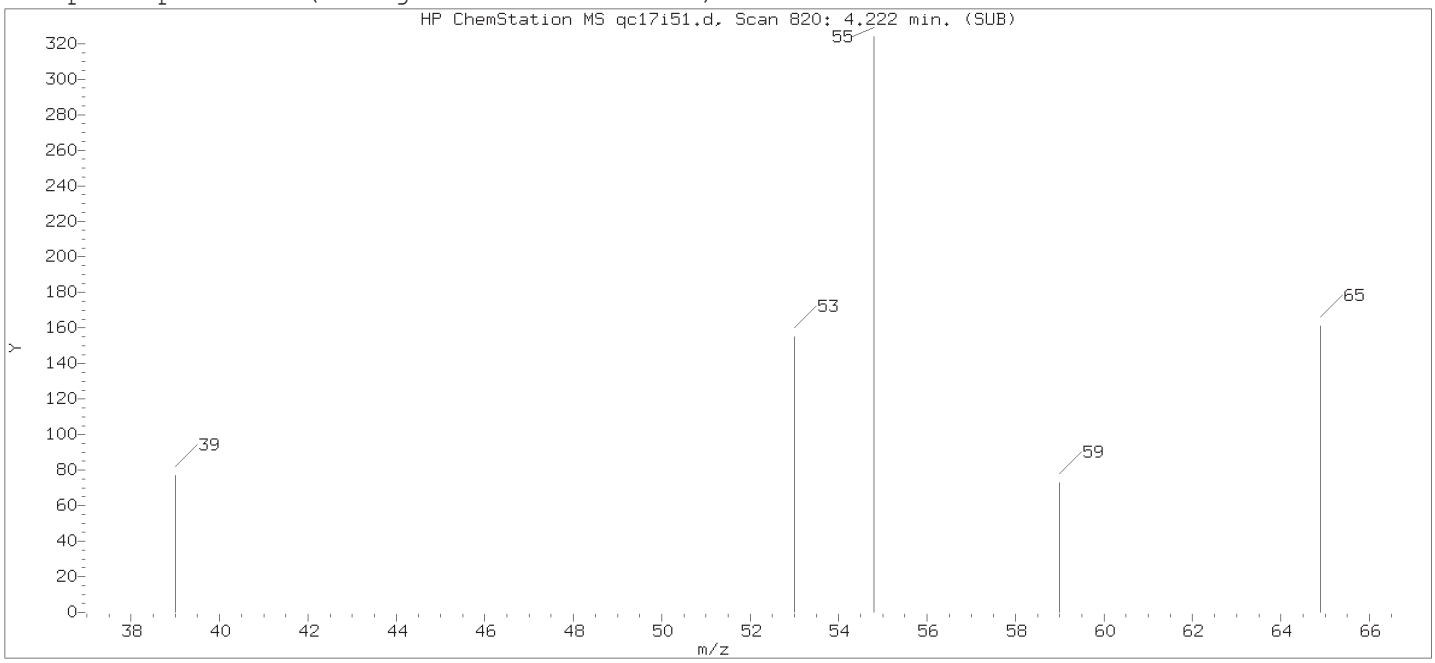
Compound Number : 33
Compound Name : Acrylonitrile
Scan Number : 853
Retention Time (minutes): 4.328
Quant Ion : 53.00
Area (flag) : 2394M
On-Column Amount (ng) : 0.8806
Integration start scan : 827 Integration stop scan: 878
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

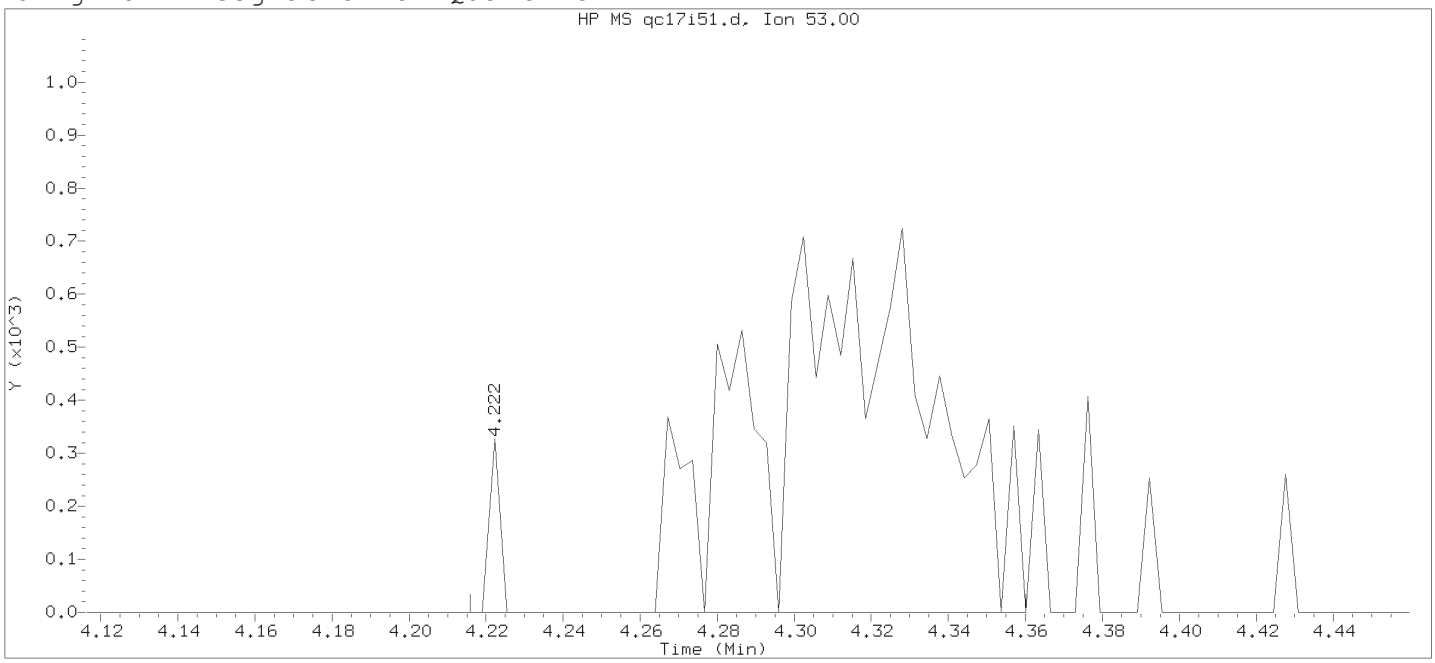
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

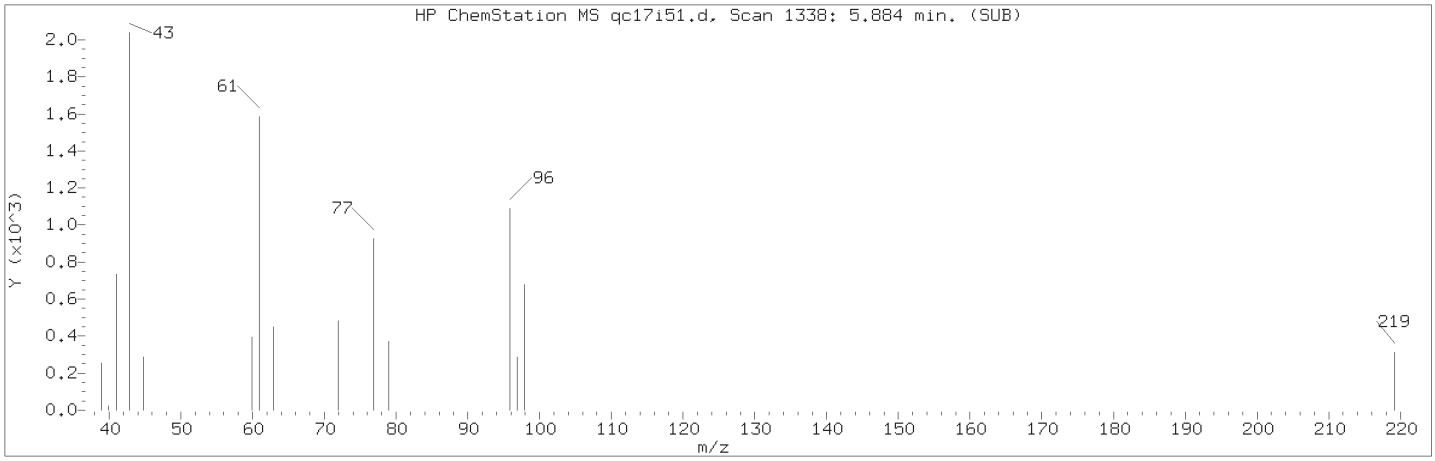
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

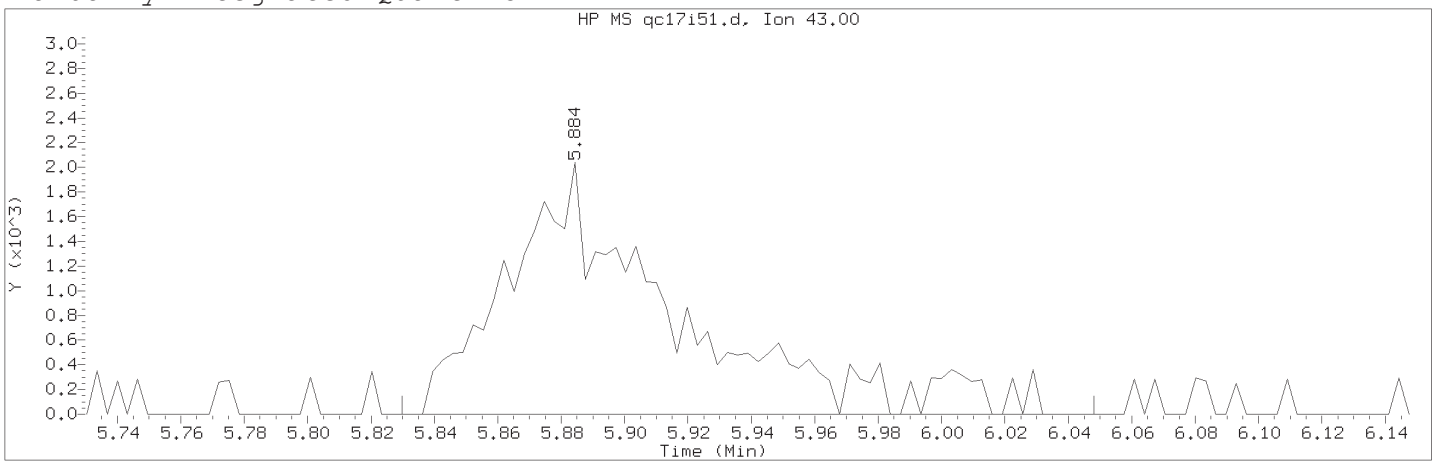
Compound Number : 33
Compound Name : Acrylonitrile
Scan Number : 820
Retention Time (minutes): 4.222
Quant Ion : 53.00
Area : 2263
On-column Amount (ng) : 0.8372
Integration start scan : 817 Integration stop scan: 862
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

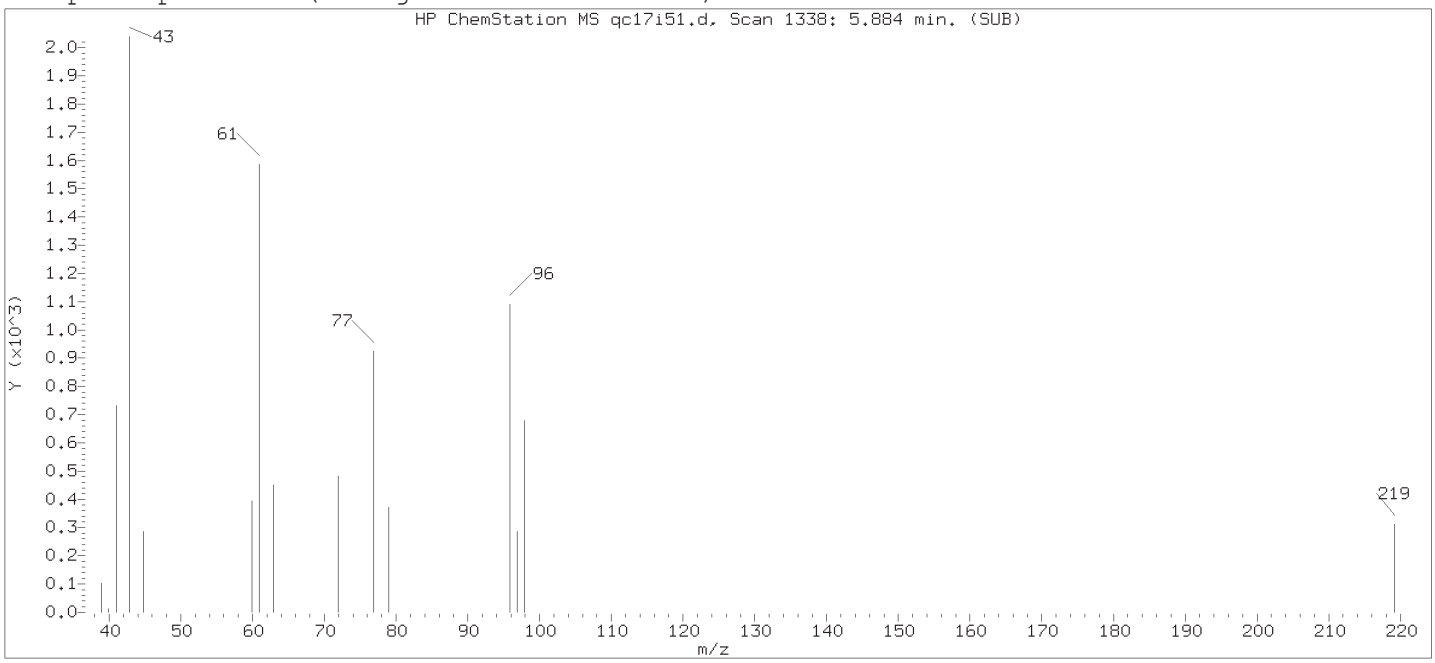
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1338
Retention Time (minutes): 5.884
Quant Ion : 43.00
Area (flag) : 7395M
On-Column Amount (ng) : 2.2487
Integration start scan : 1320 Integration stop scan: 1388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

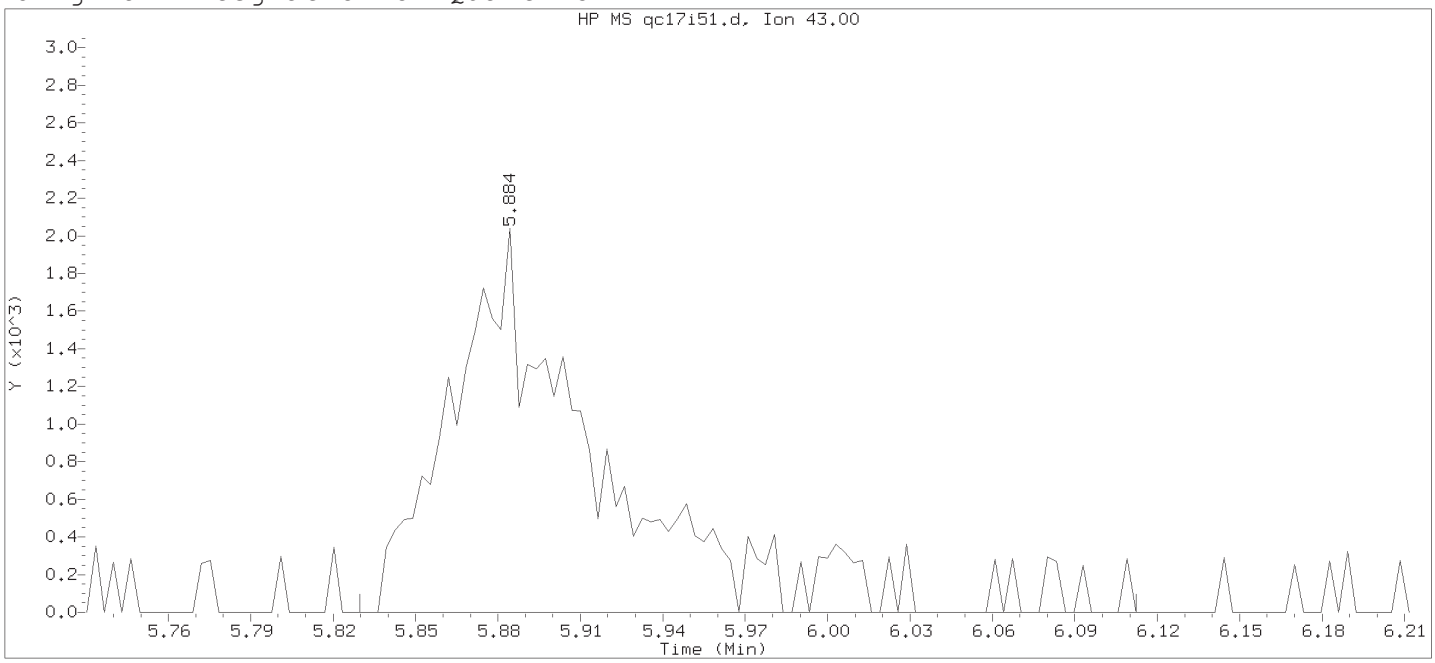
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

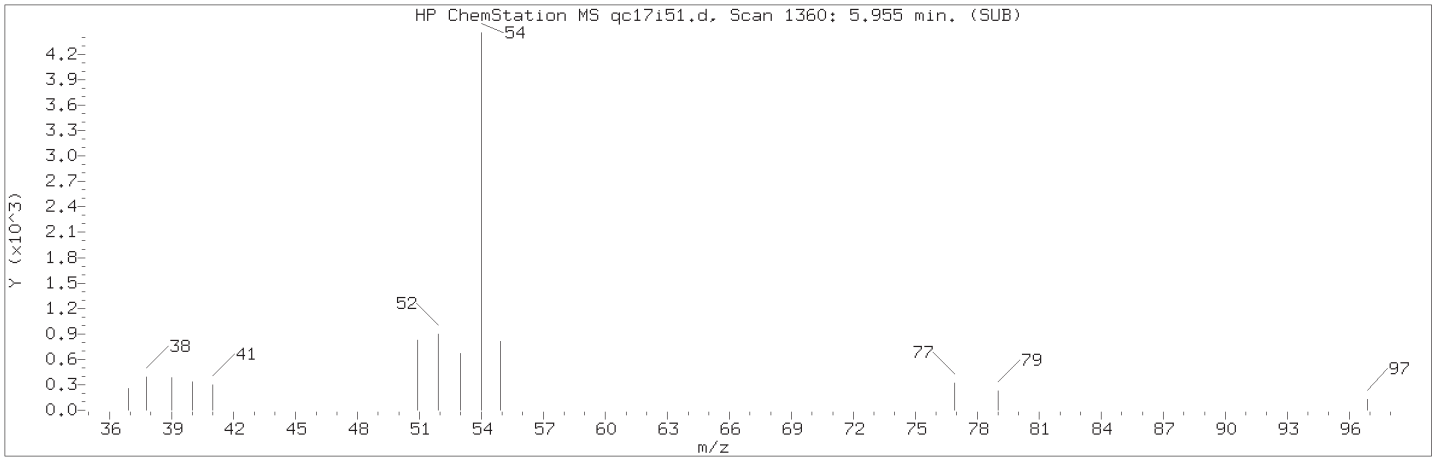
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

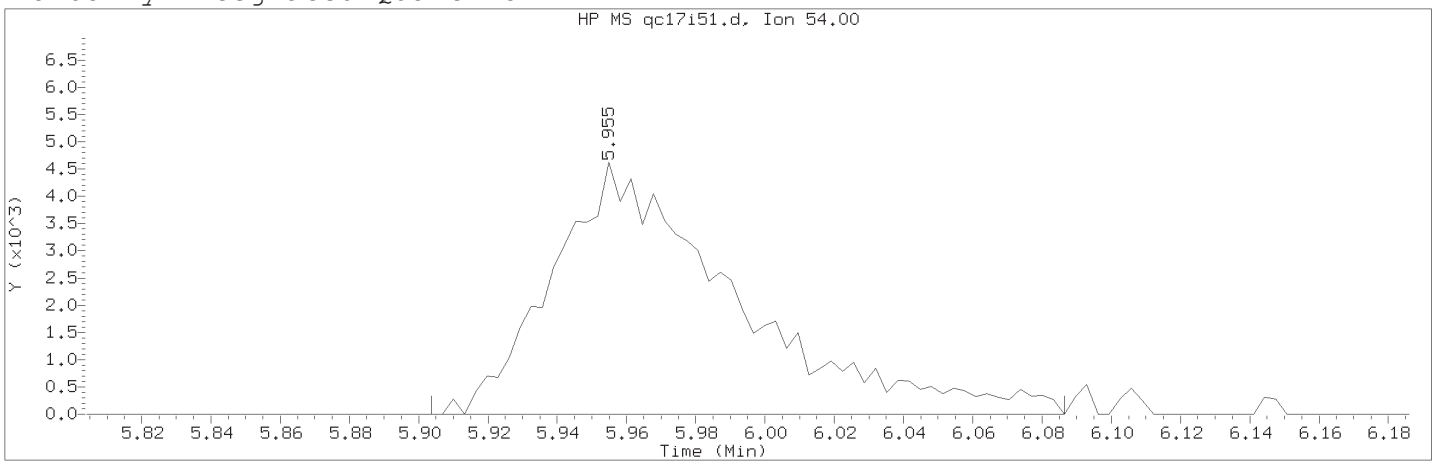
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1338
Retention Time (minutes): 5.884
Quant Ion : 43.00
Area : 7717
On-column Amount (ng) : 2.2095
Integration start scan : 1320 Integration stop scan: 1408
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

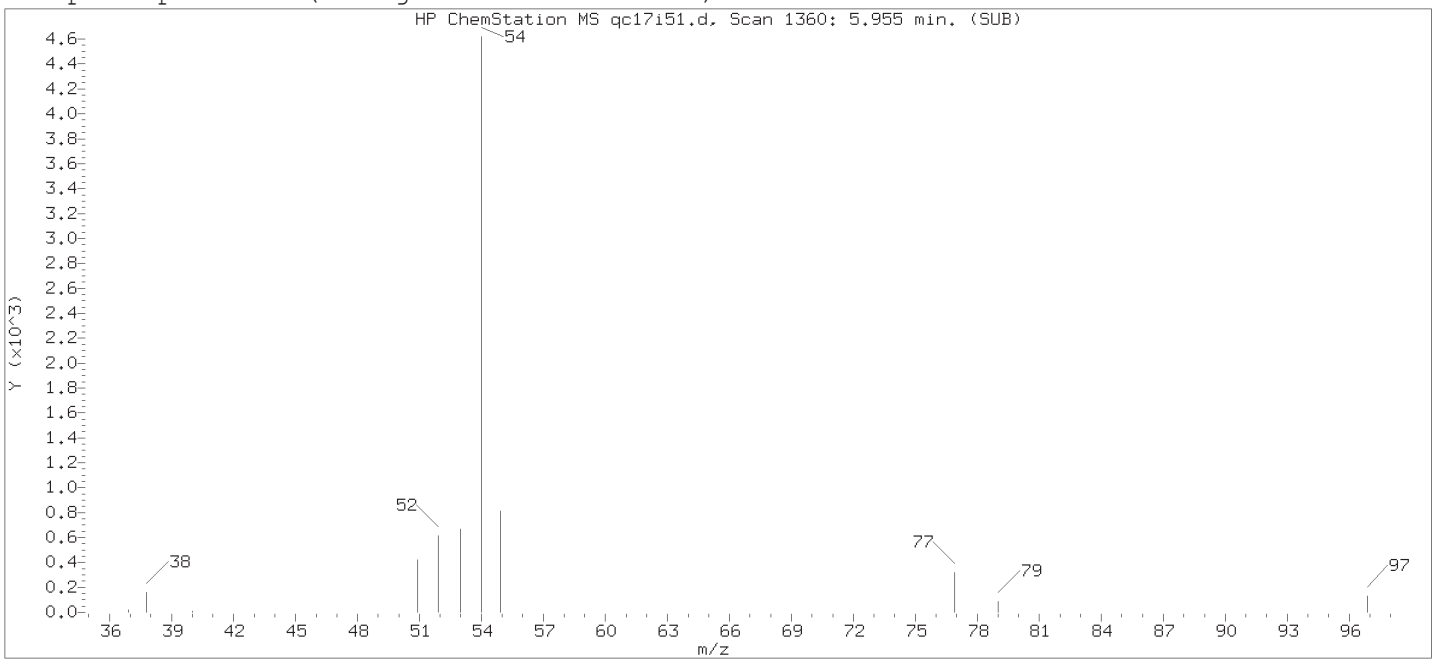
Compound Number : 49
Compound Name : Propionitrile
Scan Number : 1360
Retention Time (minutes): 5.955
Quant Ion : 54.00
Area (flag) : 16890M
On-Column Amount (ng) : 17.8126
Integration start scan : 1343 Integration stop scan: 1400
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

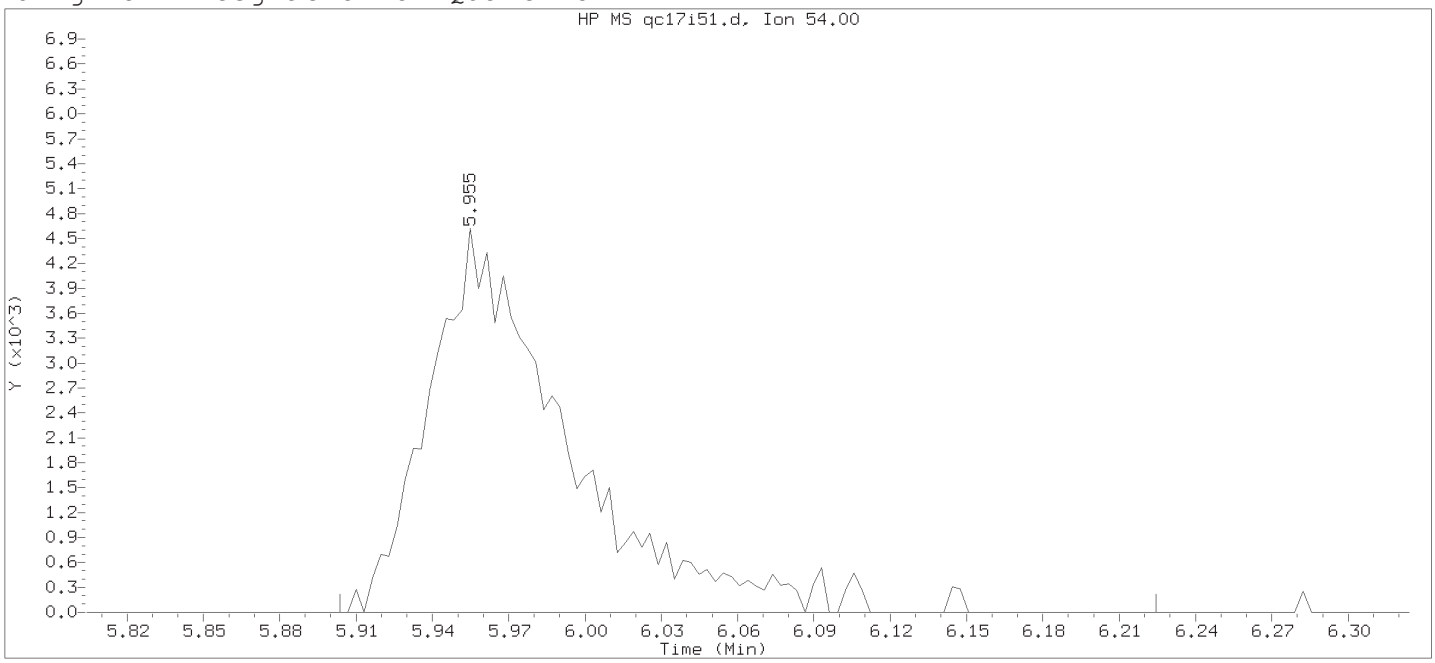
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

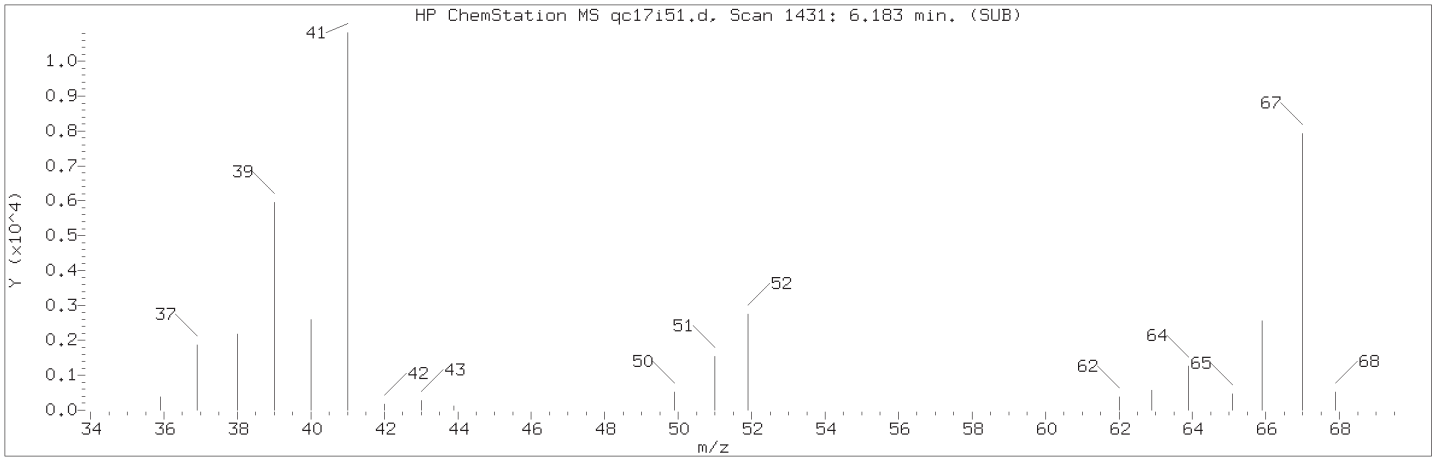
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

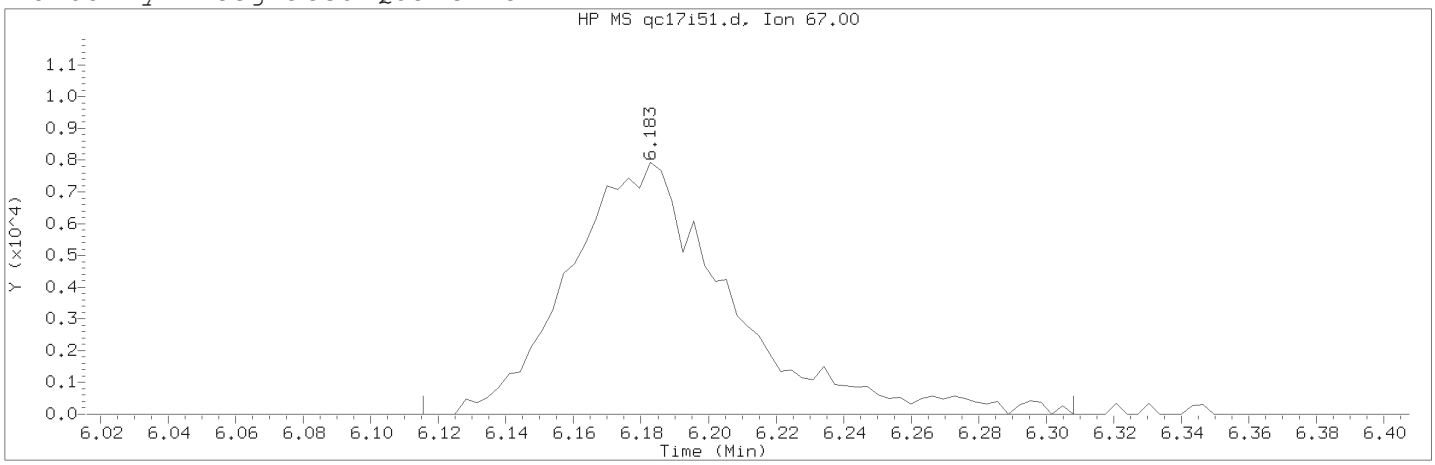
Compound Number	: 49		
Compound Name	: Propionitrile		
Scan Number	: 1360		
Retention Time (minutes)	: 5.955		
Quant Ion	: 54.00		
Area	: 17365		
On-column Amount (ng)	: 18.2673		
Integration start scan	: 1343	Integration stop scan:	1443
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

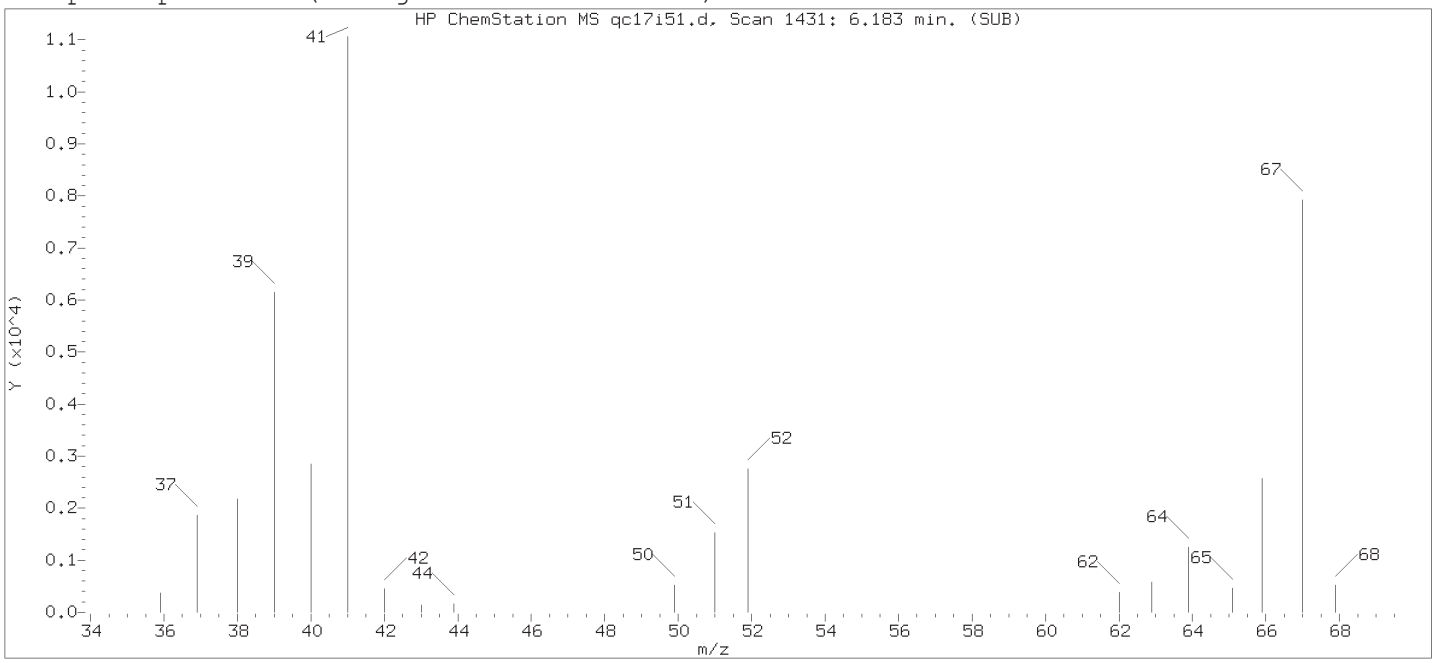
Compound Number : 51
Compound Name : Methacrylonitrile
Scan Number : 1431
Retention Time (minutes): 6.183
Quant Ion : 67.00
Area (flag) : 26238M
On-Column Amount (ng) : 8.9906
Integration start scan : 1409 Integration stop scan: 1469
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

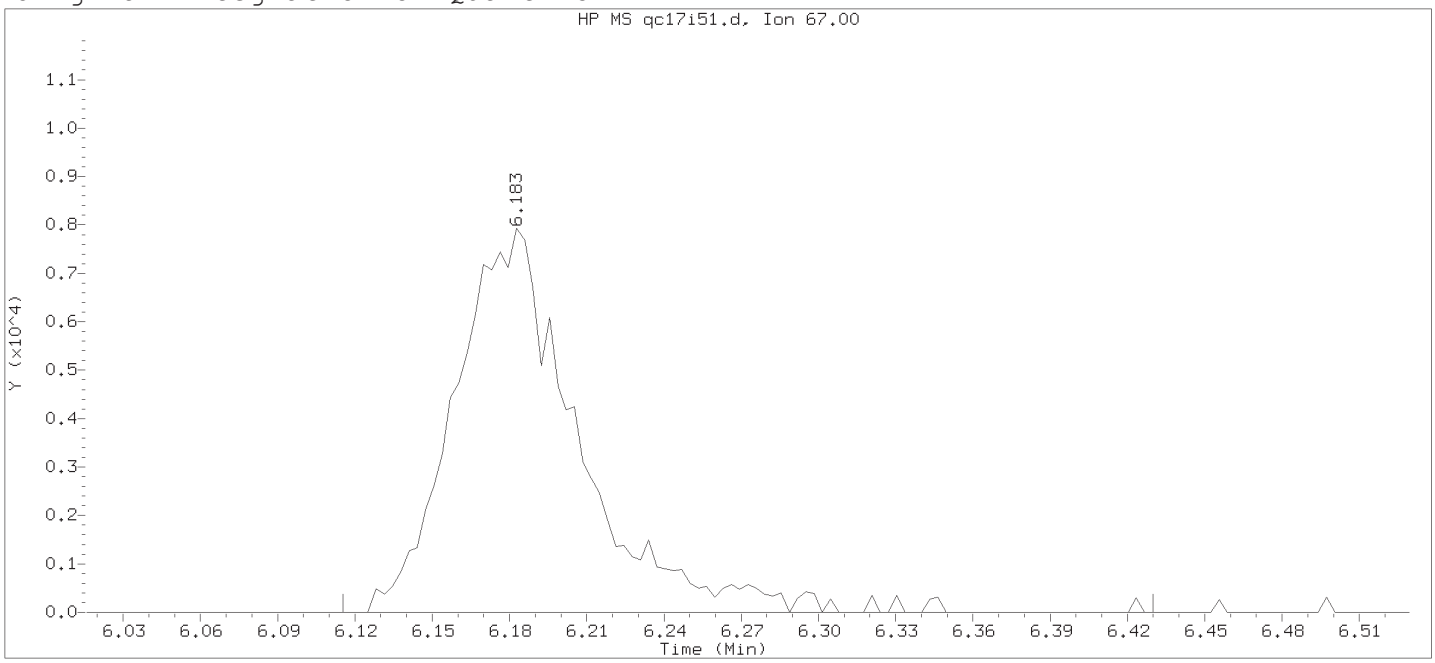
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

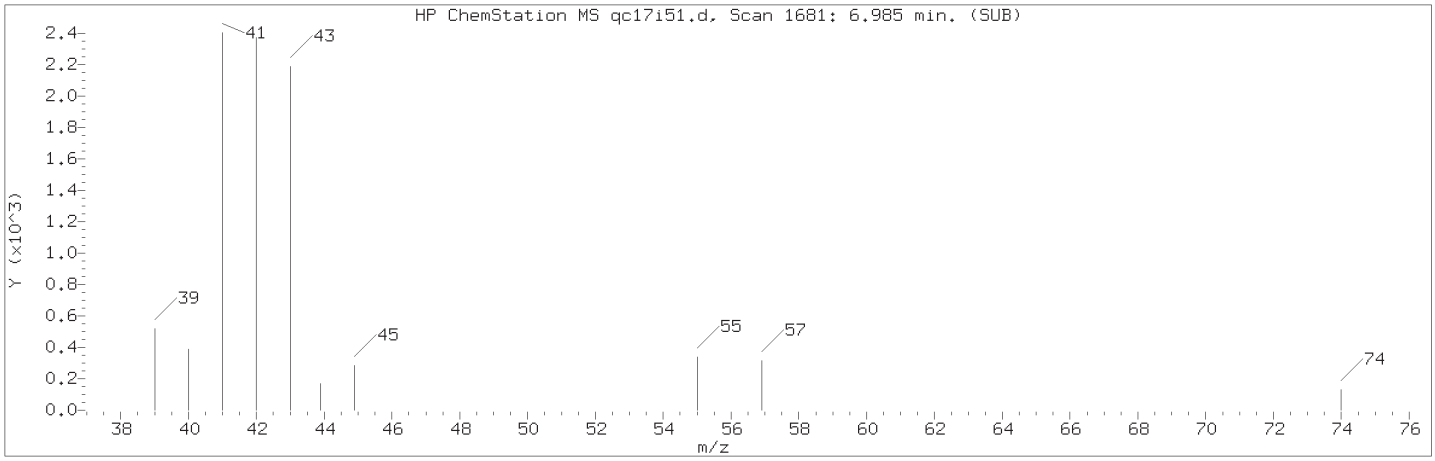
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

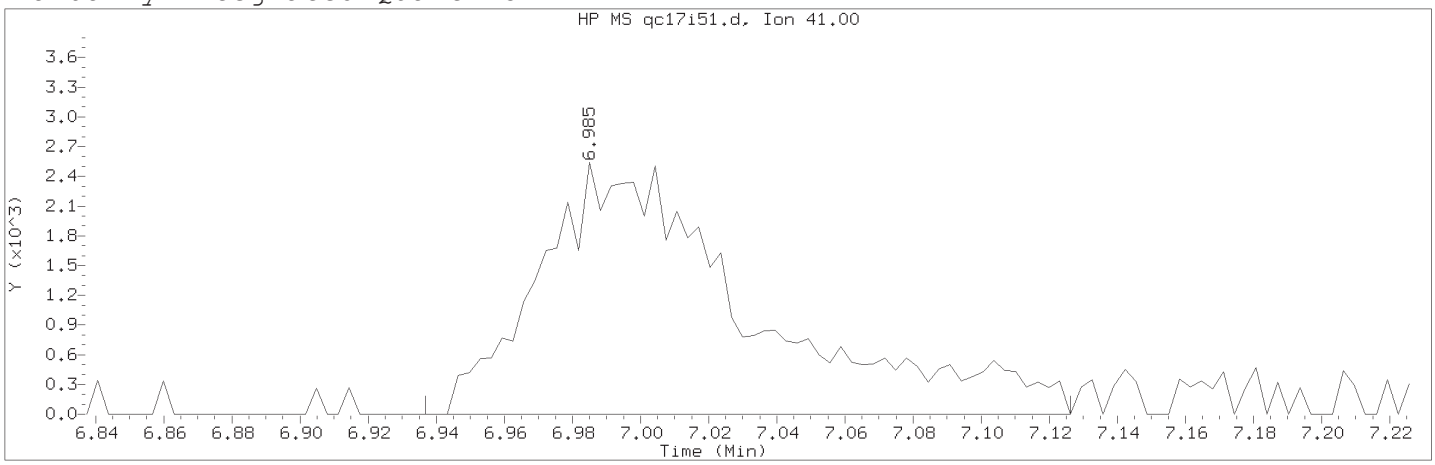
Compound Number : 51
Compound Name : Methacrylonitrile
Scan Number : 1431
Retention Time (minutes): 6.183
Quant Ion : 67.00
Area : 26541
On-column Amount (ng) : 9.0743
Integration start scan : 1409 Integration stop scan: 1507
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

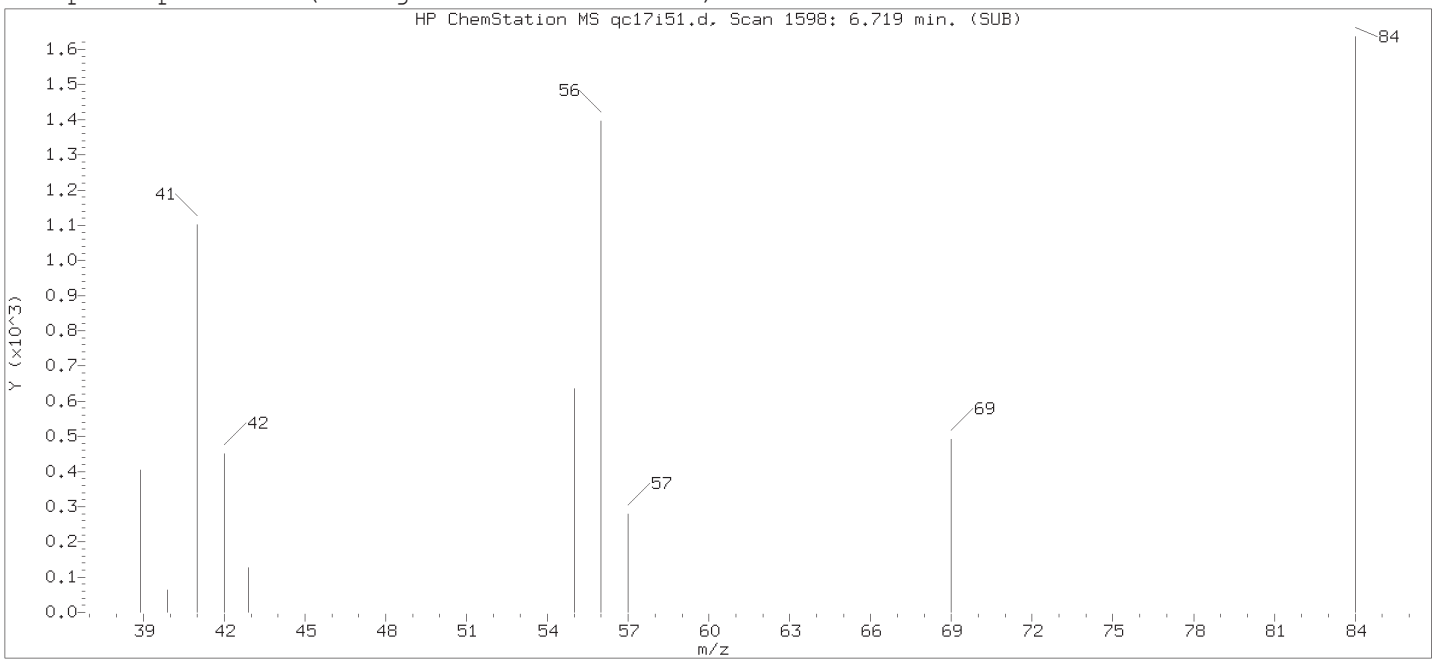
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1681
Retention Time (minutes): 6.985
Quant Ion : 41.00
Area (flag) : 10892M
On-Column Amount (ng) : 51.7372
Integration start scan : 1665 Integration stop scan: 1724
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

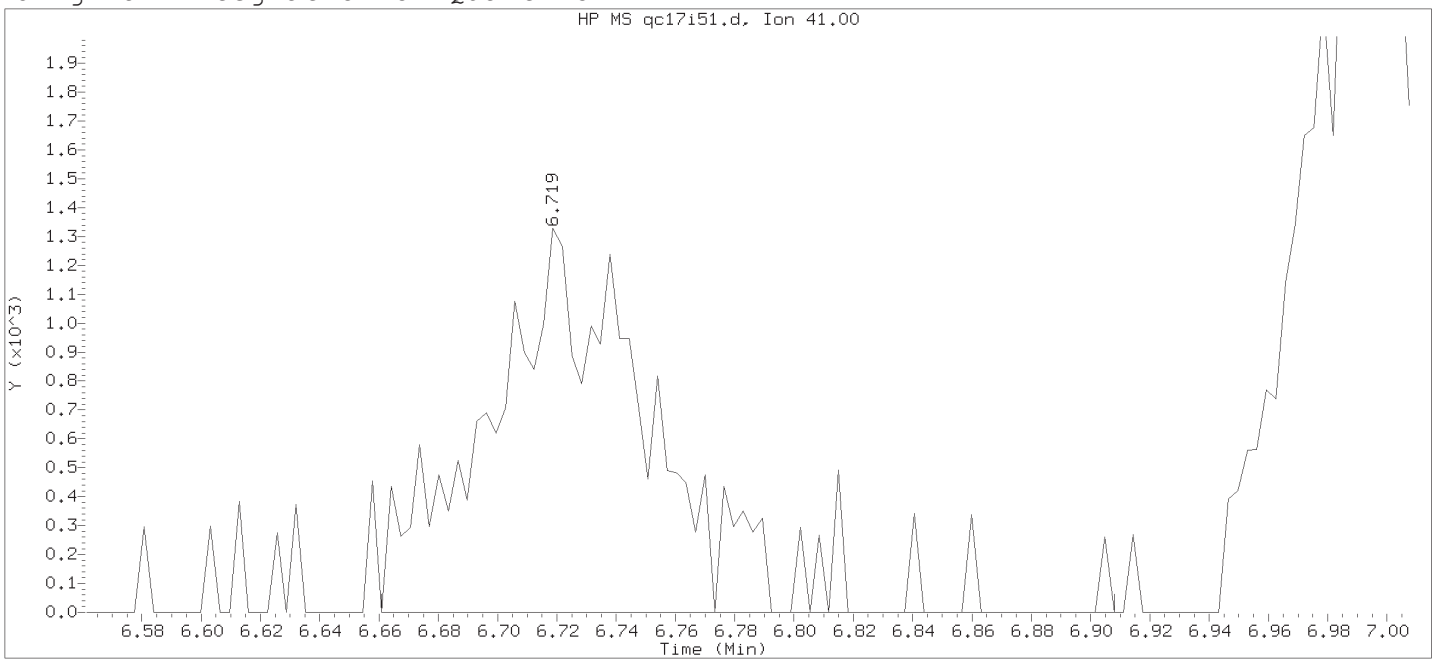
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

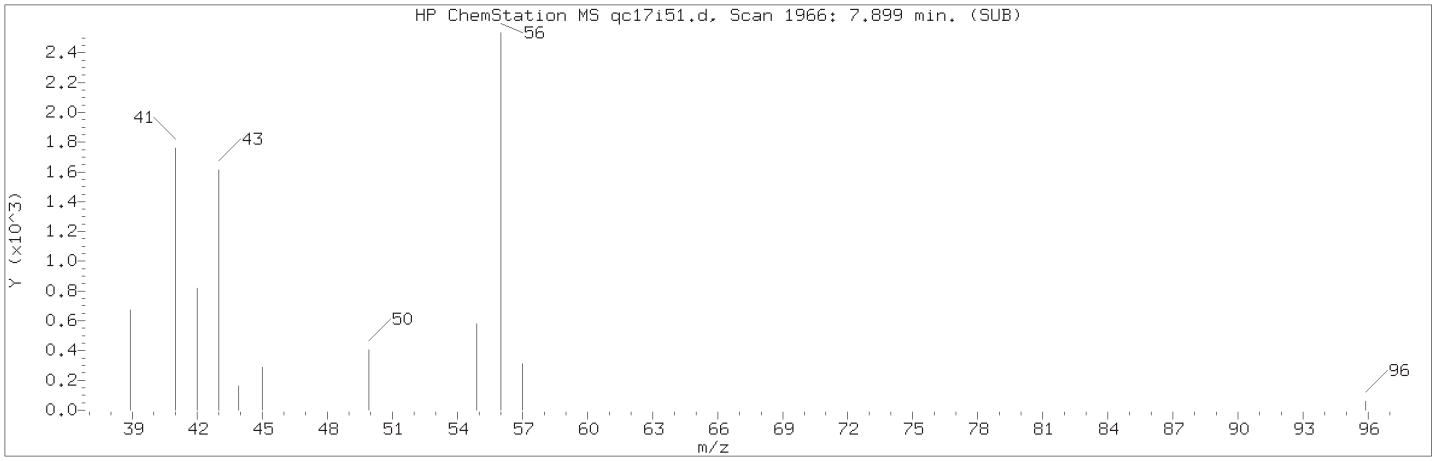
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

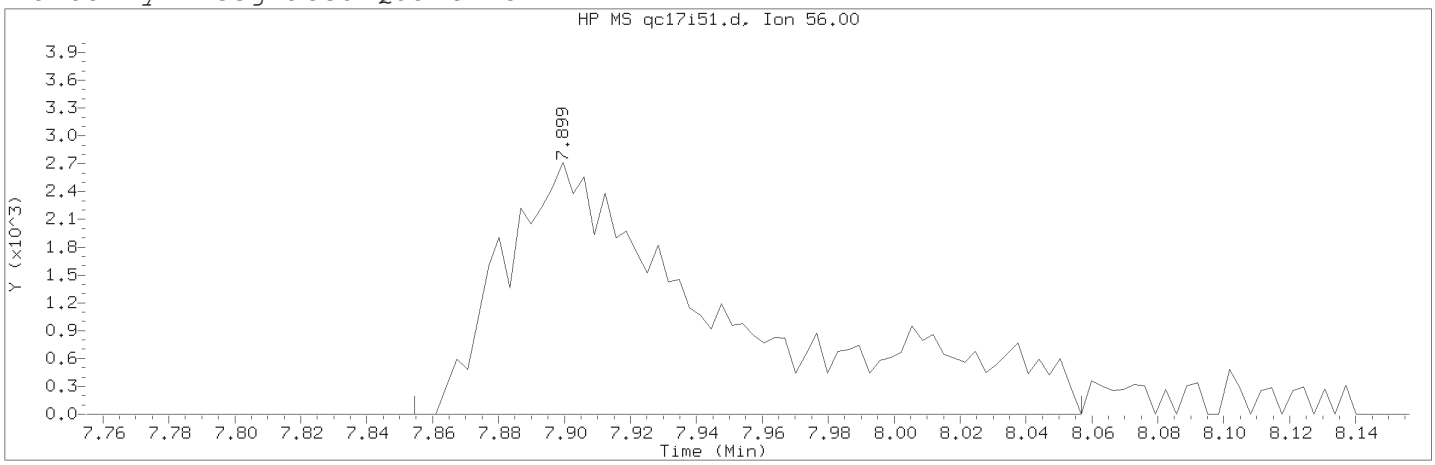
Compound Number	: 62		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 1598		
Retention Time (minutes)	: 6.719		
Quant Ion	: 41.00		
Area	: 5251		
On-column Amount (ng)	: 33.7997		
Integration start scan	: 1579	Integration stop scan:	1656
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

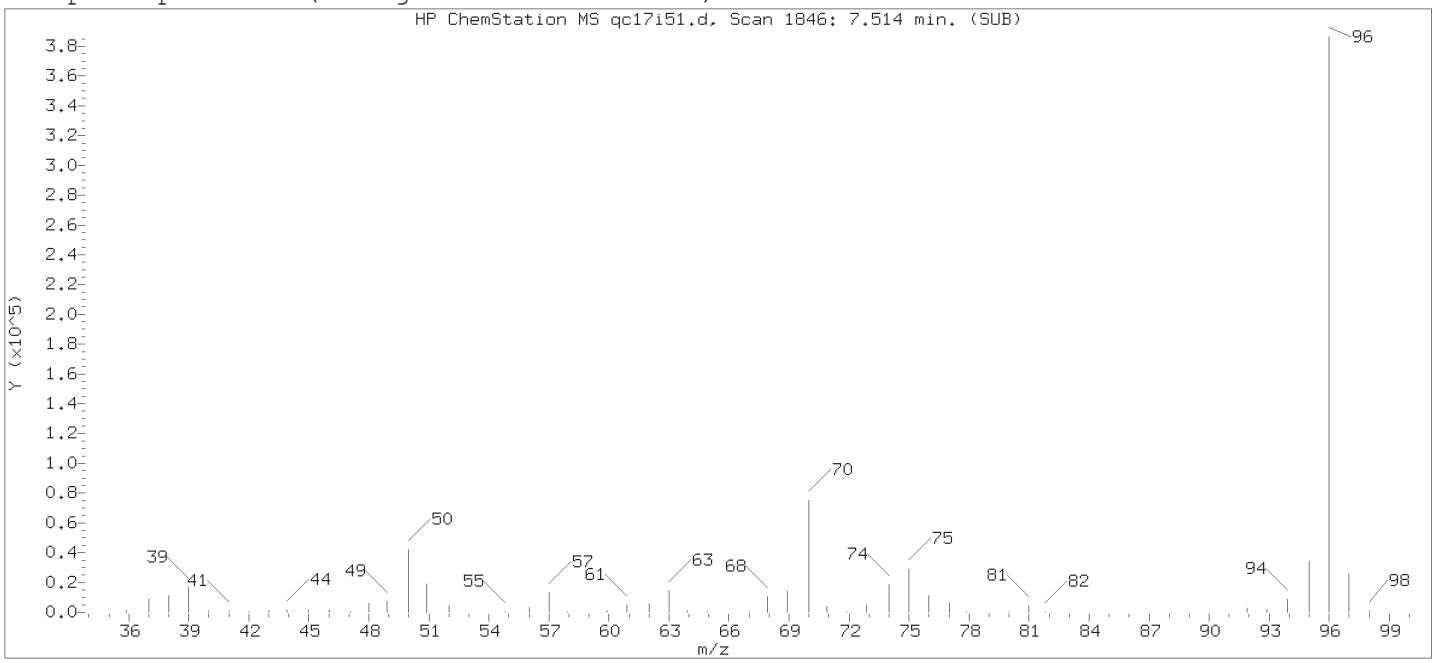
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1966
Retention Time (minutes): 7.899
Quant Ion : 56.00
Area (flag) : 12749M
On-Column Amount (ng) : 80.7361
Integration start scan : 1951 Integration stop scan: 2014
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

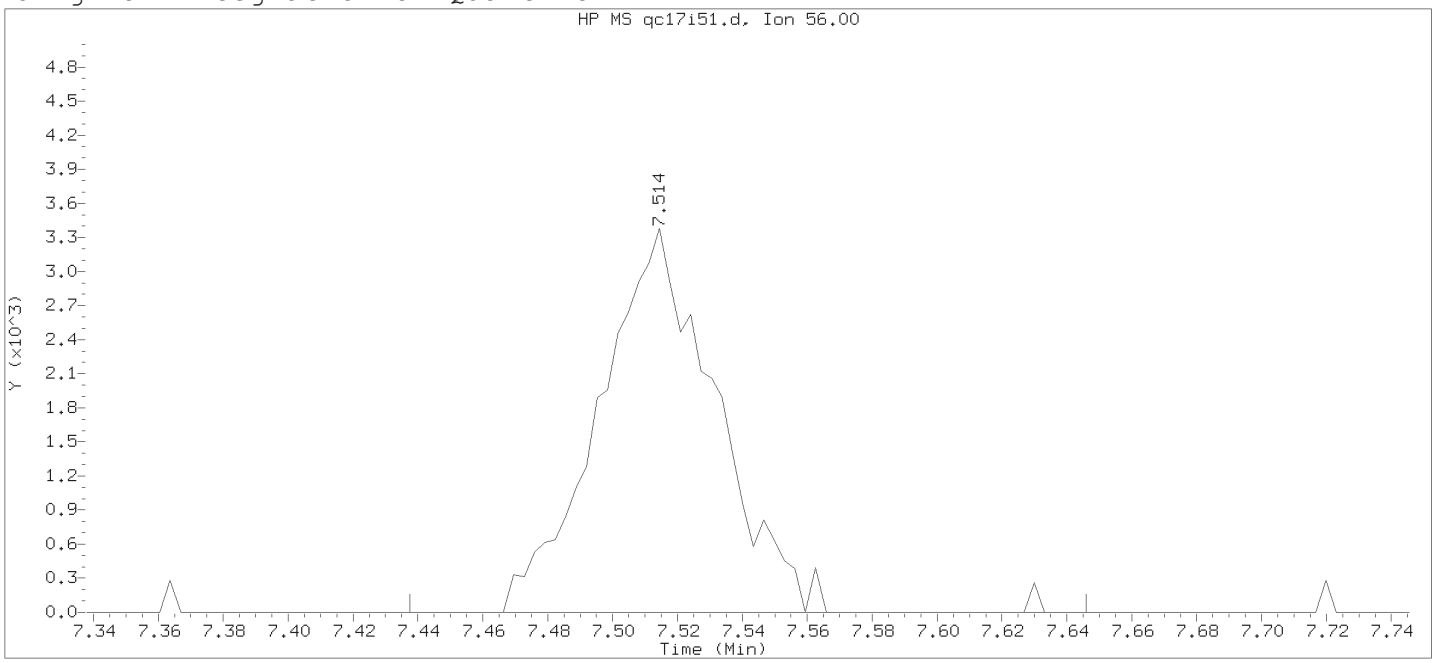
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

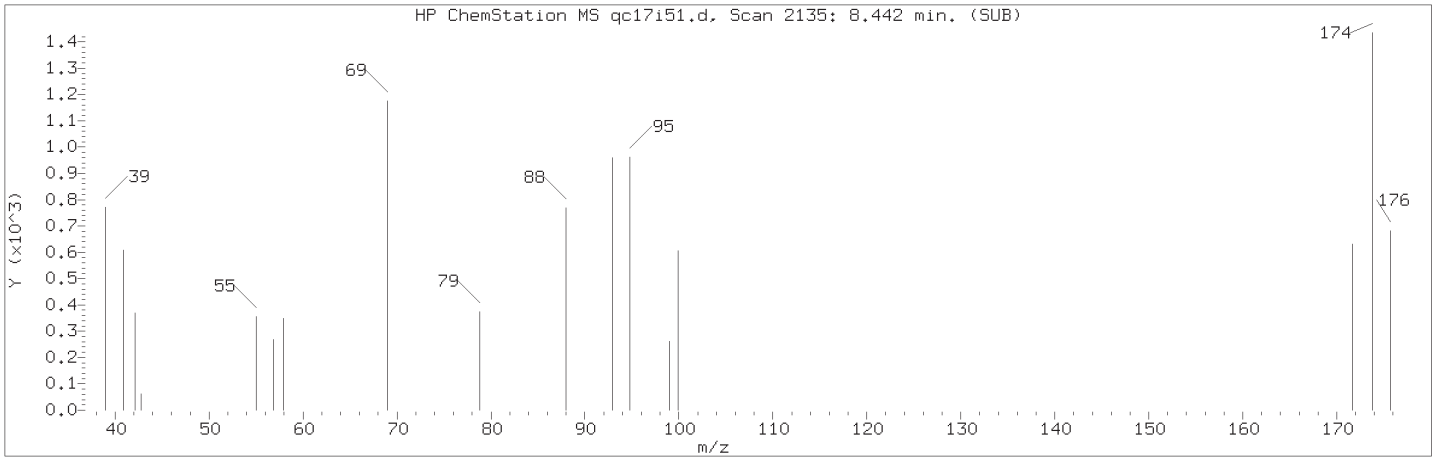
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

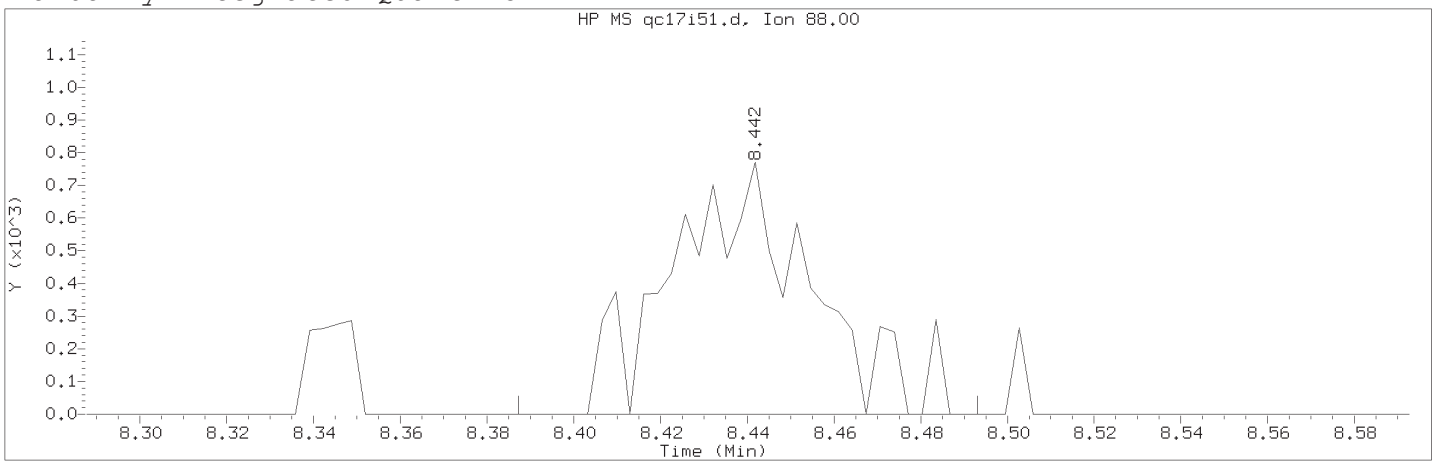
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1846
Retention Time (minutes): 7.514
Quant Ion : 56.00
Area : 8456
On-column Amount (ng) : 75.6845
Integration start scan : 1821 Integration stop scan: 1886
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

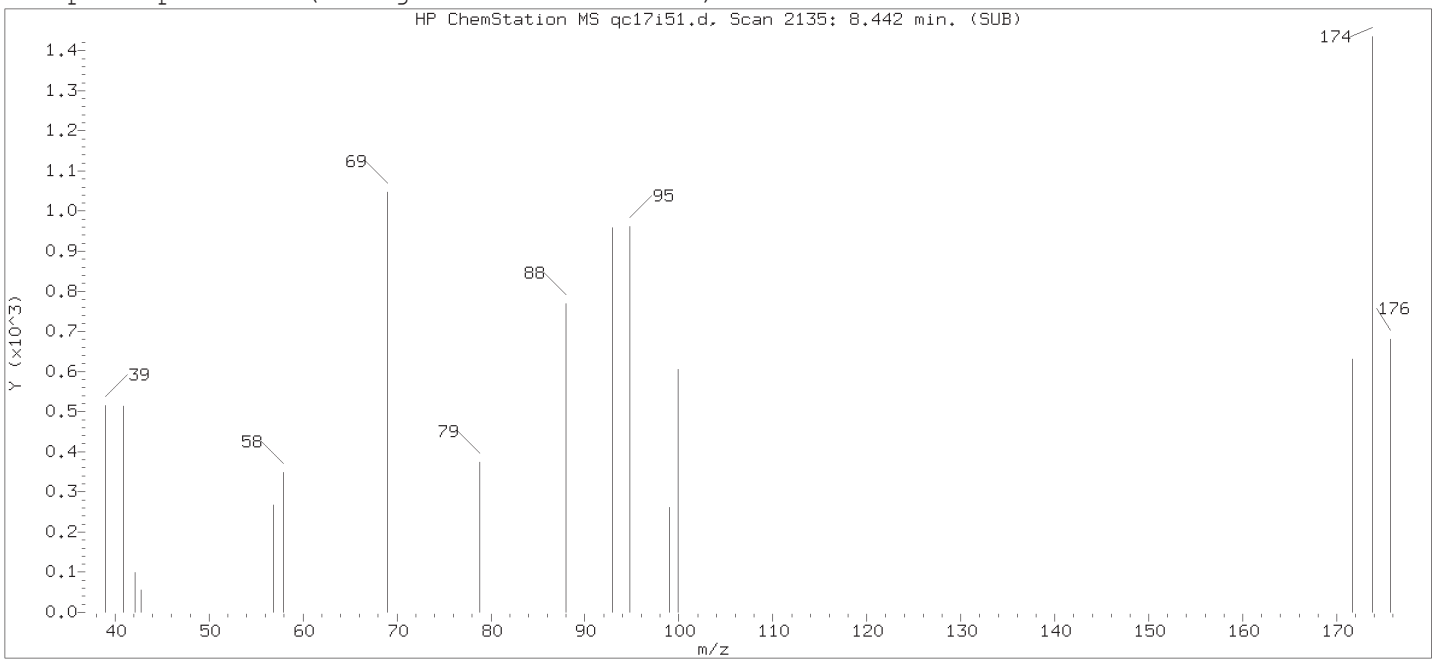
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2135
Retention Time (minutes): 8.442
Quant Ion : 88.00
Area (flag) : 1735M
On-Column Amount (ng) : 30.8056
Integration start scan : 2117 Integration stop scan: 2150
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

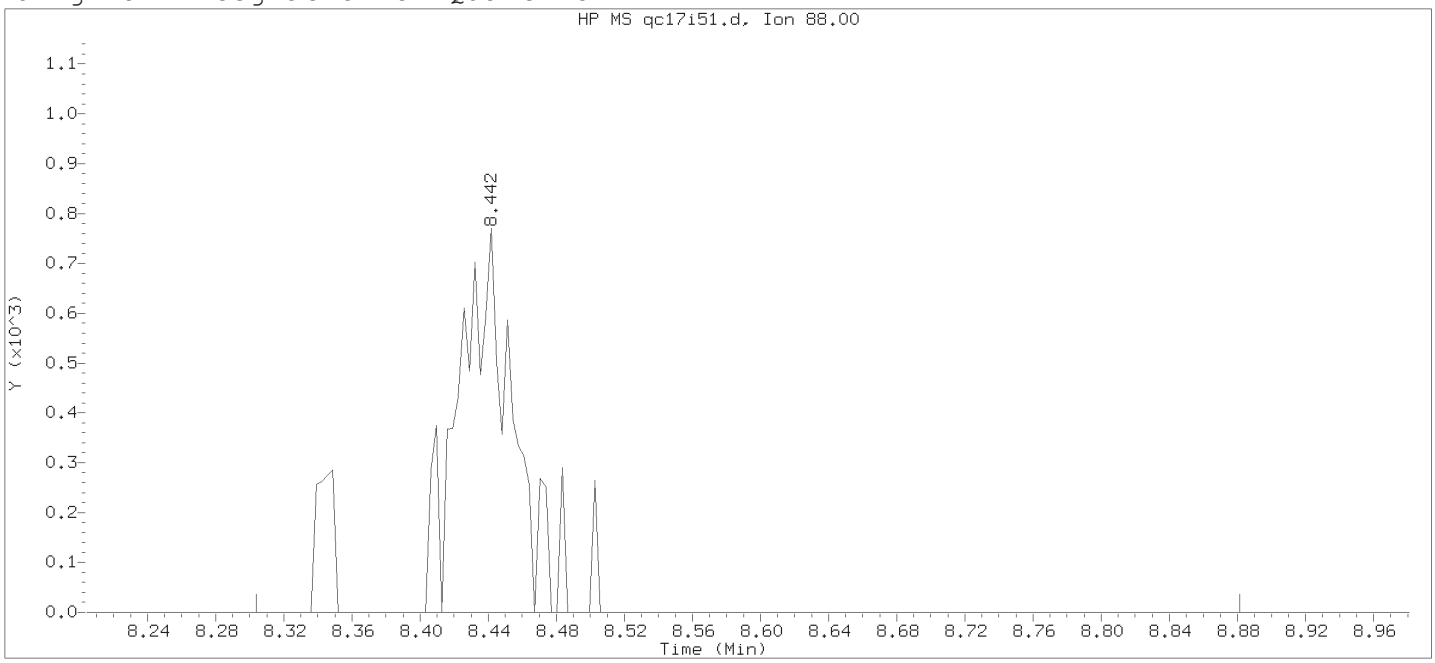
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

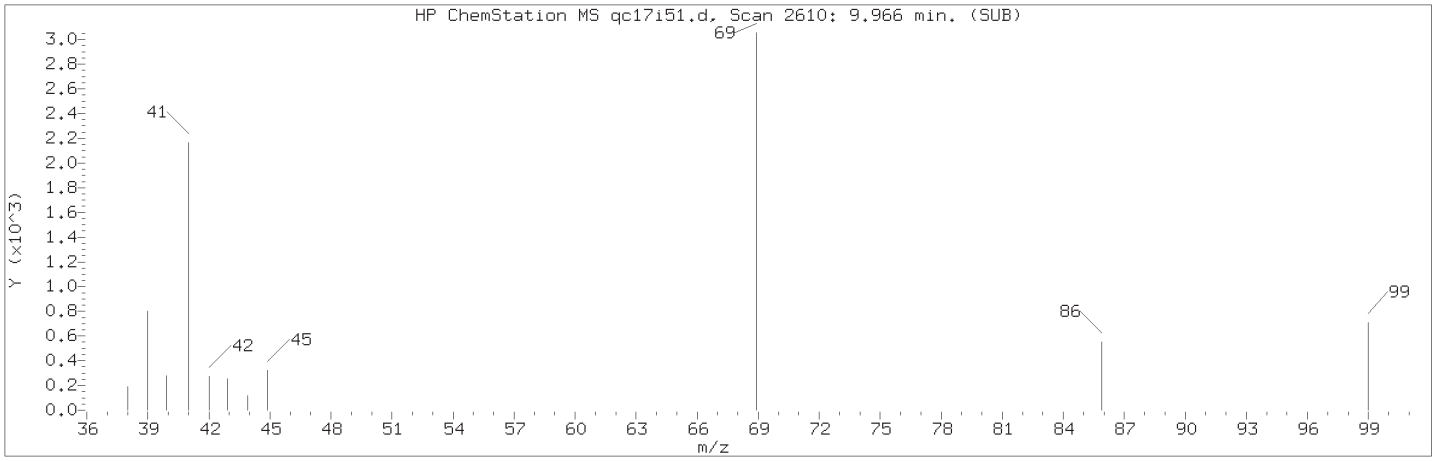
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

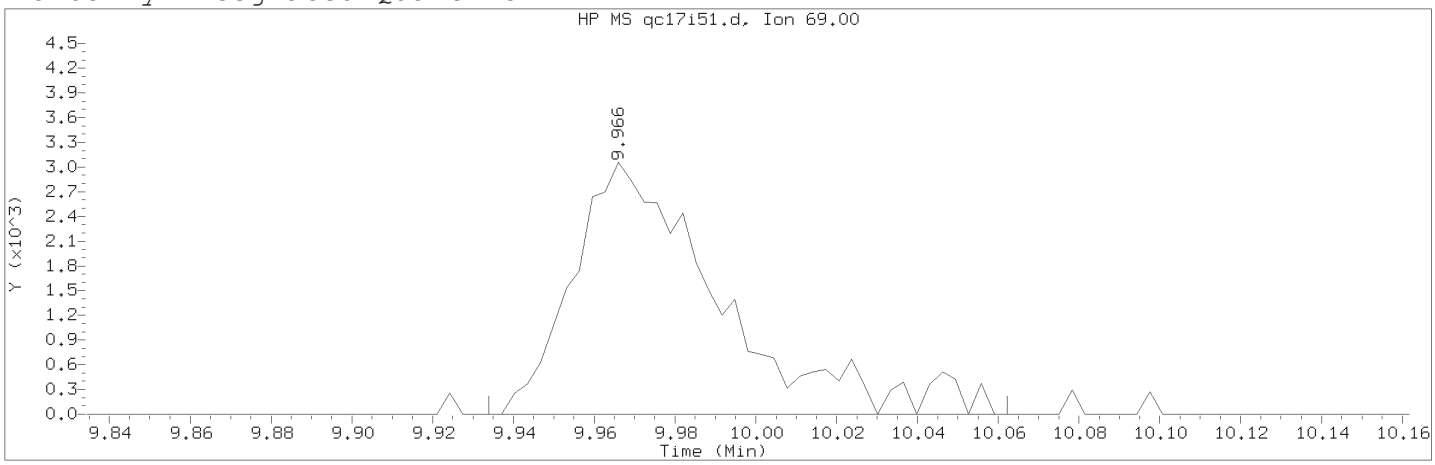
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2135
Retention Time (minutes): 8.442
Quant Ion : 88.00
Area : 1994
On-column Amount (ng) : 48.3919
Integration start scan : 2091 Integration stop scan: 2271
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

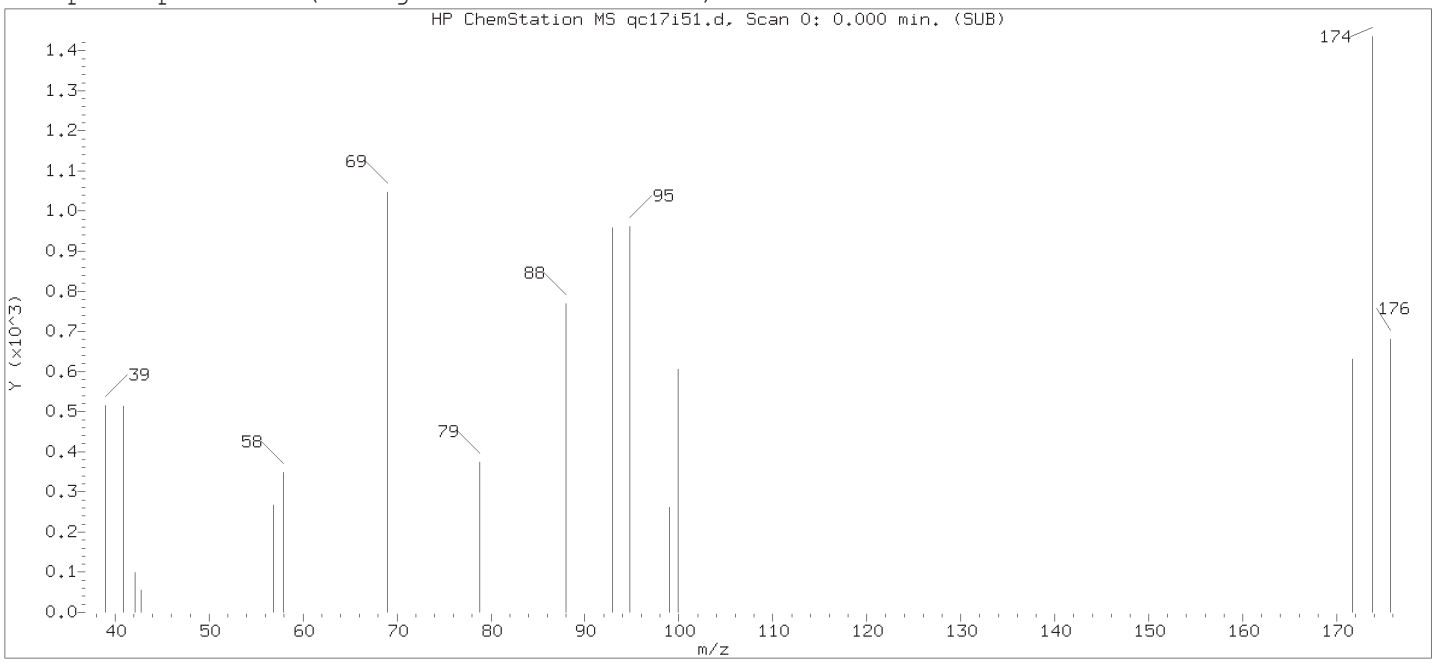
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 2610
Retention Time (minutes): 9.966
Quant Ion : 69.00
Area (flag) : 7760M
On-Column Amount (ng) : 0.8705
Integration start scan : 2599 Integration stop scan: 2639
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

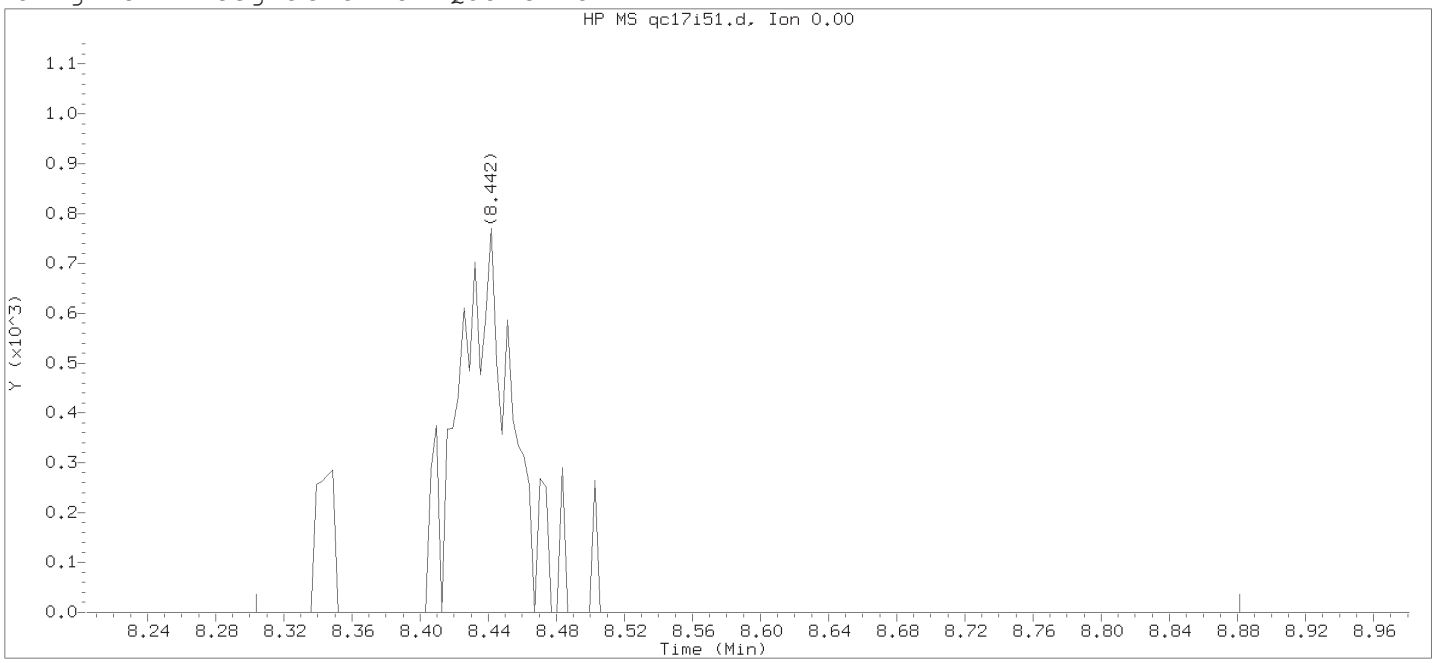
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

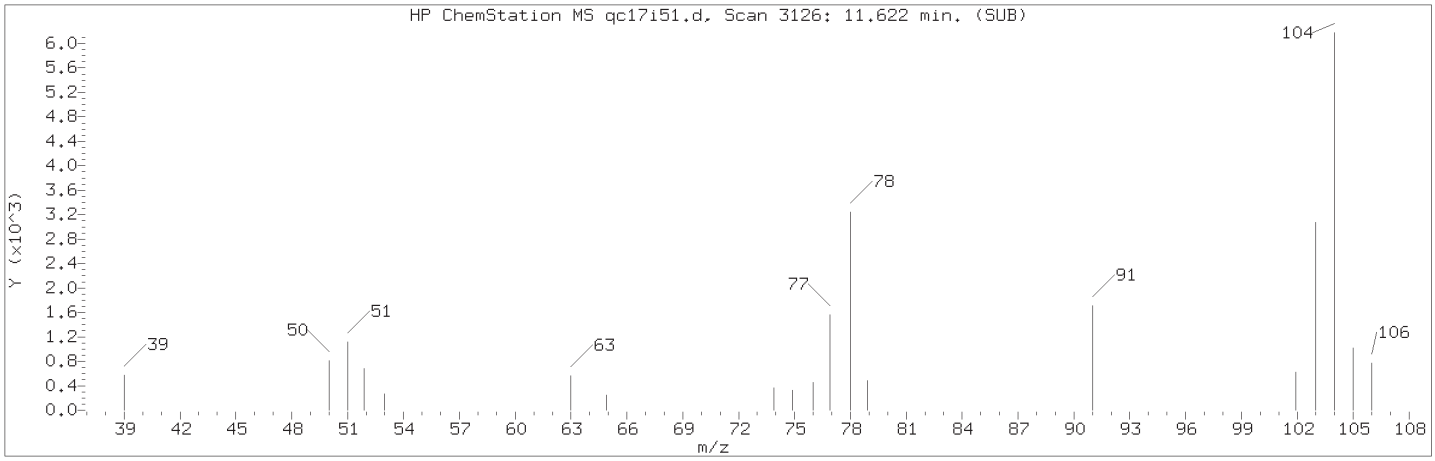
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

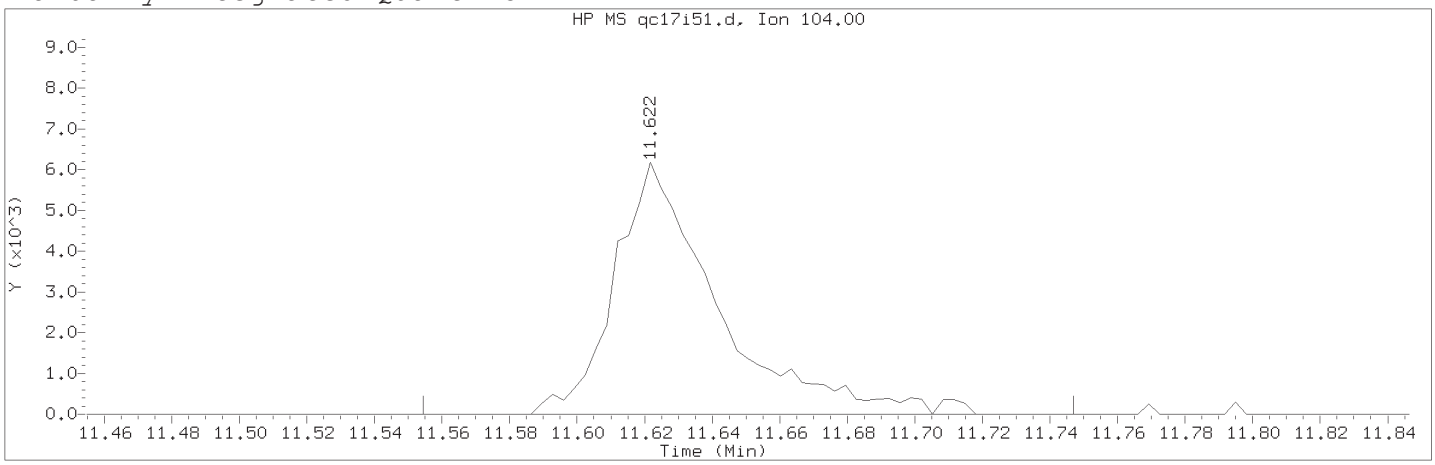
Compound Number : 0
Compound Name : Ethyl Methacrylate
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 1132068864 Integration stop scan: 194335652
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

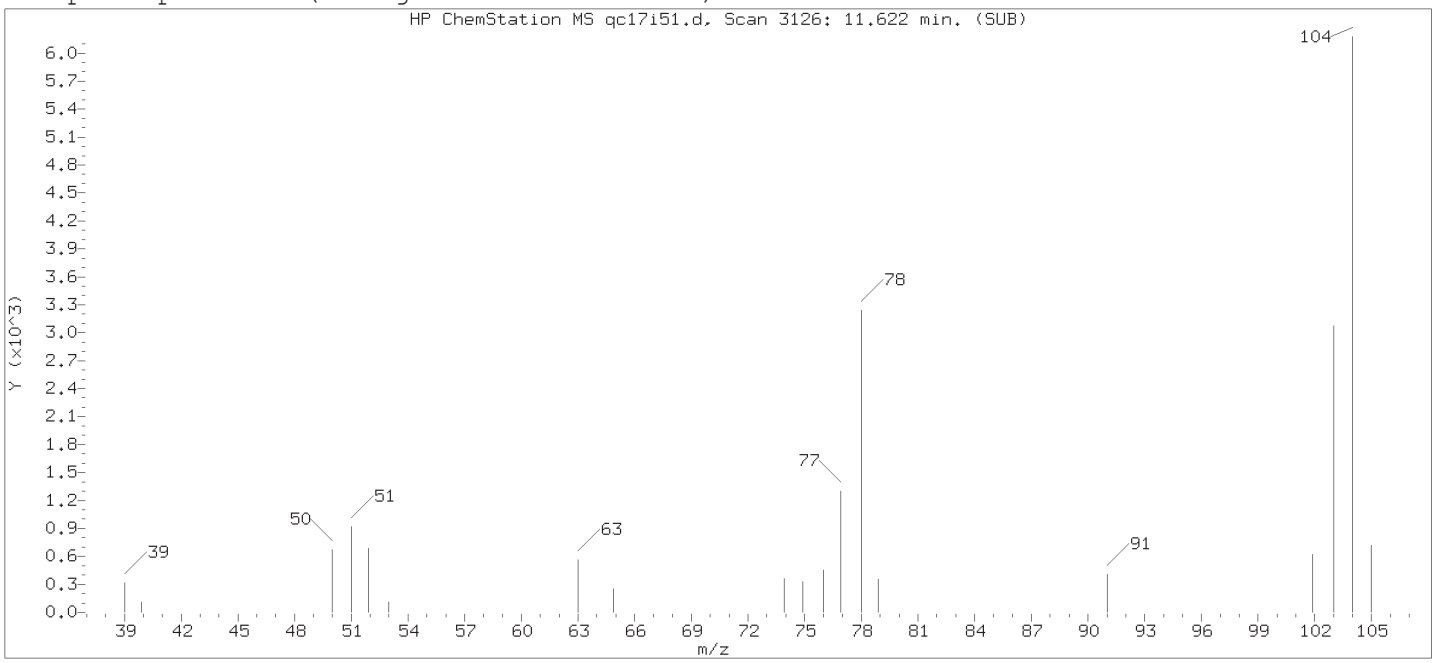
Compound Number : 113
Compound Name : Styrene
Scan Number : 3126
Retention Time (minutes): 11.622
Quant Ion : 104.00
Area (flag) : 13132M
On-Column Amount (ng) : 0.7924
Integration start scan : 3104 Integration stop scan: 3164
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

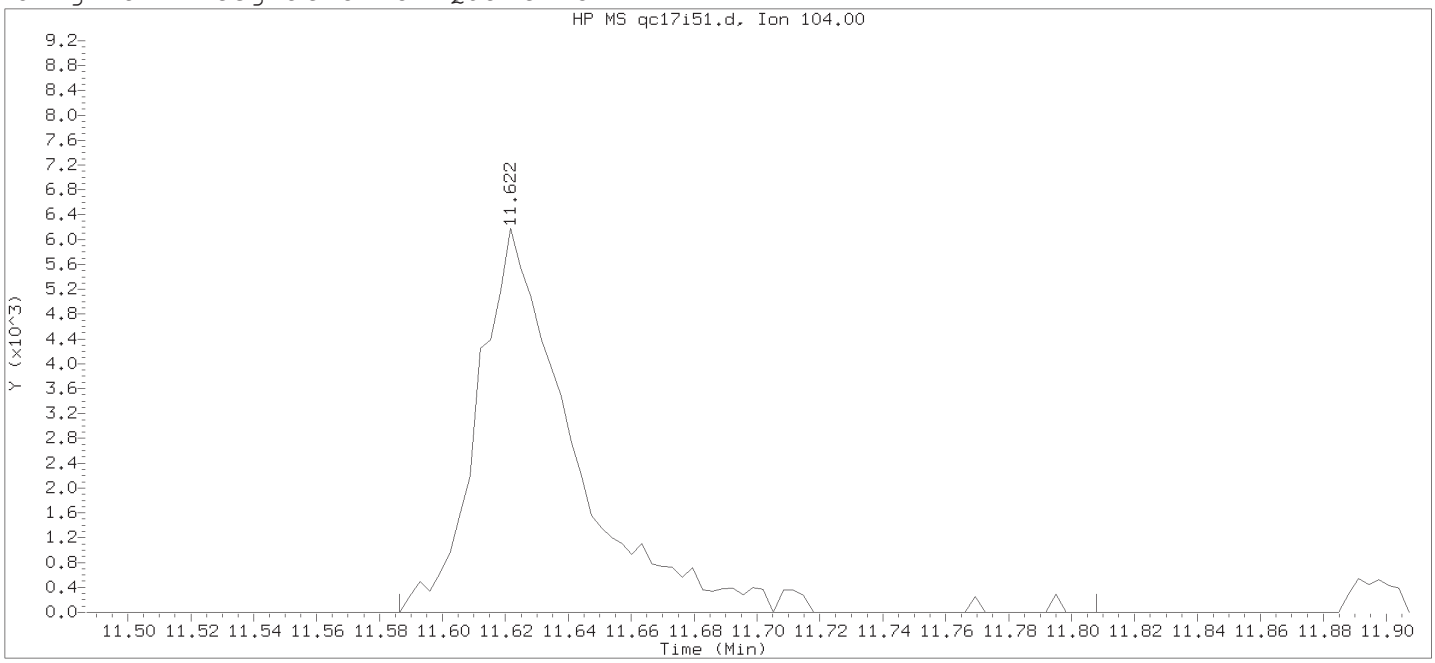
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

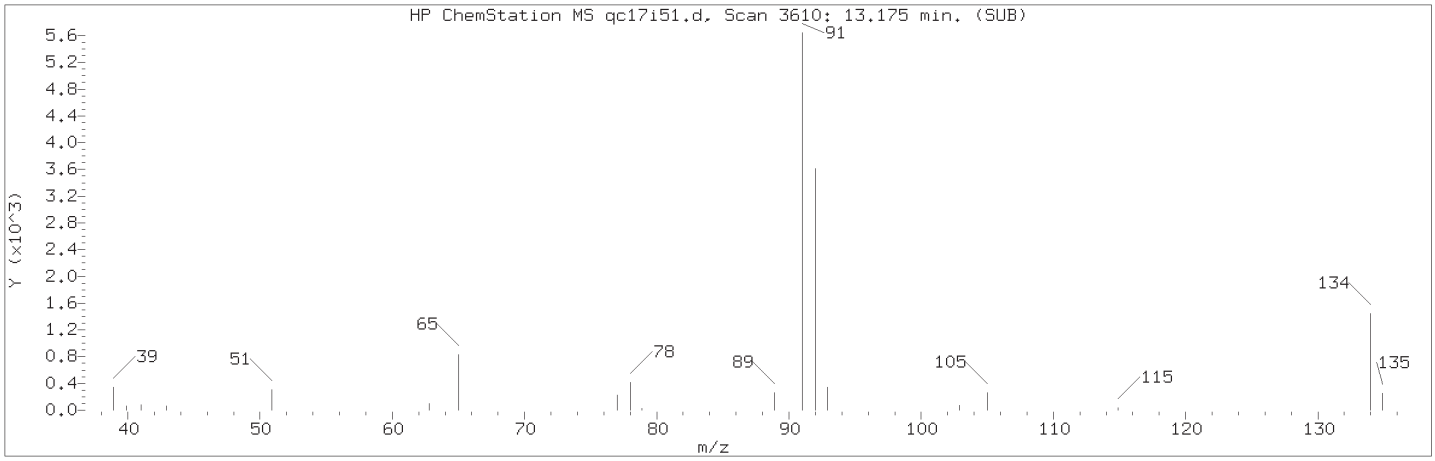
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

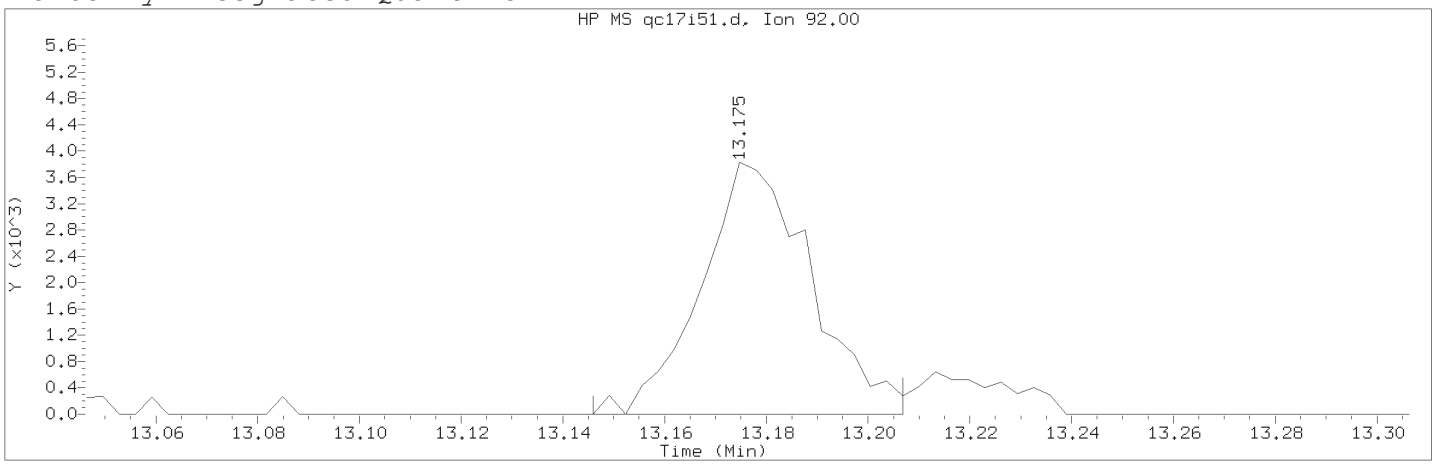
Compound Number : 113
Compound Name : Styrene
Scan Number : 3126
Retention Time (minutes): 11.622
Quant Ion : 104.00
Area : 13238
On-column Amount (ng) : 0.1709
Integration start scan : 3114 Integration stop scan: 3183
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

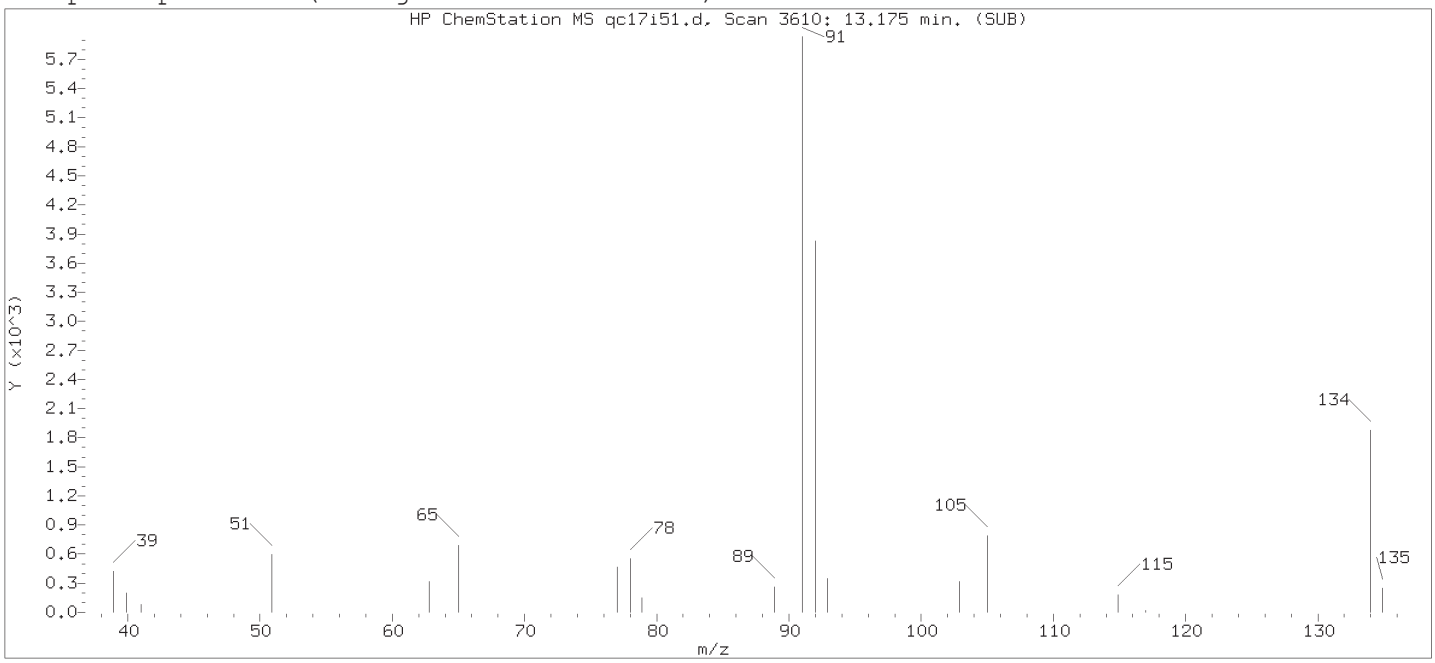
Compound Number : 146
Compound Name : n-Butylbenzene
Scan Number : 3610
Retention Time (minutes): 13.175
Quant Ion : 92.00
Area (flag) : 5754M
On-Column Amount (ng) : 0.8091
Integration start scan : 3600 Integration stop scan: 3619
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

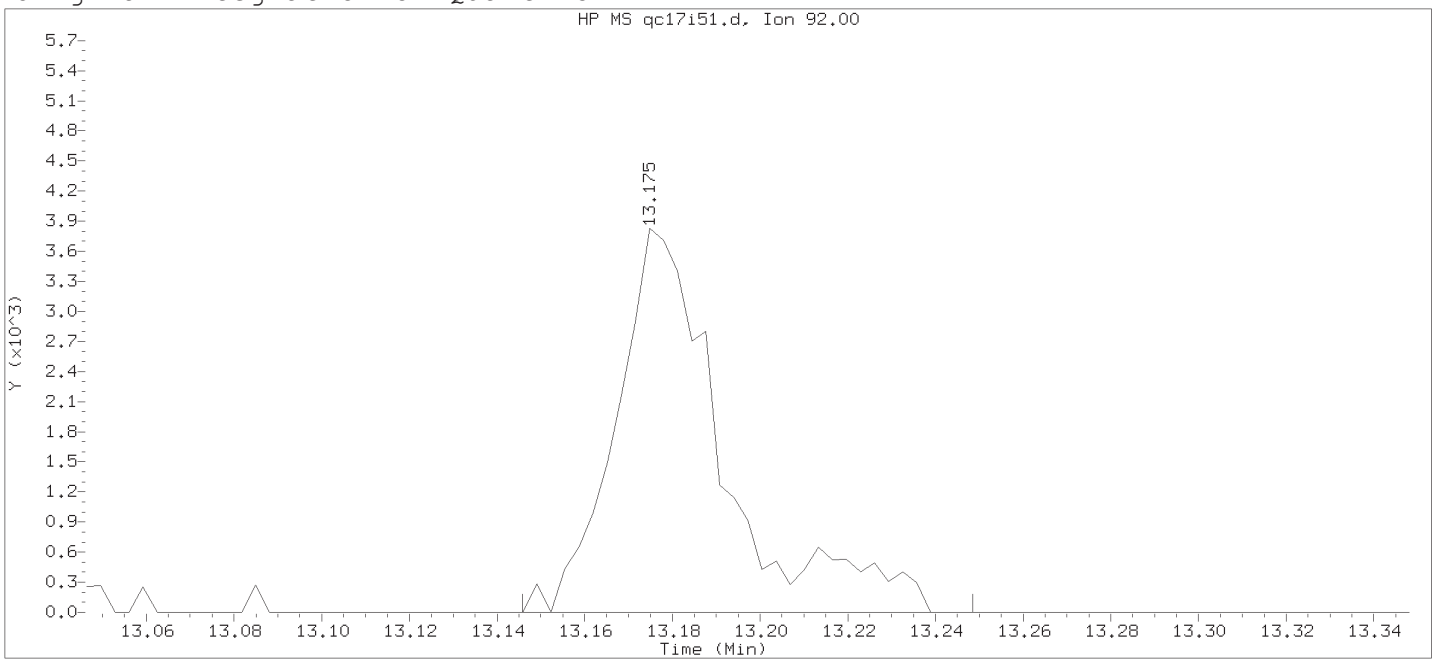
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

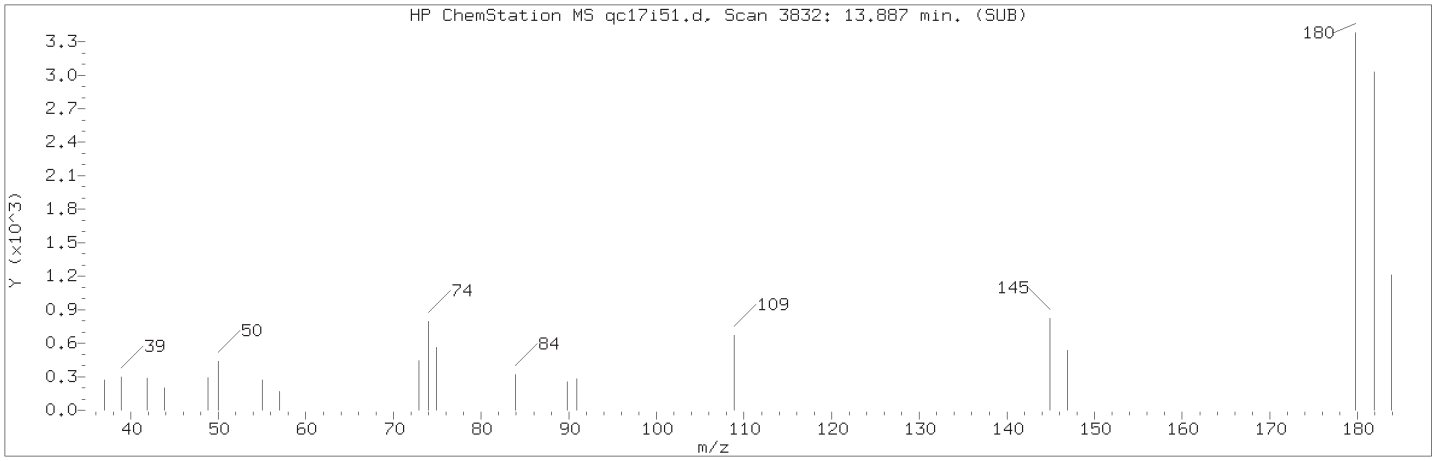
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

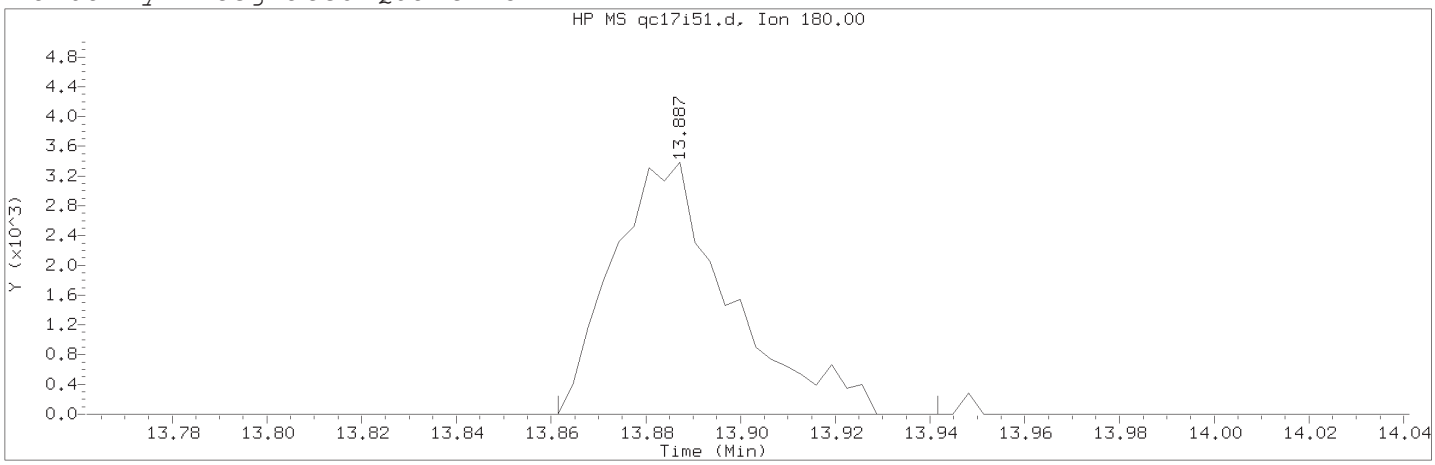
Compound Number : 146
Compound Name : n-Butylbenzene
Scan Number : 3610
Retention Time (minutes): 13.175
Quant Ion : 92.00
Area : 6526
On-column Amount (ng) : 0.6802
Integration start scan : 3600 Integration stop scan: 3632
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

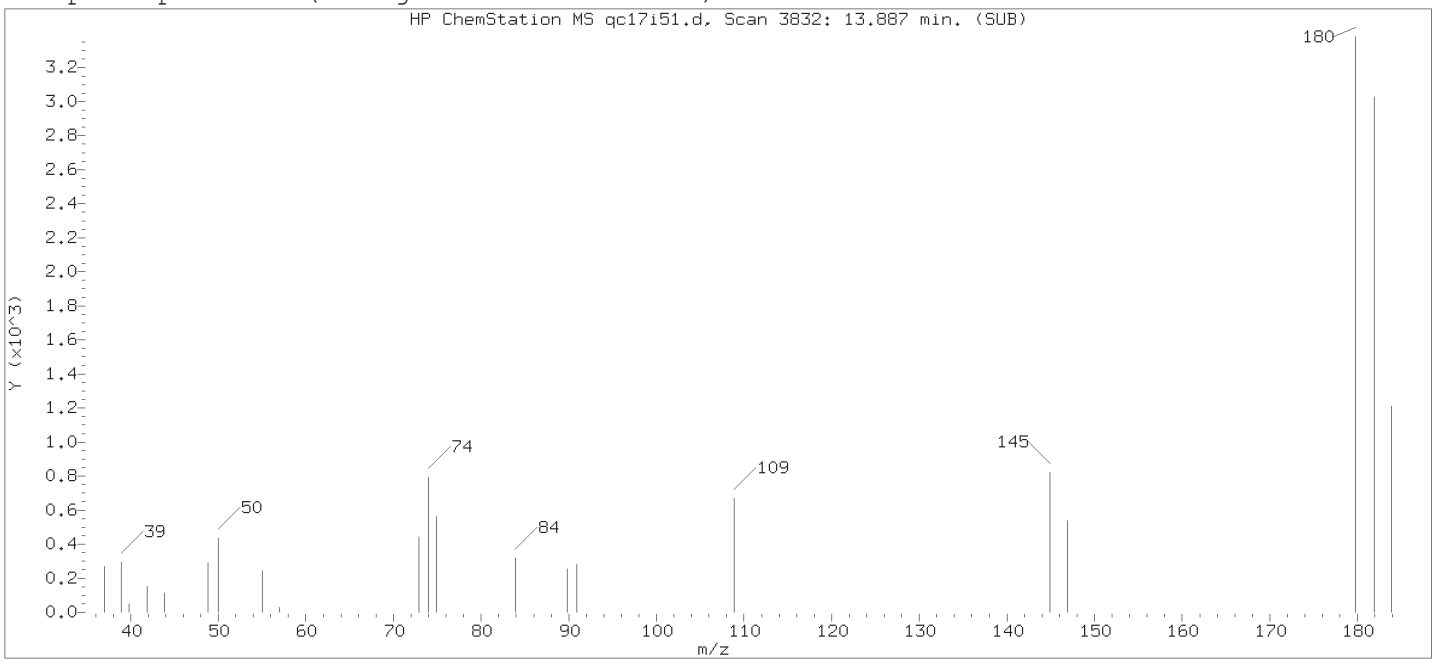
Compound Number : 152
Compound Name : 1,3,5-Trichlorobenzene
Scan Number : 3832
Retention Time (minutes): 13.887
Quant Ion : 180.00
Area (flag) : 5781M
On-Column Amount (ng) : 0.9162
Integration start scan : 3823 Integration stop scan: 3848
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

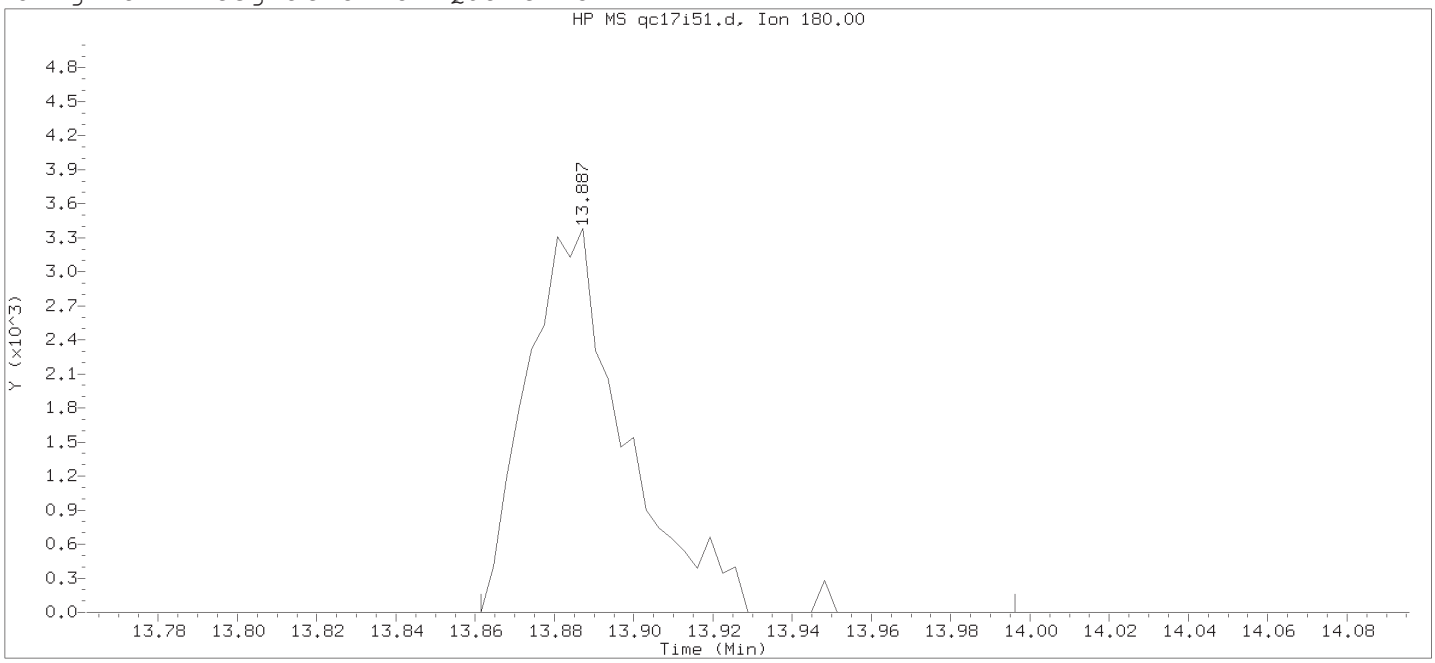
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

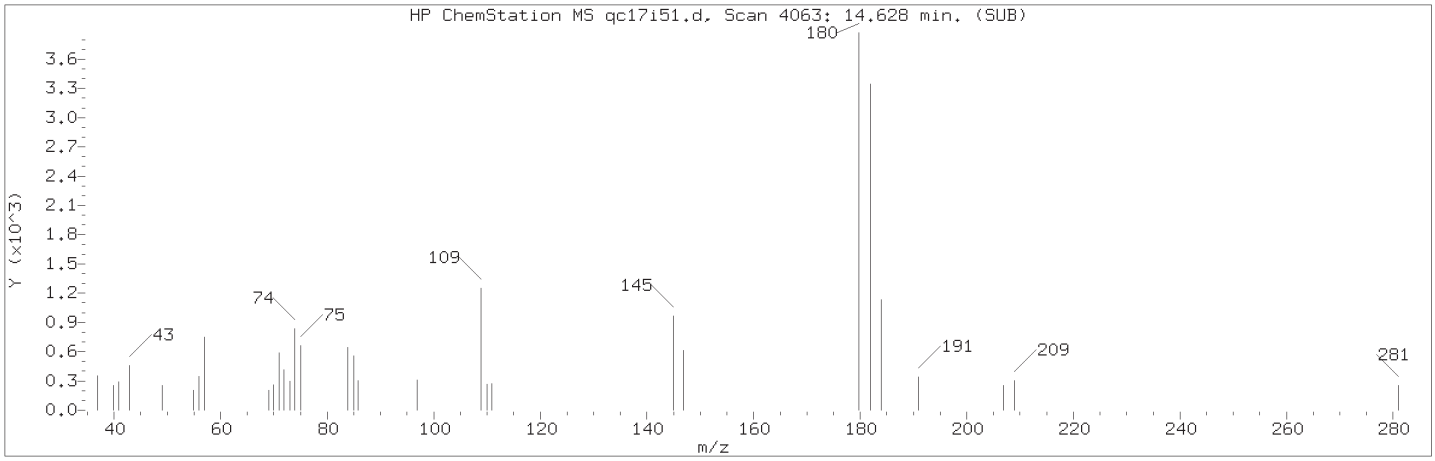
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

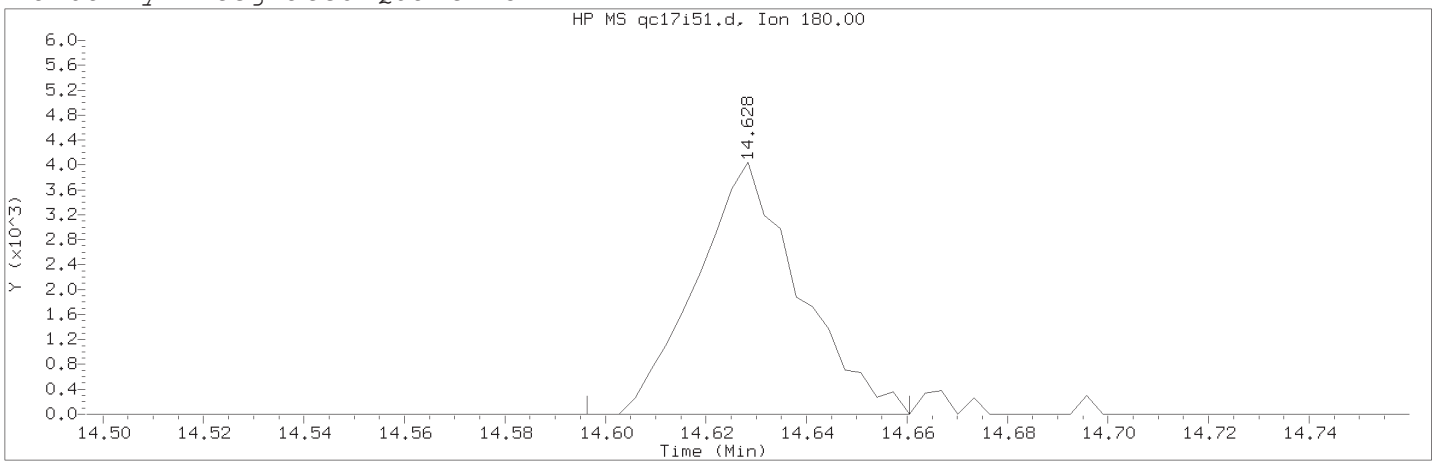
Compound Number : 152
Compound Name : 1,3,5-Trichlorobenzene
Scan Number : 3832
Retention Time (minutes): 13.887
Quant Ion : 180.00
Area : 5836
On-column Amount (ng) : 0.0300
Integration start scan : 3823 Integration stop scan: 3865
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

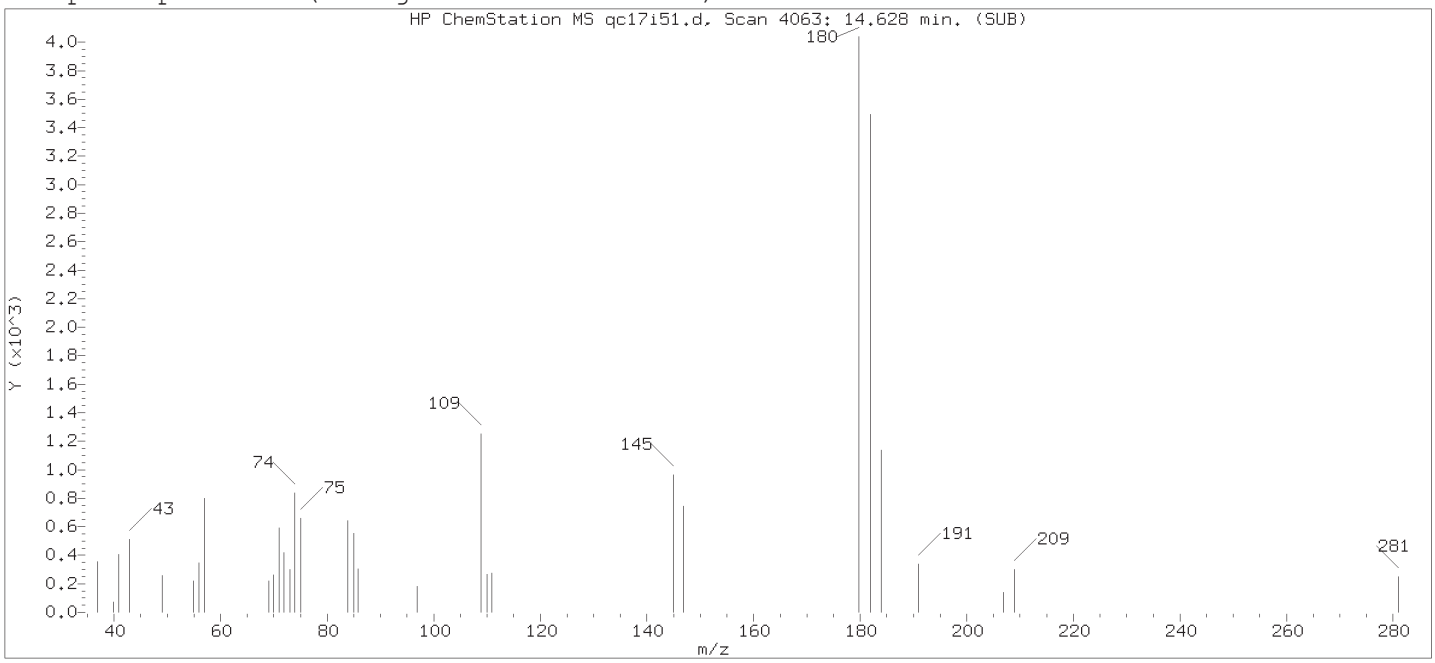
Compound Number : 156
Compound Name : 1,2,3-Trichlorobenzene
Scan Number : 4063
Retention Time (minutes): 14.628
Quant Ion : 180.00
Area (flag) : 5728M
On-Column Amount (ng) : 0.9857
Integration start scan : 4052 Integration stop scan: 4072
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

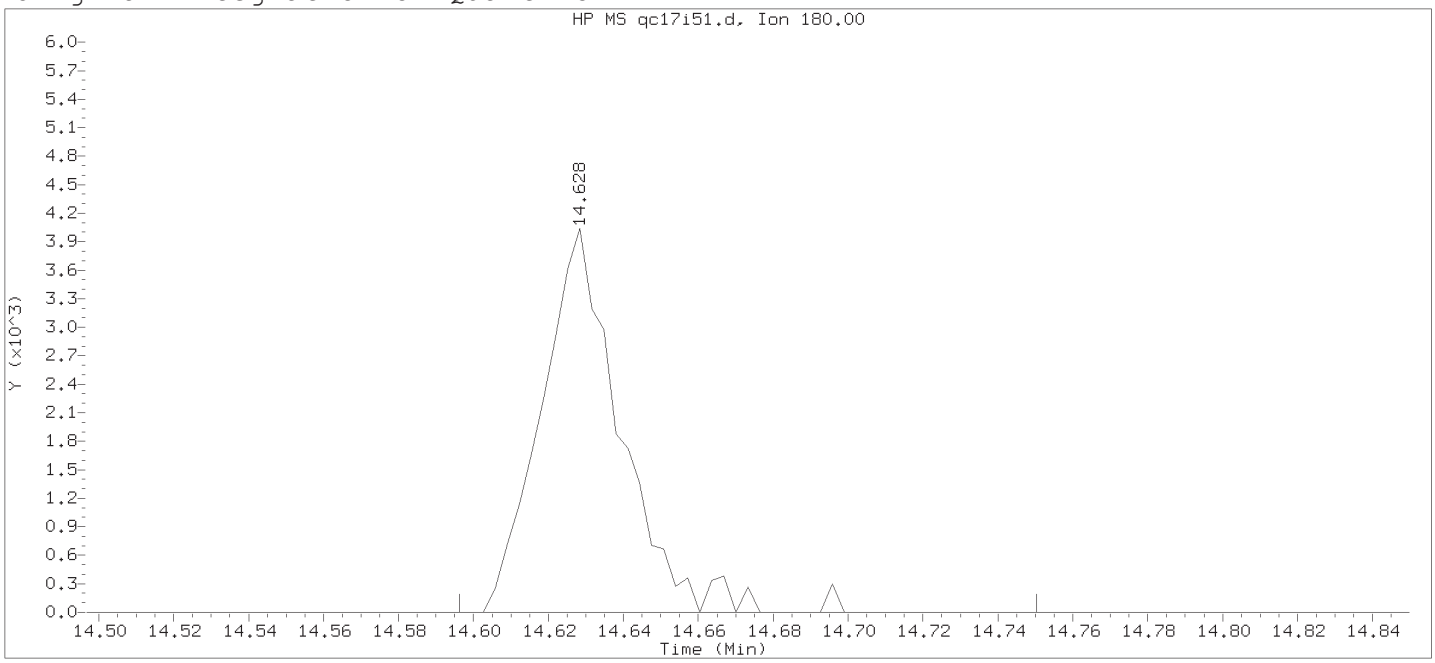
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



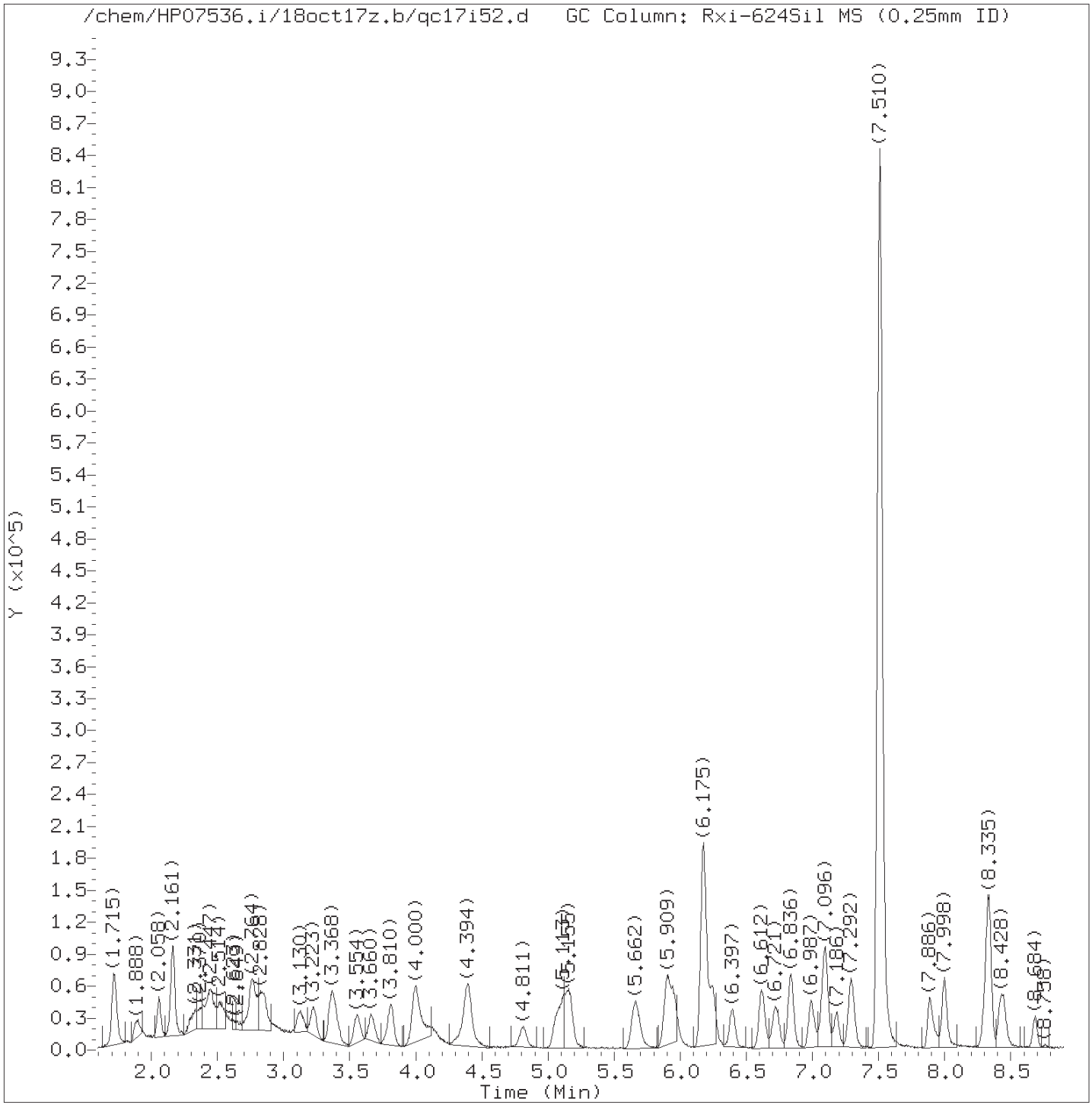
Data File: /chem/HP07536.i/18oct17z.b/qc17i51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:51 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 156
Compound Name : 1,2,3-Trichlorobenzene
Scan Number : 4063
Retention Time (minutes): 14.628
Quant Ion : 180.00
Area : 5974
On-column Amount (ng) : 0.0339
Integration start scan : 4052 Integration stop scan: 4100
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

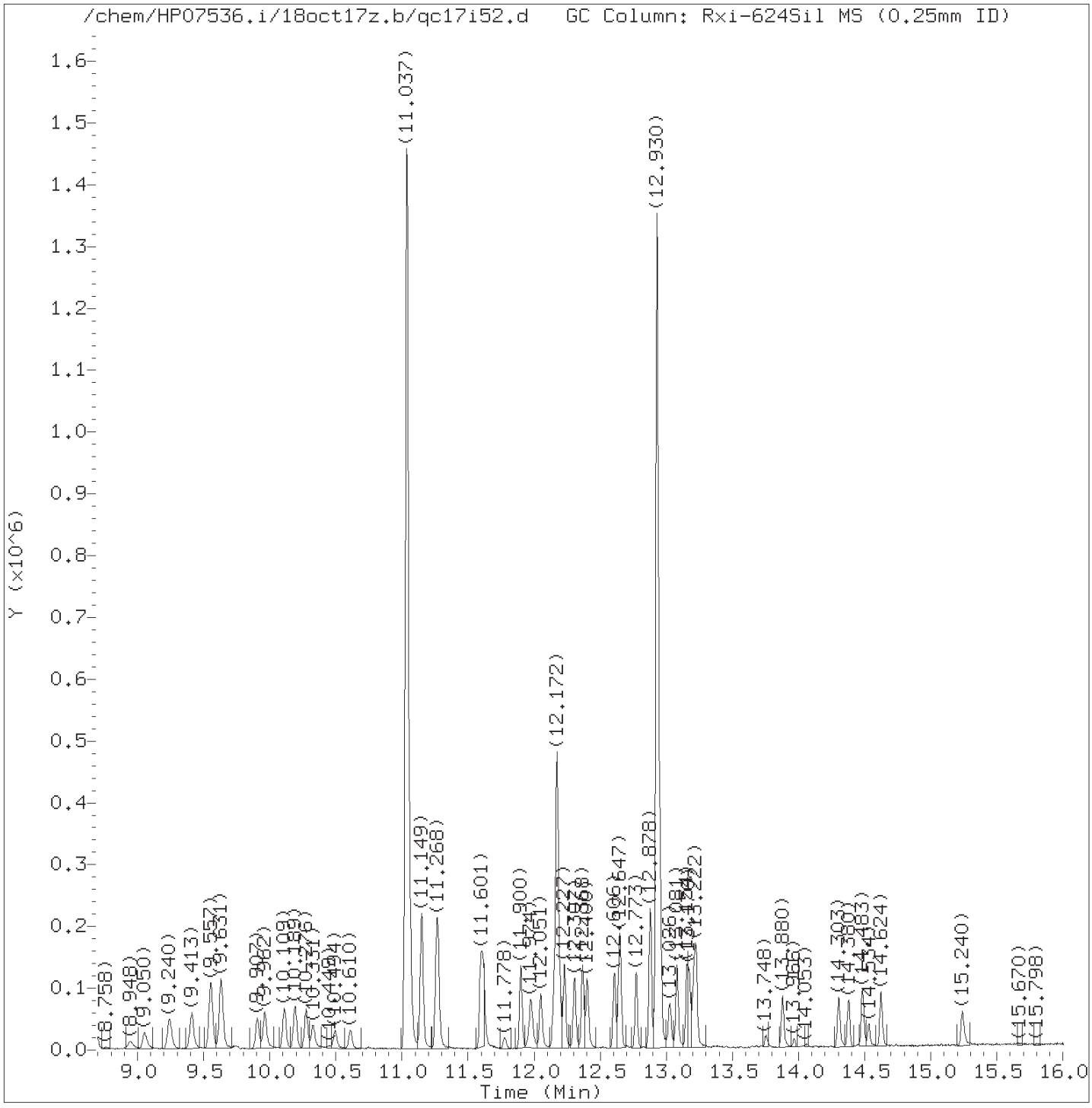
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.879	85	47049	4.387
4) Chloromethane	(2)	2.058	50	48403	4.236
5) Vinyl Chloride	(2)	2.167	62	48129	4.329
9) Bromomethane	(2)	2.450	94	20543	5.033
10) Chloroethane	(2)	2.524	64	16974	0.148
11) Dichlorofluoromethane	(2)	2.761	67	63586A	4.584
13) Trichlorofluoromethane	(2)	2.819	101	59857M	4.402
14) n-Pentane	(2)	2.861	43	38662	5.016
15) Ethanol	(1)	2.934	45	39874	550.036
17) Freon 123a	(2)	3.130	67	39695	4.743
18) Acrolein	(1)	3.223	56	60051	39.467
19) 1,1-Dichloroethene	(2)	3.361	96	23370	4.275
19) 1,1-Dichloroethene	(2)	3.351	63	11842	4.239
20) Acetone	(1)	3.393	58	4835M	7.869
22) Freon 113	(2)	3.393	101	20284	4.356
23) 2-Propanol	(1)	3.550	45	35499M	82.473
24) Methyl Iodide	(2)	3.557	142	47903	4.119
25) Carbon Disulfide	(2)	3.660	76	82136	4.132
27) Methyl Acetate	(2)	3.778	43	22978	4.289
29) Allyl Chloride	(2)	3.814	41	41500	4.056
30)*t-Butyl alcohol-d10	(1)	3.996	65	127724	250.000
31) Methylene Chloride	(2)	4.000	84	27453	4.206
32) t-Butyl alcohol	(1)	4.125	59	49286	78.878
33) Acrylonitrile	(2)	4.301	53	10729	3.999
35) trans-1,2-Dichloroethene	(2)	4.385	96	25251	4.091
34) Methyl Tertiary Butyl Ether	(2)	4.394	73	76663M	4.099
38) n-Hexane	(2)	4.799	57	18841M	3.958
40) 1,1-Dichloroethane	(2)	5.059	63	43986M	3.987
41) di-Isopropyl ether	(2)	5.123	45	87904	4.034
42) 2-Chloro-1,3-butadiene	(2)	5.168	53	40905	4.108
43) Ethyl t-butyl ether	(2)	5.665	59	82135	4.053
44) 2-Butanone	(1)	5.877	43	26295M	7.952
44) 2-Butanone	(1)	5.883	72	6156	7.613
45) cis-1,2-Dichloroethene	(2)	5.906	96	27896M	4.095
47) 2,2-Dichloropropane	(2)	5.909	77	36347	4.081
49) Propionitrile	(2)	5.954	54	71075	75.955
46) 1,2-Dichloroethene (Total)	(2)		96	53147	8.187
51) Methacrylonitrile	(2)	6.175	67	111458	38.700

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.246	128	15651M	4.102
53) Tetrahydrofuran	(1)	6.252	71	6361	7.706
54) Chloroform	(2)	6.400	83	44020	4.166
56)$Dibromofluoromethane	(2)	6.615	113	23620	3.941
56)$Dibromofluoromethane	(2)	6.608	111	24419	3.956
57) 1,1,1-Trichloroethane	(2)	6.624	97	35623	4.111
58) Cyclohexane	(2)	6.721	56	33537	4.418
58) Cyclohexane	(2)	6.718	84	27888	4.394
58) Cyclohexane	(2)	6.718	69	10614	4.699
60) 1,1-Dichloropropene	(2)	6.833	75	33562	4.306
61) Carbon Tetrachloride	(2)	6.836	117	24141	3.813
62) Isobutyl Alcohol	(1)	6.993	41	42019M	198.483
63)$1,2-Dichloroethane-d4	(2)	7.067	102	6064	3.891
63)$1,2-Dichloroethane-d4	(2)	7.080	65	31331	4.198
63)$1,2-Dichloroethane-d4	(2)	7.074	104	3882	3.970
64) Benzene	(2)	7.099	78	100949	4.173
67) 1,2-Dichloroethane	(2)	7.186	62	35746	4.266
67) 1,2-Dichloroethane	(2)	7.186	98	2944	4.060
68) t-Amyl methyl ether	(2)	7.292	73	80478	4.185
70)*Fluorobenzene	(2)	7.507	96	1101662	50.000
72) n-Heptane	(2)	7.520	43	20127	4.329
73) n-Butanol	(1)	7.889	56	59880M	377.099
75) Trichloroethene	(2)	7.998	95	24783	4.128
76) Methylcyclohexane	(2)	8.303	83	23584	4.082
77) 1,2-Dichloropropane	(2)	8.335	63	25964	3.936
79) Methyl Methacrylate	(2)	8.421	69	18868	3.870
80) 1,4-Dioxane	(1)	8.431	88	10129M	178.846
81) Dibromomethane	(2)	8.453	93	15700	3.921
84) Bromodichloromethane	(2)	8.684	83	24806	3.622
85) 2-Nitropropane	(1)	8.948	41	6963M	6.564
87) 2-Chloroethyl Vinyl Ether	(2)	9.054	63	16901	3.940
89) cis-1,3-Dichloropropene	(2)	9.246	75	37058	3.838
90) 4-Methyl-2-pentanone	(2)	9.413	43	50742	7.646
91)$Toluene-d8	(3)	9.554	98	88994	3.997
91)$Toluene-d8	(3)	9.557	100	58496	4.046
92) Toluene	(3)	9.631	92	58235	4.110
93) trans-1,3-Dichloropropene	(3)	9.907	75	32984	3.770
95) Ethyl Methacrylate	(3)	9.965	69	35491M	3.926

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	70042	7.609
96) 1,1,2-Trichloroethane	(3)	10.109	97	23005	4.105
98) Tetrachloroethene	(3)	10.196	166	23903	4.228
99) 1,3-Dichloropropane	(3)	10.276	76	39468	4.118
101) 2-Hexanone	(3)	10.331	43	32260	7.341
103) Dibromochloromethane	(3)	10.494	129	16137	3.249
104) 1,2-Dibromoethane	(3)	10.610	107	22977	3.910
105)*Chlorobenzene-d5	(3)	11.037	117	815551	50.000
106) 1-Chlorohexane	(3)	11.046	91	24465	4.247
107) Chlorobenzene	(3)	11.062	112	66741	4.175
108) 1,1,1,2-Tetrachloroethane	(3)	11.149	131	19139	3.626
109) Ethylbenzene	(3)	11.149	91	98843	4.065
110) m+p-Xylene	(3)	11.268	106	76978	8.098
111) o-Xylene	(3)	11.595	106	38028	4.018
113) Styrene	(3)	11.617	104	65886	3.920
112) Xylene (Total)	(3)		106	115006	12.117
114) Bromoform	(3)	11.778	173	8733	4.921
115) Isopropylbenzene	(3)	11.900	105	81918	4.056
118) Cyclohexanone	(1)	11.977	55	38361	185.084
119)$4-Bromofluorobenzene	(3)	12.051	95	26565	3.748
119)$4-Bromofluorobenzene	(3)	12.051	174	25648	3.806
120) 1,1,2,2-Tetrachloroethane	(4)	12.147	83	29624	4.030
121) Bromobenzene	(4)	12.163	156	28294	4.080
122) trans-1,4-Dichloro-2-butene	(4)	12.172	53	83017	37.824
123) 1,2,3-Trichloropropane	(4)	12.195	110	9091	4.041
124) n-Propylbenzene	(4)	12.230	91	88465	4.126
126) 2-Chlorotoluene	(4)	12.307	126	20363	4.032
129) 1,3,5-Trimethylbenzene	(4)	12.368	105	64854	4.005
130) 4-Chlorotoluene	(4)	12.400	126	22239	4.122
133) tert-Butylbenzene	(4)	12.609	134	13351	4.003
134) Pentachloroethane	(4)	12.641	167	9723	4.340
135) 1,2,4-Trimethylbenzene	(4)	12.651	105	69369	3.995
136) sec-Butylbenzene	(4)	12.773	105	74669	4.182
138) 1,3-Dichlorobenzene	(4)	12.878	146	41164	4.018
139) p-Isopropyltoluene	(4)	12.882	119	64868M	3.992
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	341492	50.000
141) 1,4-Dichlorobenzene	(4)	12.949	146	48305	4.199
142) 1,2,3-Trimethylbenzene	(4)	12.955	105	76326	3.884

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$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

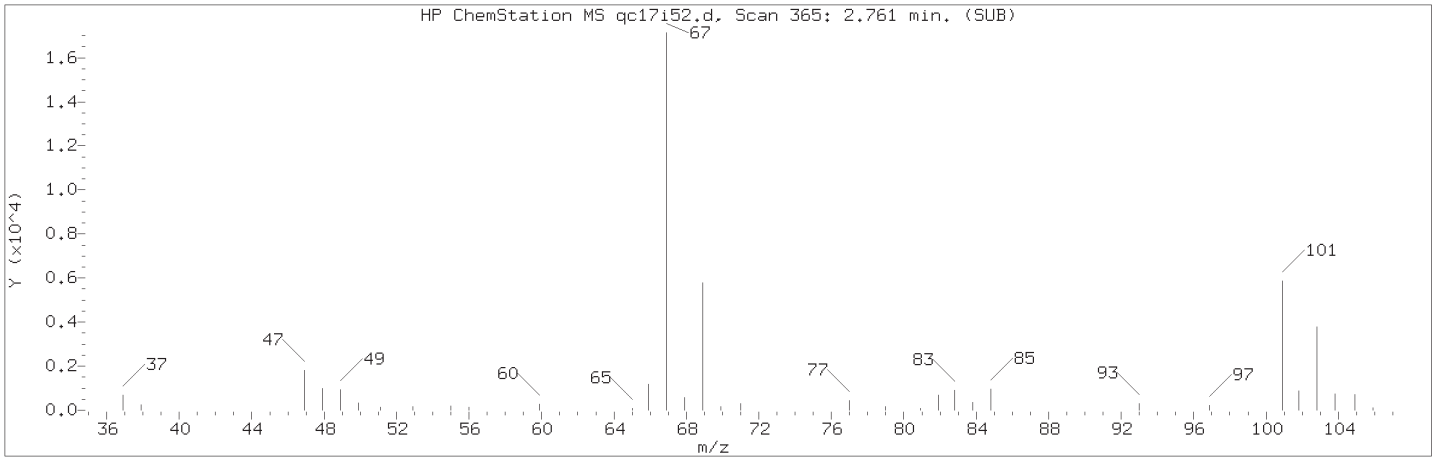
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

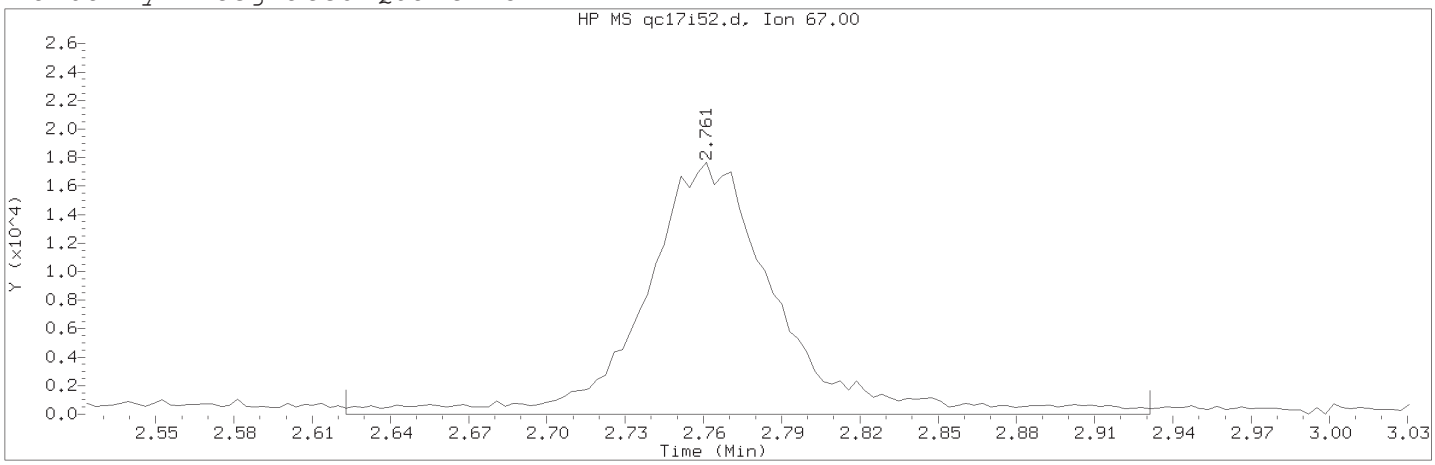
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.023	126	9147	3.203
144) 1,3-Diethylbenzene	(4)	13.081	119	38912	3.948
145) 1,4-Diethylbenzene	(4)	13.154	119	39742	3.852
146) n-Butylbenzene	(4)	13.174	92	32712	4.363
147) 1,2-Dichlorobenzene	(4)	13.206	146	44674	4.208
148) 1,2-Diethylbenzene	(4)	13.222	119	35292	3.996
151) 1,2-Dibromo-3-chloropropane	(4)	13.758	75	4013	3.516
152) 1,3,5-Trichlorobenzene	(4)	13.880	180	27329	4.108
153) 1,2,4-Trichlorobenzene	(4)	14.306	180	25939	4.047
154) Hexachlorobutadiene	(4)	14.377	225	12177	4.312
155) Naphthalene	(4)	14.486	128	76863	4.043
156) 1,2,3-Trichlorobenzene	(4)	14.624	180	24741	4.038
157) 2-Methylnaphthalene	(4)	15.240	142	32182	3.453

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

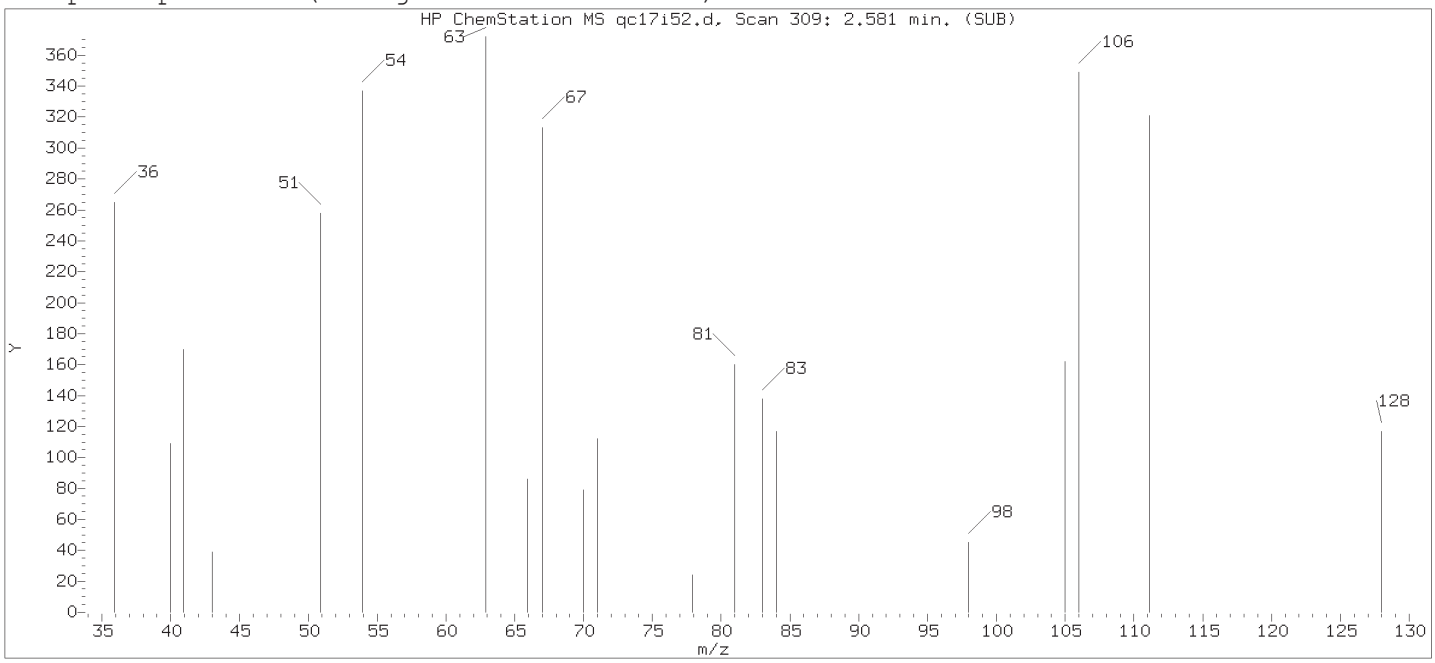
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 365
Retention Time (minutes): 2.761
Quant Ion : 67.00
Area (flag) : 63586A
On-Column Amount (ng) : 4.5841
Integration start scan : 321 Integration stop scan: 417
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

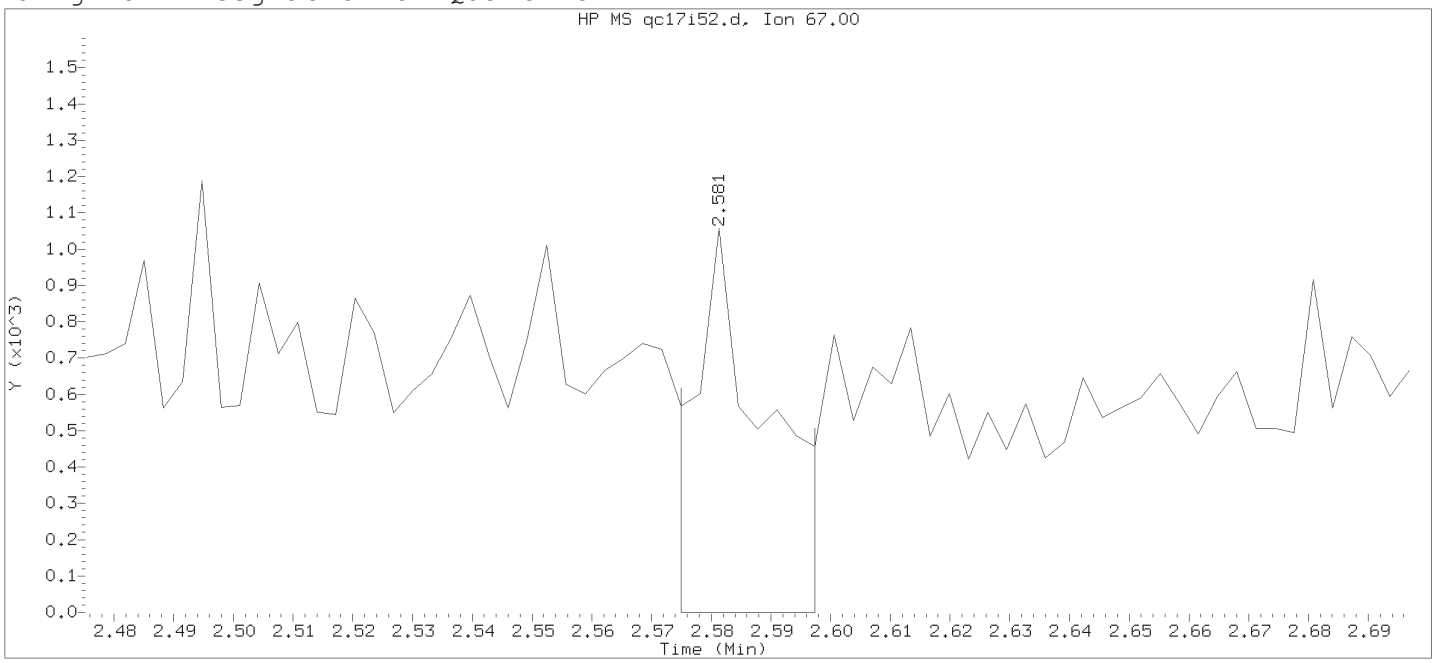
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

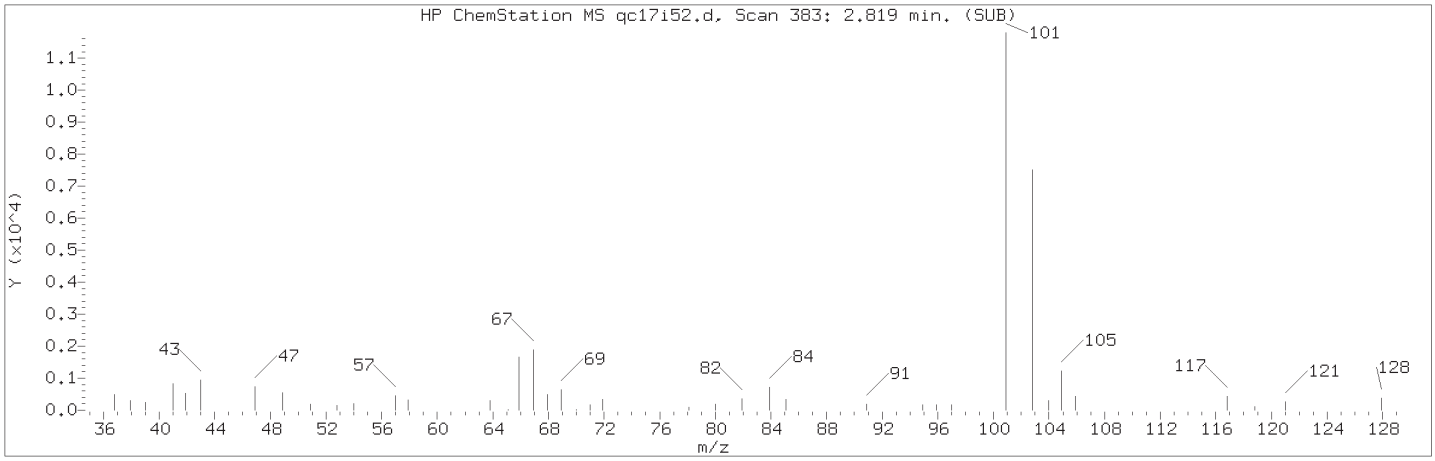
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

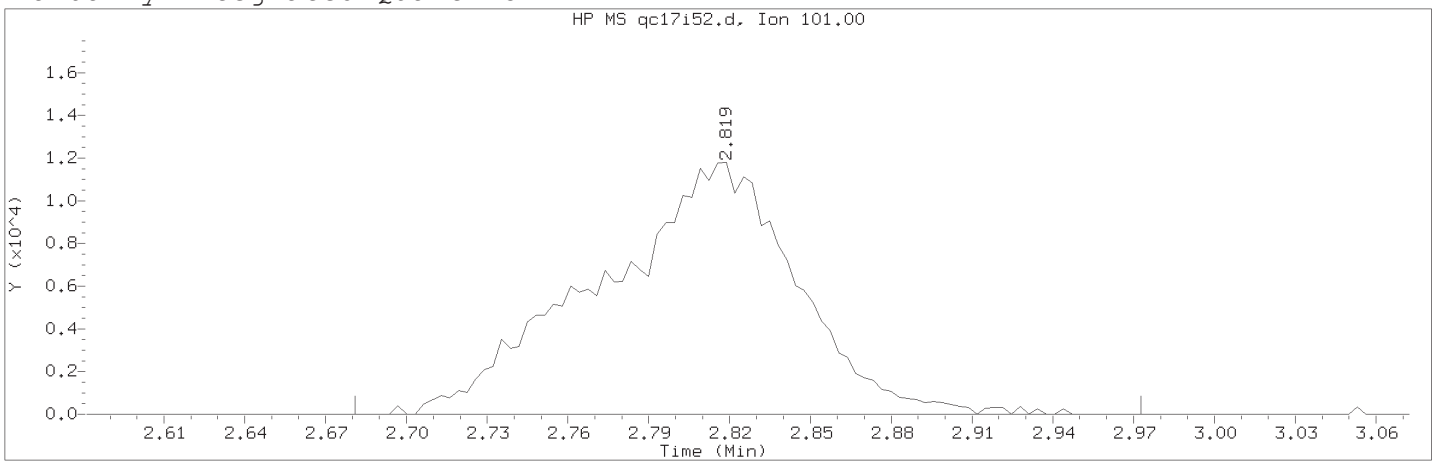
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 309
Retention Time (minutes): 2.581
Quant Ion : 67.00
Area : 825
On-column Amount (ng) : 3.4753
Integration start scan : 306 Integration stop scan: 313
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
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Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

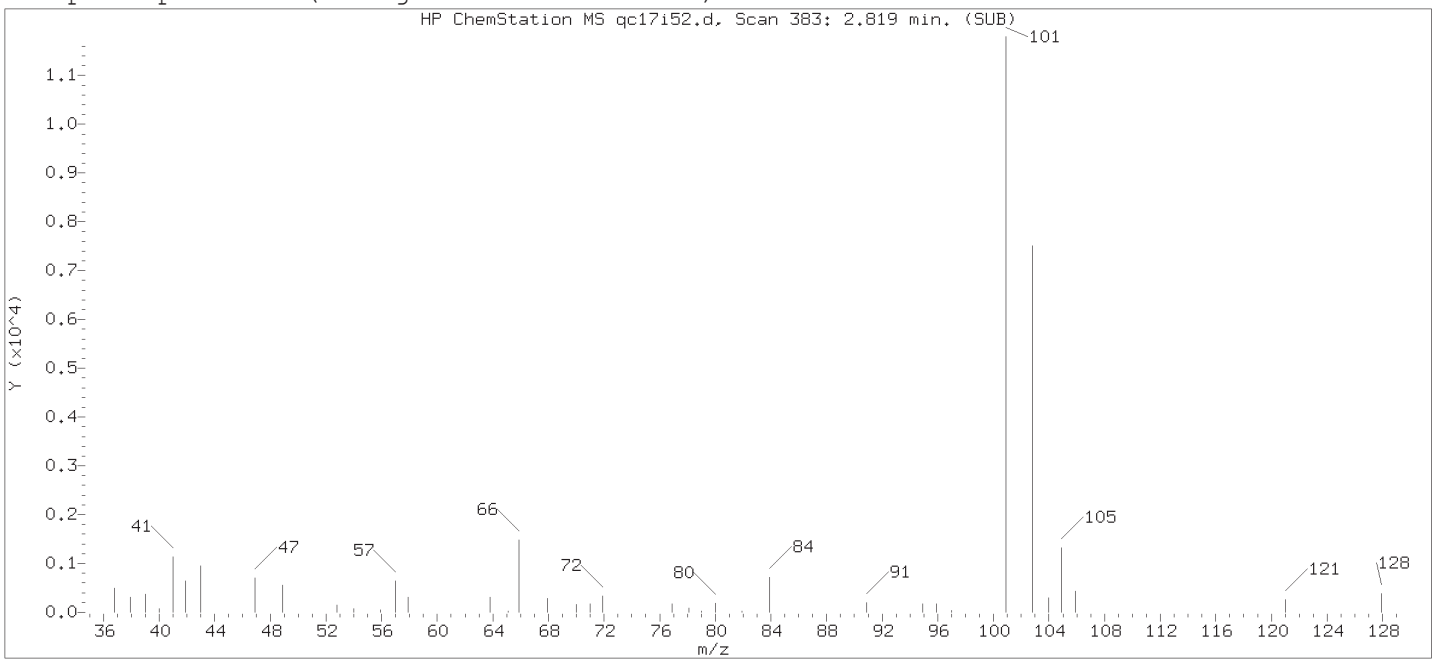
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 383
Retention Time (minutes): 2.819
Quant Ion : 101.00
Area (flag) : 59857M
On-Column Amount (ng) : 4.4021
Integration start scan : 339 Integration stop scan: 430
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

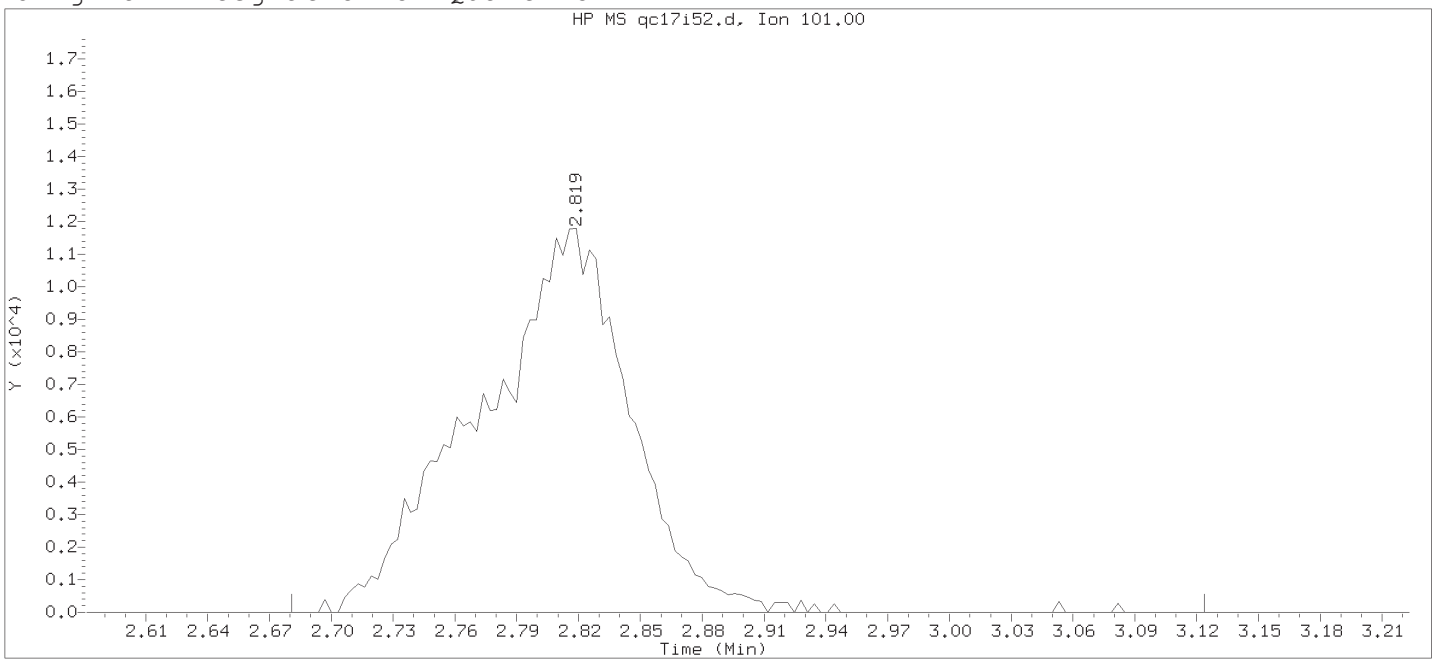
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

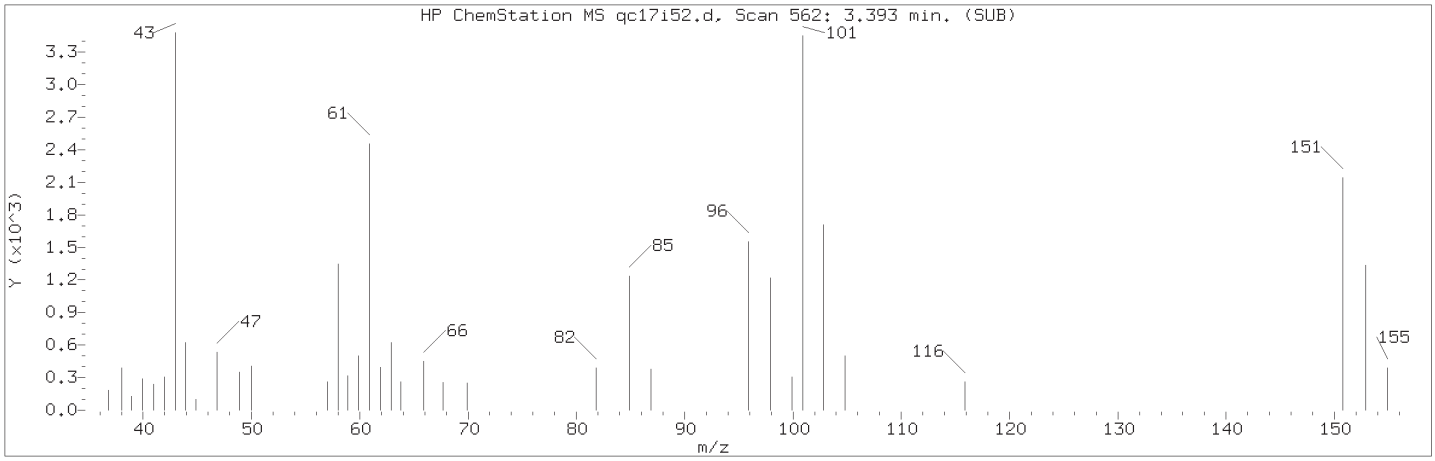
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

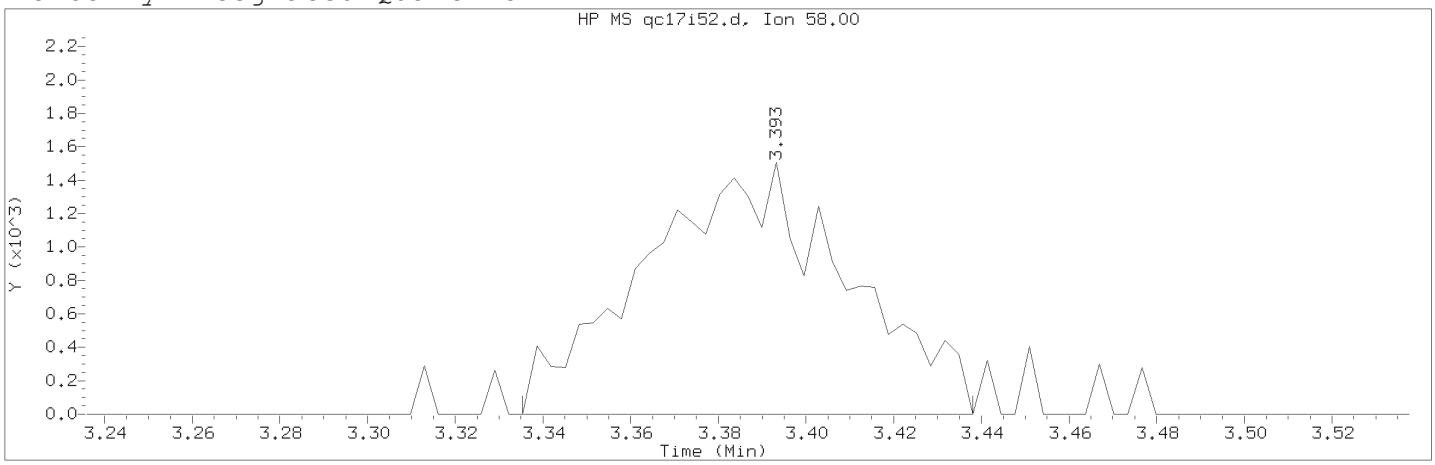
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 383
Retention Time (minutes): 2.819
Quant Ion : 101.00
Area : 59974
On-column Amount (ng) : 4.4124
Integration start scan : 339 Integration stop scan: 477
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
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Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

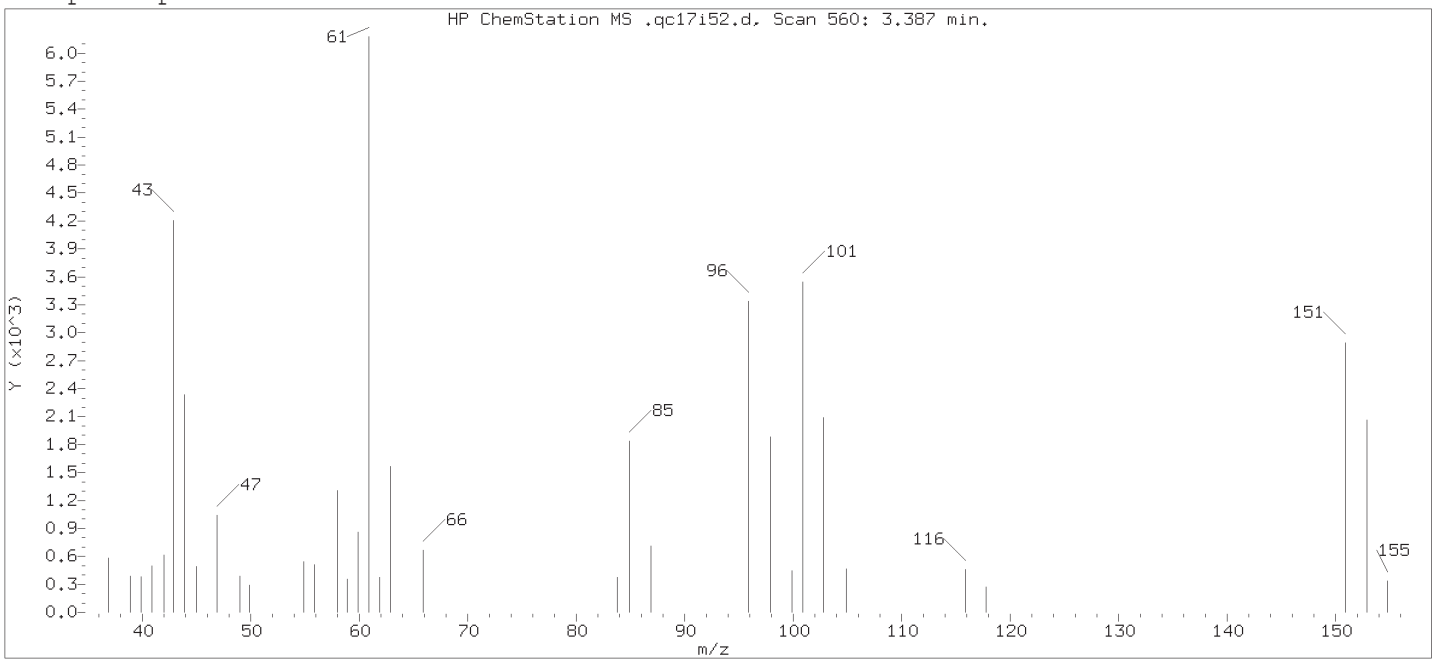
Compound Number : 20
Compound Name : Acetone
Scan Number : 562
Retention Time (minutes): 3.393
Quant Ion : 58.00
Area (flag) : 4835M
On-Column Amount (ng) : 7.8687
Integration start scan : 543 Integration stop scan: 575
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

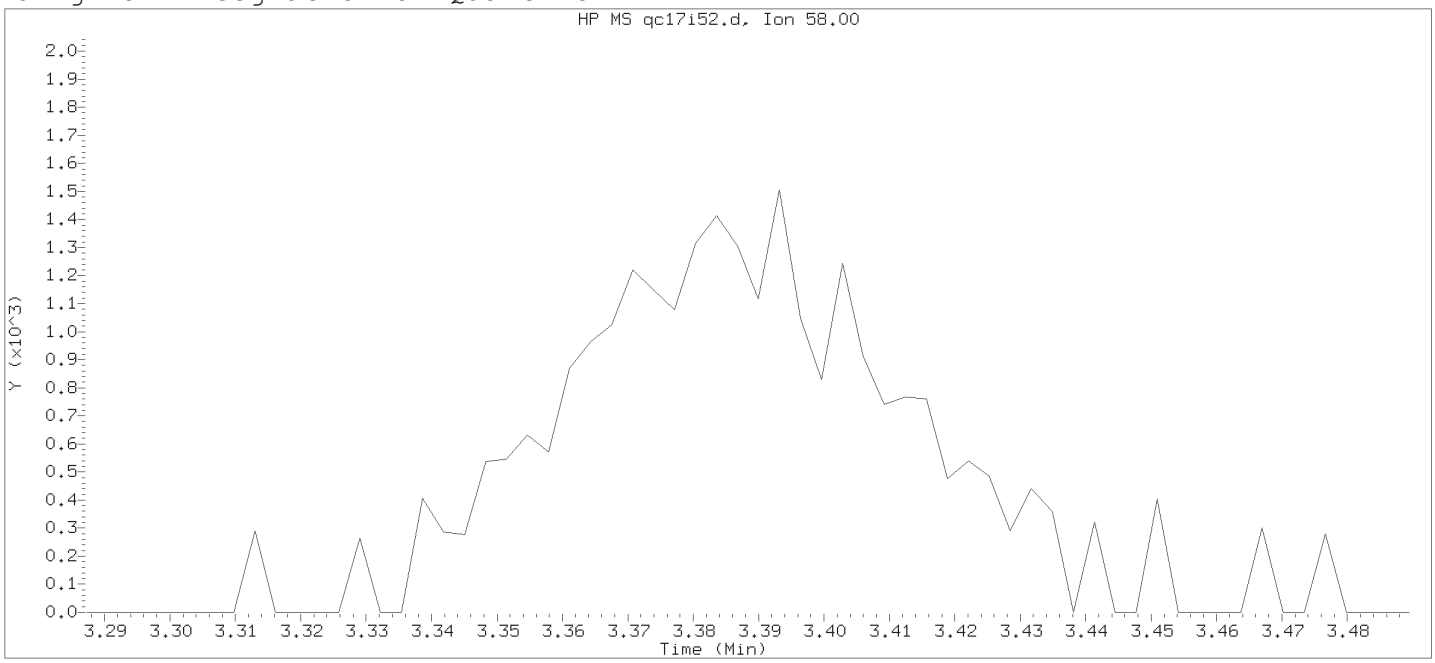
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

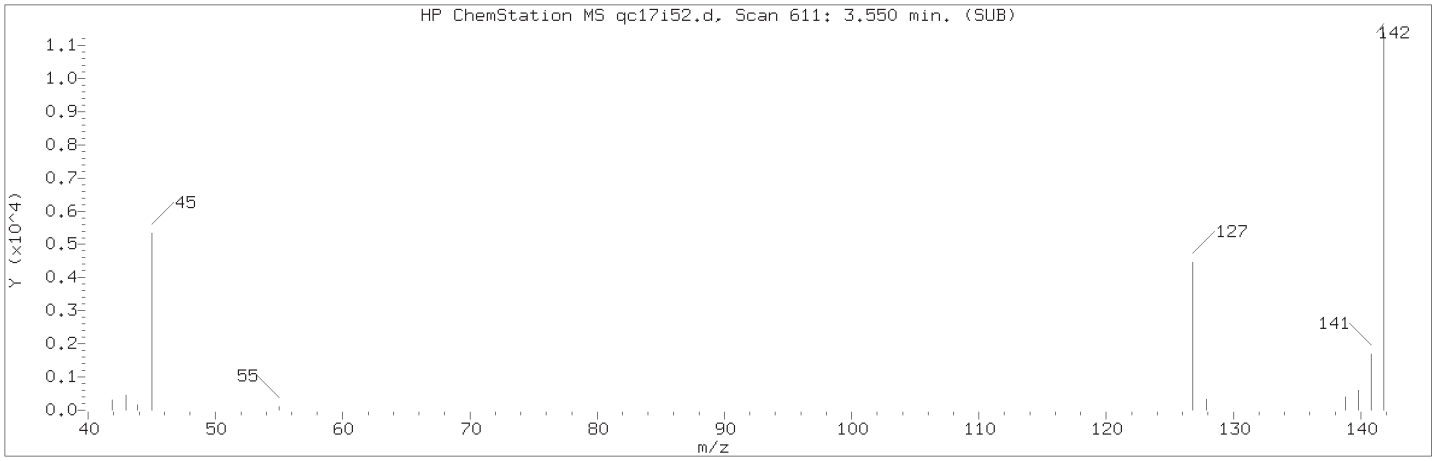
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

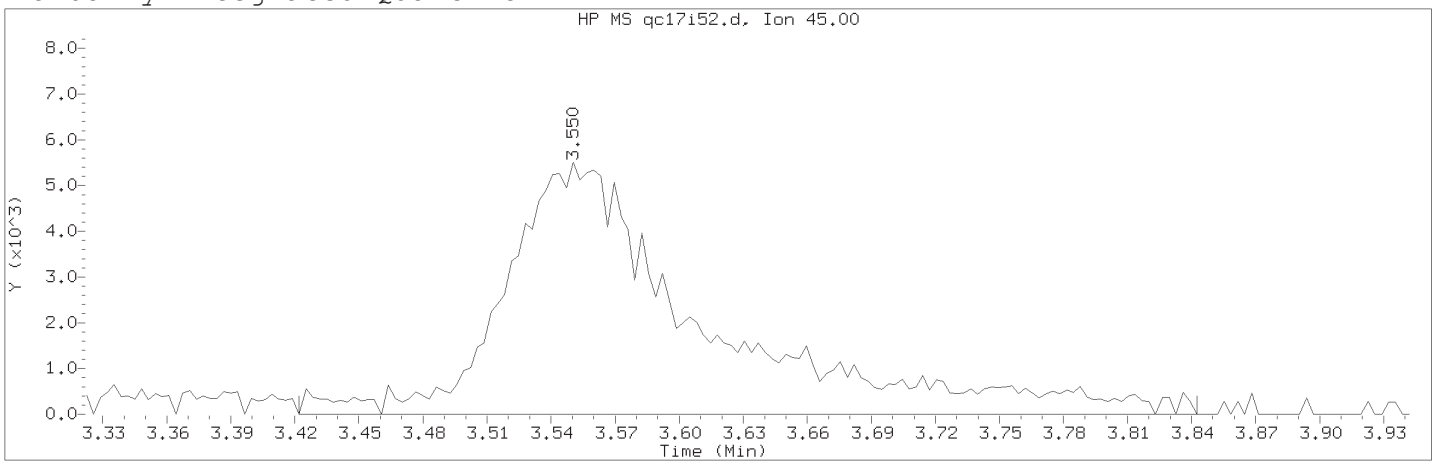
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
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Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

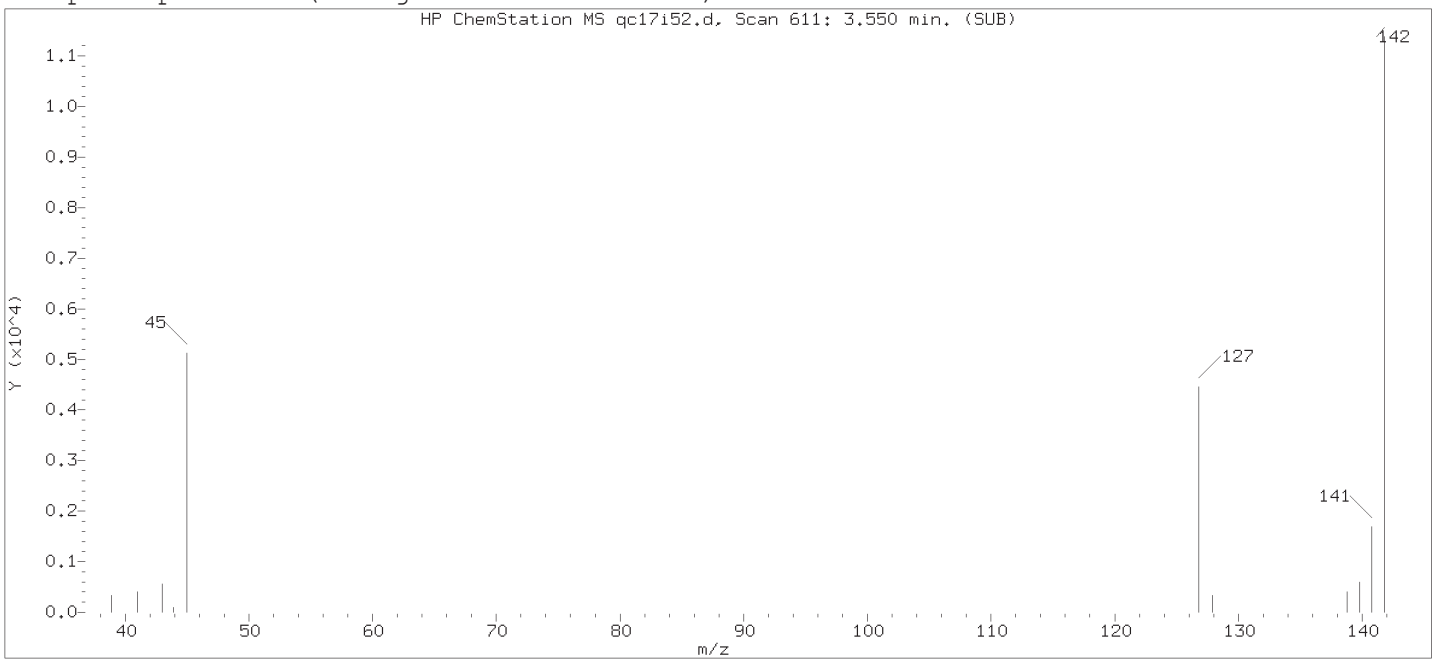
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 611
Retention Time (minutes): 3.550
Quant Ion : 45.00
Area (flag) : 35499M
On-Column Amount (ng) : 82.4735
Integration start scan : 570 Integration stop scan: 701
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

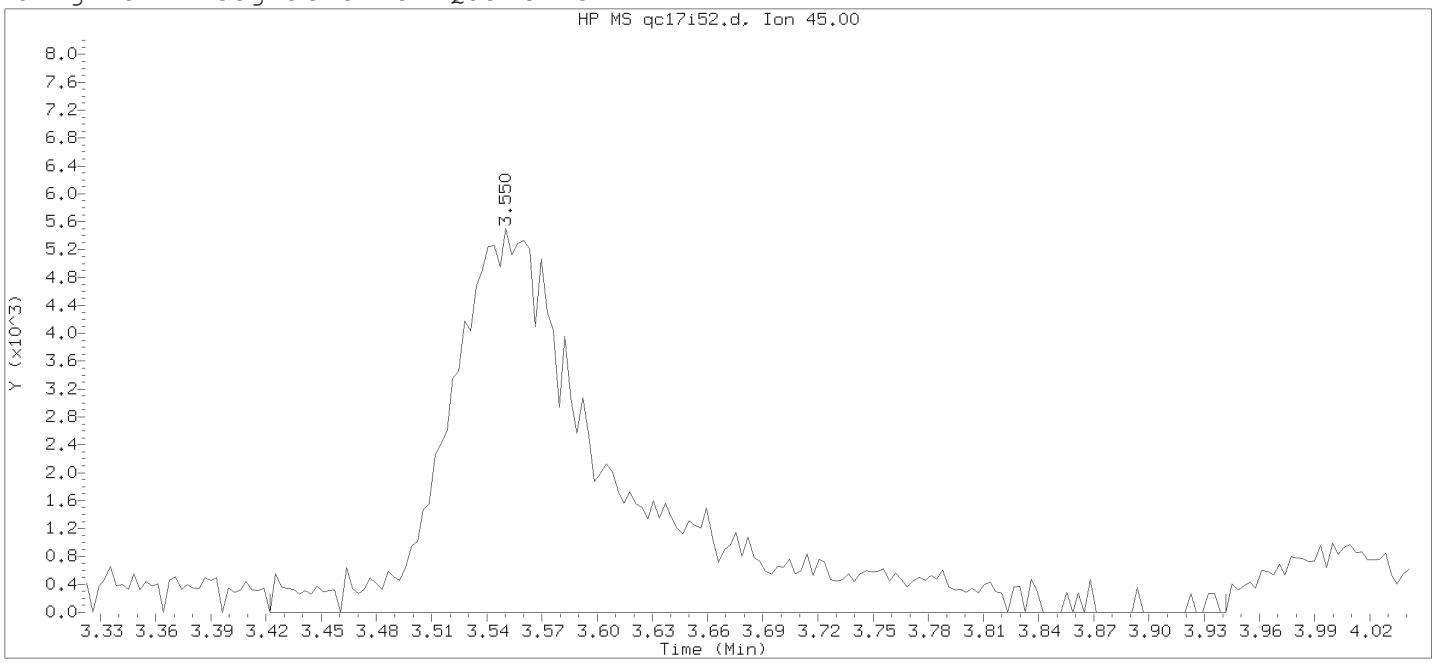
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

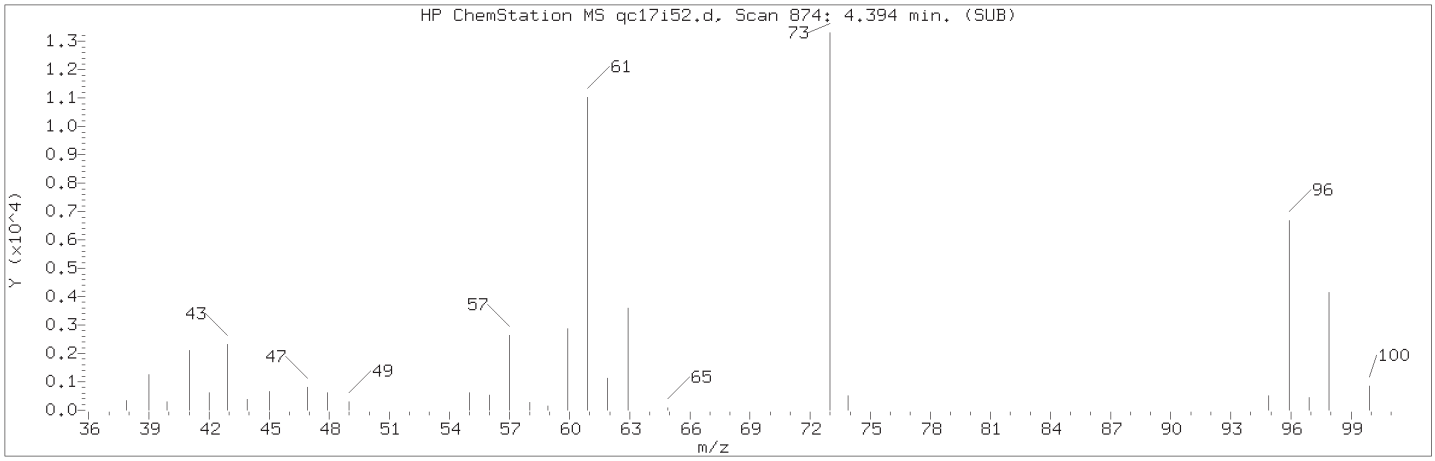
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

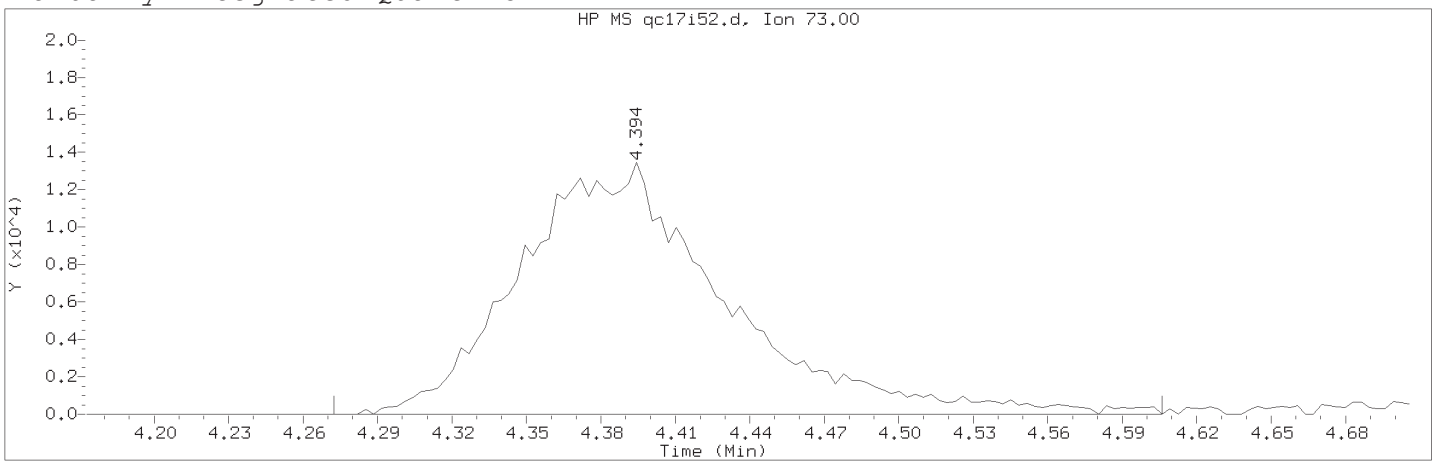
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 611
Retention Time (minutes): 3.550
Quant Ion : 45.00
Area : 35921
On-column Amount (ng) : 81.5965
Integration start scan : 570 Integration stop scan: 732
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

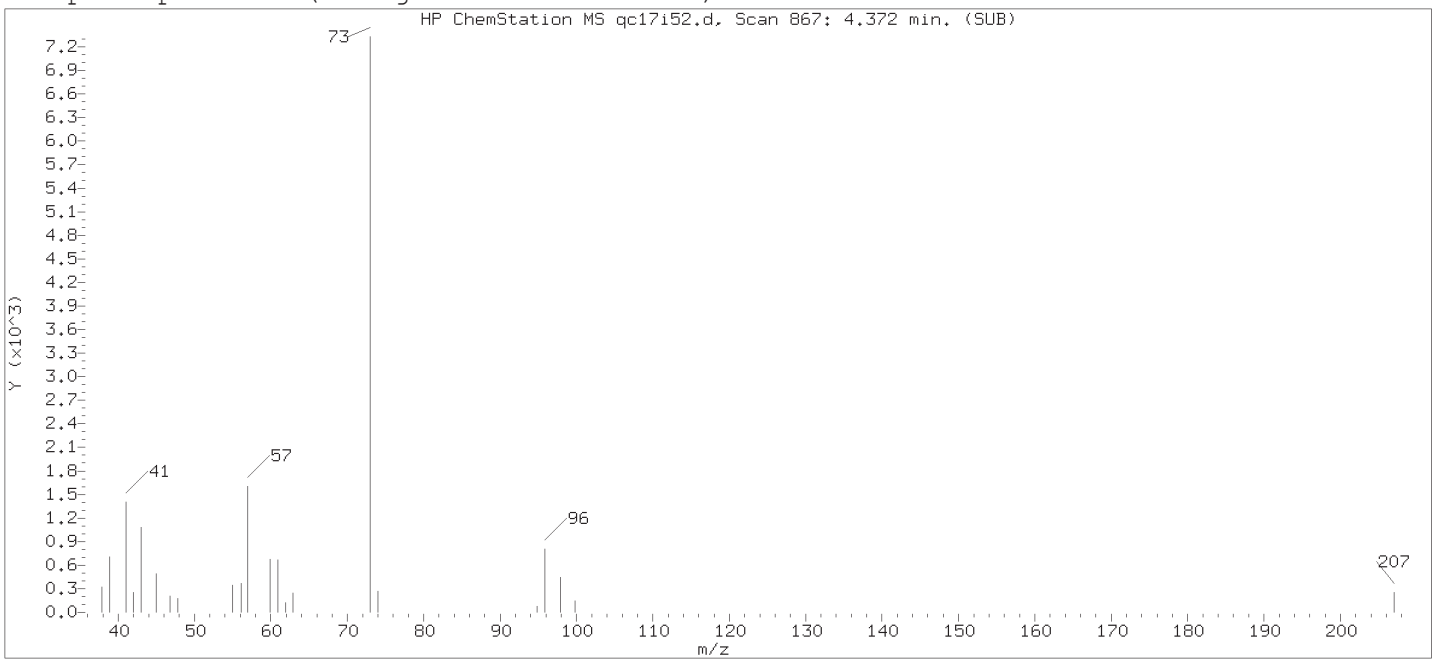
Compound Number : 34
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 874
Retention Time (minutes): 4.394
Quant Ion : 73.00
Area (flag) : 76663M
On-Column Amount (ng) : 4.0989
Integration start scan : 835 Integration stop scan: 939
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

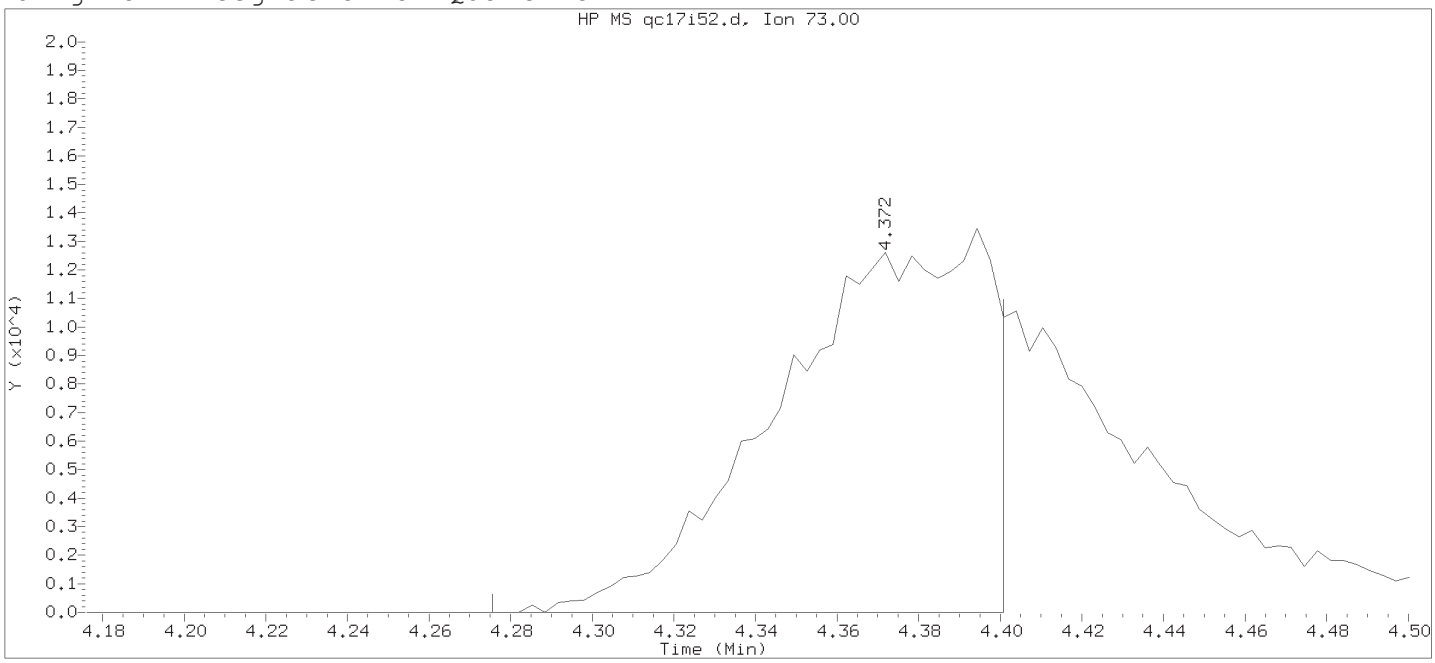
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
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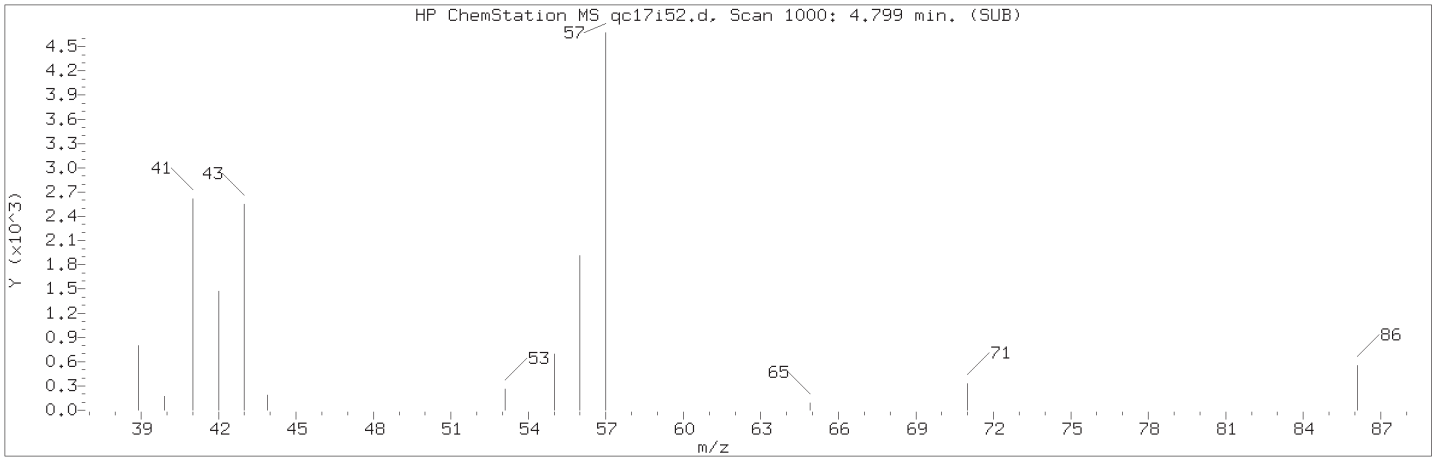
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

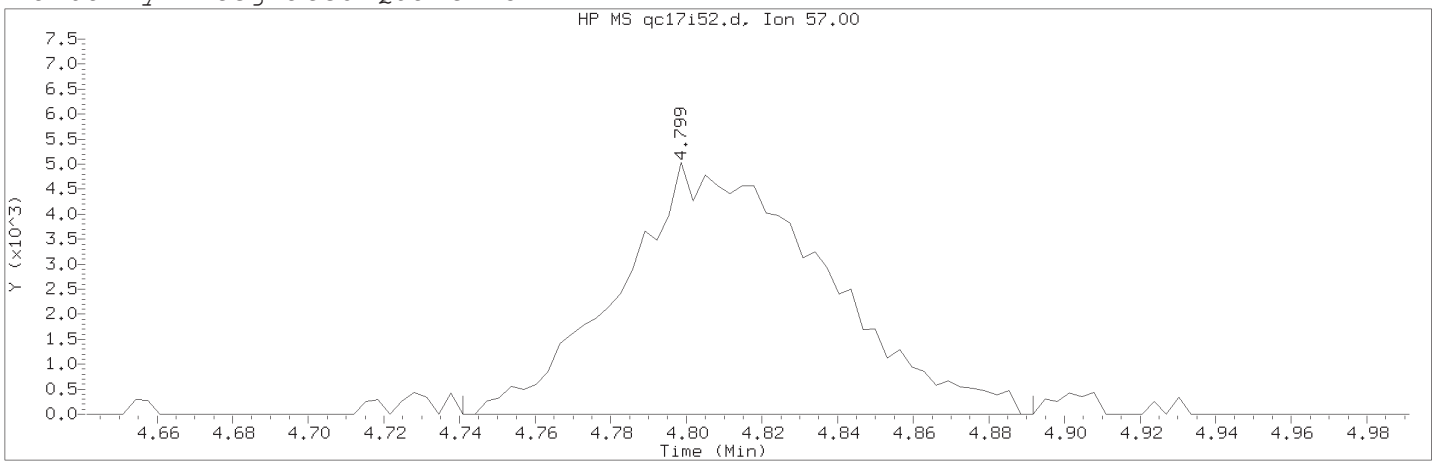
Compound Number : 34
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 867
Retention Time (minutes): 4.372
Quant Ion : 73.00
Area : 46071
On-column Amount (ng) : 2.6176
Integration start scan : 836 Integration stop scan: 875
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

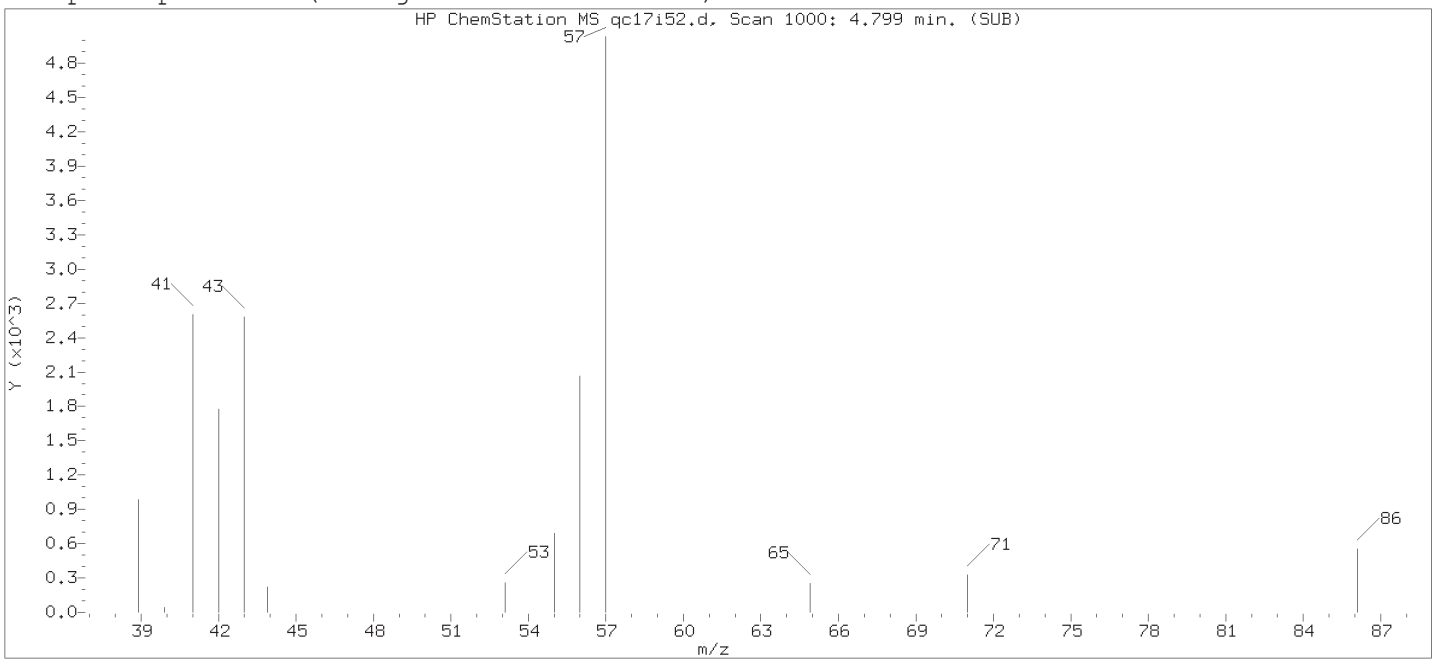
Compound Number : 38
Compound Name : n-Hexane
Scan Number : 1000
Retention Time (minutes): 4.799
Quant Ion : 57.00
Area (flag) : 18841M
On-Column Amount (ng) : 3.9580
Integration start scan : 981 Integration stop scan: 1028
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

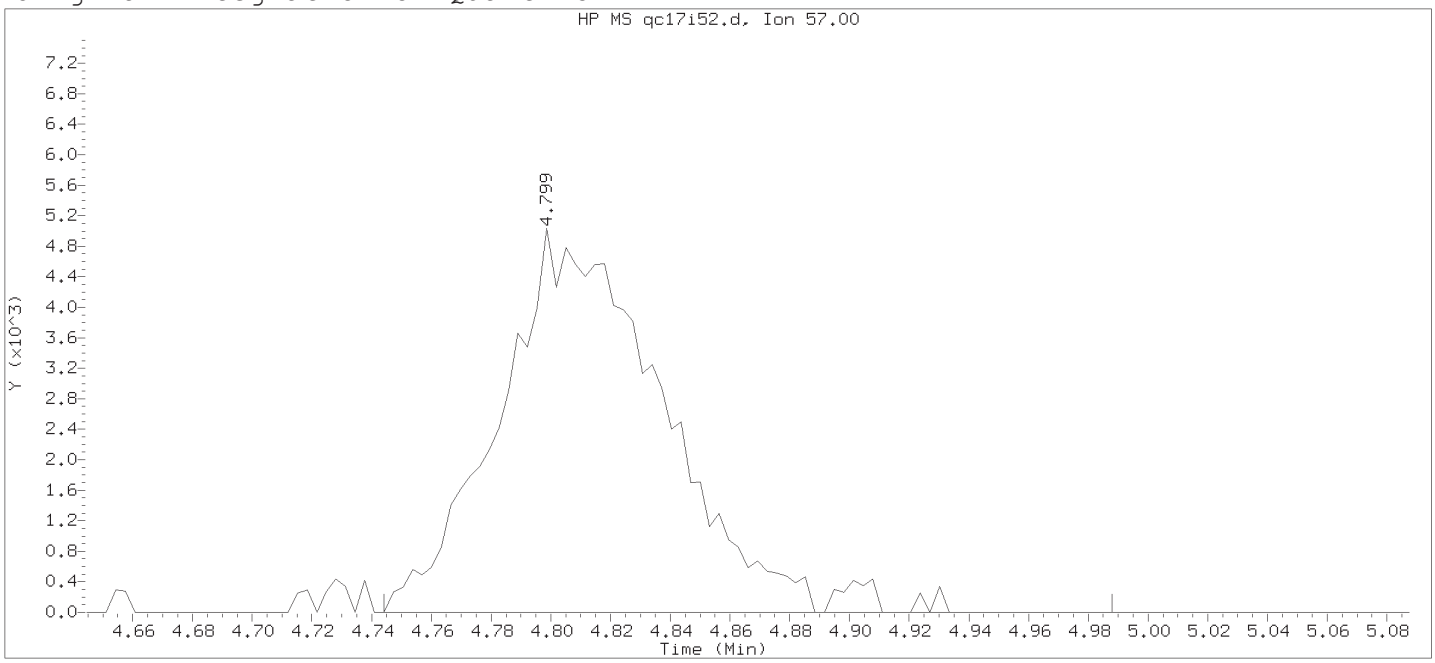
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
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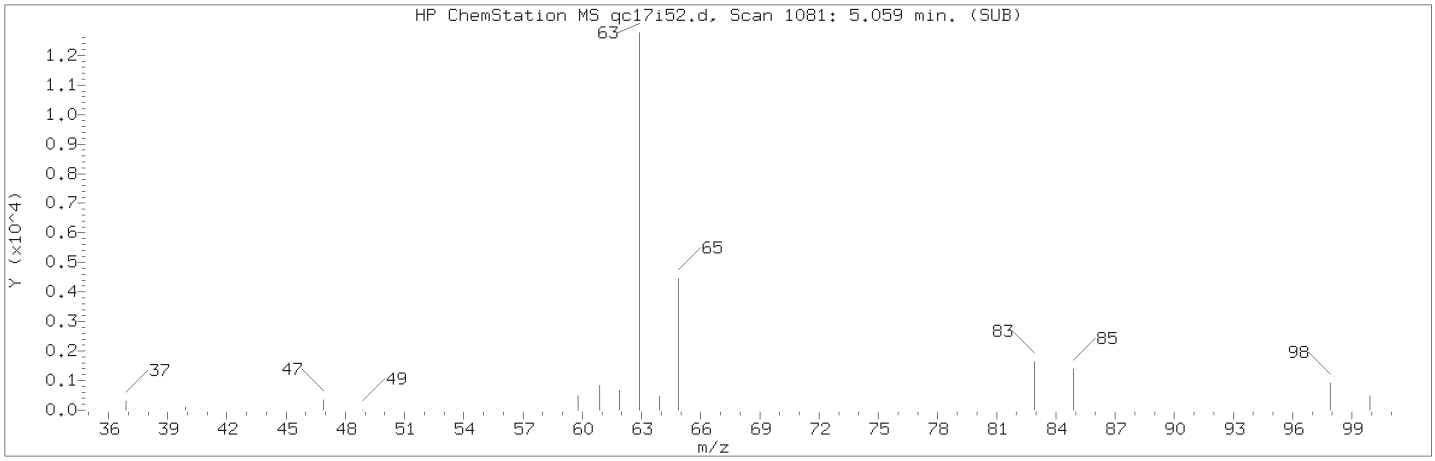
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

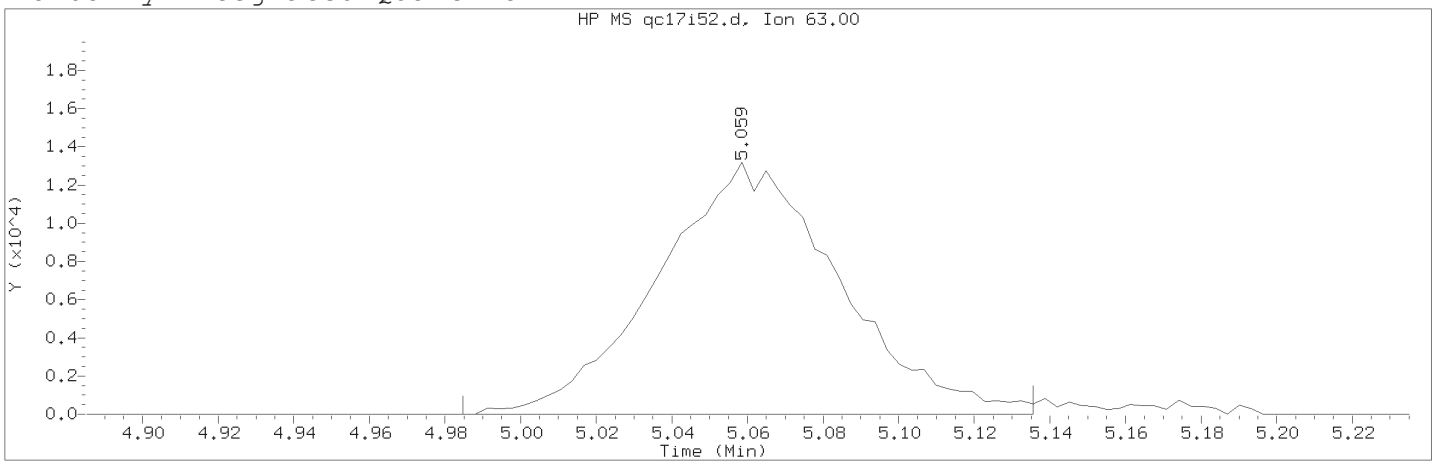
Compound Number : 38
Compound Name : n-Hexane
Scan Number : 1000
Retention Time (minutes): 4.799
Quant Ion : 57.00
Area : 19295
On-column Amount (ng) : 4.0724
Integration start scan : 982 Integration stop scan: 1058
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

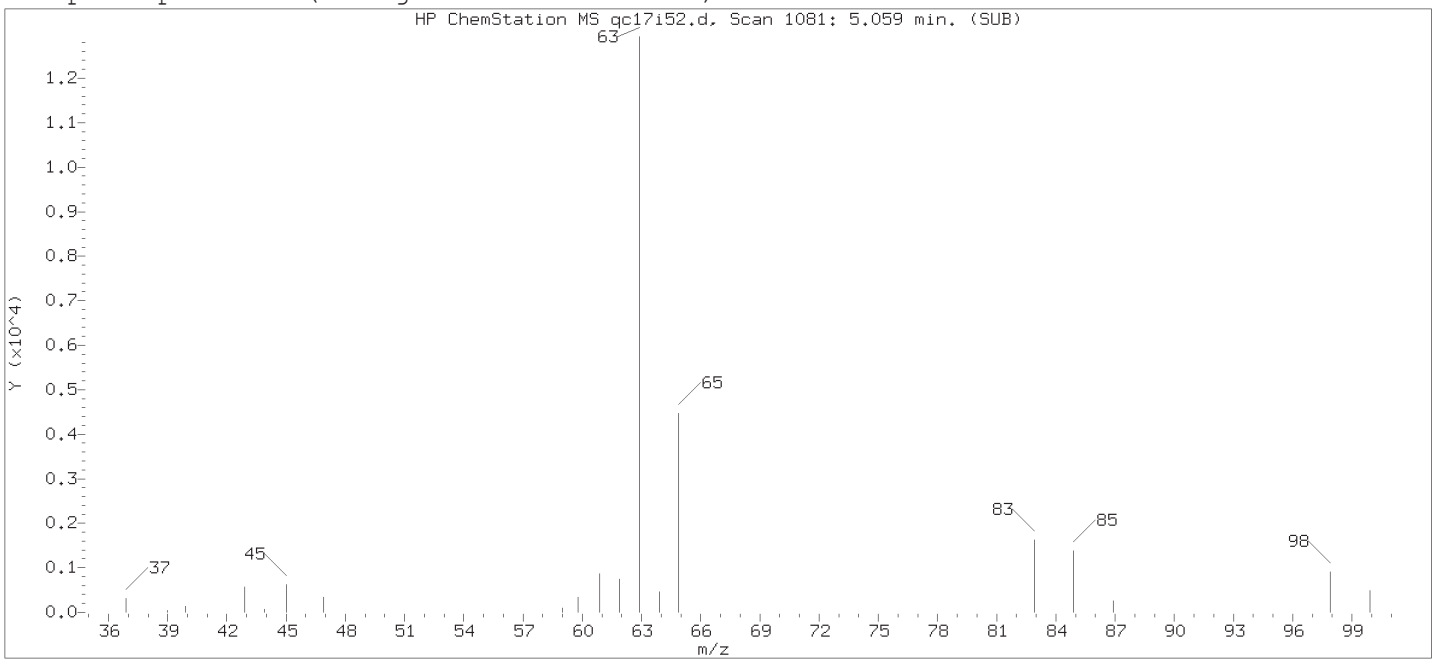
Compound Number : 40
Compound Name : 1,1-Dichloroethane
Scan Number : 1081
Retention Time (minutes): 5.059
Quant Ion : 63.00
Area (flag) : 43986M
On-Column Amount (ng) : 3.9869
Integration start scan : 1057 Integration stop scan: 1104
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

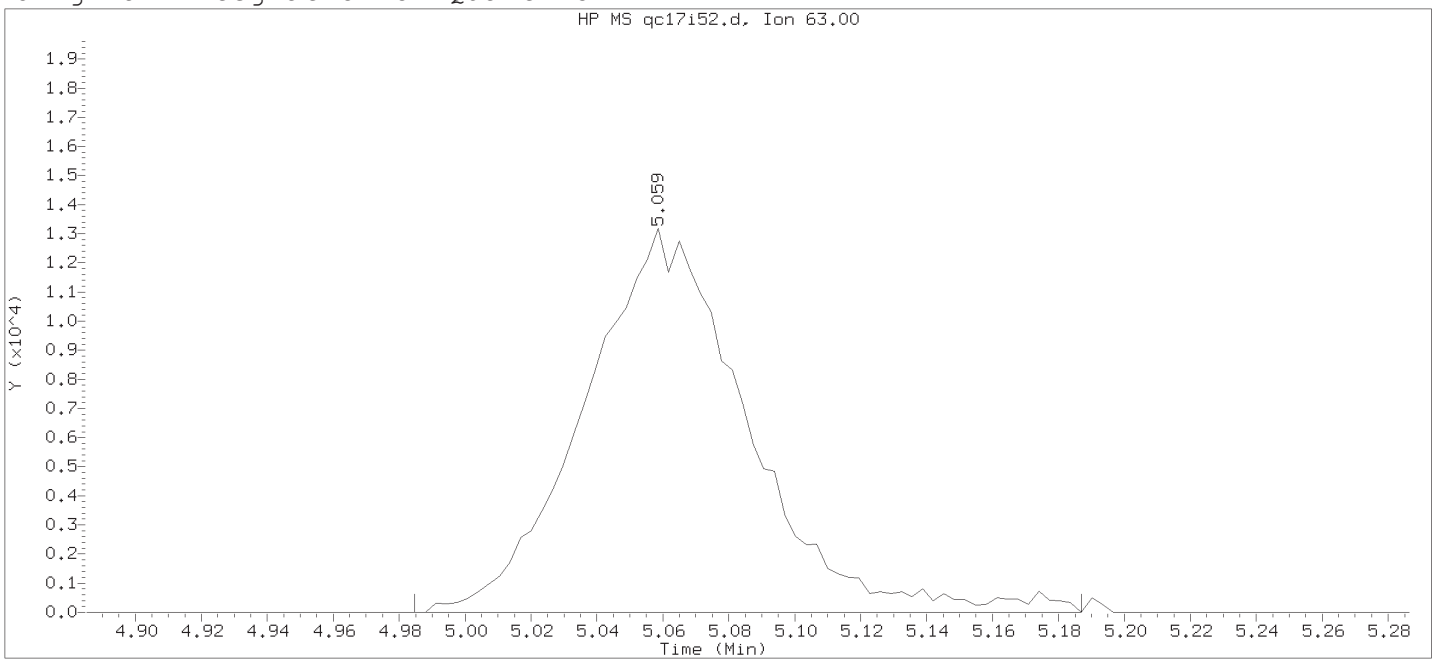
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

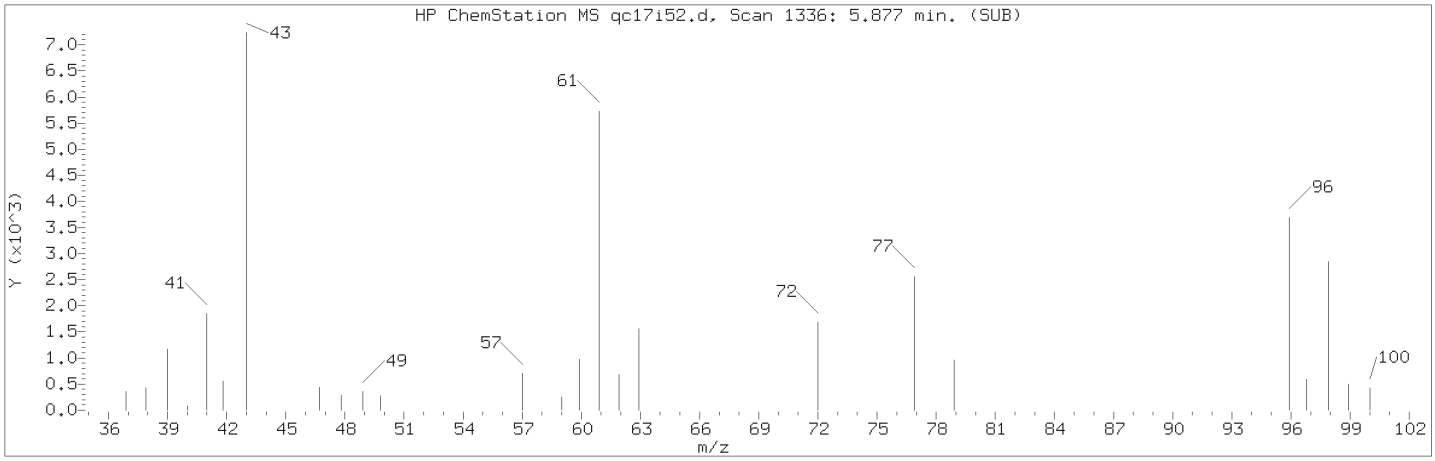
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

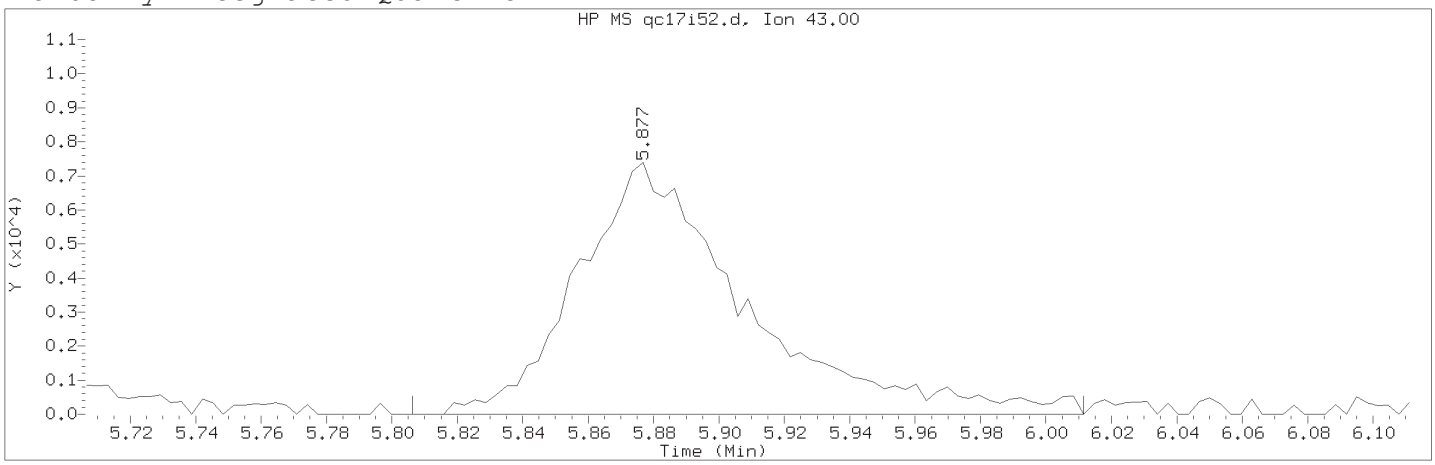
Compound Number : 40
Compound Name : 1,1-Dichloroethane
Scan Number : 1081
Retention Time (minutes): 5.059
Quant Ion : 63.00
Area : 45286
On-column Amount (ng) : 4.0844
Integration start scan : 1057 Integration stop scan: 1120
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

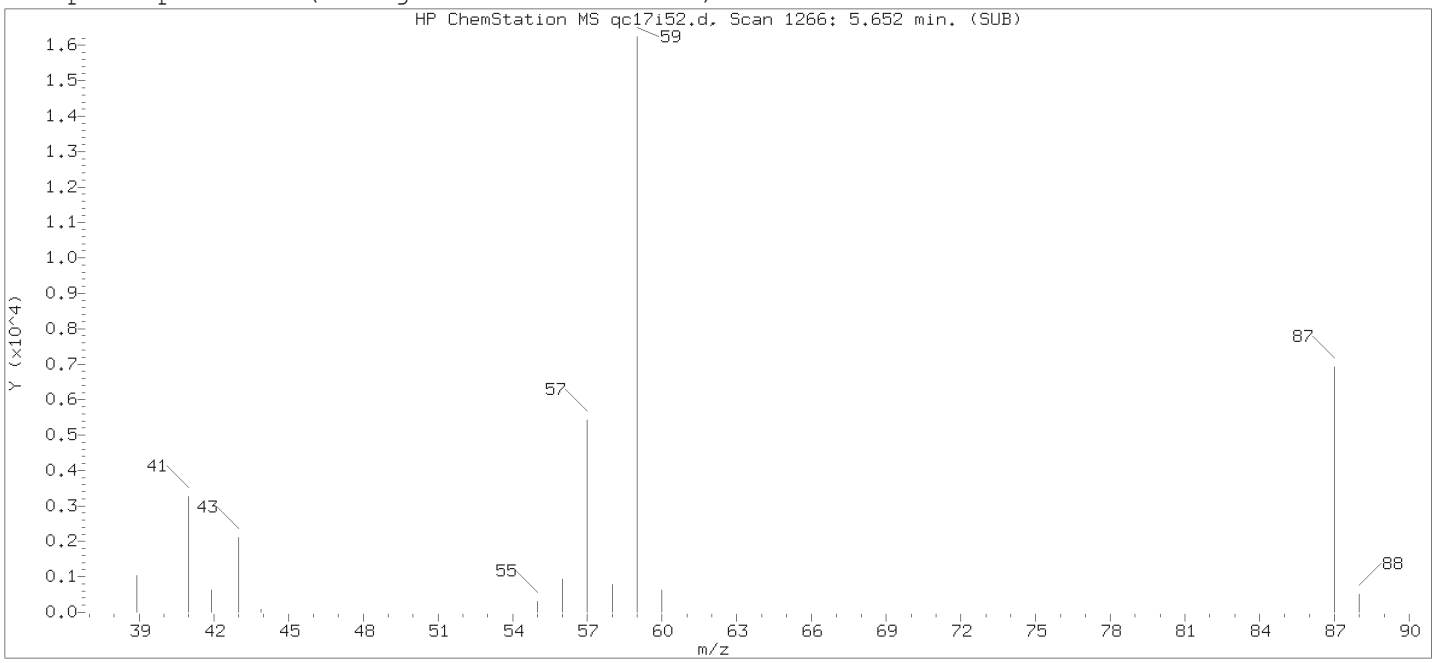
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1336
Retention Time (minutes): 5.877
Quant Ion : 43.00
Area (flag) : 26295M
On-Column Amount (ng) : 7.9516
Integration start scan : 1313 Integration stop scan: 1377
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

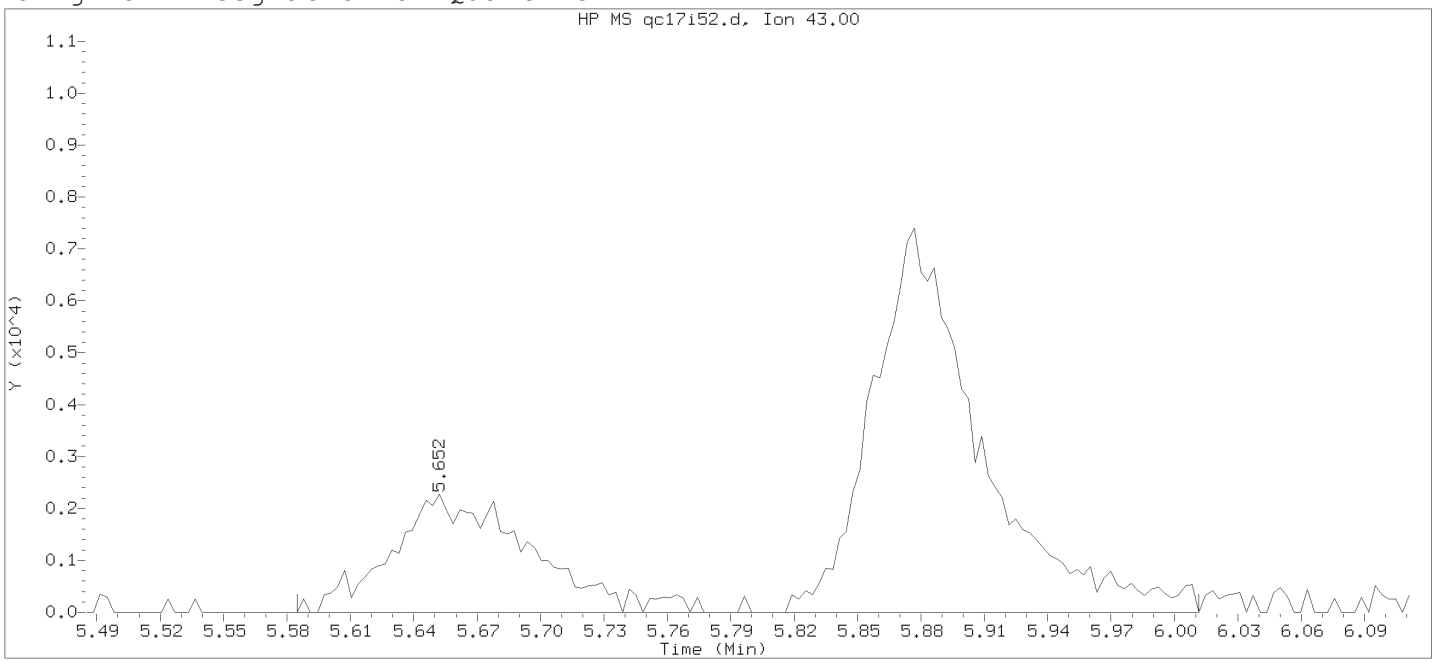
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

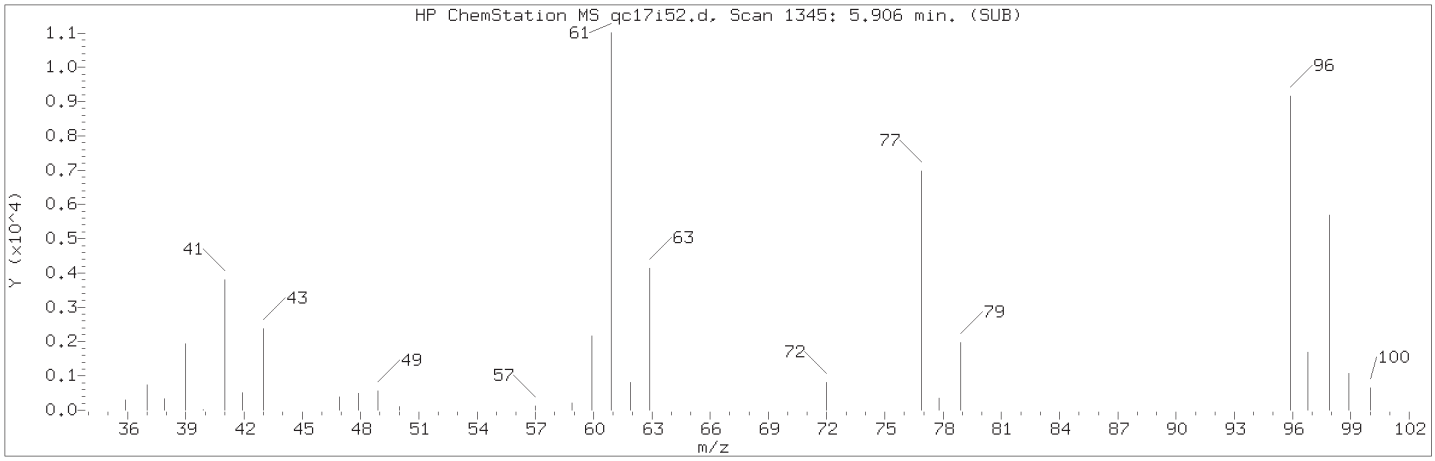
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

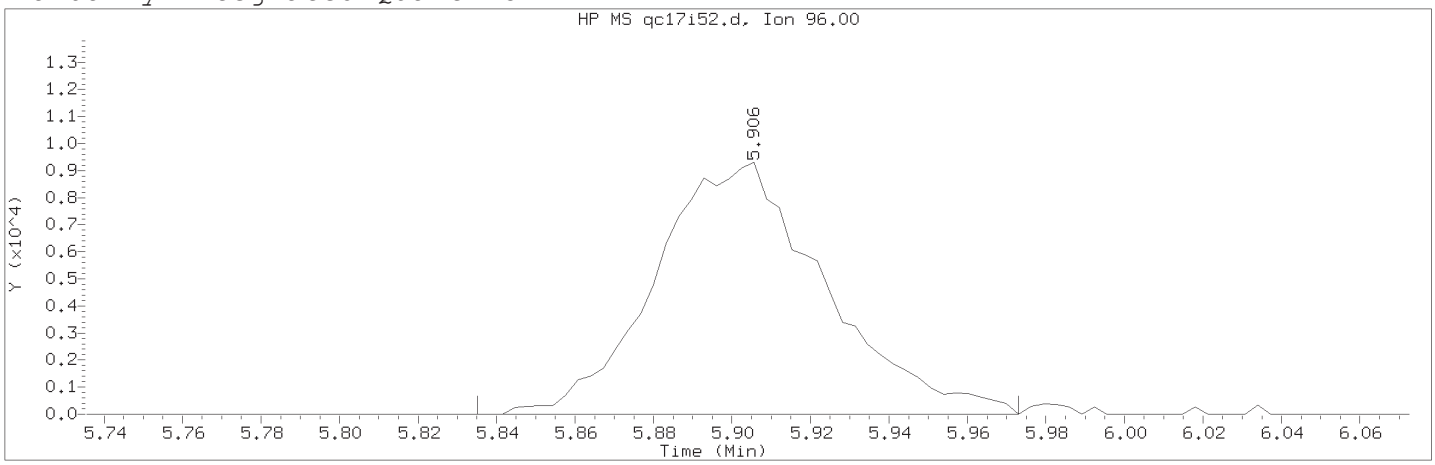
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1266
Retention Time (minutes): 5.652
Quant Ion : 43.00
Area : 36813
On-column Amount (ng) : 10.4854
Integration start scan : 1244 Integration stop scan: 1377
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

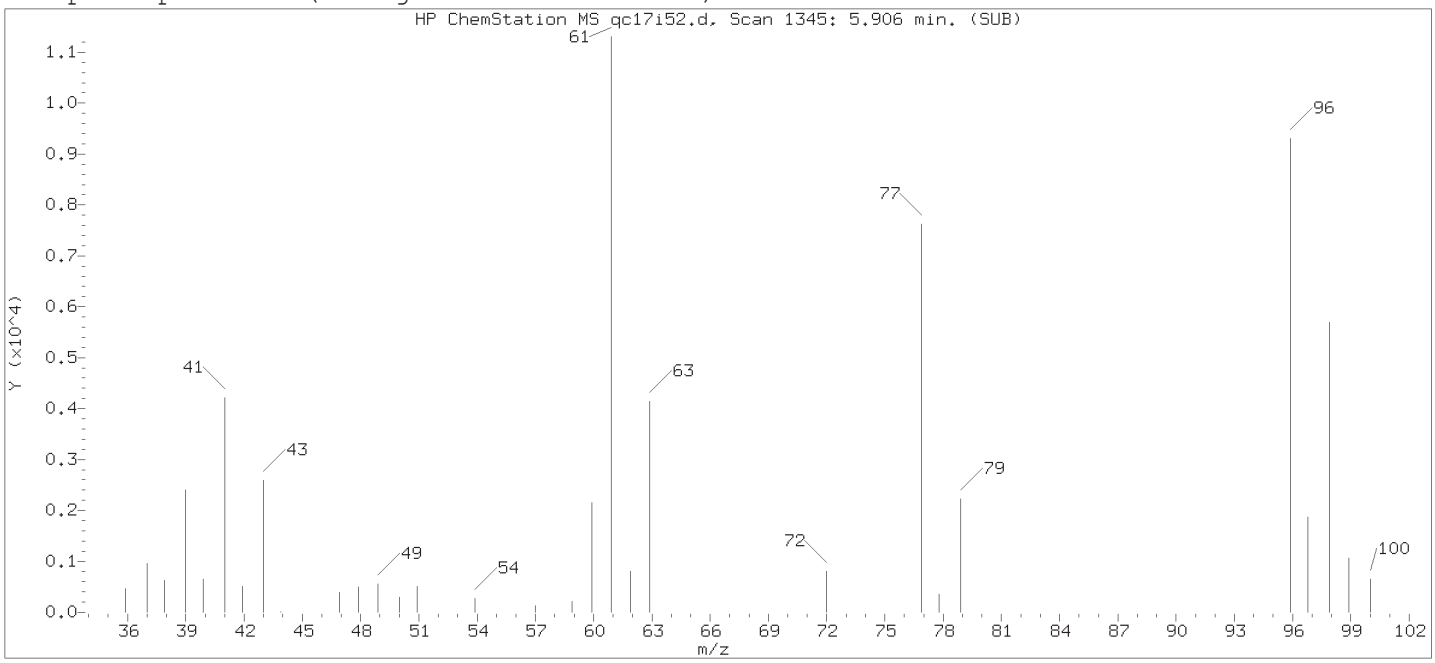
Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1345
Retention Time (minutes): 5.906
Quant Ion : 96.00
Area (flag) : 27896M
On-Column Amount (ng) : 4.0951
Integration start scan : 1322 Integration stop scan: 1365
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

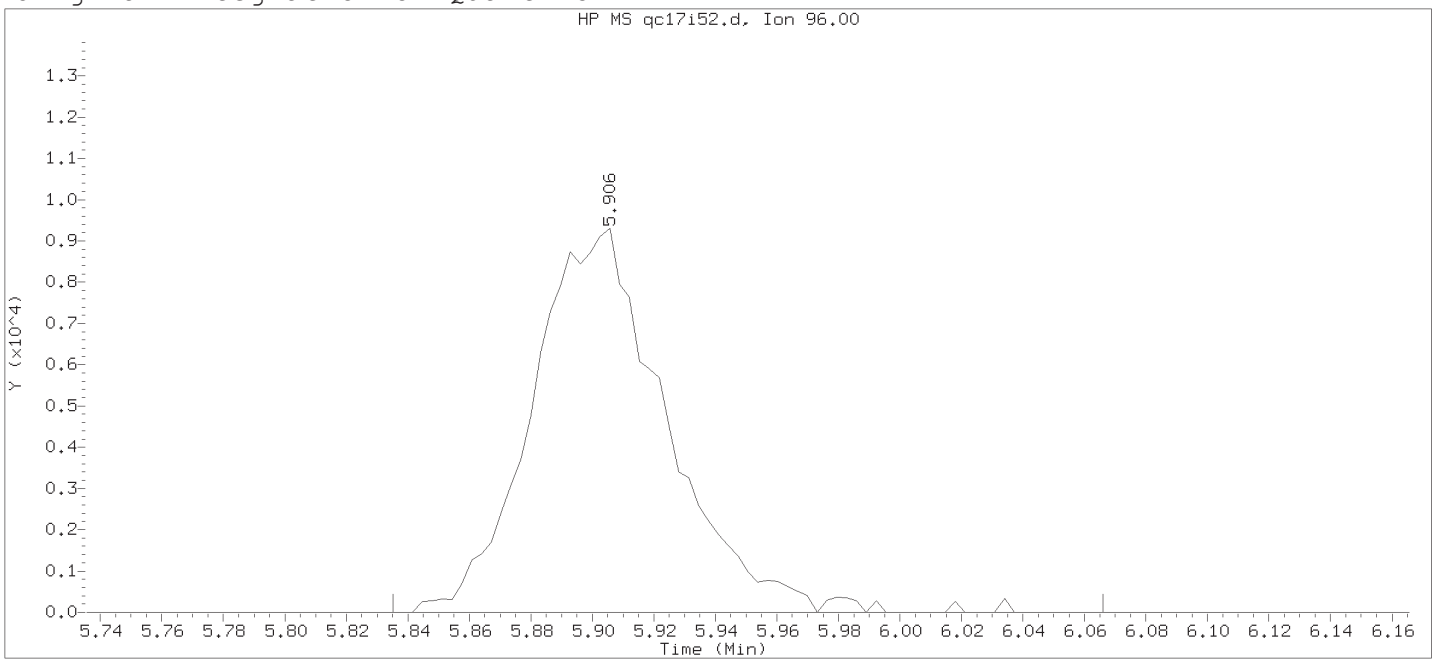
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

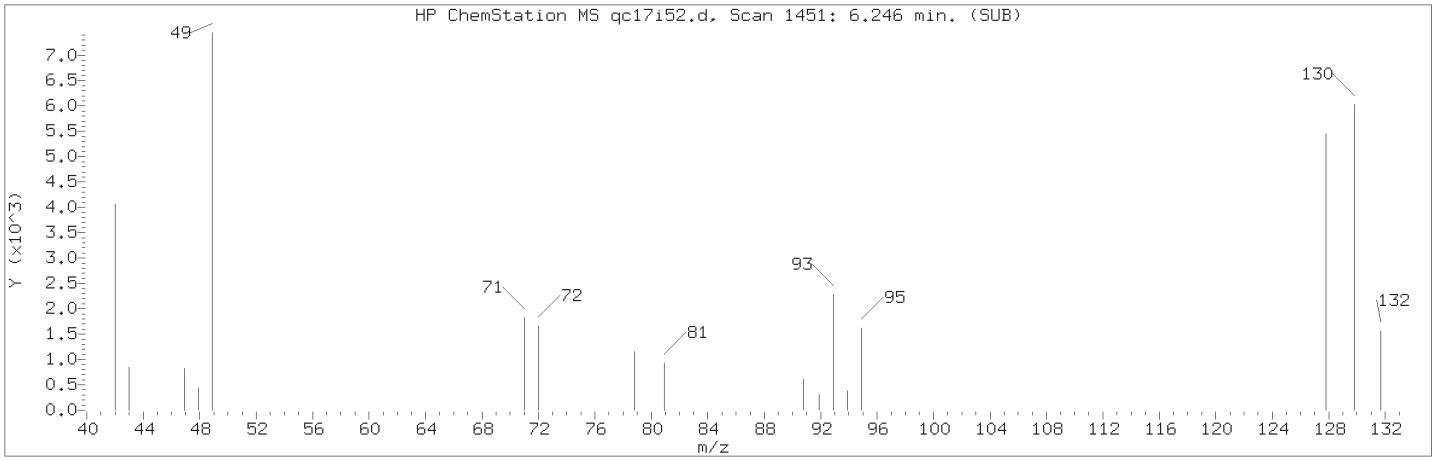
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

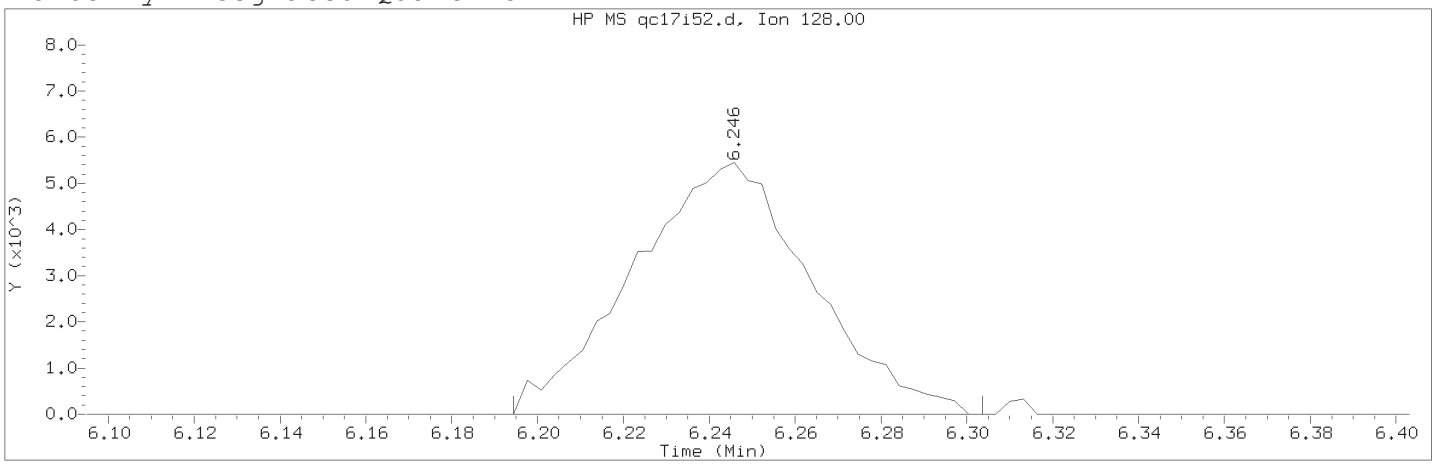
Compound Number : 45
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1345
Retention Time (minutes): 5.906
Quant Ion : 96.00
Area : 28312
On-column Amount (ng) : 4.1465
Integration start scan : 1322 Integration stop scan: 1394
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

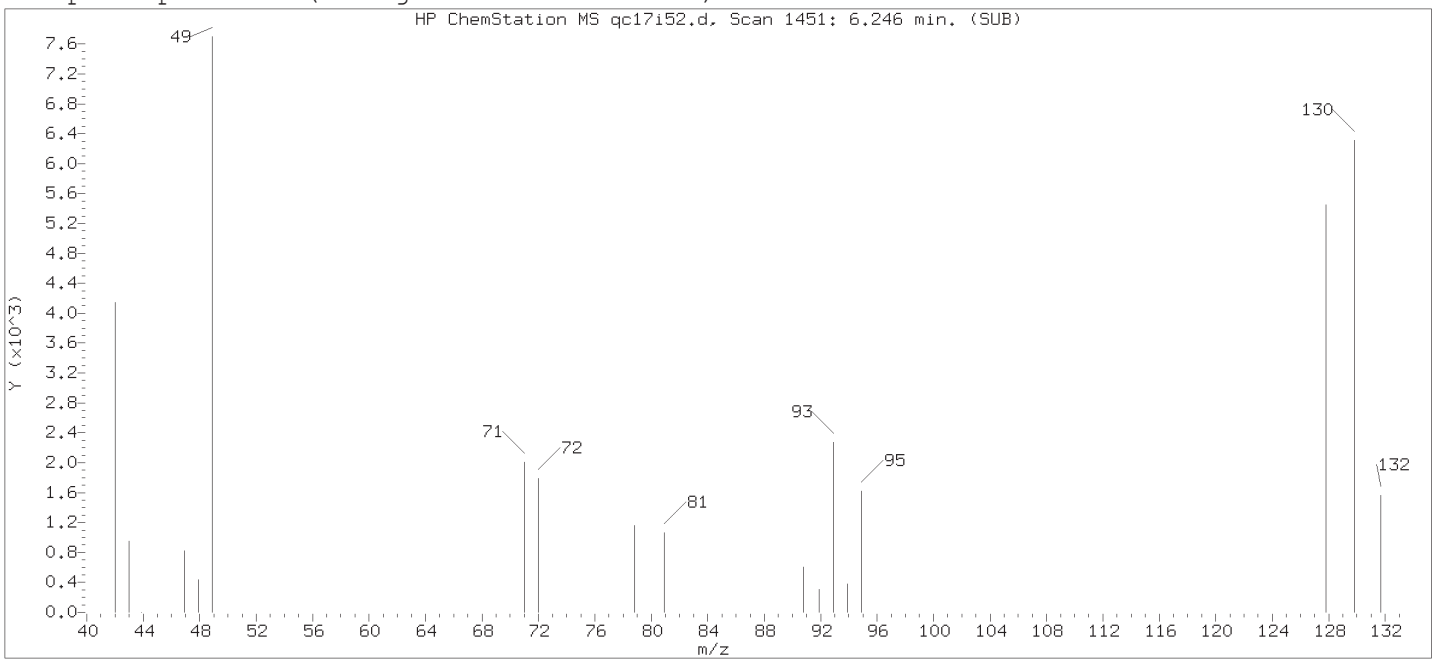
Compound Number : 52
Compound Name : Bromochloromethane
Scan Number : 1451
Retention Time (minutes): 6.246
Quant Ion : 128.00
Area (flag) : 15651M
On-Column Amount (ng) : 4.1017
Integration start scan : 1434 Integration stop scan: 1468
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

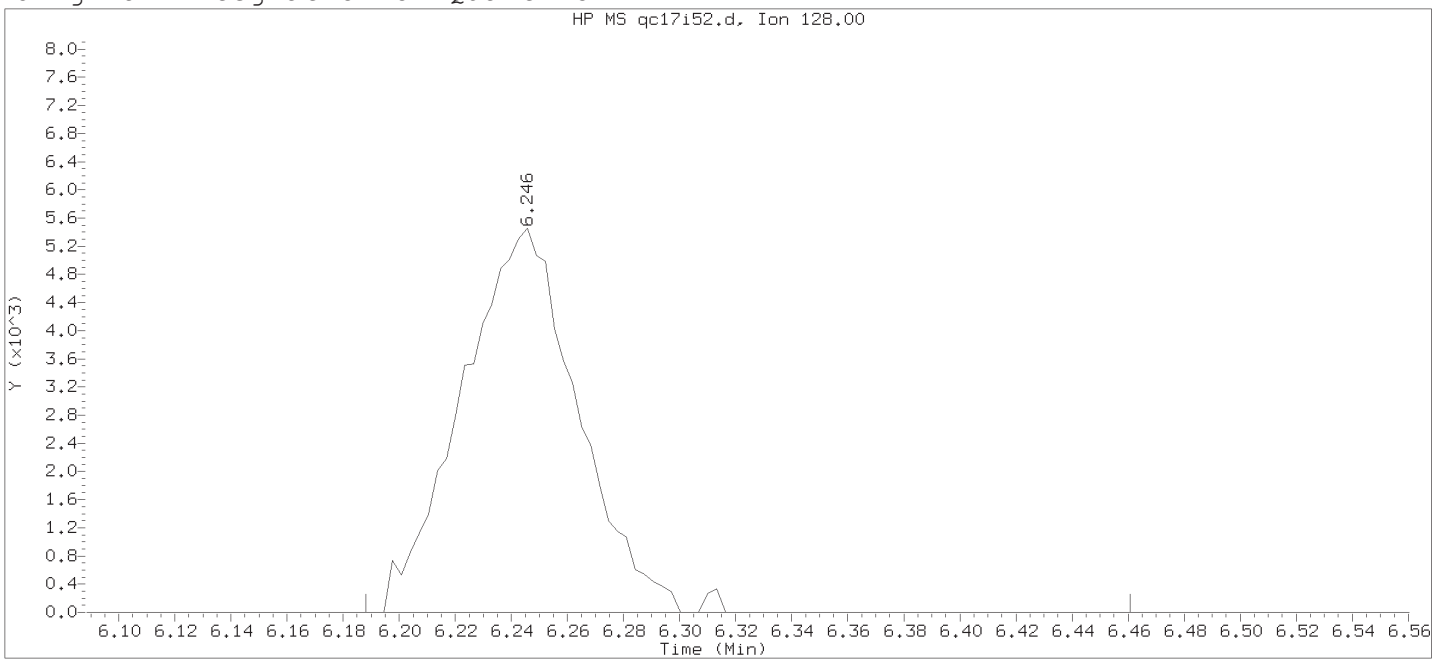
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

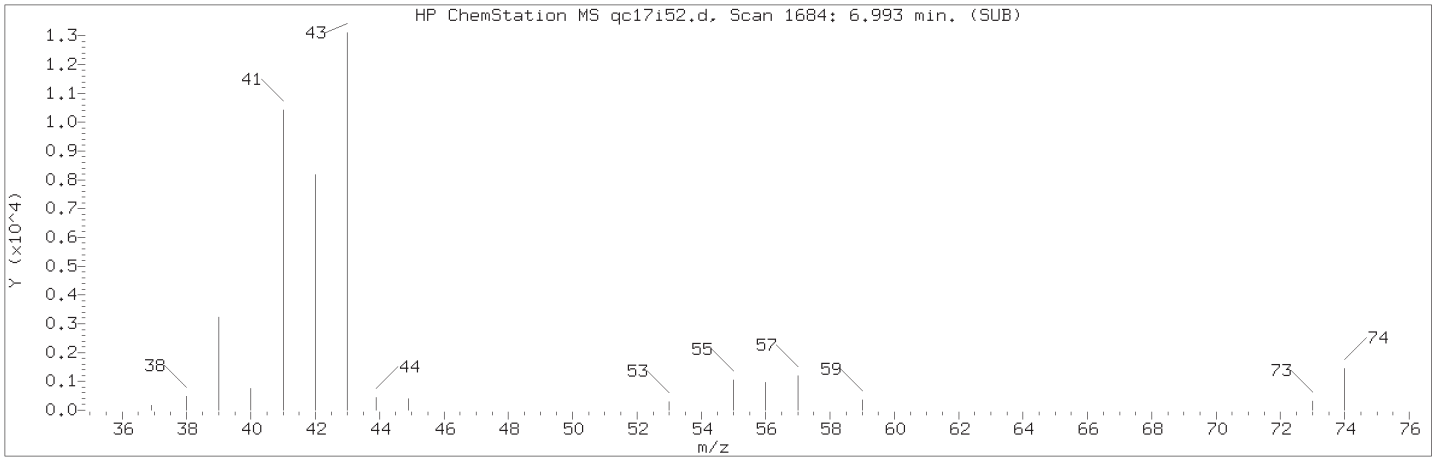
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

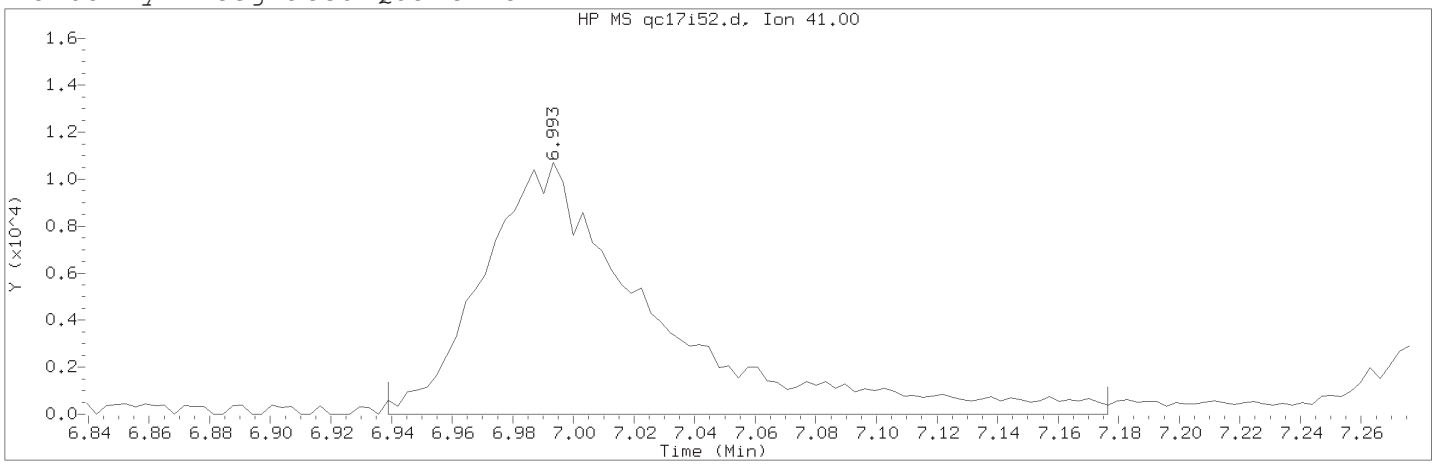
Compound Number : 52
Compound Name : Bromochloromethane
Scan Number : 1451
Retention Time (minutes): 6.246
Quant Ion : 128.00
Area : 15767
On-column Amount (ng) : 4.1259
Integration start scan : 1432 Integration stop scan: 1517
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

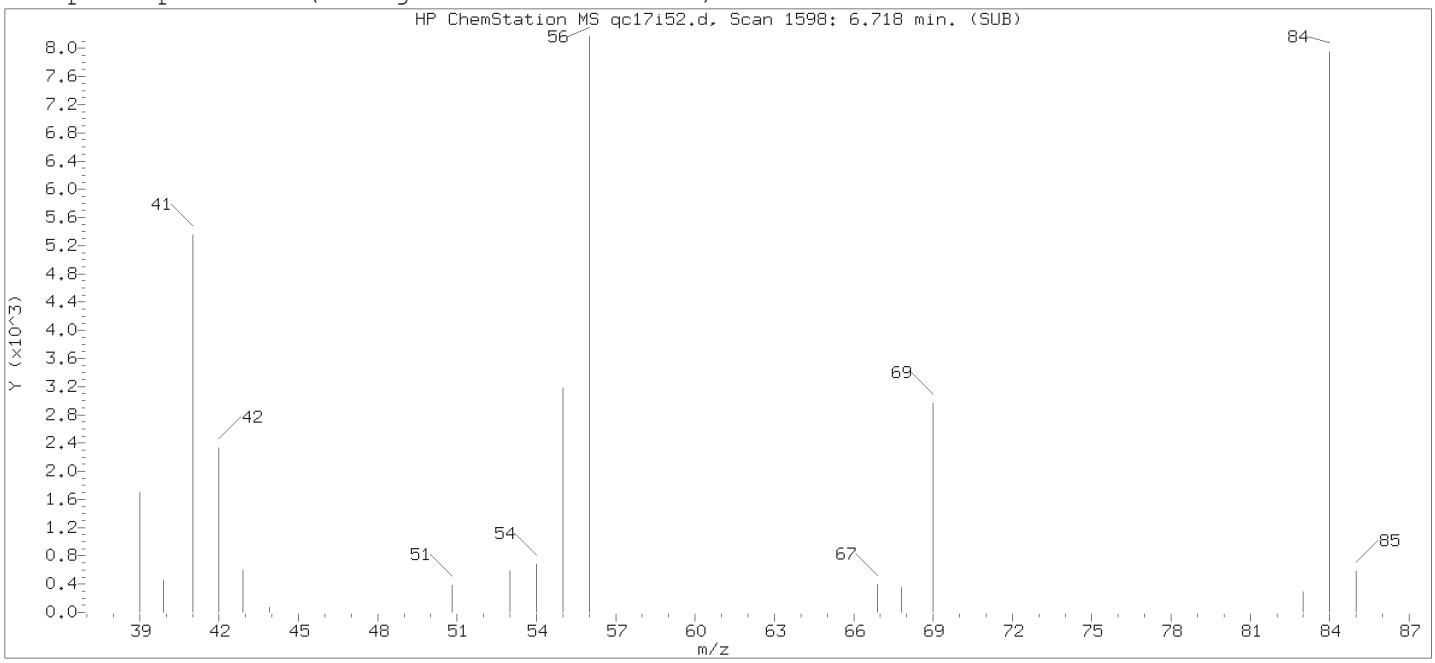
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1684
Retention Time (minutes): 6.993
Quant Ion : 41.00
Area (flag) : 42019M
On-Column Amount (ng) : 198.4830
Integration start scan : 1666 Integration stop scan: 1740
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

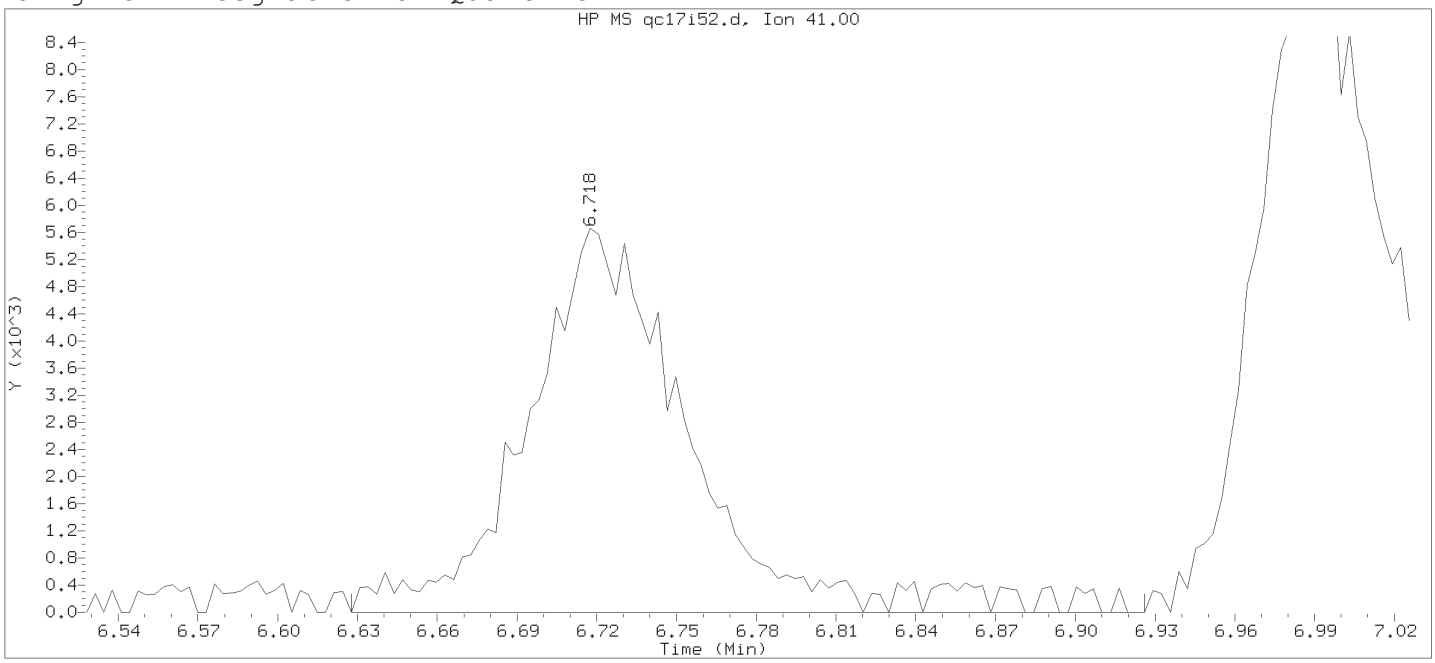
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

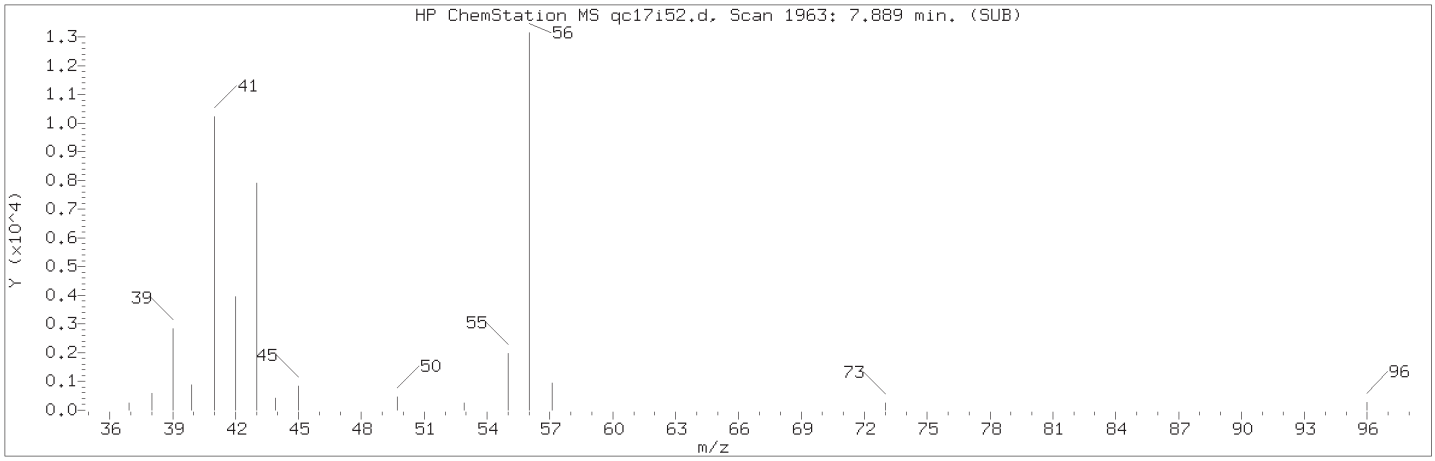
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

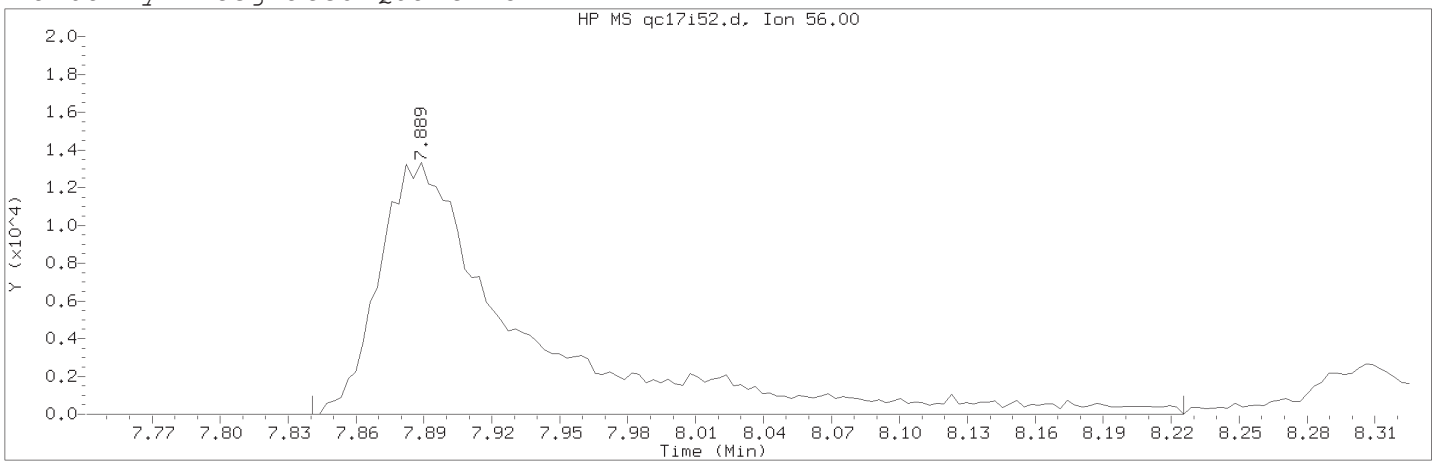
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1598
Retention Time (minutes): 6.718
Quant Ion : 41.00
Area : 23956
On-column Amount (ng) : 138.7973
Integration start scan : 1569 Integration stop scan: 1662
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

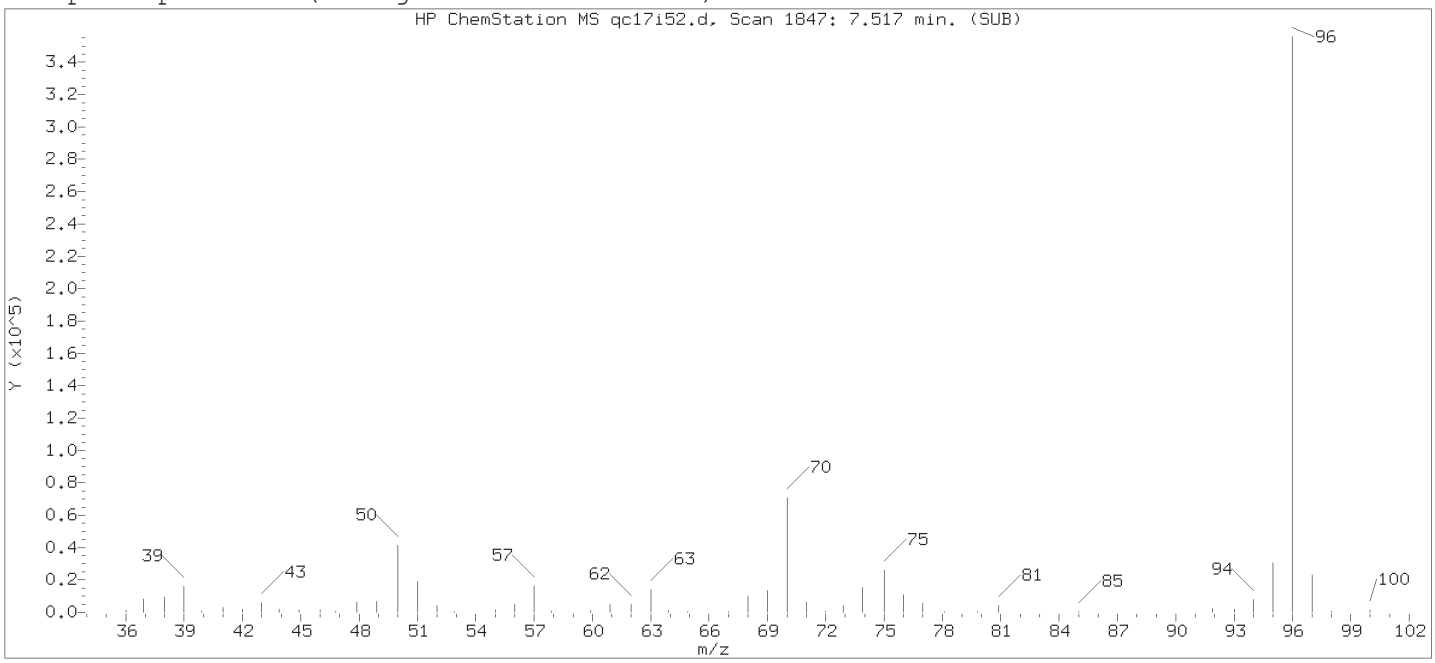
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1963
Retention Time (minutes): 7.889
Quant Ion : 56.00
Area (flag) : 59880M
On-Column Amount (ng) : 377.0995
Integration start scan : 1947 Integration stop scan: 2067
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

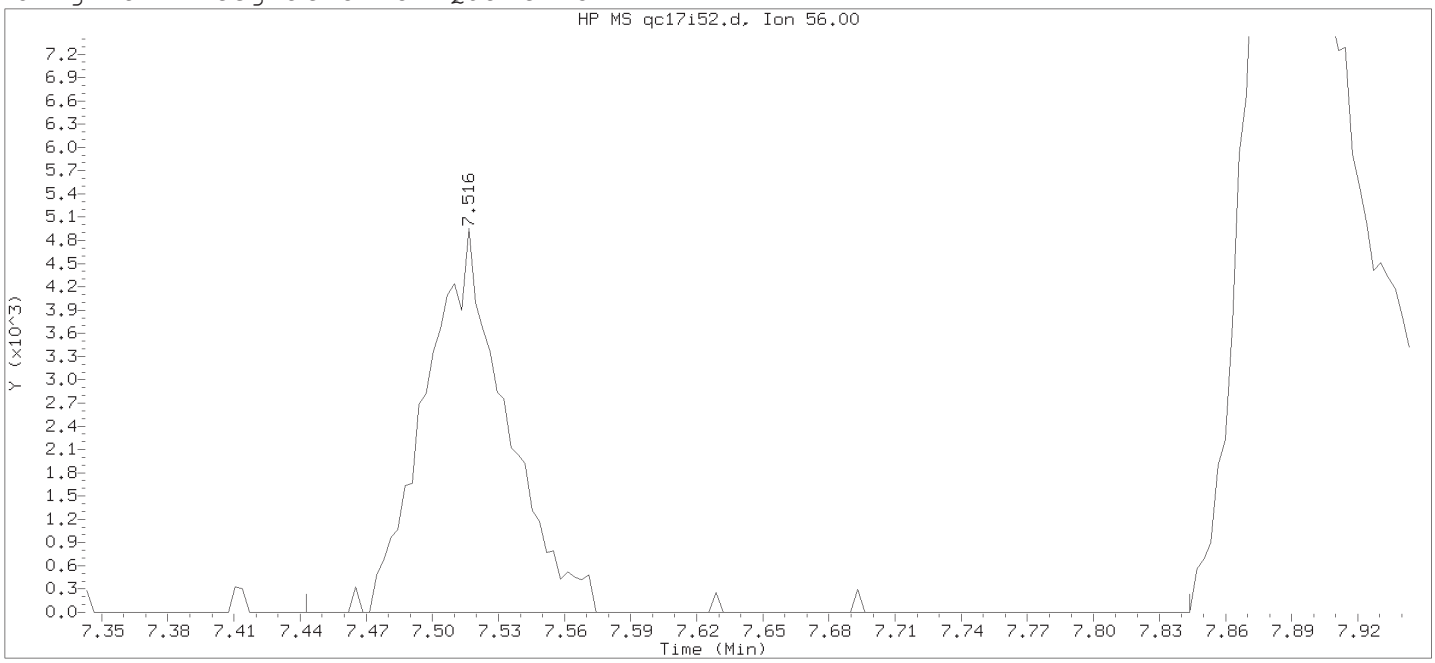
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

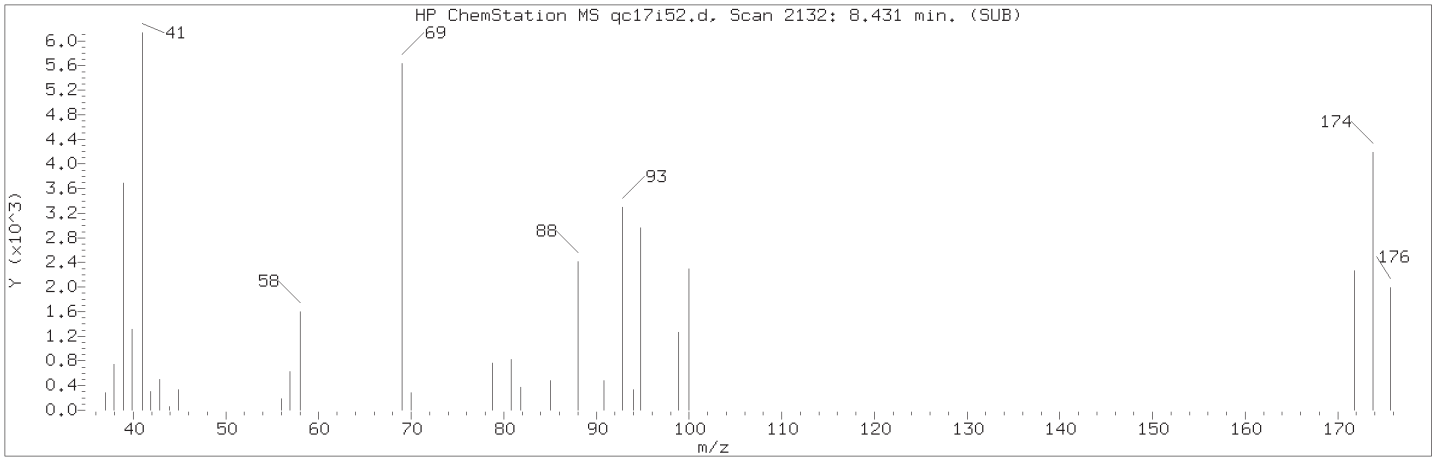
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

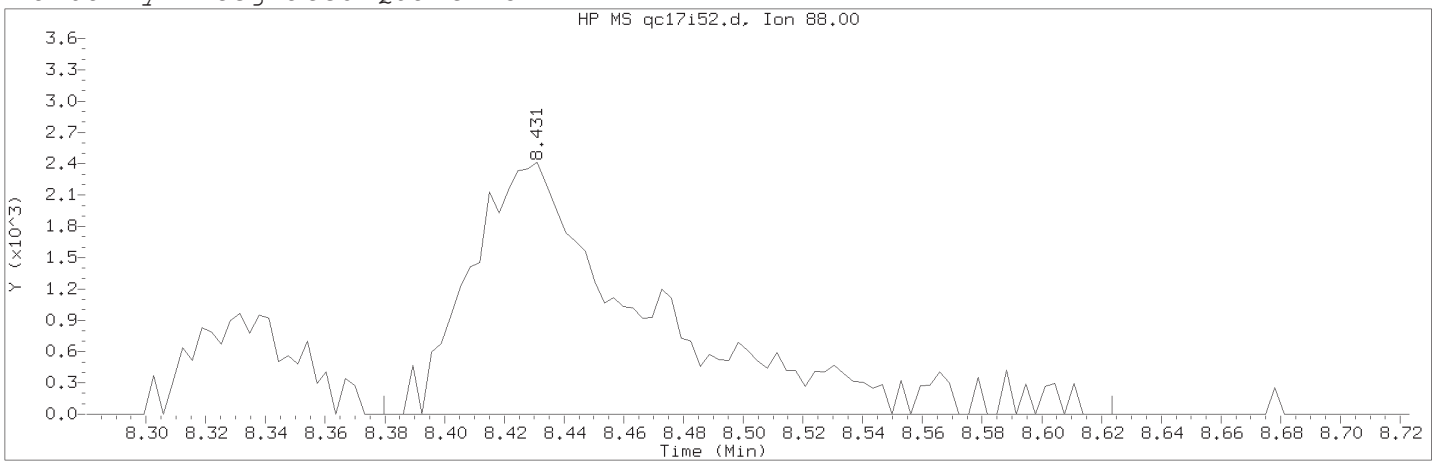
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1847
Retention Time (minutes): 7.516
Quant Ion : 56.00
Area : 12732
On-column Amount (ng) : 113.2905
Integration start scan : 1823 Integration stop scan: 1948
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

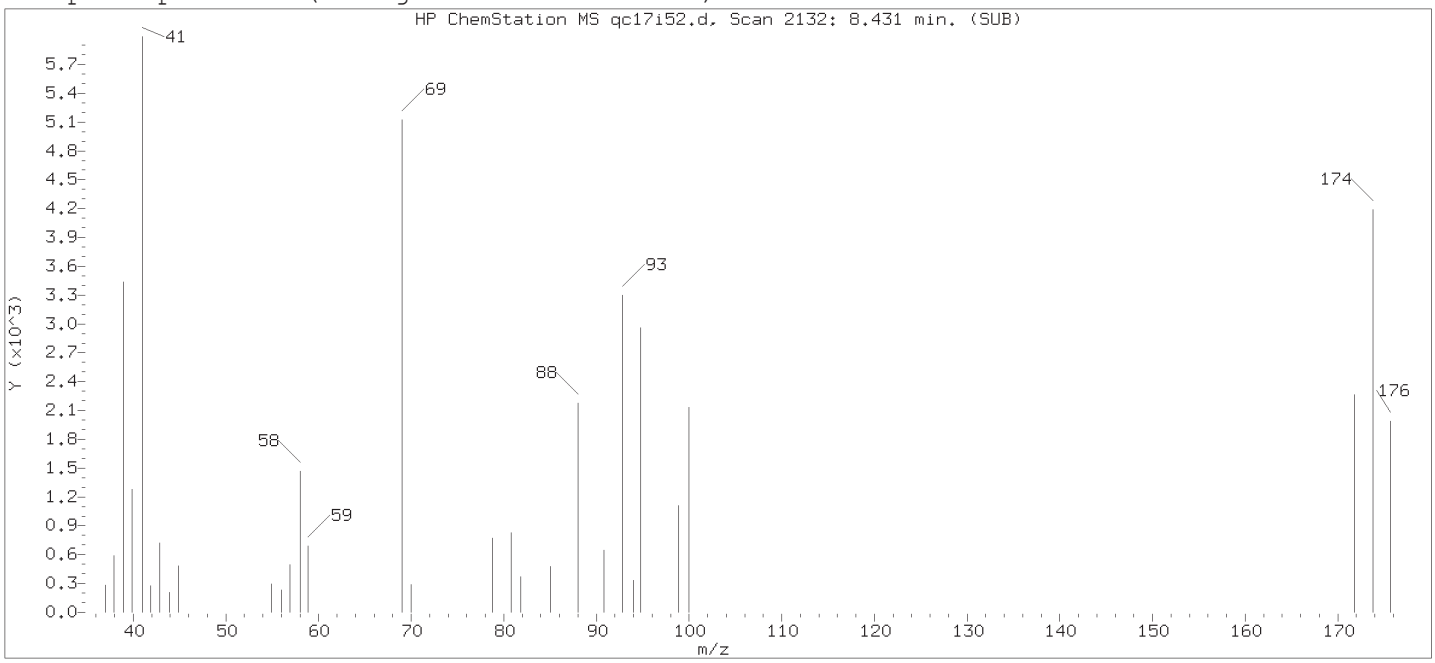
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2132
Retention Time (minutes): 8.431
Quant Ion : 88.00
Area (flag) : 10129M
On-Column Amount (ng) : 178.8458
Integration start scan : 2115 Integration stop scan: 2191
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

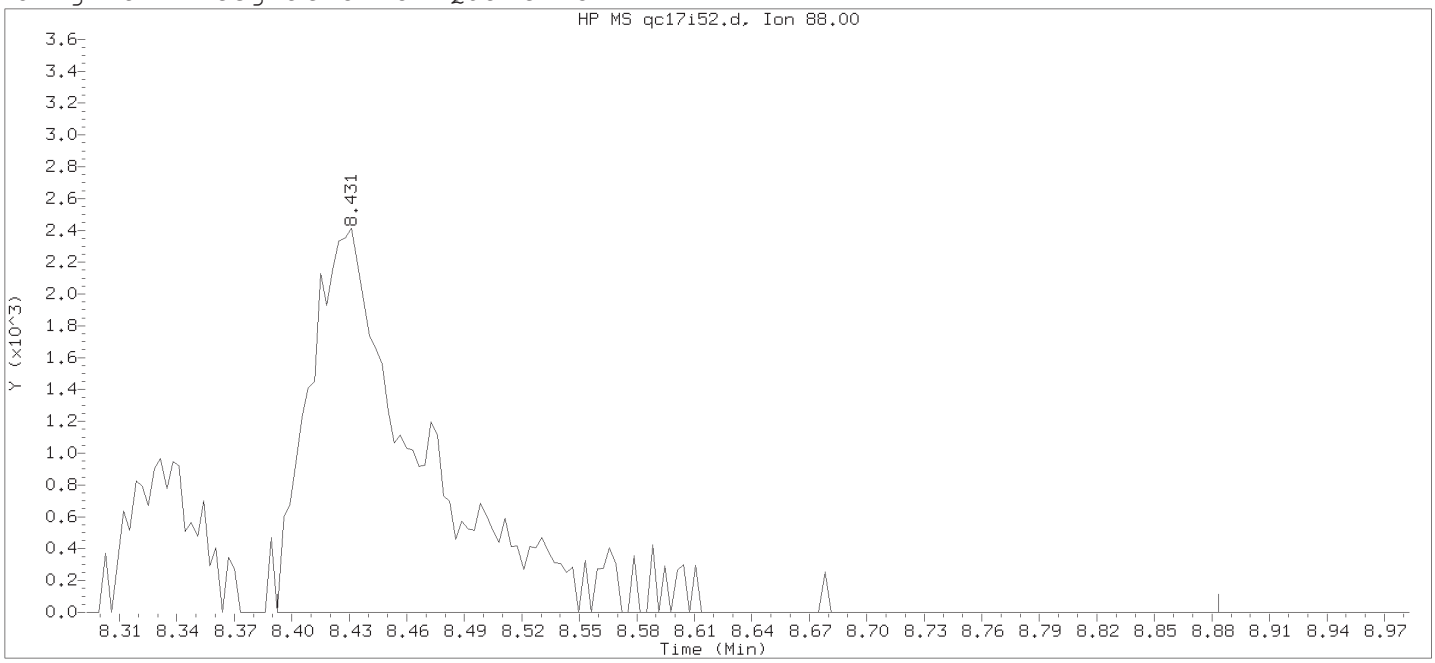
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

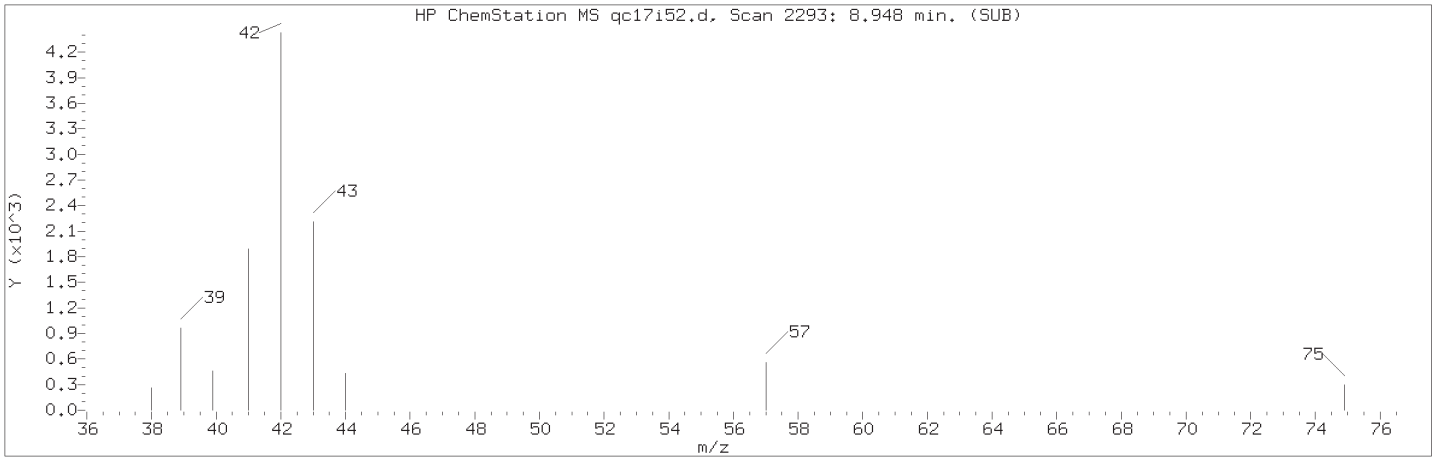
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

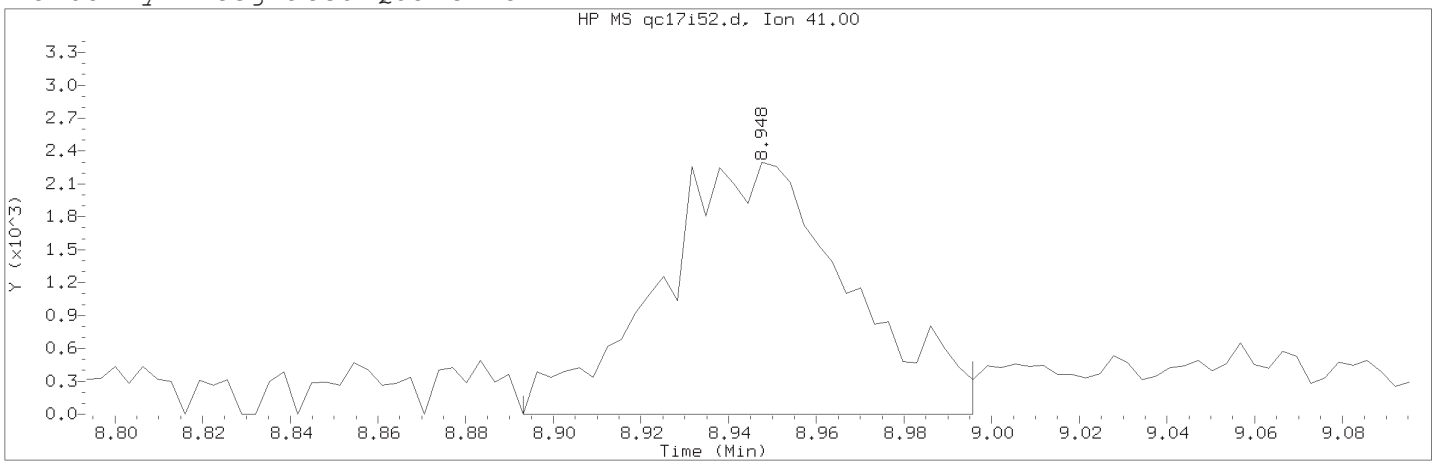
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2132
Retention Time (minutes): 8.431
Quant Ion : 88.00
Area : 10087
On-column Amount (ng) : 253.7514
Integration start scan : 2119 Integration stop scan: 2272
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

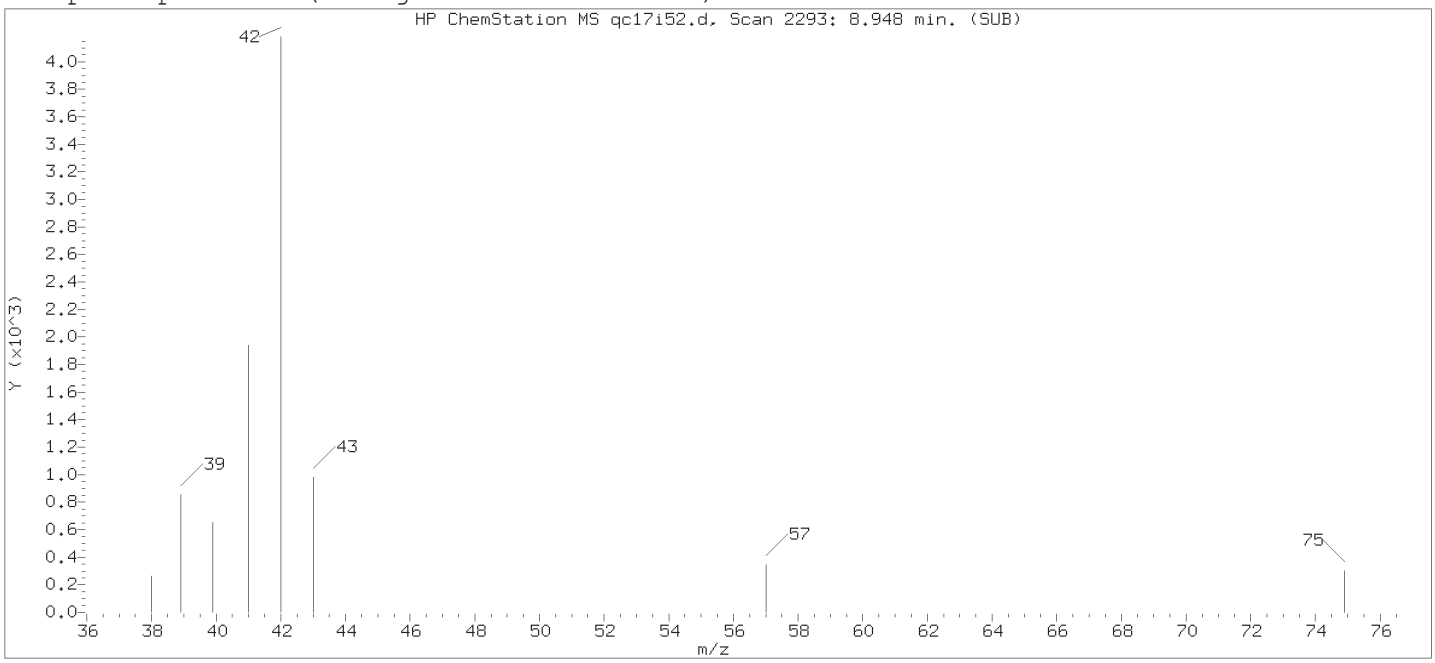
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2293
Retention Time (minutes): 8.948
Quant Ion : 41.00
Area (flag) : 6963M
On-Column Amount (ng) : 6.5642
Integration start scan : 2275 Integration stop scan: 2307
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

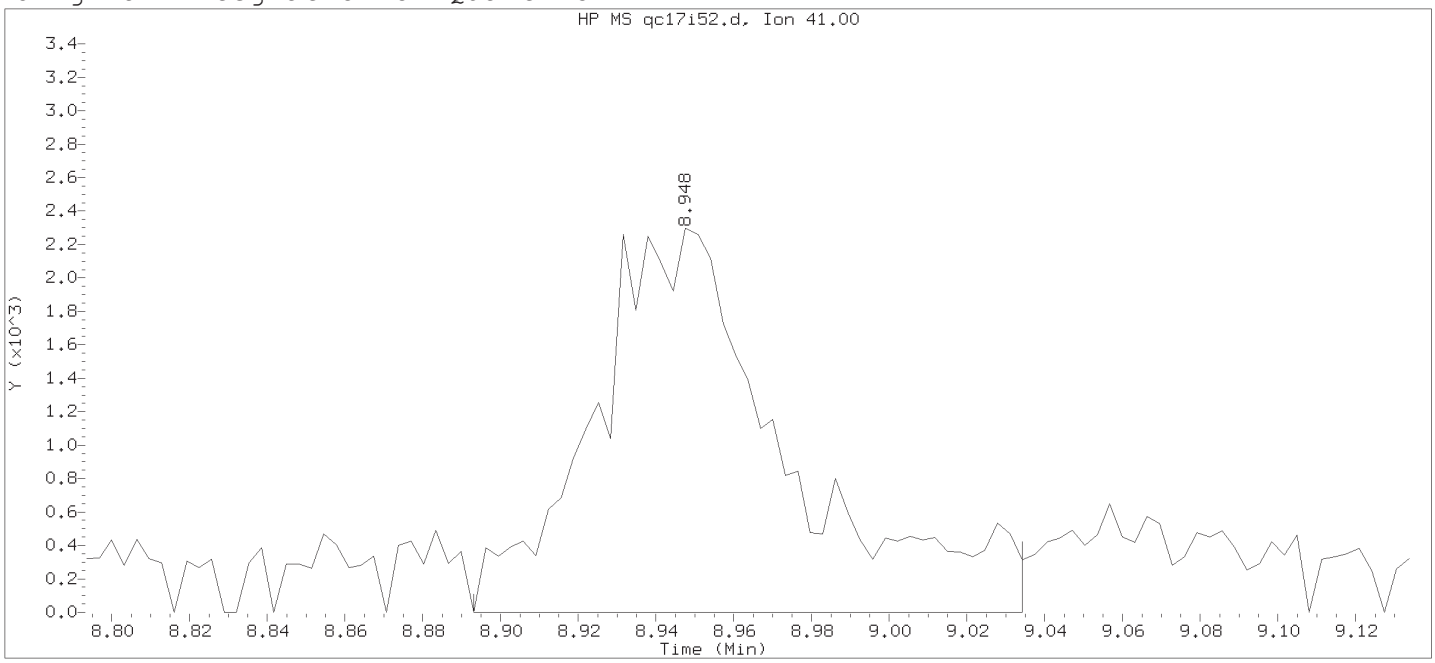
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

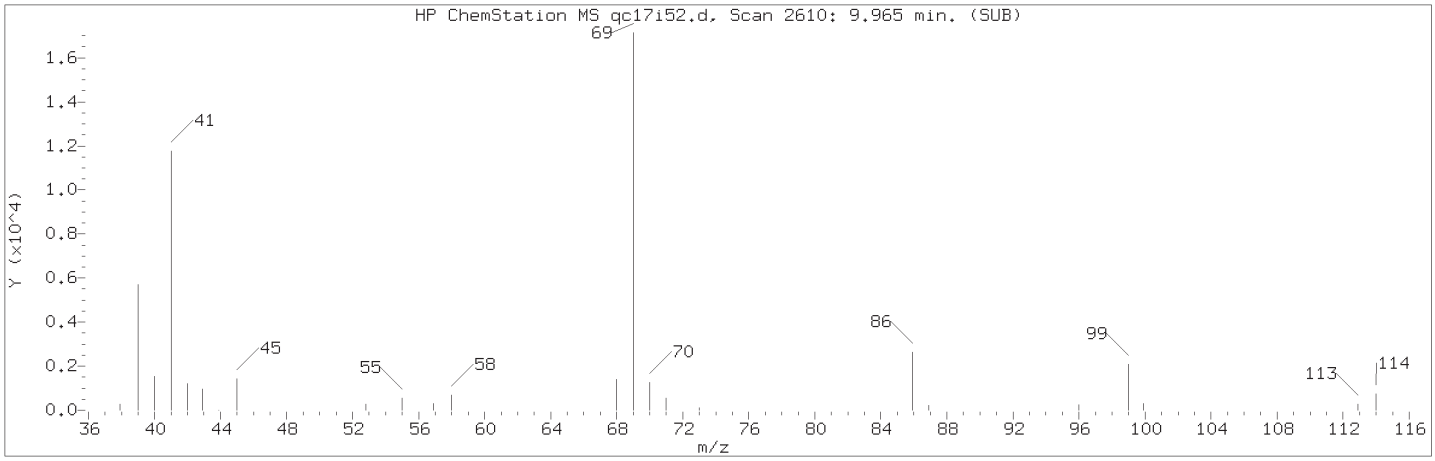
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

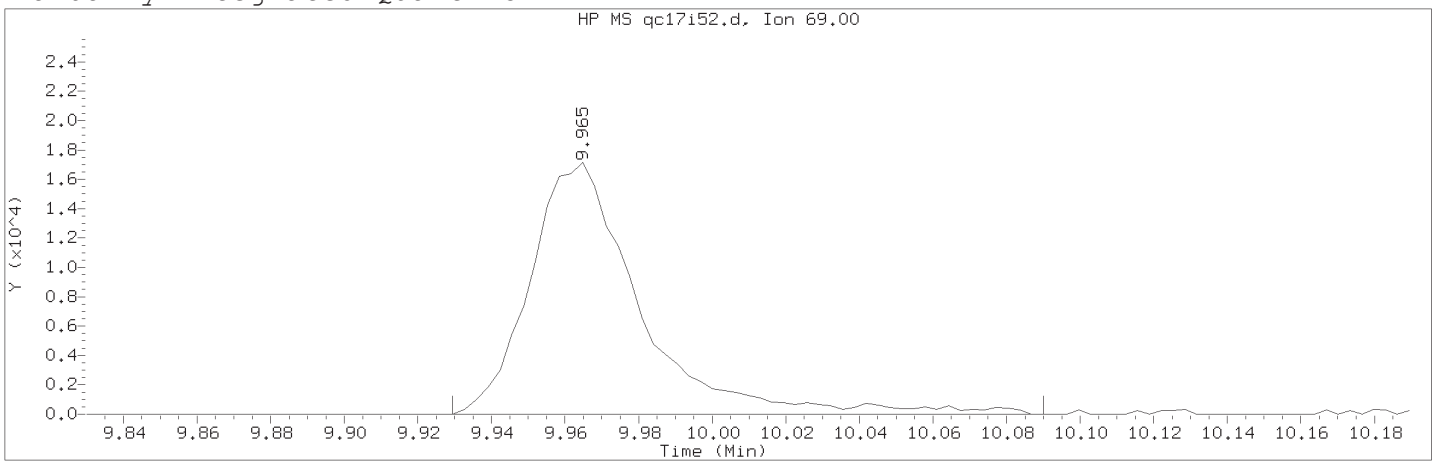
Compound Number	: 85		
Compound Name	: 2-Nitropropane		
Scan Number	: 2293		
Retention Time (minutes)	: 8.948		
Quant Ion	: 41.00		
Area	: 7886		
On-column Amount (ng)	: 22.3412		
Integration start scan	: 2275	Integration stop scan:	2319
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

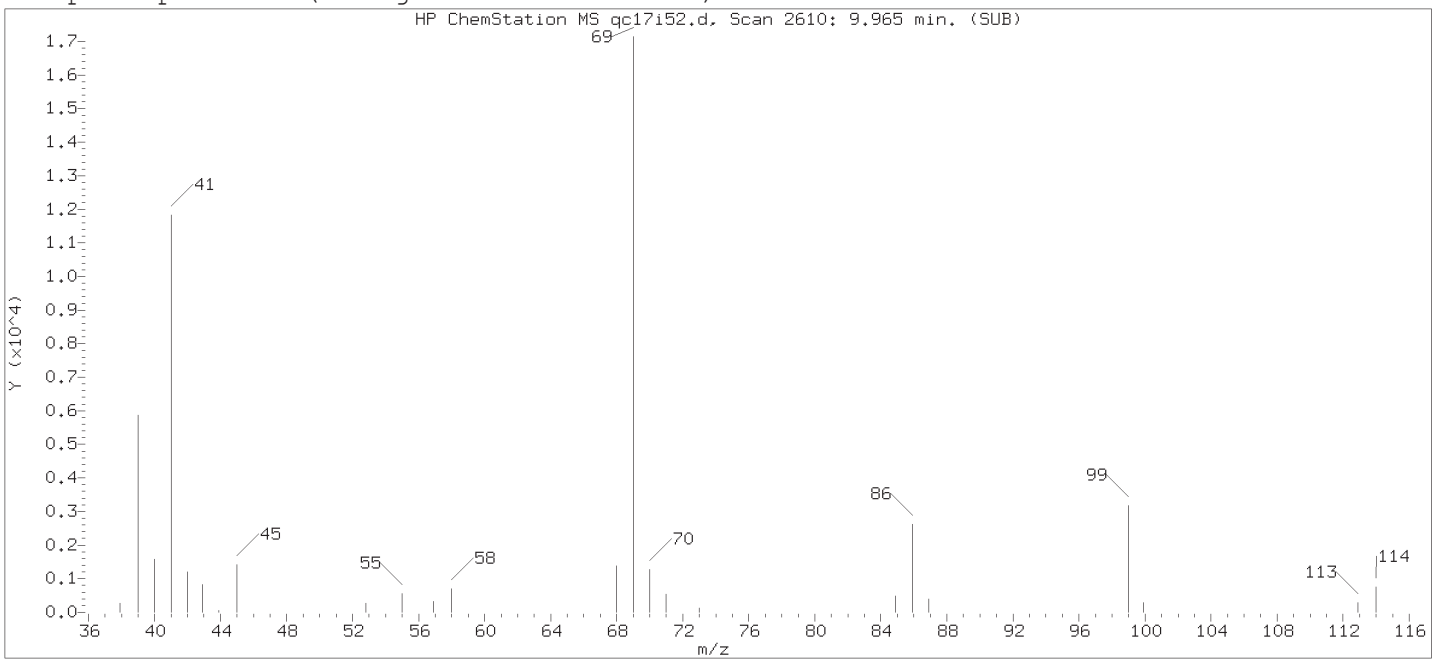
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 2610
Retention Time (minutes): 9.965
Quant Ion : 69.00
Area (flag) : 35491M
On-Column Amount (ng) : 3.9259
Integration start scan : 2598 Integration stop scan: 2648
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

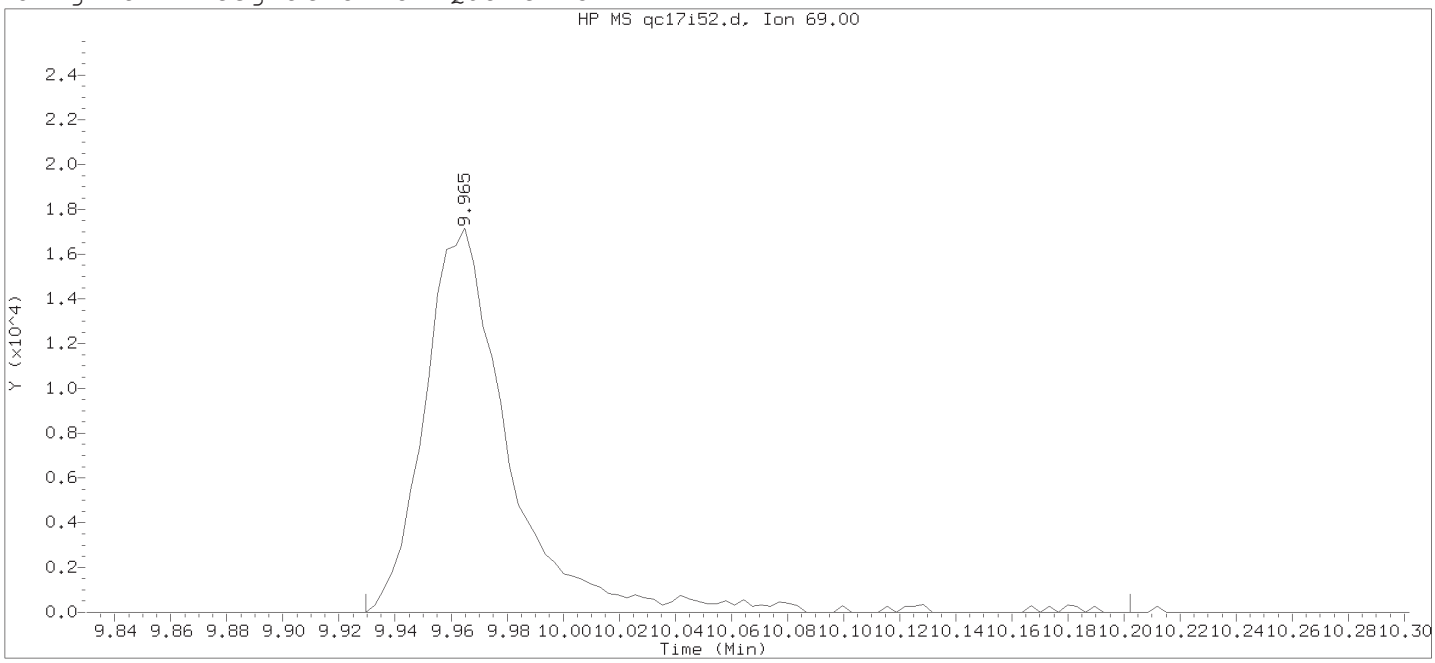
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

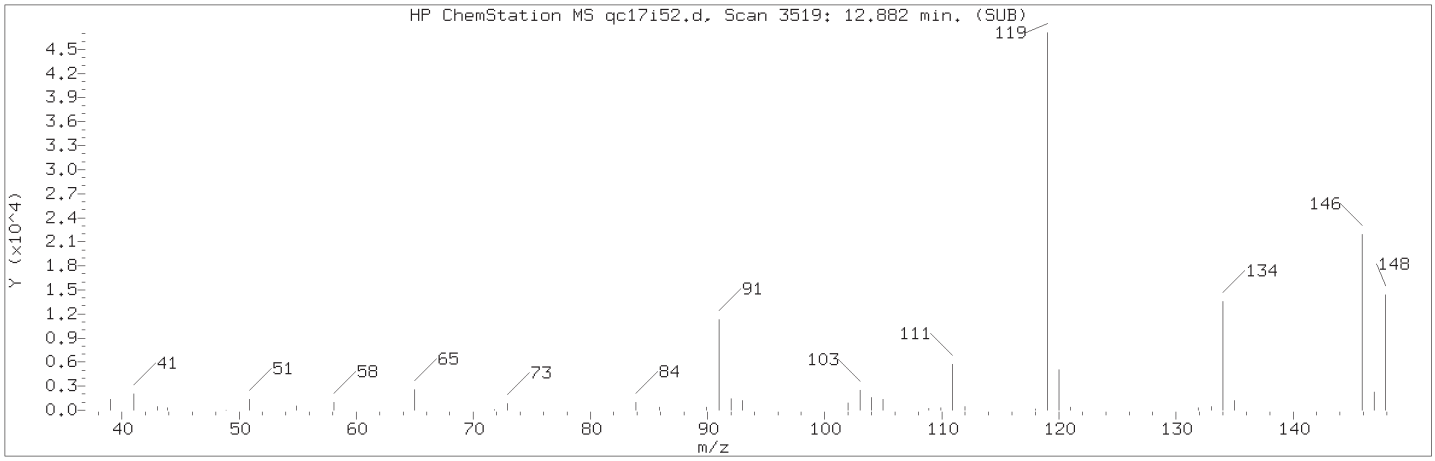
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

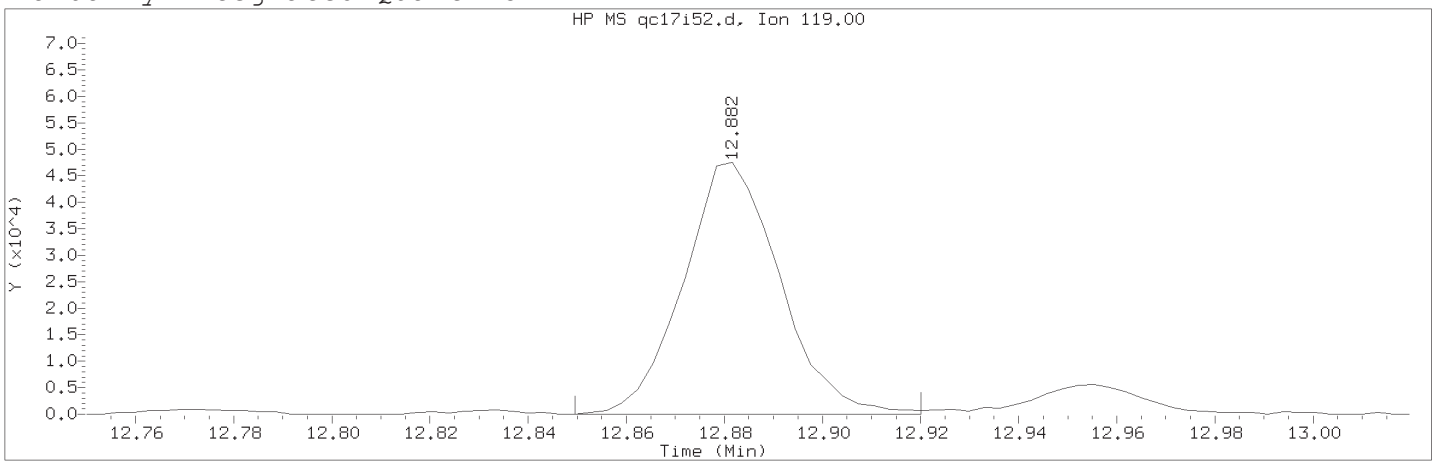
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 2610
Retention Time (minutes): 9.965
Quant Ion : 69.00
Area : 36036
On-column Amount (ng) : 1.3974
Integration start scan : 2598 Integration stop scan: 2683
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

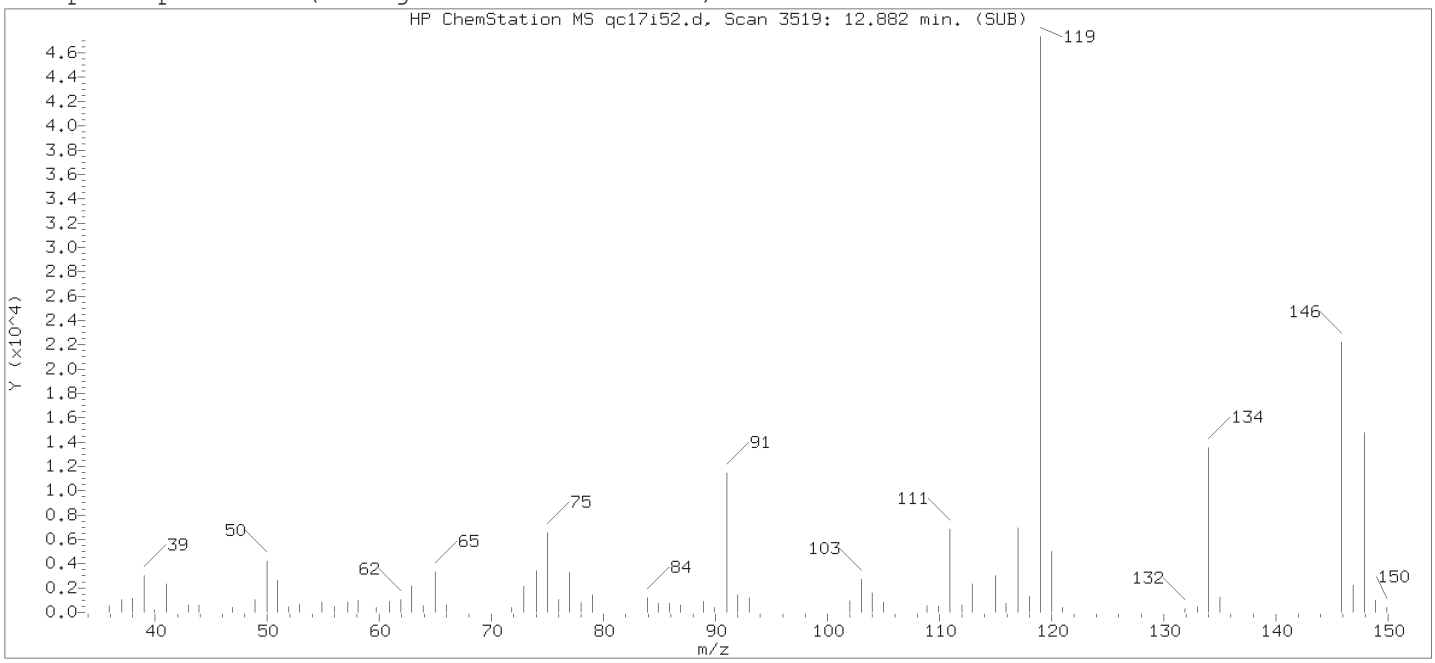
Compound Number : 139
Compound Name : p-Isopropyltoluene
Scan Number : 3519
Retention Time (minutes): 12.882
Quant Ion : 119.00
Area (flag) : 64868M
On-Column Amount (ng) : 3.9916
Integration start scan : 3508 Integration stop scan: 3530
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

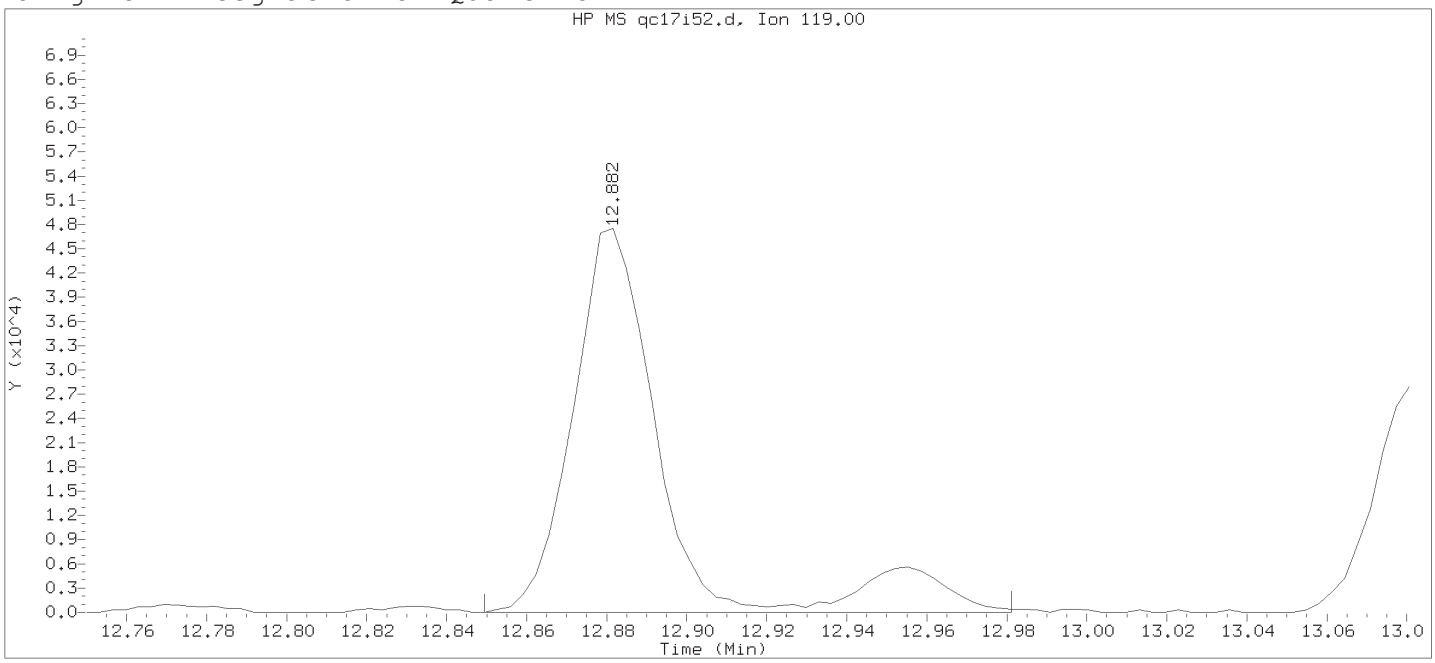
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



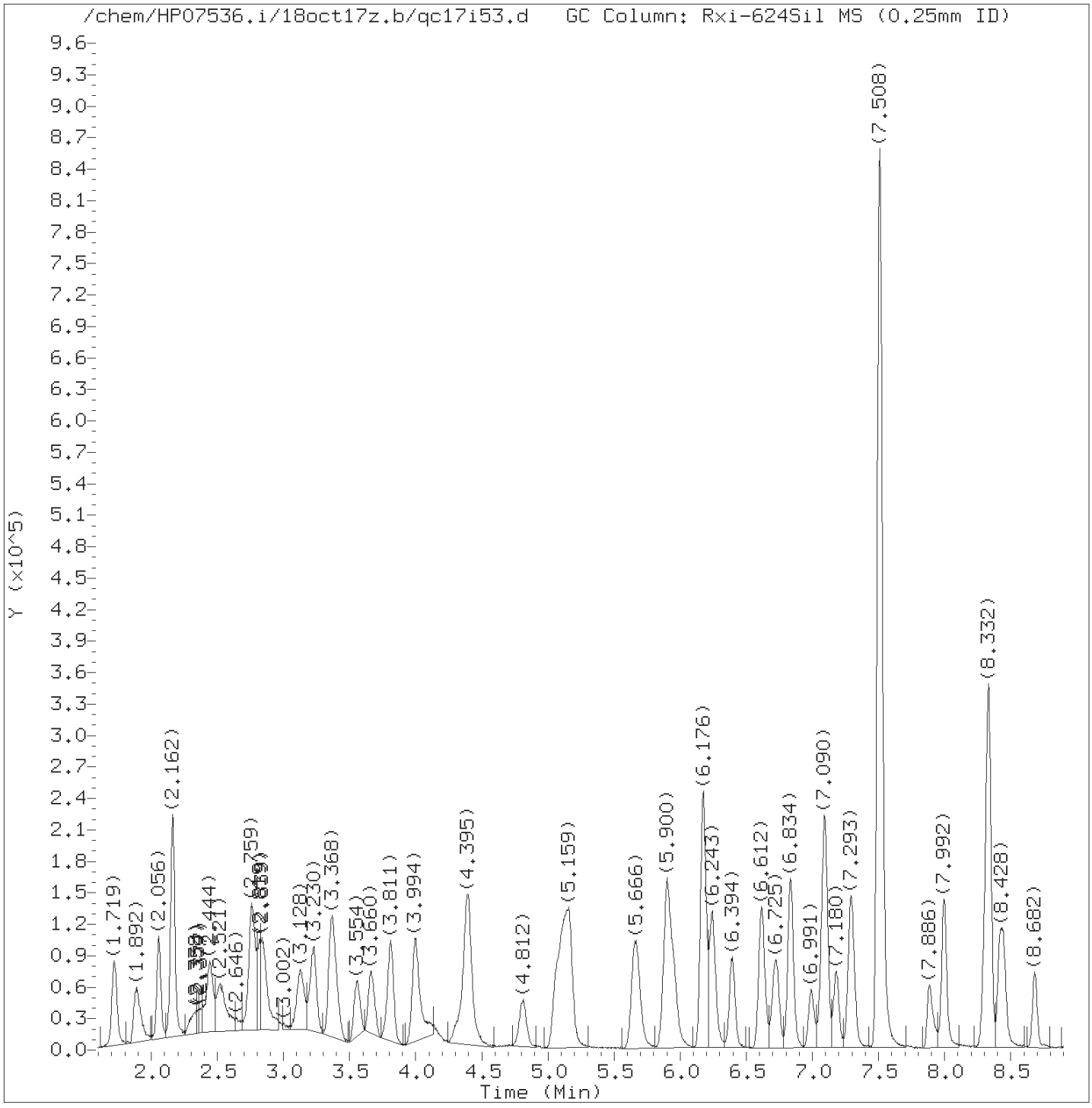
Data File: /chem/HP07536.i/18oct17z.b/qc17i52.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:15 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 139
Compound Name : p-Isopropyltoluene
Scan Number : 3519
Retention Time (minutes): 12.882
Quant Ion : 119.00
Area : 73728
On-column Amount (ng) : 4.4501
Integration start scan : 3508 Integration stop scan: 3549
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:01.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

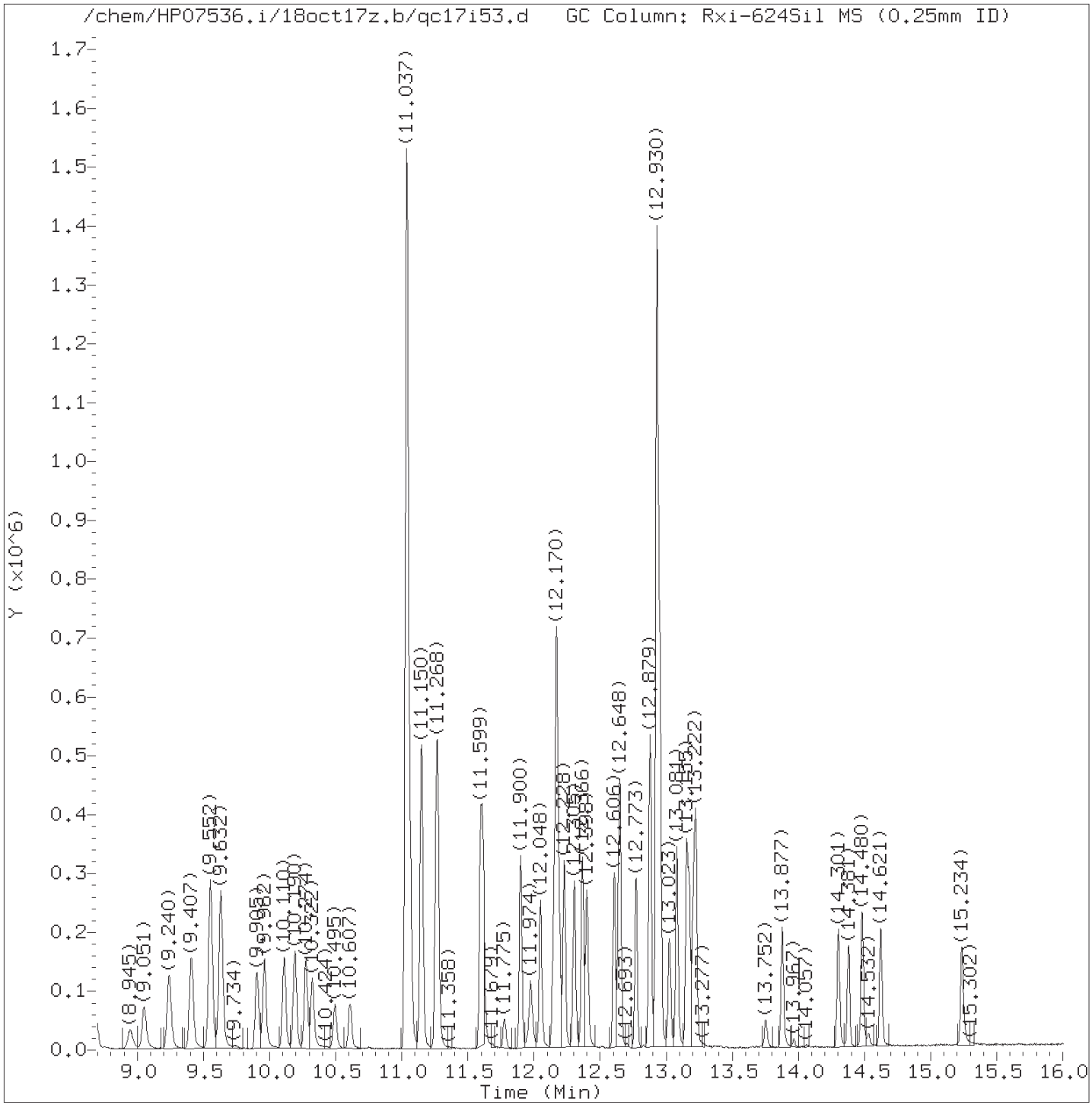
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.886	85	113730	10.706
4) Chloromethane	(2)	2.056	50	129164	11.413
5) Vinyl Chloride	(2)	2.165	62	124959	11.348
9) Bromomethane	(2)	2.444	94	45196	11.180
10) Chloroethane	(2)	2.521	64	40384	0.451
11) Dichlorofluoromethane	(2)	2.759	67	148484A	10.808
13) Trichlorofluoromethane	(2)	2.816	101	154428	11.467
14) n-Pentane	(2)	2.861	43	73396	9.614
15) Ethanol	(1)	2.954	45	77578	1064.902
17) Freon 123a	(2)	3.128	67	87620	10.571
18) Acrolein	(1)	3.230	56	158314	103.540
19) 1,1-Dichloroethene	(2)	3.355	96	54077	9.987
19) 1,1-Dichloroethene	(2)	3.359	63	28620	10.344
20) Acetone	(1)	3.378	58	12670M	20.519
22) Freon 113	(2)	3.381	101	45605	9.887
23) 2-Propanol	(1)	3.541	45	45637M	105.508
24) Methyl Iodide	(2)	3.558	142	116067	10.077
25) Carbon Disulfide	(2)	3.660	76	197321	10.023
27) Methyl Acetate	(2)	3.776	43	50418	9.501
29) Allyl Chloride	(2)	3.811	41	105153	10.377
31) Methylene Chloride	(2)	3.994	84	64926	10.042
30)*t-Butyl alcohol-d10	(1)	4.004	65	128352	250.000
32) t-Butyl alcohol	(1)	4.135	59	62102	98.903
33) Acrylonitrile	(2)	4.308	53	28412	10.692
34) Methyl Tertiary Butyl Ether	(2)	4.385	73	181918	9.820
35) trans-1,2-Dichloroethene	(2)	4.395	96	61776	10.106
38) n-Hexane	(2)	4.819	57	46133	9.785
40) 1,1-Dichloroethane	(2)	5.059	63	110338	10.097
41) di-Isopropyl ether	(2)	5.114	45	213069	9.873
42) 2-Chloro-1,3-butadiene	(2)	5.165	53	98738	10.013
43) Ethyl t-butyl ether	(2)	5.659	59	197898	9.859
44) 2-Butanone	(1)	5.871	43	66782M	20.096
44) 2-Butanone	(1)	5.650	72	16548	20.365
45) cis-1,2-Dichloroethene	(2)	5.900	96	65608	9.724
47) 2,2-Dichloropropane	(2)	5.916	77	87335	9.899
49) Propionitrile	(2)	5.954	54	90893	98.070
46) 1,2-Dichloroethene (Total)	(2)		96	127384	19.830
51) Methacrylonitrile	(2)	6.176	67	138766	48.646

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.237	128	37095	9.815
53) Tetrahydrofuran	(1)	6.253	71	17553	21.162
54) Chloroform	(2)	6.394	83	102996	9.842
56)$Dibromofluoromethane	(2)	6.609	113	60013	10.110
56)$Dibromofluoromethane	(2)	6.612	111	63575	10.399
57) 1,1,1-Trichloroethane	(2)	6.622	97	82955	9.665
58) Cyclohexane	(2)	6.725	56	73065	9.718
58) Cyclohexane	(2)	6.721	84	59534	9.471
58) Cyclohexane	(2)	6.718	69	21940	9.806
60) 1,1-Dichloropropene	(2)	6.834	75	77785	10.075
61) Carbon Tetrachloride	(2)	6.837	117	58586	9.343
62) Isobutyl Alcohol	(1)	6.991	41	52706M	247.747
63)$1,2-Dichloroethane-d4	(2)	7.074	102	16419	10.638
63)$1,2-Dichloroethane-d4	(2)	7.074	65	78174	10.575
63)$1,2-Dichloroethane-d4	(2)	7.071	104	10368	10.706
64) Benzene	(2)	7.100	78	234405	9.784
67) 1,2-Dichloroethane	(2)	7.180	62	82188	9.904
67) 1,2-Dichloroethane	(2)	7.183	98	7833	10.908
68) t-Amyl methyl ether	(2)	7.293	73	187530	9.845
70)*Fluorobenzene	(2)	7.508	96	1091139	50.000
72) n-Heptane	(2)	7.520	43	42289	9.184
73) n-Butanol	(1)	7.880	56	77835M	487.774
75) Trichloroethene	(2)	7.992	95	59988	10.088
76) Methylcyclohexane	(2)	8.300	83	55027	9.616
77) 1,2-Dichloropropane	(2)	8.335	63	62465	9.559
79) Methyl Methacrylate	(2)	8.419	69	46835	9.699
80) 1,4-Dioxane	(1)	8.432	88	14320M	251.608
81) Dibromomethane	(2)	8.445	93	38860	9.798
84) Bromodichloromethane	(2)	8.682	83	62261	9.179
85) 2-Nitropropane	(1)	8.939	41	17249	16.181
87) 2-Chloroethyl Vinyl Ether	(2)	9.051	63	41774	9.832
89) cis-1,3-Dichloropropene	(2)	9.240	75	92853	9.710
90) 4-Methyl-2-pentanone	(2)	9.410	43	135519	20.618
91)$Toluene-d8	(3)	9.552	98	234710	10.641
91)$Toluene-d8	(3)	9.552	100	152840	10.670
92) Toluene	(3)	9.632	92	140425	10.004
93) trans-1,3-Dichloropropene	(3)	9.905	75	83728	9.660
95) Ethyl Methacrylate	(3)	9.962	69	85679	9.566

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	176581	19.370
96) 1,1,2-Trichloroethane	(3)	10.110	97	53418	9.622
98) Tetrachloroethene	(3)	10.193	166	56288	10.050
99) 1,3-Dichloropropane	(3)	10.274	76	93411	9.837
101) 2-Hexanone	(3)	10.322	43	90811	20.857
103) Dibromochloromethane	(3)	10.495	129	42014	8.538
104) 1,2-Dibromoethane	(3)	10.610	107	57928	9.951
105)*Chlorobenzene-d5	(3)	11.037	117	808011	50.000
106) 1-Chlorohexane	(3)	11.047	91	55477	9.722
107) Chlorobenzene	(3)	11.063	112	155620	9.826
108) 1,1,1,2-Tetrachloroethane	(3)	11.146	131	47563	9.095
109) Ethylbenzene	(3)	11.150	91	236597	9.821
110) m+p-Xylene	(3)	11.268	106	184764	19.619
111) o-Xylene	(3)	11.596	106	92710	9.888
113) Styrene	(3)	11.615	104	161024	9.671
112) Xylene (Total)	(3)		106	277474	29.507
114) Bromoform	(3)	11.778	173	23277	8.798
115) Isopropylbenzene	(3)	11.900	105	199160	9.954
118) Cyclohexanone	(1)	11.974	55	50895	244.356
119)$4-Bromofluorobenzene	(3)	12.048	95	73300	10.438
119)$4-Bromofluorobenzene	(3)	12.051	174	70052	10.493
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	68059M	9.272
121) Bromobenzene	(4)	12.164	156	66964	9.671
122) trans-1,4-Dichloro-2-butene	(4)	12.170	53	104807M	47.824
123) 1,2,3-Trichloropropane	(4)	12.192	110	21928	9.762
124) n-Propylbenzene	(4)	12.228	91	216339	10.105
126) 2-Chlorotoluene	(4)	12.305	126	49811	9.877
129) 1,3,5-Trimethylbenzene	(4)	12.366	105	162572	10.054
130) 4-Chlorotoluene	(4)	12.401	126	53404	9.913
133) tert-Butylbenzene	(4)	12.606	134	32962	9.898
134) Pentachloroethane	(4)	12.638	167	28211	9.188
135) 1,2,4-Trimethylbenzene	(4)	12.651	105	169080	9.752
136) sec-Butylbenzene	(4)	12.773	105	178288	10.000
138) 1,3-Dichlorobenzene	(4)	12.876	146	98680	9.647
139) p-Isopropyltoluene	(4)	12.879	119	156937	9.672
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	340975	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	110476	9.617
142) 1,2,3-Trimethylbenzene	(4)	12.953	105	190556	9.711

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

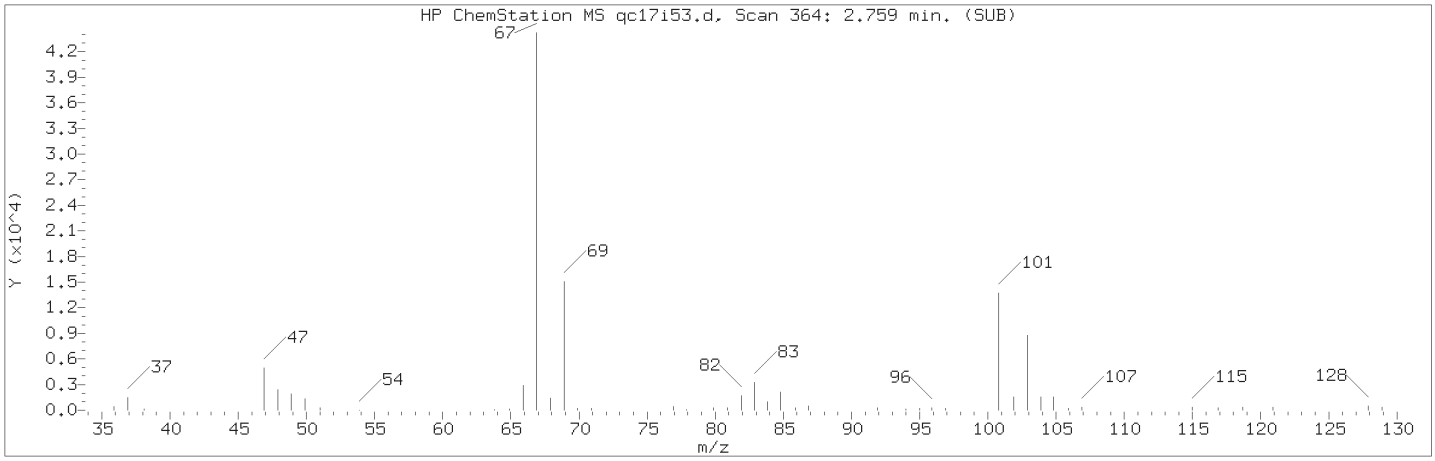
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.023	126	25749	9.031
144) 1,3-Diethylbenzene	(4)	13.081	119	97615	9.918
145) 1,4-Diethylbenzene	(4)	13.155	119	103362	10.033
146) n-Butylbenzene	(4)	13.171	92	71660M	9.571
147) 1,2-Dichlorobenzene	(4)	13.206	146	101968	9.618
148) 1,2-Diethylbenzene	(4)	13.226	119	86852	9.849
151) 1,2-Dibromo-3-chloropropane	(4)	13.752	75	10449M	9.169
152) 1,3,5-Trichlorobenzene	(4)	13.877	180	65049	9.793
153) 1,2,4-Trichlorobenzene	(4)	14.304	180	61681	9.638
154) Hexachlorobutadiene	(4)	14.381	225	27808	9.861
155) Naphthalene	(4)	14.480	128	180492	9.509
156) 1,2,3-Trichlorobenzene	(4)	14.625	180	58142	9.504
157) 2-Methylnaphthalene	(4)	15.238	142	88072	9.464

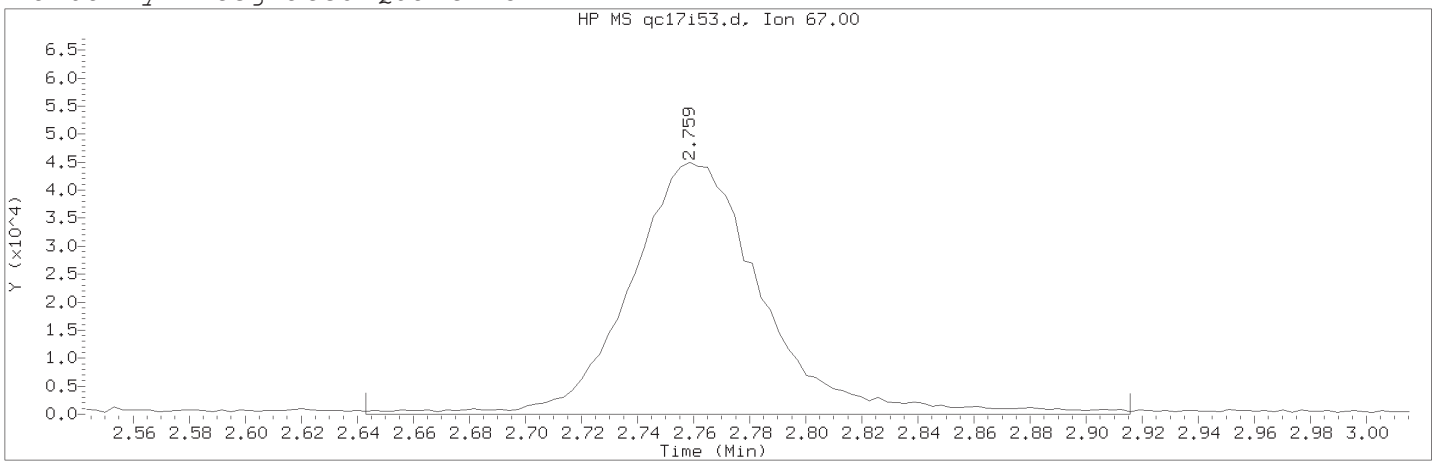
M = Compound was manually integrated.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

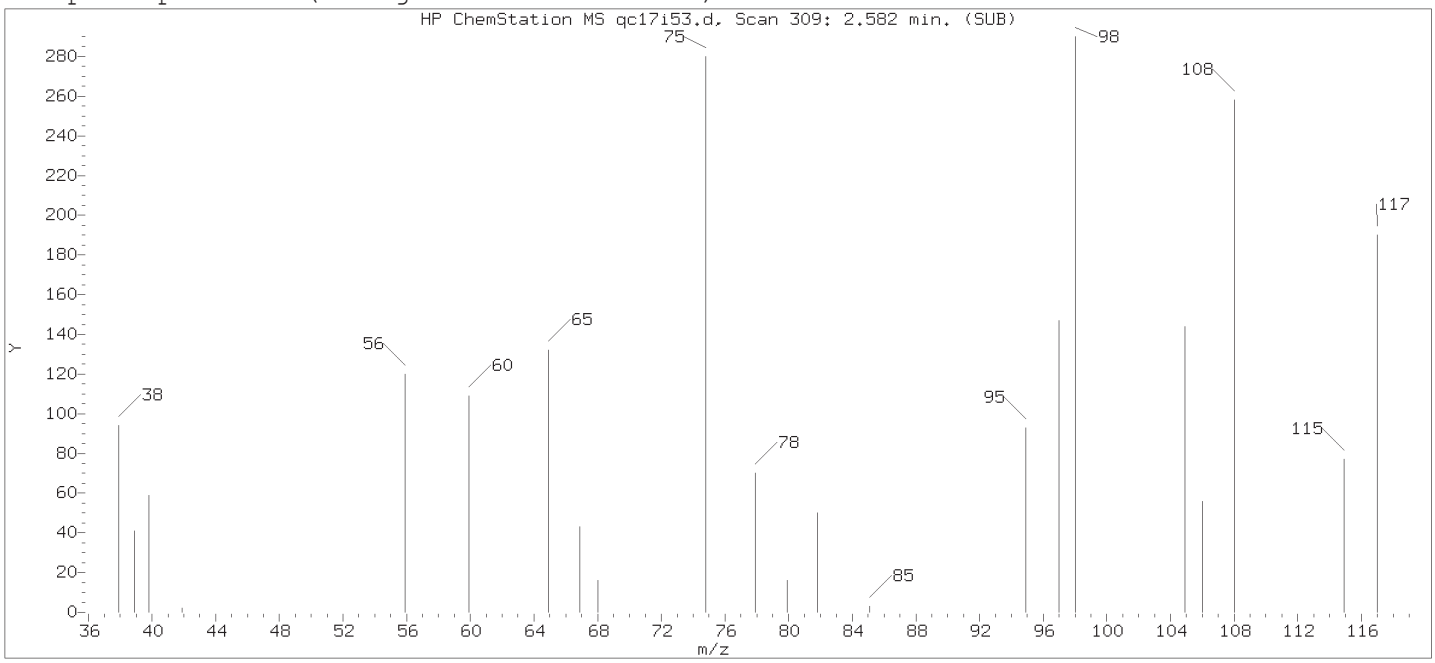
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 364
Retention Time (minutes): 2.759
Quant Ion : 67.00
Area (flag) : 148484A
On-Column Amount (ng) : 10.8078
Integration start scan : 327 Integration stop scan: 412
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

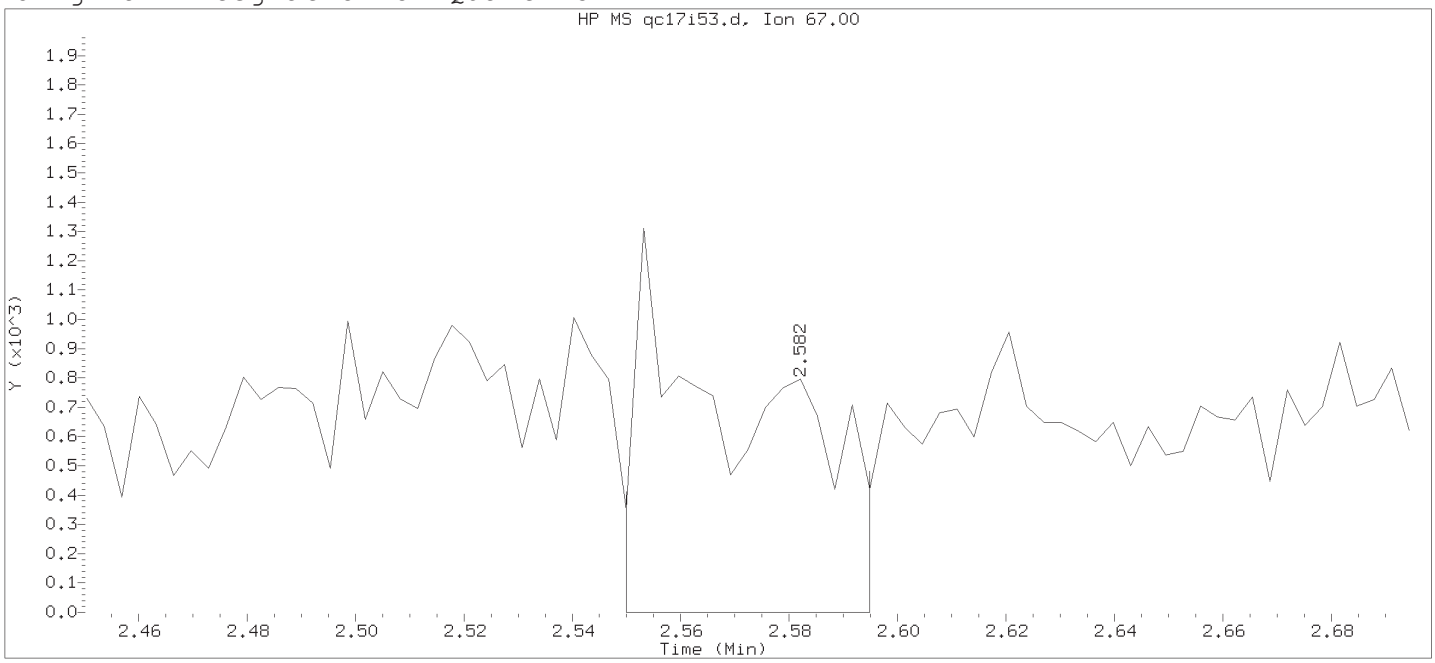
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

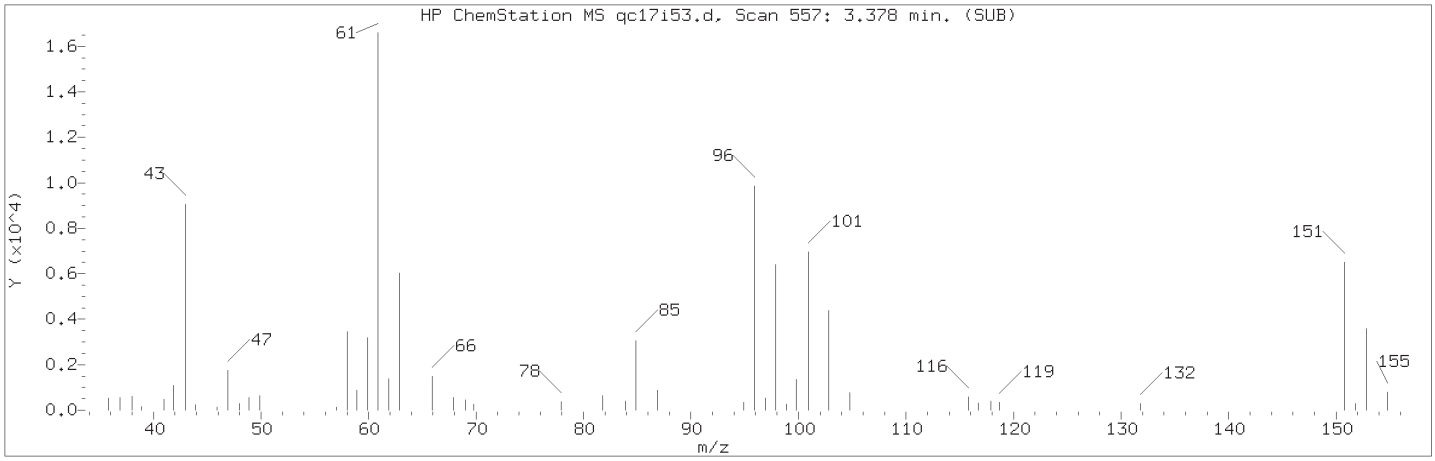
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

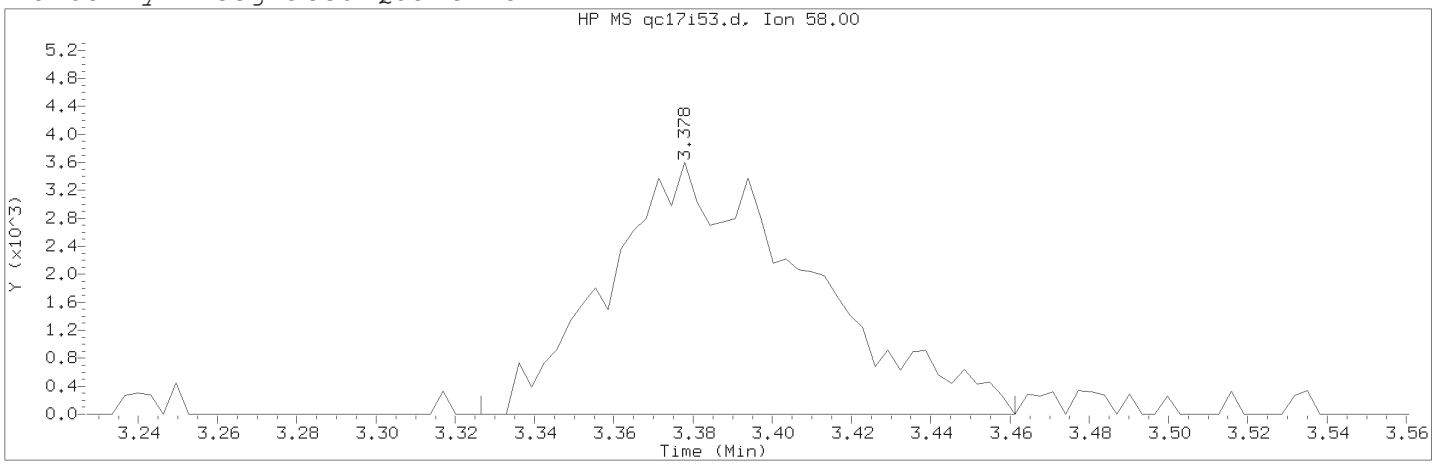
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 309
Retention Time (minutes): 2.582
Quant Ion : 67.00
Area : 1892
On-column Amount (ng) : 8.0581
Integration start scan : 298 Integration stop scan: 312
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

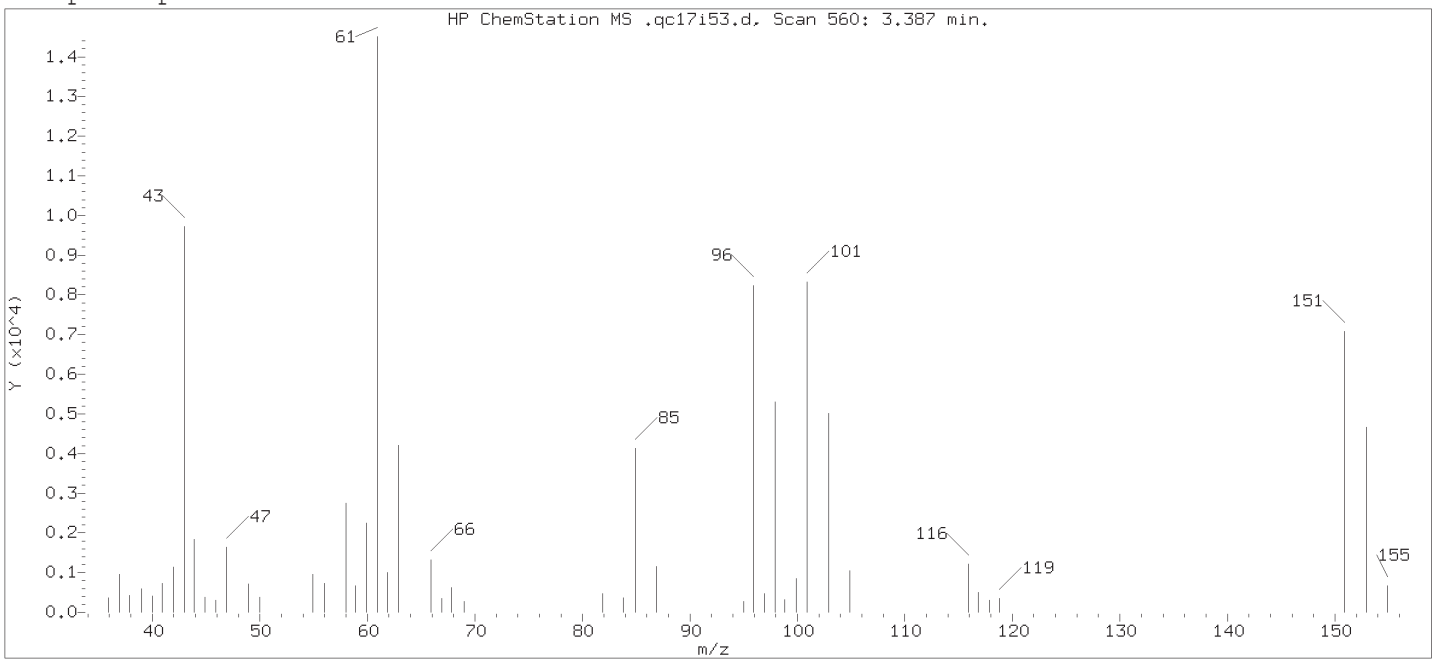
Compound Number : 20
Compound Name : Acetone
Scan Number : 557
Retention Time (minutes): 3.378
Quant Ion : 58.00
Area (flag) : 12670M
On-Column Amount (ng) : 20.5188
Integration start scan : 540 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

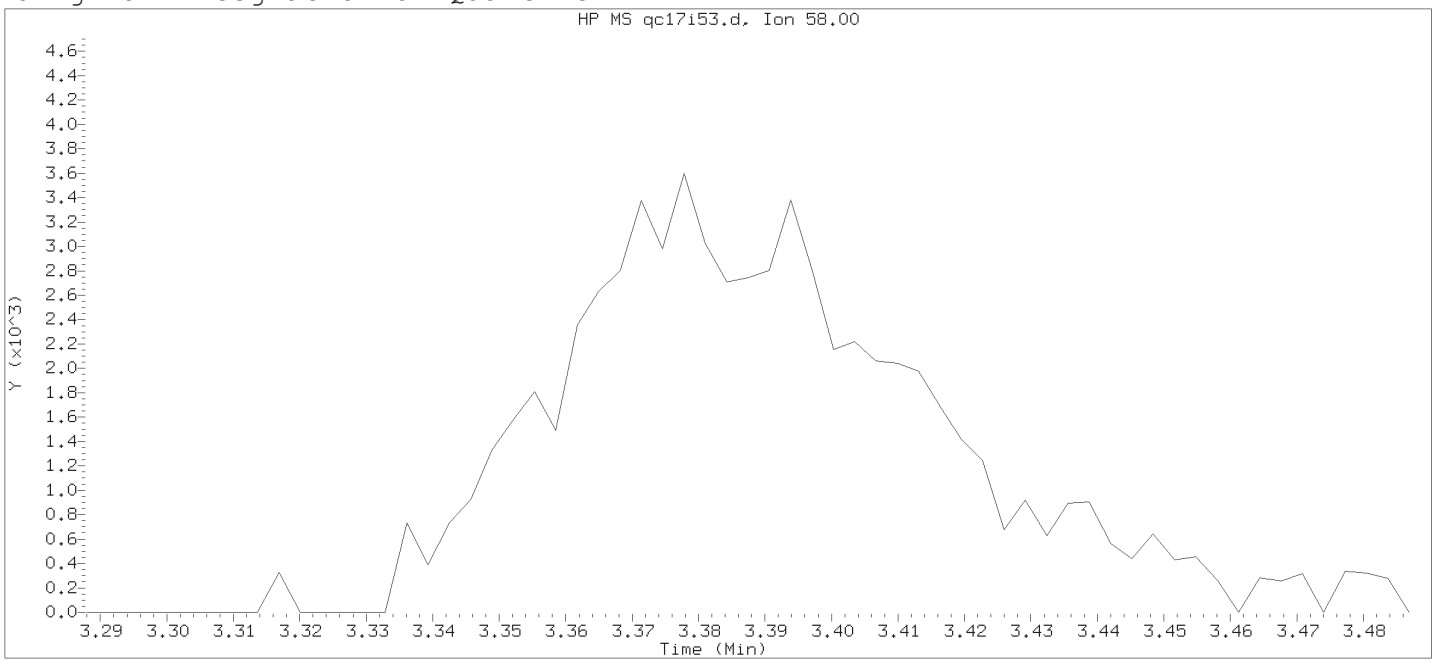
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

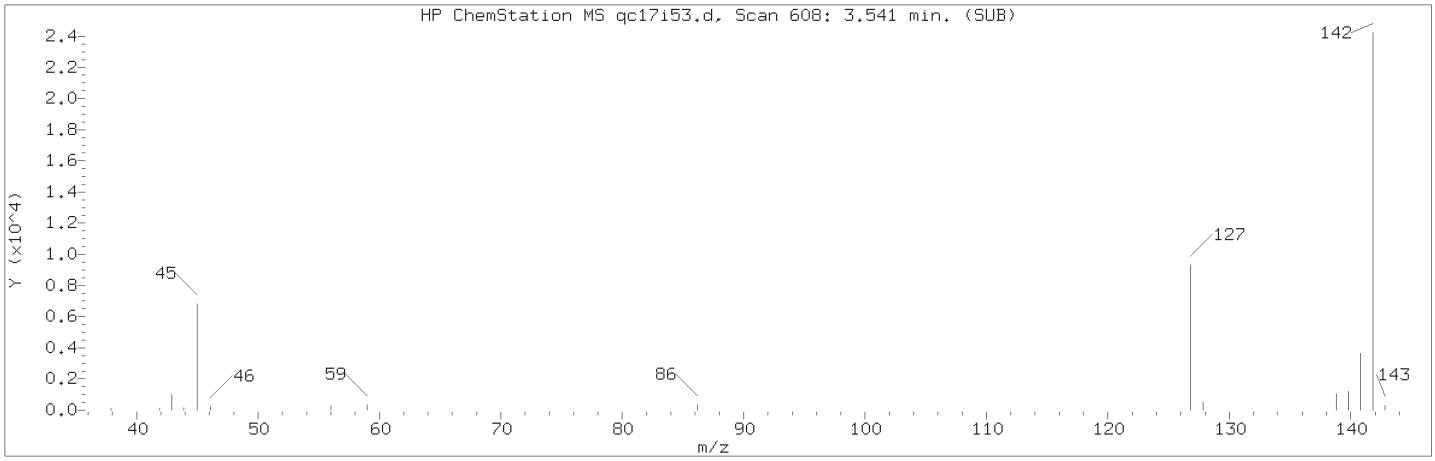
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

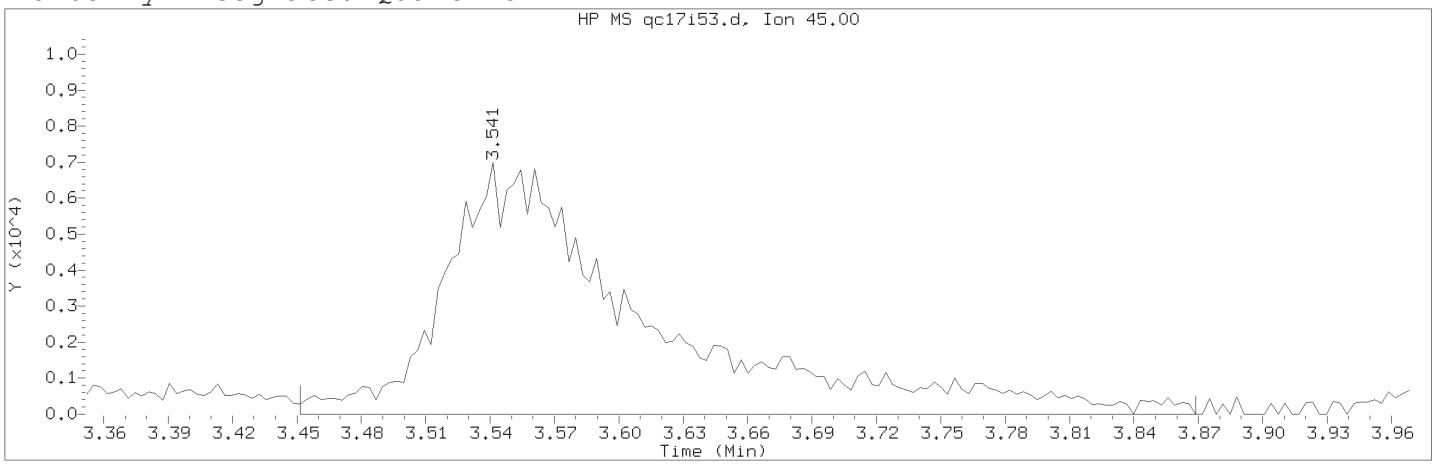
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

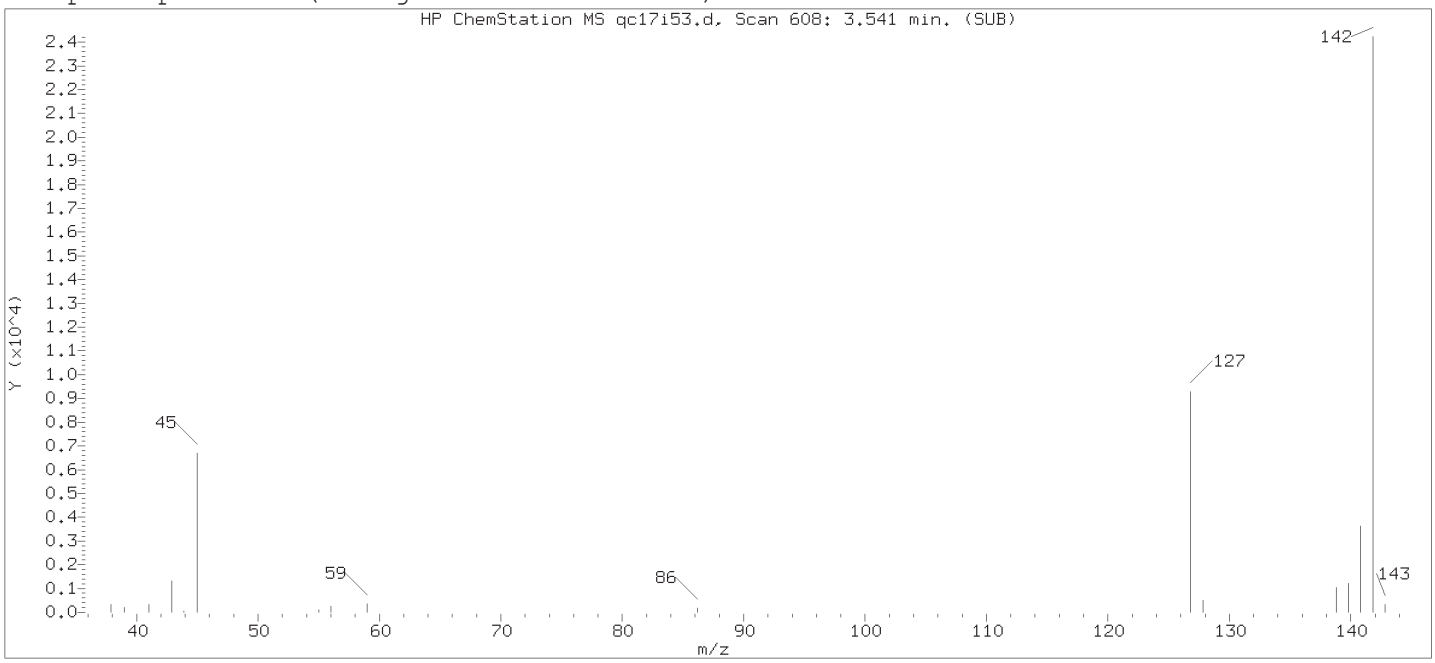
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 608
Retention Time (minutes): 3.541
Quant Ion : 45.00
Area (flag) : 45637M
On-Column Amount (ng) : 105.5079
Integration start scan : 579 Integration stop scan: 709
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

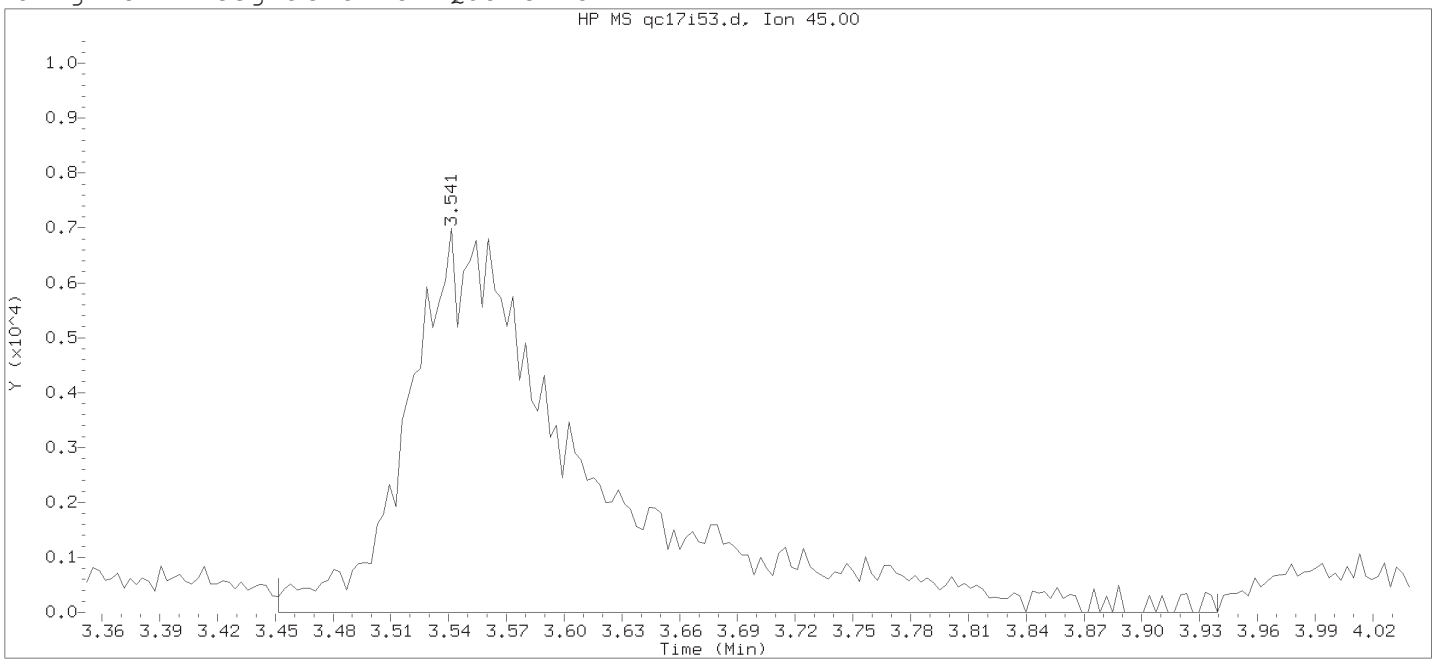
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

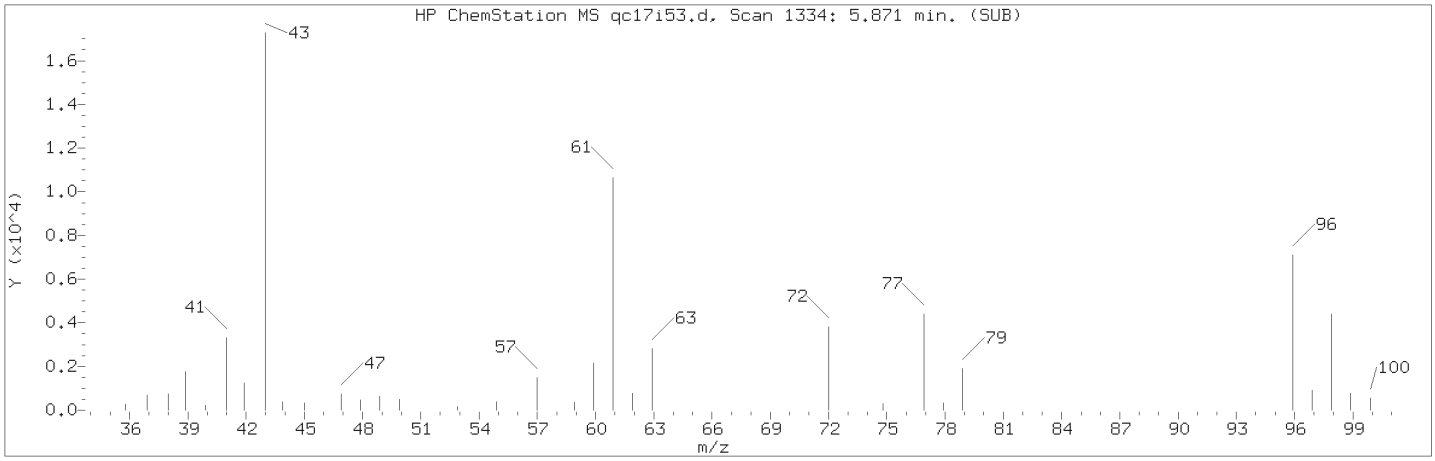
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

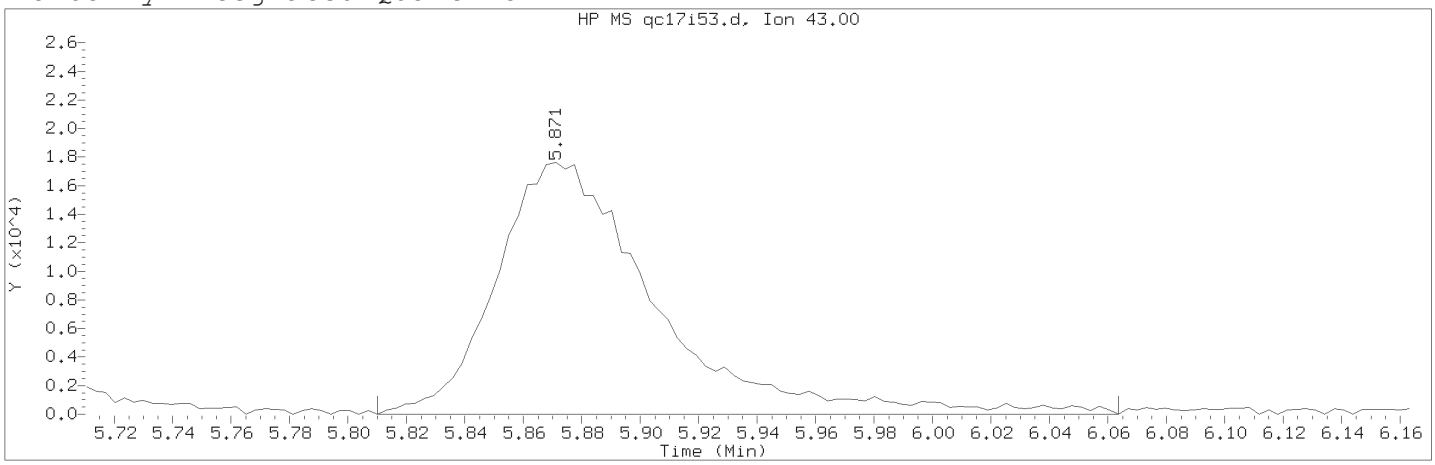
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 608
Retention Time (minutes): 3.541
Quant Ion : 45.00
Area : 46213
On-column Amount (ng) : 104.4627
Integration start scan : 579 Integration stop scan: 731
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

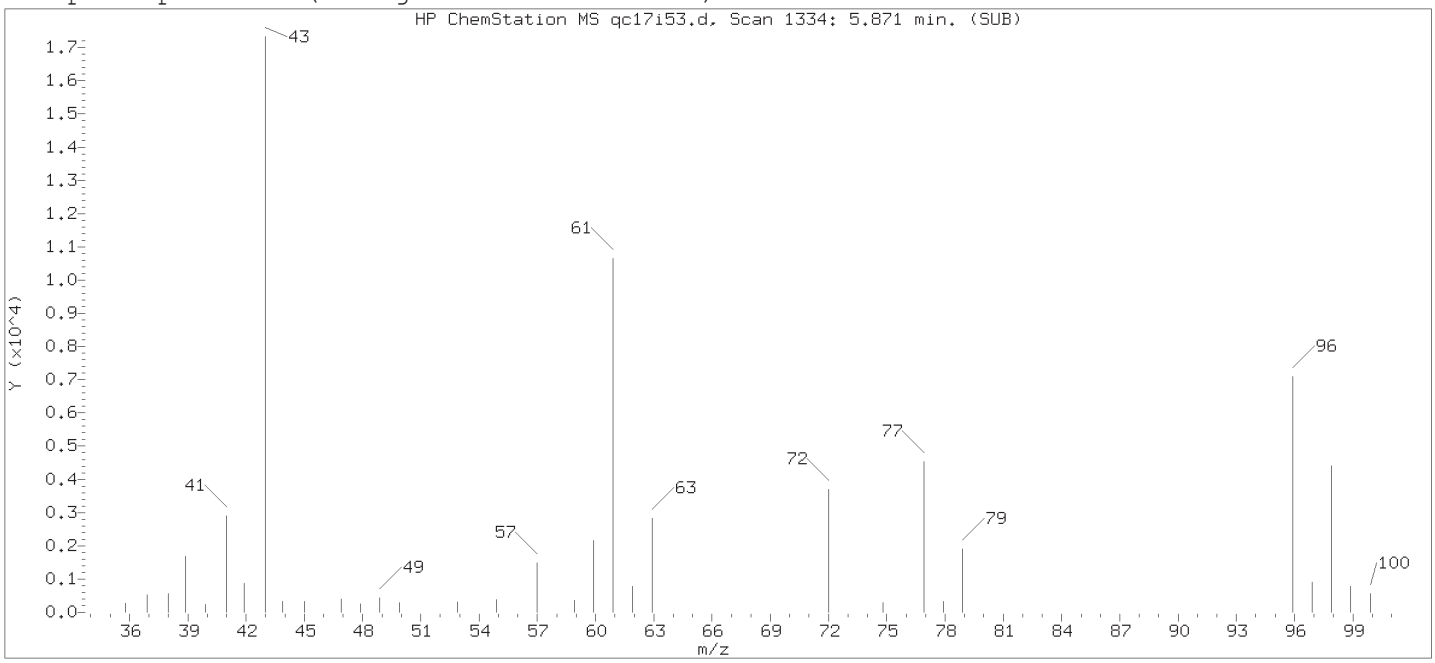
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1334
Retention Time (minutes): 5.871
Quant Ion : 43.00
Area (flag) : 66782M
On-Column Amount (ng) : 20.0960
Integration start scan : 1314 Integration stop scan: 1393
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

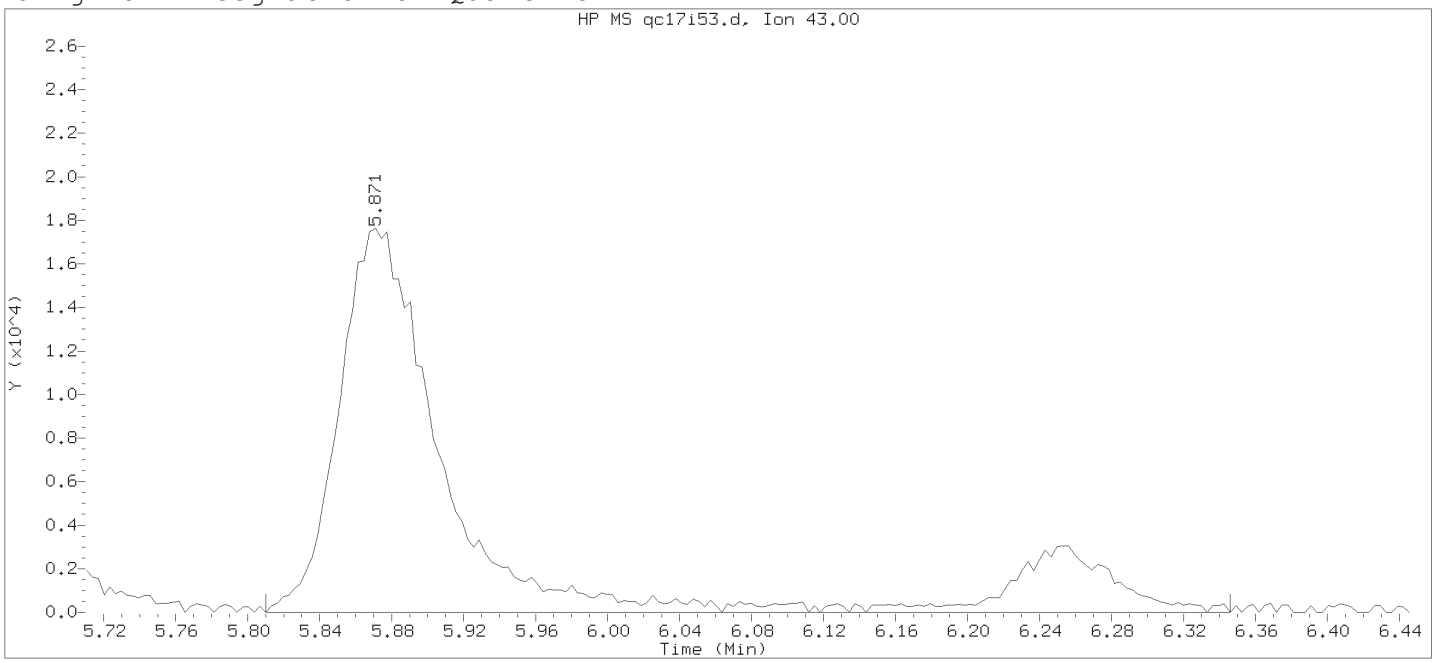
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

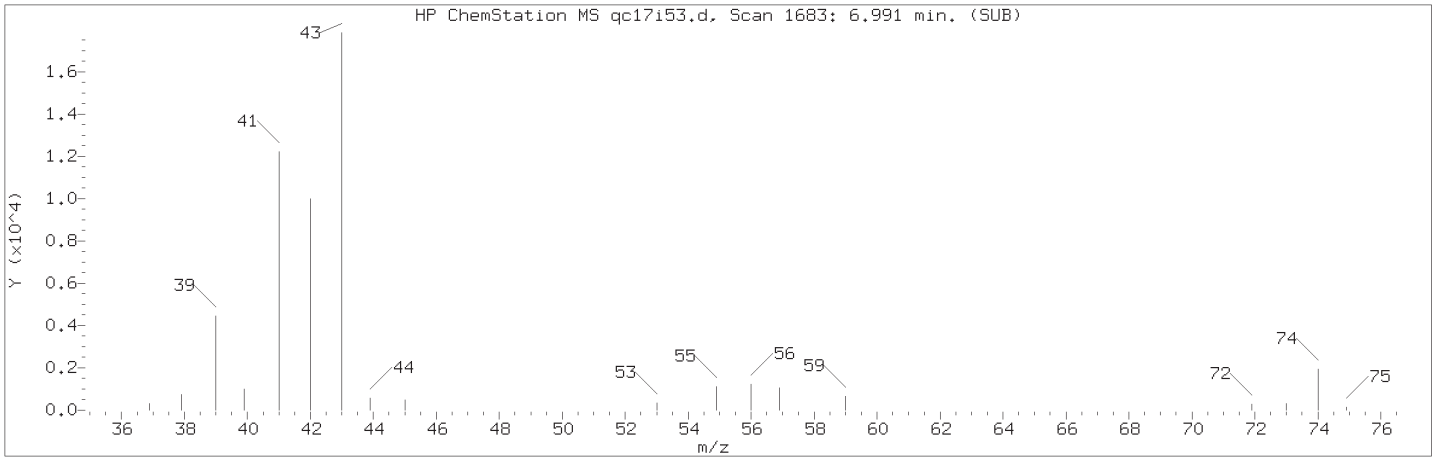
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

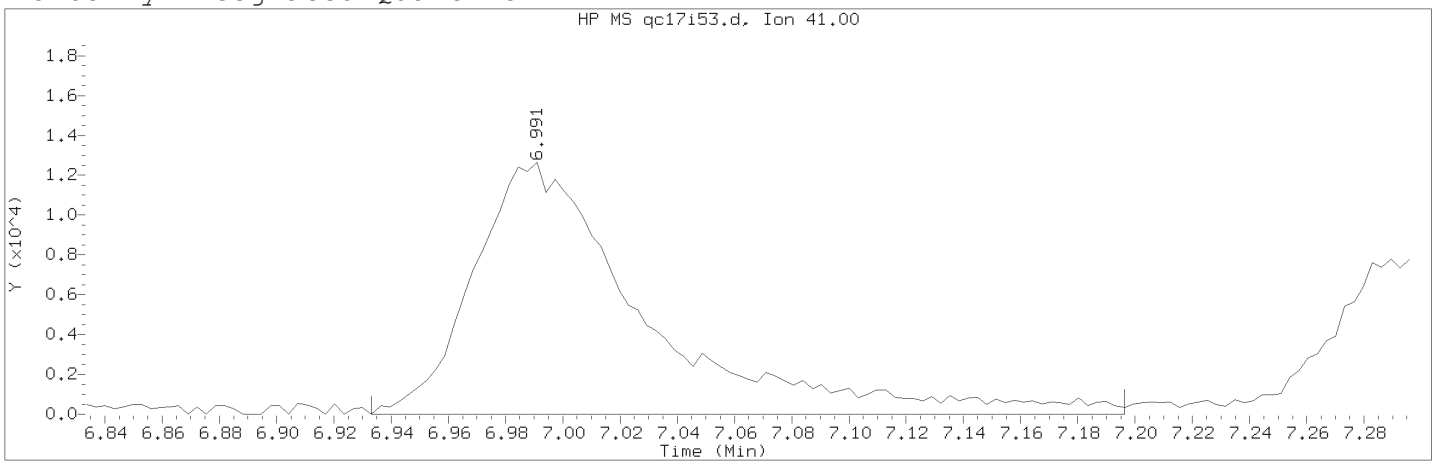
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1334
Retention Time (minutes): 5.871
Quant Ion : 43.00
Area : 80363
On-column Amount (ng) : 22.2313
Integration start scan : 1314 Integration stop scan: 1481
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

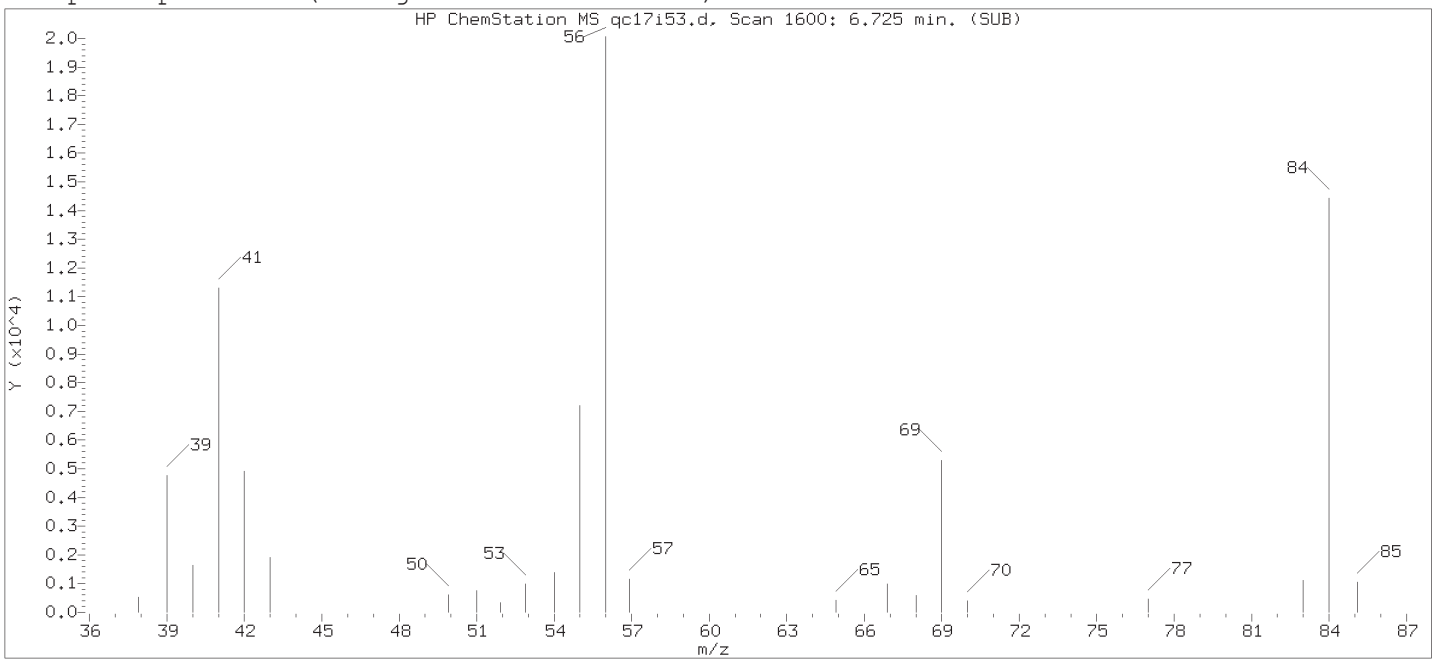
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1683
Retention Time (minutes): 6.991
Quant Ion : 41.00
Area (flag) : 52706M
On-Column Amount (ng) : 247.7465
Integration start scan : 1664 Integration stop scan: 1746
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

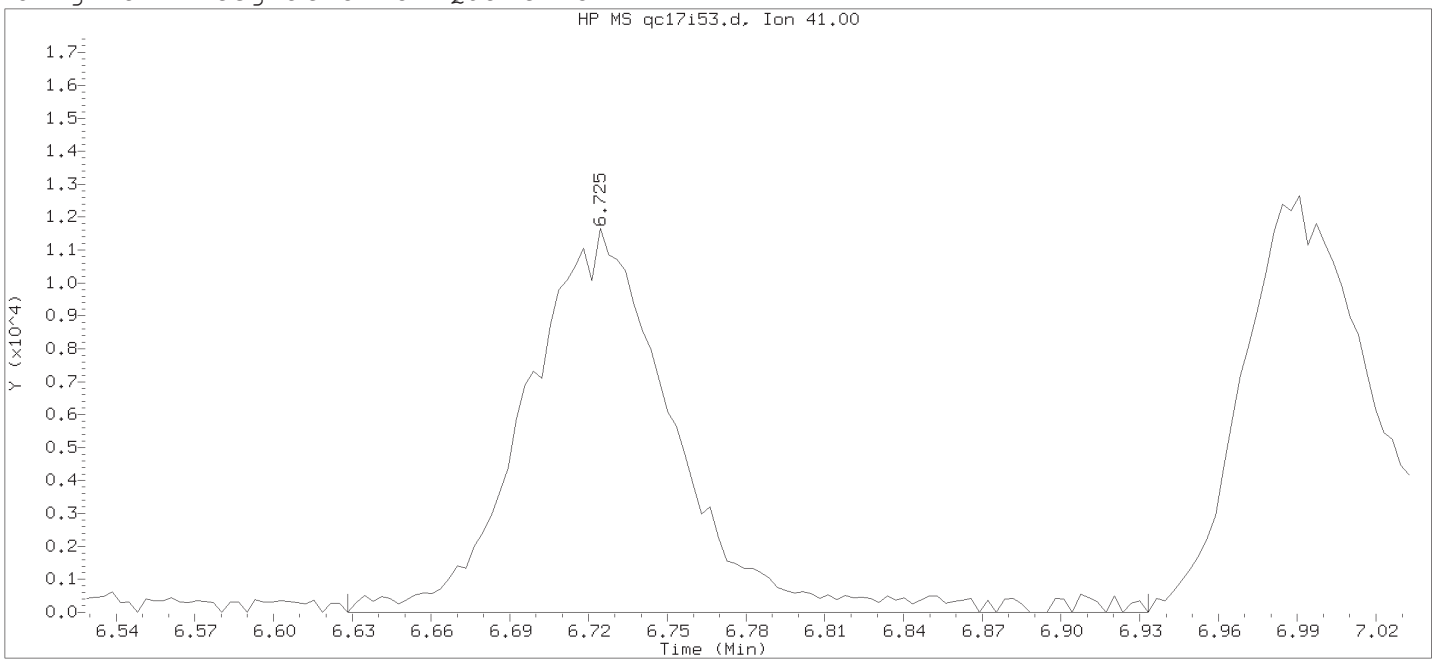
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

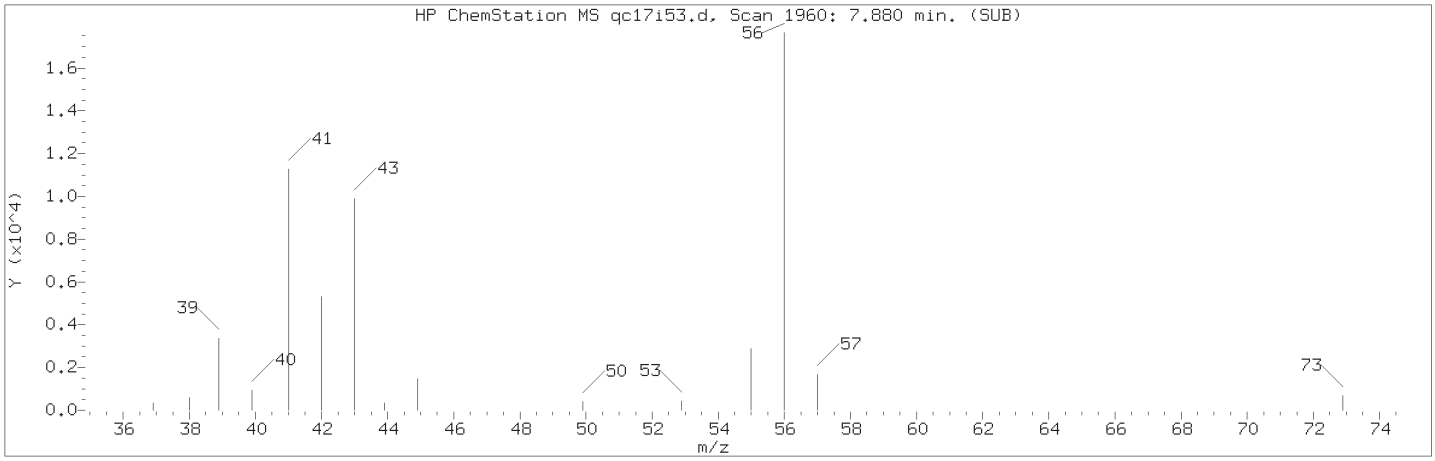
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

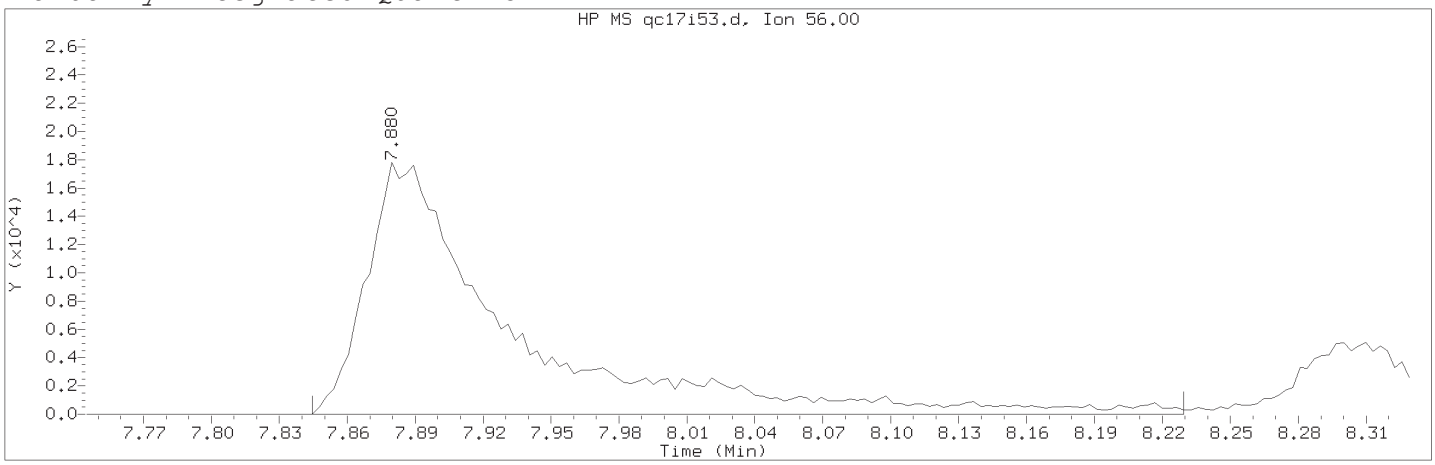
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1600
Retention Time (minutes): 6.725
Quant Ion : 41.00
Area : 46324
On-column Amount (ng) : 267.0727
Integration start scan : 1569 Integration stop scan: 1664
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

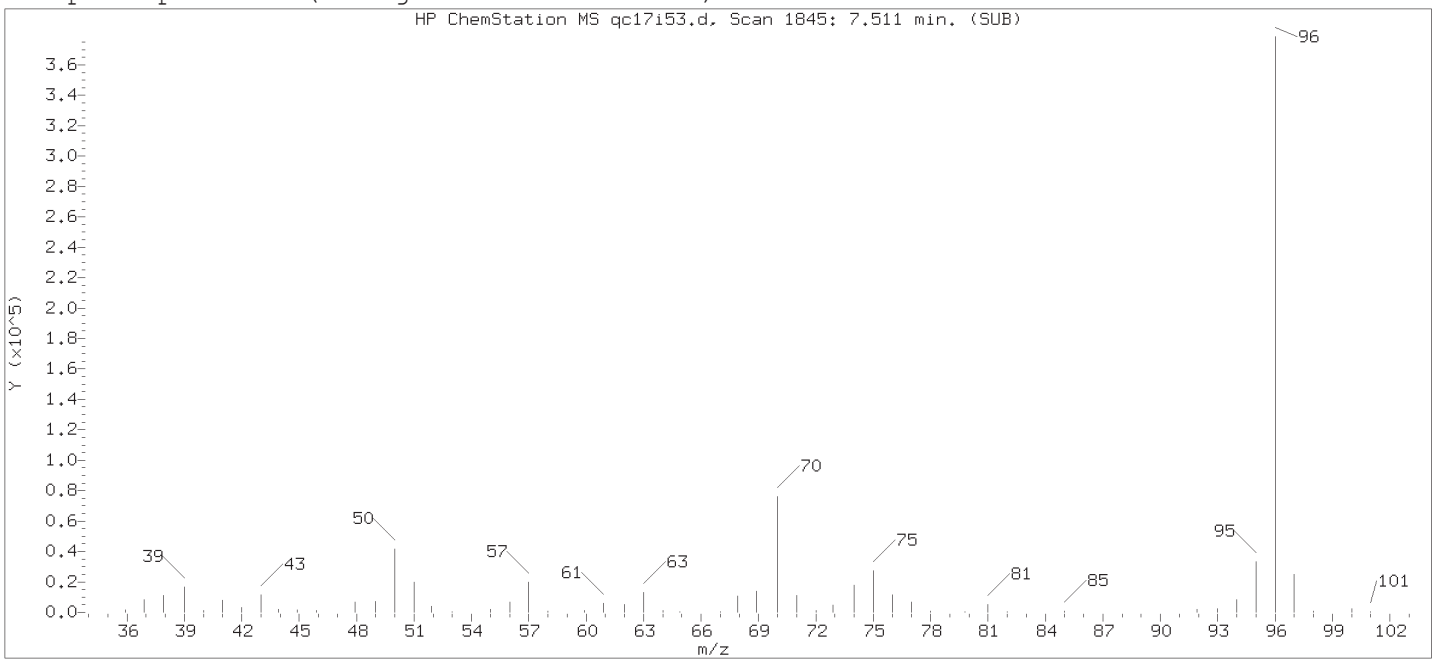
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1960
Retention Time (minutes): 7.880
Quant Ion : 56.00
Area (flag) : 77835M
On-Column Amount (ng) : 487.7743
Integration start scan : 1948 Integration stop scan: 2068
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

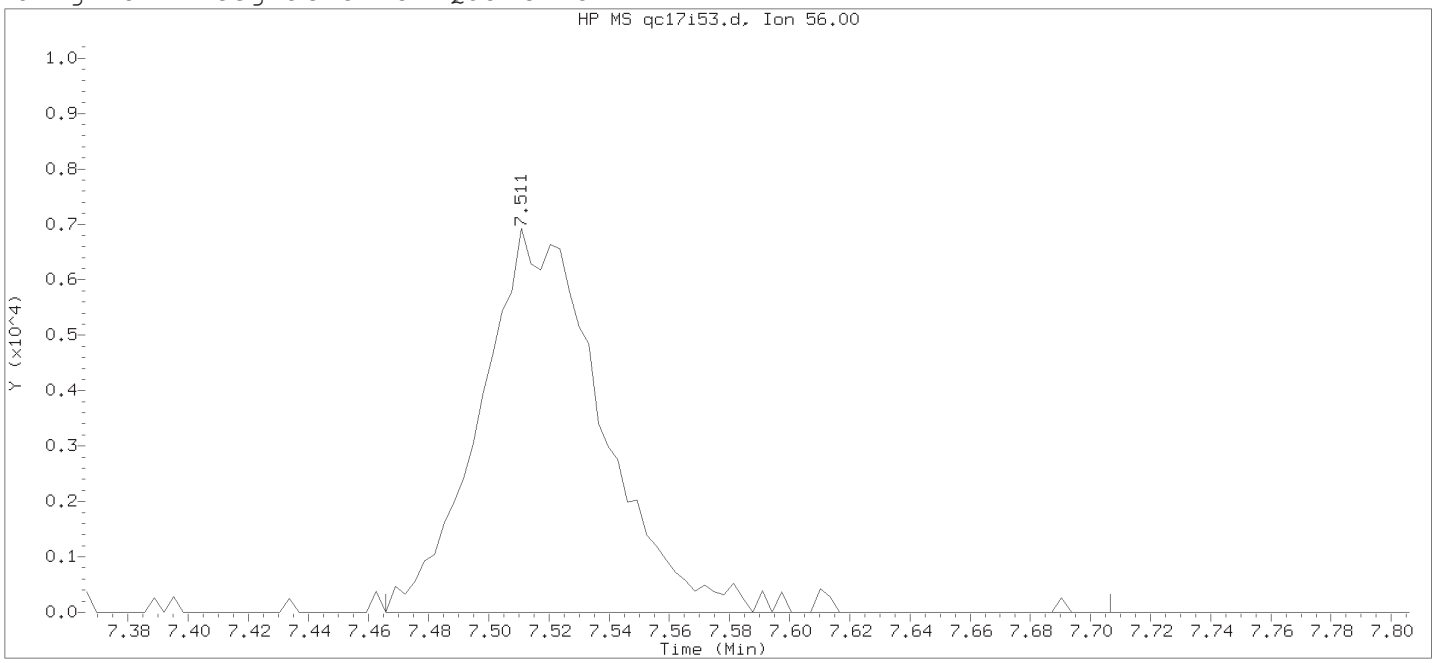
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

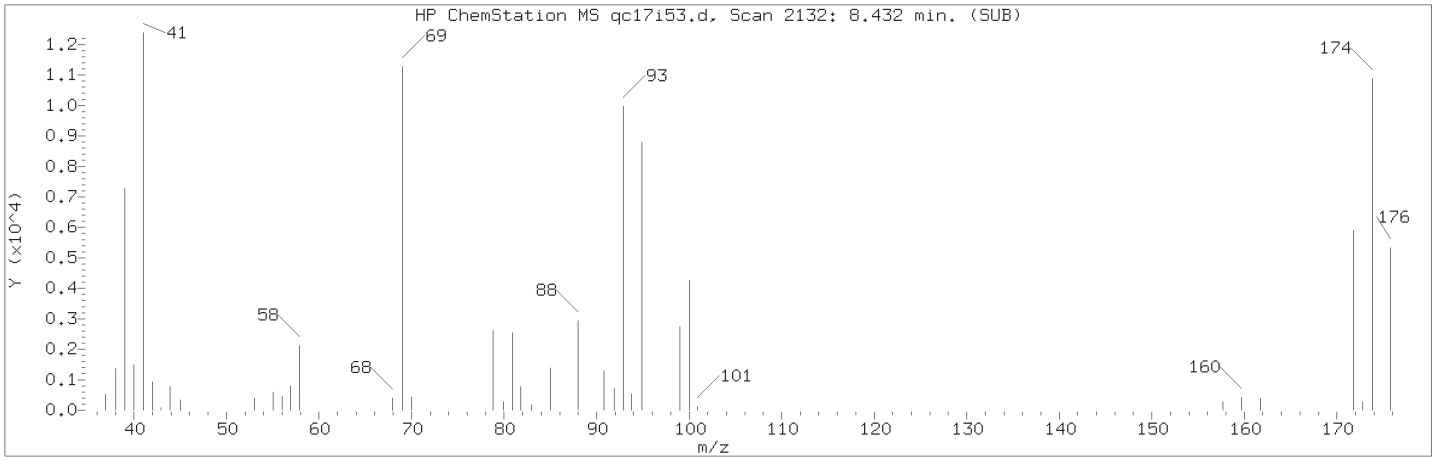
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

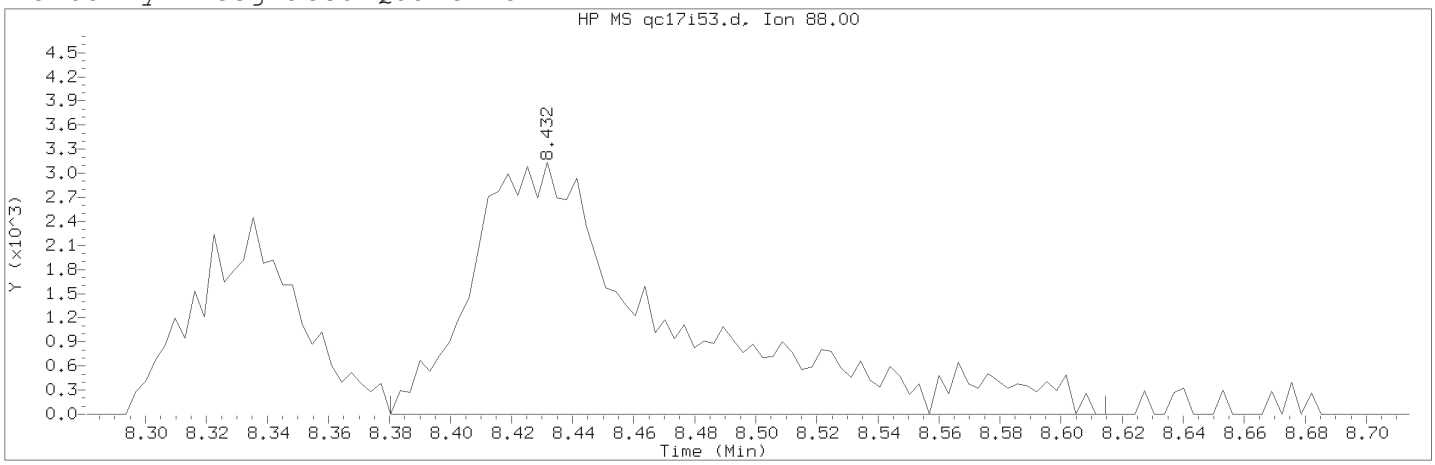
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1845
Retention Time (minutes): 7.511
Quant Ion : 56.00
Area : 19743
On-column Amount (ng) : 203.9819
Integration start scan : 1830 Integration stop scan: 1905
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

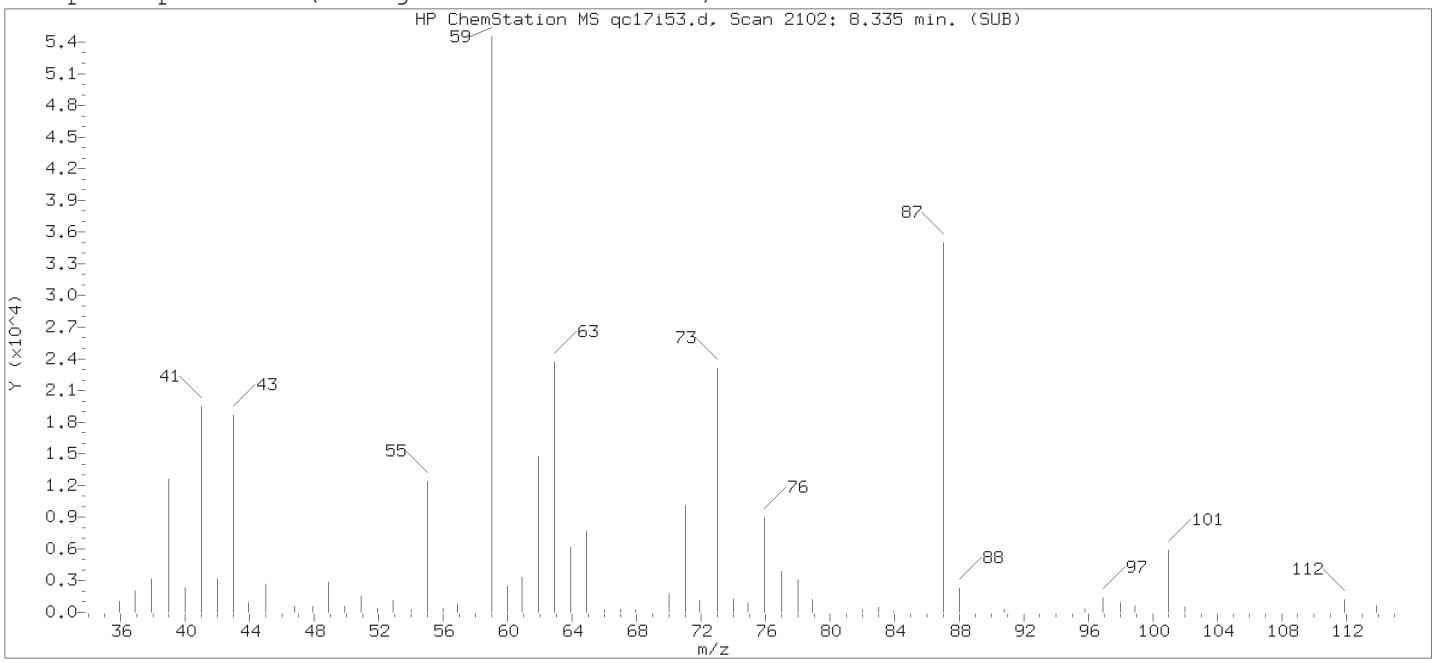
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2132
Retention Time (minutes): 8.432
Quant Ion : 88.00
Area (flag) : 14320M
On-Column Amount (ng) : 251.6084
Integration start scan : 2115 Integration stop scan: 2188
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

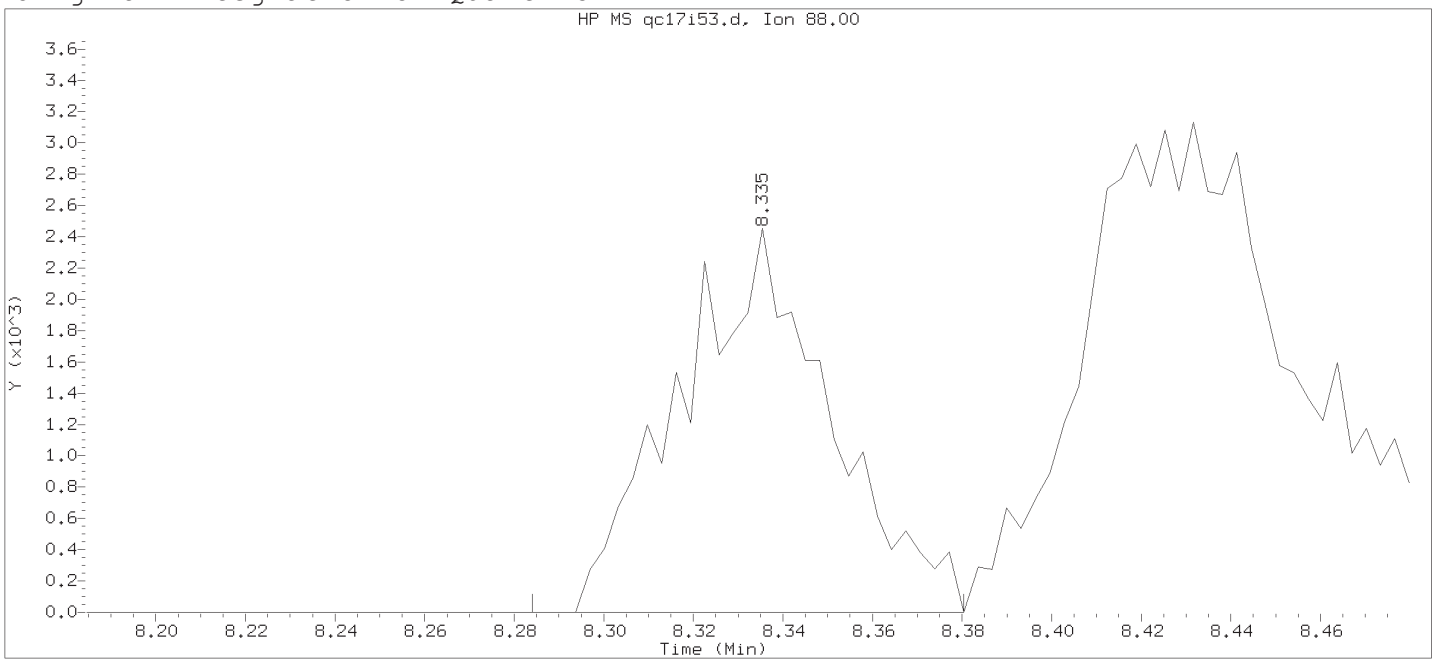
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

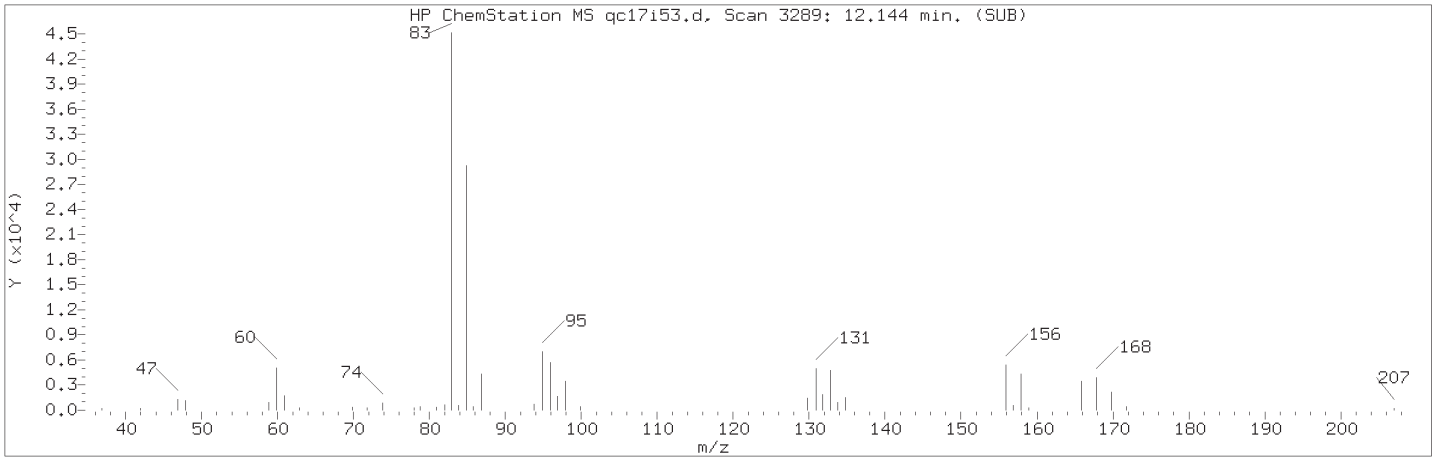
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

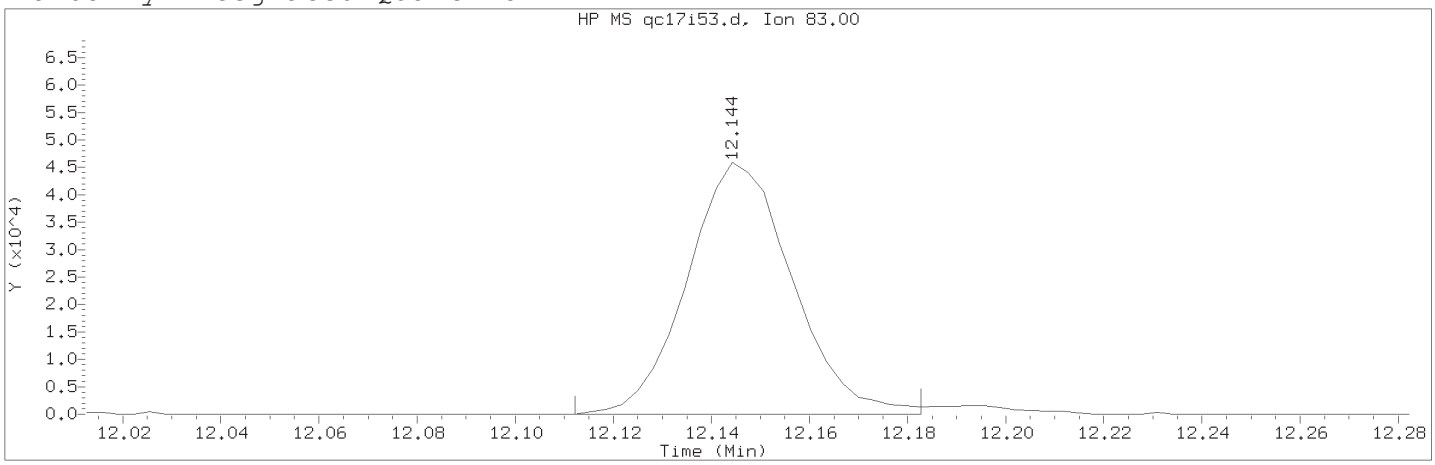
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2102
Retention Time (minutes): 8.335
Quant Ion : 88.00
Area : 5731
On-column Amount (ng) : 143.4584
Integration start scan : 2085 Integration stop scan: 2115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

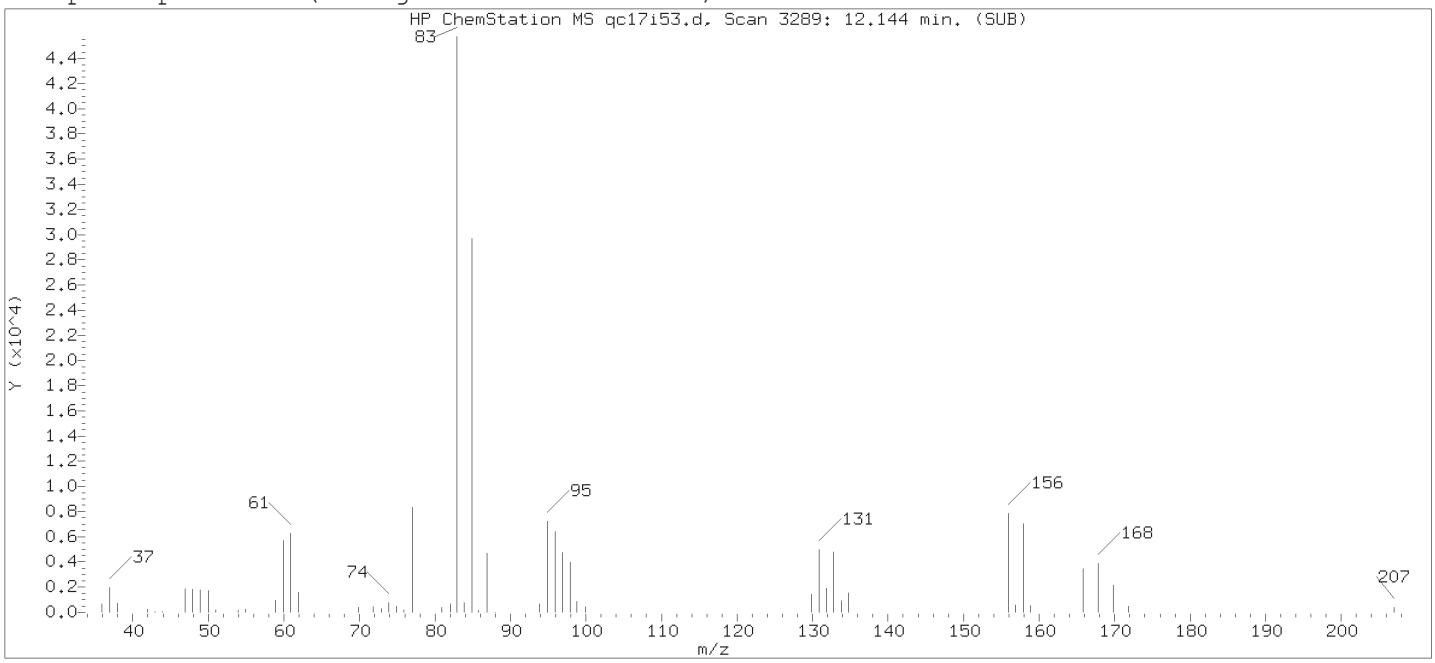
Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.144
Quant Ion : 83.00
Area (flag) : 68059M
On-Column Amount (ng) : 9.2717
Integration start scan : 3278 Integration stop scan: 3300
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

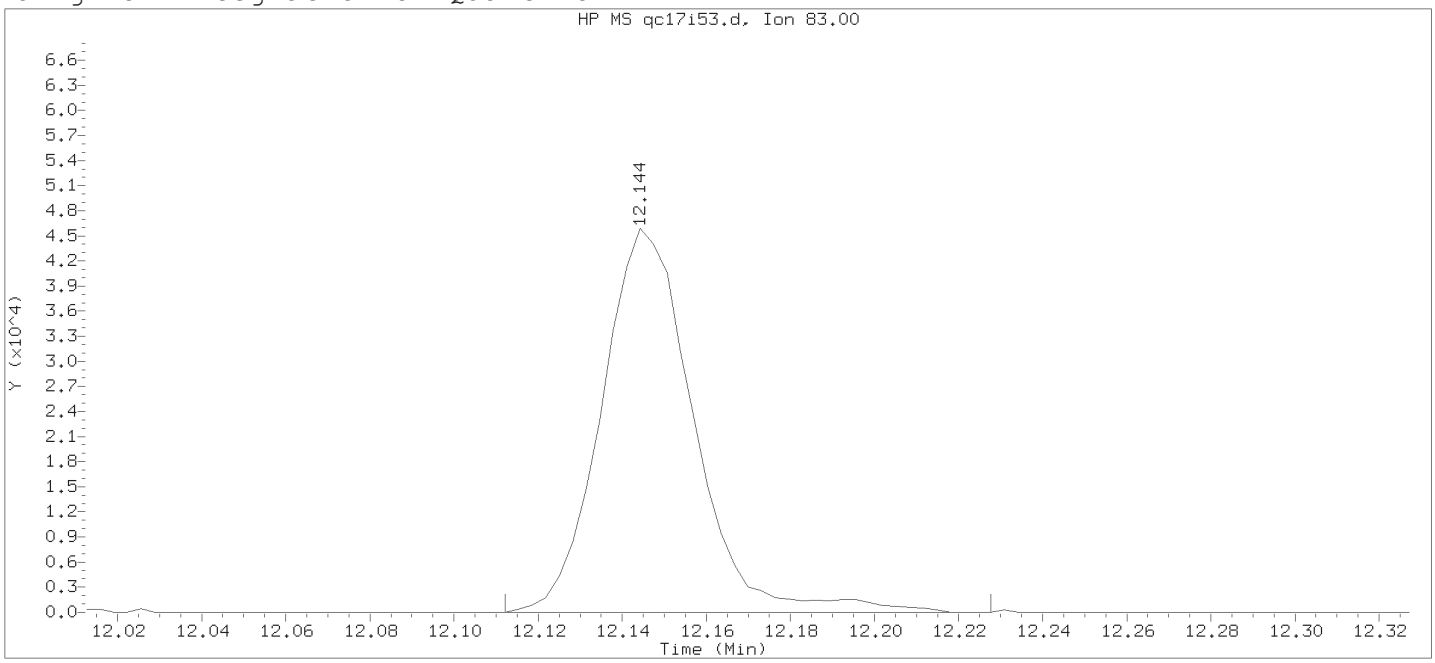
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

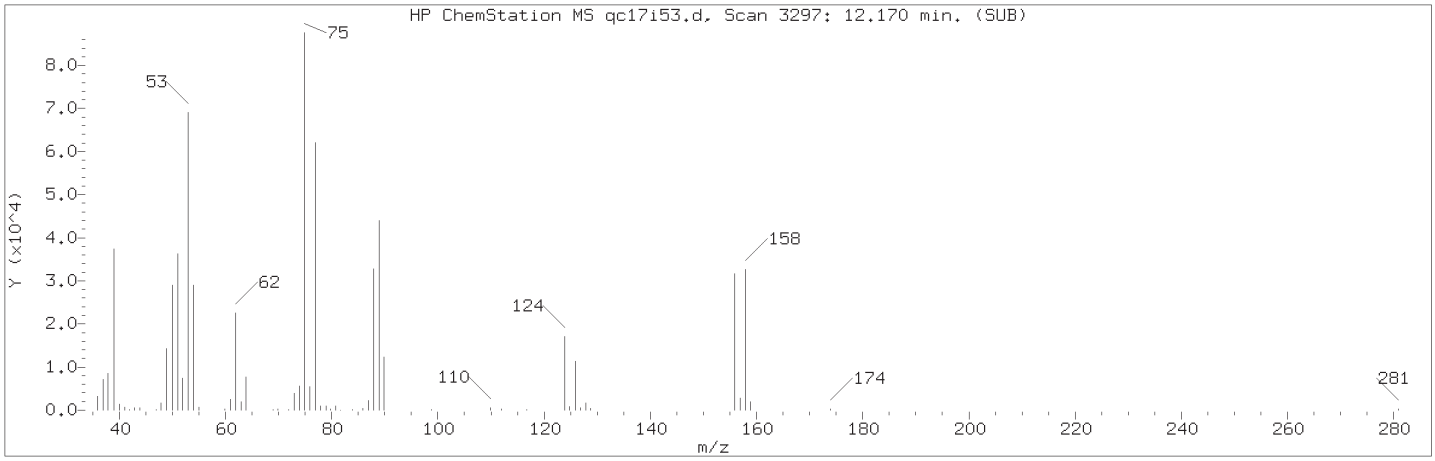
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

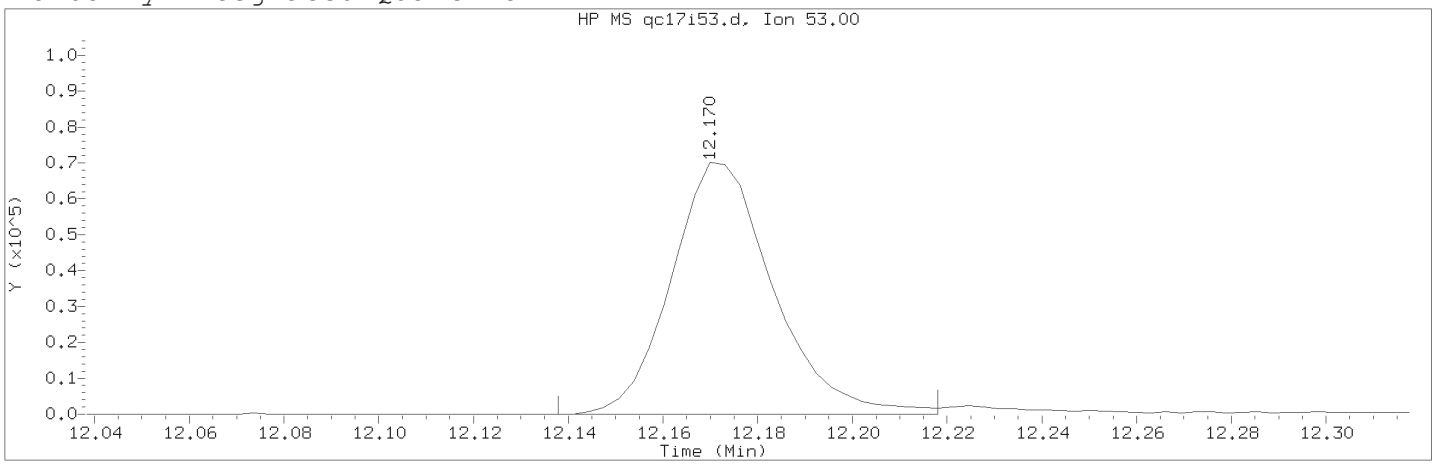
Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.144
Quant Ion : 83.00
Area : 69954
On-column Amount (ng) : 9.4422
Integration start scan : 3278 Integration stop scan: 3314
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

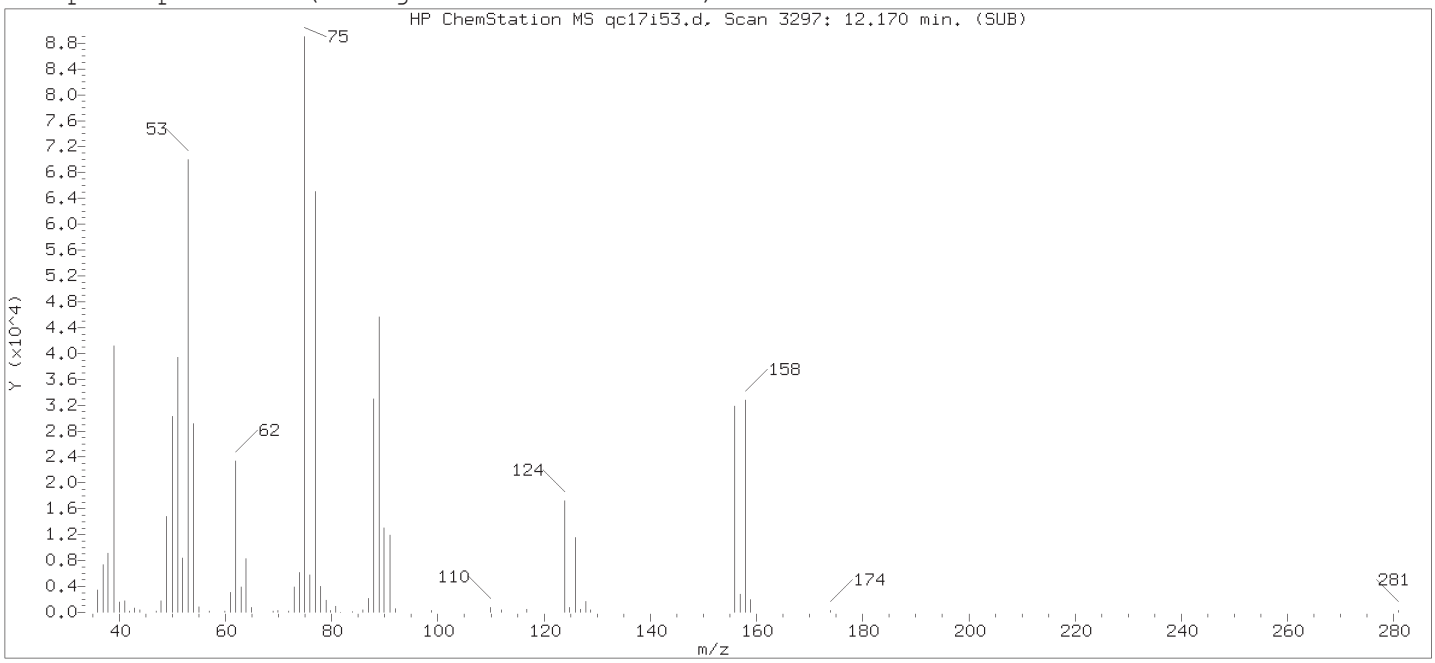
Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 3297
Retention Time (minutes): 12.170
Quant Ion : 53.00
Area (flag) : 104807M
On-Column Amount (ng) : 47.8243
Integration start scan : 3286 Integration stop scan: 3311
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

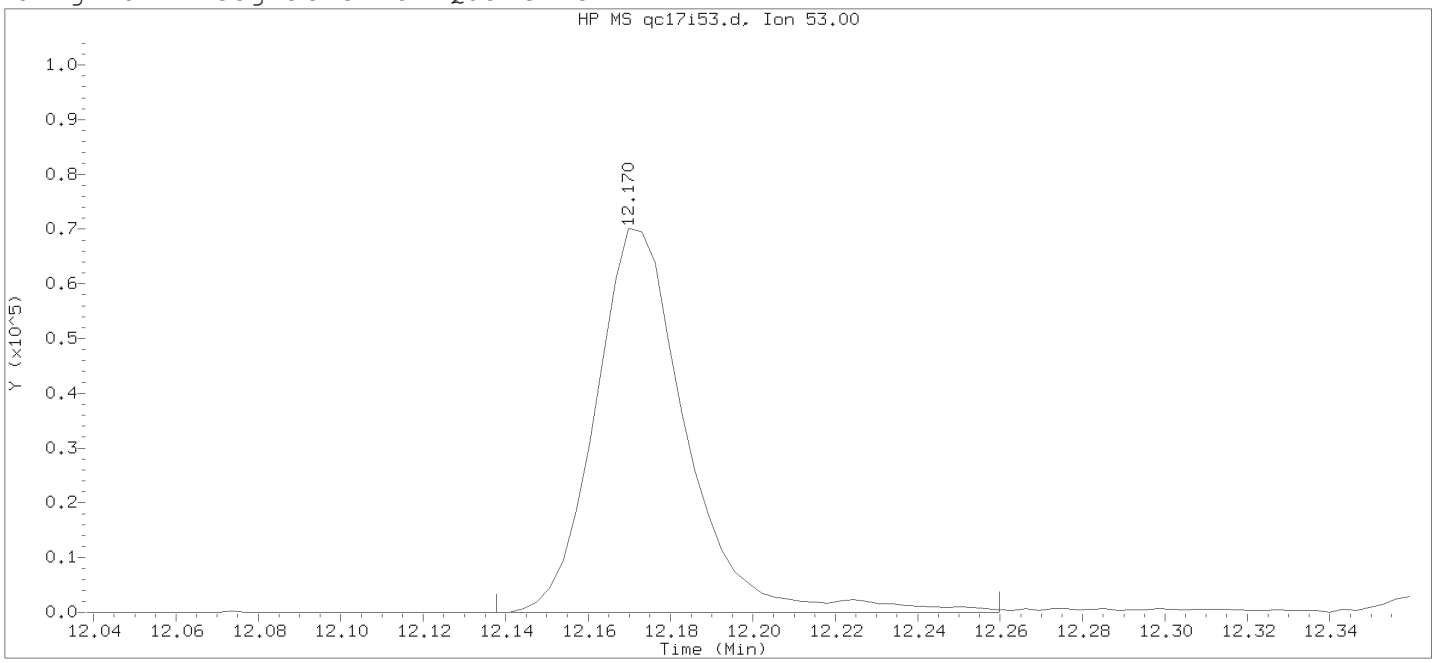
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

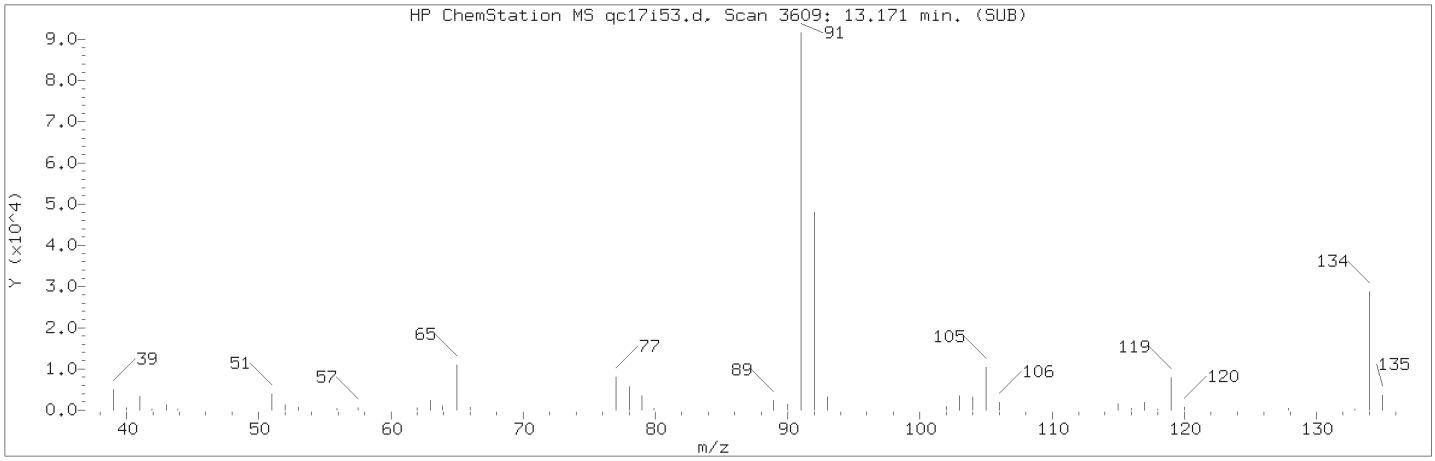
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

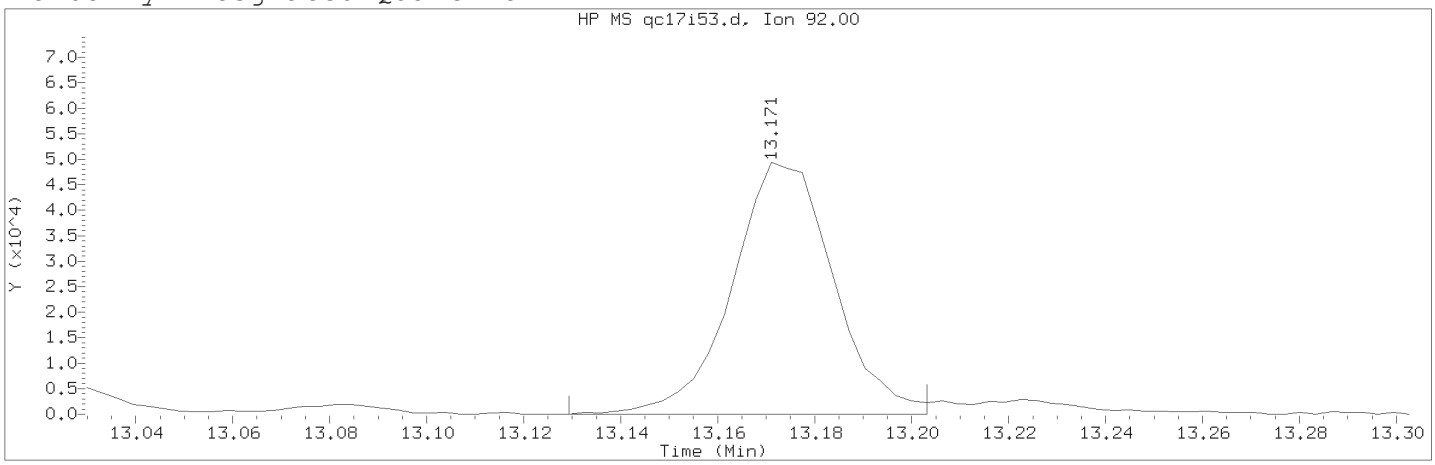
Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 3297
Retention Time (minutes): 12.170
Quant Ion : 53.00
Area : 107959
On-column Amount (ng) : 48.8908
Integration start scan : 3286 Integration stop scan: 3324
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

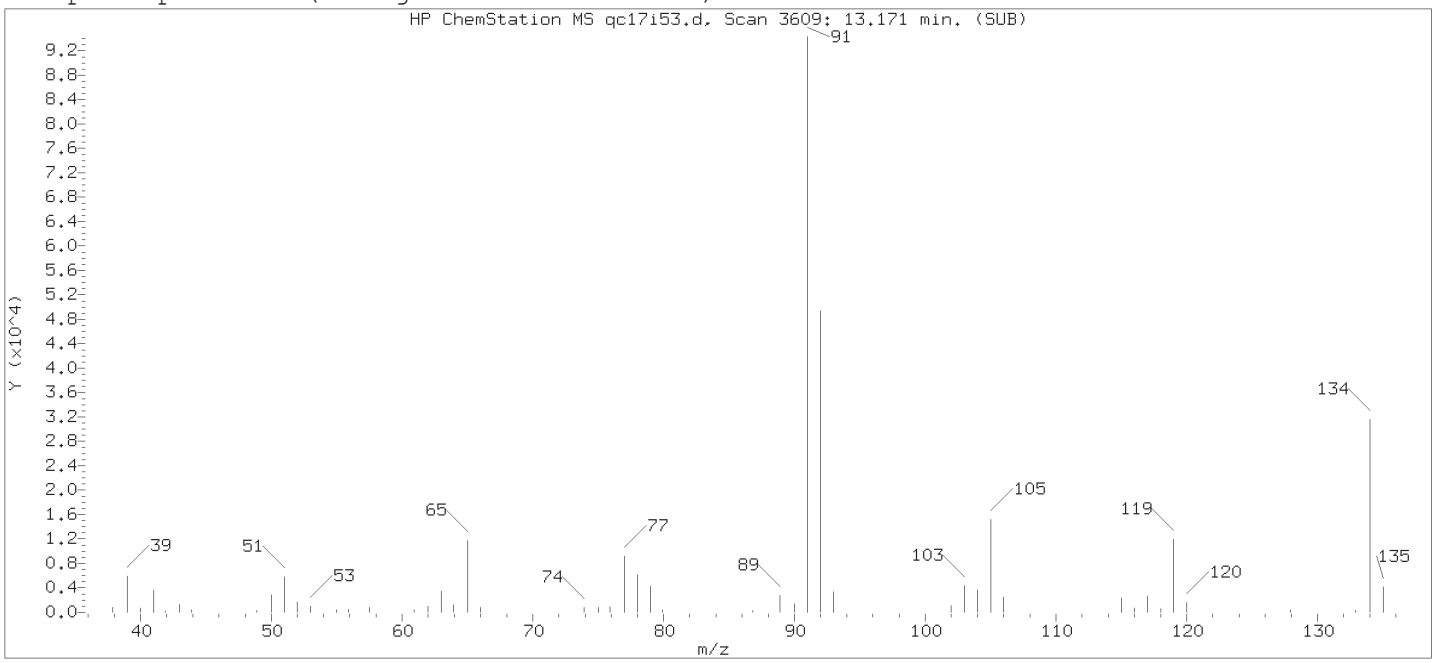
Compound Number : 146
Compound Name : n-Butylbenzene
Scan Number : 3609
Retention Time (minutes): 13.171
Quant Ion : 92.00
Area (flag) : 71660M
On-Column Amount (ng) : 9.5715
Integration start scan : 3595 Integration stop scan: 3618
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

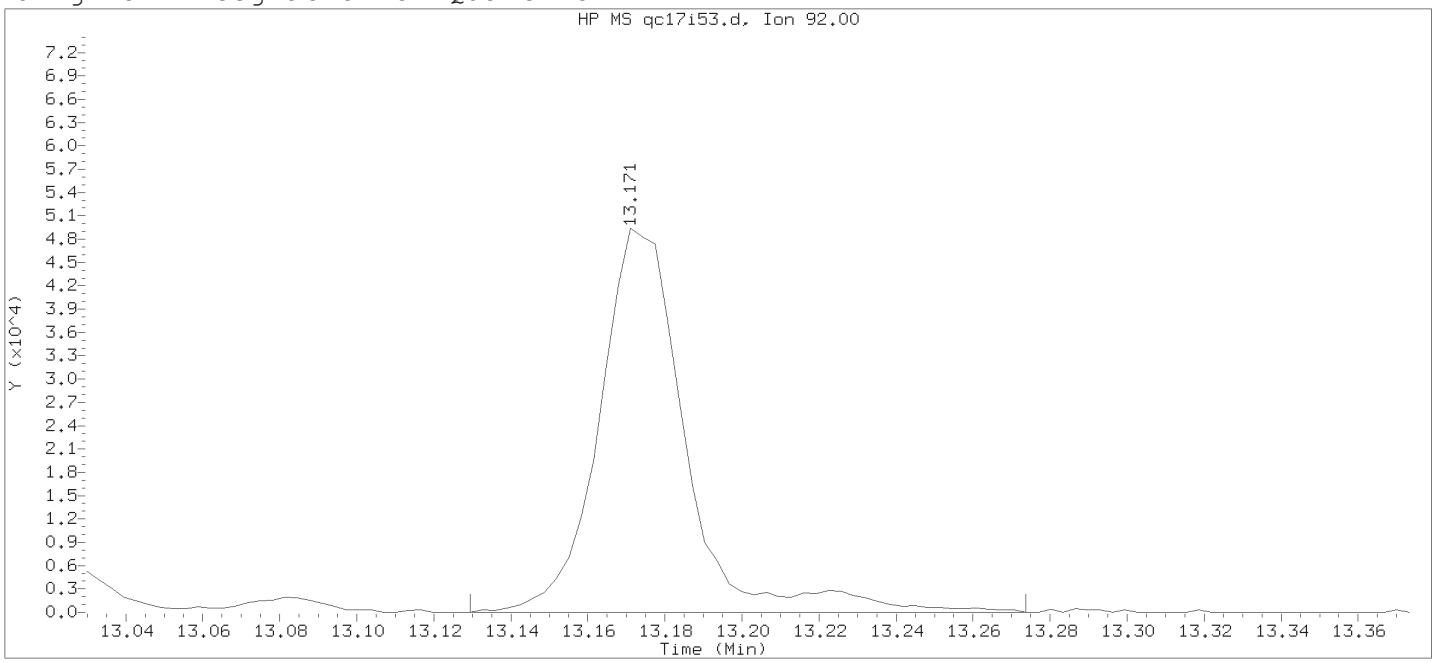
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

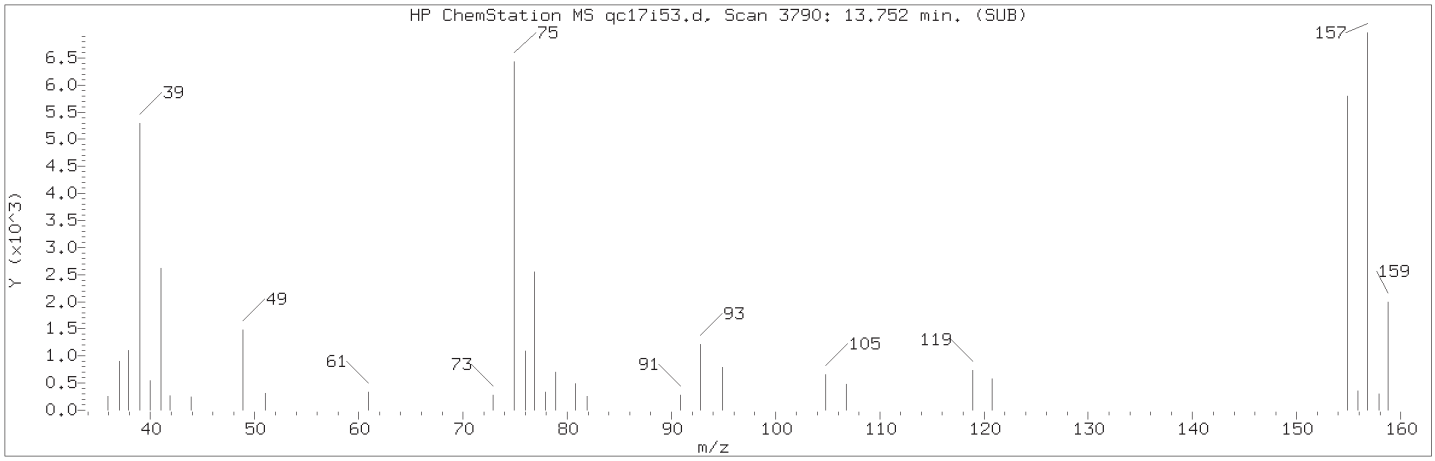
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

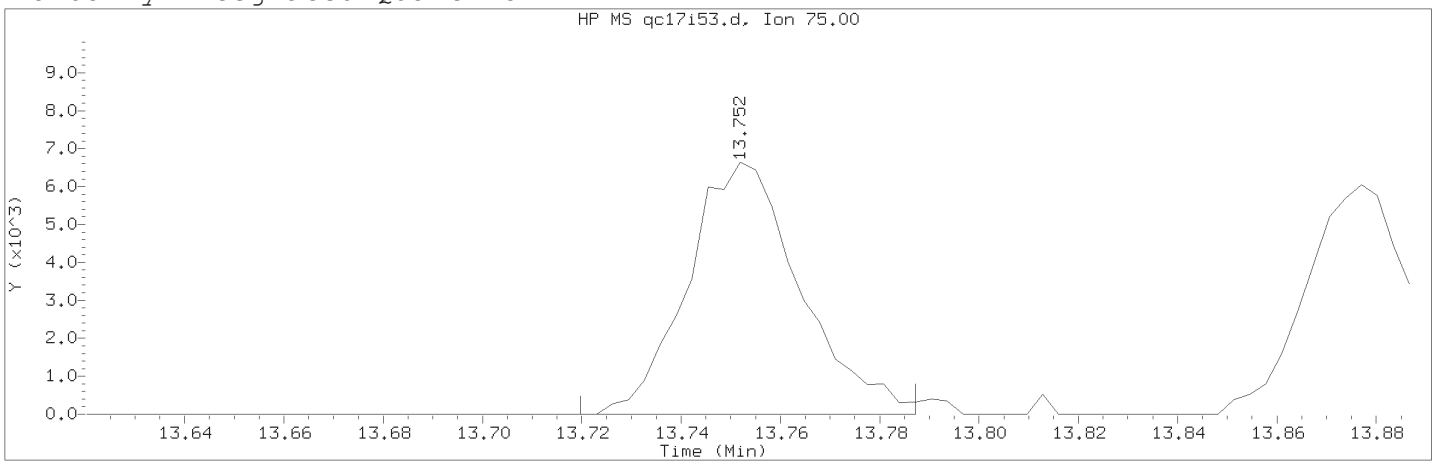
Compound Number : 146
Compound Name : n-Butylbenzene
Scan Number : 3609
Retention Time (minutes): 13.171
Quant Ion : 92.00
Area : 77178
On-column Amount (ng) : 10.0467
Integration start scan : 3595 Integration stop scan: 3640
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

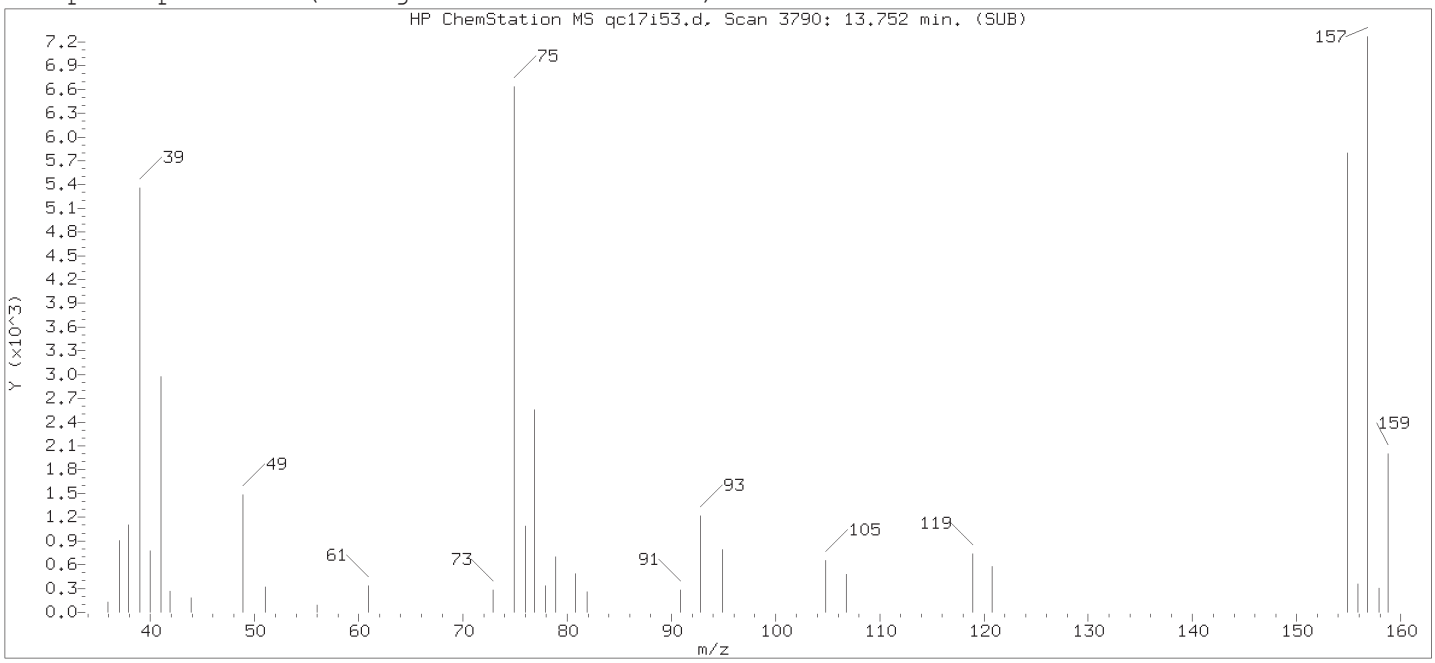
Compound Number : 151
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 3790
Retention Time (minutes): 13.752
Quant Ion : 75.00
Area (flag) : 10449M
On-Column Amount (ng) : 9.1688
Integration start scan : 3779 Integration stop scan: 3800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

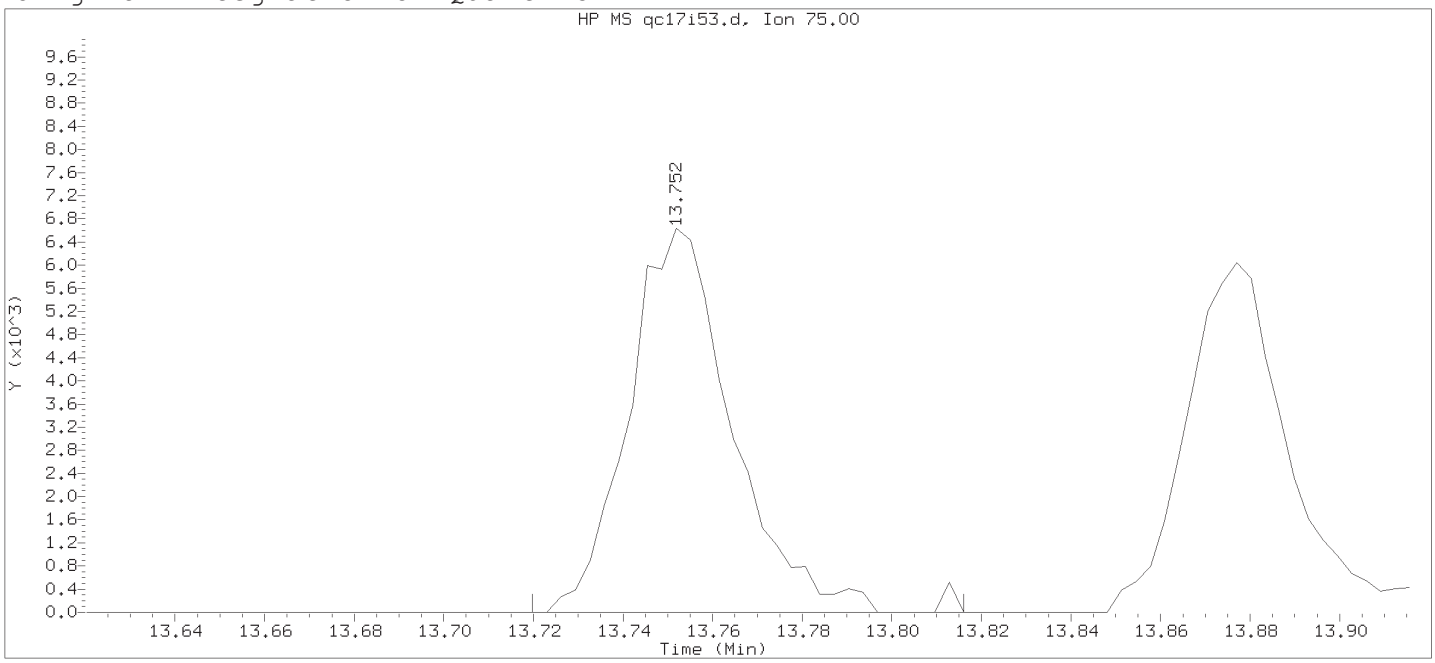
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



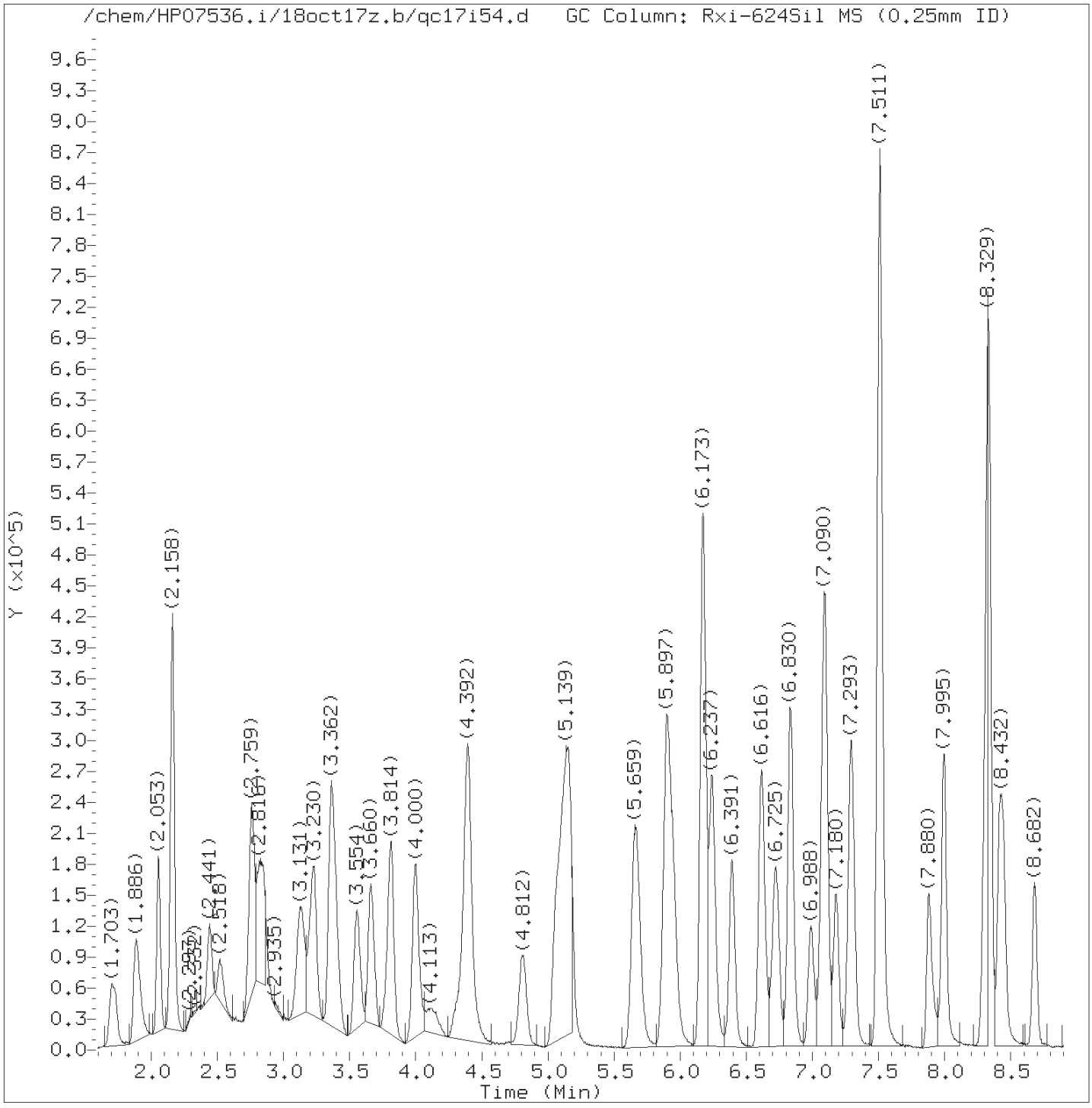
Data File: /chem/HP07536.i/18oct17z.b/qc17i53.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 14:38 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 151
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 3790
Retention Time (minutes): 13.752
Quant Ion : 75.00
Area : 10694
On-column Amount (ng) : 9.3556
Integration start scan : 3779 Integration stop scan: 3809
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

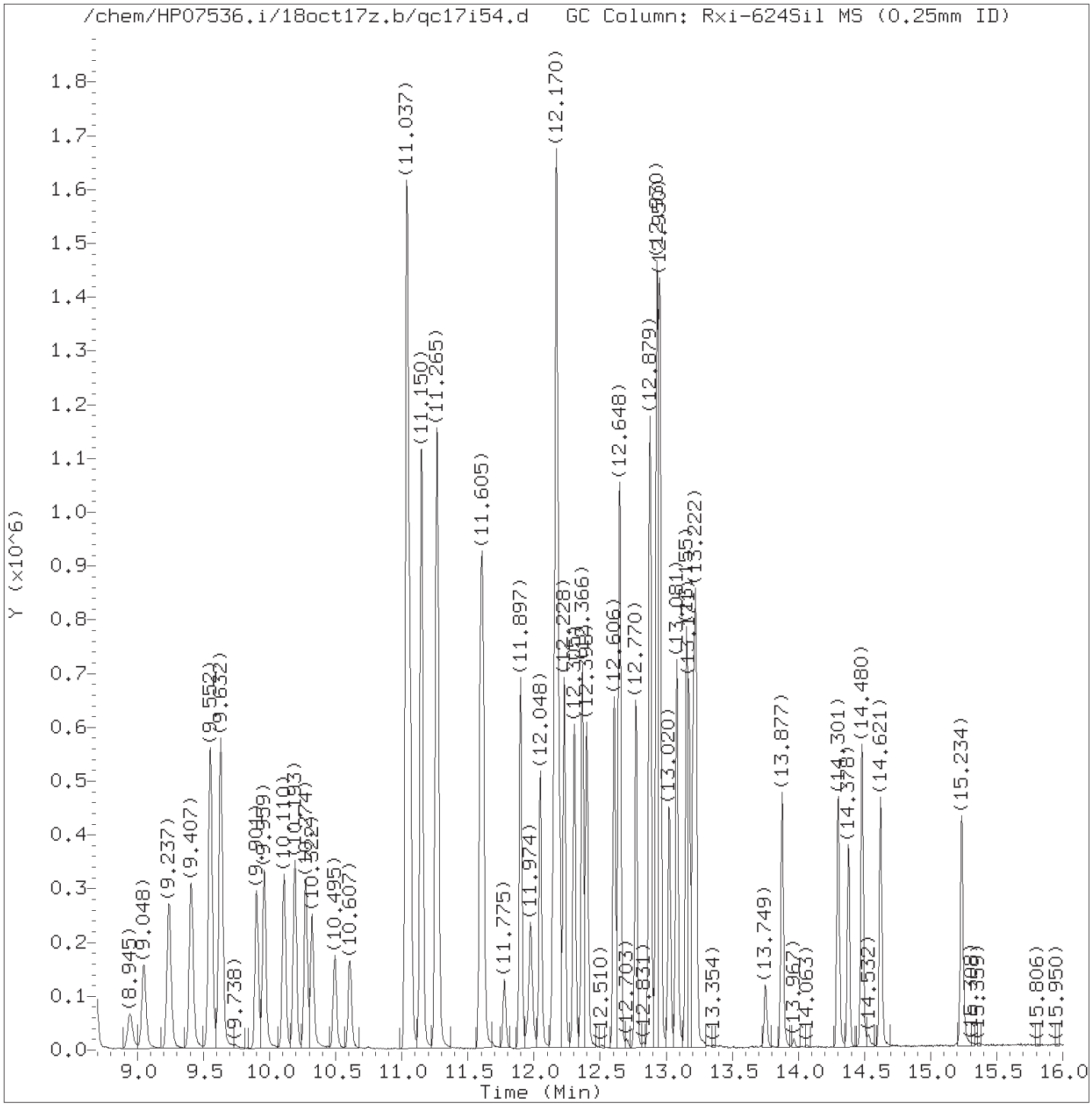
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.879	85	216846	21.987
4) Chloromethane	(2)	2.053	50	227445	21.646
5) Vinyl Chloride	(2)	2.162	62	227269	22.231
9) Bromomethane	(2)	2.441	94	83622	22.280
10) Chloroethane	(2)	2.518	64	78540	1.326
11) Dichlorofluoromethane	(2)	2.759	67	270181A	21.183
13) Trichlorofluoromethane	(2)	2.810	101	296941	23.750
14) n-Pentane	(2)	2.858	43	151723	21.408
15) Ethanol	(1)	2.935	45	149248	2269.500
17) Freon 123a	(2)	3.128	67	177518	23.068
18) Acrolein	(1)	3.230	56	302991	219.517
19) 1,1-Dichloroethene	(2)	3.362	96	113636	22.605
19) 1,1-Dichloroethene	(2)	3.359	63	58546	22.792
20) Acetone	(1)	3.381	58	25175M	45.164
22) Freon 113	(2)	3.381	101	95920	22.400
23) 2-Propanol	(1)	3.545	45	94511	242.048
24) Methyl Iodide	(2)	3.561	142	240100	22.455
25) Carbon Disulfide	(2)	3.660	76	412344	22.561
27) Methyl Acetate	(2)	3.776	43	108576	22.040
29) Allyl Chloride	(2)	3.817	41	206311	21.931
31) Methylene Chloride	(2)	3.997	84	131681	21.938
30)*t-Butyl alcohol-d10	(1)	4.010	65	115865	250.000
32) t-Butyl alcohol	(1)	4.129	59	128620	226.915
33) Acrylonitrile	(2)	4.305	53	54438	22.066
34) Methyl Tertiary Butyl Ether	(2)	4.385	73	377667	21.960
35) trans-1,2-Dichloroethene	(2)	4.395	96	125642	22.140
38) n-Hexane	(2)	4.803	57	97357	22.242
40) 1,1-Dichloroethane	(2)	5.059	63	229338	22.606
41) di-Isopropyl ether	(2)	5.117	45	449945	22.457
42) 2-Chloro-1,3-butadiene	(2)	5.168	53	210312	22.972
43) Ethyl t-butyl ether	(2)	5.659	59	424213	22.765
44) 2-Butanone	(1)	5.865	43	133162	44.390
44) 2-Butanone	(1)	5.865	72	32556	44.383
45) cis-1,2-Dichloroethene	(2)	5.897	96	141074	22.522
47) 2,2-Dichloropropane	(2)	5.916	77	182088	22.232
49) Propionitrile	(2)	5.955	54	196949	228.892
46) 1,2-Dichloroethene (Total)	(2)		96	266716	44.662
51) Methacrylonitrile	(2)	6.173	67	300942	113.638

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.237	128	79056	22.532
53) Tetrahydrofuran	(1)	6.250	71	33552	44.809
54) Chloroform	(2)	6.391	83	218939	22.536
56)$Dibromofluoromethane	(2)	6.609	113	122843	22.290
56)$Dibromofluoromethane	(2)	6.609	111	123937	21.835
57) 1,1,1-Trichloroethane	(2)	6.622	97	177082	22.224
58) Cyclohexane	(2)	6.718	56	154122	22.079
58) Cyclohexane	(2)	6.725	84	130248	22.320
58) Cyclohexane	(2)	6.731	69	47112	22.681
60) 1,1-Dichloropropene	(2)	6.830	75	158311	22.087
61) Carbon Tetrachloride	(2)	6.837	117	126908	21.801
62) Isobutyl Alcohol	(1)	6.991	41	111658M	581.417
63)$1,2-Dichloroethane-d4	(2)	7.074	102	32390	22.604
63)$1,2-Dichloroethane-d4	(2)	7.071	65	151061	22.011
63)$1,2-Dichloroethane-d4	(2)	7.078	104	21108	23.478
64) Benzene	(2)	7.097	78	487595	21.922
67) 1,2-Dichloroethane	(2)	7.177	62	169784	22.038
67) 1,2-Dichloroethane	(2)	7.174	98	15562	23.342
68) t-Amyl methyl ether	(2)	7.293	73	393474	22.250
70)*Fluorobenzene	(2)	7.511	96	1013000	50.000
72) n-Heptane	(2)	7.517	43	88740	20.759
73) n-Butanol	(1)	7.880	56	172479M	1197.376
75) Trichloroethene	(2)	7.995	95	124115	22.483
76) Methylcyclohexane	(2)	8.300	83	120221	22.628
77) 1,2-Dichloropropane	(2)	8.329	63	132118	21.779
79) Methyl Methacrylate	(2)	8.416	69	99541	22.205
80) 1,4-Dioxane	(1)	8.422	88	31630	615.647
81) Dibromomethane	(2)	8.445	93	82722	22.467
84) Bromodichloromethane	(2)	8.682	83	137109	21.774
85) 2-Nitropropane	(1)	8.939	41	35272	36.655
87) 2-Chloroethyl Vinyl Ether	(2)	9.051	63	90863	23.036
89) cis-1,3-Dichloropropene	(2)	9.237	75	199249	22.444
90) 4-Methyl-2-pentanone	(2)	9.404	43	266820	43.725
91)$Toluene-d8	(3)	9.555	98	469022	22.719
91)$Toluene-d8	(3)	9.552	100	303598	22.646
92) Toluene	(3)	9.632	92	296003	22.530
93) trans-1,3-Dichloropropene	(3)	9.901	75	178821	22.044
95) Ethyl Methacrylate	(3)	9.959	69	188222	22.453

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	378070	44.488
96) 1,1,2-Trichloroethane	(3)	10.110	97	113813	21.903
98) Tetrachloroethene	(3)	10.190	166	117694	22.452
99) 1,3-Dichloropropane	(3)	10.274	76	194019	21.830
101) 2-Hexanone	(3)	10.322	43	183080	44.927
103) Dibromochloromethane	(3)	10.492	129	97044	21.070
104) 1,2-Dibromoethane	(3)	10.607	107	121624	22.322
105)*Chlorobenzene-d5	(3)	11.037	117	756243	50.000
106) 1-Chlorohexane	(3)	11.047	91	114153	21.373
107) Chlorobenzene	(3)	11.063	112	325574	21.964
108) 1,1,1,2-Tetrachloroethane	(3)	11.146	131	106238	21.705
109) Ethylbenzene	(3)	11.150	91	498334	22.101
110) m+p-Xylene	(3)	11.265	106	390079	44.255
111) o-Xylene	(3)	11.596	106	194134	22.123
113) Styrene	(3)	11.615	104	346032	22.205
112) Xylene (Total)	(3)		106	584213	66.378
114) Bromoform	(3)	11.775	173	58262	19.072
115) Isopropylbenzene	(3)	11.897	105	422686	22.572
118) Cyclohexanone	(1)	11.974	55	105108	559.029
119)$4-Bromofluorobenzene	(3)	12.048	95	148064	22.527
119)$4-Bromofluorobenzene	(3)	12.048	174	141287	22.612
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	156075	22.222
121) Bromobenzene	(4)	12.164	156	146810	22.159
122) trans-1,4-Dichloro-2-butene	(4)	12.170	53	244133	116.429
123) 1,2,3-Trichloropropane	(4)	12.192	110	48064	22.364
124) n-Propylbenzene	(4)	12.228	91	464050	22.655
126) 2-Chlorotoluene	(4)	12.305	126	108684	22.524
129) 1,3,5-Trimethylbenzene	(4)	12.366	105	346970	22.426
130) 4-Chlorotoluene	(4)	12.398	126	114257	22.166
133) tert-Butylbenzene	(4)	12.610	134	68757	21.579
134) Pentachloroethane	(4)	12.642	167	66853	20.059
135) 1,2,4-Trimethylbenzene	(4)	12.651	105	370918	22.360
136) sec-Butylbenzene	(4)	12.770	105	387700	22.728
138) 1,3-Dichlorobenzene	(4)	12.873	146	221633	22.645
139) p-Isopropyltoluene	(4)	12.879	119	354553	22.837
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	326246	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	239655	21.805
142) 1,2,3-Trimethylbenzene	(4)	12.953	105	413677	22.033

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.023	126	63143	23.146
144) 1,3-Diethylbenzene	(4)	13.081	119	213933	22.717
145) 1,4-Diethylbenzene	(4)	13.152	119	224501	22.775
146) n-Butylbenzene	(4)	13.174	92	160722	22.437
147) 1,2-Dichlorobenzene	(4)	13.206	146	226189	22.299
148) 1,2-Diethylbenzene	(4)	13.222	119	189838	22.499
151) 1,2-Dibromo-3-chloropropane	(4)	13.749	75	24519	22.486
152) 1,3,5-Trichlorobenzene	(4)	13.877	180	144715	22.771
153) 1,2,4-Trichlorobenzene	(4)	14.301	180	140887	23.008
154) Hexachlorobutadiene	(4)	14.381	225	60050	22.256
155) Naphthalene	(4)	14.480	128	411323	22.648
156) 1,2,3-Trichlorobenzene	(4)	14.621	180	133163	22.750
157) 2-Methylnaphthalene	(4)	15.234	142	211538	23.757

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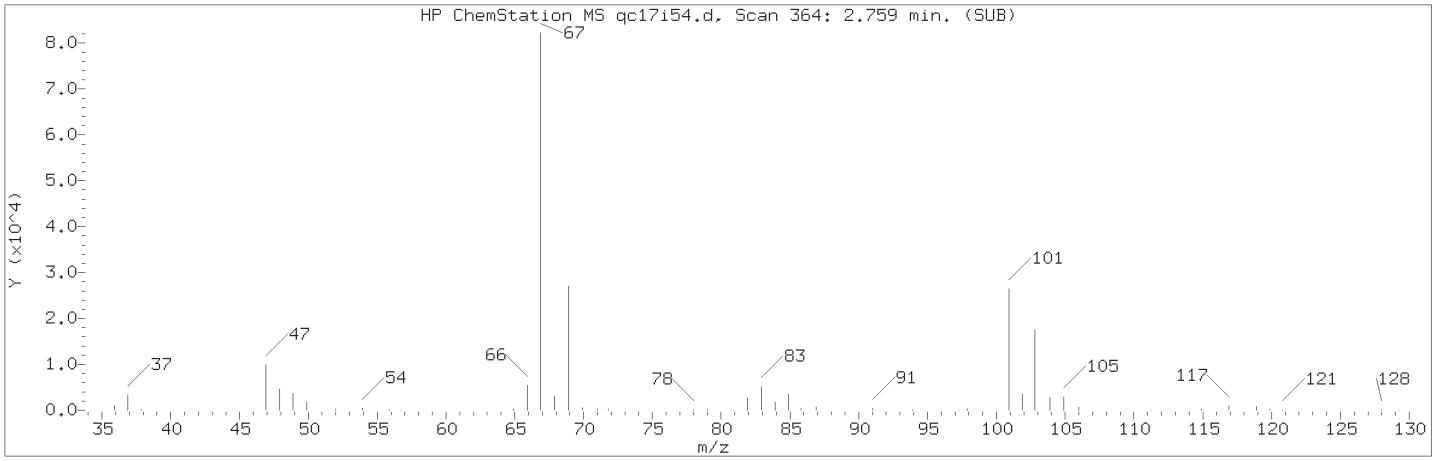
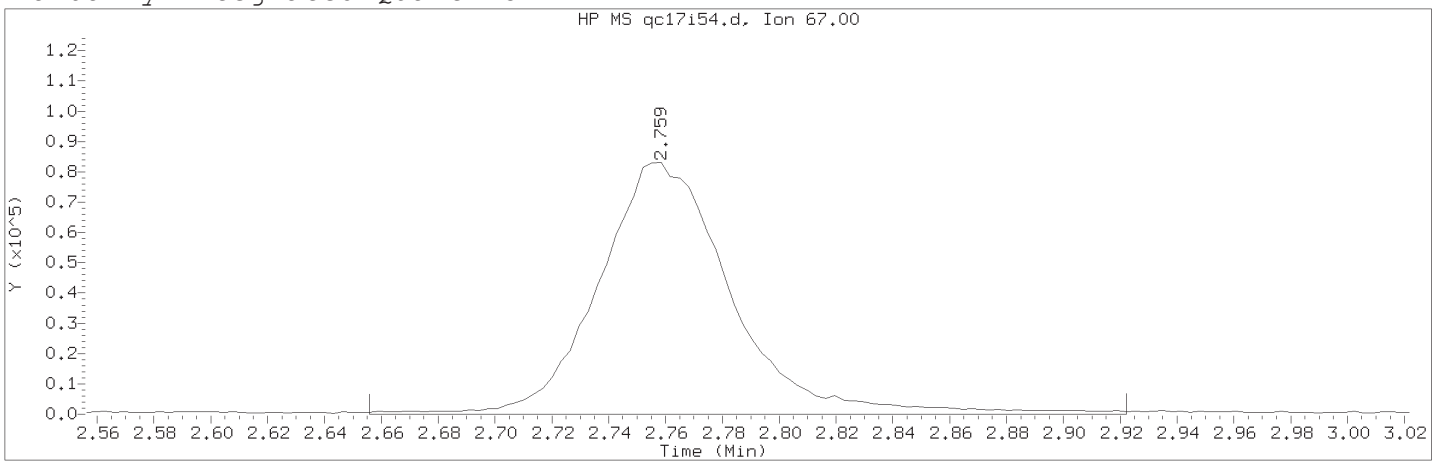
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

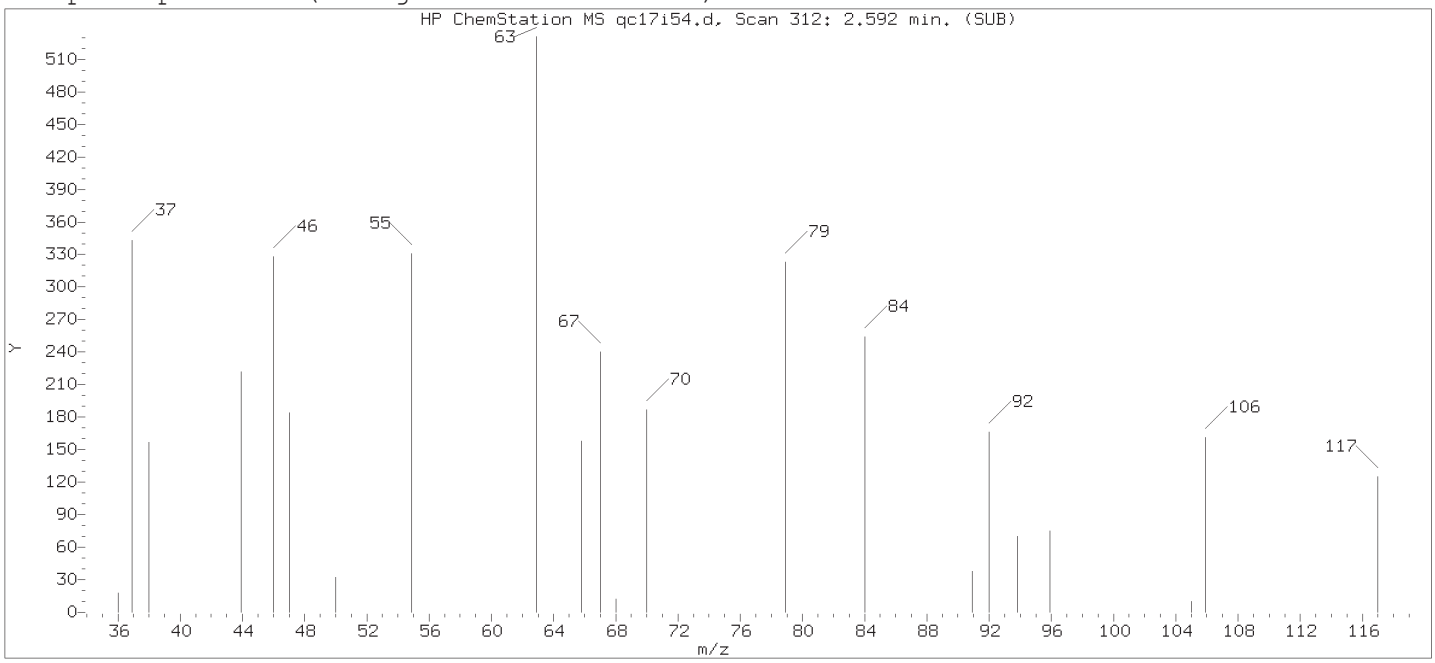
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 364
Retention Time (minutes): 2.759
Quant Ion : 67.00
Area (flag) : 270181A
On-Column Amount (ng) : 21.1828
Integration start scan : 331 Integration stop scan: 414
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

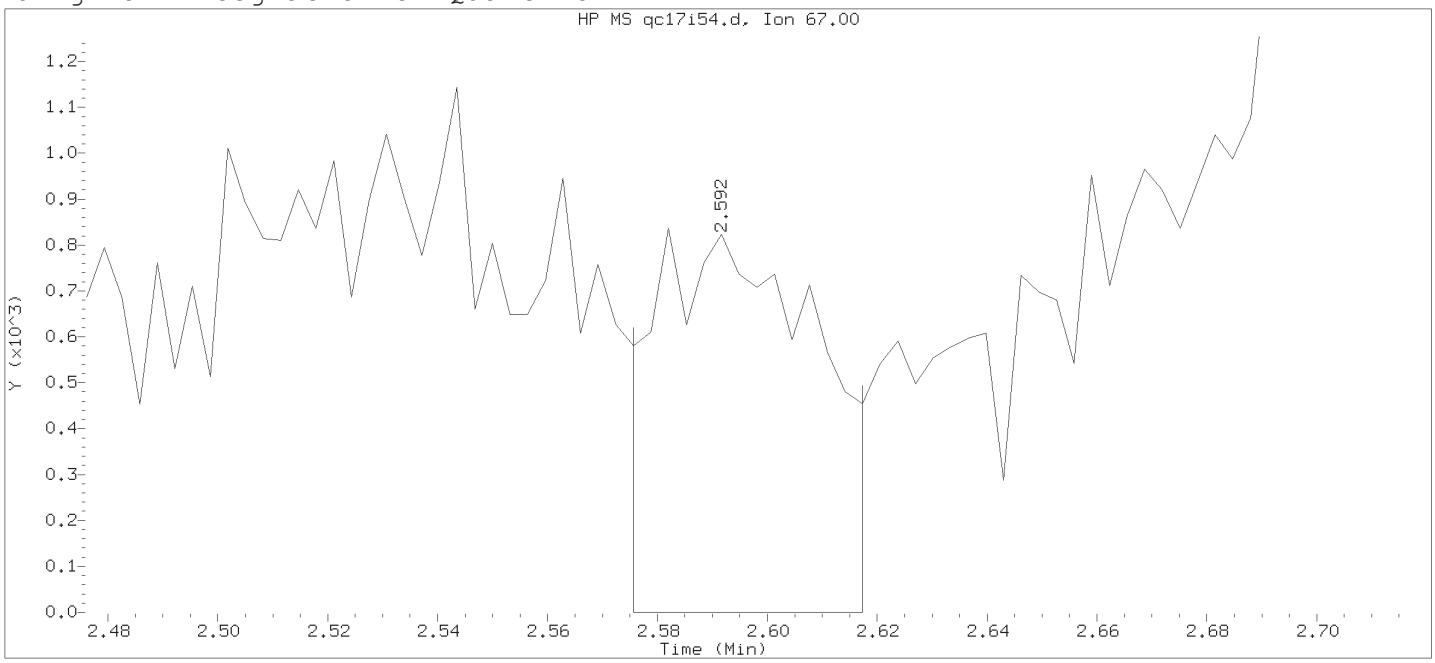
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

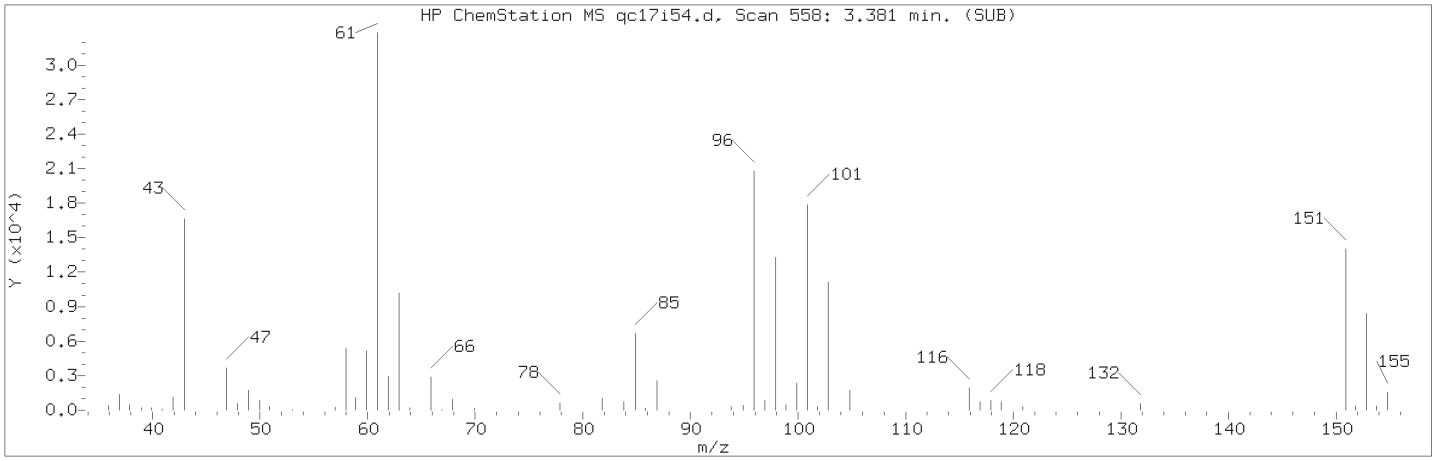
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

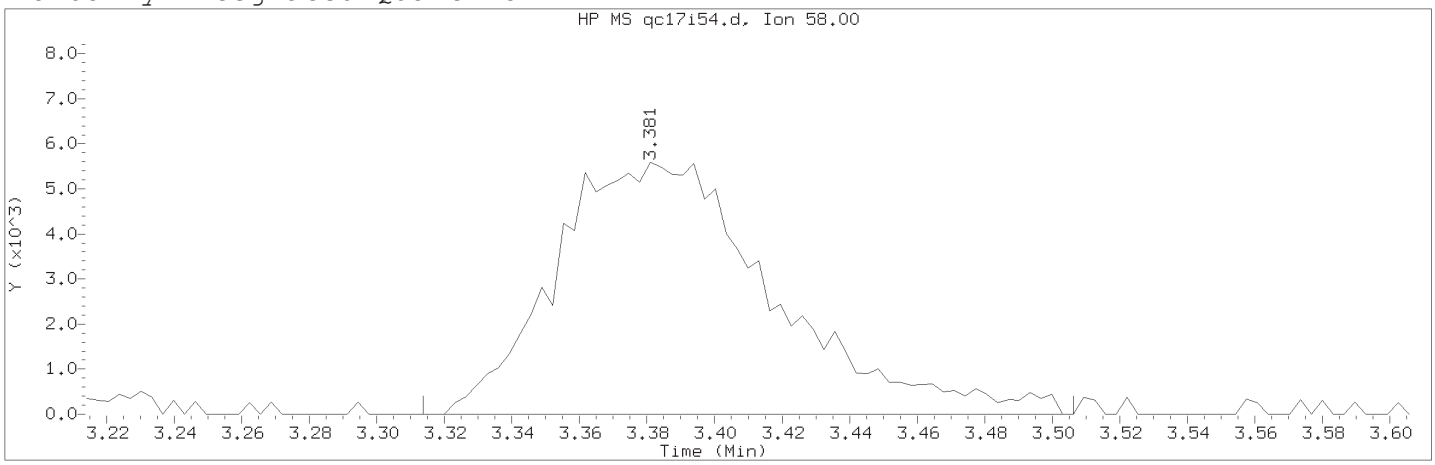
Compound Number	: 11		
Compound Name	: Dichlorofluoromethane		
Scan Number	: 312		
Retention Time (minutes)	: 2.592		
Quant Ion	: 67.00		
Area	: 1676		
On-column Amount (ng)	: 7.6011		
Integration start scan	: 306	Integration stop scan:	319
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

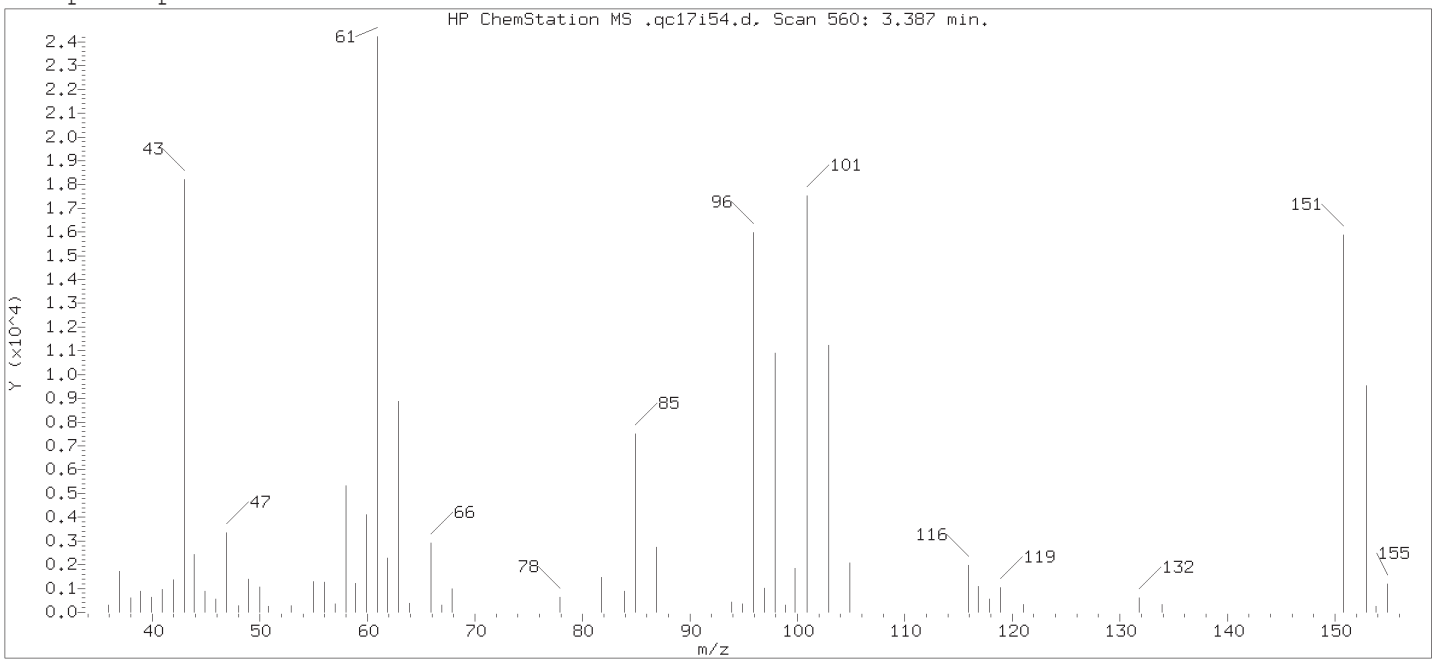
Compound Number : 20
Compound Name : Acetone
Scan Number : 558
Retention Time (minutes): 3.381
Quant Ion : 58.00
Area (flag) : 25175M
On-Column Amount (ng) : 45.1643
Integration start scan : 536 Integration stop scan: 596
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

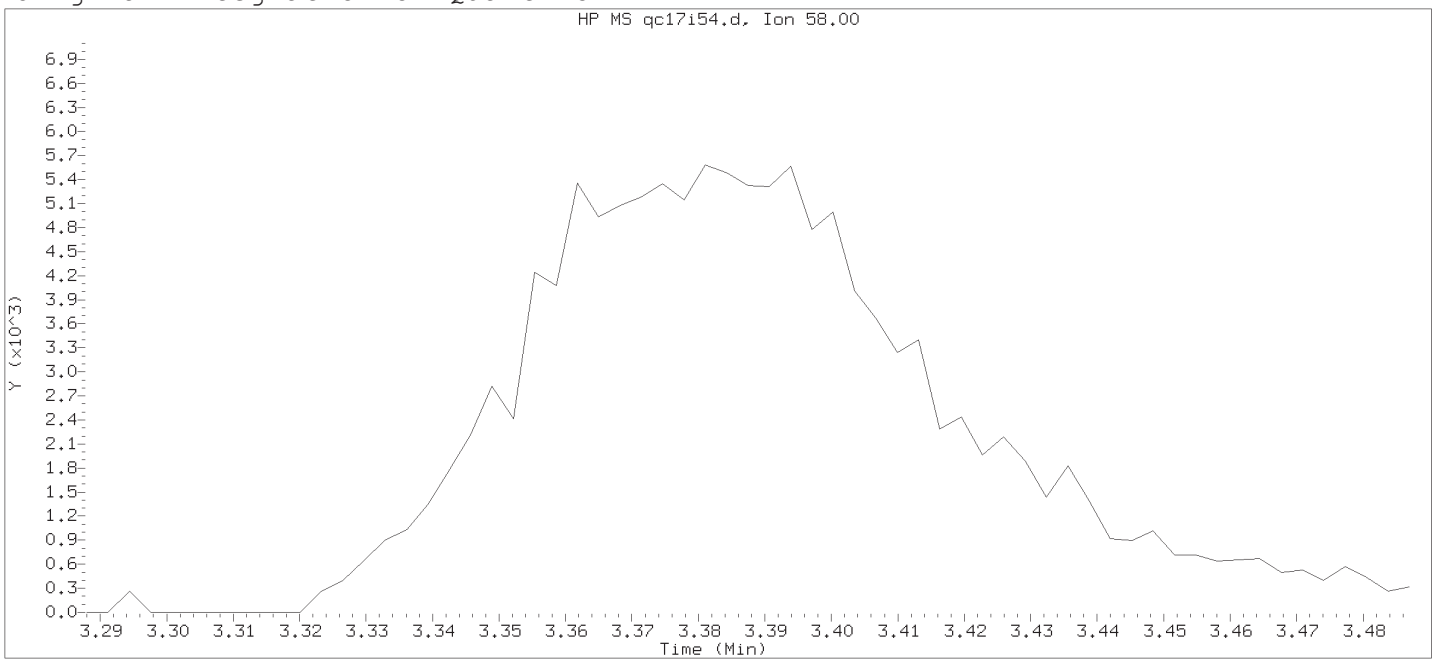
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

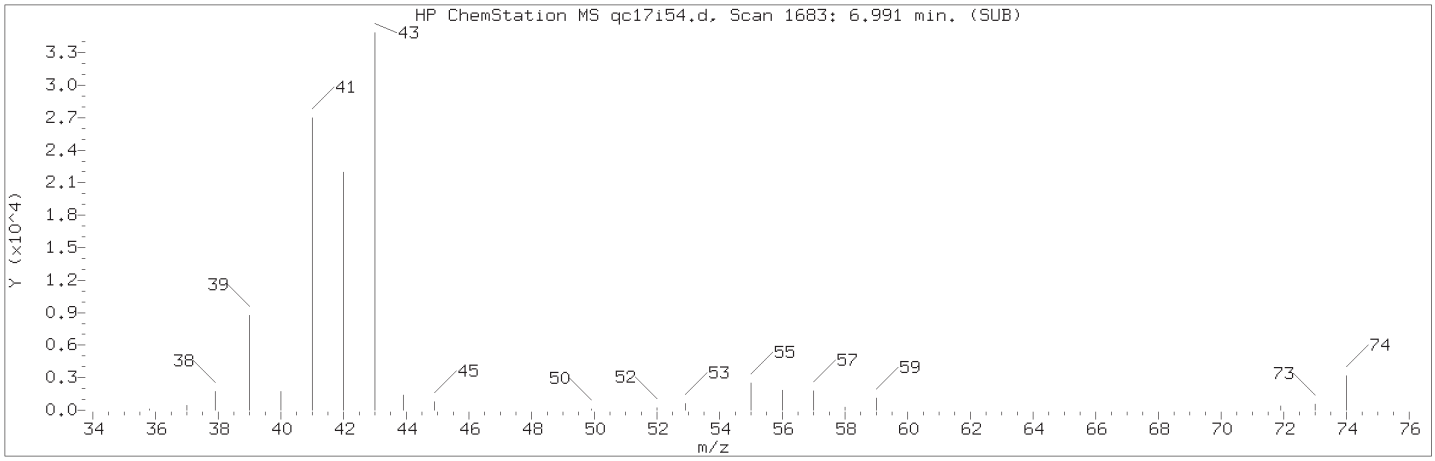
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

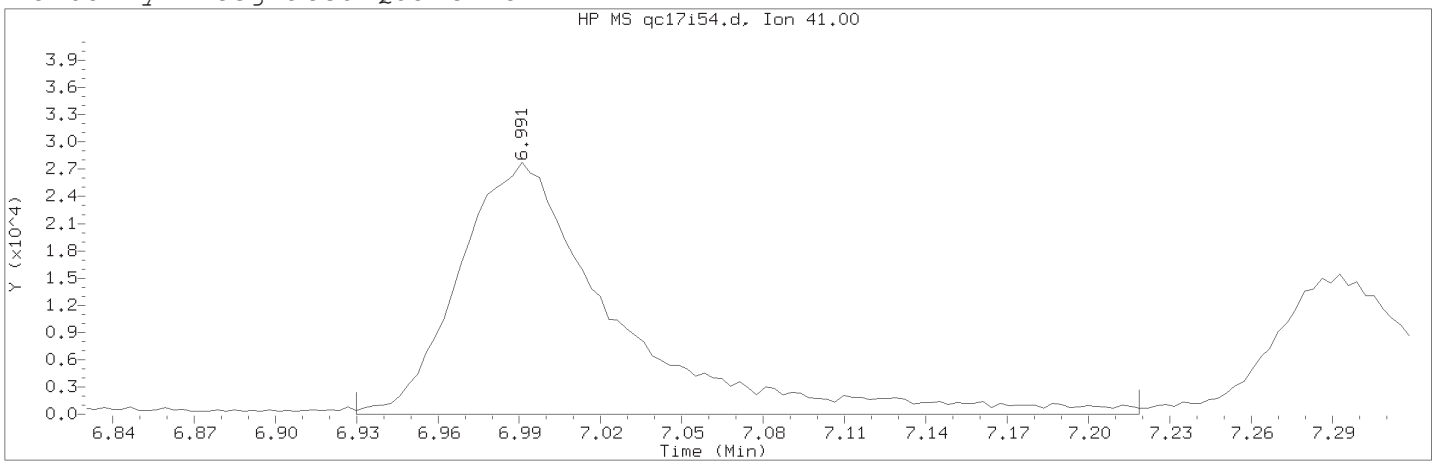
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

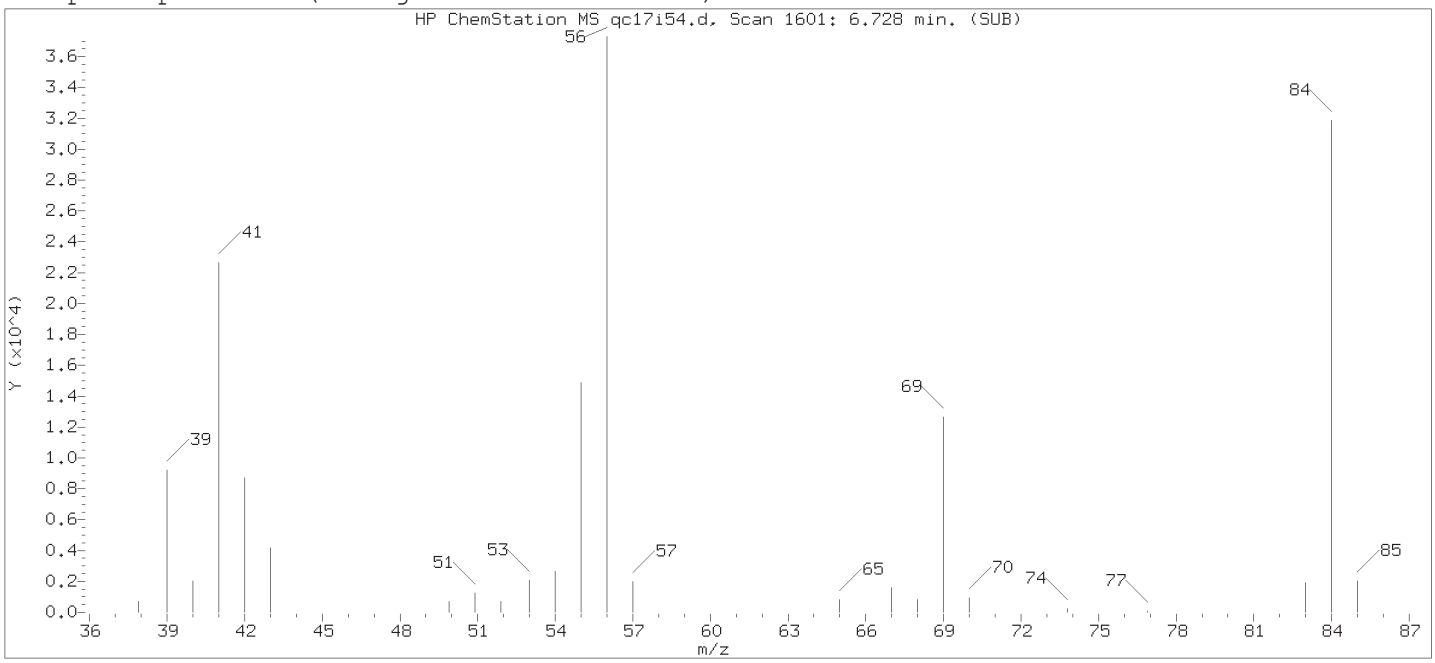
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1683
Retention Time (minutes): 6.991
Quant Ion : 41.00
Area (flag) : 111658M
On-Column Amount (ng) : 581.4170
Integration start scan : 1663 Integration stop scan: 1753
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

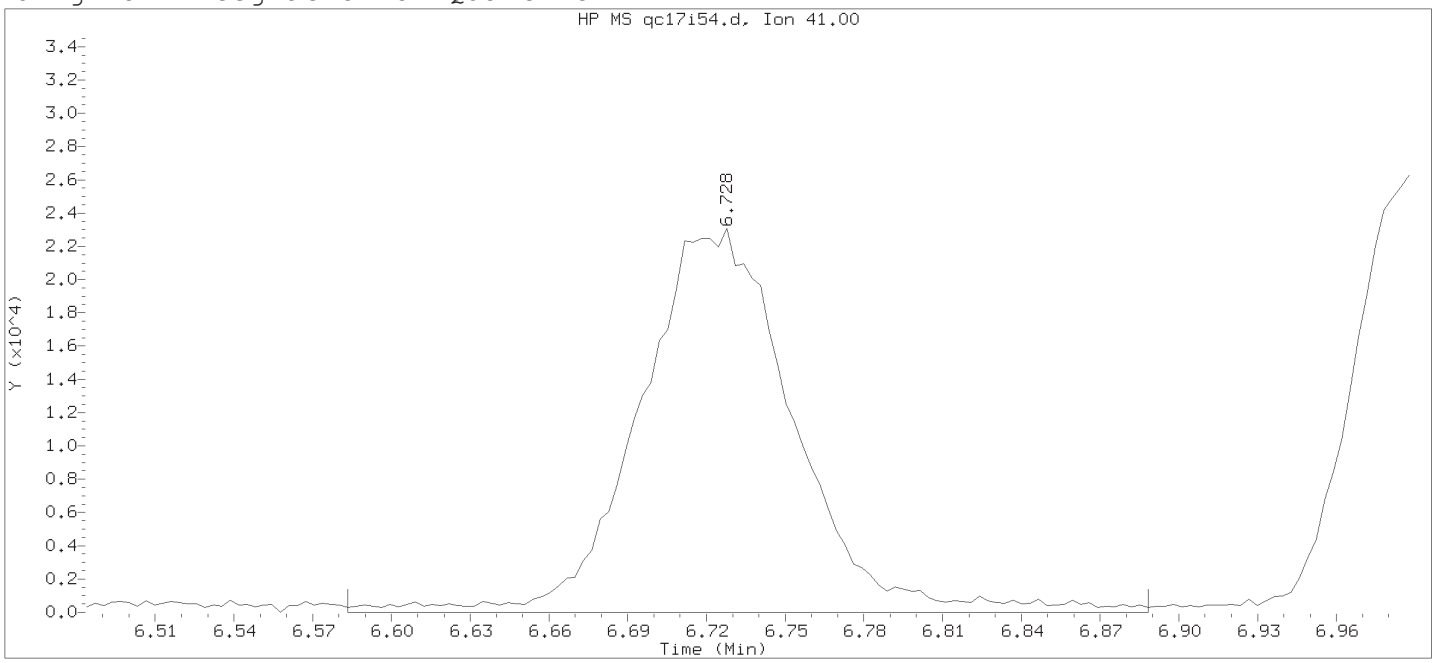
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

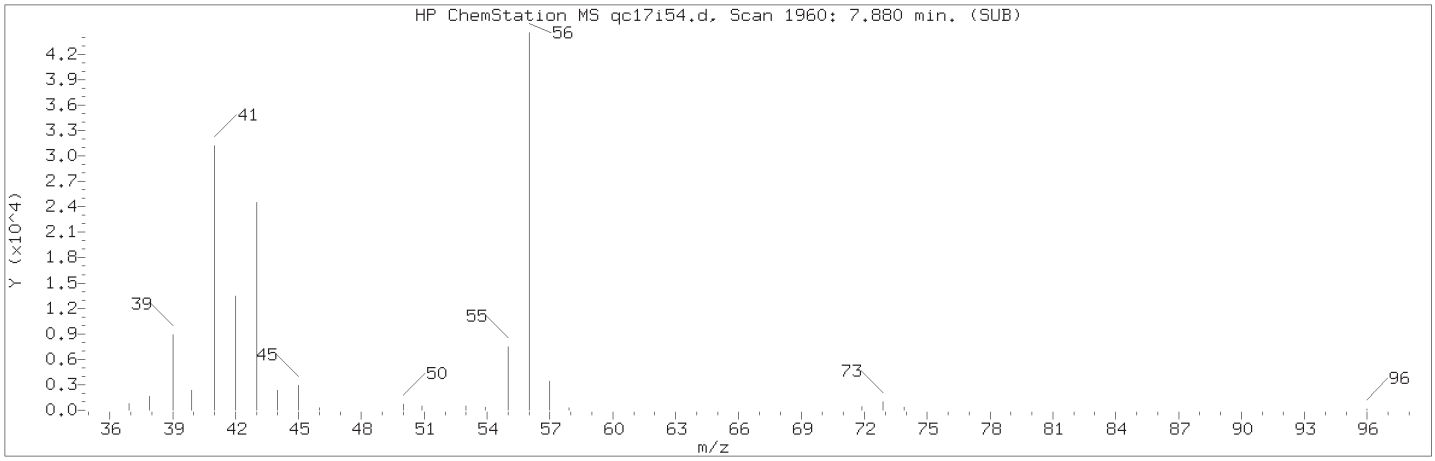
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

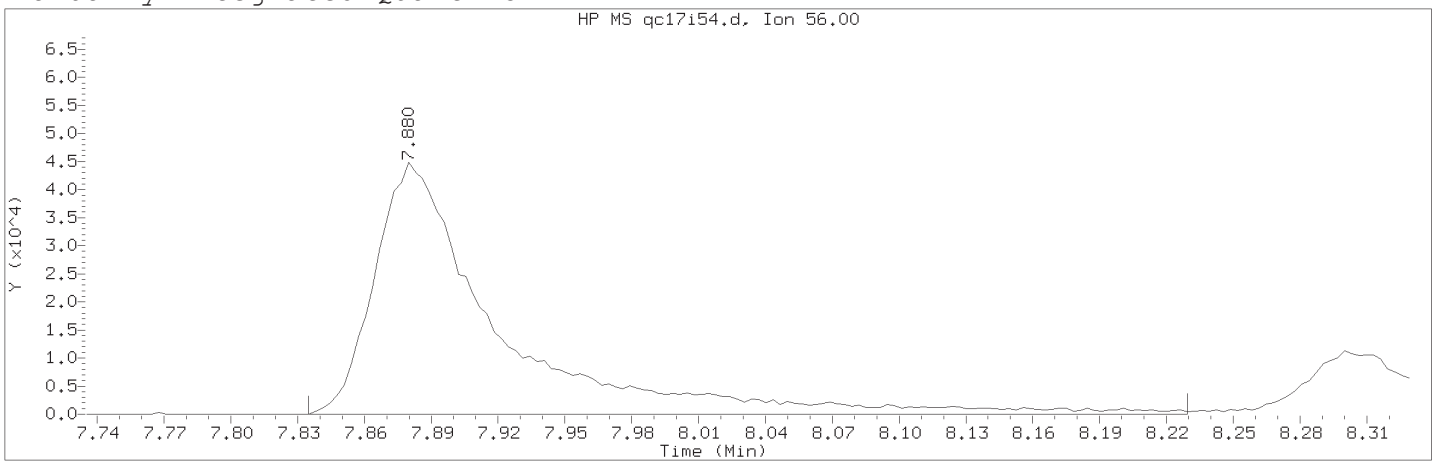
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1601
Retention Time (minutes): 6.728
Quant Ion : 41.00
Area : 94339
On-column Amount (ng) : 602.0415
Integration start scan : 1555 Integration stop scan: 1650
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

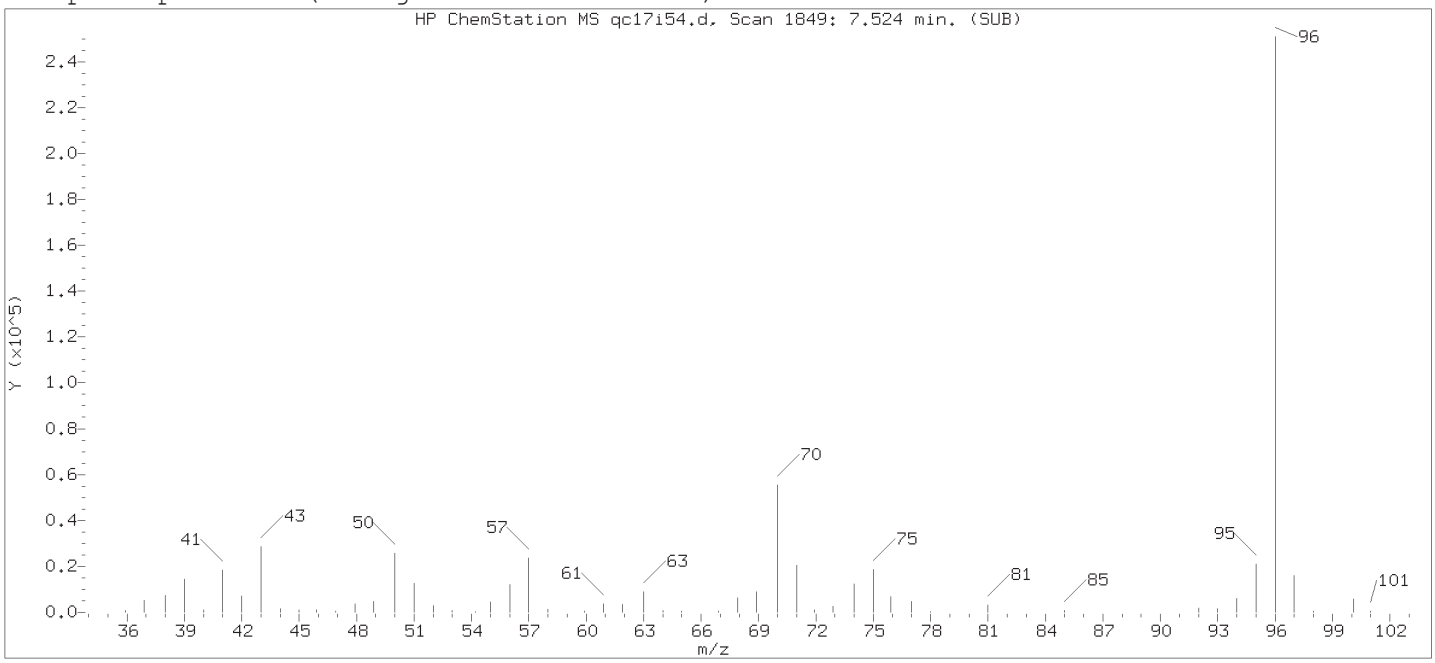
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1960
Retention Time (minutes): 7.880
Quant Ion : 56.00
Area (flag) : 172479M
On-Column Amount (ng) : 1197.3762
Integration start scan : 1945 Integration stop scan: 2068
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

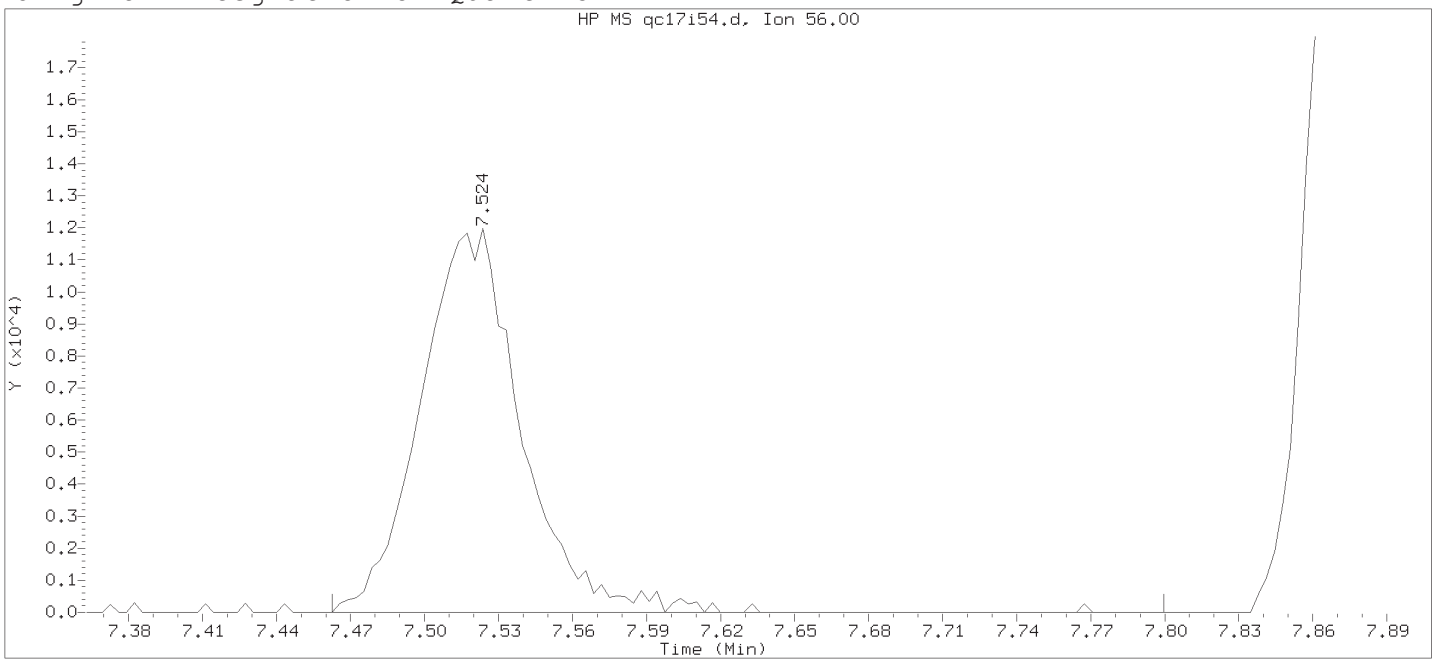
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



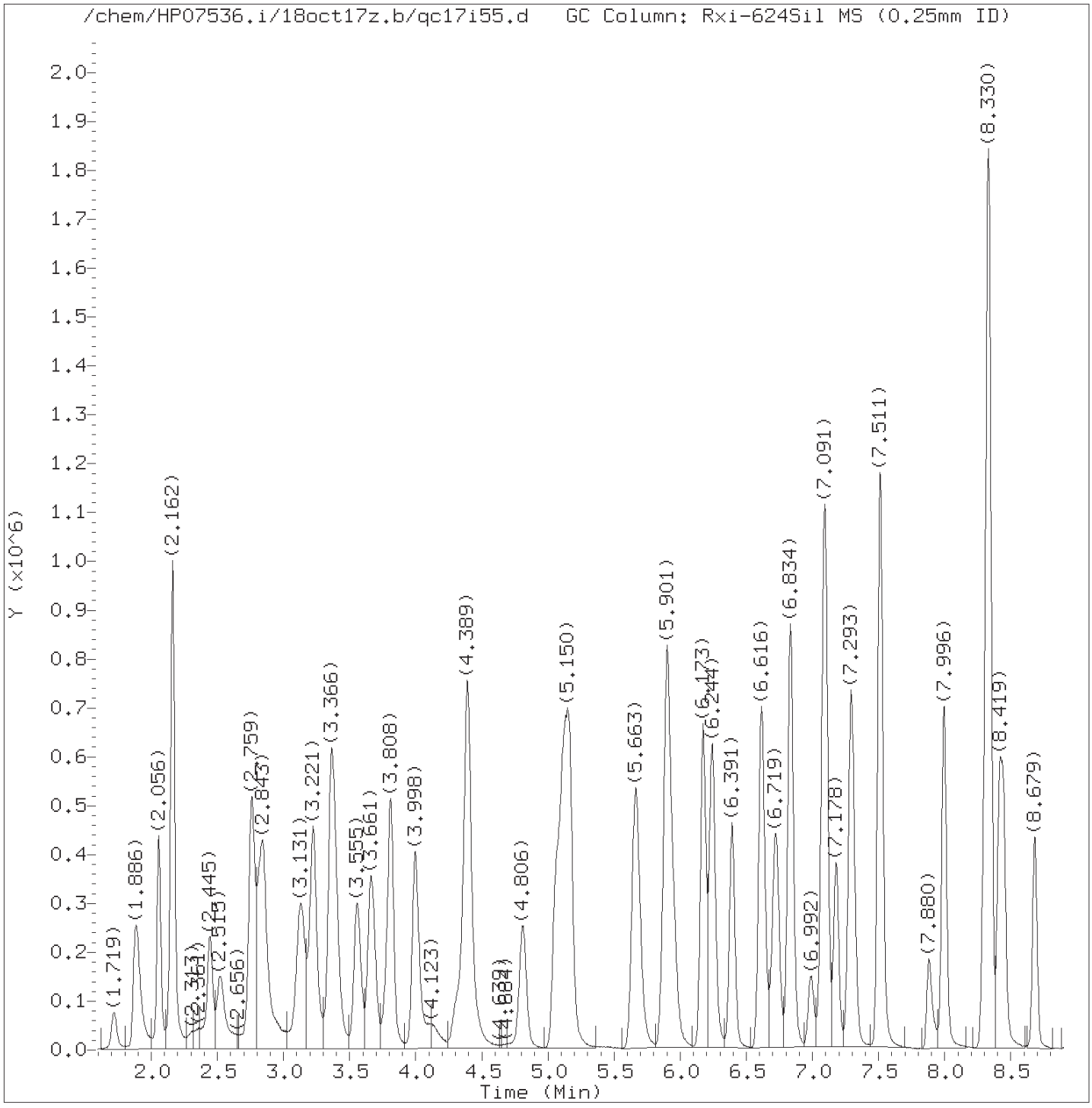
Data File: /chem/HP07536.i/18oct17z.b/qc17i54.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:01 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1849
Retention Time (minutes): 7.524
Quant Ion : 56.00
Area : 33884
On-column Amount (ng) : 387.7174
Integration start scan : 1829 Integration stop scan: 1934
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

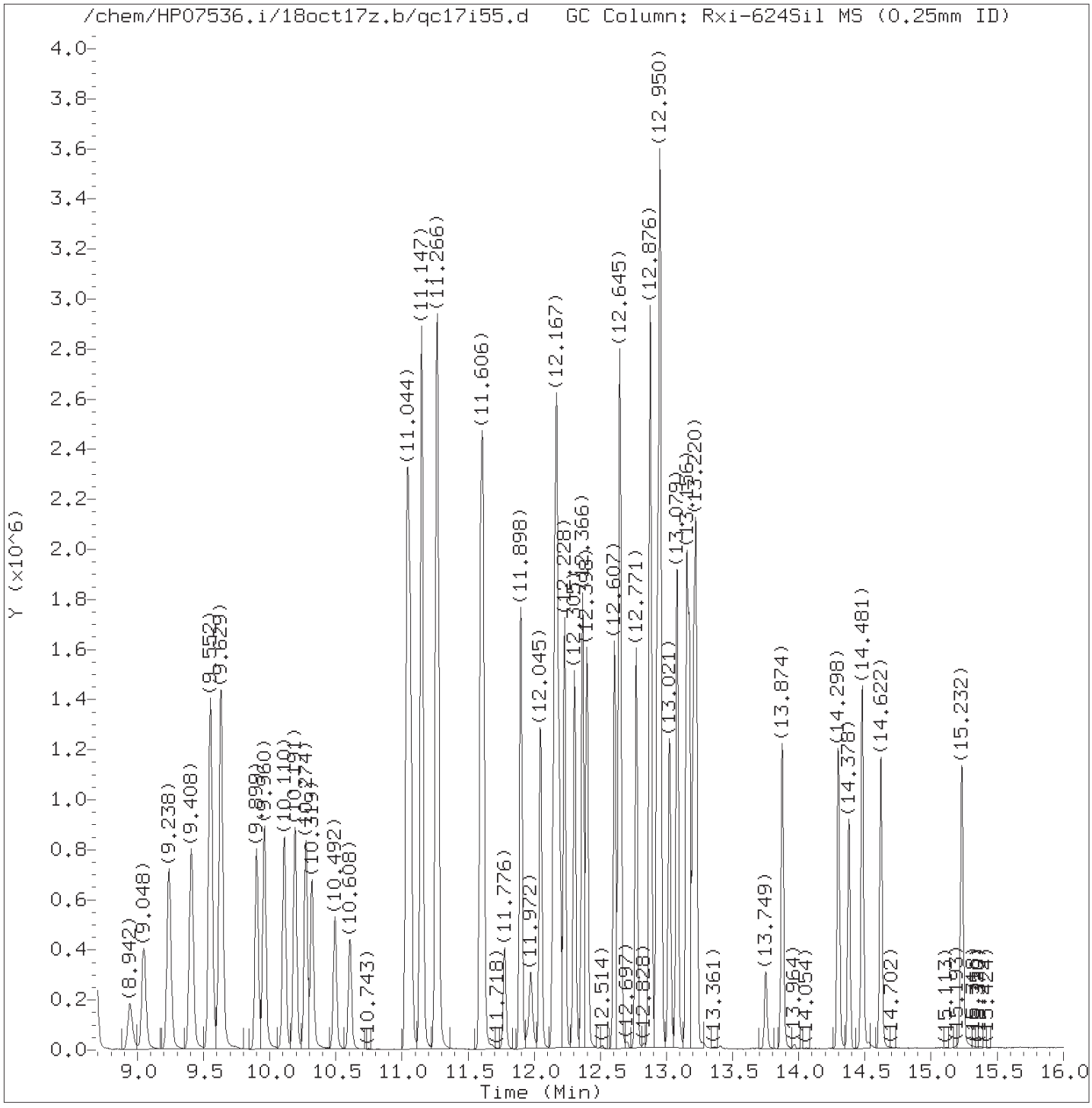
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.886	85	547260	49.094
4) Chloromethane	(2)	2.056	50	564187	47.505
5) Vinyl Chloride	(2)	2.162	62	542542	46.953
9) Bromomethane	(2)	2.441	94	188841	44.515
10) Chloroethane	(2)	2.528	64	180603	4.069
11) Dichlorofluoromethane	(2)	2.759	67	631748A	43.821
13) Trichlorofluoromethane	(2)	2.814	101	677075	47.911
14) n-Pentane	(2)	2.852	43	331011	41.321
15) Ethanol	(1)	2.961	45	171633	2362.627
17) Freon 123a	(2)	3.128	67	400231	46.014
18) Acrolein	(1)	3.228	56	749656	491.669
19) 1,1-Dichloroethene	(2)	3.362	96	276872	48.727
19) 1,1-Dichloroethene	(2)	3.359	63	141140	48.612
20) Acetone	(1)	3.388	58	60664M	98.521
22) Freon 113	(2)	3.388	101	243755	50.362
23) 2-Propanol	(1)	3.552	45	105259M	244.034
24) Methyl Iodide	(2)	3.555	142	601036	49.730
25) Carbon Disulfide	(2)	3.667	76	1022518	49.497
27) Methyl Acetate	(2)	3.780	43	261152	46.900
29) Allyl Chloride	(2)	3.812	41	513271	48.272
31) Methylene Chloride	(2)	3.994	84	334999	49.377
30)*t-Butyl alcohol-d10	(1)	4.020	65	127991	250.000
32) t-Butyl alcohol	(1)	4.123	59	161846	258.481
33) Acrylonitrile	(2)	4.306	53	136807	49.062
34) Methyl Tertiary Butyl Ether	(2)	4.386	73	945766	48.654
35) trans-1,2-Dichloroethene	(2)	4.396	96	318026	49.580
38) n-Hexane	(2)	4.813	57	256968	51.939
40) 1,1-Dichloroethane	(2)	5.060	63	563780	49.167
41) di-Isopropyl ether	(2)	5.121	45	1109241	48.981
42) 2-Chloro-1,3-butadiene	(2)	5.166	53	506951	48.990
43) Ethyl t-butyl ether	(2)	5.663	59	1020351	48.444
44) 2-Butanone	(1)	5.872	43	313990	94.752
44) 2-Butanone	(1)	5.868	72	83230	102.716
45) cis-1,2-Dichloroethene	(2)	5.901	96	350162	49.458
47) 2,2-Dichloropropane	(2)	5.917	77	453231	48.958
49) Propionitrile	(2)	5.952	54	242944	249.799
46) 1,2-Dichloroethene (Total)	(2)		96	668188	99.038
51) Methacrylonitrile	(2)	6.173	67	373320	124.718

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.237	128	196336	49.508
53) Tetrahydrofuran	(1)	6.253	71	84170	101.761
54) Chloroform	(2)	6.391	83	536610	48.868
56)$Dibromofluoromethane	(2)	6.613	113	306208	49.158
56)$Dibromofluoromethane	(2)	6.613	111	314496	49.021
57) 1,1,1-Trichloroethane	(2)	6.616	97	448167	49.761
58) Cyclohexane	(2)	6.719	56	388539	49.245
58) Cyclohexane	(2)	6.719	84	317939	48.202
58) Cyclohexane	(2)	6.719	69	116668	49.693
61) Carbon Tetrachloride	(2)	6.834	117	333560	50.695
60) 1,1-Dichloropropene	(2)	6.834	75	399250	49.281
62) Isobutyl Alcohol	(1)	6.992	41	127949M	603.125
63)$1,2-Dichloroethane-d4	(2)	7.075	102	79540	49.110
63)$1,2-Dichloroethane-d4	(2)	7.075	65	371954	47.949
63)$1,2-Dichloroethane-d4	(2)	7.072	104	51262	50.444
64) Benzene	(2)	7.097	78	1240226	49.332
67) 1,2-Dichloroethane	(2)	7.178	62	428565	49.215
67) 1,2-Dichloroethane	(2)	7.181	98	40712	54.027
68) t-Amyl methyl ether	(2)	7.293	73	984545	49.256
70)*Fluorobenzene	(2)	7.508	96	1144986	50.000
72) n-Heptane	(2)	7.521	43	235196	48.676
73) n-Butanol	(1)	7.877	56	211663M	1330.185
75) Trichloroethene	(2)	7.999	95	309852	49.658
76) Methylcyclohexane	(2)	8.304	83	306118	50.976
77) 1,2-Dichloropropane	(2)	8.326	63	339900	49.571
79) Methyl Methacrylate	(2)	8.413	69	260049	51.322
80) 1,4-Dioxane	(1)	8.429	88	40961M	721.732
81) Dibromomethane	(2)	8.445	93	209630	50.372
84) Bromodichloromethane	(2)	8.683	83	368316	51.749
85) 2-Nitropropane	(1)	8.942	41	96904	91.163
87) 2-Chloroethyl Vinyl Ether	(2)	9.045	63	230139	51.620
89) cis-1,3-Dichloropropene	(2)	9.238	75	510578	50.883
90) 4-Methyl-2-pentanone	(2)	9.408	43	675278	97.905
91)$Toluene-d8	(3)	9.552	98	1157821	49.702
91)$Toluene-d8	(3)	9.552	100	752098	49.716
92) Toluene	(3)	9.629	92	752972	50.791
93) trans-1,3-Dichloropropene	(3)	9.899	75	485024	52.987
95) Ethyl Methacrylate	(3)	9.960	69	492807	52.098

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	995602	103.870
96) 1,1,2-Trichloroethane	(3)	10.110	97	288890	49.270
98) Tetrachloroethene	(3)	10.191	166	297601	50.311
99) 1,3-Dichloropropane	(3)	10.274	76	500069	49.862
101) 2-Hexanone	(3)	10.319	43	462762	100.638
103) Dibromochloromethane	(3)	10.492	129	285016	54.841
104) 1,2-Dibromoethane	(3)	10.608	107	313076	50.922
105)*Chlorobenzene-d5	(3)	11.035	117	853346	50.000
106) 1-Chlorohexane	(3)	11.044	91	285839	47.428
107) Chlorobenzene	(3)	11.063	112	822782	49.191
108) 1,1,1,2-Tetrachloroethane	(3)	11.147	131	290034	52.512
109) Ethylbenzene	(3)	11.150	91	1275868	50.145
110) m+p-Xylene	(3)	11.266	106	1013757	101.924
111) o-Xylene	(3)	11.596	106	504435	50.942
113) Styrene	(3)	11.615	104	911961	51.861
112) Xylene (Total)	(3)		106	1518192	152.867
114) Bromoform	(3)	11.776	173	181626	47.567
115) Isopropylbenzene	(3)	11.898	105	1079575	51.090
118) Cyclohexanone	(1)	11.975	55	136405	656.753
119)$4-Bromofluorobenzene	(3)	12.045	95	370968	50.019
119)$4-Bromofluorobenzene	(3)	12.049	174	356353	50.541
120) 1,1,2,2-Tetrachloroethane	(4)	12.145	83	389145	48.357
121) Bromobenzene	(4)	12.161	156	371167	48.896
122) trans-1,4-Dichloro-2-butene	(4)	12.171	53	300757	125.184
123) 1,2,3-Trichloropropane	(4)	12.193	110	119158	48.390
124) n-Propylbenzene	(4)	12.228	91	1162988	49.553
126) 2-Chlorotoluene	(4)	12.305	126	273539	49.475
129) 1,3,5-Trimethylbenzene	(4)	12.366	105	885562	49.955
130) 4-Chlorotoluene	(4)	12.398	126	292144	49.466
133) tert-Butylbenzene	(4)	12.607	134	175360	48.033
134) Pentachloroethane	(4)	12.642	167	194633	47.878
135) 1,2,4-Trimethylbenzene	(4)	12.649	105	953983	50.192
136) sec-Butylbenzene	(4)	12.771	105	955877	48.906
138) 1,3-Dichlorobenzene	(4)	12.873	146	560601	49.991
139) p-Isopropyltoluene	(4)	12.880	119	888025	49.920
140)*1,4-Dichlorobenzene-d4	(4)	12.928	152	373806	50.000
141) 1,4-Dichlorobenzene	(4)	12.947	146	608939	48.355
142) 1,2,3-Trimethylbenzene	(4)	12.953	105	1063611	49.441

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

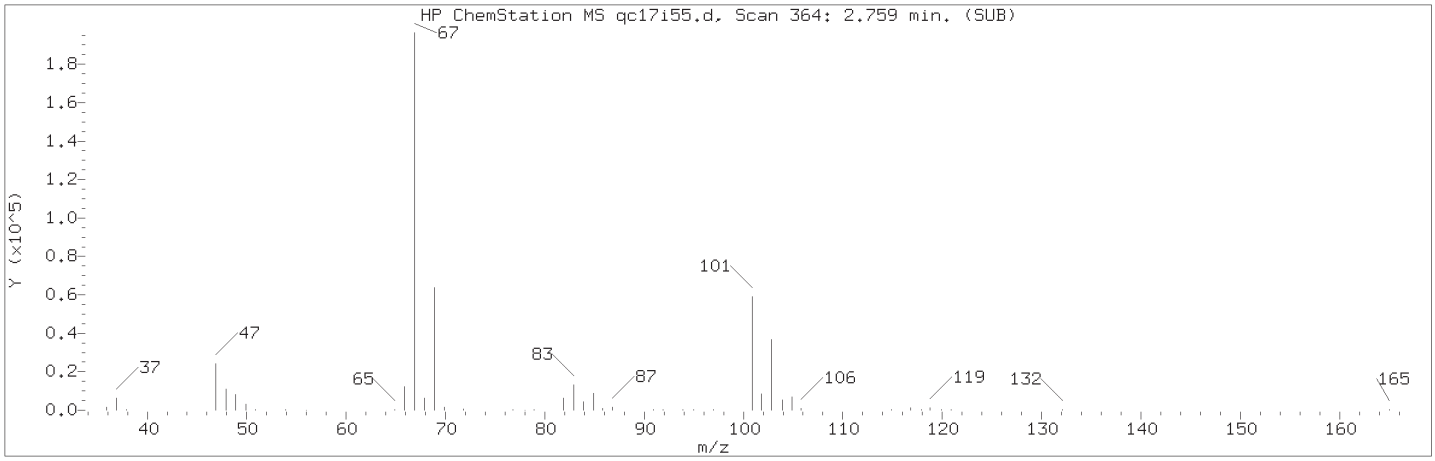
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

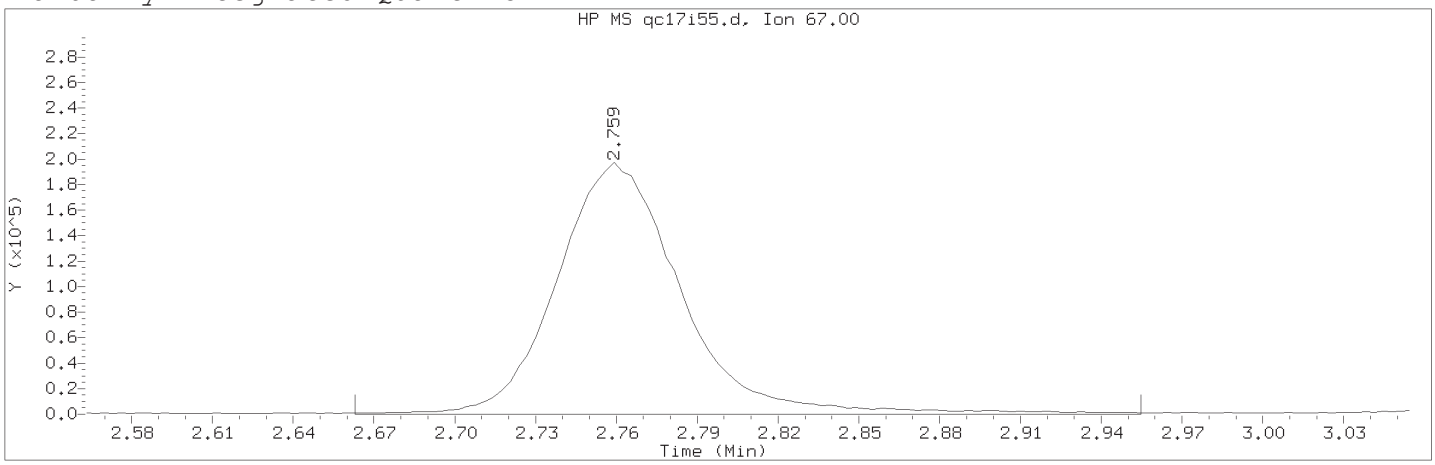
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.021	126	172142	55.073
144) 1,3-Diethylbenzene	(4)	13.082	119	545056	50.514
145) 1,4-Diethylbenzene	(4)	13.152	119	569809	50.452
146) n-Butylbenzene	(4)	13.172	92	408800	49.807
147) 1,2-Dichlorobenzene	(4)	13.204	146	569021	48.960
148) 1,2-Diethylbenzene	(4)	13.223	119	472950	48.921
151) 1,2-Dibromo-3-chloropropane	(4)	13.746	75	65603	52.510
152) 1,3,5-Trichlorobenzene	(4)	13.874	180	360580	49.518
153) 1,2,4-Trichlorobenzene	(4)	14.298	180	353474	50.382
154) Hexachlorobutadiene	(4)	14.378	225	149063	48.217
155) Naphthalene	(4)	14.481	128	1019221	48.980
156) 1,2,3-Trichlorobenzene	(4)	14.622	180	333444	49.718
157) 2-Methylnaphthalene	(4)	15.232	142	536001	52.537

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

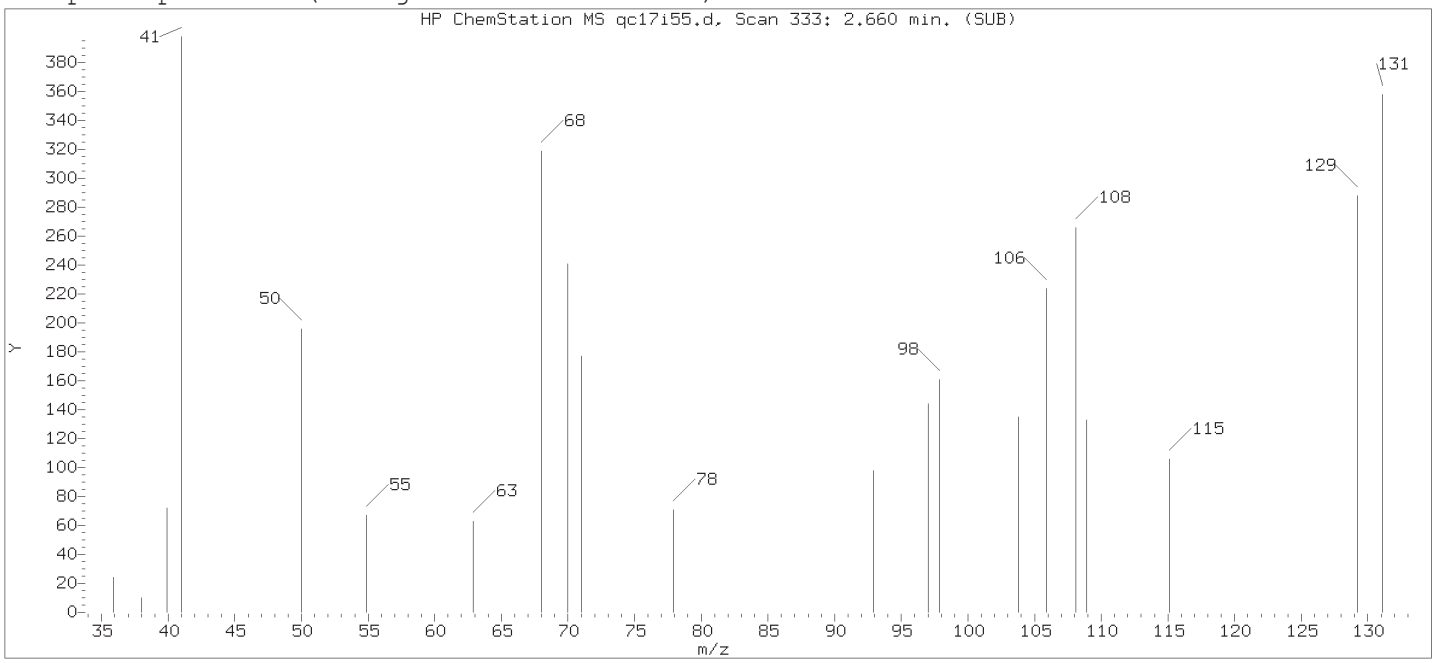
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 364
Retention Time (minutes): 2.759
Quant Ion : 67.00
Area (flag) : 631748A
On-Column Amount (ng) : 43.8210
Integration start scan : 333 Integration stop scan: 424
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

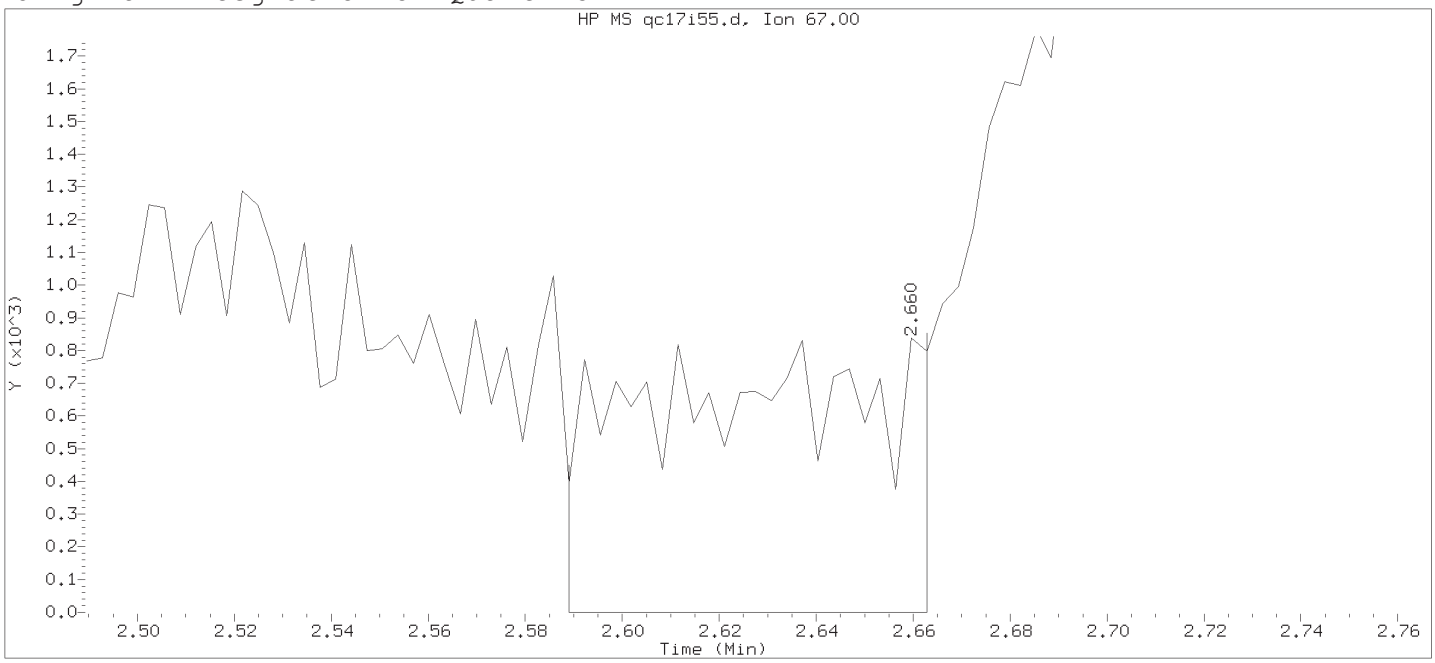
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

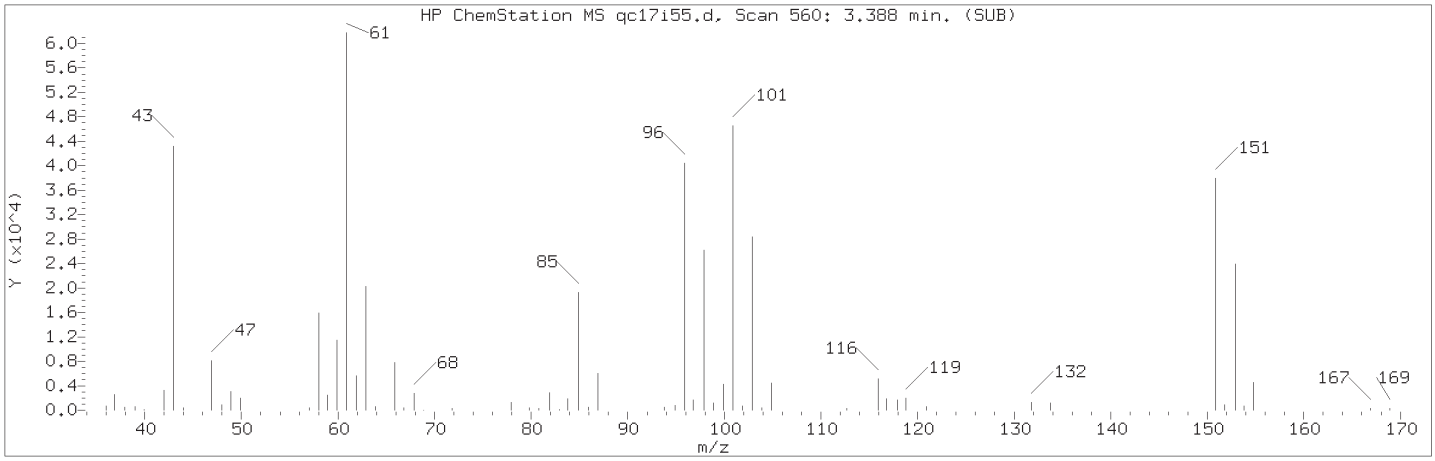
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

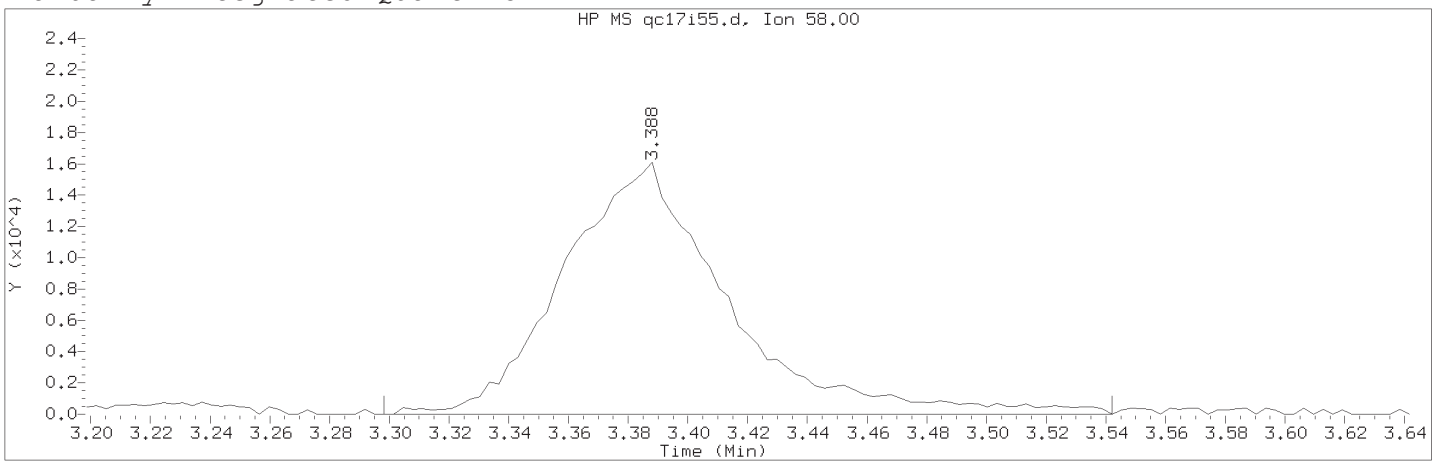
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 333
Retention Time (minutes): 2.660
Quant Ion : 67.00
Area : 2874
On-column Amount (ng) : 11.5532
Integration start scan : 310 Integration stop scan: 333
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

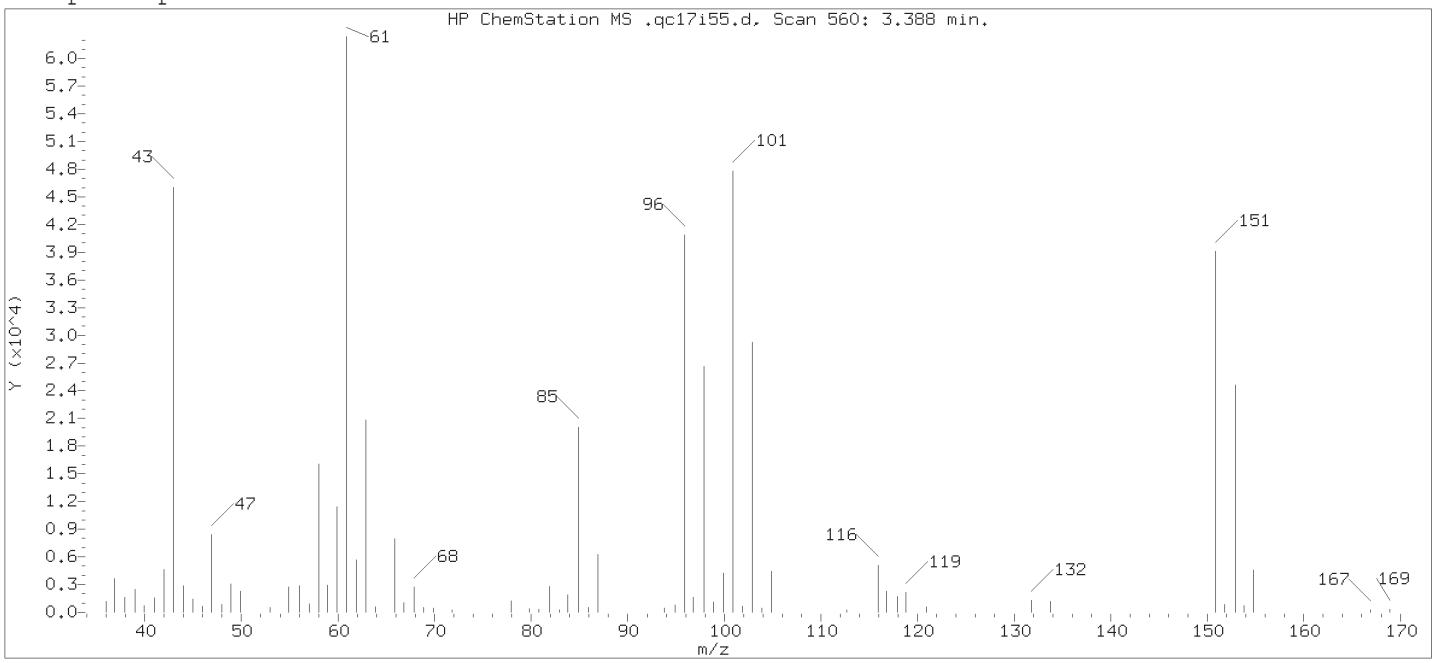
Compound Number : 20
Compound Name : Acetone
Scan Number : 560
Retention Time (minutes): 3.388
Quant Ion : 58.00
Area (flag) : 60664M
On-Column Amount (ng) : 98.5213
Integration start scan : 531 Integration stop scan: 607
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

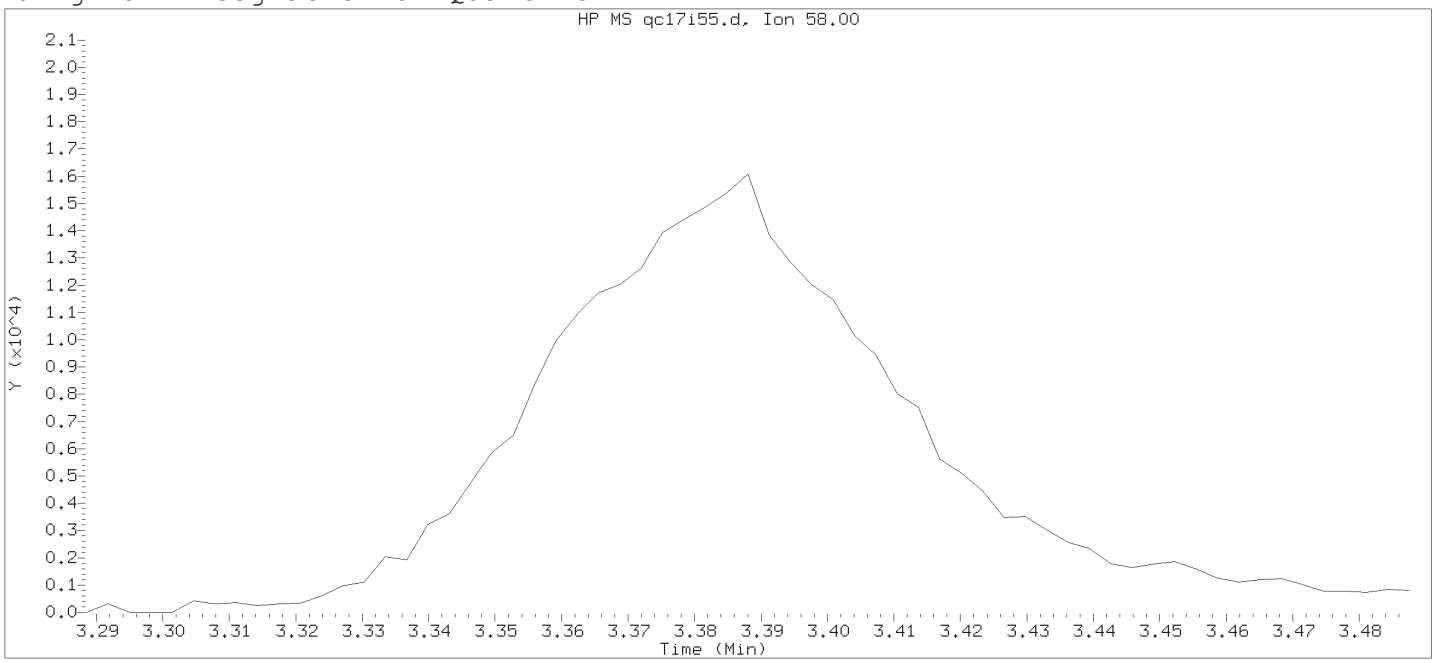
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

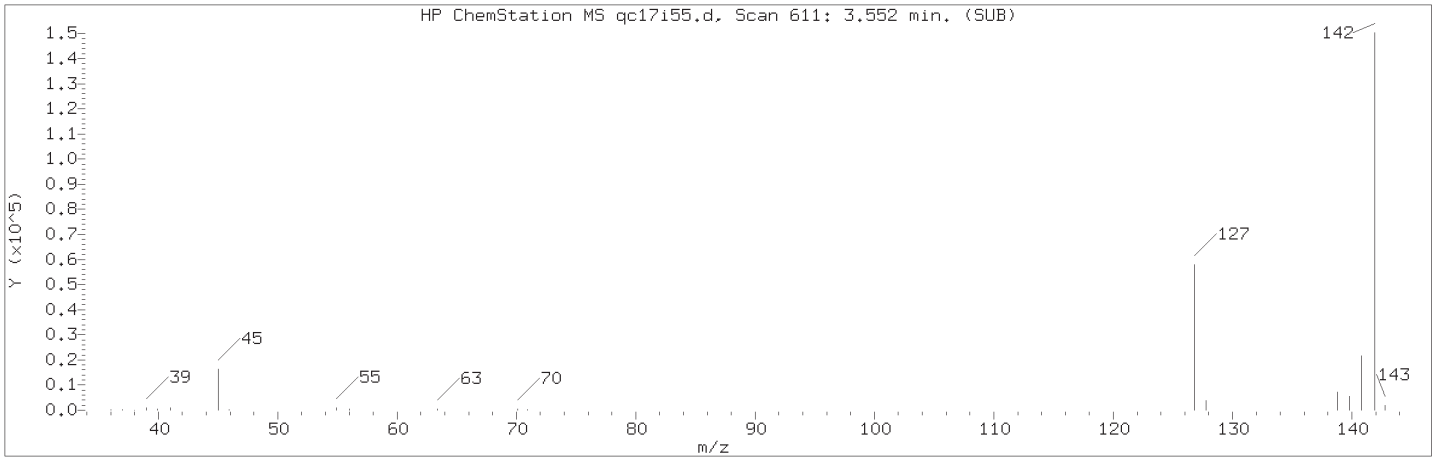
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

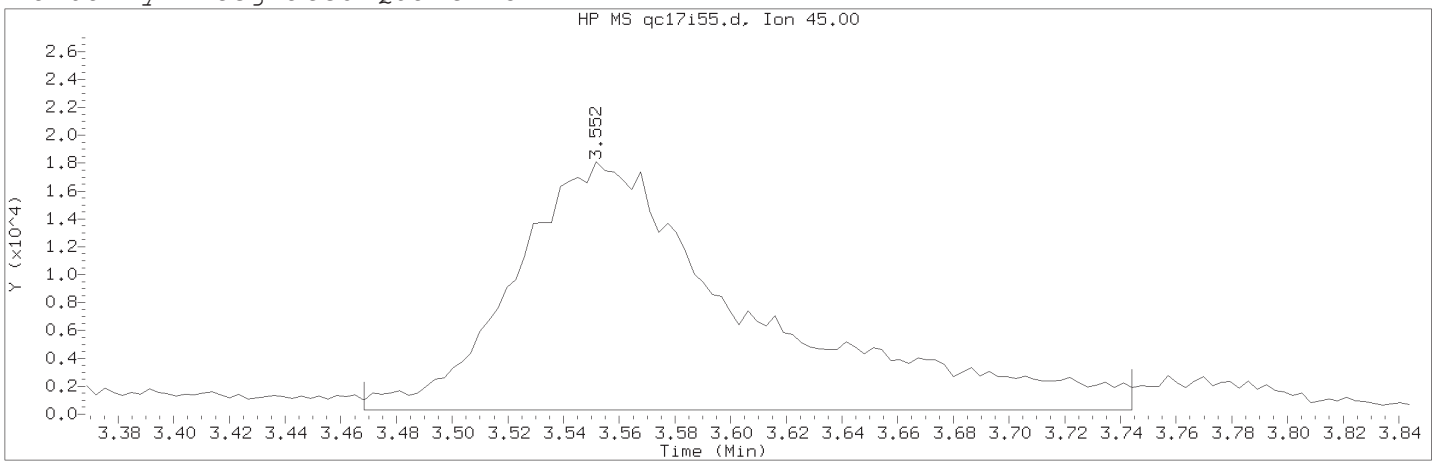
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

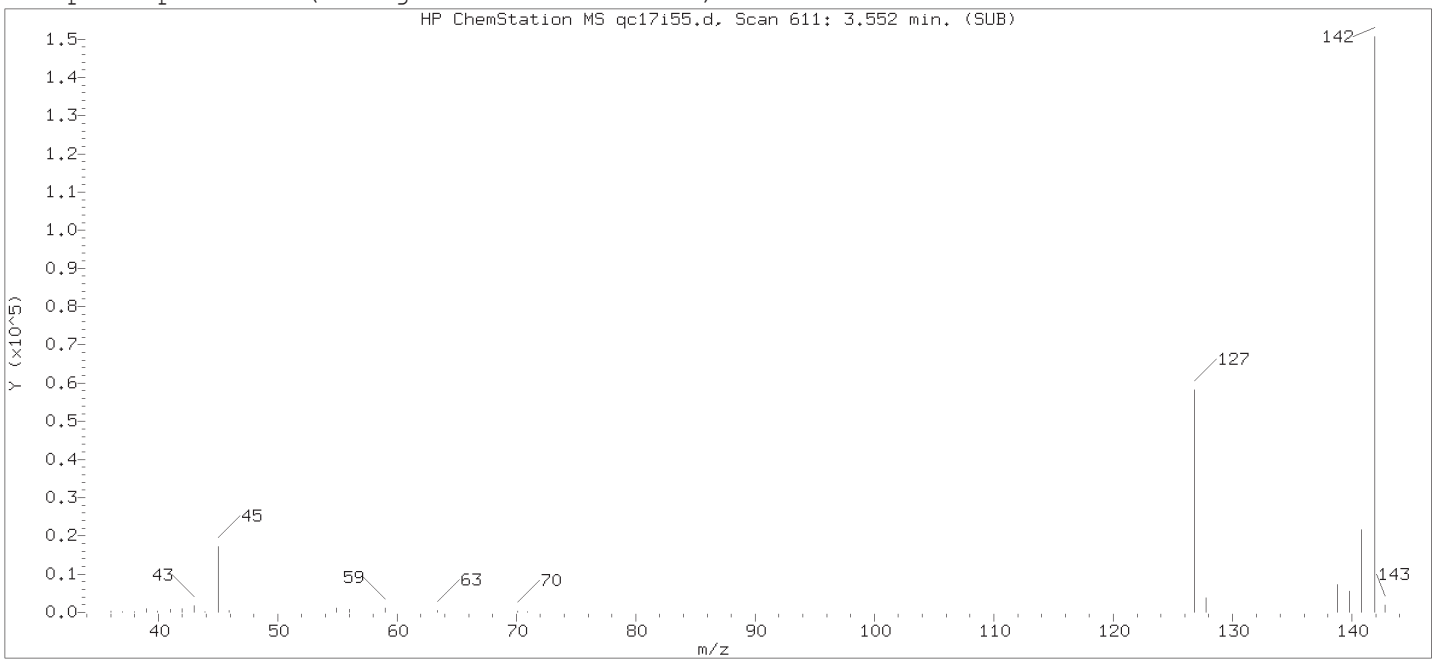
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 611
Retention Time (minutes): 3.552
Quant Ion : 45.00
Area (flag) : 105259M
On-Column Amount (ng) : 244.0340
Integration start scan : 584 Integration stop scan: 670
Y at integration start : 290 Y at integration end: 290

Reason for manual integration: improper integration

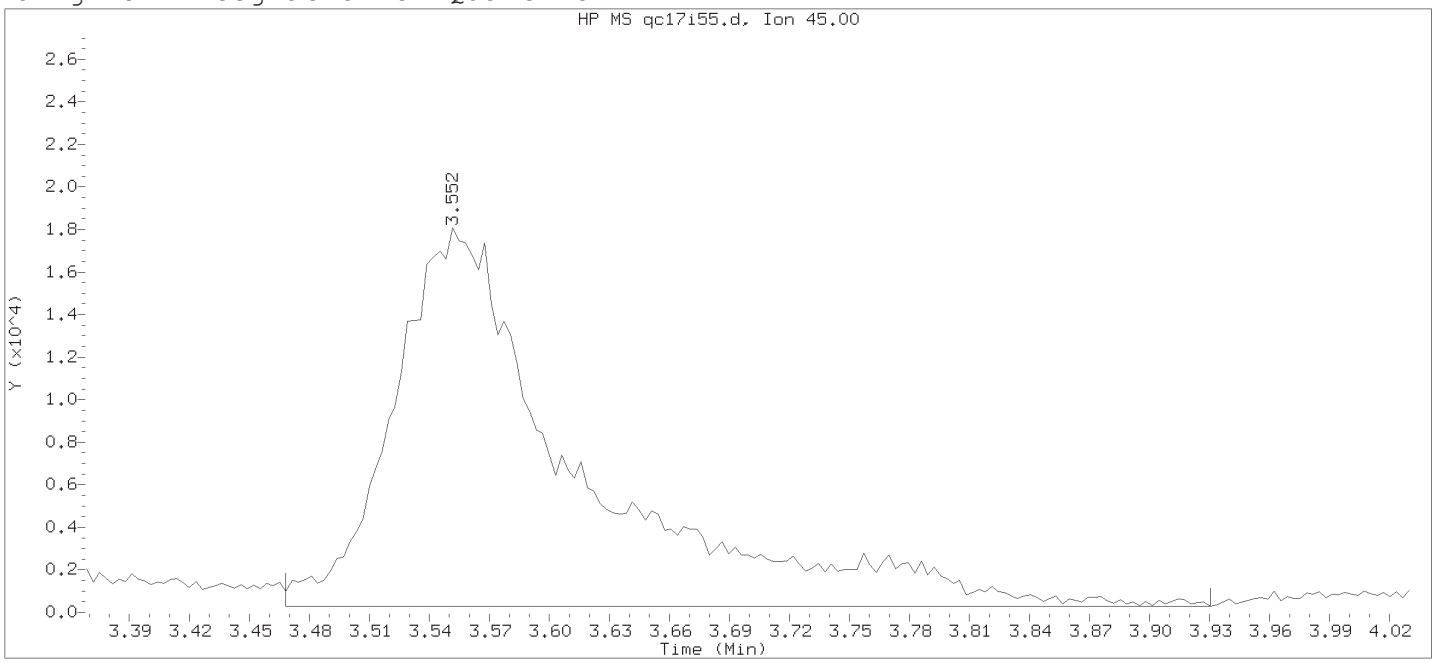
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

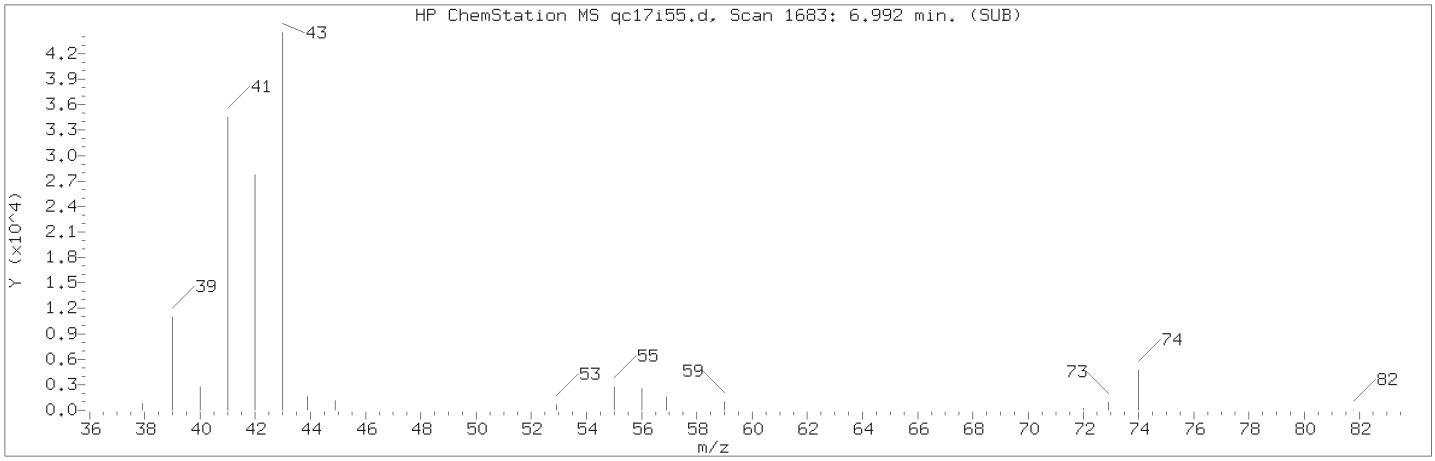
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

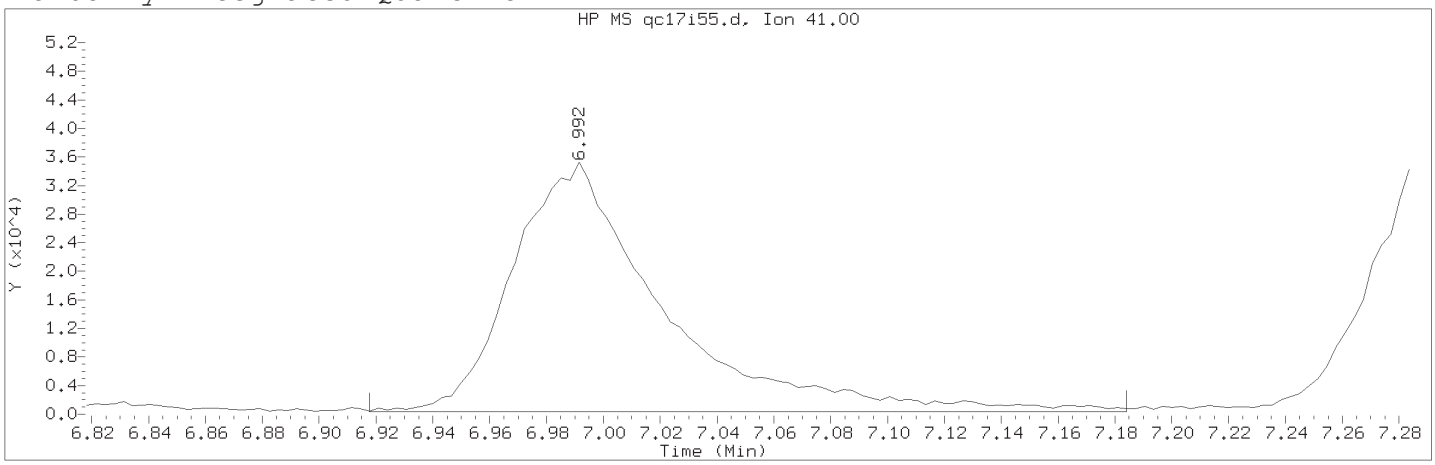
Compound Number	: 23		
Compound Name	: 2-Propanol		
Scan Number	: 611		
Retention Time (minutes)	: 3.552		
Quant Ion	: 45.00		
Area	: 114199		
On-column Amount (ng)	: 257.4122		
Integration start scan	: 584	Integration stop scan:	728
Y at integration start	: 290	Y at integration end:	290

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

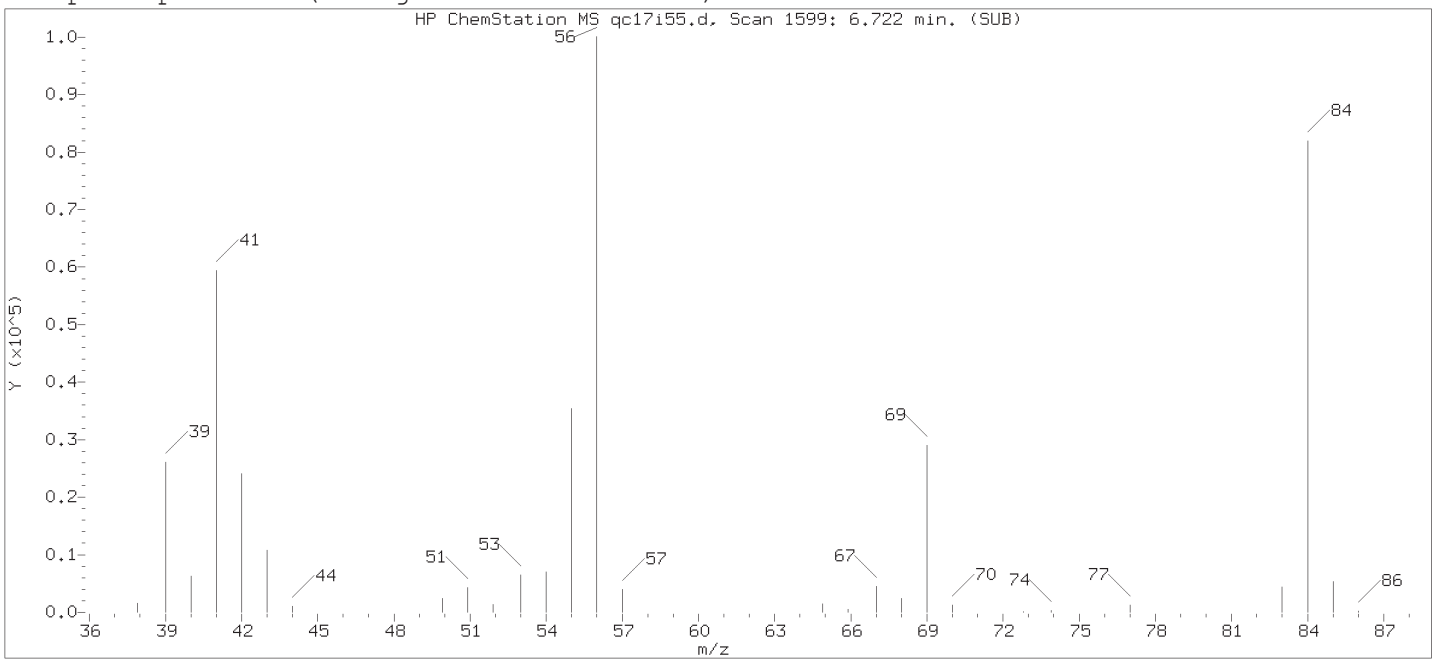
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1683
Retention Time (minutes): 6.992
Quant Ion : 41.00
Area (flag) : 127949M
On-Column Amount (ng) : 603.1254
Integration start scan : 1659 Integration stop scan: 1742
Y at integration start : 322 Y at integration end: 322

Reason for manual integration: improper integration

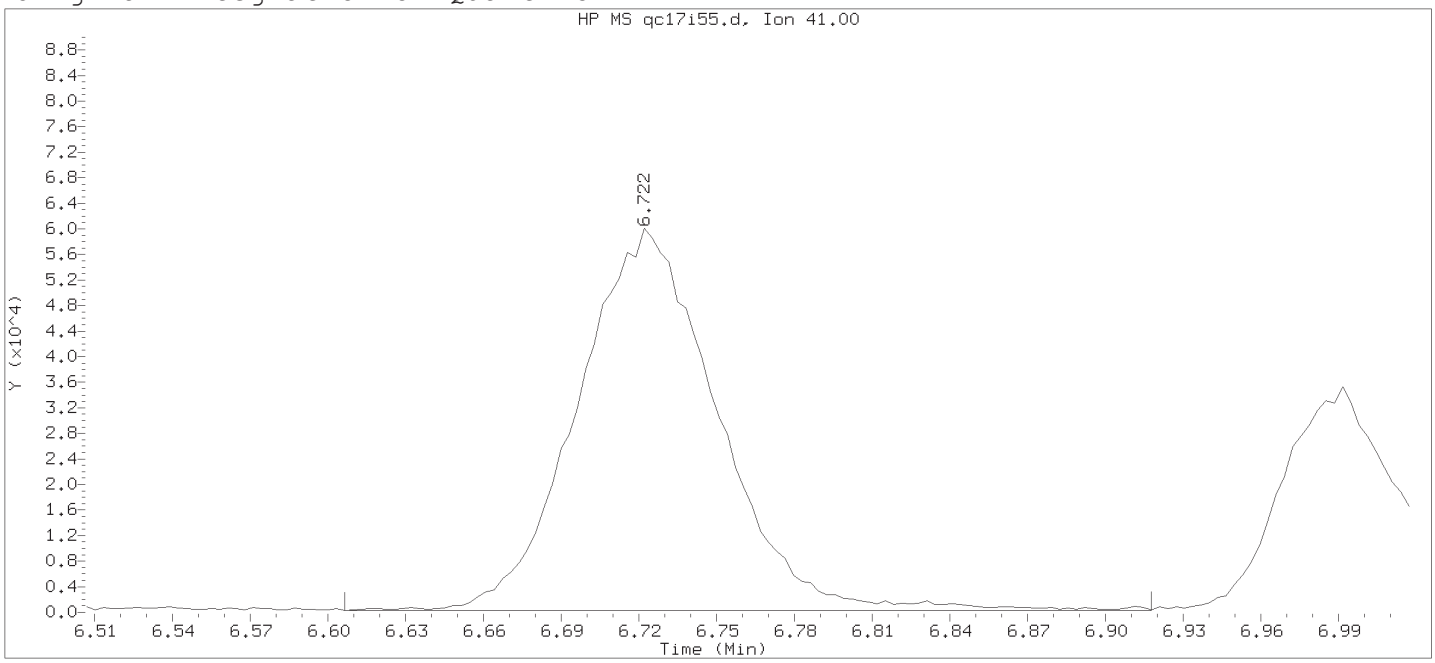
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

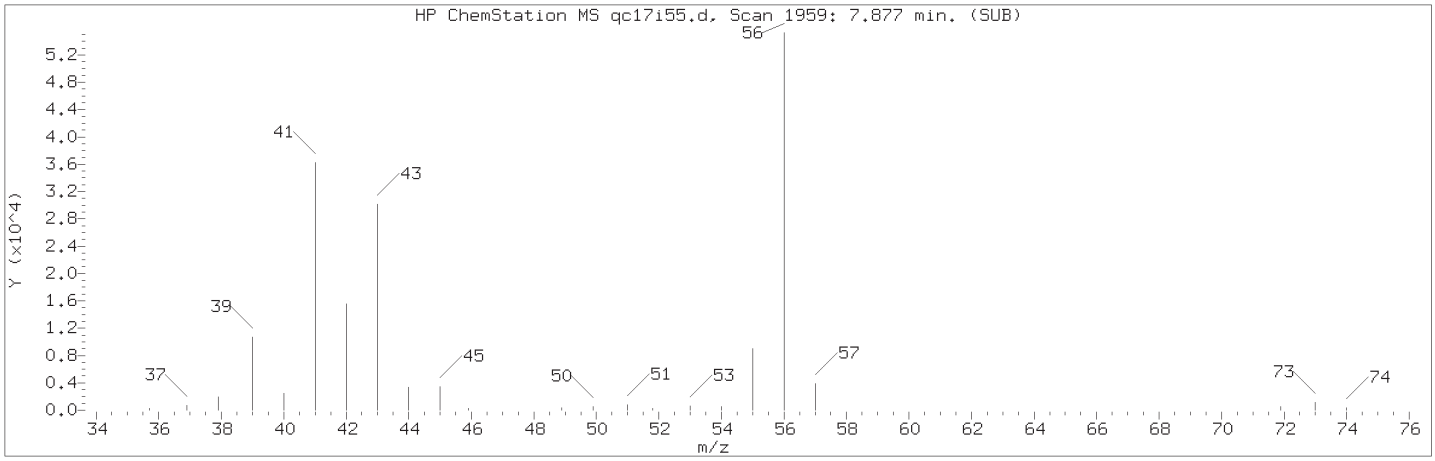
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

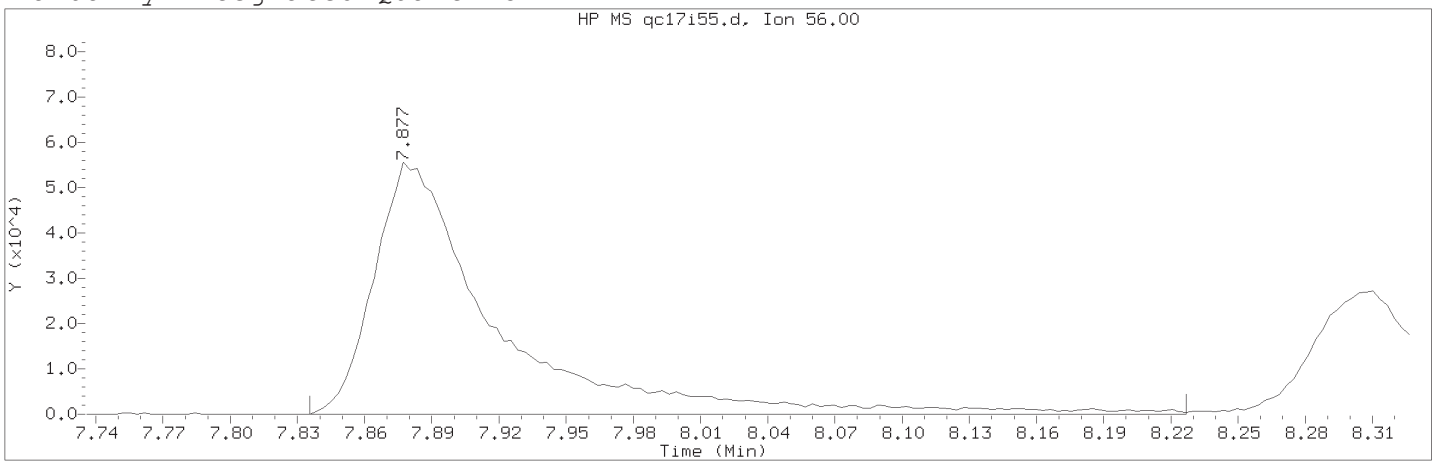
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1599
Retention Time (minutes): 6.722
Quant Ion : 41.00
Area : 223112
On-column Amount (ng) : 1139.6297
Integration start scan : 1562 Integration stop scan: 1659
Y at integration start : 327 Y at integration end: 327

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

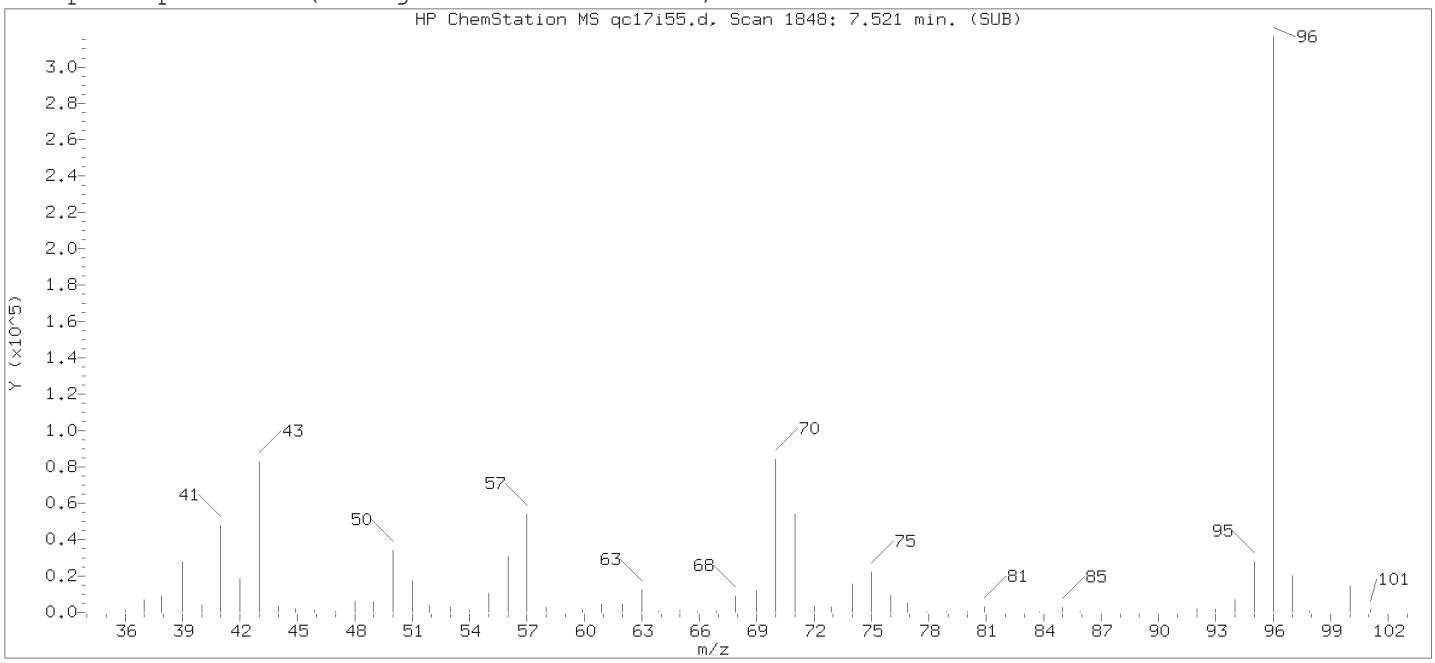
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1959
Retention Time (minutes): 7.877
Quant Ion : 56.00
Area (flag) : 211663M
On-Column Amount (ng) : 1330.1853
Integration start scan : 1945 Integration stop scan: 2067
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

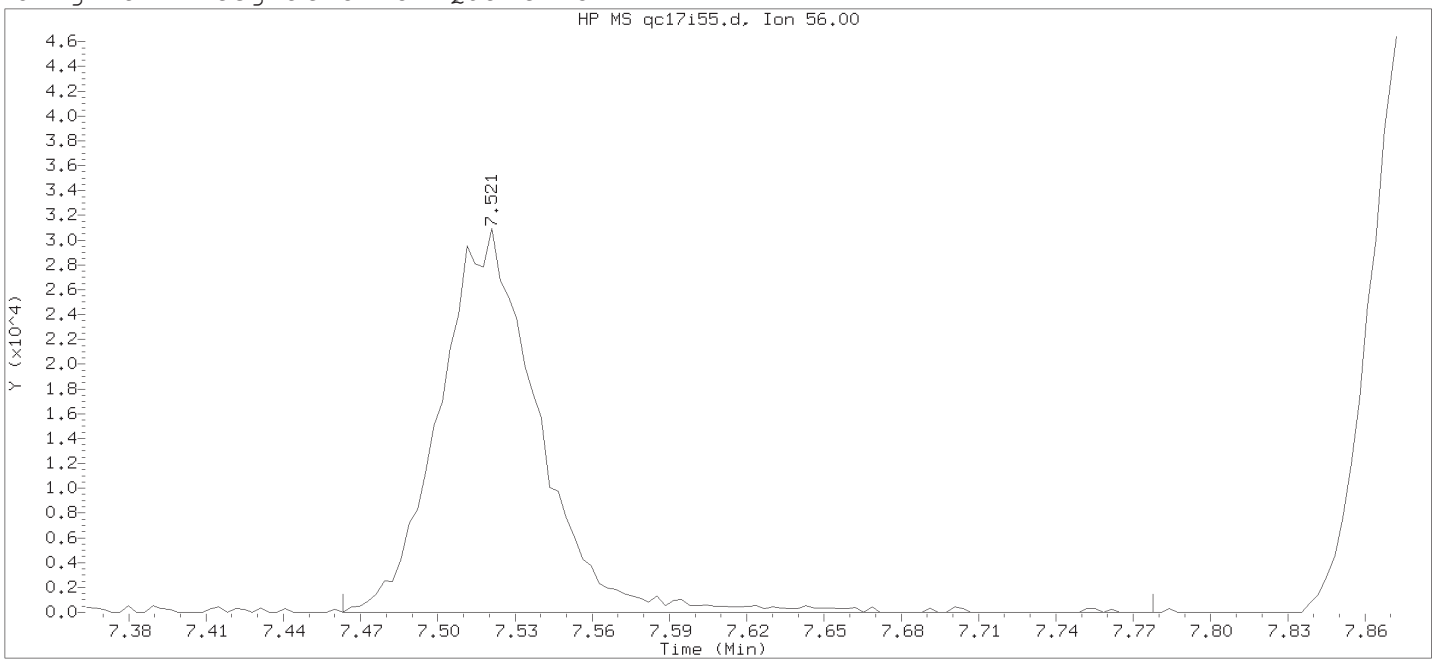
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

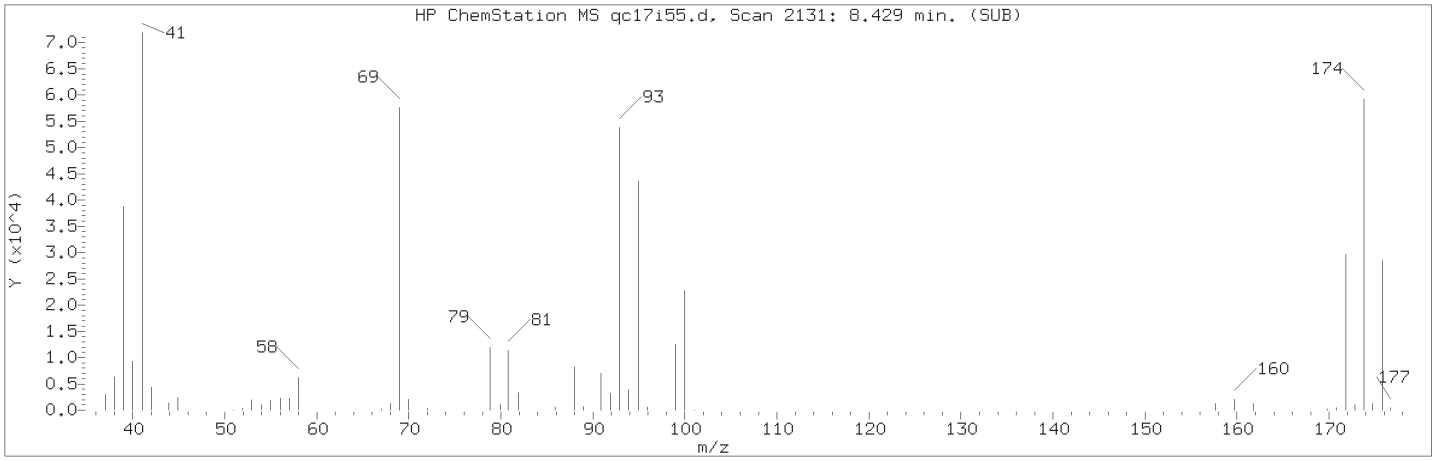
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

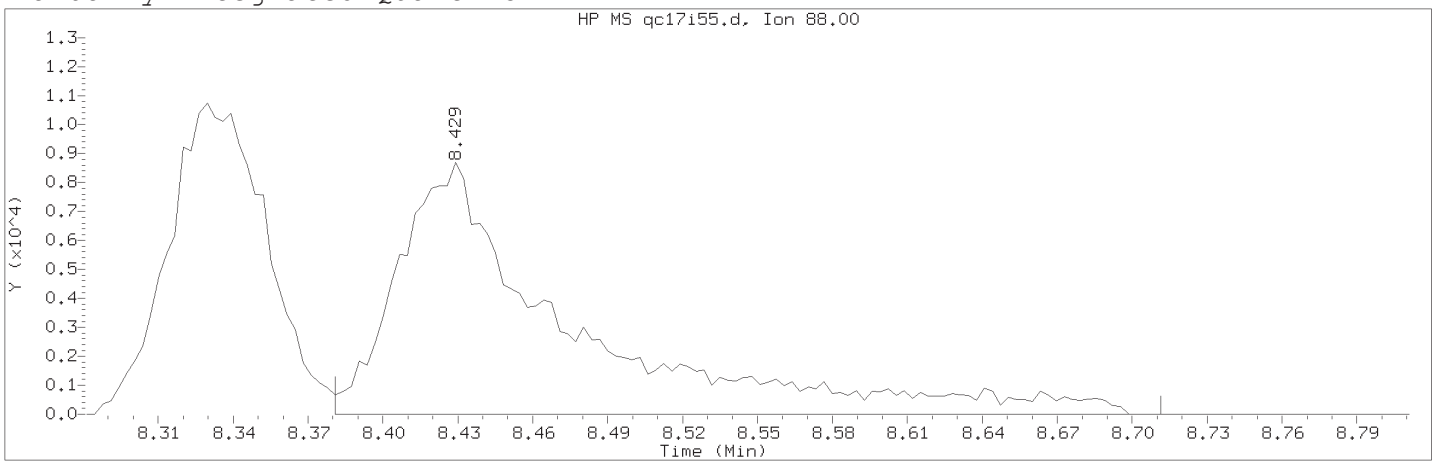
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1848
Retention Time (minutes): 7.521
Quant Ion : 56.00
Area : 82678
On-column Amount (ng) : 997.2589
Integration start scan : 1829 Integration stop scan: 1927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

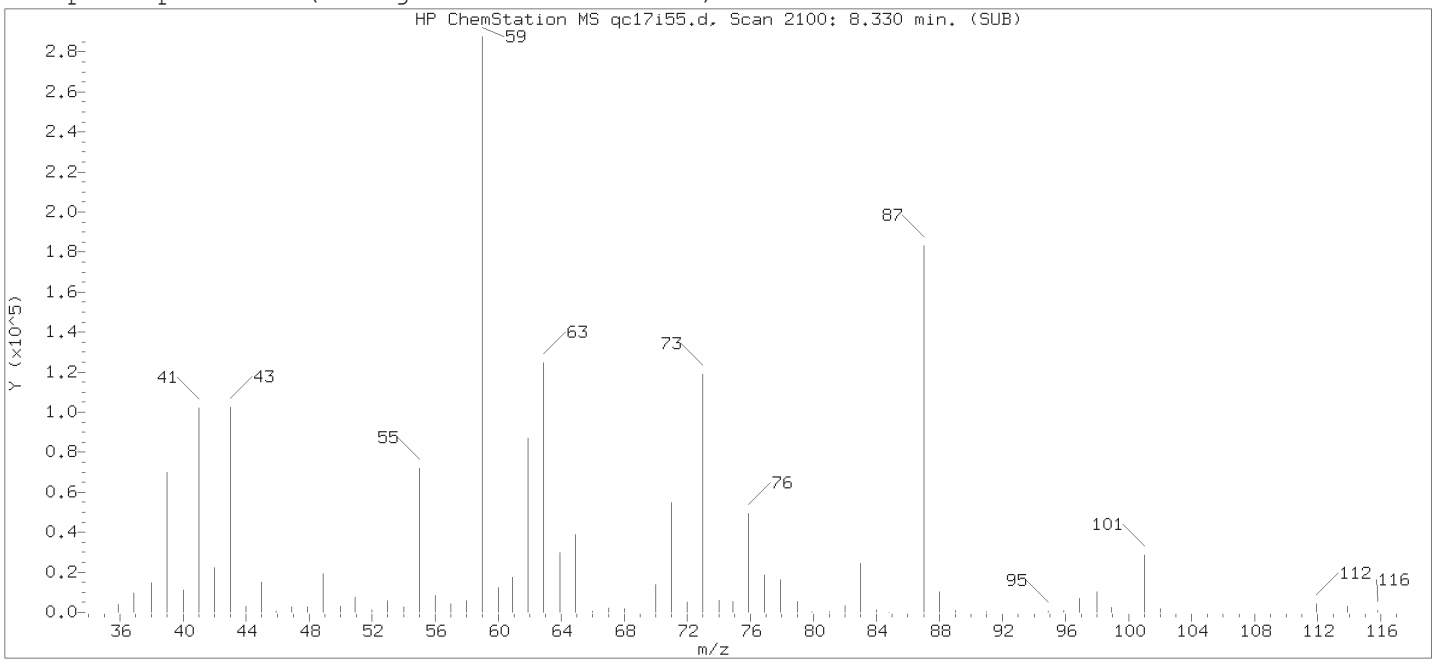
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2131
Retention Time (minutes): 8.429
Quant Ion : 88.00
Area (flag) : 40961M
On-Column Amount (ng) : 721.7318
Integration start scan : 2115 Integration stop scan: 2218
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

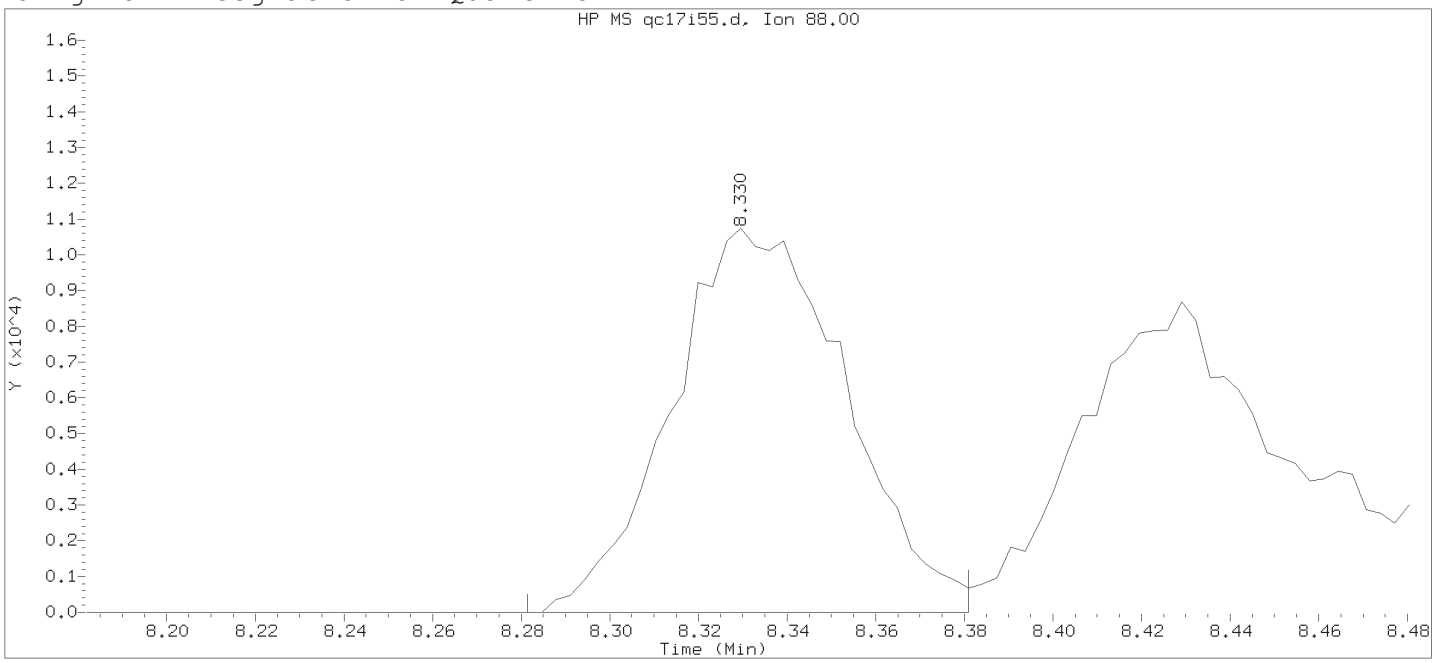
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



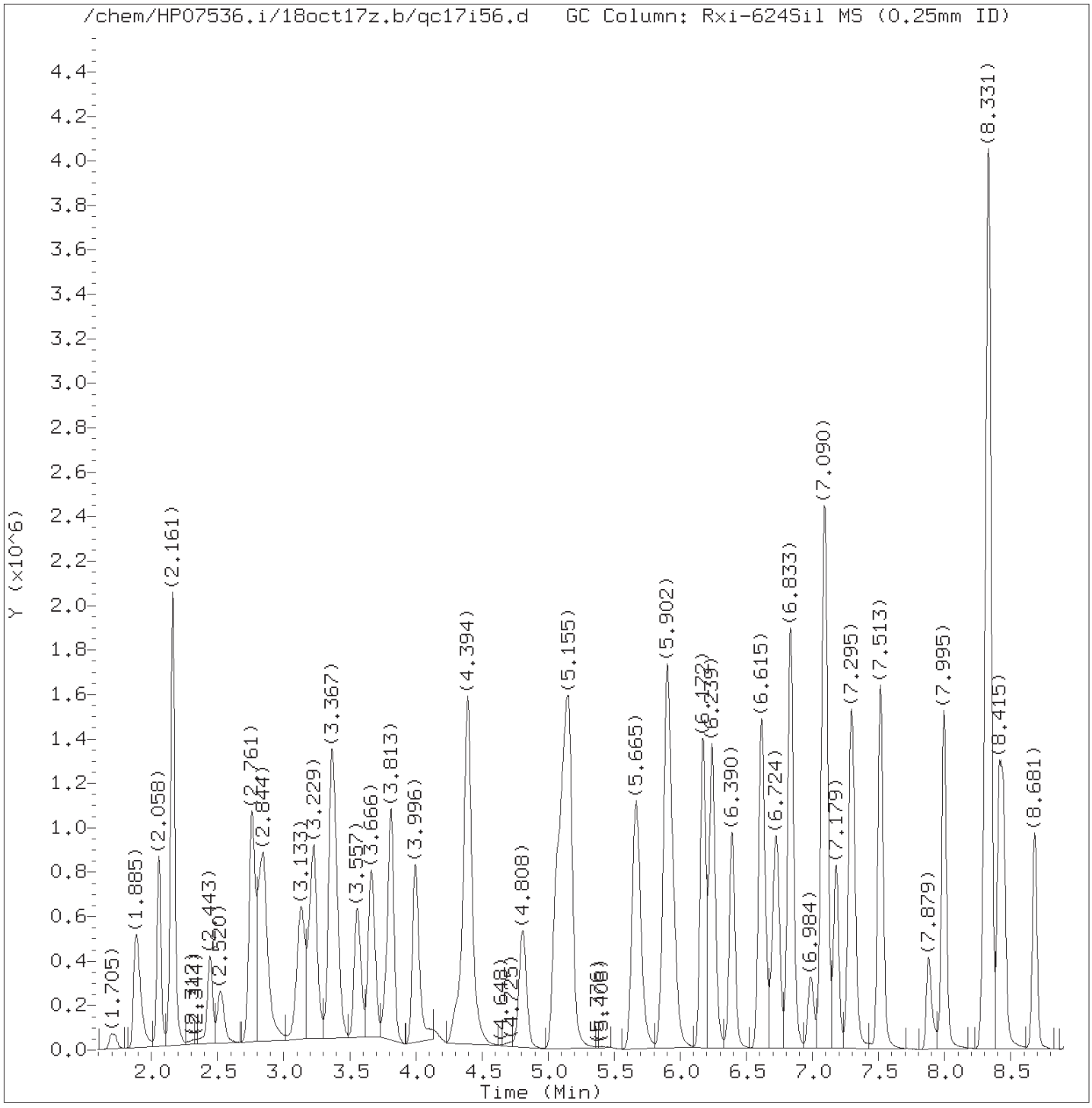
Data File: /chem/HP07536.i/18oct17z.b/qc17i55.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:24 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2100
Retention Time (minutes): 8.330
Quant Ion : 88.00
Area : 29270
On-column Amount (ng) : 629.0794
Integration start scan : 2084 Integration stop scan: 2115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

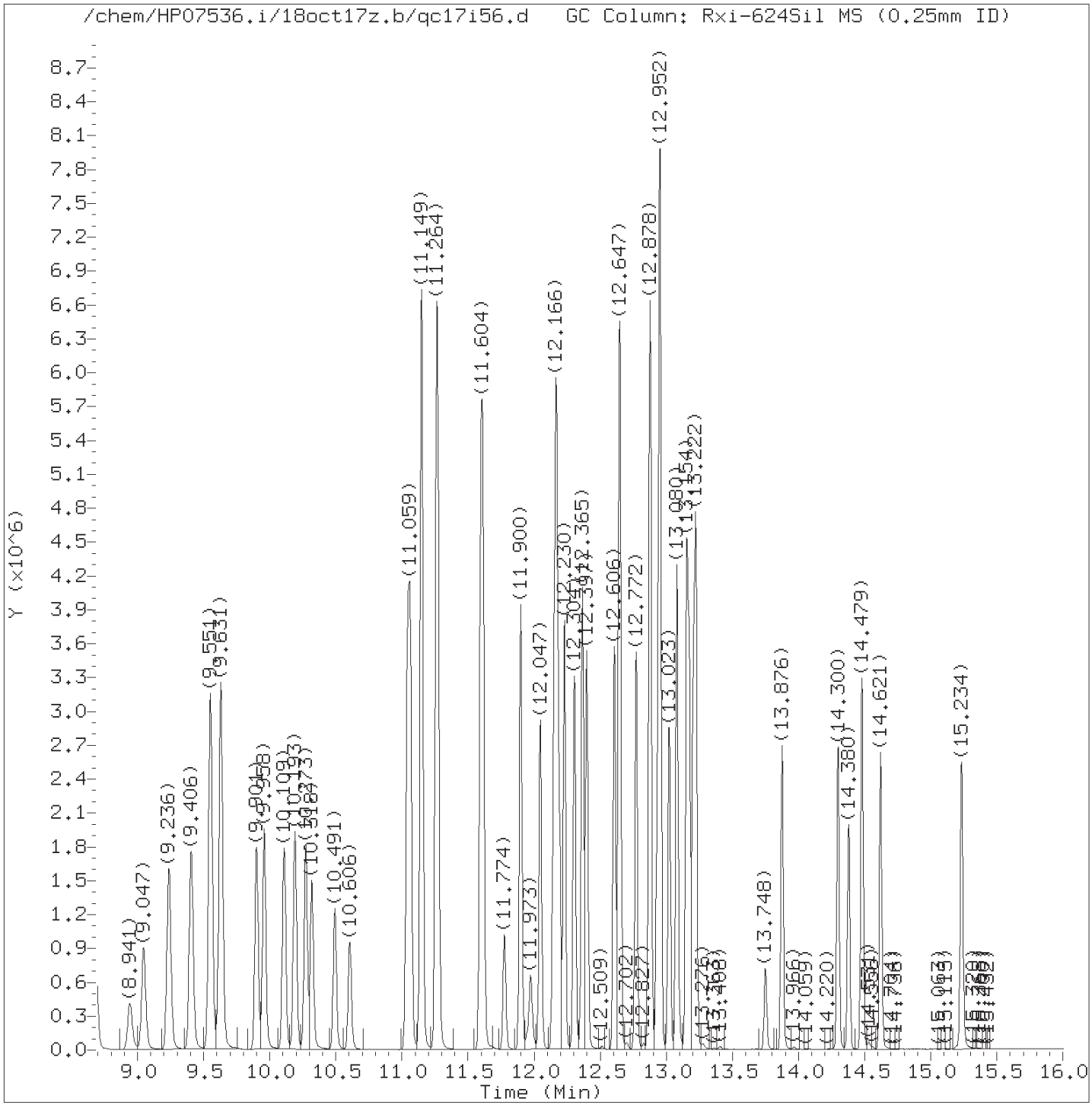
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.885	85	1126296	94.646
4) Chloromethane	(2)	2.055	50	1146096	90.398
5) Vinyl Chloride	(2)	2.164	62	1108910	89.897
9) Bromomethane	(2)	2.443	94	383462	84.674
10) Chloroethane	(2)	2.517	64	370277	14.844
11) Dichlorofluoromethane	(2)	2.758	67	1344385A	87.353
13) Trichlorofluoromethane	(2)	2.819	101	1442031	95.584
14) n-Pentane	(2)	2.854	43	767768	89.779
15) Ethanol	(1)	2.941	45	355335	4448.777
17) Freon 123a	(2)	3.133	67	885805	95.396
18) Acrolein	(1)	3.229	56	1638729	977.522
19) 1,1-Dichloroethene	(2)	3.361	96	614730	101.342
19) 1,1-Dichloroethene	(2)	3.361	63	318057	102.615
22) Freon 113	(2)	3.383	101	555839	107.576
20) Acetone	(1)	3.390	58	137042M	202.423
23) 2-Propanol	(1)	3.547	45	214797M	452.926
24) Methyl Iodide	(2)	3.560	142	1290394	100.014
25) Carbon Disulfide	(2)	3.666	76	2230924	101.160
27) Methyl Acetate	(2)	3.772	43	535894	90.152
29) Allyl Chloride	(2)	3.813	41	1136408	100.115
31) Methylene Chloride	(2)	3.996	84	710143	98.049
30)*t-Butyl alcohol-d10	(1)	4.009	65	140725	250.000
32) t-Butyl alcohol	(1)	4.134	59	339437	493.054
33) Acrylonitrile	(2)	4.295	53	294259	98.852
34) Methyl Tertiary Butyl Ether	(2)	4.381	73	2039524	98.283
35) trans-1,2-Dichloroethene	(2)	4.394	96	688413	100.533
38) n-Hexane	(2)	4.808	57	572155	108.330
40) 1,1-Dichloroethane	(2)	5.058	63	1232332	100.672
41) di-Isopropyl ether	(2)	5.116	45	2424926	100.304
42) 2-Chloro-1,3-butadiene	(2)	5.164	53	1128262	102.134
43) Ethyl t-butyl ether	(2)	5.665	59	2233577	99.335
44) 2-Butanone	(1)	5.867	43	674261	185.059
44) 2-Butanone	(1)	5.867	72	181298	203.498
45) cis-1,2-Dichloroethene	(2)	5.899	96	771725	102.106
47) 2,2-Dichloropropane	(2)	5.922	77	996261	100.807
49) Propionitrile	(2)	5.947	54	527436	508.009
46) 1,2-Dichloroethene (Total)	(2)		96	1460138	202.639
51) Methacrylonitrile	(2)	6.172	67	814556	254.909

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.239	128	430209	101.618
53) Tetrahydrofuran	(1)	6.249	71	184370	202.732
54) Chloroform	(2)	6.393	83	1180243	100.682
56)$Dibromofluoromethane	(2)	6.612	113	680458	102.328
56)$Dibromofluoromethane	(2)	6.612	111	689944	100.738
57) 1,1,1-Trichloroethane	(2)	6.624	97	992045	103.180
58) Cyclohexane	(2)	6.727	56	869744	103.262
58) Cyclohexane	(2)	6.724	84	713090	101.271
58) Cyclohexane	(2)	6.724	69	262736	104.829
60) 1,1-Dichloropropene	(2)	6.833	75	874747	101.143
61) Carbon Tetrachloride	(2)	6.836	117	775202	110.362
62) Isobutyl Alcohol	(1)	6.987	41	283904M	1217.168
63)$1,2-Dichloroethane-d4	(2)	7.070	102	180626	104.466
63)$1,2-Dichloroethane-d4	(2)	7.070	65	816998	98.656
63)$1,2-Dichloroethane-d4	(2)	7.070	104	114666	105.698
64) Benzene	(2)	7.099	78	2759099	102.804
67) 1,2-Dichloroethane	(2)	7.179	62	931609	100.215
67) 1,2-Dichloroethane	(2)	7.183	98	89264	110.963
68) t-Amyl methyl ether	(2)	7.298	73	2129808	99.811
70)*Fluorobenzene	(2)	7.507	96	1222317	50.000
72) n-Heptane	(2)	7.523	43	514904	99.823
73) n-Butanol	(1)	7.879	56	455048M	2600.954
75) Trichloroethene	(2)	7.995	95	679397	101.994
76) Methylcyclohexane	(2)	8.303	83	685028	106.857
77) 1,2-Dichloropropane	(2)	8.331	63	748898	102.310
79) Methyl Methacrylate	(2)	8.415	69	568420	105.084
80) 1,4-Dioxane	(1)	8.424	88	84101M	1347.766
81) Dibromomethane	(2)	8.441	93	461978	103.985
84) Bromodichloromethane	(2)	8.681	83	838934	110.414
85) 2-Nitropropane	(1)	8.944	41	240595	205.860
87) 2-Chloroethyl Vinyl Ether	(2)	9.047	63	516167	108.452
89) cis-1,3-Dichloropropene	(2)	9.240	75	1147255	107.100
90) 4-Methyl-2-pentanone	(2)	9.406	43	1478462	200.792
91)$Toluene-d8	(3)	9.551	98	2590299	101.400
91)$Toluene-d8	(3)	9.551	100	1675507	101.001
92) Toluene	(3)	9.631	92	1668451	102.631
93) trans-1,3-Dichloropropene	(3)	9.901	75	1077943	107.389
95) Ethyl Methacrylate	(3)	9.958	69	1076149	103.746

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	2225198	214.488
96) 1,1,2-Trichloroethane	(3)	10.109	97	637143	99.093
98) Tetrachloroethene	(3)	10.193	166	645638	99.534
99) 1,3-Dichloropropane	(3)	10.273	76	1083552	98.526
101) 2-Hexanone	(3)	10.318	43	1013180	200.931
103) Dibromochloromethane	(3)	10.491	129	681945	119.657
104) 1,2-Dibromoethane	(3)	10.606	107	688084	102.059
105)*Chlorobenzene-d5	(3)	11.036	117	935770	50.000
106) 1-Chlorohexane	(3)	11.046	91	643576	97.380
107) Chlorobenzene	(3)	11.065	112	1831897	99.875
108) 1,1,1,2-Tetrachloroethane	(3)	11.146	131	672391	111.016
109) Ethylbenzene	(3)	11.149	91	2889406	103.559
110) m+p-Xylene	(3)	11.264	106	2268439	207.982
111) o-Xylene	(3)	11.598	106	1131441	104.199
113) Styrene	(3)	11.614	104	2051837	106.406
112) Xylene (Total)	(3)		106	3399880	312.181
114) Bromoform	(3)	11.774	173	448386	101.601
115) Isopropylbenzene	(3)	11.900	105	2373891	102.446
118) Cyclohexanone	(1)	11.973	55	291851	1278.030
119)$4-Bromofluorobenzene	(3)	12.047	95	828616	101.884
119)$4-Bromofluorobenzene	(3)	12.047	174	780280	100.918
120) 1,1,2,2-Tetrachloroethane	(4)	12.143	83	833409M	93.895
121) Bromobenzene	(4)	12.160	156	828048	98.899
122) trans-1,4-Dichloro-2-butene	(4)	12.172	53	667602M	251.936
123) 1,2,3-Trichloropropane	(4)	12.192	110	258125	95.038
124) n-Propylbenzene	(4)	12.230	91	2573019	99.398
126) 2-Chlorotoluene	(4)	12.304	126	595300	97.621
129) 1,3,5-Trimethylbenzene	(4)	12.365	105	1963274	100.411
130) 4-Chlorotoluene	(4)	12.397	126	646232	99.206
133) tert-Butylbenzene	(4)	12.606	134	394220	97.901
134) Pentachloroethane	(4)	12.641	167	469888	101.257
135) 1,2,4-Trimethylbenzene	(4)	12.650	105	2144430	102.293
136) sec-Butylbenzene	(4)	12.772	105	2119817	98.332
138) 1,3-Dichlorobenzene	(4)	12.872	146	1257036	101.631
139) p-Isopropyltoluene	(4)	12.878	119	2010010	102.443
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	412296	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	1352847	97.399
142) 1,2,3-Trimethylbenzene	(4)	12.952	105	2401553	101.212

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.023	126	392523	113.856
144) 1,3-Diethylbenzene	(4)	13.080	119	1221249	102.616
145) 1,4-Diethylbenzene	(4)	13.154	119	1275112	102.360
146) n-Butylbenzene	(4)	13.174	92	922450	101.896
147) 1,2-Dichlorobenzene	(4)	13.202	146	1248850	97.424
148) 1,2-Diethylbenzene	(4)	13.225	119	1062810	99.672
151) 1,2-Dibromo-3-chloropropane	(4)	13.748	75	146007	105.956
152) 1,3,5-Trichlorobenzene	(4)	13.876	180	789167	98.258
153) 1,2,4-Trichlorobenzene	(4)	14.300	180	761140	98.359
154) Hexachlorobutadiene	(4)	14.380	225	324615	95.199
155) Naphthalene	(4)	14.479	128	2222562	96.837
156) 1,2,3-Trichlorobenzene	(4)	14.621	180	727753	98.382
157) 2-Methylnaphthalene	(4)	15.234	142	1217182	108.166

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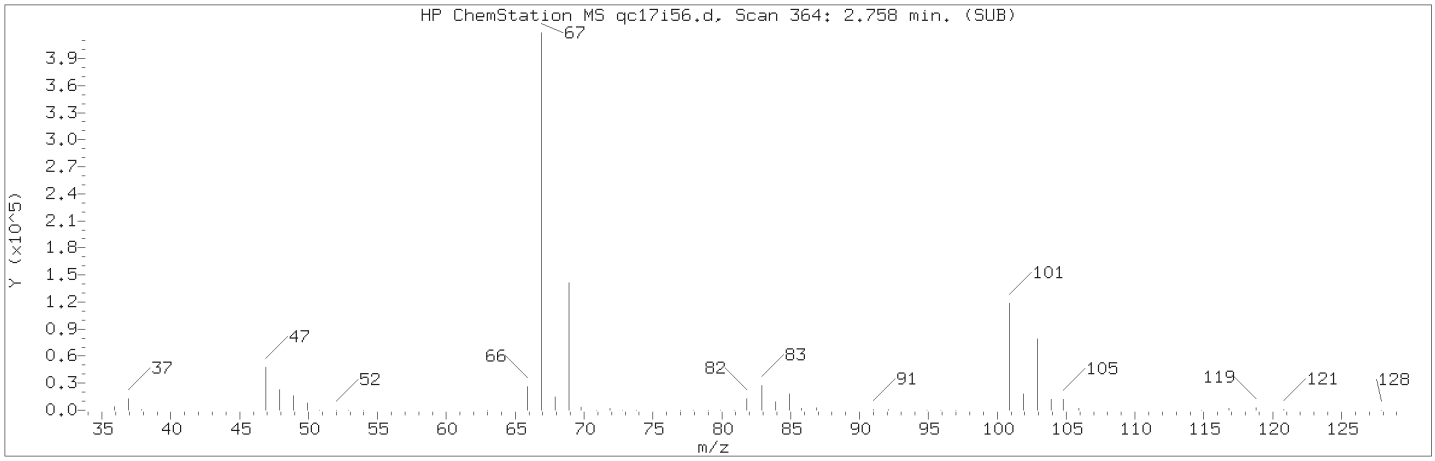
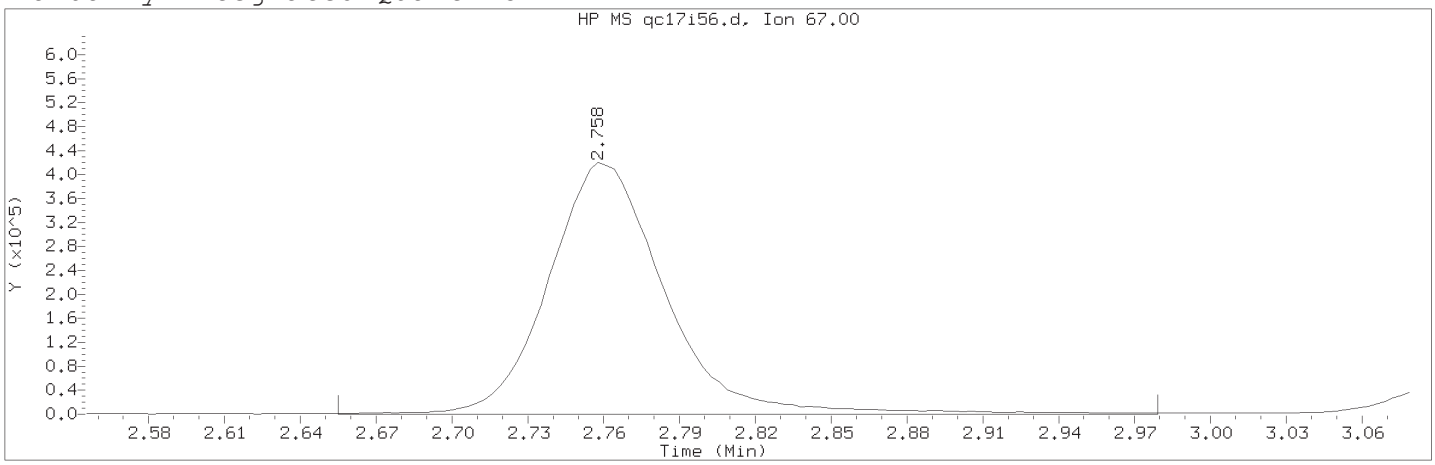
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

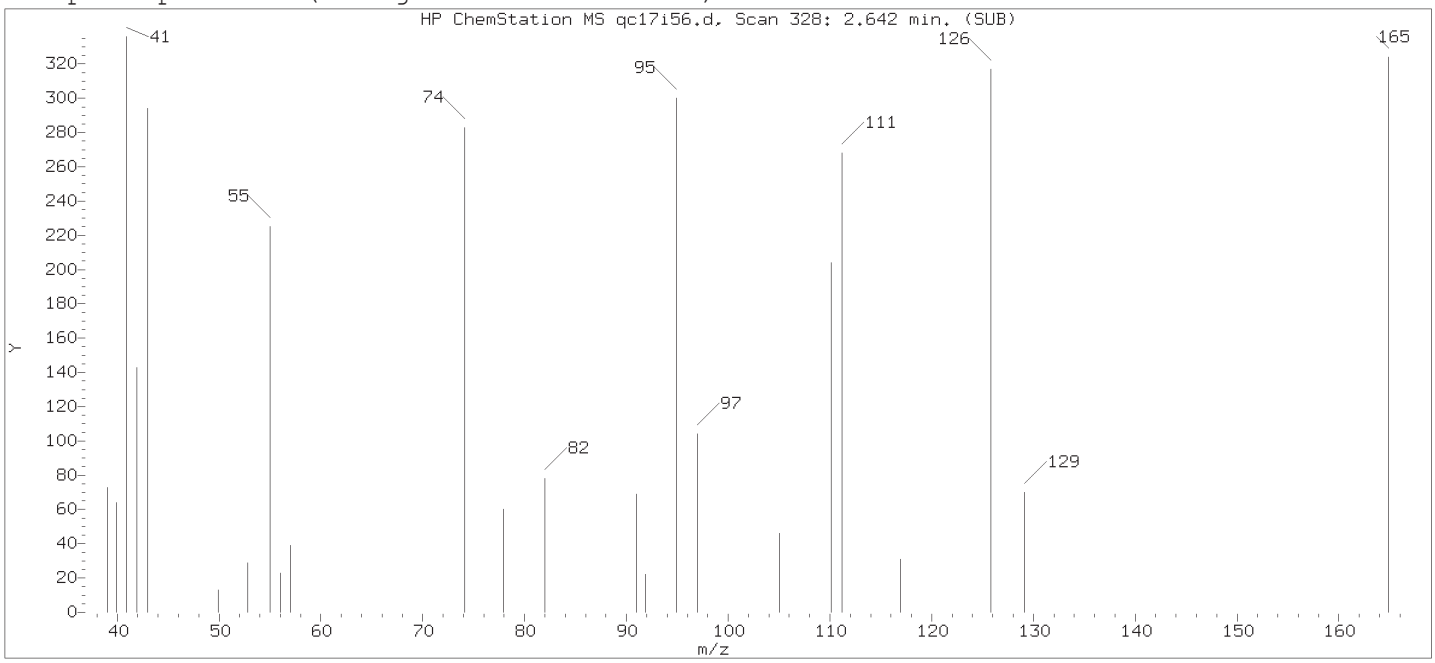
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 364
Retention Time (minutes): 2.758
Quant Ion : 67.00
Area (flag) : 1344385A
On-Column Amount (ng) : 87.3532
Integration start scan : 331 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

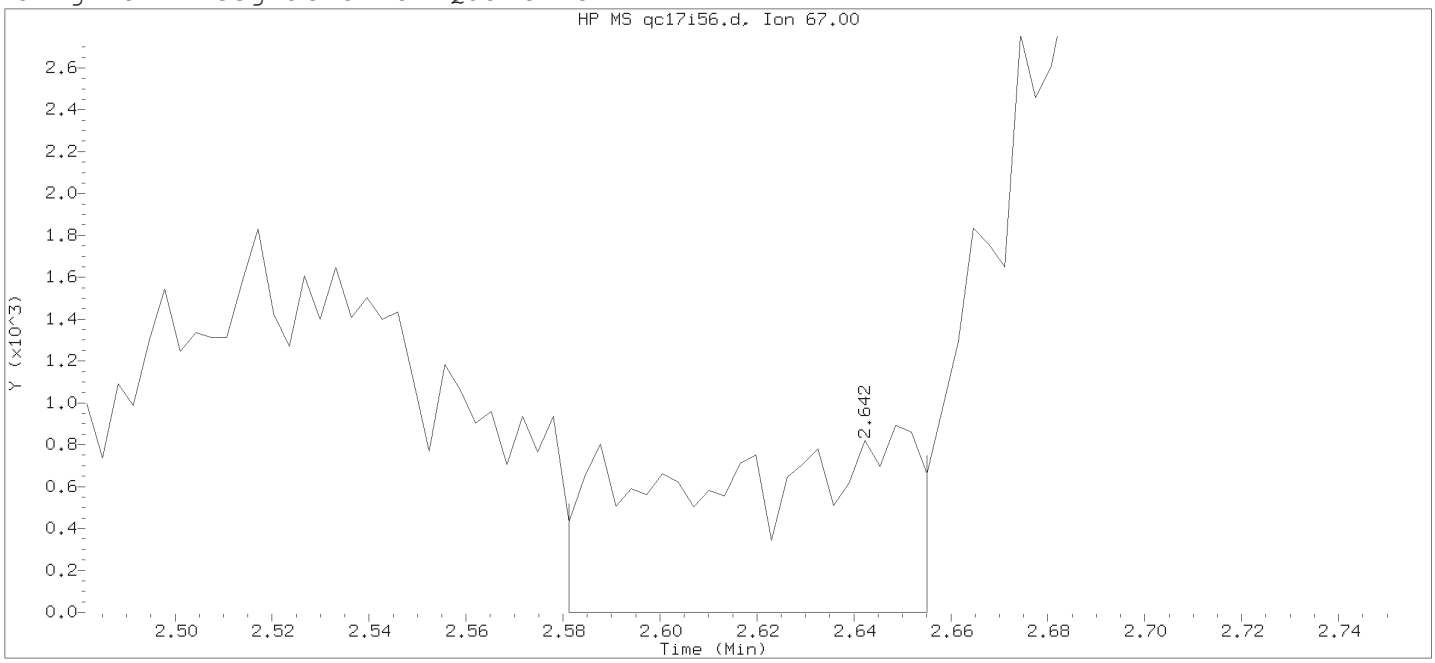
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

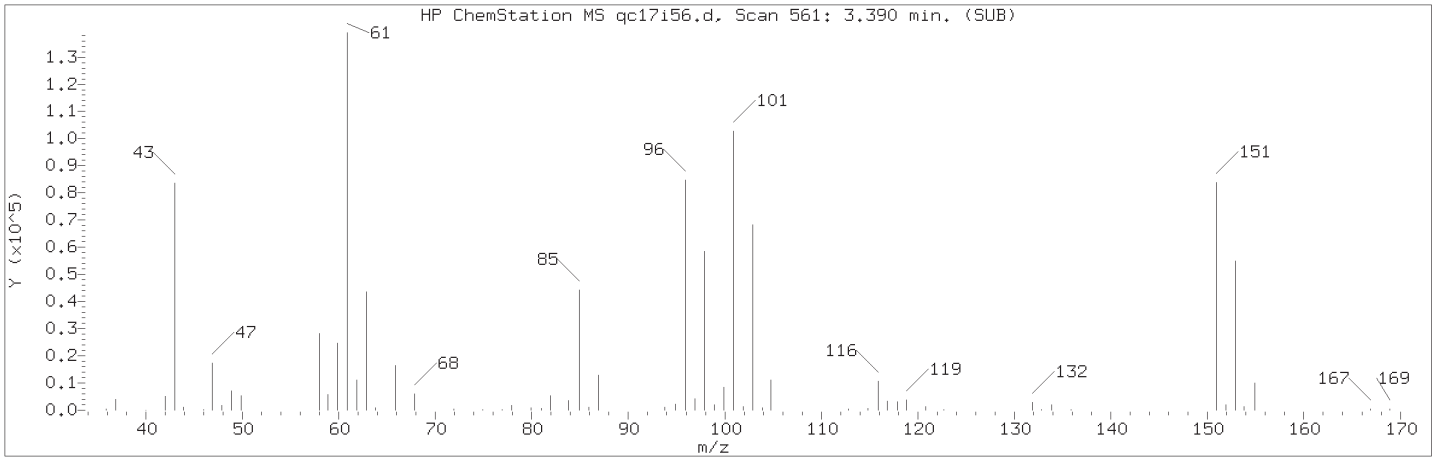
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

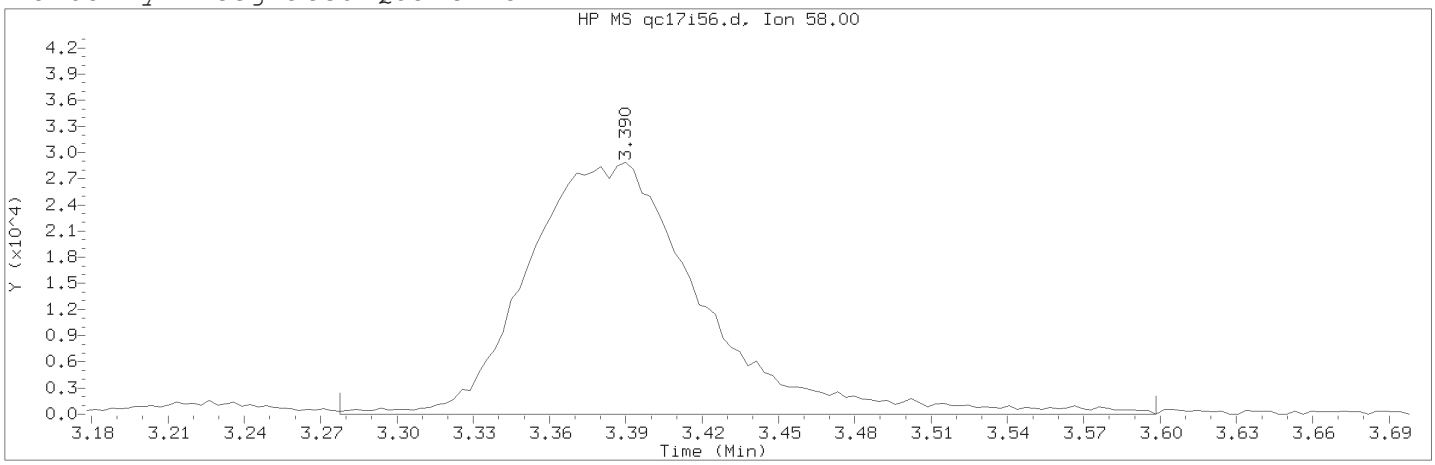
Compound Number	: 11		
Compound Name	: Dichlorofluoromethane		
Scan Number	: 328		
Retention Time (minutes)	: 2.642		
Quant Ion	: 67.00		
Area	: 2872		
On-column Amount (ng)	: 10.8119		
Integration start scan	: 308	Integration stop scan:	331
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

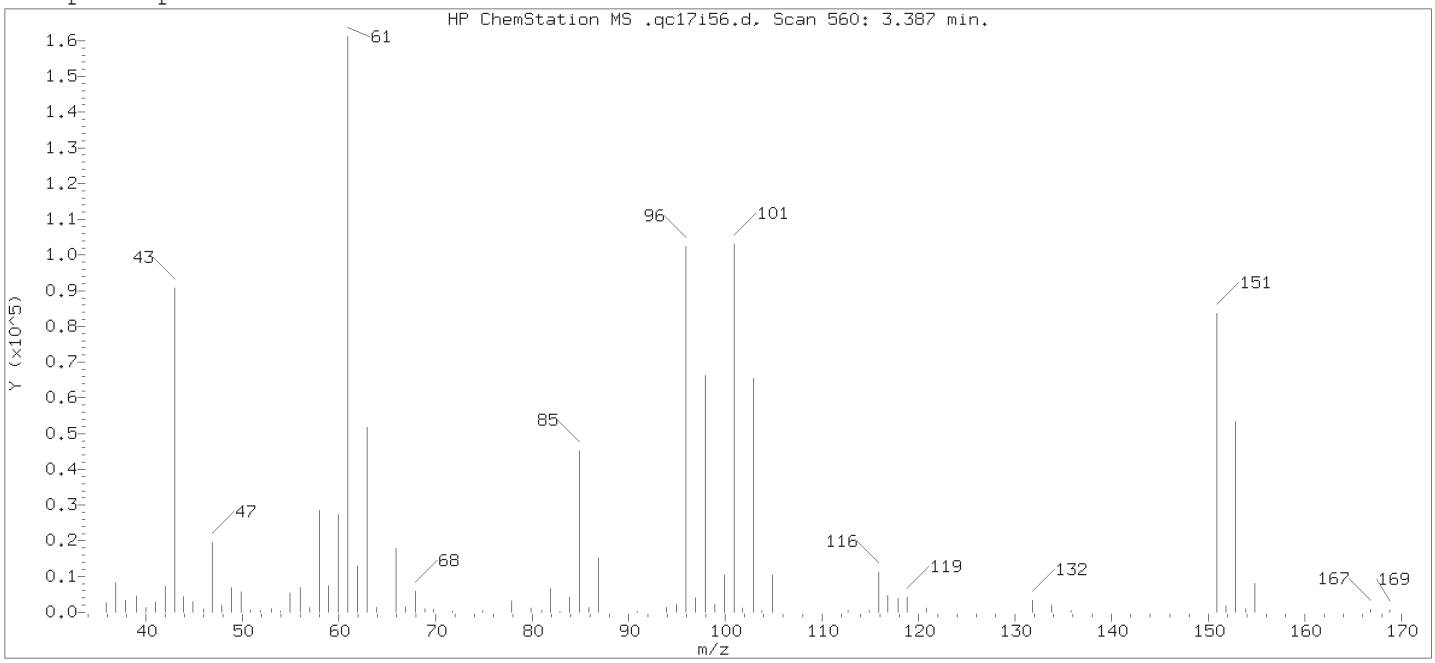
Compound Number : 20
Compound Name : Acetone
Scan Number : 561
Retention Time (minutes): 3.390
Quant Ion : 58.00
Area (flag) : 137042M
On-Column Amount (ng) : 202.4235
Integration start scan : 525 Integration stop scan: 625
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

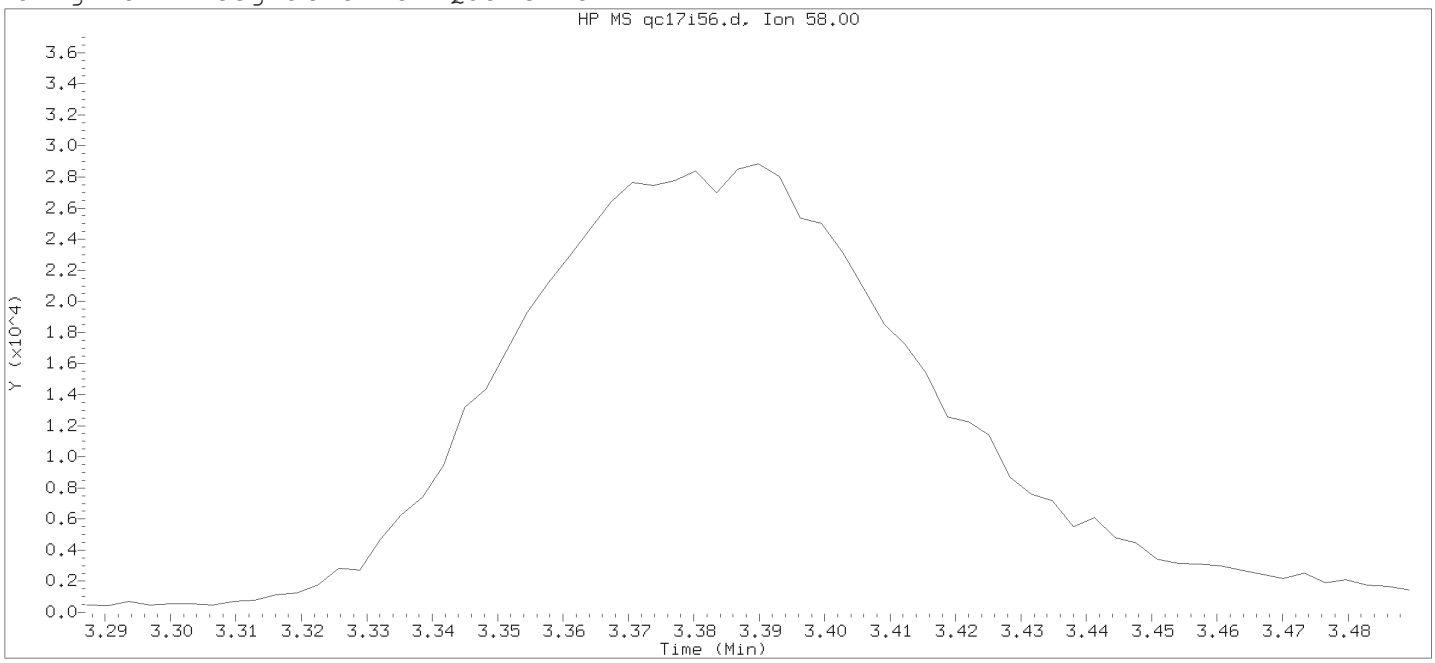
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

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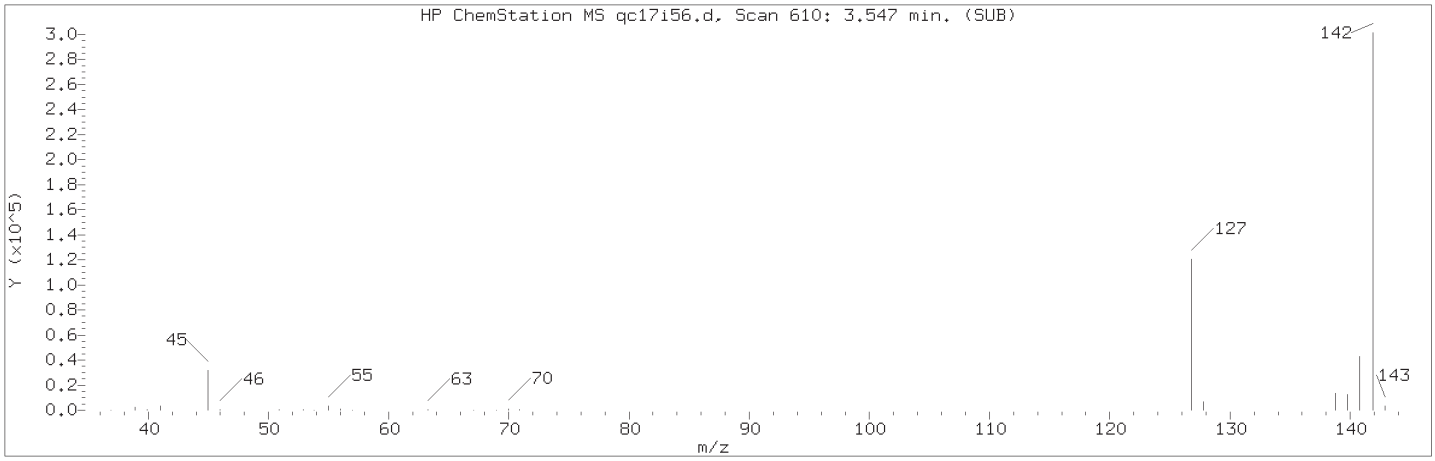
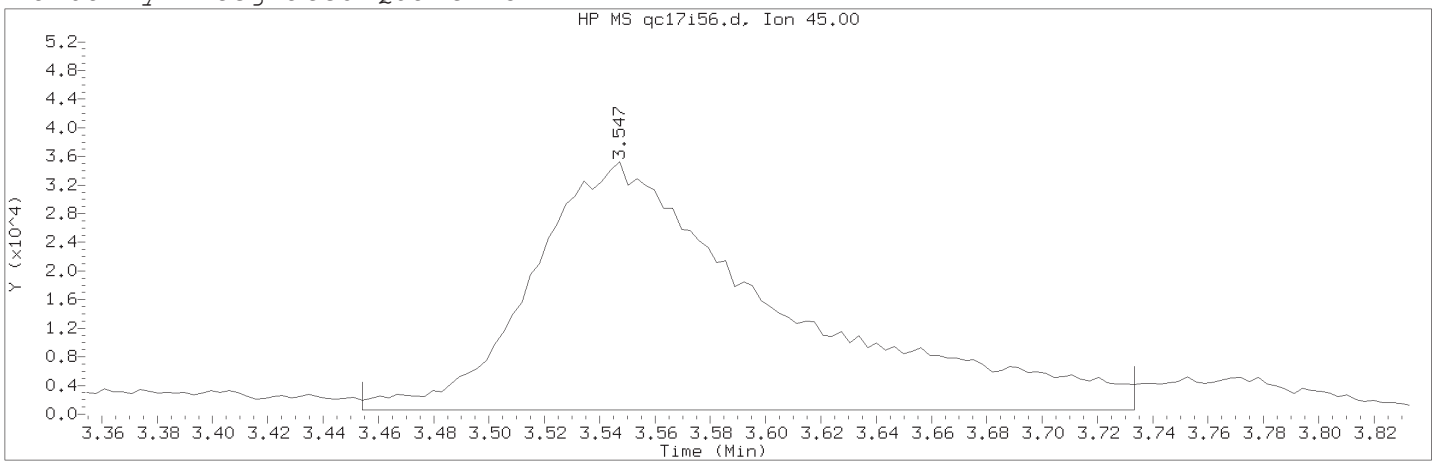
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

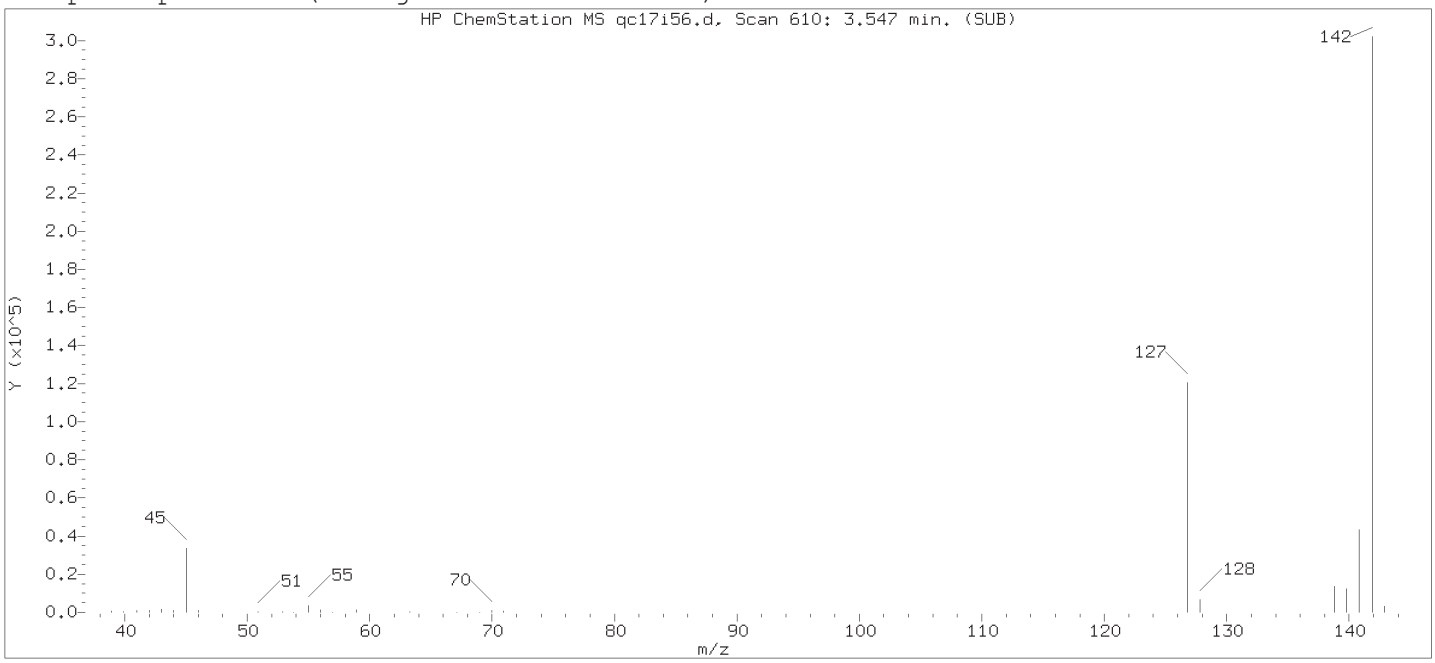
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 610
Retention Time (minutes): 3.547
Quant Ion : 45.00
Area (flag) : 214797M
On-Column Amount (ng) : 452.9263
Integration start scan : 580 Integration stop scan: 667
Y at integration start : 553 Y at integration end: 553

Reason for manual integration: improper integration

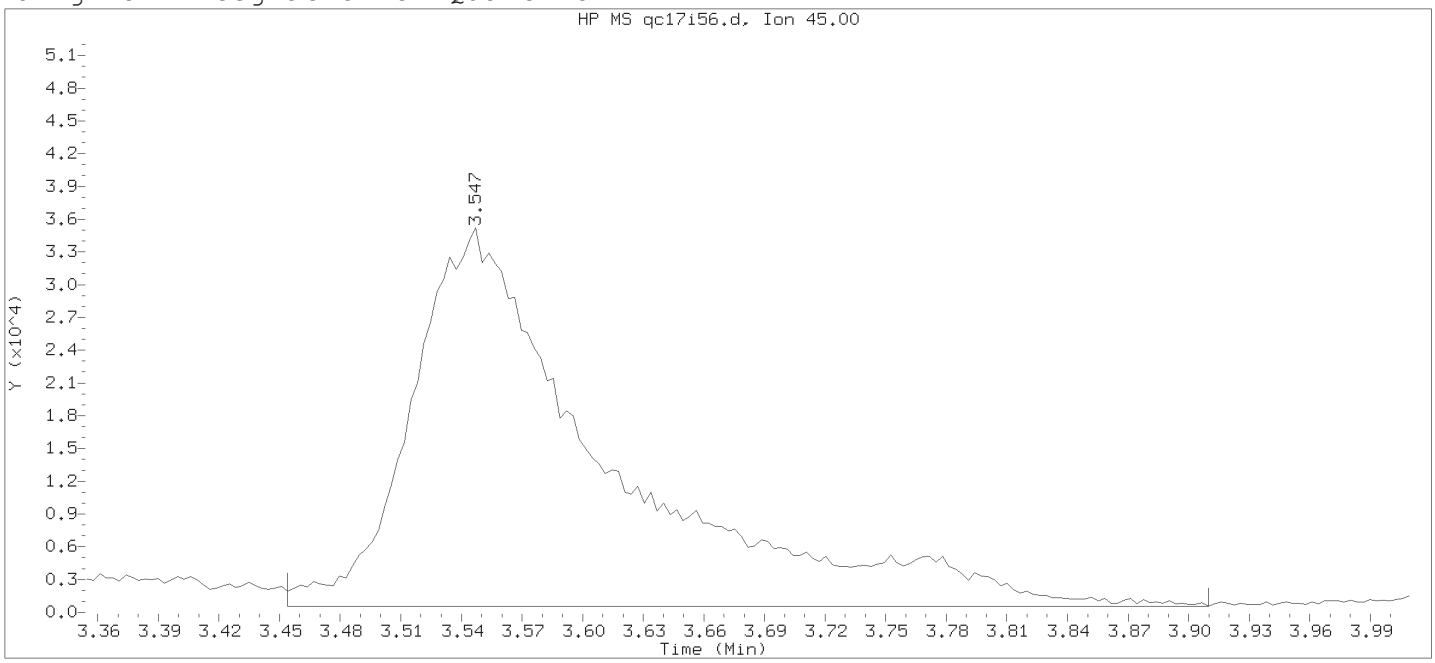
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

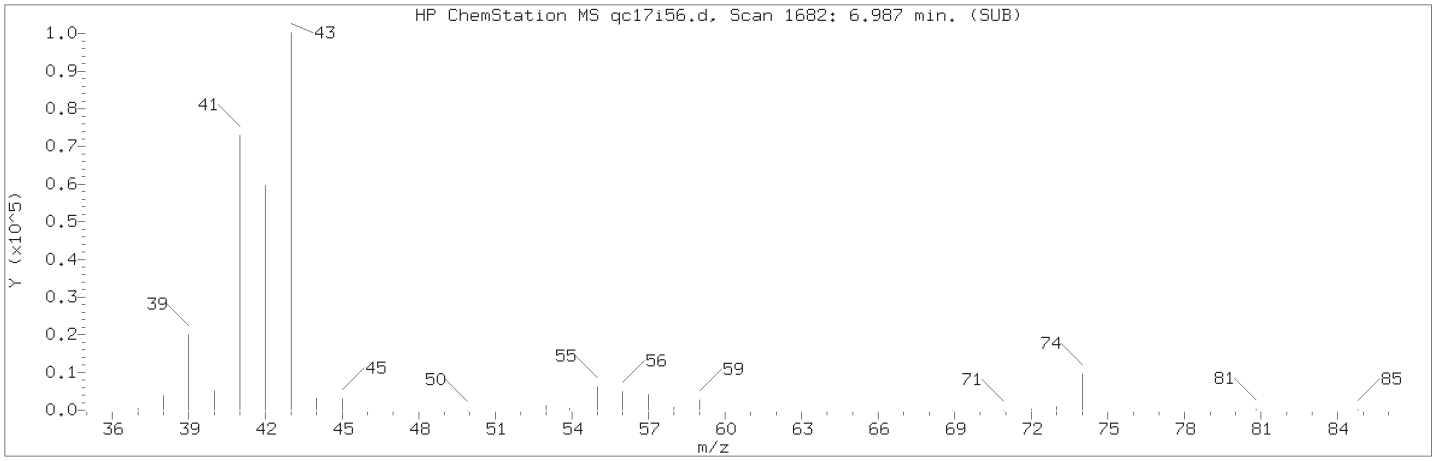
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

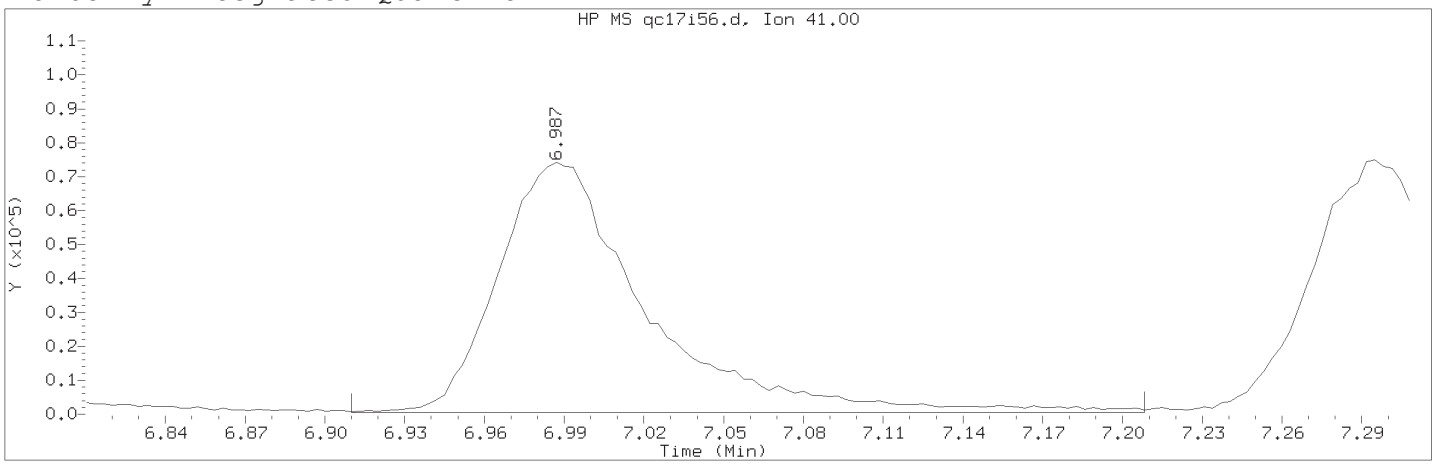
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 610
Retention Time (minutes): 3.547
Quant Ion : 45.00
Area : 234535
On-column Amount (ng) : 476.4624
Integration start scan : 580 Integration stop scan: 722
Y at integration start : 553 Y at integration end: 553

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

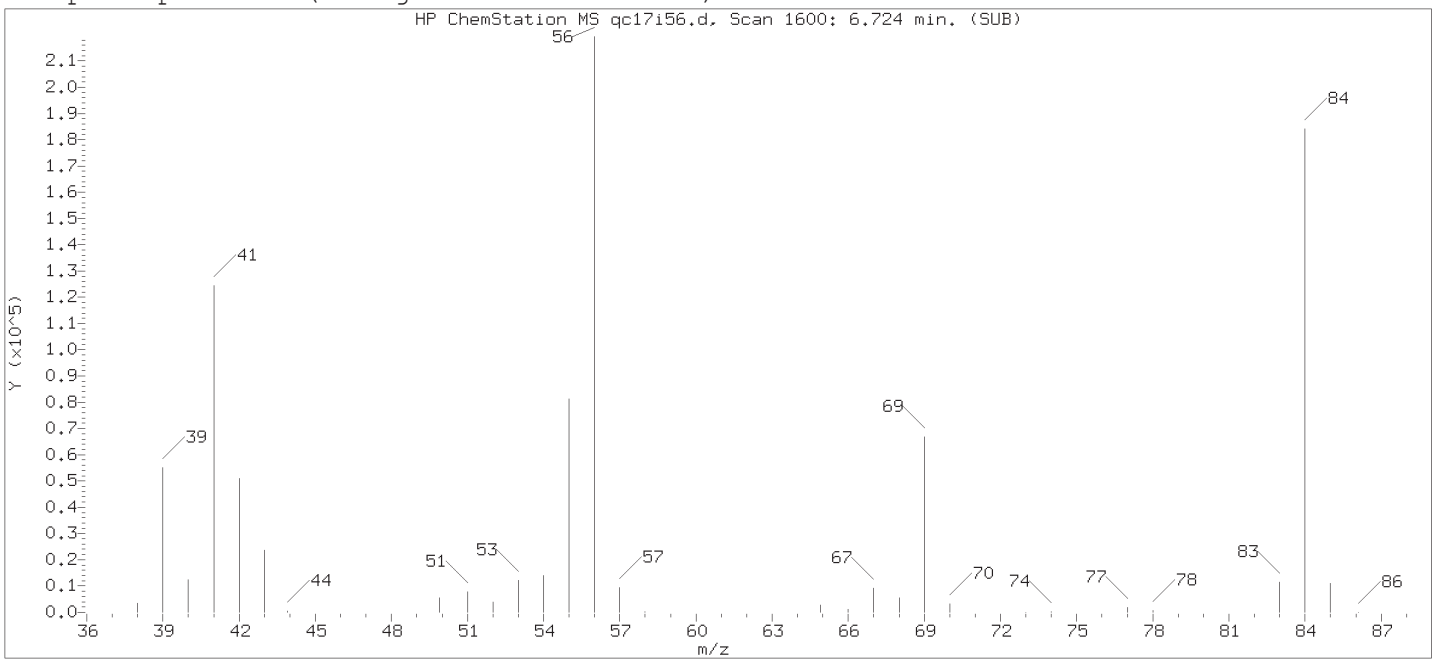
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1682
Retention Time (minutes): 6.987
Quant Ion : 41.00
Area (flag) : 283904M
On-Column Amount (ng) : 1217.1677
Integration start scan : 1657 Integration stop scan: 1750
Y at integration start : 546 Y at integration end: 546

Reason for manual integration: improper integration

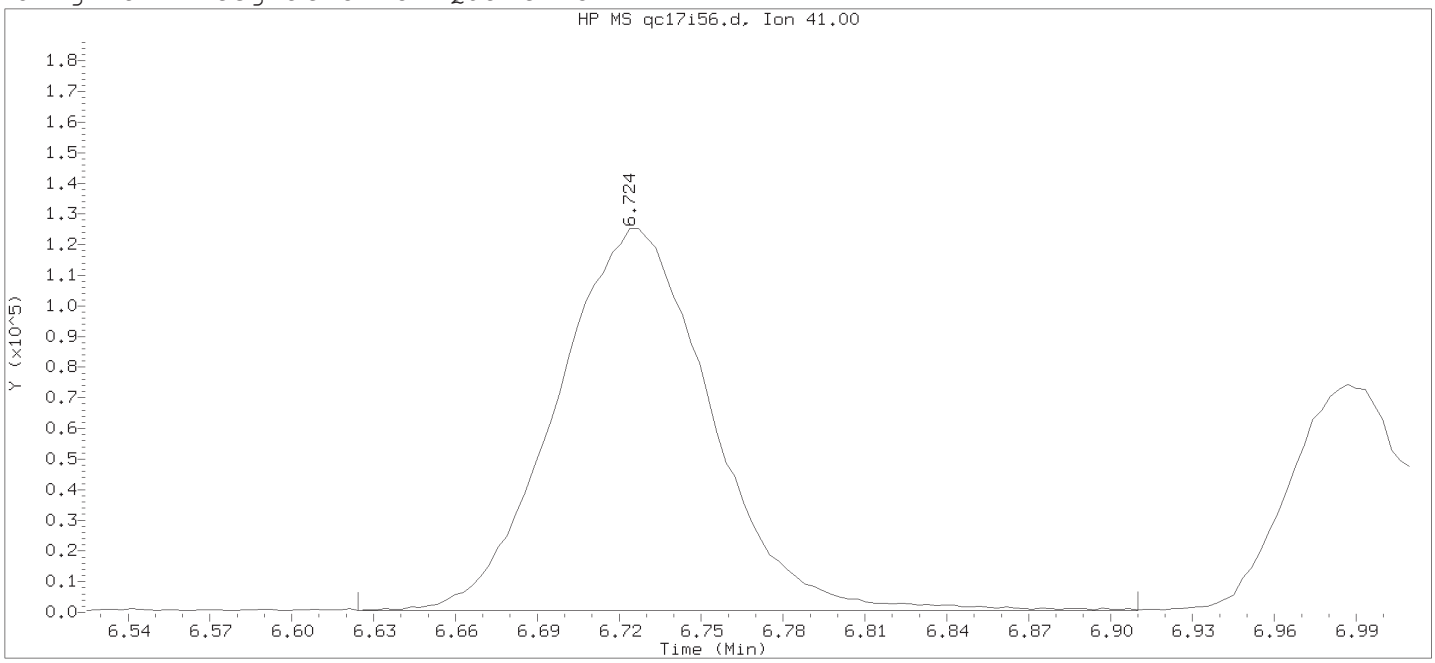
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

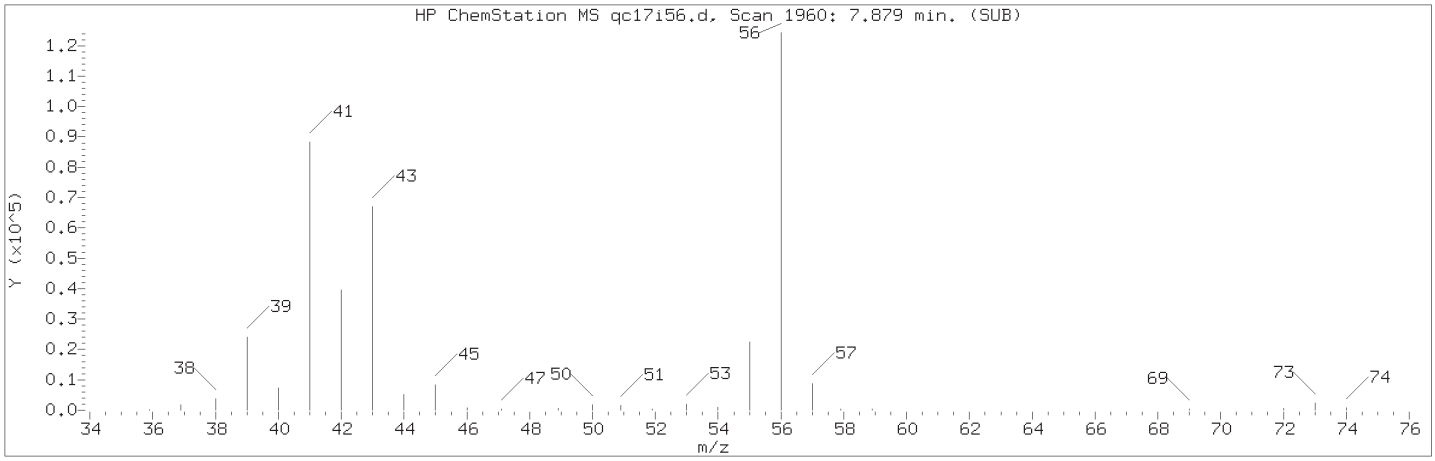
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

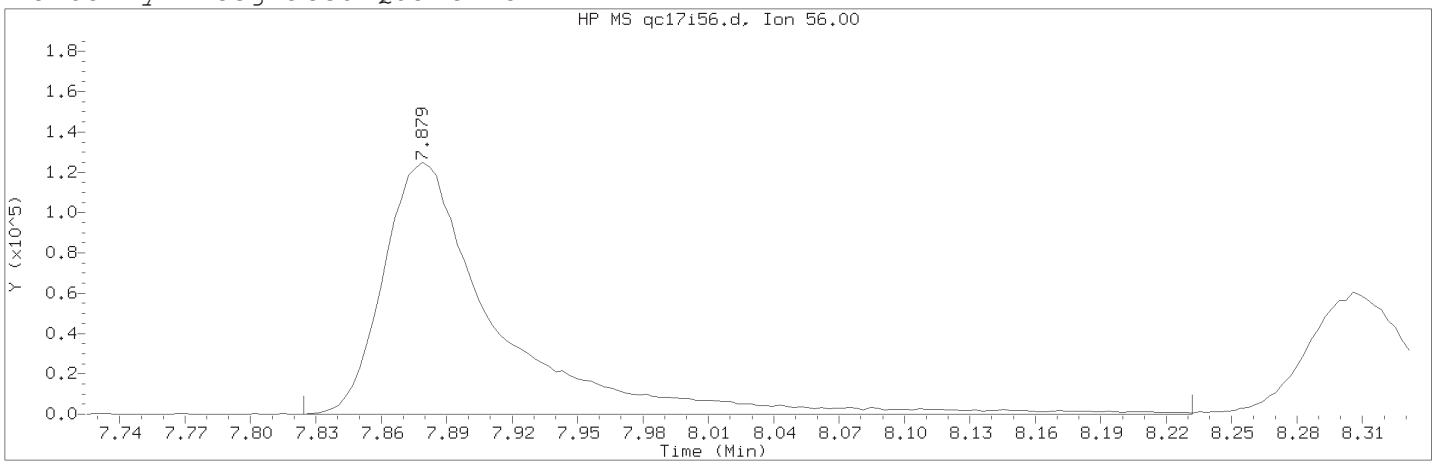
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1600
Retention Time (minutes): 6.724
Quant Ion : 41.00
Area : 490149
On-column Amount (ng) : 2053.1031
Integration start scan : 1568 Integration stop scan: 1657
Y at integration start : 549 Y at integration end: 549

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

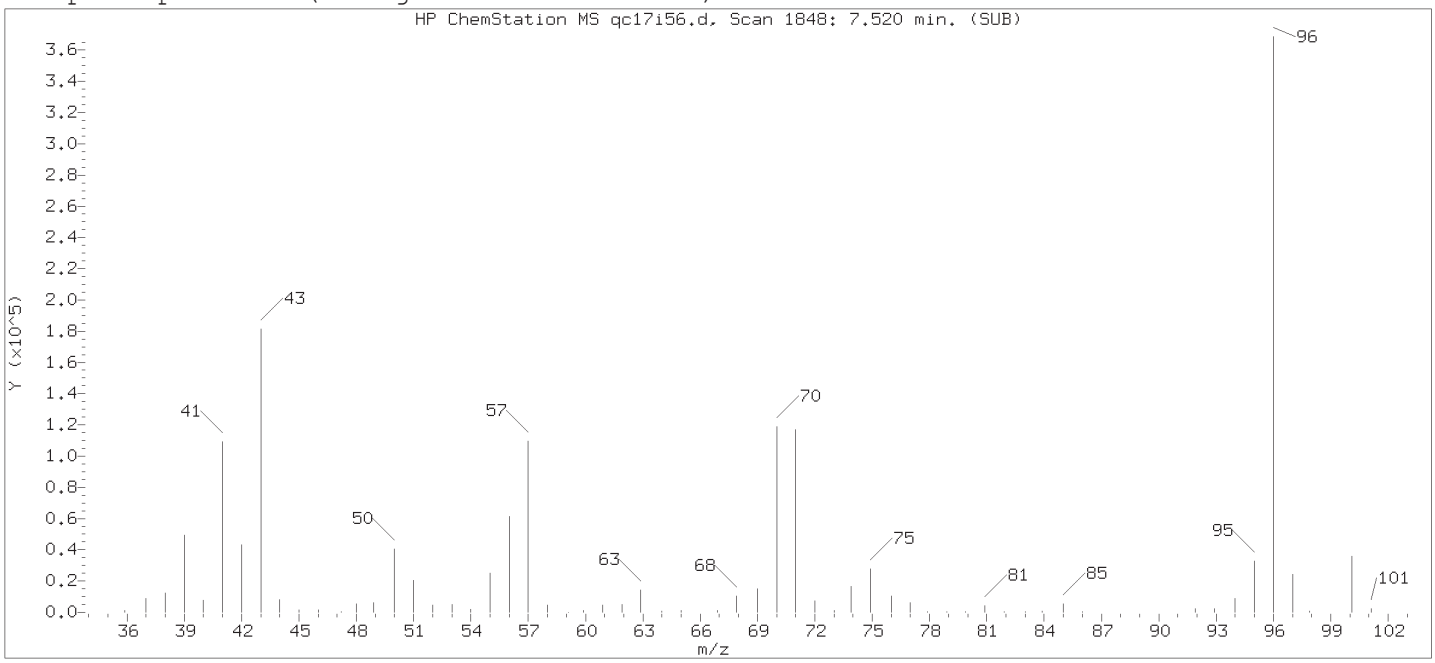
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1960
Retention Time (minutes): 7.879
Quant Ion : 56.00
Area (flag) : 455048M
On-Column Amount (ng) : 2600.9536
Integration start scan : 1942 Integration stop scan: 2069
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

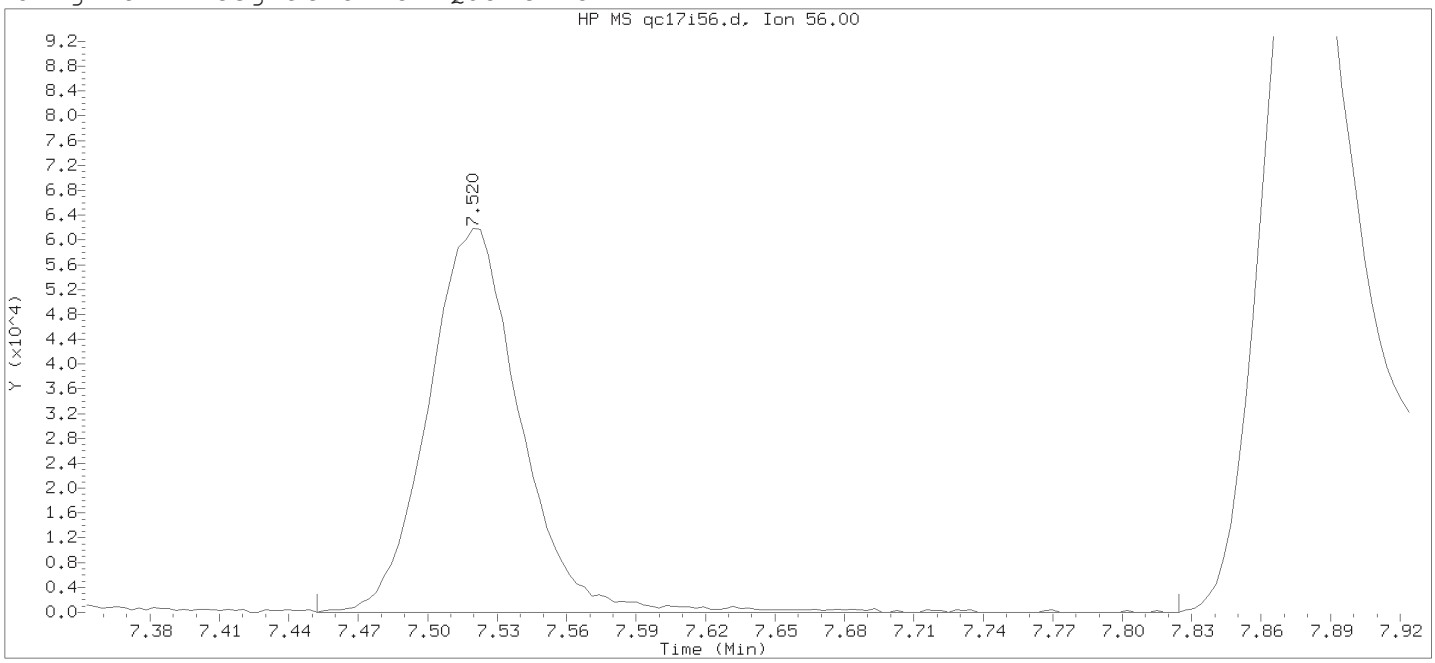
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

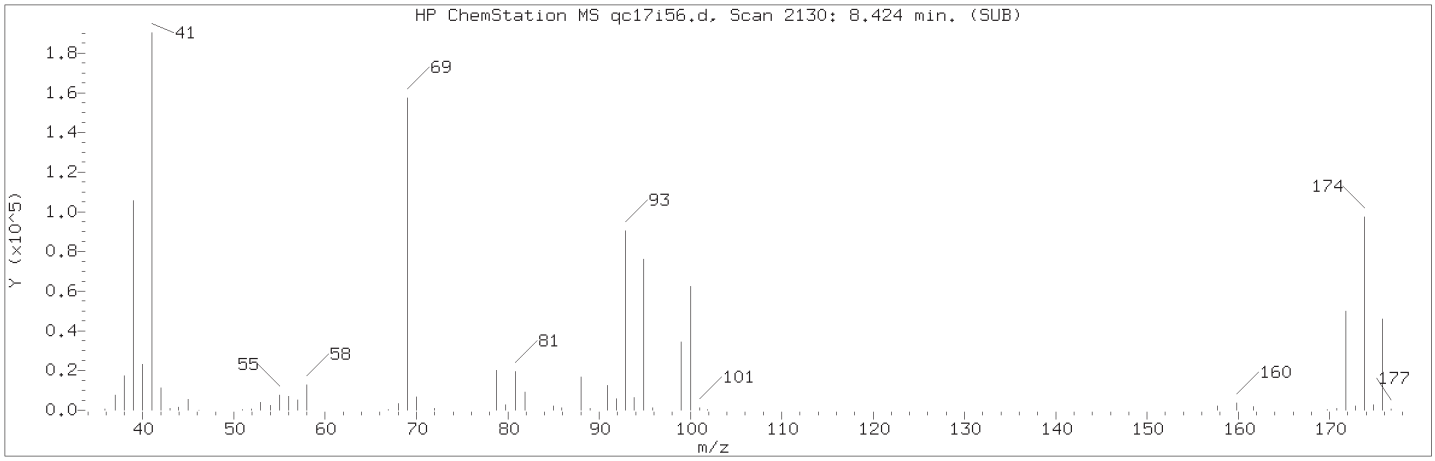
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

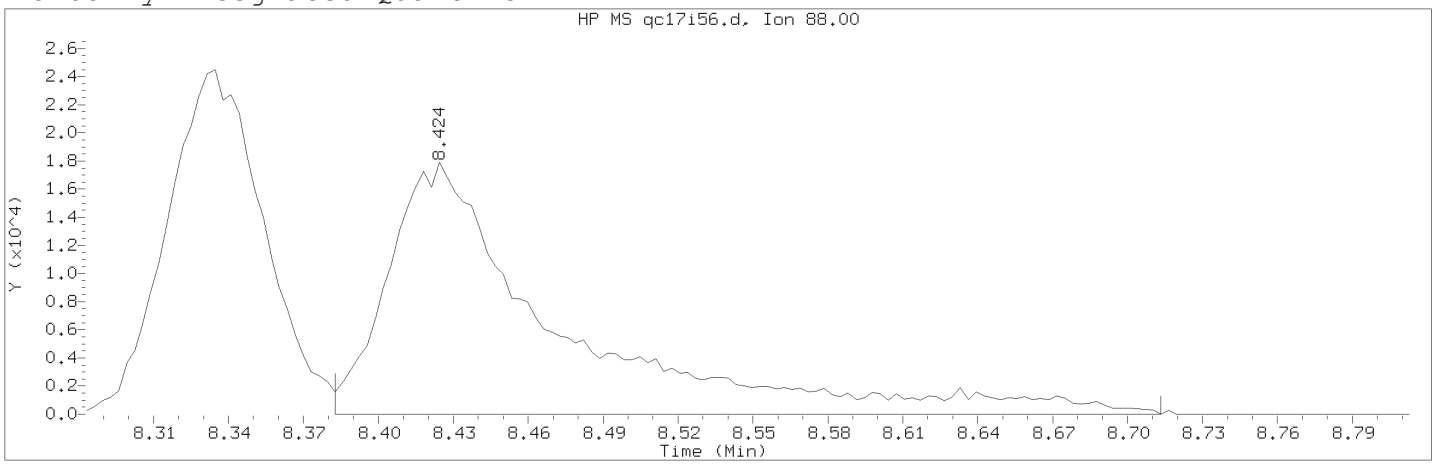
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1848
Retention Time (minutes): 7.520
Quant Ion : 56.00
Area : 172551
On-column Amount (ng) : 2300.2423
Integration start scan : 1826 Integration stop scan: 1942
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

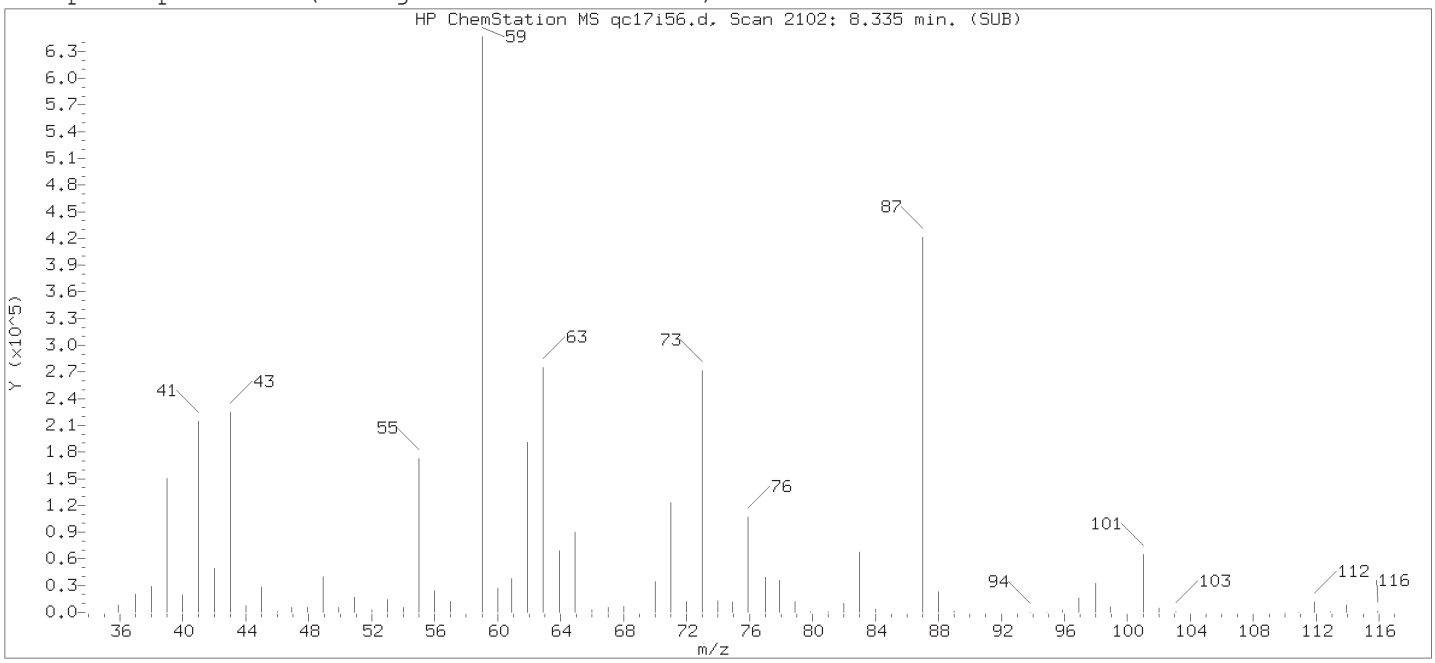
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2130
Retention Time (minutes): 8.424
Quant Ion : 88.00
Area (flag) : 84101M
On-Column Amount (ng) : 1347.7665
Integration start scan : 2116 Integration stop scan: 2219
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

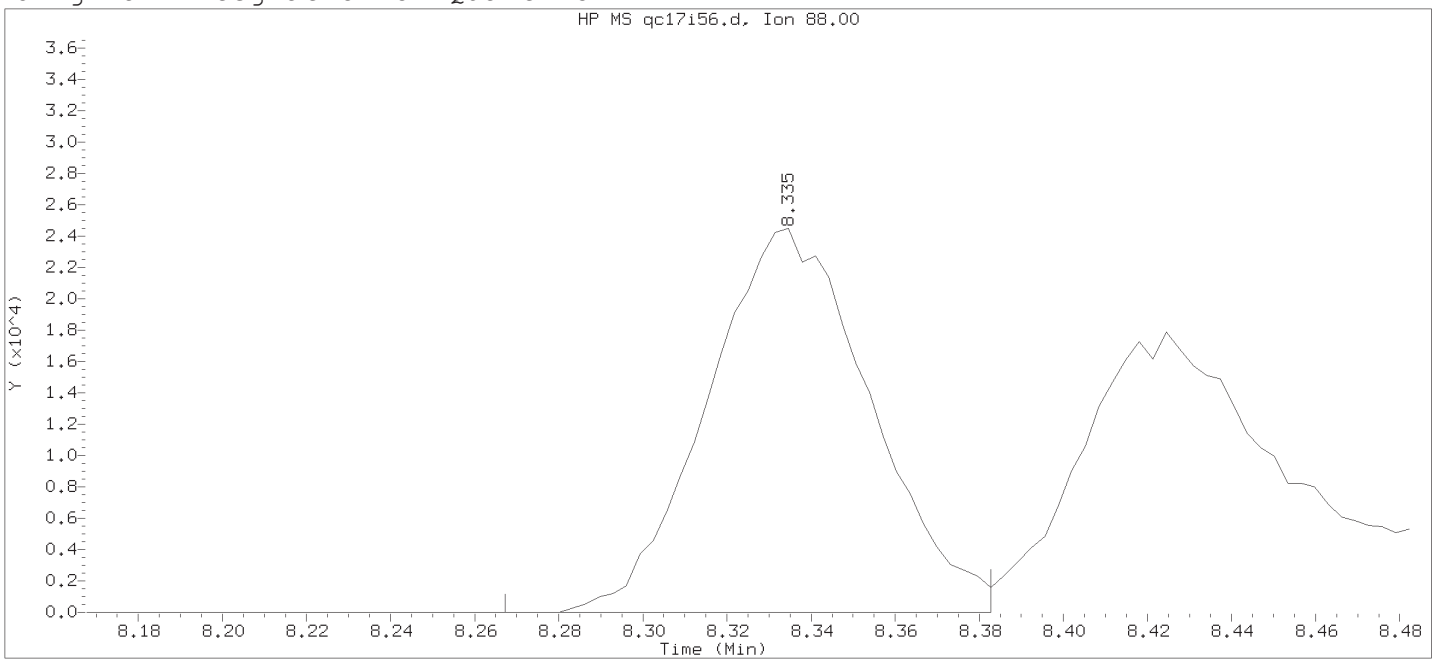
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

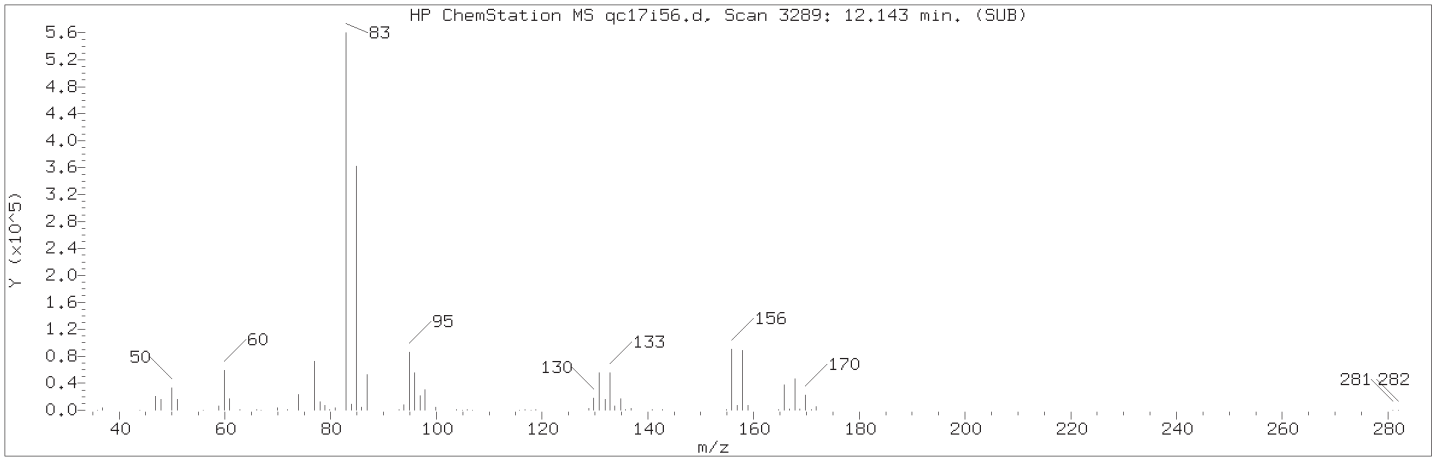
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

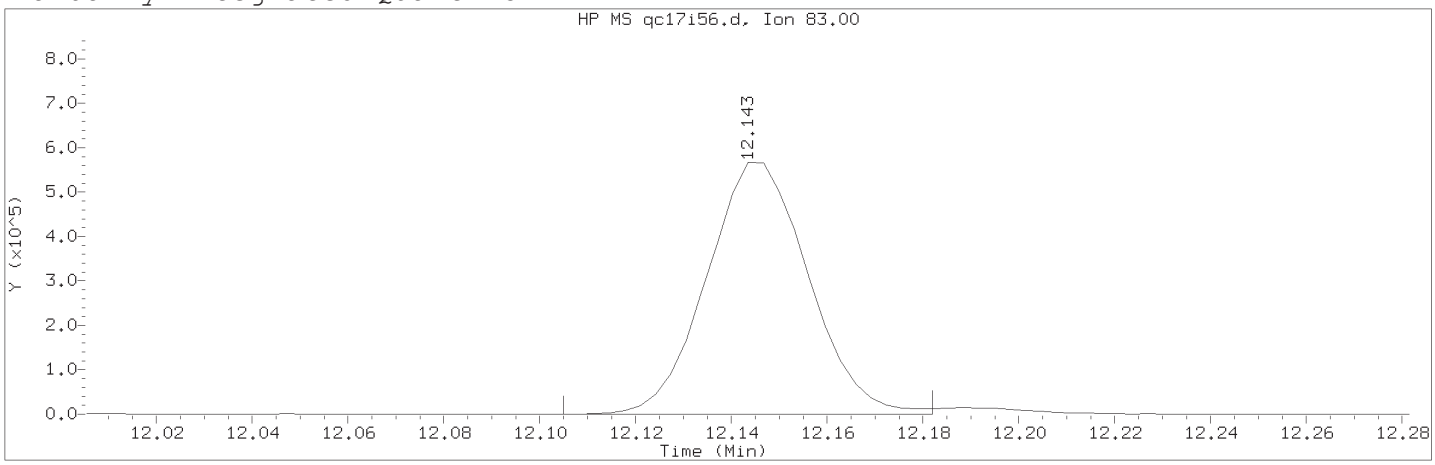
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2102
Retention Time (minutes): 8.335
Quant Ion : 88.00
Area : 65693
On-column Amount (ng) : 1284.1114
Integration start scan : 2080 Integration stop scan: 2116
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

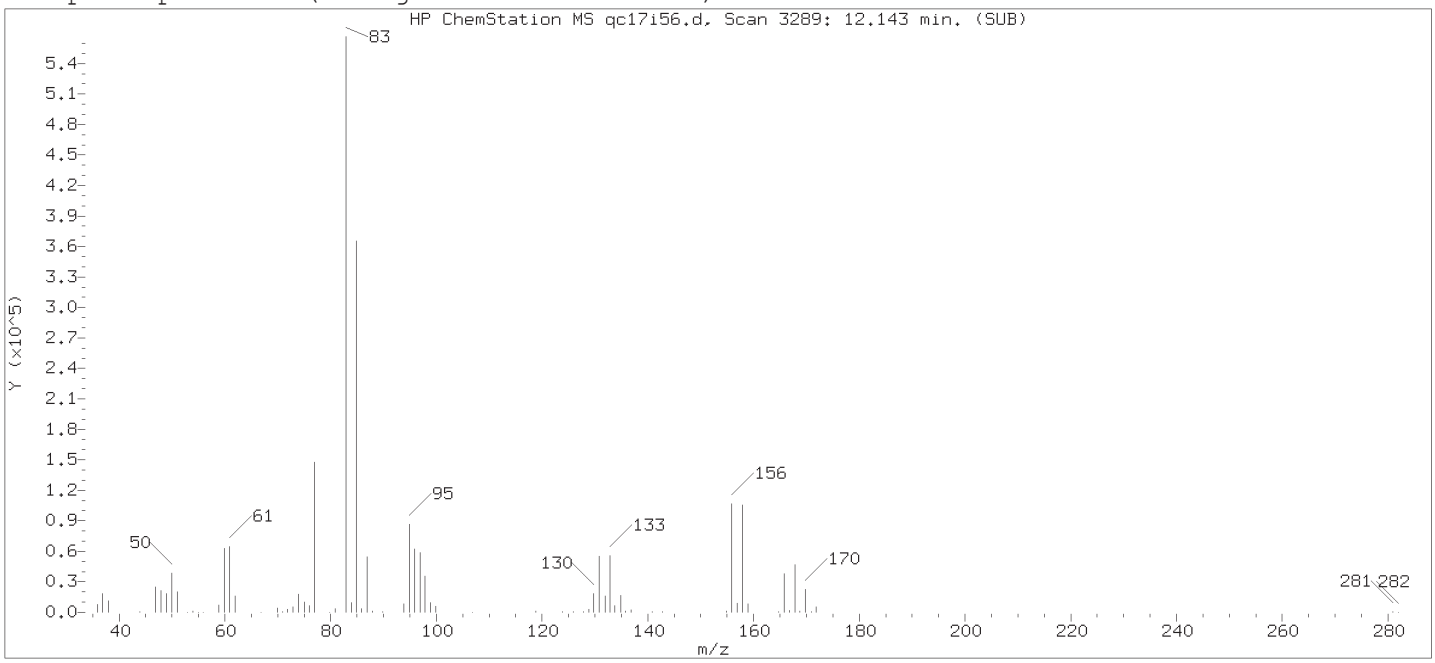
Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.143
Quant Ion : 83.00
Area (flag) : 833409M
On-Column Amount (ng) : 93.8952
Integration start scan : 3276 Integration stop scan: 3300
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

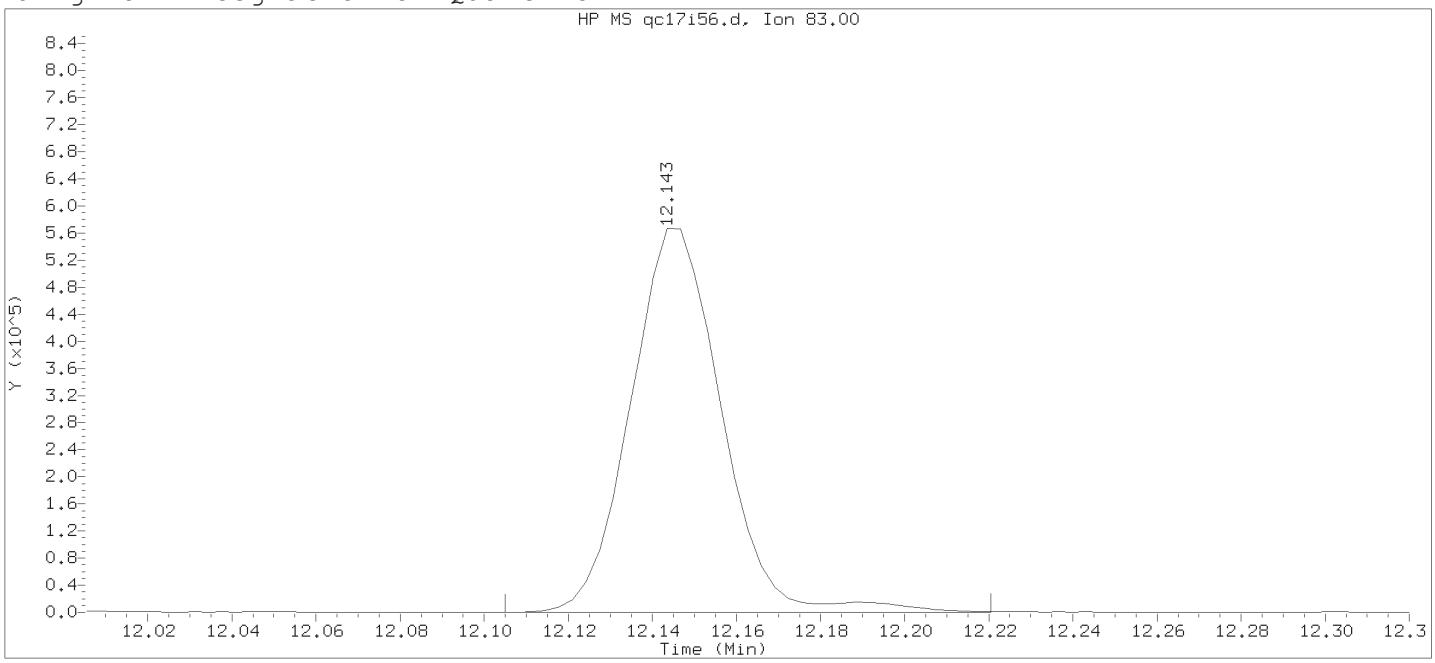
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

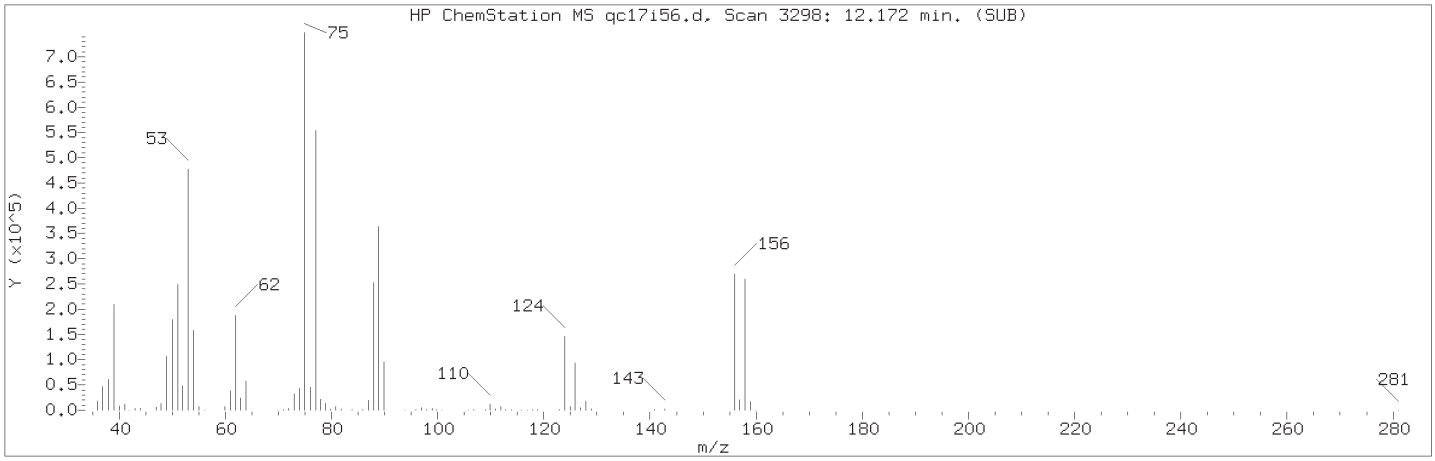
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

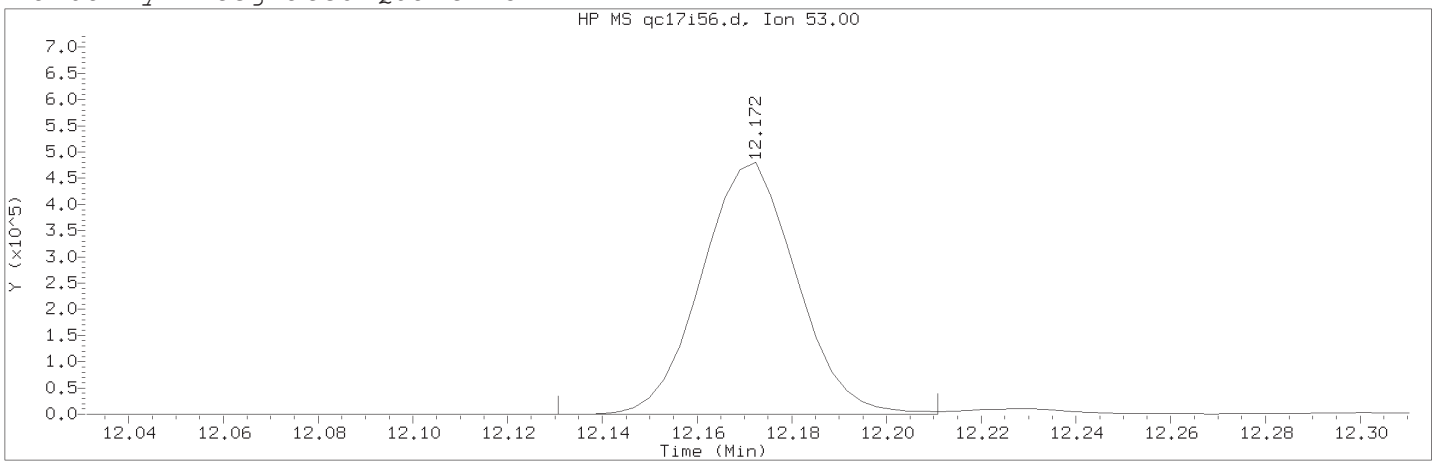
Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.143
Quant Ion : 83.00
Area : 850682
On-column Amount (ng) : 94.9616
Integration start scan : 3276 Integration stop scan: 3312
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

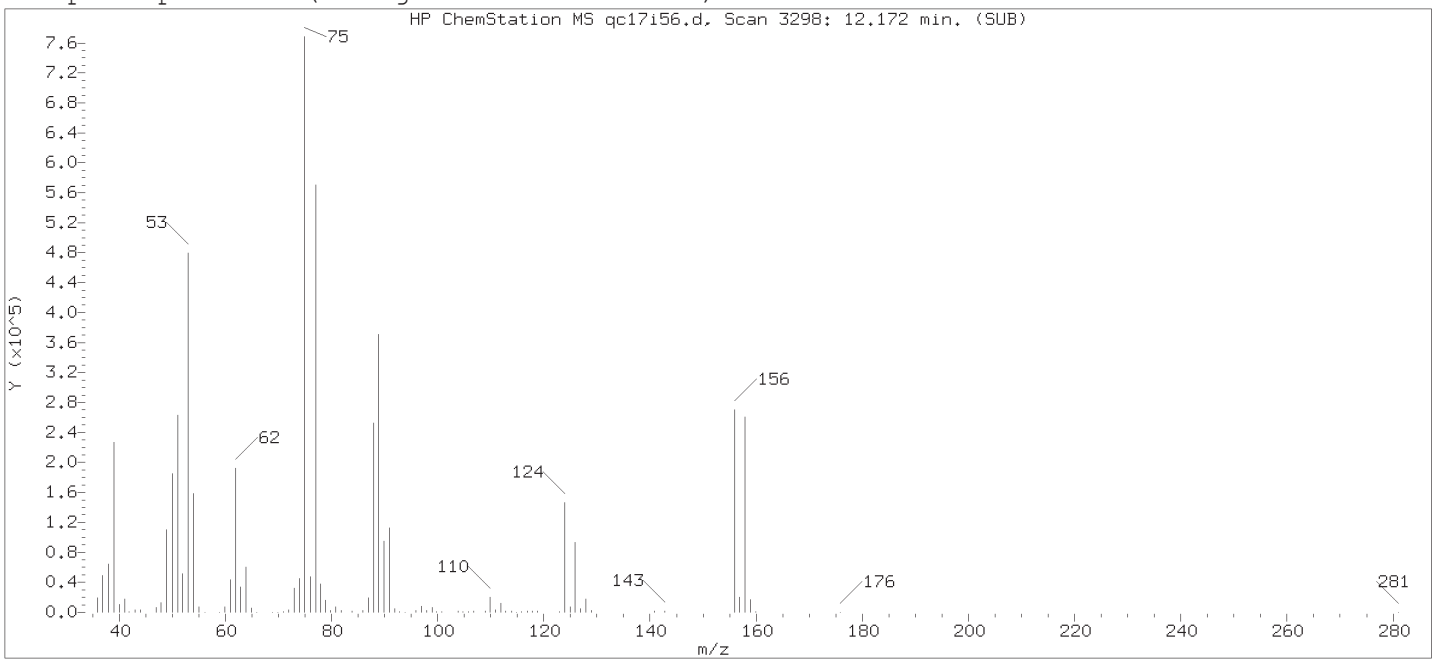
Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 3298
Retention Time (minutes): 12.172
Quant Ion : 53.00
Area (flag) : 667602M
On-Column Amount (ng) : 251.9356
Integration start scan : 3284 Integration stop scan: 3309
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

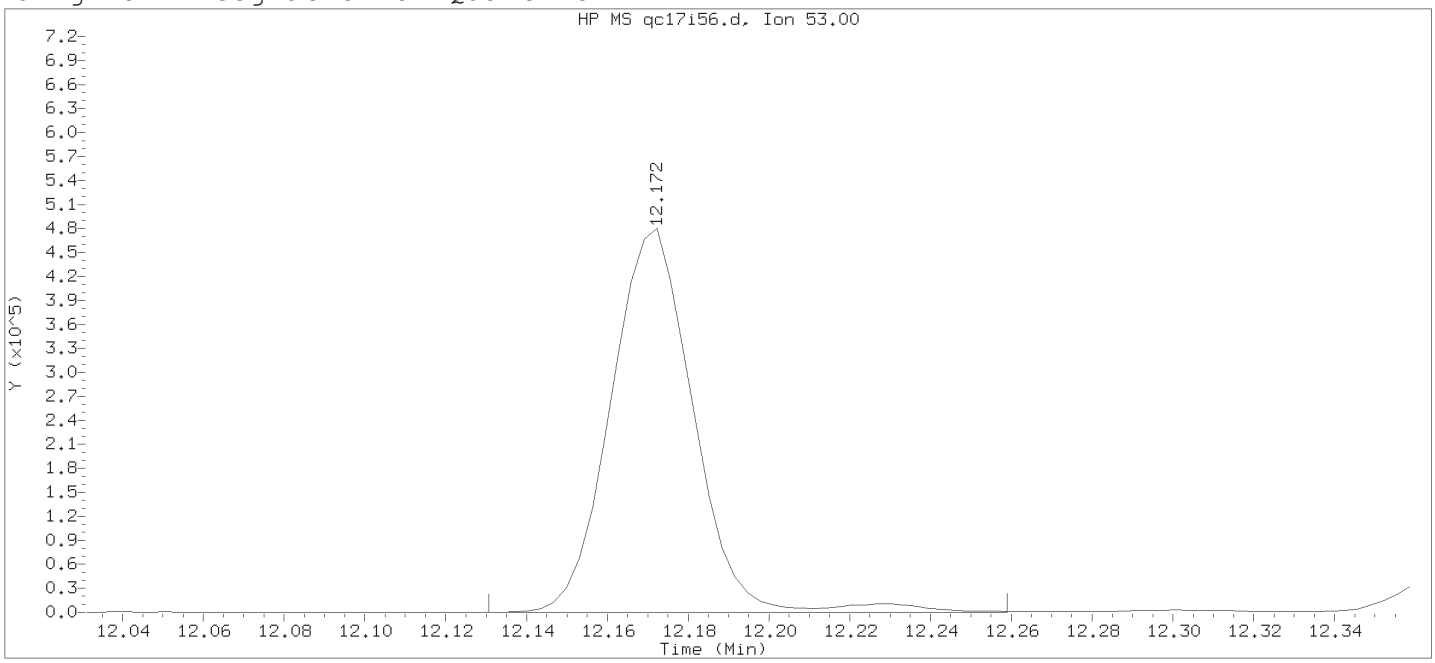
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



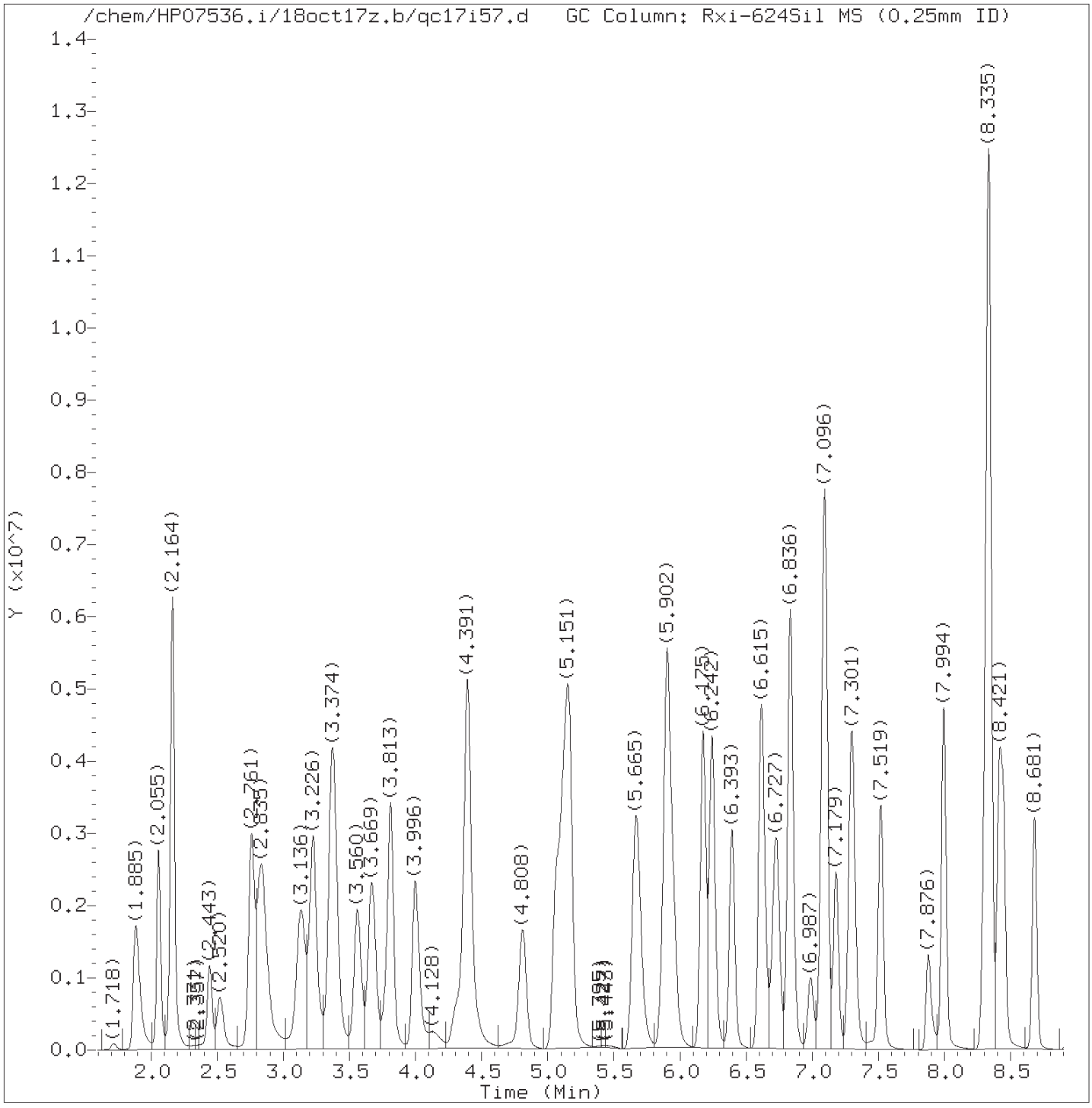
Data File: /chem/HP07536.i/18oct17z.b/qc17i56.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 15:47 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:01 scn10072

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 122
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 3298
Retention Time (minutes): 12.172
Quant Ion : 53.00
Area : 683693
On-column Amount (ng) : 256.0664
Integration start scan : 3284 Integration stop scan: 3324
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:02.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

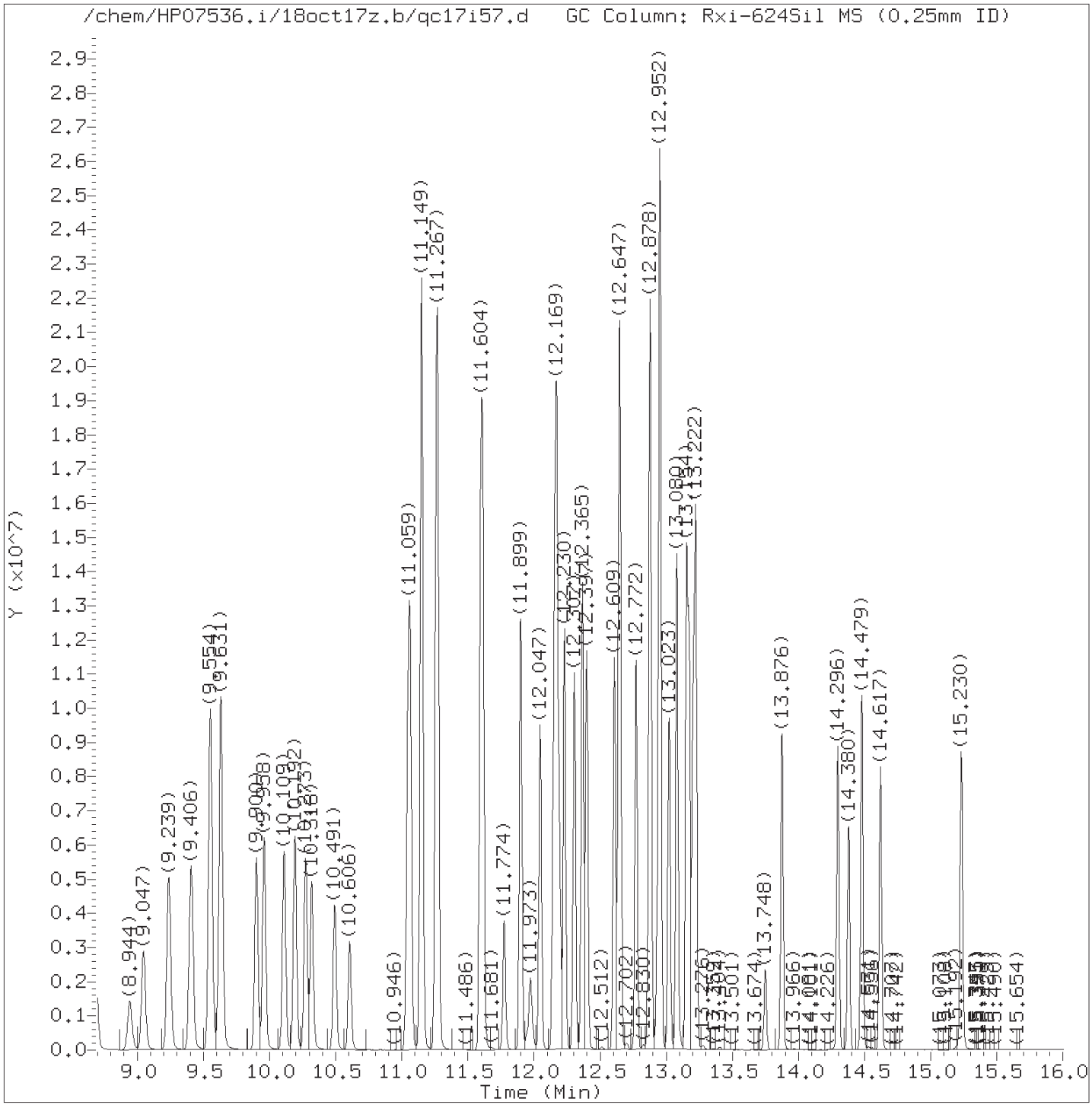
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.882	85	3641076	289.954
4) Chloromethane	(2)	2.058	50	3660657	273.619
5) Vinyl Chloride	(2)	2.164	62	3521824	270.561
9) Bromomethane	(2)	2.443	94	1107769	231.808
10) Chloroethane	(2)	2.520	64	1101617	237.910
11) Dichlorofluoromethane	(2)	2.758	67	3847822A	236.930
13) Trichlorofluoromethane	(2)	2.819	101	4367647	274.353
14) n-Pentane	(2)	2.854	43	2057174	227.964
15) Ethanol	(1)	2.953	45	1019832	11799.160
17) Freon 123a	(2)	3.136	67	2682175	273.735
18) Acrolein	(1)	3.226	56	5178808	2854.756
19) 1,1-Dichloroethene	(2)	3.367	96	1938656	302.872
19) 1,1-Dichloroethene	(2)	3.367	63	977270	298.795
20) Acetone	(1)	3.383	58	431630M	589.167
22) Freon 113	(2)	3.387	101	1689965	309.951
23) 2-Propanol	(1)	3.550	45	661531M	1289.049
24) Methyl Iodide	(2)	3.560	142	3950635	290.172
25) Carbon Disulfide	(2)	3.672	76	6875323	295.440
27) Methyl Acetate	(2)	3.778	43	1625963	259.215
29) Allyl Chloride	(2)	3.813	41	3465032	289.282
31) Methylene Chloride	(2)	3.996	84	2200390	287.905
30)*t-Butyl alcohol-d10	(1)	4.019	65	152283	250.000
32) t-Butyl alcohol	(1)	4.128	59	990558	1329.642
33) Acrylonitrile	(2)	4.301	53	921034	293.212
34) Methyl Tertiary Butyl Ether	(2)	4.388	73	6256282	285.704
35) trans-1,2-Dichloroethene	(2)	4.397	96	2234547	309.243
38) n-Hexane	(2)	4.808	57	1761912	316.133
40) 1,1-Dichloroethane	(2)	5.058	63	3784868	293.010
41) di-Isopropyl ether	(2)	5.126	45	7385515	289.503
42) 2-Chloro-1,3-butadiene	(2)	5.164	53	3514084	301.456
43) Ethyl t-butyl ether	(2)	5.665	59	6594309	277.922
44) 2-Butanone	(1)	5.870	43	2115656	536.596
44) 2-Butanone	(1)	5.870	72	582989	604.710
45) cis-1,2-Dichloroethene	(2)	5.902	96	2492858	312.561
47) 2,2-Dichloropropane	(2)	5.921	77	3126474	299.795
49) Propionitrile	(2)	5.950	54	1675538	1529.349
46) 1,2-Dichloroethene (Total)	(2)		96	4727405	621.805
51) Methacrylonitrile	(2)	6.175	67	2546049	755.061

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52) Bromochloromethane	(2)	6.242	128	1350458	302.289
53) Tetrahydrofuran	(1)	6.249	71	591130	600.667
54) Chloroform	(2)	6.393	83	3629474	293.410
56)$Dibromofluoromethane	(2)	6.611	113	2184925	311.374
56)$Dibromofluoromethane	(2)	6.615	111	2241308	310.122
57) 1,1,1-Trichloroethane	(2)	6.624	97	3116910	307.213
58) Cyclohexane	(2)	6.727	56	2685289	302.126
58) Cyclohexane	(2)	6.724	84	2204979	296.754
58) Cyclohexane	(2)	6.730	69	816711	308.802
61) Carbon Tetrachloride	(2)	6.836	117	2544815	343.329
60) 1,1-Dichloropropene	(2)	6.836	75	2774117	303.970
62) Isobutyl Alcohol	(1)	6.987	41	833214M	3301.074
63)$1,2-Dichloroethane-d4	(2)	7.073	102	577982	316.783
63)$1,2-Dichloroethane-d4	(2)	7.073	65	2497934	285.848
63)$1,2-Dichloroethane-d4	(2)	7.073	104	370332	323.501
64) Benzene	(2)	7.099	78	8589945	303.307
67) 1,2-Dichloroethane	(2)	7.179	62	2720659	277.347
67) 1,2-Dichloroethane	(2)	7.179	98	271795	320.179
68) t-Amyl methyl ether	(2)	7.298	73	6246643	277.417
70)*Fluorobenzene	(2)	7.510	96	1289832	50.000
72) n-Heptane	(2)	7.519	43	1591985	292.477
73) n-Butanol	(1)	7.876	56	1380788M	7293.269
75) Trichloroethene	(2)	7.994	95	2106656	299.707
76) Methylcyclohexane	(2)	8.306	83	2190970	323.879
77) 1,2-Dichloropropane	(2)	8.331	63	2410451	312.064
79) Methyl Methacrylate	(2)	8.412	69	1807257	316.619
80) 1,4-Dioxane	(1)	8.421	88	258018M	3821.055
81) Dibromomethane	(2)	8.447	93	1460941	311.625
84) Bromodichloromethane	(2)	8.681	83	2714772	338.596
85) 2-Nitropropane	(1)	8.941	41	963211	761.600
87) 2-Chloroethyl Vinyl Ether	(2)	9.047	63	1603613	319.300
89) cis-1,3-Dichloropropene	(2)	9.239	75	3599113	318.401
90) 4-Methyl-2-pentanone	(2)	9.406	43	4493387	578.311
91)$Toluene-d8	(3)	9.554	98	8070156	288.101
91)$Toluene-d8	(3)	9.554	100	5296322	291.156
92) Toluene	(3)	9.631	92	5216367	292.622
93) trans-1,3-Dichloropropene	(3)	9.900	75	3322862	301.890
95) Ethyl Methacrylate	(3)	9.958	69	3376067	296.813

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) 1,3-Dichloropropene (total)	(3)		100	6921975	620.291
96) 1,1,2-Trichloroethane	(3)	10.109	97	1967028	278.992
98) Tetrachloroethene	(3)	10.192	166	2023509	284.487
99) 1,3-Dichloropropane	(3)	10.273	76	3358209	278.472
101) 2-Hexanone	(3)	10.318	43	3201698	579.048
103) Dibromochloromethane	(3)	10.494	129	2317579	370.850
104) 1,2-Dibromoethane	(3)	10.606	107	2149961	290.813
105)*Chlorobenzene-d5	(3)	11.036	117	1026113	50.000
106) 1-Chlorohexane	(3)	11.046	91	2102264	290.089
107) Chlorobenzene	(3)	11.065	112	5883764	292.539
108) 1,1,1,2-Tetrachloroethane	(3)	11.149	131	2292780	345.224
109) Ethylbenzene	(3)	11.149	91	9372558	306.346
110) m+p-Xylene	(3)	11.267	106	7356960	615.137
111) o-Xylene	(3)	11.598	106	3672729	308.456
113) Styrene	(3)	11.614	104	6653291	314.654
112) Xylene (Total)	(3)		106	11029689	923.593
114) Bromoform	(3)	11.774	173	1627350	299.900
115) Isopropylbenzene	(3)	11.899	105	7438920	292.765
118) Cyclohexanone	(1)	11.973	55	906768	3669.407
119)$4-Bromofluorobenzene	(3)	12.047	95	2751842	308.566
119)$4-Bromofluorobenzene	(3)	12.047	174	2579637	304.265
120) 1,1,2,2-Tetrachloroethane	(4)	12.147	83	2774925	281.940
121) Bromobenzene	(4)	12.159	156	2771637	298.534
122) trans-1,4-Dichloro-2-butene	(4)	12.172	53	2144535	729.836
123) 1,2,3-Trichloropropane	(4)	12.191	110	842468	279.730
124) n-Propylbenzene	(4)	12.230	91	8167237	284.532
126) 2-Chlorotoluene	(4)	12.307	126	1980492	292.887
129) 1,3,5-Trimethylbenzene	(4)	12.365	105	6399570	295.169
130) 4-Chlorotoluene	(4)	12.397	126	2124149	294.072
133) tert-Butylbenzene	(4)	12.609	134	1278256	286.276
134) Pentachloroethane	(4)	12.641	167	1655845	299.920
135) 1,2,4-Trimethylbenzene	(4)	12.650	105	7101875	305.510
136) sec-Butylbenzene	(4)	12.772	105	6683532	279.590
138) 1,3-Dichlorobenzene	(4)	12.872	146	4104177	299.244
139) p-Isopropyltoluene	(4)	12.881	119	6602489	303.469
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	457182	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	4349709	282.415
142) 1,2,3-Trimethylbenzene	(4)	12.955	105	7907360	300.532

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

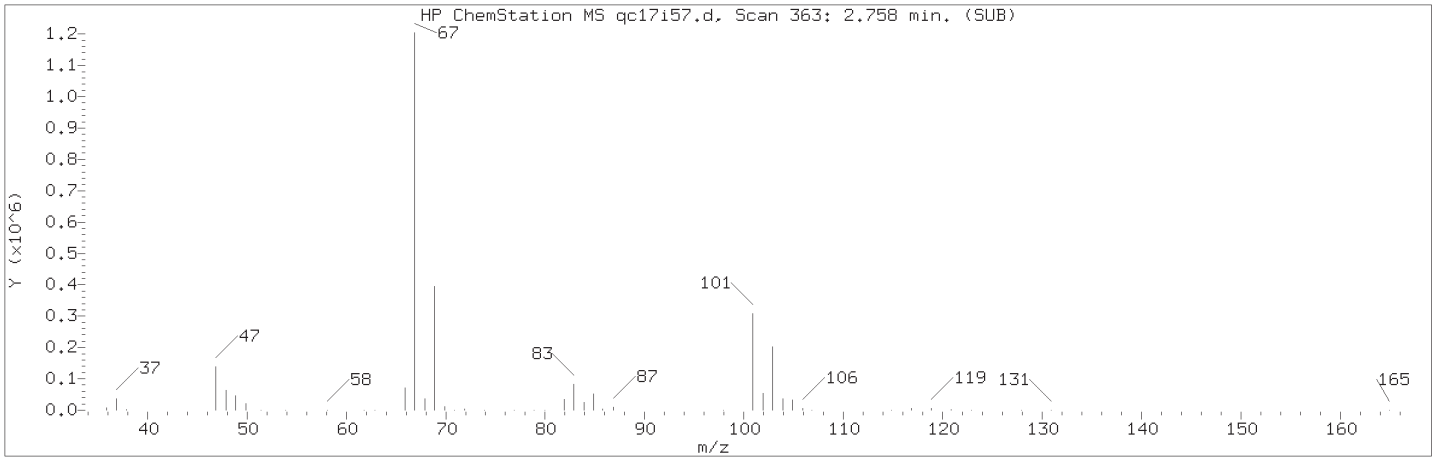
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

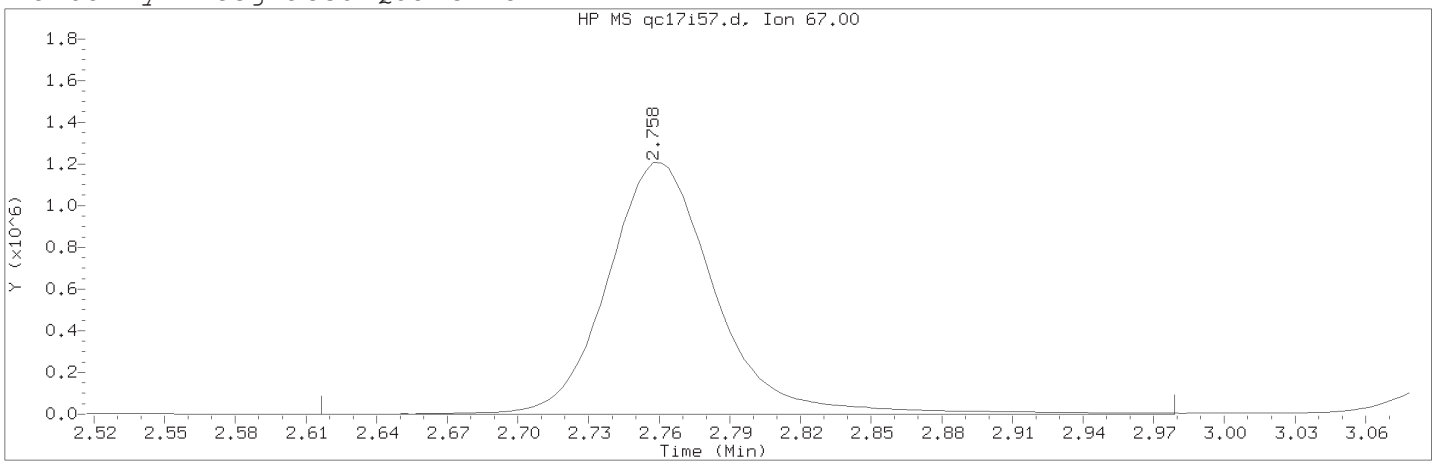
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) Benzyl Chloride	(4)	13.023	126	1345483	351.957
144) 1,3-Diethylbenzene	(4)	13.080	119	3956556	299.811
145) 1,4-Diethylbenzene	(4)	13.154	119	4147817	300.277
146) n-Butylbenzene	(4)	13.173	92	3030095	301.851
147) 1,2-Dichlorobenzene	(4)	13.202	146	4041477	284.325
148) 1,2-Diethylbenzene	(4)	13.222	119	3490629	295.216
151) 1,2-Dibromo-3-chloropropane	(4)	13.748	75	468612	306.680
152) 1,3,5-Trichlorobenzene	(4)	13.876	180	2580678	289.770
153) 1,2,4-Trichlorobenzene	(4)	14.300	180	2462736	287.005
154) Hexachlorobutadiene	(4)	14.380	225	1073487	283.910
155) Naphthalene	(4)	14.479	128	6886246	270.576
156) 1,2,3-Trichlorobenzene	(4)	14.617	180	2309873	281.605
157) 2-Methylnaphthalene	(4)	15.230	142	3894282	312.093

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

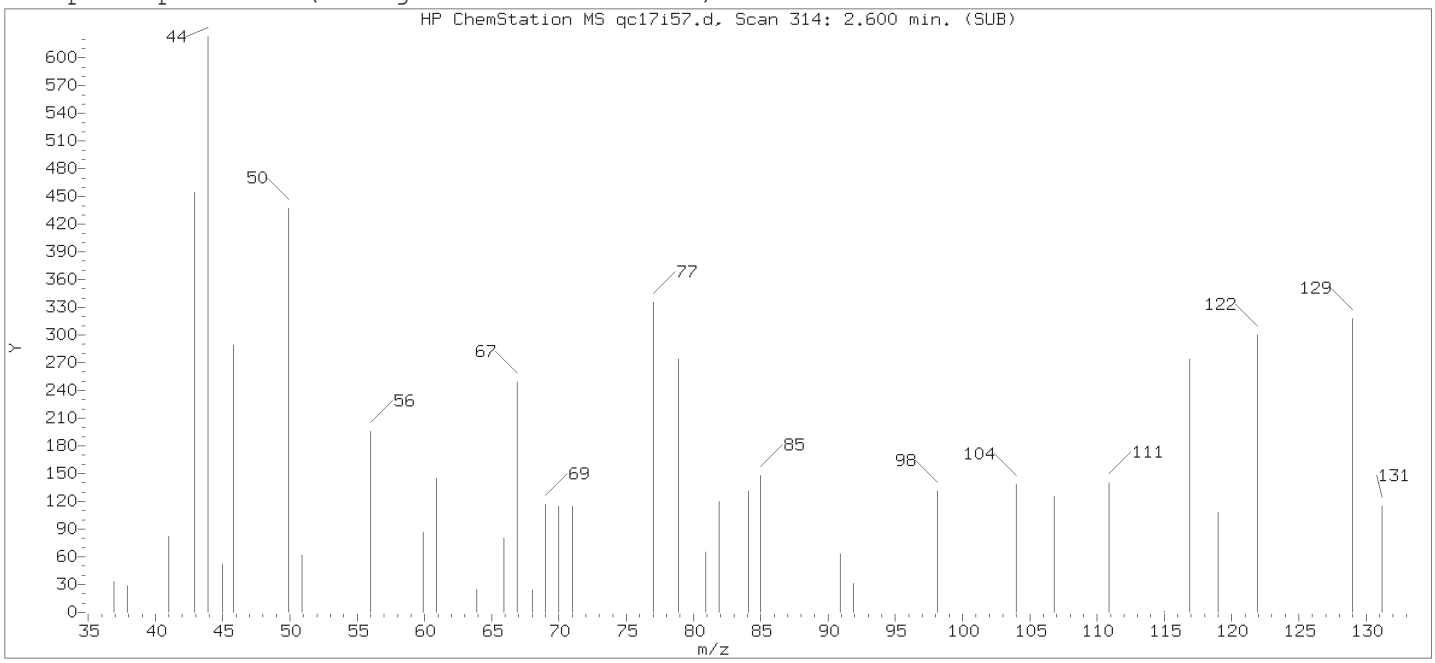
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 363
Retention Time (minutes): 2.758
Quant Ion : 67.00
Area (flag) : 3847822A
On-Column Amount (ng) : 236.9304
Integration start scan : 318 Integration stop scan: 431
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

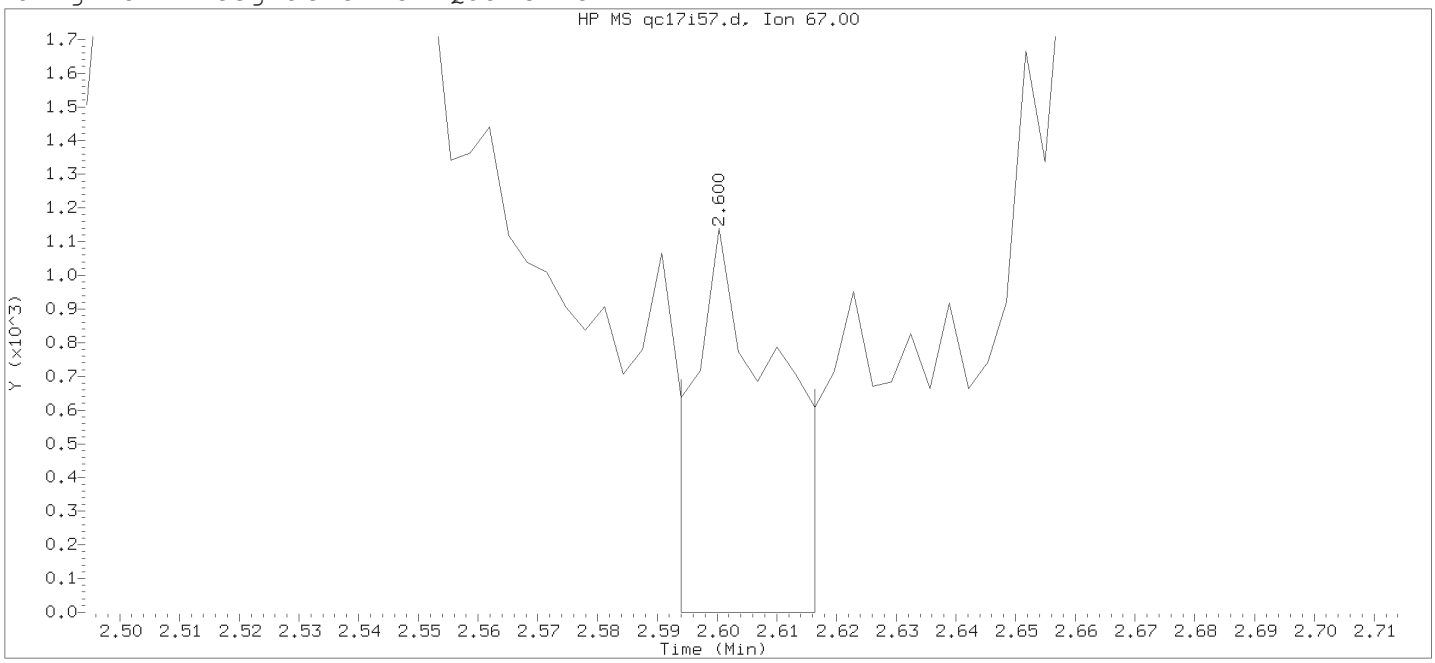
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

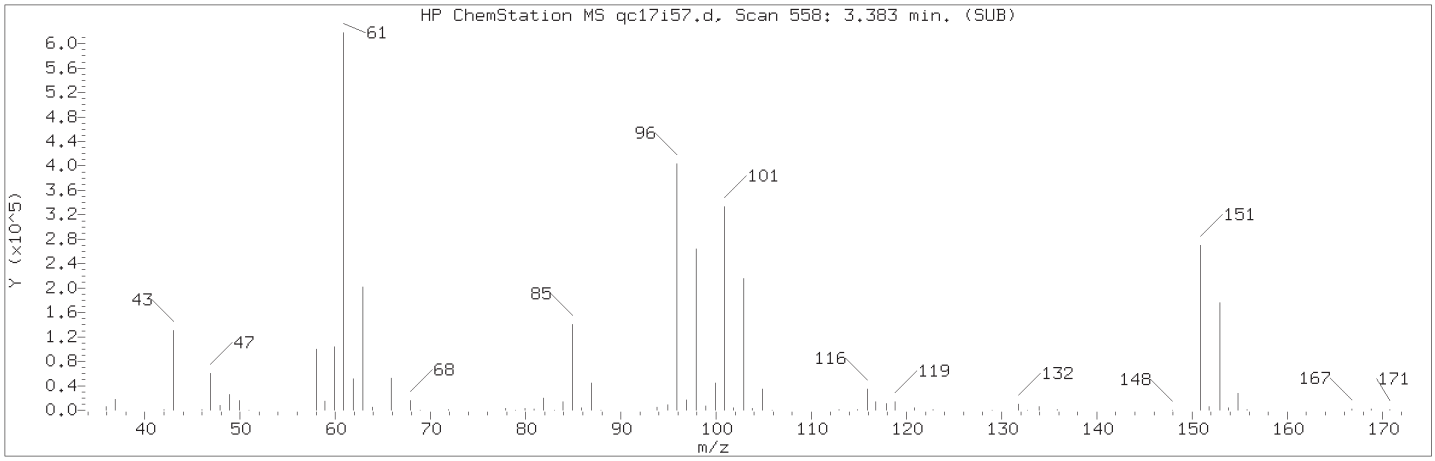
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

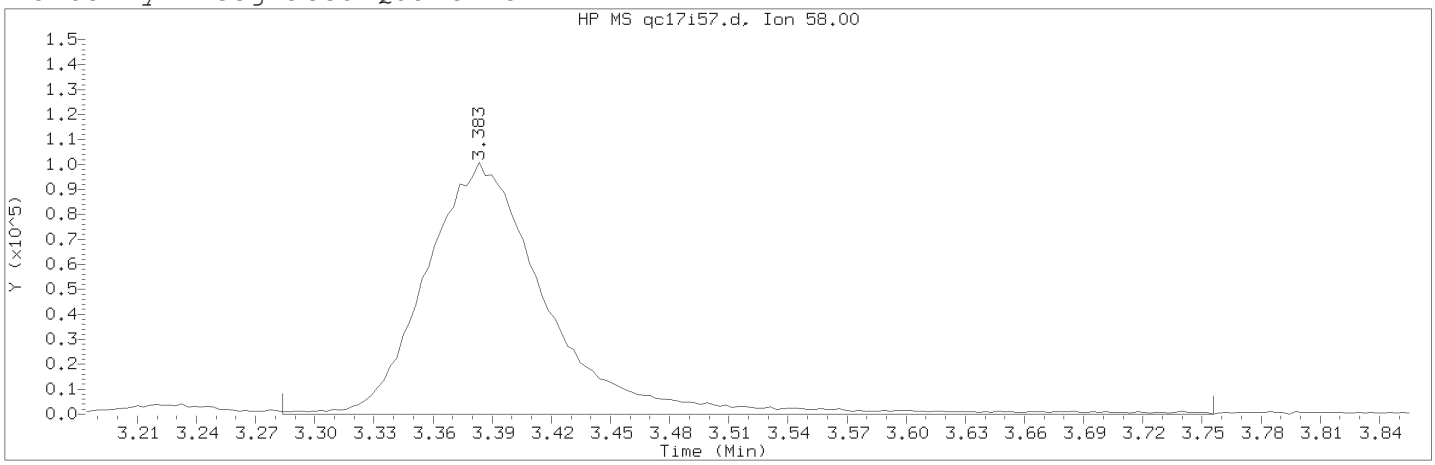
Compound Number : 11
Compound Name : Dichlorofluoromethane
Scan Number : 314
Retention Time (minutes): 2.600
Quant Ion : 67.00
Area : 1045
On-column Amount (ng) : 3.7310
Integration start scan : 311 Integration stop scan: 318
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

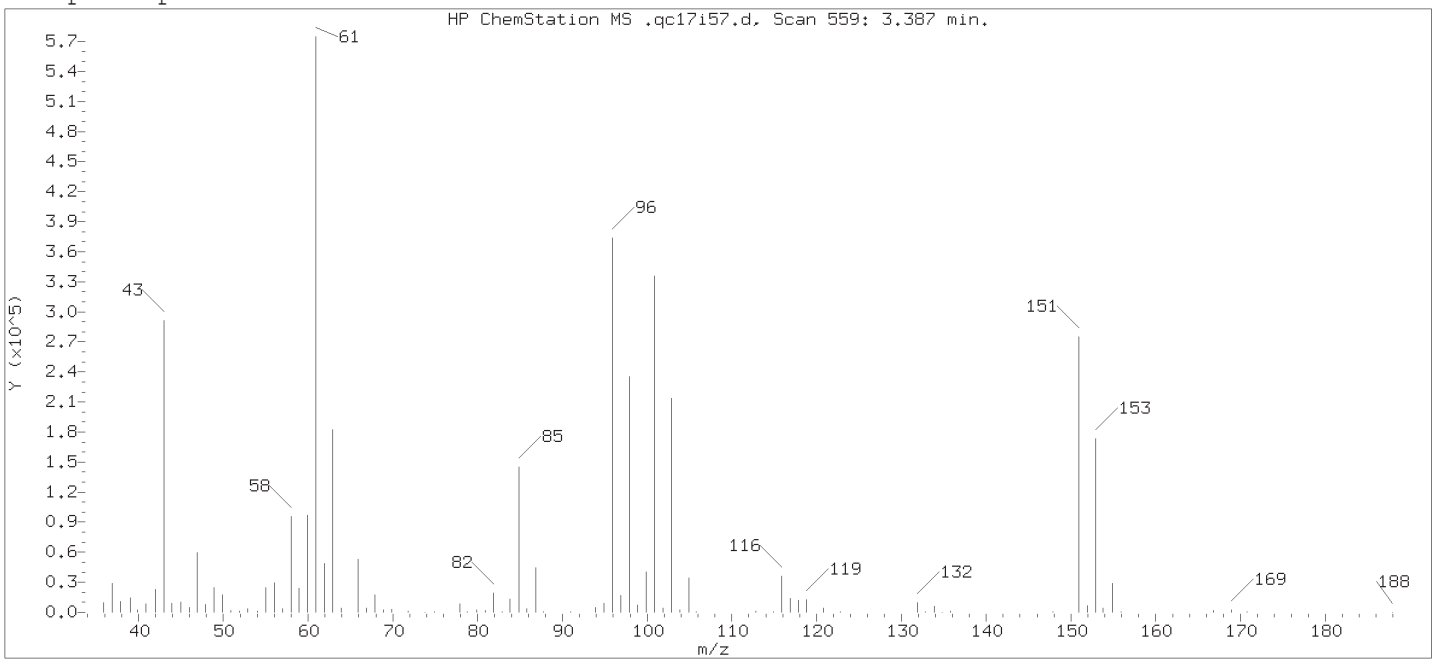
Compound Number : 20
Compound Name : Acetone
Scan Number : 558
Retention Time (minutes): 3.383
Quant Ion : 58.00
Area (flag) : 431630M
On-Column Amount (ng) : 589.1673
Integration start scan : 526 Integration stop scan: 673
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

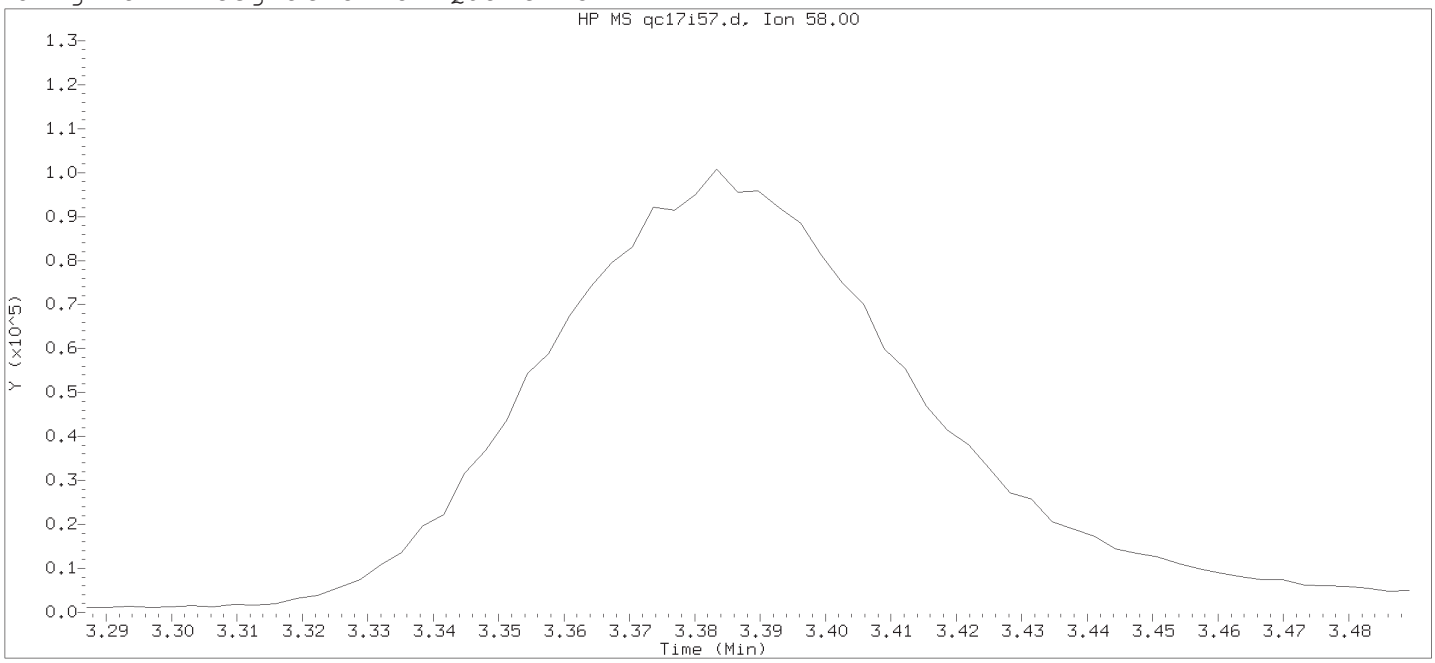
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

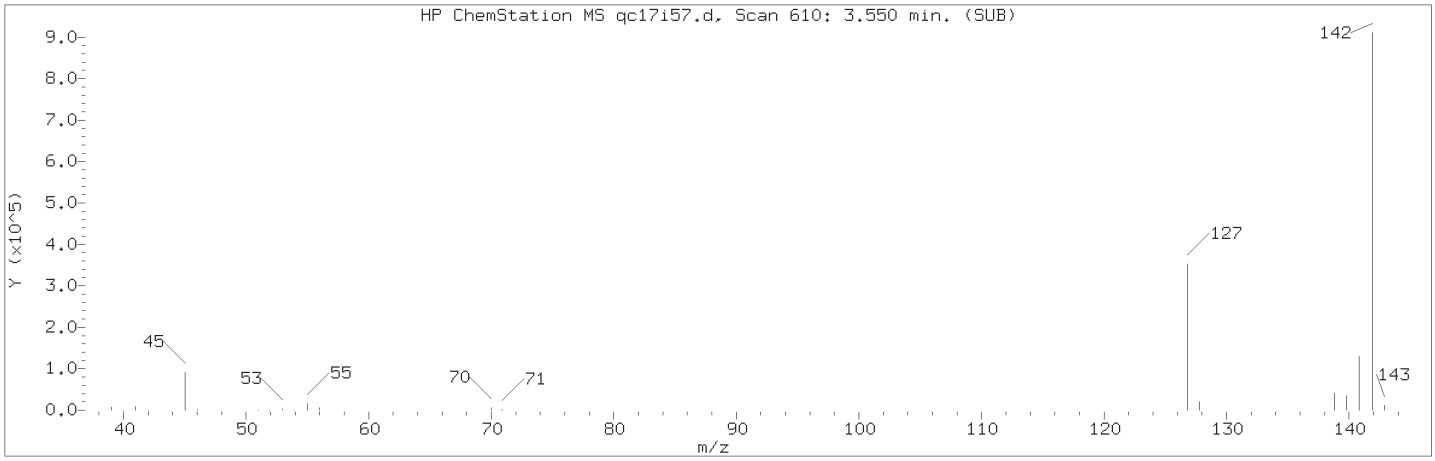
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

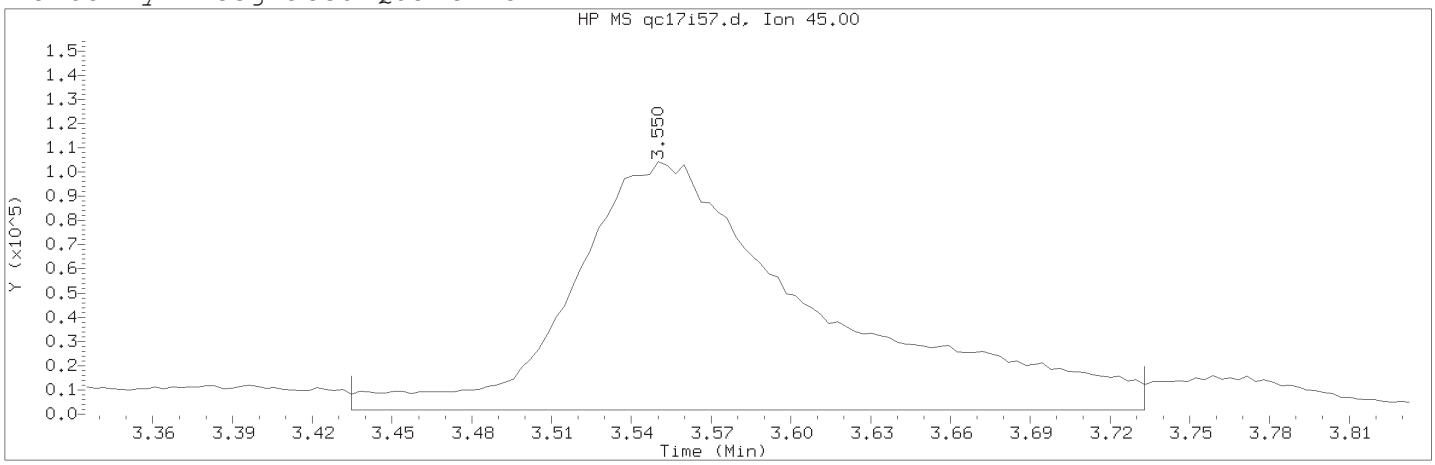
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

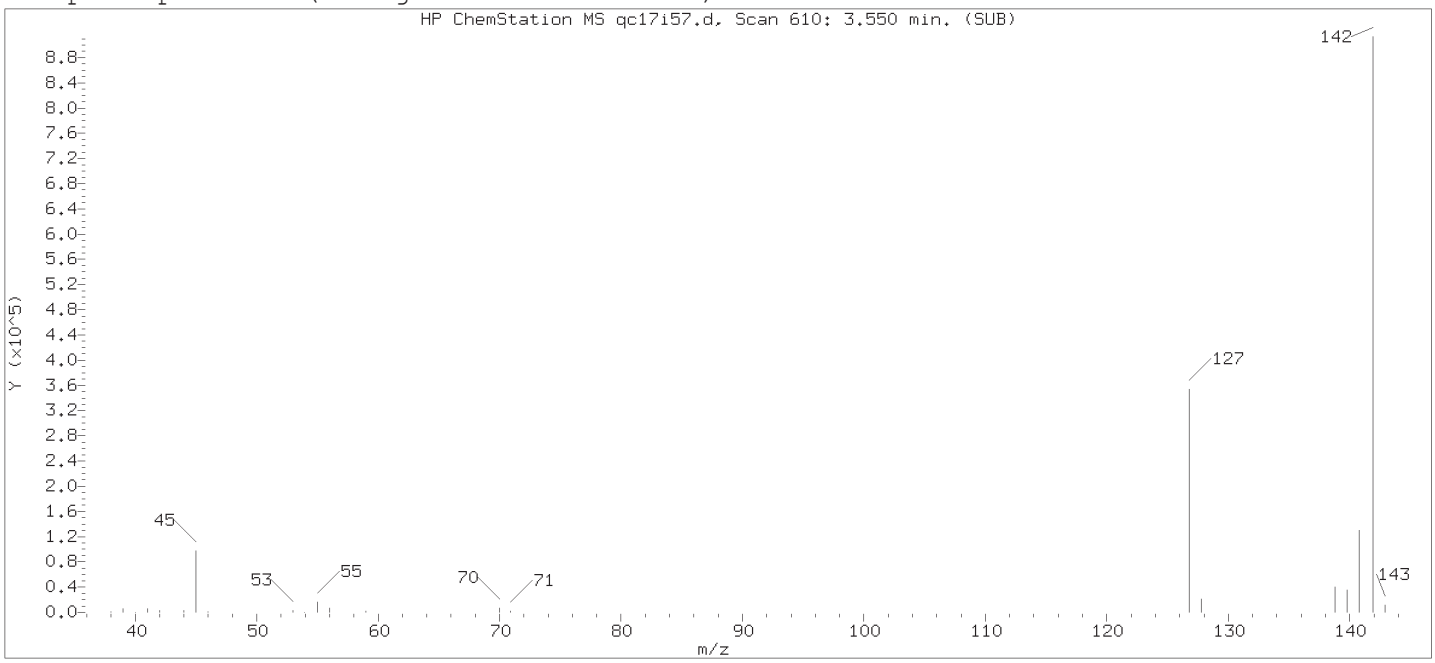
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 610
Retention Time (minutes): 3.550
Quant Ion : 45.00
Area (flag) : 661531M
On-Column Amount (ng) : 1289.0489
Integration start scan : 573 Integration stop scan: 666
Y at integration start : 1658 Y at integration end: 1658

Reason for manual integration: improper integration

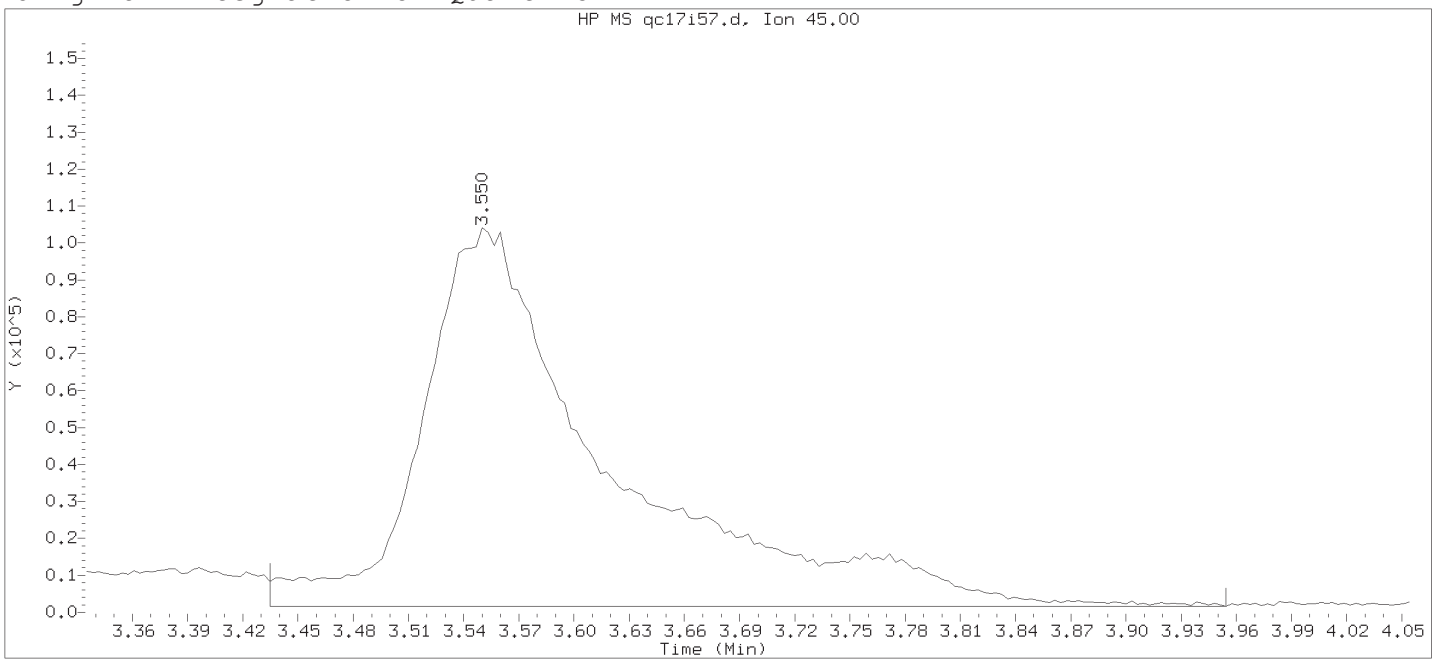
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

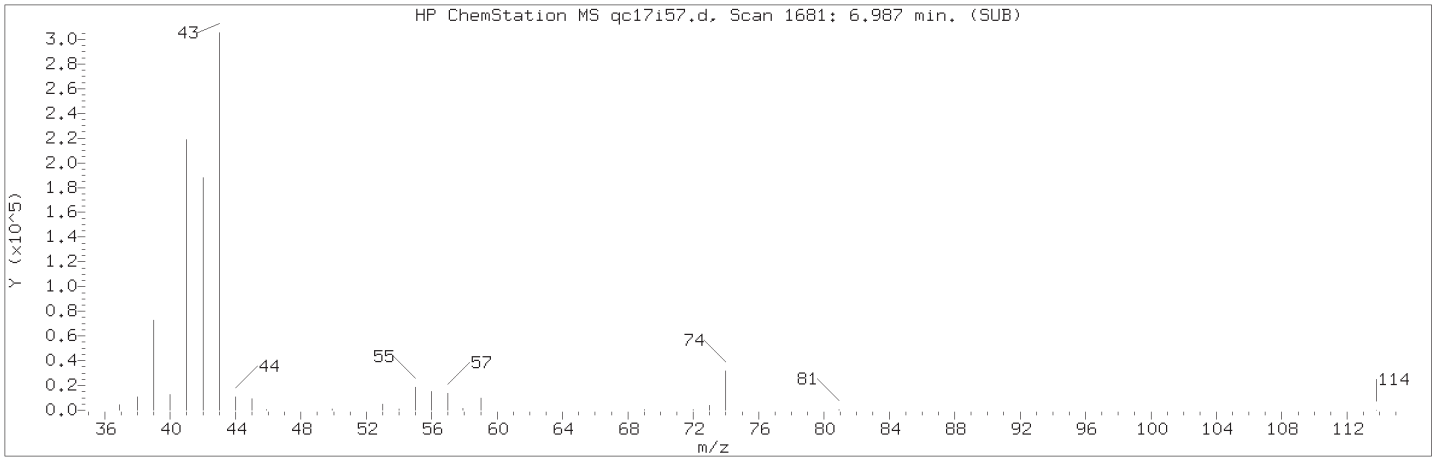
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

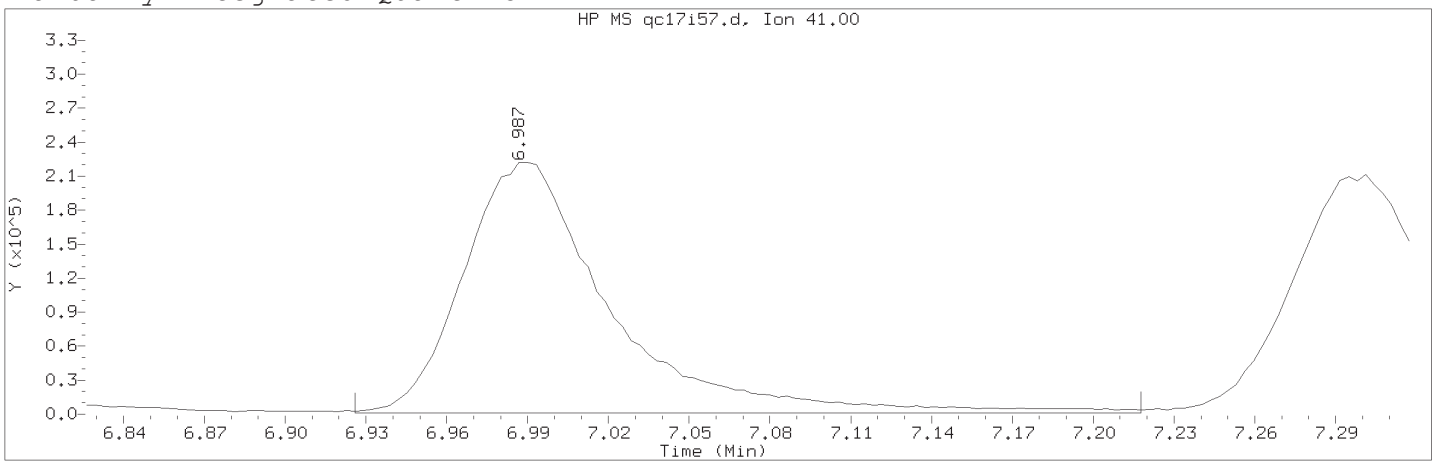
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 610
Retention Time (minutes): 3.550
Quant Ion : 45.00
Area : 723546
On-column Amount (ng) : 1352.2977
Integration start scan : 573 Integration stop scan: 735
Y at integration start : 1658 Y at integration end: 1658

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

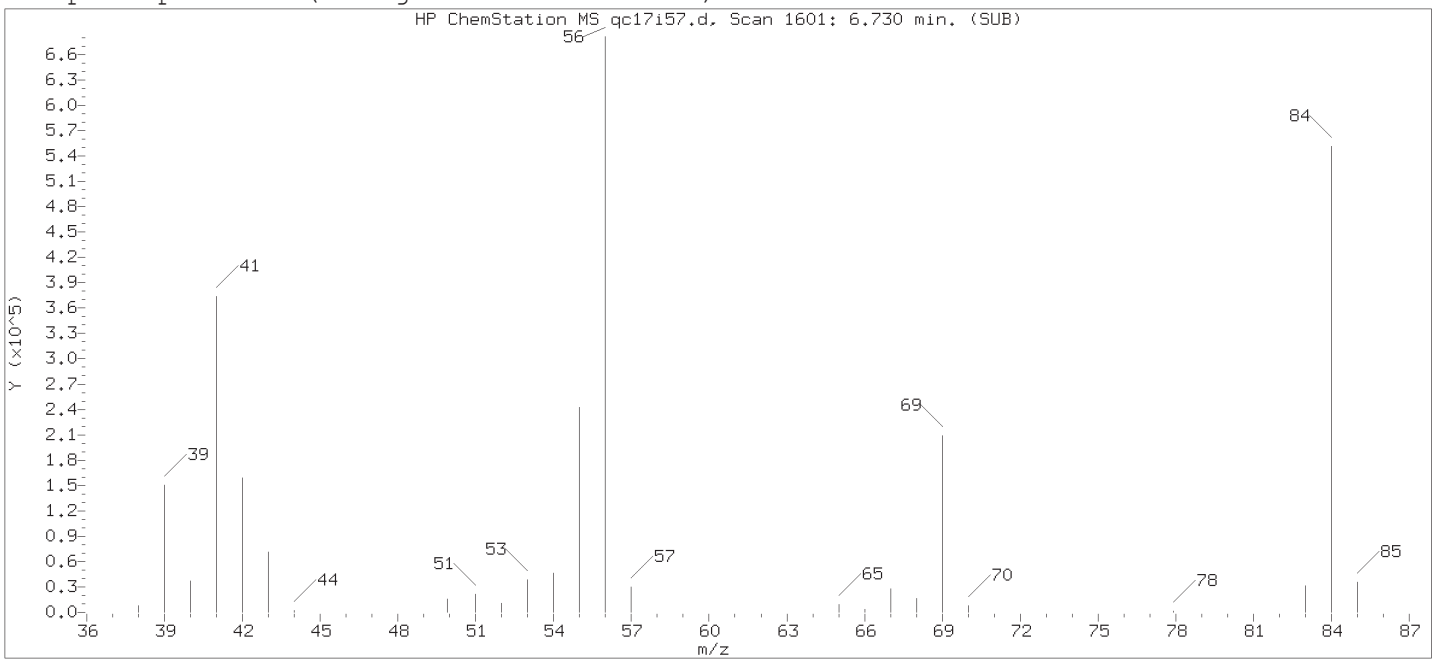
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1681
Retention Time (minutes): 6.987
Quant Ion : 41.00
Area (flag) : 833214M
On-Column Amount (ng) : 3301.0742
Integration start scan : 1661 Integration stop scan: 1752
Y at integration start : 1305 Y at integration end: 1305

Reason for manual integration: improper integration

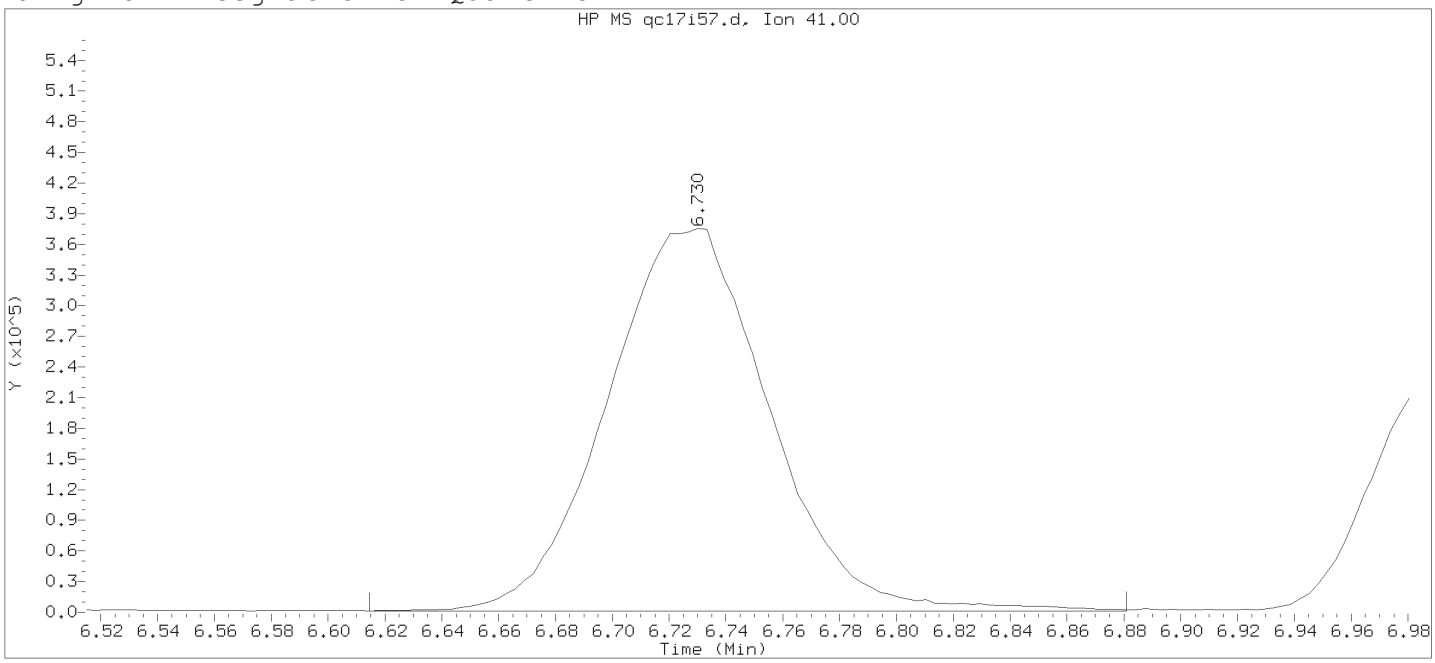
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

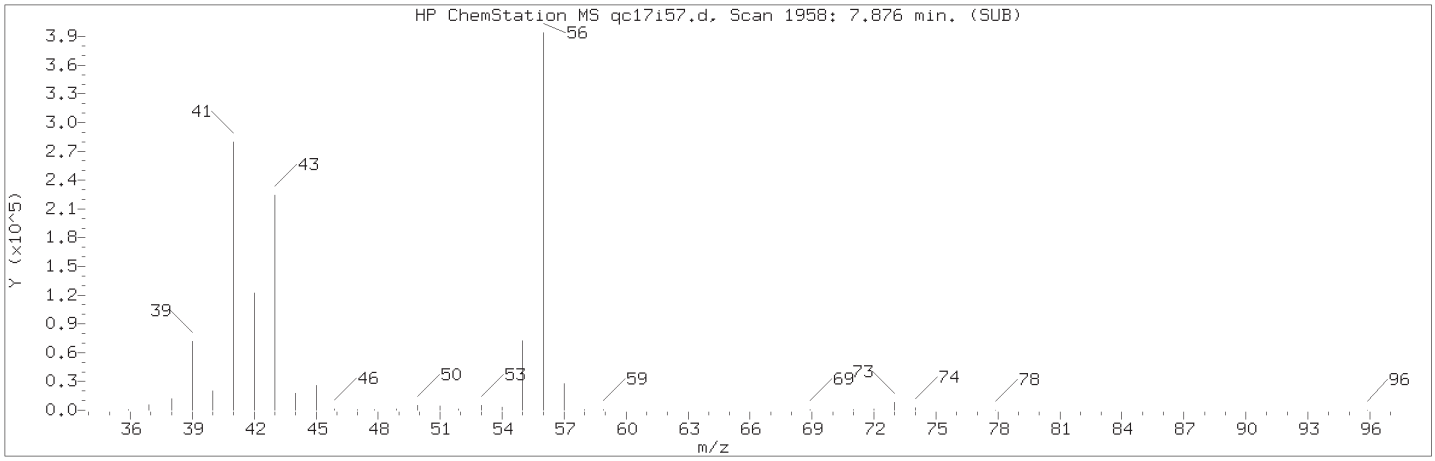
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

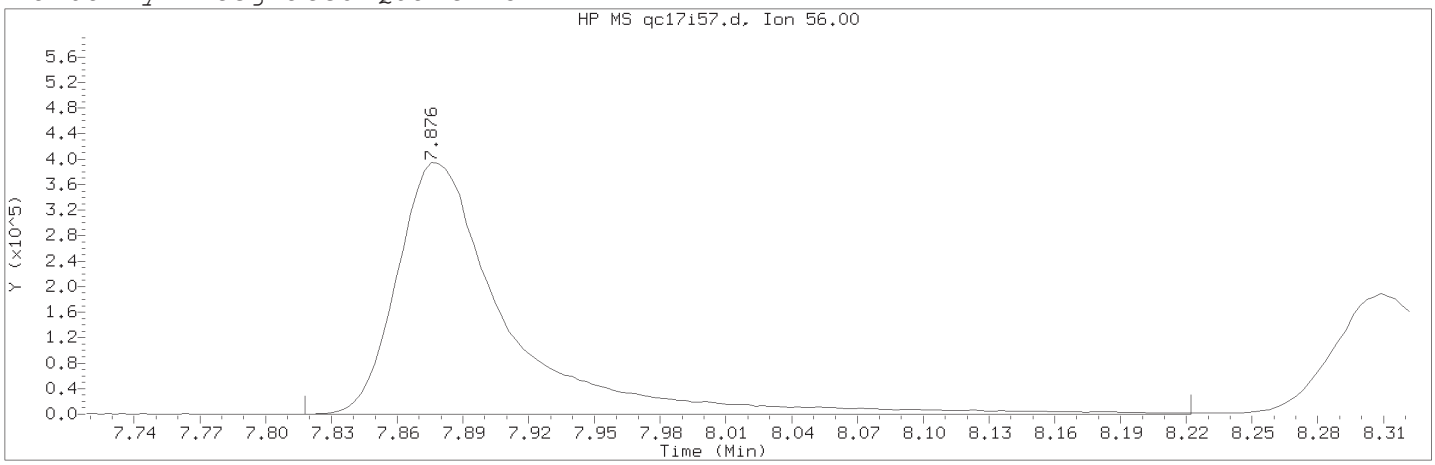
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1601
Retention Time (minutes): 6.730
Quant Ion : 41.00
Area : 1481733
On-column Amount (ng) : 5236.4884
Integration start scan : 1564 Integration stop scan: 1647
Y at integration start : 1361 Y at integration end: 1361

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

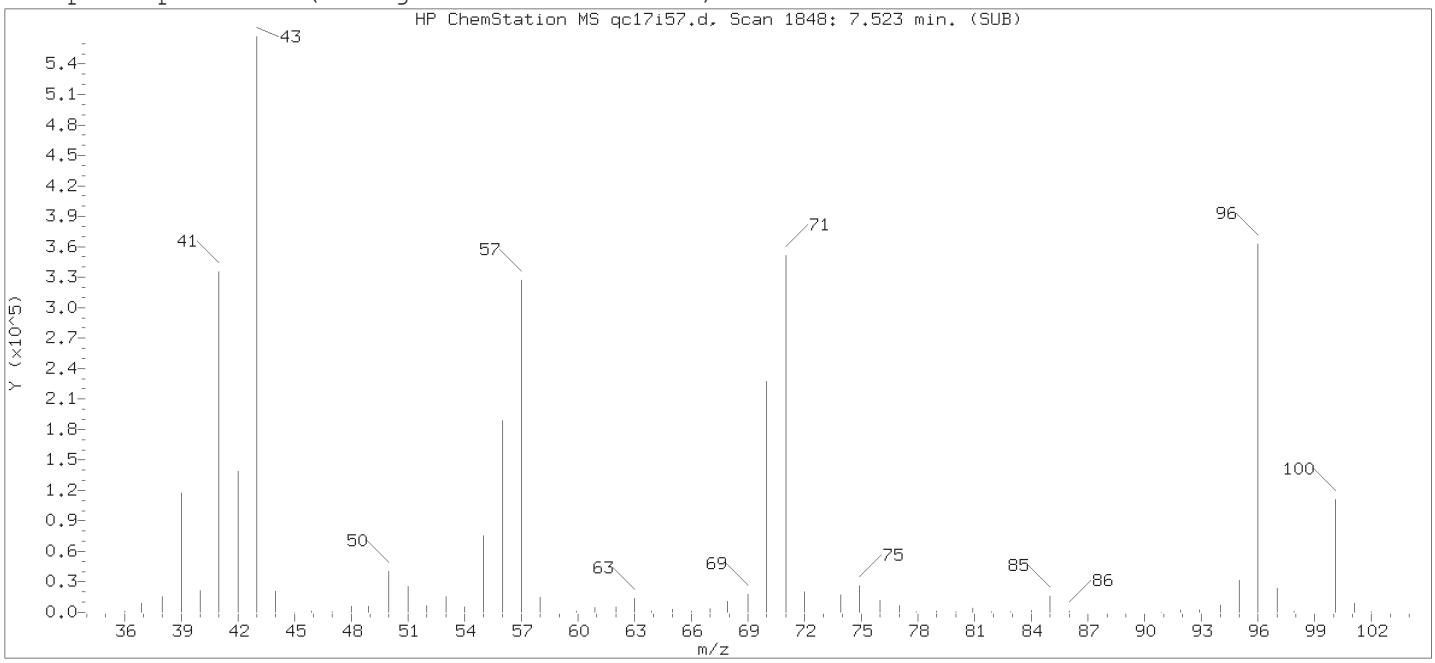
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1958
Retention Time (minutes): 7.876
Quant Ion : 56.00
Area (flag) : 1380788M
On-Column Amount (ng) : 7293.2689
Integration start scan : 1939 Integration stop scan: 2065
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

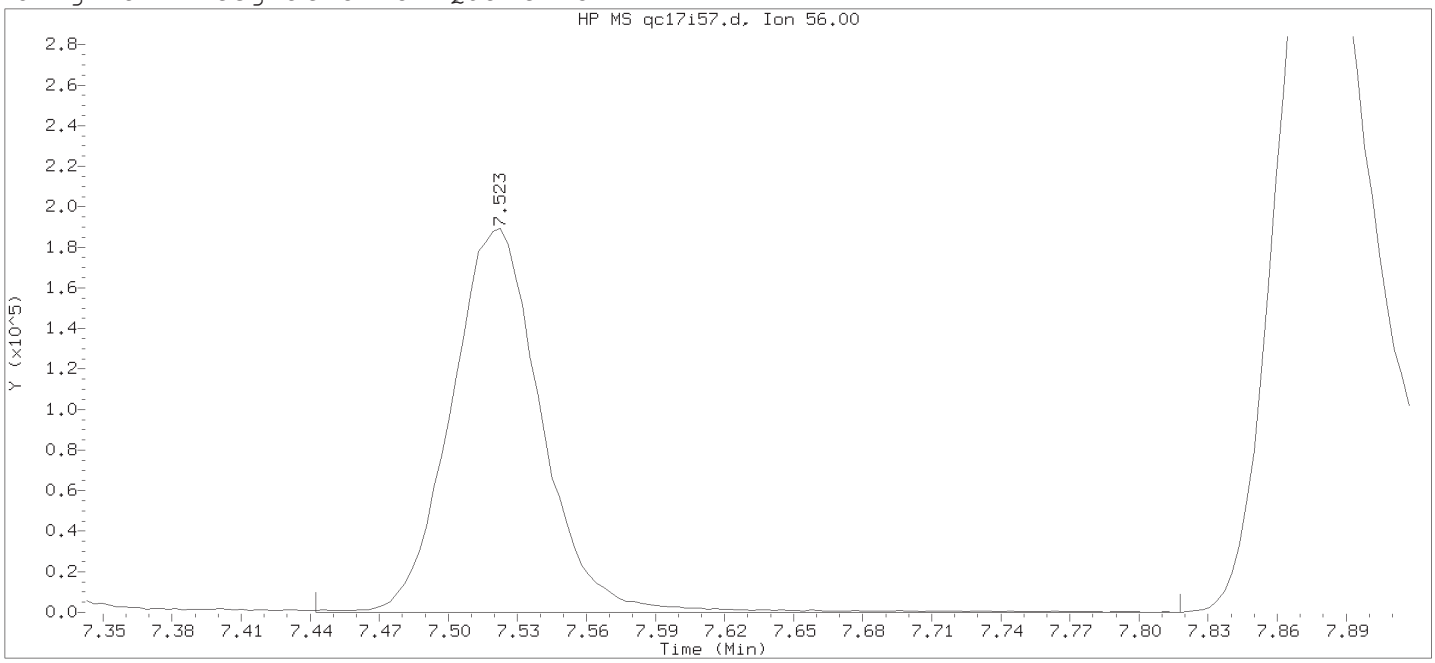
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

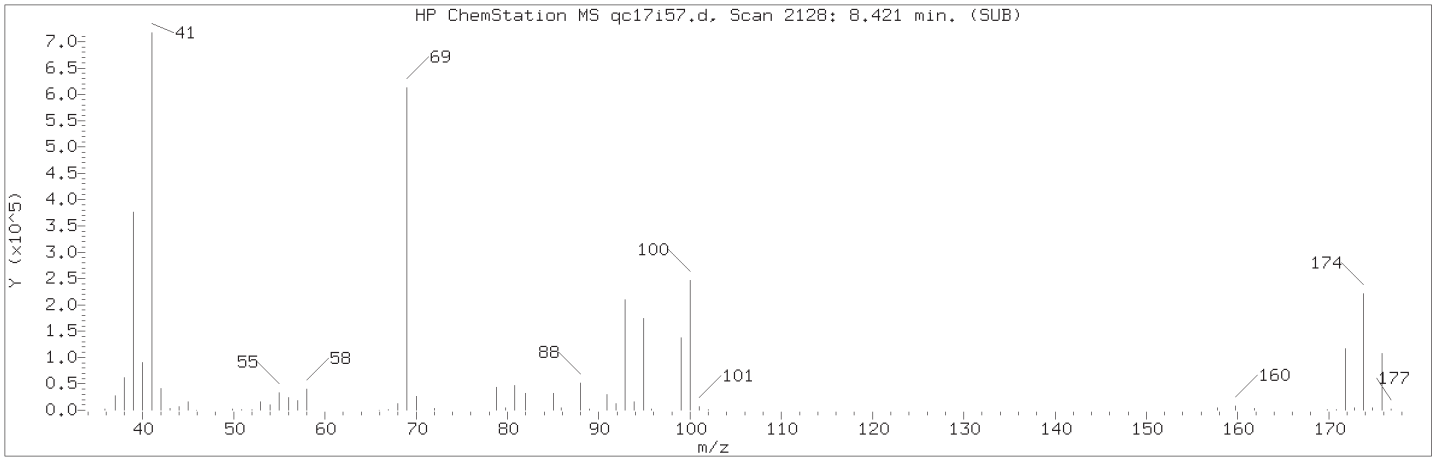
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

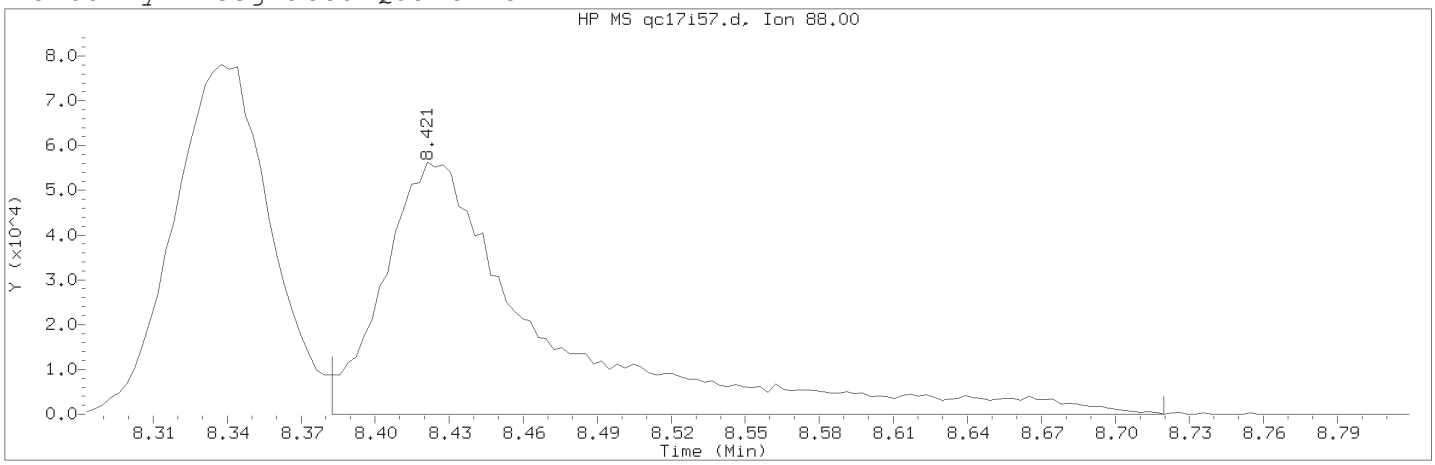
Compound Number	: 73		
Compound Name	: n-Butanol		
Scan Number	: 1848		
Retention Time (minutes)	: 7.523		
Quant Ion	: 56.00		
Area	: 519185		
On-column Amount (ng)	: 8016.9652		
Integration start scan	: 1822	Integration stop scan	: 1939
Y at integration start	: 0	Y at integration end	: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

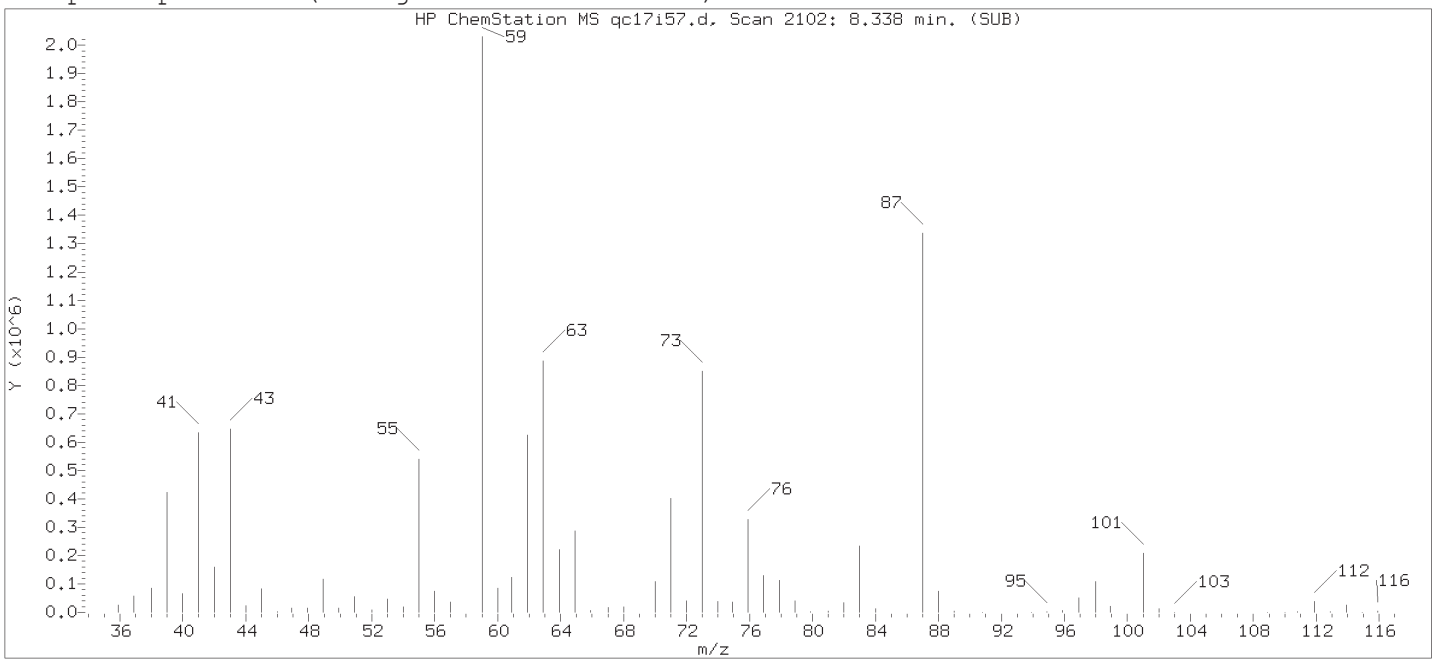
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2128
Retention Time (minutes): 8.421
Quant Ion : 88.00
Area (flag) : 258018M
On-Column Amount (ng) : 3821.0553
Integration start scan : 2115 Integration stop scan: 2220
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

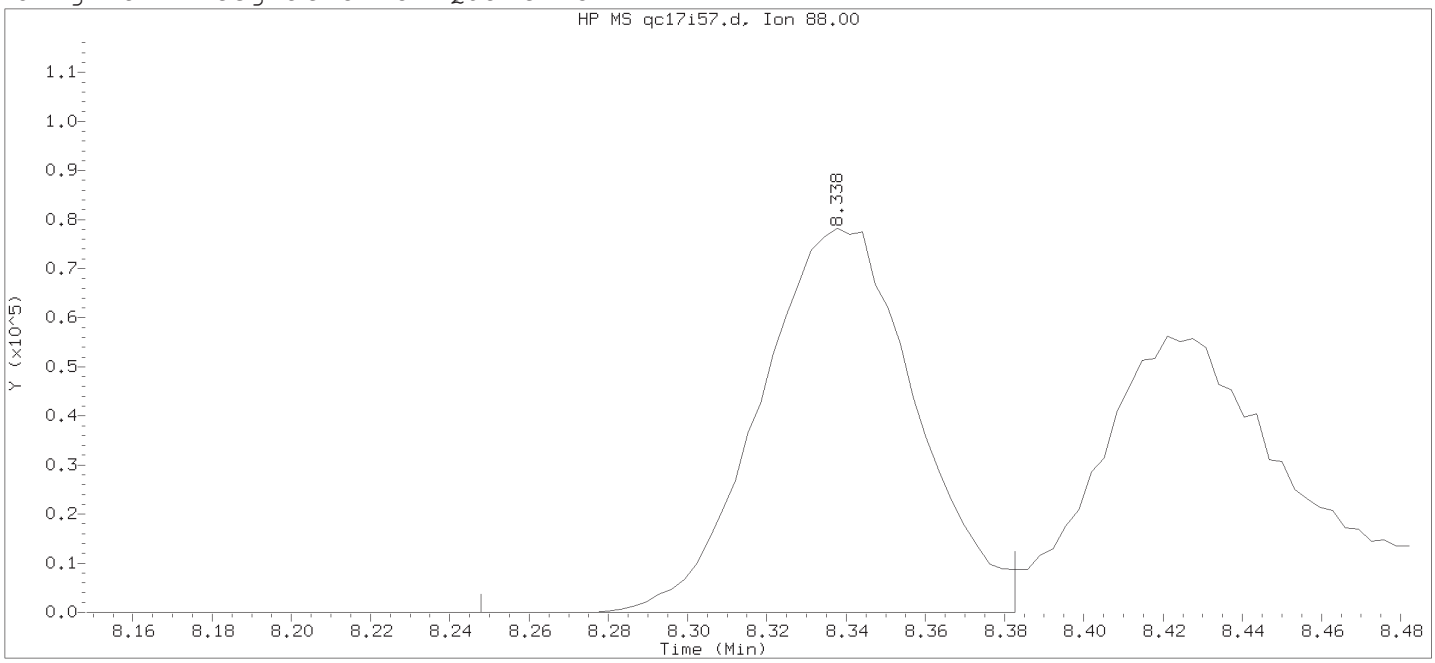
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 15:27.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



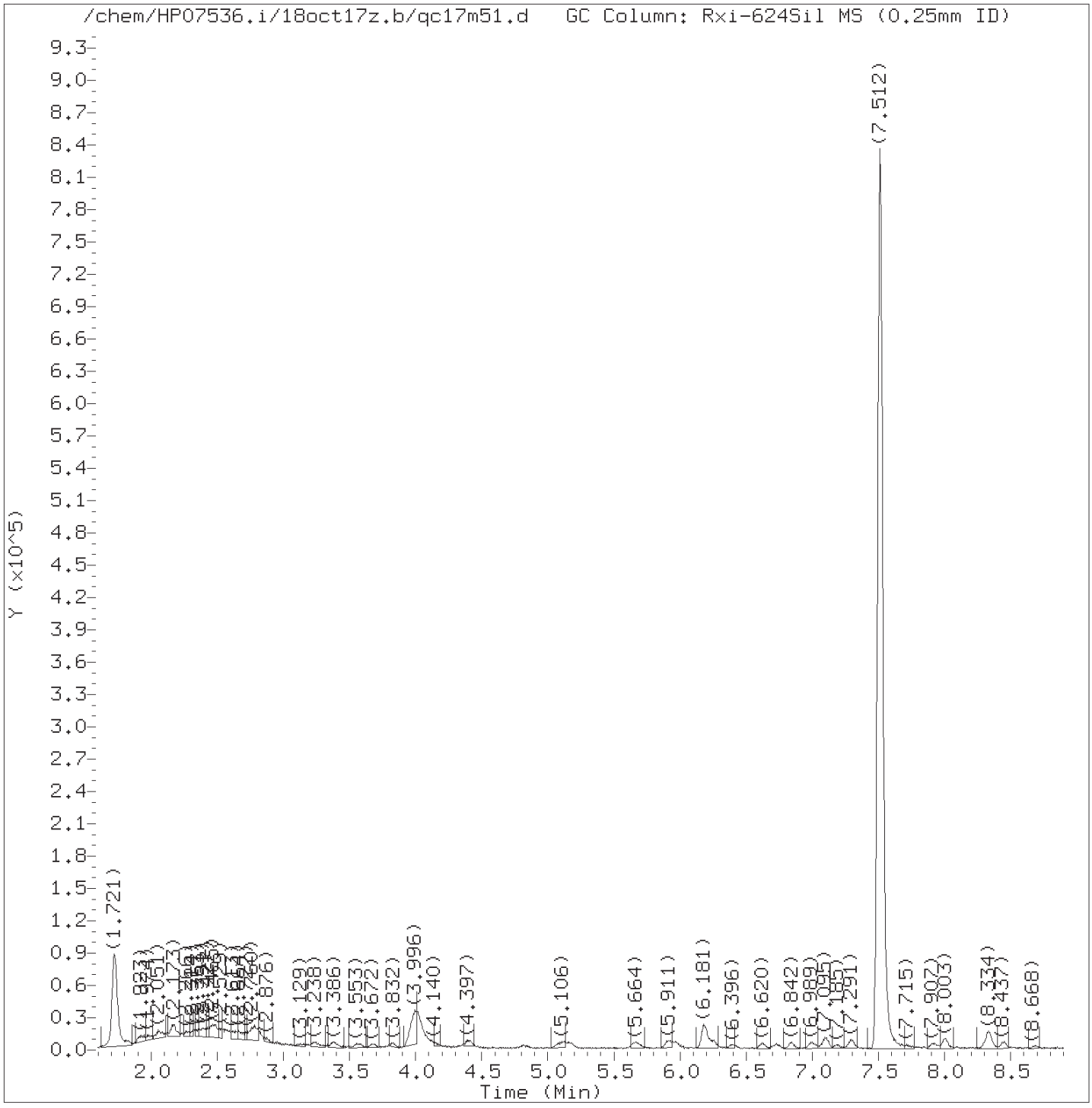
Data File: /chem/HP07536.i/18oct17z.b/qc17i57.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 16:10 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 18-OCT-2018 12:01
Date, time and analyst ID of latest file update: 18-Oct-2018 12:02 scn10072

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2102
Retention Time (minutes): 8.338
Quant Ion : 88.00
Area : 212407
On-column Amount (ng) : 3836.8168
Integration start scan : 2073 Integration stop scan: 2115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

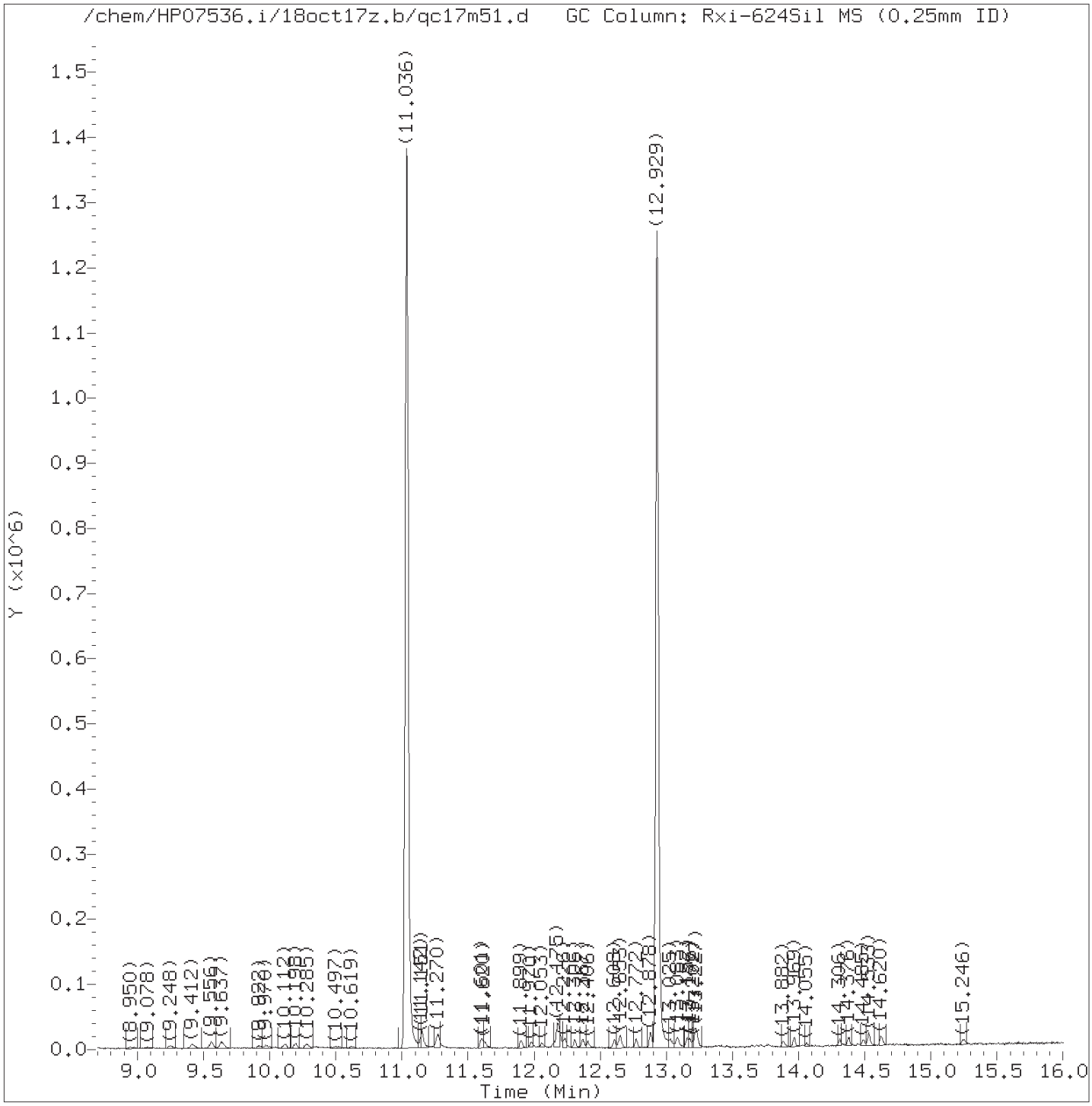
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.878	85	4559	0.414
4) Chloromethane	(2)	2.061	50	5888M	0.502
5) Vinyl Chloride	(2)	2.176	62	6129	0.537
9) Bromomethane	(2)	2.471	94	4845M	1.157
10) Chloroethane	(2)	2.558	64	2864	0.016
11) Dichlorofluoromethane	(2)	2.776	67	9657	0.678
13) Trichlorofluoromethane	(2)	2.831	101	4810	0.345
14) n-Pentane	(2)	2.876	43	7207	0.911
15) Ethanol	(1)	2.969	45	3707M	49.121
17) Freon 123a	(2)	3.129	67	3715M	0.433
18) Acrolein	(1)	3.251	56	7739	4.886
20) Acetone	(1)	3.367	58	370M	0.578
19) 1,1-Dichloroethene	(2)	3.373	96	2132	0.380
22) Freon 113	(2)	3.380	101	1463	0.306
23) 2-Propanol	(1)	3.553	45	4411	9.844
24) Methyl Iodide	(2)	3.572	142	5085	0.426
25) Carbon Disulfide	(2)	3.681	76	8678	0.425
27) Methyl Acetate	(2)	3.797	43	3522M	0.641
29) Allyl Chloride	(2)	3.822	41	4631	0.441
30)*t-Butyl alcohol-d10	(1)	3.986	65	132962	250.000
31) Methylene Chloride	(2)	4.008	84	3004	0.448
32) t-Butyl alcohol	(1)	4.114	59	5798M	8.914
33) Acrylonitrile	(2)	4.288	53	642	0.233
34) Methyl Tertiary Butyl Ether	(2)	4.400	73	9164M	0.477
35) trans-1,2-Dichloroethene	(2)	4.410	96	2677	0.423
38) n-Hexane	(2)	4.814	57	1960	0.401
40) 1,1-Dichloroethane	(2)	5.071	63	5152	0.455
41) di-Isopropyl ether	(2)	5.106	45	9517	0.426
42) 2-Chloro-1,3-butadiene	(2)	5.180	53	4191	0.410
43) Ethyl t-butyl ether	(2)	5.664	59	9789	0.471
44) 2-Butanone	(1)	5.911	43	4270M	1.240
47) 2,2-Dichloropropane	(2)	5.915	77	4050	0.443
45) cis-1,2-Dichloroethene	(2)	5.915	96	2690	0.385
49) Propionitrile	(2)	5.966	54	9084	9.460
46) 1,2-Dichloroethene (Total)	(2)		96	5367	0.808
51) Methacrylonitrile	(2)	6.190	67	13705	4.637
52) Bromochloromethane	(2)	6.235	128	1370	0.350
53) Tetrahydrofuran	(1)	6.258	71	580	0.675

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
54) Chloroform	(2)	6.386	83	5054	0.466
56)$Dibromofluoromethane	(2)	6.620	113	2534M	0.412
57) 1,1,1-Trichloroethane	(2)	6.633	97	3740	0.421
58) Cyclohexane	(2)	6.749	56	3341	0.429
61) Carbon Tetrachloride	(2)	6.835	117	2221	0.342
60) 1,1-Dichloropropene	(2)	6.845	75	3141M	0.393
62) Isobutyl Alcohol	(1)	6.989	41	6125M	27.793
64) Benzene	(2)	7.108	78	10973	0.442
67) 1,2-Dichloroethane	(2)	7.201	62	3509	0.408
68) t-Amyl methyl ether	(2)	7.291	73	9414	0.477
70)*Fluorobenzene	(2)	7.512	96	1130492	50.000
72) n-Heptane	(2)	7.532	43	2772M	0.581
73) n-Butanol	(1)	7.910	56	6528M	39.491
75) Trichloroethene	(2)	8.007	95	2484	0.403
76) Methylcyclohexane	(2)	8.299	83	2279	0.384
77) 1,2-Dichloropropane	(2)	8.340	63	3124	0.461
79) Methyl Methacrylate	(2)	8.424	69	1908	0.381
80) 1,4-Dioxane	(1)	8.433	88	750	12.721
81) Dibromomethane	(2)	8.453	93	1946	0.474
84) Bromodichloromethane	(2)	8.687	83	2768	0.394
85) 2-Nitropropane	(1)	8.950	41	984M	0.891
87) 2-Chloroethyl Vinyl Ether	(2)	9.069	63	1209	0.275
89) cis-1,3-Dichloropropene	(2)	9.242	75	3650	0.368
90) 4-Methyl-2-pentanone	(2)	9.419	43	6785	0.996
91)$Toluene-d8	(3)	9.556	98	8842	0.401
92) Toluene	(3)	9.637	92	6078	0.433
93) trans-1,3-Dichloropropene	(3)	9.919	75	3205	0.370
95) Ethyl Methacrylate	(3)	9.970	69	3478M	0.389
94) 1,3-Dichloropropene (total)	(3)		100	6855	0.739
96) 1,1,2-Trichloroethane	(3)	10.112	97	2585	0.466
98) Tetrachloroethene	(3)	10.195	166	2159	0.386
99) 1,3-Dichloropropane	(3)	10.275	76	4694	0.495
101) 2-Hexanone	(3)	10.343	43	2969	0.683
103) Dibromochloromethane	(3)	10.493	129	1638	0.333
104) 1,2-Dibromoethane	(3)	10.619	107	2465	0.424
105)*Chlorobenzene-d5	(3)	11.036	117	807286	50.000
106) 1-Chlorohexane	(3)	11.045	91	3830	0.672
107) Chlorobenzene	(3)	11.065	112	7081	0.447

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on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
108) 1,1,1,2-Tetrachloroethane	(3)	11.151	131	2005	0.384
109) Ethylbenzene	(3)	11.151	91	10377	0.431
110) m+p-Xylene	(3)	11.267	106	7542	0.802
111) o-Xylene	(3)	11.604	106	4173	0.445
113) Styrene	(3)	11.626	104	6179	0.371
112) Xylene (Total)	(3)		106	11715	1.247
114) Bromoform	(3)	11.787	173	928	2.870
115) Isopropylbenzene	(3)	11.902	105	8116	0.406
118) Cyclohexanone	(1)	11.976	55	4950	22.942
119)$4-Bromofluorobenzene	(3)	12.056	95	2783	0.397
120) 1,1,2,2-Tetrachloroethane	(4)	12.149	83	3387	0.479
121) Bromobenzene	(4)	12.175	156	2753	0.413
122) trans-1,4-Dichloro-2-butene	(4)	12.181	53	9162	4.341
123) 1,2,3-Trichloropropane	(4)	12.197	110	1020	0.471
124) n-Propylbenzene	(4)	12.226	91	8235	0.399
126) 2-Chlorotoluene	(4)	12.306	126	2238	0.461
129) 1,3,5-Trimethylbenzene	(4)	12.371	105	7011	0.450
130) 4-Chlorotoluene	(4)	12.406	126	2198	0.424
133) tert-Butylbenzene	(4)	12.608	134	1550	0.483
134) Pentachloroethane	(4)	12.643	167	1056	2.080
135) 1,2,4-Trimethylbenzene	(4)	12.653	105	8236	0.493
136) sec-Butylbenzene	(4)	12.772	105	8720	0.508
138) 1,3-Dichlorobenzene	(4)	12.881	146	4705	0.478
139) p-Isopropyltoluene	(4)	12.884	119	7132M	0.456
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	328417	50.000
141) 1,4-Dichlorobenzene	(4)	12.951	146	5991	0.541
142) 1,2,3-Trimethylbenzene	(4)	12.955	105	9205	0.487
143) Benzyl Chloride	(4)	13.028	126	855M	0.311
144) 1,3-Diethylbenzene	(4)	13.086	119	4412	0.465
145) 1,4-Diethylbenzene	(4)	13.157	119	4569	0.460
146) n-Butylbenzene	(4)	13.176	92	3401	0.472
147) 1,2-Dichlorobenzene	(4)	13.215	146	5137	0.503
148) 1,2-Diethylbenzene	(4)	13.224	119	4391	0.517
151) 1,2-Dibromo-3-chloropropane	(4)	13.754	75	383	0.349
152) 1,3,5-Trichlorobenzene	(4)	13.879	180	3831	0.599
153) 1,2,4-Trichlorobenzene	(4)	14.309	180	3944	0.640
154) Hexachlorobutadiene	(4)	14.379	225	1965	0.723
155) Naphthalene	(4)	14.495	128	10794	0.590

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

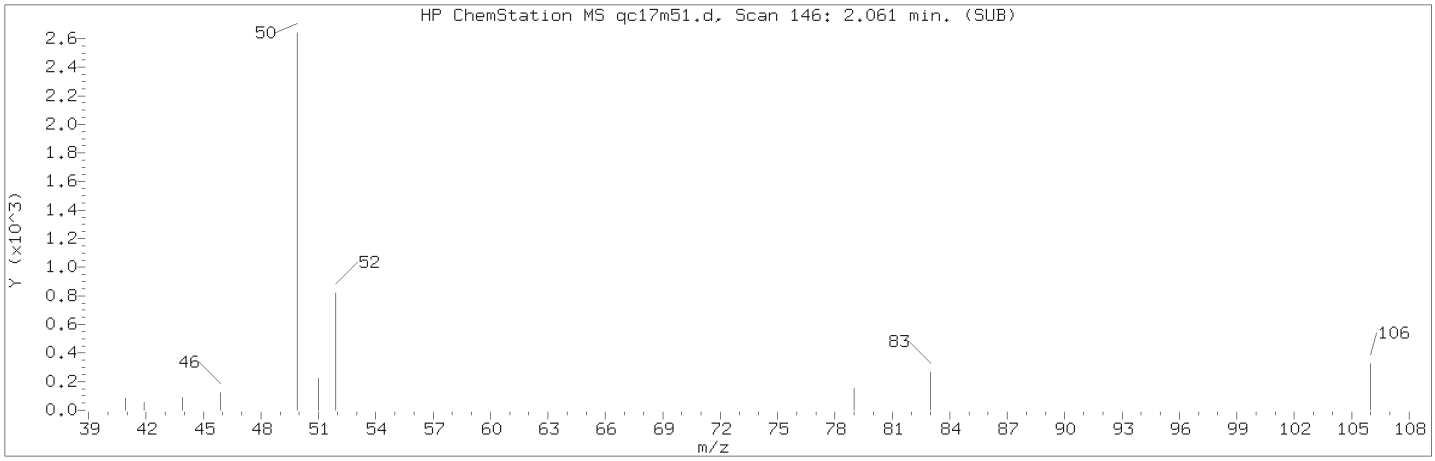
Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
156) 1,2,3-Trichlorobenzene	(4)	14.626	180	3924	0.666
157) 2-Methylnaphthalene	(4)	15.255	142	5431M	0.606

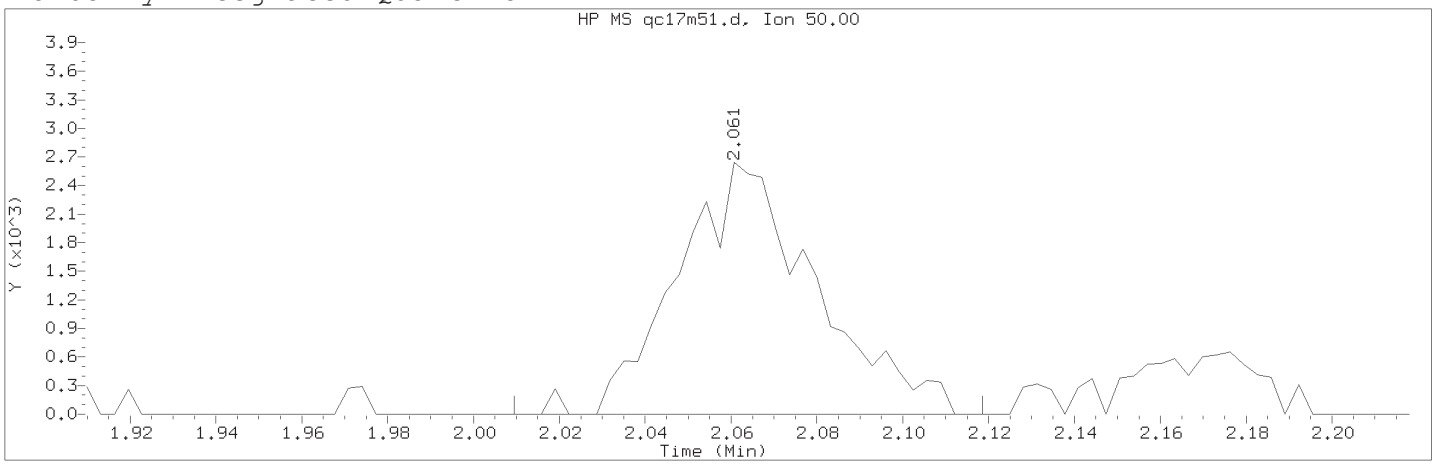
M = Compound was manually integrated.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

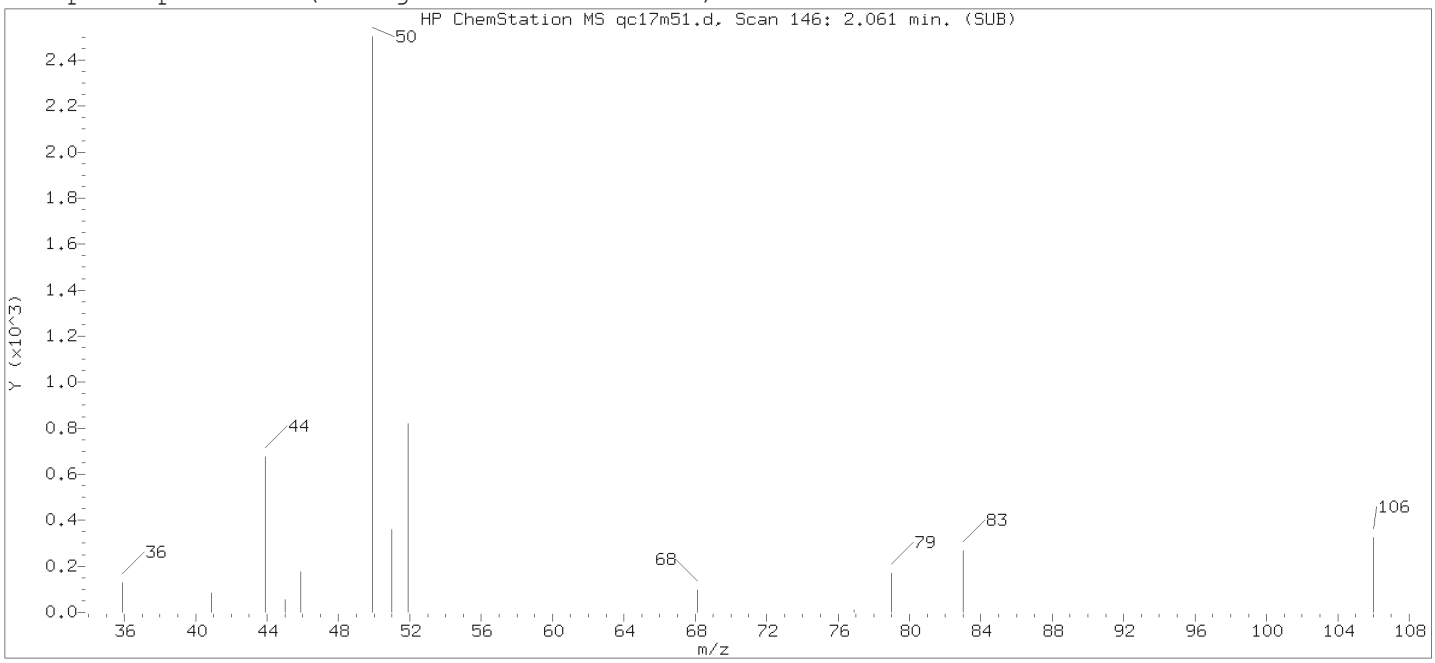
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 146
Retention Time (minutes): 2.061
Quant Ion : 50.00
Area (flag) : 5888M
On-Column Amount (ng) : 0.5021
Integration start scan : 129 Integration stop scan: 163
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

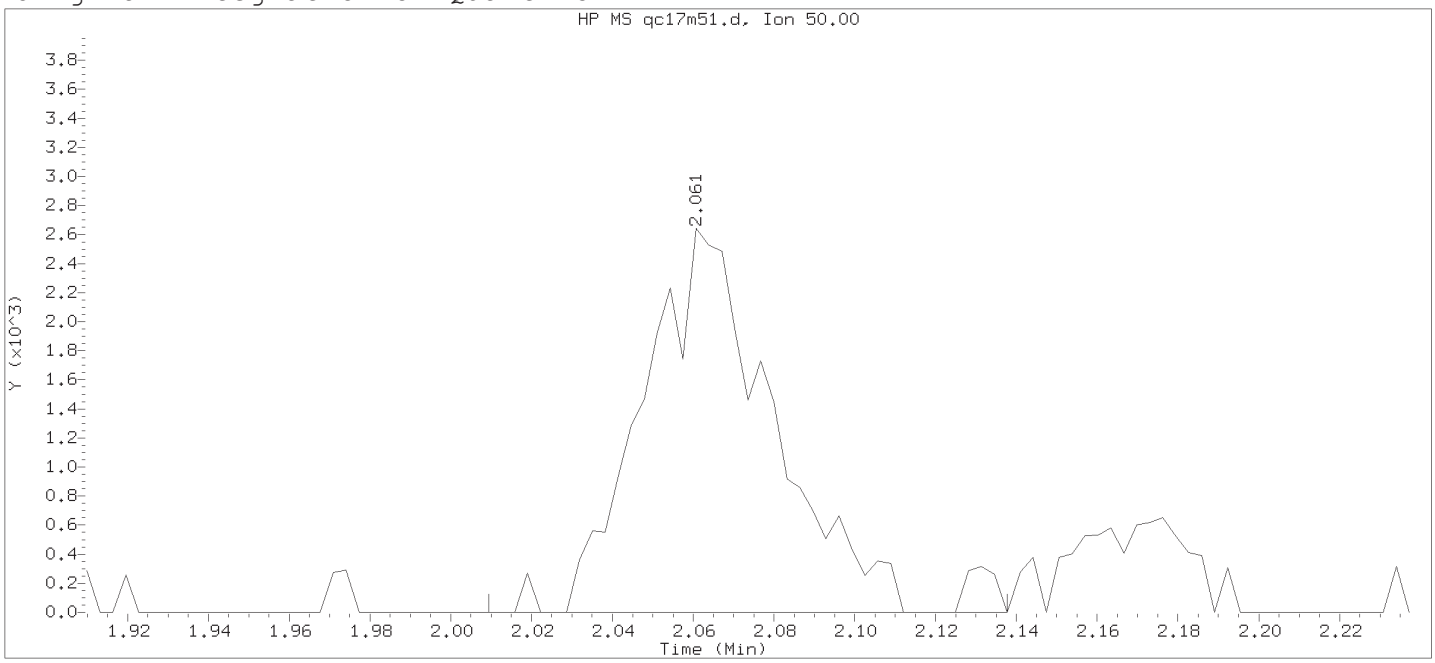
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

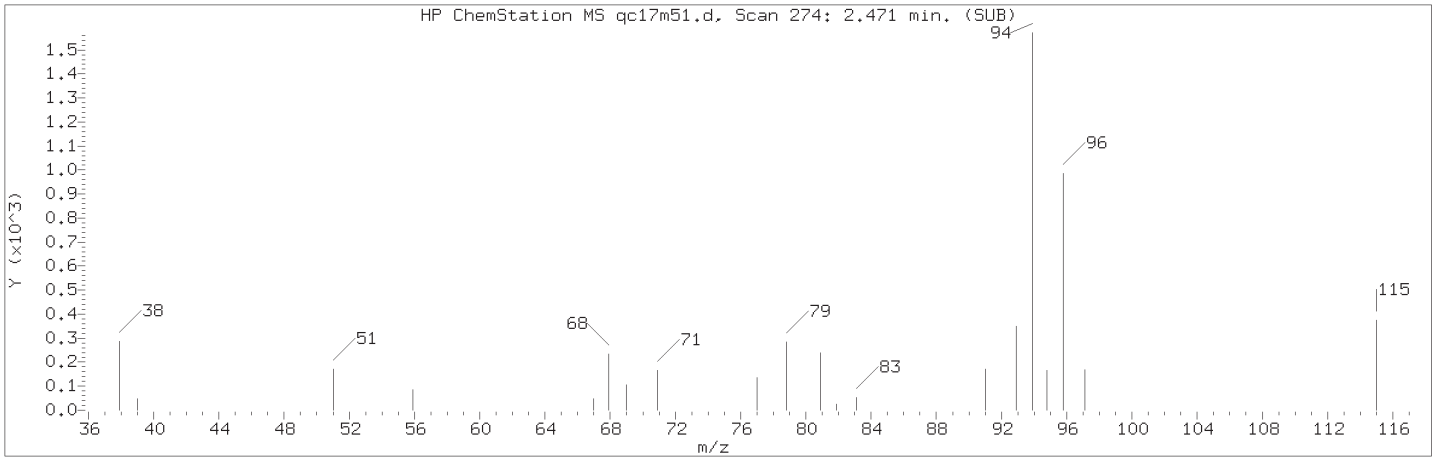
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

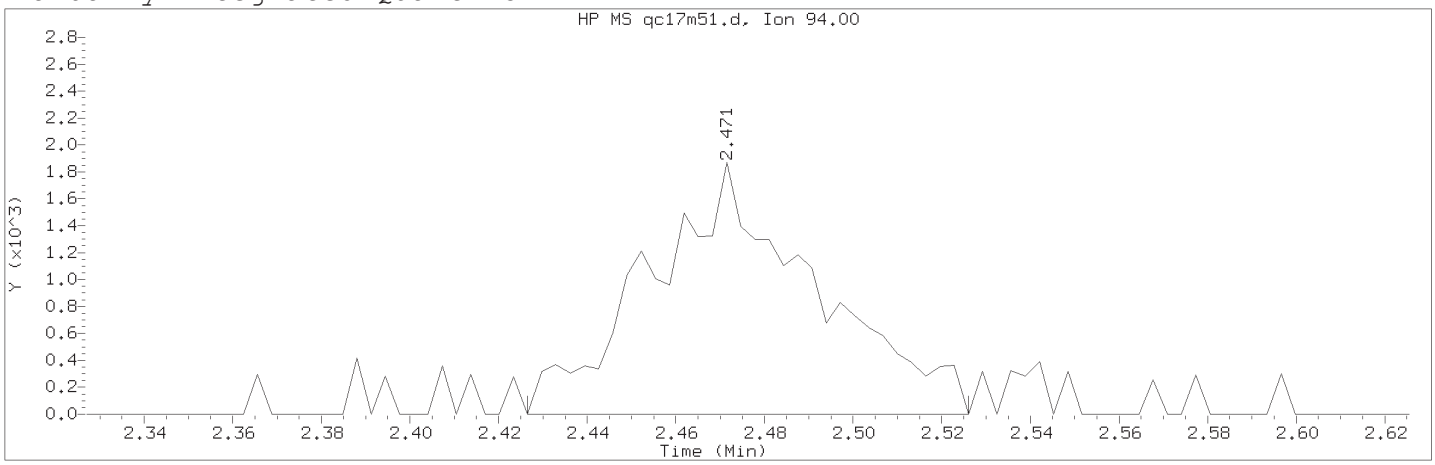
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 146
Retention Time (minutes): 2.061
Quant Ion : 50.00
Area : 6055
On-column Amount (ng) : 0.5164
Integration start scan : 129 Integration stop scan: 169
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

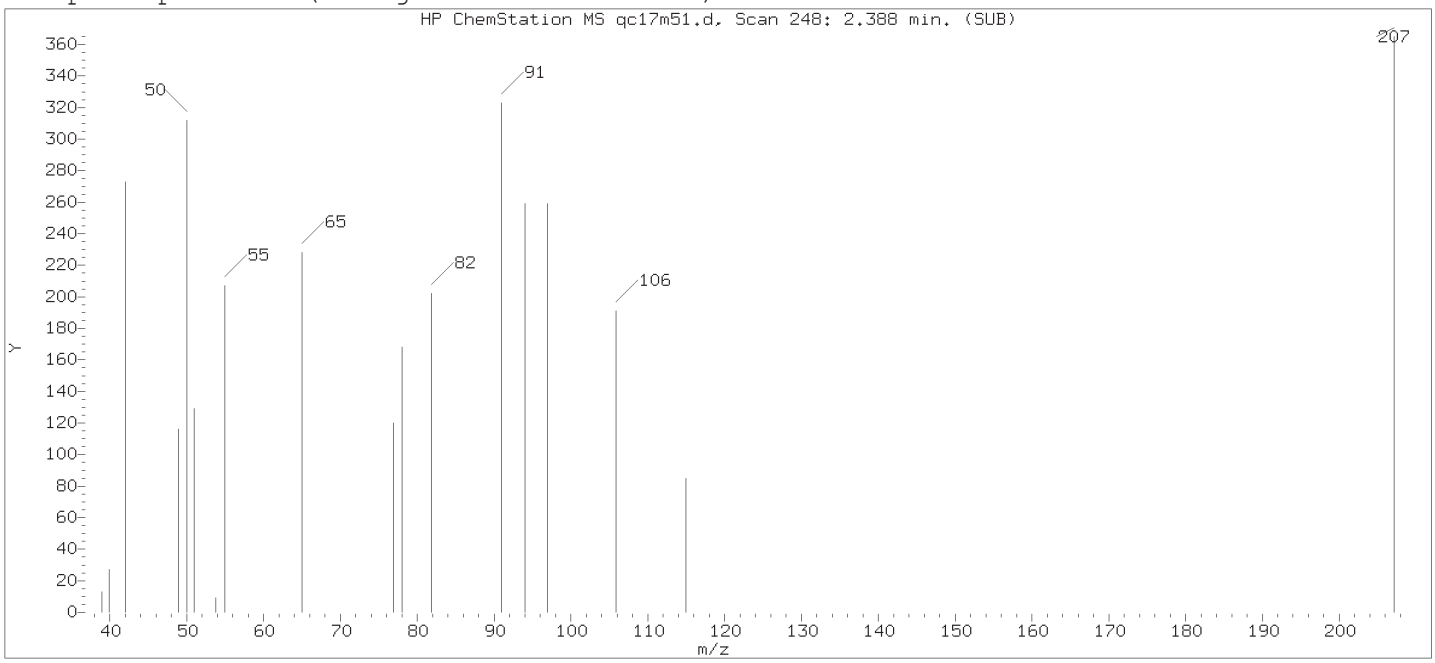
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 274
Retention Time (minutes): 2.471
Quant Ion : 94.00
Area (flag) : 4845M
On-Column Amount (ng) : 1.1567
Integration start scan : 259 Integration stop scan: 290
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

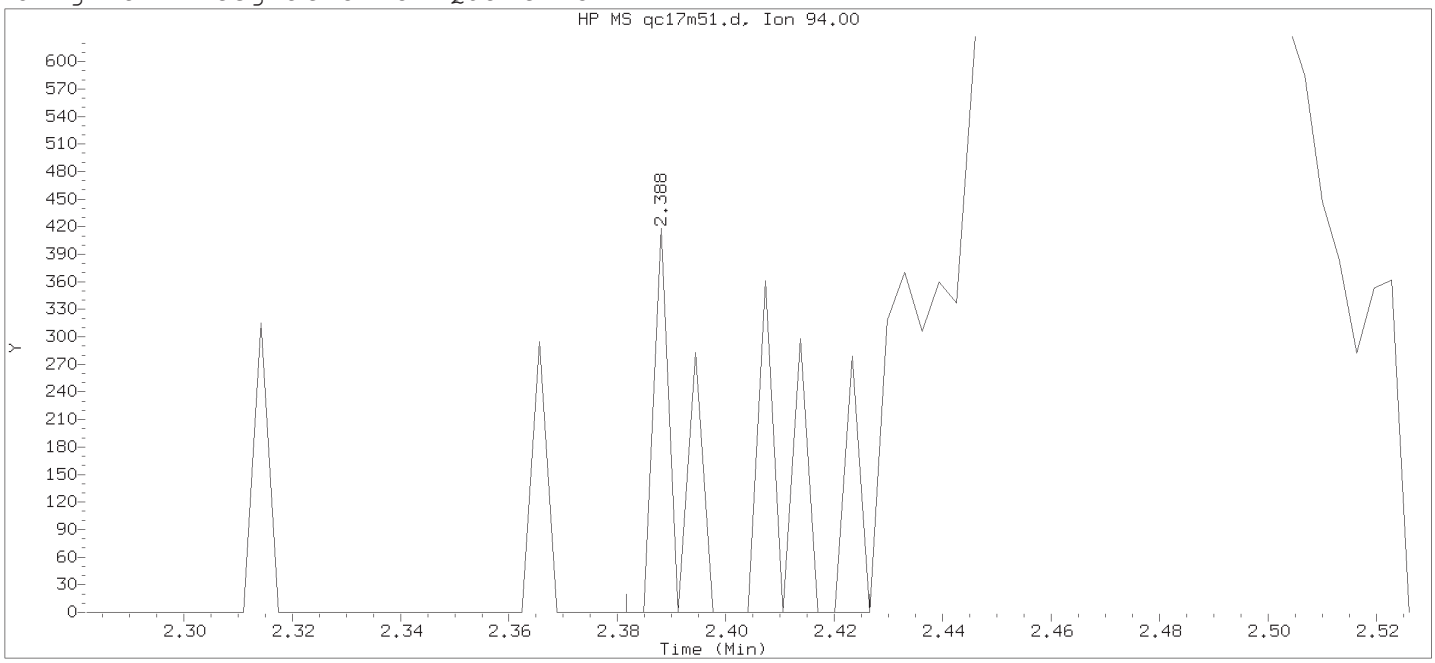
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

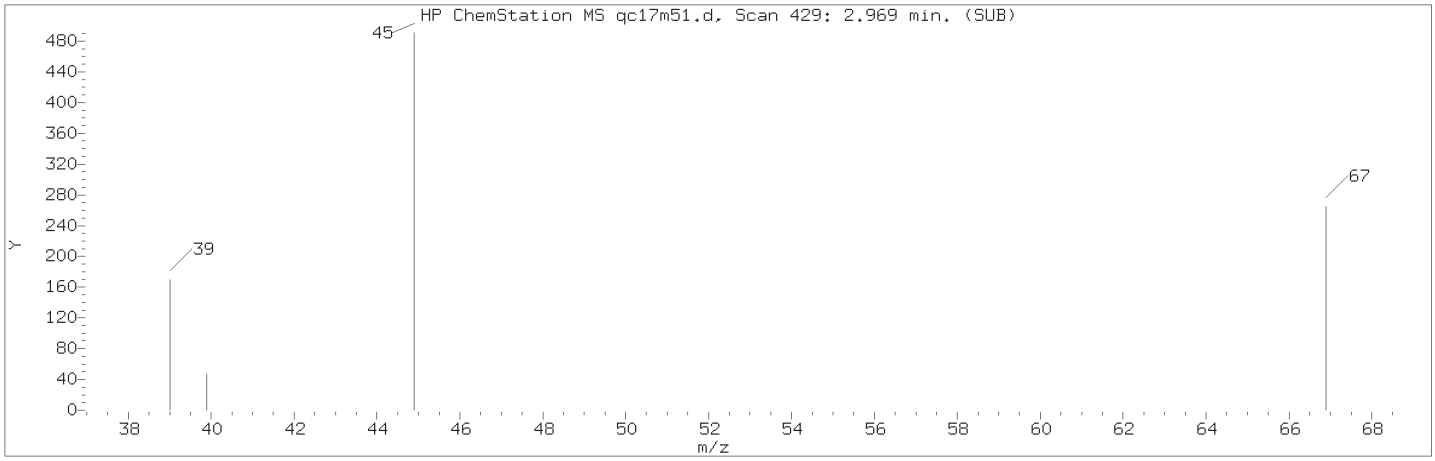
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

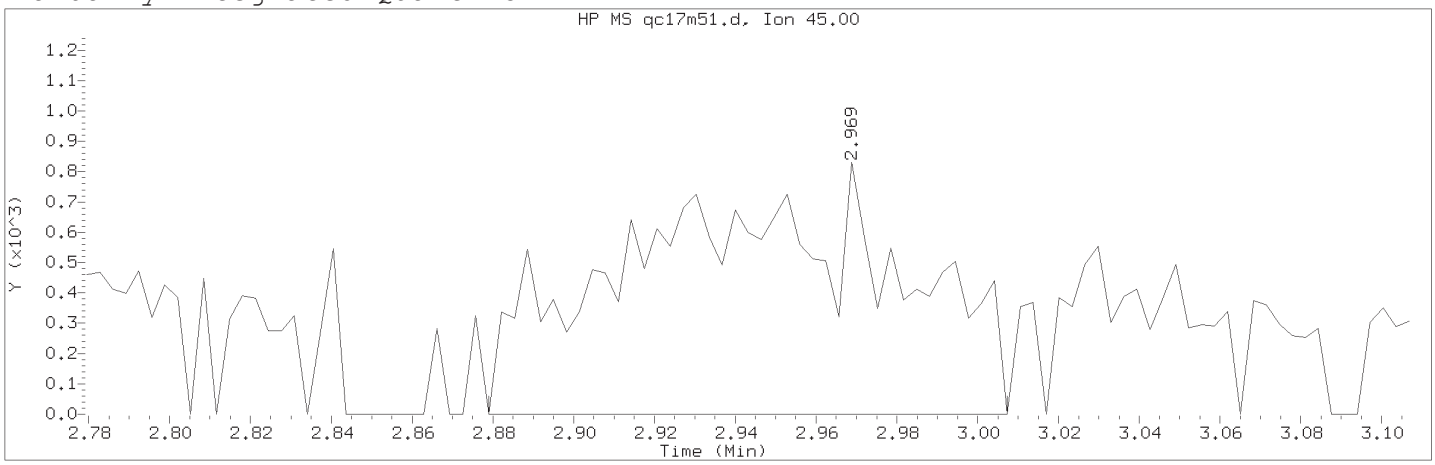
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 248
Retention Time (minutes): 2.388
Quant Ion : 94.00
Area : 315
On-column Amount (ng) : 0.0740
Integration start scan : 245 Integration stop scan: 259
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN0182

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

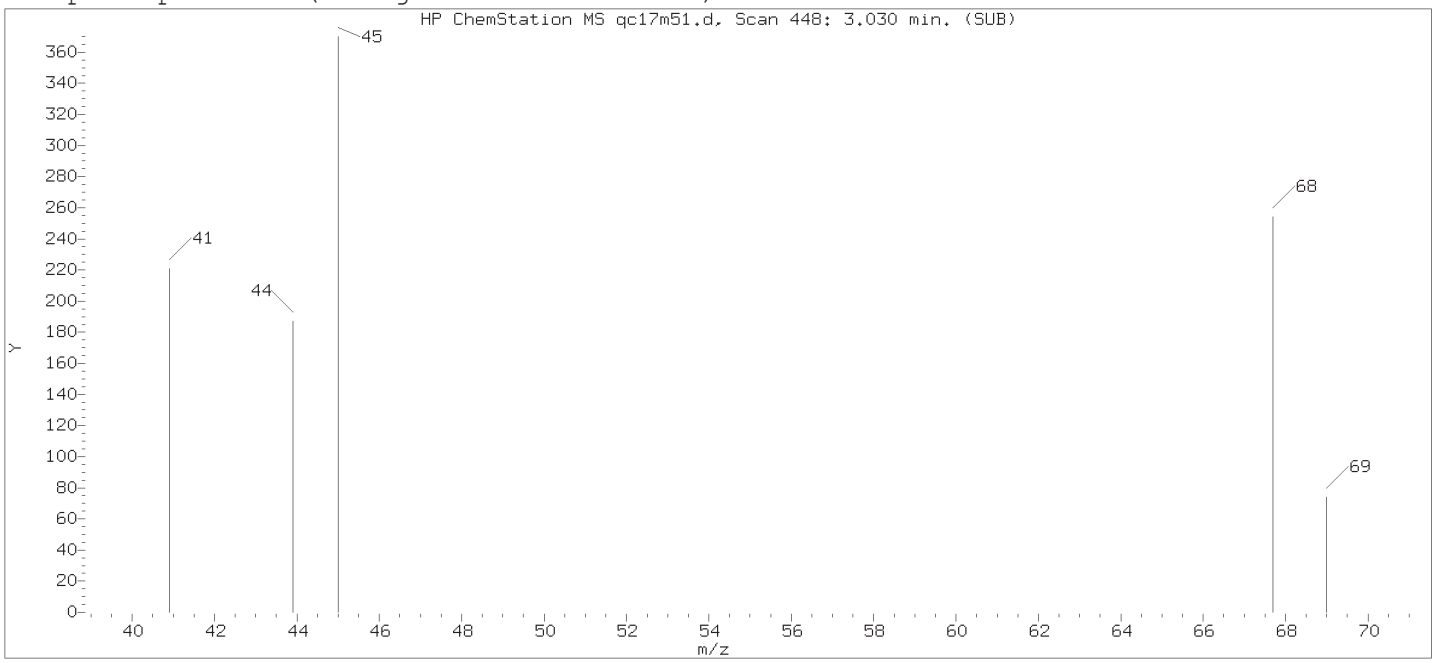
Compound Number : 15
Compound Name : Ethanol
Scan Number : 429
Retention Time (minutes): 2.969
Quant Ion : 45.00
Area (flag) : 3707M
On-Column Amount (ng) : 49.1212
Integration start scan : 400 Integration stop scan: 440
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

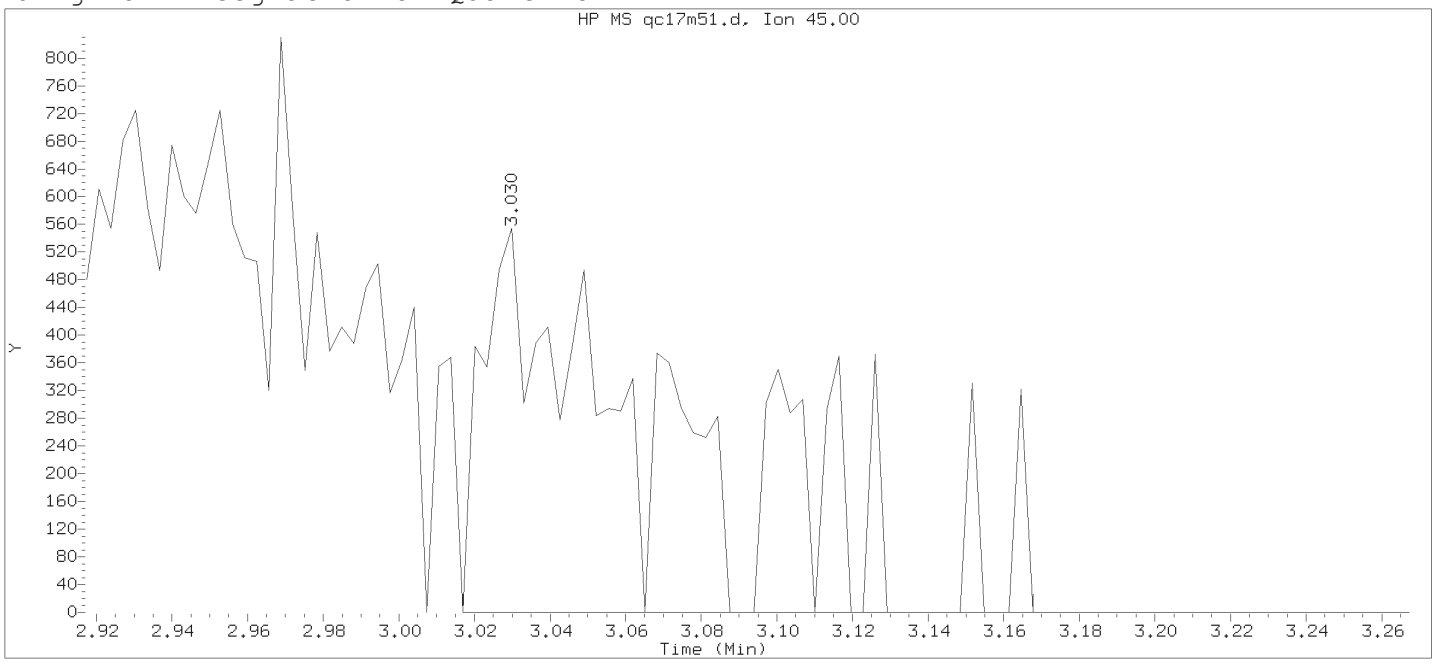
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

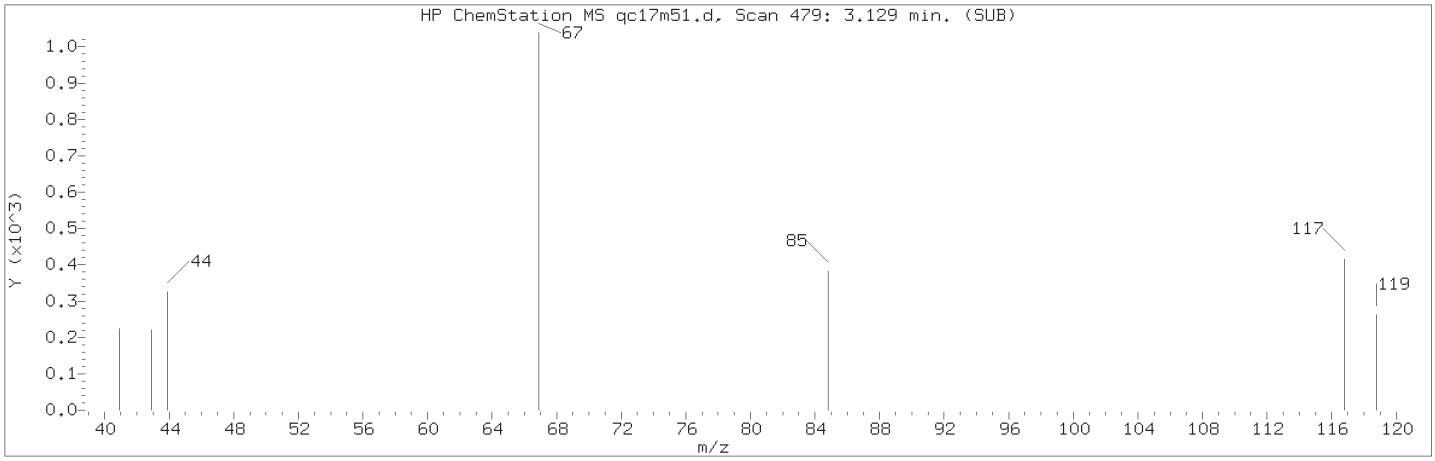
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

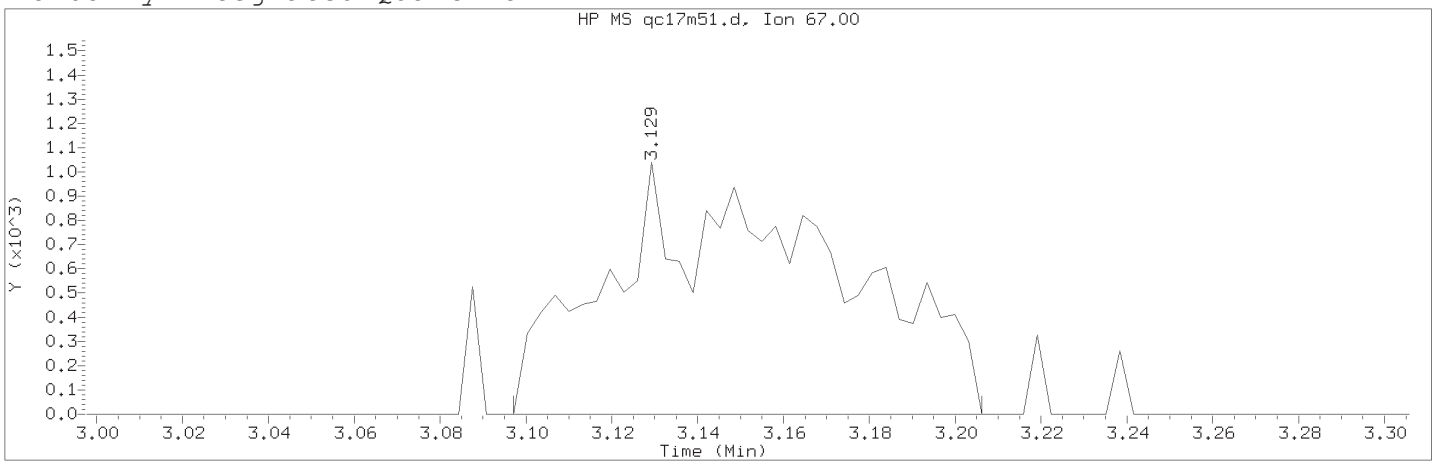
Compound Number : 15
Compound Name : Ethanol
Scan Number : 448
Retention Time (minutes): 3.030
Quant Ion : 45.00
Area : 1927
On-column Amount (ng) : 25.5347
Integration start scan : 443 Integration stop scan: 490
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

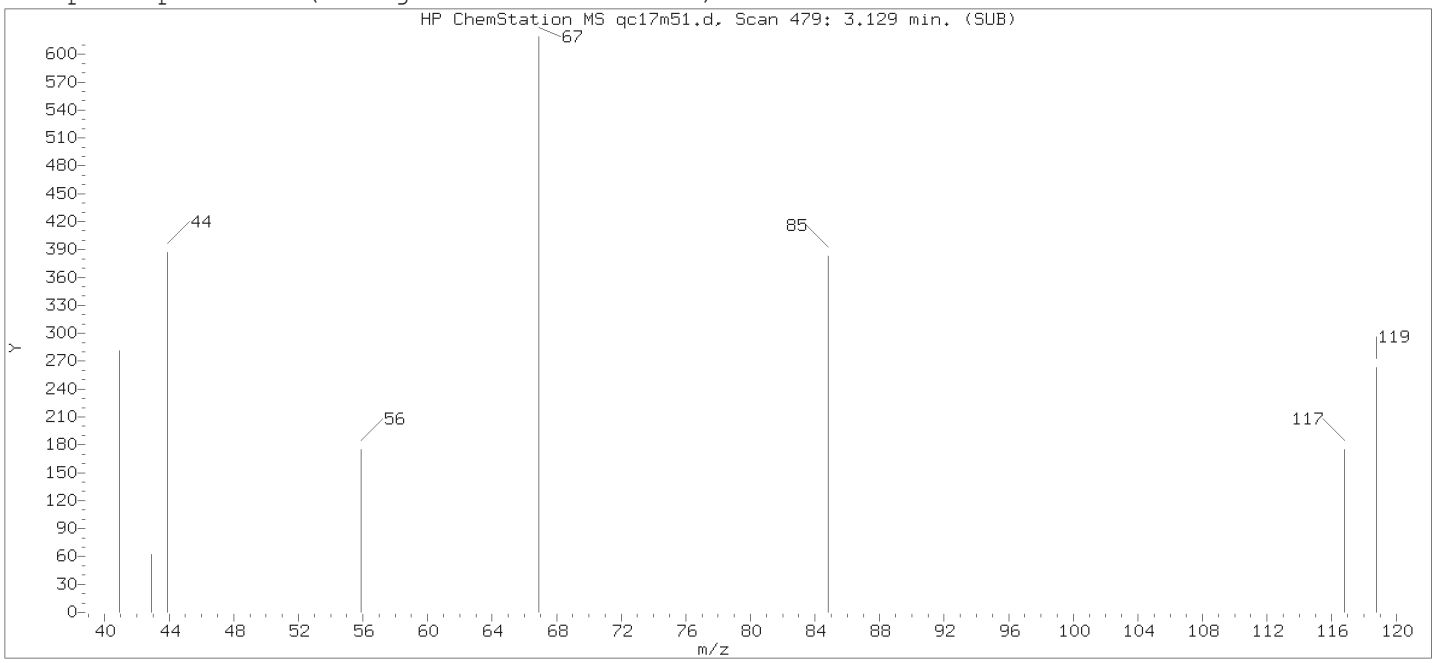
Compound Number : 17
Compound Name : Freon 123a
Scan Number : 479
Retention Time (minutes): 3.129
Quant Ion : 67.00
Area (flag) : 3715M
On-Column Amount (ng) : 0.4326
Integration start scan : 468 Integration stop scan: 502
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

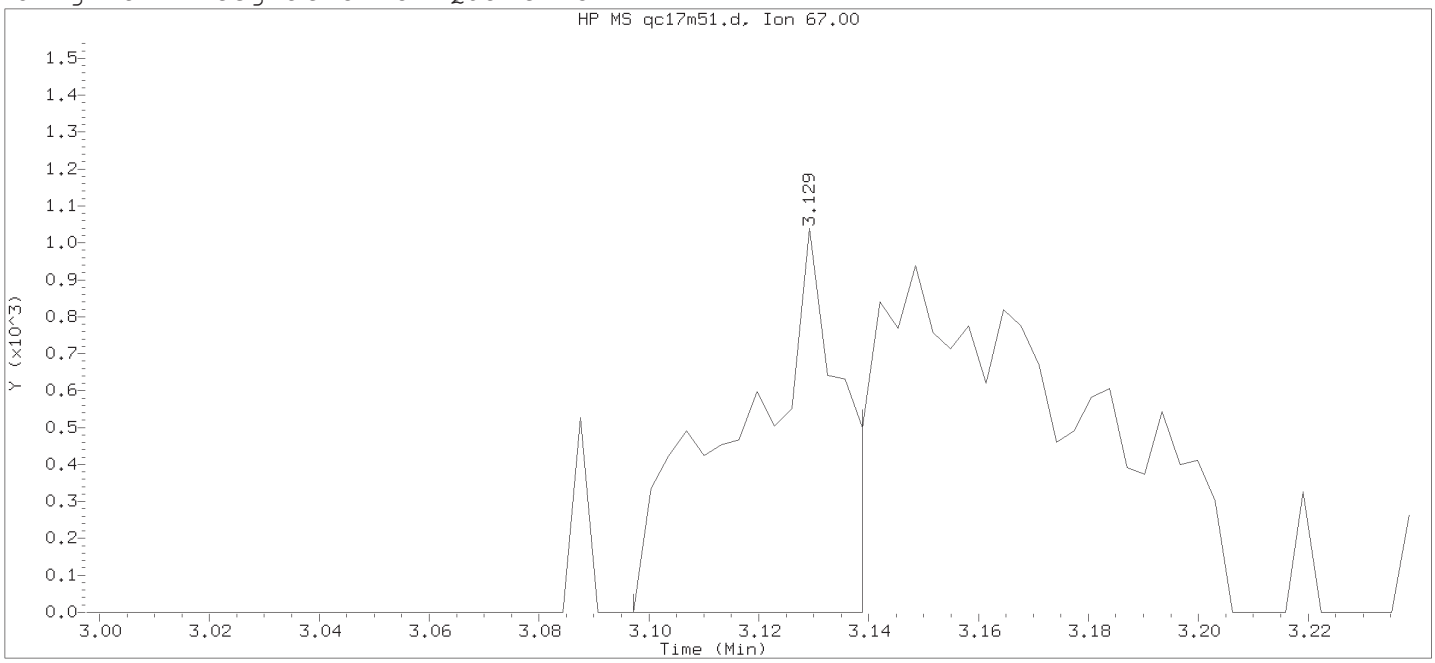
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

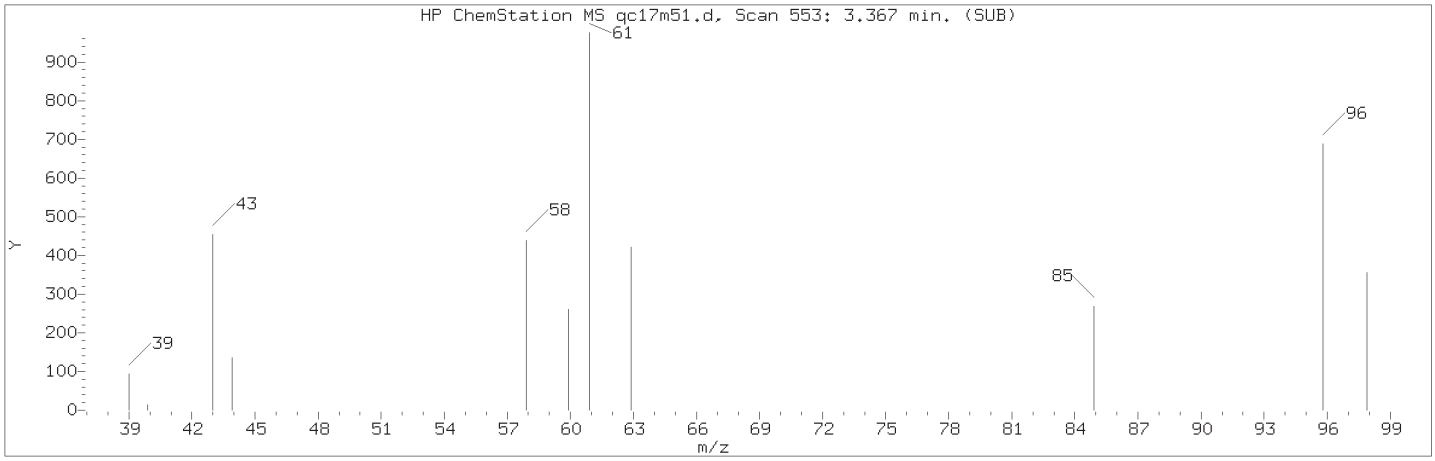
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

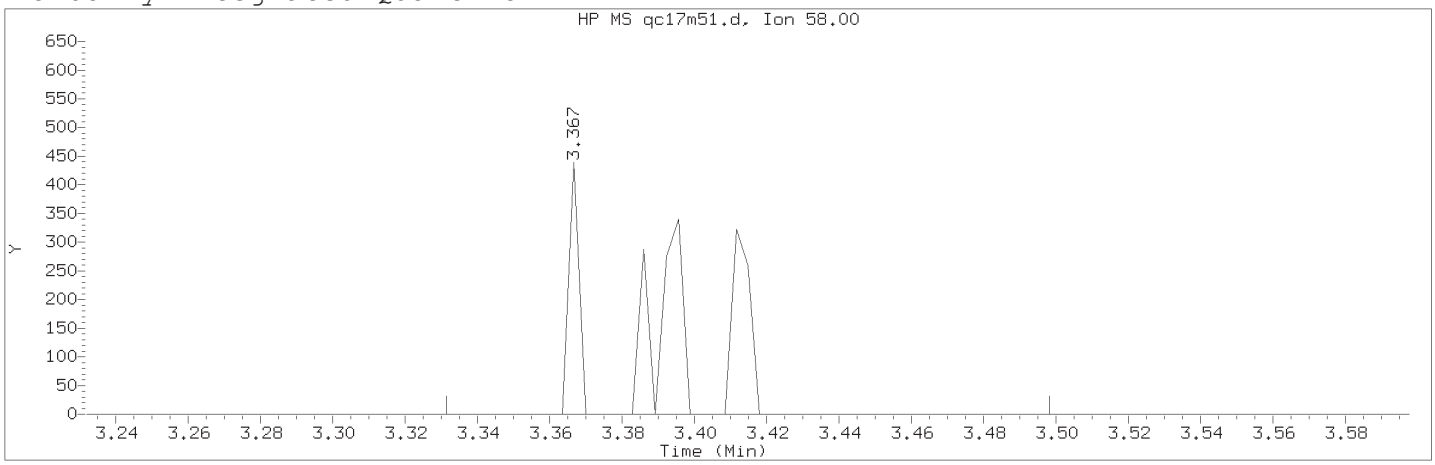
Compound Number : 17
Compound Name : Freon 123a
Scan Number : 479
Retention Time (minutes): 3.129
Quant Ion : 67.00
Area : 1310
On-column Amount (ng) : 0.1526
Integration start scan : 468 Integration stop scan: 481
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

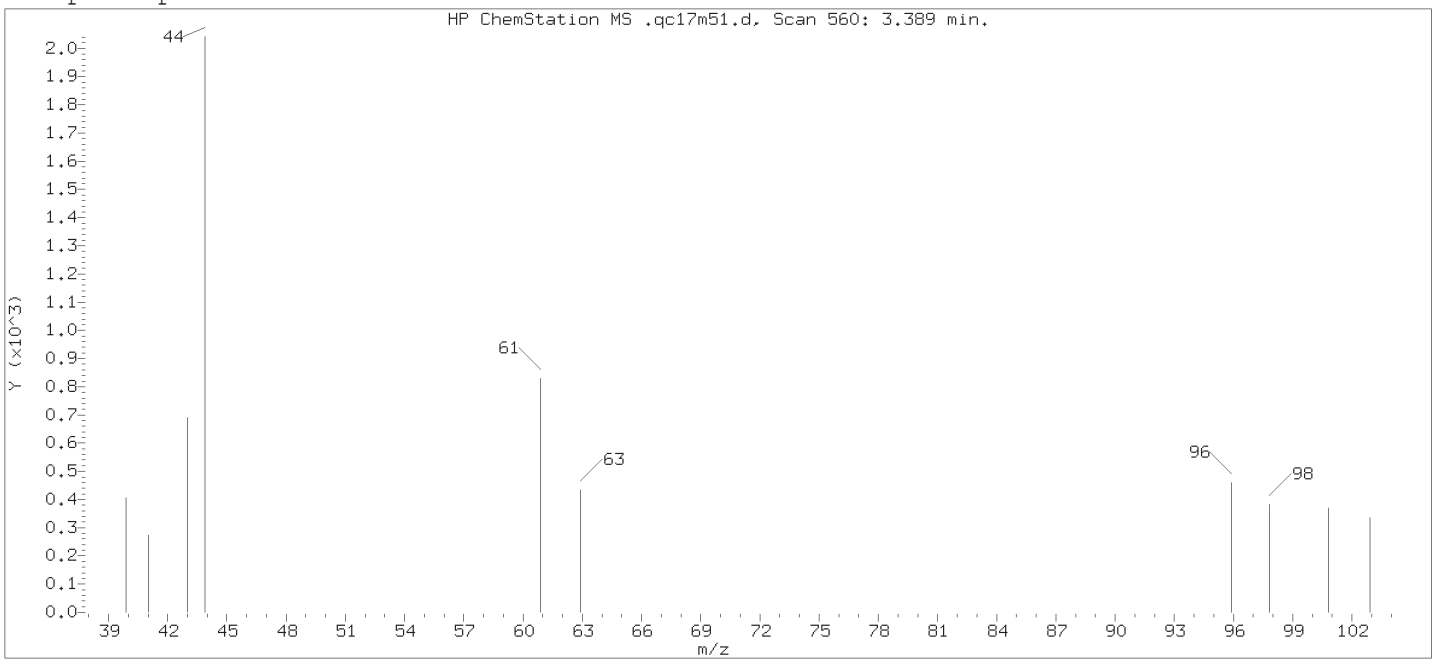
Compound Number : 20
Compound Name : Acetone
Scan Number : 553
Retention Time (minutes): 3.367
Quant Ion : 58.00
Area (flag) : 370M
On-Column Amount (ng) : 0.5784
Integration start scan : 541 Integration stop scan: 593
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

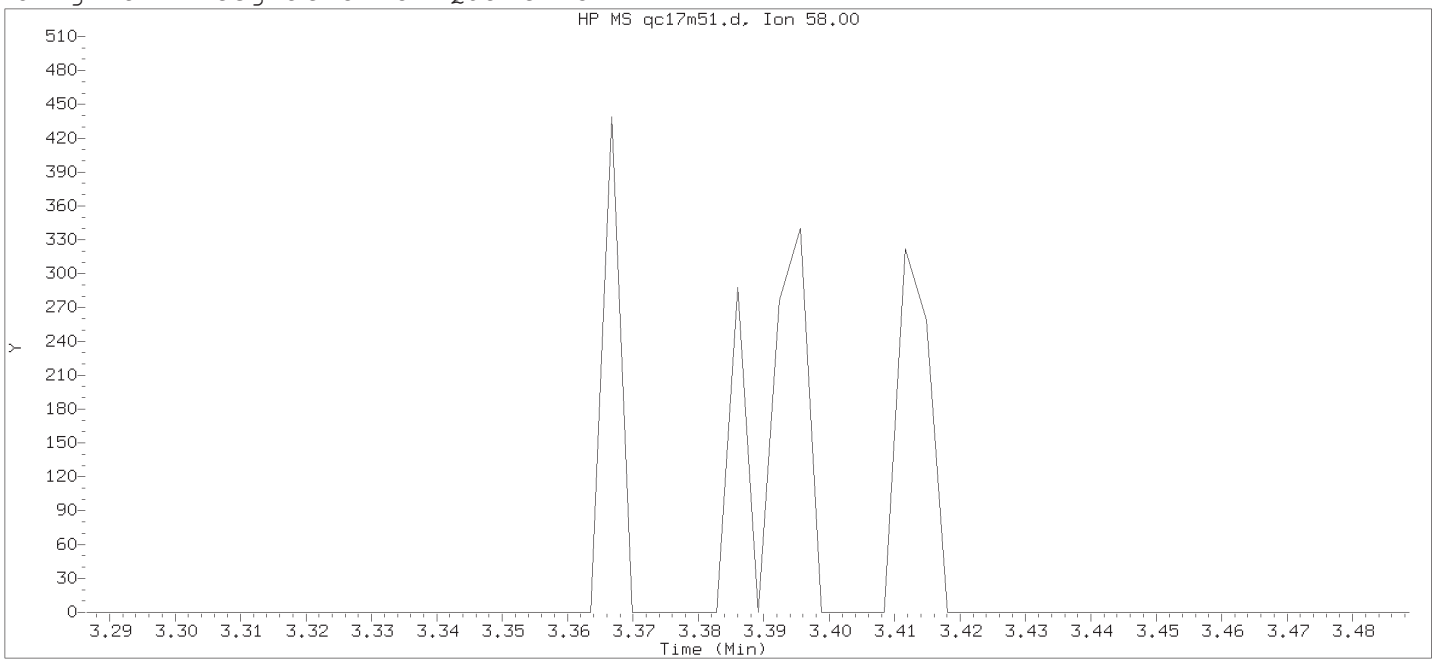
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

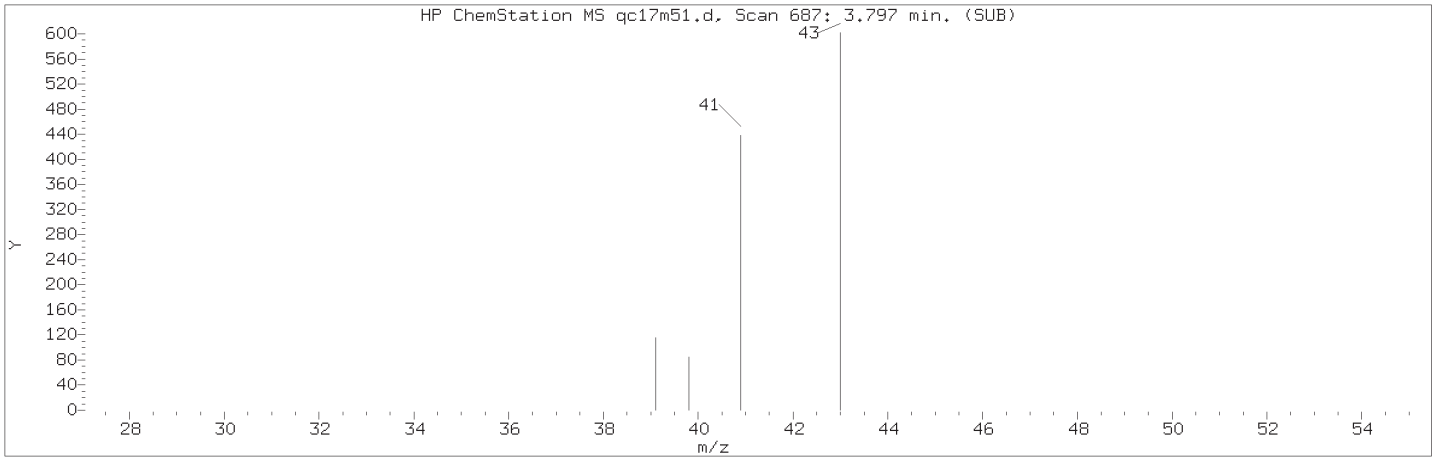
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

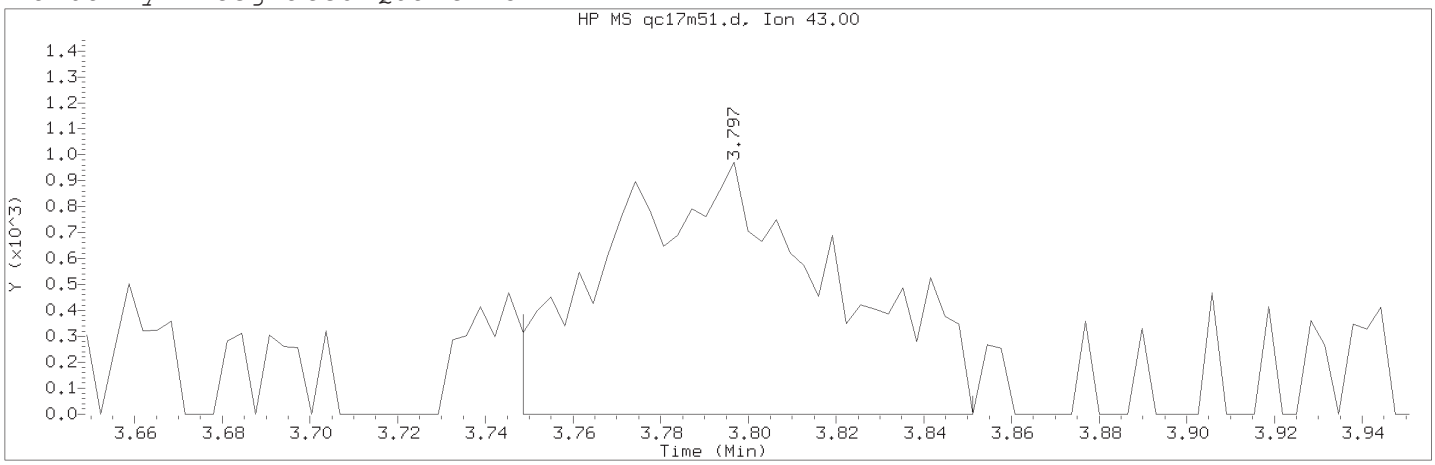
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

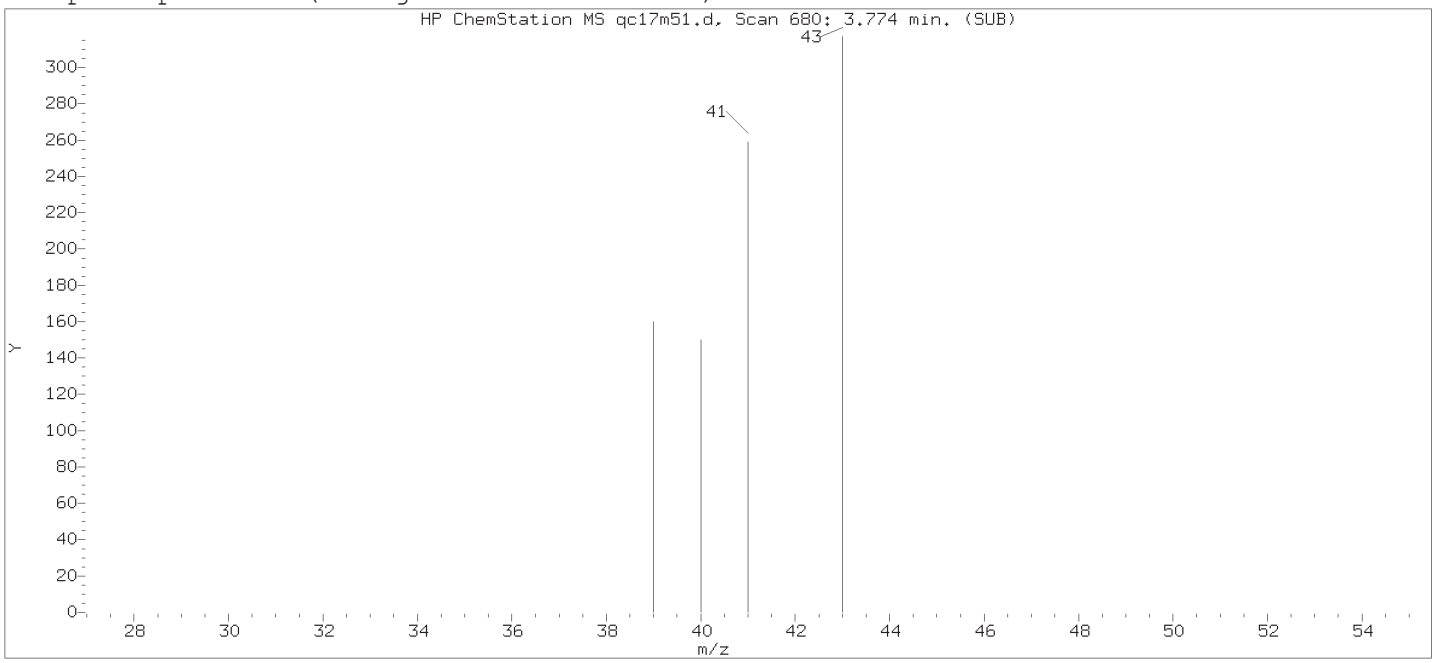
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 687
Retention Time (minutes): 3.797
Quant Ion : 43.00
Area (flag) : 3522M
On-Column Amount (ng) : 0.6406
Integration start scan : 671 Integration stop scan: 703
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

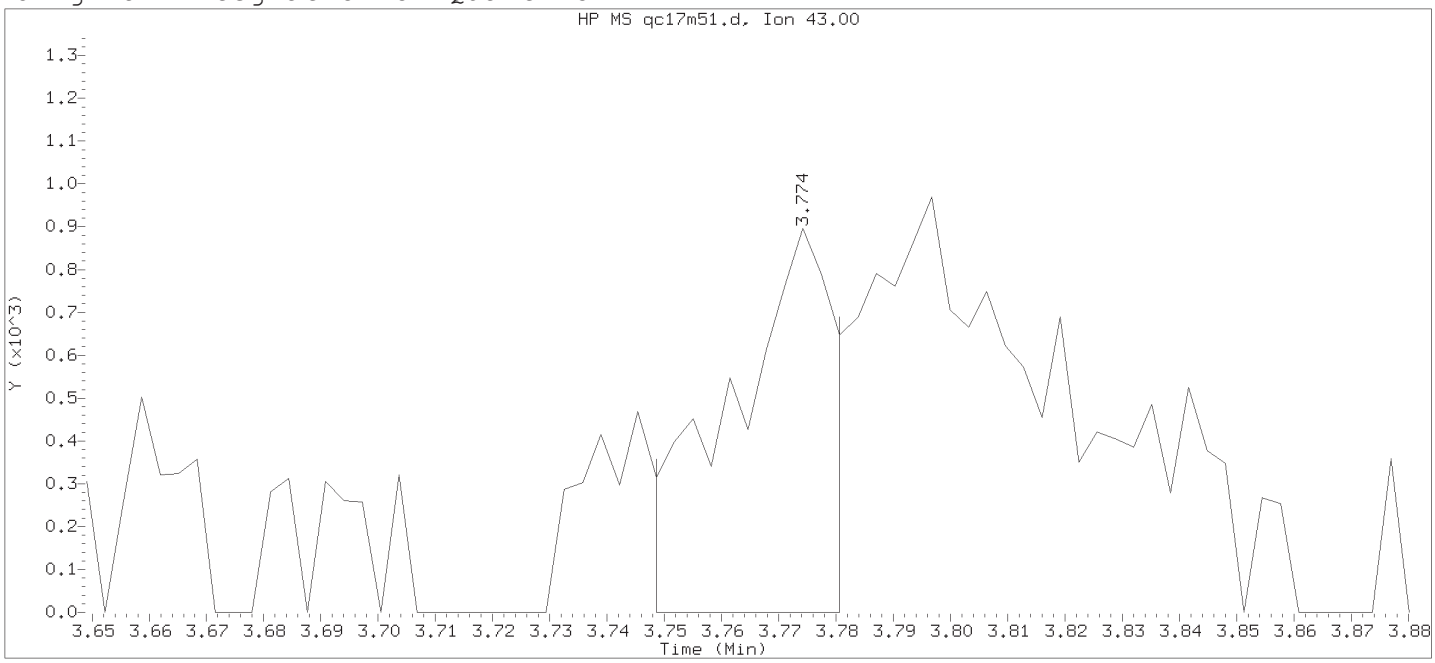
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

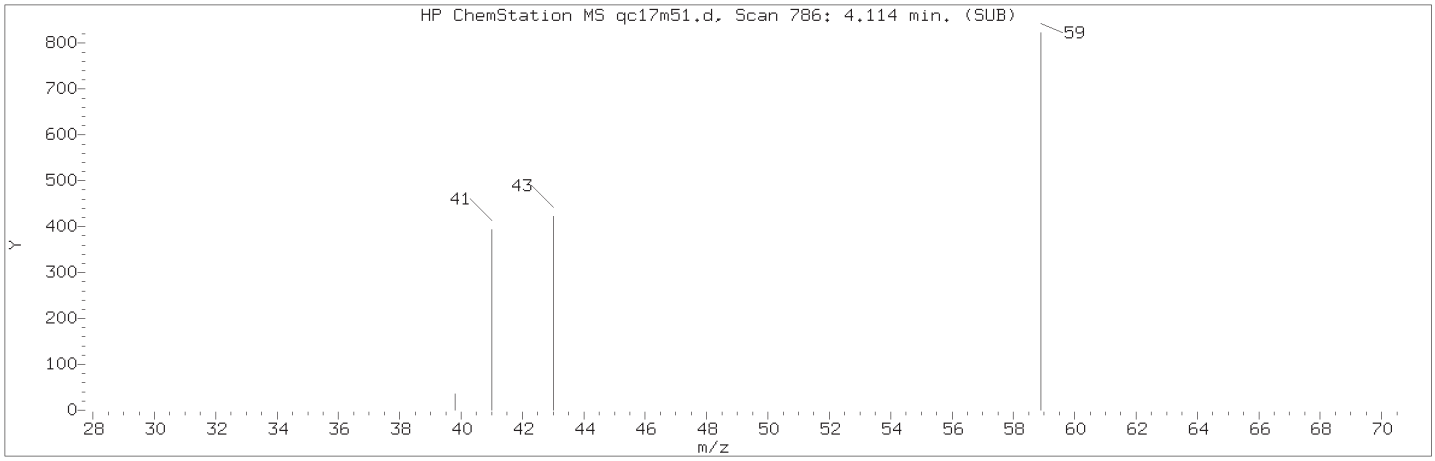
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

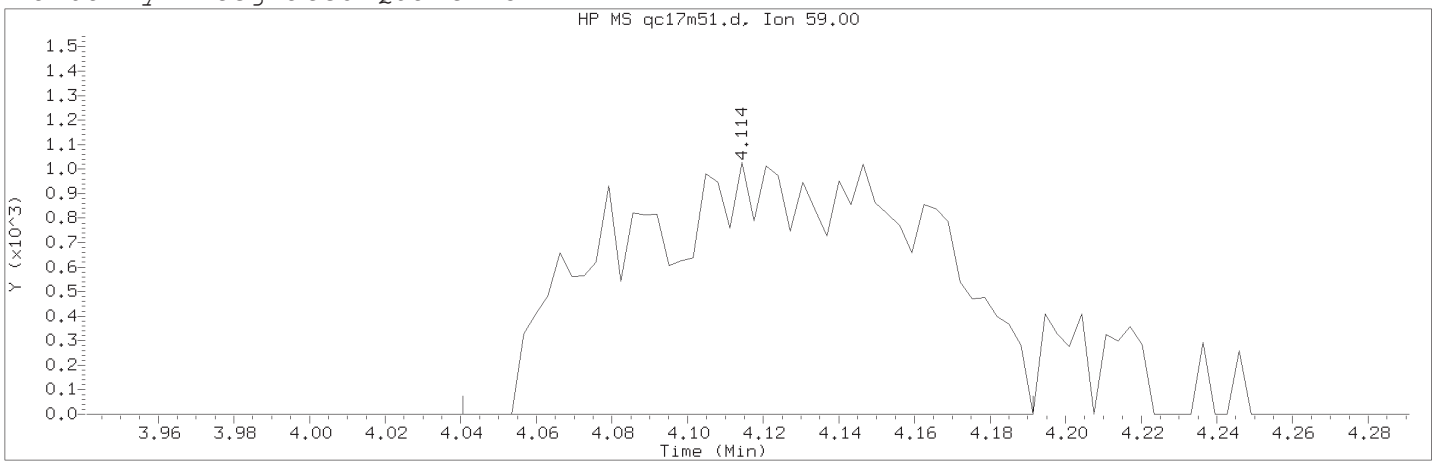
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 680
Retention Time (minutes): 3.774
Quant Ion : 43.00
Area : 1097
On-column Amount (ng) : 0.1996
Integration start scan : 671 Integration stop scan: 681
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

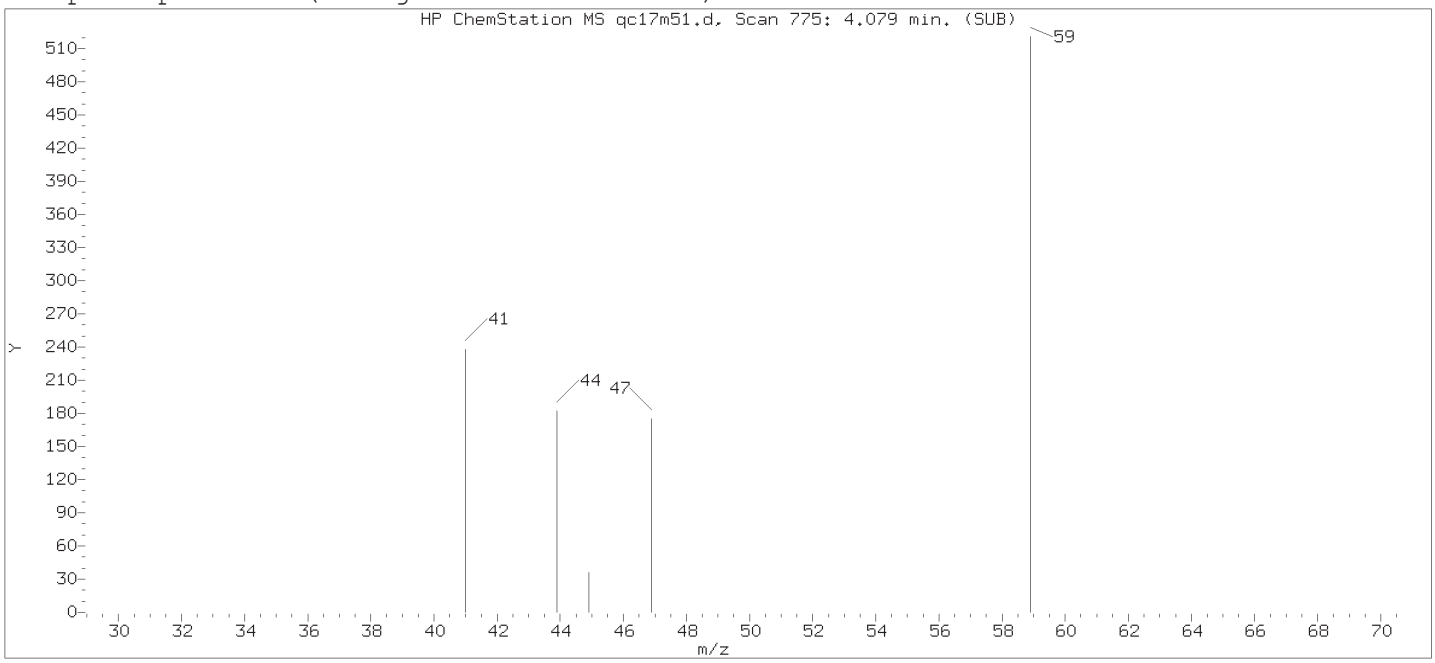
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 786
Retention Time (minutes): 4.114
Quant Ion : 59.00
Area (flag) : 5798M
On-Column Amount (ng) : 8.9137
Integration start scan : 762 Integration stop scan: 809
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

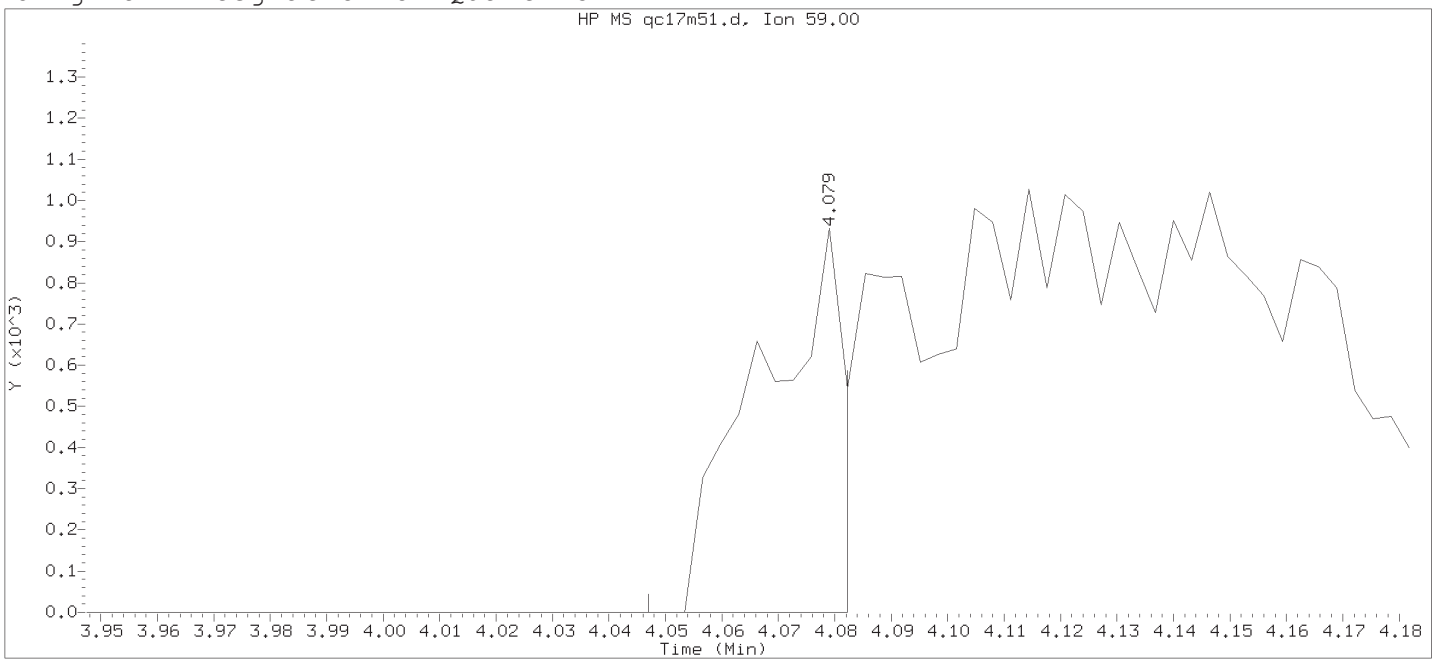
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

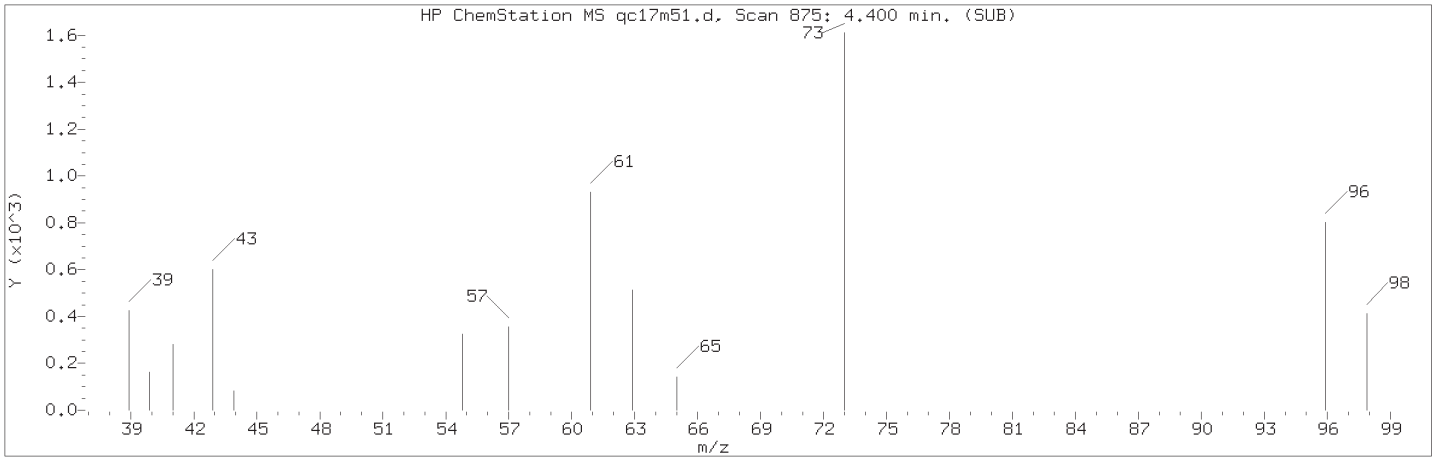
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

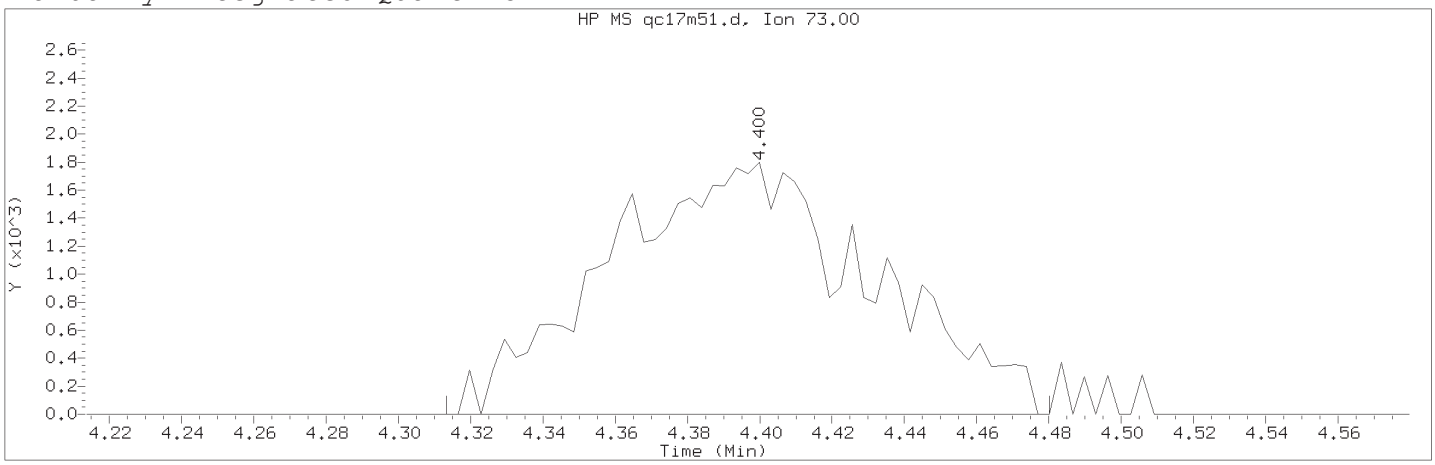
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 775
Retention Time (minutes): 4.079
Quant Ion : 59.00
Area : 929
On-column Amount (ng) : 1.4289
Integration start scan : 764 Integration stop scan: 775
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

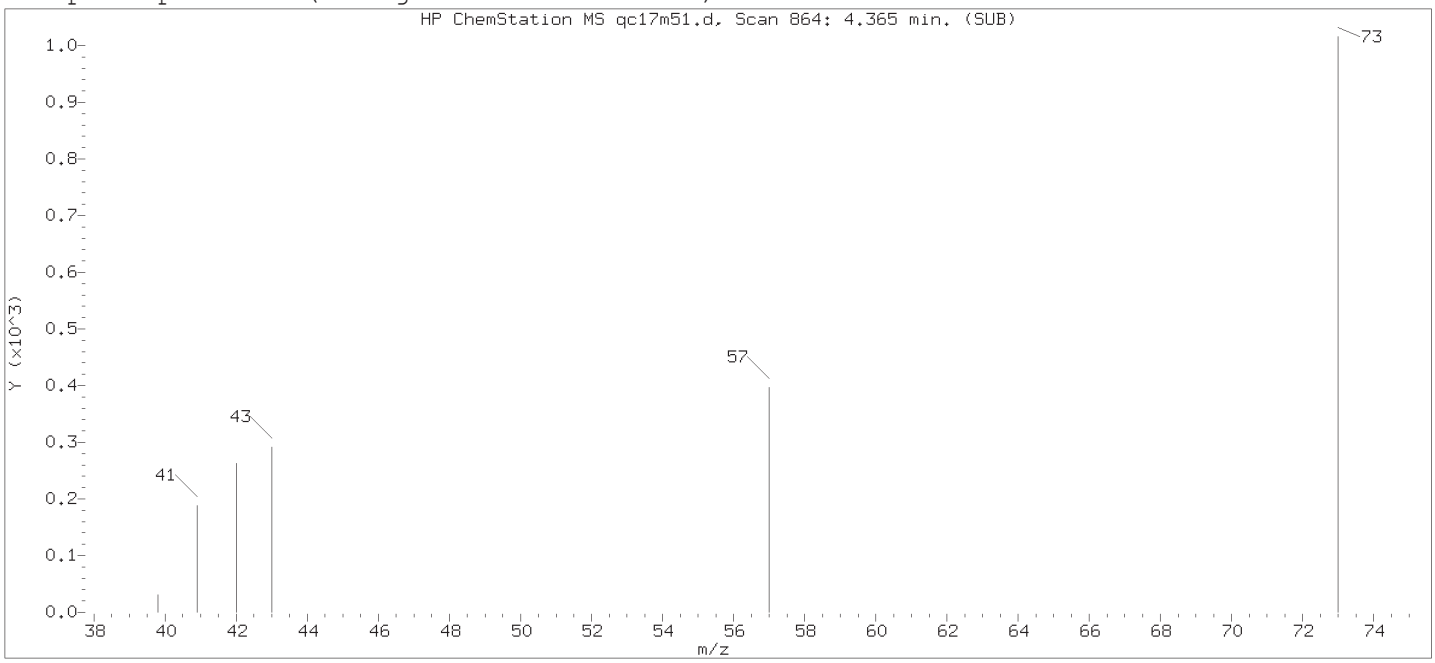
Compound Number : 34
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 875
Retention Time (minutes): 4.400
Quant Ion : 73.00
Area (flag) : 9164M
On-Column Amount (ng) : 0.4775
Integration start scan : 847 Integration stop scan: 899
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

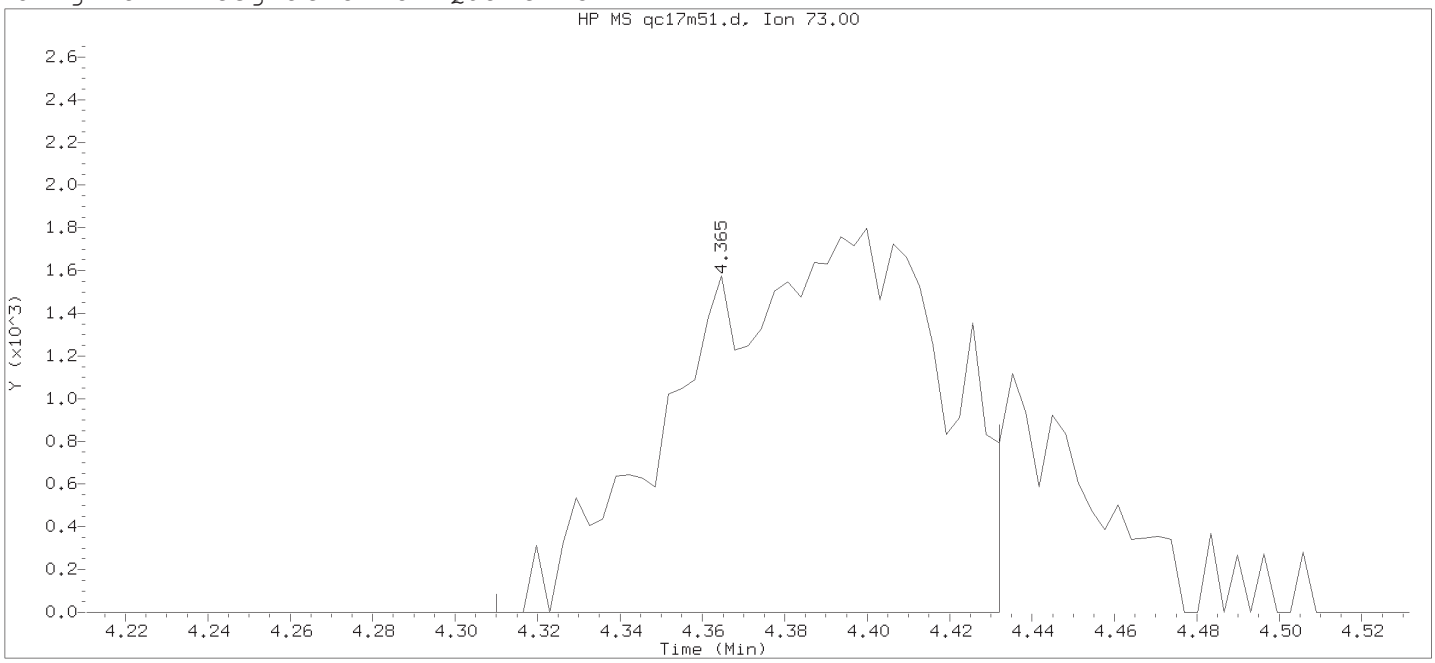
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

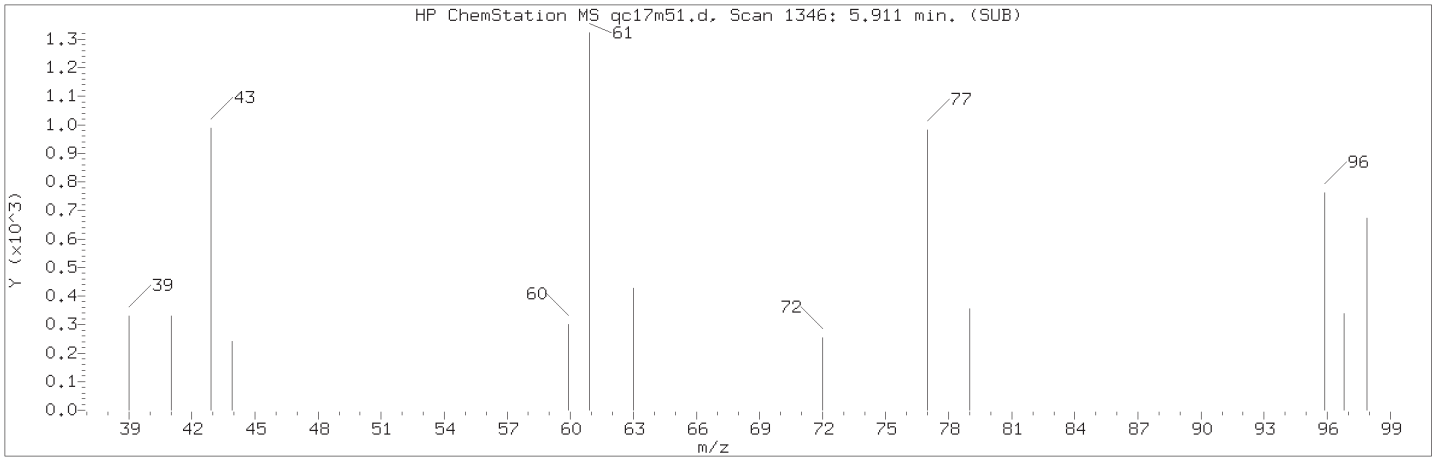
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

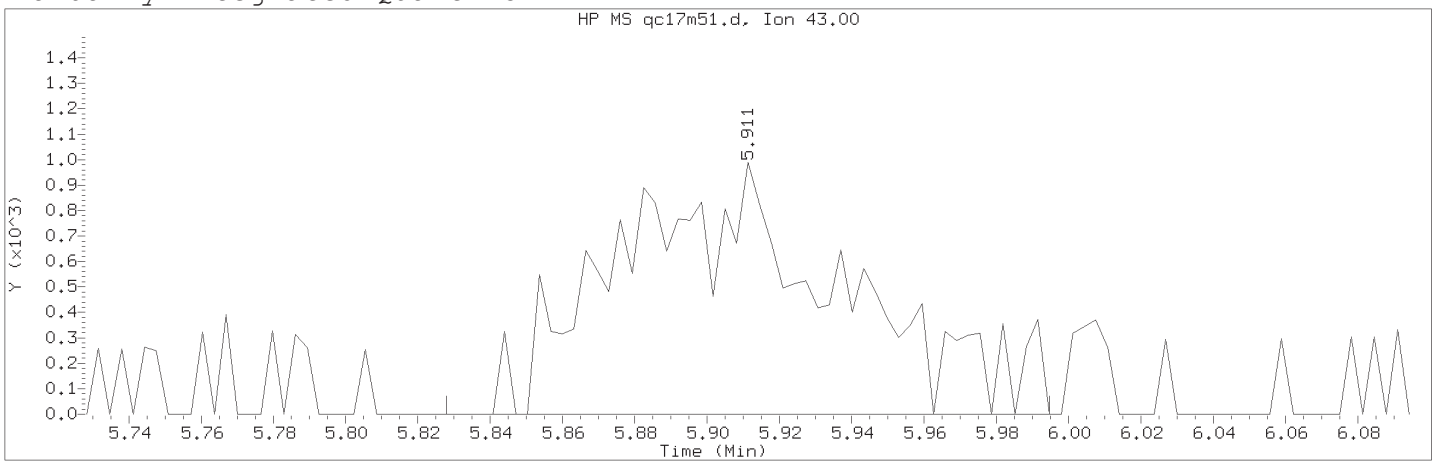
Compound Number : 34
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 864
Retention Time (minutes): 4.365
Quant Ion : 73.00
Area : 7594
On-column Amount (ng) : 0.3957
Integration start scan : 846 Integration stop scan: 884
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

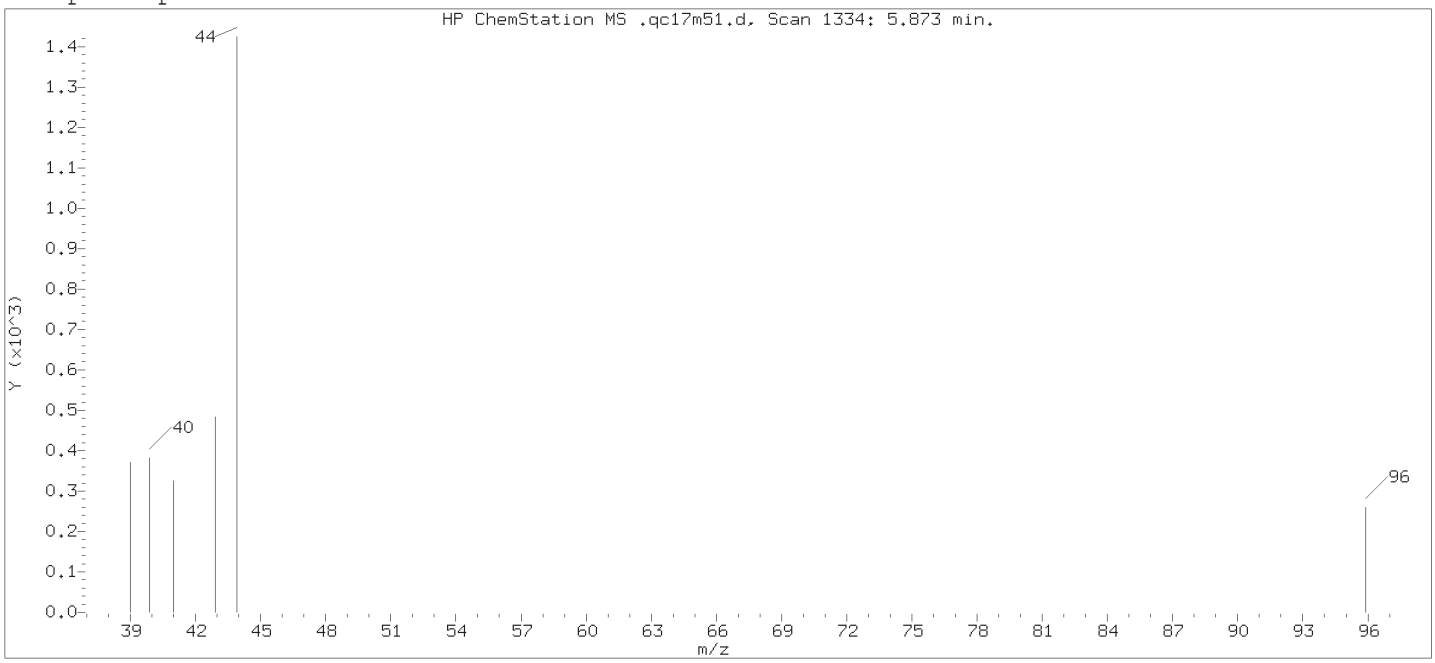
Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1346
Retention Time (minutes): 5.911
Quant Ion : 43.00
Area (flag) : 4270M
On-Column Amount (ng) : 1.2404
Integration start scan : 1319 Integration stop scan: 1371
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

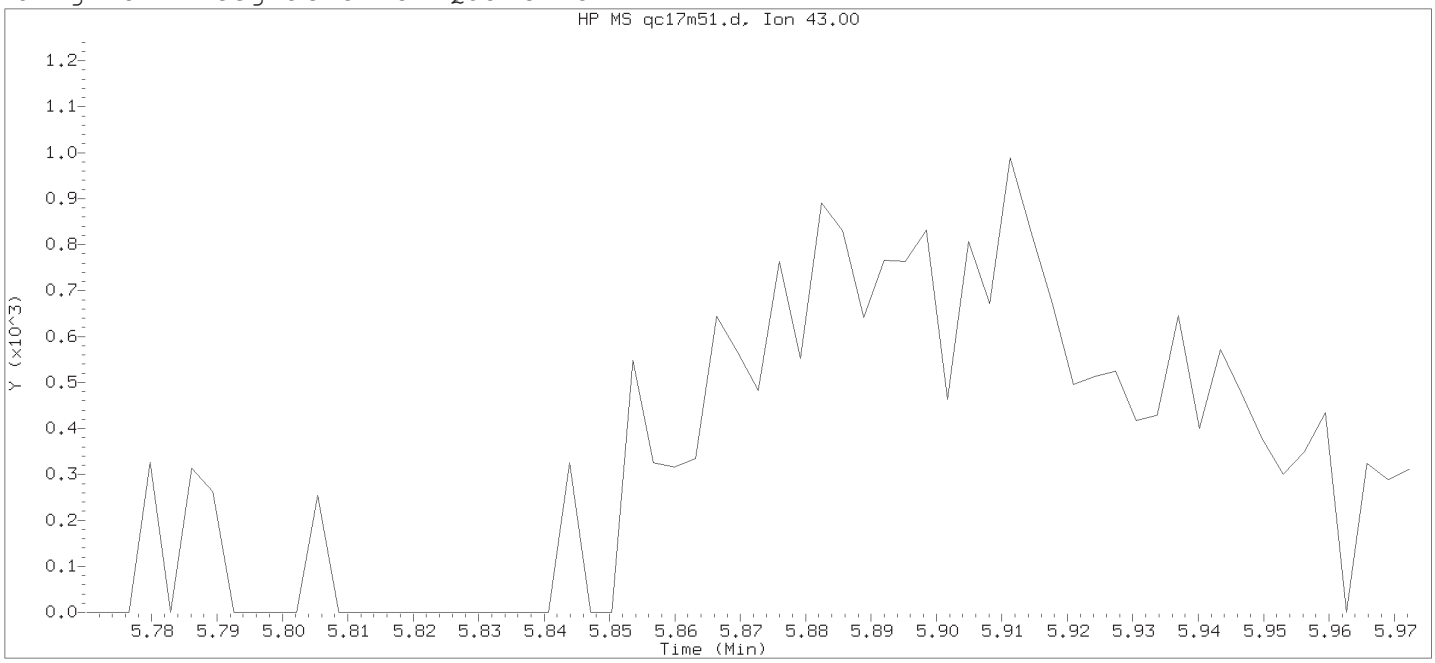
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

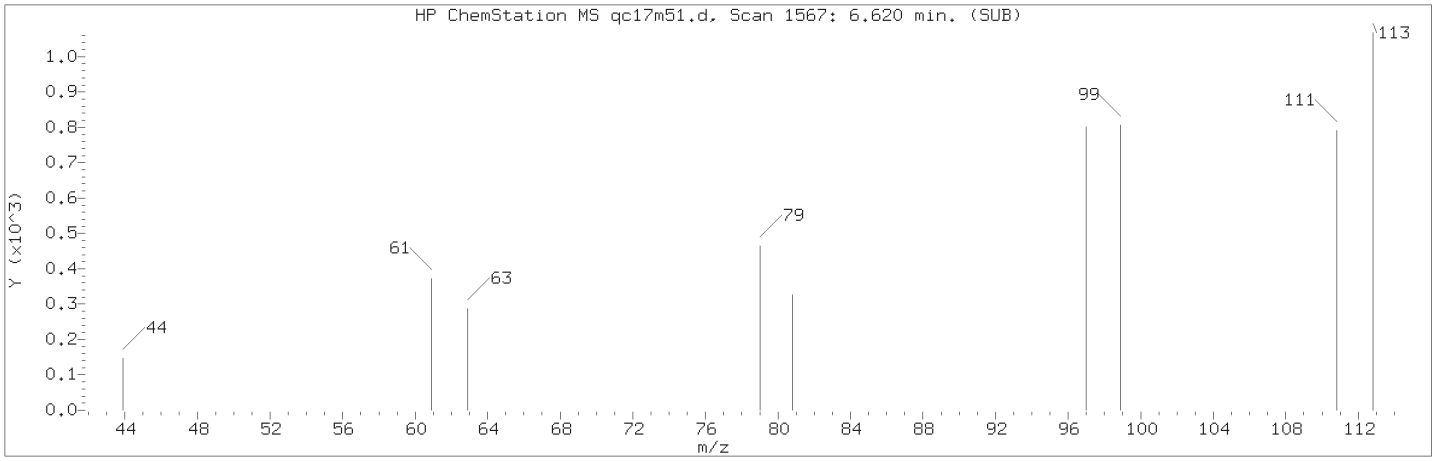
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

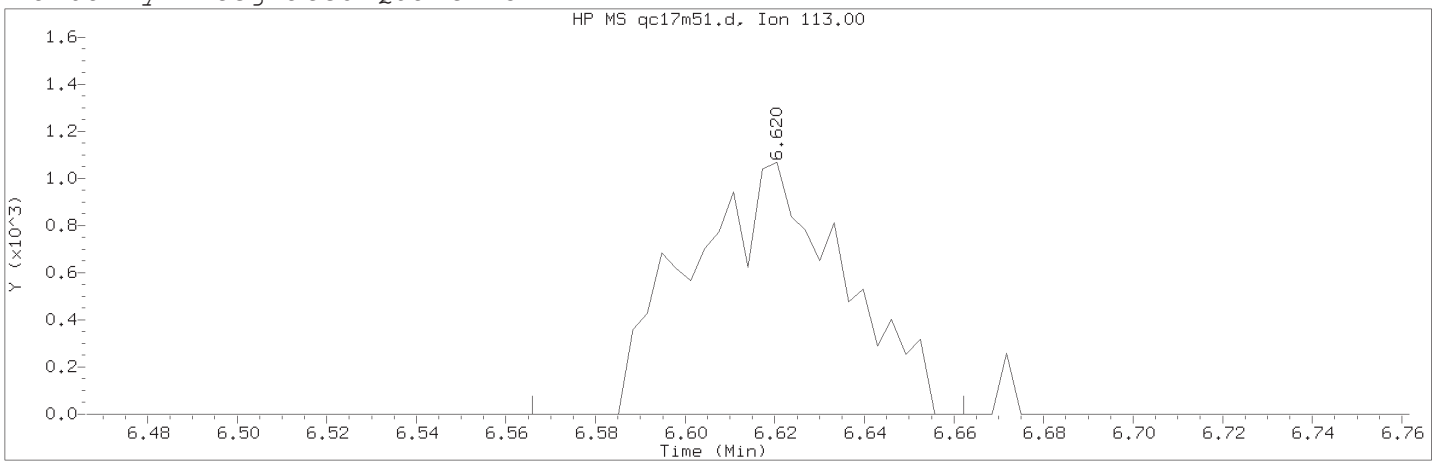
Compound Number : 44
Compound Name : 2-Butanone
Expected RT (minutes) : 5.872
Quant Ion : 43.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

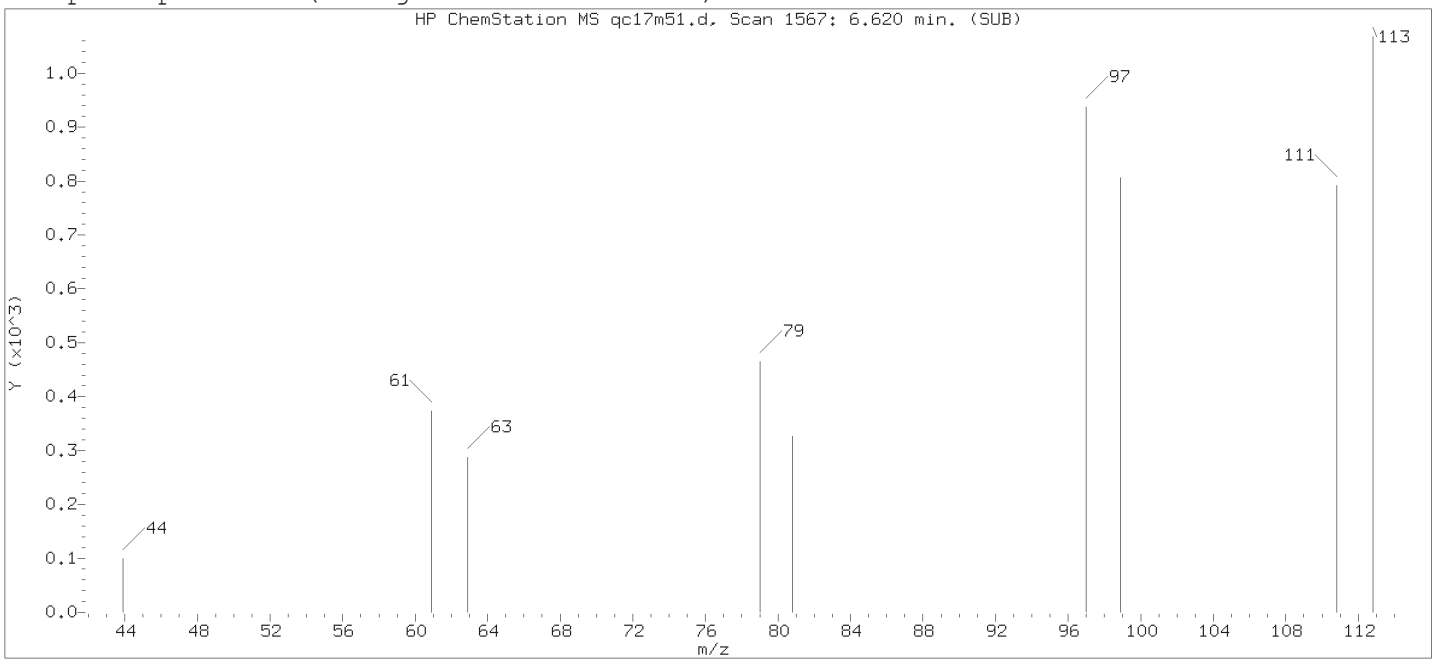
Compound Number : 56
Compound Name : Dibromofluoromethane
Scan Number : 1567
Retention Time (minutes): 6.620
Quant Ion : 113.00
Area (flag) : 2534M
On-Column Amount (ng) : 0.4120
Integration start scan : 1549 Integration stop scan: 1579
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

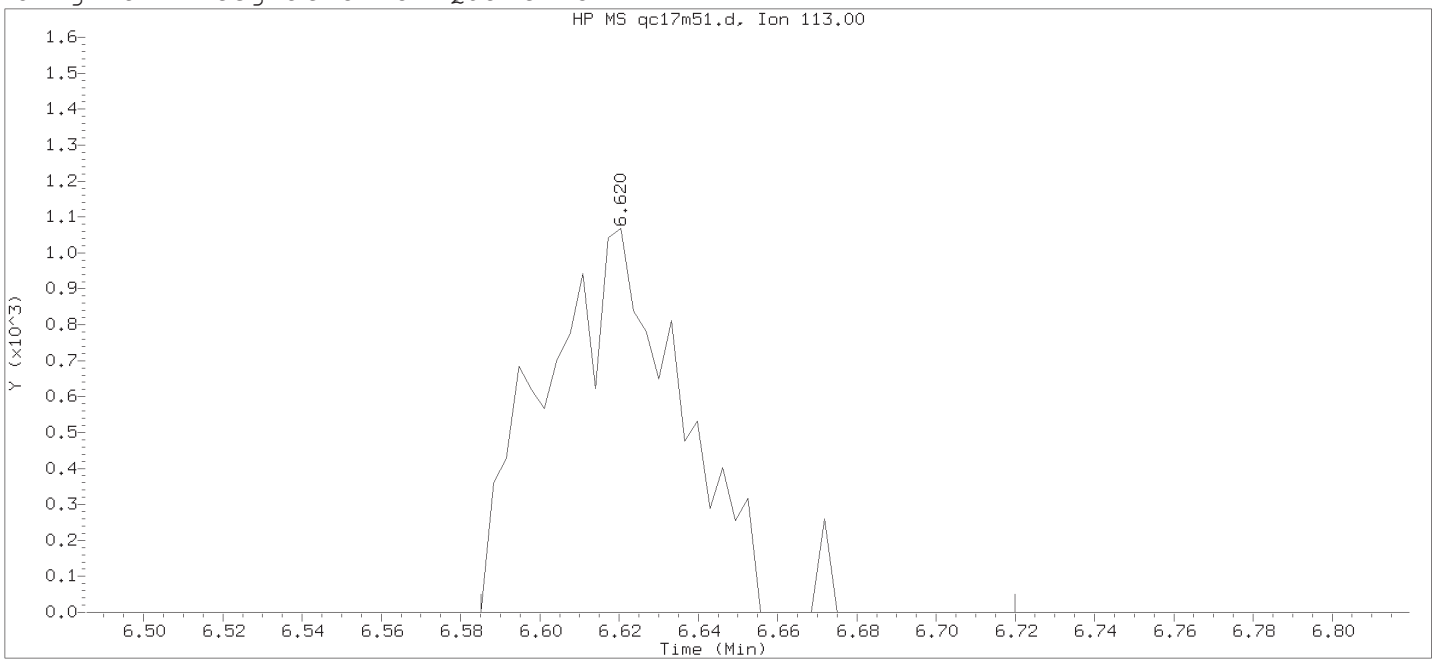
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

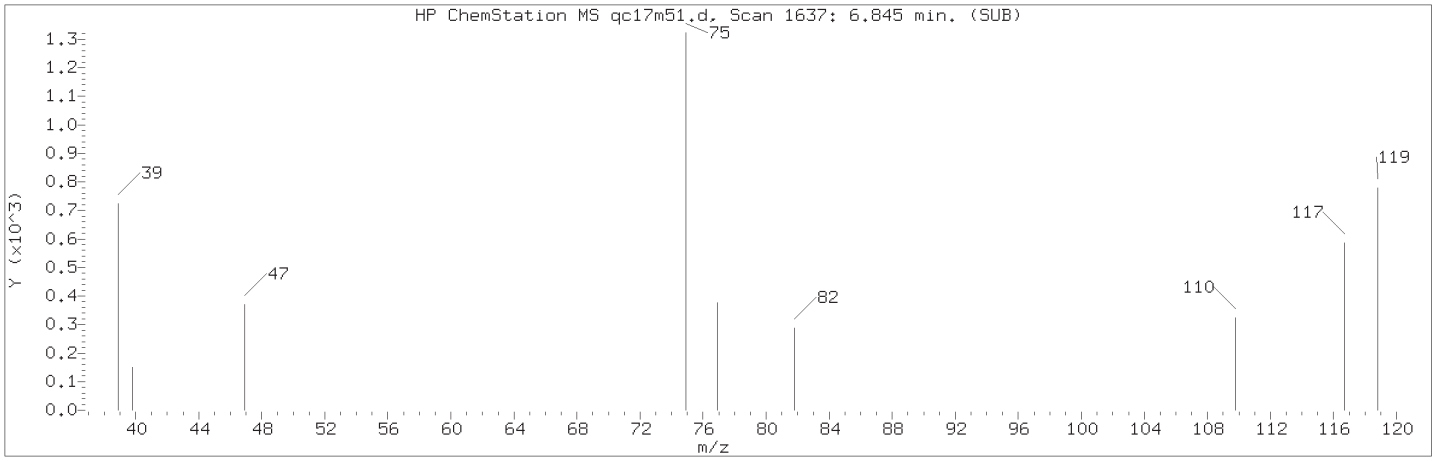
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

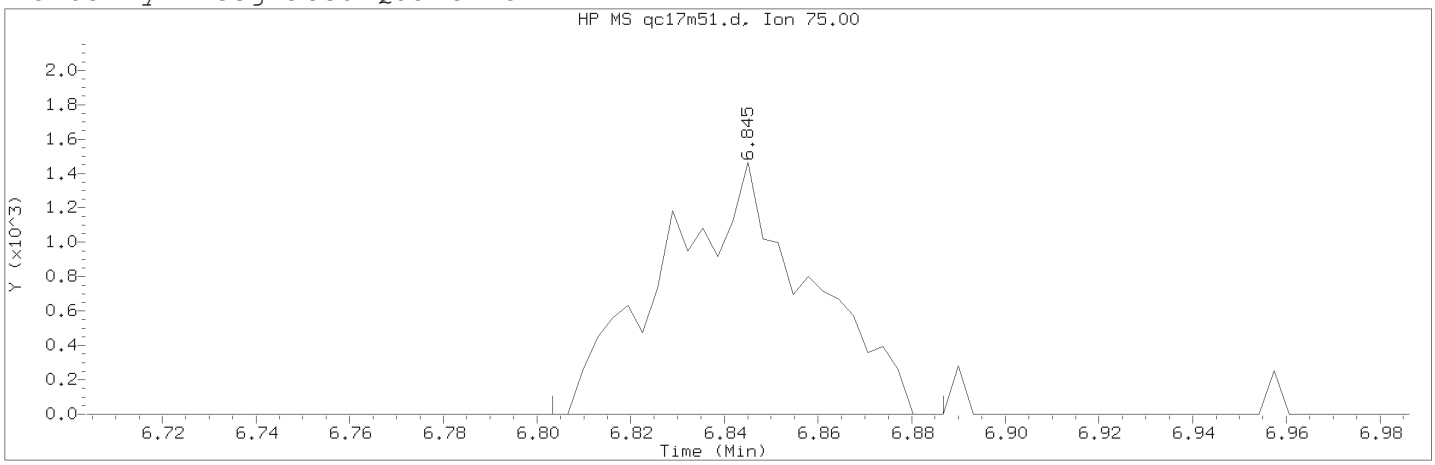
Compound Number : 56
Compound Name : Dibromofluoromethane
Scan Number : 1567
Retention Time (minutes): 6.620
Quant Ion : 113.00
Area : 2584
On-column Amount (ng) : 0.4202
Integration start scan : 1555 Integration stop scan: 1597
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

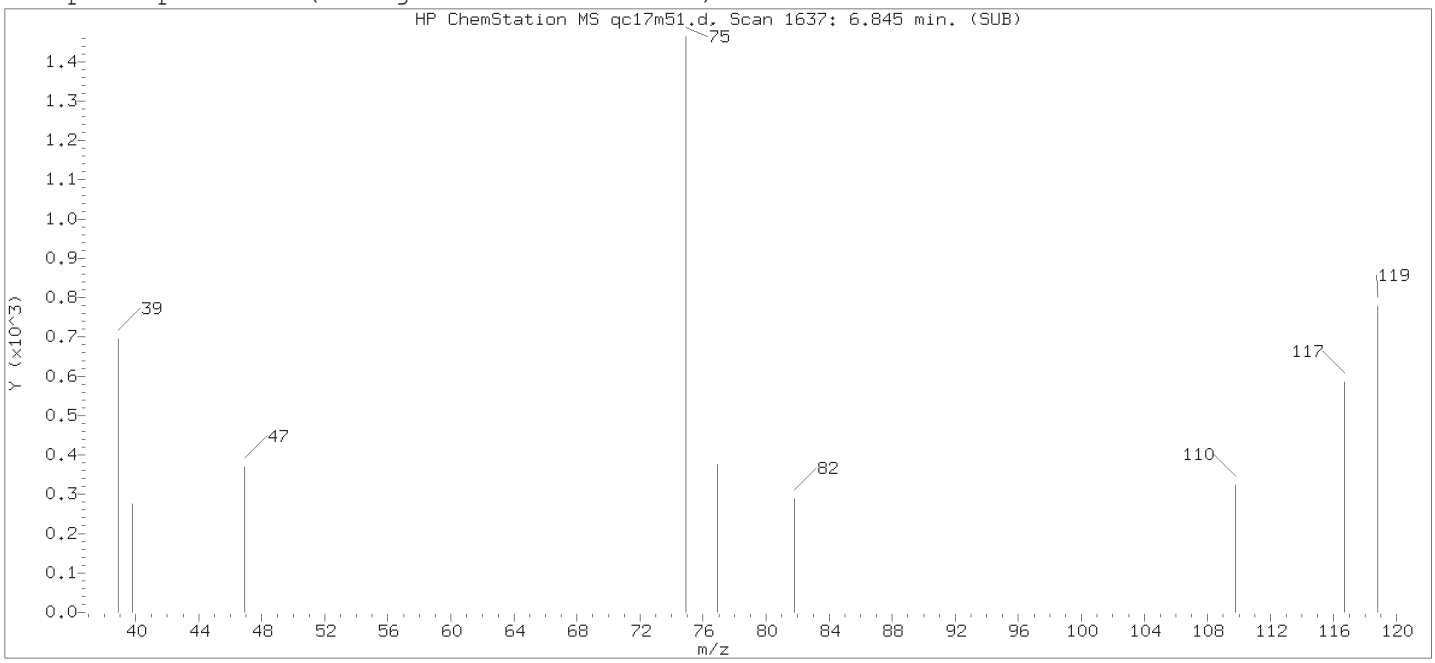
Compound Number : 60
Compound Name : 1,1-Dichloropropene
Scan Number : 1637
Retention Time (minutes): 6.845
Quant Ion : 75.00
Area (flag) : 3141M
On-Column Amount (ng) : 0.3927
Integration start scan : 1623 Integration stop scan: 1649
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

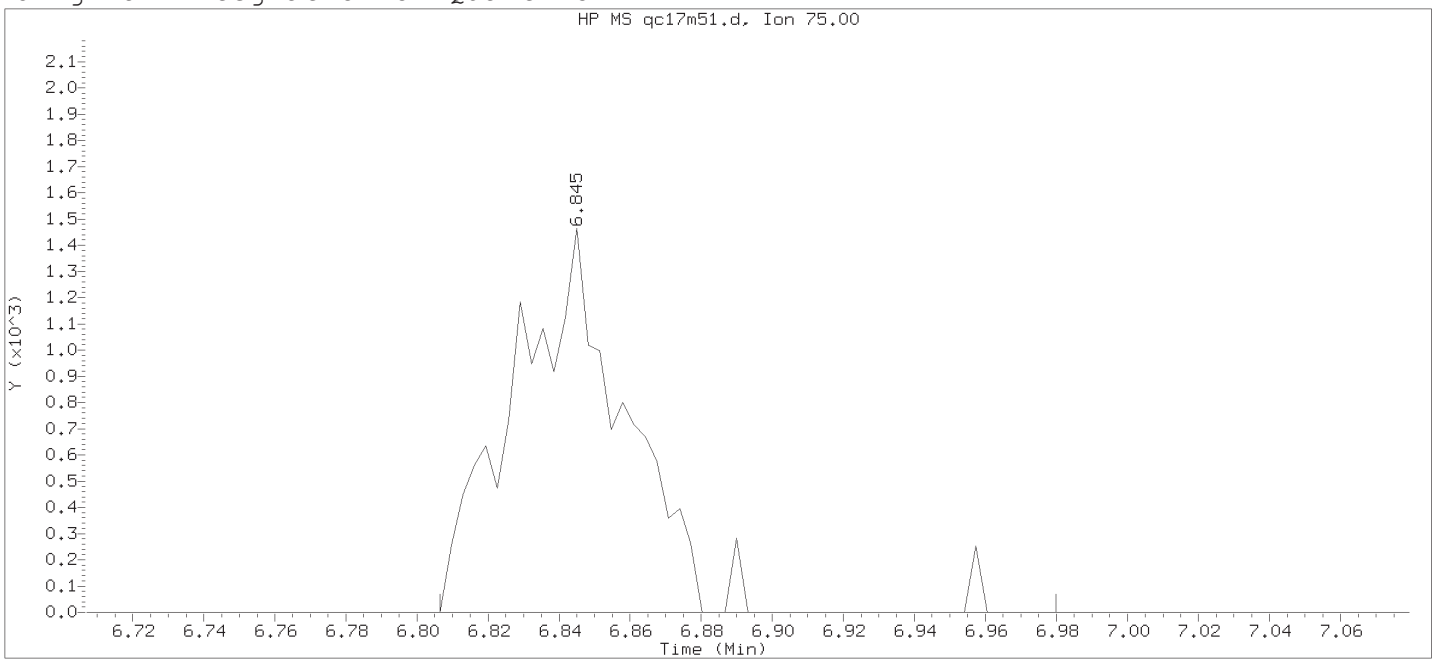
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

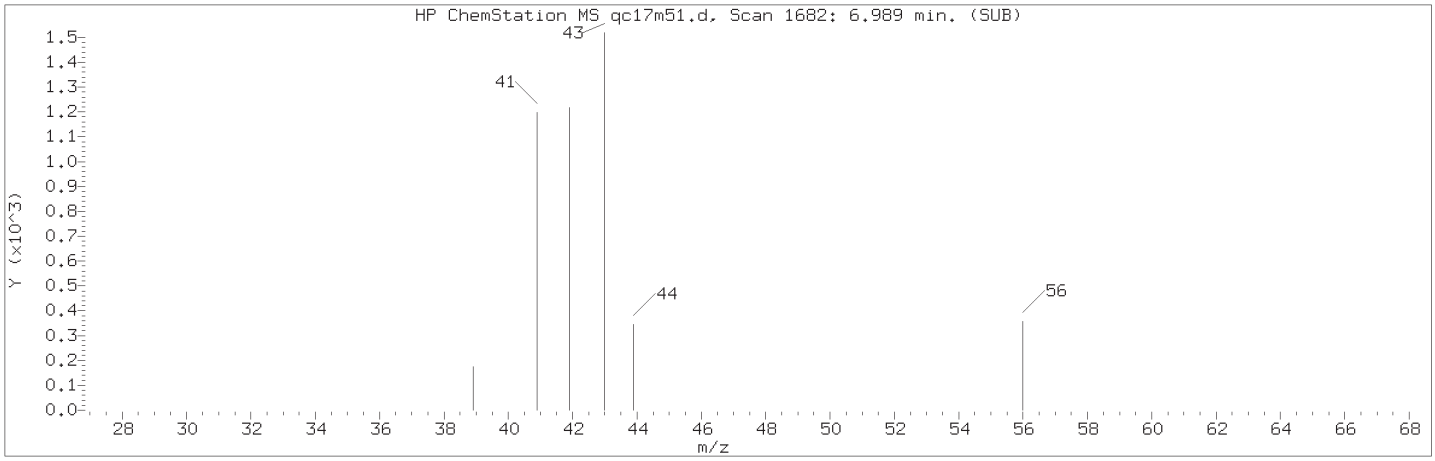
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

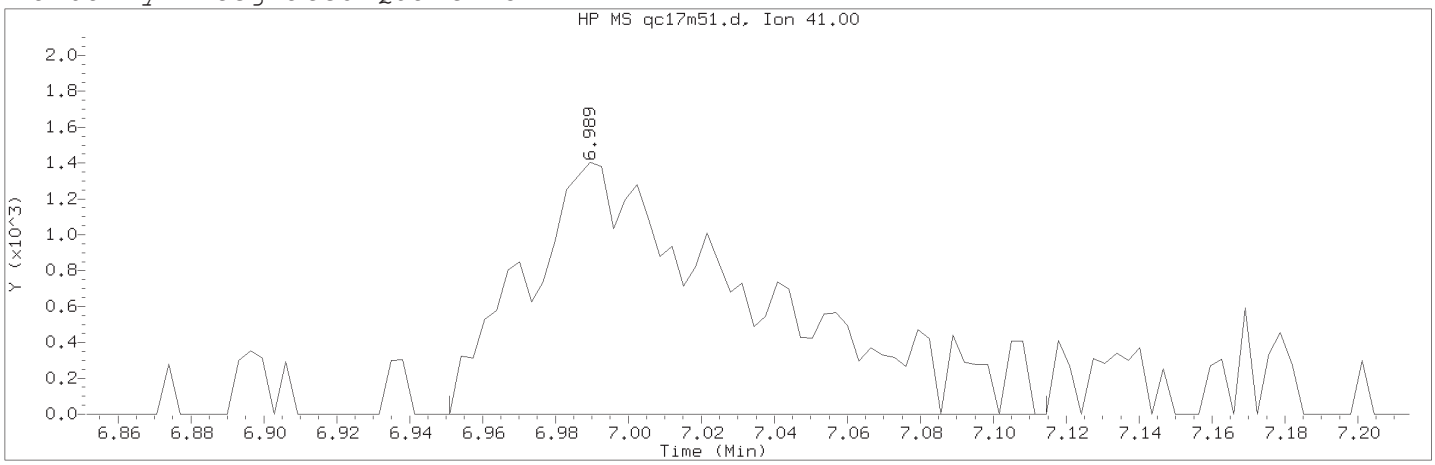
Compound Number : 60
Compound Name : 1,1-Dichloropropene
Scan Number : 1637
Retention Time (minutes): 6.845
Quant Ion : 75.00
Area : 3244
On-column Amount (ng) : 0.4056
Integration start scan : 1624 Integration stop scan: 1678
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

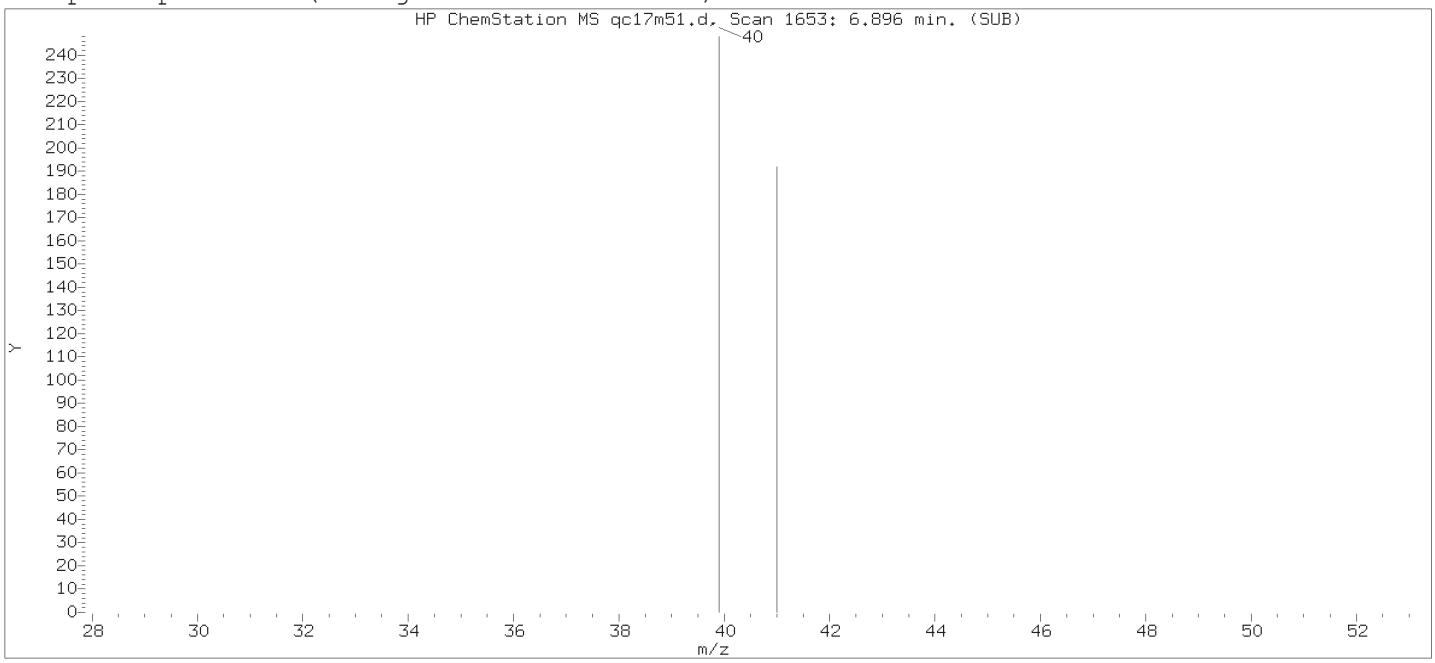
Compound Number : 62
Compound Name : Isobutyl Alcohol
Scan Number : 1682
Retention Time (minutes): 6.989
Quant Ion : 41.00
Area (flag) : 6125M
On-Column Amount (ng) : 27.7926
Integration start scan : 1669 Integration stop scan: 1720
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

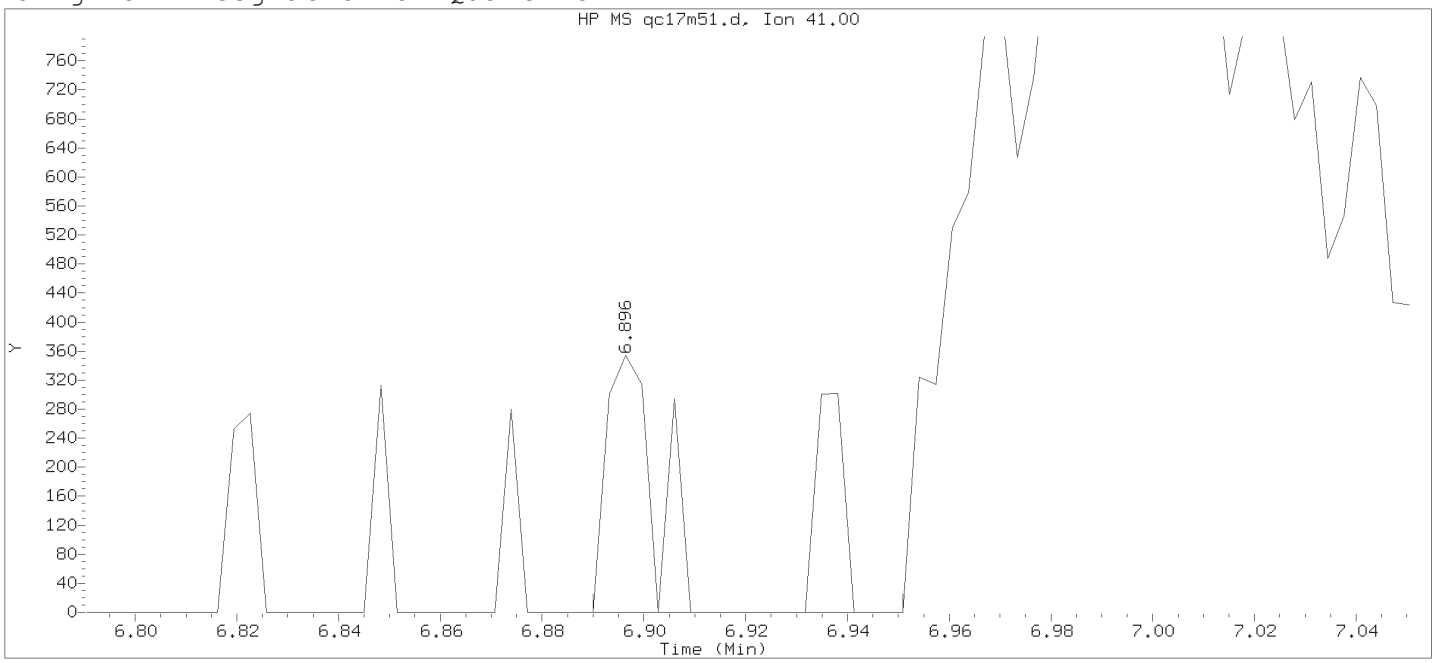
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

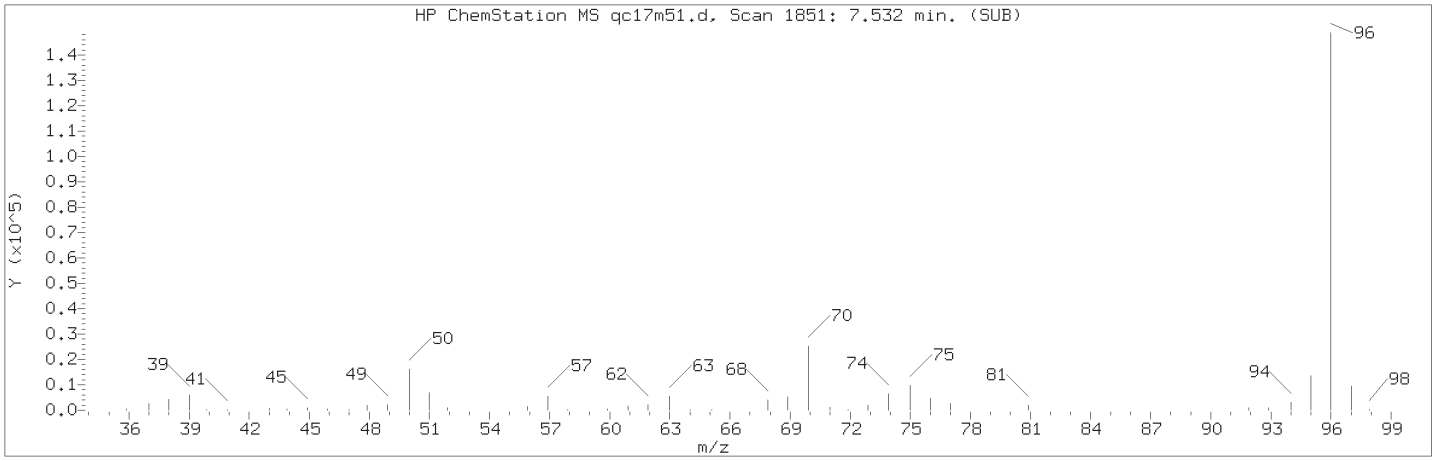
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

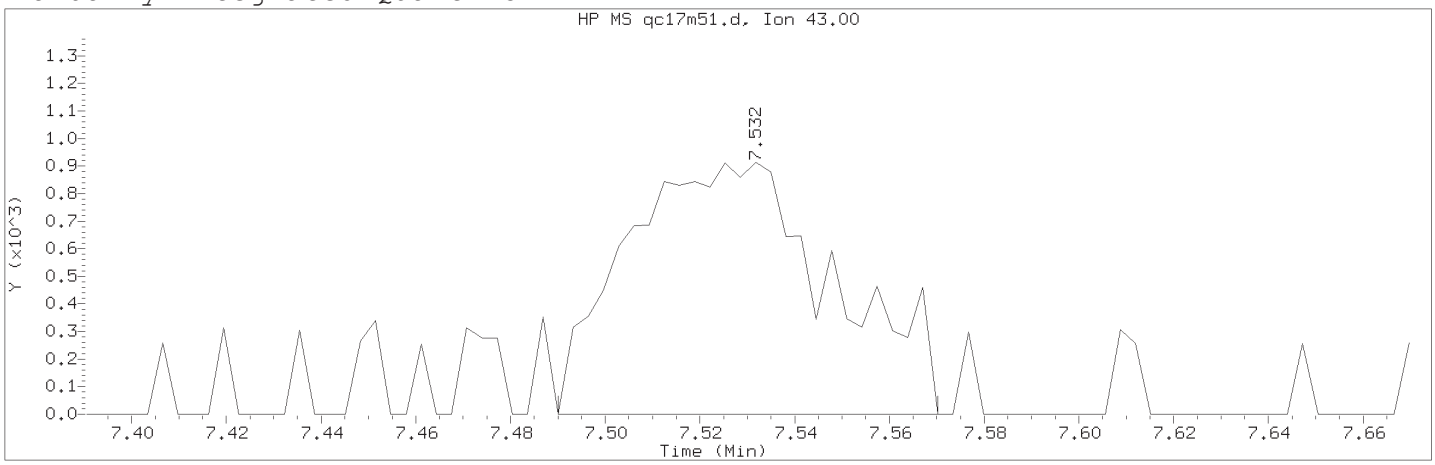
Compound Number	: 62		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 1653		
Retention Time (minutes)	: 6.896		
Quant Ion	: 41.00		
Area	: 359		
On-column Amount (ng)	: 1.6302		
Integration start scan	: 1650	Integration stop scan:	1669
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

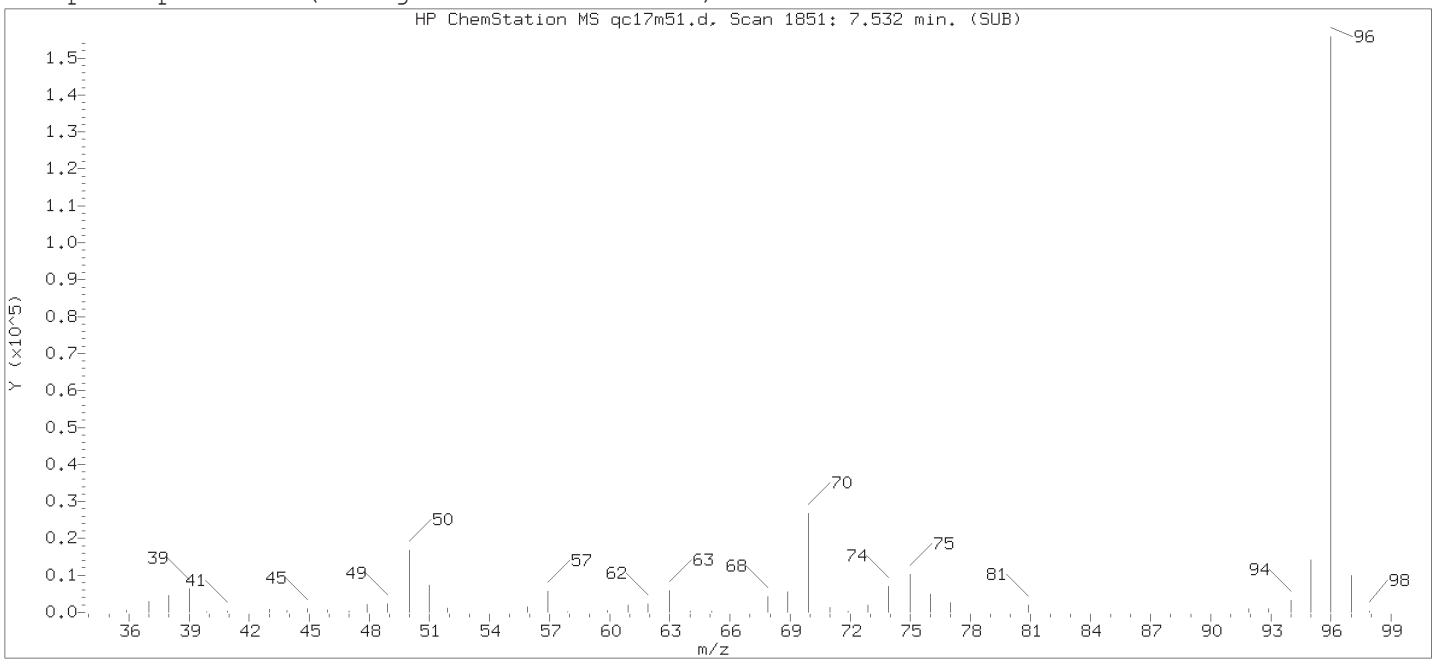
Compound Number : 72
Compound Name : n-Heptane
Scan Number : 1851
Retention Time (minutes): 7.532
Quant Ion : 43.00
Area (flag) : 2772M
On-Column Amount (ng) : 0.5810
Integration start scan : 1837 Integration stop scan: 1862
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

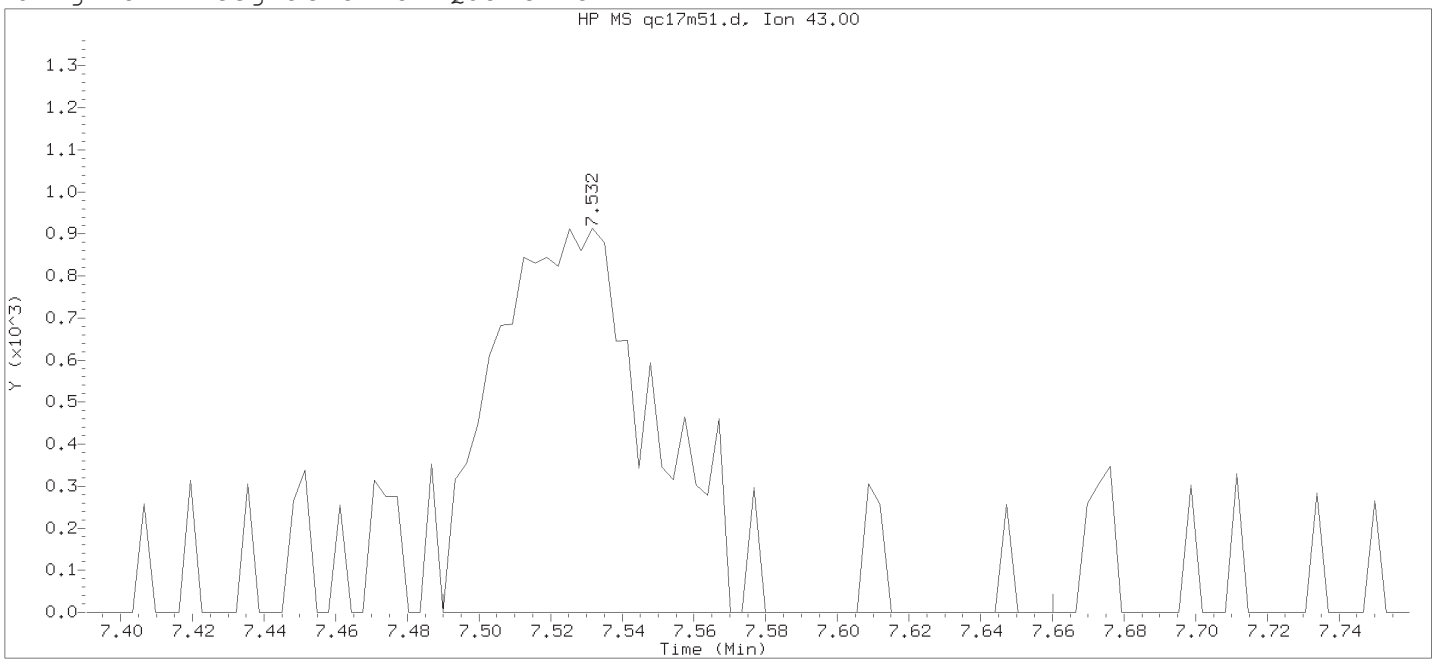
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

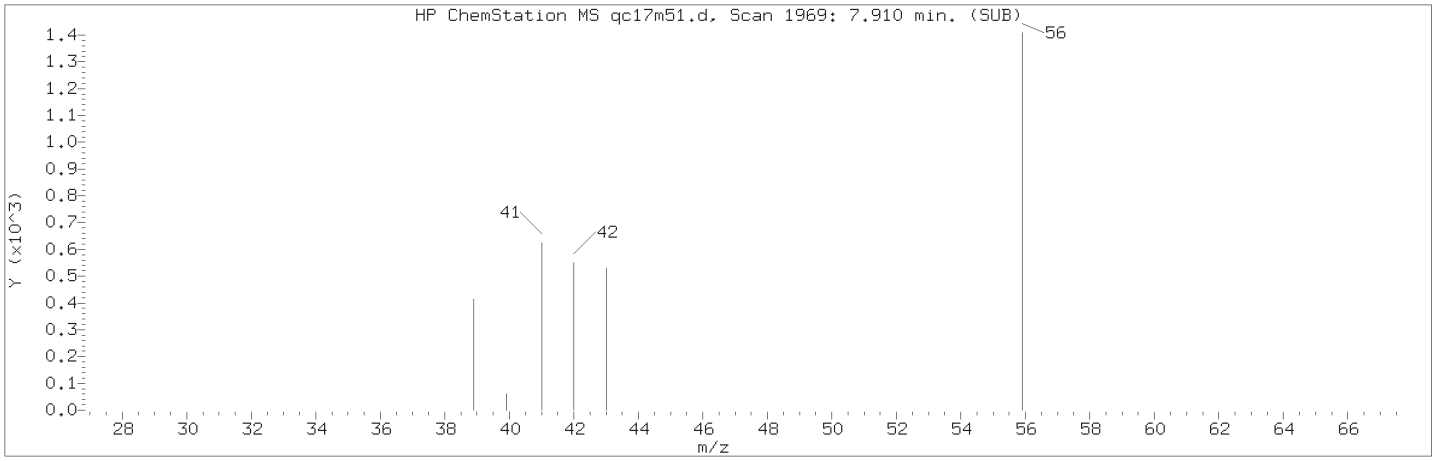
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

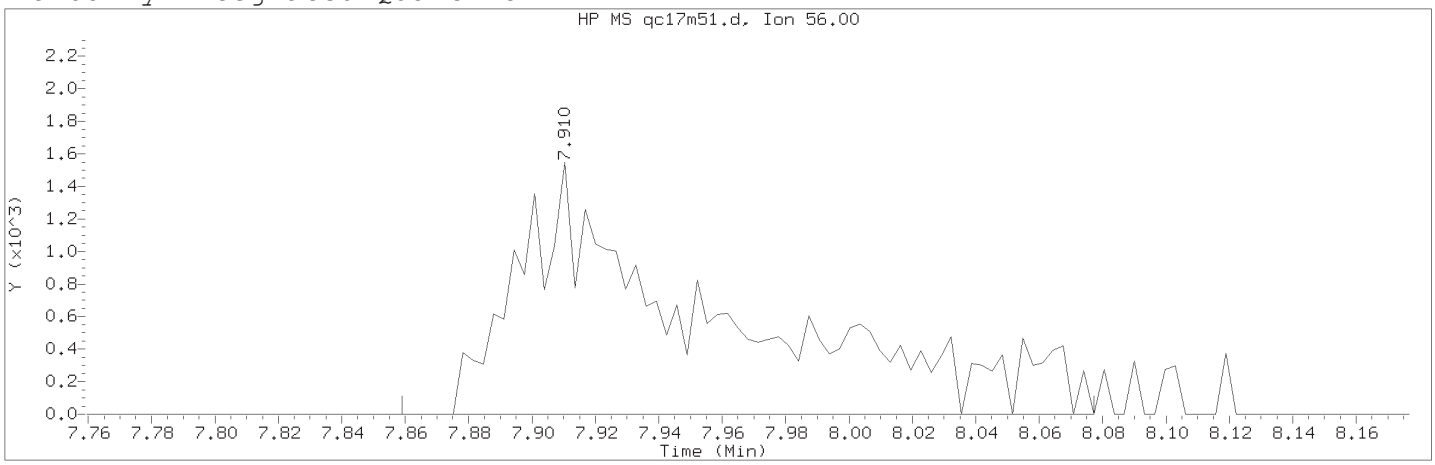
Compound Number	: 72		
Compound Name	: n-Heptane		
Scan Number	: 1851		
Retention Time (minutes)	: 7.532		
Quant Ion	: 43.00		
Area	: 2987		
On-column Amount (ng)	: 0.6261		
Integration start scan	: 1837	Integration stop scan:	1890
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

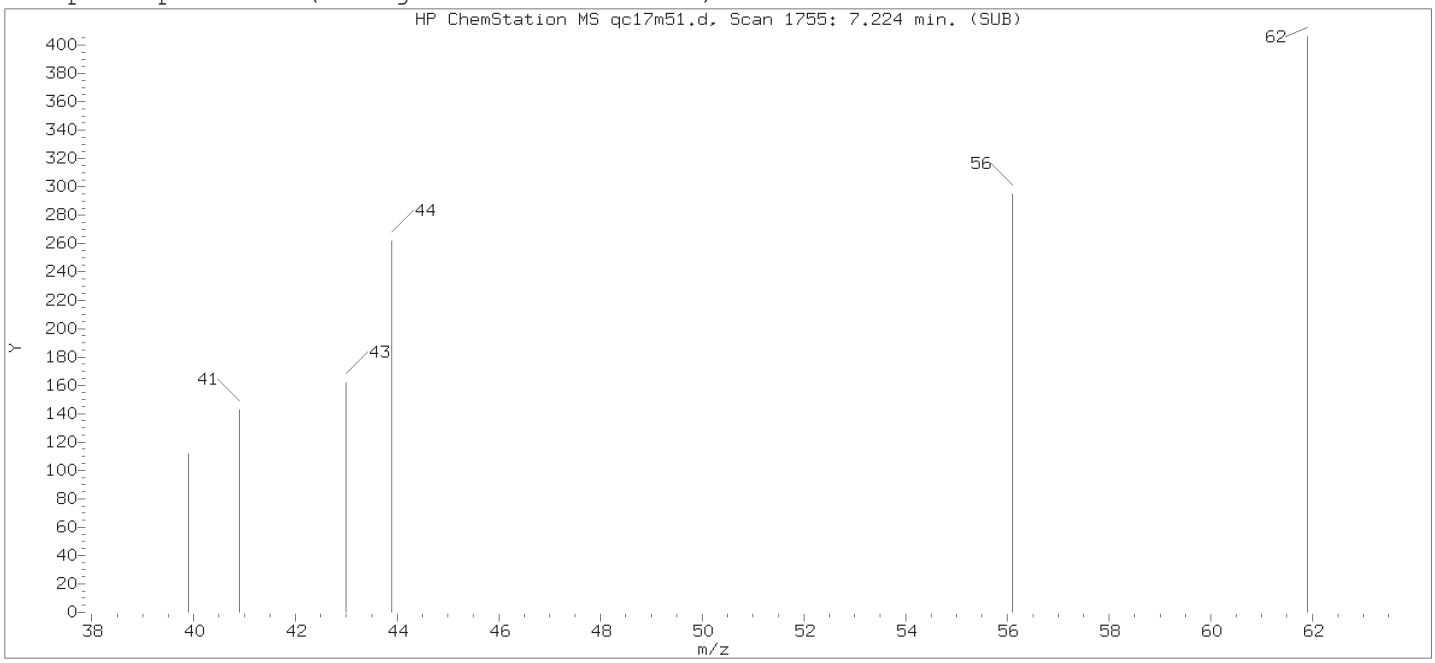
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1969
Retention Time (minutes): 7.910
Quant Ion : 56.00
Area (flag) : 6528M
On-Column Amount (ng) : 39.4911
Integration start scan : 1952 Integration stop scan: 2020
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

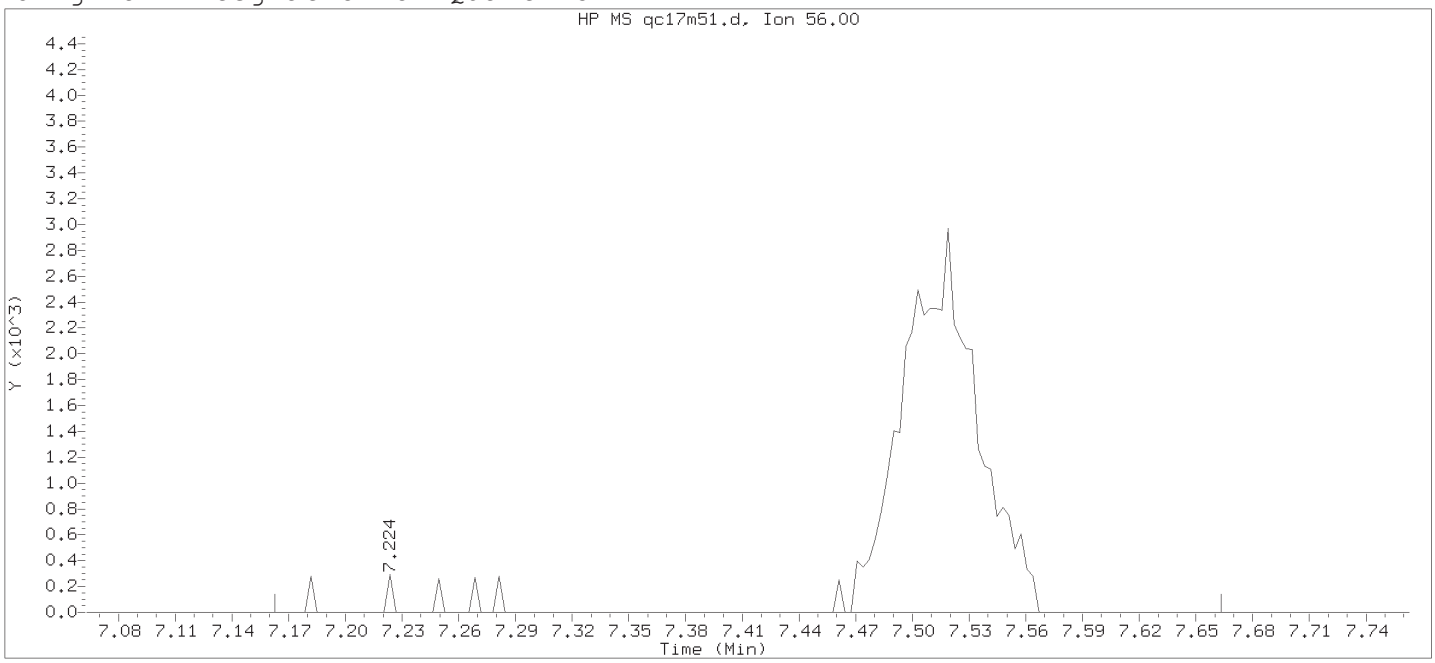
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

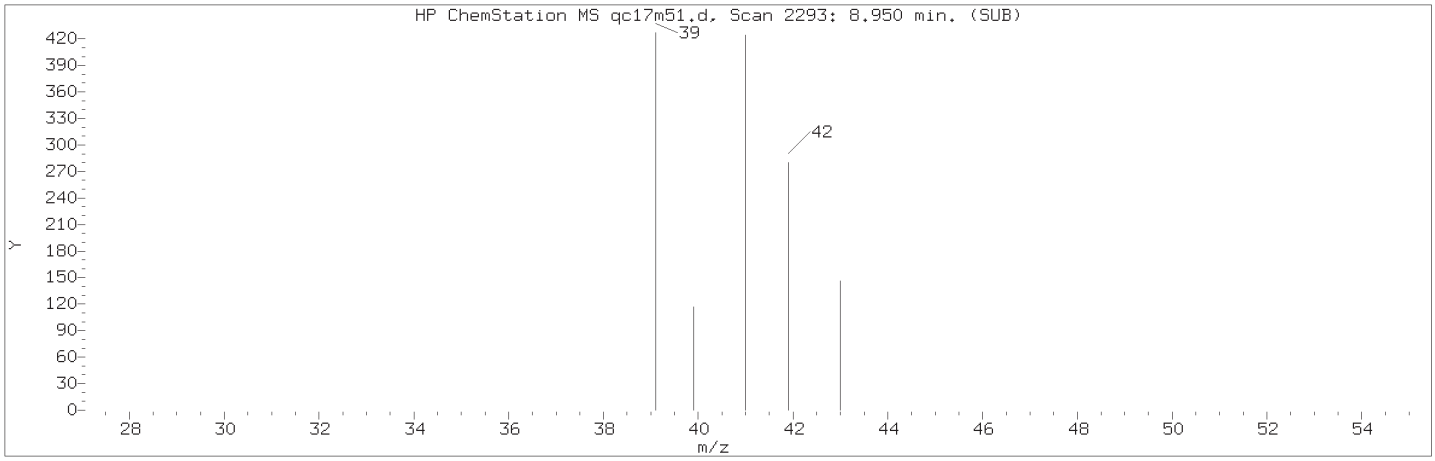
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

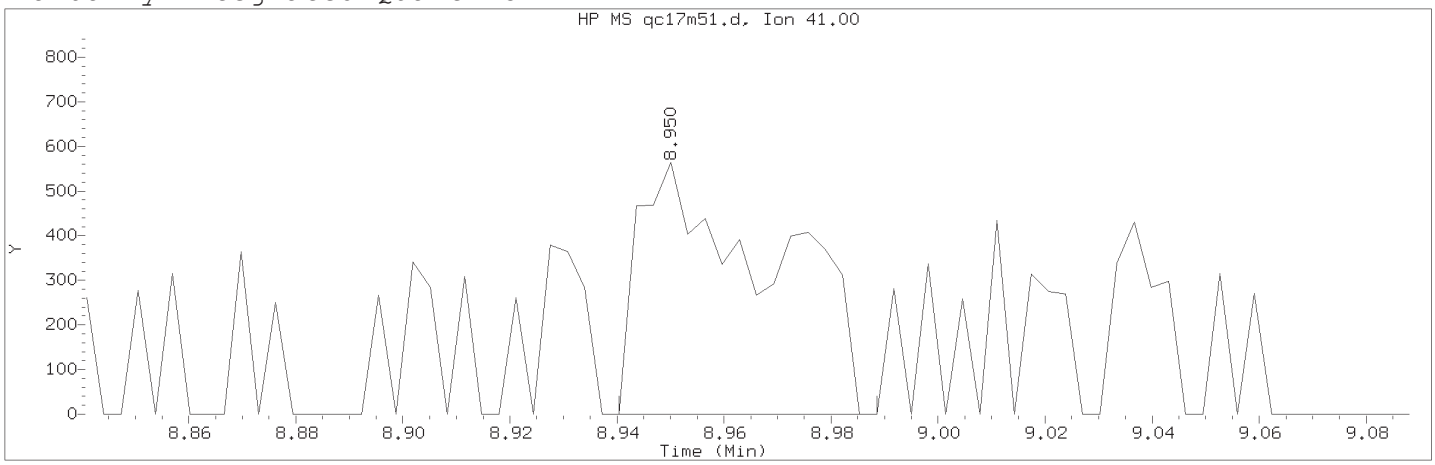
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1755
Retention Time (minutes): 7.224
Quant Ion : 56.00
Area : 8269
On-column Amount (ng) : 50.0286
Integration start scan : 1735 Integration stop scan: 1891
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

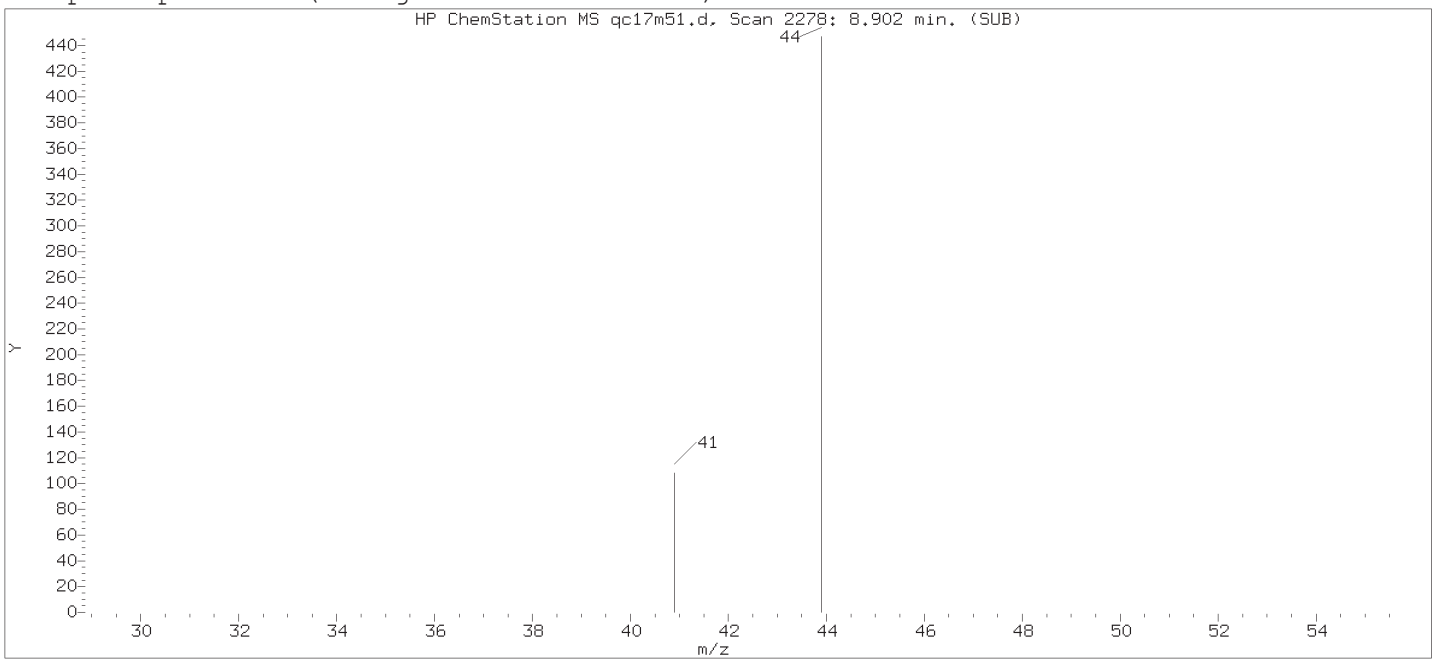
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2293
Retention Time (minutes): 8.950
Quant Ion : 41.00
Area (flag) : 984M
On-Column Amount (ng) : 0.8911
Integration start scan : 2289 Integration stop scan: 2304
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

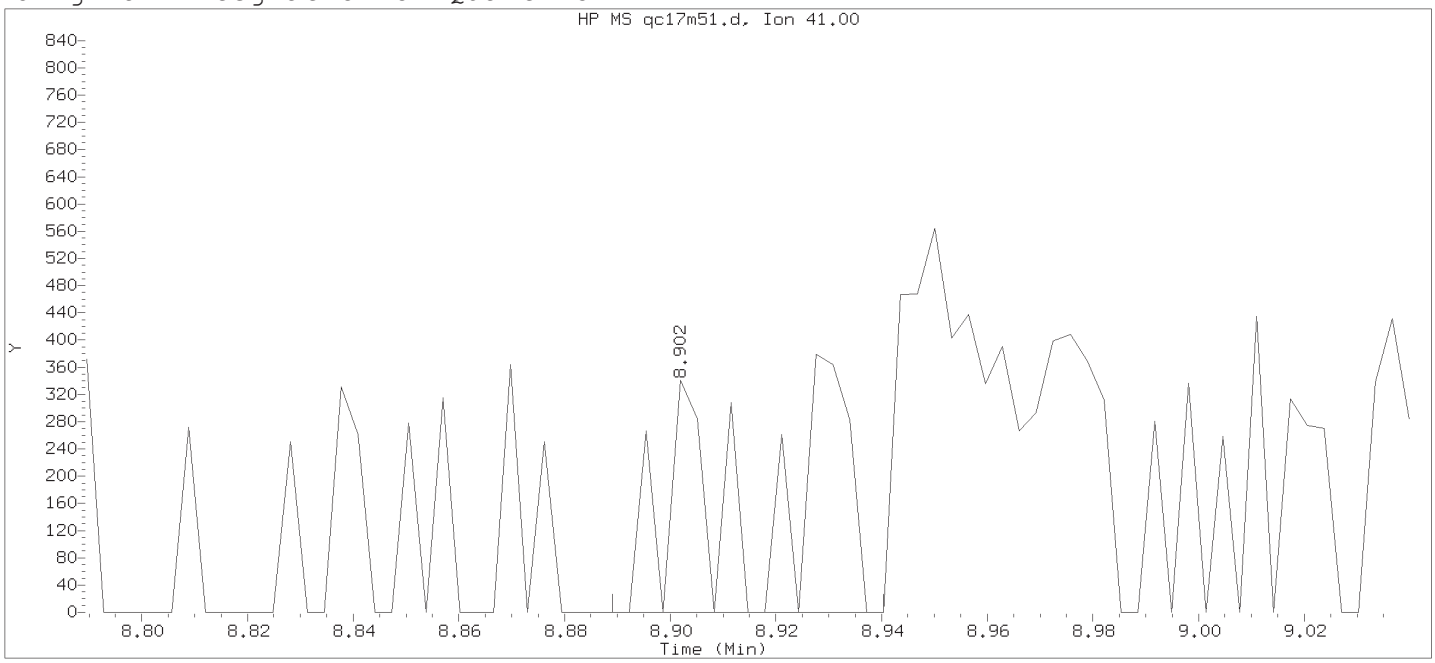
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

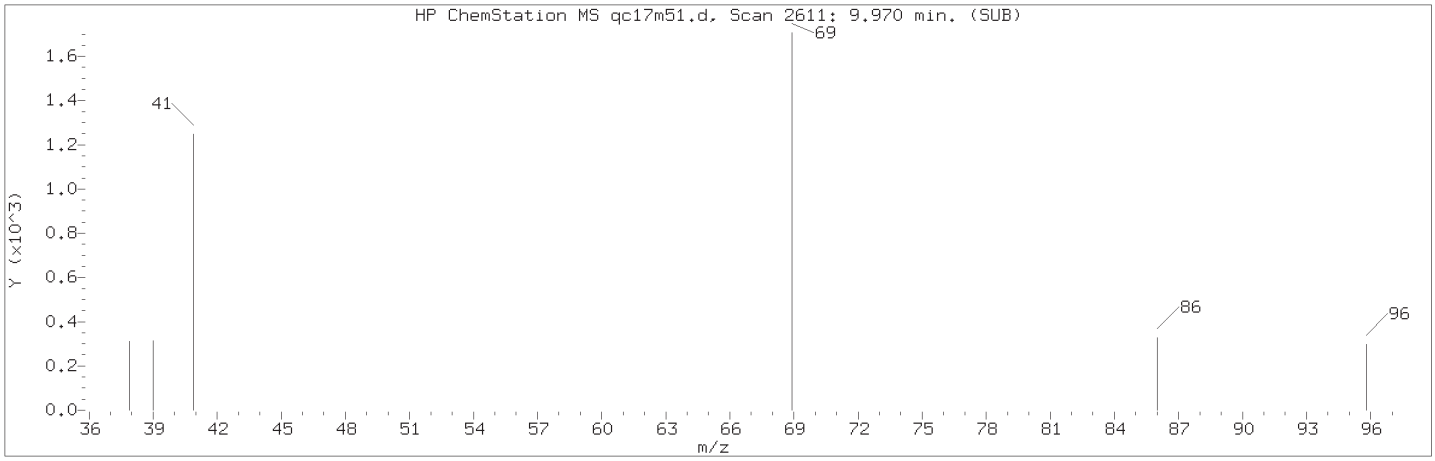
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

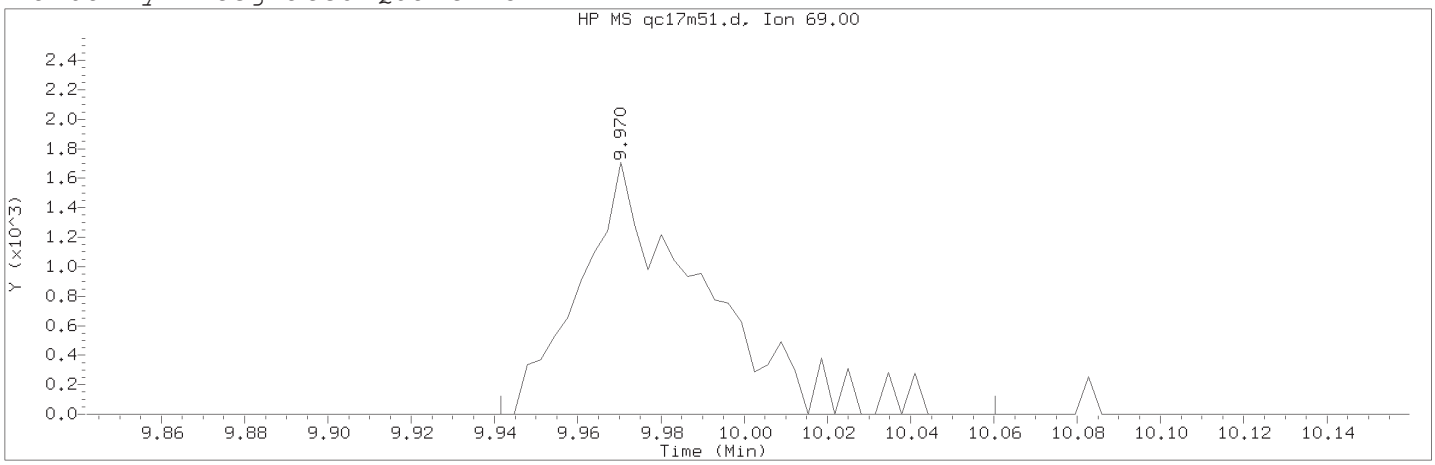
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2278
Retention Time (minutes): 8.902
Quant Ion : 41.00
Area : 478
On-column Amount (ng) : 0.4336
Integration start scan : 2273 Integration stop scan: 2289
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

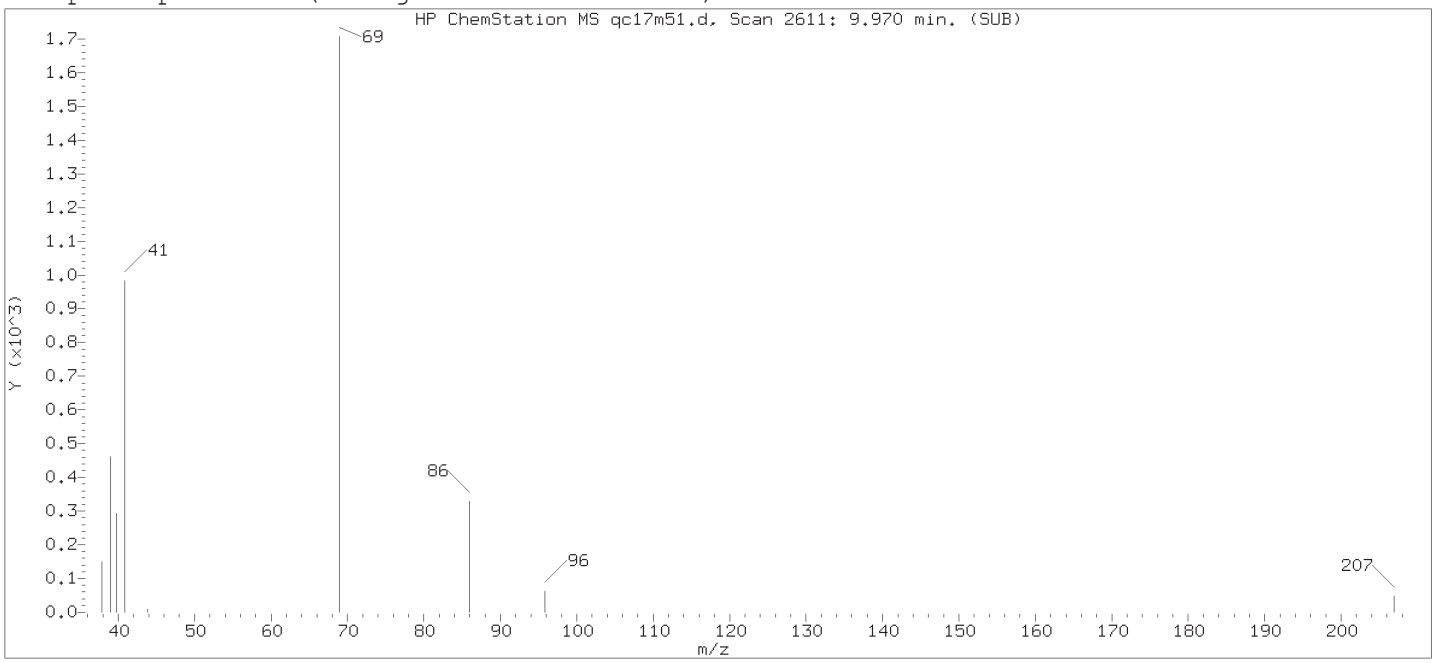
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 2611
Retention Time (minutes): 9.970
Quant Ion : 69.00
Area (flag) : 3478M
On-Column Amount (ng) : 0.3887
Integration start scan : 2601 Integration stop scan: 2638
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

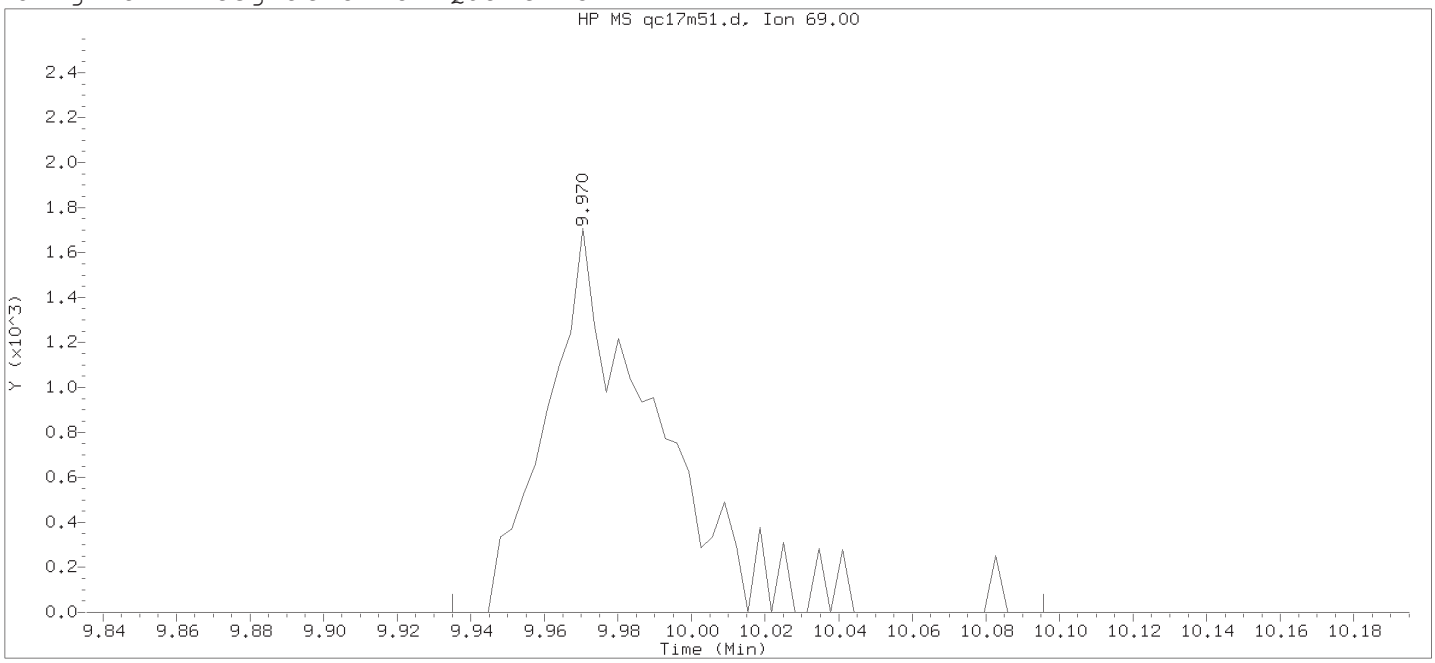
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

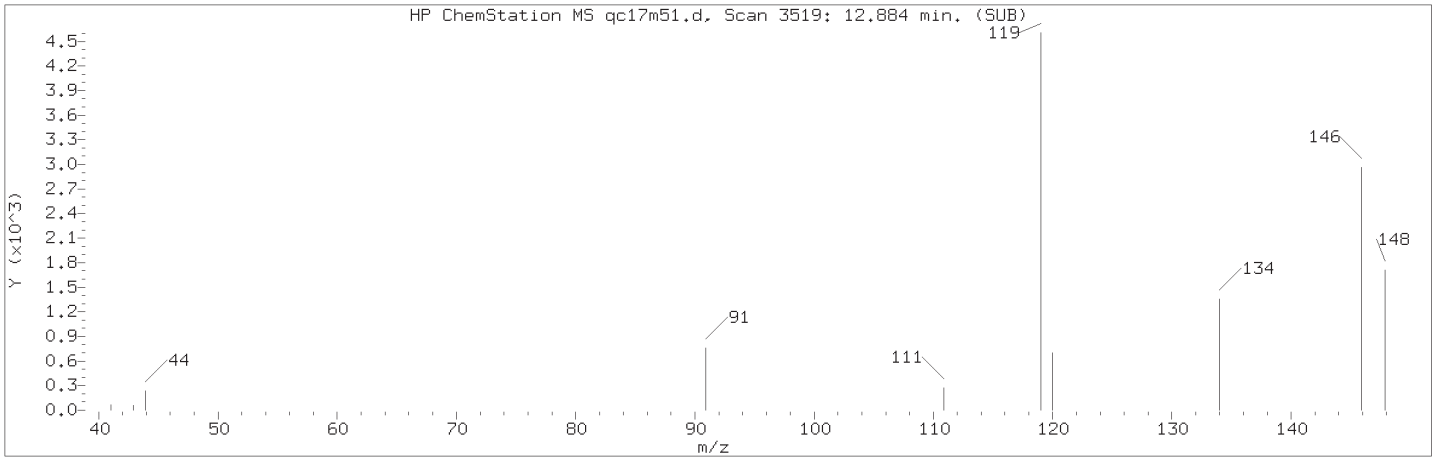
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

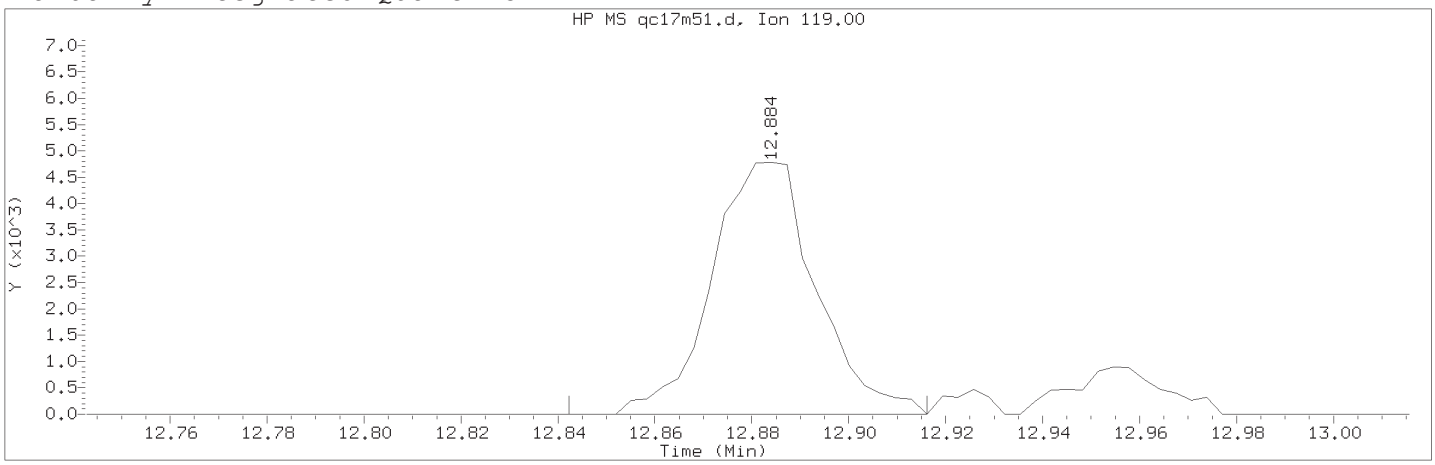
Compound Number : 95
Compound Name : Ethyl Methacrylate
Scan Number : 2611
Retention Time (minutes): 9.970
Quant Ion : 69.00
Area : 3527
On-column Amount (ng) : 0.3942
Integration start scan : 2599 Integration stop scan: 2649
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

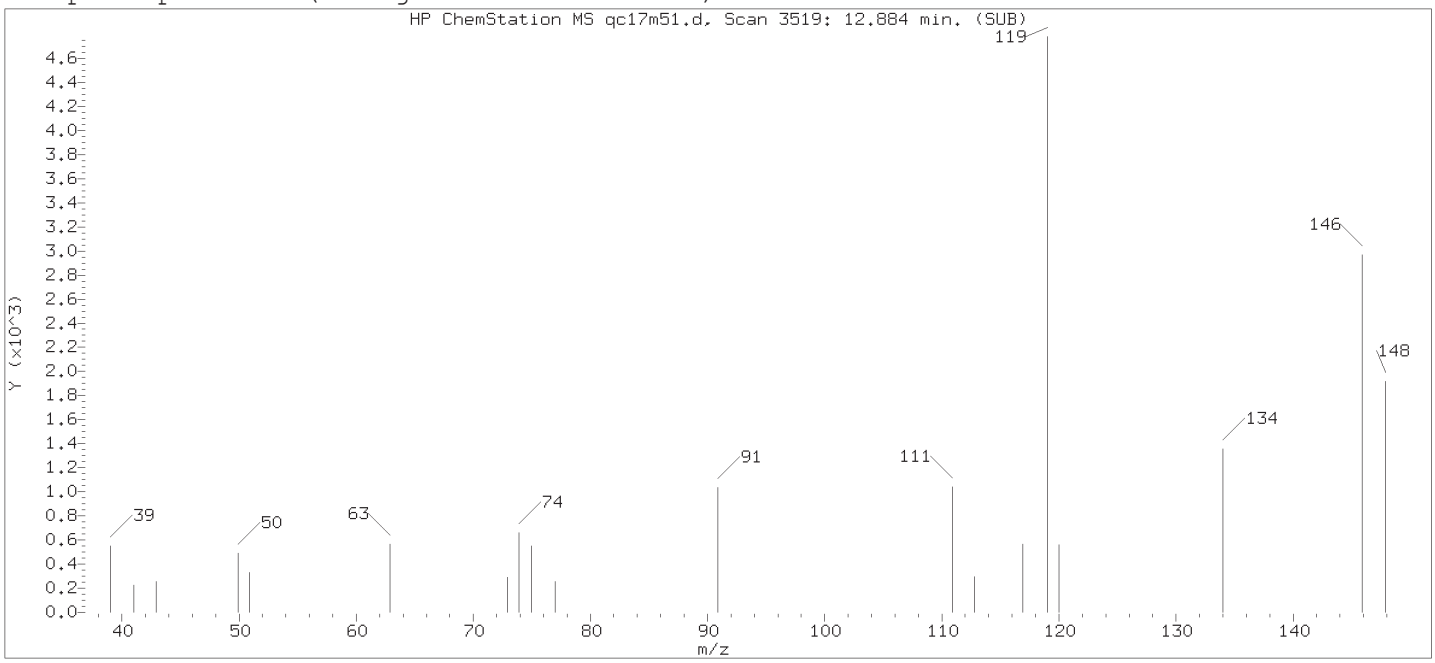
Compound Number : 139
Compound Name : p-Isopropyltoluene
Scan Number : 3519
Retention Time (minutes): 12.884
Quant Ion : 119.00
Area (flag) : 7132M
On-Column Amount (ng) : 0.4563
Integration start scan : 3505 Integration stop scan: 3528
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

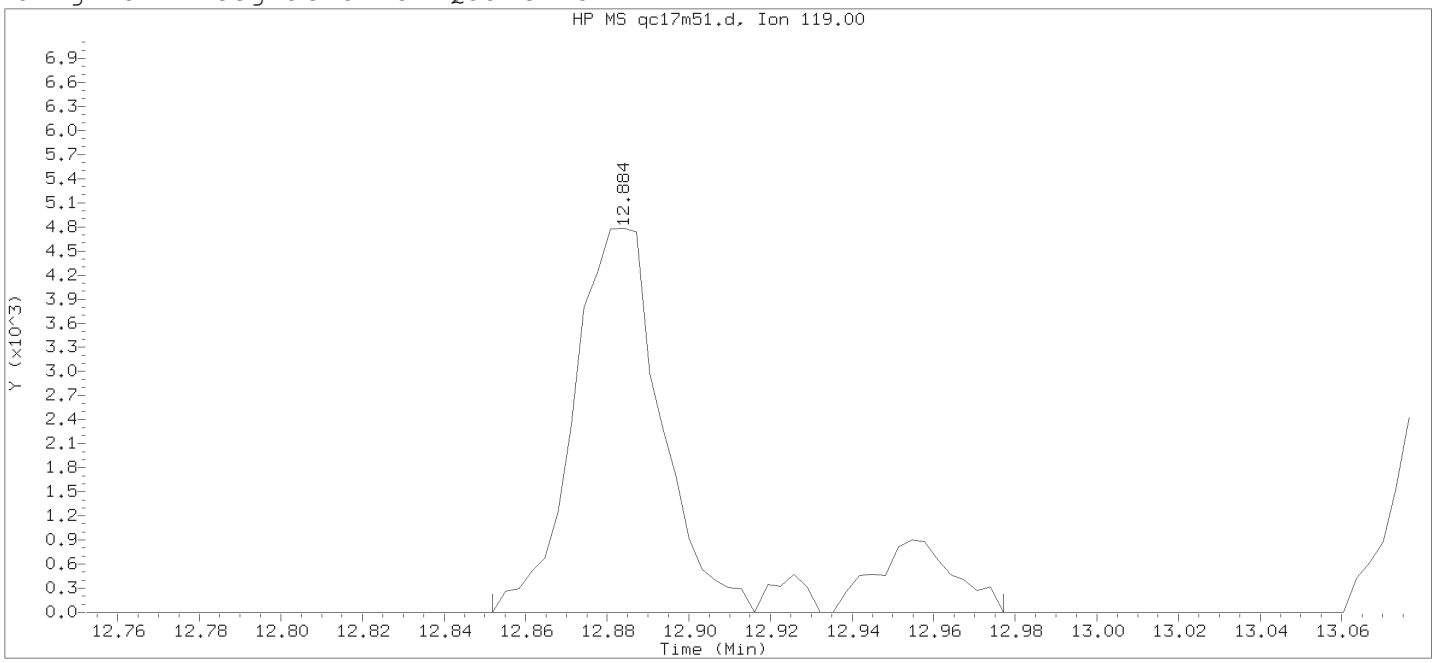
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

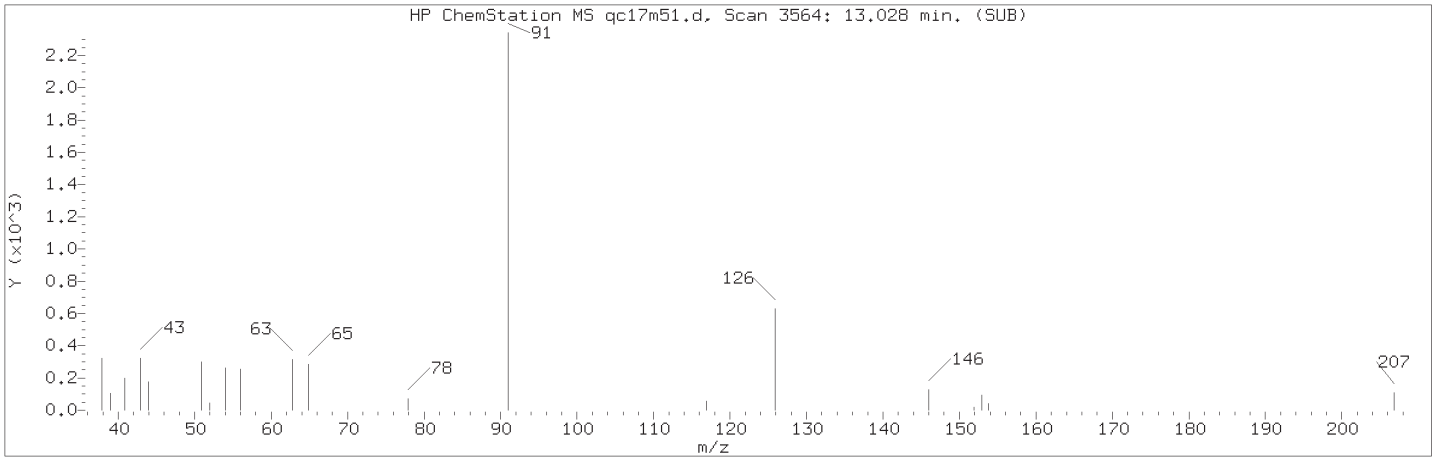
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

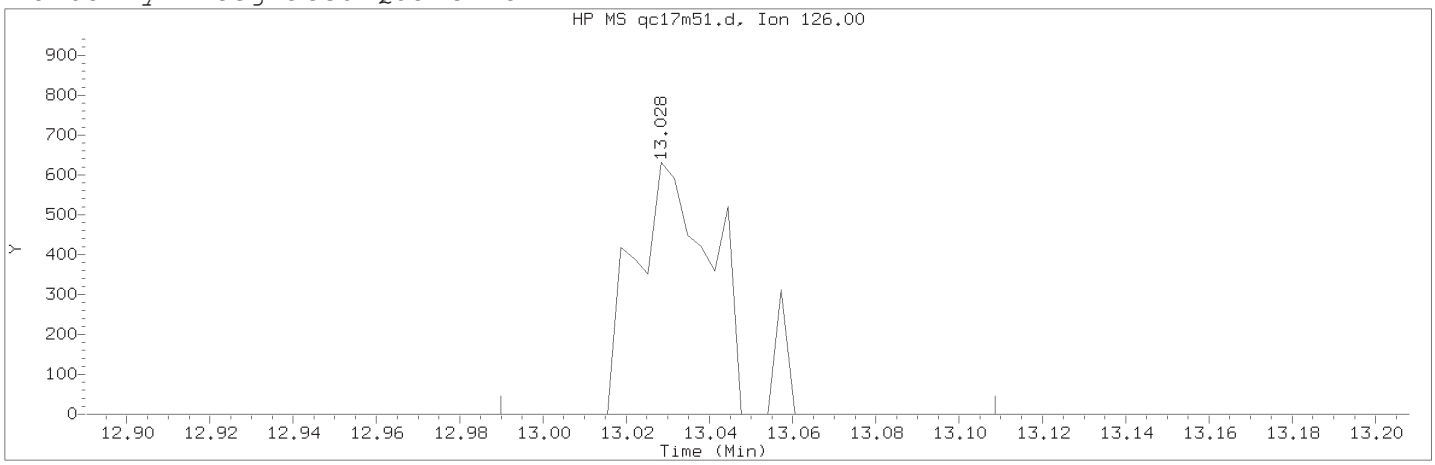
Compound Number : 139
Compound Name : p-Isopropyltoluene
Scan Number : 3519
Retention Time (minutes): 12.884
Quant Ion : 119.00
Area : 8637
On-column Amount (ng) : 0.5527
Integration start scan : 3508 Integration stop scan: 3547
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

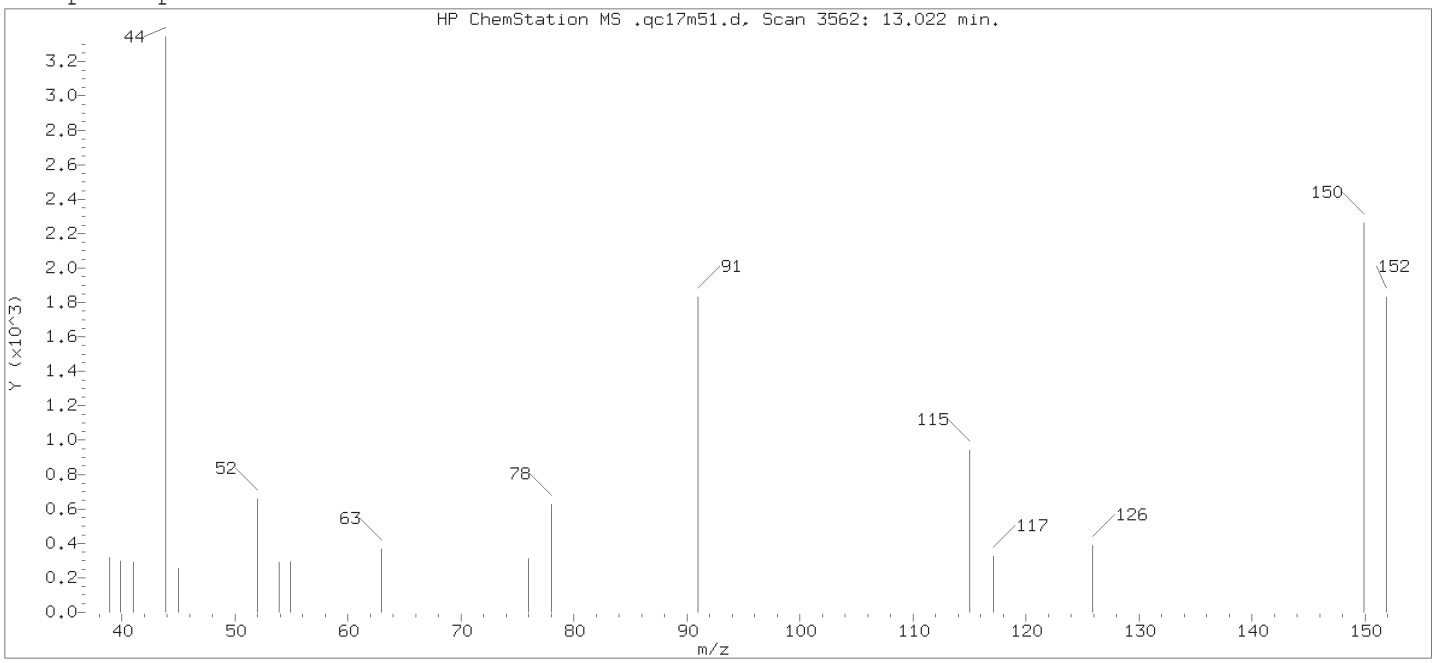
Compound Number : 143
Compound Name : Benzyl Chloride
Scan Number : 3564
Retention Time (minutes): 13.028
Quant Ion : 126.00
Area (flag) : 855M
On-Column Amount (ng) : 0.3113
Integration start scan : 3551 Integration stop scan: 3588
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion

Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

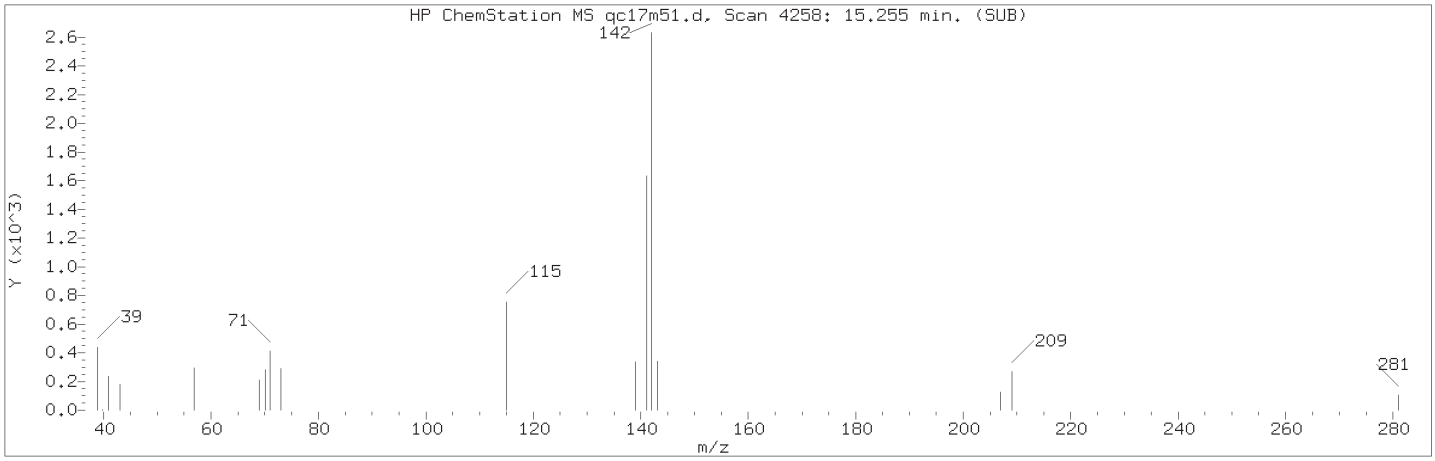
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

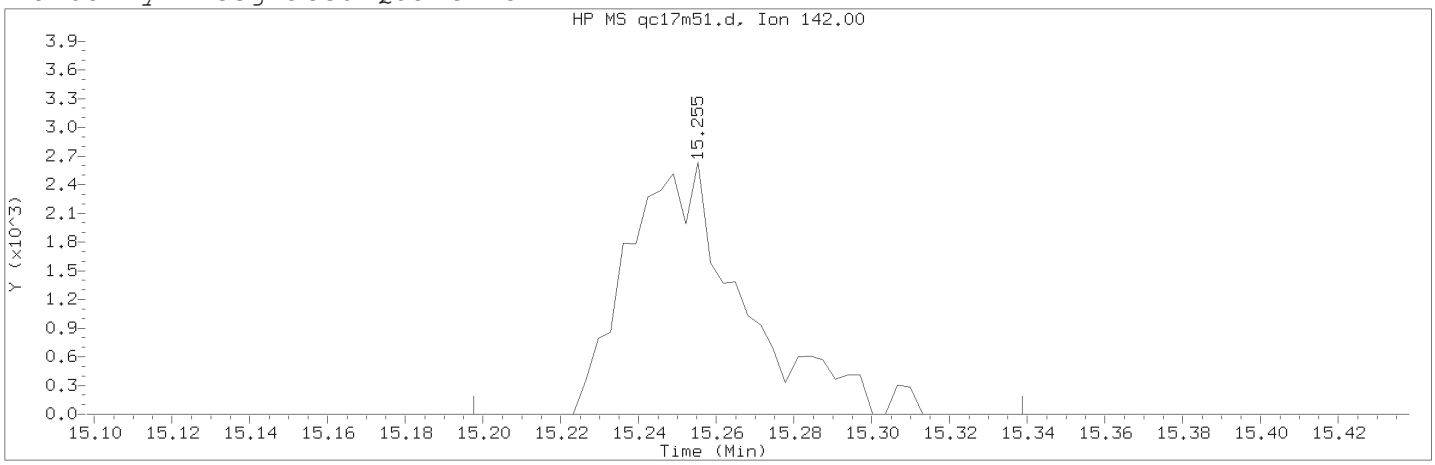
Compound Number : 143
Compound Name : Benzyl Chloride
Expected RT (minutes) : 13.021
Quant Ion : 126.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 23-OCT-2018 12:00
Date, time and analyst ID of latest file update: 23-Oct-2018 12:00 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

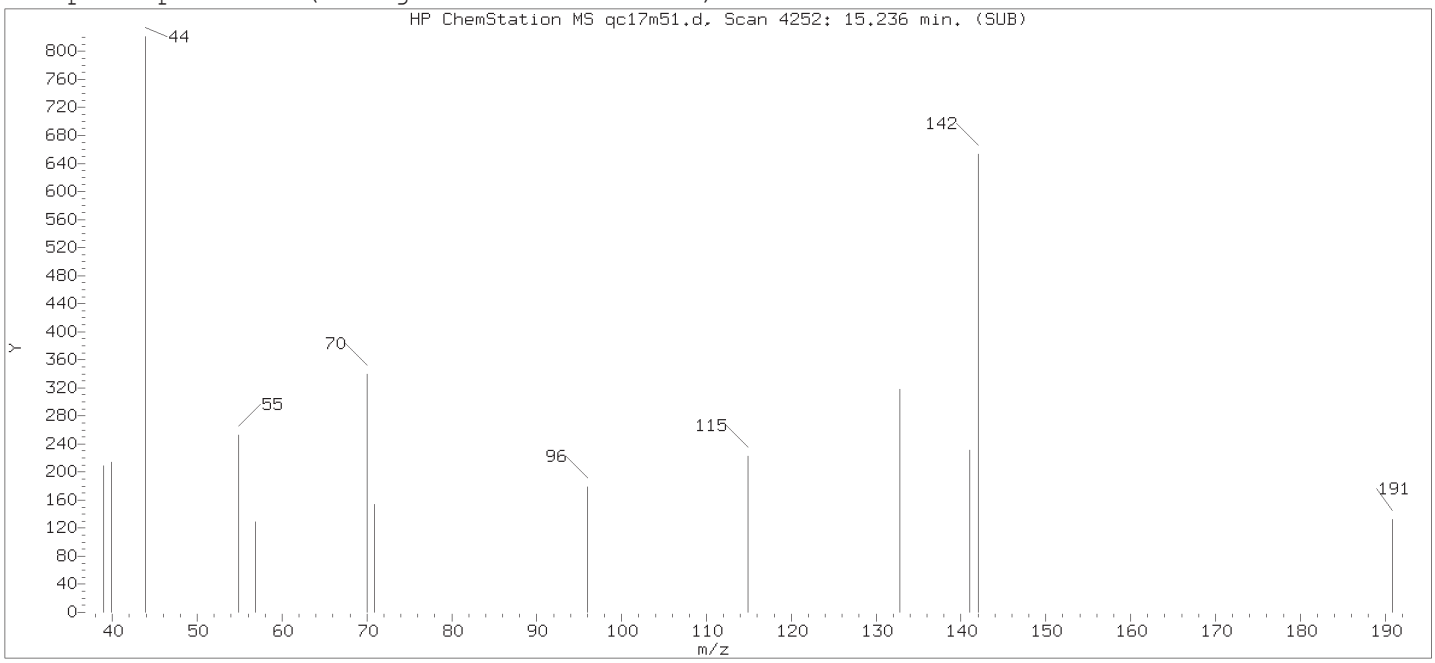
Compound Number : 157
Compound Name : 2-Methylnaphthalene
Scan Number : 4258
Retention Time (minutes): 15.255
Quant Ion : 142.00
Area (flag) : 5431M
On-Column Amount (ng) : 0.6059
Integration start scan : 4239 Integration stop scan: 4283
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

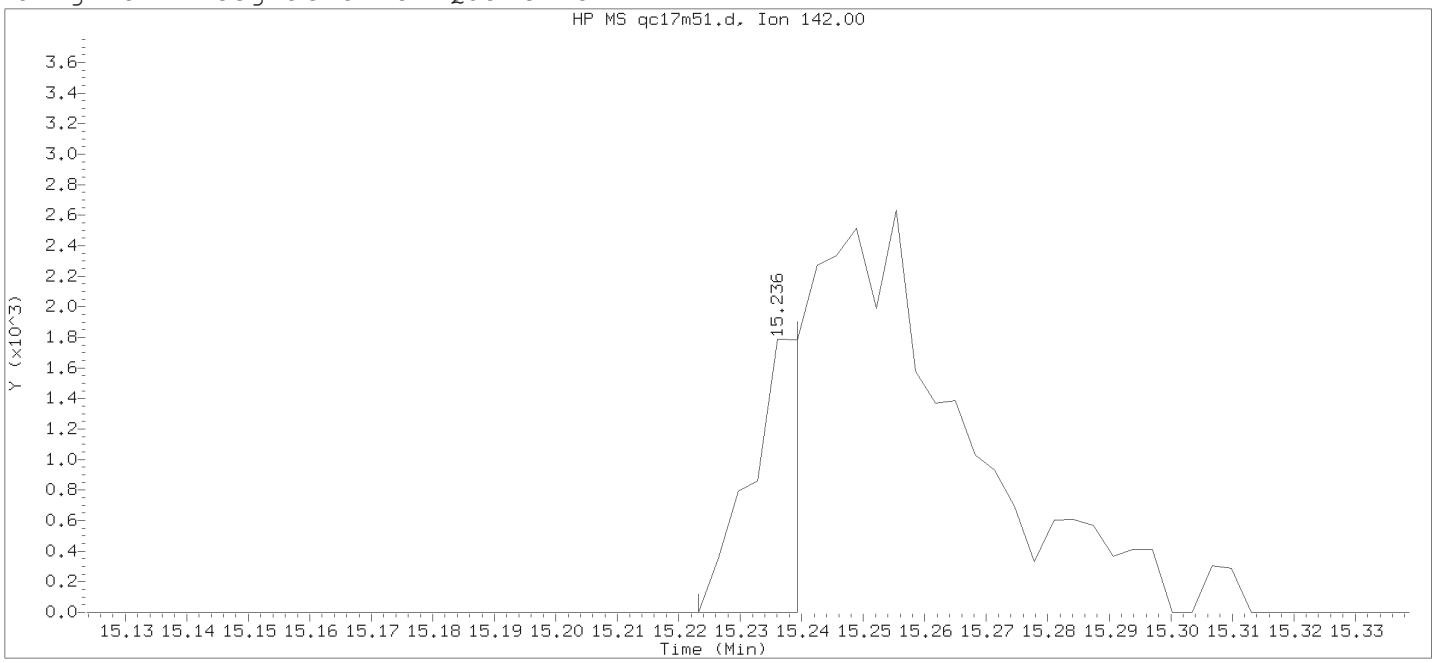
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



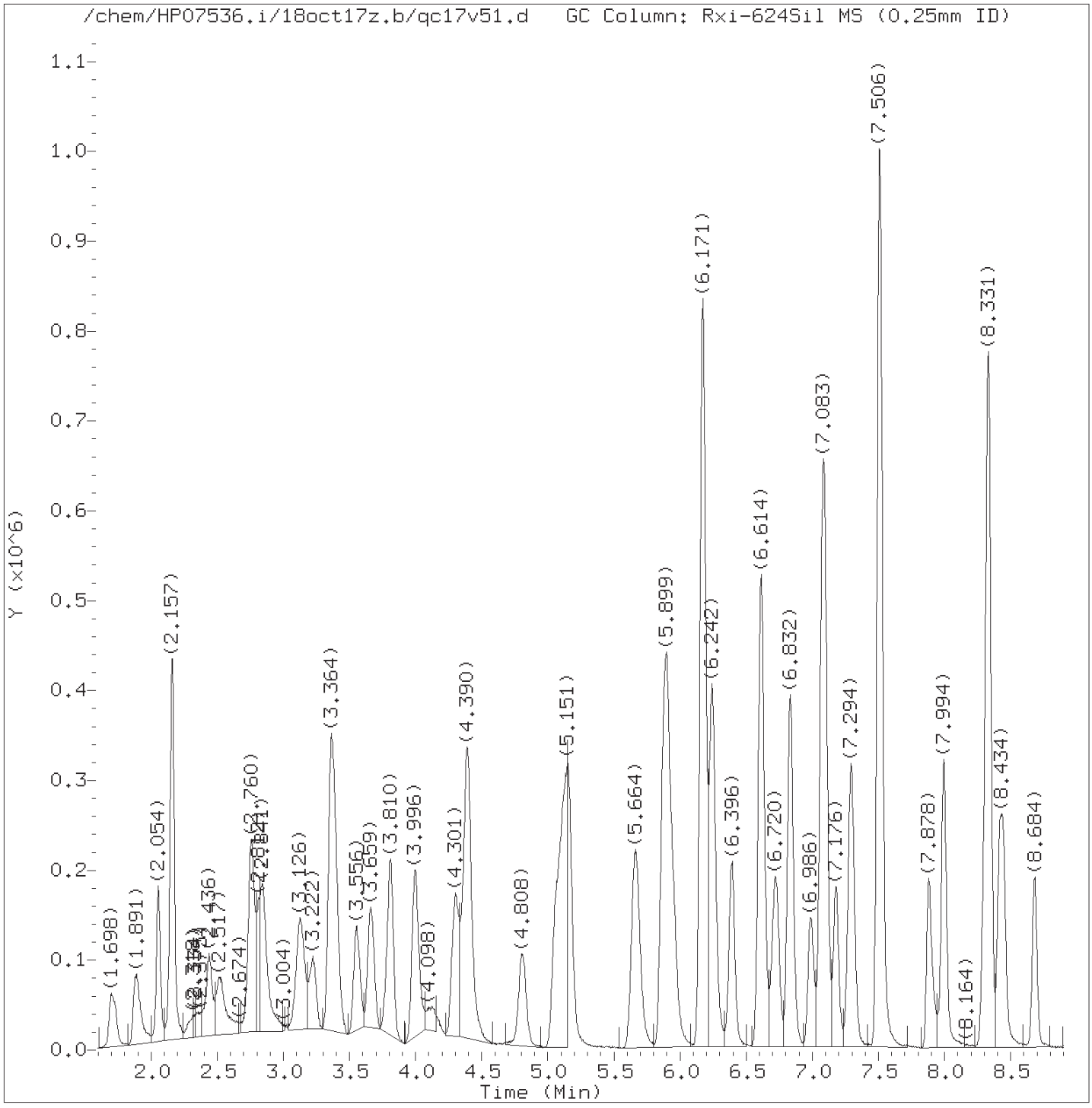
Data File: /chem/HP07536.i/18oct17z.b/qc17m51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 13:28 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: MDLC0.5 Lab Sample ID: MDLC0.5

Compound Number : 157
Compound Name : 2-Methylnaphthalene
Scan Number : 4252
Retention Time (minutes): 15.236
Quant Ion : 142.00
Area : 903
On-column Amount (ng) : 0.1008
Integration start scan : 4247 Integration stop scan: 4252
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

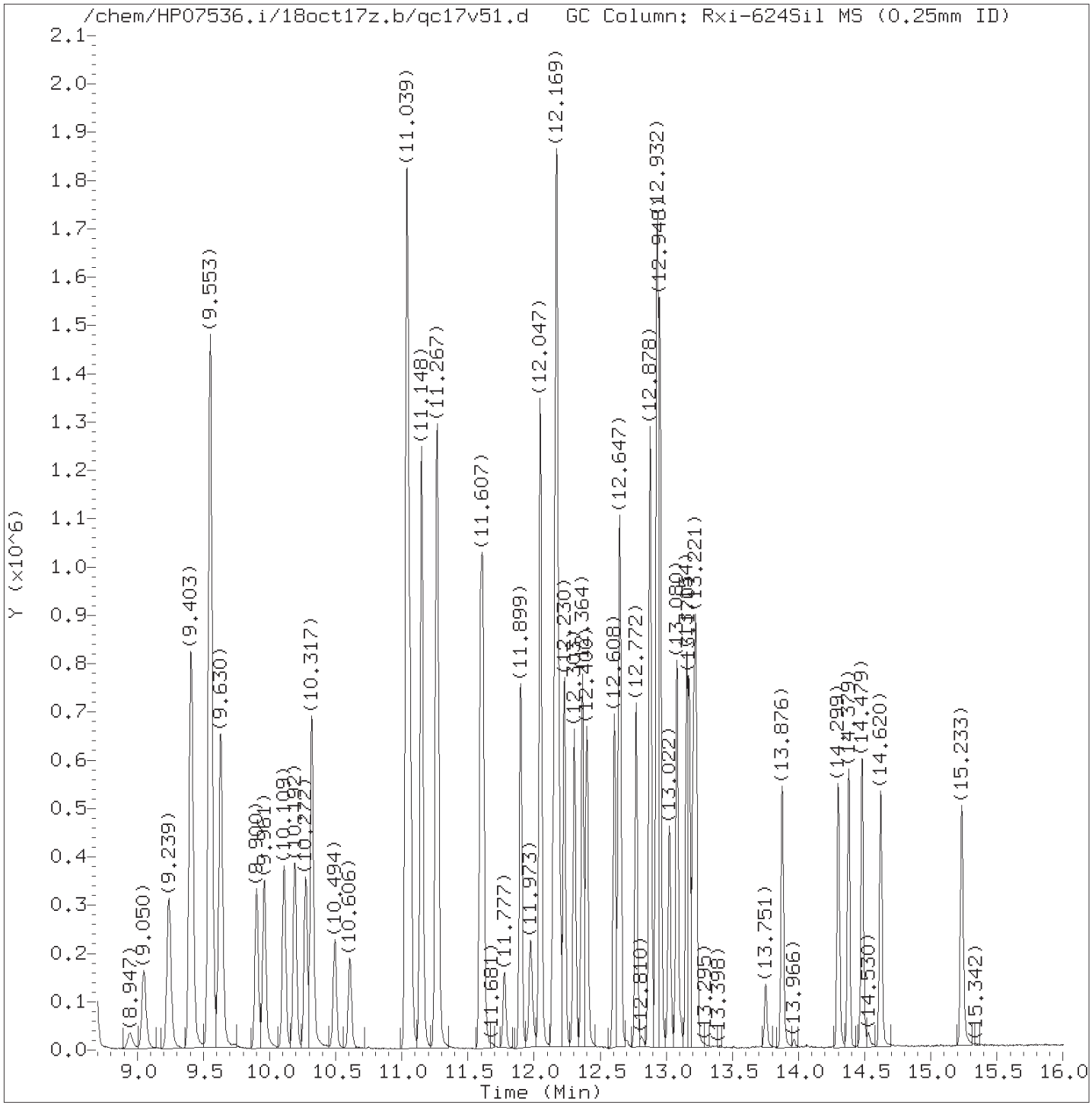
Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.888	85	166217	14.318
4) Chloromethane	(2)	2.054	50	221892	17.941
5) Vinyl Chloride	(2)	2.164	62	224480	18.655
9) Bromomethane	(2)	2.436	94	63270	14.322
10) Chloroethane	(2)	2.526	64	71513	16.707
11) Dichlorofluoromethane	(2)	2.754	67	278458	18.547
13) Trichlorofluoromethane	(2)	2.812	101	259917	17.661
14) n-Pentane	(2)	2.847	43	144288	17.296
15) Ethanol	(1)	2.946	45	86287	1055.109
17) Freon 123a	(2)	3.129	67	184484	20.367
19) 1,1-Dichloroethene	(2)	3.357	96	131204	22.173
22) Freon 113	(2)	3.376	101	105286	20.888
20) Acetone	(1)	3.380	58	97326M	140.406
23) 2-Propanol	(1)	3.556	45	69140	142.390
24) Methyl Iodide	(2)	3.556	142	251957	20.019
25) Carbon Disulfide	(2)	3.659	76	435540	20.245
27) Methyl Acetate	(2)	3.778	43	108057	18.635
29) Allyl Chloride	(2)	3.813	41	218506	19.733
31) Methylene Chloride	(2)	3.999	84	151778	21.482
30)*t-Butyl alcohol-d10	(1)	4.005	65	144086	250.000
32) t-Butyl alcohol	(1)	4.140	59	155387	220.444
33) Acrylonitrile	(2)	4.301	53	283280	97.553
34) Methyl Tertiary Butyl Ether	(2)	4.381	73	398862	19.703
35) trans-1,2-Dichloroethene	(2)	4.394	96	149180	22.333
38) n-Hexane	(2)	4.808	57	111987	21.736
40) 1,1-Dichloroethane	(2)	5.058	63	259030	21.692
41) di-Isopropyl ether	(2)	5.122	45	486175	20.615
42) 2-Chloro-1,3-butadiene	(2)	5.164	53	222594	20.656
43) Ethyl t-butyl ether	(2)	5.658	59	434177	19.794
44) 2-Butanone	(1)	5.866	43	511225	137.039
45) cis-1,2-Dichloroethene	(2)	5.899	96	164858	22.360
47) 2,2-Dichloropropane	(2)	5.918	77	211448	21.933
49) Propionitrile	(2)	5.950	54	162685	160.627
46) 1,2-Dichloroethene (Total)	(2)		96	314038	44.692
51) Methacrylonitrile	(2)	6.171	67	489143	156.917
52) Bromochloromethane	(2)	6.242	128	82184	19.900
53) Tetrahydrofuran	(1)	6.255	71	91024	97.754
54) Chloroform	(2)	6.396	83	247720	21.663

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56)$Dibromofluoromethane	(2)	6.614	113	331515	51.106
57) 1,1,1-Trichloroethane	(2)	6.624	97	207908	22.167
58) Cyclohexane	(2)	6.717	56	170502	20.751
60) 1,1-Dichloropropene	(2)	6.829	75	182516	21.633
61) Carbon Tetrachloride	(2)	6.836	117	158547	23.138
62) Isobutyl Alcohol	(1)	6.990	41	130891	548.073
63)$1,2-Dichloroethane-d4	(2)	7.067	102	86386	51.217
64) Benzene	(2)	7.095	78	557756	21.304
67) 1,2-Dichloroethane	(2)	7.182	62	200166	22.073
68) t-Amyl methyl ether	(2)	7.294	73	418998	20.129
70)*Fluorobenzene	(2)	7.506	96	1192377	50.000
72) n-Heptane	(2)	7.522	43	101249	20.122
73) n-Butanol	(1)	7.882	56	190304	1062.363
75) Trichloroethene	(2)	7.994	95	137313	21.132
76) Methylcyclohexane	(2)	8.305	83	124033	19.834
77) 1,2-Dichloropropane	(2)	8.334	63	147995	20.726
79) Methyl Methacrylate	(2)	8.411	69	100995	19.140
80) 1,4-Dioxane	(1)	8.427	88	35744M	559.456
81) Dibromomethane	(2)	8.443	93	91587	21.133
84) Bromodichloromethane	(2)	8.677	83	166026	22.400
85) 2-Nitropropane	(1)	8.947	41	19356A	16.175
87) 2-Chloroethyl Vinyl Ether	(2)	9.050	63	93263	20.088
89) cis-1,3-Dichloropropene	(2)	9.239	75	225747	21.603
90) 4-Methyl-2-pentanone	(2)	9.403	43	708324	98.614
91)$Toluene-d8	(3)	9.553	98	1229145	51.251
92) Toluene	(3)	9.627	92	335336	21.971
93) trans-1,3-Dichloropropene	(3)	9.900	75	205594	21.816
95) Ethyl Methacrylate	(3)	9.961	69	194072	19.928
94) 1,3-Dichloropropene (total)	(3)		100	431341	43.420
96) 1,1,2-Trichloroethane	(3)	10.109	97	131981	21.864
98) Tetrachloroethene	(3)	10.189	166	131746	21.634
99) 1,3-Dichloropropane	(3)	10.275	76	217177	21.034
101) 2-Hexanone	(3)	10.317	43	482694	101.963
103) Dibromochloromethane	(3)	10.494	129	123733	23.125
104) 1,2-Dibromoethane	(3)	10.606	107	134604	21.265
105)*Chlorobenzene-d5	(3)	11.036	117	878538	50.000
106) 1-Chlorohexane	(3)	11.045	91	127555	20.558
107) Chlorobenzene	(3)	11.062	112	357190	20.743

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
108) 1,1,1,2-Tetrachloroethane	(3)	11.148	131	124455	21.887
109) Ethylbenzene	(3)	11.151	91	548516	20.940
110) m+p-Xylene	(3)	11.267	106	441695	43.135
111) o-Xylene	(3)	11.597	106	219200	21.502
113) Styrene	(3)	11.613	104	386077	21.326
112) Xylene (Total)	(3)		106	660895	64.637
114) Bromoform	(3)	11.774	173	72730	20.290
115) Isopropylbenzene	(3)	11.899	105	468499	21.535
118) Cyclohexanone	(1)	11.973	55	103566A	442.942
119)$4-Bromofluorobenzene	(3)	12.047	95	384652	50.376
120) 1,1,2,2-Tetrachloroethane	(4)	12.146	83	161995M	19.463
121) Bromobenzene	(4)	12.162	156	160759	20.476
122) trans-1,4-Dichloro-2-butene	(4)	12.172	53	278307	112.001
123) 1,2,3-Trichloropropane	(4)	12.191	110	52198	20.495
124) n-Propylbenzene	(4)	12.230	91	512926	21.131
126) 2-Chlorotoluene	(4)	12.303	126	119381	20.877
129) 1,3,5-Trimethylbenzene	(4)	12.364	105	383220	20.901
130) 4-Chlorotoluene	(4)	12.400	126	125474	20.541
133) tert-Butylbenzene	(4)	12.608	134	77423	20.504
134) Pentachloroethane	(4)	12.640	167	75755	19.263
135) 1,2,4-Trimethylbenzene	(4)	12.650	105	399397	20.317
136) sec-Butylbenzene	(4)	12.772	105	428622	21.203
138) 1,3-Dichlorobenzene	(4)	12.874	146	238289	20.545
139) p-Isopropyltoluene	(4)	12.881	119	390204	21.208
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	386618	50.000
141) 1,4-Dichlorobenzene	(4)	12.948	146	269314	20.677
142) 1,2,3-Trimethylbenzene	(4)	12.955	105	438868	19.724
143) Benzyl Chloride	(4)	13.022	126	63628	19.682
144) 1,3-Diethylbenzene	(4)	13.080	119	228521	20.477
145) 1,4-Diethylbenzene	(4)	13.154	119	233611	19.999
146) n-Butylbenzene	(4)	13.173	92	181659	21.399
147) 1,2-Dichlorobenzene	(4)	13.205	146	245945	20.461
148) 1,2-Diethylbenzene	(4)	13.224	119	203533	20.355
151) 1,2-Dibromo-3-chloropropane	(4)	13.751	75	28014	21.680
152) 1,3,5-Trichlorobenzene	(4)	13.876	180	168615	22.388
153) 1,2,4-Trichlorobenzene	(4)	14.302	180	163730	22.563
155) Naphthalene	(4)	14.482	128	441098	20.495
156) 1,2,3-Trichlorobenzene	(4)	14.620	180	158700	22.879

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$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

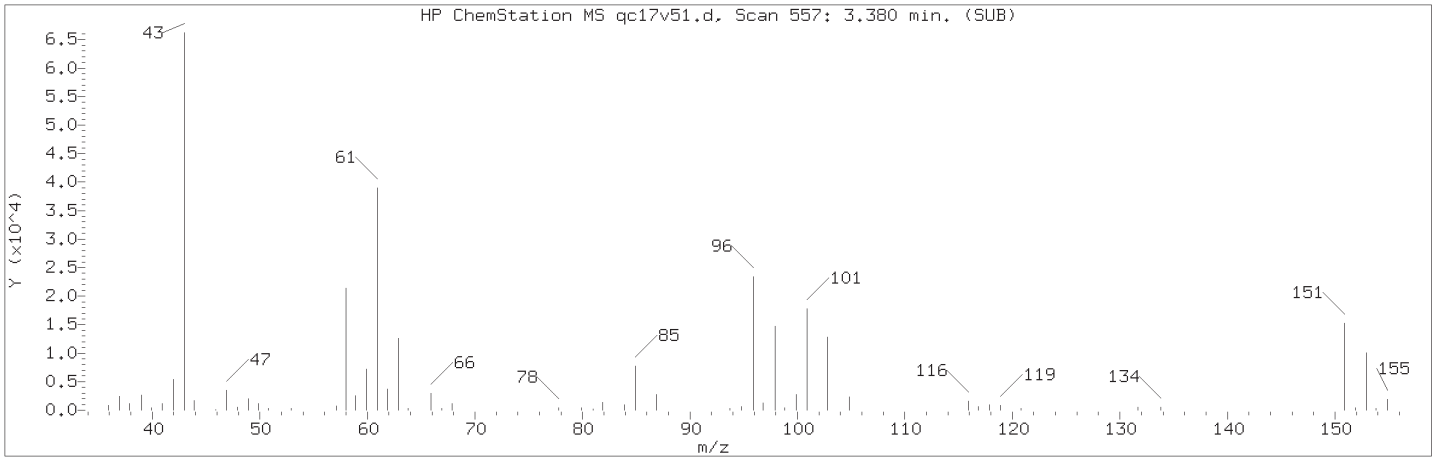
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

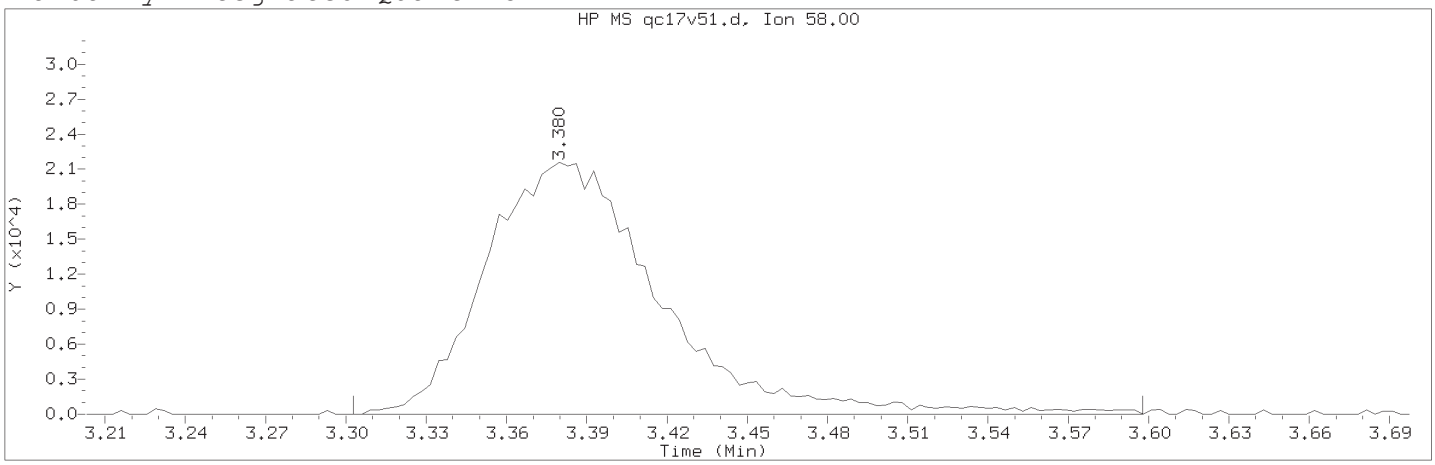
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
157) 2-Methylnaphthalene	(4)	15.233	142	254371	24.106

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

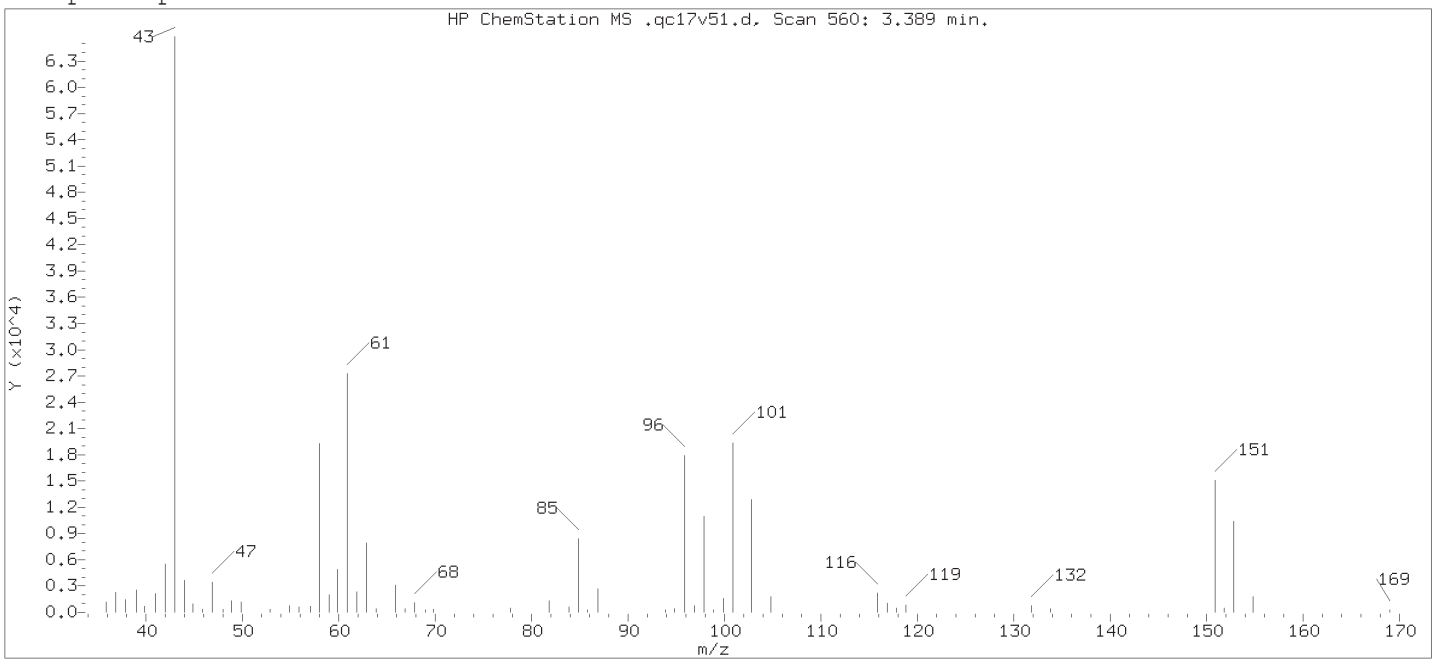
Compound Number : 20
Compound Name : Acetone
Scan Number : 557
Retention Time (minutes): 3.380
Quant Ion : 58.00
Area (flag) : 97326M
On-Column Amount (ng) : 140.4060
Integration start scan : 532 Integration stop scan: 624
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

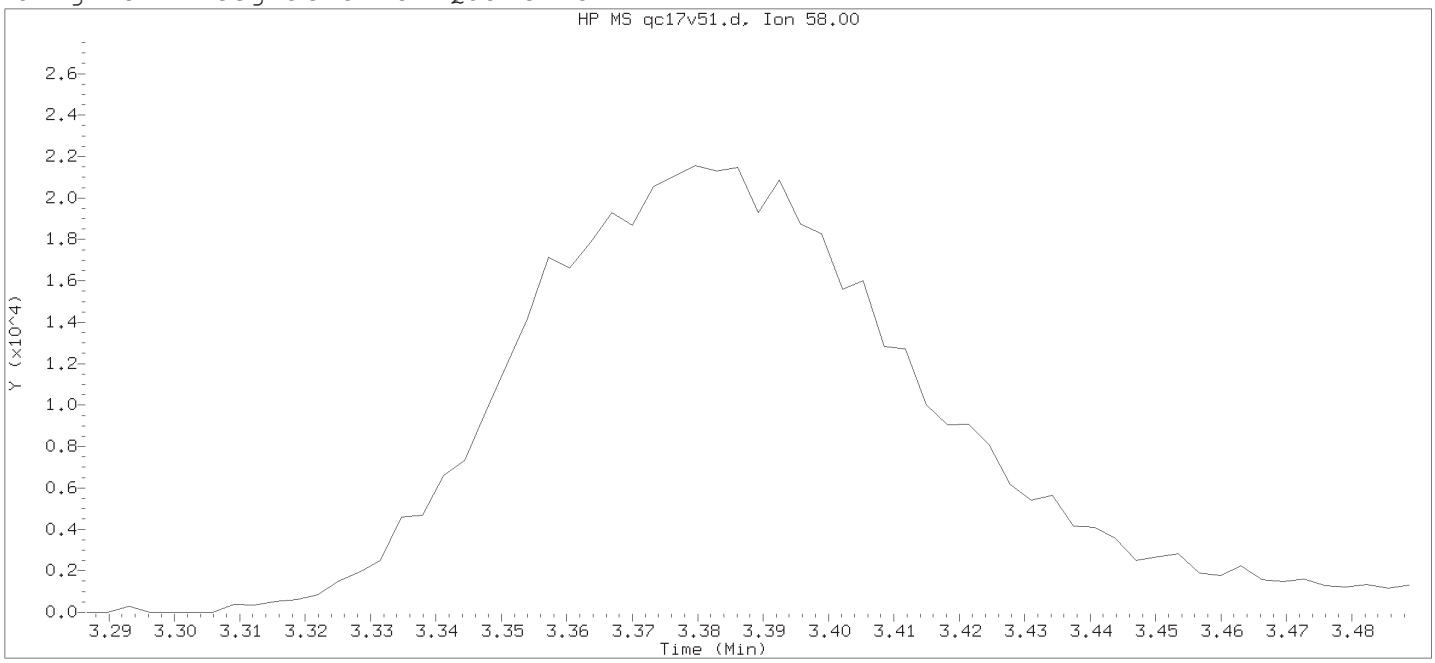
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

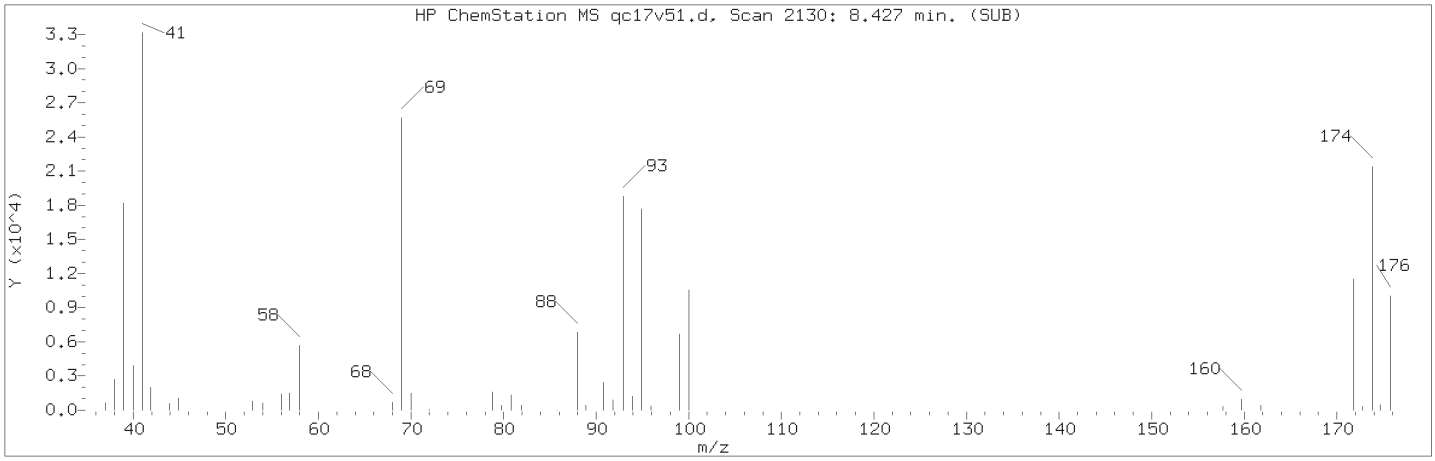
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

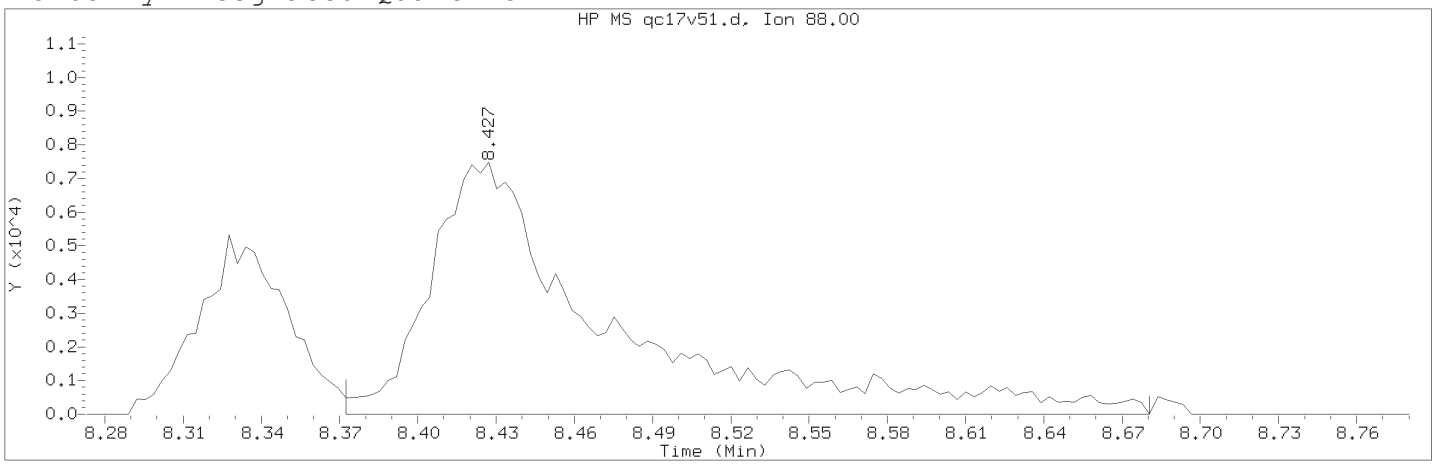
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.388
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

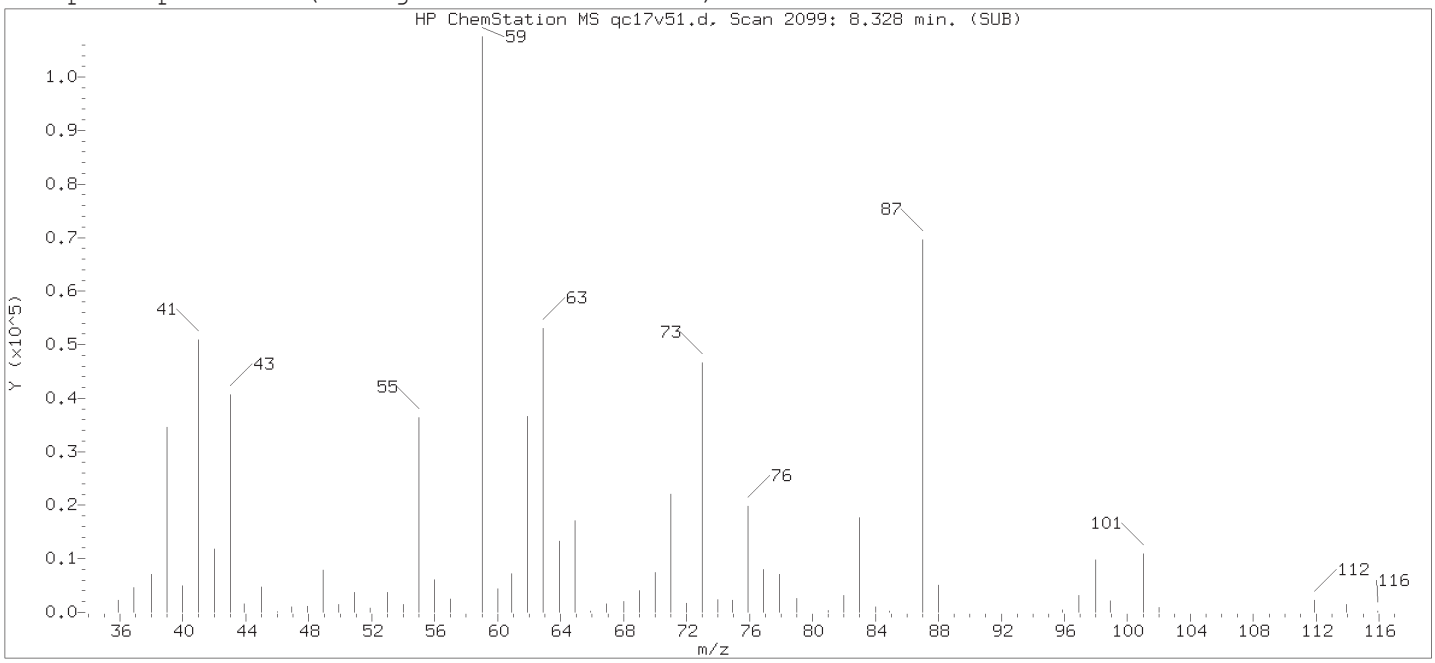
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2130
Retention Time (minutes): 8.427
Quant Ion : 88.00
Area (flag) : 35744M
On-Column Amount (ng) : 559.4562
Integration start scan : 2112 Integration stop scan: 2208
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

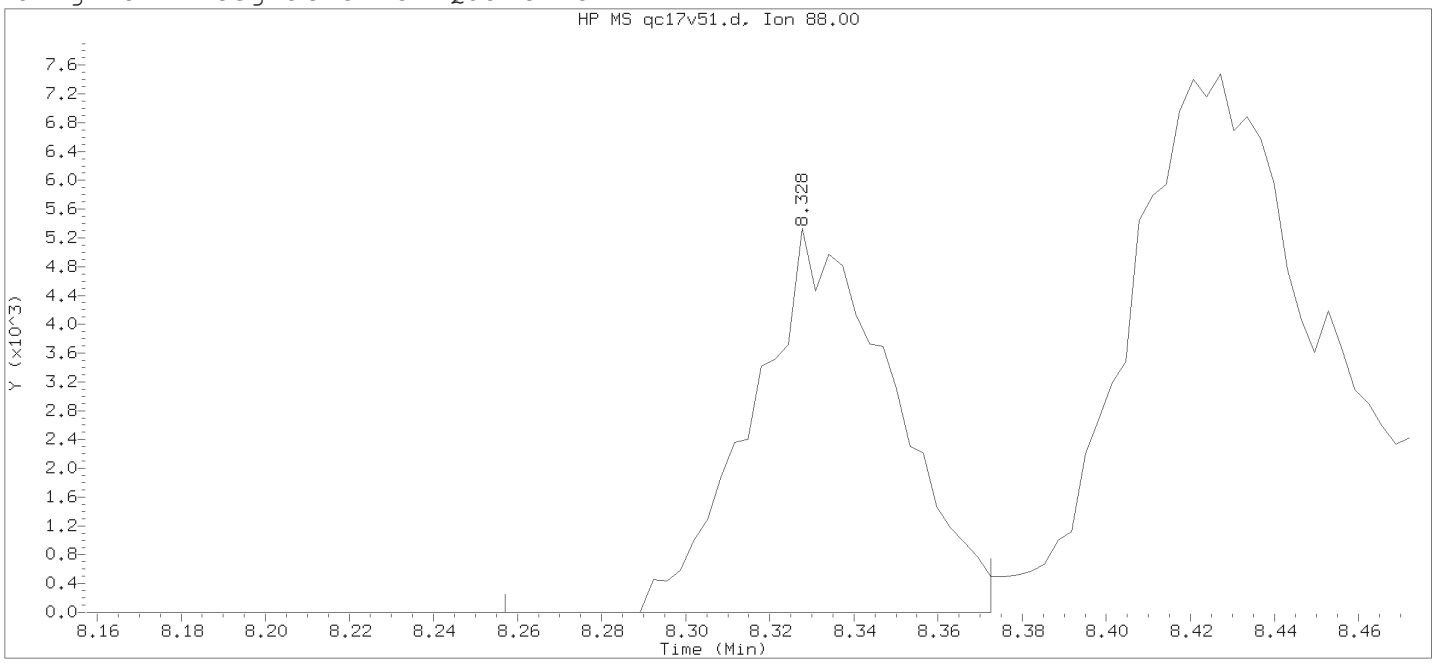
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

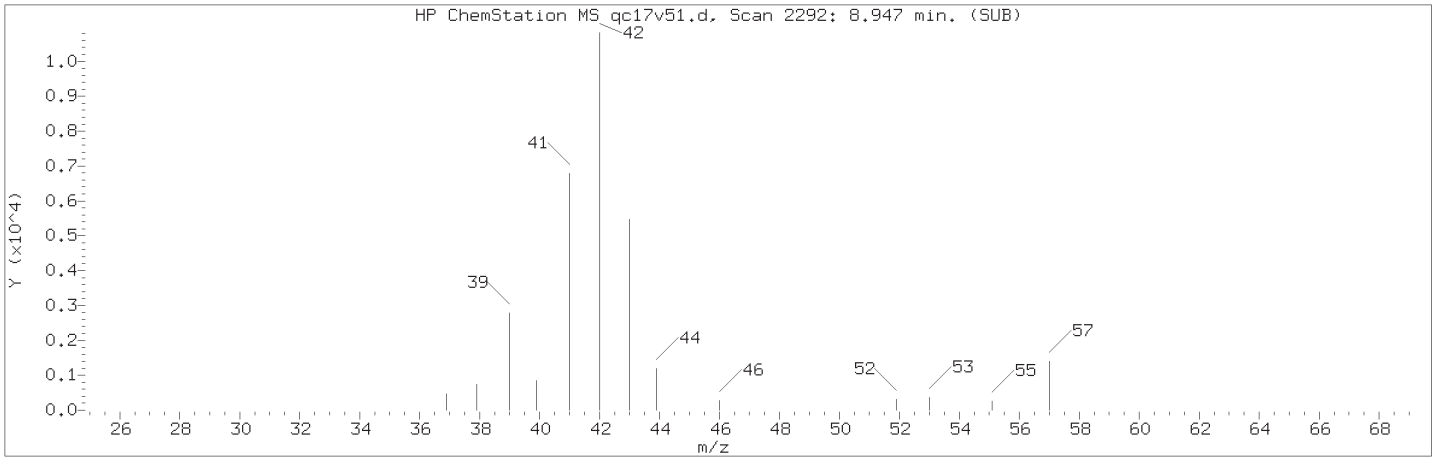
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

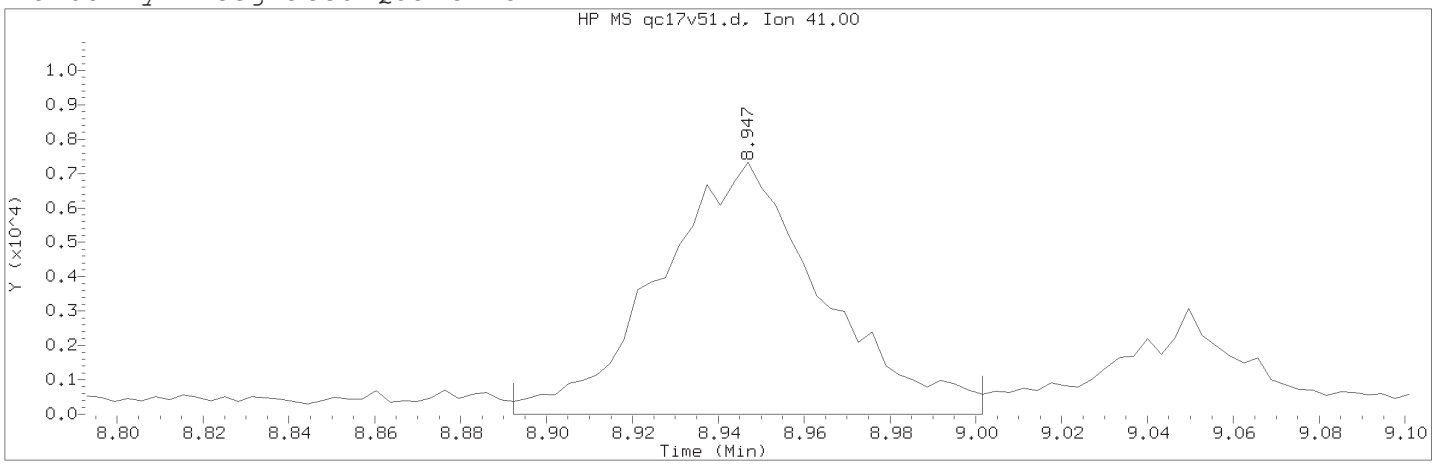
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2099
Retention Time (minutes): 8.328
Quant Ion : 88.00
Area : 12414
On-column Amount (ng) : 194.3064
Integration start scan : 2076 Integration stop scan: 2112
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

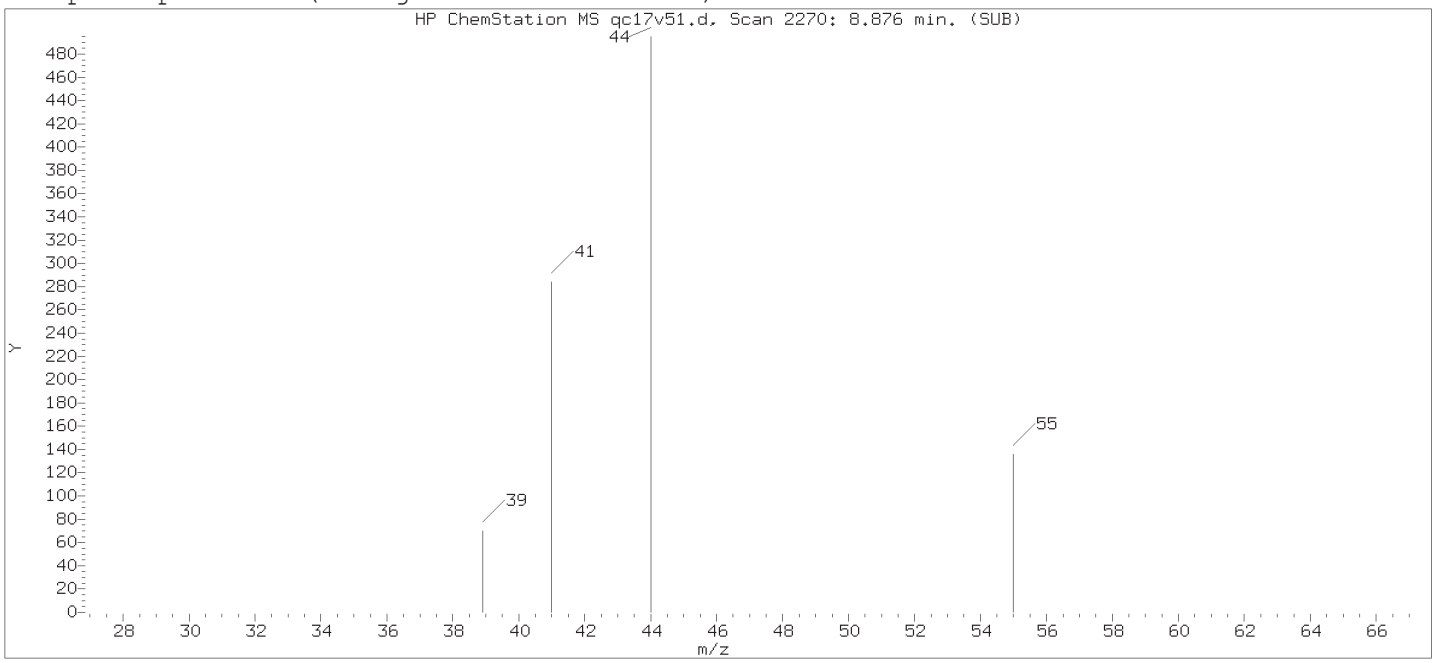
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2292
Retention Time (minutes): 8.947
Quant Ion : 41.00
Area (flag) : 19356A
On-Column Amount (ng) : 16.1752
Integration start scan : 2274 Integration stop scan: 2308
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

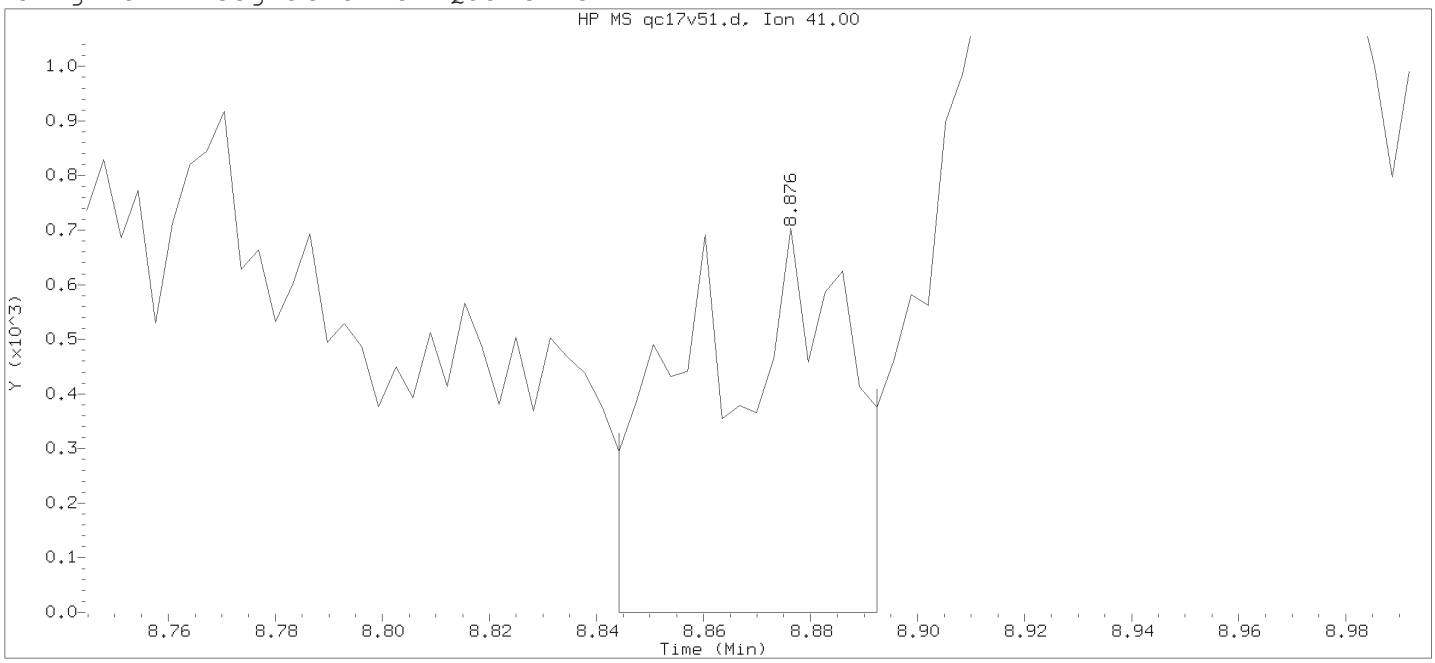
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

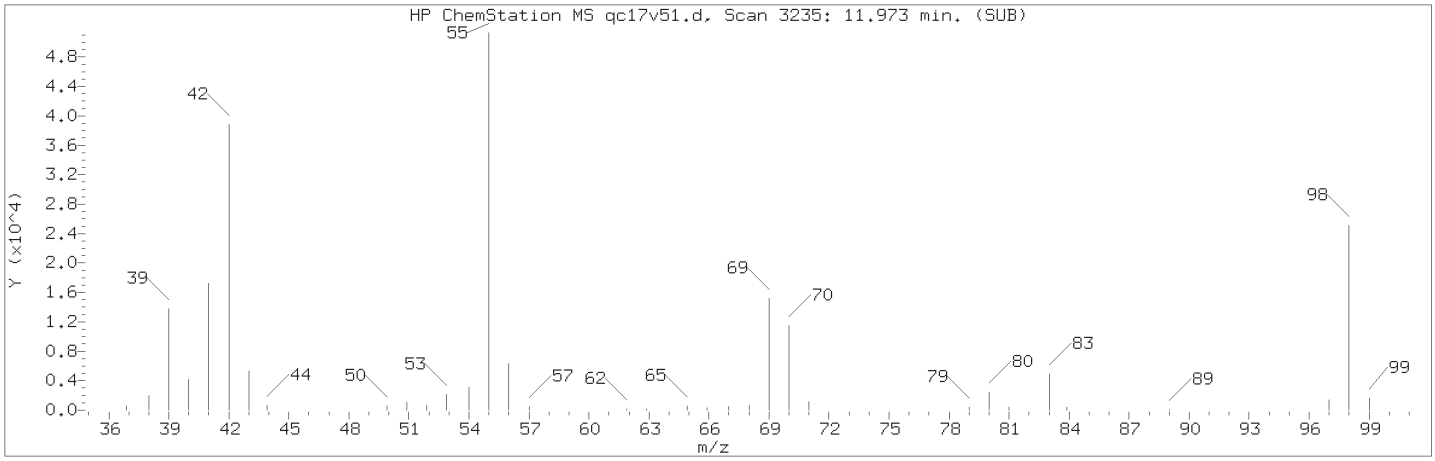
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

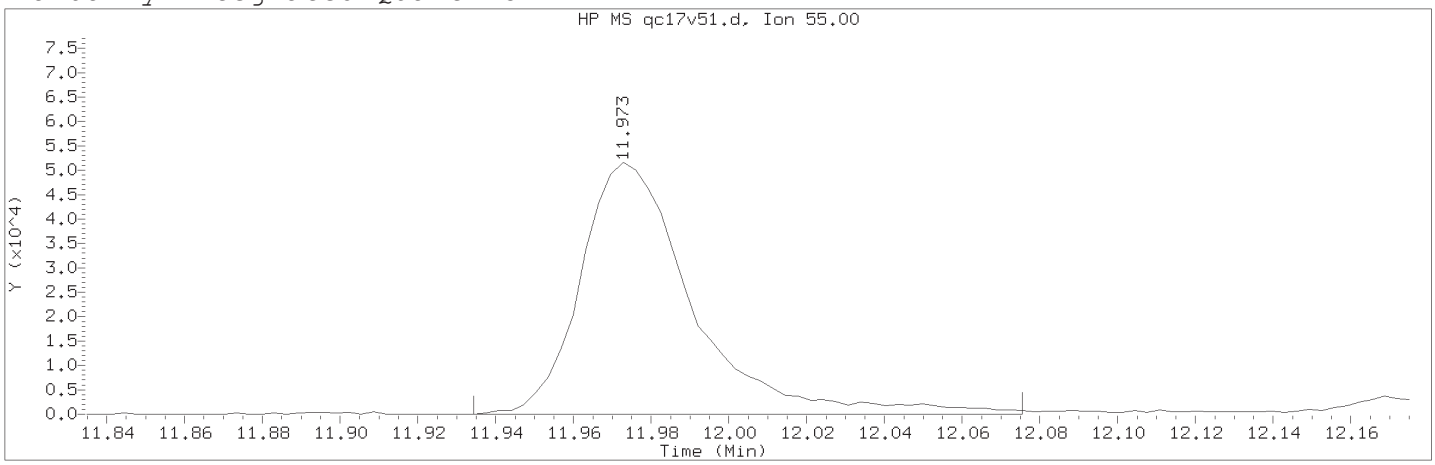
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2270
Retention Time (minutes): 8.876
Quant Ion : 41.00
Area : 1372
On-column Amount (ng) : 1.1467
Integration start scan : 2259 Integration stop scan: 2274
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

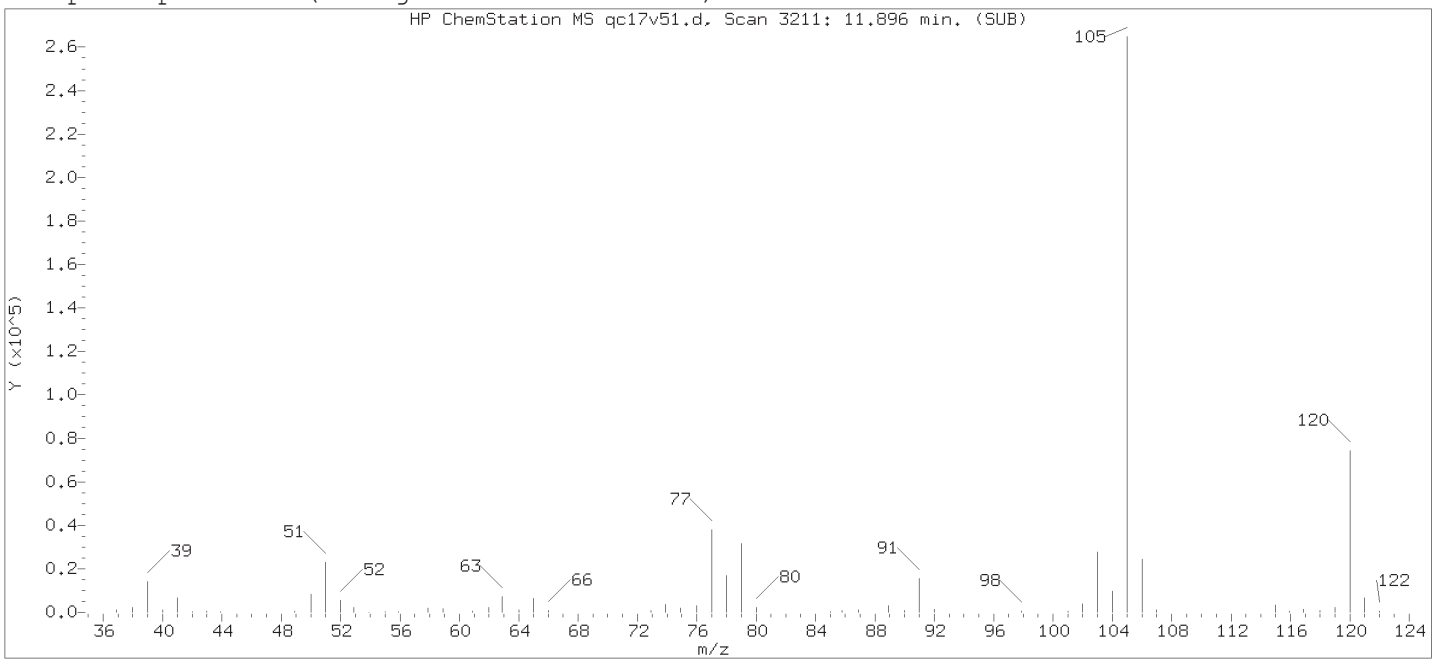
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3235
Retention Time (minutes): 11.973
Quant Ion : 55.00
Area (flag) : 103566A
On-Column Amount (ng) : 442.9417
Integration start scan : 3222 Integration stop scan: 3266
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

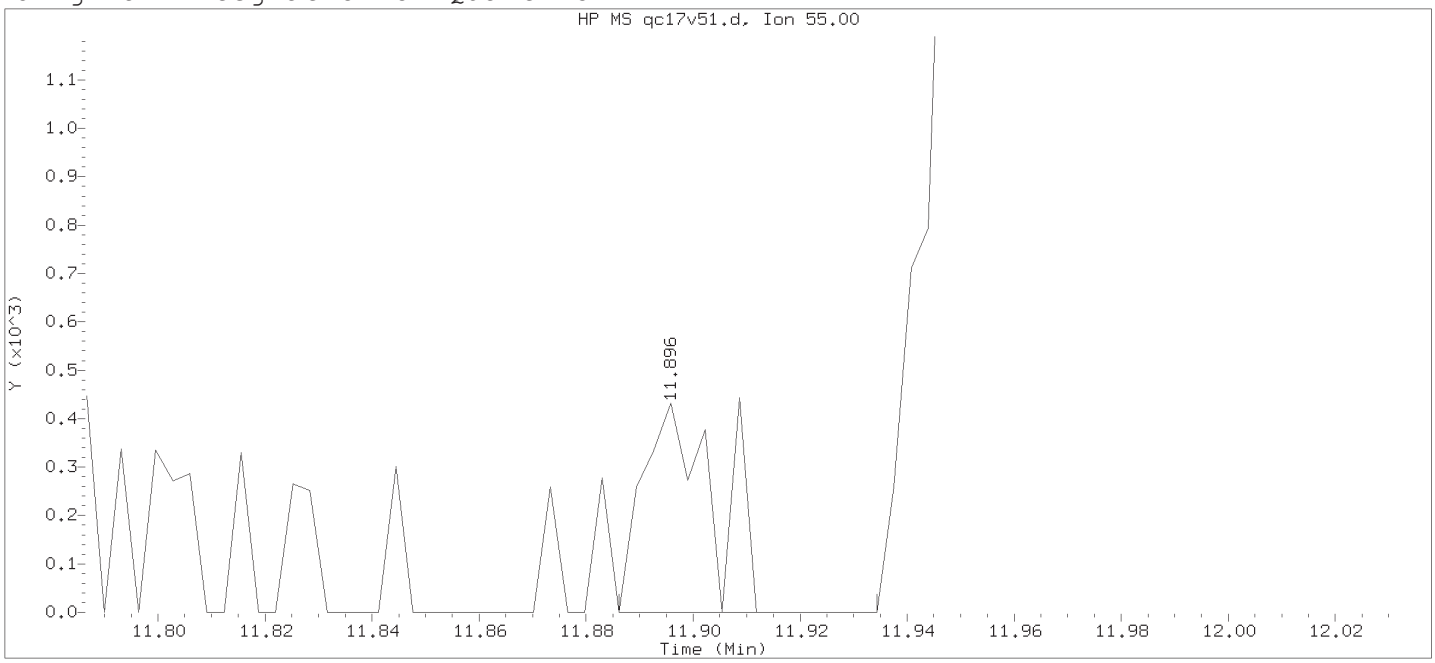
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

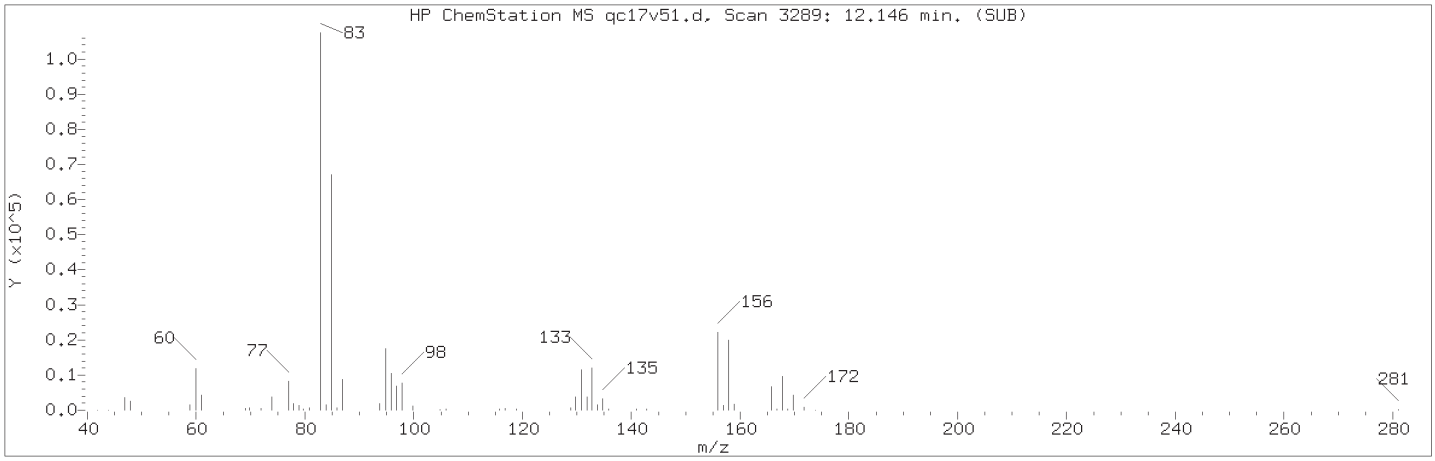
Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

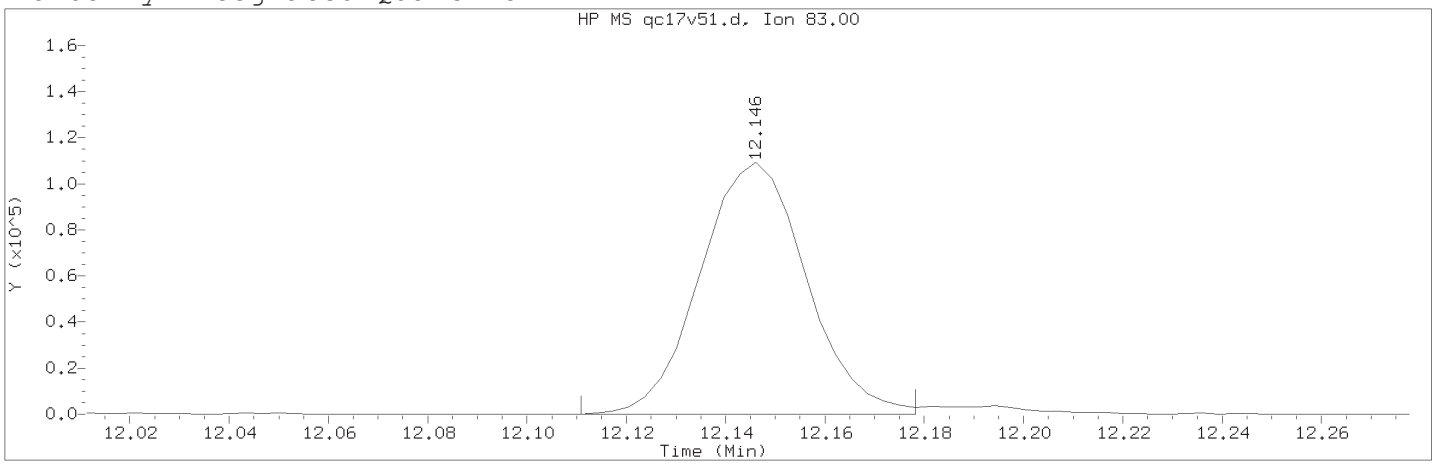
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3211
Retention Time (minutes): 11.896
Quant Ion : 55.00
Area : 407
On-column Amount (ng) : 1.7440
Integration start scan : 3207 Integration stop scan: 3222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: QICV1
Calibration date and time: 23-OCT-2018 12:01
Date, time and analyst ID of latest file update: 23-Oct-2018 12:01 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

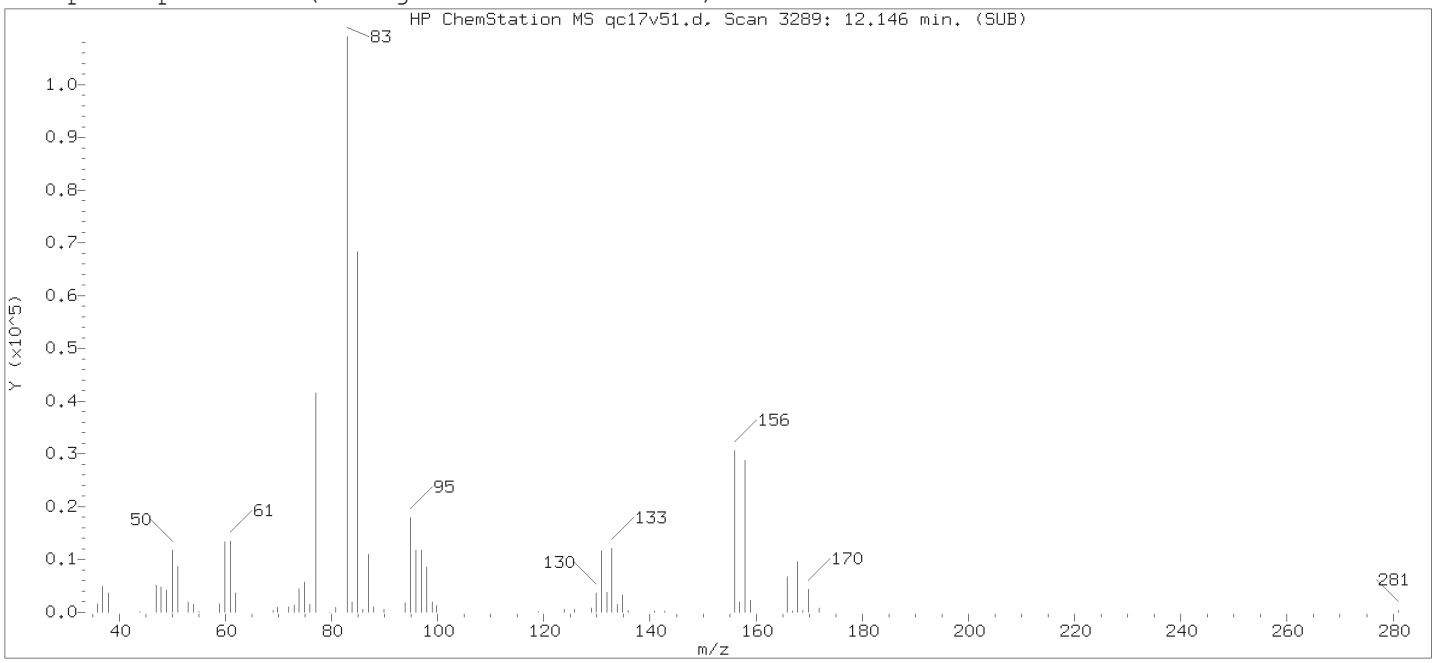
Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.146
Quant Ion : 83.00
Area (flag) : 161995M
On-Column Amount (ng) : 19.4632
Integration start scan : 3277 Integration stop scan: 3298
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

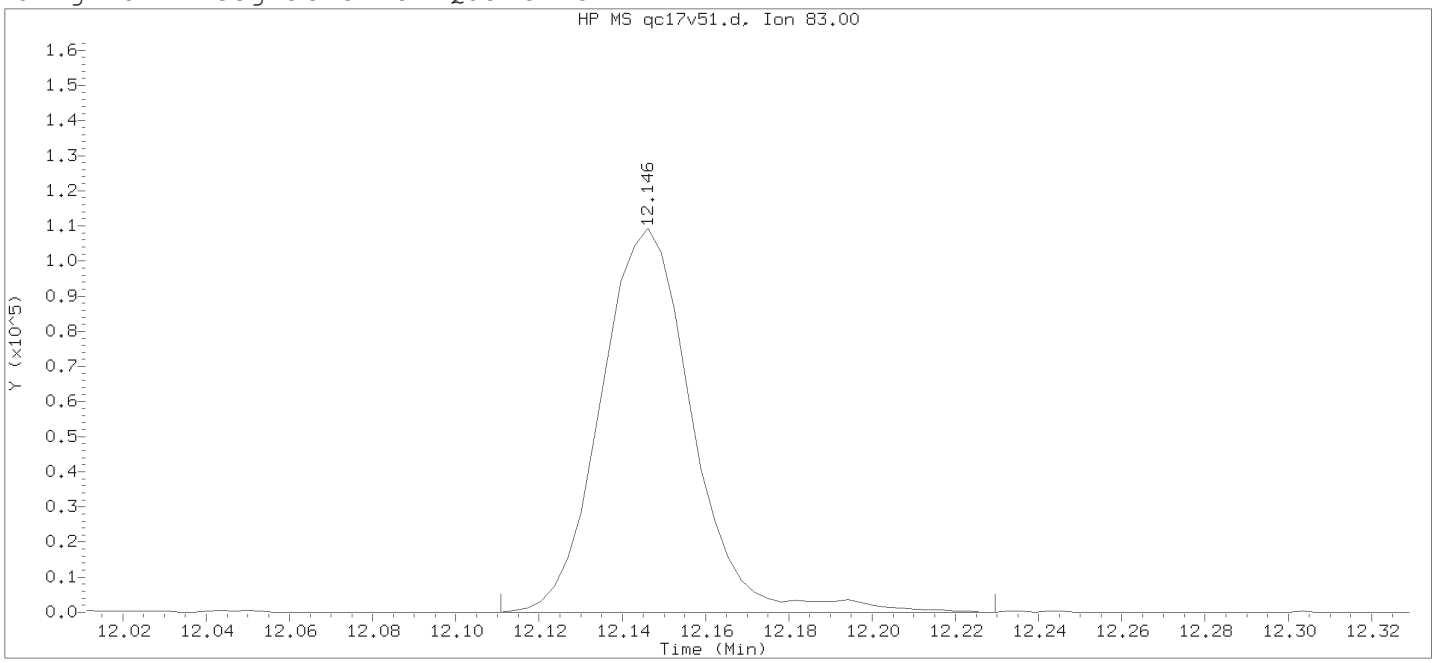
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Chelsea B. Riehl on 10/23/2018 at 16:14.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



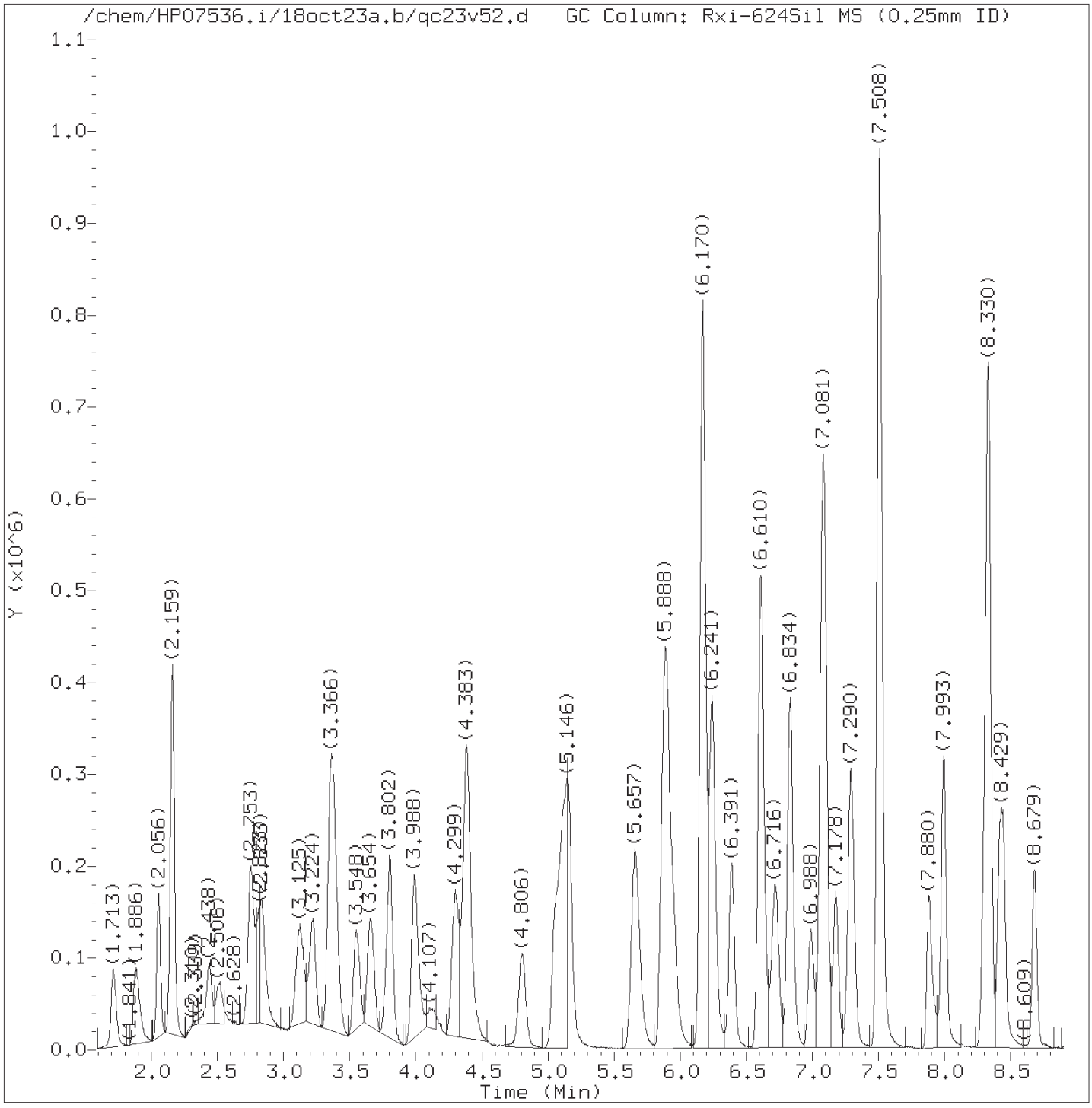
Data File: /chem/HP07536.i/18oct17z.b/qc17v51.d Instrument ID: HP07536.i
Injection date and time: 17-OCT-2018 17:18 Analyst ID: SCN10072

Method used: /chem/HP07536.i/18oct17z.b/me8260c.m Sublist used: 8260S
Calibration date and time: 20-OCT-2018 13:45
Date, time and analyst ID of latest file update: 20-Oct-2018 13:46 scn10072

Sample Name: QICVC Lab Sample ID: QICVC

Compound Number : 120
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3289
Retention Time (minutes): 12.146
Quant Ion : 83.00
Area : 167089
On-column Amount (ng) : 20.0752
Integration start scan : 3277 Integration stop scan: 3314
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 10/23/2018 at 12:03.
Target 3.5 esignature user ID: SCN10072



Total Ion Chromatogram (TIC)

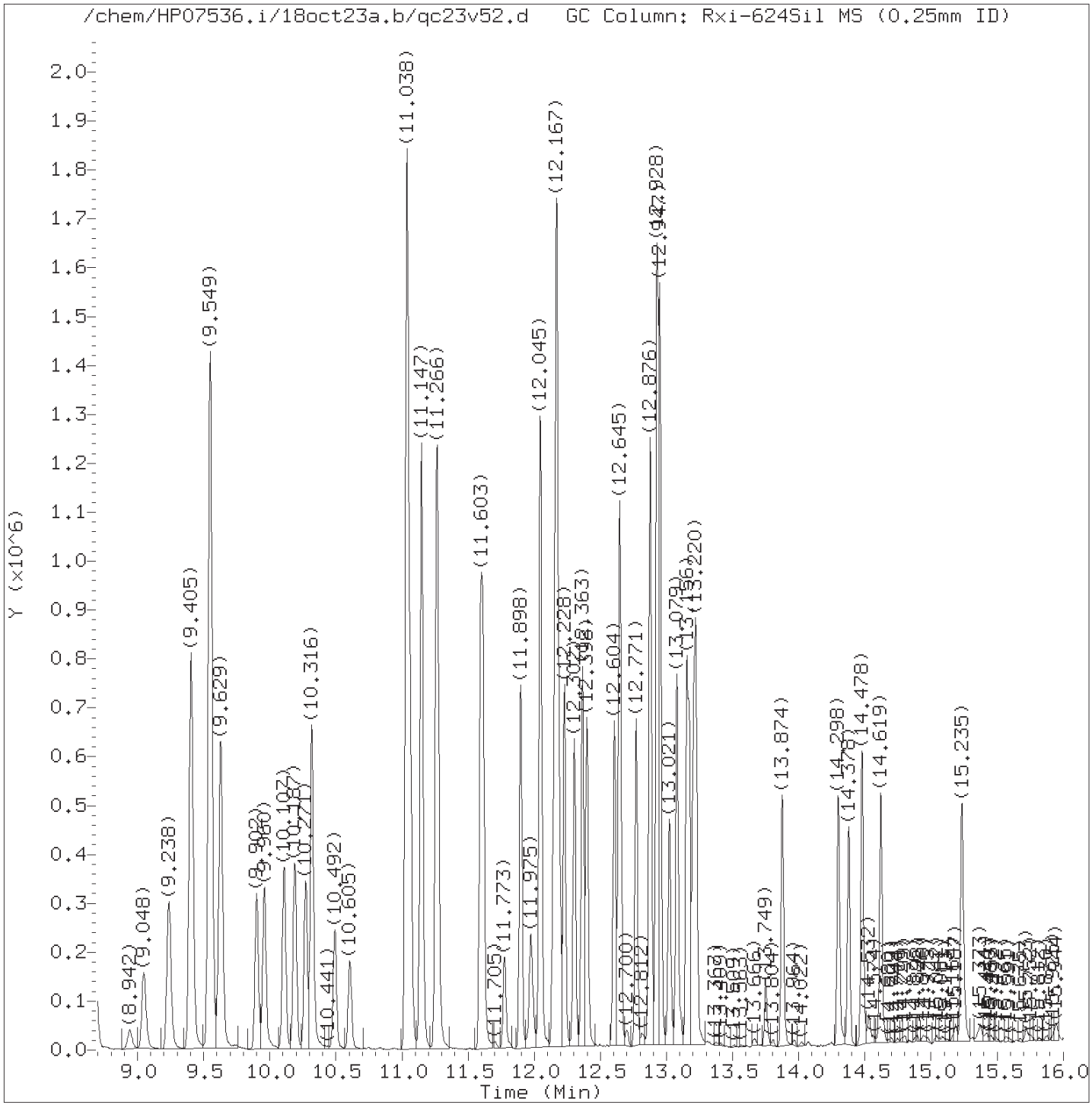
Target Revision 3.5

Data File: /chem/HP07536.i/18oct23a.b/qc23v52.d Instrument ID: HP07536.i
Injection date and time: 23-OCT-2018 09:01 Analyst ID: scn10072

Method used: /chem/HP07536.i/18oct23a.b/me8260c.m Sublist used: QICV2
Calibration date and time: 23-OCT-2018 12:02
Date, time and analyst ID of latest file update: 23-Oct-2018 12:08 scn10072

Sample Name: QICVC2 Lab Sample ID: QICVC2

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:08.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18oct23a.b/qc23v52.d Instrument ID: HP07536.i
Injection date and time: 23-OCT-2018 09:01 Analyst ID: scn10072

Method used: /chem/HP07536.i/18oct23a.b/me8260c.m Sublist used: QICV2
Calibration date and time: 23-OCT-2018 12:02
Date, time and analyst ID of latest file update: 23-Oct-2018 12:08 scn10072

Sample Name: QICVC2 Lab Sample ID: QICVC2

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:08.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18oct23a.b/qc23v52.d Instrument ID: HP07536.i
Injection date and time: 23-OCT-2018 09:01 Analyst ID: scn10072

Method used: /chem/HP07536.i/18oct23a.b/me8260c.m Sublist used: QICV2
Calibration date and time: 23-OCT-2018 12:02
Date, time and analyst ID of latest file update: 23-Oct-2018 12:08 scn10072

Sample Name: QICVC2 Lab Sample ID: QICVC2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acrolein	(1)	3.228	56	226922	128.518
30)*t-Butyl alcohol-d10	(1)	4.004	65	148218	250.000
56)$Dibromofluoromethane	(2)	6.606	113	322722	51.897
63)$1,2-Dichloroethane-d4	(2)	7.072	102	83534	51.664
70)*Fluorobenzene	(2)	7.508	96	1143042	50.000
91)$Toluene-d8	(3)	9.549	98	1207046	49.421
105)*Chlorobenzene-d5	(3)	11.035	117	894687	50.000
119)$4-Bromofluorobenzene	(3)	12.045	95	381739	49.093
140)*1,4-Dichlorobenzene-d4	(4)	12.928	152	387908	50.000
154) Hexachlorobutadiene	(4)	14.378	225	72165	22.494

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 10/23/2018 at 12:08.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18nov07a.b/qn07t10.d

Date : 07-NOV-2018 07:29

Client ID: AUG0718

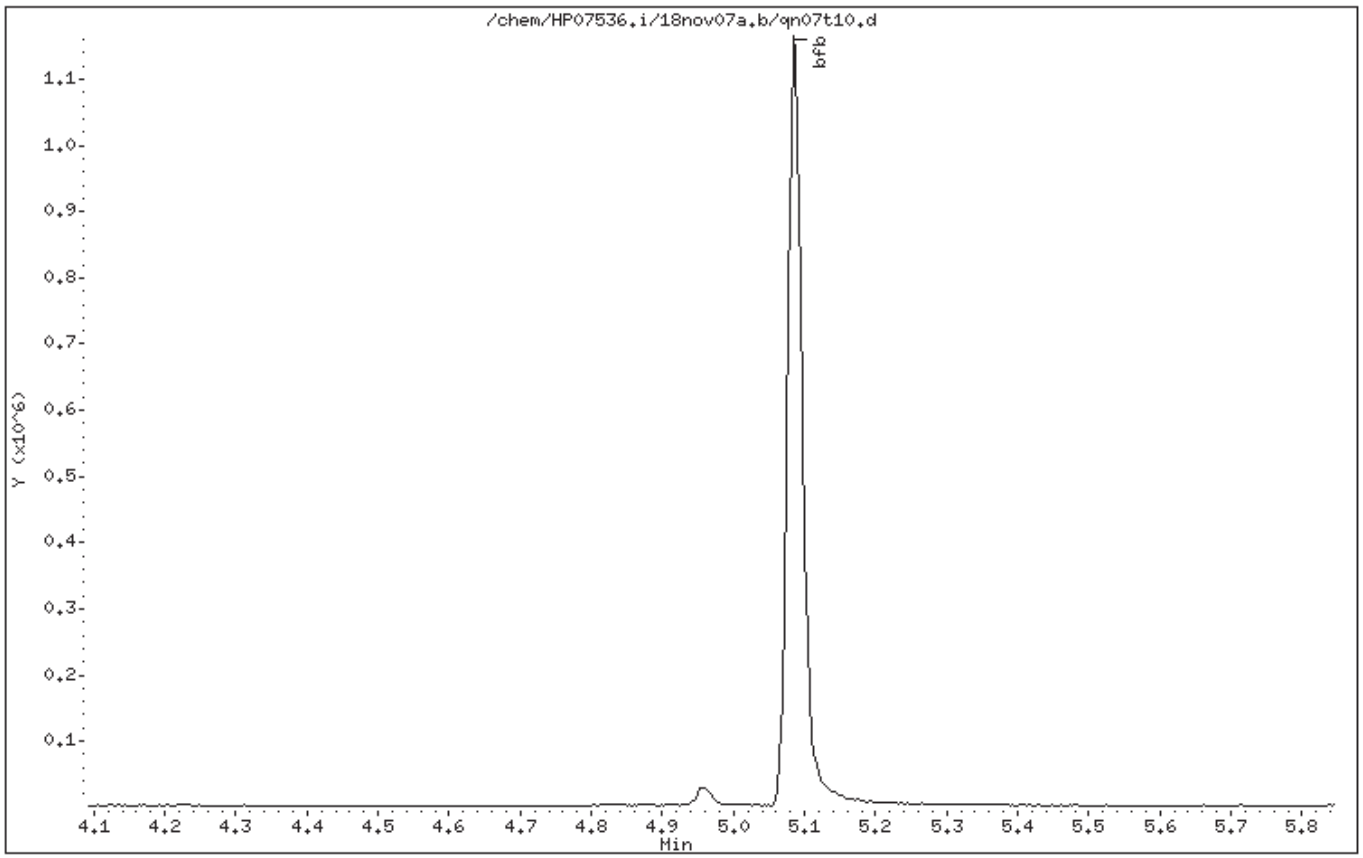
Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Stephen C. Nolte on 11/07/2018 at 07:46.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18nov07a.b/qn07t10.d

Date : 07-NOV-2018 07:29

Client ID: AUG0718

Instrument: HP07536.i

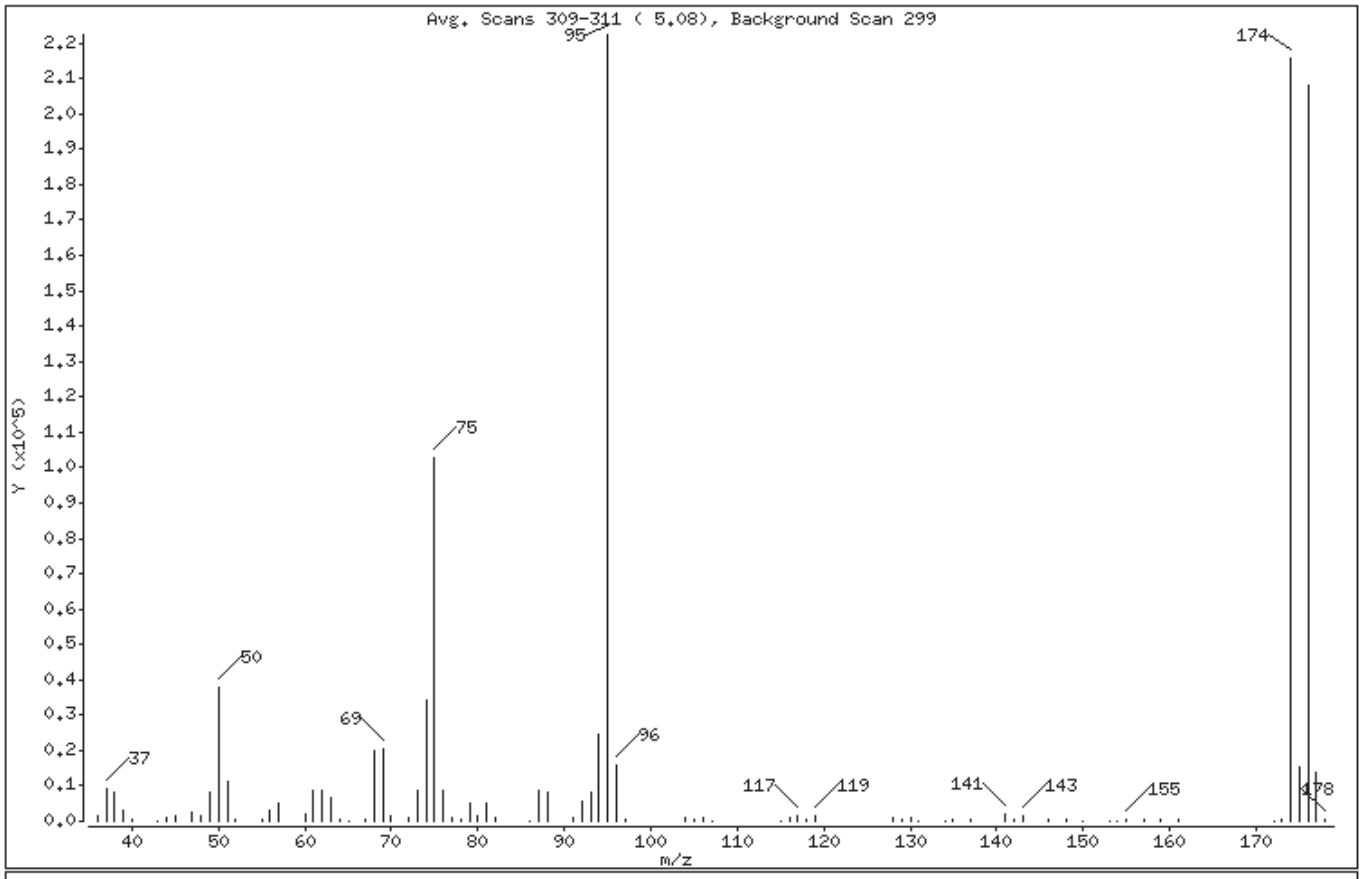
Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.93
75	30.00 - 60.00% of mass 95	46.18
96	5.00 - 9.00% of mass 95	7.10
173	Less than 2.00% of mass 174	0.19 (0.20)
174	50.00 - 100.00% of mass 95	96.97
175	5.00 - 9.00% of mass 174	6.97 (7.18)
176	95.00 - 101.00% of mass 174	93.56 (96.49)
177	5.00 - 9.00% of mass 176	6.30 (6.74)

Digitally signed by Stephen C. Nolte on 11/07/2018 at 07:46.
Target 3.5 esignature user ID: scn10072

Date : 07-NOV-2018 07:29

Client ID: AUG0718 Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: qn07t10.d
Spectrum: Avg. Scans 309-311 (5.08), Background Scan 299
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1687	64.00	615	92.00	5624	137.00	410
37.00	9258	65.00	117	93.00	8395	141.00	2203
38.00	8036	67.00	530	94.00	24560	142.00	319
39.00	3133	68.00	19760	95.00	222400	143.00	1701
40.00	287	69.00	20328	96.00	15791	146.00	360
43.00	87	70.00	1771	97.00	499	148.00	582
44.00	925	72.00	1106	104.00	912	150.00	190
45.00	1615	73.00	8811	105.00	315	153.00	89
47.00	2353	74.00	34000	106.00	930	154.00	92
48.00	1300	75.00	102712	107.00	97	155.00	632
49.00	8045	76.00	8570	115.00	205	157.00	369
50.00	37664	77.00	1185	116.00	812	159.00	301
51.00	11276	78.00	703	117.00	1319	161.00	271
52.00	539	79.00	5218	118.00	755	172.00	187
55.00	498	80.00	1432	119.00	1294	173.00	433
56.00	3153	81.00	5364	128.00	795	174.00	215680
57.00	5102	82.00	1121	129.00	379	175.00	15492
60.00	1868	86.00	121	130.00	848	176.00	208064
61.00	8841	87.00	8866	131.00	209	177.00	14022
62.00	8553	88.00	8398	134.00	94	178.00	472
63.00	6535	91.00	824	135.00	284		

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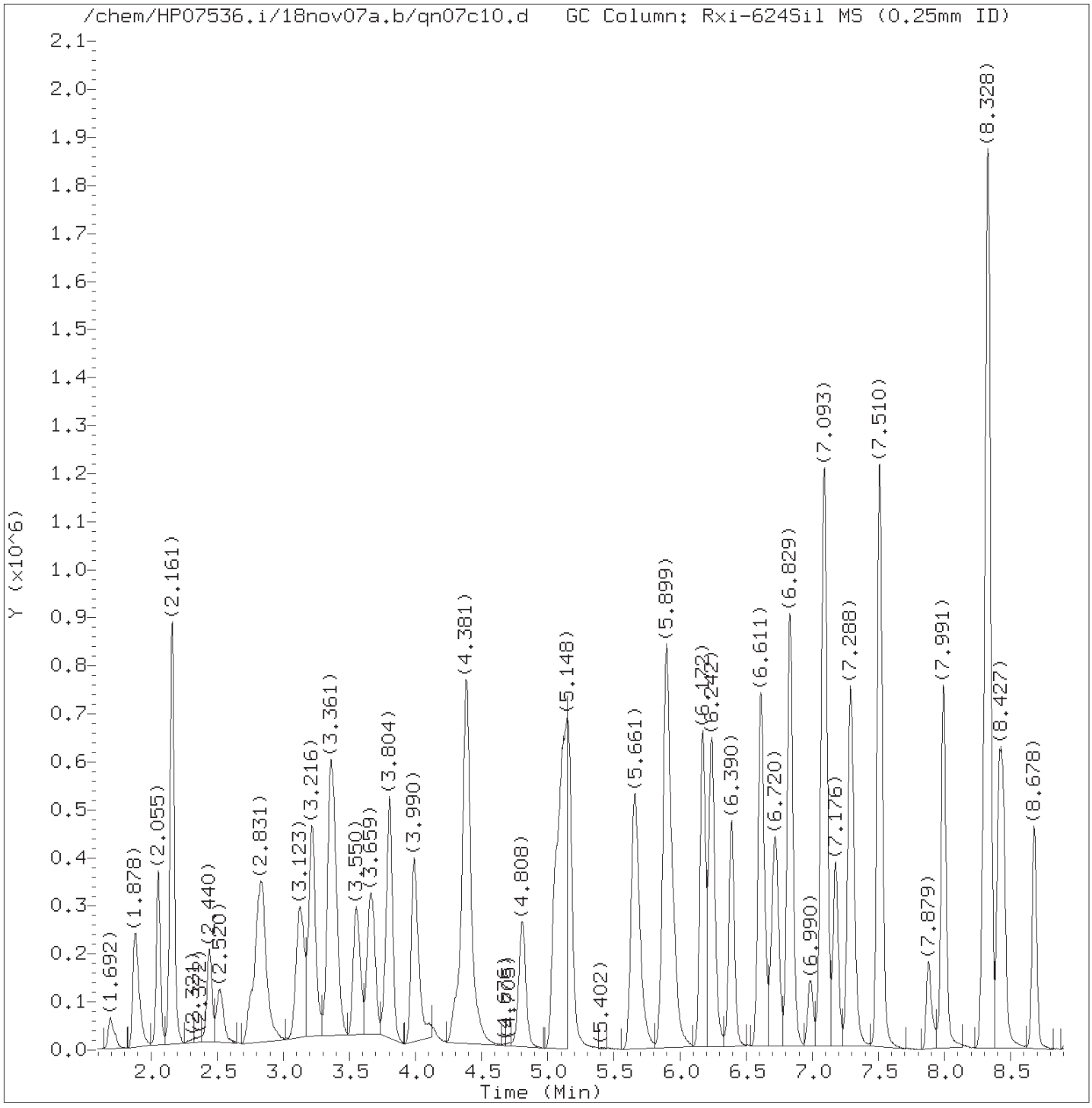
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

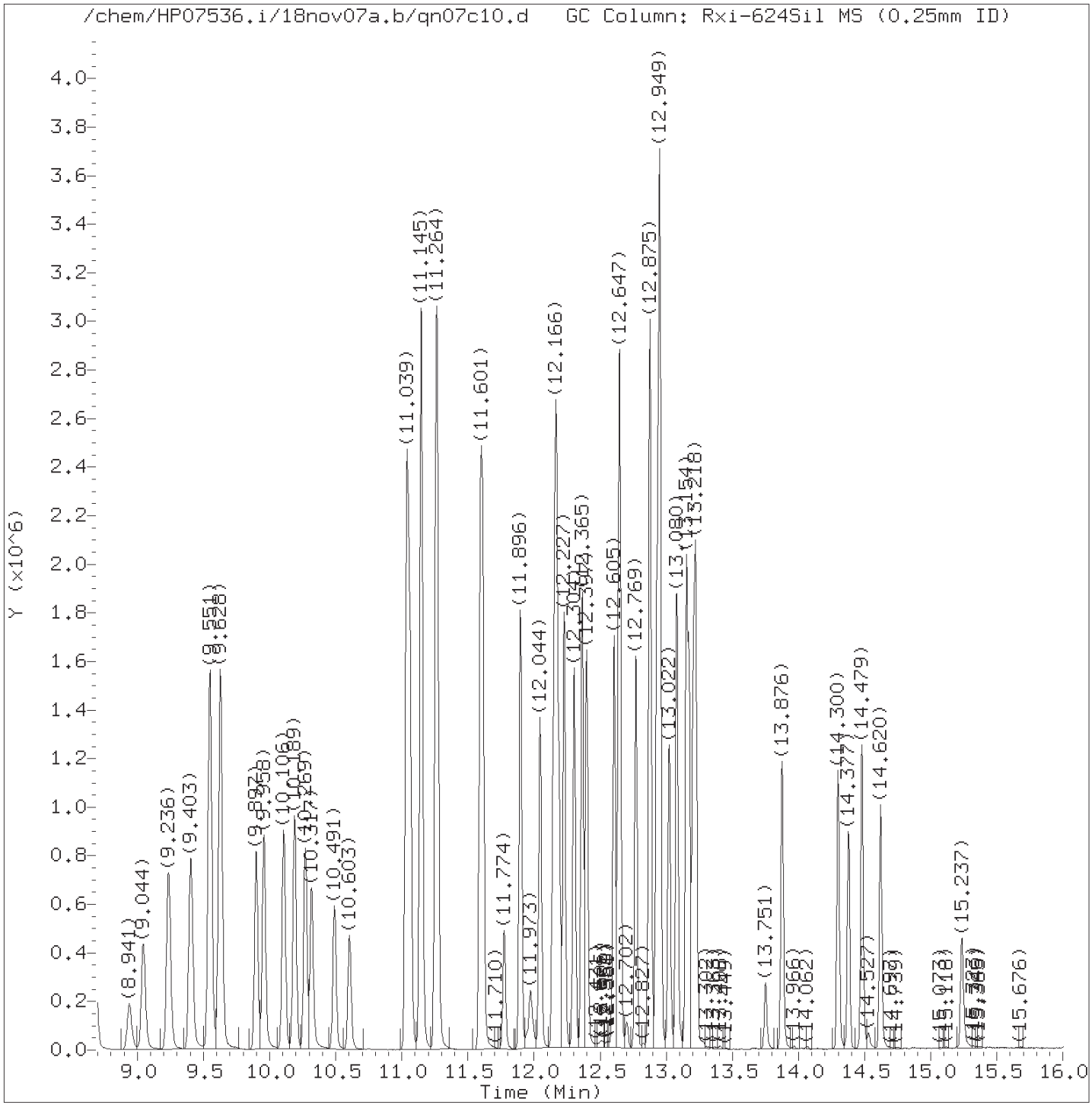
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.882	85	501375	41.749
4) Chloromethane	(2)	2.055	50	504177	39.406
5) Vinyl Chloride	(2)	2.161	62	492589	39.570
9) Bromomethane	(2)	2.440	94	195719M	42.825
10) Chloroethane	(2)	2.526	64	175461M	39.623
13) Trichlorofluoromethane	(2)	2.809	101	591670	38.862
14) n-Pentane	(2)	2.847	43	285652M	33.099
15) Ethanol	(1)	2.937	45	165135	1969.194
17) Freon 123a	(2)	3.123	67	401253	42.820
18) Acrolein	(1)	3.220	56	794767	451.550
19) 1,1-Dichloroethene	(2)	3.358	96	297923	48.669
19) 1,1-Dichloroethene	(2)	3.354	63	145663	46.569
20) Acetone	(1)	3.374	58	67081M	94.375
22) Freon 113	(2)	3.380	101	263416	50.518
23) 2-Propanol	(1)	3.550	45	119065	239.128
24) Methyl Iodide	(2)	3.550	142	647505	49.730
25) Carbon Disulfide	(2)	3.666	76	1033403	46.434
27) Methyl Acetate	(2)	3.775	43	271165	45.203
29) Allyl Chloride	(2)	3.804	41	508987	44.433
31) Methylene Chloride	(2)	3.986	84	358864	49.098
30)*t-Butyl alcohol-d10	(1)	3.993	65	147749	250.000
32) t-Butyl alcohol	(1)	4.118	59	149945	207.450
33) Acrylonitrile	(2)	4.298	53	145266	48.357
34) Methyl Tertiary Butyl Ether	(2)	4.375	73	1030386	49.203
35) trans-1,2-Dichloroethene	(2)	4.391	96	350985	50.791
38) n-Hexane	(2)	4.808	57	269863	50.631
40) 1,1-Dichloroethane	(2)	5.052	63	593539	48.047
41) di-Isopropyl ether	(2)	5.116	45	1120488	45.927
42) 2-Chloro-1,3-butadiene	(2)	5.164	53	497832	44.656
43) Ethyl t-butyl ether	(2)	5.658	59	1051829	46.354
44) 2-Butanone	(1)	5.867	43	325500	85.090
44) 2-Butanone	(1)	5.864	72	90883	97.162
45) cis-1,2-Dichloroethene	(2)	5.893	96	383785	50.317
47) 2,2-Dichloropropane	(2)	5.912	77	461936	46.317
49) Propionitrile	(2)	5.950	54	253701	242.137
46) 1,2-Dichloroethene (Total)	(2)		96	734770	101.108
51) Methacrylonitrile	(2)	6.172	67	410307	127.236
52) Bromochloromethane	(2)	6.236	128	219241	51.316

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) Tetrahydrofuran	(1)	6.242	71	92383	96.754
54) Chloroform	(2)	6.390	83	562731	47.569
56)$Dibromofluoromethane	(2)	6.611	113	338177	50.394
56)$Dibromofluoromethane	(2)	6.608	111	346419	50.121
57) 1,1,1-Trichloroethane	(2)	6.618	97	464988	47.923
58) Cyclohexane	(2)	6.720	56	401421	47.226
58) Cyclohexane	(2)	6.717	84	350186	49.281
58) Cyclohexane	(2)	6.727	69	123457	48.811
61) Carbon Tetrachloride	(2)	6.829	117	373297	52.662
60) 1,1-Dichloropropene	(2)	6.829	75	421620	48.307
62) Isobutyl Alcohol	(1)	6.987	41	124192	507.130
63)$1,2-Dichloroethane-d4	(2)	7.067	102	93912	53.821
63)$1,2-Dichloroethane-d4	(2)	7.070	65	390779	46.760
63)$1,2-Dichloroethane-d4	(2)	7.073	104	60577	55.332
64) Benzene	(2)	7.096	78	1350005	49.844
67) 1,2-Dichloroethane	(2)	7.176	62	425048	45.308
67) 1,2-Dichloroethane	(2)	7.179	98	45287	55.784
68) t-Amyl methyl ether	(2)	7.295	73	1047966	48.666
70)*Fluorobenzene	(2)	7.507	96	1233519	50.000
72) n-Heptane	(2)	7.516	43	228845	43.962
73) n-Butanol	(1)	7.882	56	228063M	1241.590
75) Trichloroethene	(2)	7.994	95	332062	49.398
76) Methylcyclohexane	(2)	8.302	83	320753	49.580
77) 1,2-Dichloropropane	(2)	8.331	63	355290	48.097
79) Methyl Methacrylate	(2)	8.411	69	272854	49.984
80) 1,4-Dioxane	(1)	8.421	88	48843M	745.533
81) Dibromomethane	(2)	8.440	93	222536	49.635
84) Bromodichloromethane	(2)	8.678	83	396539	51.716
85) 2-Nitropropane	(1)	8.941	41	148381A	120.924
87) 2-Chloroethyl Vinyl Ether	(2)	9.047	63	256130	53.327
89) cis-1,3-Dichloropropene	(2)	9.236	75	547224	50.621
90) 4-Methyl-2-pentanone	(2)	9.406	43	677833	91.222
91)$Toluene-d8	(3)	9.547	98	1307633	49.516
91)$Toluene-d8	(3)	9.551	100	846835	49.380
92) Toluene	(3)	9.628	92	822857	48.963
93) trans-1,3-Dichloropropene	(3)	9.897	75	500287	48.212
95) Ethyl Methacrylate	(3)	9.958	69	516812	48.195
94) 1,3-Dichloropropene (total)	(3)		100	1047511	98.833

M = Compound was manually integrated.
A = User selected an alternate hit.
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$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
96) 1,1,2-Trichloroethane	(3)	10.106	97	320532	48.223
98) Tetrachloroethene	(3)	10.192	166	328479	48.985
99) 1,3-Dichloropropane	(3)	10.273	76	541530	47.632
101) 2-Hexanone	(3)	10.317	43	467081	89.604
103) Dibromochloromethane	(3)	10.491	129	340138	57.732
104) 1,2-Dibromoethane	(3)	10.603	107	347544	49.865
105)*Chlorobenzene-d5	(3)	11.036	117	967374	50.000
106) 1-Chlorohexane	(3)	11.046	91	302863	44.329
107) Chlorobenzene	(3)	11.062	112	904176	47.685
108) 1,1,1,2-Tetrachloroethane	(3)	11.145	131	319448	51.020
109) Ethylbenzene	(3)	11.149	91	1365639	47.347
110) m+p-Xylene	(3)	11.264	106	1088981	96.582
111) o-Xylene	(3)	11.595	106	541164	48.210
113) Styrene	(3)	11.611	104	949497	47.631
112) Xylene (Total)	(3)		106	1630145	144.791
114) Bromoform	(3)	11.774	173	223060	51.243
115) Isopropylbenzene	(3)	11.896	105	1143426	47.733
118) Cyclohexanone	(1)	11.973	55	126421A	527.286
119)$4-Bromofluorobenzene	(3)	12.044	95	405446	48.223
119)$4-Bromofluorobenzene	(3)	12.047	174	402139	50.312
120) 1,1,2,2-Tetrachloroethane	(4)	12.143	83	404331	43.404
121) Bromobenzene	(4)	12.159	156	406067	46.210
122) trans-1,4-Dichloro-2-butene	(4)	12.169	53	304823	109.603
123) 1,2,3-Trichloropropane	(4)	12.191	110	130572	45.806
124) n-Propylbenzene	(4)	12.227	91	1235518	45.477
126) 2-Chlorotoluene	(4)	12.304	126	297229	46.441
129) 1,3,5-Trimethylbenzene	(4)	12.365	105	931809	45.408
130) 4-Chlorotoluene	(4)	12.397	126	315552	46.155
133) tert-Butylbenzene	(4)	12.605	134	195139M	46.174
134) Pentachloroethane	(4)	12.641	167	225439	47.905
135) 1,2,4-Trimethylbenzene	(4)	12.650	105	1001289	45.509
136) sec-Butylbenzene	(4)	12.769	105	1004678	44.404
138) 1,3-Dichlorobenzene	(4)	12.872	146	599685	46.196
139) p-Isopropyltoluene	(4)	12.878	119	918547	44.606
140)*1,4-Dichlorobenzene-d4	(4)	12.926	152	432719	50.000
141) 1,4-Dichlorobenzene	(4)	12.945	146	646103	44.321
142) 1,2,3-Trimethylbenzene	(4)	12.952	105	1120325	44.987
143) Benzyl Chloride	(4)	13.022	126	180781	49.963

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on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

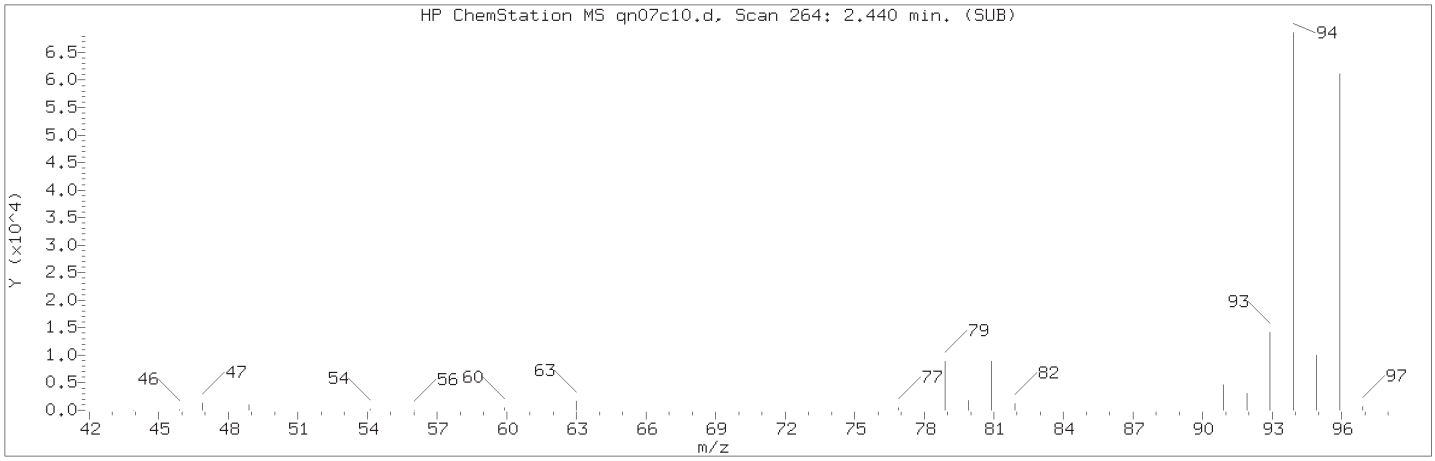
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

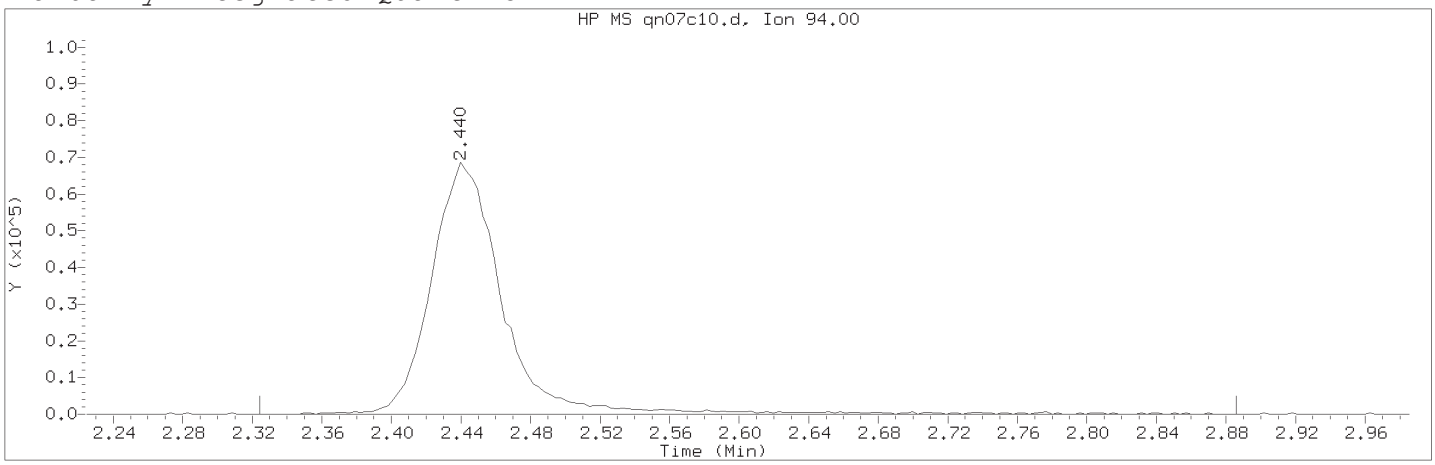
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3-Diethylbenzene	(4)	13.077	119	572794	45.858
145) 1,4-Diethylbenzene	(4)	13.154	119	593971	45.431
146) n-Butylbenzene	(4)	13.173	92	403941	42.515
147) 1,2-Dichlorobenzene	(4)	13.202	146	602130	44.756
148) 1,2-Diethylbenzene	(4)	13.221	119	494501	44.186
151) 1,2-Dibromo-3-chloropropane	(4)	13.751	75	57097	39.479
152) 1,3,5-Trichlorobenzene	(4)	13.876	180	377718	44.810
153) 1,2,4-Trichlorobenzene	(4)	14.300	180	355134	43.727
154) Hexachlorobutadiene	(4)	14.377	225	155383	43.418
155) Naphthalene	(4)	14.479	128	927524	38.505
156) 1,2,3-Trichlorobenzene	(4)	14.620	180	305098	39.298
157) 2-Methylnaphthalene	(4)	15.237	142	248435	21.035

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

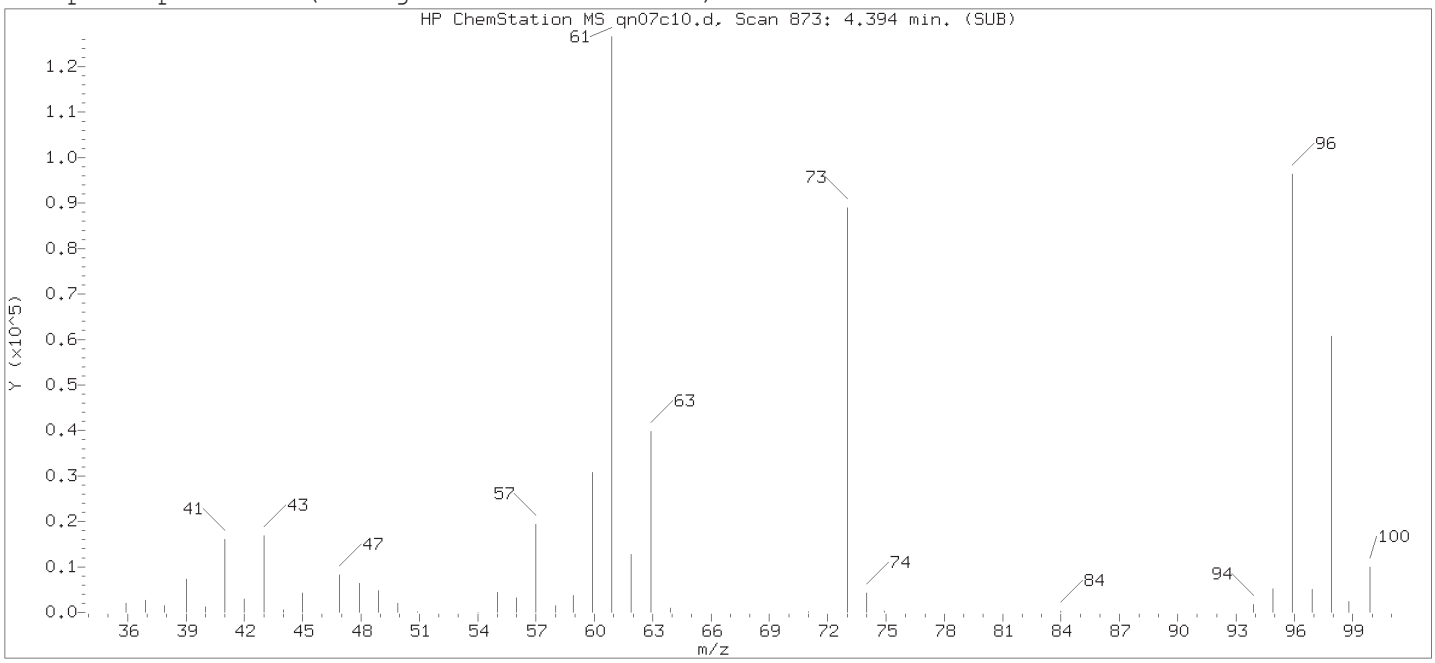
Compound Number	: 9		
Compound Name	: Bromomethane		
Scan Number	: 264		
Retention Time (minutes)	: 2.440		
Quant Ion	: 94.00		
Area (flag)	: 195719M		
On-Column Amount (ng)	: 42.8254		
Integration start scan	: 227	Integration stop scan:	402
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

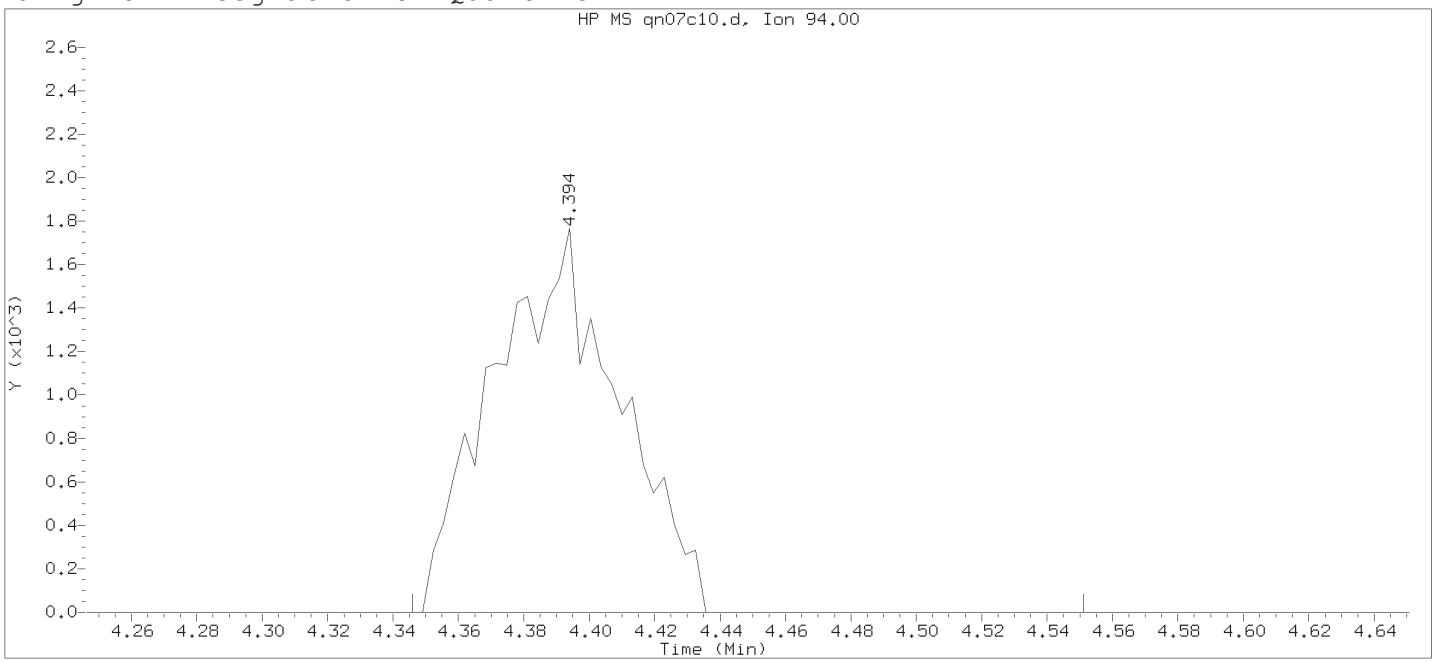
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

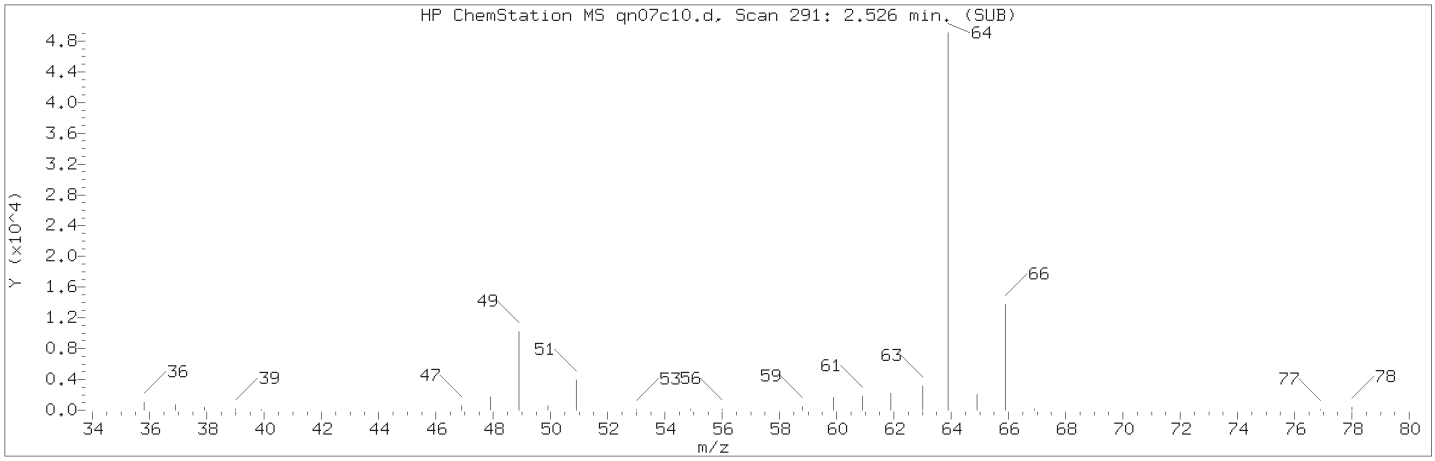
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

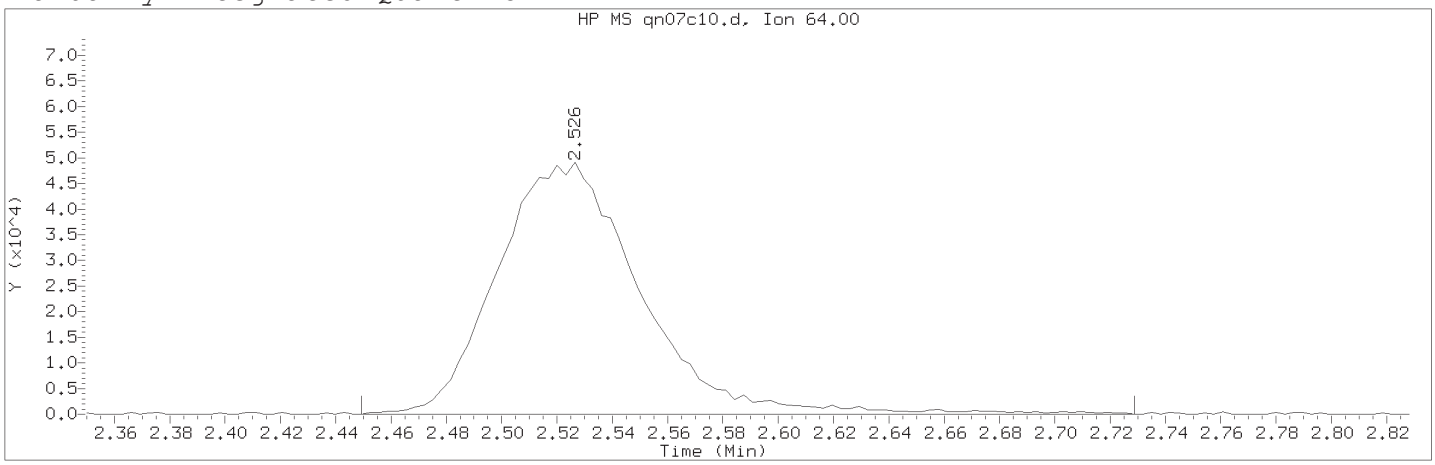
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 873
Retention Time (minutes): 4.394
Quant Ion : 94.00
Area : 4710
On-column Amount (ng) : 1.0308
Integration start scan : 857 Integration stop scan: 921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

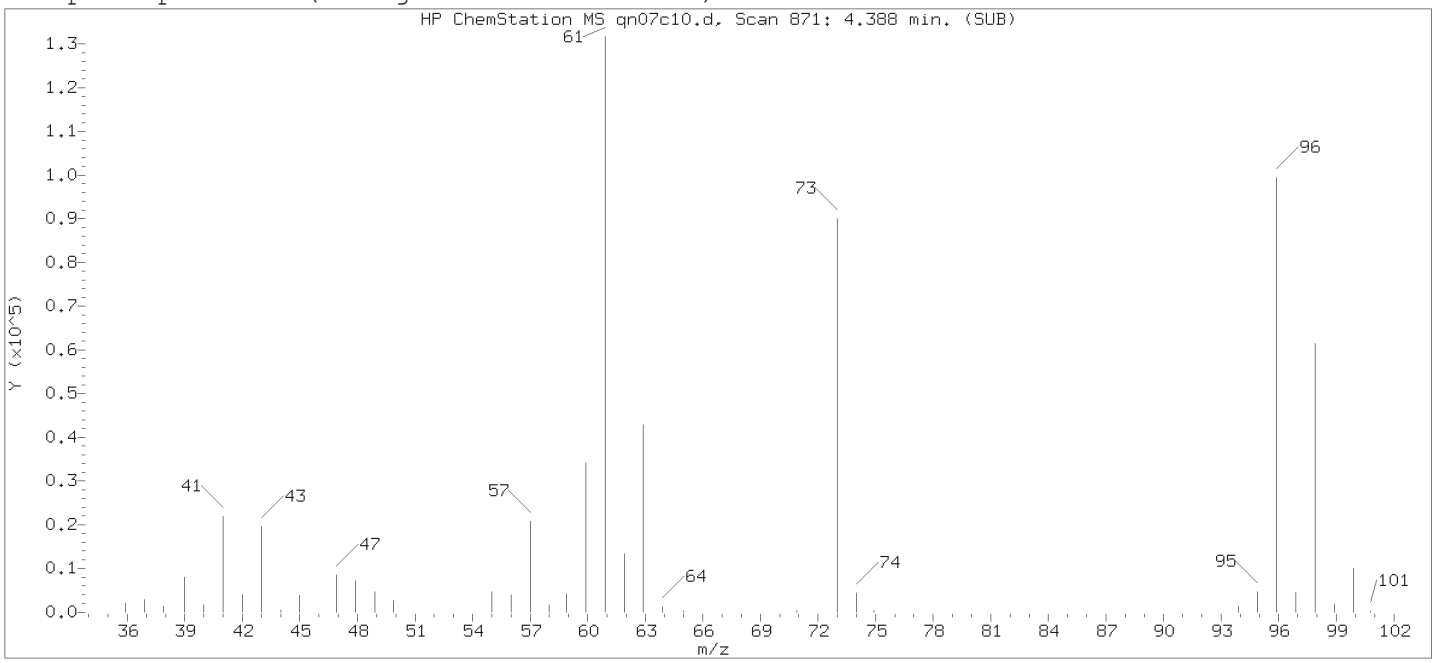
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 291
Retention Time (minutes): 2.526
Quant Ion : 64.00
Area (flag) : 175461M
On-Column Amount (ng) : 39.6235
Integration start scan : 266 Integration stop scan: 353
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

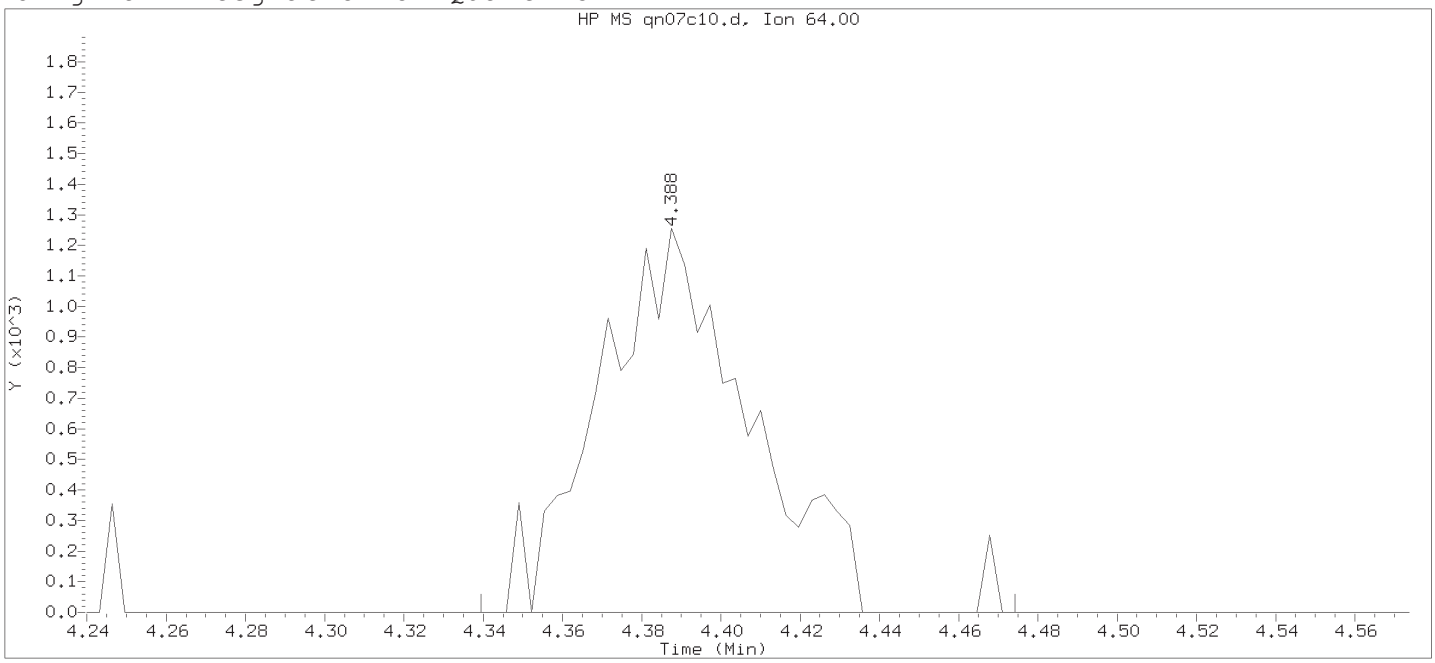
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

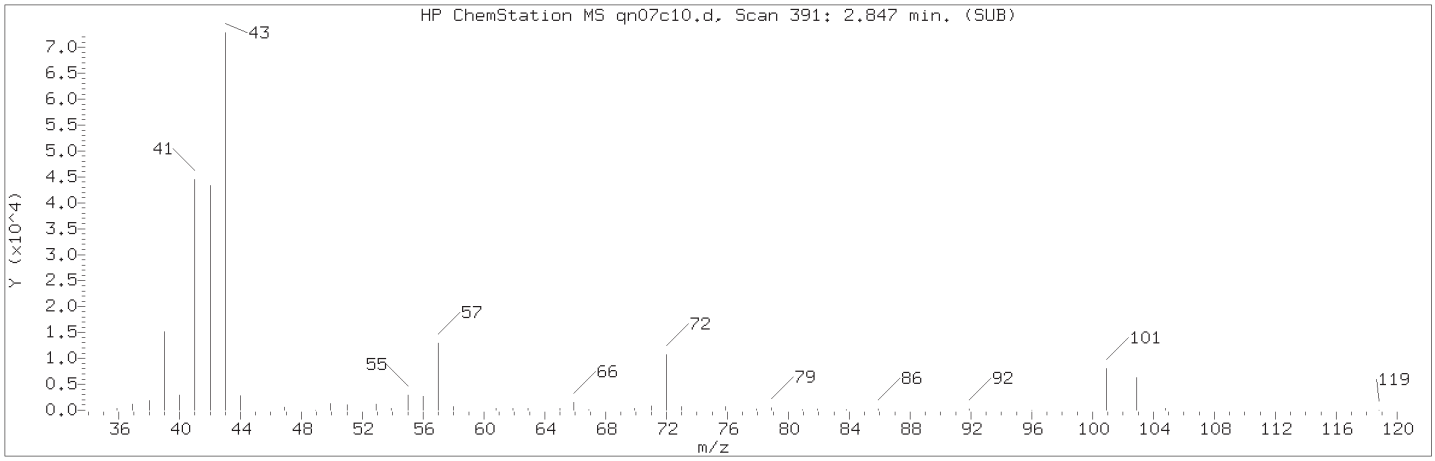
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

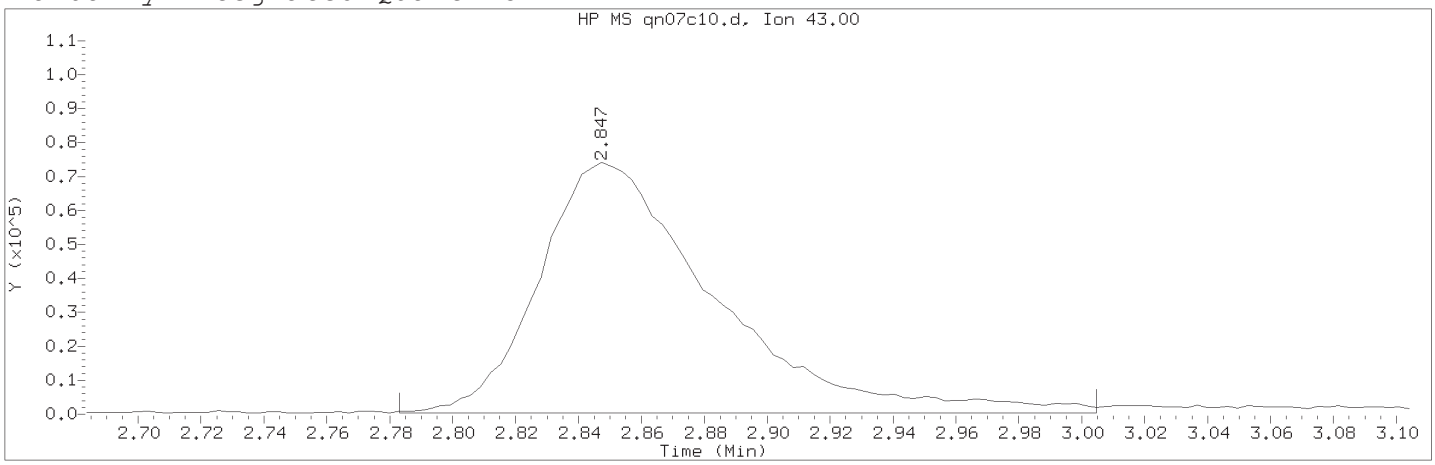
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 871
Retention Time (minutes): 4.388
Quant Ion : 64.00
Area : 3311
On-column Amount (ng) : 0.7477
Integration start scan : 855 Integration stop scan: 897
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN0042

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

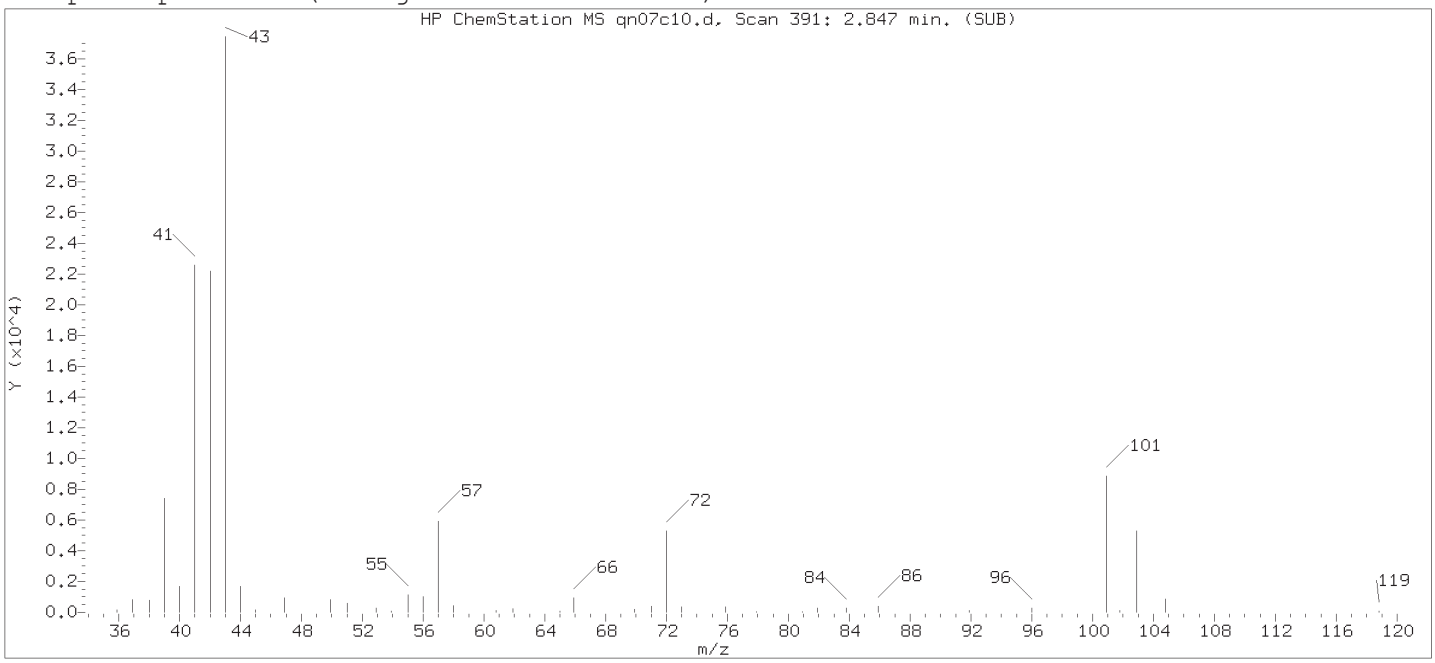
Compound Number : 14
Compound Name : n-Pentane
Scan Number : 391
Retention Time (minutes): 2.847
Quant Ion : 43.00
Area (flag) : 285652M
On-Column Amount (ng) : 33.0994
Integration start scan : 370 Integration stop scan: 439
Y at integration start : 394 Y at integration end: 394

Reason for manual integration: improper integration

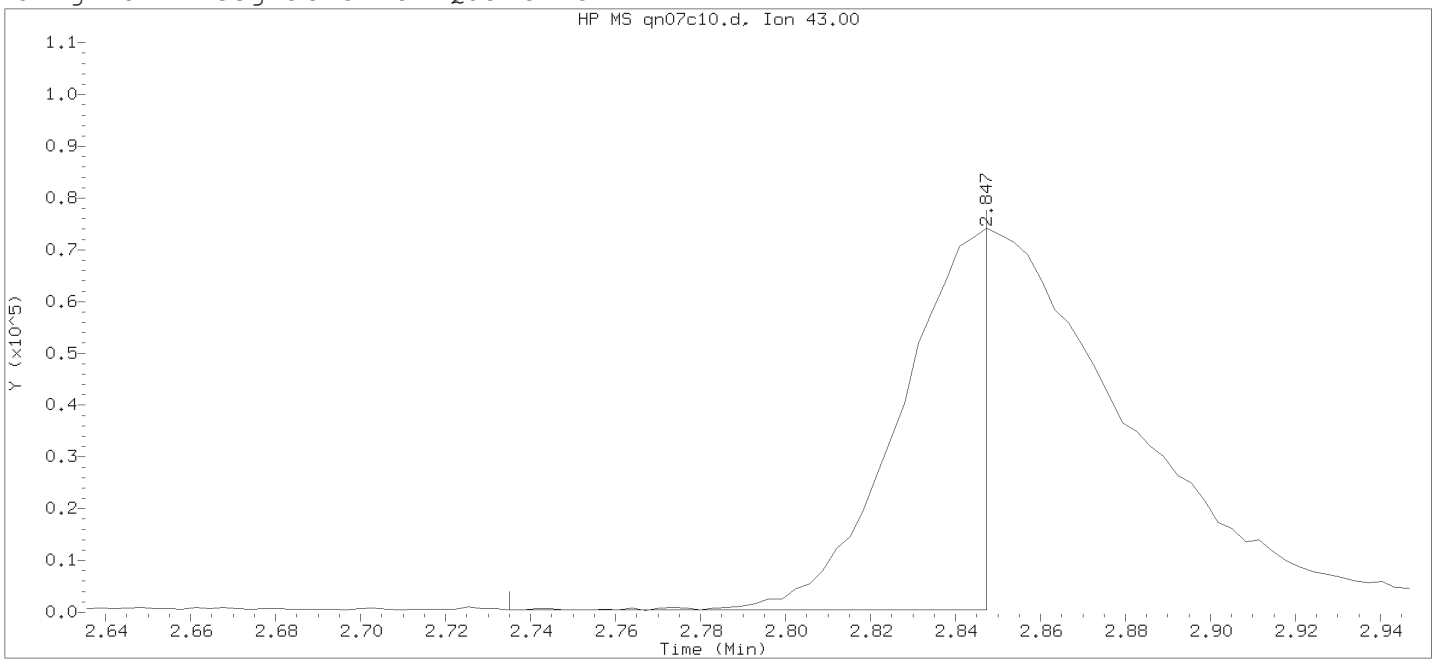
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

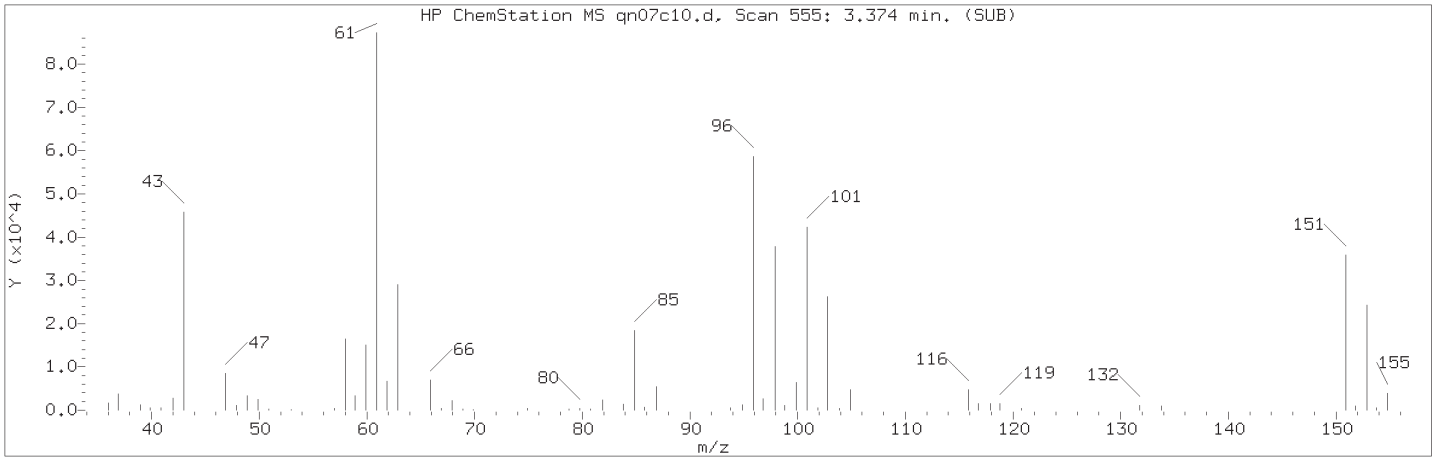
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

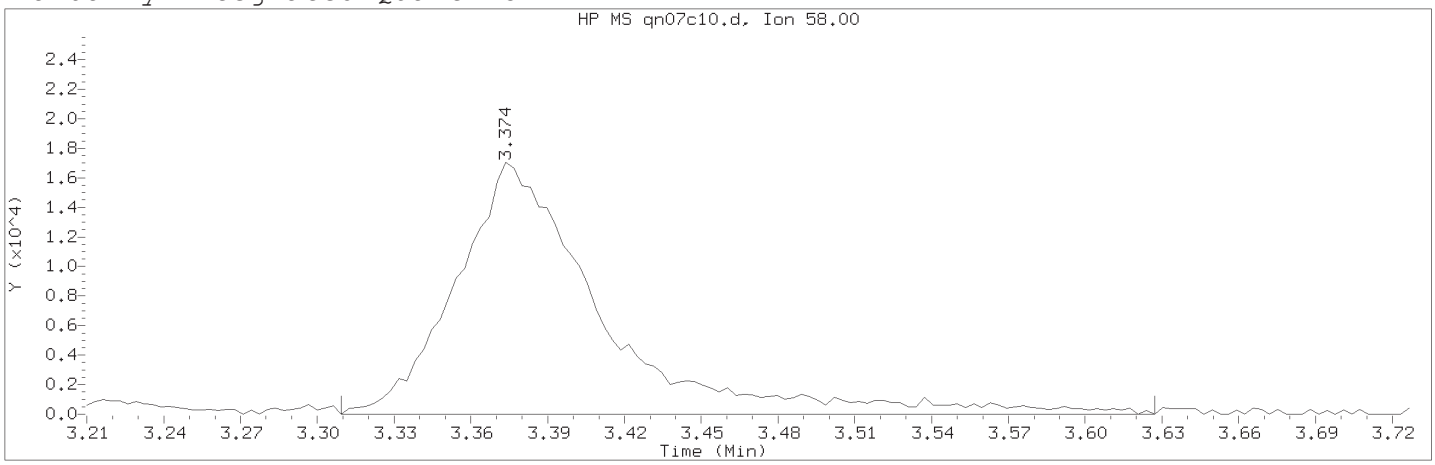
Compound Number	: 14		
Compound Name	: n-Pentane		
Scan Number	: 391		
Retention Time (minutes)	: 2.847		
Quant Ion	: 43.00		
Area	: 100817		
On-column Amount (ng)	: 11.6820		
Integration start scan	: 355	Integration stop scan:	390
Y at integration start	: 422	Y at integration end:	422

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN0162

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

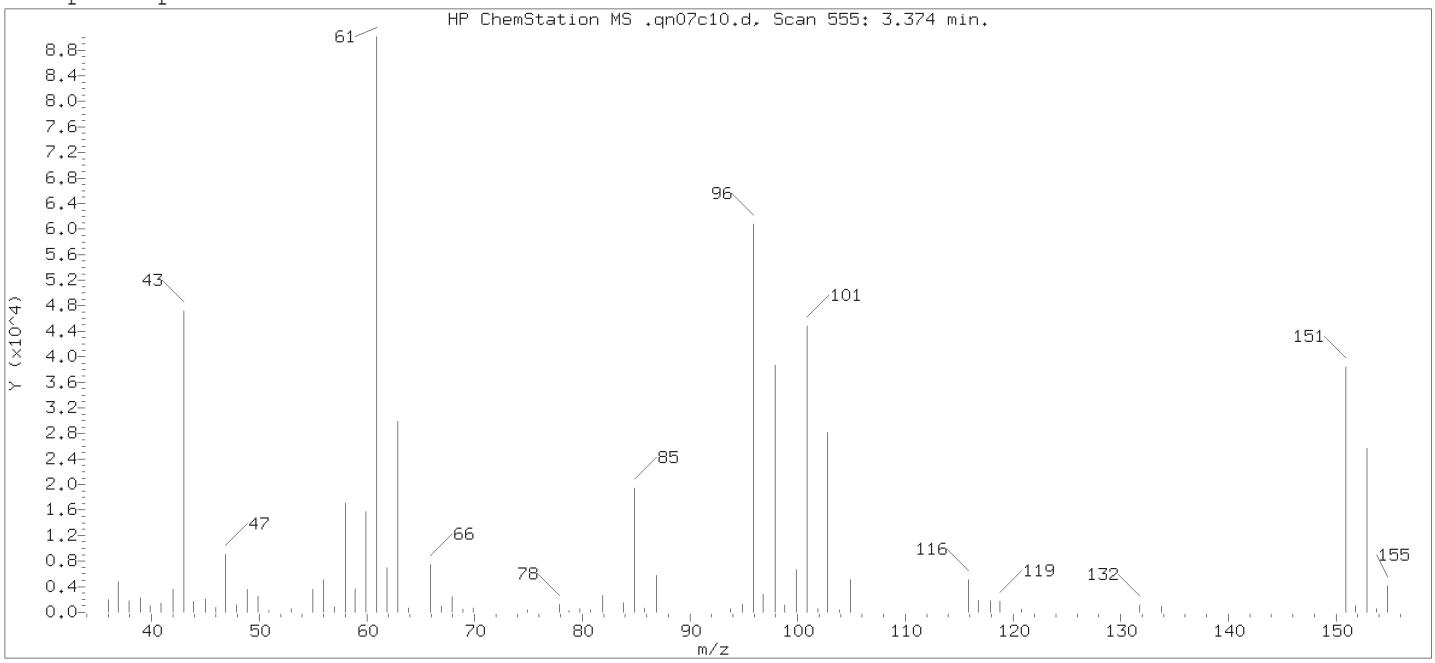
Compound Number : 20
Compound Name : Acetone
Scan Number : 555
Retention Time (minutes): 3.374
Quant Ion : 58.00
Area (flag) : 67081M
On-Column Amount (ng) : 94.3746
Integration start scan : 534 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

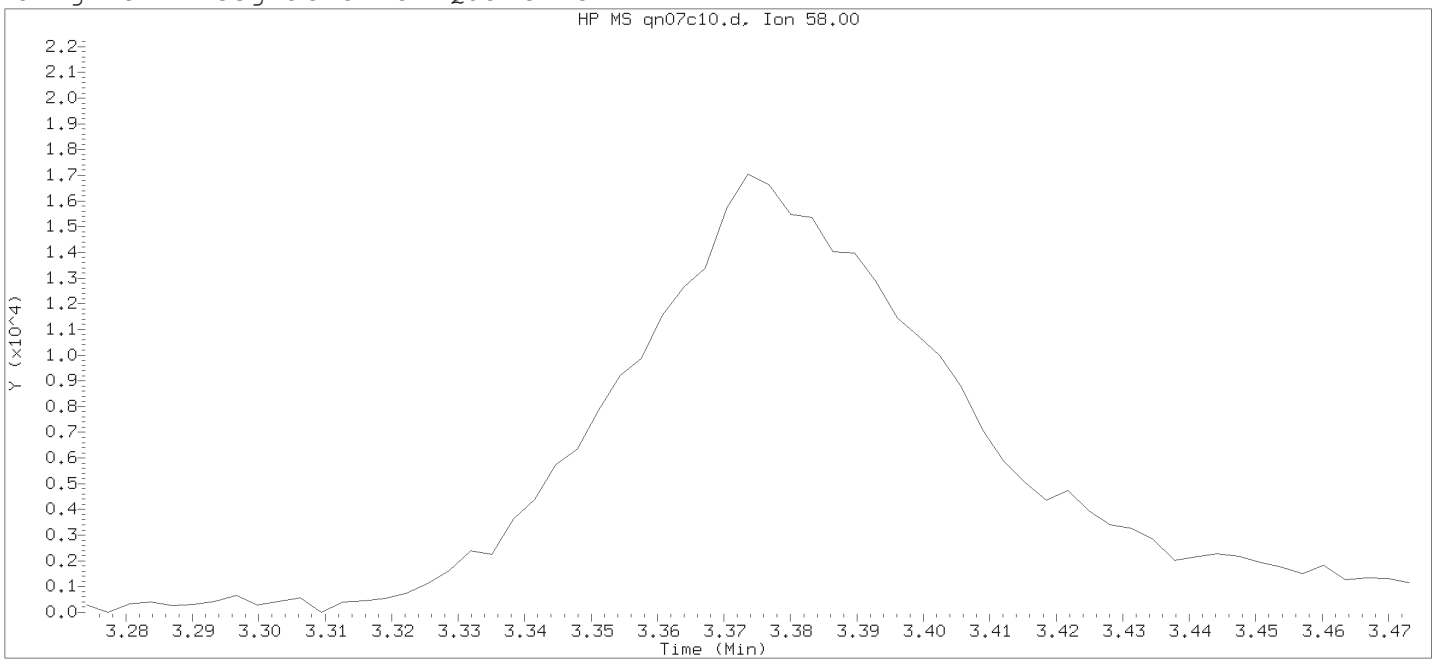
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

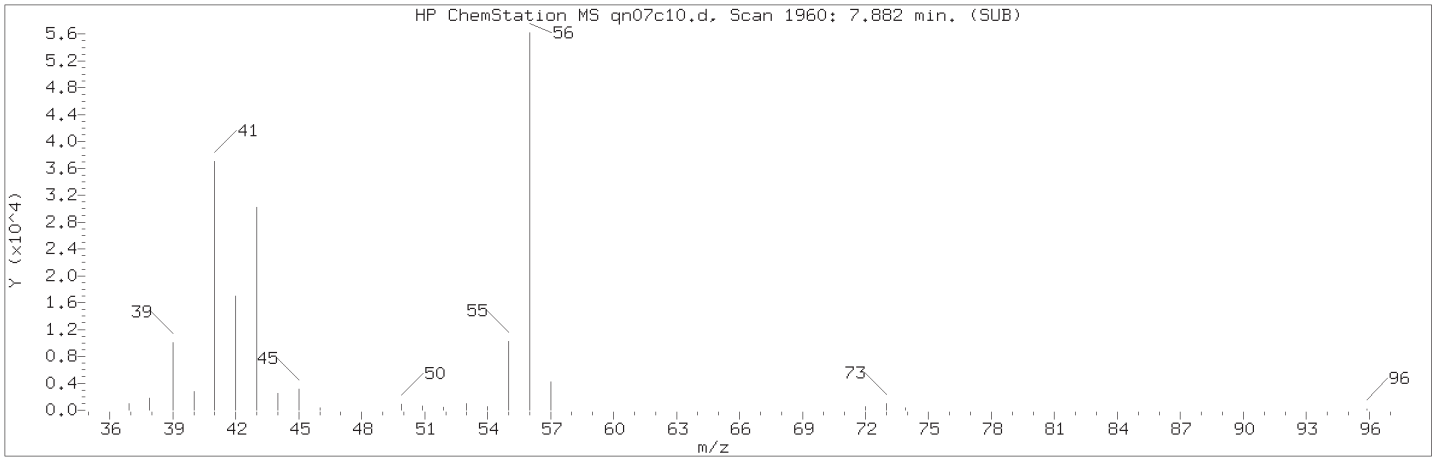
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

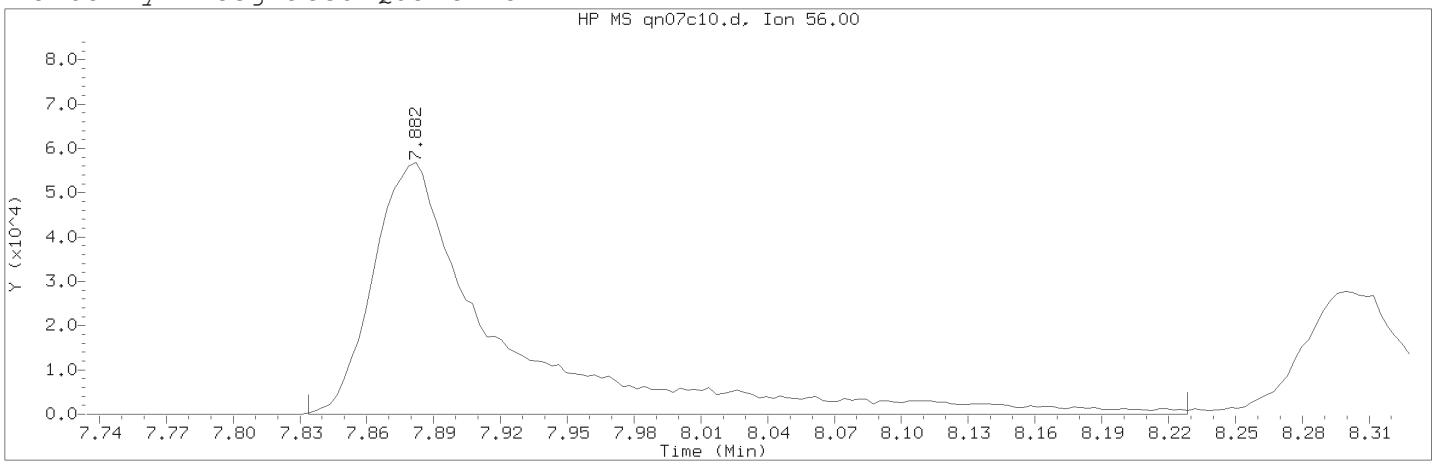
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.374
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

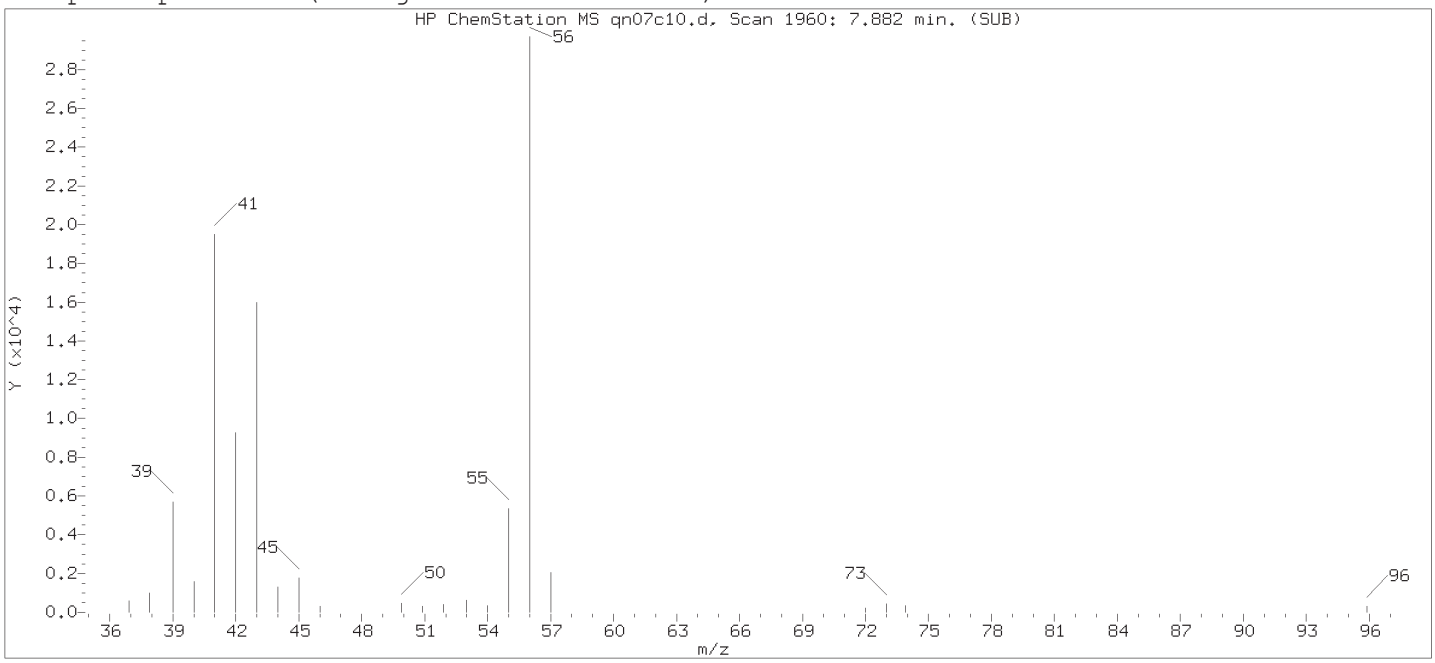
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1960
Retention Time (minutes): 7.882
Quant Ion : 56.00
Area (flag) : 228063M
On-Column Amount (ng) : 1241.5903
Integration start scan : 1944 Integration stop scan: 2067
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

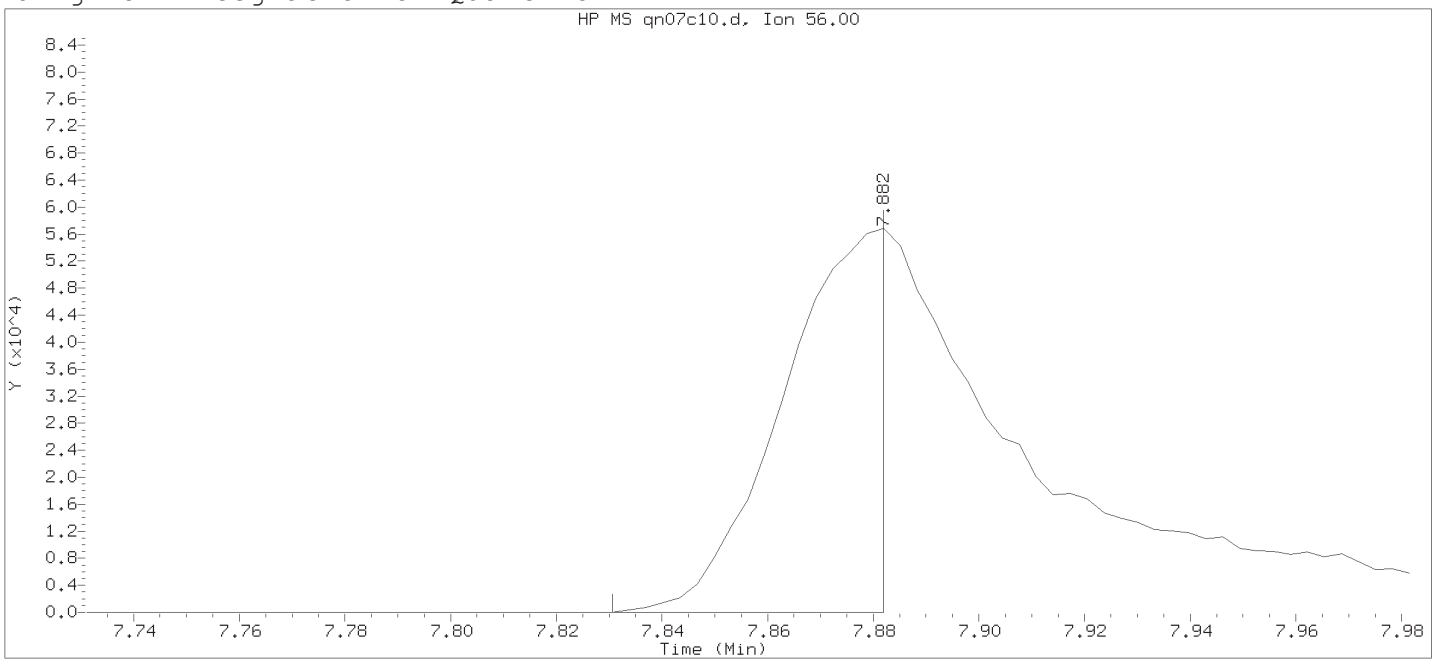
Analyst responsible for change: Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

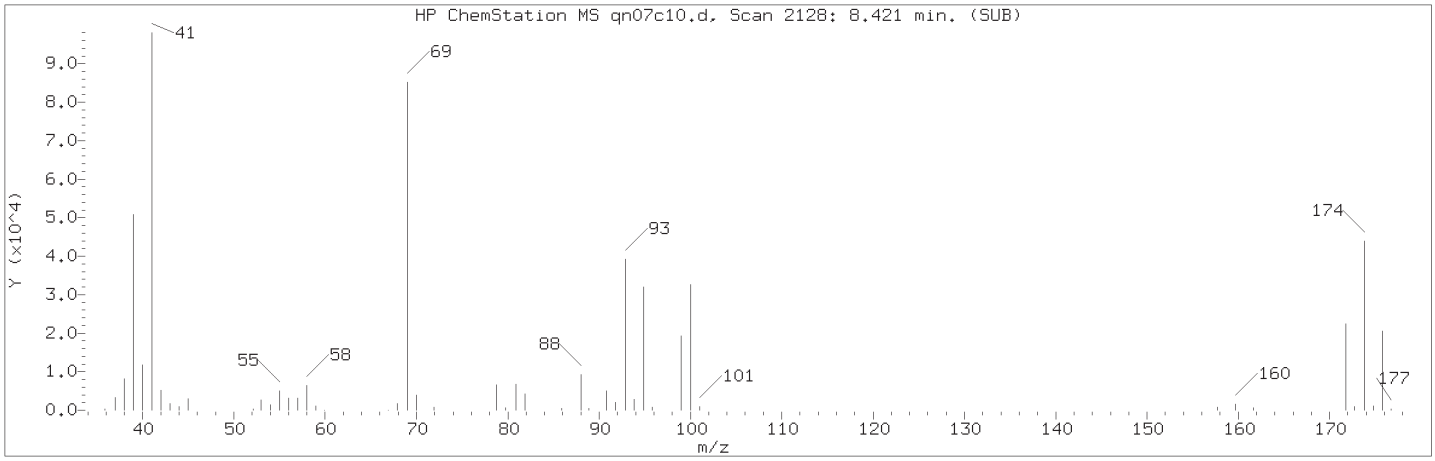
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

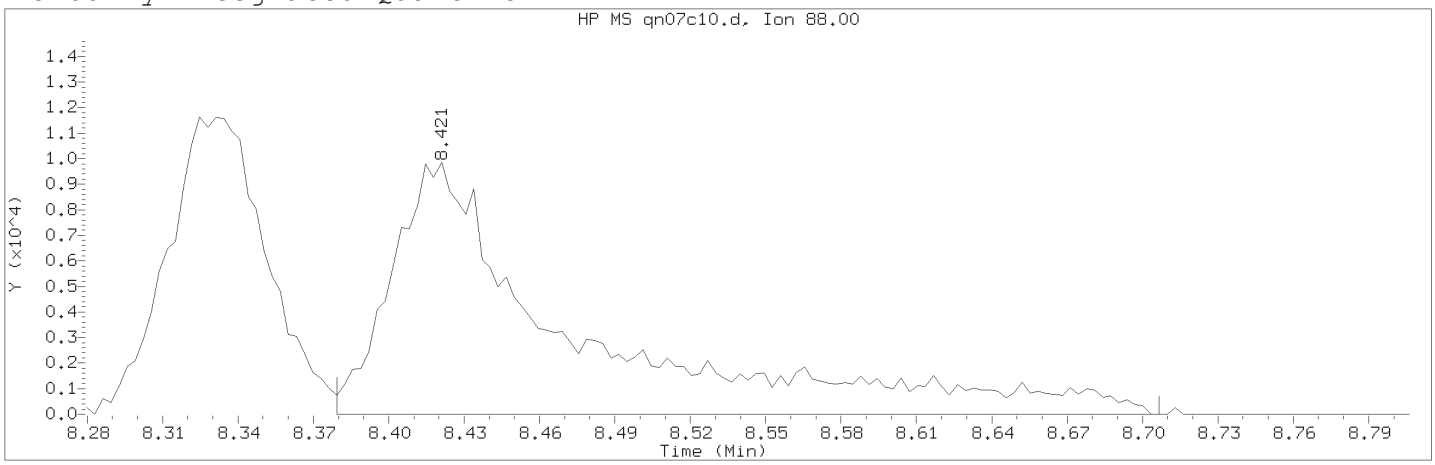
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1960
Retention Time (minutes): 7.882
Quant Ion : 56.00
Area : 72311
On-column Amount (ng) : 393.6662
Integration start scan : 1943 Integration stop scan: 1959
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

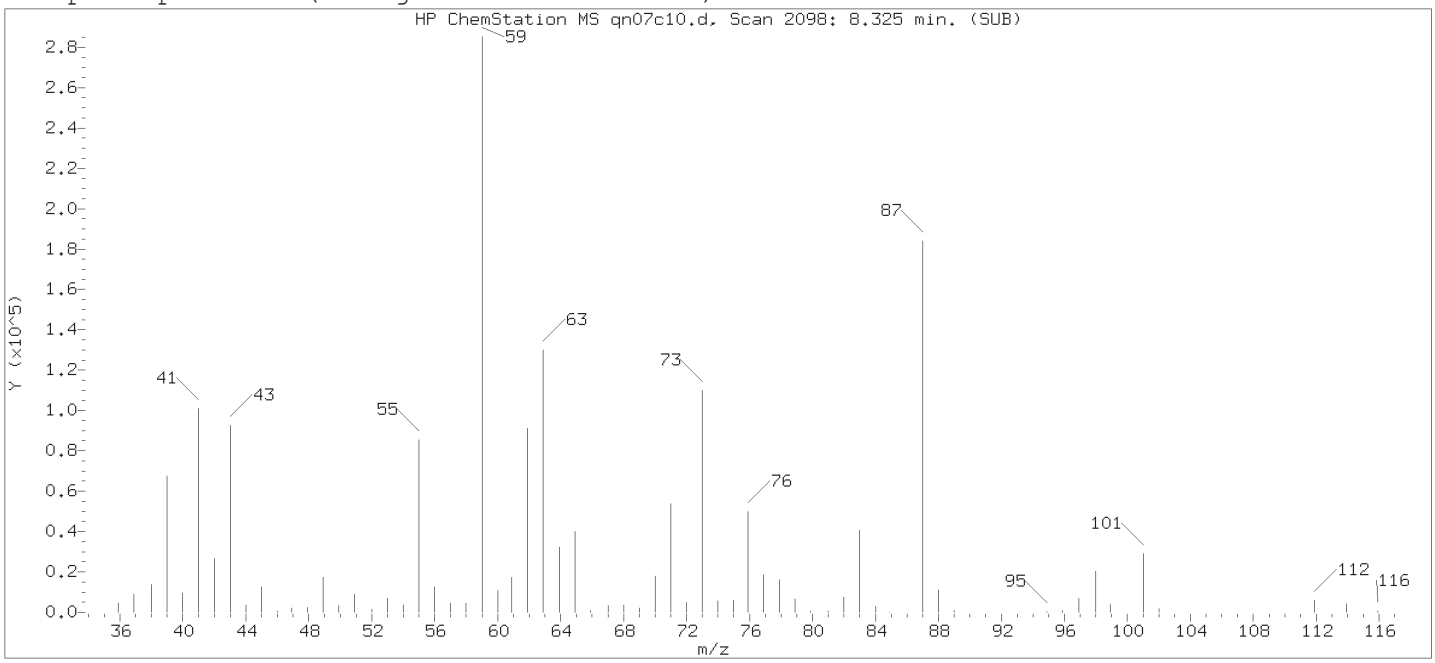
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2128
Retention Time (minutes): 8.421
Quant Ion : 88.00
Area (flag) : 48843M
On-Column Amount (ng) : 745.5330
Integration start scan : 2114 Integration stop scan: 2216
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

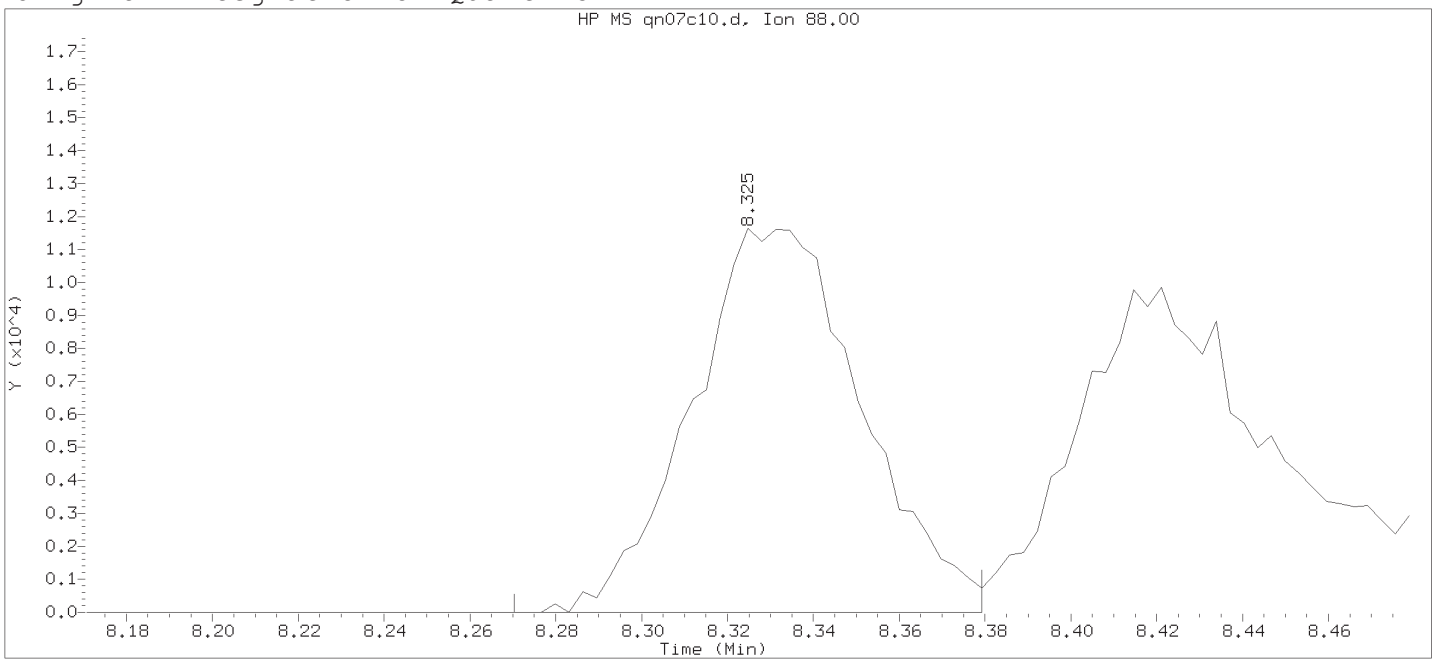
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

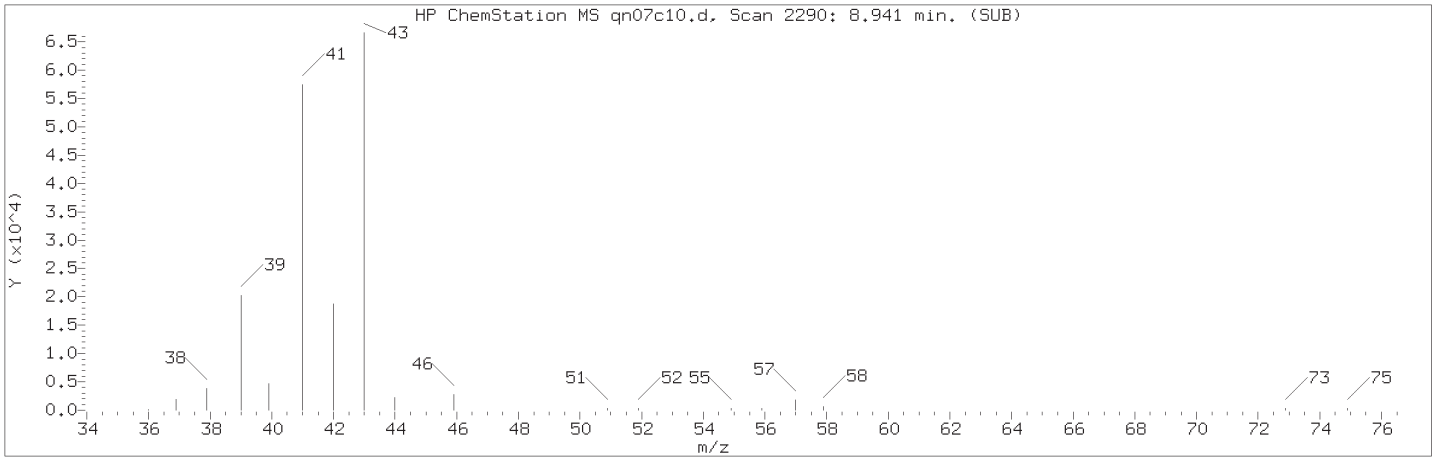
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

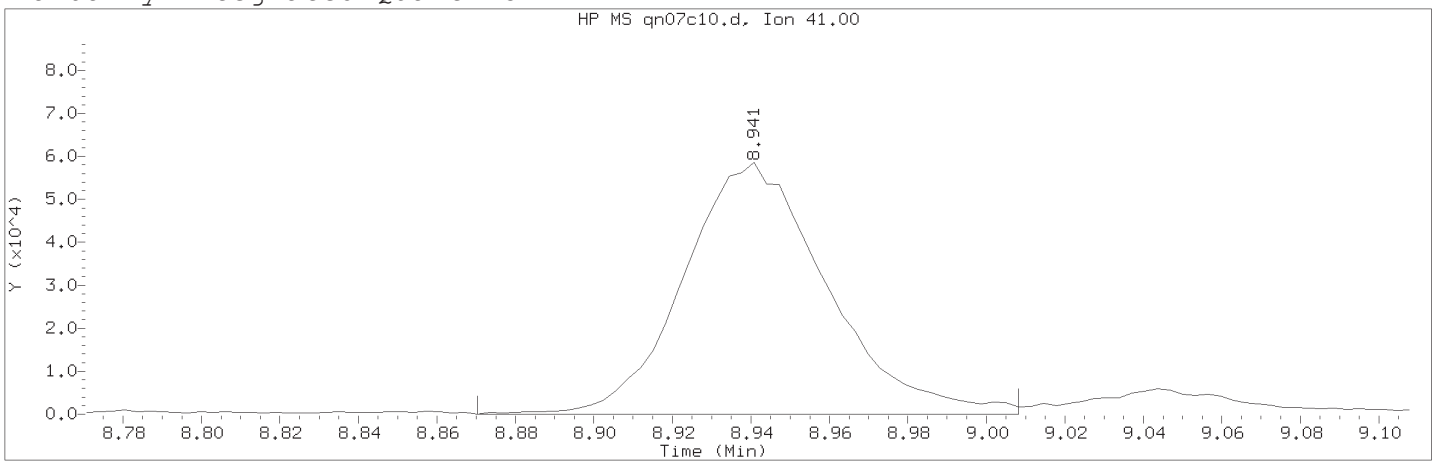
Compound Number	: 80
Compound Name	: 1,4-Dioxane
Scan Number	: 2098
Retention Time (minutes)	: 8.325
Quant Ion	: 88.00
Area	: 31897
On-column Amount (ng)	: 486.8677
Integration start scan	: 2080 Integration stop scan: 2114
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

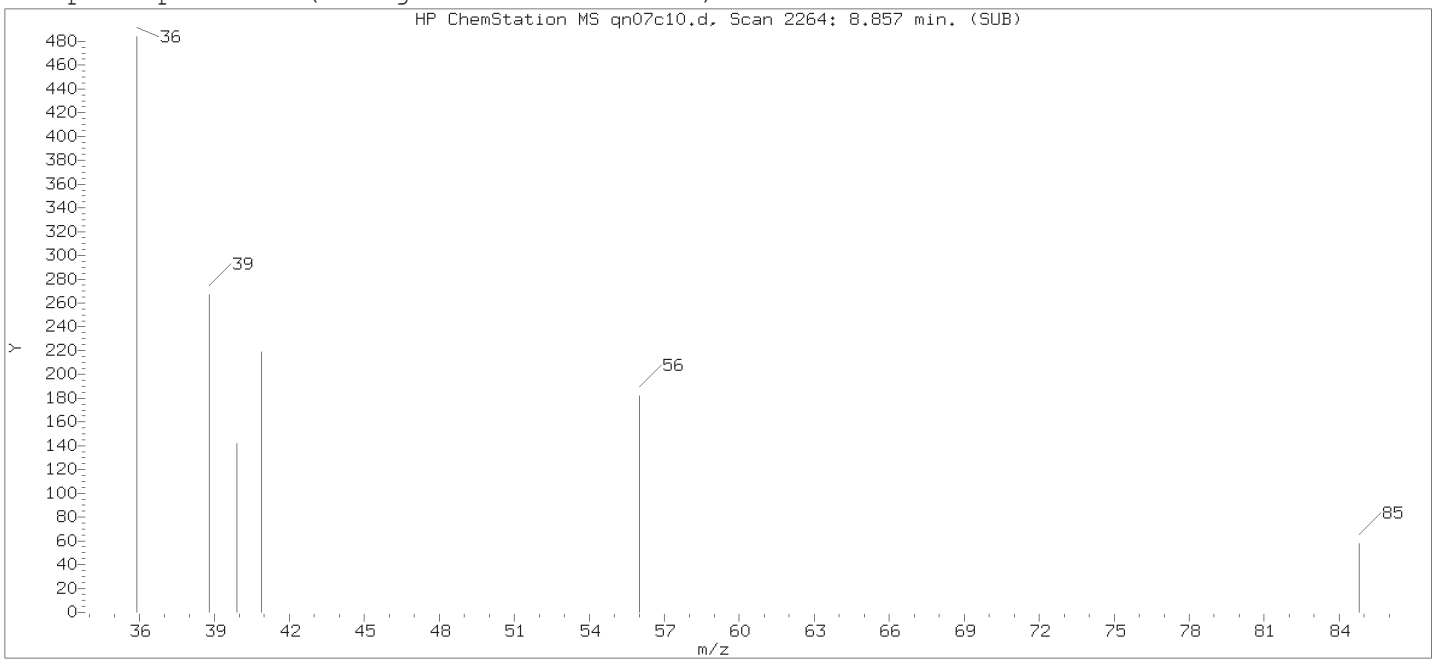
Compound Number : 85
Compound Name : 2-Nitropropane
Scan Number : 2290
Retention Time (minutes): 8.941
Quant Ion : 41.00
Area (flag) : 148381A
On-Column Amount (ng) : 120.9235
Integration start scan : 2267 Integration stop scan: 2310
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

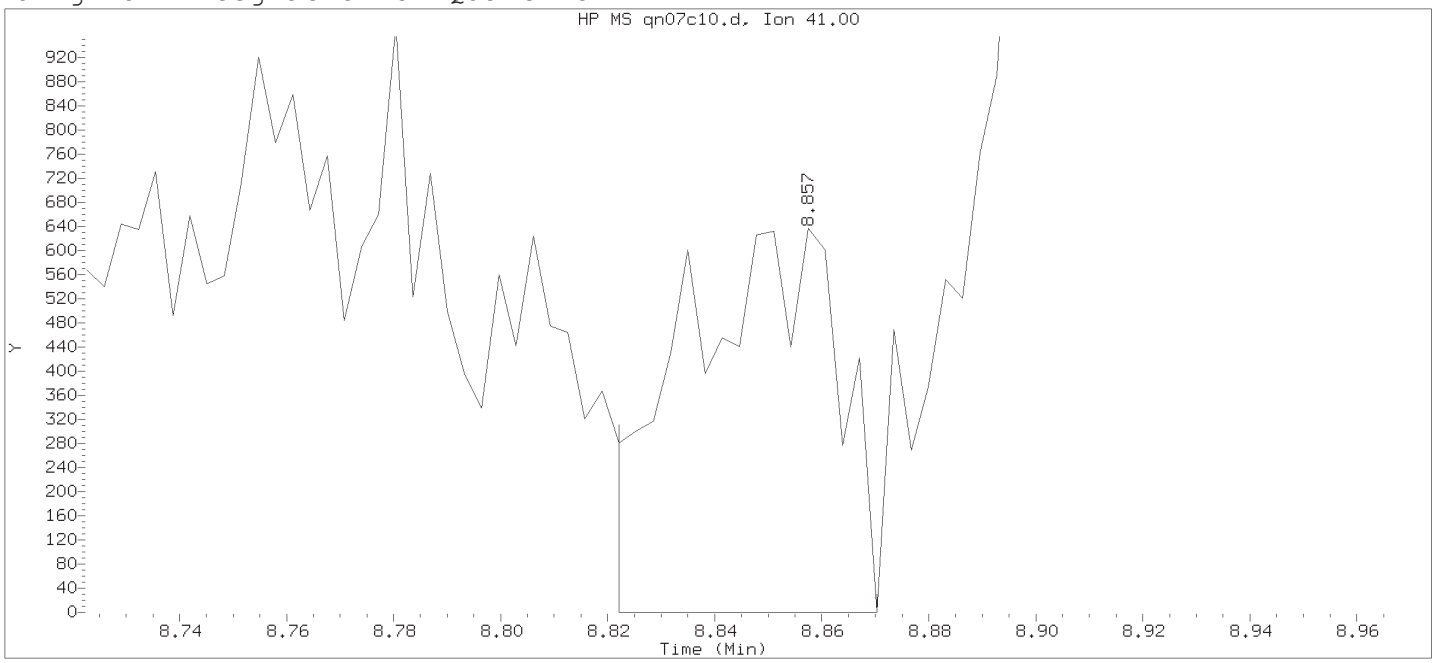
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

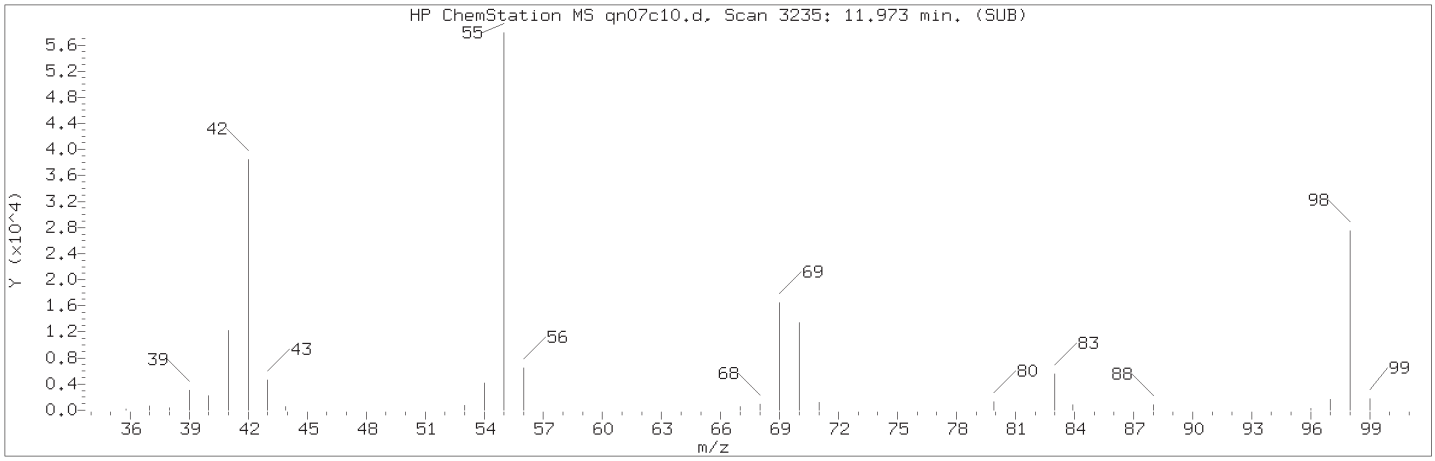
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

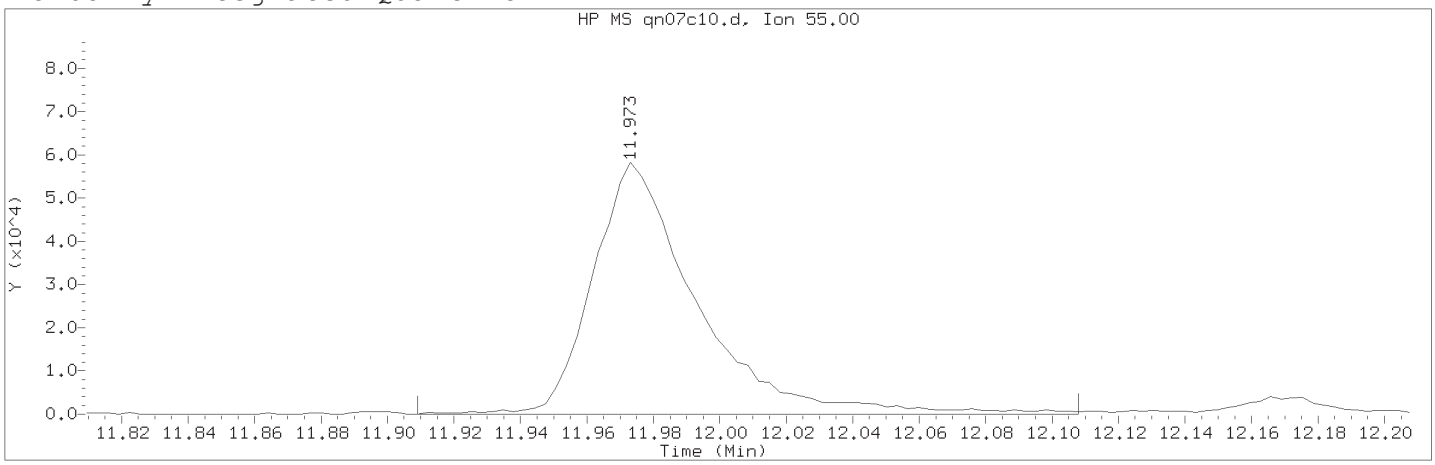
Compound Number	: 85		
Compound Name	: 2-Nitropropane		
Scan Number	: 2264		
Retention Time (minutes)	: 8.857		
Quant Ion	: 41.00		
Area	: 1293		
On-column Amount (ng)	: 1.0540		
Integration start scan	: 2252	Integration stop scan:	2267
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

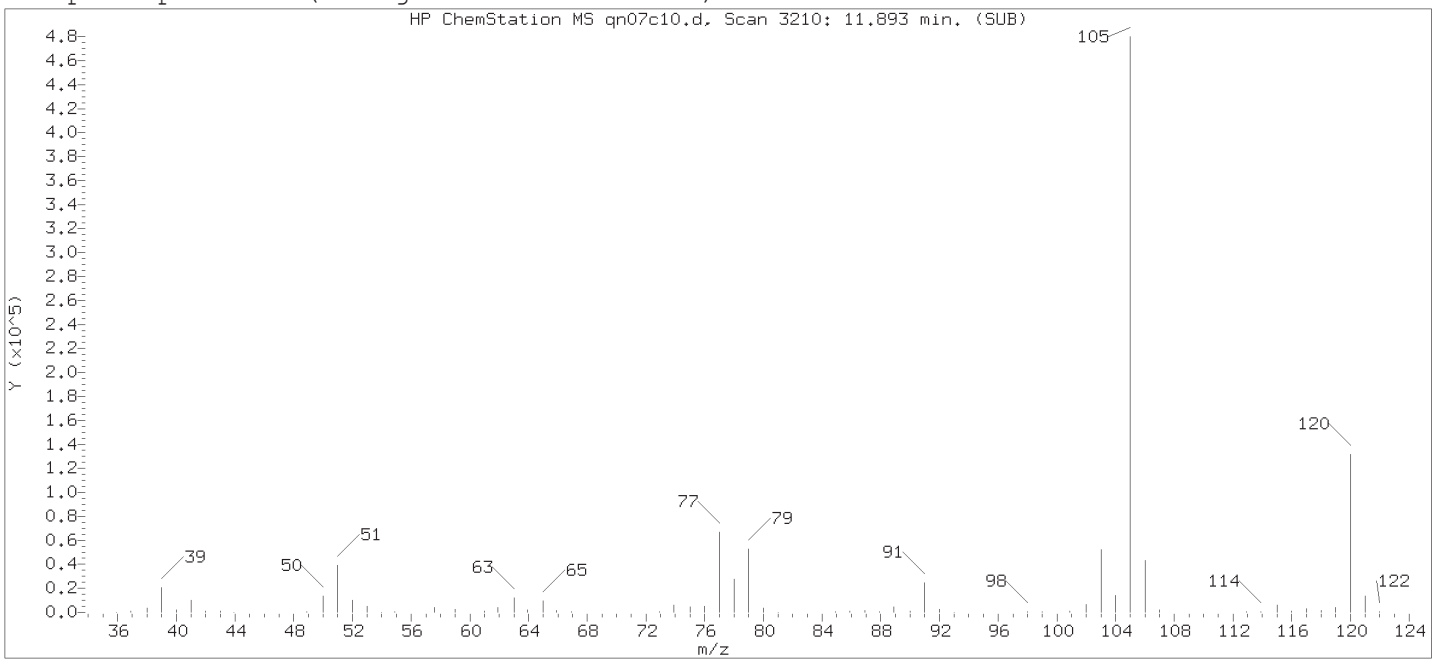
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3235
Retention Time (minutes): 11.973
Quant Ion : 55.00
Area (flag) : 126421A
On-Column Amount (ng) : 527.2855
Integration start scan : 3214 Integration stop scan: 3276
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

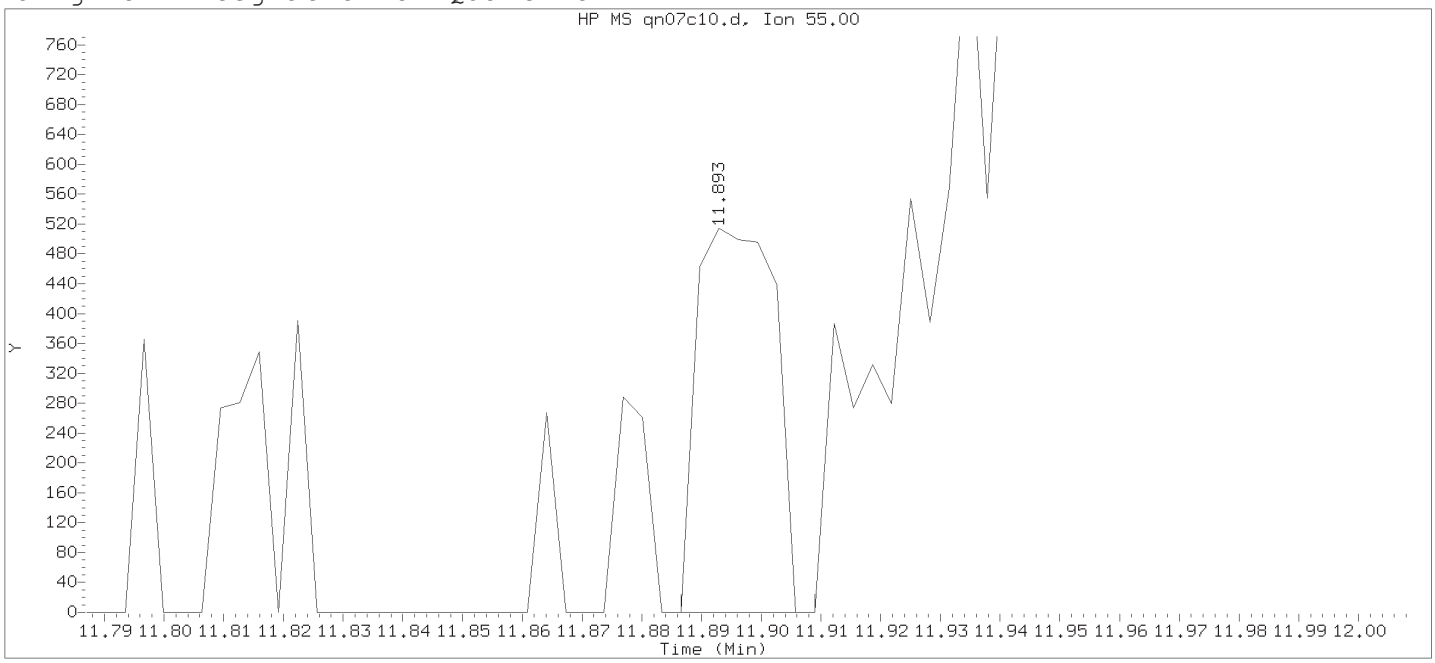
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

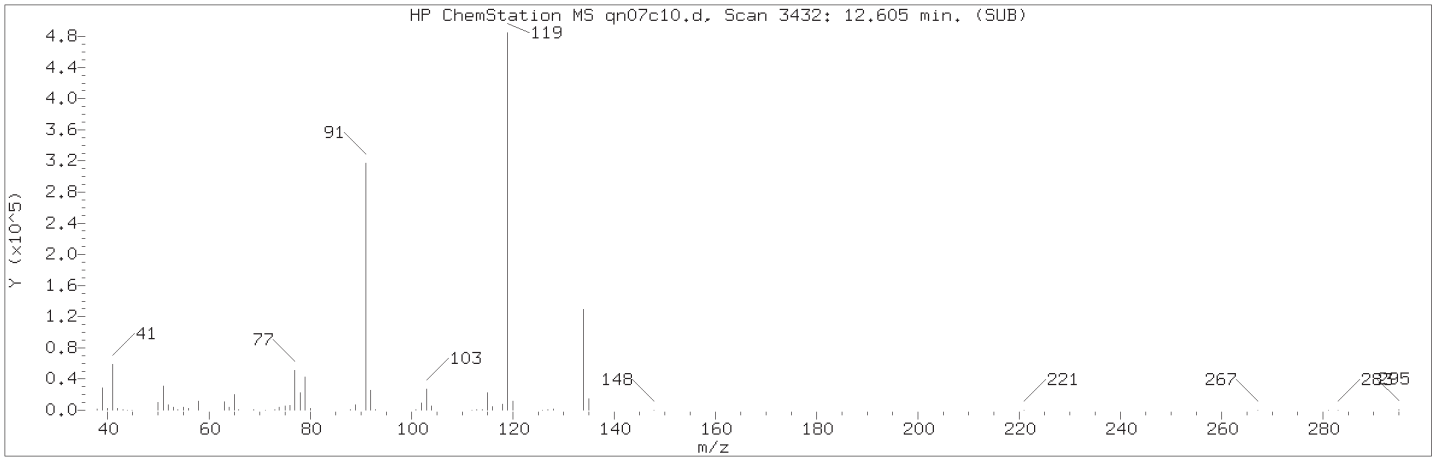
Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

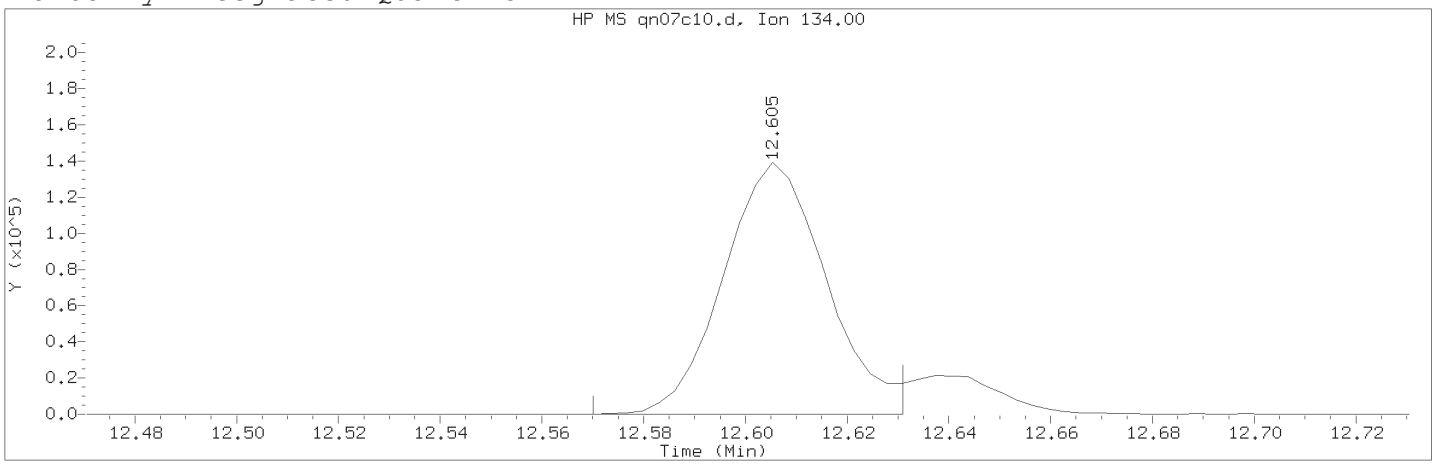
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3210
Retention Time (minutes): 11.893
Quant Ion : 55.00
Area : 463
On-column Amount (ng) : 1.9352
Integration start scan : 3207 Integration stop scan: 3214
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:56 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

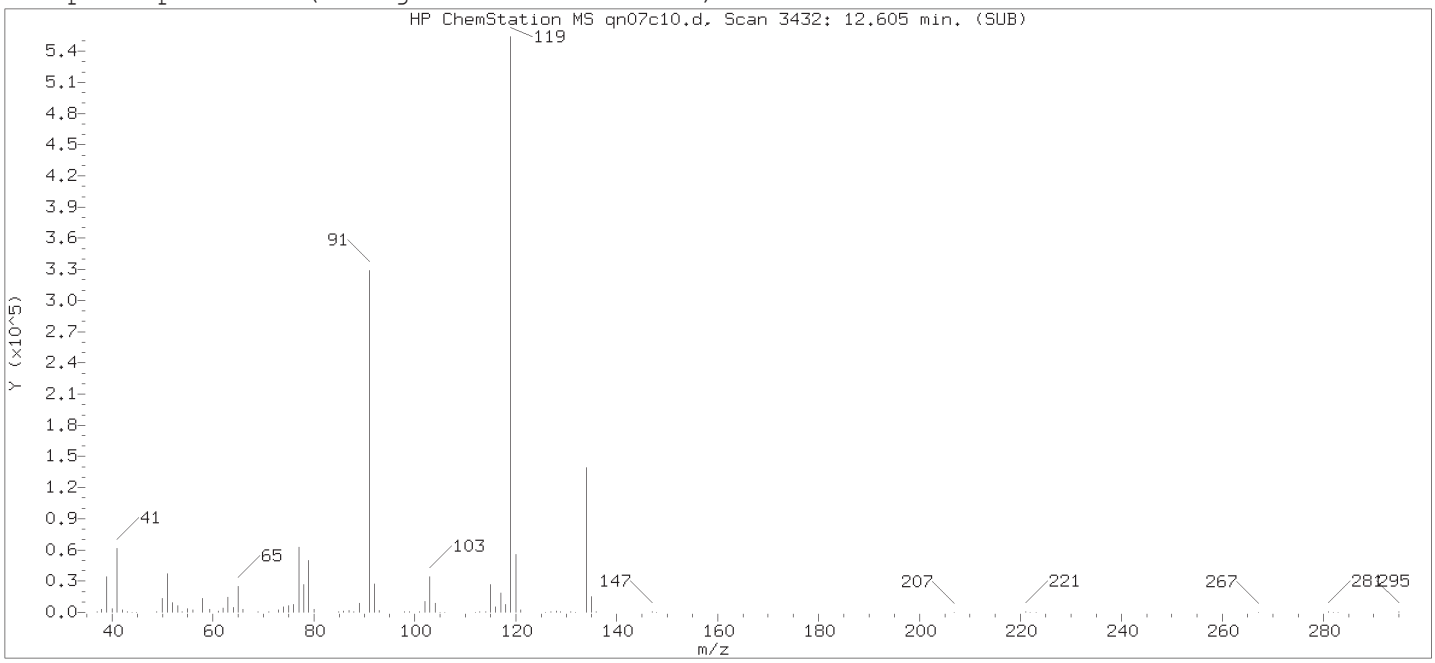
Compound Number : 133
Compound Name : tert-Butylbenzene
Scan Number : 3432
Retention Time (minutes): 12.605
Quant Ion : 134.00
Area (flag) : 195139M
On-Column Amount (ng) : 46.1738
Integration start scan : 3420 Integration stop scan: 3439
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

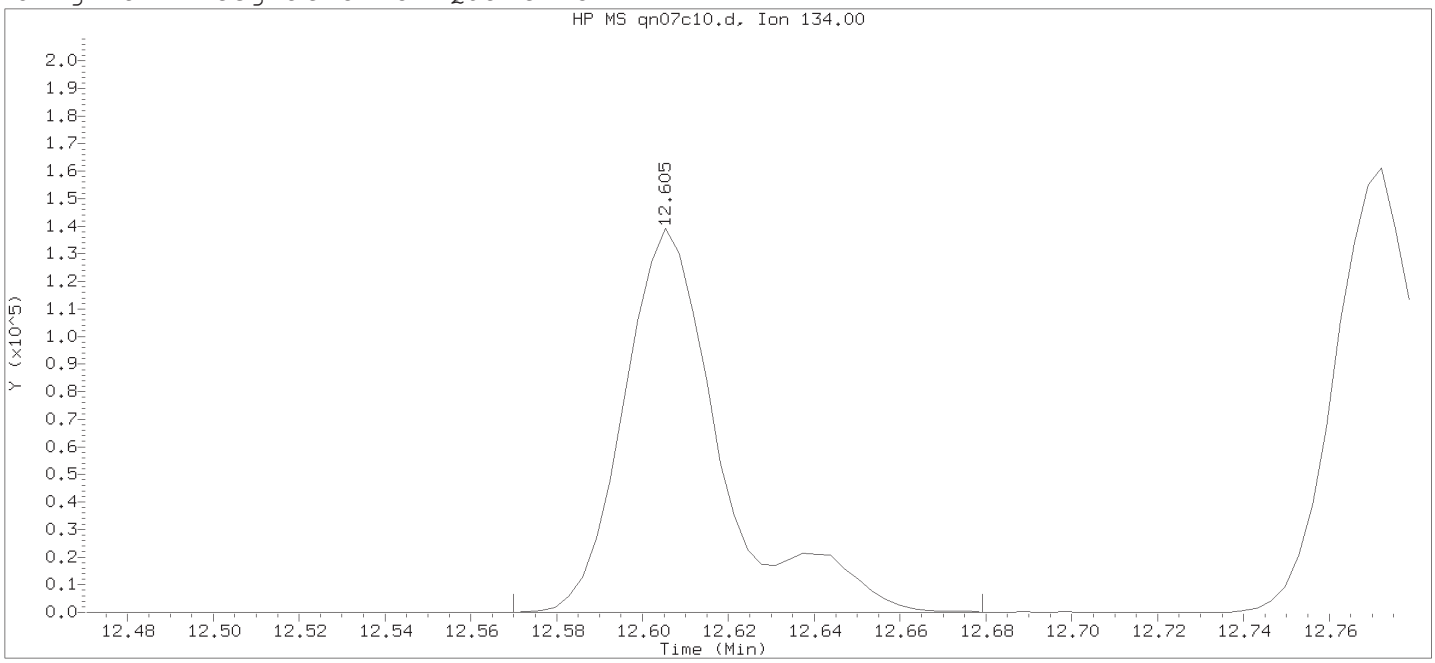
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov07a.b/qn07c10.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:19 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 07-NOV-2018 08:47
Date, time and analyst ID of latest file update: 07-Nov-2018 08:47 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 133
Compound Name	: tert-Butylbenzene
Scan Number	: 3432
Retention Time (minutes)	: 12.605
Quant Ion	: 134.00
Area	: 219863
On-column Amount (ng)	: 52.0239
Integration start scan	: 3420 Integration stop scan: 3454
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/07/2018 at 08:56.
Target 3.5 esignature user ID: SCN10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07ec1.d Injection date and time: **07-NOV-2018 17:00**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.995(-0.003)	749	65	130143 (-12)	250.00	
70) Fluorobenzene	7.512(-0.006)	1845	96	1073488 (-13)	50.00	
105) Chlorobenzene-d5	11.036(0.001)	2943	117	857240 (-11)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929(-0.003)	3533	152	385047 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.611(0.001)	113	334190	57.224	114%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.076(0.000)	102	91763	60.430	121%		71 - 136
91) Toluene-d8	(3)	9.553(-0.001)	98	1270280	54.282	109%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.046(0.000)	95	400748	53.788	108%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.884(-0.000)	85	501252	47.961	2398.07			30	250
4) Chloromethane	(2)	2.057(-0.000)	50	477427	42.878	2143.88			30	250
5) Vinyl Chloride	(2)	2.163(-0.000)	62	468503	43.246	2162.30			30	250
9) Bromomethane	(2)	2.446(-0.000)	94	162639	40.892	2044.62			35	250
10) Chloroethane	(2)	2.529(-0.000)	64	175906	45.646	2282.29			50	250
13) Trichlorofluoromethane	(2)	2.815(-0.000)	101	583296	44.024	2201.19			35	250
19) 1,1-Dichloroethene	(2)	3.366(-0.000)	96	270374	50.753	2537.63			25	250
20) Acetone	(1)	3.382(-0.001)	58	69988	111.784	5589.20			300	1000
22) Freon 113	(2)	3.382(0.000)	101	245562	54.115	2705.73			30	500
25) Carbon Disulfide	(2)	3.674(-0.000)	76	893266	46.120	2306.02			30	250
27) Methyl Acetate	(2)	3.780(-0.000)	43	254654	48.779	2438.97			50	250
31) Methylene Chloride	(2)	4.002(-0.001)	84	336887	52.963	2648.14			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.384(-0.000)	73	957240	52.524	2626.20			25	250
35) trans-1,2-Dichloroethene	(2)	4.393(0.000)	96	323202	53.743	2687.15			25	250
40) 1,1-Dichloroethane	(2)	5.064(-0.001)	63	555721	51.692	2584.61			25	250
44) 2-Butanone	(1)	5.869(0.000)	43	330001	97.937	4896.84			50	500
45) cis-1,2-Dichloroethene	(2)	5.898(-0.000)	96	364493	54.912	2745.58			25	250
54) Chloroform	(2)	6.392(0.000)	83	538289	52.286	2614.29			30	250
57) 1,1,1-Trichloroethane	(2)	6.617(0.000)	97	438738	51.958	2597.92			30	250
58) Cyclohexane	(2)	6.726(-0.000)	56	384245	51.945	2597.24			25	250
61) Carbon Tetrachloride	(2)	6.835(-0.000)	117	353784	57.349	2867.47			25	250
64) Benzene	(2)	7.098(0.000)	78	1289084	54.690	2734.51			25	250
67) 1,2-Dichloroethane	(2)	7.182(-0.000)	62	410434	50.272	2513.62			30	250
75) Trichloroethene	(2)	7.994(0.000)	95	325561	55.651	2782.55			25	250
76) Methylcyclohexane	(2)	8.305(0.000)	83	319238	56.702	2835.09			30	250
77) 1,2-Dichloropropane	(2)	8.334(0.000)	63	341582	53.135	2656.73			25	250
84) Bromodichloromethane	(2)	8.684(0.000)	83	381007	57.098	2854.88			20	250
89) cis-1,3-Dichloropropene	(2)	9.239(0.000)	75	523264	55.621	2781.03			20	250

Digitally signed by Patrick T. Herres on 11/07/2018 at 21:07. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07ec1.d Injection date and time: **07-NOV-2018 17:00**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

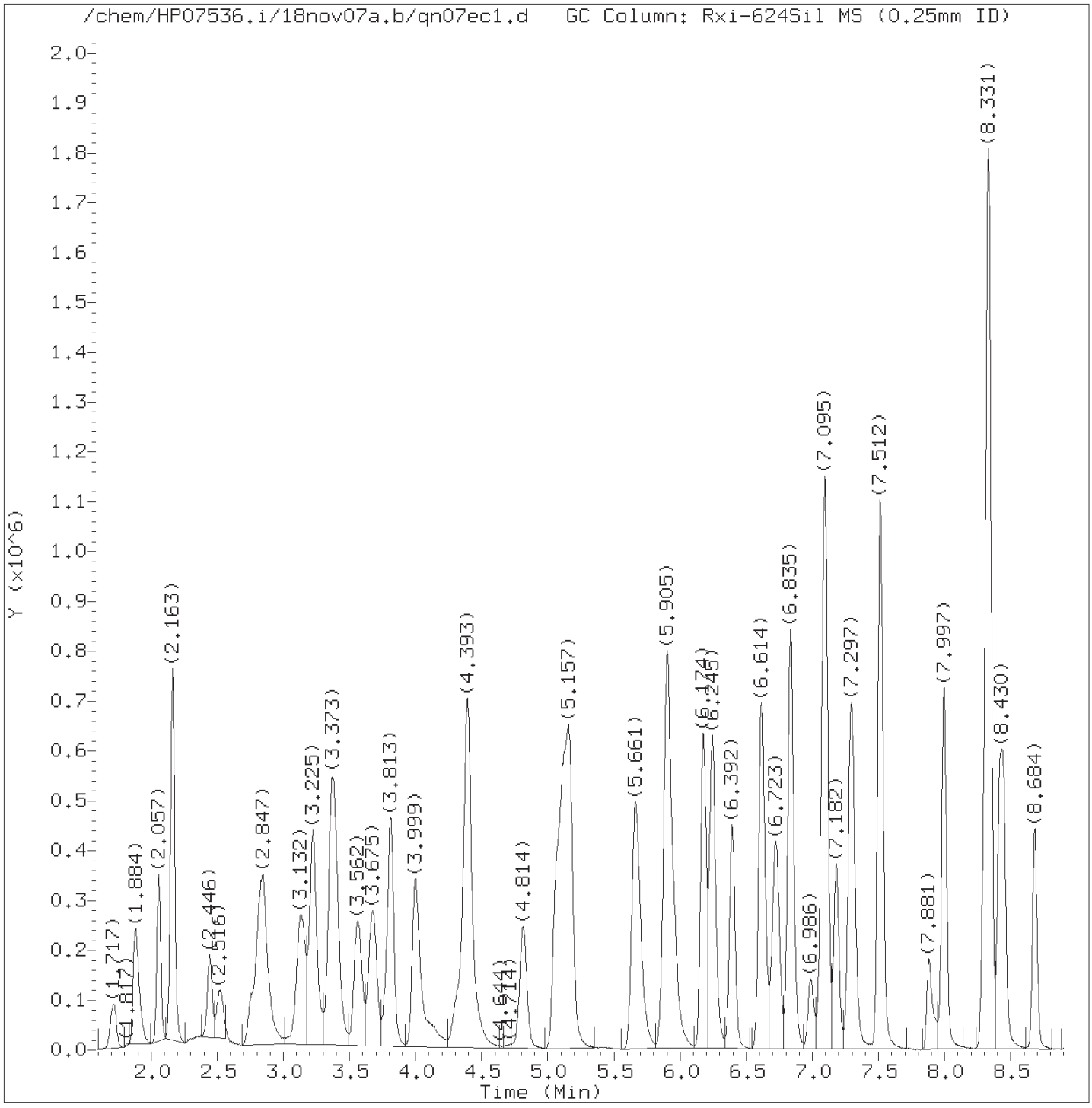
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)	9.405(0.001)	43	685393	105.990	5299.49			50	500
92) Toluene	(3)	9.630(-0.000)	92	785857	52.769	2638.43			30	250
93) trans-1,3-Dichloropropene	(3)	9.900(-0.000)	75	475633	51.725	2586.25			15	250
96) 1,1,2-Trichloroethane	(3)	10.108(-0.000)	97	309652	52.571	2628.57			25	250
98) Tetrachloroethene	(3)	10.192(0.000)	166	319050	53.692	2684.60			25	250
101) 2-Hexanone	(3)	10.320(-0.000)	43	472380	102.263	5113.15			50	500
103) Dibromochloromethane	(3)	10.493(-0.000)	129	325093	62.268	3113.40			20	250
104) 1,2-Dibromoethane	(3)	10.606(-0.000)	107	337755	54.686	2734.31			20	250
107) Chlorobenzene	(3)	11.061(-0.000)	112	884254	52.626	2631.29			25	250
109) Ethylbenzene	(3)	11.148(-0.000)	91	1333141	52.158	2607.91			20	250
110) m+p-Xylene	(3)	11.266(-0.000)	106	1060350	106.124	5306.22			50	250
111) o-Xylene	(3)	11.594(-0.000)	106	530391	53.320	2666.02			20	250
112) Xylene (Total)	(3)		106	1590741	159.445	7972.24			50	250
113) Styrene	(3)	11.613(-0.000)	104	922765	52.237	2611.86			15	250
114) Bromoform	(3)	11.777(-0.000)	173	209805	54.170	2708.49			250	500
115) Isopropylbenzene	(3)	11.899(-0.000)	105	1122692	52.889	2644.43			20	250
118) Cyclohexanone	(1)	11.972(0.002)	55	119519	565.938	28296.88			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.146(-0.000)	83	409302	49.377	2468.85			20	250
138) 1,3-Dichlorobenzene	(4)	12.871(0.000)	146	588637	50.959	2547.95			25	250
141) 1,4-Dichlorobenzene	(4)	12.948(0.000)	146	630788	48.628	2431.40			20	250
147) 1,2-Dichlorobenzene	(4)	13.205(0.000)	146	591752	49.430	2471.49			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.747(0.000)	75	56595	43.977	2198.85			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.299(0.000)	180	345908	47.864	2393.19			250	500

Total number of targets = 51

Digitally signed by Patrick T. Herres on 11/07/2018 at 21:07. Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:43. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

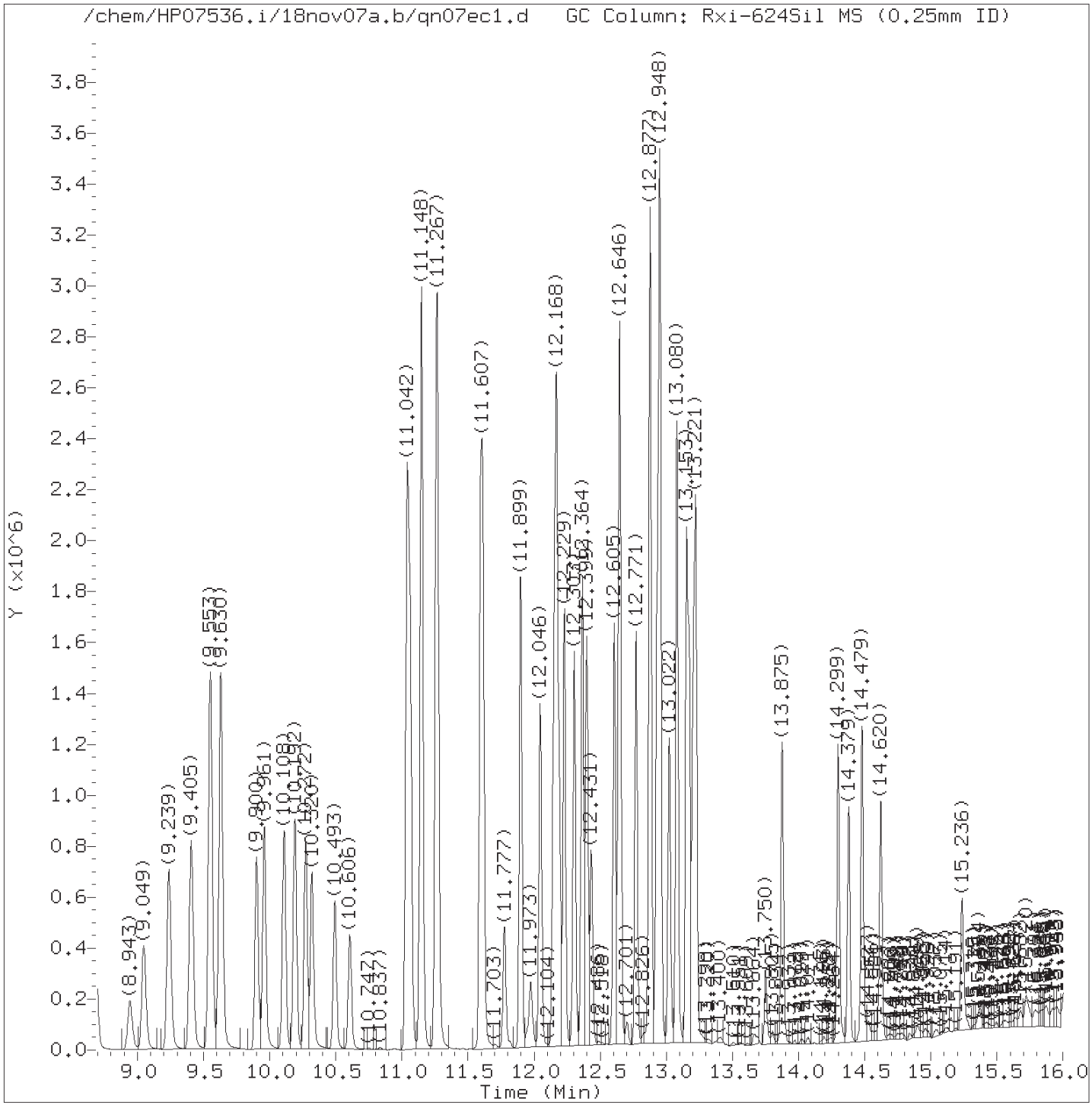
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 17:00 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Patrick T. Herres
on 11/07/2018 at 21:07.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 17:00 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Patrick T. Herres
on 11/07/2018 at 21:07.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 17:00 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.884	85	501252	47.961
4) Chloromethane	(2)	2.057	50	477427	42.878
5) Vinyl Chloride	(2)	2.163	62	468503	43.246
9) Bromomethane	(2)	2.446	94	162639	40.892
10) Chloroethane	(2)	2.529	64	175906	45.646
13) Trichlorofluoromethane	(2)	2.815	101	583296	44.024
19) 1,1-Dichloroethene	(2)	3.367	96	270374	50.753
20) Acetone	(1)	3.383	58	69988	111.784
22) Freon 113	(2)	3.383	101	245562	54.115
25) Carbon Disulfide	(2)	3.675	76	893266	46.120
27) Methyl Acetate	(2)	3.780	43	254654	48.779
30)*t-Butyl alcohol-d10	(1)	3.995	65	130143	250.000
31) Methylene Chloride	(2)	4.002	84	336887	52.963
34) Methyl Tertiary Butyl Ether	(2)	4.384	73	957240	52.524
35) trans-1,2-Dichloroethene	(2)	4.393	96	323202	53.743
40) 1,1-Dichloroethane	(2)	5.064	63	555721	51.692
44) 2-Butanone	(1)	5.869	43	330001	97.937
45) cis-1,2-Dichloroethene	(2)	5.898	96	364493	54.912
54) Chloroform	(2)	6.392	83	538289	52.286
56)$Dibromofluoromethane	(2)	6.611	113	334190	57.224
57) 1,1,1-Trichloroethane	(2)	6.617	97	438738	51.958
58) Cyclohexane	(2)	6.726	56	384245	51.945
61) Carbon Tetrachloride	(2)	6.835	117	353784	57.349
63)$1,2-Dichloroethane-d4	(2)	7.076	102	91763	60.430
64) Benzene	(2)	7.098	78	1289084	54.690
67) 1,2-Dichloroethane	(2)	7.182	62	410434	50.272
70)*Fluorobenzene	(2)	7.512	96	1073488	50.000
75) Trichloroethene	(2)	7.994	95	325561	55.651
76) Methylcyclohexane	(2)	8.305	83	319238	56.702
77) 1,2-Dichloropropane	(2)	8.334	63	341582	53.135
84) Bromodichloromethane	(2)	8.684	83	381007	57.098
89) cis-1,3-Dichloropropene	(2)	9.239	75	523264	55.621
90) 4-Methyl-2-pentanone	(2)	9.405	43	685393	105.990
91)$Toluene-d8	(3)	9.553	98	1270280	54.282
92) Toluene	(3)	9.630	92	785857	52.769
93) trans-1,3-Dichloropropene	(3)	9.900	75	475633	51.725
96) 1,1,2-Trichloroethane	(3)	10.108	97	309652	52.571
98) Tetrachloroethene	(3)	10.192	166	319050	53.692

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/07/2018 at 21:07.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07ec1.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 17:00 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 17:28 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.320	43	472380	102.263
103) Dibromochloromethane	(3)	10.493	129	325093	62.268
104) 1,2-Dibromoethane	(3)	10.606	107	337755	54.686
105)*Chlorobenzene-d5	(3)	11.036	117	857240	50.000
107) Chlorobenzene	(3)	11.061	112	884254	52.626
109) Ethylbenzene	(3)	11.148	91	1333141	52.158
110) m+p-Xylene	(3)	11.267	106	1060350	106.124
111) o-Xylene	(3)	11.594	106	530391	53.320
113) Styrene	(3)	11.613	104	922765	52.237
112) Xylene (Total)	(3)		106	1590741	159.445
114) Bromoform	(3)	11.777	173	209805	54.170
115) Isopropylbenzene	(3)	11.899	105	1122692	52.889
118) Cyclohexanone	(1)	11.973	55	119519	565.938
119)$4-Bromofluorobenzene	(3)	12.046	95	400748	53.788
120) 1,1,2,2-Tetrachloroethane	(4)	12.146	83	409302	49.377
138) 1,3-Dichlorobenzene	(4)	12.871	146	588637	50.959
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	385047	50.000
141) 1,4-Dichlorobenzene	(4)	12.948	146	630788	48.628
147) 1,2-Dichlorobenzene	(4)	13.205	146	591752	49.430
151) 1,2-Dibromo-3-chloropropane	(4)	13.747	75	56595	43.977
153) 1,2,4-Trichlorobenzene	(4)	14.299	180	345908	47.864

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/07/2018 at 21:07.
Target 3.5 esignature user ID: pth10165

Data File: /chem/HP07536.i/18nov08a.b/qn08t10.d

Date : 08-NOV-2018 08:09

Client ID: AUG0718

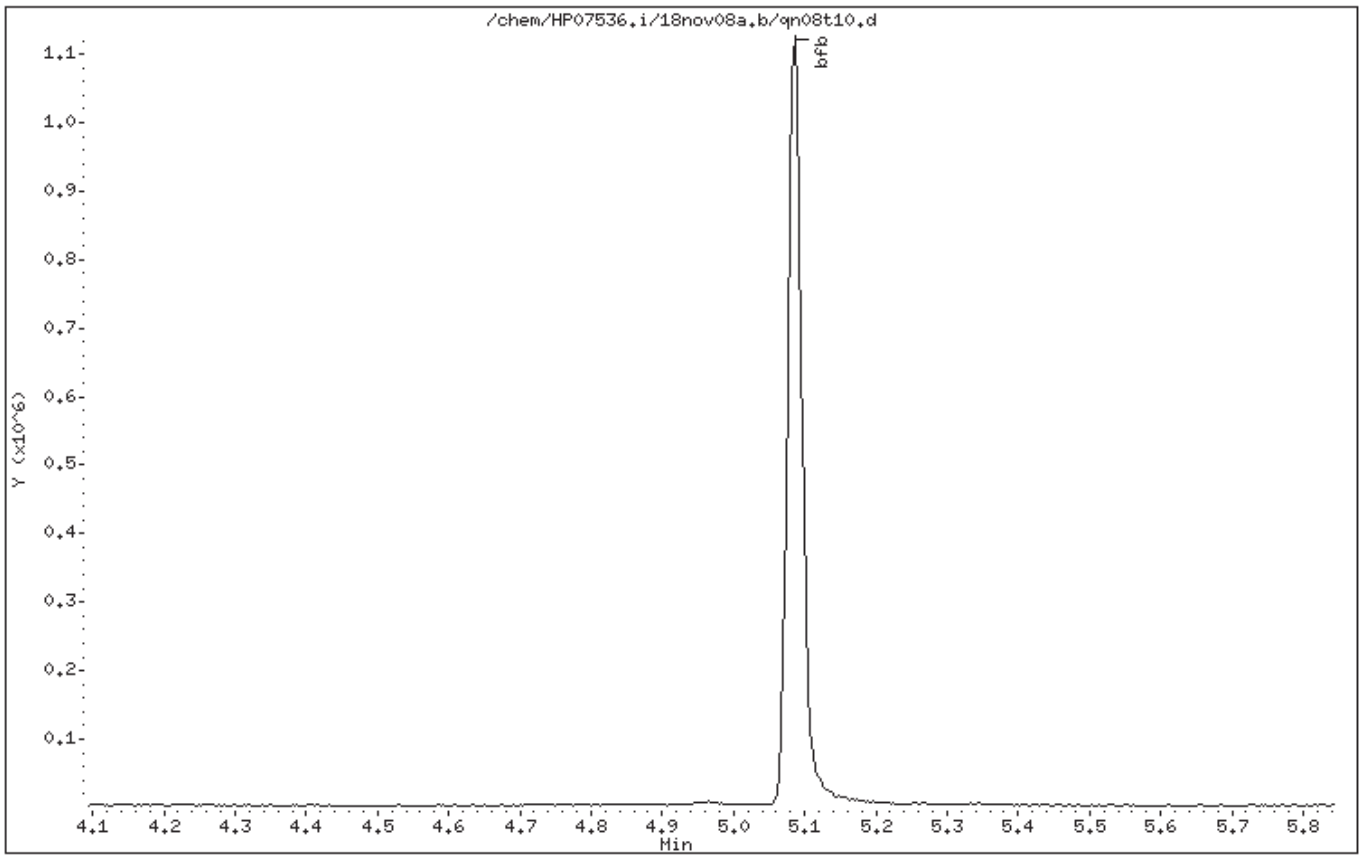
Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Stephen C. Nolte on 11/08/2018 at 08:28.
Target 3.5 esignature user ID: scn10072

Data File: /chem/HP07536.i/18nov08a.b/qn08t10.d

Date : 08-NOV-2018 08:09

Client ID: AUG0718

Instrument: HP07536.i

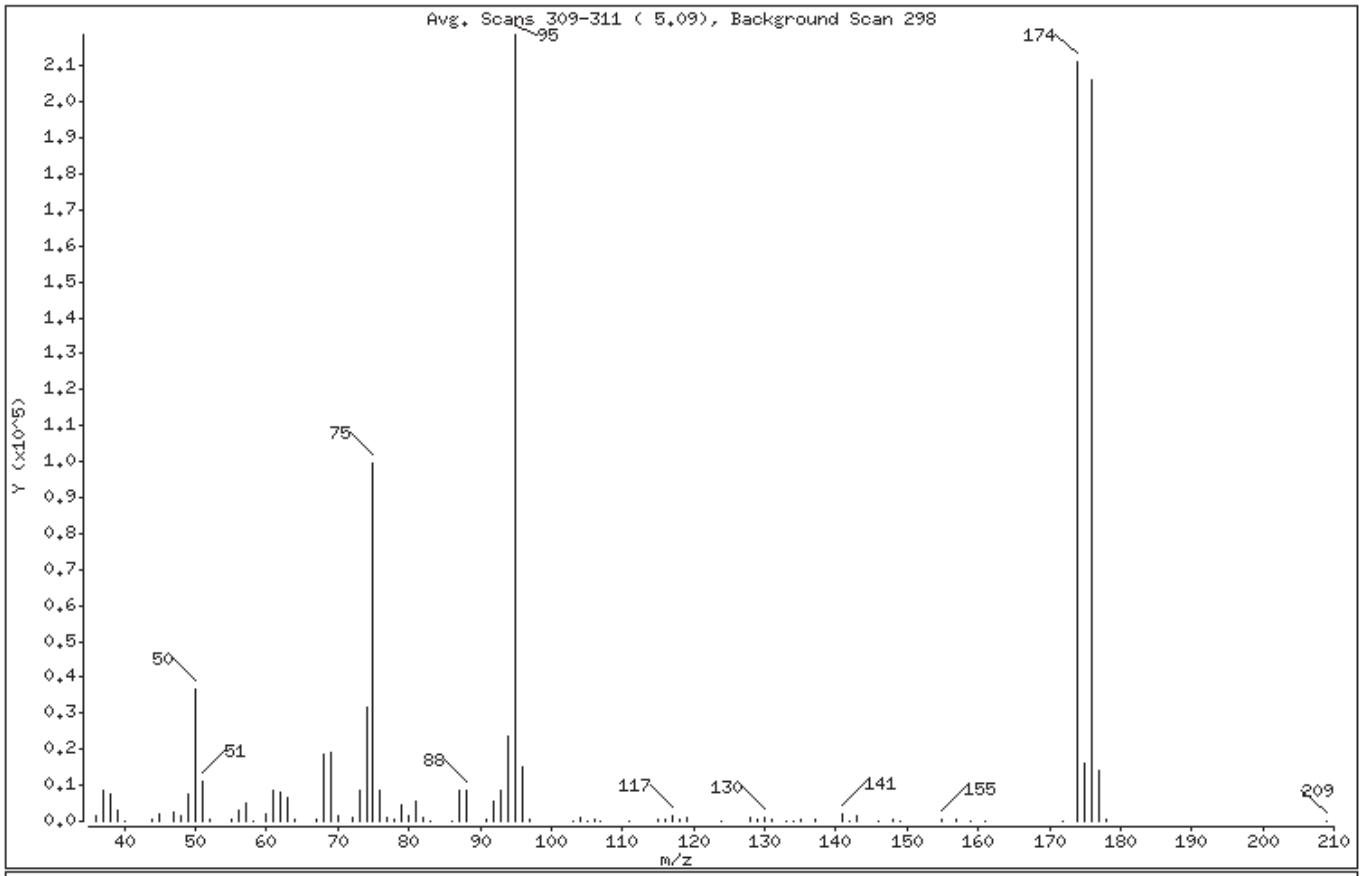
Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.79
75	30.00 - 60.00% of mass 95	45.48
96	5.00 - 9.00% of mass 95	6.97
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	96.57
175	5.00 - 9.00% of mass 174	7.28 (7.54)
176	95.00 - 101.00% of mass 174	94.26 (97.61)
177	5.00 - 9.00% of mass 176	6.41 (6.80)

Digitally signed by Stephen C. Nolte on 11/08/2018 at 08:28.
Target 3.5 esignature user ID: scn10072

Date : 08-NOV-2018 08:09

Client ID: AUG0718 Instrument: HP07536.i

Sample Info: AUG0718;50NGBFB;2;3;;;;;;

Operator: scn10072

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: qn08t10.d
Spectrum: Avg. Scans 309-311 (5.09), Background Scan 298
Location of Maximum: 95.00
Number of points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1739	67.00	608	94.00	23584	135.00	434
37.00	8649	68.00	18584	95.00	218752	137.00	435
38.00	7733	69.00	19144	96.00	15248	141.00	1919
39.00	2880	70.00	1296	97.00	530	142.00	87
40.00	193	72.00	1119	103.00	99	143.00	1736
44.00	606	73.00	8333	104.00	848	146.00	193
45.00	1945	74.00	31880	105.00	116	148.00	541
47.00	2386	75.00	99504	106.00	736	149.00	182
48.00	1327	76.00	8602	107.00	169	155.00	578
49.00	7465	77.00	1163	111.00	86	157.00	461
50.00	36736	78.00	736	115.00	315	159.00	119
51.00	10976	79.00	4631	116.00	634	161.00	218
52.00	552	80.00	1511	117.00	1297	172.00	107
55.00	456	81.00	5349	118.00	704	174.00	211264
56.00	2899	82.00	1106	119.00	950	175.00	15922
57.00	4870	83.00	99	124.00	87	176.00	206208
58.00	92	86.00	89	128.00	859	177.00	14019
60.00	1802	87.00	8507	129.00	473	178.00	472
61.00	8397	88.00	8624	130.00	881	209.00	85
62.00	8219	91.00	750	131.00	332		
63.00	6540	92.00	5698	133.00	108		
64.00	688	93.00	8348	134.00	85		

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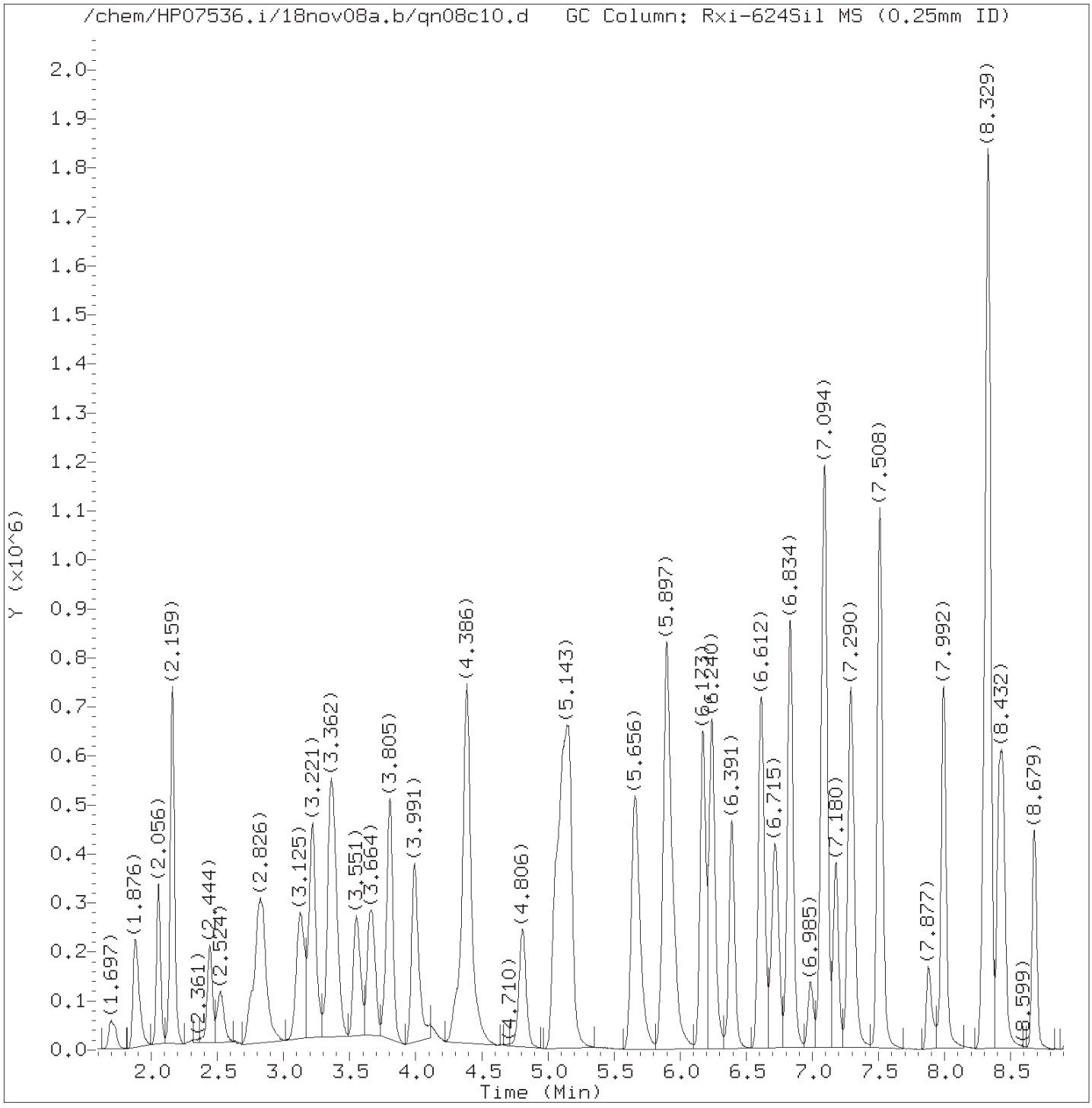
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

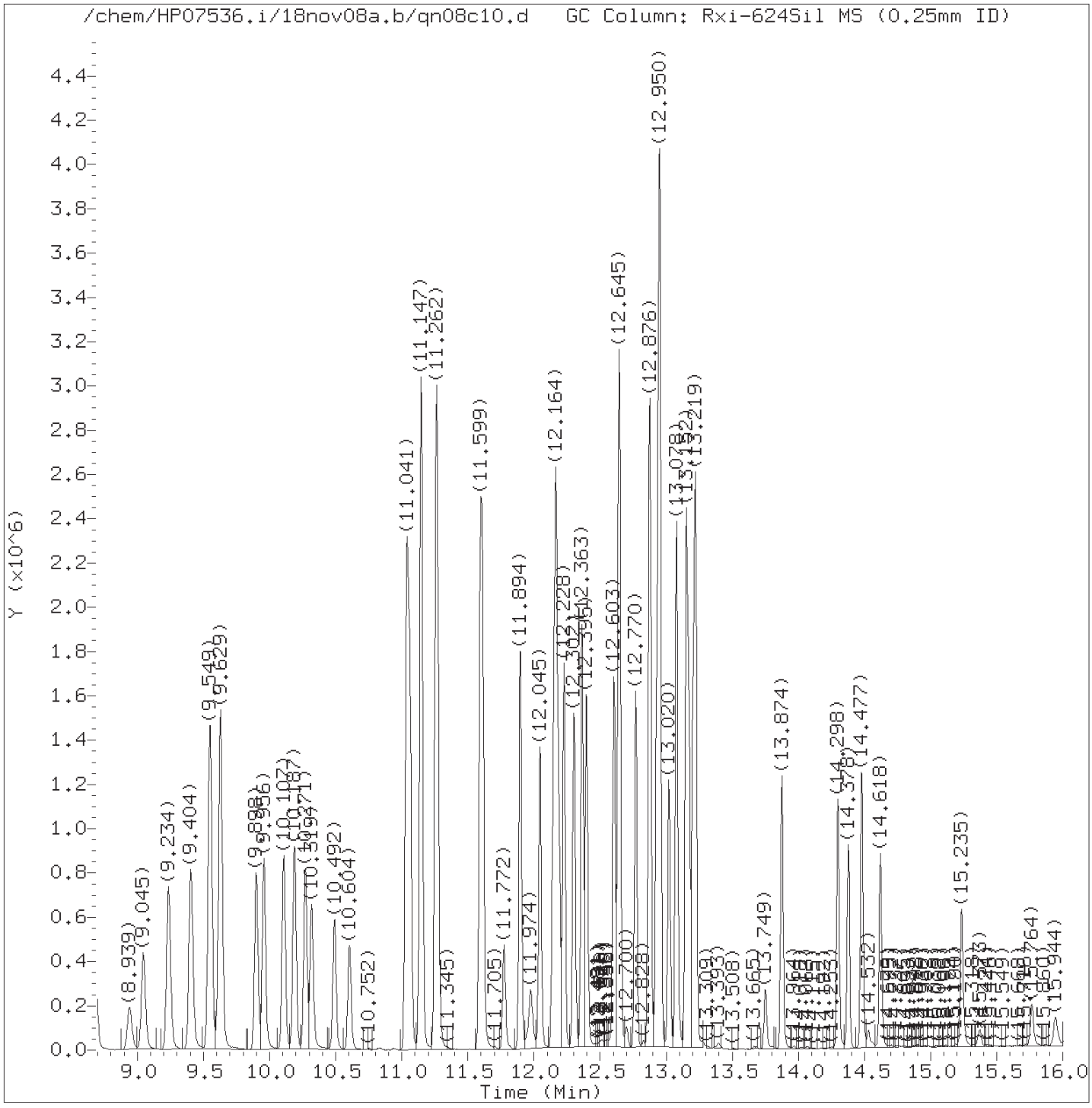
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.880	85	461261	43.334
4) Chloromethane	(2)	2.056	50	464756	40.982
5) Vinyl Chloride	(2)	2.162	62	456000	41.328
9) Bromomethane	(2)	2.444	94	192898M	47.620
10) Chloroethane	(2)	2.524	64	163818M	41.738
13) Trichlorofluoromethane	(2)	2.810	101	560086	41.505
14) n-Pentane	(2)	2.849	43	231407	30.252
15) Ethanol	(1)	2.932	45	160184	2104.653
17) Freon 123a	(2)	3.125	67	379843	45.733
18) Acrolein	(1)	3.221	56	786544	492.381
19) 1,1-Dichloroethene	(2)	3.356	96	276875	51.030
19) 1,1-Dichloroethene	(2)	3.356	63	132992	47.970
20) Acetone	(1)	3.375	58	68935M	106.859
22) Freon 113	(2)	3.391	101	239781	51.882
23) 2-Propanol	(1)	3.545	45	94376	208.843
24) Methyl Iodide	(2)	3.551	142	606708	52.572
25) Carbon Disulfide	(2)	3.664	76	915564	46.414
27) Methyl Acetate	(2)	3.773	43	271436	51.050
29) Allyl Chloride	(2)	3.805	41	504778	49.716
31) Methylene Chloride	(2)	3.991	84	345910	53.395
30)*t-Butyl alcohol-d10	(1)	4.004	65	134095	250.000
32) t-Butyl alcohol	(1)	4.119	59	149012	227.151
33) Acrylonitrile	(2)	4.296	53	150294	56.446
34) Methyl Tertiary Butyl Ether	(2)	4.376	73	982208	52.916
35) trans-1,2-Dichloroethene	(2)	4.386	96	331699	54.155
38) n-Hexane	(2)	4.809	57	251923	53.326
40) 1,1-Dichloroethane	(2)	5.056	63	570646	52.117
41) di-Isopropyl ether	(2)	5.111	45	1089881	50.401
42) 2-Chloro-1,3-butadiene	(2)	5.162	53	468834	47.448
43) Ethyl t-butyl ether	(2)	5.666	59	1025972	51.012
44) 2-Butanone	(1)	5.865	43	323675	93.229
44) 2-Butanone	(1)	5.865	72	93763	110.448
45) cis-1,2-Dichloroethene	(2)	5.897	96	374633	55.415
47) 2,2-Dichloropropane	(2)	5.910	77	442245	50.028
49) Propionitrile	(2)	5.948	54	271351	292.192
46) 1,2-Dichloroethene (Total)	(2)		96	706332	109.570
51) Methacrylonitrile	(2)	6.170	67	404679	141.583
52) Bromochloromethane	(2)	6.240	128	225278	59.490

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) Tetrahydrofuran	(1)	6.247	71	93267	107.626
54) Chloroform	(2)	6.388	83	557541	53.173
56)$Dibromofluoromethane	(2)	6.612	113	336673	56.603
56)$Dibromofluoromethane	(2)	6.609	111	342906	55.975
57) 1,1,1-Trichloroethane	(2)	6.619	97	453365	52.717
58) Cyclohexane	(2)	6.718	56	381875	50.688
58) Cyclohexane	(2)	6.715	84	329026	52.240
58) Cyclohexane	(2)	6.722	69	117444	52.387
61) Carbon Tetrachloride	(2)	6.831	117	360721	57.413
60) 1,1-Dichloropropene	(2)	6.831	75	412532	53.327
62) Isobutyl Alcohol	(1)	6.985	41	136103	612.358
63)$1,2-Dichloroethane-d4	(2)	7.071	102	93146	60.228
63)$1,2-Dichloroethane-d4	(2)	7.071	65	380326	51.345
63)$1,2-Dichloroethane-d4	(2)	7.071	104	59332	61.145
64) Benzene	(2)	7.094	78	1328134	55.325
67) 1,2-Dichloroethane	(2)	7.177	62	413699	49.753
67) 1,2-Dichloroethane	(2)	7.180	98	44347	61.631
68) t-Amyl methyl ether	(2)	7.290	73	1023411	53.619
70)*Fluorobenzene	(2)	7.508	96	1093325	50.000
72) n-Heptane	(2)	7.517	43	226488	49.089
73) n-Butanol	(1)	7.877	56	226871M	1360.860
75) Trichloroethene	(2)	7.989	95	329036	55.224
76) Methylcyclohexane	(2)	8.304	83	324882	56.657
77) 1,2-Dichloropropane	(2)	8.332	63	348468	53.222
79) Methyl Methacrylate	(2)	8.413	69	266294	55.038
80) 1,4-Dioxane	(1)	8.422	88	48134M	809.515
81) Dibromomethane	(2)	8.441	93	221867	55.831
84) Bromodichloromethane	(2)	8.679	83	390249	57.421
85) 2-Nitropropane	(1)	8.942	41	150207	134.876
87) 2-Chloroethyl Vinyl Ether	(2)	9.045	63	254658	59.819
89) cis-1,3-Dichloropropene	(2)	9.234	75	540556	56.416
90) 4-Methyl-2-pentanone	(2)	9.404	43	691873	105.050
91)$Toluene-d8	(3)	9.552	98	1275765	54.174
91)$Toluene-d8	(3)	9.549	100	826049	54.015
92) Toluene	(3)	9.629	92	806448	53.811
93) trans-1,3-Dichloropropene	(3)	9.898	75	492899	53.266
95) Ethyl Methacrylate	(3)	9.956	69	503097	52.611
94) 1,3-Dichloropropene (total)	(3)		100	1033455	109.682

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
96) 1,1,2-Trichloroethane	(3)	10.107	97	316831	53.452
98) Tetrachloroethene	(3)	10.190	166	320863	53.658
99) 1,3-Dichloropropane	(3)	10.271	76	528864	52.164
101) 2-Hexanone	(3)	10.319	43	468729	100.835
103) Dibromochloromethane	(3)	10.492	129	333763	63.527
104) 1,2-Dibromoethane	(3)	10.604	107	342136	55.048
105)*Chlorobenzene-d5	(3)	11.034	117	862657	50.000
106) 1-Chlorohexane	(3)	11.044	91	294880	48.400
107) Chlorobenzene	(3)	11.063	112	892771	52.799
108) 1,1,1,2-Tetrachloroethane	(3)	11.147	131	316983	56.772
109) Ethylbenzene	(3)	11.147	91	1346411	52.347
110) m+p-Xylene	(3)	11.265	106	1065261	105.946
111) o-Xylene	(3)	11.593	106	533400	53.286
113) Styrene	(3)	11.612	104	936979	52.709
112) Xylene (Total)	(3)		106	1598661	159.233
114) Bromoform	(3)	11.772	173	218141	55.846
115) Isopropylbenzene	(3)	11.897	105	1122106	52.529
118) Cyclohexanone	(1)	11.974	55	137189A	630.461
119)$4-Bromofluorobenzene	(3)	12.045	95	391081	52.161
119)$4-Bromofluorobenzene	(3)	12.048	174	388518	54.508
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	399801	48.585
121) Bromobenzene	(4)	12.161	156	401660	51.745
122) trans-1,4-Dichloro-2-butene	(4)	12.170	53	286511	116.624
123) 1,2,3-Trichloropropane	(4)	12.193	110	128537	51.047
124) n-Propylbenzene	(4)	12.228	91	1219999	50.836
126) 2-Chlorotoluene	(4)	12.305	126	291049	51.481
129) 1,3,5-Trimethylbenzene	(4)	12.363	105	930001	51.305
130) 4-Chlorotoluene	(4)	12.398	126	309865	51.309
133) tert-Butylbenzene	(4)	12.607	134	189551	50.775
134) Pentachloroethane	(4)	12.639	167	277716	65.802
135) 1,2,4-Trimethylbenzene	(4)	12.648	105	994713	51.181
136) sec-Butylbenzene	(4)	12.770	105	1009628	50.517
138) 1,3-Dichlorobenzene	(4)	12.870	146	596392	52.010
139) p-Isopropyltoluene	(4)	12.879	119	932044	51.239
140)*1,4-Dichlorobenzene-d4	(4)	12.927	152	382237	50.000
141) 1,4-Dichlorobenzene	(4)	12.943	146	641587	49.824
142) 1,2,3-Trimethylbenzene	(4)	12.950	105	1366926	62.138
143) Benzyl Chloride	(4)	13.020	126	176058	55.084

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

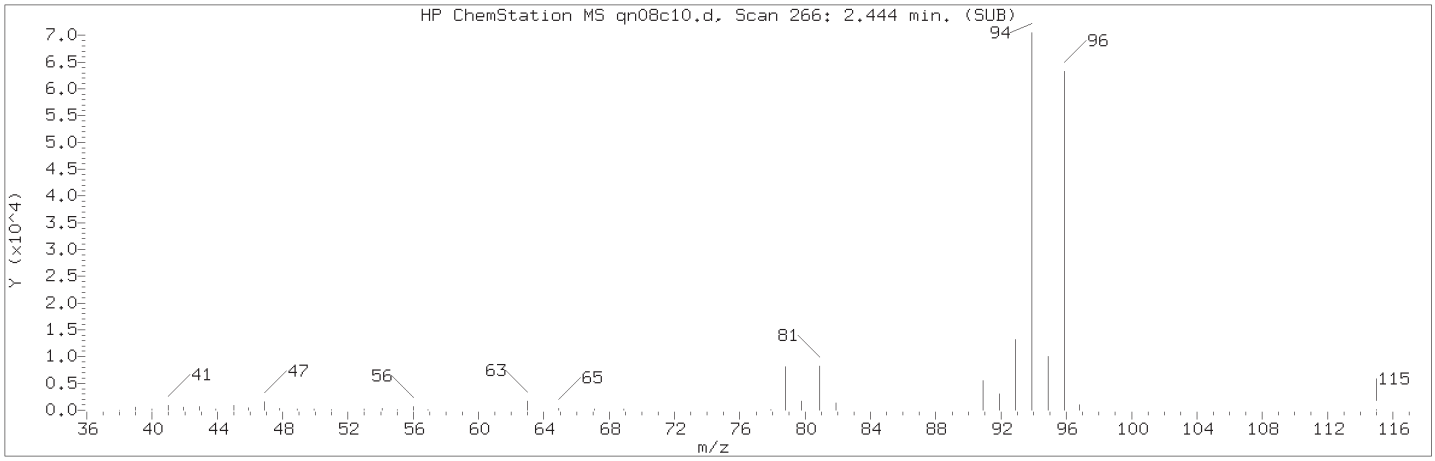
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

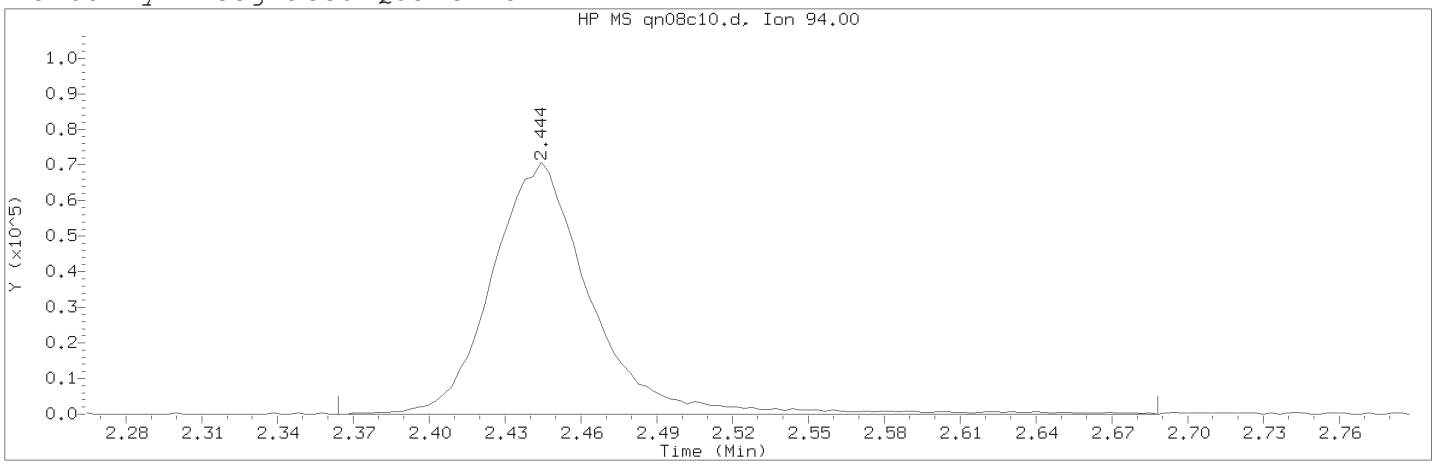
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,3-Diethylbenzene	(4)	13.078	119	704653	63.865
145) 1,4-Diethylbenzene	(4)	13.152	119	732940	63.464
146) n-Butylbenzene	(4)	13.171	92	419770	50.015
147) 1,2-Dichlorobenzene	(4)	13.203	146	602595	50.706
148) 1,2-Diethylbenzene	(4)	13.223	119	613119	62.021
151) 1,2-Dibromo-3-chloropropane	(4)	13.752	75	56844	44.495
152) 1,3,5-Trichlorobenzene	(4)	13.874	180	379760	51.002
153) 1,2,4-Trichlorobenzene	(4)	14.298	180	342338	47.718
154) Hexachlorobutadiene	(4)	14.378	225	158371	50.098
155) Naphthalene	(4)	14.477	128	934095	43.899
156) 1,2,3-Trichlorobenzene	(4)	14.618	180	272717	39.767
157) 2-Methylnaphthalene	(4)	15.235	142	310975	29.808

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

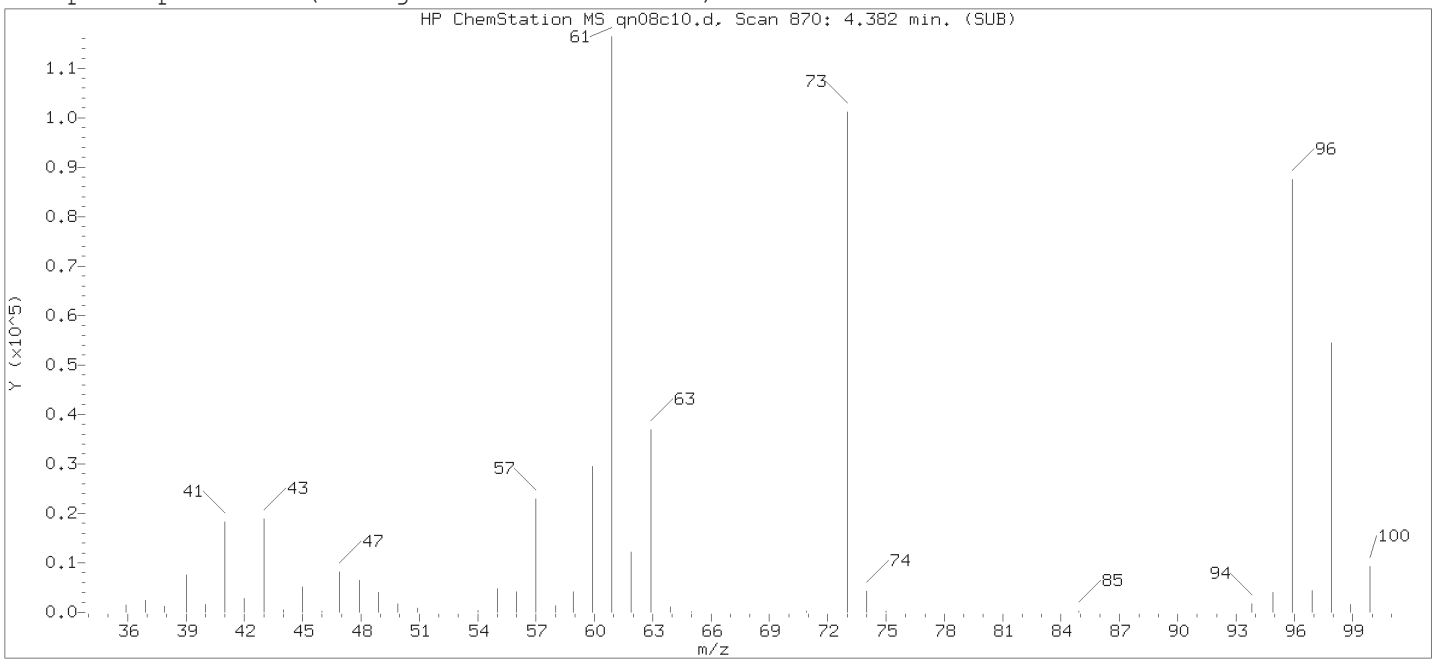
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 266
Retention Time (minutes): 2.444
Quant Ion : 94.00
Area (flag) : 192898M
On-Column Amount (ng) : 47.6204
Integration start scan : 240 Integration stop scan: 341
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

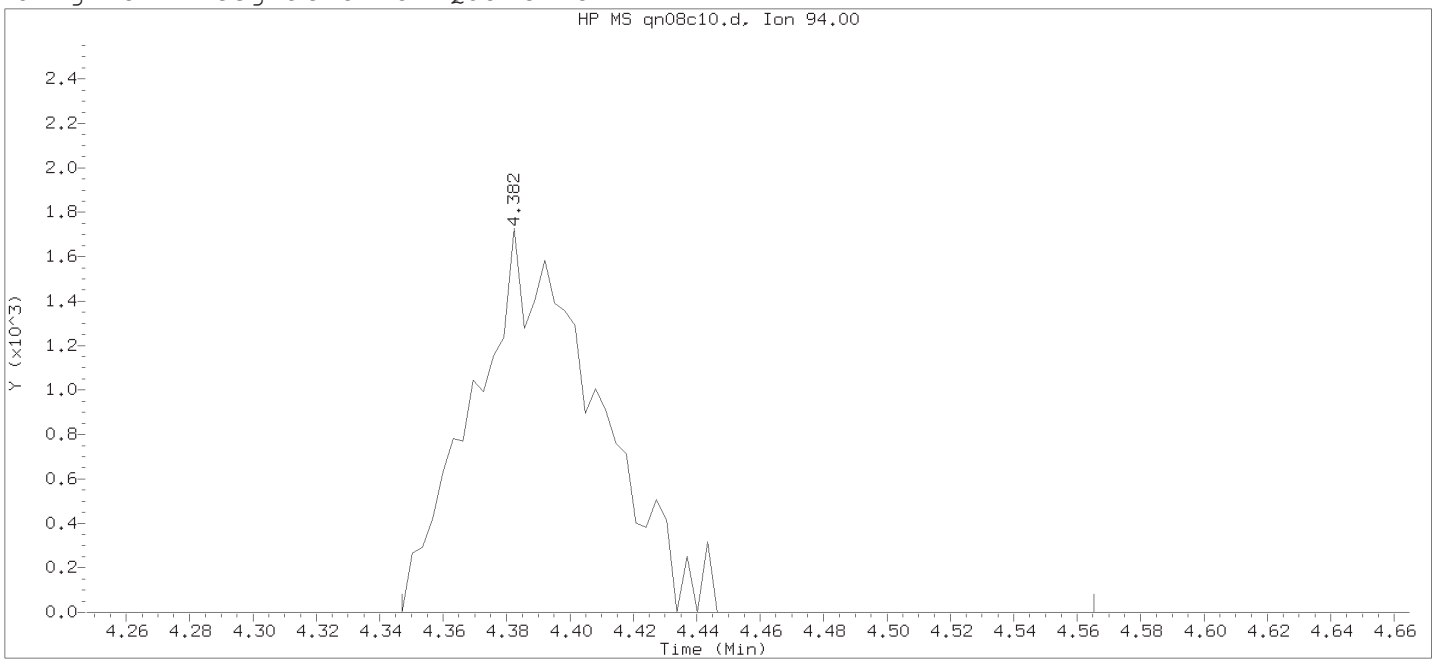
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

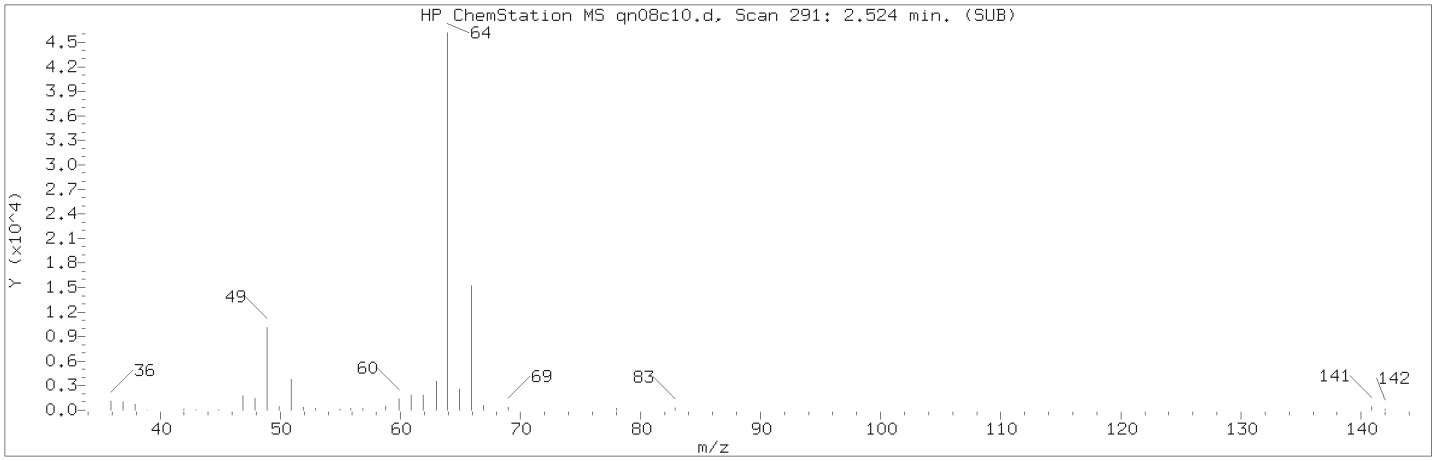
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

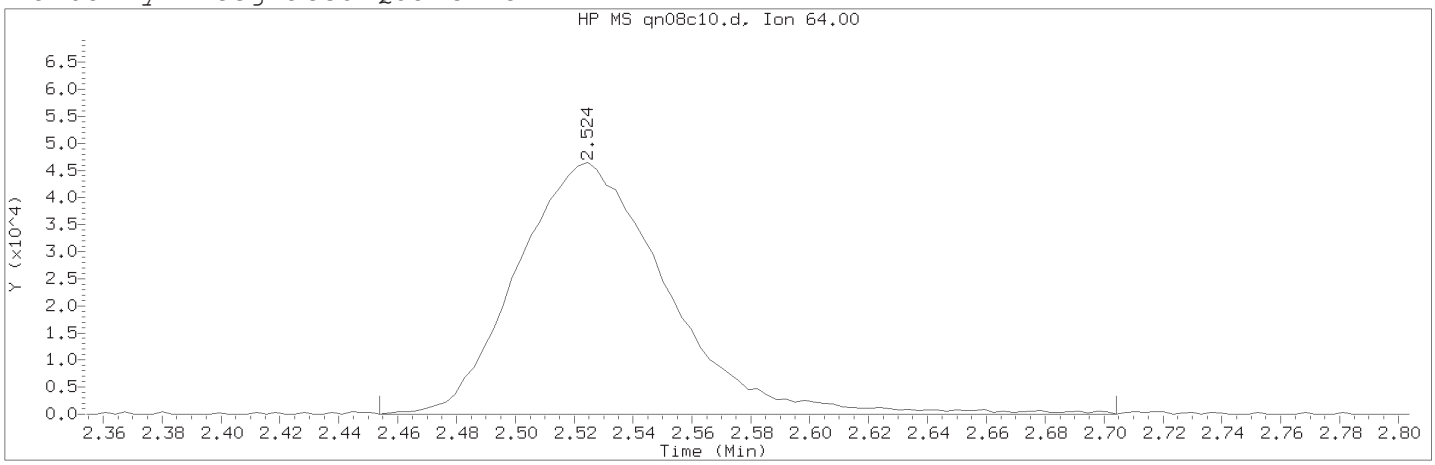
Compound Number : 9
Compound Name : Bromomethane
Scan Number : 870
Retention Time (minutes): 4.382
Quant Ion : 94.00
Area : 4656
On-column Amount (ng) : 1.1494
Integration start scan : 858 Integration stop scan: 926
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: SCN0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

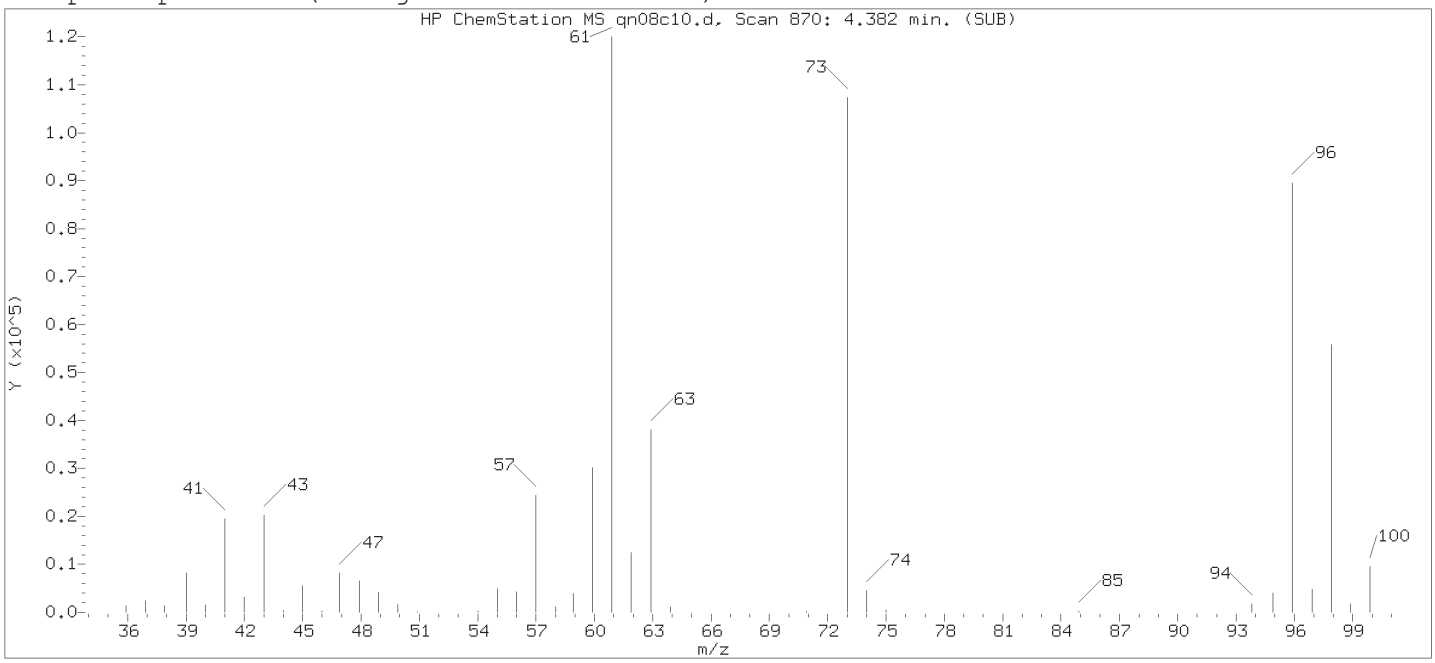
Compound Number : 10
Compound Name : Chloroethane
Scan Number : 291
Retention Time (minutes): 2.524
Quant Ion : 64.00
Area (flag) : 163818M
On-Column Amount (ng) : 41.7377
Integration start scan : 268 Integration stop scan: 346
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

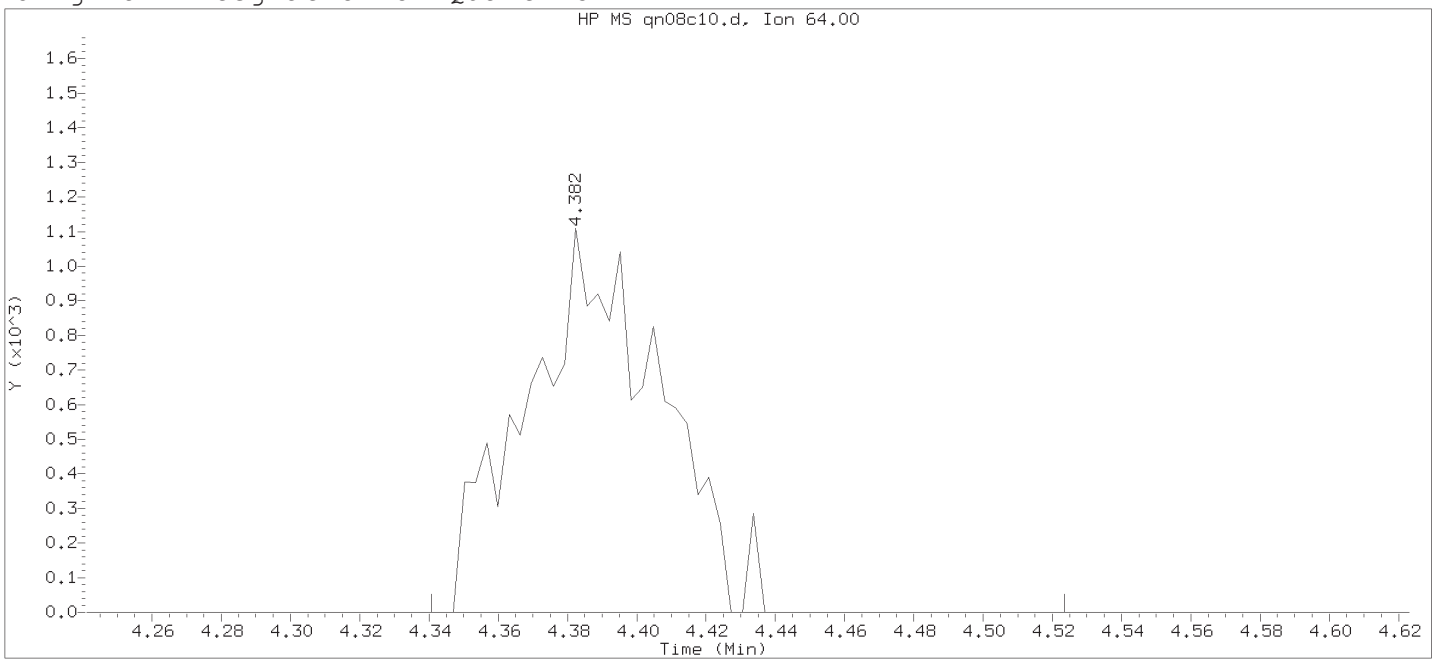
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

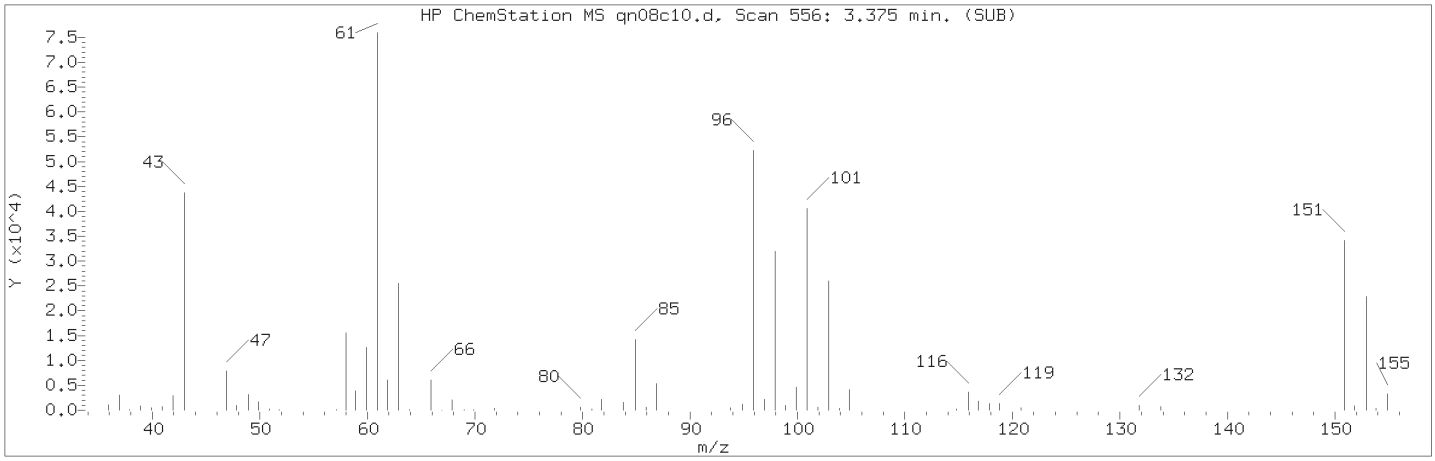
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

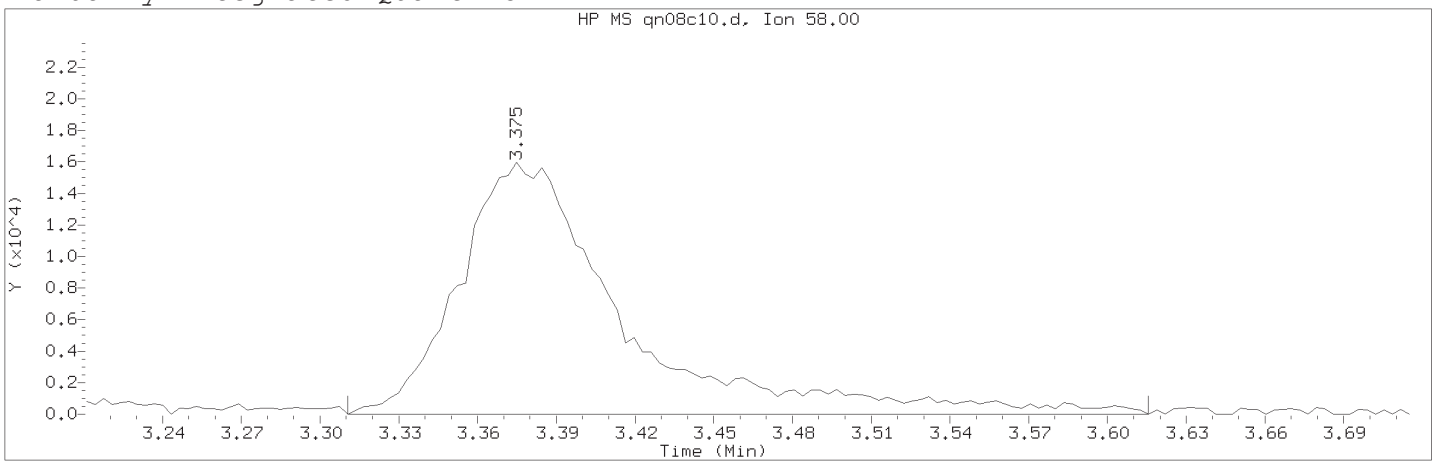
Compound Number	: 10		
Compound Name	: Chloroethane		
Scan Number	: 870		
Retention Time (minutes)	: 4.382		
Quant Ion	: 64.00		
Area	: 2945		
On-column Amount (ng)	: 0.7505		
Integration start scan	: 856	Integration stop scan:	913
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: SCN0072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

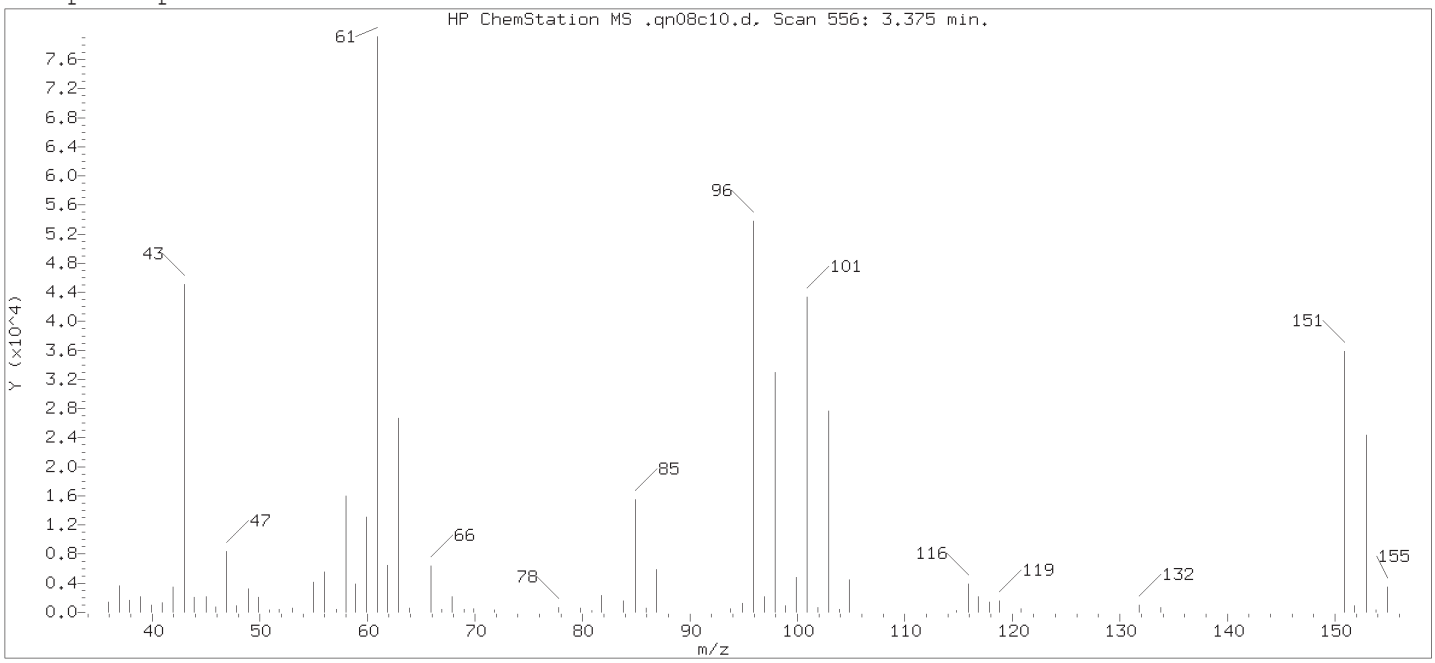
Compound Number : 20
Compound Name : Acetone
Scan Number : 556
Retention Time (minutes): 3.375
Quant Ion : 58.00
Area (flag) : 68935M
On-Column Amount (ng) : 106.8589
Integration start scan : 535 Integration stop scan: 630
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

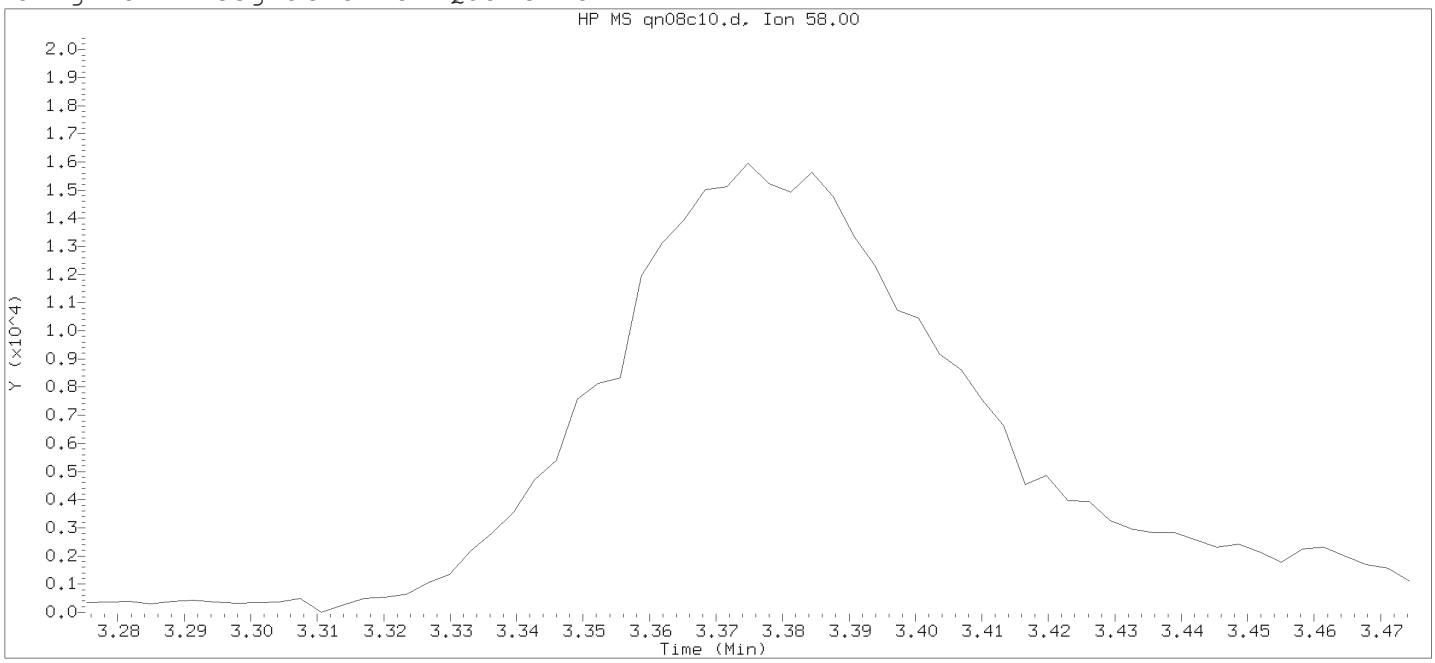
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

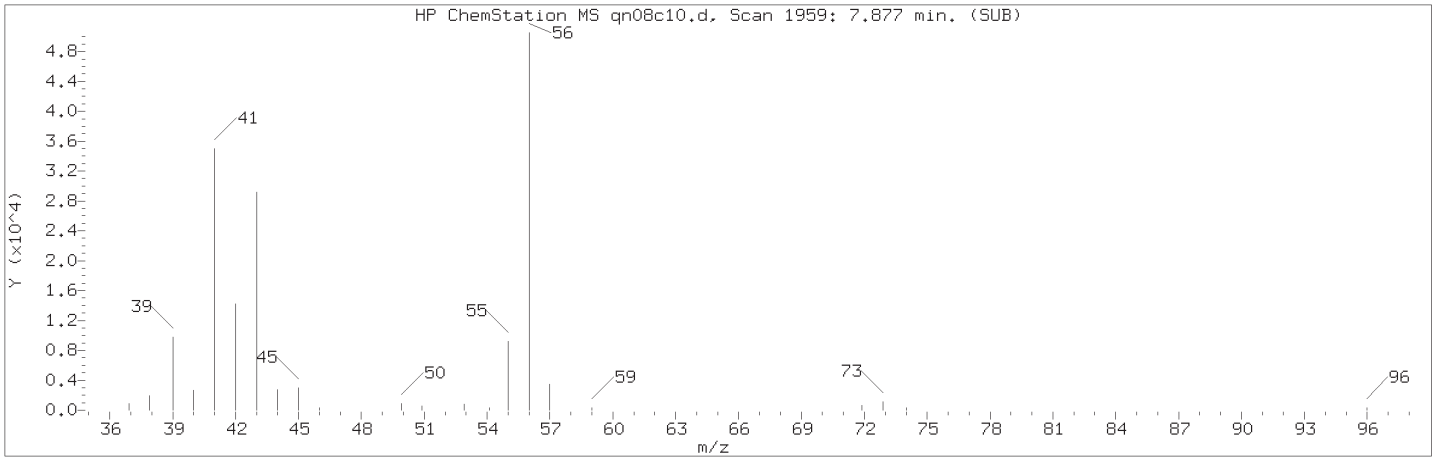
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

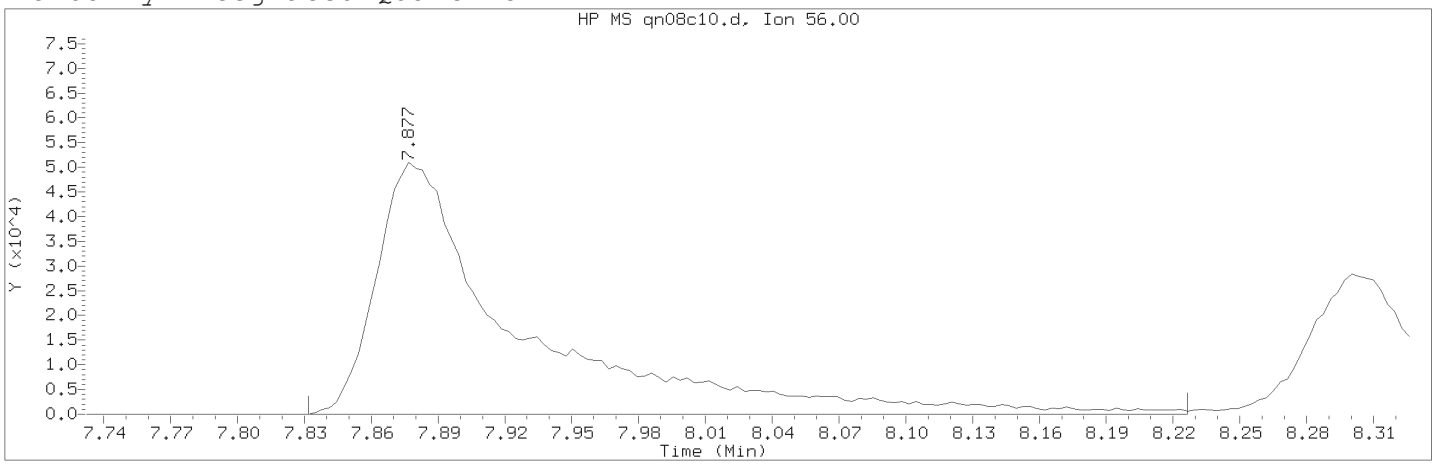
Compound Number : 20
Compound Name : Acetone
Expected RT (minutes) : 3.375
Quant Ion : 58.00

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

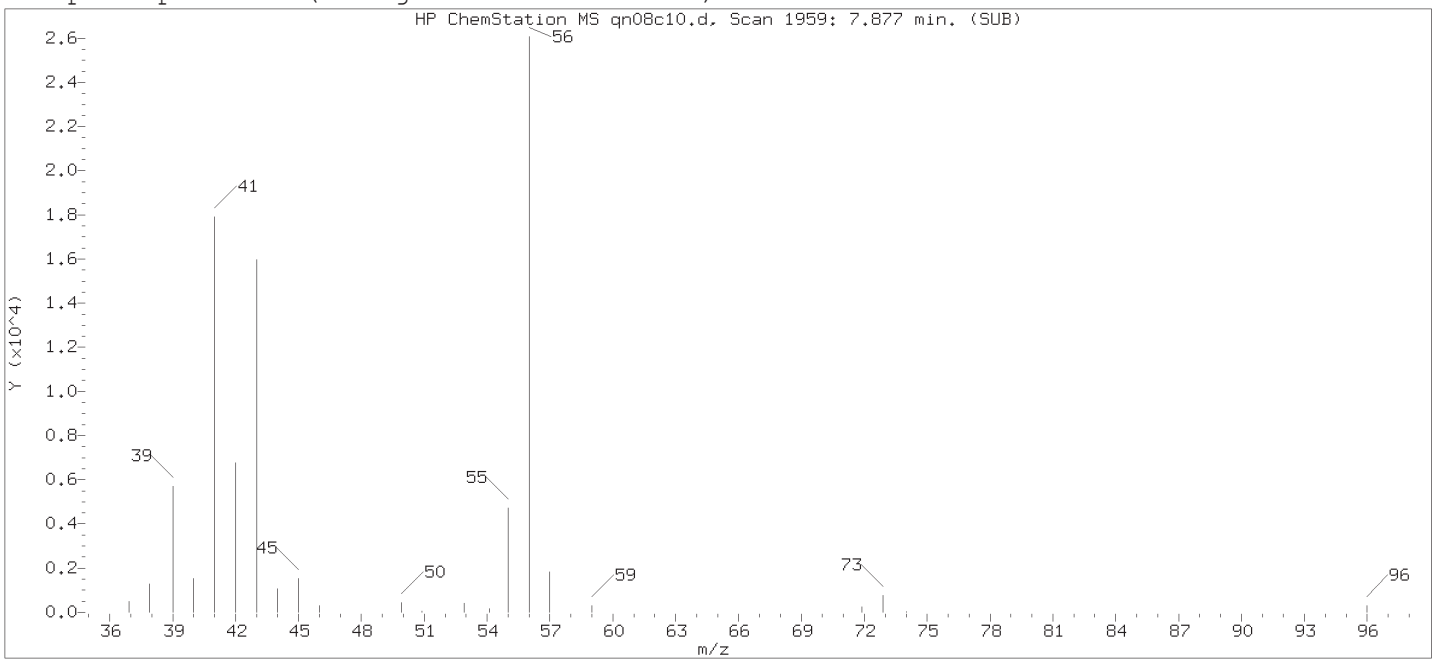
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1959
Retention Time (minutes): 7.877
Quant Ion : 56.00
Area (flag) : 226871M
On-Column Amount (ng) : 1360.8596
Integration start scan : 1944 Integration stop scan: 2067
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

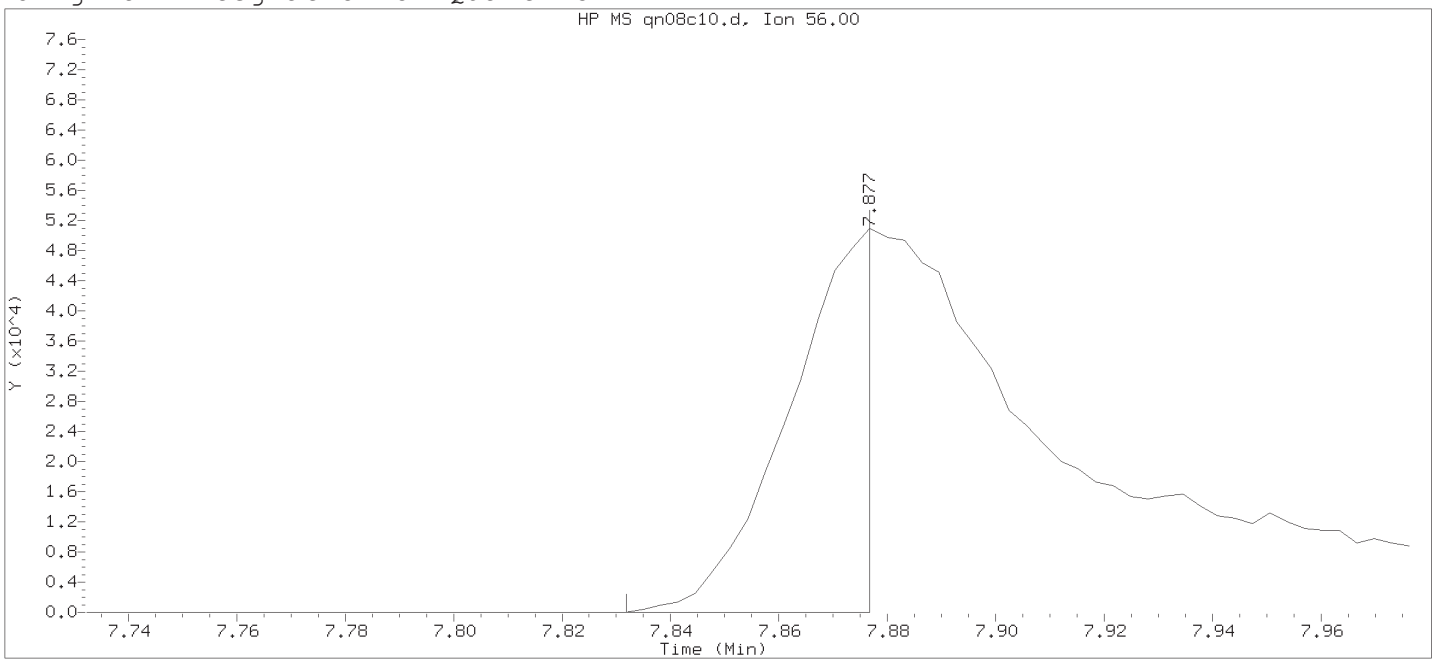
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

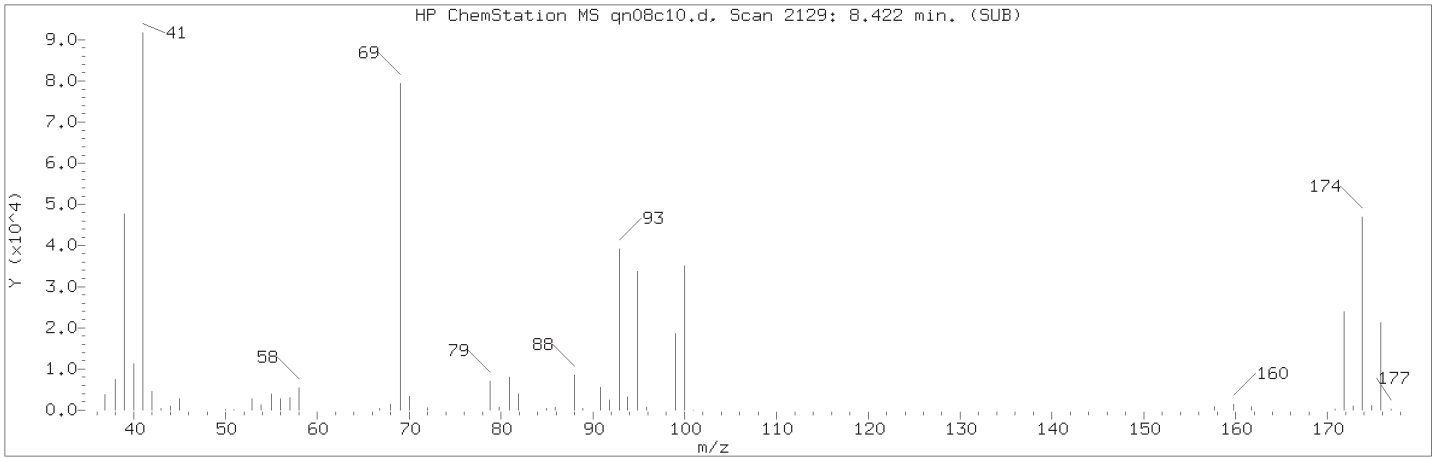
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

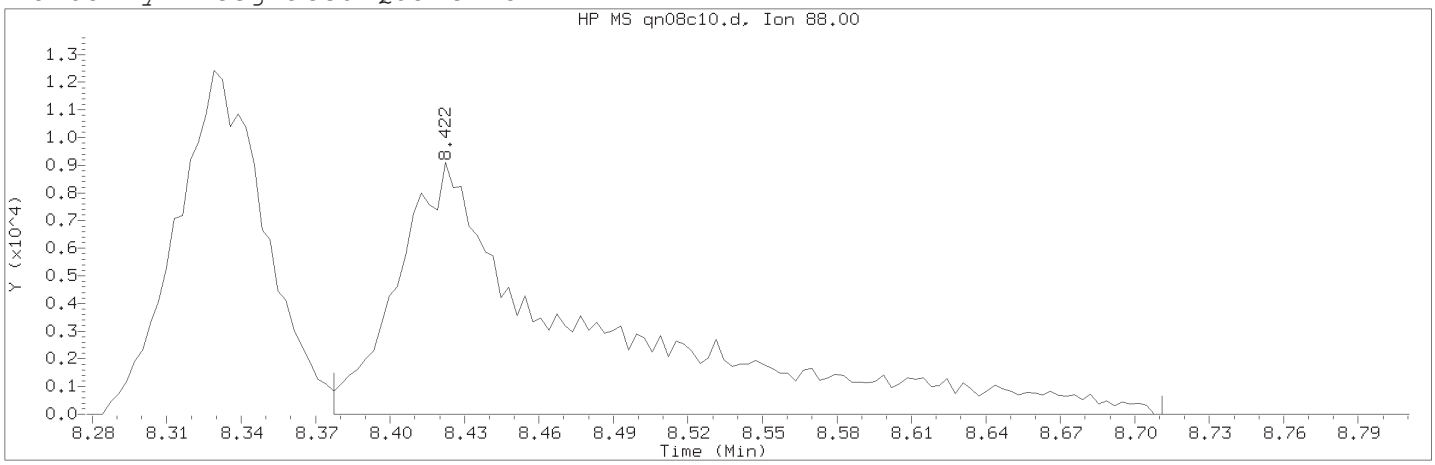
Compound Number : 73
Compound Name : n-Butanol
Scan Number : 1959
Retention Time (minutes): 7.877
Quant Ion : 56.00
Area : 50779
On-column Amount (ng) : 304.5949
Integration start scan : 1944 Integration stop scan: 1958
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

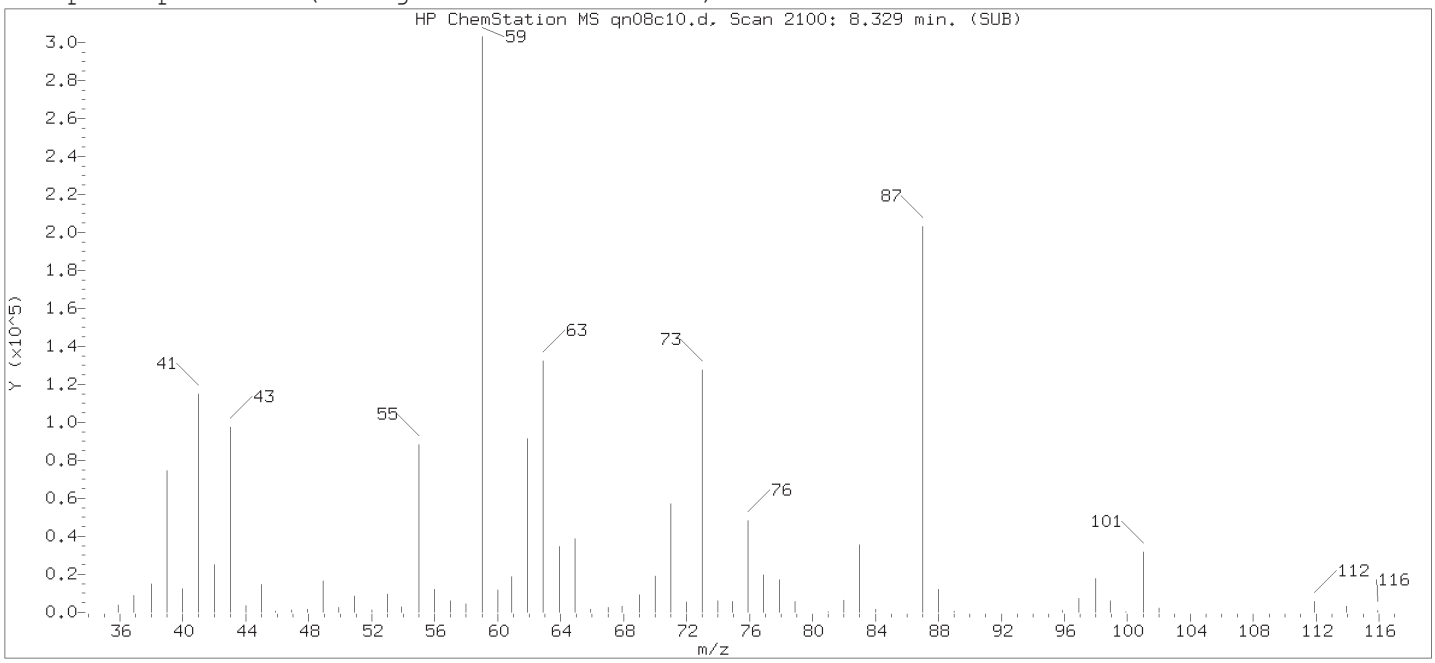
Compound Number : 80
Compound Name : 1,4-Dioxane
Scan Number : 2129
Retention Time (minutes): 8.422
Quant Ion : 88.00
Area (flag) : 48134M
On-Column Amount (ng) : 809.5147
Integration start scan : 2114 Integration stop scan: 2218
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

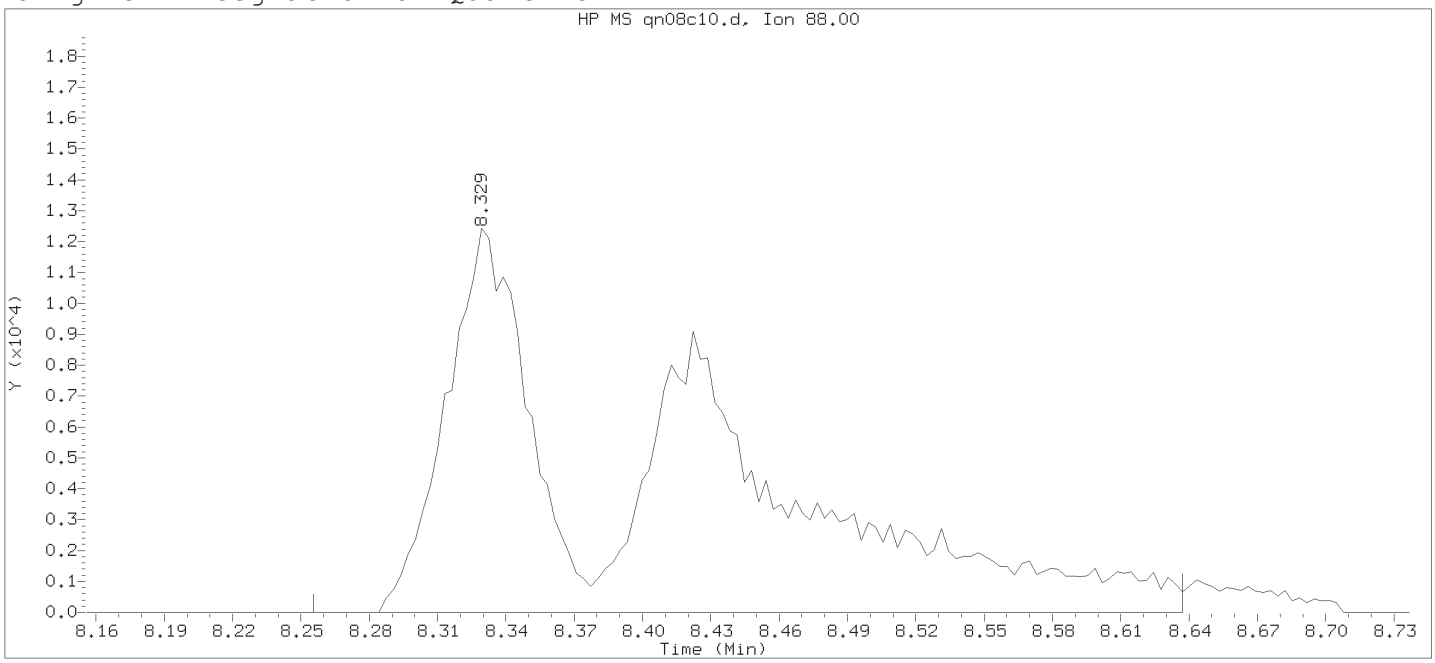
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

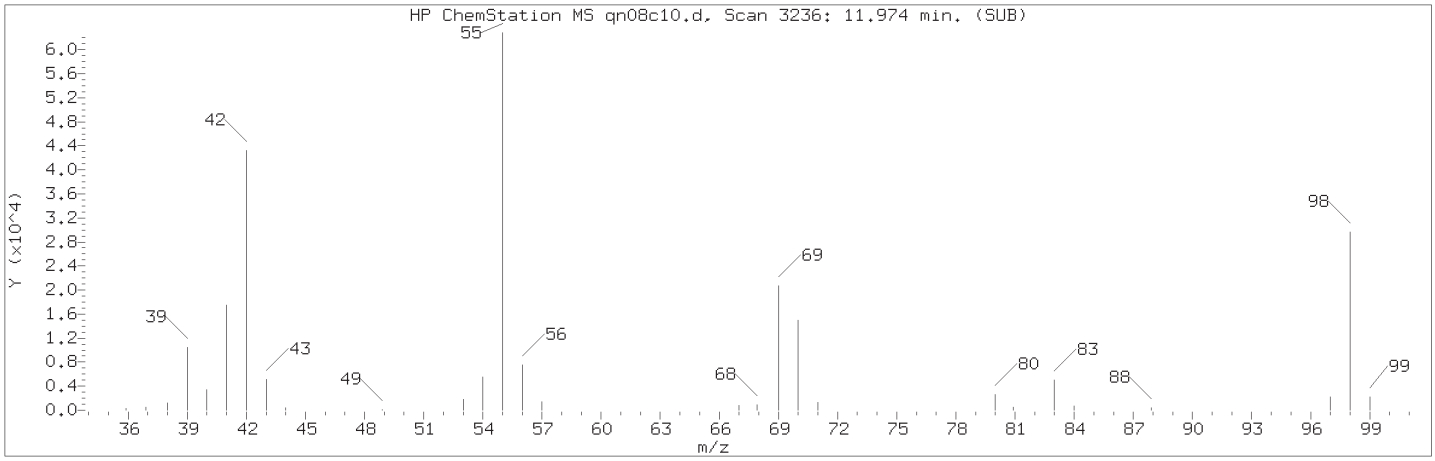
Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

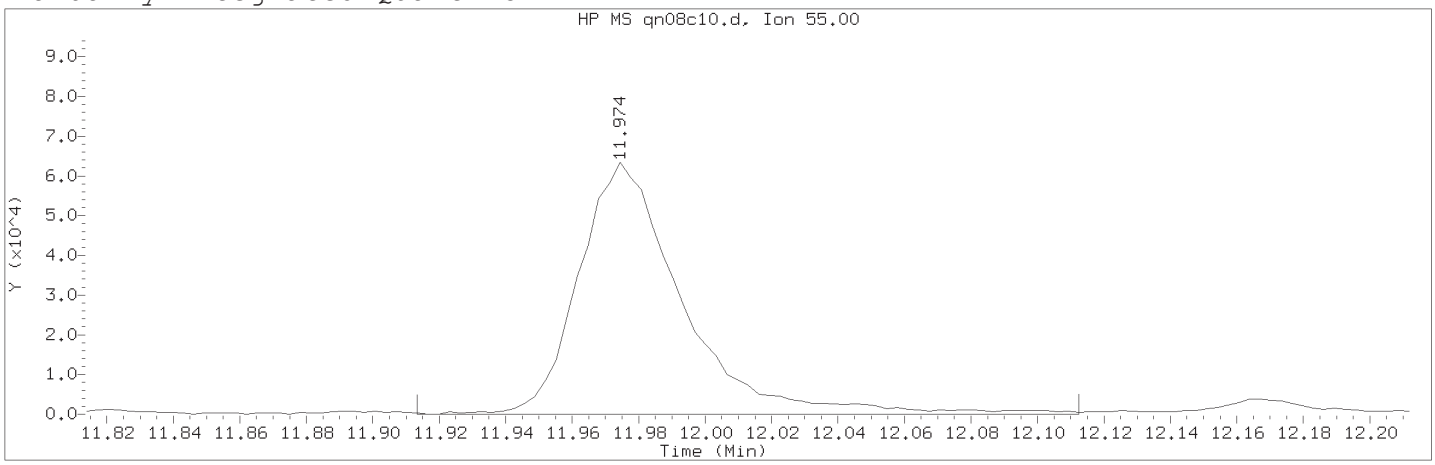
Compound Number	: 80		
Compound Name	: 1,4-Dioxane		
Scan Number	: 2100		
Retention Time (minutes)	: 8.329		
Quant Ion	: 88.00		
Area	: 76294		
On-column Amount (ng)	: 1283.1129		
Integration start scan	: 2076	Integration stop scan:	2195
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: SCN10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:29 scn10072

Sample Name: VSTD050 Lab Sample ID: VSTD050

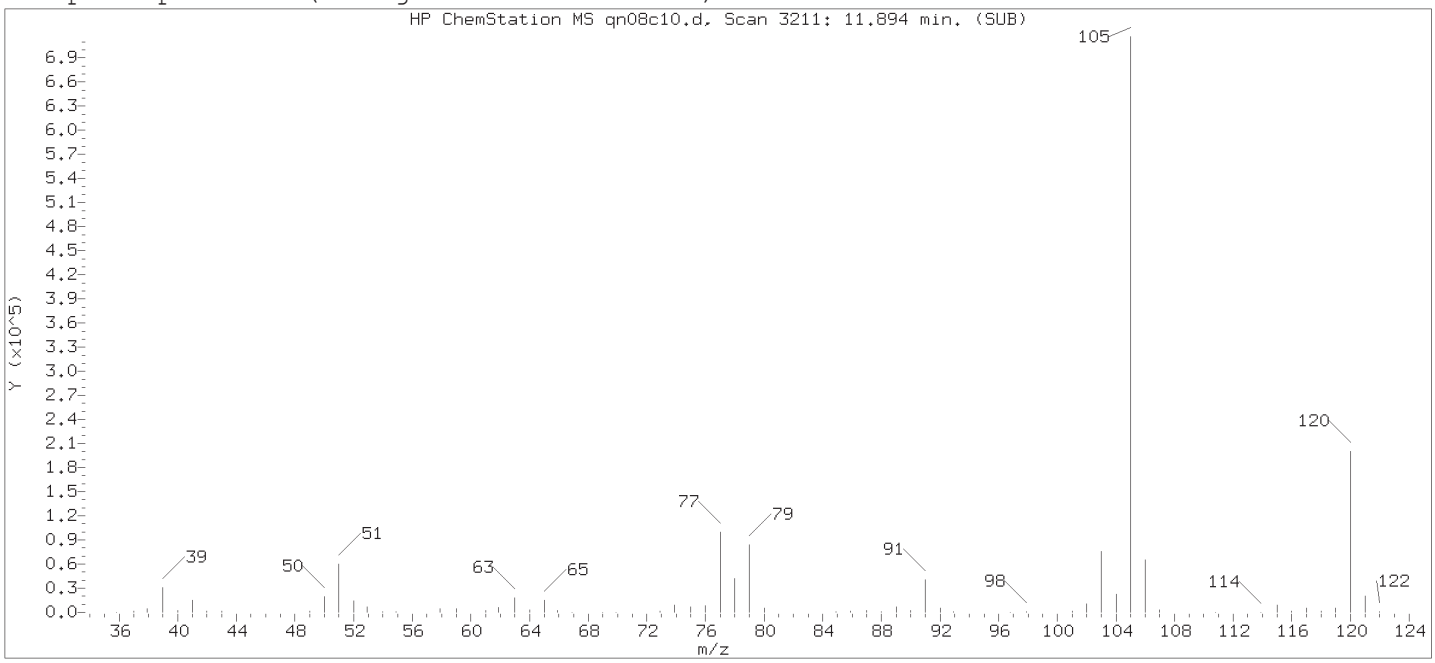
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3236
Retention Time (minutes): 11.974
Quant Ion : 55.00
Area (flag) : 137189A
On-Column Amount (ng) : 630.4605
Integration start scan : 3216 Integration stop scan: 3278
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

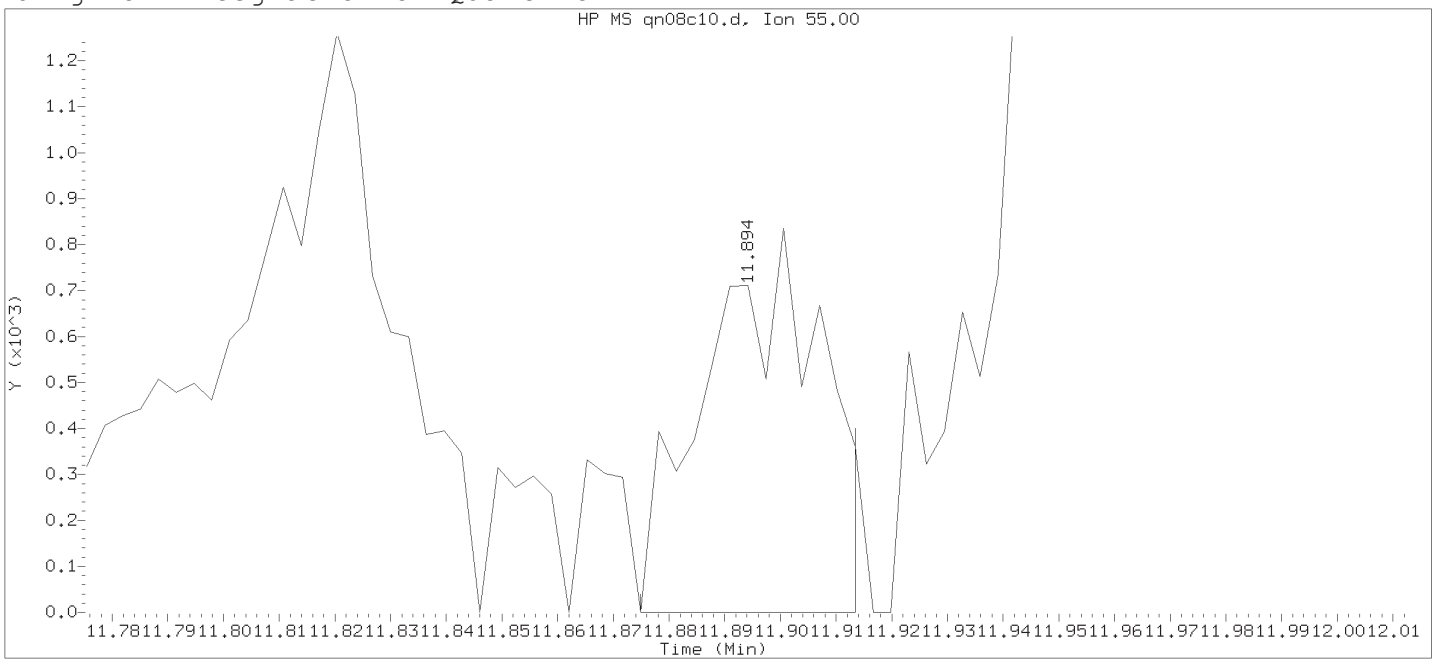
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/09/2018 at 14:13.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08c10.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 08:58 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 8260S
Calibration date and time: 08-NOV-2018 09:25
Date, time and analyst ID of latest file update: 08-Nov-2018 09:25 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3211
Retention Time (minutes): 11.894
Quant Ion : 55.00
Area : 1193
On-column Amount (ng) : 5.4860
Integration start scan : 3204 Integration stop scan: 3216
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 09:29.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

SECC050

Data file: /chem/HP07536.i/18nov08a.b/qn08ec1.d Injection date and time: **08-NOV-2018 15:20**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.992(0.011)	748	65	138966	(4)	250.00	
70) Fluorobenzene	7.506(0.002)	1843	96	1057223	(-3)	50.00	
105) Chlorobenzene-d5	11.036(-0.002)	2943	117	853359	(-1)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929(-0.002)	3533	152	376327	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.608(0.000)	113	324120	56.353	113%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.070(0.000)	102	89214	59.655	119%		71 - 136
91) Toluene-d8	(3)	9.550(0.000)	98	1257944	53.999	108%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.047(0.000)	95	390771	52.688	105%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.878(0.000)	85	467761	45.446	2272.28			30	250
4) Chloromethane	(2)	2.058(-0.000)	50	446660	40.732	2036.58			30	250
5) Vinyl Chloride	(2)	2.163(-0.000)	62	446050	41.807	2090.34			30	250
9) Bromomethane	(2)	2.439(0.000)	94	161693	41.280	2064.00			35	250
10) Chloroethane	(2)	2.523(0.000)	64	147817	38.947	1947.35			50	250
13) Trichlorofluoromethane	(2)	2.815(-0.000)	101	541406	41.491	2074.54			35	250
19) 1,1-Dichloroethene	(2)	3.354(0.000)	96	289559	55.190	2759.51			25	250
20) Acetone	(1)	3.386(-0.005)	58	69320	103.688	5184.39			300	1000
22) Freon 113	(2)	3.383(0.000)	101	258828	57.915	2895.77			30	500
25) Carbon Disulfide	(2)	3.668(-0.000)	76	967023	50.697	2534.83			30	250
27) Methyl Acetate	(2)	3.771(0.000)	43	271663	52.838	2641.90			50	250
31) Methylene Chloride	(2)	3.992(-0.000)	84	350921	56.018	2800.89			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.381(-0.000)	73	986502	54.962	2748.12			25	250
35) trans-1,2-Dichloroethene	(2)	4.390(-0.000)	96	337312	56.952	2847.60			25	250
40) 1,1-Dichloroethane	(2)	5.058(-0.000)	63	566200	53.477	2673.86			25	250
44) 2-Butanone	(1)	5.870(-0.005)	43	316872	88.070	4403.51			50	500
45) cis-1,2-Dichloroethene	(2)	5.895(0.000)	96	369976	56.595	2829.75			25	250
54) Chloroform	(2)	6.389(-0.000)	83	544868	53.739	2686.95			30	250
57) 1,1,1-Trichloroethane	(2)	6.614(0.000)	97	446050	53.637	2681.85			30	250
58) Cyclohexane	(2)	6.717(0.000)	56	390636	53.621	2681.06			25	250
61) Carbon Tetrachloride	(2)	6.835(-0.000)	117	354198	58.300	2914.99			25	250
64) Benzene	(2)	7.095(-0.000)	78	1305347	56.232	2811.61			25	250
67) 1,2-Dichloroethane	(2)	7.176(0.000)	62	406676	50.578	2528.92			30	250
75) Trichloroethene	(2)	7.994(-0.000)	95	325023	56.414	2820.68			25	250
76) Methylcyclohexane	(2)	8.305(-0.000)	83	322256	58.118	2905.92			30	250
77) 1,2-Dichloropropane	(2)	8.328(0.000)	63	338331	53.438	2671.92			25	250
84) Bromodichloromethane	(2)	8.680(-0.000)	83	386920	58.876	2943.79			20	250
89) cis-1,3-Dichloropropene	(2)	9.236(-0.000)	75	538435	58.114	2905.69			20	250

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:05. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08ec1.d Injection date and time: **08-NOV-2018 15:20**
Data file Sample Info. Line: SECC050;SECC050;2;3;LCS;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

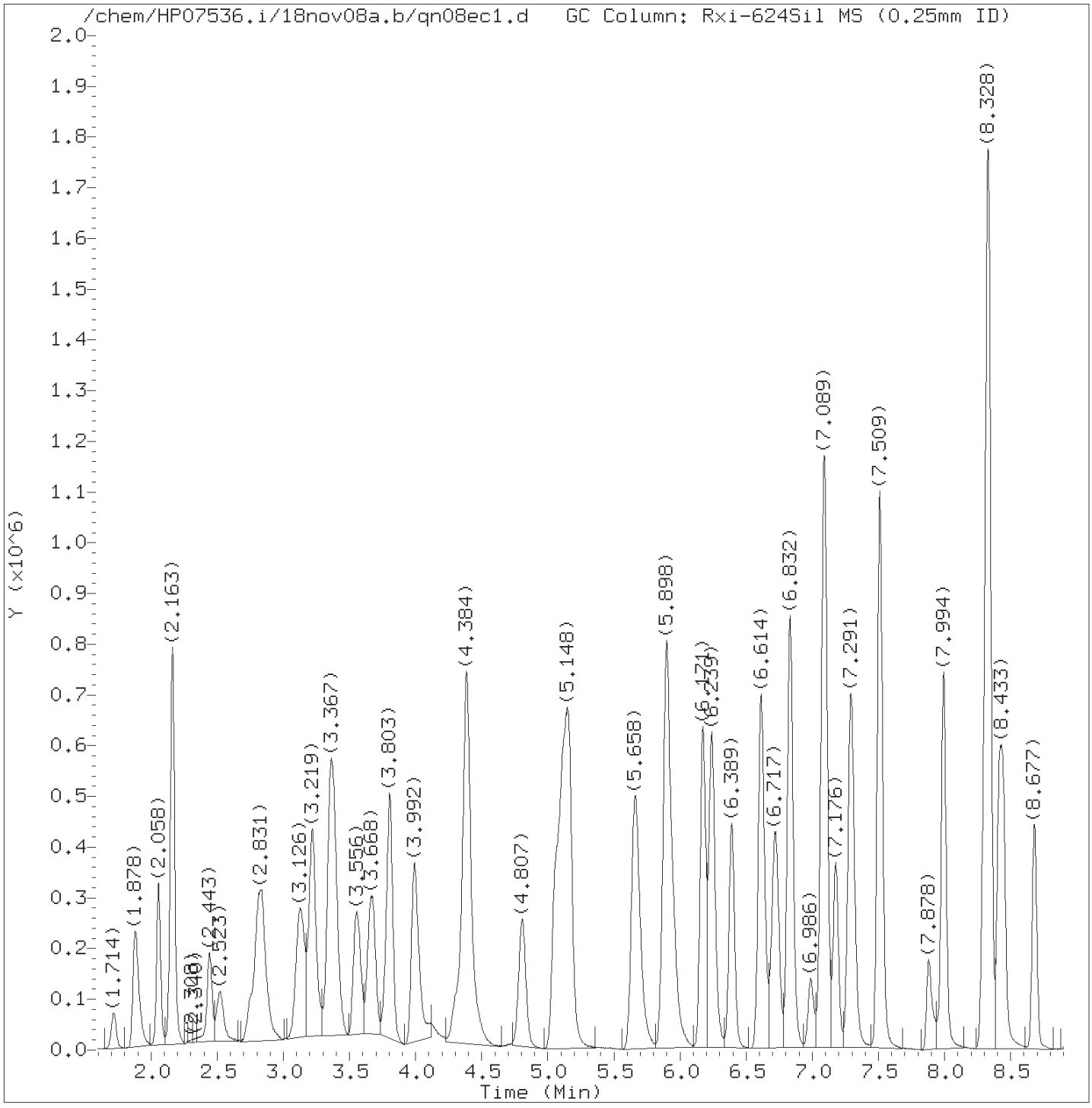
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)	9.406(-0.000)	43	684822	107.531	5376.53			50	500
92) Toluene	(3)	9.627(0.000)	92	803081	54.170	2708.52			30	250
93) trans-1,3-Dichloropropene	(3)	9.903(-0.000)	75	492901	53.847	2692.34			15	250
96) 1,1,2-Trichloroethane	(3)	10.108(-0.000)	97	317806	54.201	2710.05			25	250
98) Tetrachloroethene	(3)	10.189(0.000)	166	322064	54.446	2722.29			25	250
101) 2-Hexanone	(3)	10.317(0.000)	43	470116	102.236	5111.79			50	500
103) Dibromochloromethane	(3)	10.493(-0.000)	129	328116	63.133	3156.64			20	250
104) 1,2-Dibromoethane	(3)	10.602(0.000)	107	337571	54.905	2745.25			20	250
107) Chlorobenzene	(3)	11.061(0.000)	112	886781	53.016	2650.81			25	250
109) Ethylbenzene	(3)	11.148(0.000)	91	1331020	52.312	2615.60			20	250
110) m+p-Xylene	(3)	11.264(0.000)	106	1064731	107.048	5352.38			50	250
111) o-Xylene	(3)	11.594(0.000)	106	529940	53.517	2675.87			20	250
112) Xylene (Total)	(3)		106	1594671	160.565	8028.25			50	250
113) Styrene	(3)	11.610(0.000)	104	936016	53.228	2661.42			15	250
114) Bromoform	(3)	11.774(0.000)	173	211615	54.837	2741.85			250	500
115) Isopropylbenzene	(3)	11.896(0.000)	105	1120876	53.043	2652.16			20	250
118) Cyclohexanone	(1)	11.976(-0.008)	55	152632	676.847	33842.33			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.143(0.000)	83	394726	48.722	2436.09			20	250
138) 1,3-Dichlorobenzene	(4)	12.871(-0.000)	146	584532	51.776	2588.81			25	250
141) 1,4-Dichlorobenzene	(4)	12.945(0.000)	146	627561	49.500	2475.00			20	250
147) 1,2-Dichlorobenzene	(4)	13.205(0.000)	146	584116	49.923	2496.13			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.750(0.000)	75	55334	43.994	2199.69			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.299(0.000)	180	339937	48.127	2406.37			250	500

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/09/2018 at 09:05. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:52. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

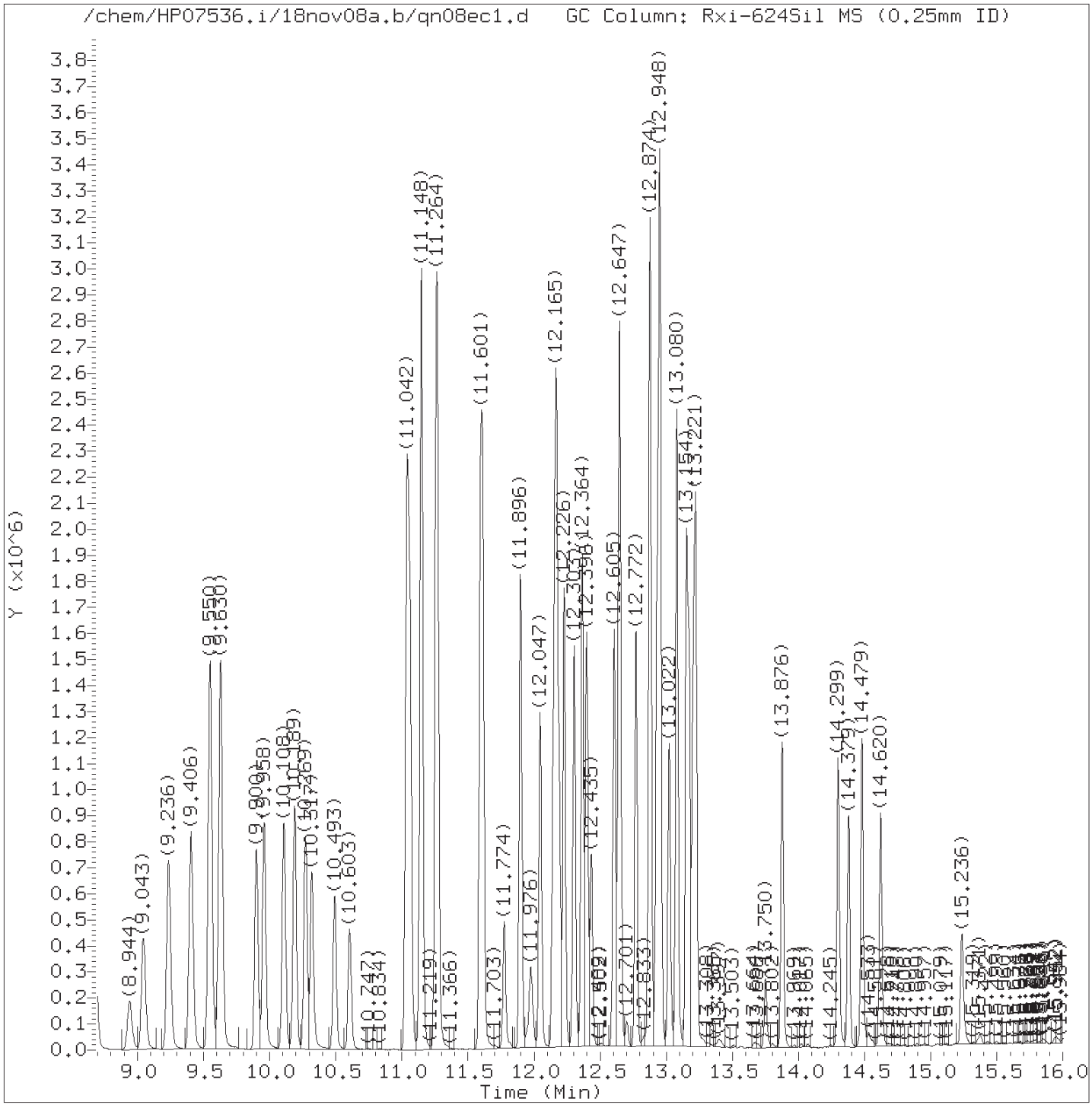
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 15:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:05.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 15:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:05.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 15:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.878	85	467761	45.446
4) Chloromethane	(2)	2.058	50	446660	40.732
5) Vinyl Chloride	(2)	2.163	62	446050	41.807
9) Bromomethane	(2)	2.439	94	161693	41.280
10) Chloroethane	(2)	2.523	64	147817	38.947
13) Trichlorofluoromethane	(2)	2.815	101	541406	41.491
19) 1,1-Dichloroethene	(2)	3.354	96	289559	55.190
22) Freon 113	(2)	3.383	101	258828	57.915
20) Acetone	(1)	3.386	58	69320	103.688
25) Carbon Disulfide	(2)	3.668	76	967023	50.697
27) Methyl Acetate	(2)	3.771	43	271663	52.838
30)*t-Butyl alcohol-d10	(1)	3.992	65	138966	250.000
31) Methylene Chloride	(2)	3.992	84	350921	56.018
34) Methyl Tertiary Butyl Ether	(2)	4.381	73	986502	54.962
35) trans-1,2-Dichloroethene	(2)	4.390	96	337312	56.952
40) 1,1-Dichloroethane	(2)	5.058	63	566200	53.477
44) 2-Butanone	(1)	5.870	43	316872	88.070
45) cis-1,2-Dichloroethene	(2)	5.895	96	369976	56.595
54) Chloroform	(2)	6.389	83	544868	53.739
56)$Dibromofluoromethane	(2)	6.608	113	324120	56.353
57) 1,1,1-Trichloroethane	(2)	6.614	97	446050	53.637
58) Cyclohexane	(2)	6.717	56	390636	53.621
61) Carbon Tetrachloride	(2)	6.835	117	354198	58.300
63)$1,2-Dichloroethane-d4	(2)	7.070	102	89214	59.655
64) Benzene	(2)	7.095	78	1305347	56.232
67) 1,2-Dichloroethane	(2)	7.176	62	406676	50.578
70)*Fluorobenzene	(2)	7.506	96	1057223	50.000
75) Trichloroethene	(2)	7.994	95	325023	56.414
76) Methylcyclohexane	(2)	8.305	83	322256	58.118
77) 1,2-Dichloropropane	(2)	8.328	63	338331	53.438
84) Bromodichloromethane	(2)	8.680	83	386920	58.876
89) cis-1,3-Dichloropropene	(2)	9.236	75	538435	58.114
90) 4-Methyl-2-pentanone	(2)	9.406	43	684822	107.531
91)$Toluene-d8	(3)	9.550	98	1257944	53.999
92) Toluene	(3)	9.627	92	803081	54.170
93) trans-1,3-Dichloropropene	(3)	9.903	75	492901	53.847
96) 1,1,2-Trichloroethane	(3)	10.108	97	317806	54.201
98) Tetrachloroethene	(3)	10.189	166	322064	54.446

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:05.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08ec1.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 15:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 15:48 Automation

Sample Name: SECC050 Lab Sample ID: SECC050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.317	43	470116	102.236
103) Dibromochloromethane	(3)	10.493	129	328116	63.133
104) 1,2-Dibromoethane	(3)	10.603	107	337571	54.905
105)*Chlorobenzene-d5	(3)	11.036	117	853359	50.000
107) Chlorobenzene	(3)	11.061	112	886781	53.016
109) Ethylbenzene	(3)	11.148	91	1331020	52.312
110) m+p-Xylene	(3)	11.264	106	1064731	107.048
111) o-Xylene	(3)	11.594	106	529940	53.517
113) Styrene	(3)	11.610	104	936016	53.228
112) Xylene (Total)	(3)		106	1594671	160.565
114) Bromoform	(3)	11.774	173	211615	54.837
115) Isopropylbenzene	(3)	11.896	105	1120876	53.043
118) Cyclohexanone	(1)	11.976	55	152632	676.847
119)$4-Bromofluorobenzene	(3)	12.047	95	390771	52.688
120) 1,1,2,2-Tetrachloroethane	(4)	12.143	83	394726	48.722
138) 1,3-Dichlorobenzene	(4)	12.871	146	584532	51.776
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	376327	50.000
141) 1,4-Dichlorobenzene	(4)	12.945	146	627561	49.500
147) 1,2-Dichlorobenzene	(4)	13.205	146	584116	49.923
151) 1,2-Dibromo-3-chloropropane	(4)	13.750	75	55334	43.994
153) 1,2,4-Trichlorobenzene	(4)	14.299	180	339937	48.127

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/09/2018 at 09:05.
Target 3.5 esignature user ID: scn10072

Data File: /chem2/HP19094.i/18sep24i.b/hs24t05.d

Date : 24-SEP-2018 17:53

Client ID: BFB 50ng

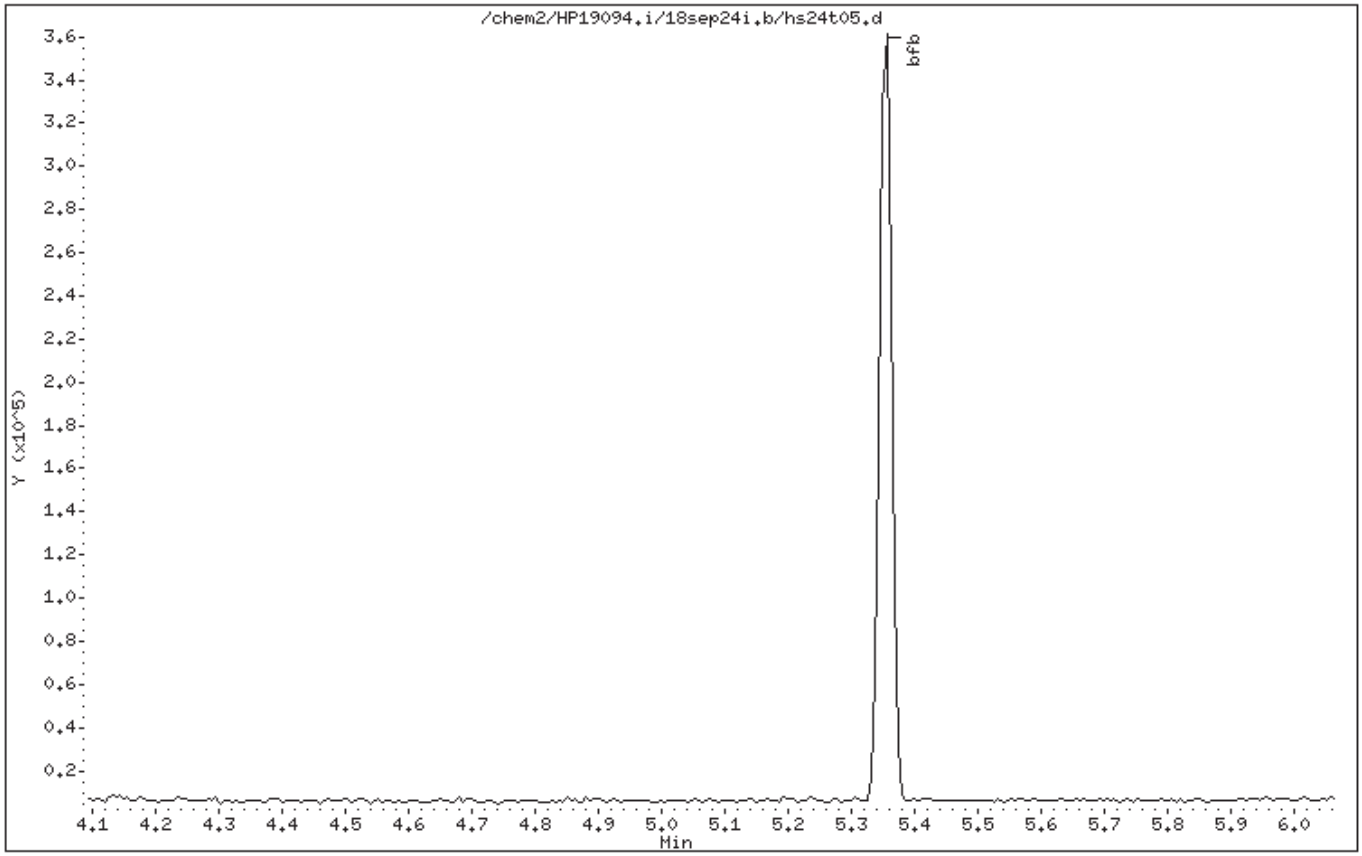
Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:31.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP19094.i/18sep24i.b/hs24t05.d

Date : 24-SEP-2018 17:53

Client ID: BFB 50ng

Instrument: HP19094.i

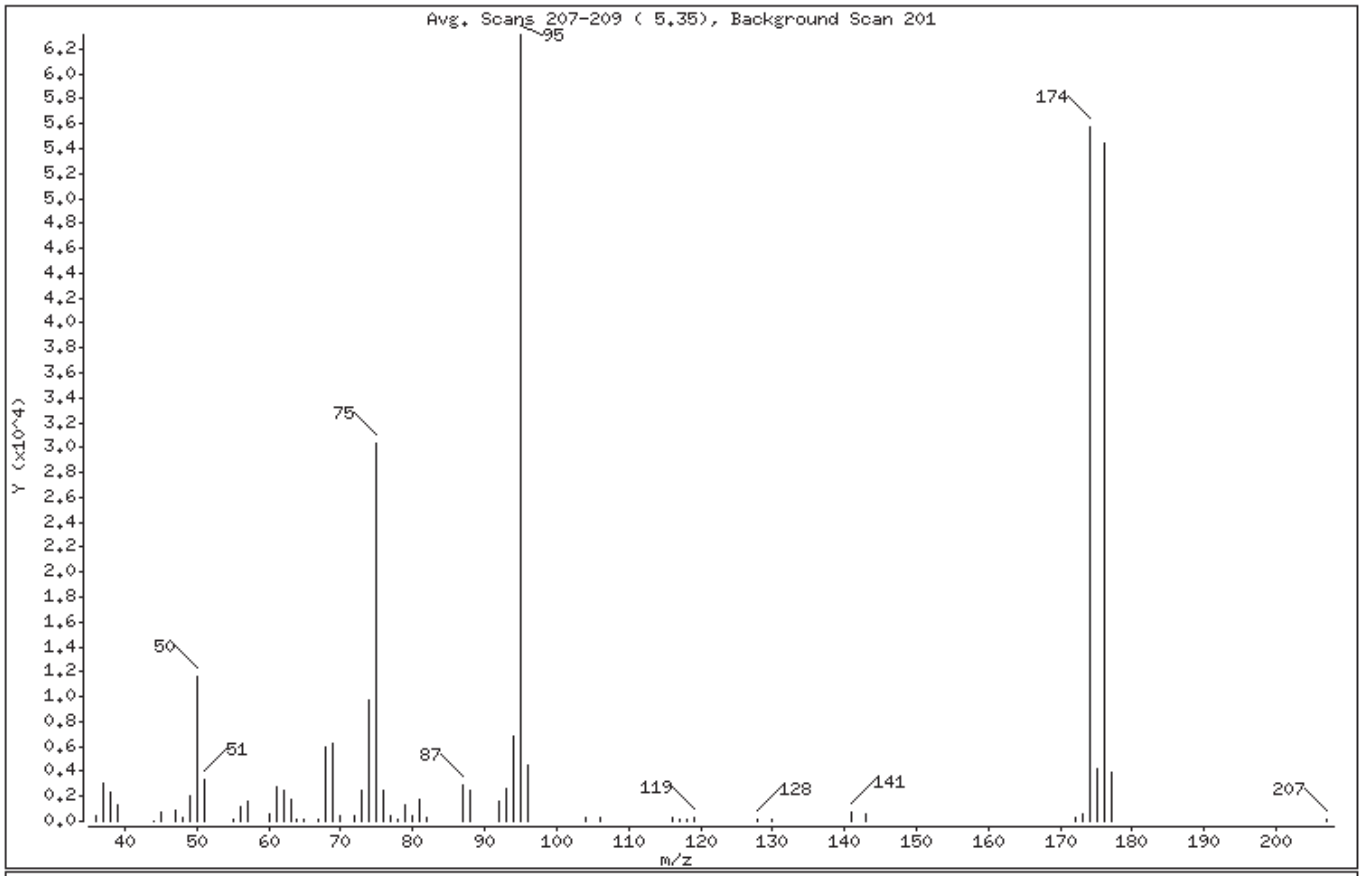
Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

Operator: jkh09052

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.30
75	30.00 - 60.00% of mass 95	48.01
96	5.00 - 9.00% of mass 95	7.23
173	Less than 2.00% of mass 174	0.88 (0.99)
174	50.00 - 100.00% of mass 95	88.37
175	5.00 - 9.00% of mass 174	6.59 (7.45)
176	95.00 - 101.00% of mass 174	86.23 (97.58)
177	5.00 - 9.00% of mass 176	6.27 (7.28)

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:31.
Target 3.5 esignature user ID: jkh09052

Date : 24-SEP-2018 17:53

Client ID: BFB 50ng Instrument: HP19094.i

Sample Info: BFB 50ng;BFB AUG07-18;1;3;;;;;

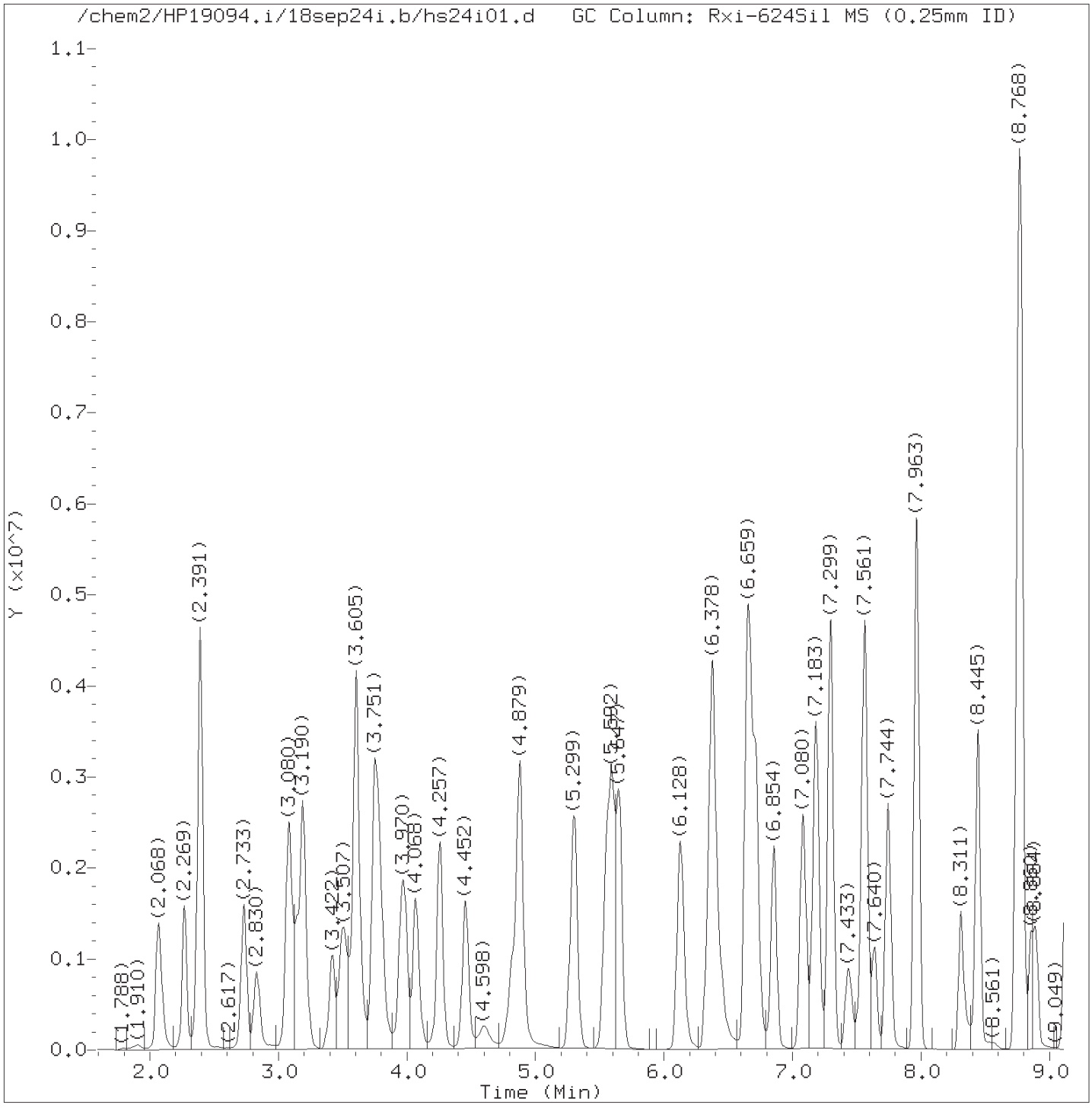
Operator: jkh09052

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: hs24t05.d
Spectrum: Avg. Scans 207-209 (5.35), Background Scan 201
Location of Maximum: 95.00
Number of points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	380	61.00	2761	78.00	85	117.00	165
37.00	3109	62.00	2478	79.00	1339	118.00	125
38.00	2327	63.00	1778	80.00	478	119.00	271
39.00	1285	64.00	95	81.00	1678	128.00	207
44.00	4	65.00	114	82.00	305	130.00	104
45.00	778	67.00	89	87.00	2896	141.00	746
47.00	856	68.00	6016	88.00	2501	143.00	552
48.00	257	69.00	6278	92.00	1547	172.00	224
49.00	2059	70.00	428	93.00	2614	173.00	555
50.00	11554	72.00	423	94.00	6758	174.00	55792
51.00	3390	73.00	2434	95.00	63136	175.00	4158
55.00	180	74.00	9779	96.00	4567	176.00	54440
56.00	1094	75.00	30304	104.00	228	177.00	3961
57.00	1606	76.00	2509	106.00	307	207.00	187
60.00	530	77.00	454	116.00	237		

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:31.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

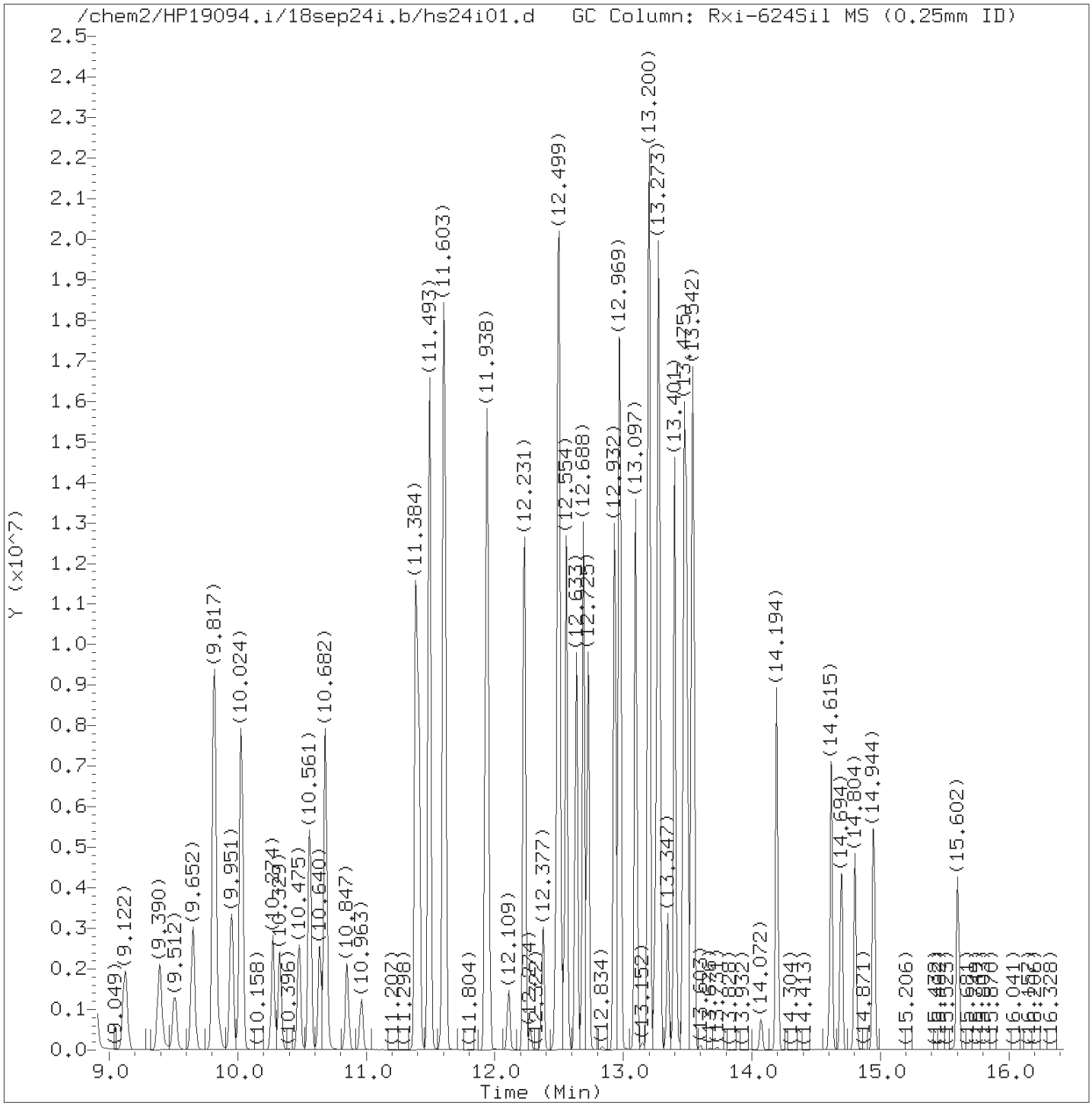
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	2667477	26.155
2) Chloromethane	(2)	2.269	50	2539335	25.424
5) Vinyl Chloride	(2)	2.391	62	2410925	25.776
6) 1,3-Butadiene	(2)	2.391	39	2594646	24.489
7) Bromomethane	(2)	2.733	94	1851509	25.463
8) Chloroethane	(2)	2.830	64	1410558	24.864
9) Dichlorofluoromethane	(2)	3.080	67	3474207	25.746
10) Trichlorofluoromethane	(2)	3.141	101	3065694	25.945
11) Ethyl ether	(2)	3.416	59	1019569	25.448
12) Freon 123a	(2)	3.501	67	1934522	25.841
13) Acrolein	(1)	3.605	56	7172863	1305.987
15) 1,1-Dichloroethene	(2)	3.745	96	1360935	26.597
16) Freon 113	(2)	3.775	101	1627334	26.985
14) Acetone	(1)	3.787	43	1847599M	250.454
17) Methyl Iodide	(2)	3.958	142	2764121	25.916
18) Carbon Disulfide	(2)	4.068	76	4201344	25.805
21) Methyl Acetate	(1)	4.233	43	504865	24.378
22) Allyl Chloride	(2)	4.257	41	2524824	25.958
23) Methylene Chloride	(2)	4.458	84	1406291	24.362
26)*t-Butyl Alcohol-d10	(1)	4.470	65	123769M	50.000
28) t-Butyl Alcohol	(1)	4.604	59	982548	465.083
29) Acrylonitrile	(1)	4.812	53	1235214M	129.656
30) Methyl Tertiary Butyl Ether	(2)	4.867	73	2663697	25.312
31) trans-1,2-Dichloroethene	(2)	4.879	96	1493749	25.866
32) n-Hexane	(2)	5.299	57	2559536	27.873
33) 1,1-Dichloroethane	(2)	5.543	63	2842374M	25.851
34) di-Isopropyl Ether	(2)	5.592	45	5070137	25.966
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	2671346	27.000
40) 1,2-Dichloroethene (Total)	(2)		96	3155804	51.914
37) Ethyl t-butyl ether	(2)	6.128	59	3878205	25.041
38) 2-Butanone	(1)	6.348	43	3061047	253.491
39) cis-1,2-Dichloroethene	(2)	6.372	96	1662055	26.048
41) 2,2-Dichloropropane	(2)	6.391	77	2084281	26.541
42) Propionitrile	(1)	6.446	54	1568878	478.649
45) Methacrylonitrile	(1)	6.653	67	3149545	266.488
47) Bromochloromethane	(2)	6.714	128	688648	25.549
48) Tetrahydrofuran	(1)	6.720	71	820759	255.663
49) Chloroform	(2)	6.854	83	2651699	25.940

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	655219	9.962
50)$Dibromofluoromethane	(2)	7.073	111	673113	9.943
51) 1,1,1-Trichloroethane	(2)	7.086	97	2299905	26.303
52) Cyclohexane	(2)	7.183	56	3091541	27.084
52) Cyclohexane	(2)	7.183	84	2539041	26.980
52) Cyclohexane	(2)	7.183	69	918069	27.291
54) Carbon Tetrachloride	(2)	7.293	117	2024542	26.959
55) 1,1-Dichloropropene	(2)	7.299	75	2199442	26.527
56) Isobutyl Alcohol	(1)	7.433	41	1045544	1279.099
57)$1,2-Dichloroethane-d4	(2)	7.531	102	112838	9.841
57)$1,2-Dichloroethane-d4	(2)	7.537	65	549372	9.906
57)$1,2-Dichloroethane-d4	(2)	7.537	104	71973	9.801
58) Benzene	(2)	7.561	78	6318666	25.796
59) 1,2-Dichloroethane	(2)	7.640	62	1386008M	24.587
60) t-Amyl methyl ether	(2)	7.744	73	3227765	25.138
62) n-Heptane	(2)	7.963	43	2650704	27.997
63)*Fluorobenzene	(2)	7.970	96	2609636	10.000
65) n-Butanol	(1)	8.311	56	1867070	2703.605
67) Trichloroethene	(2)	8.445	95	1649864	26.306
69) Methylcyclohexane	(2)	8.750	83	3203740	27.048
70) 1,2-Dichloropropane	(2)	8.787	63	1552299	26.120
71) Methyl Methacrylate	(1)	8.854	69	623886	28.519
72) 1,4-Dioxane	(1)	8.872	88	216251M	1300.575
73) Dibromomethane	(2)	8.890	93	640944	25.985
74) Bromodichloromethane	(2)	9.122	83	1808486	27.068
76) 2-Nitropropane	(1)	9.390	41	1826609	294.768
80) cis-1,3-Dichloropropene	(2)	9.652	75	2141489	27.530
81) 4-Methyl-2-Pentanone	(1)	9.817	43	8439729	280.977
82)$Toluene-d8	(3)	9.951	98	2620387	9.785
82)$Toluene-d8	(3)	9.951	100	1692208	9.791
83) Toluene	(3)	10.024	92	3966390	25.689
85) 1,3-Dichloropropene (total)	(3)		75	3792374	55.280
84) trans-1,3-Dichloropropene	(3)	10.274	75	1650885	27.750
86) Ethyl Methacrylate	(3)	10.329	69	1388174	27.235
88) 1,1,2-Trichloroethane	(3)	10.475	97	904681	25.463
89) Tetrachloroethene	(3)	10.561	166	1799885	25.801
90) 1,3-Dichloropropane	(3)	10.640	76	1618164	25.698
91) 2-Hexanone	(1)	10.682	43	5656981	276.677

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	1148646	26.975
95) 1,2-Dibromoethane	(3)	10.963	107	873629	26.234
96) 1-Chlorohexane	(3)	11.384	91	2376499	25.807
97)*Chlorobenzene-d5	(3)	11.384	117	2080614	10.000
98) Chlorobenzene	(3)	11.408	112	4267356	26.051
100) Ethylbenzene	(3)	11.493	91	8033395	26.621
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	1477189	27.325
101) m+p-Xylene	(3)	11.603	106	5930803	52.987
105) Xylene (Total)	(3)		106	8810207	79.883
104) o-Xylene	(3)	11.932	106	2879404	26.908
106) Styrene	(3)	11.944	104	4681599	27.345
107) Bromoform	(3)	12.109	173	650012	27.775
108) Isopropylbenzene	(3)	12.231	105	7914371	27.092
111)$4-Bromofluorobenzene	(3)	12.377	95	947875	9.722
111)$4-Bromofluorobenzene	(3)	12.377	174	827331	9.773
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	1100327M	26.627
114) Bromobenzene	(4)	12.493	156	1705745	27.152
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	2718489	288.965
116) 1,2,3-Trichloropropane	(4)	12.524	110	269907	25.264
117) n-Propylbenzene	(4)	12.554	91	9362269	27.408
119) 2-Chlorotoluene	(4)	12.633	126	1758732	26.546
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	6440866	27.834
122) 4-Chlorotoluene	(4)	12.725	126	1781873	26.840
125) tert-Butylbenzene	(4)	12.932	134	1366112	27.146
126) Pentachloroethane	(4)	12.969	167	1131984	28.820
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	6639441	28.118
128) sec-Butylbenzene	(4)	13.097	105	8523009	28.424
131) 1,3-Dichlorobenzene	(4)	13.194	146	3395836	27.206
132) p-Isopropyltoluene	(4)	13.200	119	7173555	28.882
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	1041754	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	3283435	26.798
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	2886733	26.647
136) Benzyl Chloride	(4)	13.347	126	450358	30.147
138) n-Butylbenzene	(4)	13.493	92	3496269	28.360
139) 1,2-Dichlorobenzene	(4)	13.529	146	2896879	26.305
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	150859	29.629
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	2585997	27.849
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	2125128	28.097

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$ = Compound is a surrogate standard.

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on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	789734	27.625
147) Naphthalene	(4)	14.804	128	3453963	28.858
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	1719365	27.647

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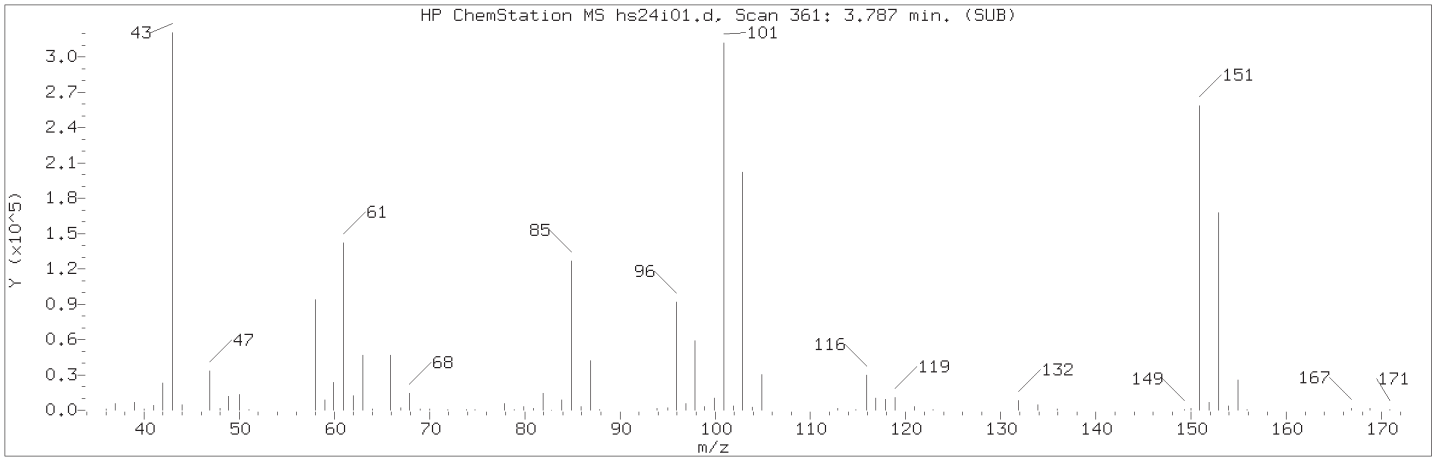
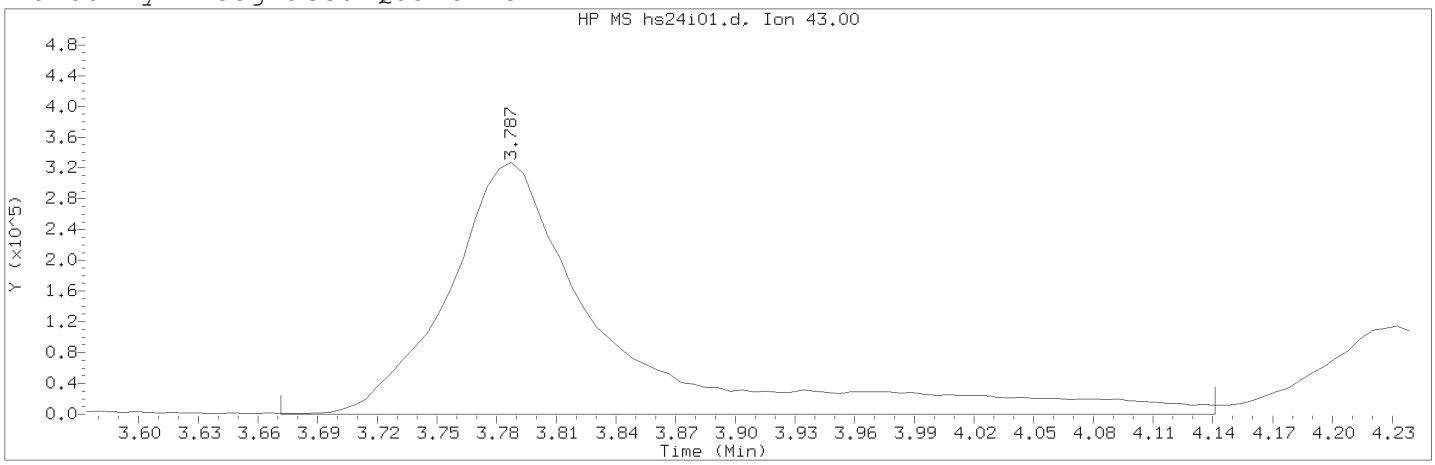
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

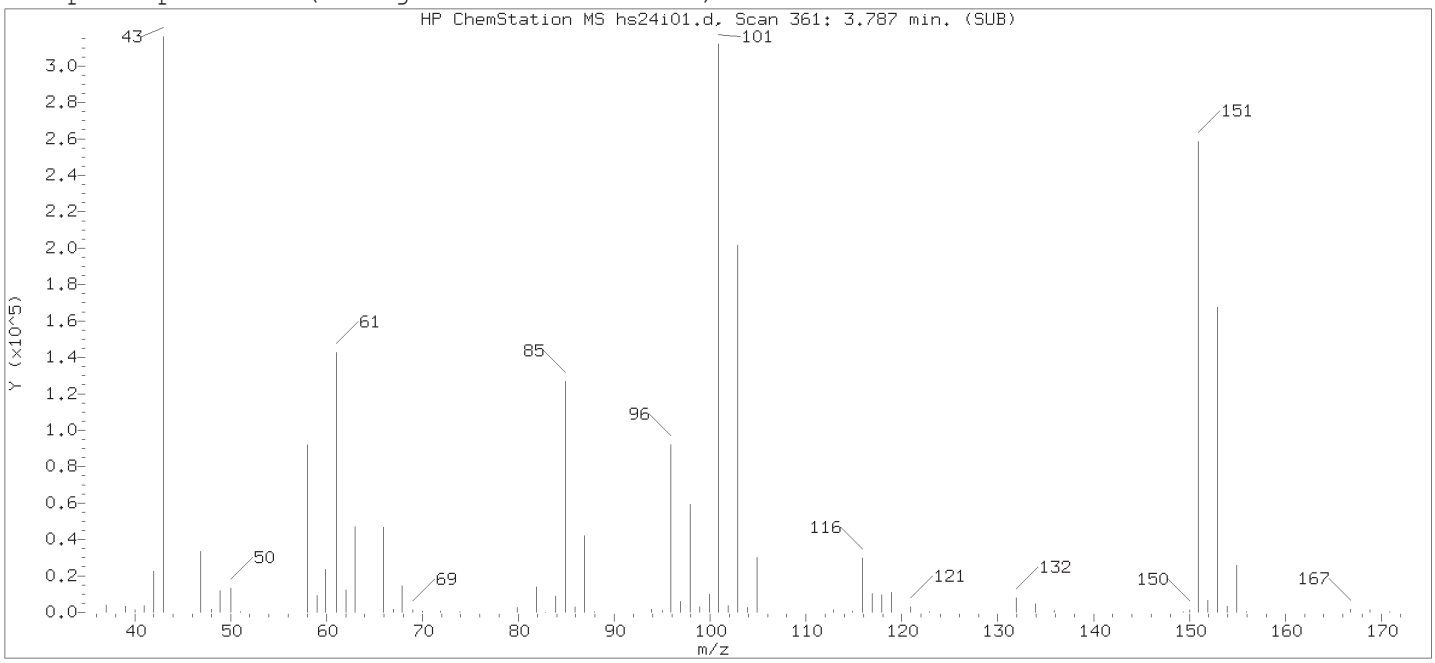
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area (flag) : 1847599M
On-Column Amount (ng) : 250.4543
Integration start scan : 341 Integration stop scan: 418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

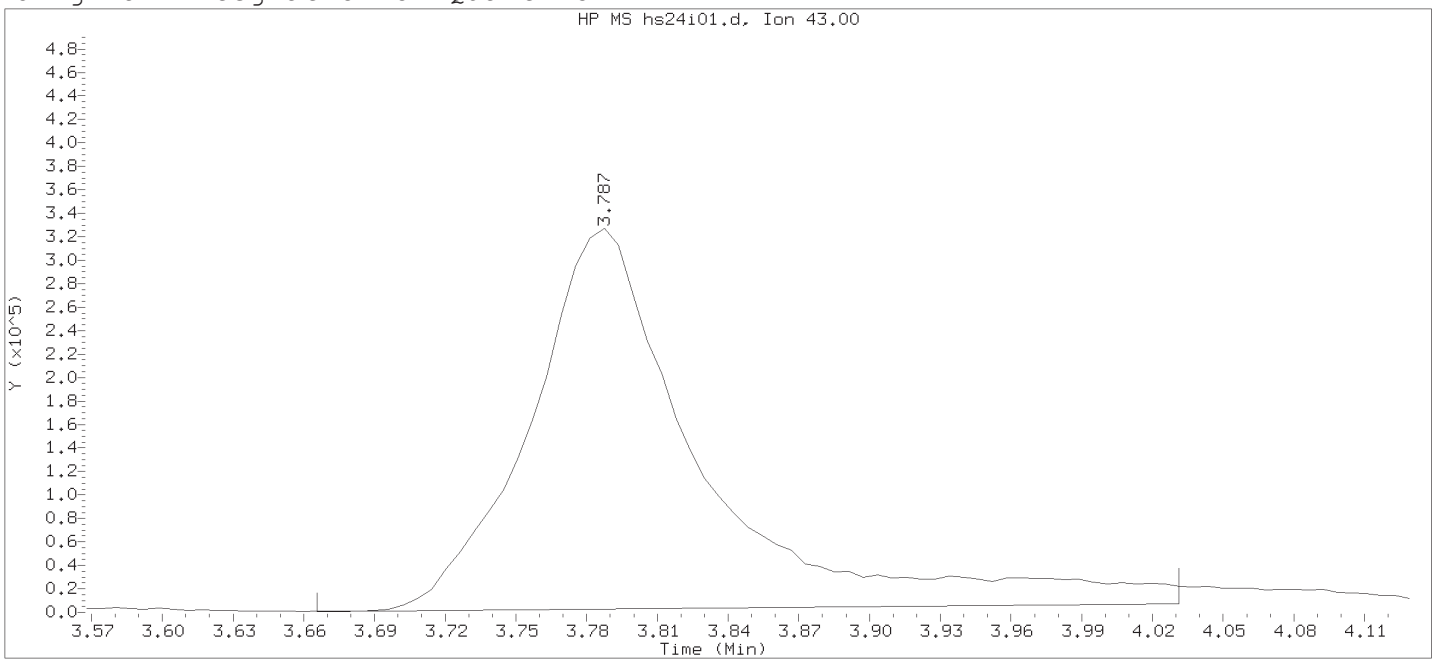
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

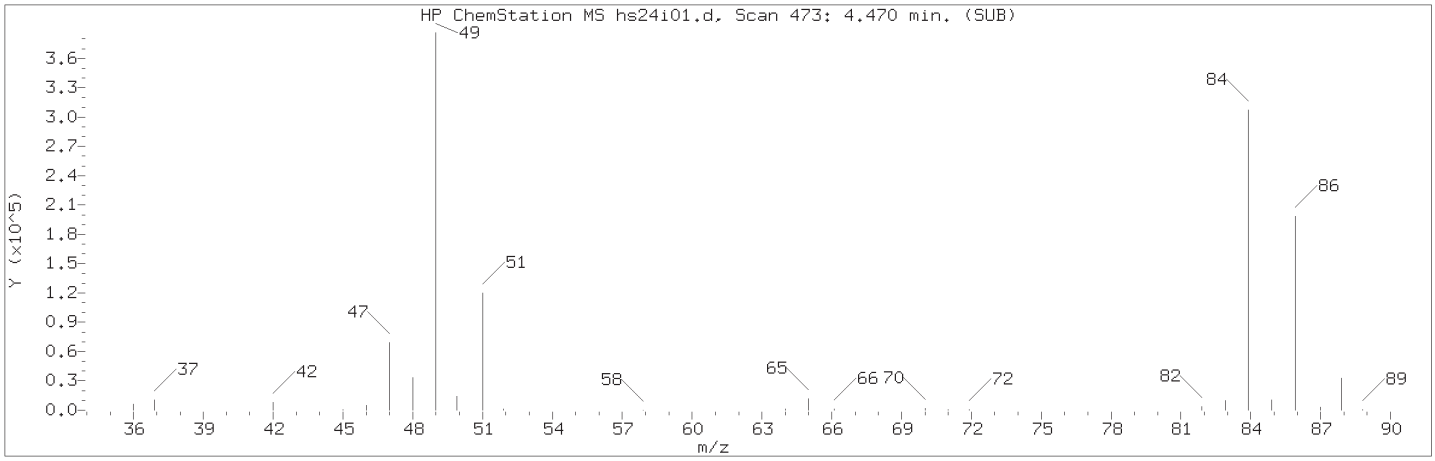
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

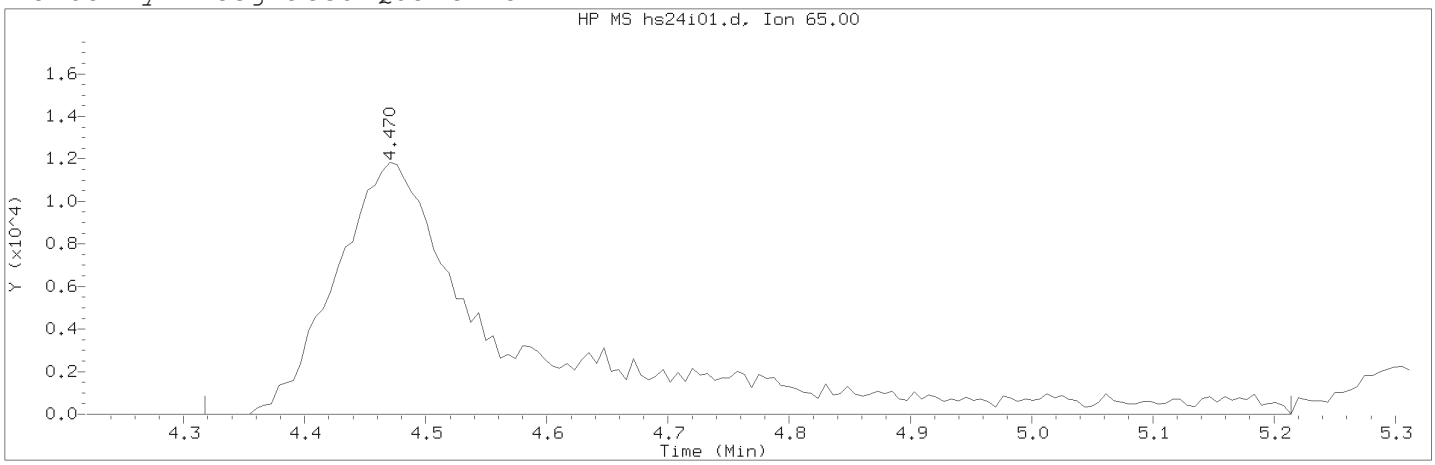
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area : 1639725
On-column Amount (ng) : 243.3952
Integration start scan : 340 Integration stop scan: 400
Y at integration start : 625 Y at integration end: 7448

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

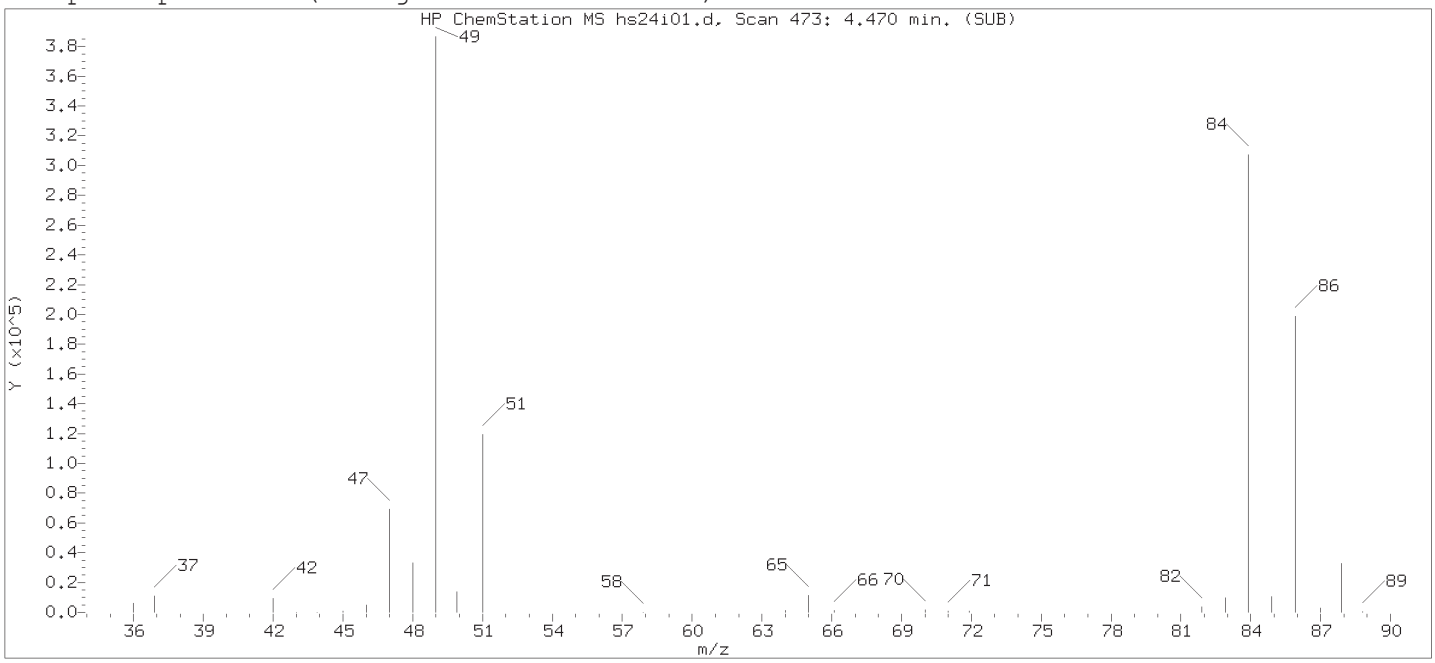
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 123769M
On-Column Amount (ng) : 50.0000
Integration start scan : 447 Integration stop scan: 594
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

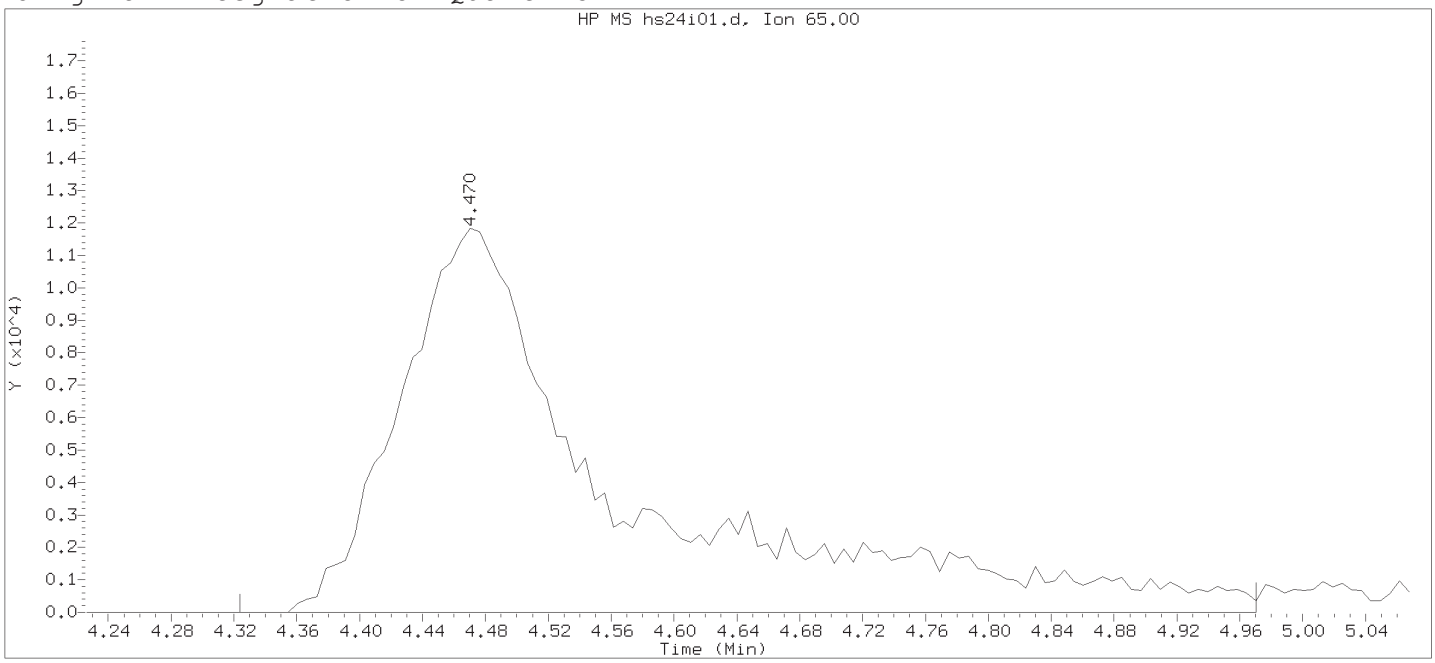
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

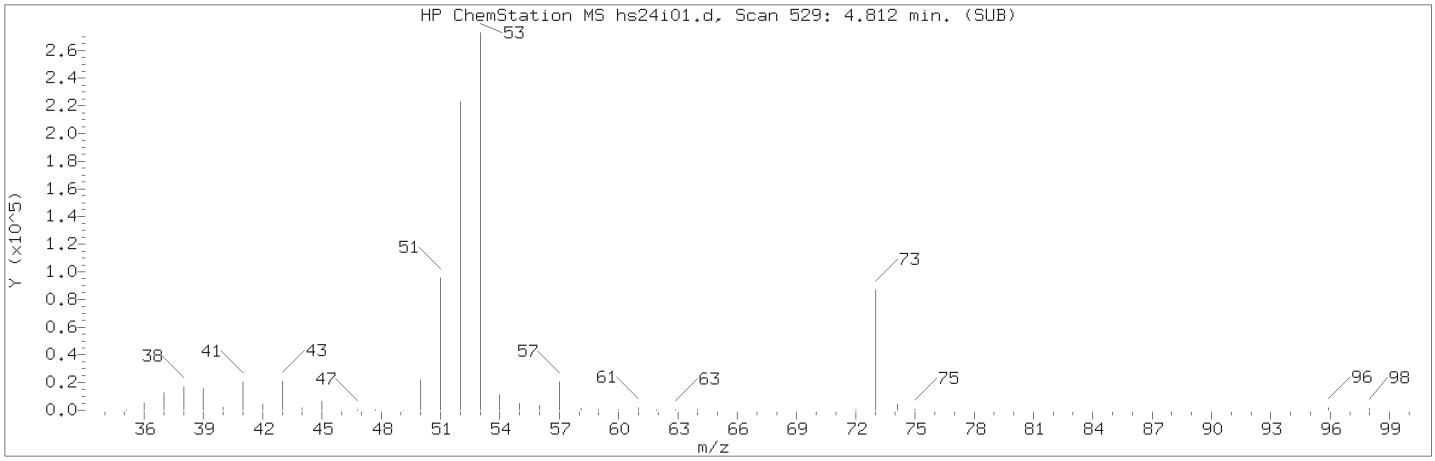
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

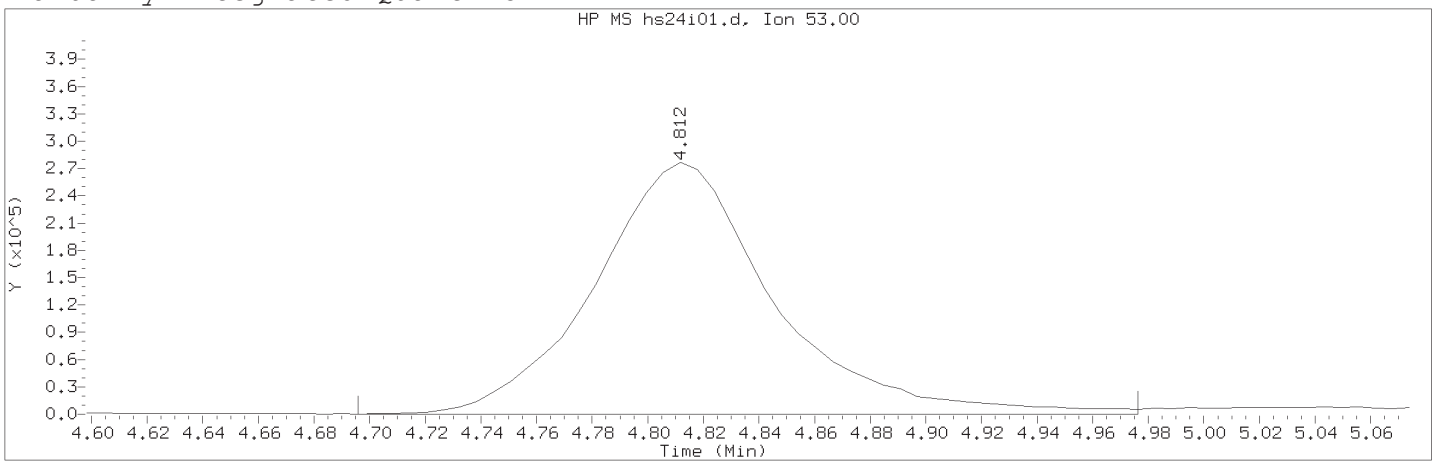
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 114590
On-column Amount (ng) : 50.0000
Integration start scan : 448 Integration stop scan: 554
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

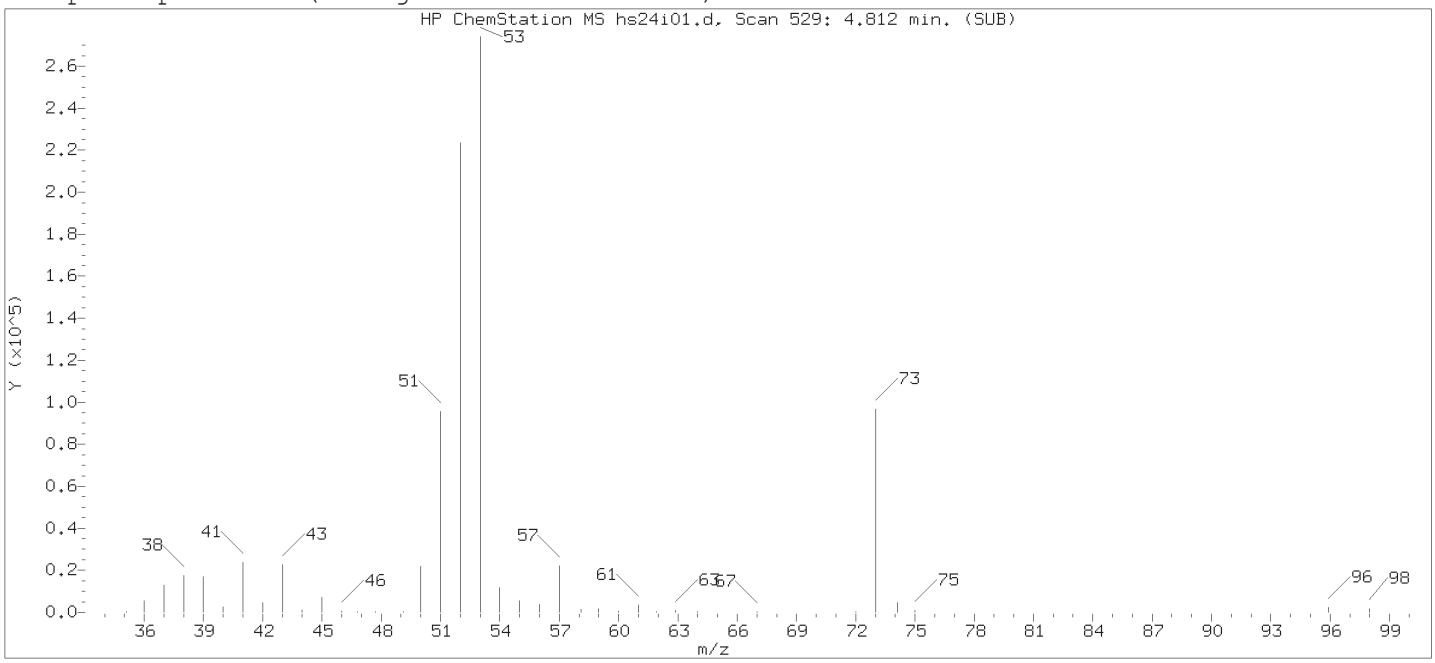
Compound Number : 29
Compound Name : Acrylonitrile
Scan Number : 529
Retention Time (minutes): 4.812
Quant Ion : 53.00
Area (flag) : 1235214M
On-Column Amount (ng) : 129.6558
Integration start scan : 509 Integration stop scan: 555
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

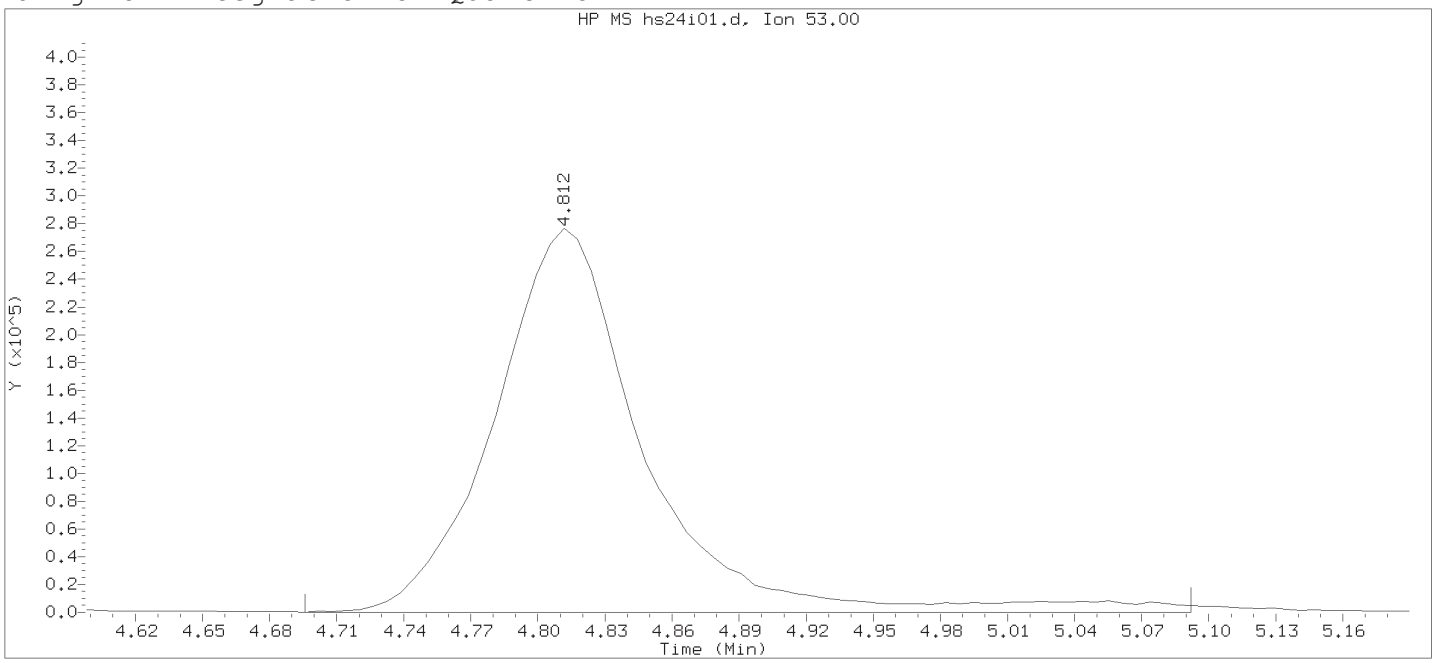
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

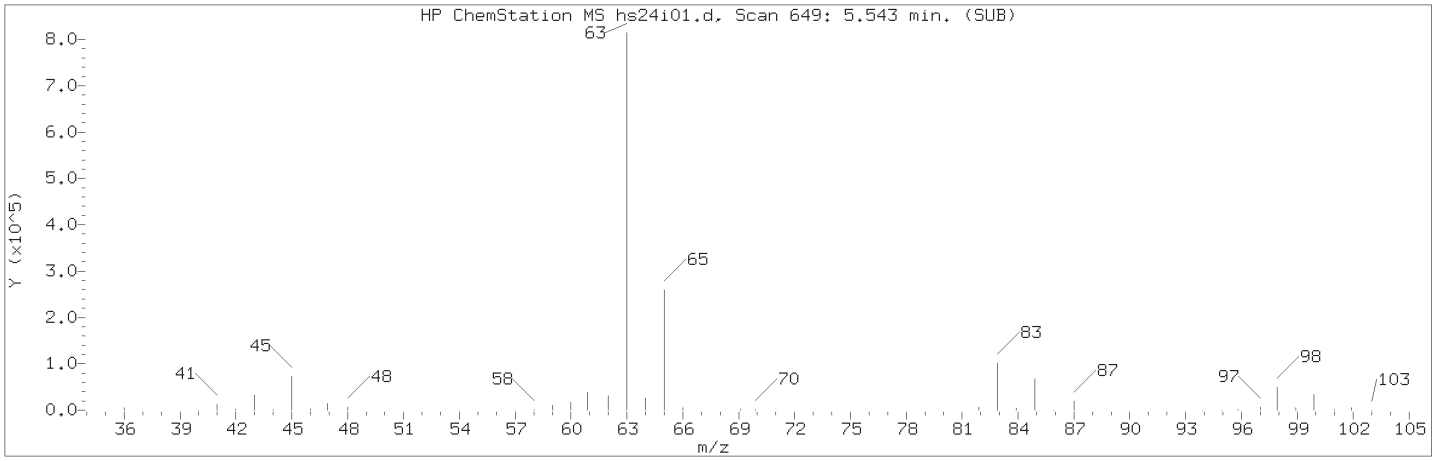
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

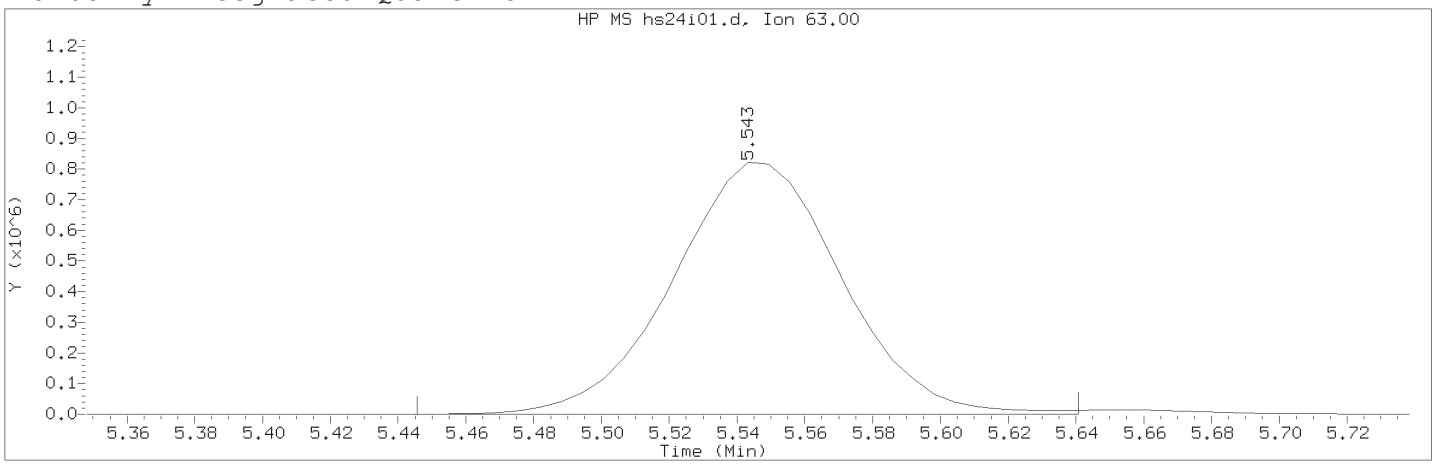
Compound Number : 29
Compound Name : Acrylonitrile
Scan Number : 529
Retention Time (minutes): 4.812
Quant Ion : 53.00
Area : 1282020
On-column Amount (ng) : 129.1888
Integration start scan : 509 Integration stop scan: 574
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used 11 Page 1006

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

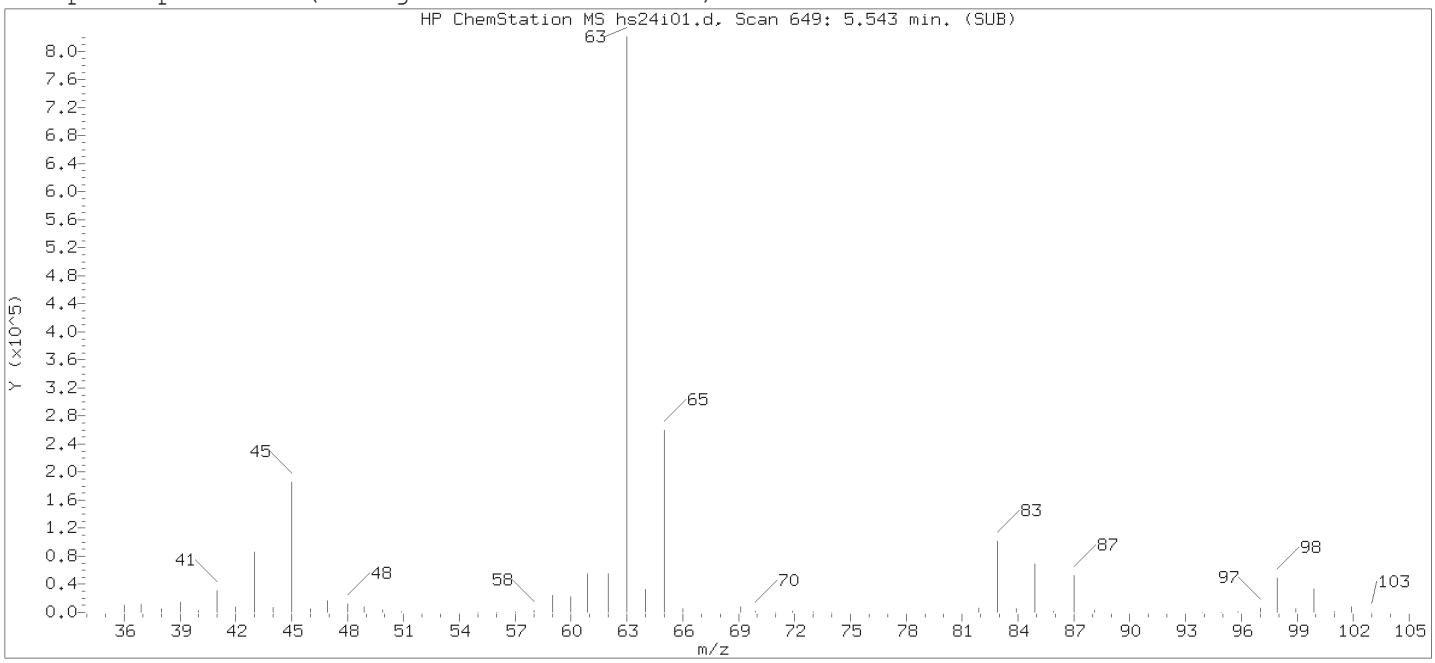
Compound Number : 33
Compound Name : 1,1-Dichloroethane
Scan Number : 649
Retention Time (minutes): 5.543
Quant Ion : 63.00
Area (flag) : 2842374M
On-Column Amount (ng) : 25.8511
Integration start scan : 632 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

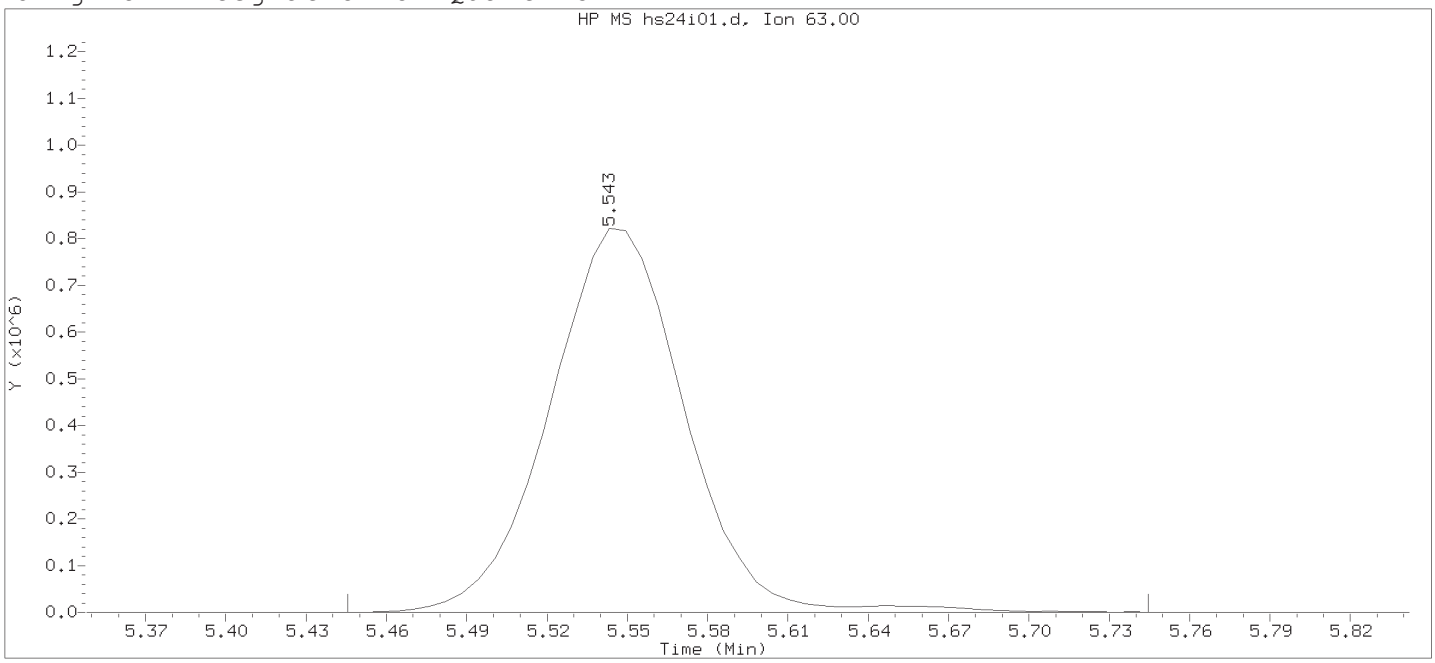
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number	: 33		
Compound Name	: 1,1-Dichloroethane		
Scan Number	: 649		
Retention Time (minutes)	: 5.543		
Quant Ion	: 63.00		
Area	: 2874978		
On-column Amount (ng)	: 24.9330		
Integration start scan	: 632	Integration stop scan:	681
Y at integration start	: 0	Y at integration end:	0

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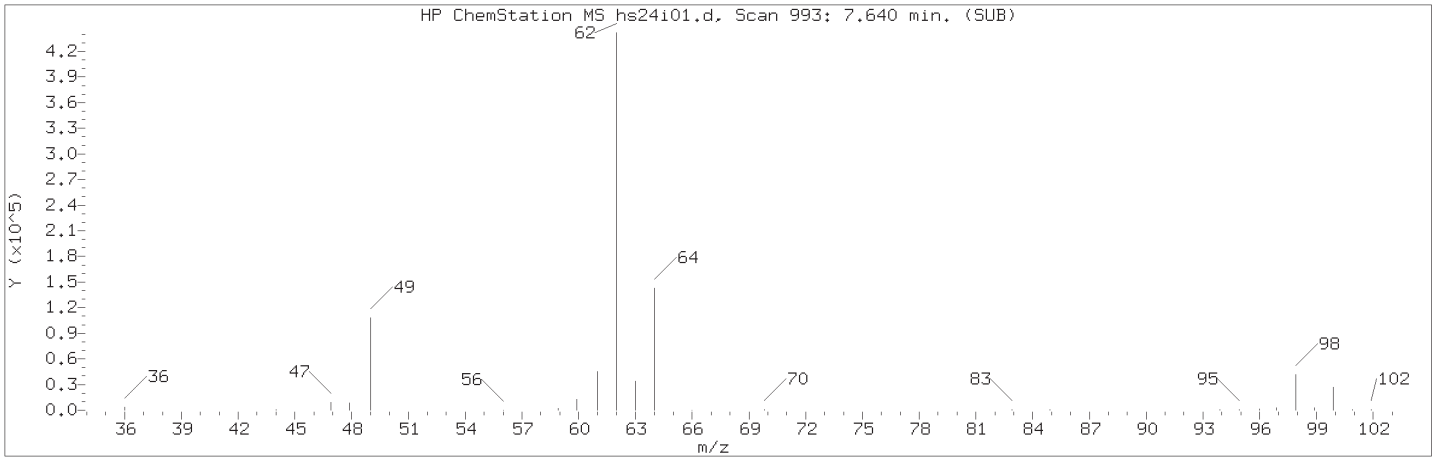
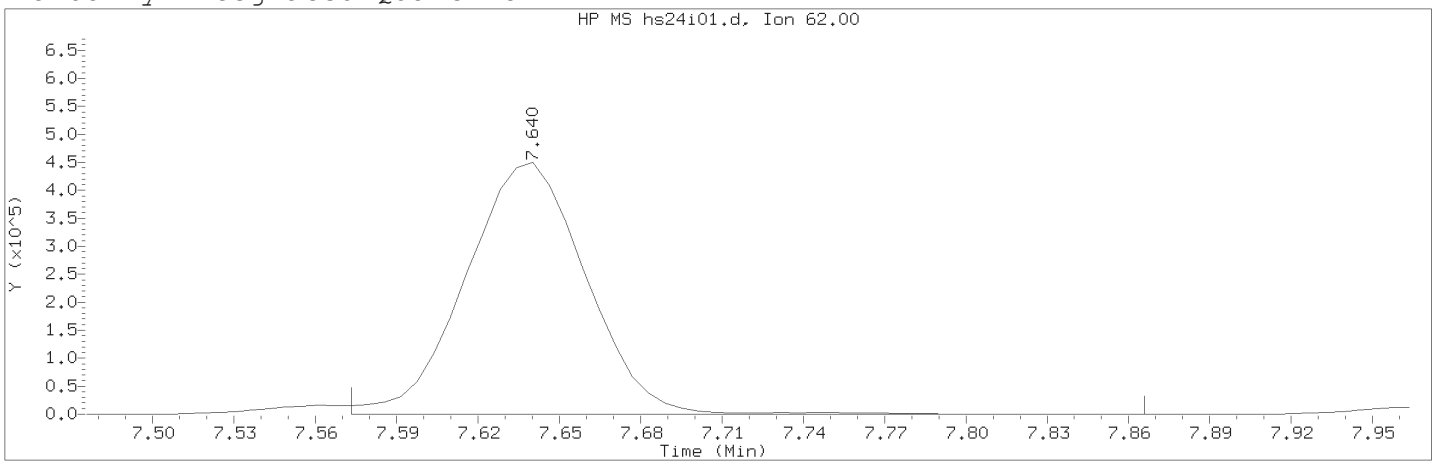
Target 3.5 esignature used: D12 Page 1058

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

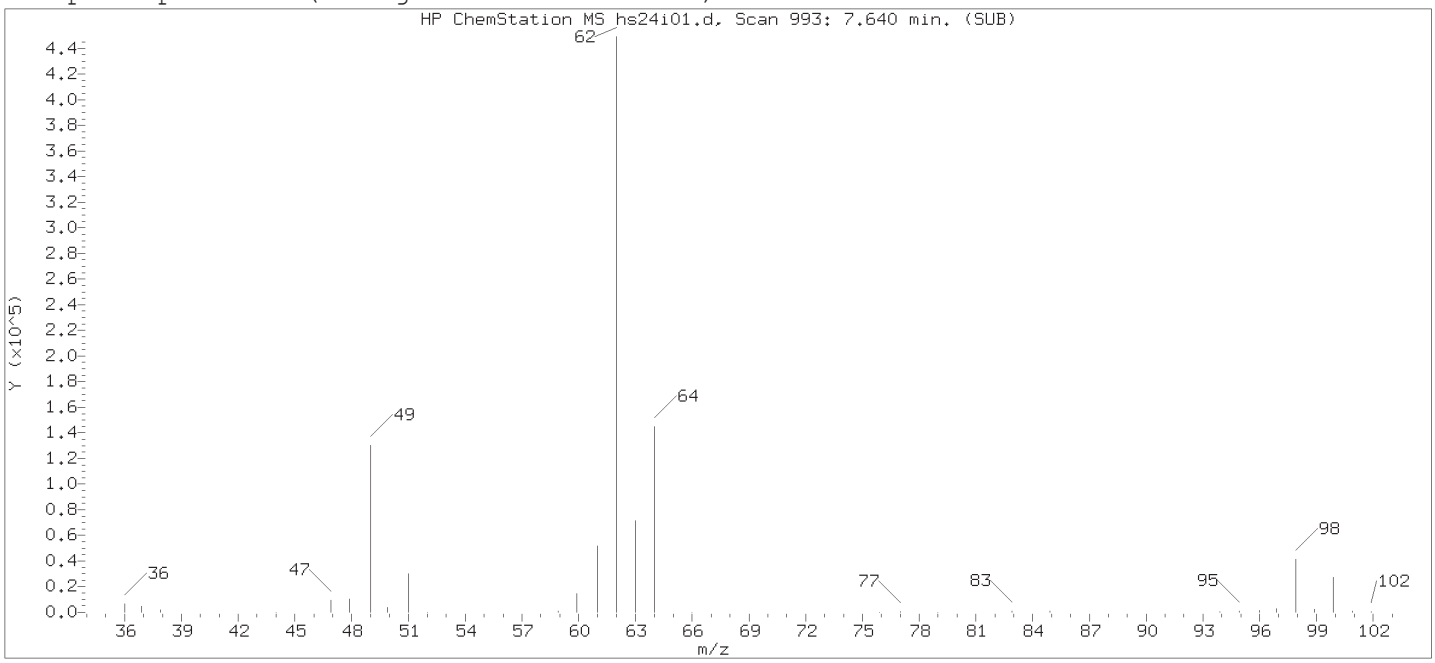
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.640
Quant Ion : 62.00
Area (flag) : 1386008M
On-Column Amount (ng) : 24.5870
Integration start scan : 981 Integration stop scan: 1029
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

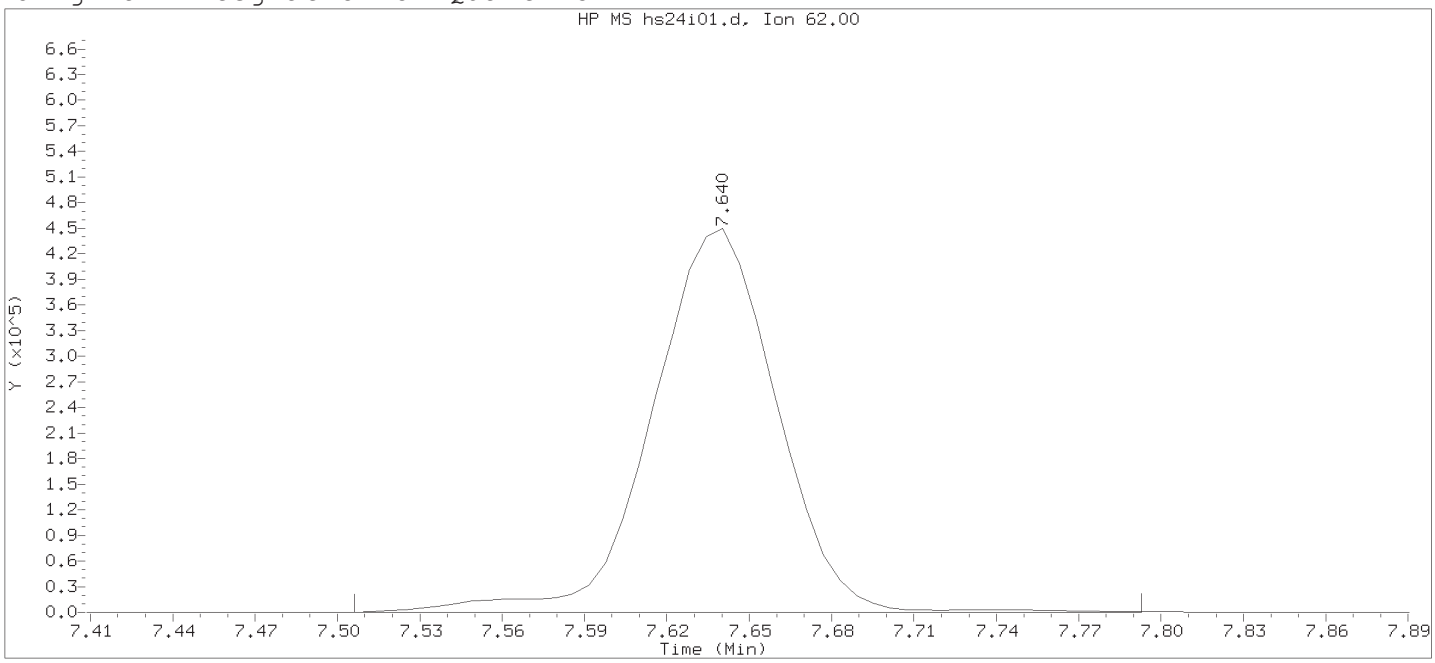
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

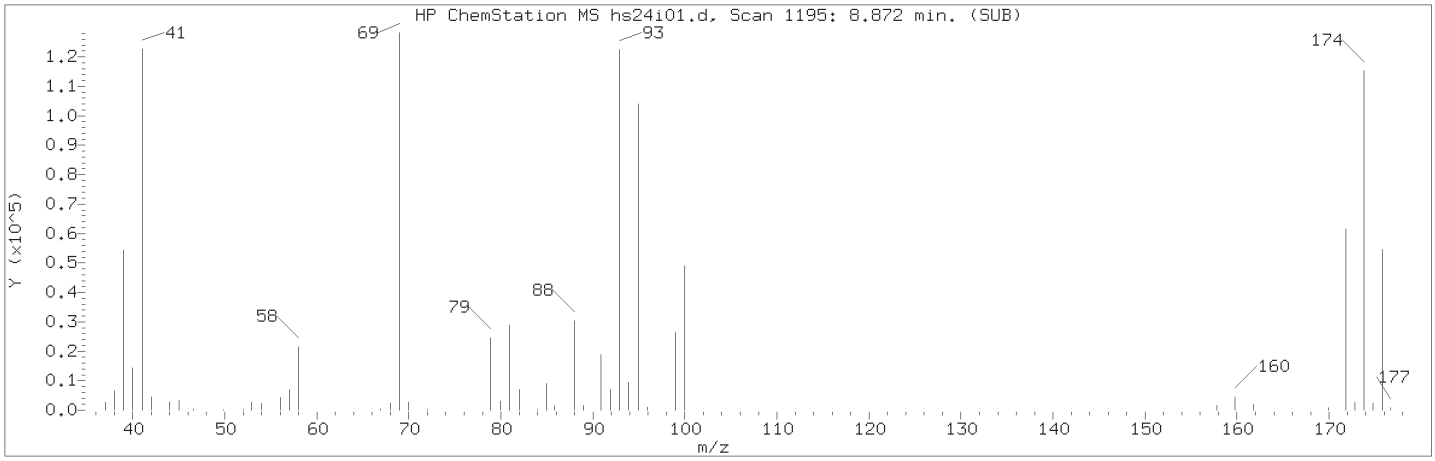
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

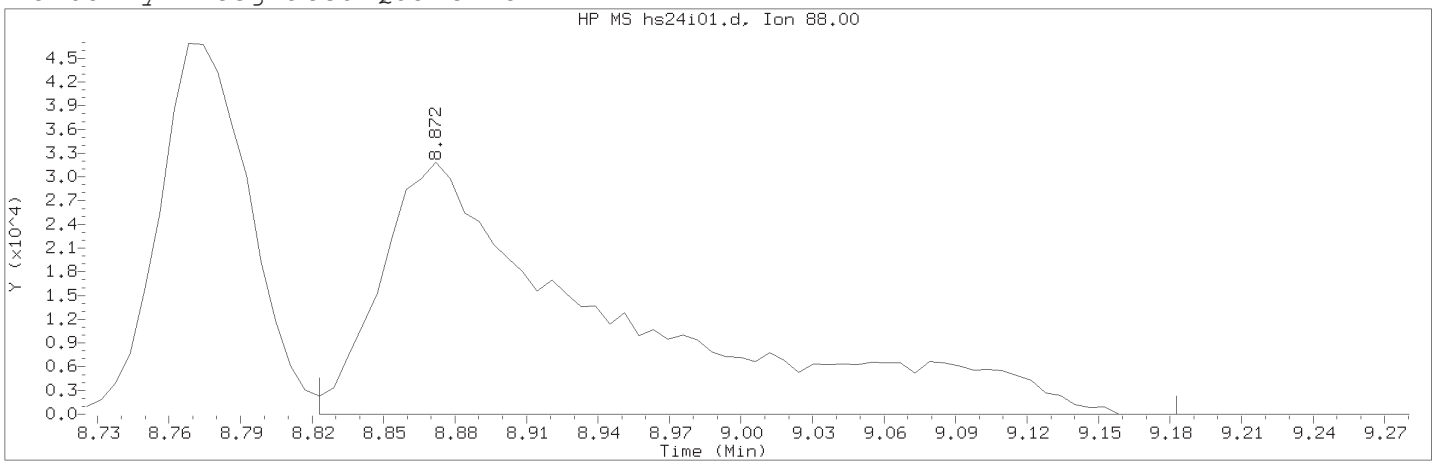
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.640
Quant Ion : 62.00
Area : 1414553
On-column Amount (ng) : 25.1444
Integration start scan : 970 Integration stop scan: 1017
Y at integration start : 0 Y at integration end: 260

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

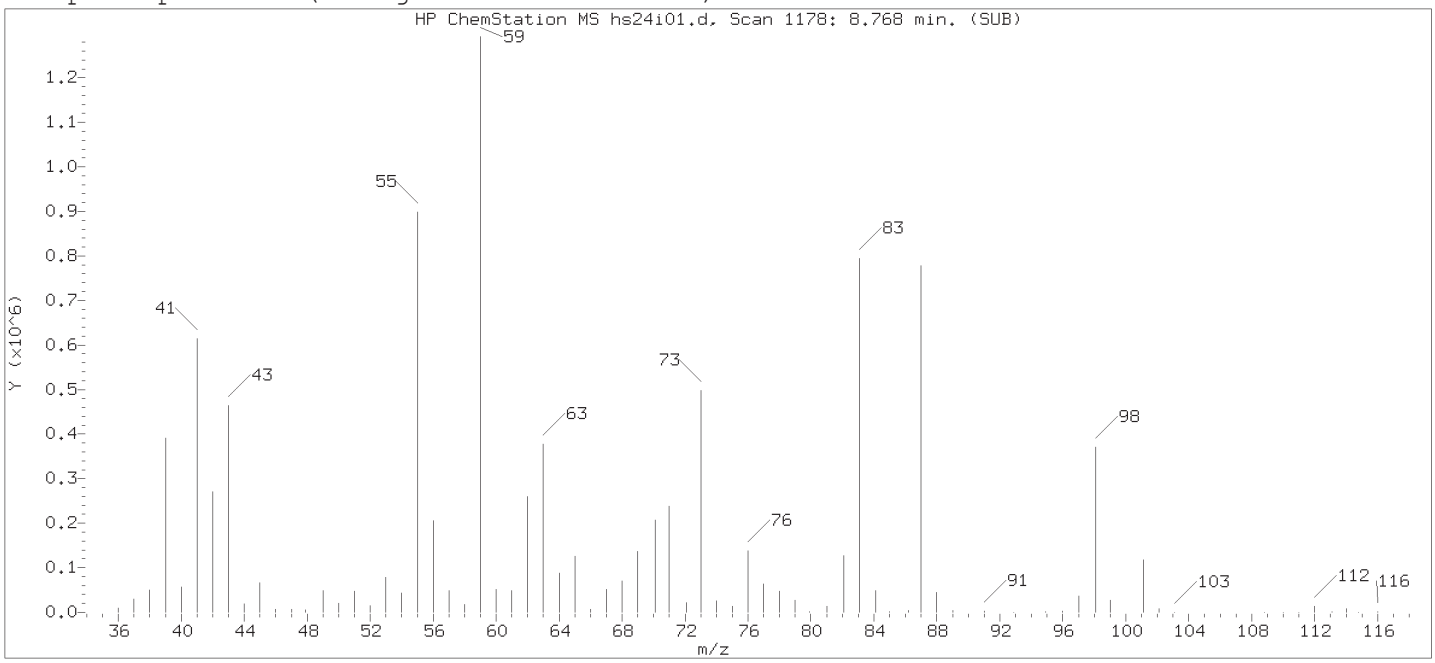
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1195
Retention Time (minutes): 8.872
Quant Ion : 88.00
Area (flag) : 216251M
On-Column Amount (ng) : 1300.5754
Integration start scan : 1186 Integration stop scan: 1245
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

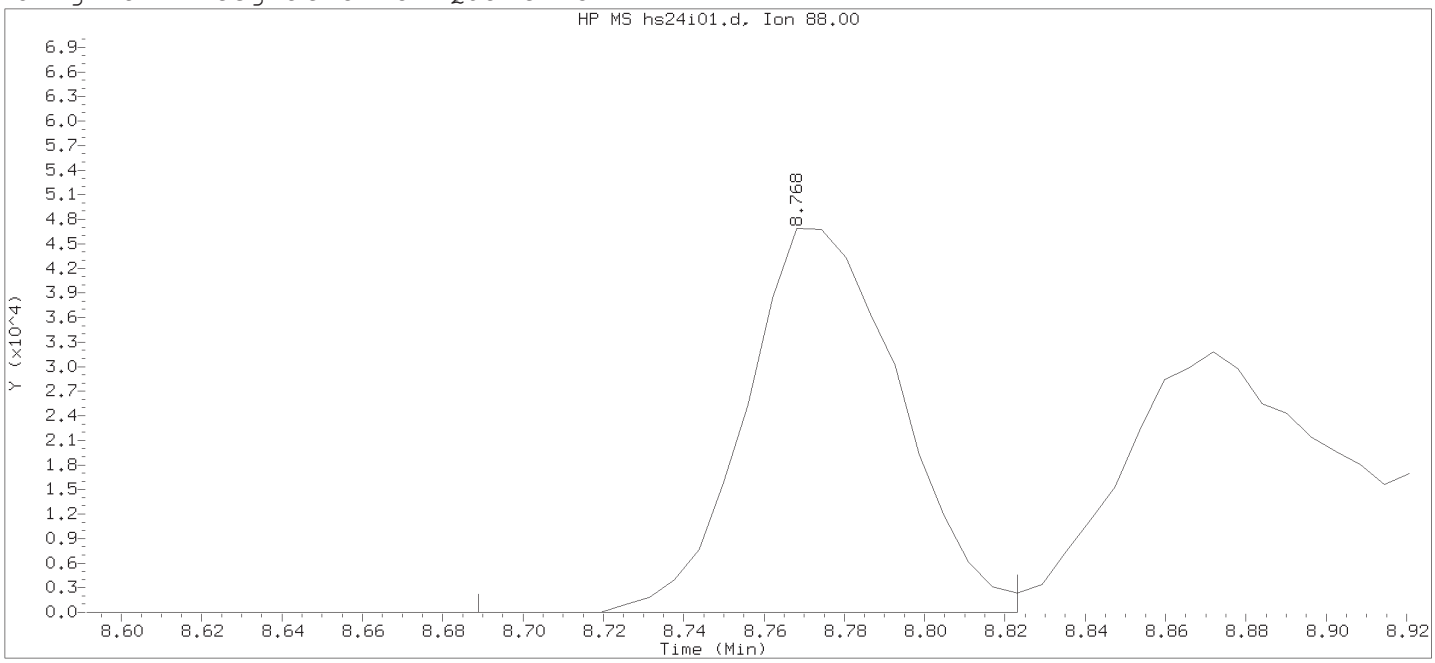
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

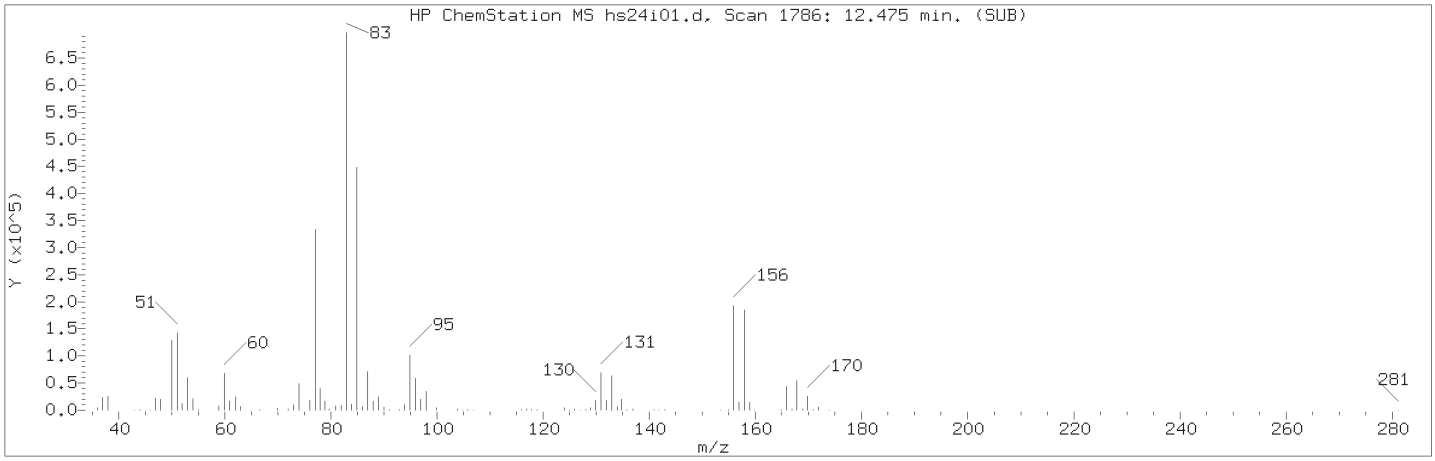
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

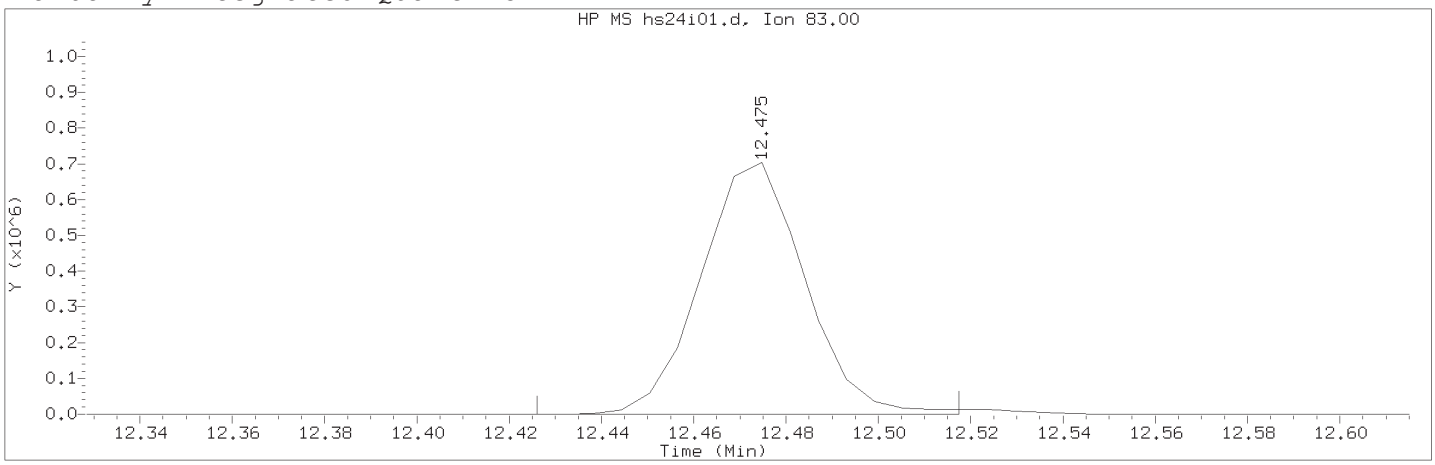
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1178
Retention Time (minutes): 8.768
Quant Ion : 88.00
Area : 124030
On-column Amount (ng) : 962.4201
Integration start scan : 1164 Integration stop scan: 1186
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

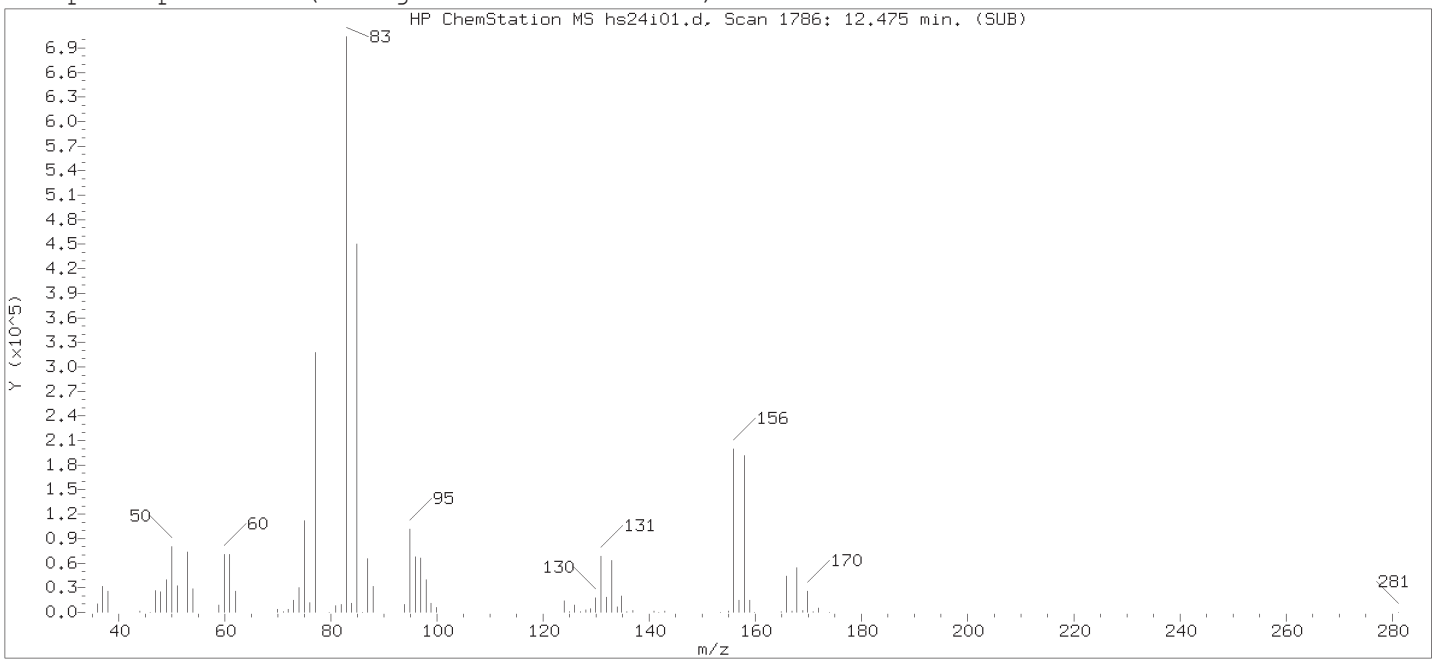
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 1100327M
On-Column Amount (ng) : 26.6273
Integration start scan : 1777 Integration stop scan: 1792
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

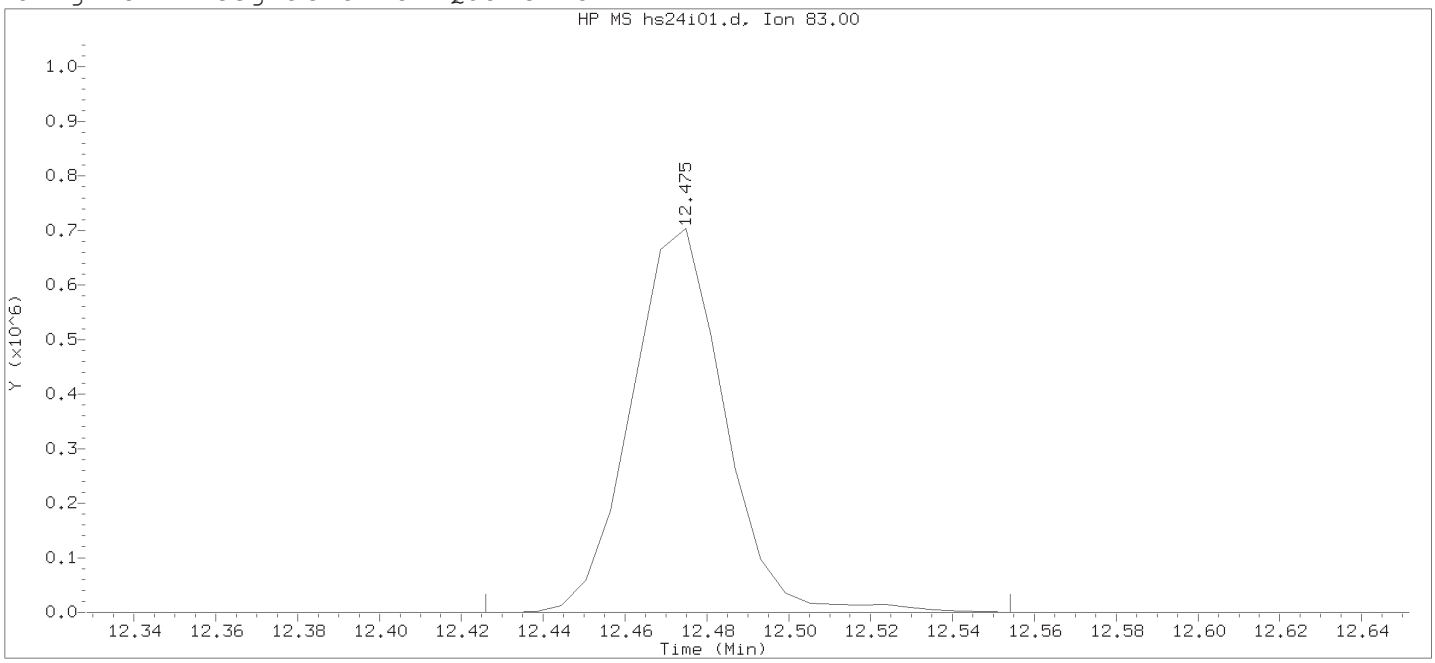
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



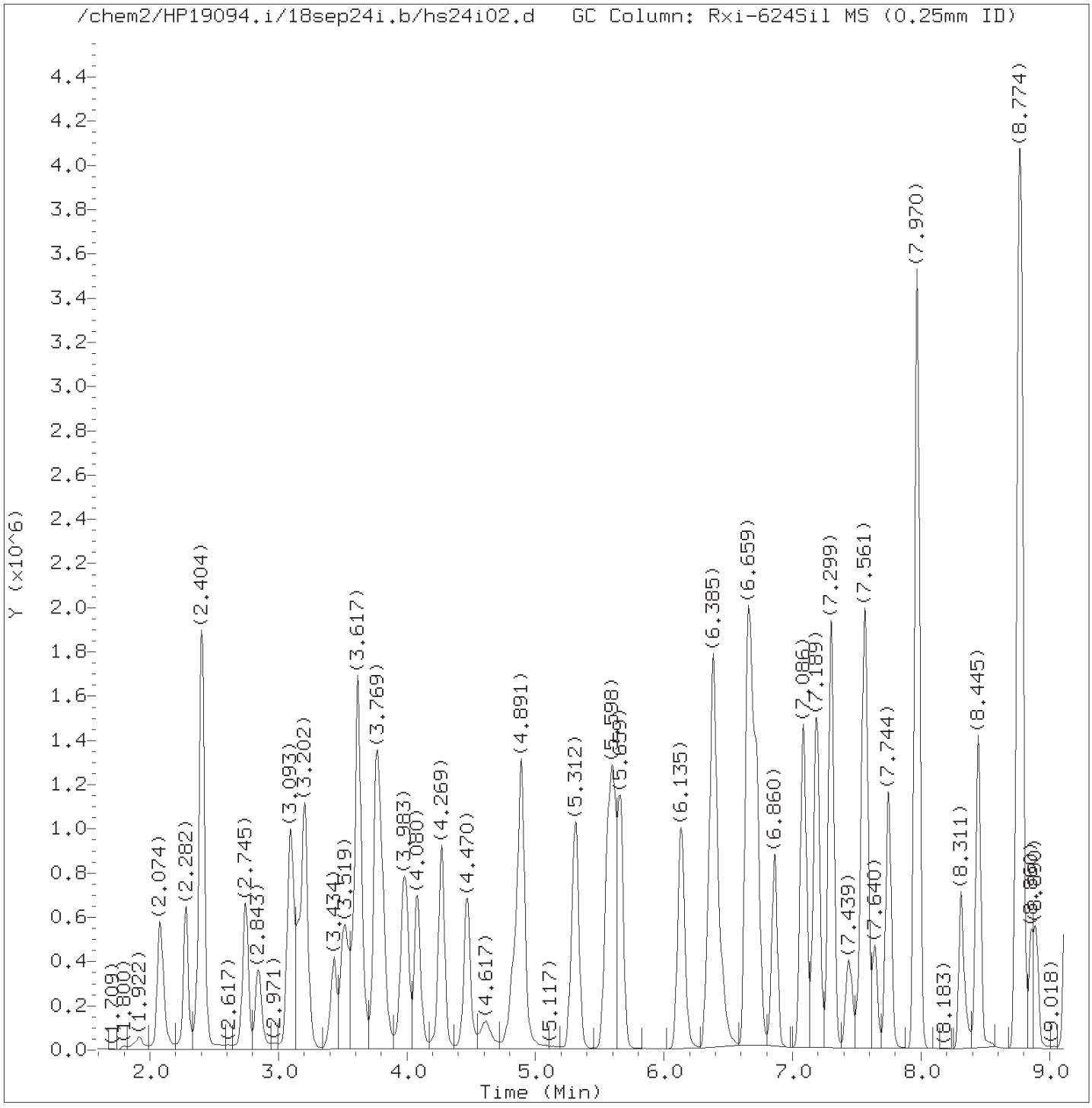
Data File: /chem2/HP19094.i/18sep24i.b/hs24i01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:29 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 1111309
On-column Amount (ng) : 25.3663
Integration start scan : 1777 Integration stop scan: 1798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

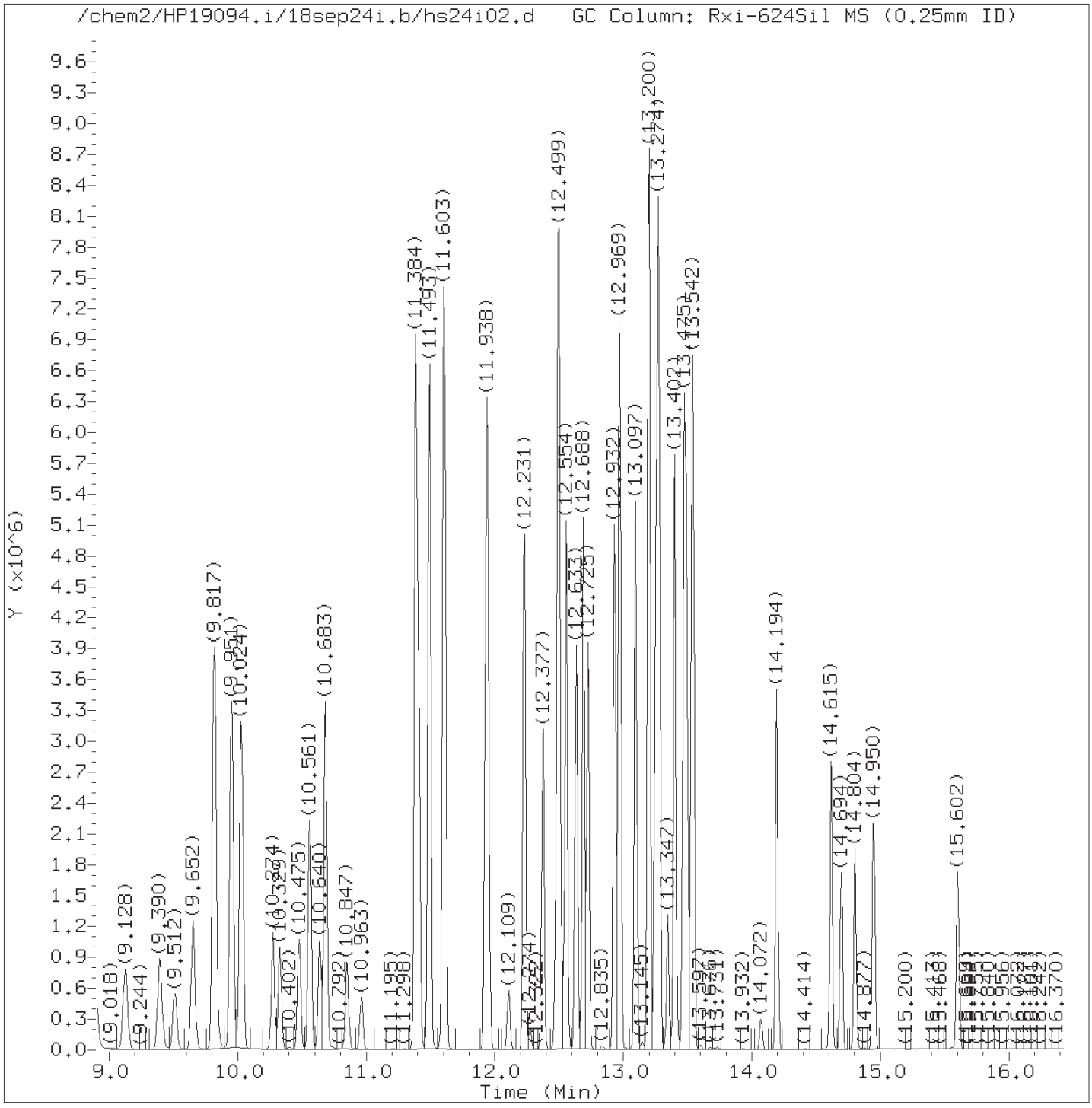
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	1111195	10.627
2) Chloromethane	(2)	2.282	50	1053821	10.291
5) Vinyl Chloride	(2)	2.404	62	994450	10.370
6) 1,3-Butadiene	(2)	2.404	39	1079138	9.934
7) Bromomethane	(2)	2.739	94	765899	10.273
8) Chloroethane	(2)	2.843	64	589896	10.142
9) Dichlorofluoromethane	(2)	3.093	67	1404728	10.153
10) Trichlorofluoromethane	(2)	3.154	101	1259997	10.400
11) Ethyl ether	(2)	3.434	59	423587	10.312
12) Freon 123a	(2)	3.513	67	807807	10.524
13) Acrolein	(1)	3.617	56	3074728	548.130
15) 1,1-Dichloroethene	(2)	3.757	96	555090	10.581
16) Freon 113	(2)	3.794	101	677125	10.951
14) Acetone	(1)	3.806	43	762811	101.244
17) Methyl Iodide	(2)	3.970	142	1138408	10.410
18) Carbon Disulfide	(2)	4.080	76	1731295	10.372
21) Methyl Acetate	(1)	4.251	43	211729	10.010
22) Allyl Chloride	(2)	4.269	41	1040687	10.436
23) Methylene Chloride	(2)	4.464	84	584981	9.884
26)*t-Butyl Alcohol-d10	(1)	4.483	65	126410	50.000
28) t-Butyl Alcohol	(1)	4.617	59	455794M	211.240
29) Acrylonitrile	(1)	4.824	53	529018	54.369
30) Methyl Tertiary Butyl Ether	(2)	4.873	73	1148303	10.643
31) trans-1,2-Dichloroethene	(2)	4.891	96	621983	10.505
32) n-Hexane	(2)	5.318	57	1052293	11.177
33) 1,1-Dichloroethane	(2)	5.556	63	1185400	10.515
34) di-Isopropyl Ether	(2)	5.604	45	2092042	10.450
35) 2-Chloro-1,3-Butadiene	(2)	5.665	53	1107150	10.914
40) 1,2-Dichloroethene (Total)	(2)		96	1310379	21.027
37) Ethyl t-butyl ether	(2)	6.135	59	1675402	10.551
38) 2-Butanone	(1)	6.342	43	1355942	109.942
39) cis-1,2-Dichloroethene	(2)	6.385	96	688396	10.523
41) 2,2-Dichloropropane	(2)	6.397	77	877144	10.894
42) Propionitrile	(1)	6.446	54	722828	215.920
45) Methacrylonitrile	(1)	6.659	67	1335578	110.644
47) Bromochloromethane	(2)	6.720	128	285662	10.337
48) Tetrahydrofuran	(1)	6.720	71	364027	111.024
49) Chloroform	(2)	6.866	83	1097143	10.468

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.080	113	673469	9.987
50)$Dibromofluoromethane	(2)	7.074	111	700447	10.091
51) 1,1,1-Trichloroethane	(2)	7.092	97	954892M	10.651
52) Cyclohexane	(2)	7.189	56	1283297	10.965
52) Cyclohexane	(2)	7.189	84	1055029	10.934
52) Cyclohexane	(2)	7.189	69	379671	11.008
54) Carbon Tetrachloride	(2)	7.299	117	841170	10.925
55) 1,1-Dichloropropene	(2)	7.305	75	906209	10.660
56) Isobutyl Alcohol	(1)	7.439	41	441325	528.629
57)$1,2-Dichloroethane-d4	(2)	7.531	102	119504	10.165
57)$1,2-Dichloroethane-d4	(2)	7.537	65	571691	10.054
57)$1,2-Dichloroethane-d4	(2)	7.537	104	76384	10.145
58) Benzene	(2)	7.567	78	2595708	10.336
59) 1,2-Dichloroethane	(2)	7.647	62	573462M	9.922
60) t-Amyl methyl ether	(2)	7.744	73	1396741	10.610
62) n-Heptane	(2)	7.970	43	1080061	11.126
63)*Fluorobenzene	(2)	7.970	96	2675616	10.000
65) n-Butanol	(1)	8.311	56	773741	1097.005
67) Trichloroethene	(2)	8.445	95	677458	10.535
69) Methylcyclohexane	(2)	8.756	83	1312618	10.809
70) 1,2-Dichloropropane	(2)	8.787	63	638119	10.473
71) Methyl Methacrylate	(1)	8.854	69	256545	11.482
72) 1,4-Dioxane	(1)	8.878	88	87437M	514.877
73) Dibromomethane	(2)	8.896	93	260508	10.301
74) Bromodichloromethane	(2)	9.122	83	729114	10.644
76) 2-Nitropropane	(1)	9.390	41	734933	116.122
80) cis-1,3-Dichloropropene	(2)	9.652	75	870258	10.912
81) 4-Methyl-2-Pentanone	(1)	9.817	43	3459344	112.763
82)$Toluene-d8	(3)	9.951	98	2697002	10.021
82)$Toluene-d8	(3)	9.951	100	1740056	10.017
83) Toluene	(3)	10.024	92	1612018	10.388
85) 1,3-Dichloropropene (total)	(3)		75	1532900	21.995
84) trans-1,3-Dichloropropene	(3)	10.274	75	662642	11.083
86) Ethyl Methacrylate	(3)	10.329	69	561170	10.955
88) 1,1,2-Trichloroethane	(3)	10.475	97	373327	10.455
89) Tetrachloroethene	(3)	10.561	166	735072	10.485
90) 1,3-Dichloropropane	(3)	10.640	76	658558	10.406
91) 2-Hexanone	(1)	10.683	43	2350012	112.535

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Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	455725	10.649
95) 1,2-Dibromoethane	(3)	10.963	107	359375	10.738
96) 1-Chlorohexane	(3)	11.384	91	958778	10.360
97)*Chlorobenzene-d5	(3)	11.384	117	2091043	10.000
98) Chlorobenzene	(3)	11.408	112	1704436	10.353
100) Ethylbenzene	(3)	11.493	91	3218789	10.613
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	593286	10.920
101) m+p-Xylene	(3)	11.603	106	2379515	21.153
105) Xylene (Total)	(3)		106	3524795	31.800
104) o-Xylene	(3)	11.932	106	1145280	10.649
106) Styrene	(3)	11.951	104	1866075	10.845
107) Bromoform	(3)	12.109	173	256472	10.904
108) Isopropylbenzene	(3)	12.231	105	3134574	10.677
111)$4-Bromofluorobenzene	(3)	12.377	95	977708	9.978
111)$4-Bromofluorobenzene	(3)	12.377	174	853274	10.029
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	446396M	10.447
114) Bromobenzene	(4)	12.493	156	679412	10.458
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	1100680	114.554
116) 1,2,3-Trichloropropane	(4)	12.524	110	111265M	10.072
117) n-Propylbenzene	(4)	12.554	91	3758147	10.639
119) 2-Chlorotoluene	(4)	12.633	126	715824	10.449
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	2552095	10.665
122) 4-Chlorotoluene	(4)	12.725	126	714849	10.413
125) tert-Butylbenzene	(4)	12.932	134	550044	10.570
126) Pentachloroethane	(4)	12.969	167	449742	11.073
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	2603683	10.663
128) sec-Butylbenzene	(4)	13.097	105	3375632	10.887
131) 1,3-Dichlorobenzene	(4)	13.194	146	1344989	10.421
132) p-Isopropyltoluene	(4)	13.200	119	2814592	10.959
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1077251	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	1311510	10.351
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	1158798	10.344
136) Benzyl Chloride	(4)	13.347	126	179783	11.638
138) n-Butylbenzene	(4)	13.493	92	1387276	10.882
139) 1,2-Dichlorobenzene	(4)	13.530	146	1165776	10.237
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	58902	11.327
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	1022554	10.649
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	834904	10.675

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on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

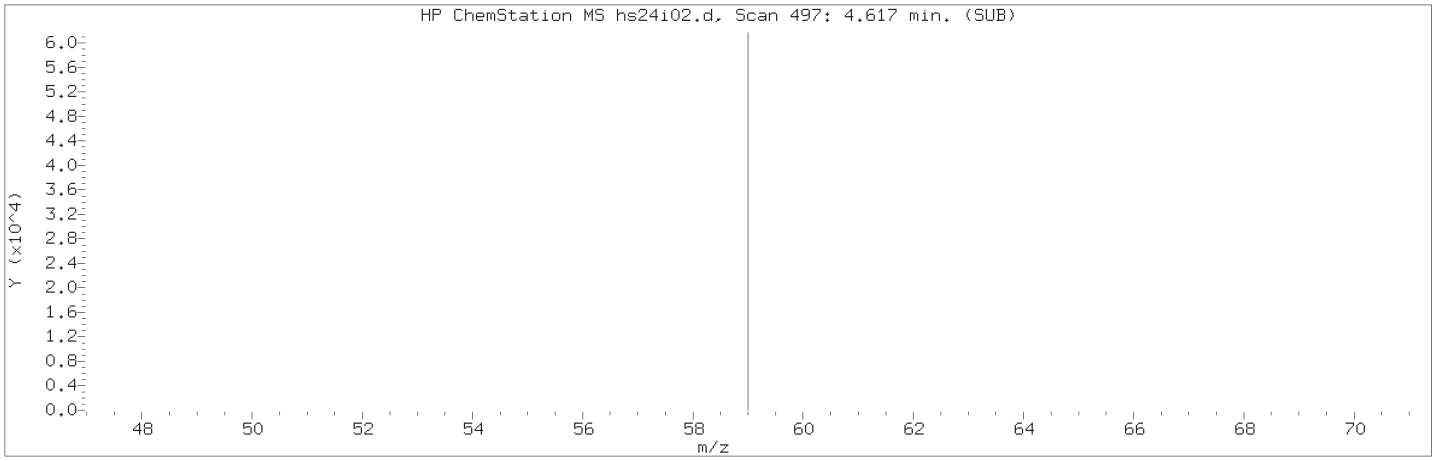
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

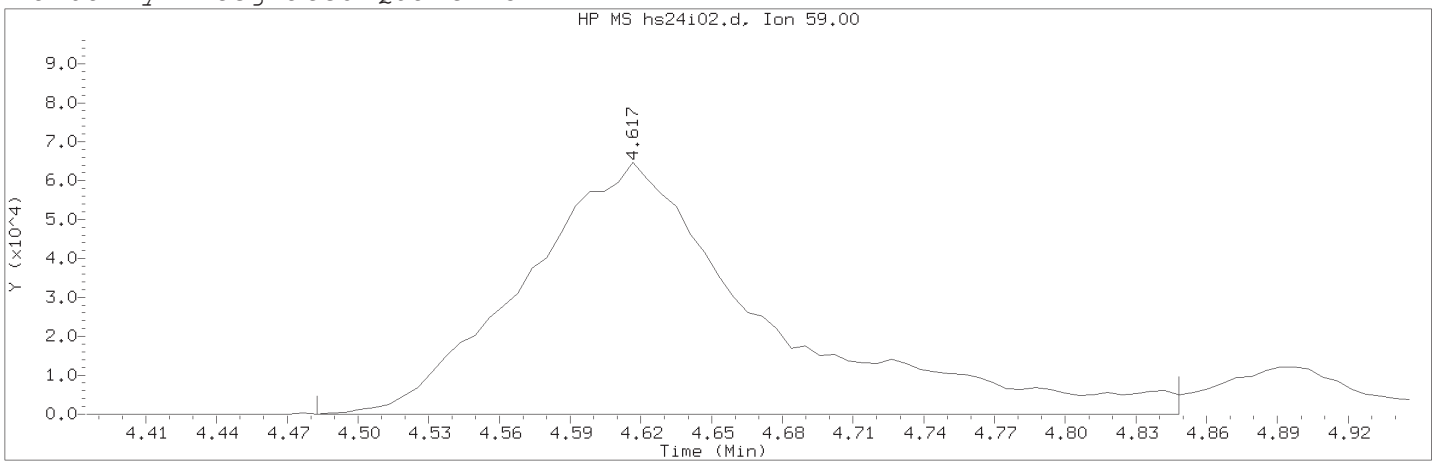
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	311460	10.536
147) Naphthalene	(4)	14.804	128	1382804	11.173
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	699158	10.872

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

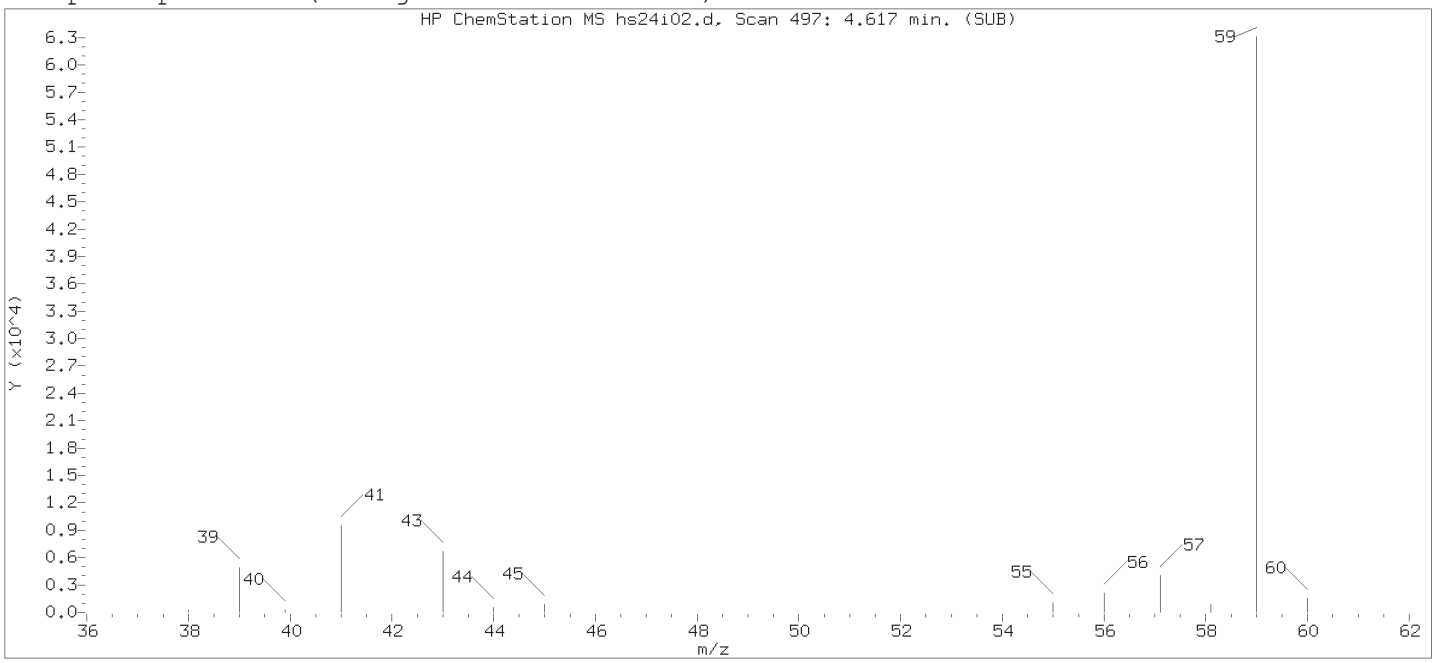
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 497
Retention Time (minutes): 4.617
Quant Ion : 59.00
Area (flag) : 455794M
On-Column Amount (ng) : 211.2399
Integration start scan : 474 Integration stop scan: 534
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

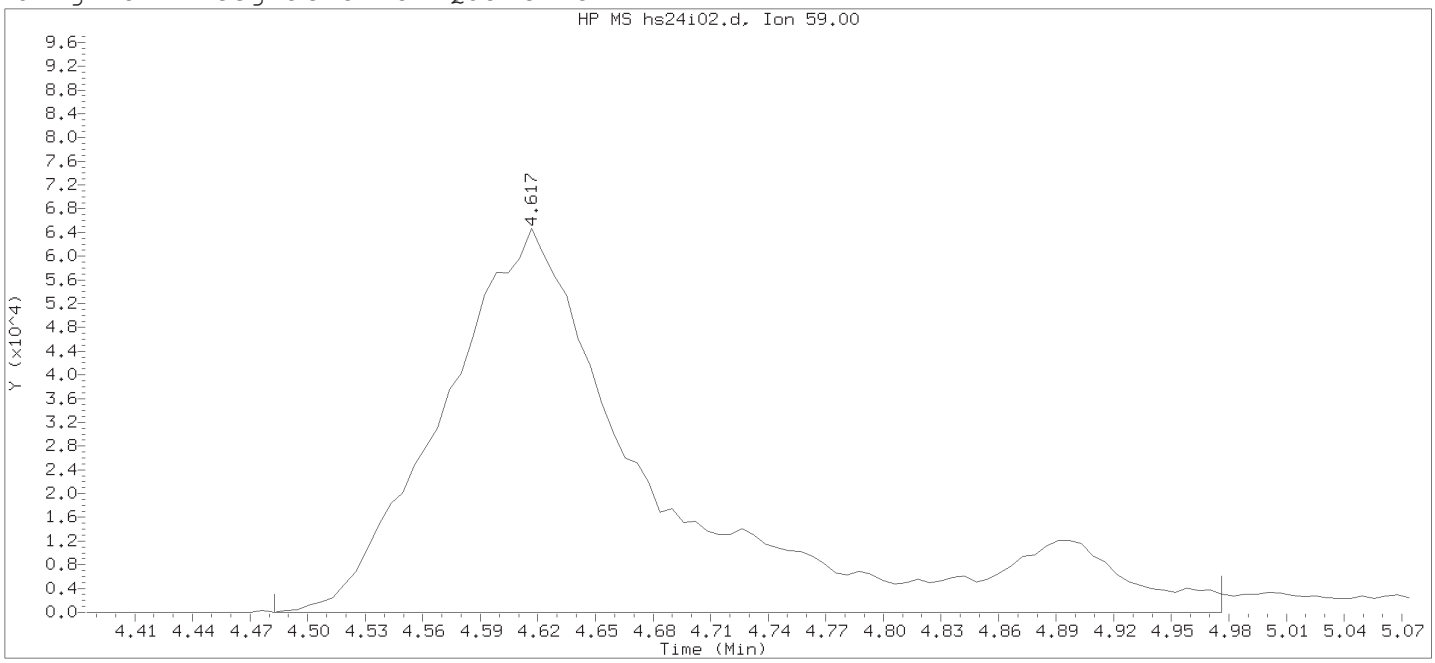
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

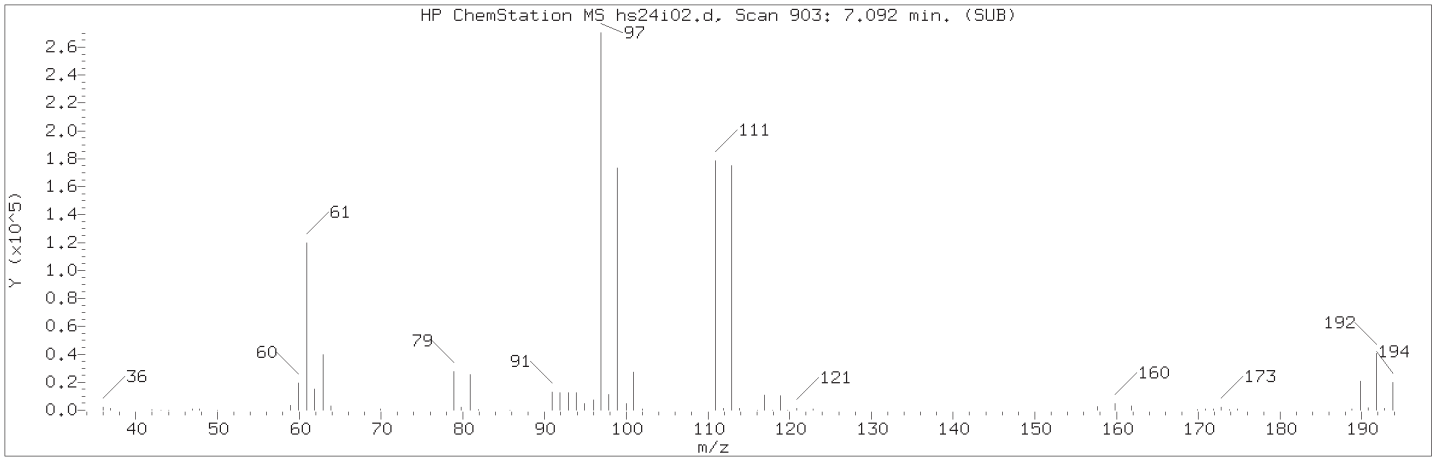
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

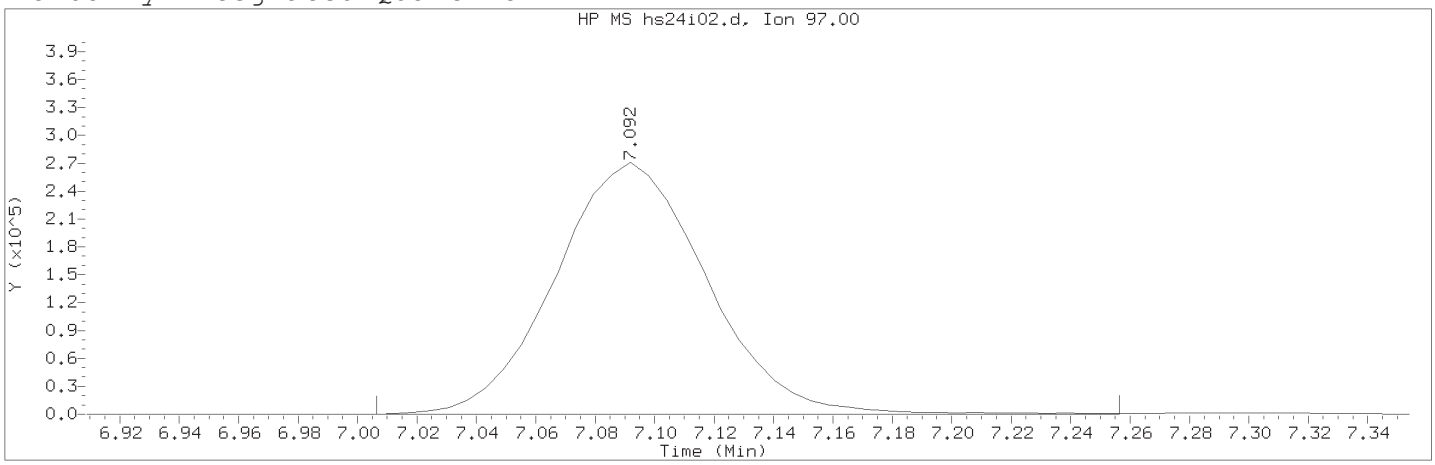
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 497
Retention Time (minutes): 4.617
Quant Ion : 59.00
Area : 508509
On-column Amount (ng) : 200.0000
Integration start scan : 474 Integration stop scan: 555
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

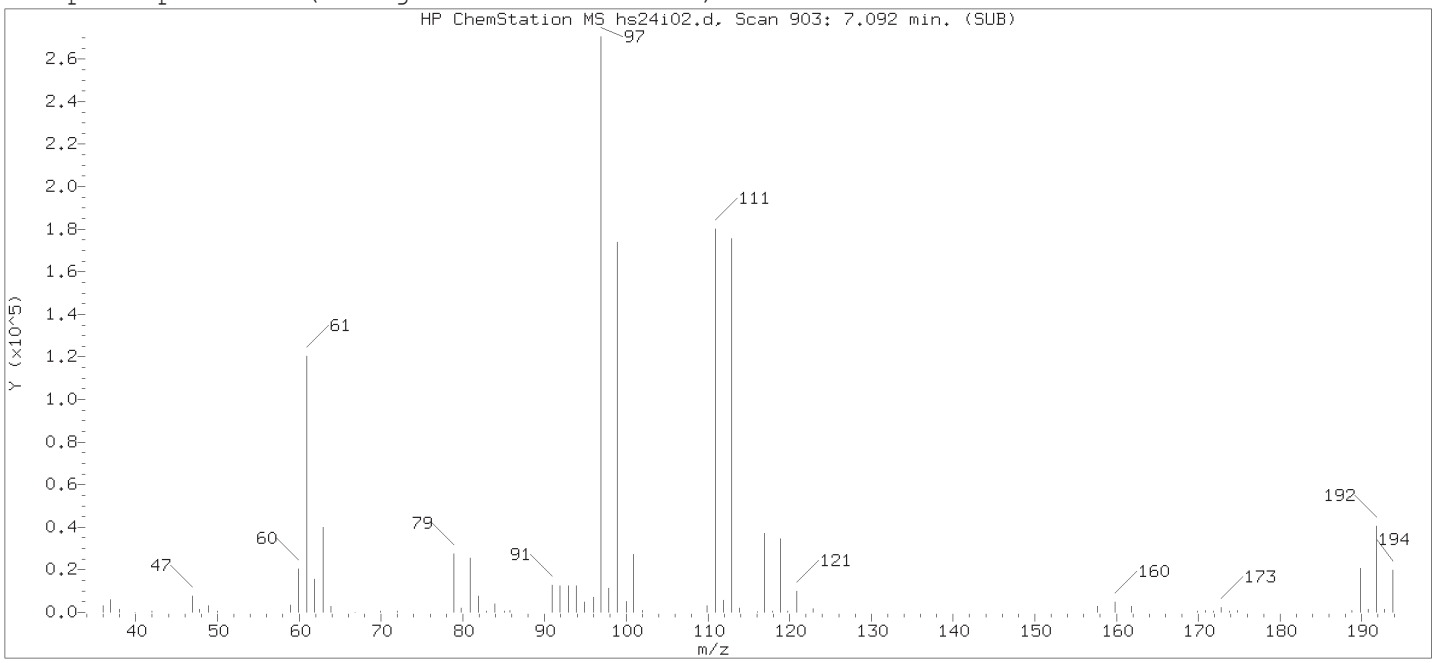
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 903
Retention Time (minutes): 7.092
Quant Ion : 97.00
Area (flag) : 954892M
On-Column Amount (ng) : 10.6514
Integration start scan : 888 Integration stop scan: 929
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

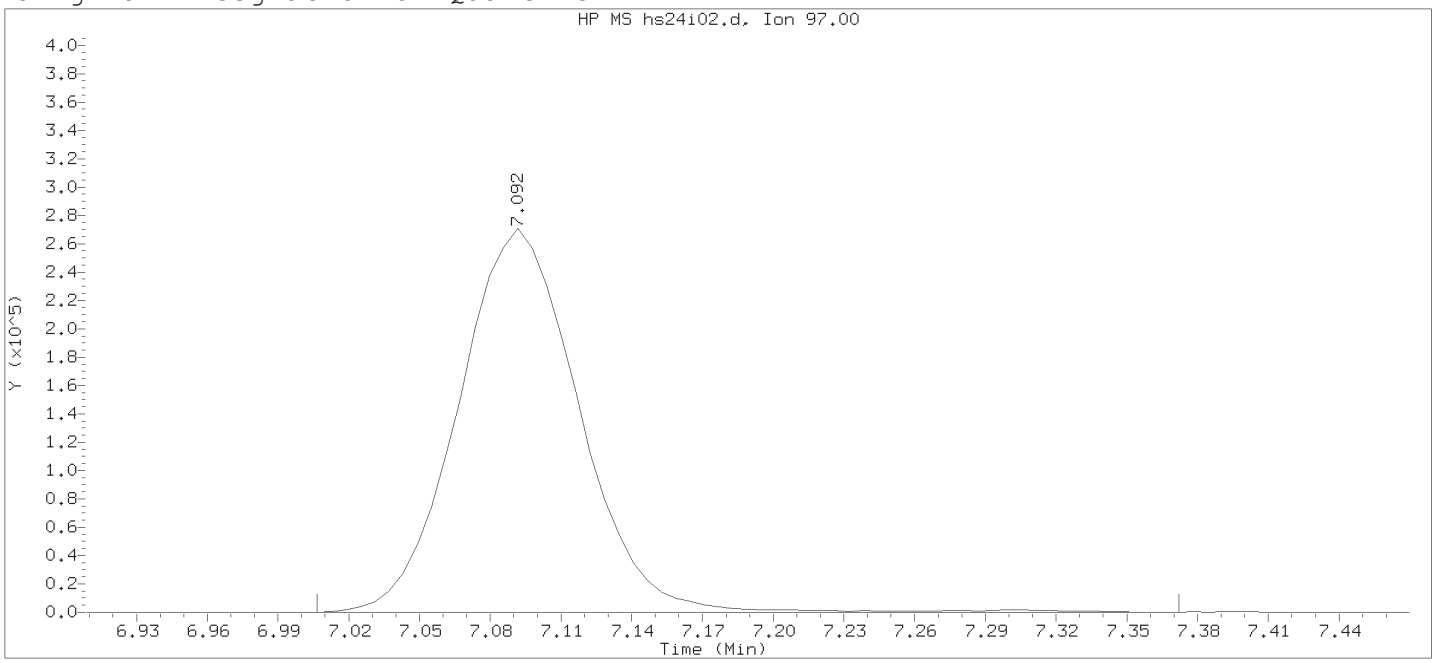
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

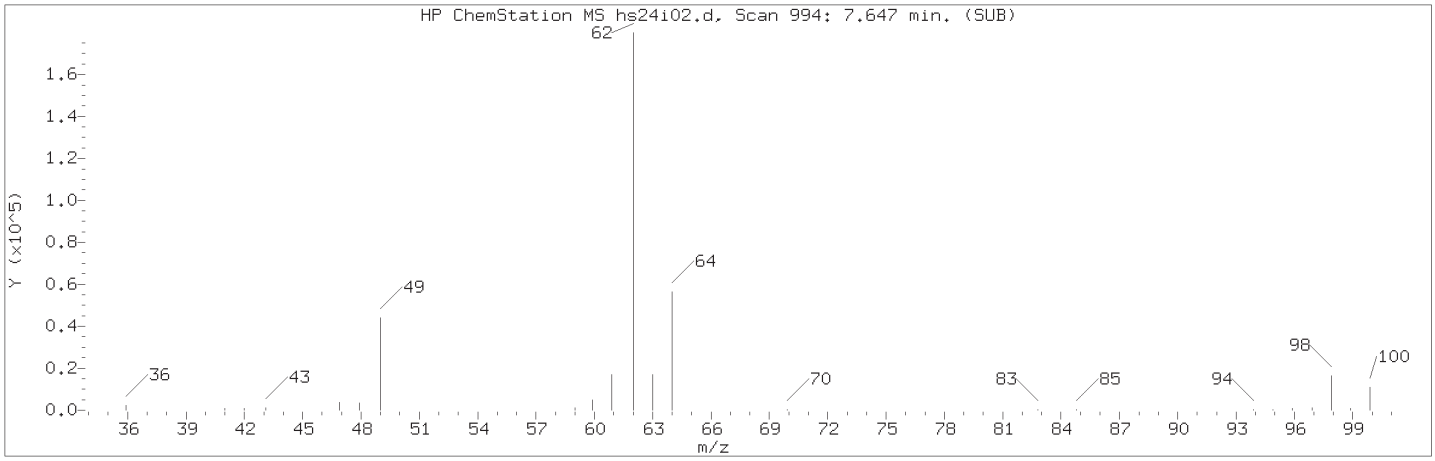
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

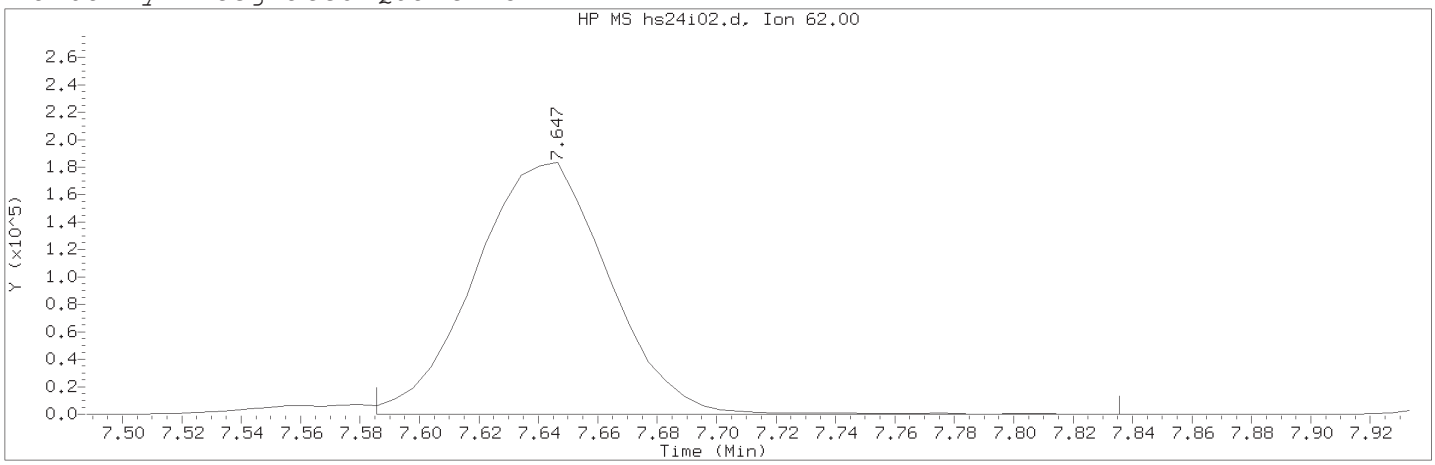
Compound Number : 51
Compound Name : 1,1,1-Trichloroethane
Scan Number : 903
Retention Time (minutes): 7.092
Quant Ion : 97.00
Area : 960539
On-column Amount (ng) : 10.0000
Integration start scan : 888 Integration stop scan: 948
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used 12 Jan 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

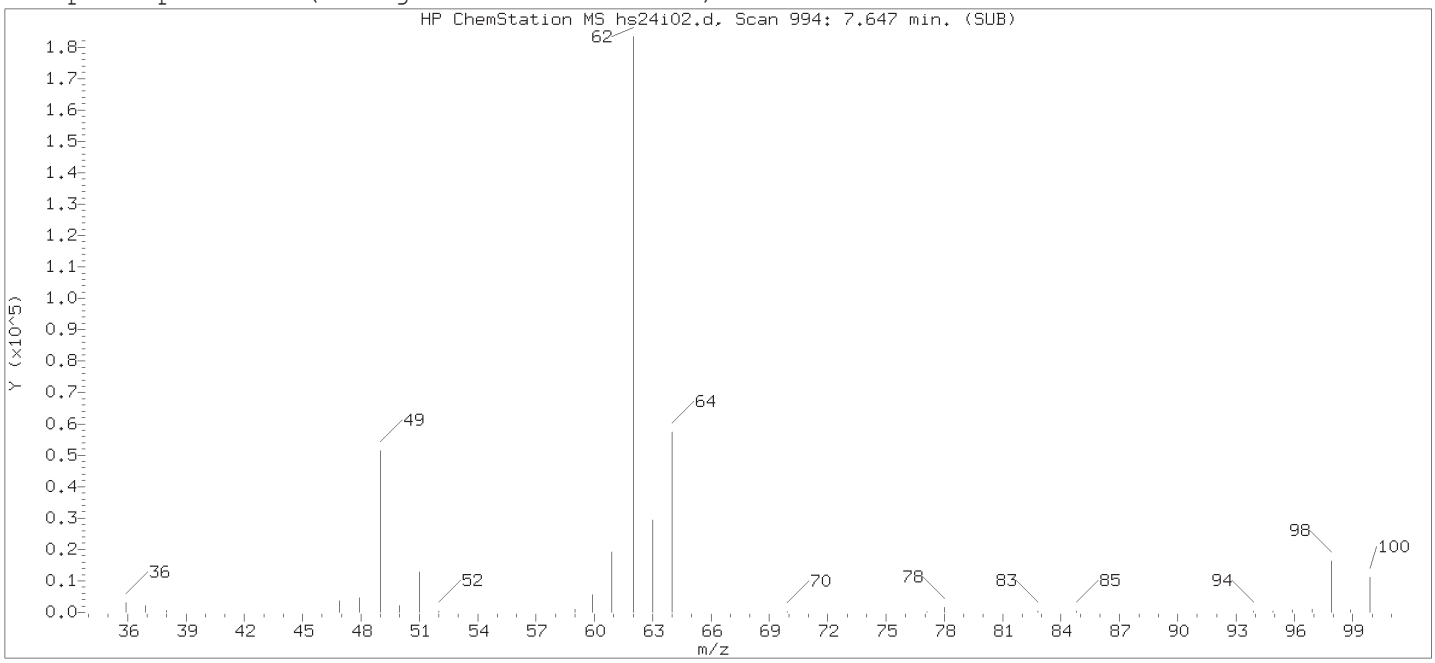
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 994
Retention Time (minutes): 7.647
Quant Ion : 62.00
Area (flag) : 573462M
On-Column Amount (ng) : 9.9220
Integration start scan : 983 Integration stop scan: 1024
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

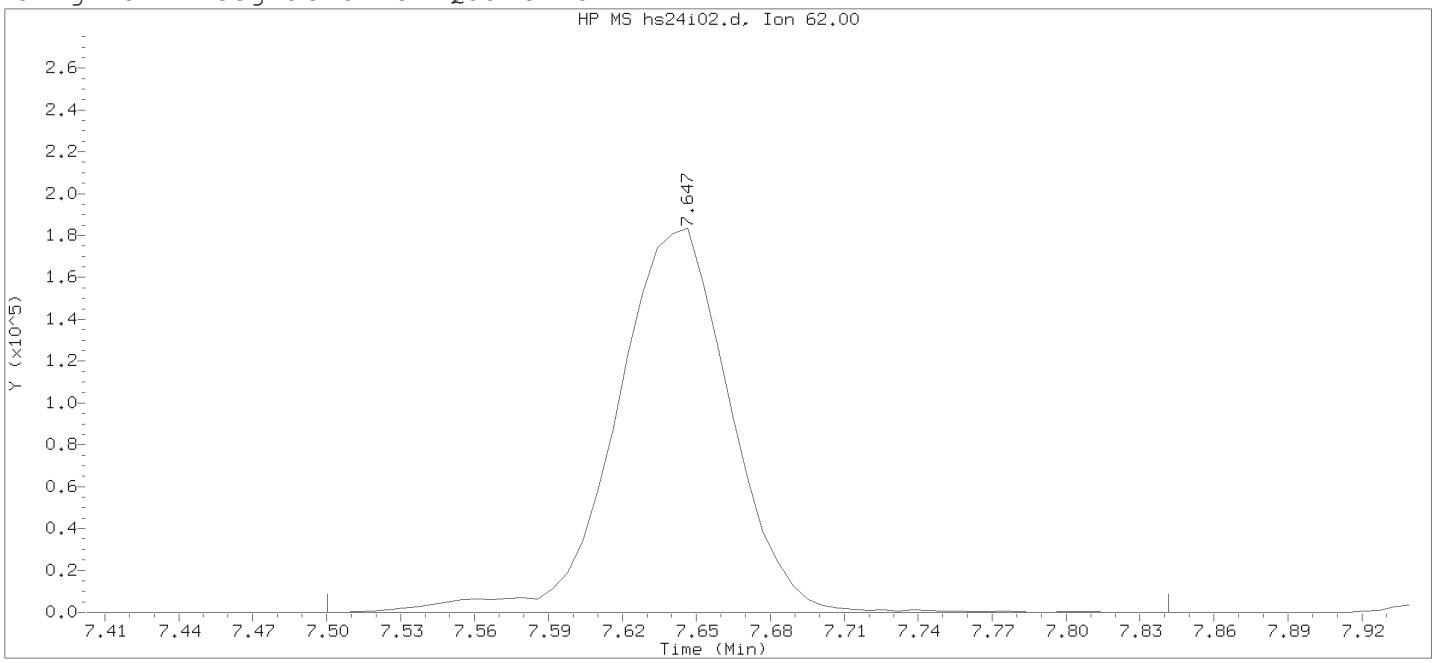
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

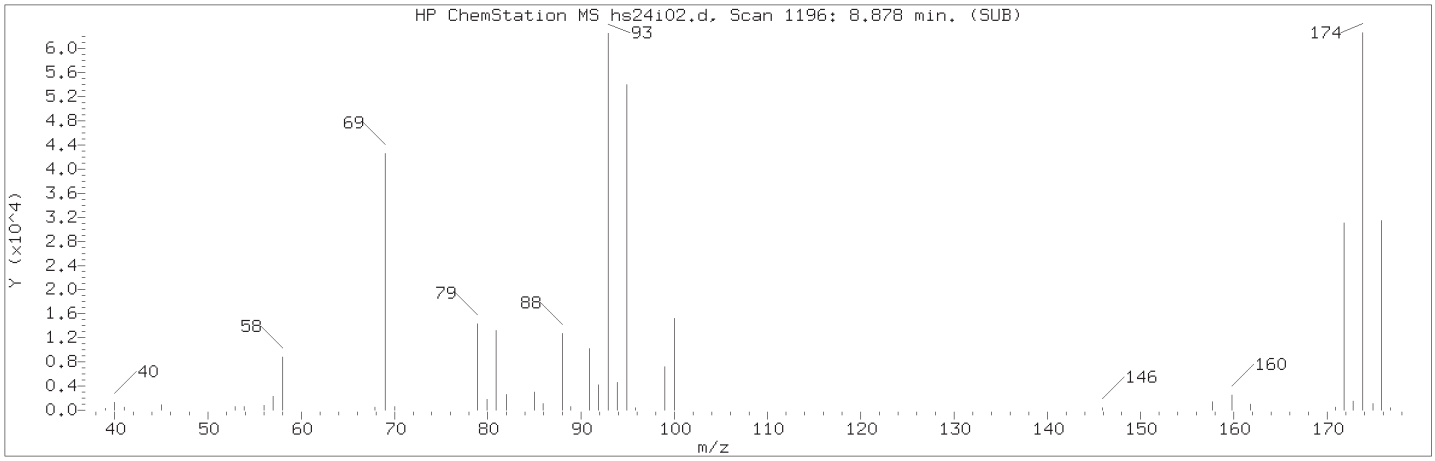
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

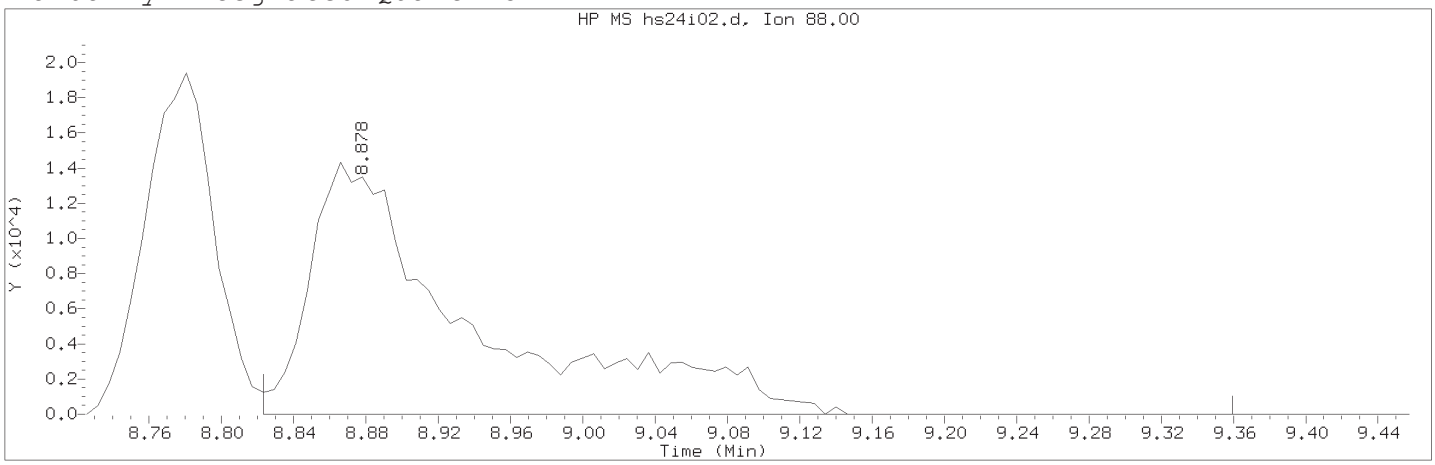
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 994
Retention Time (minutes): 7.647
Quant Ion : 62.00
Area : 590569
On-column Amount (ng) : 10.0000
Integration start scan : 969 Integration stop scan: 1025
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

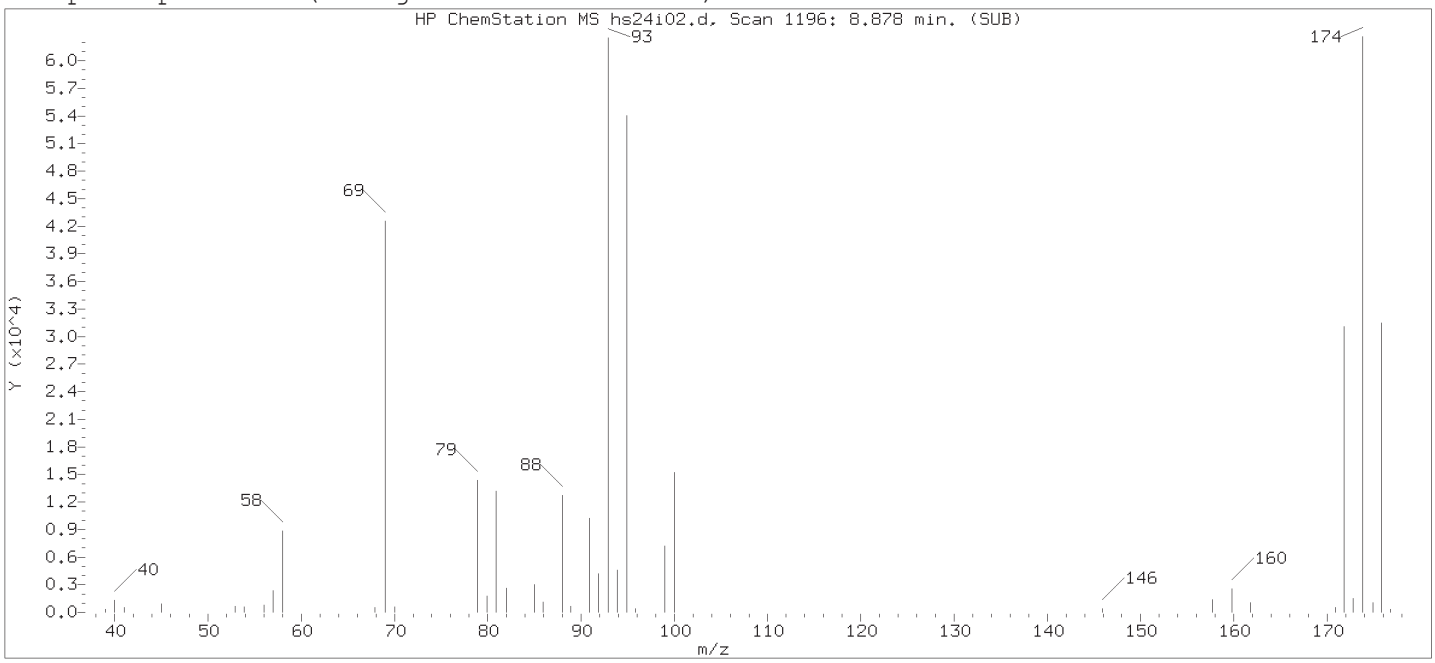
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1196
Retention Time (minutes): 8.878
Quant Ion : 88.00
Area (flag) : 87437M
On-Column Amount (ng) : 514.8766
Integration start scan : 1186 Integration stop scan: 1274
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

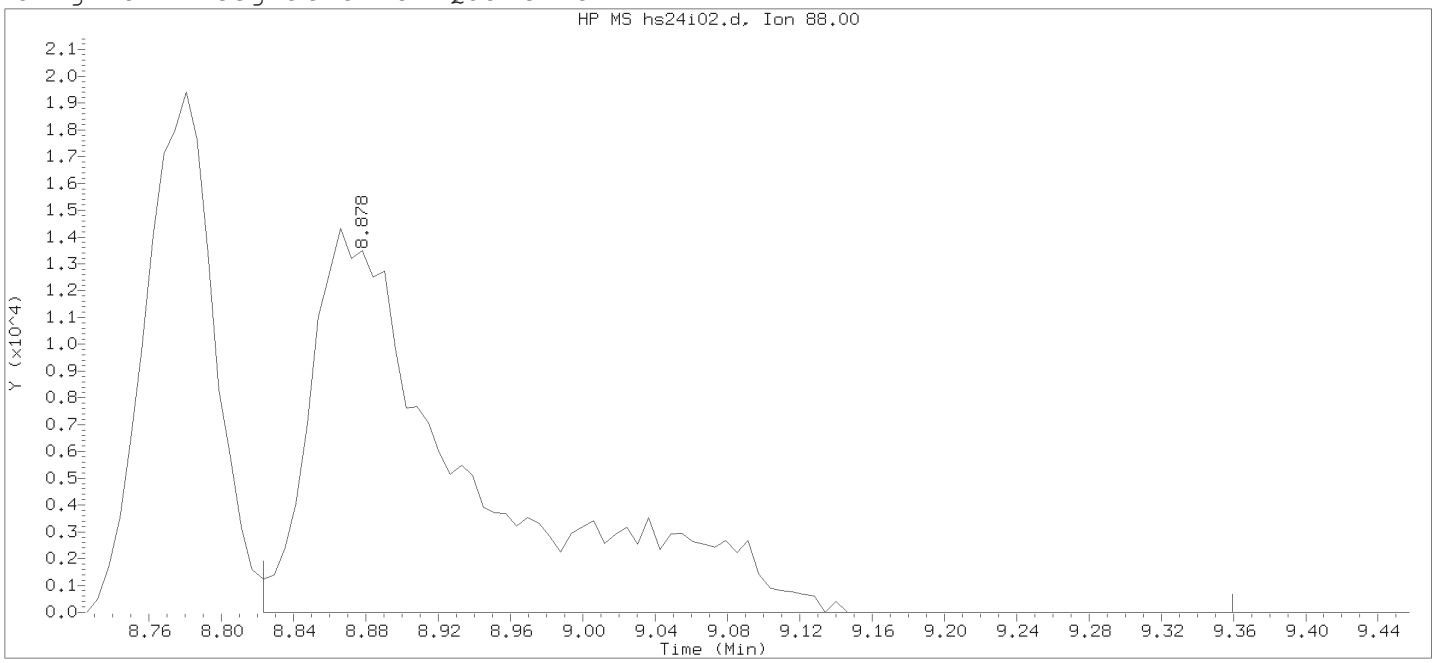
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

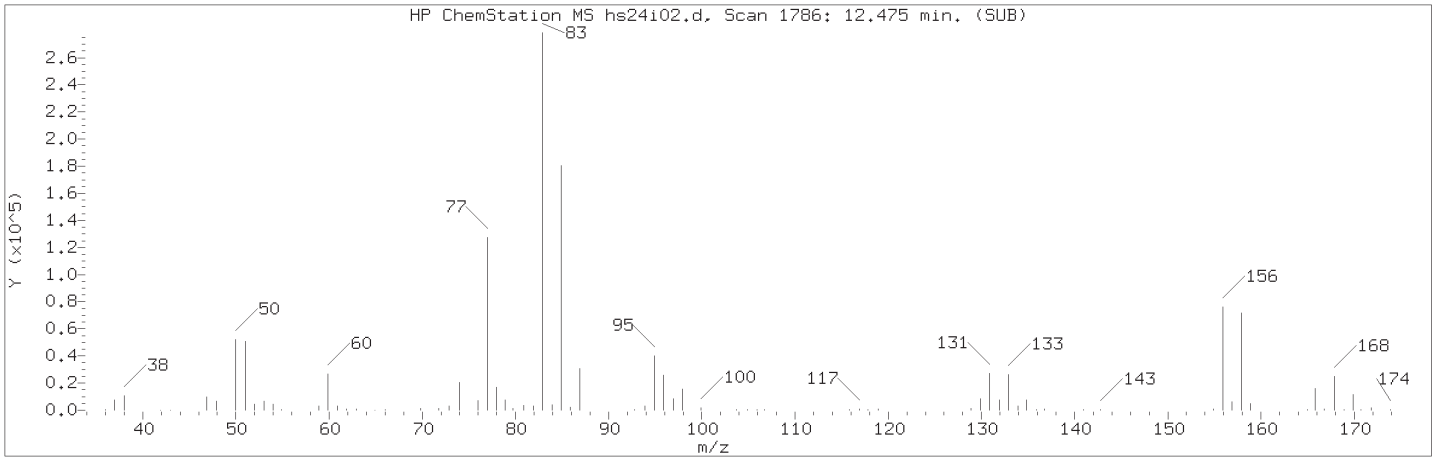
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

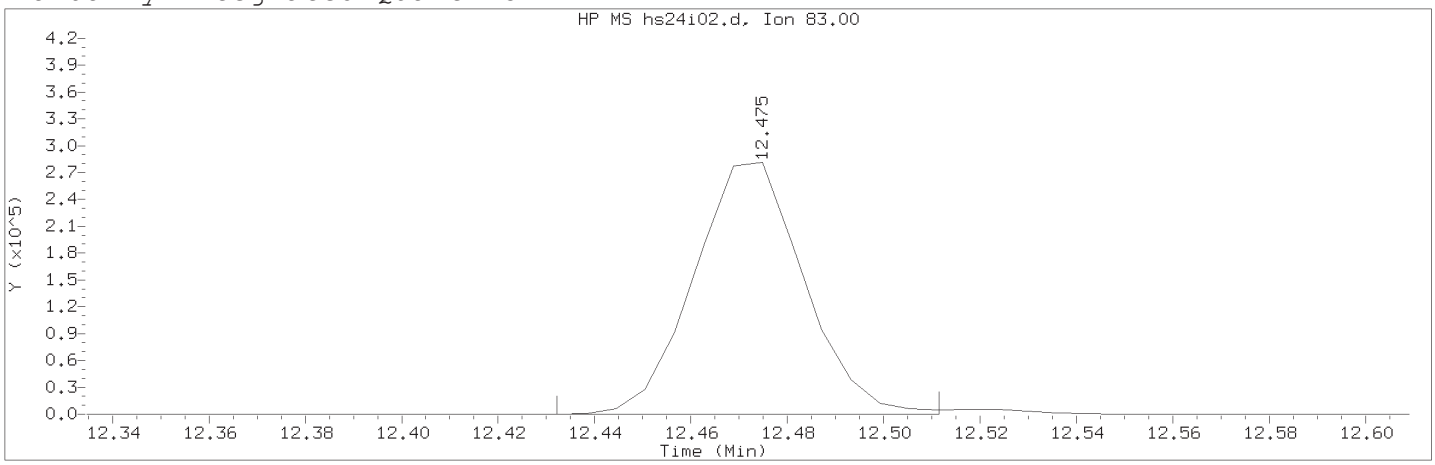
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1196
Retention Time (minutes): 8.878
Quant Ion : 88.00
Area : 87437
On-column Amount (ng) : 500.0000
Integration start scan : 1186 Integration stop scan: 1274
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

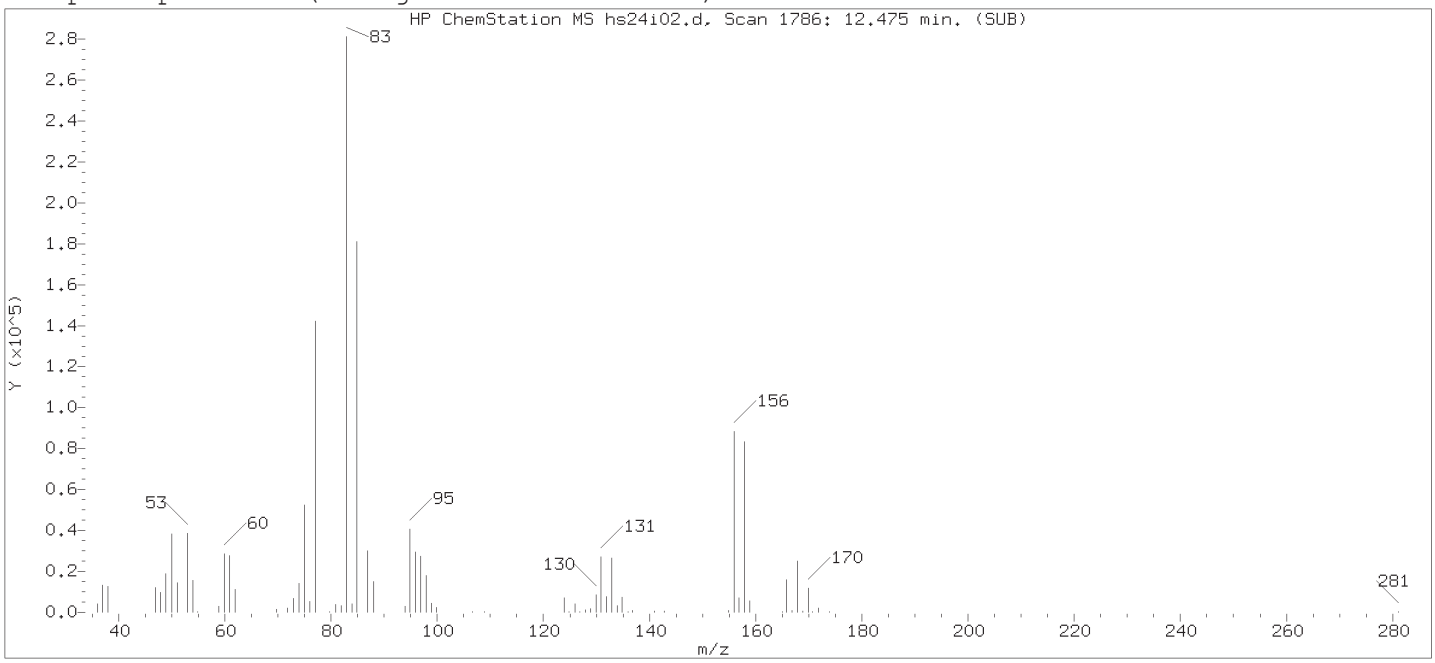
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 446396M
On-Column Amount (ng) : 10.4466
Integration start scan : 1778 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

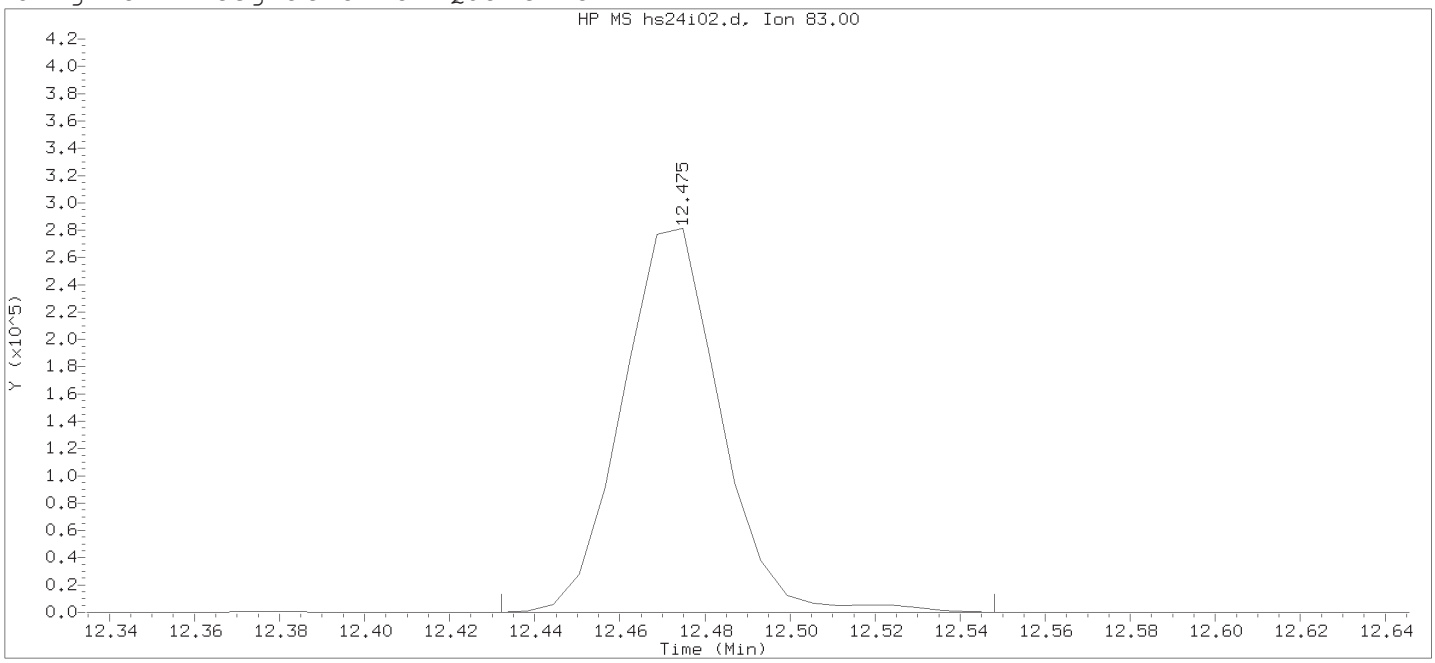
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

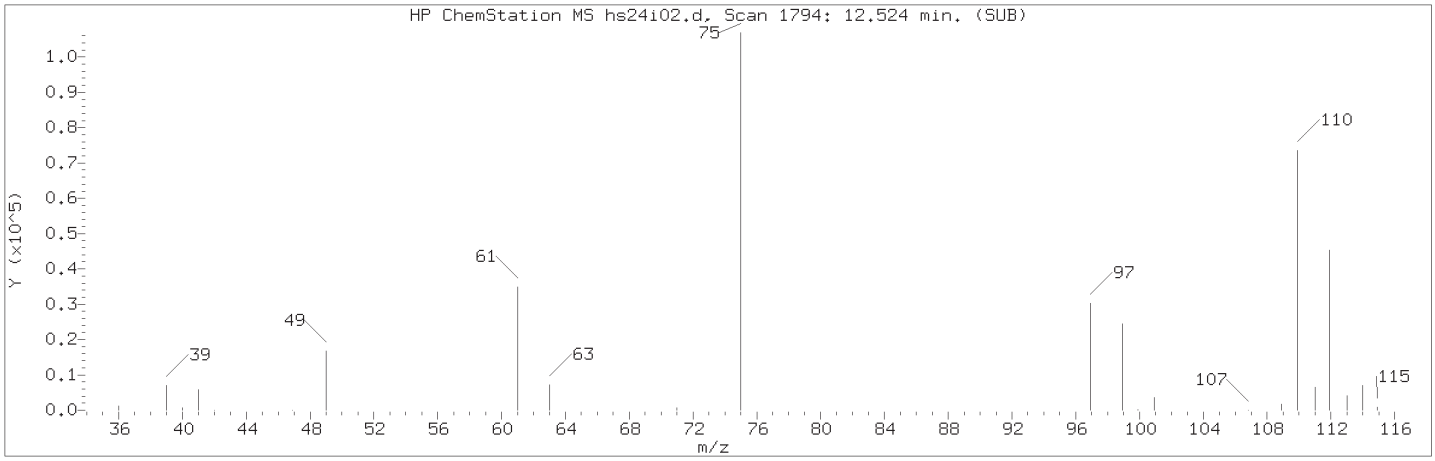
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

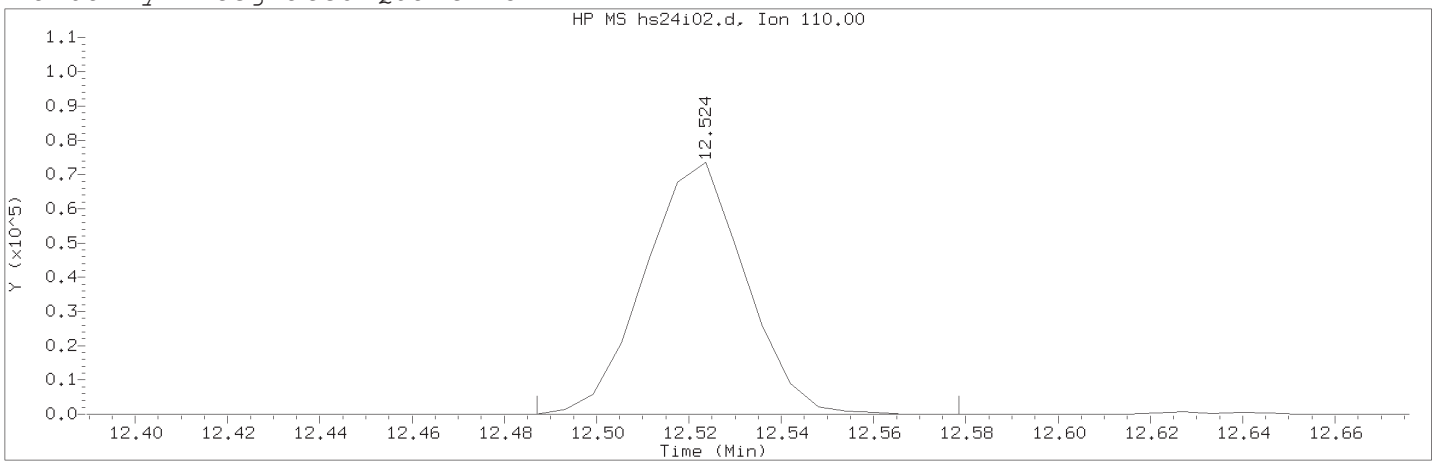
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 452299
On-column Amount (ng) : 10.0000
Integration start scan : 1778 Integration stop scan: 1797
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

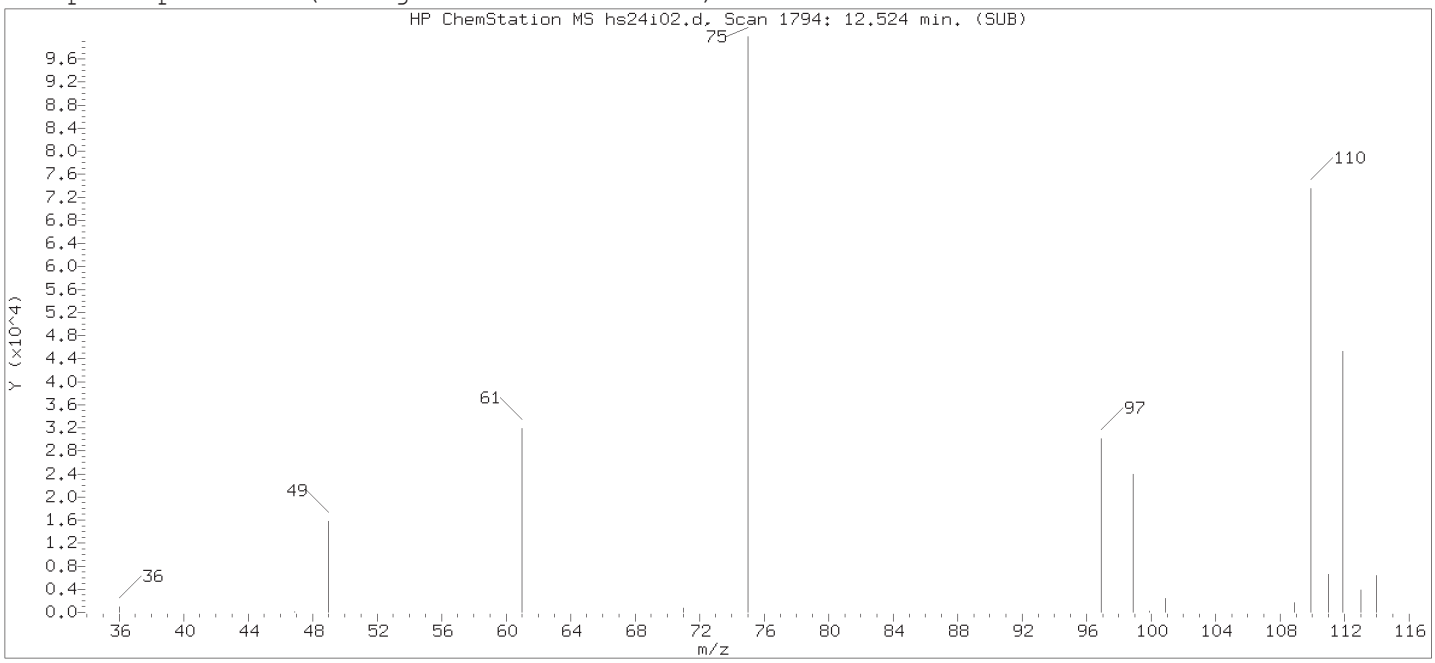
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area (flag) : 111265M
On-Column Amount (ng) : 10.0716
Integration start scan : 1787 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

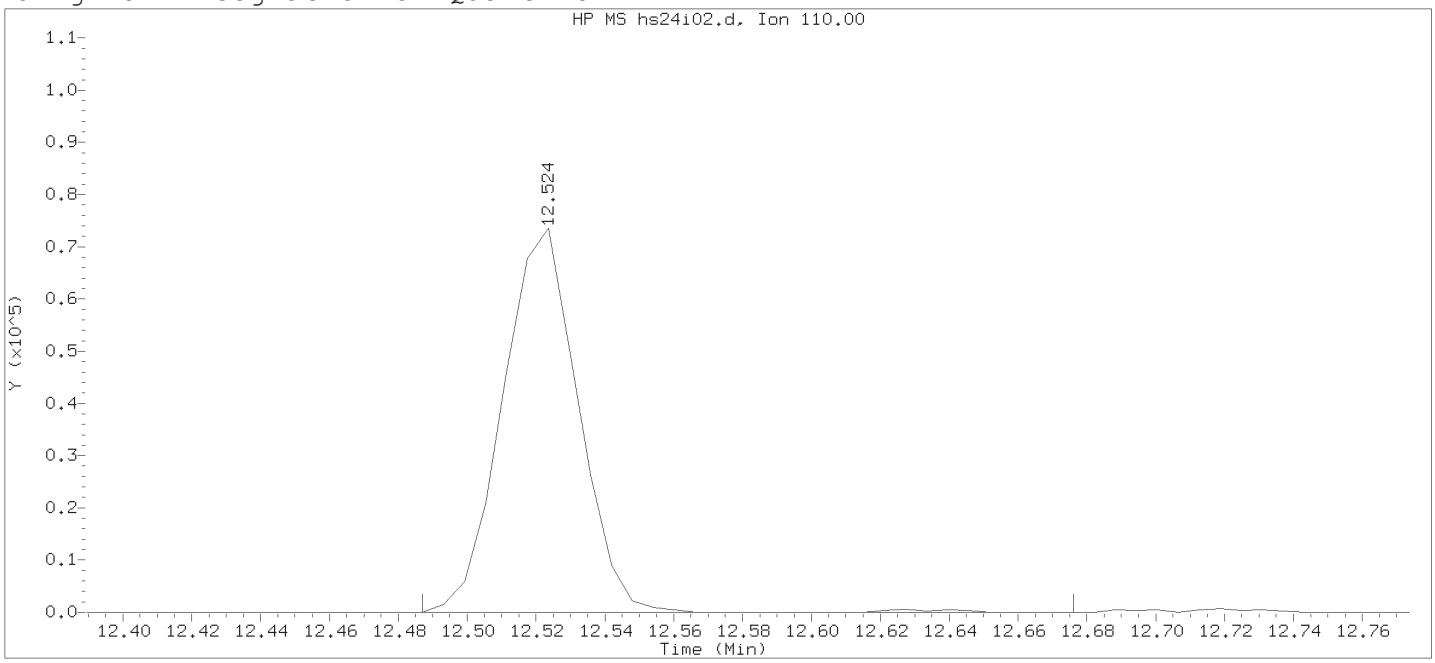
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:29.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



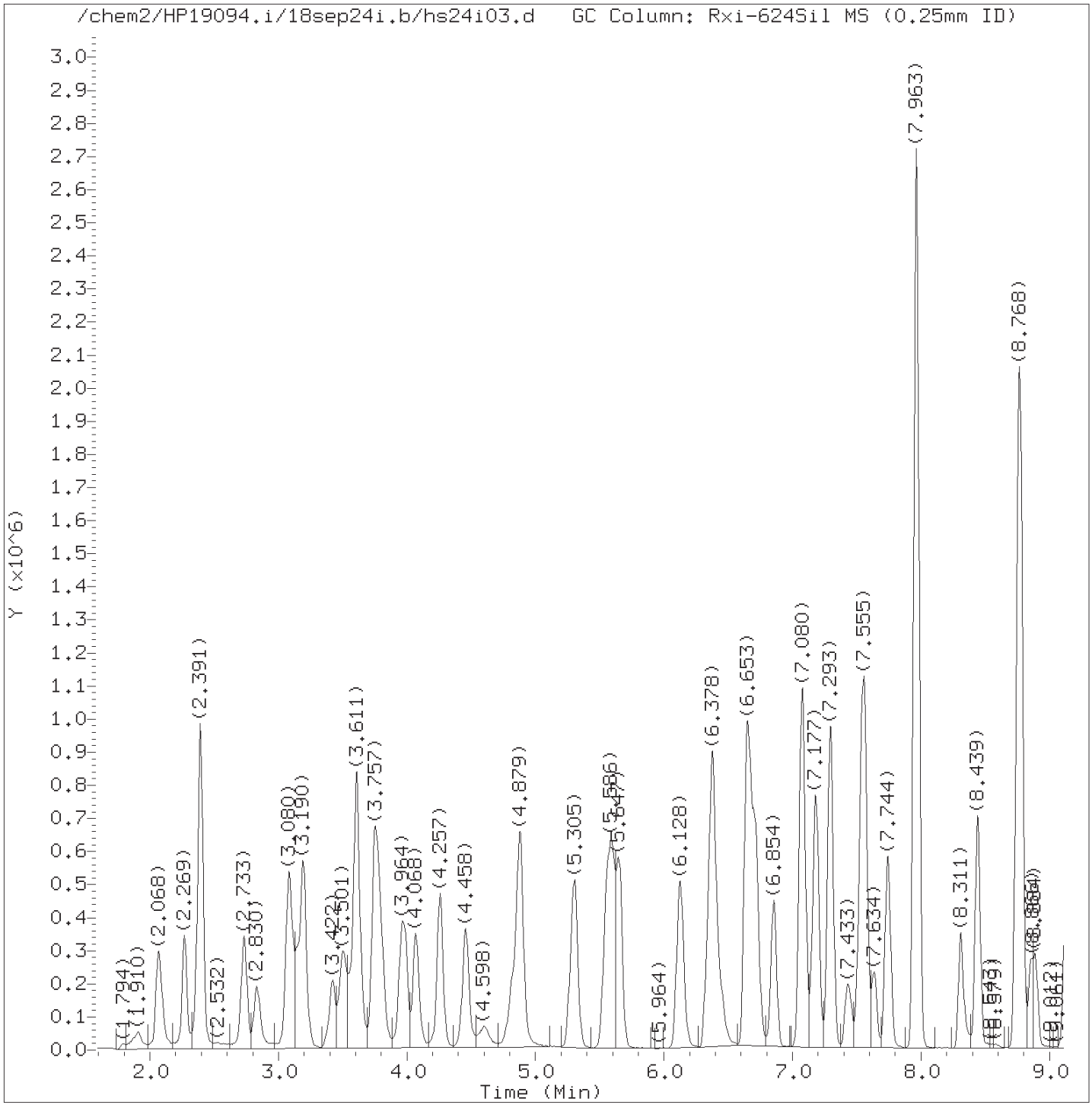
Data File: /chem2/HP19094.i/18sep24i.b/hs24i02.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 18:50 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:50
Date, time and analyst ID of latest file update: 25-Sep-2018 06:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area : 112033
On-column Amount (ng) : 10.0000
Integration start scan : 1787 Integration stop scan: 1818
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:29.
Target 3.5 esignature used 10/12/2018



Total Ion Chromatogram (TIC)

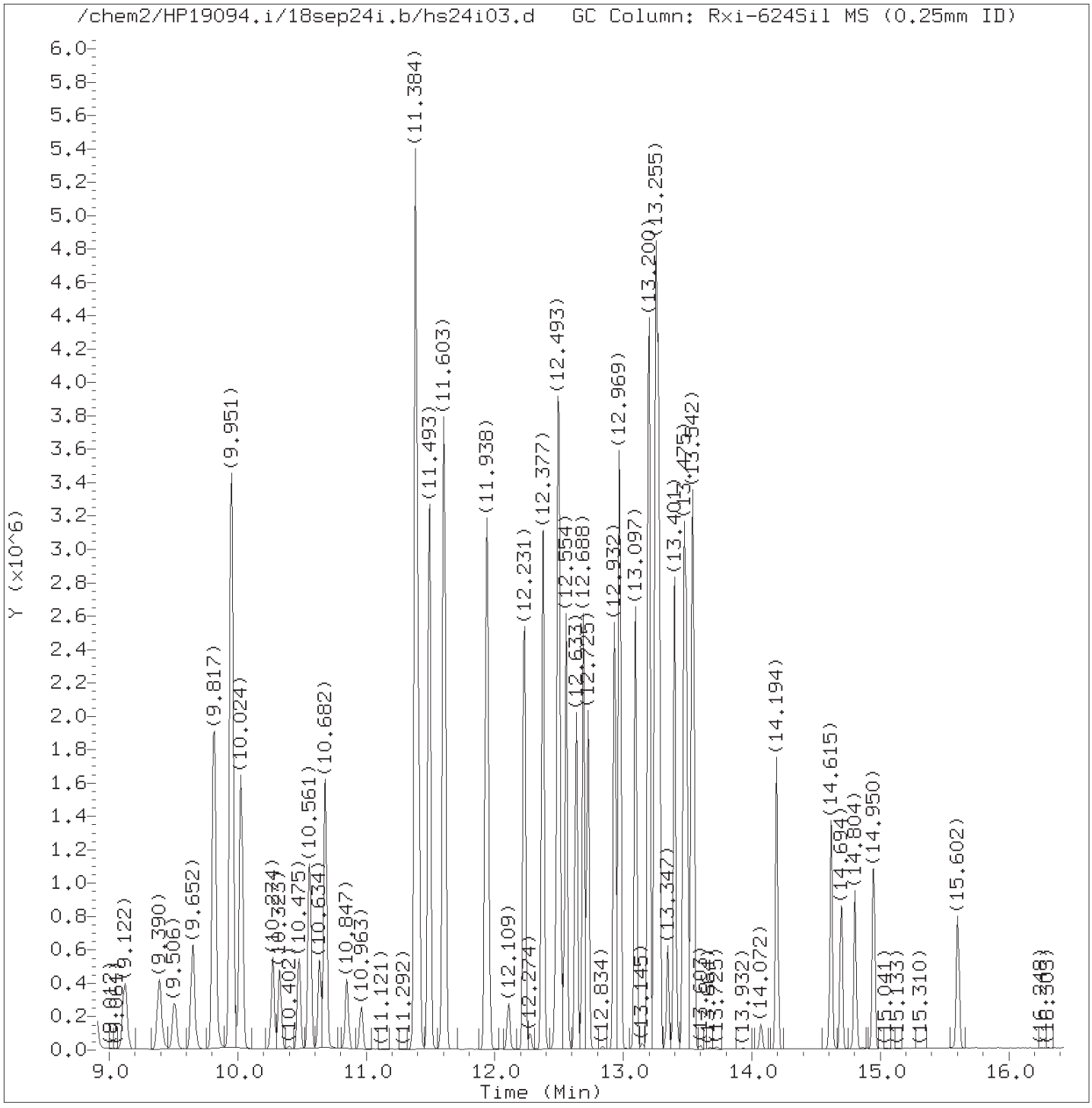
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	562282	5.241
2) Chloromethane	(2)	2.269	50	535240	5.095
5) Vinyl Chloride	(2)	2.391	62	501670	5.099
6) 1,3-Butadiene	(2)	2.391	39	552344M	4.956
7) Bromomethane	(2)	2.733	94	384528	5.027
8) Chloroethane	(2)	2.830	64	298270	4.998
9) Dichlorofluoromethane	(2)	3.080	67	732855	5.163
10) Trichlorofluoromethane	(2)	3.141	101	647481	5.209
11) Ethyl ether	(2)	3.422	59	212003	5.030
12) Freon 123a	(2)	3.507	67	413759	5.254
13) Acrolein	(1)	3.611	56	1489451	263.916
15) 1,1-Dichloroethene	(2)	3.745	96	285012	5.295
16) Freon 113	(2)	3.775	101	339708	5.355
14) Acetone	(1)	3.787	43	378399M	49.919
17) Methyl Iodide	(2)	3.958	142	580104	5.171
18) Carbon Disulfide	(2)	4.068	76	875498	5.112
21) Methyl Acetate	(1)	4.239	43	107057	5.031
22) Allyl Chloride	(2)	4.257	41	525571	5.137
23) Methylene Chloride	(2)	4.452	84	294254	4.846
26)*t-Butyl Alcohol-d10	(1)	4.482	65	127180M	50.000
28) t-Butyl Alcohol	(1)	4.598	59	218266	100.544
29) Acrylonitrile	(1)	4.812	53	260426	26.603
30) Methyl Tertiary Butyl Ether	(2)	4.860	73	578958	5.230
31) trans-1,2-Dichloroethene	(2)	4.885	96	312820	5.150
32) n-Hexane	(2)	5.305	57	526068	5.446
33) 1,1-Dichloroethane	(2)	5.543	63	603578	5.219
34) di-Isopropyl Ether	(2)	5.592	45	1044288	5.084
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	558039	5.362
40) 1,2-Dichloroethene (Total)	(2)		96	662378	10.358
37) Ethyl t-butyl ether	(2)	6.128	59	843514	5.178
38) 2-Butanone	(1)	6.342	43	671705	54.133
39) cis-1,2-Dichloroethene	(2)	6.372	96	349558	5.208
41) 2,2-Dichloropropane	(2)	6.391	77	439160	5.316
42) Propionitrile	(1)	6.445	54	368280	109.345
45) Methacrylonitrile	(1)	6.653	67	661065	54.434
47) Bromochloromethane	(2)	6.708	128	145716	5.139
48) Tetrahydrofuran	(1)	6.714	71	177366	53.767
49) Chloroform	(2)	6.854	83	551731	5.131

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	693943	10.030
50)$Dibromofluoromethane	(2)	7.067	111	707652	9.937
51) 1,1,1-Trichloroethane	(2)	7.086	97	487870	5.304
52) Cyclohexane	(2)	7.183	56	645692	5.378
52) Cyclohexane	(2)	7.183	84	534268	5.397
52) Cyclohexane	(2)	7.177	69	190372	5.380
54) Carbon Tetrachloride	(2)	7.293	117	416126	5.268
55) 1,1-Dichloropropene	(2)	7.299	75	459178	5.265
56) Isobutyl Alcohol	(1)	7.427	41	212923	253.500
57)$1,2-Dichloroethane-d4	(2)	7.537	102	119553M	9.912
57)$1,2-Dichloroethane-d4	(2)	7.531	65	572526	9.814
57)$1,2-Dichloroethane-d4	(2)	7.531	104	76935	9.960
58) Benzene	(2)	7.561	78	1327137	5.151
59) 1,2-Dichloroethane	(2)	7.634	62	288210	4.861
60) t-Amyl methyl ether	(2)	7.744	73	696807	5.159
62) n-Heptane	(2)	7.963	43	544674	5.469
63)*Fluorobenzene	(2)	7.963	96	2745022	10.000
65) n-Butanol	(1)	8.305	56	371428M	523.420
67) Trichloroethene	(2)	8.445	95	342245	5.188
69) Methylcyclohexane	(2)	8.750	83	652245	5.235
70) 1,2-Dichloropropane	(2)	8.780	63	324215	5.186
71) Methyl Methacrylate	(1)	8.854	69	124559	5.541
72) 1,4-Dioxane	(1)	8.872	88	45616M	266.986
73) Dibromomethane	(2)	8.890	93	132300	5.099
74) Bromodichloromethane	(2)	9.122	83	364823	5.191
76) 2-Nitropropane	(1)	9.390	41	351207	55.156
80) cis-1,3-Dichloropropene	(2)	9.646	75	430070	5.256
81) 4-Methyl-2-Pentanone	(1)	9.817	43	1690753	54.779
82)$Toluene-d8	(3)	9.951	98	2759111	10.005
82)$Toluene-d8	(3)	9.951	100	1778973	9.995
83) Toluene	(3)	10.024	92	810475	5.097
85) 1,3-Dichloropropene (total)	(3)		75	750377	10.484
84) trans-1,3-Dichloropropene	(3)	10.274	75	320307	5.228
86) Ethyl Methacrylate	(3)	10.323	69	271825	5.179
88) 1,1,2-Trichloroethane	(3)	10.475	97	183350	5.011
89) Tetrachloroethene	(3)	10.561	166	370654	5.159
90) 1,3-Dichloropropane	(3)	10.640	76	332490	5.127
91) 2-Hexanone	(1)	10.682	43	1145783	54.536

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	226639	5.168
95) 1,2-Dibromoethane	(3)	10.963	107	175991	5.132
96) 1-Chlorohexane	(3)	11.384	91	479490	5.056
97)*Chlorobenzene-d5	(3)	11.384	117	2142668	10.000
98) Chlorobenzene	(3)	11.408	112	858660	5.090
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	291506	5.236
100) Ethylbenzene	(3)	11.493	91	1605334	5.166
101) m+p-Xylene	(3)	11.603	106	1200436	10.414
105) Xylene (Total)	(3)		106	1775566	15.633
104) o-Xylene	(3)	11.932	106	575130	5.219
106) Styrene	(3)	11.944	104	938150	5.321
107) Bromoform	(3)	12.109	173	125482	5.207
108) Isopropylbenzene	(3)	12.231	105	1586197	5.273
111)$4-Bromofluorobenzene	(3)	12.371	95	995484	9.915
111)$4-Bromofluorobenzene	(3)	12.377	174	860774	9.873
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	224515M	5.196
114) Bromobenzene	(4)	12.493	156	342709	5.218
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	534181	55.258
116) 1,2,3-Trichloropropane	(4)	12.524	110	56735M	5.079
117) n-Propylbenzene	(4)	12.554	91	1883753	5.275
119) 2-Chlorotoluene	(4)	12.633	126	361184	5.214
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	1294691	5.351
122) 4-Chlorotoluene	(4)	12.725	126	365201	5.261
125) tert-Butylbenzene	(4)	12.932	134	275287	5.232
126) Pentachloroethane	(4)	12.969	167	220484	5.369
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	1314436	5.324
128) sec-Butylbenzene	(4)	13.097	105	1675573	5.345
131) 1,3-Dichlorobenzene	(4)	13.194	146	679711	5.208
132) p-Isopropyltoluene	(4)	13.200	119	1399618	5.390
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1089195	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	661942	5.167
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	569393	5.027
136) Benzyl Chloride	(4)	13.347	126	81818	5.238
138) n-Butylbenzene	(4)	13.493	92	687040	5.330
139) 1,2-Dichlorobenzene	(4)	13.529	146	594602	5.164
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	29297	5.600
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	502164	5.172
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	407904	5.158

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	154730	5.177
147) Naphthalene	(4)	14.804	128	665320	5.317
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	336232	5.171

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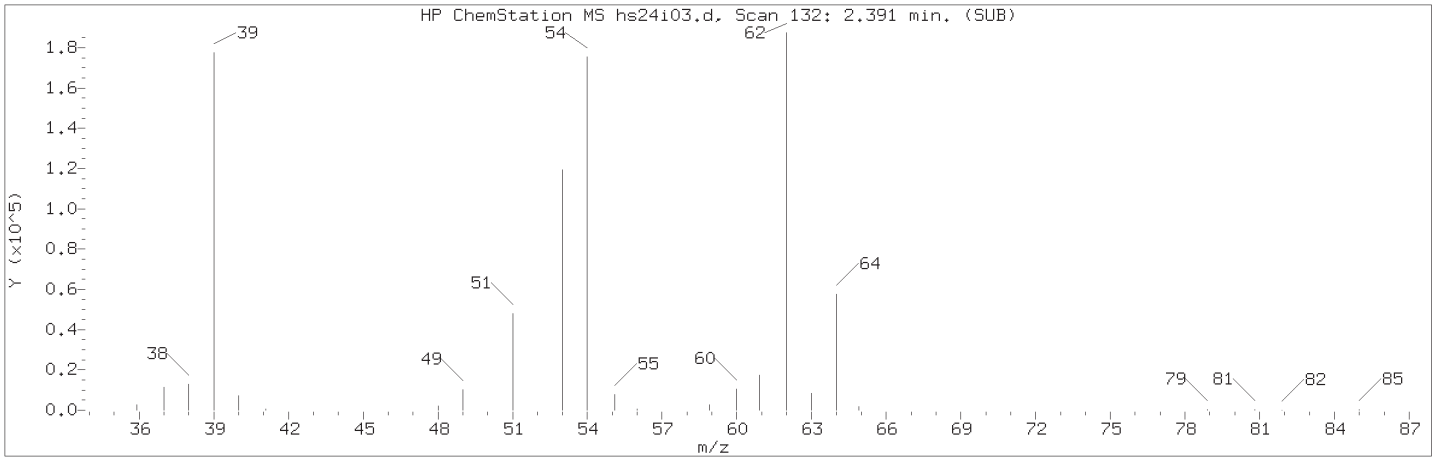
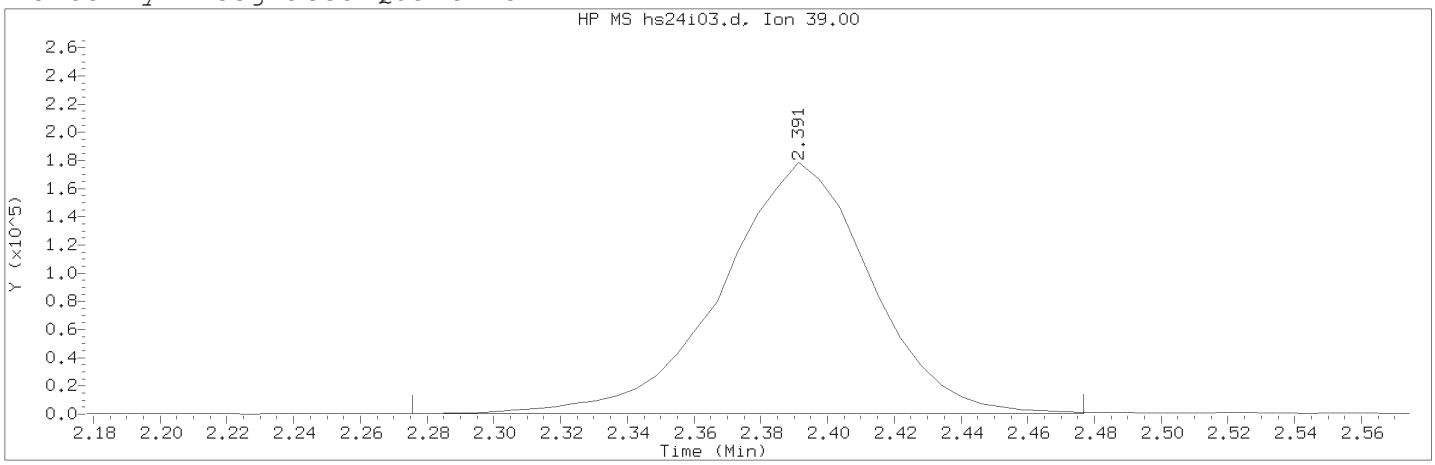
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

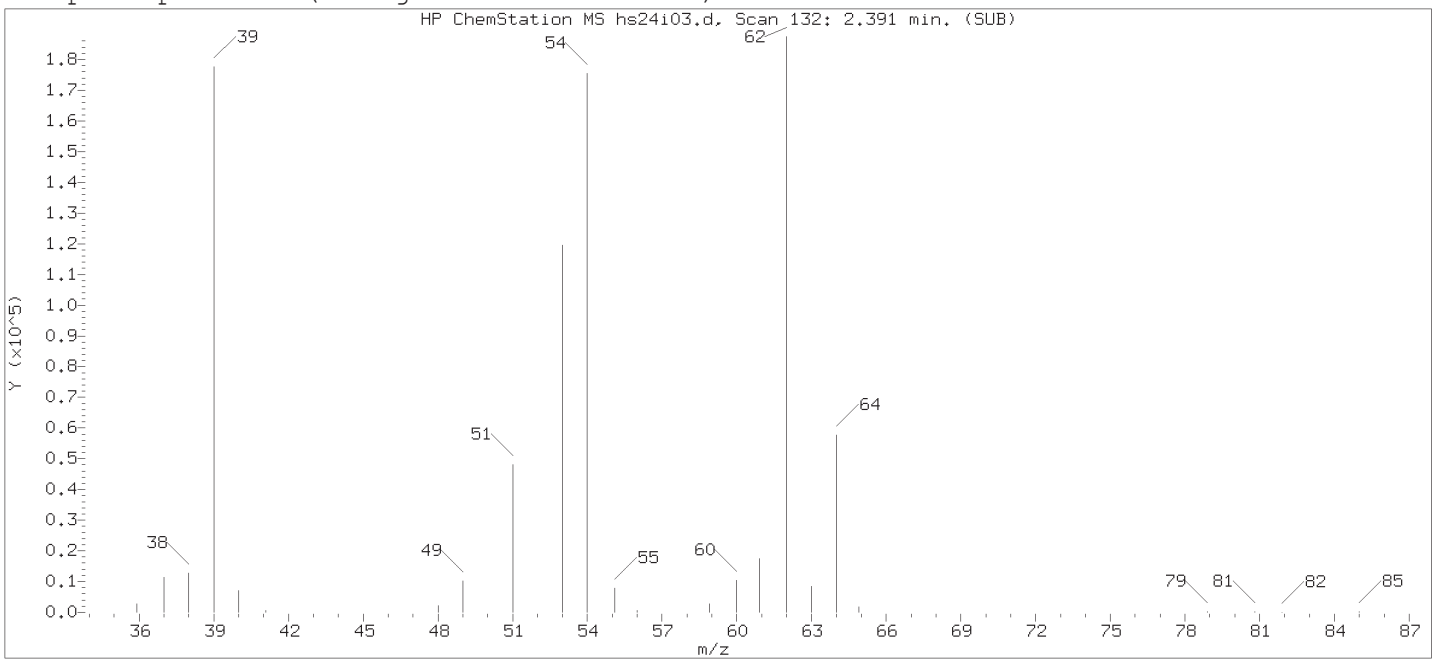
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area (flag) : 552344M
On-Column Amount (ng) : 4.9561
Integration start scan : 112 Integration stop scan: 145
Y at integration start : 458 Y at integration end: 458

Reason for manual integration: improper integration

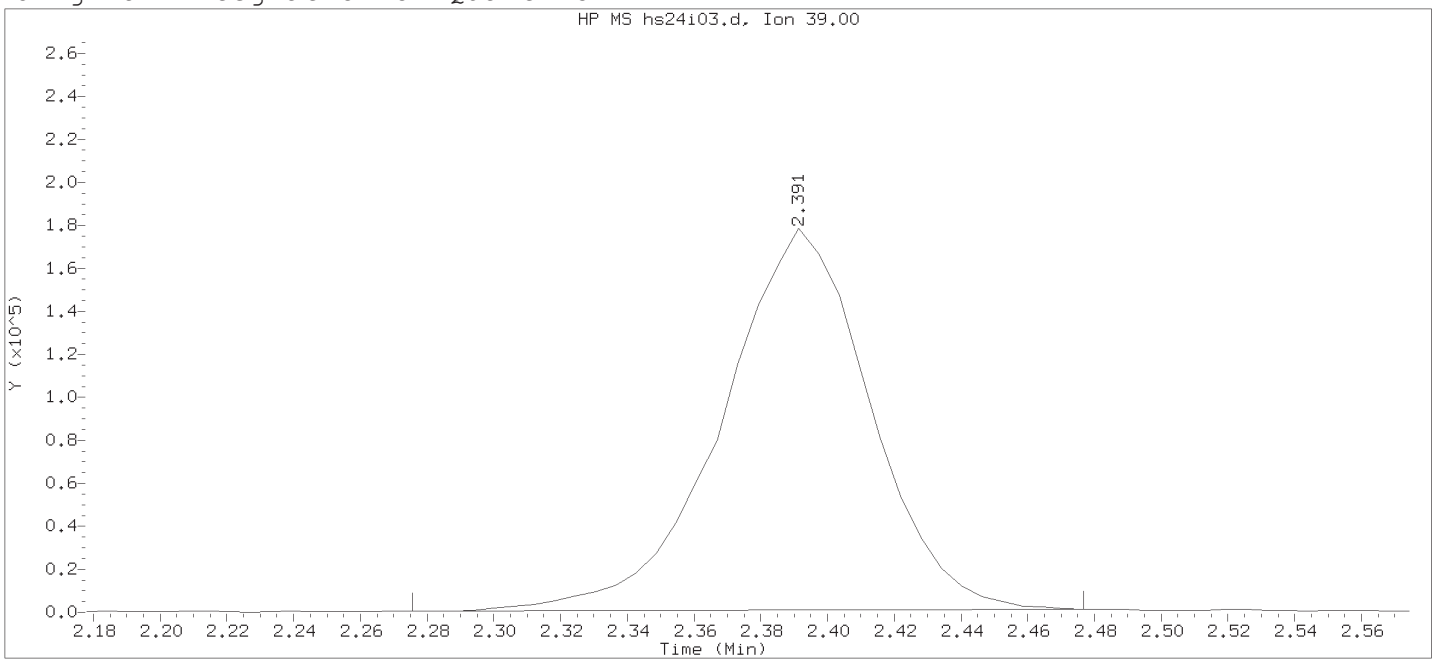
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

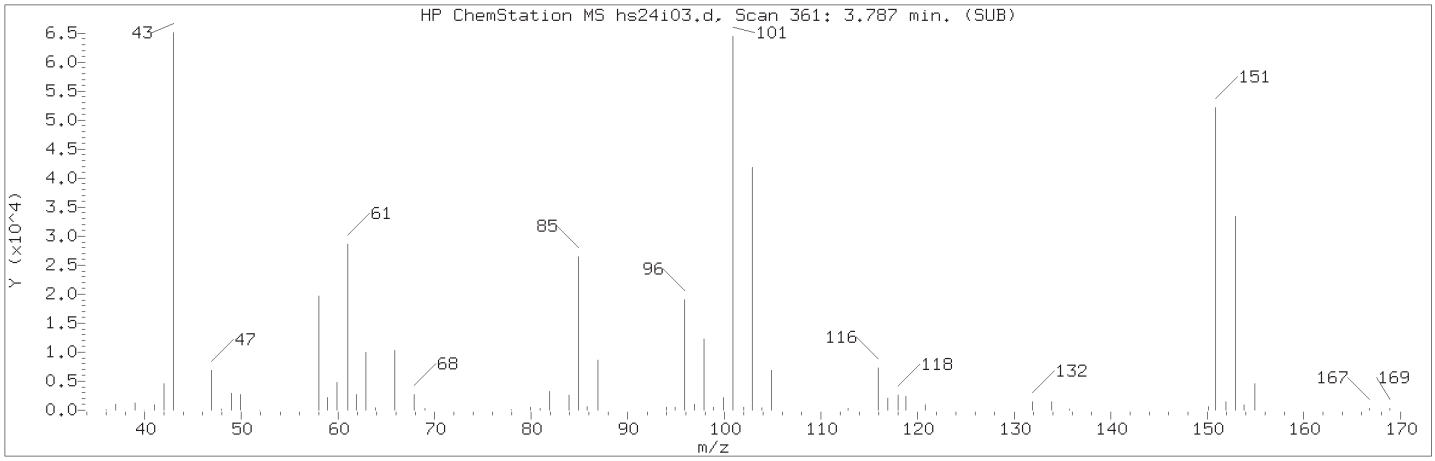
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

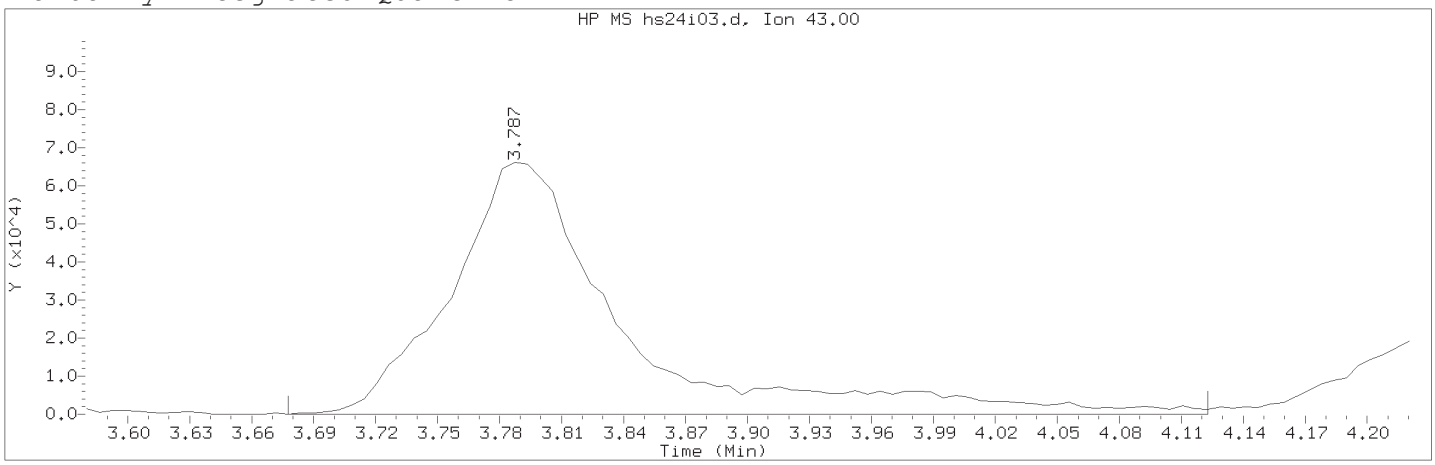
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area : 547218
On-column Amount (ng) : 4.9849
Integration start scan : 112 Integration stop scan: 145
Y at integration start : 437 Y at integration end: 1303

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

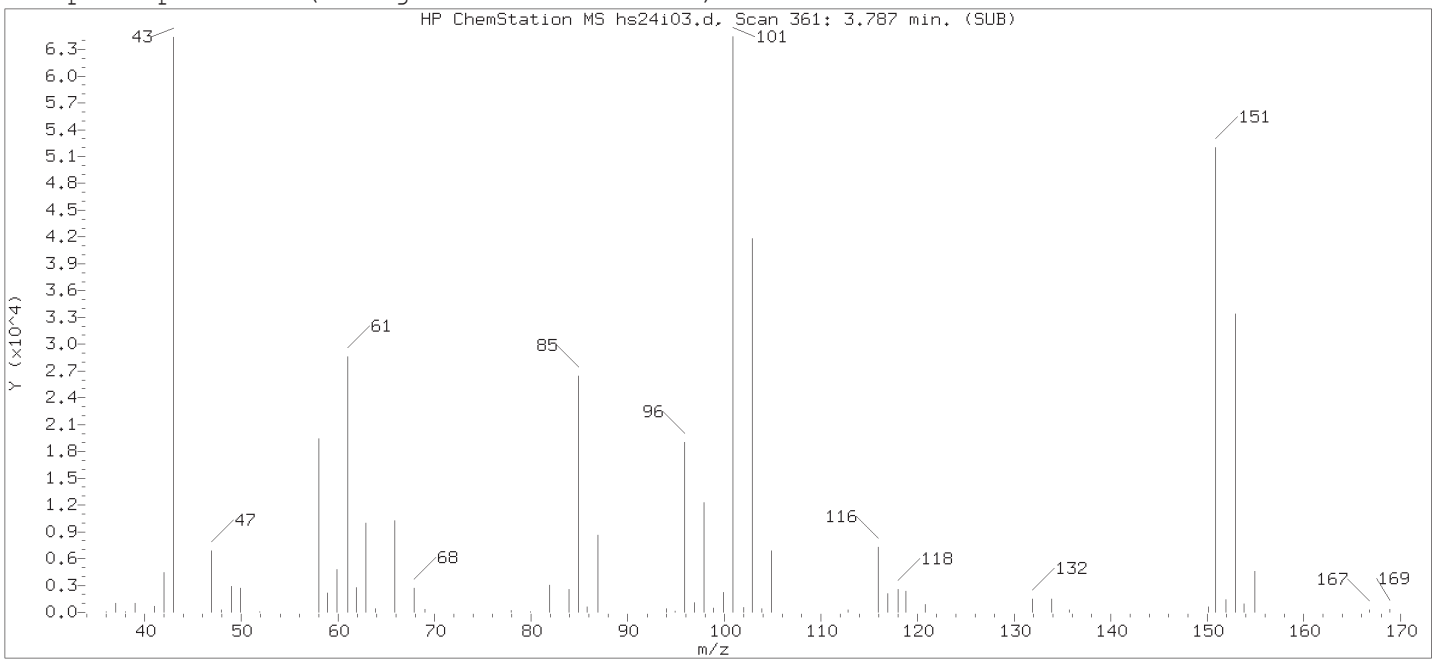
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area (flag) : 378399M
On-Column Amount (ng) : 49.9188
Integration start scan : 342 Integration stop scan: 415
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

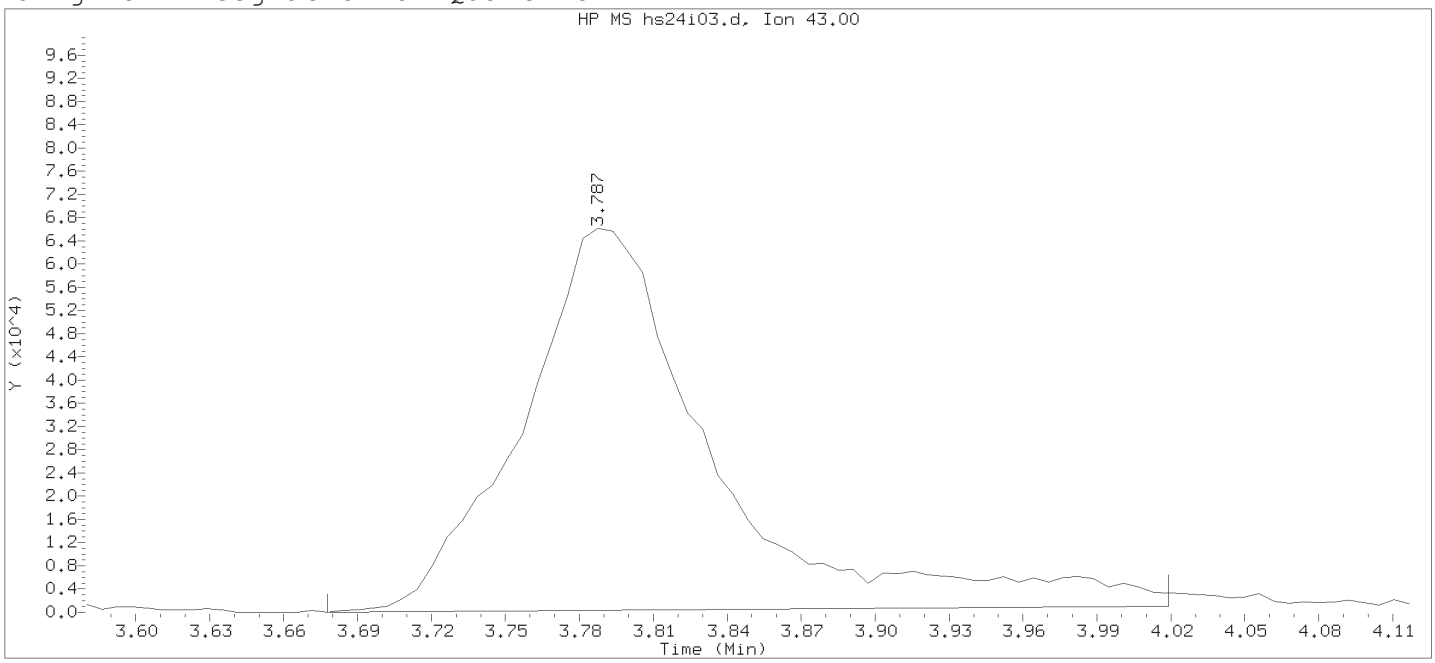
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

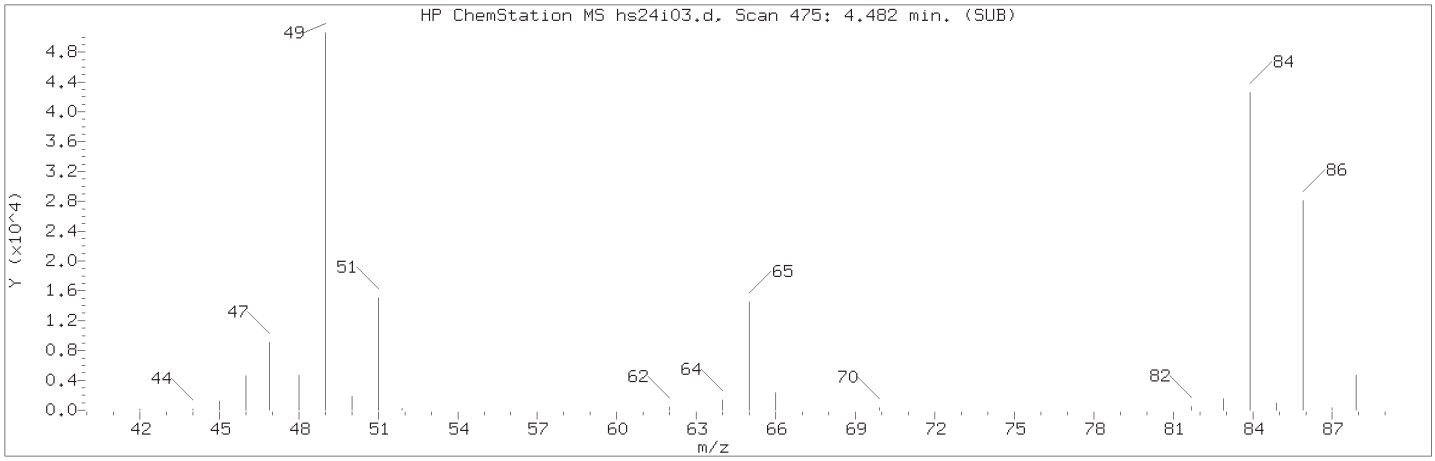
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

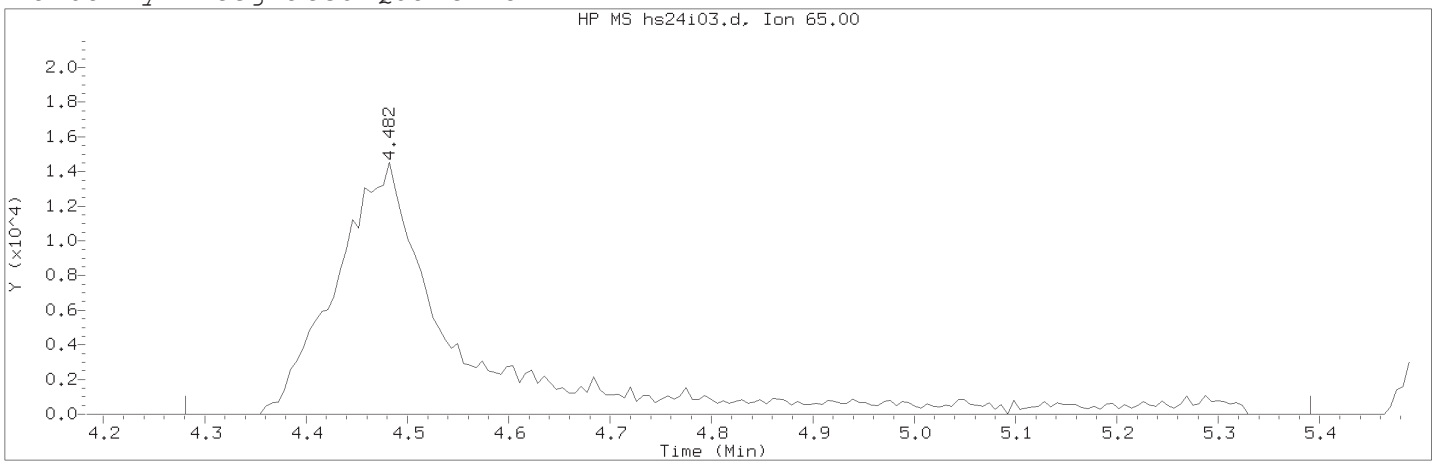
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area : 353758
On-column Amount (ng) : 50.2605
Integration start scan : 342 Integration stop scan: 398
Y at integration start : 0 Y at integration end: 1061

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 11 Jan 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

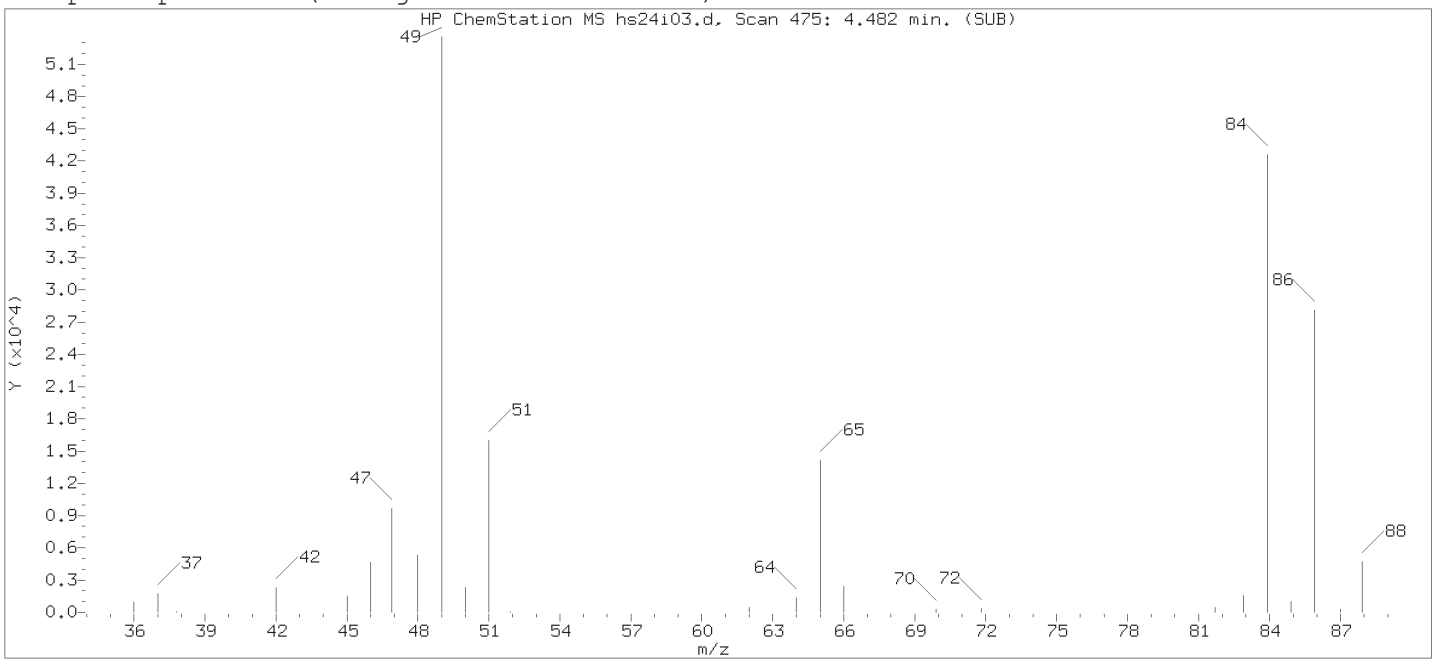
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.482
Quant Ion : 65.00
Area (flag) : 127180M
On-Column Amount (ng) : 50.0000
Integration start scan : 441 Integration stop scan: 623
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

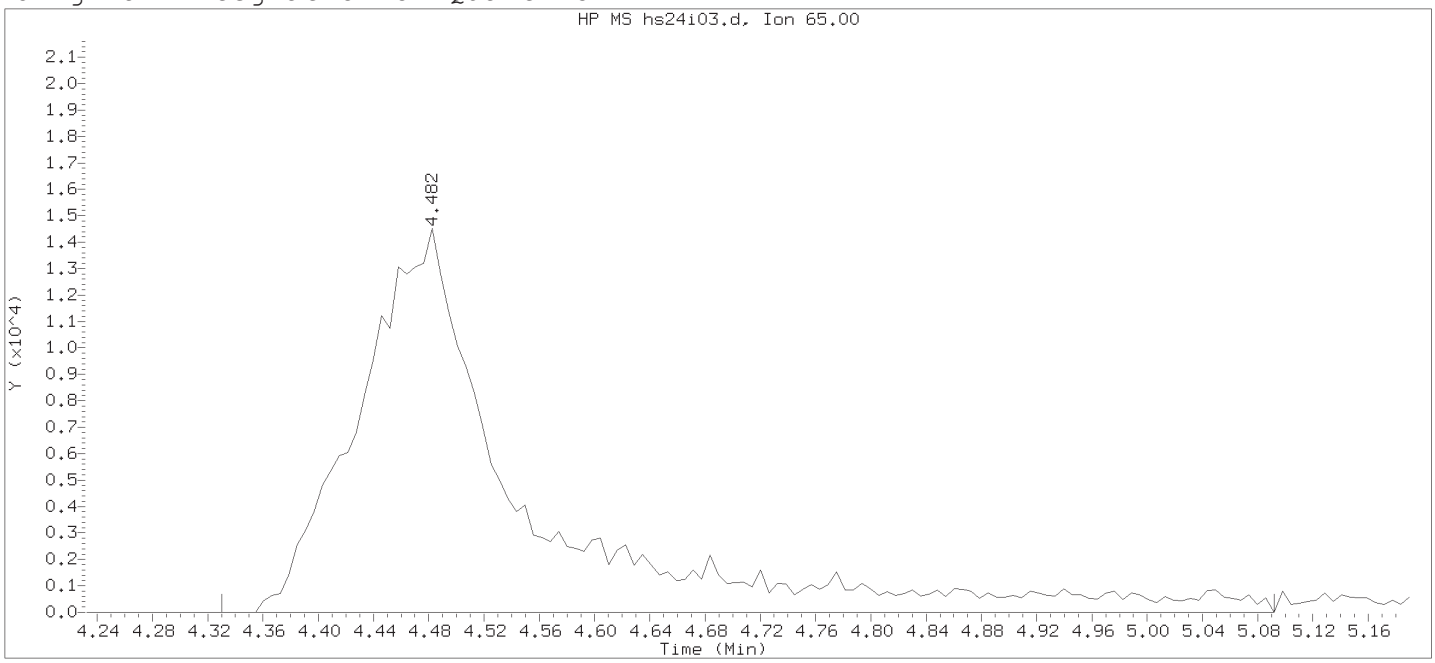
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

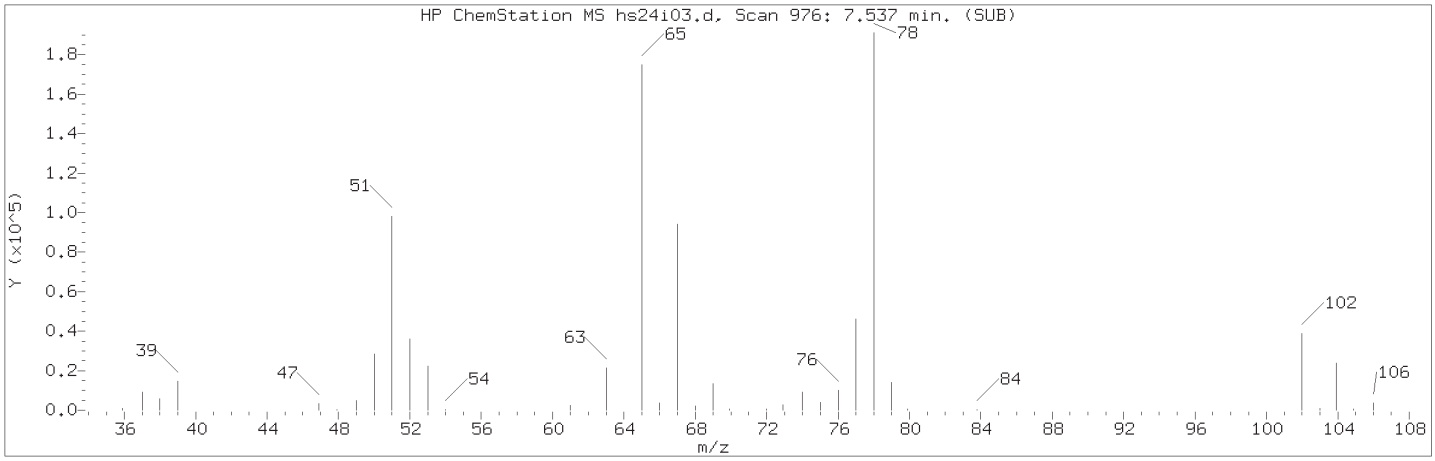
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

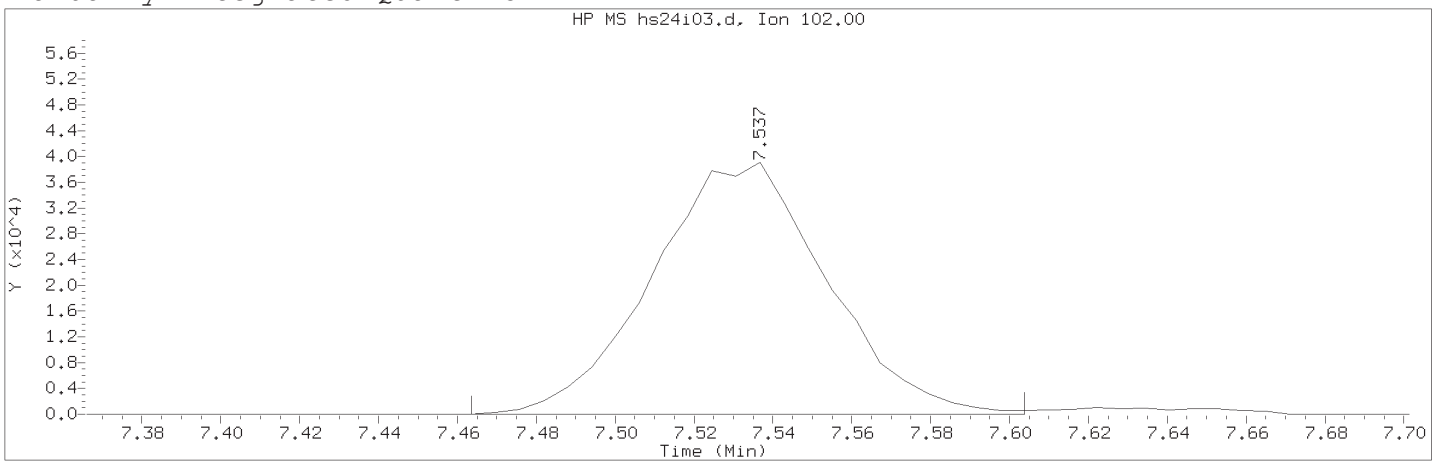
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.482
Quant Ion : 65.00
Area : 119408
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 574
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

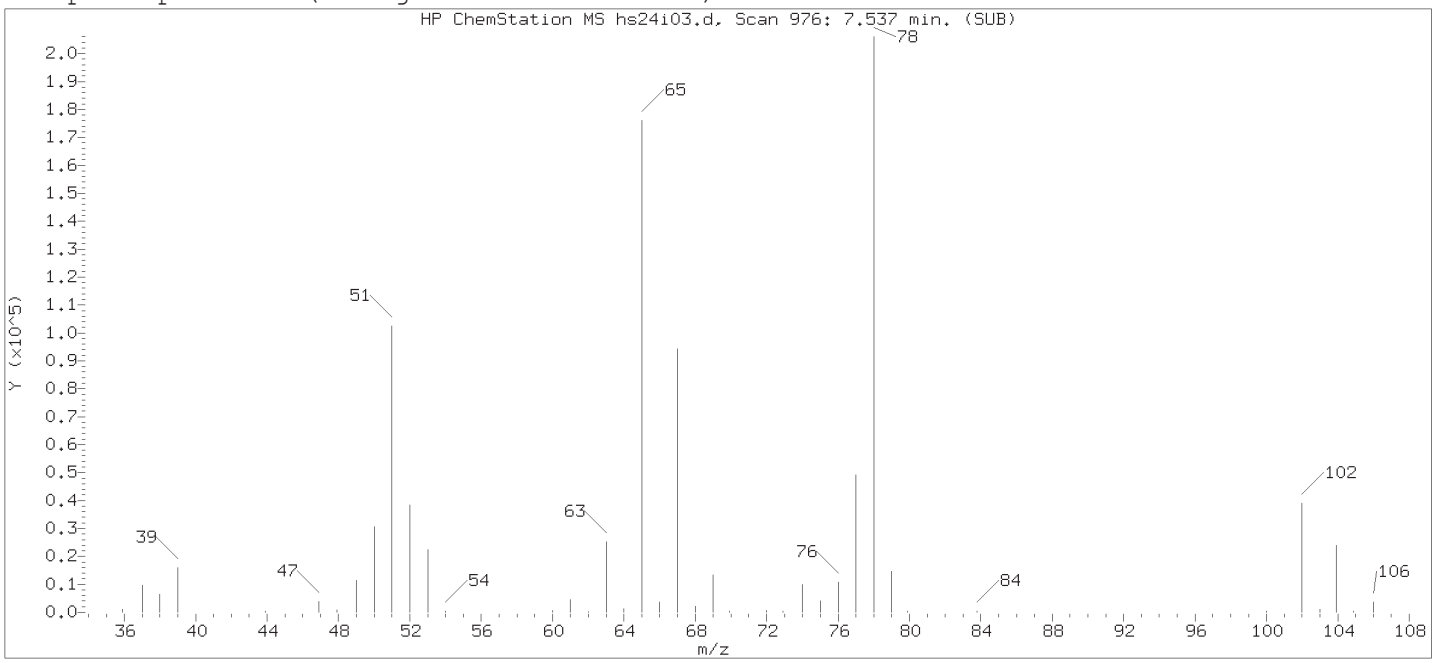
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area (flag) : 119553M
On-Column Amount (ng) : 9.9122
Integration start scan : 963 Integration stop scan: 986
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

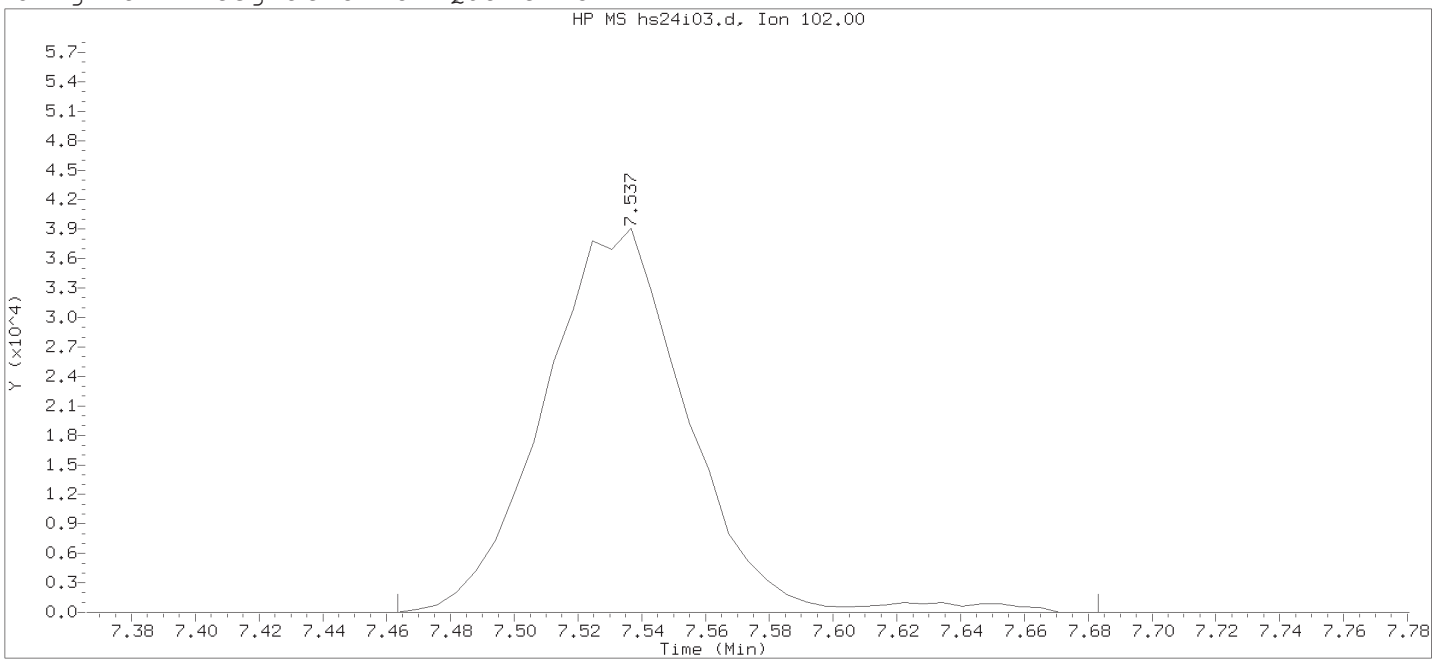
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

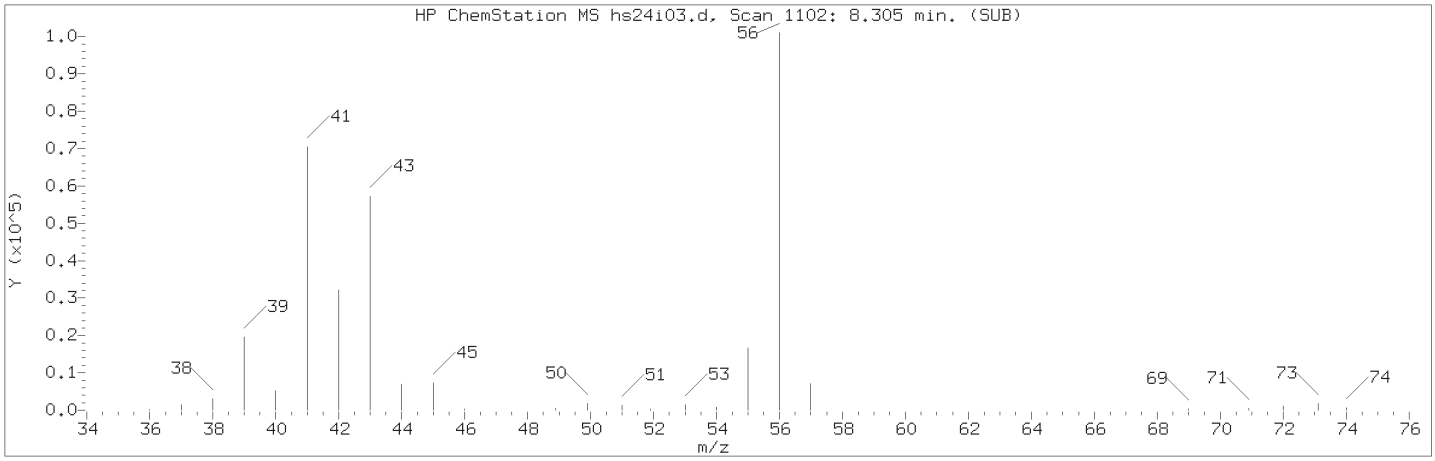
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

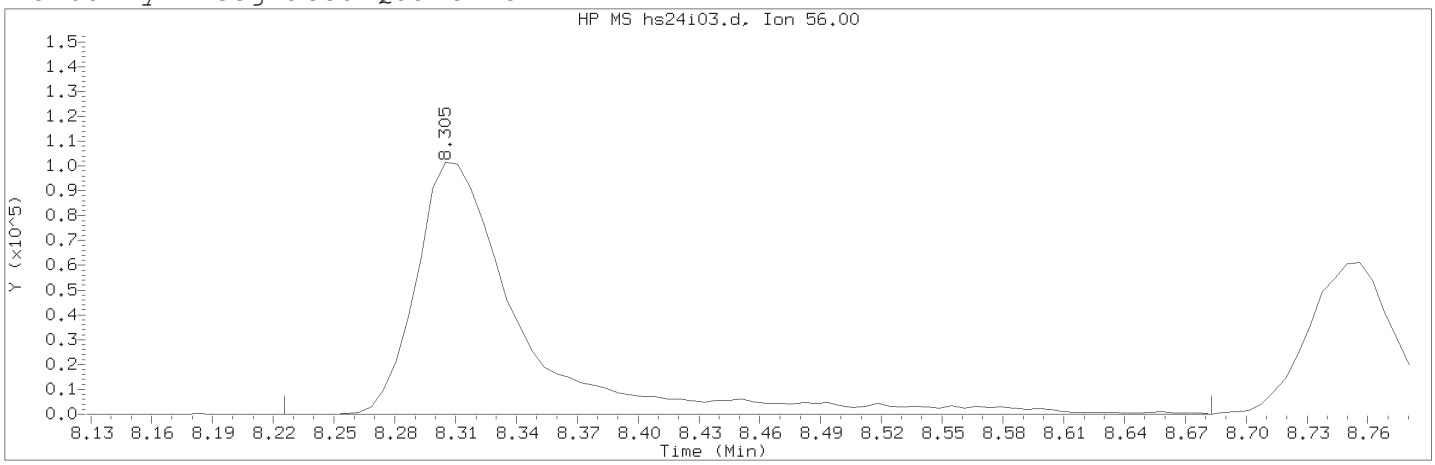
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area : 122323
On-column Amount (ng) : 10.0921
Integration start scan : 963 Integration stop scan: 999
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

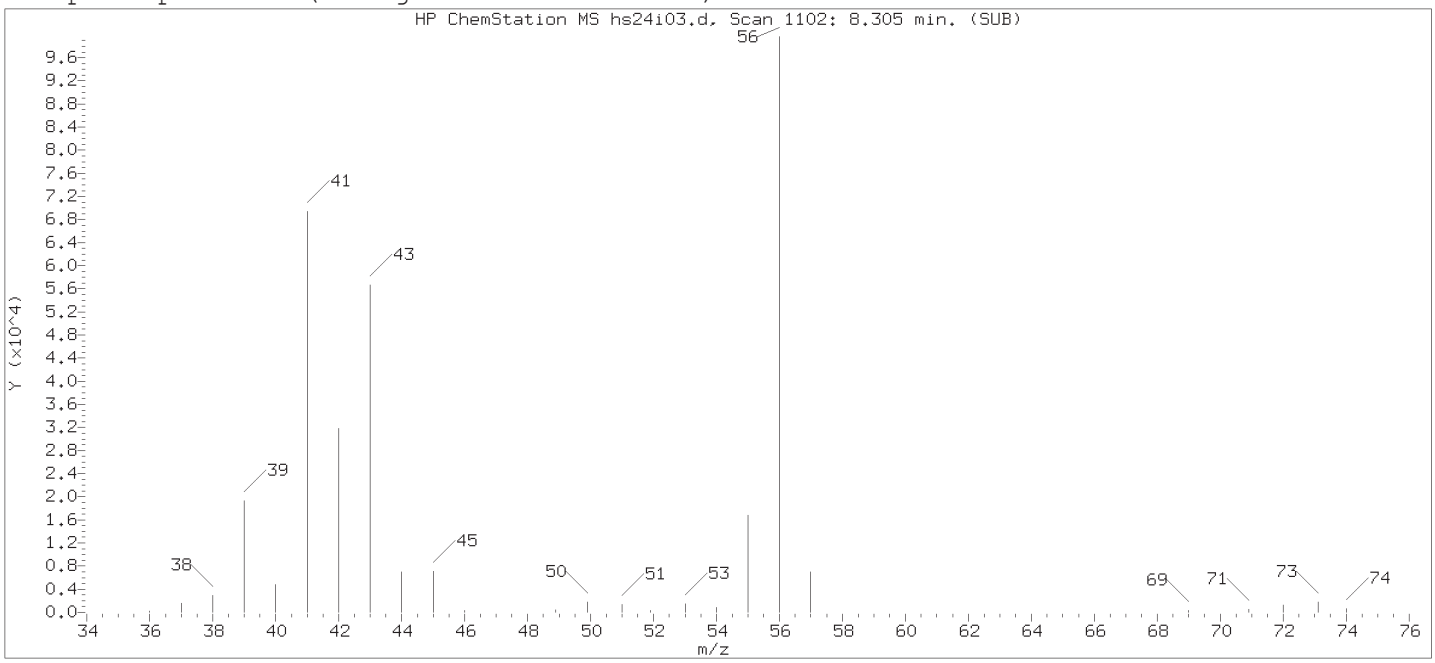
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1102
Retention Time (minutes): 8.305
Quant Ion : 56.00
Area (flag) : 371428M
On-Column Amount (ng) : 523.4201
Integration start scan : 1088 Integration stop scan: 1163
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

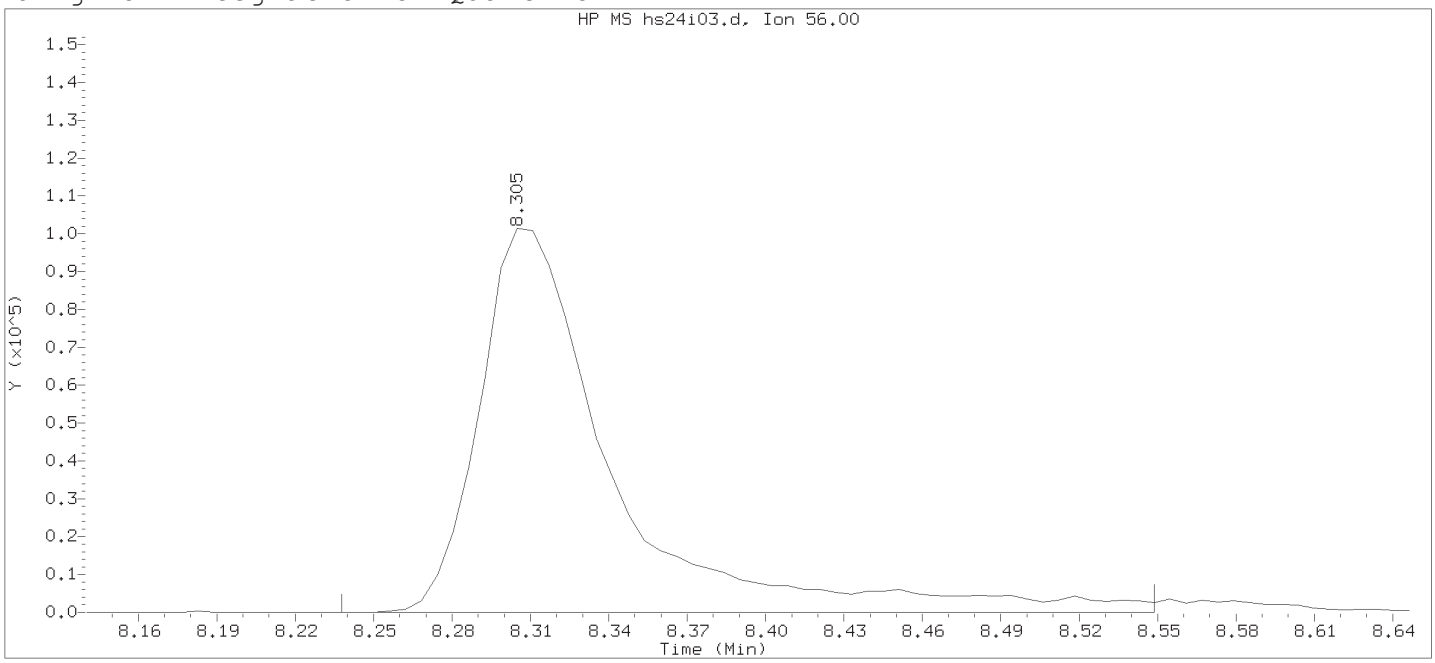
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

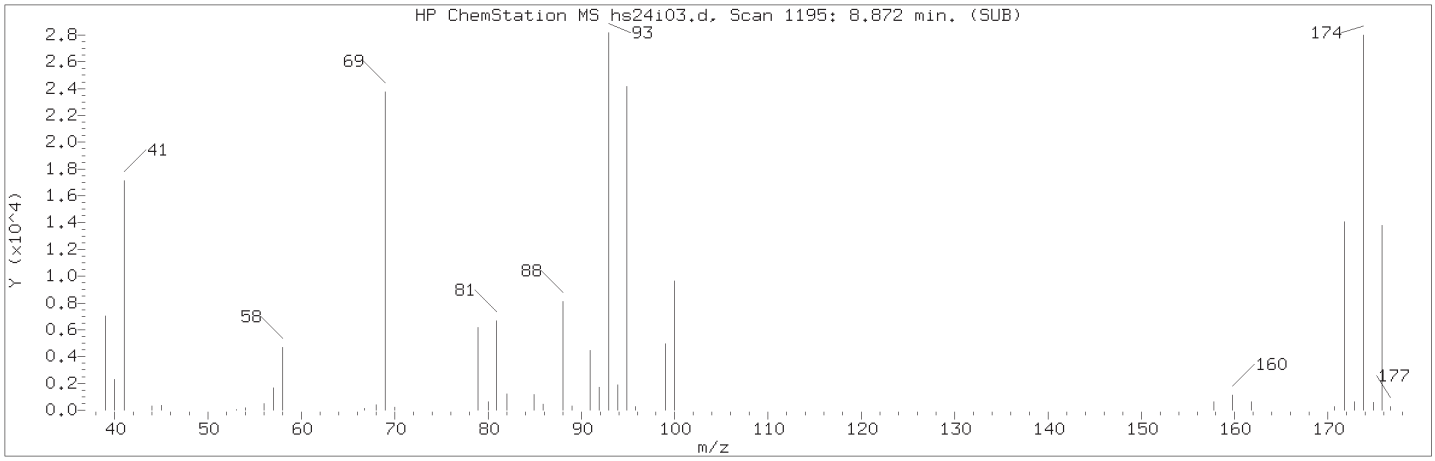
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

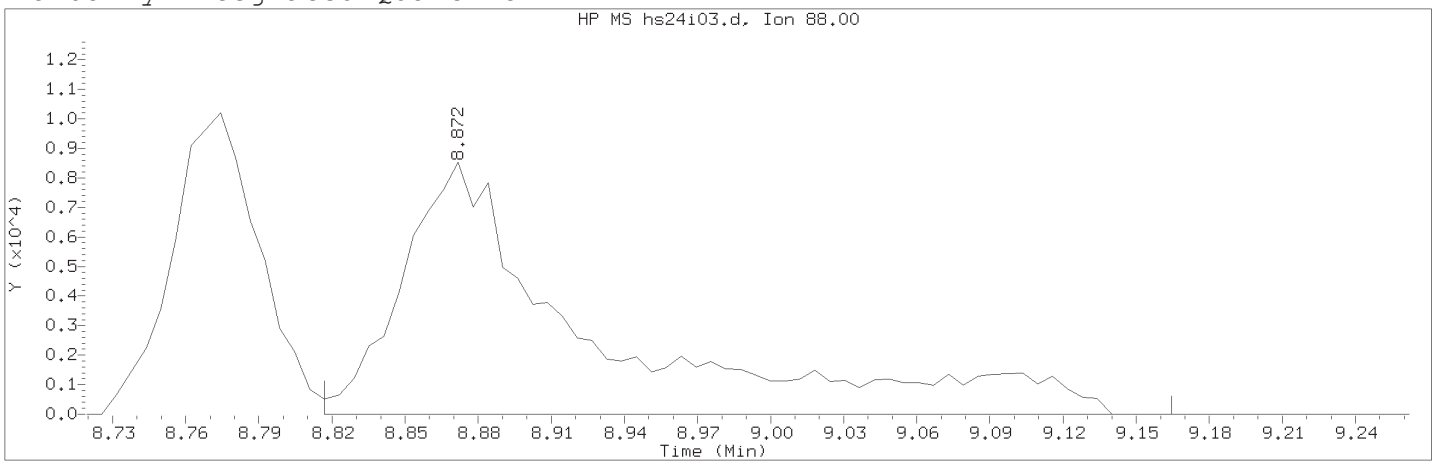
Compound Number	: 65		
Compound Name	: n-Butanol		
Scan Number	: 1102		
Retention Time (minutes)	: 8.305		
Quant Ion	: 56.00		
Area	: 359413		
On-column Amount (ng)	: 483.9616		
Integration start scan	: 1090	Integration stop scan:	1141
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 10/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

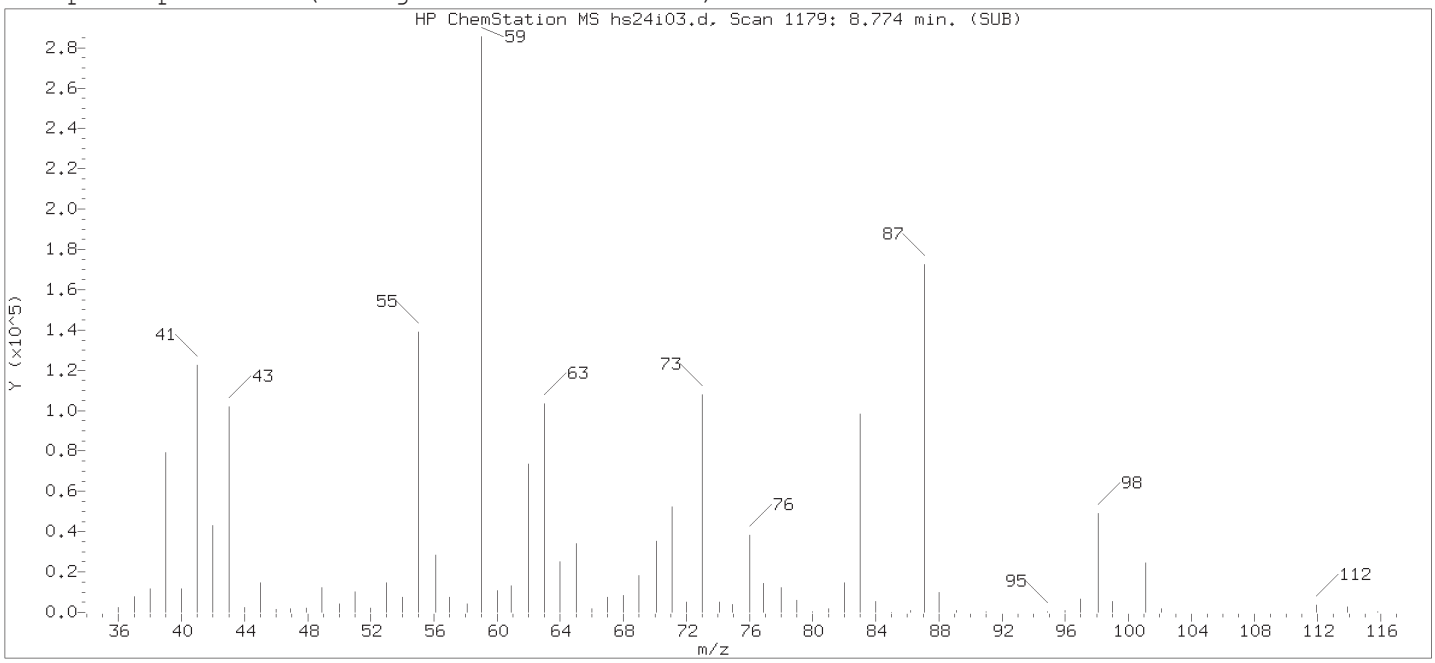
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1195
Retention Time (minutes): 8.872
Quant Ion : 88.00
Area (flag) : 45616M
On-Column Amount (ng) : 266.9855
Integration start scan : 1185 Integration stop scan: 1242
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

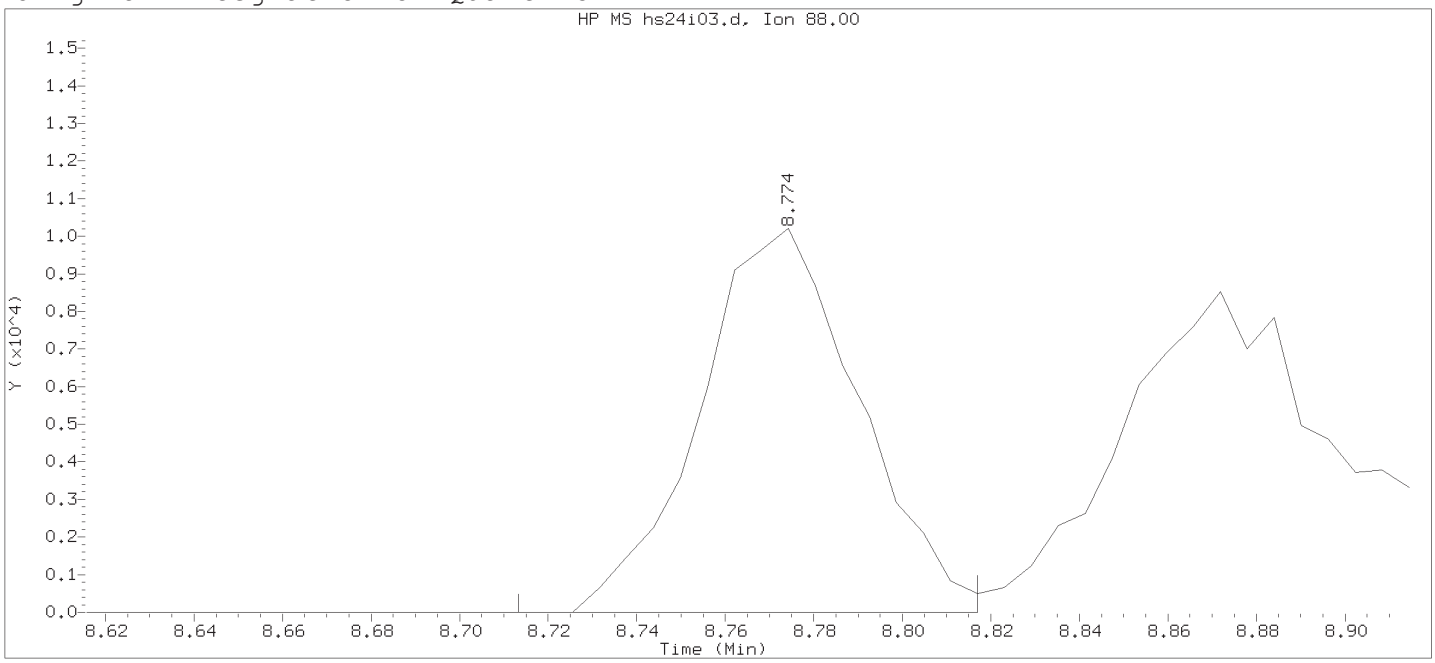
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

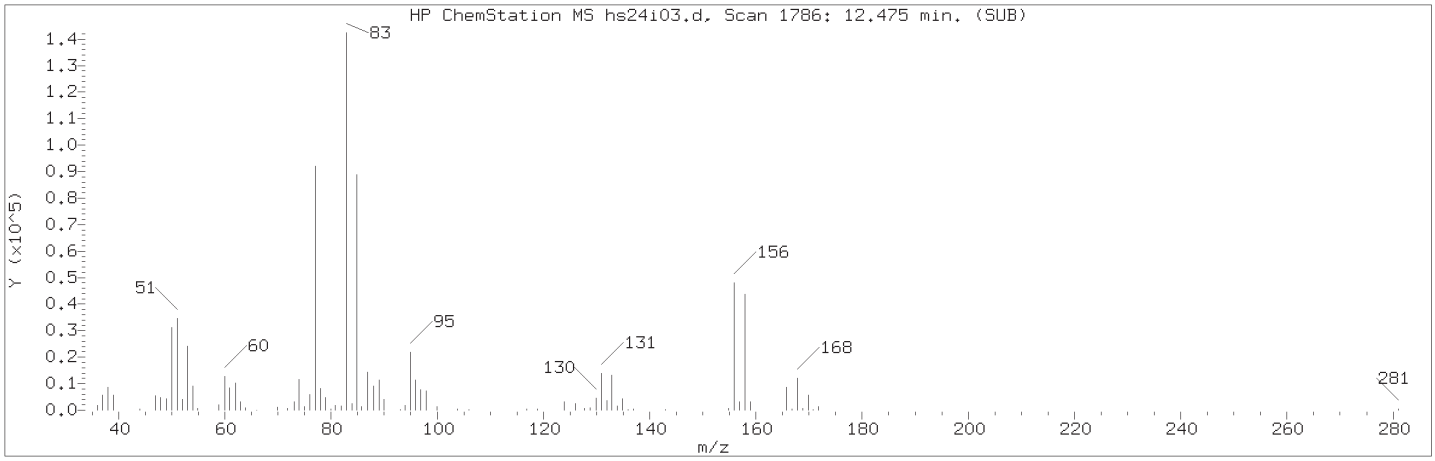
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

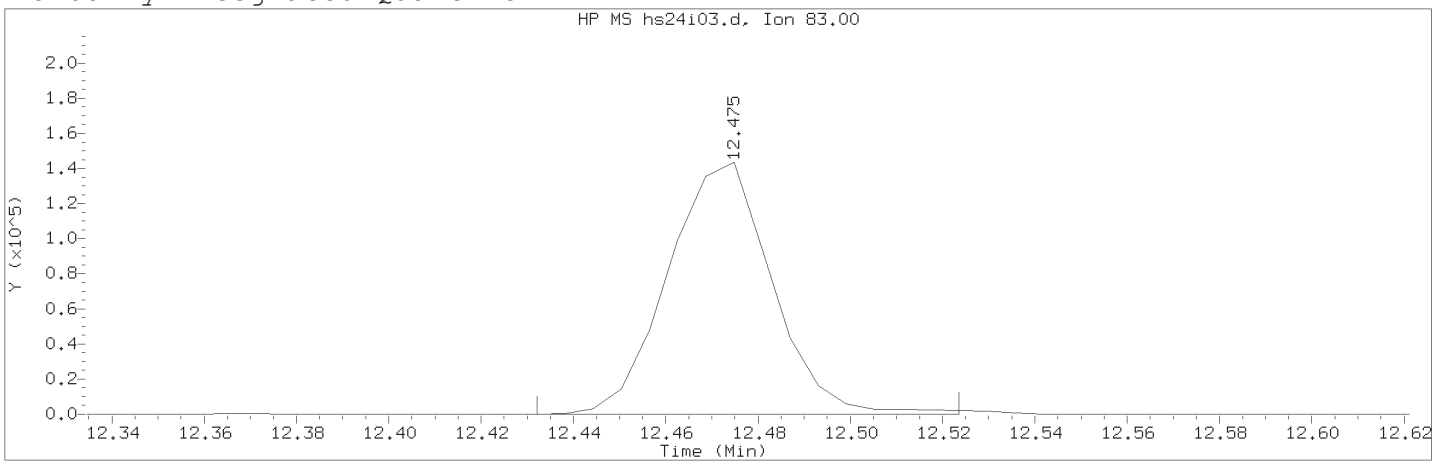
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.774
Quant Ion : 88.00
Area : 25388
On-column Amount (ng) : 205.7756
Integration start scan : 1168 Integration stop scan: 1185
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

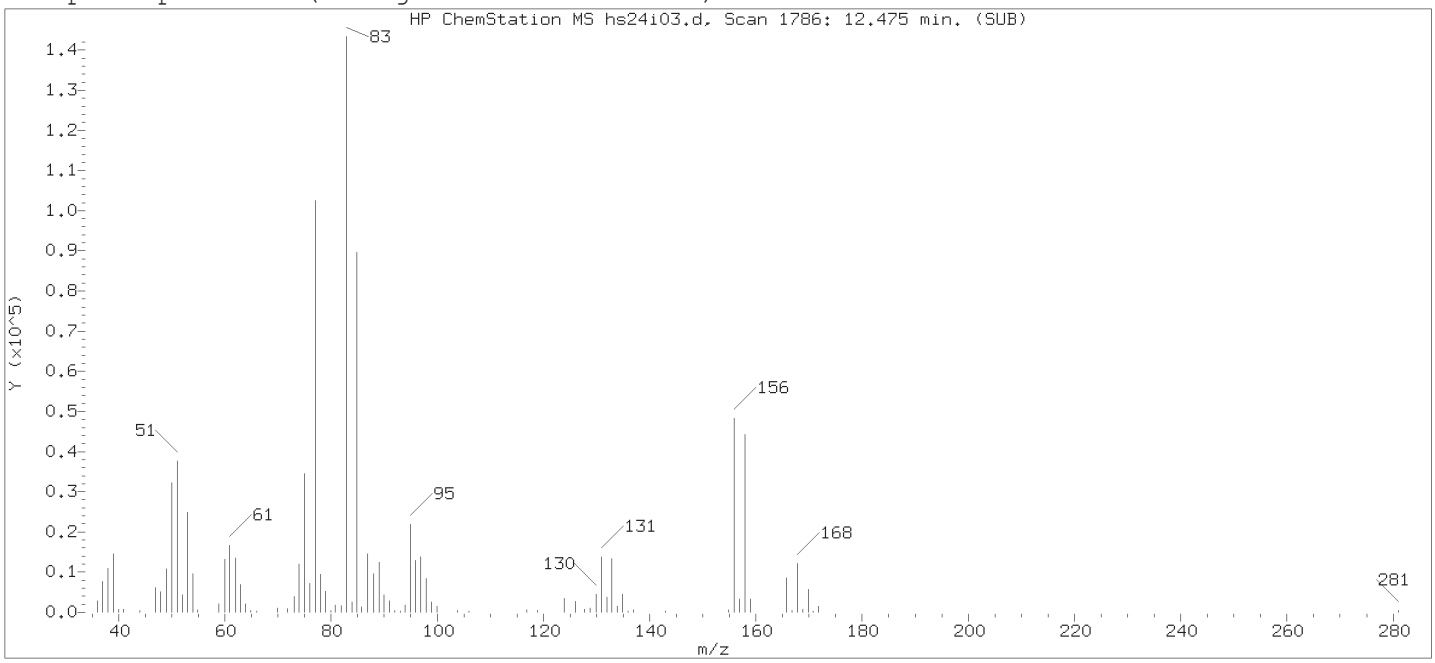
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 224515M
On-Column Amount (ng) : 5.1965
Integration start scan : 1778 Integration stop scan: 1793
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

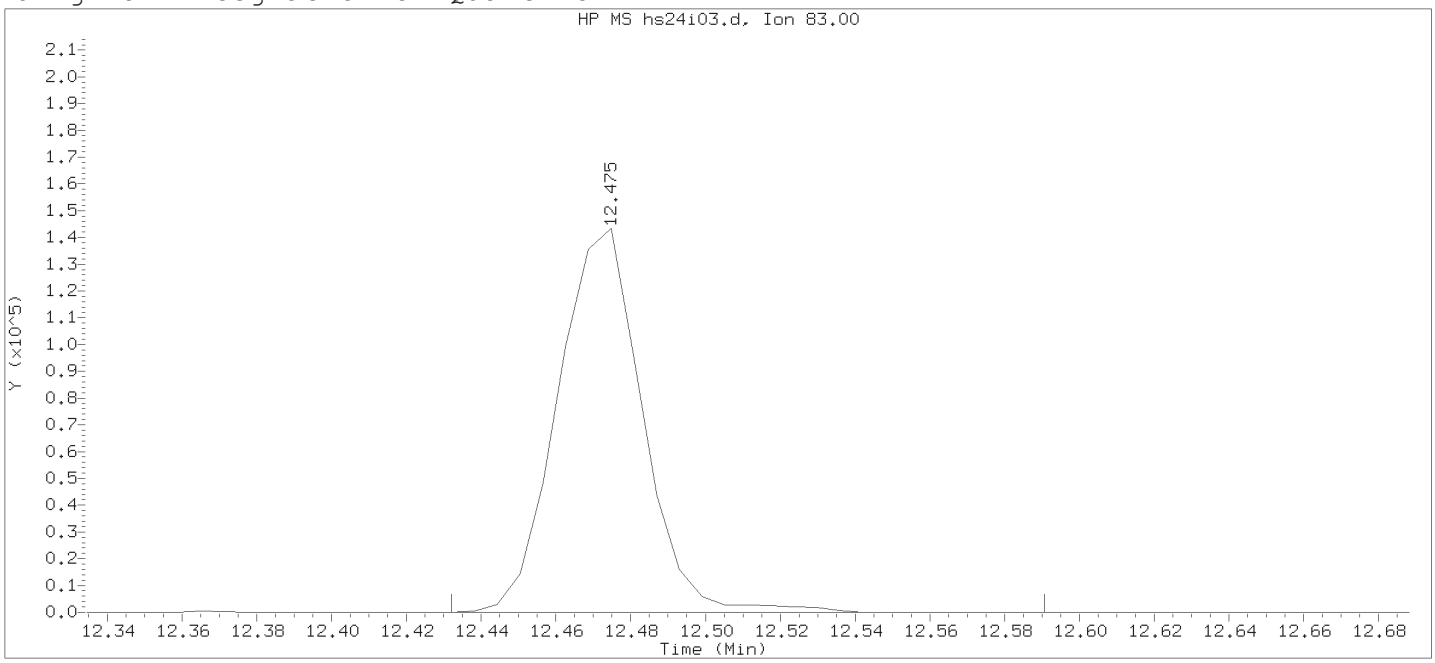
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

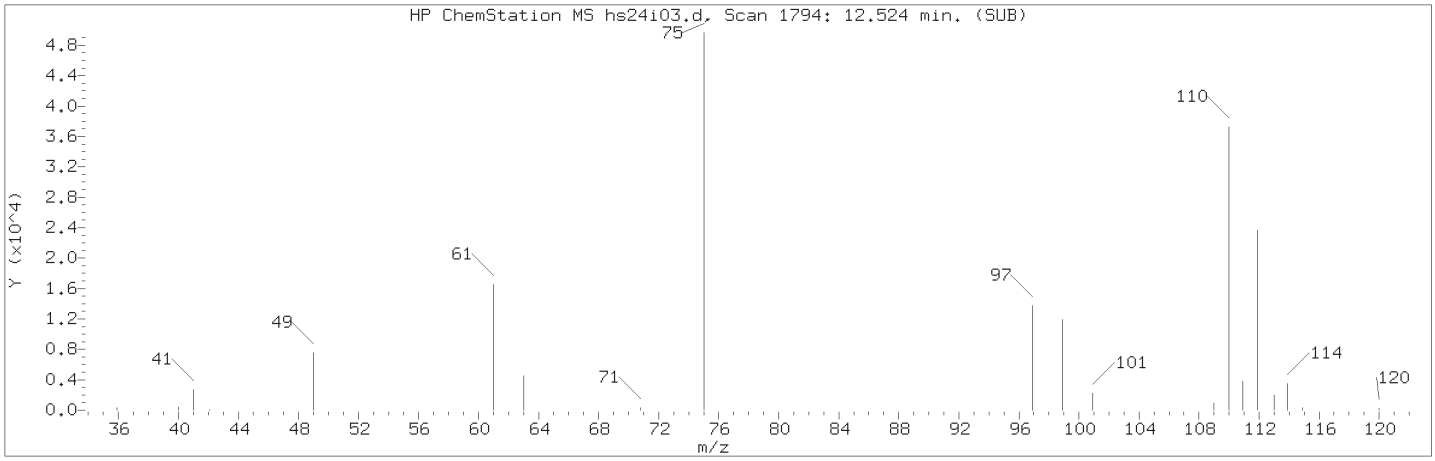
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

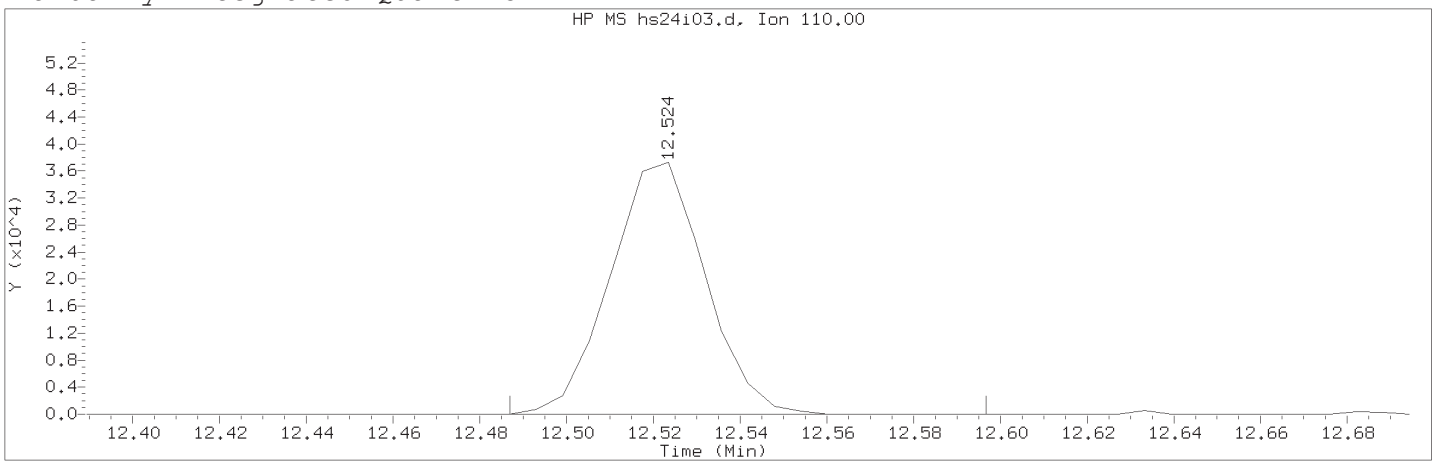
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 225435
On-column Amount (ng) : 4.9474
Integration start scan : 1778 Integration stop scan: 1804
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

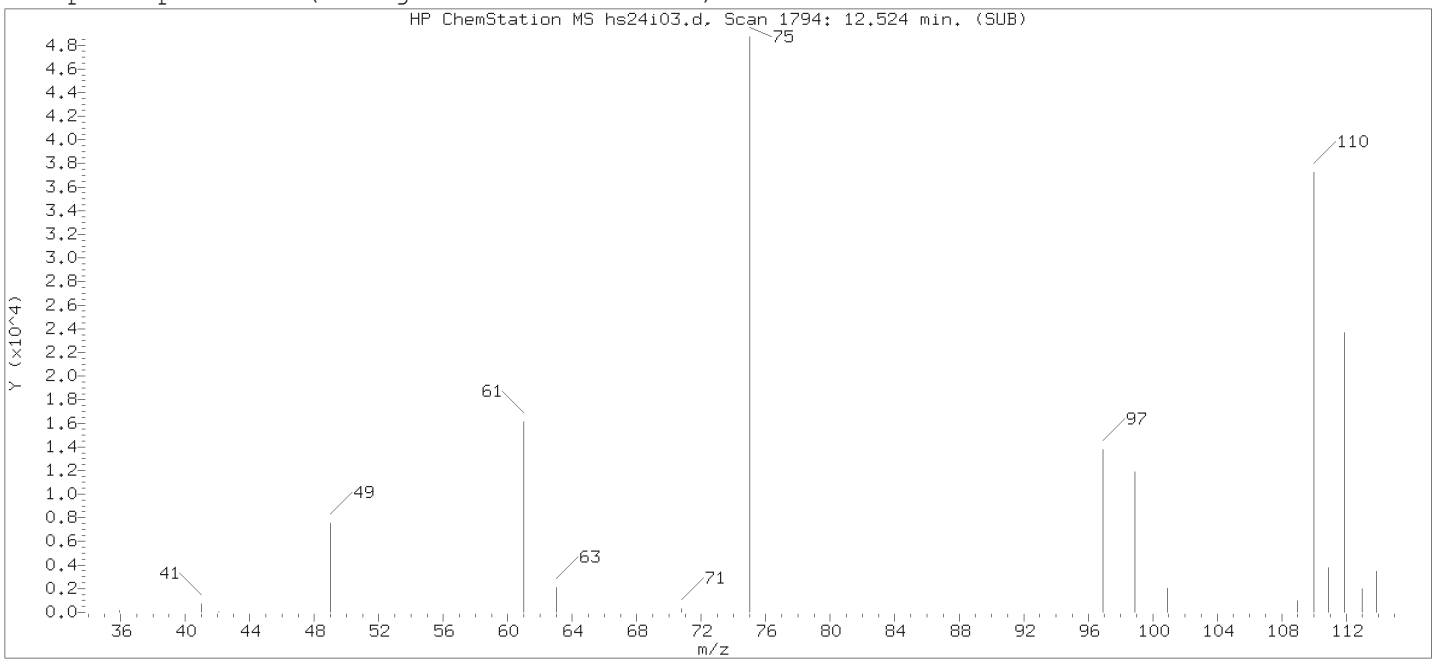
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area (flag) : 56735M
On-Column Amount (ng) : 5.0793
Integration start scan : 1787 Integration stop scan: 1805
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

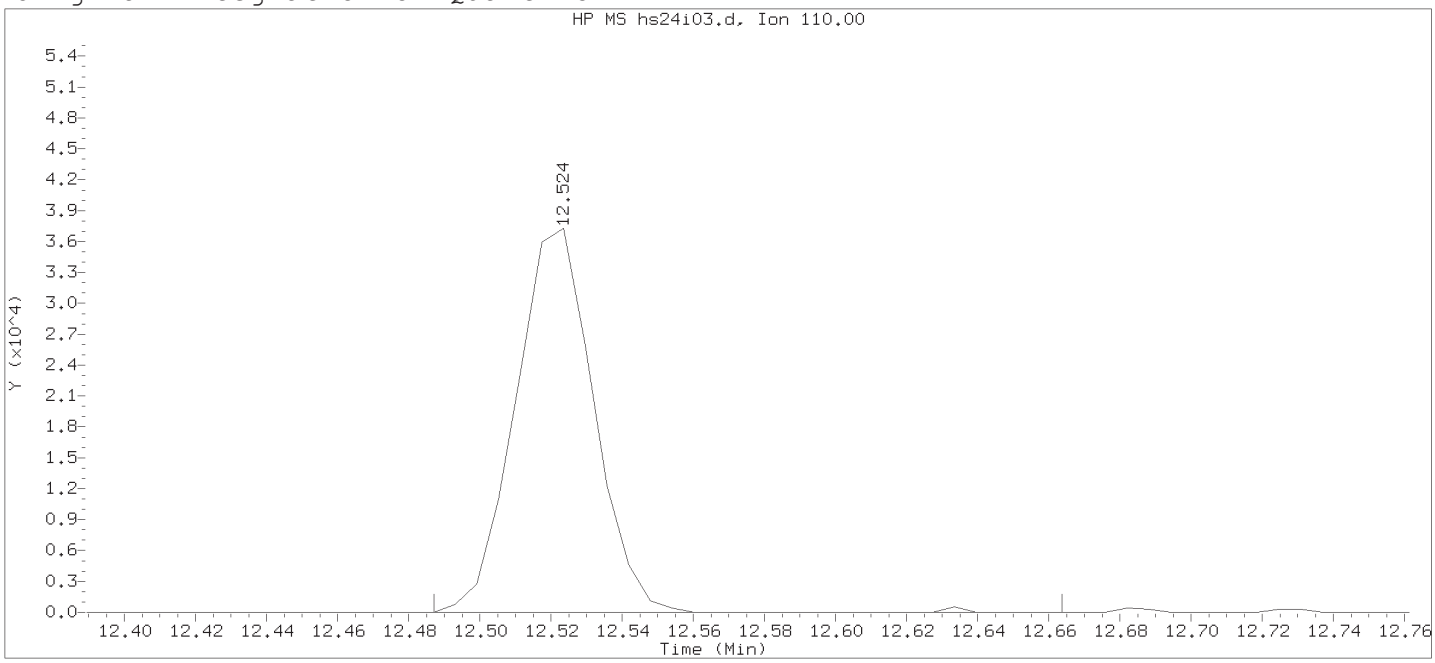
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



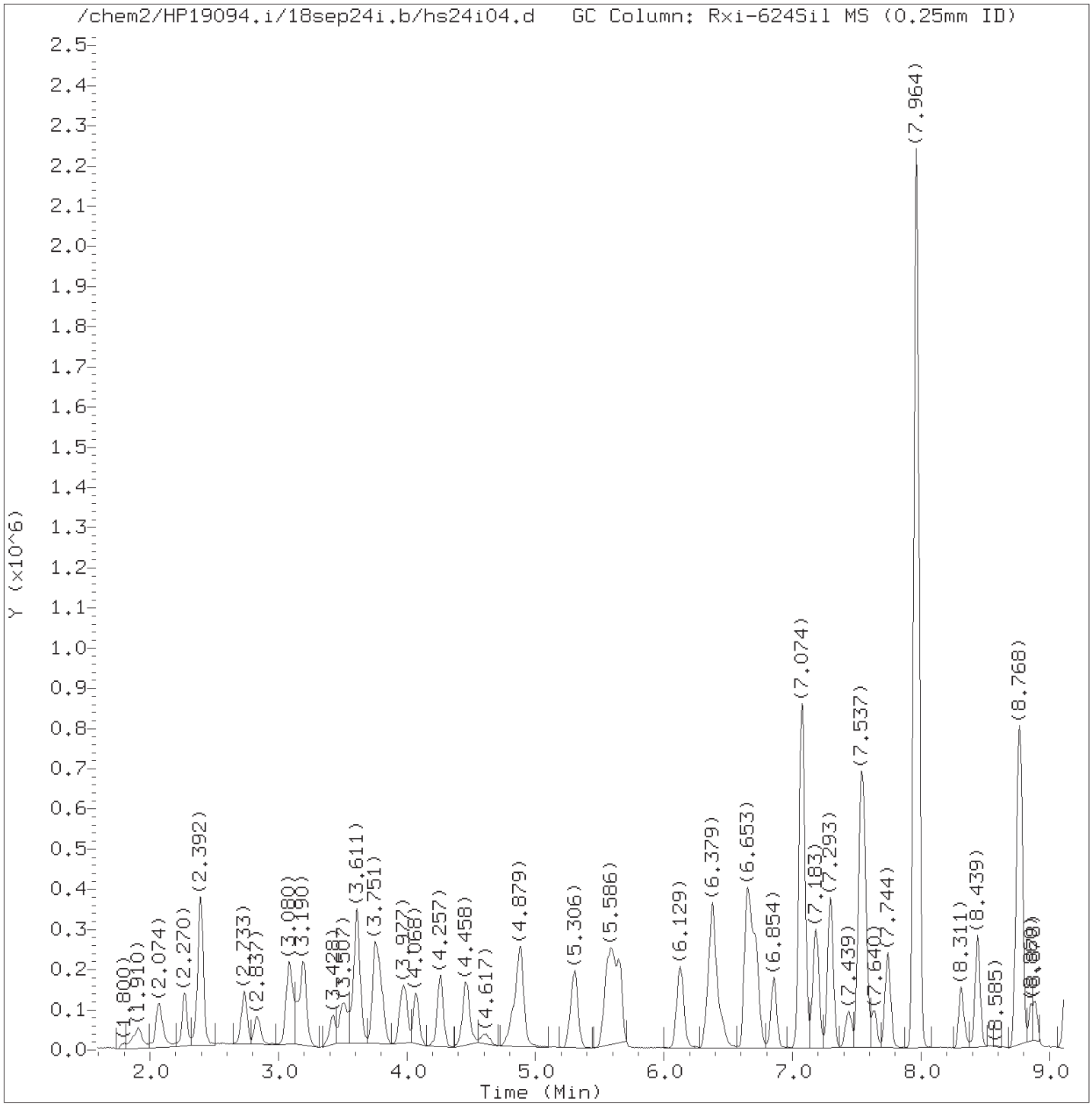
Data File: /chem2/HP19094.i/18sep24i.b/hs24i03.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:11 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area : 56920
On-column Amount (ng) : 5.0340
Integration start scan : 1787 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Page 1054 of 7494



Total Ion Chromatogram (TIC)

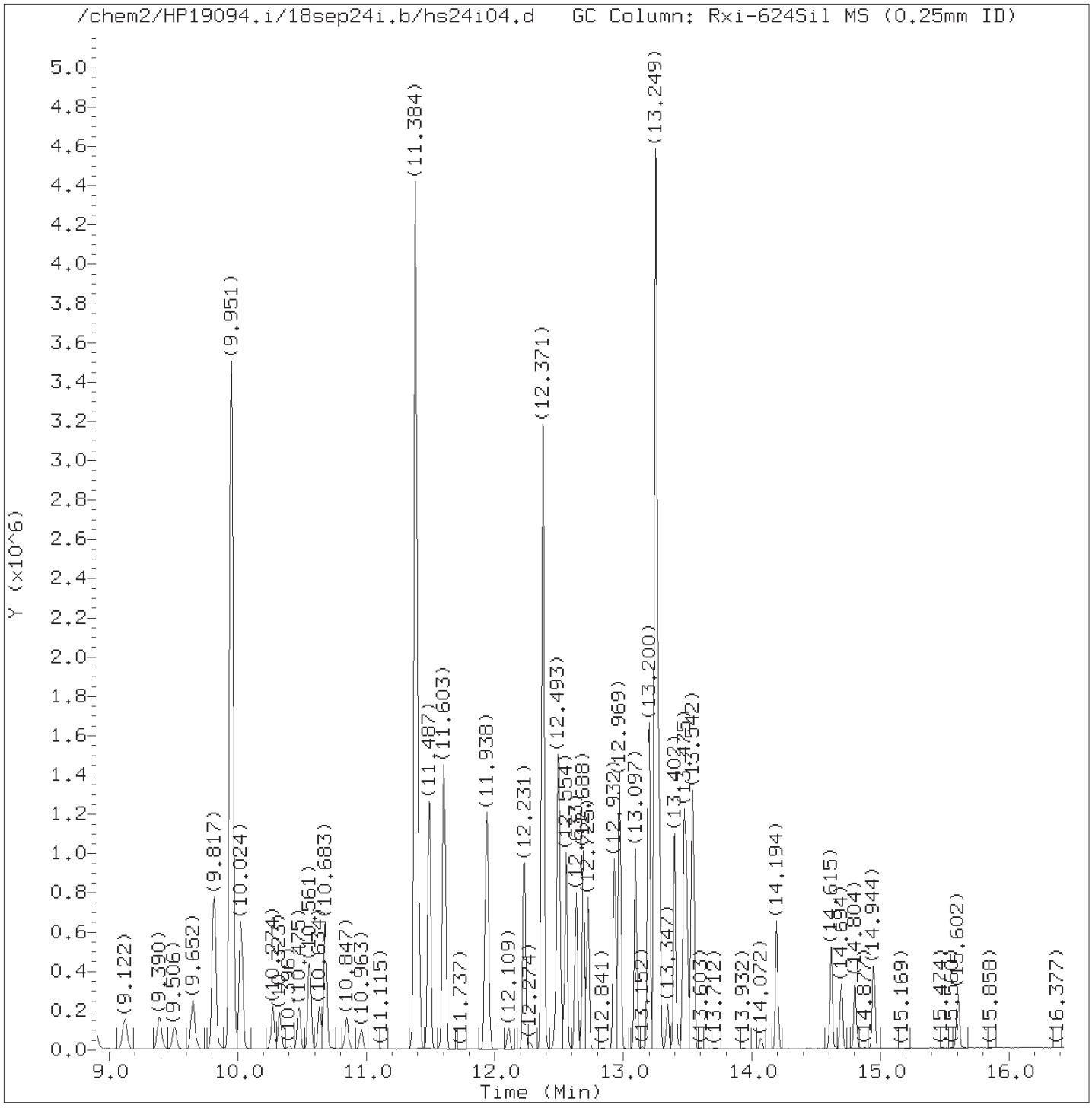
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	212842	1.965
2) Chloromethane	(2)	2.270	50	206767	1.949
5) Vinyl Chloride	(2)	2.392	62	192690	1.940
6) 1,3-Butadiene	(2)	2.392	39	223122M	1.983
7) Bromomethane	(2)	2.733	94	152532	1.975
8) Chloroethane	(2)	2.830	64	118265	1.963
9) Dichlorofluoromethane	(2)	3.080	67	286031	1.996
10) Trichlorofluoromethane	(2)	3.141	101	245427M	1.956
11) Ethyl ether	(2)	3.416	59	85465M	2.009
12) Freon 123a	(2)	3.507	67	159597	2.007
13) Acrolein	(1)	3.611	56	610220	93.000
15) 1,1-Dichloroethene	(2)	3.751	96	110543	2.034
16) Freon 113	(2)	3.781	101	129533	2.023
14) Acetone	(1)	3.800	43	167715M	19.030
17) Methyl Iodide	(2)	3.958	142	223559	1.974
18) Carbon Disulfide	(2)	4.074	76	335903	1.943
21) Methyl Acetate	(1)	4.233	43	48985	1.980
22) Allyl Chloride	(2)	4.257	41	207468	2.009
23) Methylene Chloride	(2)	4.452	84	117905	1.923
26)*t-Butyl Alcohol-d10	(1)	4.476	65	147863M	50.000
28) t-Butyl Alcohol	(1)	4.604	59	104728M	41.495
29) Acrylonitrile	(1)	4.812	53	105857	9.301
30) Methyl Tertiary Butyl Ether	(2)	4.861	73	226282	2.025
31) trans-1,2-Dichloroethene	(2)	4.885	96	119713	1.952
32) n-Hexane	(2)	5.306	57	193515	1.984
33) 1,1-Dichloroethane	(2)	5.543	63	231472	1.982
34) di-Isopropyl Ether	(2)	5.592	45	415509	2.004
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	211615	2.014
40) 1,2-Dichloroethene (Total)	(2)		96	253223	3.922
37) Ethyl t-butyl ether	(2)	6.129	59	334132M	2.032
38) 2-Butanone	(1)	6.348	43	265202	18.383
39) cis-1,2-Dichloroethene	(2)	6.379	96	133510	1.970
41) 2,2-Dichloropropane	(2)	6.385	77	170897	2.049
42) Propionitrile	(1)	6.446	54	150231	38.365
45) Methacrylonitrile	(1)	6.647	67	260058	18.418
47) Bromochloromethane	(2)	6.708	128	58062	2.028
48) Tetrahydrofuran	(1)	6.720	71	72155	18.814
49) Chloroform	(2)	6.854	83	215747	1.987

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.074	113	701118	10.038
50)$Dibromofluoromethane	(2)	7.074	111	720366	10.019
51) 1,1,1-Trichloroethane	(2)	7.086	97	186862	2.012
52) Cyclohexane	(2)	7.189	56	243250	2.007
52) Cyclohexane	(2)	7.183	84	203326	2.034
52) Cyclohexane	(2)	7.183	69	71385	1.998
54) Carbon Tetrachloride	(2)	7.293	117	159920	2.005
55) 1,1-Dichloropropene	(2)	7.293	75	176849	2.008
56) Isobutyl Alcohol	(1)	7.439	41	94332	96.599
57)$1,2-Dichloroethane-d4	(2)	7.537	102	125039M	10.268
57)$1,2-Dichloroethane-d4	(2)	7.531	65	589363	10.006
57)$1,2-Dichloroethane-d4	(2)	7.531	104	76732	9.839
58) Benzene	(2)	7.561	78	506487	1.947
59) 1,2-Dichloroethane	(2)	7.634	62	114381	1.911
60) t-Amyl methyl ether	(2)	7.744	73	274629	2.014
62) n-Heptane	(2)	7.964	43	198879M	1.978
63)*Fluorobenzene	(2)	7.964	96	2771401	10.000
65) n-Butanol	(1)	8.311	56	160778M	194.877
67) Trichloroethene	(2)	8.439	95	134309	2.016
69) Methylcyclohexane	(2)	8.750	83	251052	1.996
70) 1,2-Dichloropropane	(2)	8.787	63	125013	1.981
71) Methyl Methacrylate	(1)	8.854	69	48112	1.841
72) 1,4-Dioxane	(1)	8.866	88	21749M	109.489
73) Dibromomethane	(2)	8.890	93	53023	2.024
74) Bromodichloromethane	(2)	9.122	83	137803	1.942
76) 2-Nitropropane	(1)	9.390	41	134032	18.105
80) cis-1,3-Dichloropropene	(2)	9.652	75	163843	1.983
81) 4-Methyl-2-Pentanone	(1)	9.817	43	659459	18.377
82)$Toluene-d8	(3)	9.951	98	2784763	10.112
82)$Toluene-d8	(3)	9.951	100	1806074	10.161
83) Toluene	(3)	10.024	92	317158	1.997
85) 1,3-Dichloropropene (total)	(3)		75	285594	3.973
84) trans-1,3-Dichloropropene	(3)	10.274	75	121751	1.990
86) Ethyl Methacrylate	(3)	10.323	69	106995	2.041
88) 1,1,2-Trichloroethane	(3)	10.475	97	73815	2.020
89) Tetrachloroethene	(3)	10.561	166	144328	2.012
90) 1,3-Dichloropropane	(3)	10.634	76	132513	2.046
91) 2-Hexanone	(1)	10.683	43	448236	18.350

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	88599	2.023
95) 1,2-Dibromoethane	(3)	10.963	107	66850	1.952
96) 1-Chlorohexane	(3)	11.384	91	182251	1.924
97)*Chlorobenzene-d5	(3)	11.384	117	2139668	10.000
98) Chlorobenzene	(3)	11.408	112	334112	1.983
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	111074	1.998
100) Ethylbenzene	(3)	11.493	91	618859	1.994
101) m+p-Xylene	(3)	11.603	106	460102	3.997
105) Xylene (Total)	(3)		106	680646	6.001
104) o-Xylene	(3)	11.932	106	220544	2.004
106) Styrene	(3)	11.945	104	354610	2.014
107) Bromoform	(3)	12.109	173	47440	1.971
108) Isopropylbenzene	(3)	12.231	105	599350	1.995
111)$4-Bromofluorobenzene	(3)	12.371	95	1020043	10.174
111)$4-Bromofluorobenzene	(3)	12.377	174	880214	10.110
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	85286M	1.938
114) Bromobenzene	(4)	12.493	156	133526	1.995
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	203595	18.115
116) 1,2,3-Trichloropropane	(4)	12.518	110	22957M	2.017
117) n-Propylbenzene	(4)	12.554	91	721086	1.982
119) 2-Chlorotoluene	(4)	12.633	126	140344	1.989
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	490251	1.989
122) 4-Chlorotoluene	(4)	12.725	126	141279	1.998
125) tert-Butylbenzene	(4)	12.932	134	110083M	2.054
126) Pentachloroethane	(4)	12.969	167	83251	1.990
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	503413	2.001
128) sec-Butylbenzene	(4)	13.097	105	633366	1.983
131) 1,3-Dichlorobenzene	(4)	13.194	146	265730	1.999
132) p-Isopropyltoluene	(4)	13.200	119	529167	2.000
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1109693	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	257515	1.973
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	229342	1.987
136) Benzyl Chloride	(4)	13.347	126	30686M	1.928
138) n-Butylbenzene	(4)	13.493	92	259241	1.974
139) 1,2-Dichlorobenzene	(4)	13.530	146	234578	2.000
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	11053	1.817
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	191417	1.935
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	157858	1.959

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	59215	1.945
147) Naphthalene	(4)	14.804	128	252080	1.977
148) 1,2,3-Trichlorobenzene	(4)	14.944	180	128555	1.941

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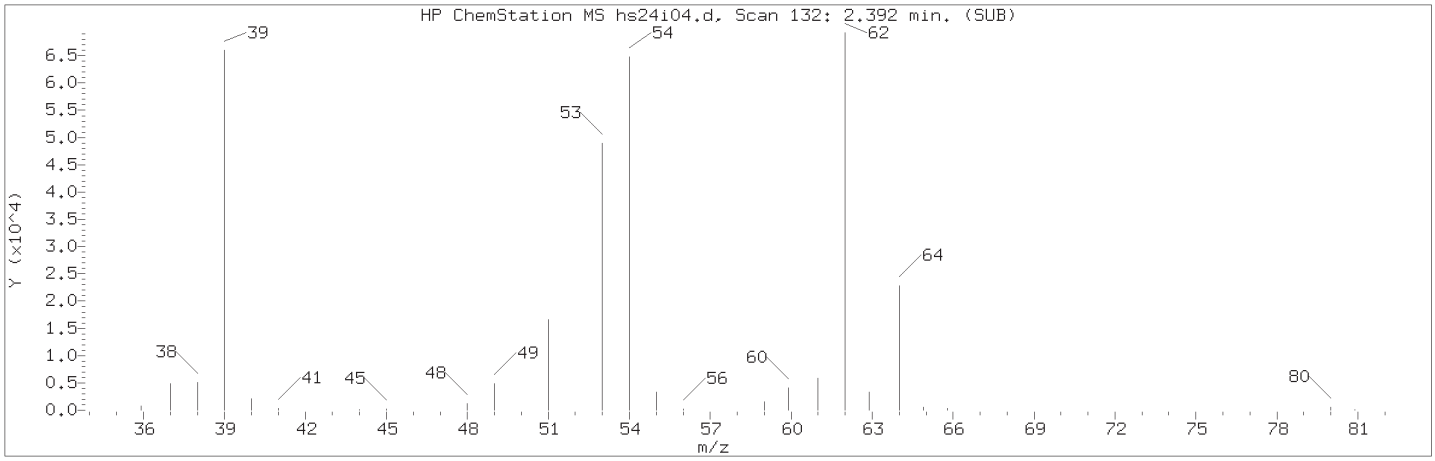
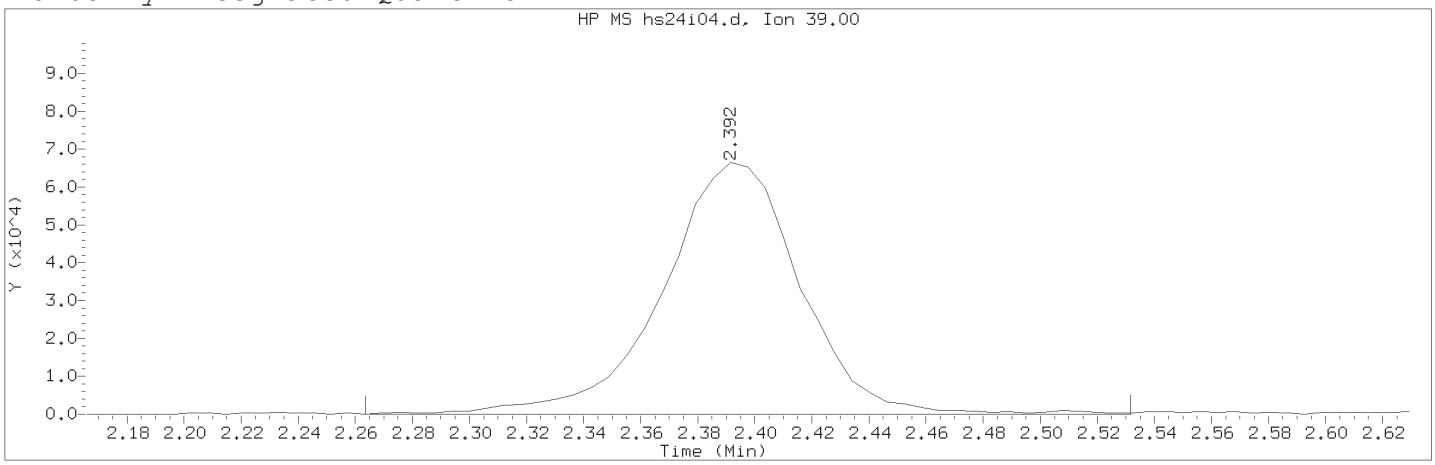
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

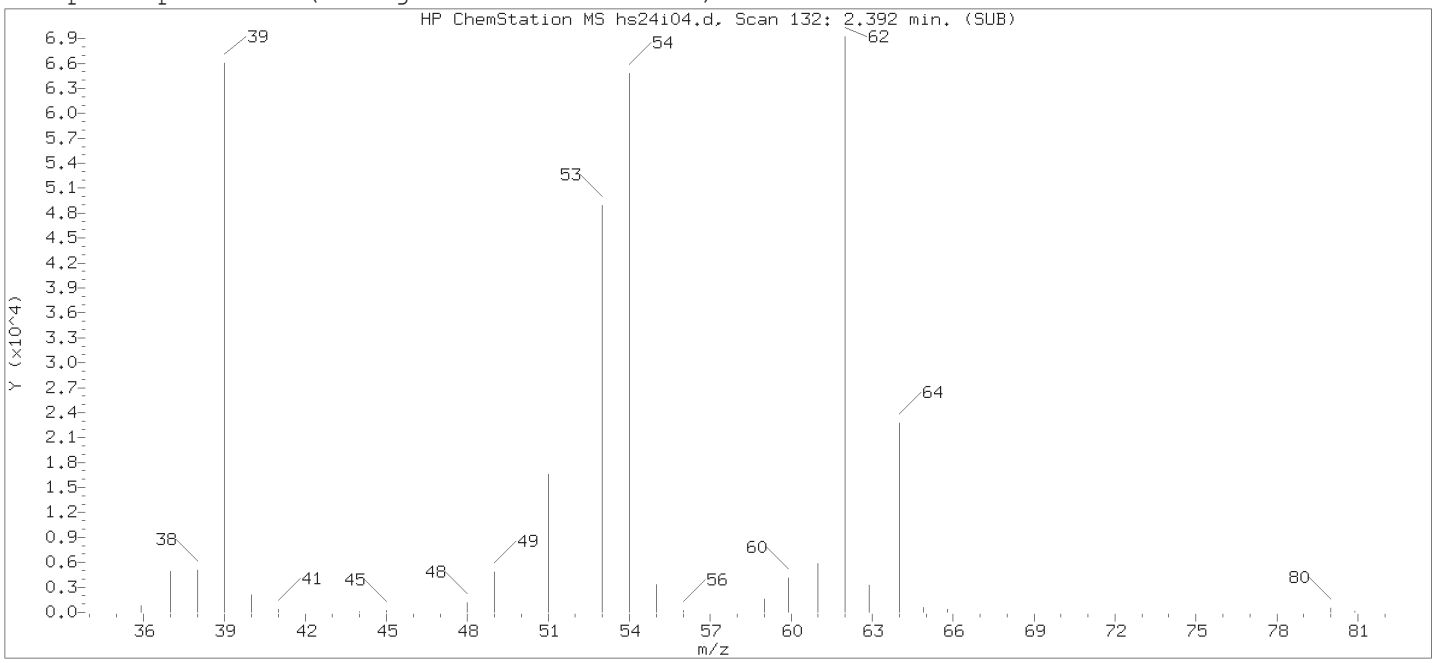
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.392
Quant Ion : 39.00
Area (flag) : 223122M
On-Column Amount (ng) : 1.9830
Integration start scan : 110 Integration stop scan: 154
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

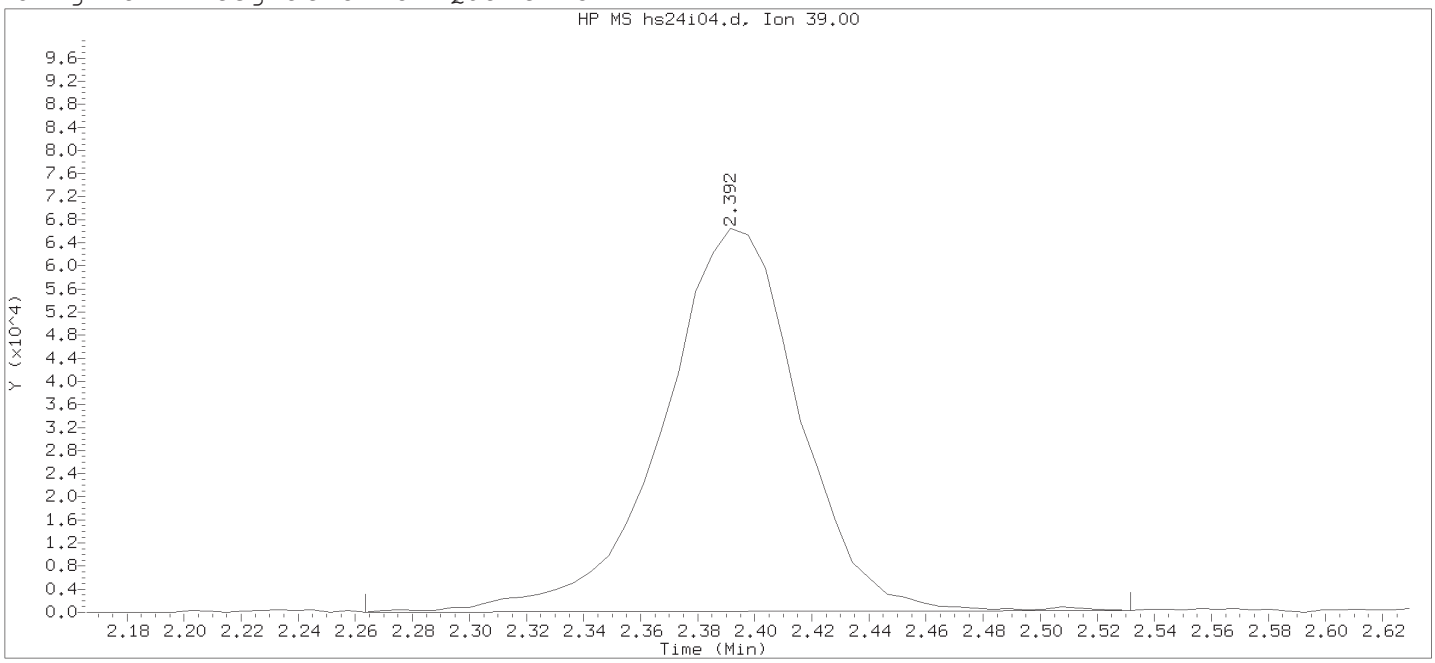
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

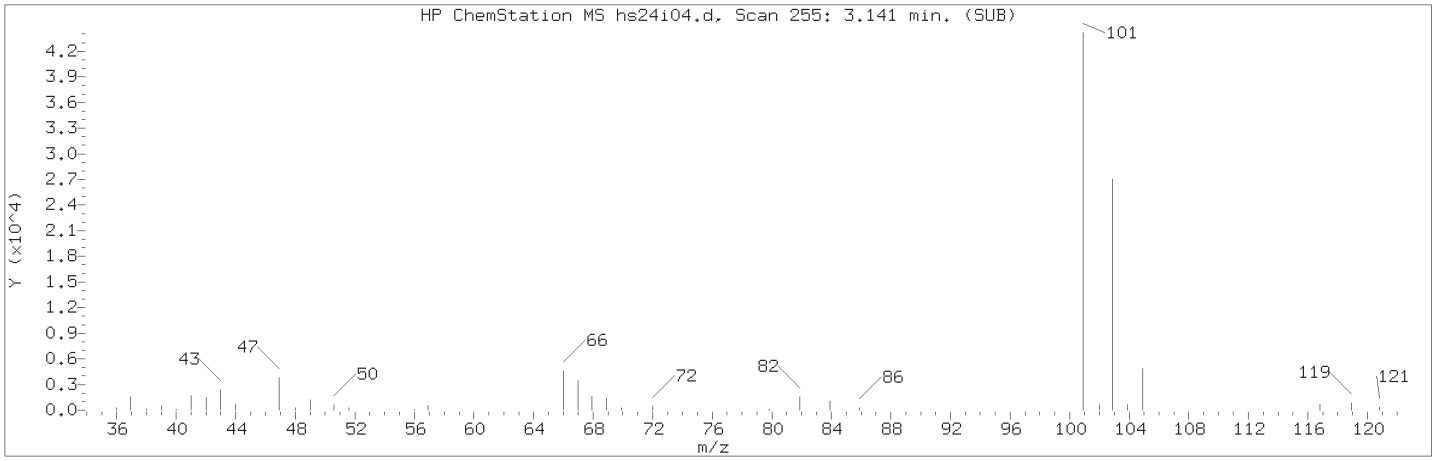
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

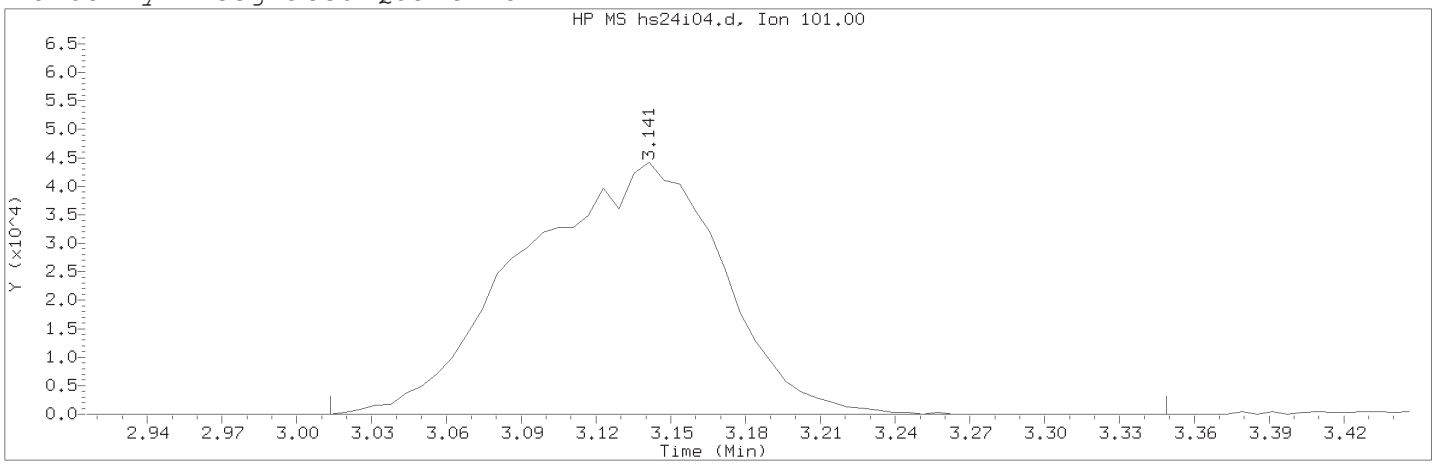
Compound Number	: 6		
Compound Name	: 1,3-Butadiene		
Scan Number	: 132		
Retention Time (minutes)	: 2.392		
Quant Ion	: 39.00		
Area	: 220168		
On-column Amount (ng)	: 1.9899		
Integration start scan	: 110	Integration stop scan:	154
Y at integration start	: 0	Y at integration end:	359

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 1.2.0.1

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

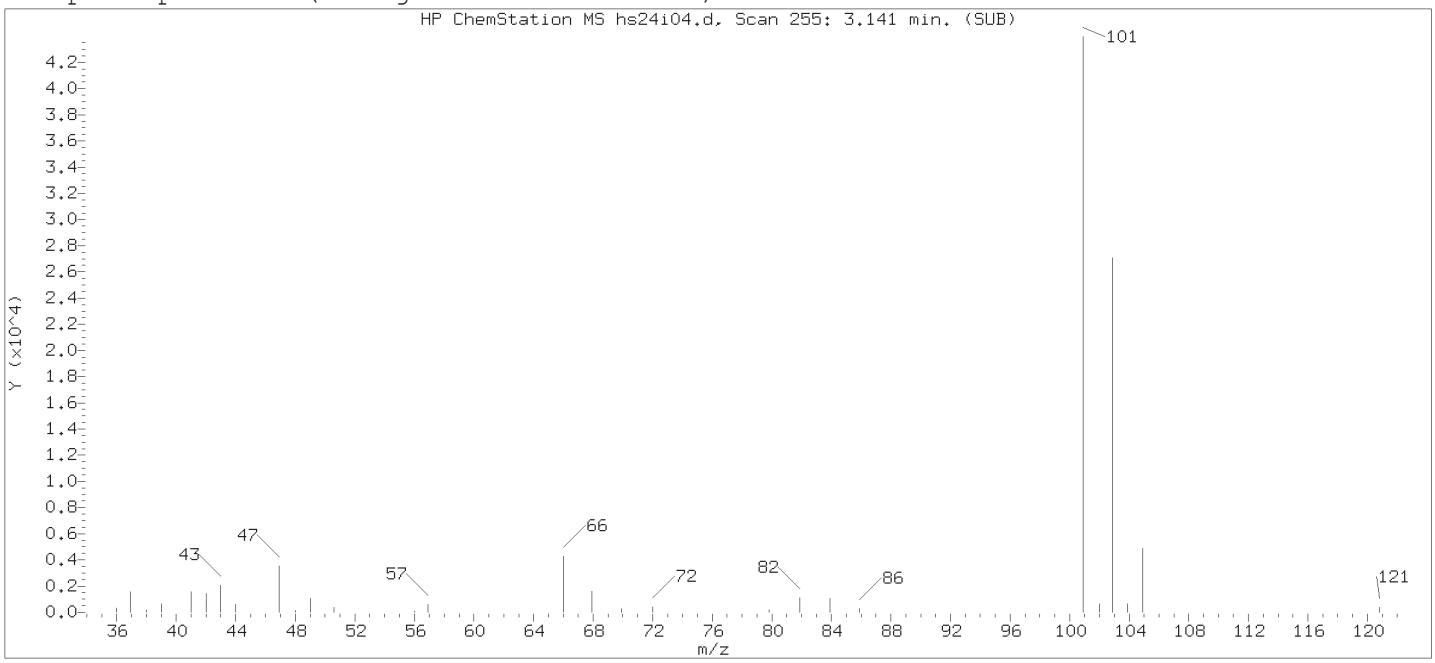
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 255
Retention Time (minutes): 3.141
Quant Ion : 101.00
Area (flag) : 245427M
On-Column Amount (ng) : 1.9558
Integration start scan : 233 Integration stop scan: 288
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

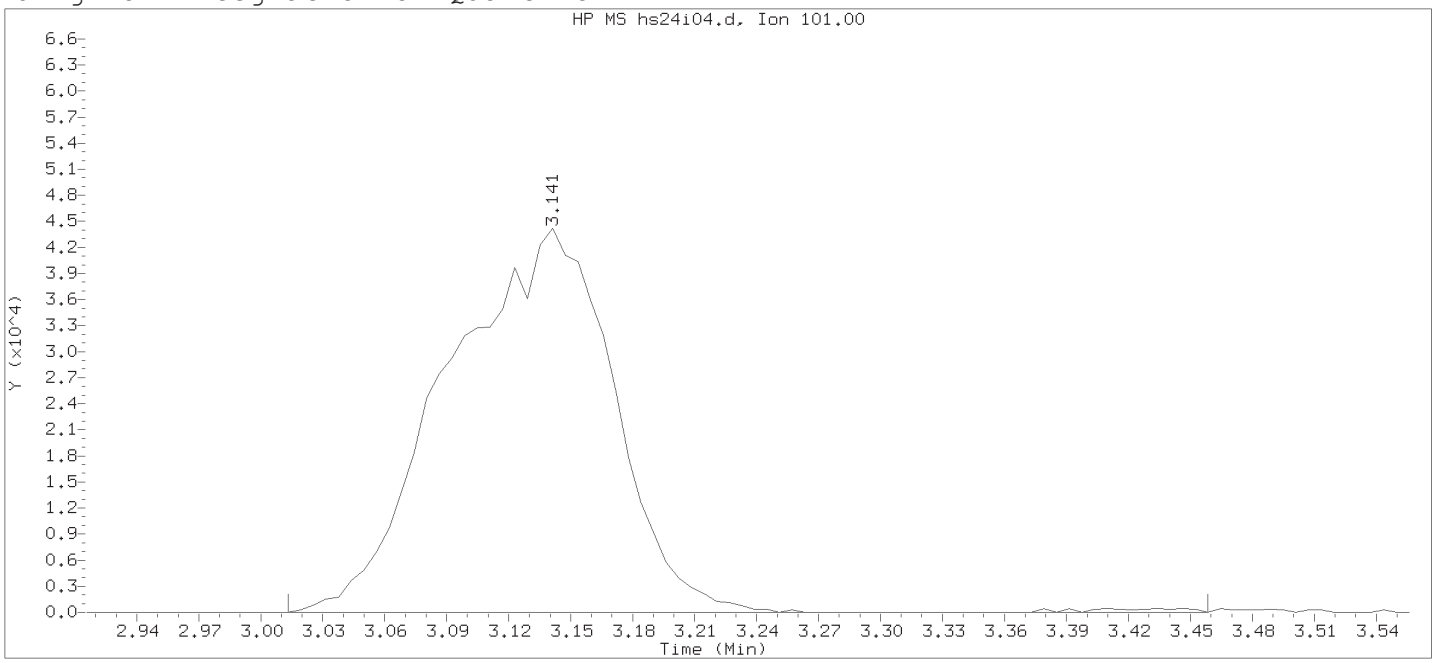
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

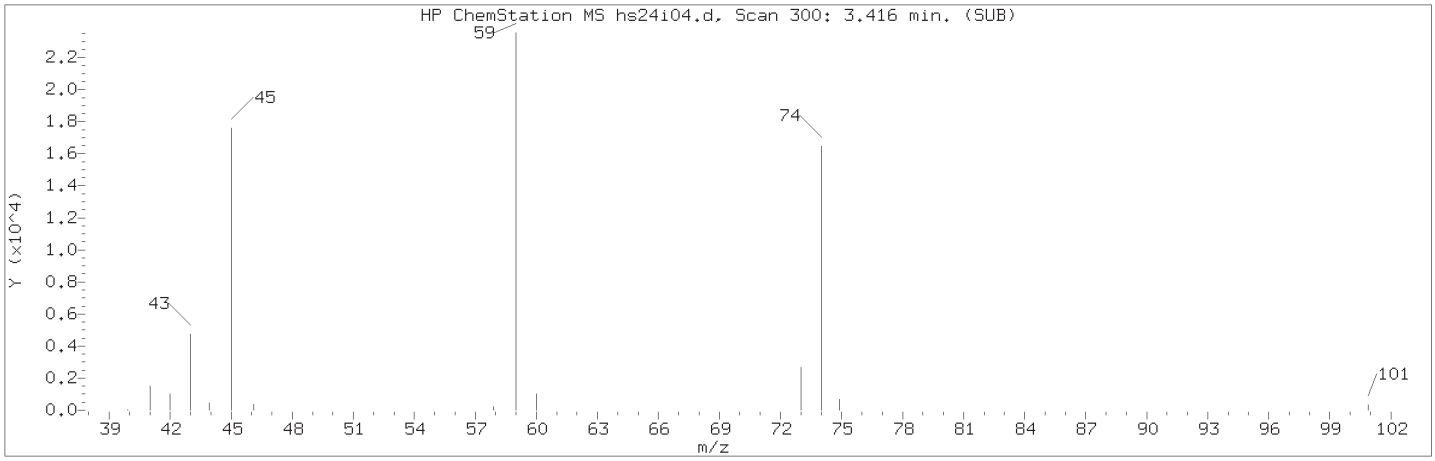
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

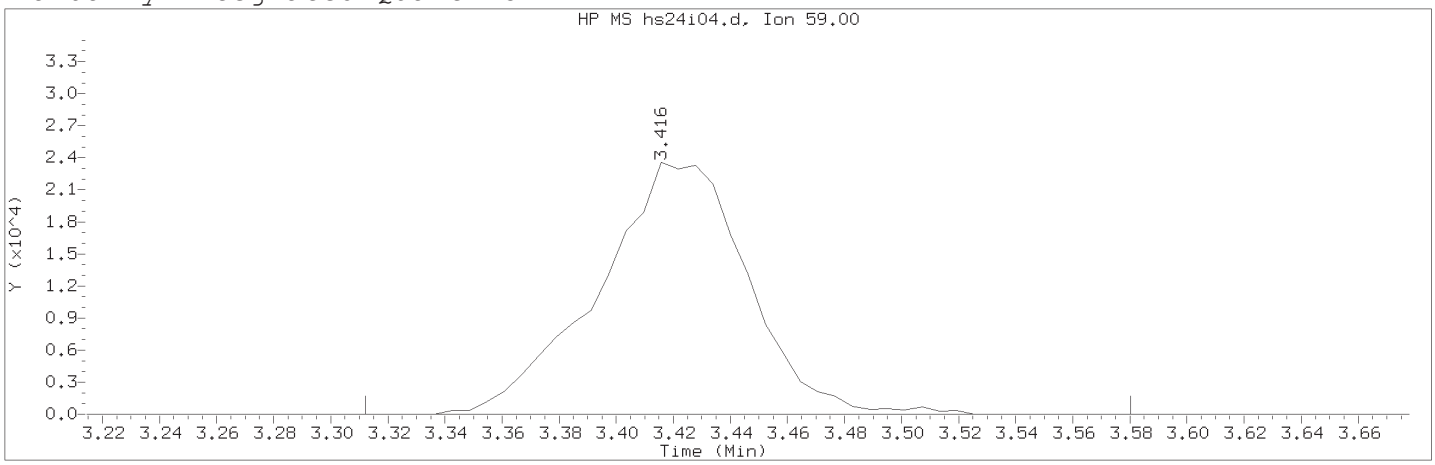
Compound Number : 10
Compound Name : Trichlorofluoromethane
Scan Number : 255
Retention Time (minutes): 3.141
Quant Ion : 101.00
Area : 246940
On-column Amount (ng) : 1.9182
Integration start scan : 233 Integration stop scan: 306
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 10/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

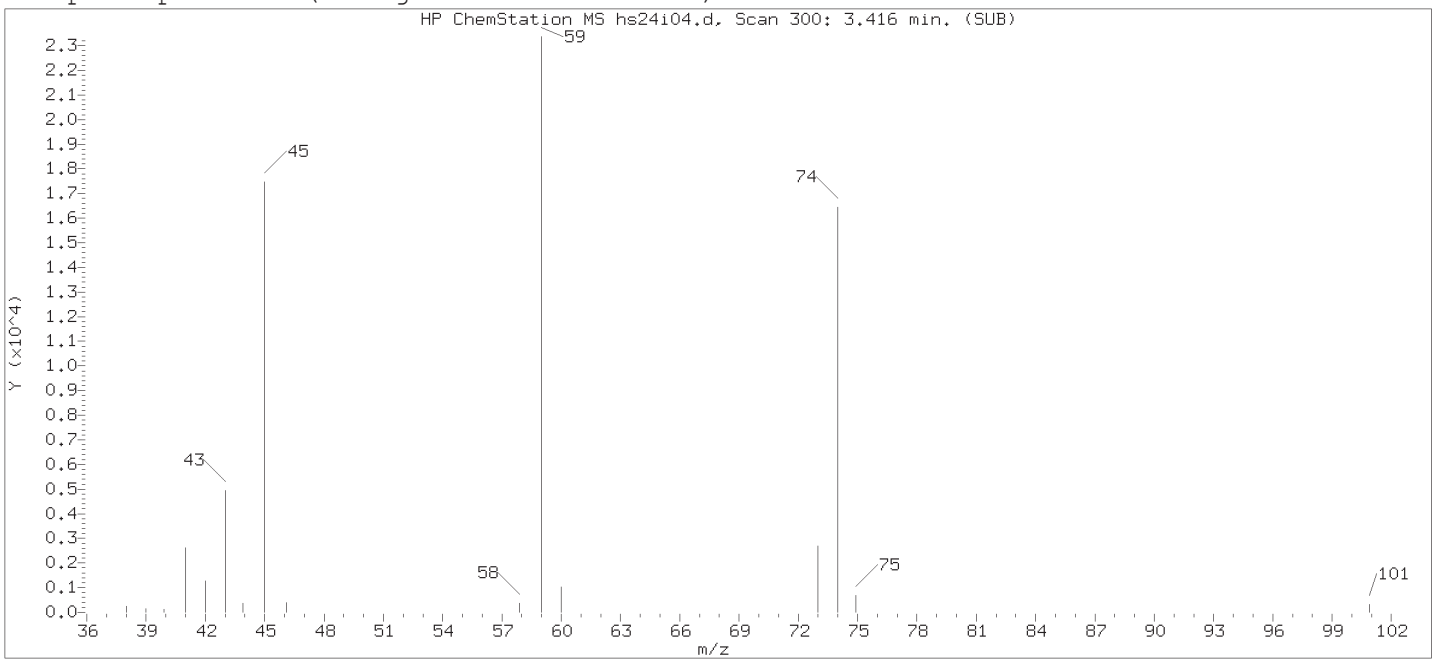
Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 300
Retention Time (minutes): 3.416
Quant Ion : 59.00
Area (flag) : 85465M
On-Column Amount (ng) : 2.0086
Integration start scan : 282 Integration stop scan: 326
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

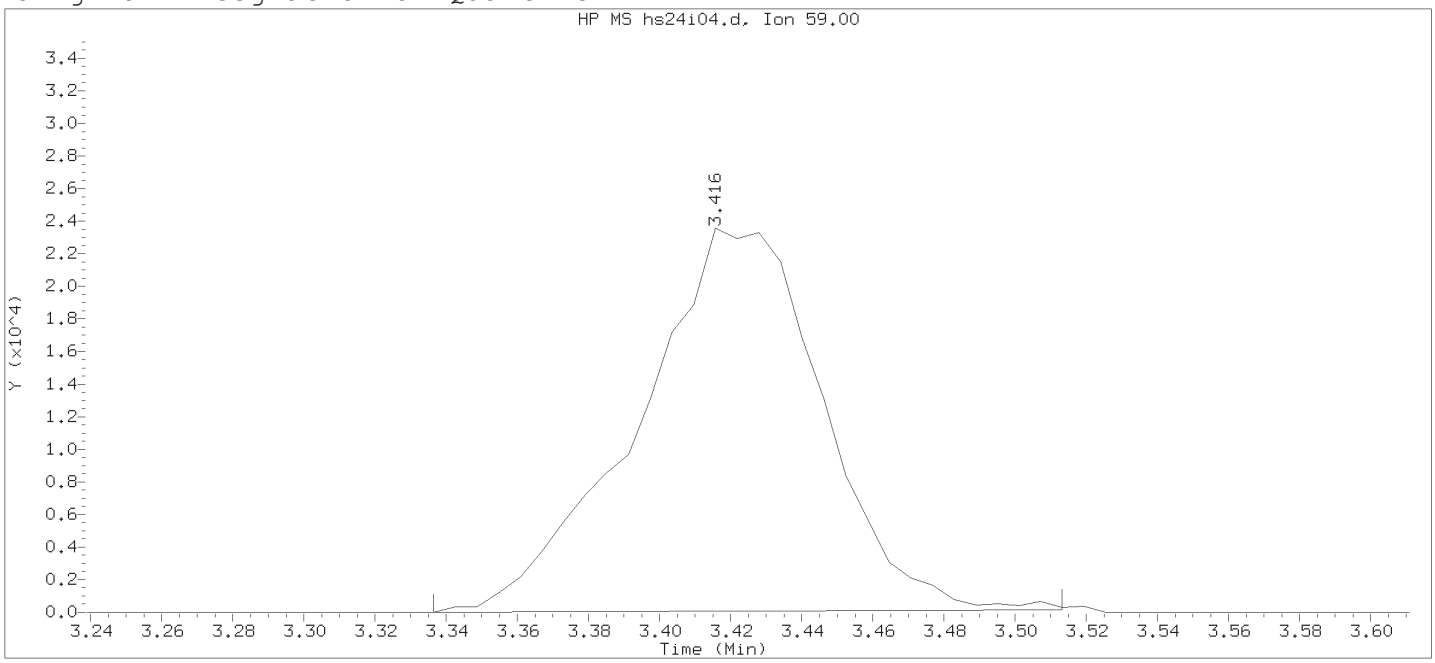
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

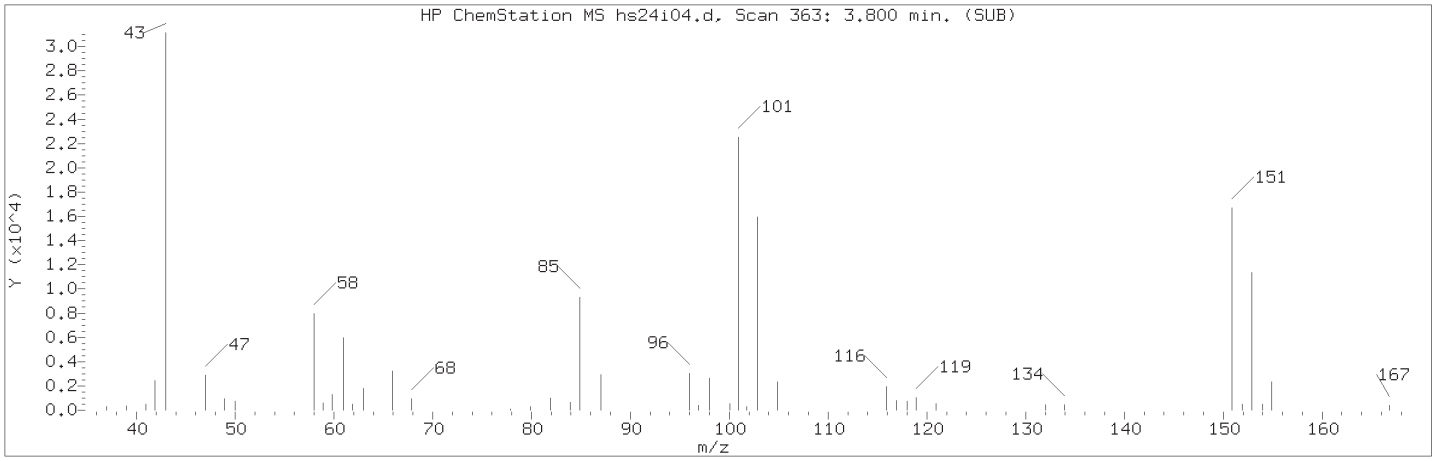
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

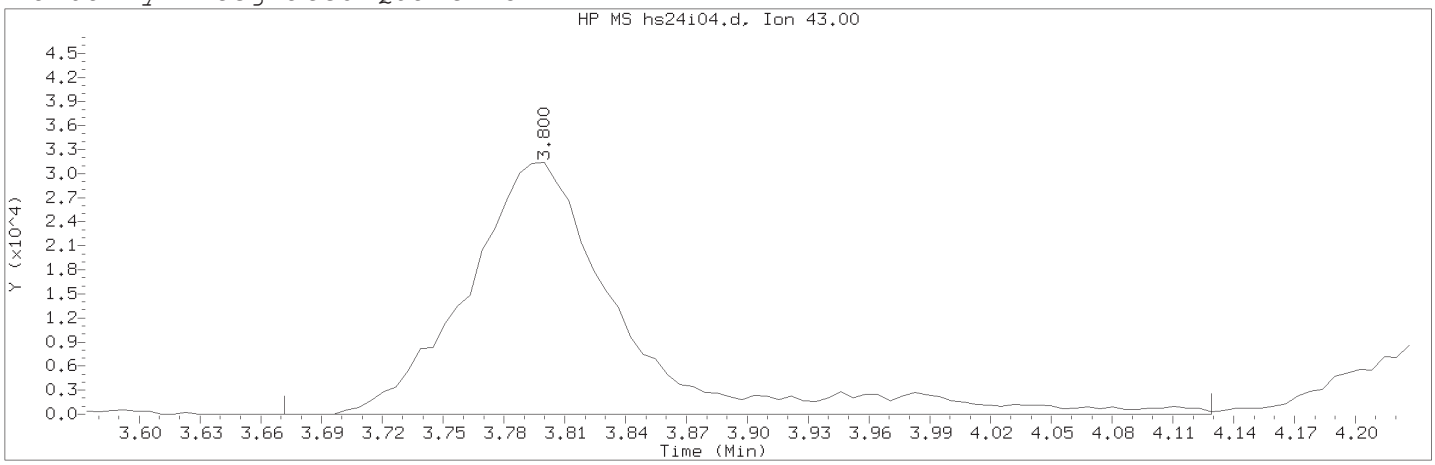
Compound Number : 11
Compound Name : Ethyl ether
Scan Number : 300
Retention Time (minutes): 3.416
Quant Ion : 59.00
Area : 84538
On-column Amount (ng) : 1.9630
Integration start scan : 286 Integration stop scan: 315
Y at integration start : 0 Y at integration end: 140

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

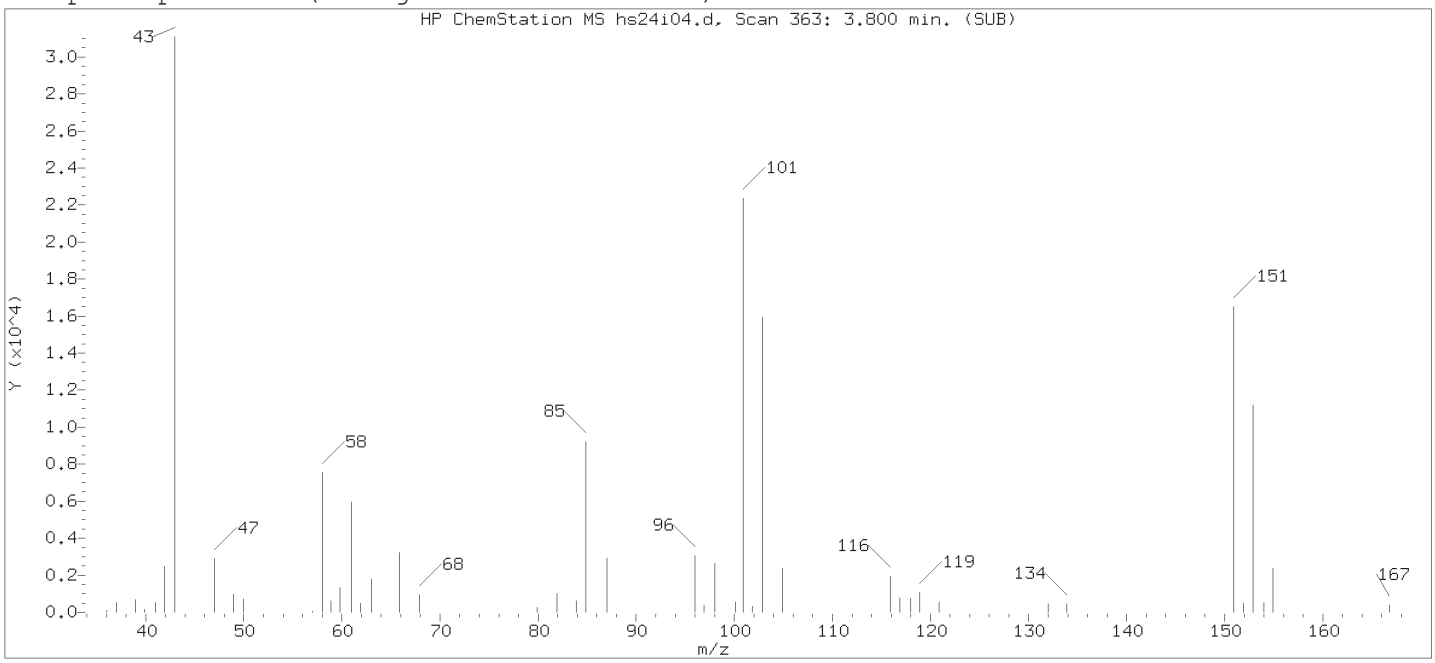
Compound Number : 14
Compound Name : Acetone
Scan Number : 363
Retention Time (minutes): 3.800
Quant Ion : 43.00
Area (flag) : 167715M
On-Column Amount (ng) : 19.0303
Integration start scan : 341 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

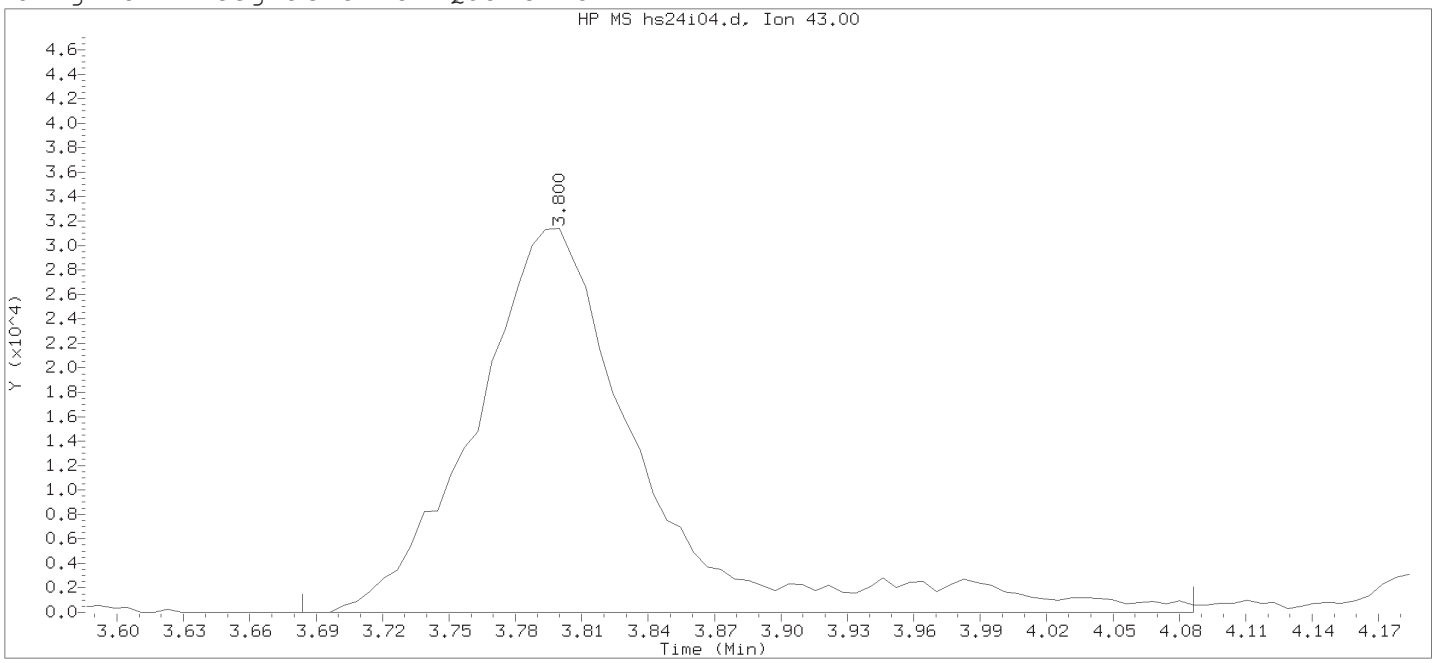
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

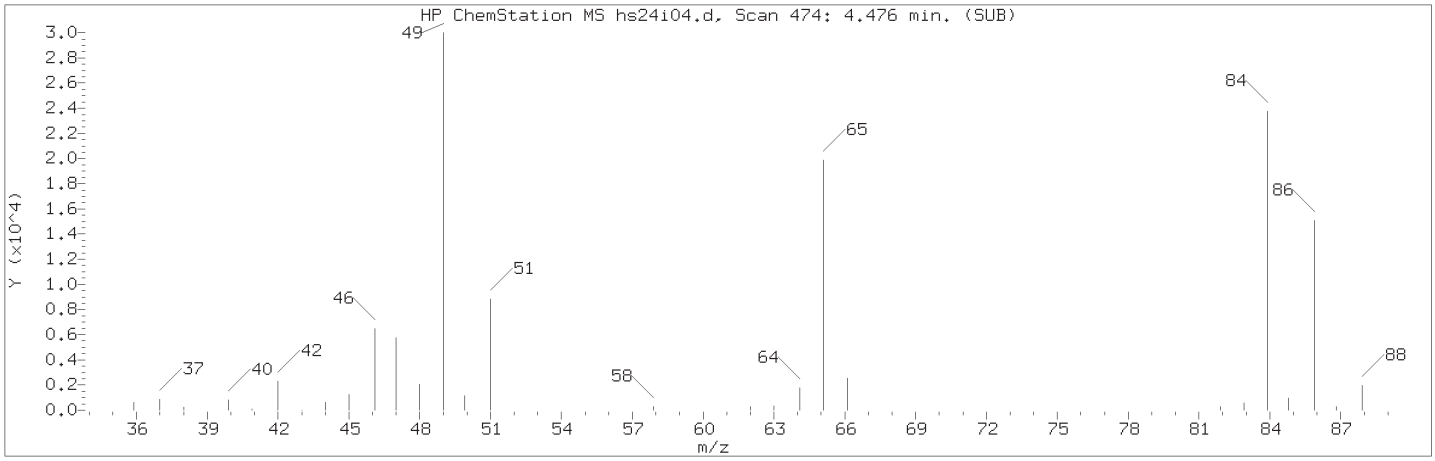
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

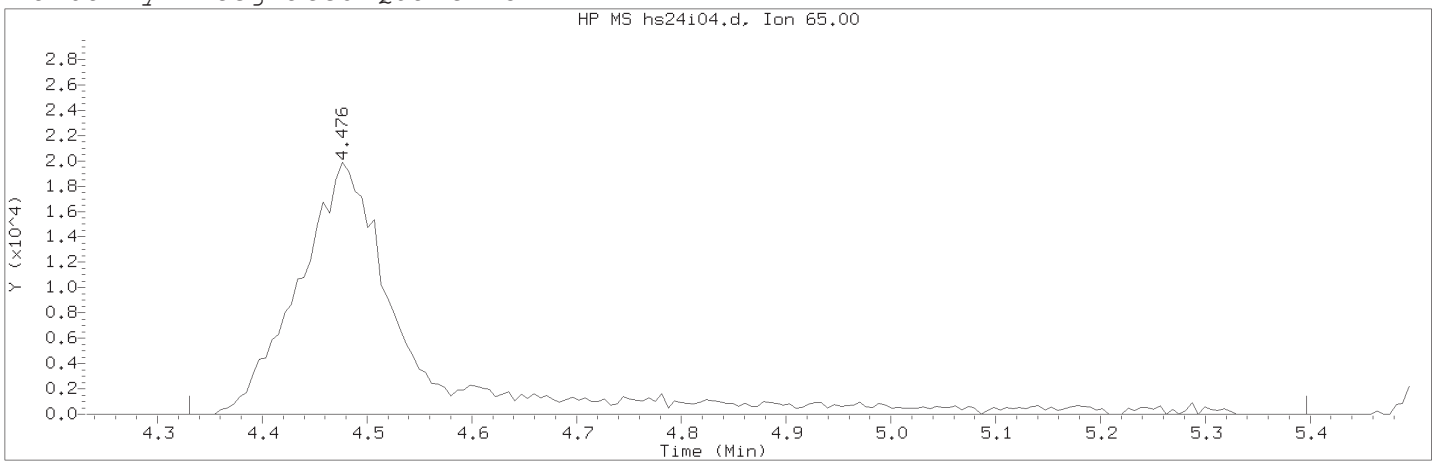
Compound Number : 14
Compound Name : Acetone
Scan Number : 363
Retention Time (minutes): 3.800
Quant Ion : 43.00
Area : 165832
On-column Amount (ng) : 19.2516
Integration start scan : 343 Integration stop scan: 409
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 10/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

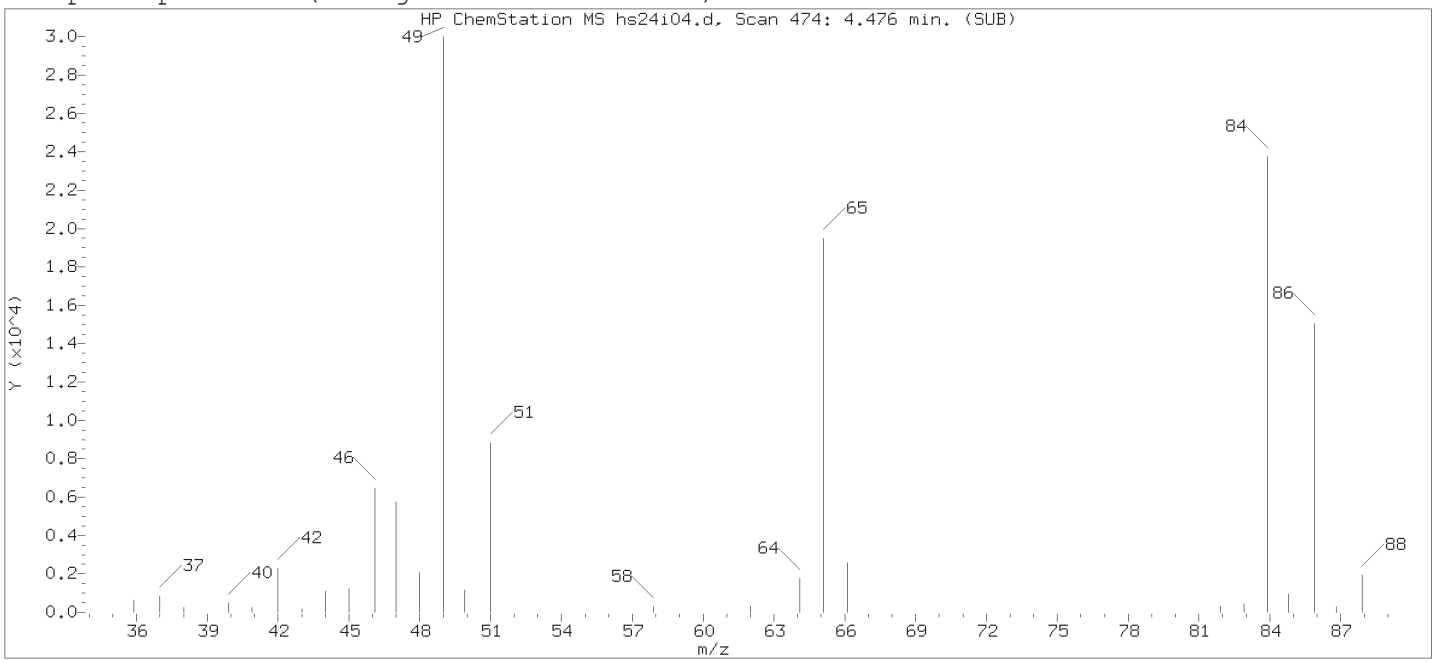
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area (flag) : 147863M
On-Column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 624
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

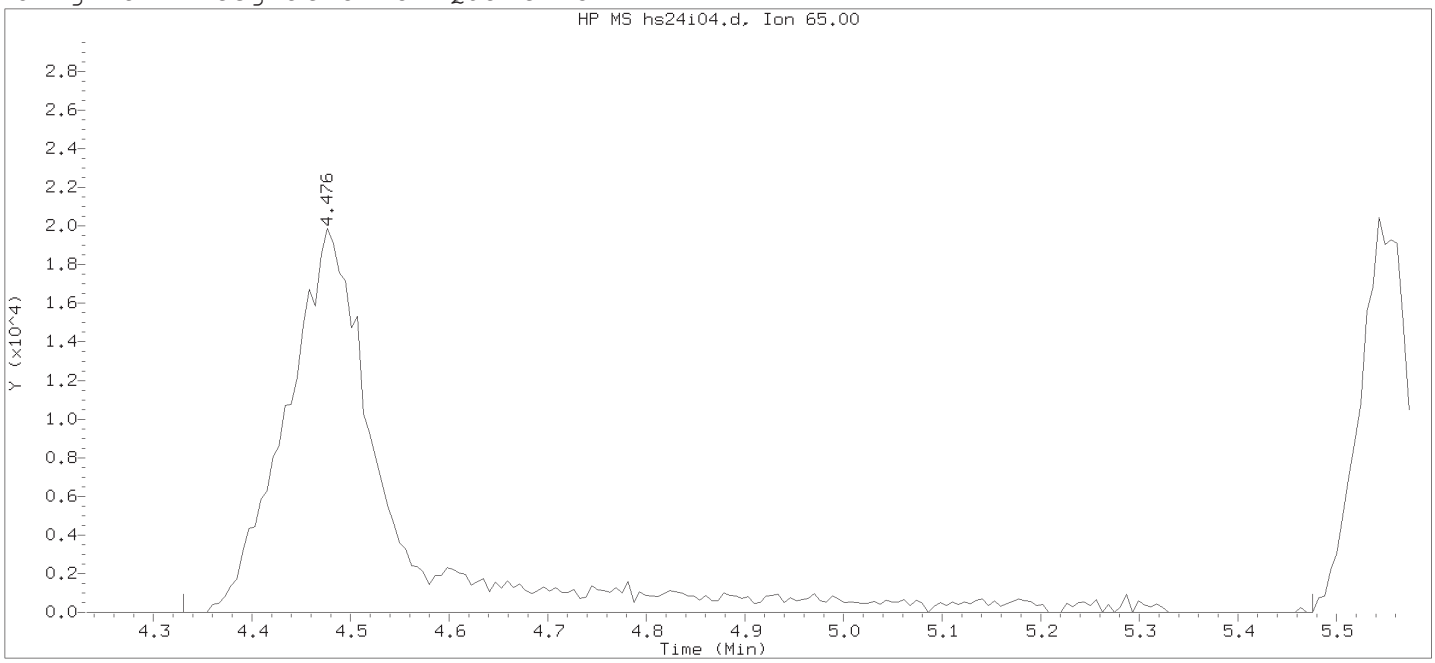
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

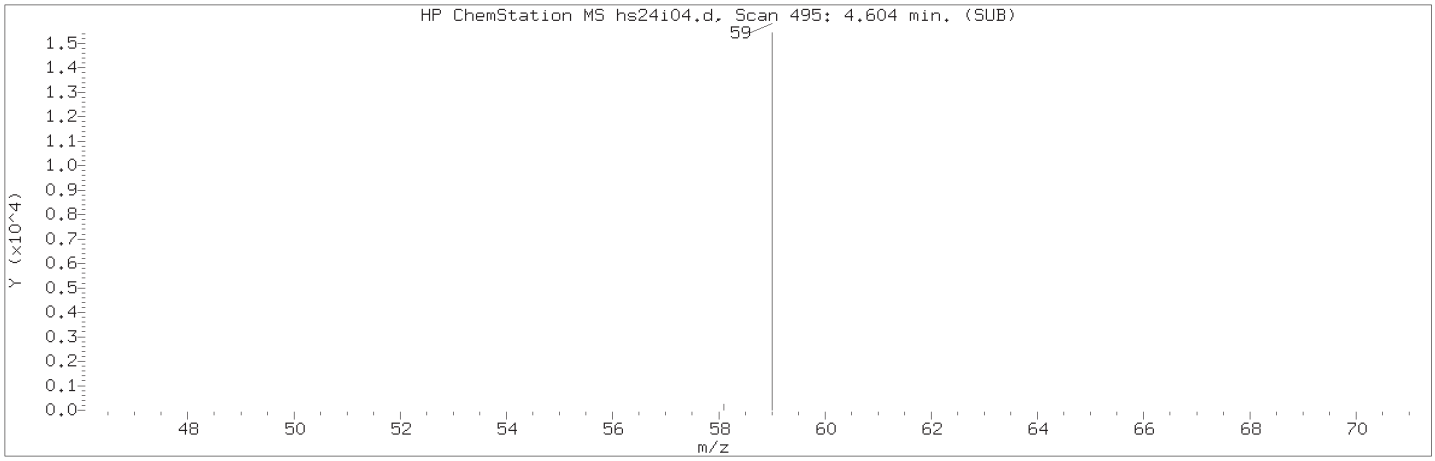
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

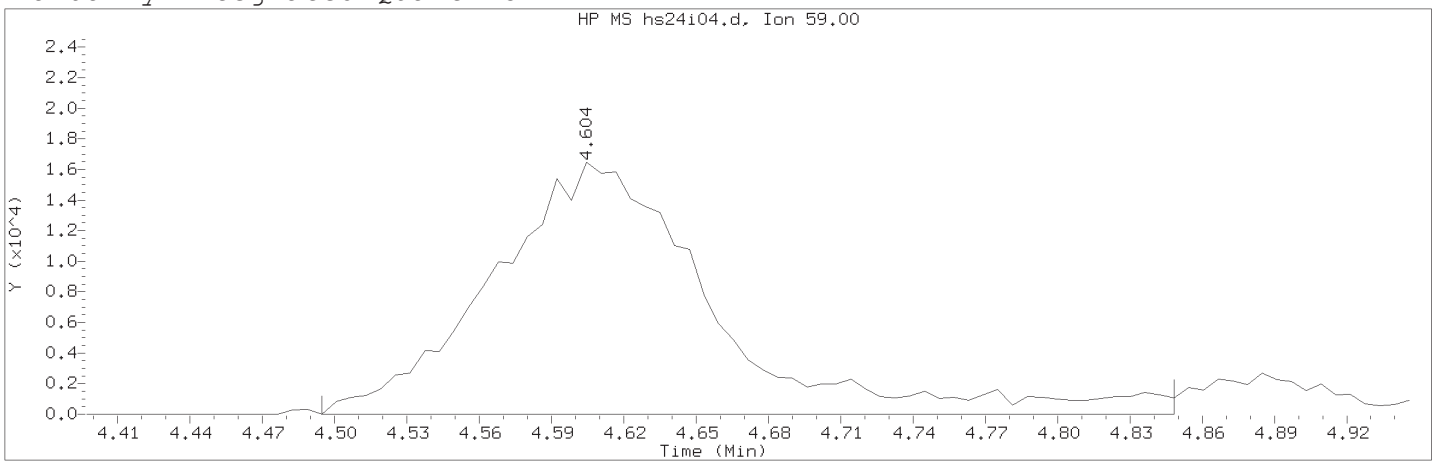
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.476
Quant Ion : 65.00
Area : 147958
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 637
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

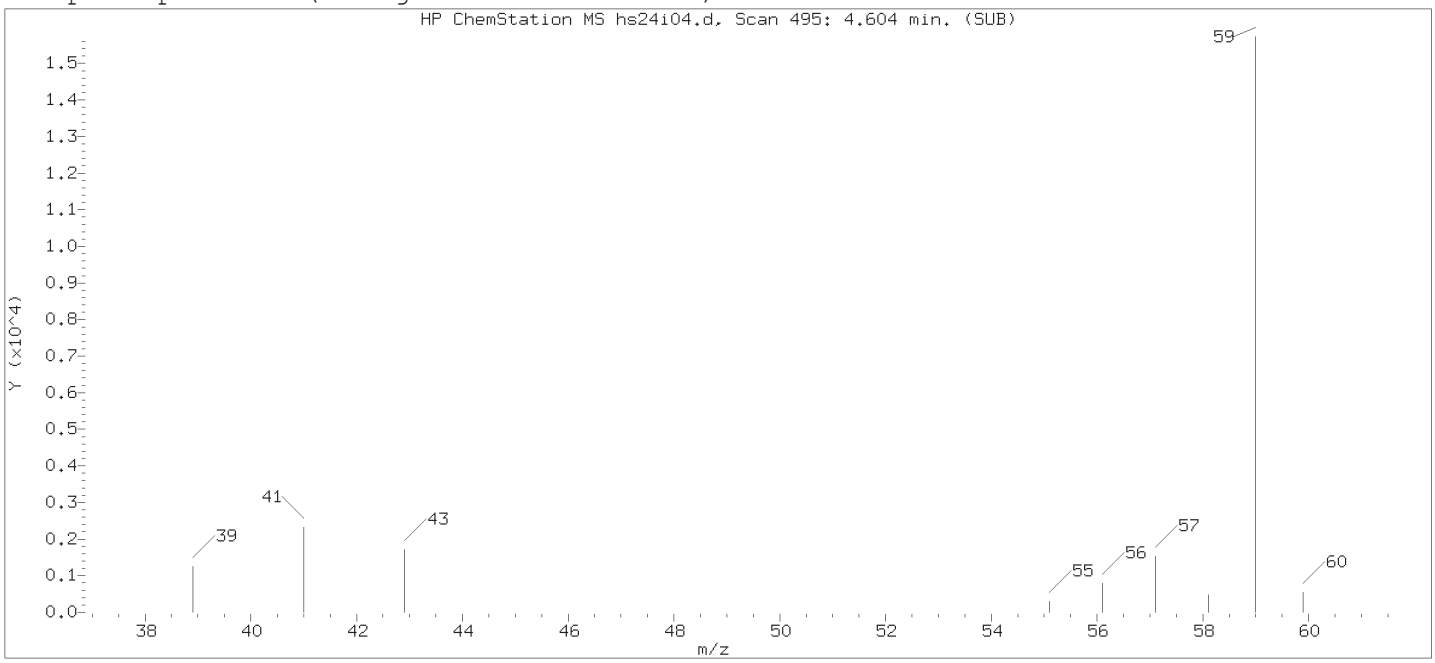
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.604
Quant Ion : 59.00
Area (flag) : 104728M
On-Column Amount (ng) : 41.4946
Integration start scan : 476 Integration stop scan: 534
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

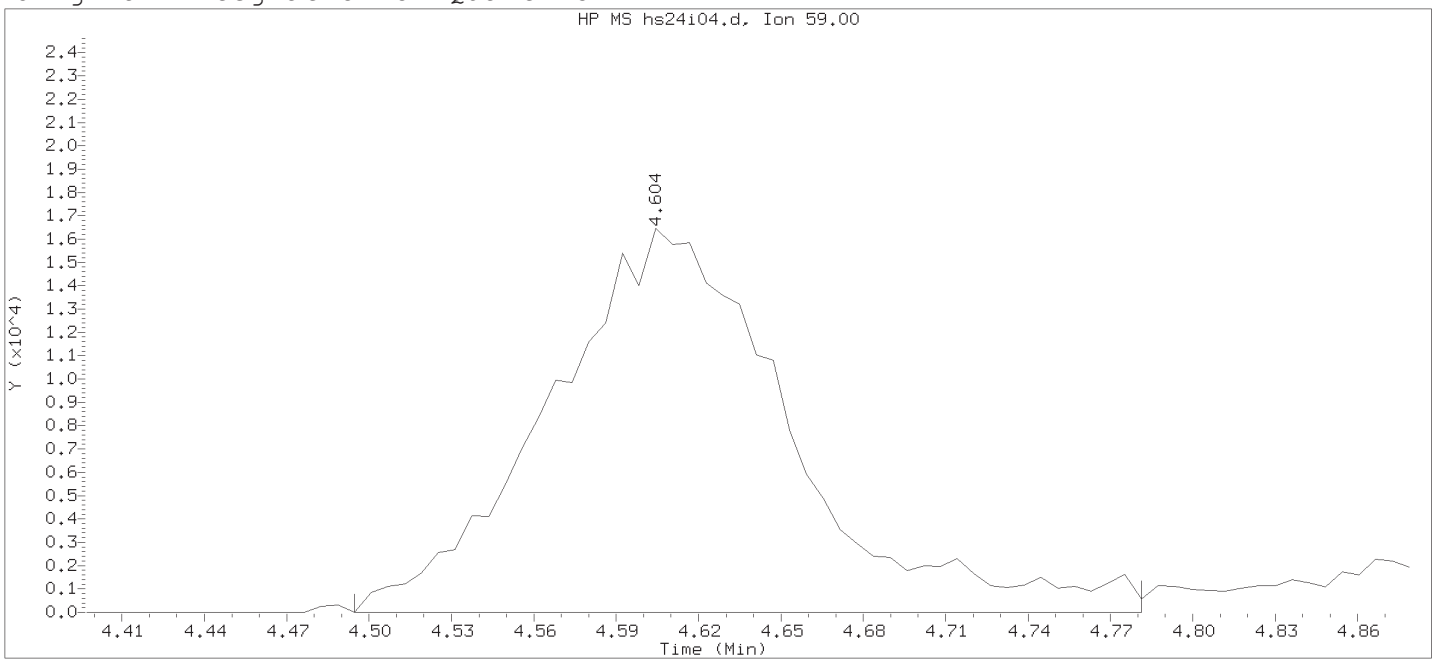
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

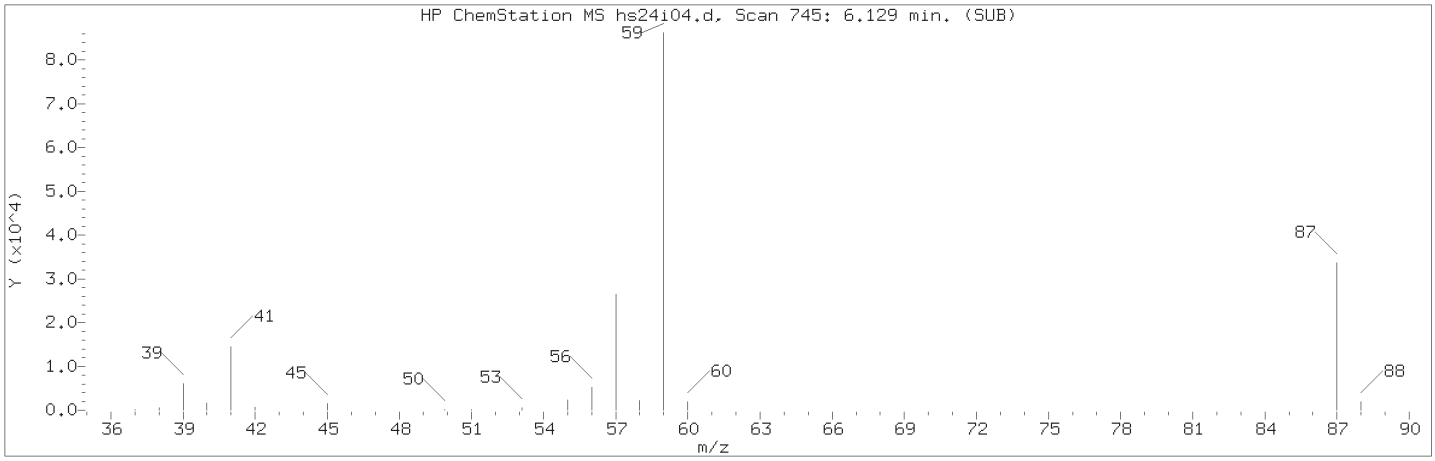
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

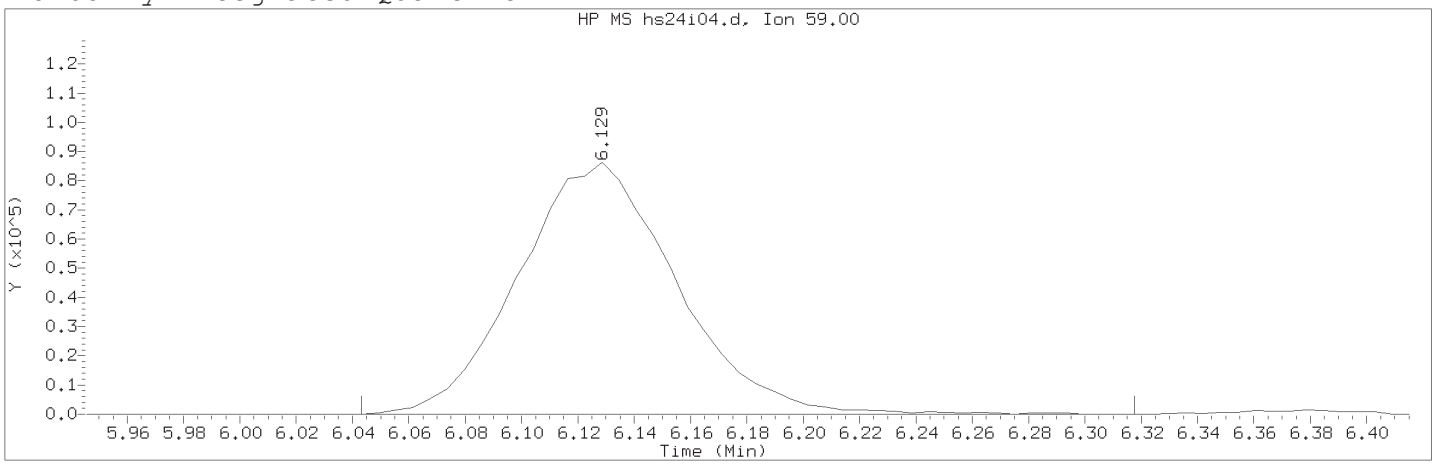
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.604
Quant Ion : 59.00
Area : 100186
On-column Amount (ng) : 38.4816
Integration start scan : 476 Integration stop scan: 523
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

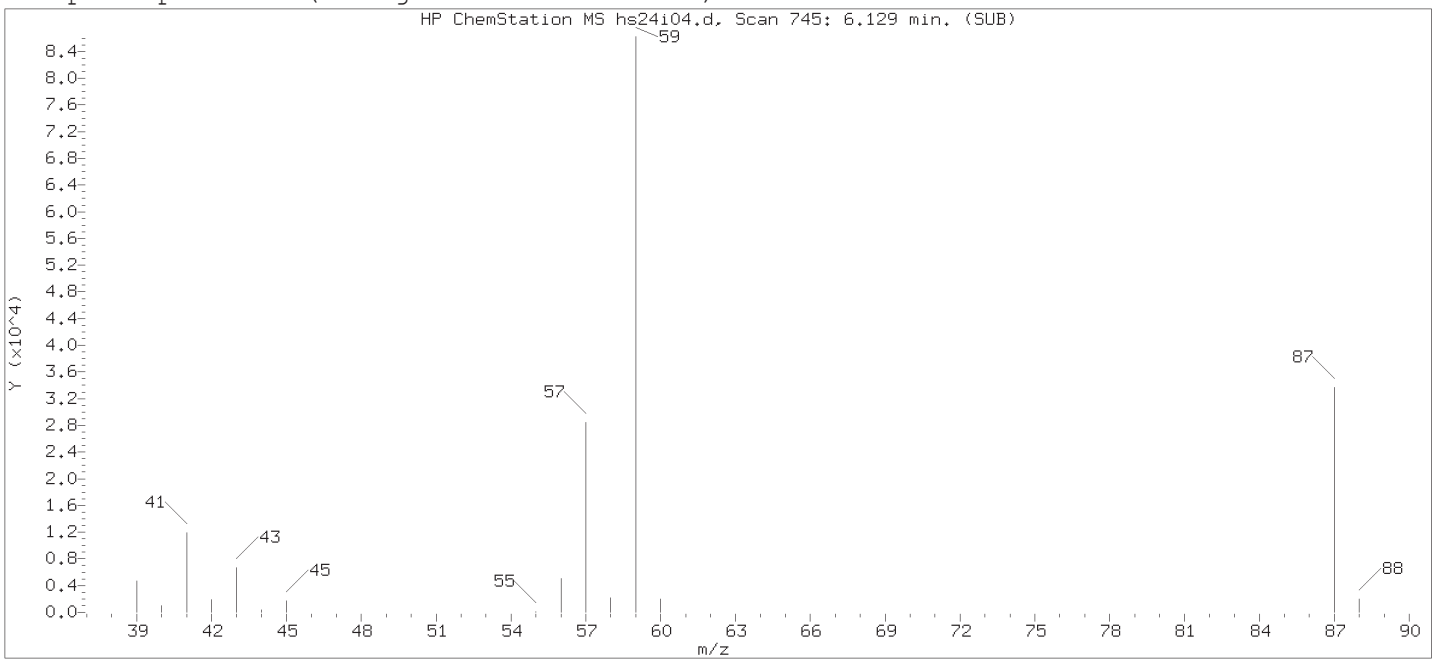
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 745
Retention Time (minutes): 6.129
Quant Ion : 59.00
Area (flag) : 334132M
On-Column Amount (ng) : 2.0315
Integration start scan : 730 Integration stop scan: 775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

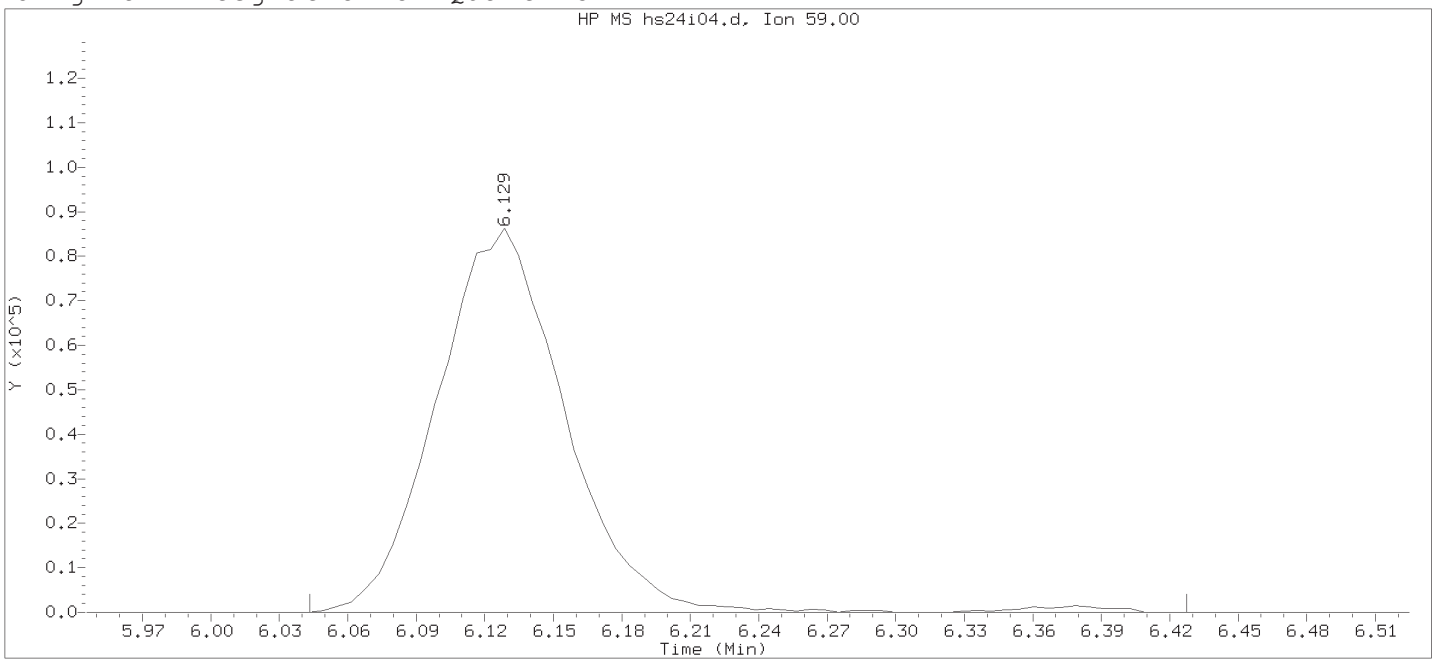
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

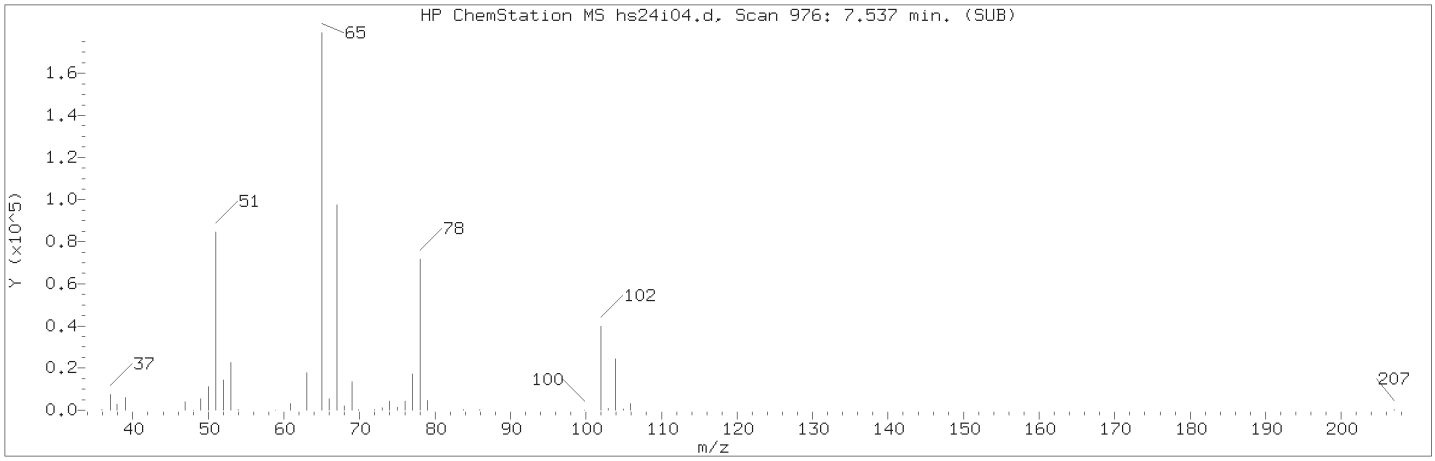
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

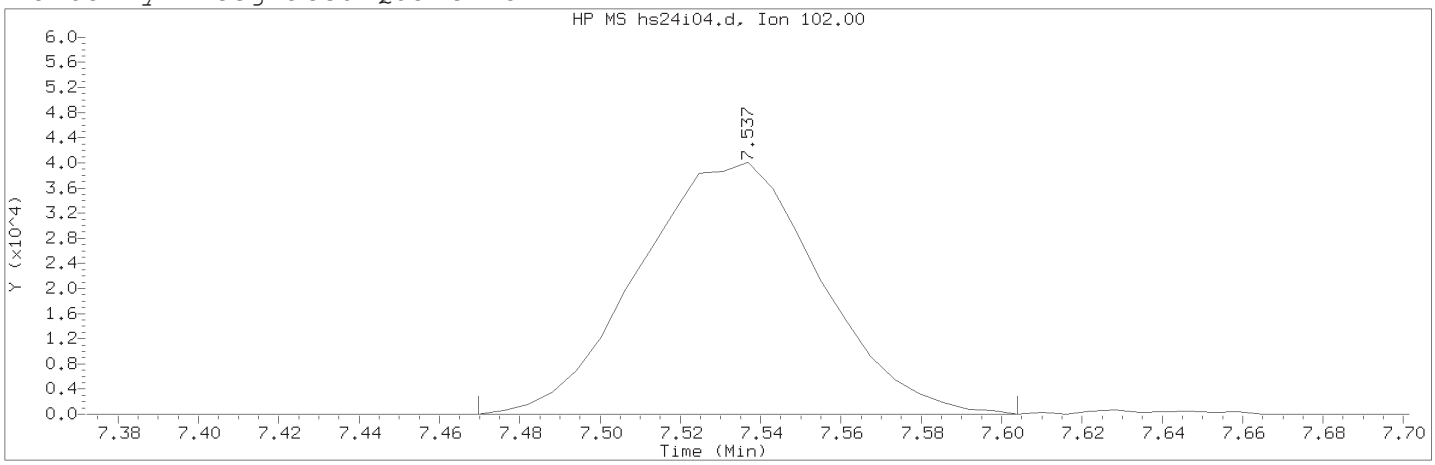
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 745
Retention Time (minutes): 6.129
Quant Ion : 59.00
Area : 338010
On-column Amount (ng) : 1.9953
Integration start scan : 730 Integration stop scan: 793
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

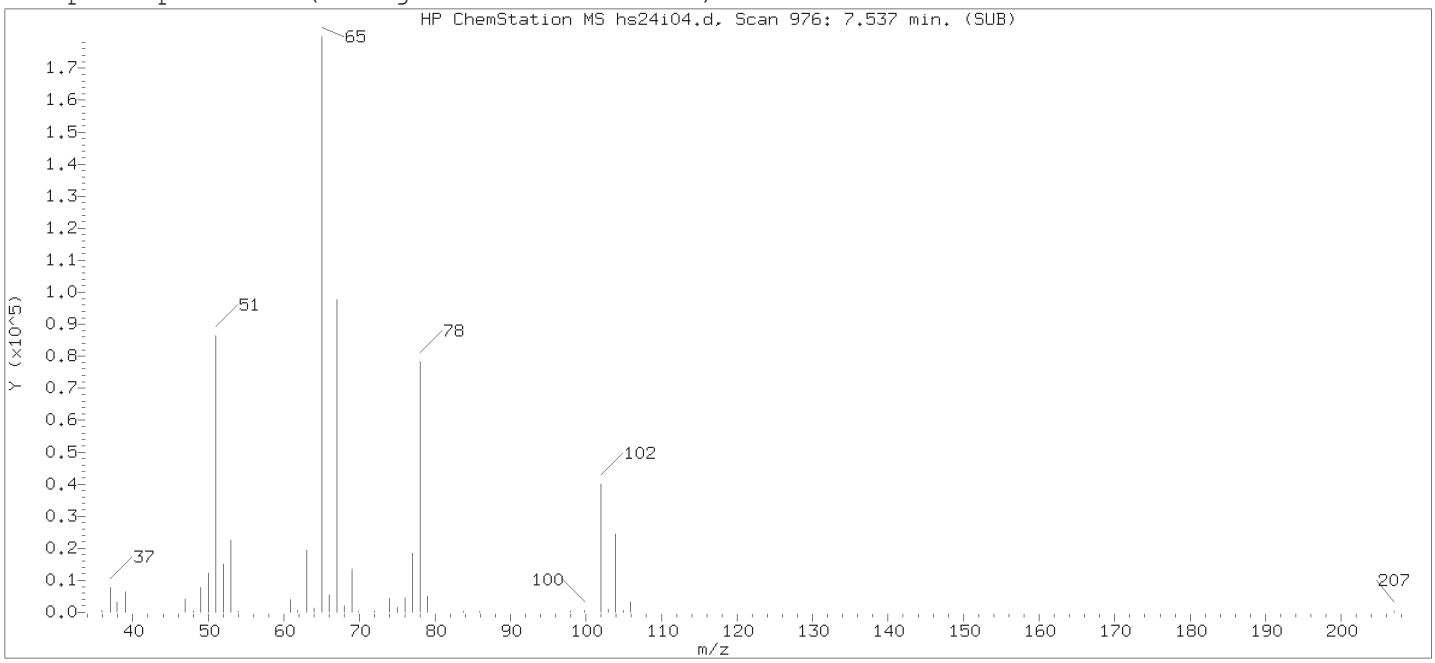
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area (flag) : 125039M
On-Column Amount (ng) : 10.2684
Integration start scan : 964 Integration stop scan: 986
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

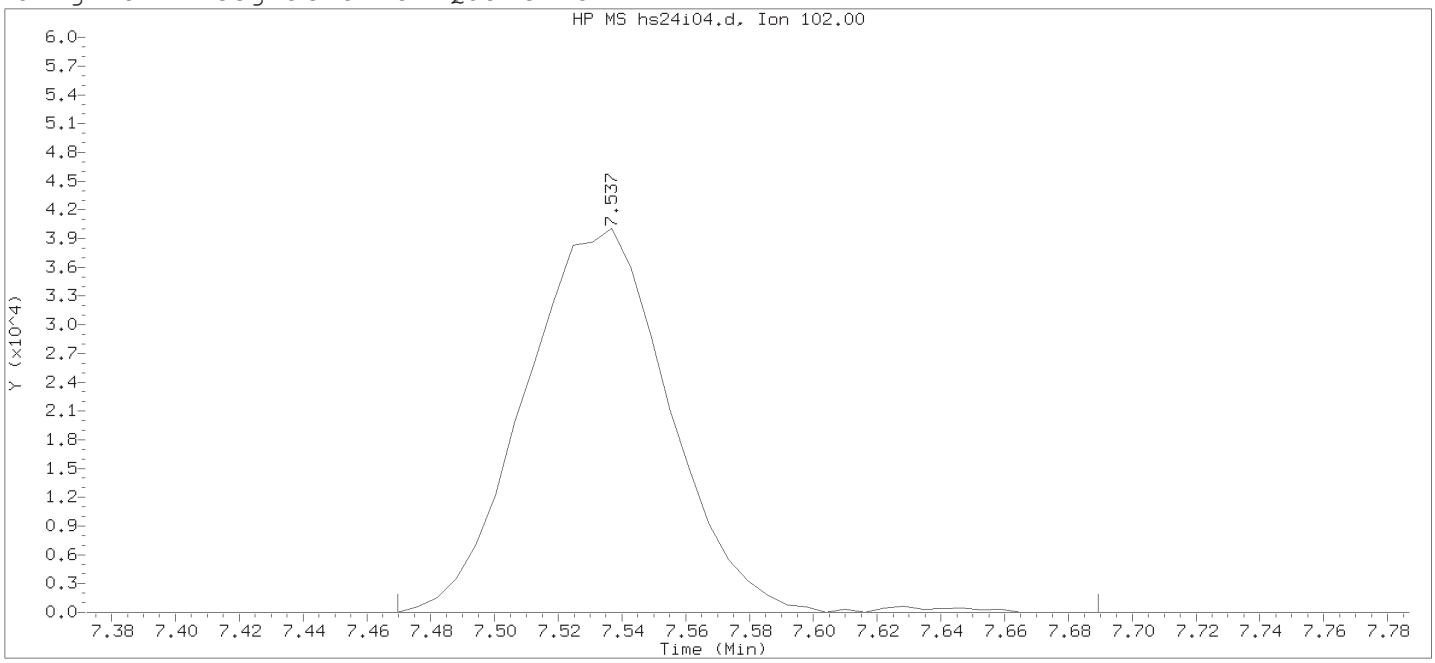
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

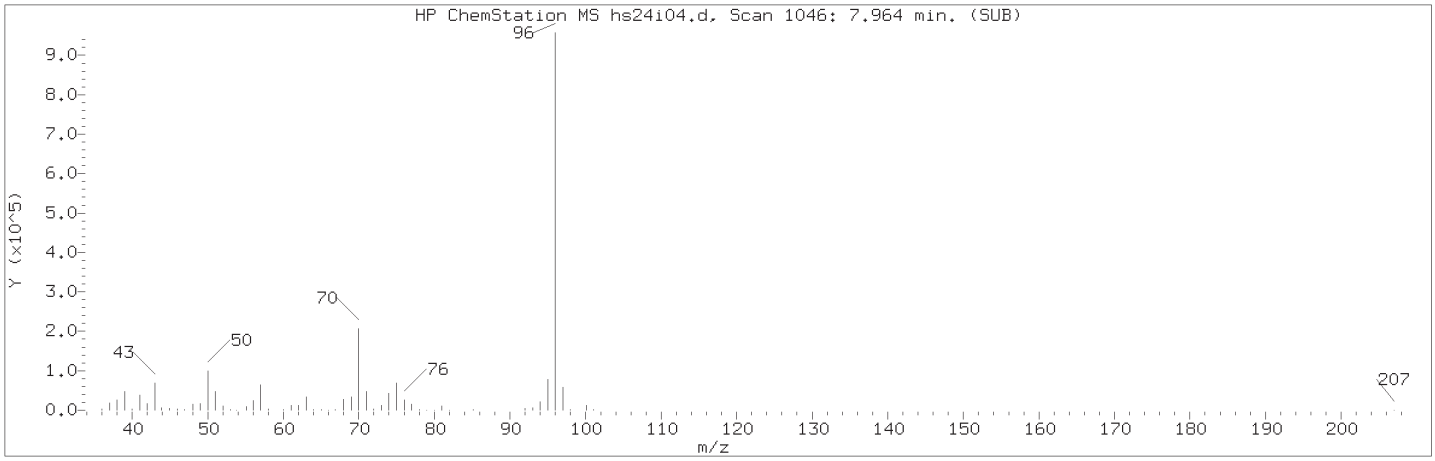
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

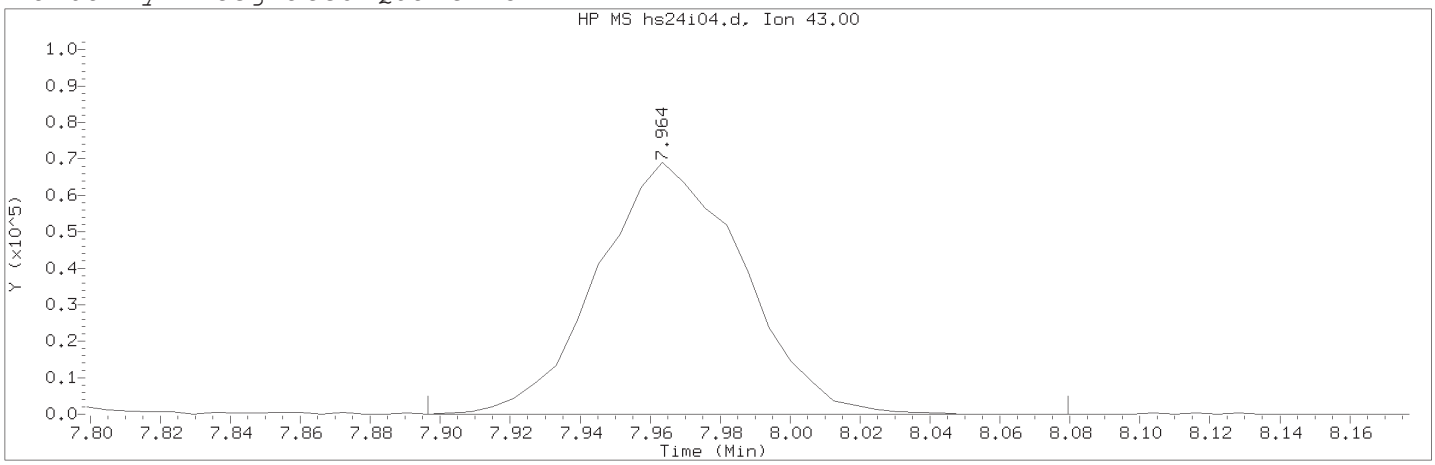
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 976
Retention Time (minutes): 7.537
Quant Ion : 102.00
Area : 126184
On-column Amount (ng) : 10.2319
Integration start scan : 964 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

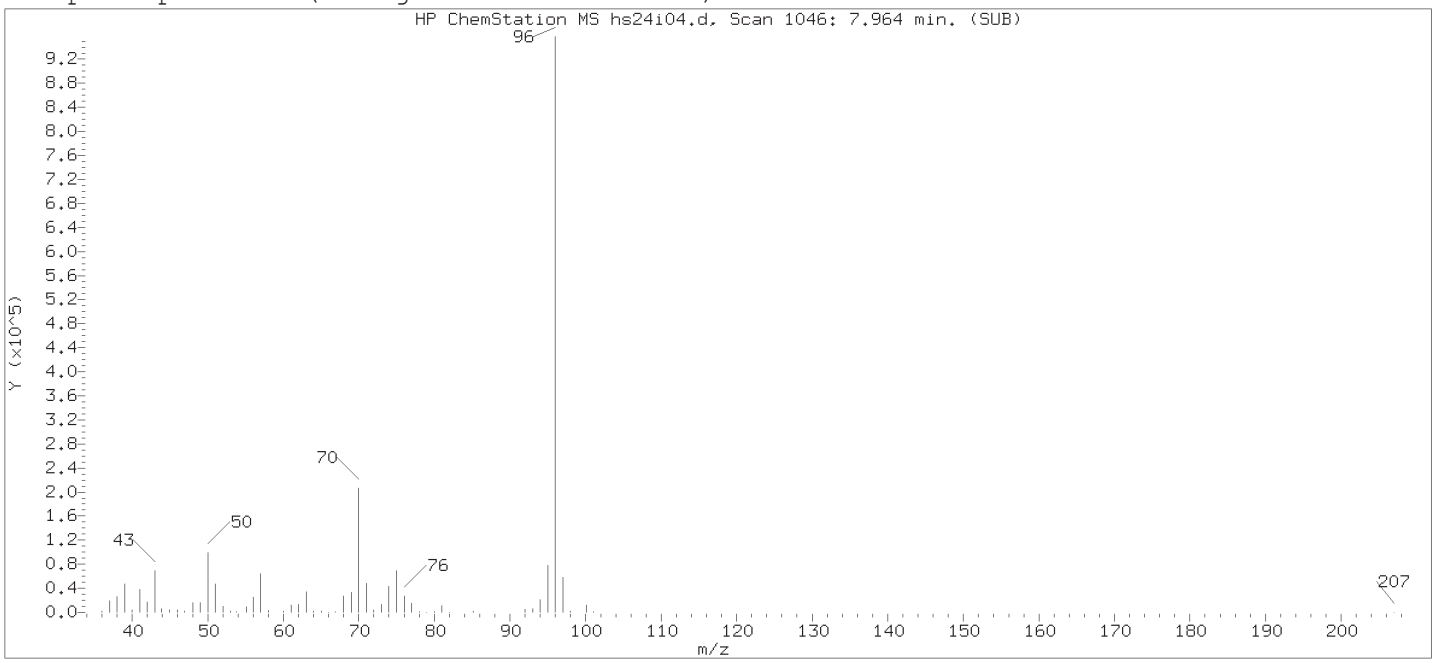
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1046
Retention Time (minutes): 7.964
Quant Ion : 43.00
Area (flag) : 198879M
On-Column Amount (ng) : 1.9780
Integration start scan : 1034 Integration stop scan: 1064
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

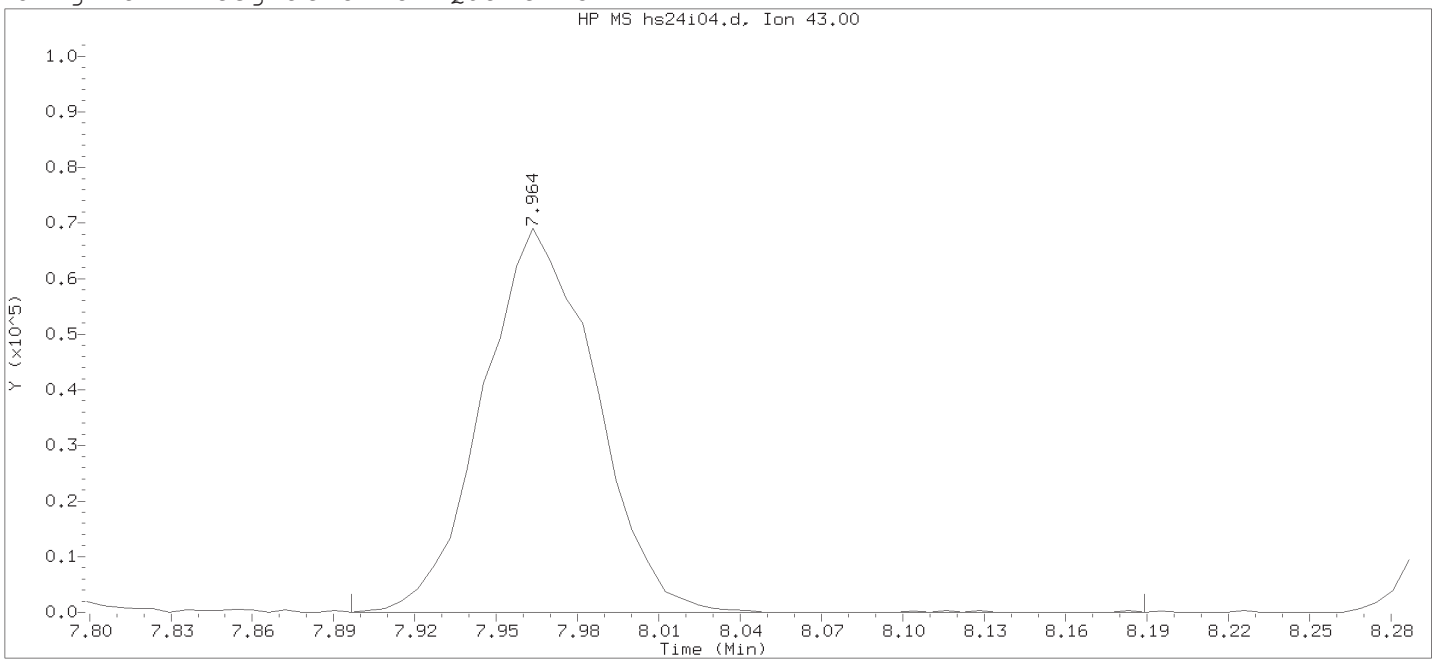
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

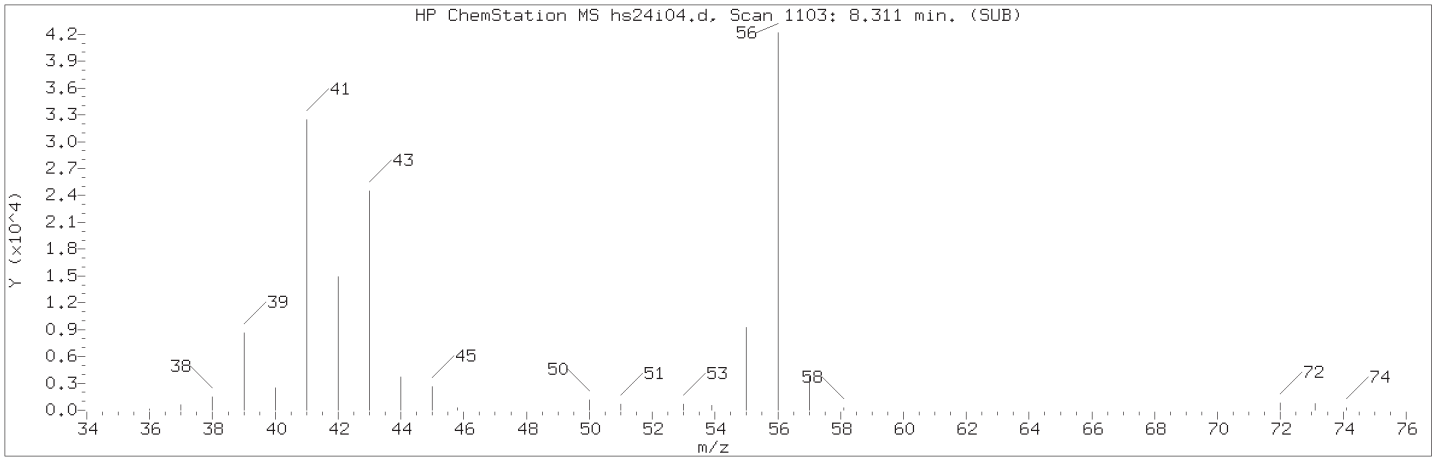
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

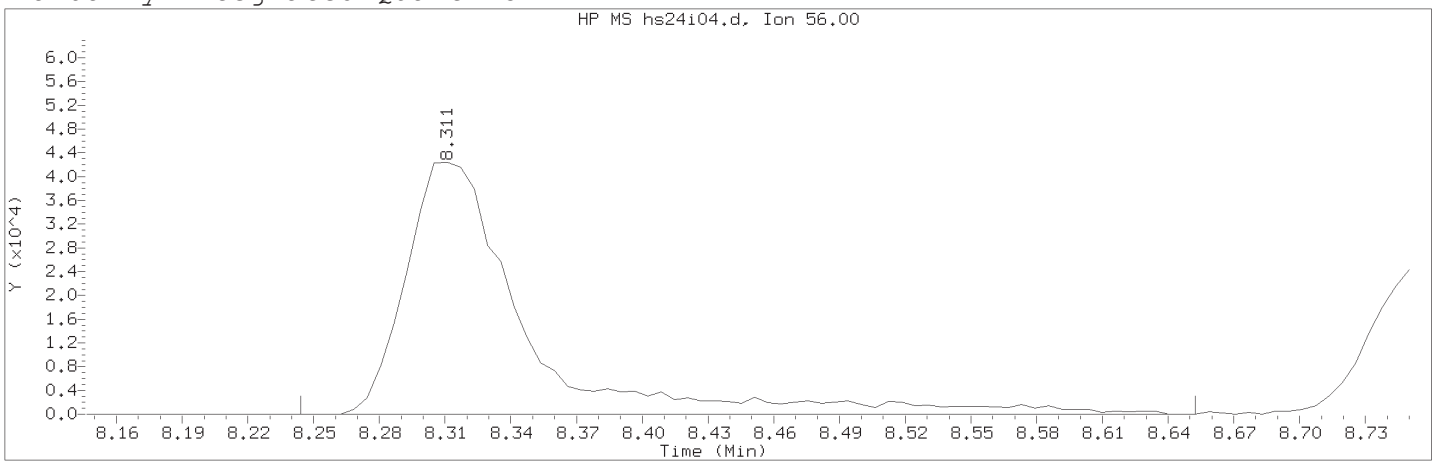
Compound Number : 62
Compound Name : n-Heptane
Scan Number : 1046
Retention Time (minutes): 7.964
Quant Ion : 43.00
Area : 199330
On-column Amount (ng) : 1.8366
Integration start scan : 1034 Integration stop scan: 1082
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

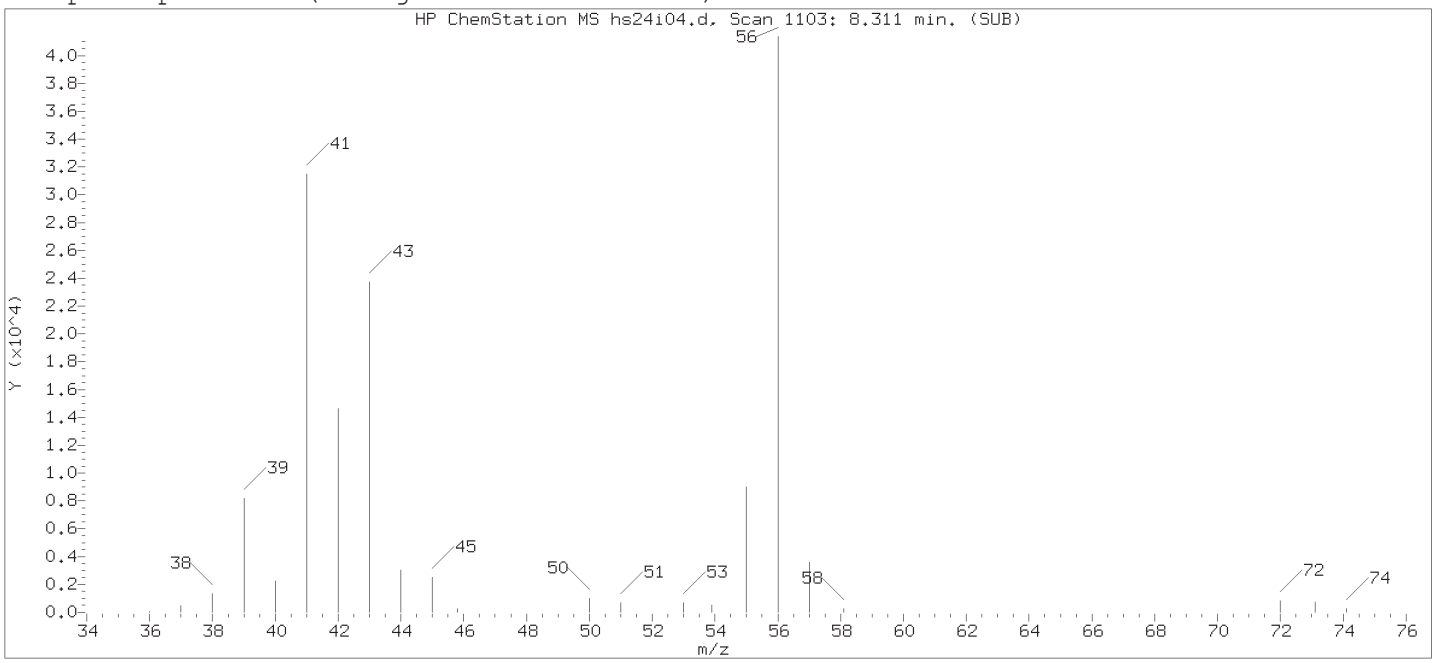
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1103
Retention Time (minutes): 8.311
Quant Ion : 56.00
Area (flag) : 160778M
On-Column Amount (ng) : 194.8775
Integration start scan : 1091 Integration stop scan: 1158
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

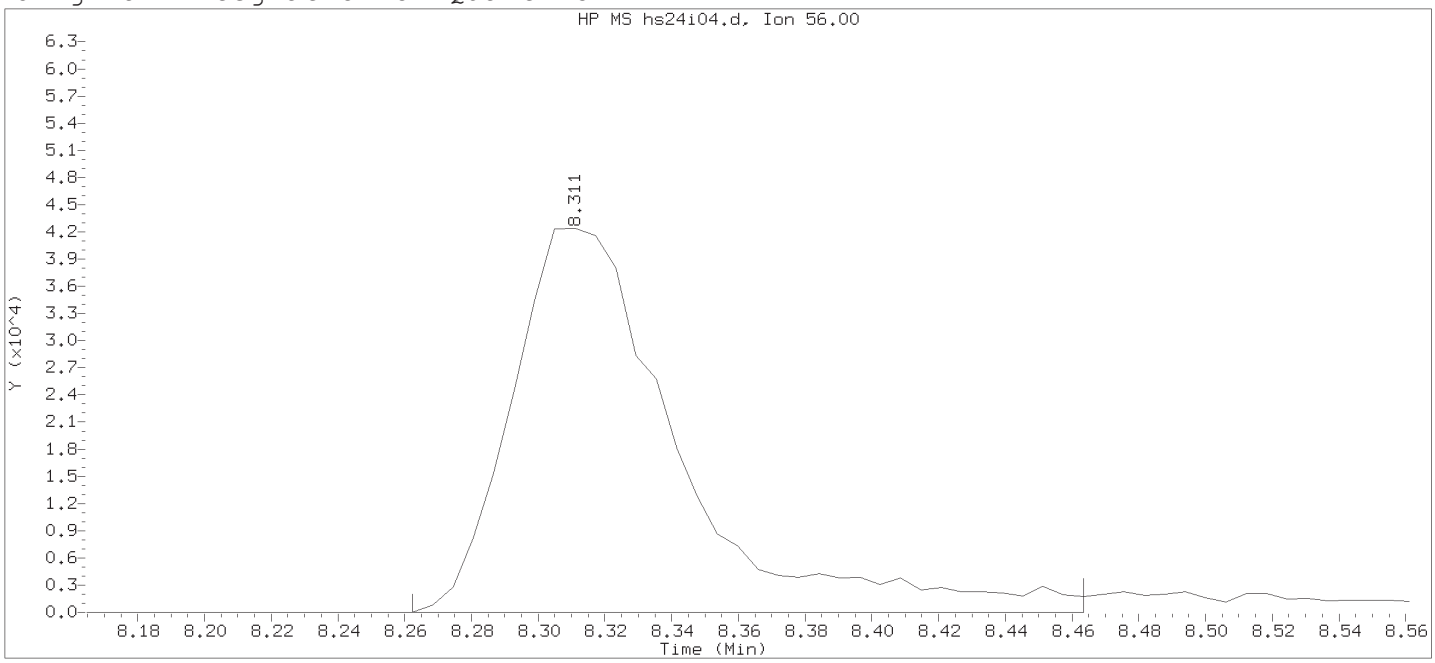
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

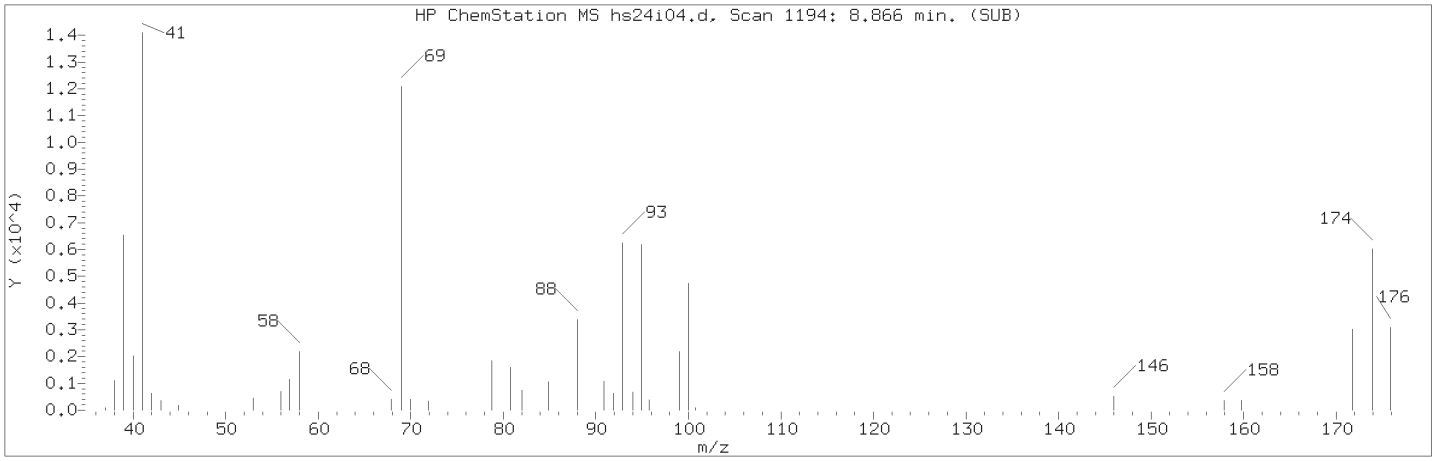
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

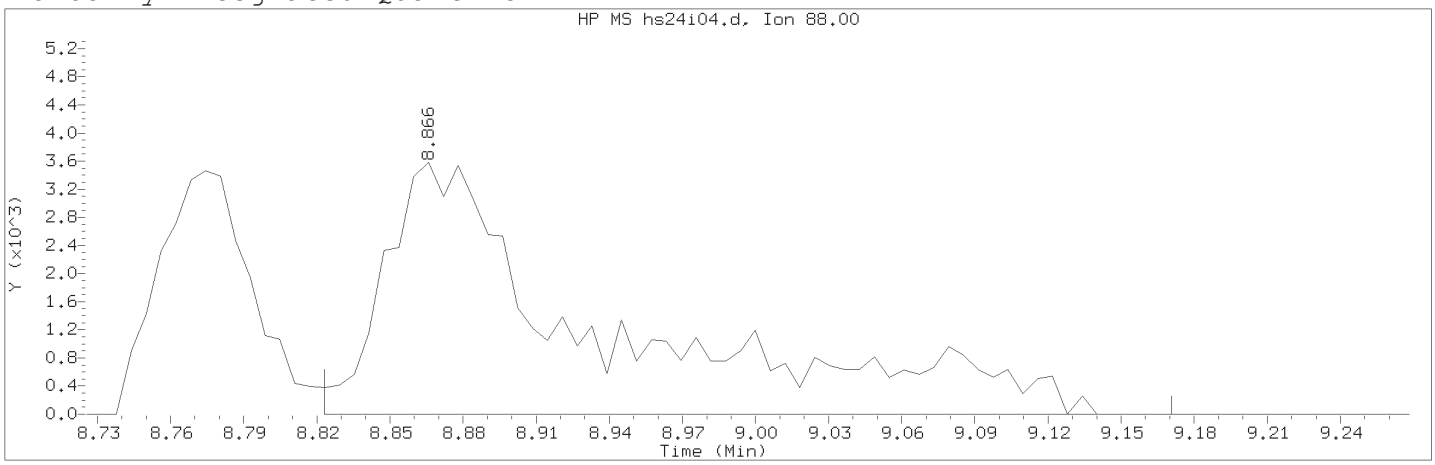
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1103
Retention Time (minutes): 8.311
Quant Ion : 56.00
Area : 147095
On-column Amount (ng) : 168.2954
Integration start scan : 1094 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

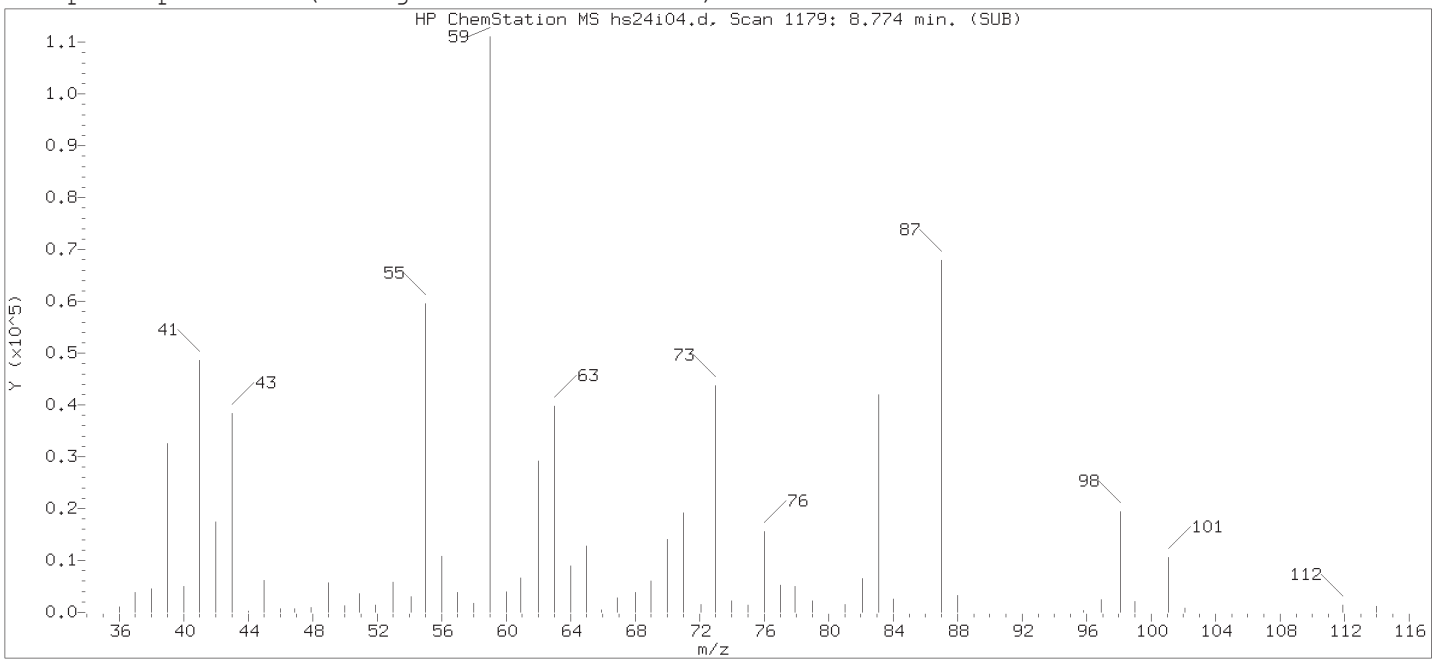
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1194
Retention Time (minutes): 8.866
Quant Ion : 88.00
Area (flag) : 21749M
On-Column Amount (ng) : 109.4886
Integration start scan : 1186 Integration stop scan: 1243
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

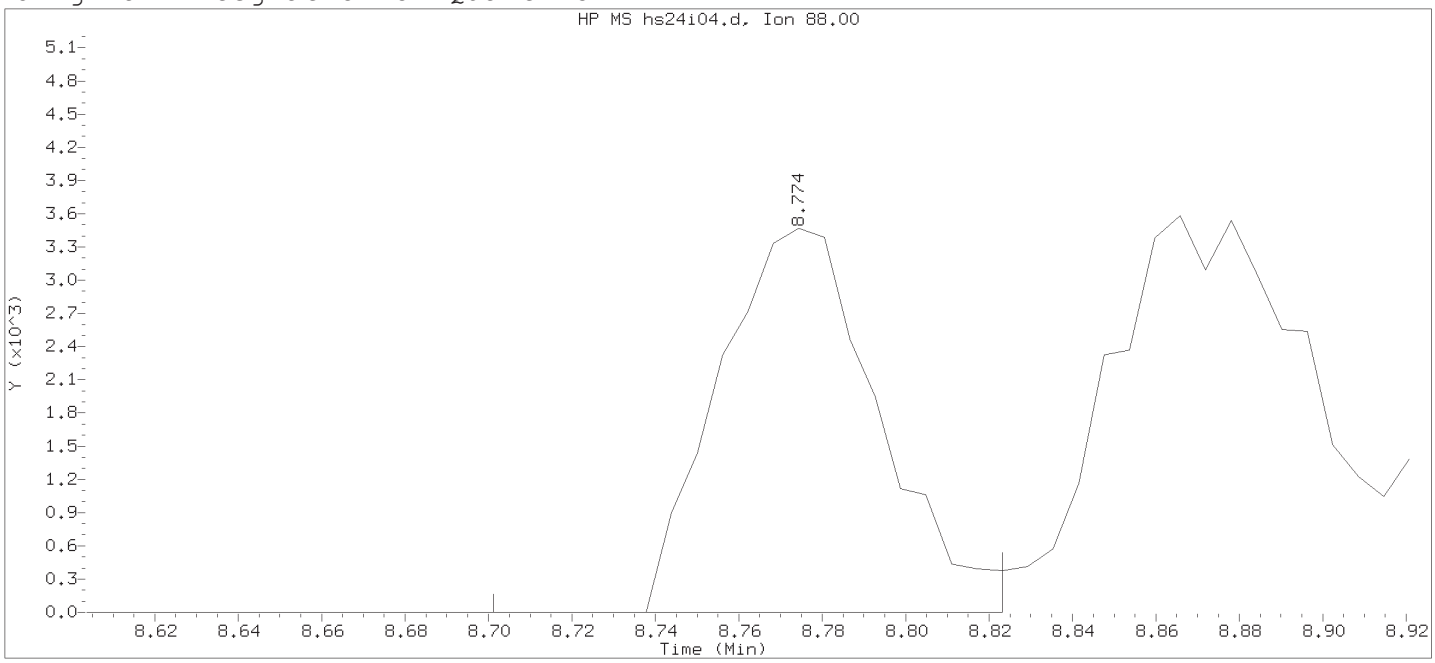
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

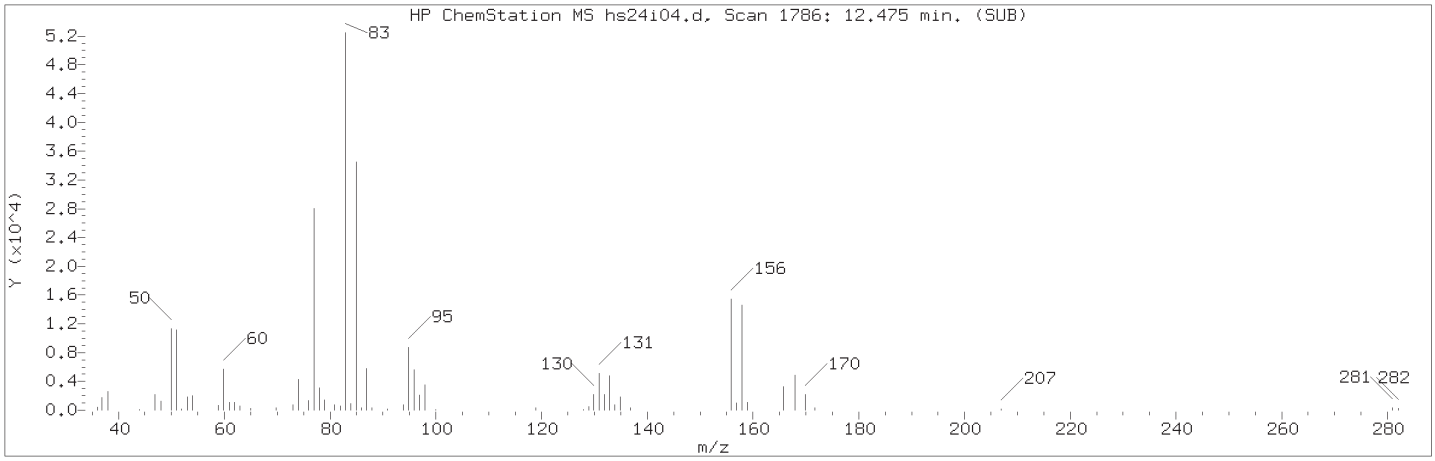
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

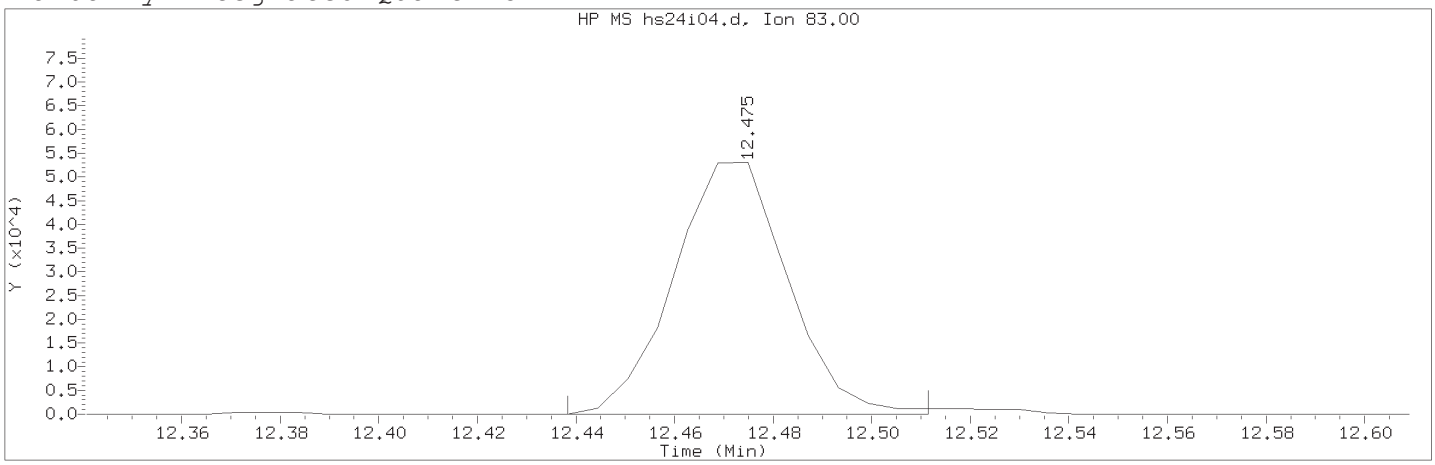
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.774
Quant Ion : 88.00
Area : 9210
On-column Amount (ng) : 66.8956
Integration start scan : 1166 Integration stop scan: 1186
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

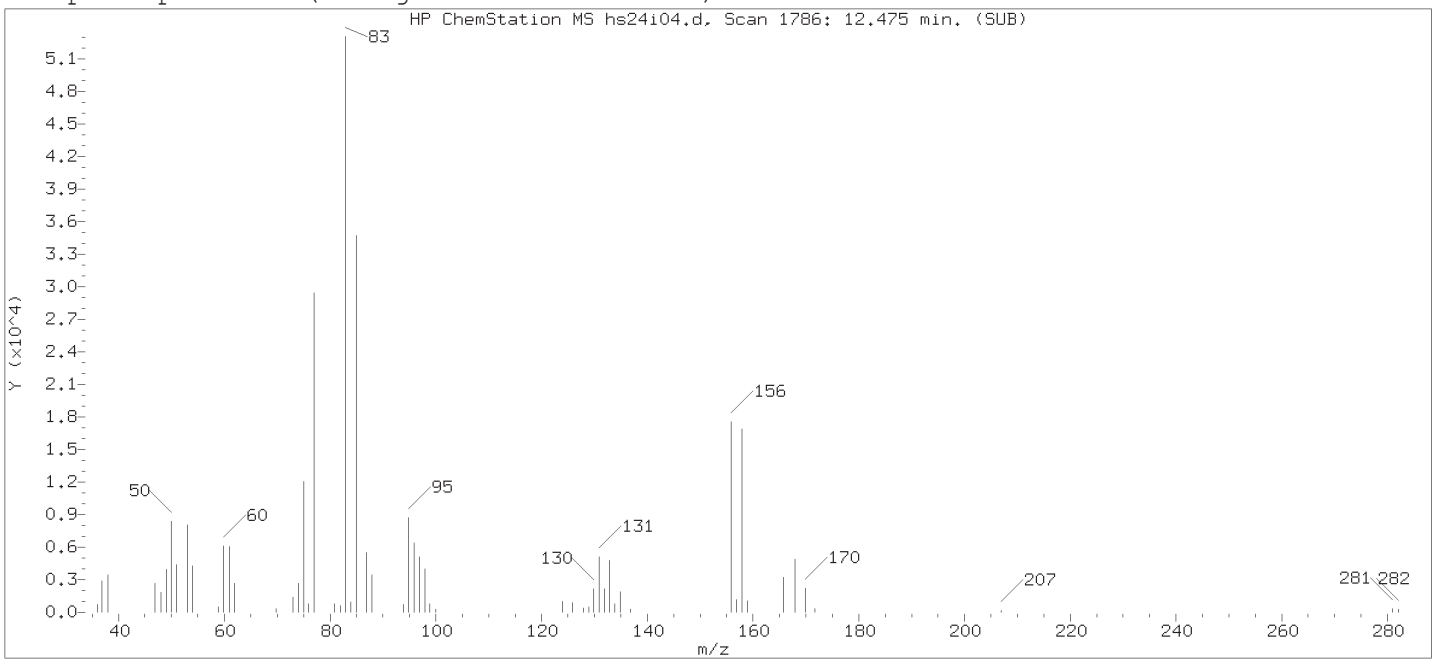
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 85286M
On-Column Amount (ng) : 1.9375
Integration start scan : 1779 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

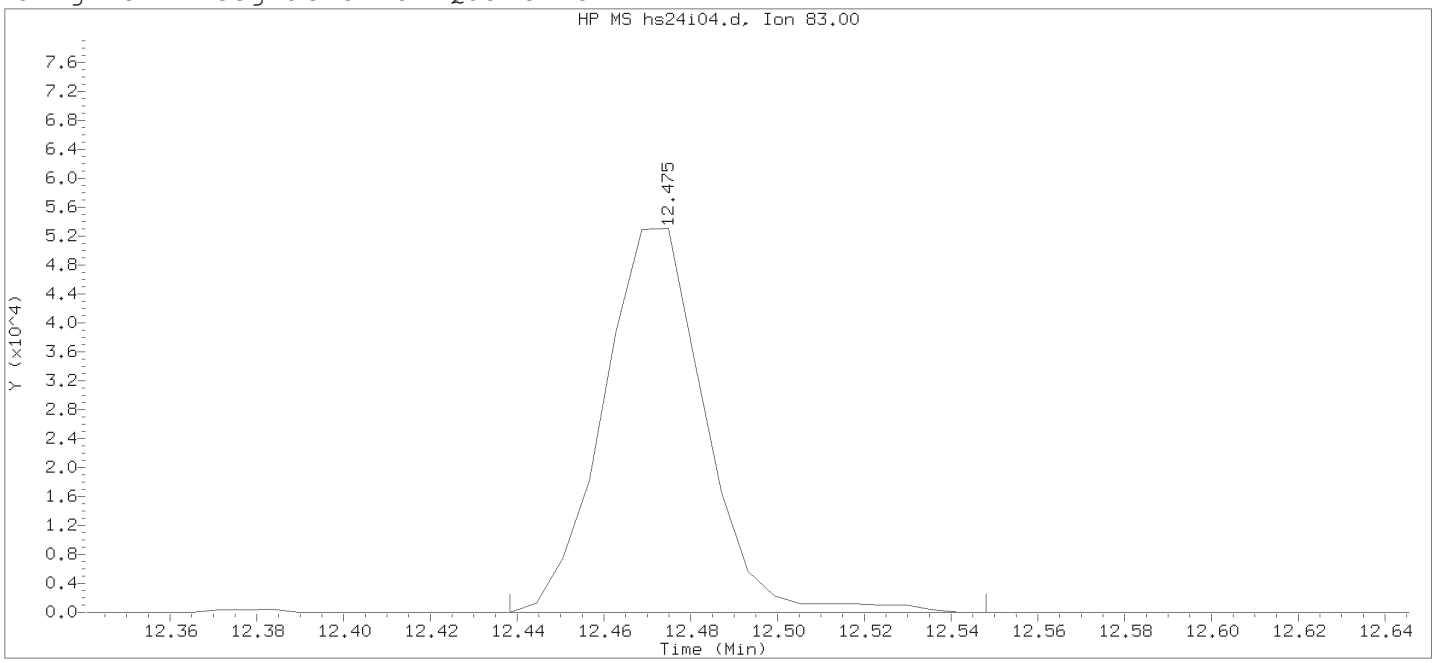
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

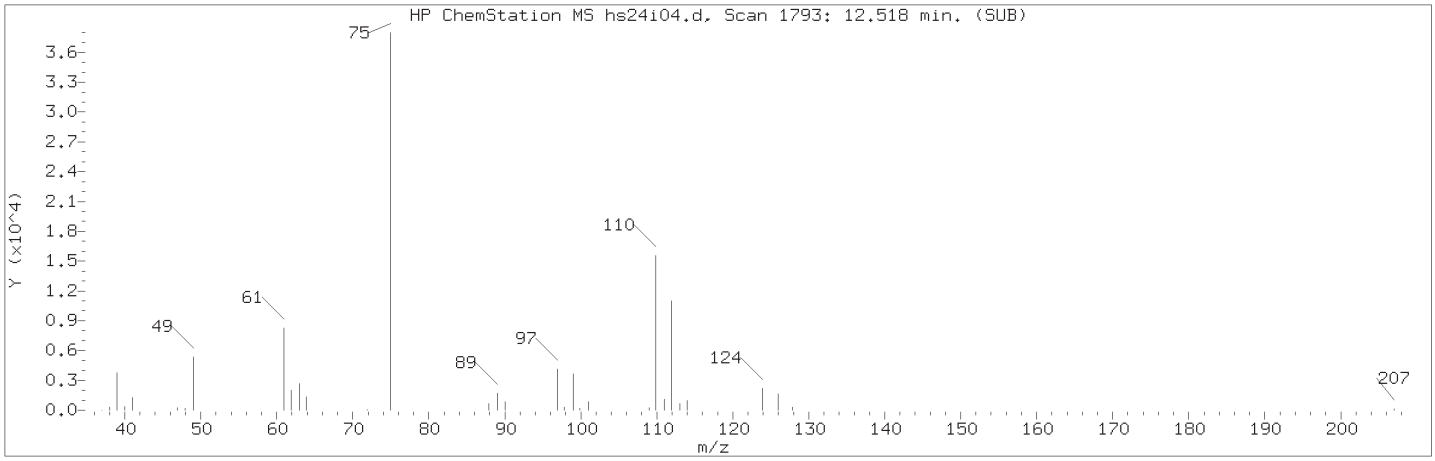
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

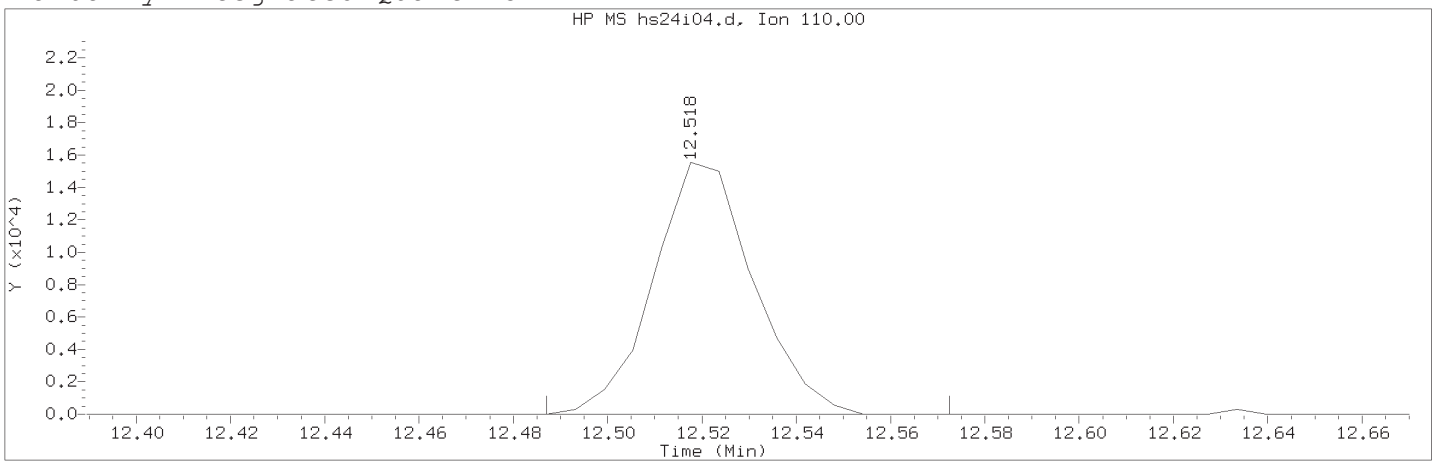
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 86557
On-column Amount (ng) : 1.8966
Integration start scan : 1779 Integration stop scan: 1797
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

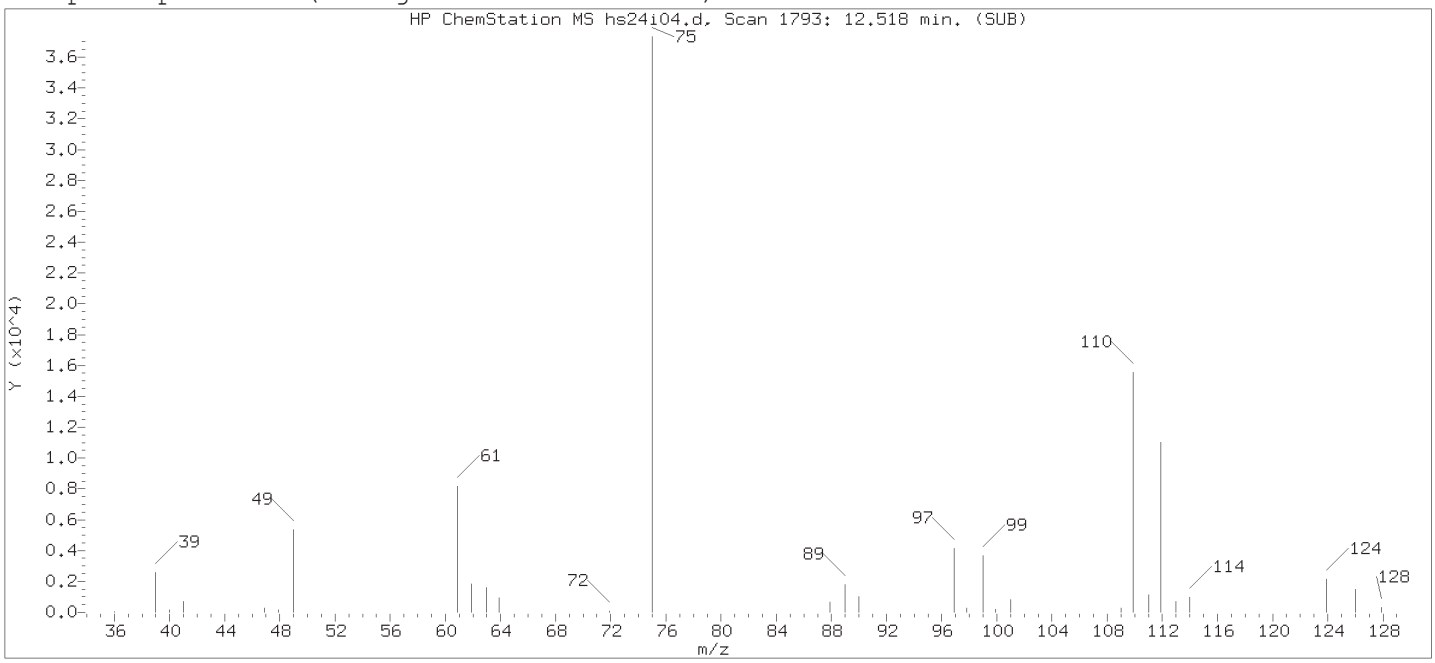
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1793
Retention Time (minutes): 12.518
Quant Ion : 110.00
Area (flag) : 22957M
On-Column Amount (ng) : 2.0173
Integration start scan : 1787 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

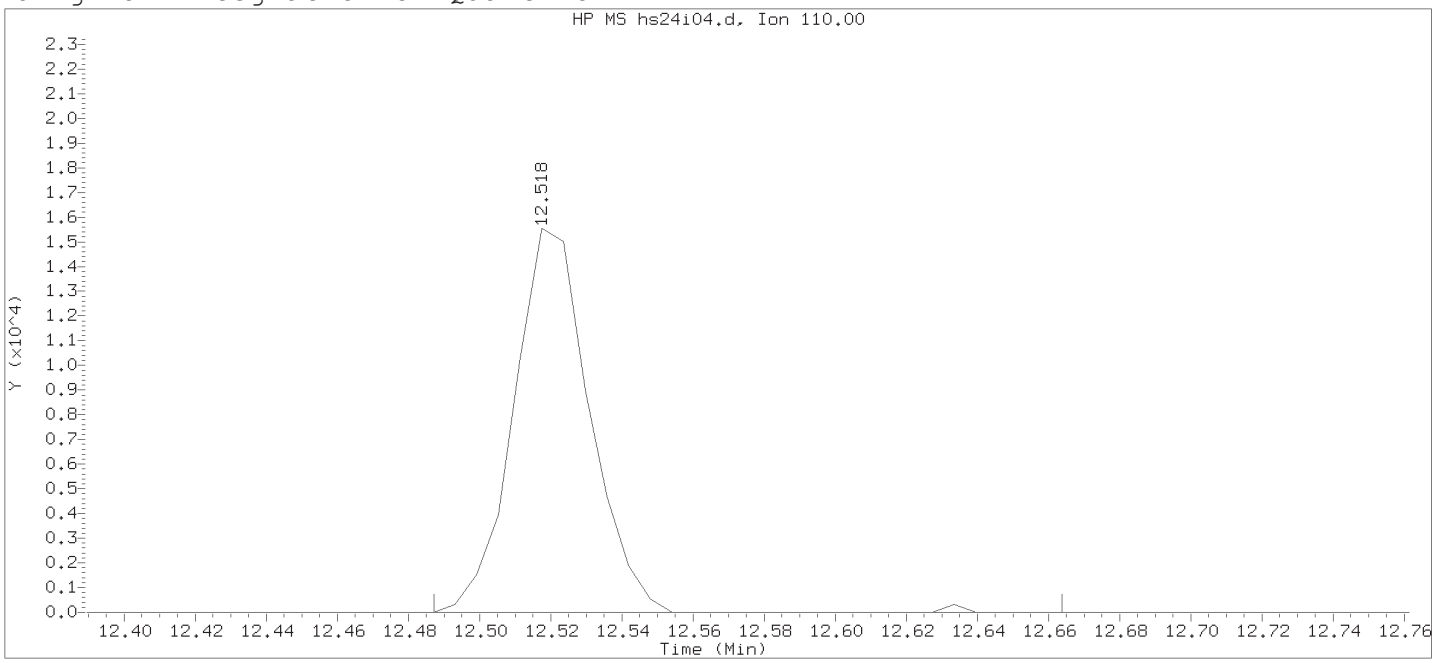
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

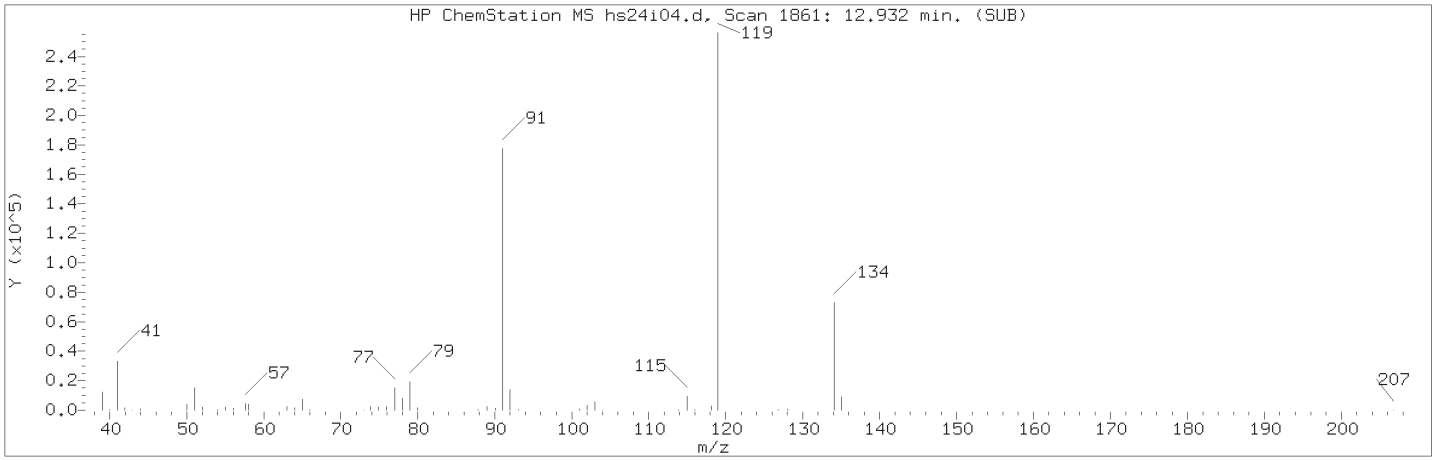
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

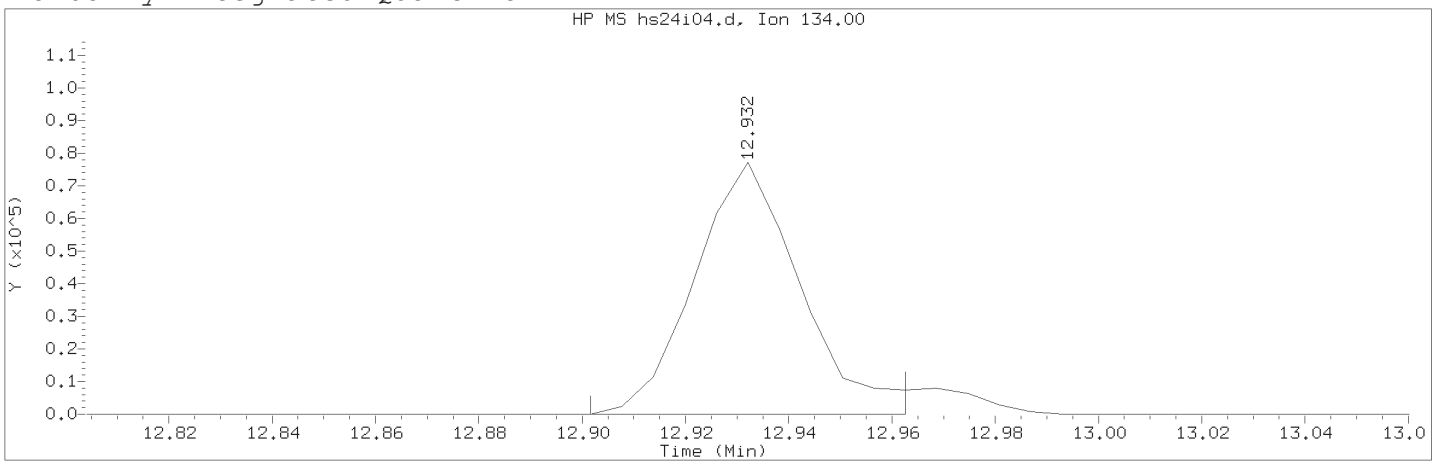
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1793
Retention Time (minutes): 12.518
Quant Ion : 110.00
Area : 23069
On-column Amount (ng) : 2.0019
Integration start scan : 1787 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

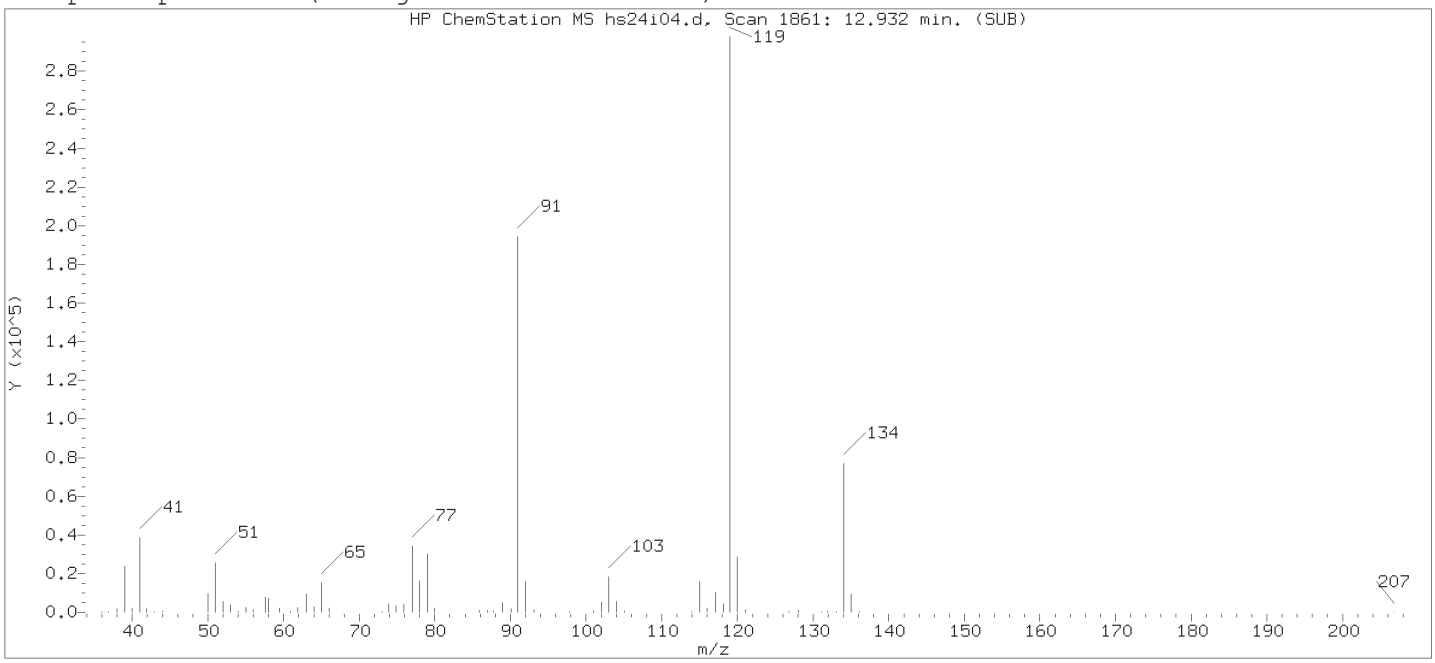
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 110083M
On-Column Amount (ng) : 2.0535
Integration start scan : 1855 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

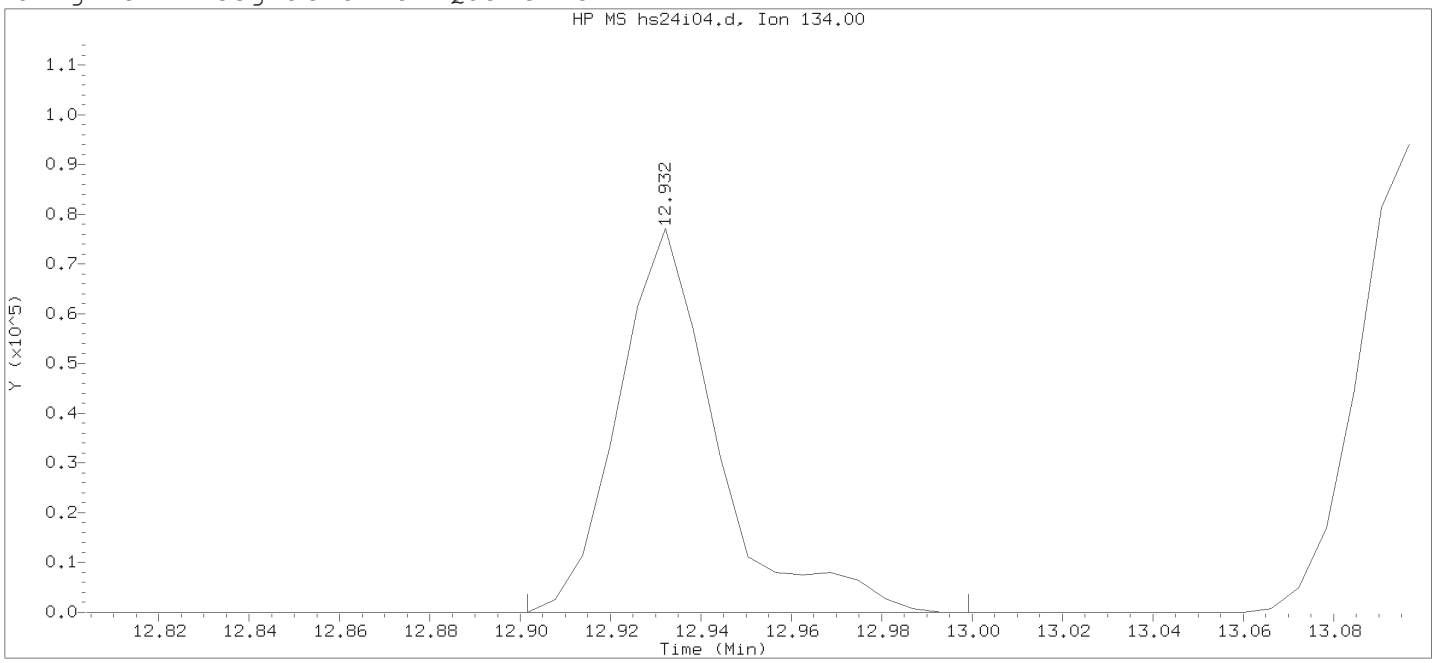
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

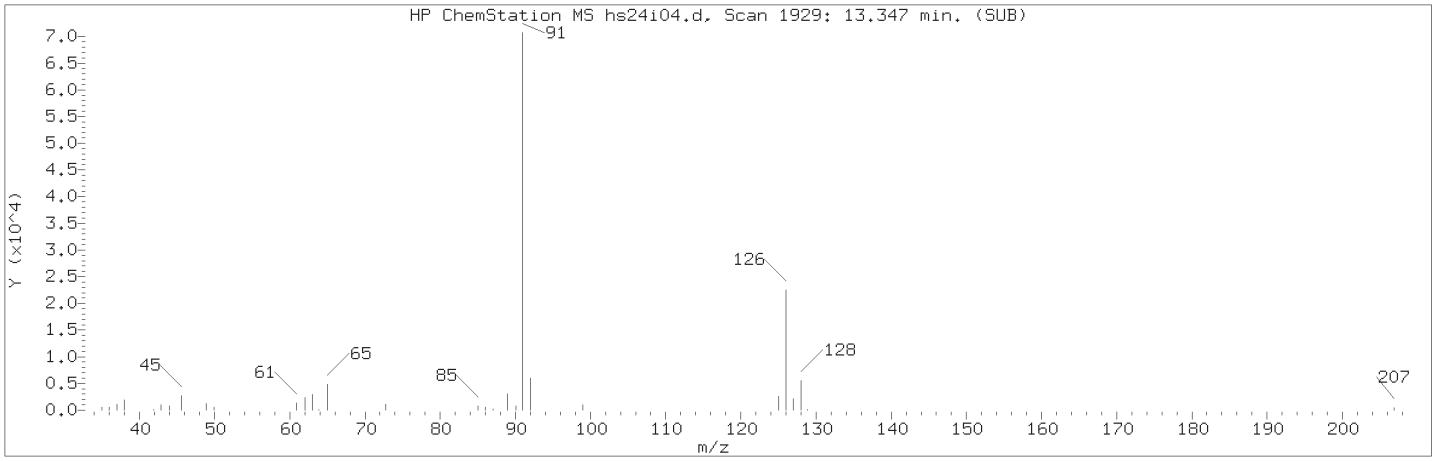
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

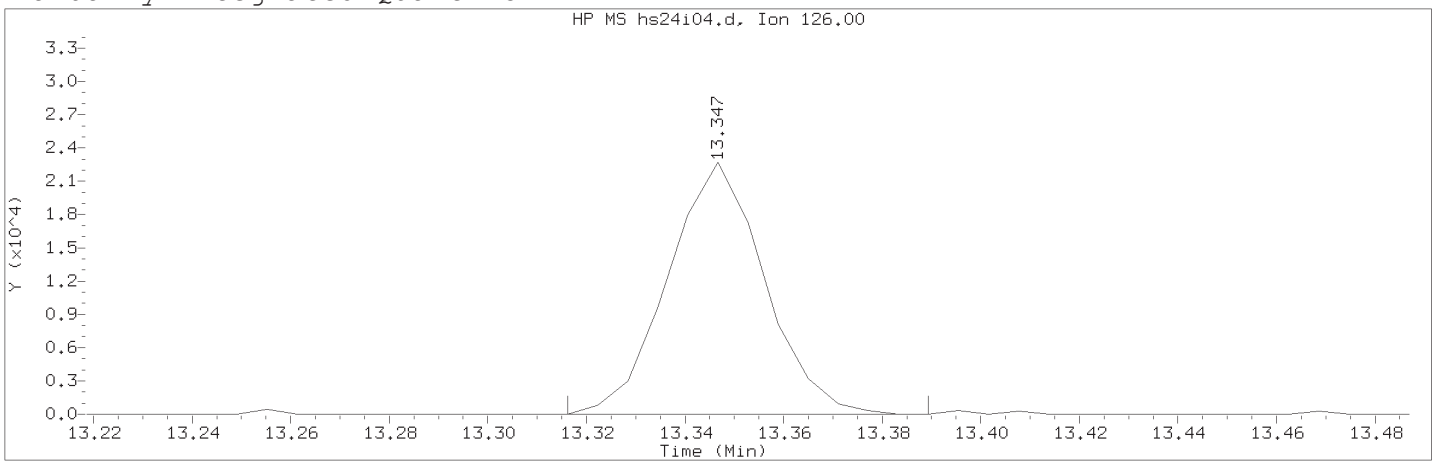
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 116606
On-column Amount (ng) : 2.0344
Integration start scan : 1855 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

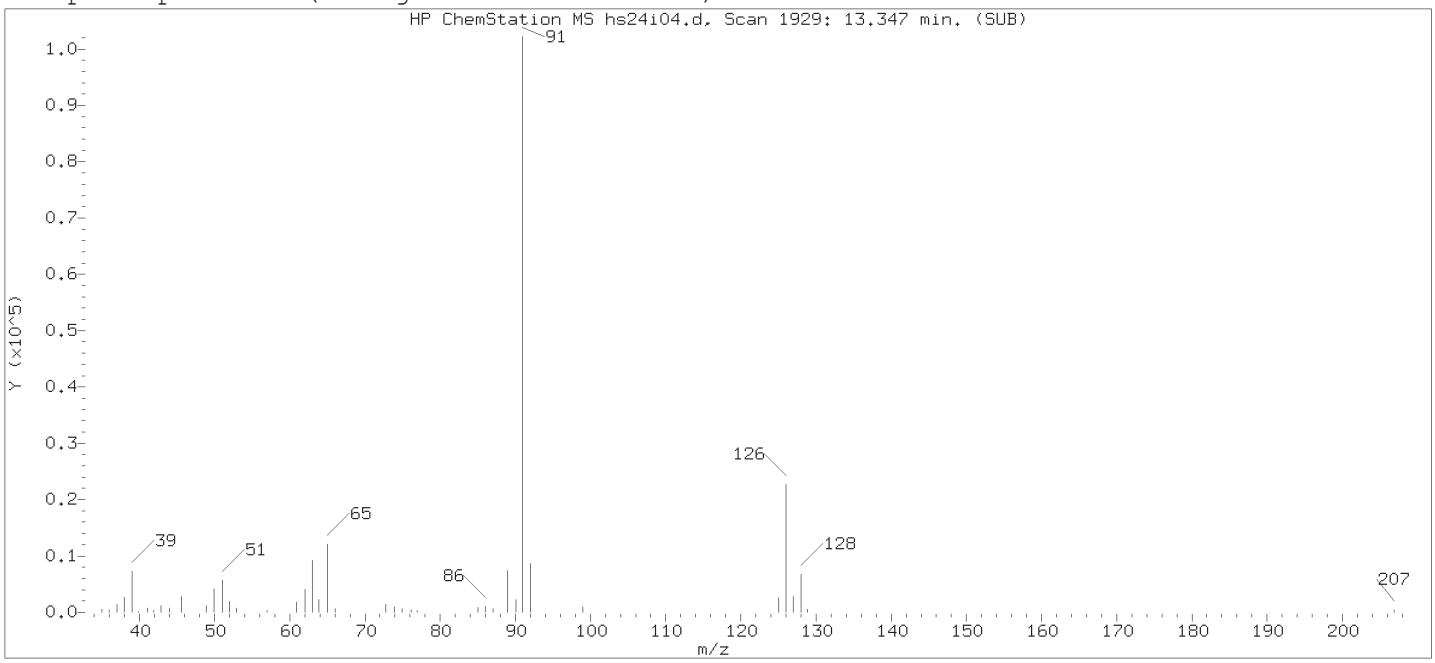
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1929
Retention Time (minutes): 13.347
Quant Ion : 126.00
Area (flag) : 30686M
On-Column Amount (ng) : 1.9284
Integration start scan : 1923 Integration stop scan: 1935
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

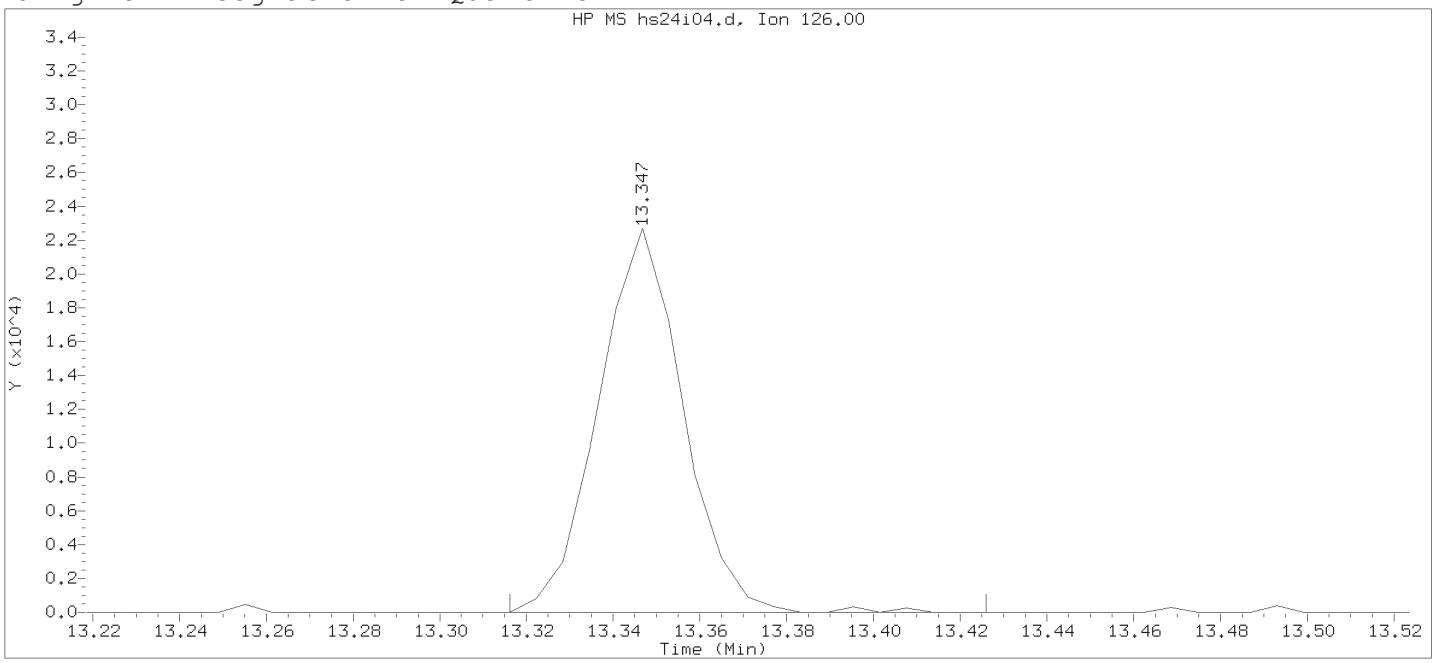
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



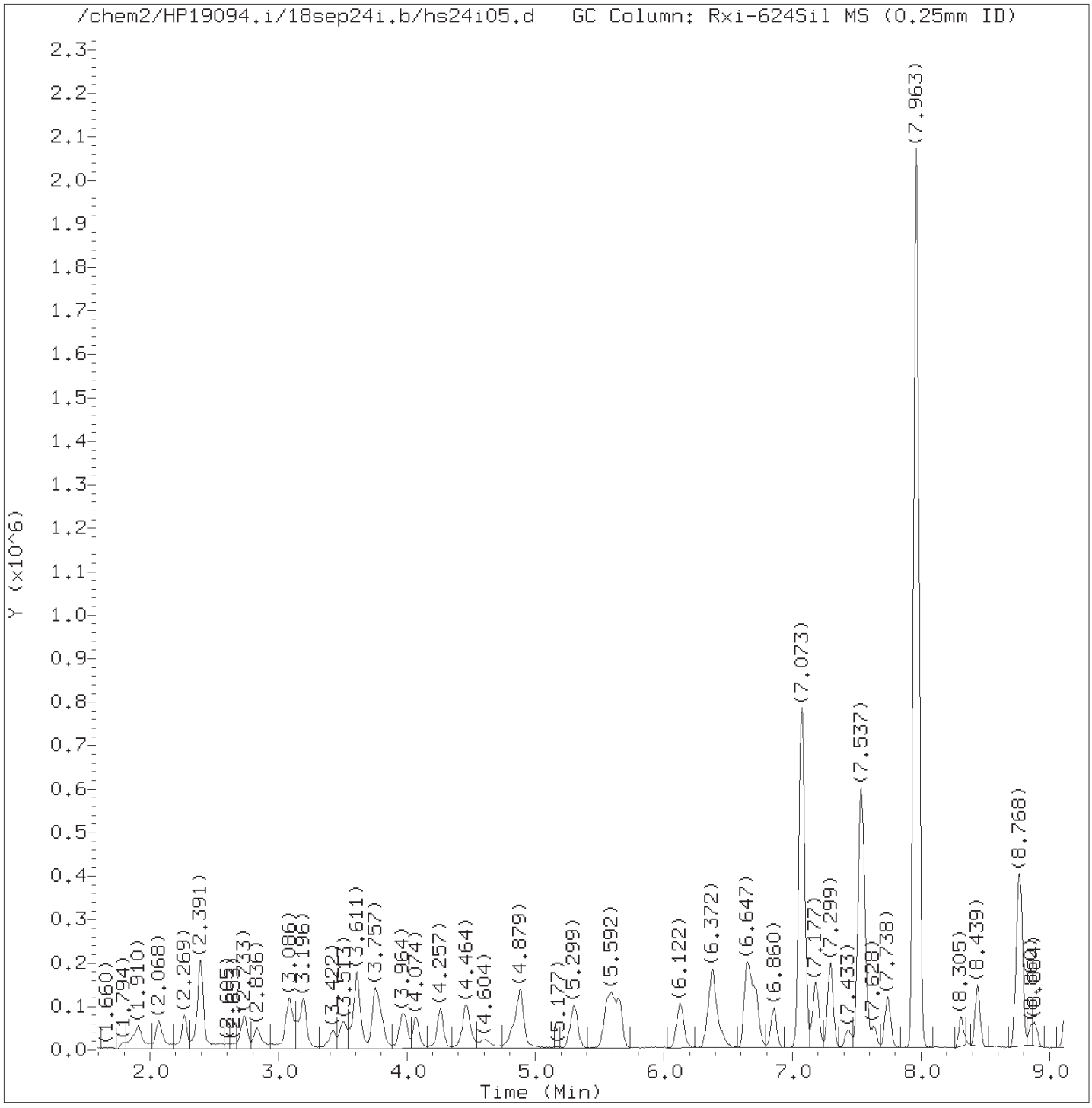
Data File: /chem2/HP19094.i/18sep24i.b/hs24i04.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:33 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1929
Retention Time (minutes): 13.347
Quant Ion : 126.00
Area : 30896
On-column Amount (ng) : 1.7699
Integration start scan : 1923 Integration stop scan: 1941
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

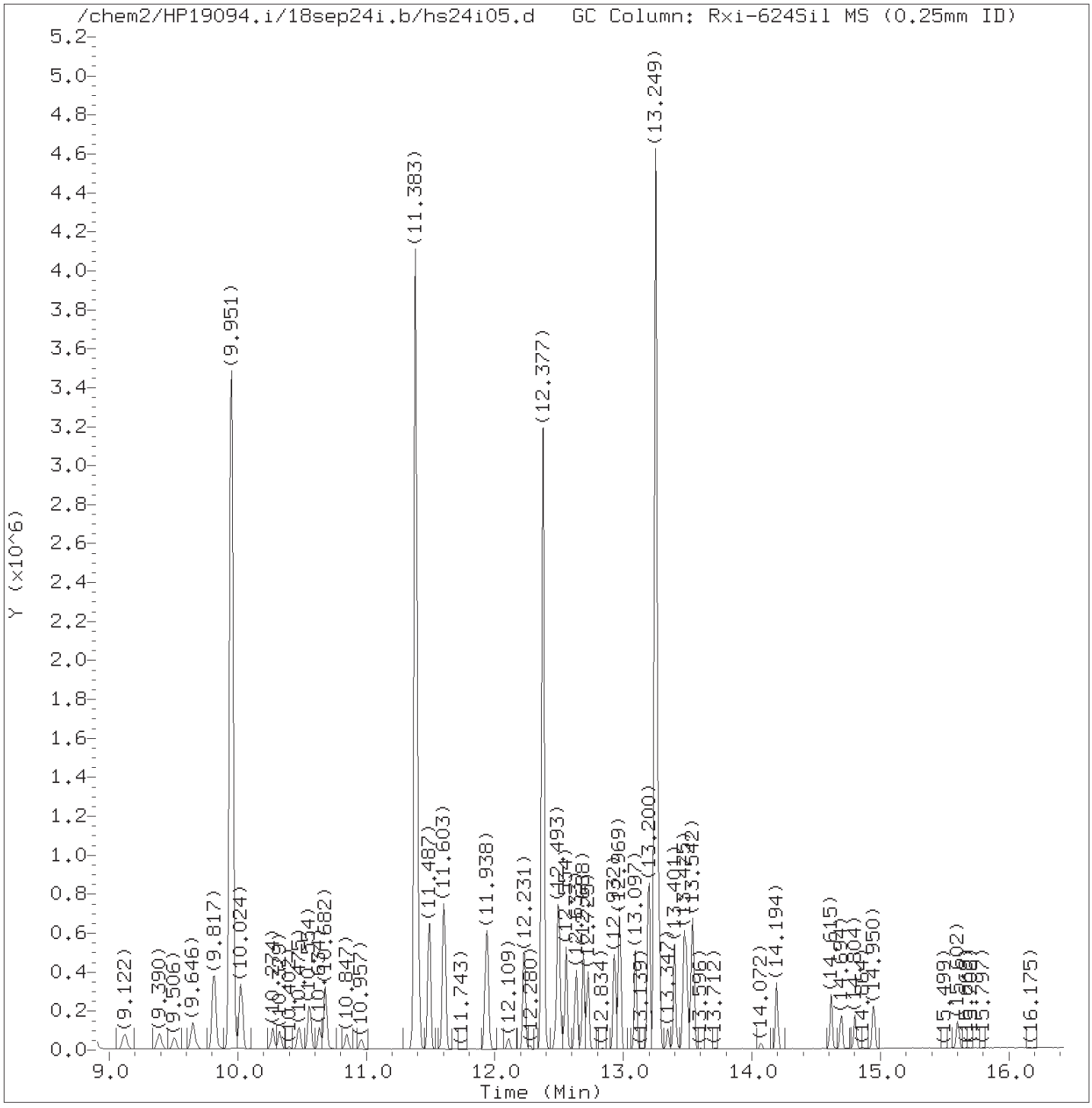
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.068	85	109107	1.012
2) Chloromethane	(2)	2.269	50	106297	1.007
6) 1,3-Butadiene	(2)	2.385	39	118482M	1.058
5) Vinyl Chloride	(2)	2.397	62	100865	1.020
7) Bromomethane	(2)	2.739	94	77295	1.005
8) Chloroethane	(2)	2.836	64	61896	1.032
9) Dichlorofluoromethane	(2)	3.080	67	145968	1.023
10) Trichlorofluoromethane	(2)	3.141	101	127294	1.019
11) Ethyl ether	(2)	3.428	59	41485	0.979
12) Freon 123a	(2)	3.513	67	80944	1.023
13) Acrolein	(1)	3.611	56	300932	49.491
15) 1,1-Dichloroethene	(2)	3.751	96	56220	1.039
16) Freon 113	(2)	3.775	101	65967	1.035
14) Acetone	(1)	3.787	43	80897M	9.905
17) Methyl Iodide	(2)	3.952	142	114085	1.012
18) Carbon Disulfide	(2)	4.074	76	173907	1.010
21) Methyl Acetate	(1)	4.232	43	24438	1.066
22) Allyl Chloride	(2)	4.257	41	102466	0.996
23) Methylene Chloride	(2)	4.452	84	61955	1.015
26)*t-Butyl Alcohol-d10	(1)	4.470	65	137024M	50.000
28) t-Butyl Alcohol	(1)	4.604	59	49275M	21.068
29) Acrylonitrile	(1)	4.824	53	53013	5.026
30) Methyl Tertiary Butyl Ether	(2)	4.854	73	114458	1.029
31) trans-1,2-Dichloroethene	(2)	4.891	96	63184	1.035
32) n-Hexane	(2)	5.299	57	100196	1.032
33) 1,1-Dichloroethane	(2)	5.555	63	119955	1.032
34) di-Isopropyl Ether	(2)	5.592	45	208438	1.010
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	105930	1.013
40) 1,2-Dichloroethene (Total)	(2)		96	132499	2.062
37) Ethyl t-butyl ether	(2)	6.128	59	168973M	1.032
38) 2-Butanone	(1)	6.336	43	133197	9.963
39) cis-1,2-Dichloroethene	(2)	6.372	96	69315	1.028
41) 2,2-Dichloropropane	(2)	6.391	77	83581	1.007
42) Propionitrile	(1)	6.445	54	75366	20.769
45) Methacrylonitrile	(1)	6.647	67	129937	9.931
47) Bromochloromethane	(2)	6.701	128	28262	0.992
48) Tetrahydrofuran	(1)	6.720	71	35178	9.898
49) Chloroform	(2)	6.860	83	114336	1.058

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	696307	10.014
50)$Dibromofluoromethane	(2)	7.073	111	721346	10.079
51) 1,1,1-Trichloroethane	(2)	7.086	97	94711	1.025
52) Cyclohexane	(2)	7.177	56	123949	1.027
52) Cyclohexane	(2)	7.183	84	104356	1.049
52) Cyclohexane	(2)	7.183	69	36367	1.023
55) 1,1-Dichloropropene	(2)	7.293	75	90431	1.032
54) Carbon Tetrachloride	(2)	7.299	117	81897	1.032
56) Isobutyl Alcohol	(1)	7.427	41	47053	51.995
57)$1,2-Dichloroethane-d4	(2)	7.524	102	119829	9.885
57)$1,2-Dichloroethane-d4	(2)	7.531	65	593178	10.117
57)$1,2-Dichloroethane-d4	(2)	7.531	104	79680	10.263
58) Benzene	(2)	7.561	78	264658	1.022
59) 1,2-Dichloroethane	(2)	7.628	62	59426M	0.997
60) t-Amyl methyl ether	(2)	7.738	73	139571	1.028
62) n-Heptane	(2)	7.963	43	102958	1.029
63)*Fluorobenzene	(2)	7.963	96	2758903	10.000
65) n-Butanol	(1)	8.305	56	74668M	97.664
67) Trichloroethene	(2)	8.445	95	68161	1.028
69) Methylcyclohexane	(2)	8.750	83	122857	0.981
70) 1,2-Dichloropropane	(2)	8.780	63	63132	1.005
71) Methyl Methacrylate	(1)	8.847	69	23722	0.979
72) 1,4-Dioxane	(1)	8.878	88	9241M	50.201
73) Dibromomethane	(2)	8.884	93	26560	1.019
74) Bromodichloromethane	(2)	9.122	83	69831	0.989
76) 2-Nitropropane	(1)	9.390	41	63314	9.229
80) cis-1,3-Dichloropropene	(2)	9.646	75	80509	0.979
81) 4-Methyl-2-Pentanone	(1)	9.811	43	330202	9.930
82)$Toluene-d8	(3)	9.951	98	2776980	9.936
82)$Toluene-d8	(3)	9.951	100	1802725	9.993
83) Toluene	(3)	10.024	92	162279	1.007
85) 1,3-Dichloropropene (total)	(3)		75	141132	1.955
84) trans-1,3-Dichloropropene	(3)	10.274	75	60623	0.976
86) Ethyl Methacrylate	(3)	10.329	69	51127	0.961
88) 1,1,2-Trichloroethane	(3)	10.475	97	37494	1.011
89) Tetrachloroethene	(3)	10.560	166	73862	1.014
90) 1,3-Dichloropropane	(3)	10.634	76	66150	1.007
91) 2-Hexanone	(1)	10.682	43	223568	9.877

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	42278	0.951
95) 1,2-Dibromoethane	(3)	10.963	107	34504	0.993
96) 1-Chlorohexane	(3)	11.383	91	96260	1.002
97)*Chlorobenzene-d5	(3)	11.383	117	2171615	10.000
98) Chlorobenzene	(3)	11.408	112	177295	1.037
100) Ethylbenzene	(3)	11.493	91	320107	1.016
99) 1,1,1,2-Tetrachloroethane	(3)	11.493	131	56567	1.003
101) m+p-Xylene	(3)	11.603	106	234132	2.004
105) Xylene (Total)	(3)		106	347952	3.023
104) o-Xylene	(3)	11.932	106	113820	1.019
106) Styrene	(3)	11.944	104	180005	1.007
107) Bromoform	(3)	12.109	173	24175	0.990
108) Isopropylbenzene	(3)	12.231	105	309640	1.016
111)$4-Bromofluorobenzene	(3)	12.371	95	1017139	9.995
111)$4-Bromofluorobenzene	(3)	12.377	174	881427	9.975
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	42904M	0.963
114) Bromobenzene	(4)	12.493	156	68106	1.005
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	101534	9.749
116) 1,2,3-Trichloropropane	(4)	12.524	110	11546	1.002
117) n-Propylbenzene	(4)	12.554	91	369750	1.004
119) 2-Chlorotoluene	(4)	12.633	126	72571	1.016
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	249772	1.001
122) 4-Chlorotoluene	(4)	12.725	126	73614	1.028
125) tert-Butylbenzene	(4)	12.932	134	55631M	1.025
126) Pentachloroethane	(4)	12.969	167	39799	0.940
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	253402	0.995
128) sec-Butylbenzene	(4)	13.097	105	327784	1.014
131) 1,3-Dichlorobenzene	(4)	13.194	146	137902	1.025
132) p-Isopropyltoluene	(4)	13.200	119	264718	0.988
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1123390	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	134240	1.016
135) 1,2,3-Trimethylbenzene	(4)	13.279	120	114395M	0.979
136) Benzyl Chloride	(4)	13.347	126	13809	0.857
138) n-Butylbenzene	(4)	13.493	92	135142	1.017
139) 1,2-Dichlorobenzene	(4)	13.529	146	119809	1.009
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	5939	1.054
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	100961	1.008
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	80077	0.982

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	30050	0.975
147) Naphthalene	(4)	14.804	128	125068	0.969
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	66944	0.998

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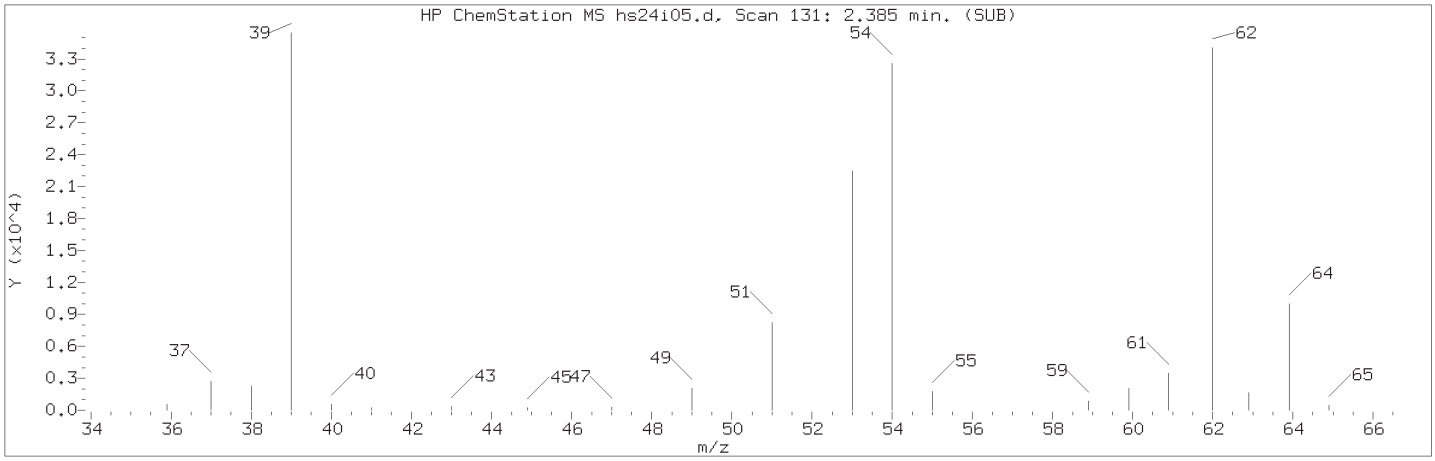
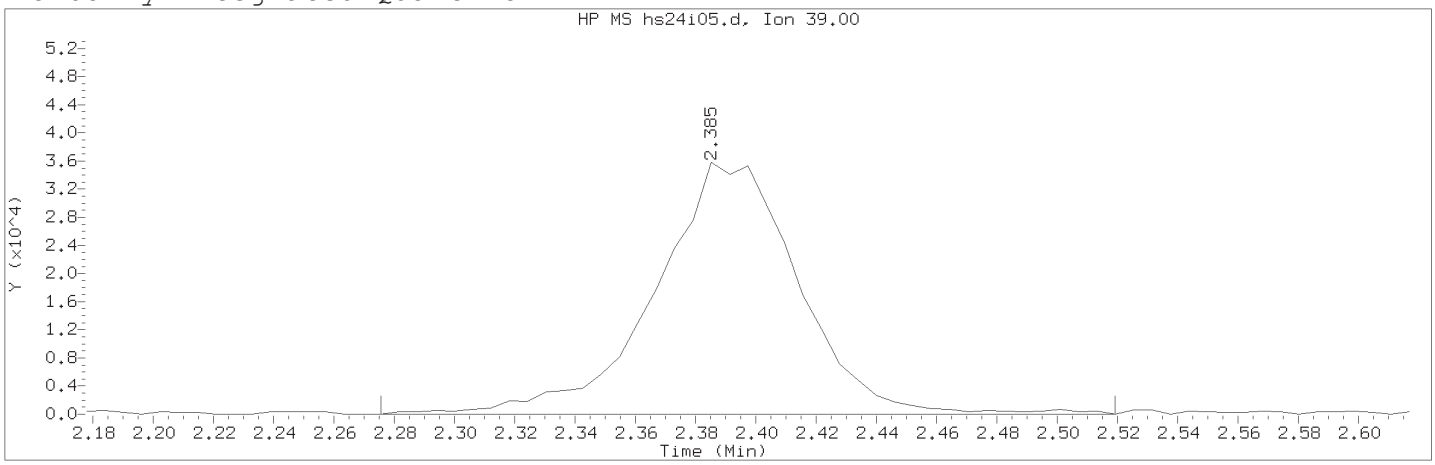
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

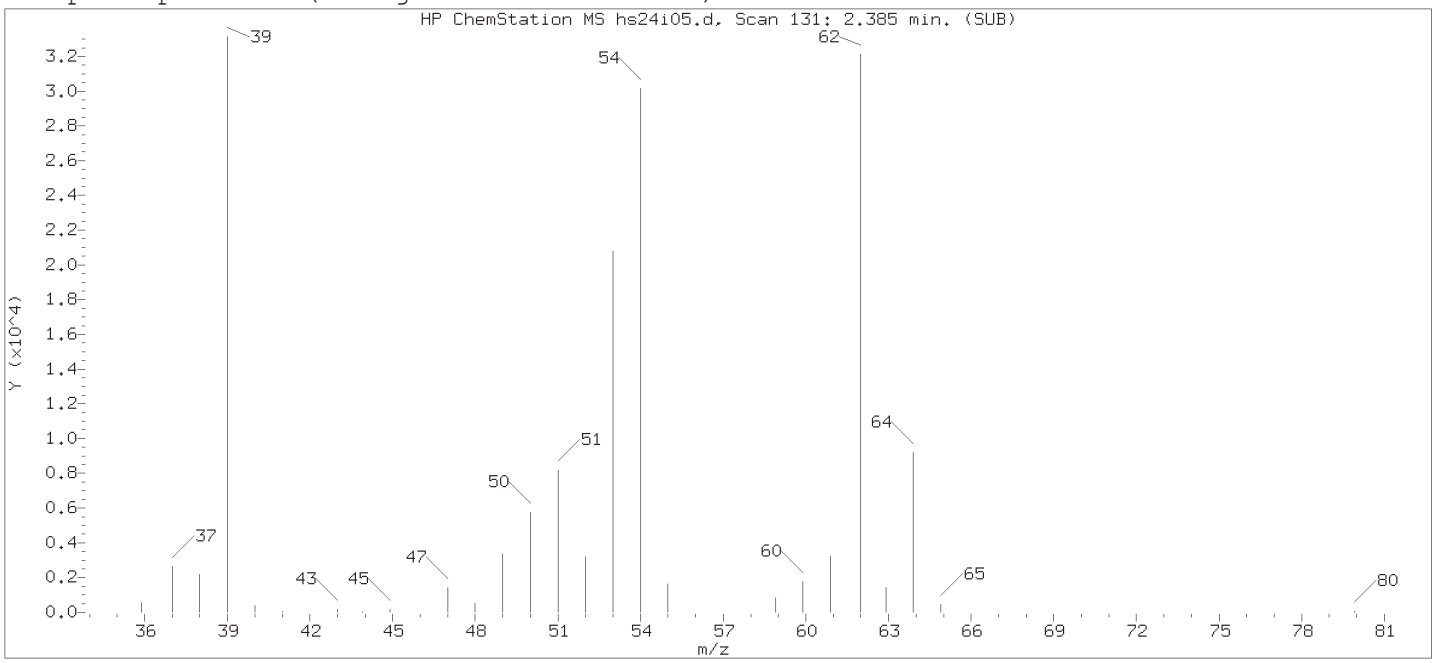
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 131
Retention Time (minutes): 2.385
Quant Ion : 39.00
Area (flag) : 118482M
On-Column Amount (ng) : 1.0578
Integration start scan : 112 Integration stop scan: 152
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

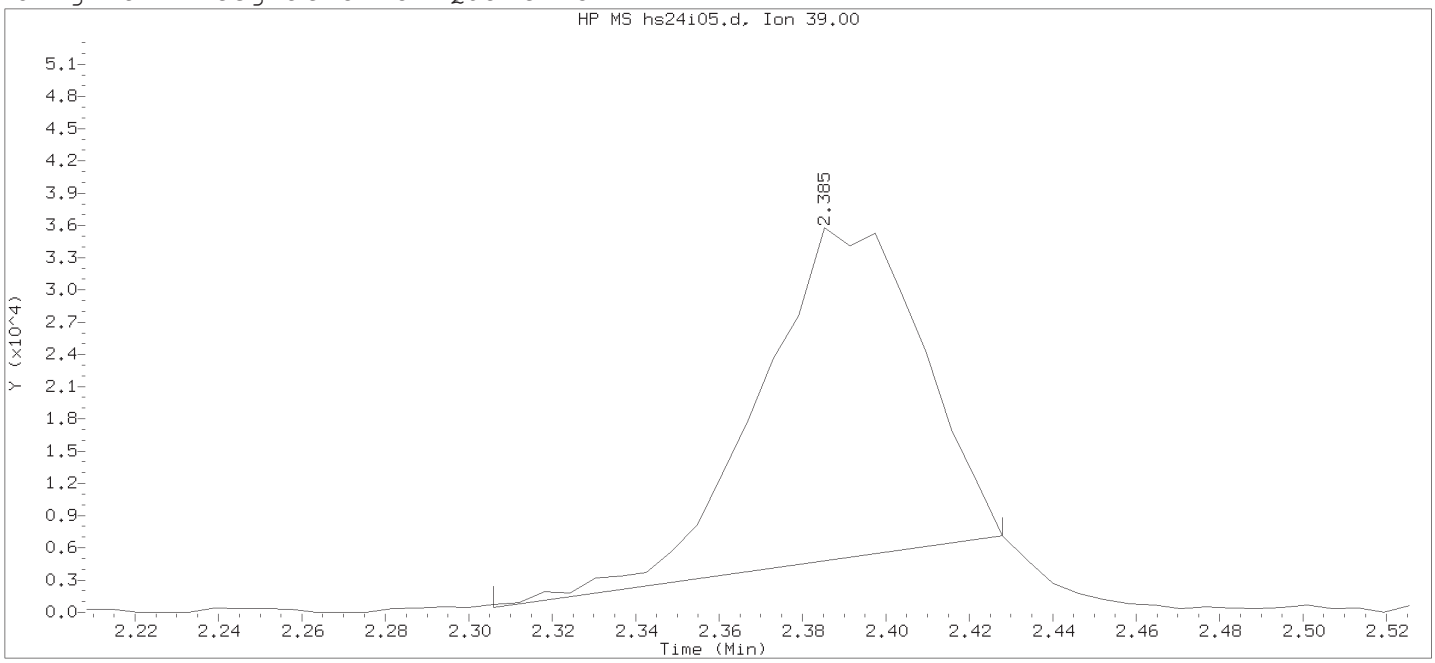
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

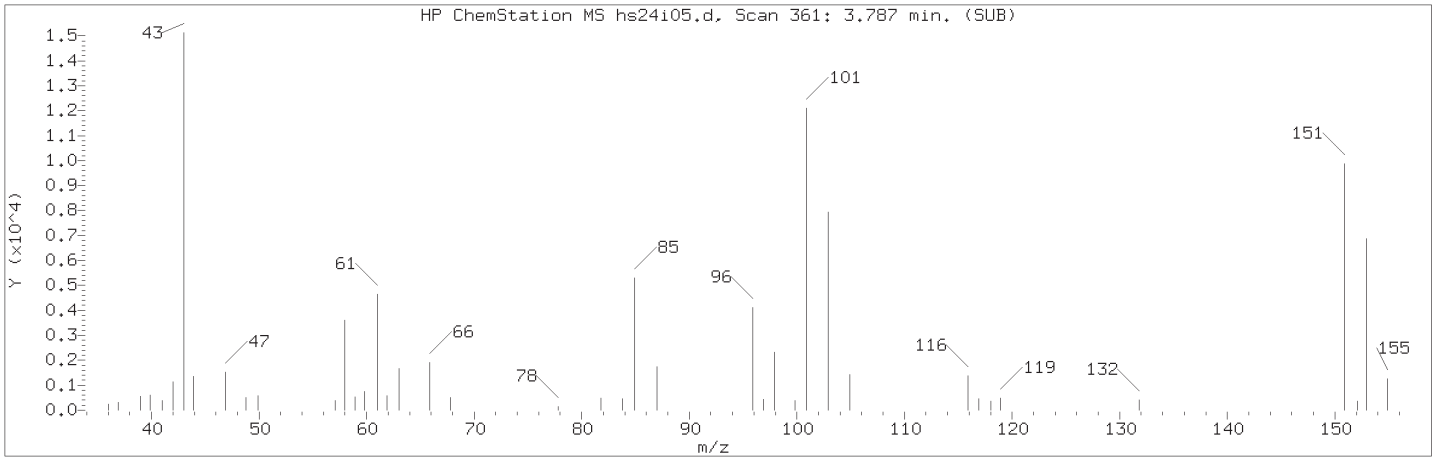
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

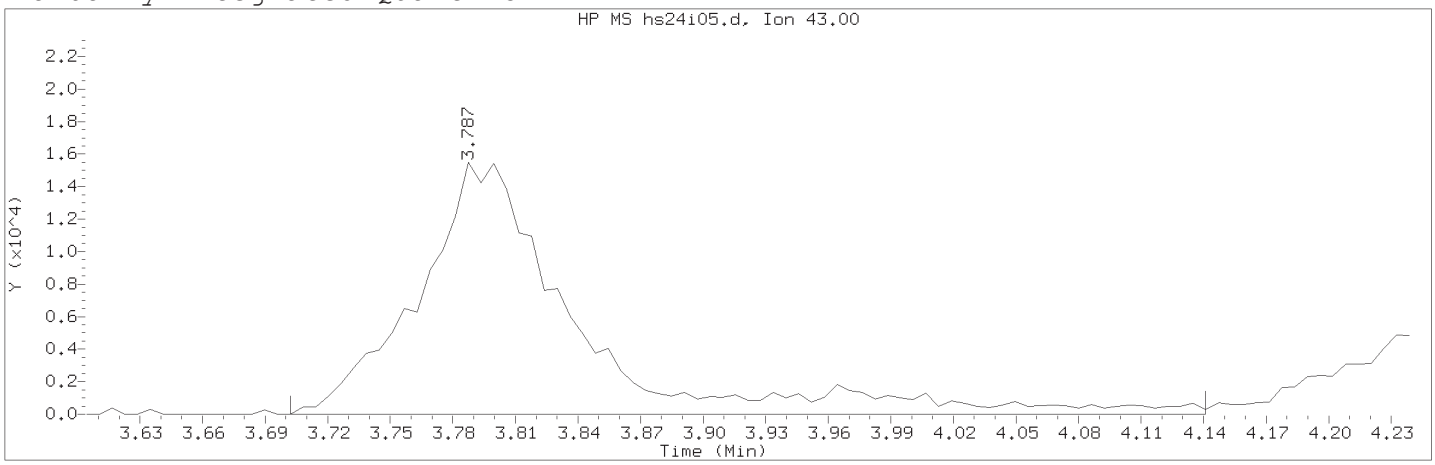
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 131
Retention Time (minutes): 2.385
Quant Ion : 39.00
Area : 83022
On-column Amount (ng) : 0.7928
Integration start scan : 117 Integration stop scan: 137
Y at integration start : 469 Y at integration end: 7133

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 10/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

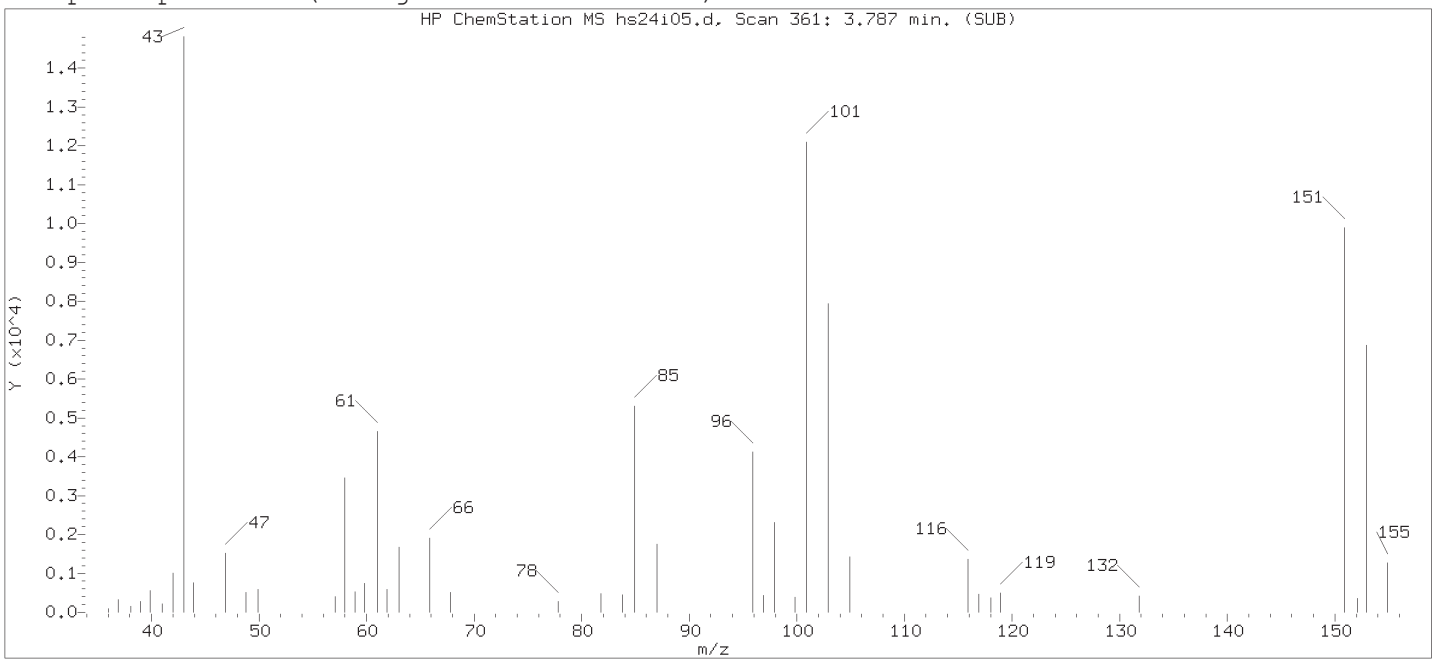
Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area (flag) : 80897M
On-Column Amount (ng) : 9.9053
Integration start scan : 346 Integration stop scan: 418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

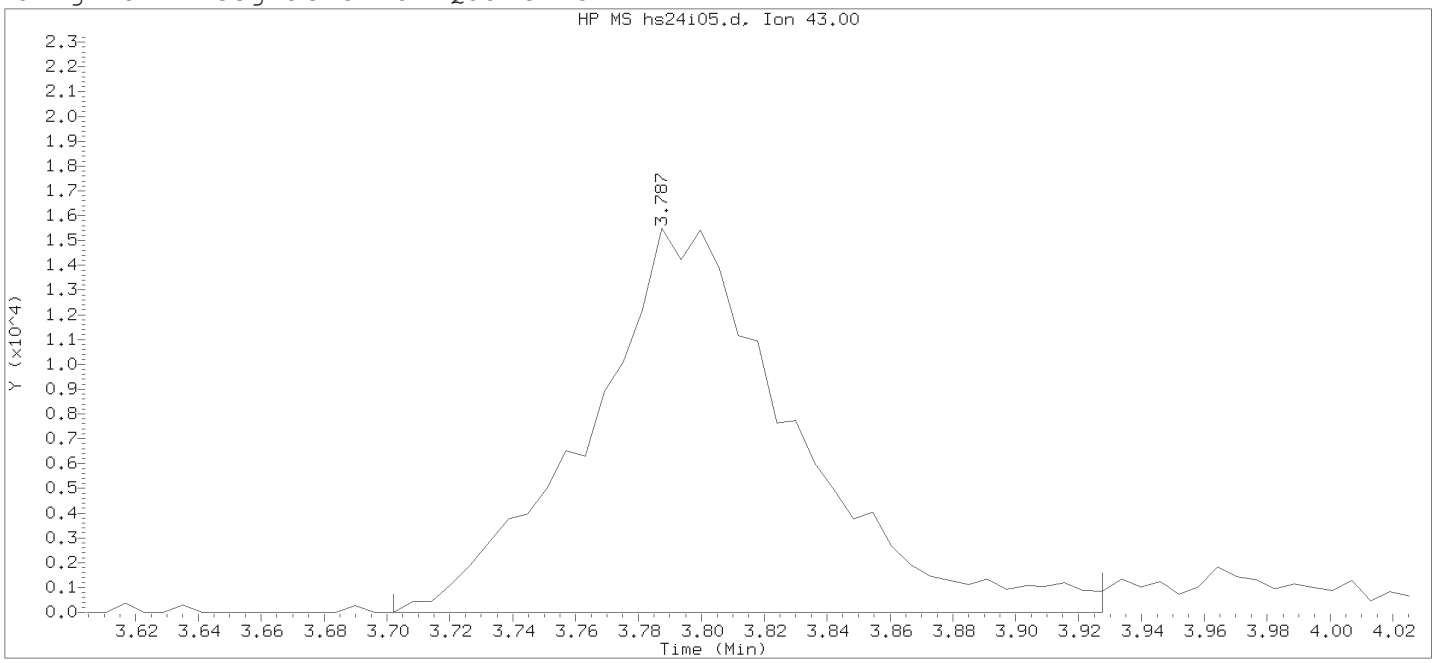
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 14
Compound Name : Acetone
Scan Number : 361
Retention Time (minutes): 3.787
Quant Ion : 43.00
Area : 70990
On-column Amount (ng) : 9.1768
Integration start scan : 346 Integration stop scan: 383
Y at integration start : 0 Y at integration end: 0

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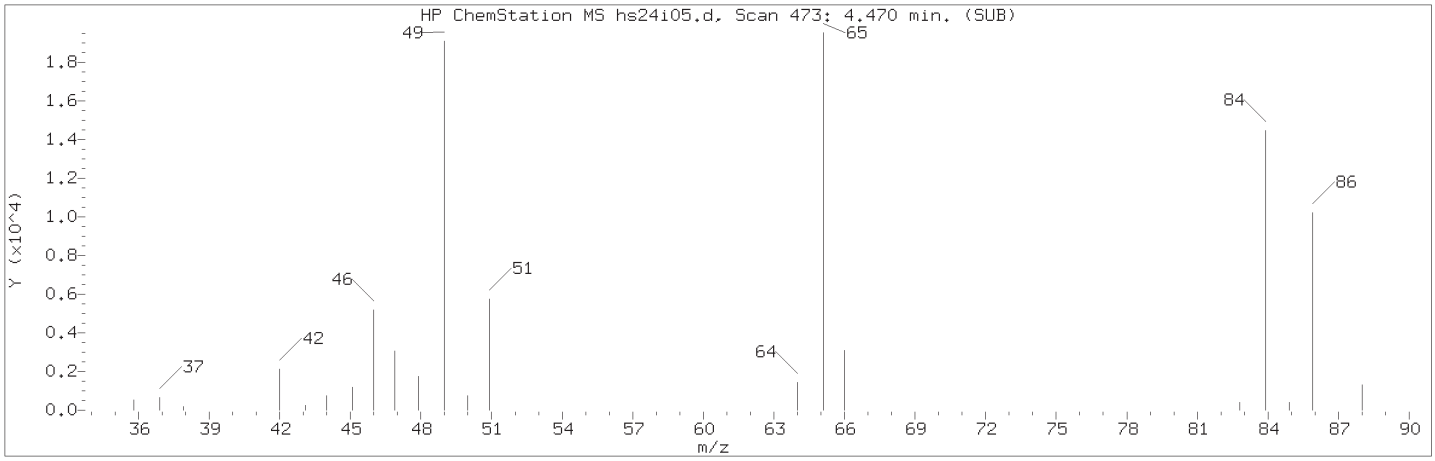
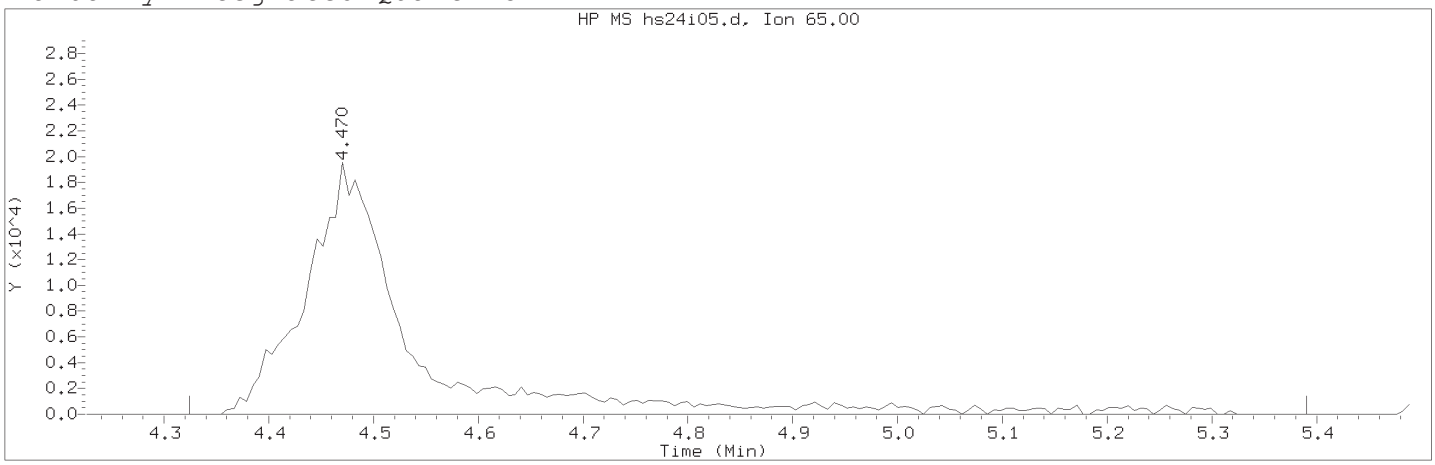
Target 3.5 esignature used 12 Page 1150

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

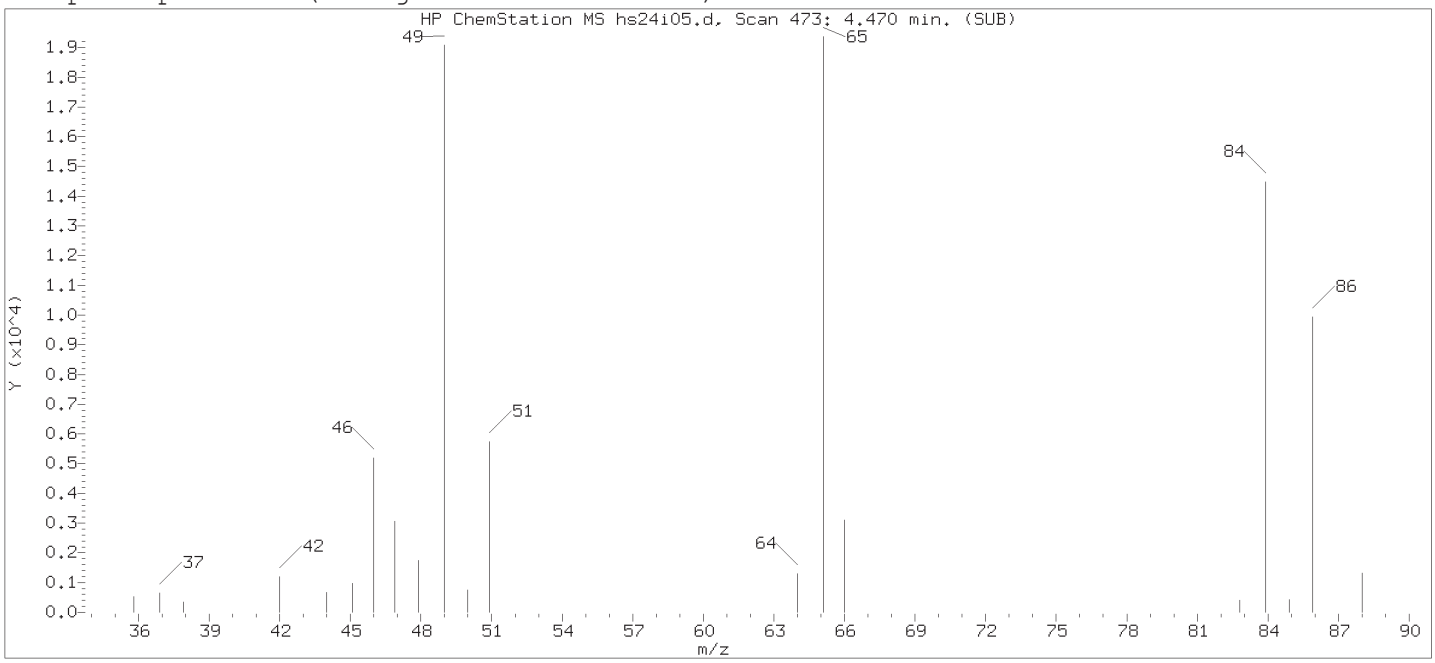
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 137024M
On-Column Amount (ng) : 50.0000
Integration start scan : 448 Integration stop scan: 623
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

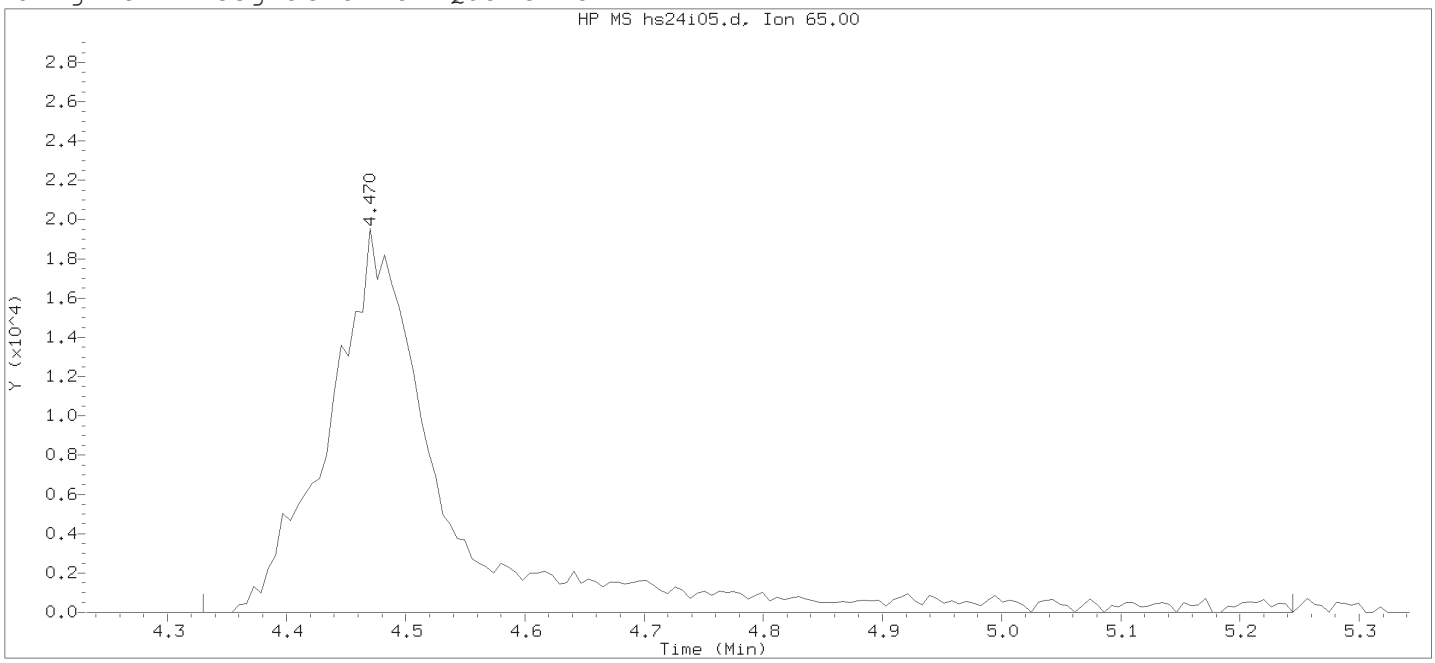
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

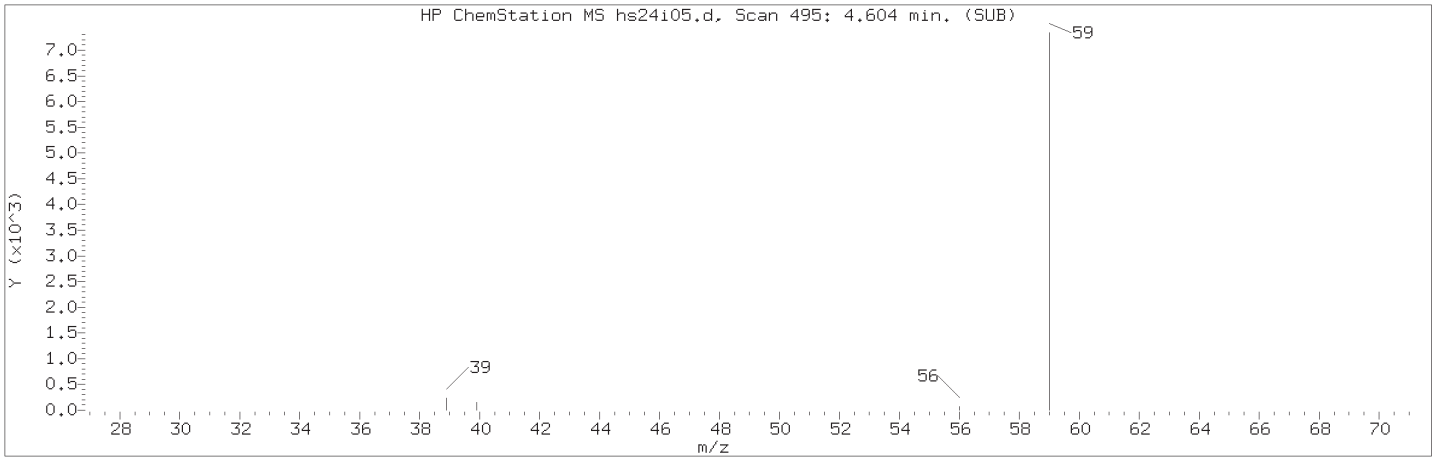
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

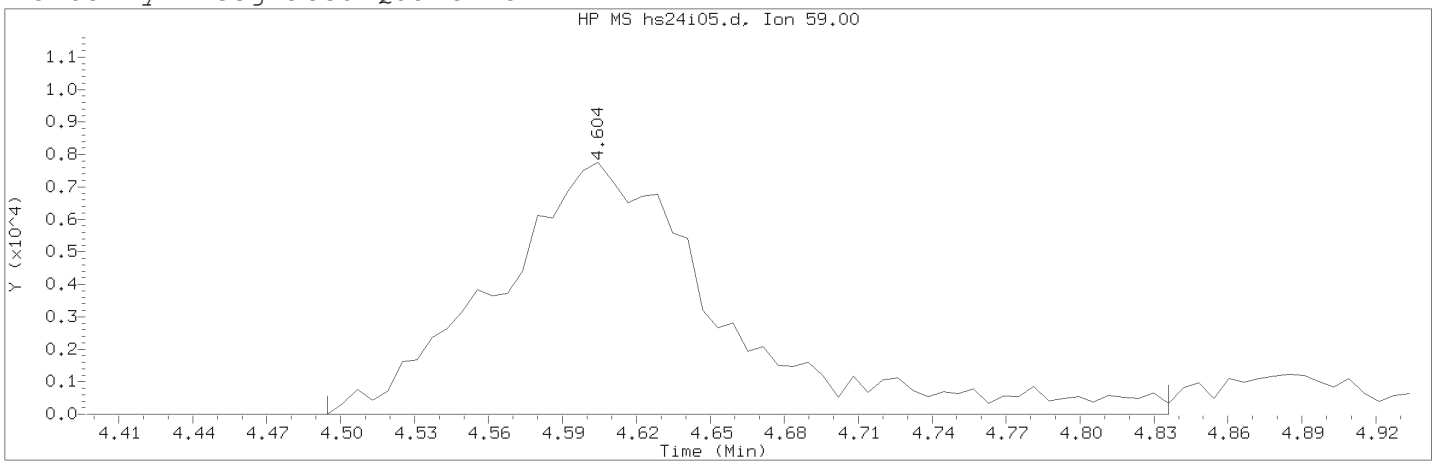
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 135610
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 599
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

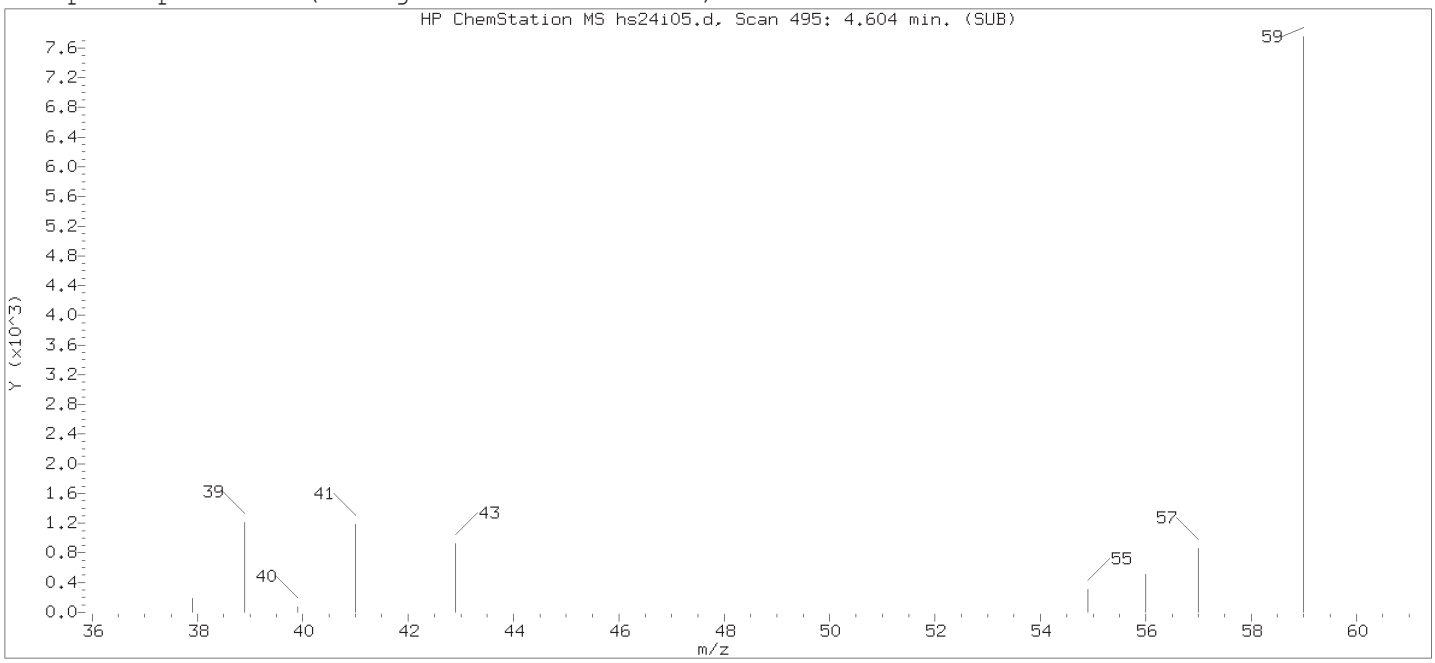
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.604
Quant Ion : 59.00
Area (flag) : 49275M
On-Column Amount (ng) : 21.0678
Integration start scan : 476 Integration stop scan: 532
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

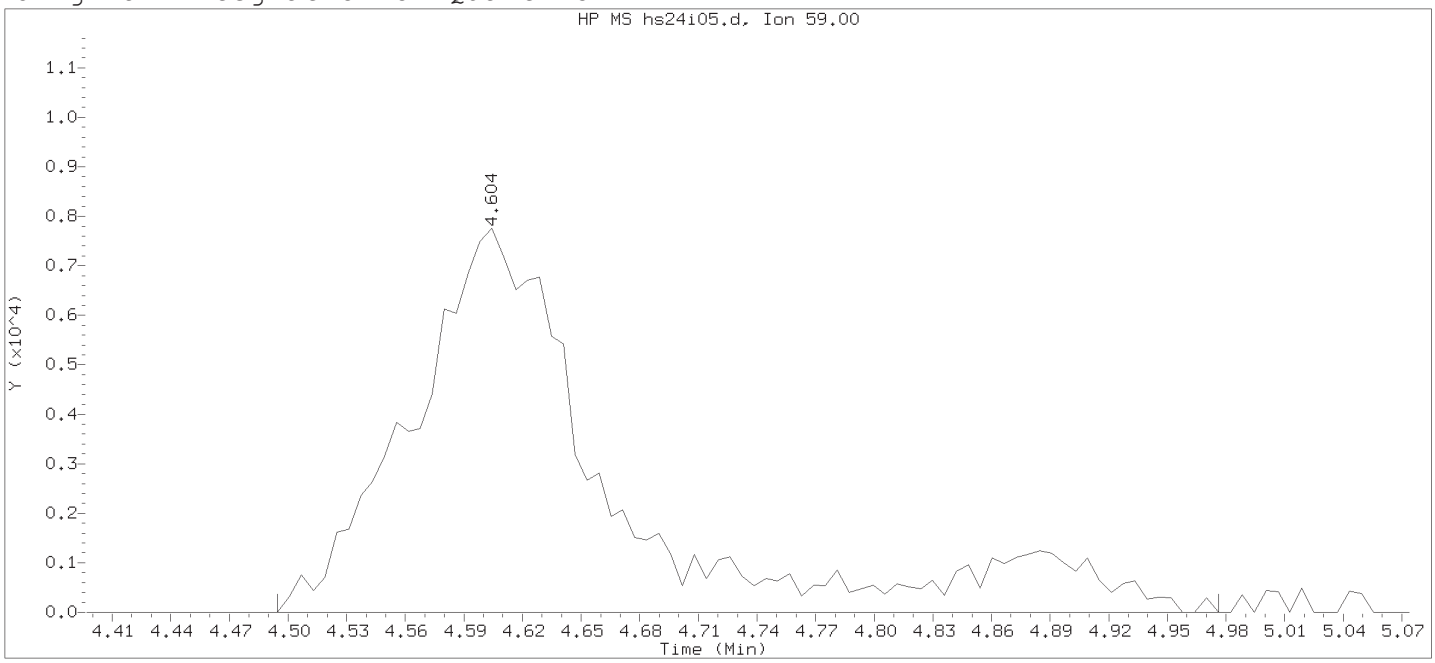
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

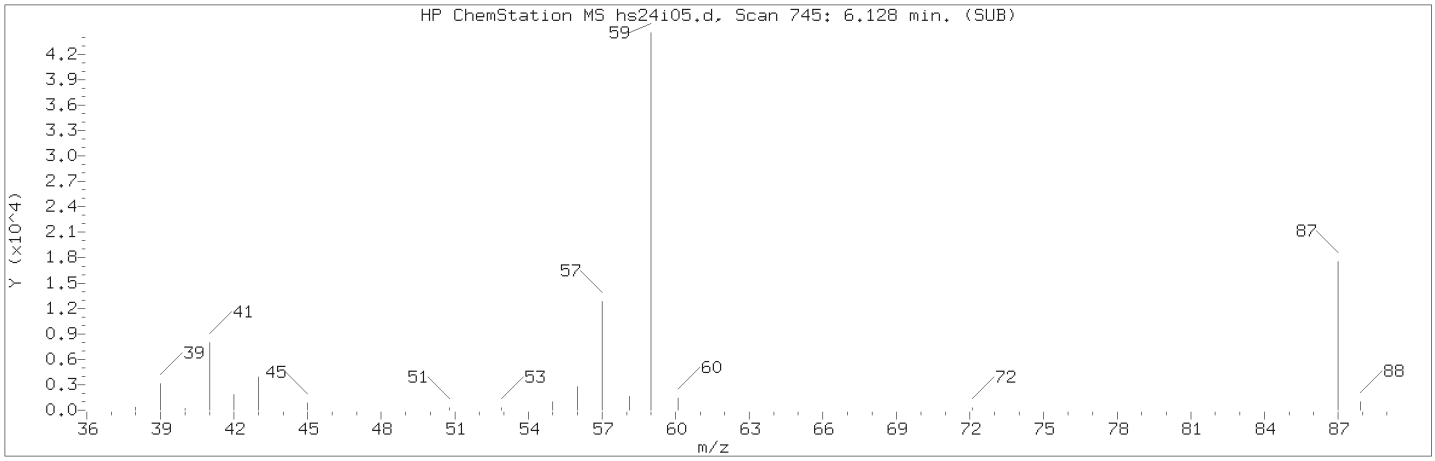
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

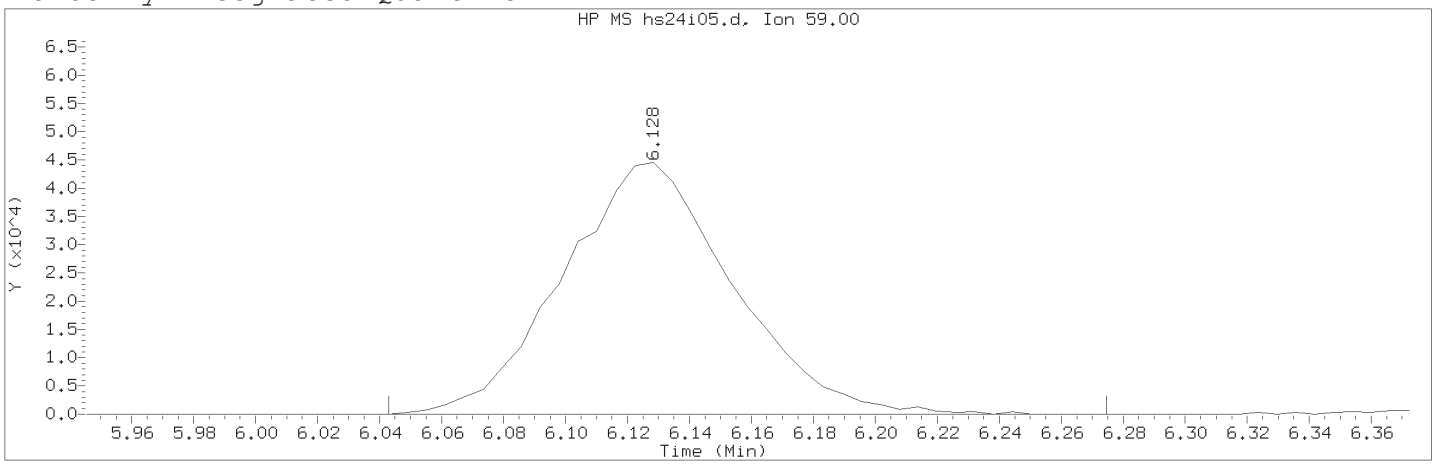
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 495
Retention Time (minutes): 4.604
Quant Ion : 59.00
Area : 54917
On-column Amount (ng) : 22.3410
Integration start scan : 476 Integration stop scan: 555
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Page 1054

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

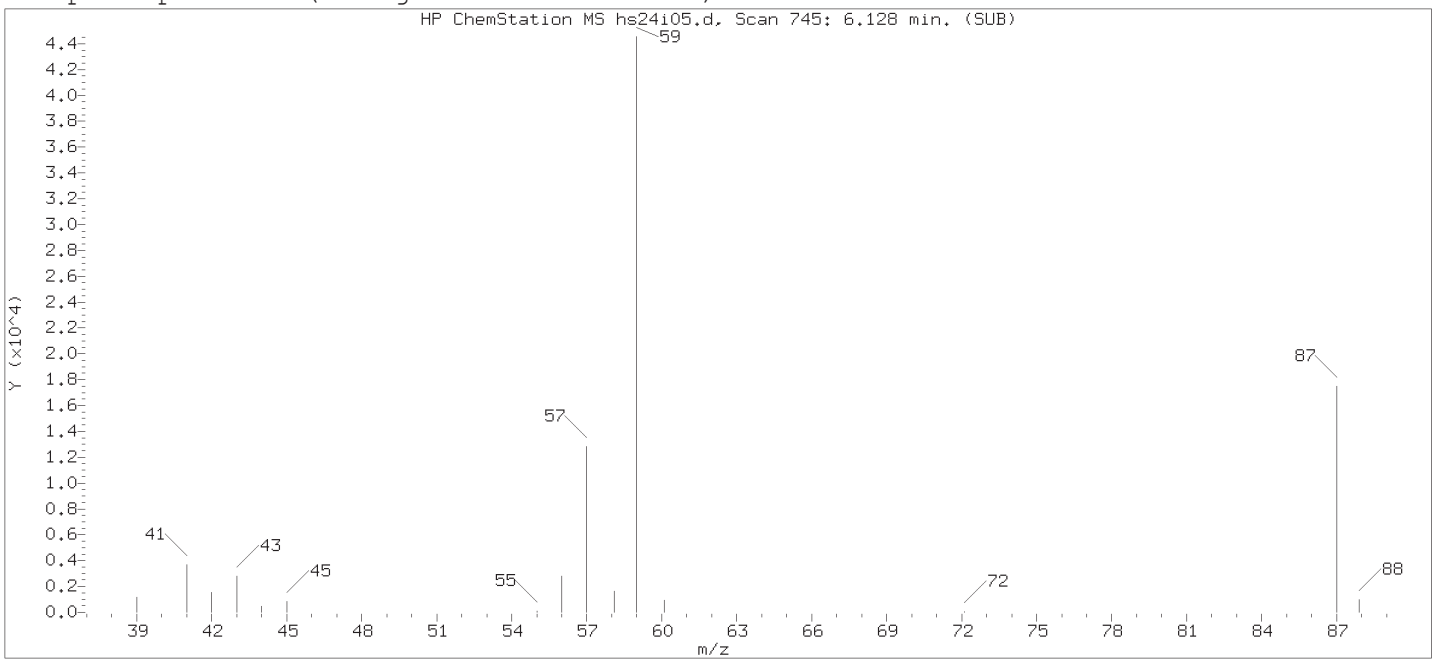
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 745
Retention Time (minutes): 6.128
Quant Ion : 59.00
Area (flag) : 168973M
On-Column Amount (ng) : 1.0320
Integration start scan : 730 Integration stop scan: 768
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

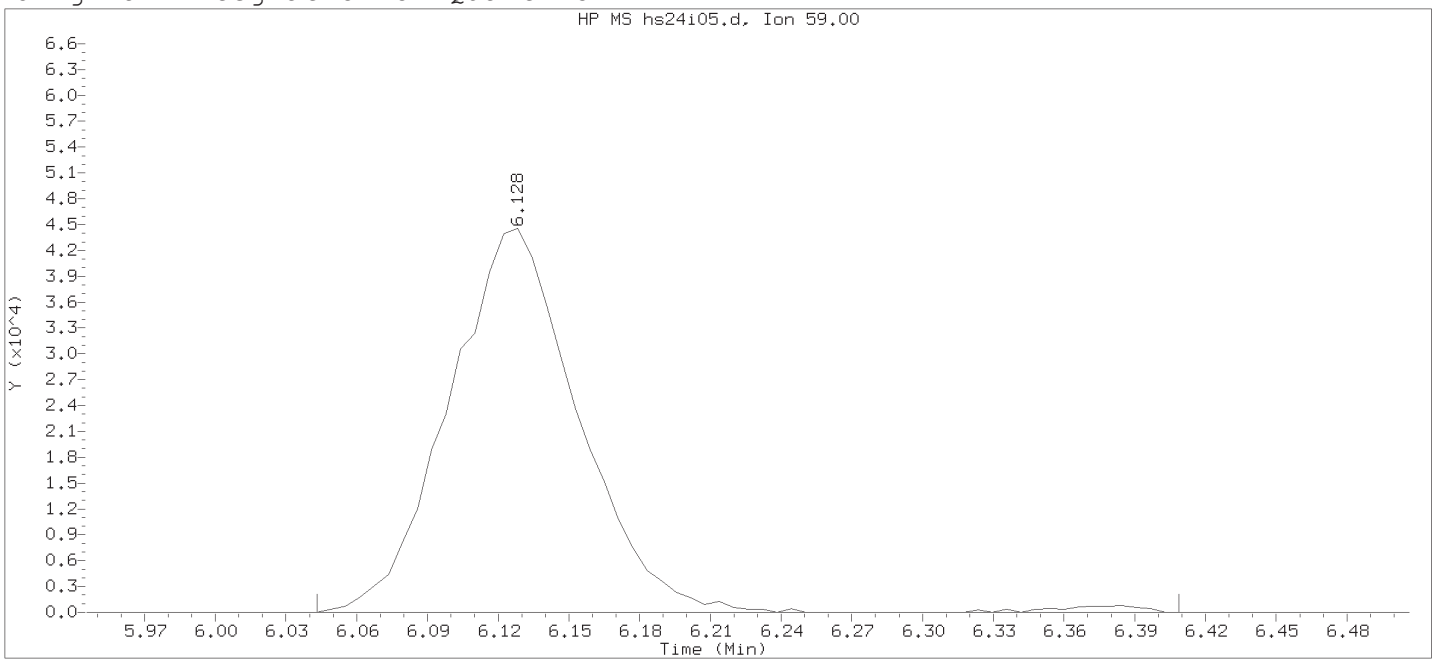
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

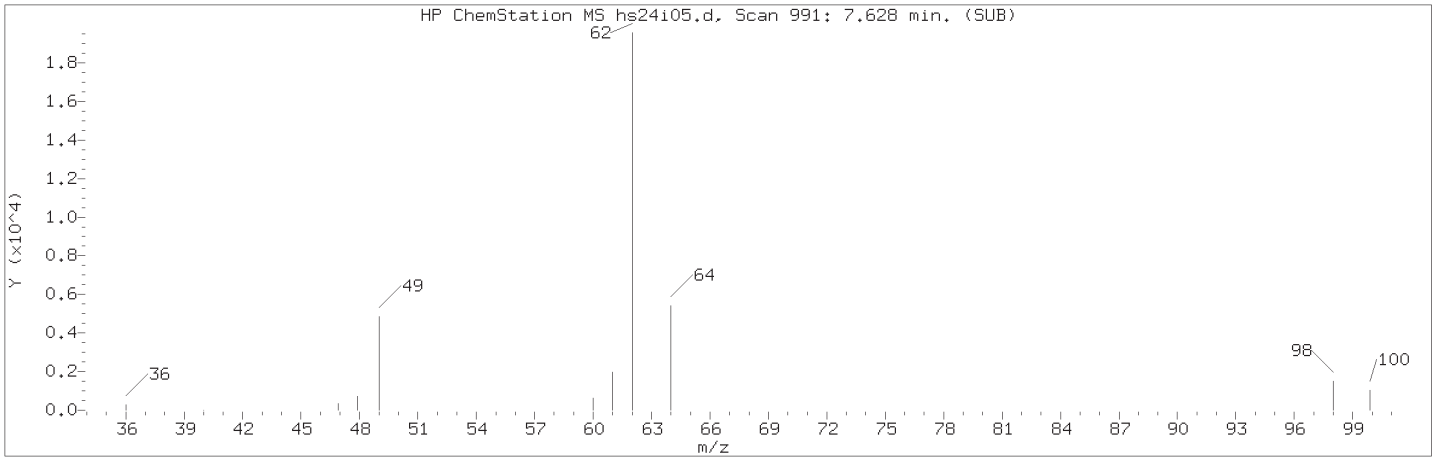
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

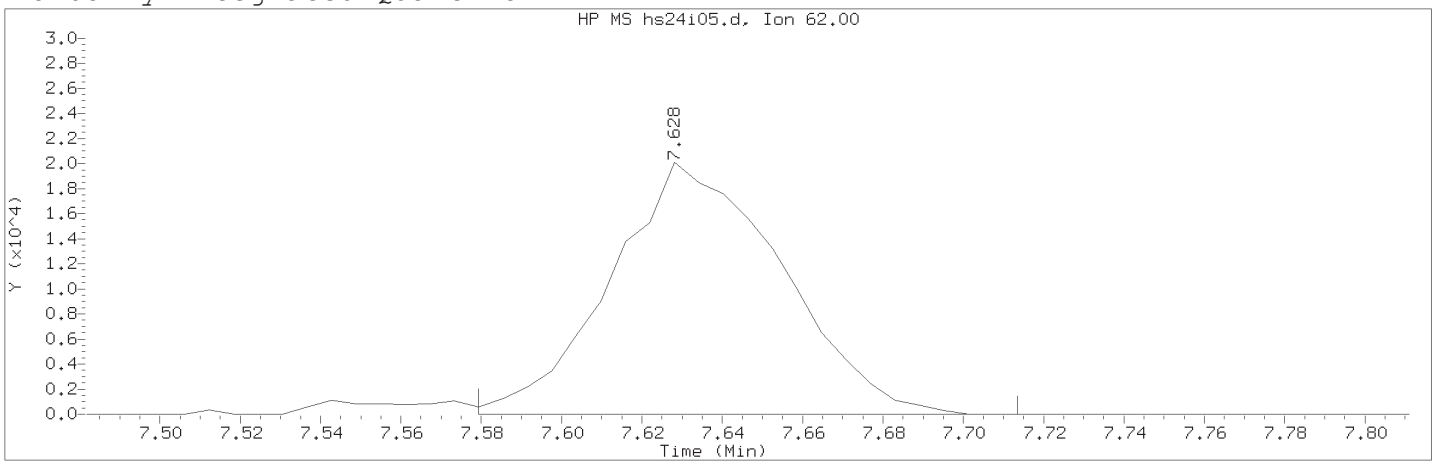
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 745
Retention Time (minutes): 6.128
Quant Ion : 59.00
Area : 170974
On-column Amount (ng) : 1.0111
Integration start scan : 730 Integration stop scan: 790
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

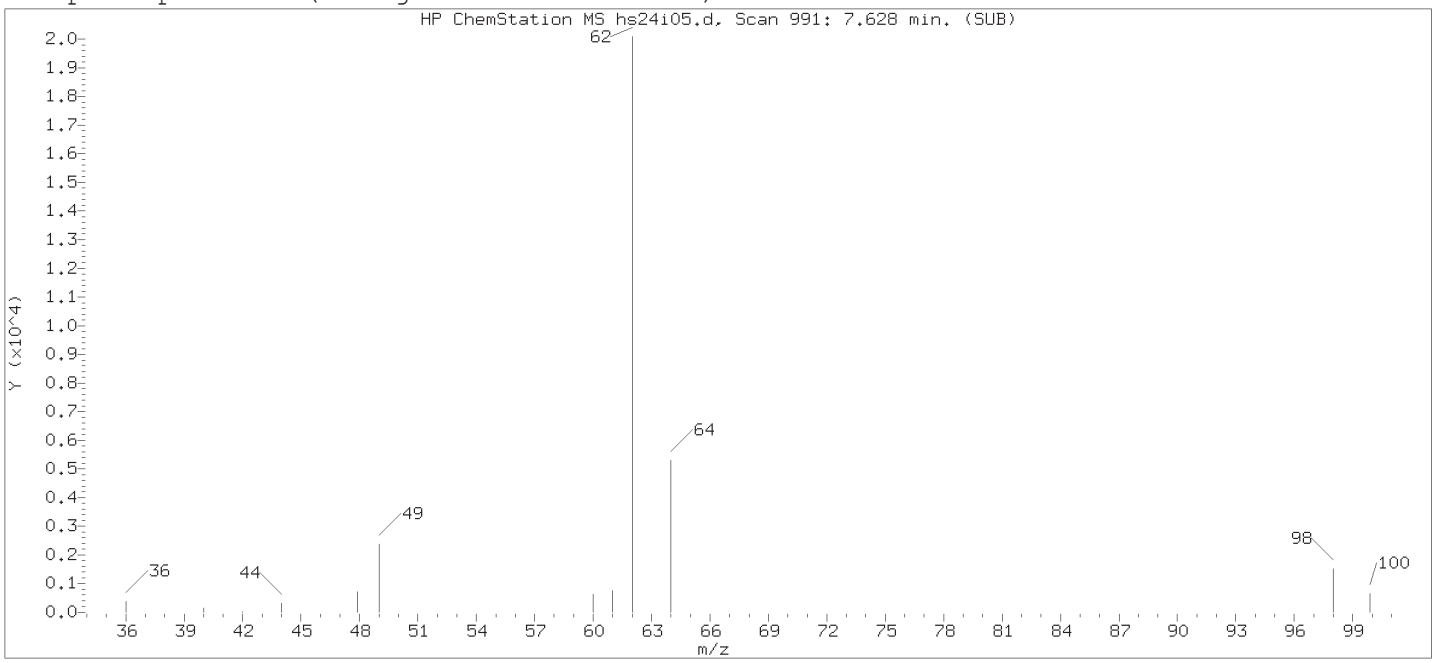
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 62.00
Area (flag) : 59426M
On-Column Amount (ng) : 0.9971
Integration start scan : 982 Integration stop scan: 1004
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

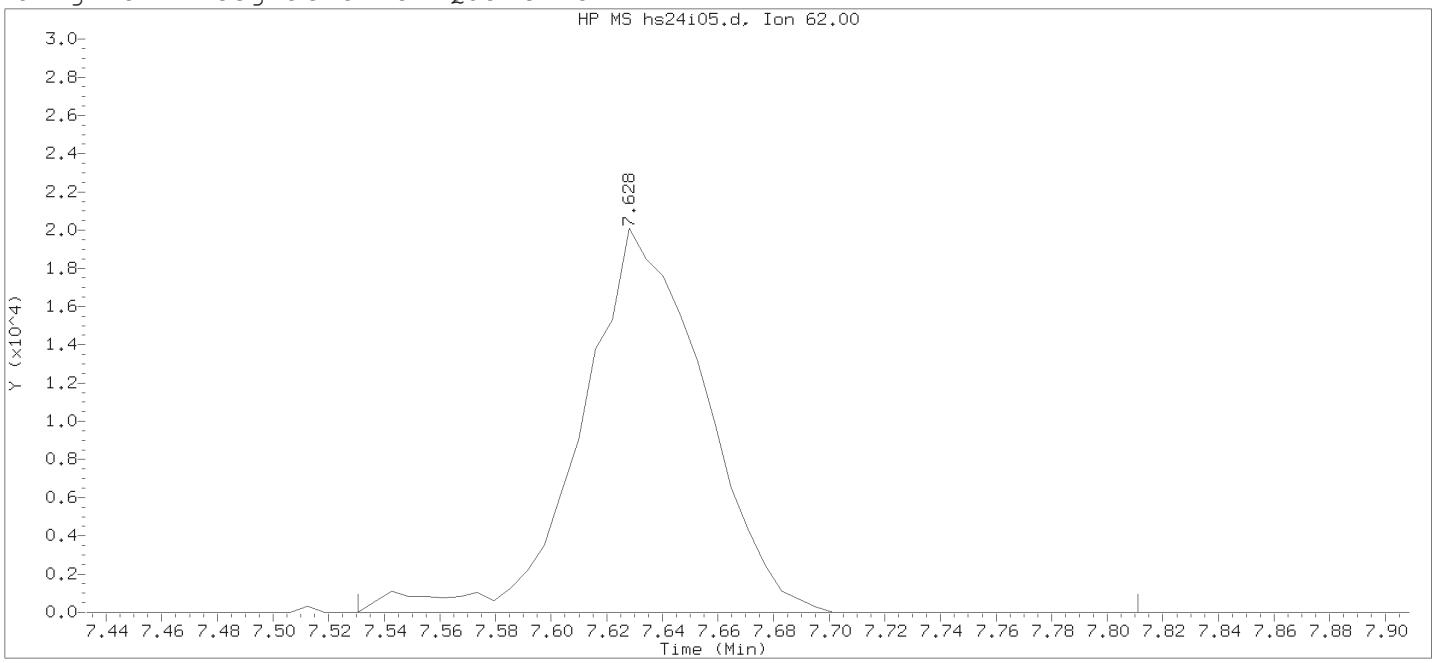
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

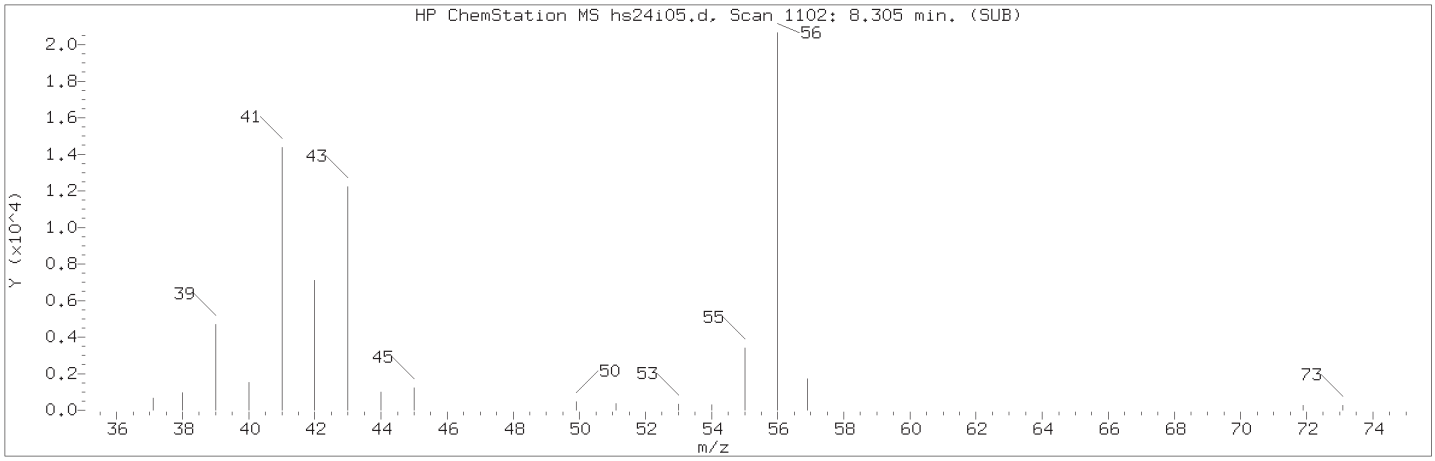
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

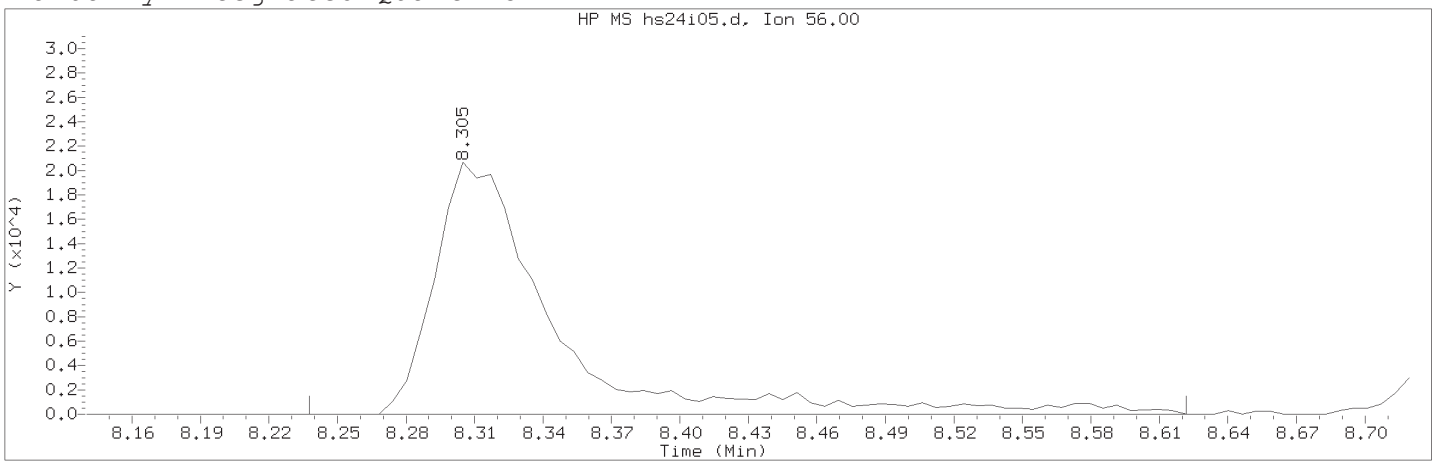
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 62.00
Area : 61591
On-column Amount (ng) : 1.0425
Integration start scan : 974 Integration stop scan: 1020
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

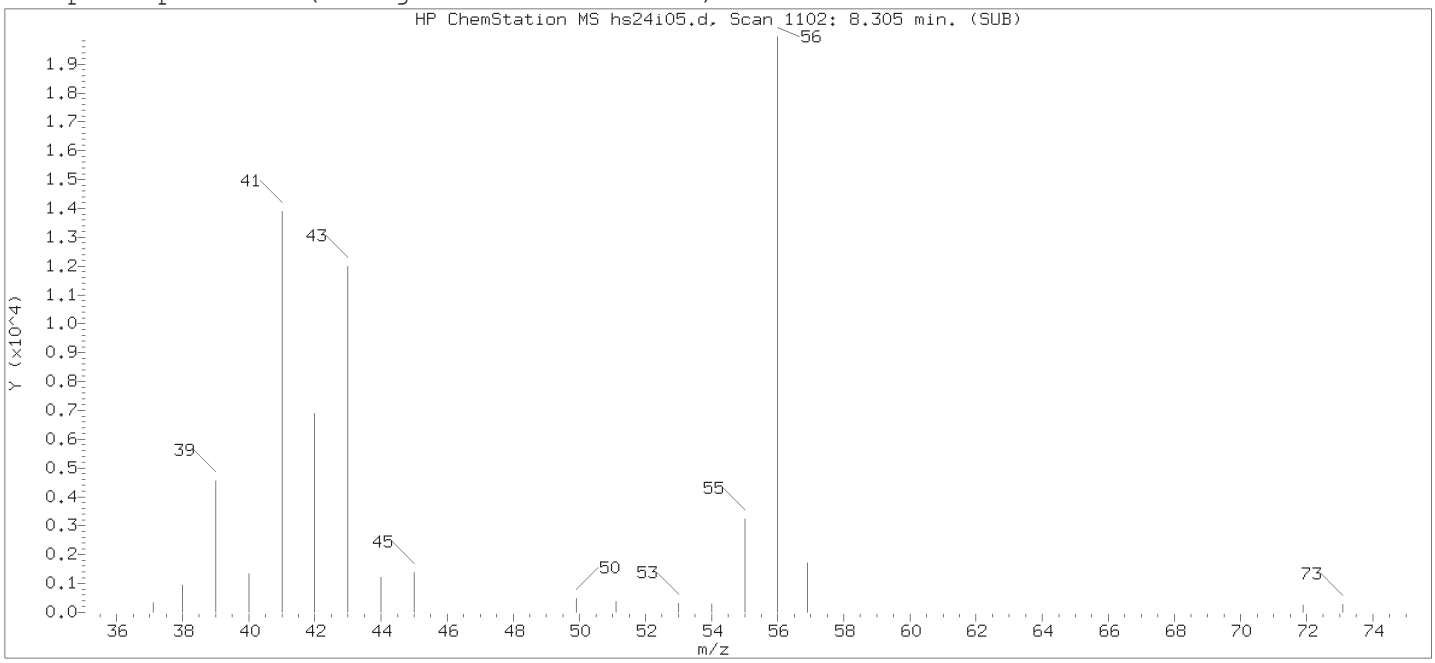
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1102
Retention Time (minutes): 8.305
Quant Ion : 56.00
Area (flag) : 74668M
On-Column Amount (ng) : 97.6635
Integration start scan : 1090 Integration stop scan: 1153
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

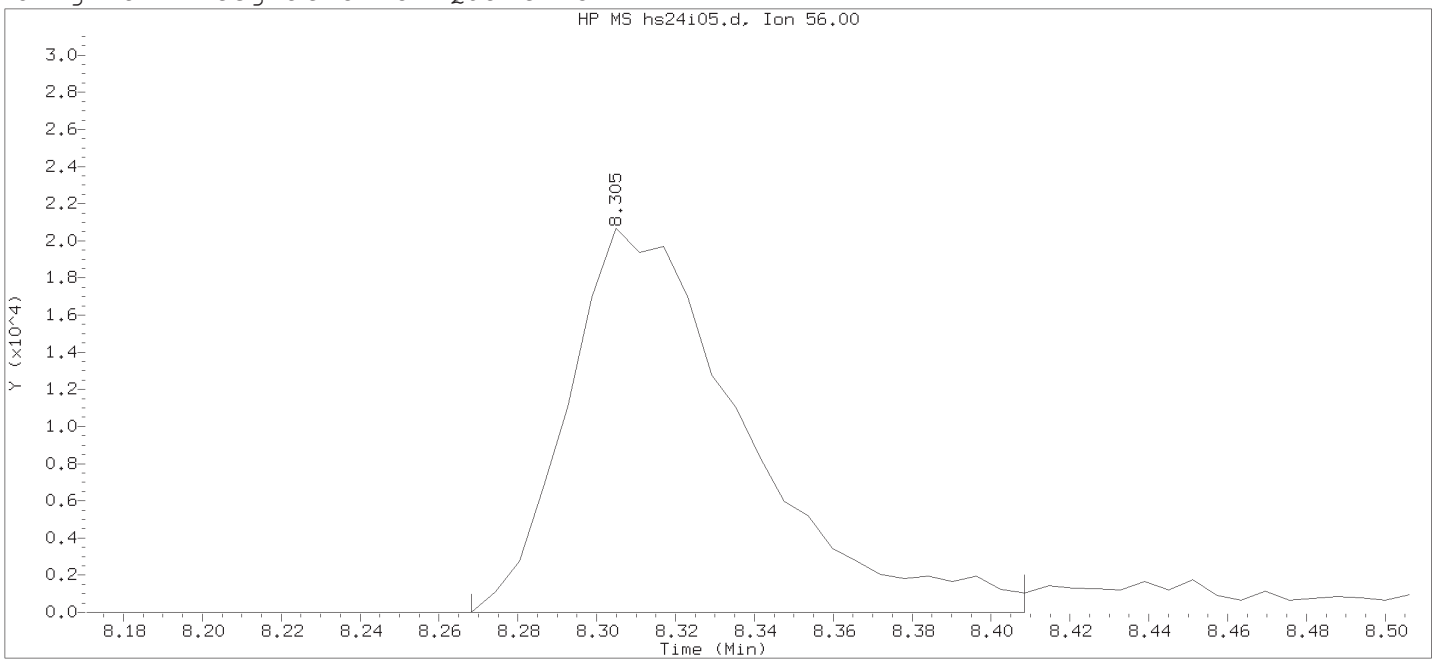
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

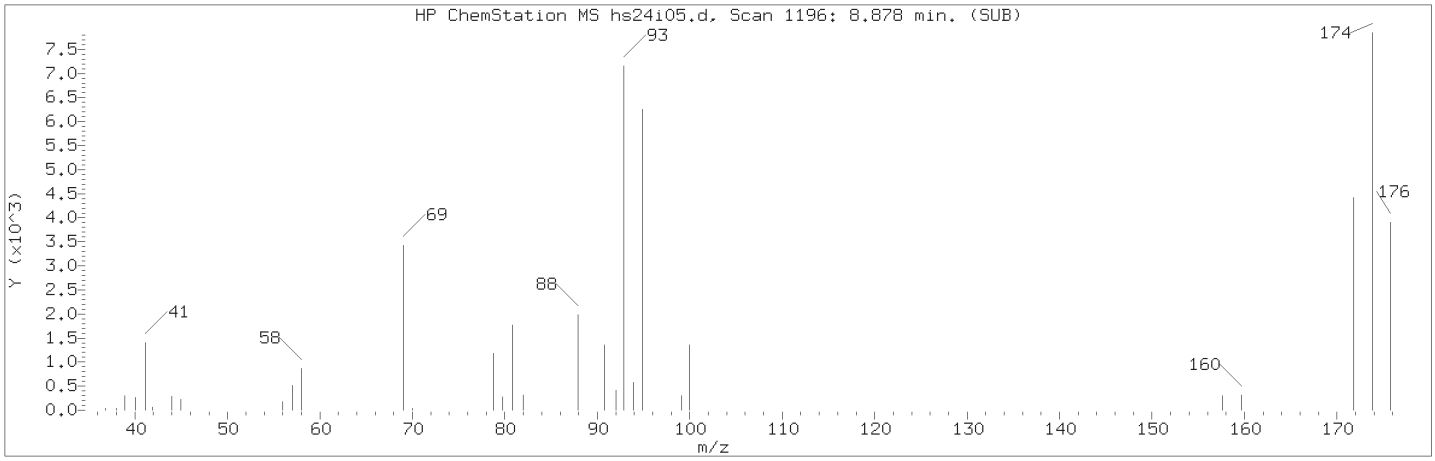
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

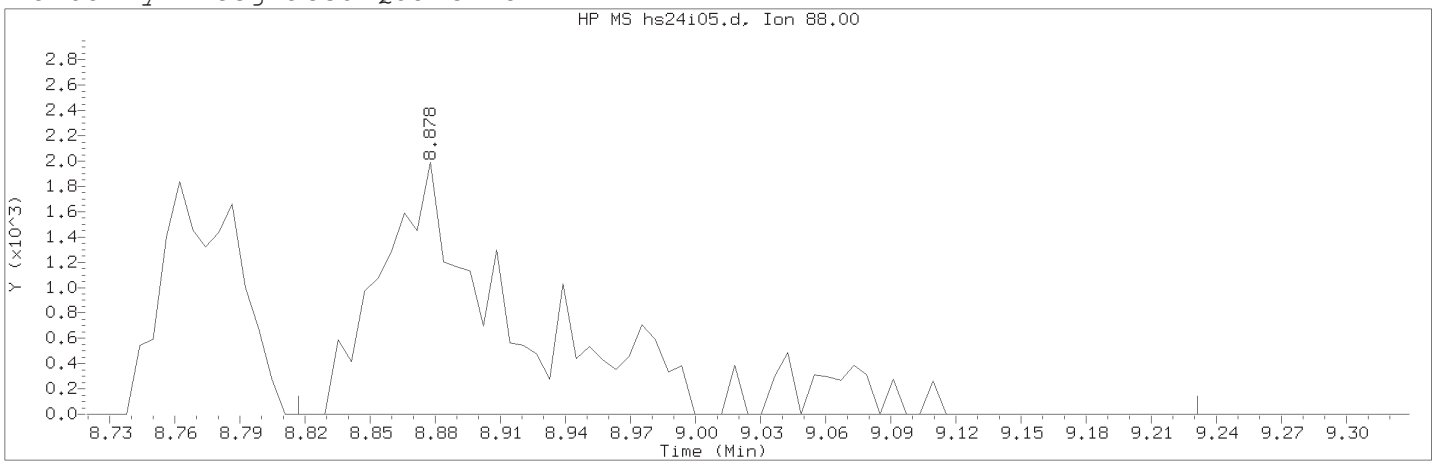
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1102
Retention Time (minutes): 8.305
Quant Ion : 56.00
Area : 64395
On-column Amount (ng) : 83.6678
Integration start scan : 1095 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

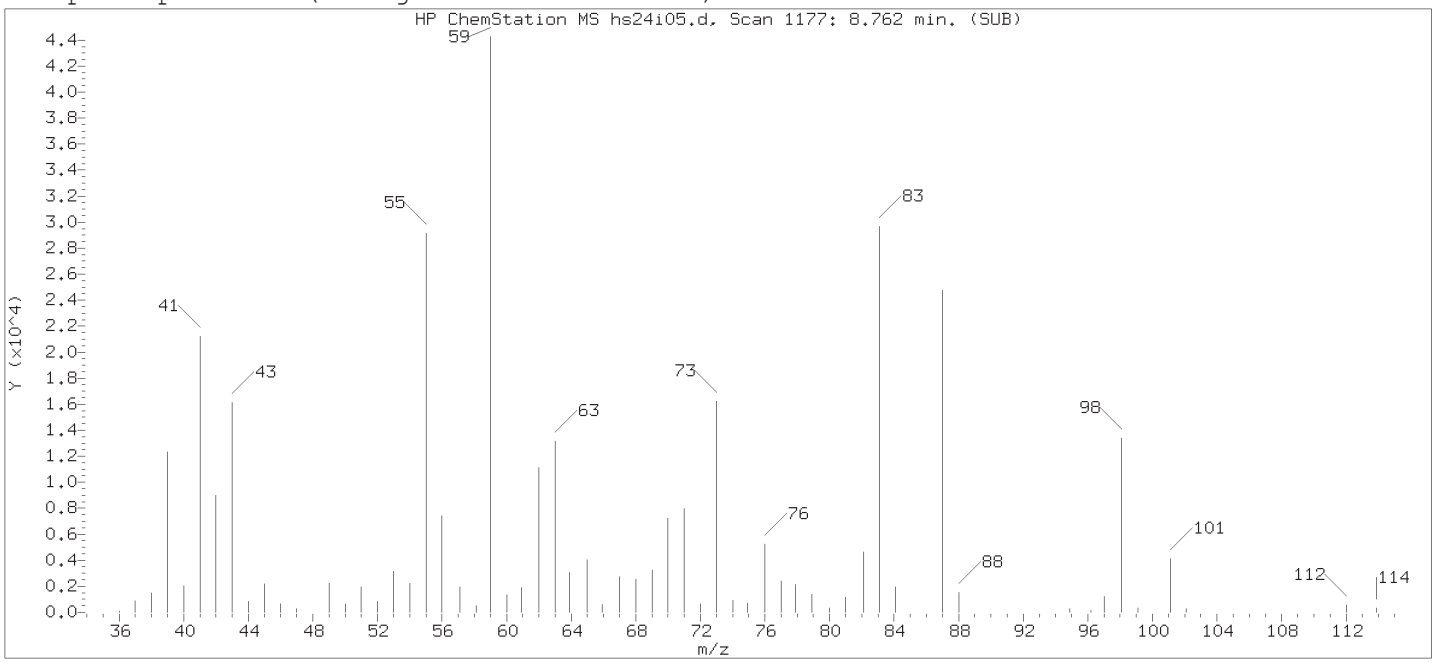
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1196
Retention Time (minutes): 8.878
Quant Ion : 88.00
Area (flag) : 9241M
On-Column Amount (ng) : 50.2009
Integration start scan : 1185 Integration stop scan: 1253
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

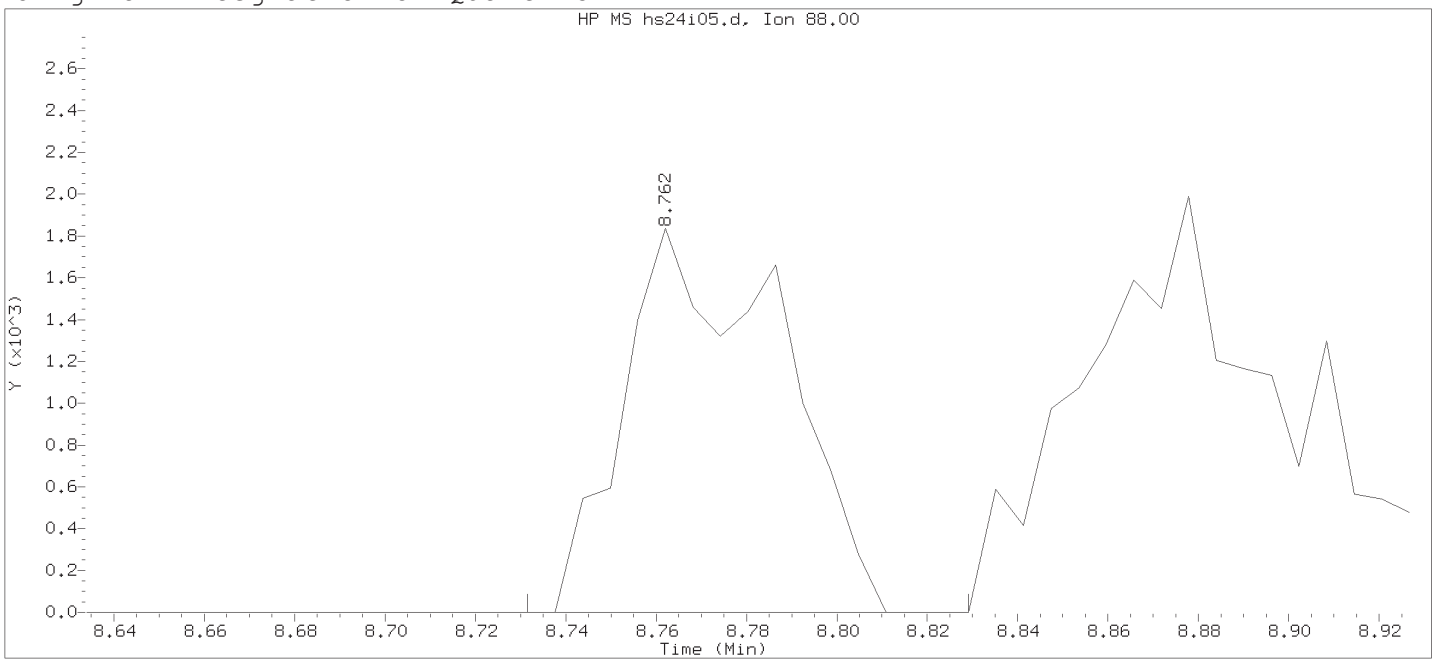
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

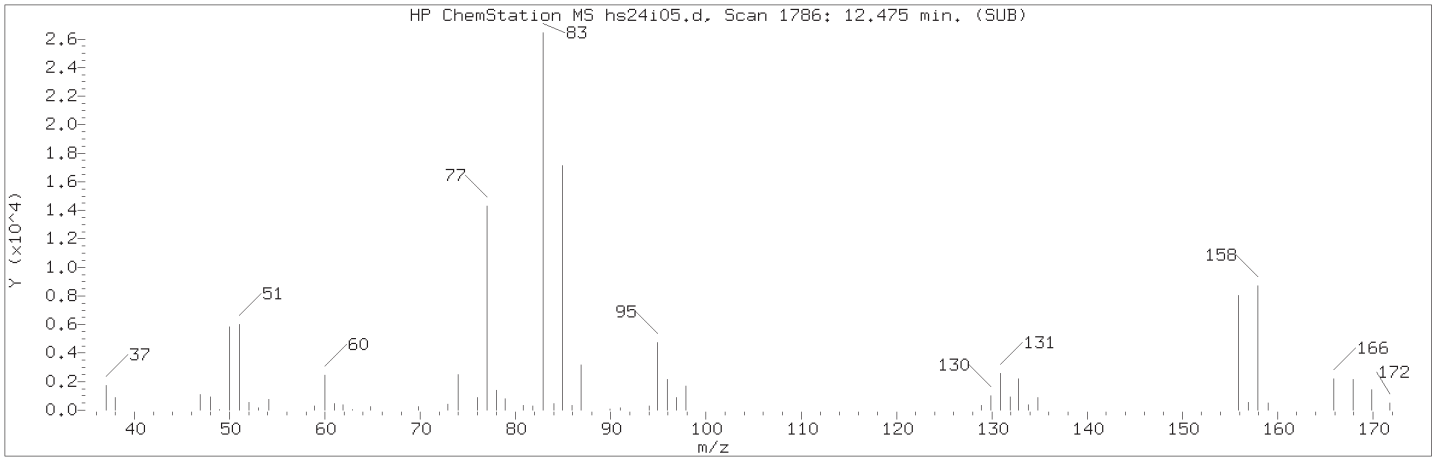
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

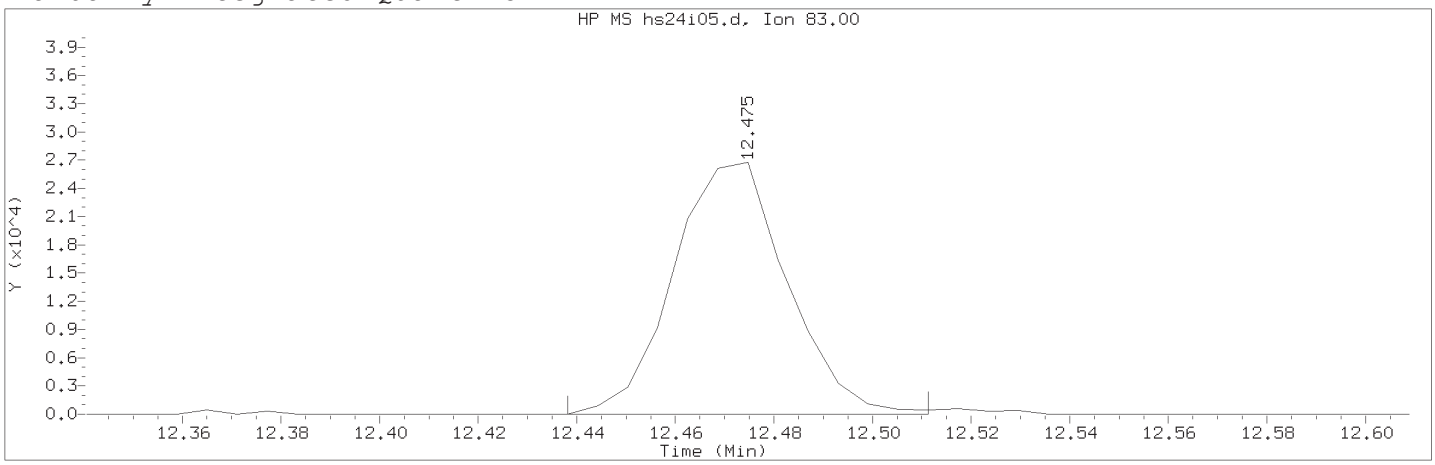
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1177
Retention Time (minutes): 8.762
Quant Ion : 88.00
Area : 4467
On-column Amount (ng) : 37.5984
Integration start scan : 1171 Integration stop scan: 1187
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

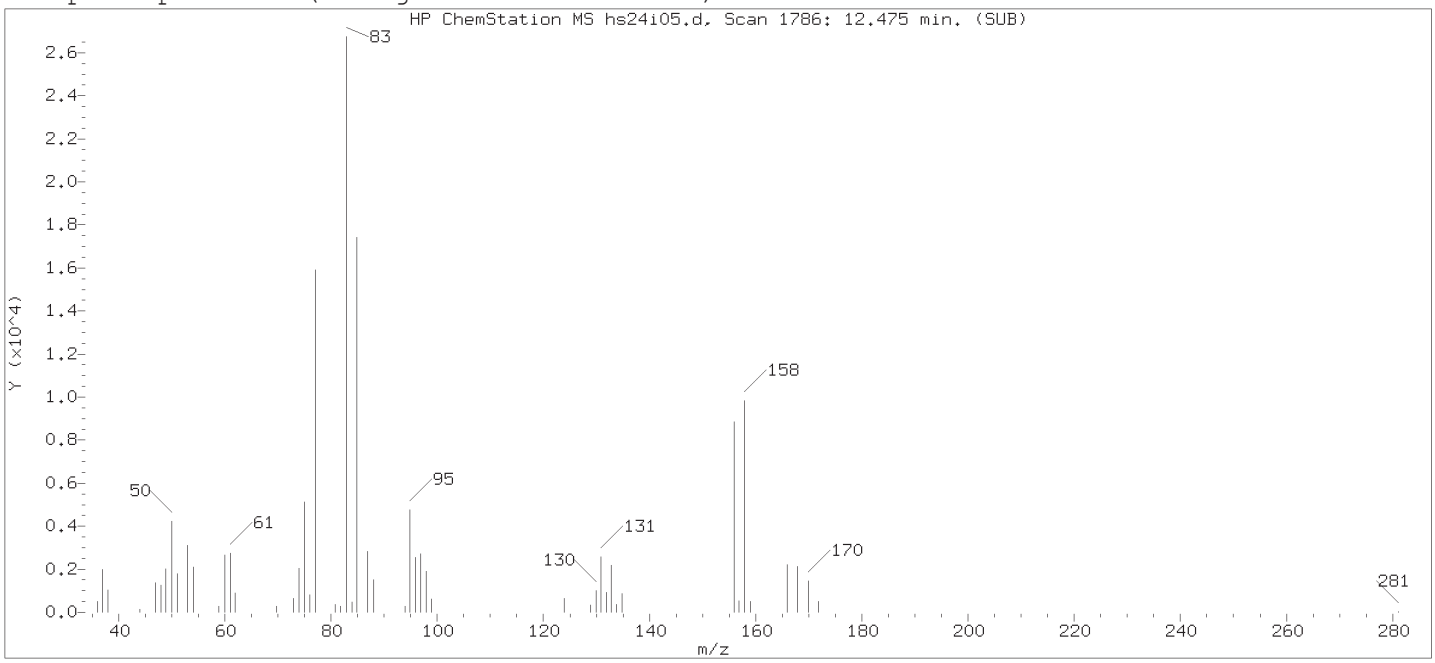
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area (flag) : 42904M
On-Column Amount (ng) : 0.9628
Integration start scan : 1779 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

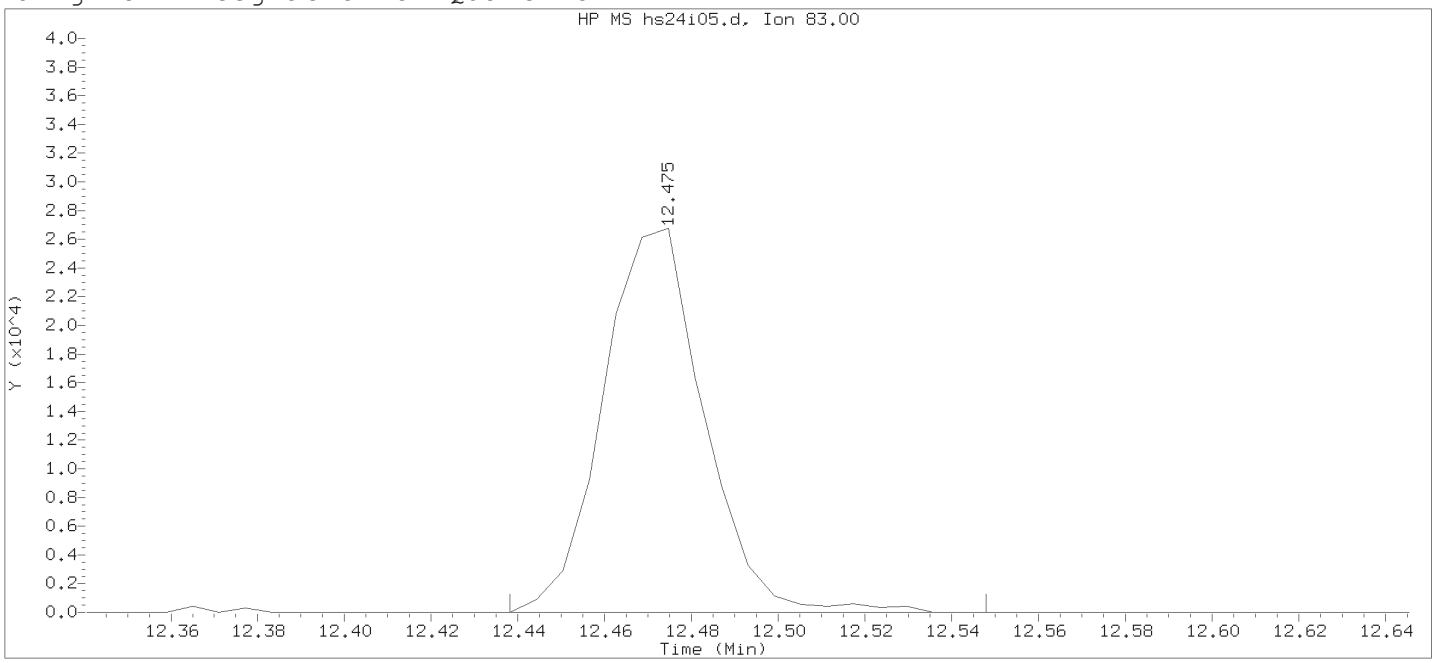
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

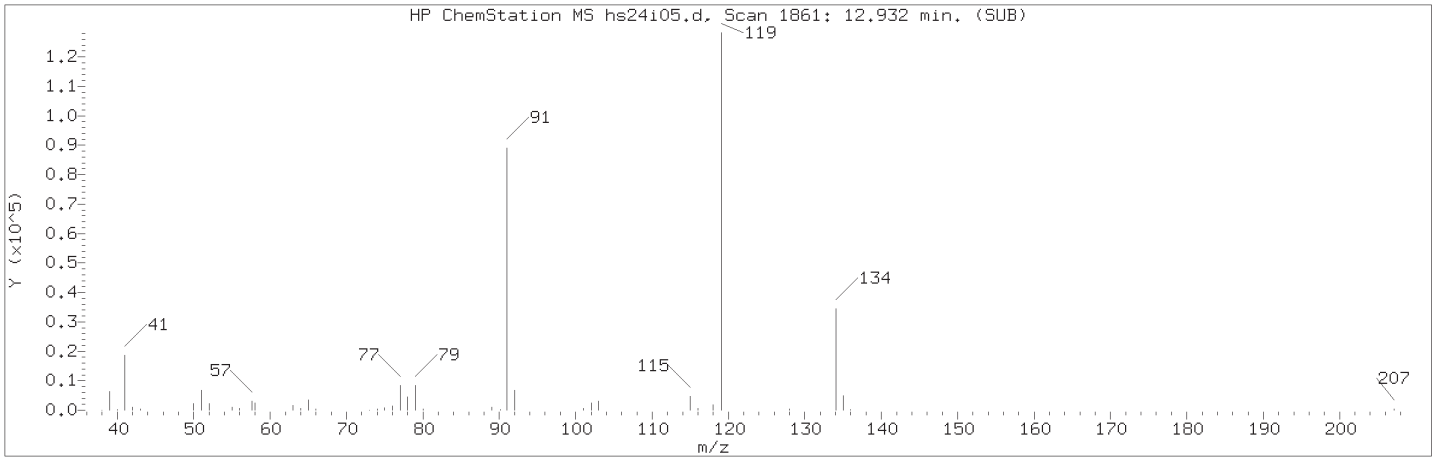
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

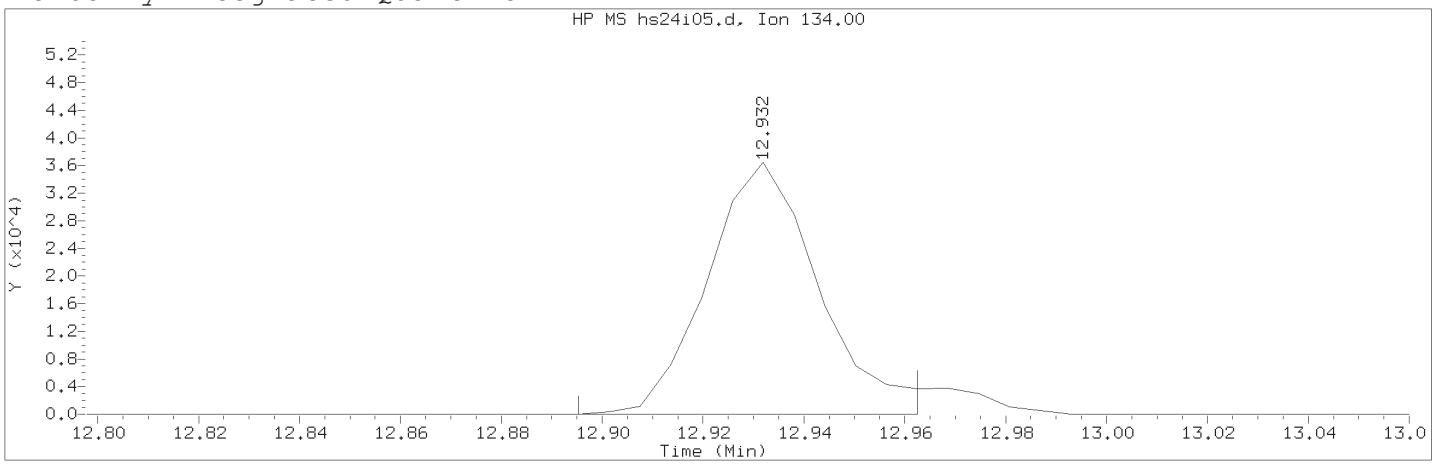
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1786
Retention Time (minutes): 12.475
Quant Ion : 83.00
Area : 43396
On-column Amount (ng) : 0.9508
Integration start scan : 1779 Integration stop scan: 1797
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

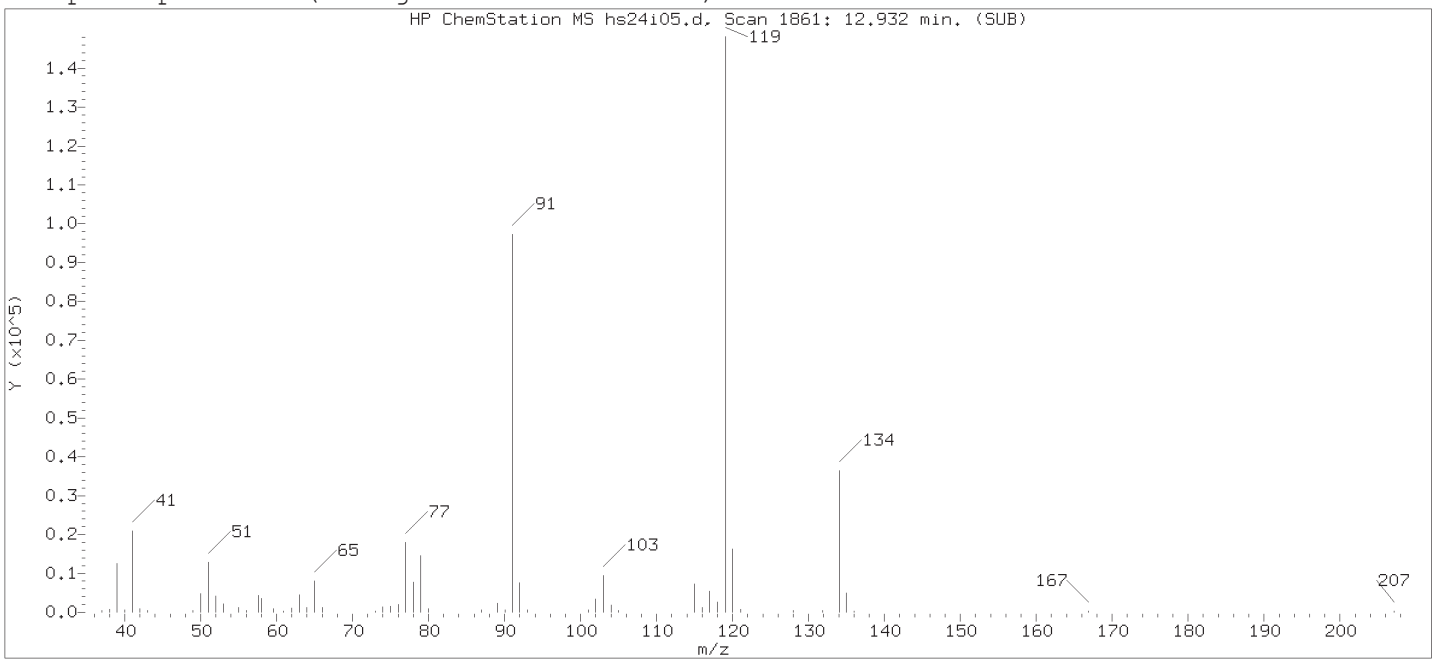
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 55631M
On-Column Amount (ng) : 1.0251
Integration start scan : 1854 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

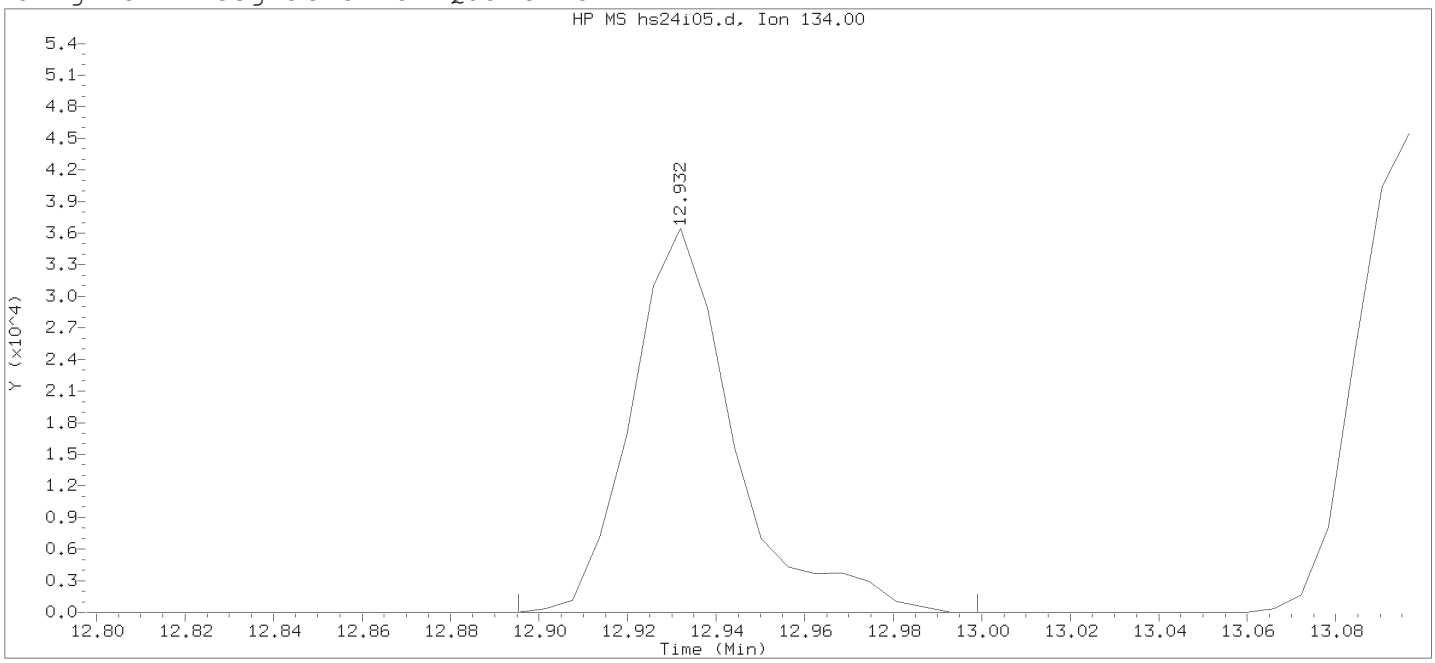
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

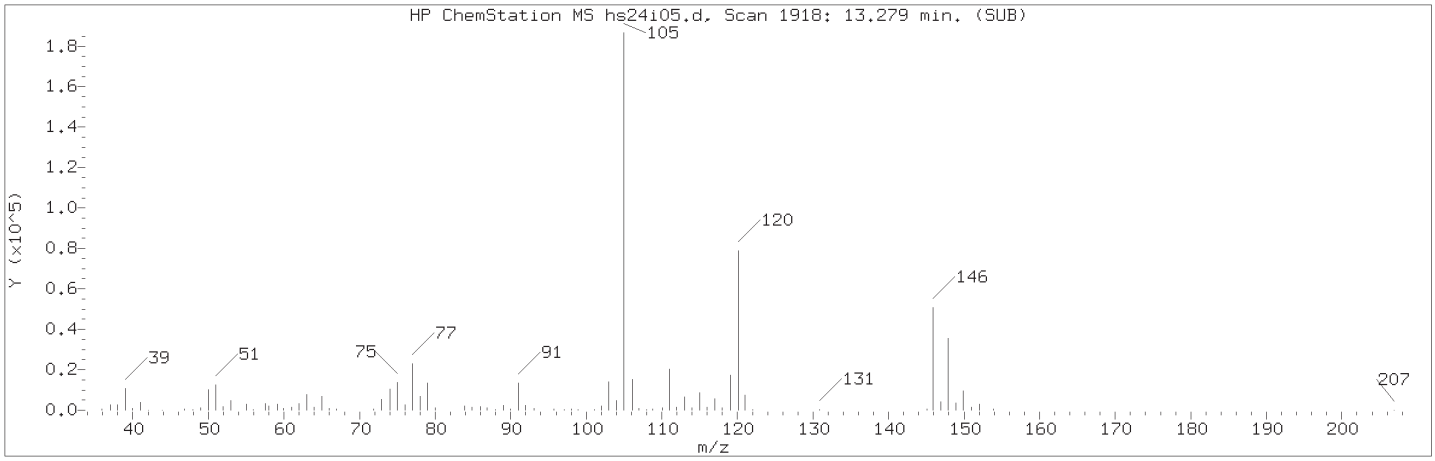
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

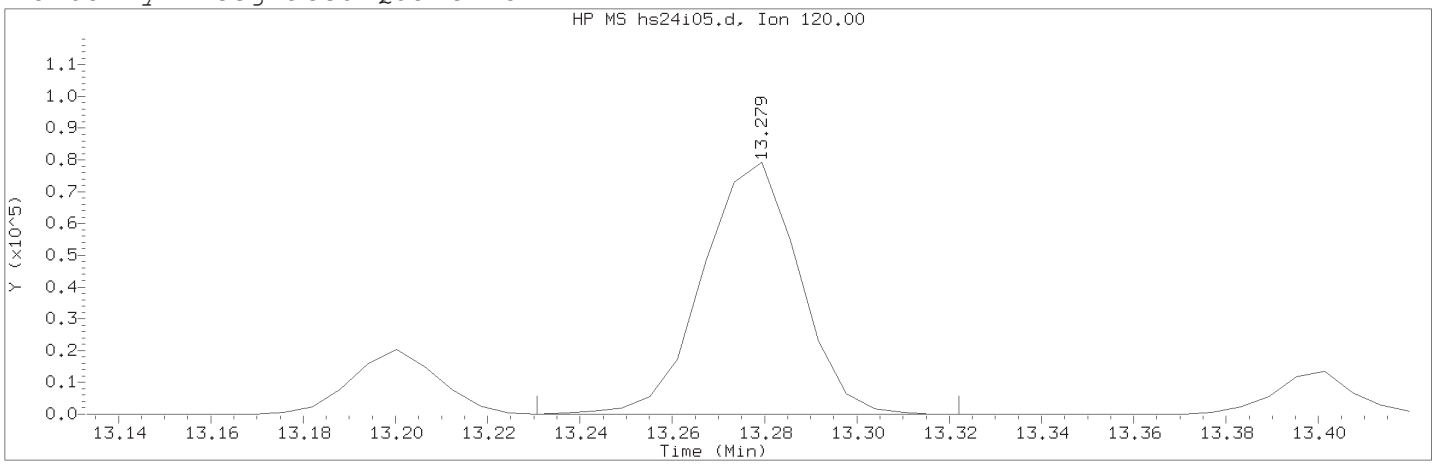
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 58647
On-column Amount (ng) : 1.0086
Integration start scan : 1854 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

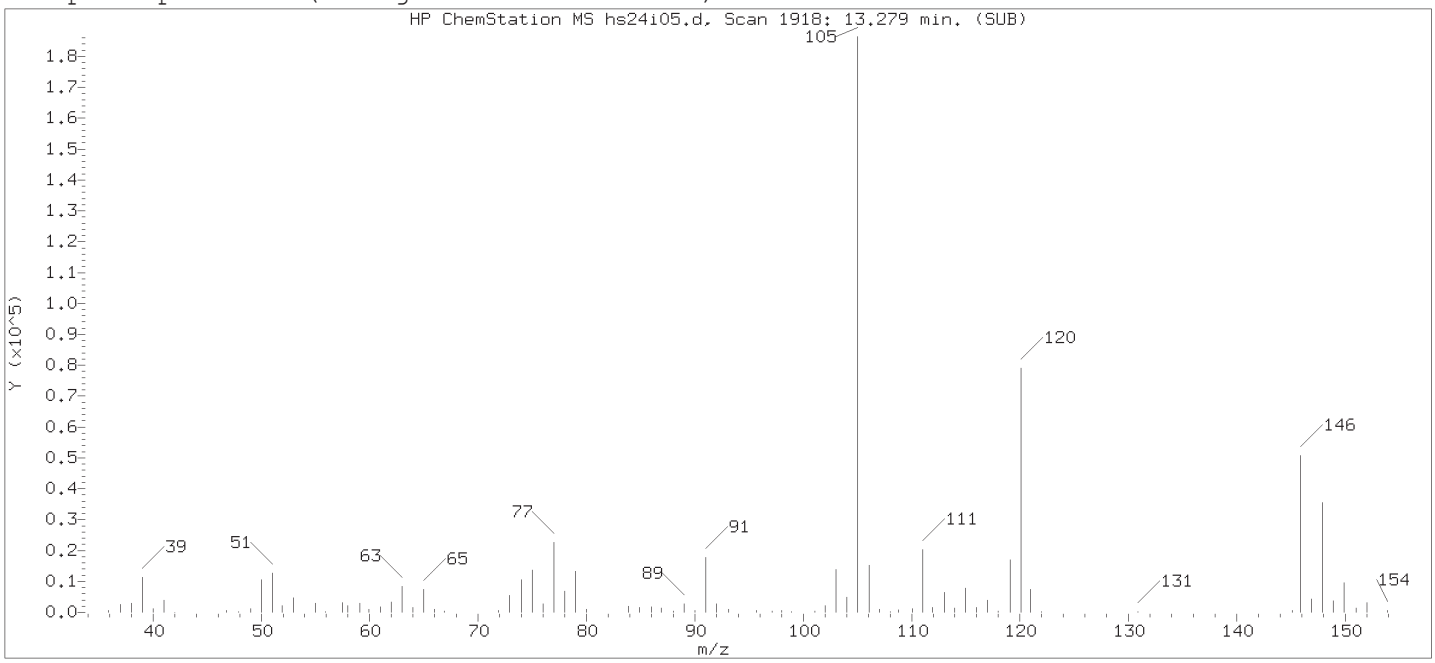
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1918
Retention Time (minutes): 13.279
Quant Ion : 120.00
Area (flag) : 114395M
On-Column Amount (ng) : 0.9792
Integration start scan : 1909 Integration stop scan: 1924
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

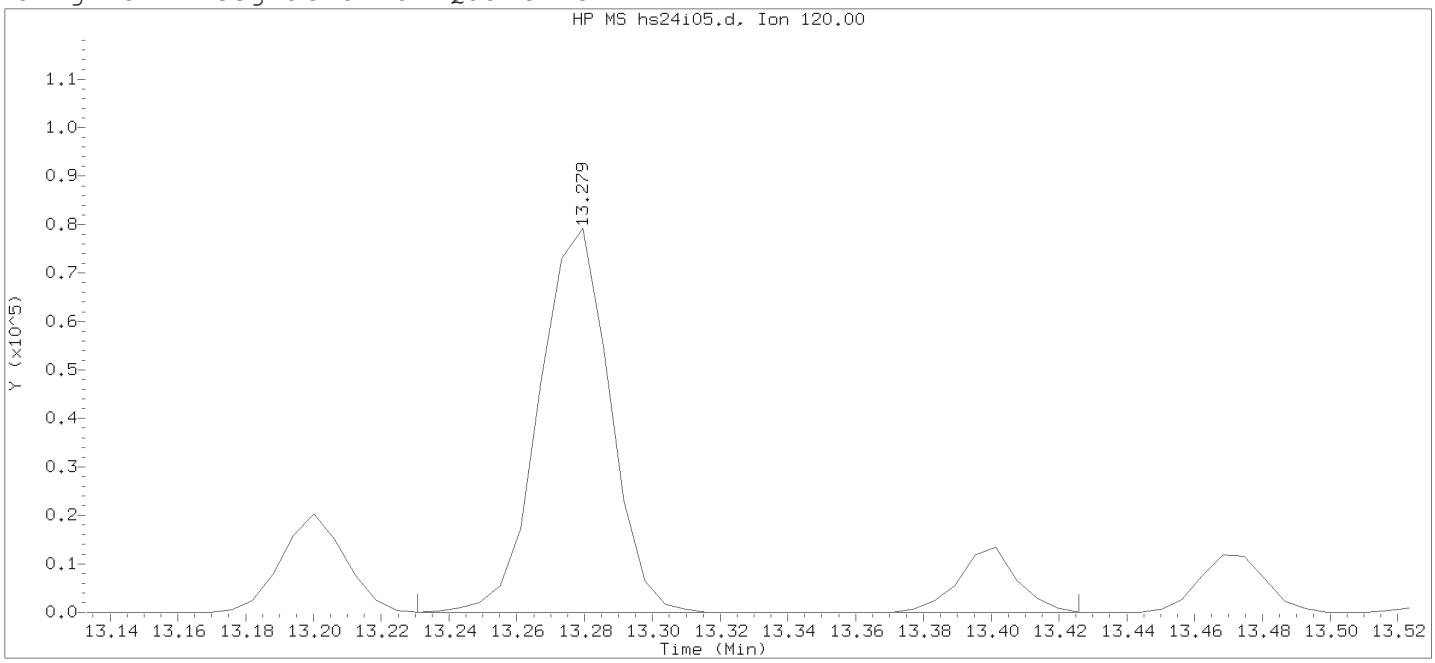
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



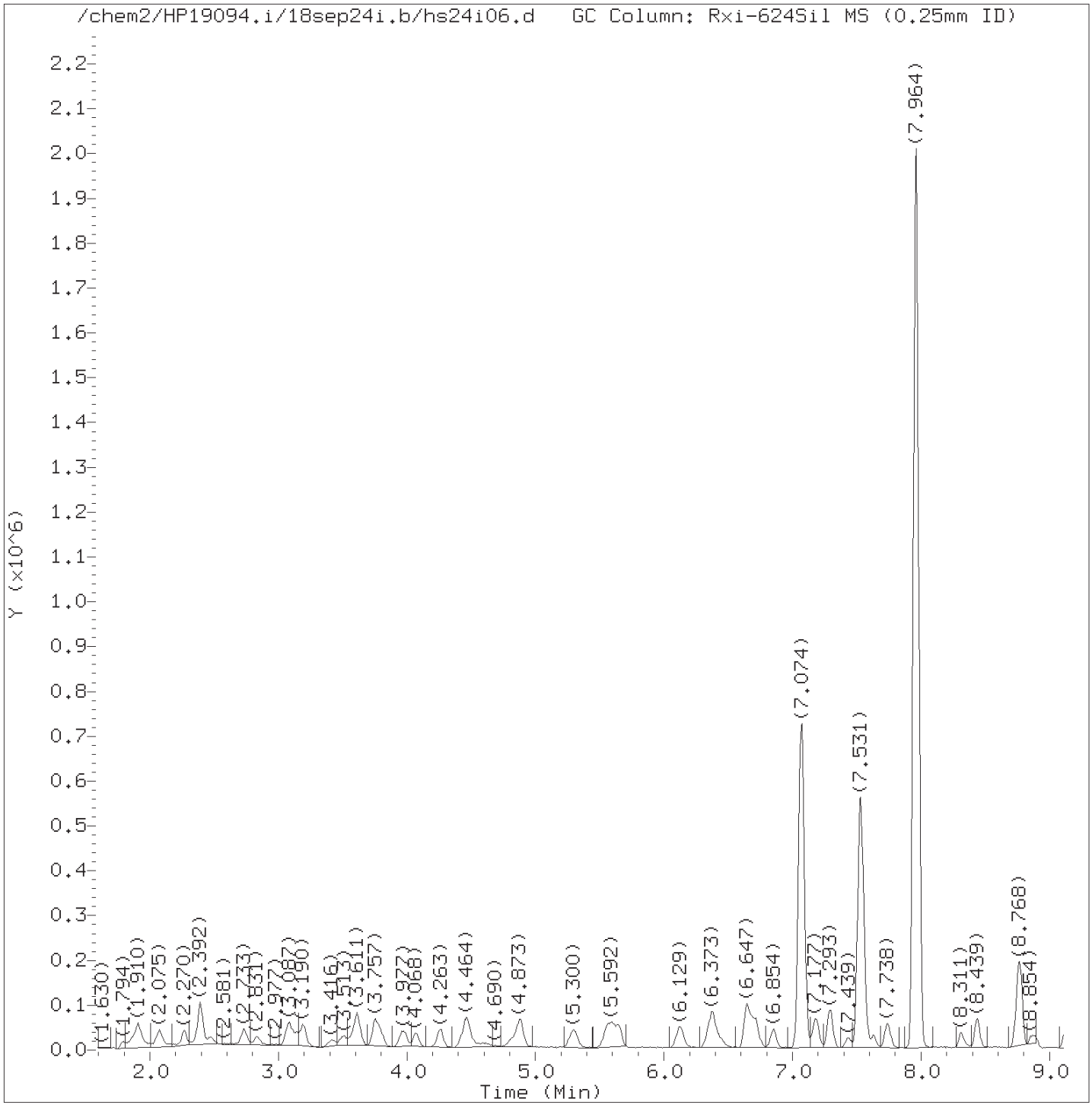
Data File: /chem2/HP19094.i/18sep24i.b/hs24i05.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 19:54 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1918
Retention Time (minutes): 13.279
Quant Ion : 120.00
Area : 130549
On-column Amount (ng) : 1.0710
Integration start scan : 1909 Integration stop scan: 1941
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

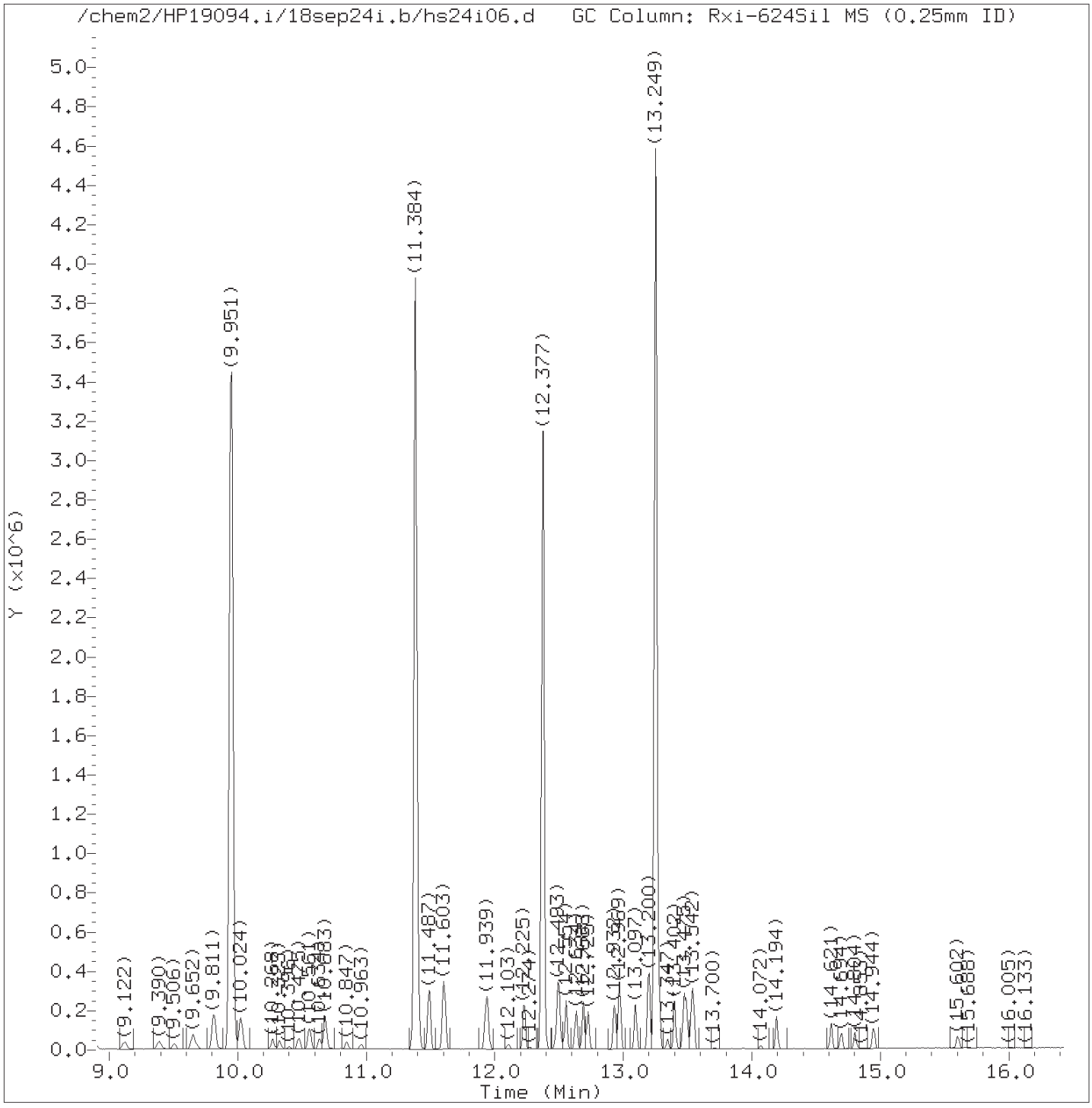
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.062	85	52718	0.492
2) Chloromethane	(2)	2.270	50	52280	0.498
6) 1,3-Butadiene	(2)	2.386	39	54776M	0.492
5) Vinyl Chloride	(2)	2.398	62	47346	0.482
7) Bromomethane	(2)	2.733	94	38272	0.501
8) Chloroethane	(2)	2.831	64	29455	0.494
9) Dichlorofluoromethane	(2)	3.080	67	68125	0.480
10) Trichlorofluoromethane	(2)	3.141	101	61550	0.496
11) Ethyl ether	(2)	3.422	59	20421	0.485
12) Freon 123a	(2)	3.501	67	38697	0.492
13) Acrolein	(1)	3.611	56	144331	23.202
15) 1,1-Dichloroethene	(2)	3.751	96	25447	0.473
16) Freon 113	(2)	3.794	101	29825	0.471
14) Acetone	(1)	3.800	43	39805M	4.764
17) Methyl Iodide	(2)	3.958	142	54798	0.489
18) Carbon Disulfide	(2)	4.068	76	82997	0.485
21) Methyl Acetate	(1)	4.214	43	11281	0.481
22) Allyl Chloride	(2)	4.257	41	48017	0.470
23) Methylene Chloride	(2)	4.452	84	28557	0.471
26)*t-Butyl Alcohol-d10	(1)	4.477	65	140183M	50.000
28) t-Butyl Alcohol	(1)	4.605	59	23242	9.713
29) Acrylonitrile	(1)	4.800	53	25339	2.348
30) Methyl Tertiary Butyl Ether	(2)	4.861	73	53197	0.481
31) trans-1,2-Dichloroethene	(2)	4.891	96	28696	0.473
32) n-Hexane	(2)	5.300	57	44645	0.463
33) 1,1-Dichloroethane	(2)	5.556	63	55167	0.477
34) di-Isopropyl Ether	(2)	5.592	45	97579	0.475
35) 2-Chloro-1,3-Butadiene	(2)	5.647	53	47649	0.458
40) 1,2-Dichloroethene (Total)	(2)		96	60740	0.951
37) Ethyl t-butyl ether	(2)	6.117	59	79009M	0.485
38) 2-Butanone	(1)	6.336	43	62685	4.583
39) cis-1,2-Dichloroethene	(2)	6.366	96	32044	0.478
41) 2,2-Dichloropropane	(2)	6.391	77	37720	0.457
42) Propionitrile	(1)	6.446	54	36555	9.847
45) Methacrylonitrile	(1)	6.647	67	61003	4.557
47) Bromochloromethane	(2)	6.702	128	13020	0.460
48) Tetrahydrofuran	(1)	6.714	71	16511	4.541
49) Chloroform	(2)	6.854	83	51878	0.483

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.068	113	691568	10.003
50)$Dibromofluoromethane	(2)	7.068	111	705727	9.917
51) 1,1,1-Trichloroethane	(2)	7.086	97	43339	0.472
52) Cyclohexane	(2)	7.183	56	55245	0.460
52) Cyclohexane	(2)	7.177	84	43224	0.437
52) Cyclohexane	(2)	7.177	69	16219	0.459
54) Carbon Tetrachloride	(2)	7.293	117	36936	0.468
55) 1,1-Dichloropropene	(2)	7.299	75	39906	0.458
56) Isobutyl Alcohol	(1)	7.433	41	23659	25.555
57)$1,2-Dichloroethane-d4	(2)	7.531	102	118986	9.872
57)$1,2-Dichloroethane-d4	(2)	7.525	65	583630	10.011
57)$1,2-Dichloroethane-d4	(2)	7.531	104	76978	9.972
58) Benzene	(2)	7.555	78	124386	0.483
59) 1,2-Dichloroethane	(2)	7.628	62	29519M	0.498
60) t-Amyl methyl ether	(2)	7.738	73	64107	0.475
63)*Fluorobenzene	(2)	7.964	96	2743076	10.000
62) n-Heptane	(2)	7.976	43	45673	0.459
65) n-Butanol	(1)	8.305	56	35795M	45.764
67) Trichloroethene	(2)	8.439	95	30507	0.463
69) Methylcyclohexane	(2)	8.756	83	57016	0.458
70) 1,2-Dichloropropane	(2)	8.781	63	28744	0.460
71) Methyl Methacrylate	(1)	8.854	69	10601	0.428
72) 1,4-Dioxane	(1)	8.866	88	3592M	19.073
73) Dibromomethane	(2)	8.890	93	12594	0.486
74) Bromodichloromethane	(2)	9.122	83	32561	0.464
76) 2-Nitropropane	(1)	9.390	41	29896	4.260
80) cis-1,3-Dichloropropene	(2)	9.652	75	36712	0.449
81) 4-Methyl-2-Pentanone	(1)	9.811	43	150042	4.410
82)$Toluene-d8	(3)	9.951	98	2759998	9.999
82)$Toluene-d8	(3)	9.951	100	1781368	9.999
83) Toluene	(3)	10.024	92	77148	0.485
85) 1,3-Dichloropropene (total)	(3)		75	65838	0.924
84) trans-1,3-Dichloropropene	(3)	10.274	75	29126	0.475
86) Ethyl Methacrylate	(3)	10.323	69	24760	0.471
88) 1,1,2-Trichloroethane	(3)	10.475	97	16887	0.461
89) Tetrachloroethene	(3)	10.555	166	35437	0.493
90) 1,3-Dichloropropane	(3)	10.634	76	30460	0.469
91) 2-Hexanone	(1)	10.683	43	102566	4.429

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	19914	0.454
95) 1,2-Dibromoethane	(3)	10.963	107	16520	0.481
96) 1-Chlorohexane	(3)	11.384	91	45289	0.477
97)*Chlorobenzene-d5	(3)	11.384	117	2144655	10.000
98) Chlorobenzene	(3)	11.408	112	80357	0.476
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	26174	0.470
100) Ethylbenzene	(3)	11.493	91	148120	0.476
101) m+p-Xylene	(3)	11.603	106	110361	0.957
105) Xylene (Total)	(3)		106	162876	1.433
104) o-Xylene	(3)	11.932	106	52515	0.476
106) Styrene	(3)	11.945	104	80057M	0.454
107) Bromoform	(3)	12.103	173	11176	0.463
108) Isopropylbenzene	(3)	12.231	105	139927	0.465
111)$4-Bromofluorobenzene	(3)	12.371	95	1008561	10.036
111)$4-Bromofluorobenzene	(3)	12.377	174	881794	10.105
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	20751	0.467
114) Bromobenzene	(4)	12.493	156	31936	0.473
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	45404	4.261
116) 1,2,3-Trichloropropane	(4)	12.524	110	5721	0.499
117) n-Propylbenzene	(4)	12.554	91	170760	0.465
119) 2-Chlorotoluene	(4)	12.634	126	34609	0.486
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	114586	0.461
122) 4-Chlorotoluene	(4)	12.725	126	33813	0.474
125) tert-Butylbenzene	(4)	12.932	134	25726M	0.476
126) Pentachloroethane	(4)	12.969	167	18317	0.434
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	117785	0.464
128) sec-Butylbenzene	(4)	13.097	105	144734	0.449
131) 1,3-Dichlorobenzene	(4)	13.194	146	63877	0.476
132) p-Isopropyltoluene	(4)	13.200	119	119452	0.448
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1119082	10.000
134) 1,4-Dichlorobenzene	(4)	13.268	146	61222	0.465
135) 1,2,3-Trimethylbenzene	(4)	13.274	120	54691	0.470
136) Benzyl Chloride	(4)	13.347	126	6108	0.381
138) n-Butylbenzene	(4)	13.493	92	60346	0.456
139) 1,2-Dichlorobenzene	(4)	13.530	146	57190	0.483
143) 1,2-Dibromo-3-chloropropane	(1)	14.078	155	2354	0.408
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	47093	0.472
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	38351	0.472

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.700	225	14287	0.465
147) Naphthalene	(4)	14.804	128	57089	0.444
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	31271	0.468

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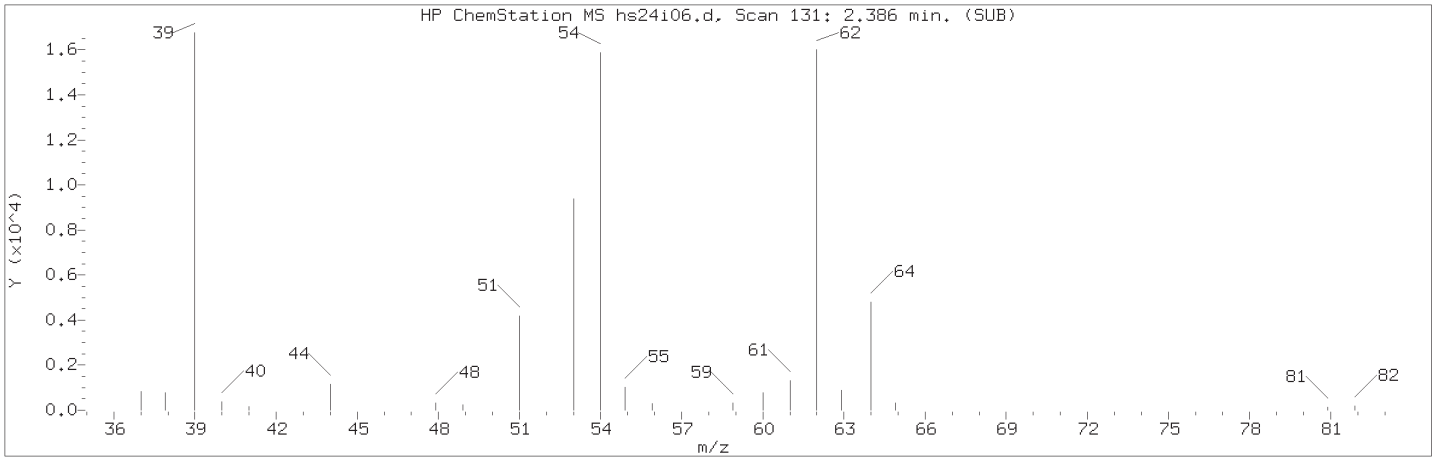
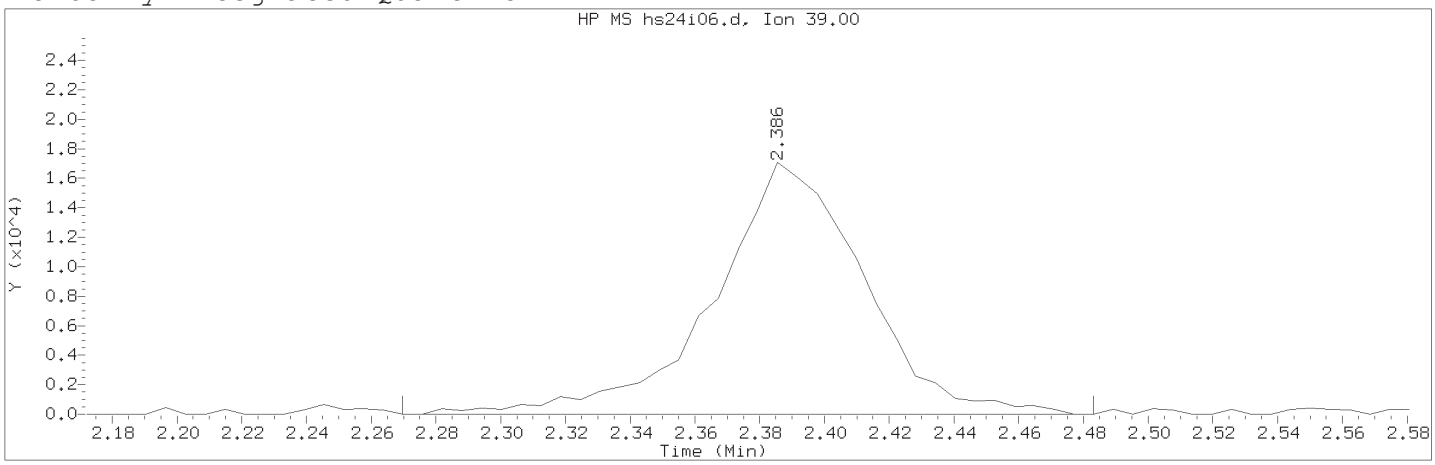
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

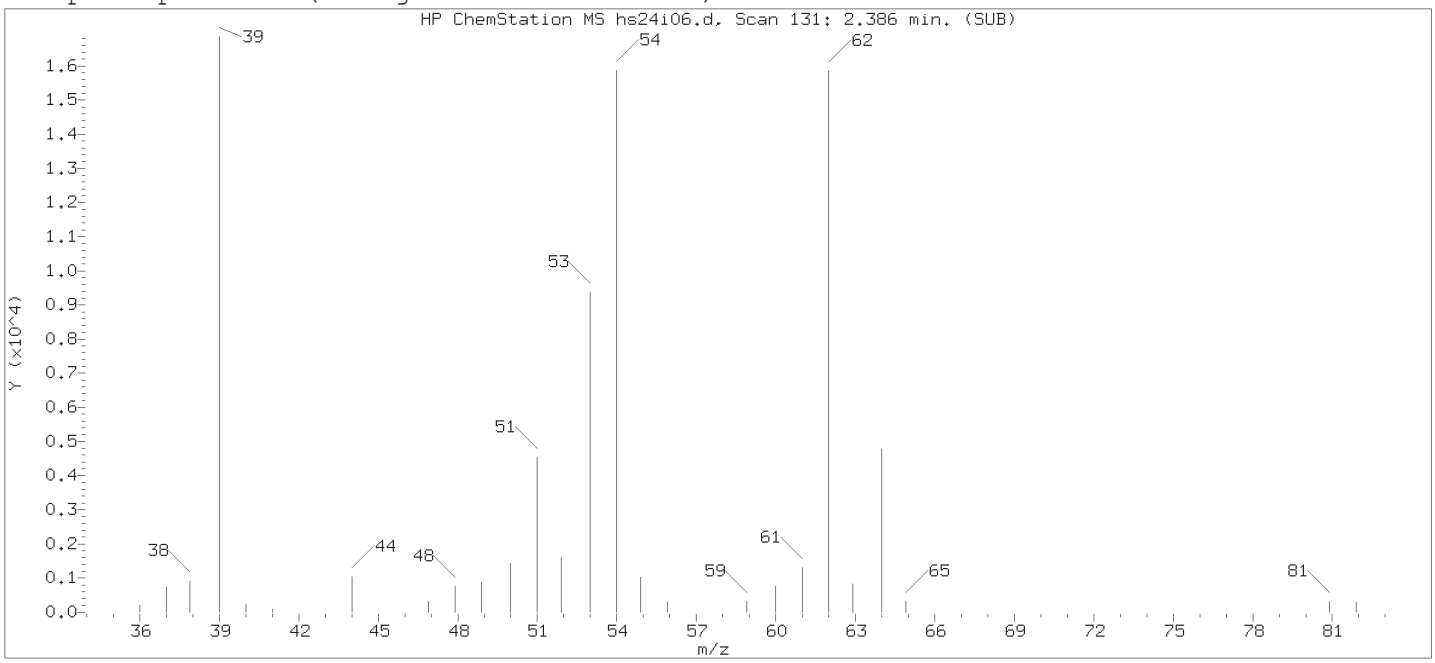
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 131
Retention Time (minutes): 2.386
Quant Ion : 39.00
Area (flag) : 54776M
On-Column Amount (ng) : 0.4918
Integration start scan : 111 Integration stop scan: 146
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

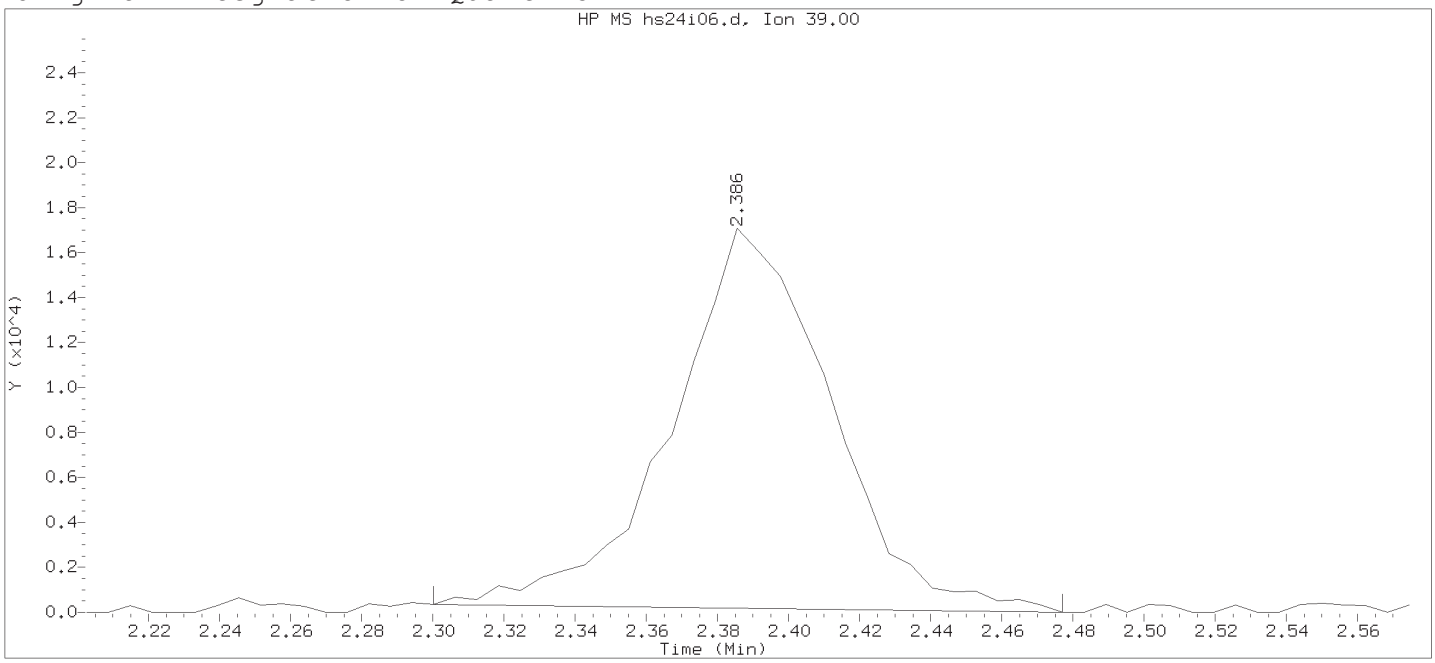
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

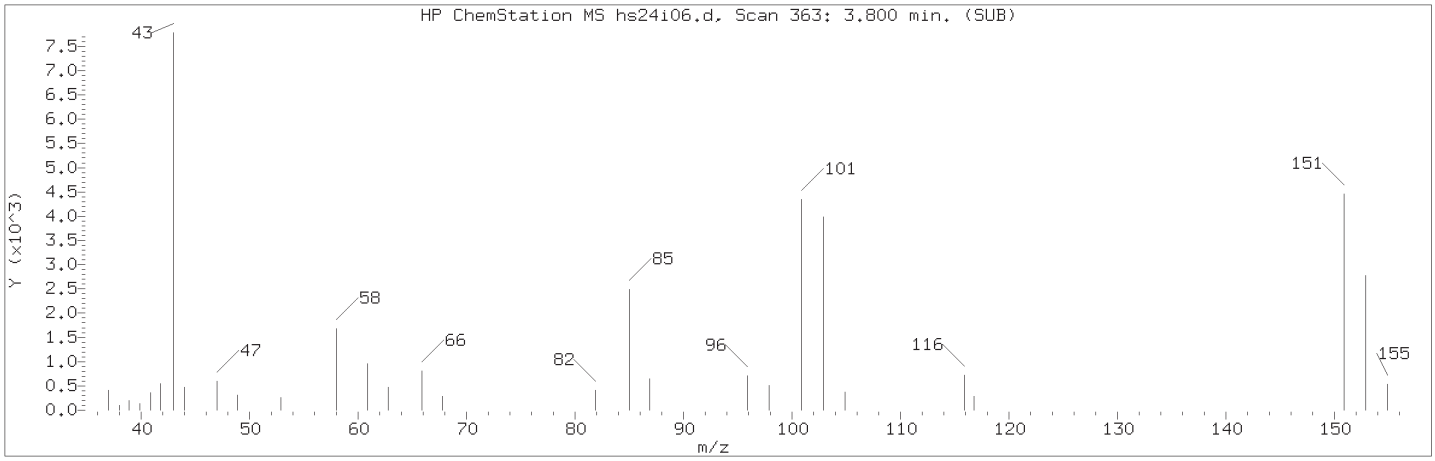
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

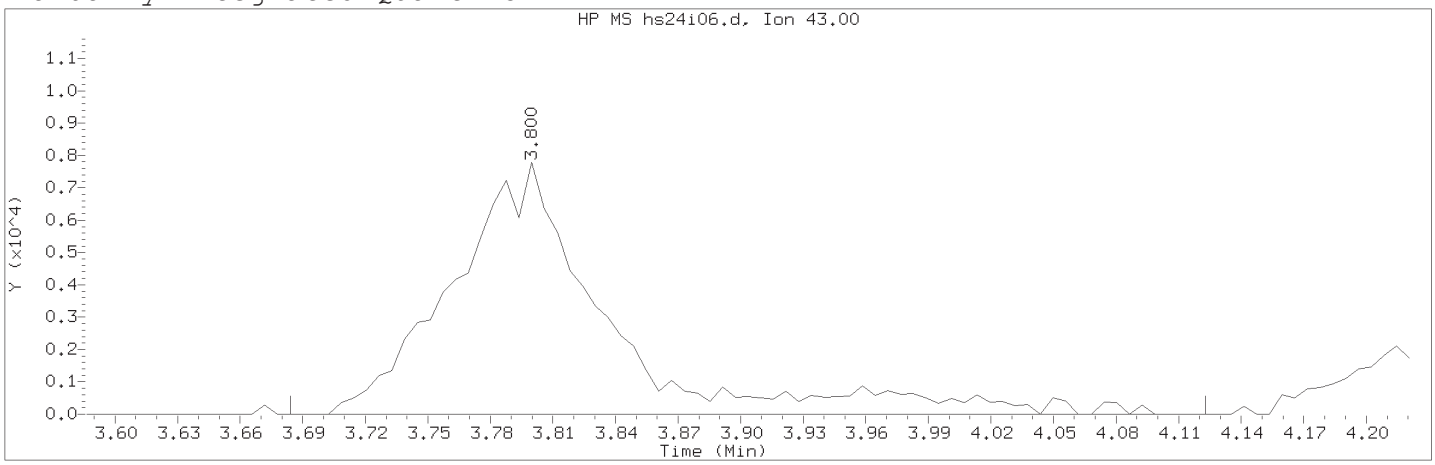
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 131
Retention Time (minutes): 2.386
Quant Ion : 39.00
Area : 52477
On-column Amount (ng) : 0.5033
Integration start scan : 116 Integration stop scan: 145
Y at integration start : 348 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

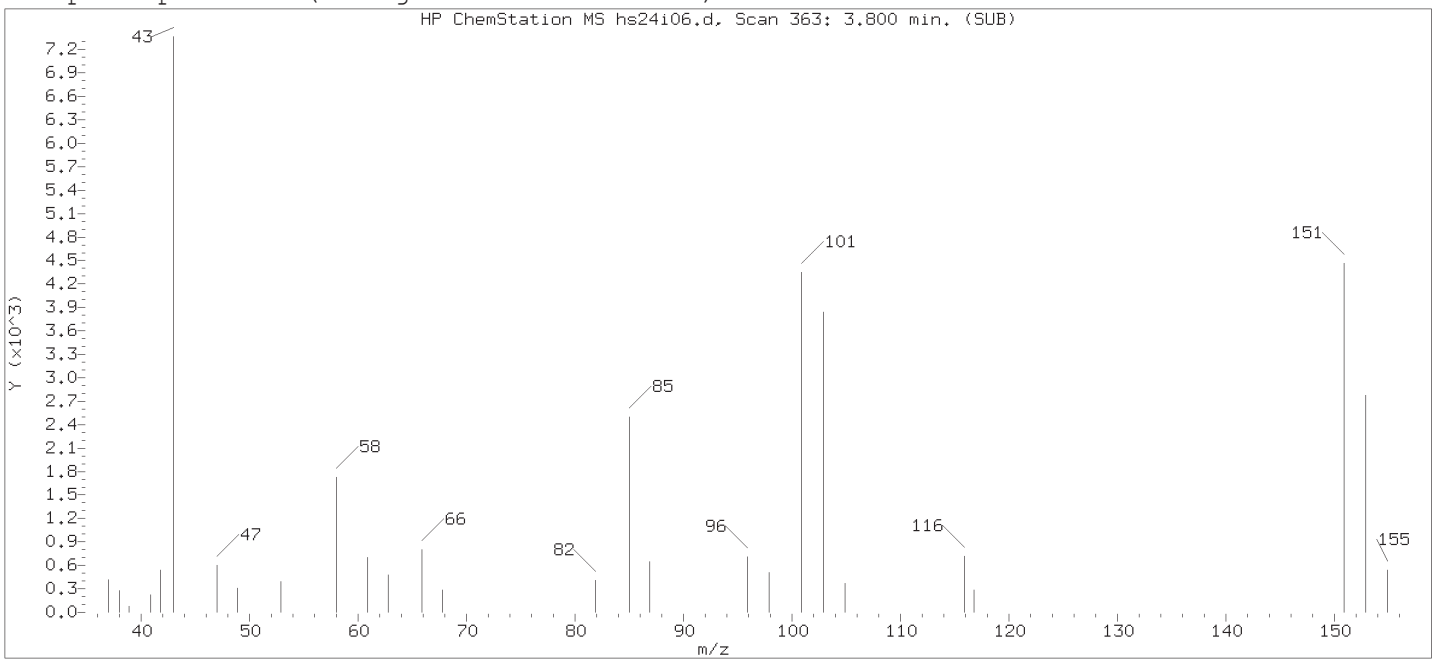
Compound Number : 14
Compound Name : Acetone
Scan Number : 363
Retention Time (minutes): 3.800
Quant Ion : 43.00
Area (flag) : 39805M
On-Column Amount (ng) : 4.7640
Integration start scan : 343 Integration stop scan: 415
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

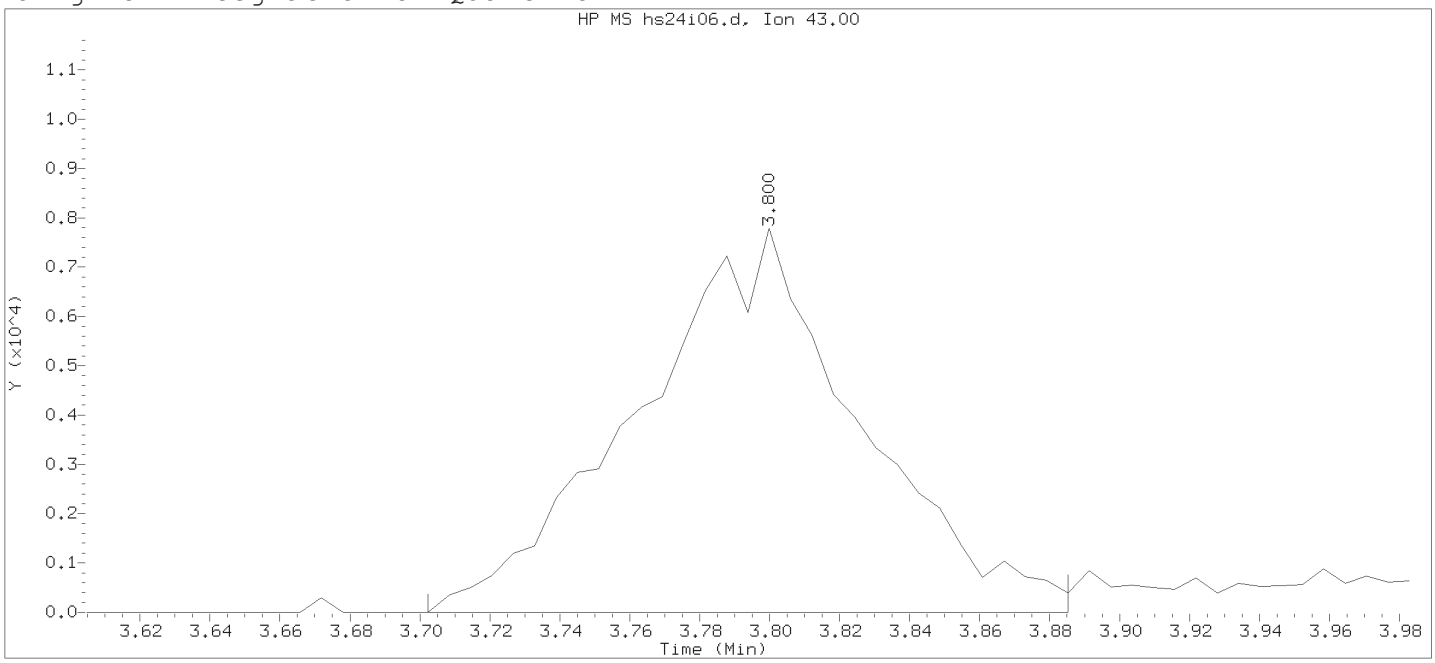
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

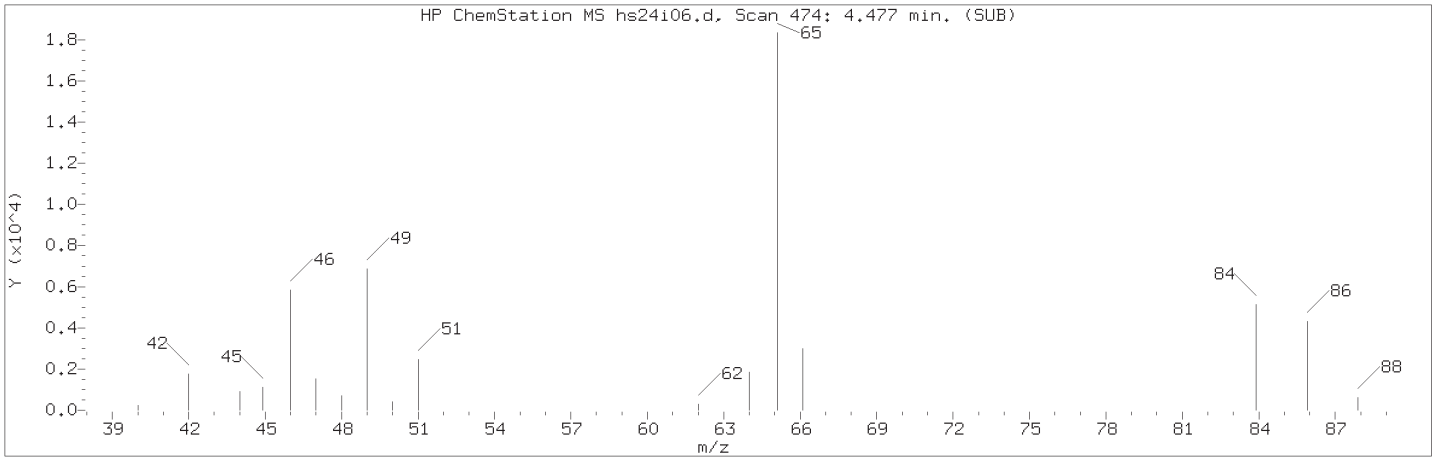
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

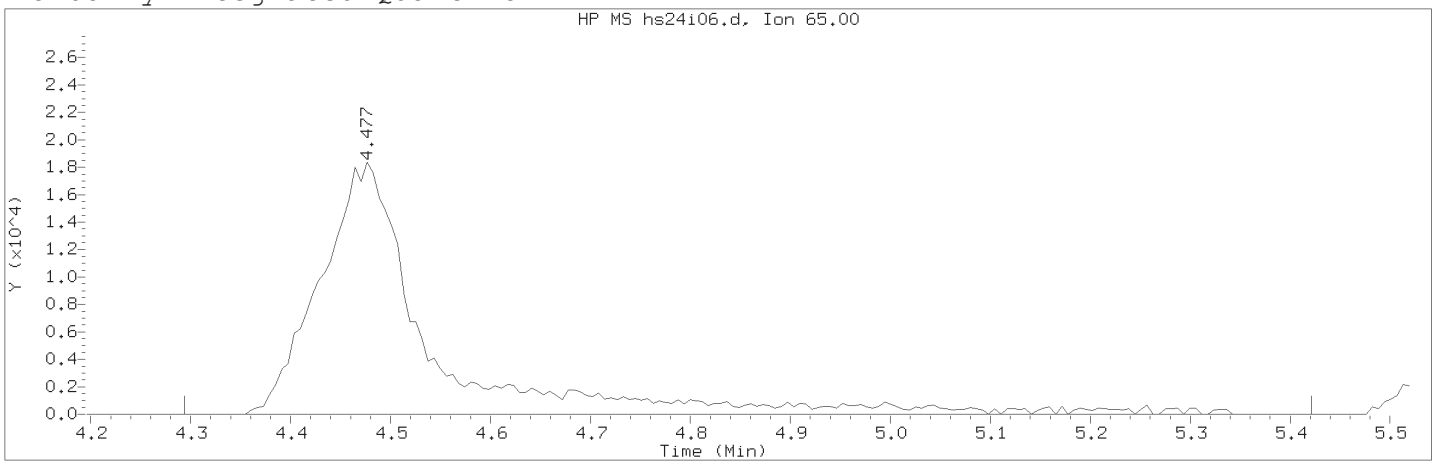
Compound Number	: 14		
Compound Name	: Acetone		
Scan Number	: 363		
Retention Time (minutes)	: 3.800		
Quant Ion	: 43.00		
Area	: 34206		
On-column Amount (ng)	: 4.4016		
Integration start scan	: 346	Integration stop scan:	376
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 1 time(s).

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

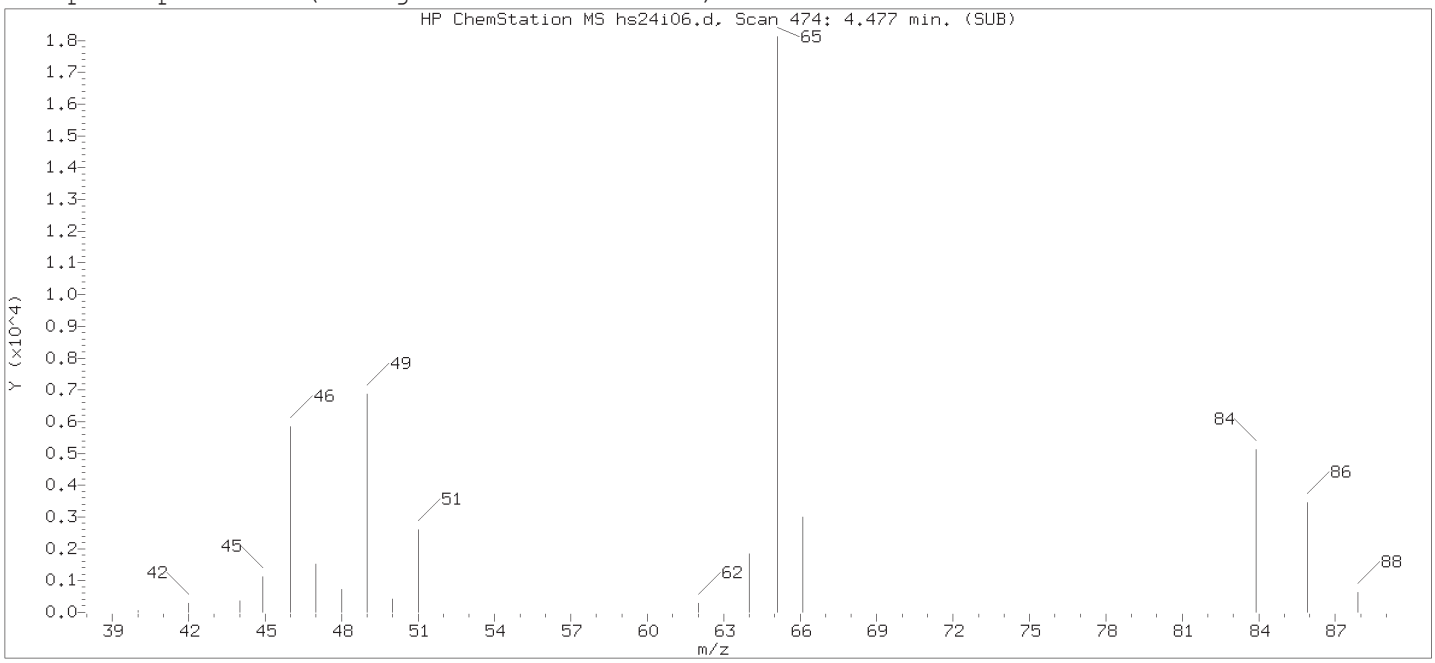
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.477
Quant Ion : 65.00
Area (flag) : 140183M
On-Column Amount (ng) : 50.0000
Integration start scan : 443 Integration stop scan: 628
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

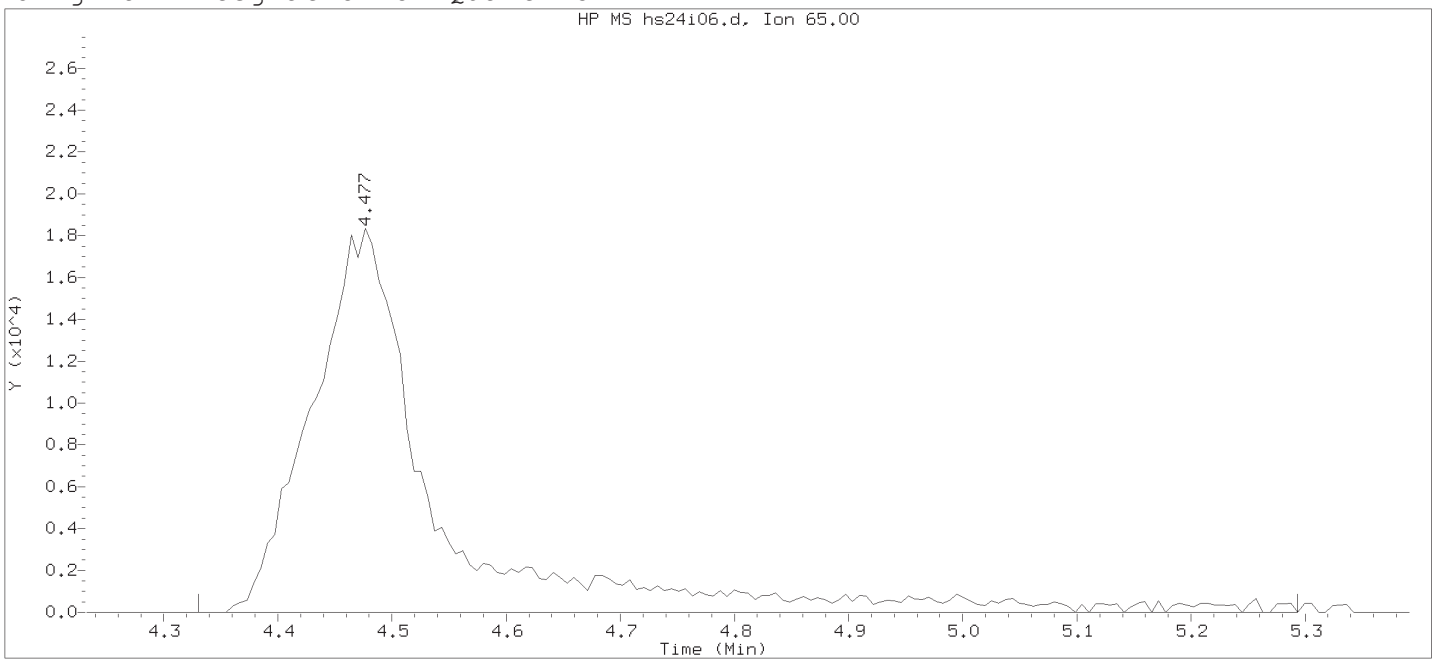
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

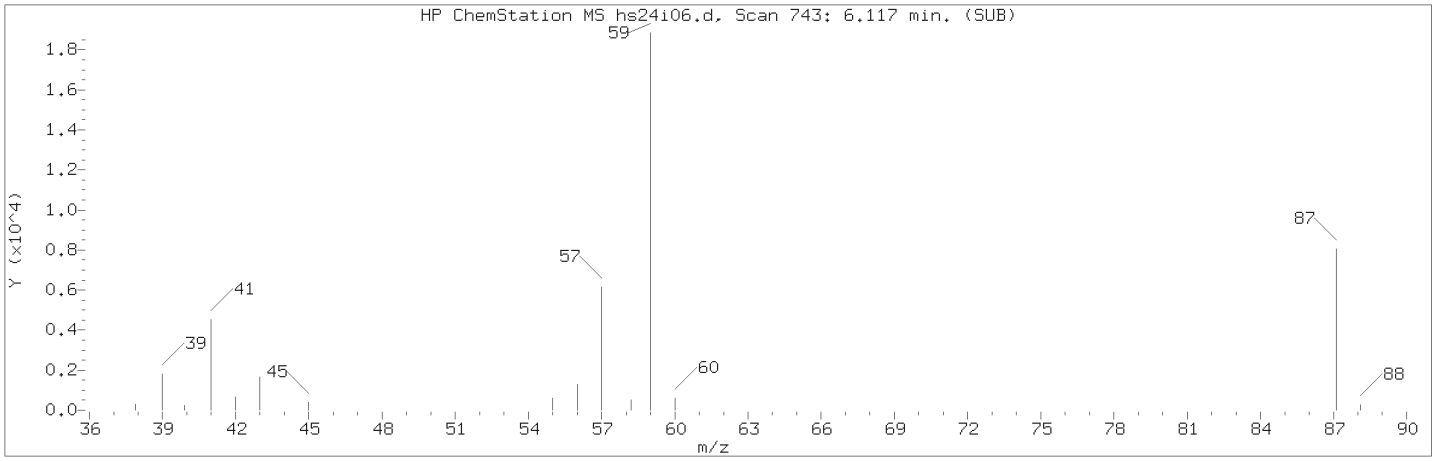
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

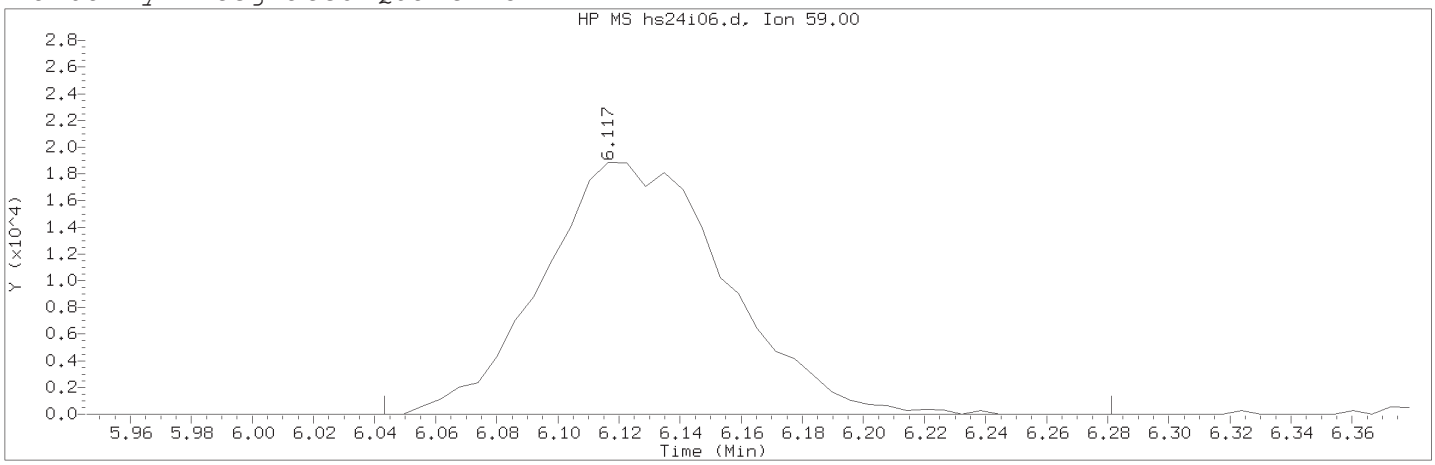
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.477
Quant Ion : 65.00
Area : 139492
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 607
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

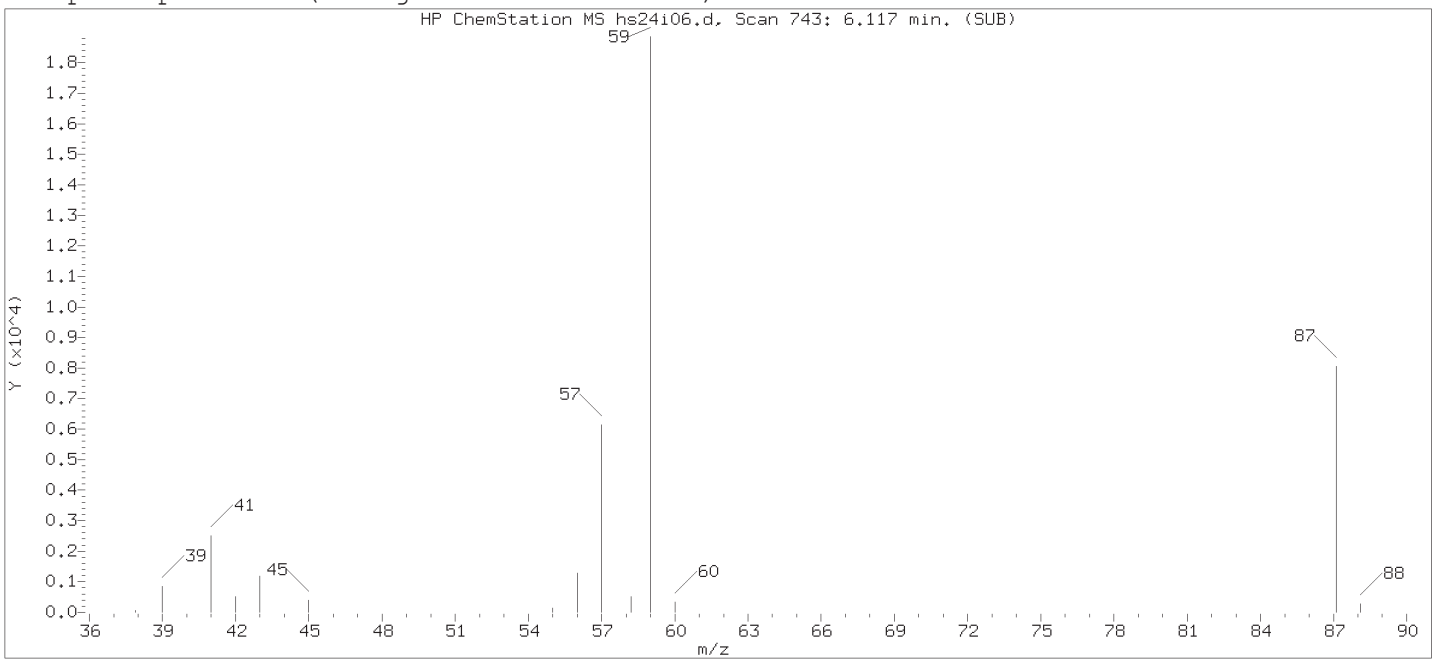
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 743
Retention Time (minutes): 6.117
Quant Ion : 59.00
Area (flag) : 79009M
On-Column Amount (ng) : 0.4853
Integration start scan : 730 Integration stop scan: 769
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

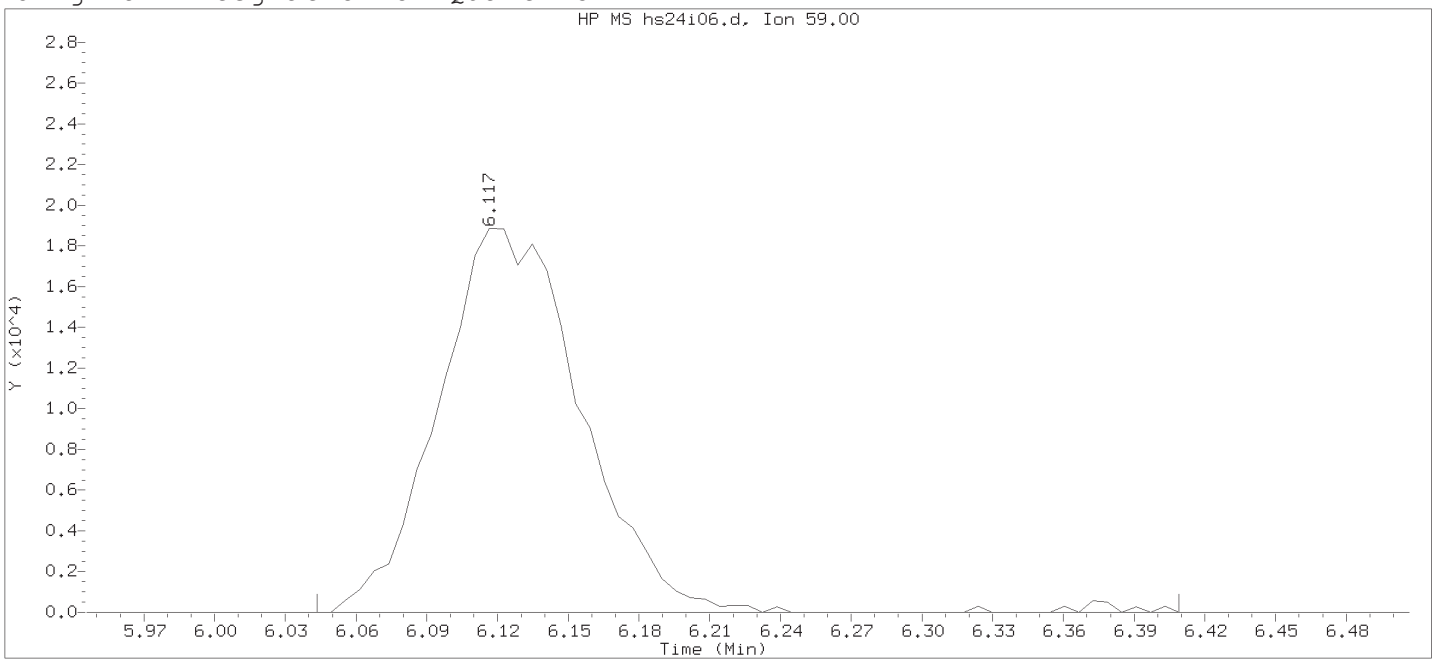
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

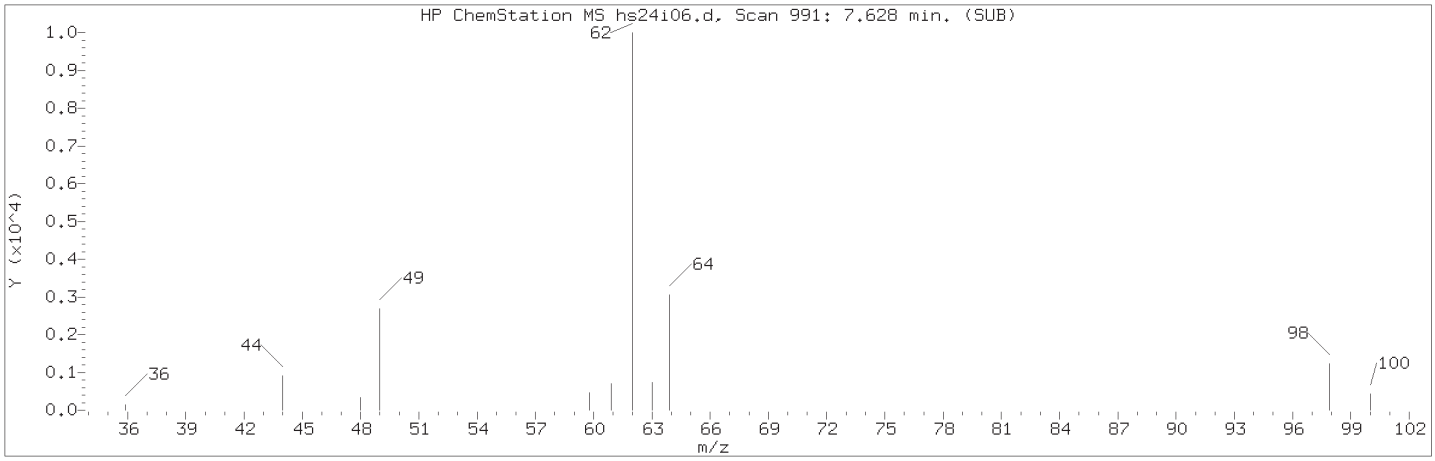
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

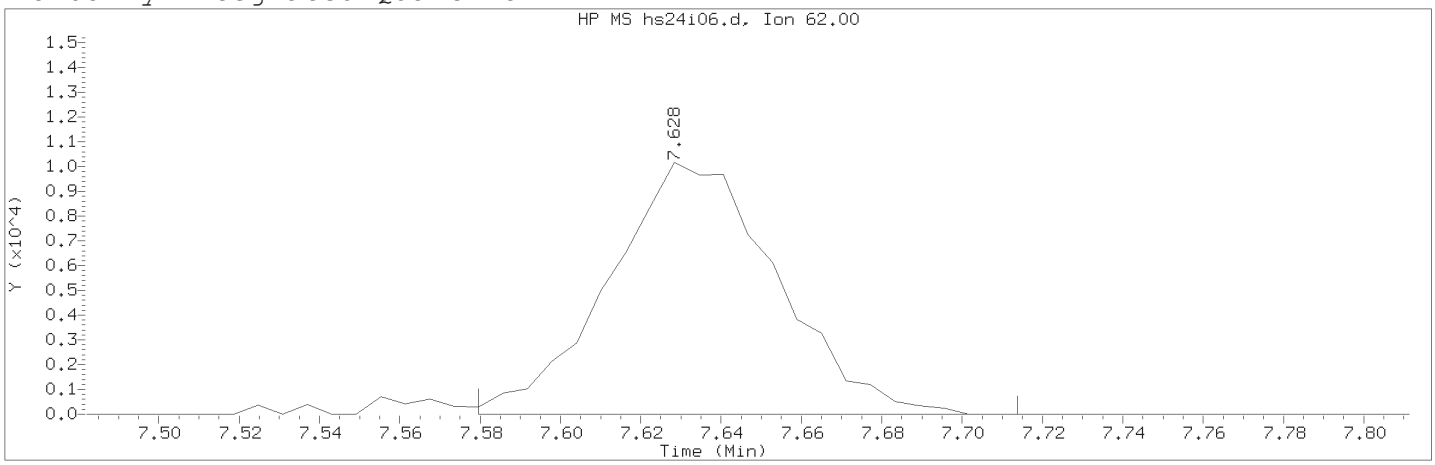
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 743
Retention Time (minutes): 6.117
Quant Ion : 59.00
Area : 79805
On-column Amount (ng) : 0.4787
Integration start scan : 730 Integration stop scan: 790
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

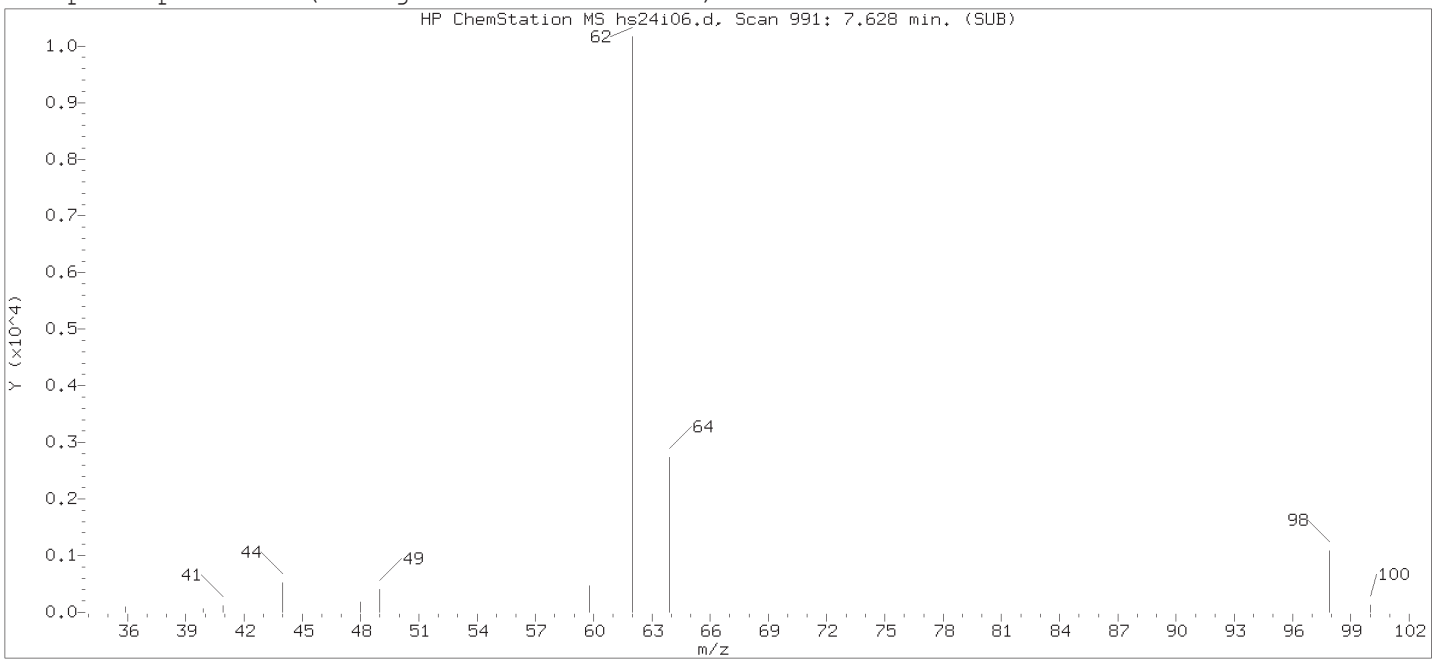
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 62.00
Area (flag) : 29519M
On-Column Amount (ng) : 0.4982
Integration start scan : 982 Integration stop scan: 1004
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

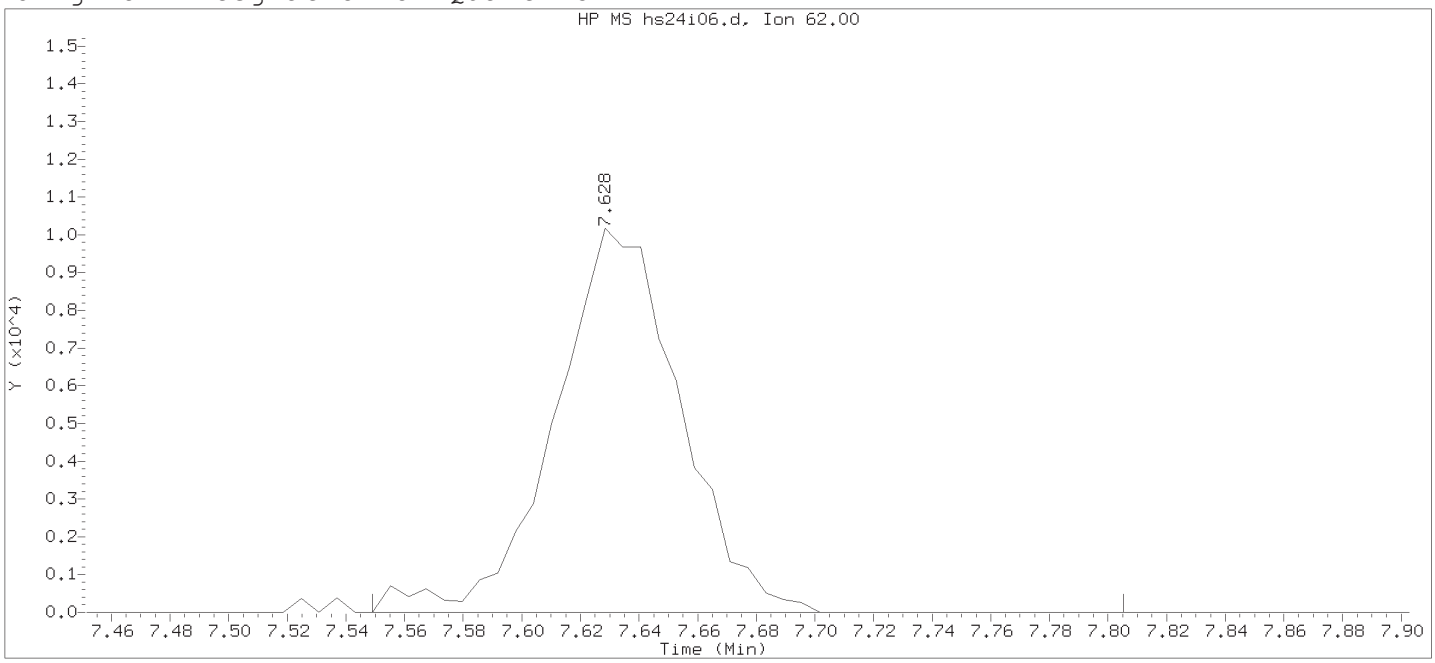
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

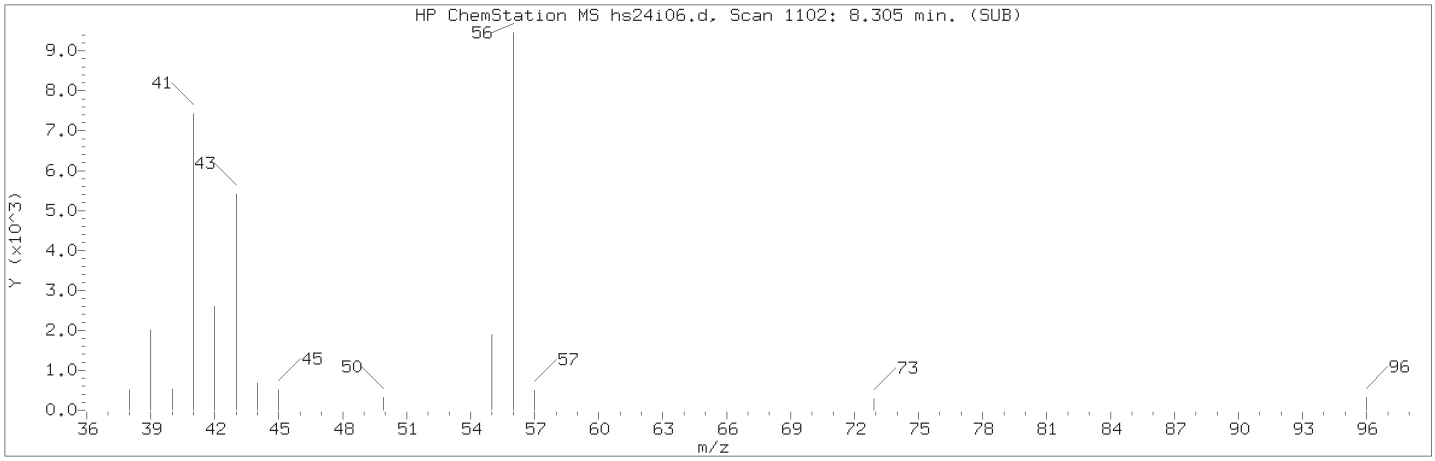
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

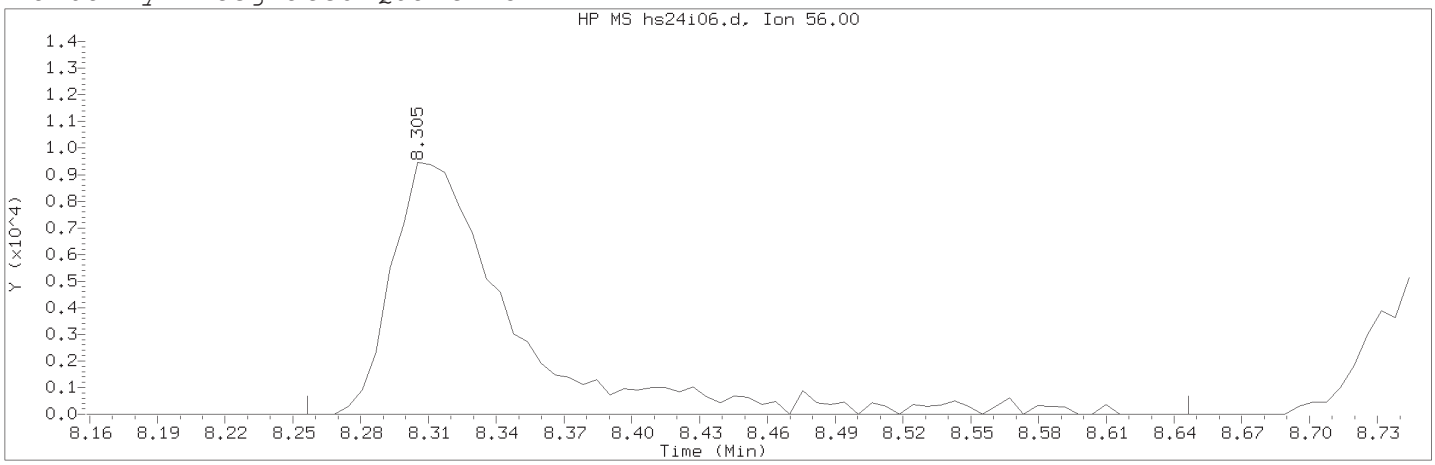
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 991
Retention Time (minutes): 7.628
Quant Ion : 62.00
Area : 30276
On-column Amount (ng) : 0.5128
Integration start scan : 977 Integration stop scan: 1019
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

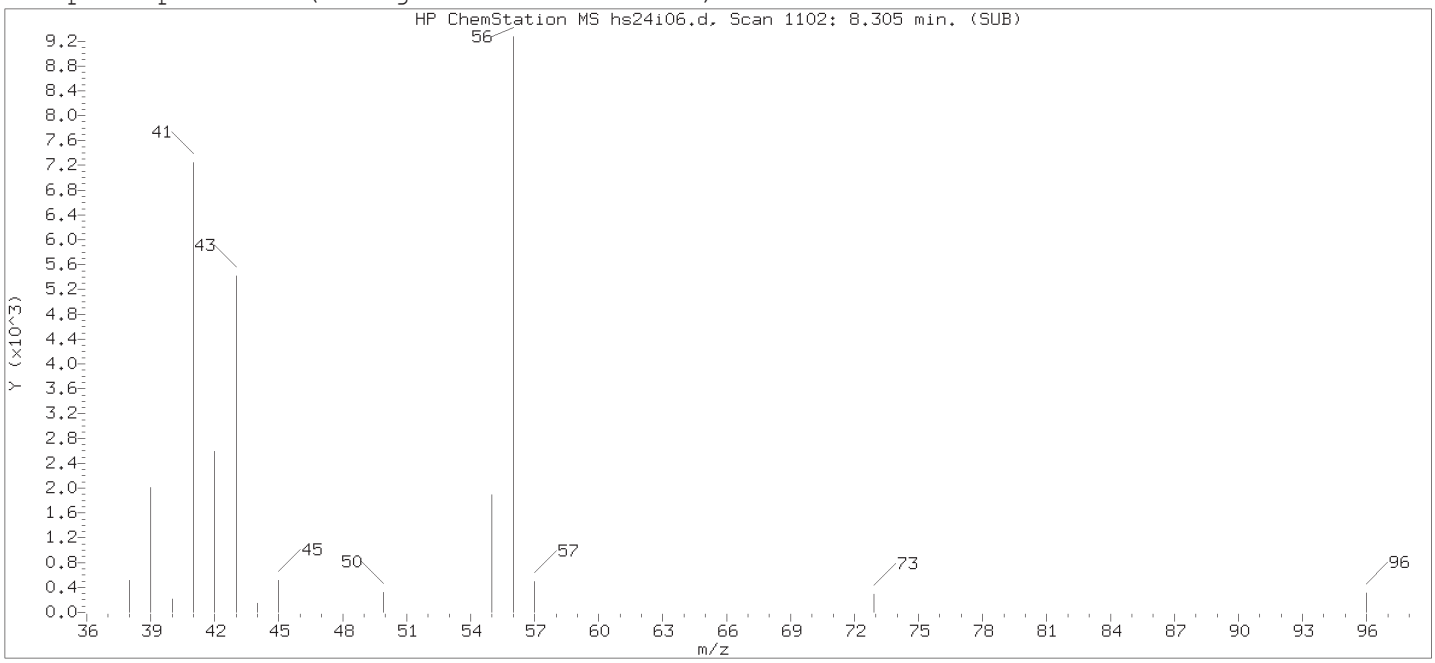
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1102
Retention Time (minutes): 8.305
Quant Ion : 56.00
Area (flag) : 35795M
On-Column Amount (ng) : 45.7637
Integration start scan : 1093 Integration stop scan: 1157
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

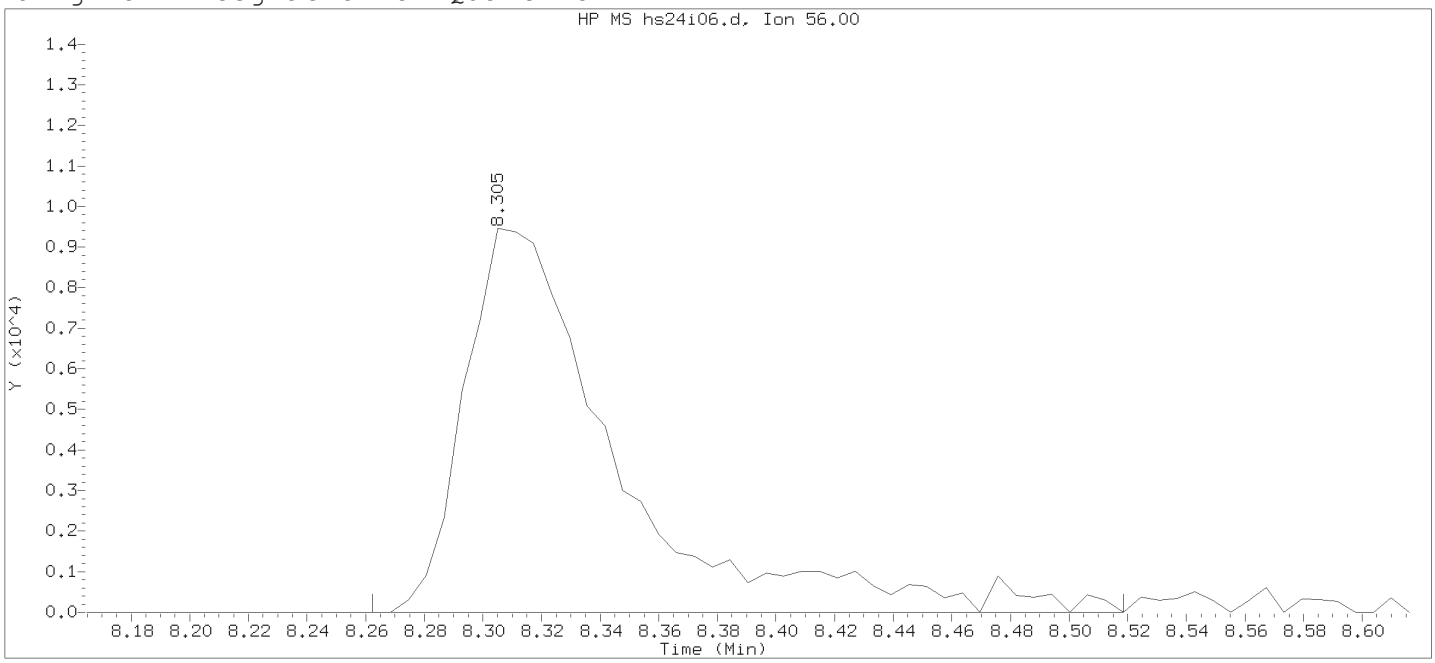
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

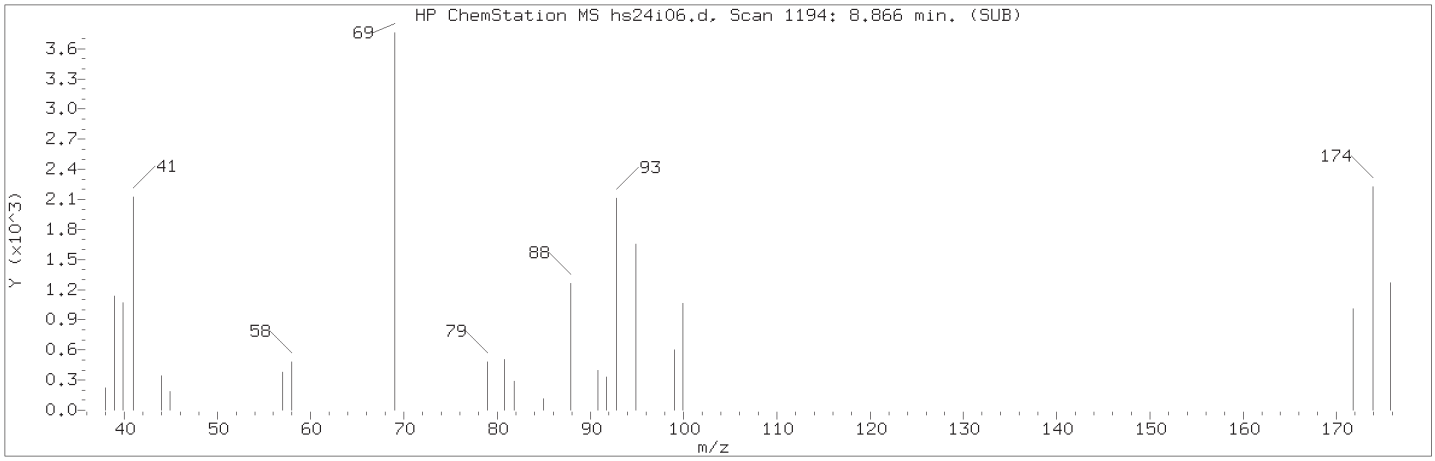
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

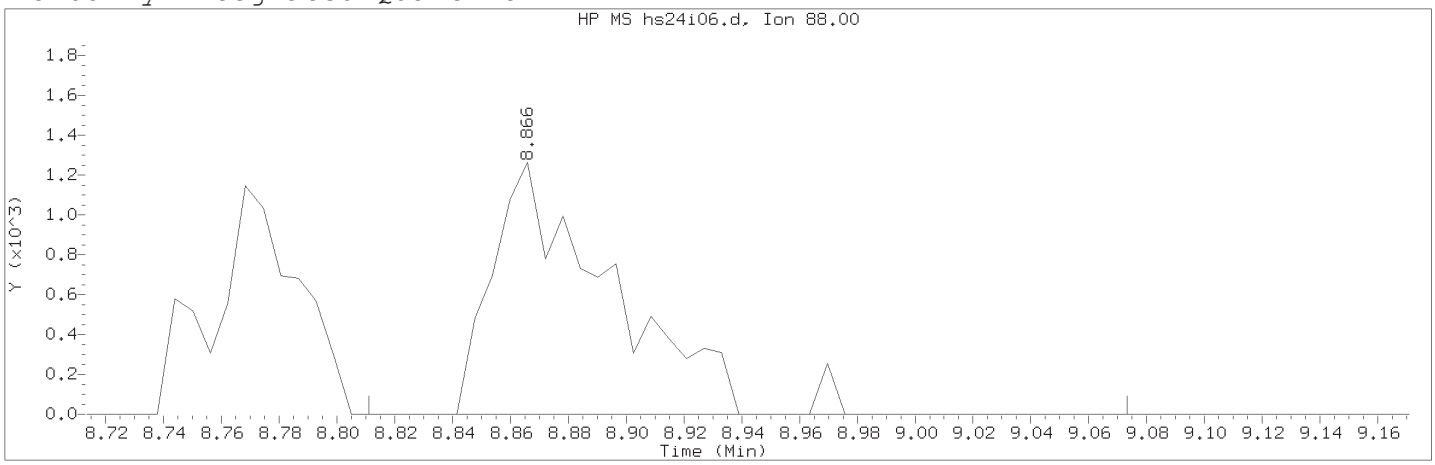
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1102
Retention Time (minutes): 8.305
Quant Ion : 56.00
Area : 34344
On-column Amount (ng) : 44.3600
Integration start scan : 1094 Integration stop scan: 1136
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 June 2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

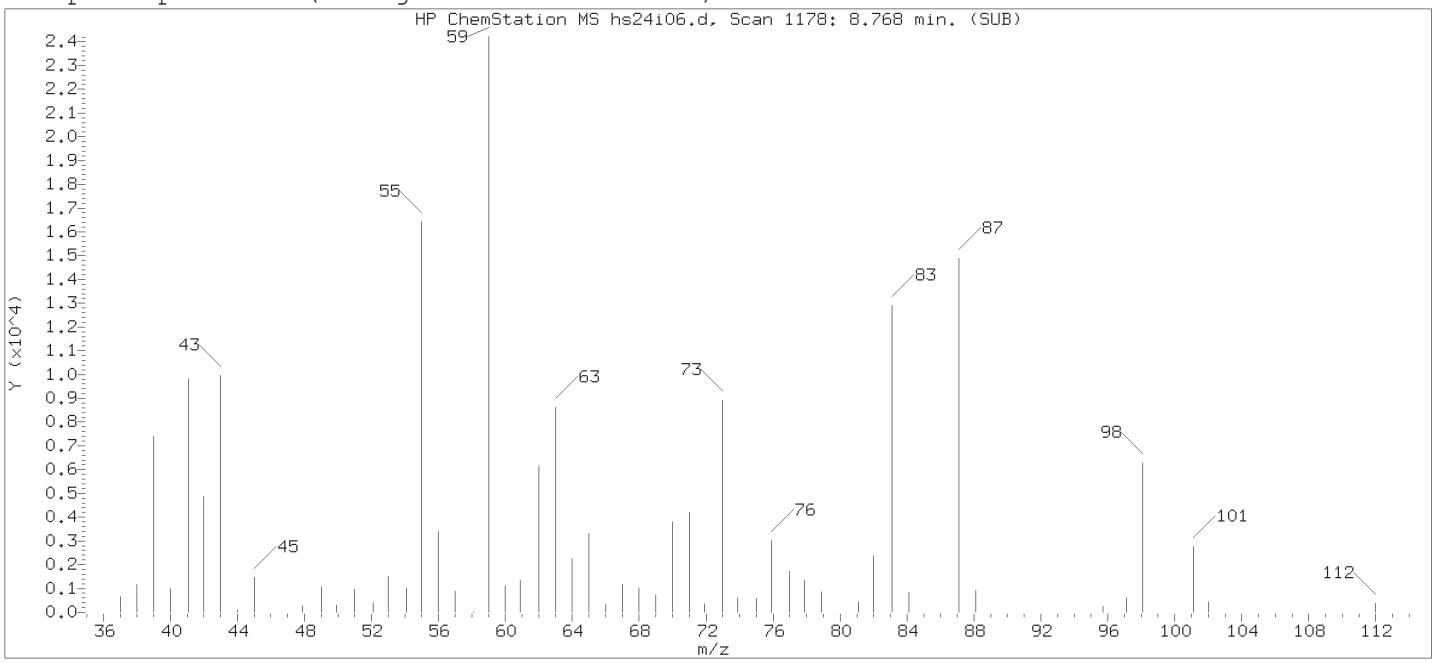
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1194
Retention Time (minutes): 8.866
Quant Ion : 88.00
Area (flag) : 3592M
On-Column Amount (ng) : 19.0735
Integration start scan : 1184 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

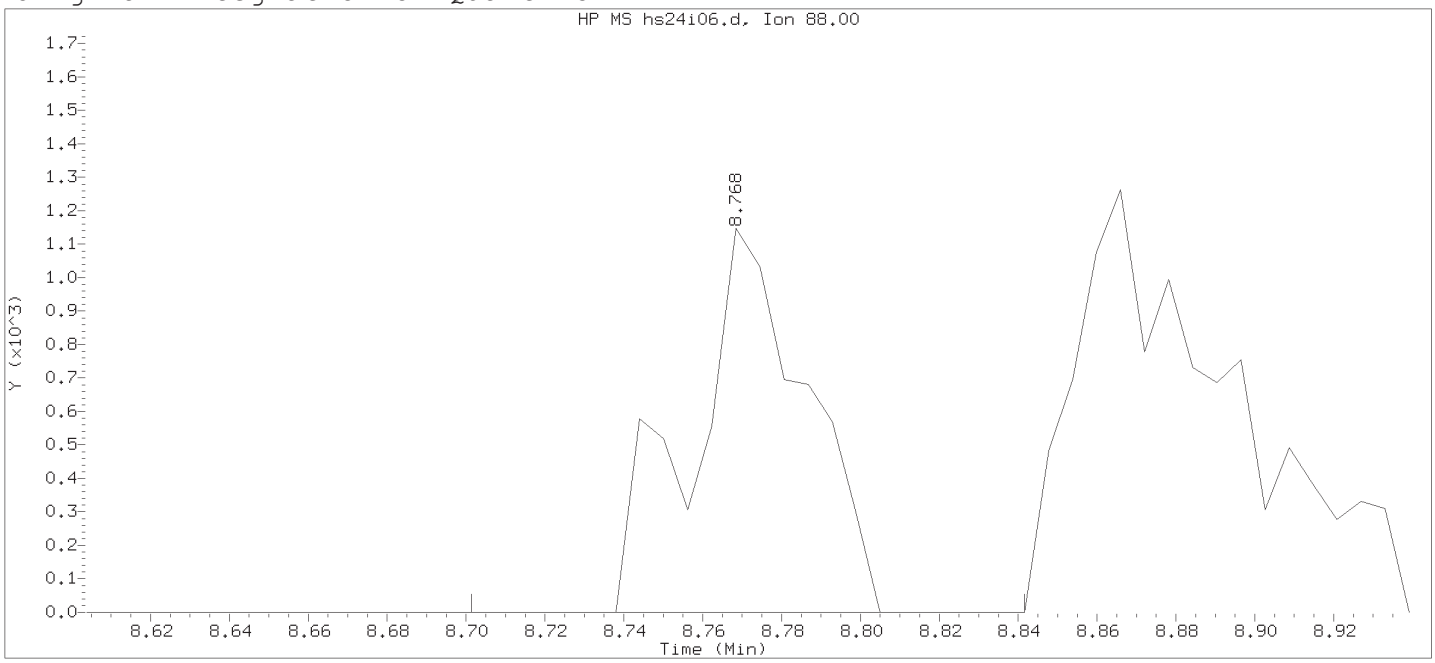
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

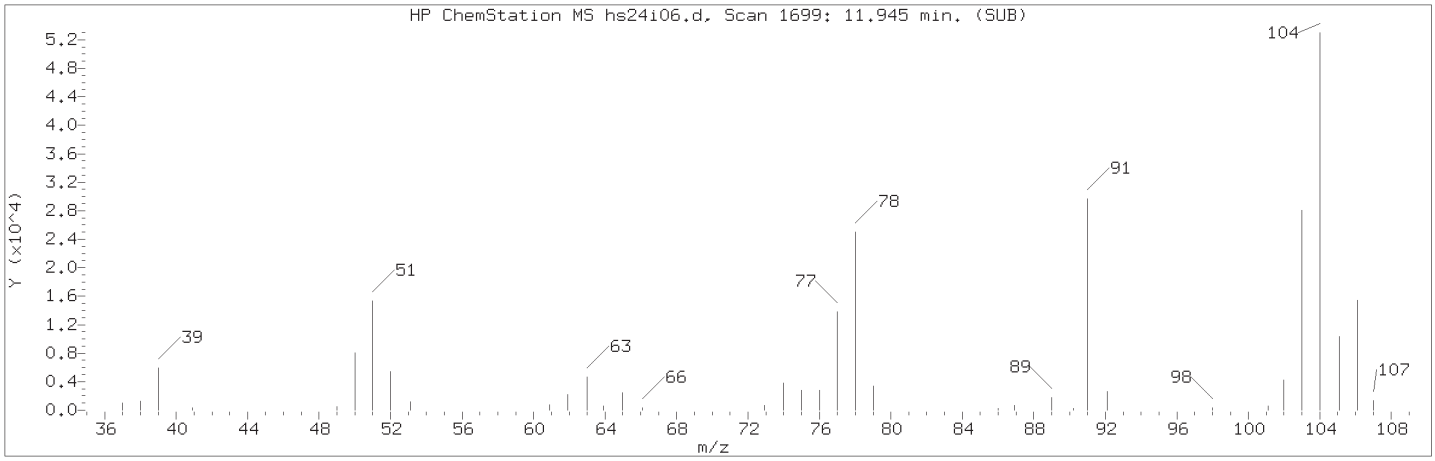
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

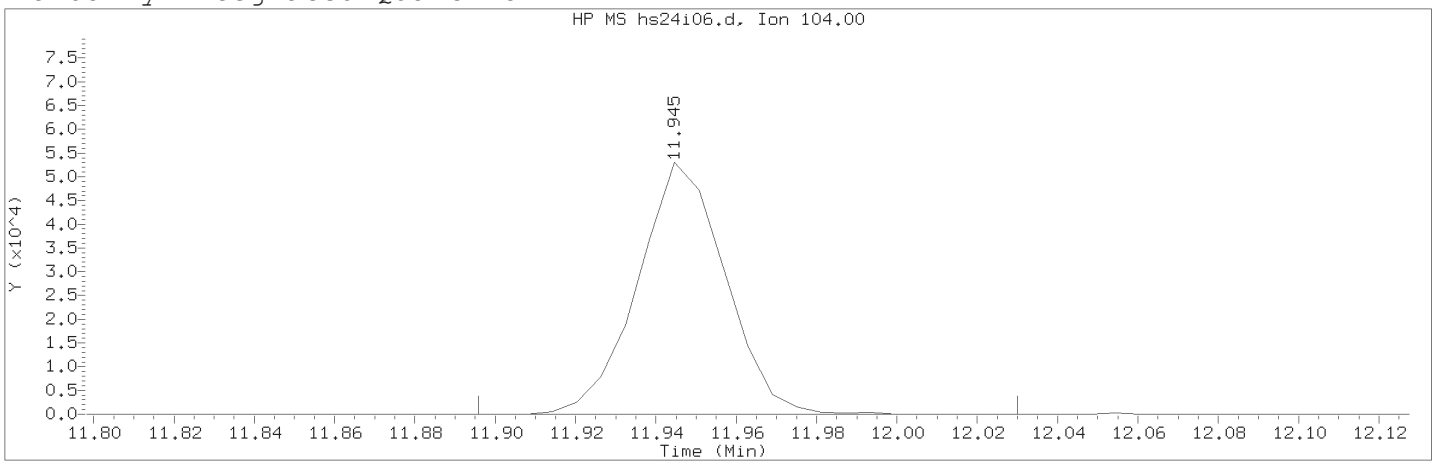
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1178		
Retention Time (minutes)	: 8.768		
Quant Ion	: 88.00		
Area	: 2332		
On-column Amount (ng)	: 19.8680		
Integration start scan	: 1166	Integration stop scan:	1189
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Jan 2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

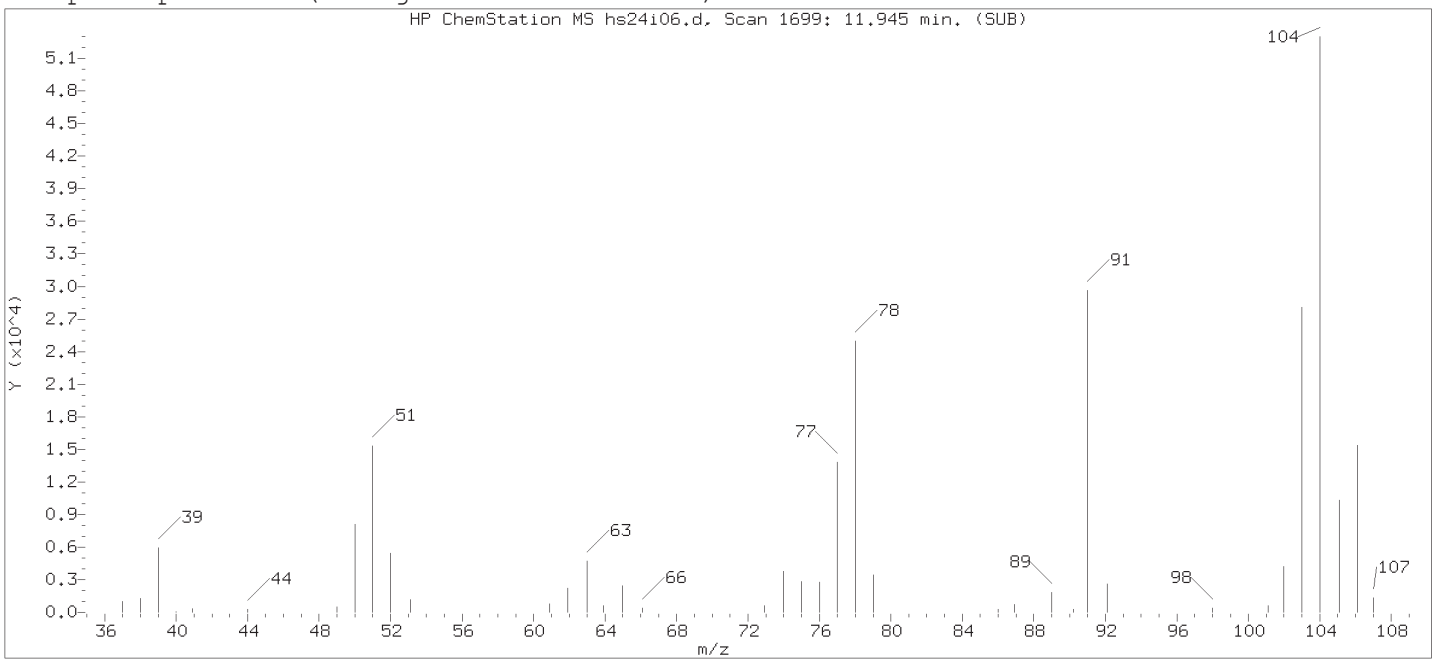
Compound Number : 106
Compound Name : Styrene
Scan Number : 1699
Retention Time (minutes): 11.945
Quant Ion : 104.00
Area (flag) : 80057M
On-Column Amount (ng) : 0.4536
Integration start scan : 1690 Integration stop scan: 1712
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

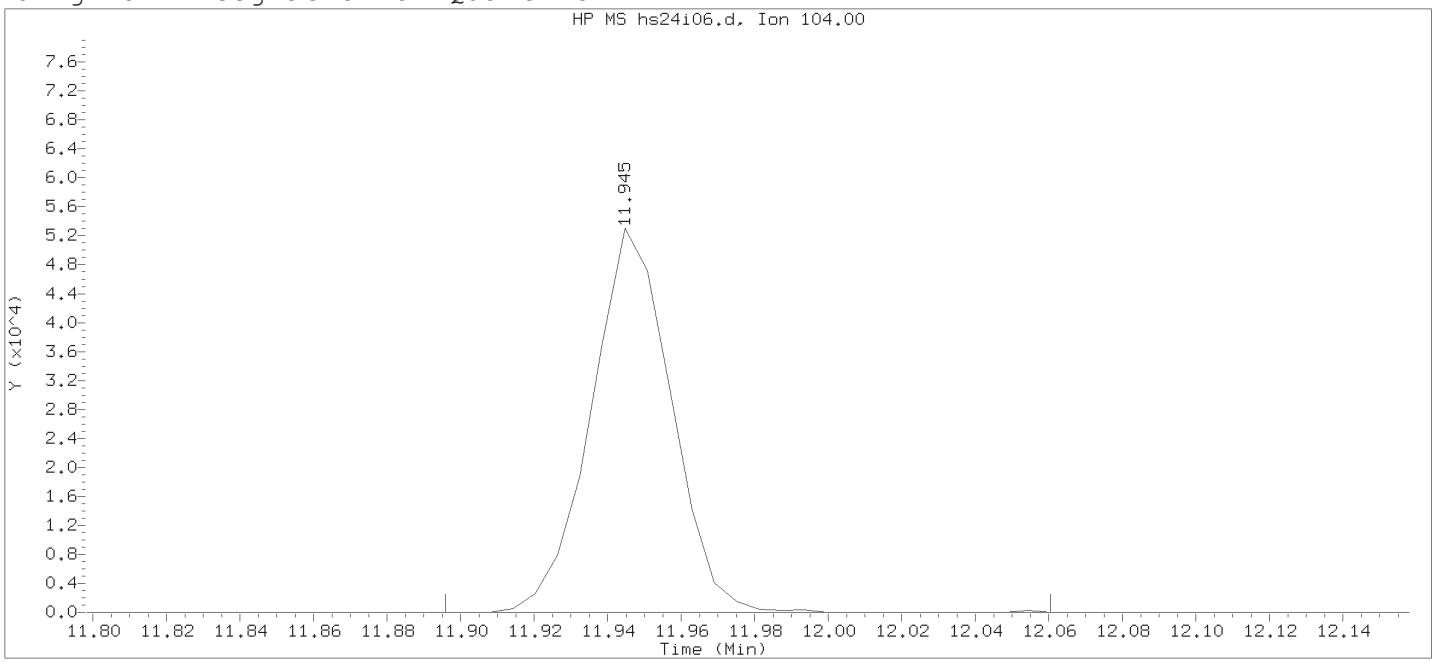
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

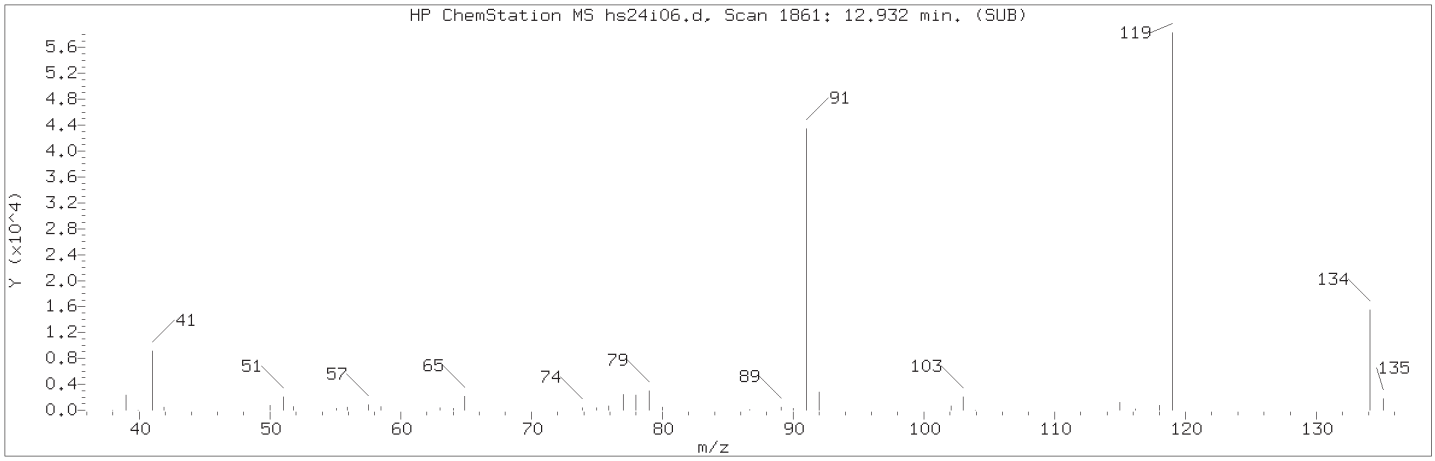
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

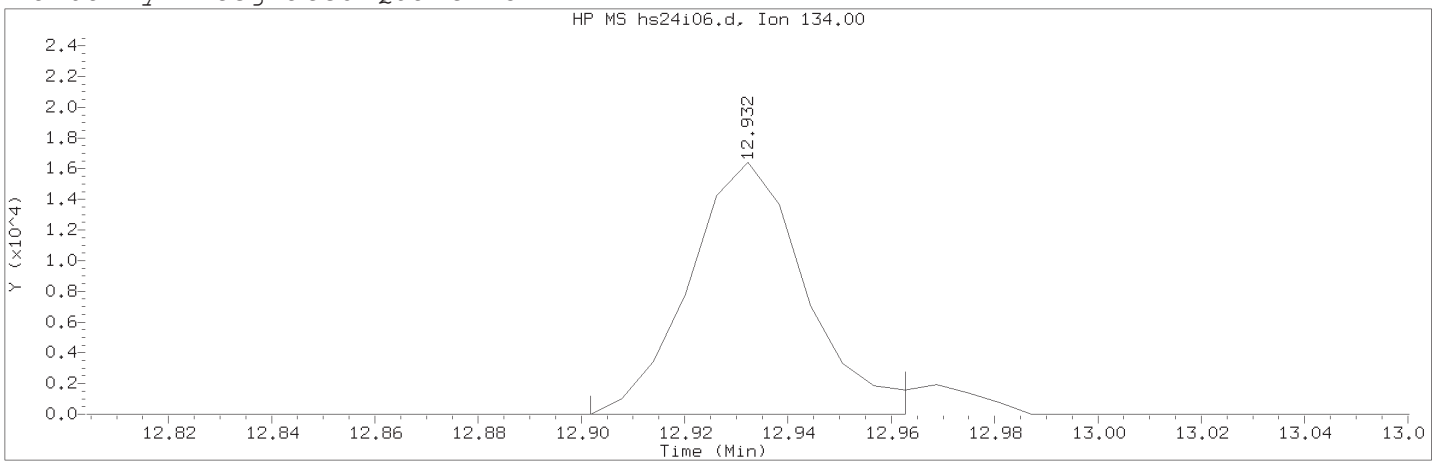
Compound Number : 106
Compound Name : Styrene
Scan Number : 1699
Retention Time (minutes): 11.945
Quant Ion : 104.00
Area : 80151
On-column Amount (ng) : 0.4420
Integration start scan : 1690 Integration stop scan: 1717
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

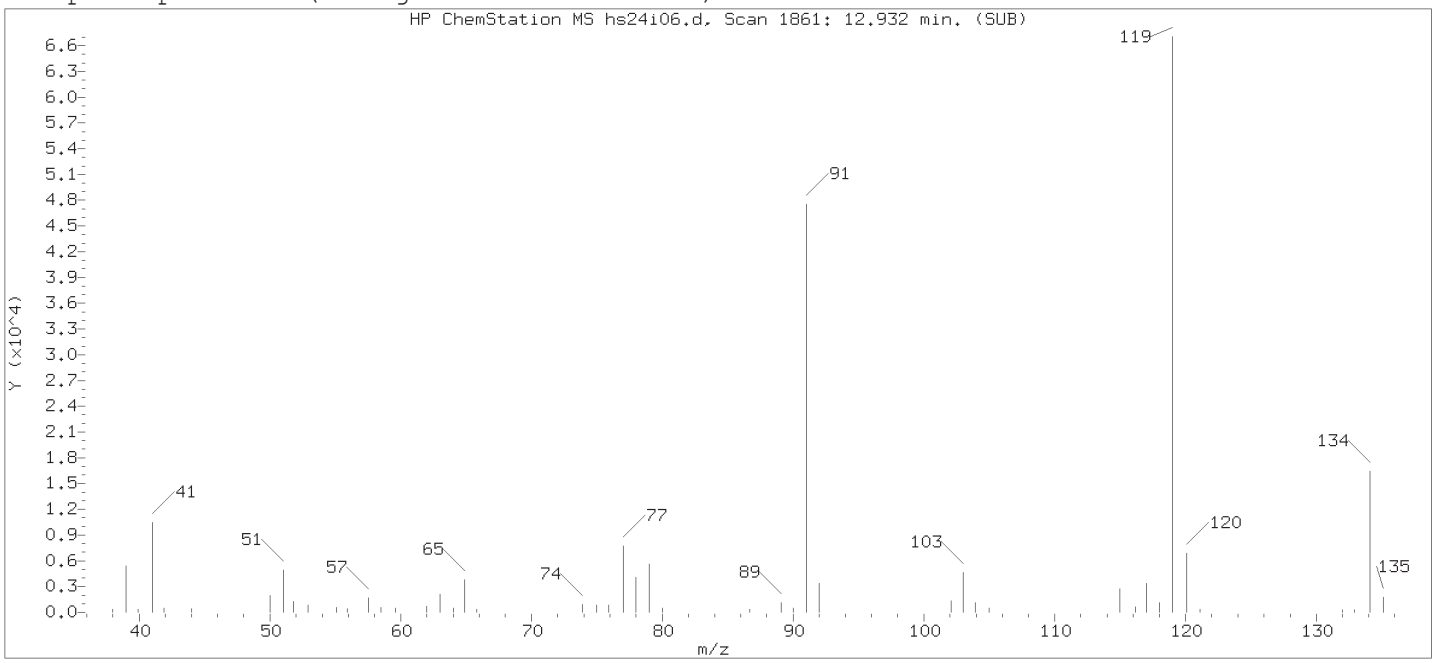
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 25726M
On-Column Amount (ng) : 0.4759
Integration start scan : 1855 Integration stop scan: 1865
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

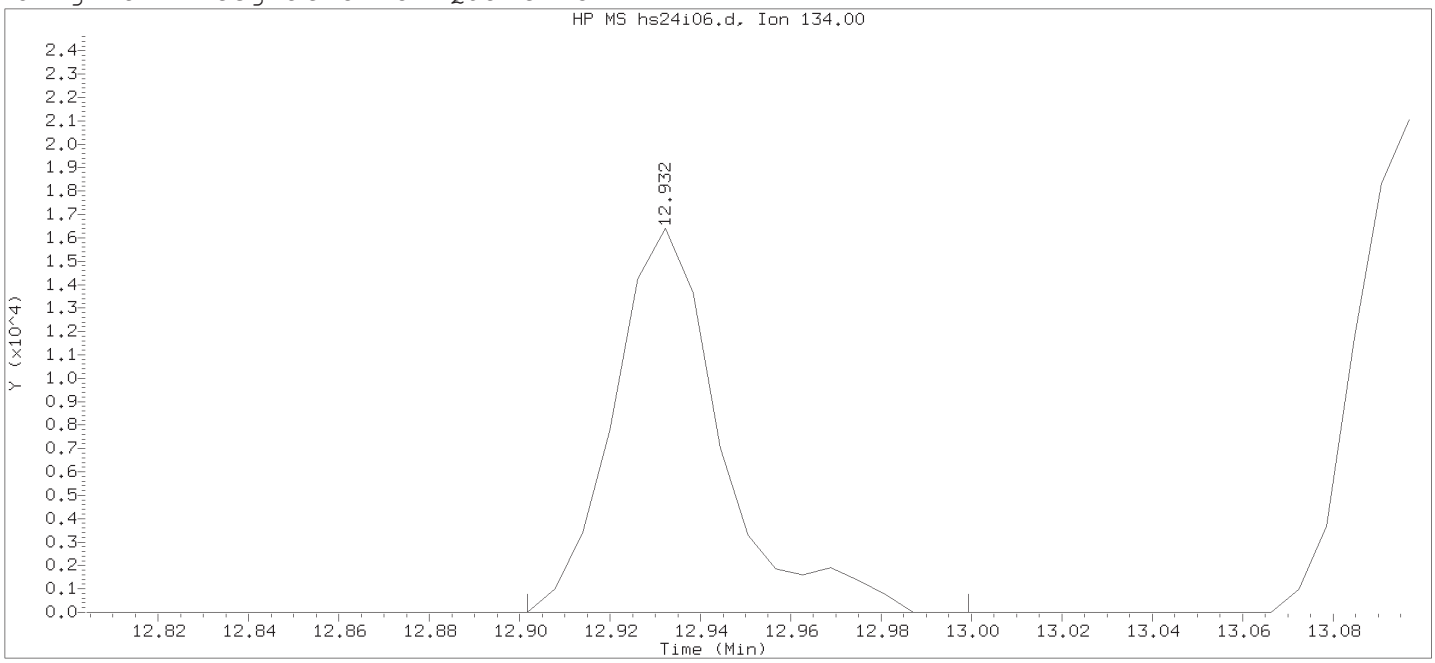
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



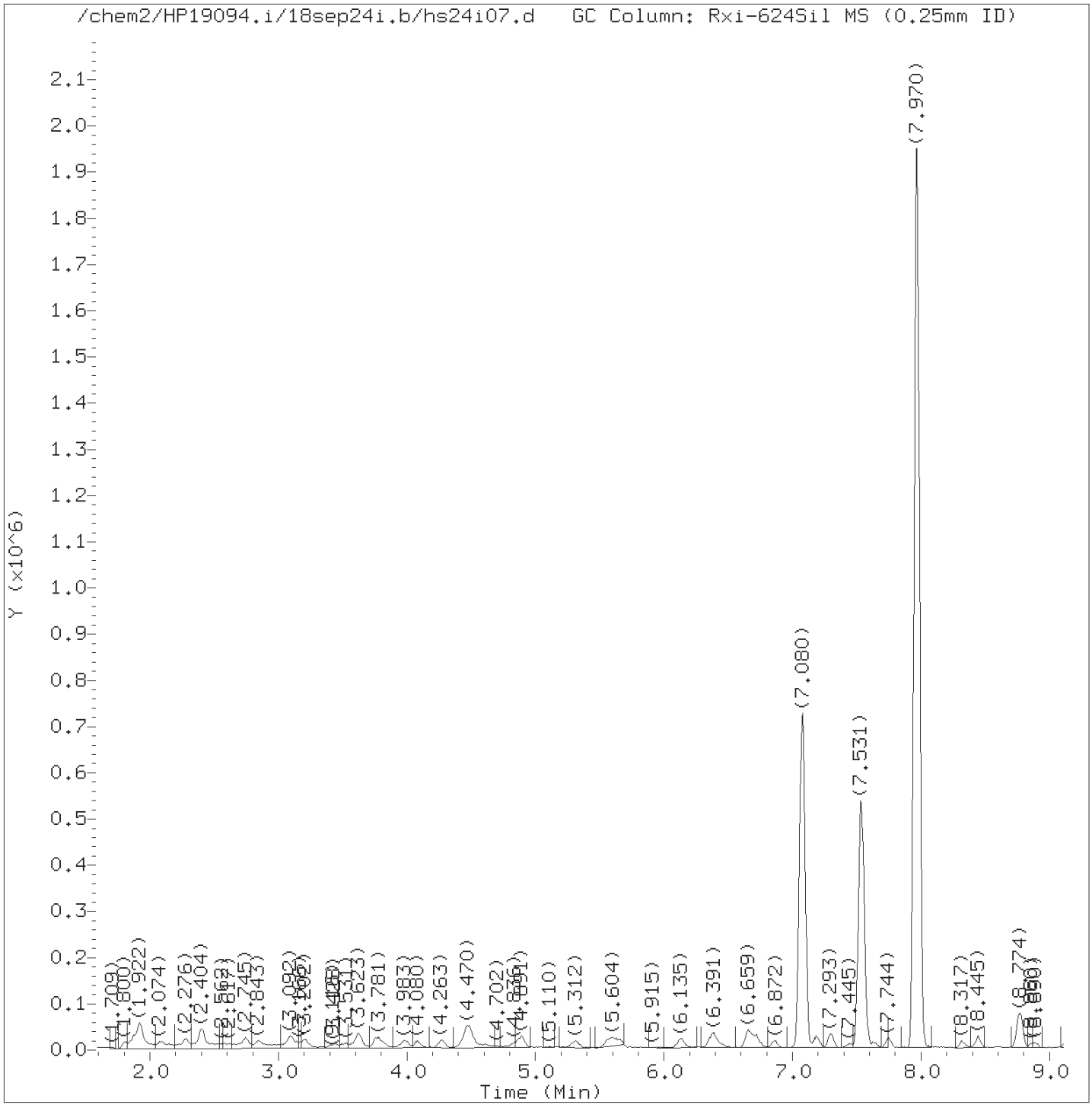
Data File: /chem2/HP19094.i/18sep24i.b/hs24i06.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:16 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 27202
On-column Amount (ng) : 0.4744
Integration start scan : 1855 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

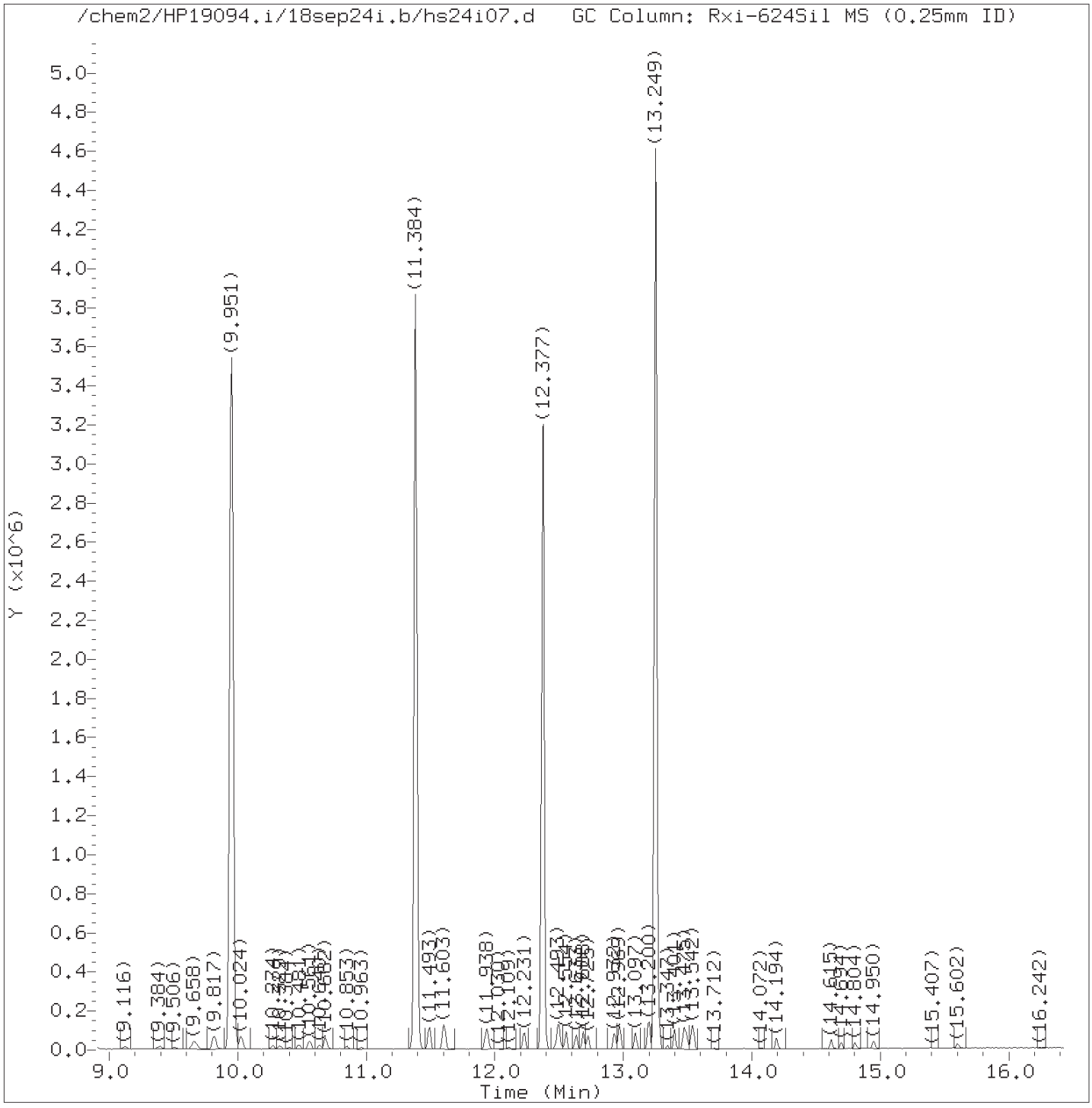
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	18684	0.173
2) Chloromethane	(2)	2.276	50	20265	0.192
6) 1,3-Butadiene	(2)	2.391	39	22506M	0.201
5) Vinyl Chloride	(2)	2.404	62	19000	0.192
7) Bromomethane	(2)	2.745	94	14696	0.191
8) Chloroethane	(2)	2.855	64	11899	0.198
9) Dichlorofluoromethane	(2)	3.092	67	26880	0.188
10) Trichlorofluoromethane	(2)	3.166	101	22332	0.178
11) Ethyl ether	(2)	3.434	59	8413	0.198
12) Freon 123a	(2)	3.513	67	13528	0.171
13) Acrolein	(1)	3.629	56	57860	9.554
15) 1,1-Dichloroethene	(2)	3.769	96	8847	0.163
16) Freon 113	(2)	3.787	101	9804	0.153
14) Acetone	(1)	3.806	43	17774M	2.185
17) Methyl Iodide	(2)	3.970	142	20605	0.182
18) Carbon Disulfide	(2)	4.080	76	32988	0.191
21) Methyl Acetate	(1)	4.251	43	3885	0.170
22) Allyl Chloride	(2)	4.269	41	19586	0.190
23) Methylene Chloride	(2)	4.464	84	14058	0.230
26)*t-Butyl Alcohol-d10	(1)	4.482	65	136477	50.000
28) t-Butyl Alcohol	(1)	4.604	59	8816	3.784
29) Acrylonitrile	(1)	4.836	53	9839	0.937
30) Methyl Tertiary Butyl Ether	(2)	4.885	73	19485	0.175
31) trans-1,2-Dichloroethene	(2)	4.891	96	11360	0.186
32) n-Hexane	(2)	5.305	57	14177	0.146
33) 1,1-Dichloroethane	(2)	5.549	63	20797	0.179
34) di-Isopropyl Ether	(2)	5.604	45	38755	0.187
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	17187	0.164
40) 1,2-Dichloroethene (Total)	(2)		96	23470	0.365
37) Ethyl t-butyl ether	(2)	6.122	59	29171	0.178
38) 2-Butanone	(1)	6.354	43	25880	1.944
41) 2,2-Dichloropropane	(2)	6.385	77	13983	0.168
39) cis-1,2-Dichloroethene	(2)	6.391	96	12110	0.179
42) Propionitrile	(1)	6.452	54	12829	3.550
45) Methacrylonitrile	(1)	6.659	67	23810	1.827
47) Bromochloromethane	(2)	6.702	128	5661	0.198
48) Tetrahydrofuran	(1)	6.726	71	6748	1.906
49) Chloroform	(2)	6.860	83	18885	0.174

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	694305	9.967
50)$Dibromofluoromethane	(2)	7.080	111	718039	10.014
51) 1,1,1-Trichloroethane	(2)	7.080	97	15708	0.170
52) Cyclohexane	(2)	7.183	56	19182	0.159
52) Cyclohexane	(2)	7.183	84	16106	0.162
52) Cyclohexane	(2)	7.201	69	5648	0.159
55) 1,1-Dichloropropene	(2)	7.299	75	15252	0.174
54) Carbon Tetrachloride	(2)	7.305	117	12817	0.161
56) Isobutyl Alcohol	(1)	7.439	41	7908	8.774
57)$1,2-Dichloroethane-d4	(2)	7.537	102	122128	10.056
57)$1,2-Dichloroethane-d4	(2)	7.531	65	592808	10.092
57)$1,2-Dichloroethane-d4	(2)	7.531	104	77943	10.021
58) Benzene	(2)	7.573	78	48910	0.189
59) 1,2-Dichloroethane	(2)	7.640	62	13176	0.221
60) t-Amyl methyl ether	(2)	7.750	73	24932	0.183
62) n-Heptane	(2)	7.963	43	14806	0.148
63)*Fluorobenzene	(2)	7.970	96	2763999	10.000
65) n-Butanol	(1)	8.317	56	13835M	18.168
67) Trichloroethene	(2)	8.451	95	11889	0.179
69) Methylcyclohexane	(2)	8.750	83	22461	0.179
70) 1,2-Dichloropropane	(2)	8.787	63	12025	0.191
71) Methyl Methacrylate	(1)	8.847	69	4087	0.169
72) 1,4-Dioxane	(1)	8.872	88	1041M	5.678
73) Dibromomethane	(2)	8.884	93	4747	0.182
74) Bromodichloromethane	(2)	9.128	83	13129	0.186
76) 2-Nitropropane	(1)	9.396	41	11979	1.753
80) cis-1,3-Dichloropropene	(2)	9.652	75	14627	0.178
81) 4-Methyl-2-Pentanone	(1)	9.811	43	56901M	1.718
82)$Toluene-d8	(3)	9.951	98	2792286	10.141
82)$Toluene-d8	(3)	9.951	100	1785080	10.044
83) Toluene	(3)	10.024	92	29814	0.188
85) 1,3-Dichloropropene (total)	(3)		75	24597	0.341
84) trans-1,3-Dichloropropene	(3)	10.274	75	9970	0.163
86) Ethyl Methacrylate	(3)	10.329	69	8963	0.171
91) 2-Hexanone	(1)	10.335	43	39960	1.772
88) 1,1,2-Trichloroethane	(3)	10.487	97	7236M	0.198
89) Tetrachloroethene	(3)	10.561	166	12649	0.176
90) 1,3-Dichloropropane	(3)	10.640	76	12143	0.188

M = Compound was manually integrated.
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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.853	129	8337	0.190
95) 1,2-Dibromoethane	(3)	10.963	107	6295	0.184
96) 1-Chlorohexane	(3)	11.384	91	18987	0.201
97)*Chlorobenzene-d5	(3)	11.384	117	2139400	10.000
98) Chlorobenzene	(3)	11.408	112	31130	0.185
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	9192	0.165
100) Ethylbenzene	(3)	11.493	91	54290	0.175
101) m+p-Xylene	(3)	11.603	106	40662	0.353
105) Xylene (Total)	(3)		106	59182	0.522
104) o-Xylene	(3)	11.932	106	18520	0.168
106) Styrene	(3)	11.944	104	29429	0.167
107) Bromoform	(3)	12.109	173	4117	0.171
108) Isopropylbenzene	(3)	12.231	105	51166	0.170
111)$4-Bromofluorobenzene	(3)	12.377	95	1020584	10.180
111)$4-Bromofluorobenzene	(3)	12.377	174	882233	10.135
113) 1,1,2,2-Tetrachloroethane	(4)	12.475	83	8843	0.197
114) Bromobenzene	(4)	12.493	156	11951	0.175
115) trans-1,4-Dichloro-2-butene	(1)	12.493	53	17855M	1.721
116) 1,2,3-Trichloropropane	(4)	12.524	110	2226	0.192
117) n-Propylbenzene	(4)	12.554	91	63816	0.172
119) 2-Chlorotoluene	(4)	12.633	126	12496	0.174
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	41880	0.167
122) 4-Chlorotoluene	(4)	12.725	126	12375	0.172
125) tert-Butylbenzene	(4)	12.932	134	8830M	0.161
126) Pentachloroethane	(4)	12.963	167	7371	0.173
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	42070	0.164
128) sec-Butylbenzene	(4)	13.097	105	52250M	0.160
131) 1,3-Dichlorobenzene	(4)	13.200	146	23099	0.170
132) p-Isopropyltoluene	(4)	13.200	119	42501	0.157
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1132249	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	24681	0.185
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	23113	0.196
136) Benzyl Chloride	(4)	13.341	126	2121	0.131
138) n-Butylbenzene	(4)	13.493	92	21345	0.159
139) 1,2-Dichlorobenzene	(4)	13.529	146	21920	0.183
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	880	0.157
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	17490	0.173
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	14330	0.174

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on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.694	225	5770	0.186
147) Naphthalene	(4)	14.804	128	21320	0.164
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	11734	0.174

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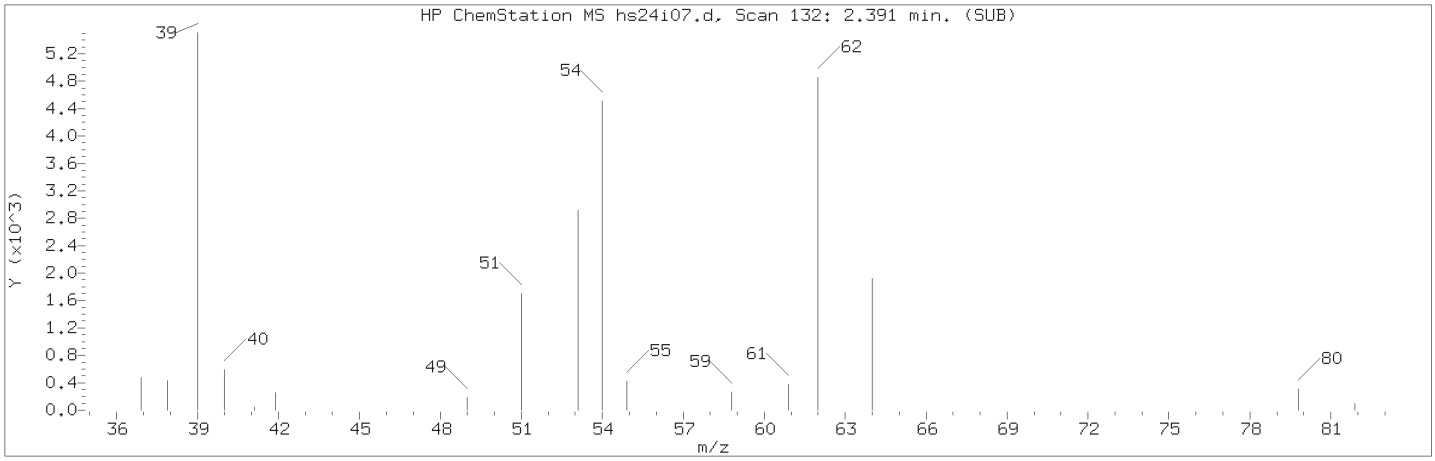
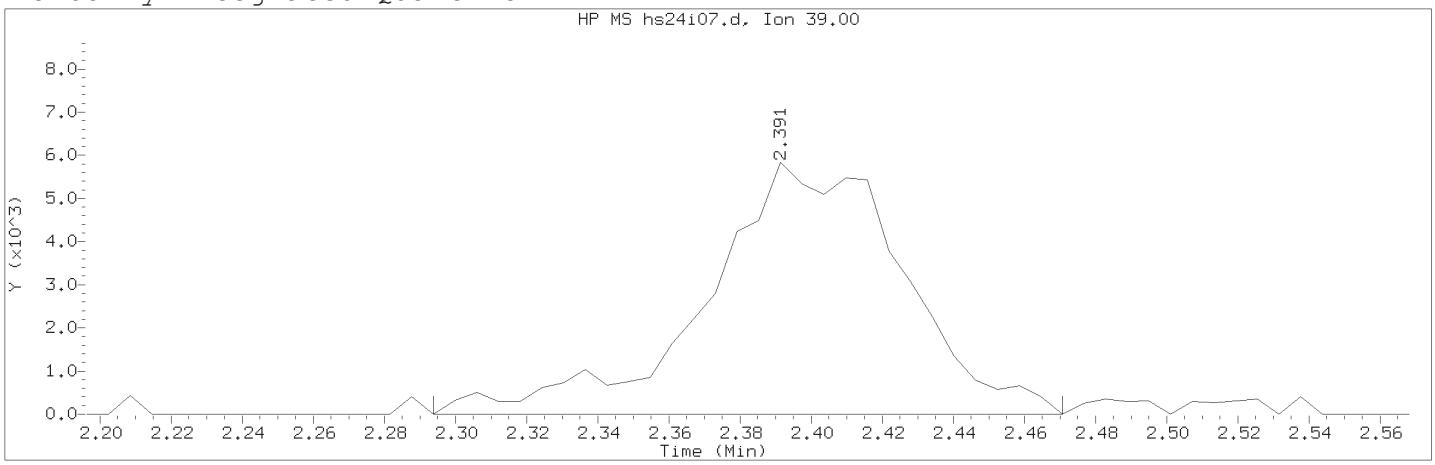
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

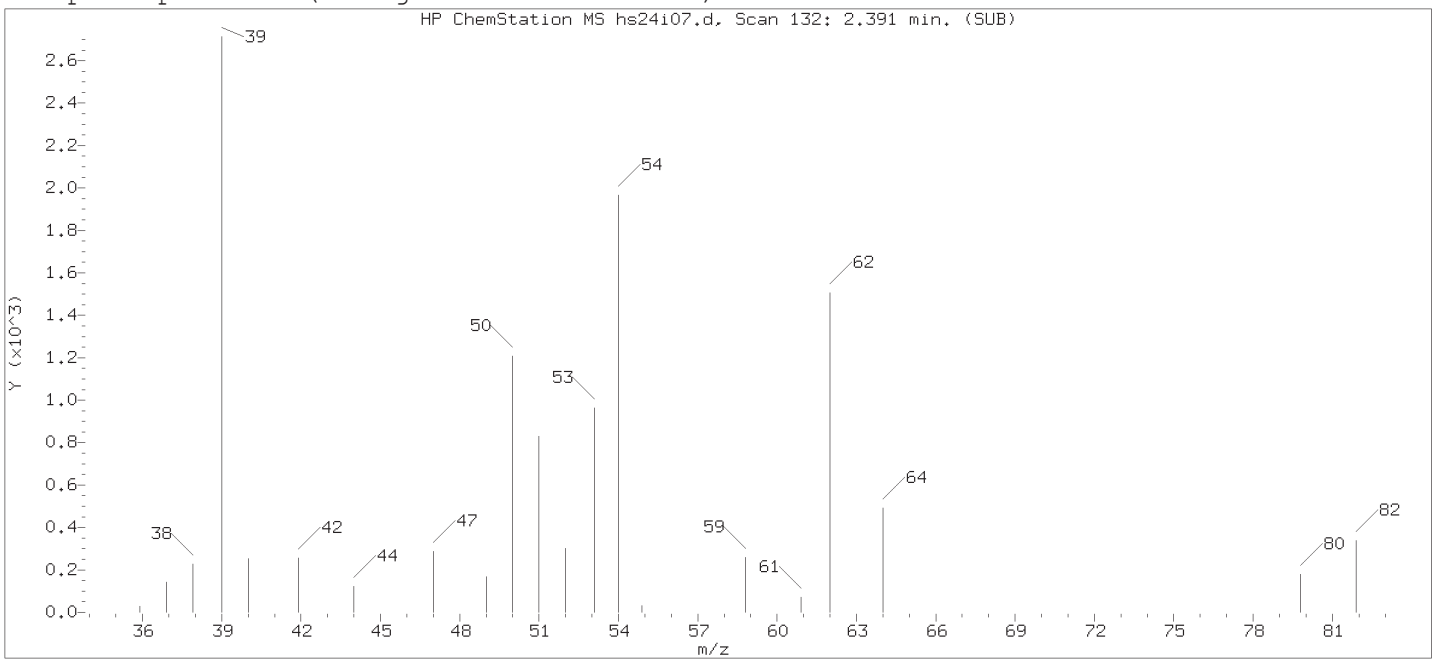
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area (flag) : 22506M
On-Column Amount (ng) : 0.2006
Integration start scan : 115 Integration stop scan: 144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

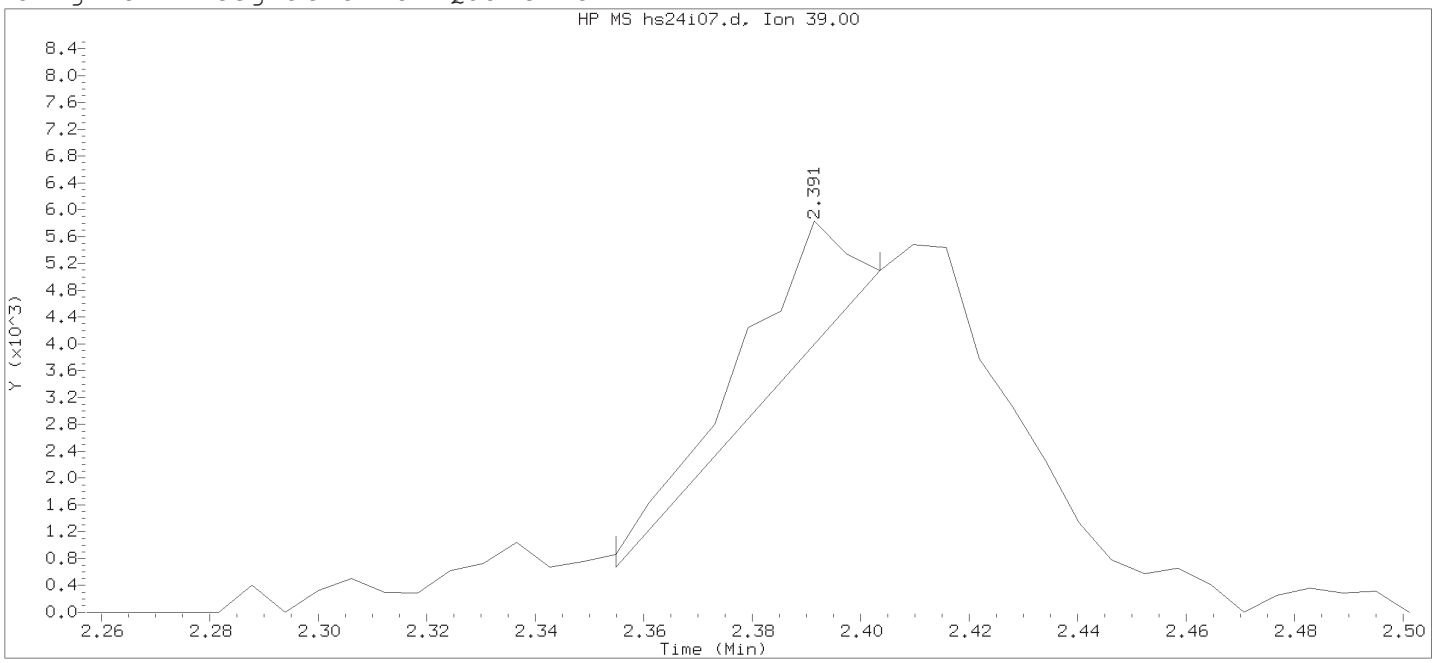
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

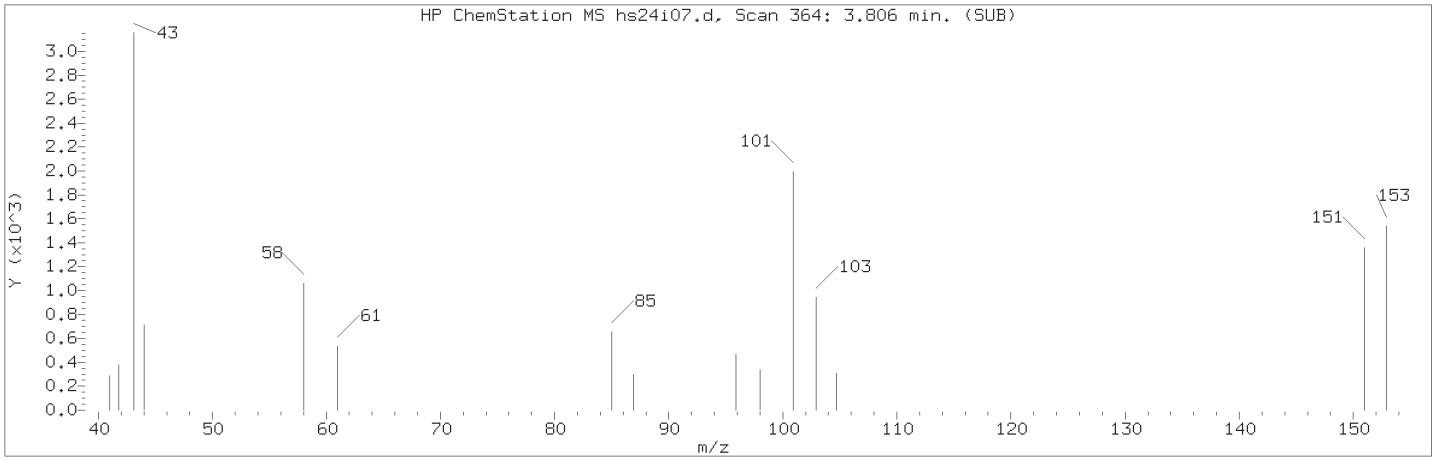
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

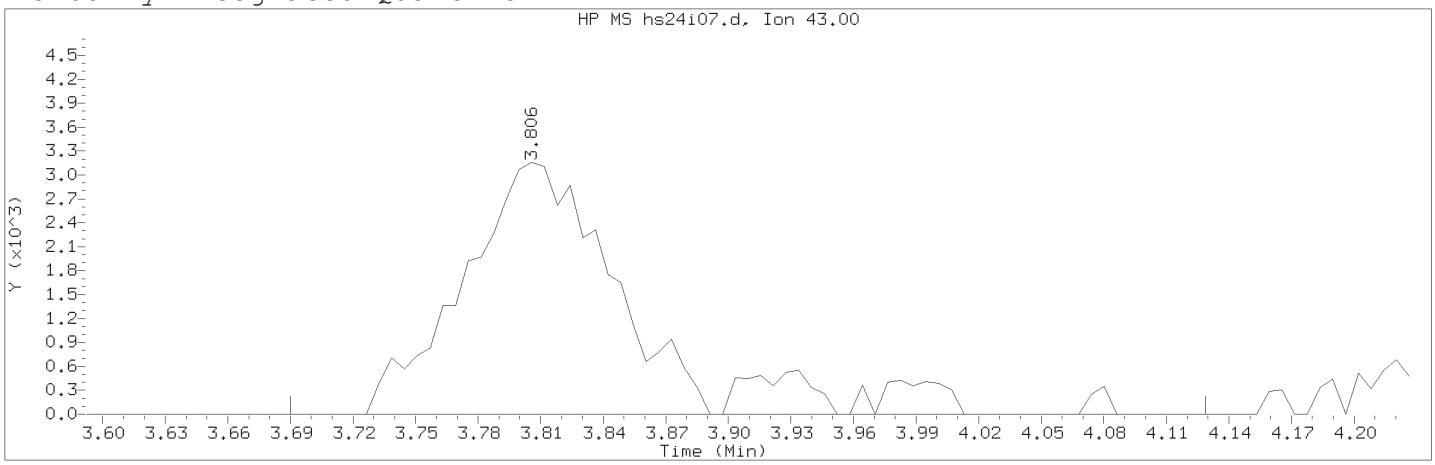
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area : 2354
On-column Amount (ng) : 0.0257
Integration start scan : 125 Integration stop scan: 133
Y at integration start : 678 Y at integration end: 5096

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

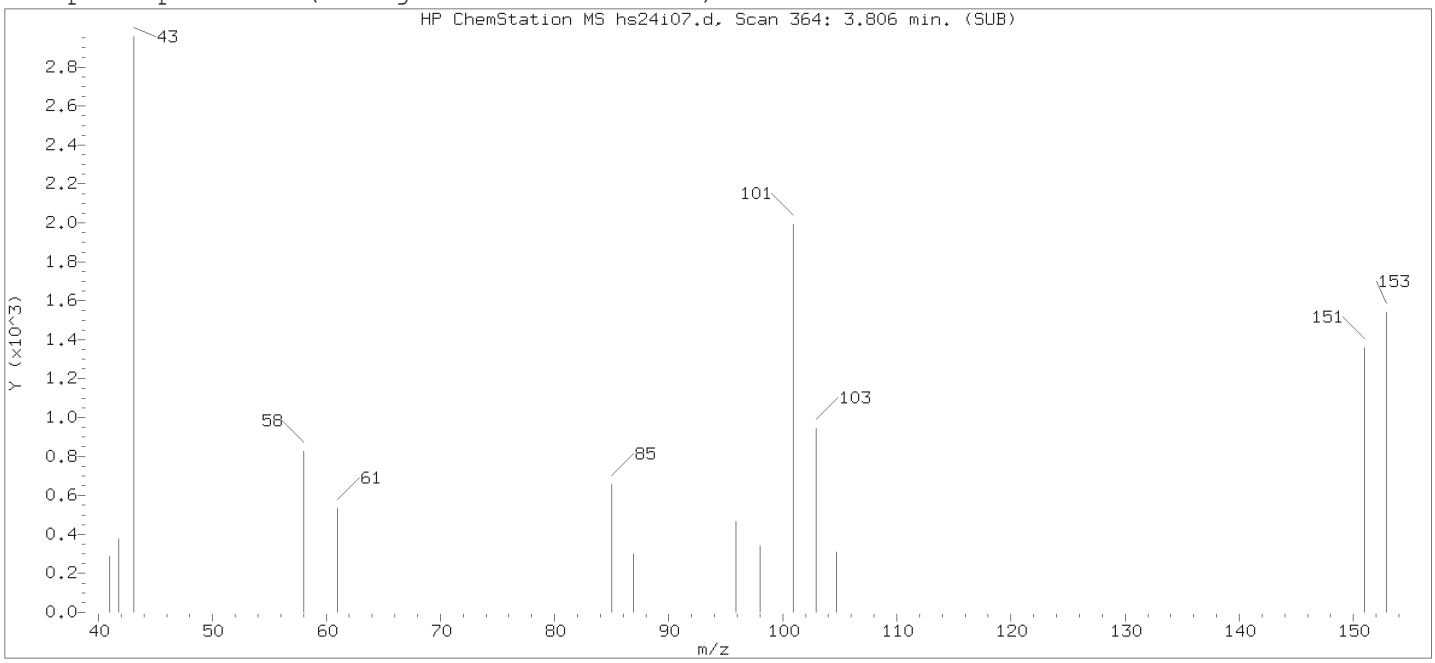
Compound Number : 14
Compound Name : Acetone
Scan Number : 364
Retention Time (minutes): 3.806
Quant Ion : 43.00
Area (flag) : 17774M
On-Column Amount (ng) : 2.1850
Integration start scan : 344 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

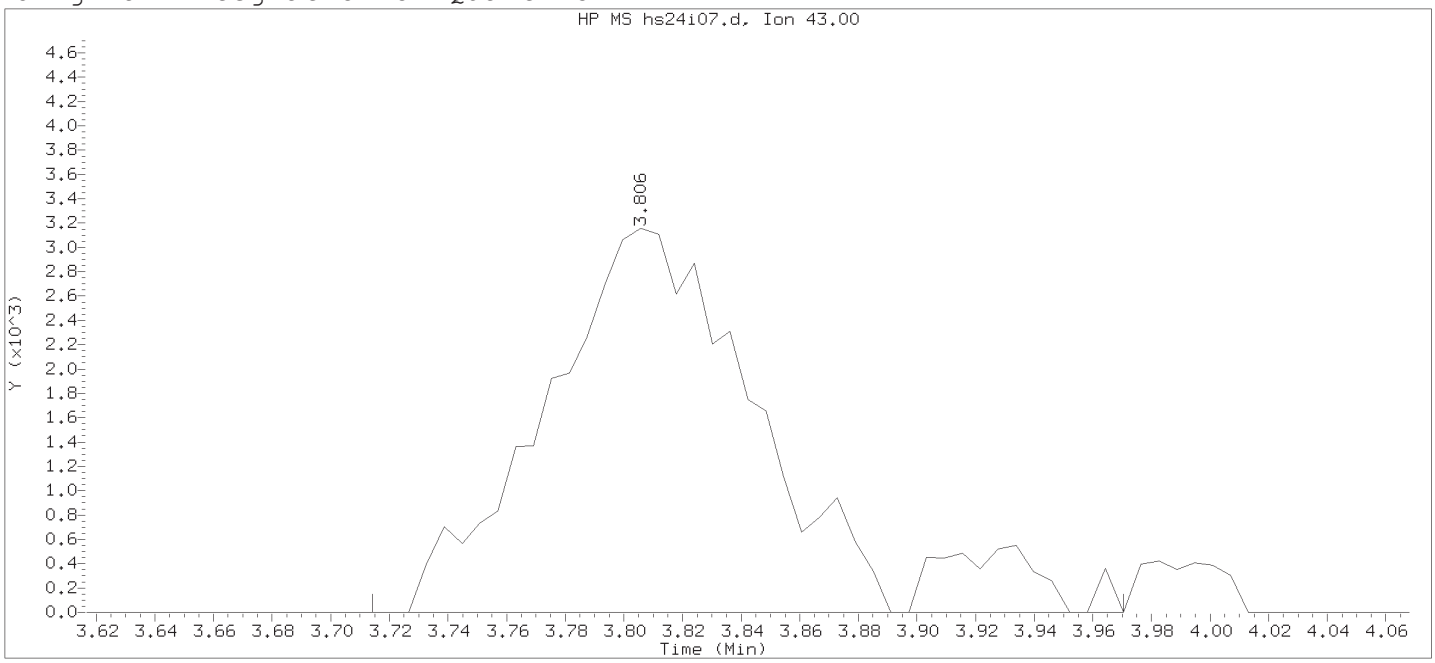
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

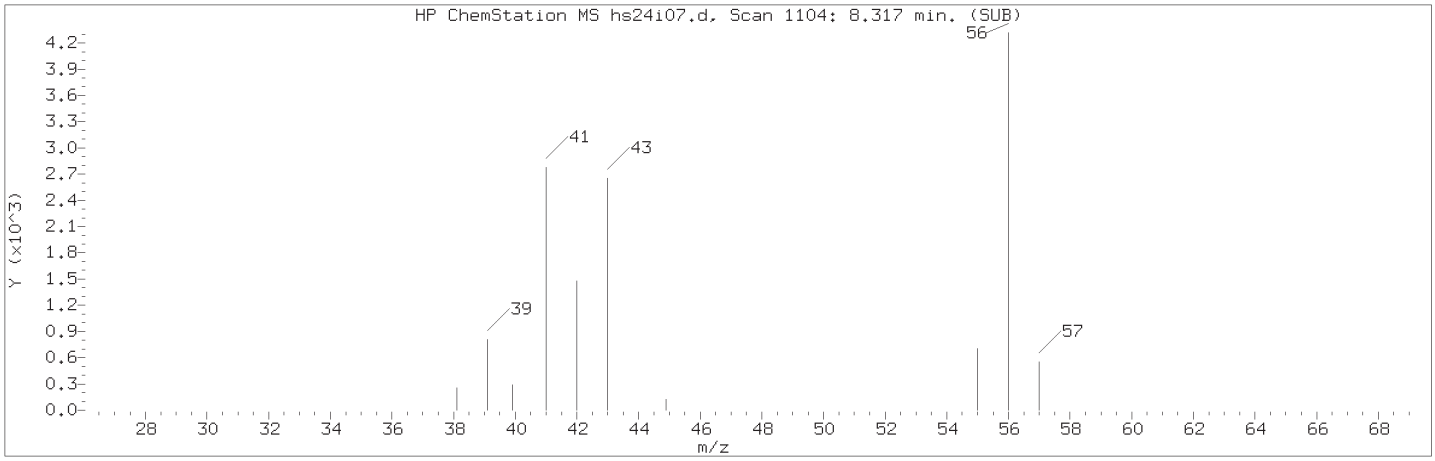
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

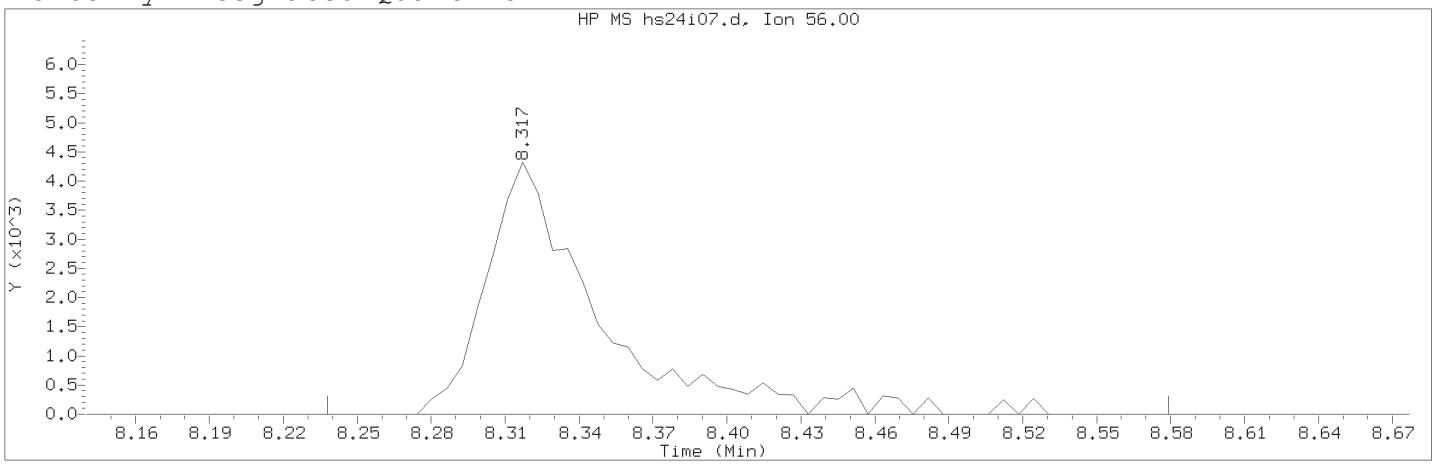
Compound Number : 14
Compound Name : Acetone
Scan Number : 364
Retention Time (minutes): 3.806
Quant Ion : 43.00
Area : 16725
On-column Amount (ng) : 2.1688
Integration start scan : 348 Integration stop scan: 390
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 11 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

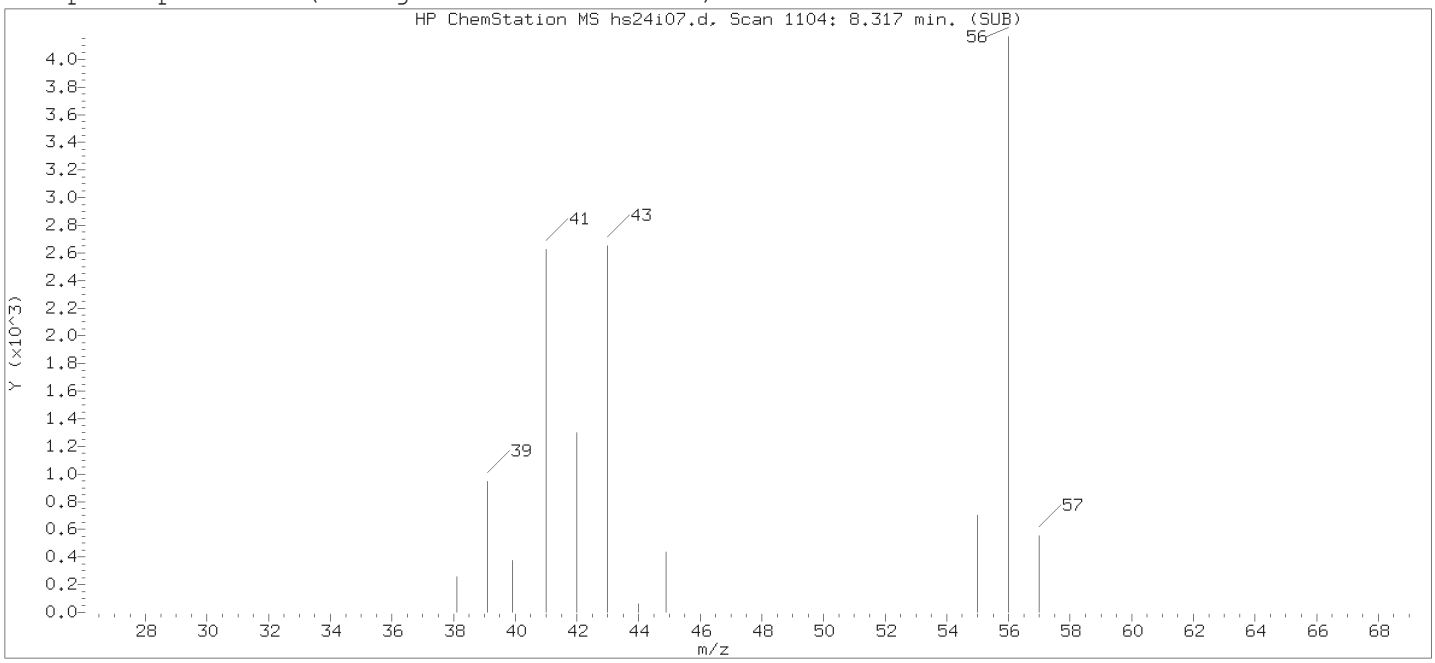
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1104
Retention Time (minutes): 8.317
Quant Ion : 56.00
Area (flag) : 13835M
On-Column Amount (ng) : 18.1683
Integration start scan : 1090 Integration stop scan: 1146
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

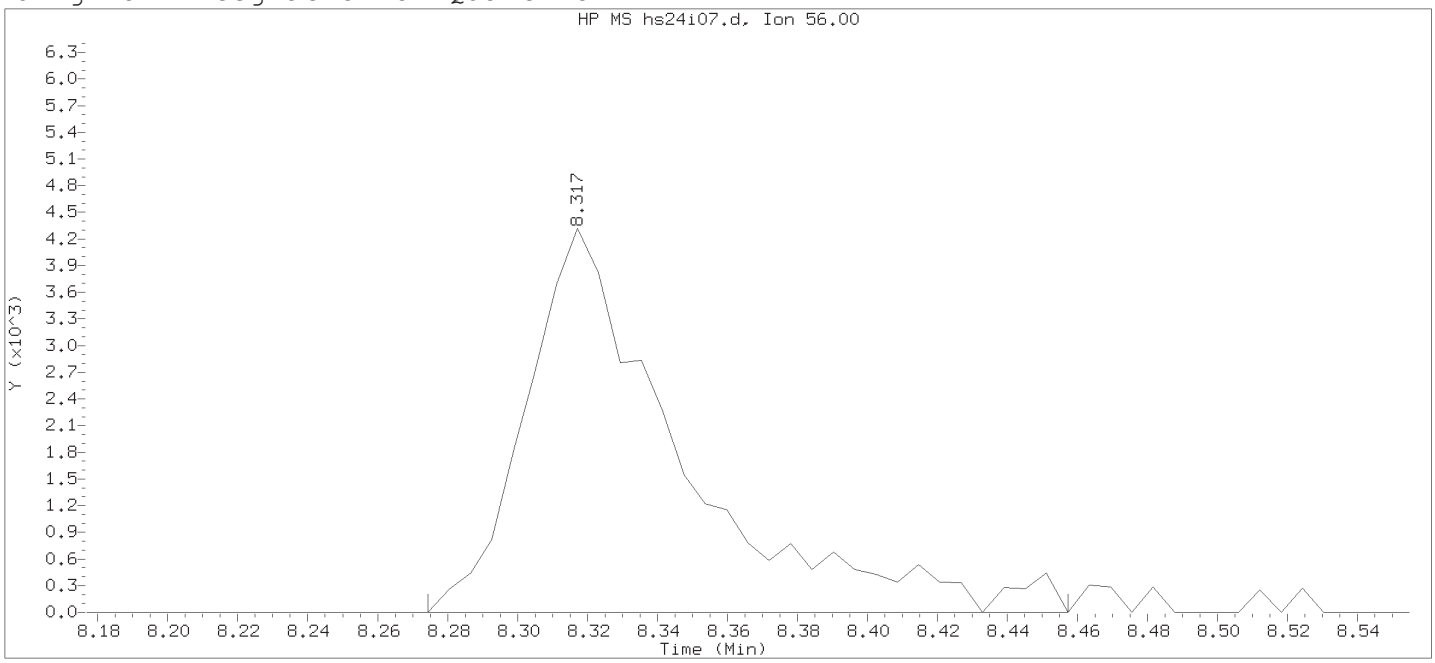
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

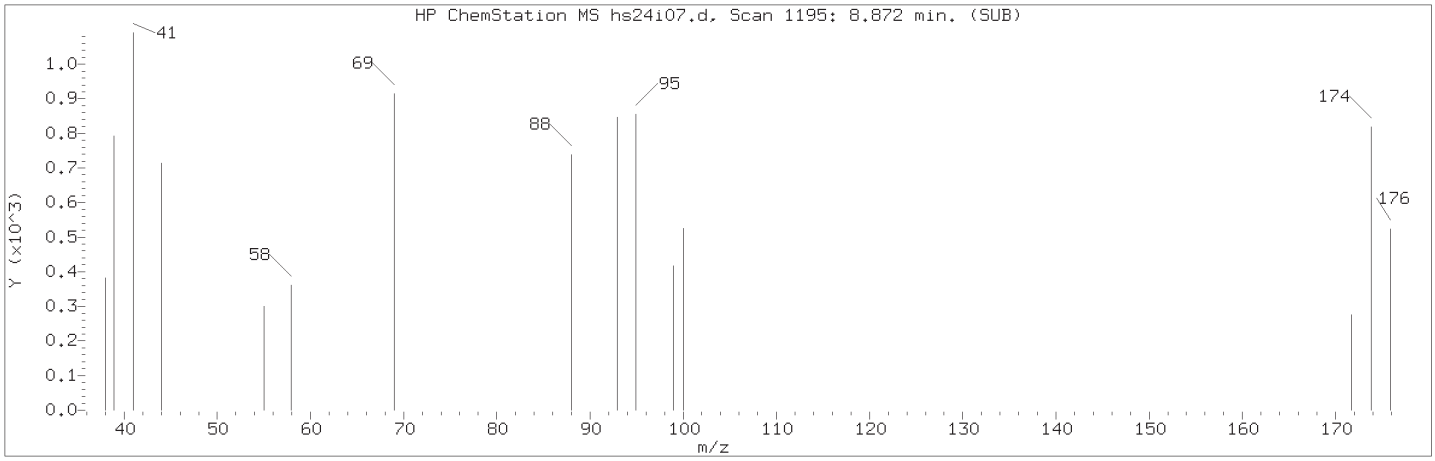
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

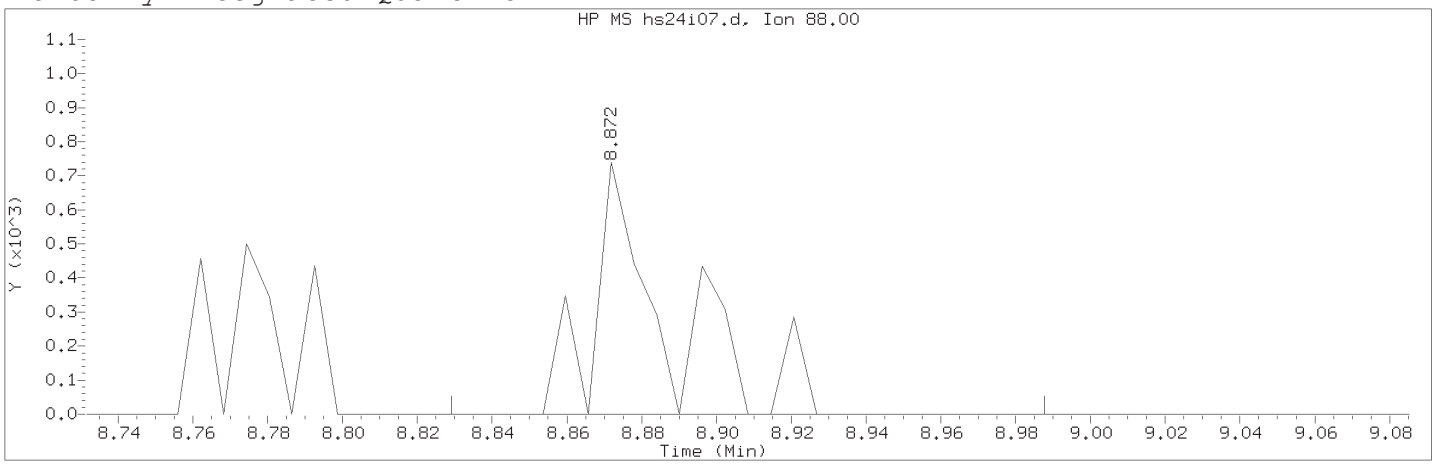
Compound Number : 65
Compound Name : n-Butanol
Scan Number : 1104
Retention Time (minutes): 8.317
Quant Ion : 56.00
Area : 13324
On-column Amount (ng) : 17.8982
Integration start scan : 1096 Integration stop scan: 1126
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Page 1154

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

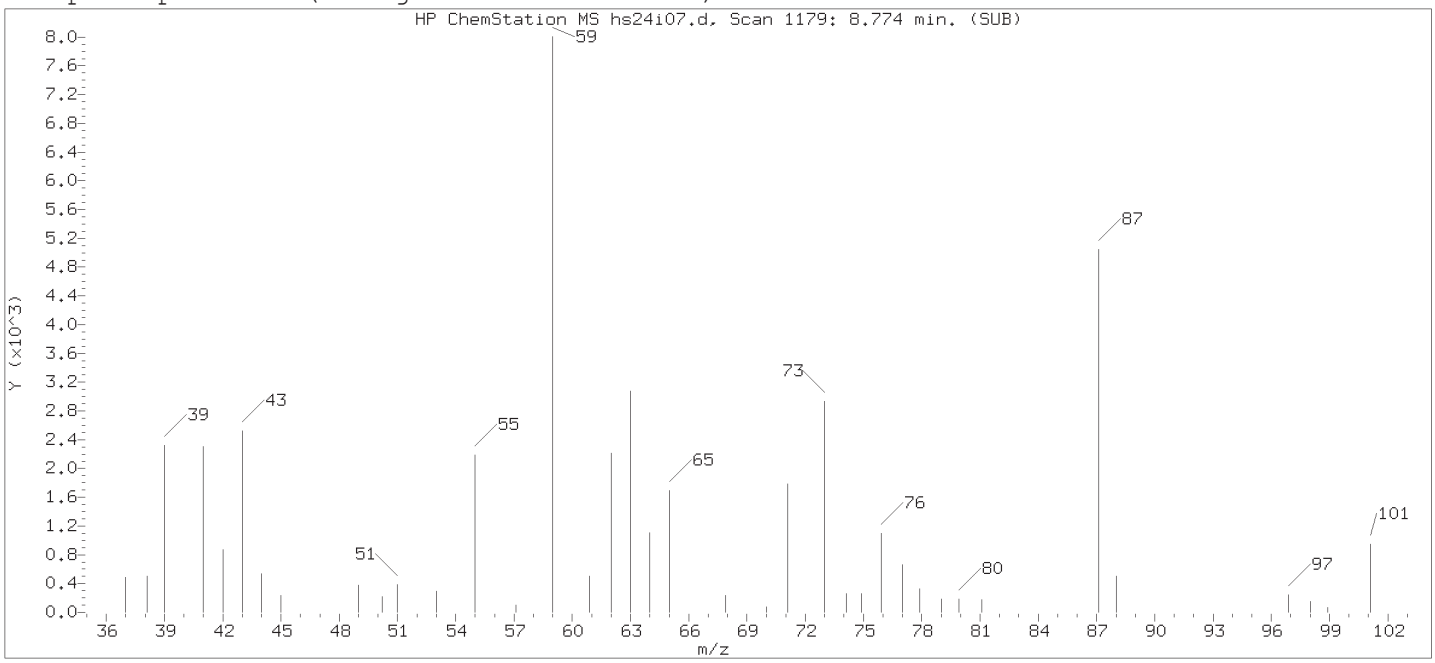
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1195
Retention Time (minutes): 8.872
Quant Ion : 88.00
Area (flag) : 1041M
On-Column Amount (ng) : 5.6778
Integration start scan : 1187 Integration stop scan: 1213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

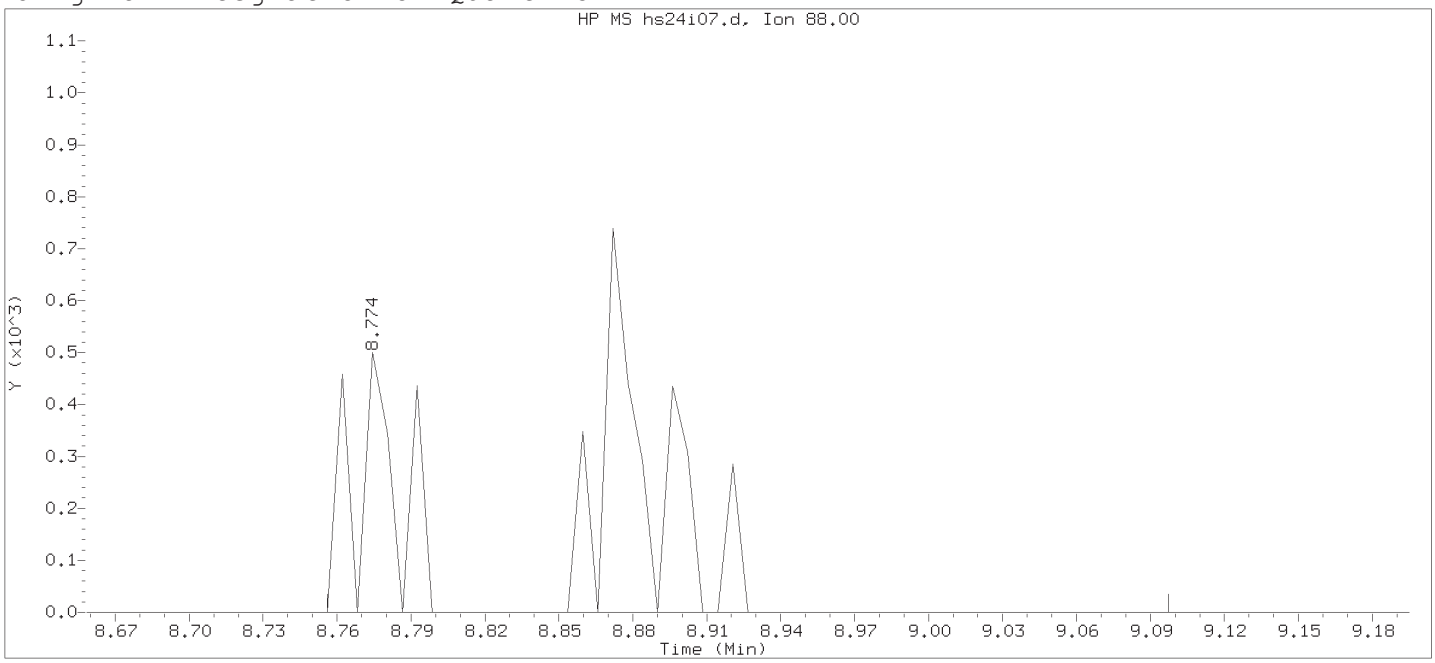
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

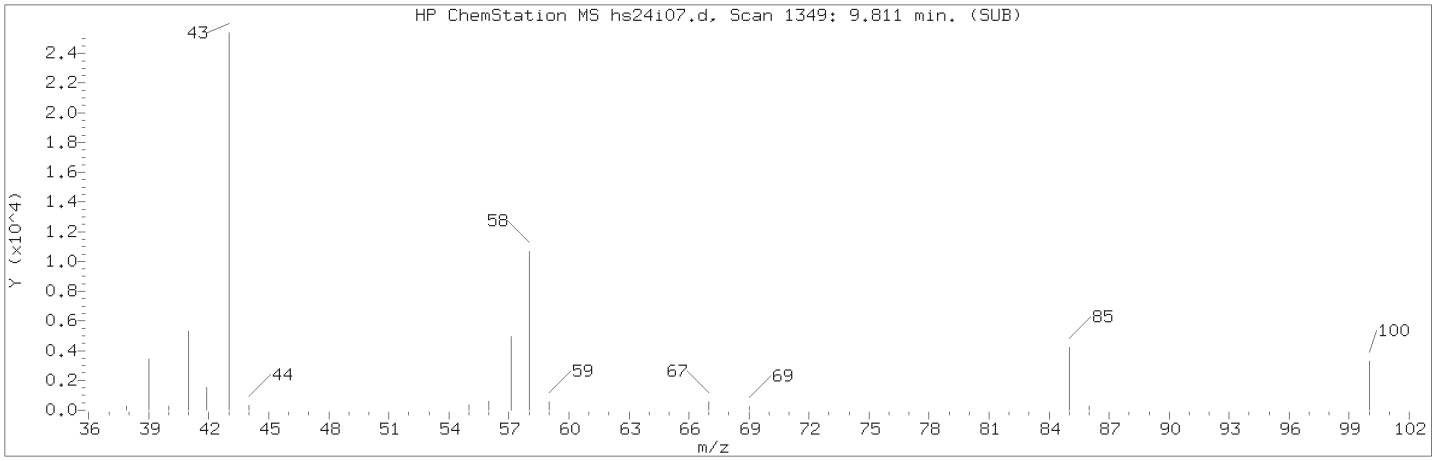
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

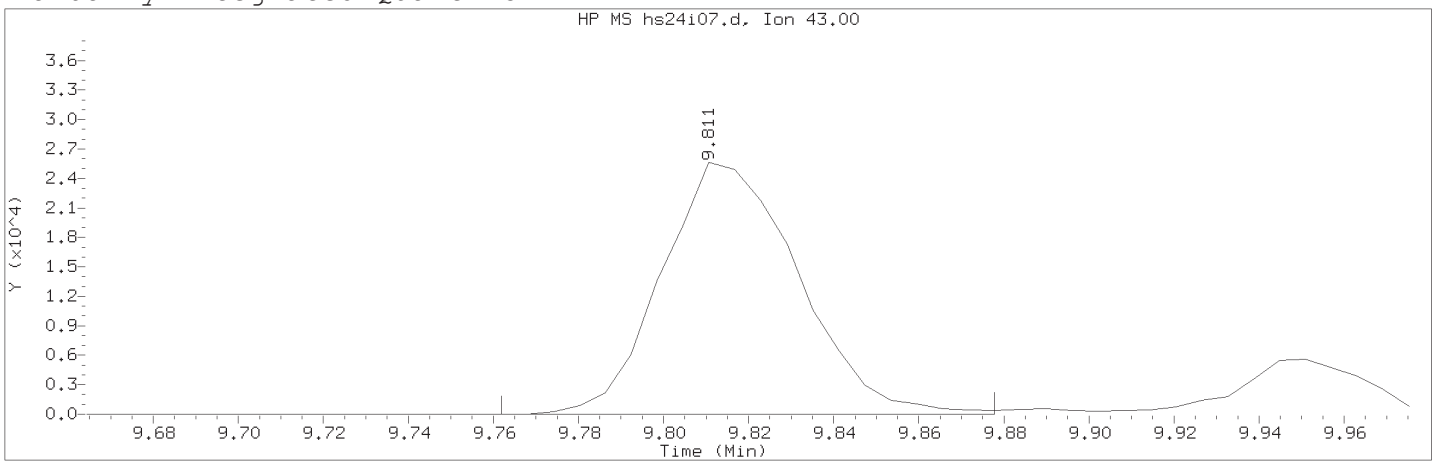
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.774
Quant Ion : 88.00
Area : 1677
On-column Amount (ng) : 13.7029
Integration start scan : 1175 Integration stop scan: 1231
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

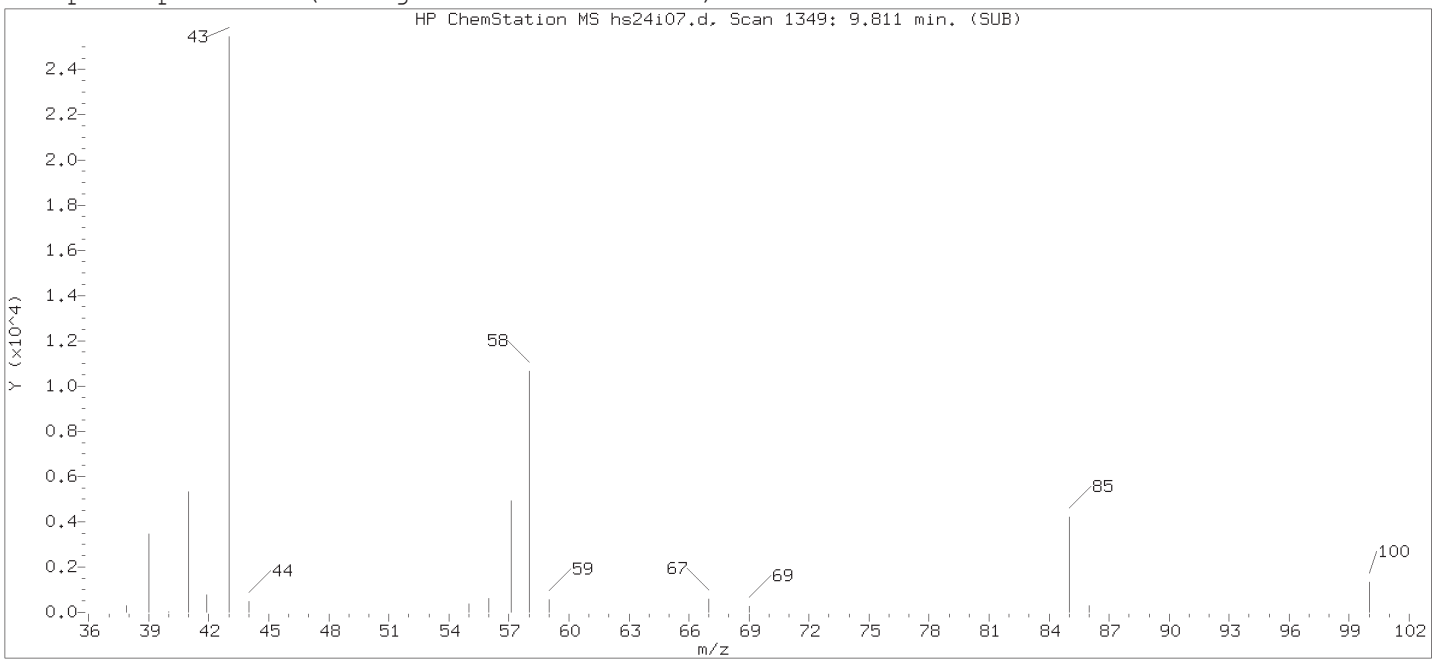
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 43.00
Area (flag) : 56901M
On-Column Amount (ng) : 1.7180
Integration start scan : 1340 Integration stop scan: 1359
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

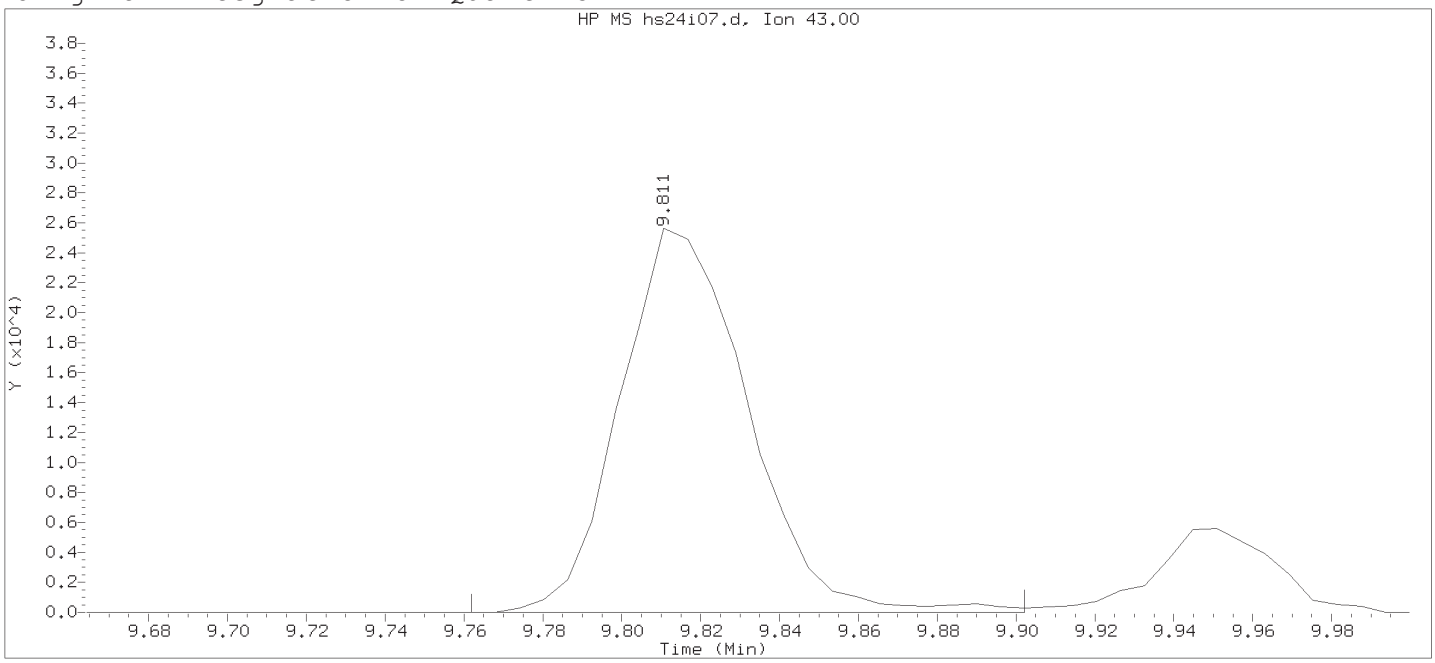
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

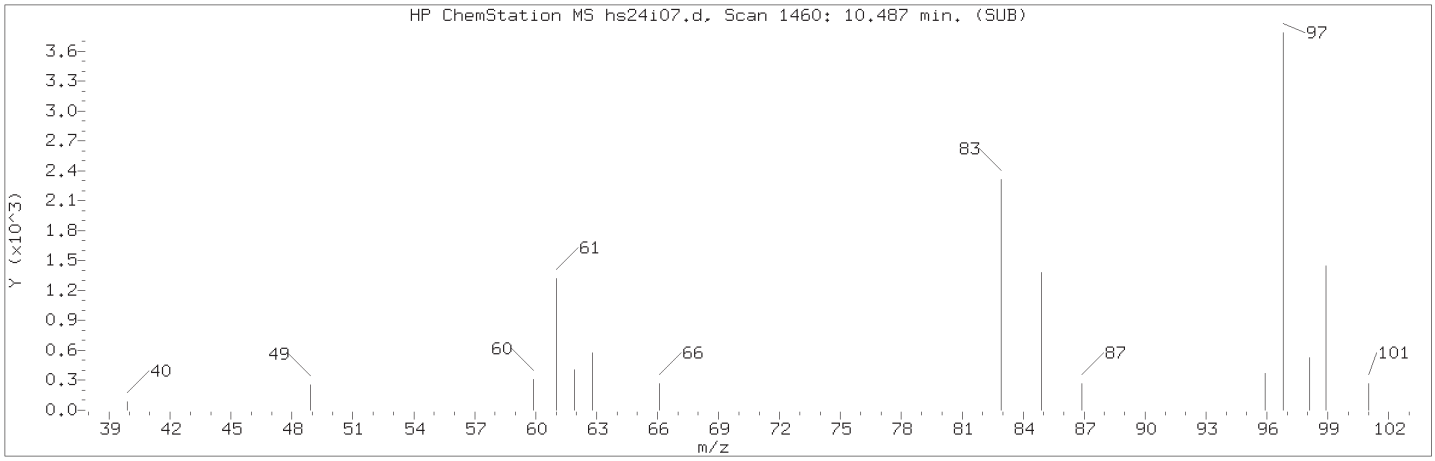
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

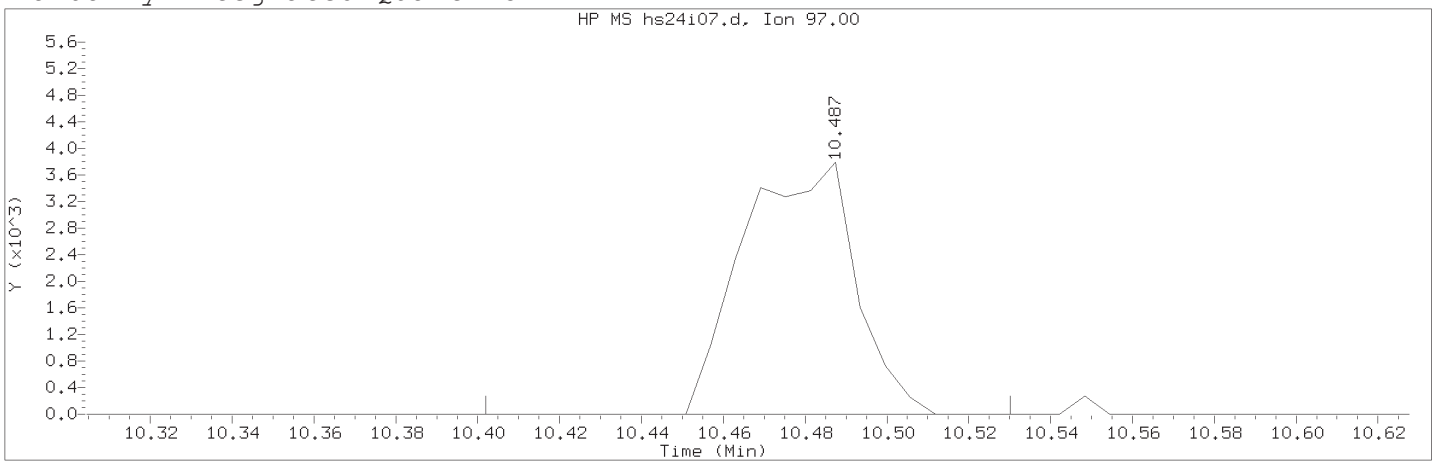
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 43.00
Area : 57465
On-column Amount (ng) : 1.6906
Integration start scan : 1340 Integration stop scan: 1363
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

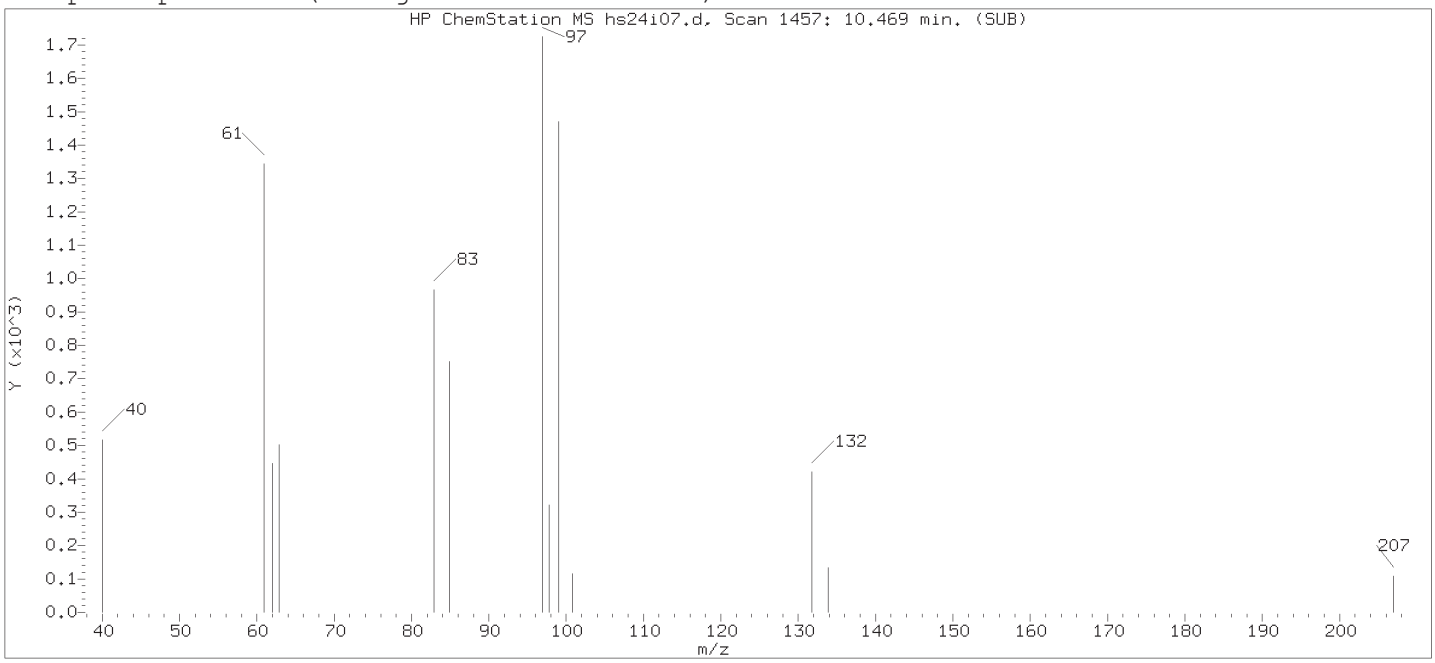
Compound Number : 88
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1460
Retention Time (minutes): 10.487
Quant Ion : 97.00
Area (flag) : 7236M
On-Column Amount (ng) : 0.1981
Integration start scan : 1445 Integration stop scan: 1466
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

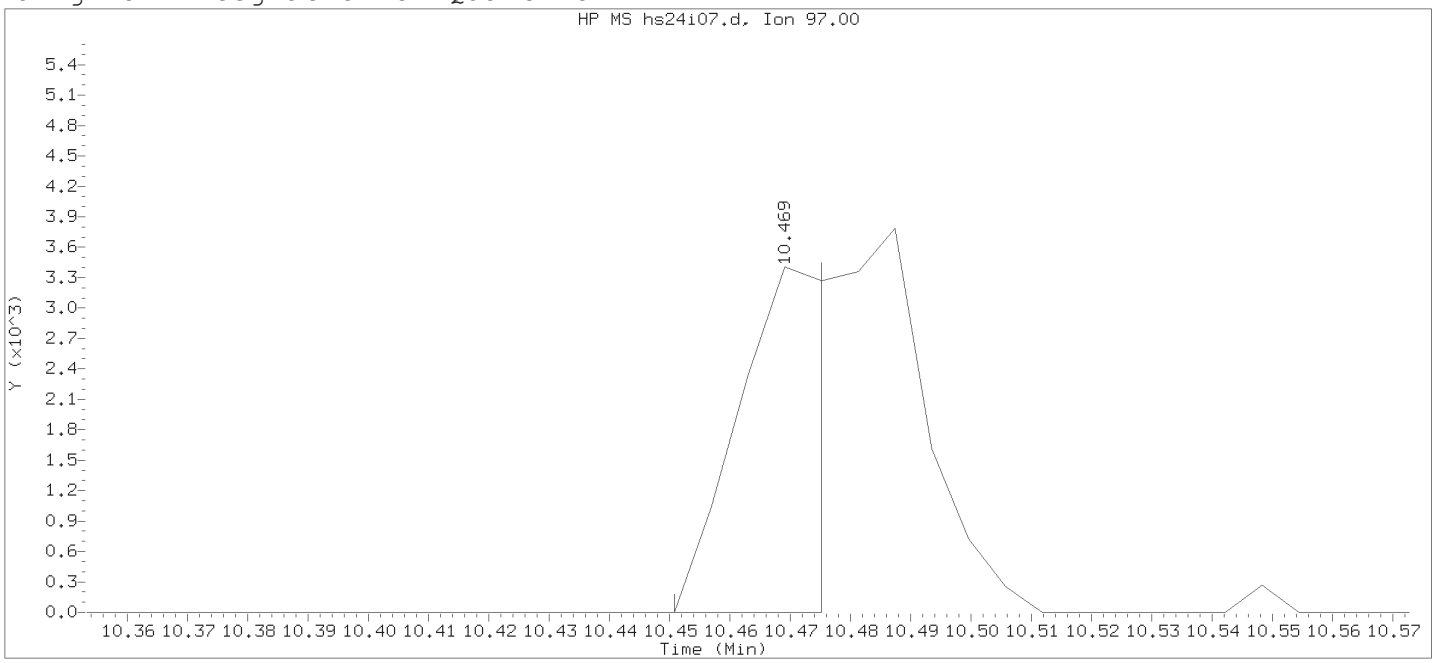
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

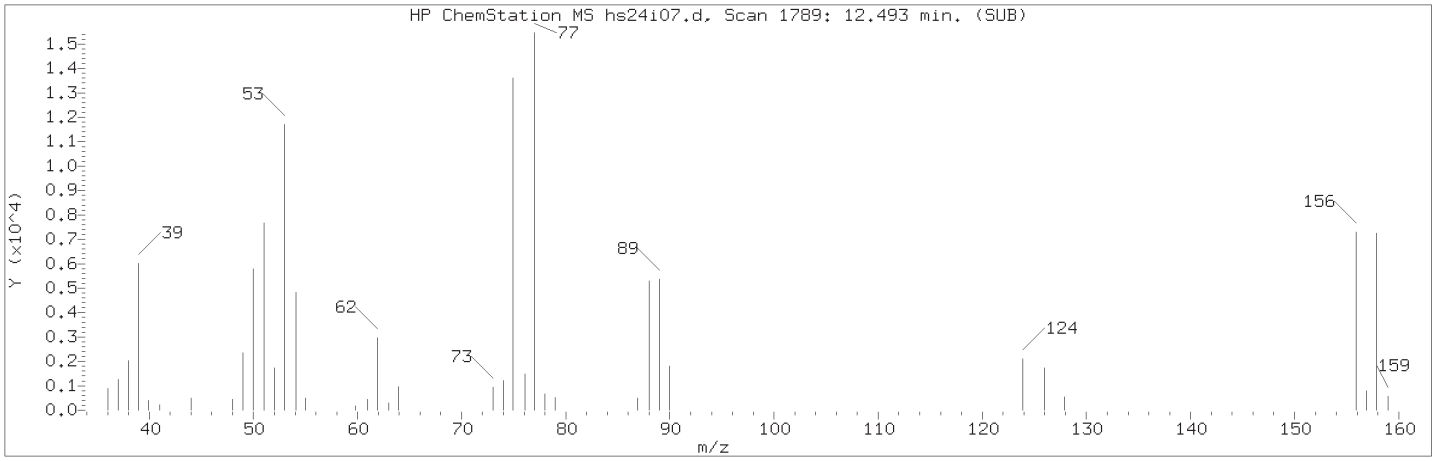
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

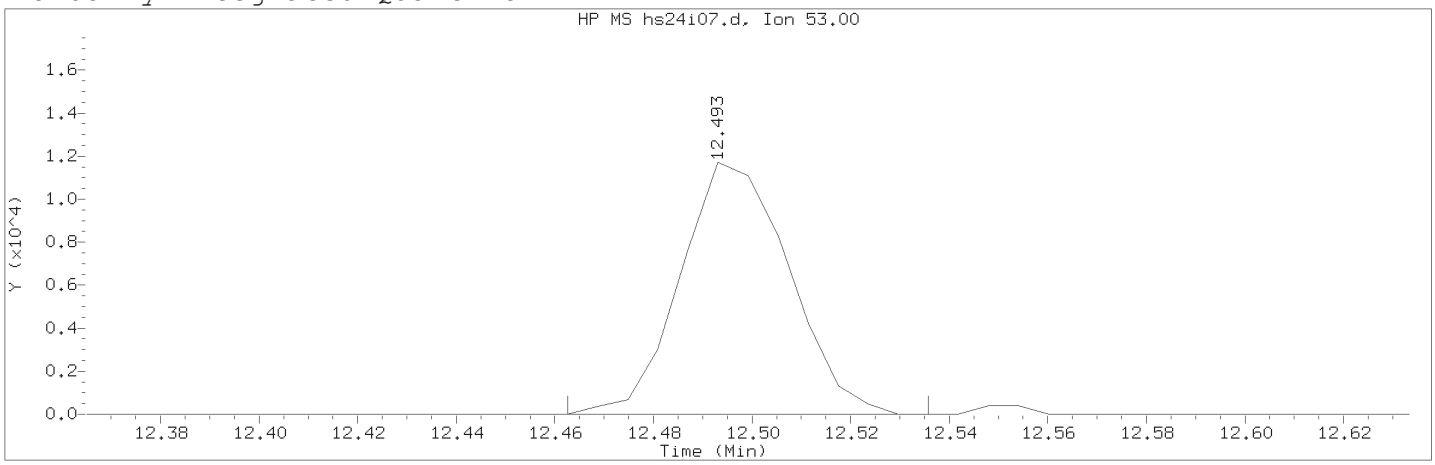
Compound Number : 88
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1457
Retention Time (minutes): 10.469
Quant Ion : 97.00
Area : 3077
On-column Amount (ng) : 0.0917
Integration start scan : 1453 Integration stop scan: 1457
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

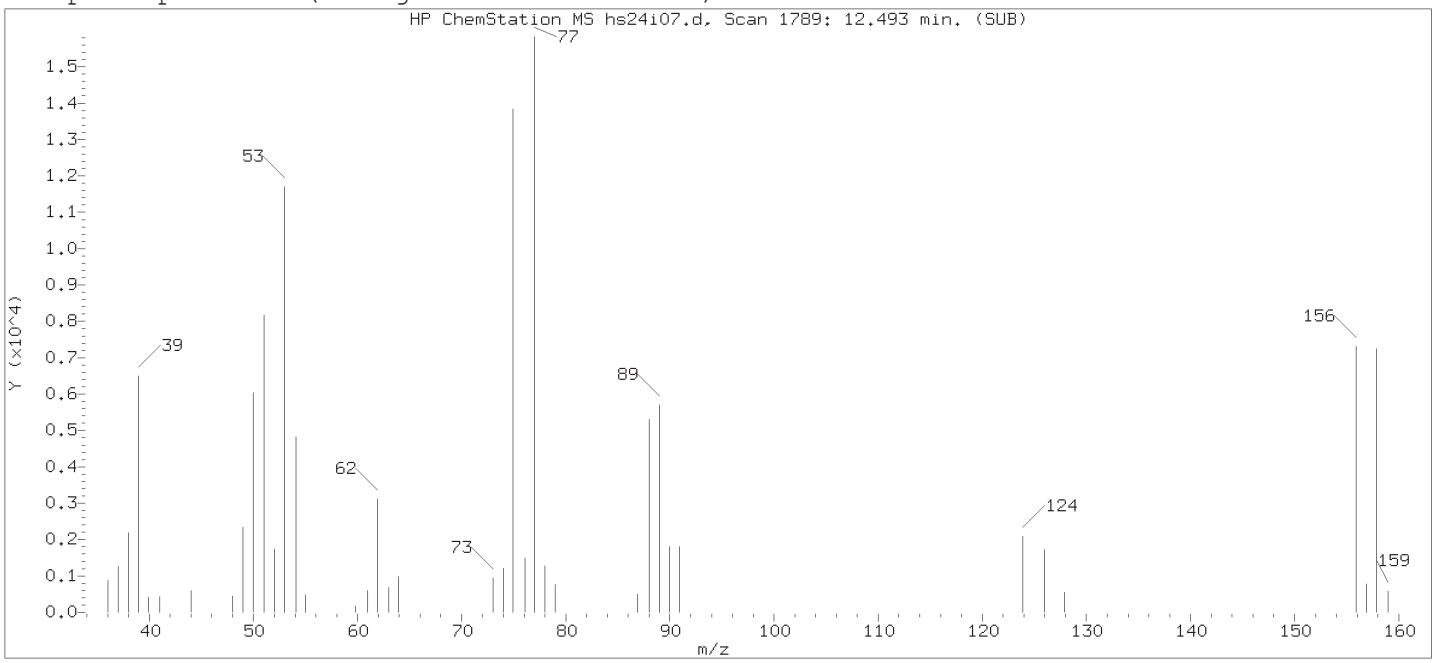
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1789
Retention Time (minutes): 12.493
Quant Ion : 53.00
Area (flag) : 17855M
On-Column Amount (ng) : 1.7212
Integration start scan : 1783 Integration stop scan: 1795
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

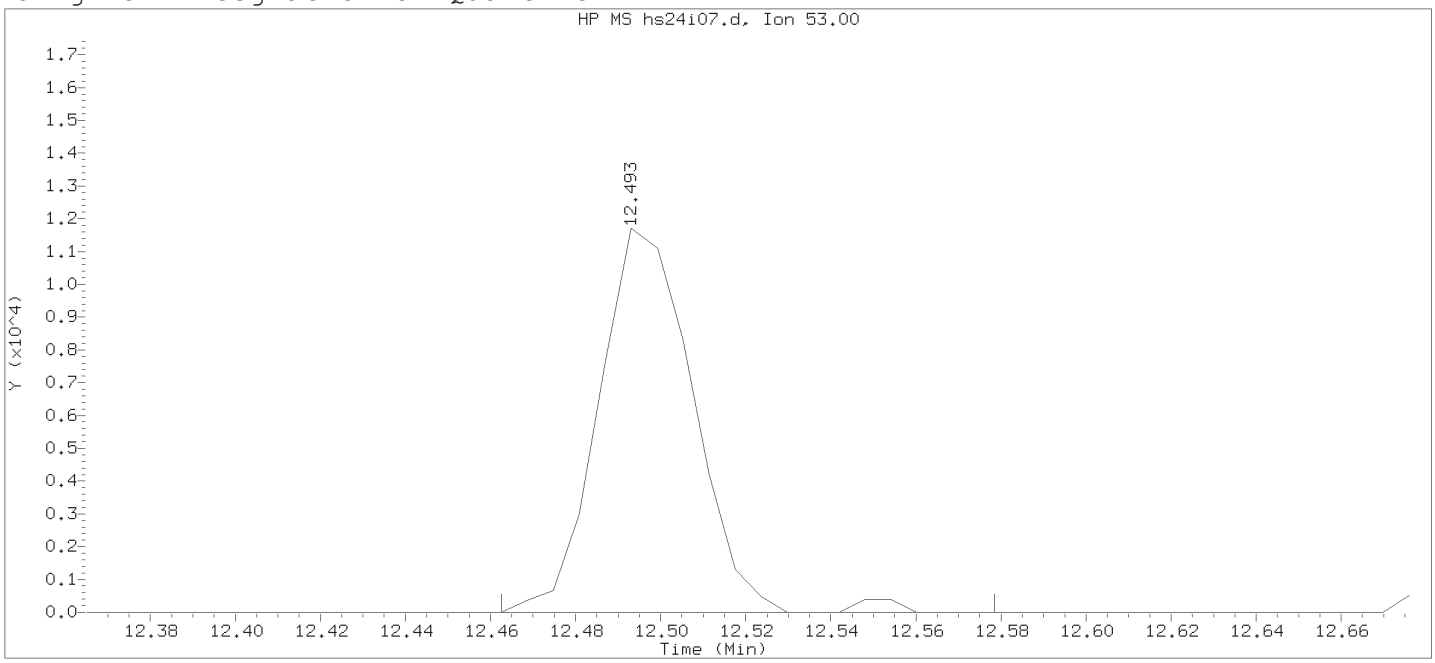
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

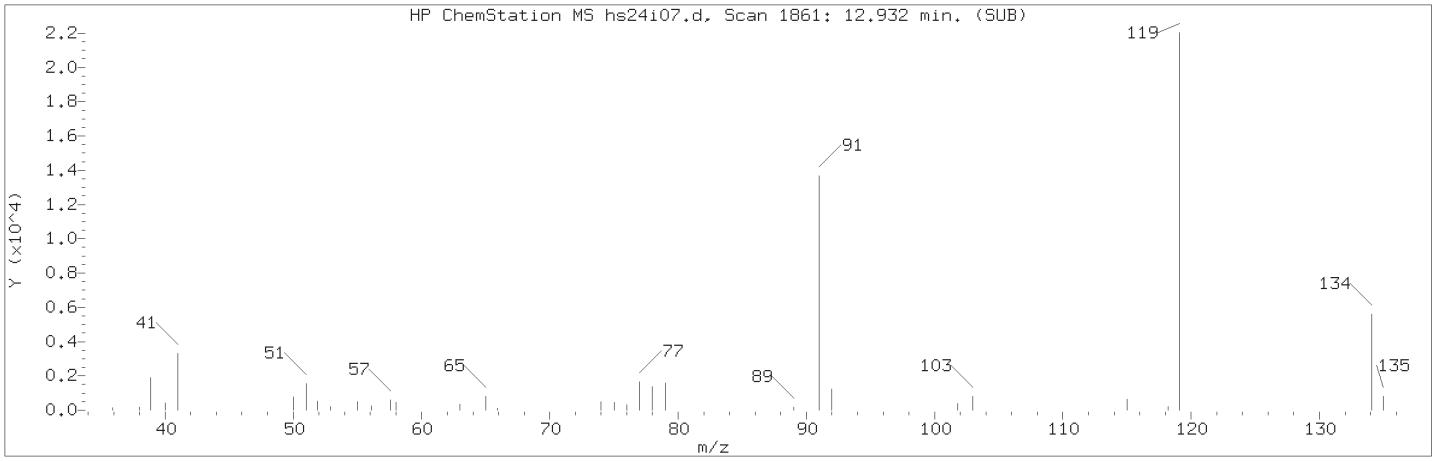
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

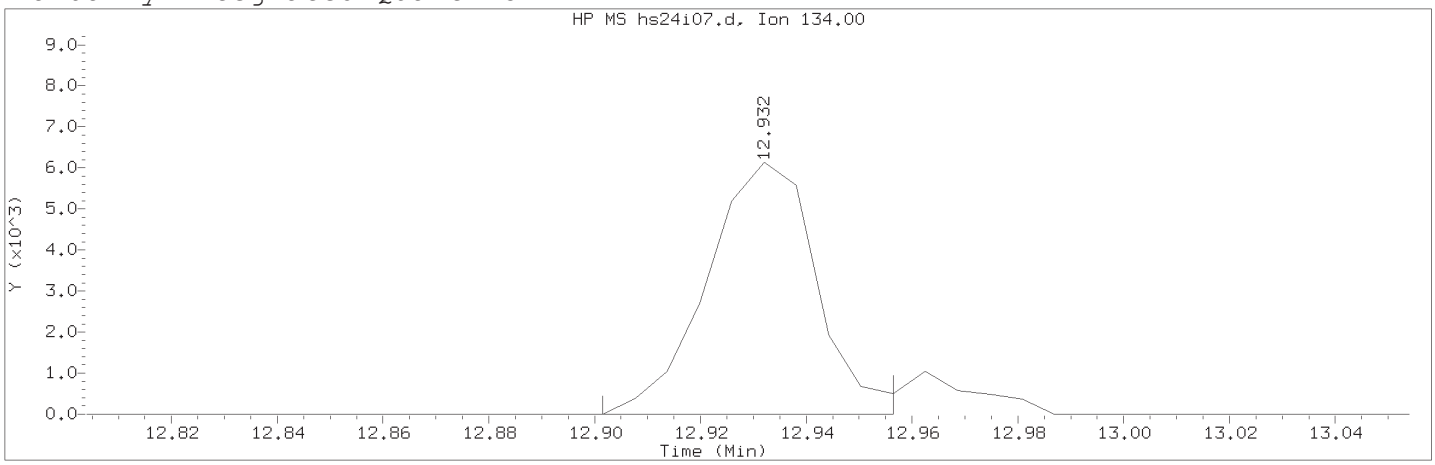
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1789
Retention Time (minutes): 12.493
Quant Ion : 53.00
Area : 18137
On-column Amount (ng) : 1.7018
Integration start scan : 1783 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

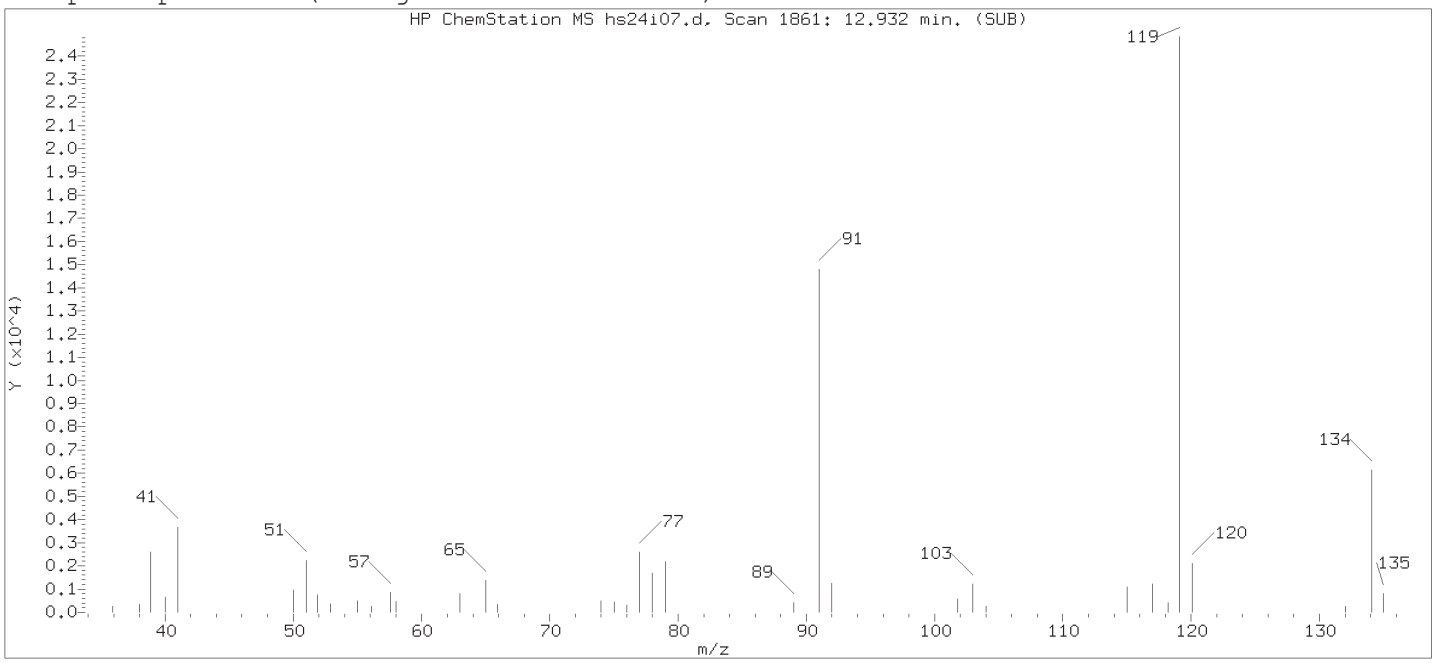
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 8830M
On-Column Amount (ng) : 0.1614
Integration start scan : 1855 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

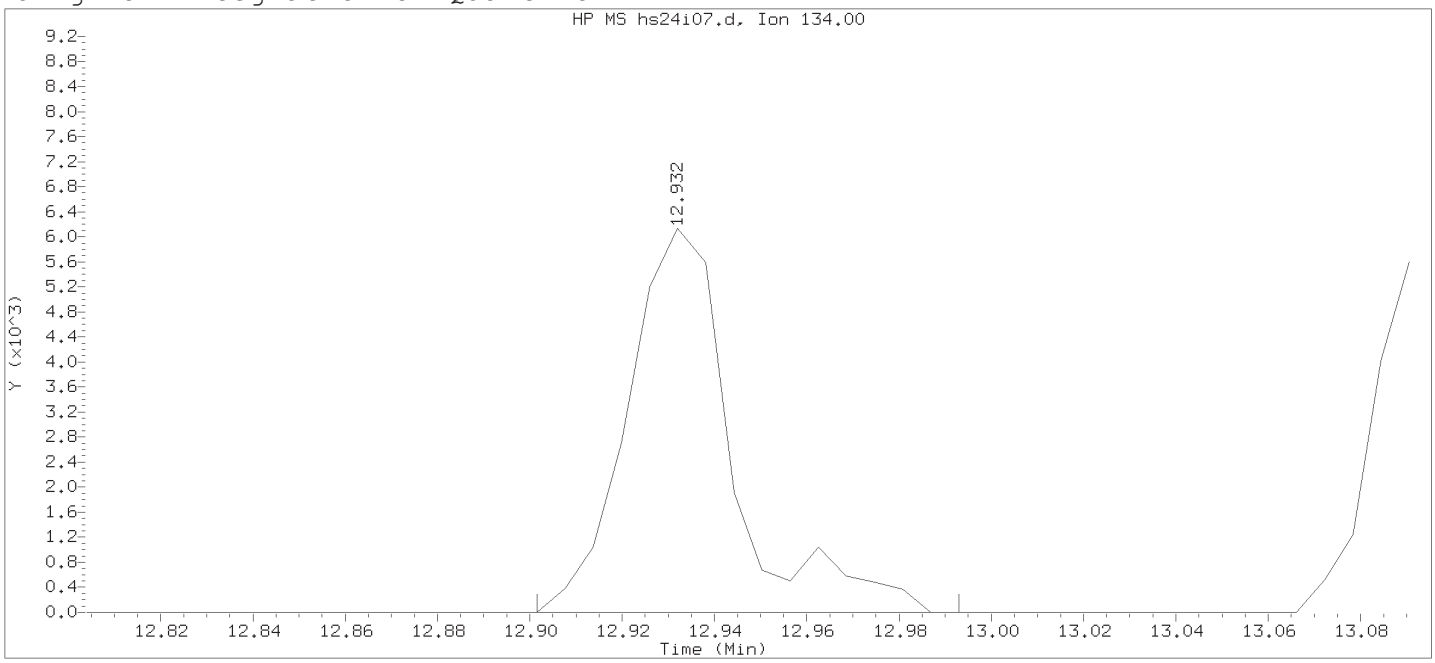
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

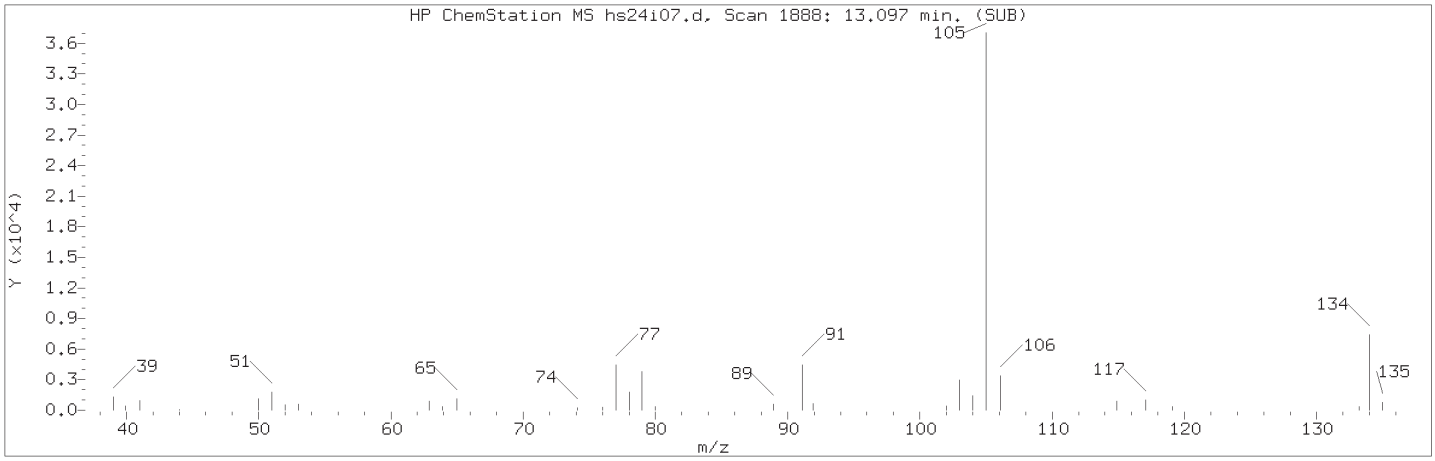
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

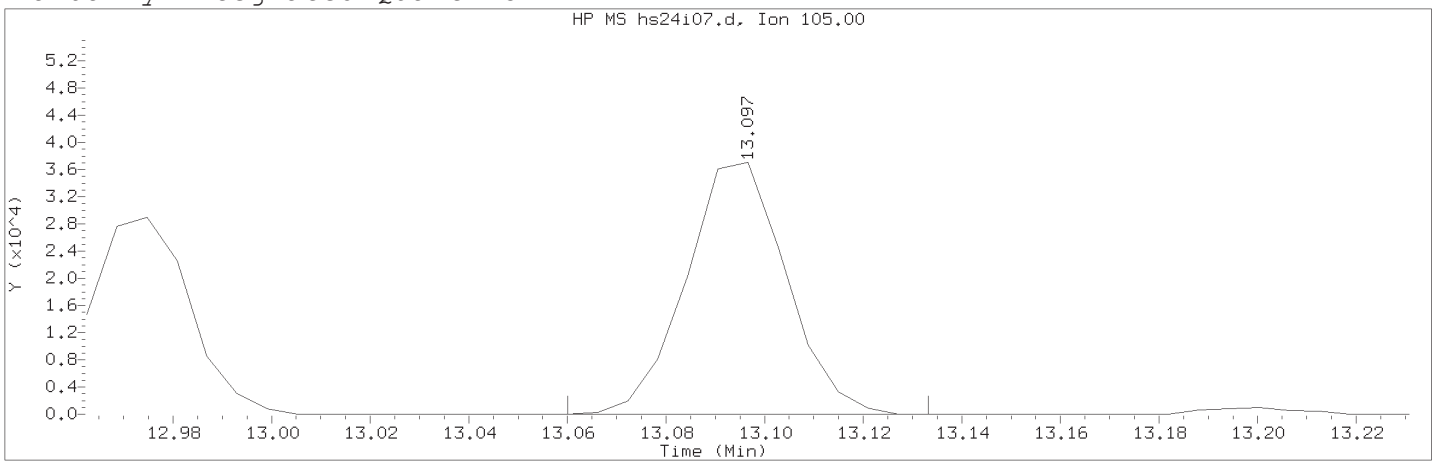
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 9731
On-column Amount (ng) : 0.1717
Integration start scan : 1855 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Page 1164

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:26 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

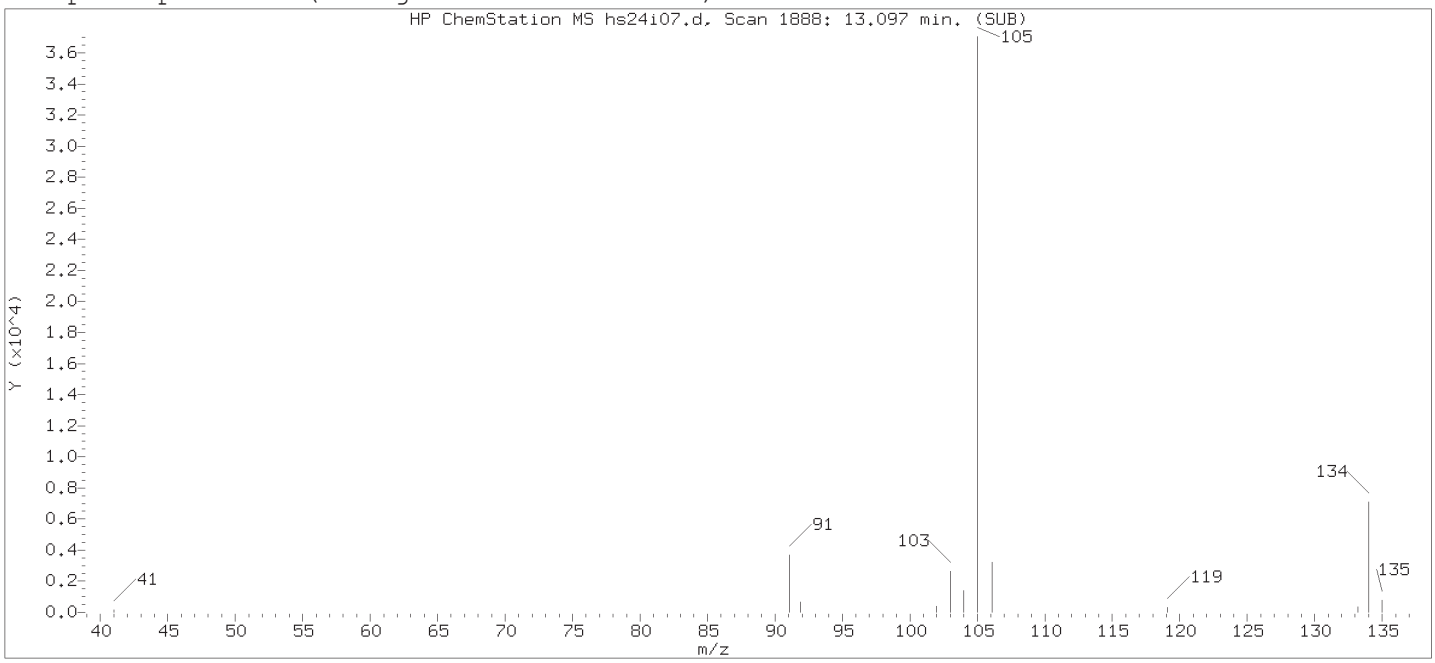
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1888
Retention Time (minutes): 13.097
Quant Ion : 105.00
Area (flag) : 52250M
On-Column Amount (ng) : 0.1603
Integration start scan : 1881 Integration stop scan: 1893
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

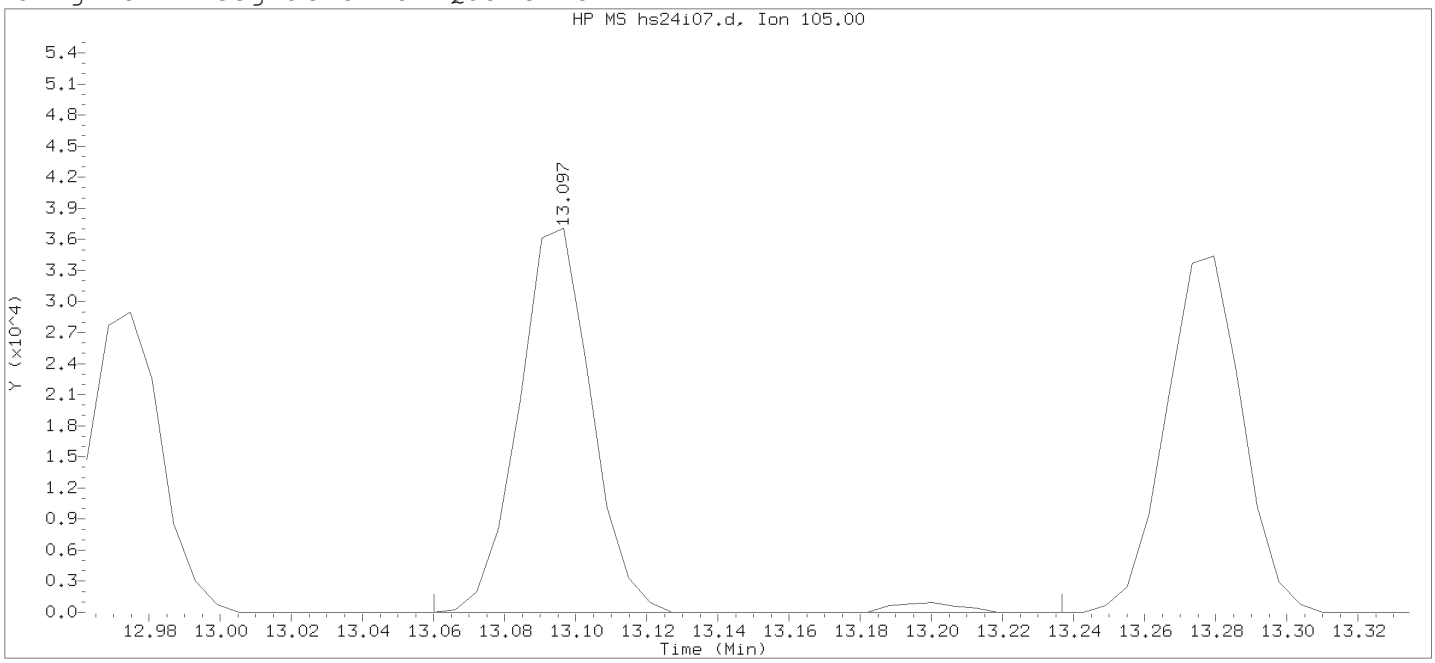
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



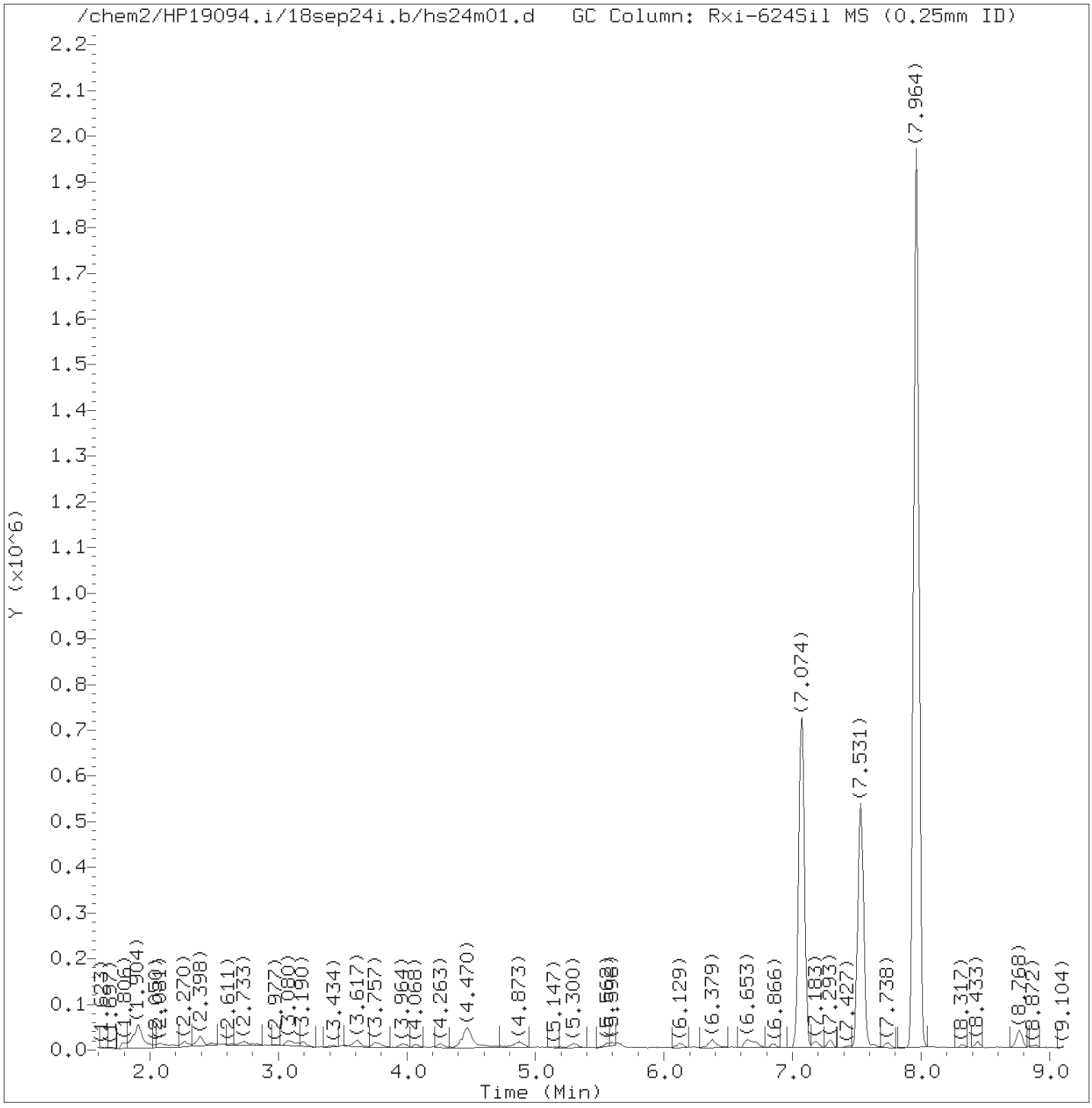
Data File: /chem2/HP19094.i/18sep24i.b/hs24i07.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:37 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 06:53
Date, time and analyst ID of latest file update: 25-Sep-2018 06:53 jkh09052

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1888
Retention Time (minutes): 13.097
Quant Ion : 105.00
Area : 53494
On-column Amount (ng) : 0.1637
Integration start scan : 1881 Integration stop scan: 1910
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.



Total Ion Chromatogram (TIC)

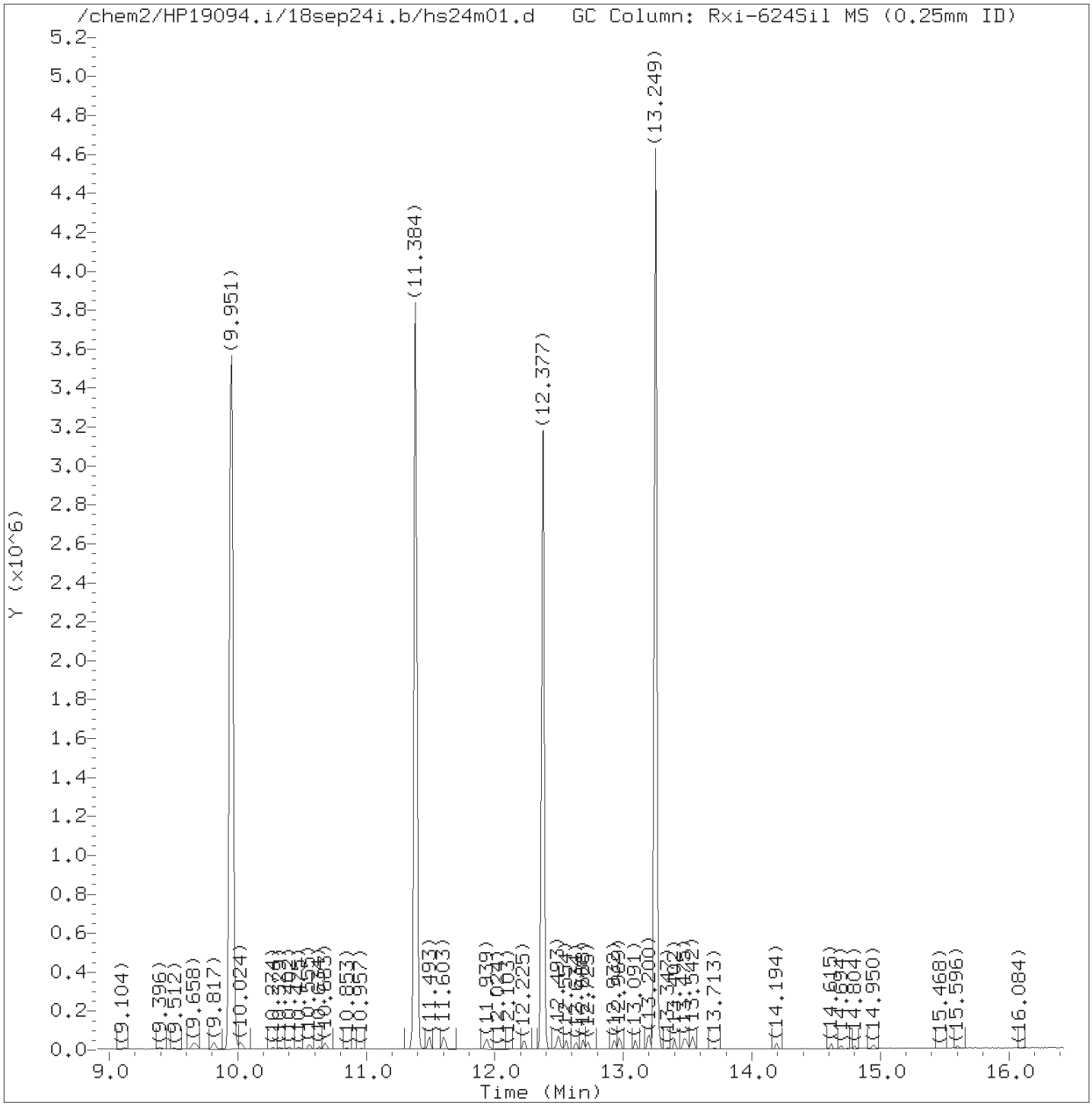
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.062	85	9887	0.091
2) Chloromethane	(2)	2.264	50	11027	0.104
5) Vinyl Chloride	(2)	2.392	62	9705	0.097
6) 1,3-Butadiene	(2)	2.392	39	12302M	0.109
7) Bromomethane	(2)	2.727	94	7190	0.093
8) Chloroethane	(2)	2.837	64	6058	0.100
9) Dichlorofluoromethane	(2)	3.080	67	14390	0.100
10) Trichlorofluoromethane	(2)	3.129	101	12048	0.096
11) Ethyl ether	(2)	3.422	59	3966	0.093
12) Freon 123a	(2)	3.513	67	7745	0.097
13) Acrolein	(1)	3.611	56	30281	4.838
15) 1,1-Dichloroethene	(2)	3.745	96	4892	0.090
16) Freon 113	(2)	3.769	101	5407	0.084
14) Acetone	(1)	3.775	43	9288	1.105
17) Methyl Iodide	(2)	3.964	142	10653	0.094
18) Carbon Disulfide	(2)	4.068	76	16735M	0.096
21) Methyl Acetate	(1)	4.227	43	2044	0.087
22) Allyl Chloride	(2)	4.263	41	9829	0.095
23) Methylene Chloride	(2)	4.452	84	6908	0.112
26)*t-Butyl Alcohol-d10	(1)	4.470	65	141036	50.000
28) t-Butyl Alcohol	(1)	4.605	59	4176	1.735
29) Acrylonitrile	(1)	4.824	53	4124	0.380
30) Methyl Tertiary Butyl Ether	(2)	4.855	73	10117	0.090
31) trans-1,2-Dichloroethene	(2)	4.879	96	5521	0.090
32) n-Hexane	(2)	5.293	57	8152	0.083
33) 1,1-Dichloroethane	(2)	5.556	63	11186	0.095
34) di-Isopropyl Ether	(2)	5.598	45	19224	0.092
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	9694	0.092
40) 1,2-Dichloroethene (Total)	(2)		96	11674	0.180
37) Ethyl t-butyl ether	(2)	6.123	59	14814	0.090
38) 2-Butanone	(1)	6.342	43	12103	0.880
41) 2,2-Dichloropropane	(2)	6.379	77	6559	0.078
39) cis-1,2-Dichloroethene	(2)	6.379	96	6153	0.090
42) Propionitrile	(1)	6.434	54	6324	1.693
45) Methacrylonitrile	(1)	6.659	67	10750	0.798
47) Bromochloromethane	(2)	6.708	128	2451	0.085
48) Tetrahydrofuran	(1)	6.714	71	2784	0.761
49) Chloroform	(2)	6.866	83	10073	0.092

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.068	113	702027	10.009
51) 1,1,1-Trichloroethane	(2)	7.092	97	7736	0.083
52) Cyclohexane	(2)	7.177	56	9614	0.079
54) Carbon Tetrachloride	(2)	7.293	117	6960	0.087
55) 1,1-Dichloropropene	(2)	7.299	75	8159	0.092
56) Isobutyl Alcohol	(1)	7.452	41	3763	4.040
57)$1,2-Dichloroethane-d4	(2)	7.531	102	123366	10.089
58) Benzene	(2)	7.555	78	24986	0.096
59) 1,2-Dichloroethane	(2)	7.628	62	8132	0.135
60) t-Amyl methyl ether	(2)	7.750	73	12517	0.091
63)*Fluorobenzene	(2)	7.964	96	2783023	10.000
62) n-Heptane	(2)	7.976	43	9564	0.095
65) n-Butanol	(1)	8.323	56	6085	7.733
67) Trichloroethene	(2)	8.439	95	6307	0.094
69) Methylcyclohexane	(2)	8.756	83	11396	0.090
70) 1,2-Dichloropropane	(2)	8.775	63	5902	0.093
71) Methyl Methacrylate	(1)	8.848	69	1661M	0.067
72) 1,4-Dioxane	(1)	8.872	88	538	2.839
73) Dibromomethane	(2)	8.890	93	2312	0.088
74) Bromodichloromethane	(2)	9.128	83	6593	0.093
76) 2-Nitropropane	(1)	9.396	41	5792	0.820
80) cis-1,3-Dichloropropene	(2)	9.652	75	7111	0.086
81) 4-Methyl-2-Pentanone	(1)	9.817	43	27891	0.815
82)$Toluene-d8	(3)	9.951	98	2808841	10.086
83) Toluene	(3)	10.024	92	14540	0.091
85) 1,3-Dichloropropene (total)	(3)		75	11931	0.164
84) trans-1,3-Dichloropropene	(3)	10.268	75	4820	0.078
86) Ethyl Methacrylate	(3)	10.323	69	4465	0.084
91) 2-Hexanone	(1)	10.329	43	19024A	0.817
88) 1,1,2-Trichloroethane	(3)	10.482	97	4082	0.110
89) Tetrachloroethene	(3)	10.555	166	7159	0.099
90) 1,3-Dichloropropane	(3)	10.640	76	6776	0.103
93) Dibromochloromethane	(3)	10.841	129	3771	0.085
95) 1,2-Dibromoethane	(3)	10.957	107	2957	0.085
96) 1-Chlorohexane	(3)	11.384	91	11869M	0.124
97)*Chlorobenzene-d5	(3)	11.384	117	2163745	10.000
98) Chlorobenzene	(3)	11.408	112	17130	0.101
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	5306	0.094

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

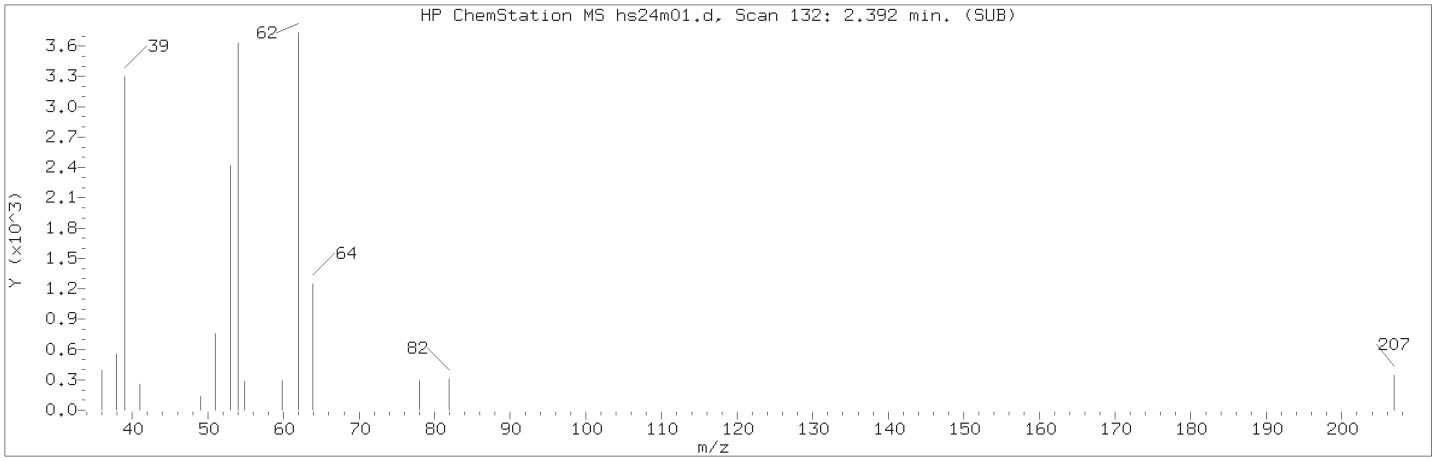
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
100) Ethylbenzene	(3)	11.493	91	27666	0.088
101) m+p-Xylene	(3)	11.603	106	19688	0.169
105) Xylene (Total)	(3)		106	29552	0.258
104) o-Xylene	(3)	11.926	106	9864	0.089
106) Styrene	(3)	11.945	104	14567	0.082
107) Bromoform	(3)	12.103	173	1566	0.064
108) Isopropylbenzene	(3)	12.231	105	26026	0.086
111)$4-Bromofluorobenzene	(3)	12.371	95	1017301	10.033
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	3878	0.086
114) Bromobenzene	(4)	12.487	156	6201	0.091
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	8928	0.833
116) 1,2,3-Trichloropropane	(4)	12.524	110	1112	0.095
117) n-Propylbenzene	(4)	12.554	91	32379	0.087
119) 2-Chlorotoluene	(4)	12.634	126	6163	0.085
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	20930	0.083
122) 4-Chlorotoluene	(4)	12.725	126	6027	0.083
125) tert-Butylbenzene	(4)	12.932	134	4681M	0.085
126) Pentachloroethane	(4)	12.963	167	3547	0.083
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	22024	0.086
128) sec-Butylbenzene	(4)	13.091	105	27687M	0.085
131) 1,3-Dichlorobenzene	(4)	13.200	146	12534	0.092
132) p-Isopropyltoluene	(4)	13.200	119	22266	0.082
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	1136004	10.000
134) 1,4-Dichlorobenzene	(4)	13.268	146	13175	0.099
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	11819M	0.100
136) Benzyl Chloride	(4)	13.341	126	866	0.053
138) n-Butylbenzene	(4)	13.493	92	11478	0.085
139) 1,2-Dichlorobenzene	(4)	13.530	146	10954	0.091
143) 1,2-Dibromo-3-chloropropane	(1)	14.066	155	310M	0.053
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	9149	0.090
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	7379	0.089
146) Hexachlorobutadiene	(4)	14.694	225	2902	0.093
147) Naphthalene	(4)	14.804	128	10099	0.077
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	6064	0.089

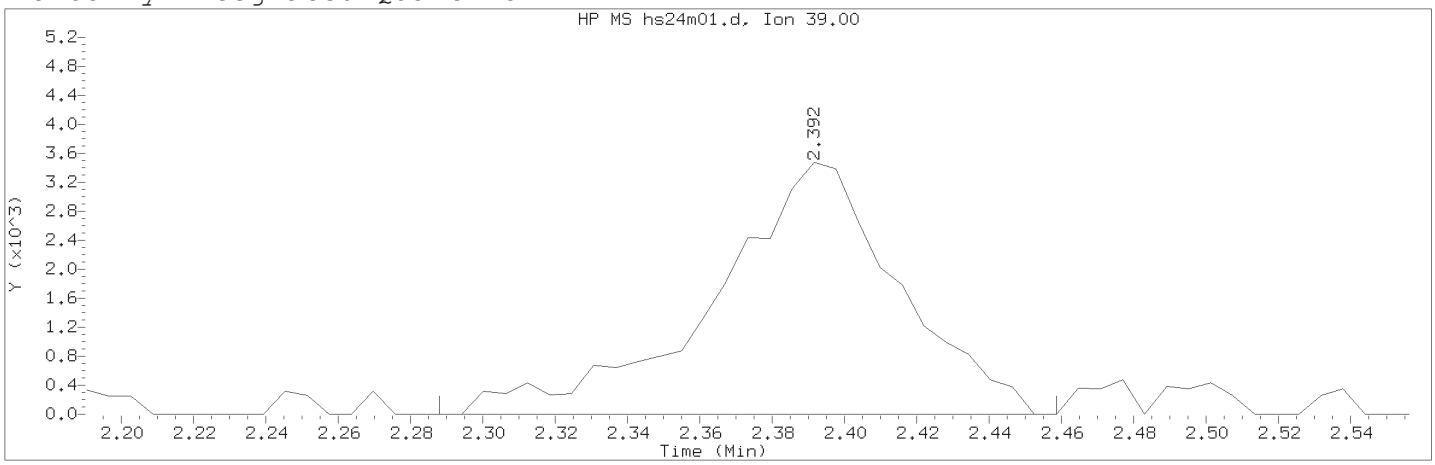
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

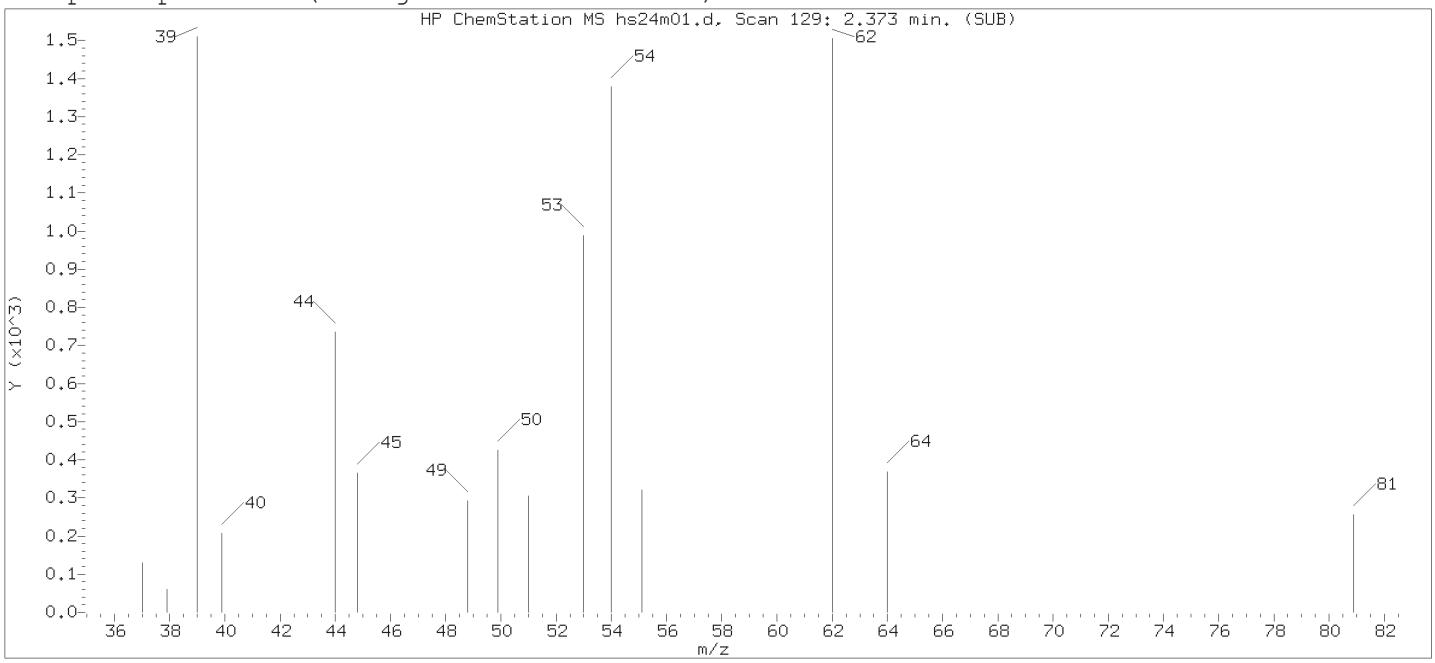
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.392
Quant Ion : 39.00
Area (flag) : 12302M
On-Column Amount (ng) : 0.1089
Integration start scan : 114 Integration stop scan: 142
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

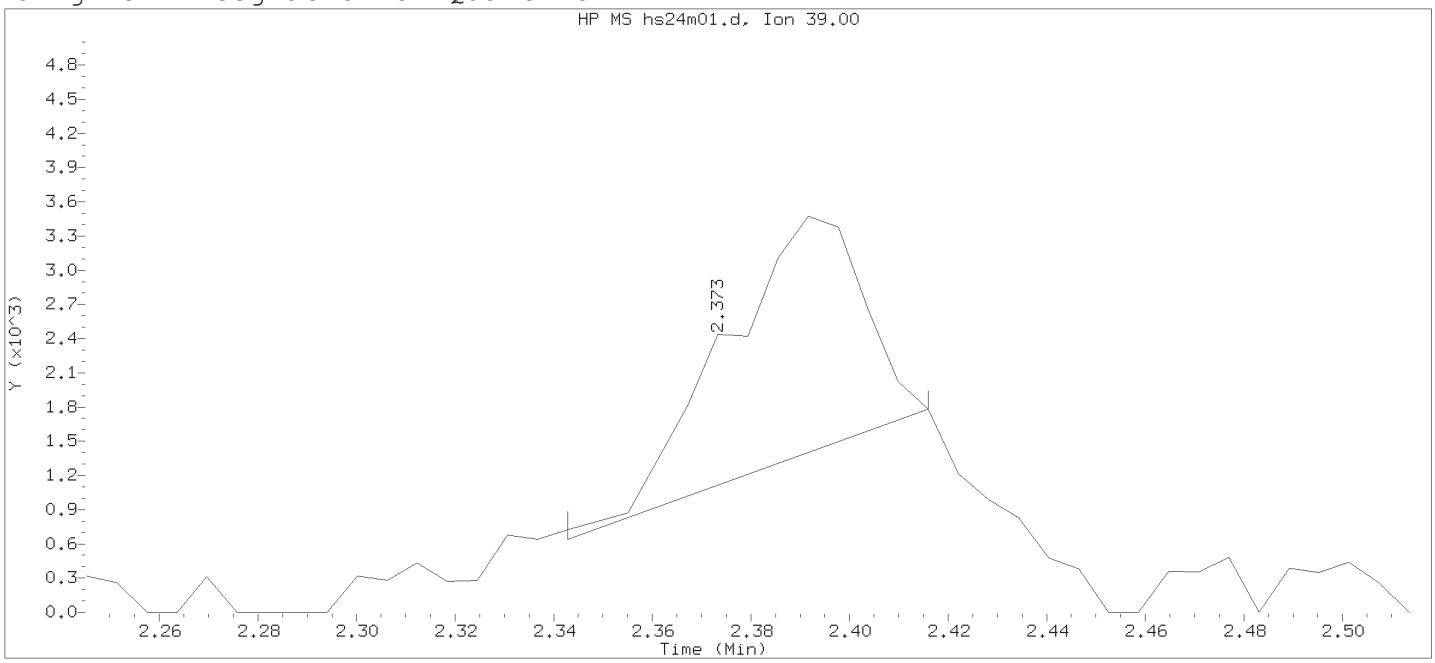
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

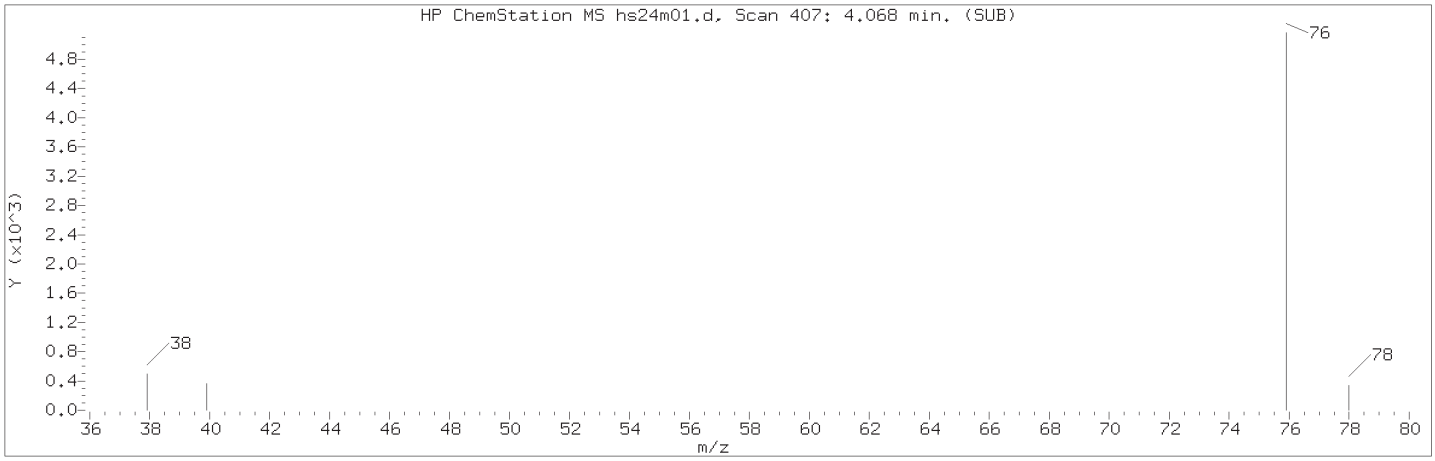
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

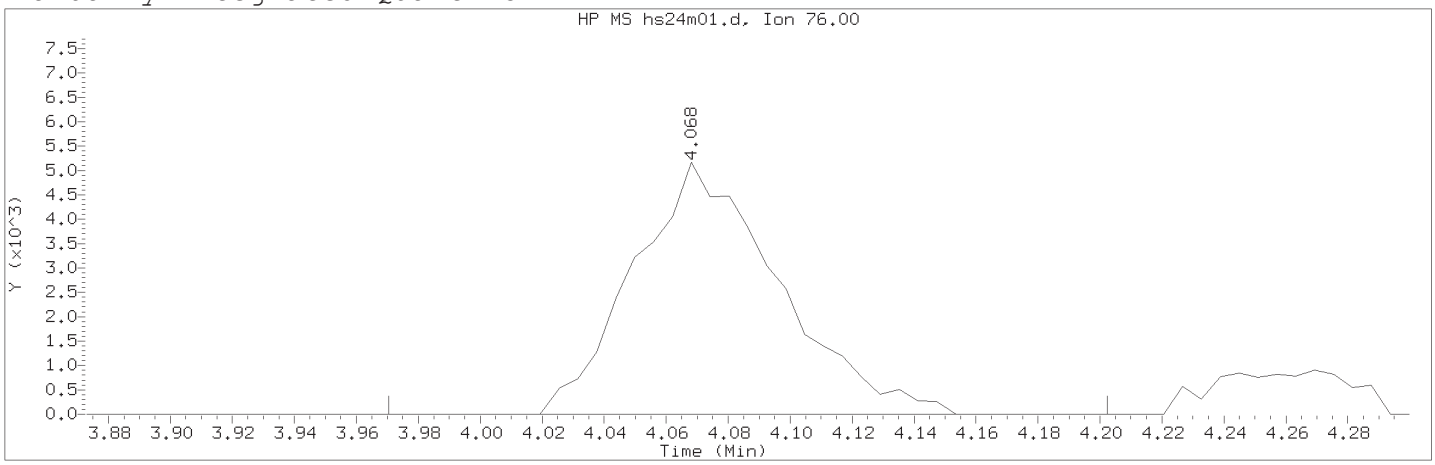
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 129
Retention Time (minutes): 2.373
Quant Ion : 39.00
Area : 4048
On-column Amount (ng) : 0.0438
Integration start scan : 123 Integration stop scan: 135
Y at integration start : 640 Y at integration end: 1780

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

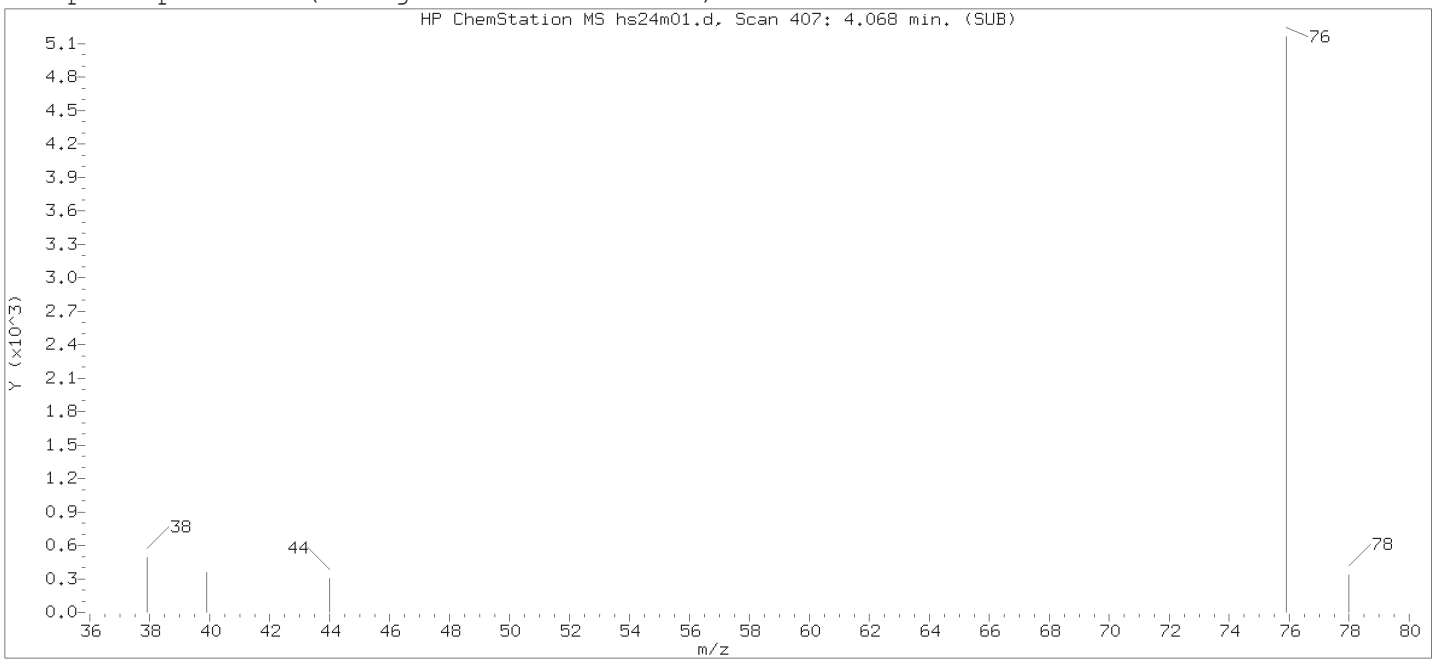
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 76.00
Area (flag) : 16735M
On-Column Amount (ng) : 0.0964
Integration start scan : 390 Integration stop scan: 428
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

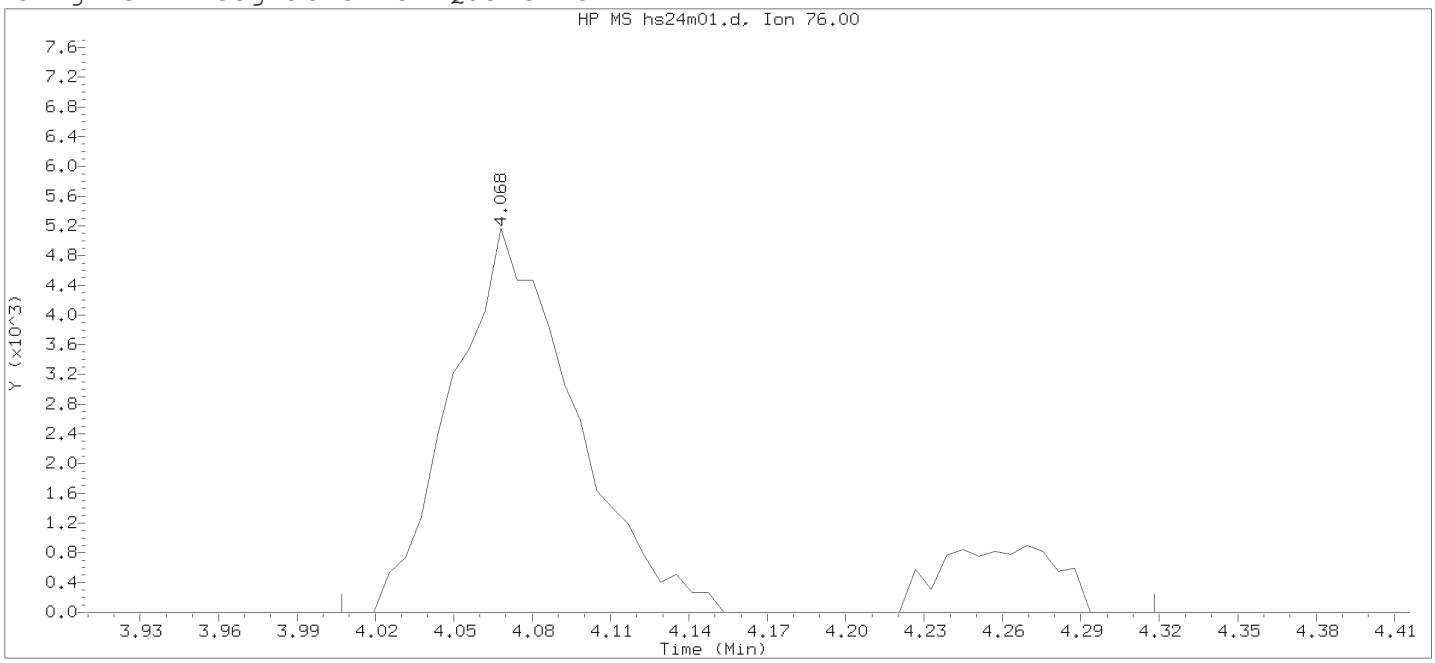
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

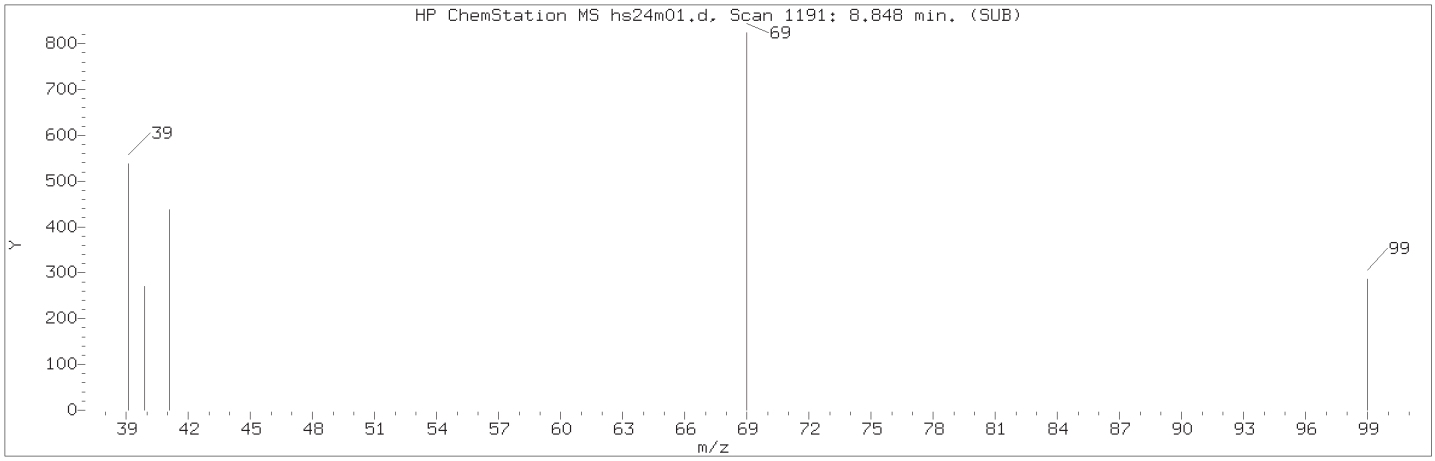
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

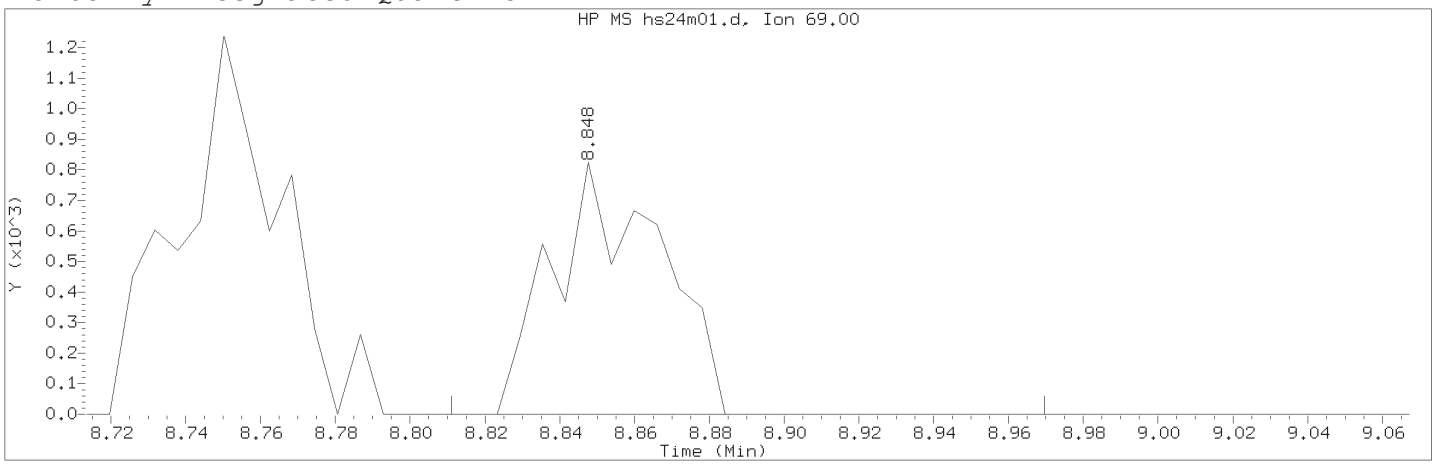
Compound Number : 18
Compound Name : Carbon Disulfide
Scan Number : 407
Retention Time (minutes): 4.068
Quant Ion : 76.00
Area : 19554
On-column Amount (ng) : 0.1126
Integration start scan : 396 Integration stop scan: 447
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

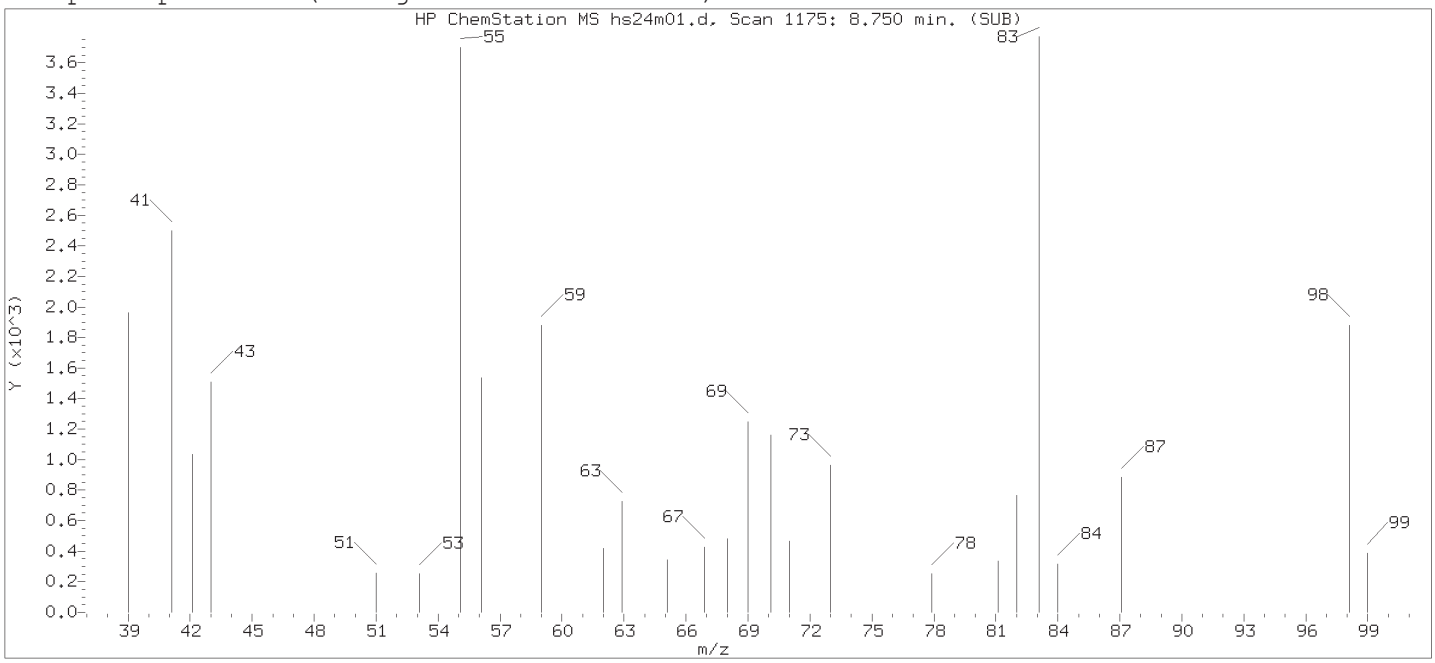
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1191
Retention Time (minutes): 8.848
Quant Ion : 69.00
Area (flag) : 1661M
On-Column Amount (ng) : 0.0666
Integration start scan : 1184 Integration stop scan: 1210
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

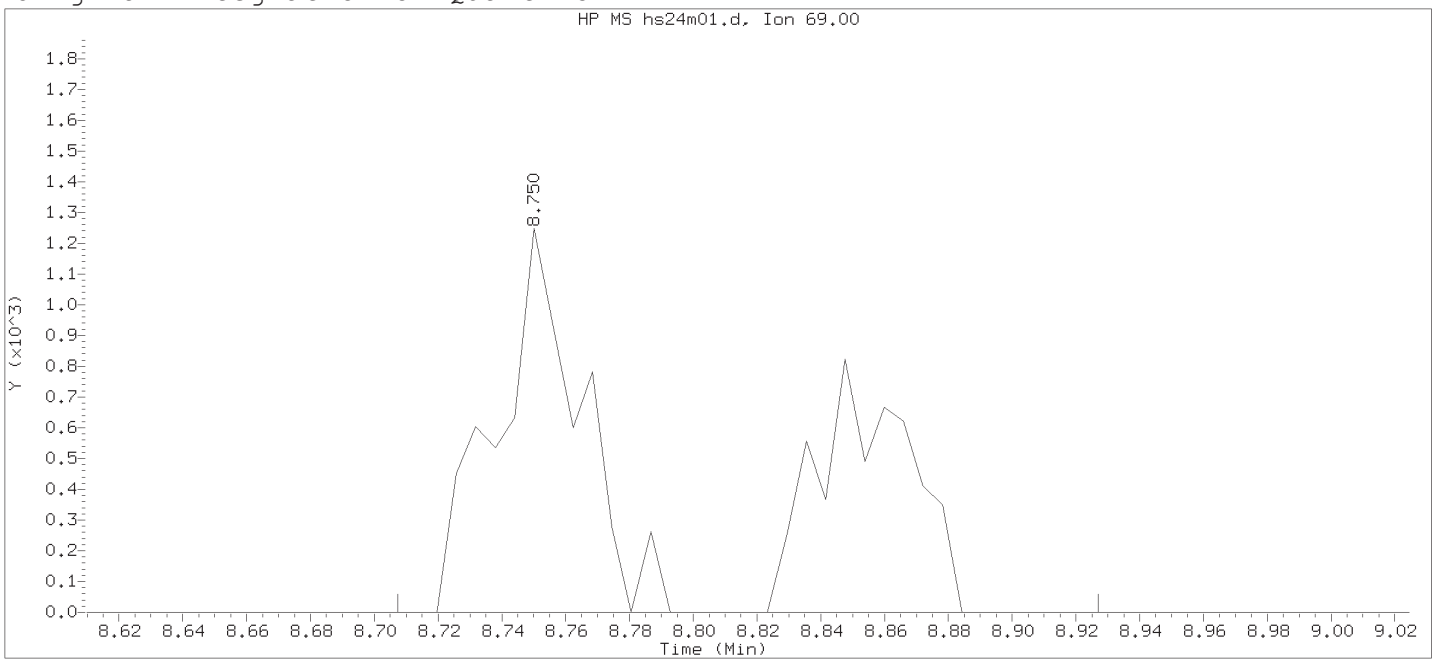
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

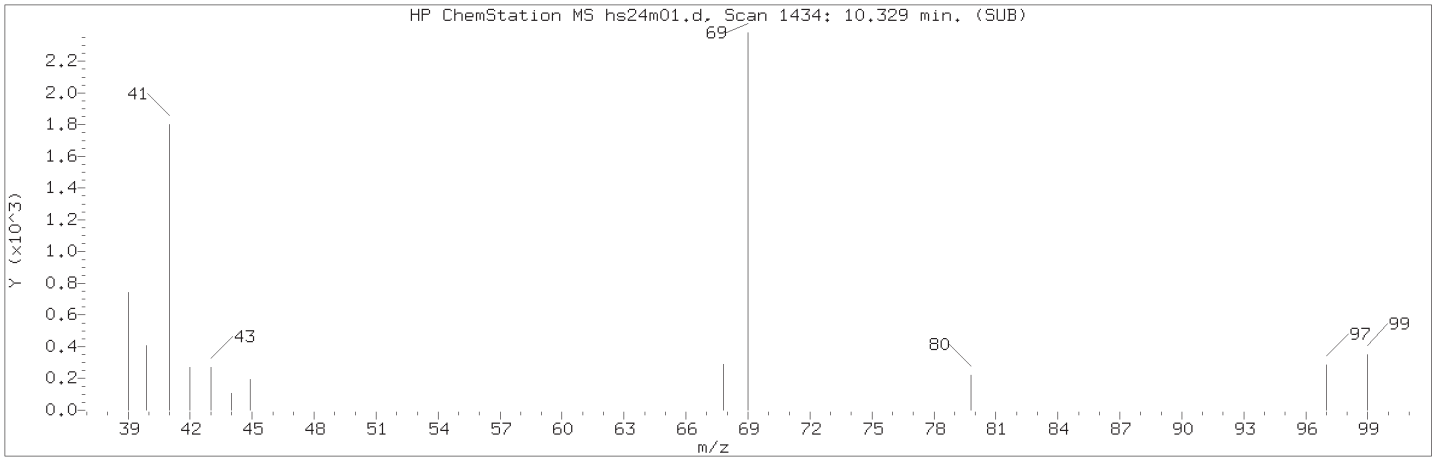
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

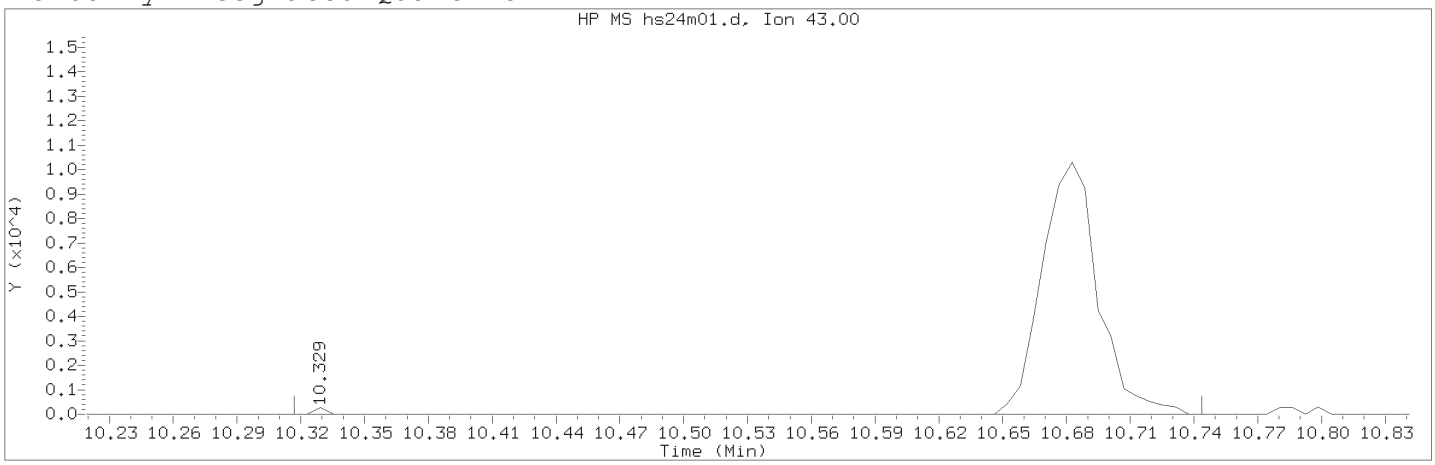
Compound Number	: 71		
Compound Name	: Methyl Methacrylate		
Scan Number	: 1175		
Retention Time (minutes)	: 8.750		
Quant Ion	: 69.00		
Area	: 3973		
On-column Amount (ng)	: 0.1576		
Integration start scan	: 1167	Integration stop scan:	1203
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used: 1172

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

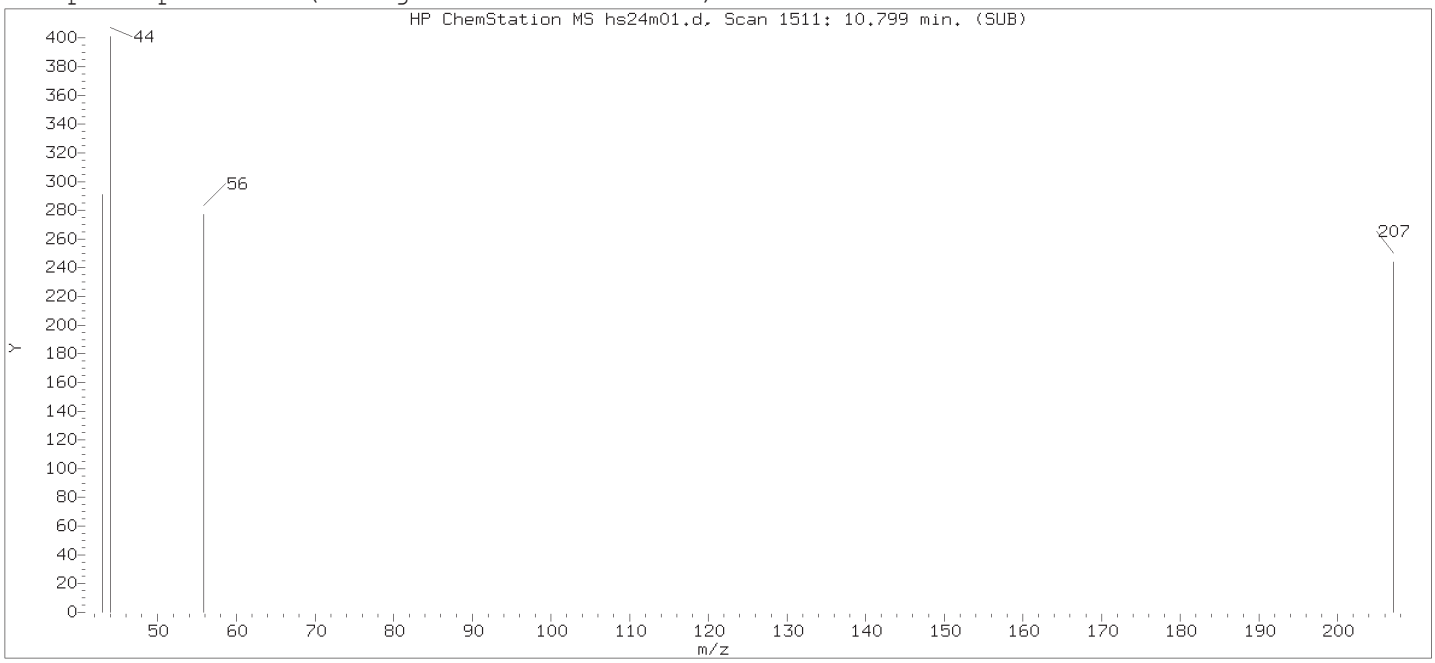
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1434
Retention Time (minutes): 10.329
Quant Ion : 43.00
Area (flag) : 19024A
On-Column Amount (ng) : 0.8165
Integration start scan : 1431 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

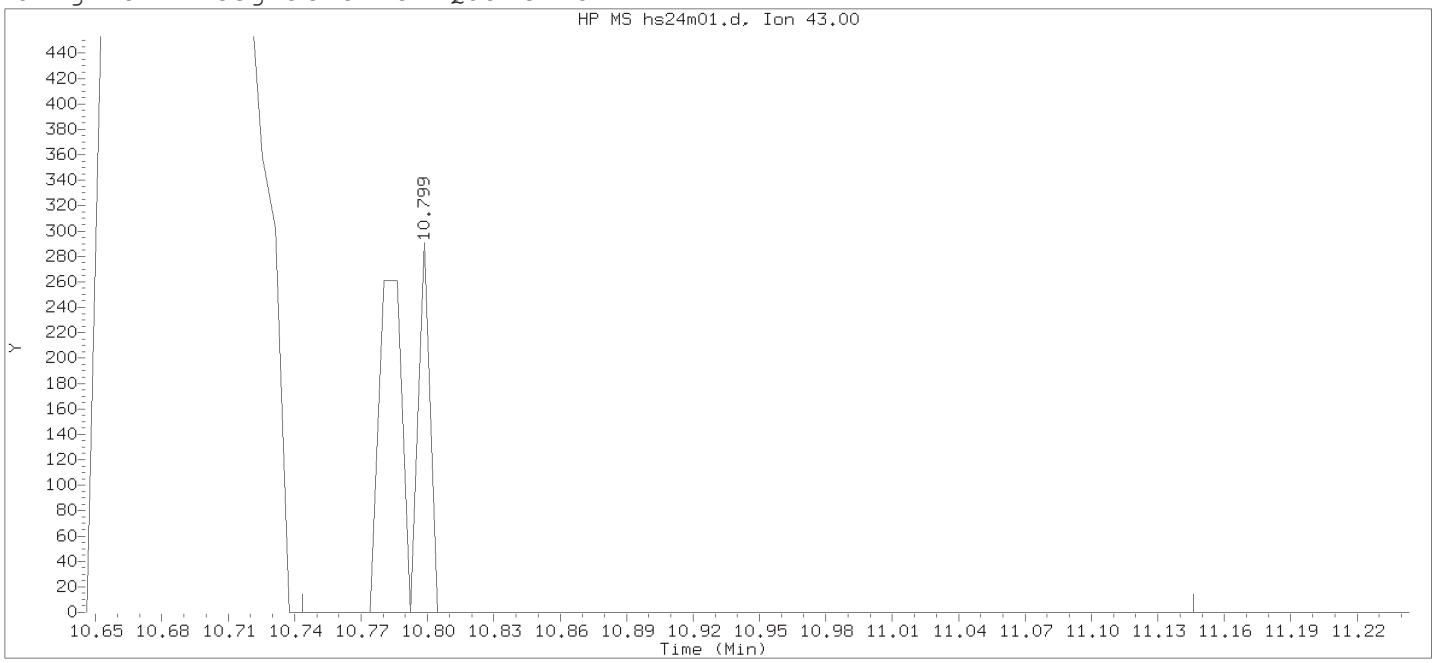
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

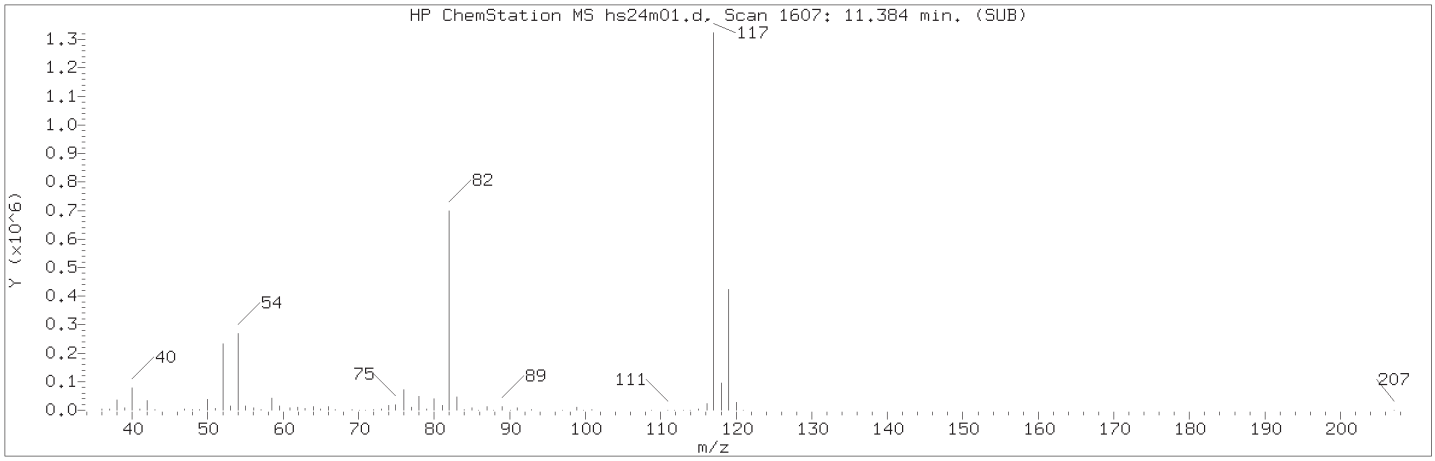
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

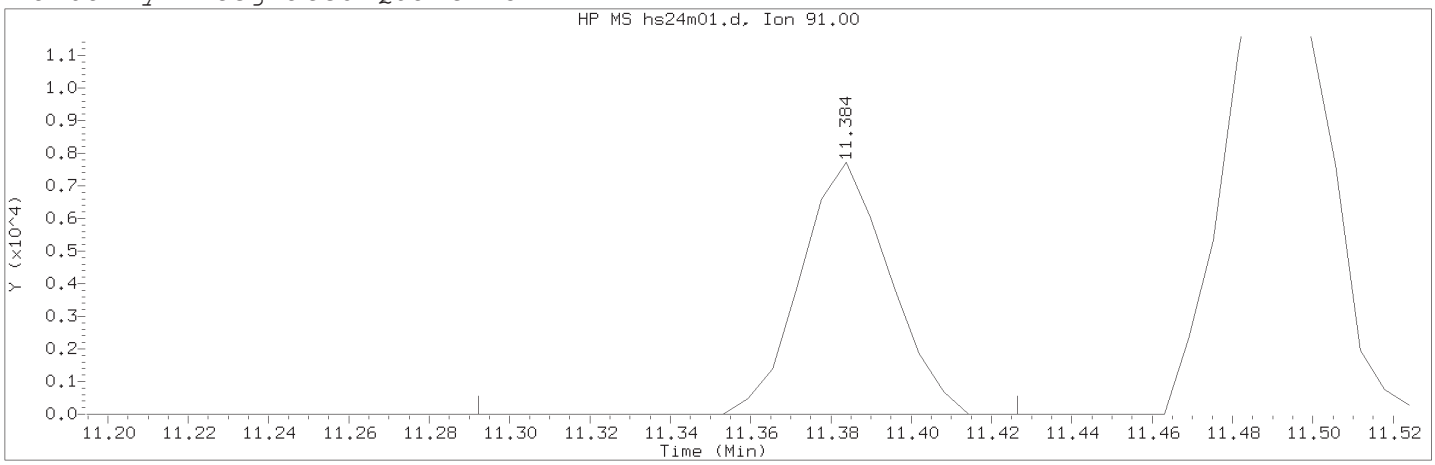
Compound Number	: 91		
Compound Name	: 2-Hexanone		
Scan Number	: 1511		
Retention Time (minutes)	: 10.799		
Quant Ion	: 43.00		
Area	: 297		
On-column Amount (ng)	: 0.0128		
Integration start scan	: 1501	Integration stop scan:	1567
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 21 CFR Part 11

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

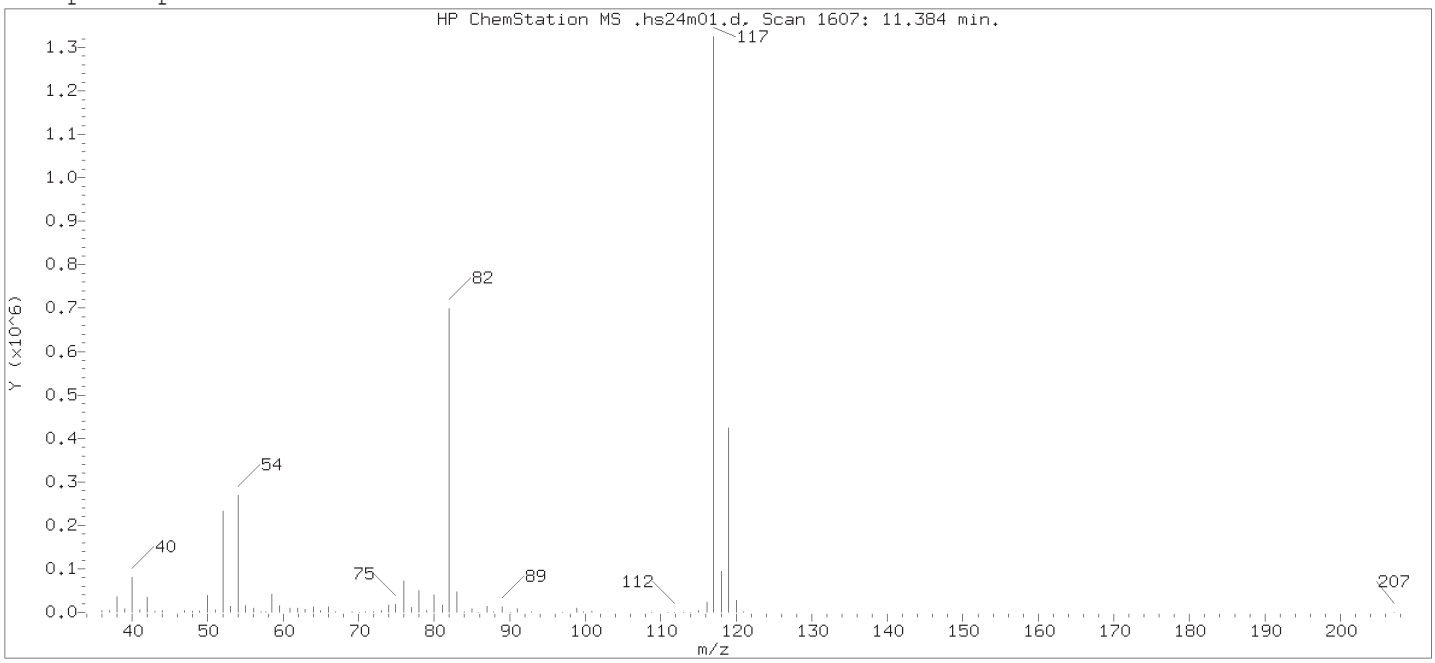
Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1607
Retention Time (minutes): 11.384
Quant Ion : 91.00
Area (flag) : 11869M
On-Column Amount (ng) : 0.1239
Integration start scan : 1591 Integration stop scan: 1613
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

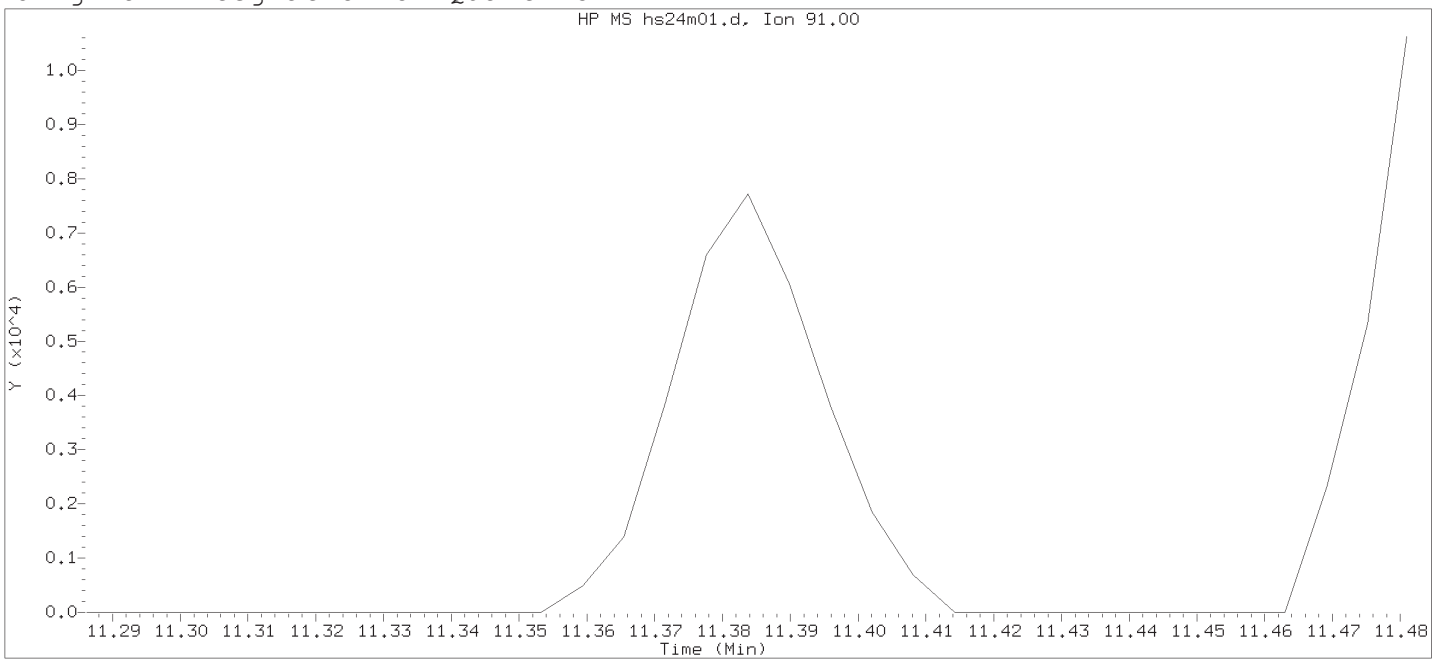
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

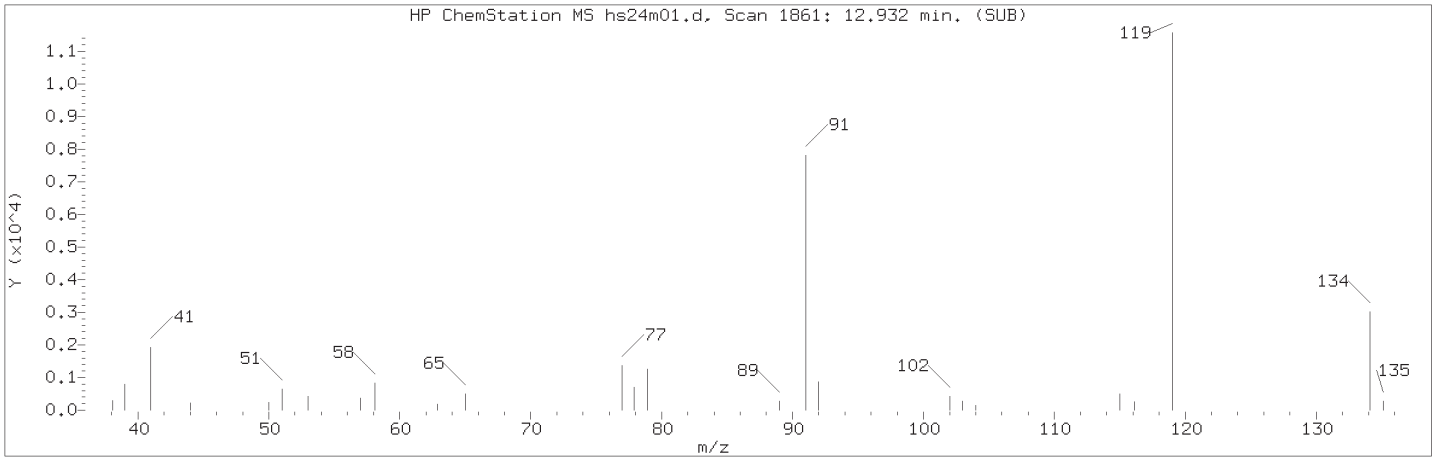
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

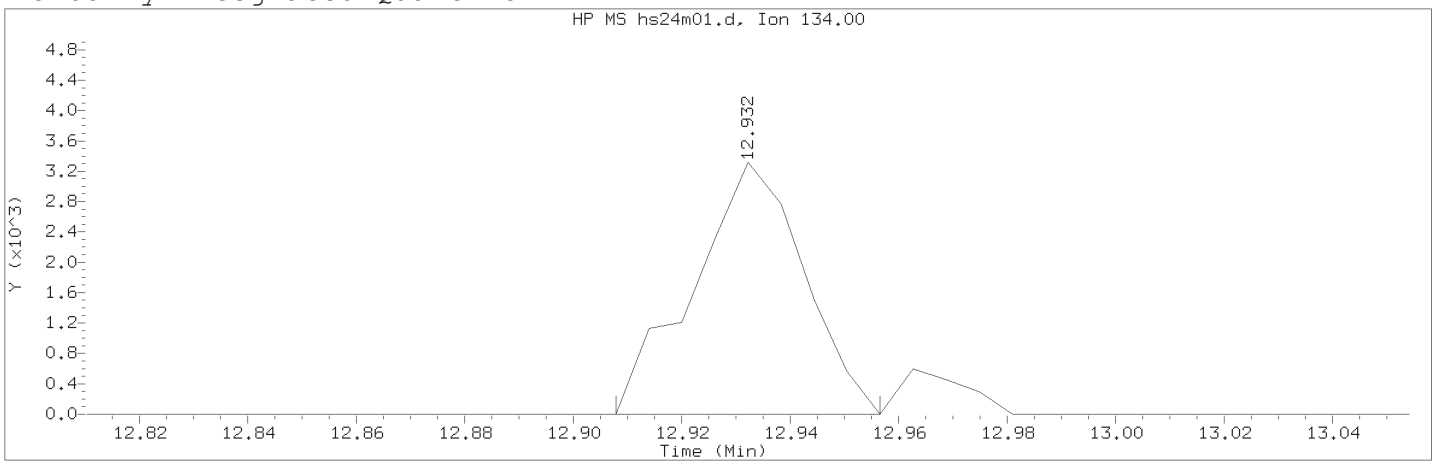
Compound Number : 96
Compound Name : 1-Chlorohexane
Expected RT (minutes) : 11.384
Quant Ion : 91.00

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

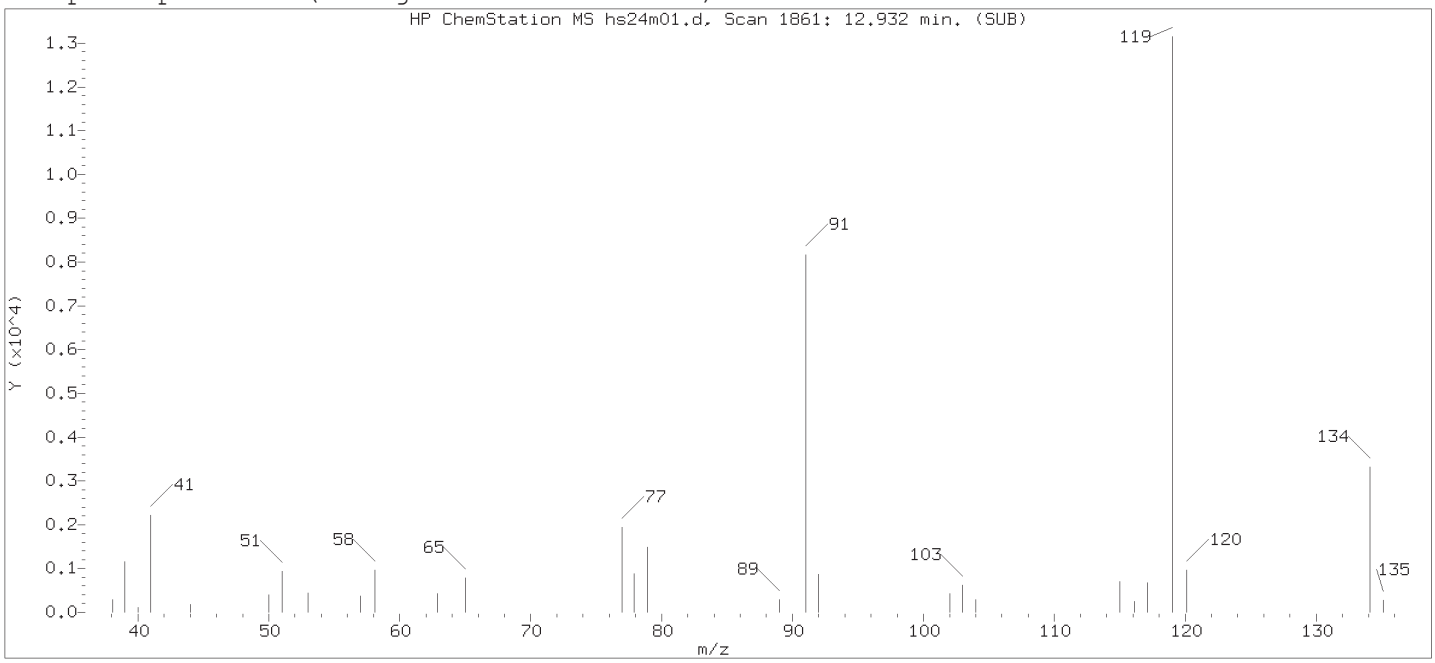
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 4681M
On-Column Amount (ng) : 0.0853
Integration start scan : 1856 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

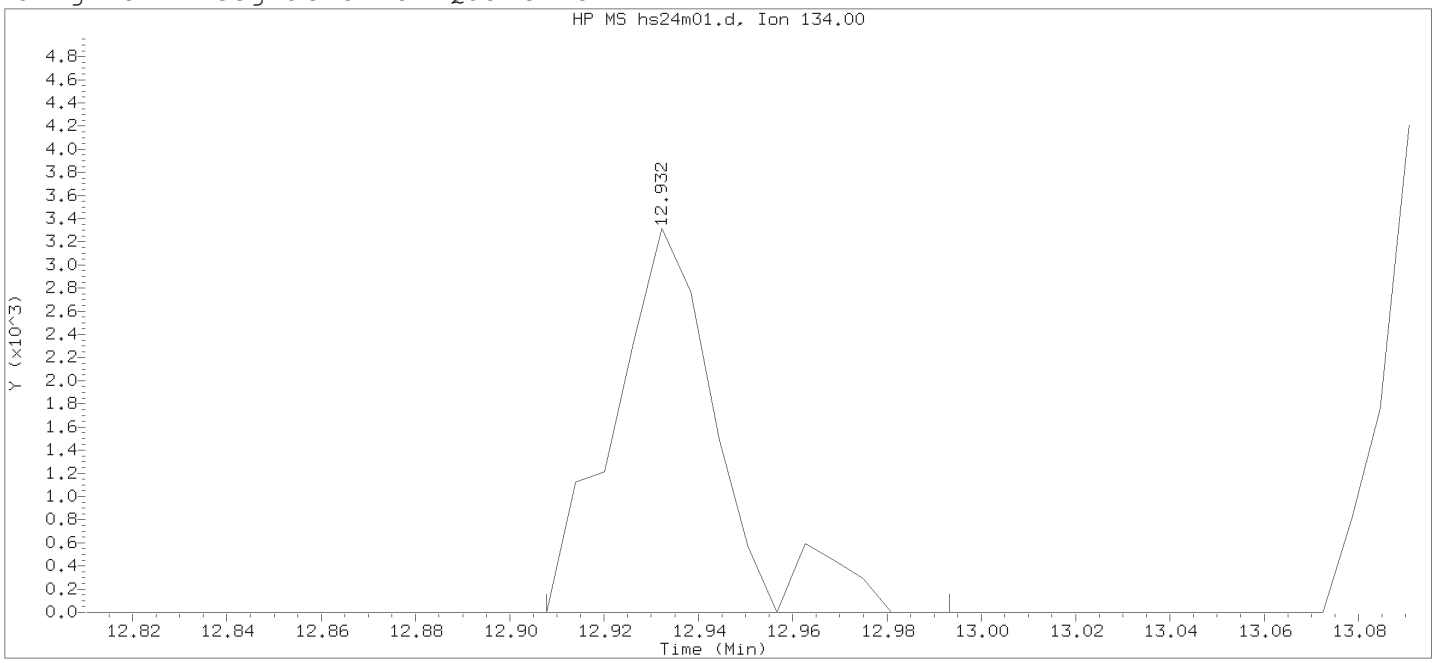
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

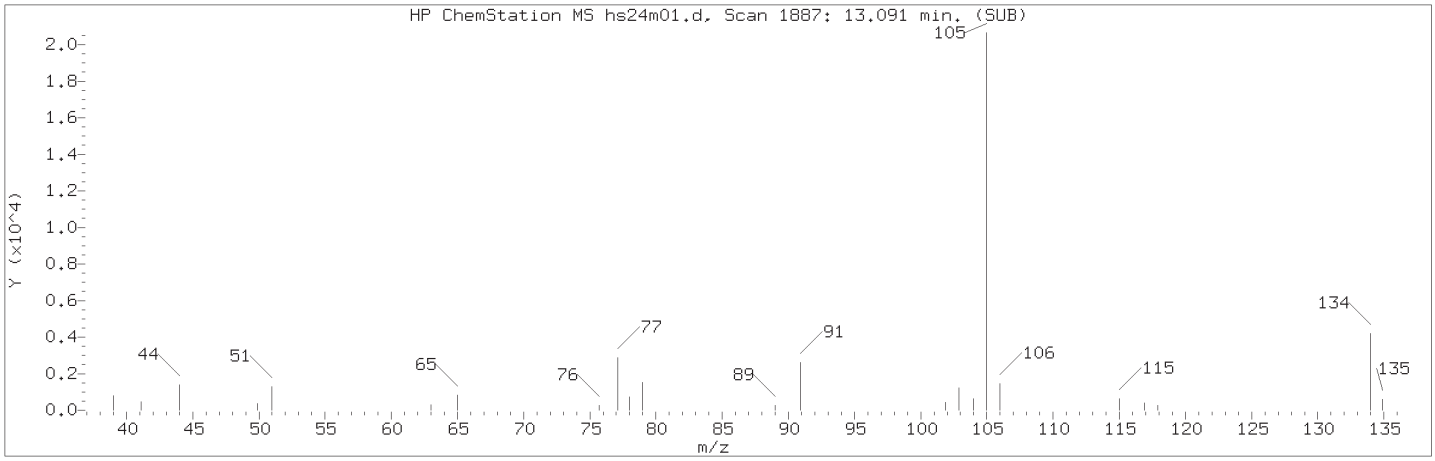
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

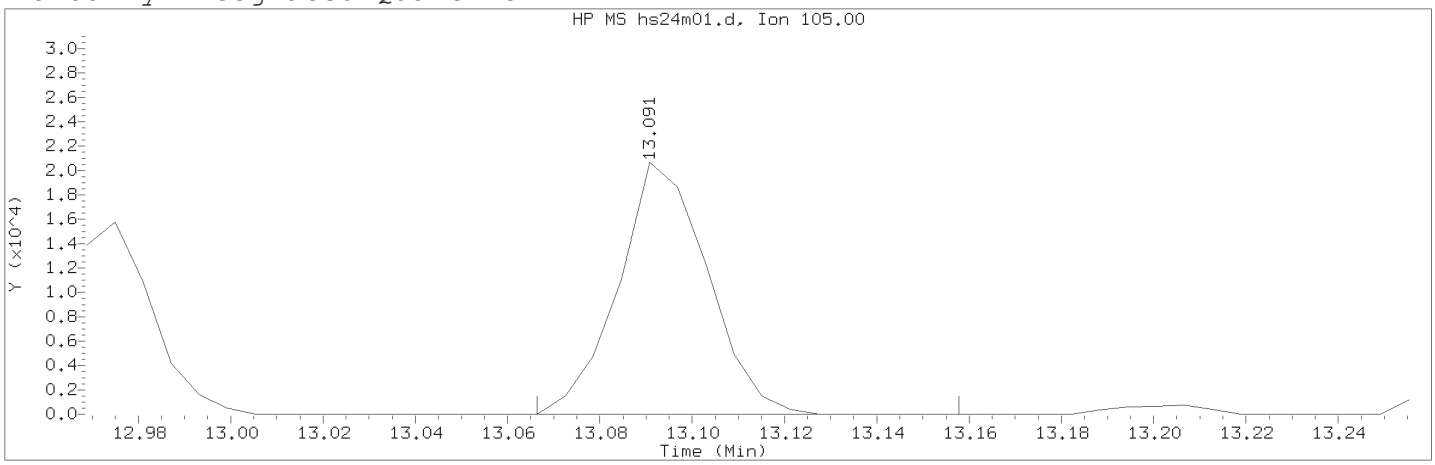
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 5170
On-column Amount (ng) : 0.0909
Integration start scan : 1856 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

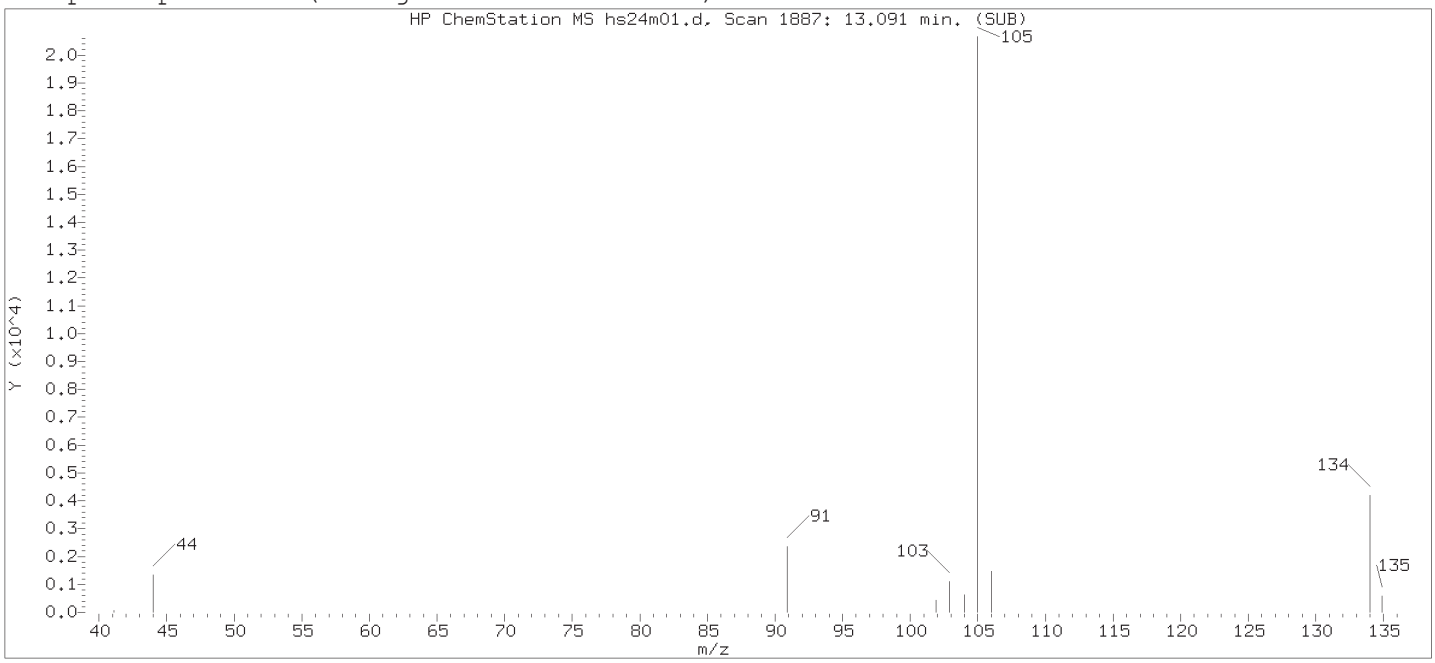
Compound Number : 128
Compound Name : sec-Butylbenzene
Scan Number : 1887
Retention Time (minutes): 13.091
Quant Ion : 105.00
Area (flag) : 27687M
On-Column Amount (ng) : 0.0847
Integration start scan : 1882 Integration stop scan: 1897
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

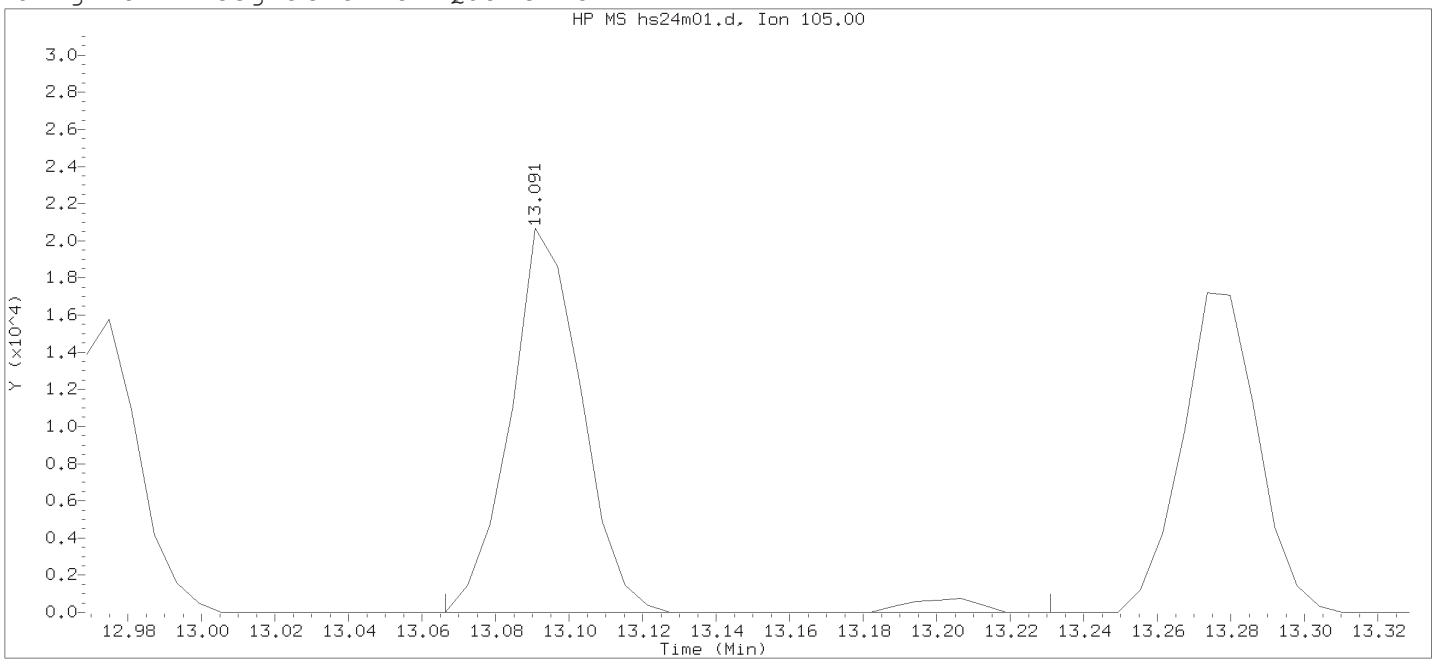
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

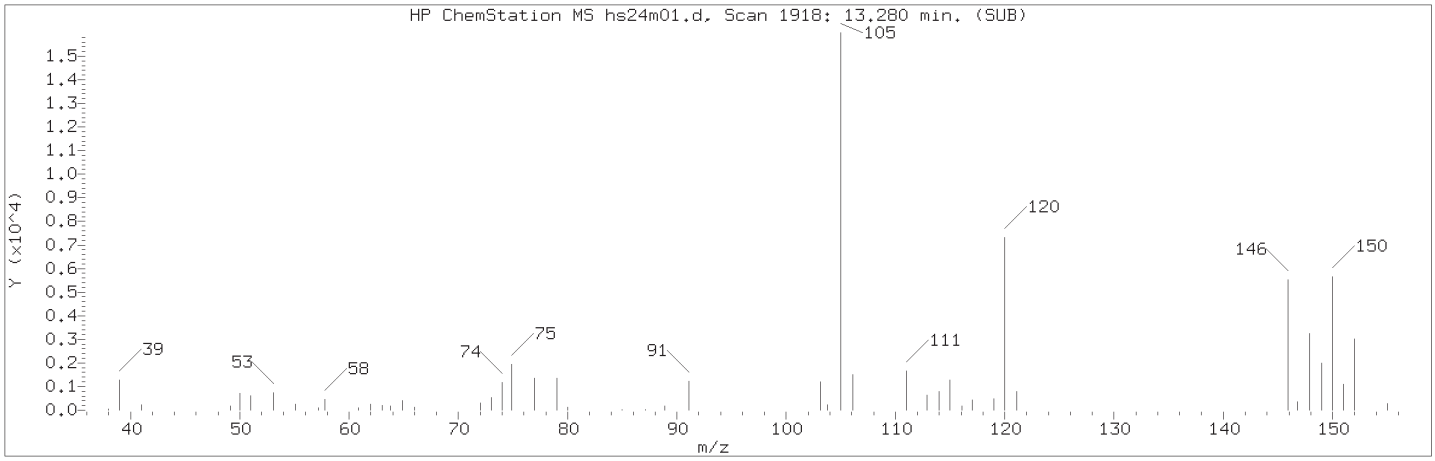
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

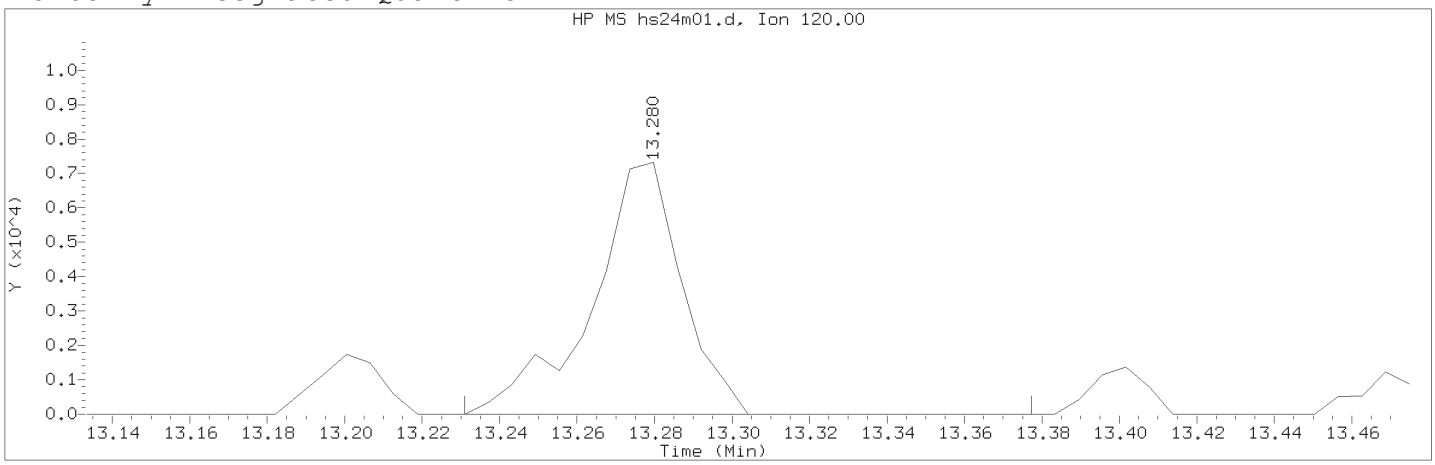
Compound Number	: 128		
Compound Name	: sec-Butylbenzene		
Scan Number	: 1887		
Retention Time (minutes)	: 13.091		
Quant Ion	: 105.00		
Area	: 28686		
On-column Amount (ng)	: 0.0875		
Integration start scan	: 1882	Integration stop scan:	1909
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 Page 1185 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

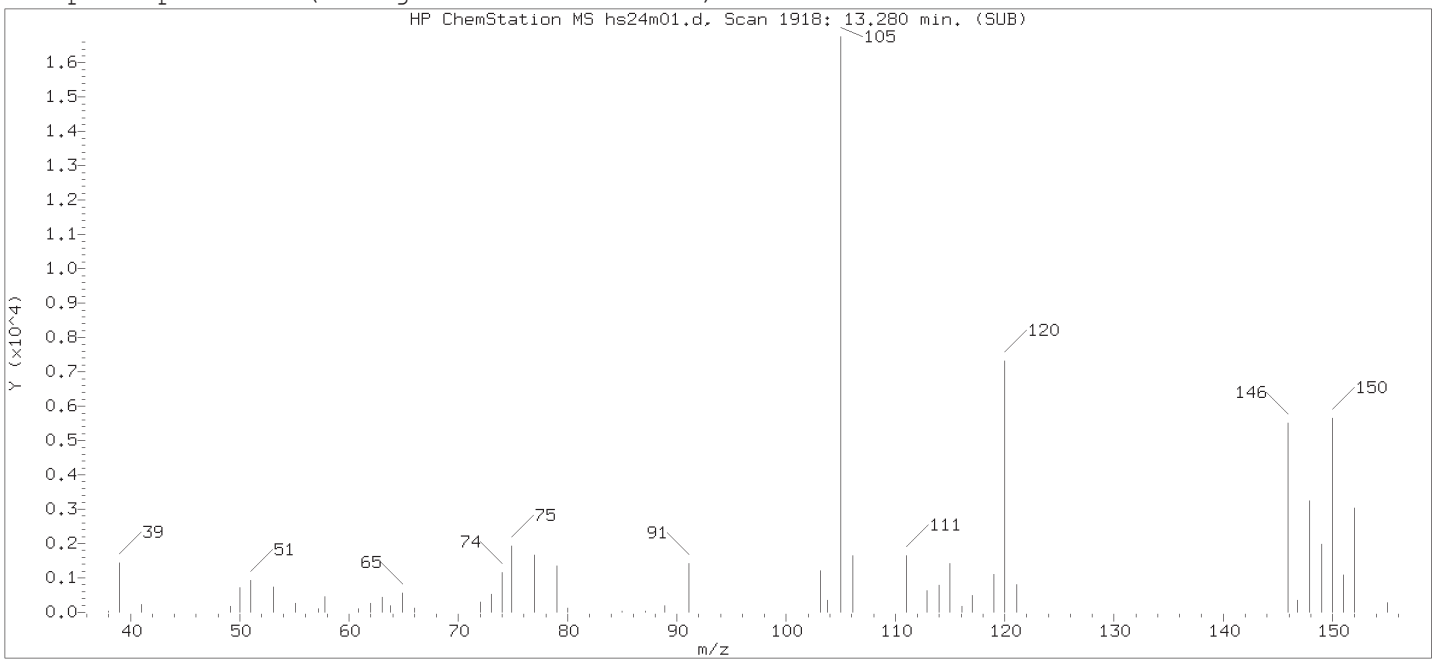
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1918
Retention Time (minutes): 13.280
Quant Ion : 120.00
Area (flag) : 11819M
On-Column Amount (ng) : 0.1001
Integration start scan : 1909 Integration stop scan: 1933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

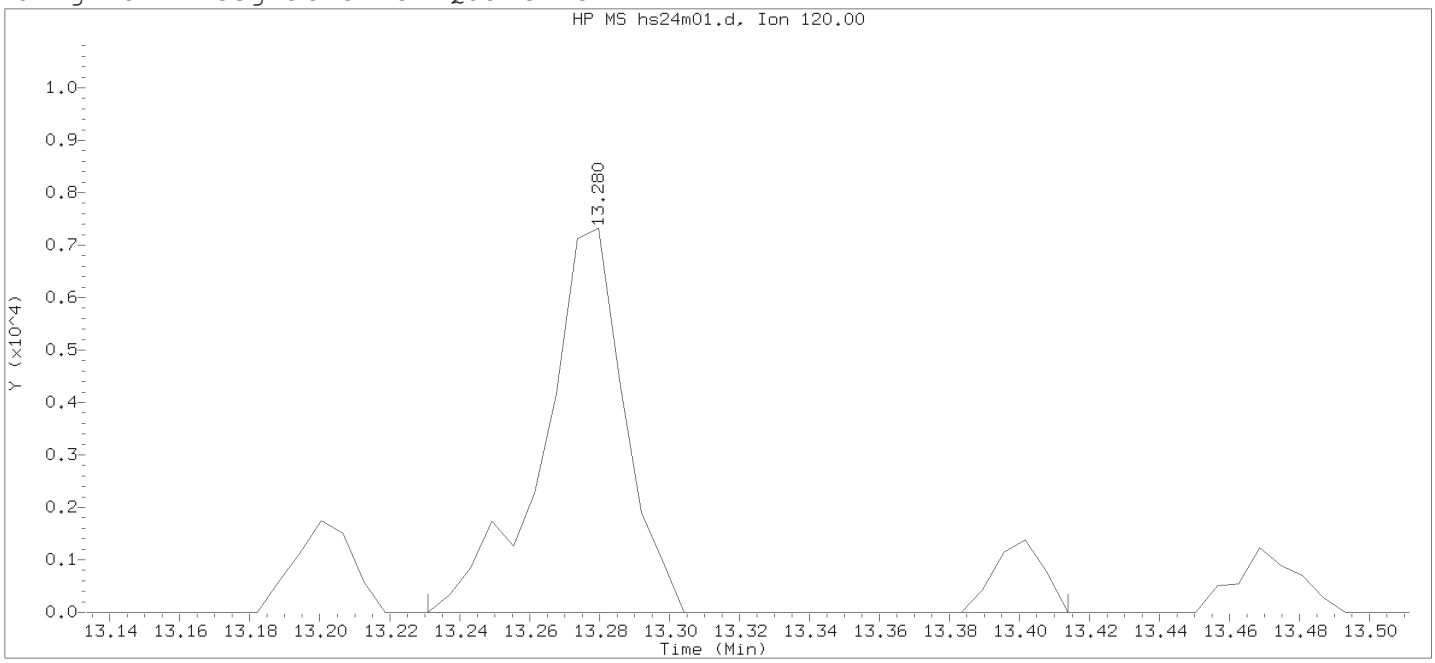
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

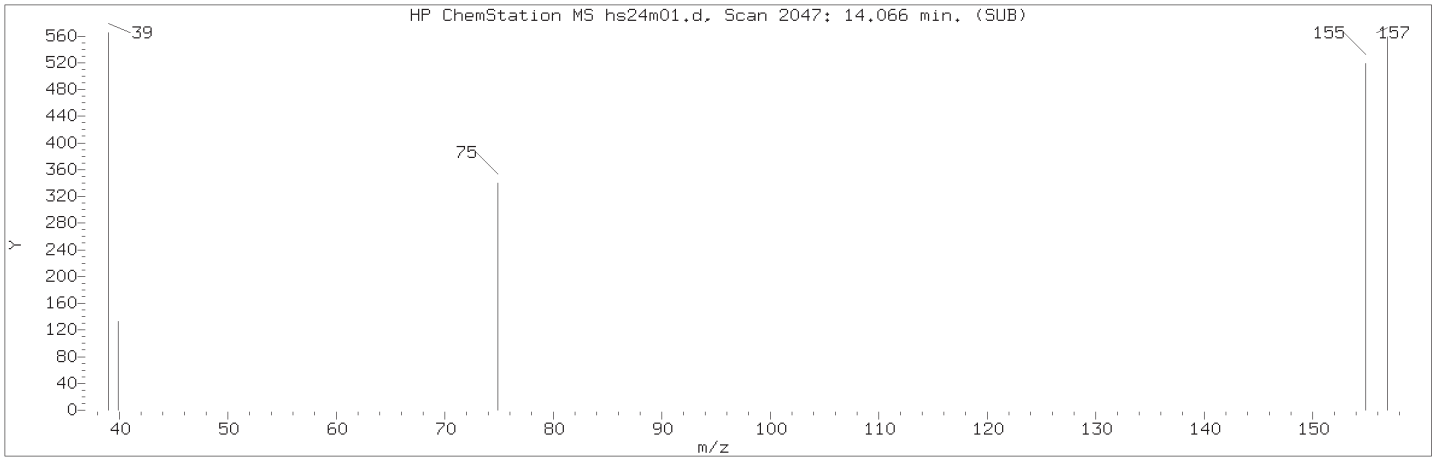
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

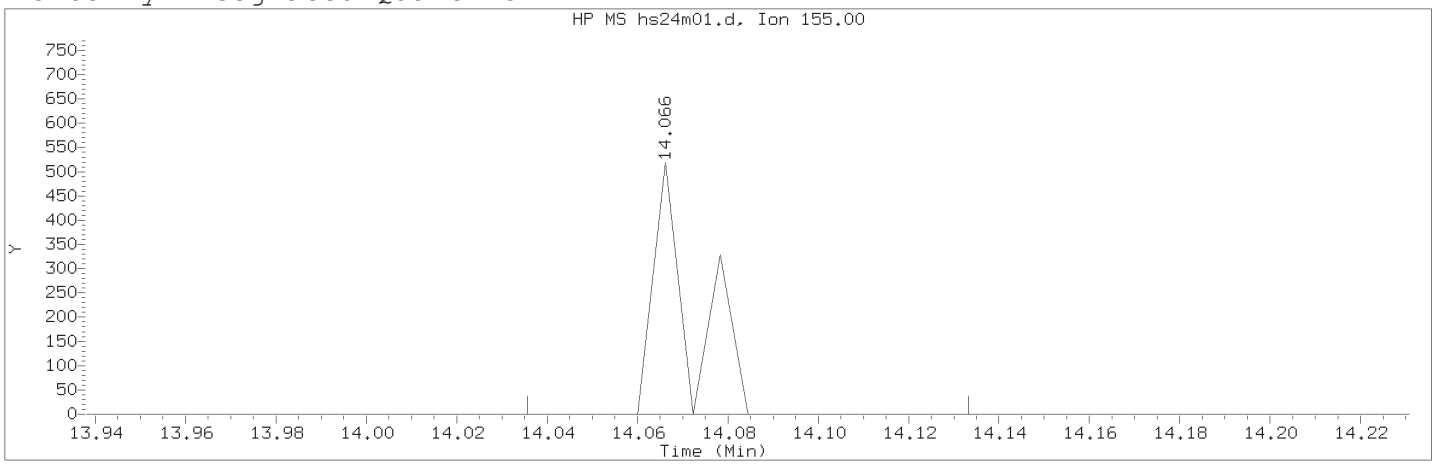
Compound Number : 135
Compound Name : 1,2,3-Trimethylbenzene
Scan Number : 1918
Retention Time (minutes): 13.280
Quant Ion : 120.00
Area : 13186
On-column Amount (ng) : 0.1095
Integration start scan : 1909 Integration stop scan: 1939
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used: 1.0.2

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 07:26
Date, time and analyst ID of latest file update: 25-Sep-2018 07:28 jkh09052

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

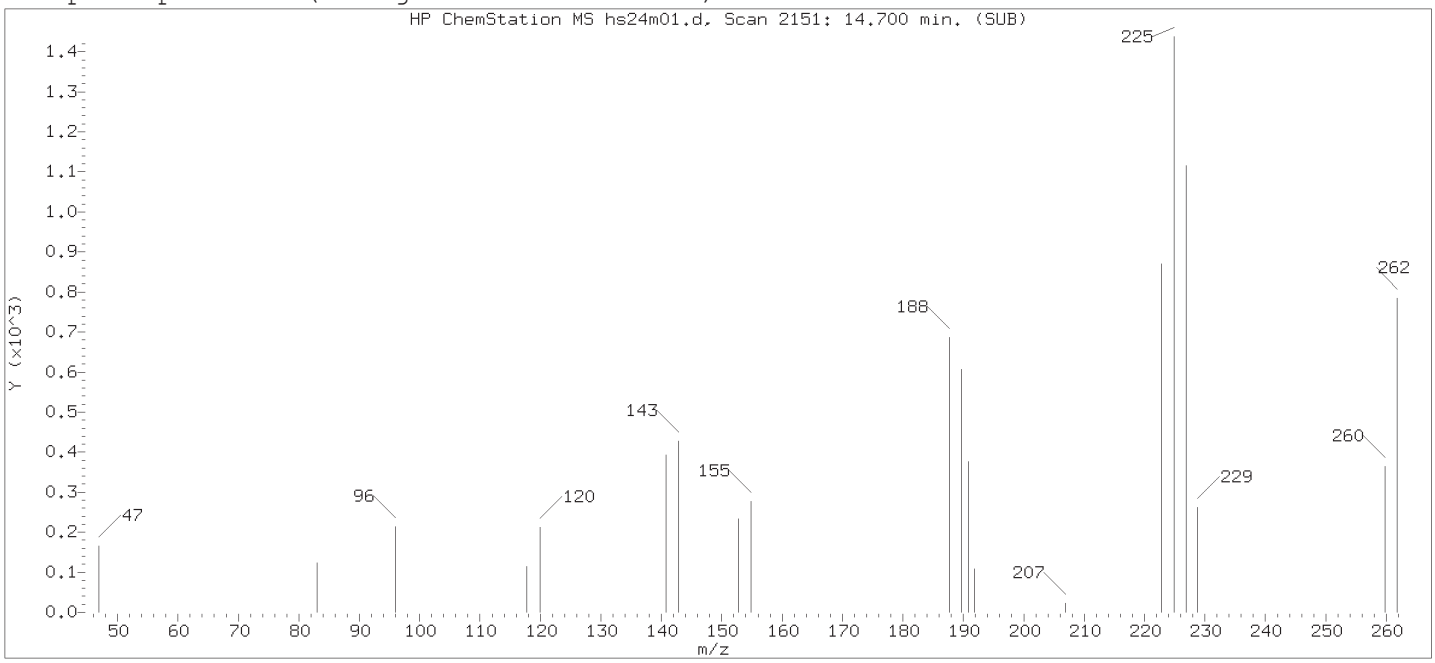
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2047
Retention Time (minutes): 14.066
Quant Ion : 155.00
Area (flag) : 310M
On-Column Amount (ng) : 0.0535
Integration start scan : 2041 Integration stop scan: 2057
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

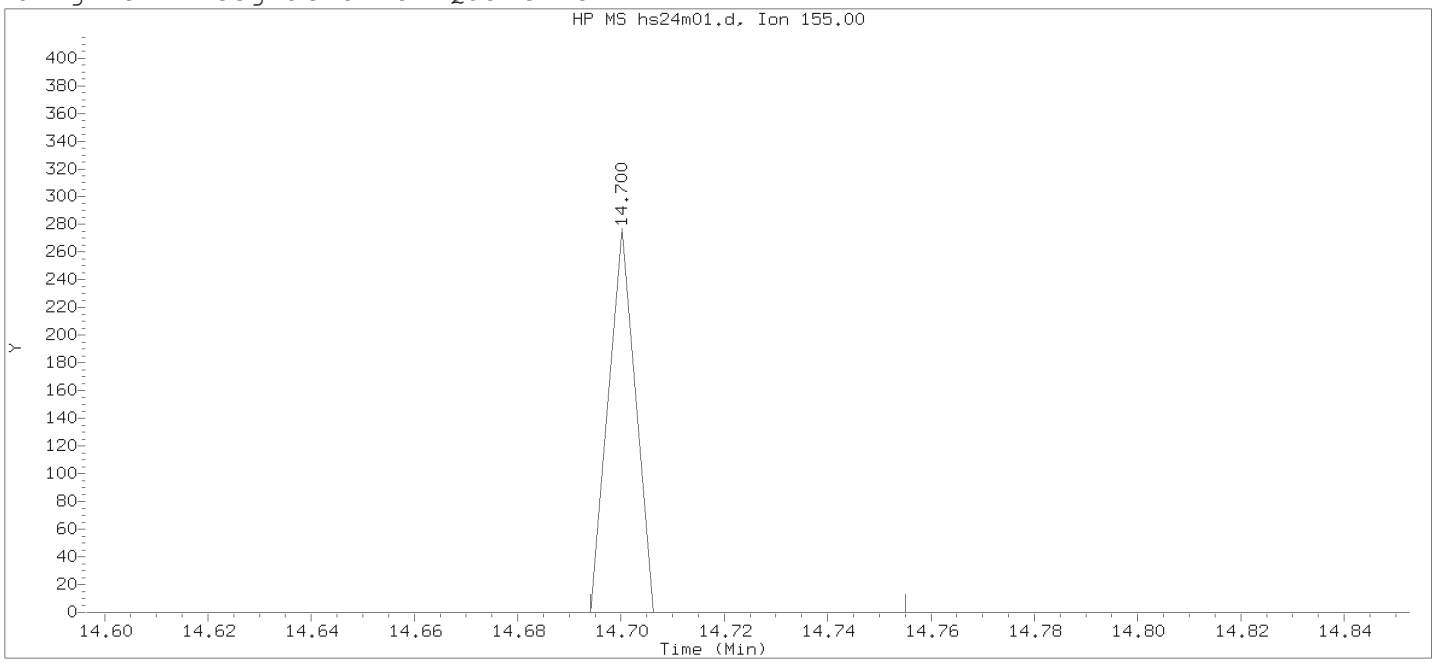
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 07:30.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



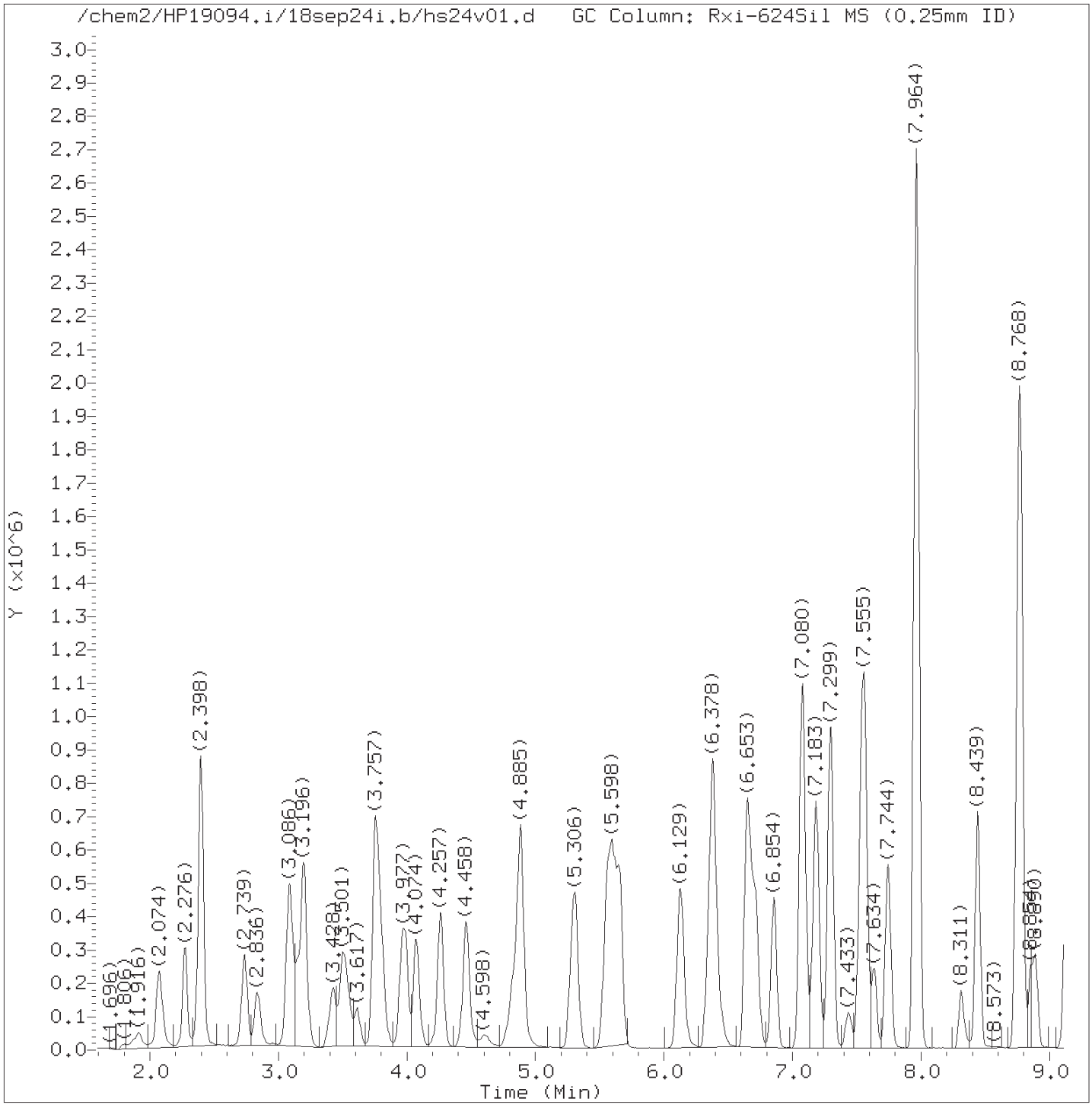
Data File: /chem2/HP19094.i/18sep24i.b/hs24m01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 20:59 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:17 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2151
Retention Time (minutes): 14.700
Quant Ion : 155.00
Area : 101
On-column Amount (ng) : 0.0343
Integration start scan : 2149 Integration stop scan: 2159
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 07:30.
Target 3.5 esignature used 12 January 2012



Total Ion Chromatogram (TIC)

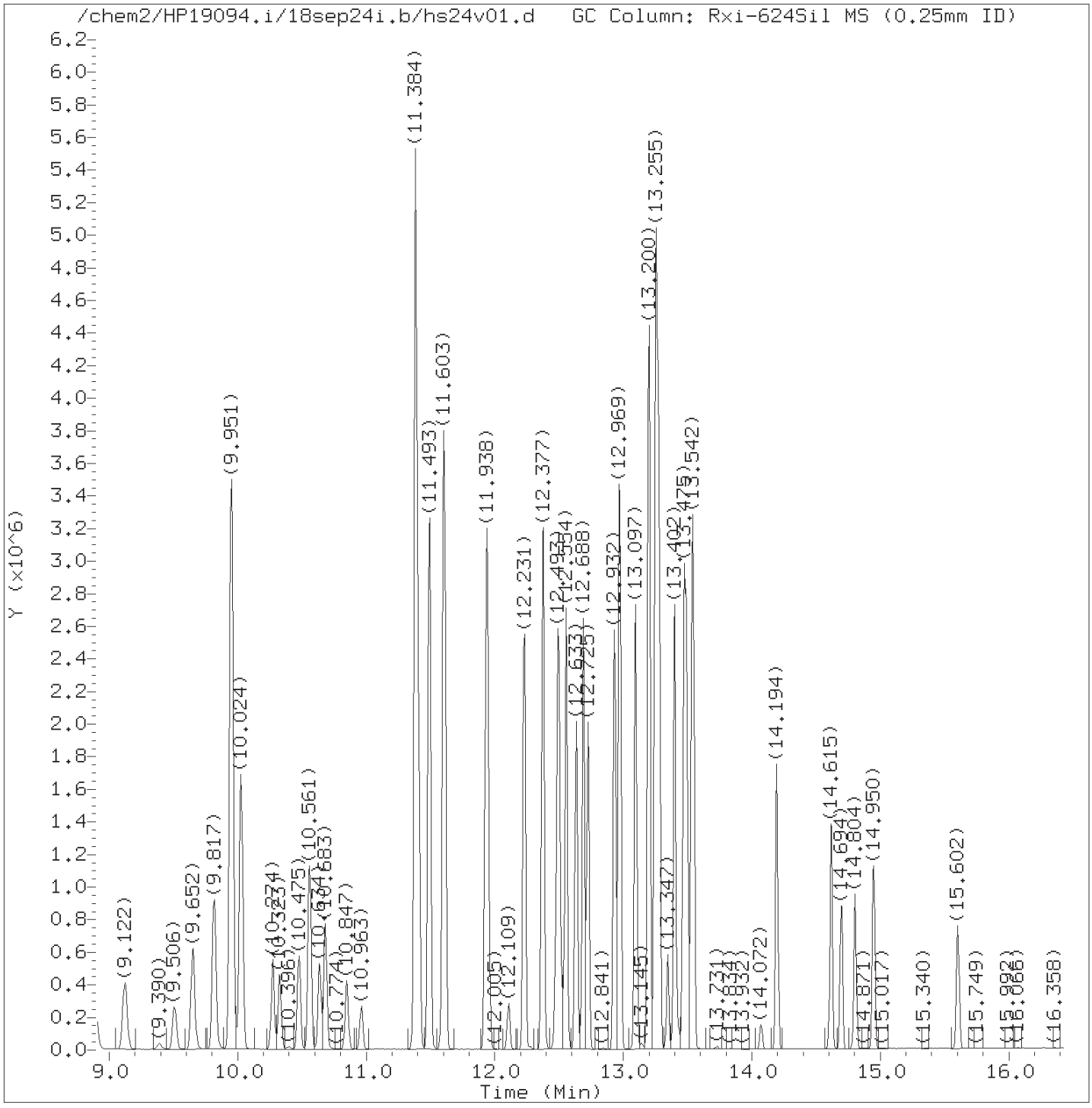
Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.074	85	440976	4.058
2) Chloromethane	(2)	2.270	50	486139	4.568
6) 1,3-Butadiene	(2)	2.391	39	470828M	4.171
5) Vinyl Chloride	(2)	2.398	62	471500	4.731
7) Bromomethane	(2)	2.739	94	321337	4.148
8) Chloroethane	(2)	2.836	64	272329	4.506
9) Dichlorofluoromethane	(2)	3.080	67	691996	4.813
10) Trichlorofluoromethane	(2)	3.147	101	560449	4.452
11) Ethyl ether	(2)	3.422	59	196604	4.606
12) Freon 123a	(2)	3.513	67	411851	5.164
13) Acrolein	(1)	3.617	56	199575	31.768
15) 1,1-Dichloroethene	(2)	3.751	96	307467	5.640
16) Freon 113	(2)	3.781	101	338841	5.274
14) Acetone	(1)	3.794	43	273073M	32.363
17) Methyl Iodide	(2)	3.958	142	551496	4.853
18) Carbon Disulfide	(2)	4.068	76	828724	4.777
21) Methyl Acetate	(1)	4.239	43	101587	4.289
22) Allyl Chloride	(2)	4.263	41	468004	4.516
23) Methylene Chloride	(2)	4.458	84	304627	4.953
26)*t-Butyl Alcohol-d10	(1)	4.489	65	141569	50.000
28) t-Butyl Alcohol	(1)	4.598	59	116690	48.290
29) Acrylonitrile	(1)	4.824	53	251882	23.115
30) Methyl Tertiary Butyl Ether	(2)	4.867	73	551498	4.919
31) trans-1,2-Dichloroethene	(2)	4.885	96	329189	5.350
32) n-Hexane	(2)	5.306	57	503625	5.148
33) 1,1-Dichloroethane	(2)	5.549	63	610622	5.212
34) di-Isopropyl Ether	(2)	5.598	45	1043824	5.017
35) 2-Chloro-1,3-Butadiene	(2)	5.653	53	529192	5.020
40) 1,2-Dichloroethene (Total)	(2)		96	691269	10.676
37) Ethyl t-butyl ether	(2)	6.129	59	800829	4.853
38) 2-Butanone	(1)	6.342	43	487401	35.288
39) cis-1,2-Dichloroethene	(2)	6.378	96	362080	5.326
41) 2,2-Dichloropropane	(2)	6.391	77	445489	5.324
42) Propionitrile	(1)	6.446	54	141875	37.842
45) Methacrylonitrile	(1)	6.653	67	482254	35.674
47) Bromochloromethane	(2)	6.708	128	130394	4.540
48) Tetrahydrofuran	(1)	6.714	71	86737	23.621
49) Chloroform	(2)	6.854	83	582593	5.349

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.073	113	703609	10.041
51) 1,1,1-Trichloroethane	(2)	7.086	97	494400	5.307
52) Cyclohexane	(2)	7.183	56	614255	5.051
55) 1,1-Dichloropropene	(2)	7.293	75	459498	5.201
54) Carbon Tetrachloride	(2)	7.299	117	423304	5.290
56) Isobutyl Alcohol	(1)	7.439	41	113054	120.918
57)$1,2-Dichloroethane-d4	(2)	7.531	102	123305	10.093
58) Benzene	(2)	7.561	78	1335484	5.117
59) 1,2-Dichloroethane	(2)	7.634	62	300394	5.002
60) t-Amyl methyl ether	(2)	7.744	73	666761	4.874
62) n-Heptane	(2)	7.964	43	519392	5.149
63)*Fluorobenzene	(2)	7.964	96	2780415	10.000
65) n-Butanol	(1)	8.311	56	183017	231.696
67) Trichloroethene	(2)	8.439	95	348659	5.218
69) Methylcyclohexane	(2)	8.756	83	590929	4.683
70) 1,2-Dichloropropane	(2)	8.780	63	327981	5.180
71) Methyl Methacrylate	(1)	8.854	69	118997	4.756
72) 1,4-Dioxane	(1)	8.878	88	23983M	126.103
73) Dibromomethane	(2)	8.890	93	135470	5.155
74) Bromodichloromethane	(2)	9.122	83	375174	5.270
76) 2-Nitropropane	(1)	9.390	41	29112	4.107
80) cis-1,3-Dichloropropene	(2)	9.652	75	421726	5.089
81) 4-Methyl-2-Pentanone	(1)	9.817	43	797497	23.212
82)$Toluene-d8	(3)	9.951	98	2812308	10.016
83) Toluene	(3)	10.024	92	831326	5.135
85) 1,3-Dichloropropene (total)	(3)		75	738103	10.160
84) trans-1,3-Dichloropropene	(3)	10.274	75	316377	5.072
86) Ethyl Methacrylate	(3)	10.329	69	258646	4.840
88) 1,1,2-Trichloroethane	(3)	10.475	97	194331	5.216
89) Tetrachloroethene	(3)	10.561	166	376715	5.150
90) 1,3-Dichloropropane	(3)	10.634	76	329045	4.984
91) 2-Hexanone	(1)	10.683	43	532351	22.763
93) Dibromochloromethane	(3)	10.847	129	230894	5.171
95) 1,2-Dibromoethane	(3)	10.963	107	179555	5.142
96) 1-Chlorohexane	(3)	11.384	91	476940M	4.939
97)*Chlorobenzene-d5	(3)	11.384	117	2181583	10.000
98) Chlorobenzene	(3)	11.408	112	870508	5.068
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	291823	5.148

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
100) Ethylbenzene	(3)	11.493	91	1615822	5.107
101) m+p-Xylene	(3)	11.603	106	1211106	10.320
105) Xylene (Total)	(3)		106	1782147	15.409
104) o-Xylene	(3)	11.932	106	571041	5.089
106) Styrene	(3)	11.944	104	940841	5.241
107) Bromoform	(3)	12.109	173	123890	5.049
108) Isopropylbenzene	(3)	12.231	105	1599849	5.223
111)$4-Bromofluorobenzene	(3)	12.371	95	1014976	9.929
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	224147	4.994
114) Bromobenzene	(4)	12.493	156	351229	5.148
115) trans-1,4-Dichloro-2-butene	(1)	12.499	53	259900	24.153
116) 1,2,3-Trichloropropane	(4)	12.524	110	57126M	4.923
117) n-Propylbenzene	(4)	12.554	91	1935469	5.217
119) 2-Chlorotoluene	(4)	12.633	126	367412	5.106
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	1293562	5.147
122) 4-Chlorotoluene	(4)	12.725	126	368733	5.114
125) tert-Butylbenzene	(4)	12.932	134	278567M	5.097
126) Pentachloroethane	(4)	12.969	167	207735	4.870
127) 1,2,4-Trimethylbenzene	(4)	12.975	105	1301652	5.076
128) sec-Butylbenzene	(4)	13.097	105	1707856	5.244
131) 1,3-Dichlorobenzene	(4)	13.194	146	680593	5.021
132) p-Isopropyltoluene	(4)	13.200	119	1416458	5.251
133)*1,4-Dichlorobenzene-d4	(4)	13.255	152	1131416	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	676511	5.084
135) 1,2,3-Trimethylbenzene	(4)	13.280	120	562245	4.779
136) Benzyl Chloride	(4)	13.347	126	76709M	4.728
138) n-Butylbenzene	(4)	13.493	92	700126	5.229
139) 1,2-Dichlorobenzene	(4)	13.530	146	599568	5.013
143) 1,2-Dibromo-3-chloropropane	(1)	14.072	155	30890M	5.304
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	509846	5.056
145) 1,2,4-Trichlorobenzene	(4)	14.621	180	415513	5.058
146) Hexachlorobutadiene	(4)	14.700	225	160319	5.164
147) Naphthalene	(4)	14.804	128	675168	5.194
148) 1,2,3-Trichlorobenzene	(4)	14.950	180	346080	5.124

M = Compound was manually integrated.
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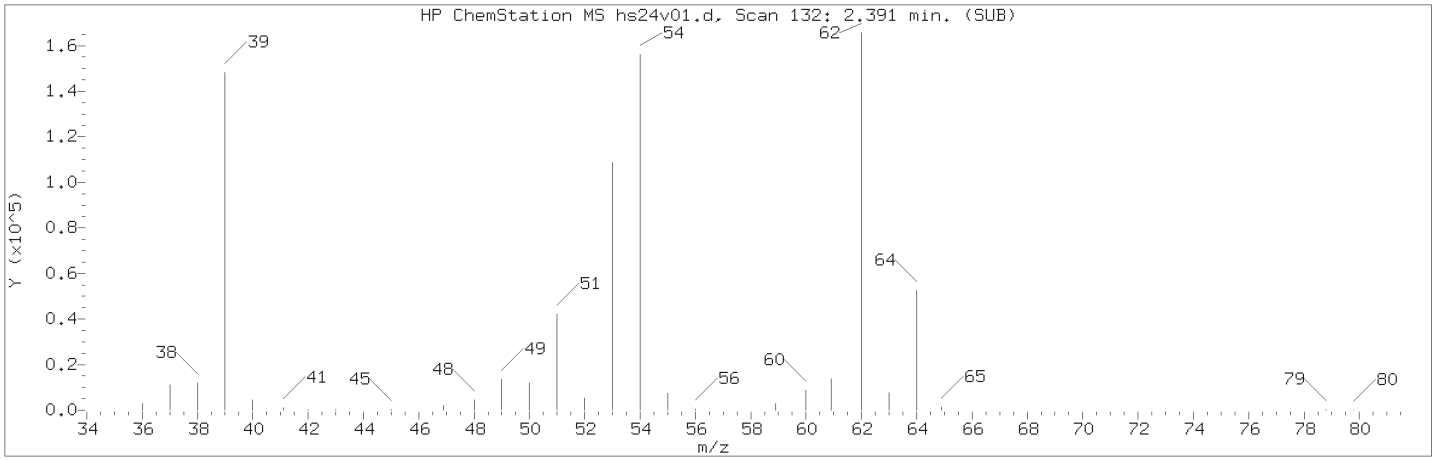
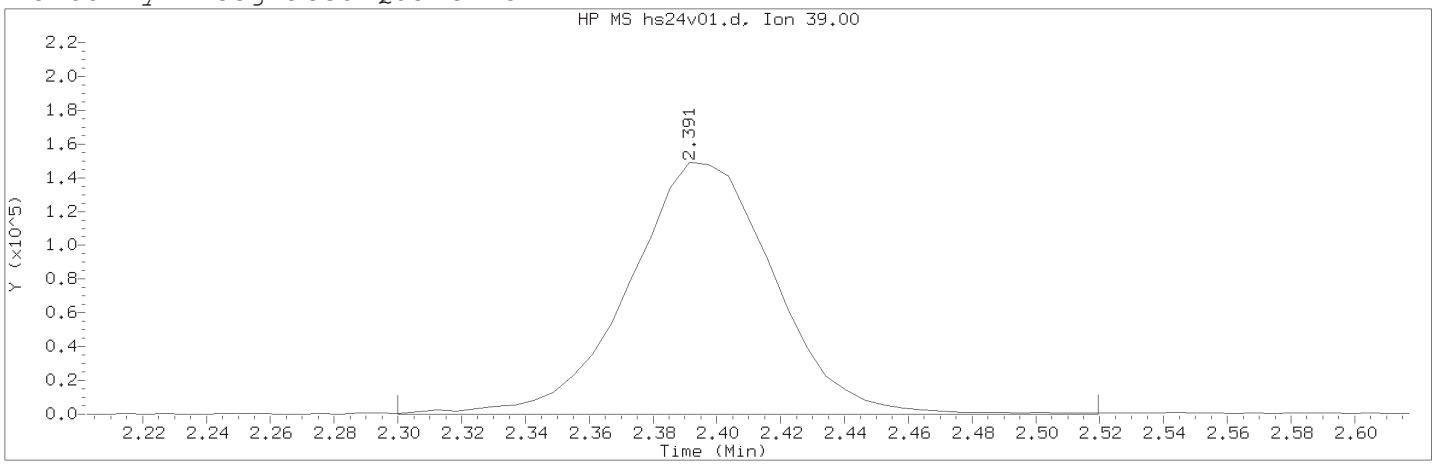
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

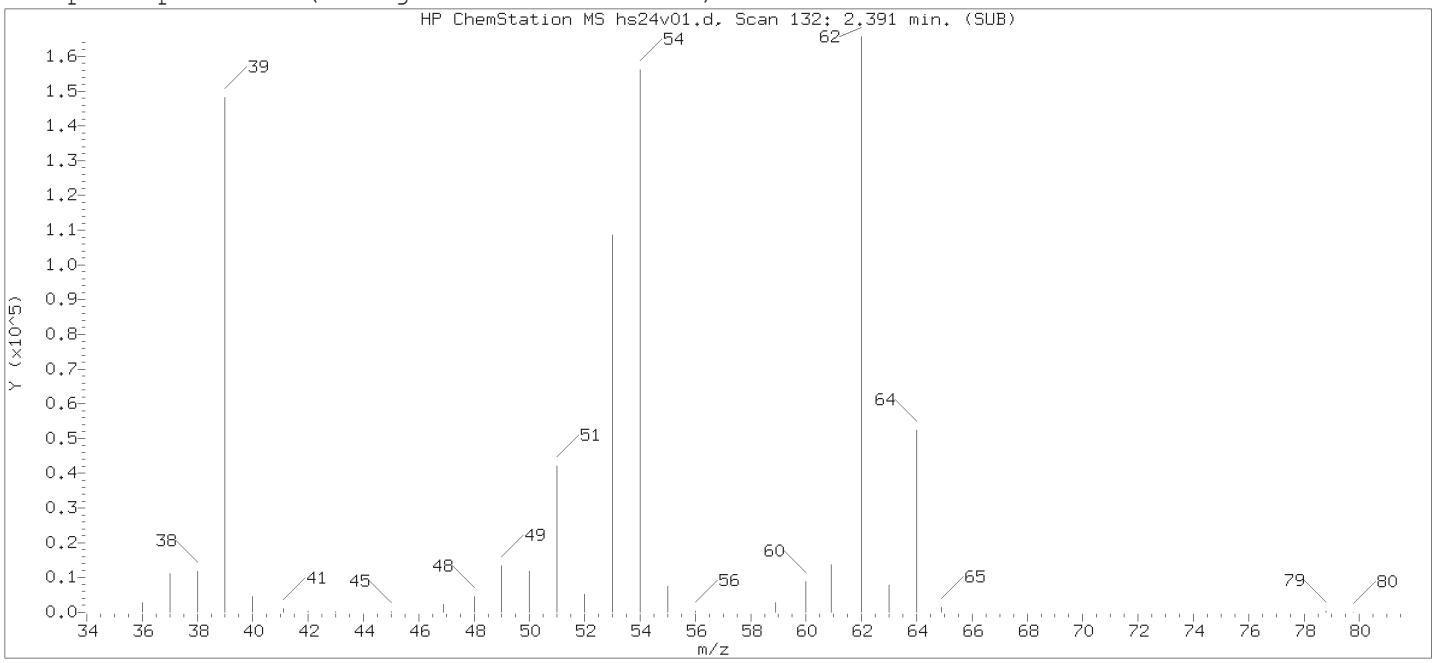
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area (flag) : 470828M
On-Column Amount (ng) : 4.1709
Integration start scan : 116 Integration stop scan: 152
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

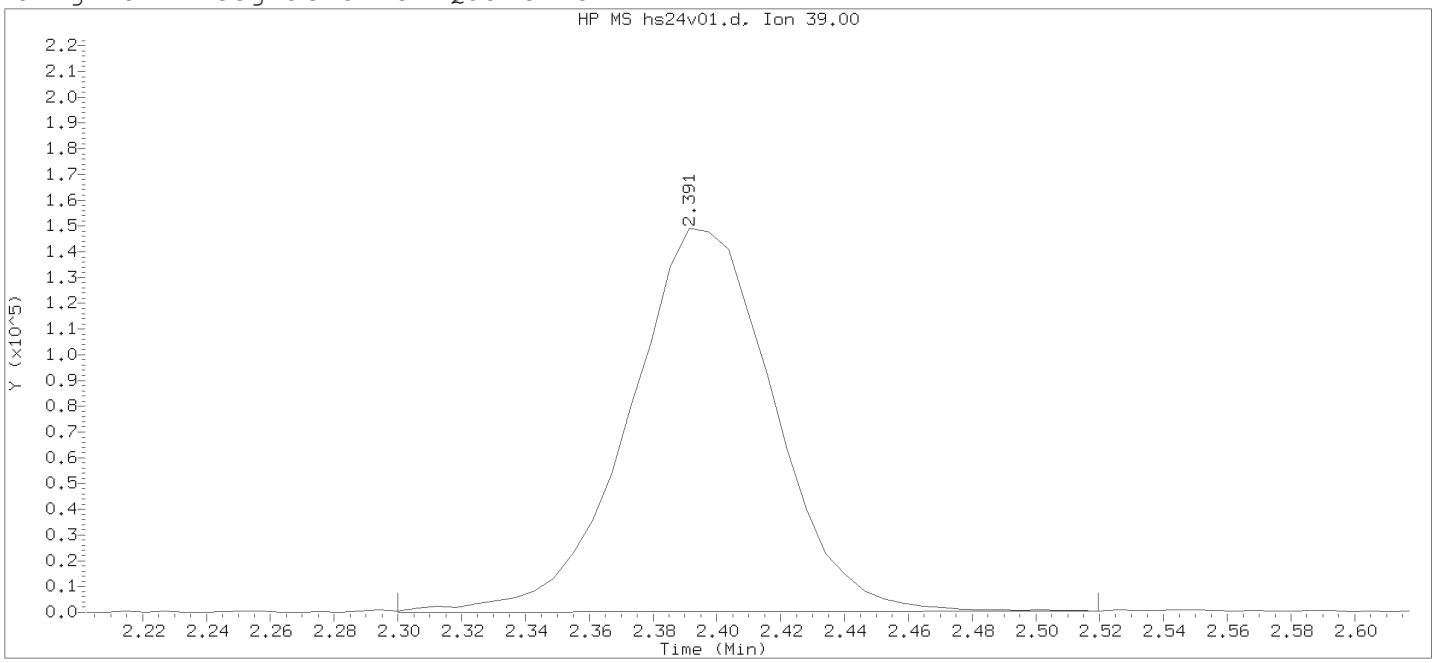
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

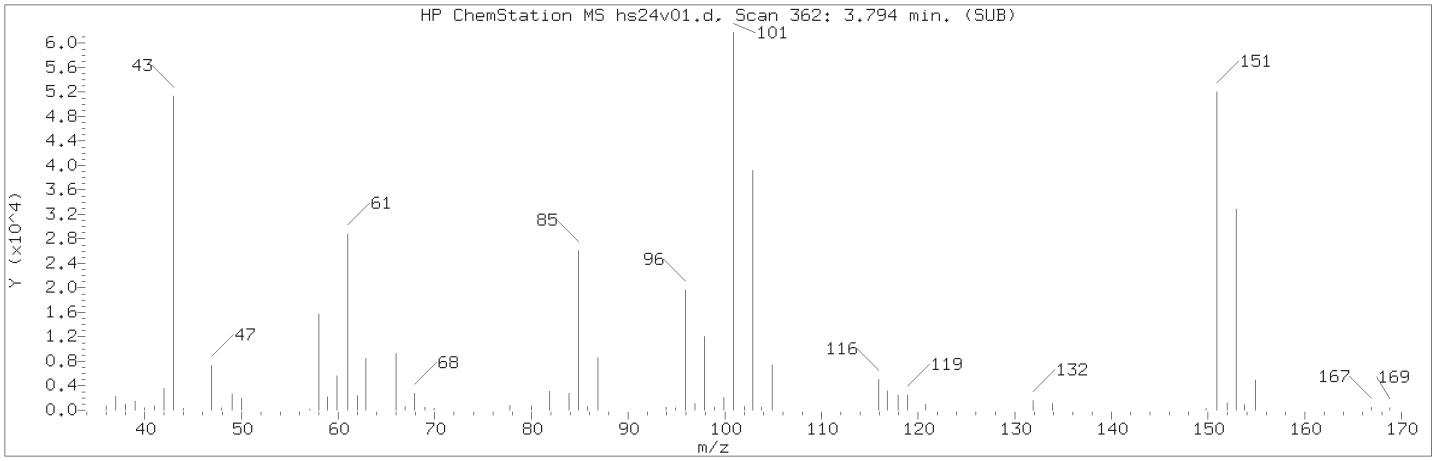
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

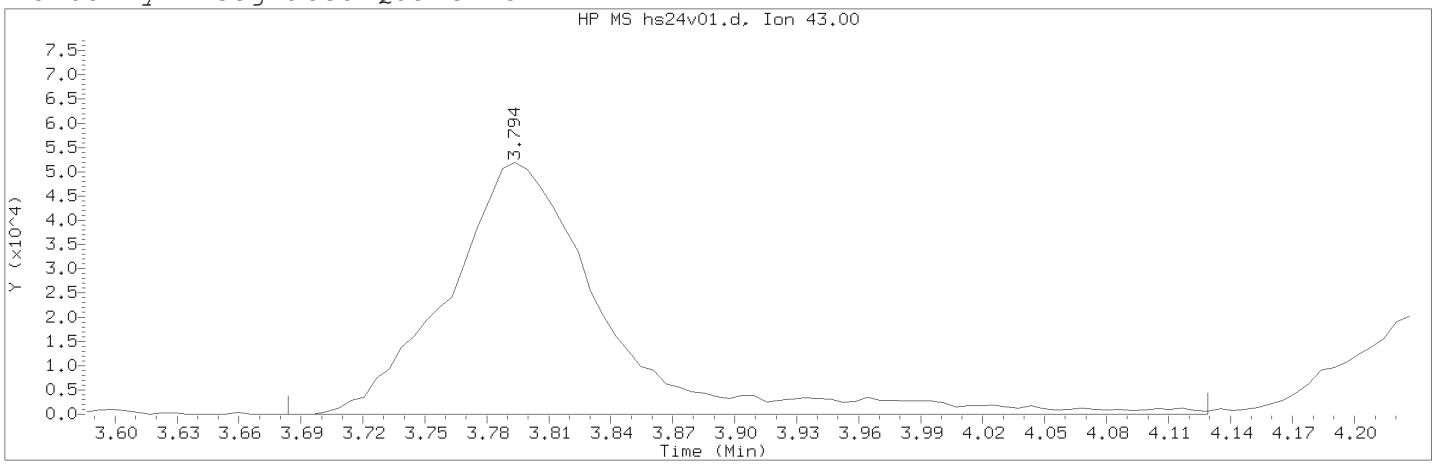
Compound Number : 6
Compound Name : 1,3-Butadiene
Scan Number : 132
Retention Time (minutes): 2.391
Quant Ion : 39.00
Area : 466594
On-column Amount (ng) : 5.0567
Integration start scan : 116 Integration stop scan: 152
Y at integration start : 43 Y at integration end: 572

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

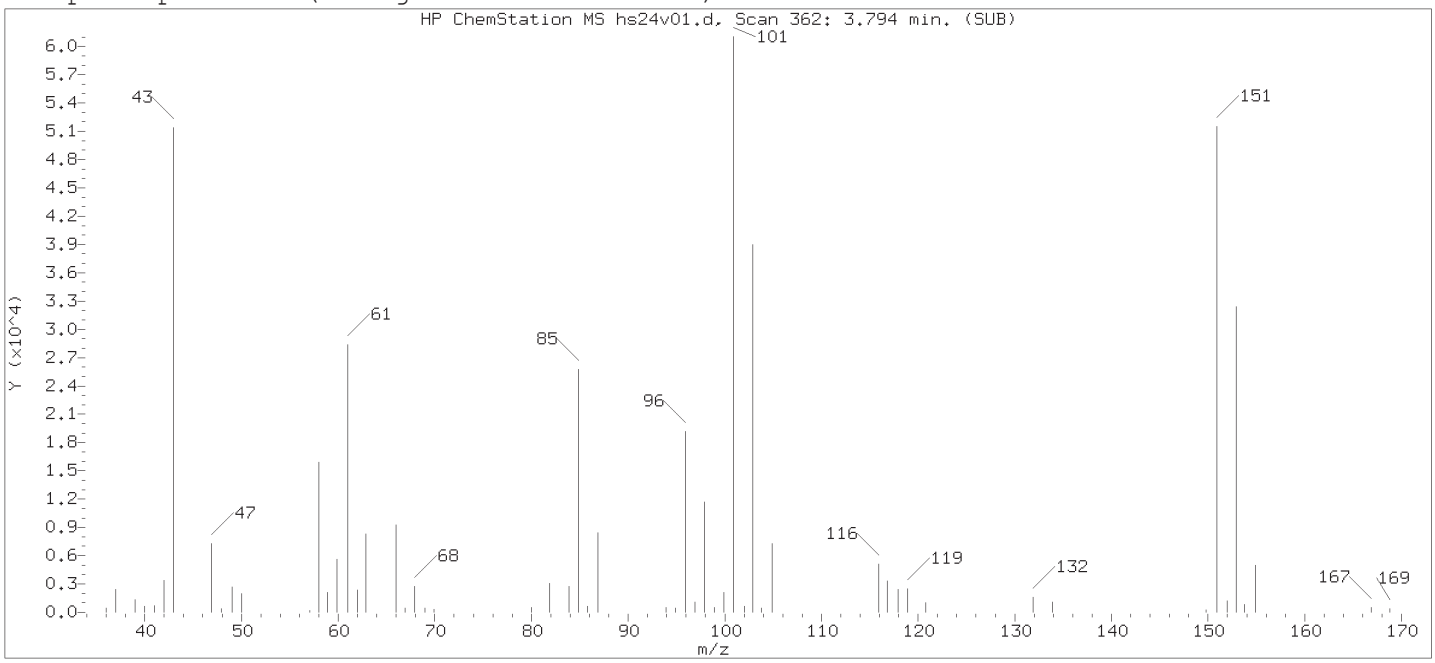
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area (flag) : 273073M
On-Column Amount (ng) : 32.3626
Integration start scan : 343 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

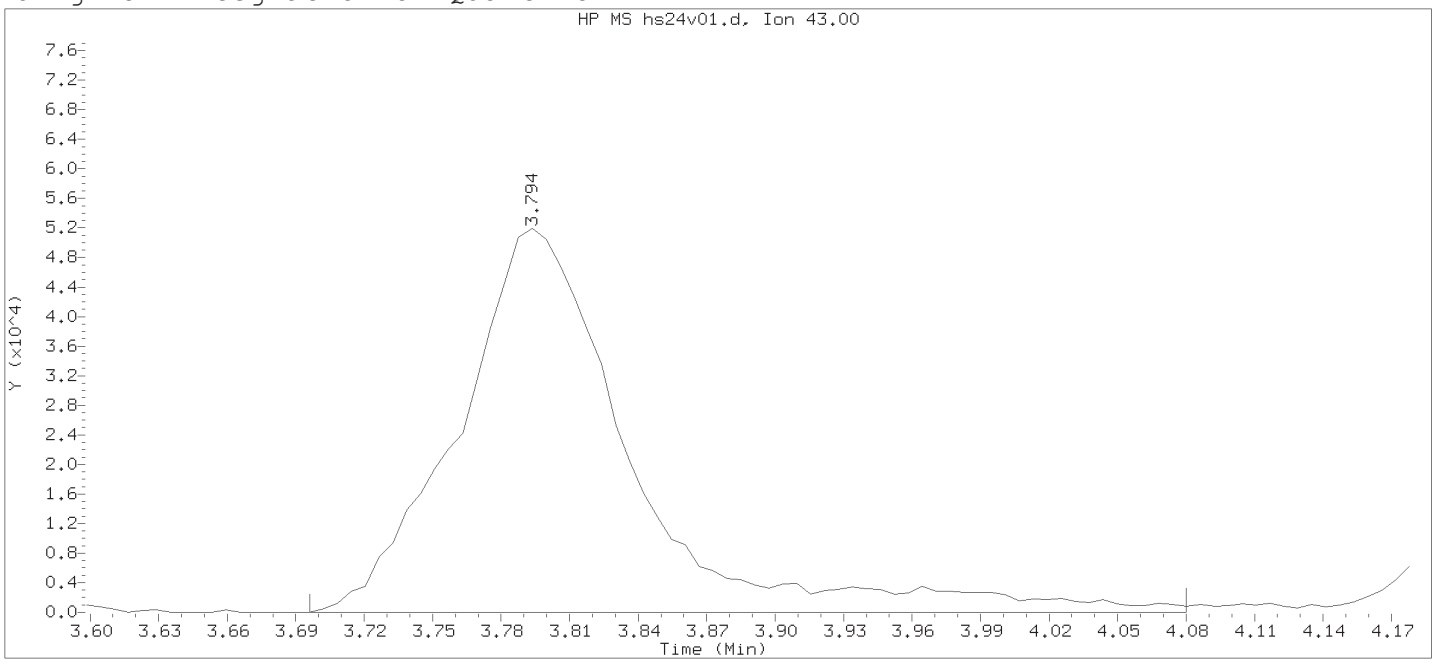
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

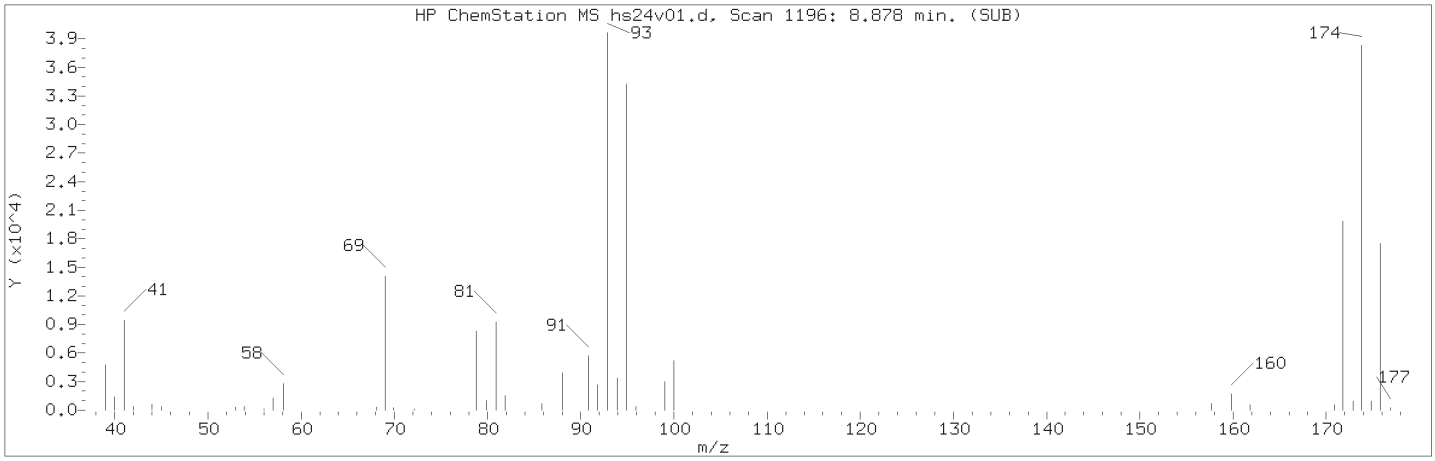
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

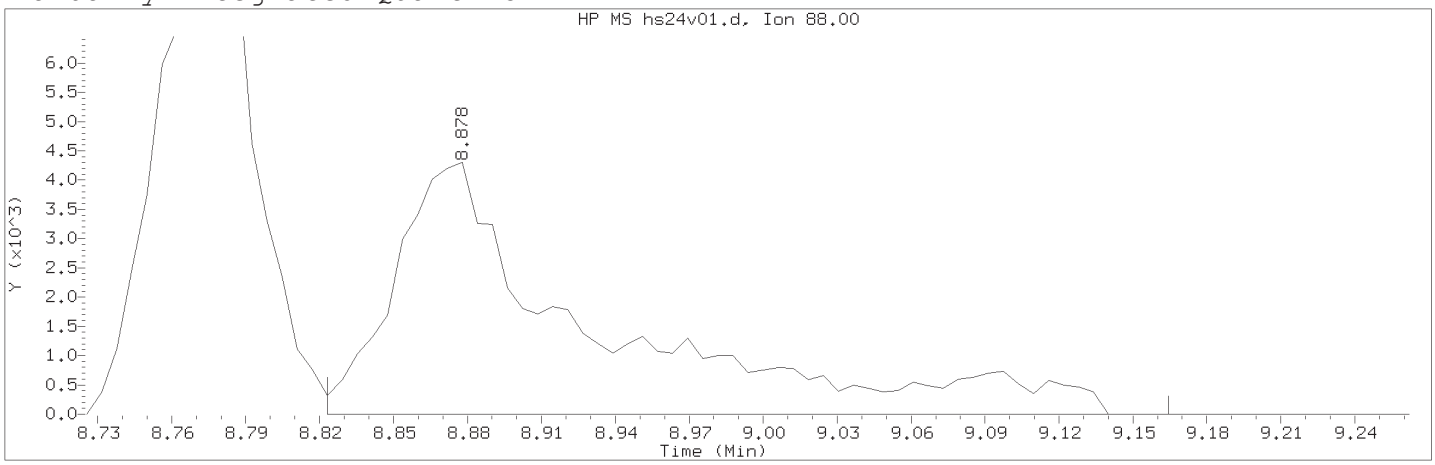
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area : 270202
On-column Amount (ng) : 34.6600
Integration start scan : 345 Integration stop scan: 408
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used 11 Page 1198

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

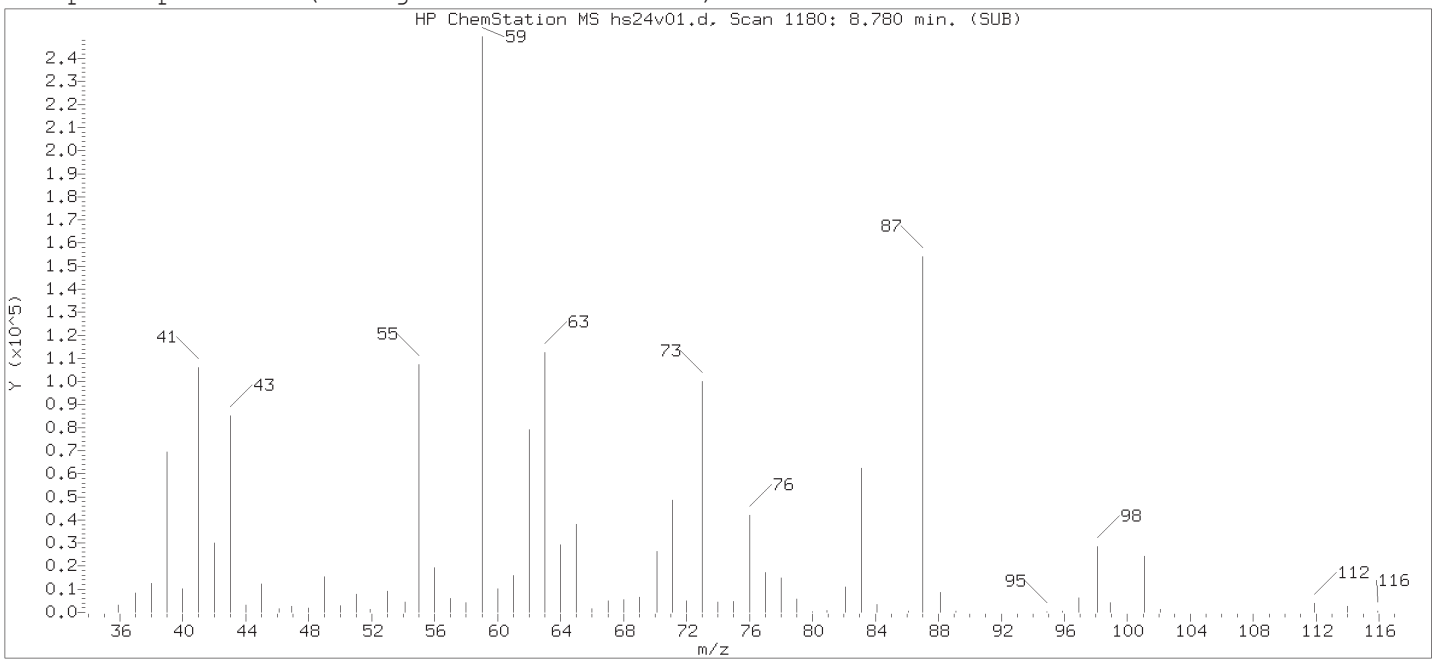
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1196
Retention Time (minutes): 8.878
Quant Ion : 88.00
Area (flag) : 23983M
On-Column Amount (ng) : 126.1028
Integration start scan : 1186 Integration stop scan: 1242
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

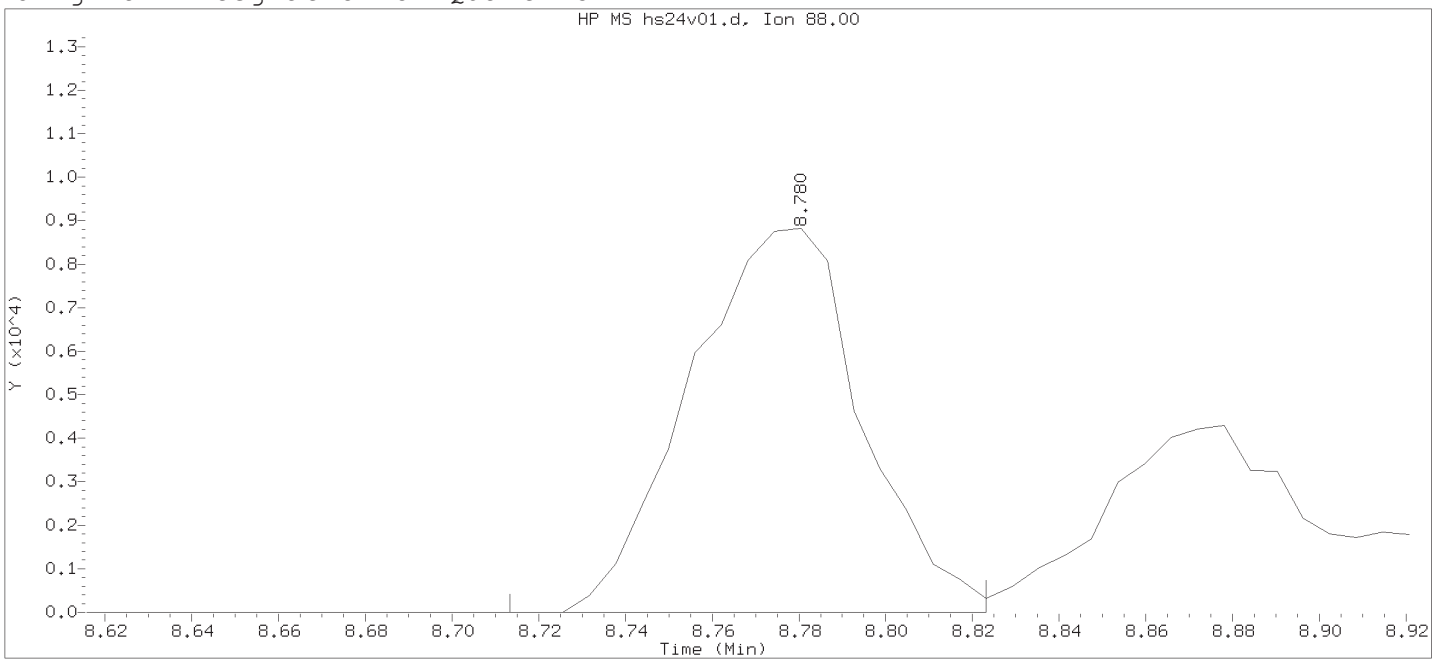
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

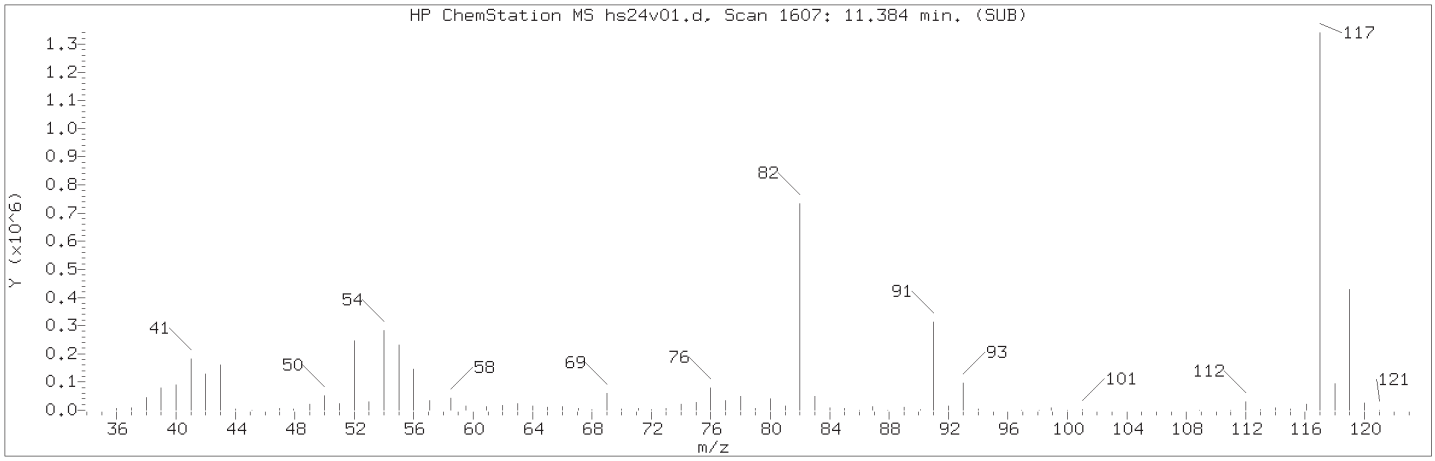
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

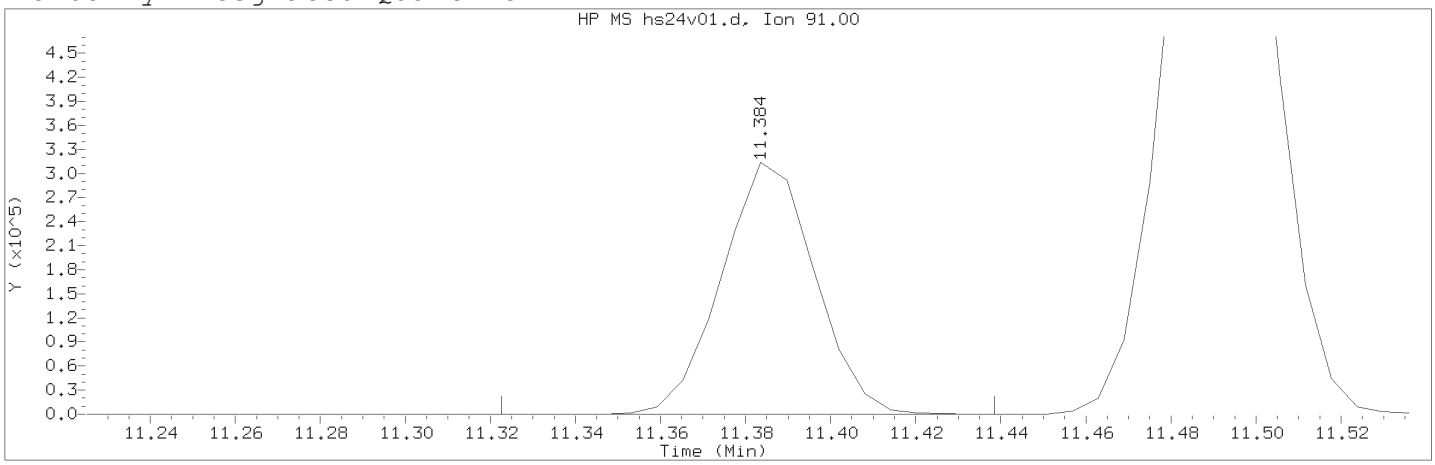
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.780
Quant Ion : 88.00
Area : 24295
On-column Amount (ng) : 144.0216
Integration start scan : 1168 Integration stop scan: 1186
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used to sign report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

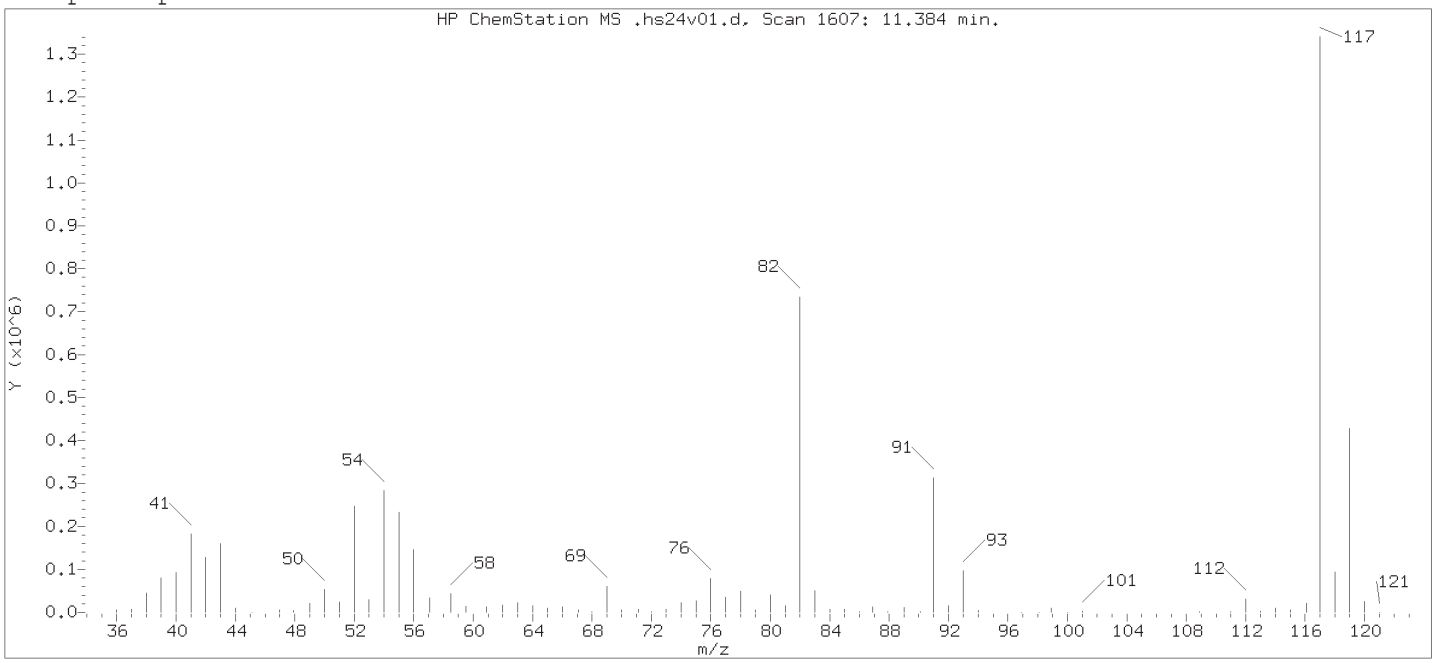
Compound Number : 96
Compound Name : 1-Chlorohexane
Scan Number : 1607
Retention Time (minutes): 11.384
Quant Ion : 91.00
Area (flag) : 476940M
On-Column Amount (ng) : 4.9395
Integration start scan : 1596 Integration stop scan: 1615
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

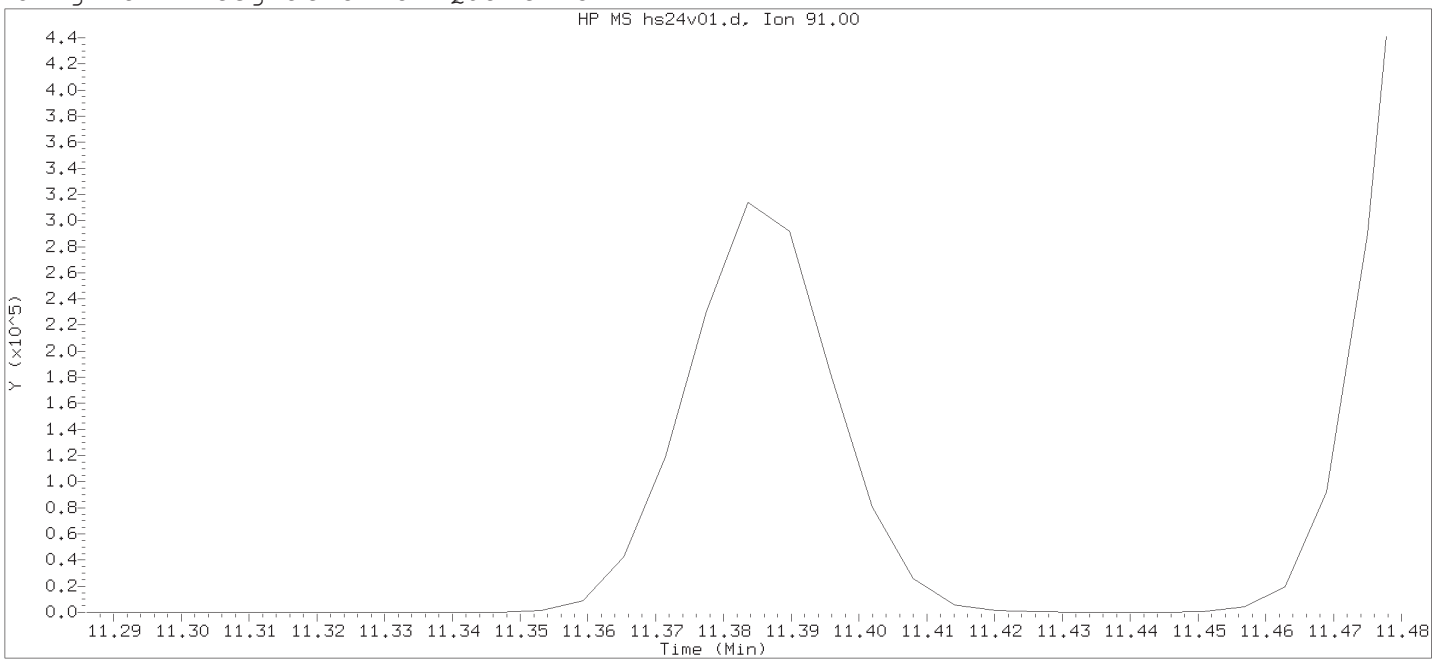
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

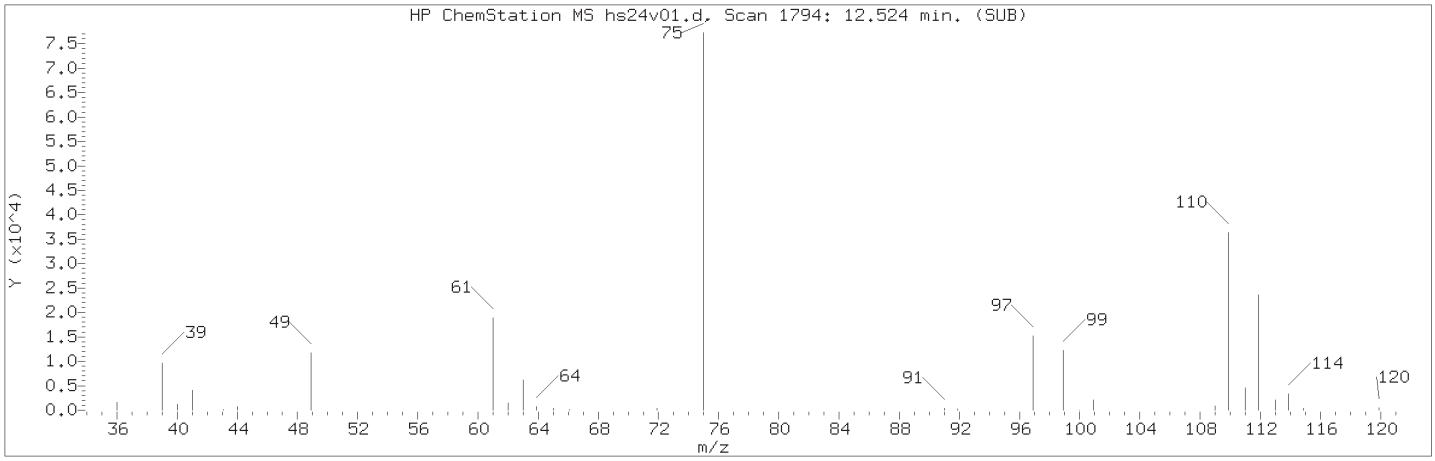
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

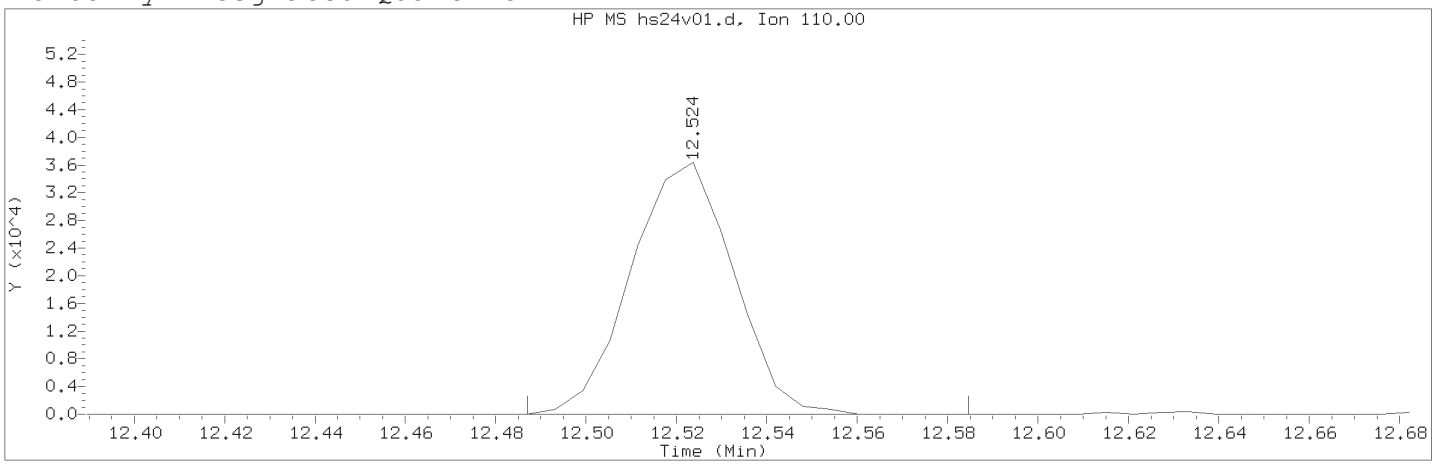
Compound Number : 96
Compound Name : 1-Chlorohexane
Expected RT (minutes) : 11.384
Quant Ion : 91.00

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

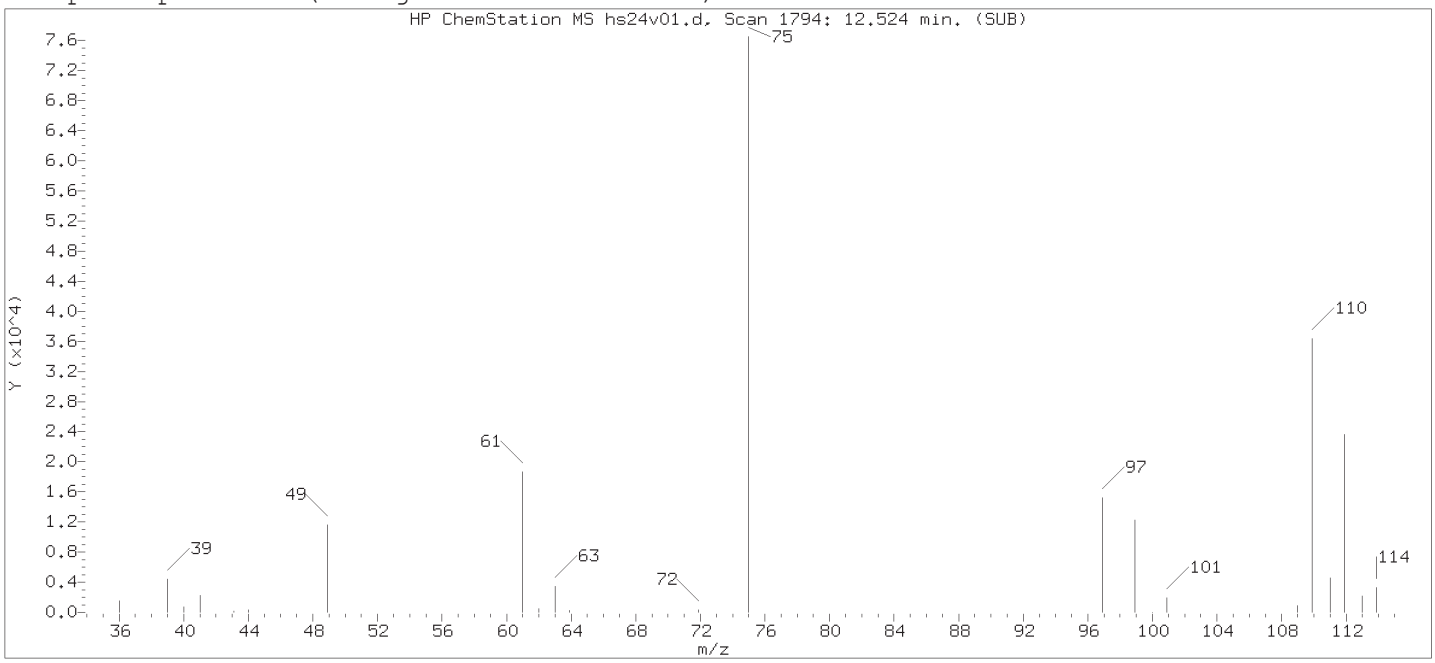
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area (flag) : 57126M
On-Column Amount (ng) : 4.9234
Integration start scan : 1787 Integration stop scan: 1803
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

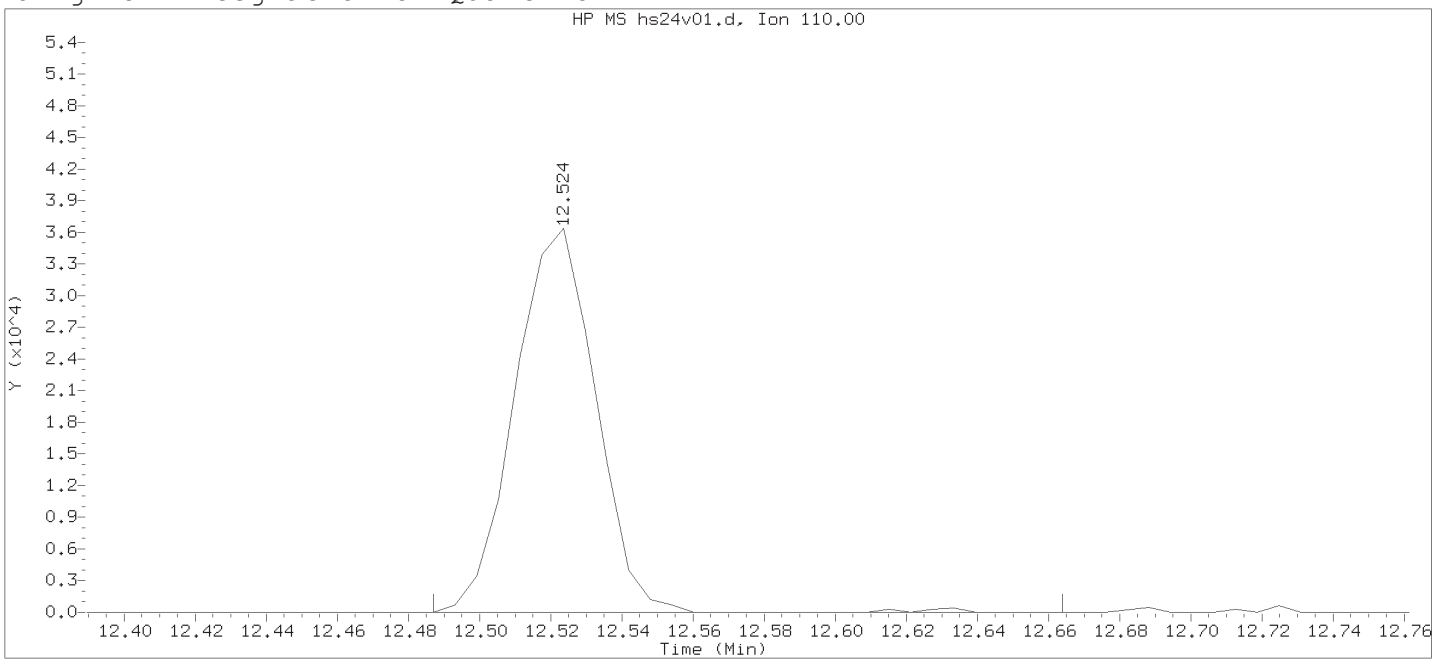
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

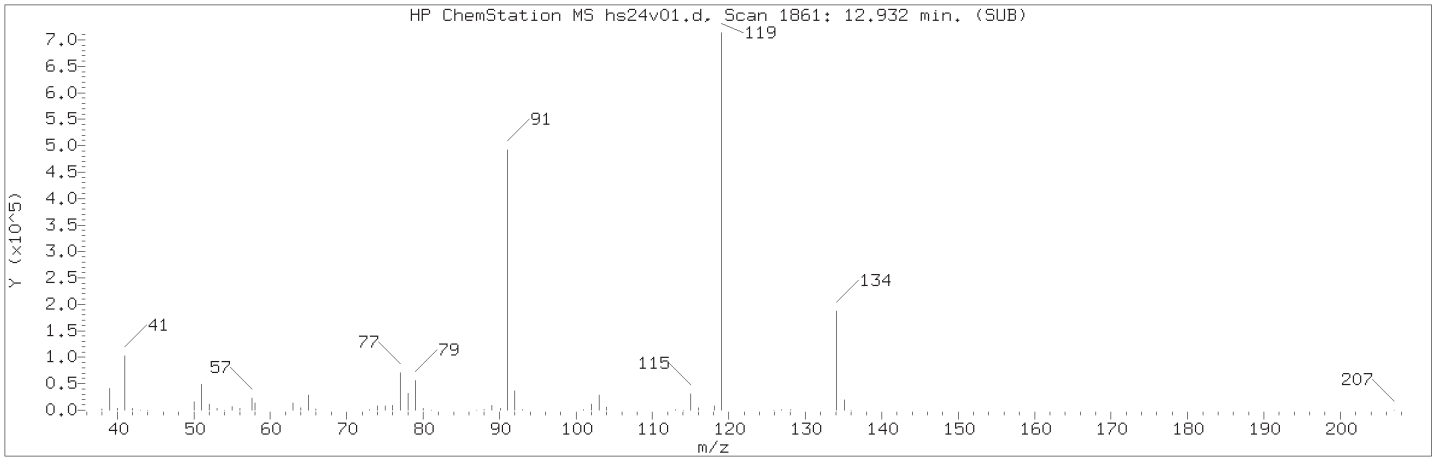
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

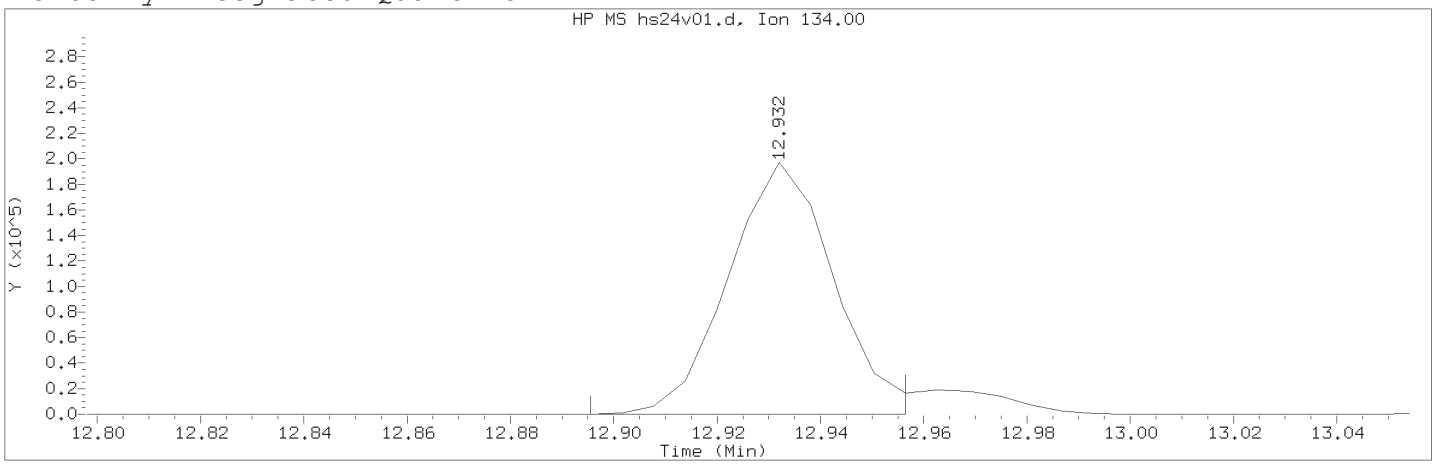
Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1794
Retention Time (minutes): 12.524
Quant Ion : 110.00
Area : 57467
On-column Amount (ng) : 4.9421
Integration start scan : 1787 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

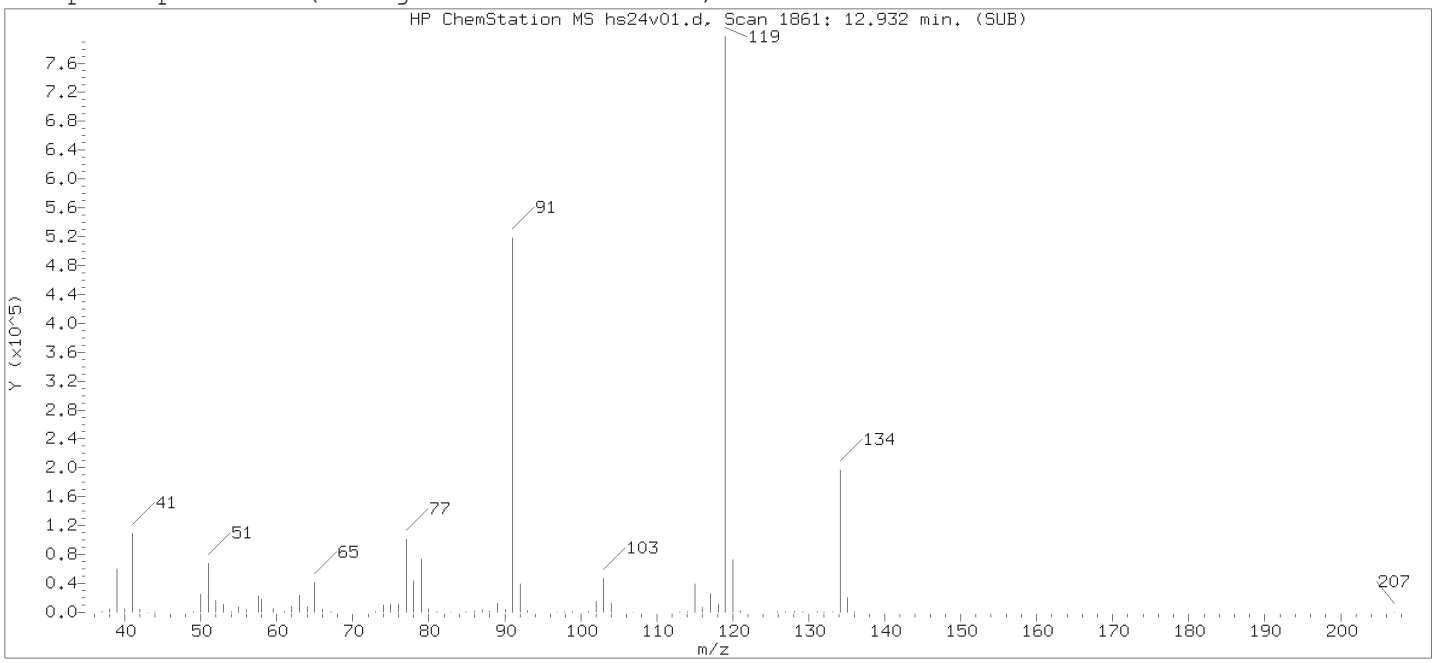
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area (flag) : 278567M
On-Column Amount (ng) : 5.0967
Integration start scan : 1854 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

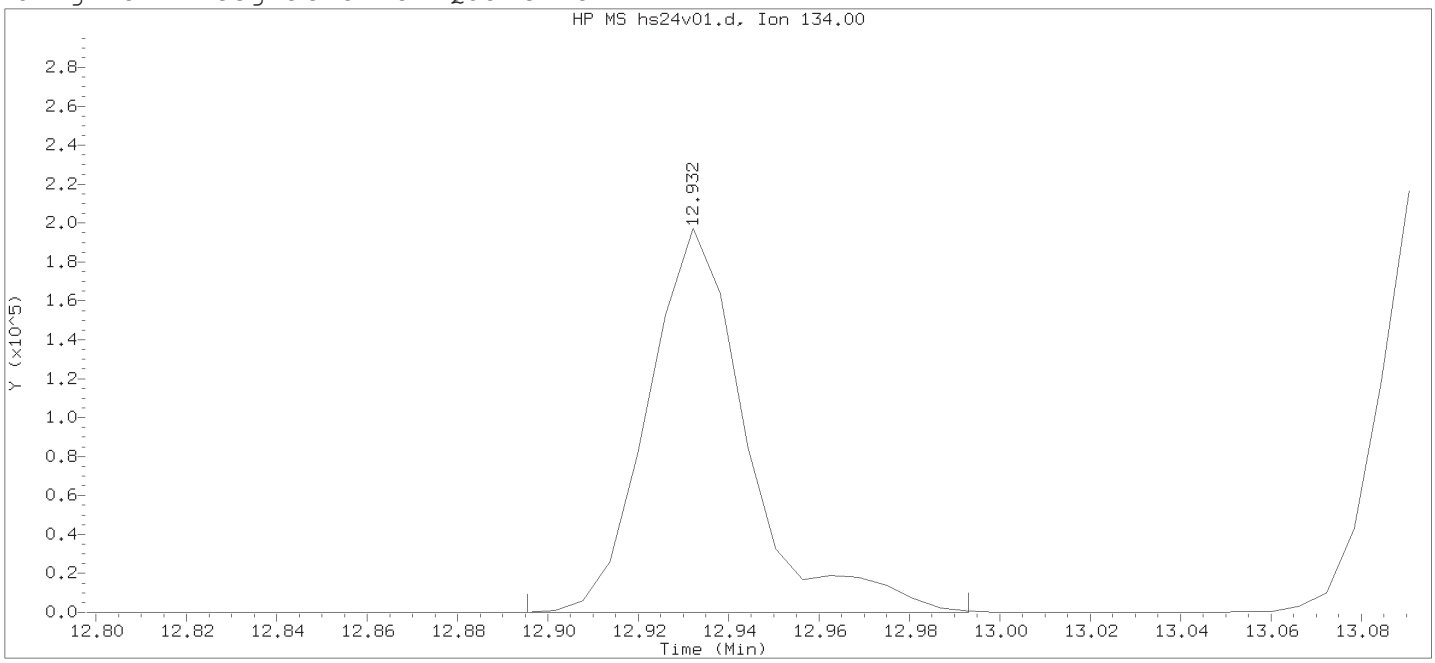
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

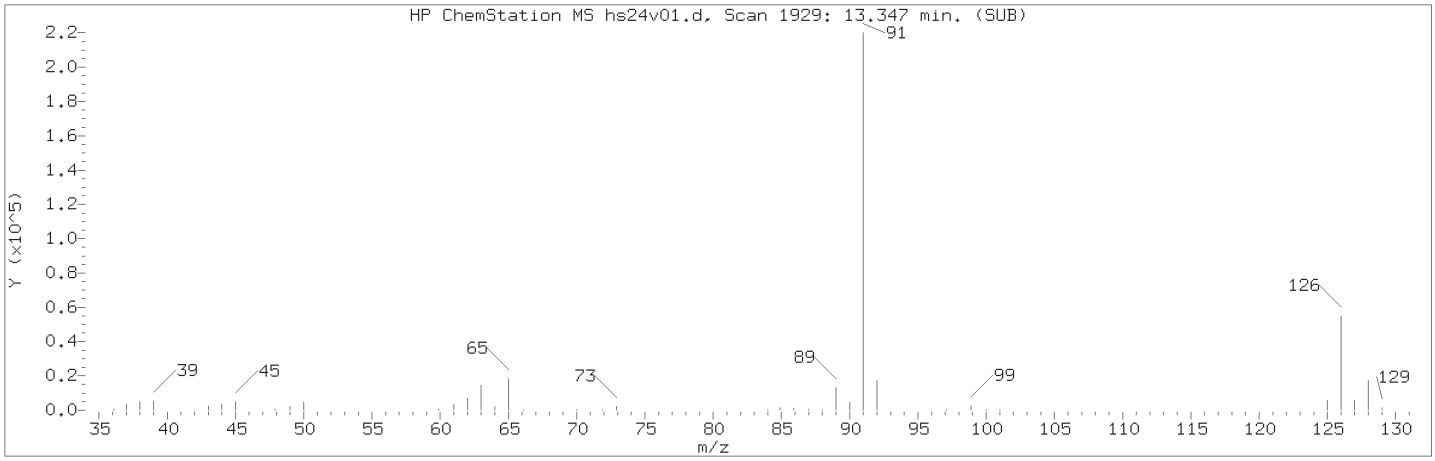
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

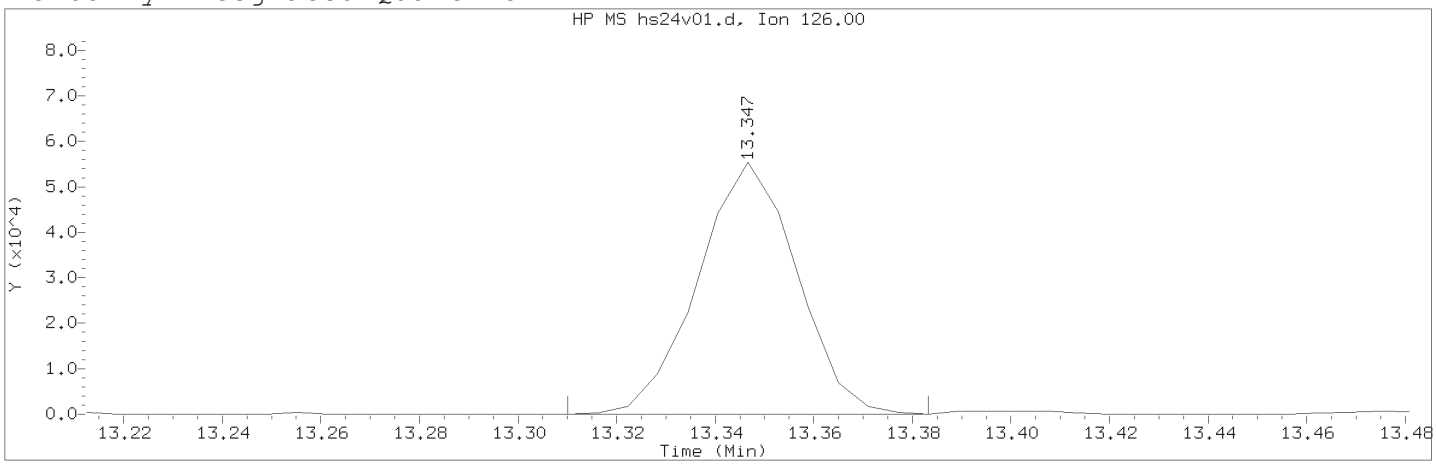
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1861
Retention Time (minutes): 12.932
Quant Ion : 134.00
Area : 300676
On-column Amount (ng) : 5.3090
Integration start scan : 1854 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

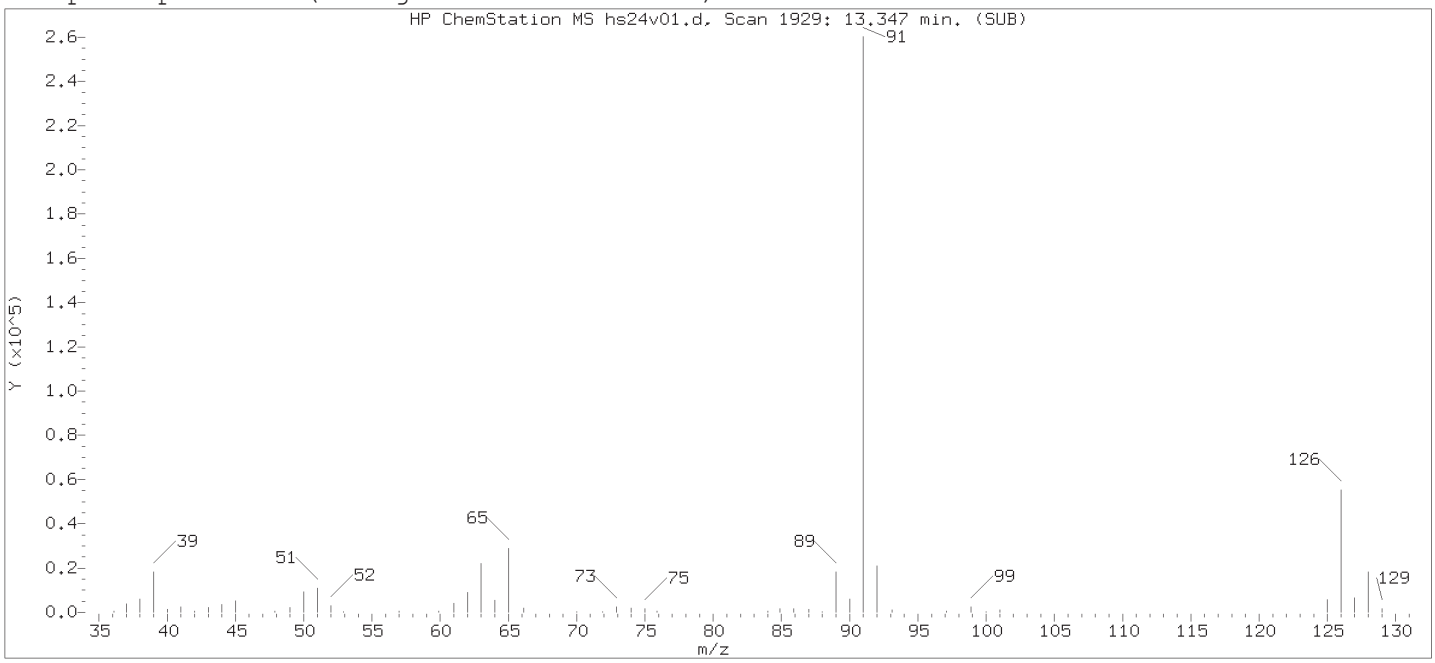
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1929
Retention Time (minutes): 13.347
Quant Ion : 126.00
Area (flag) : 76709M
On-Column Amount (ng) : 4.7280
Integration start scan : 1922 Integration stop scan: 1934
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

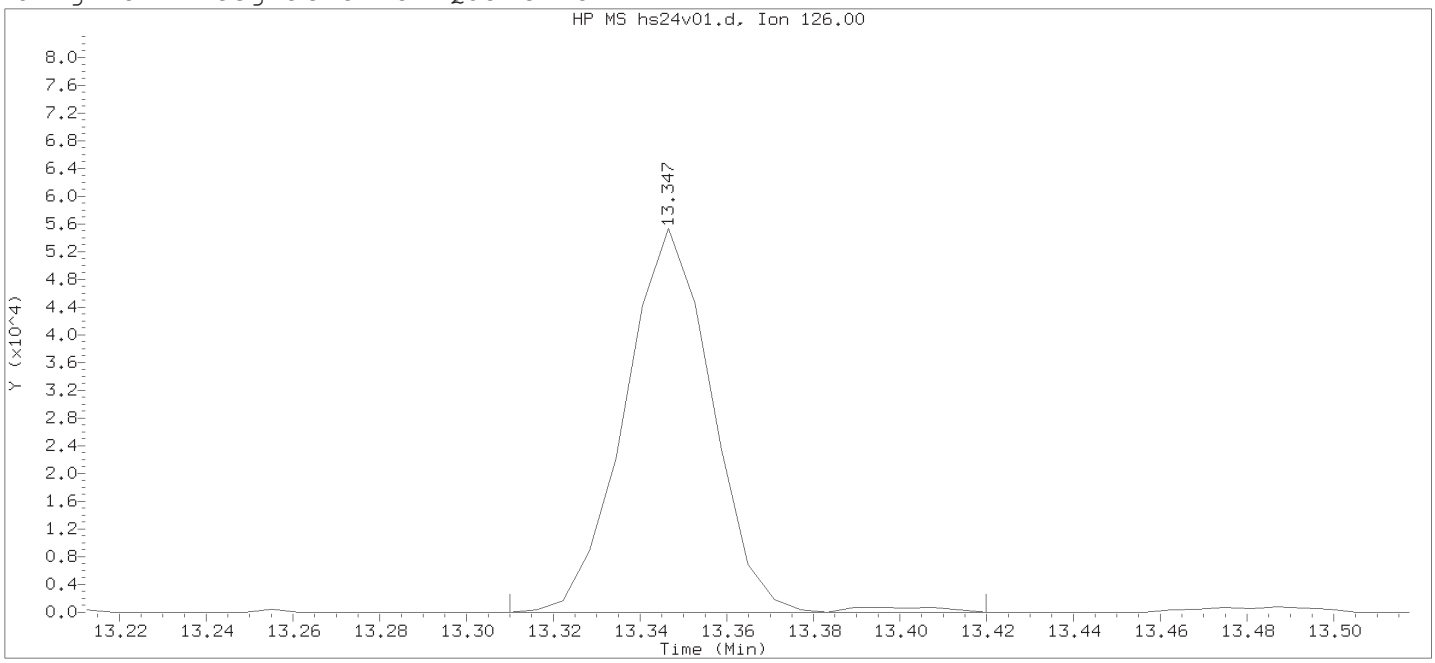
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

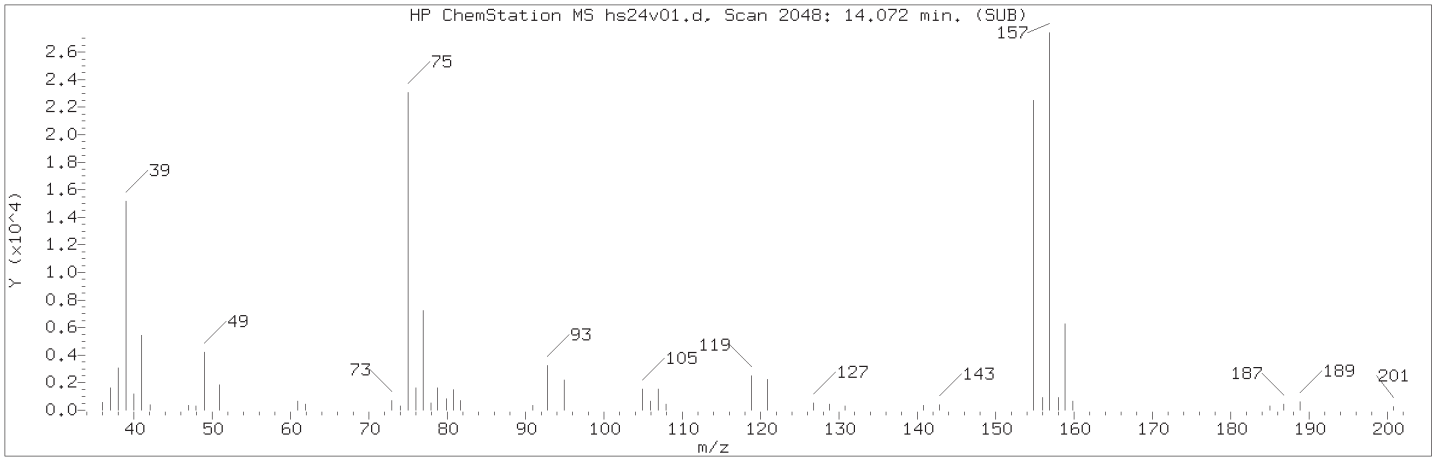
Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

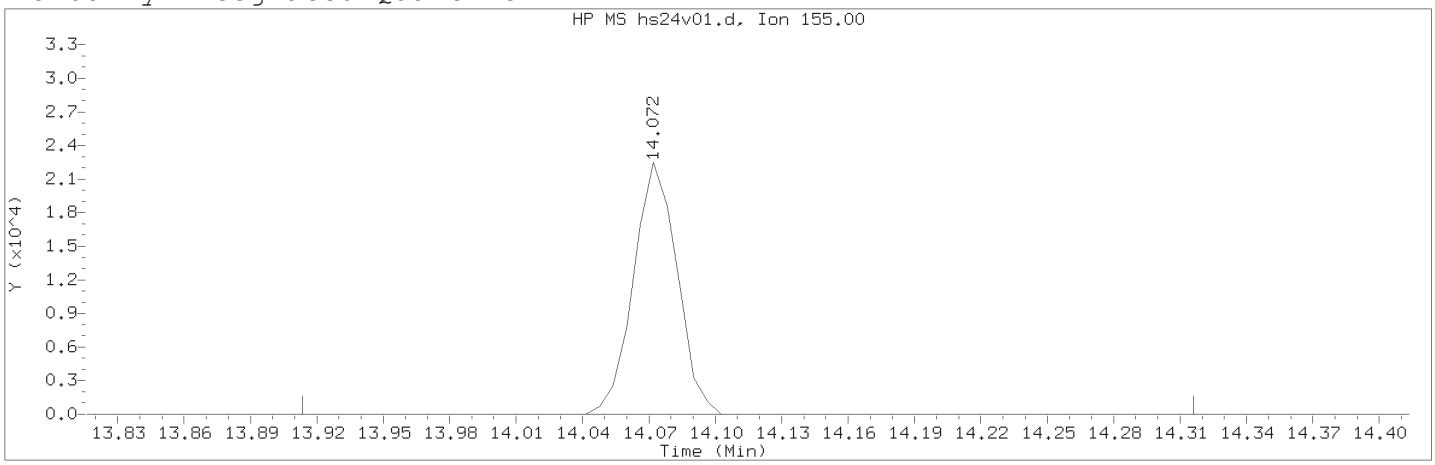
Compound Number : 136
Compound Name : Benzyl Chloride
Scan Number : 1929
Retention Time (minutes): 13.347
Quant Ion : 126.00
Area : 77799
On-column Amount (ng) : 5.0401
Integration start scan : 1922 Integration stop scan: 1940
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used: D12 Page 1208

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 25-SEP-2018 09:09
Date, time and analyst ID of latest file update: 25-Sep-2018 13:21 jkh09052

Sample Name: ICVHLG Lab Sample ID: ICVHLG

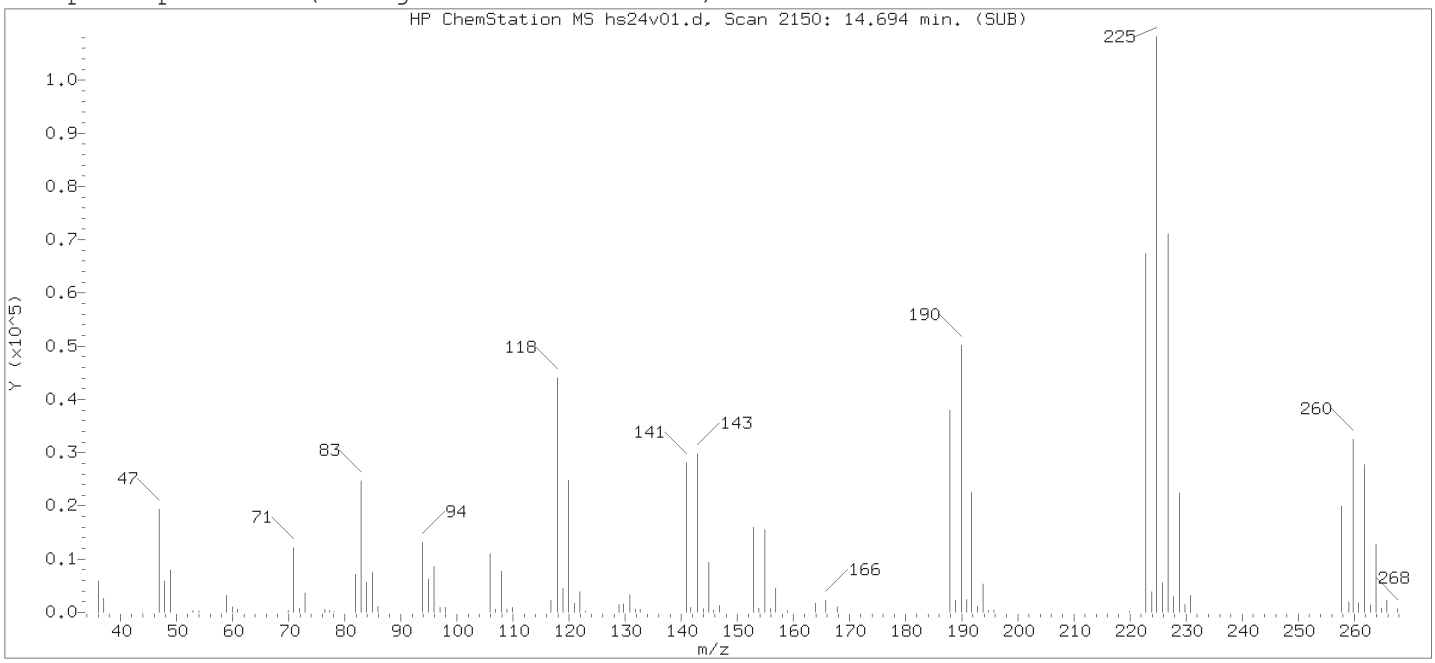
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2048
Retention Time (minutes): 14.072
Quant Ion : 155.00
Area (flag) : 30890M
On-Column Amount (ng) : 5.3040
Integration start scan : 2021 Integration stop scan: 2087
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

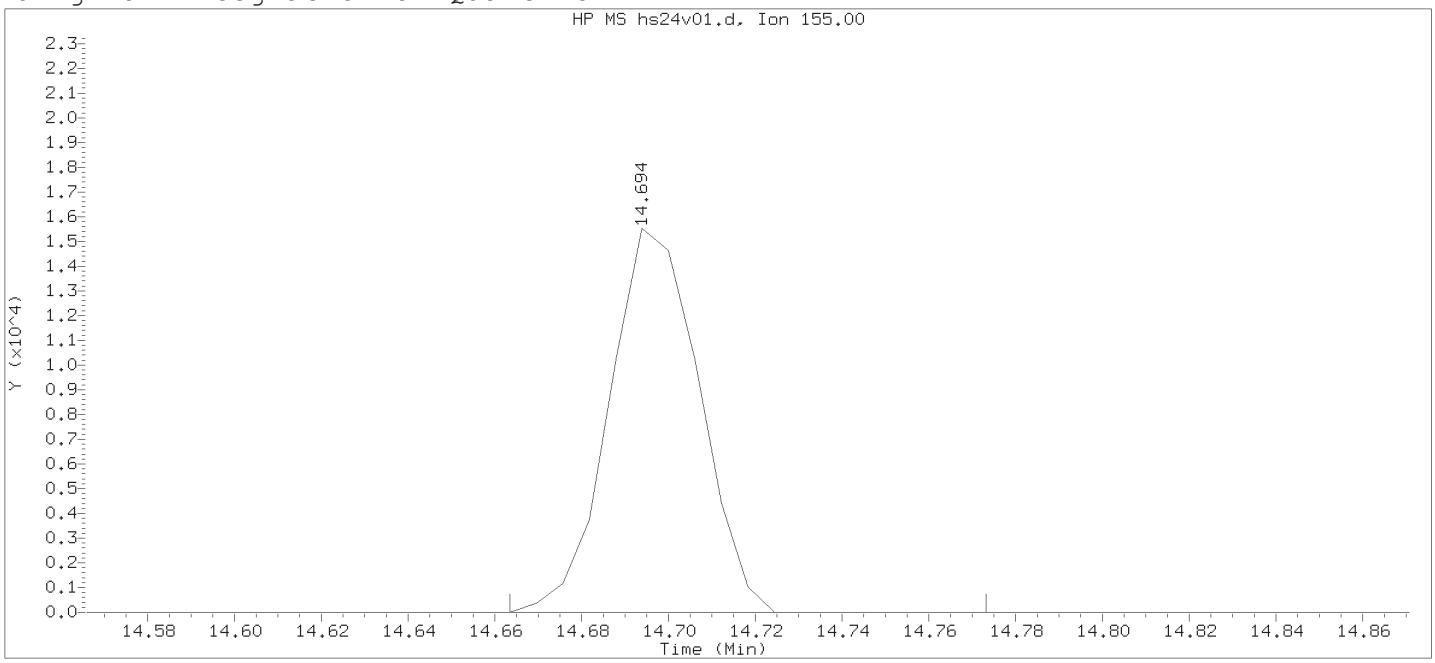
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 09/25/2018 at 13:21.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 09/26/2018 at 16:35.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18sep24i.b/hs24v01.d Instrument ID: HP19094.i
Injection date and time: 24-SEP-2018 21:20 Analyst ID: JKH09052

Method used: /chem2/HP19094.i/18sep24i.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 24-SEP-2018 20:55
Date, time and analyst ID of latest file update: 24-Sep-2018 21:38 Automation

Sample Name: ICVHLG Lab Sample ID: ICVHLG

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2150
Retention Time (minutes): 14.694
Quant Ion : 155.00
Area : 22433
On-column Amount (ng) : 7.5577
Integration start scan : 2144 Integration stop scan: 2162
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 09/25/2018 at 13:21.
Target 3.5 esignature used.

Data File: /chem2/HP19094.i/18nov05b.b/hn05t05.d

Date : 05-NOV-2018 19:34

Client ID: aug7-18

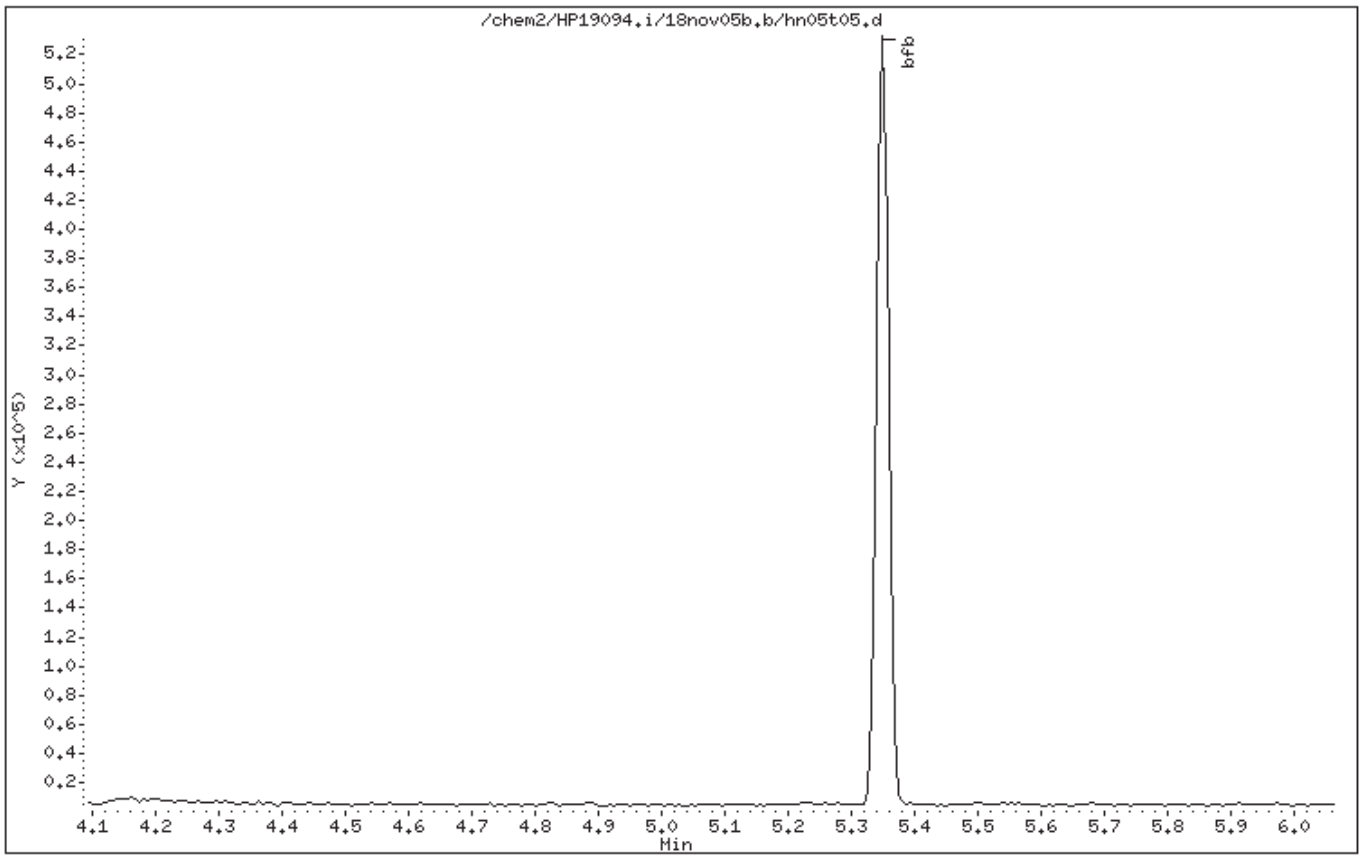
Instrument: HP19094.i

Sample Info: aug7-18;50NGBFB;1;3;;;;;;

Operator: JGC14951

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Joel G. Chachapoya on 11/05/2018 at 19:43.
Target 3.5 esignature user ID: jgc14951

Data File: /chem2/HP19094.i/18nov05b.b/hn05t05.d

Date : 05-NOV-2018 19:34

Client ID: aug7-18

Instrument: HP19094.i

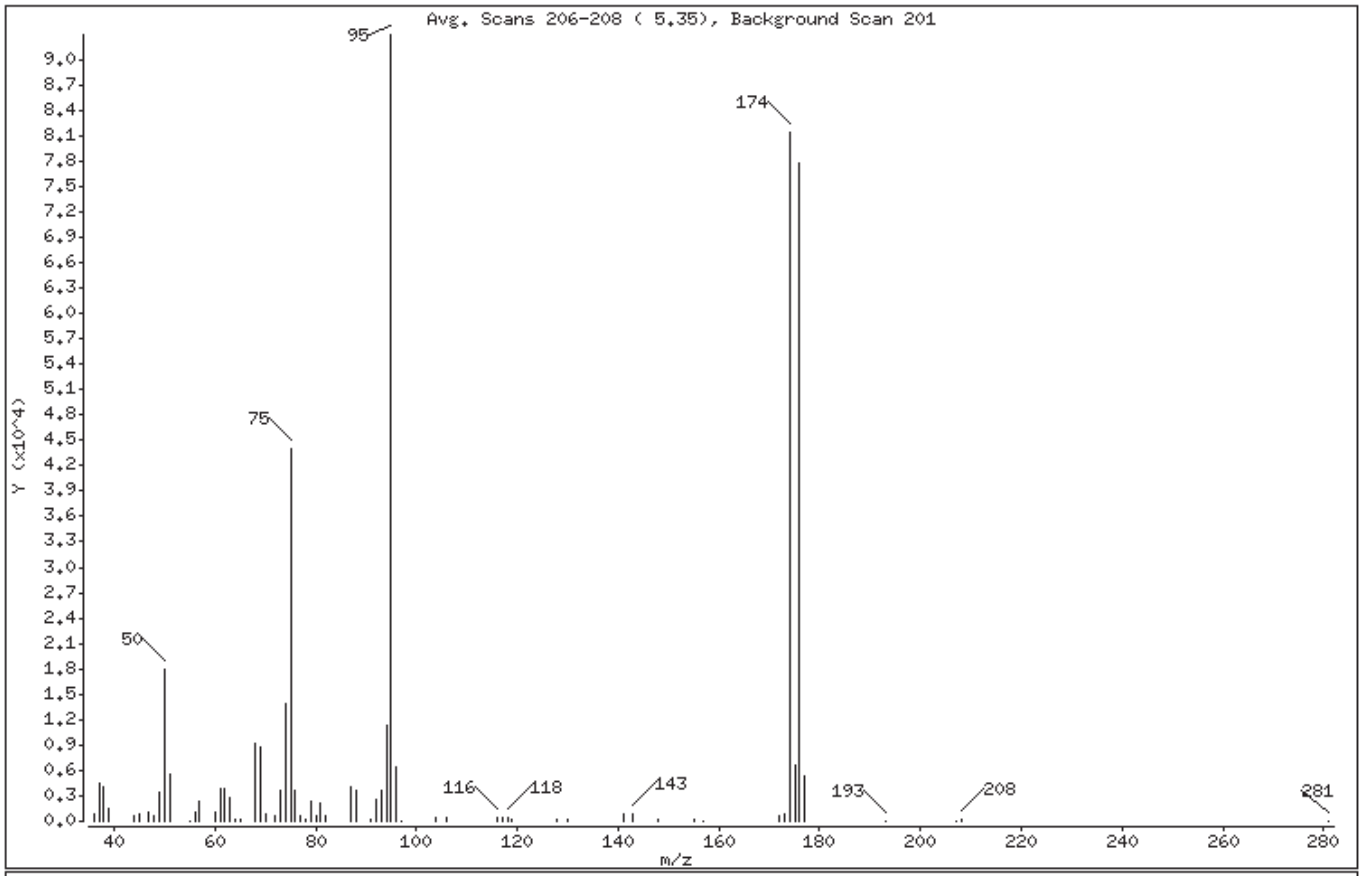
Sample Info: aug7-18;50NGBFB;1;3;;;;;;

Operator: JGC14951

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.24
75	30.00 - 60.00% of mass 95	47.28
96	5.00 - 9.00% of mass 95	6.97
173	Less than 2.00% of mass 174	0.97 (1.10)
174	50.00 - 100.00% of mass 95	87.59
175	5.00 - 9.00% of mass 174	7.08 (8.08)
176	95.00 - 101.00% of mass 174	83.77 (95.64)
177	5.00 - 9.00% of mass 176	5.80 (6.92)

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 19:43.
Target 3.5 esignature user ID: jgc14951

Date : 05-NOV-2018 19:34

Client ID: aug7-18 Instrument: HP19094.i

Sample Info: aug7-18;50NGBFB;1;3;;;;;;

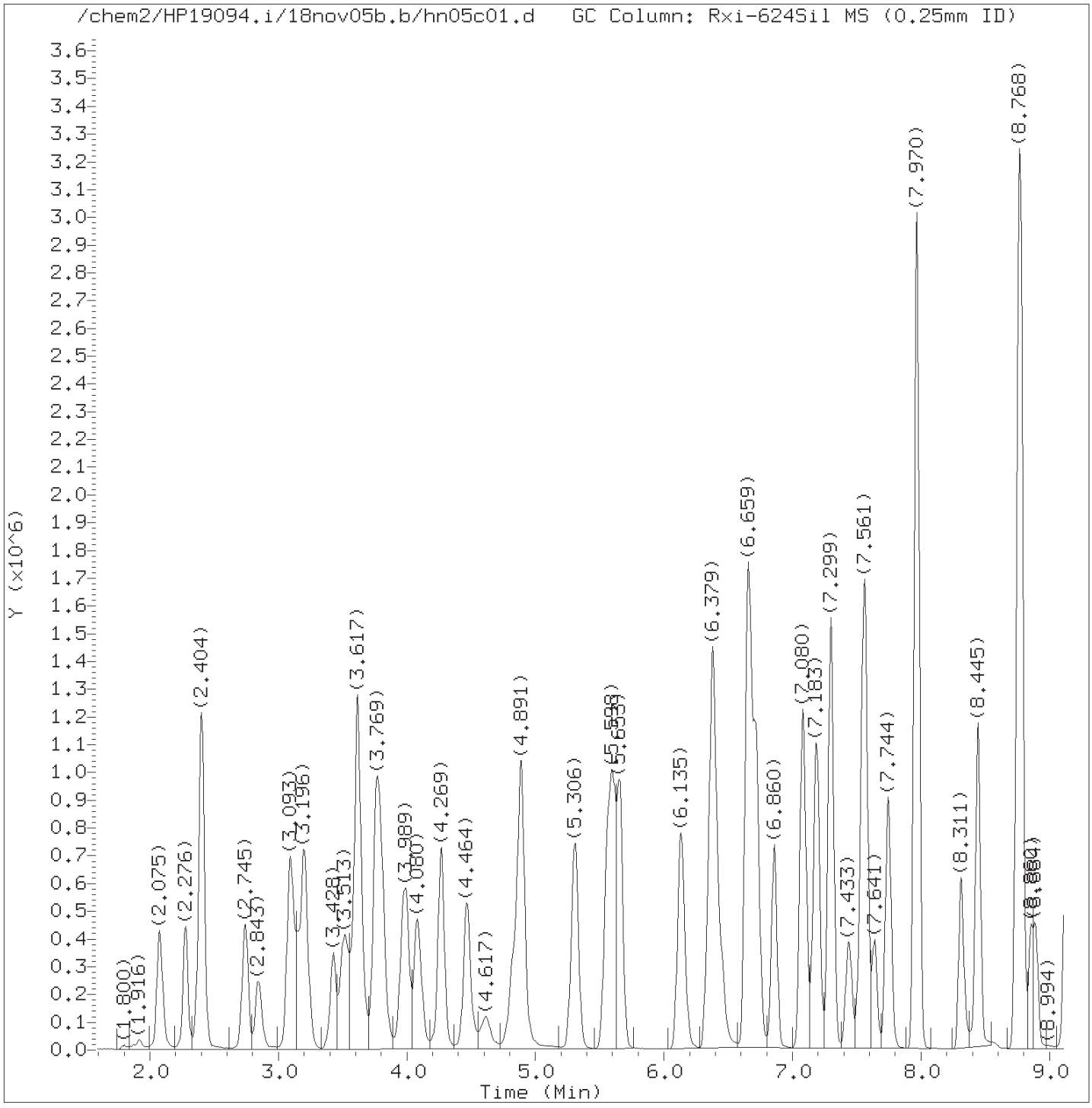
Operator: JGC14951

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: hn05t05.d
Spectrum: Avg. Scans 206-208 (5.35), Background Scan 201
Location of Maximum: 95.00
Number of points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	947	63.00	2778	87.00	4155	141.00	864
37.00	4476	64.00	244	88.00	3722	143.00	958
38.00	4022	65.00	303	91.00	282	148.00	263
39.00	1488	68.00	9138	92.00	2519	155.00	203
44.00	737	69.00	8769	93.00	3667	157.00	88
45.00	922	70.00	776	94.00	11267	172.00	635
47.00	1082	72.00	613	95.00	92896	173.00	899
48.00	654	73.00	3726	96.00	6472	174.00	81368
49.00	3460	74.00	13953	97.00	98	175.00	6576
50.00	17864	75.00	43920	104.00	444	176.00	77824
51.00	5577	76.00	3618	106.00	406	177.00	5389
55.00	92	77.00	684	116.00	447	193.00	86
56.00	1140	78.00	309	117.00	425	207.00	41
57.00	2249	79.00	2244	118.00	416	208.00	214
60.00	1060	80.00	698	119.00	298	281.00	25
61.00	3770	81.00	2125	128.00	236		
62.00	3873	82.00	583	130.00	261		

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 19:43.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

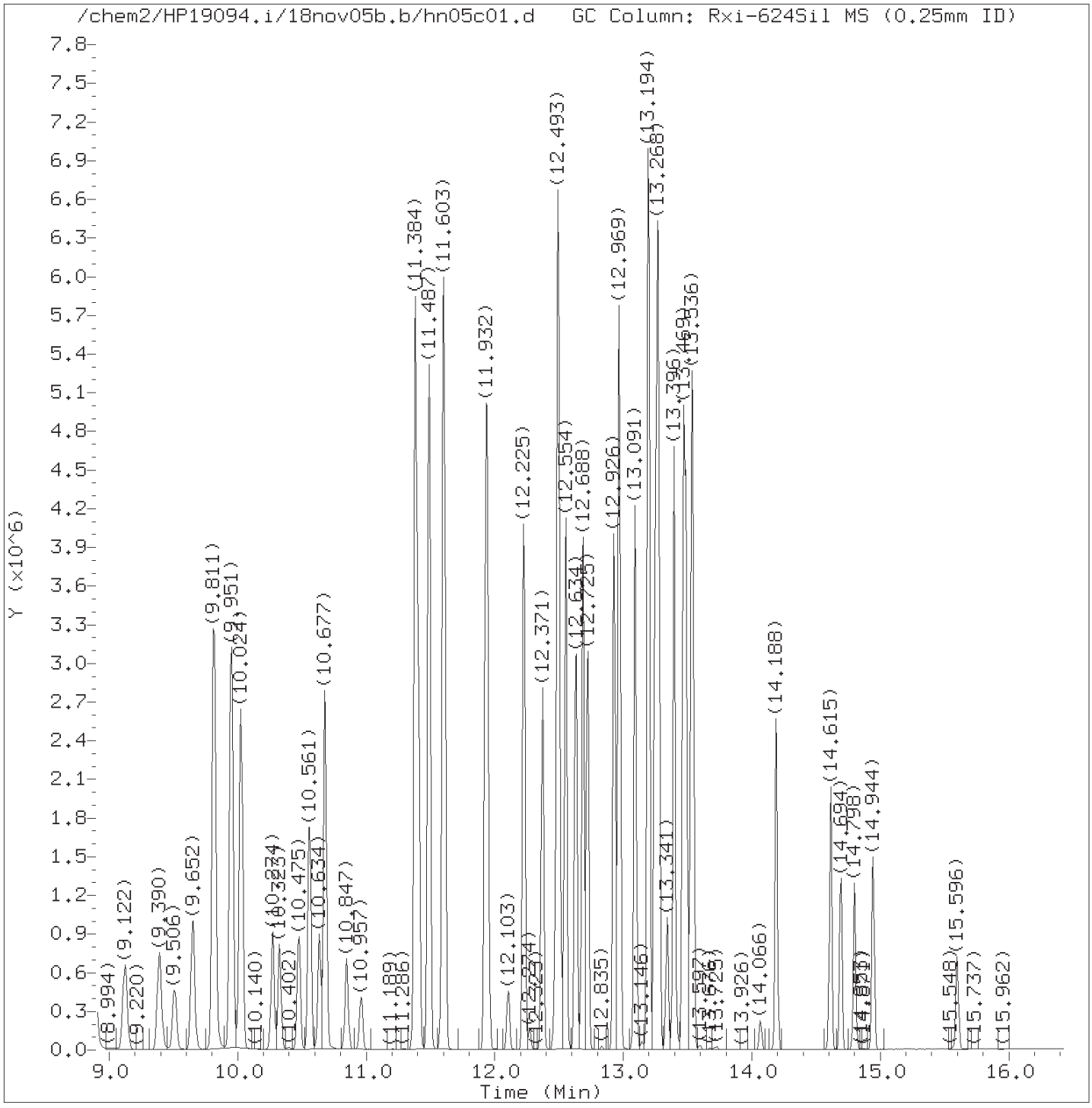
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	774650	7.753
2) Chloromethane	(2)	2.276	50	757774	7.744
5) Vinyl Chloride	(2)	2.404	62	709141	7.739
6) 1,3-Butadiene	(2)	2.404	39	723880	6.974
7) Bromomethane	(2)	2.739	94	561341	7.880
8) Chloroethane	(2)	2.843	64	429750	7.733
9) Dichlorofluoromethane	(2)	3.093	67	999492	7.561
10) Trichlorofluoromethane	(2)	3.148	101	902136	7.793
11) Ethyl ether	(2)	3.428	59	348492	8.879
12) Freon 123a	(2)	3.519	67	620037	8.454
13) Acrolein	(1)	3.617	56	2419929	443.929
15) 1,1-Dichloroethene	(2)	3.757	96	443407	8.846
16) Freon 113	(2)	3.794	101	475563	8.050
14) Acetone	(1)	3.800	43	565716	77.265
17) Methyl Iodide	(2)	3.971	142	897245	8.587
18) Carbon Disulfide	(2)	4.080	76	1355559	8.499
21) Methyl Acetate	(1)	4.239	43	180454	8.779
22) Allyl Chloride	(2)	4.269	41	841313	8.829
23) Methylene Chloride	(2)	4.464	84	471736	8.342
26)*t-Butyl Alcohol-d10	(1)	4.483	65	122842M	50.000
28) t-Butyl Alcohol	(1)	4.617	59	374572M	178.639
29) Acrylonitrile	(1)	4.818	53	437472	46.266
30) Methyl Tertiary Butyl Ether	(2)	4.873	73	916837	8.893
31) trans-1,2-Dichloroethene	(2)	4.891	96	489815	8.658
32) n-Hexane	(2)	5.312	57	743404	8.264
33) 1,1-Dichloroethane	(2)	5.556	63	965618	8.965
34) di-Isopropyl Ether	(2)	5.598	45	1683700	8.802
35) 2-Chloro-1,3-Butadiene	(2)	5.659	53	879032	9.069
40) 1,2-Dichloroethene (Total)	(2)		96	1046961	17.571
37) Ethyl t-butyl ether	(2)	6.135	59	1306041M	8.608
38) 2-Butanone	(1)	6.348	43	1141782	95.267
39) cis-1,2-Dichloroethene	(2)	6.379	96	557146	8.913
41) 2,2-Dichloropropane	(2)	6.397	77	688303	8.947
42) Propionitrile	(1)	6.446	54	651671	200.319
45) Methacrylonitrile	(1)	6.659	67	1091619	93.061
47) Bromochloromethane	(2)	6.714	128	231475	8.766
48) Tetrahydrofuran	(1)	6.720	71	298857	93.795
49) Chloroform	(2)	6.860	83	887167	8.859

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50)$Dibromofluoromethane	(2)	7.074	113	616523	9.568
50)$Dibromofluoromethane	(2)	7.080	111	630812	9.511
51) 1,1,1-Trichloroethane	(2)	7.092	97	741684	8.658
52) Cyclohexane	(2)	7.189	56	934029	8.353
52) Cyclohexane	(2)	7.189	84	761922	8.264
52) Cyclohexane	(2)	7.183	69	277220	8.412
54) Carbon Tetrachloride	(2)	7.299	117	640305	8.703
55) 1,1-Dichloropropene	(2)	7.299	75	716038	8.815
56) Isobutyl Alcohol	(1)	7.433	41	381831	470.650
57)$1,2-Dichloroethane-d4	(2)	7.531	102	110711	9.856
57)$1,2-Dichloroethane-d4	(2)	7.531	65	548516	10.096
57)$1,2-Dichloroethane-d4	(2)	7.543	104	70572	9.809
58) Benzene	(2)	7.567	78	2116507	8.820
59) 1,2-Dichloroethane	(2)	7.641	62	469475M	8.501
60) t-Amyl methyl ether	(2)	7.744	73	1081152	8.595
62) n-Heptane	(2)	7.970	43	774002	8.345
63)*Fluorobenzene	(2)	7.970	96	2556545	10.000
65) n-Butanol	(1)	8.311	56	675794	985.966
67) Trichloroethene	(2)	8.445	95	541755	8.817
69) Methylcyclohexane	(2)	8.750	83	941356	8.113
70) 1,2-Dichloropropane	(2)	8.781	63	521114	8.951
71) Methyl Methacrylate	(1)	8.854	69	205697M	9.474
72) 1,4-Dioxane	(1)	8.866	88	84962M	514.834
73) Dibromomethane	(2)	8.896	93	215725	8.928
74) Bromodichloromethane	(2)	9.122	83	590957	9.029
76) 2-Nitropropane	(1)	9.390	41	624165M	101.484
80) cis-1,3-Dichloropropene	(2)	9.646	75	700941	9.198
81) 4-Methyl-2-Pentanone	(1)	9.811	43	2845952M	95.463
82)$Toluene-d8	(3)	9.951	98	2484692	10.342
82)$Toluene-d8	(3)	9.951	100	1586567	10.232
83) Toluene	(3)	10.024	92	1298349	9.373
85) 1,3-Dichloropropene (total)	(3)		75	1231701	19.142
84) trans-1,3-Dichloropropene	(3)	10.274	75	530760	9.944
86) Ethyl Methacrylate	(3)	10.323	69	457524	10.005
88) 1,1,2-Trichloroethane	(3)	10.475	97	300552	9.429
89) Tetrachloroethene	(3)	10.561	166	572684	9.150
90) 1,3-Dichloropropane	(3)	10.634	76	533524	9.444
91) 2-Hexanone	(1)	10.677	43	1921932M	94.709

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) Dibromochloromethane	(3)	10.847	129	371289	9.719
95) 1,2-Dibromoethane	(3)	10.957	107	285829	9.567
96) 1-Chlorohexane	(3)	11.384	91	738364	8.937
97)*Chlorobenzene-d5	(3)	11.384	117	1866671	10.000
98) Chlorobenzene	(3)	11.408	112	1377499	9.373
100) Ethylbenzene	(3)	11.487	91	2558955	9.452
99) 1,1,1,2-Tetrachloroethane	(3)	11.487	131	467210	9.633
101) m+p-Xylene	(3)	11.603	106	1895589	18.877
105) Xylene (Total)	(3)		106	2805690	28.355
104) o-Xylene	(3)	11.926	106	910101	9.480
106) Styrene	(3)	11.945	104	1499081	9.760
107) Bromoform	(3)	12.103	173	202824	9.660
108) Isopropylbenzene	(3)	12.225	105	2460884	9.390
111)$4-Bromofluorobenzene	(3)	12.371	95	857562	9.804
111)$4-Bromofluorobenzene	(3)	12.371	174	735851	9.688
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	354977	9.703
114) Bromobenzene	(4)	12.487	156	542848	9.760
115) trans-1,4-Dichloro-2-butene	(1)	12.493	53	876544M	93.876
116) 1,2,3-Trichloropropane	(4)	12.518	110	92470	9.777
117) n-Propylbenzene	(4)	12.554	91	2994665	9.902
119) 2-Chlorotoluene	(4)	12.634	126	569432	9.708
121) 1,3,5-Trimethylbenzene	(4)	12.688	105	2004833	9.786
122) 4-Chlorotoluene	(4)	12.725	126	573261	9.753
125) tert-Butylbenzene	(4)	12.926	134	441481M	9.909
126) Pentachloroethane	(4)	12.963	167	349411	10.048
127) 1,2,4-Trimethylbenzene	(4)	12.969	105	2060526	9.857
128) sec-Butylbenzene	(4)	13.091	105	2636046	9.930
131) 1,3-Dichlorobenzene	(4)	13.194	146	1062339	9.614
132) p-Isopropyltoluene	(4)	13.194	119	2197623	9.994
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	922290	10.000
134) 1,4-Dichlorobenzene	(4)	13.268	146	1030519	9.500
135) 1,2,3-Trimethylbenzene	(4)	13.274	120	907343	9.460
136) Benzyl Chloride	(4)	13.341	126	139400	10.540
138) n-Butylbenzene	(4)	13.487	92	1087102	9.960
139) 1,2-Dichlorobenzene	(4)	13.524	146	907404	9.307
143) 1,2-Dibromo-3-chloropropane	(1)	14.066	155	42745M	8.459
144) 1,3,5-Trichlorobenzene	(4)	14.188	180	748600	9.106
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	576624	8.611

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Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

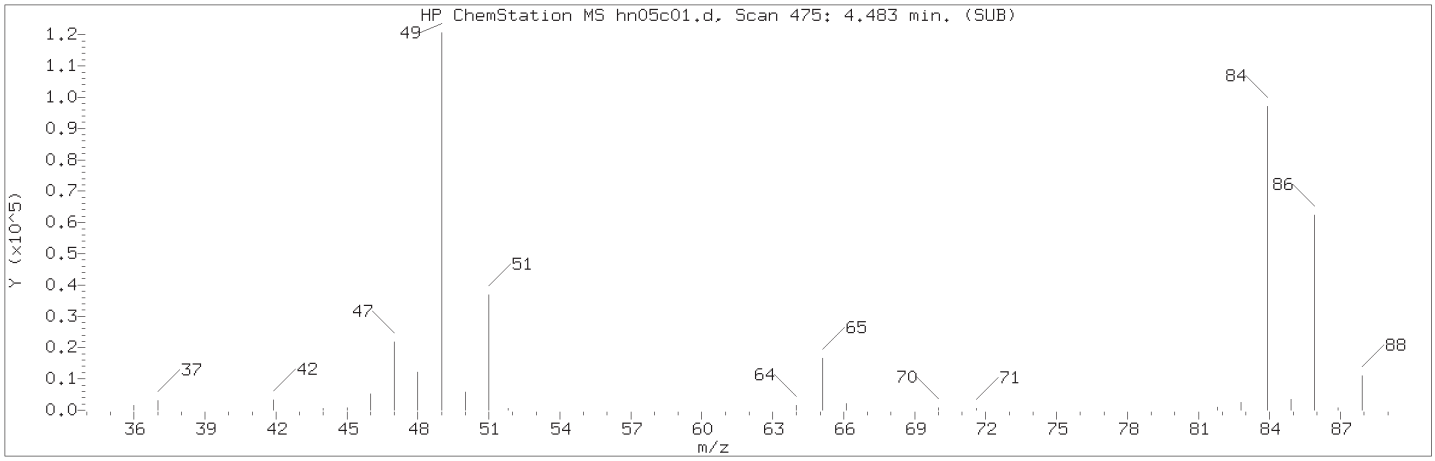
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

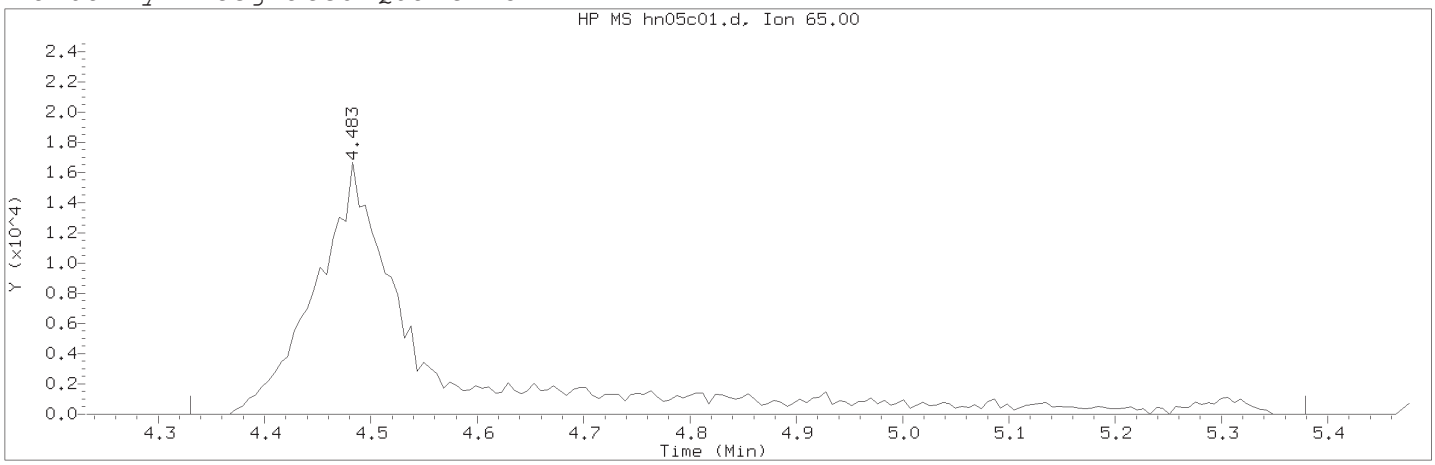
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) Hexachlorobutadiene	(4)	14.694	225	228528	9.029
147) Naphthalene	(4)	14.798	128	914643	8.632
148) 1,2,3-Trichlorobenzene	(4)	14.944	180	452520	8.219

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

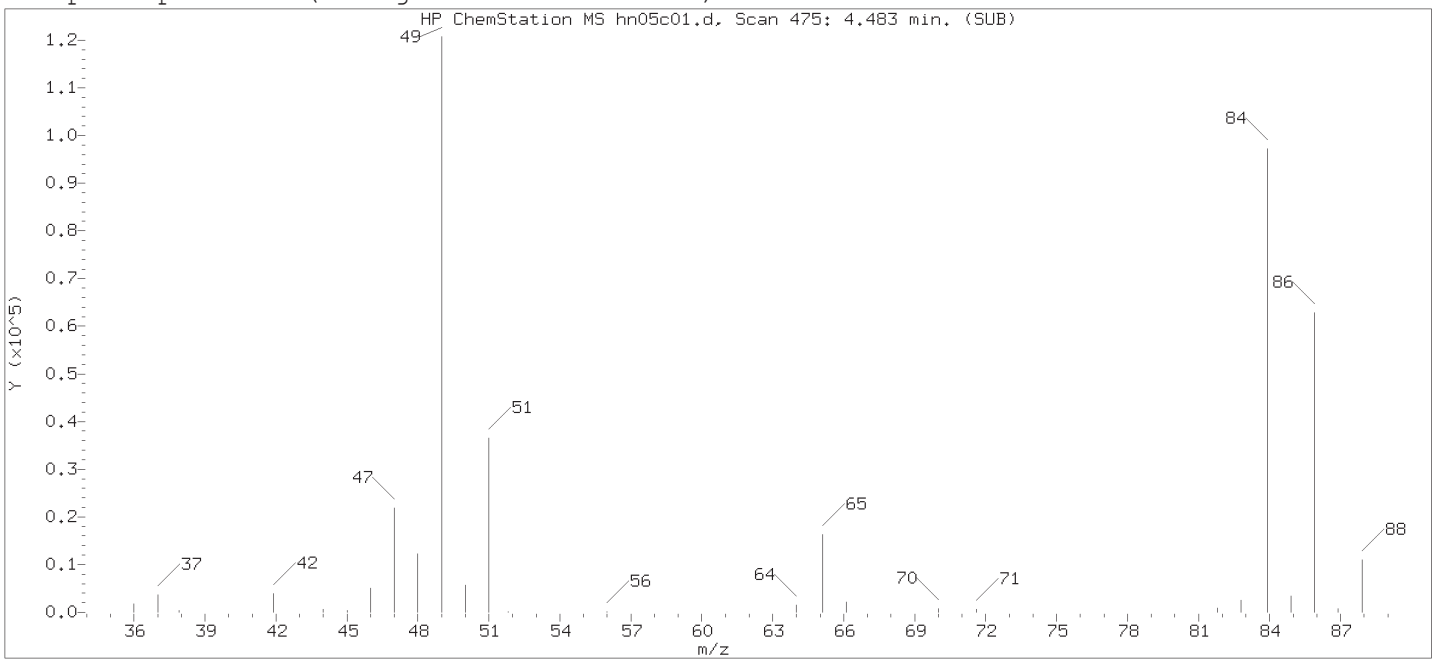
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area (flag) : 122842M
On-Column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 621
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

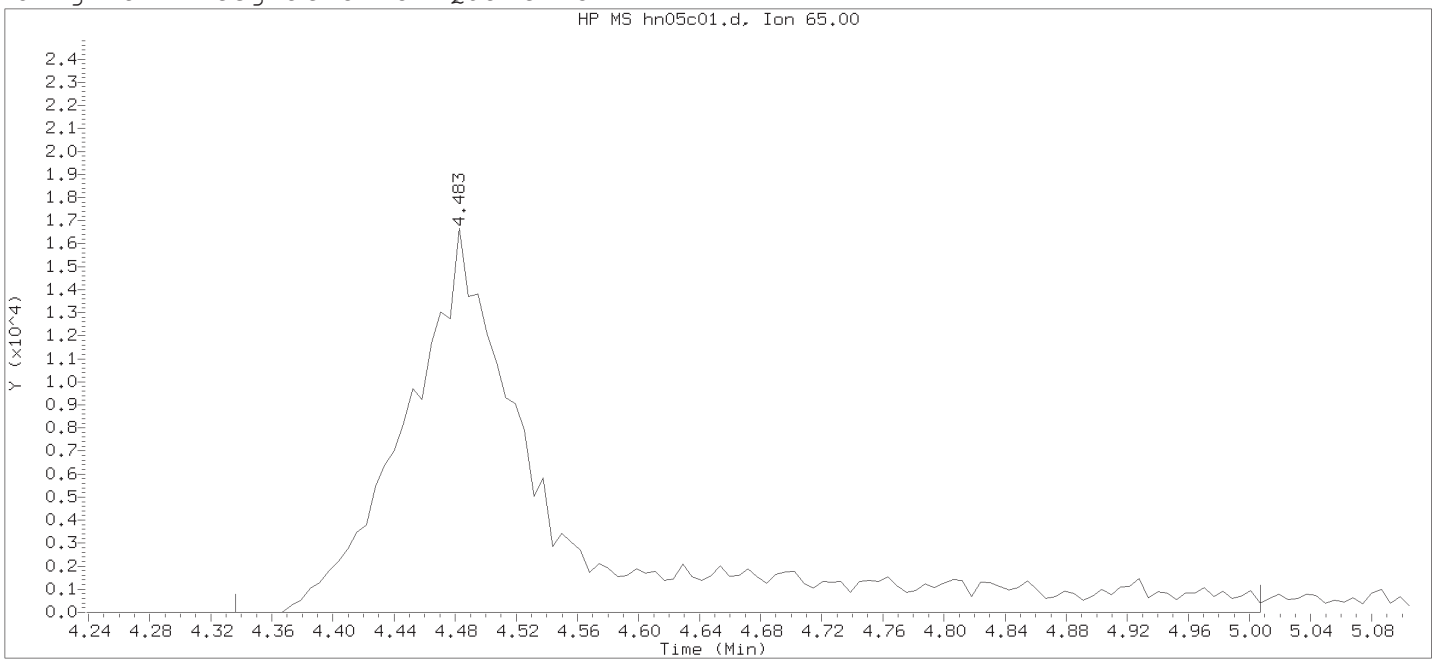
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

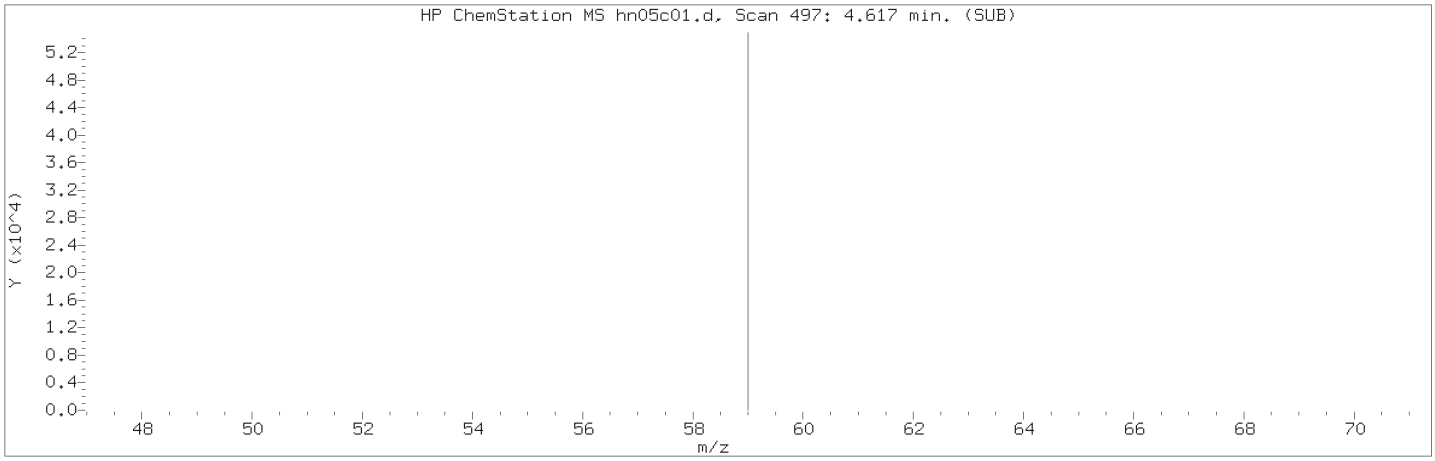
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

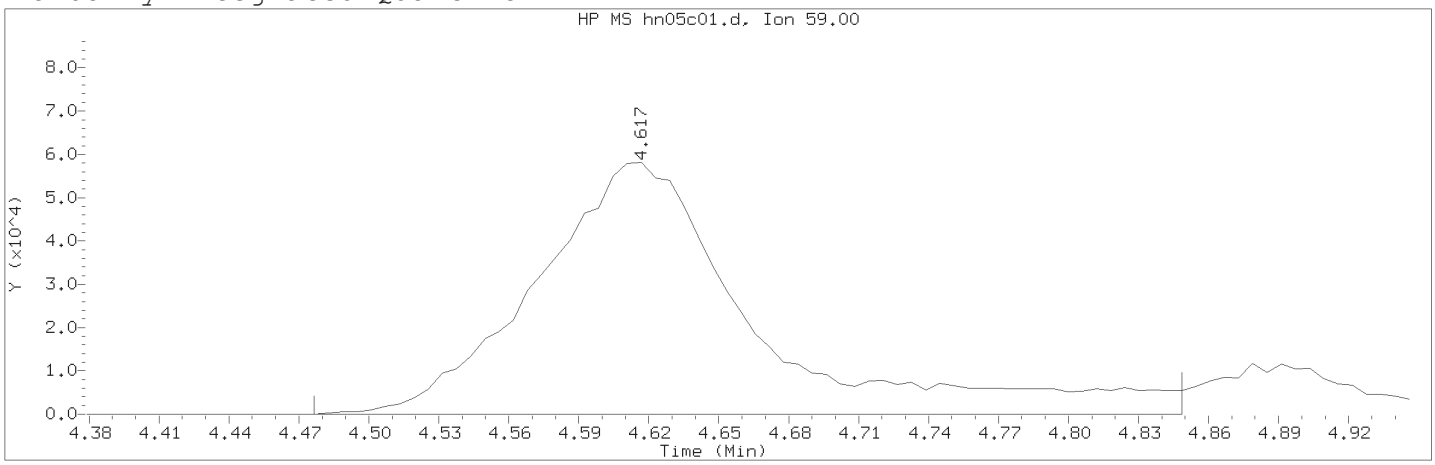
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area : 111834
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 560
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used 11/05/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

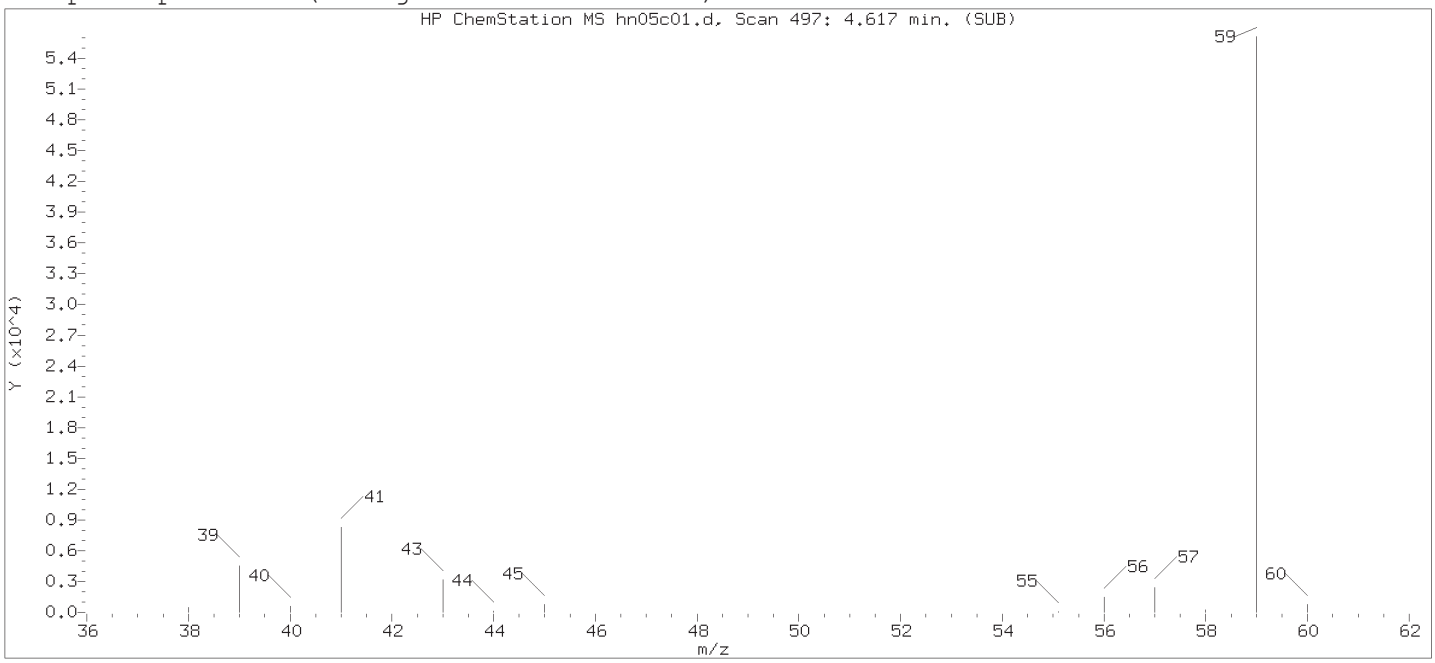
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 497
Retention Time (minutes): 4.617
Quant Ion : 59.00
Area (flag) : 374572M
On-Column Amount (ng) : 178.6394
Integration start scan : 473 Integration stop scan: 534
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

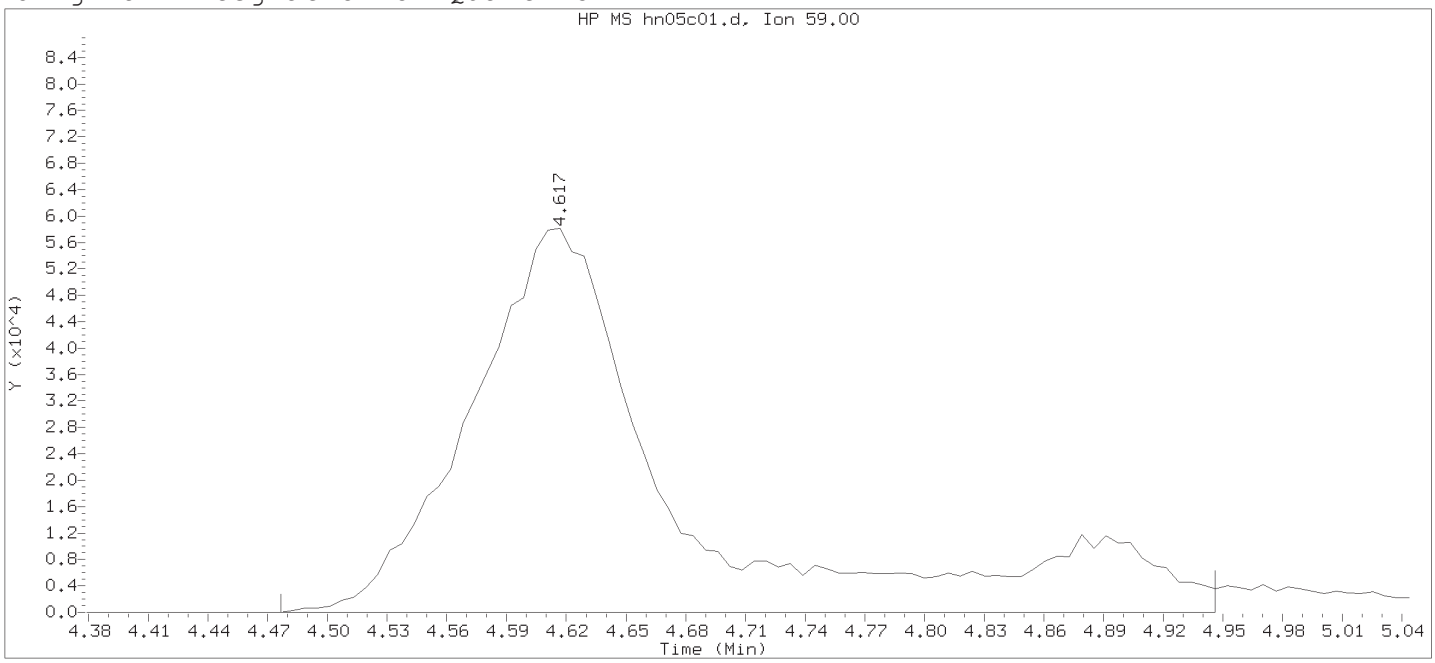
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

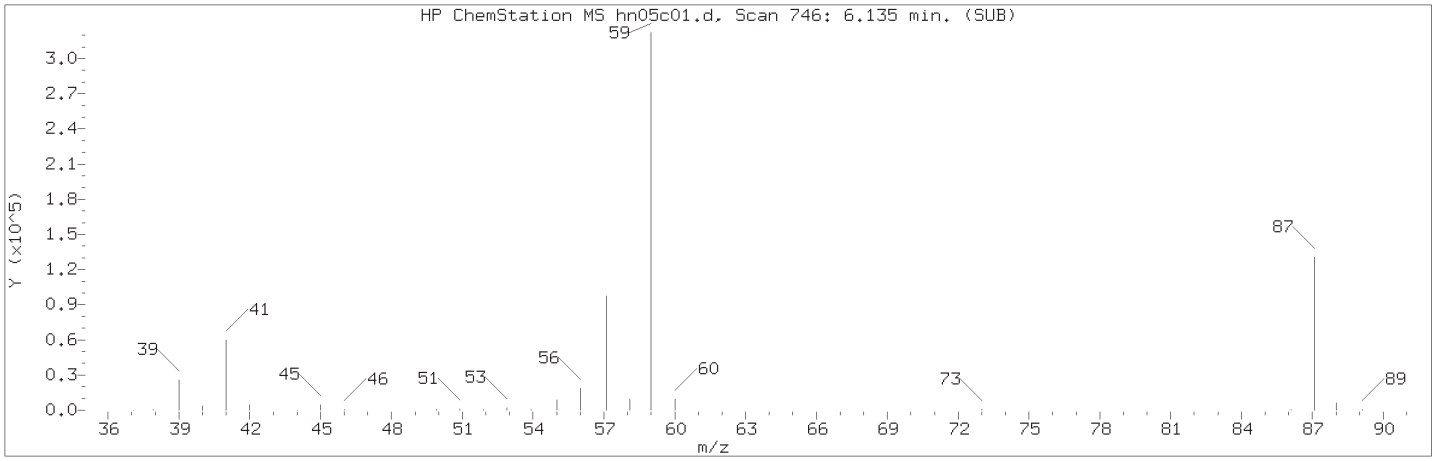
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

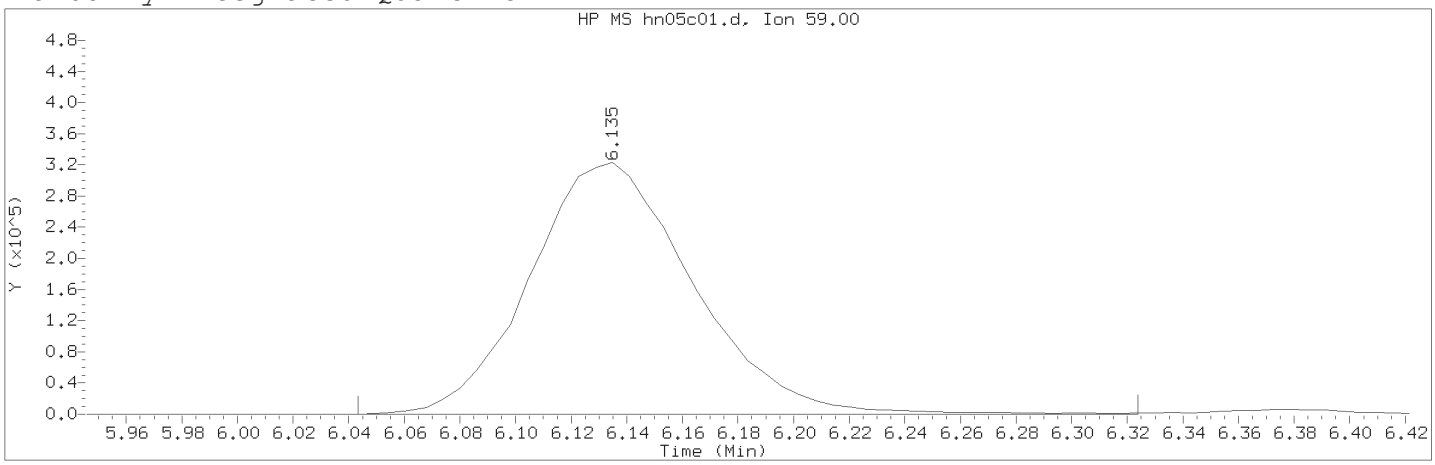
Compound Number : 28
Compound Name : t-Butyl Alcohol
Scan Number : 497
Retention Time (minutes): 4.617
Quant Ion : 59.00
Area : 419255
On-column Amount (ng) : 219.6296
Integration start scan : 473 Integration stop scan: 550
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: JGC14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

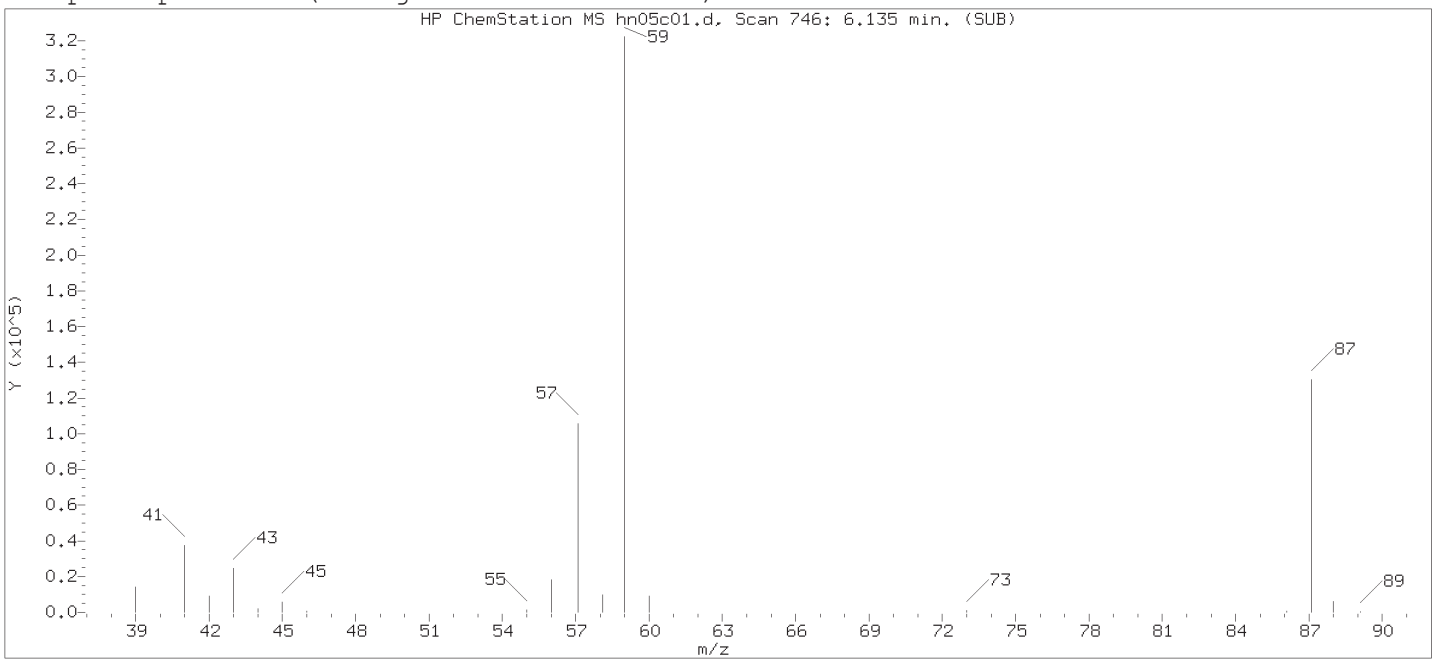
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area (flag) : 1306041M
On-Column Amount (ng) : 8.6082
Integration start scan : 730 Integration stop scan: 776
Y at integration start : 0 Y at integration end: 363

Reason for manual integration: improper integration

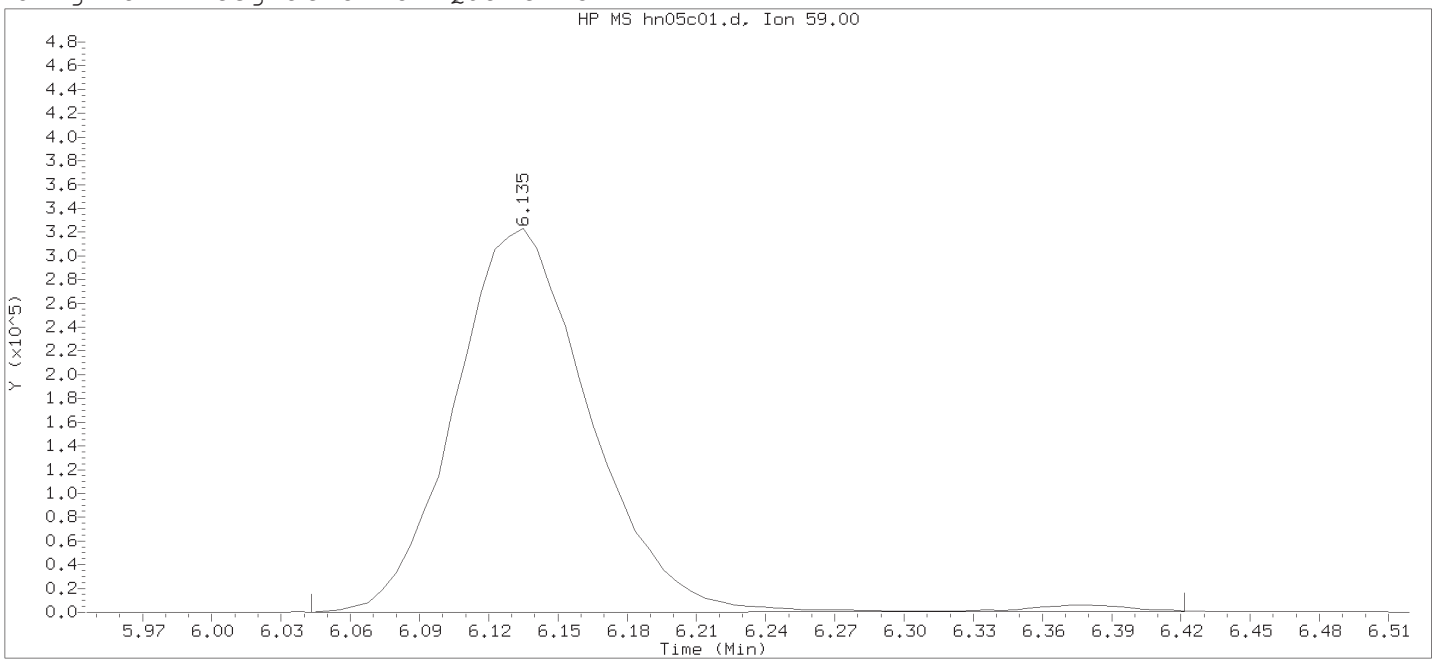
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

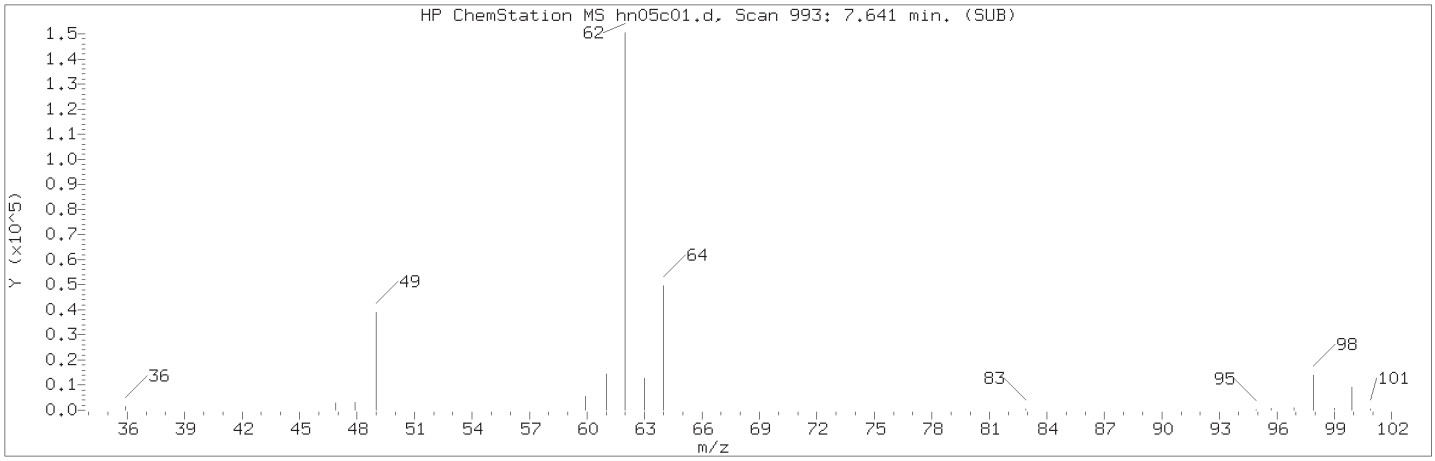
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

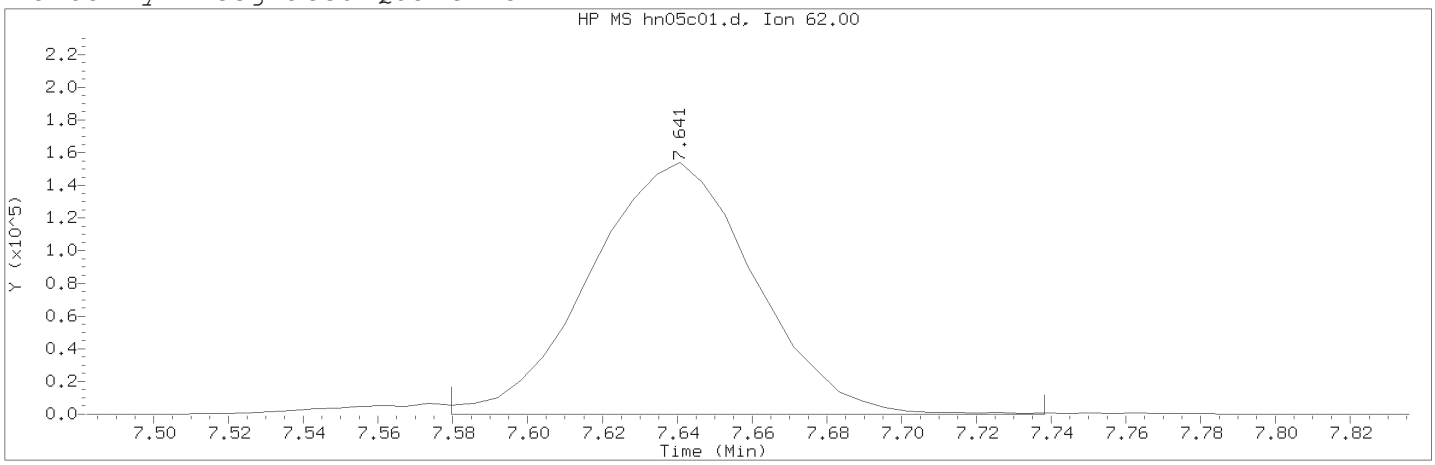
Compound Number : 37
Compound Name : Ethyl t-butyl ether
Scan Number : 746
Retention Time (minutes): 6.135
Quant Ion : 59.00
Area : 1323280
On-column Amount (ng) : 8.7218
Integration start scan : 730 Integration stop scan: 792
Y at integration start : 0 Y at integration end: 490

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used 11/05/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

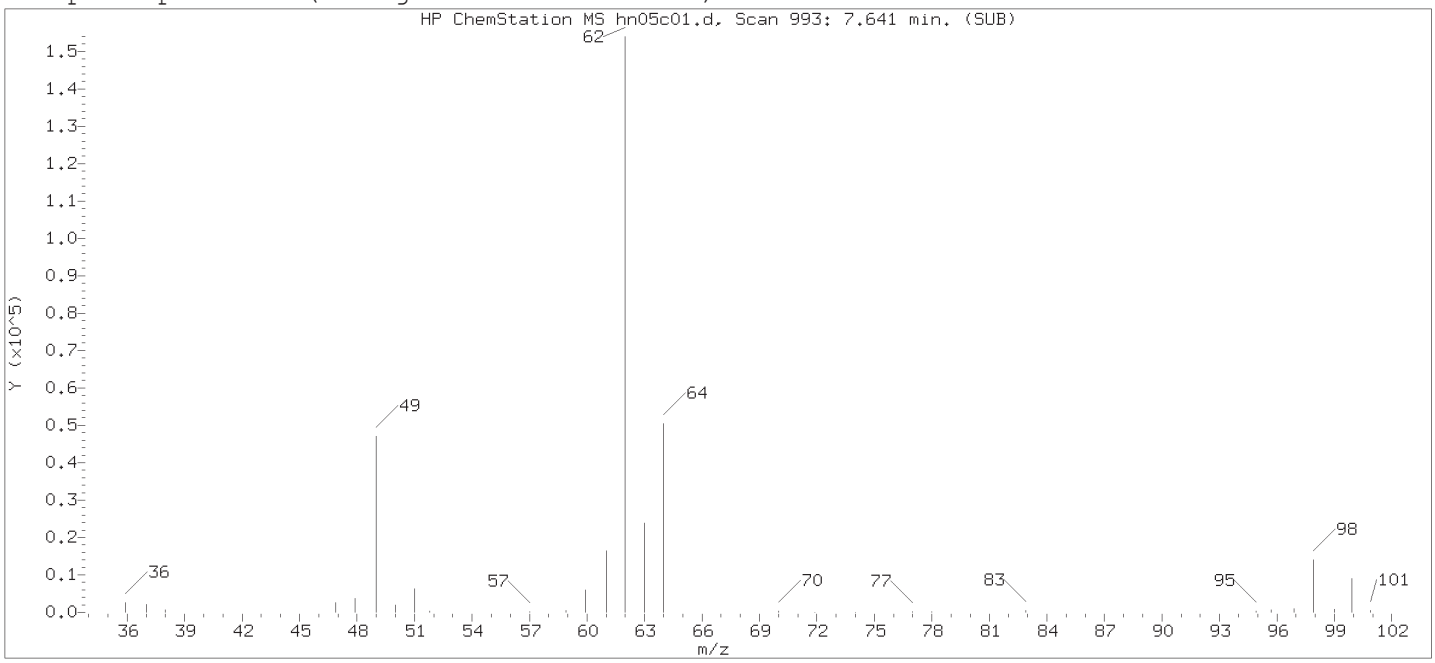
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.641
Quant Ion : 62.00
Area (flag) : 469475M
On-Column Amount (ng) : 8.5012
Integration start scan : 982 Integration stop scan: 1008
Y at integration start : 30 Y at integration end: 30

Reason for manual integration: improper integration

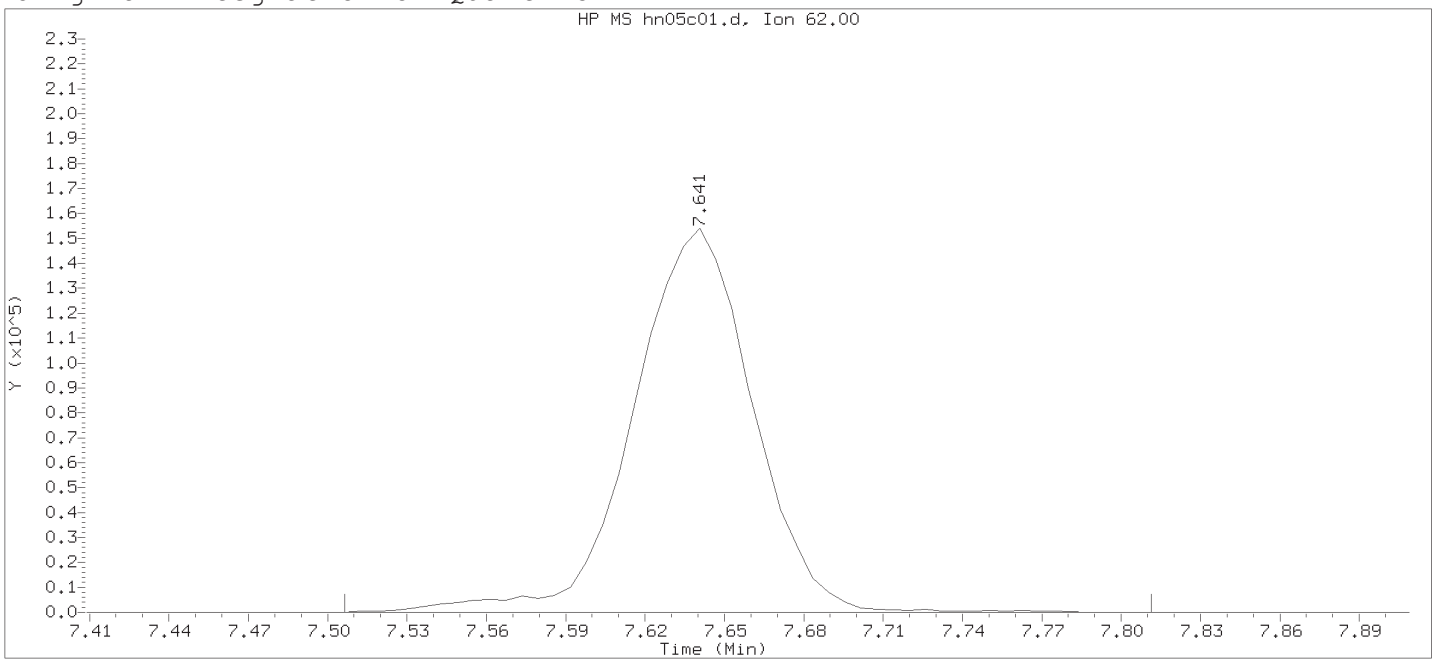
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

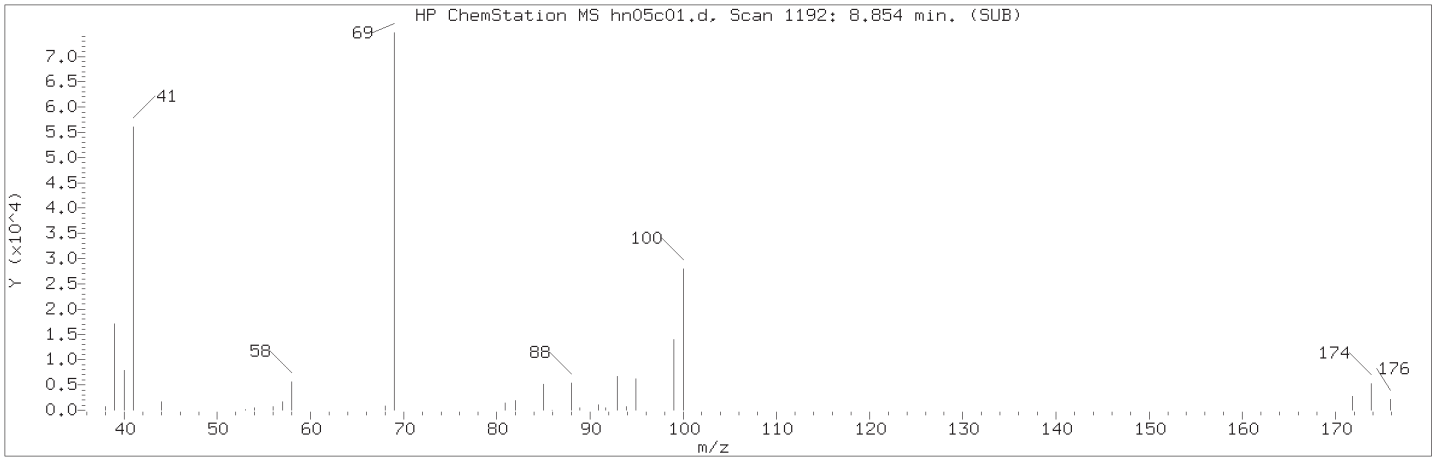
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

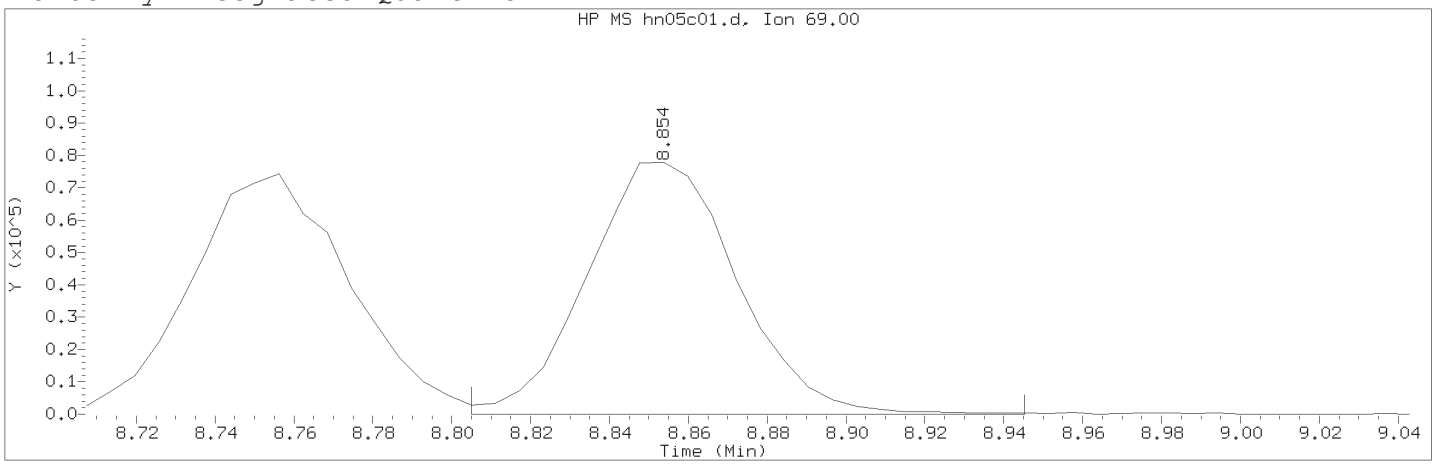
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.641
Quant Ion : 62.00
Area : 483514
On-column Amount (ng) : 8.7554
Integration start scan : 970 Integration stop scan: 1020
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

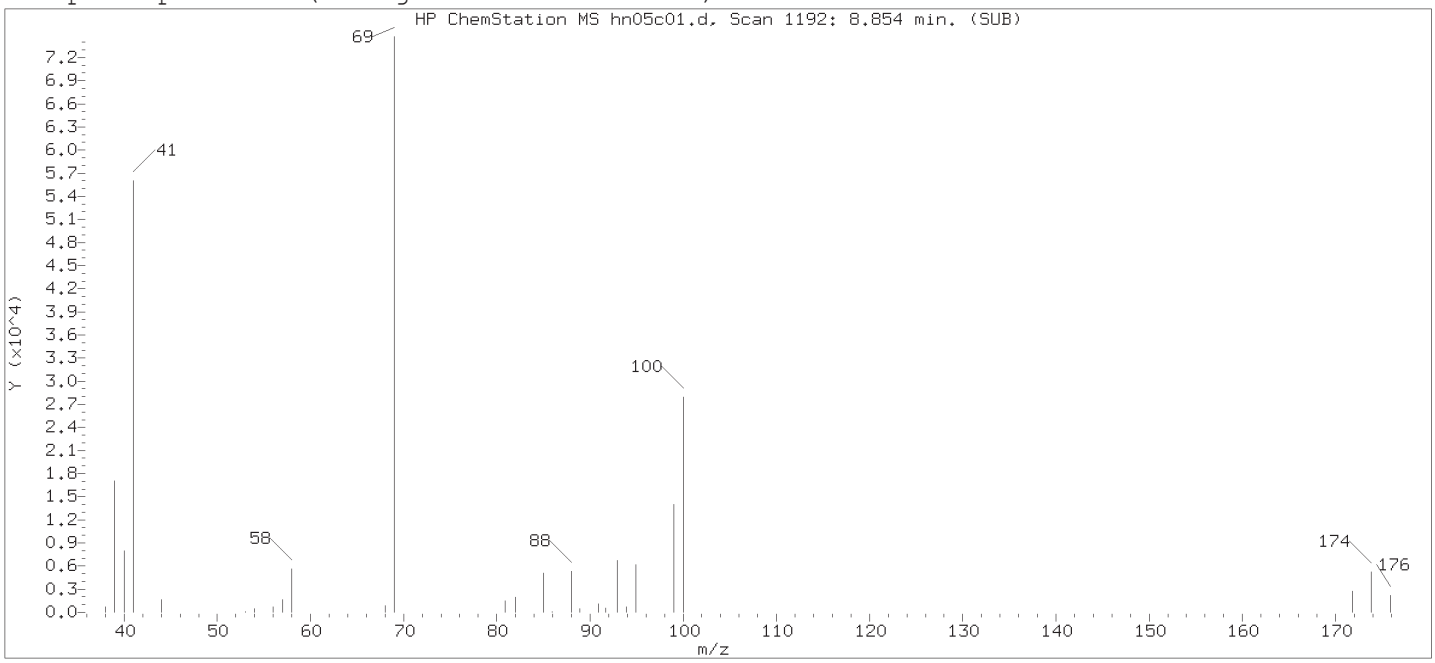
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area (flag) : 205697M
On-Column Amount (ng) : 9.4738
Integration start scan : 1183 Integration stop scan: 1206
Y at integration start : 7 Y at integration end: 7

Reason for manual integration: improper integration

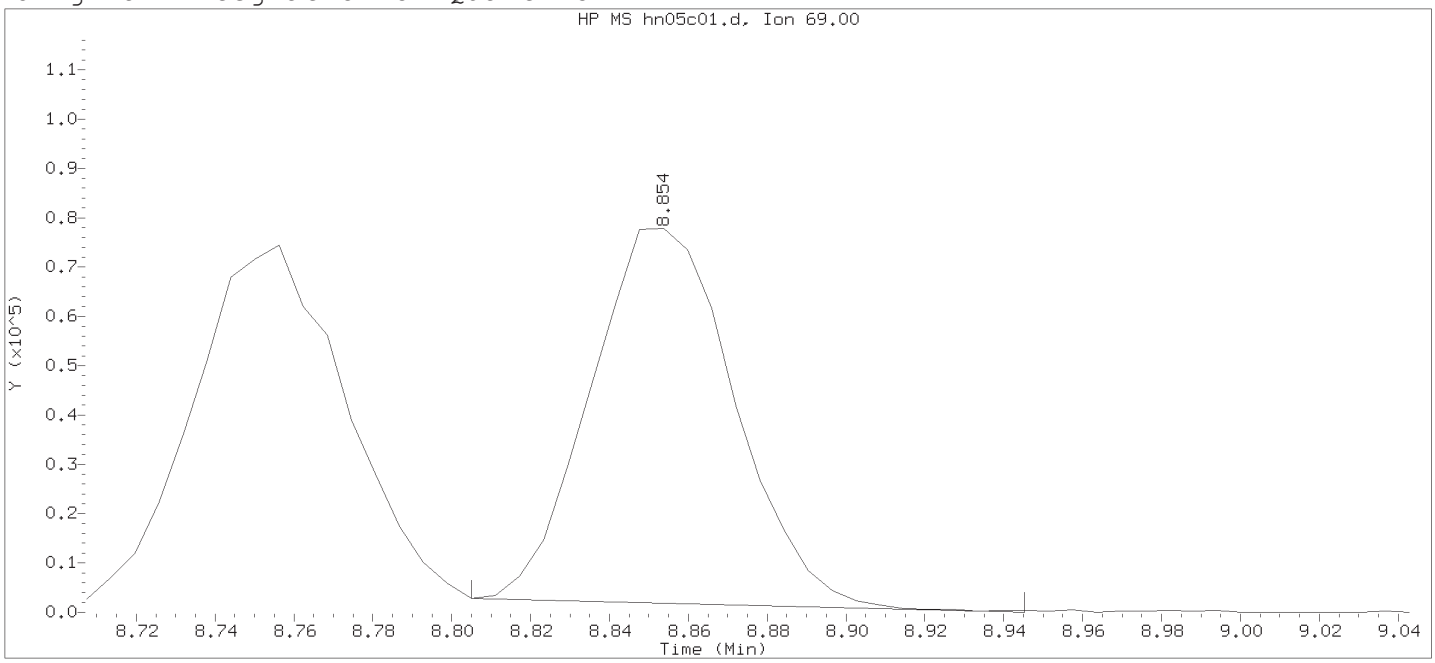
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

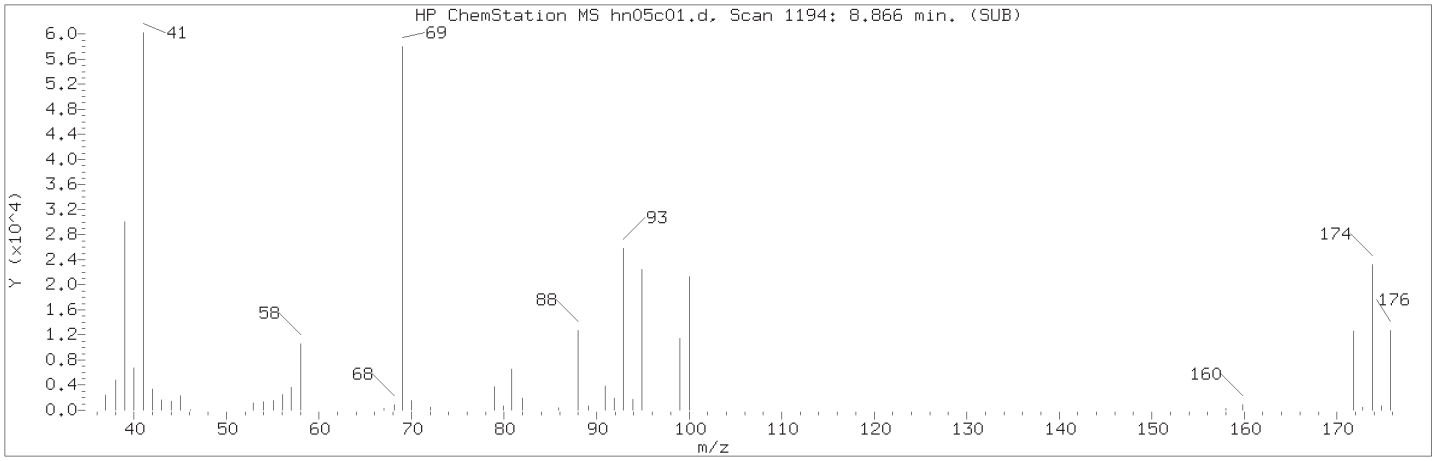
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

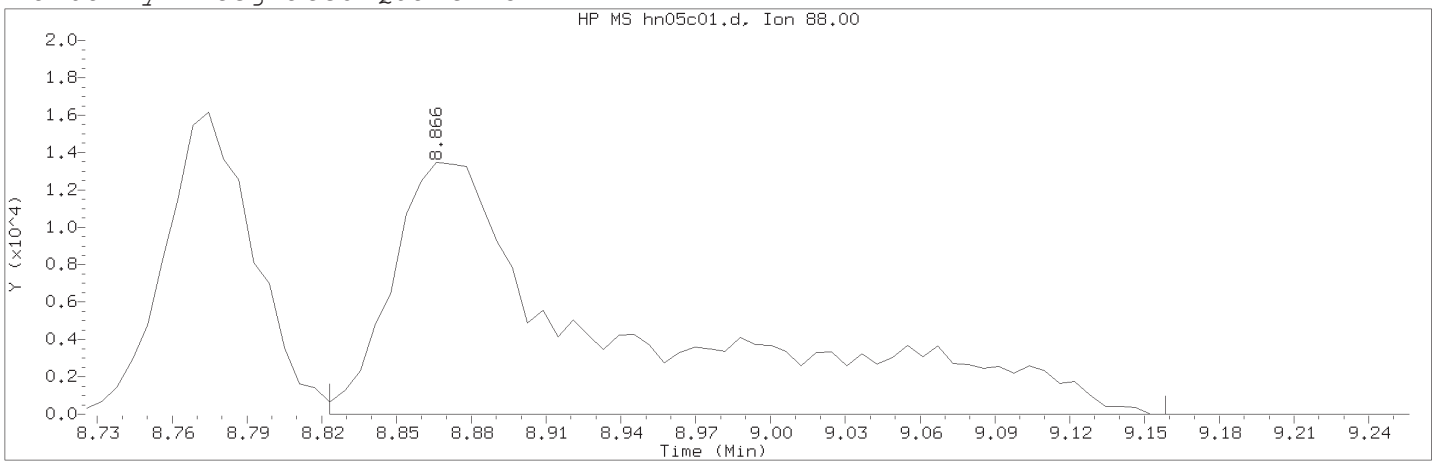
Compound Number : 71
Compound Name : Methyl Methacrylate
Scan Number : 1192
Retention Time (minutes): 8.854
Quant Ion : 69.00
Area : 193439
On-column Amount (ng) : 9.7861
Integration start scan : 1183 Integration stop scan: 1206
Y at integration start : 2793 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: JGC14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

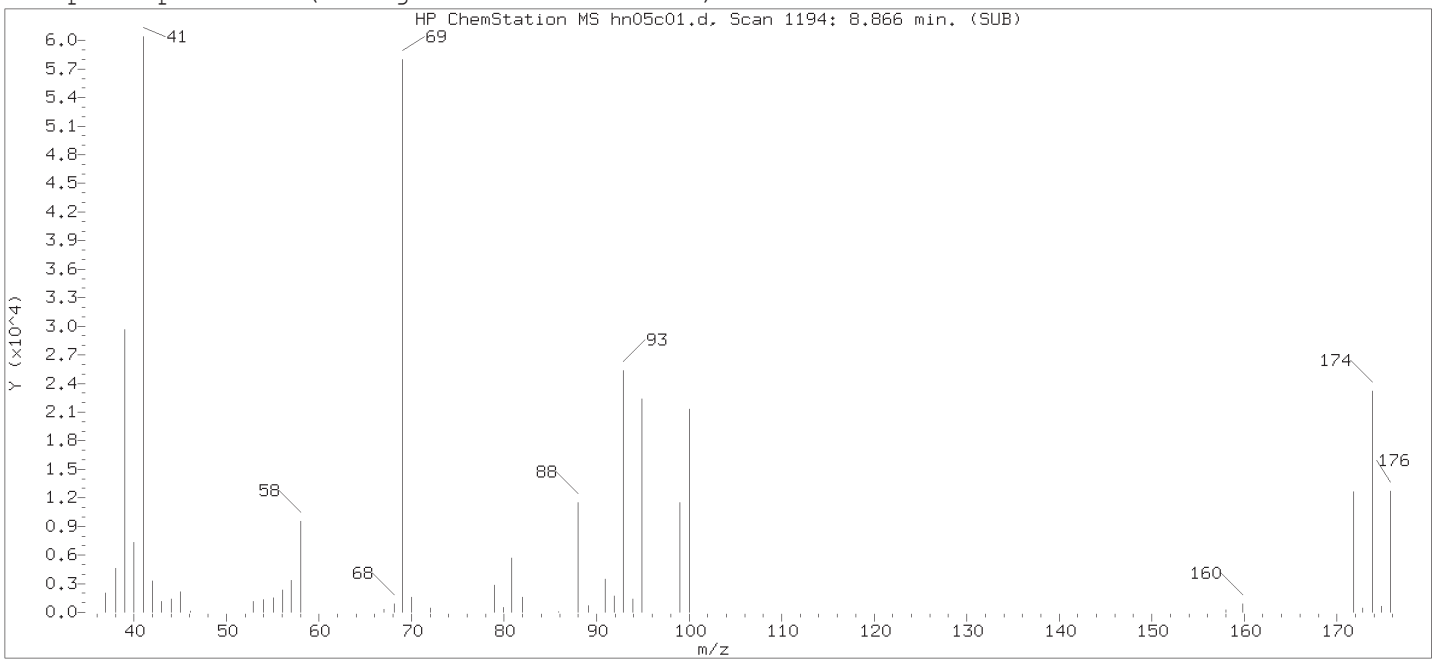
Compound Number : 72
Compound Name : 1,4-Dioxane
Scan Number : 1194
Retention Time (minutes): 8.866
Quant Ion : 88.00
Area (flag) : 84962M
On-Column Amount (ng) : 514.8339
Integration start scan : 1186 Integration stop scan: 1241
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

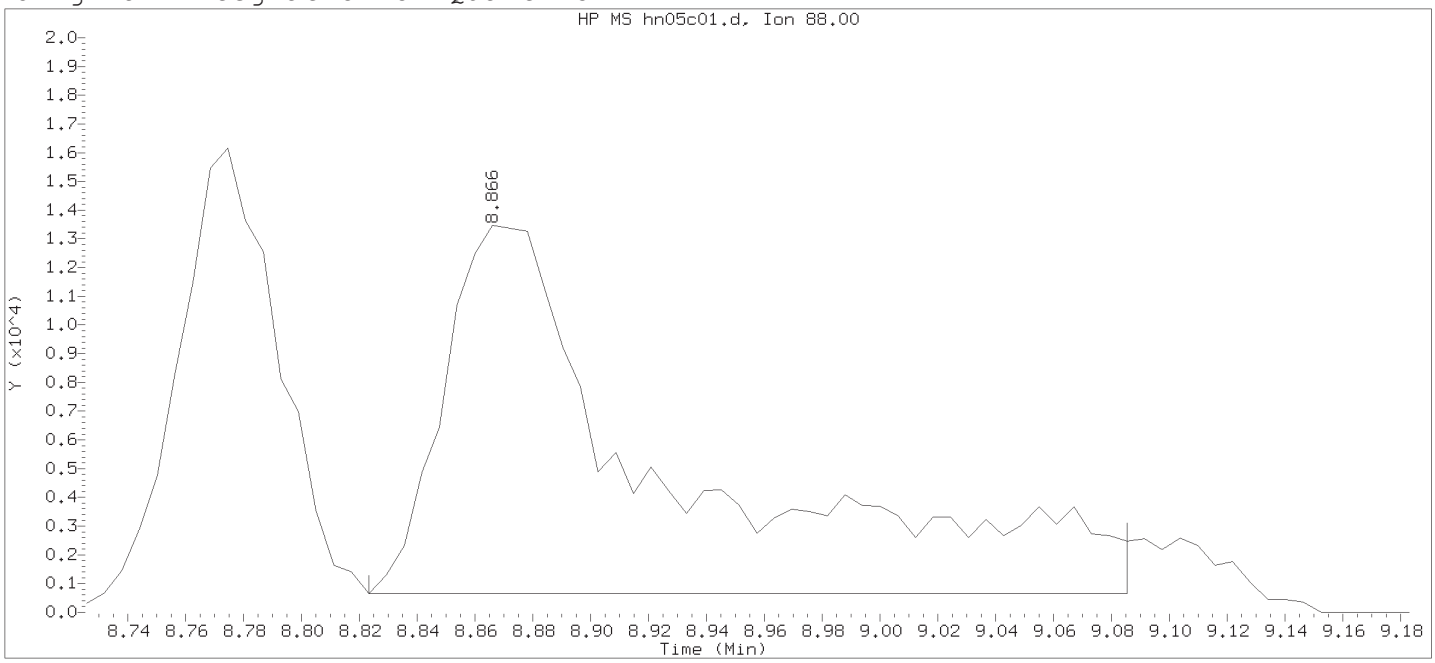
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

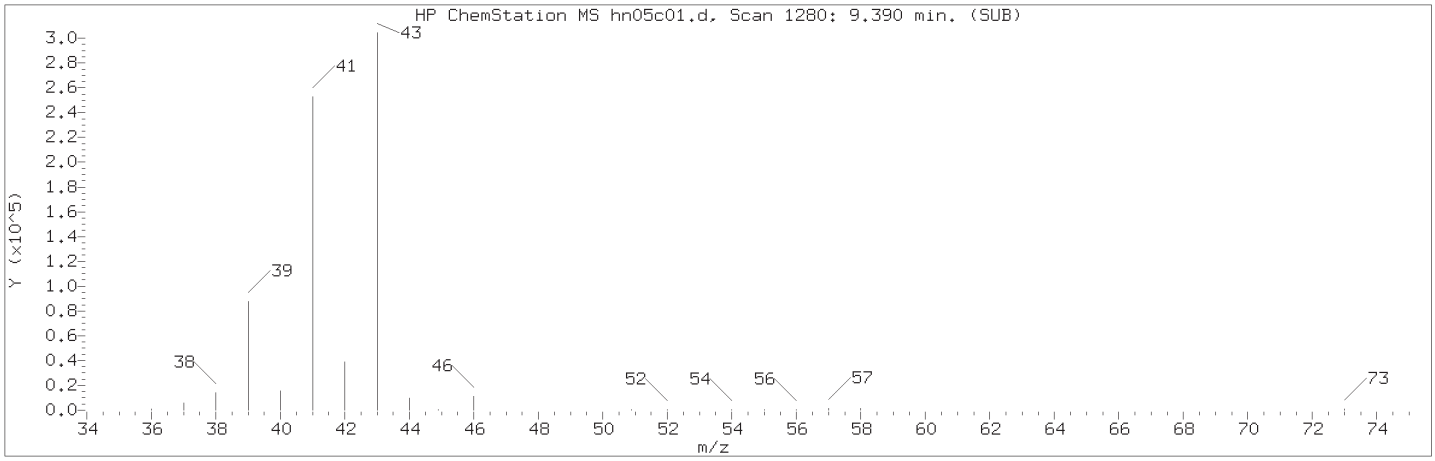
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

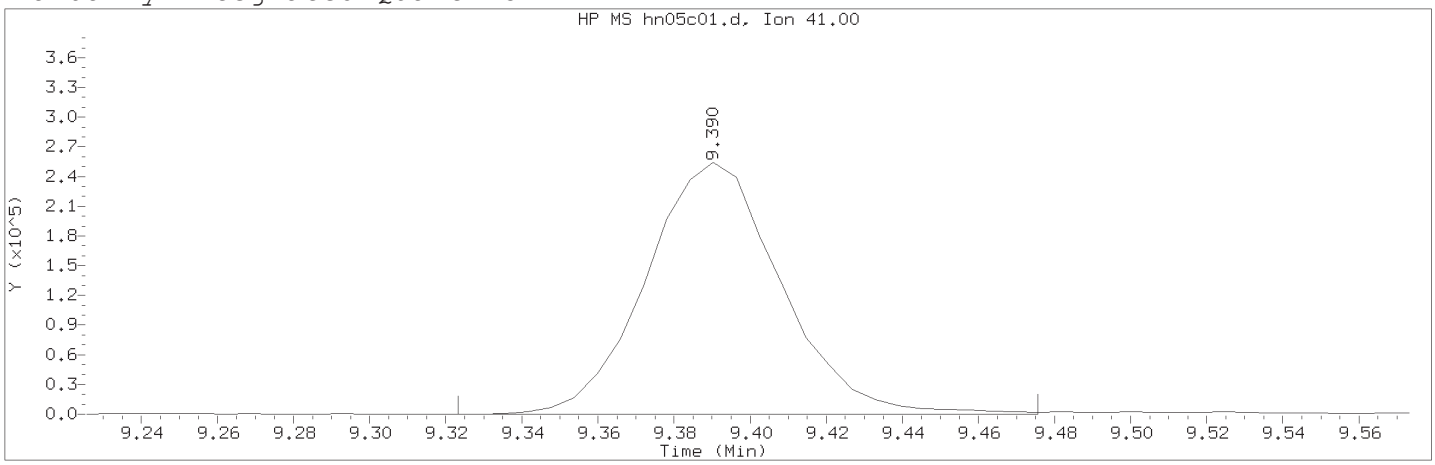
Compound Number	: 72		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1194		
Retention Time (minutes)	: 8.866		
Quant Ion	: 88.00		
Area	: 68616		
On-column Amount (ng)	: 456.7133		
Integration start scan	: 1186	Integration stop scan:	1229
Y at integration start	: 647	Y at integration end:	647

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used 11/12/2018 14:11

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

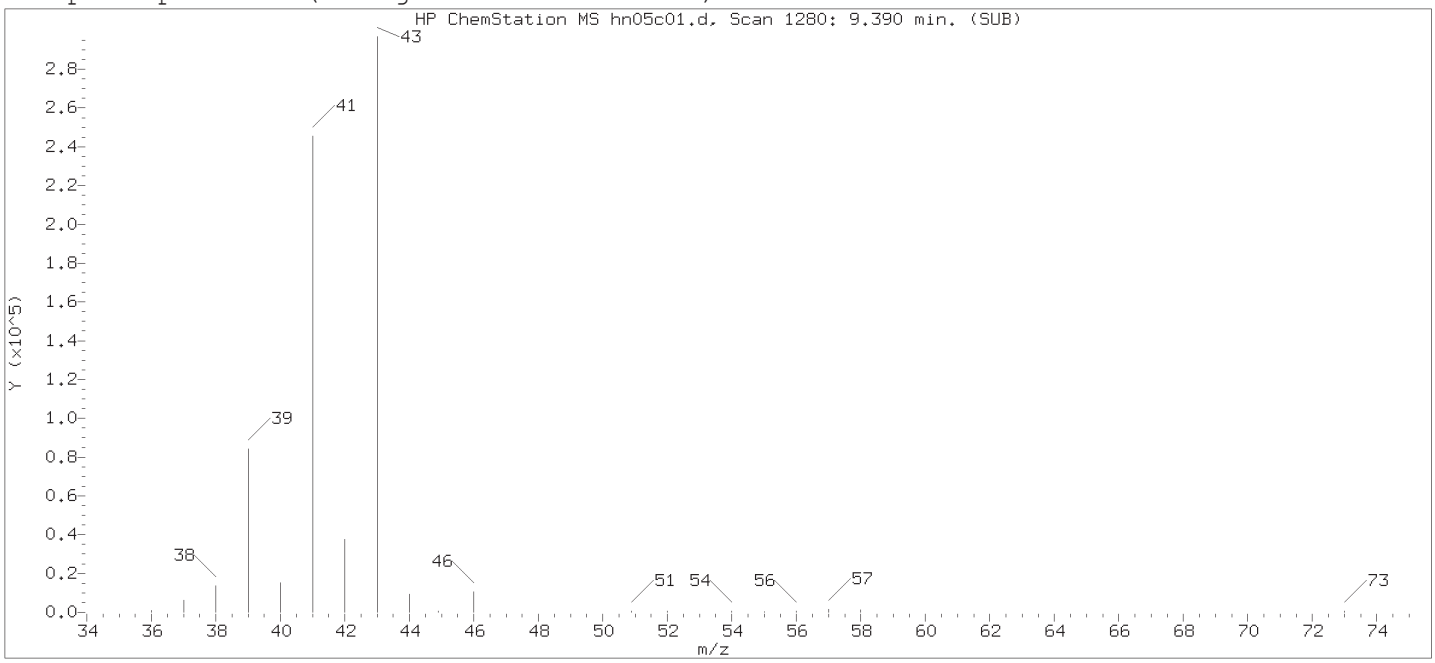
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area (flag) : 624165M
On-Column Amount (ng) : 101.4844
Integration start scan : 1268 Integration stop scan: 1293
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

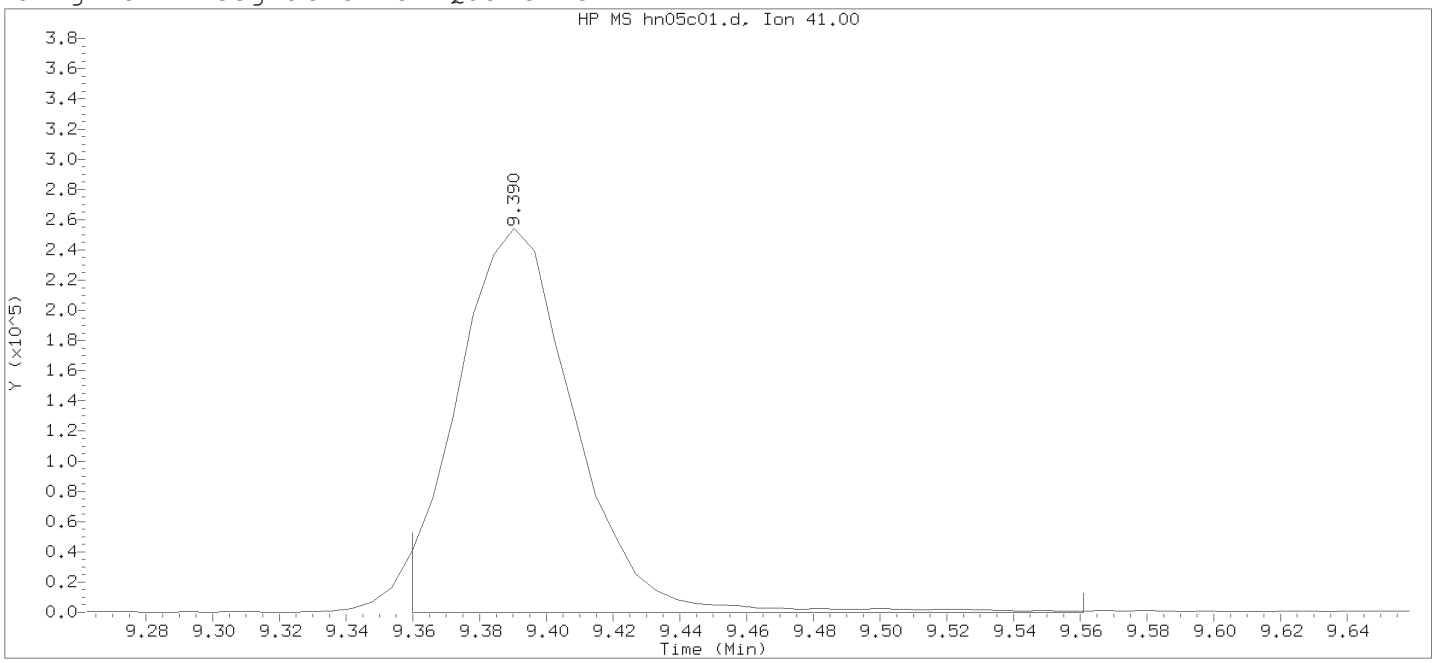
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

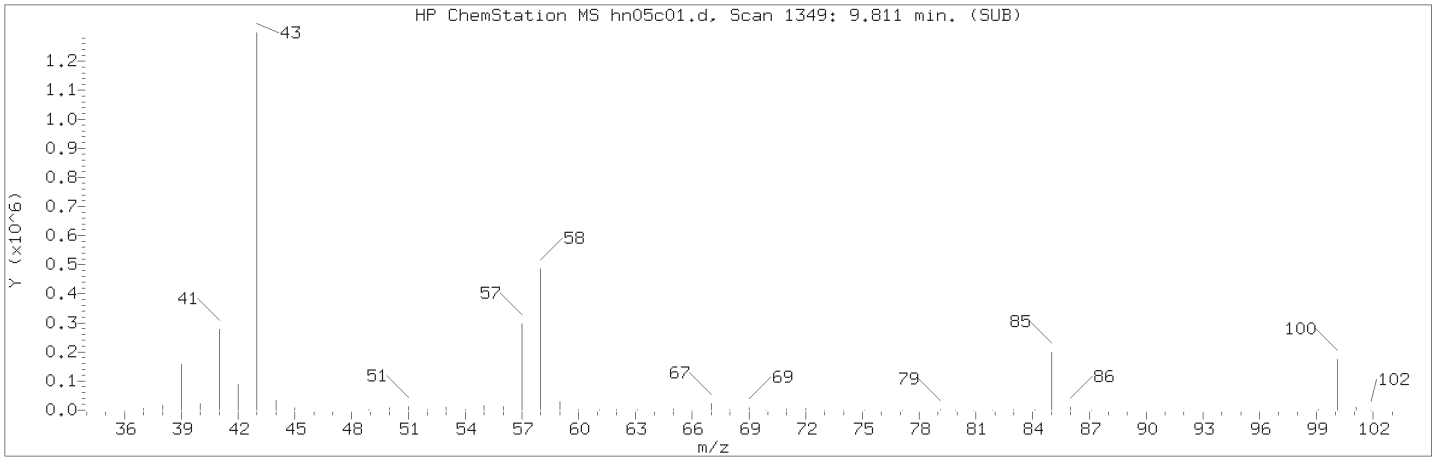
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

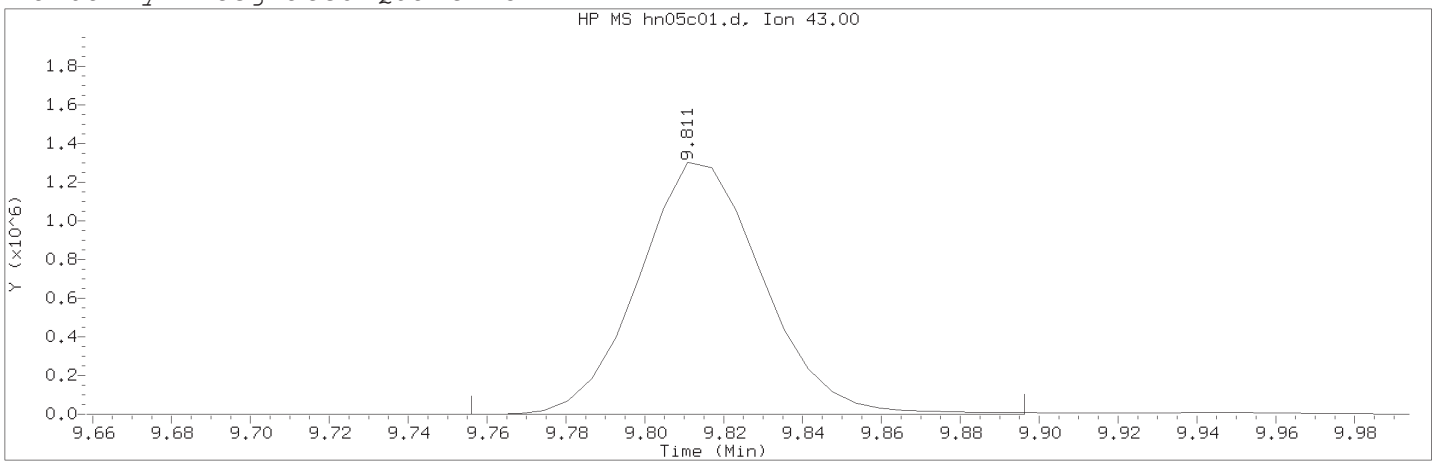
Compound Number : 76
Compound Name : 2-Nitropropane
Scan Number : 1280
Retention Time (minutes): 9.390
Quant Ion : 41.00
Area : 615345
On-column Amount (ng) : 109.8977
Integration start scan : 1274 Integration stop scan: 1307
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: JGC14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

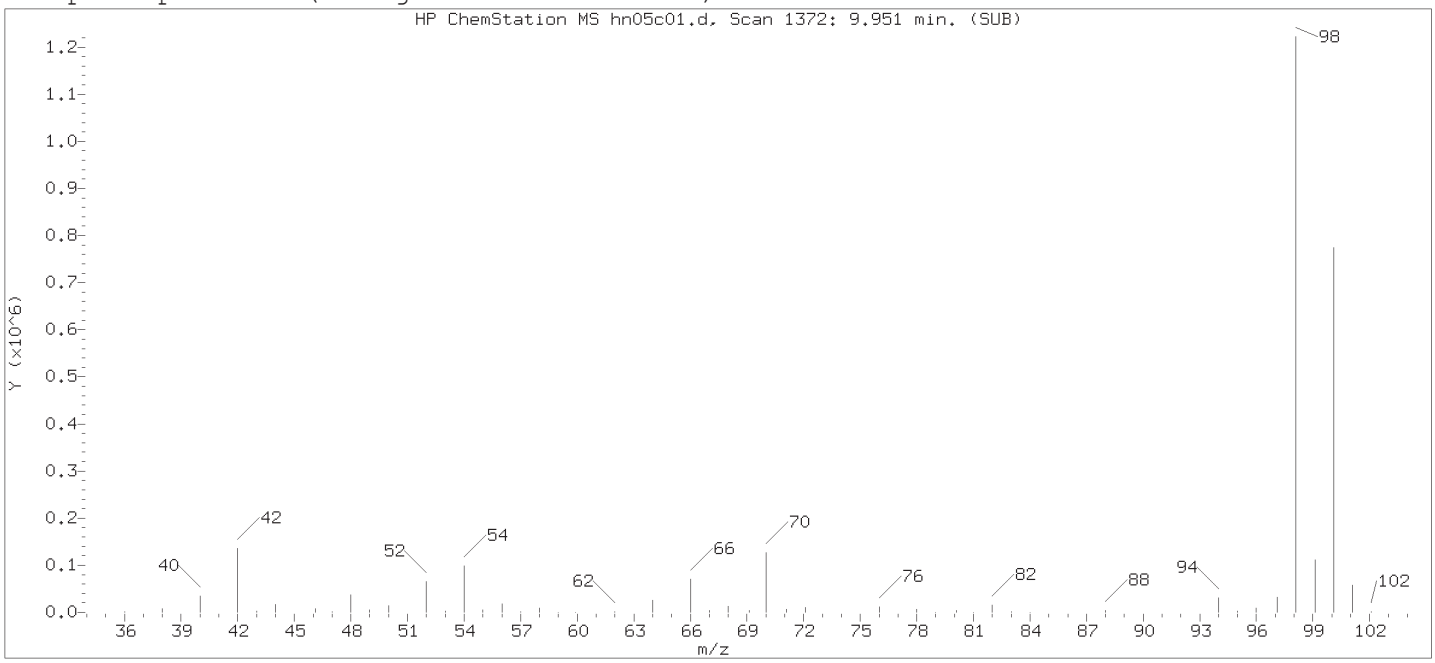
Compound Number : 81
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1349
Retention Time (minutes): 9.811
Quant Ion : 43.00
Area (flag) : 2845952M
On-Column Amount (ng) : 95.4628
Integration start scan : 1339 Integration stop scan: 1362
Y at integration start : 5 Y at integration end: 5

Reason for manual integration: improper integration

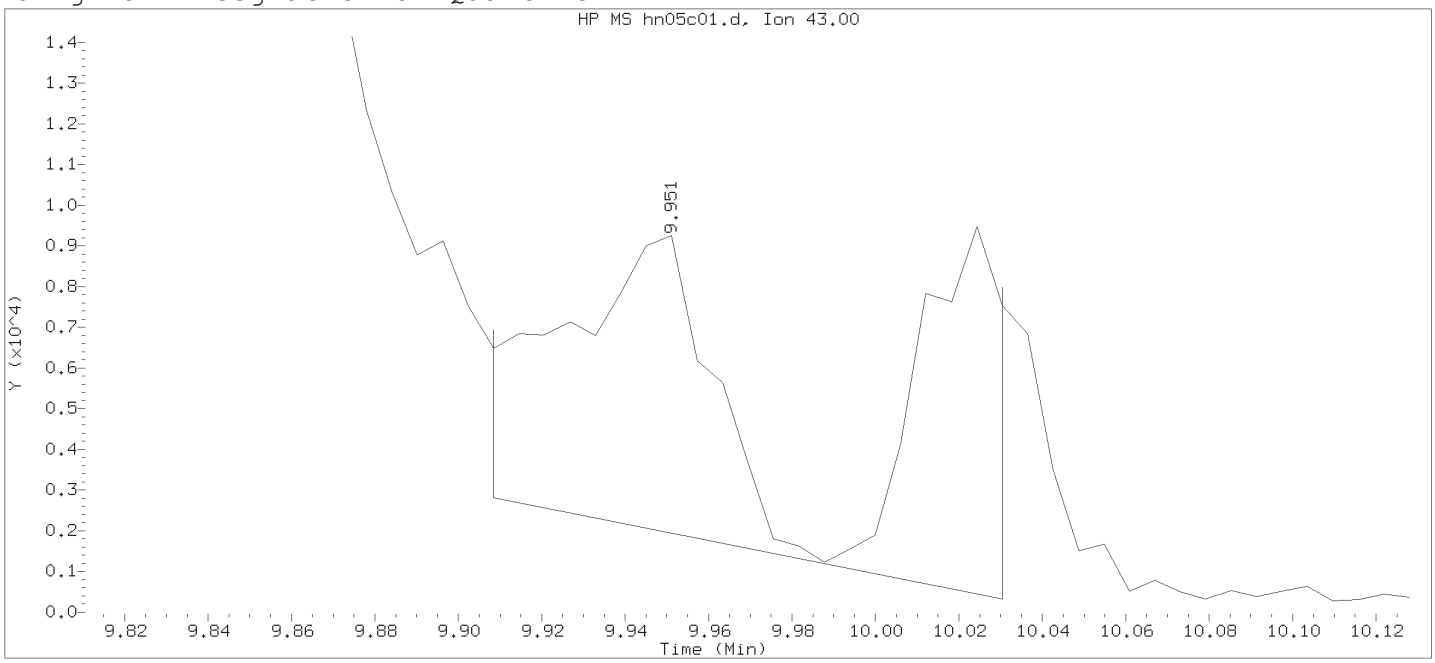
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

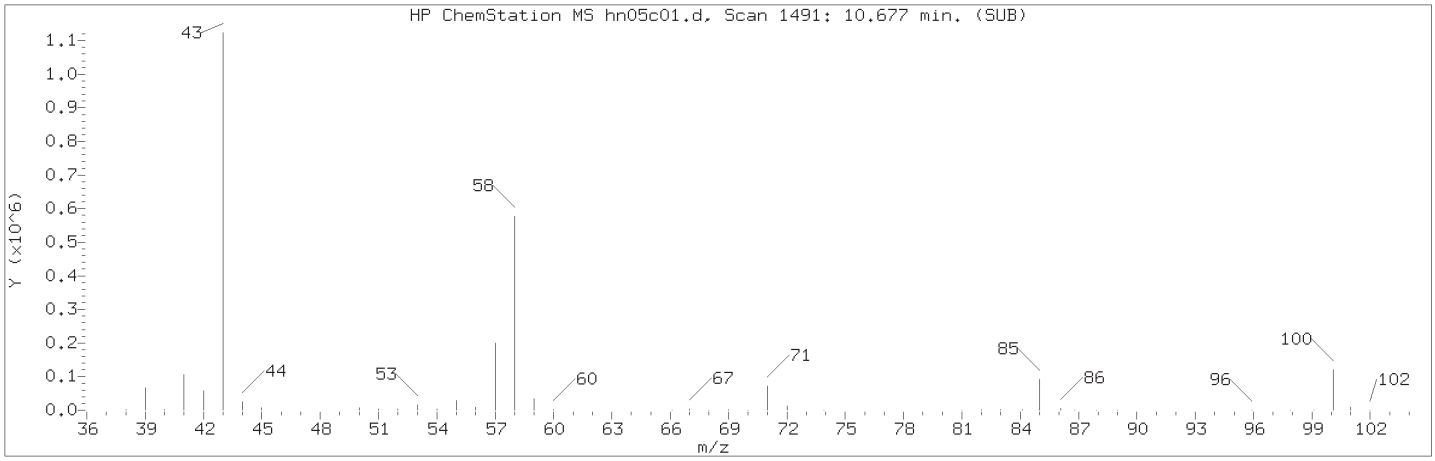
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

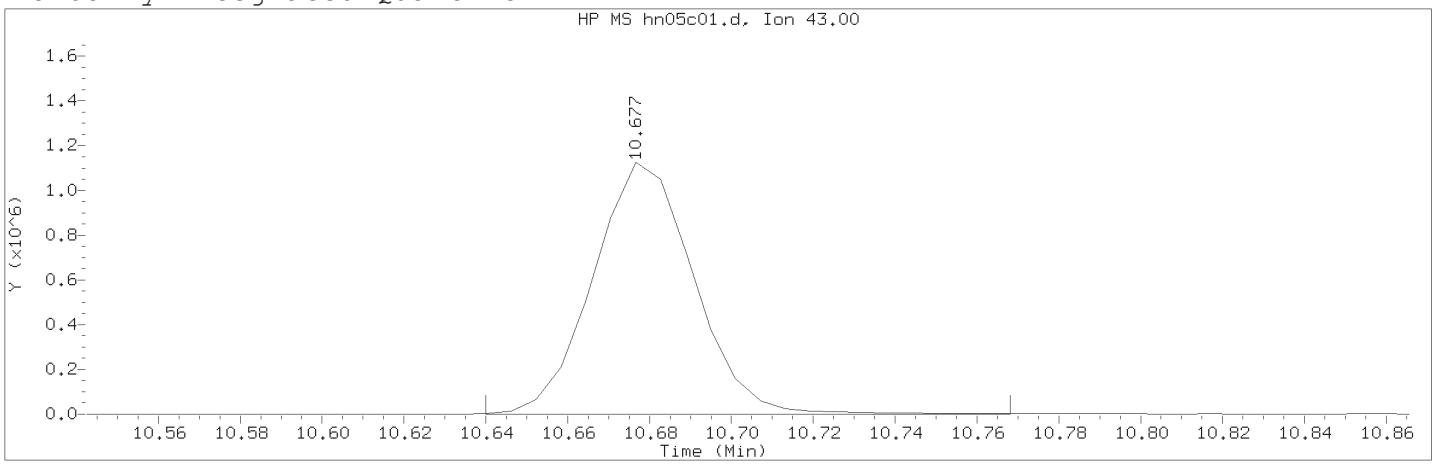
Compound Number	: 81		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1372		
Retention Time (minutes)	: 9.951		
Quant Ion	: 43.00		
Area	: 30038		
On-column Amount (ng)	: 1.1068		
Integration start scan	: 1364	Integration stop scan:	1384
Y at integration start	: 2808	Y at integration end:	320

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used 11/05/2018 at 20:53

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

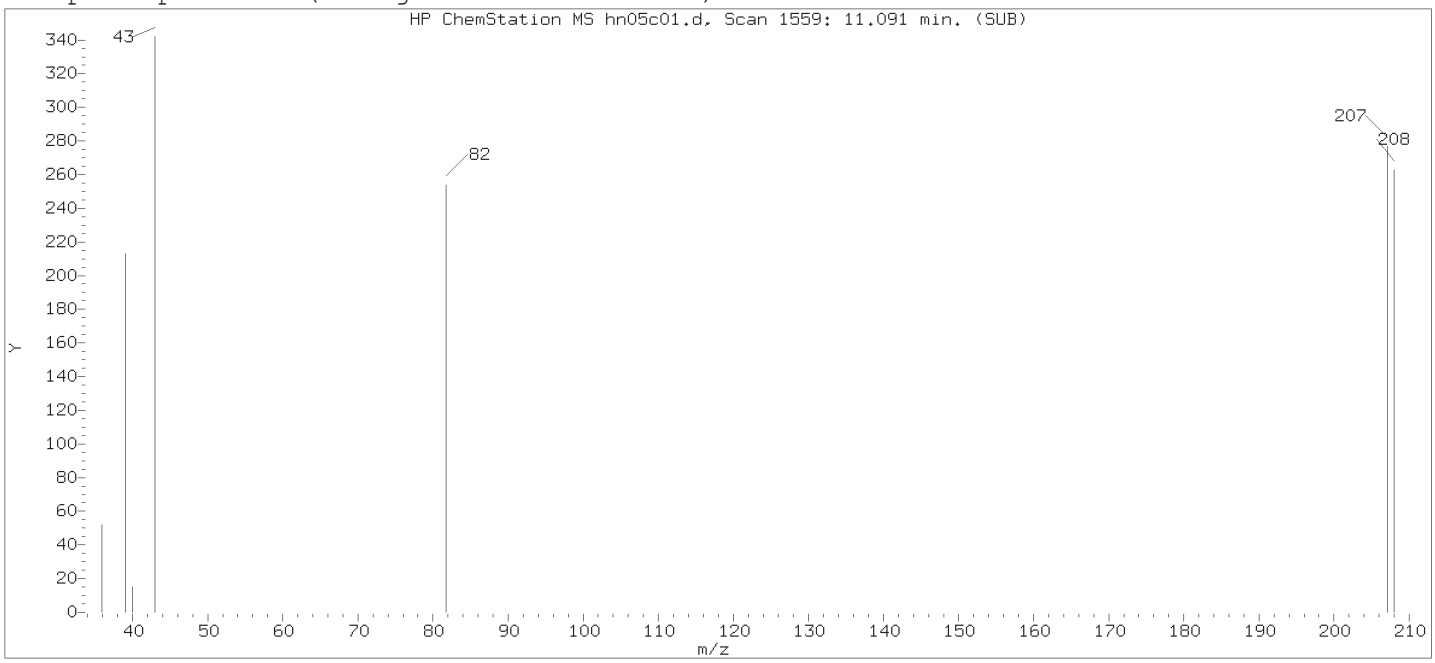
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1491
Retention Time (minutes): 10.677
Quant Ion : 43.00
Area (flag) : 1921932M
On-Column Amount (ng) : 94.7091
Integration start scan : 1484 Integration stop scan: 1505
Y at integration start : 181 Y at integration end: 181

Reason for manual integration: improper integration

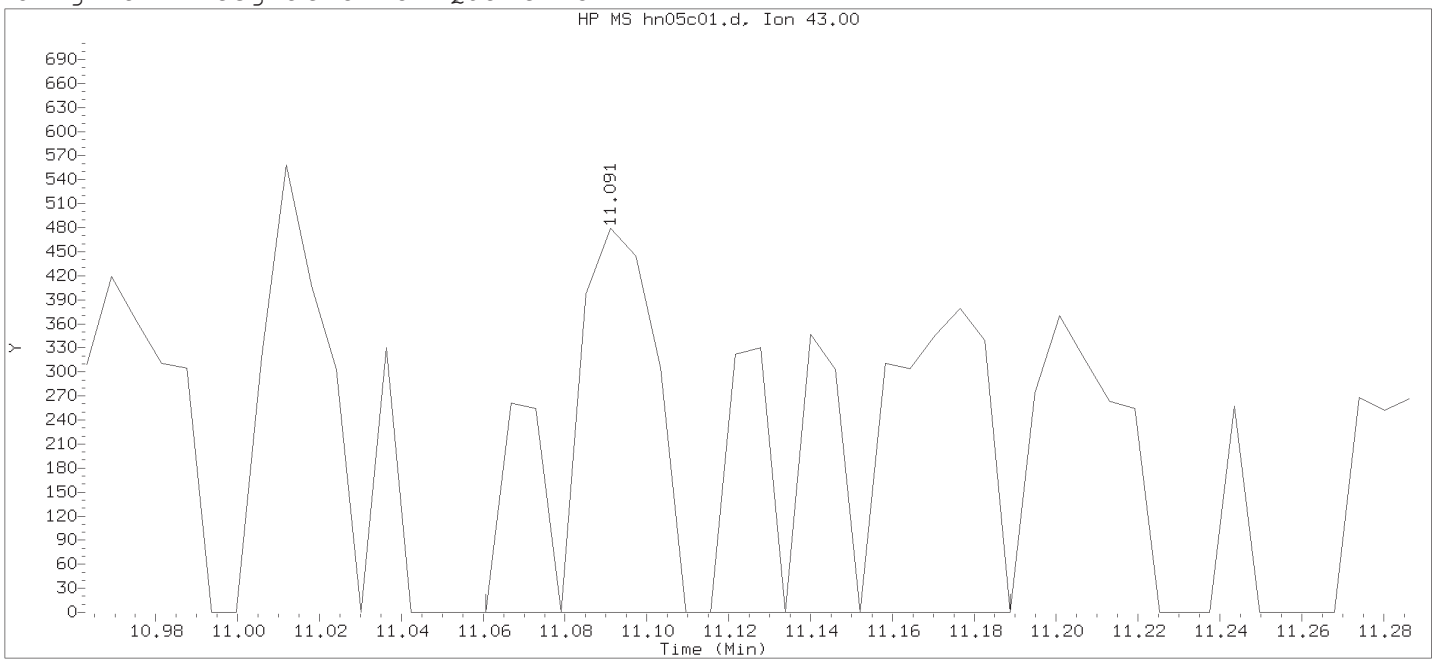
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

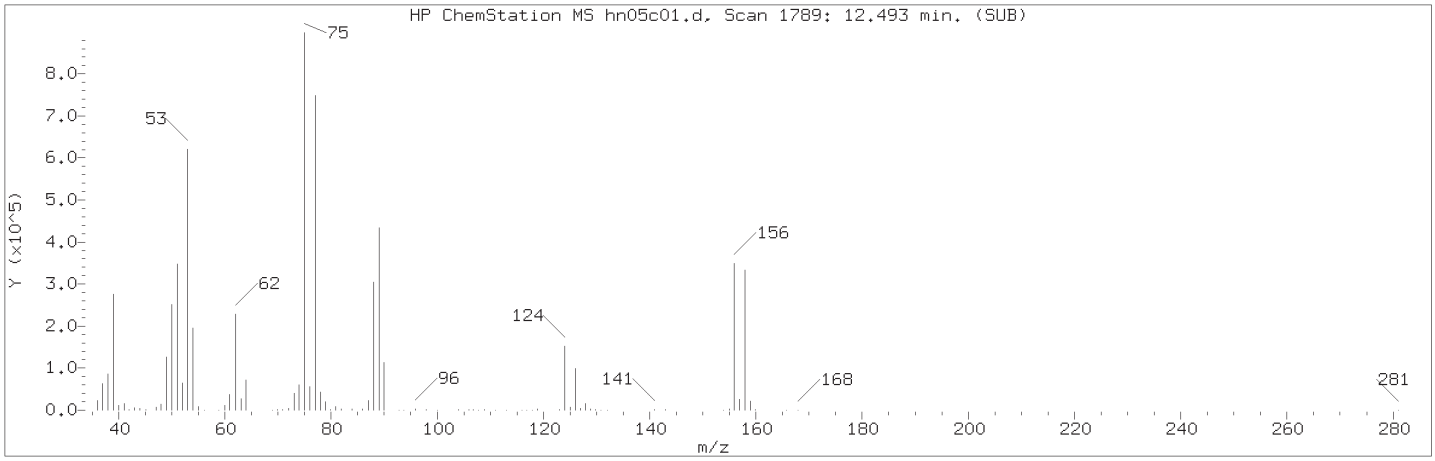
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

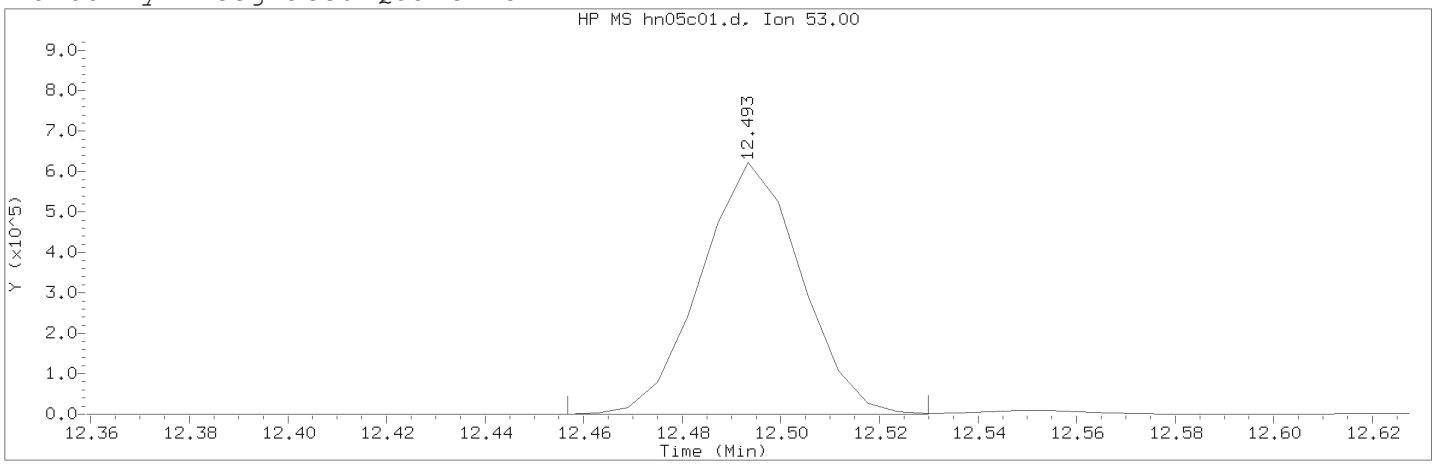
Compound Number : 91
Compound Name : 2-Hexanone
Scan Number : 1559
Retention Time (minutes): 11.091
Quant Ion : 43.00
Area : 1873
On-column Amount (ng) : 0.1014
Integration start scan : 1553 Integration stop scan: 1574
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used 21 CFR Part 11

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

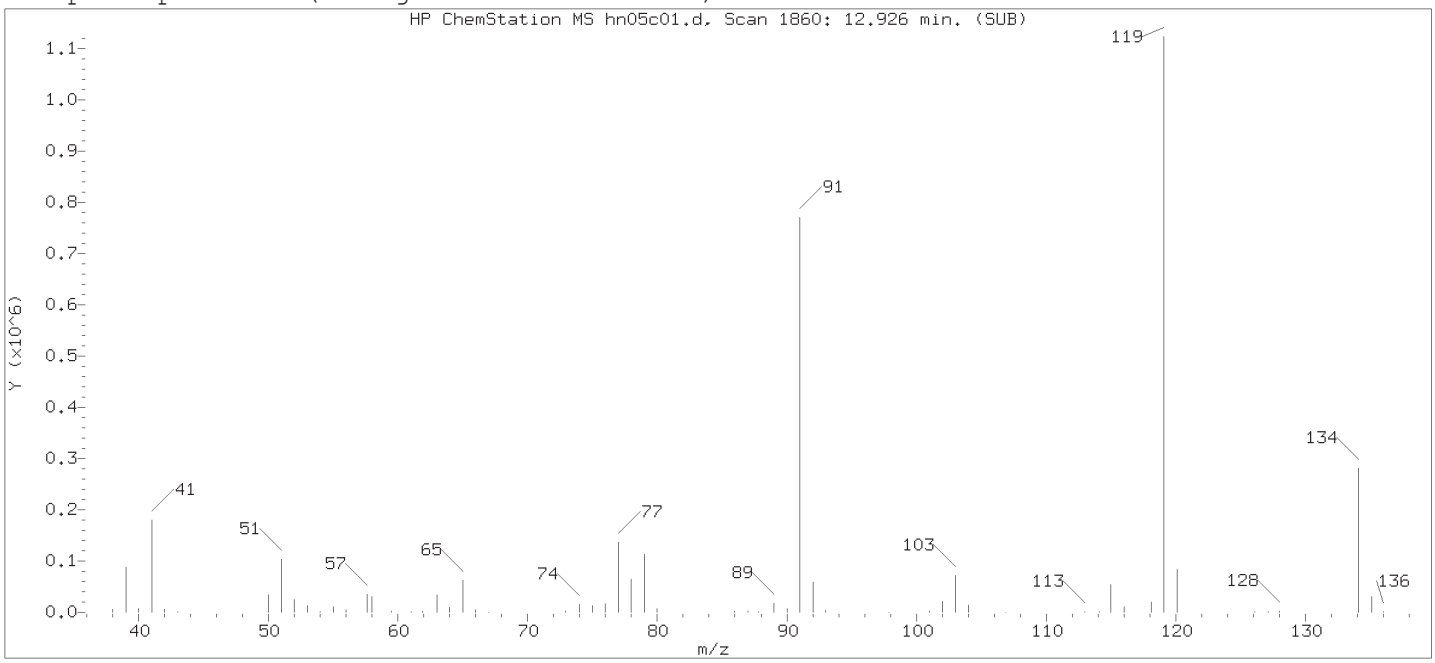
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1789
Retention Time (minutes): 12.493
Quant Ion : 53.00
Area (flag) : 876544M
On-Column Amount (ng) : 93.8763
Integration start scan : 1782 Integration stop scan: 1794
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

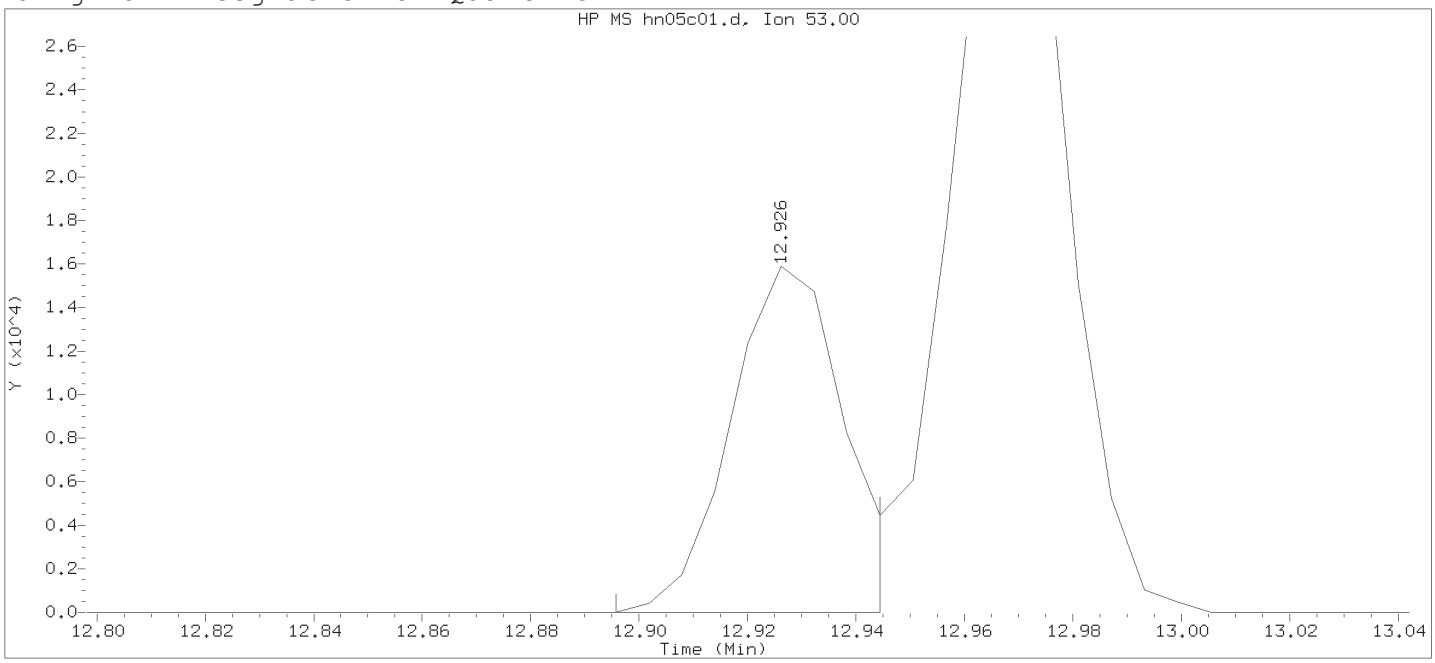
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

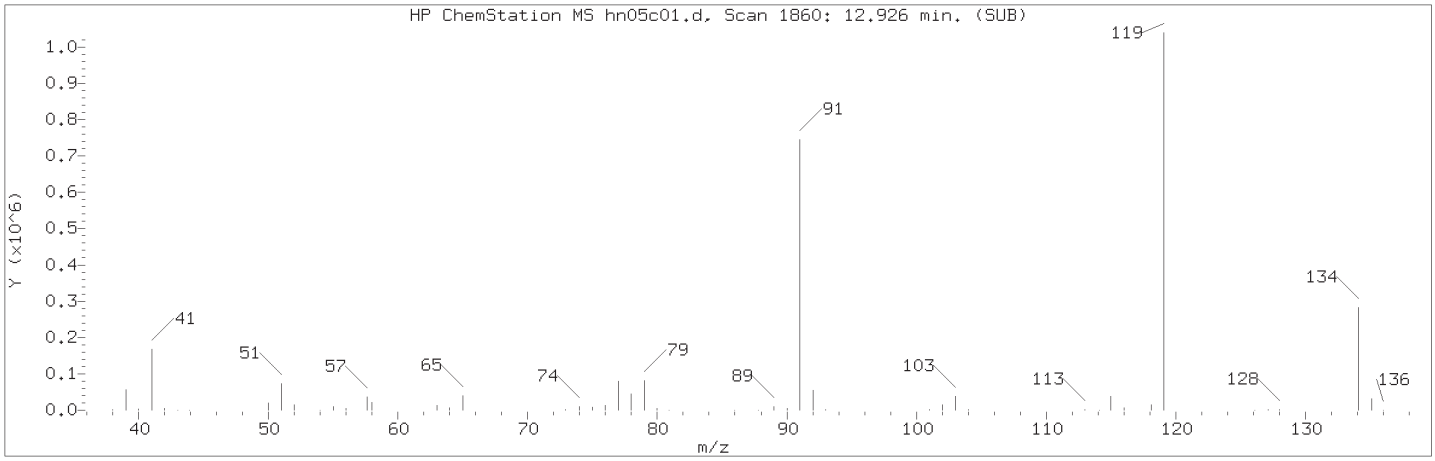
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

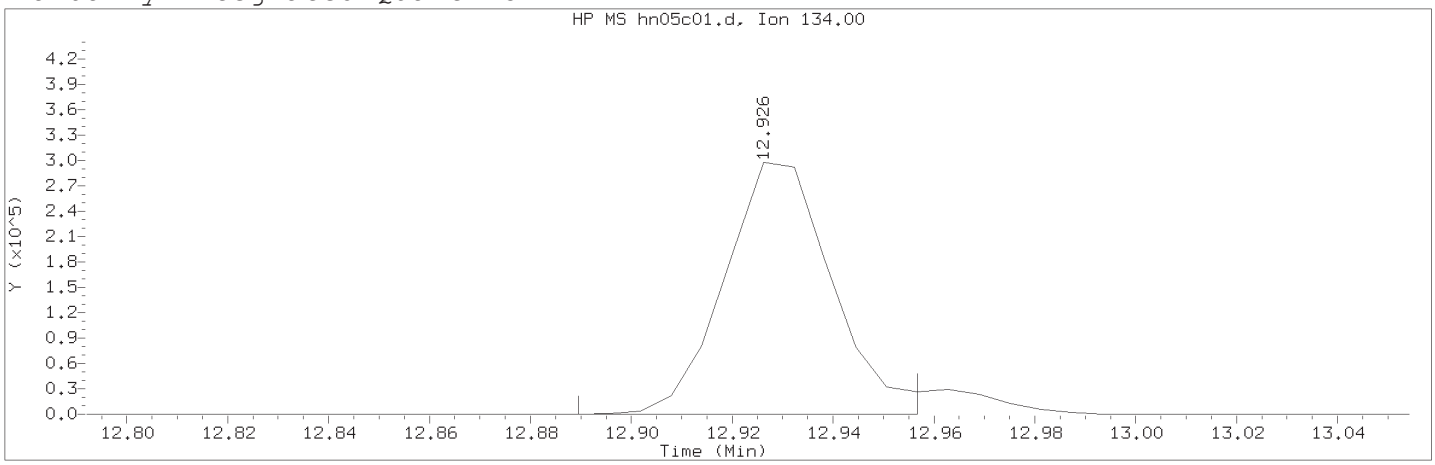
Compound Number : 115
Compound Name : trans-1,4-Dichloro-2-butene
Scan Number : 1860
Retention Time (minutes): 12.926
Quant Ion : 53.00
Area : 22366
On-column Amount (ng) : 2.6311
Integration start scan : 1854 Integration stop scan: 1862
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature used to sign this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

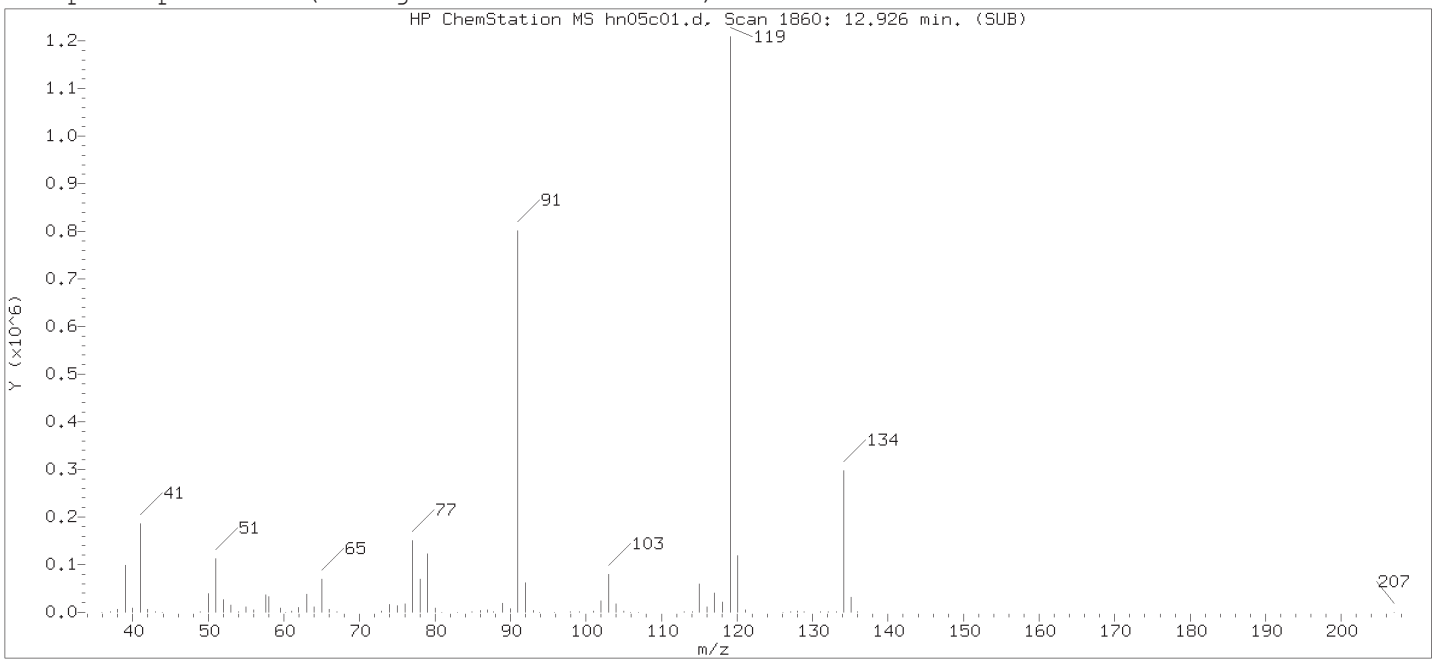
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1860
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area (flag) : 441481M
On-Column Amount (ng) : 9.9089
Integration start scan : 1853 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

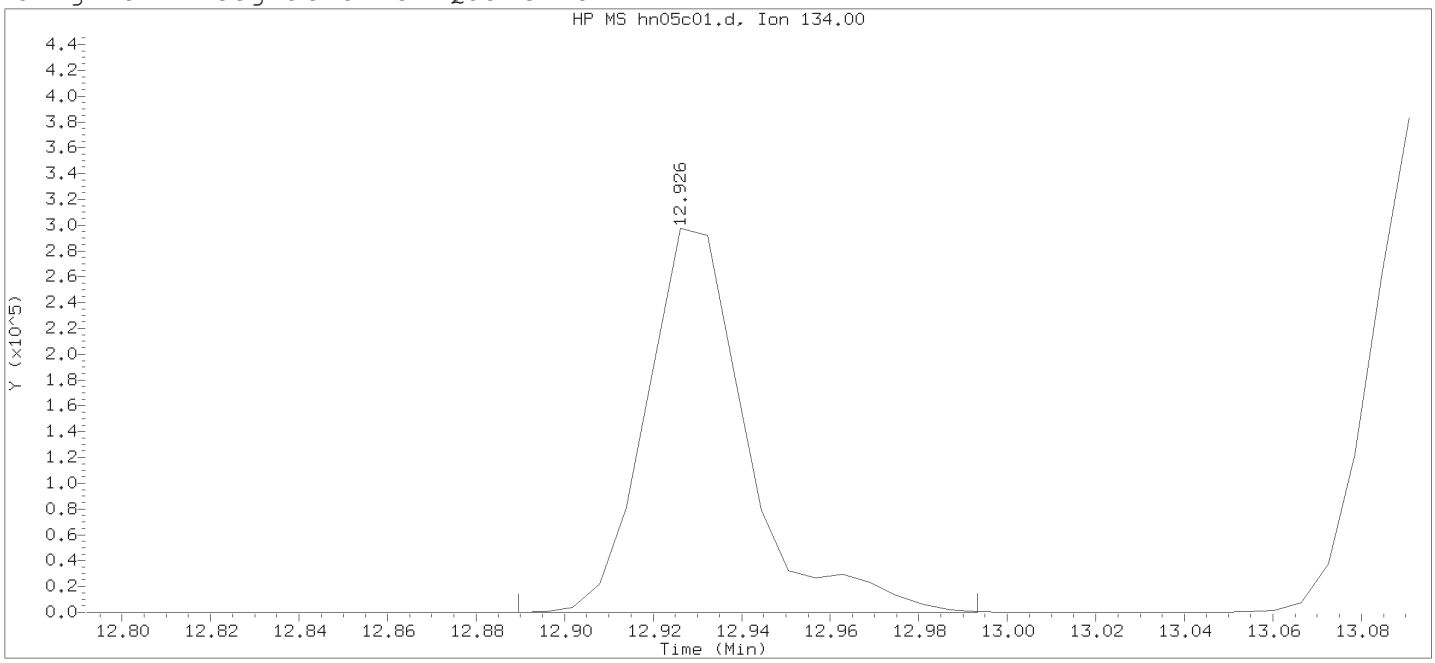
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

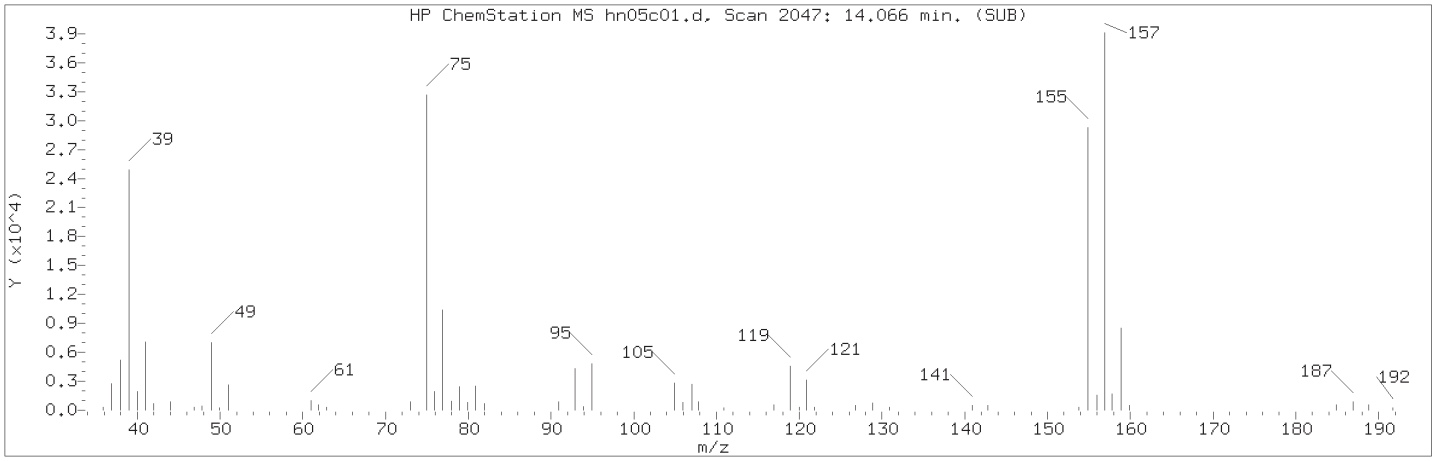
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

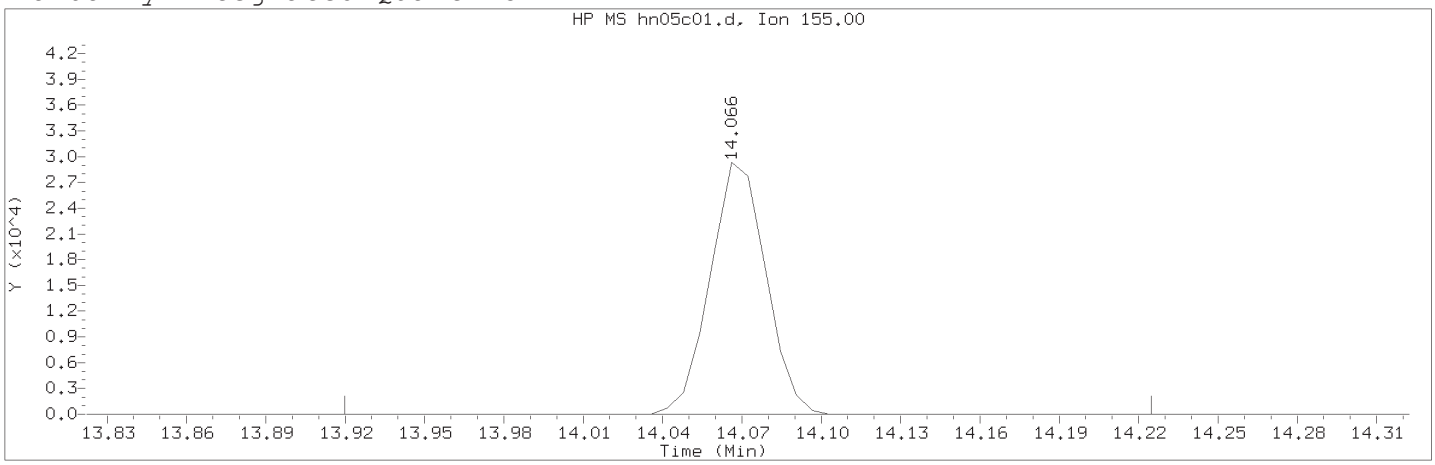
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1860
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area : 468421
On-column Amount (ng) : 10.5136
Integration start scan : 1853 Integration stop scan: 1870
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: JGC14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:52
Date, time and analyst ID of latest file update: 05-Nov-2018 20:52 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

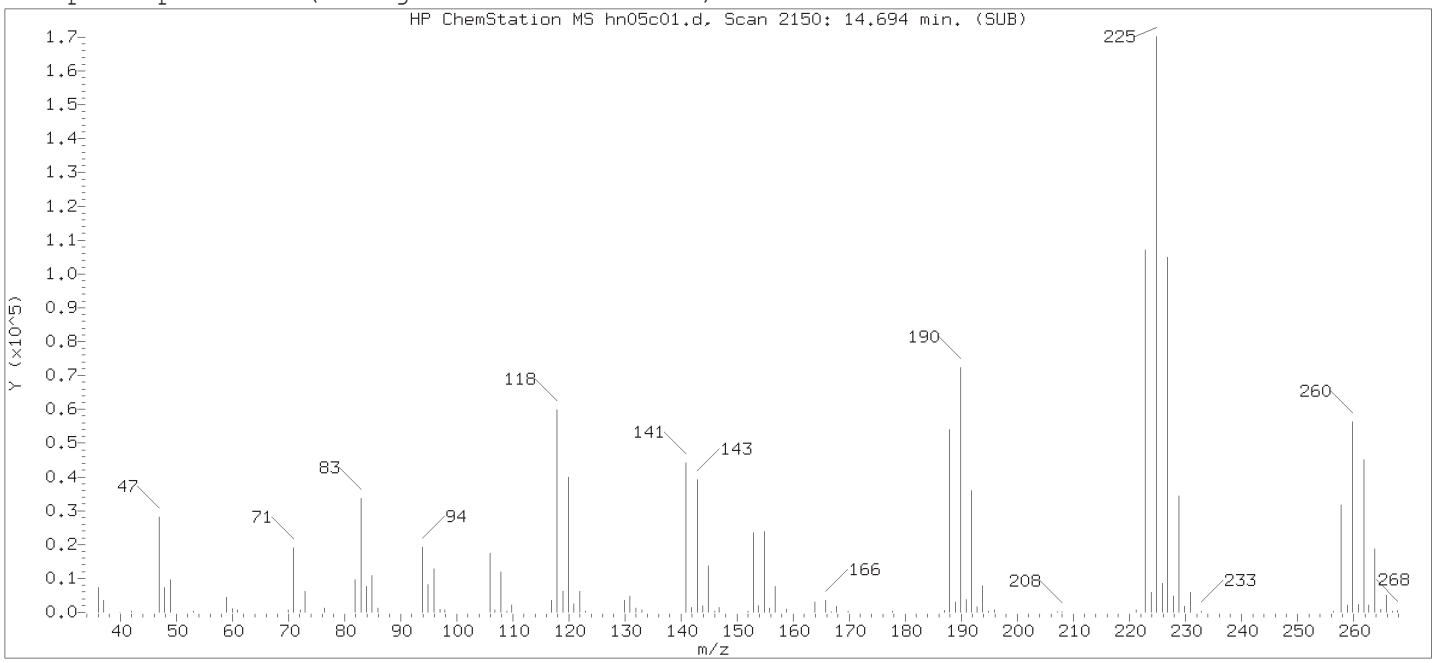
Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2047
Retention Time (minutes): 14.066
Quant Ion : 155.00
Area (flag) : 42745M
On-Column Amount (ng) : 8.4585
Integration start scan : 2022 Integration stop scan: 2072
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

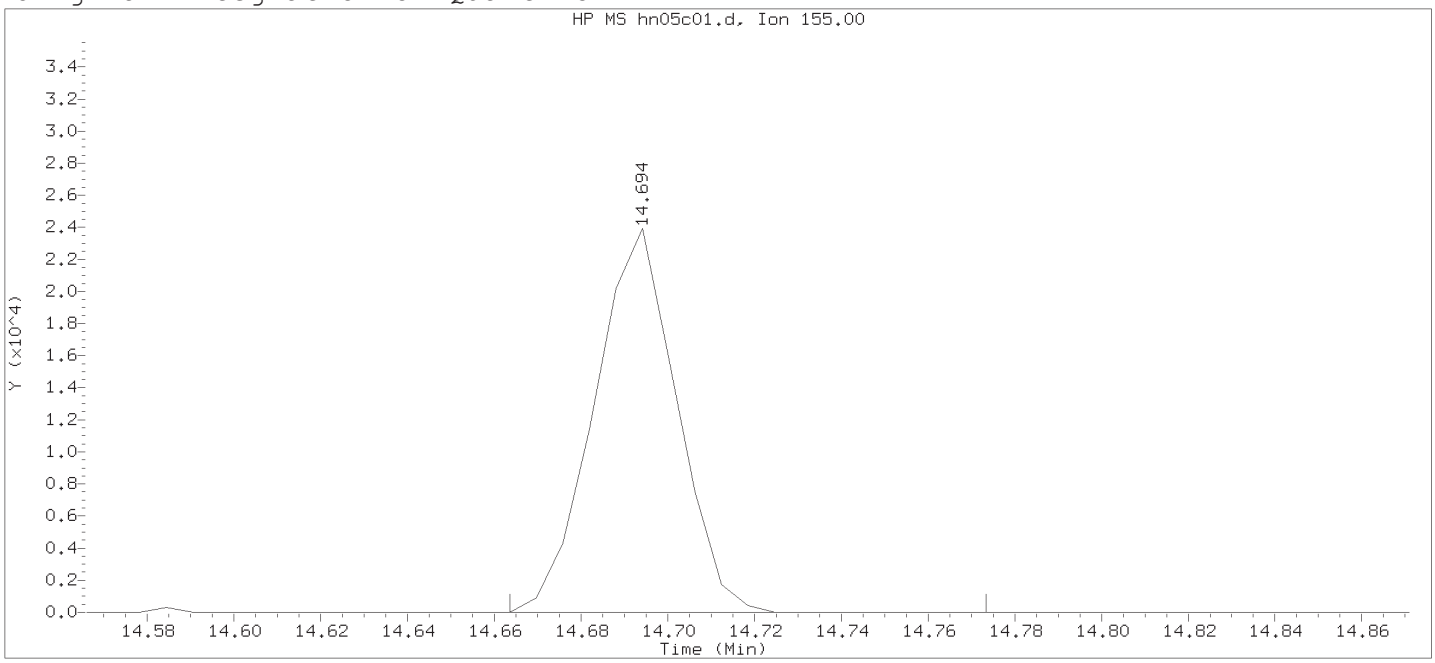
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c01.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:18 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 8260W25
Calibration date and time: 05-NOV-2018 20:36
Date, time and analyst ID of latest file update: 05-Nov-2018 20:36 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 143
Compound Name : 1,2-Dibromo-3-chloropropane
Scan Number : 2150
Retention Time (minutes): 14.694
Quant Ion : 155.00
Area : 31589
On-column Amount (ng) : 6.8663
Integration start scan : 2144 Integration stop scan: 2162
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 20:53.
Target 3.5 esignature user ID: JGC14951

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

SECC010

Data file: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Injection date and time: **06-NOV-2018 07:01**
Data file Sample Info. Line: SECC010;SECC010;1;3;LCS;;;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789-SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 07:40
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.477	(0.006)	474	65	121222M	(-1)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2378952	(-7)	10.00	
97) Chlorobenzene-d5	11.378	(0.006)	1606	117	1843369	(-1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	906263	(-2)	10.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.074	(-0.001)	113	536362	8.946	89%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.001)	102	98121	9.387	94%		81 - 118
82) Toluene-d8	(3)	9.951	(0.000)	98	2428642	10.237	102%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	841878	9.746	97%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(2)	2.075	(-0.000)	85	778665	8.375	8.38			0.05	0.5
2) Chloromethane	(2)	2.276	(-0.000)	50	722523	7.935	7.94			0.06	0.5
5) Vinyl Chloride	(2)	2.398	(0.000)	62	682542	8.005	8.01			0.1	0.5
7) Bromomethane	(2)	2.739	(-0.000)	94	550110	8.299	8.30			0.07	0.5
8) Chloroethane	(2)	2.843	(-0.000)	64	404172	7.815	7.82			0.07	0.5
10) Trichlorofluoromethane	(2)	3.148	(-0.000)	101	880045	8.170	8.17			0.05	0.5
15) 1,1-Dichloroethene	(2)	3.757	(-0.000)	96	437039	9.370	9.37			0.06	0.5
16) Freon 113	(2)	3.794	(-0.000)	101	492292	8.955	8.95			0.06	0.5
14) Acetone	(1)	3.794	(0.000)	43	641257M	88.753	88.75			0.9	5
18) Carbon Disulfide	(2)	4.080	(-0.000)	76	1323563	8.918	8.92			0.06	1
21) Methyl Acetate	(1)	4.233	(0.000)	43	172207	8.490	8.49			0.1	1
23) Methylene Chloride	(2)	4.464	(-0.000)	84	464989	8.836	8.84			0.07	0.5
31) trans-1,2-Dichloroethene	(2)	4.891	(-0.000)	96	447785	8.506	8.51			0.06	0.5
30) Methyl Tertiary Butyl Ether	(2)	4.879	(-0.001)	73	858175	8.946	8.95			0.05	0.5
33) 1,1-Dichloroethane	(2)	5.550	(0.000)	63	933325	9.312	9.31			0.07	0.5
39) cis-1,2-Dichloroethene	(2)	6.379	(-0.000)	96	535444	9.205	9.21			0.05	0.5
38) 2-Butanone	(1)	6.348	(-0.001)	43	1098346	92.867	92.87			0.6	5
49) Chloroform	(2)	6.854	(0.000)	83	760964	8.166	8.17			0.09	0.5
51) 1,1,1-Trichloroethane	(2)	7.086	(0.000)	97	652278	8.183	8.18			0.06	0.5
52) Cyclohexane	(2)	7.183	(0.000)	56	818570	7.867	7.87			0.05	0.5
54) Carbon Tetrachloride	(2)	7.299	(-0.000)	117	564628	8.248	8.25			0.07	0.5
58) Benzene	(2)	7.561	(0.000)	78	1828851	8.190	8.19			0.05	0.5
59) 1,2-Dichloroethane	(2)	7.641	(-0.000)	62	399847M	7.781	7.78			0.05	0.5
67) Trichloroethene	(2)	8.445	(-0.000)	95	523645	9.159	9.16			0.06	0.5
69) Methylcyclohexane	(2)	8.756	(-0.001)	83	947976	8.780	8.78			0.05	0.5
70) 1,2-Dichloropropane	(2)	8.781	(-0.000)	63	511820	9.447	9.45			0.06	0.5
74) Bromodichloromethane	(2)	9.122	(-0.000)	83	582603	9.566	9.57			0.05	0.5
80) cis-1,3-Dichloropropene	(2)	9.646	(-0.000)	75	676681	9.543	9.54			0.05	0.5
81) 4-Methyl-2-Pentanone	(1)	9.811	(-0.002)	43	2812904	95.615	95.62			0.7	5
83) Toluene	(3)	10.024	(-0.000)	92	1270162	9.285	9.29			0.07	0.5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Injection date and time: **06-NOV-2018 07:01**
Data file Sample Info. Line: SECC010;SECC010;1;3;LCS;;;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789-SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 07:40
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

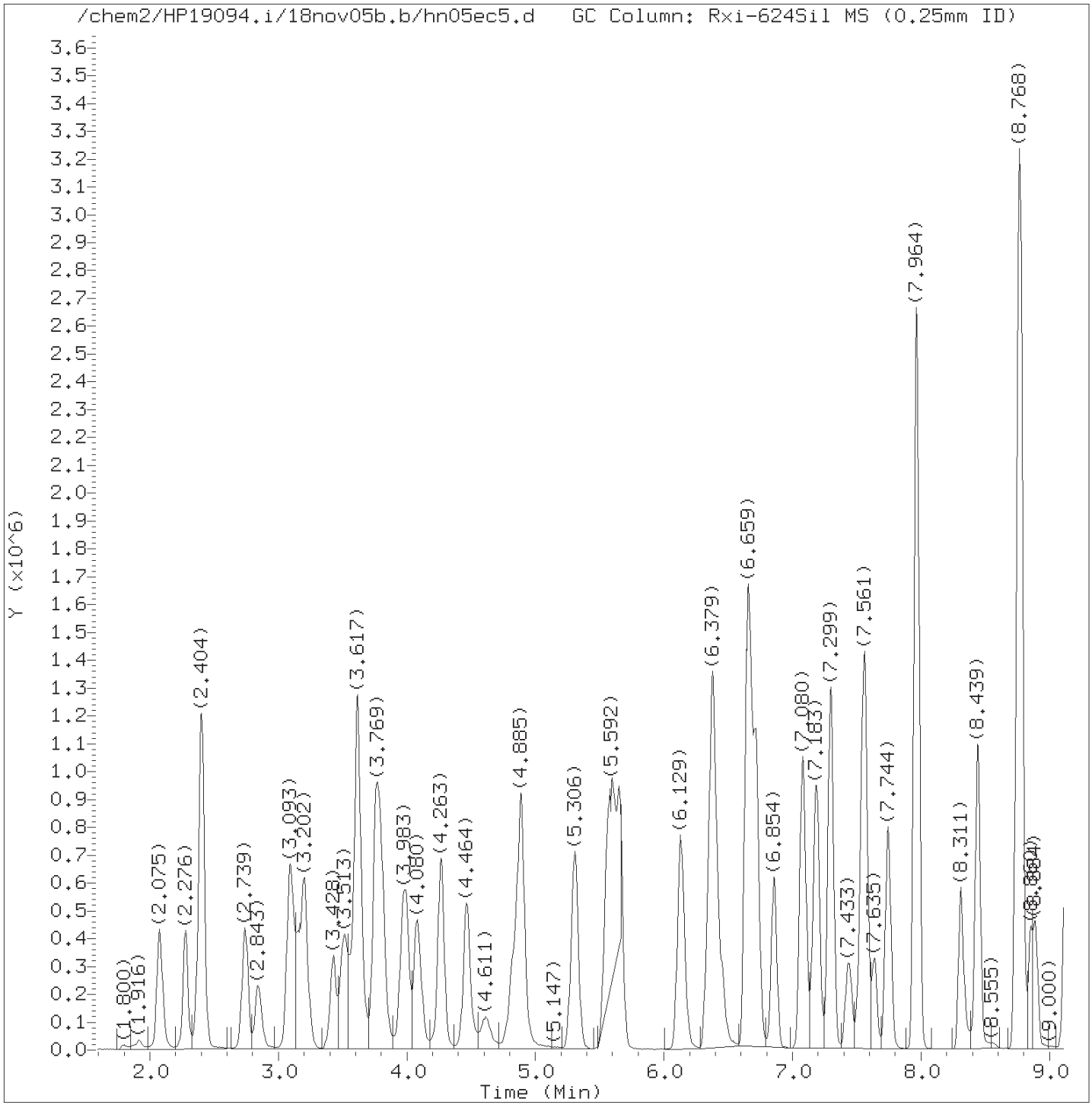
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
84) trans-1,3-Dichloropropene	(3)	10.268(0.000)	75	525507	9.970	9.97			0.06	0.5
88) 1,1,2-Trichloroethane	(3)	10.475(-0.000)	97	299981	9.530	9.53			0.06	0.5
89) Tetrachloroethene	(3)	10.561(-0.000)	166	562545	9.102	9.10			0.06	0.5
91) 2-Hexanone	(1)	10.677(-0.003)	43	1971324	98.441	98.44			0.6	5
93) Dibromochloromethane	(3)	10.847(-0.000)	129	366657	9.719	9.72			0.07	0.5
95) 1,2-Dibromoethane	(3)	10.957(-0.000)	107	288388	9.775	9.77			0.06	0.5
98) Chlorobenzene	(3)	11.408(-0.000)	112	1356148	9.344	9.34			0.06	0.5
100) Ethylbenzene	(3)	11.487(-0.000)	91	2515442	9.409	9.41			0.06	0.5
101) m+p-Xylene	(3)	11.603(-0.000)	106	1870382	18.861	18.86			0.1	0.5
104) o-Xylene	(3)	11.926(-0.000)	106	897234	9.464	9.46			0.05	0.5
105) Xylene (Total)	(3)		106	2767616	28.325	28.32			0.1	0.5
106) Styrene	(3)	11.945(-0.000)	104	1456415	9.602	9.60			0.05	0.5
107) Bromoform	(3)	12.103(-0.000)	173	203181	9.799	9.80			0.3	1
108) Isopropylbenzene	(3)	12.225(-0.000)	105	2416851	9.338	9.34			0.05	0.5
113) 1,1,2,2-Tetrachloroethane	(4)	12.469(0.000)	83	352122M	9.795	9.80			0.07	0.5
131) 1,3-Dichlorobenzene	(4)	13.194(0.000)	146	1052166	9.690	9.69			0.06	0.5
134) 1,4-Dichlorobenzene	(4)	13.268(0.000)	146	1019306	9.563	9.56			0.07	0.5
139) 1,2-Dichlorobenzene	(4)	13.524(0.000)	146	804716	8.400	8.40			0.06	0.5
143) 1,2-Dibromo-3-chloropropane	(1)	14.066(-0.004)	155	39626	7.946	7.95			0.1	0.5
145) 1,2,4-Trichlorobenzene	(4)	14.615(0.000)	180	521788	7.930	7.93			0.06	0.5

M = Compound was manually integrated.

Total number of targets = 50

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

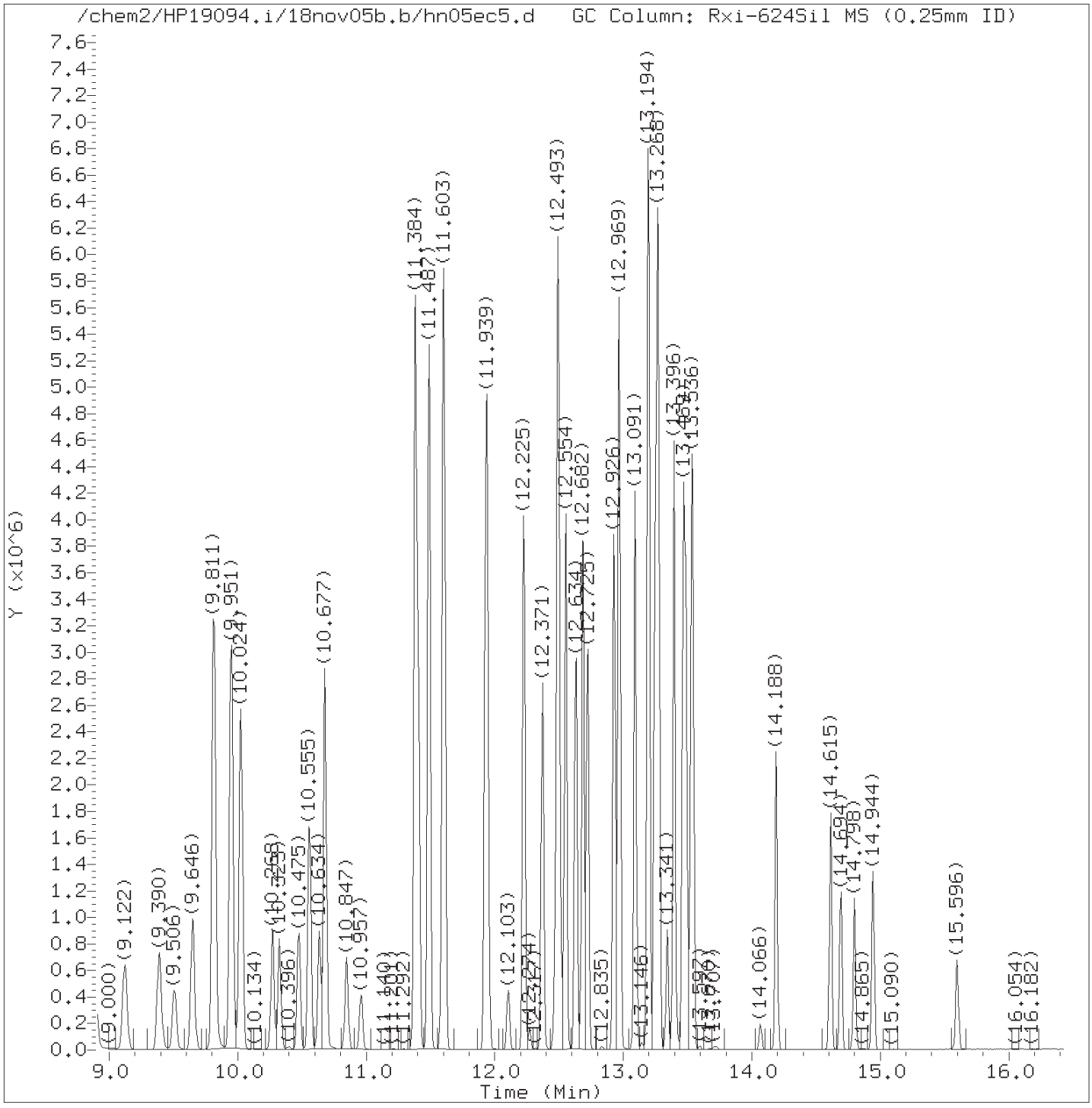
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	778665	8.375
2) Chloromethane	(2)	2.276	50	722523	7.935
5) Vinyl Chloride	(2)	2.398	62	682542	8.005
7) Bromomethane	(2)	2.739	94	550110	8.299
8) Chloroethane	(2)	2.843	64	404172	7.815
10) Trichlorofluoromethane	(2)	3.148	101	880045	8.170
15) 1,1-Dichloroethene	(2)	3.757	96	437039	9.370
16) Freon 113	(2)	3.794	101	492292	8.955
14) Acetone	(1)	3.794	43	641257M	88.753
18) Carbon Disulfide	(2)	4.080	76	1323563	8.918
21) Methyl Acetate	(1)	4.233	43	172207	8.490
23) Methylene Chloride	(2)	4.464	84	464989	8.836
26)*t-Butyl Alcohol-d10	(1)	4.477	65	121222M	50.000
30) Methyl Tertiary Butyl Ether	(2)	4.879	73	858175	8.946
31) trans-1,2-Dichloroethene	(2)	4.891	96	447785	8.506
33) 1,1-Dichloroethane	(2)	5.550	63	933325	9.312
38) 2-Butanone	(1)	6.348	43	1098346	92.867
39) cis-1,2-Dichloroethene	(2)	6.379	96	535444	9.205
49) Chloroform	(2)	6.854	83	760964	8.166
50)$Dibromofluoromethane	(2)	7.074	113	536362	8.946
51) 1,1,1-Trichloroethane	(2)	7.086	97	652278	8.183
52) Cyclohexane	(2)	7.183	56	818570	7.867
54) Carbon Tetrachloride	(2)	7.299	117	564628	8.248
57)$1,2-Dichloroethane-d4	(2)	7.531	102	98121	9.387
58) Benzene	(2)	7.561	78	1828851	8.190
59) 1,2-Dichloroethane	(2)	7.641	62	399847M	7.781
63)*Fluorobenzene	(2)	7.964	96	2378952	10.000
67) Trichloroethene	(2)	8.445	95	523645	9.159
69) Methylcyclohexane	(2)	8.756	83	947976	8.780
70) 1,2-Dichloropropane	(2)	8.781	63	511820	9.447
74) Bromodichloromethane	(2)	9.122	83	582603	9.566
80) cis-1,3-Dichloropropene	(2)	9.646	75	676681	9.543
81) 4-Methyl-2-Pentanone	(1)	9.811	43	2812904	95.615
82)$Toluene-d8	(3)	9.951	98	2428642	10.237
83) Toluene	(3)	10.024	92	1270162	9.285
84) trans-1,3-Dichloropropene	(3)	10.268	75	525507	9.970
88) 1,1,2-Trichloroethane	(3)	10.475	97	299981	9.530
89) Tetrachloroethene	(3)	10.561	166	562545	9.102

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

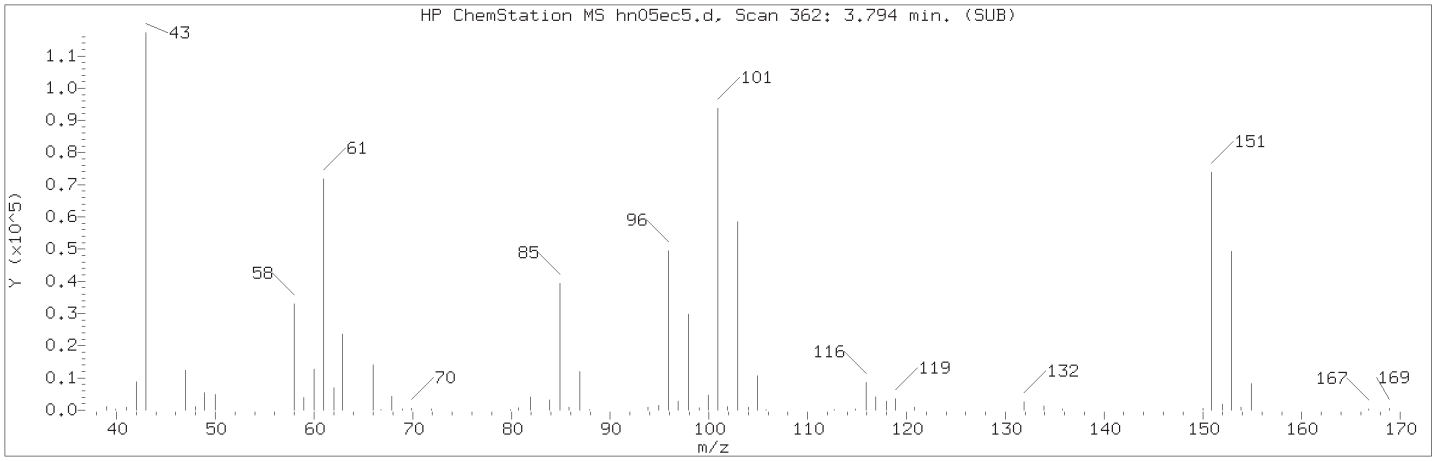
Sample Name: SECC010 Lab Sample ID: SECC010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) 2-Hexanone	(1)	10.677	43	1971324	98.441
93) Dibromochloromethane	(3)	10.847	129	366657	9.719
95) 1,2-Dibromoethane	(3)	10.957	107	288388	9.775
97)*Chlorobenzene-d5	(3)	11.378	117	1843369	10.000
98) Chlorobenzene	(3)	11.408	112	1356148	9.344
100) Ethylbenzene	(3)	11.487	91	2515442	9.409
101) m+p-Xylene	(3)	11.603	106	1870382	18.861
105) Xylene (Total)	(3)		106	2767616	28.325
104) o-Xylene	(3)	11.926	106	897234	9.464
106) Styrene	(3)	11.945	104	1456415	9.602
107) Bromoform	(3)	12.103	173	203181	9.799
108) Isopropylbenzene	(3)	12.225	105	2416851	9.338
111)$4-Bromofluorobenzene	(3)	12.371	95	841878	9.746
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	352122M	9.795
131) 1,3-Dichlorobenzene	(4)	13.194	146	1052166	9.690
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	906263	10.000
134) 1,4-Dichlorobenzene	(4)	13.268	146	1019306	9.563
139) 1,2-Dichlorobenzene	(4)	13.524	146	804716	8.400
143) 1,2-Dibromo-3-chloropropane	(1)	14.066	155	39626	7.946
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	521788	7.930

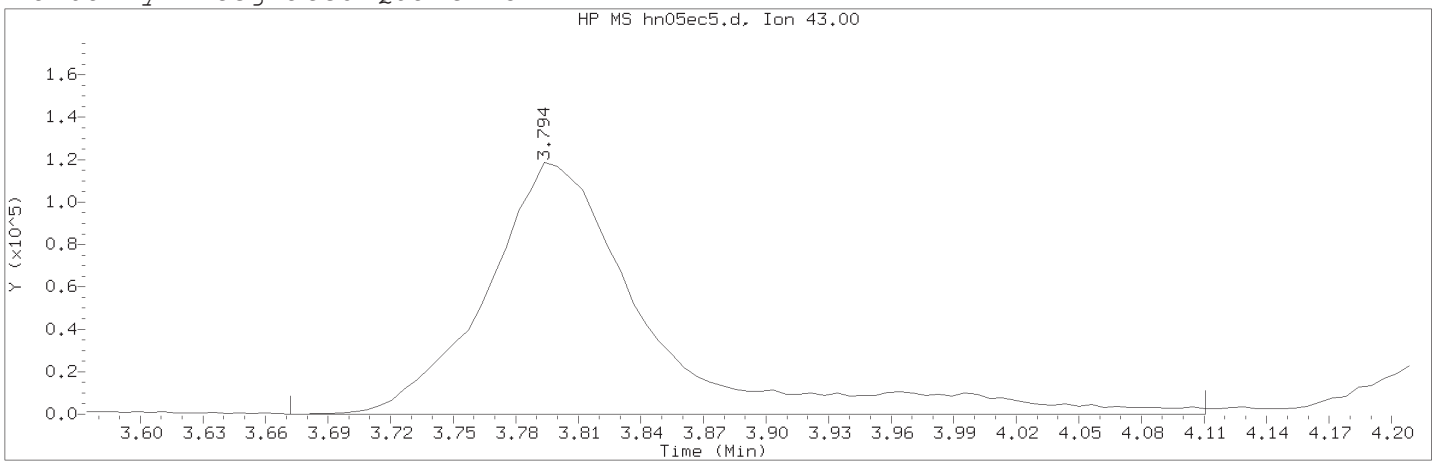
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

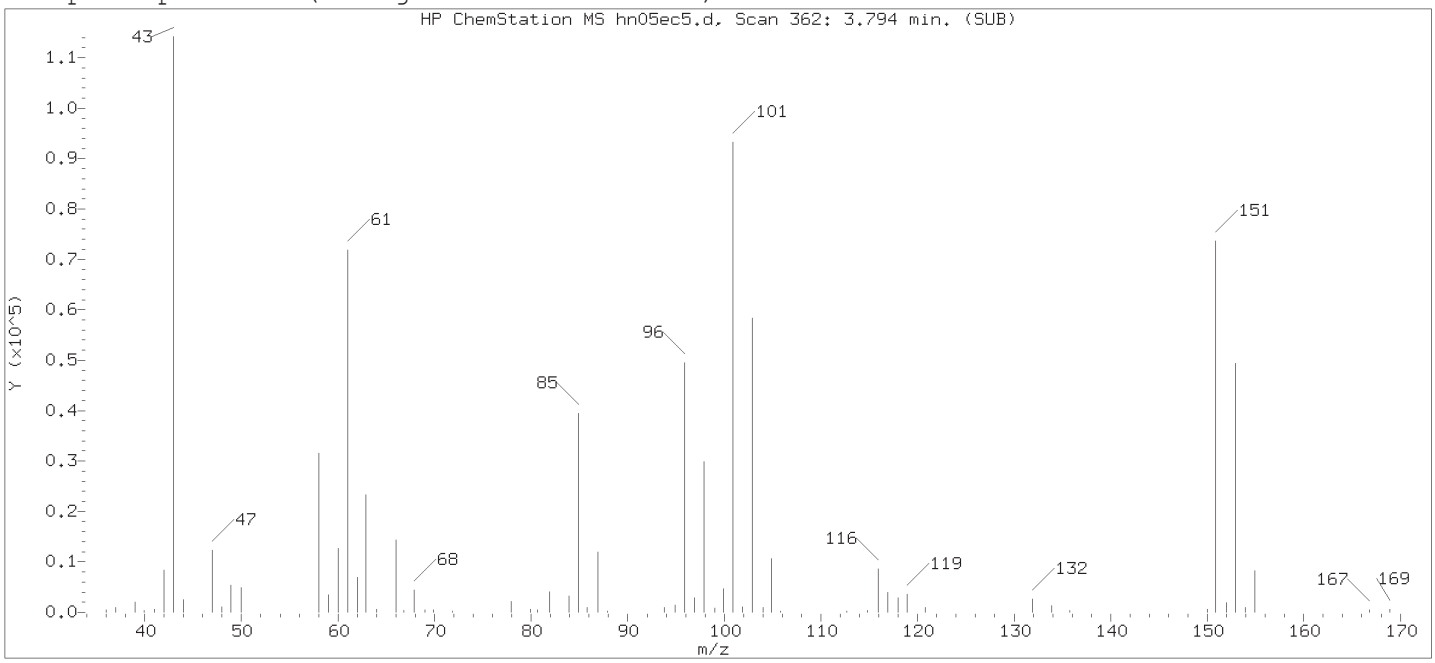
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area (flag) : 641257M
On-Column Amount (ng) : 88.7531
Integration start scan : 341 Integration stop scan: 413
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

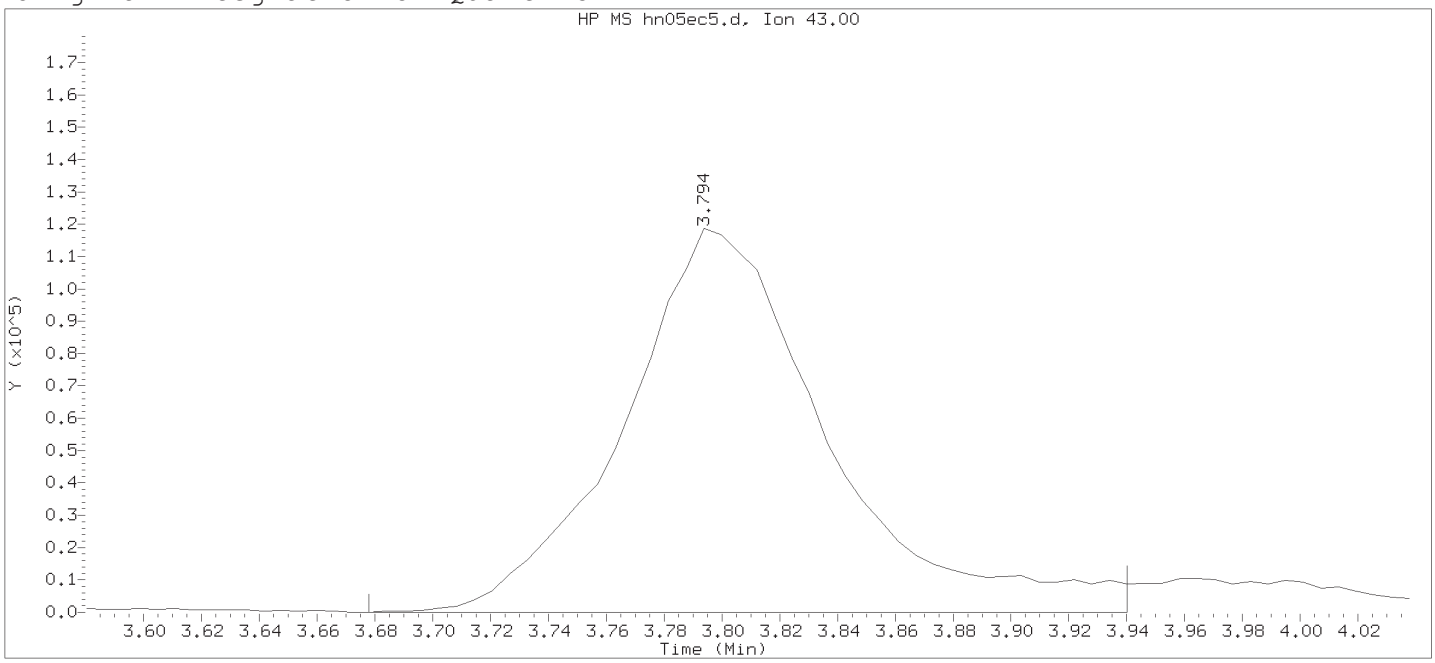
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

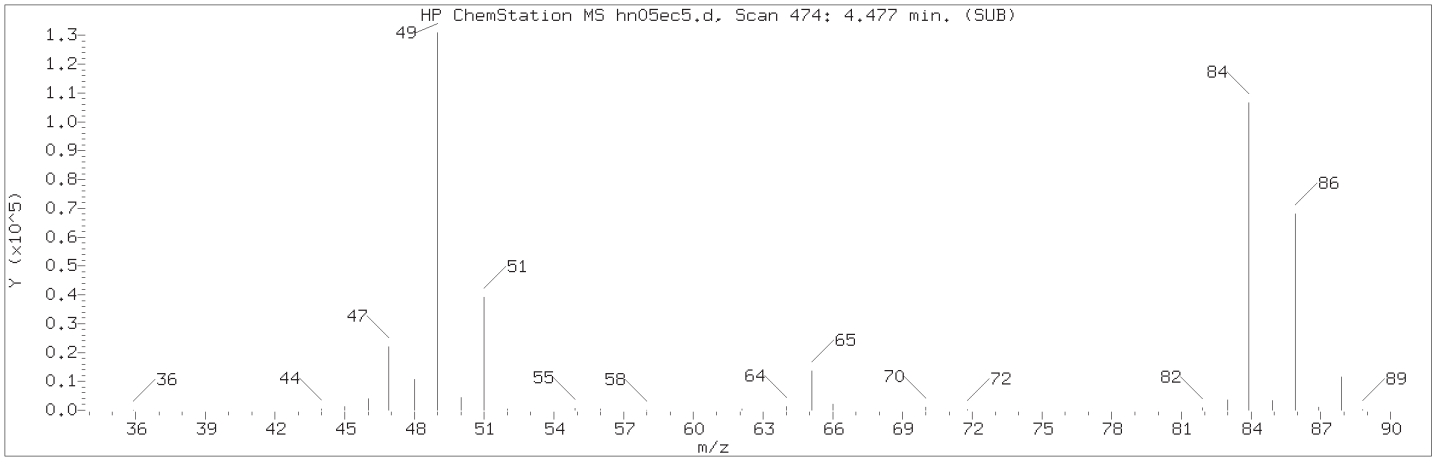
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 07:19 Automation

Sample Name: SECC010 Lab Sample ID: SECC010

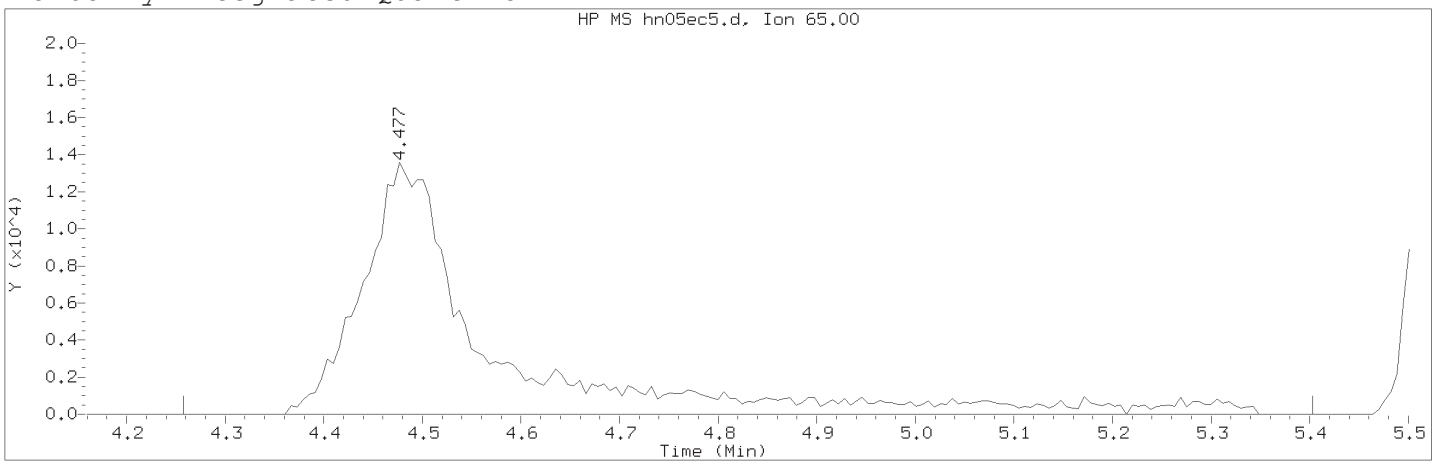
Compound Number : 14
Compound Name : Acetone
Scan Number : 362
Retention Time (minutes): 3.794
Quant Ion : 43.00
Area : 576857
On-column Amount (ng) : 82.5527
Integration start scan : 342 Integration stop scan: 385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54.
Target 3.5 esignature used 11/6/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

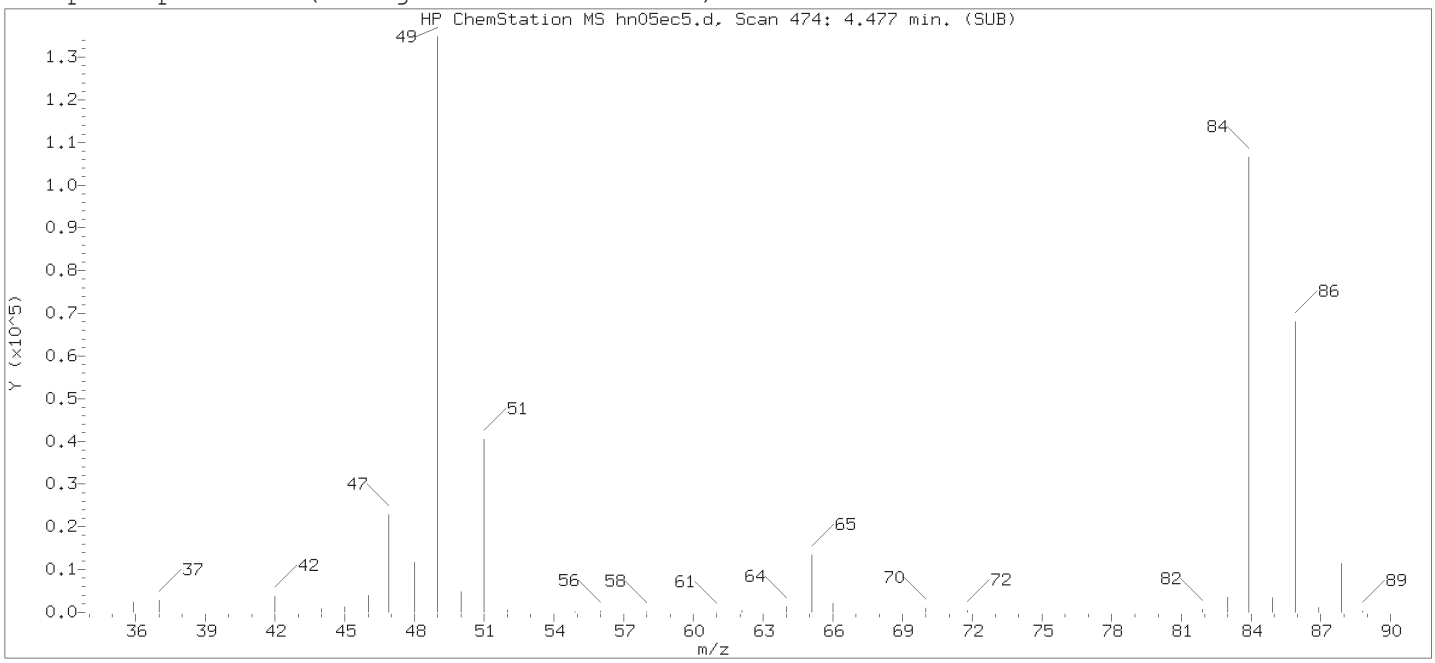
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.477
Quant Ion : 65.00
Area (flag) : 121222M
On-Column Amount (ng) : 50.0000
Integration start scan : 437 Integration stop scan: 625
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

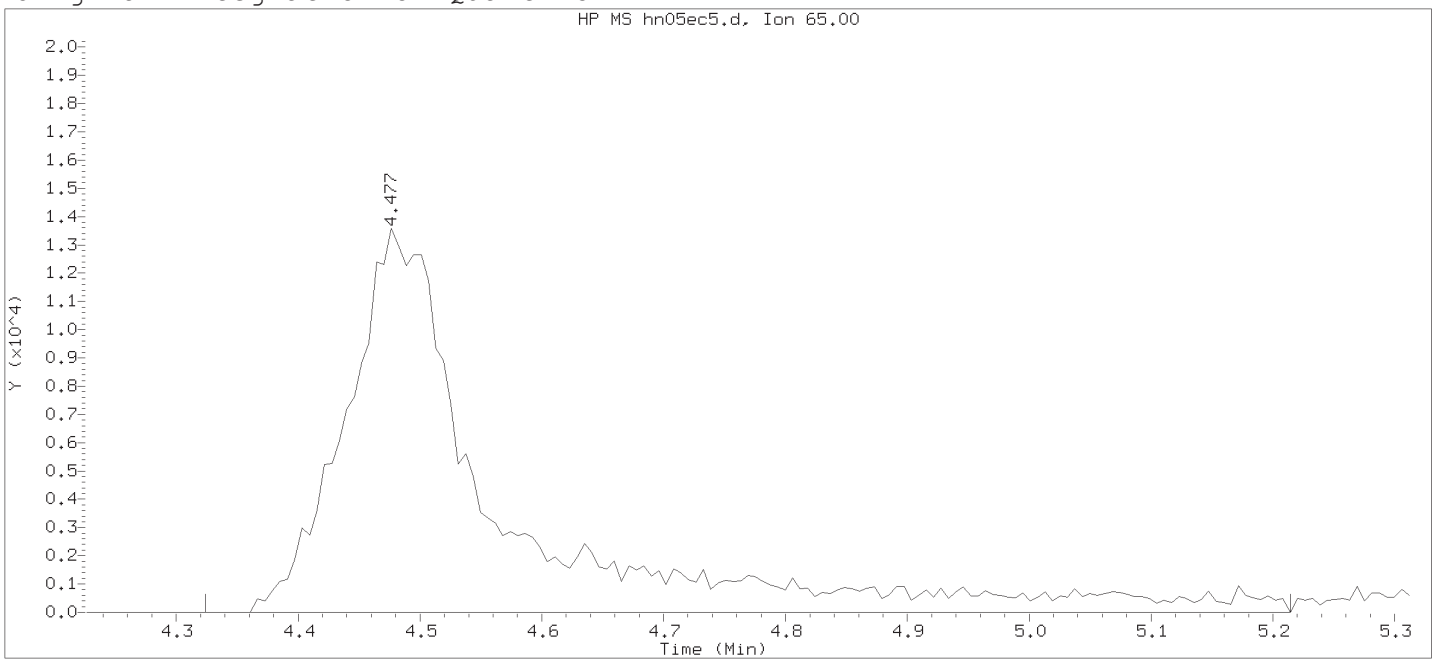
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

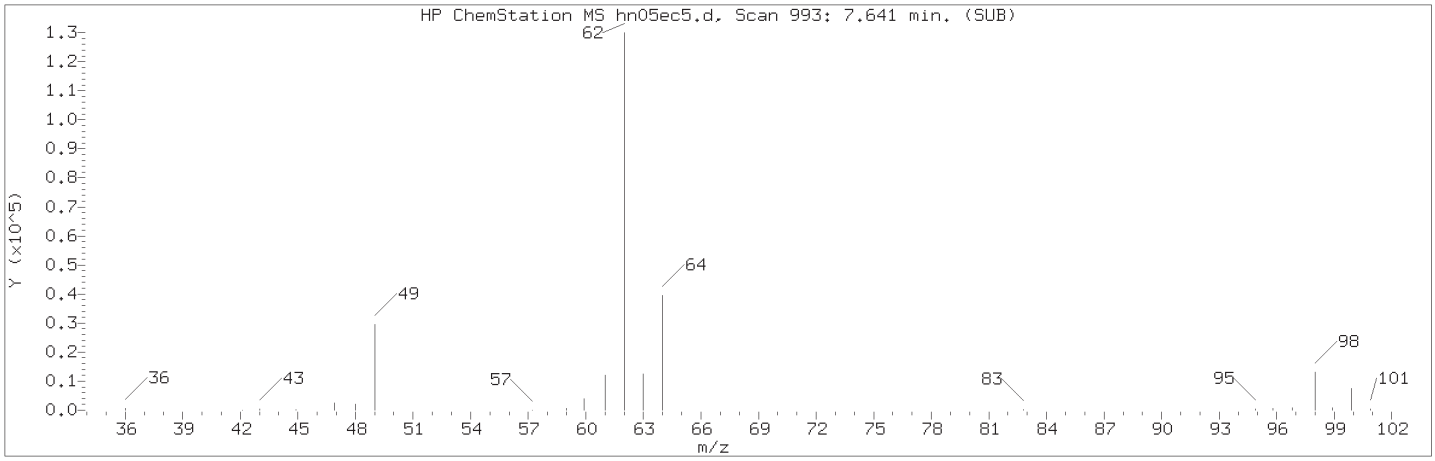
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 07:19 Automation

Sample Name: SECC010 Lab Sample ID: SECC010

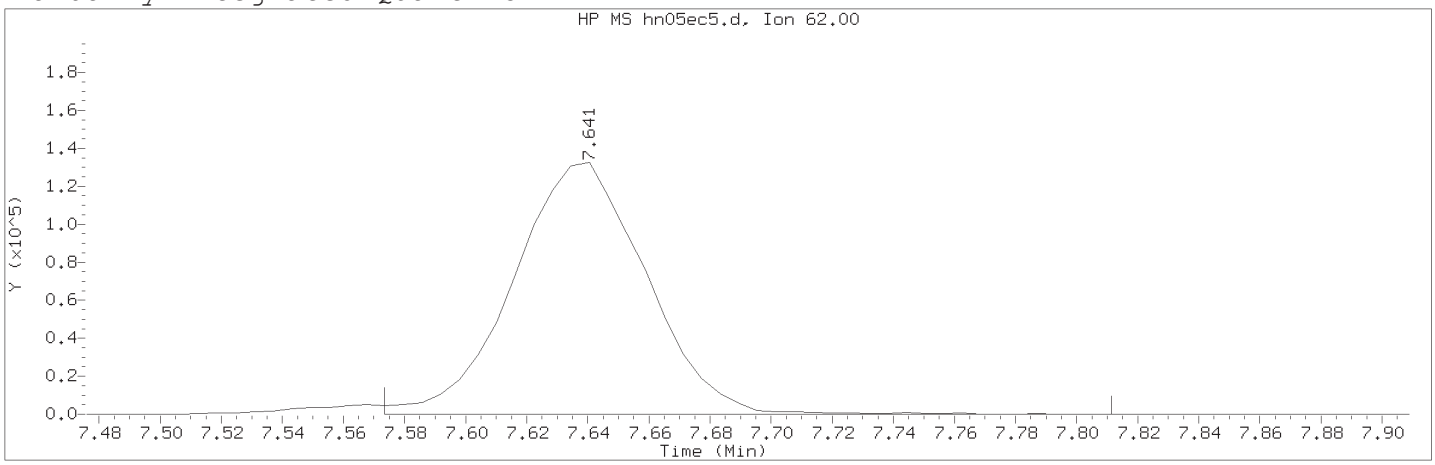
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 474
Retention Time (minutes): 4.477
Quant Ion : 65.00
Area : 117238
On-column Amount (ng) : 50.0000
Integration start scan : 448 Integration stop scan: 594
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

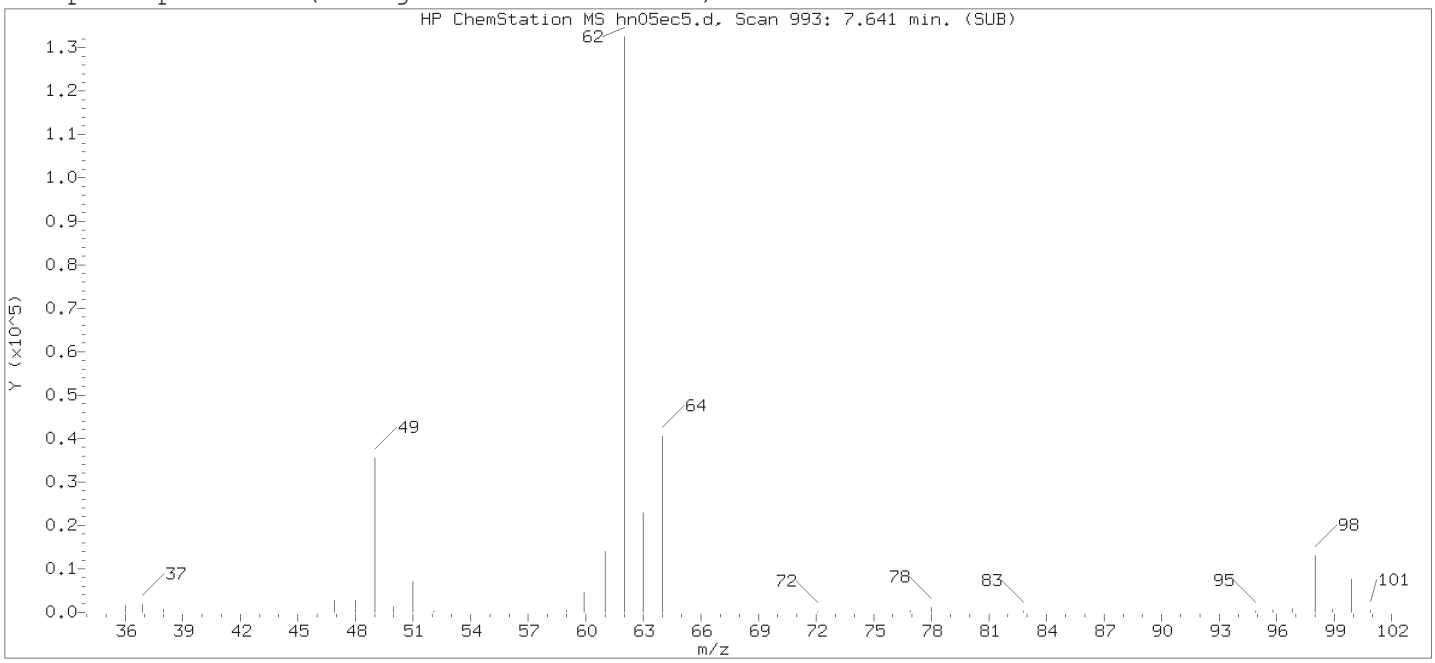
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.641
Quant Ion : 62.00
Area (flag) : 399847M
On-Column Amount (ng) : 7.7809
Integration start scan : 981 Integration stop scan: 1020
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

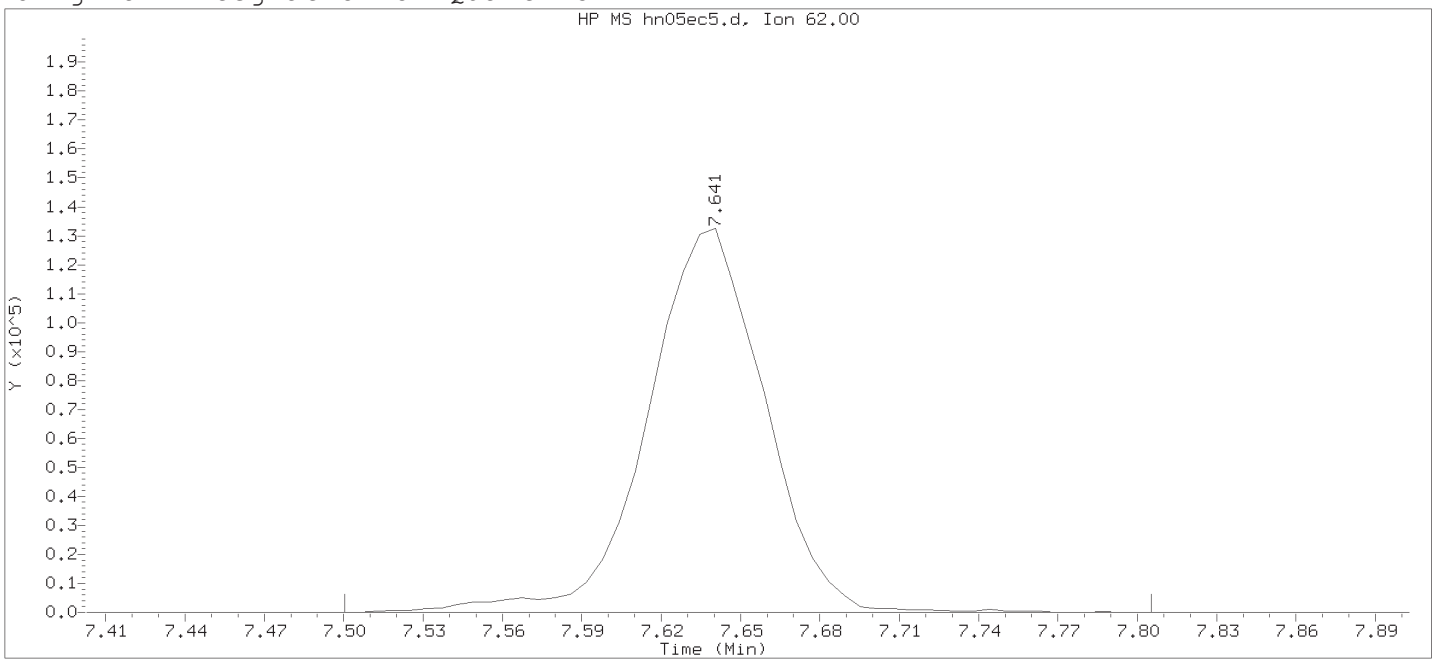
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

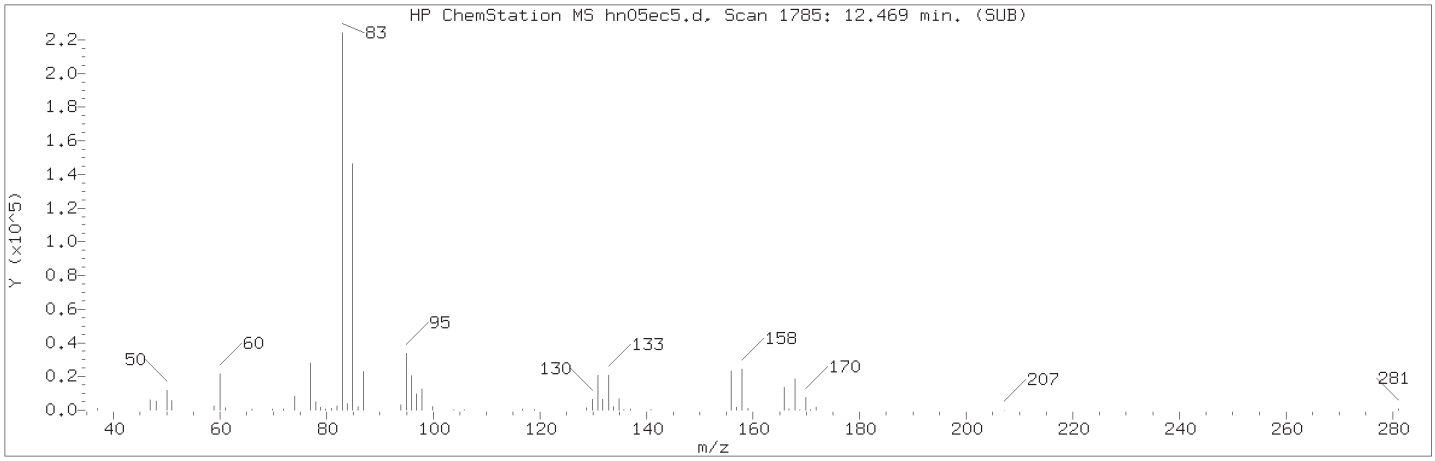
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 07:19 Automation

Sample Name: SECC010 Lab Sample ID: SECC010

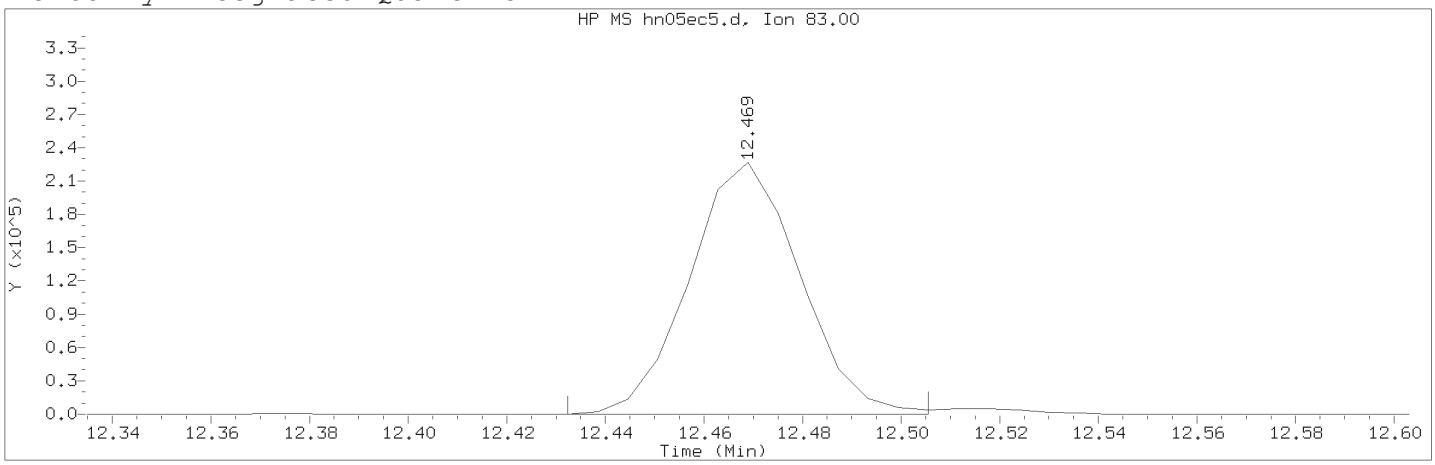
Compound Number : 59
Compound Name : 1,2-Dichloroethane
Scan Number : 993
Retention Time (minutes): 7.641
Quant Ion : 62.00
Area : 408576
On-column Amount (ng) : 7.9507
Integration start scan : 969 Integration stop scan: 1019
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:40 jkh09052

Sample Name: SECC010 Lab Sample ID: SECC010

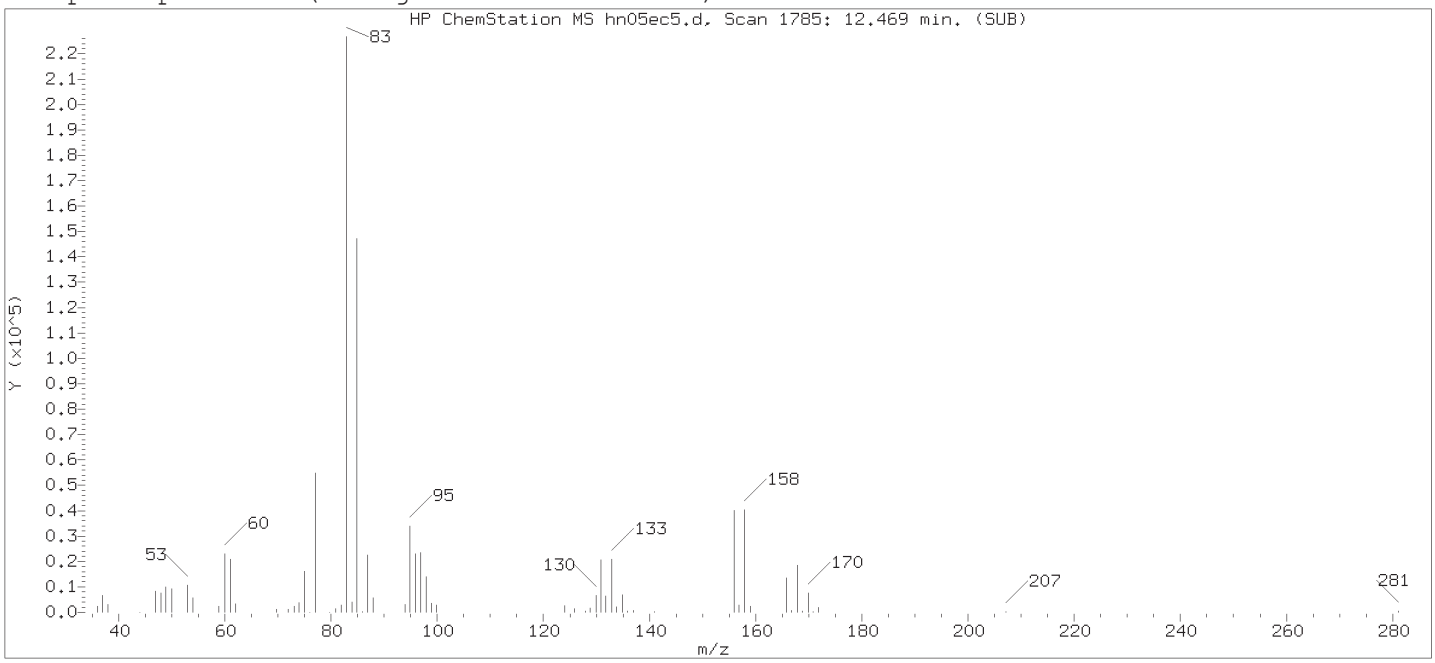
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1785
Retention Time (minutes): 12.469
Quant Ion : 83.00
Area (flag) : 352122M
On-Column Amount (ng) : 9.7951
Integration start scan : 1778 Integration stop scan: 1790
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

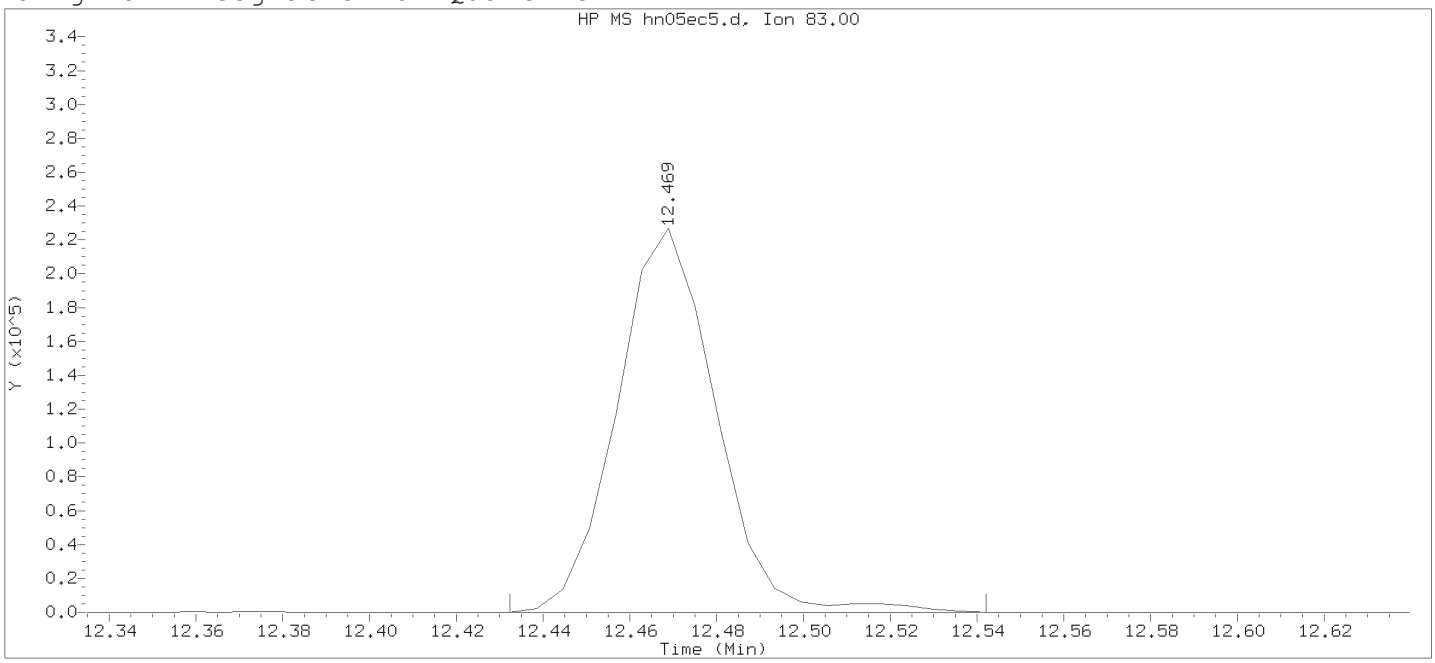
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05ec5.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:01 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 06-Nov-2018 07:19 Automation

Sample Name: SECC010 Lab Sample ID: SECC010

Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1785
Retention Time (minutes): 12.469
Quant Ion : 83.00
Area : 358093
On-column Amount (ng) : 9.9612
Integration start scan : 1778 Integration stop scan: 1796
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54.
Target 3.5 esignature used 11/6/2018

Data File: /chem2/HP19094.i/18may02b.b/hy02t07.d

Date : 02-MAY-2018 18:32

Client ID: BFB 50ng

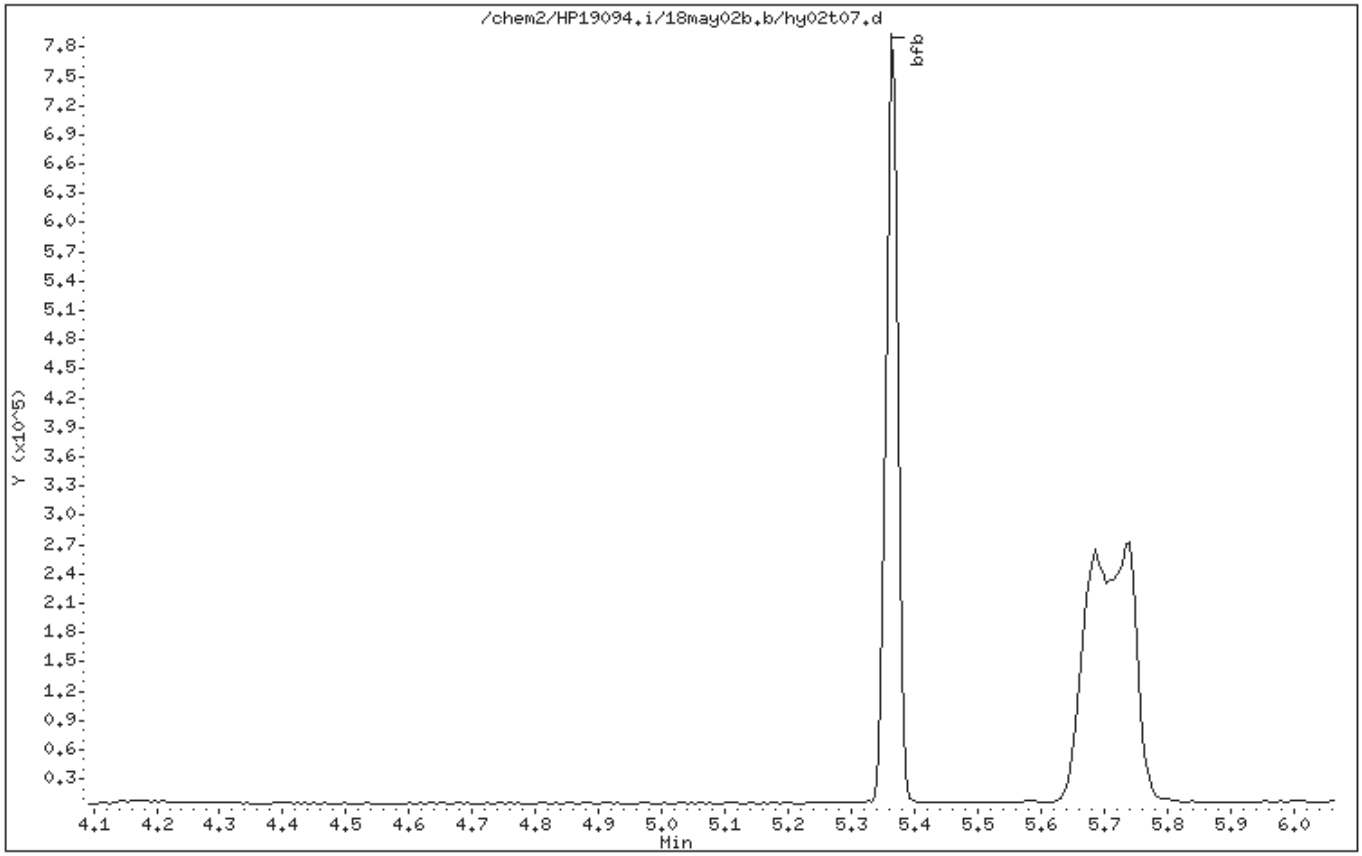
Instrument: HP19094.i

Sample Info: BFB 50ng;BFB FEB13-18;1;3;;;;;

Operator: DVV10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Don V. Viray on 05/02/2018 at 18:38.
Target 3.5 esignature user ID: dvv10203

Data File: /chem2/HP19094.i/18may02b.b/hy02t07.d

Date : 02-MAY-2018 18:32

Client ID: BFB 50ng

Instrument: HP19094.i

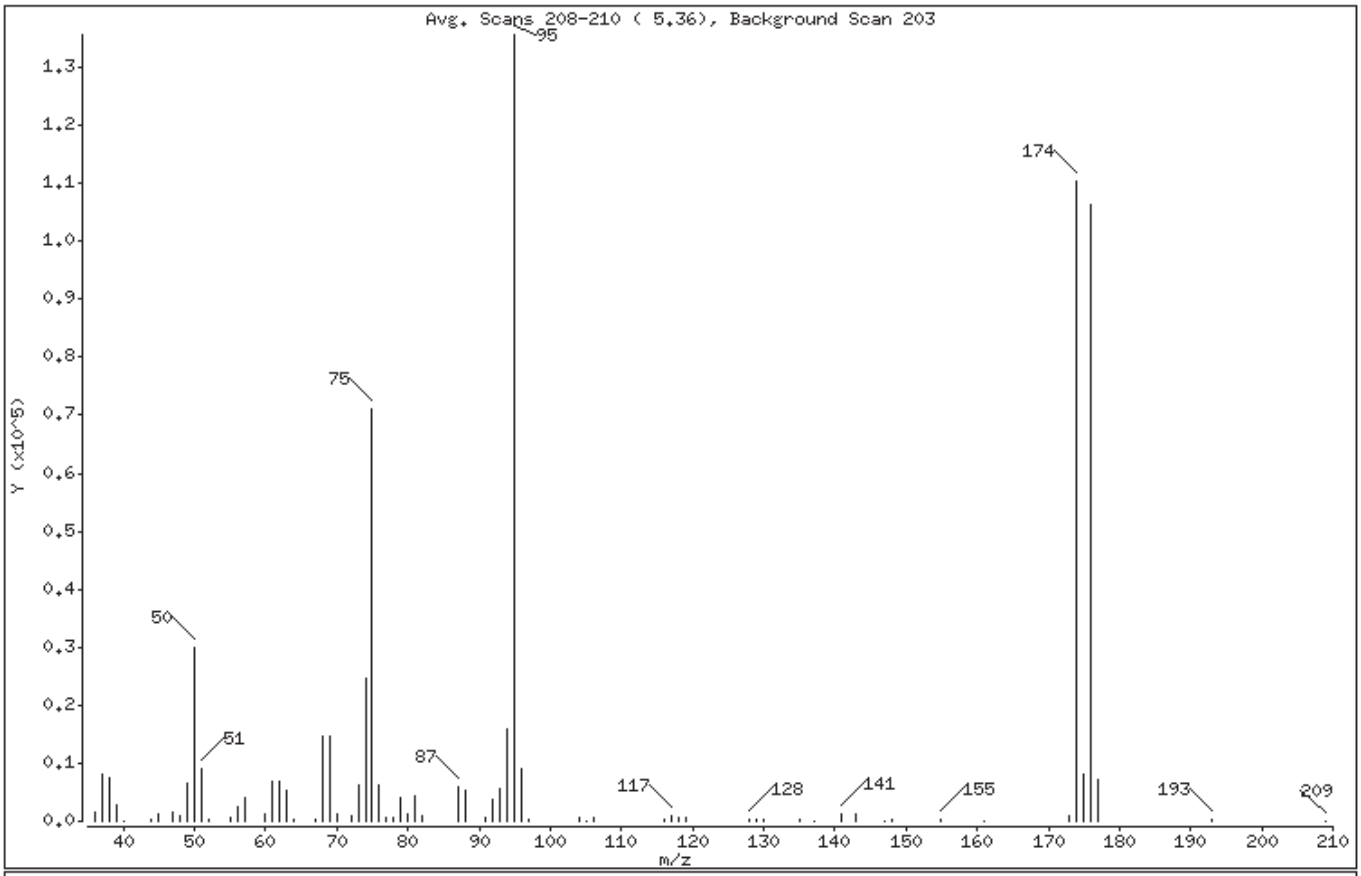
Sample Info: BFB 50ng;BFB FEB13-18;1;3;;;;;

Operator: DVV10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.13
75	30.00 - 60.00% of mass 95	52.51
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.74 (0.91)
174	50.00 - 100.00% of mass 95	81.35
175	5.00 - 9.00% of mass 174	6.02 (7.39)
176	95.00 - 101.00% of mass 174	78.44 (96.43)
177	5.00 - 9.00% of mass 176	5.34 (6.81)

Digitally signed by Don V. Viray on 05/02/2018 at 18:38.
Target 3.5 esignature user ID: dvv10203

Date : 02-MAY-2018 18:32

Client ID: BFB 50ng Instrument: HP19094.i

Sample Info: BFB 50ng;BFB FEB13-18;1;3;;;;;

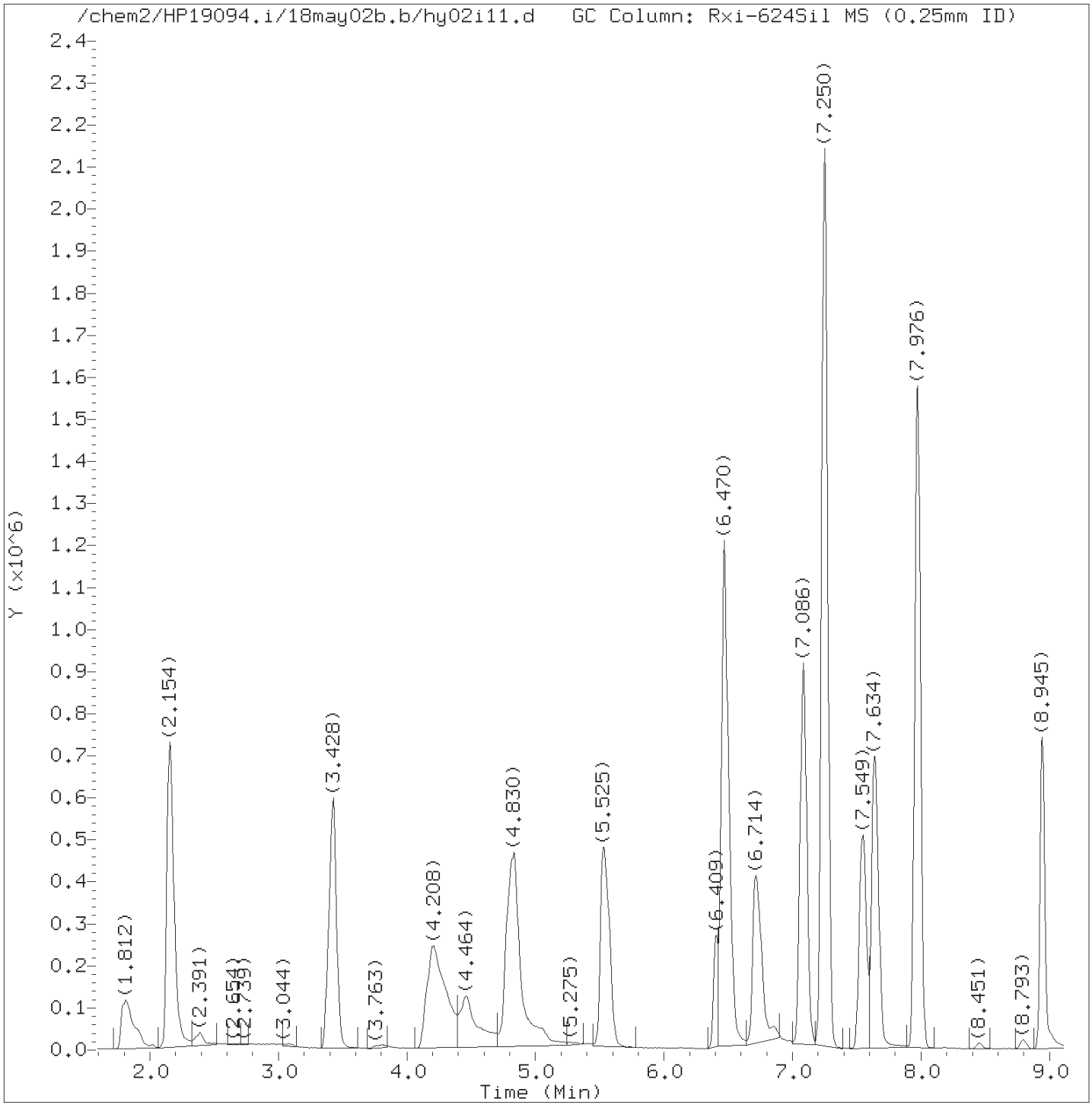
Operator: DVV10203

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: hy02t07.d
Spectrum: Avg. Scans 208-210 (5.36), Background Scan 203
Location of Maximum: 95.00
Number of points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1470	62.00	6734	87.00	5881	130.00	433
37.00	8118	63.00	5366	88.00	5267	135.00	242
38.00	7563	64.00	344	91.00	509	137.00	100
39.00	2730	67.00	437	92.00	3621	141.00	1337
40.00	63	68.00	14675	93.00	5521	143.00	1332
44.00	285	69.00	14780	94.00	15980	147.00	90
45.00	1328	70.00	1336	95.00	135616	148.00	267
47.00	1648	72.00	799	96.00	9072	155.00	234
48.00	966	73.00	6302	97.00	295	161.00	98
49.00	6556	74.00	24648	104.00	568	173.00	1005
50.00	30024	75.00	71232	105.00	133	174.00	110368
51.00	9082	76.00	6135	106.00	520	175.00	8161
52.00	462	77.00	713	116.00	465	176.00	106424
55.00	540	78.00	701	117.00	851	177.00	7246
56.00	2506	79.00	4126	118.00	543	193.00	227
57.00	3993	80.00	1277	119.00	727	209.00	128
60.00	1270	81.00	4251	128.00	453		
61.00	6851	82.00	901	129.00	243		

Digitally signed by Don V. Viray on 05/02/2018 at 18:38.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

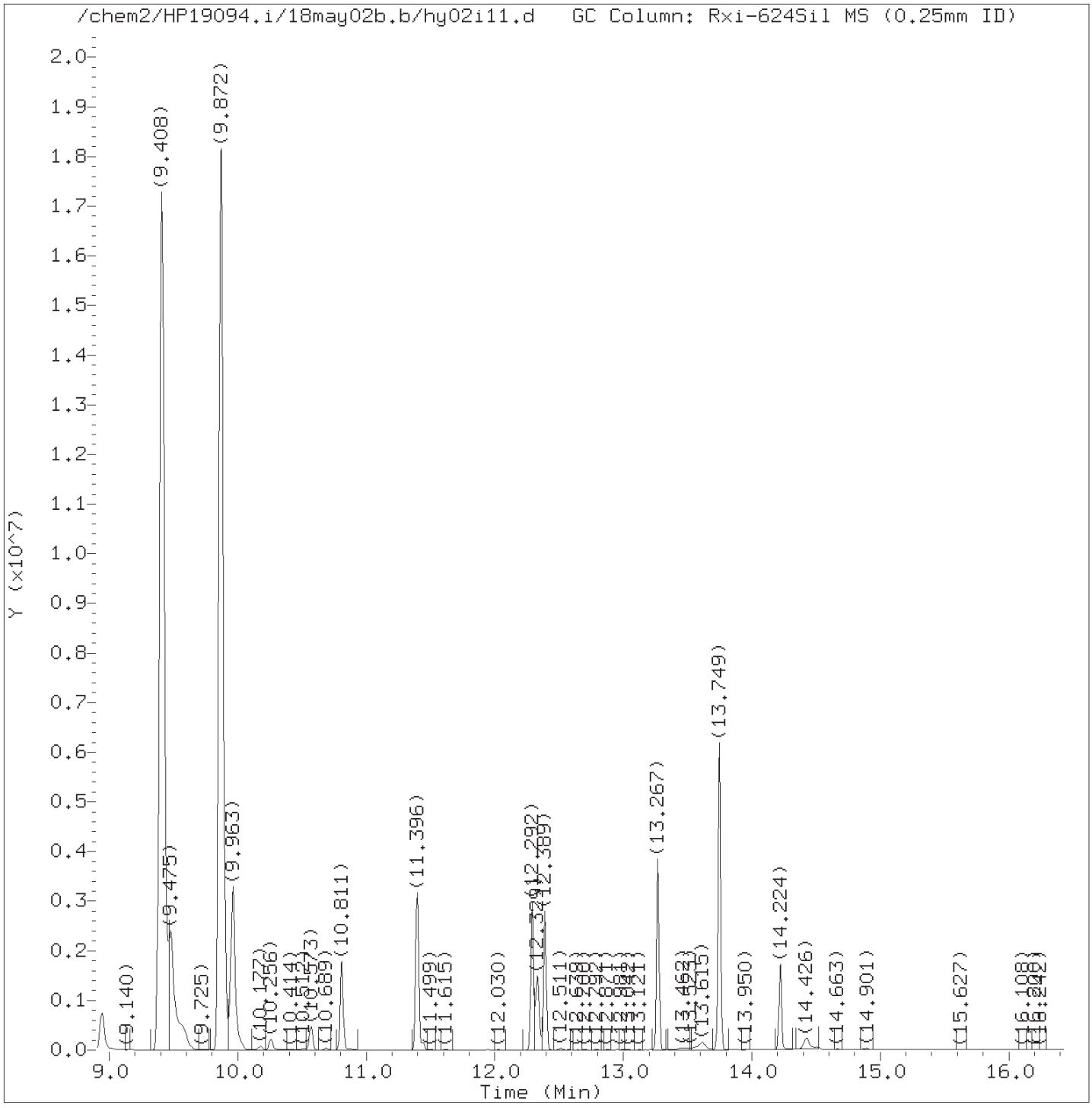
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

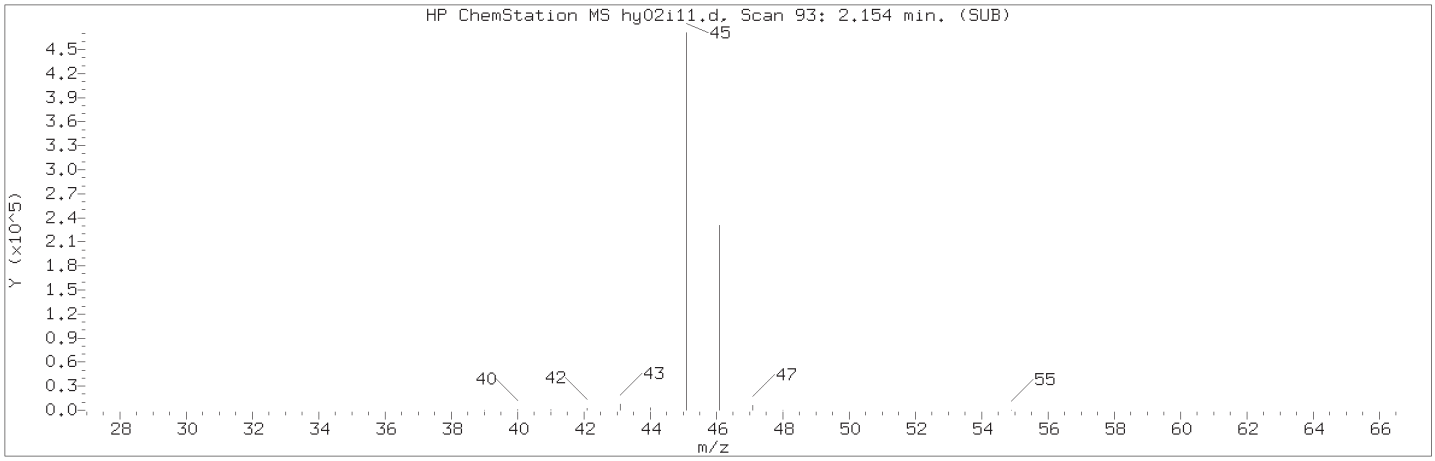
Sample Name: VSTD025 Lab Sample ID: VSTD025

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.154	45	1873450M	25.332
25) Acetonitrile	(1)	4.196	41	2114112M	889.435
26)*t-Butyl Alcohol-d10	(1)	4.458	65	98437M	50.000
36) Vinyl Acetate	(2)	5.531	43	1821283	25.848
43) Methyl Acrylate	(2)	6.470	55	2806876	129.110
53) 1-Chlorobutane	(2)	7.250	56	2820529	27.109
63)*Fluorobenzene	(2)	7.970	96	2303816	10.000
77) Chloroacetonitrile	(2)	9.463	75	1310379	1512.419
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	567006	27.220
97)*Chlorobenzene-d5	(3)	11.396	117	1683927	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	653577M	51.268
112) Cyclohexanone	(1)	12.335	55	752493M	1160.656
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	883503	10.000
142) Hexachloroethane	(4)	13.749	117	1117191	30.036

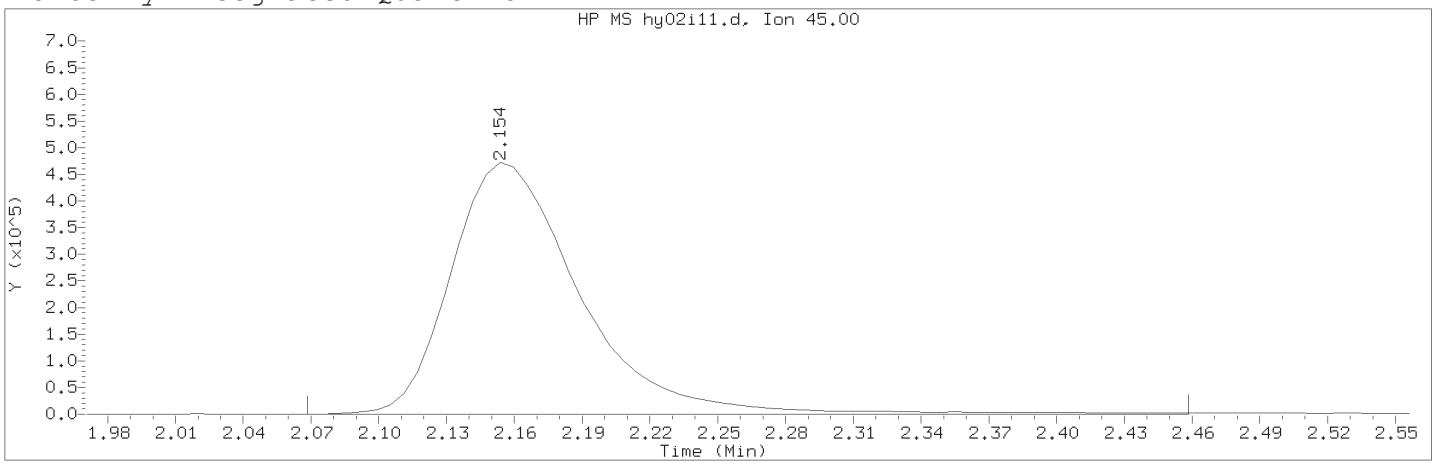
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

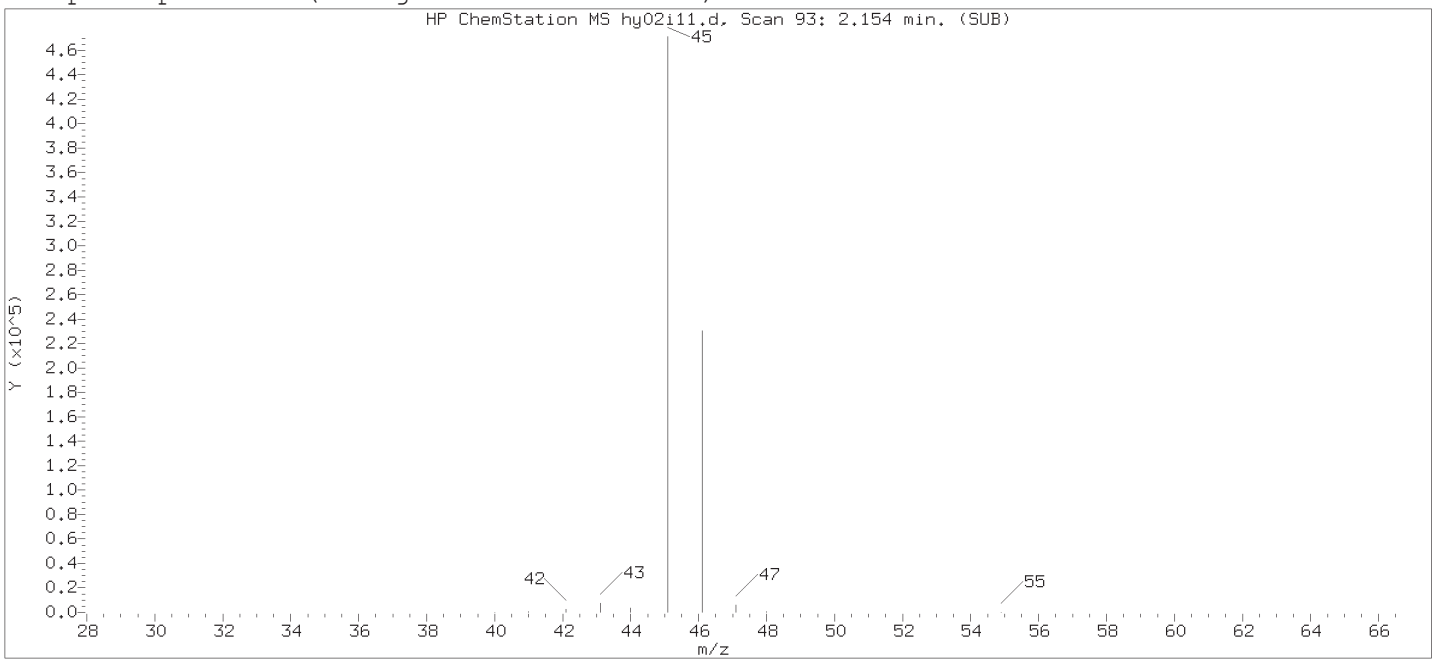
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area (flag) : 1873450M
On-Column Amount (ng) : 25.3318
Integration start scan : 78 Integration stop scan: 142
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

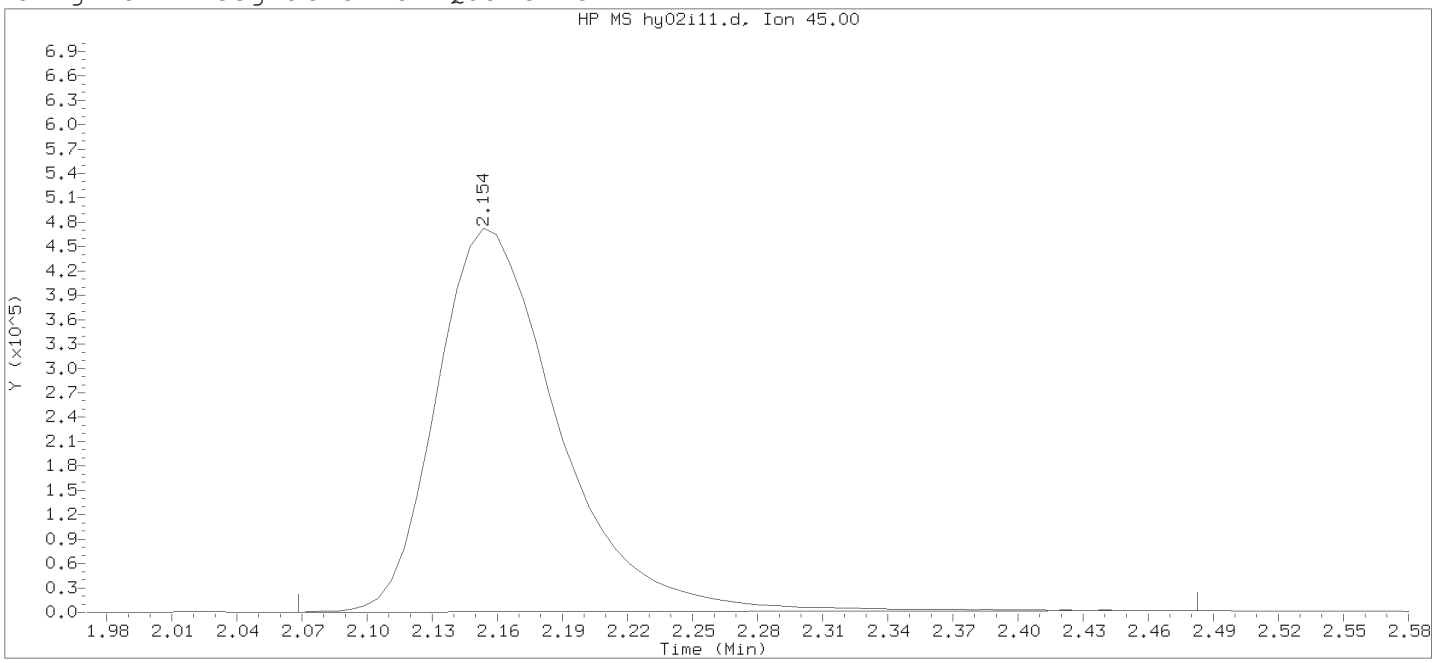
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

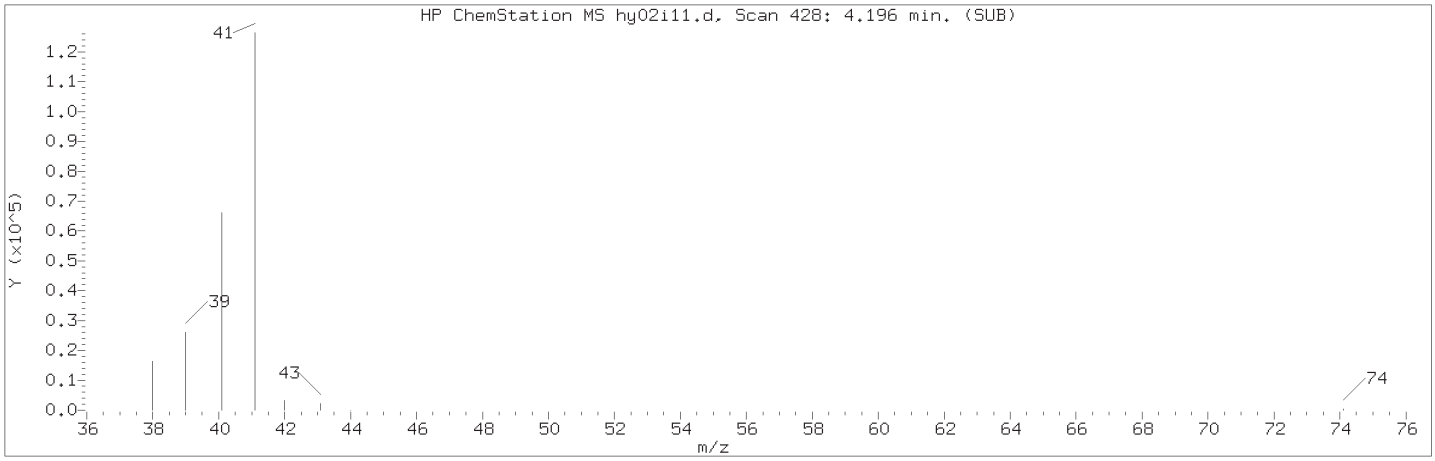
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:33
Date, time and analyst ID of latest file update: 02-May-2018 19:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

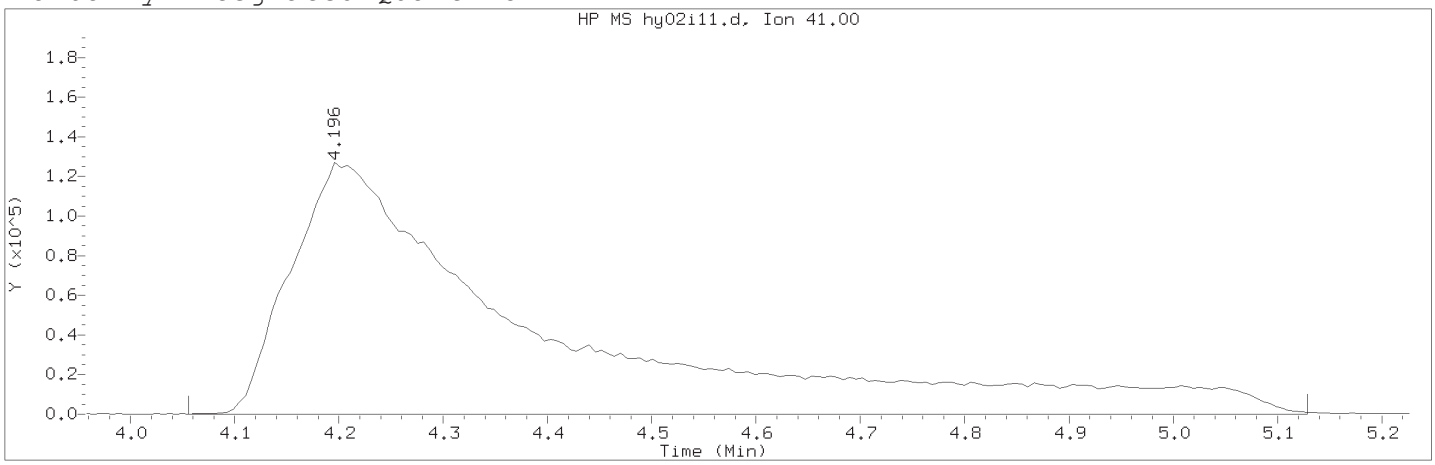
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 93		
Retention Time (minutes)	: 2.154		
Quant Ion	: 45.00		
Area	: 1849760		
On-column Amount (ng)	: 24.0567		
Integration start scan	: 78	Integration stop scan:	146
Y at integration start	: 0	Y at integration end:	2143

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used 1.0.0.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

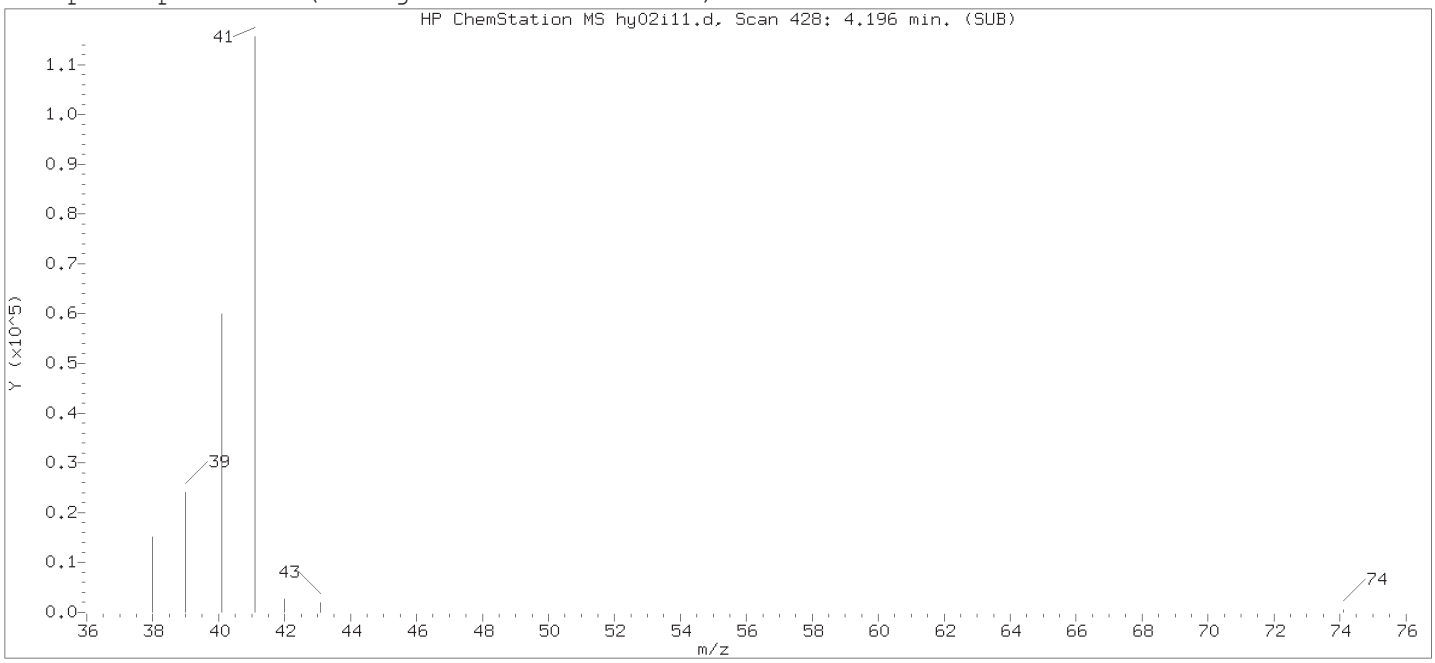
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area (flag) : 2114112M
On-Column Amount (ng) : 889.4345
Integration start scan : 404 Integration stop scan: 580
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

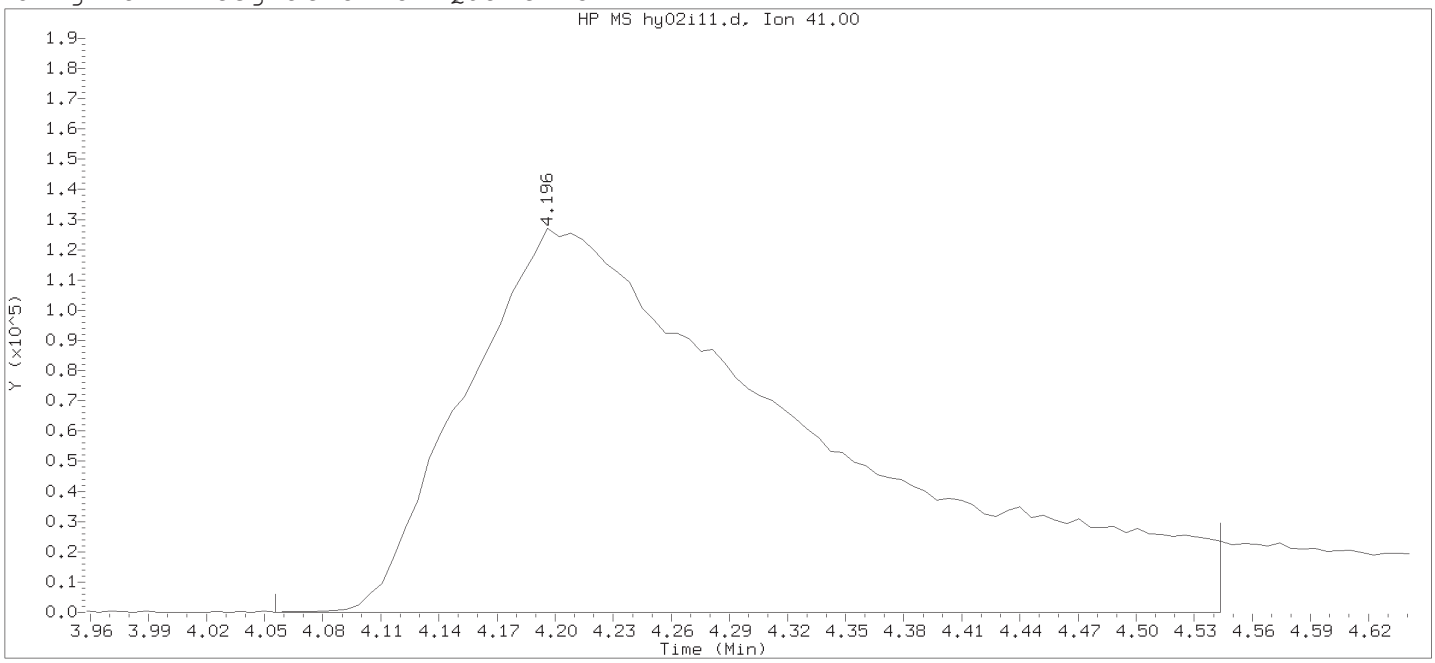
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

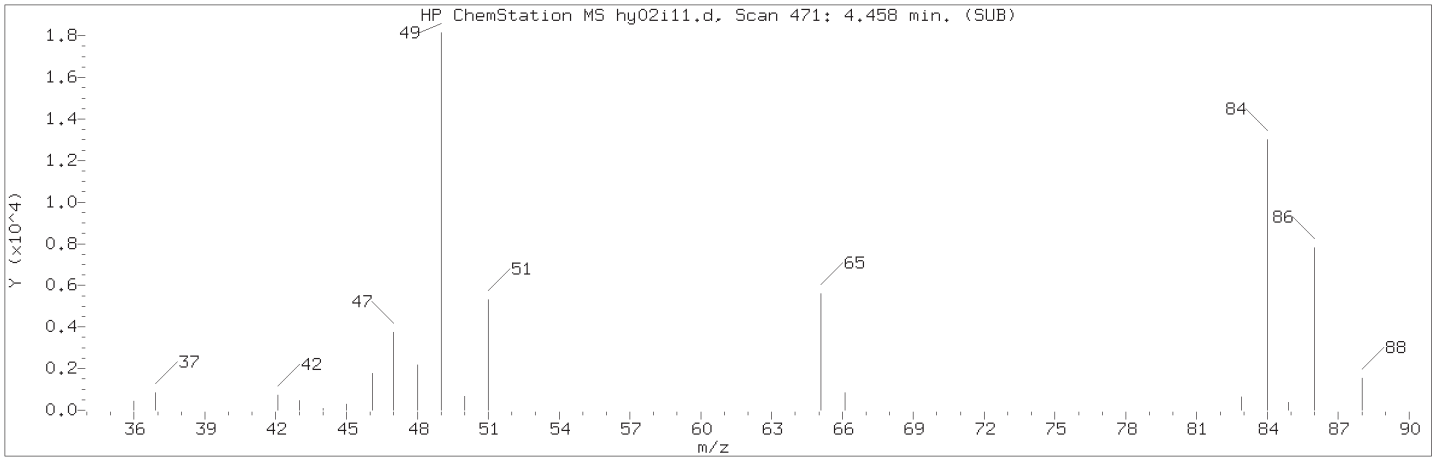
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:33
Date, time and analyst ID of latest file update: 02-May-2018 19:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

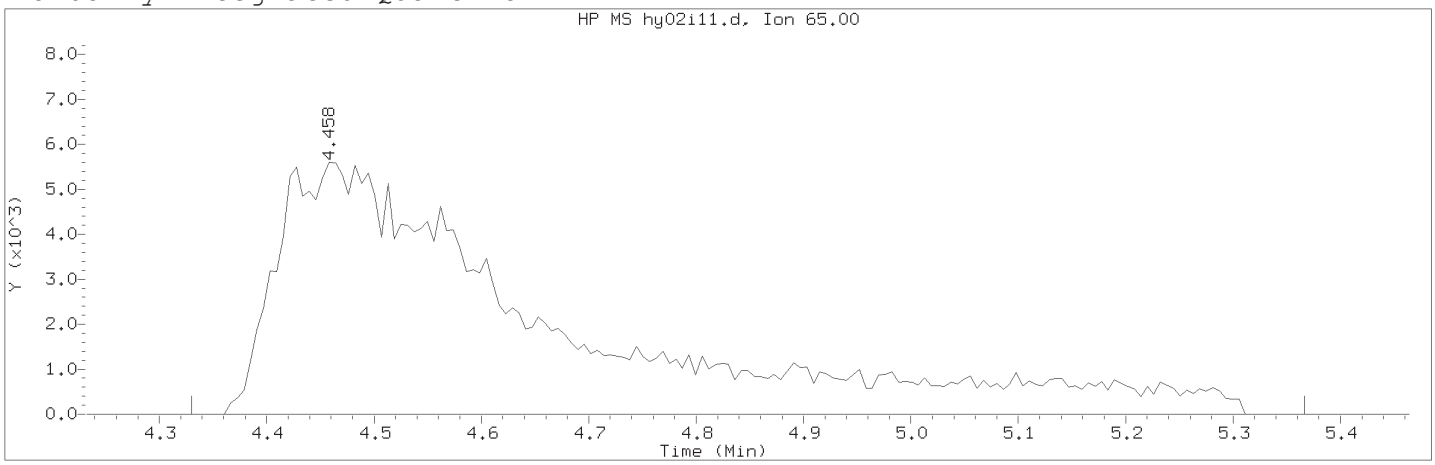
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 428
Retention Time (minutes): 4.196
Quant Ion : 41.00
Area : 1586970
On-column Amount (ng) : 557.8895
Integration start scan : 404 Integration stop scan: 484
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

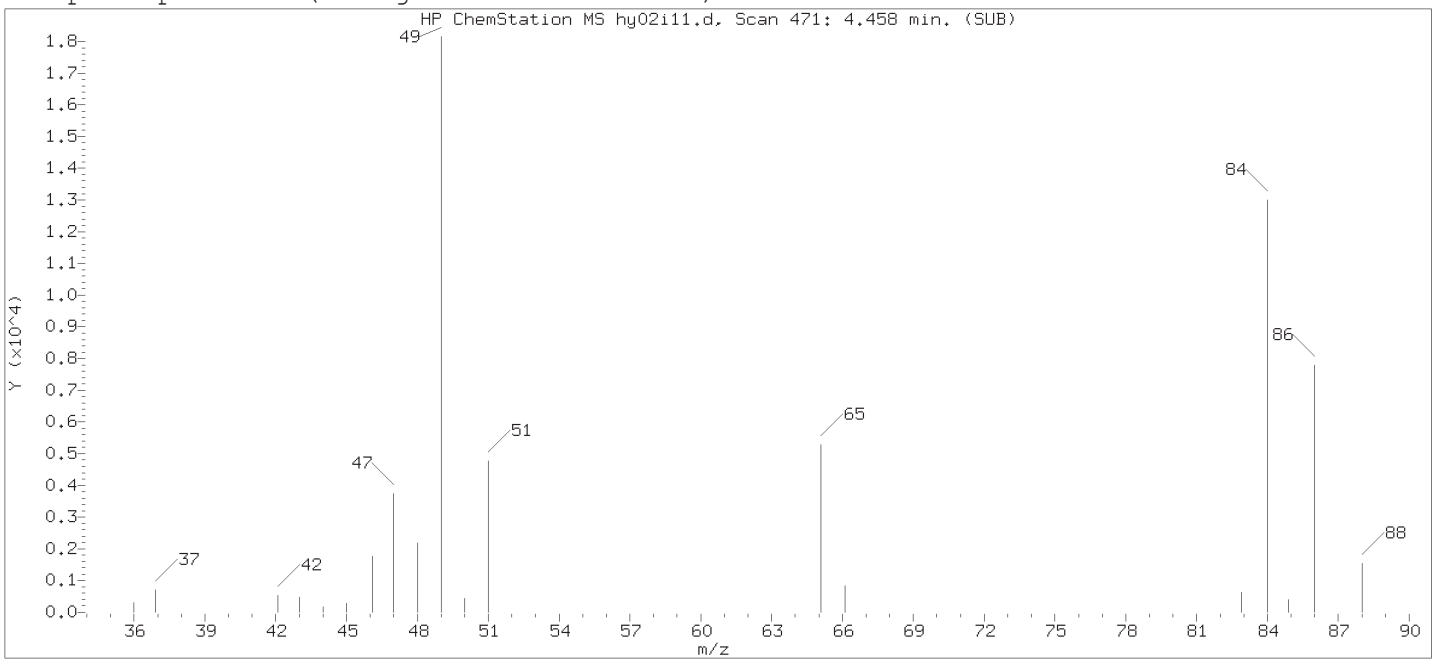
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area (flag) : 98437M
On-Column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 619
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

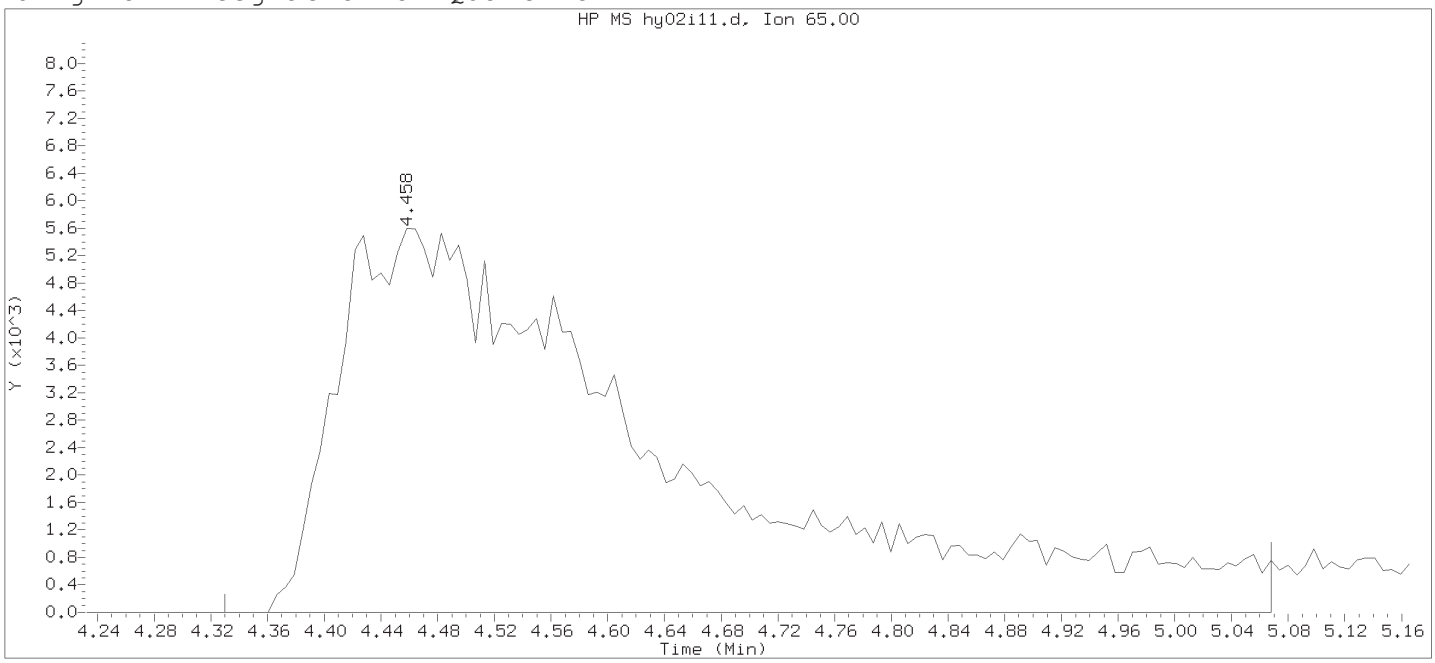
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

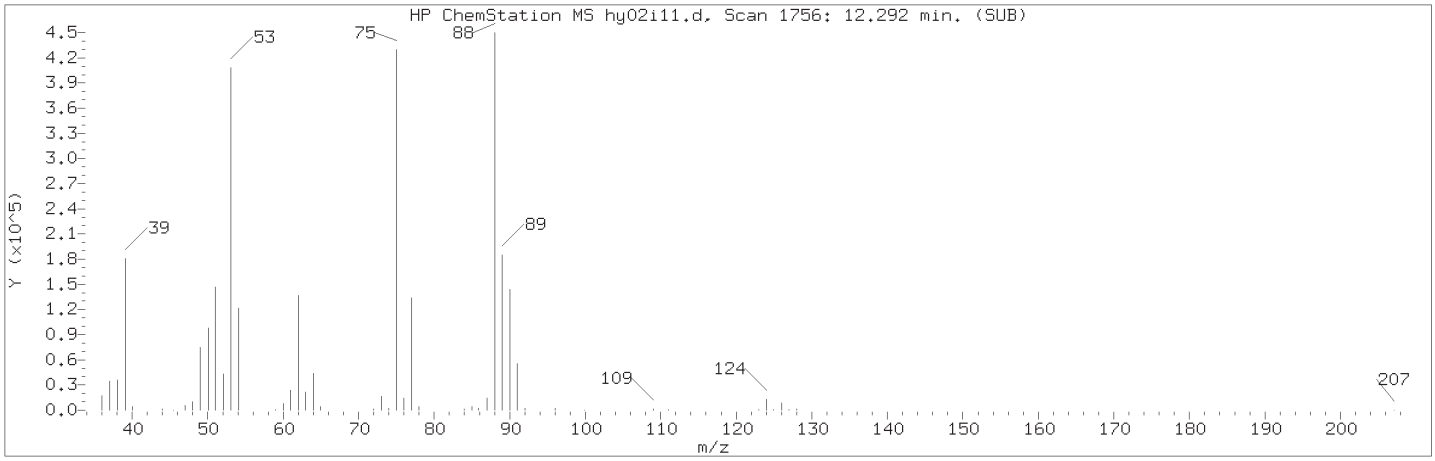
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:33
Date, time and analyst ID of latest file update: 02-May-2018 19:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

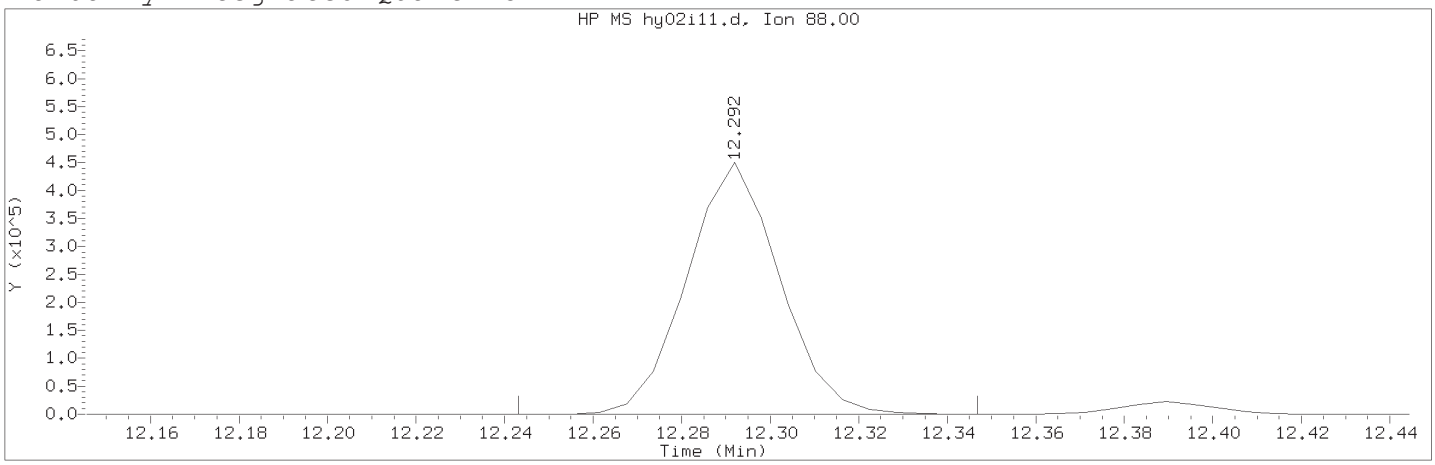
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area : 89717
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used. Version 3.5.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

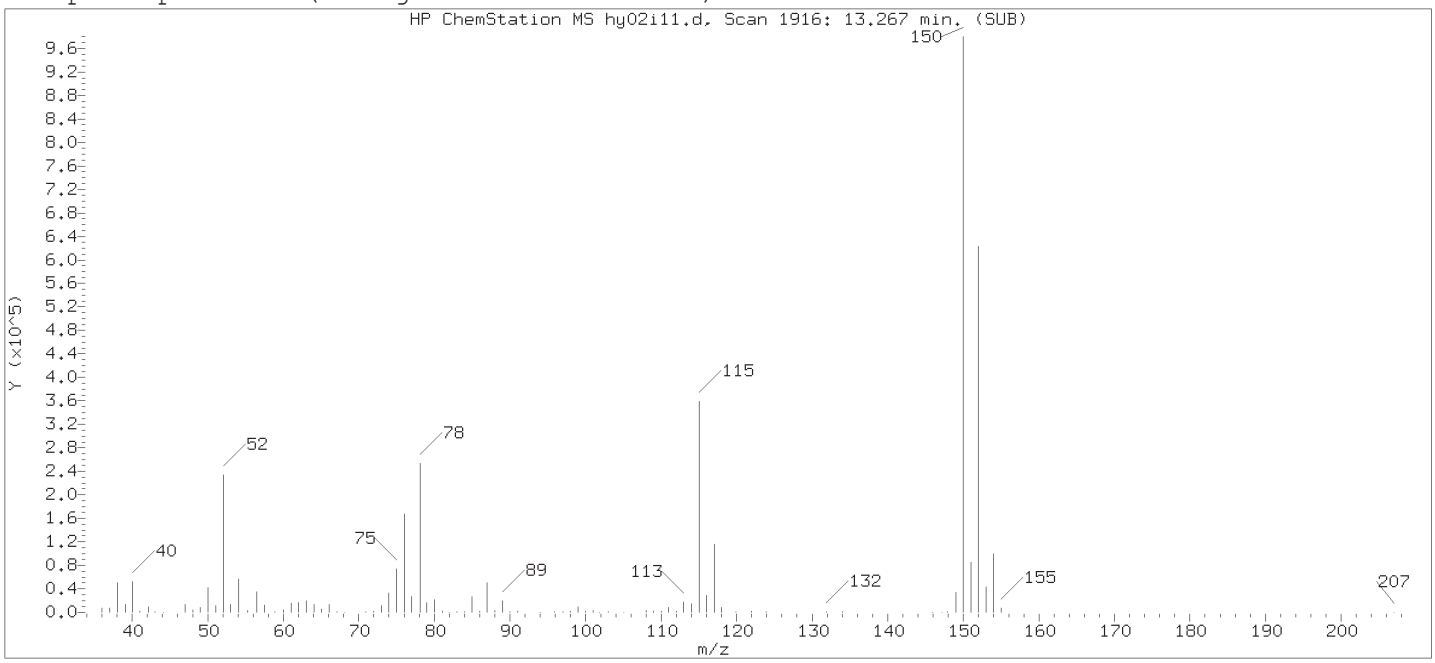
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 653577M
On-Column Amount (ng) : 51.2675
Integration start scan : 1747 Integration stop scan: 1764
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

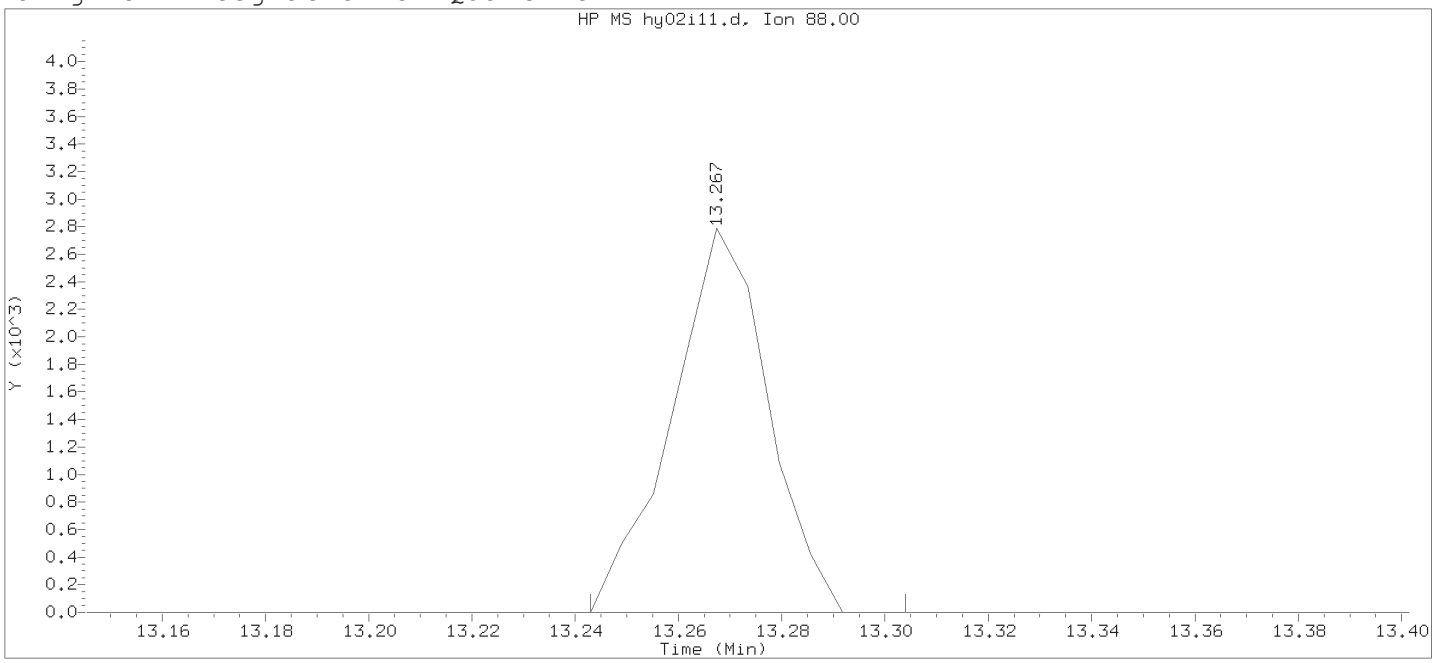
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

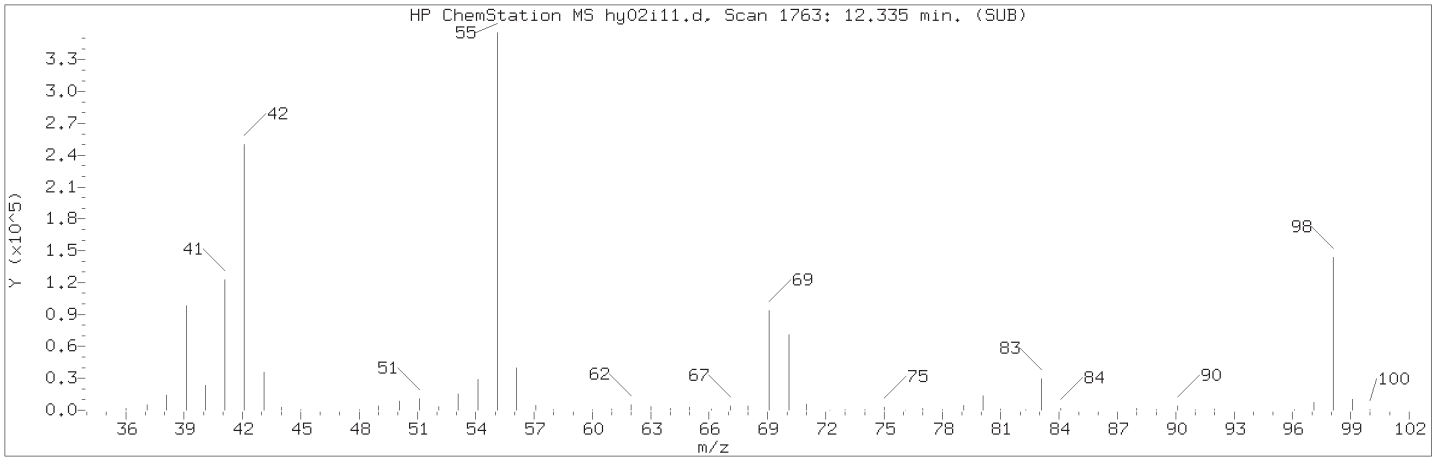
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:33
Date, time and analyst ID of latest file update: 02-May-2018 19:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

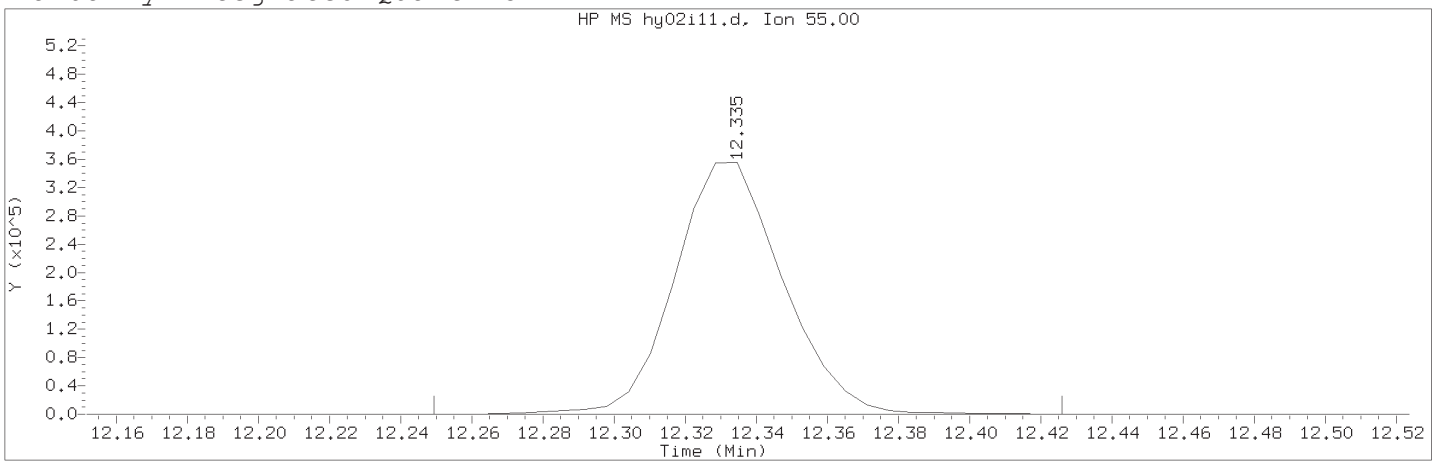
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1916
Retention Time (minutes): 13.267
Quant Ion : 88.00
Area : 3604
On-column Amount (ng) : 0.2776
Integration start scan : 1911 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD025 Lab Sample ID: VSTD025

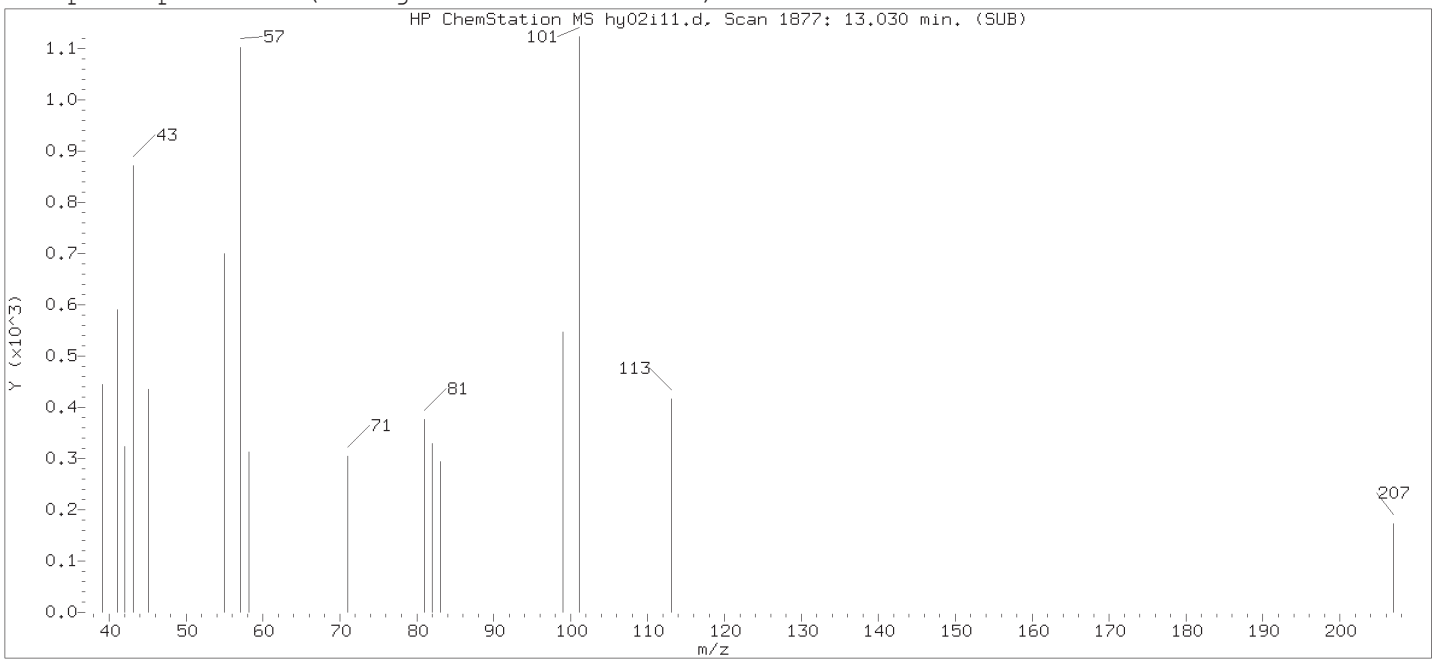
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1763
Retention Time (minutes): 12.335
Quant Ion : 55.00
Area (flag) : 752493M
On-Column Amount (ng) : 1160.6564
Integration start scan : 1748 Integration stop scan: 1777
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

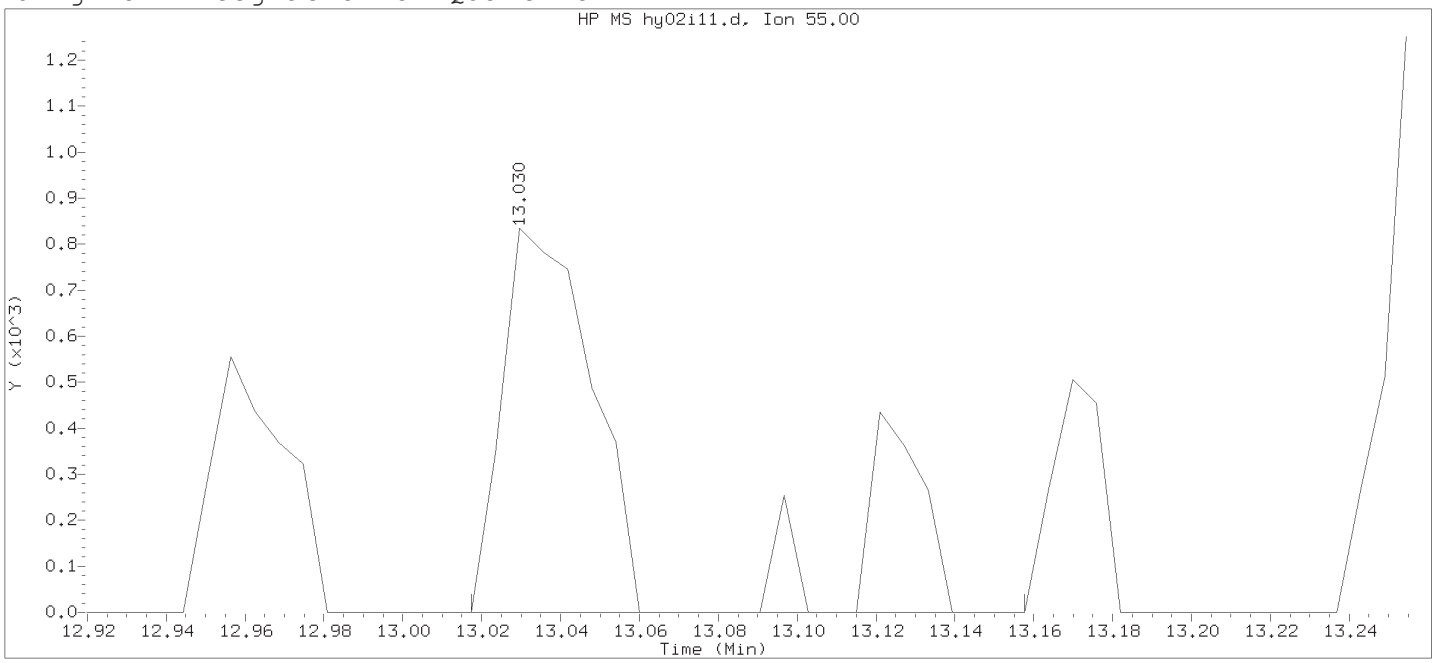
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



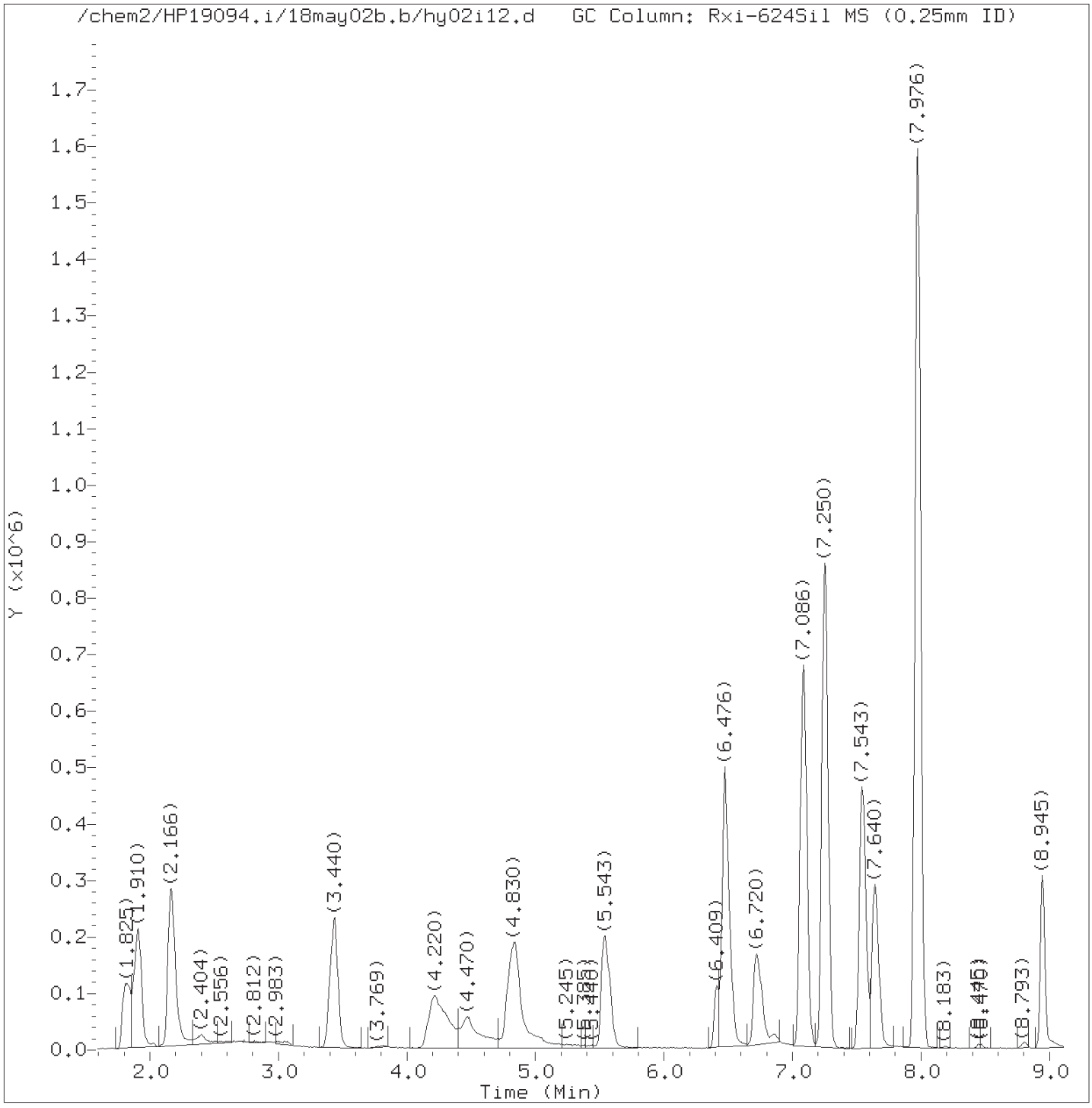
Data File: /chem2/HP19094.i/18may02b.b/hy02i11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:15 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:33
Date, time and analyst ID of latest file update: 02-May-2018 19:33 Automation

Sample Name: VSTD025 Lab Sample ID: VSTD025

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1877
Retention Time (minutes): 13.030
Quant Ion : 55.00
Area : 1786
On-column Amount (ng) : 2.0320
Integration start scan : 1874 Integration stop scan: 1897
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203



Total Ion Chromatogram (TIC)

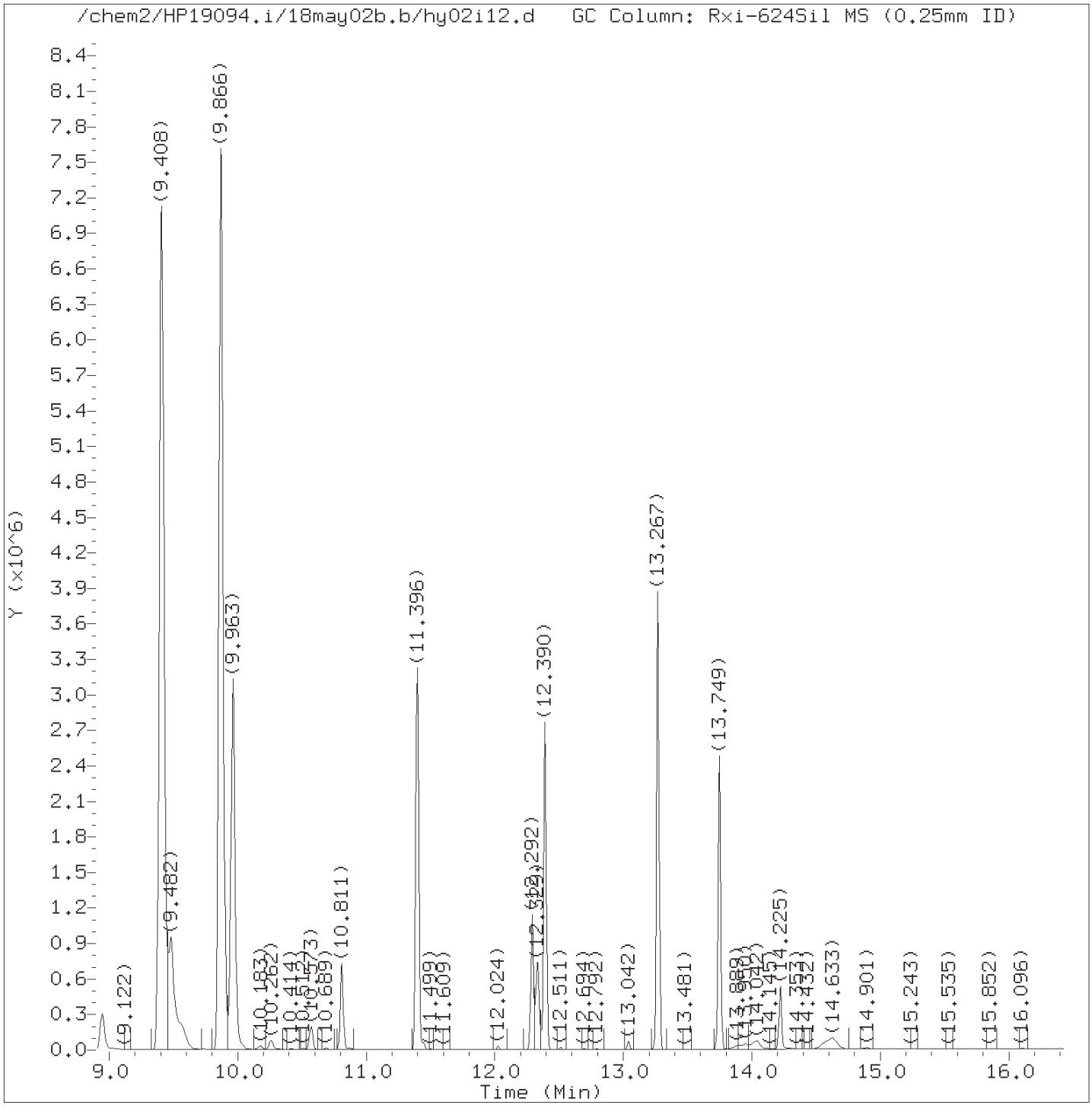
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

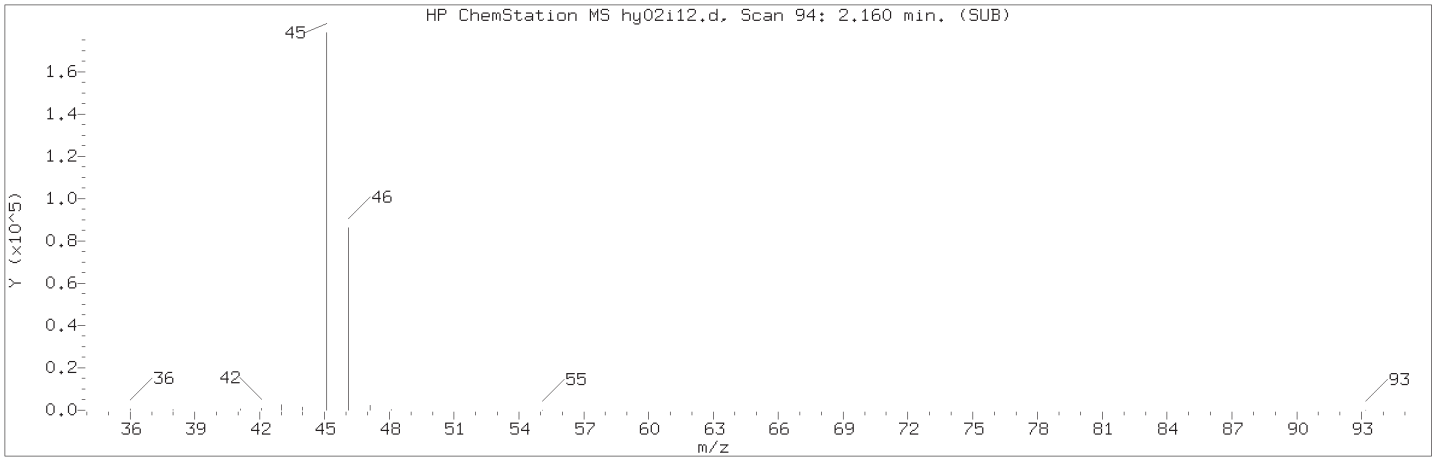
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	730585M	9.805
25) Acetonitrile	(1)	4.208	41	800300M	361.911
26)*t-Butyl Alcohol-d10	(1)	4.489	65	91579M	50.000
36) Vinyl Acetate	(2)	5.543	43	736143A	10.370
43) Methyl Acrylate	(2)	6.476	55	1106987	50.541
53) 1-Chlorobutane	(2)	7.256	56	1150342	10.974
63)*Fluorobenzene	(2)	7.976	96	2321054	10.000
77) Chloroacetonitrile	(2)	9.469	75	480074	549.979
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	226026	10.770
97)*Chlorobenzene-d5	(3)	11.396	117	1697976	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	244920M	20.651
112) Cyclohexanone	(1)	12.335	55	365686M	606.278
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	883093	10.000
142) Hexachloroethane	(4)	13.749	117	434603	11.690

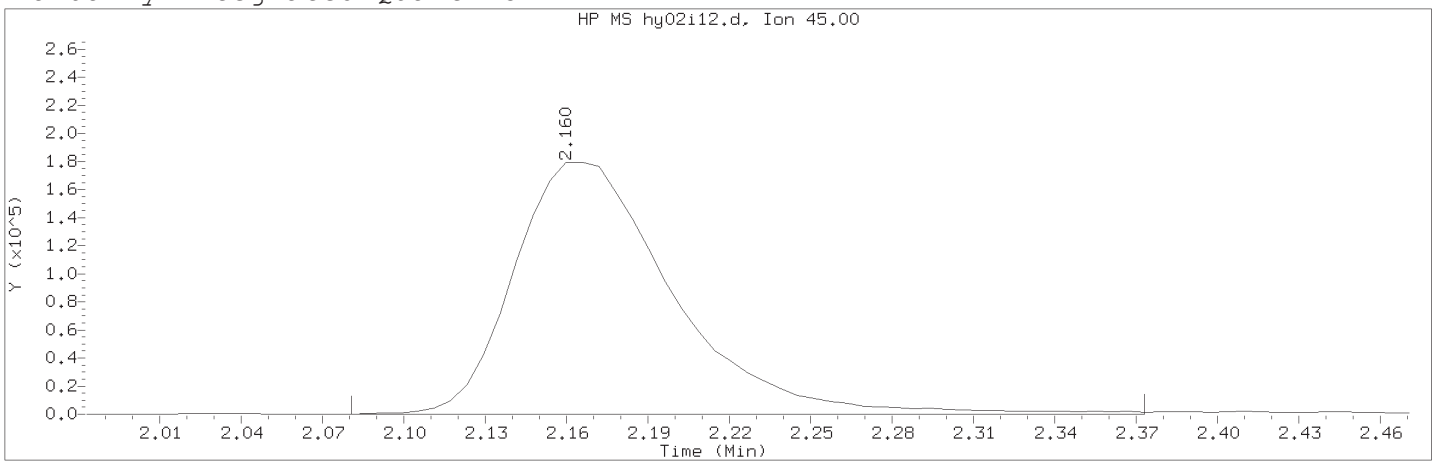
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

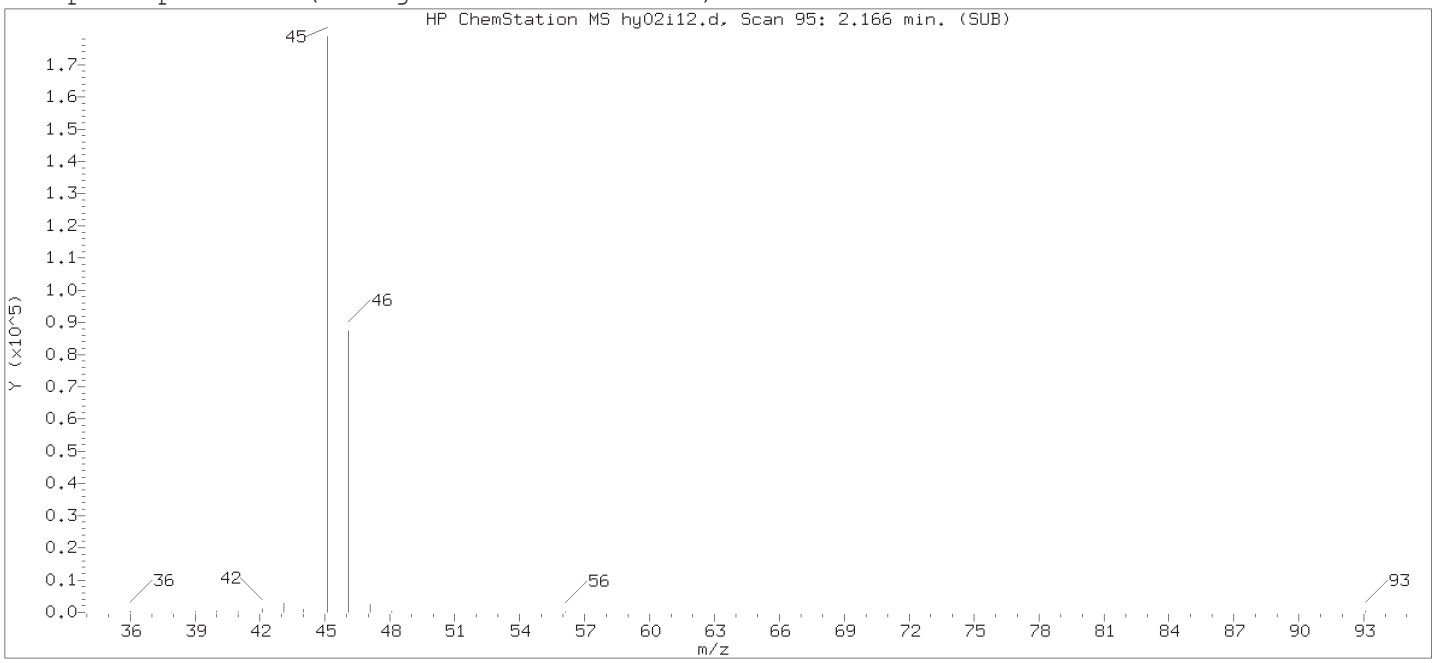
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 730585M
On-Column Amount (ng) : 9.8052
Integration start scan : 80 Integration stop scan: 128
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

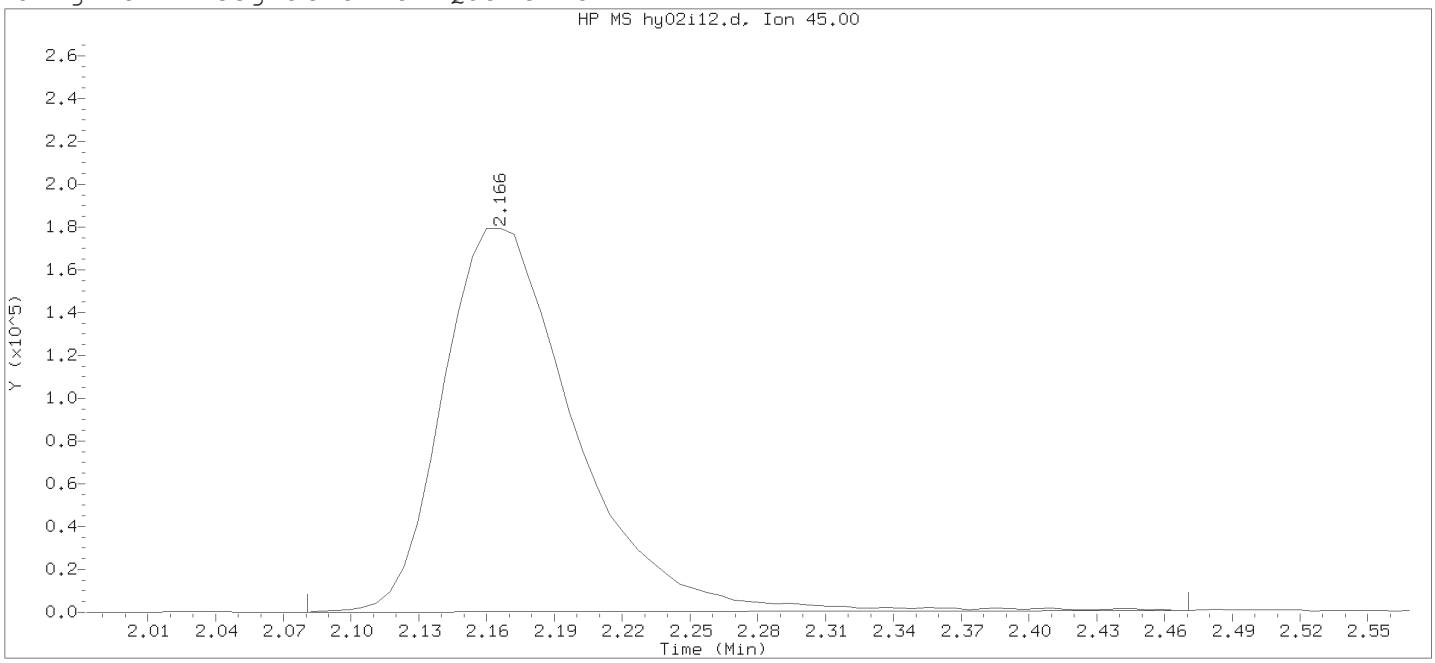
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

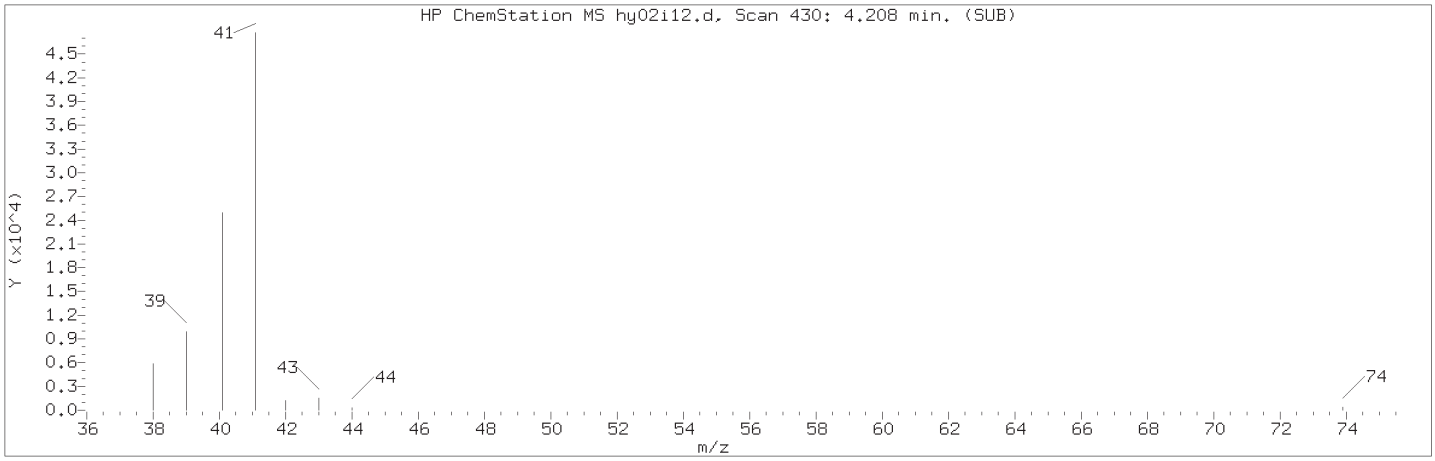
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

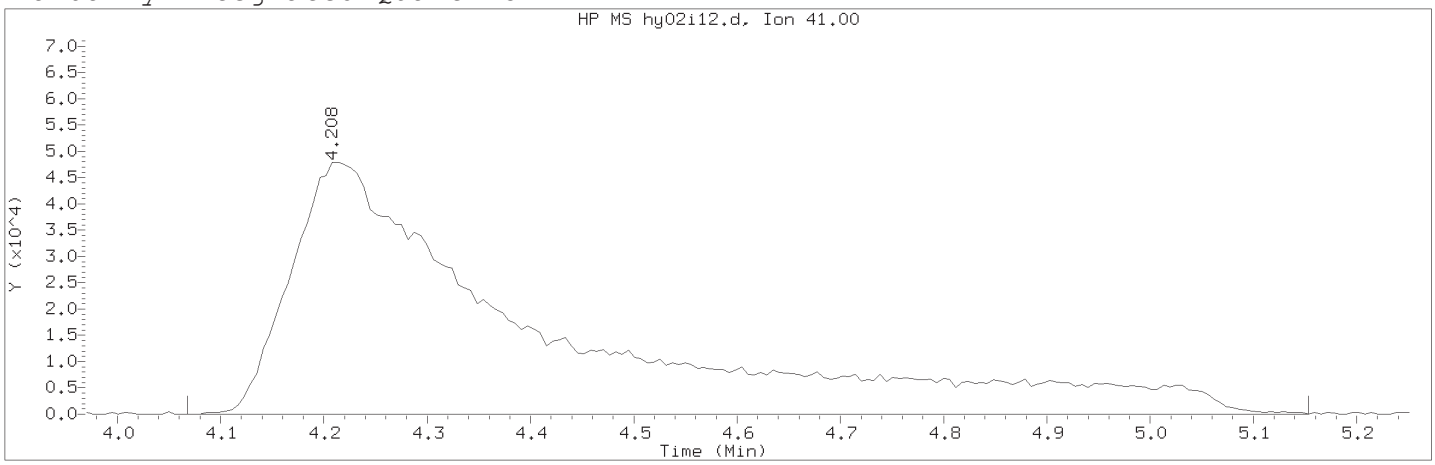
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 95		
Retention Time (minutes)	: 2.166		
Quant Ion	: 45.00		
Area	: 728833		
On-column Amount (ng)	: 9.4714		
Integration start scan	: 80	Integration stop scan:	144
Y at integration start	: 0	Y at integration end:	872

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used 21 CFR Part 11

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

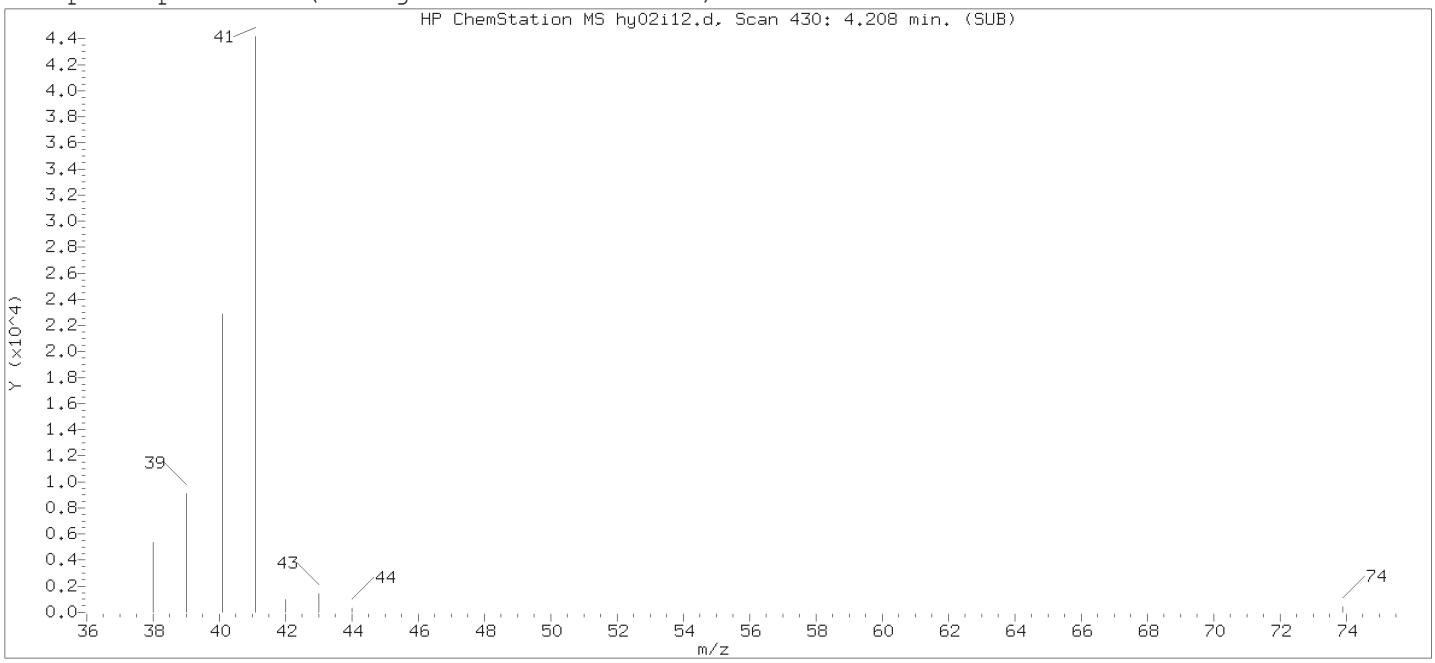
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area (flag) : 800300M
On-Column Amount (ng) : 361.9106
Integration start scan : 406 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

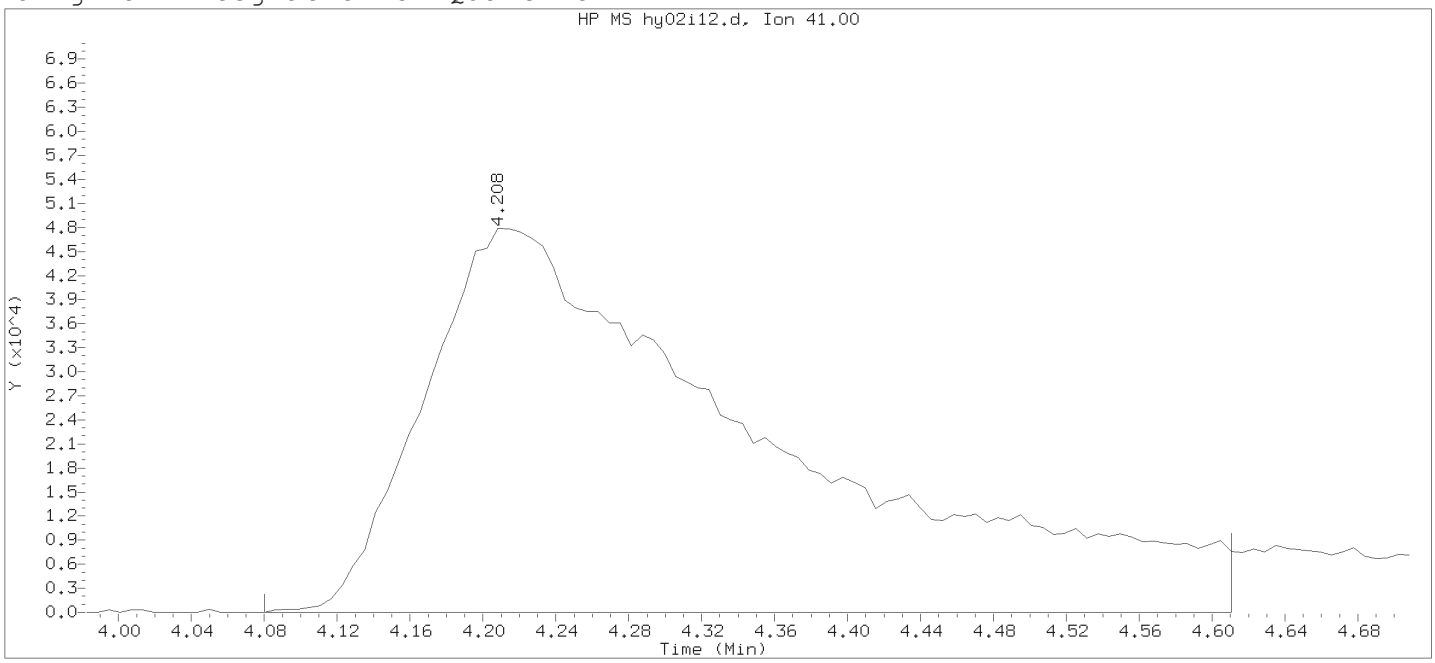
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

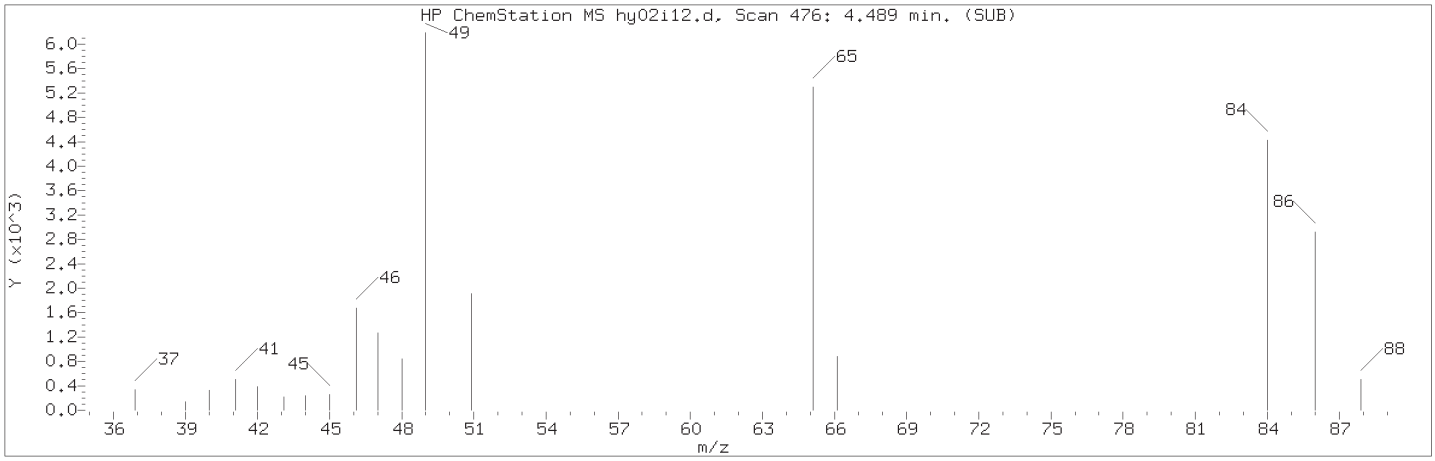
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

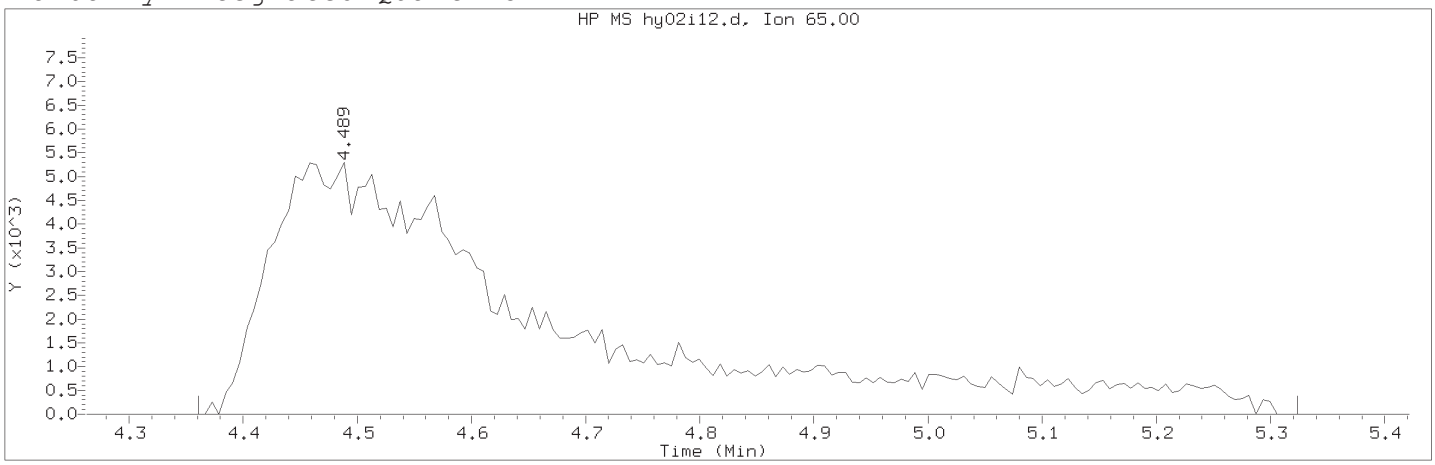
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area : 627768
On-column Amount (ng) : 250.5418
Integration start scan : 408 Integration stop scan: 495
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

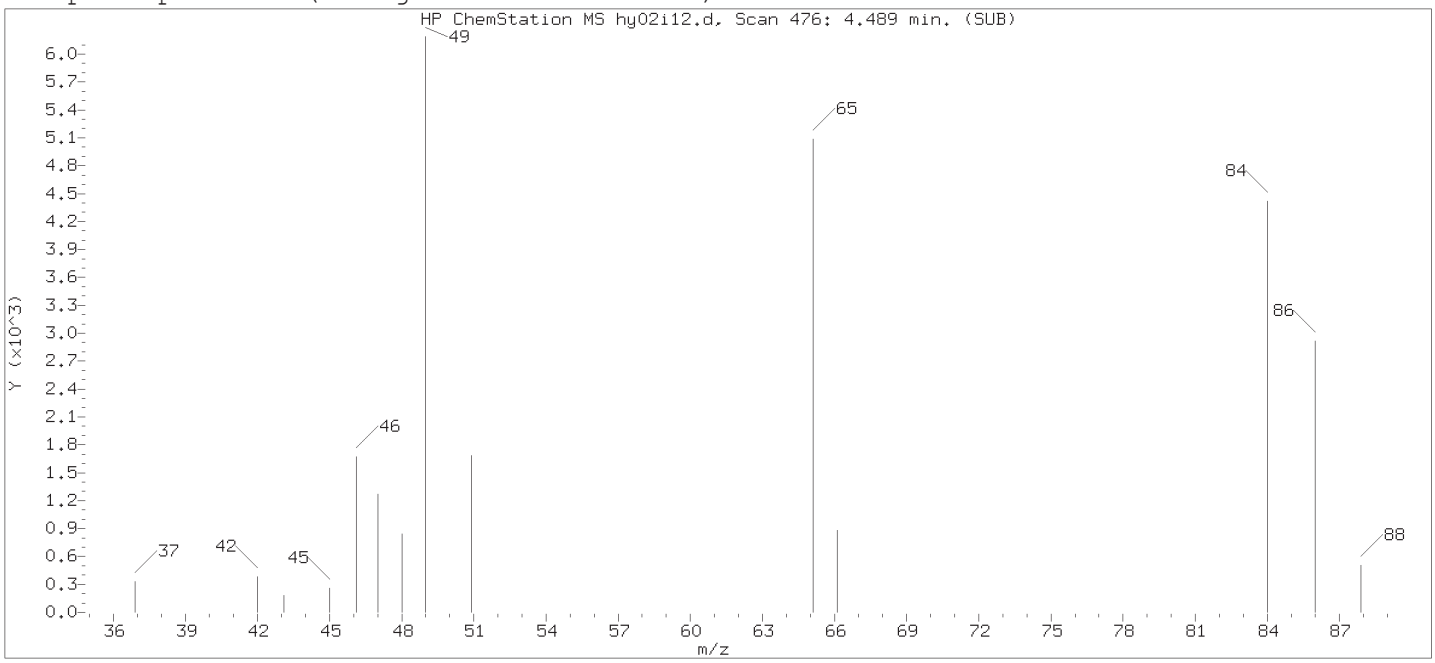
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 476
Retention Time (minutes): 4.489
Quant Ion : 65.00
Area (flag) : 91579M
On-Column Amount (ng) : 50.0000
Integration start scan : 454 Integration stop scan: 612
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

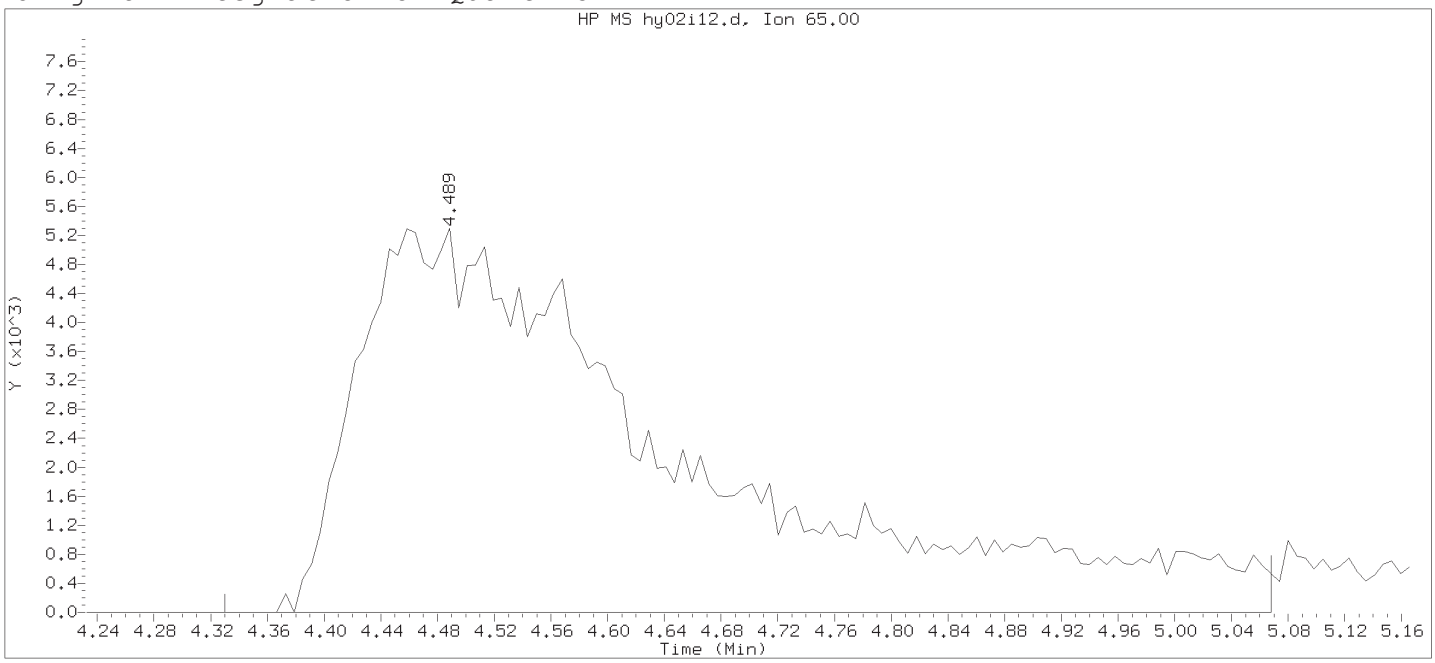
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

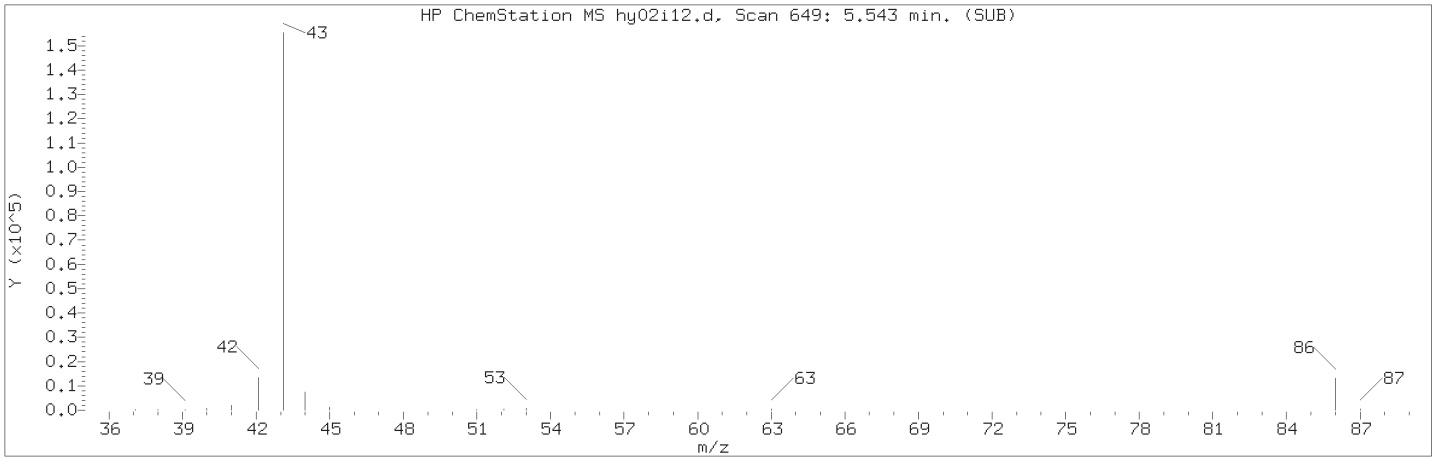
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

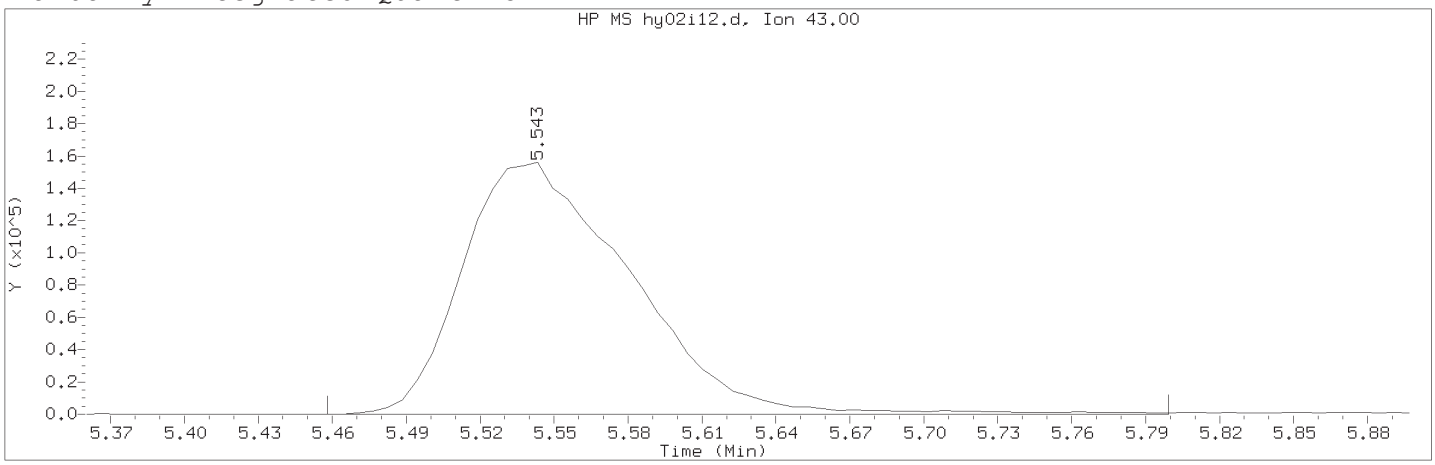
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 476
Retention Time (minutes): 4.489
Quant Ion : 65.00
Area : 83894
On-column Amount (ng) : 50.0000
Integration start scan : 449 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used: D12 Revision 3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

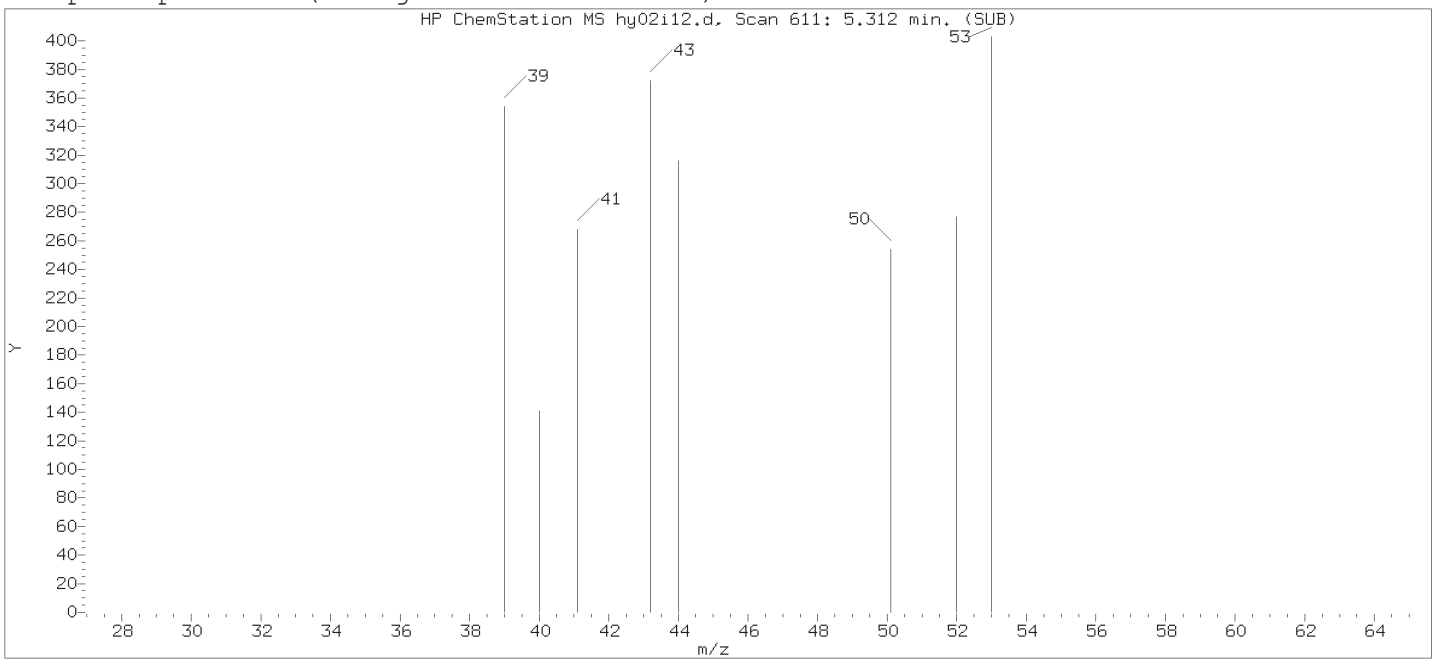
Compound Number : 36
Compound Name : Vinyl Acetate
Scan Number : 649
Retention Time (minutes): 5.543
Quant Ion : 43.00
Area (flag) : 736143A
On-Column Amount (ng) : 10.3701
Integration start scan : 634 Integration stop scan: 690
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

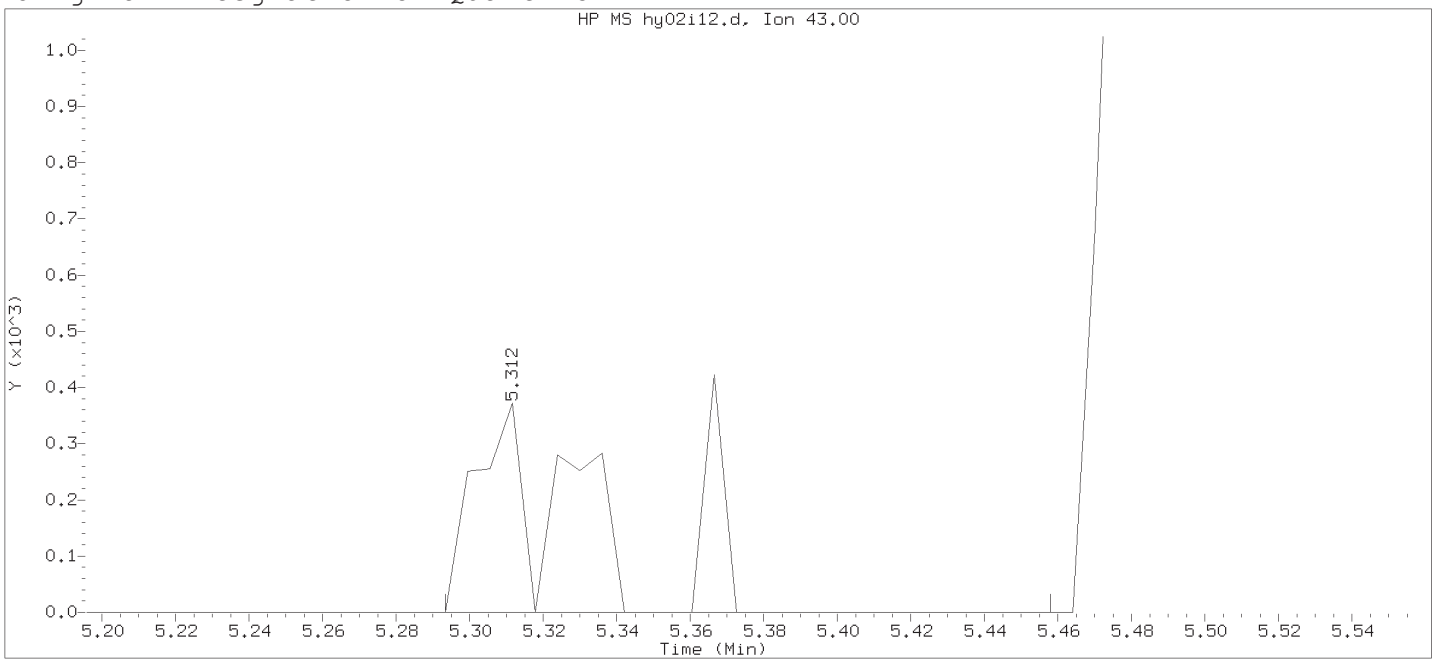
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

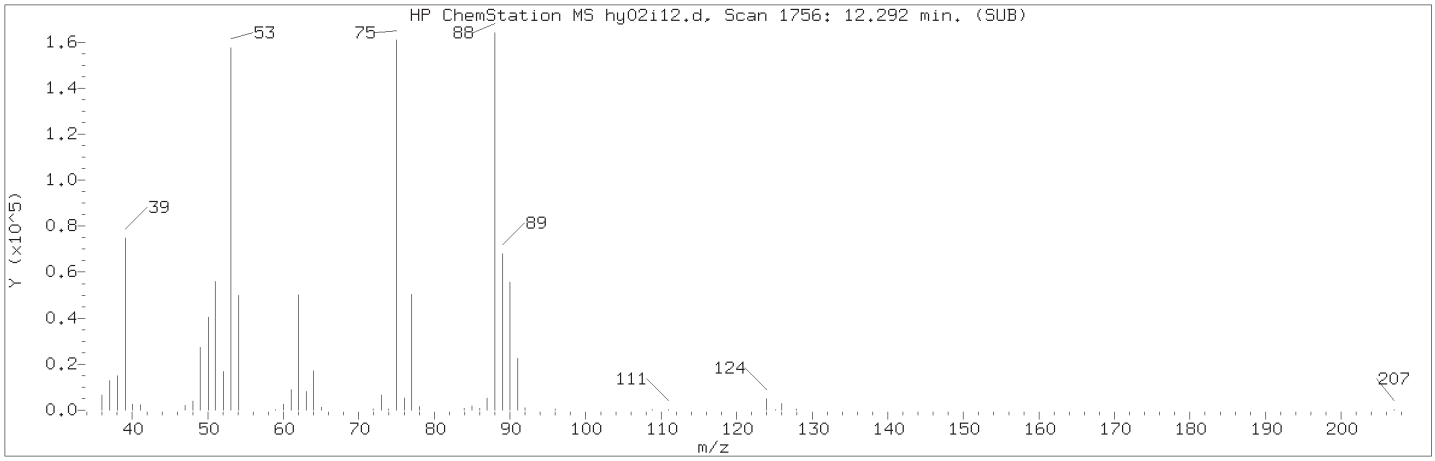
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

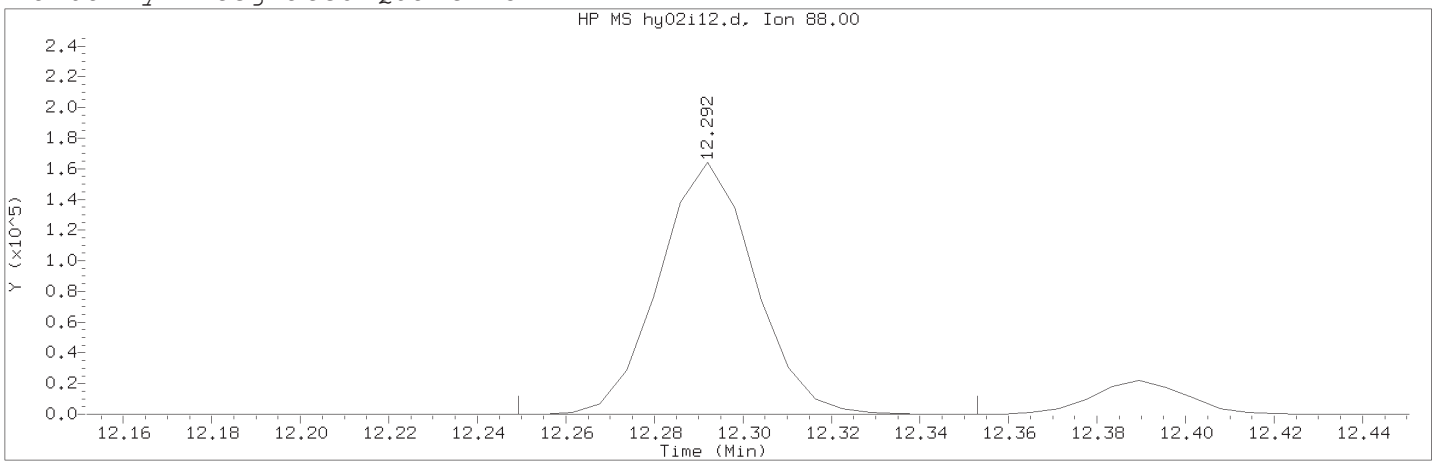
Compound Number : 36
Compound Name : Vinyl Acetate
Scan Number : 611
Retention Time (minutes): 5.312
Quant Ion : 43.00
Area : 774
On-column Amount (ng) : 0.0131
Integration start scan : 607 Integration stop scan: 634
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

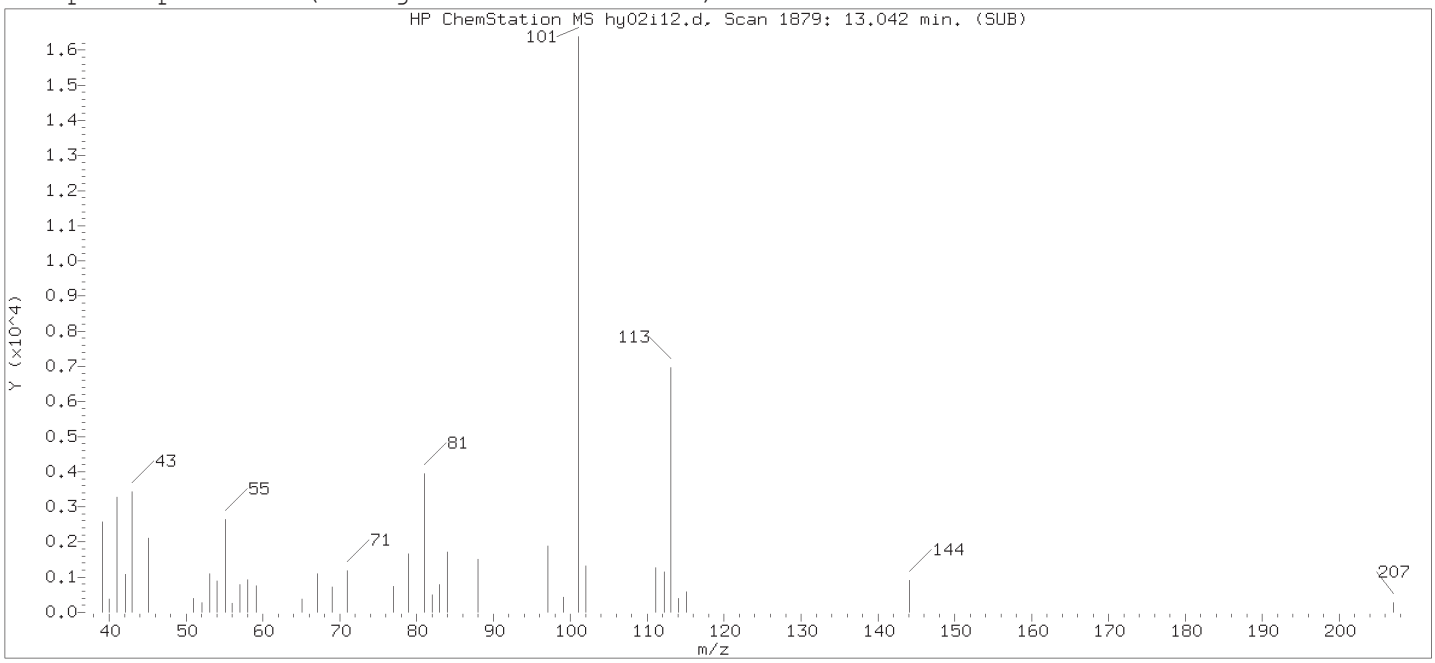
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 244920M
On-Column Amount (ng) : 20.6506
Integration start scan : 1748 Integration stop scan: 1765
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

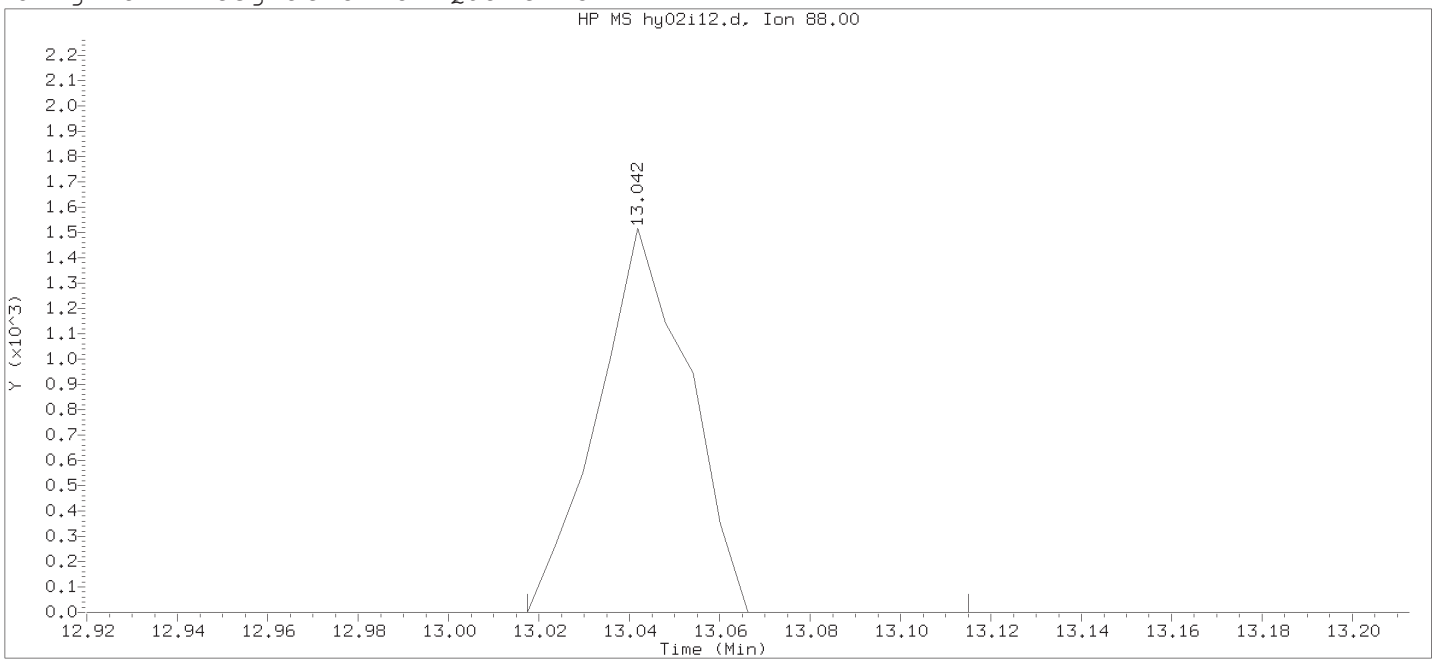
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

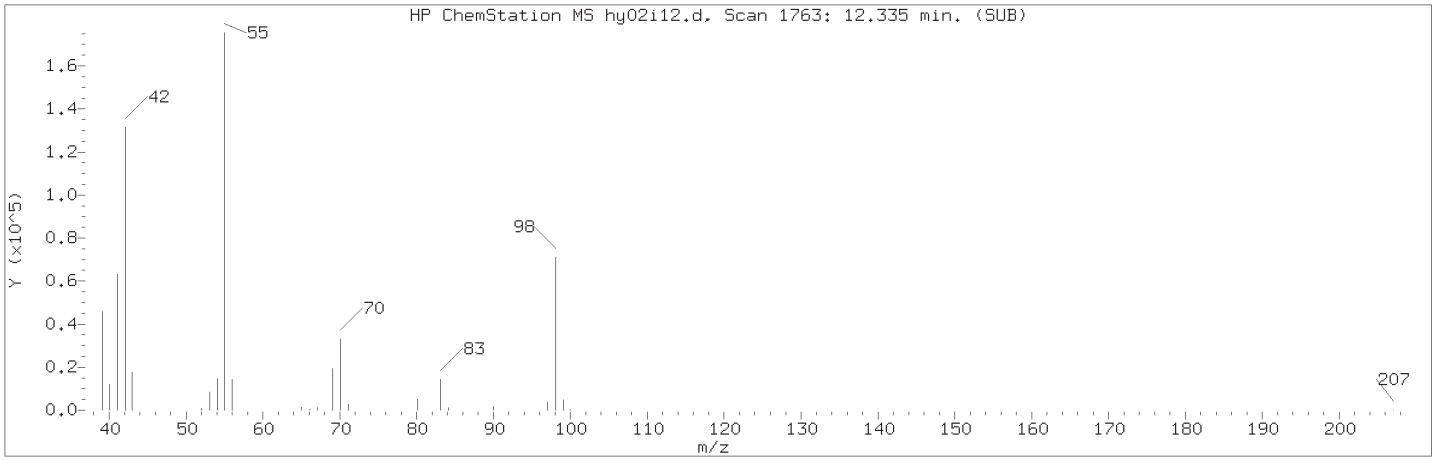
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

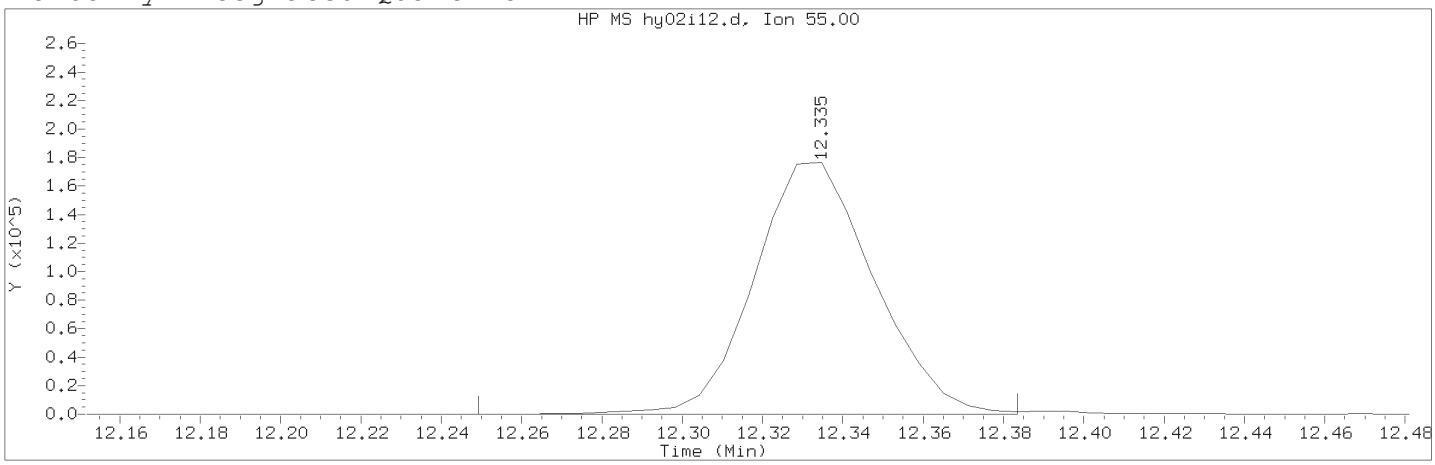
Compound Number	: 109		
Compound Name	: cis-1,4-Dichloro-2-butene		
Scan Number	: 1879		
Retention Time (minutes)	: 13.042		
Quant Ion	: 88.00		
Area	: 2111		
On-column Amount (ng)	: 0.2156		
Integration start scan	: 1874	Integration stop scan:	1890
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used 1.0.0.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD010 Lab Sample ID: VSTD010

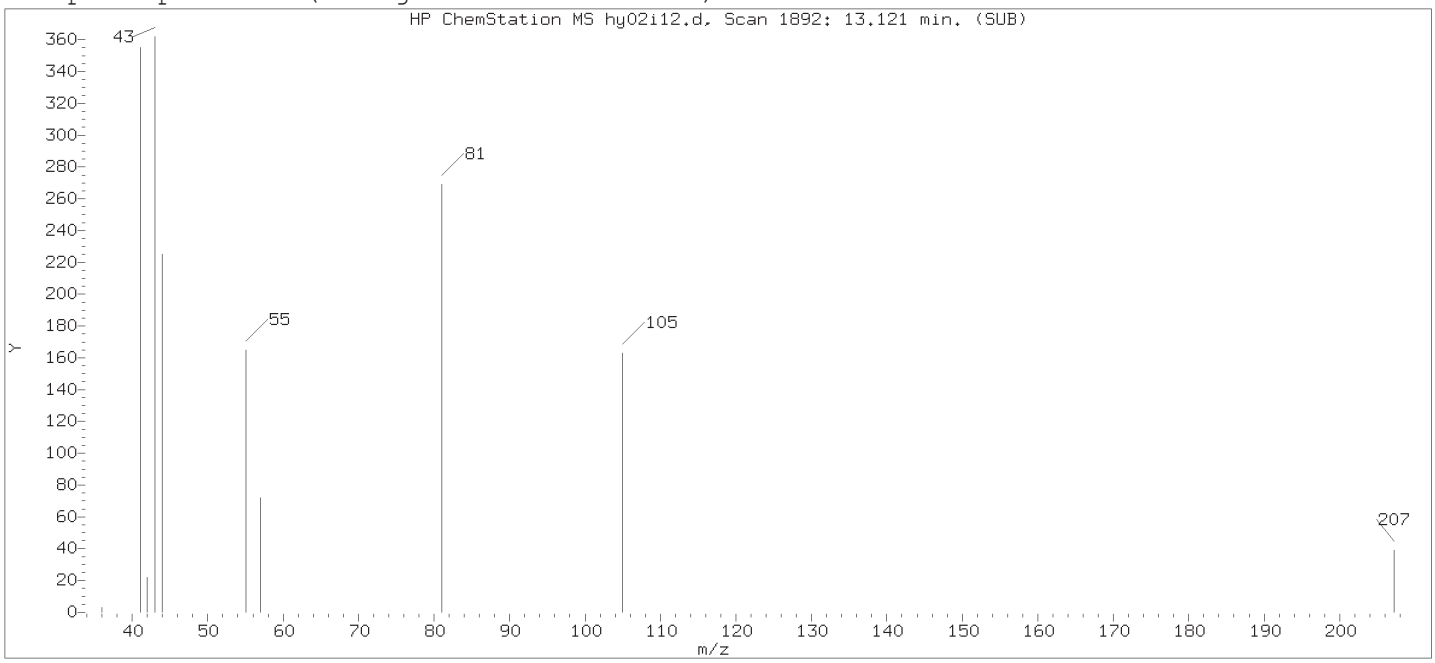
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1763
Retention Time (minutes): 12.335
Quant Ion : 55.00
Area (flag) : 365686M
On-Column Amount (ng) : 606.2783
Integration start scan : 1748 Integration stop scan: 1770
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

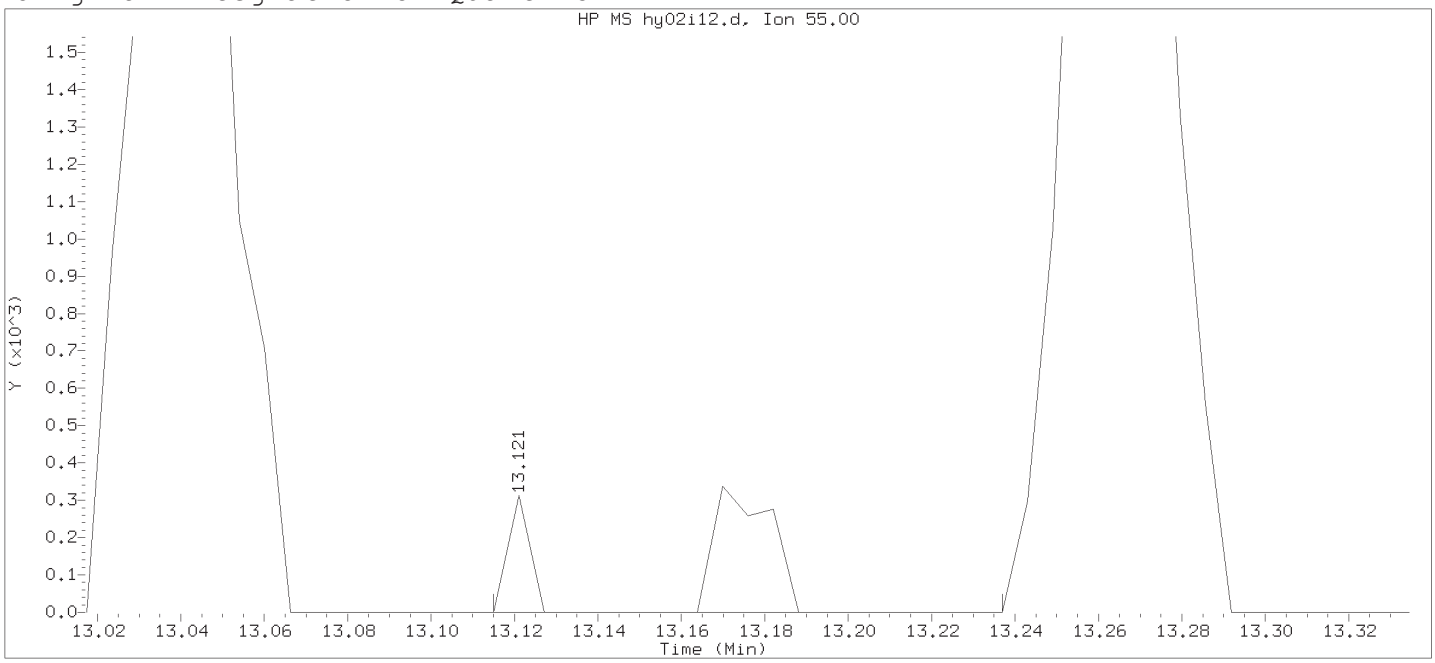
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



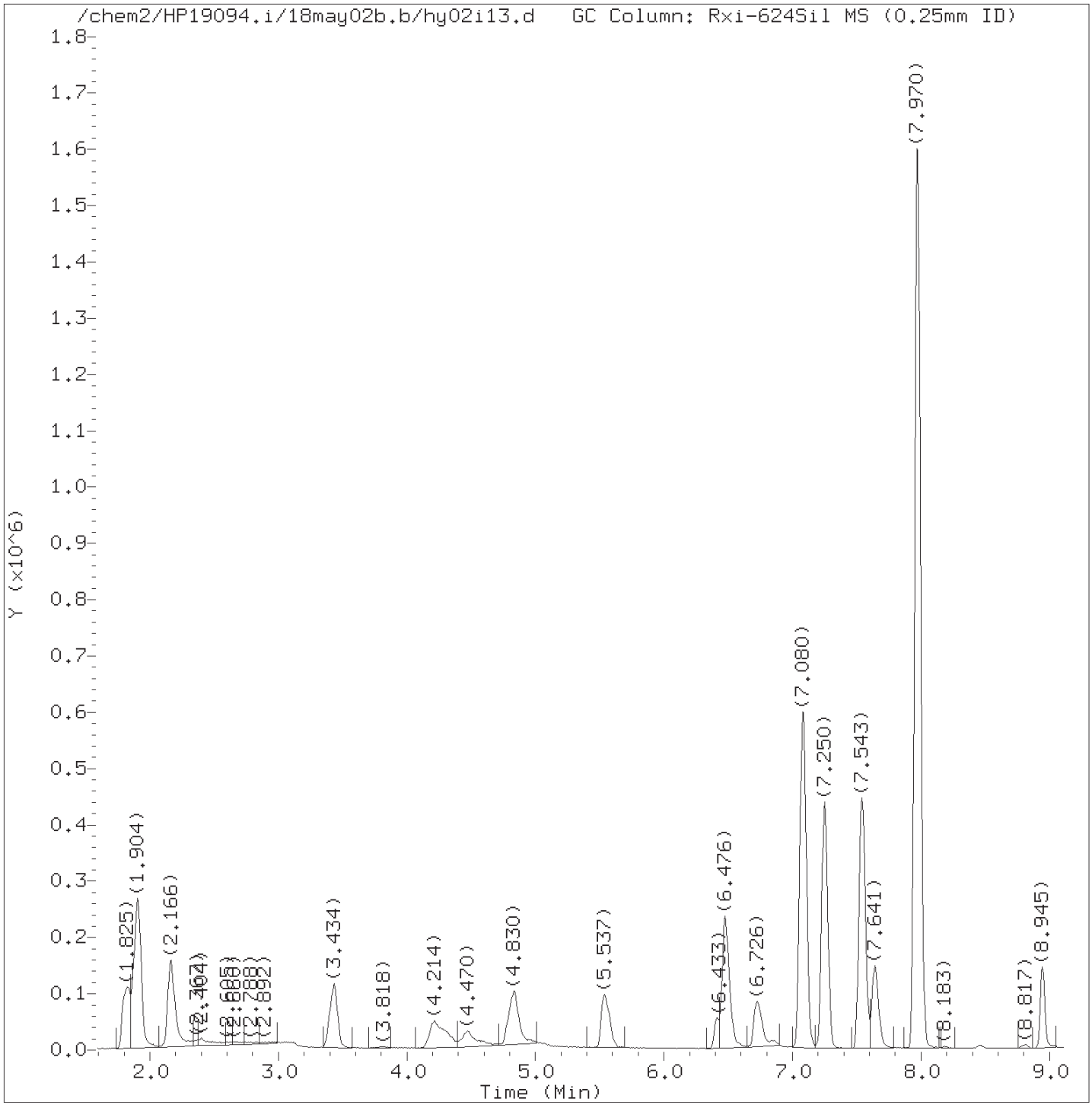
Data File: /chem2/HP19094.i/18may02b.b/hy02i12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:36 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 19:54
Date, time and analyst ID of latest file update: 02-May-2018 19:54 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 112		
Compound Name	: Cyclohexanone		
Scan Number	: 1892		
Retention Time (minutes)	: 13.121		
Quant Ion	: 55.00		
Area	: 434		
On-column Amount (ng)	: 0.6361		
Integration start scan	: 1890	Integration stop scan:	1910
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203



Total Ion Chromatogram (TIC)

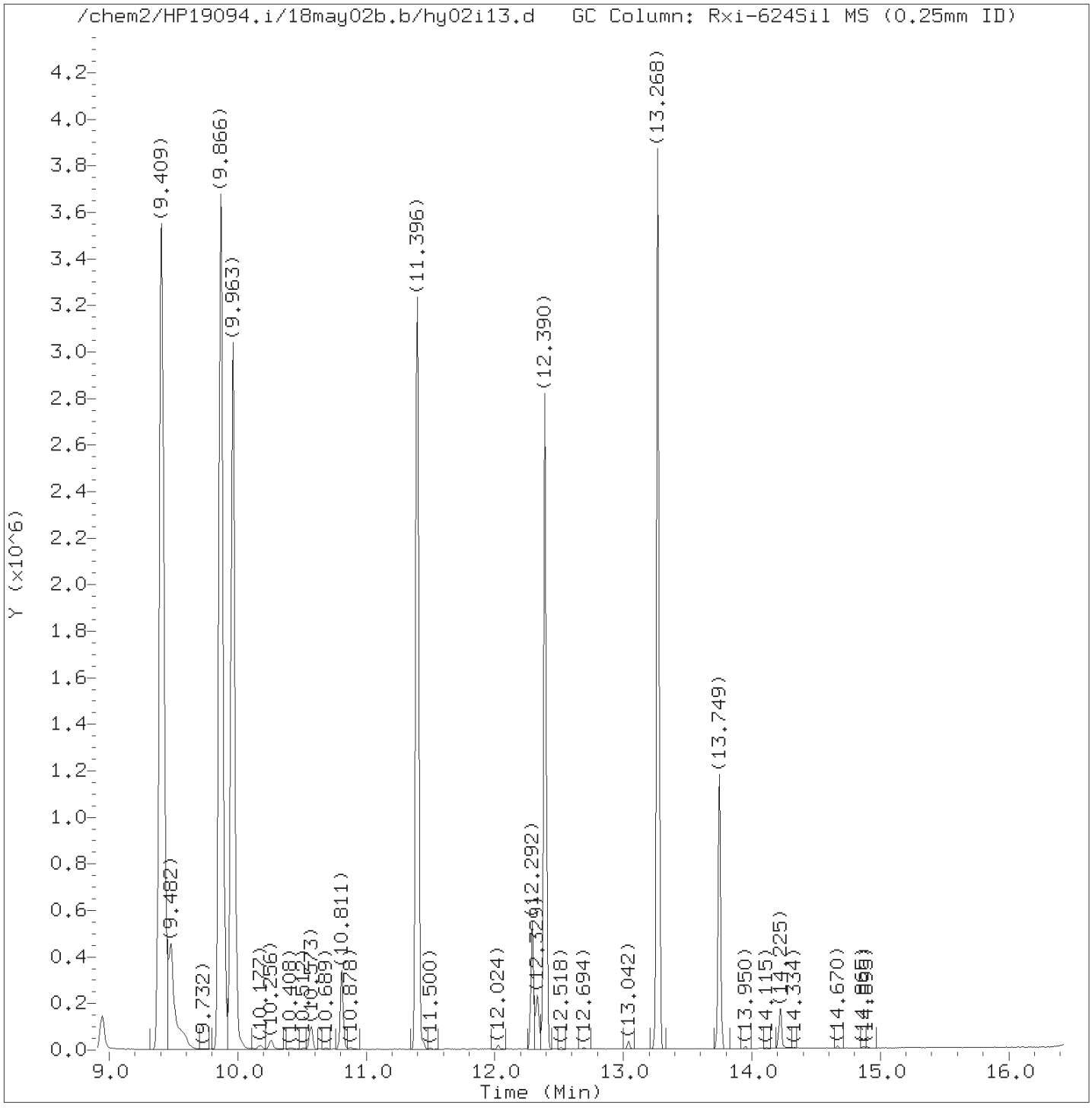
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

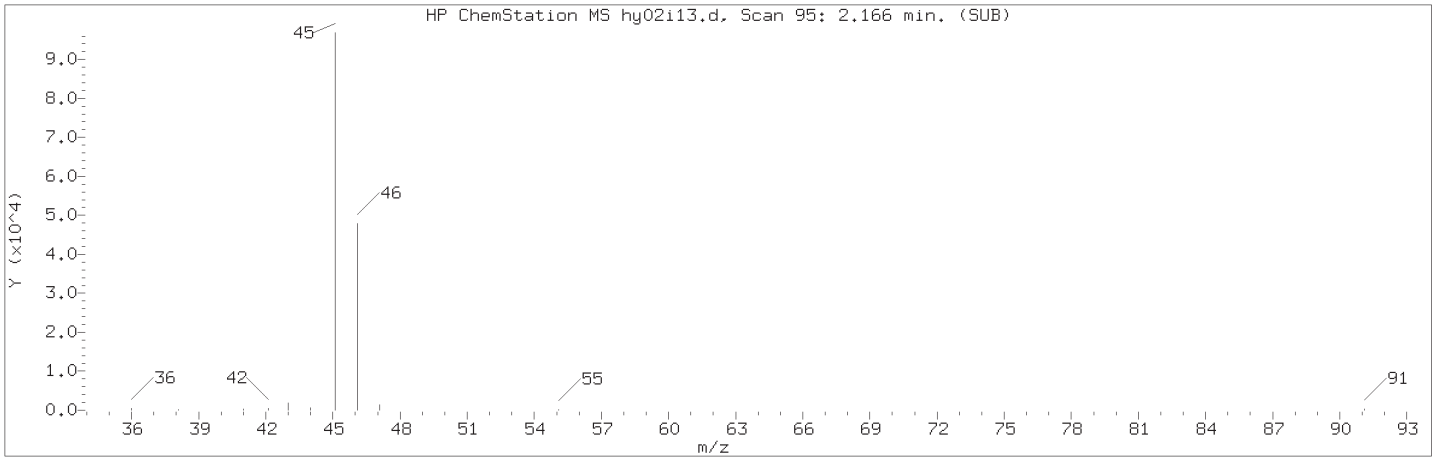
Sample Name: VSTD005 Lab Sample ID: VSTD005

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.166	45	376311M	5.039
25) Acetonitrile	(1)	4.214	41	346001M	192.762
26)*t-Butyl Alcohol-d10	(1)	4.495	65	74336	50.000
36) Vinyl Acetate	(2)	5.537	43	346883	4.875
43) Methyl Acrylate	(2)	6.476	55	550131	25.059
53) 1-Chlorobutane	(2)	7.250	56	571057	5.435
63)*Fluorobenzene	(2)	7.976	96	2326423	10.000
77) Chloroacetonitrile	(2)	9.476	75	181895	207.900
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	110899	5.272
97)*Chlorobenzene-d5	(3)	11.396	117	1698280	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	118032M	12.260
112) Cyclohexanone	(1)	12.329	55	116048M	237.027
133)*1,4-Dichlorobenzene-d4	(4)	13.268	152	890934	10.000
142) Hexachloroethane	(4)	13.749	117	203238	5.419

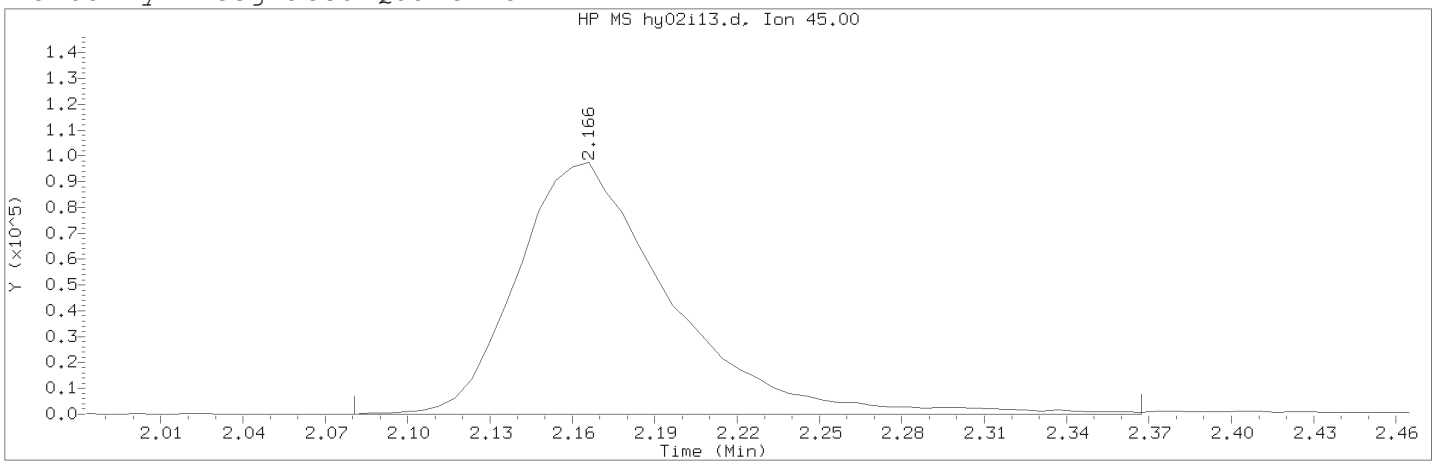
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

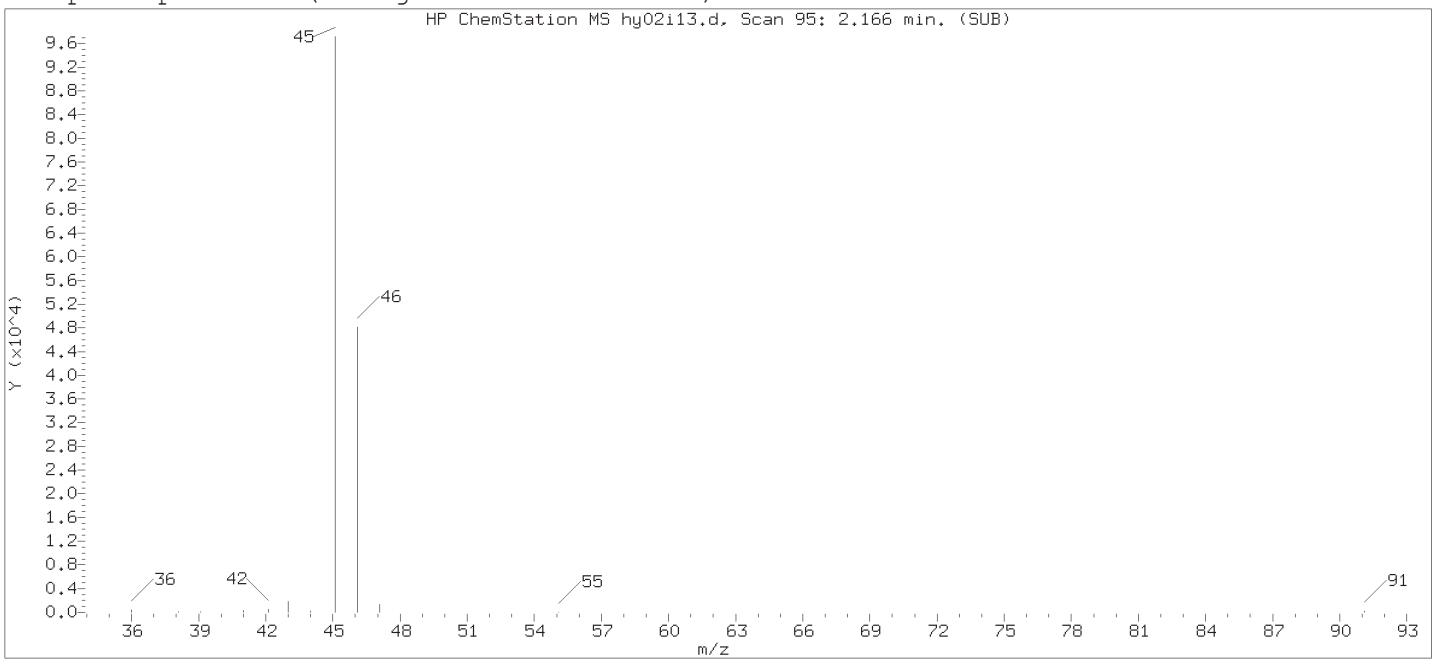
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 95
Retention Time (minutes): 2.166
Quant Ion : 45.00
Area (flag) : 376311M
On-Column Amount (ng) : 5.0388
Integration start scan : 80 Integration stop scan: 127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

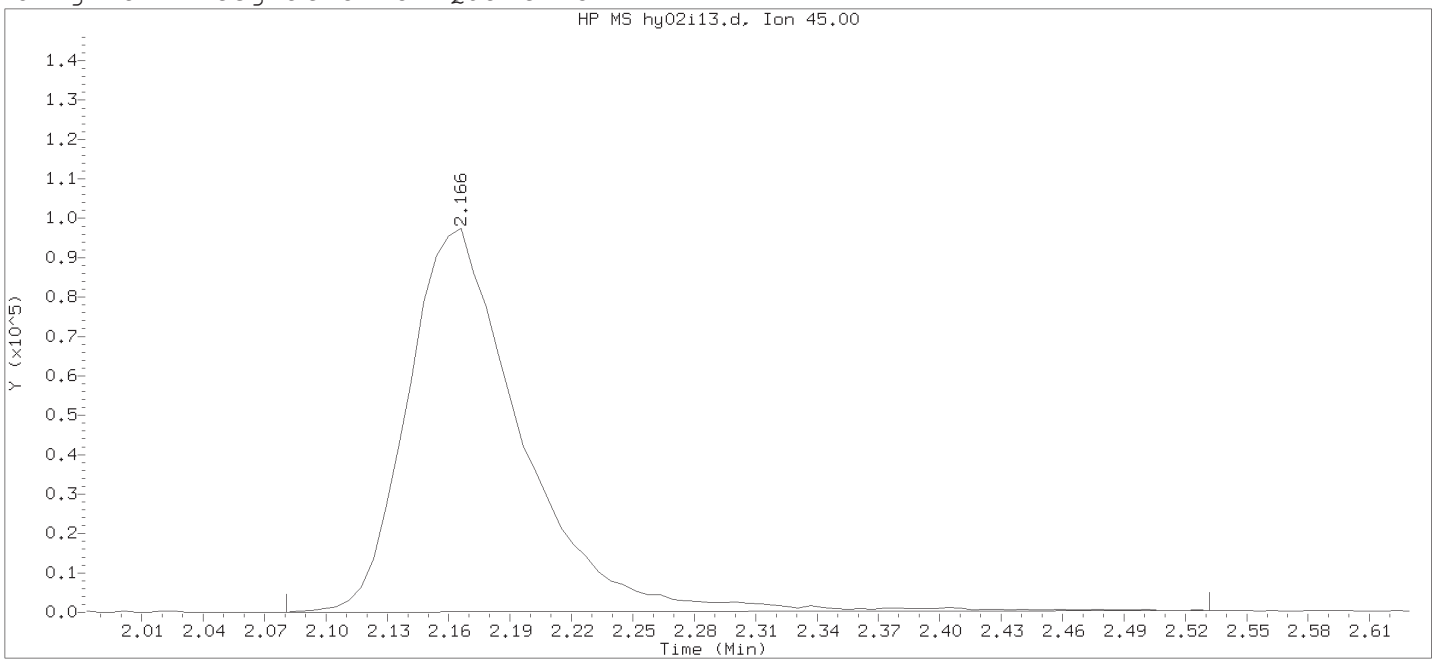
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

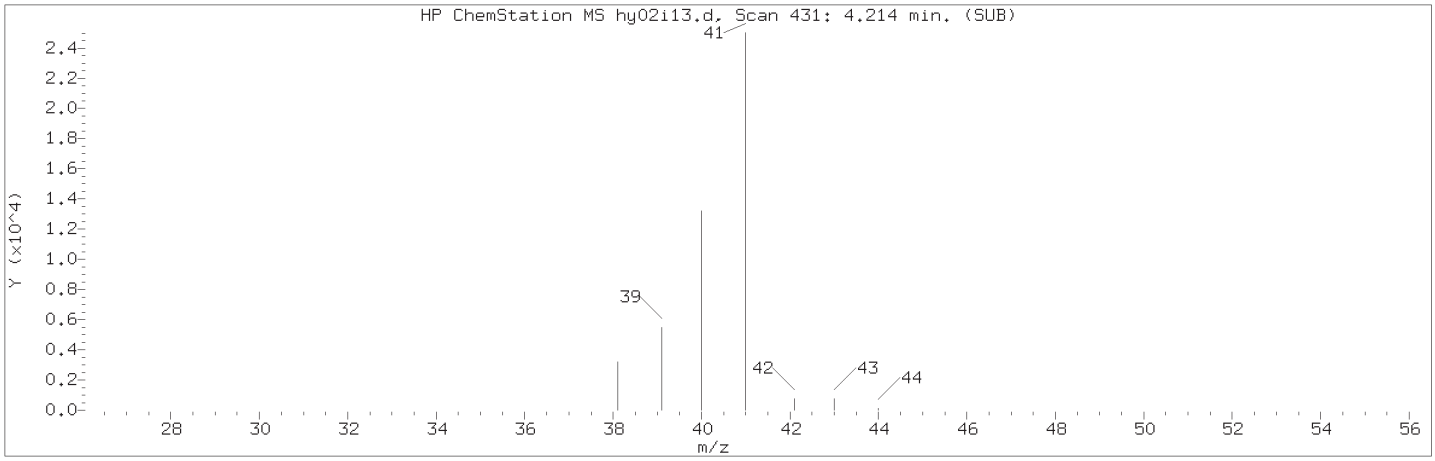
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:16
Date, time and analyst ID of latest file update: 02-May-2018 20:16 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

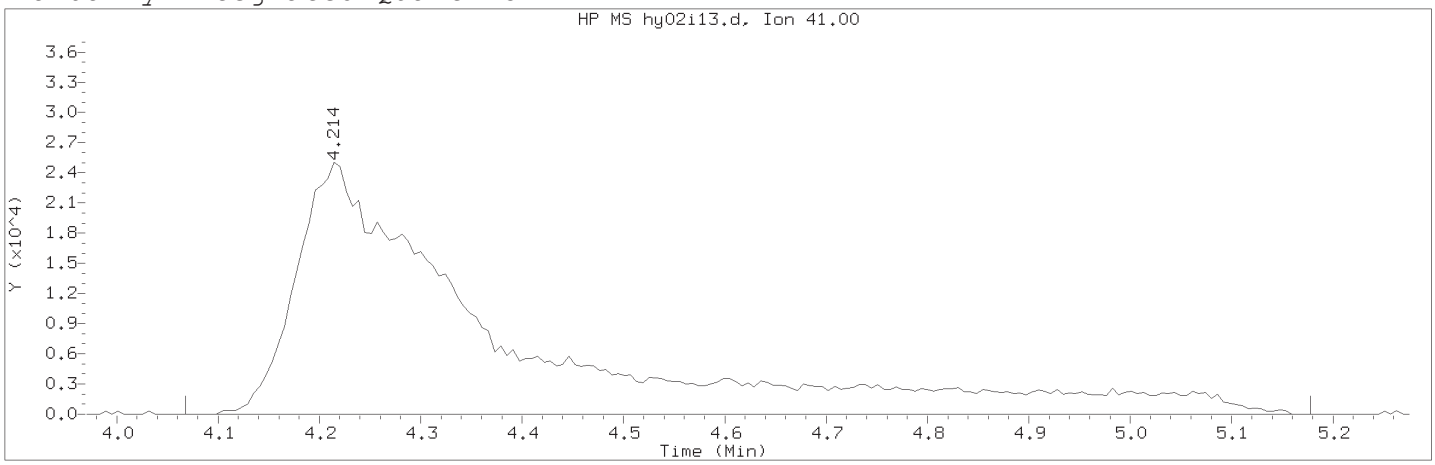
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 95		
Retention Time (minutes)	: 2.166		
Quant Ion	: 45.00		
Area	: 377915		
On-column Amount (ng)	: 4.9207		
Integration start scan	: 80	Integration stop scan:	154
Y at integration start	: 0	Y at integration end:	409

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used 1.0.0.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

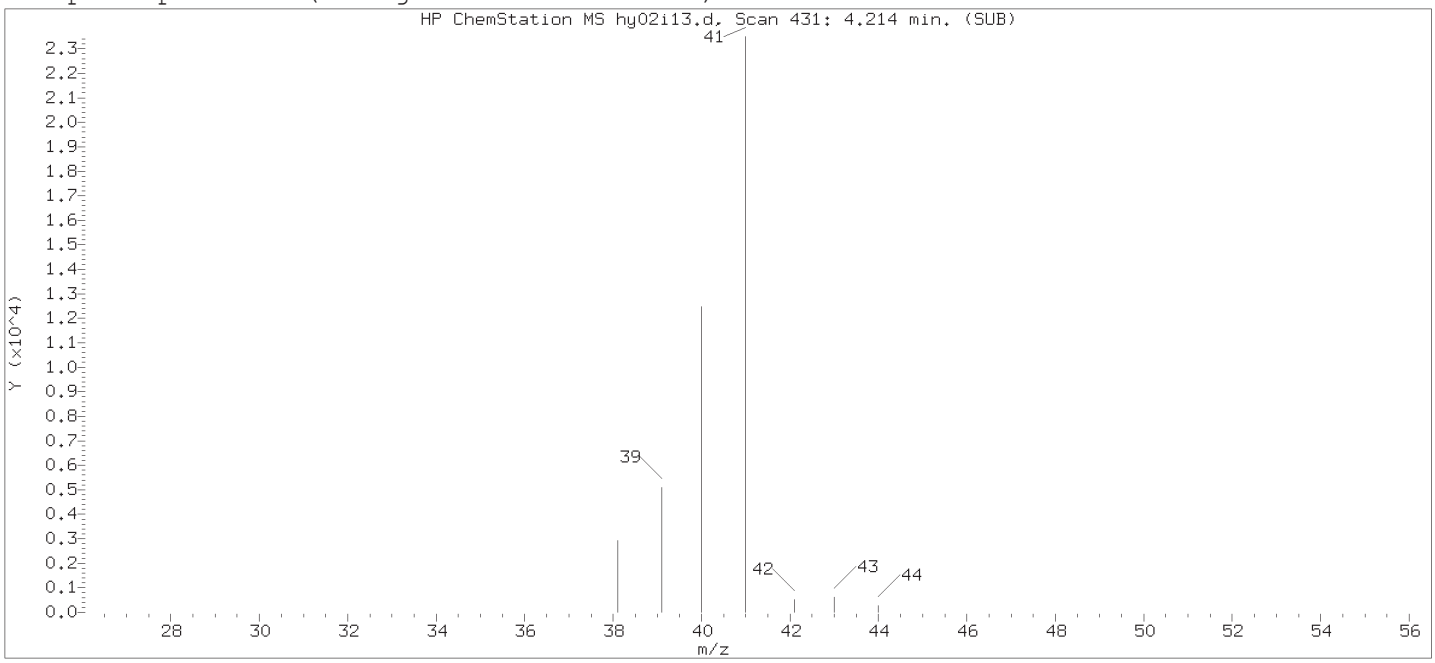
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area (flag) : 346001M
On-Column Amount (ng) : 192.7625
Integration start scan : 406 Integration stop scan: 588
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

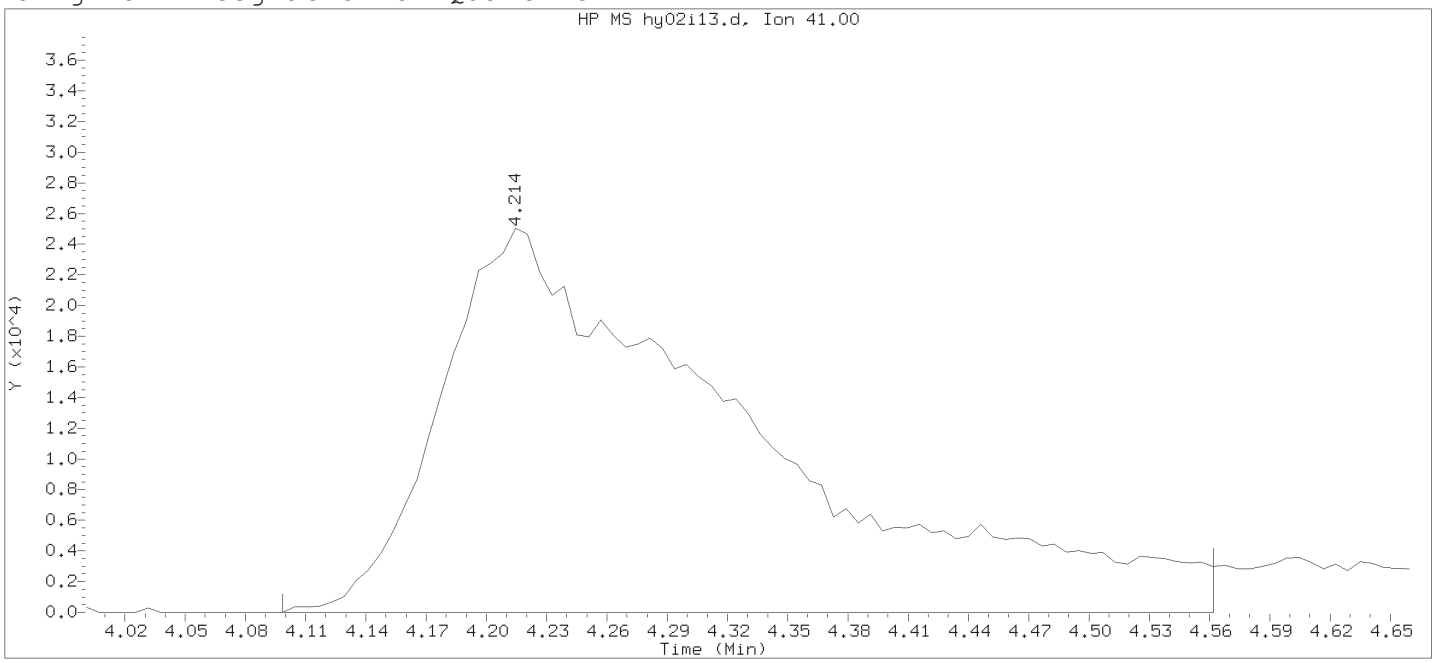
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

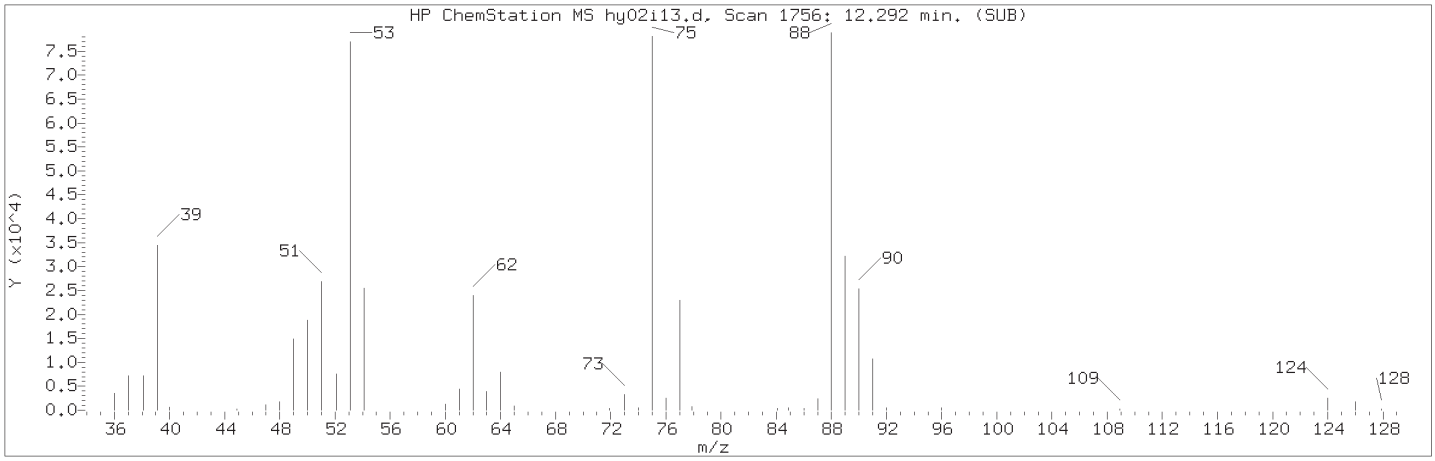
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:16
Date, time and analyst ID of latest file update: 02-May-2018 20:16 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

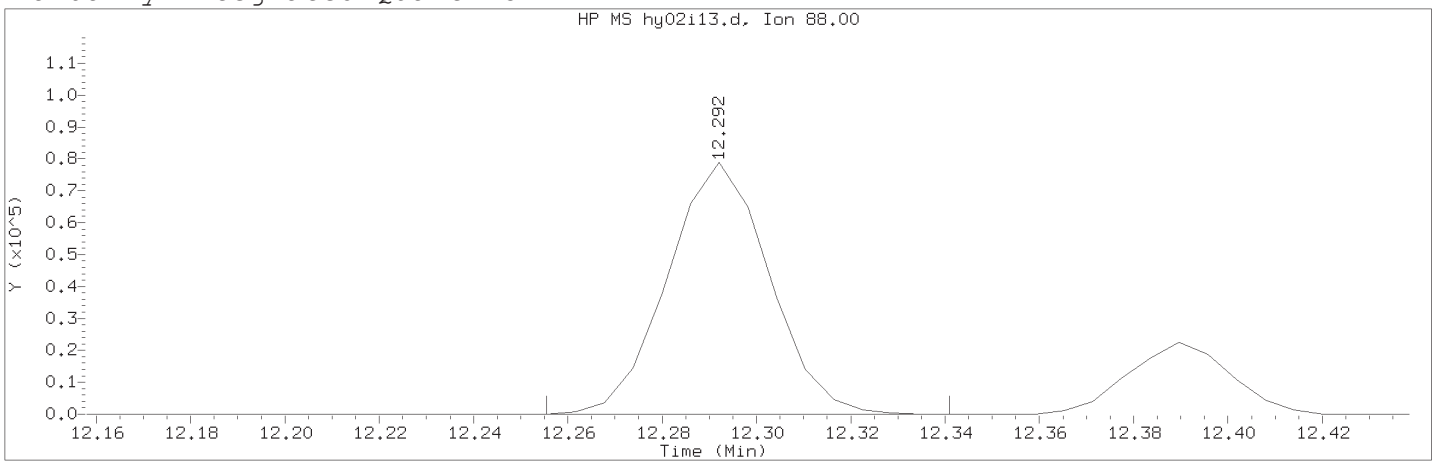
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area : 265890
On-column Amount (ng) : 127.0548
Integration start scan : 411 Integration stop scan: 487
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

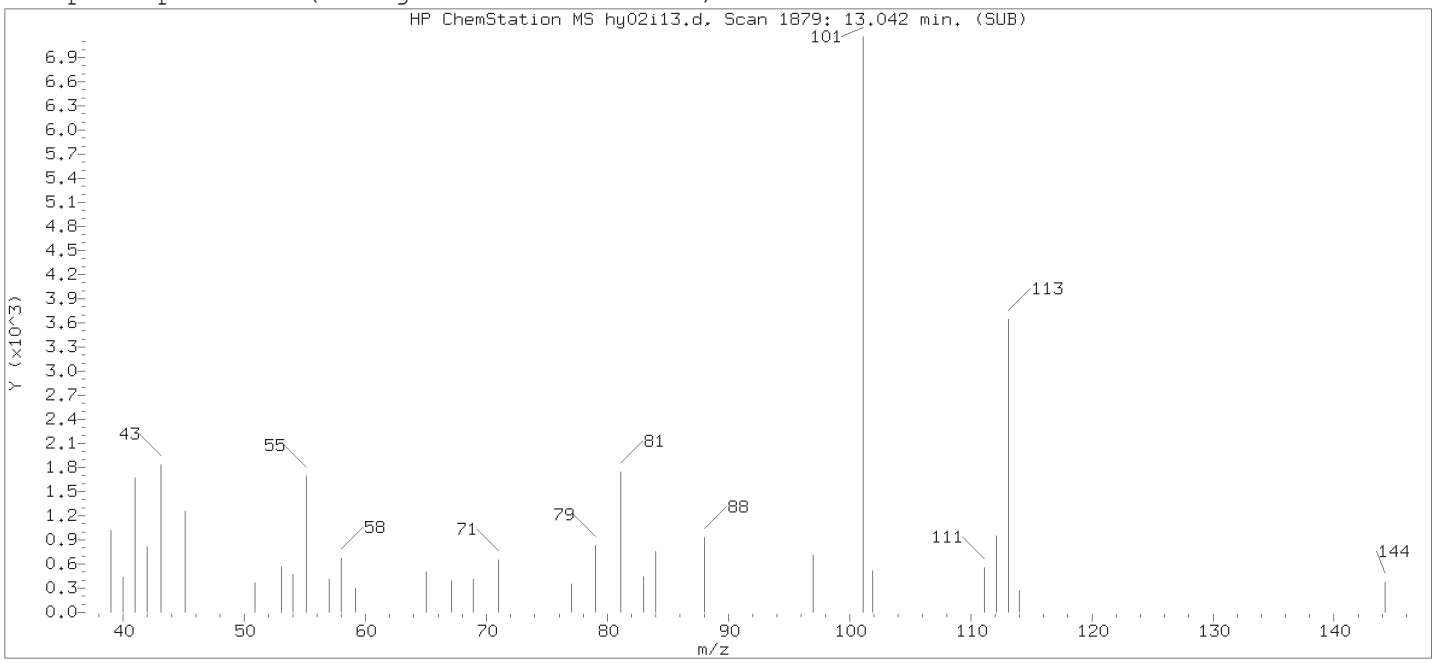
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 118032M
On-Column Amount (ng) : 12.2604
Integration start scan : 1749 Integration stop scan: 1763
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

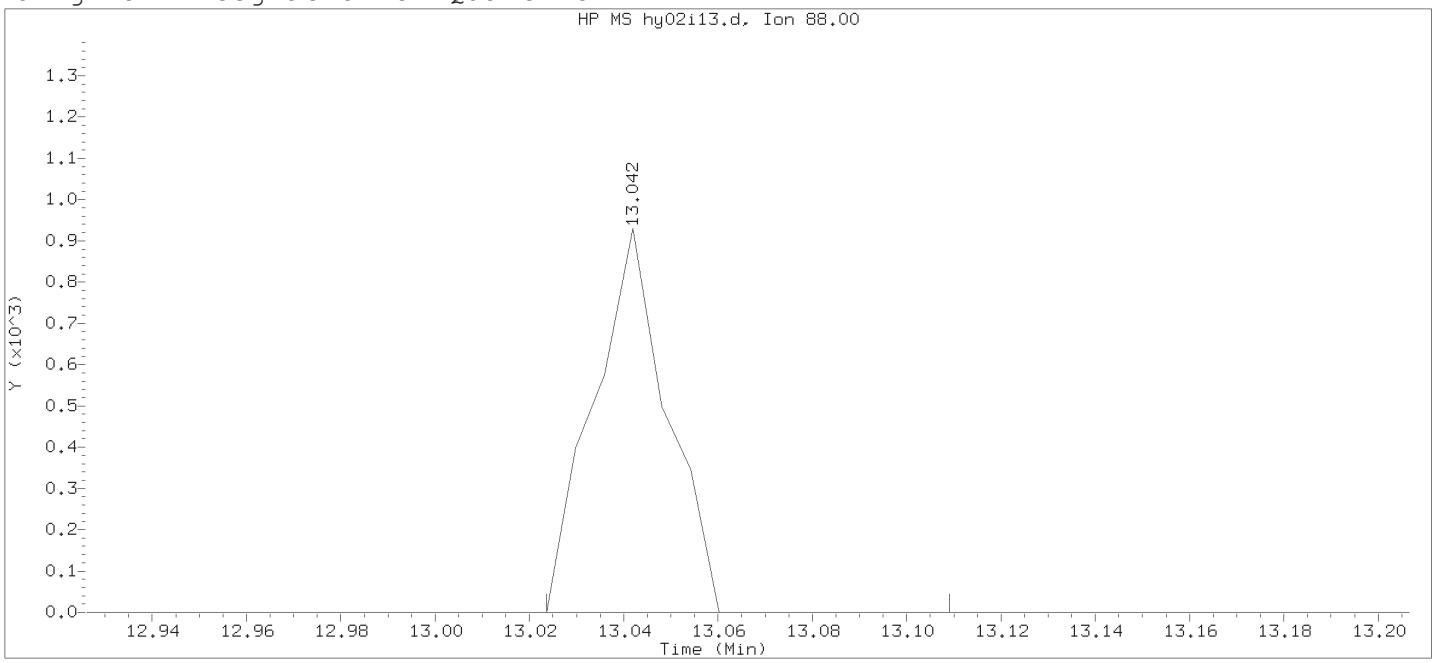
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

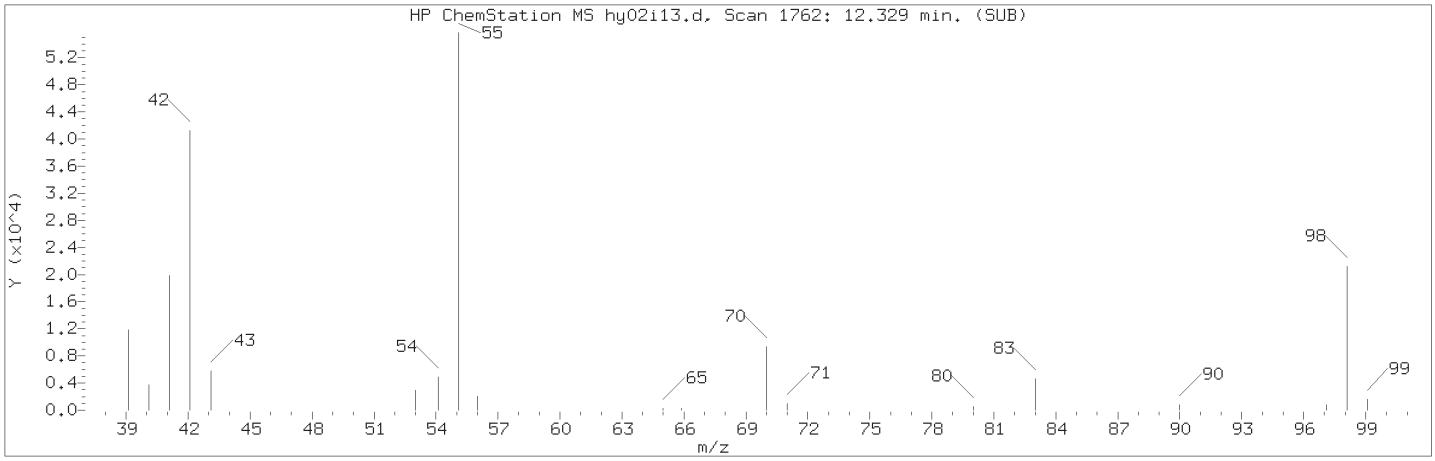
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:16
Date, time and analyst ID of latest file update: 02-May-2018 20:16 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

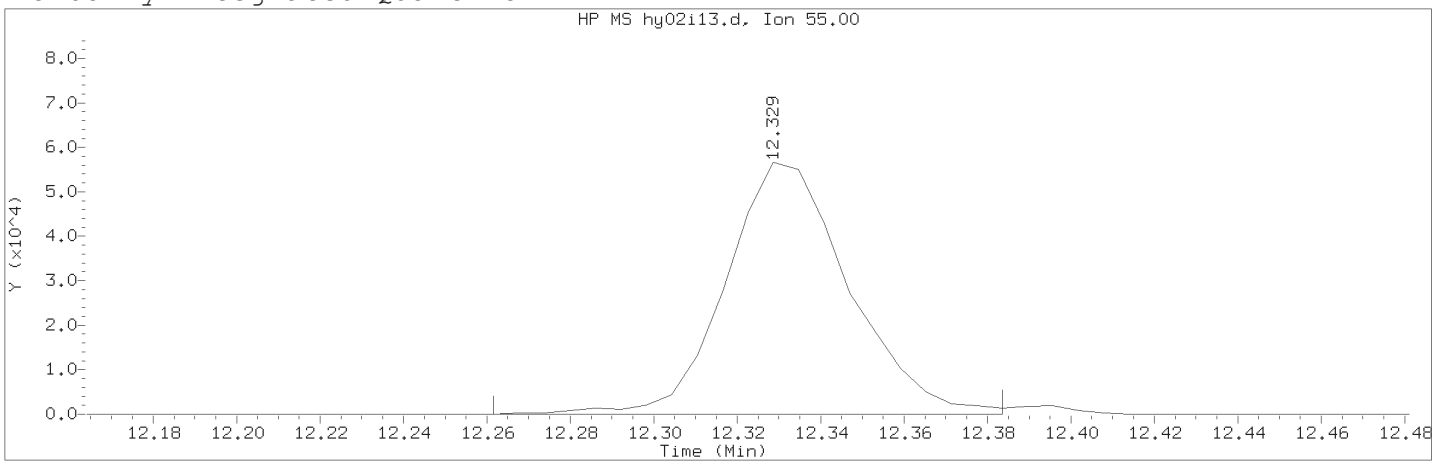
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1879
Retention Time (minutes): 13.042
Quant Ion : 88.00
Area : 1005
On-column Amount (ng) : 0.1485
Integration start scan : 1875 Integration stop scan: 1889
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used: D12 Page 1297

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD005 Lab Sample ID: VSTD005

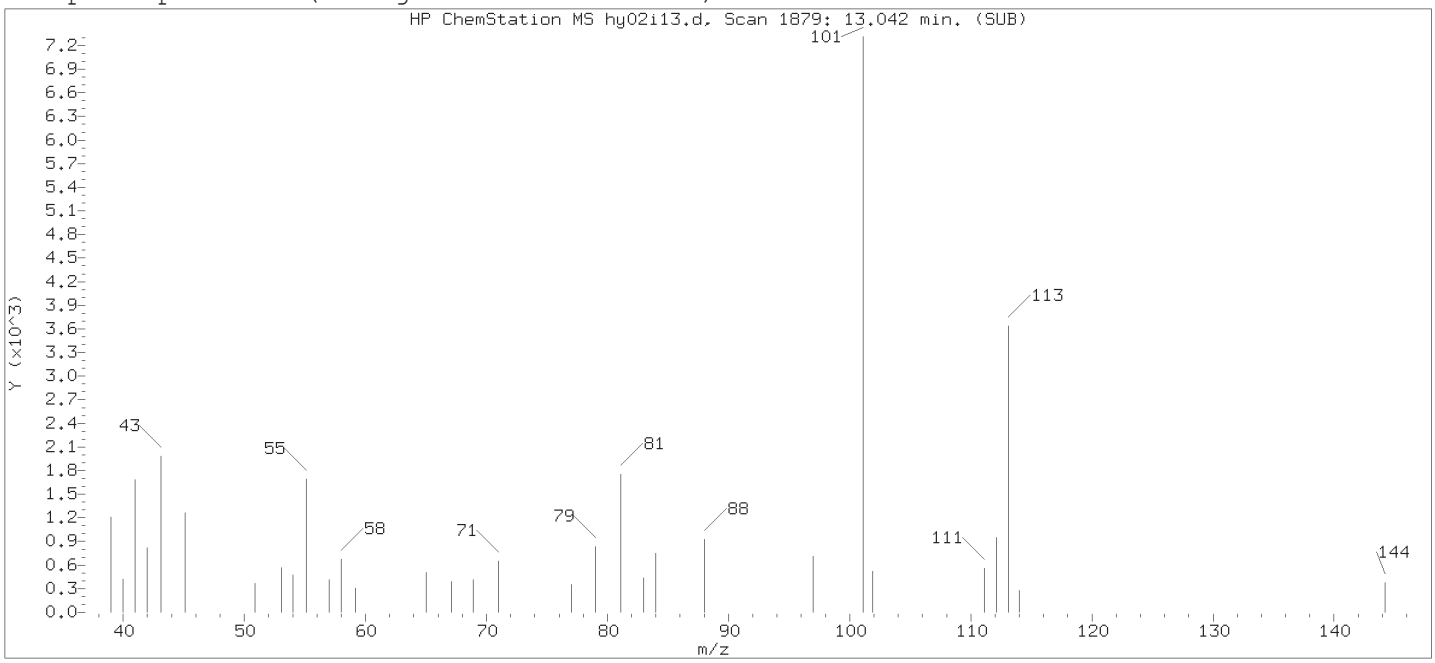
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 116048M
On-Column Amount (ng) : 237.0271
Integration start scan : 1750 Integration stop scan: 1770
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

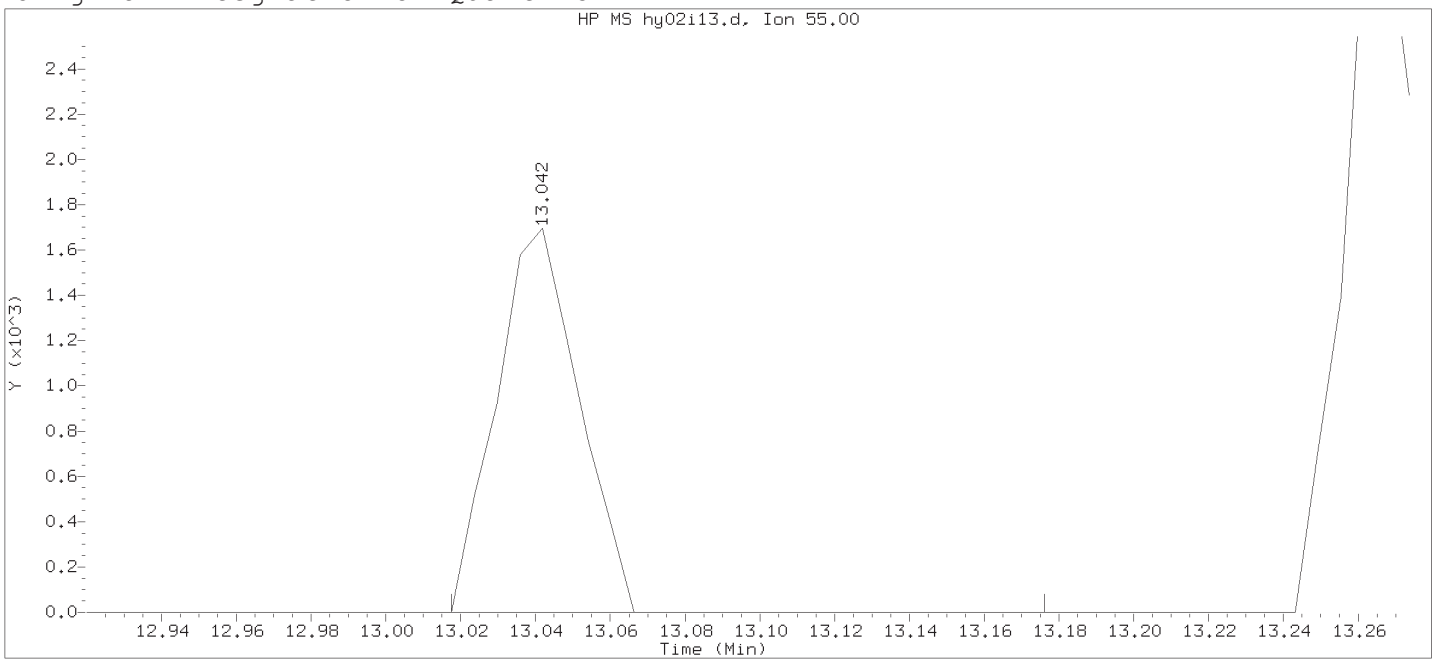
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



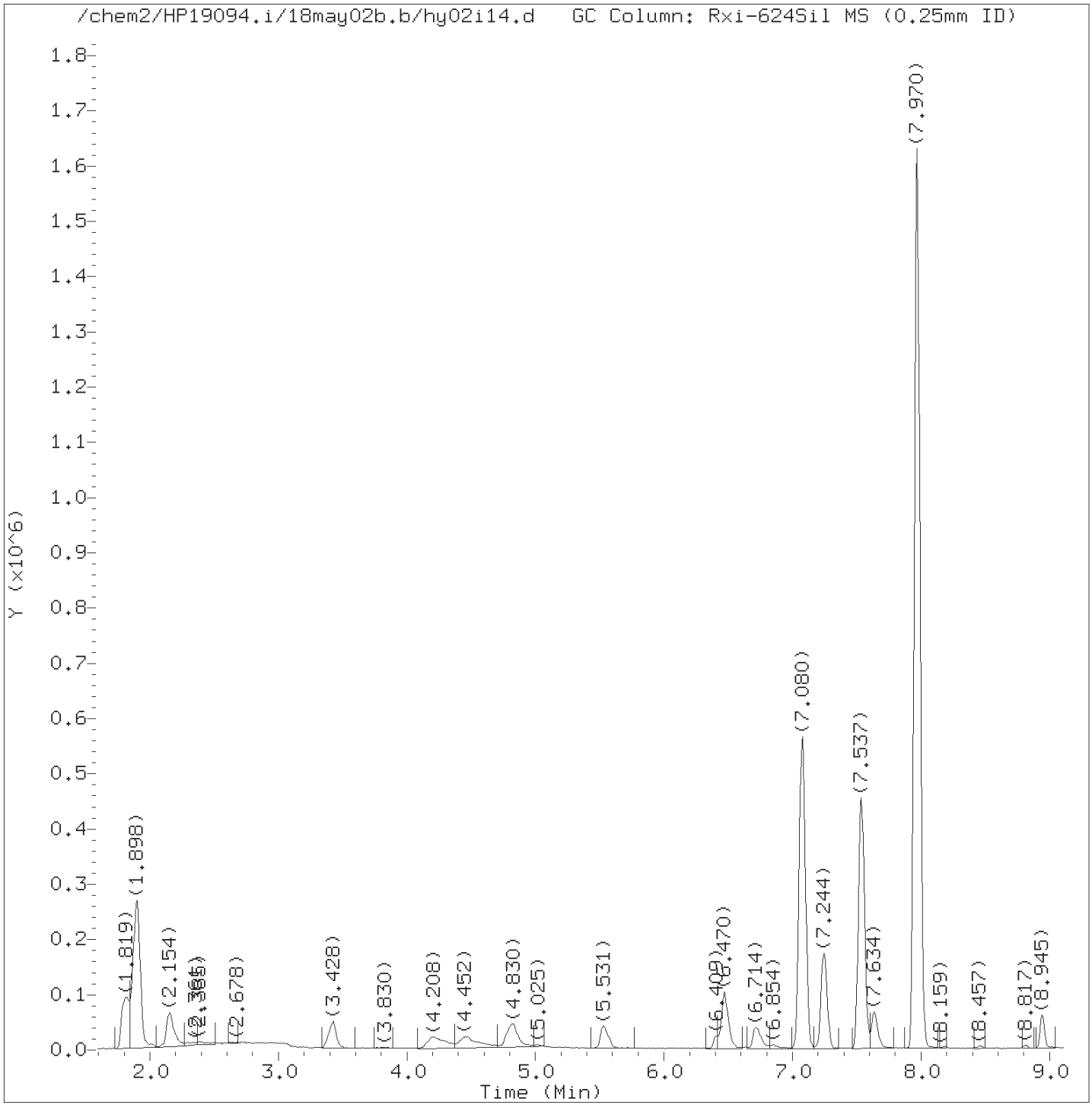
Data File: /chem2/HP19094.i/18may02b.b/hy02i13.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 19:58 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:16
Date, time and analyst ID of latest file update: 02-May-2018 20:16 Automation

Sample Name: VSTD005 Lab Sample ID: VSTD005

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1879
Retention Time (minutes): 13.042
Quant Ion : 55.00
Area : 2596
On-column Amount (ng) : 5.5293
Integration start scan : 1874 Integration stop scan: 1900
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used: D12 Reason: I agree



Total Ion Chromatogram (TIC)

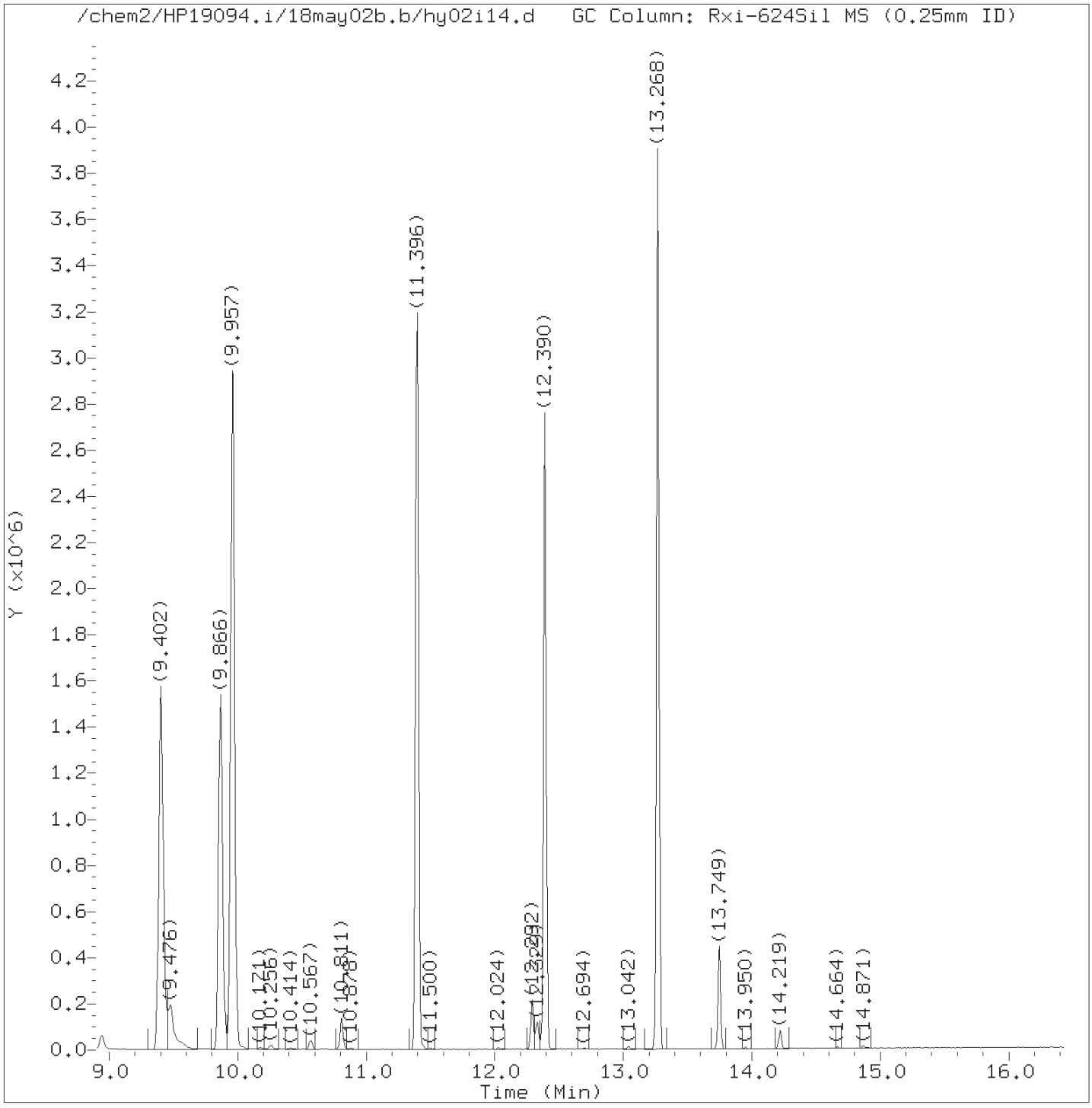
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

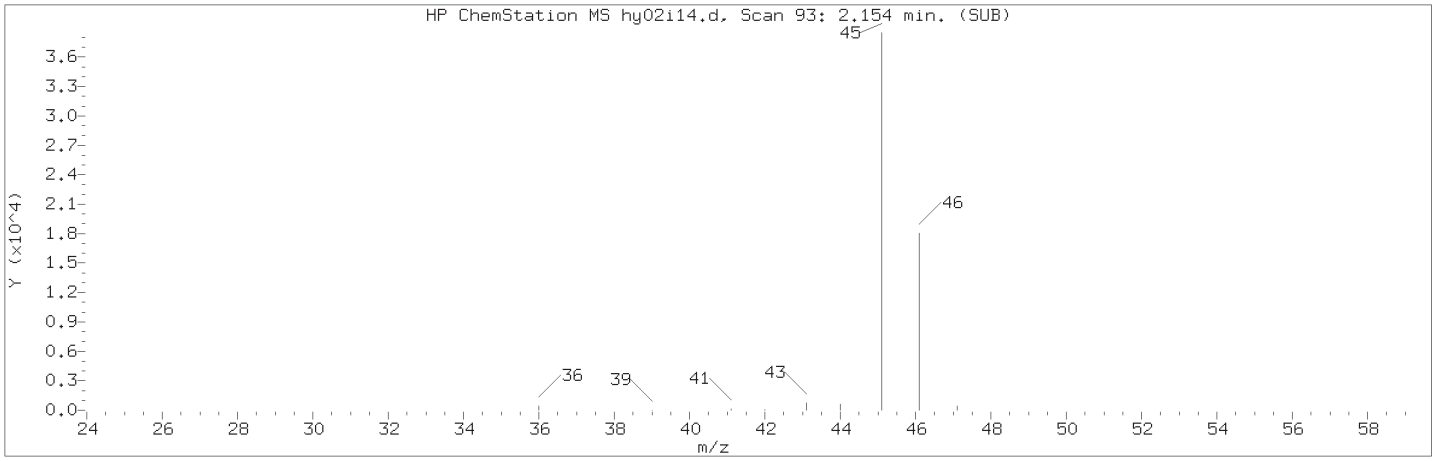
Sample Name: VSTD002 Lab Sample ID: VSTD002

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.154	45	145626M	1.971
25) Acetonitrile	(1)	4.208	41	174320M	78.221
26)*t-Butyl Alcohol-d10	(1)	4.470	65	92293M	50.000
36) Vinyl Acetate	(2)	5.531	43	143775	2.043
43) Methyl Acrylate	(2)	6.470	55	214639M	9.882
53) 1-Chlorobutane	(2)	7.244	56	224469	2.160
63)*Fluorobenzene	(2)	7.970	96	2301576	10.000
77) Chloroacetonitrile	(2)	9.463	75	91318	105.500
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	42627	2.048
97)*Chlorobenzene-d5	(3)	11.396	117	1681083	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	45666M	3.821
112) Cyclohexanone	(1)	12.329	55	57098M	93.932
133)*1,4-Dichlorobenzene-d4	(4)	13.268	152	885161	10.000
142) Hexachloroethane	(4)	13.749	117	77231	2.073

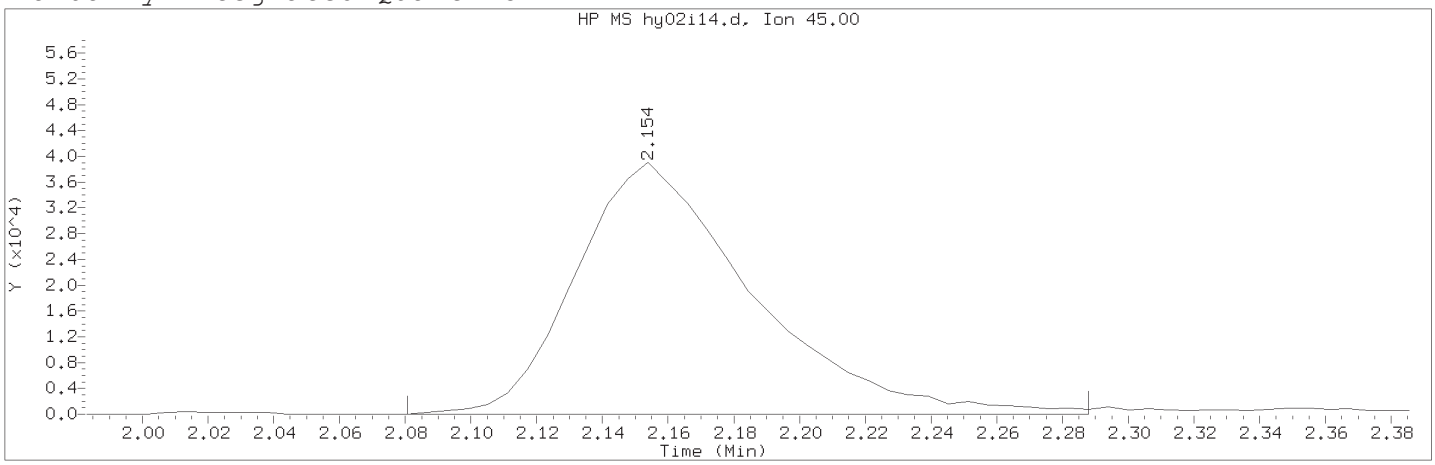
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

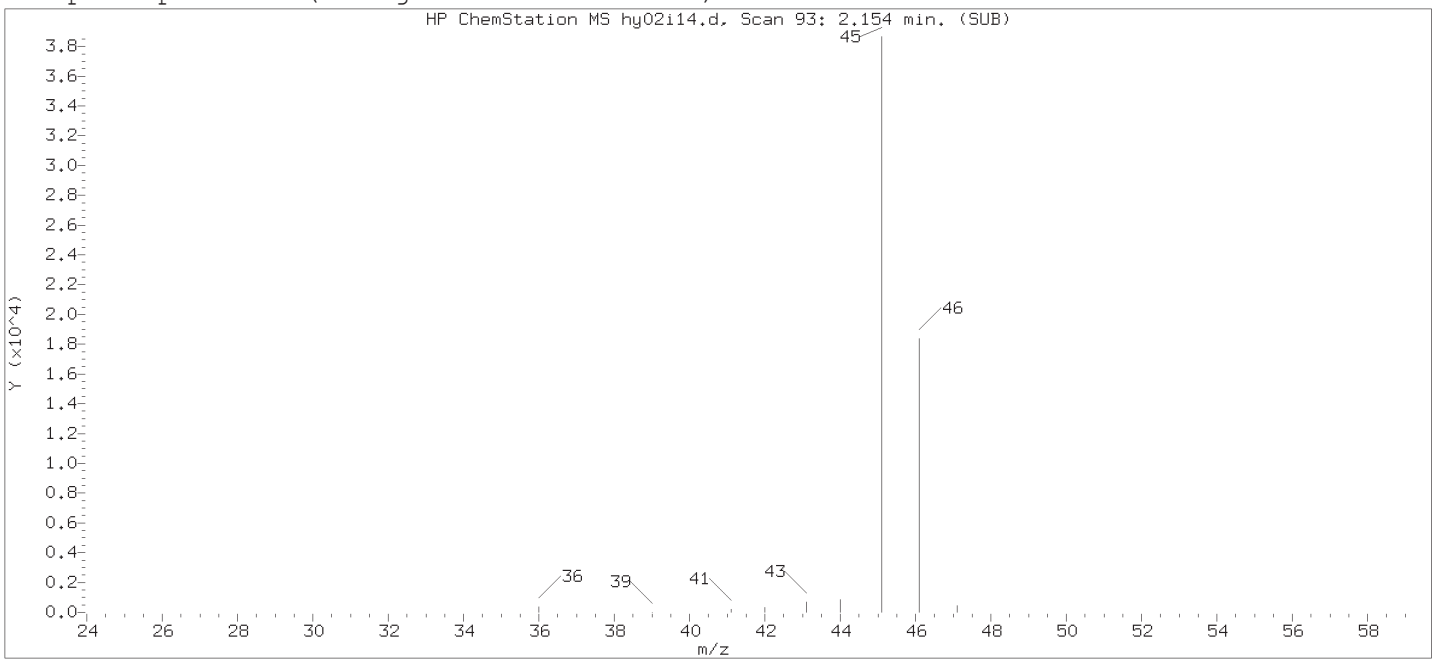
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area (flag) : 145626M
On-Column Amount (ng) : 1.9710
Integration start scan : 80 Integration stop scan: 114
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

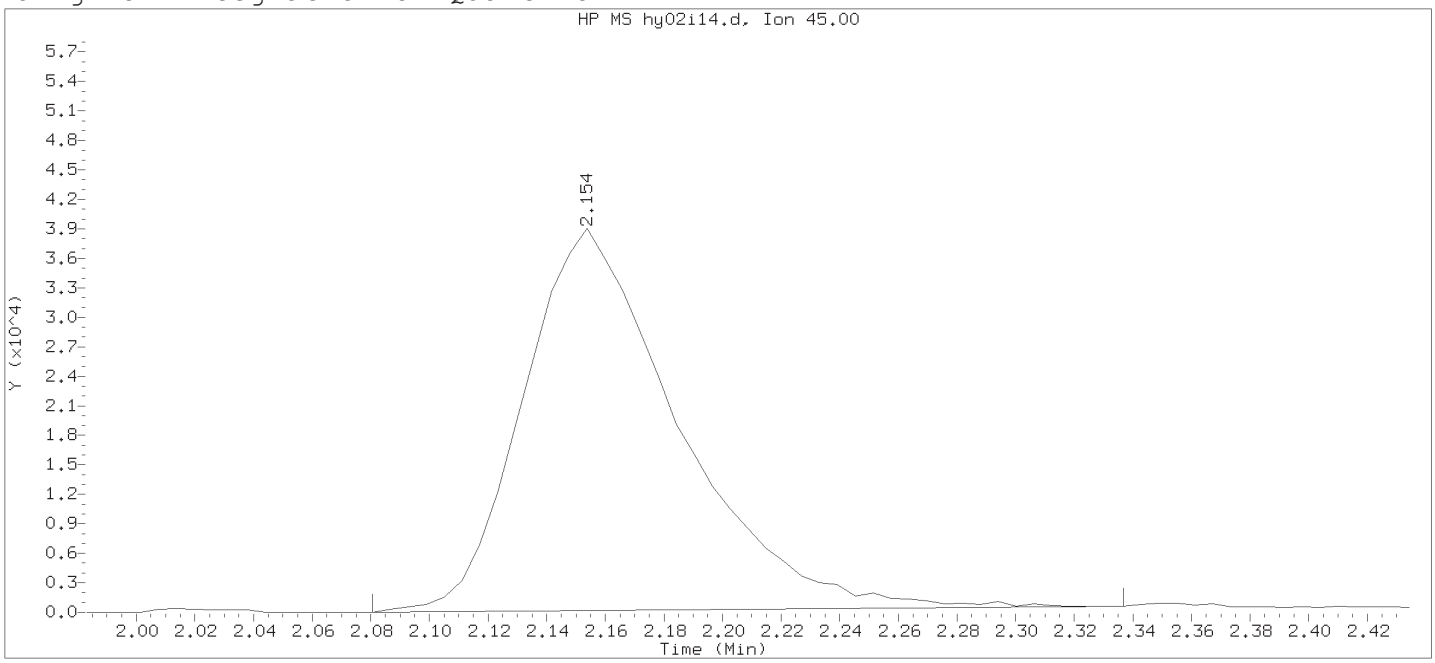
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

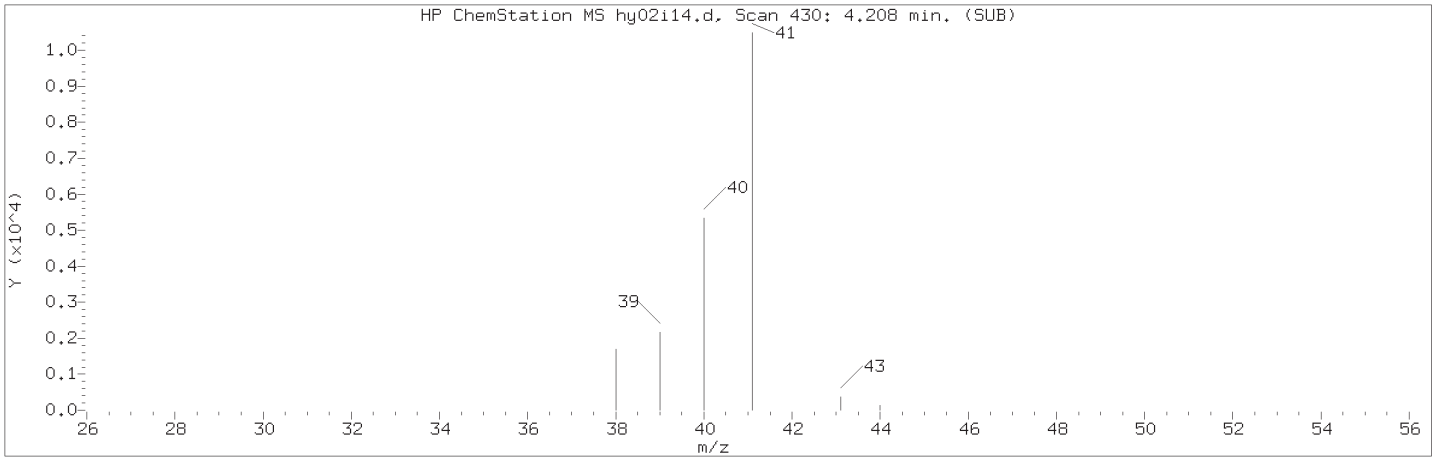
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

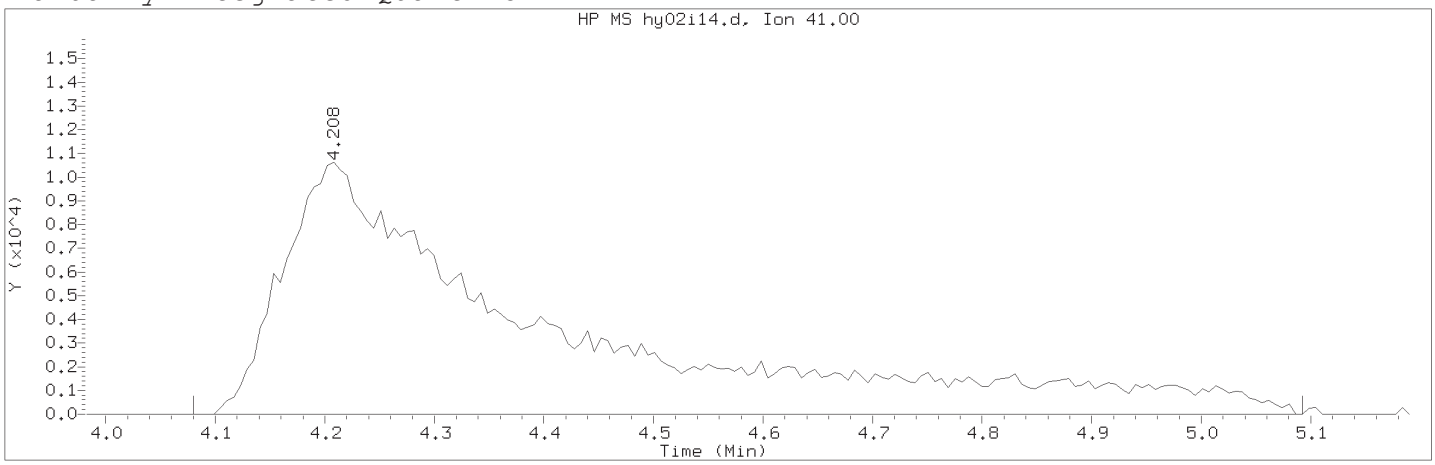
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area : 143014
On-column Amount (ng) : 1.8848
Integration start scan : 80 Integration stop scan: 122
Y at integration start : 0 Y at integration end: 597

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

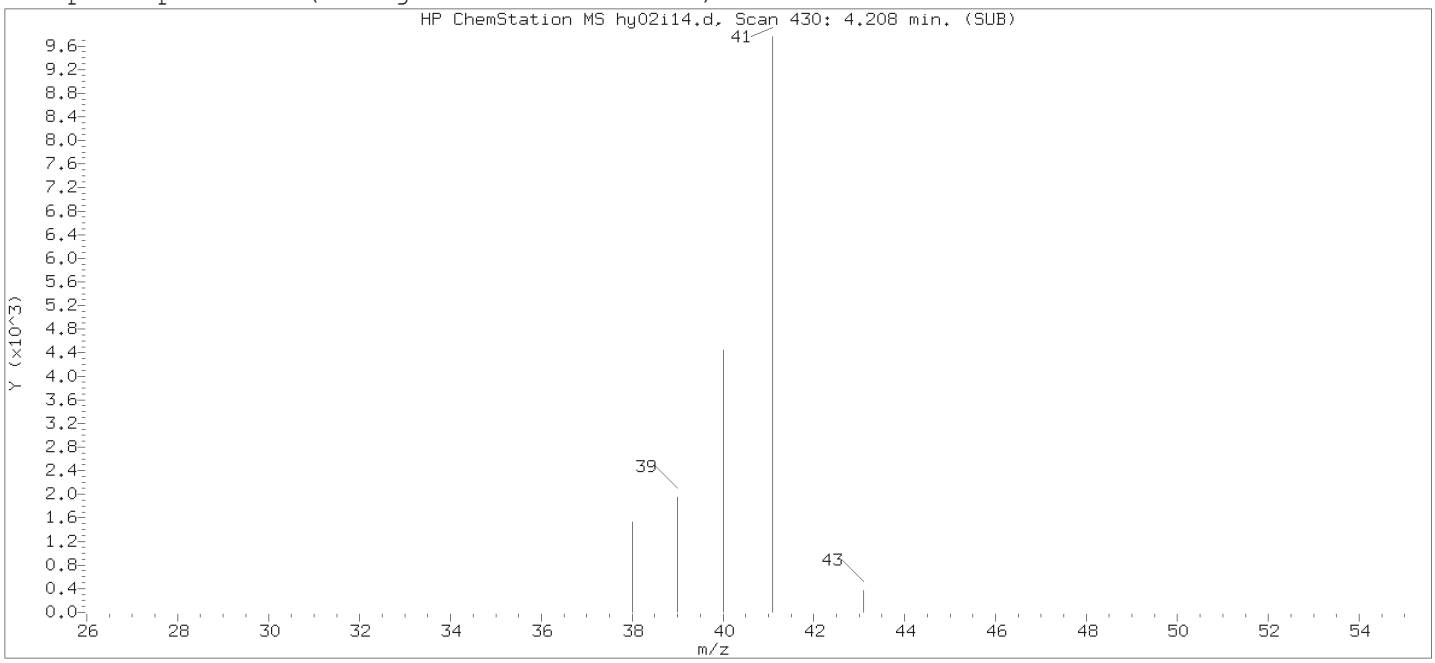
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area (flag) : 174320M
On-Column Amount (ng) : 78.2209
Integration start scan : 408 Integration stop scan: 574
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

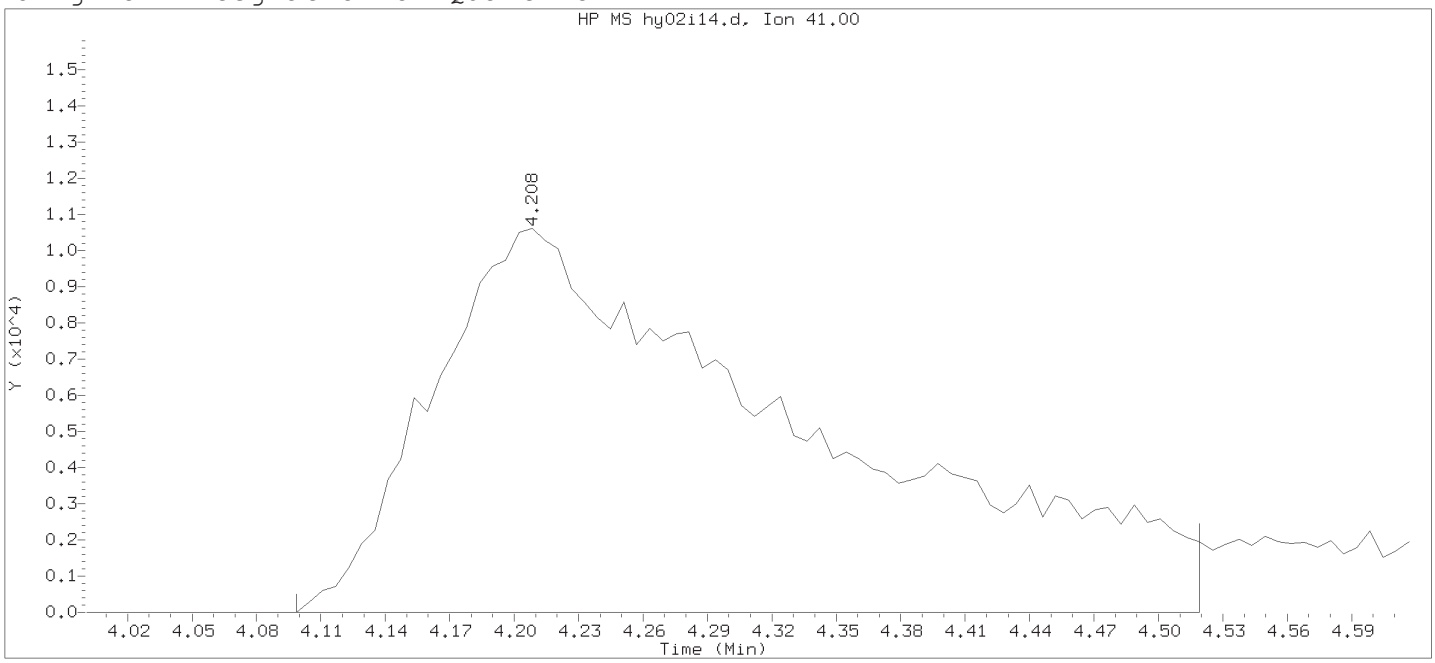
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

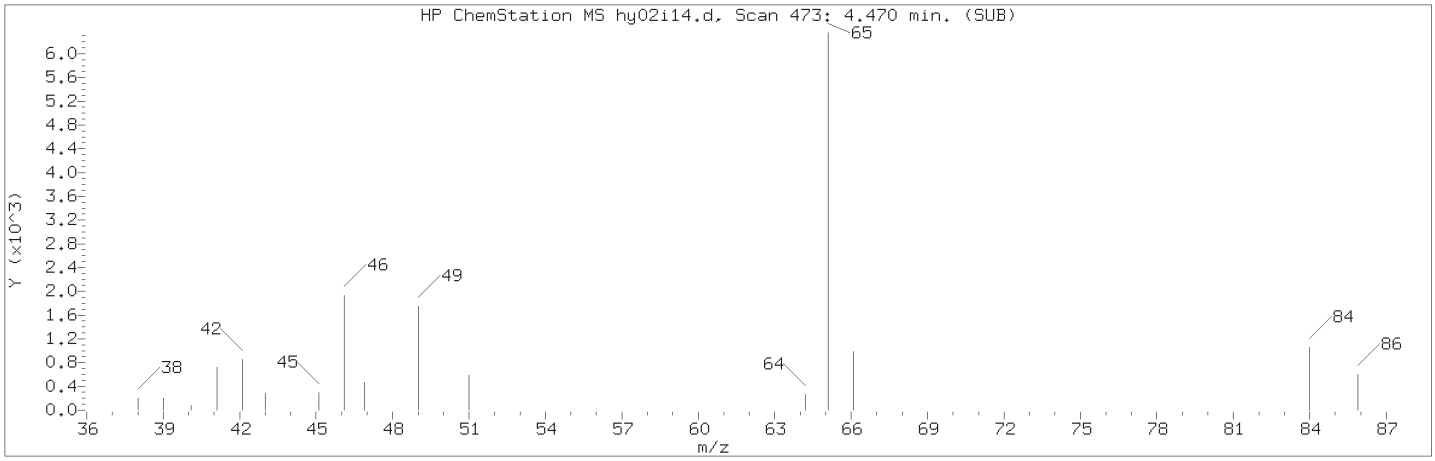
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

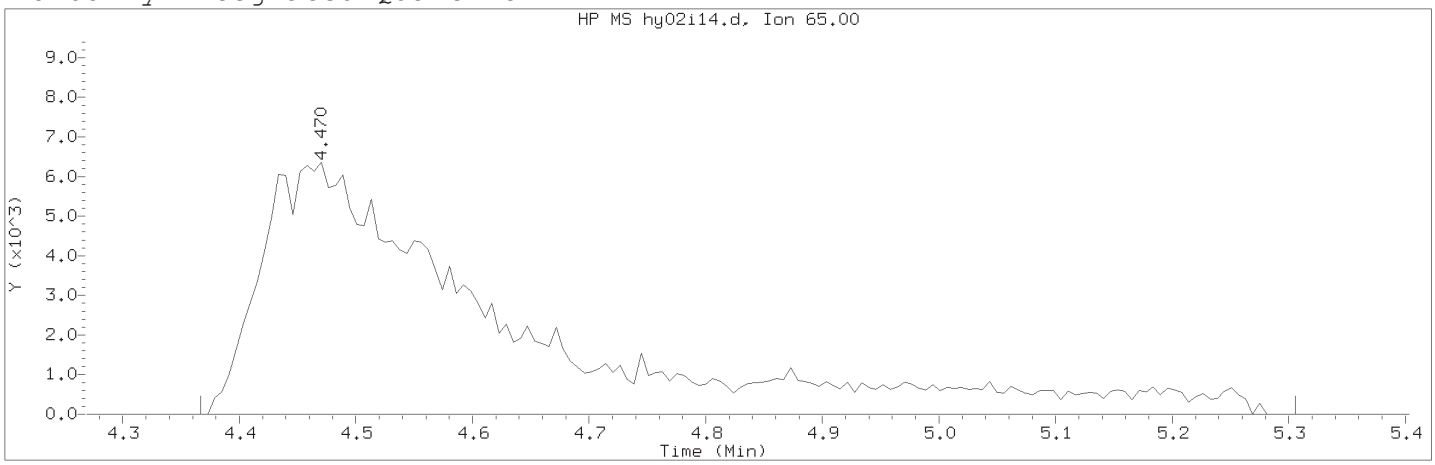
Compound Number	: 25		
Compound Name	: Acetonitrile		
Scan Number	: 430		
Retention Time (minutes)	: 4.208		
Quant Ion	: 41.00		
Area	: 127478		
On-column Amount (ng)	: 55.3756		
Integration start scan	: 411	Integration stop scan:	480
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

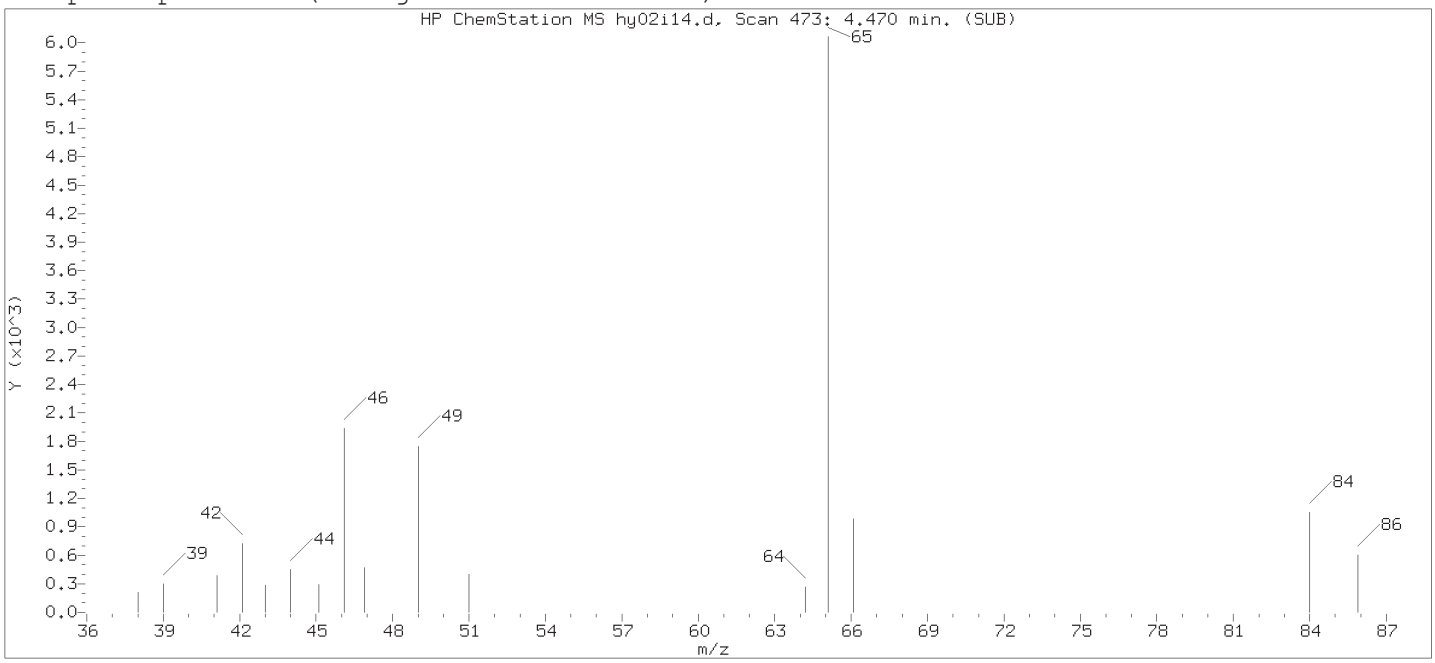
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 92293M
On-Column Amount (ng) : 50.0000
Integration start scan : 455 Integration stop scan: 609
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

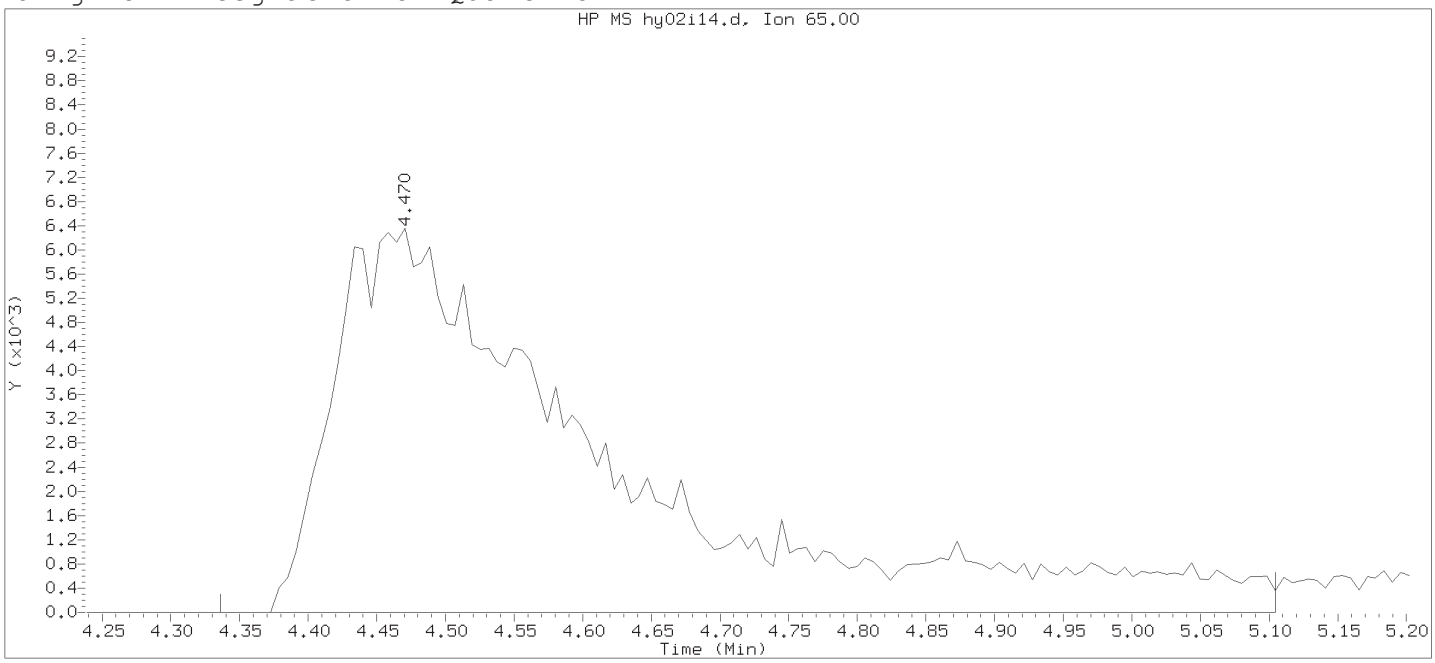
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

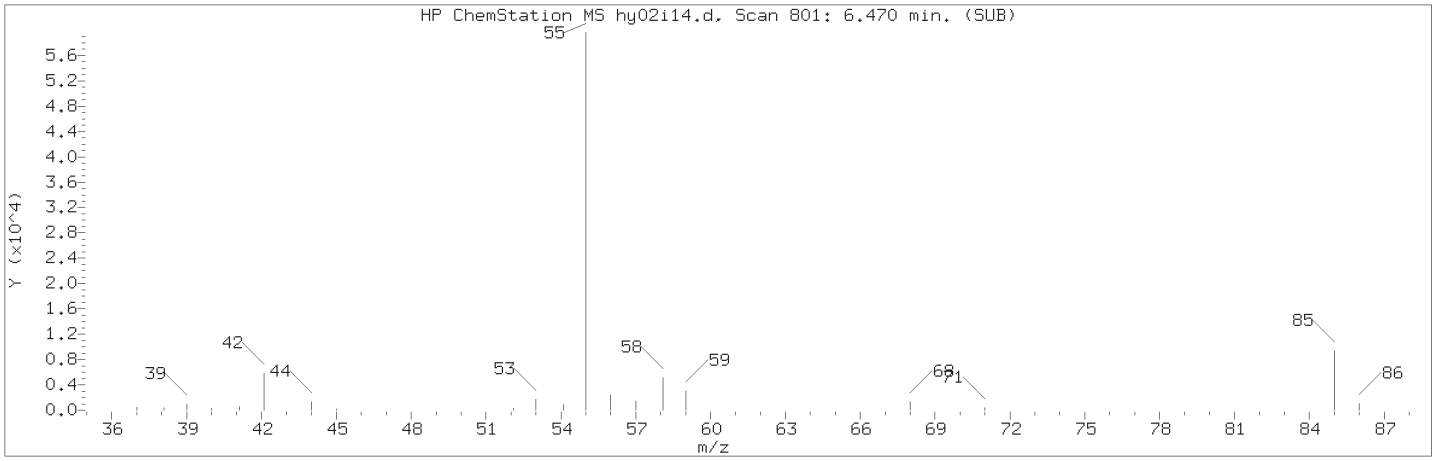
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

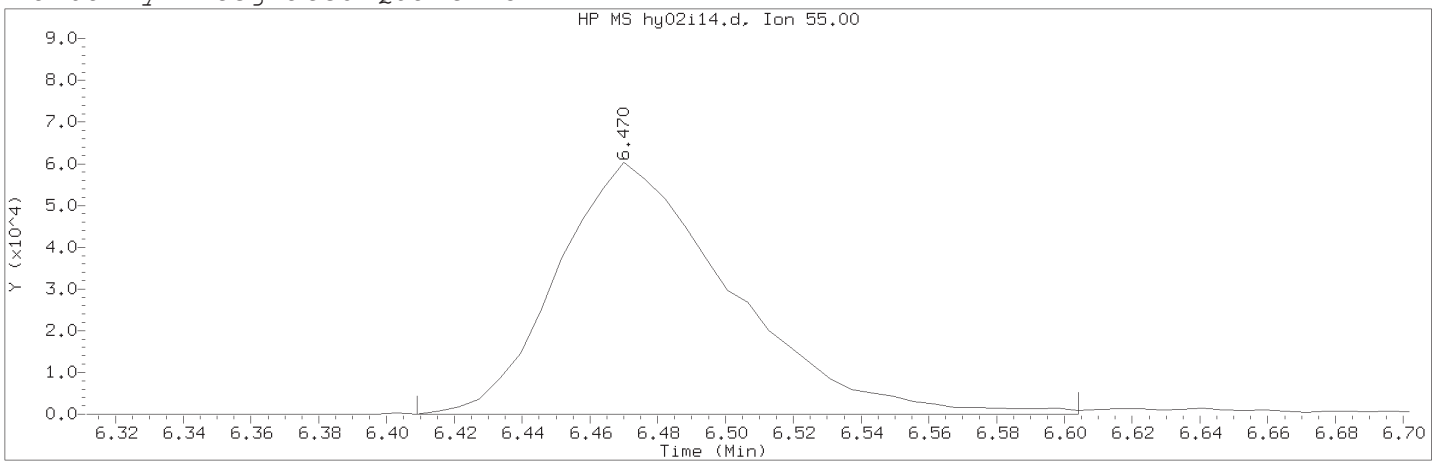
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 87182
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 576
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

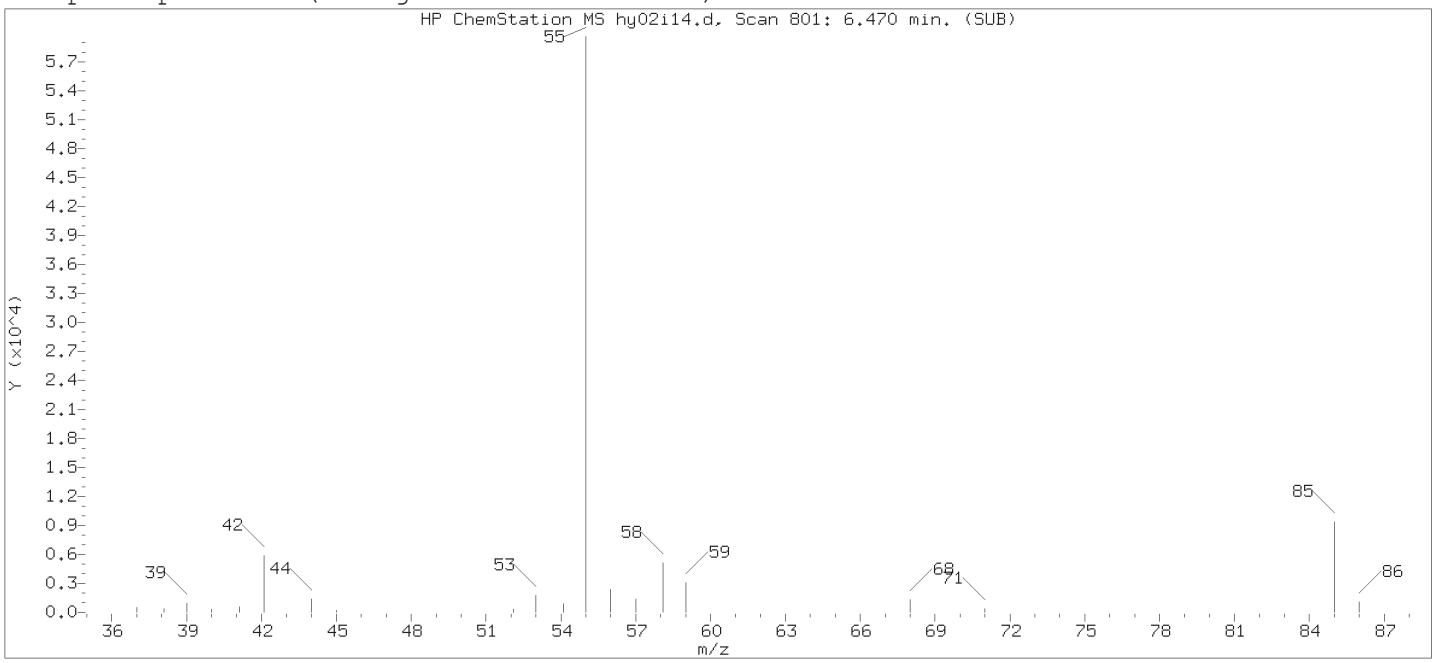
Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 801
Retention Time (minutes): 6.470
Quant Ion : 55.00
Area (flag) : 214639M
On-Column Amount (ng) : 9.8825
Integration start scan : 790 Integration stop scan: 822
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

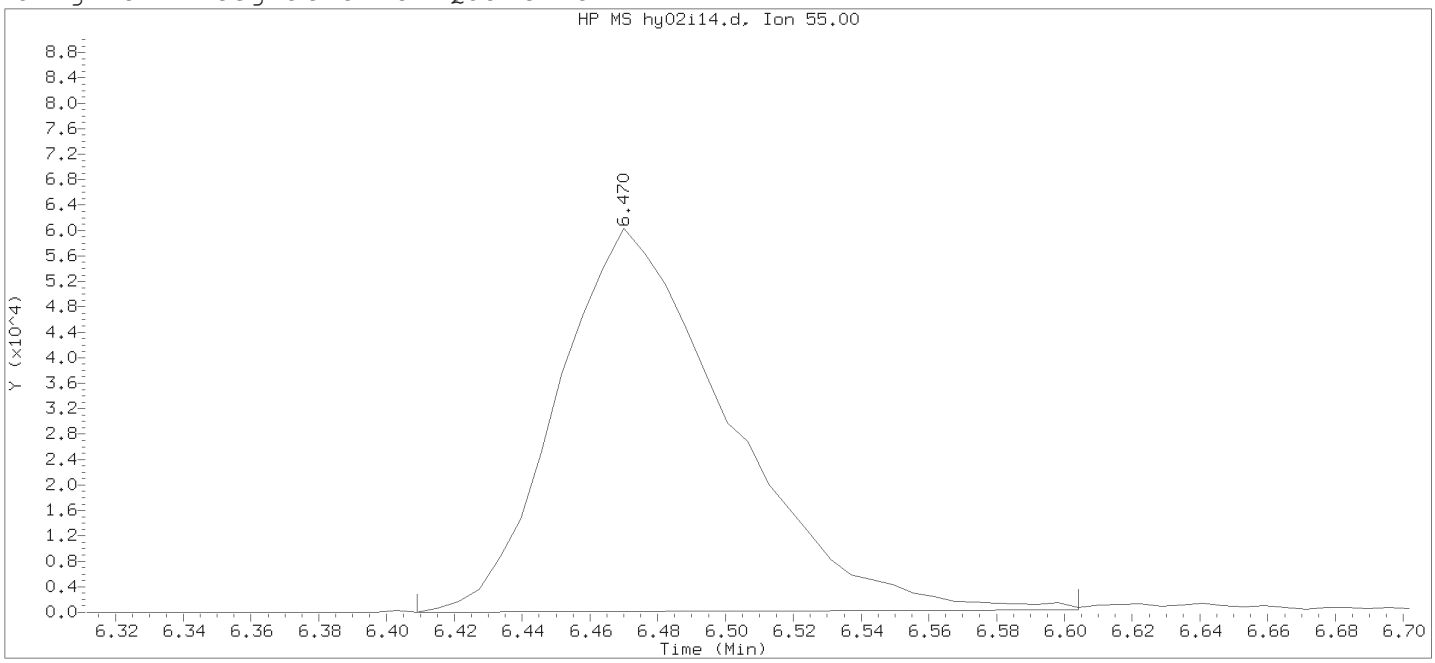
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

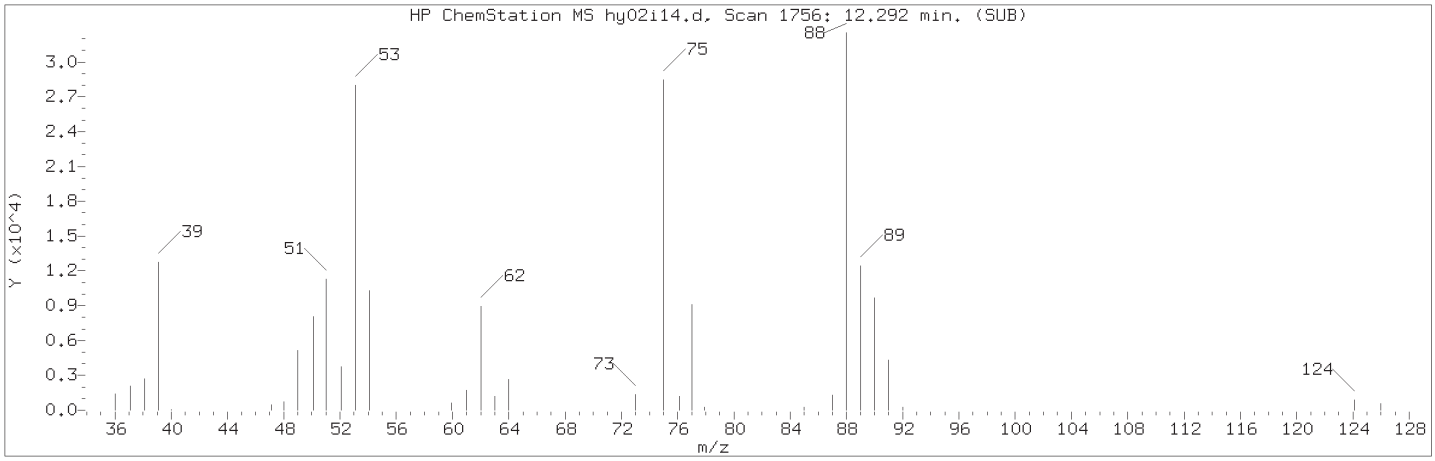
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

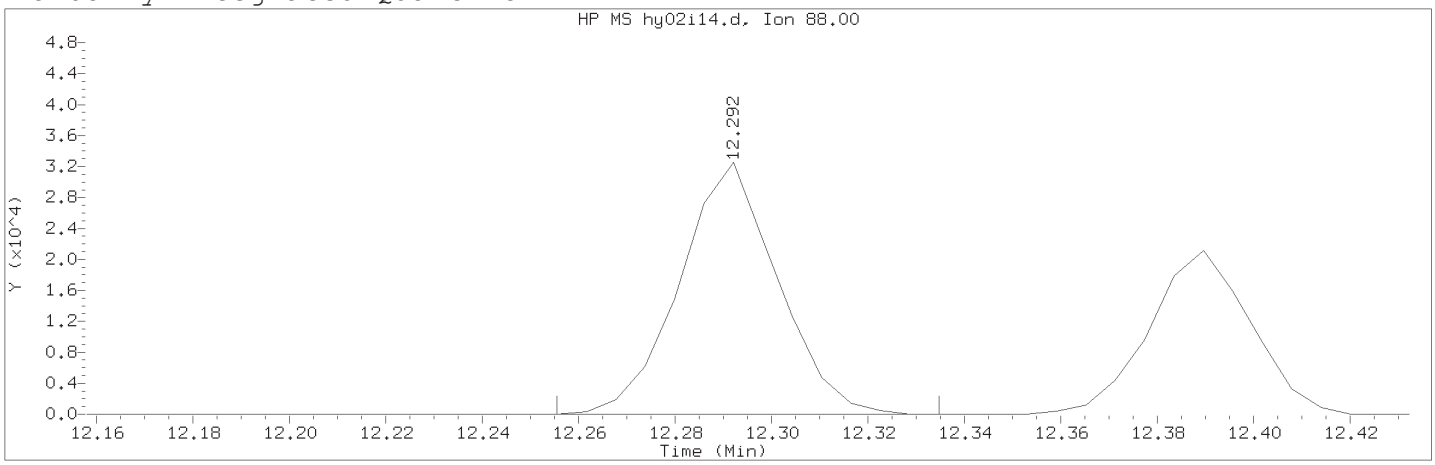
Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 801
Retention Time (minutes): 6.470
Quant Ion : 55.00
Area : 212156
On-column Amount (ng) : 9.7793
Integration start scan : 790 Integration stop scan: 822
Y at integration start : 0 Y at integration end: 400

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used to create this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

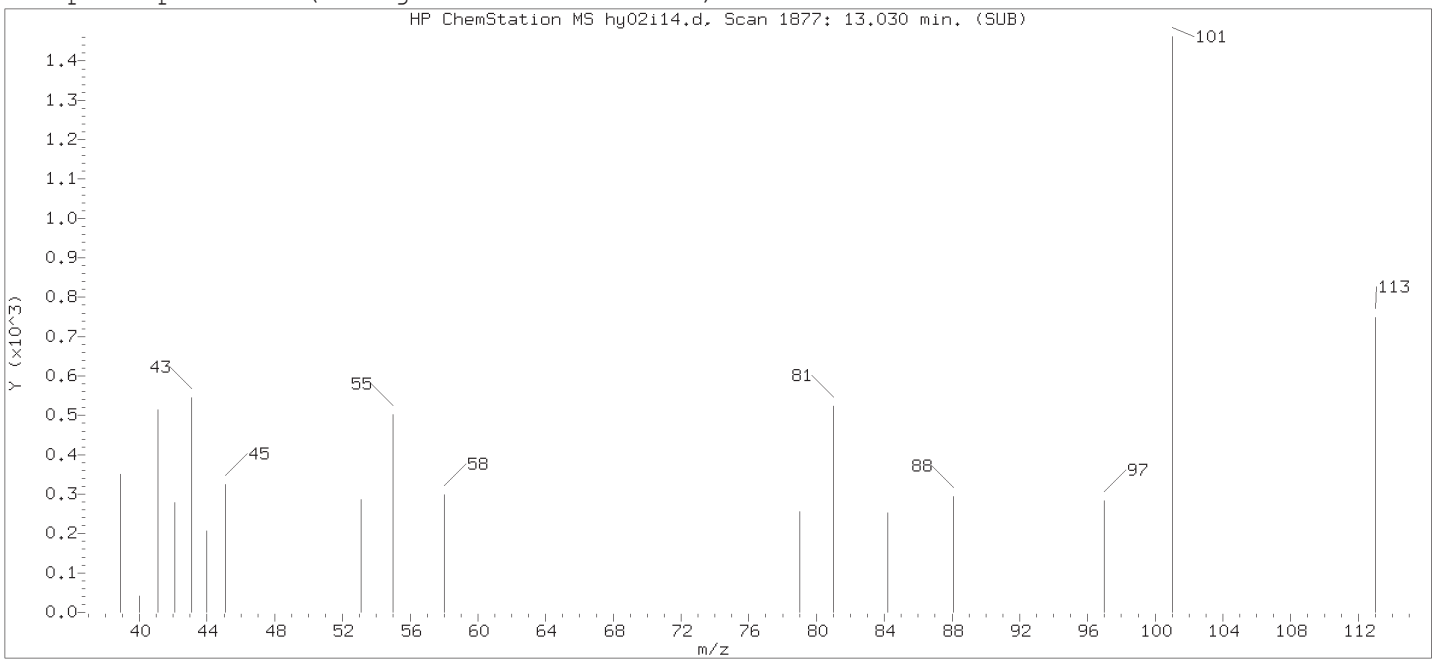
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 45666M
On-Column Amount (ng) : 3.8206
Integration start scan : 1749 Integration stop scan: 1762
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

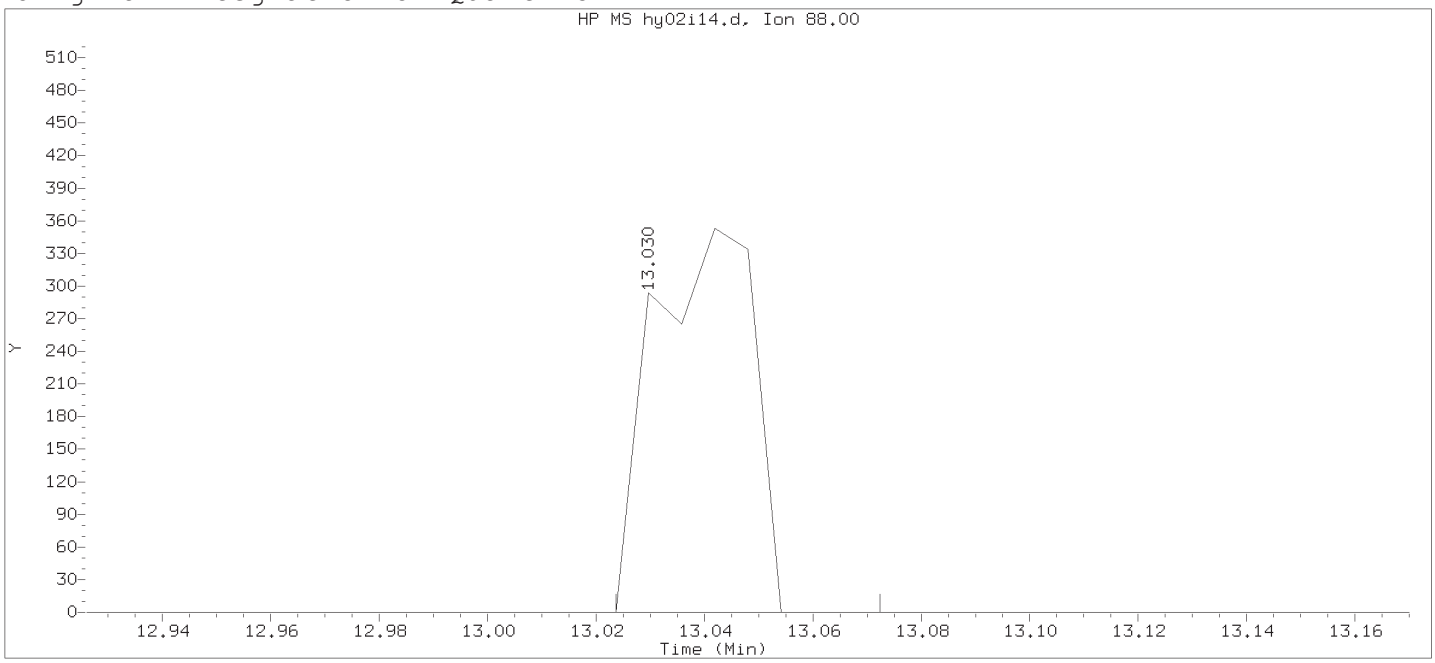
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

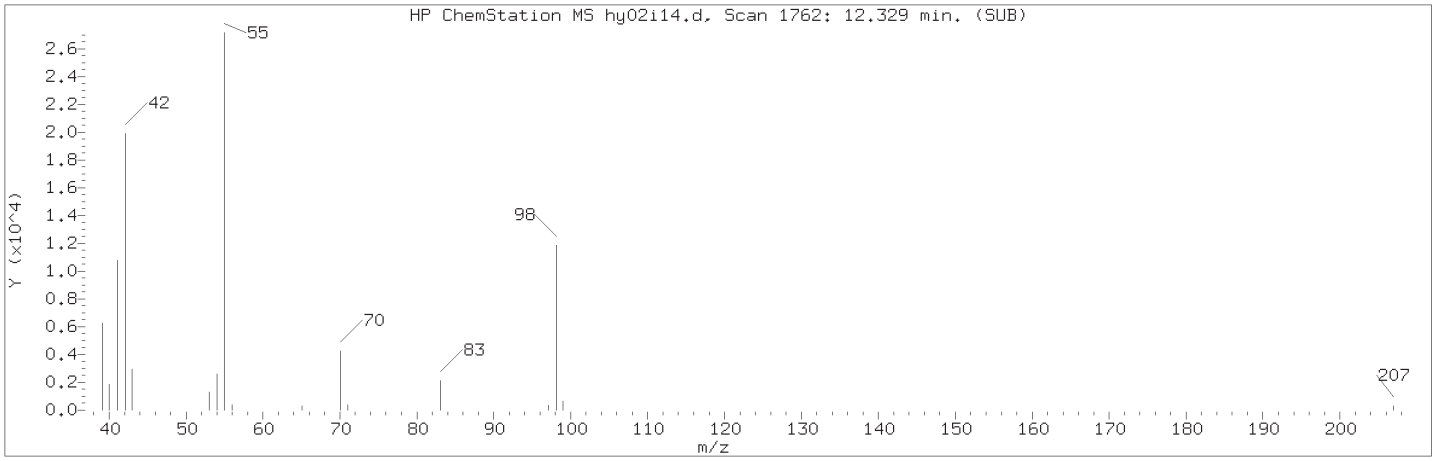
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

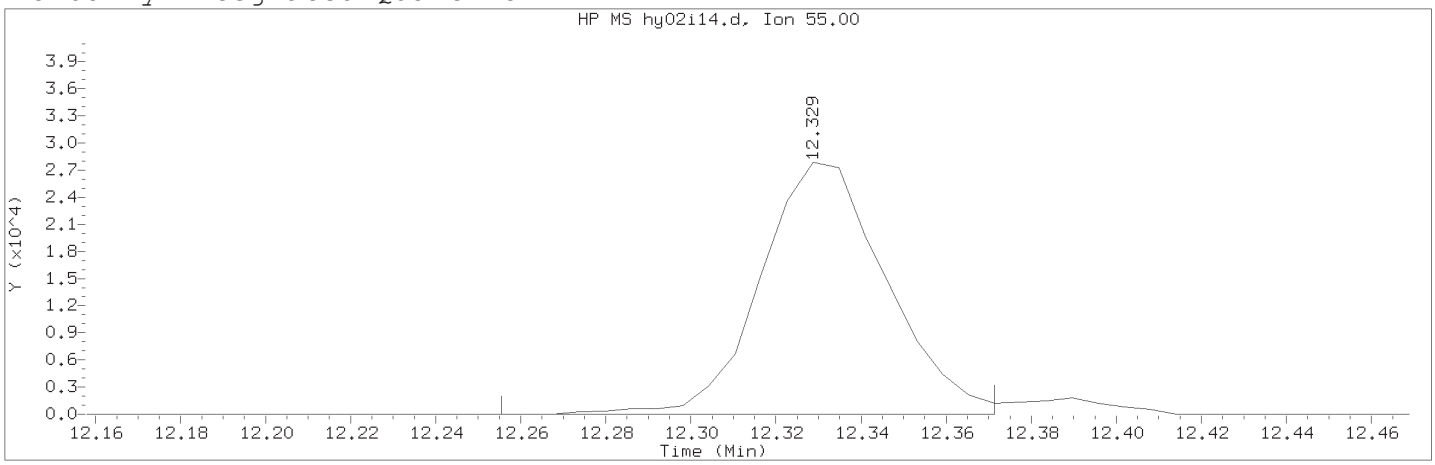
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1877
Retention Time (minutes): 13.030
Quant Ion : 88.00
Area : 455
On-column Amount (ng) : 0.0756
Integration start scan : 1875 Integration stop scan: 1883
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:20
Date, time and analyst ID of latest file update: 02-May-2018 22:20 dvv10203

Sample Name: VSTD002 Lab Sample ID: VSTD002

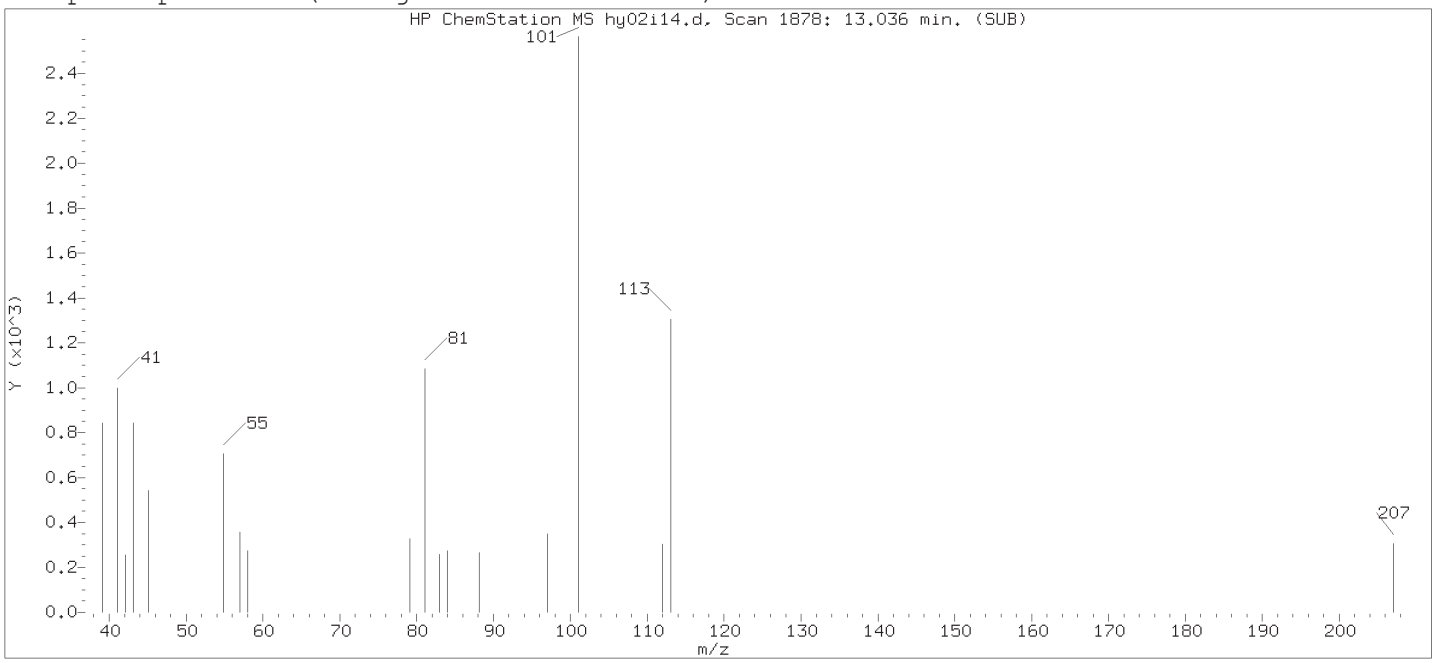
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 57098M
On-Column Amount (ng) : 93.9316
Integration start scan : 1749 Integration stop scan: 1768
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

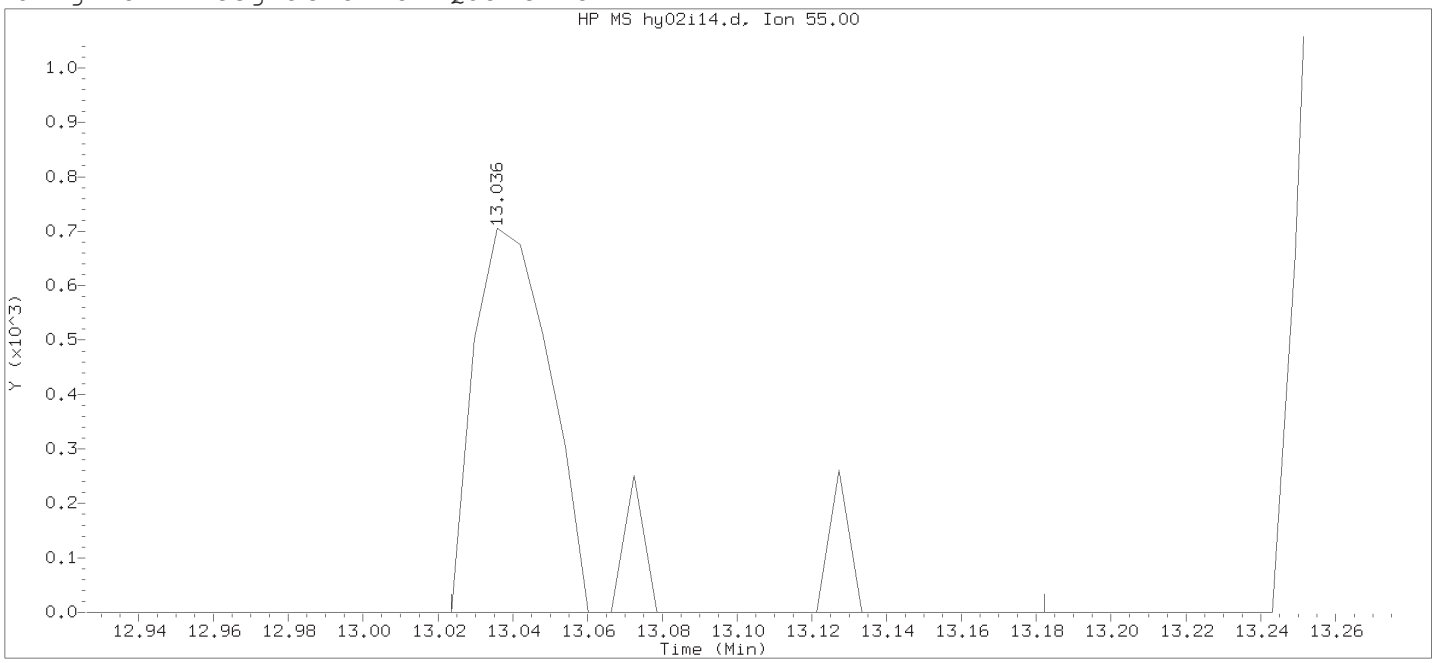
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



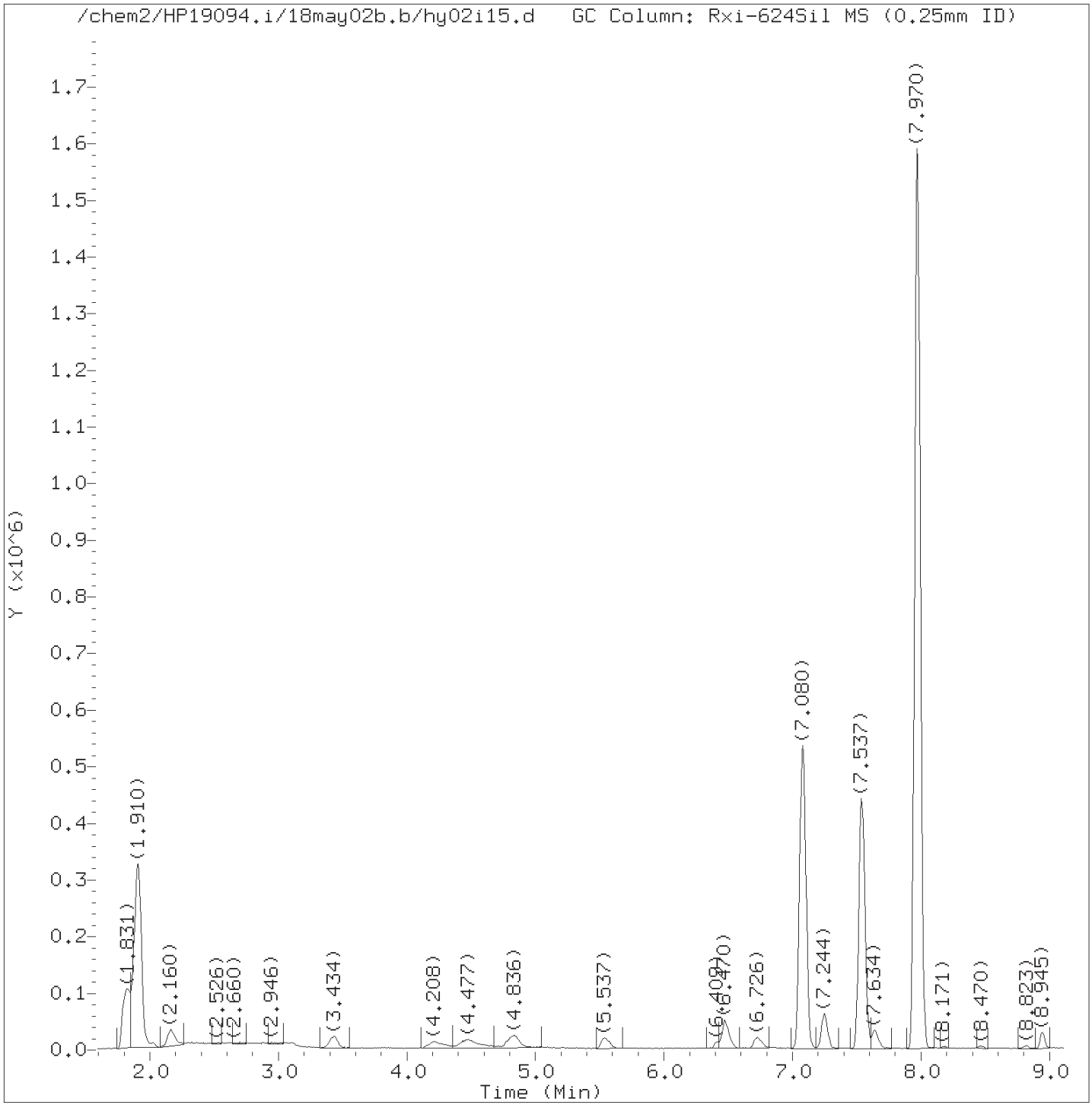
Data File: /chem2/HP19094.i/18may02b.b/hy02i14.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:19 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:37
Date, time and analyst ID of latest file update: 02-May-2018 20:37 Automation

Sample Name: VSTD002 Lab Sample ID: VSTD002

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1878
Retention Time (minutes): 13.036
Quant Ion : 55.00
Area : 1174
On-column Amount (ng) : 3.0474
Integration start scan : 1875 Integration stop scan: 1901
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:21.
Target 3.5 esignature user ID: DVV10203



Total Ion Chromatogram (TIC)

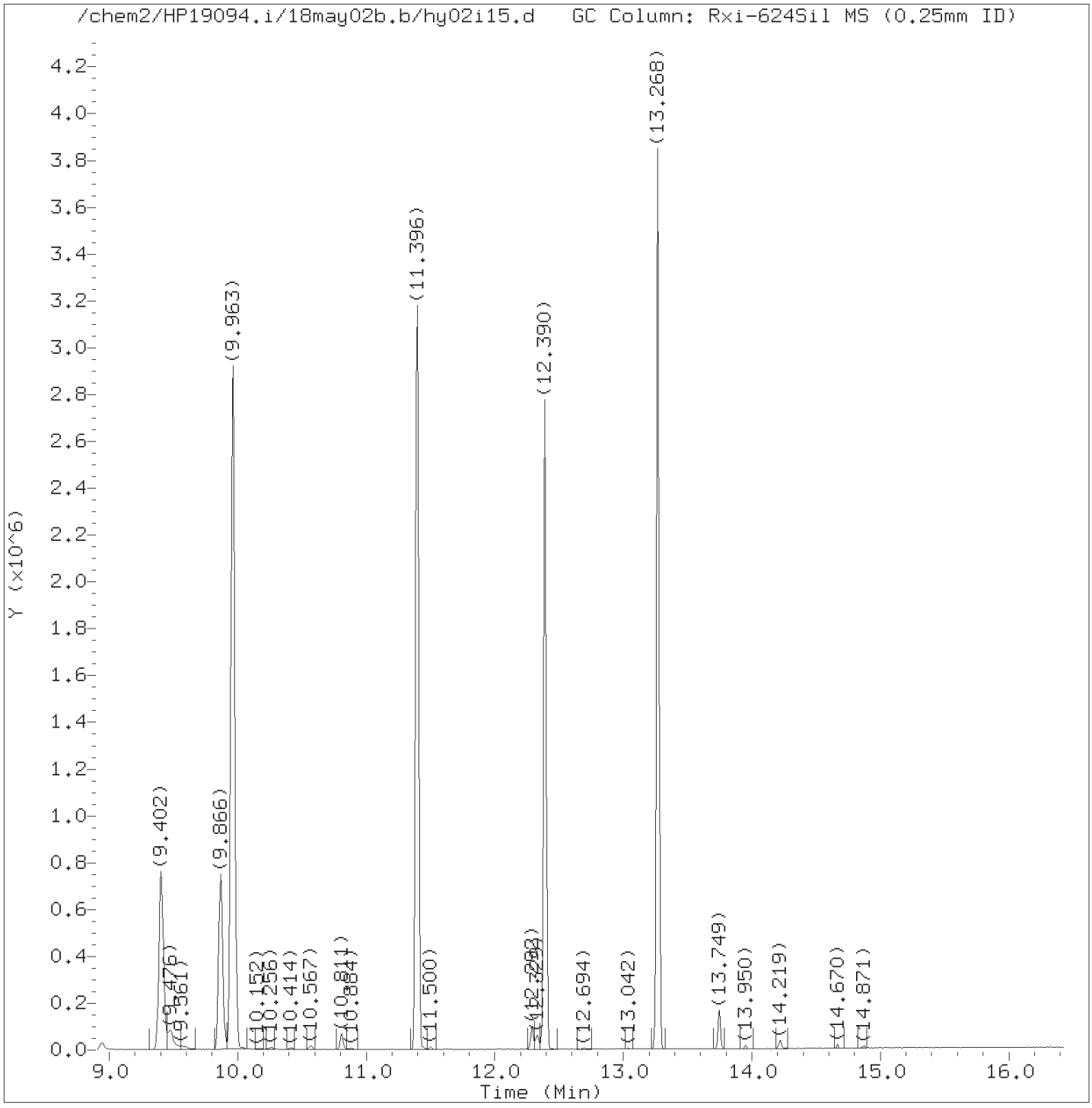
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

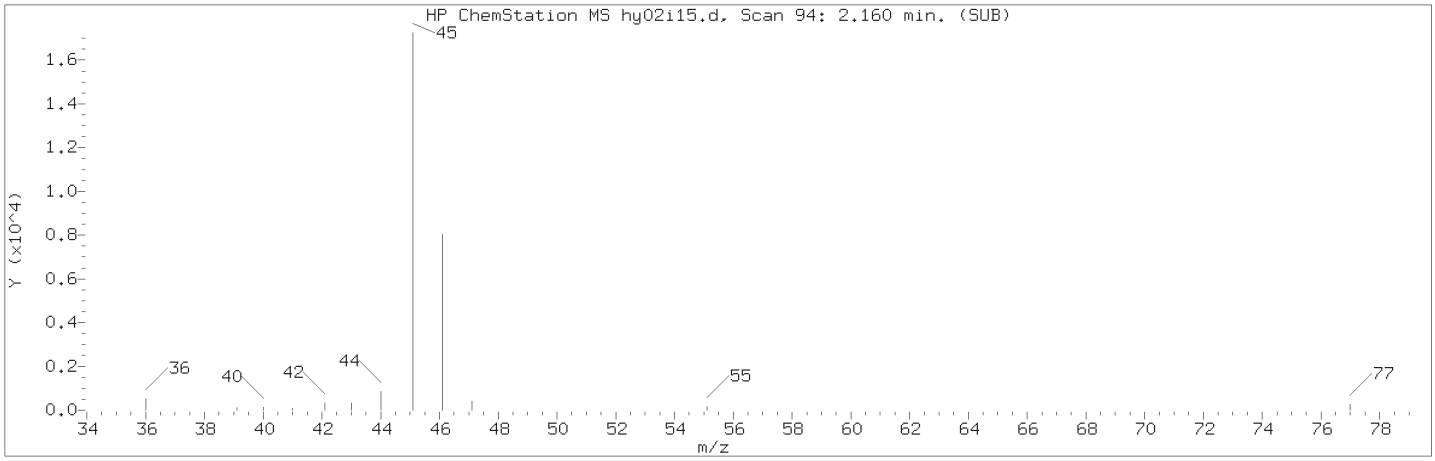
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	66497M	0.914
25) Acetonitrile	(1)	4.239	41	91043M	41.604
26)*t-Butyl Alcohol-d10	(1)	4.483	65	90627M	50.000
36) Vinyl Acetate	(2)	5.525	43	66540	0.960
43) Methyl Acrylate	(2)	6.476	55	109424	5.115
53) 1-Chlorobutane	(2)	7.244	56	80289	0.784
63)*Fluorobenzene	(2)	7.970	96	2267030	10.000
77) Chloroacetonitrile	(2)	9.463	75	44327	51.992
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	19766	0.964
97)*Chlorobenzene-d5	(3)	11.396	117	1663736	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	20531M	1.749
112) Cyclohexanone	(1)	12.329	55	29836M	49.985
133)*1,4-Dichlorobenzene-d4	(4)	13.268	152	872428	10.000
142) Hexachloroethane	(4)	13.749	117	28244	0.769

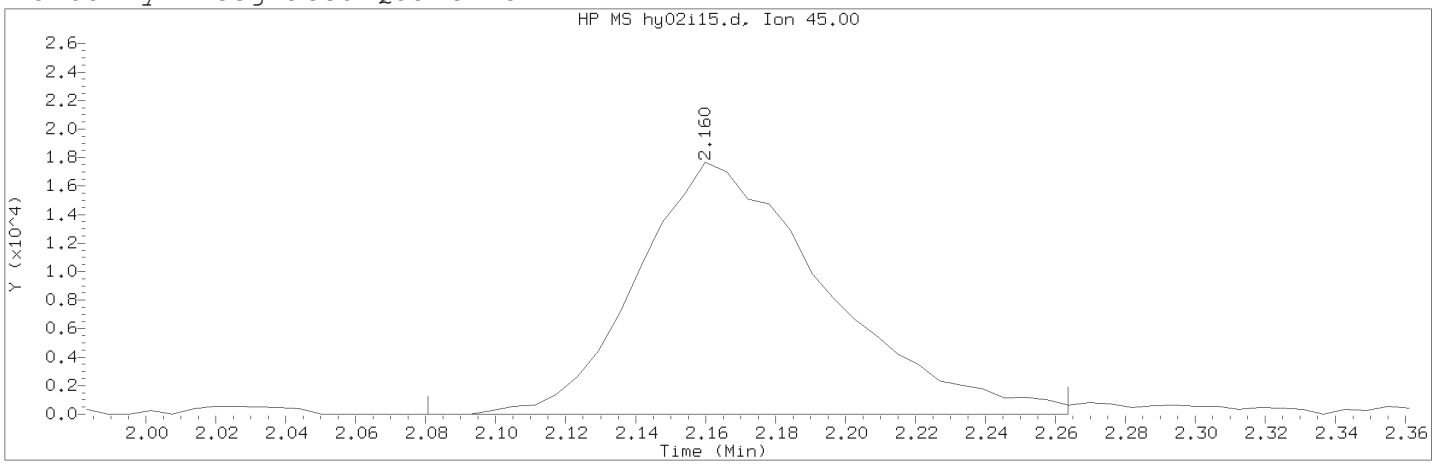
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

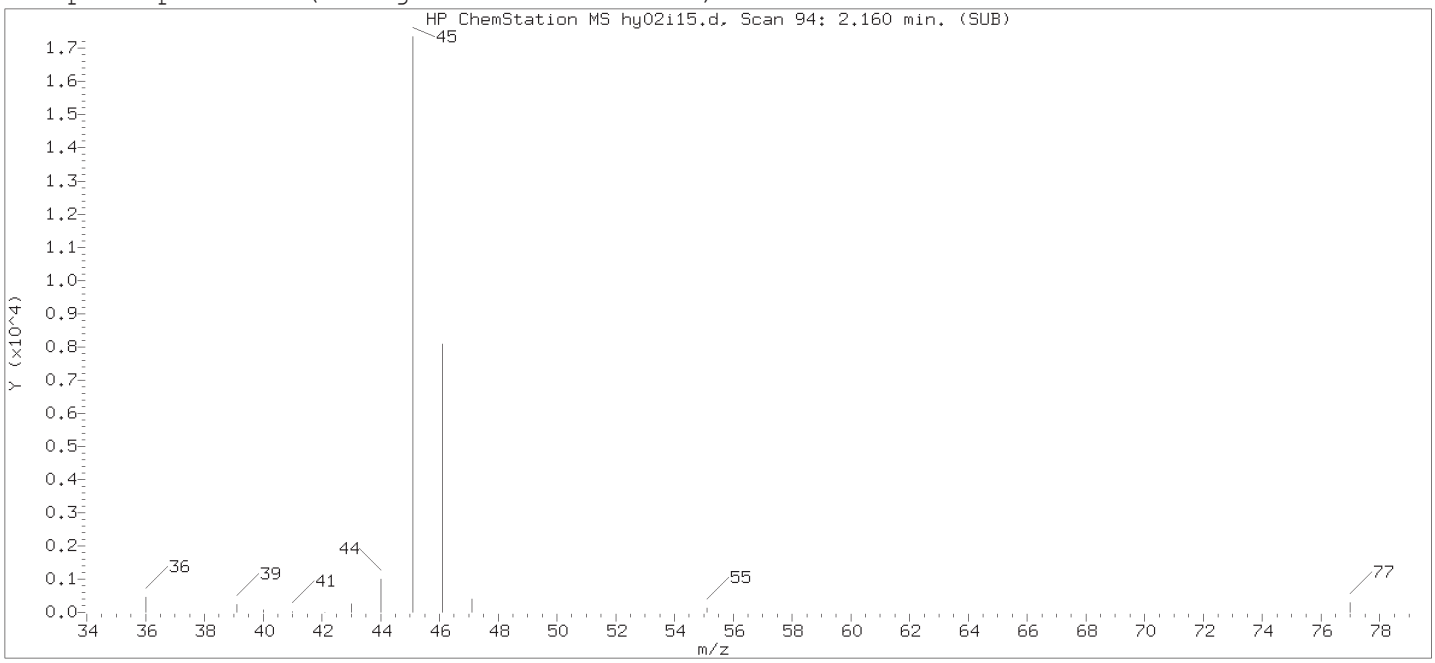
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 66497M
On-Column Amount (ng) : 0.9137
Integration start scan : 80 Integration stop scan: 110
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

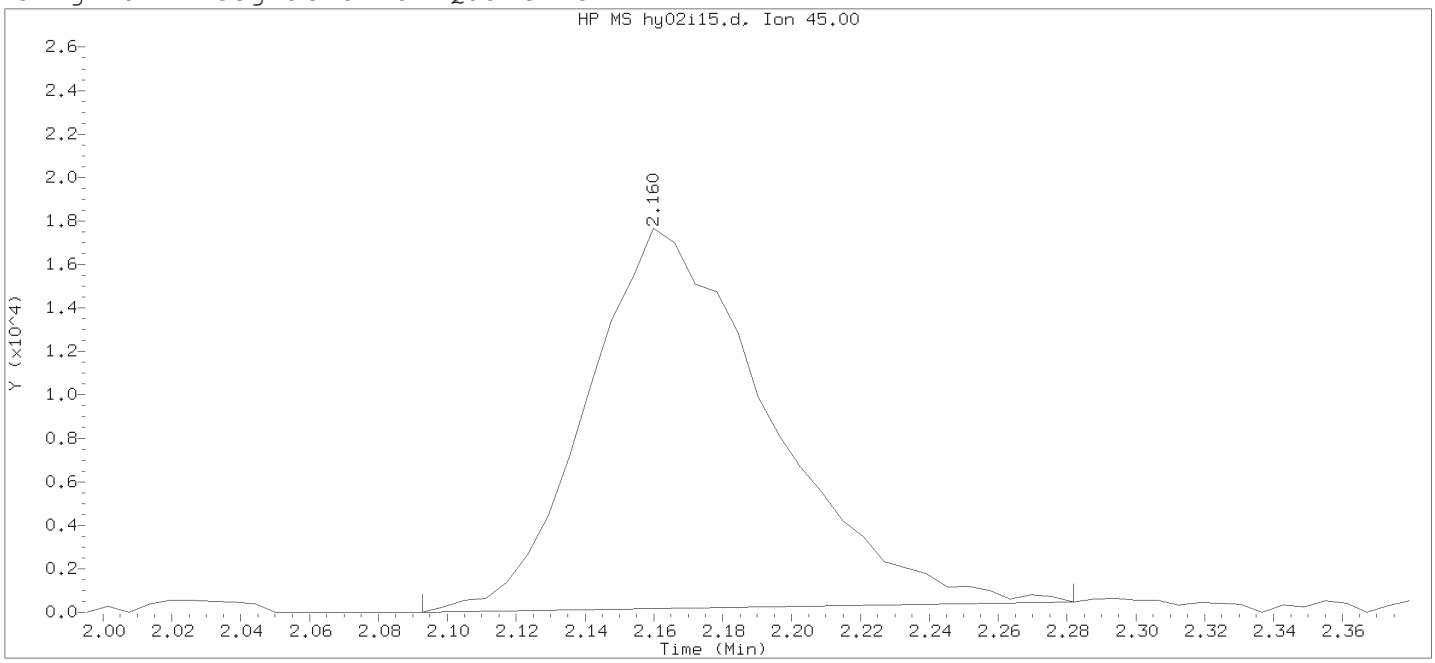
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

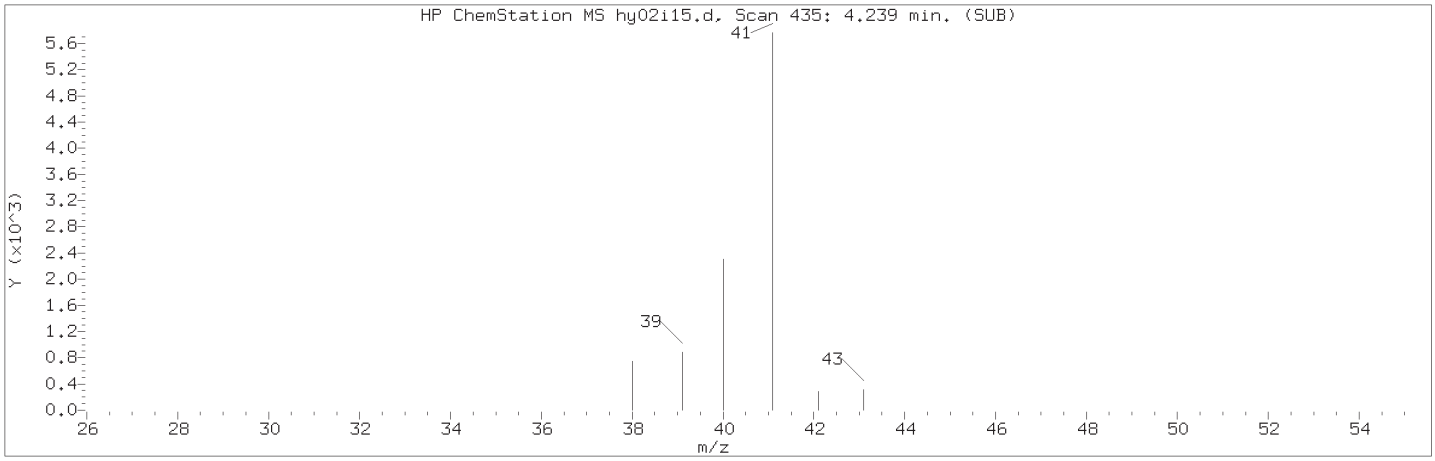
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:58
Date, time and analyst ID of latest file update: 02-May-2018 20:58 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

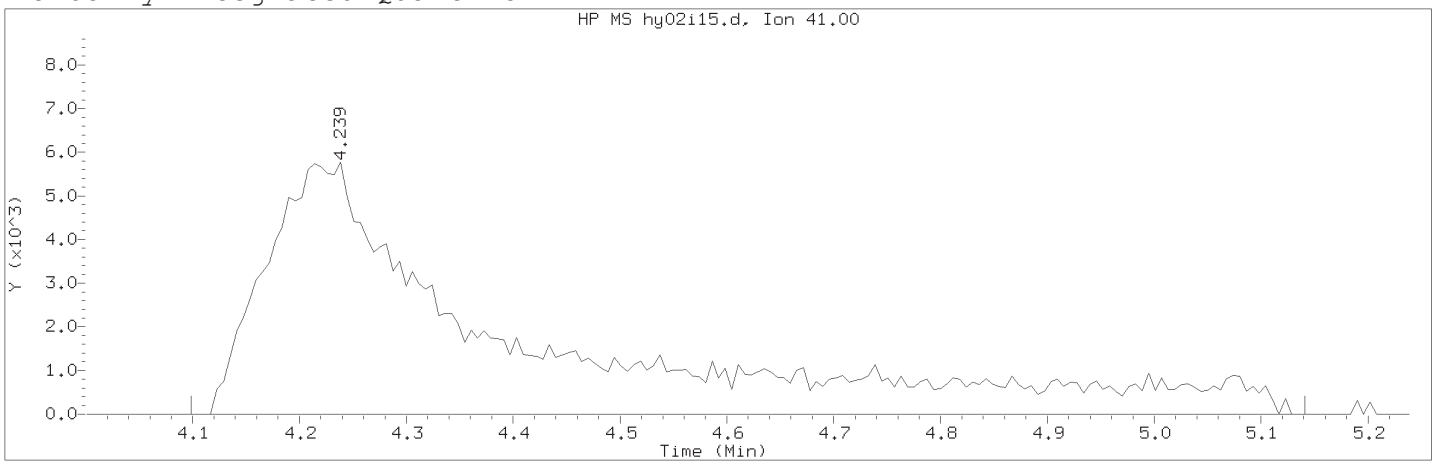
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 94		
Retention Time (minutes)	: 2.160		
Quant Ion	: 45.00		
Area	: 64528		
On-column Amount (ng)	: 0.8809		
Integration start scan	: 82	Integration stop scan:	113
Y at integration start	: 0	Y at integration end:	461

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used in Target 1.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

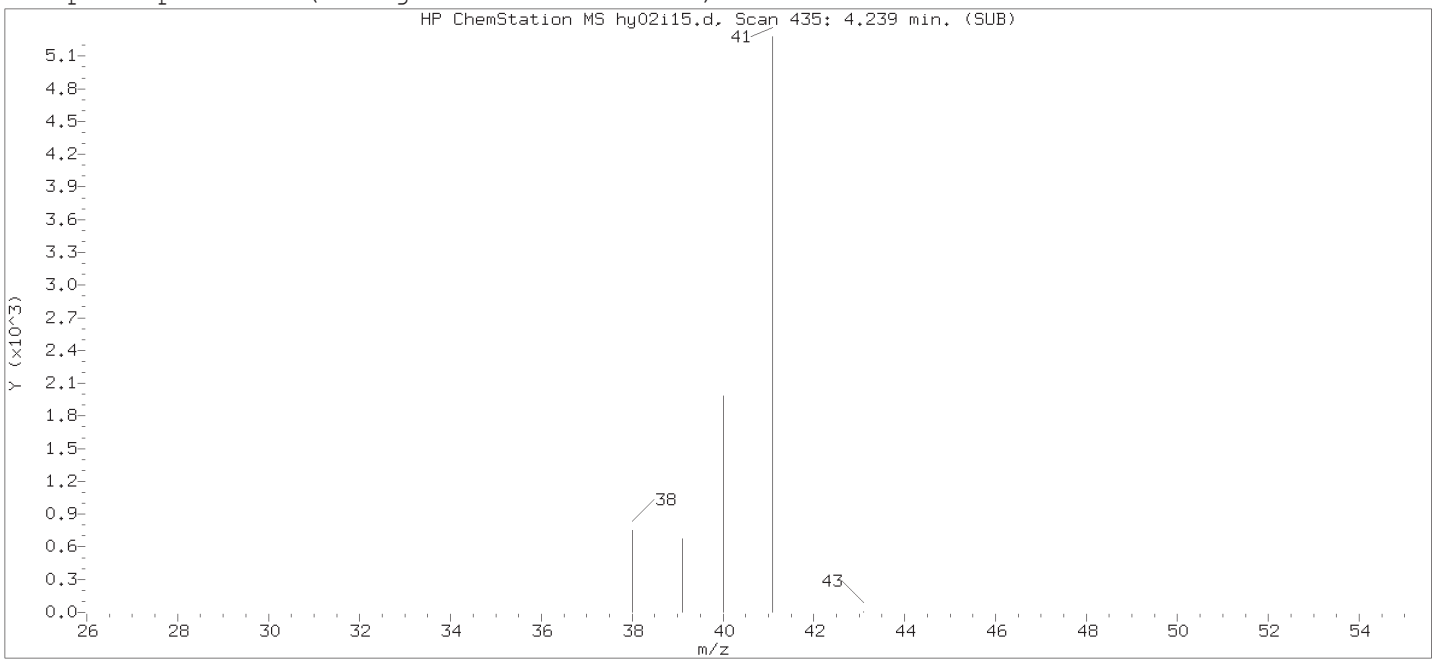
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 435
Retention Time (minutes): 4.239
Quant Ion : 41.00
Area (flag) : 91043M
On-Column Amount (ng) : 41.6038
Integration start scan : 411 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

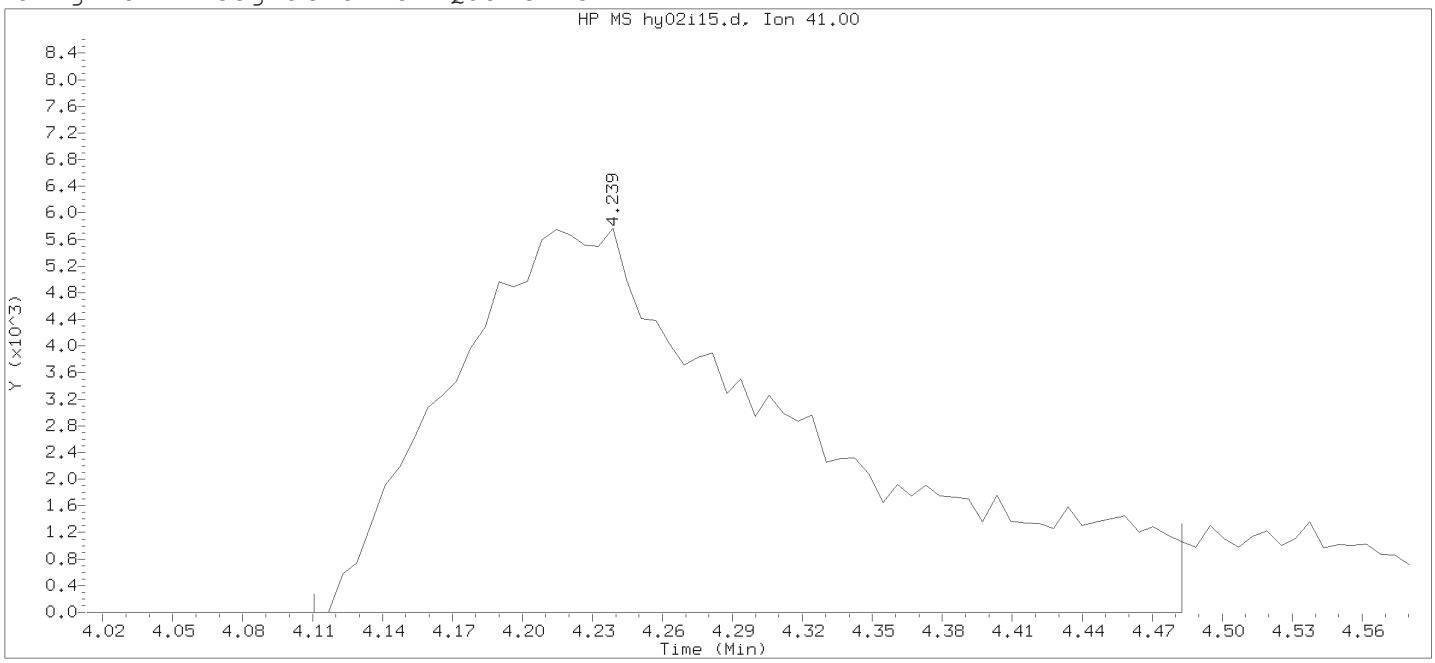
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

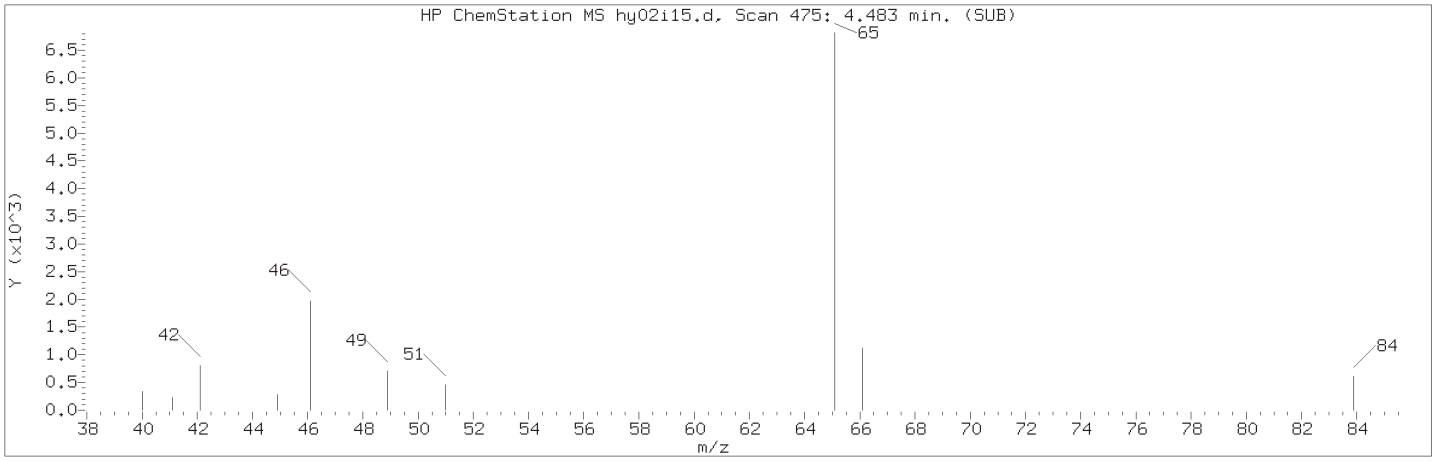
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:58
Date, time and analyst ID of latest file update: 02-May-2018 20:58 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

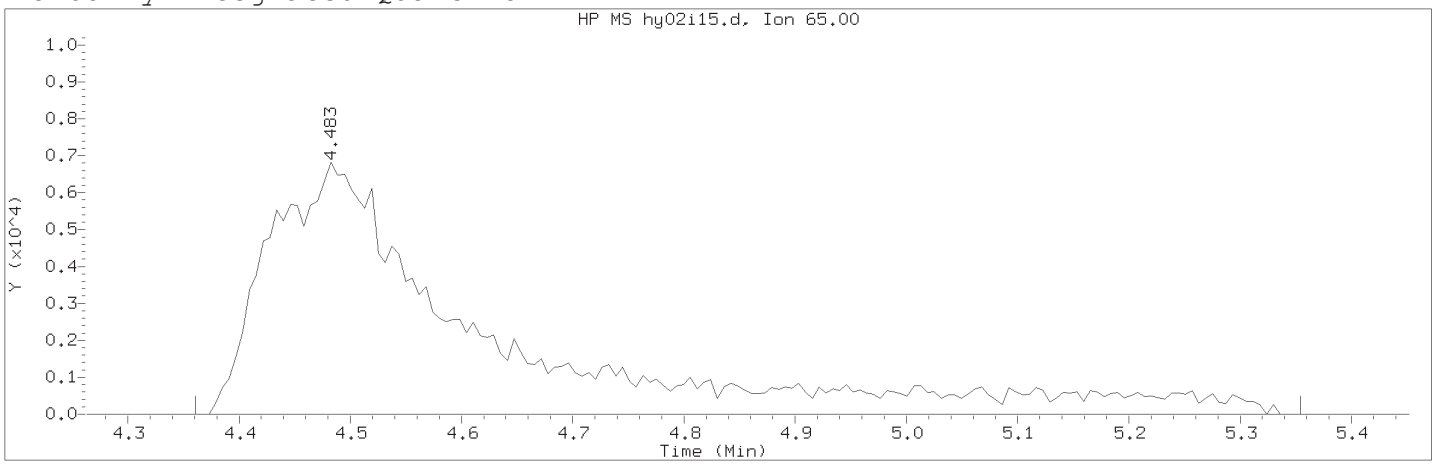
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 435
Retention Time (minutes): 4.239
Quant Ion : 41.00
Area : 61510
On-column Amount (ng) : 30.2073
Integration start scan : 413 Integration stop scan: 474
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

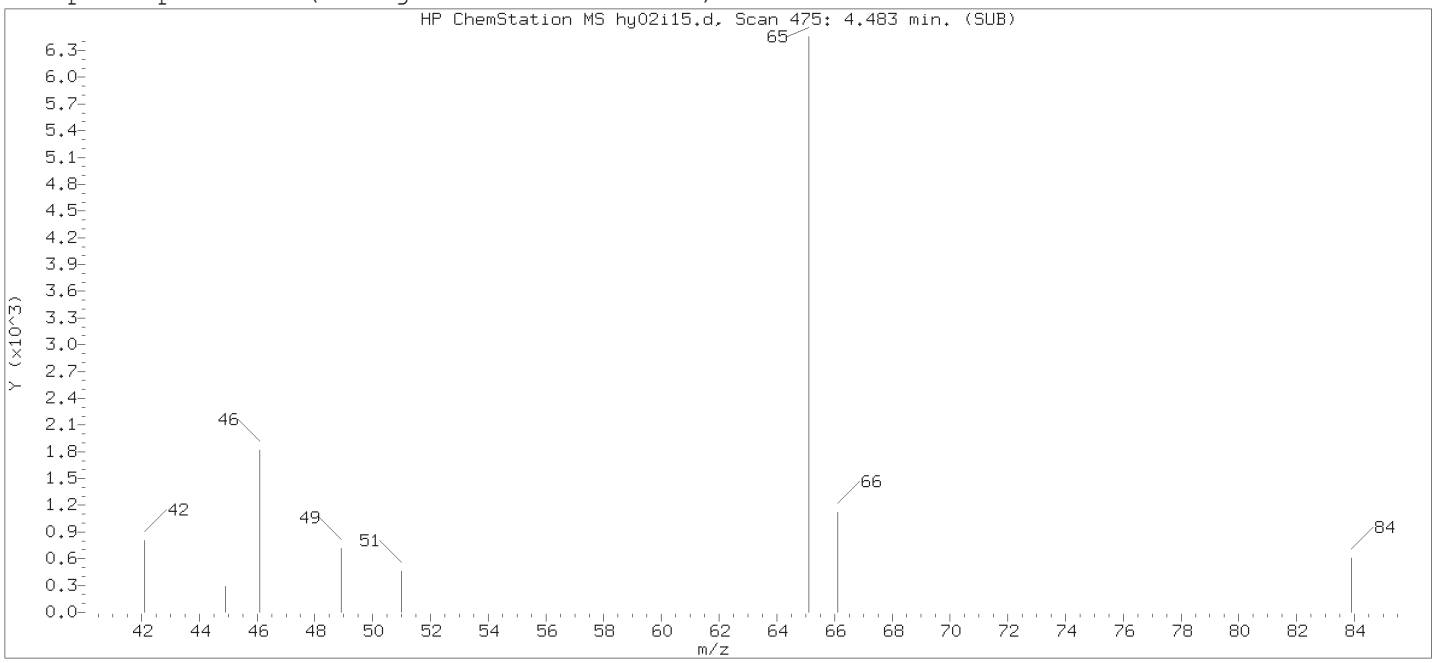
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area (flag) : 90627M
On-Column Amount (ng) : 50.0000
Integration start scan : 454 Integration stop scan: 617
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

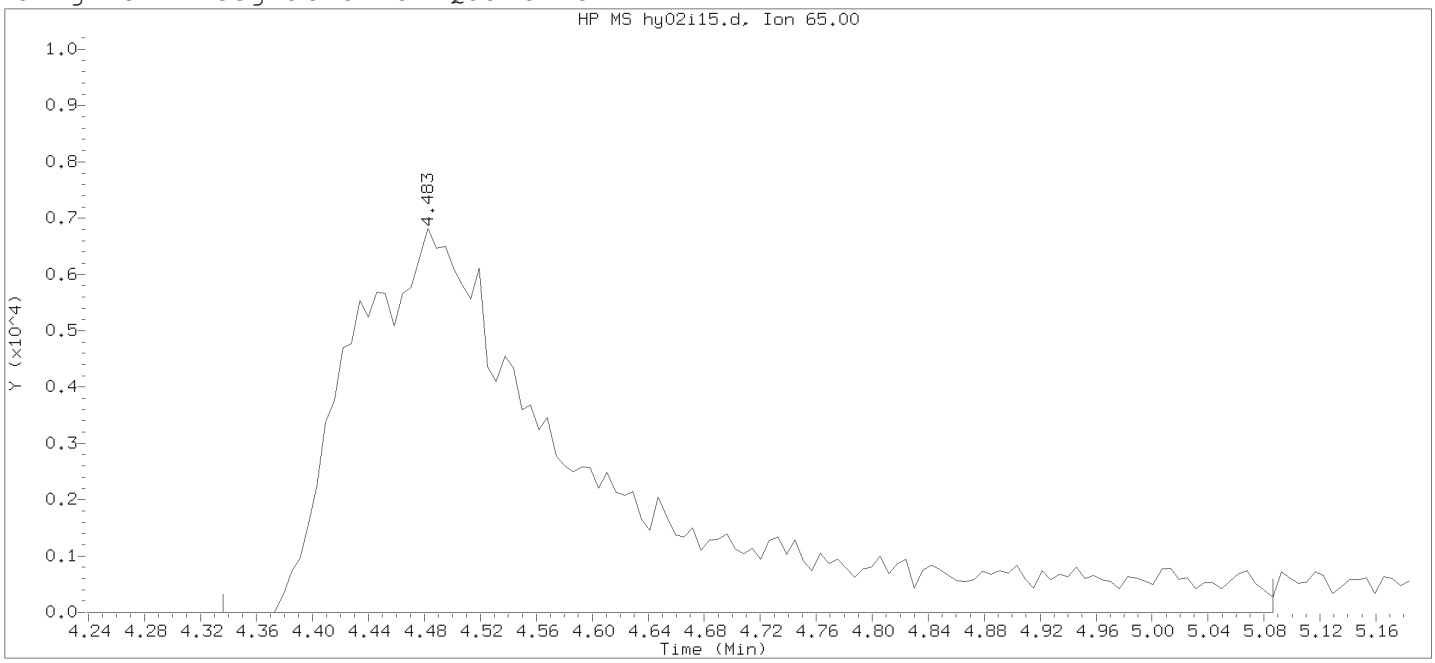
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

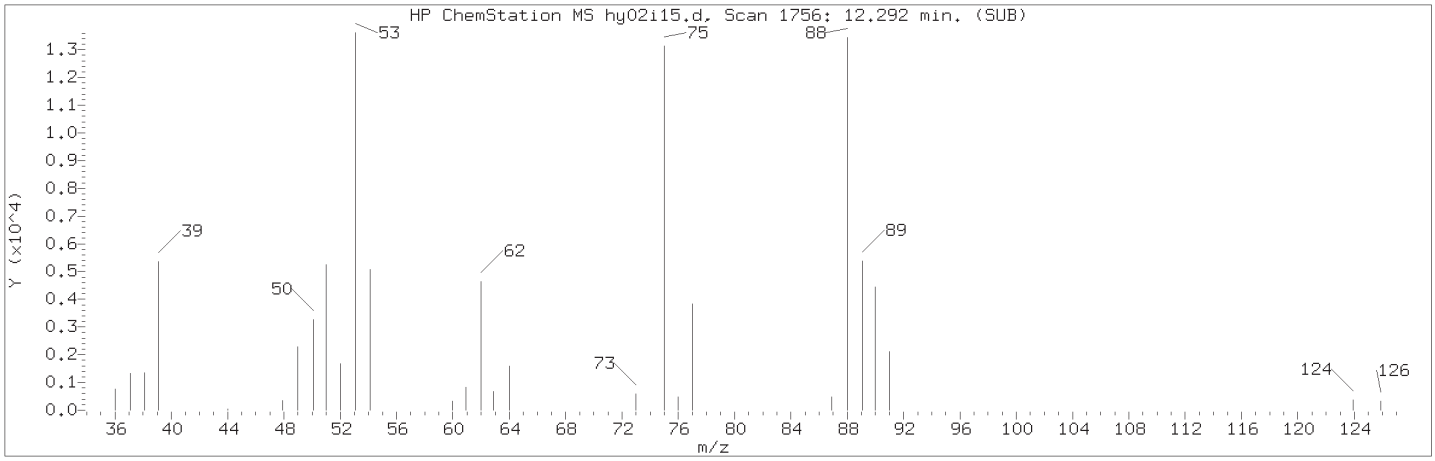
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:58
Date, time and analyst ID of latest file update: 02-May-2018 20:58 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

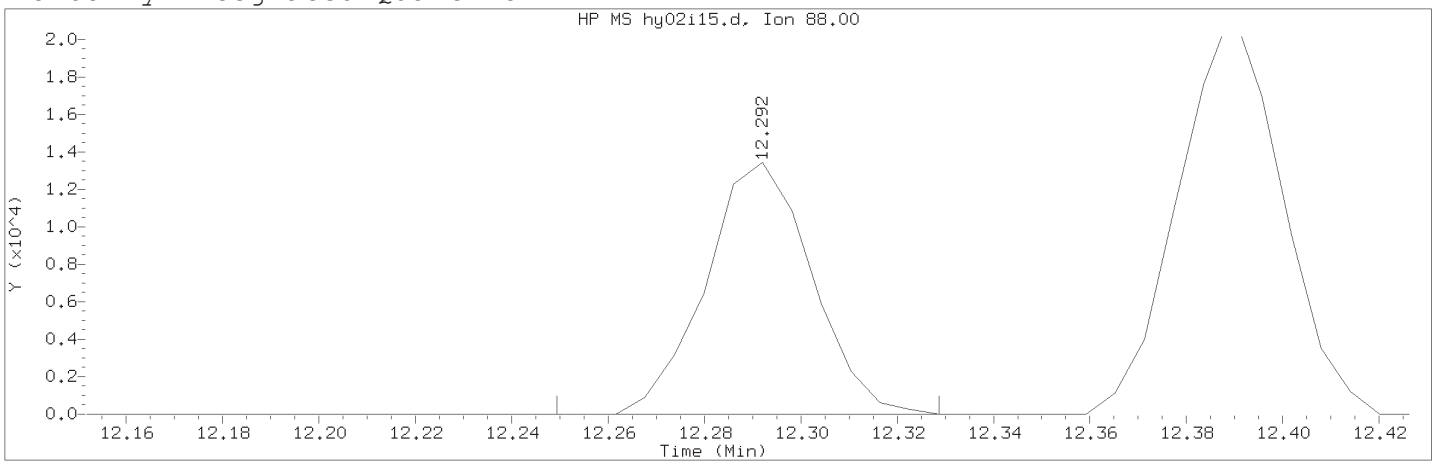
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area : 83546
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 573
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used to create this report

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

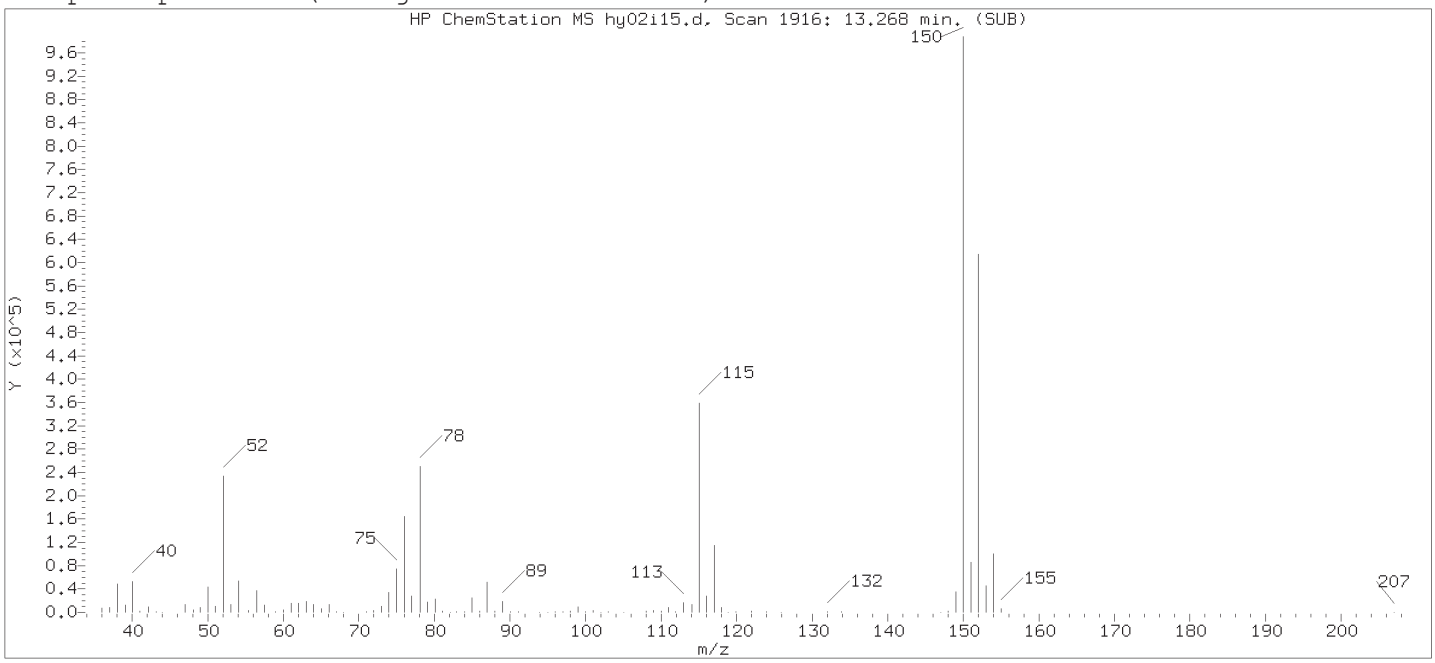
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 20531M
On-Column Amount (ng) : 1.7493
Integration start scan : 1748 Integration stop scan: 1761
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

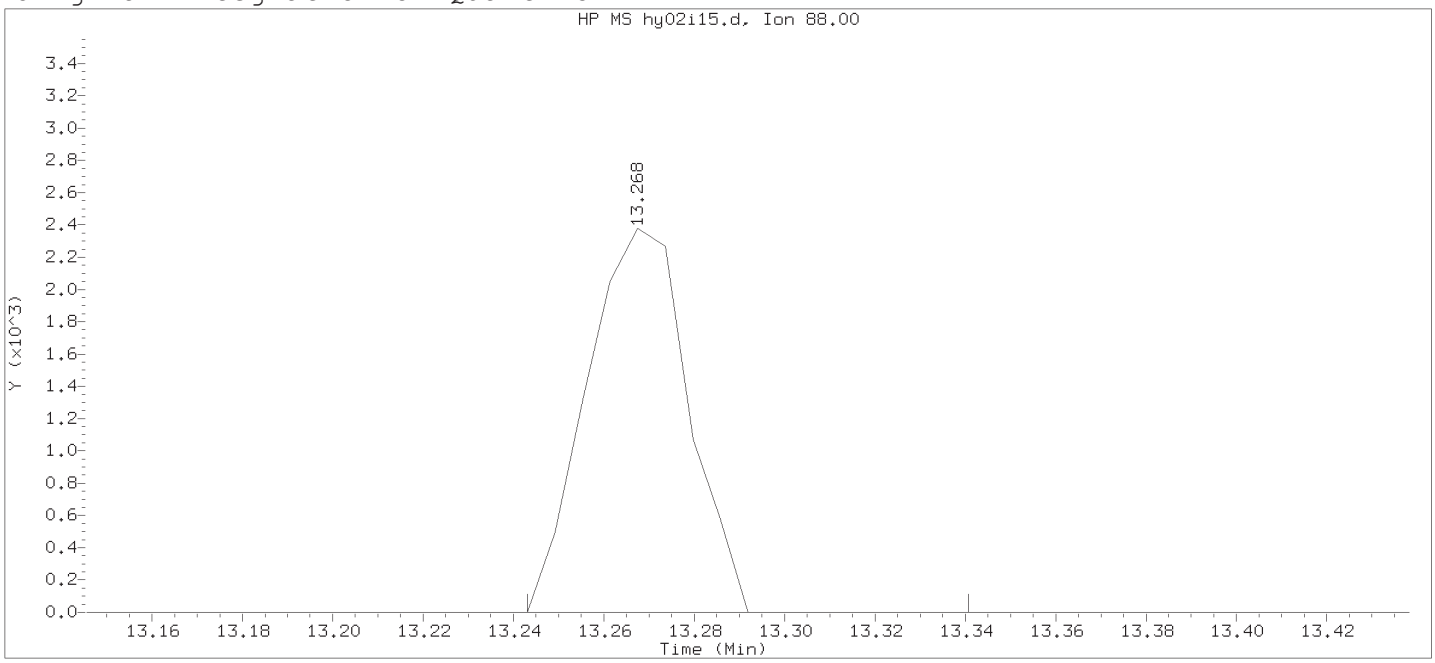
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

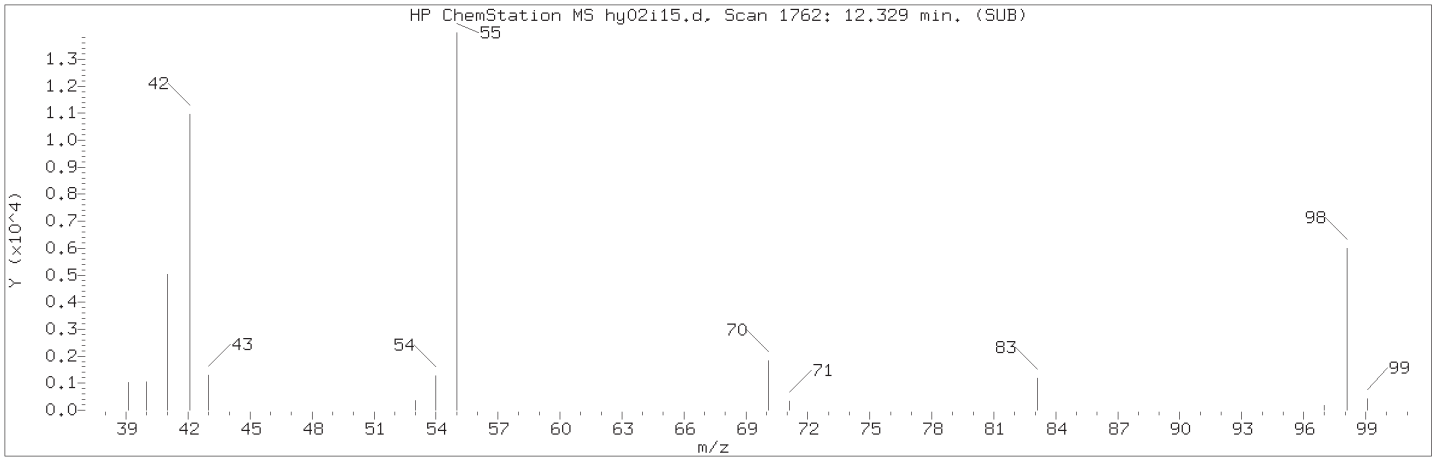
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:58
Date, time and analyst ID of latest file update: 02-May-2018 20:58 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

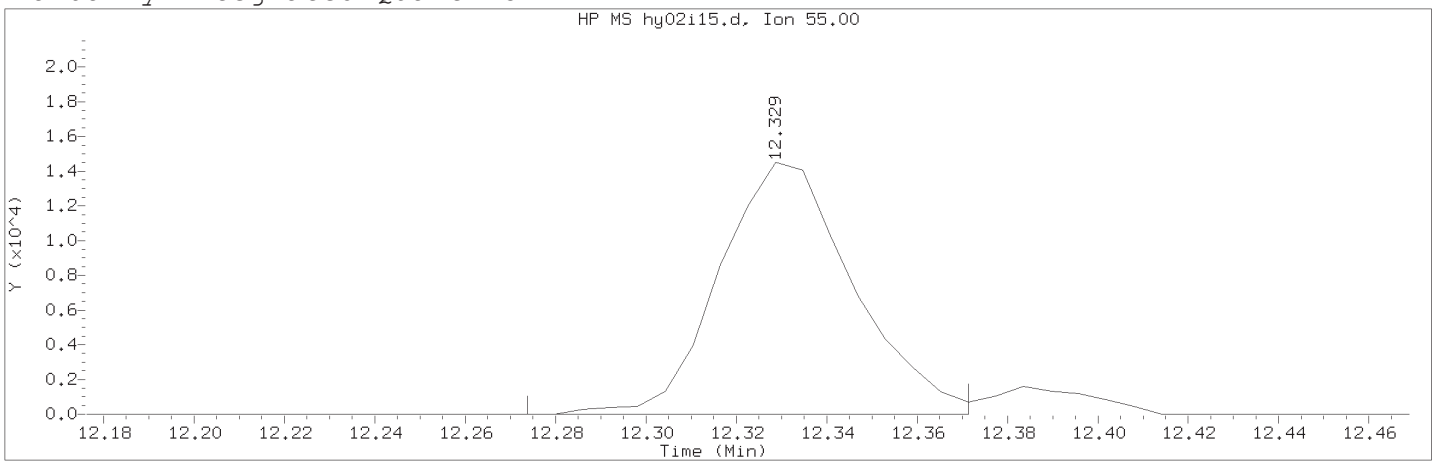
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1916
Retention Time (minutes): 13.268
Quant Ion : 88.00
Area : 3717
On-column Amount (ng) : 0.8719
Integration start scan : 1911 Integration stop scan: 1927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used: 0.0 Reason: I approve

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD001 Lab Sample ID: VSTD001

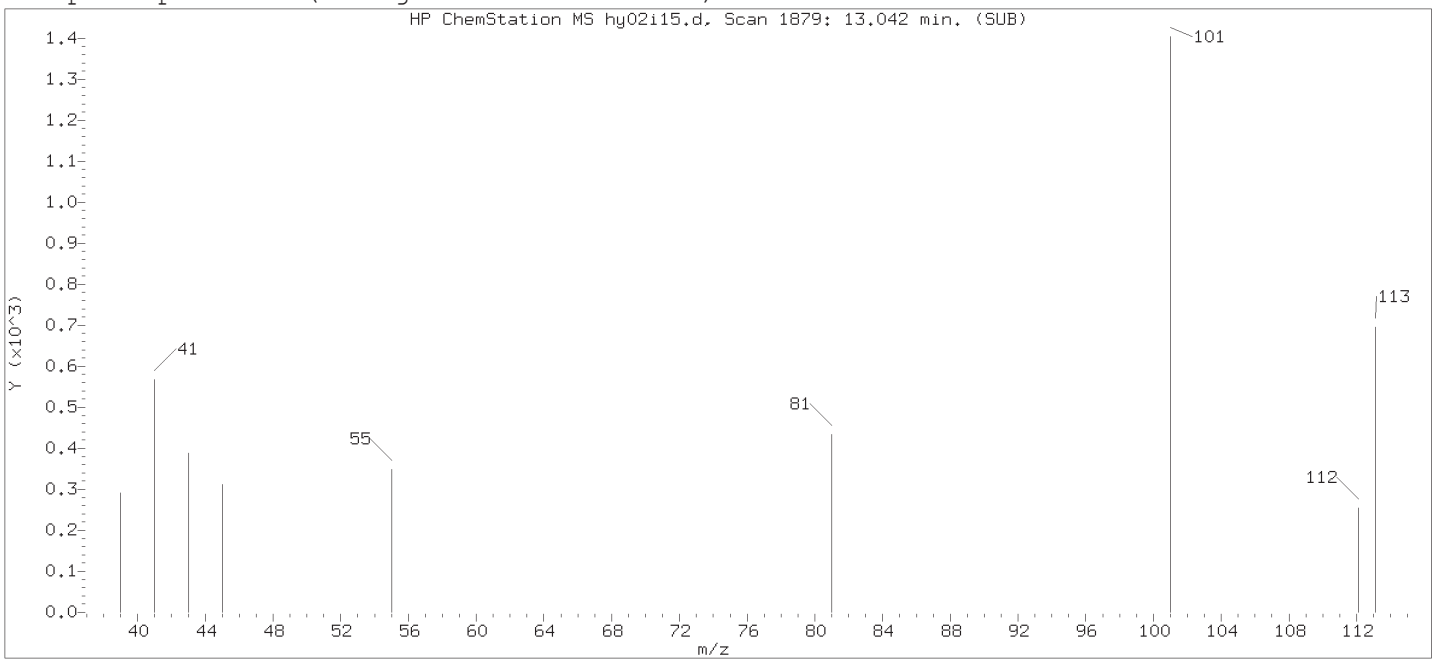
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 29836M
On-Column Amount (ng) : 49.9853
Integration start scan : 1752 Integration stop scan: 1768
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

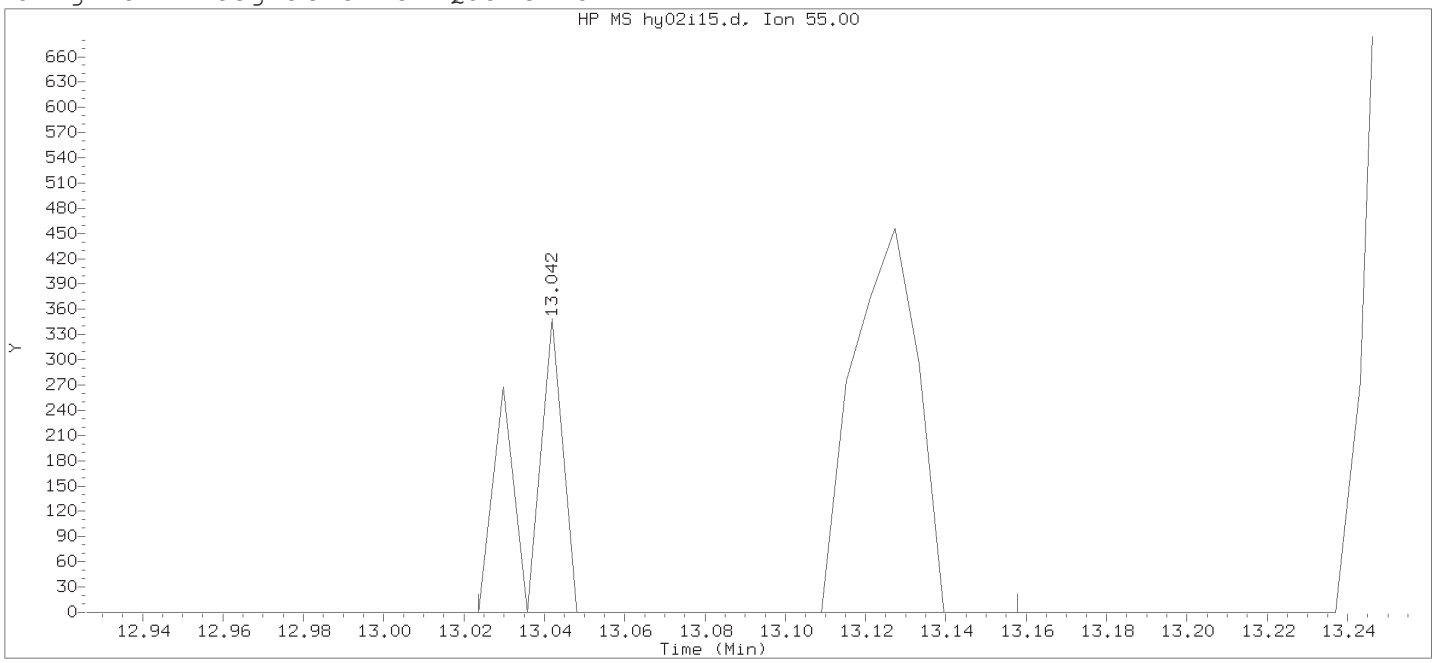
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i15.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 20:40 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 20:58
Date, time and analyst ID of latest file update: 02-May-2018 20:58 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1879
Retention Time (minutes): 13.042
Quant Ion : 55.00
Area : 737
On-column Amount (ng) : 3.0063
Integration start scan : 1875 Integration stop scan: 1897
Y at integration start : 0 Y at integration end: 0

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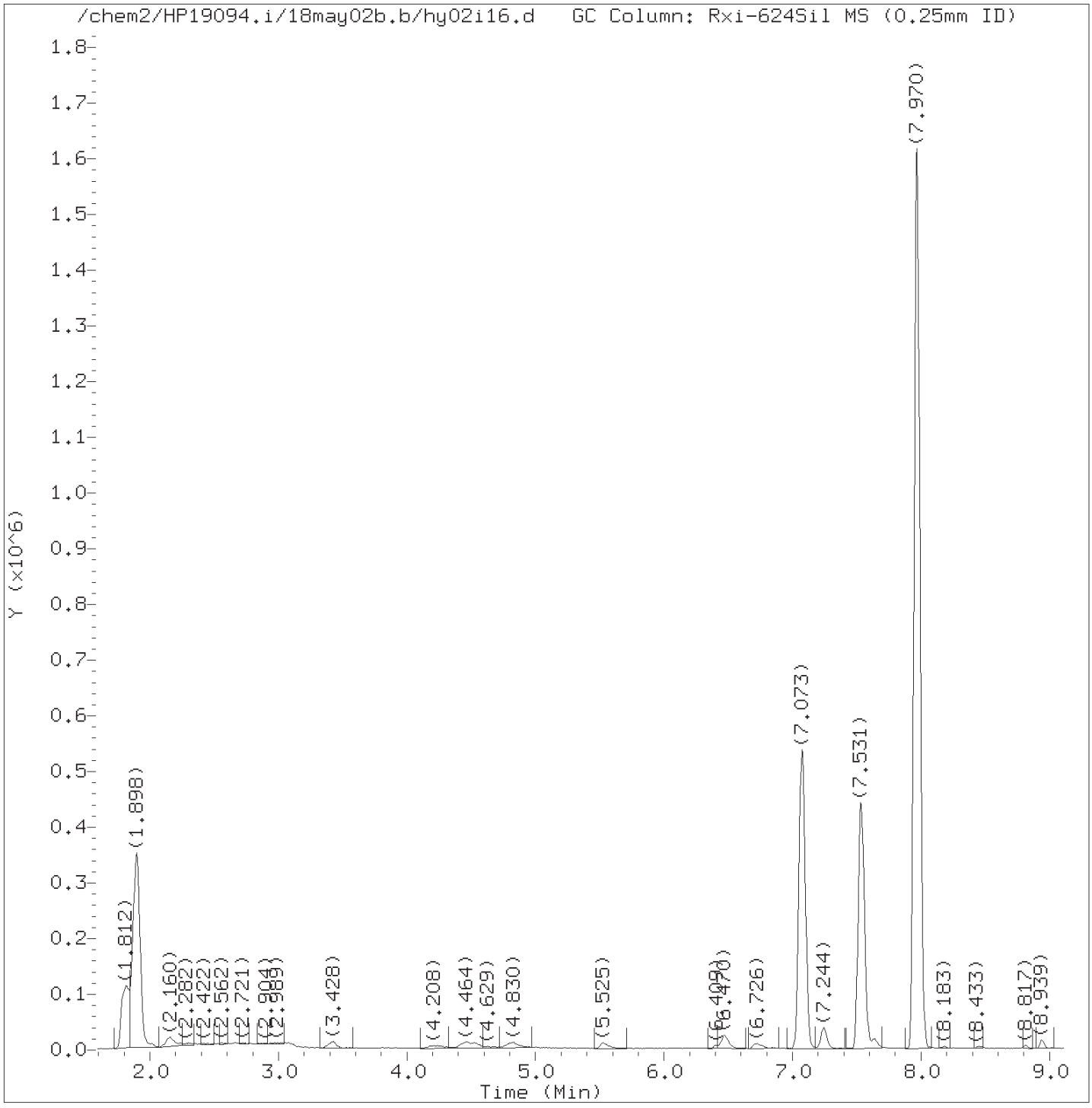
Target 3.5 esignature used 11 Page 1327 of 7494



Total Ion Chromatogram (TIC)

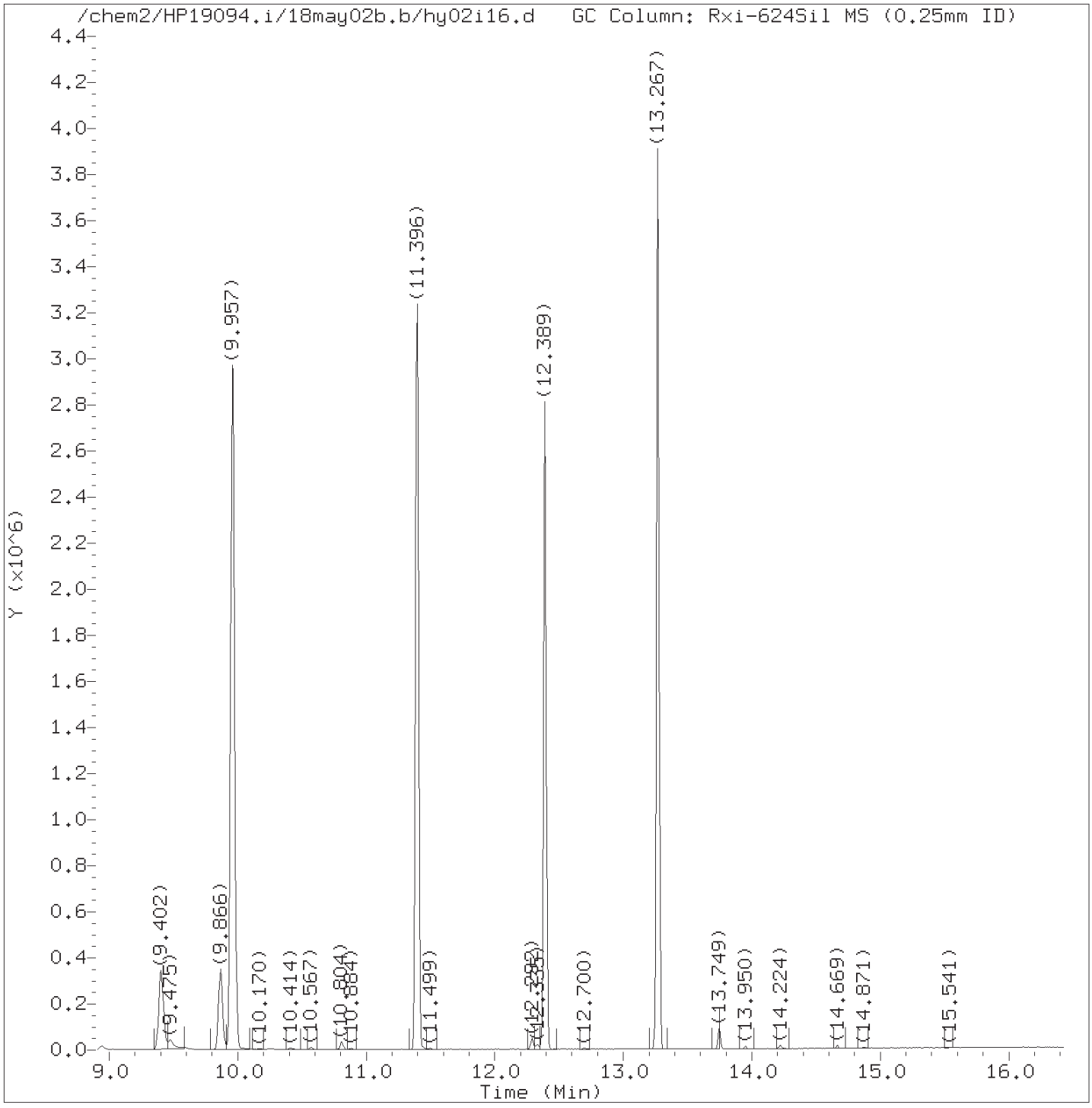
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

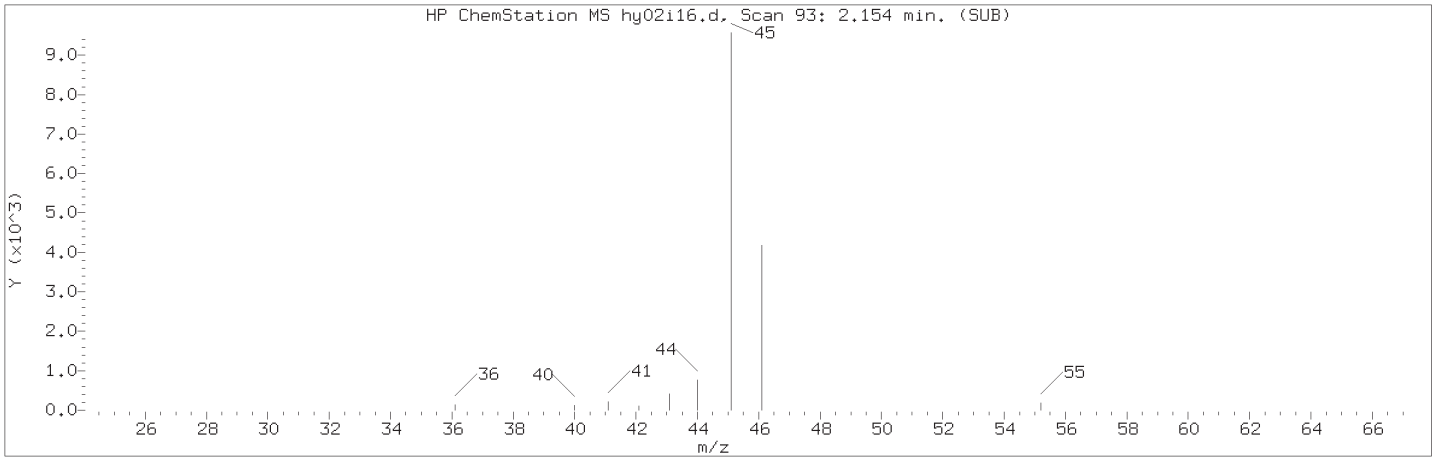
Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.154	45	39145M	0.522
25) Acetonitrile	(1)	4.202	41	43595M	22.874
26)*t-Butyl Alcohol-d10	(1)	4.464	65	78931M	50.000
36) Vinyl Acetate	(2)	5.525	43	33612	0.471
43) Methyl Acrylate	(2)	6.470	55	53484	2.427
53) 1-Chlorobutane	(2)	7.238	56	46395	0.440
63)*Fluorobenzene	(2)	7.970	96	2334989	10.000
77) Chloroacetonitrile	(2)	9.469	75	17578	20.017
78) 2-Chloroethyl vinyl ether	(2)	9.481	63	10015	0.474
97)*Chlorobenzene-d5	(3)	11.396	117	1693467	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	10342M	1.012
112) Cyclohexanone	(1)	12.328	55	11242M	21.625
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	891691	10.000
142) Hexachloroethane	(4)	13.749	117	15983	0.426

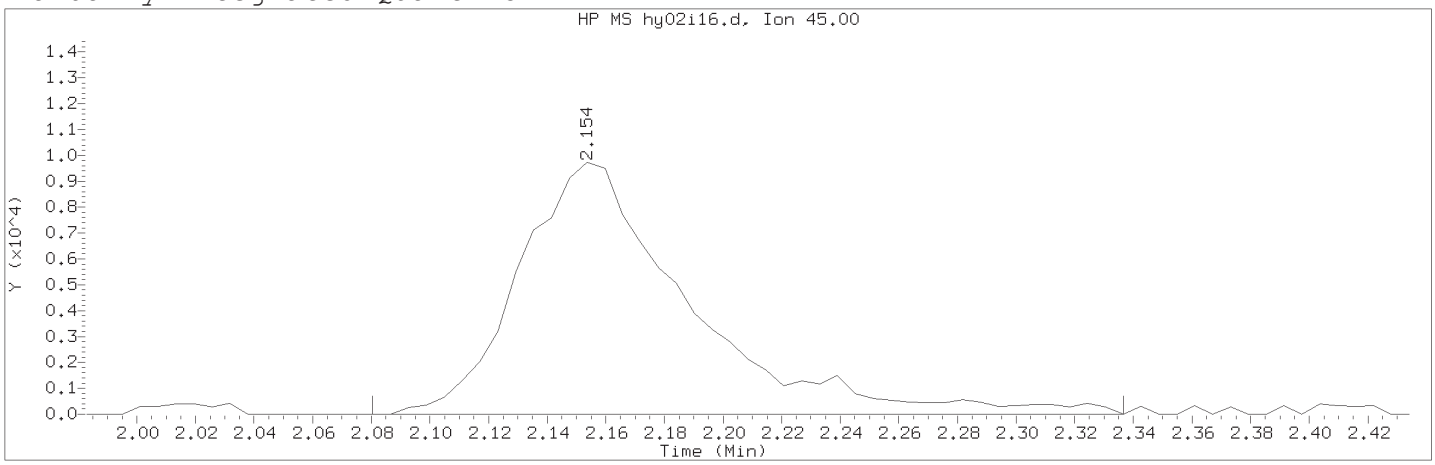
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

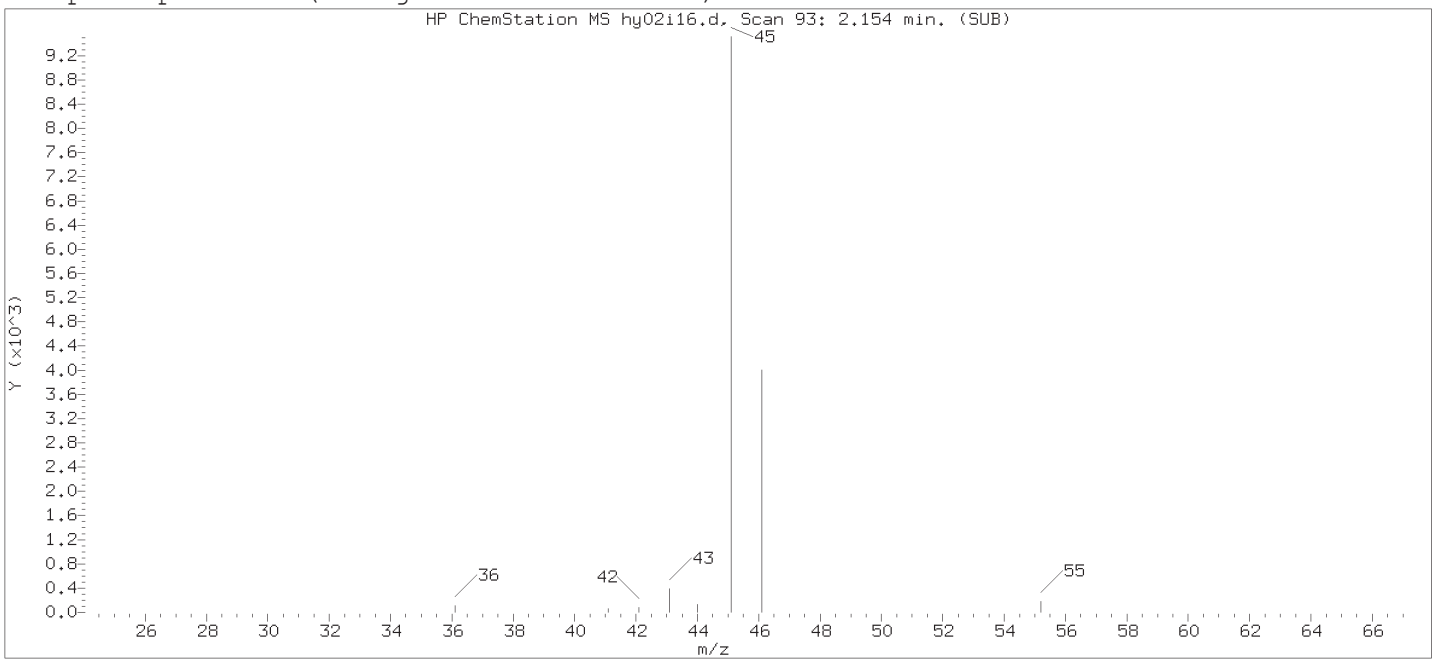
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area (flag) : 39145M
On-Column Amount (ng) : 0.5222
Integration start scan : 80 Integration stop scan: 122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

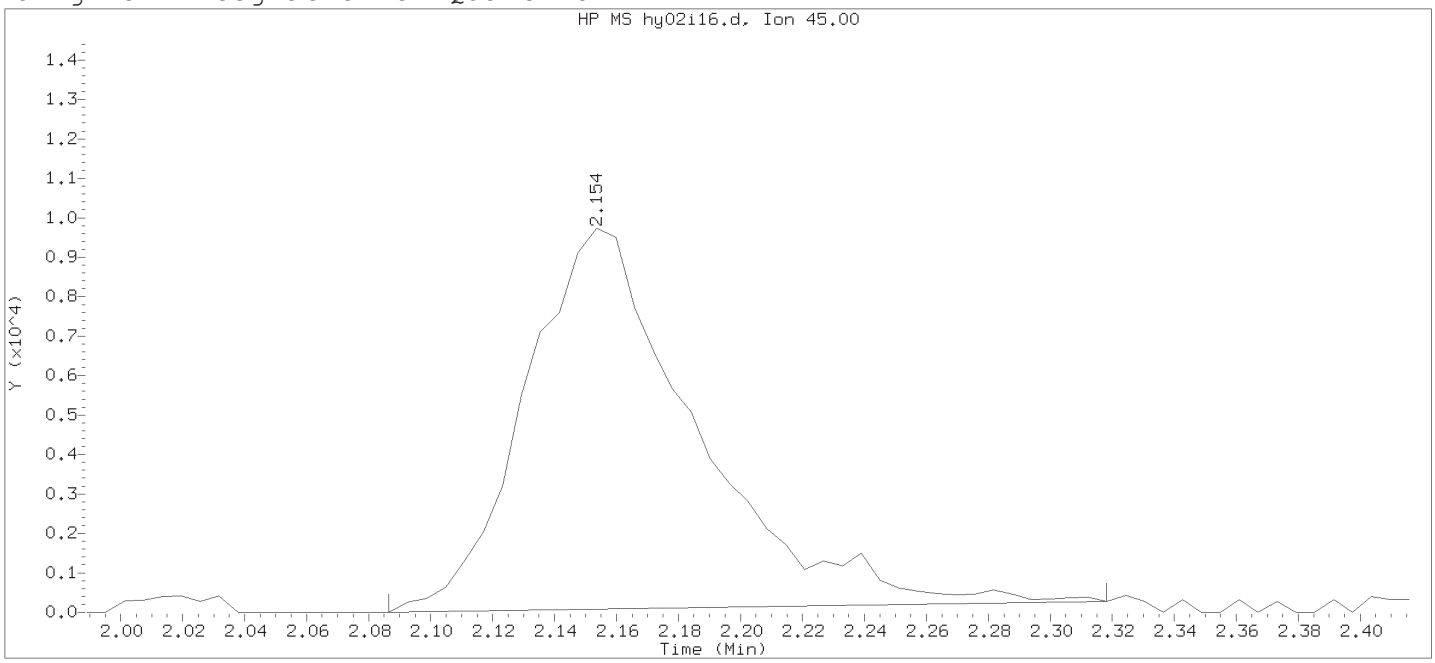
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

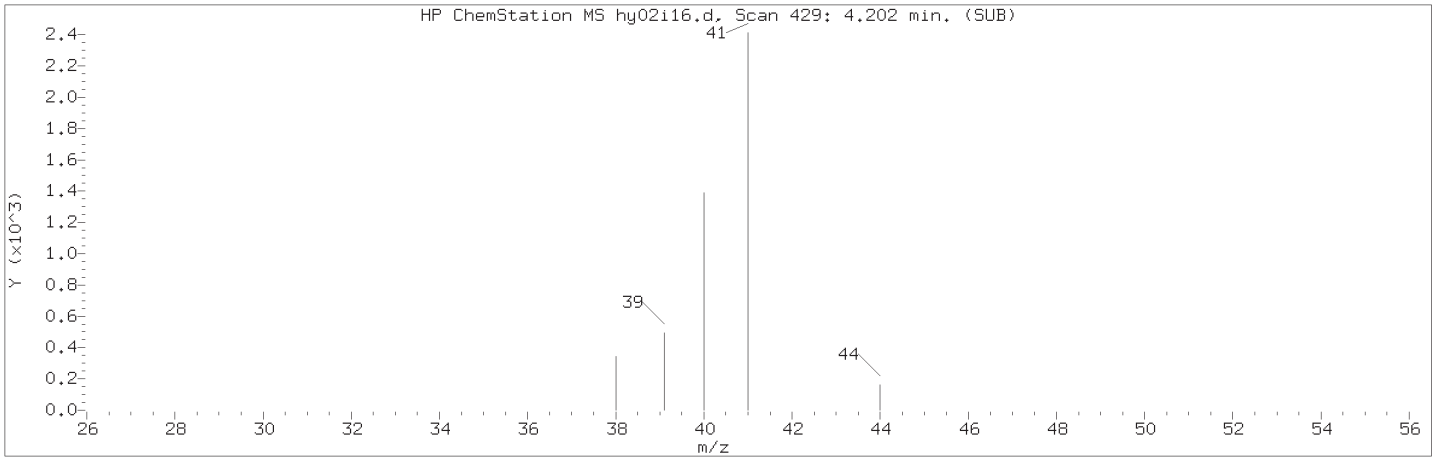
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:20
Date, time and analyst ID of latest file update: 02-May-2018 21:20 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

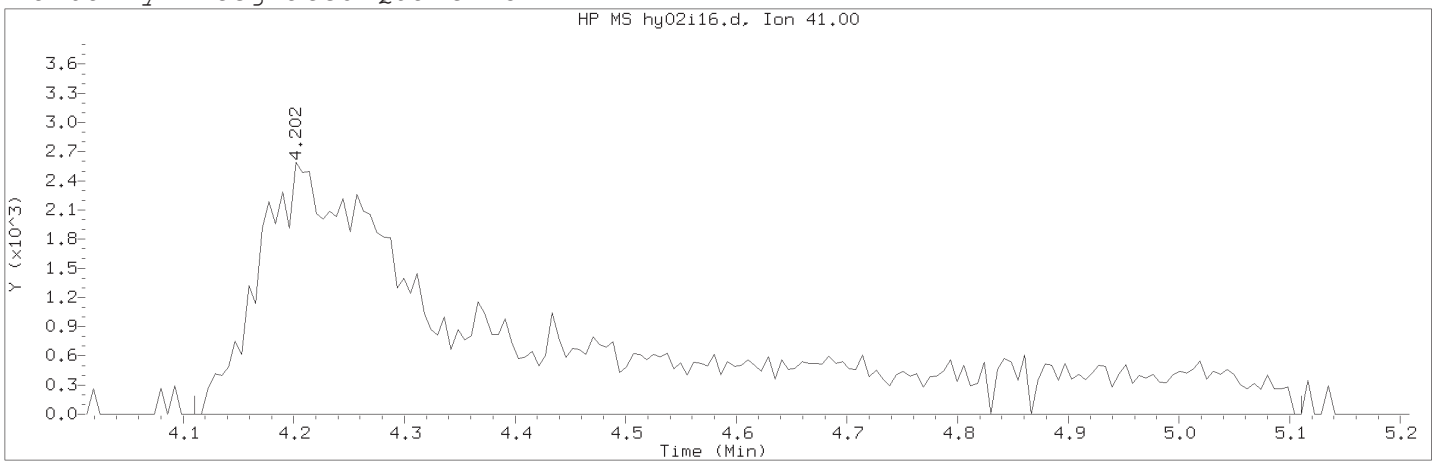
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 93
Retention Time (minutes): 2.154
Quant Ion : 45.00
Area : 36886
On-column Amount (ng) : 0.4905
Integration start scan : 81 Integration stop scan: 119
Y at integration start : 0 Y at integration end: 281

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used 1.0.2.3

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

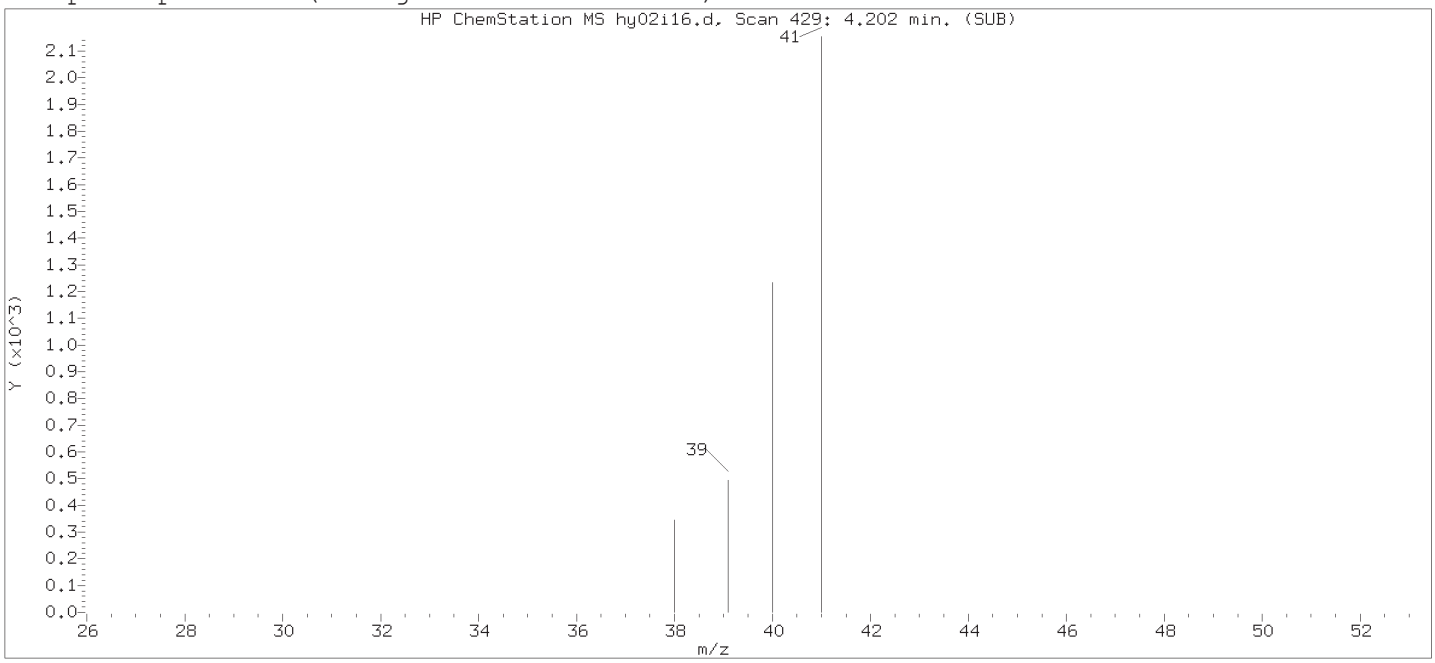
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 429
Retention Time (minutes): 4.202
Quant Ion : 41.00
Area (flag) : 43595M
On-Column Amount (ng) : 22.8735
Integration start scan : 413 Integration stop scan: 577
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

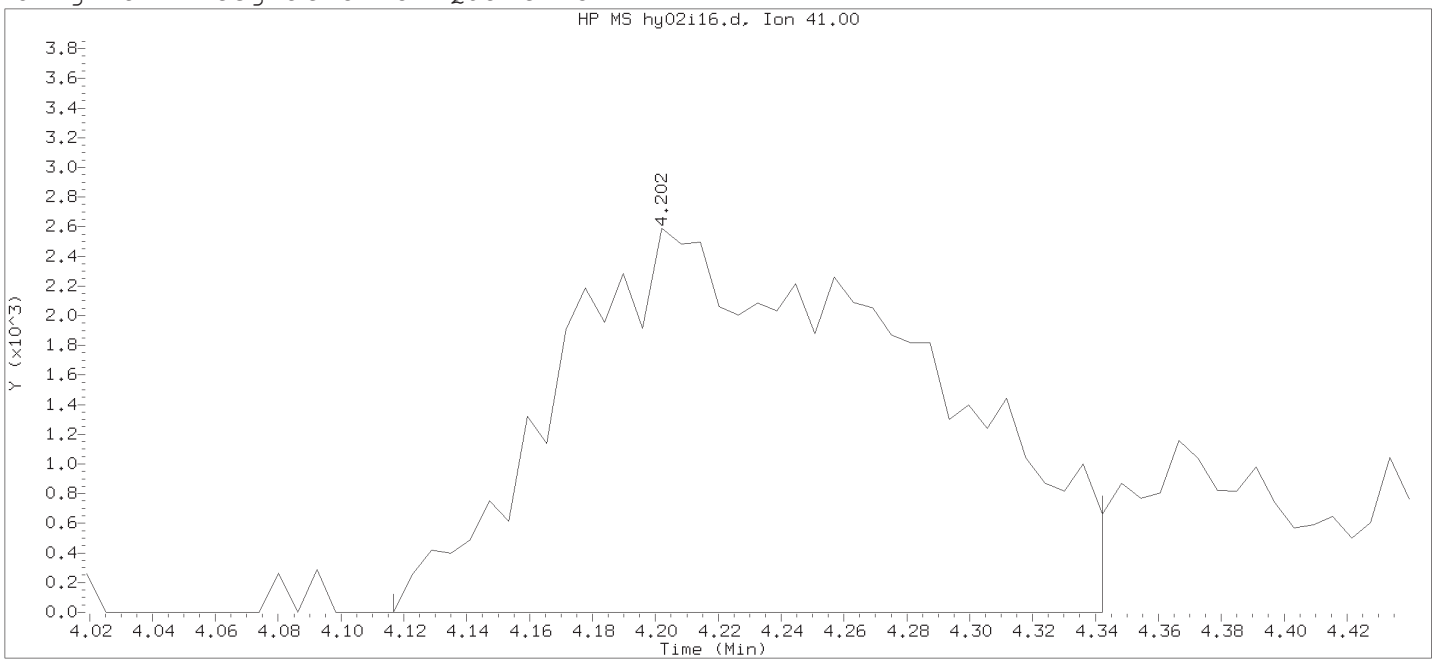
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

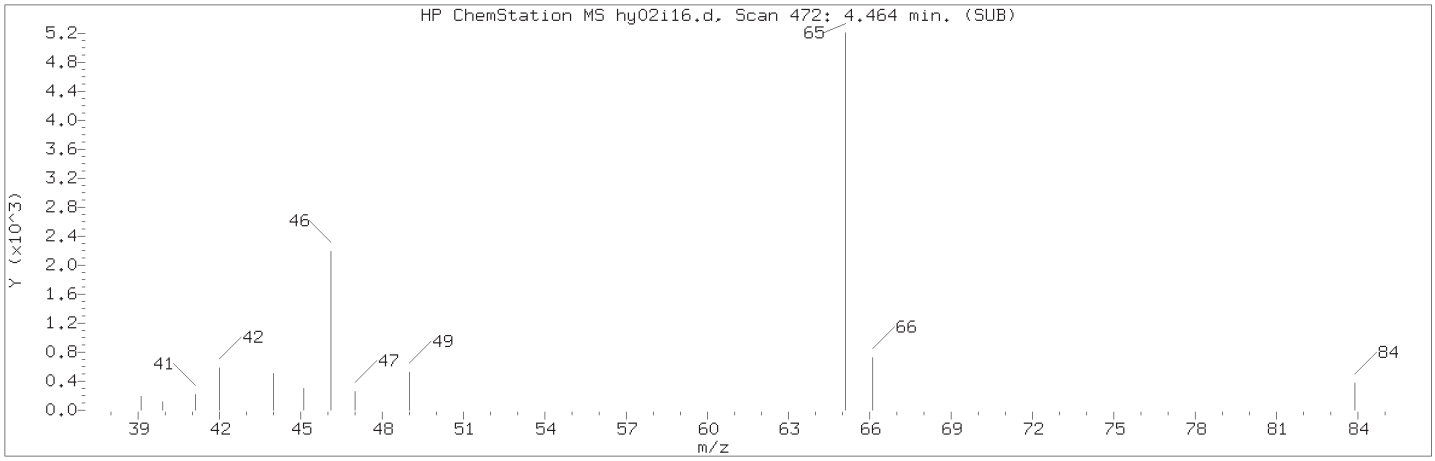
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:20
Date, time and analyst ID of latest file update: 02-May-2018 21:20 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

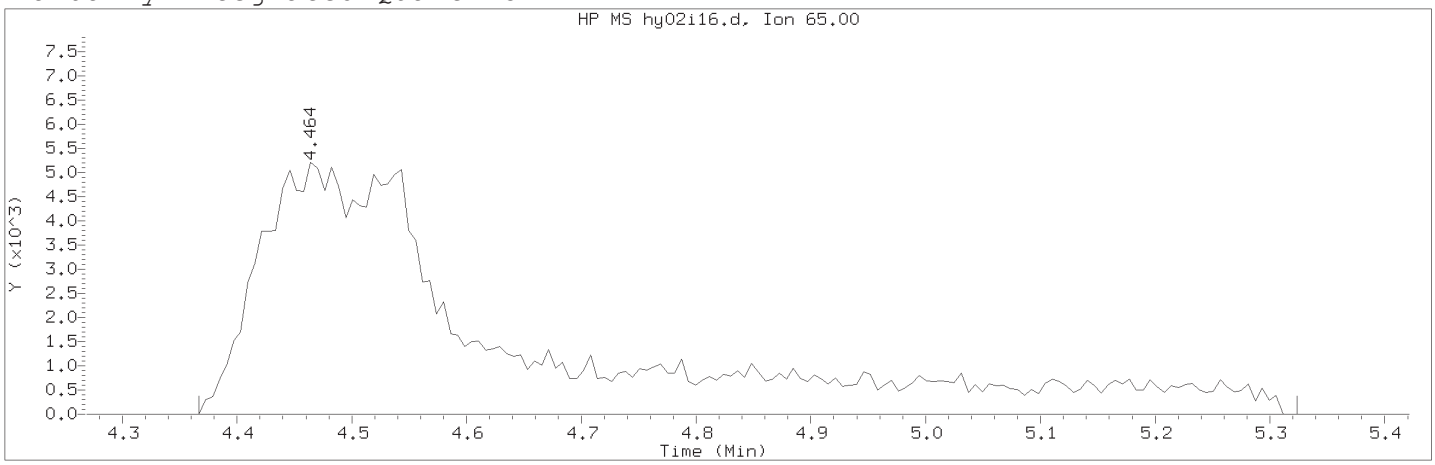
Compound Number	: 25
Compound Name	: Acetonitrile
Scan Number	: 429
Retention Time (minutes)	: 4.202
Quant Ion	: 41.00
Area	: 20787
On-column Amount (ng)	: 11.9110
Integration start scan	: 414 Integration stop scan: 451
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

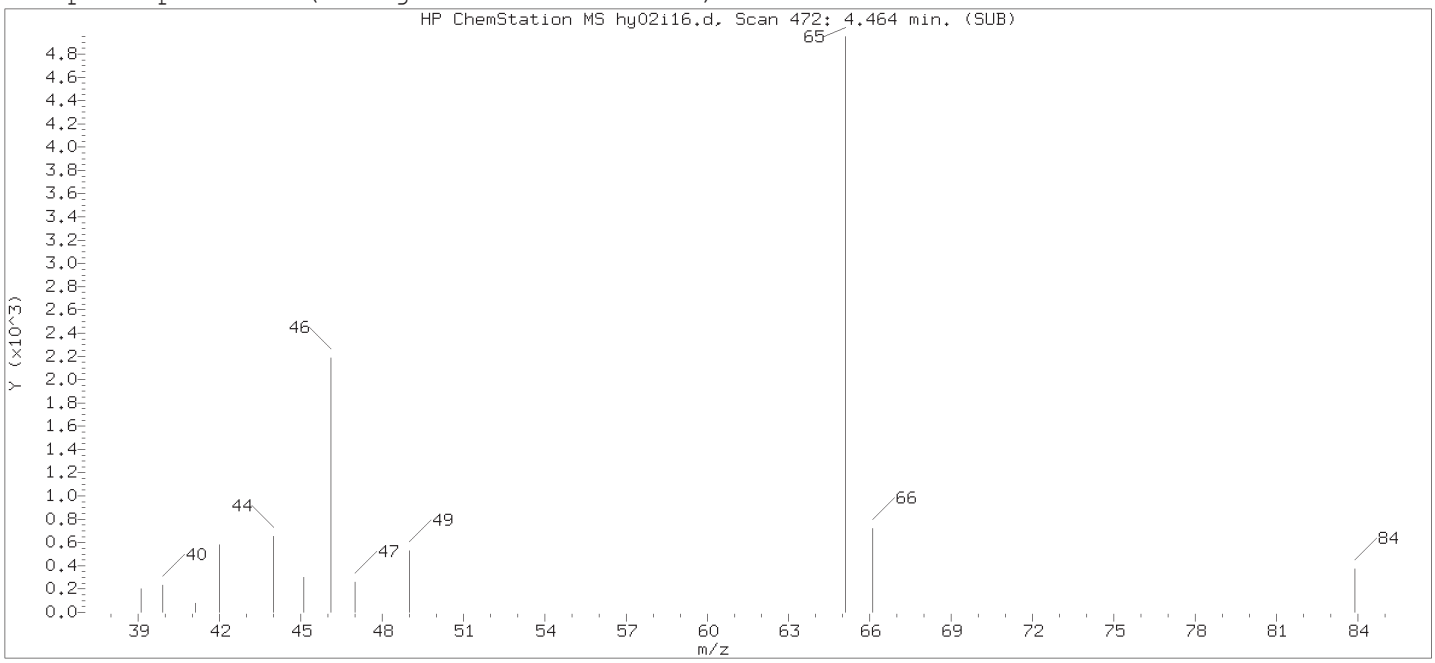
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 472
Retention Time (minutes): 4.464
Quant Ion : 65.00
Area (flag) : 78931M
On-Column Amount (ng) : 50.0000
Integration start scan : 455 Integration stop scan: 612
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

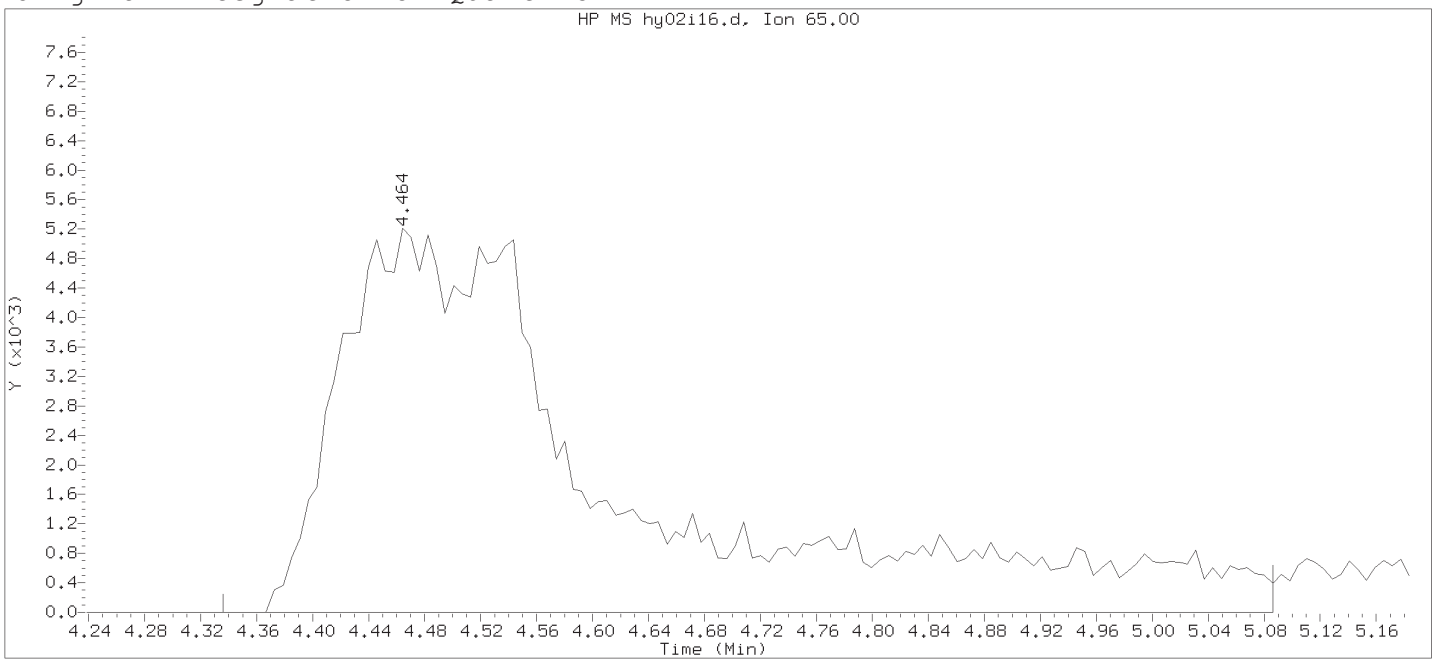
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

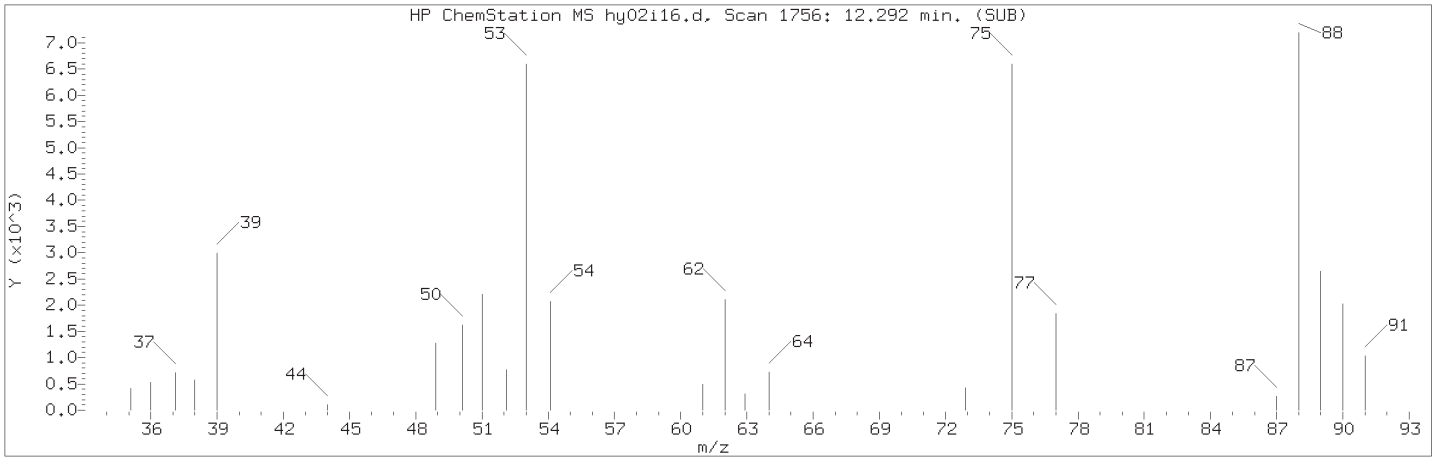
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:20
Date, time and analyst ID of latest file update: 02-May-2018 21:20 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

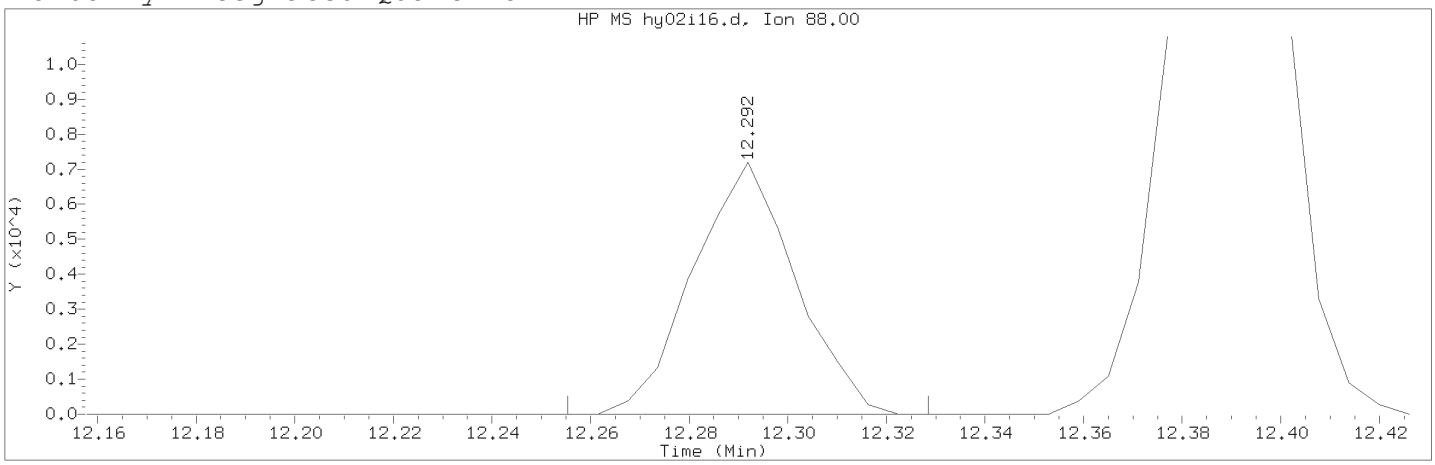
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 472
Retention Time (minutes): 4.464
Quant Ion : 65.00
Area : 71620
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 573
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

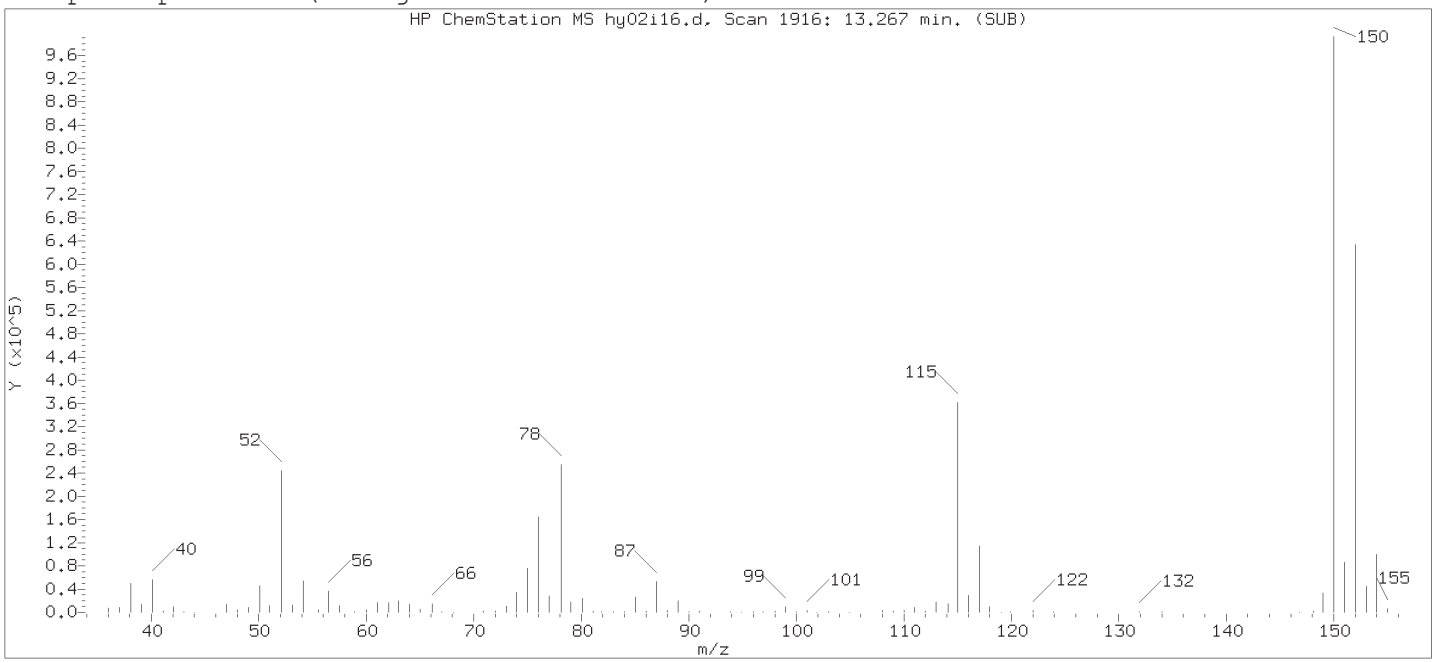
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 10342M
On-Column Amount (ng) : 1.0117
Integration start scan : 1749 Integration stop scan: 1761
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

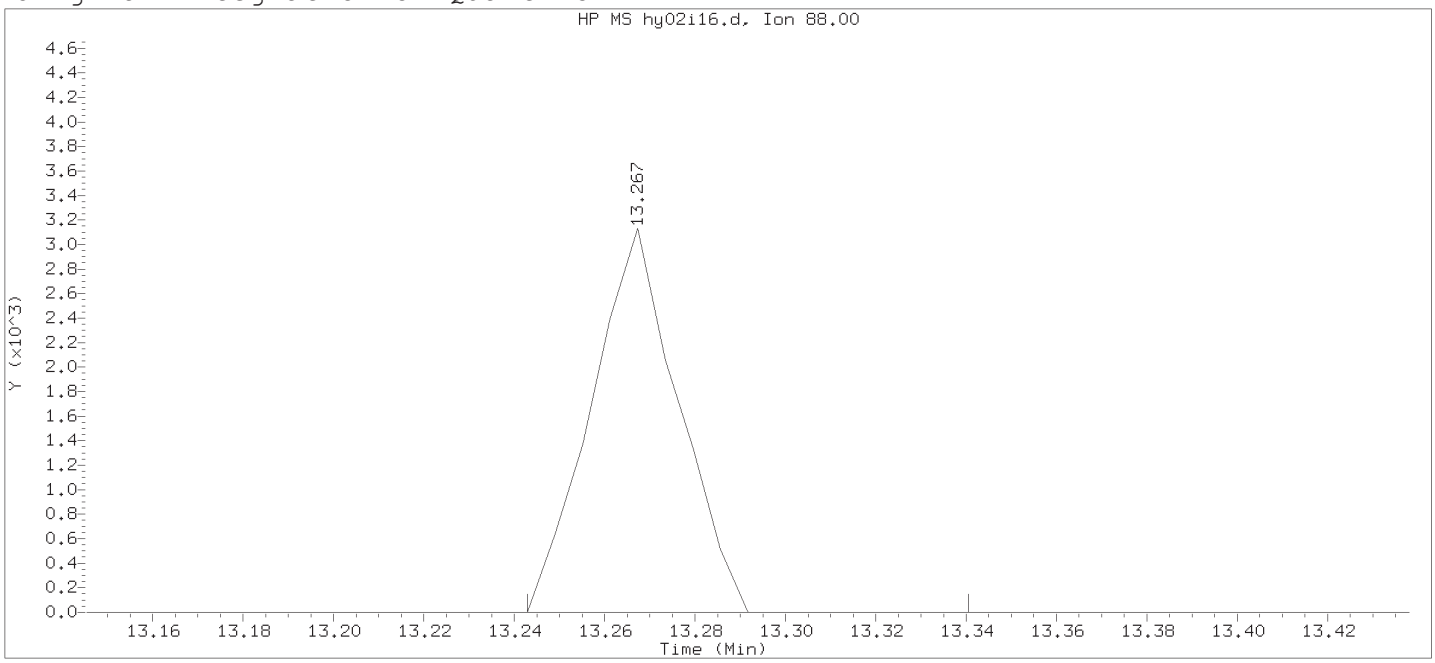
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

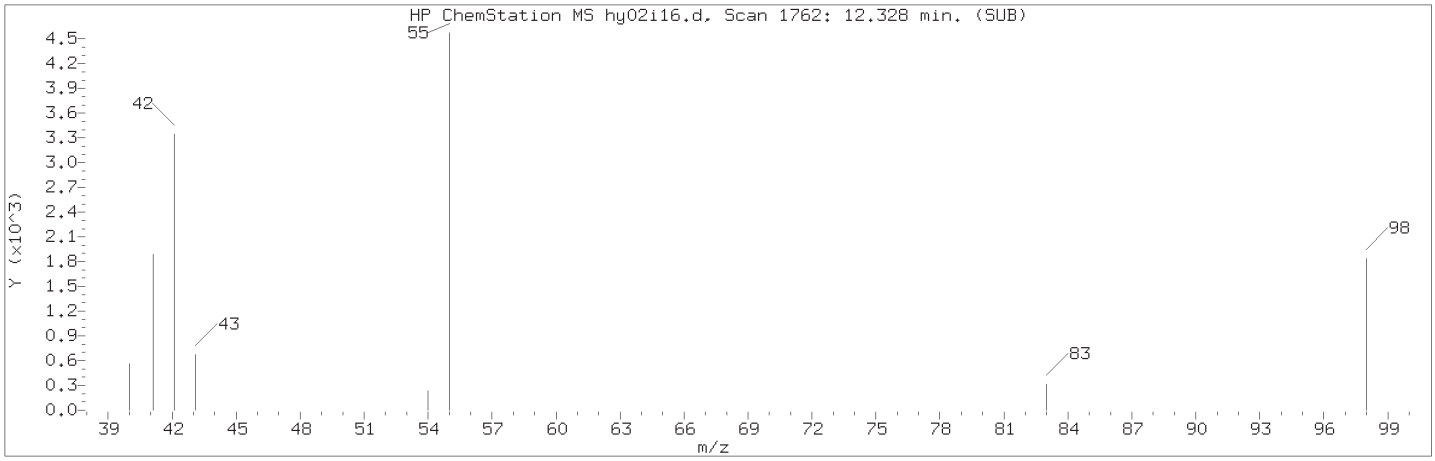
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:20
Date, time and analyst ID of latest file update: 02-May-2018 21:20 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

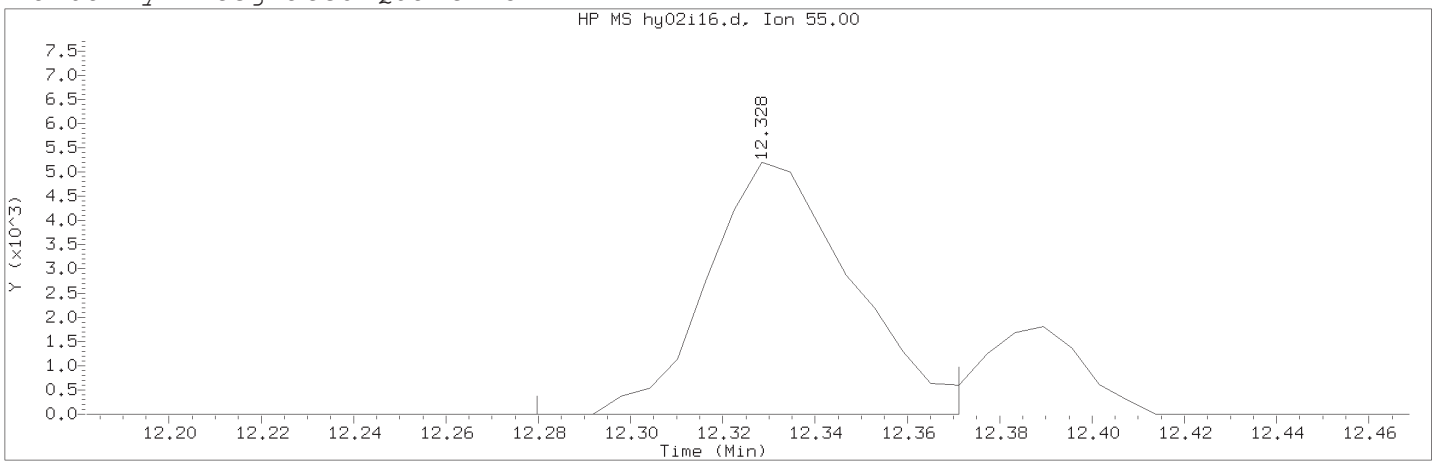
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1916
Retention Time (minutes): 13.267
Quant Ion : 88.00
Area : 4184
On-column Amount (ng) : 0.4845
Integration start scan : 1911 Integration stop scan: 1927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used in Data Review

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

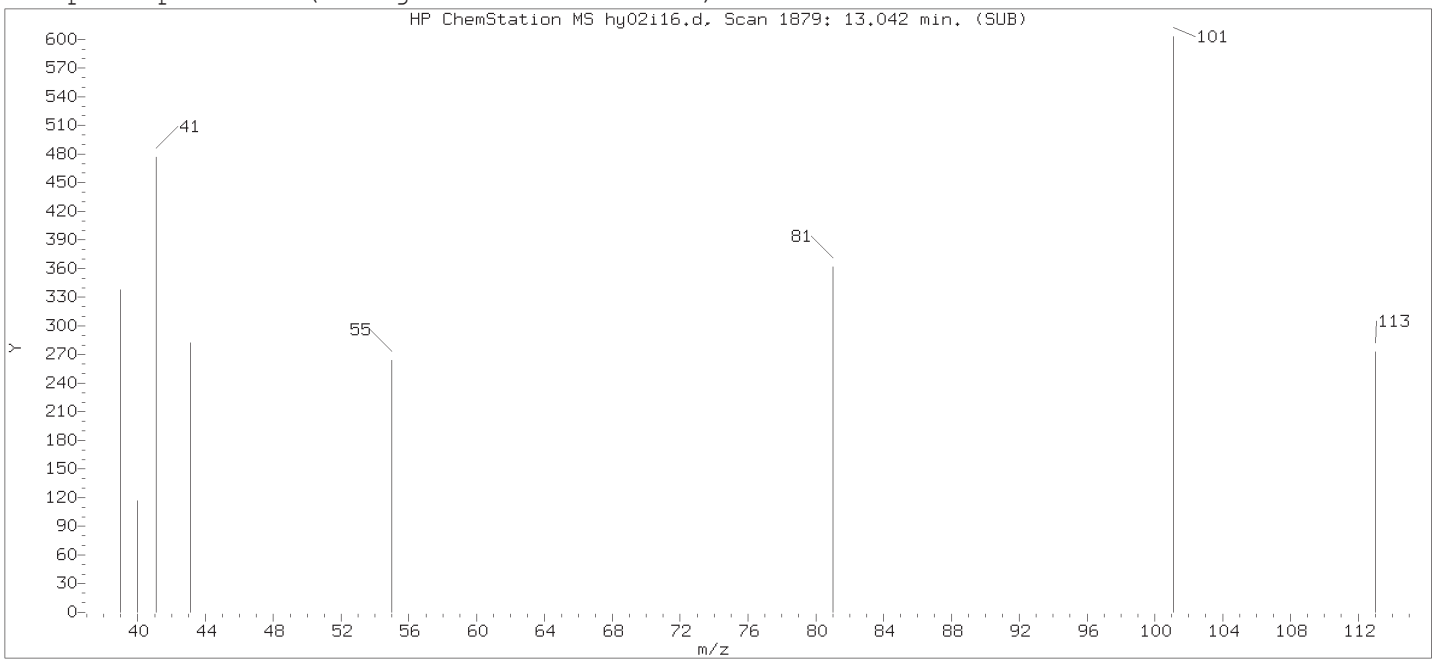
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.328
Quant Ion : 55.00
Area (flag) : 11242M
On-Column Amount (ng) : 21.6250
Integration start scan : 1753 Integration stop scan: 1768
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

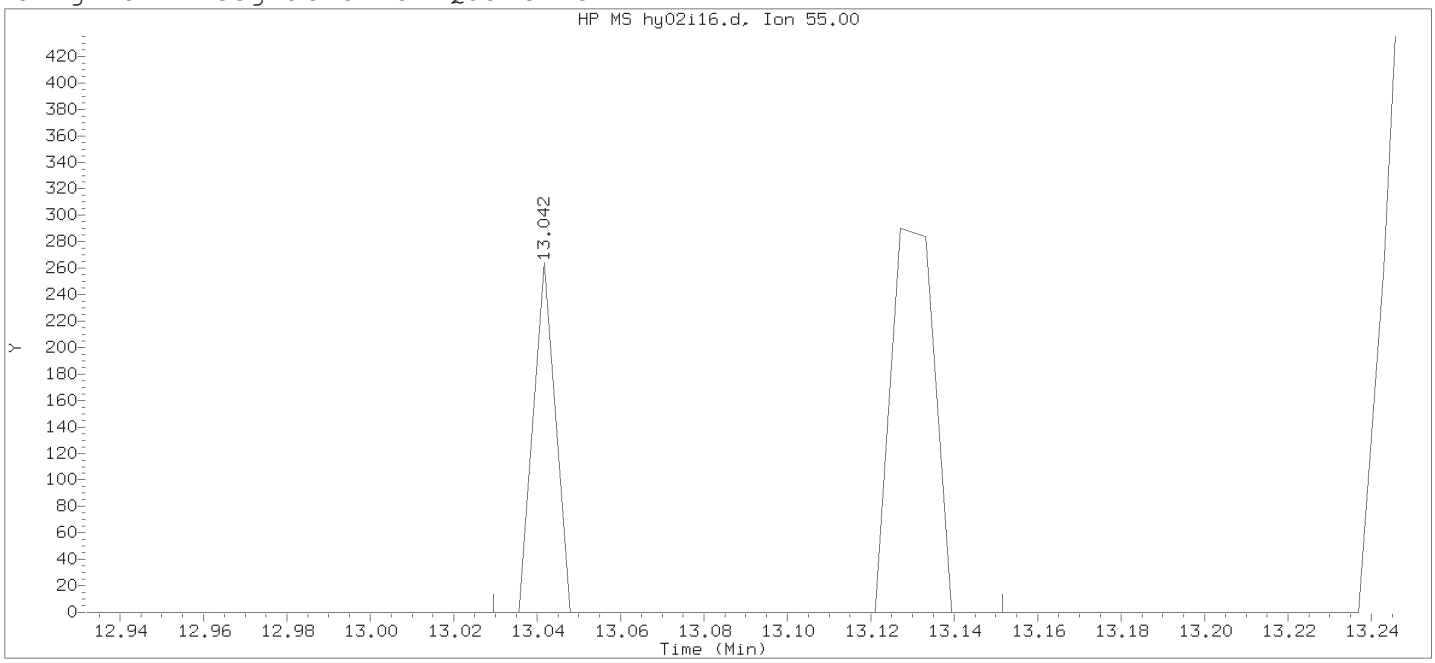
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



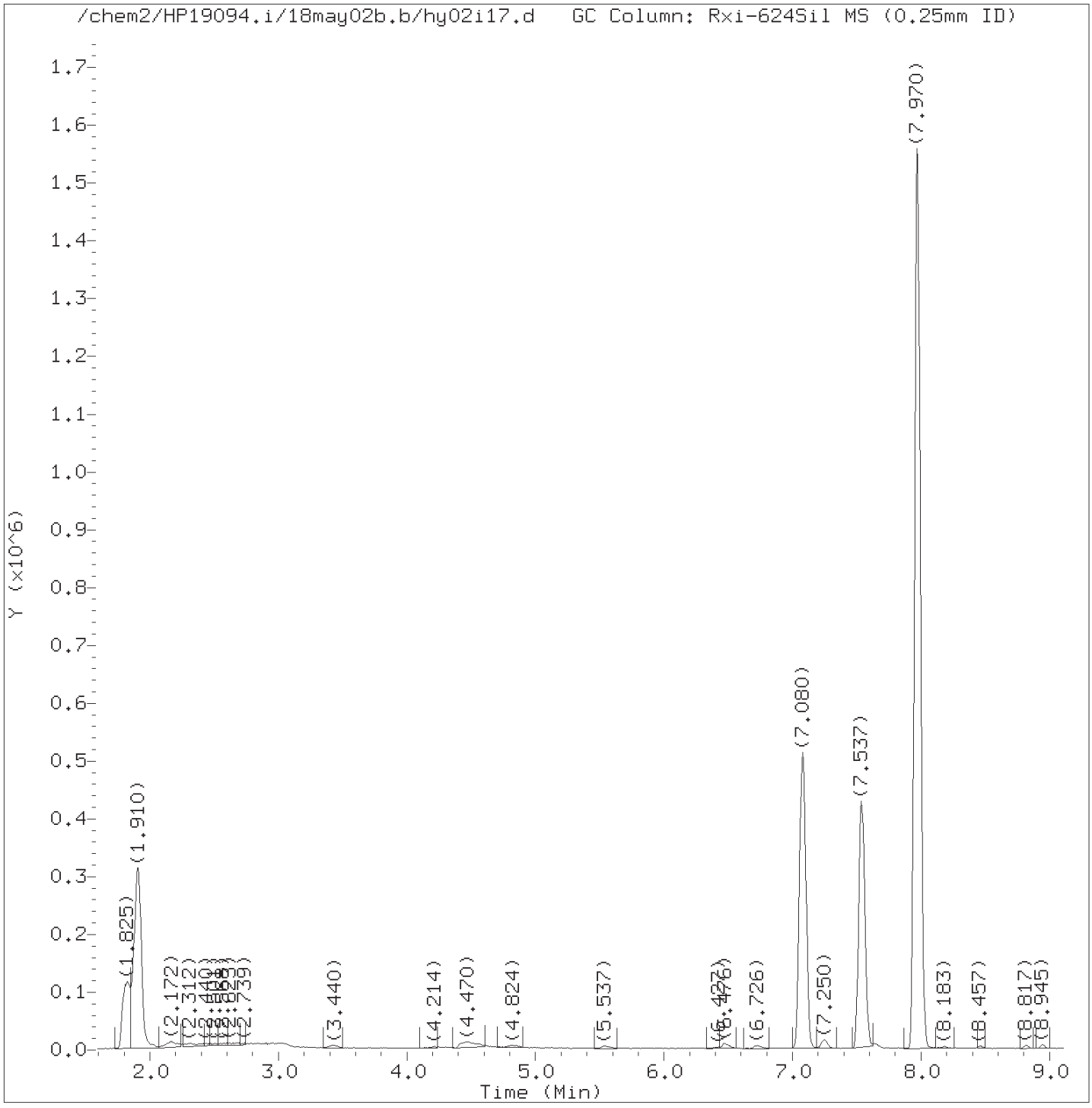
Data File: /chem2/HP19094.i/18may02b.b/hy02i16.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:02 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:20
Date, time and analyst ID of latest file update: 02-May-2018 21:20 Automation

Sample Name: VSTD0.5 Lab Sample ID: VSTD0.5

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1879
Retention Time (minutes): 13.042
Quant Ion : 55.00
Area : 306
On-column Amount (ng) : 0.6844
Integration start scan : 1876 Integration stop scan: 1896
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used 1.0.3



Total Ion Chromatogram (TIC)

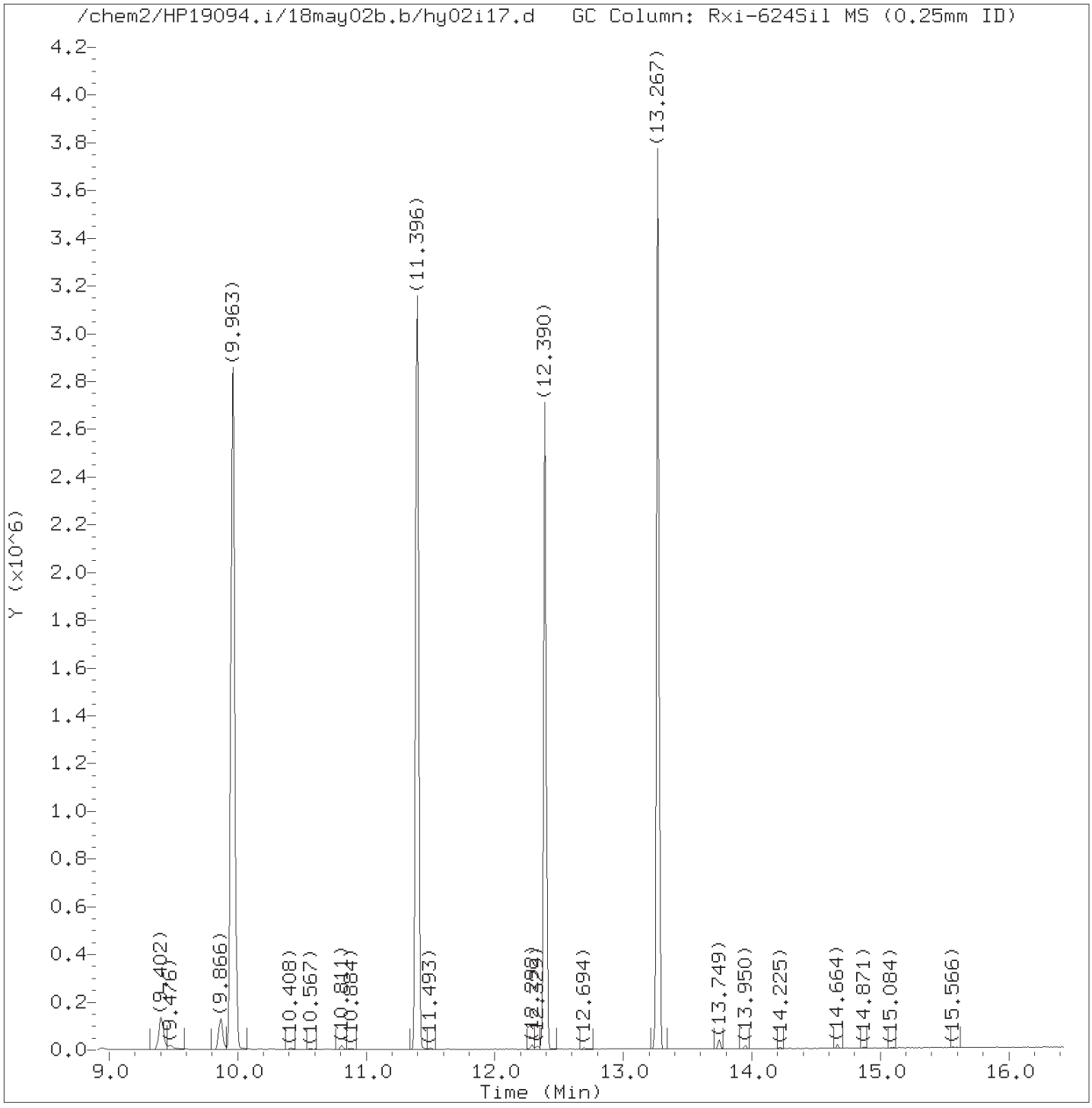
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

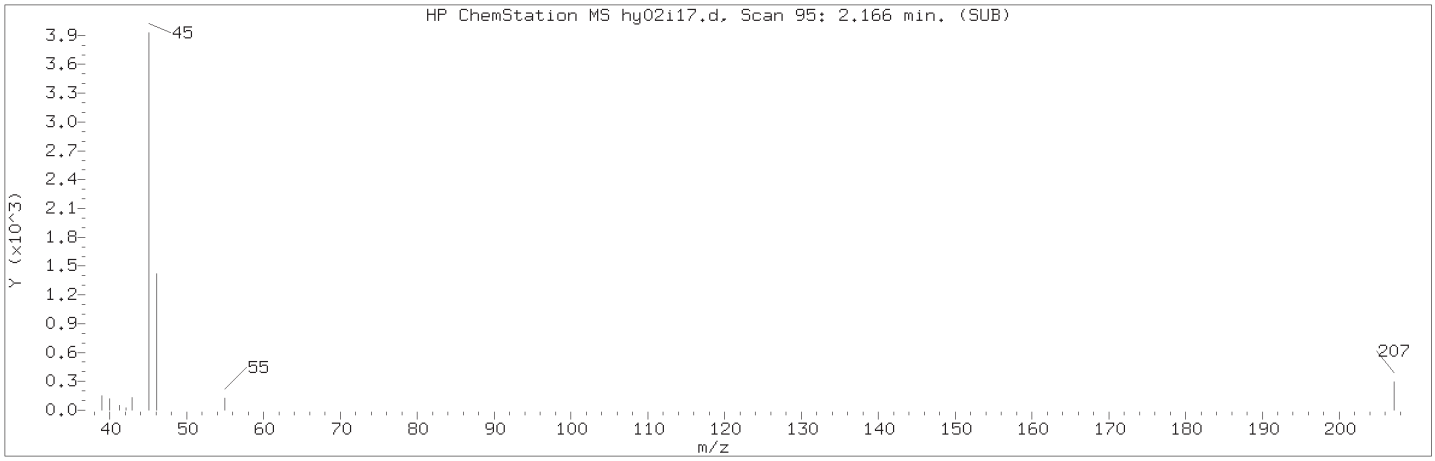
Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.166	45	15219M	0.211
25) Acetonitrile	(1)	4.214	41	18284M	8.644
26)*t-Butyl Alcohol-d10	(1)	4.476	65	87604	50.000
36) Vinyl Acetate	(2)	5.537	43	14183	0.206
43) Methyl Acrylate	(2)	6.476	55	20610	0.972
53) 1-Chlorobutane	(2)	7.256	56	20042	0.197
63)*Fluorobenzene	(2)	7.970	96	2247400	10.000
77) Chloroacetonitrile	(2)	9.476	75	8139	9.630
78) 2-Chloroethyl vinyl ether	(2)	9.476	63	3424	0.169
97)*Chlorobenzene-d5	(3)	11.396	117	1641487	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	3969M	0.350
112) Cyclohexanone	(1)	12.329	55	6386M	11.068
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	866486	10.000
142) Hexachloroethane	(4)	13.749	117	6486	0.178

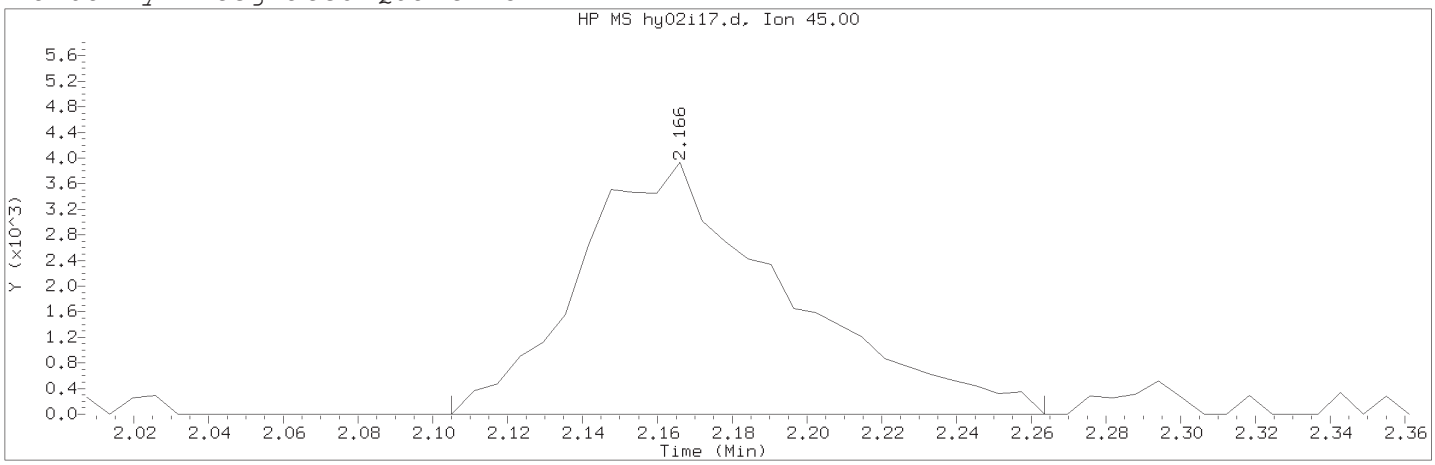
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

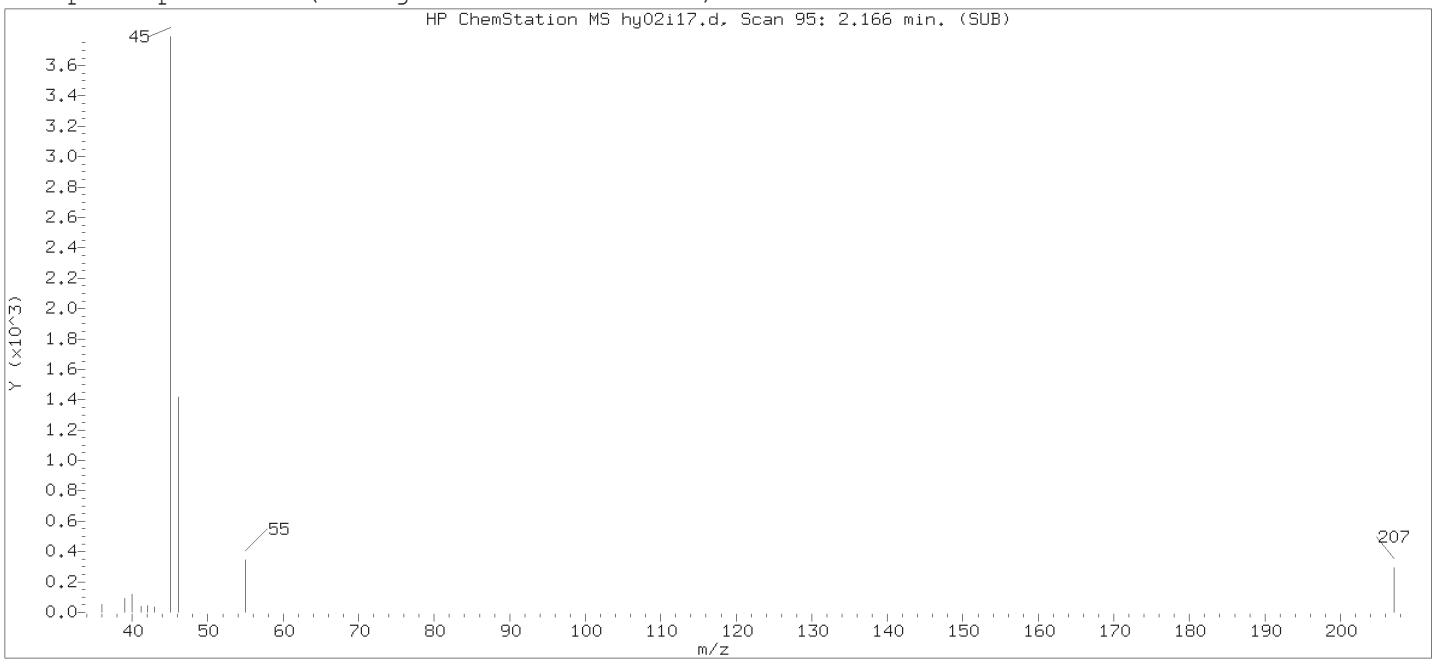
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 95
Retention Time (minutes): 2.166
Quant Ion : 45.00
Area (flag) : 15219M
On-Column Amount (ng) : 0.2109
Integration start scan : 84 Integration stop scan: 110
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

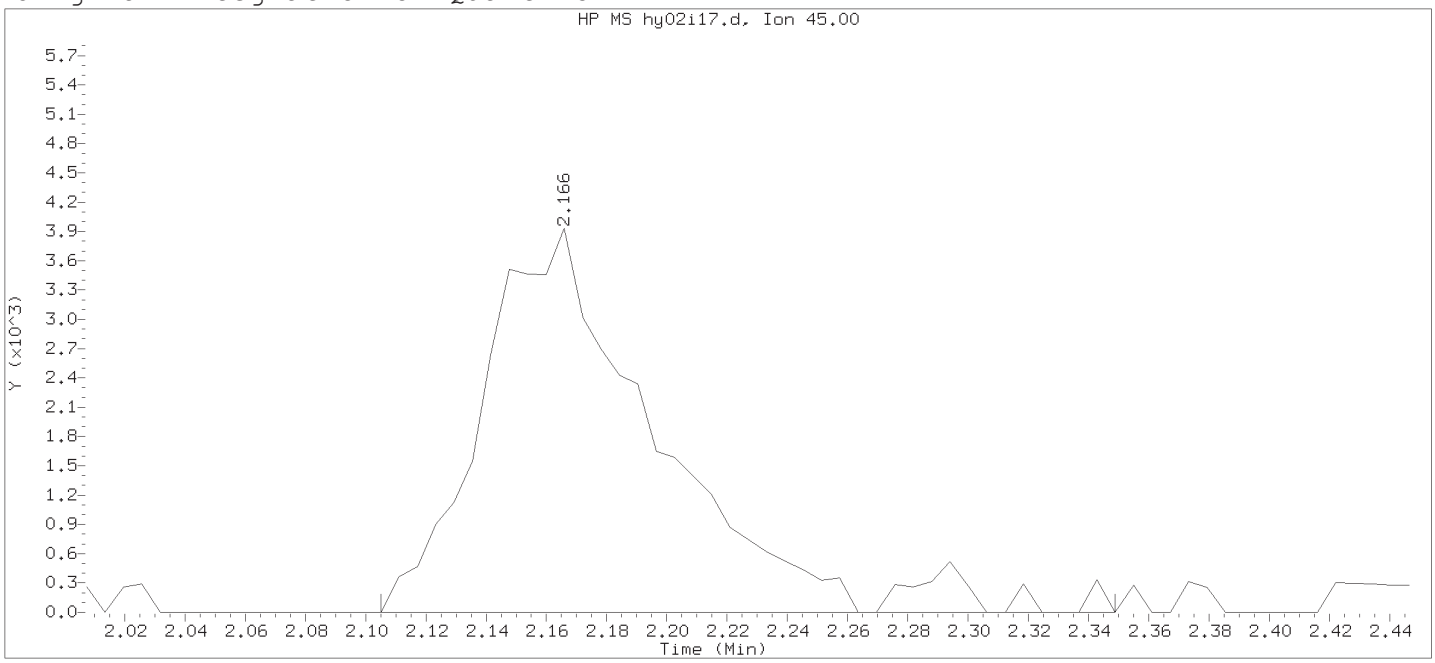
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

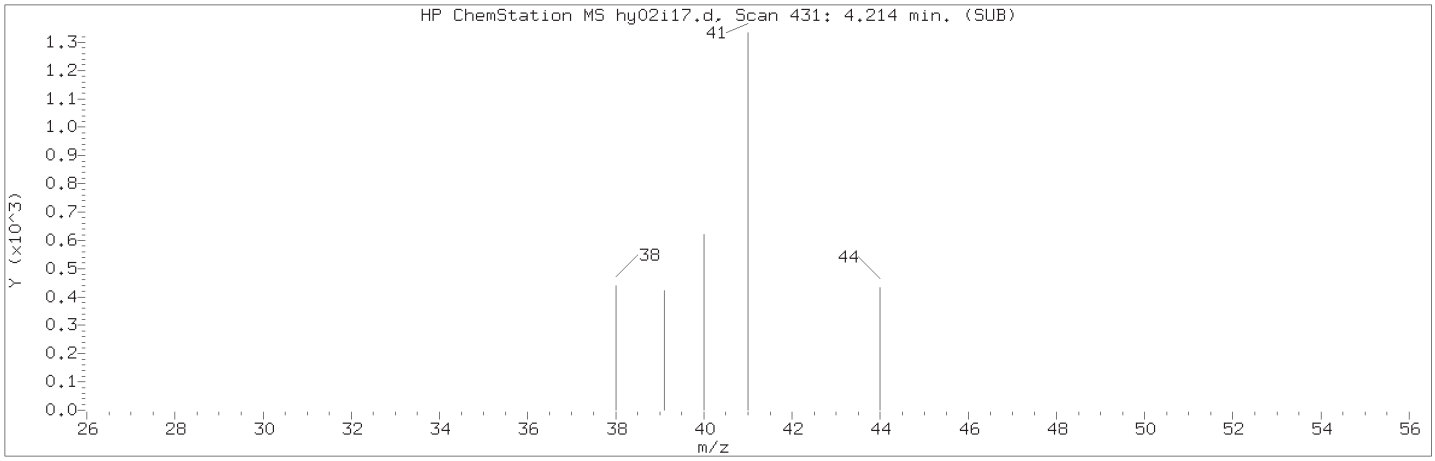
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:41
Date, time and analyst ID of latest file update: 02-May-2018 21:41 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

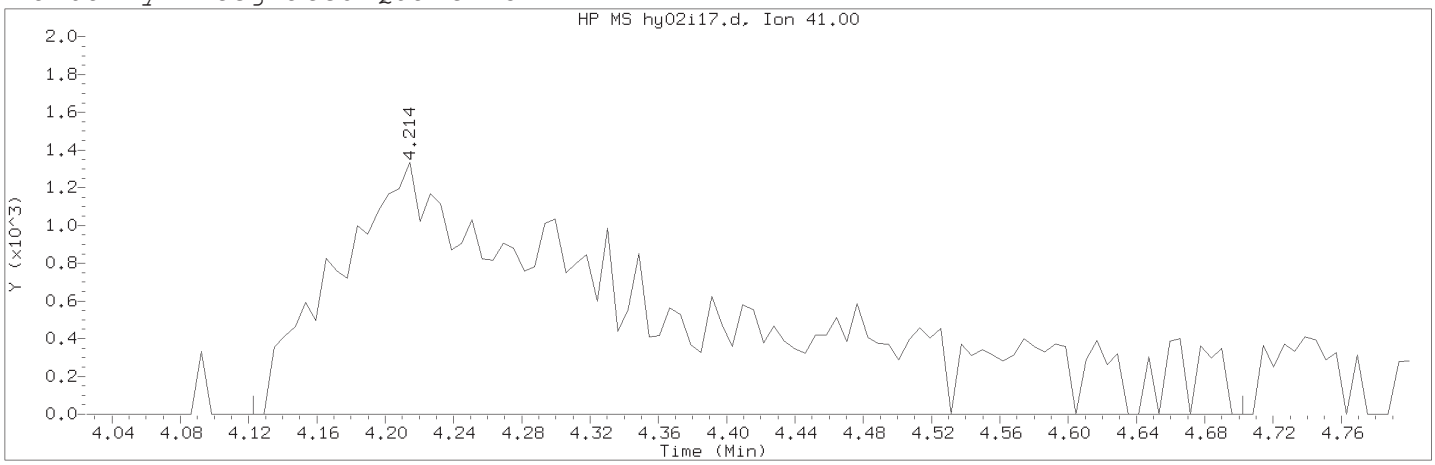
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 95
Retention Time (minutes): 2.166
Quant Ion : 45.00
Area : 16050
On-column Amount (ng) : 0.2226
Integration start scan : 84 Integration stop scan: 124
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

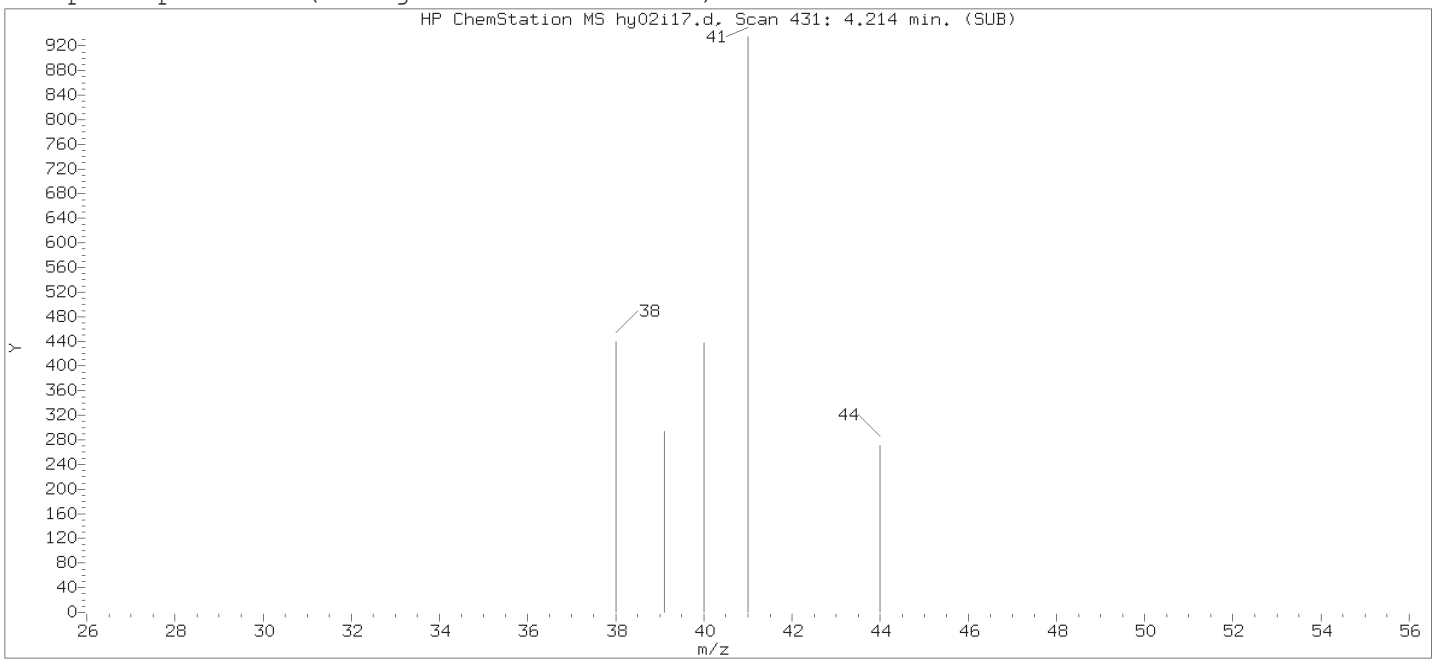
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area (flag) : 18284M
On-Column Amount (ng) : 8.6435
Integration start scan : 415 Integration stop scan: 510
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

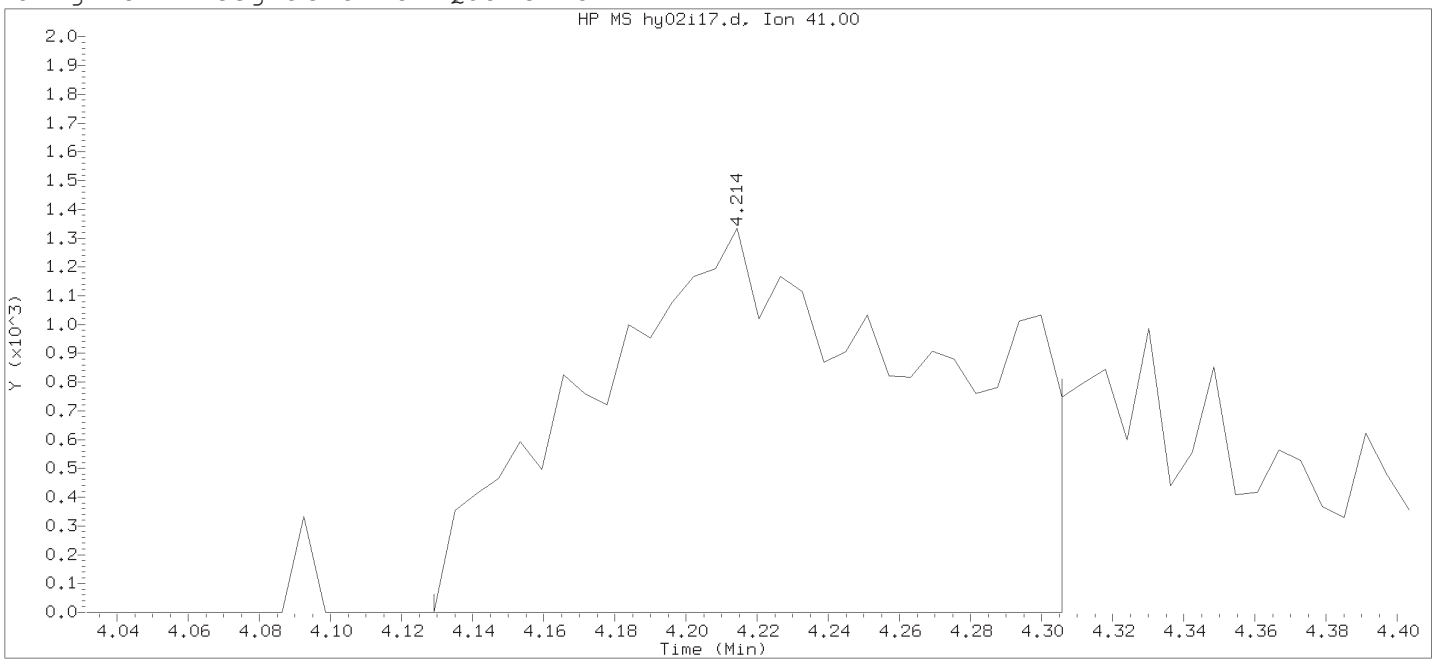
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

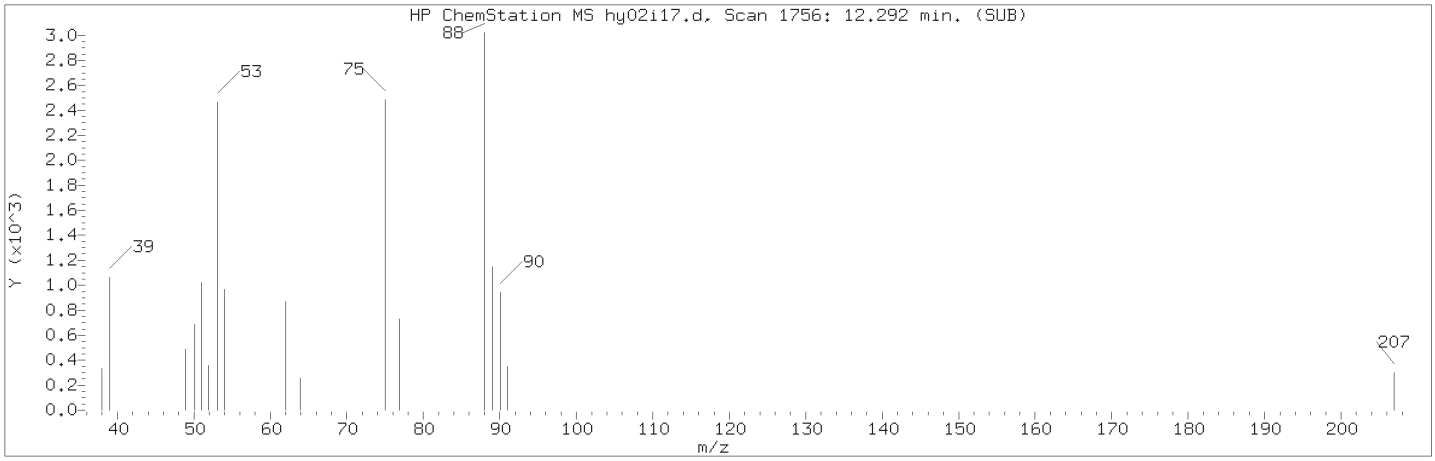
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:41
Date, time and analyst ID of latest file update: 02-May-2018 21:41 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

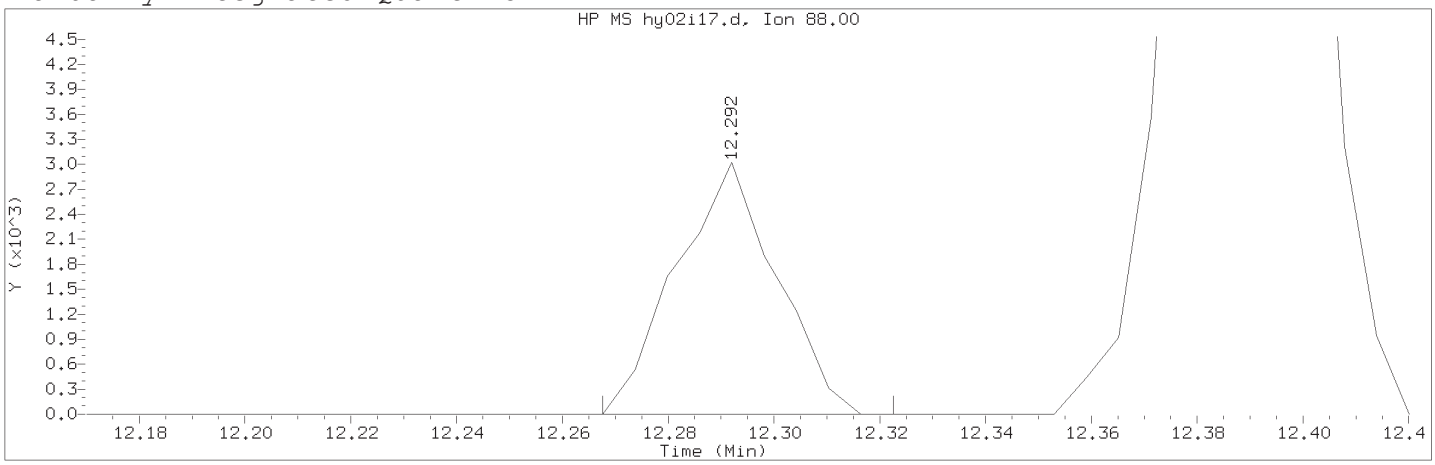
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area : 9088
On-column Amount (ng) : 5.0856
Integration start scan : 416 Integration stop scan: 445
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

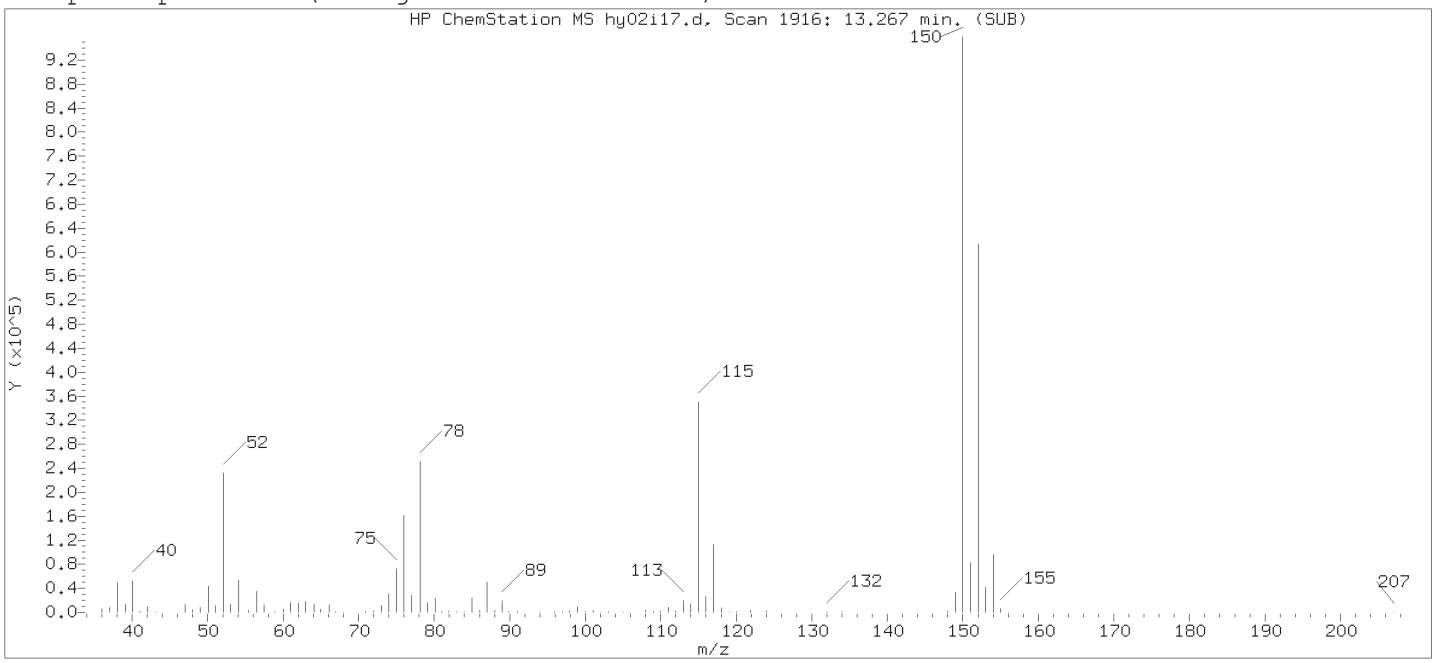
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 3969M
On-Column Amount (ng) : 0.3498
Integration start scan : 1751 Integration stop scan: 1760
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

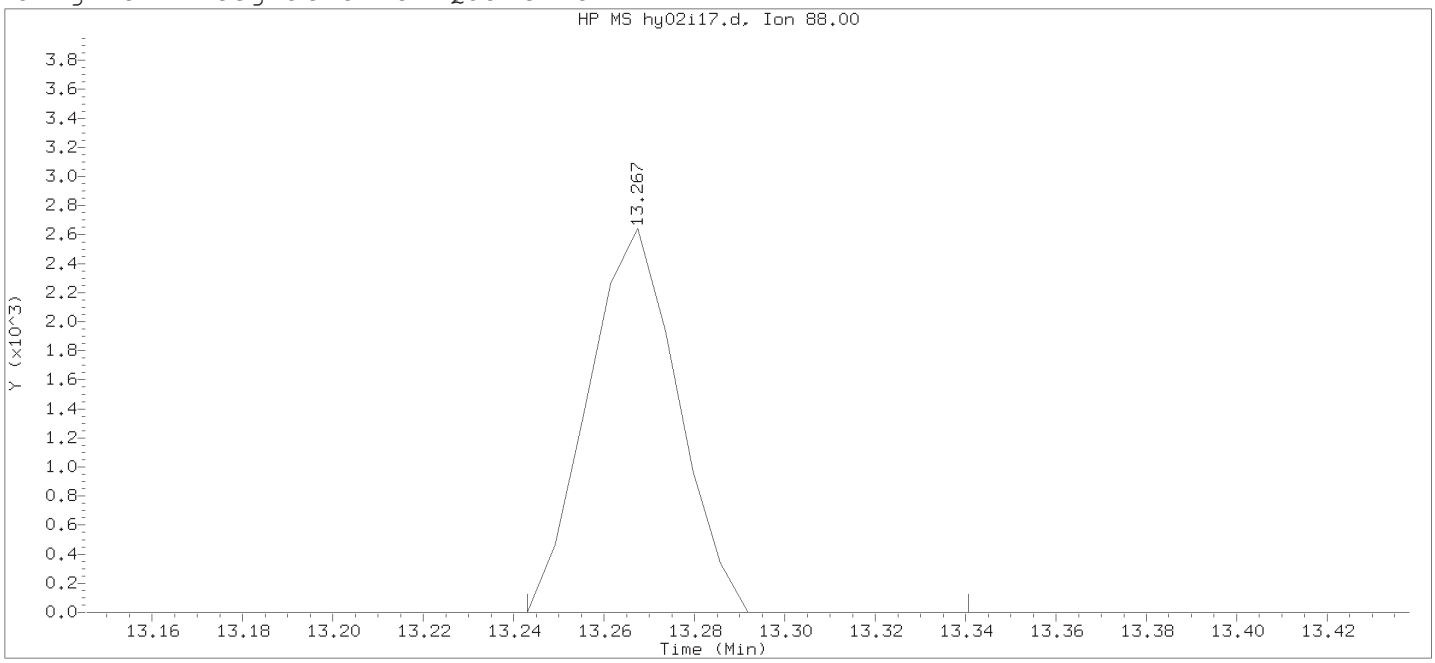
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

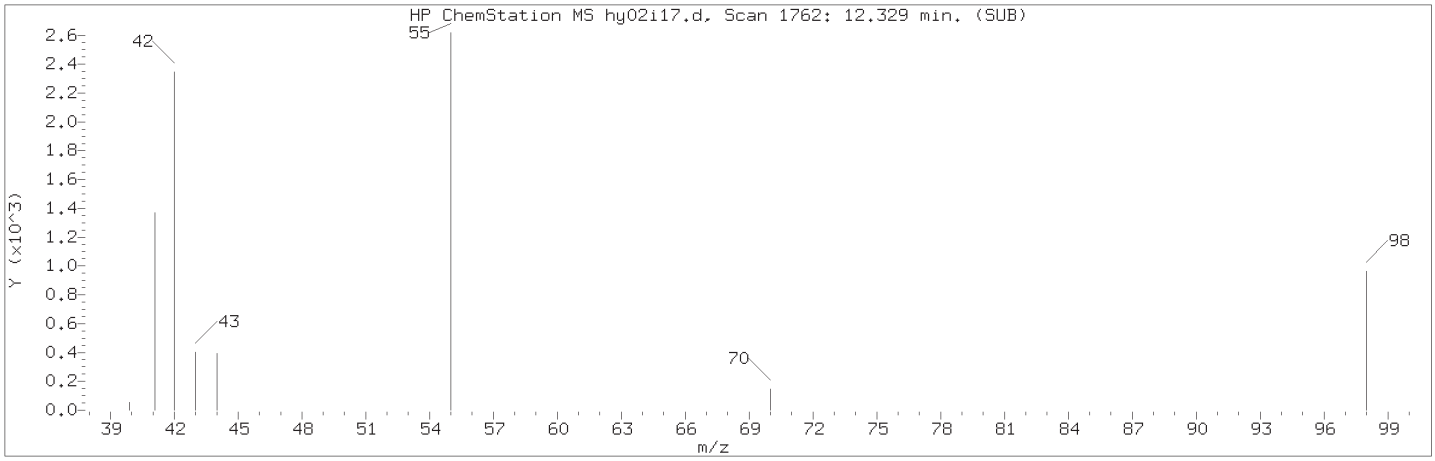
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:41
Date, time and analyst ID of latest file update: 02-May-2018 21:41 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

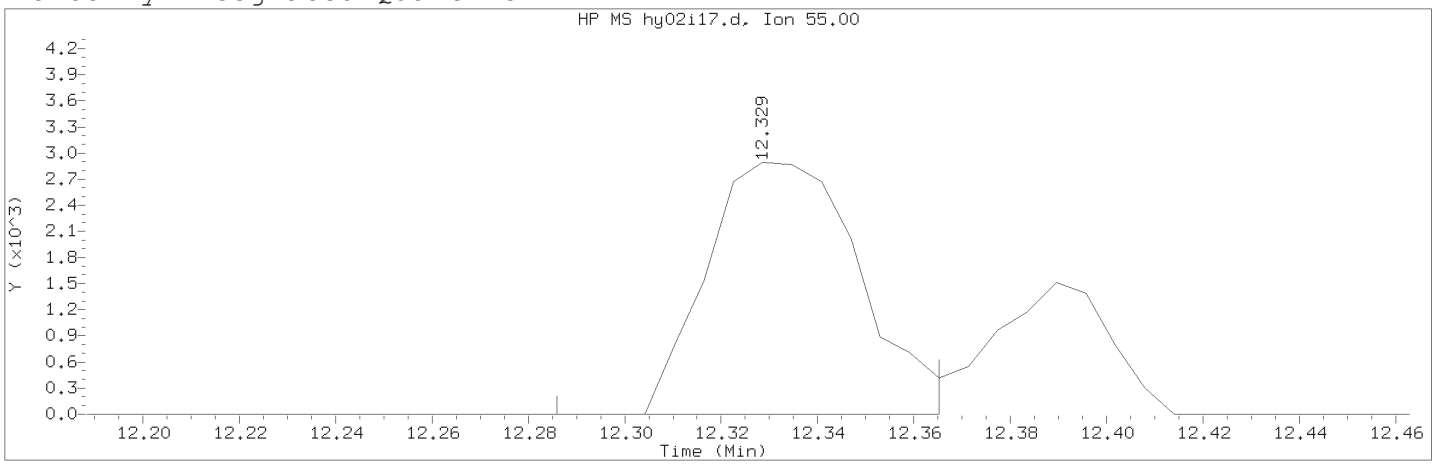
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1916
Retention Time (minutes): 13.267
Quant Ion : 88.00
Area : 3639
On-column Amount (ng) : 0.3604
Integration start scan : 1911 Integration stop scan: 1927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used 1 time(s).

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:21 dvv10203

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

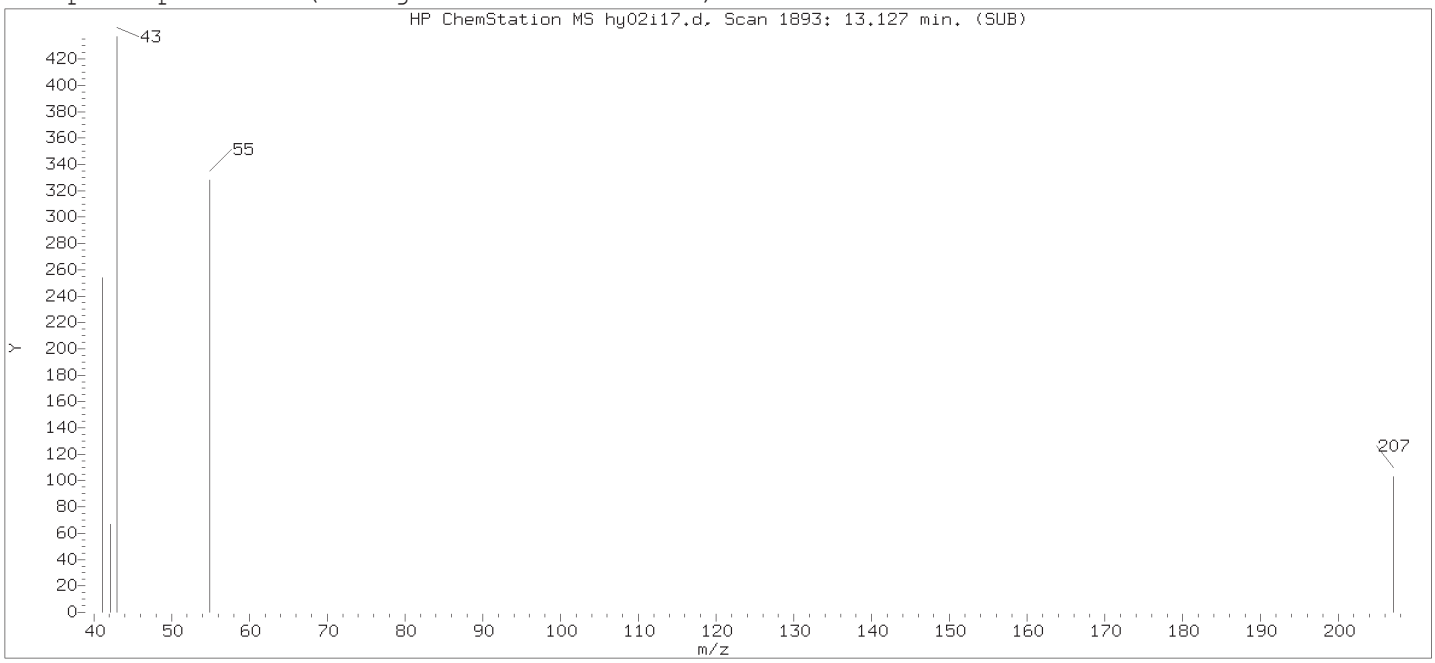
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 6386M
On-Column Amount (ng) : 11.0679
Integration start scan : 1754 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

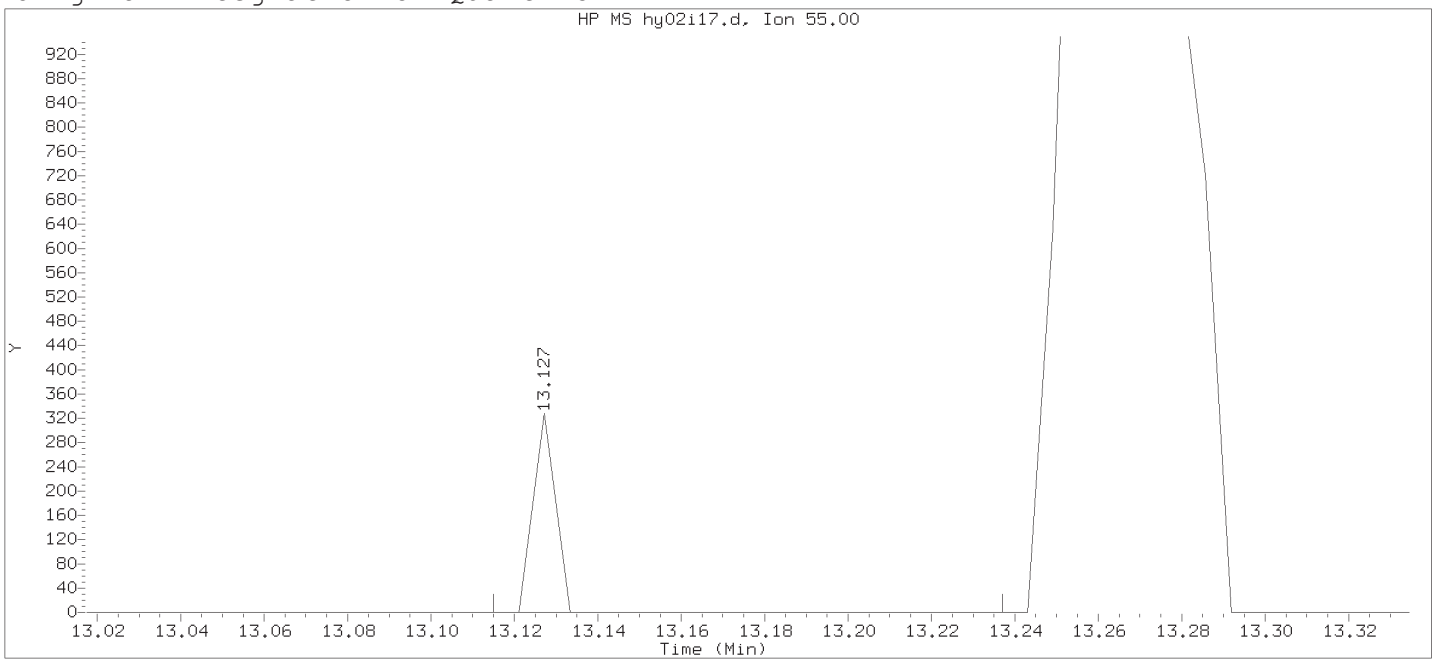
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:22.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



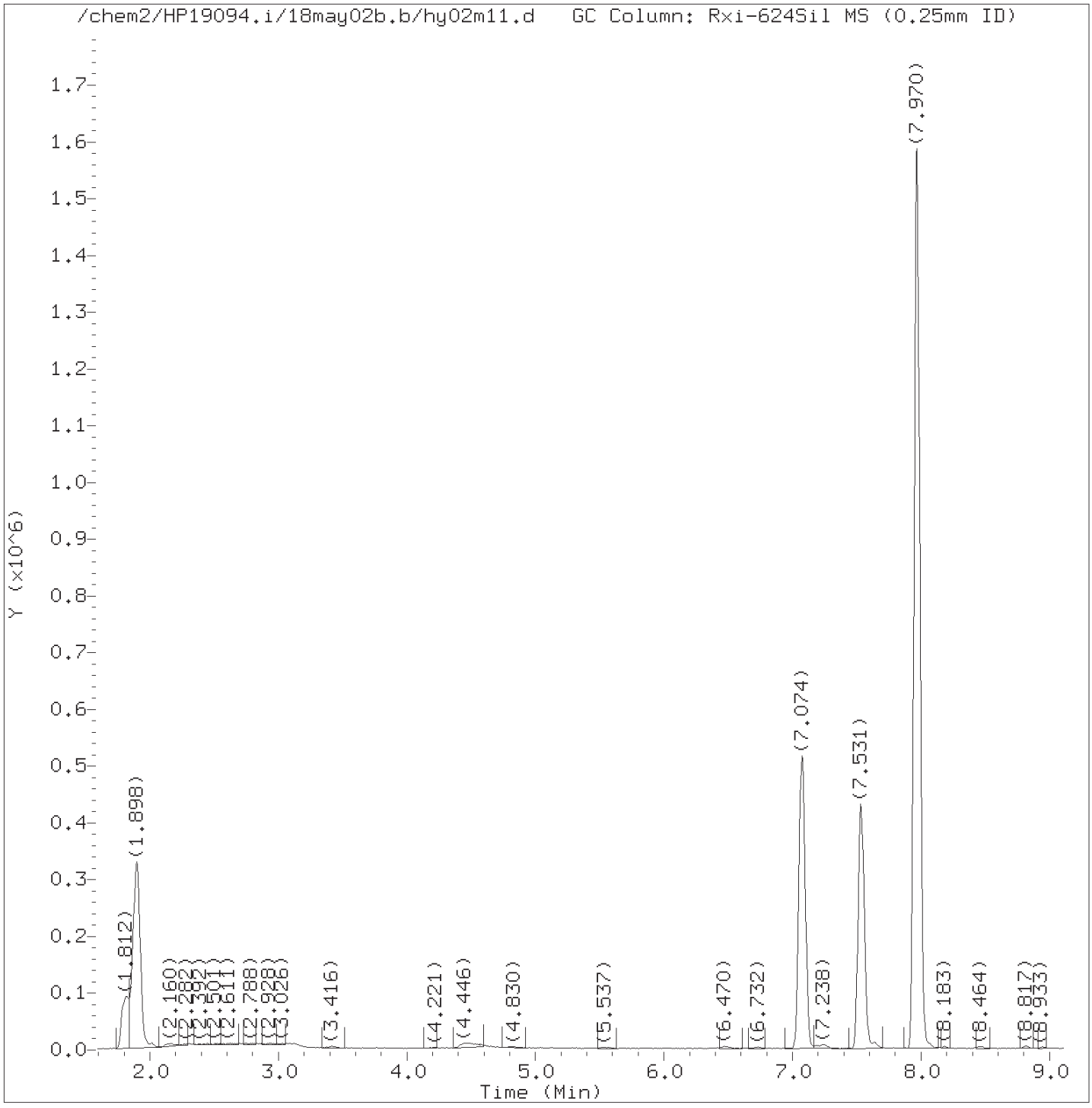
Data File: /chem2/HP19094.i/18may02b.b/hy02i17.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:23 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 02-MAY-2018 21:41
Date, time and analyst ID of latest file update: 02-May-2018 21:41 Automation

Sample Name: VSTD0.2 Lab Sample ID: VSTD0.2

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1893
Retention Time (minutes): 13.127
Quant Ion : 55.00
Area : 119
On-column Amount (ng) : 0.2868
Integration start scan : 1890 Integration stop scan: 1910
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:22.
Target 3.5 esignature used 1.0.3



Total Ion Chromatogram (TIC)

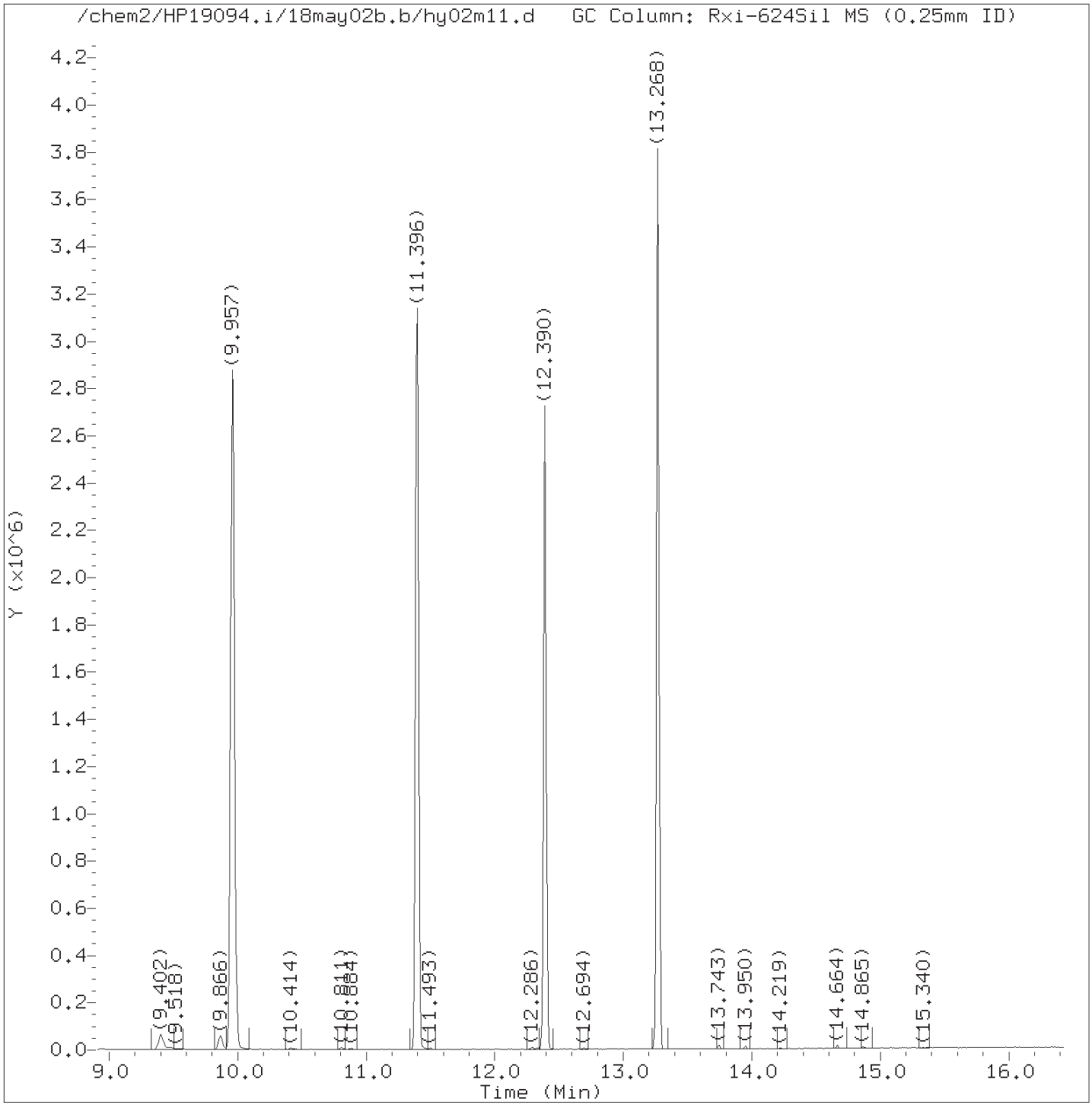
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

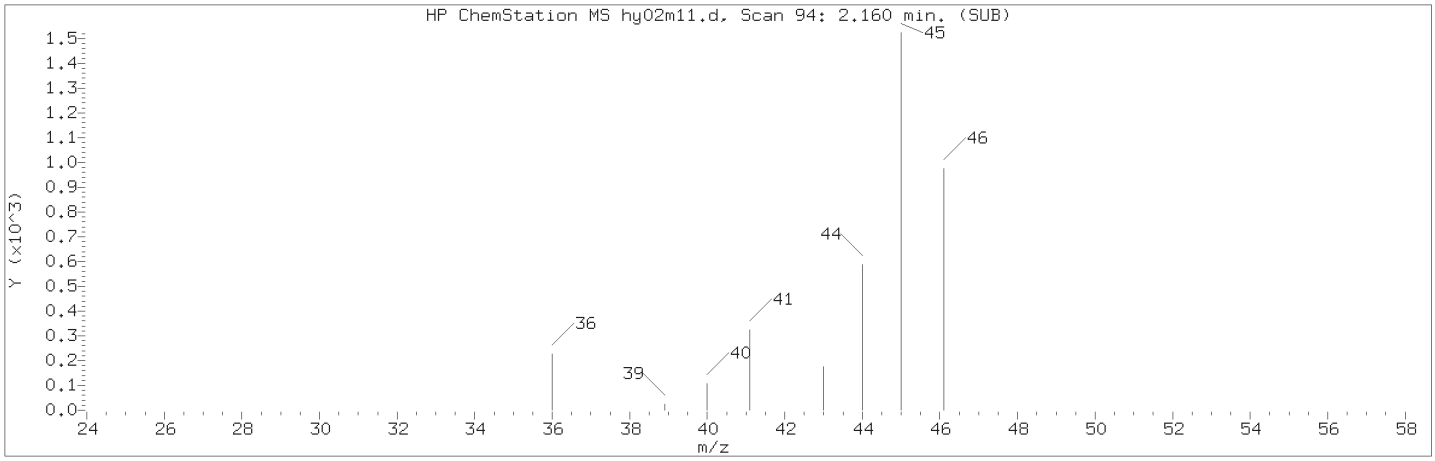
Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	7839M	0.107
25) Acetonitrile	(1)	4.208	41	8867M	4.300
26)*t-Butyl Alcohol-d10	(1)	4.458	65	85408M	50.000
36) Vinyl Acetate	(2)	5.525	43	6614	0.095
43) Methyl Acrylate	(2)	6.476	55	9556M	0.444
50)$Dibromofluoromethane	(2)	7.074	113	541631	9.601
53) 1-Chlorobutane	(2)	7.238	56	8275	0.080
57)$1,2-Dichloroethane-d4	(2)	7.537	102	99600	10.012
63)*Fluorobenzene	(2)	7.970	96	2283251	10.000
77) Chloroacetonitrile	(2)	9.476	75	2884	3.359
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	1644	0.080
82)$Toluene-d8	(3)	9.957	98	2300054	10.082
97)*Chlorobenzene-d5	(3)	11.396	117	1651612	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	1506M	0.136
112) Cyclohexanone	(1)	12.341	55	2470M	4.391
111)$4-Bromofluorobenzene	(3)	12.390	95	809970	10.008
133)*1,4-Dichlorobenzene-d4	(4)	13.268	152	873882	10.000
142) Hexachloroethane	(4)	13.749	117	2414	0.066

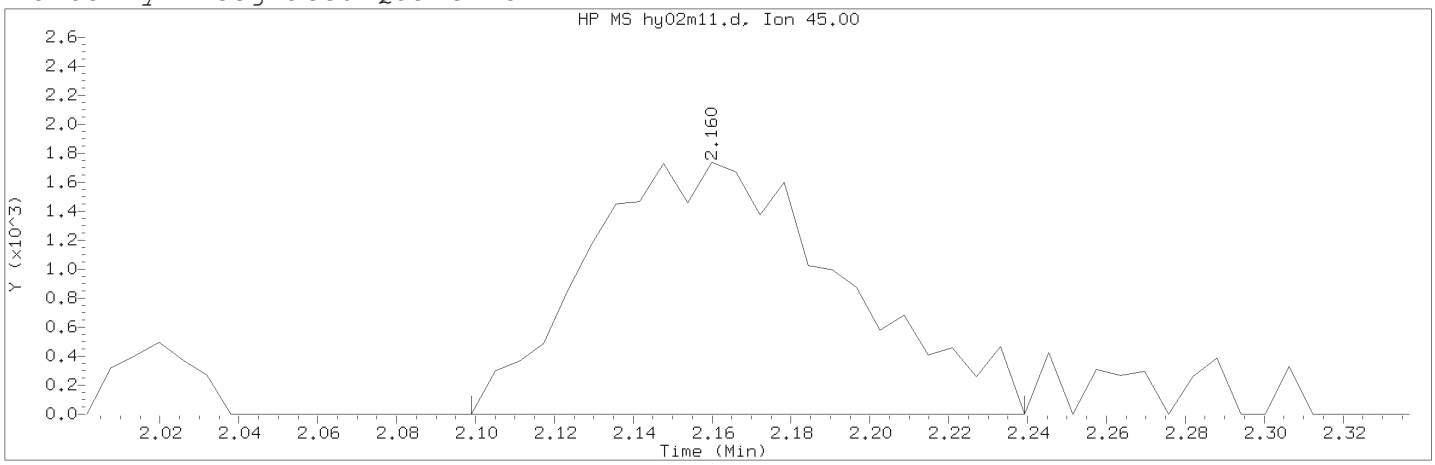
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

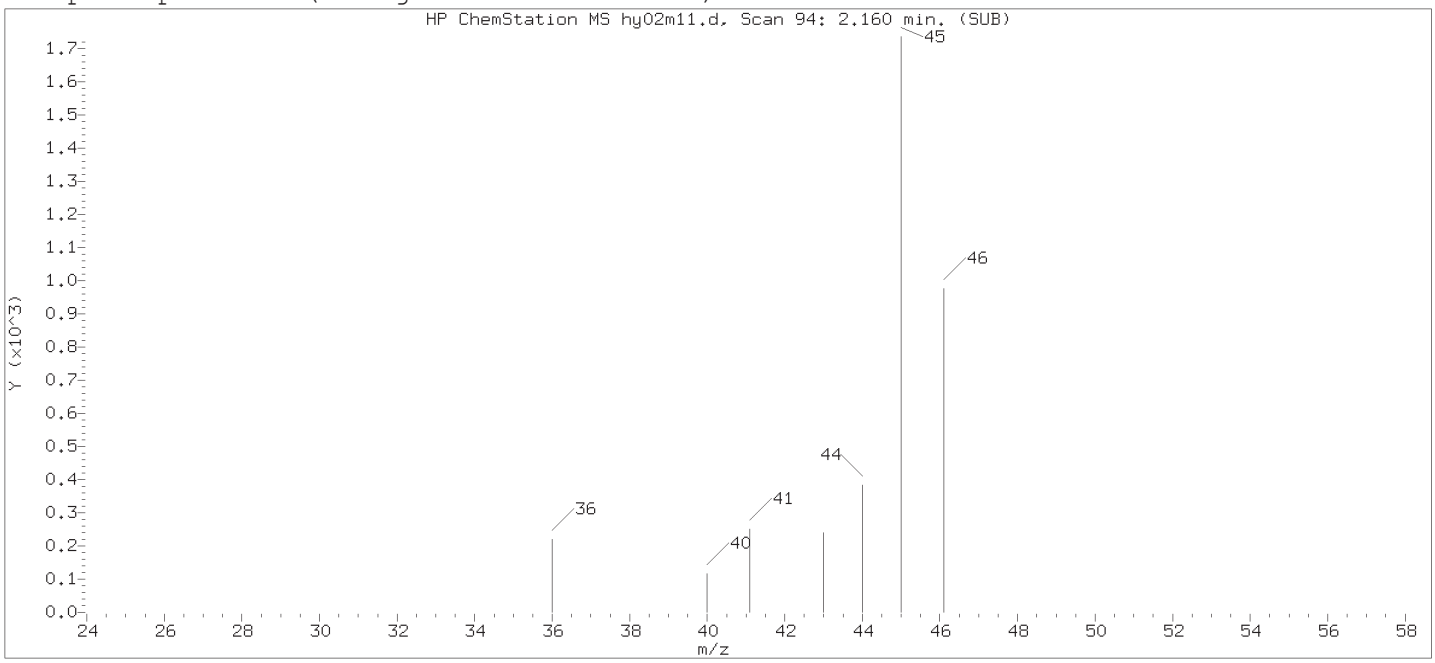
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 7839M
On-Column Amount (ng) : 0.1069
Integration start scan : 83 Integration stop scan: 106
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

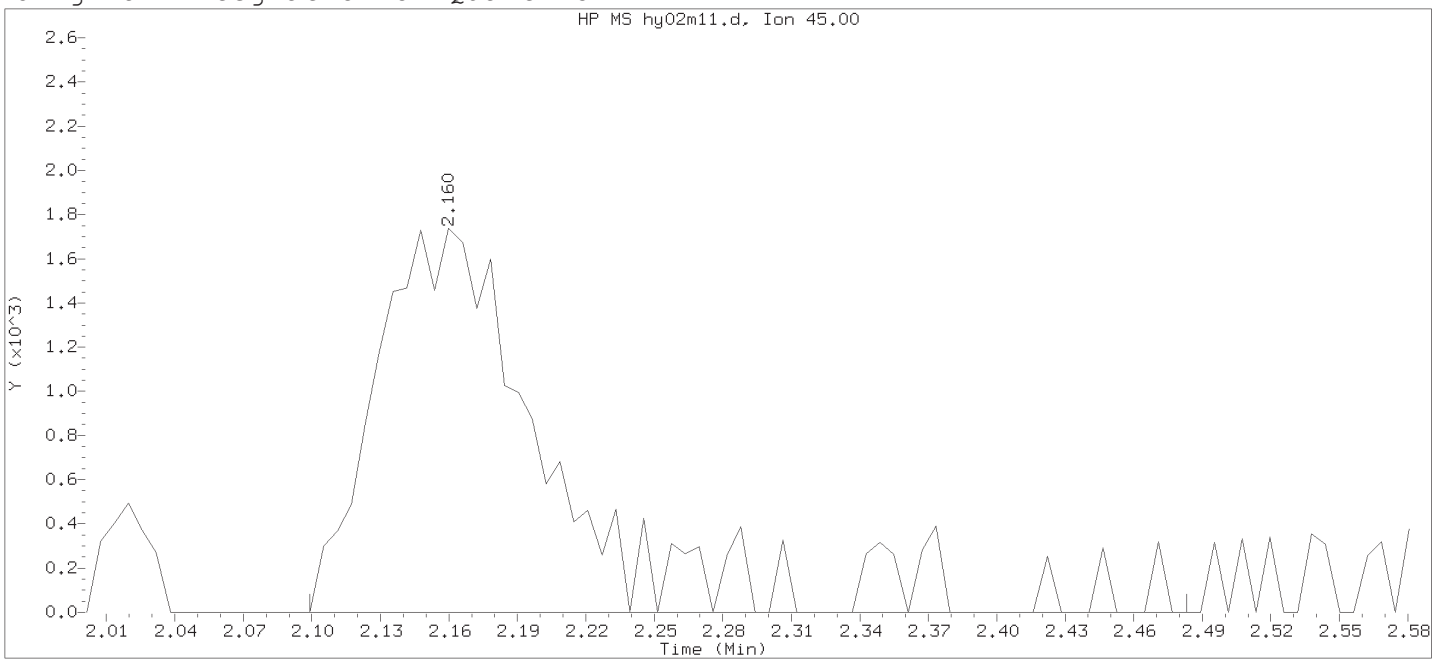
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

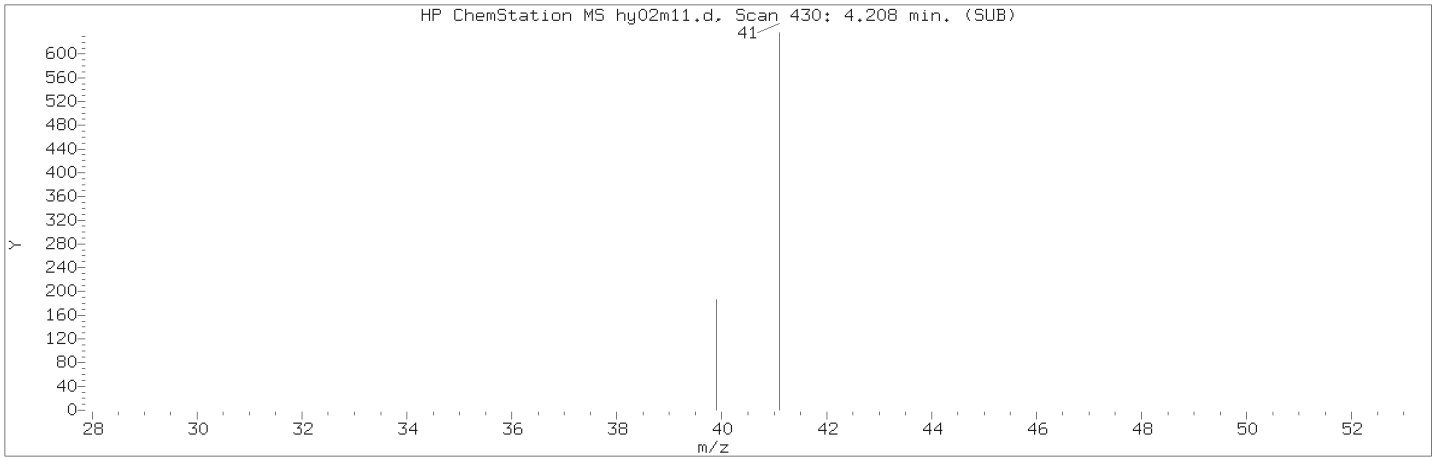
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

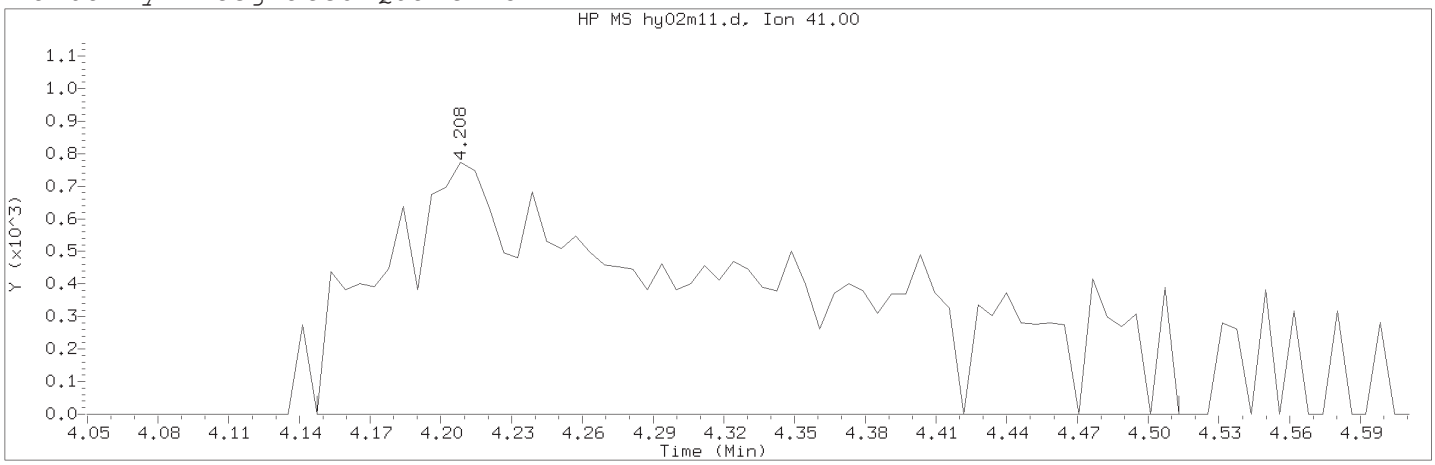
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 94		
Retention Time (minutes)	: 2.160		
Quant Ion	: 45.00		
Area	: 9539		
On-column Amount (ng)	: 0.1302		
Integration start scan	: 83	Integration stop scan:	146
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

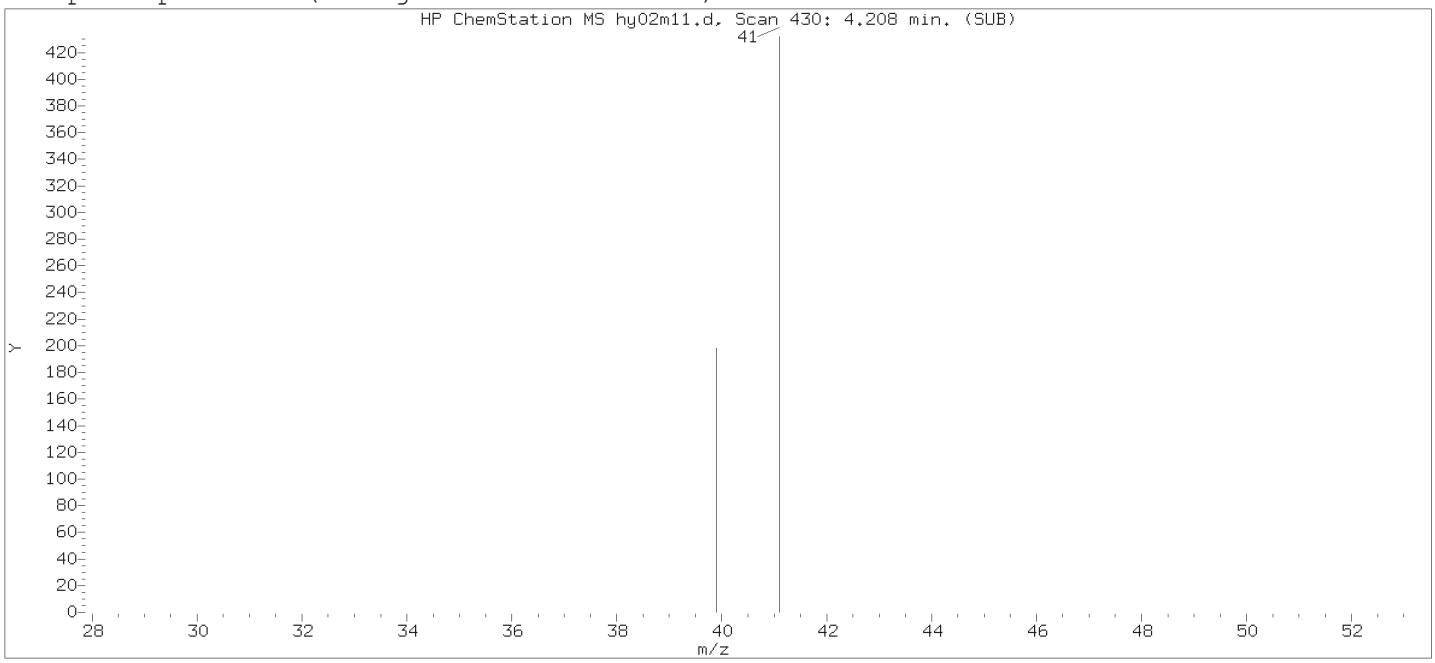
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area (flag) : 8867M
On-Column Amount (ng) : 4.2995
Integration start scan : 419 Integration stop scan: 479
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

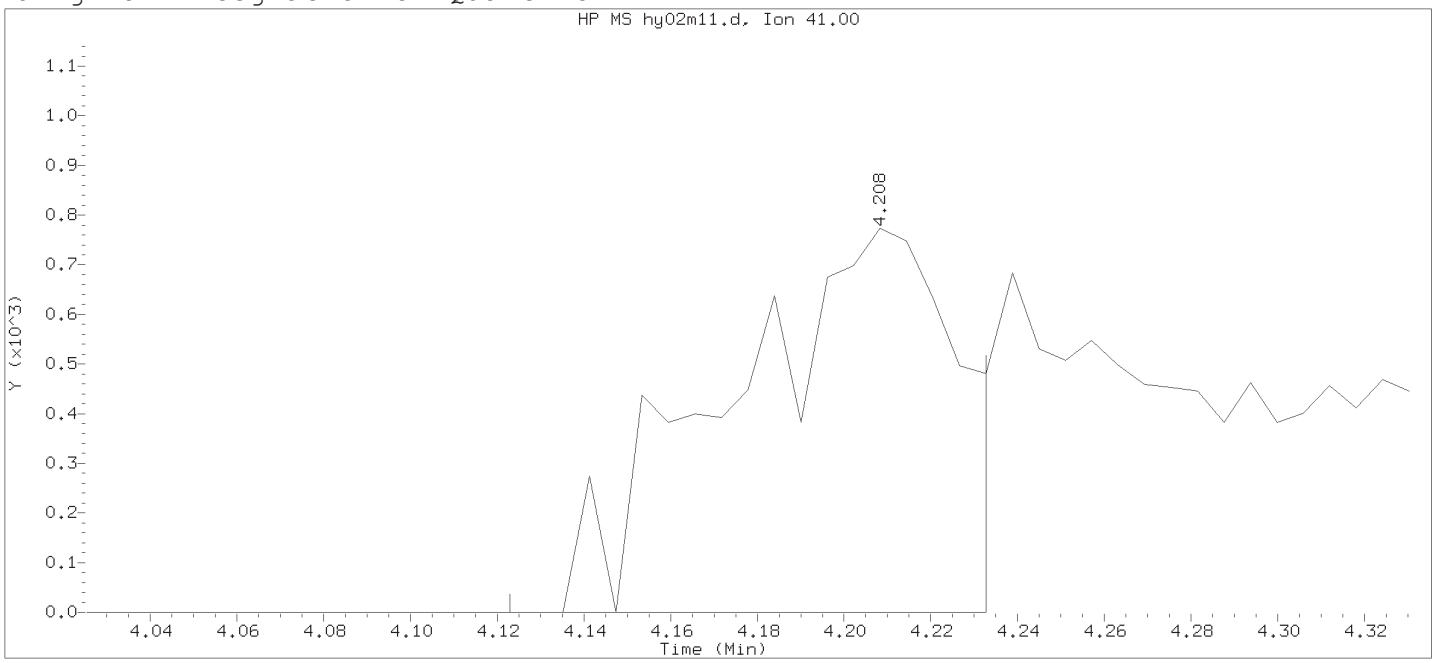
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

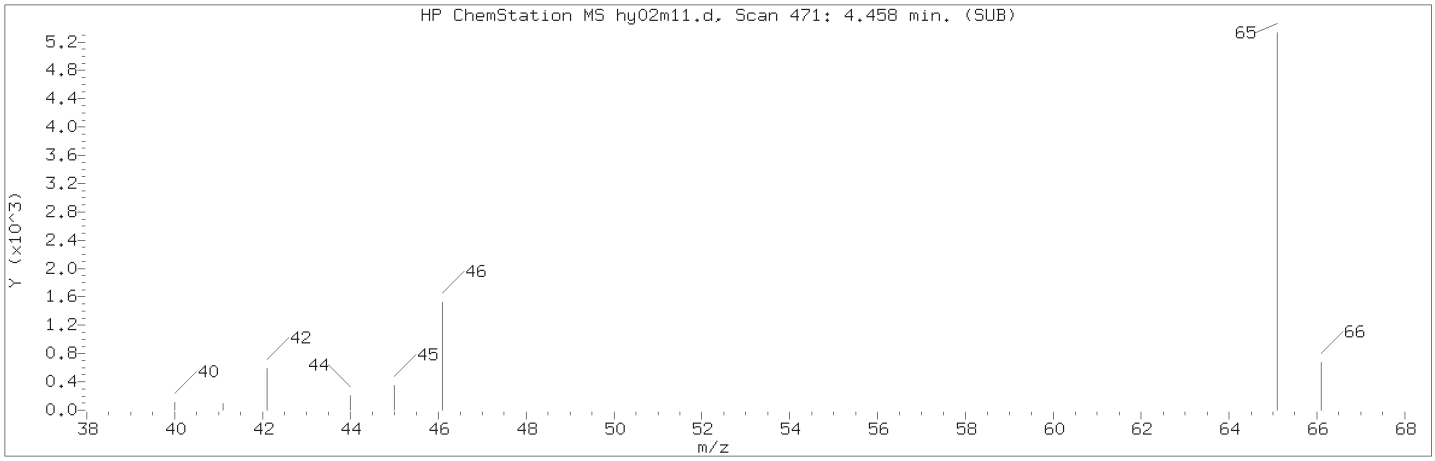
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

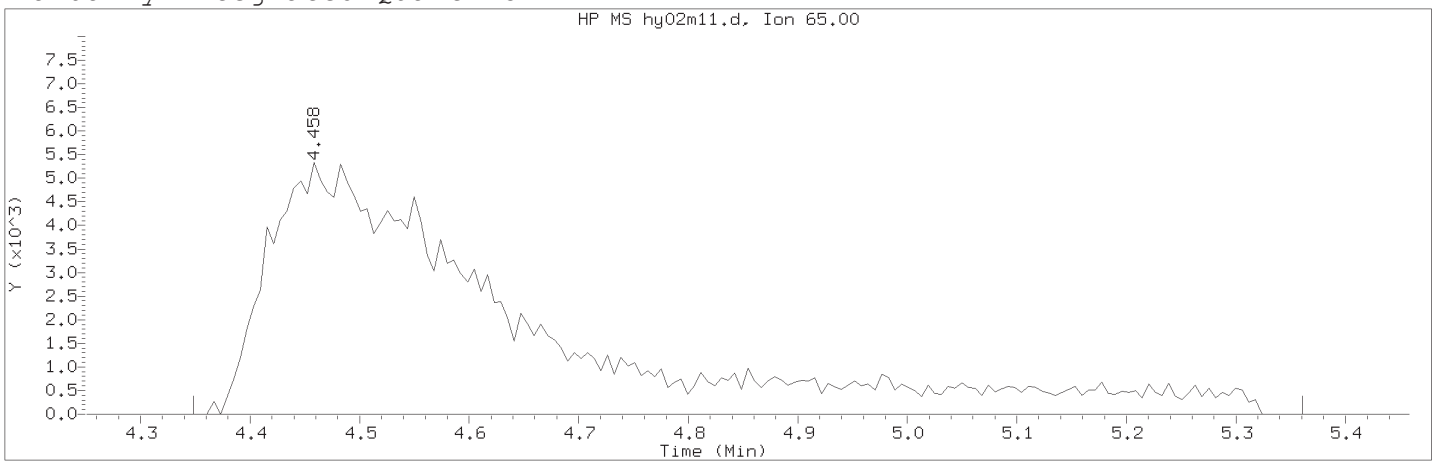
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area : 2786
On-column Amount (ng) : 1.5113
Integration start scan : 415 Integration stop scan: 433
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

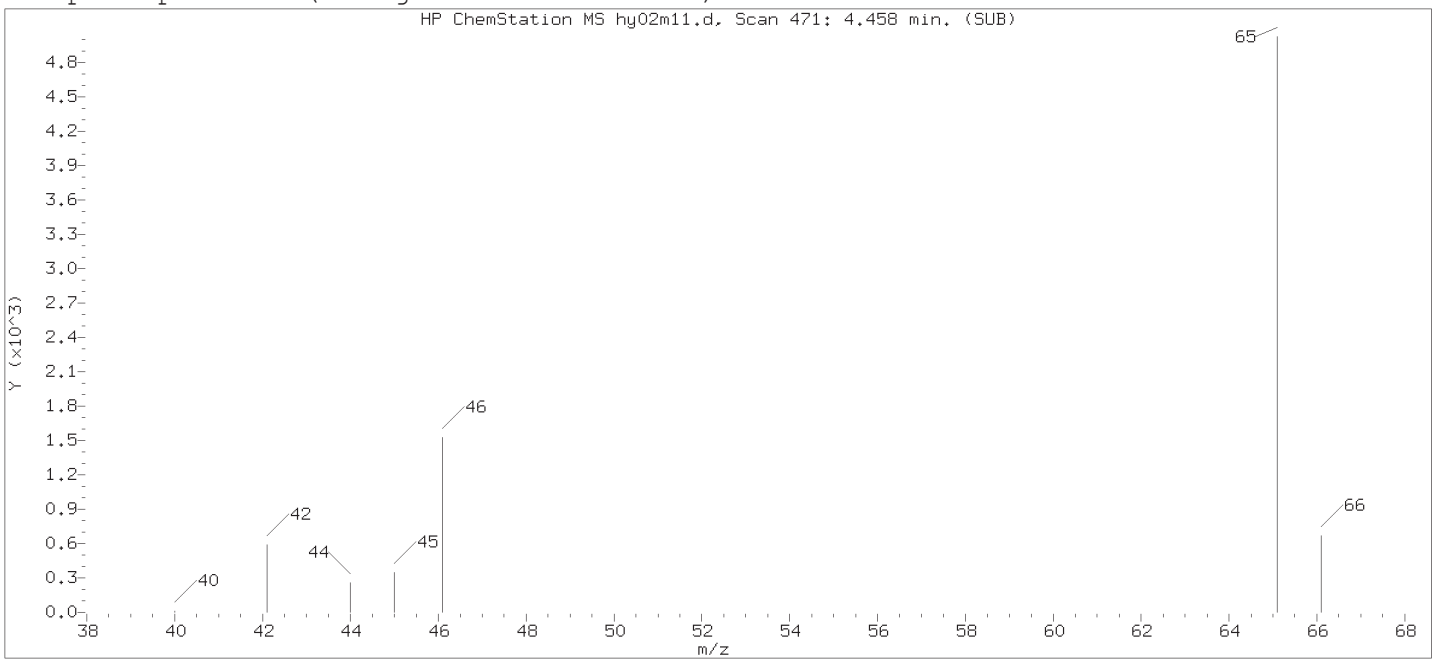
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area (flag) : 85408M
On-Column Amount (ng) : 50.0000
Integration start scan : 452 Integration stop scan: 618
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

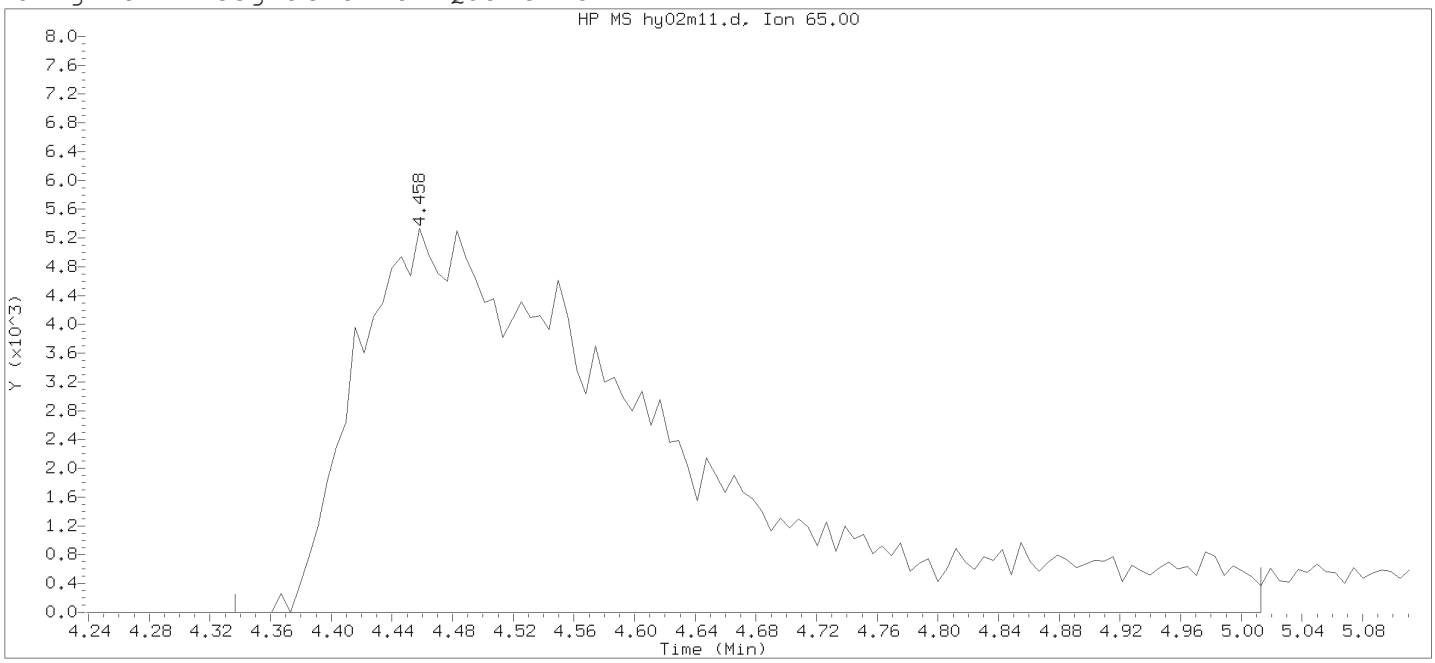
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

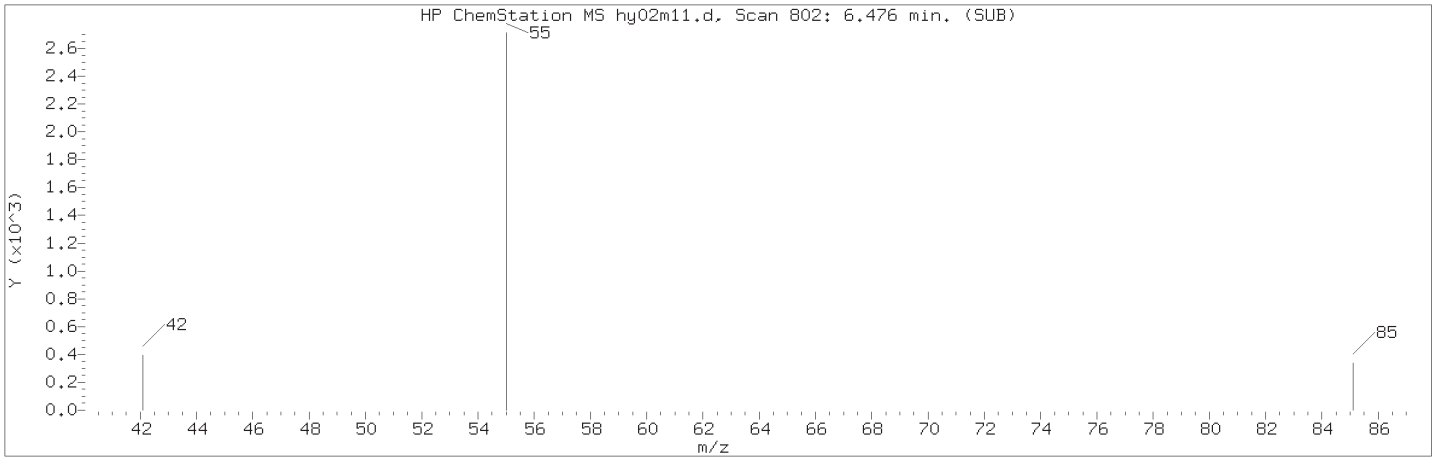
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

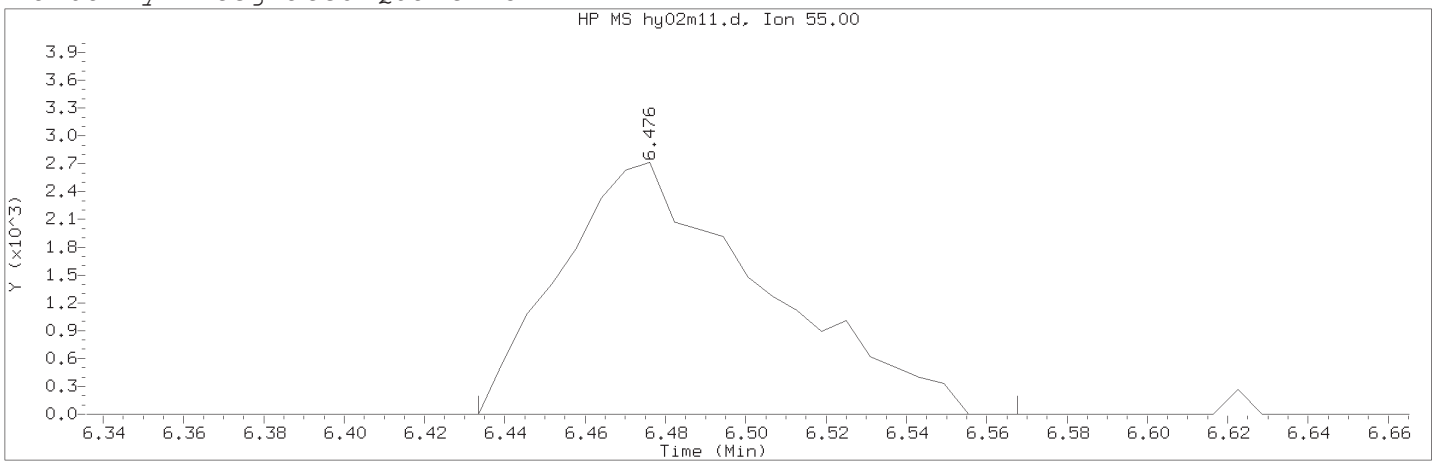
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 471
Retention Time (minutes): 4.458
Quant Ion : 65.00
Area : 76364
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 561
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

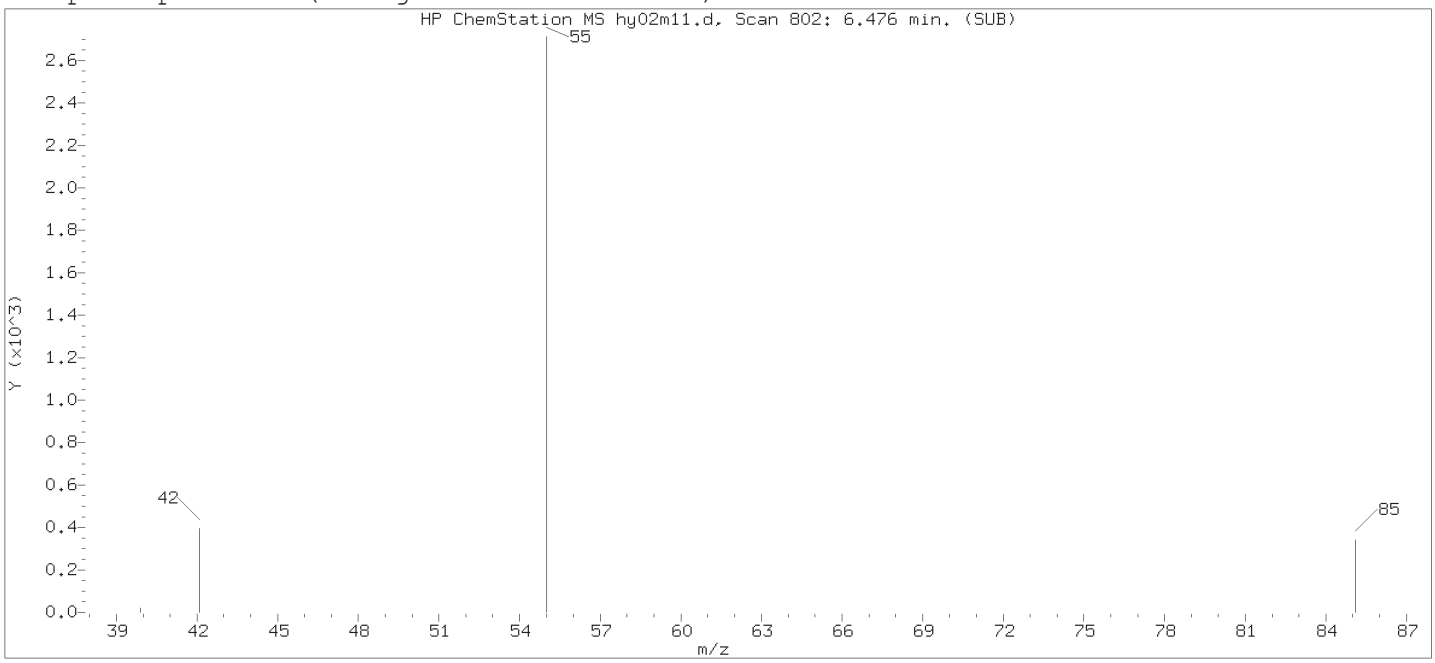
Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 802
Retention Time (minutes): 6.476
Quant Ion : 55.00
Area (flag) : 9556M
On-Column Amount (ng) : 0.4435
Integration start scan : 794 Integration stop scan: 816
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

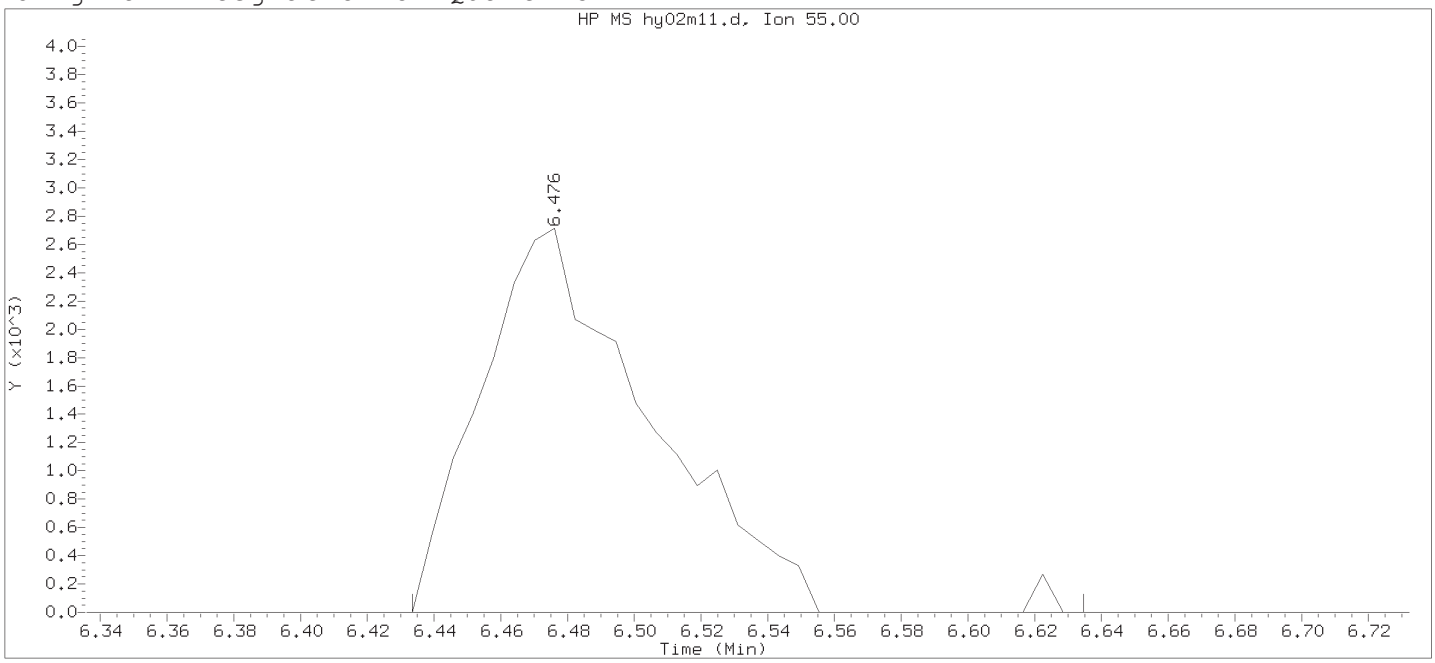
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

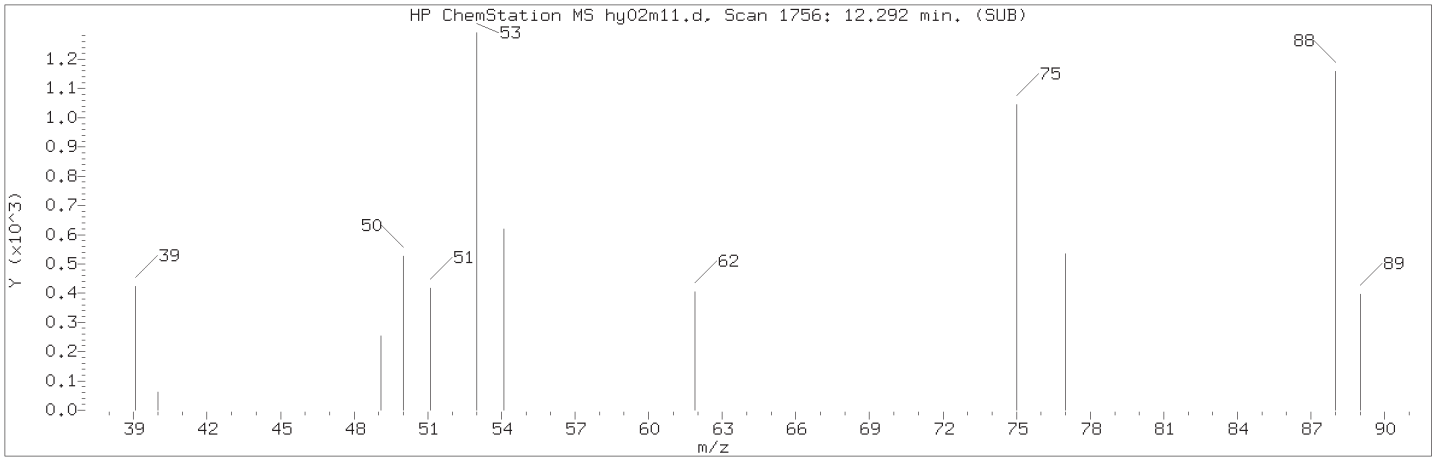
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

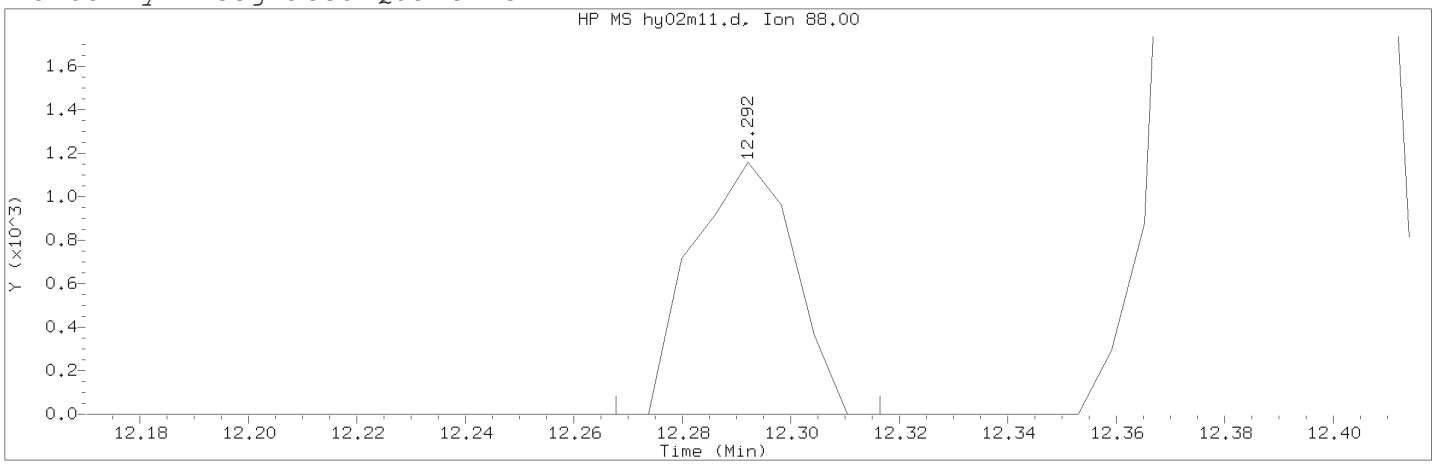
Compound Number : 43
Compound Name : Methyl Acrylate
Scan Number : 802
Retention Time (minutes): 6.476
Quant Ion : 55.00
Area : 9654
On-column Amount (ng) : 0.4481
Integration start scan : 794 Integration stop scan: 827
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

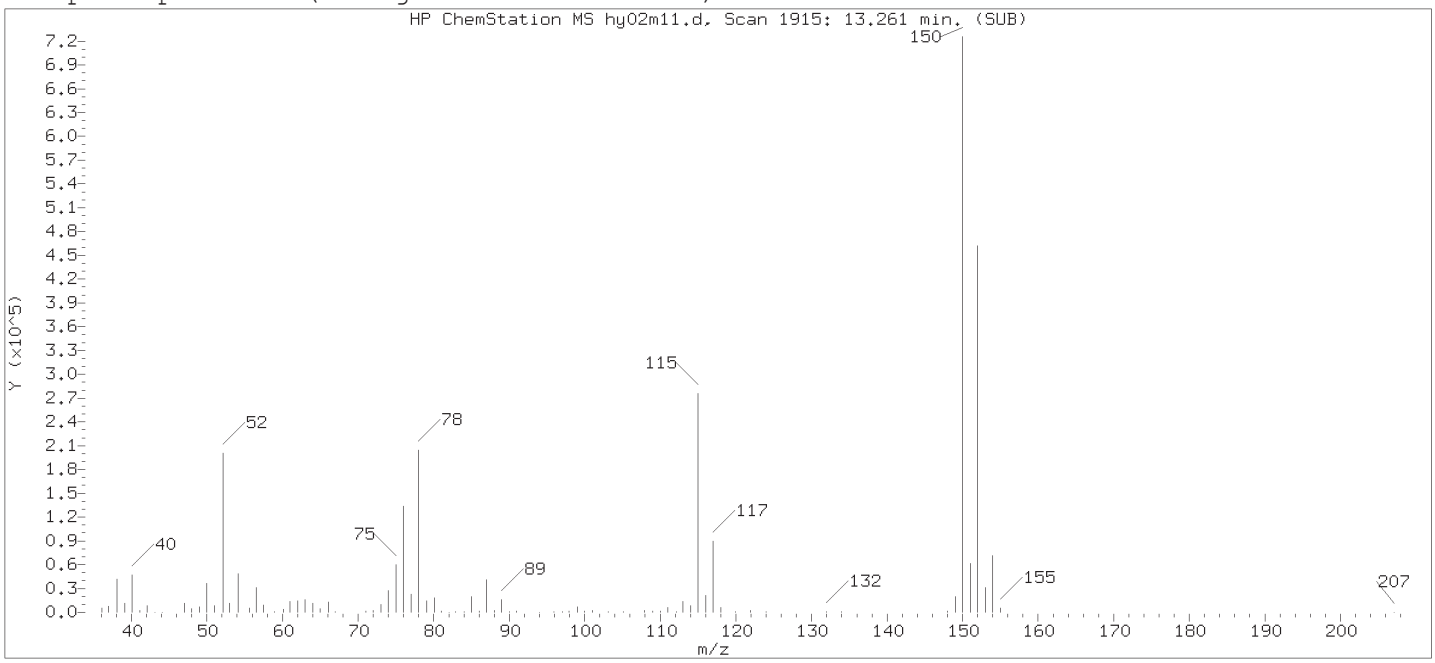
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 1506M
On-Column Amount (ng) : 0.1362
Integration start scan : 1751 Integration stop scan: 1759
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

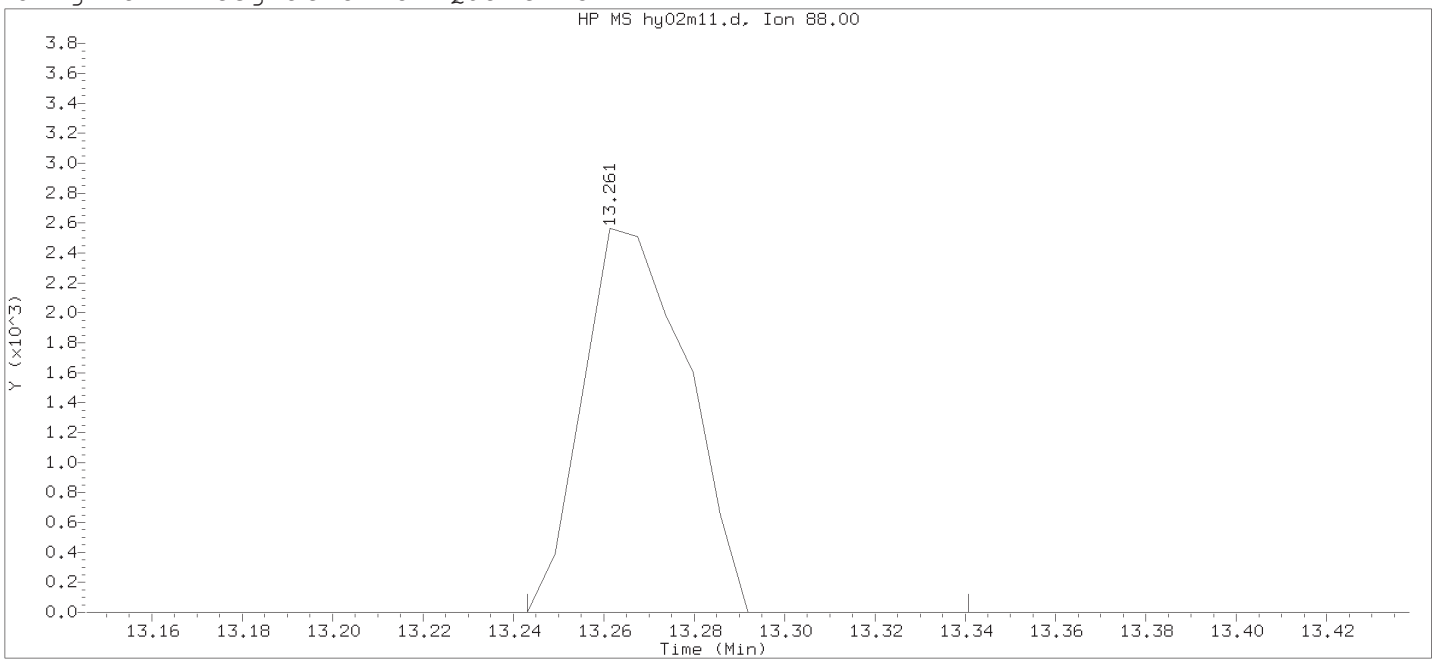
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

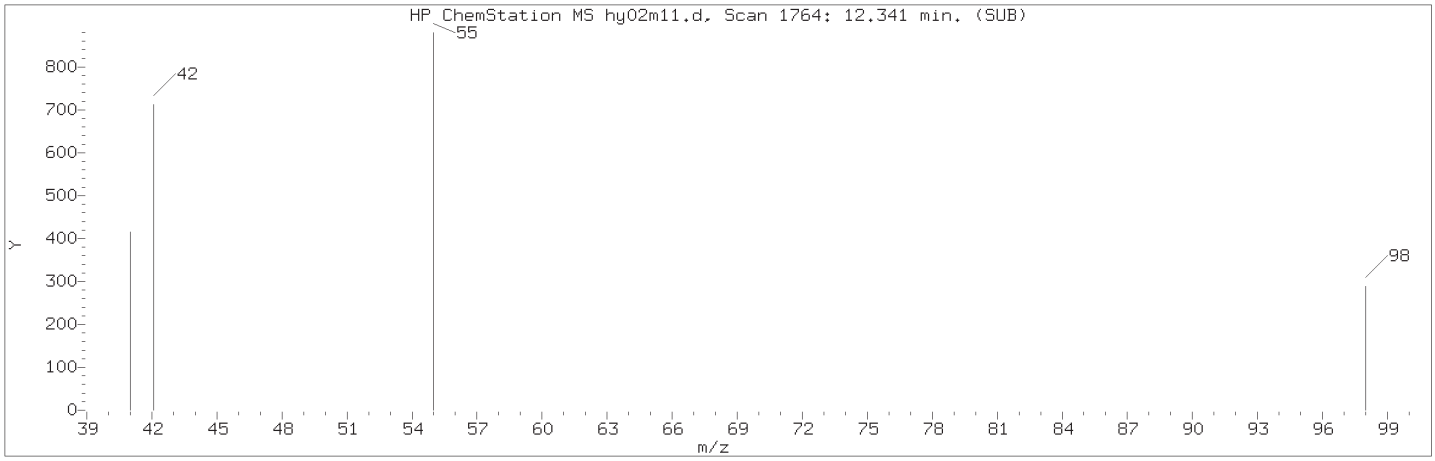
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

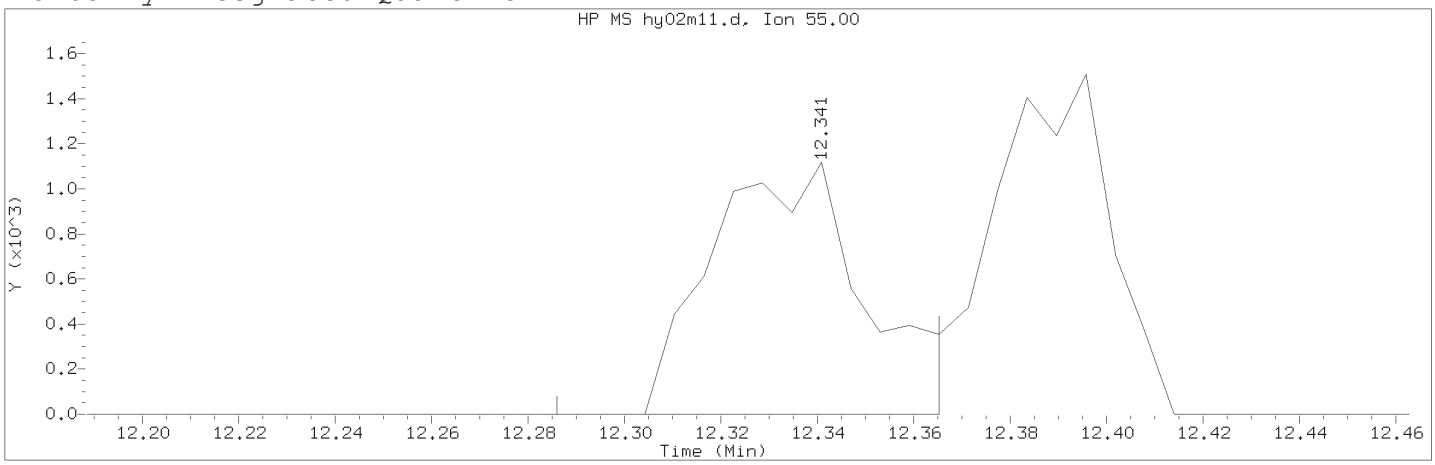
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1915
Retention Time (minutes): 13.261
Quant Ion : 88.00
Area : 4090
On-column Amount (ng) : 0.4136
Integration start scan : 1911 Integration stop scan: 1927
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:37 dvv10203

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

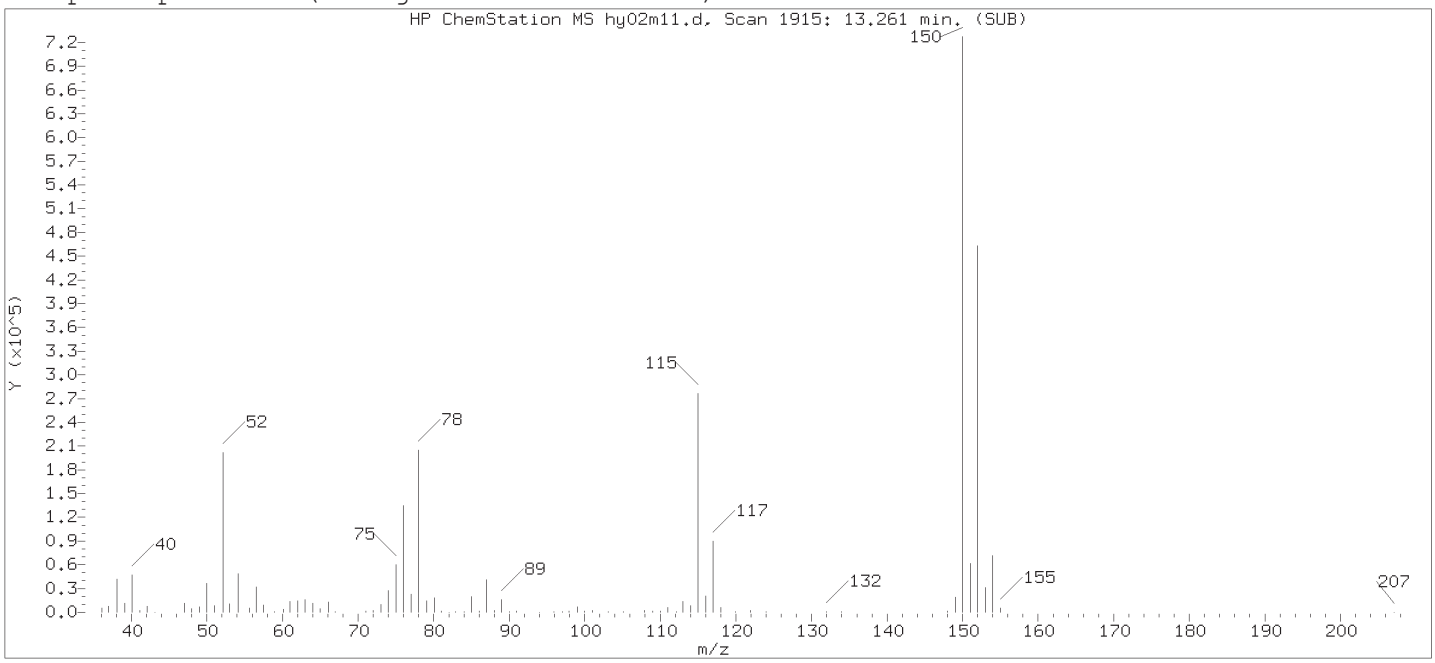
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1764
Retention Time (minutes): 12.341
Quant Ion : 55.00
Area (flag) : 2470M
On-Column Amount (ng) : 4.3909
Integration start scan : 1754 Integration stop scan: 1767
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

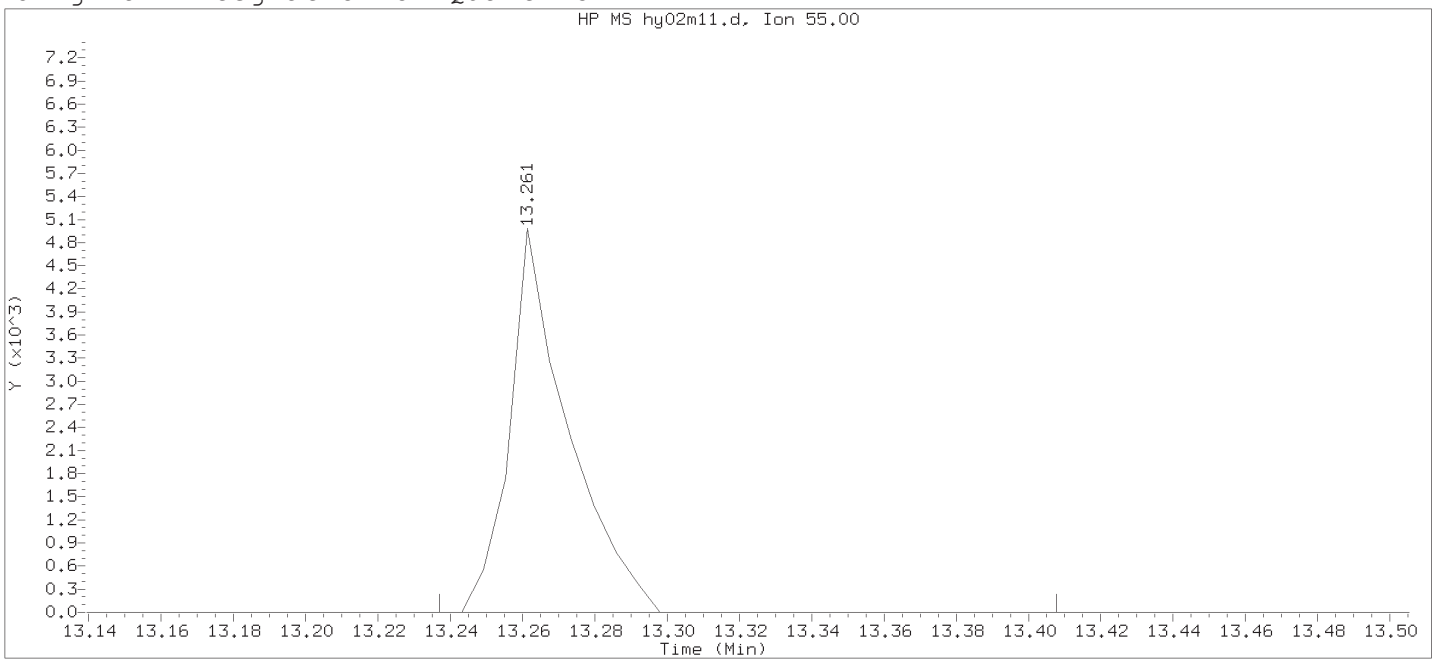
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/02/2018 at 22:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



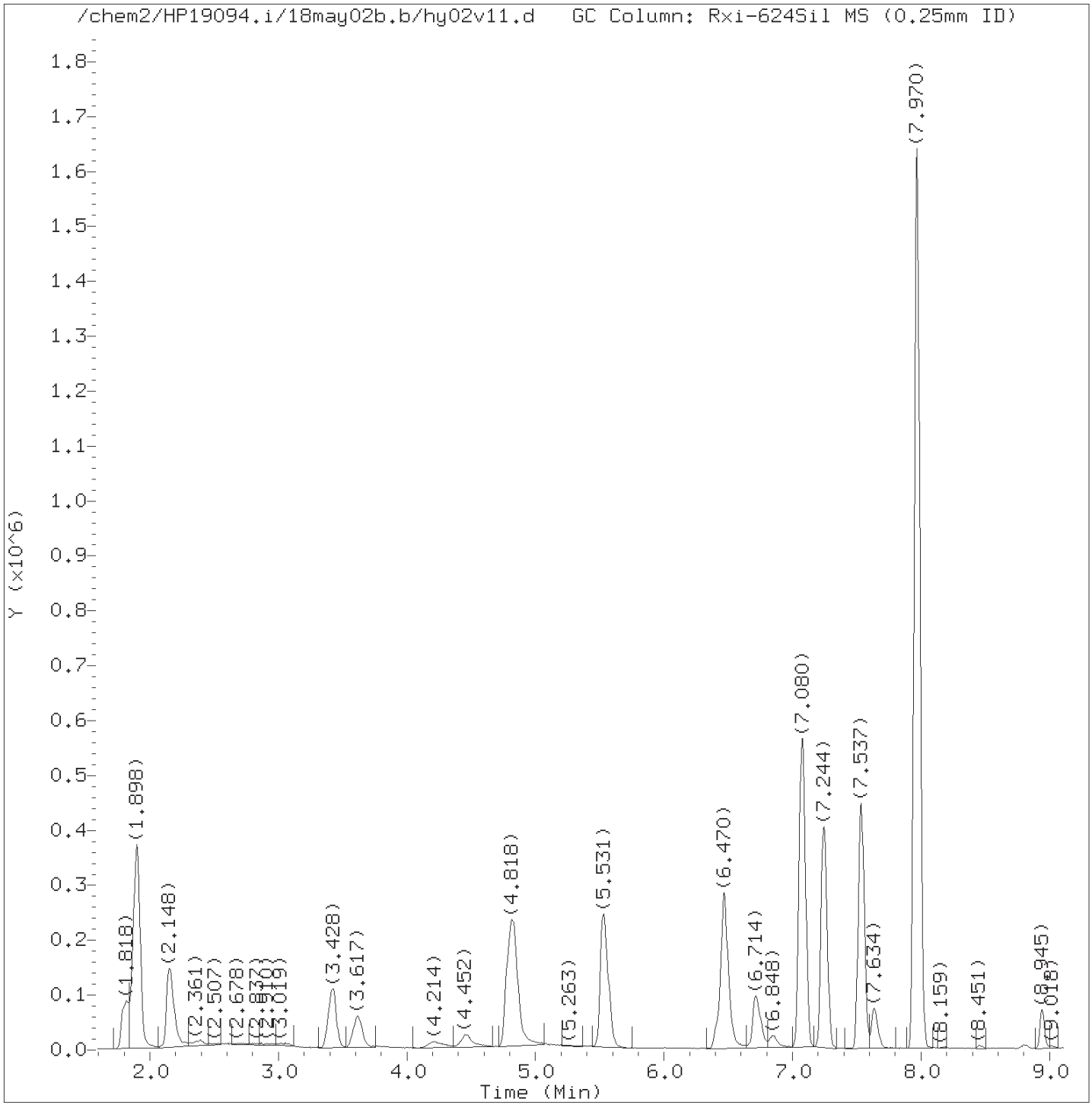
Data File: /chem2/HP19094.i/18may02b.b/hy02m11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 21:45 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 21:49
Date, time and analyst ID of latest file update: 02-May-2018 22:03 Automation

Sample Name: MDL0.1 Lab Sample ID: MDL0.1

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1915
Retention Time (minutes): 13.261
Quant Ion : 55.00
Area : 5604
On-column Amount (ng) : 11.1430
Integration start scan : 1910 Integration stop scan: 1938
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/02/2018 at 22:39.
Target 3.5 esignature used: D12 Reason: I



Total Ion Chromatogram (TIC)

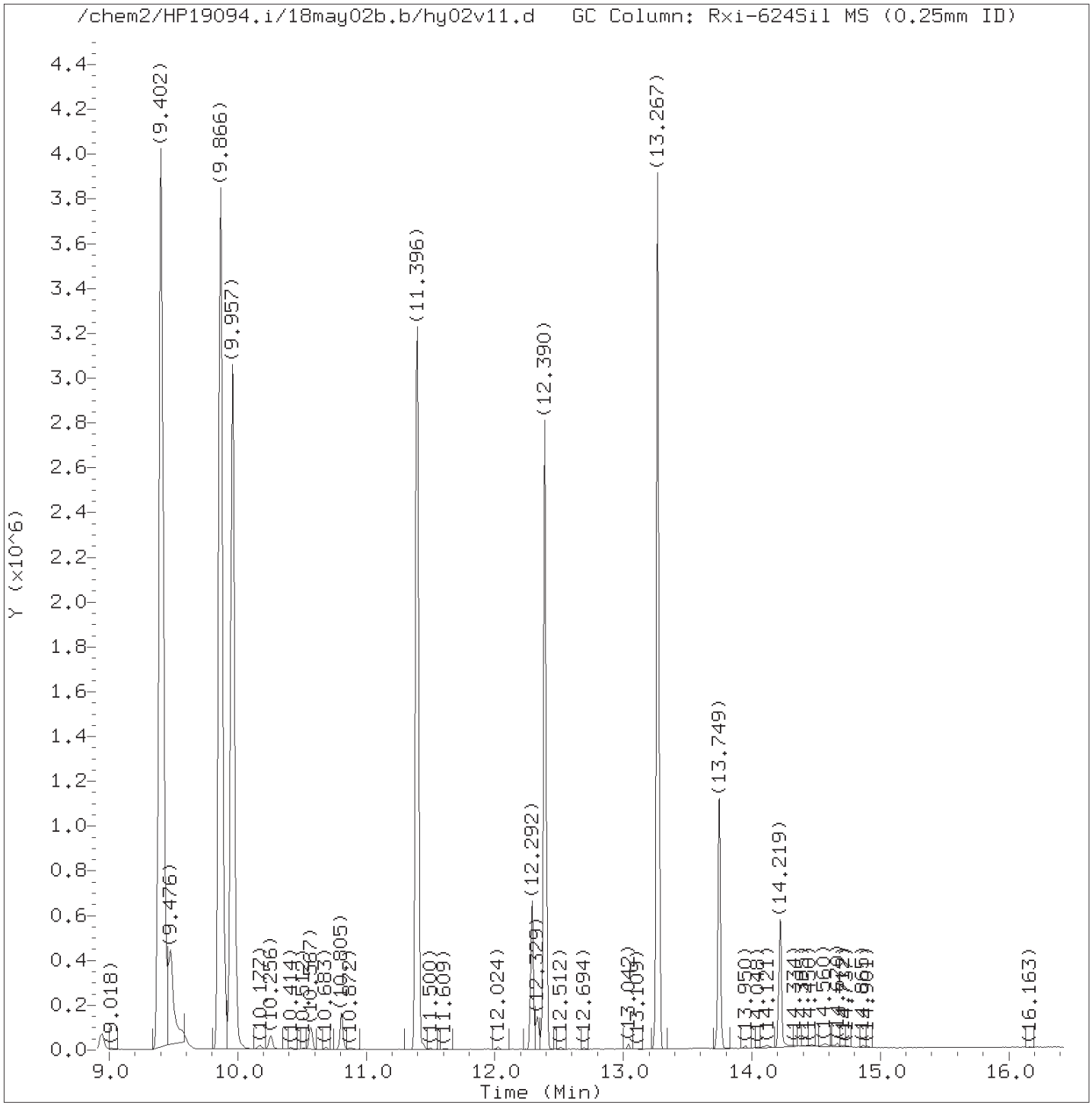
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

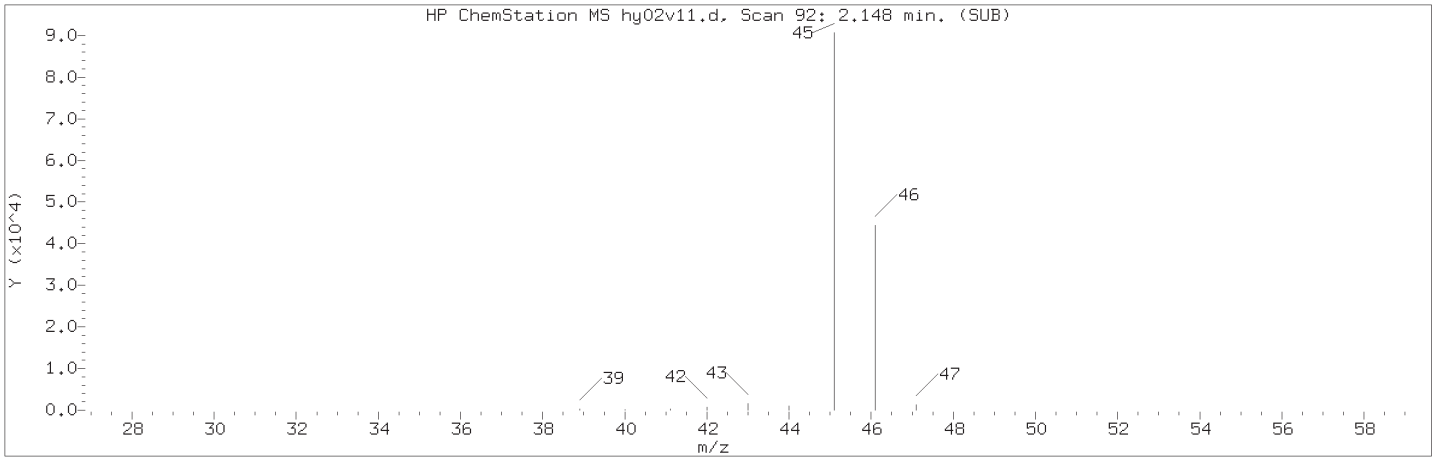
Sample Name: LCSH88 Lab Sample ID: LCSH88

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.148	45	368555M	4.907
25) Acetonitrile	(1)	4.214	41	82341M	40.799
26)*t-Butyl Alcohol-d10	(1)	4.470	65	83582M	50.000
36) Vinyl Acetate	(2)	5.531	43	844654	11.805
43) Methyl Acrylate	(2)	6.470	55	584105	26.458
50)$Dibromofluoromethane	(2)	7.074	113	565872	9.789
53) 1-Chlorobutane	(2)	7.244	56	535230	5.066
57)$1,2-Dichloroethane-d4	(2)	7.531	102	101751	9.983
63)*Fluorobenzene	(2)	7.970	96	2339478	10.000
77) Chloroacetonitrile	(2)	9.463	75	217752	247.495
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	107445	5.079
82)$Toluene-d8	(3)	9.957	98	2378040	10.120
97)*Chlorobenzene-d5	(3)	11.396	117	1701187	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	141422M	13.065
112) Cyclohexanone	(1)	12.329	55	72992M	132.593
111)$4-Bromofluorobenzene	(3)	12.390	95	830464	9.962
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	891015	10.000
142) Hexachloroethane	(4)	13.743	117	197454	5.264

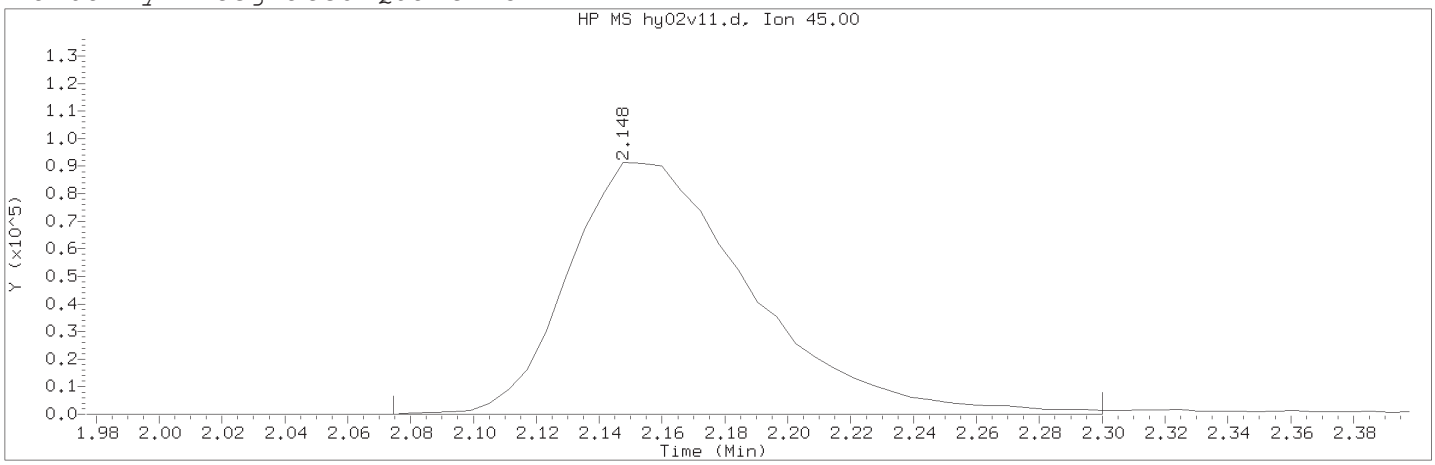
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

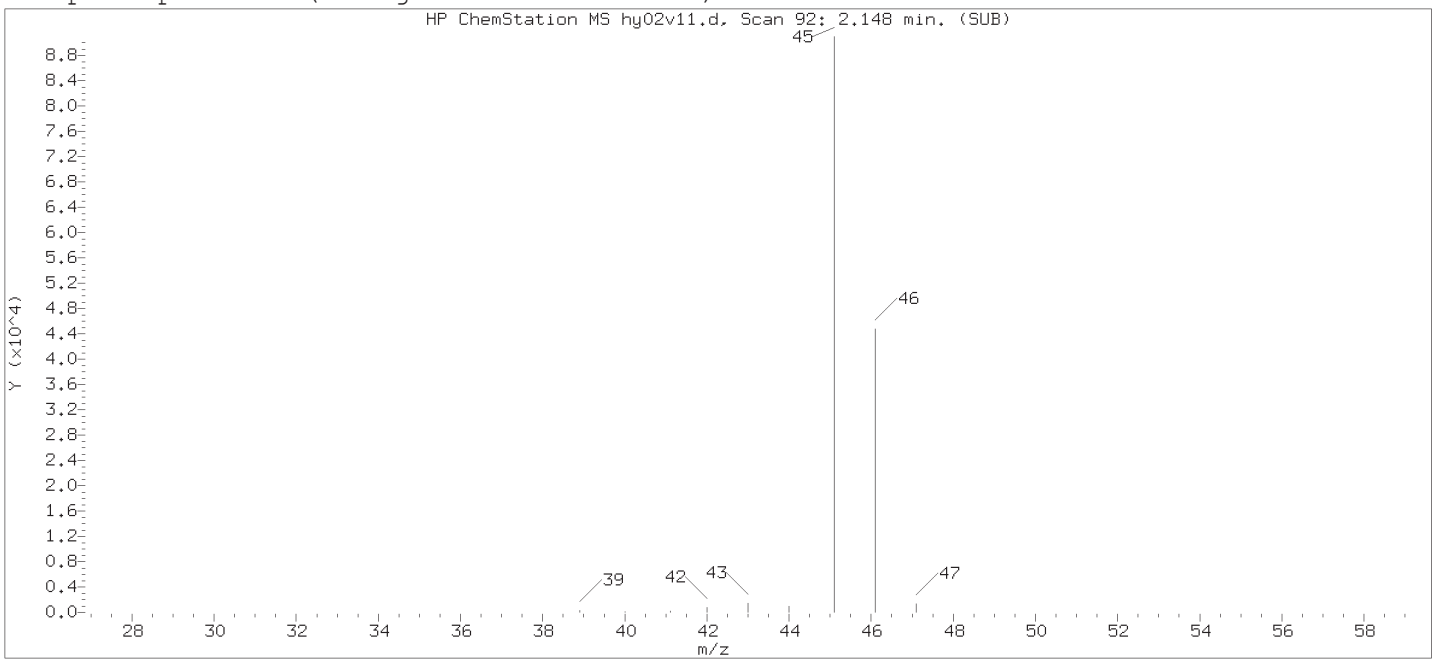
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 92
Retention Time (minutes): 2.148
Quant Ion : 45.00
Area (flag) : 368555M
On-Column Amount (ng) : 4.9074
Integration start scan : 79 Integration stop scan: 116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

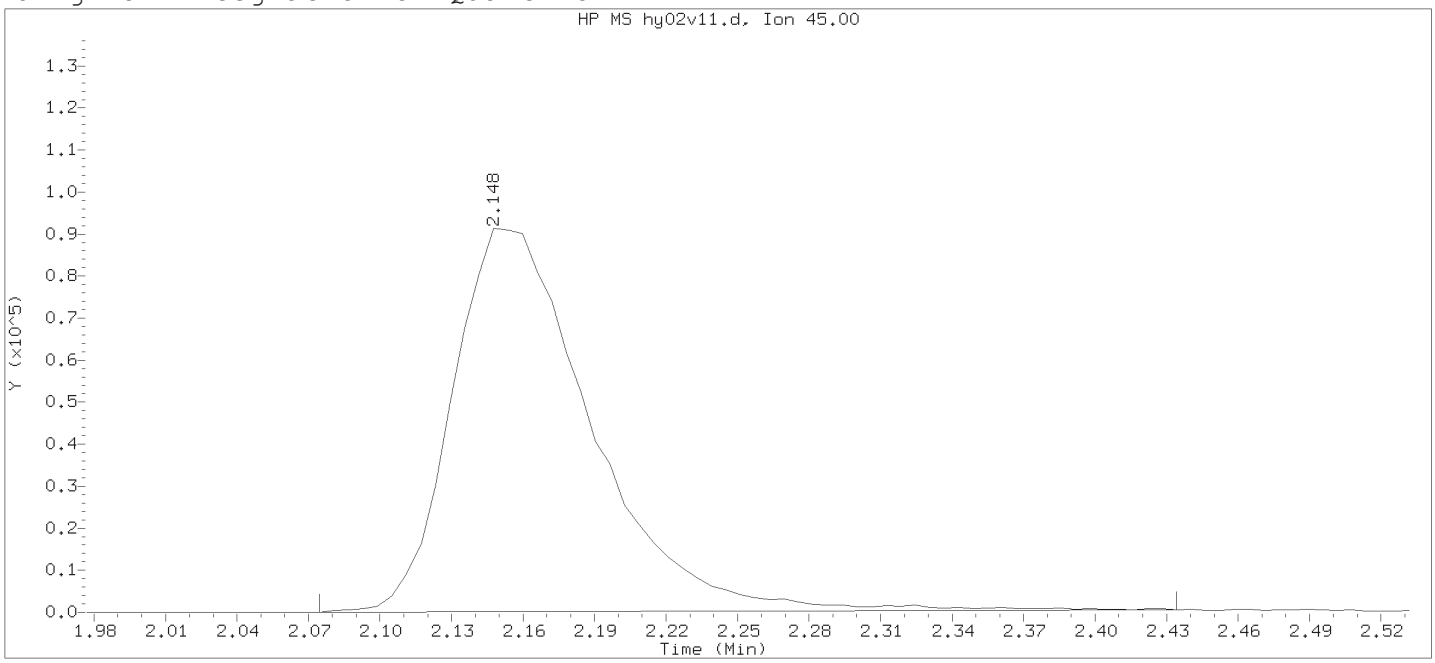
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

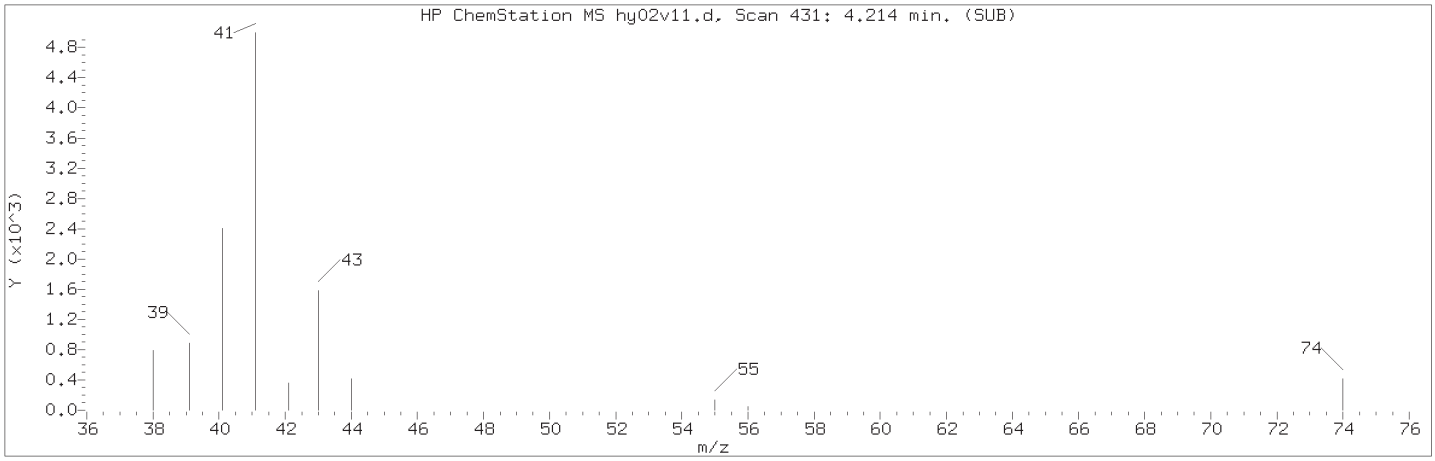
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

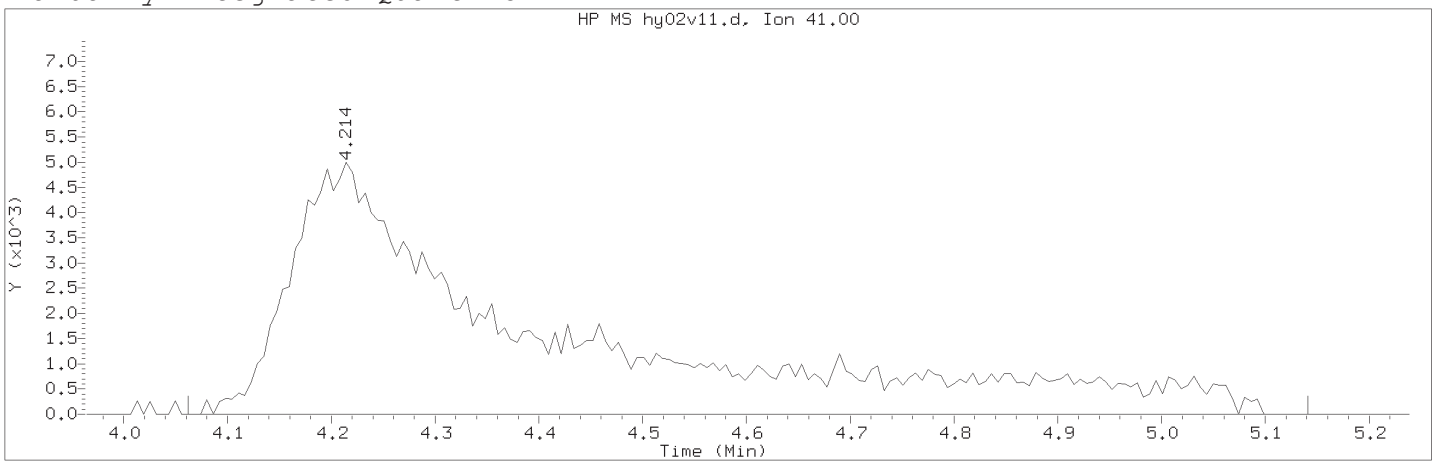
Compound Number	: 4		
Compound Name	: Dimethyl ether		
Scan Number	: 92		
Retention Time (minutes)	: 2.148		
Quant Ion	: 45.00		
Area	: 369928		
On-column Amount (ng)	: 4.9257		
Integration start scan	: 79	Integration stop scan:	138
Y at integration start	: 0	Y at integration end:	605

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

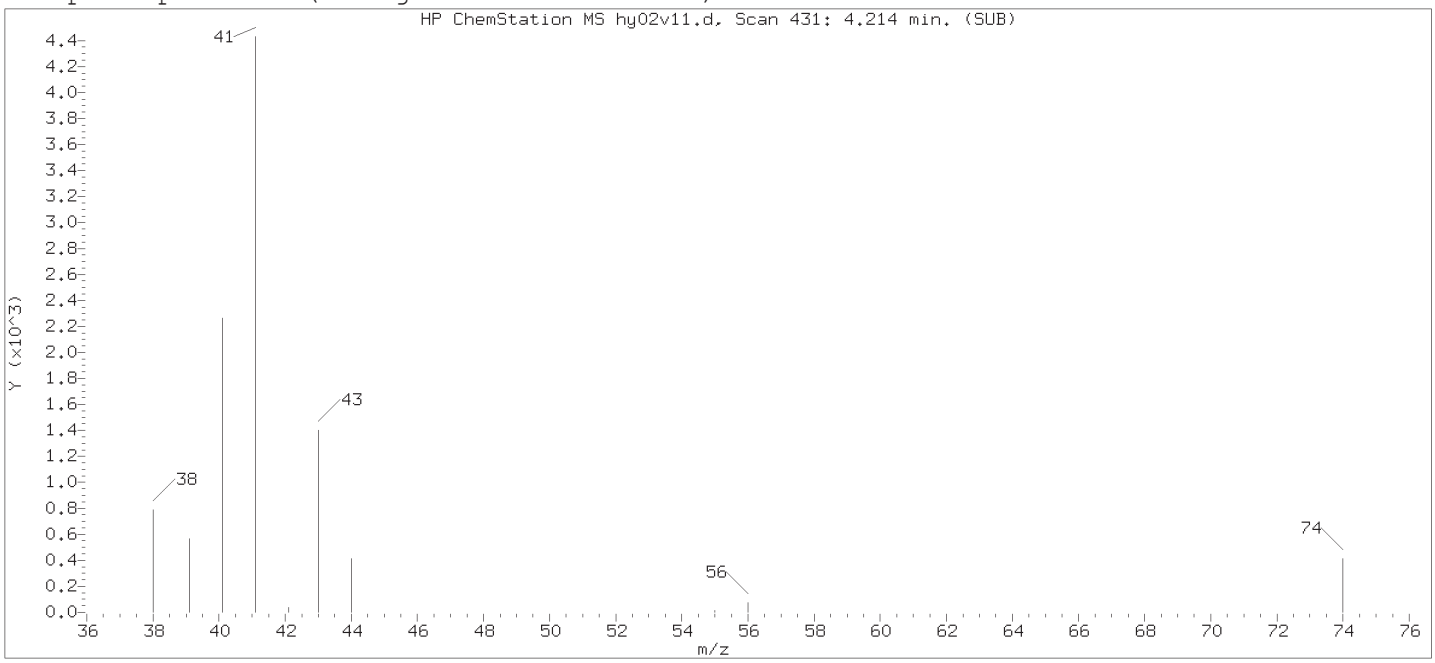
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area (flag) : 82341M
On-Column Amount (ng) : 40.7988
Integration start scan : 405 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

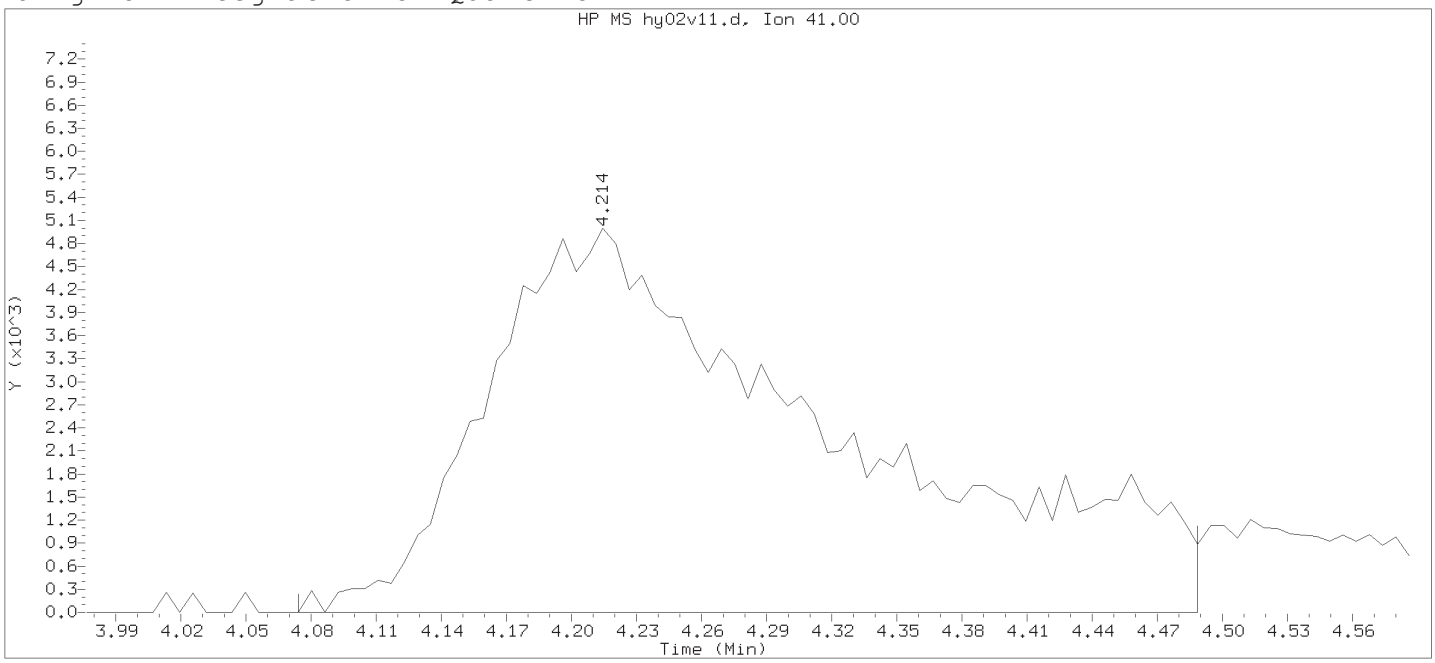
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

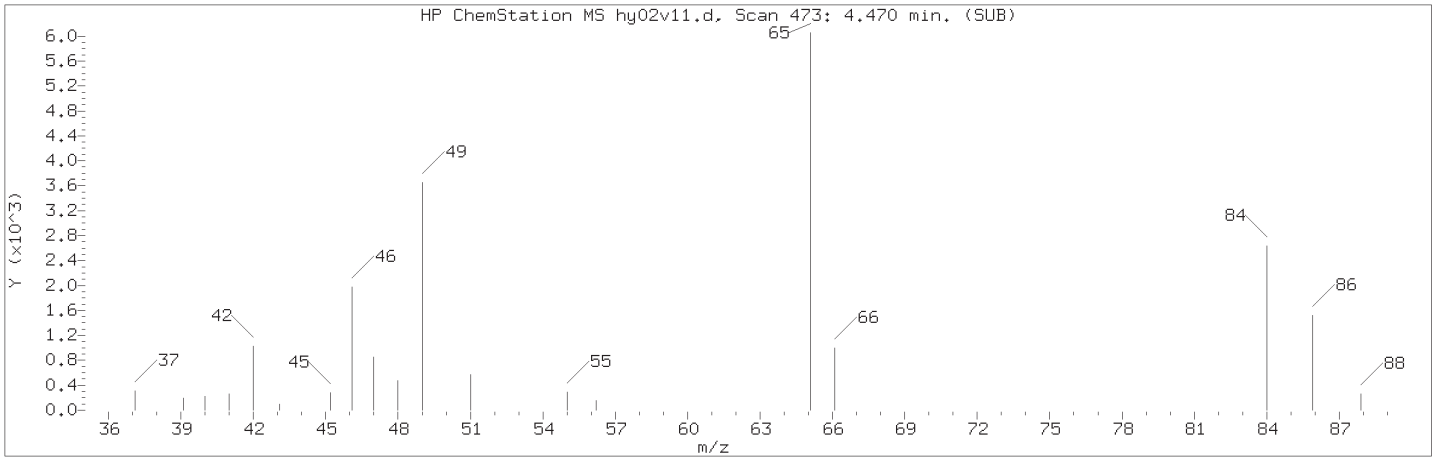
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

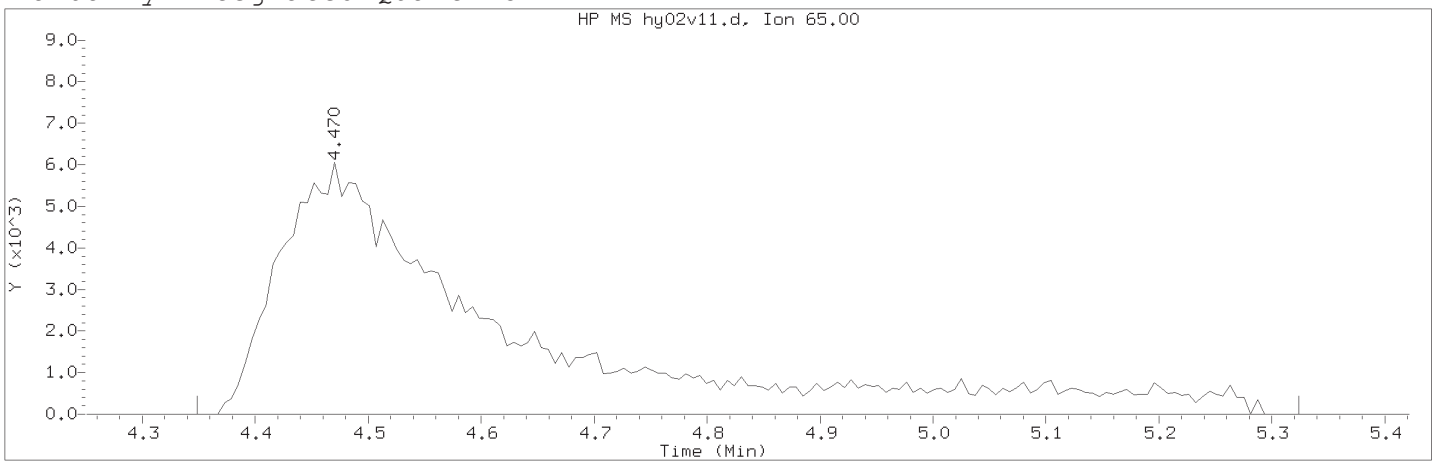
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 431
Retention Time (minutes): 4.214
Quant Ion : 41.00
Area : 56012
On-column Amount (ng) : 28.2326
Integration start scan : 407 Integration stop scan: 475
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

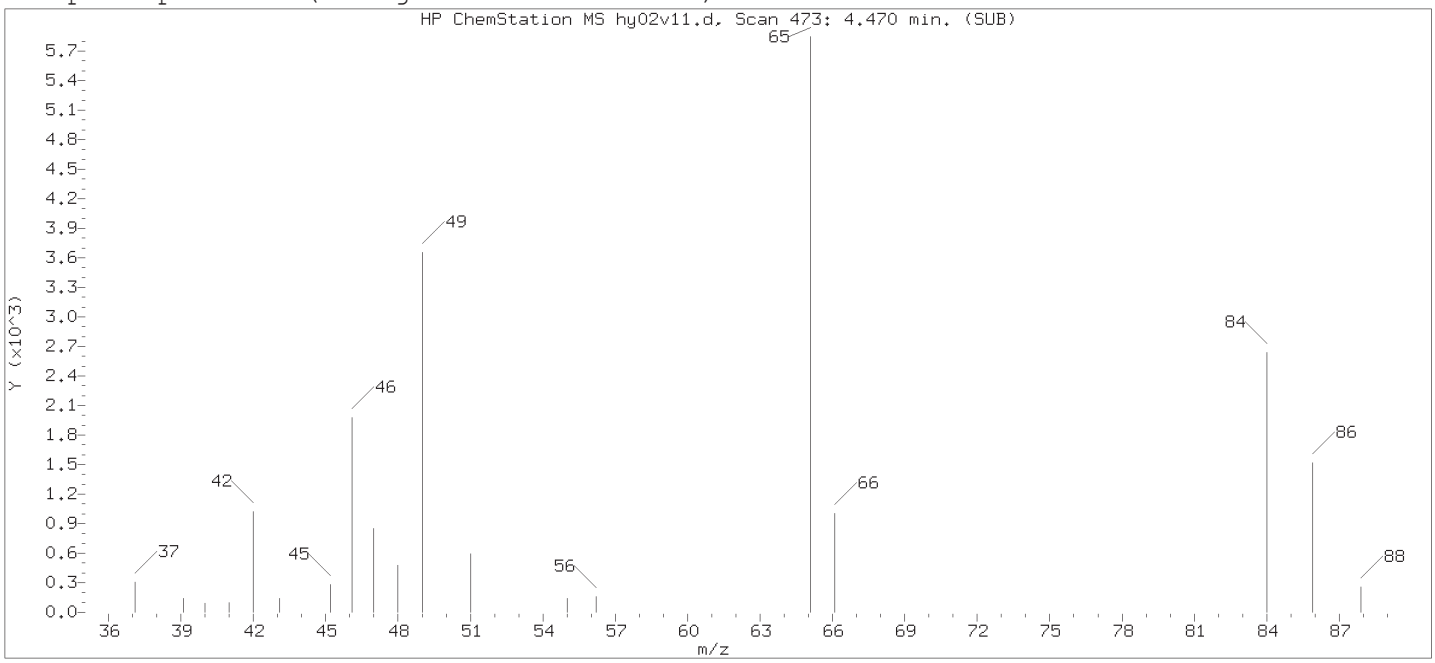
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 83582M
On-Column Amount (ng) : 50.0000
Integration start scan : 452 Integration stop scan: 612
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

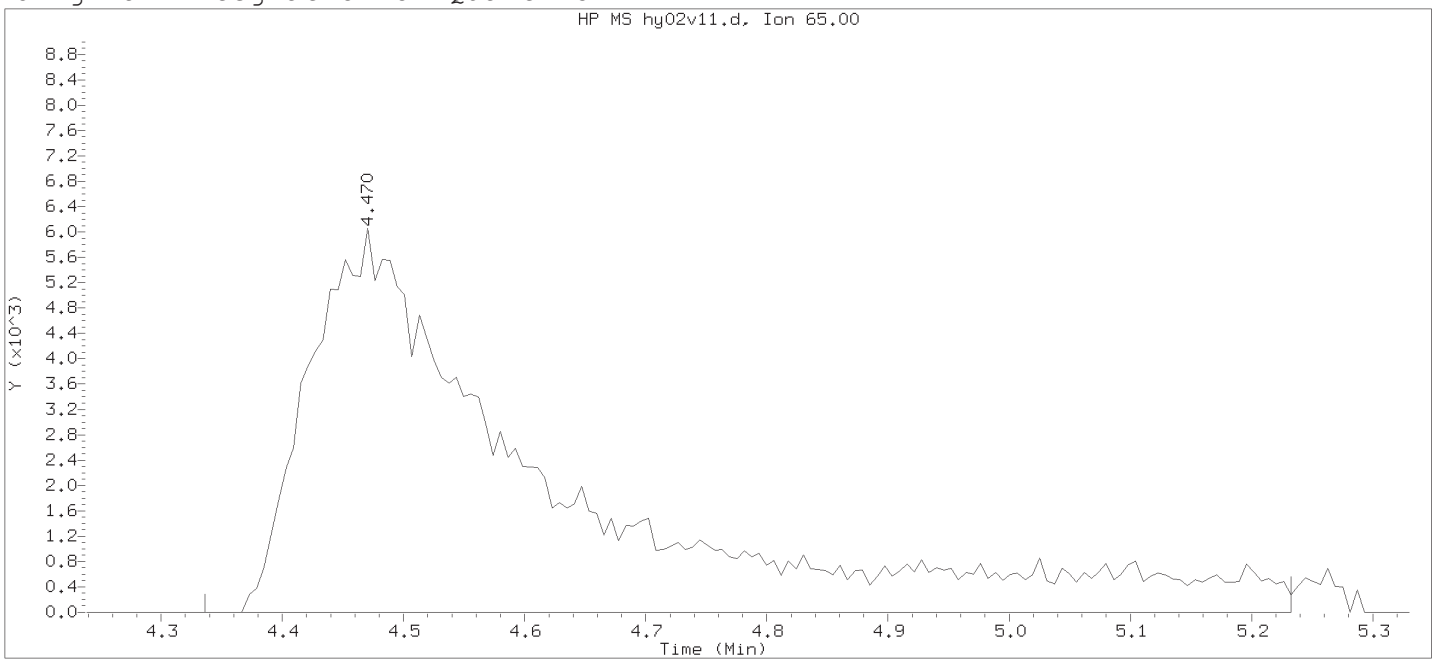
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

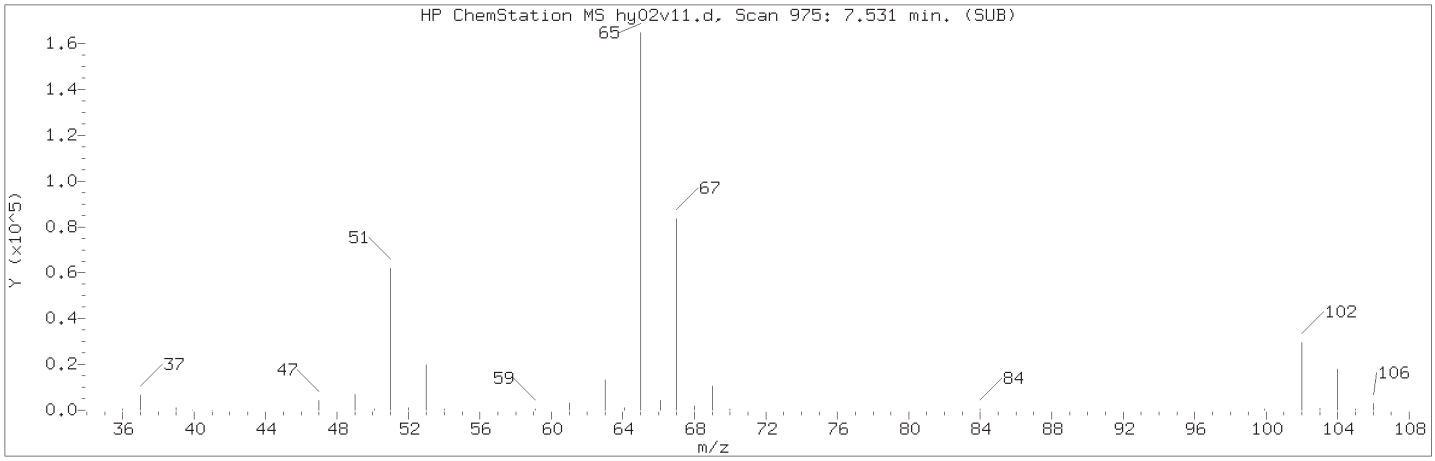
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

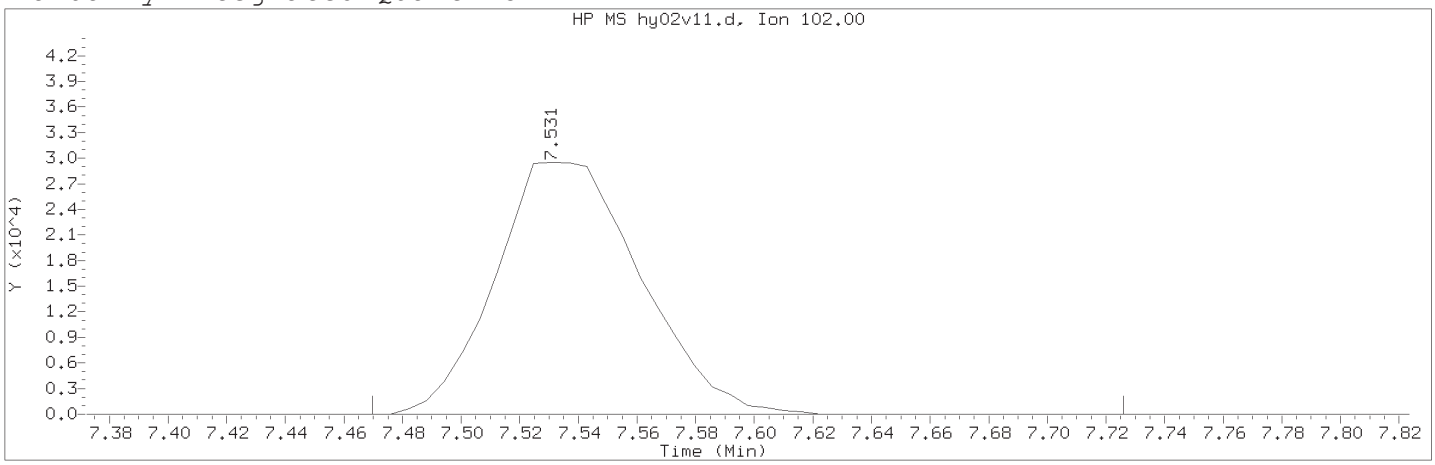
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 82163
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 597
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

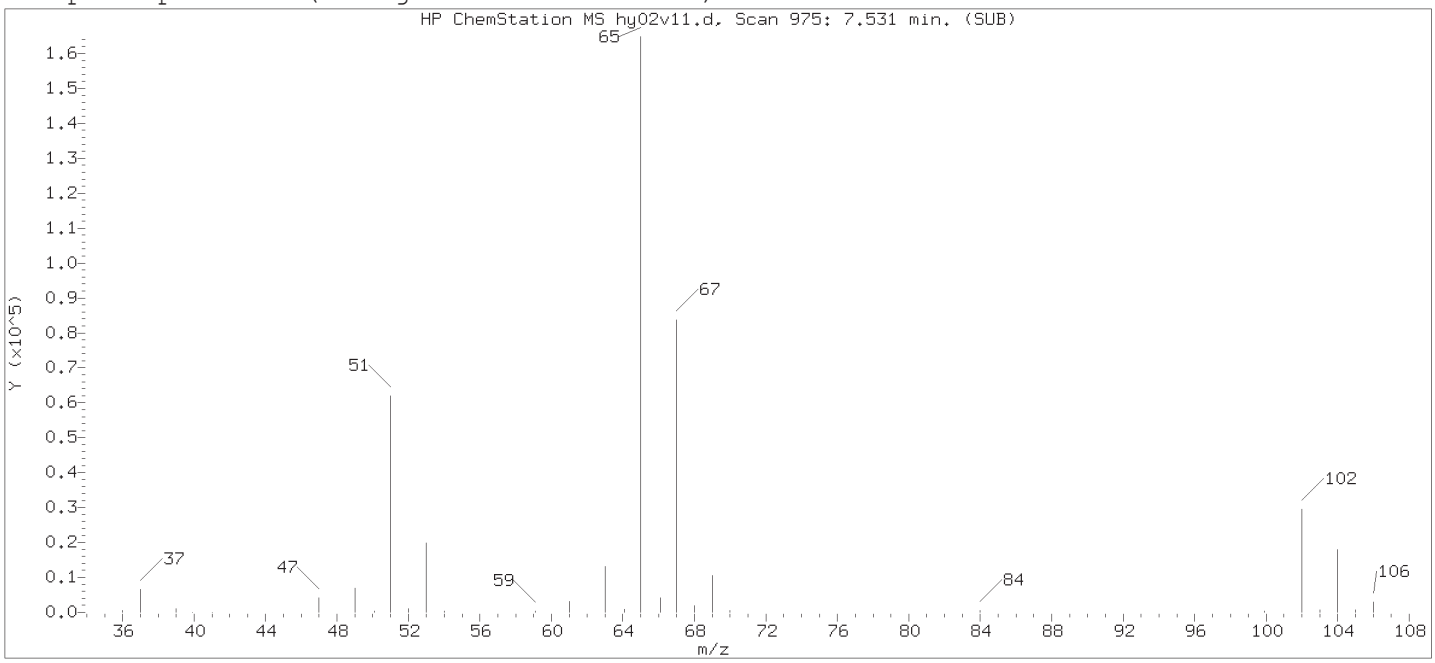
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 975
Retention Time (minutes): 7.531
Quant Ion : 102.00
Area (flag) : 101751M
On-Column Amount (ng) : 9.9826
Integration start scan : 964 Integration stop scan: 1006
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

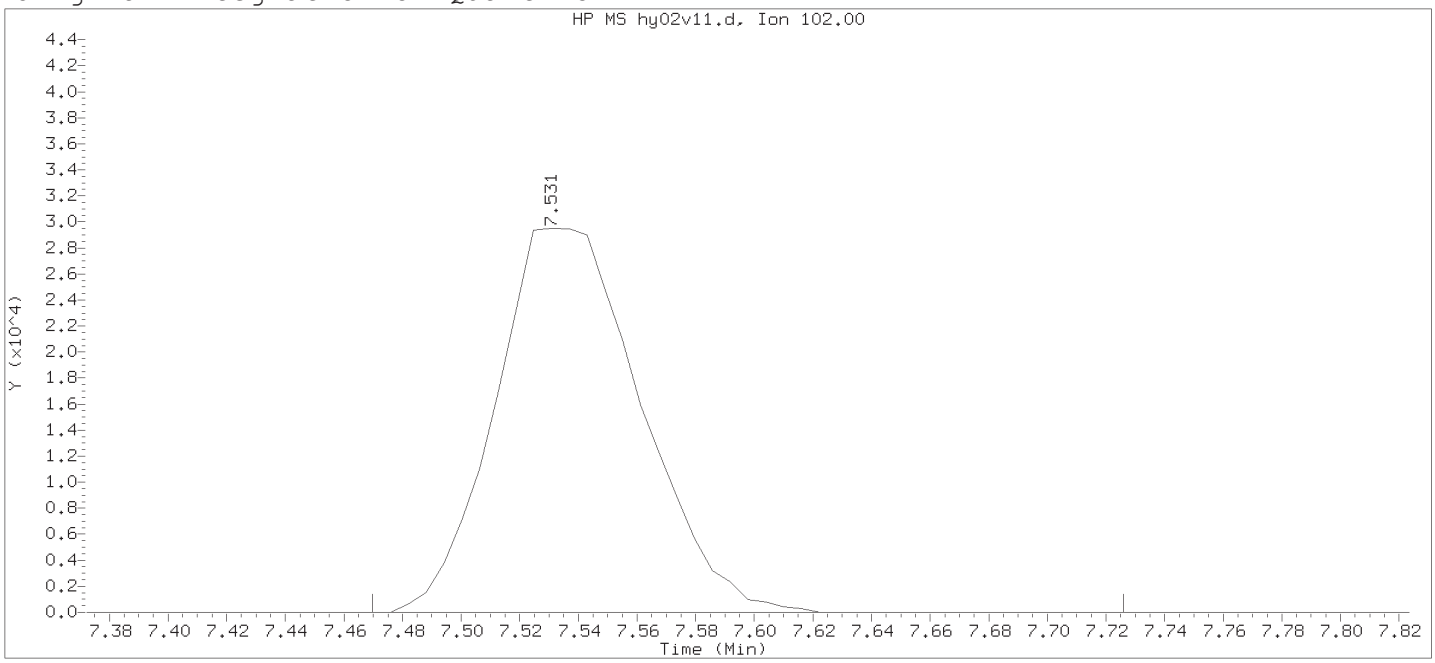
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

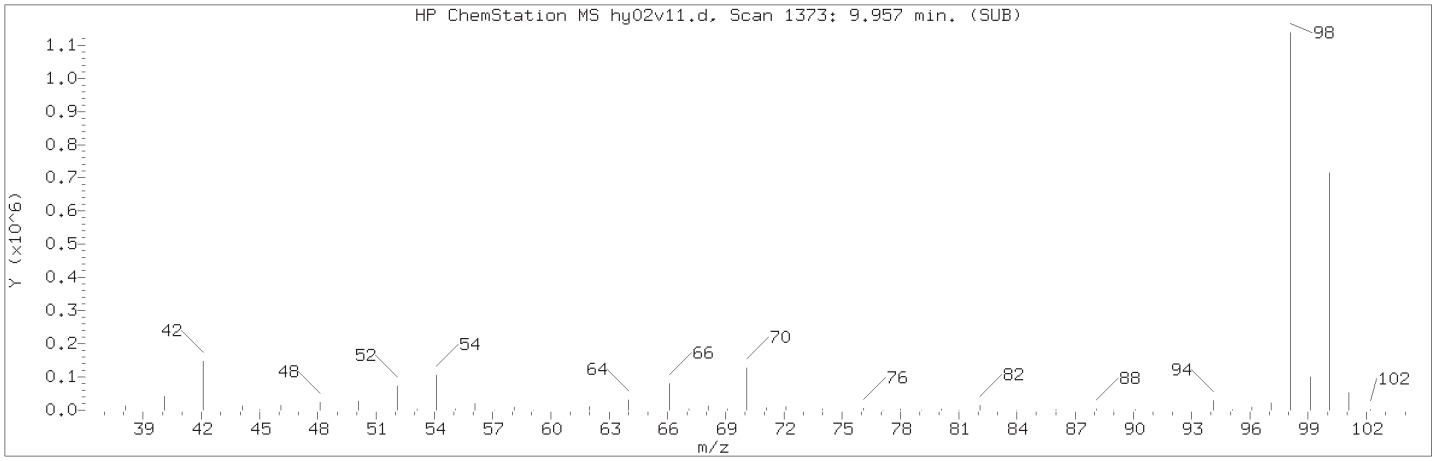
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

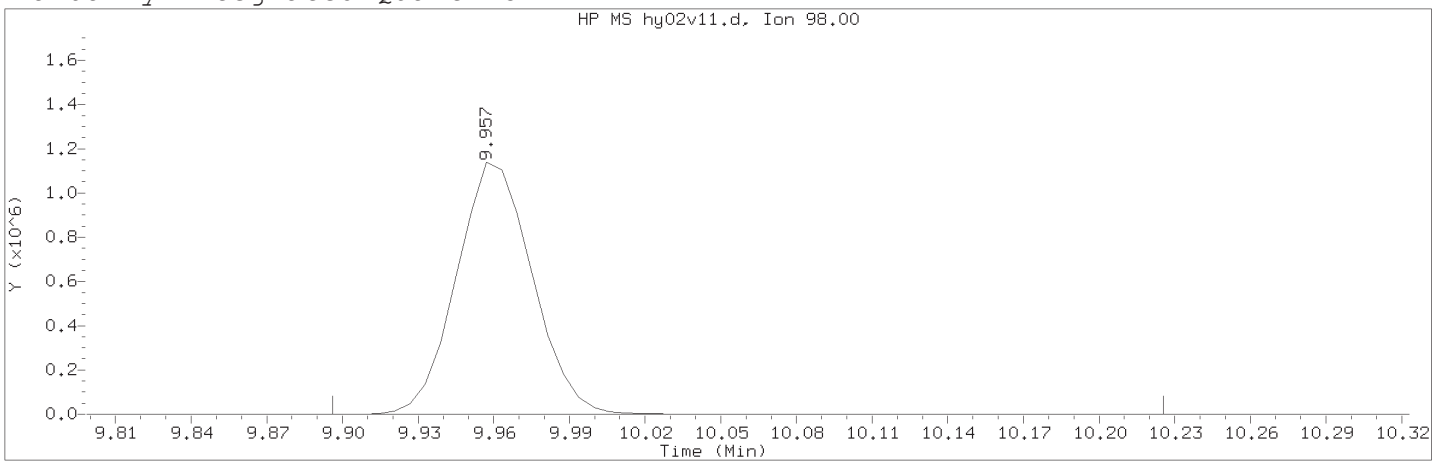
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 975
Retention Time (minutes): 7.531
Quant Ion : 102.00
Area : 101751
On-column Amount (ng) : 0.0000
Integration start scan : 964 Integration stop scan: 1006
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this PDF

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

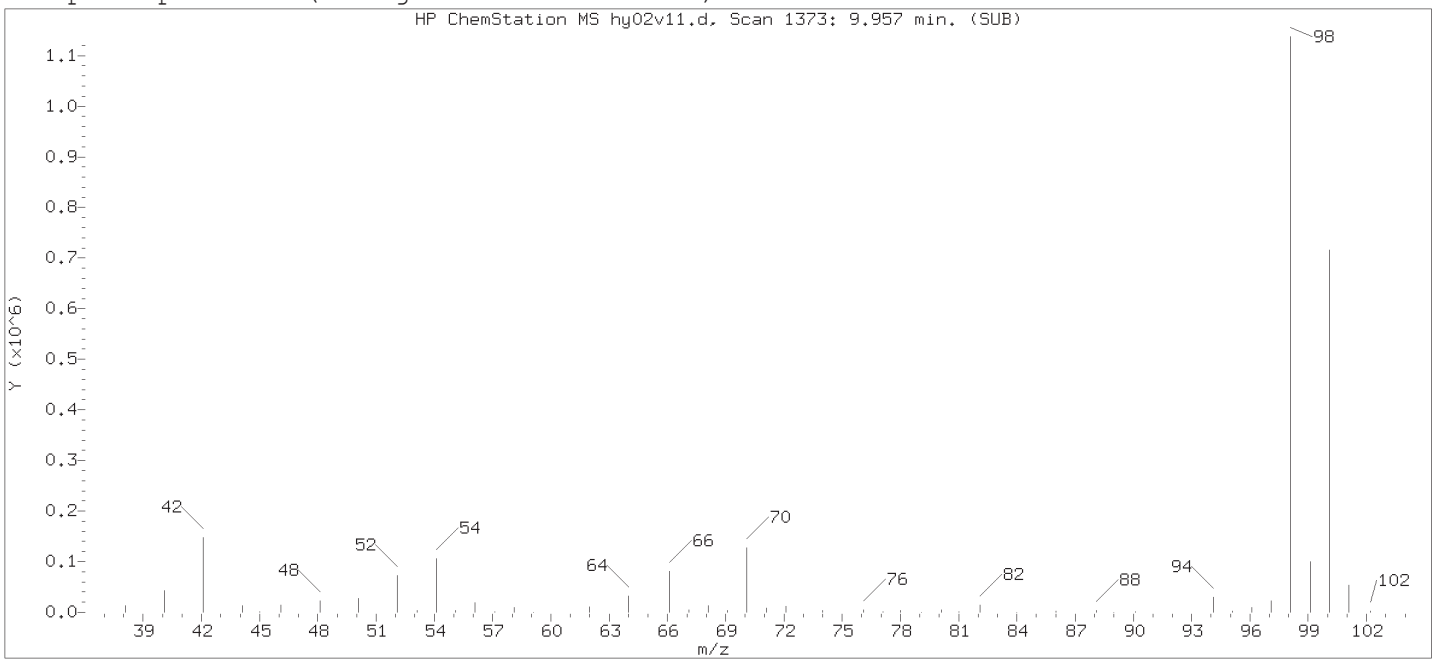
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1373
Retention Time (minutes): 9.957
Quant Ion : 98.00
Area (flag) : 2378040M
On-Column Amount (ng) : 10.1199
Integration start scan : 1362 Integration stop scan: 1416
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

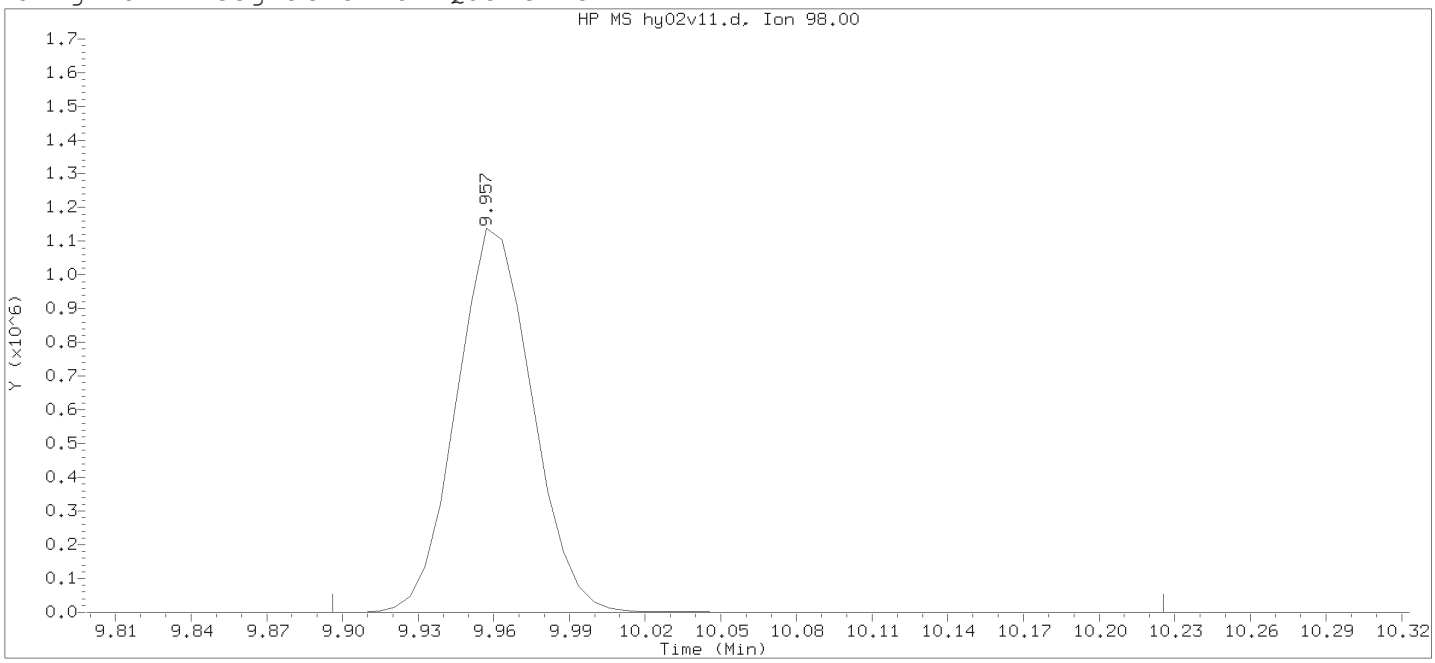
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

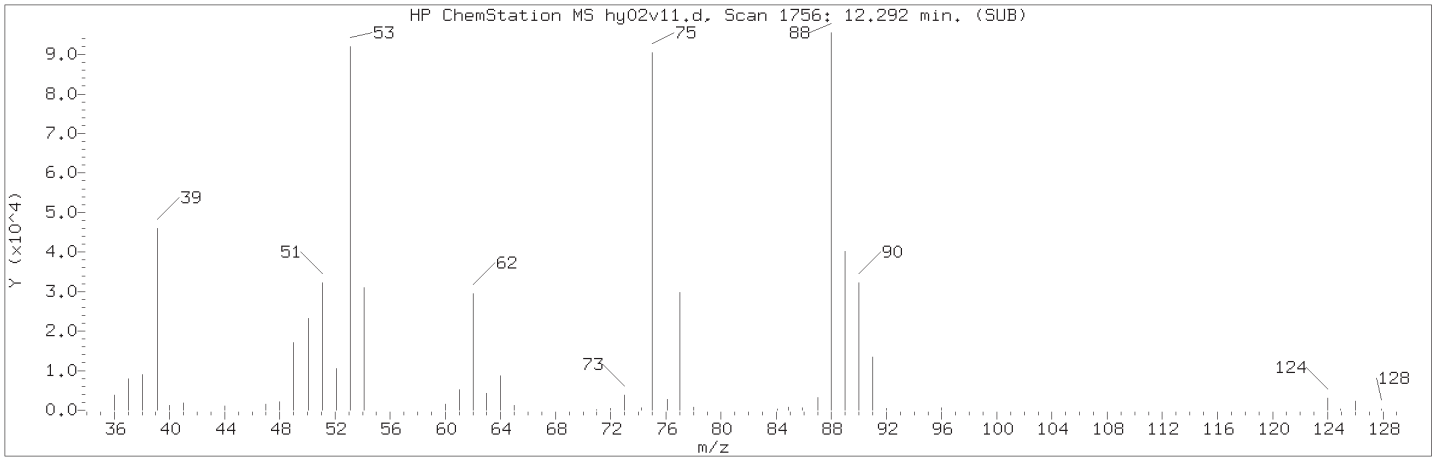
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

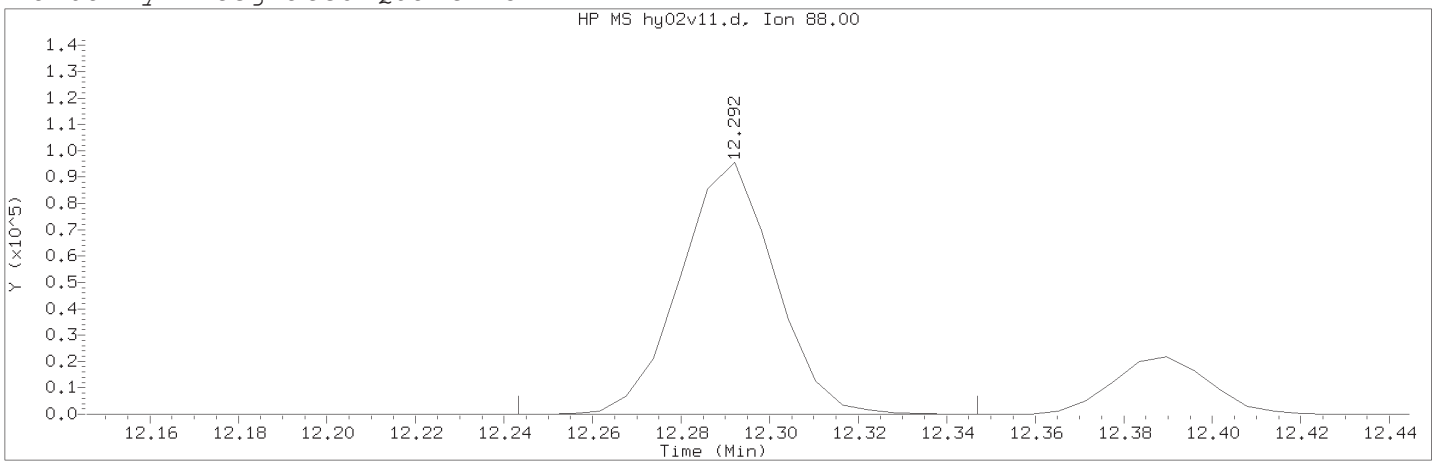
Compound Number : 82
Compound Name : Toluene-d8
Scan Number : 1373
Retention Time (minutes): 9.957
Quant Ion : 98.00
Area : 2378040
On-column Amount (ng) : 0.0000
Integration start scan : 1362 Integration stop scan: 1416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

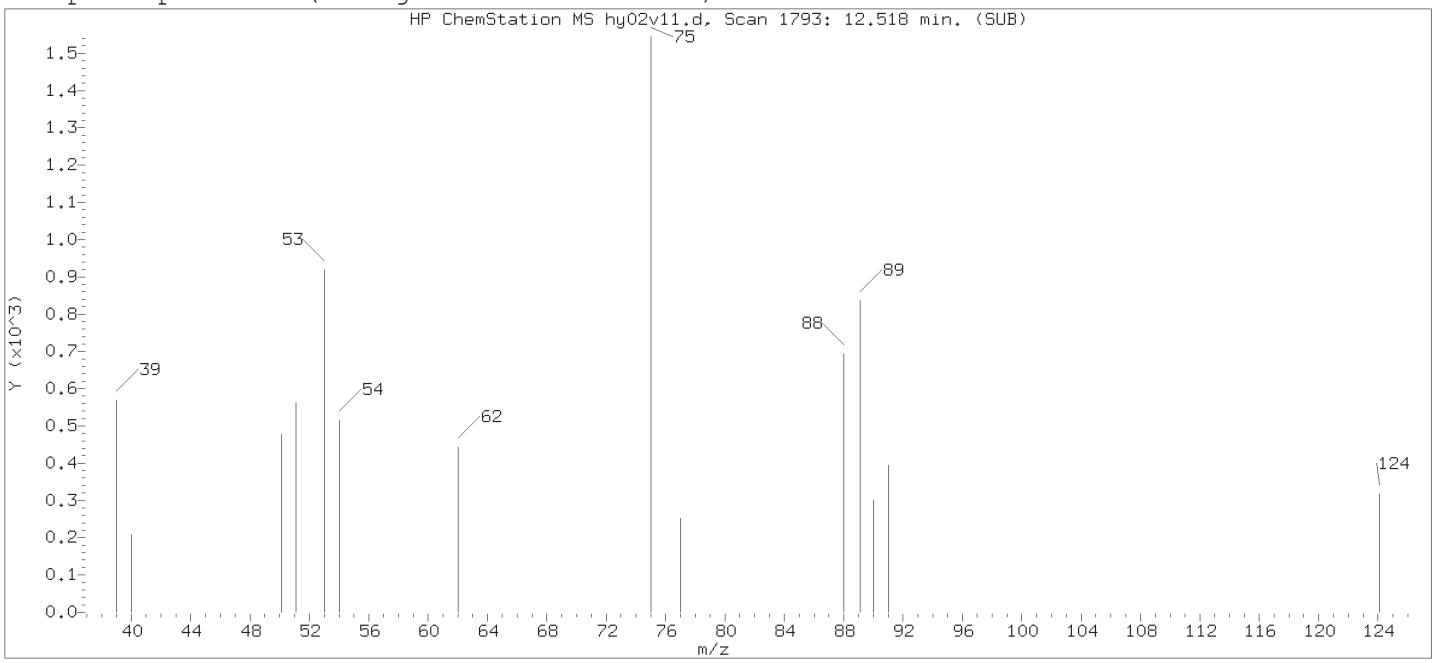
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 141422M
On-Column Amount (ng) : 13.0650
Integration start scan : 1747 Integration stop scan: 1764
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

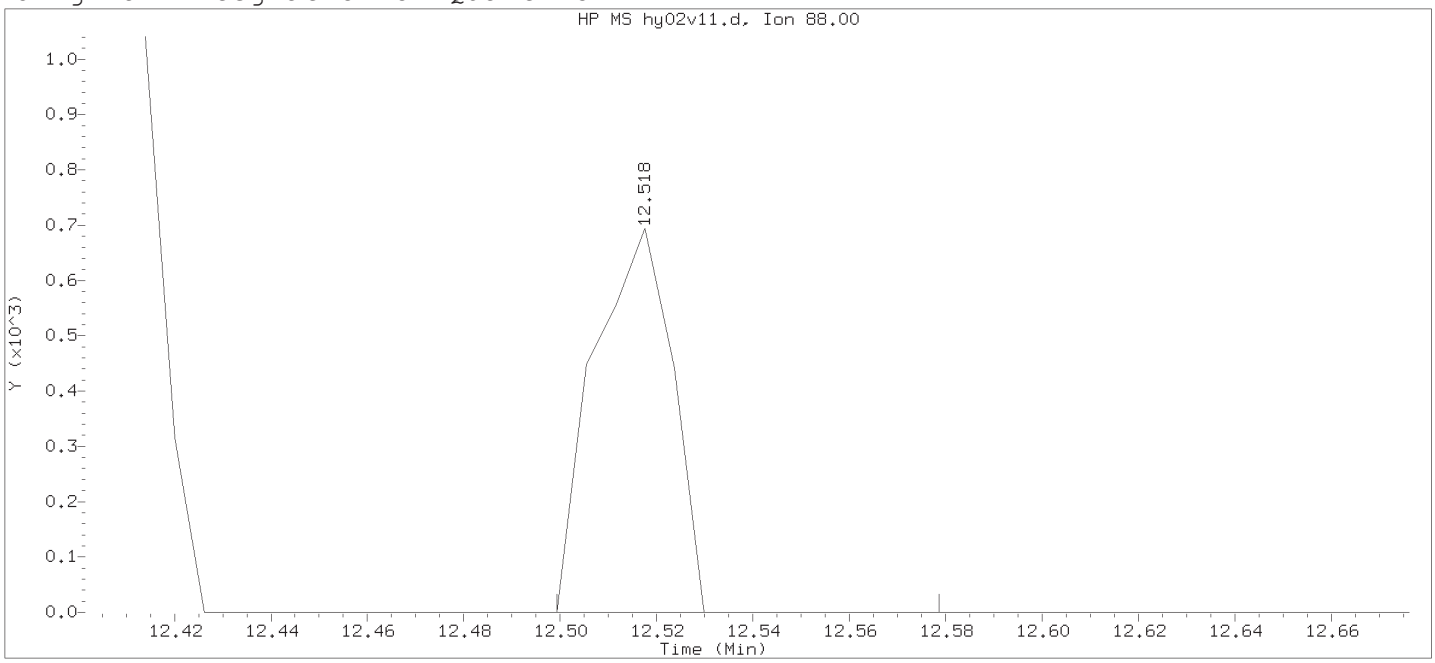
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

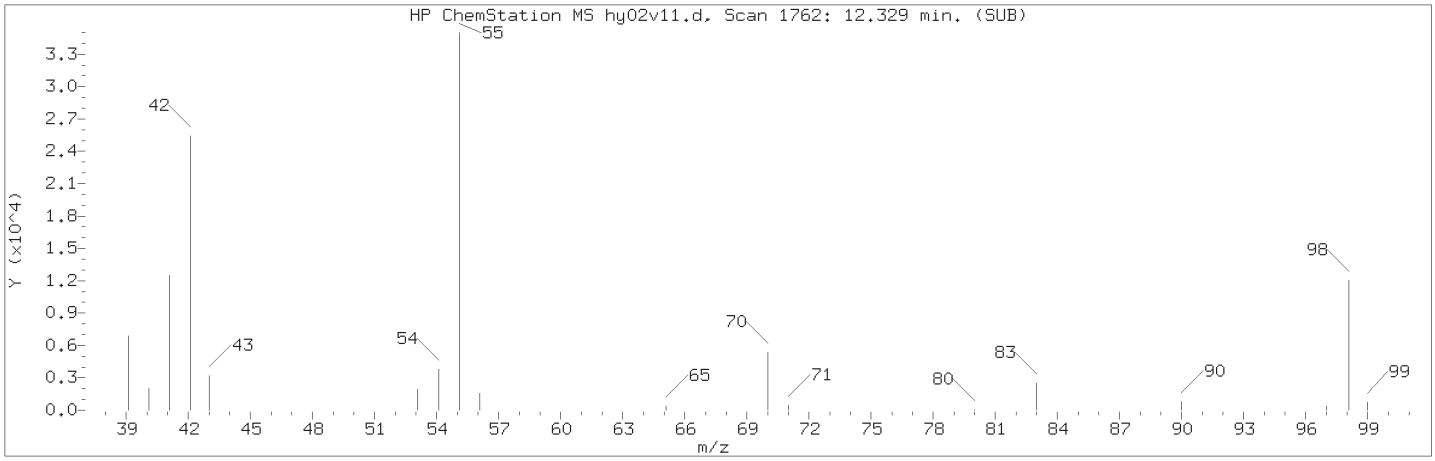
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

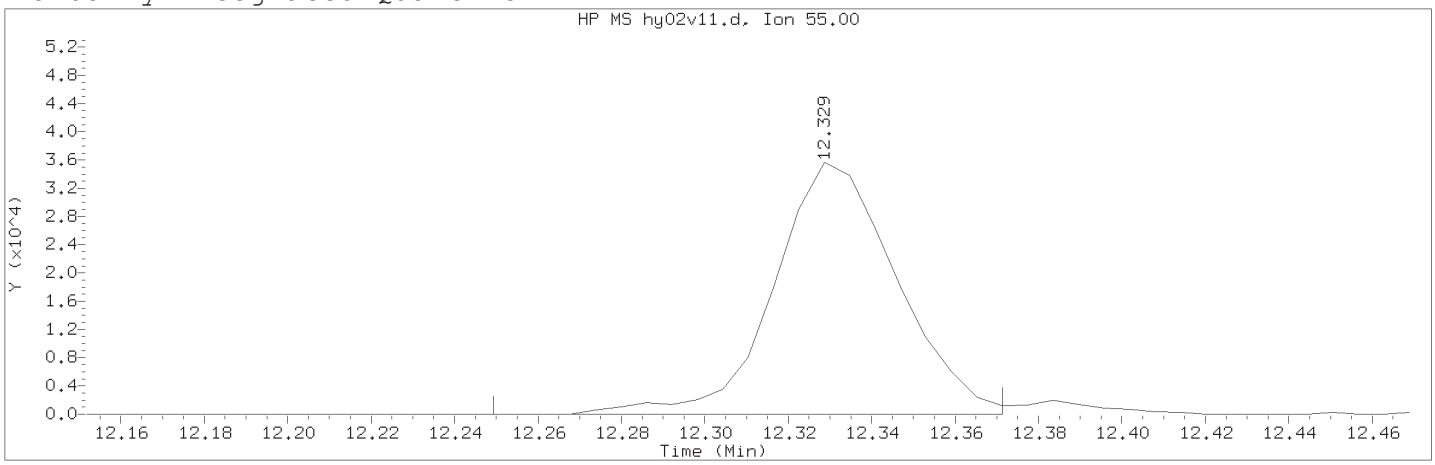
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1793
Retention Time (minutes): 12.518
Quant Ion : 88.00
Area : 782
On-column Amount (ng) : 0.0735
Integration start scan : 1789 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used: D12 Reason: I

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCSH88 Lab Sample ID: LCSH88

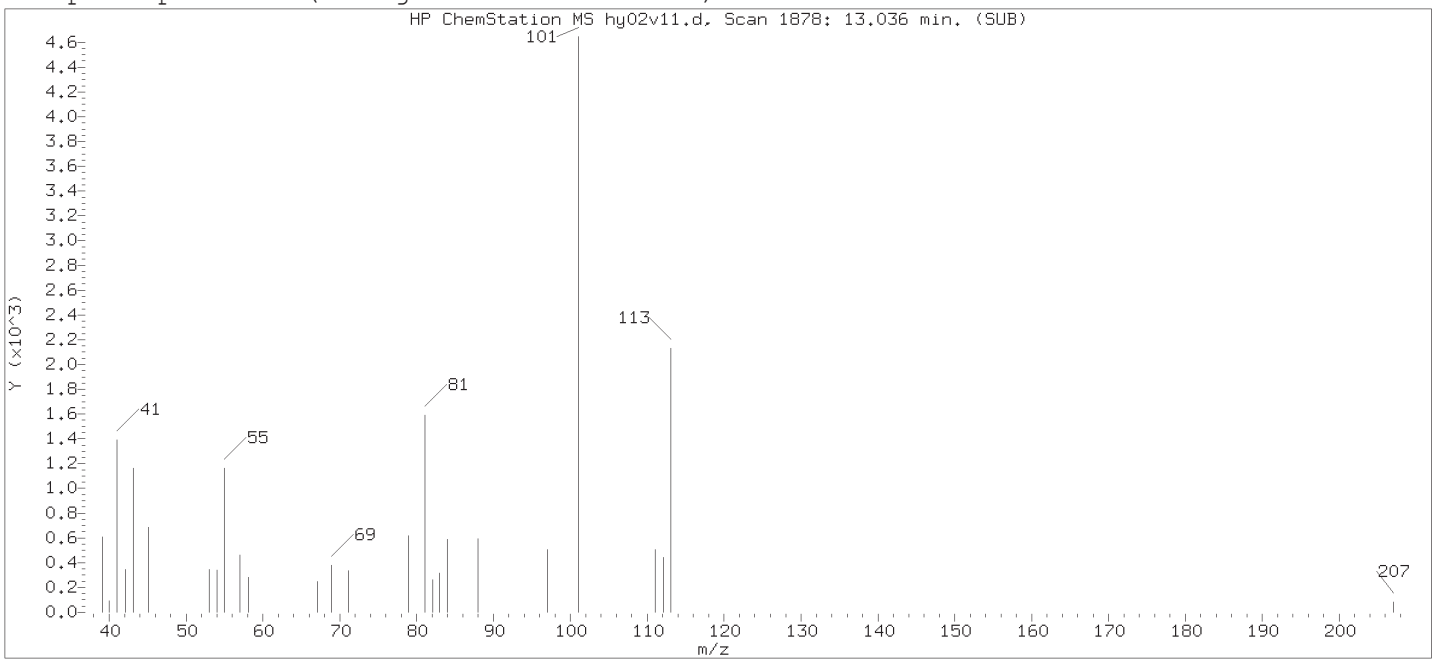
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 72992M
On-Column Amount (ng) : 132.5935
Integration start scan : 1748 Integration stop scan: 1768
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

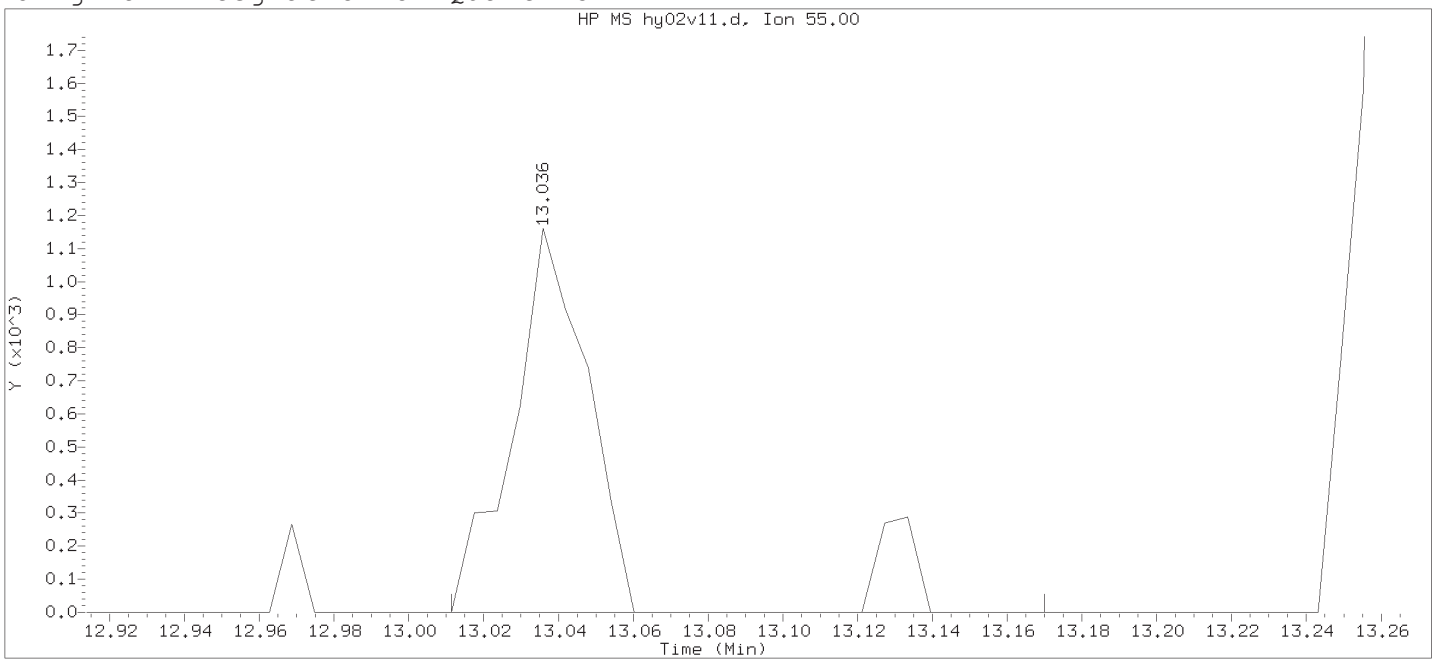
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:38.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Paul R. Cormier on 05/03/2018 at 10:09.
PARALLAX ID: prc00685

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



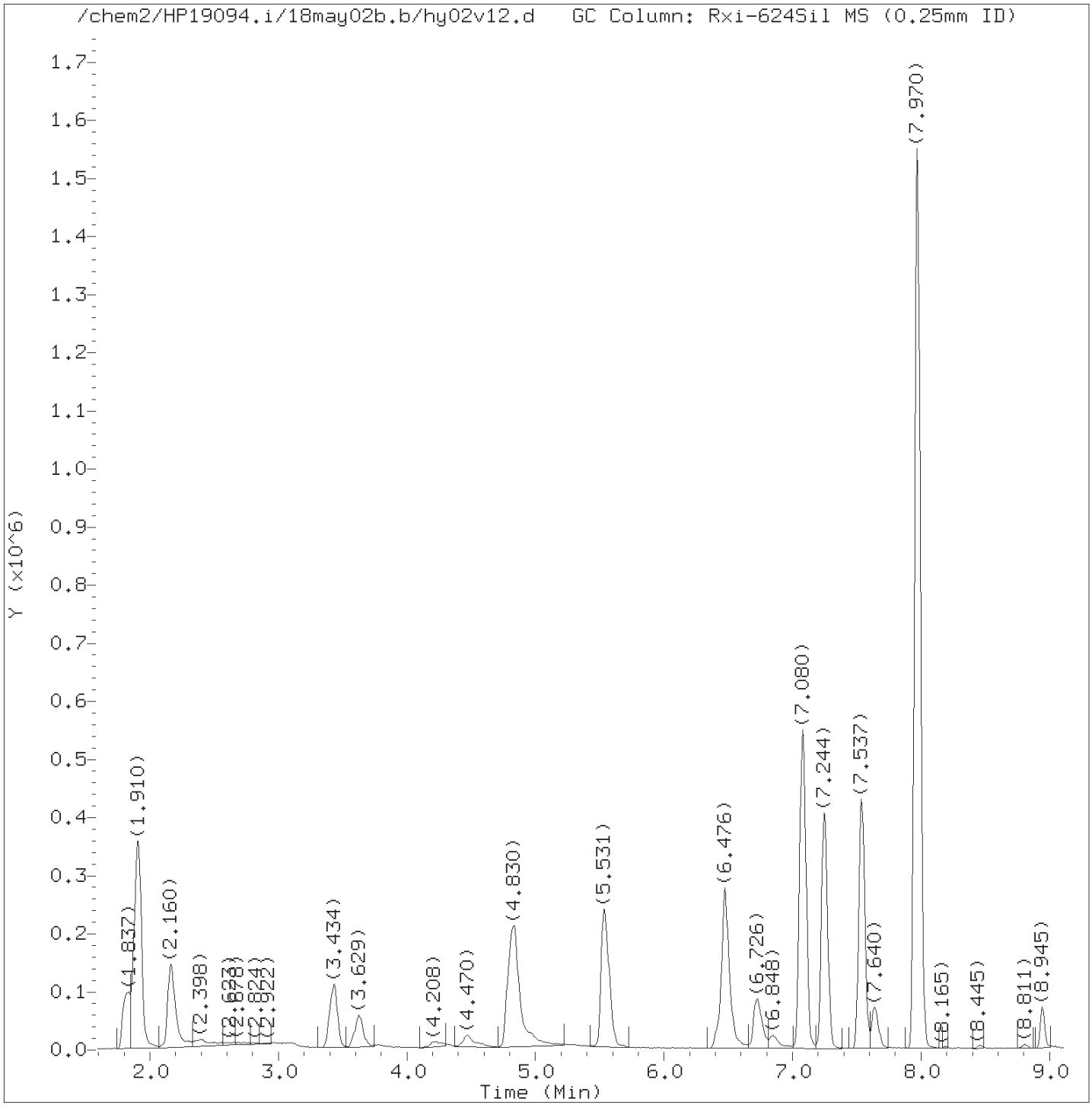
Data File: /chem2/HP19094.i/18may02b.b/hy02v11.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:07 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:21
Date, time and analyst ID of latest file update: 02-May-2018 22:24 Automation

Sample Name: LCSH88 Lab Sample ID: LCSH88

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1878
Retention Time (minutes): 13.036
Quant Ion : 55.00
Area : 1809
On-column Amount (ng) : 3.3432
Integration start scan : 1873 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:38.
Target 3.5 esignature used to create this report



Total Ion Chromatogram (TIC)

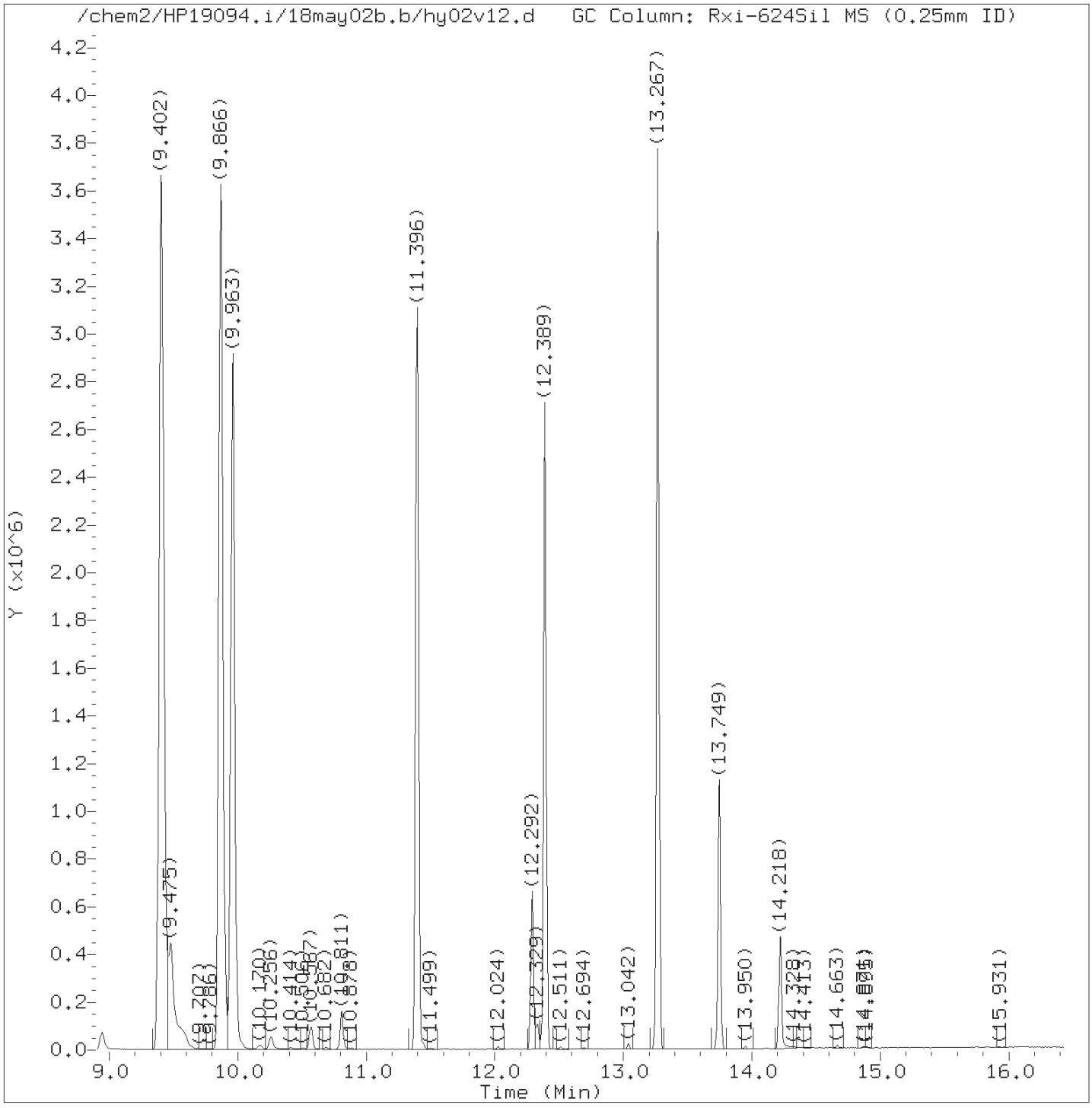
Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

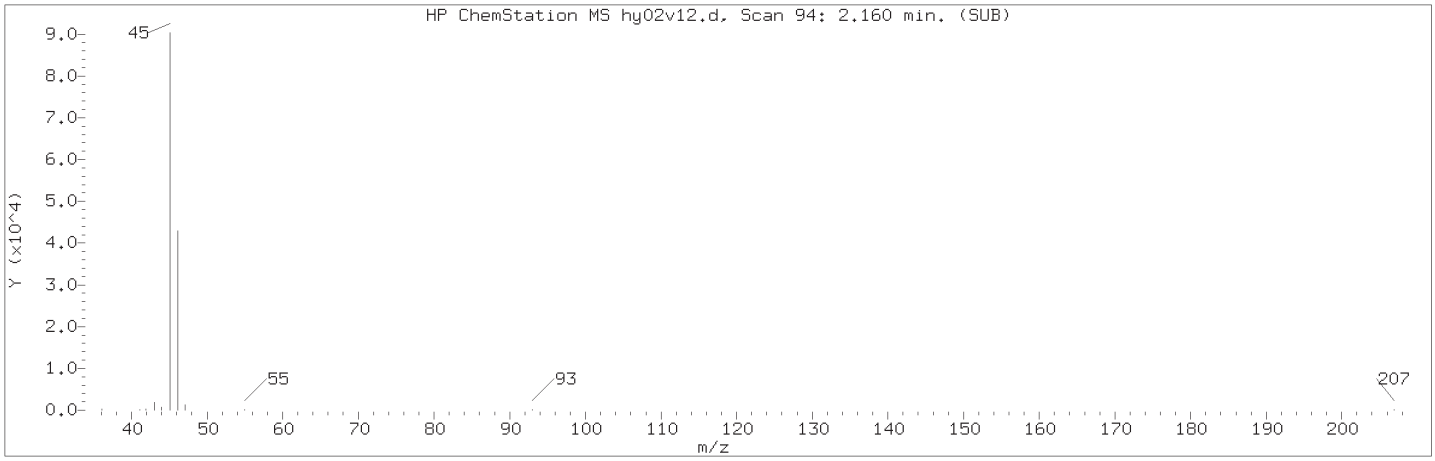
Sample Name: LCDH88 Lab Sample ID: LCDH88

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Dimethyl ether	(2)	2.160	45	367108M	5.115
25) Acetonitrile	(1)	4.208	41	76036M	44.742
26)*t-Butyl Alcohol-d10	(1)	4.470	65	70380M	50.000
36) Vinyl Acetate	(2)	5.531	43	844612	12.351
43) Methyl Acrylate	(2)	6.476	55	568762	26.957
50)$Dibromofluoromethane	(2)	7.080	113	548216	9.924
53) 1-Chlorobutane	(2)	7.244	56	532521	5.274
57)$1,2-Dichloroethane-d4	(2)	7.543	102	99061	10.169
63)*Fluorobenzene	(2)	7.970	96	2235850	10.000
77) Chloroacetonitrile	(2)	9.475	75	176428	209.820
78) 2-Chloroethyl vinyl ether	(2)	9.482	63	106420	5.264
82)$Toluene-d8	(3)	9.963	98	2273416	10.021
97)*Chlorobenzene-d5	(3)	11.396	117	1642381	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.292	88	141379M	15.511
112) Cyclohexanone	(1)	12.329	55	53752M	115.959
111)$4-Bromofluorobenzene	(3)	12.389	95	800571	9.947
133)*1,4-Dichlorobenzene-d4	(4)	13.267	152	870448	10.000
142) Hexachloroethane	(4)	13.749	117	200862	5.481

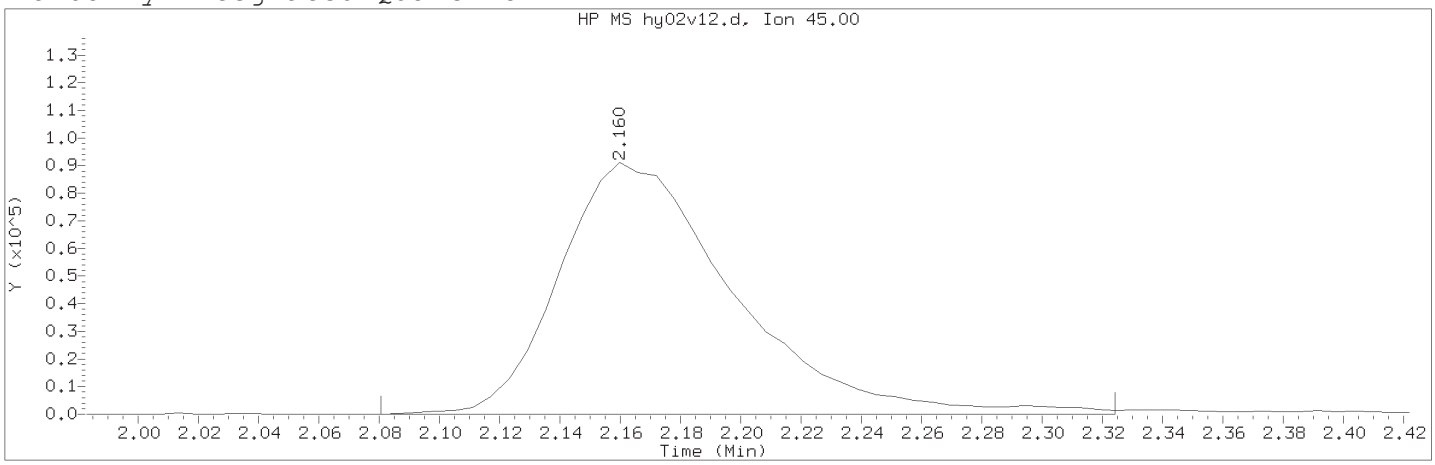
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

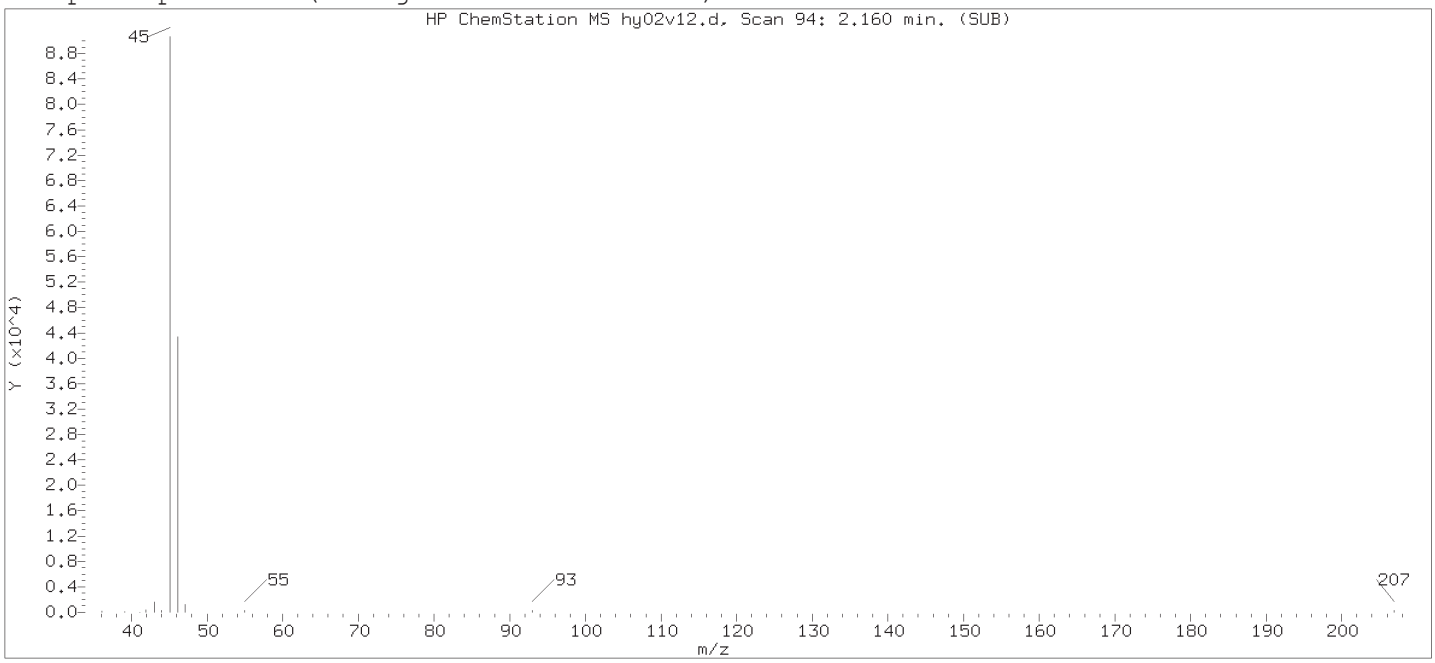
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area (flag) : 367108M
On-Column Amount (ng) : 5.1147
Integration start scan : 80 Integration stop scan: 120
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

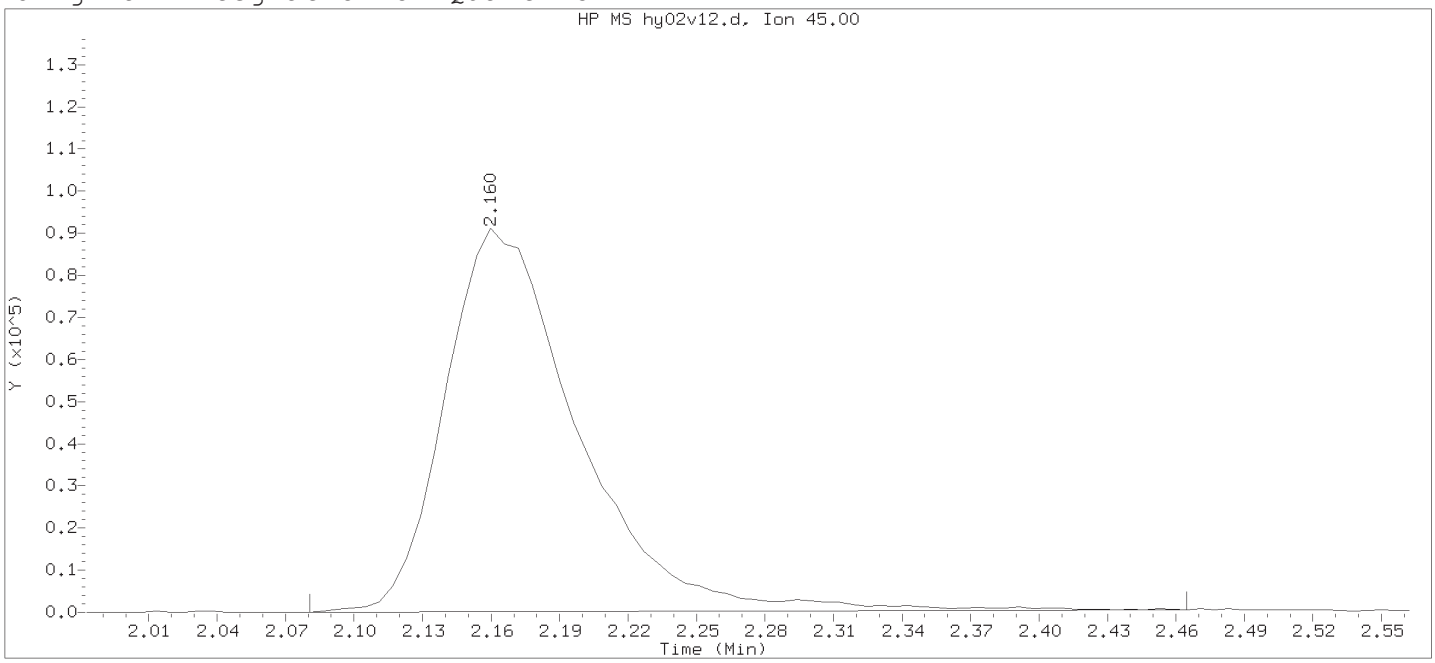
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Joshua E. Berrios on 05/03/2018 at 16:36.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

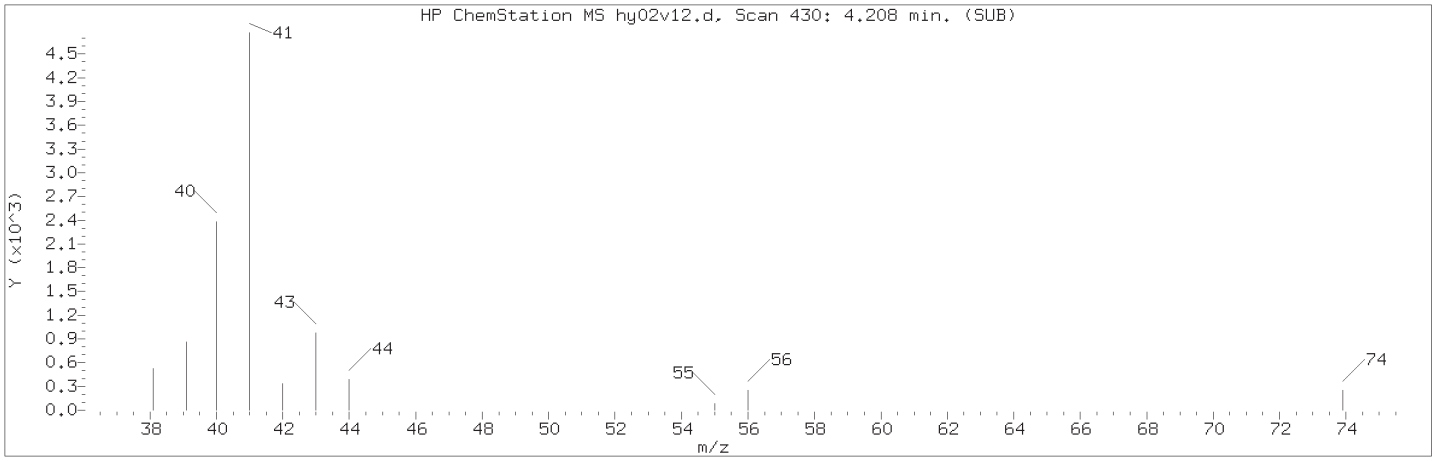
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:46 Automation

Sample Name: LCDH88 Lab Sample ID: LCDH88

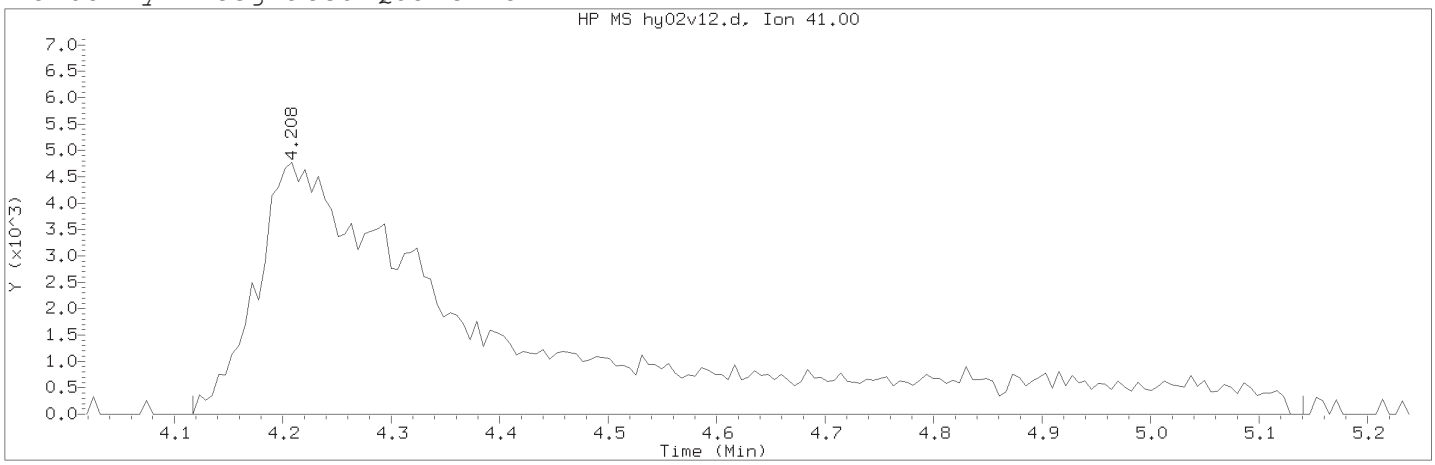
Compound Number : 4
Compound Name : Dimethyl ether
Scan Number : 94
Retention Time (minutes): 2.160
Quant Ion : 45.00
Area : 368442
On-column Amount (ng) : 5.1333
Integration start scan : 80 Integration stop scan: 143
Y at integration start : 0 Y at integration end: 584

Digitally signed by Don V. Viray on 05/03/2018 at 00:39.
Target 3.5 esignature used to review data.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

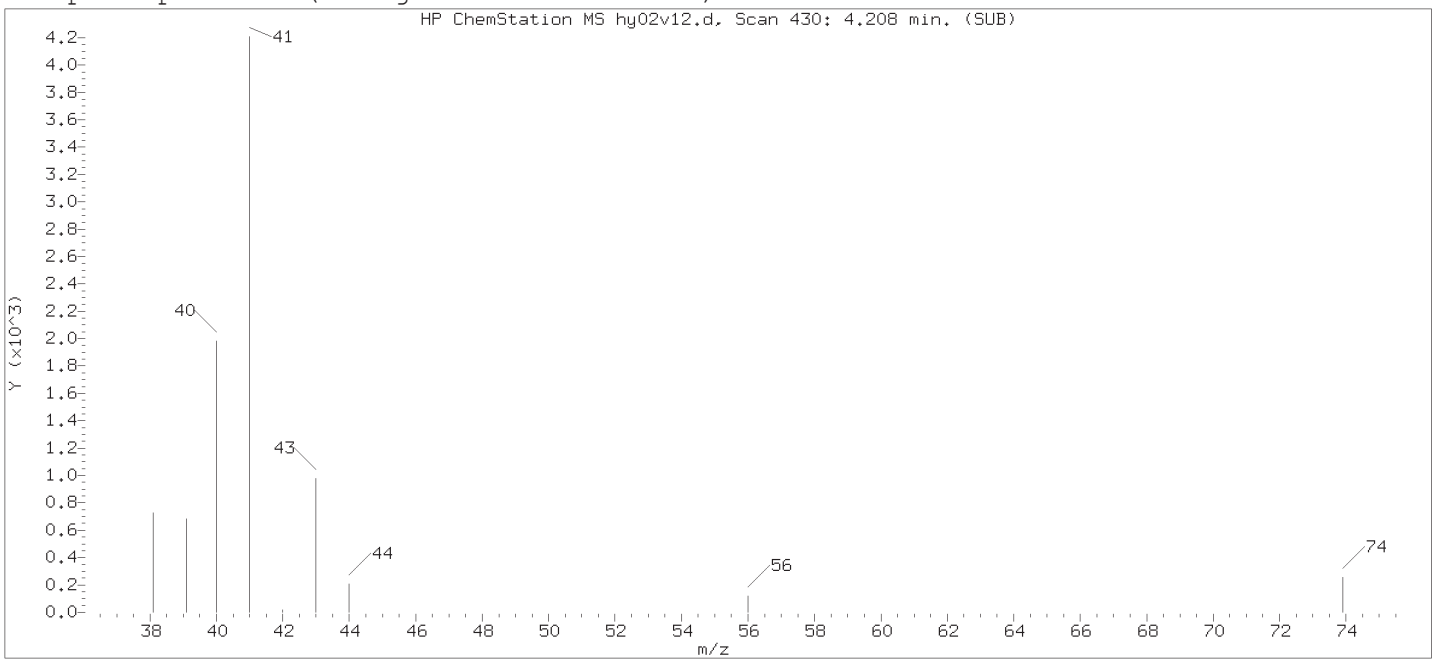
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area (flag) : 76036M
On-Column Amount (ng) : 44.7419
Integration start scan : 414 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

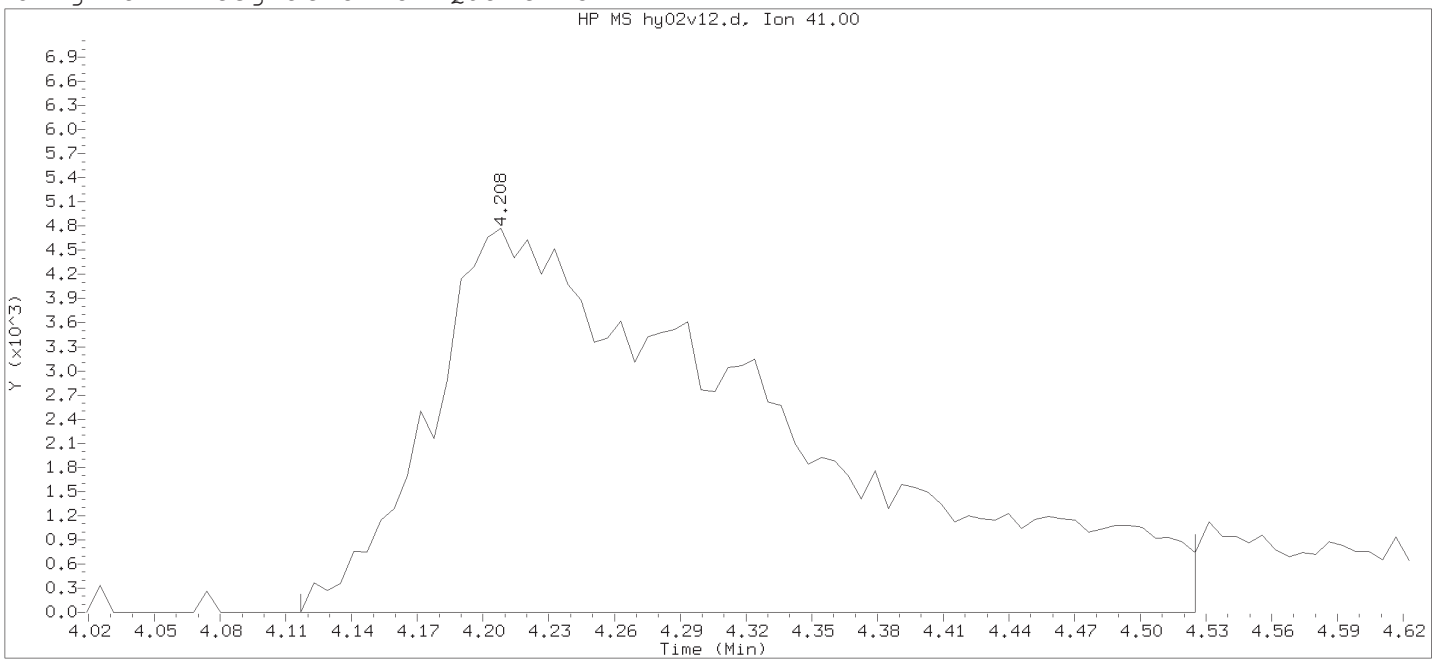
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Joshua E. Berrios on 05/03/2018 at 16:36.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

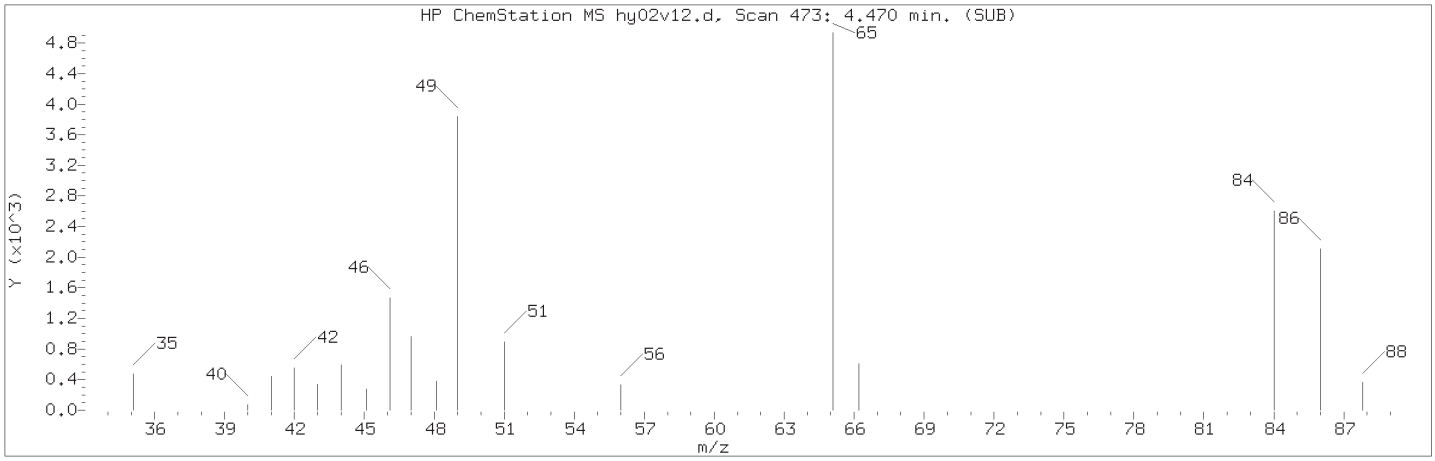
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:46 Automation

Sample Name: LCDH88 Lab Sample ID: LCDH88

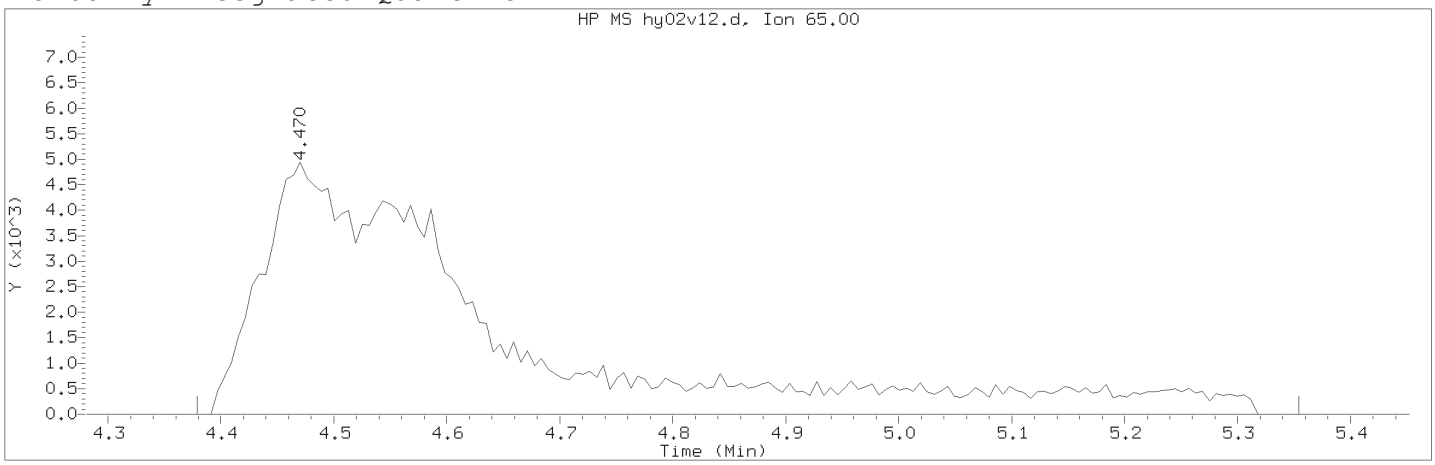
Compound Number : 25
Compound Name : Acetonitrile
Scan Number : 430
Retention Time (minutes): 4.208
Quant Ion : 41.00
Area : 53034
On-column Amount (ng) : 31.5863
Integration start scan : 414 Integration stop scan: 481
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:39.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

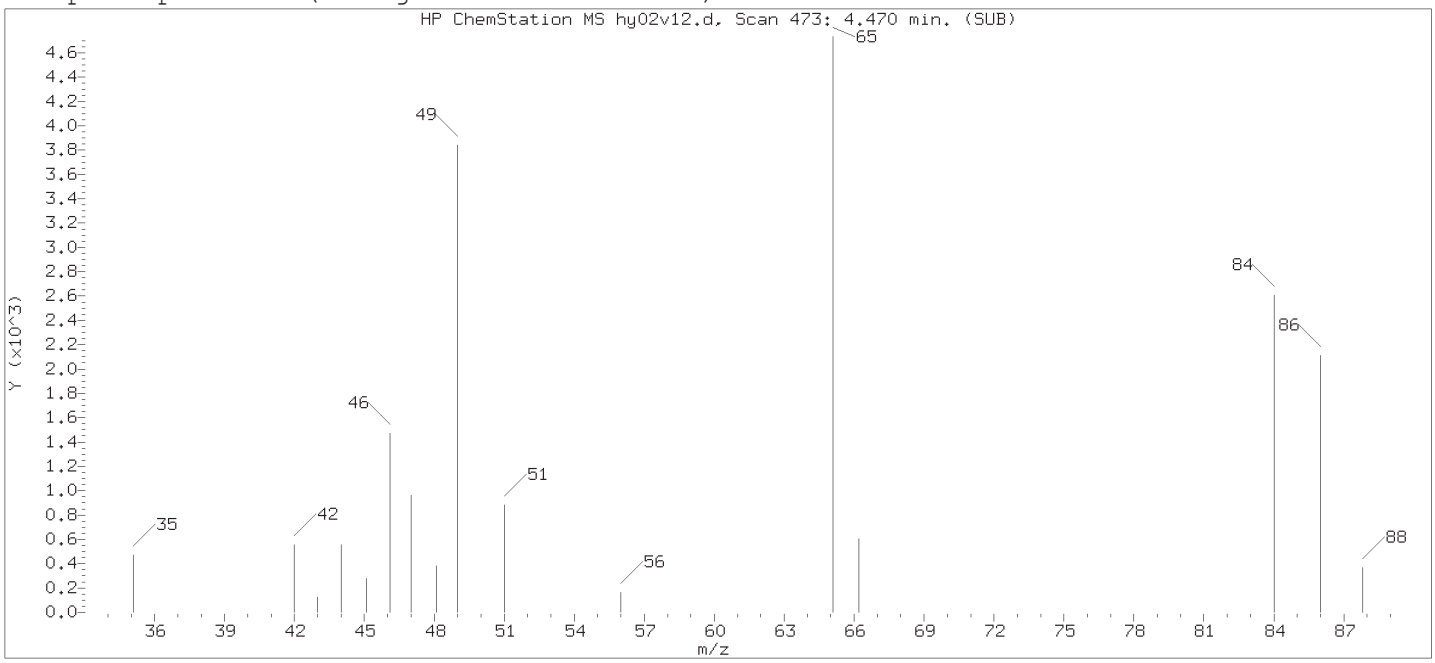
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area (flag) : 70380M
On-Column Amount (ng) : 50.0000
Integration start scan : 457 Integration stop scan: 617
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

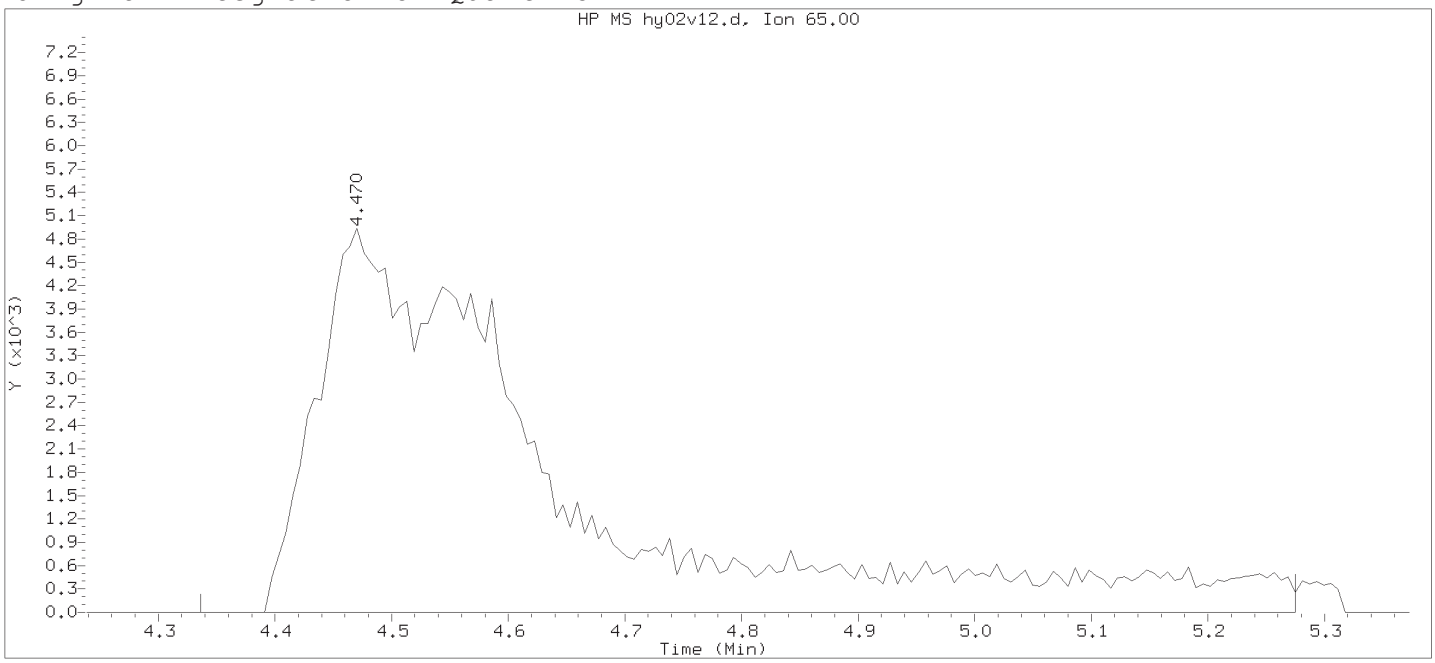
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Joshua E. Berrios on 05/03/2018 at 16:36.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

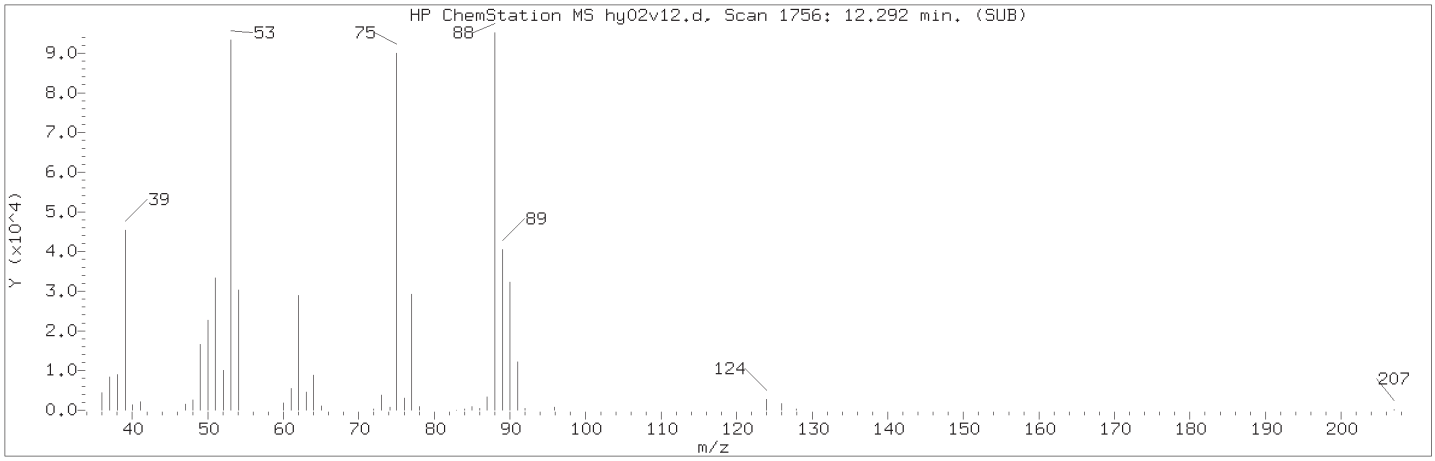
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:46 Automation

Sample Name: LCDH88 Lab Sample ID: LCDH88

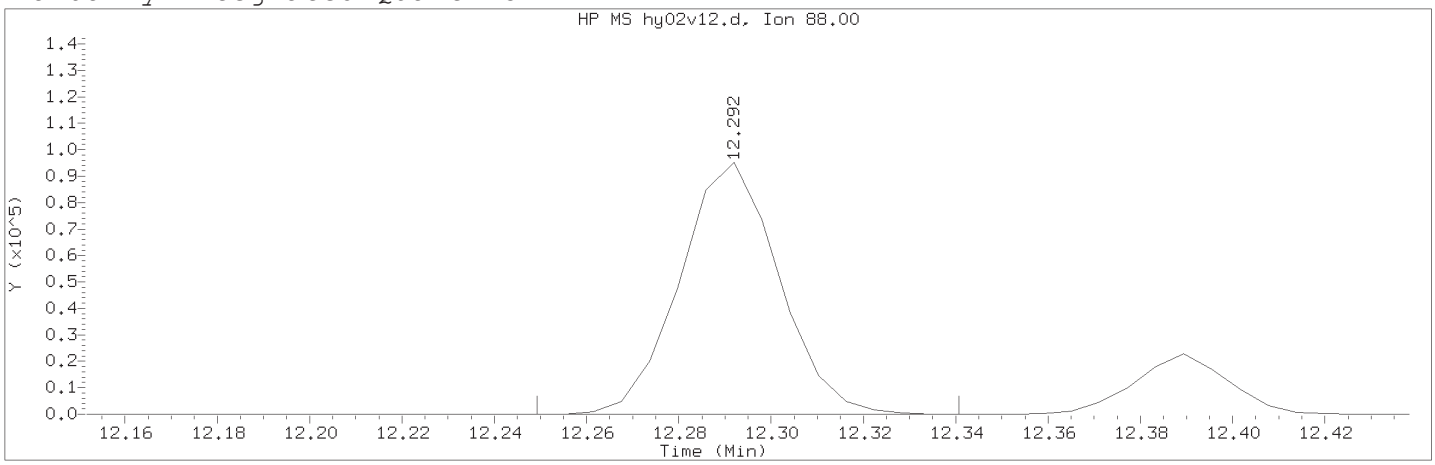
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 473
Retention Time (minutes): 4.470
Quant Ion : 65.00
Area : 69535
On-column Amount (ng) : 50.0000
Integration start scan : 450 Integration stop scan: 604
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

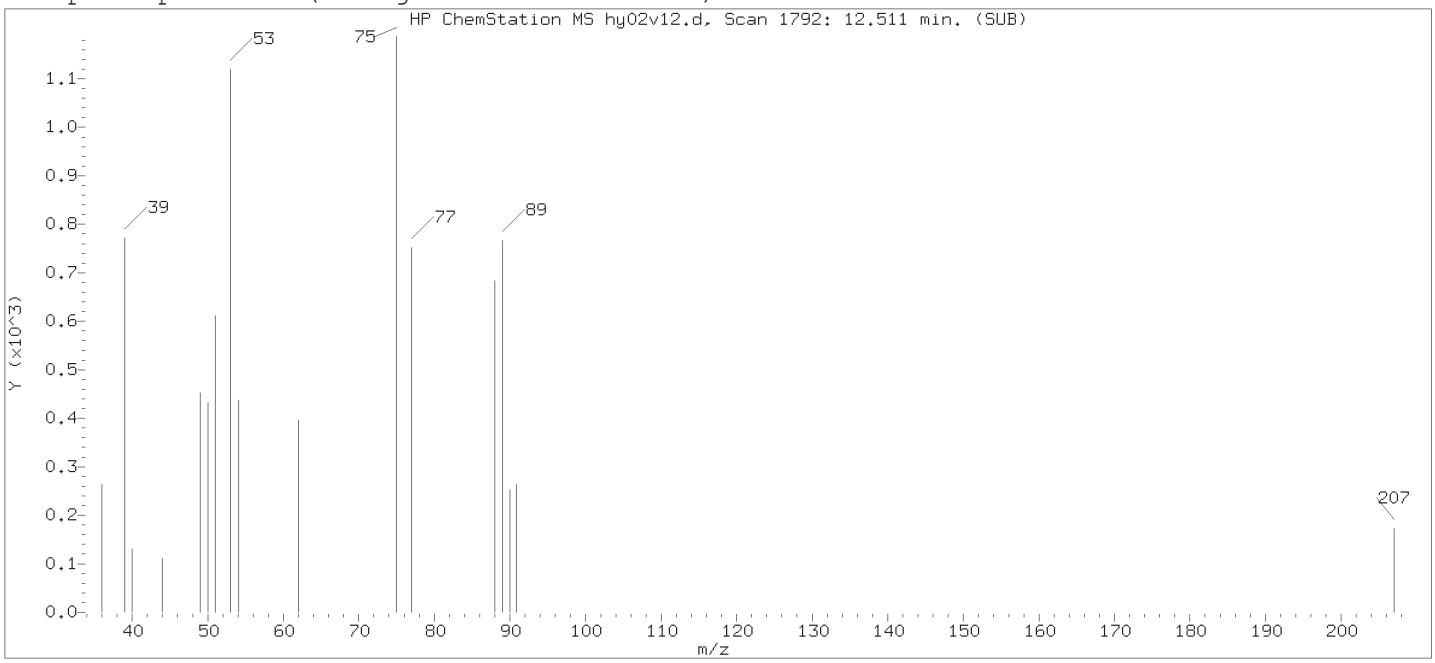
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1756
Retention Time (minutes): 12.292
Quant Ion : 88.00
Area (flag) : 141379M
On-Column Amount (ng) : 15.5110
Integration start scan : 1748 Integration stop scan: 1763
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

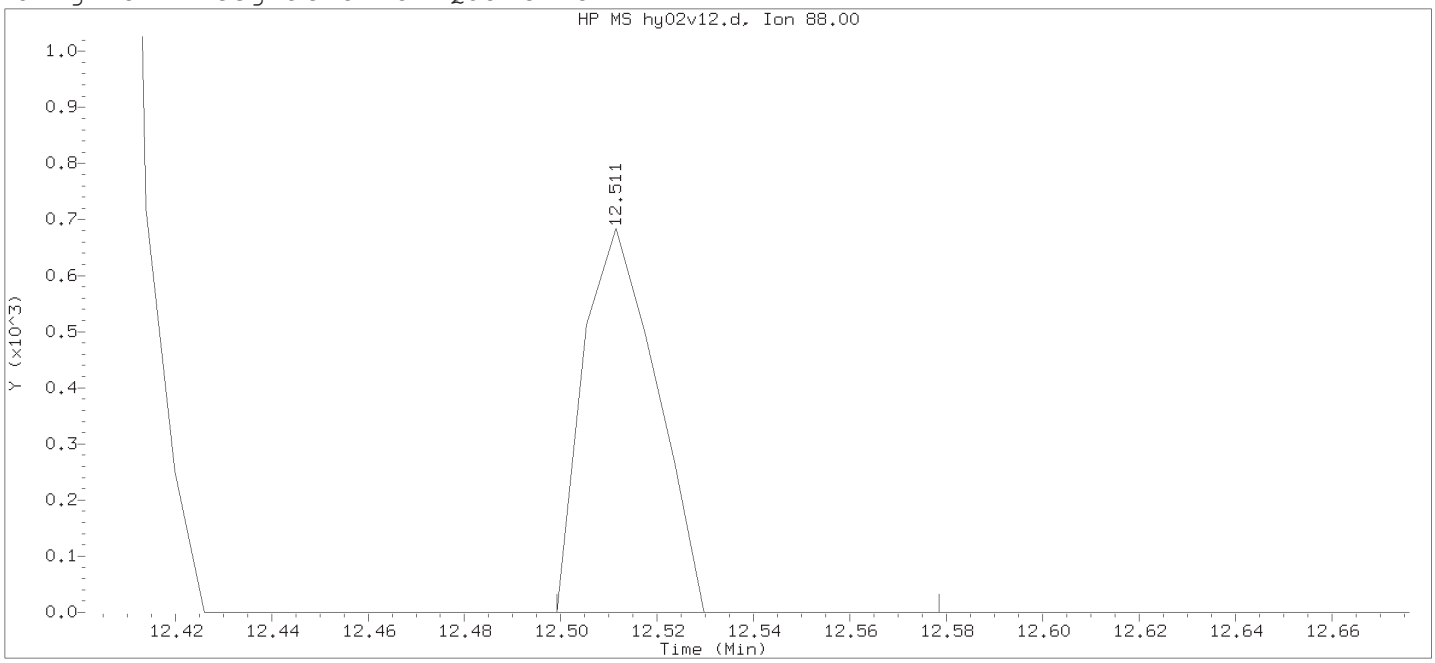
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Joshua E. Berrios on 05/03/2018 at 16:36.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

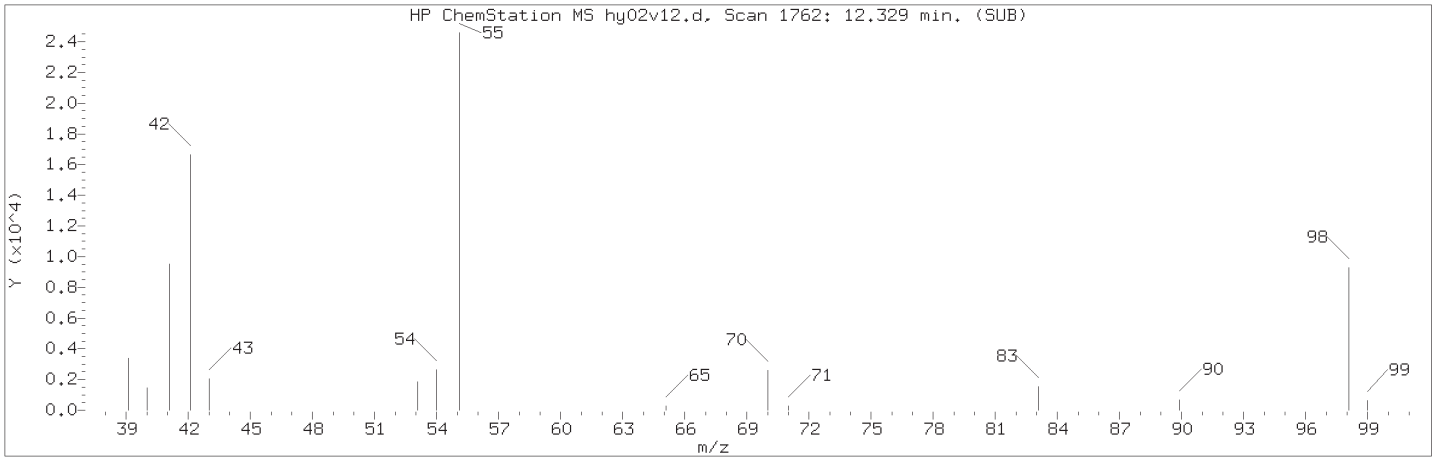
Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:46 Automation

Sample Name: LCDH88 Lab Sample ID: LCDH88

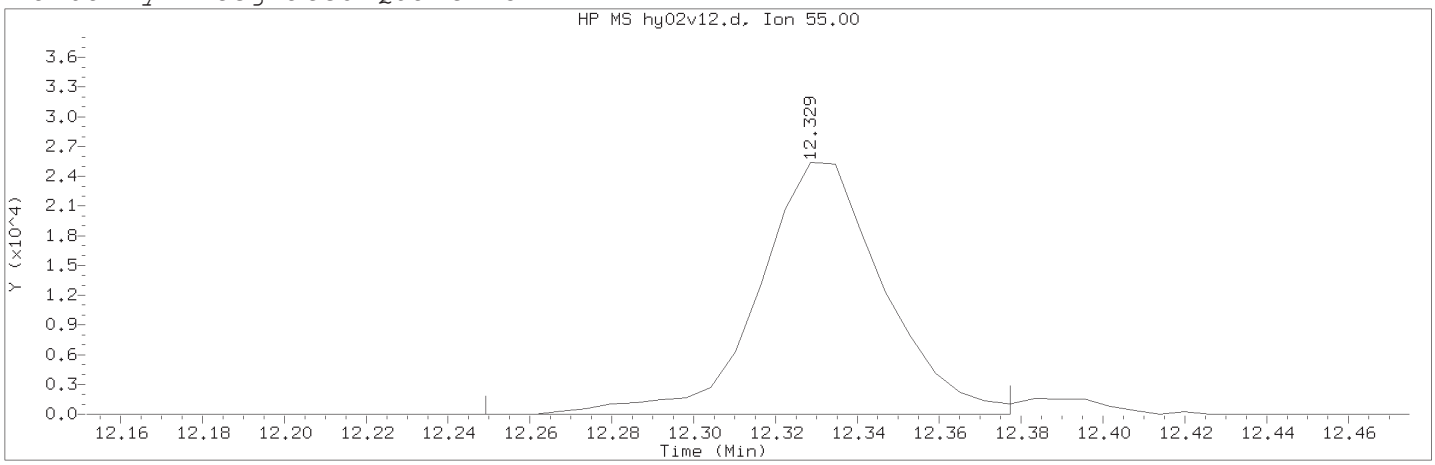
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1792
Retention Time (minutes): 12.511
Quant Ion : 88.00
Area : 718
On-column Amount (ng) : 0.0798
Integration start scan : 1789 Integration stop scan: 1802
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:39.
Target 3.5 esignature used: D12 Revision 3.5

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 23:07
Date, time and analyst ID of latest file update: 03-May-2018 00:35 dvv10203

Sample Name: LCDH88 Lab Sample ID: LCDH88

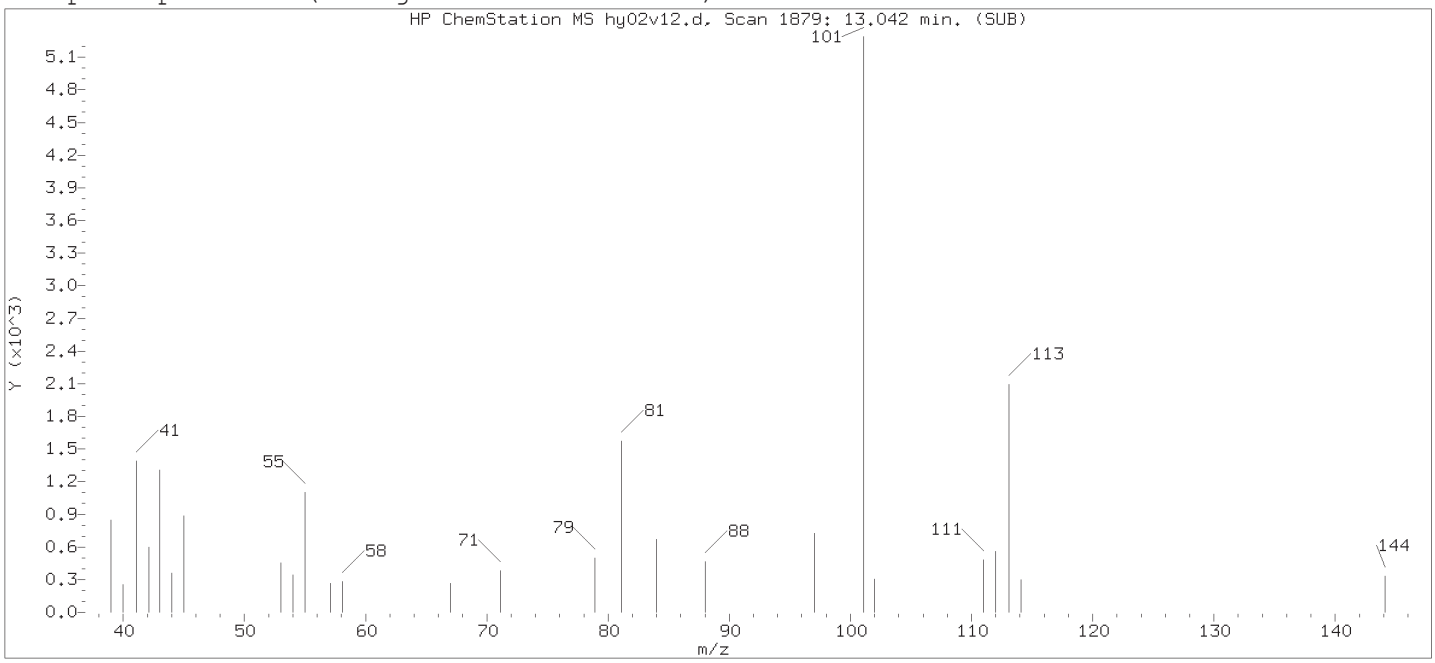
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1762
Retention Time (minutes): 12.329
Quant Ion : 55.00
Area (flag) : 53752M
On-Column Amount (ng) : 115.9591
Integration start scan : 1748 Integration stop scan: 1769
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

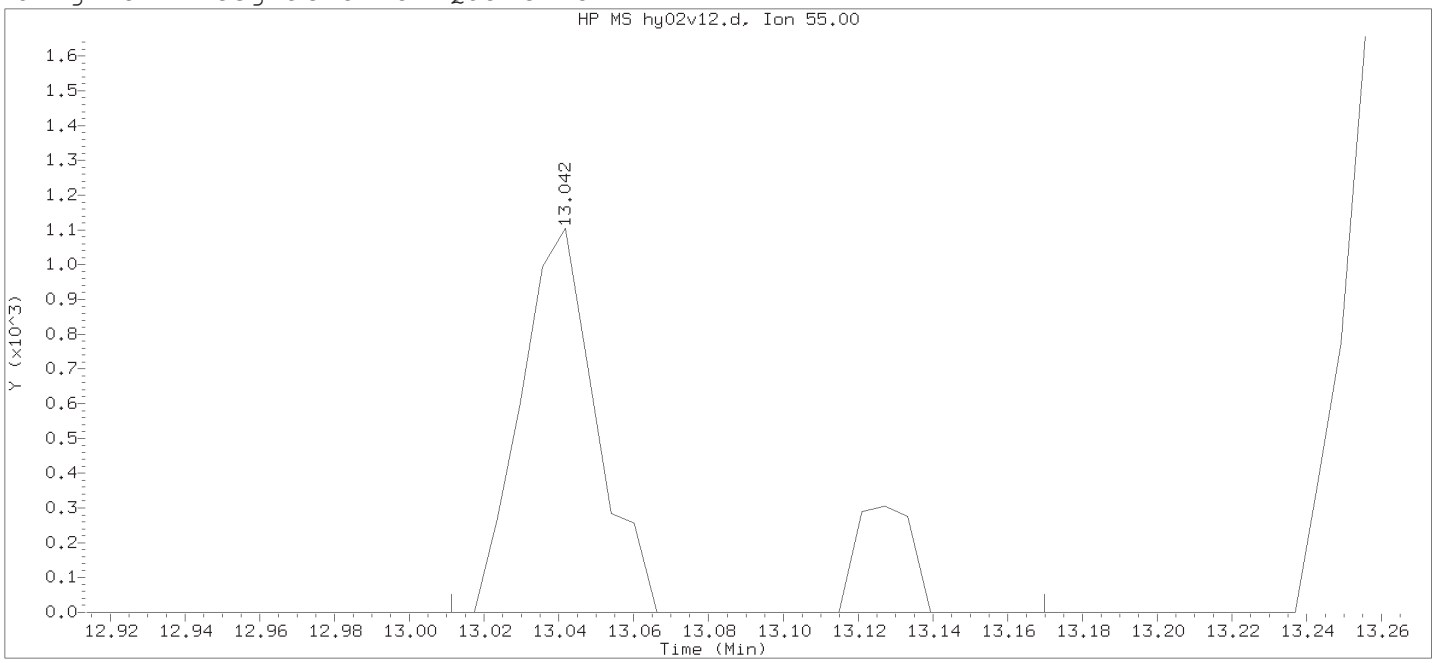
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/03/2018 at 00:39.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Joshua E. Berrios on 05/03/2018 at 16:36.
PARALLAX ID: jeb12641

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



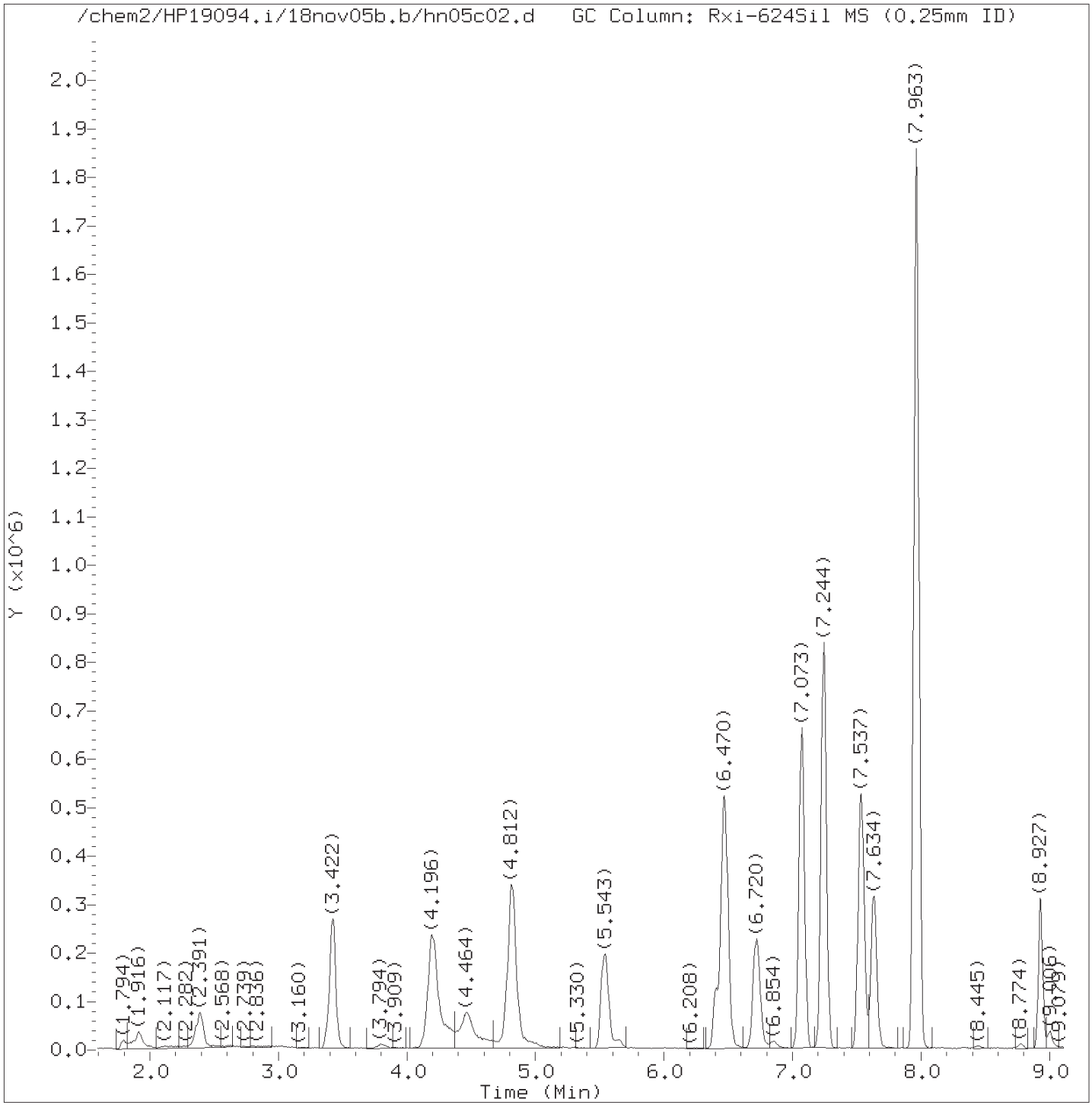
Data File: /chem2/HP19094.i/18may02b.b/hy02v12.d Instrument ID: HP19094.i
Injection date and time: 02-MAY-2018 22:28 Analyst ID: DVV10203

Method used: /chem2/HP19094.i/18may02b.b/m8260c25.m Sublist used: SMQC
Calibration date and time: 02-MAY-2018 22:37
Date, time and analyst ID of latest file update: 02-May-2018 22:46 Automation

Sample Name: LCDH88 Lab Sample ID: LCDH88

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1879
Retention Time (minutes): 13.042
Quant Ion : 55.00
Area : 1857
On-column Amount (ng) : 4.0549
Integration start scan : 1873 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/03/2018 at 00:39.
Target 3.5 esignature used: 1.0.3.3



Total Ion Chromatogram (TIC)

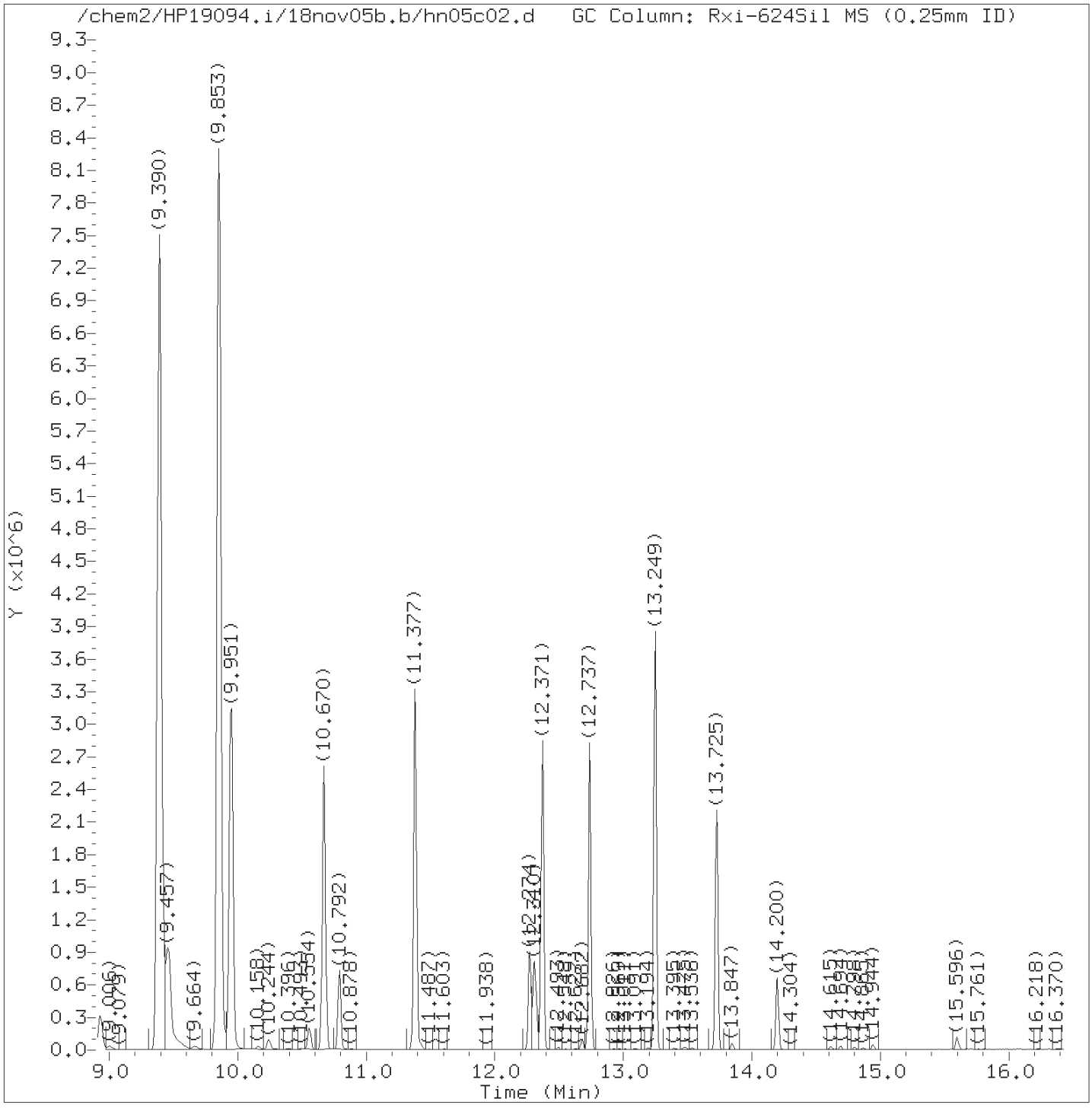
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 21:47
Date, time and analyst ID of latest file update: 05-Nov-2018 21:47 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 21:50.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 21:47
Date, time and analyst ID of latest file update: 05-Nov-2018 21:47 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 21:51.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 21:47
Date, time and analyst ID of latest file update: 05-Nov-2018 21:47 jgc14951

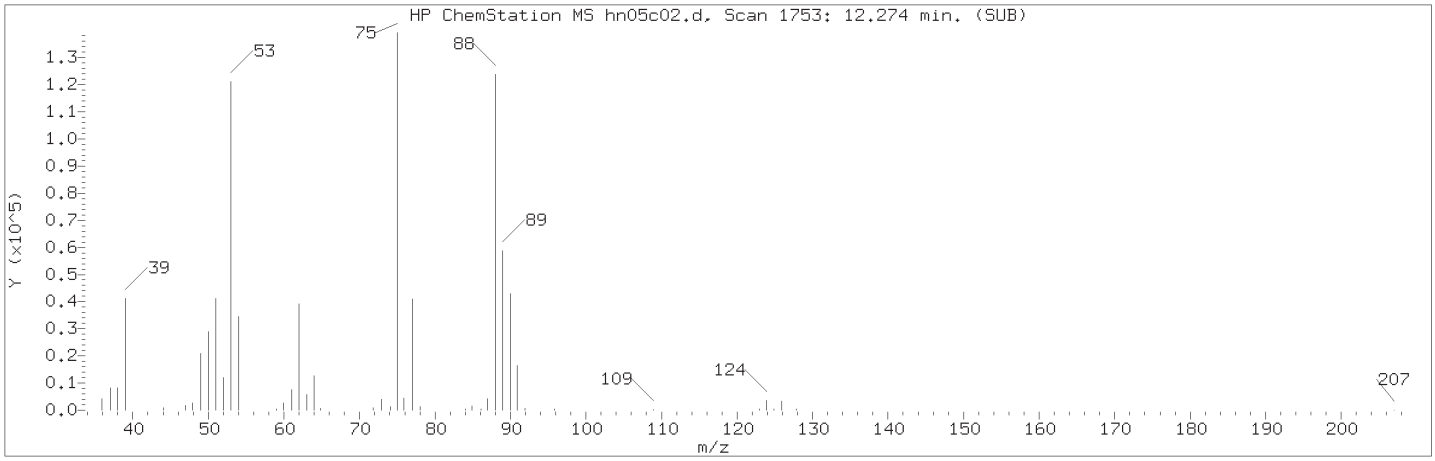
Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
25) Acetonitrile	(1)	4.196	41	820246	283.291
26)*t-Butyl Alcohol-d10	(1)	4.482	65	119910	50.000
36) Vinyl Acetate	(2)	5.543	43	652956	8.307
43) Methyl Acrylate	(2)	6.470	55	1159126	47.796
53) 1-Chlorobutane	(2)	7.244	56	1016466	8.758
63)*Fluorobenzene	(2)	7.963	96	2569937	10.000
77) Chloroacetonitrile	(2)	9.451	75	660295	683.185
78) 2-Chloroethyl vinyl ether	(2)	9.469	63	211715	9.111
97)*Chlorobenzene-d5	(3)	11.377	117	1862937	10.000
109) cis-1,4-Dichloro-2-butene	(1)	12.274	88	185388M	11.938
112) Cyclohexanone	(1)	12.310	55	414036M	524.255
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	923209	10.000
142) Hexachloroethane	(4)	13.725	117	399546	10.280

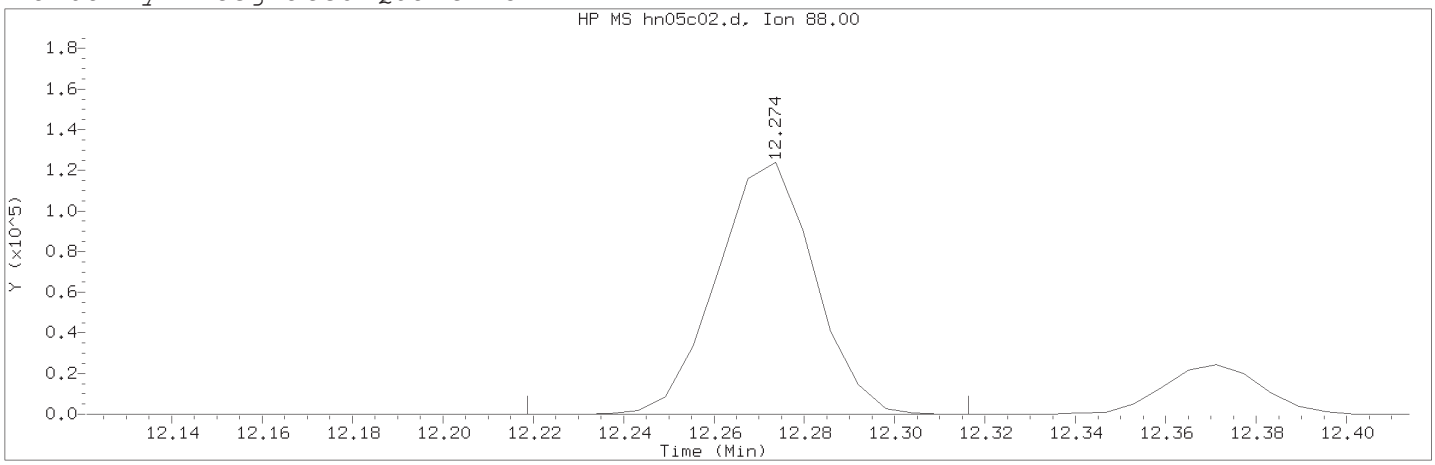
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 21:51.
Target 3.5 esignature user ID: jgc14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 21:47
Date, time and analyst ID of latest file update: 05-Nov-2018 21:47 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

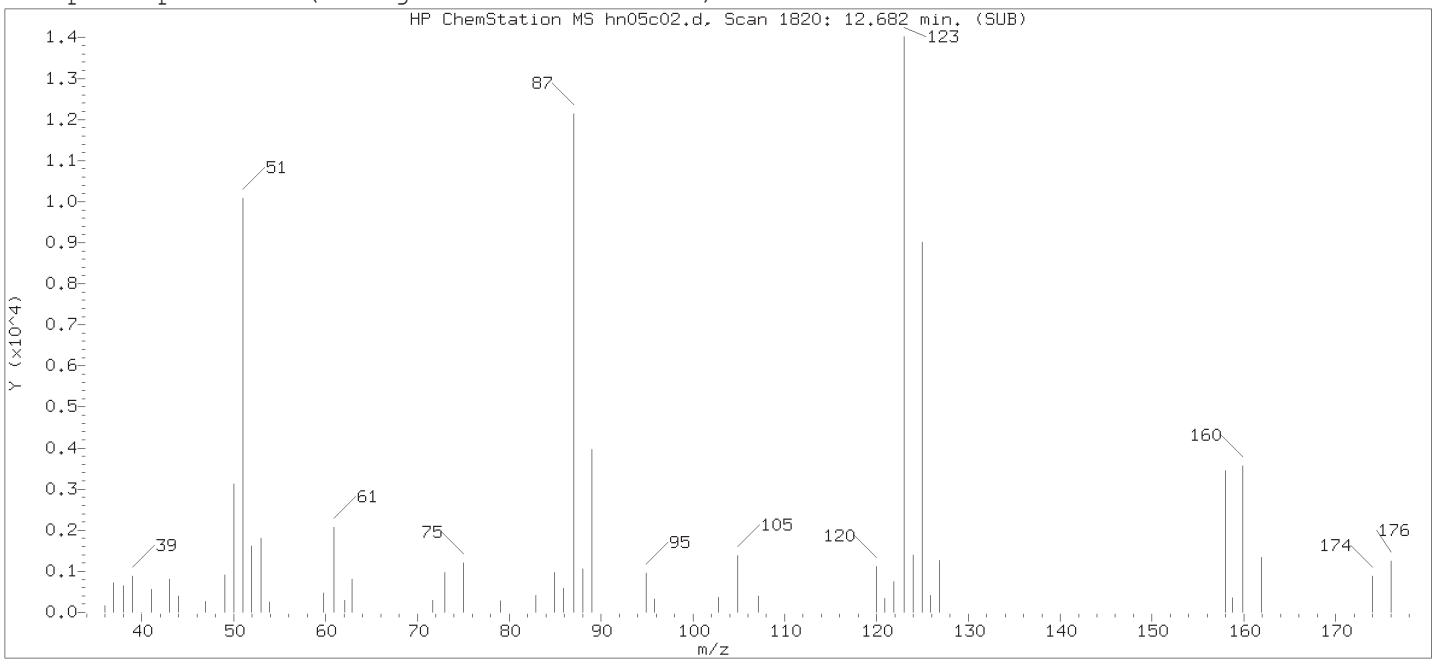
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1753
Retention Time (minutes): 12.274
Quant Ion : 88.00
Area (flag) : 185388M
On-Column Amount (ng) : 11.9380
Integration start scan : 1743 Integration stop scan: 1759
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

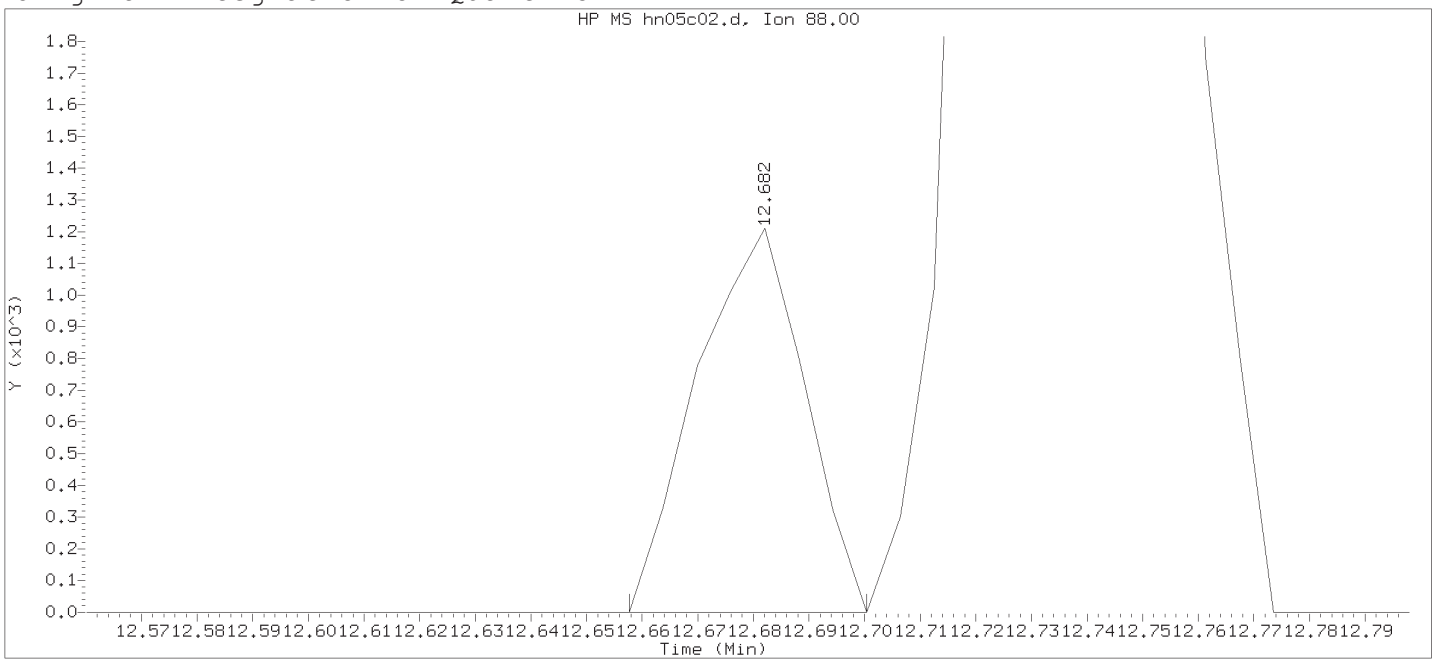
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 21:51.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

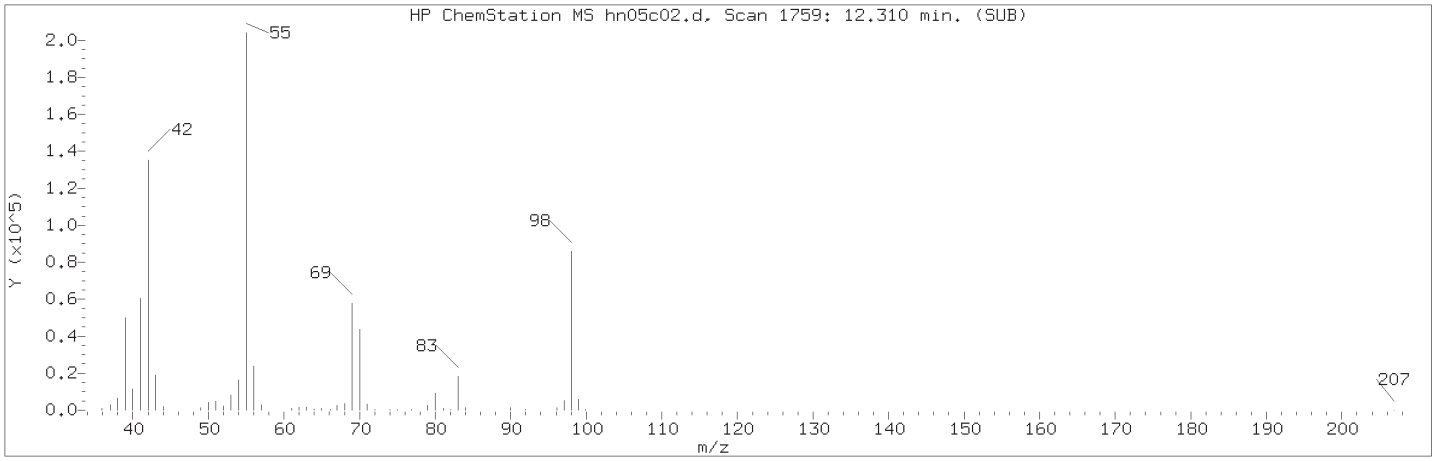
Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 20:57
Date, time and analyst ID of latest file update: 05-Nov-2018 20:57 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

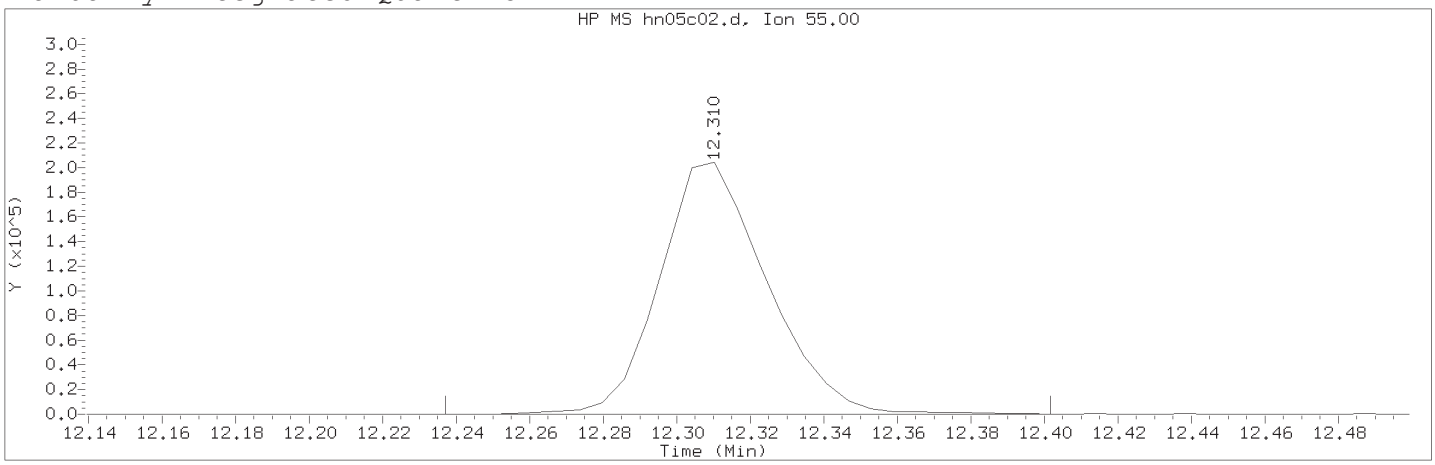
Compound Number : 109
Compound Name : cis-1,4-Dichloro-2-butene
Scan Number : 1820
Retention Time (minutes): 12.682
Quant Ion : 88.00
Area : 1630
On-column Amount (ng) : 0.1050
Integration start scan : 1815 Integration stop scan: 1822
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 21:51.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 21:47
Date, time and analyst ID of latest file update: 05-Nov-2018 21:47 jgc14951

Sample Name: VSTD010 Lab Sample ID: VSTD010

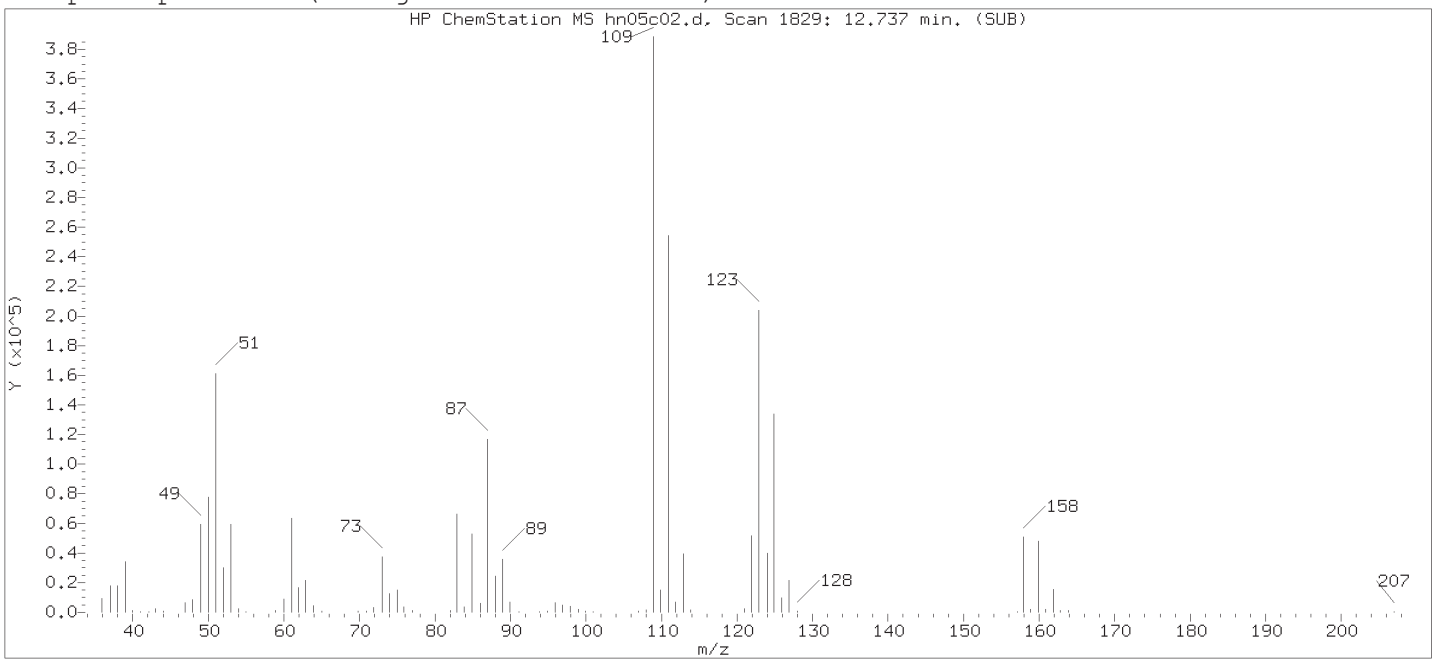
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1759
Retention Time (minutes): 12.310
Quant Ion : 55.00
Area (flag) : 414036M
On-Column Amount (ng) : 524.2546
Integration start scan : 1746 Integration stop scan: 1773
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

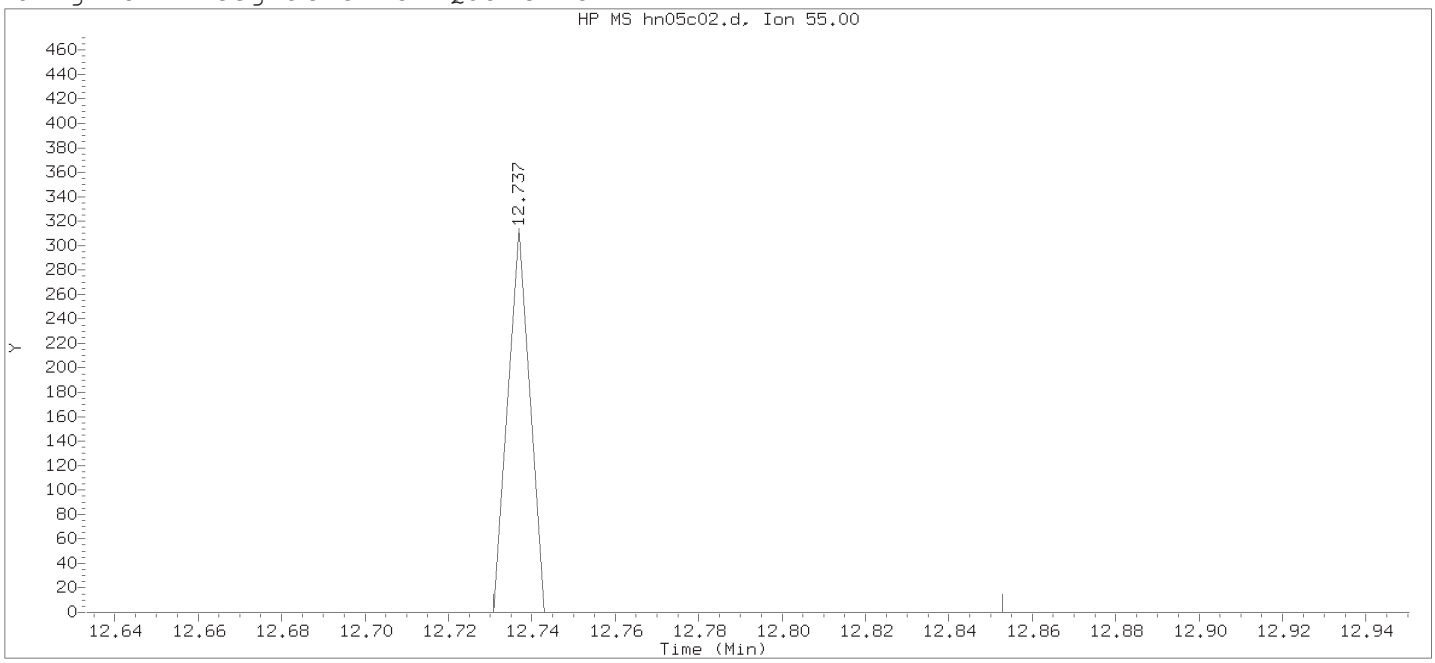
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/05/2018 at 21:51.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 13:12.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05c02.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 20:39 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMICAL
Calibration date and time: 05-NOV-2018 20:57
Date, time and analyst ID of latest file update: 05-Nov-2018 20:57 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1829
Retention Time (minutes): 12.737
Quant Ion : 55.00
Area : 114
On-column Amount (ng) : 0.1454
Integration start scan : 1827 Integration stop scan: 1847
Y at integration start : 0 Y at integration end: 0

Digitally signed by Joel G. Chachapoya on 11/05/2018 at 21:51.
Target 3.5 esignature used 21 CFR Part 11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

SECD010

Data file: /chem2/HP19094.i/18nov05b.b/hn05ec6.d Injection date and time: **06-NOV-2018 07:22**
Data file Sample Info. Line: SECD010;SECD010;1;3;LCS;;;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 07:41 jkh09052

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 07:40
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.470	(0.012)	473	65	98836	(-20)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2124872	(-17)	10.00	
97) Chlorobenzene-d5	11.378	(0.006)	1606	117	1564857	(-16)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	799490	(-13)	10.00	

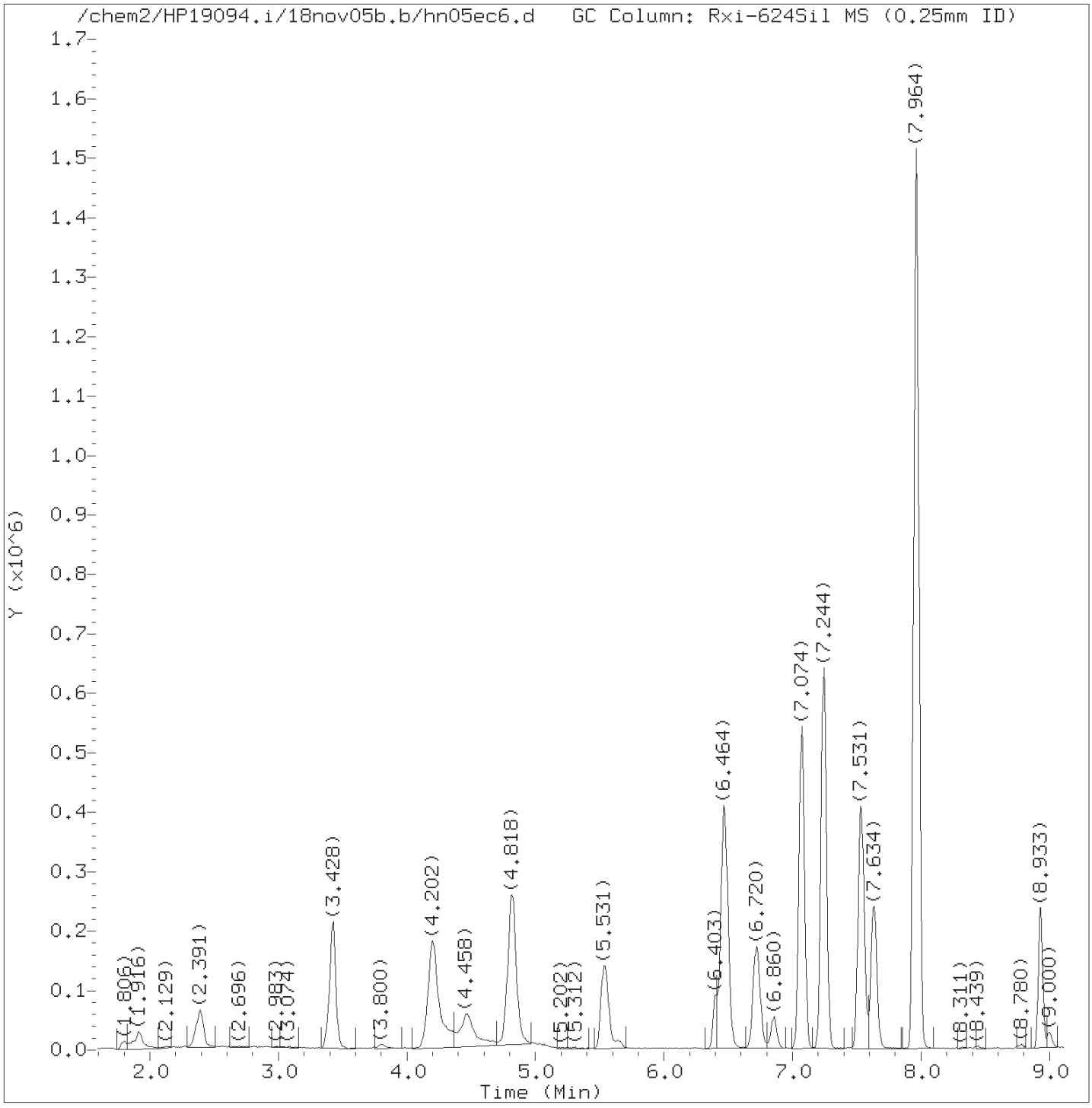
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.074	(-0.001)	113	512034	9.561	96%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.001)	102	95518	10.231	102%		81 - 118
82) Toluene-d8	(3)	9.951	(0.000)	98	2070221	10.279	103%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	717396	9.783	98%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
112) Cyclohexanone	(1)	12.310	(-0.007)	55	321555	493.968	493.97			2	25

Total number of targets = 1

Digitally signed by Jennifer K. Howe on 11/06/2018 at 10:54. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:17. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

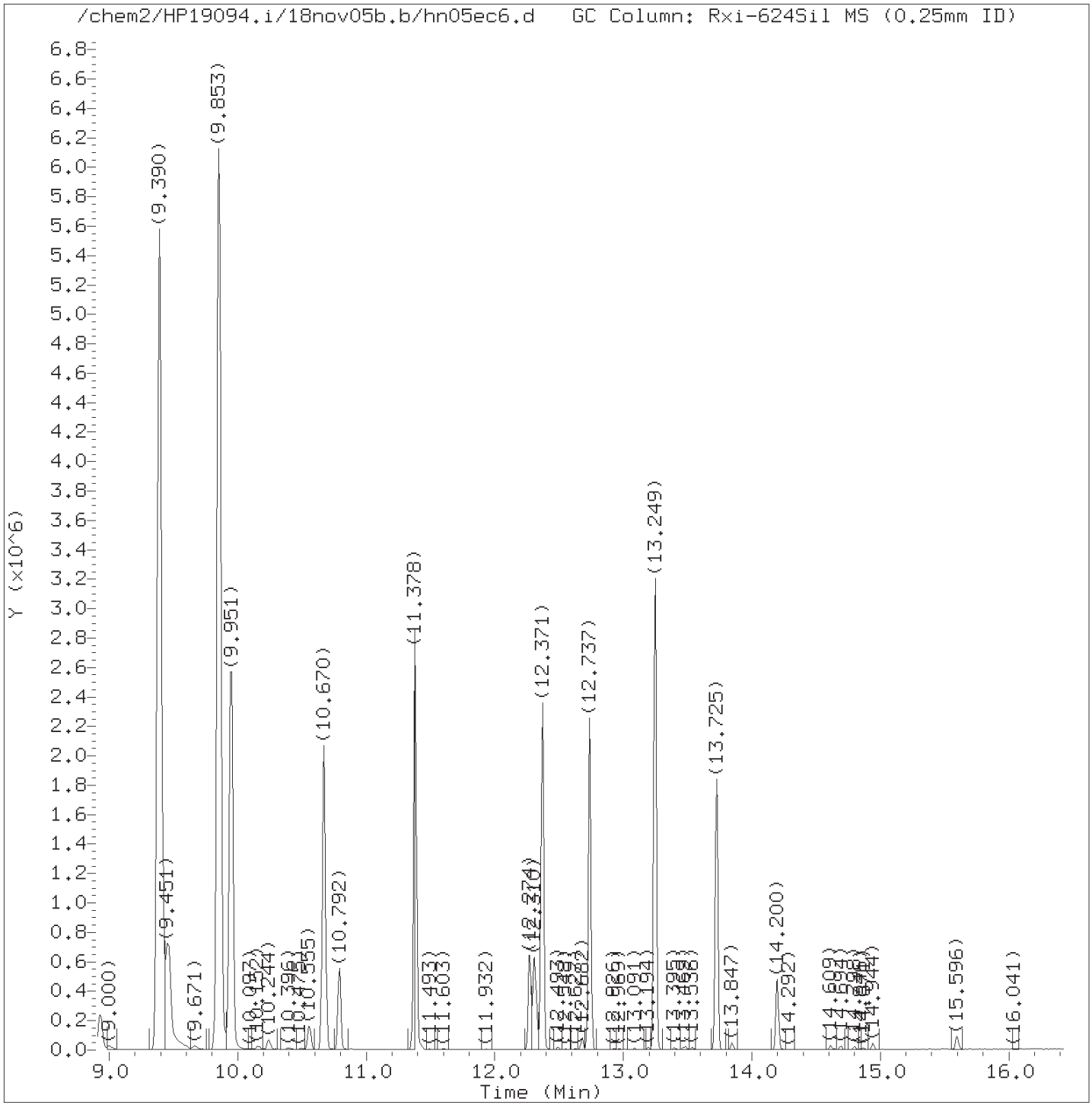
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec6.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:41 jkh09052

Sample Name: SECD010 Lab Sample ID: SECD010

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec6.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:41 jkh09052

Sample Name: SECD010 Lab Sample ID: SECD010

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05ec6.d Instrument ID: HP19094.i
Injection date and time: 06-NOV-2018 07:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 07:40
Date, time and analyst ID of latest file update: 06-Nov-2018 07:41 jkh09052

Sample Name: SECD010 Lab Sample ID: SECD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.470	65	98836	50.000
50)$Dibromofluoromethane	(2)	7.074	113	512034	9.561
57)$1,2-Dichloroethane-d4	(2)	7.531	102	95518	10.231
63)*Fluorobenzene	(2)	7.964	96	2124872	10.000
82)$Toluene-d8	(3)	9.951	98	2070221	10.279
97)*Chlorobenzene-d5	(3)	11.378	117	1564857	10.000
112) Cyclohexanone	(1)	12.310	55	321555	493.968
111)$4-Bromofluorobenzene	(3)	12.371	95	717396	9.783
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	799490	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/06/2018 at 10:54.
Target 3.5 esignature user ID: jkh09052

Raw QC Data

Volatiles by GC/MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB93

Data file: /chem2/HP09953.i/18nov06a.b/bn06b01.d Injection date and time: **06-NOV-2018 20:41**
Data file Sample Info. Line: VBLKB93;VBLKB93;2;3;;;DODSW;;; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:20 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:48
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.924	(0.000)	180	65	106420	(-12)	250.00	
70) Fluorobenzene	3.944	(0.000)	512	96	1179305	(-14)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	959320	(-13)	50.00	
140) 1,4-Dichlorobenzene-d4	9.230	(-0.006)	1381	152	538378	(-19)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.317	(0.000)	113	300057	51.052	102%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.621	(0.000)	102	67308	53.206	106%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1190326	48.075	96%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	424412	47.054	94%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)				Not Detected					0.6	5
4) Chloromethane	(2)				Not Detected					0.6	5
5) Vinyl Chloride	(2)				Not Detected					0.6	5
9) Bromomethane	(2)				Not Detected					0.7	5
10) Chloroethane	(2)				Not Detected					1	5
13) Trichlorofluoromethane	(2)				Not Detected					0.7	5
19) 1,1-Dichloroethene	(2)				Not Detected					0.5	5
20) Acetone	(1)				Not Detected					6	20
22) Freon 113	(2)				Not Detected					0.6	10
25) Carbon Disulfide	(2)				Not Detected					0.6	5
27) Methyl Acetate	(2)				Not Detected					1	5
31) Methylene Chloride	(2)				Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)				Not Detected					0.5	5
40) 1,1-Dichloroethane	(2)				Not Detected					0.5	5
44) 2-Butanone	(1)				Not Detected					1	10
45) cis-1,2-Dichloroethene	(2)				Not Detected					0.5	5
54) Chloroform	(2)				Not Detected					0.6	5
57) 1,1,1-Trichloroethane	(2)				Not Detected					0.6	5
58) Cyclohexane	(2)				Not Detected					0.5	5
61) Carbon Tetrachloride	(2)				Not Detected					0.5	5
64) Benzene	(2)				Not Detected					0.5	5
67) 1,2-Dichloroethane	(2)				Not Detected					0.6	5
75) Trichloroethene	(2)				Not Detected					0.5	5
76) Methylcyclohexane	(2)				Not Detected					0.6	5
77) 1,2-Dichloropropane	(2)				Not Detected					0.5	5
84) Bromodichloromethane	(2)				Not Detected					0.4	5
89) cis-1,3-Dichloropropene	(2)				Not Detected					0.4	5
90) 4-Methyl-2-pentanone	(2)				Not Detected					1	10
92) Toluene	(3)				Not Detected					0.6	5

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:20. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06b01.d Injection date and time: **06-NOV-2018 20:41**
Data file Sample Info. Line: VBLKB93;VBLKB93;2;3;;;DODSW;;; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:20 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:48
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

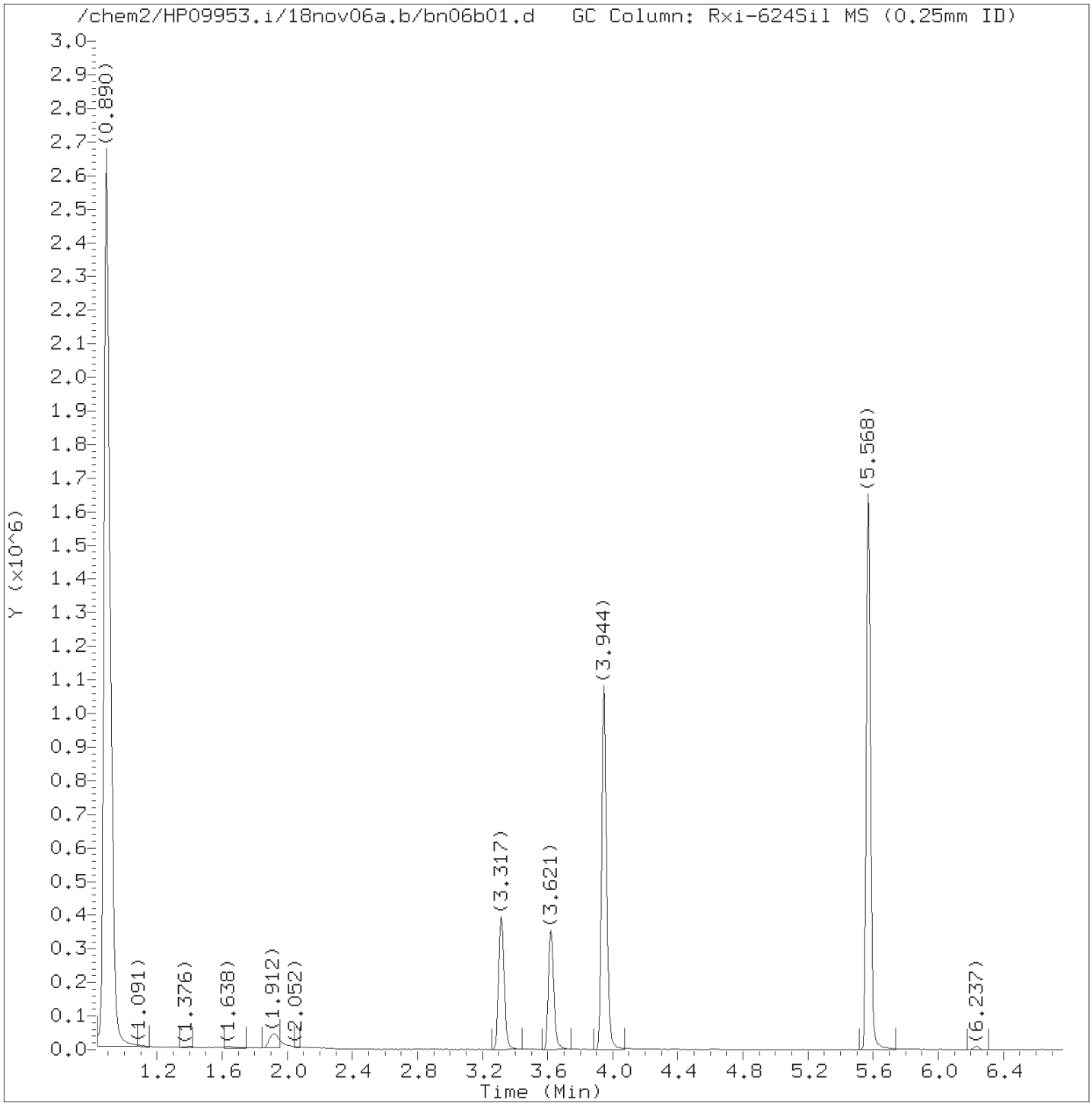
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
93) trans-1,3-Dichloropropene	(3)				Not Detected					0.3	5
96) 1,1,2-Trichloroethane	(3)				Not Detected					0.5	5
98) Tetrachloroethene	(3)				Not Detected					0.5	5
101) 2-Hexanone	(3)				Not Detected					1	10
103) Dibromochloromethane	(3)				Not Detected					0.4	5
104) 1,2-Dibromoethane	(3)				Not Detected					0.4	5
107) Chlorobenzene	(3)				Not Detected					0.5	5
109) Ethylbenzene	(3)				Not Detected					0.4	5
110) m+p-Xylene	(3)				Not Detected					1	5
111) o-Xylene	(3)				Not Detected					0.4	5
112) Xylene (Total)	(3)				Not Detected					1	5
113) Styrene	(3)				Not Detected					0.3	5
114) Bromoform	(3)				Not Detected					5	10
115) Isopropylbenzene	(3)				Not Detected					0.4	5
118) Cyclohexanone	(1)				Not Detected					25	250
120) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.4	5
138) 1,3-Dichlorobenzene	(4)				Not Detected					0.5	5
141) 1,4-Dichlorobenzene	(4)				Not Detected					0.4	5
147) 1,2-Dichlorobenzene	(4)				Not Detected					0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.4	5
153) 1,2,4-Trichlorobenzene	(4)				Not Detected					5	10

Total number of targets = 51

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:20. Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

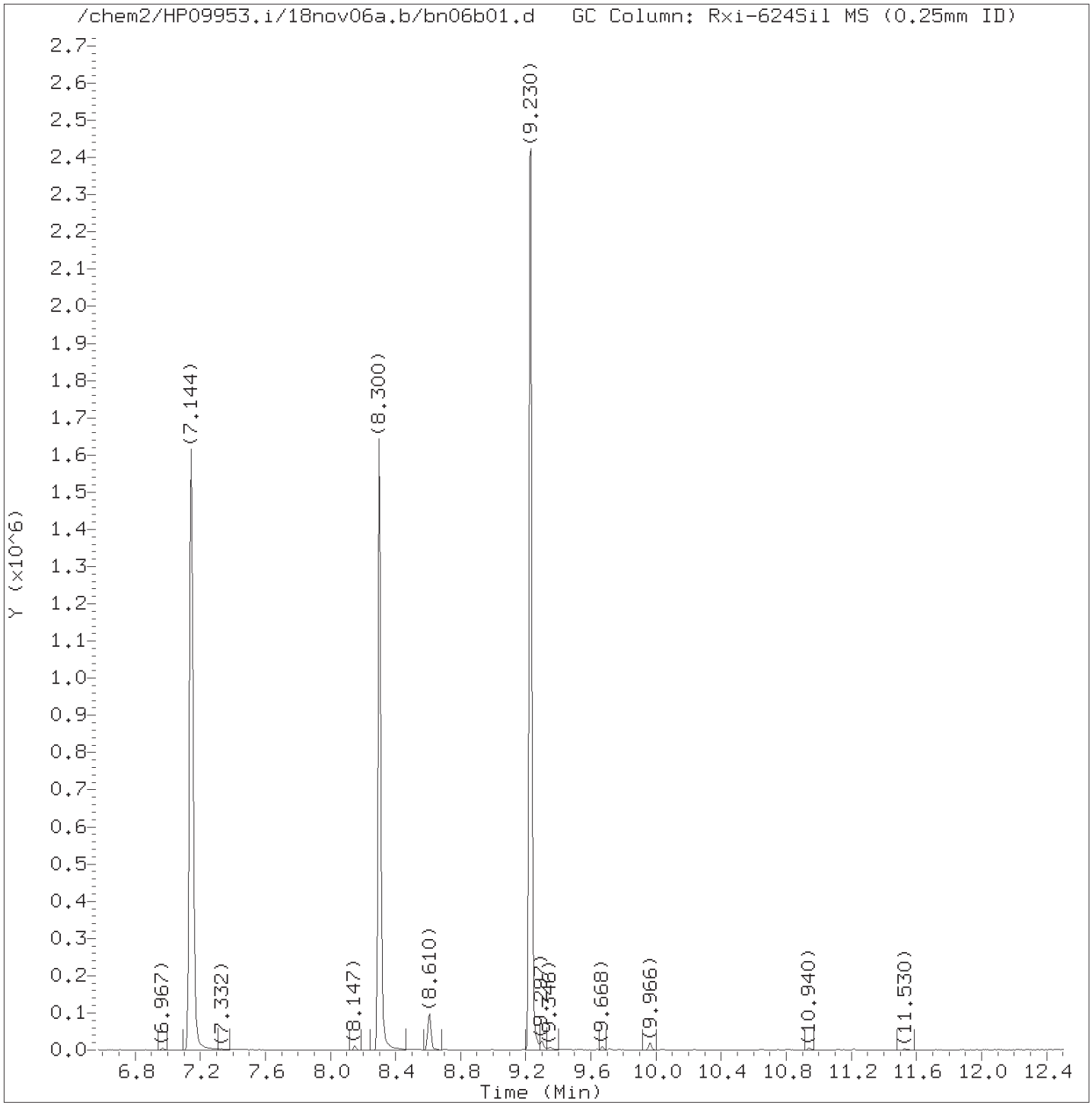
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06b01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 20:41 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:20 pth10165

Sample Name: VBLKB93 Lab Sample ID: VBLKB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:20.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06b01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 20:41 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:20 pth10165

Sample Name: VBLKB93 Lab Sample ID: VBLKB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:20.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06b01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 20:41 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:20 pth10165

Sample Name: VBLKB93 Lab Sample ID: VBLKB93

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl alcohol-d10	(1)	1.924	65	106420	250.000
56)$Dibromofluoromethane	(2)	3.317	113	300057	51.052
63)$1,2-Dichloroethane-d4	(2)	3.621	102	67308	53.206
70)*Fluorobenzene	(2)	3.944	96	1179305	50.000
91)$Toluene-d8	(3)	5.568	98	1190326	48.075
105)*Chlorobenzene-d5	(3)	7.144	117	959320	50.000
119)$4-Bromofluorobenzene	(3)	8.300	95	424412	47.054
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	538378	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:20.
Target 3.5 esignature user ID: pth10165

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB97

Data file: /chem2/HP09953.i/18nov07a.b/bn07b30.d Injection date and time: **07-NOV-2018 10:32**
Data file Sample Info. Line: VBLKB97;VBLKB97;2;3;;;DODSW;;; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:55 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.924	(0.006)	180	65	112643	(0)	250.00	
70) Fluorobenzene	3.944	(0.006)	512	96	1220326	(-7)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	999590	(-5)	50.00	
140) 1,4-Dichlorobenzene-d4	9.230	(-0.006)	1381	152	564314	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.317	(-0.001)	113	307524	50.564	101%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.621	(-0.001)	102	68329	52.198	104%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1227151	47.566	95%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	439414	46.754	94%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)				Not Detected					0.6	5
4) Chloromethane	(2)				Not Detected					0.6	5
5) Vinyl Chloride	(2)				Not Detected					0.6	5
9) Bromomethane	(2)				Not Detected					0.7	5
10) Chloroethane	(2)				Not Detected					1	5
13) Trichlorofluoromethane	(2)				Not Detected					0.7	5
19) 1,1-Dichloroethene	(2)				Not Detected					0.5	5
20) Acetone	(1)				Not Detected					6	20
22) Freon 113	(2)				Not Detected					0.6	10
25) Carbon Disulfide	(2)				Not Detected					0.6	5
27) Methyl Acetate	(2)				Not Detected					1	5
31) Methylene Chloride	(2)				Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)				Not Detected					0.5	5
40) 1,1-Dichloroethane	(2)				Not Detected					0.5	5
44) 2-Butanone	(1)				Not Detected					1	10
45) cis-1,2-Dichloroethene	(2)				Not Detected					0.5	5
54) Chloroform	(2)				Not Detected					0.6	5
57) 1,1,1-Trichloroethane	(2)				Not Detected					0.6	5
58) Cyclohexane	(2)				Not Detected					0.5	5
61) Carbon Tetrachloride	(2)				Not Detected					0.5	5
64) Benzene	(2)				Not Detected					0.5	5
67) 1,2-Dichloroethane	(2)				Not Detected					0.6	5
75) Trichloroethene	(2)				Not Detected					0.5	5
76) Methylcyclohexane	(2)				Not Detected					0.6	5
77) 1,2-Dichloropropane	(2)				Not Detected					0.5	5
84) Bromodichloromethane	(2)				Not Detected					0.4	5
89) cis-1,3-Dichloropropene	(2)				Not Detected					0.4	5
90) 4-Methyl-2-pentanone	(2)				Not Detected					1	10
92) Toluene	(3)				Not Detected					0.6	5

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:55. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07b30.d Injection date and time: **07-NOV-2018 10:32**
Data file Sample Info. Line: VBLKB97;VBLKB97;2;3;;;DODSW;;; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:55 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

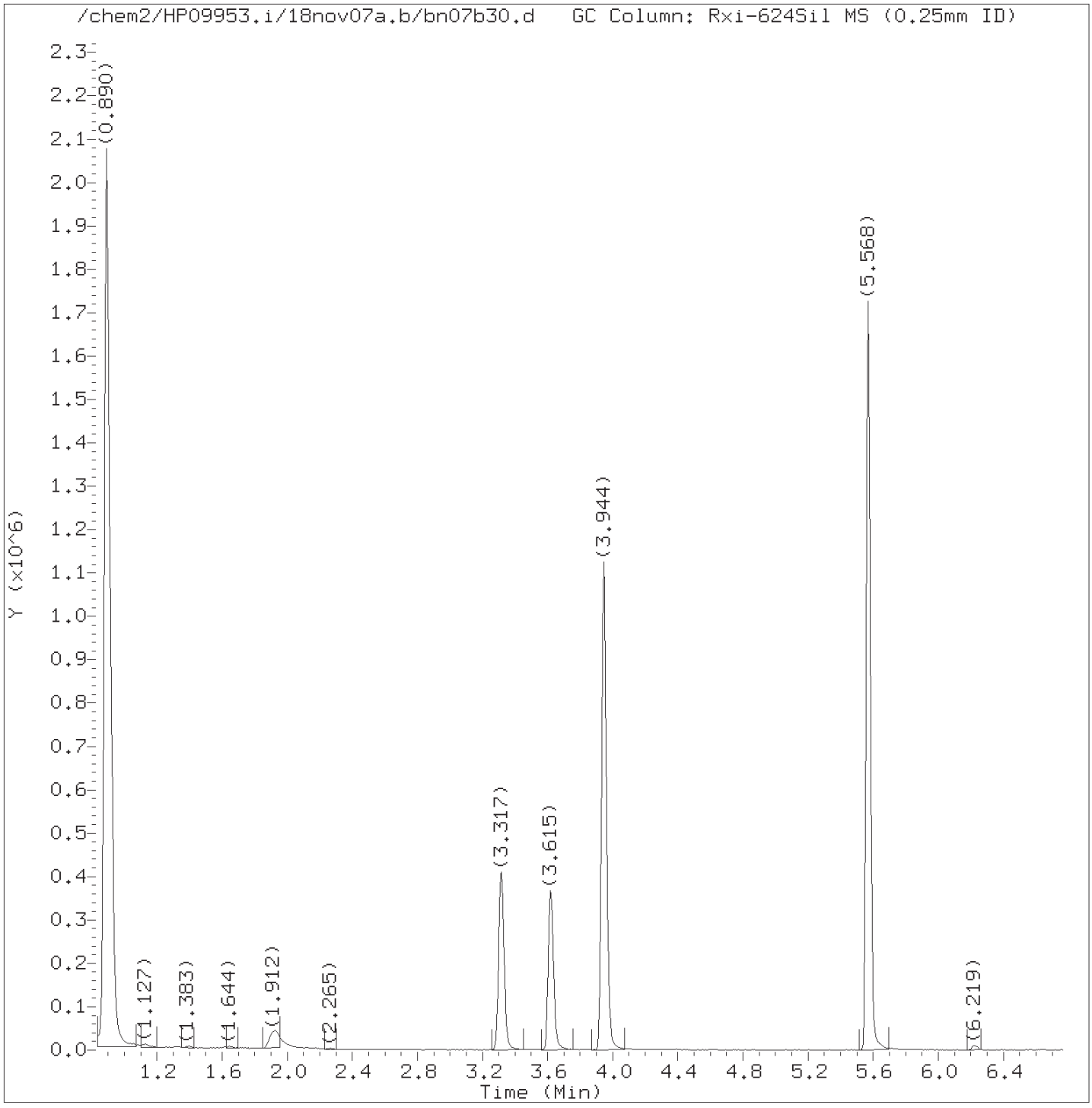
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) trans-1,3-Dichloropropene	(3)				Not Detected					0.3	5
96) 1,1,2-Trichloroethane	(3)				Not Detected					0.5	5
98) Tetrachloroethene	(3)				Not Detected					0.5	5
101) 2-Hexanone	(3)				Not Detected					1	10
103) Dibromochloromethane	(3)				Not Detected					0.4	5
104) 1,2-Dibromoethane	(3)				Not Detected					0.4	5
107) Chlorobenzene	(3)				Not Detected					0.5	5
109) Ethylbenzene	(3)				Not Detected					0.4	5
110) m+p-Xylene	(3)				Not Detected					1	5
111) o-Xylene	(3)				Not Detected					0.4	5
112) Xylene (Total)	(3)				Not Detected					1	5
113) Styrene	(3)				Not Detected					0.3	5
114) Bromoform	(3)				Not Detected					5	10
115) Isopropylbenzene	(3)				Not Detected					0.4	5
118) Cyclohexanone	(1)				Not Detected					25	250
120) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.4	5
138) 1,3-Dichlorobenzene	(4)				Not Detected					0.5	5
141) 1,4-Dichlorobenzene	(4)				Not Detected					0.4	5
147) 1,2-Dichlorobenzene	(4)				Not Detected					0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.4	5
153) 1,2,4-Trichlorobenzene	(4)				Not Detected					5	10

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 10:55. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

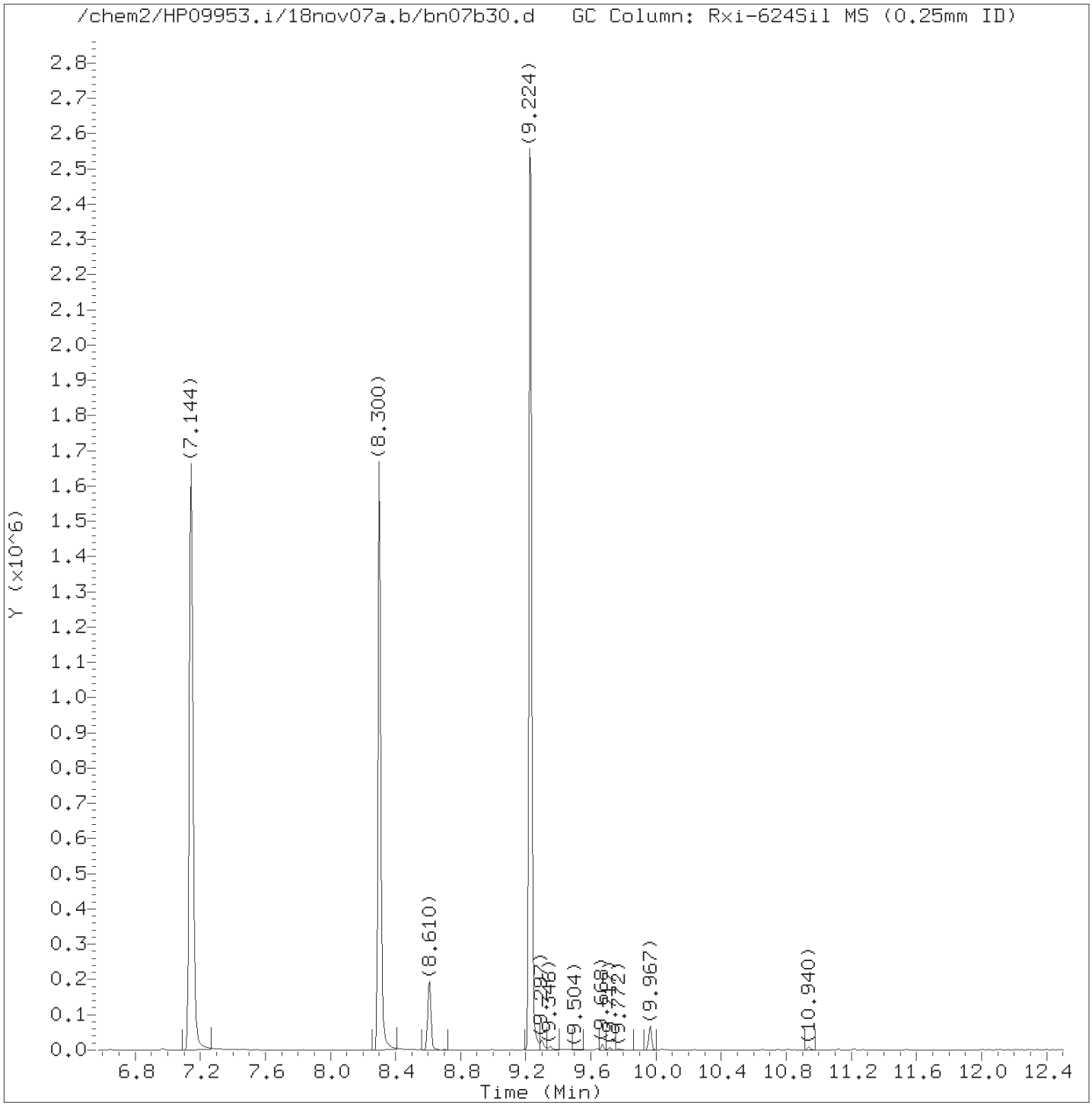
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07b30.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 10:32 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:55 jkh09052

Sample Name: VBLKB97 Lab Sample ID: VBLKB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:55.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07b30.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 10:32 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:55 jkh09052

Sample Name: VBLKB97 Lab Sample ID: VBLKB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:55.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07b30.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 10:32 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:55 jkh09052

Sample Name: VBLKB97 Lab Sample ID: VBLKB97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl alcohol-d10	(1)	1.924	65	112643	250.000
56)$Dibromofluoromethane	(2)	3.317	113	307524	50.564
63)$1,2-Dichloroethane-d4	(2)	3.621	102	68329	52.198
70)*Fluorobenzene	(2)	3.944	96	1220326	50.000
91)$Toluene-d8	(3)	5.568	98	1227151	47.566
105)*Chlorobenzene-d5	(3)	7.144	117	999590	50.000
119)$4-Bromofluorobenzene	(3)	8.300	95	439414	46.754
140)*1,4-Dichlorobenzene-d4	(4)	9.230	152	564314	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 10:55.
Target 3.5 esignature user ID: jkh09052

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKQ57

Data file: /chem/HP07536.i/18nov07a.b/qn07b20.d Injection date and time: **07-NOV-2018 10:18**
Data file Sample Info. Line: VBLKQ57;VBLKQ57;2;3;;;DODSW;;; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:49 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.006(-0.013)	753	65	142355 (-4)	250.00	
70) Fluorobenzene	7.507(-0.001)	1844	96	1174112 (-5)	50.00	
105) Chlorobenzene-d5	11.037(-0.001)	2944	117	901227 (-7)	50.00	
140) 1,4-Dichlorobenzene-d4	12.930(-0.004)	3534	152	394144 (-9)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.612(0.000)	113	283336	44.358	89%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.071(0.000)	102	81198	48.890	98%		71 - 136
91) Toluene-d8	(3)	9.551(0.000)	98	1109532	45.099	90%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.044(0.000)	95	329238	42.034	84%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)			Not Detected					30	250
4) Chloromethane	(2)			Not Detected					30	250
5) Vinyl Chloride	(2)			Not Detected					30	250
9) Bromomethane	(2)			Not Detected					35	250
10) Chloroethane	(2)			Not Detected					50	250
13) Trichlorofluoromethane	(2)			Not Detected					35	250
19) 1,1-Dichloroethene	(2)			Not Detected					25	250
20) Acetone	(1)			Not Detected					300	1000
22) Freon 113	(2)			Not Detected					30	500
25) Carbon Disulfide	(2)			Not Detected					30	250
27) Methyl Acetate	(2)			Not Detected					50	250
31) Methylene Chloride	(2)			Not Detected					100	250
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					25	250
35) trans-1,2-Dichloroethene	(2)			Not Detected					25	250
40) 1,1-Dichloroethane	(2)			Not Detected					25	250
44) 2-Butanone	(1)			Not Detected					50	500
45) cis-1,2-Dichloroethene	(2)			Not Detected					25	250
54) Chloroform	(2)			Not Detected					30	250
57) 1,1,1-Trichloroethane	(2)			Not Detected					30	250
58) Cyclohexane	(2)			Not Detected					25	250
61) Carbon Tetrachloride	(2)			Not Detected					25	250
64) Benzene	(2)			Not Detected					25	250
67) 1,2-Dichloroethane	(2)			Not Detected					30	250
75) Trichloroethene	(2)			Not Detected					25	250
76) Methylcyclohexane	(2)			Not Detected					30	250
77) 1,2-Dichloropropane	(2)			Not Detected					25	250
84) Bromodichloromethane	(2)			Not Detected					20	250
89) cis-1,3-Dichloropropene	(2)			Not Detected					20	250

Digitally signed by Stephen C. Nolte on 11/07/2018 at 10:50. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07b20.d Injection date and time: **07-NOV-2018 10:18**
Data file Sample Info. Line: VBLKQ57;VBLKQ57;2;3;;;DODSW;;; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:49 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

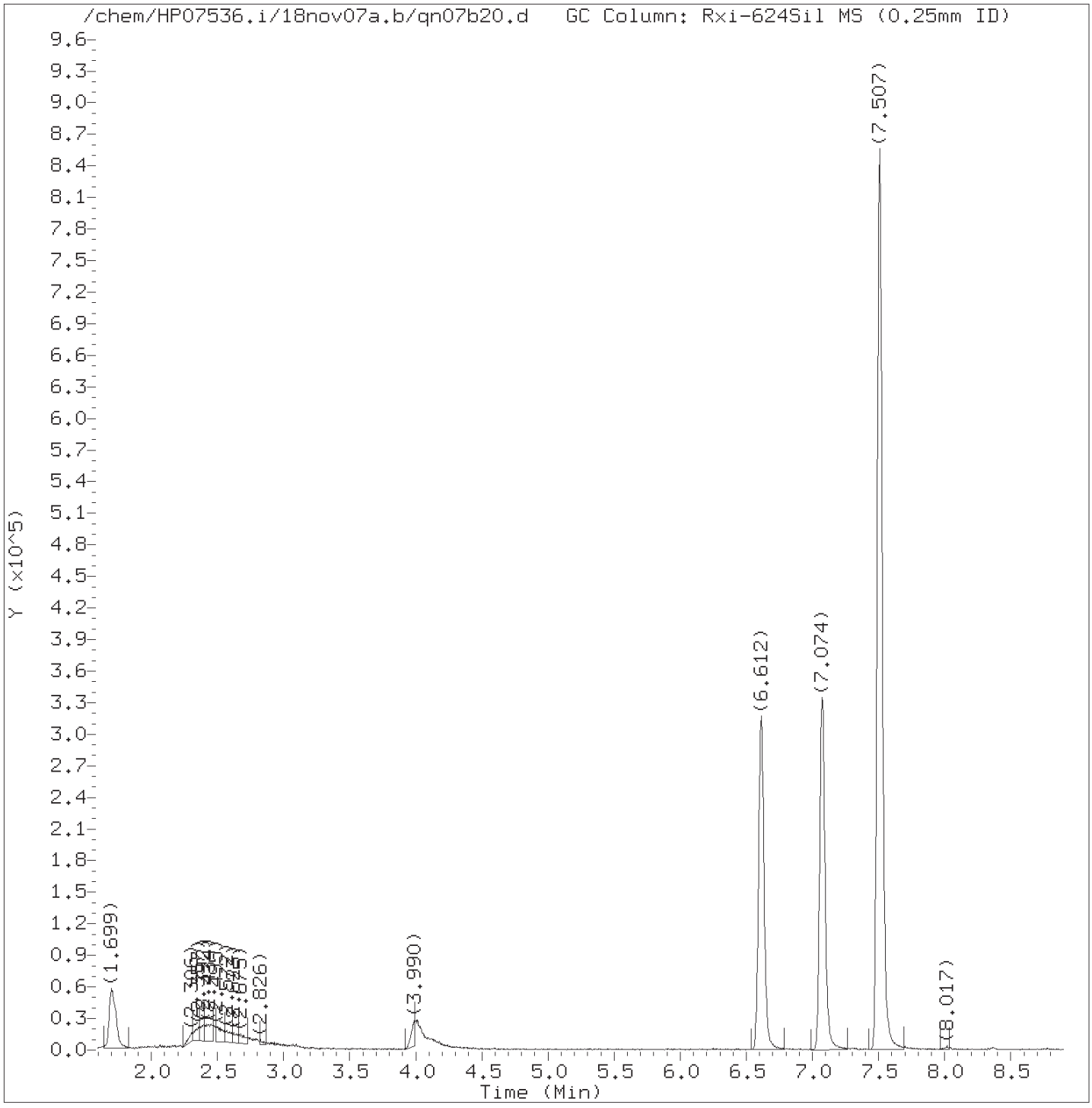
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)				Not Detected					50	500
92) Toluene	(3)				Not Detected					30	250
93) trans-1,3-Dichloropropene	(3)				Not Detected					15	250
96) 1,1,2-Trichloroethane	(3)				Not Detected					25	250
98) Tetrachloroethene	(3)				Not Detected					25	250
101) 2-Hexanone	(3)				Not Detected					50	500
103) Dibromochloromethane	(3)				Not Detected					20	250
104) 1,2-Dibromoethane	(3)				Not Detected					20	250
107) Chlorobenzene	(3)				Not Detected					25	250
109) Ethylbenzene	(3)				Not Detected					20	250
110) m+p-Xylene	(3)				Not Detected					50	250
111) o-Xylene	(3)				Not Detected					20	250
112) Xylene (Total)	(3)				Not Detected					50	250
113) Styrene	(3)				Not Detected					15	250
114) Bromoform	(3)				Not Detected					250	500
115) Isopropylbenzene	(3)				Not Detected					20	250
118) Cyclohexanone	(1)				Not Detected					1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					20	250
138) 1,3-Dichlorobenzene	(4)				Not Detected					25	250
141) 1,4-Dichlorobenzene	(4)				Not Detected					20	250
147) 1,2-Dichlorobenzene	(4)				Not Detected					25	250
151) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					20	250
153) 1,2,4-Trichlorobenzene	(4)				Not Detected					250	500

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/07/2018 at 10:50. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

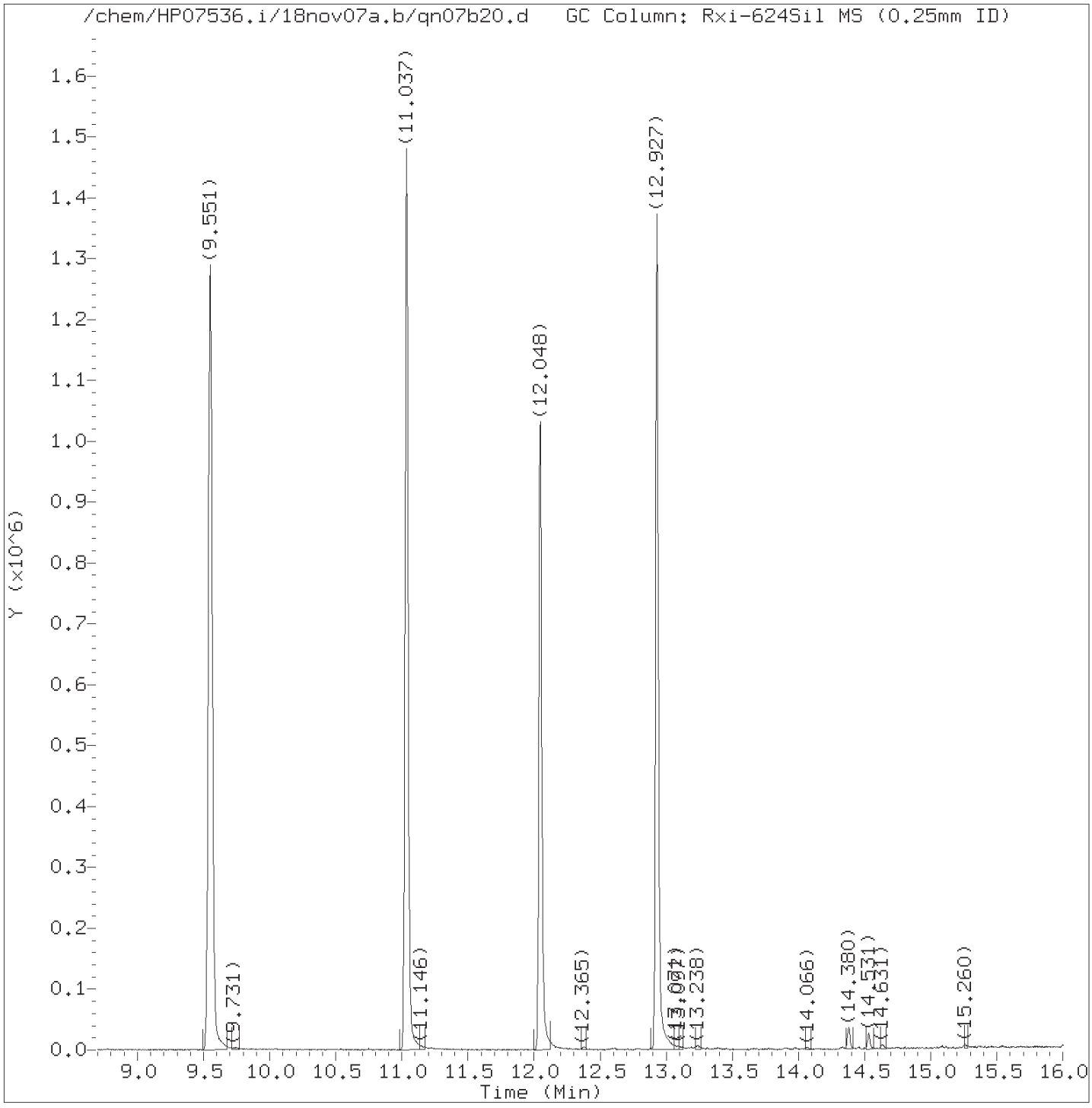
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07b20.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 10:18 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:49 scn10072

Sample Name: VBLKQ57 Lab Sample ID: VBLKQ57

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 10:50.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07b20.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 10:18 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:49 scn10072

Sample Name: VBLKQ57 Lab Sample ID: VBLKQ57

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 10:50.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07b20.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 10:18 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:49 scn10072

Sample Name: VBLKQ57 Lab Sample ID: VBLKQ57

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl alcohol-d10	(1)	4.006	65	142355	250.000
56)$Dibromofluoromethane	(2)	6.612	113	283336	44.358
63)$1,2-Dichloroethane-d4	(2)	7.071	102	81198	48.890
70)*Fluorobenzene	(2)	7.507	96	1174112	50.000
91)$Toluene-d8	(3)	9.551	98	1109532	45.099
105)*Chlorobenzene-d5	(3)	11.037	117	901227	50.000
119)$4-Bromofluorobenzene	(3)	12.044	95	329238	42.034
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	394144	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 10:50.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKQ62

Data file: /chem/HP07536.i/18nov08a.b/qn08b20.d Injection date and time: **08-NOV-2018 10:51**
Data file Sample Info. Line: VBLKQ62;VBLKQ62;2;3;;;DODSW;;; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.989	(0.015)	747	65	127172	(-5)	250.00	
70) Fluorobenzene	7.509	(-0.001)	1844	96	1045223	(-4)	50.00	
105) Chlorobenzene-d5	11.036	(-0.001)	2943	117	819968	(-5)	50.00	
140) 1,4-Dichlorobenzene-d4	12.929	(-0.001)	3533	152	356039	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.617	(0.000)	113	278153	48.916	98%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.073	(0.000)	102	78799	53.296	107%		71 - 136
91) Toluene-d8	(3)	9.553	(0.000)	98	1095171	48.926	98%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.046	(0.000)	95	335515	47.080	94%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)				Not Detected					30	250
4) Chloromethane	(2)				Not Detected					30	250
5) Vinyl Chloride	(2)				Not Detected					30	250
9) Bromomethane	(2)				Not Detected					35	250
10) Chloroethane	(2)				Not Detected					50	250
13) Trichlorofluoromethane	(2)				Not Detected					35	250
19) 1,1-Dichloroethene	(2)				Not Detected					25	250
20) Acetone	(1)				Not Detected					300	1000
22) Freon 113	(2)				Not Detected					30	500
25) Carbon Disulfide	(2)				Not Detected					30	250
27) Methyl Acetate	(2)				Not Detected					50	250
31) Methylene Chloride	(2)				Not Detected					100	250
34) Methyl Tertiary Butyl Ether	(2)				Not Detected					25	250
35) trans-1,2-Dichloroethene	(2)				Not Detected					25	250
40) 1,1-Dichloroethane	(2)				Not Detected					25	250
44) 2-Butanone	(1)				Not Detected					50	500
45) cis-1,2-Dichloroethene	(2)				Not Detected					25	250
54) Chloroform	(2)				Not Detected					30	250
57) 1,1,1-Trichloroethane	(2)				Not Detected					30	250
58) Cyclohexane	(2)				Not Detected					25	250
61) Carbon Tetrachloride	(2)				Not Detected					25	250
64) Benzene	(2)				Not Detected					25	250
67) 1,2-Dichloroethane	(2)				Not Detected					30	250
75) Trichloroethene	(2)				Not Detected					25	250
76) Methylcyclohexane	(2)				Not Detected					30	250
77) 1,2-Dichloropropane	(2)				Not Detected					25	250
84) Bromodichloromethane	(2)				Not Detected					20	250
89) cis-1,3-Dichloropropene	(2)				Not Detected					20	250

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:20. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08b20.d Injection date and time: **08-NOV-2018 10:51**
Data file Sample Info. Line: VBLKQ62;VBLKQ62;2;3;;;DODSW;;; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

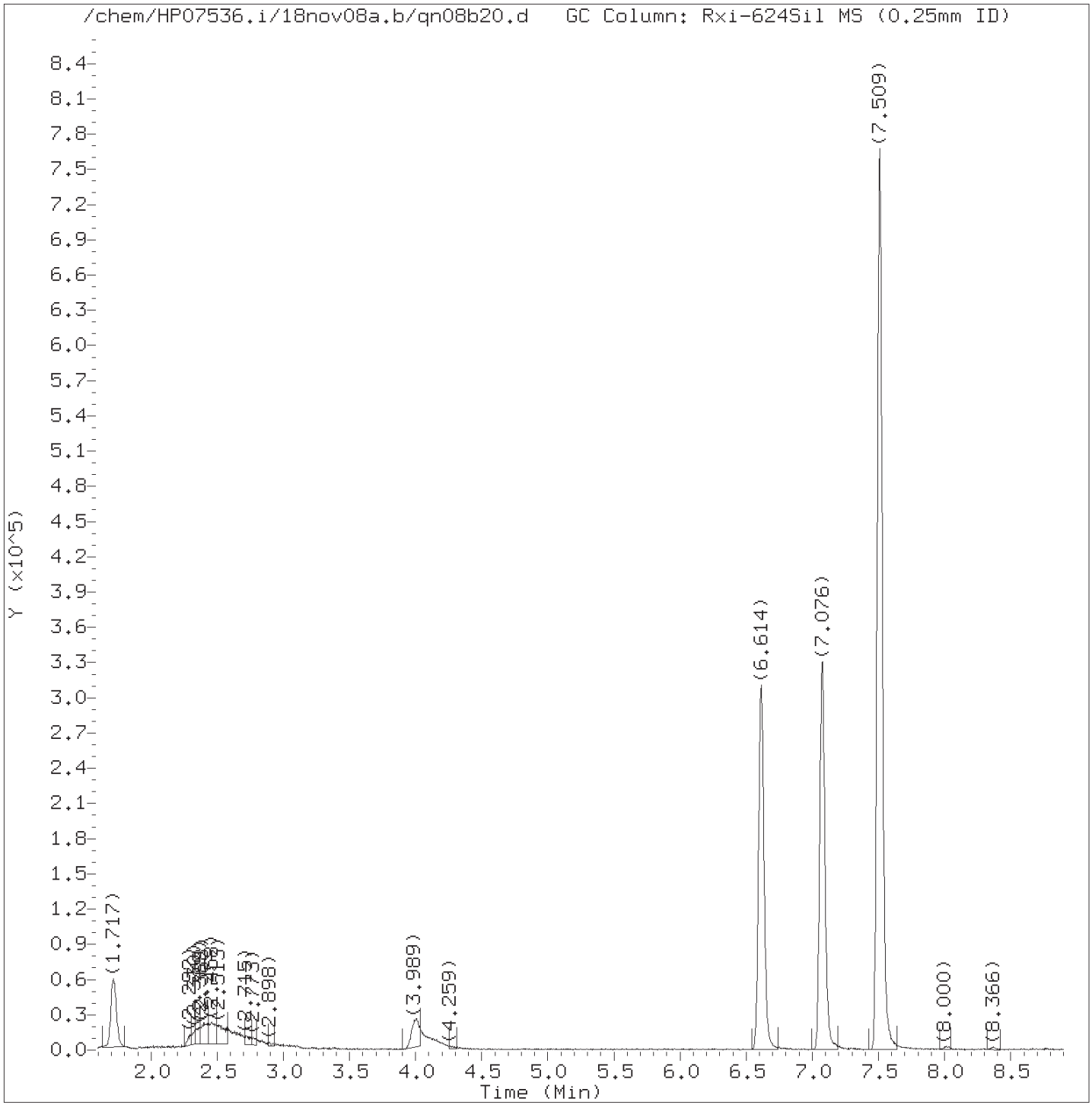
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)				Not Detected					50	500
92) Toluene	(3)				Not Detected					30	250
93) trans-1,3-Dichloropropene	(3)				Not Detected					15	250
96) 1,1,2-Trichloroethane	(3)				Not Detected					25	250
98) Tetrachloroethene	(3)				Not Detected					25	250
101) 2-Hexanone	(3)				Not Detected					50	500
103) Dibromochloromethane	(3)				Not Detected					20	250
104) 1,2-Dibromoethane	(3)				Not Detected					20	250
107) Chlorobenzene	(3)				Not Detected					25	250
109) Ethylbenzene	(3)				Not Detected					20	250
110) m+p-Xylene	(3)				Not Detected					50	250
111) o-Xylene	(3)				Not Detected					20	250
112) Xylene (Total)	(3)				Not Detected					50	250
113) Styrene	(3)				Not Detected					15	250
114) Bromoform	(3)				Not Detected					250	500
115) Isopropylbenzene	(3)				Not Detected					20	250
118) Cyclohexanone	(1)				Not Detected					1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					20	250
138) 1,3-Dichlorobenzene	(4)				Not Detected					25	250
141) 1,4-Dichlorobenzene	(4)				Not Detected					20	250
147) 1,2-Dichlorobenzene	(4)				Not Detected					25	250
151) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					20	250
153) 1,2,4-Trichlorobenzene	(4)				Not Detected					250	500

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:20. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:51. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

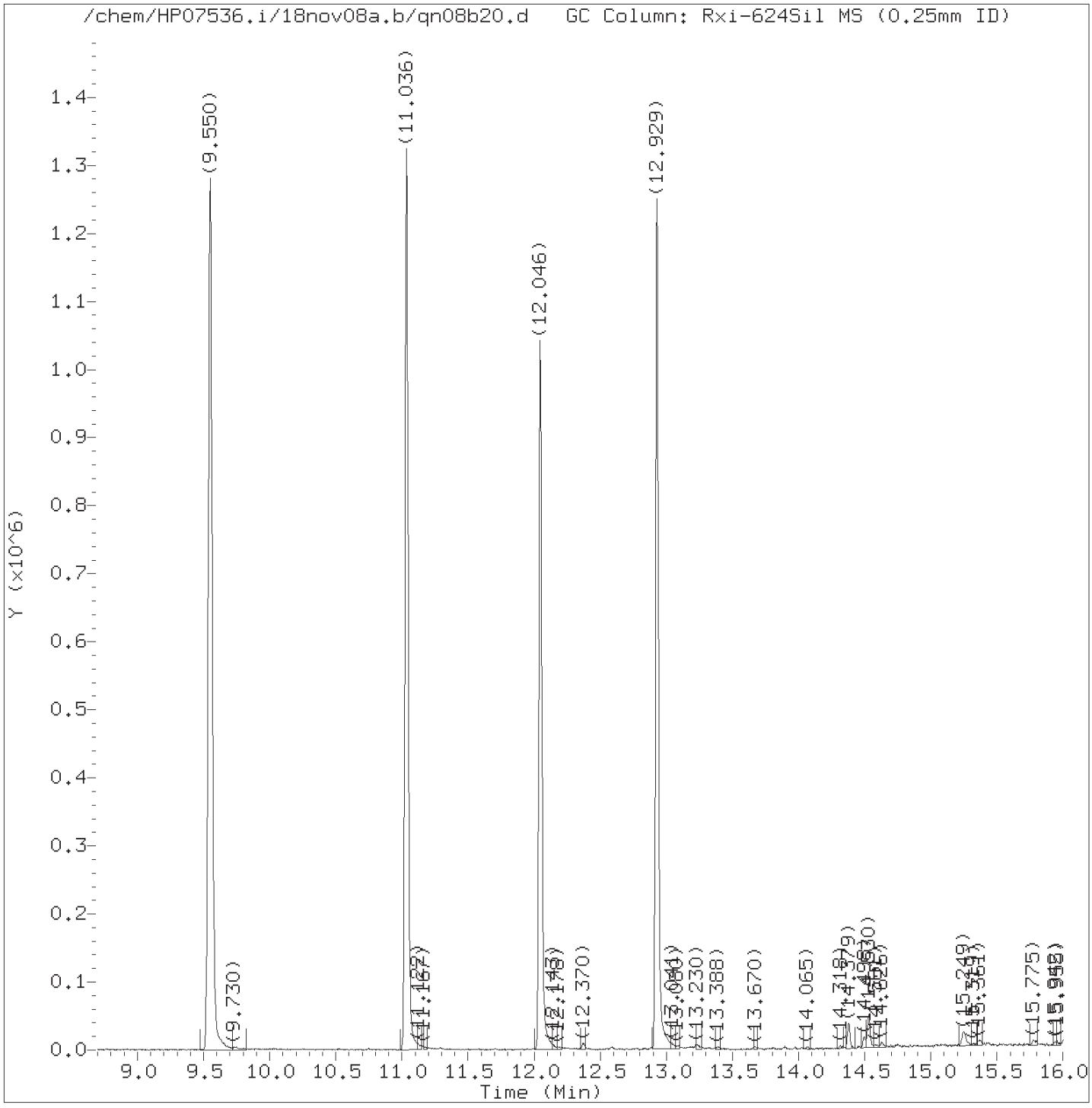
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08b20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 10:51 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: VBLKQ62 Lab Sample ID: VBLKQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:20.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08b20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 10:51 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: VBLKQ62 Lab Sample ID: VBLKQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:20.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08b20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 10:51 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: VBLKQ62 Lab Sample ID: VBLKQ62

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl alcohol-d10	(1)	3.989	65	127172	250.000
56)$Dibromofluoromethane	(2)	6.617	113	278153	48.916
63)$1,2-Dichloroethane-d4	(2)	7.073	102	78799	53.296
70)*Fluorobenzene	(2)	7.509	96	1045223	50.000
91)$Toluene-d8	(3)	9.553	98	1095171	48.926
105)*Chlorobenzene-d5	(3)	11.036	117	819968	50.000
119)$4-Bromofluorobenzene	(3)	12.046	95	335515	47.080
140)*1,4-Dichlorobenzene-d4	(4)	12.929	152	356039	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:20.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKH96

Data file: /chem2/HP19094.i/18nov05b.b/hn05b10.d Injection date and time: **05-NOV-2018 22:48**
Data file Sample Info. Line: VBLKH96;VBLKH96;1;3;;;DOD25;;; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.476	(0.006)	474	65	116767	(-5)	50.00	
63) Fluorobenzene	7.963	(0.006)	1046	96	2555930	(0)	10.00	
97) Chlorobenzene-d5	11.377	(0.006)	1606	117	1855788	(-1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	936548	(2)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.073	(-0.001)	113	623364	9.677	97%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.537	(-0.001)	102	115790	10.310	103%		81 - 118
82) Toluene-d8	(3)	9.945	(0.000)	98	2470531	10.344	103%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	854467	9.826	98%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)				Not Detected					0.05	0.5
2) Chloromethane	(2)				Not Detected					0.06	0.5
5) Vinyl Chloride	(2)				Not Detected					0.1	0.5
7) Bromomethane	(2)				Not Detected					0.07	0.5
8) Chloroethane	(2)				Not Detected					0.07	0.5
10) Trichlorofluoromethane	(2)				Not Detected					0.05	0.5
15) 1,1-Dichloroethene	(2)				Not Detected					0.06	0.5
16) Freon 113	(2)				Not Detected					0.06	0.5
14) Acetone	(1)				Not Detected					0.9	5
18) Carbon Disulfide	(2)				Not Detected					0.06	1
21) Methyl Acetate	(1)				Not Detected					0.1	1
23) Methylene Chloride	(2)				Not Detected					0.07	0.5
31) trans-1,2-Dichloroethene	(2)				Not Detected					0.06	0.5
30) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.05	0.5
33) 1,1-Dichloroethane	(2)				Not Detected					0.07	0.5
39) cis-1,2-Dichloroethene	(2)				Not Detected					0.05	0.5
38) 2-Butanone	(1)				Not Detected					0.6	5
49) Chloroform	(2)				Not Detected					0.09	0.5
51) 1,1,1-Trichloroethane	(2)				Not Detected					0.06	0.5
52) Cyclohexane	(2)				Not Detected					0.05	0.5
54) Carbon Tetrachloride	(2)				Not Detected					0.07	0.5
58) Benzene	(2)				Not Detected					0.05	0.5
59) 1,2-Dichloroethane	(2)				Not Detected					0.05	0.5
67) Trichloroethene	(2)				Not Detected					0.06	0.5
69) Methylcyclohexane	(2)				Not Detected					0.05	0.5
70) 1,2-Dichloropropane	(2)				Not Detected					0.06	0.5
74) Bromodichloromethane	(2)				Not Detected					0.05	0.5
80) cis-1,3-Dichloropropene	(2)				Not Detected					0.05	0.5
81) 4-Methyl-2-Pentanone	(1)				Not Detected					0.7	5
83) Toluene	(3)				Not Detected					0.07	0.5
84) trans-1,3-Dichloropropene	(3)				Not Detected					0.06	0.5

Digitally signed by Joel G. Chachapoya on 11/07/2018 at 15:13. Target 3.5 esignature user ID: jgc14951

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05b10.d Injection date and time: **05-NOV-2018 22:48**
Data file Sample Info. Line: VBLKH96;VBLKH96;1;3;;;DOD25;;; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

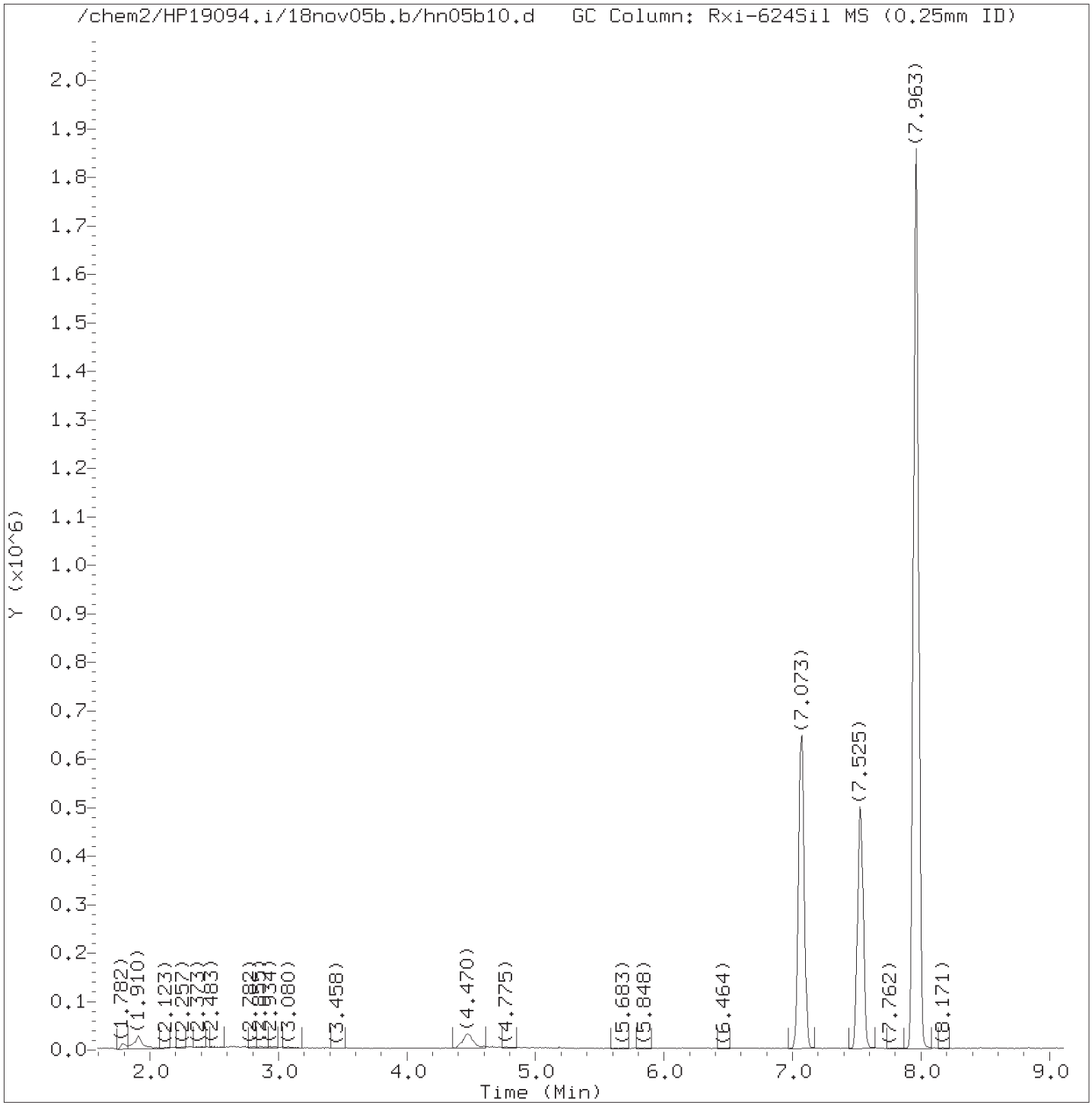
Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
88) 1,1,2-Trichloroethane	(3)				Not Detected					0.06	0.5
89) Tetrachloroethene	(3)				Not Detected					0.06	0.5
91) 2-Hexanone	(1)				Not Detected					0.6	5
93) Dibromochloromethane	(3)				Not Detected					0.07	0.5
95) 1,2-Dibromoethane	(3)				Not Detected					0.06	0.5
98) Chlorobenzene	(3)				Not Detected					0.06	0.5
100) Ethylbenzene	(3)				Not Detected					0.06	0.5
101) m+p-Xylene	(3)				Not Detected					0.1	0.5
104) o-Xylene	(3)				Not Detected					0.05	0.5
105) Xylene (Total)	(3)				Not Detected					0.1	0.5
106) Styrene	(3)				Not Detected					0.05	0.5
107) Bromoform	(3)				Not Detected					0.3	1
108) Isopropylbenzene	(3)				Not Detected					0.05	0.5
112) Cyclohexanone	(1)				Not Detected					2	25
113) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.07	0.5
131) 1,3-Dichlorobenzene	(4)				Not Detected					0.06	0.5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.07	0.5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.06	0.5
143) 1,2-Dibromo-3-chloropropane	(1)				Not Detected					0.1	0.5
145) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.06	0.5

Total number of targets = 51

Digitally signed by Joel G. Chachapoya on 11/07/2018 at 15:13. Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

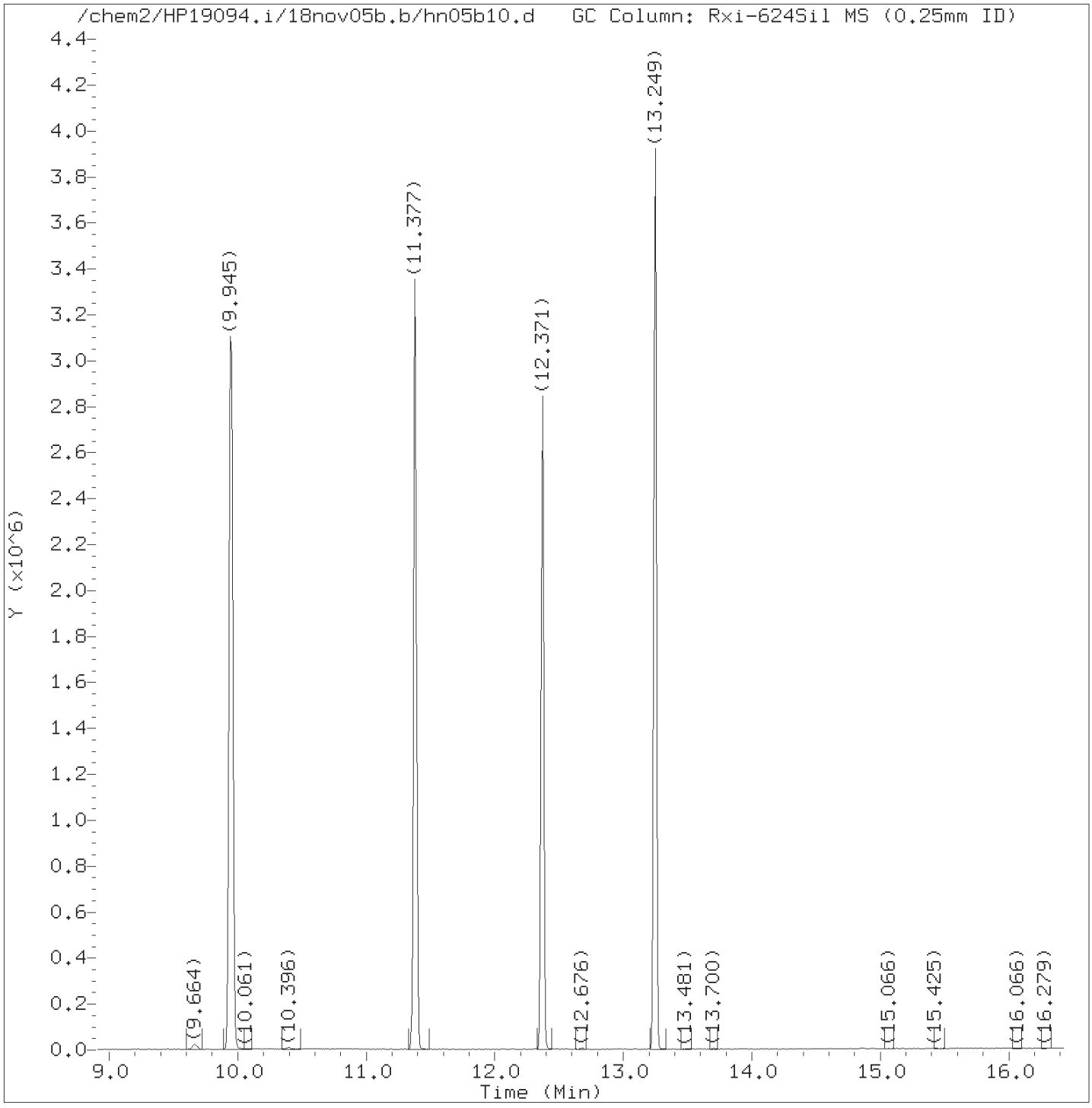
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05b10.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:48 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: VBLKH96 Lab Sample ID: VBLKH96

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05b10.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:48 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: VBLKH96 Lab Sample ID: VBLKH96

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05b10.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:48 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: VBLKH96 Lab Sample ID: VBLKH96

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.476	65	116767	50.000
50)$Dibromofluoromethane	(2)	7.073	113	623364	9.677
57)$1,2-Dichloroethane-d4	(2)	7.537	102	115790	10.310
63)*Fluorobenzene	(2)	7.963	96	2555930	10.000
82)$Toluene-d8	(3)	9.945	98	2470531	10.344
97)*Chlorobenzene-d5	(3)	11.377	117	1855788	10.000
111)$4-Bromofluorobenzene	(3)	12.371	95	854467	9.826
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	936548	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06s01.d Injection date and time: **06-NOV-2018 21:07**
Data file Sample Info. Line: LCSB93;LCSB93;2;3;LCS;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:48
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.924	(0.000)	180	65	142440	(17)	250.00	
70) Fluorobenzene	3.944	(0.000)	512	96	1348442	(-1)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1093863	(-1)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	639786	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.311	(0.002)	113	345357	51.389	103%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.002)	102	78966	54.592	109%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1391129	49.274	99%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	513841	49.962	100%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.981	(0.001)	85	215423	17.693	17.69			0.6	5
4) Chloromethane	(2)	1.072	(-0.000)	50	238375	18.994	18.99			0.6	5
5) Vinyl Chloride	(2)	1.115	(0.001)	62	182174	18.629	18.63			0.6	5
9) Bromomethane	(2)	1.243	(-0.000)	94	138853	15.953	15.95			0.7	5
10) Chloroethane	(2)	1.261	(0.001)	64	92816	17.644	17.64			1	5
13) Trichlorofluoromethane	(2)	1.407	(0.001)	101	266635	19.806	19.81			0.7	5
19) 1,1-Dichloroethene	(2)	1.620	(0.001)	96	145133	21.453	21.45			0.5	5
20) Acetone	(1)	1.638	(0.003)	58	74548	116.380	116.38			6	20
22) Freon 113	(2)	1.650	(0.001)	101	156409	23.060	23.06			0.6	10
25) Carbon Disulfide	(2)	1.754	(0.001)	76	387882M	14.330	14.33			0.6	5
27) Methyl Acetate	(2)	1.820	(0.001)	43	74980	21.614	21.61			1	5
31) Methylene Chloride	(2)	1.900	(0.001)	84	156661	19.596	19.60			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.082	(0.003)	73	353714	18.382	18.38			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.076	(0.001)	96	162678	20.678	20.68			0.5	5
40) 1,1-Dichloroethane	(2)	2.380	(0.001)	63	264006	20.696	20.70			0.5	5
44) 2-Butanone	(1)	2.891	(0.000)	43	408227	111.476	111.48			1	10
45) cis-1,2-Dichloroethene	(2)	2.879	(-0.000)	96	181772	21.286	21.29			0.5	5
54) Chloroform	(2)	3.165	(0.001)	83	266721	20.600	20.60			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.335	(0.001)	97	235155	17.738	17.74			0.6	5
58) Cyclohexane	(2)	3.390	(0.001)	56	260497	20.916	20.92			0.5	5
61) Carbon Tetrachloride	(2)	3.487	(0.001)	117	202374	20.100	20.10			0.5	5
64) Benzene	(2)	3.670	(0.000)	78	619498	20.142	20.14			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	185643	20.916	20.92			0.6	5
75) Trichloroethene	(2)	4.309	(0.000)	95	164358	20.492	20.49			0.5	5
76) Methylcyclohexane	(2)	4.497	(0.001)	83	277291	22.216	22.22			0.6	5
77) 1,2-Dichloropropane	(2)	4.522	(0.001)	63	153158	20.969	20.97			0.5	5
84) Bromodichloromethane	(2)	4.820	(0.000)	83	180207	19.757	19.76			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.294	(0.000)	75	221084	20.073	20.07			0.4	5
90) 4-Methyl-2-pentanone	(2)	5.483	(0.001)	43	578330	92.121	92.12			1	10
92) Toluene	(3)	5.641	(-0.000)	92	403651	19.277	19.28			0.6	5

M = Compound was manually integrated.

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:34. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06s01.d Injection date and time: **06-NOV-2018 21:07**
Data file Sample Info. Line: LCSB93;LCSB93;2;3;LCS;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:48
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

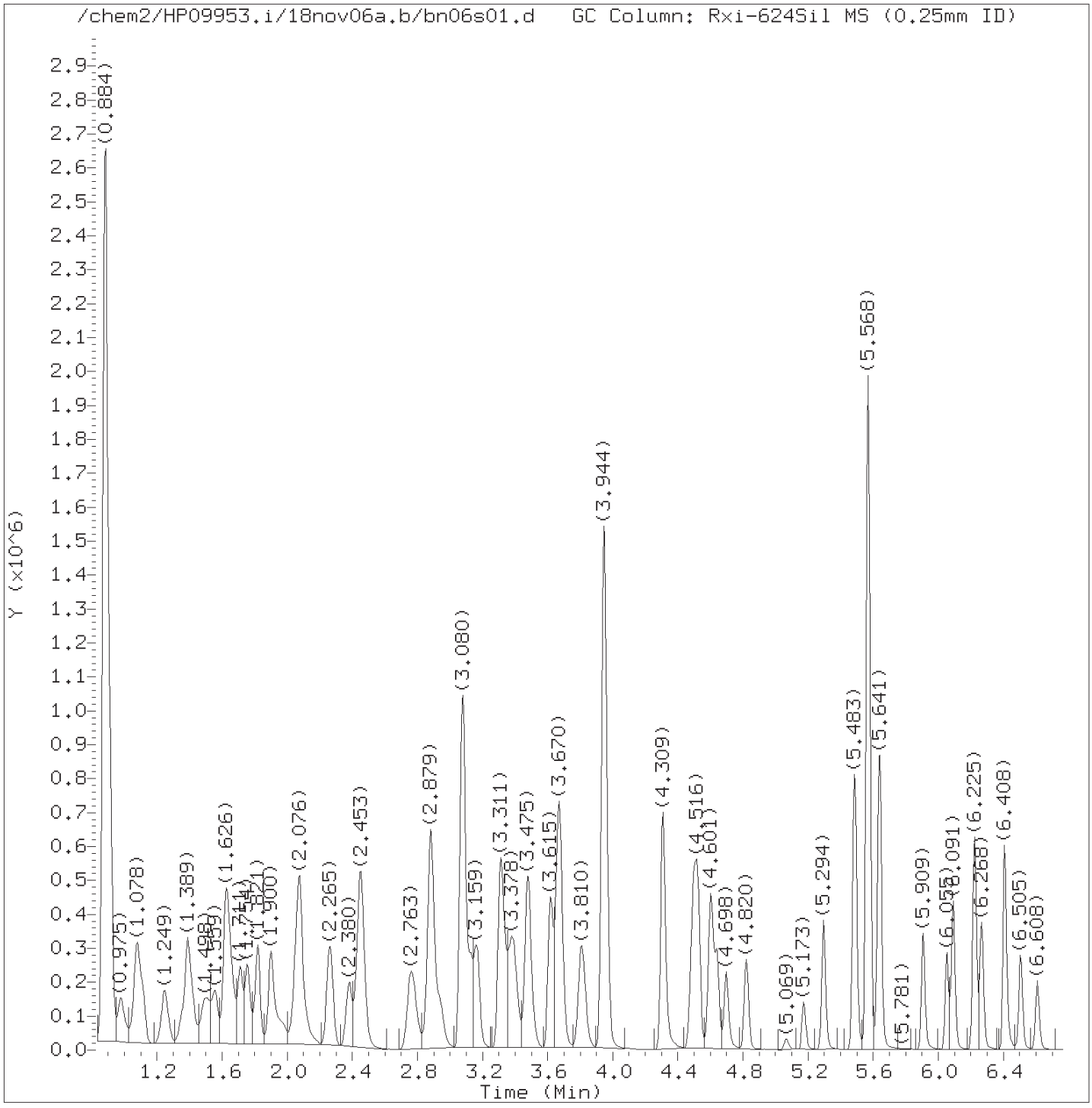
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) trans-1,3-Dichloropropene	(3)	5.909(-0.000)	75	187649	18.708	18.71			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(-0.000)	97	140080	20.614	20.61			0.5	5
98) Tetrachloroethene	(3)	6.225(-0.000)	166	194665	16.972	16.97			0.5	5
101) 2-Hexanone	(3)	6.408(-0.000)	43	405615	83.210	83.21			1	10
103) Dibromochloromethane	(3)	6.505(-0.000)	129	146030	18.653	18.65			0.4	5
104) 1,2-Dibromoethane	(3)	6.608(-0.000)	107	139463	19.866	19.87			0.4	5
107) Chlorobenzene	(3)	7.174(0.000)	112	479316	19.605	19.61			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	768745	19.520	19.52			0.4	5
110) m+p-Xylene	(3)	7.448(0.000)	106	641854	39.939	39.94			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	304009	18.922	18.92			0.4	5
112) Xylene (Total)	(3)		106	945863	58.861	58.86			1	5
113) Styrene	(3)	7.849(0.000)	104	493166	18.620	18.62			0.3	5
114) Bromoform	(3)	7.995(0.000)	173	83546	17.125	17.13			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	791801	19.552	19.55			0.4	5
118) Cyclohexanone	(1)	8.239(-0.003)	55	142323	431.122	431.12			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(-0.000)	83	179942	20.106	20.11			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.176(-0.000)	146	420096	19.096	19.10			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(0.000)	146	443151	19.321	19.32			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	417942	19.432	19.43			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(0.000)	75	29539	18.997	19.00			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.630(-0.000)	180	308977	19.481	19.48			5	10

Total number of targets = 51

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:34. Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

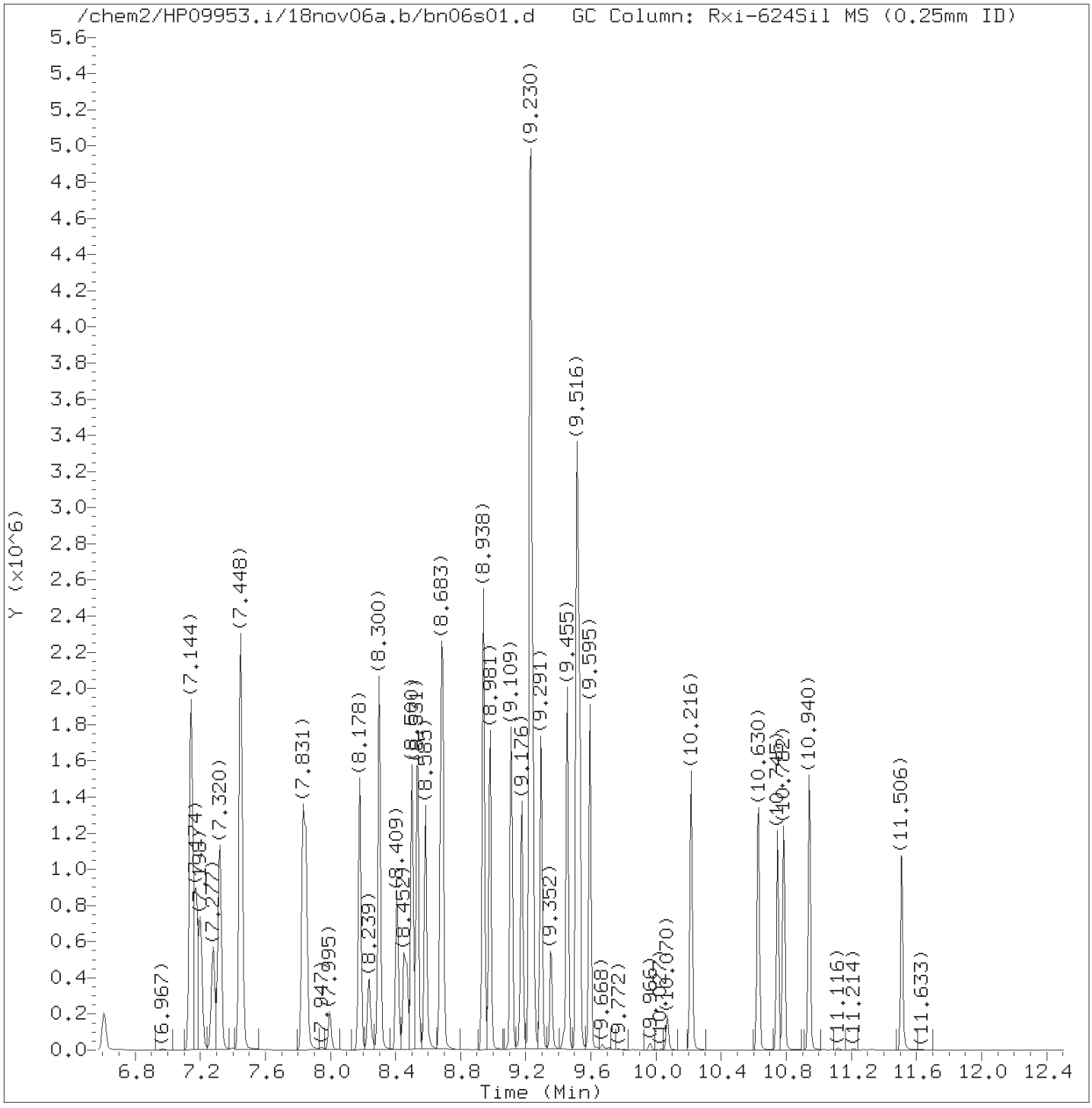
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Sample Name: LCSB93 Lab Sample ID: LCSB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:34.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Sample Name: LCSB93 Lab Sample ID: LCSB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:34.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Sample Name: LCSB93 Lab Sample ID: LCSB93

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.981	85	215423	17.693
4) Chloromethane	(2)	1.072	50	238375	18.994
5) Vinyl Chloride	(2)	1.115	62	182174	18.629
9) Bromomethane	(2)	1.243	94	138853	15.953
10) Chloroethane	(2)	1.261	64	92816	17.644
13) Trichlorofluoromethane	(2)	1.407	101	266635	19.806
19) 1,1-Dichloroethene	(2)	1.620	96	145133	21.453
20) Acetone	(1)	1.638	58	74548	116.380
22) Freon 113	(2)	1.650	101	156409	23.060
25) Carbon Disulfide	(2)	1.754	76	387882M	14.330
27) Methyl Acetate	(2)	1.821	43	74980	21.614
31) Methylene Chloride	(2)	1.900	84	156661	19.596
30)*t-Butyl alcohol-d10	(1)	1.924	65	142440	250.000
35) trans-1,2-Dichloroethene	(2)	2.076	96	162678	20.678
34) Methyl Tertiary Butyl Ether	(2)	2.082	73	353714	18.382
40) 1,1-Dichloroethane	(2)	2.380	63	264006	20.696
45) cis-1,2-Dichloroethene	(2)	2.879	96	181772	21.286
44) 2-Butanone	(1)	2.891	43	408227	111.476
54) Chloroform	(2)	3.165	83	266721	20.600
56)$Dibromofluoromethane	(2)	3.311	113	345357	51.389
57) 1,1,1-Trichloroethane	(2)	3.335	97	235155	17.738
58) Cyclohexane	(2)	3.390	56	260497	20.916
61) Carbon Tetrachloride	(2)	3.487	117	202374	20.100
63)$1,2-Dichloroethane-d4	(2)	3.615	102	78966	54.592
64) Benzene	(2)	3.670	78	619498	20.142
67) 1,2-Dichloroethane	(2)	3.688	62	185643	20.916
70)*Fluorobenzene	(2)	3.944	96	1348442	50.000
75) Trichloroethene	(2)	4.309	95	164358	20.492
76) Methylcyclohexane	(2)	4.497	83	277291	22.216
77) 1,2-Dichloropropane	(2)	4.522	63	153158	20.969
84) Bromodichloromethane	(2)	4.820	83	180207	19.757
89) cis-1,3-Dichloropropene	(2)	5.294	75	221084	20.073
90) 4-Methyl-2-pentanone	(2)	5.483	43	578330	92.121
91)$Toluene-d8	(3)	5.568	98	1391129	49.274
92) Toluene	(3)	5.641	92	403651	19.277
93) trans-1,3-Dichloropropene	(3)	5.909	75	187649	18.708
96) 1,1,2-Trichloroethane	(3)	6.091	97	140080	20.614
98) Tetrachloroethene	(3)	6.225	166	194665	16.972

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:34.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

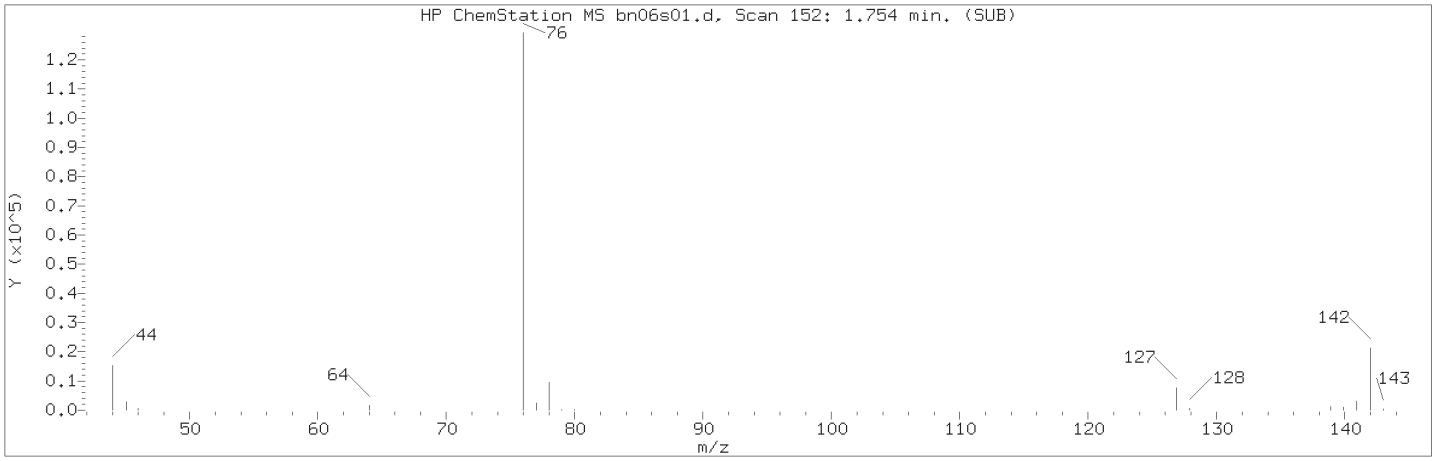
Sample Name: LCSB93 Lab Sample ID: LCSB93

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.408	43	405615	83.210
103) Dibromochloromethane	(3)	6.505	129	146030	18.653
104) 1,2-Dibromoethane	(3)	6.608	107	139463	19.866
105)*Chlorobenzene-d5	(3)	7.144	117	1093863	50.000
107) Chlorobenzene	(3)	7.174	112	479316	19.605
109) Ethylbenzene	(3)	7.320	91	768745	19.520
110) m+p-Xylene	(3)	7.448	106	641854	39.939
111) o-Xylene	(3)	7.831	106	304009	18.922
113) Styrene	(3)	7.849	104	493166	18.620
112) Xylene (Total)	(3)		106	945863	58.861
114) Bromoform	(3)	7.995	173	83546	17.125
115) Isopropylbenzene	(3)	8.178	105	791801	19.552
118) Cyclohexanone	(1)	8.239	55	142323	431.122
119)$4-Bromofluorobenzene	(3)	8.300	95	513841	49.962
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	179942	20.106
138) 1,3-Dichlorobenzene	(4)	9.176	146	420096	19.096
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	639786	50.000
141) 1,4-Dichlorobenzene	(4)	9.242	146	443151	19.321
147) 1,2-Dichlorobenzene	(4)	9.516	146	417942	19.432
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	29539	18.997
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	308977	19.481

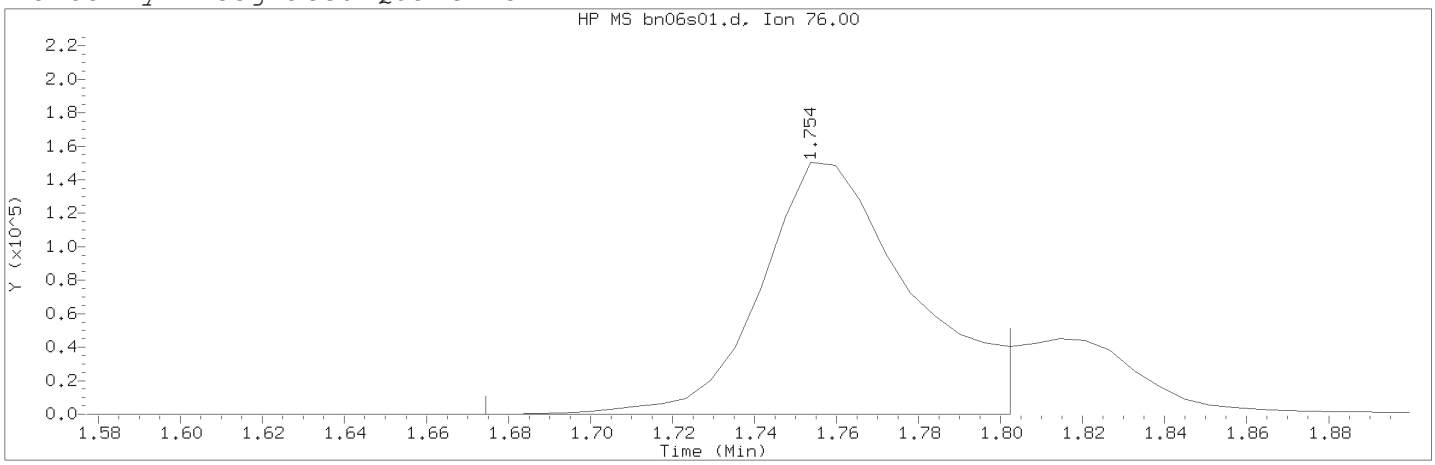
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:34.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:33 pth10165

Sample Name: LCSB93 Lab Sample ID: LCSB93

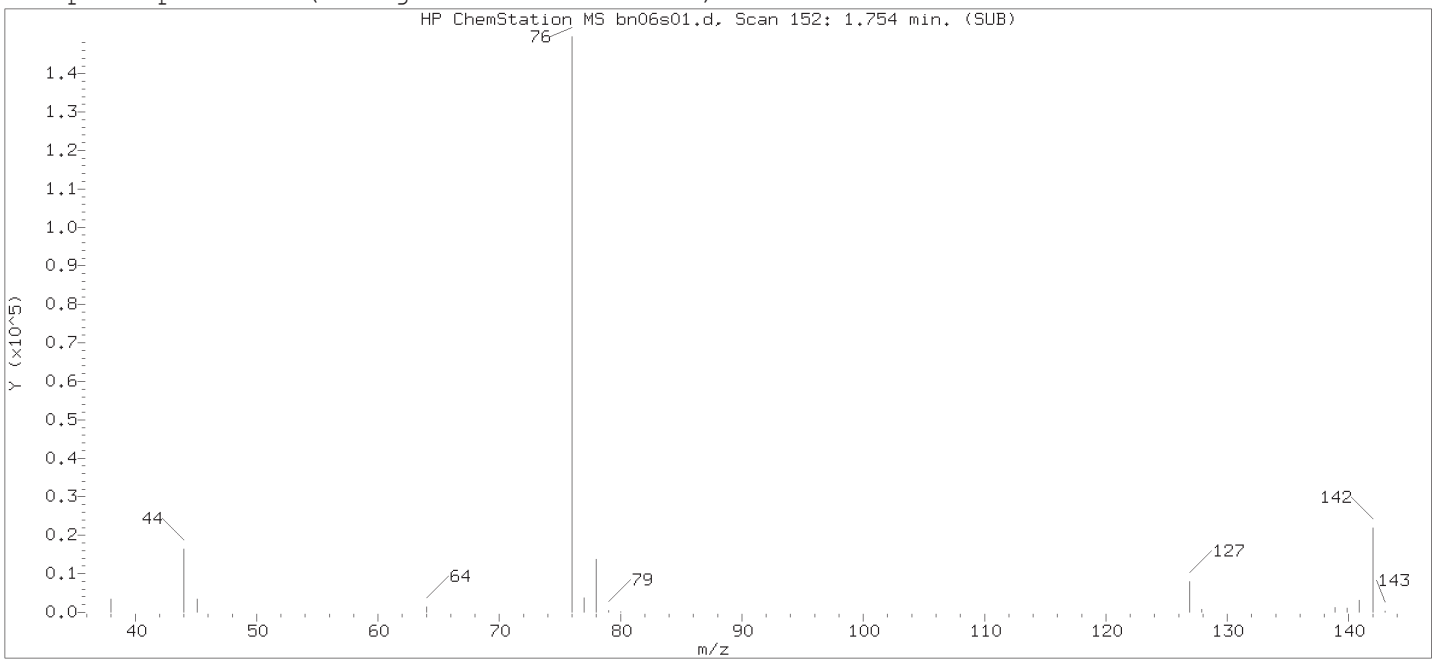
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 152
Retention Time (minutes): 1.754
Quant Ion : 76.00
Area (flag) : 387882M
On-Column Amount (ng) : 14.3296
Integration start scan : 138 Integration stop scan: 159
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

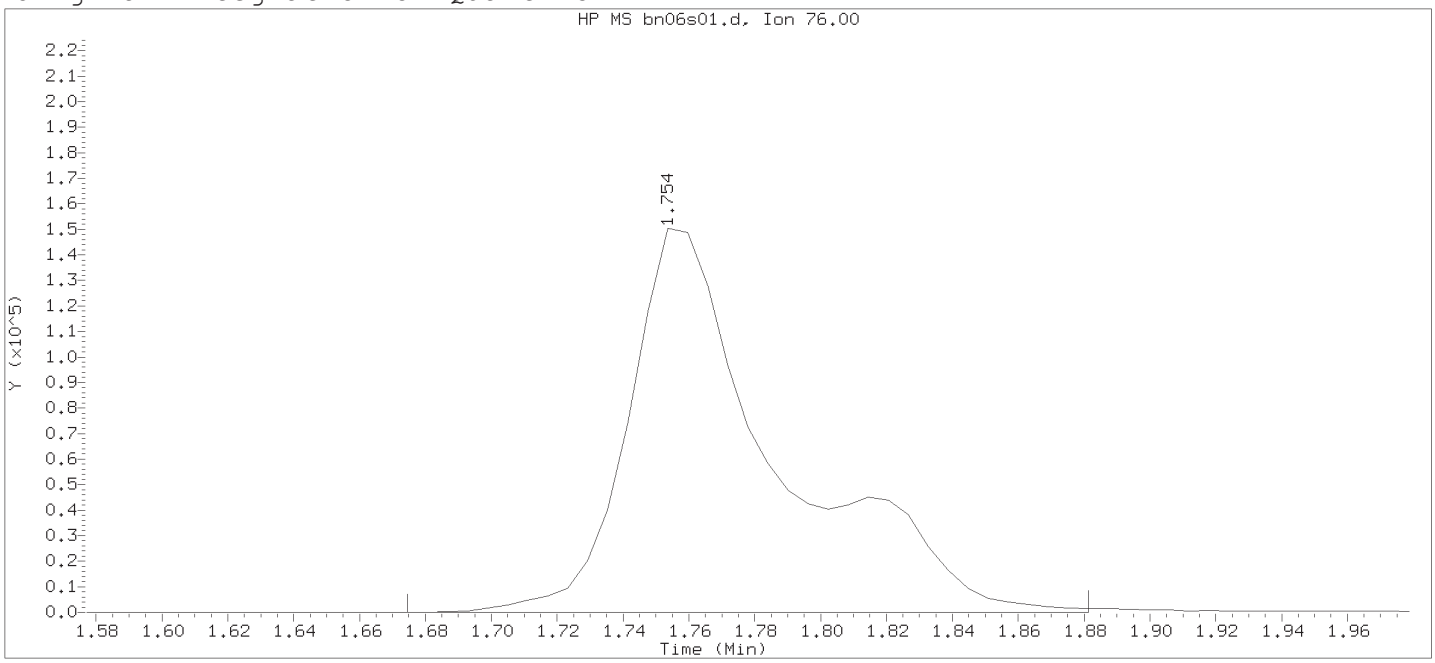
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:34.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06s01.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:07 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 20:48
Date, time and analyst ID of latest file update: 06-Nov-2018 21:32 pth10165

Sample Name: LCSB93 Lab Sample ID: LCSB93

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 152
Retention Time (minutes): 1.754
Quant Ion : 76.00
Area : 474711
On-column Amount (ng) : 17.5373
Integration start scan : 138 Integration stop scan: 172
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:34.
Target 3.5 esignature used [illegible]

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06s02.d Injection date and time: **06-NOV-2018 21:29**
Data file Sample Info. Line: LCDB93;LCDB93;2;3;LCSD;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.924	(0.000)	180	65	99308	(-18)	250.00	
70) Fluorobenzene	3.944	(0.000)	512	96	1323832	(-3)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1063185	(-4)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	622740	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.311	(0.002)	113	337583	51.166	102%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.002)	102	74309	52.327	105%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1361573	49.619	99%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.299	(0.000)	95	498976	49.916	100%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.987	(-0.000)	85	211536	17.697	17.70			0.6	5
4) Chloromethane	(2)	1.072	(-0.000)	50	230638	18.719	18.72			0.6	5
5) Vinyl Chloride	(2)	1.121	(-0.000)	62	178111	18.552	18.55			0.6	5
9) Bromomethane	(2)	1.249	(-0.001)	94	140525	16.446	16.45			0.7	5
10) Chloroethane	(2)	1.267	(-0.000)	64	92159	17.845	17.84			1	5
13) Trichlorofluoromethane	(2)	1.413	(-0.000)	101	262643	19.872	19.87			0.7	5
19) 1,1-Dichloroethene	(2)	1.626	(-0.000)	96	144006	21.683	21.68			0.5	5
20) Acetone	(1)	1.644	(-0.000)	58	60292	136.450	136.45			6	20
22) Freon 113	(2)	1.662	(-0.001)	101	154867	23.257	23.26			0.6	10
25) Carbon Disulfide	(2)	1.766	(-0.001)	76	384852M	14.482	14.48			0.6	5
27) Methyl Acetate	(2)	1.826	(-0.000)	43	61774	18.138	18.14			1	5
31) Methylene Chloride	(2)	1.906	(-0.000)	84	152678	19.452	19.45			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.088	(0.001)	73	327714	17.347	17.35			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.082	(0.000)	96	160790	20.818	20.82			0.5	5
40) 1,1-Dichloroethane	(2)	2.386	(0.000)	63	263081	21.007	21.01			0.5	5
44) 2-Butanone	(1)	2.891	(0.000)	43	330130	129.304	129.30			1	10
45) cis-1,2-Dichloroethene	(2)	2.879	(0.000)	96	179950	21.464	21.46			0.5	5
54) Chloroform	(2)	3.171	(0.000)	83	262399	20.643	20.64			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.341	(0.000)	97	233449	17.937	17.94			0.6	5
58) Cyclohexane	(2)	3.390	(0.001)	56	256919	21.012	21.01			0.5	5
61) Carbon Tetrachloride	(2)	3.493	(-0.000)	117	199140	20.146	20.15			0.5	5
64) Benzene	(2)	3.670	(0.000)	78	612889	20.298	20.30			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	178102	20.439	20.44			0.6	5
75) Trichloroethene	(2)	4.309	(0.000)	95	161001	20.446	20.45			0.5	5
76) Methylcyclohexane	(2)	4.497	(0.001)	83	272395	22.229	22.23			0.6	5
77) 1,2-Dichloropropane	(2)	4.528	(0.000)	63	151773	21.166	21.17			0.5	5
84) Bromodichloromethane	(2)	4.820	(0.000)	83	175302	19.576	19.58			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.294	(0.000)	75	214652	19.851	19.85			0.4	5
90) 4-Methyl-2-pentanone	(2)	5.489	(0.000)	43	463790	74.839	74.84			1	10
92) Toluene	(3)	5.641	(-0.000)	92	398499	19.580	19.58			0.6	5

M = Compound was manually integrated.

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:48. Target 3.5 esignature user ID: pth10165

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov06a.b/bn06s02.d Injection date and time: **06-NOV-2018 21:29**
Data file Sample Info. Line: LCDB93;LCDB93;2;3;LCSD;;DODSW;;bn06b01; Instrument ID: **HP09953.i** Batch: **B183101AA**
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Blank Data file reference: **/chem2/HP09953.i/18nov06a.b/bn06b01.d**

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 06-NOV-2018 21:35
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov06a.b/bn06c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

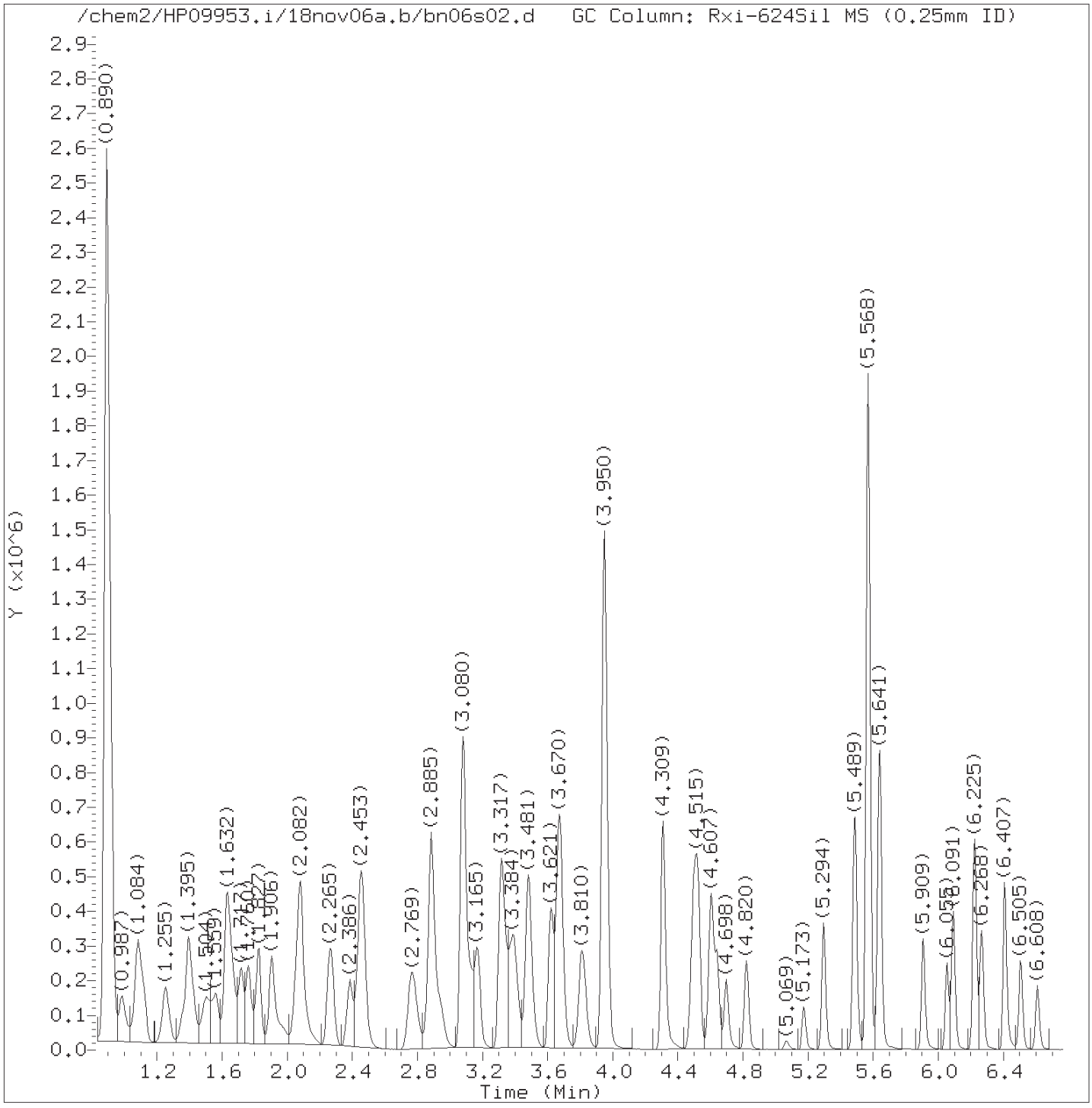
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) trans-1,3-Dichloropropene	(3)	5.909(-0.000)	75	175502	18.002	18.00			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(-0.000)	97	129661	19.632	19.63			0.5	5
98) Tetrachloroethene	(3)	6.225(-0.000)	166	190962	17.130	17.13			0.5	5
101) 2-Hexanone	(3)	6.407(-0.000)	43	327530	68.822	68.82			1	10
103) Dibromochloromethane	(3)	6.505(-0.000)	129	136998	18.004	18.00			0.4	5
104) 1,2-Dibromoethane	(3)	6.608(-0.000)	107	128268	18.798	18.80			0.4	5
107) Chlorobenzene	(3)	7.174(0.000)	112	471388	19.837	19.84			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	755866	19.746	19.75			0.4	5
110) m+p-Xylene	(3)	7.448(0.000)	106	629640	40.309	40.31			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	296316	18.976	18.98			0.4	5
112) Xylene (Total)	(3)		106	925956	59.285	59.28			1	5
113) Styrene	(3)	7.849(0.000)	104	480767	18.675	18.68			0.3	5
114) Bromoform	(3)	7.995(0.000)	173	76461	16.125	16.13			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	789640	20.061	20.06			0.4	5
118) Cyclohexanone	(1)	8.239(-0.003)	55	112842	490.279	490.28			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(-0.000)	83	157757	18.109	18.11			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.175(-0.000)	146	414190	19.342	19.34			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(0.000)	146	434999	19.485	19.48			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	410573	19.612	19.61			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(0.000)	75	24642	16.281	16.28			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.629(-0.000)	180	297142	19.247	19.25			5	10

Total number of targets = 51

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:48. Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31. PARALLAX ID: rcr00559



Total Ion Chromatogram (TIC)

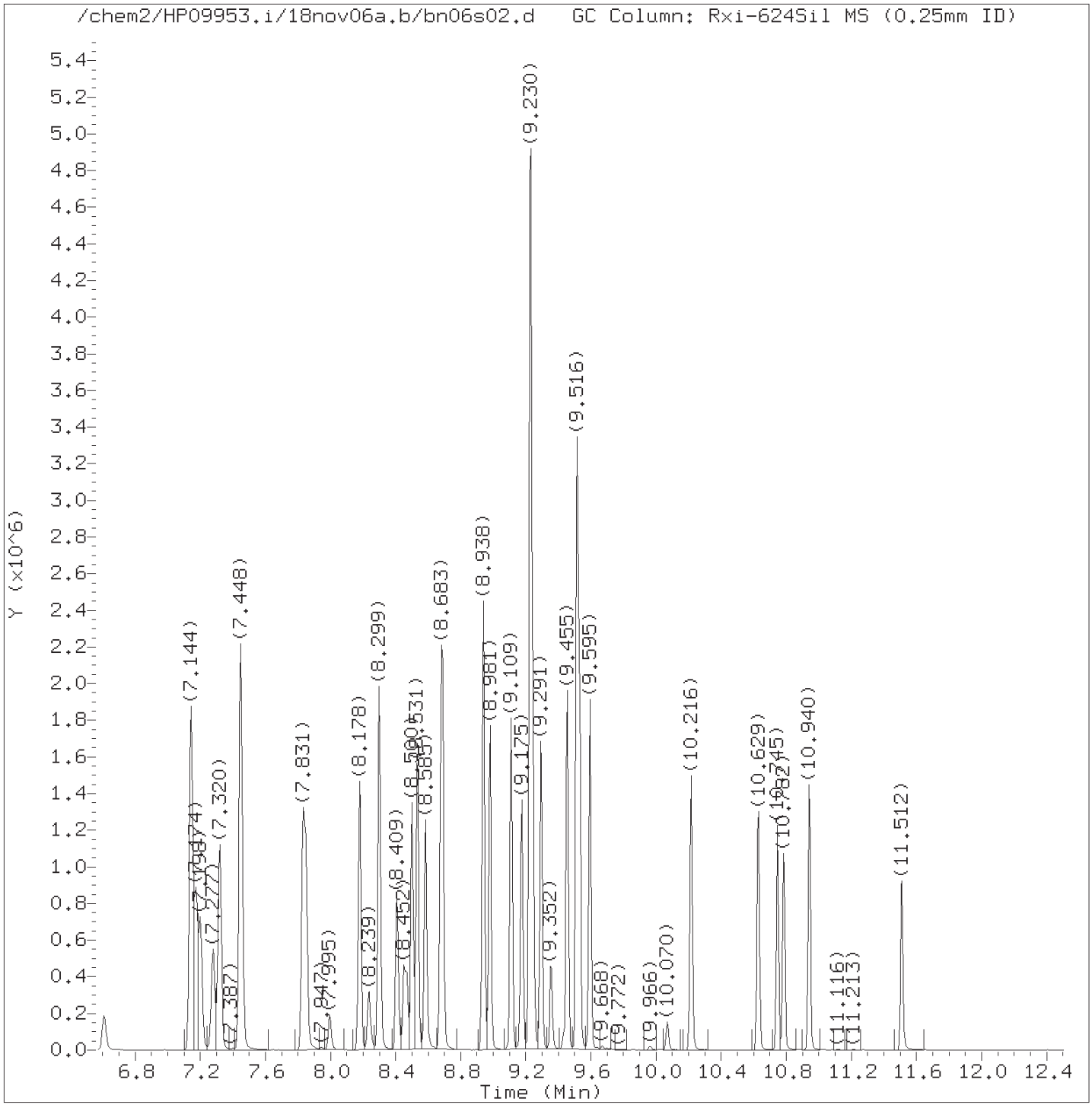
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Sample Name: LCDB93 Lab Sample ID: LCDB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:48.
Target 3.5 esignature user ID: pth10165



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Sample Name: LCDB93 Lab Sample ID: LCDB93

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:48.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Sample Name: LCDB93 Lab Sample ID: LCDB93

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.987	85	211536	17.697
4) Chloromethane	(2)	1.072	50	230638	18.719
5) Vinyl Chloride	(2)	1.121	62	178111	18.552
9) Bromomethane	(2)	1.249	94	140525	16.446
10) Chloroethane	(2)	1.267	64	92159	17.845
13) Trichlorofluoromethane	(2)	1.413	101	262643	19.872
19) 1,1-Dichloroethene	(2)	1.626	96	144006	21.683
20) Acetone	(1)	1.644	58	60292	136.450
22) Freon 113	(2)	1.662	101	154867	23.257
25) Carbon Disulfide	(2)	1.766	76	384852M	14.482
27) Methyl Acetate	(2)	1.827	43	61774	18.138
31) Methylene Chloride	(2)	1.906	84	152678	19.452
30)*t-Butyl alcohol-d10	(1)	1.924	65	99308	250.000
35) trans-1,2-Dichloroethene	(2)	2.082	96	160790	20.818
34) Methyl Tertiary Butyl Ether	(2)	2.088	73	327714	17.347
40) 1,1-Dichloroethane	(2)	2.386	63	263081	21.007
45) cis-1,2-Dichloroethene	(2)	2.879	96	179950	21.464
44) 2-Butanone	(1)	2.891	43	330130	129.304
54) Chloroform	(2)	3.171	83	262399	20.643
56)$Dibromofluoromethane	(2)	3.311	113	337583	51.166
57) 1,1,1-Trichloroethane	(2)	3.341	97	233449	17.937
58) Cyclohexane	(2)	3.390	56	256919	21.012
61) Carbon Tetrachloride	(2)	3.493	117	199140	20.146
63)$1,2-Dichloroethane-d4	(2)	3.615	102	74309	52.327
64) Benzene	(2)	3.670	78	612889	20.298
67) 1,2-Dichloroethane	(2)	3.688	62	178102	20.439
70)*Fluorobenzene	(2)	3.944	96	1323832	50.000
75) Trichloroethene	(2)	4.309	95	161001	20.446
76) Methylcyclohexane	(2)	4.497	83	272395	22.229
77) 1,2-Dichloropropane	(2)	4.528	63	151773	21.166
84) Bromodichloromethane	(2)	4.820	83	175302	19.576
89) cis-1,3-Dichloropropene	(2)	5.294	75	214652	19.851
90) 4-Methyl-2-pentanone	(2)	5.489	43	463790	74.839
91)$Toluene-d8	(3)	5.568	98	1361573	49.619
92) Toluene	(3)	5.641	92	398499	19.580
93) trans-1,3-Dichloropropene	(3)	5.909	75	175502	18.002
96) 1,1,2-Trichloroethane	(3)	6.091	97	129661	19.632
98) Tetrachloroethene	(3)	6.225	166	190962	17.130

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:48.
Target 3.5 esignature user ID: pth10165

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

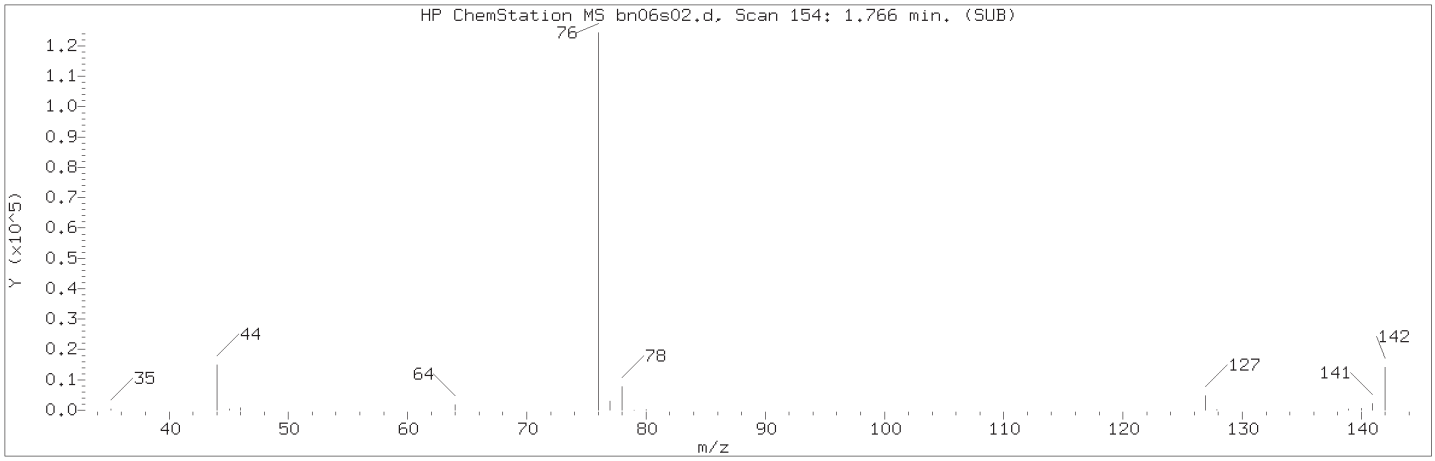
Sample Name: LCDB93 Lab Sample ID: LCDB93

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.407	43	327530	68.822
103) Dibromochloromethane	(3)	6.505	129	136998	18.004
104) 1,2-Dibromoethane	(3)	6.608	107	128268	18.798
105)*Chlorobenzene-d5	(3)	7.144	117	1063185	50.000
107) Chlorobenzene	(3)	7.174	112	471388	19.837
109) Ethylbenzene	(3)	7.320	91	755866	19.746
110) m+p-Xylene	(3)	7.448	106	629640	40.309
111) o-Xylene	(3)	7.831	106	296316	18.976
113) Styrene	(3)	7.849	104	480767	18.675
112) Xylene (Total)	(3)		106	925956	59.285
114) Bromoform	(3)	7.995	173	76461	16.125
115) Isopropylbenzene	(3)	8.178	105	789640	20.061
118) Cyclohexanone	(1)	8.239	55	112842	490.279
119)$4-Bromofluorobenzene	(3)	8.299	95	498976	49.916
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	157757	18.109
138) 1,3-Dichlorobenzene	(4)	9.175	146	414190	19.342
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	622740	50.000
141) 1,4-Dichlorobenzene	(4)	9.242	146	434999	19.485
147) 1,2-Dichlorobenzene	(4)	9.516	146	410573	19.612
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	24642	16.281
153) 1,2,4-Trichlorobenzene	(4)	10.629	180	297142	19.247

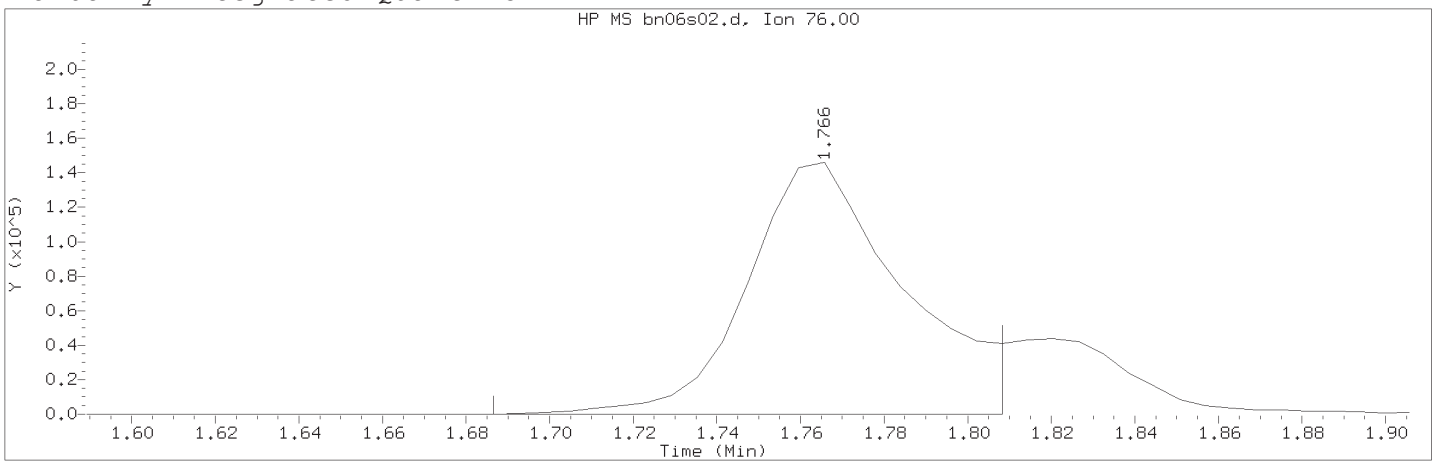
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:48.
Target 3.5 esignature user ID: pth10165

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:48 pth10165

Sample Name: LCDB93 Lab Sample ID: LCDB93

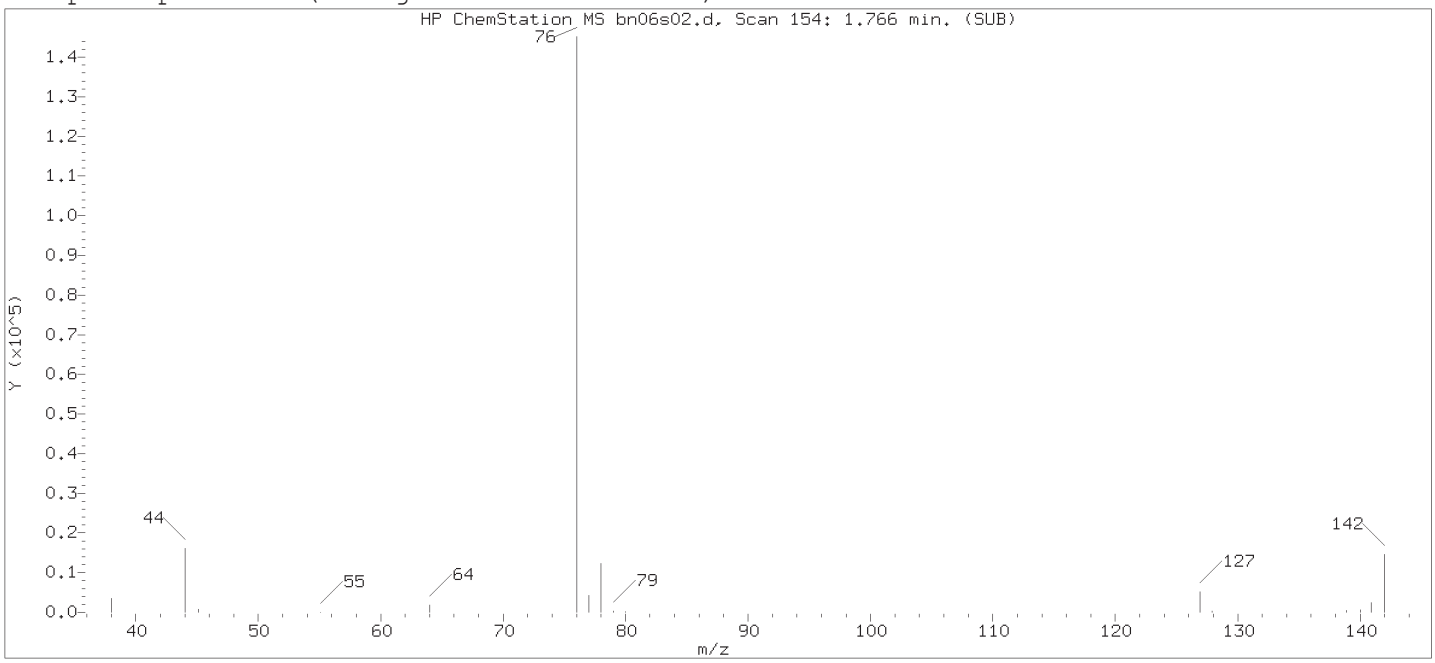
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 154
Retention Time (minutes): 1.766
Quant Ion : 76.00
Area (flag) : 384852M
On-Column Amount (ng) : 14.4819
Integration start scan : 140 Integration stop scan: 160
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

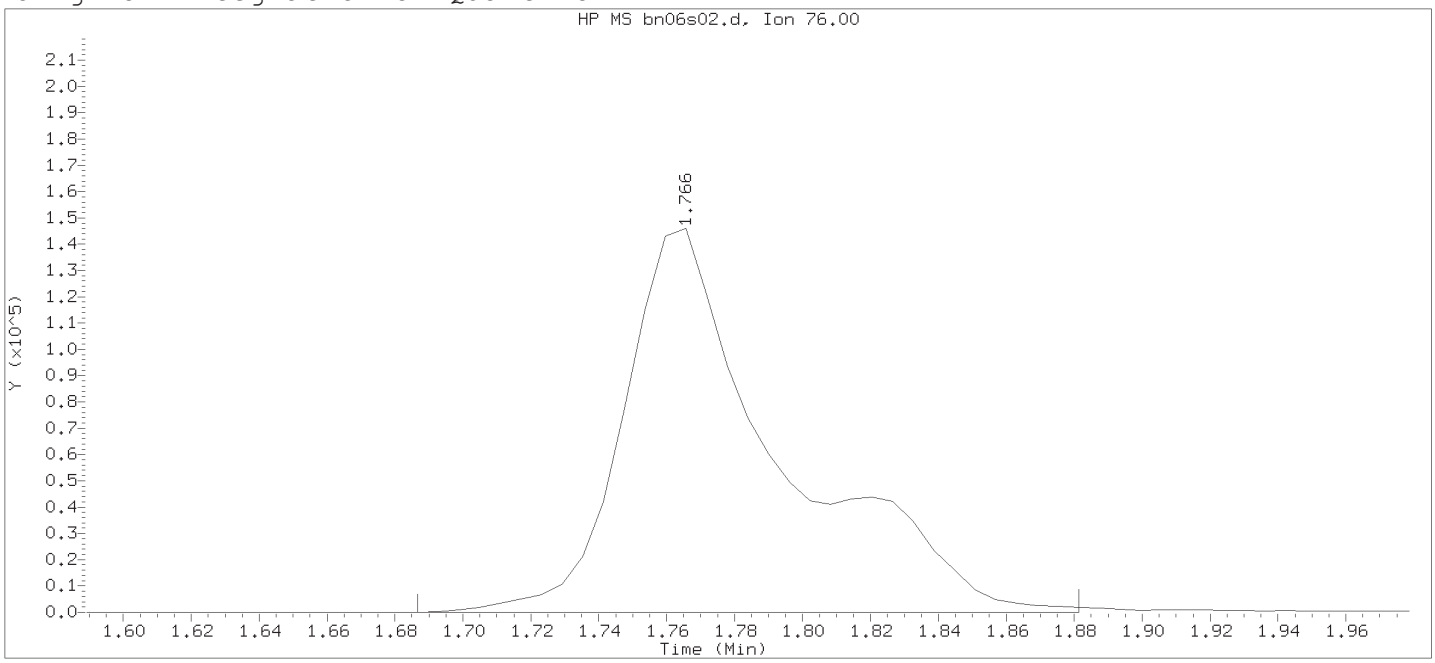
Analyst responsible for change: Digitally signed by Patrick T. Herres
on 11/06/2018 at 21:48.
Target 3.5 esignature user ID: pth10165

Secondary review performed and digitally signed by Robin C. Runkle on 11/12/2018 at 11:31.
PARALLAX ID: rcr00559

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov06a.b/bn06s02.d Instrument ID: HP09953.i
Injection date and time: 06-NOV-2018 21:29 Analyst ID: PTH10165

Method used: /chem2/HP09953.i/18nov06a.b/di8260c.m Sublist used: 25809
Calibration date and time: 06-NOV-2018 21:35
Date, time and analyst ID of latest file update: 06-Nov-2018 21:47 pth10165

Sample Name: LCDB93 Lab Sample ID: LCDB93

Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 154
Retention Time (minutes): 1.766
Quant Ion : 76.00
Area : 467311
On-column Amount (ng) : 17.5848
Integration start scan : 140 Integration stop scan: 172
Y at integration start : 0 Y at integration end: 0

Digitally signed by Patrick T. Herres on 11/06/2018 at 21:48.
Target 3.5 esignature used [illegible]

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07l31.d Injection date and time: **07-NOV-2018 09:01**
Data file Sample Info. Line: LCSB97;LCSB97;2;3;LCS;;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.918	(0.012)	179	65	117629	(4)	250.00	
70) Fluorobenzene	3.944	(0.006)	512	96	1327711	(1)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1052922	(0)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	628677	(0)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.311	(0.000)	113	331889	50.156	100%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.000)	102	73843M	51.847	104%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1351218	49.722	99%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	492239M	49.722	99%		79 - 119

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.981	(0.001)	85	197459	16.471	16.47			0.6	5
4) Chloromethane	(2)	1.066	(0.001)	50	244338	19.773	19.77			0.6	5
5) Vinyl Chloride	(2)	1.115	(0.001)	62	181474	18.847	18.85			0.6	5
9) Bromomethane	(2)	1.242	(0.001)	94	147111	17.166	17.17			0.7	5
10) Chloroethane	(2)	1.261	(0.001)	64	95553	18.448	18.45			1	5
13) Trichlorofluoromethane	(2)	1.407	(0.001)	101	248824	18.772	18.77			0.7	5
19) 1,1-Dichloroethene	(2)	1.620	(0.000)	96	153073	22.980	22.98			0.5	5
20) Acetone	(1)	1.638	(-0.002)	58	62979	119.259	119.26			6	20
22) Freon 113	(2)	1.650	(0.000)	101	168222	25.189	25.19			0.6	10
25) Carbon Disulfide	(2)	1.760	(0.000)	76	513067	19.250	19.25			0.6	5
27) Methyl Acetate	(2)	1.820	(0.000)	43	71668	20.982	20.98			1	5
31) Methylene Chloride	(2)	1.900	(0.000)	84	158456	20.130	20.13			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.088	(0.000)	73	355892	18.784	18.78			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.076	(0.000)	96	168099	21.701	21.70			0.5	5
40) 1,1-Dichloroethane	(2)	2.380	(0.000)	63	273650	21.787	21.79			0.5	5
44) 2-Butanone	(1)	2.885	(-0.006)	43	343324	113.527	113.53			1	10
45) cis-1,2-Dichloroethene	(2)	2.879	(-0.001)	96	188465	22.414	22.41			0.5	5
54) Chloroform	(2)	3.165	(0.000)	83	271730	21.314	21.31			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.335	(0.000)	97	244848	18.758	18.76			0.6	5
58) Cyclohexane	(2)	3.390	(0.000)	56	283261	23.099	23.10			0.5	5
61) Carbon Tetrachloride	(2)	3.487	(0.000)	117	212394	21.424	21.42			0.5	5
64) Benzene	(2)	3.670	(0.000)	78	635957	21.000	21.00			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	185630	21.241	21.24			0.6	5
75) Trichloroethene	(2)	4.309	(-0.001)	95	169954	21.520	21.52			0.5	5
76) Methylcyclohexane	(2)	4.497	(-0.000)	83	297253	24.187	24.19			0.6	5
77) 1,2-Dichloropropane	(2)	4.522	(-0.000)	63	156412	21.749	21.75			0.5	5
84) Bromodichloromethane	(2)	4.820	(-0.001)	83	180483	20.096	20.10			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.294	(-0.002)	75	218137	20.115	20.11			0.4	5
90) 4-Methyl-2-pentanone	(2)	5.483	(-0.000)	43	467982	75.308	75.31			1	10

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07l31.d Injection date and time: **07-NOV-2018 09:01**
Data file Sample Info. Line: LCSB97;LCSB97;2;3;LCS;;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

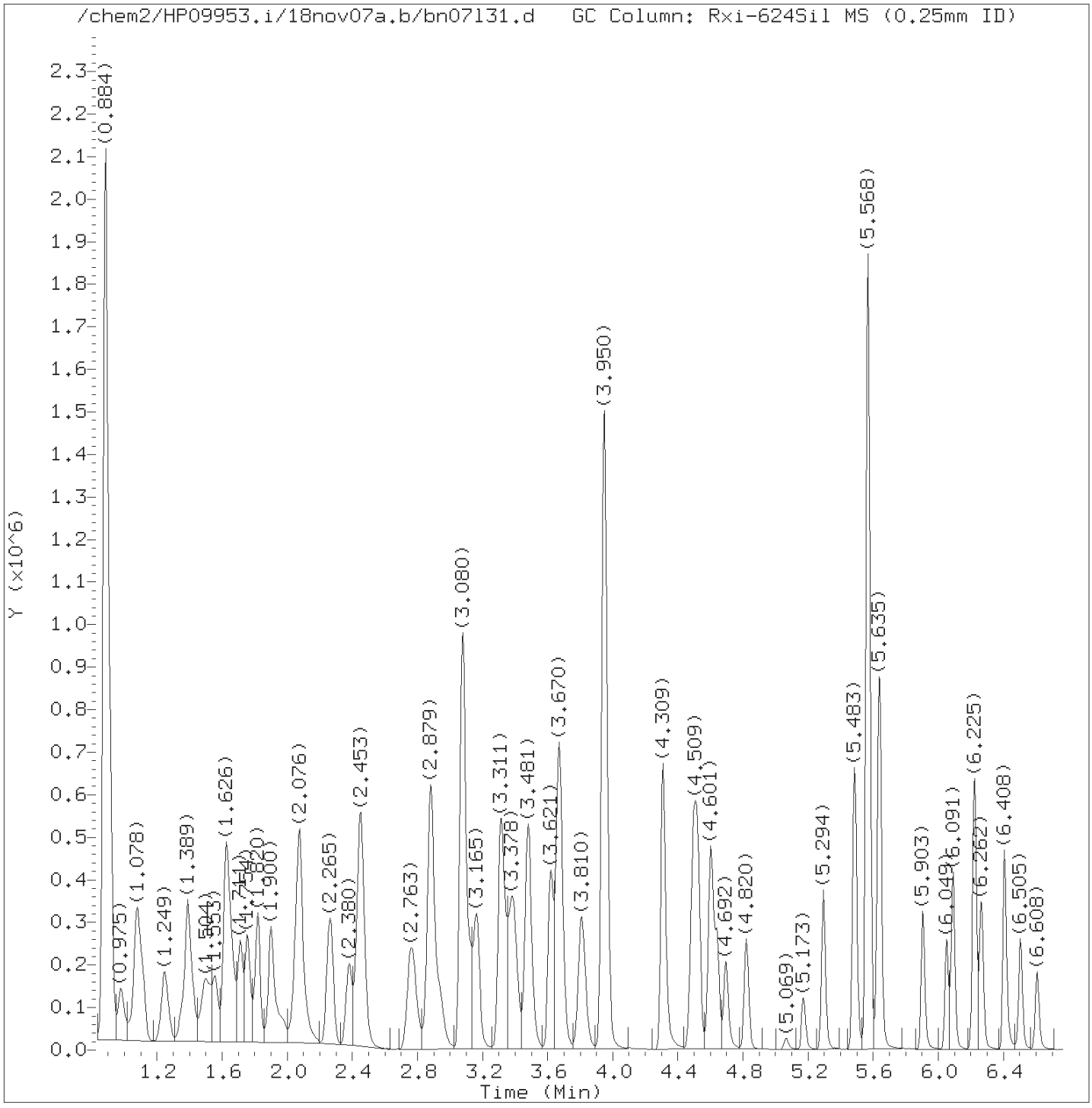
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
92) Toluene	(3)	5.641(0.000)	92	412460	20.463	20.46			0.6	5
93) trans-1,3-Dichloropropene	(3)	5.902(0.000)	75	176821	18.314	18.31			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(0.000)	97	133000	20.333	20.33			0.5	5
98) Tetrachloroethene	(3)	6.225(0.000)	166	198334	17.964	17.96			0.5	5
101) 2-Hexanone	(3)	6.408(0.000)	43	315954	67.001	67.00			1	10
103) Dibromochloromethane	(3)	6.505(0.000)	129	137616	18.261	18.26			0.4	5
104) 1,2-Dibromoethane	(3)	6.608(-0.000)	107	131080	19.398	19.40			0.4	5
107) Chlorobenzene	(3)	7.174(-0.000)	112	478598	20.337	20.34			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	786429	20.745	20.75			0.4	5
110) m+p-Xylene	(3)	7.448(-0.000)	106	653138	42.221	42.22			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	306416	19.814	19.81			0.4	5
112) Xylene (Total)	(3)		106	959554	62.035	62.03			1	5
113) Styrene	(3)	7.849(-0.000)	104	488495	19.160	19.16			0.3	5
114) Bromoform	(3)	7.995(-0.000)	173	76259	16.239	16.24			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	809229	20.759	20.76			0.4	5
118) Cyclohexanone	(1)	8.232(-0.027)	55	94058MA	345.015	345.02			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(0.000)	83	163879	18.635	18.63			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.176(-0.000)	146	428048	19.801	19.80			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(-0.000)	146	449616	19.949	19.95			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	420065	19.876	19.88			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(-0.000)	75	25529	16.708	16.71			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.630(-0.000)	180	309650	19.868	19.87			5	10

M = Compound was manually integrated. A = User selected an alternate peak.

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

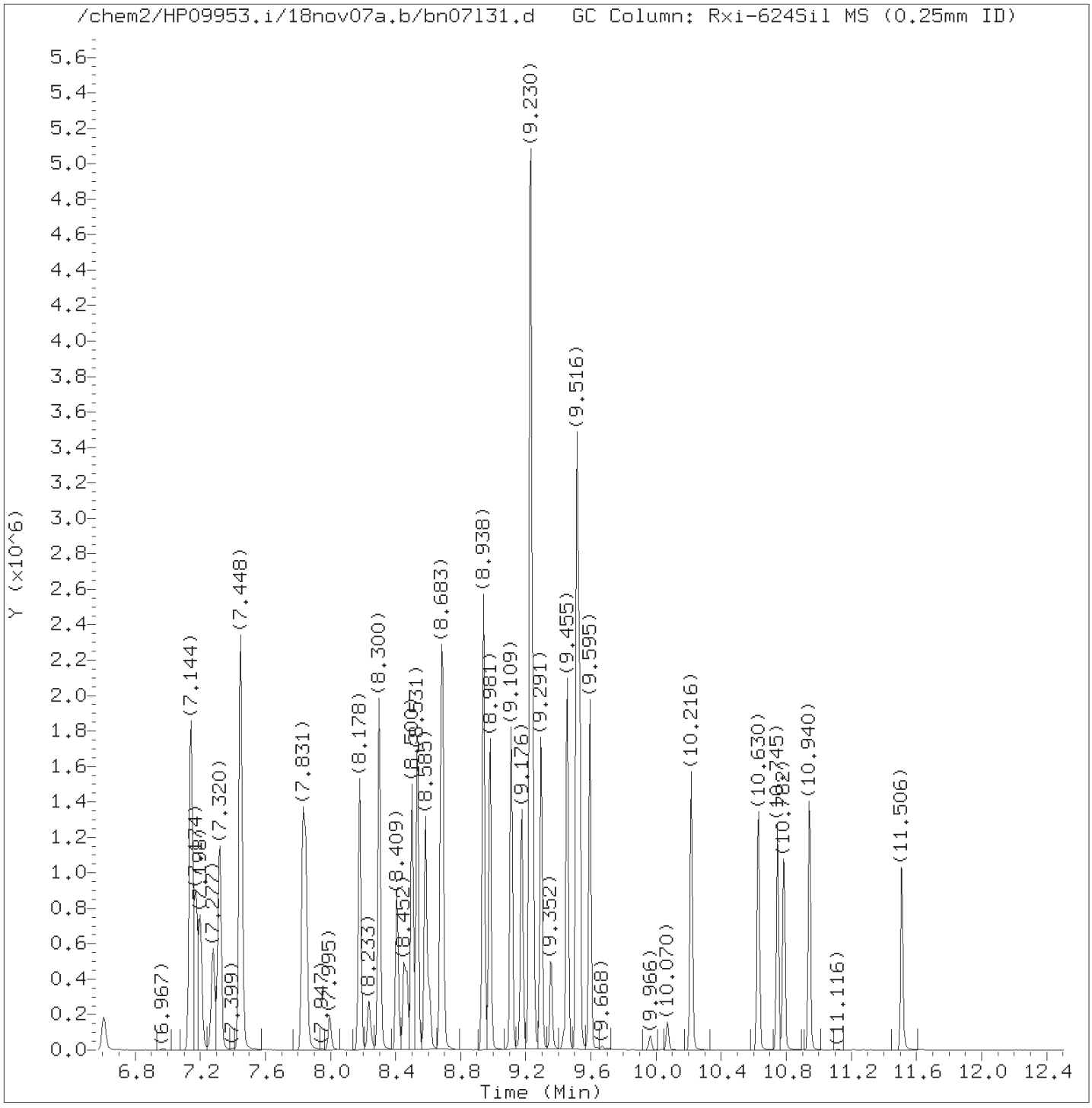
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l31.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l31.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l31.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.981	85	197459	16.471
4) Chloromethane	(2)	1.066	50	244338	19.773
5) Vinyl Chloride	(2)	1.115	62	181474	18.847
9) Bromomethane	(2)	1.243	94	147111	17.166
10) Chloroethane	(2)	1.261	64	95553	18.448
13) Trichlorofluoromethane	(2)	1.407	101	248824	18.772
19) 1,1-Dichloroethene	(2)	1.620	96	153073	22.980
20) Acetone	(1)	1.638	58	62979	119.259
22) Freon 113	(2)	1.650	101	168222	25.189
25) Carbon Disulfide	(2)	1.760	76	513067	19.250
27) Methyl Acetate	(2)	1.820	43	71668	20.982
31) Methylene Chloride	(2)	1.900	84	158456	20.130
30)*t-Butyl alcohol-d10	(1)	1.918	65	117629	250.000
35) trans-1,2-Dichloroethene	(2)	2.076	96	168099	21.701
34) Methyl Tertiary Butyl Ether	(2)	2.088	73	355892	18.784
40) 1,1-Dichloroethane	(2)	2.380	63	273650	21.787
45) cis-1,2-Dichloroethene	(2)	2.879	96	188465	22.414
44) 2-Butanone	(1)	2.885	43	343324	113.527
54) Chloroform	(2)	3.165	83	271730	21.314
56)$Dibromofluoromethane	(2)	3.311	113	331889	50.156
57) 1,1,1-Trichloroethane	(2)	3.335	97	244848	18.758
58) Cyclohexane	(2)	3.390	56	283261	23.099
61) Carbon Tetrachloride	(2)	3.487	117	212394	21.424
63)$1,2-Dichloroethane-d4	(2)	3.615	102	73843M	51.847
64) Benzene	(2)	3.670	78	635957	21.000
67) 1,2-Dichloroethane	(2)	3.688	62	185630	21.241
70)*Fluorobenzene	(2)	3.944	96	1327711	50.000
75) Trichloroethene	(2)	4.309	95	169954	21.520
76) Methylcyclohexane	(2)	4.497	83	297253	24.187
77) 1,2-Dichloropropane	(2)	4.522	63	156412	21.749
84) Bromodichloromethane	(2)	4.820	83	180483	20.096
89) cis-1,3-Dichloropropene	(2)	5.294	75	218137	20.115
90) 4-Methyl-2-pentanone	(2)	5.483	43	467982	75.308
91)$Toluene-d8	(3)	5.568	98	1351218	49.722
92) Toluene	(3)	5.641	92	412460	20.463
93) trans-1,3-Dichloropropene	(3)	5.903	75	176821	18.314
96) 1,1,2-Trichloroethane	(3)	6.091	97	133000	20.333
98) Tetrachloroethene	(3)	6.225	166	198334	17.964

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l31.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

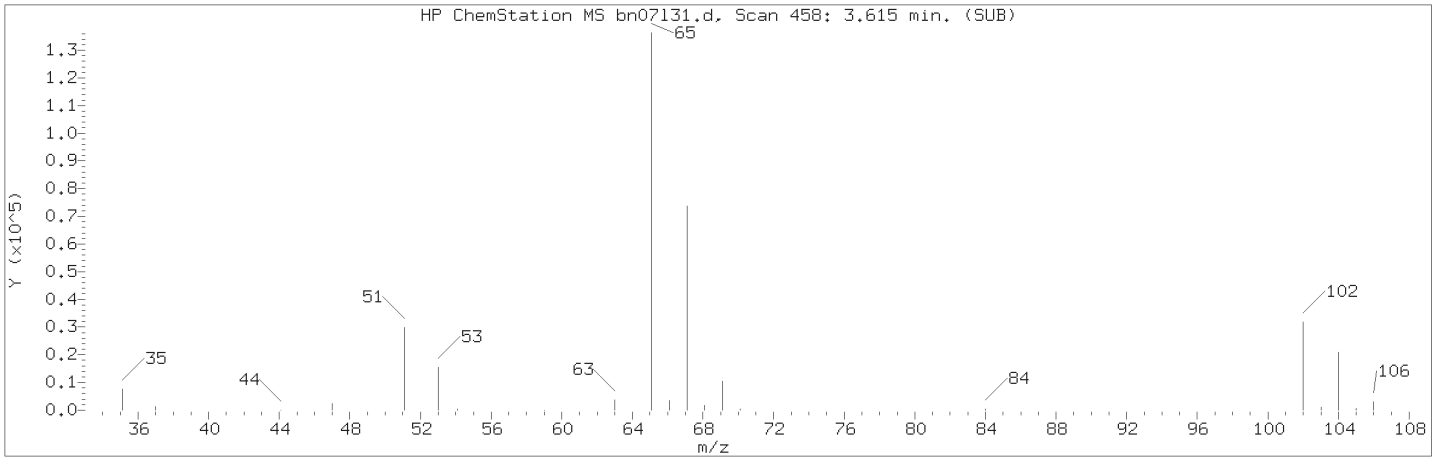
Sample Name: LCSB97 Lab Sample ID: LCSB97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.408	43	315954	67.001
103) Dibromochloromethane	(3)	6.505	129	137616	18.261
104) 1,2-Dibromoethane	(3)	6.608	107	131080	19.398
105)*Chlorobenzene-d5	(3)	7.144	117	1052922	50.000
107) Chlorobenzene	(3)	7.174	112	478598	20.337
109) Ethylbenzene	(3)	7.320	91	786429	20.745
110) m+p-Xylene	(3)	7.448	106	653138	42.221
111) o-Xylene	(3)	7.831	106	306416	19.814
113) Styrene	(3)	7.849	104	488495	19.160
112) Xylene (Total)	(3)		106	959554	62.035
114) Bromoform	(3)	7.995	173	76259	16.239
115) Isopropylbenzene	(3)	8.178	105	809229	20.759
118) Cyclohexanone	(1)	8.233	55	94058MA	345.015
119)$4-Bromofluorobenzene	(3)	8.300	95	492239M	49.722
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	163879	18.635
138) 1,3-Dichlorobenzene	(4)	9.176	146	428048	19.801
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	628677	50.000
141) 1,4-Dichlorobenzene	(4)	9.242	146	449616	19.949
147) 1,2-Dichlorobenzene	(4)	9.516	146	420065	19.876
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	25529	16.708
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	309650	19.868

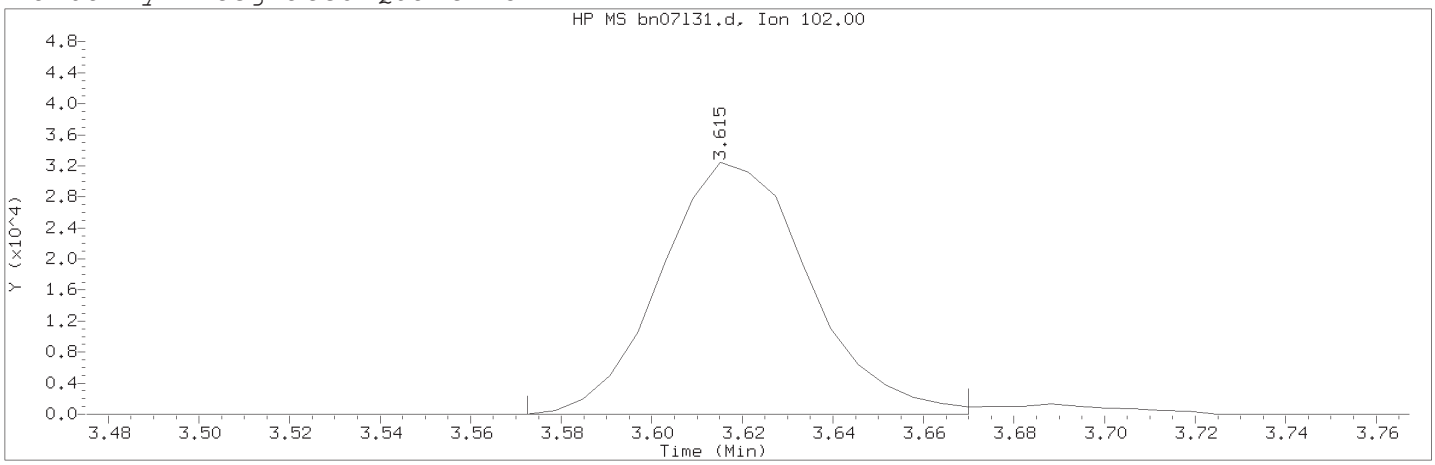
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

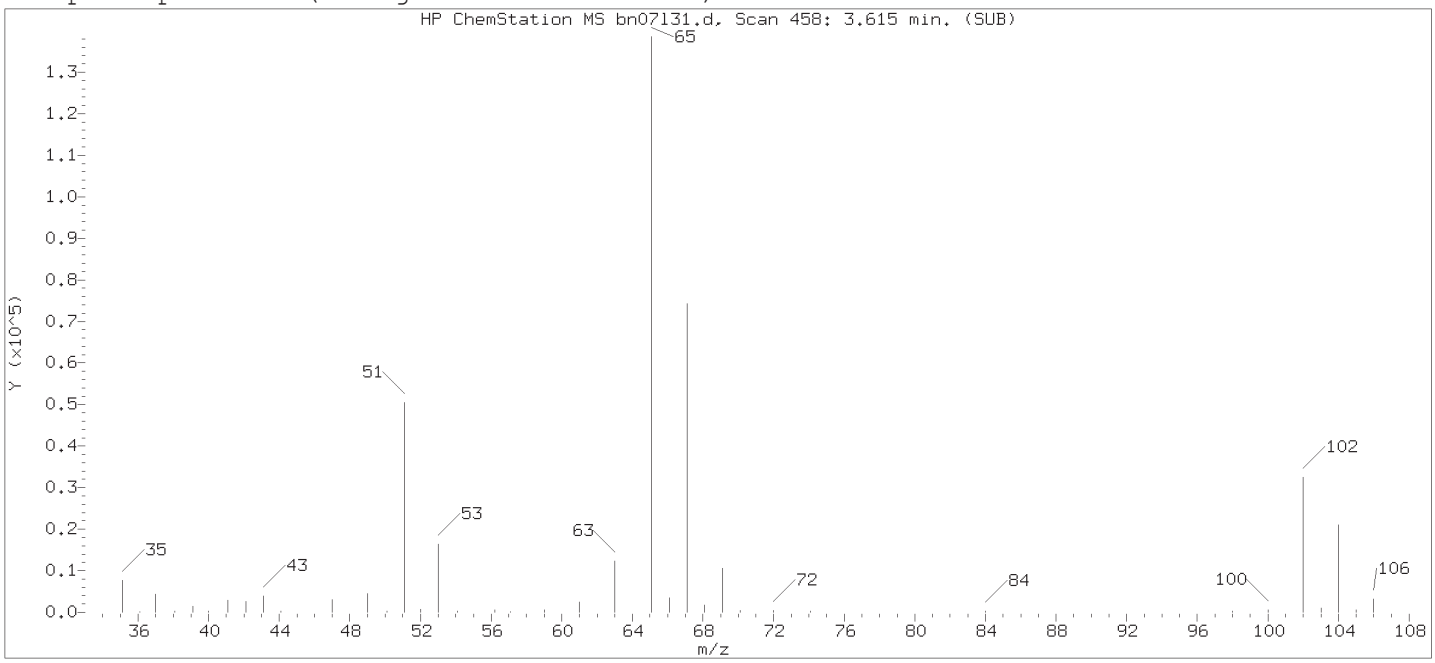
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area (flag) : 73843M
On-Column Amount (ng) : 51.8474
Integration start scan : 450 Integration stop scan: 466
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

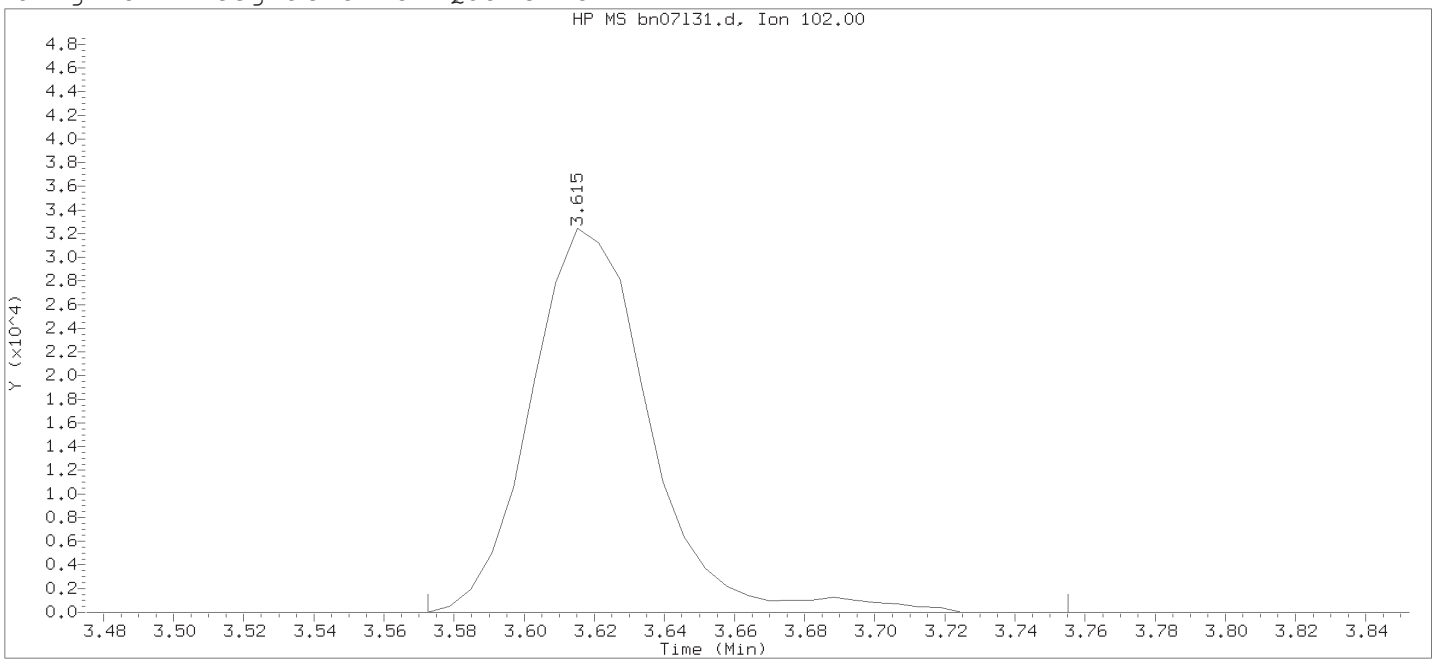
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

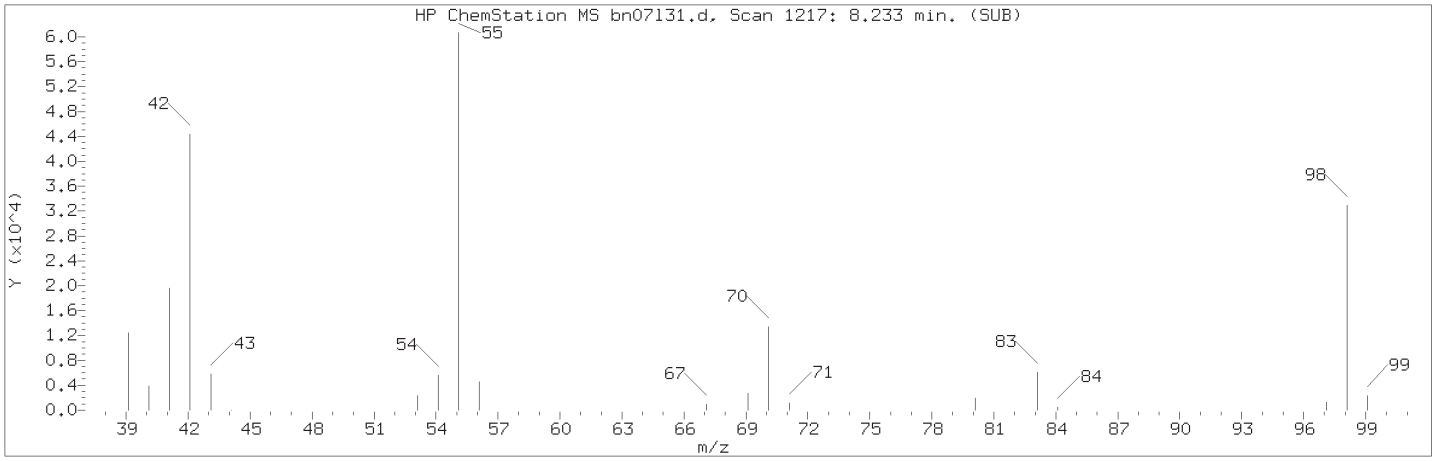
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

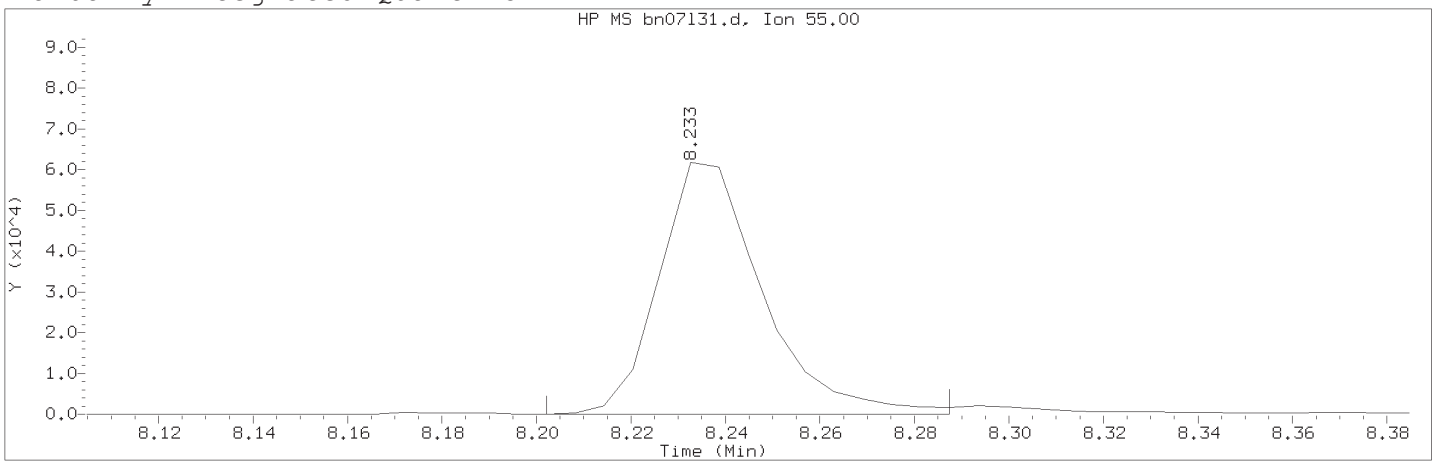
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area : 76328
On-column Amount (ng) : 53.5926
Integration start scan : 450 Integration stop scan: 480
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used 11/7/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

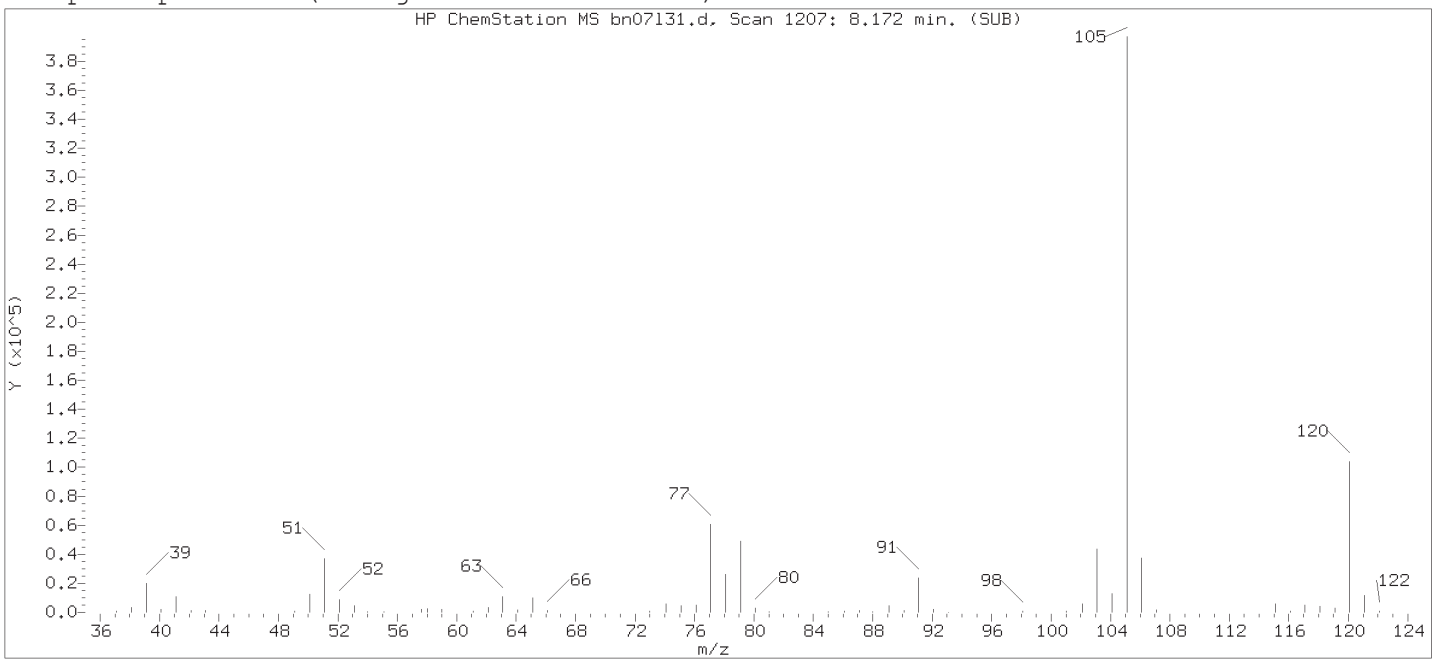
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area (flag) : 94058MA
On-Column Amount (ng) : 345.0154
Integration start scan : 1211 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

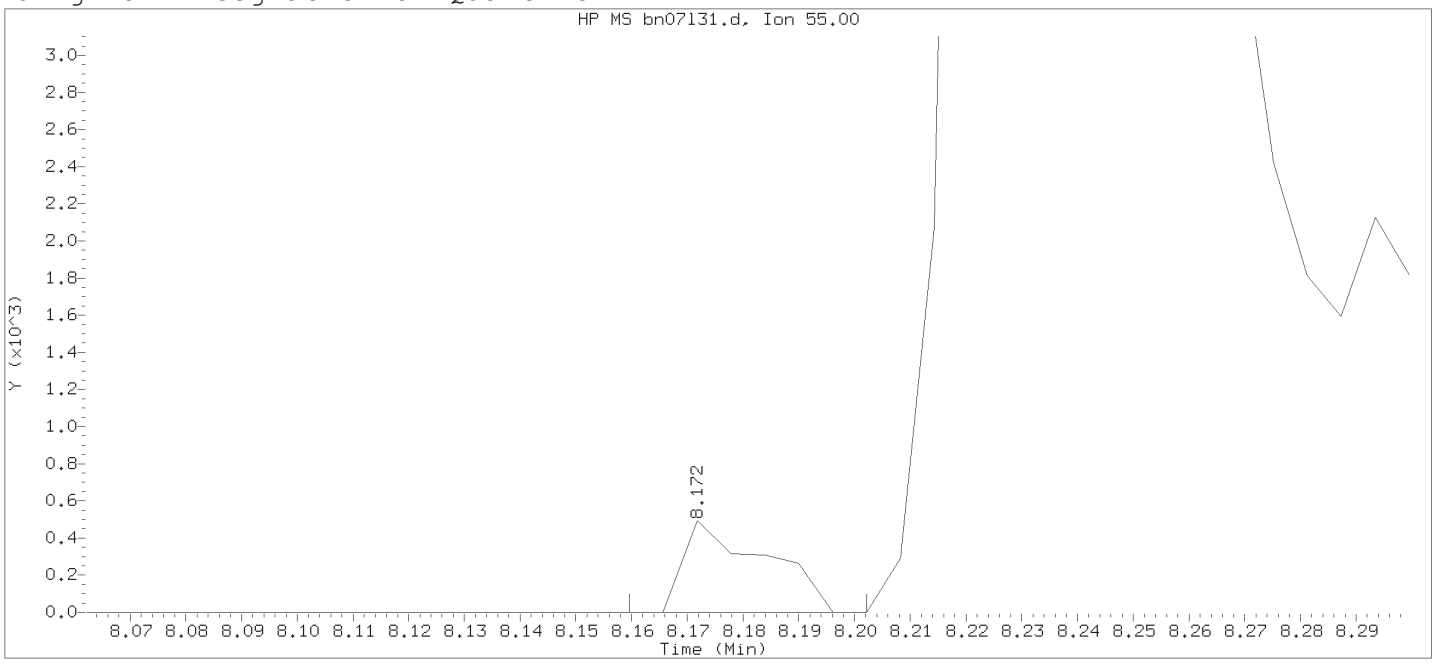
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

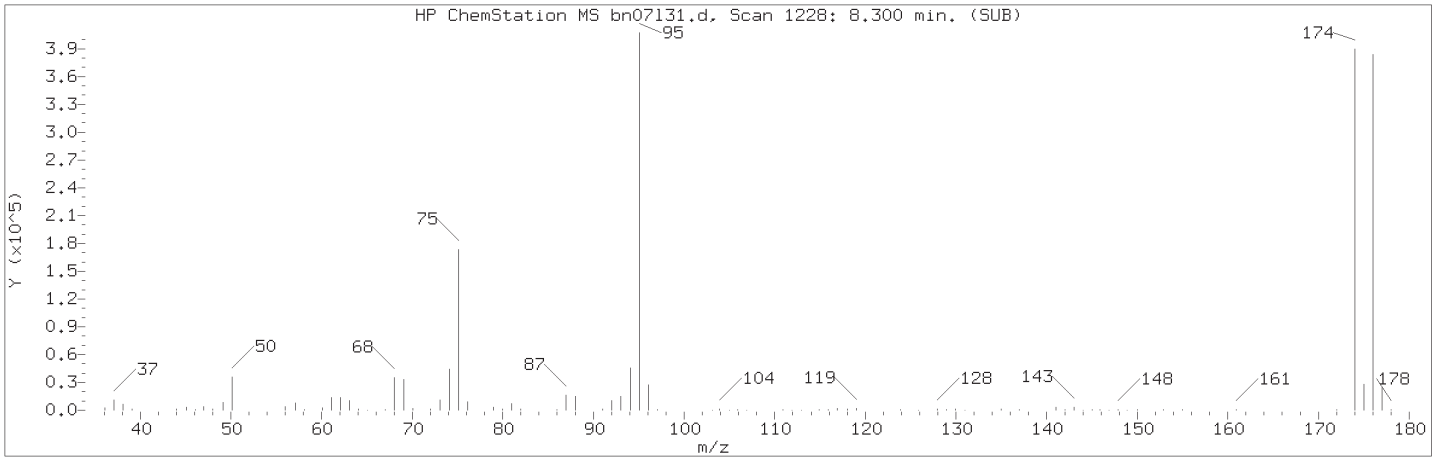
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

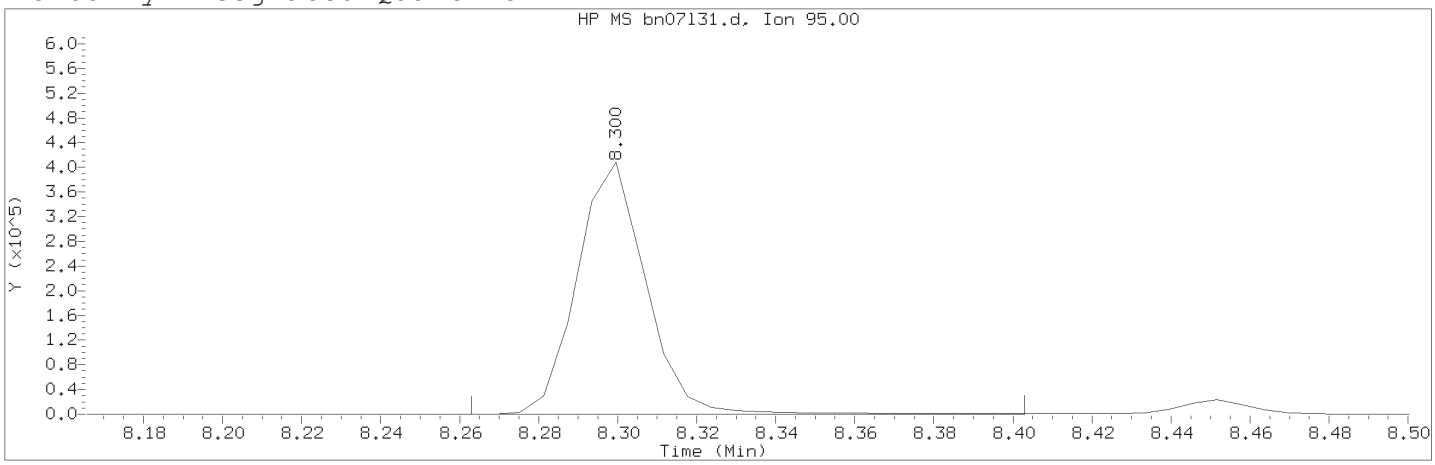
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1207
Retention Time (minutes): 8.172
Quant Ion : 55.00
Area : 502
On-column Amount (ng) : 1.8450
Integration start scan : 1204 Integration stop scan: 1211
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used: D12 Page 1459

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

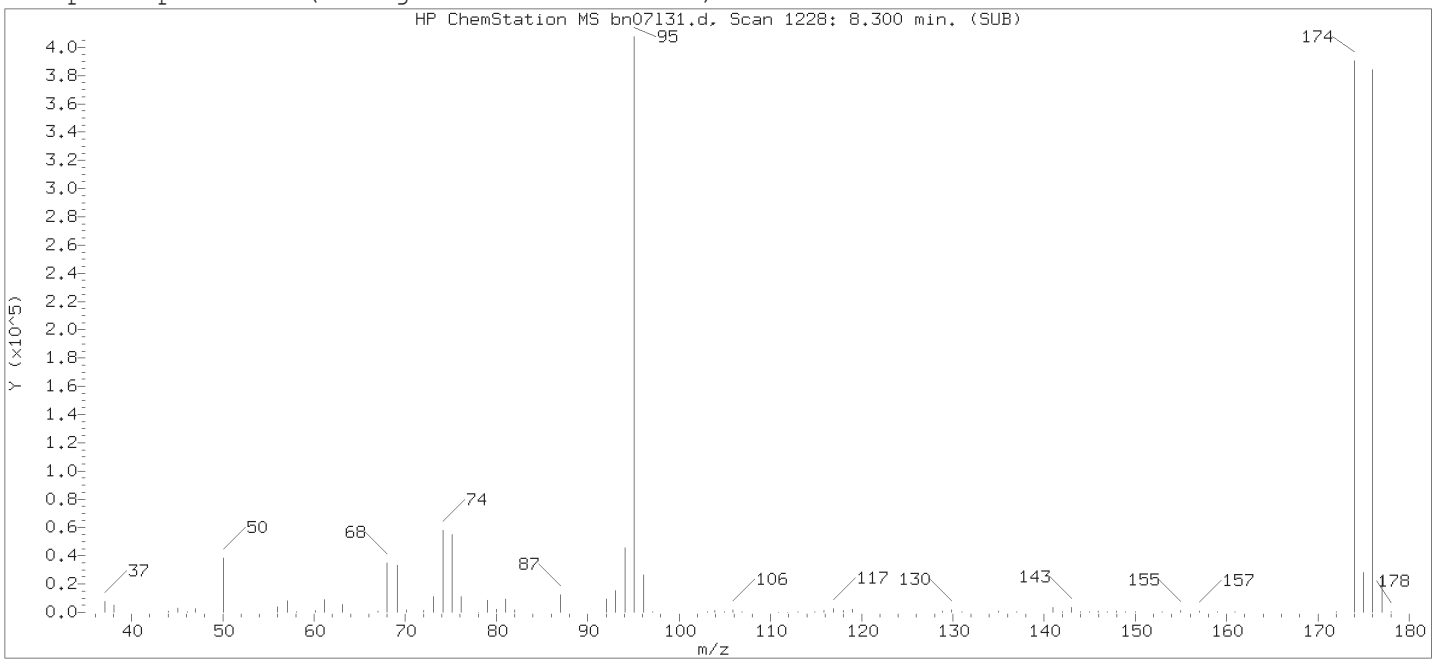
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area (flag) : 492239M
On-Column Amount (ng) : 49.7221
Integration start scan : 1221 Integration stop scan: 1244
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

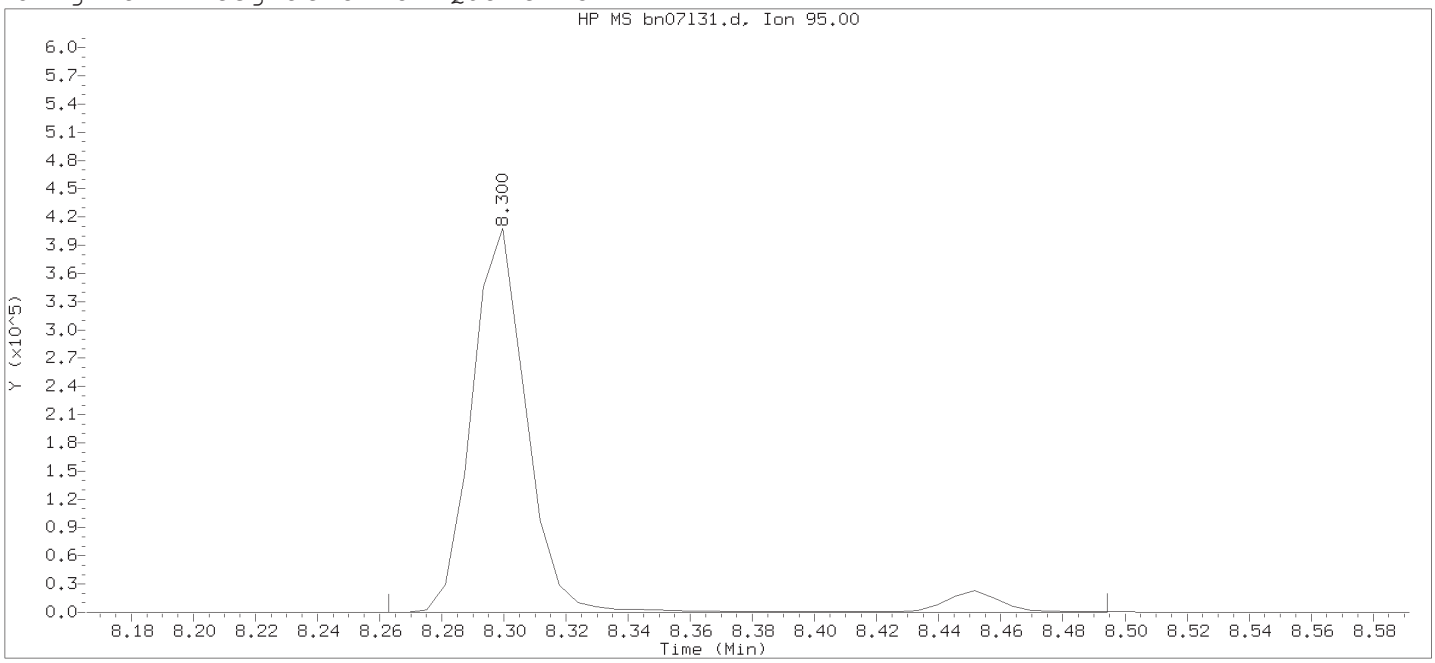
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07131.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:01 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCSB97 Lab Sample ID: LCSB97

Compound Number	: 119		
Compound Name	: 4-Bromofluorobenzene		
Scan Number	: 1228		
Retention Time (minutes)	: 8.300		
Quant Ion	: 95.00		
Area	: 521011		
On-column Amount (ng)	: 52.6284		
Integration start scan	: 1221	Integration stop scan:	1259
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used: D12 Page 1461

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07132.d Injection date and time: **07-NOV-2018 09:24**
Data file Sample Info. Line: LCDB97;LCDB97;2;3;LCSD;;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	1.912	(0.018)	178	65	129391	(15)	250.00	
70) Fluorobenzene	3.944	(0.006)	512	96	1318617	(0)	50.00	
105) Chlorobenzene-d5	7.144	(0.000)	1038	117	1068273	(2)	50.00	
140) 1,4-Dichlorobenzene-d4	9.224	(0.000)	1380	152	633484	(1)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	3.305	(0.002)	113	334731	50.935	102%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	3.615	(0.000)	102	74370M	52.578	105%		71 - 136
91) Toluene-d8	(3)	5.568	(0.000)	98	1360401	49.340	99%		85 - 116
119) 4-Bromofluorobenzene	(3)	8.300	(0.000)	95	498906M	49.671	99%		79 - 119

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	0.975	(0.002)	85	200847	16.869	16.87			0.6	5
4) Chloromethane	(2)	1.066	(0.001)	50	242111	19.728	19.73			0.6	5
5) Vinyl Chloride	(2)	1.109	(0.002)	62	183248	19.162	19.16			0.6	5
9) Bromomethane	(2)	1.236	(0.002)	94	147031	17.275	17.28			0.7	5
10) Chloroethane	(2)	1.255	(0.002)	64	94357	18.343	18.34			1	5
13) Trichlorofluoromethane	(2)	1.401	(0.002)	101	247495	18.800	18.80			0.7	5
19) 1,1-Dichloroethene	(2)	1.614	(0.002)	96	152239	23.013	23.01			0.5	5
20) Acetone	(1)	1.632	(-0.001)	58	65371	112.045	112.05			6	20
22) Freon 113	(2)	1.644	(0.002)	101	168605	25.421	25.42			0.6	10
25) Carbon Disulfide	(2)	1.754	(0.002)	76	522245	19.730	19.73			0.6	5
27) Methyl Acetate	(2)	1.820	(0.000)	43	72495	21.370	21.37			1	5
31) Methylene Chloride	(2)	1.894	(0.002)	84	160653	20.550	20.55			2	5
34) Methyl Tertiary Butyl Ether	(2)	2.082	(0.002)	73	373551	19.852	19.85			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.070	(0.002)	96	168875	21.951	21.95			0.5	5
40) 1,1-Dichloroethane	(2)	2.374	(0.002)	63	275864	22.114	22.11			0.5	5
44) 2-Butanone	(1)	2.885	(-0.011)	43	365076	109.746	109.75			1	10
45) cis-1,2-Dichloroethene	(2)	2.873	(0.000)	96	188918	22.623	22.62			0.5	5
54) Chloroform	(2)	3.159	(0.001)	83	274757	21.700	21.70			0.6	5
57) 1,1,1-Trichloroethane	(2)	3.335	(0.000)	97	247427	19.086	19.09			0.6	5
58) Cyclohexane	(2)	3.384	(0.001)	56	284240	23.338	23.34			0.5	5
61) Carbon Tetrachloride	(2)	3.487	(0.000)	117	213405	21.675	21.67			0.5	5
64) Benzene	(2)	3.670	(0.000)	78	649434	21.593	21.59			0.5	5
67) 1,2-Dichloroethane	(2)	3.688	(0.000)	62	189682	21.854	21.85			0.6	5
75) Trichloroethene	(2)	4.309	(-0.001)	95	169610M	21.625	21.62			0.5	5
76) Methylcyclohexane	(2)	4.497	(-0.000)	83	300438	24.615	24.61			0.6	5
77) 1,2-Dichloropropane	(2)	4.522	(-0.000)	63	158506	22.192	22.19			0.5	5
84) Bromodichloromethane	(2)	4.820	(-0.001)	83	185251	20.769	20.77			0.4	5
89) cis-1,3-Dichloropropene	(2)	5.294	(-0.002)	75	228676	21.232	21.23			0.4	5
90) 4-Methyl-2-pentanone	(2)	5.483	(-0.000)	43	513723	83.463	83.46			1	10

M = Compound was manually integrated.

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03. Target 3.5 esignature user ID: jkh09052

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09953.i/18nov07a.b/bn07l32.d Injection date and time: **07-NOV-2018 09:24**
Data file Sample Info. Line: LCDB97;LCDB97;2;3;LCSD;;DODSW;;bn07b30; Instrument ID: **HP09953.i** Batch: **B183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Blank Data file reference: **/chem2/HP09953.i/18nov07a.b/bn07b30.d**

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: **B183112**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:39
Mid Level Daily Calibration Standard Reference: **/chem2/HP09953.i/18nov07a.b/bn07c01.d**

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

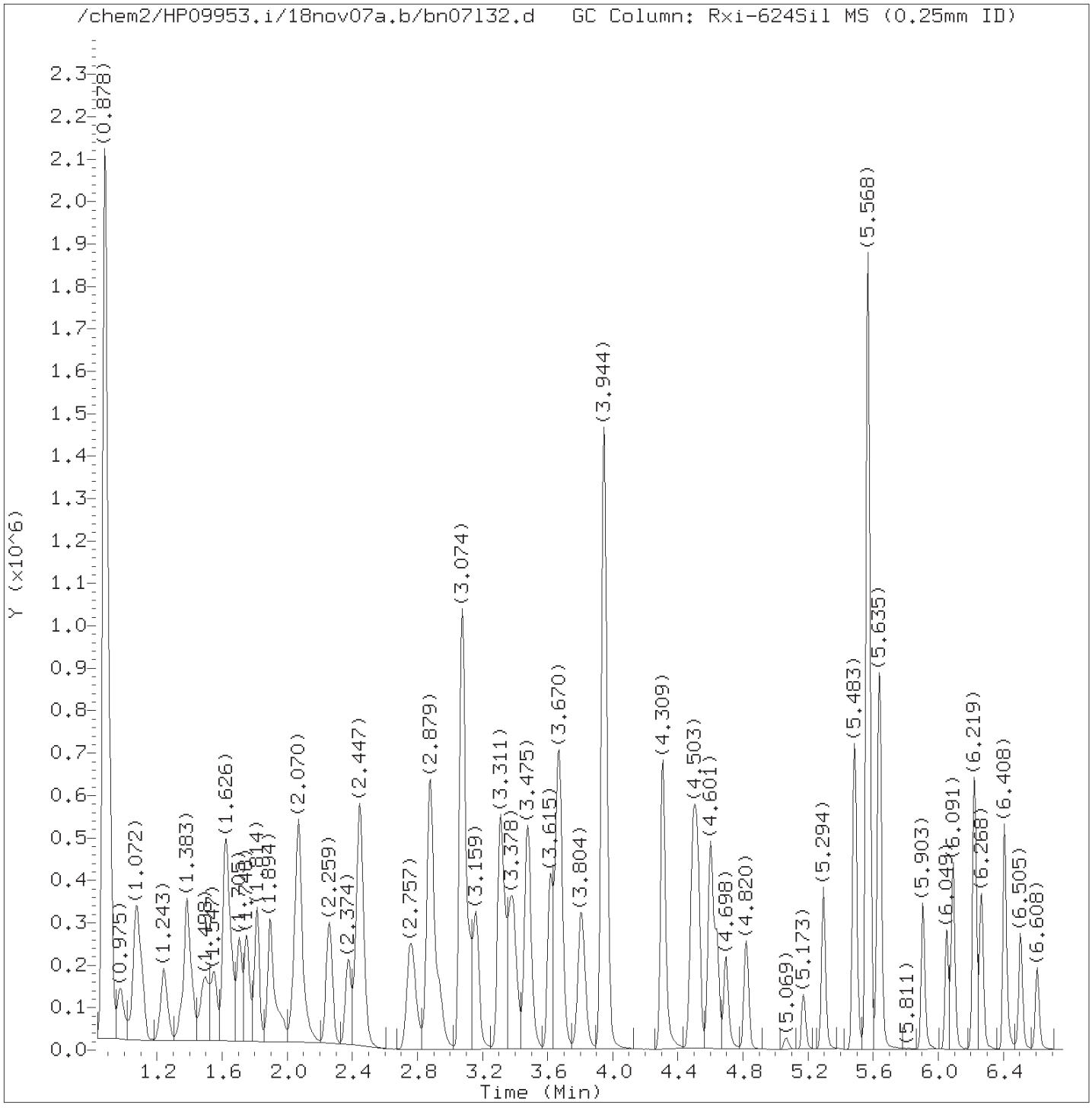
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
92) Toluene	(3)	5.641(0.000)	92	424737	20.770	20.77			0.6	5
93) trans-1,3-Dichloropropene	(3)	5.903(0.000)	75	191753	19.575	19.58			0.3	5
96) 1,1,2-Trichloroethane	(3)	6.091(-0.000)	97	140373	21.152	21.15			0.5	5
98) Tetrachloroethene	(3)	6.225(0.000)	166	204528	18.259	18.26			0.5	5
101) 2-Hexanone	(3)	6.408(0.000)	43	357914	74.986	74.99			1	10
103) Dibromochloromethane	(3)	6.505(-0.000)	129	148134	19.375	19.37			0.4	5
104) 1,2-Dibromoethane	(3)	6.608(-0.000)	107	137849	20.106	20.11			0.4	5
107) Chlorobenzene	(3)	7.174(-0.000)	112	496802	20.807	20.81			0.5	5
109) Ethylbenzene	(3)	7.320(-0.000)	91	801235	20.832	20.83			0.4	5
110) m+p-Xylene	(3)	7.448(-0.000)	106	664839	42.360	42.36			1	5
111) o-Xylene	(3)	7.831(-0.000)	106	316650	20.181	20.18			0.4	5
112) Xylene (Total)	(3)		106	981489	62.541	62.54			1	5
113) Styrene	(3)	7.849(-0.000)	104	504815	19.516	19.52			0.3	5
114) Bromoform	(3)	7.995(-0.000)	173	81955	17.202	17.20			5	10
115) Isopropylbenzene	(3)	8.178(-0.000)	105	832597	21.052	21.05			0.4	5
118) Cyclohexanone	(1)	8.233(-0.040)	55	104563MA	348.683	348.68			25	250
120) 1,1,2,2-Tetrachloroethane	(4)	8.452(0.000)	83	174964	19.744	19.74			0.4	5
138) 1,3-Dichlorobenzene	(4)	9.176(-0.000)	146	440003	20.199	20.20			0.5	5
141) 1,4-Dichlorobenzene	(4)	9.242(-0.000)	146	460253	20.266	20.27			0.4	5
147) 1,2-Dichlorobenzene	(4)	9.516(-0.000)	146	432722	20.319	20.32			0.5	5
151) 1,2-Dibromo-3-chloropropane	(4)	10.070(-0.000)	75	27173	17.649	17.65			0.4	5
153) 1,2,4-Trichlorobenzene	(4)	10.630(-0.000)	180	315642	20.099	20.10			5	10

M = Compound was manually integrated. A = User selected an alternate peak.

Total number of targets = 51

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03. Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

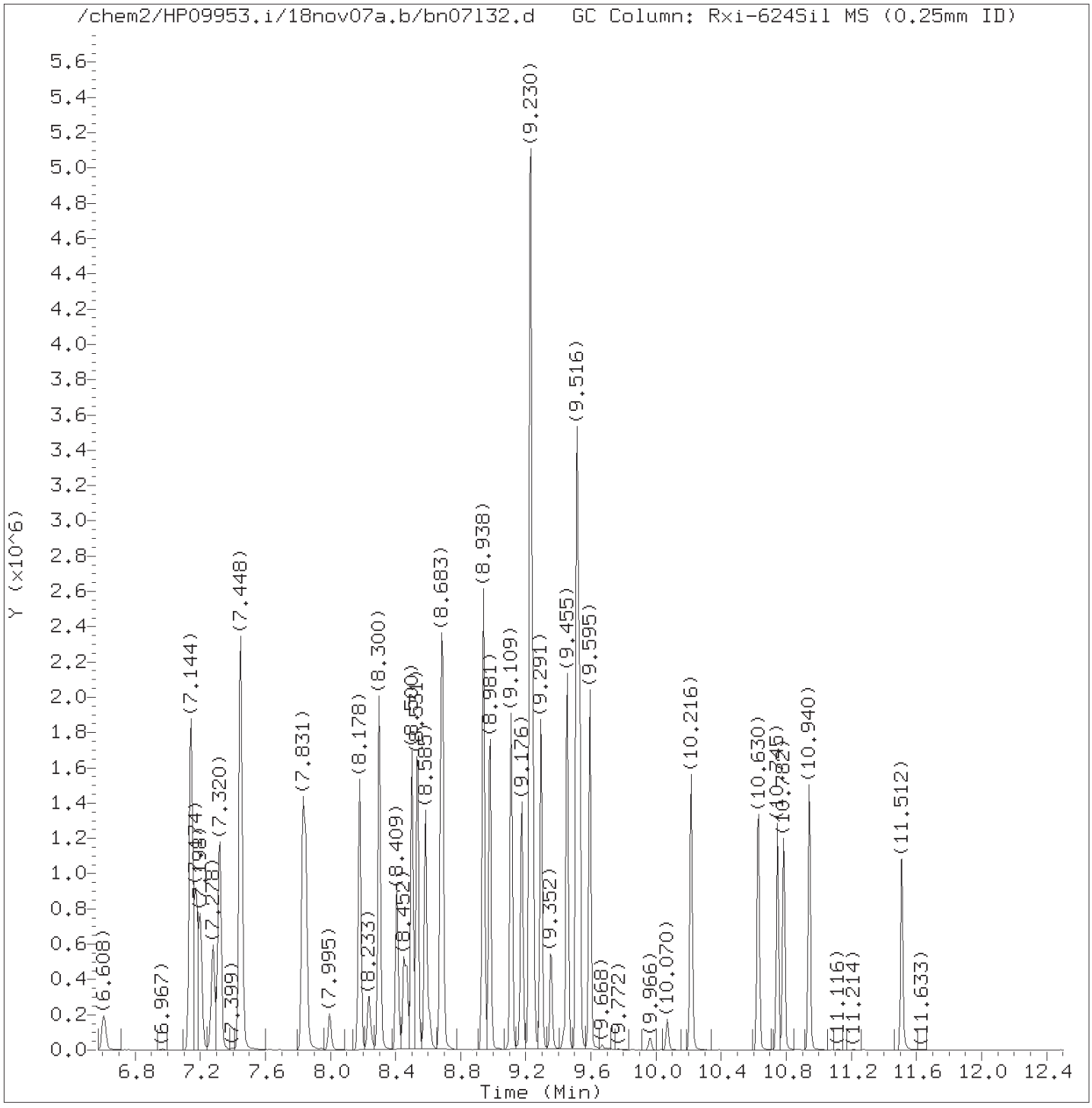
Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l32.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	0.975	85	200847	16.869
4) Chloromethane	(2)	1.066	50	242111	19.728
5) Vinyl Chloride	(2)	1.109	62	183248	19.162
9) Bromomethane	(2)	1.237	94	147031	17.275
10) Chloroethane	(2)	1.255	64	94357	18.343
13) Trichlorofluoromethane	(2)	1.401	101	247495	18.800
19) 1,1-Dichloroethene	(2)	1.614	96	152239	23.013
20) Acetone	(1)	1.632	58	65371	112.045
22) Freon 113	(2)	1.644	101	168605	25.421
25) Carbon Disulfide	(2)	1.754	76	522245	19.730
27) Methyl Acetate	(2)	1.821	43	72495	21.370
31) Methylene Chloride	(2)	1.894	84	160653	20.550
30)*t-Butyl alcohol-d10	(1)	1.912	65	129391	250.000
35) trans-1,2-Dichloroethene	(2)	2.070	96	168875	21.951
34) Methyl Tertiary Butyl Ether	(2)	2.082	73	373551	19.852
40) 1,1-Dichloroethane	(2)	2.374	63	275864	22.114
45) cis-1,2-Dichloroethene	(2)	2.873	96	188918	22.623
44) 2-Butanone	(1)	2.885	43	365076	109.746
54) Chloroform	(2)	3.159	83	274757	21.700
56)$Dibromofluoromethane	(2)	3.305	113	334731	50.935
57) 1,1,1-Trichloroethane	(2)	3.335	97	247427	19.086
58) Cyclohexane	(2)	3.384	56	284240	23.338
61) Carbon Tetrachloride	(2)	3.487	117	213405	21.675
63)$1,2-Dichloroethane-d4	(2)	3.615	102	74370M	52.578
64) Benzene	(2)	3.670	78	649434	21.593
67) 1,2-Dichloroethane	(2)	3.688	62	189682	21.854
70)*Fluorobenzene	(2)	3.944	96	1318617	50.000
75) Trichloroethene	(2)	4.309	95	169610M	21.625
76) Methylcyclohexane	(2)	4.497	83	300438	24.615
77) 1,2-Dichloropropane	(2)	4.522	63	158506	22.192
84) Bromodichloromethane	(2)	4.820	83	185251	20.769
89) cis-1,3-Dichloropropene	(2)	5.294	75	228676	21.232
90) 4-Methyl-2-pentanone	(2)	5.483	43	513723	83.463
91)$Toluene-d8	(3)	5.568	98	1360401	49.340
92) Toluene	(3)	5.641	92	424737	20.770
93) trans-1,3-Dichloropropene	(3)	5.903	75	191753	19.575
96) 1,1,2-Trichloroethane	(3)	6.091	97	140373	21.152
98) Tetrachloroethene	(3)	6.225	166	204528	18.259

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/18nov07a.b/bn07l32.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

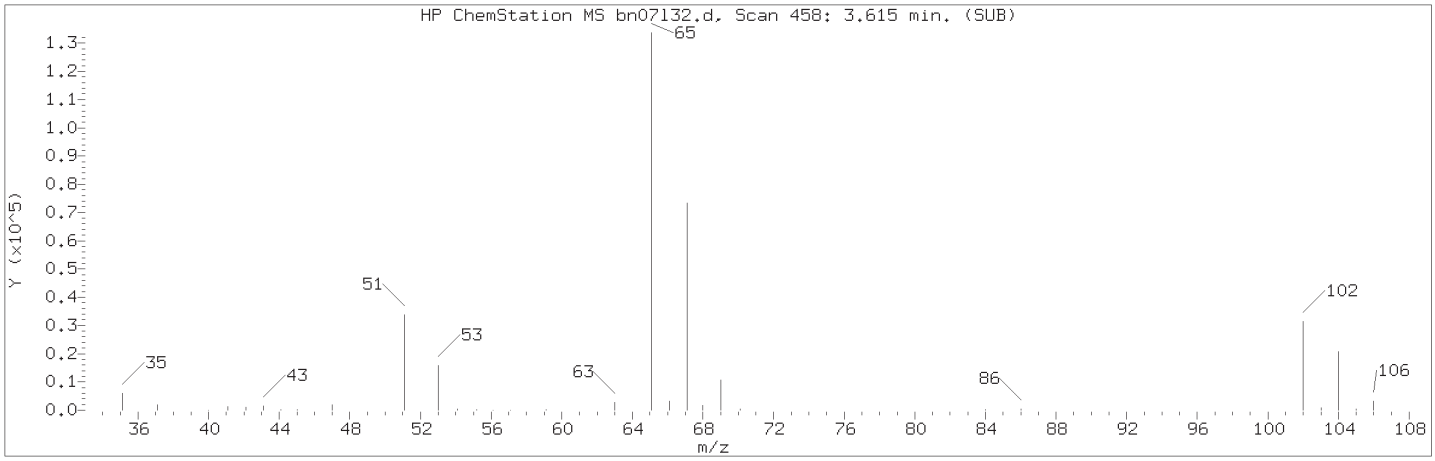
Sample Name: LCDB97 Lab Sample ID: LCDB97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	6.408	43	357914	74.986
103) Dibromochloromethane	(3)	6.505	129	148134	19.375
104) 1,2-Dibromoethane	(3)	6.608	107	137849	20.106
105)*Chlorobenzene-d5	(3)	7.144	117	1068273	50.000
107) Chlorobenzene	(3)	7.174	112	496802	20.807
109) Ethylbenzene	(3)	7.320	91	801235	20.832
110) m+p-Xylene	(3)	7.448	106	664839	42.360
111) o-Xylene	(3)	7.831	106	316650	20.181
113) Styrene	(3)	7.849	104	504815	19.516
112) Xylene (Total)	(3)		106	981489	62.541
114) Bromoform	(3)	7.995	173	81955	17.202
115) Isopropylbenzene	(3)	8.178	105	832597	21.052
118) Cyclohexanone	(1)	8.233	55	104563MA	348.683
119)$4-Bromofluorobenzene	(3)	8.300	95	498906M	49.671
120) 1,1,2,2-Tetrachloroethane	(4)	8.452	83	174964	19.744
138) 1,3-Dichlorobenzene	(4)	9.176	146	440003	20.199
140)*1,4-Dichlorobenzene-d4	(4)	9.224	152	633484	50.000
141) 1,4-Dichlorobenzene	(4)	9.243	146	460253	20.266
147) 1,2-Dichlorobenzene	(4)	9.516	146	432722	20.319
151) 1,2-Dibromo-3-chloropropane	(4)	10.070	75	27173	17.649
153) 1,2,4-Trichlorobenzene	(4)	10.630	180	315642	20.099

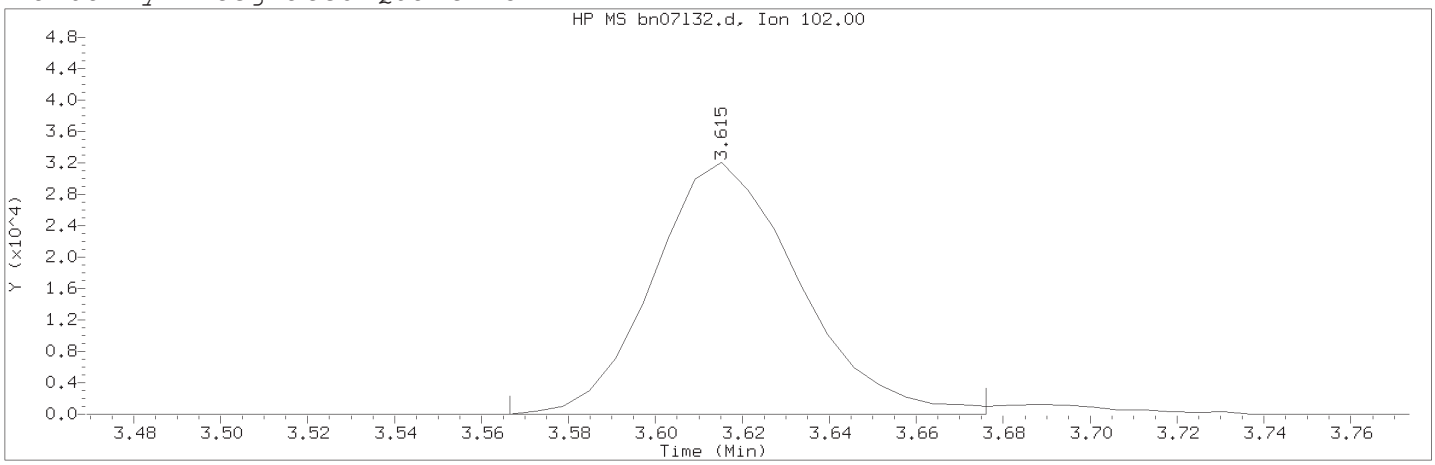
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

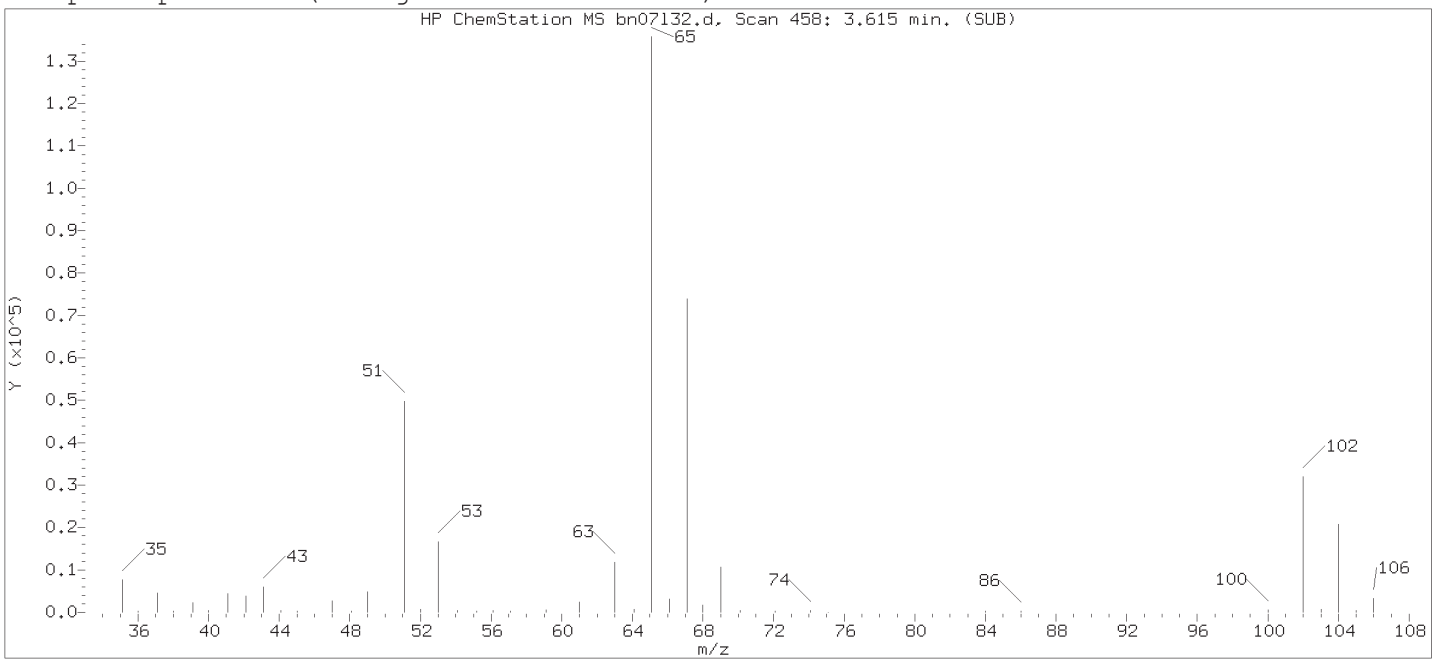
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area (flag) : 74370M
On-Column Amount (ng) : 52.5776
Integration start scan : 449 Integration stop scan: 467
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

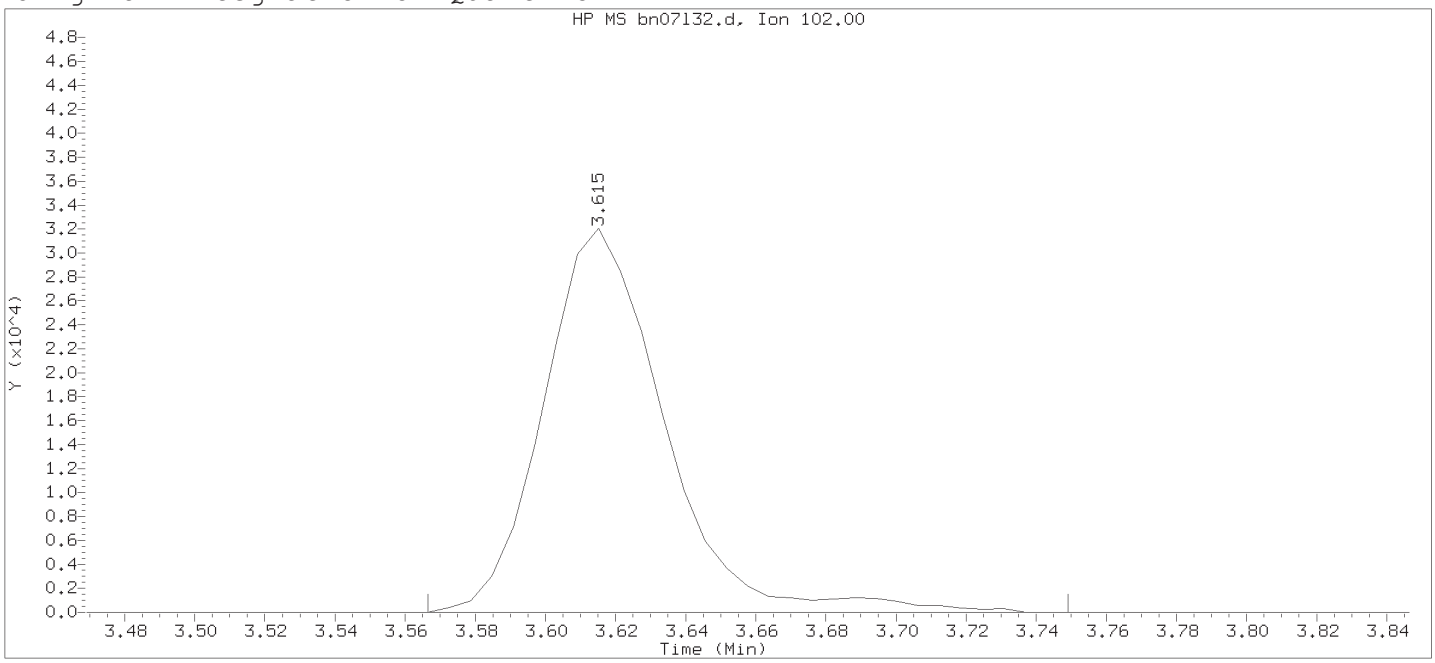
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

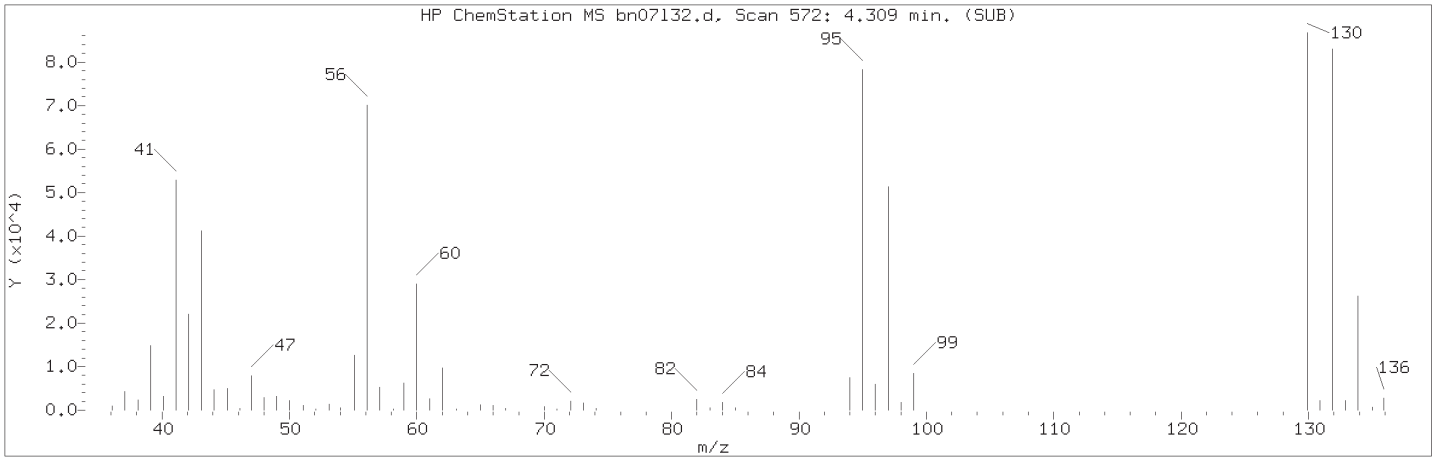
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

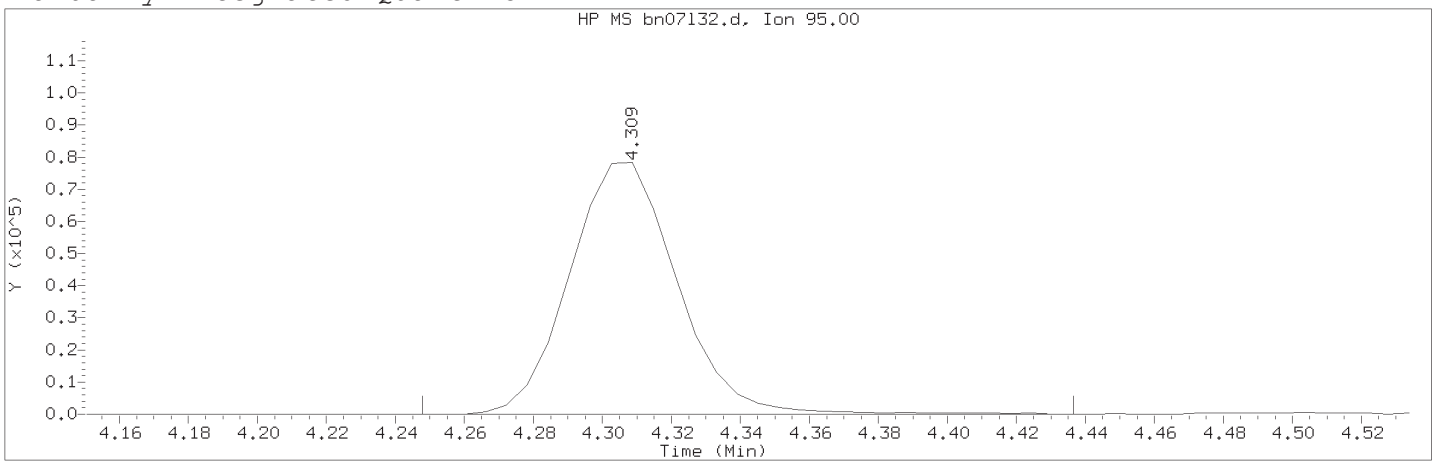
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 458
Retention Time (minutes): 3.615
Quant Ion : 102.00
Area : 76688
On-column Amount (ng) : 54.2168
Integration start scan : 449 Integration stop scan: 479
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used 11/07/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

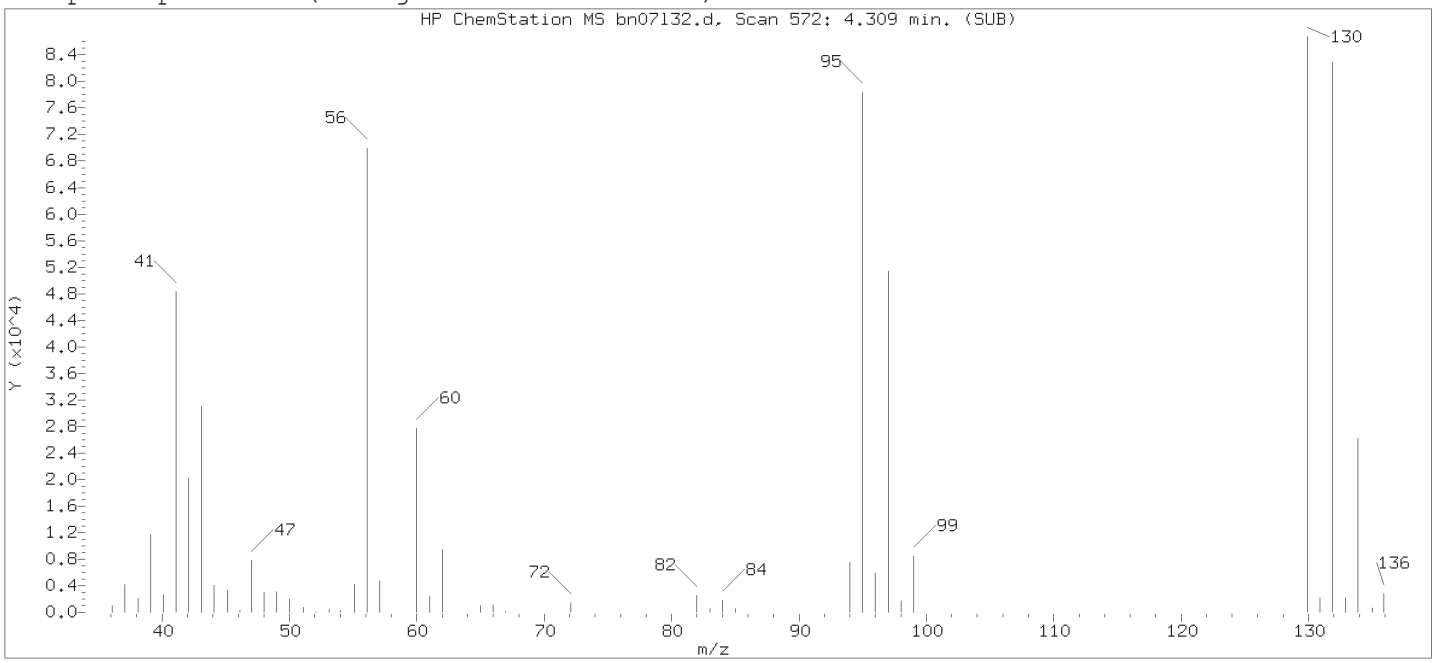
Compound Number : 75
Compound Name : Trichloroethene
Scan Number : 572
Retention Time (minutes): 4.309
Quant Ion : 95.00
Area (flag) : 169610M
On-Column Amount (ng) : 21.6250
Integration start scan : 561 Integration stop scan: 592
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

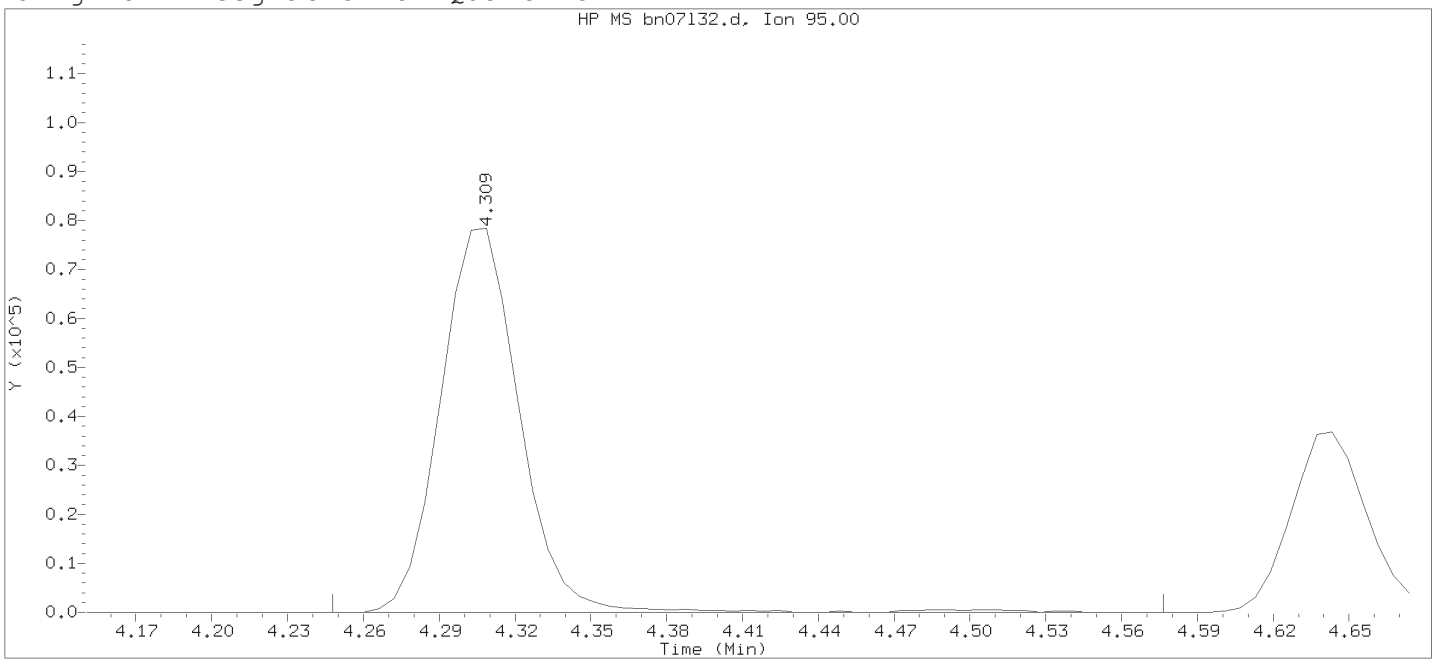
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

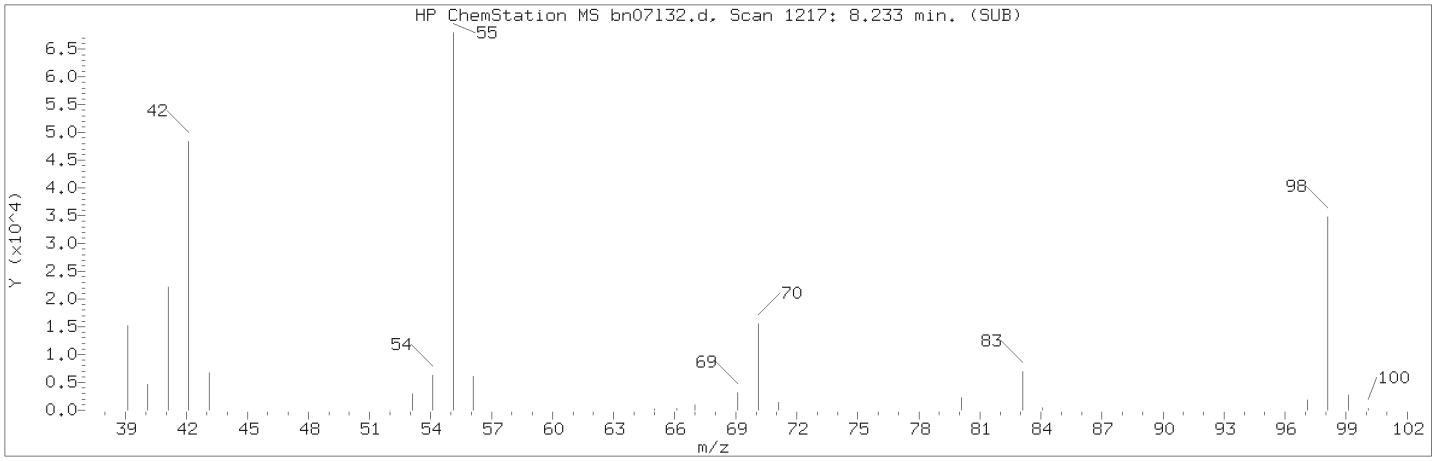
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

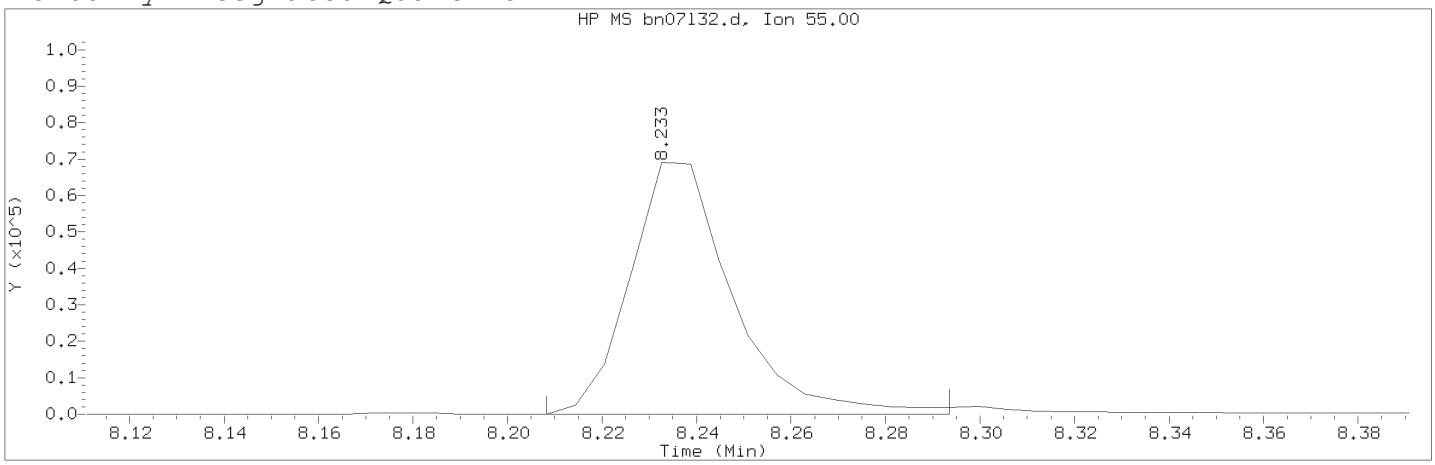
Compound Number : 75
Compound Name : Trichloroethene
Scan Number : 572
Retention Time (minutes): 4.309
Quant Ion : 95.00
Area : 171331
On-column Amount (ng) : 21.8445
Integration start scan : 561 Integration stop scan: 615
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used 11/7/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

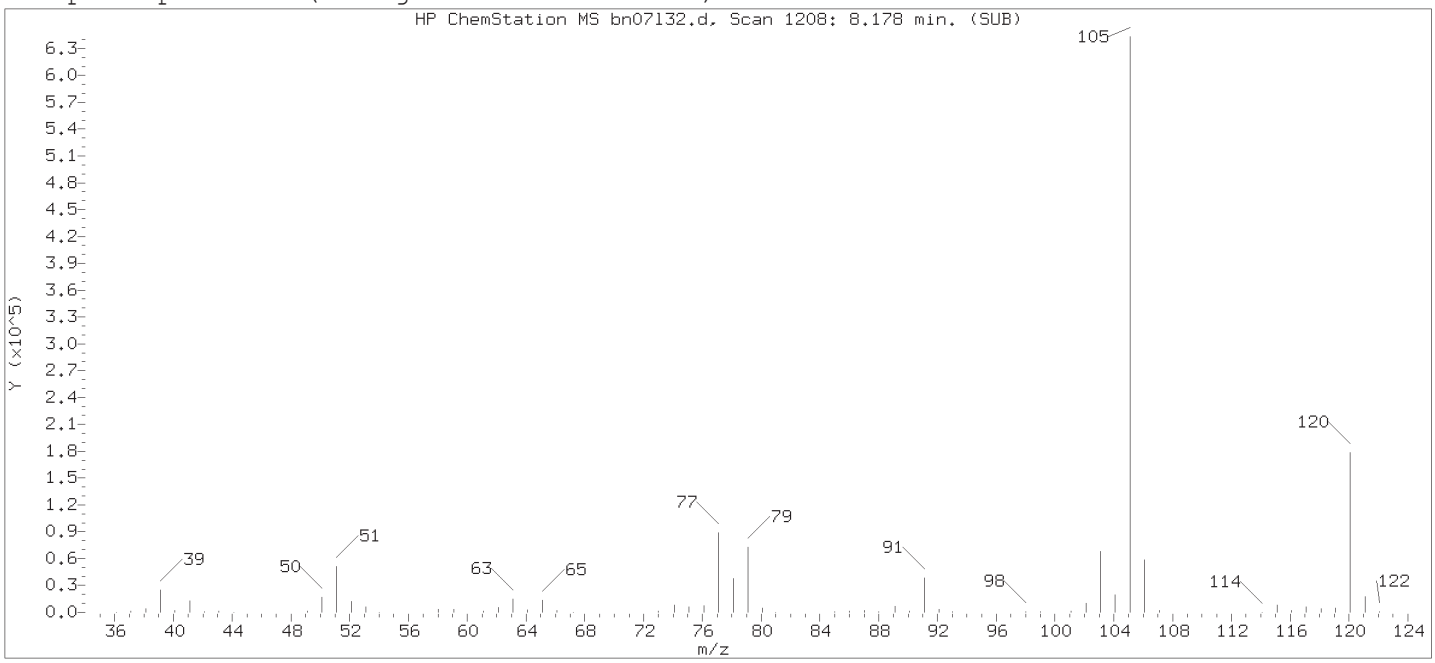
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1217
Retention Time (minutes): 8.233
Quant Ion : 55.00
Area (flag) : 104563MA
On-Column Amount (ng) : 348.6833
Integration start scan : 1212 Integration stop scan: 1226
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

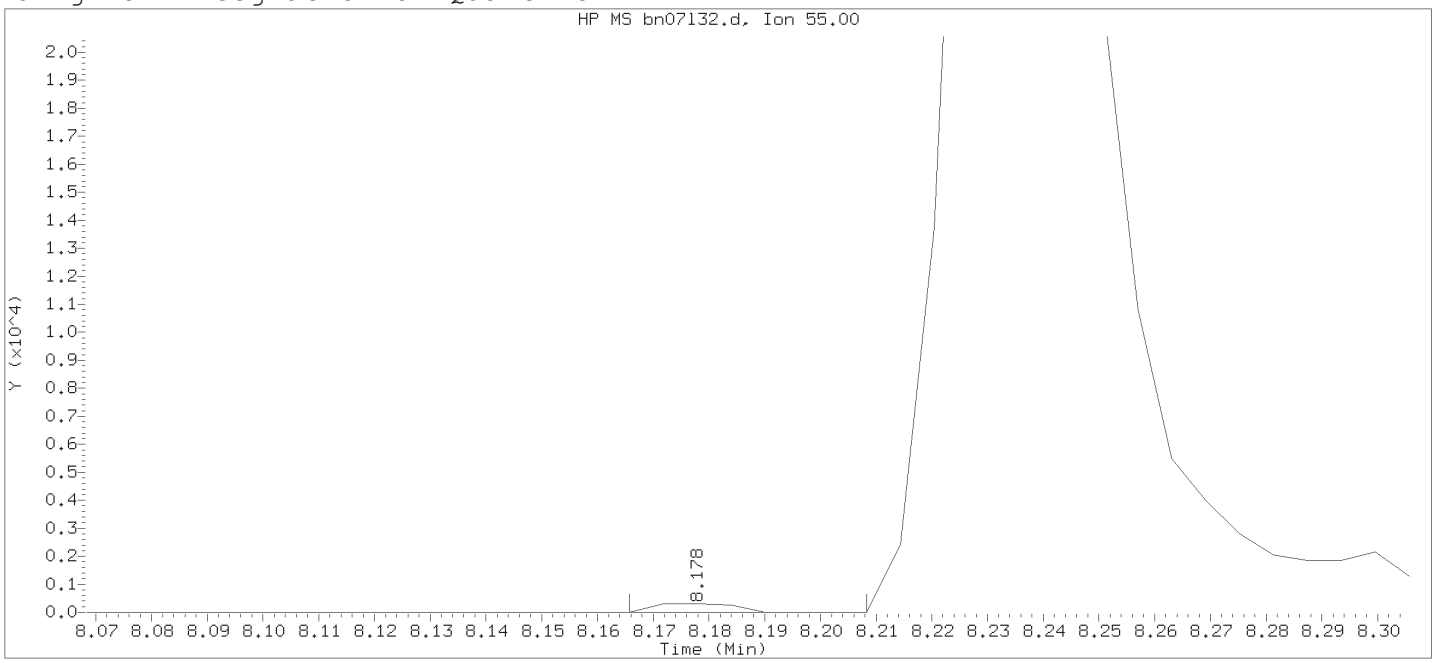
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

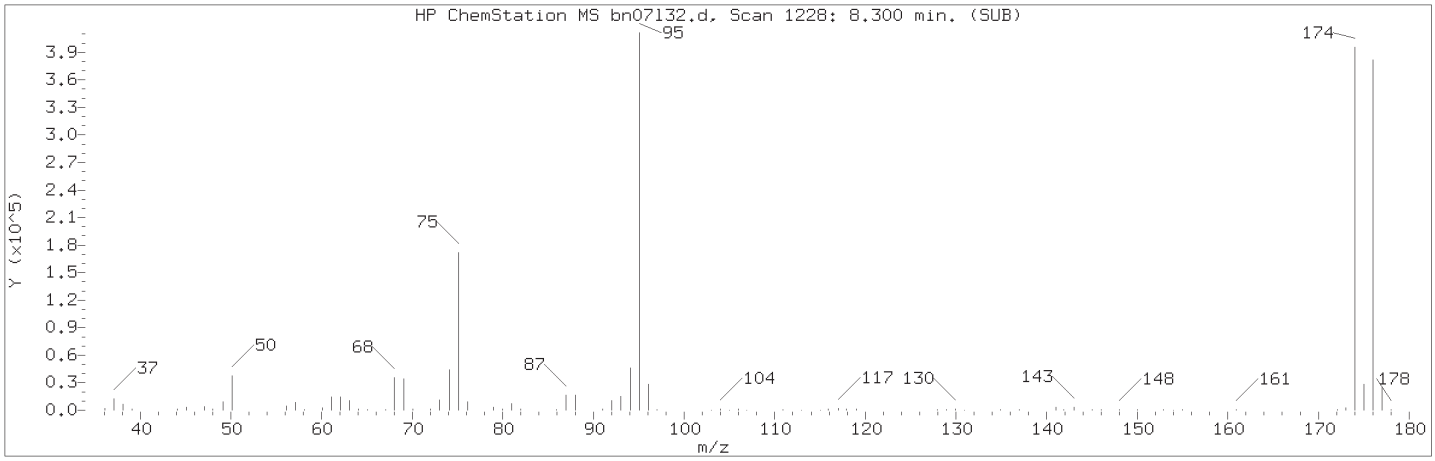
Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

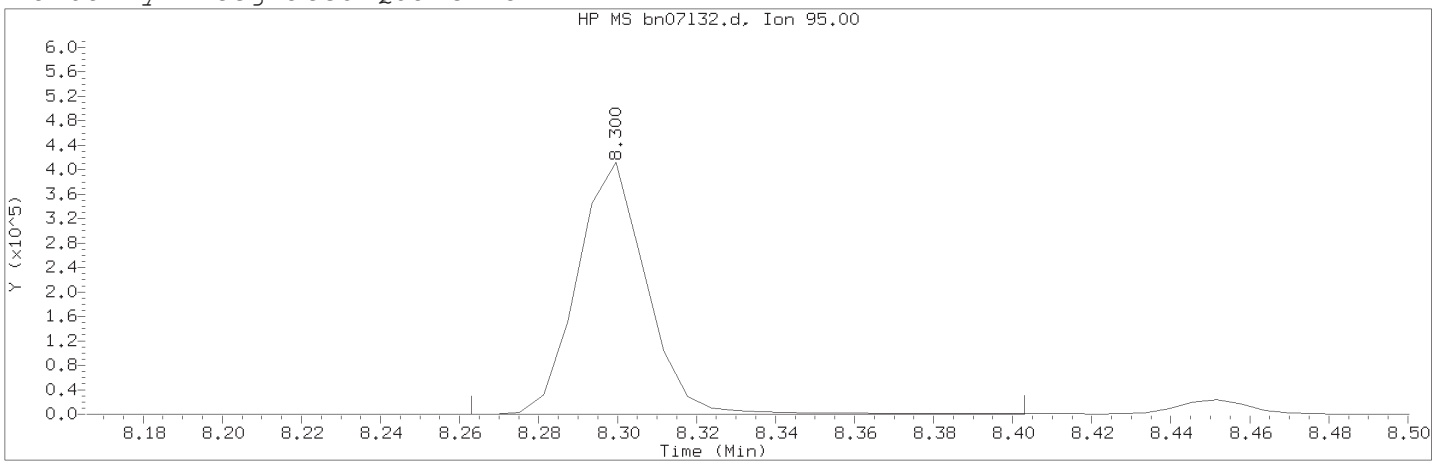
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1208
Retention Time (minutes): 8.178
Quant Ion : 55.00
Area : 319
On-column Amount (ng) : 1.0651
Integration start scan : 1205 Integration stop scan: 1212
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used: D12 Page 1473

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:56 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

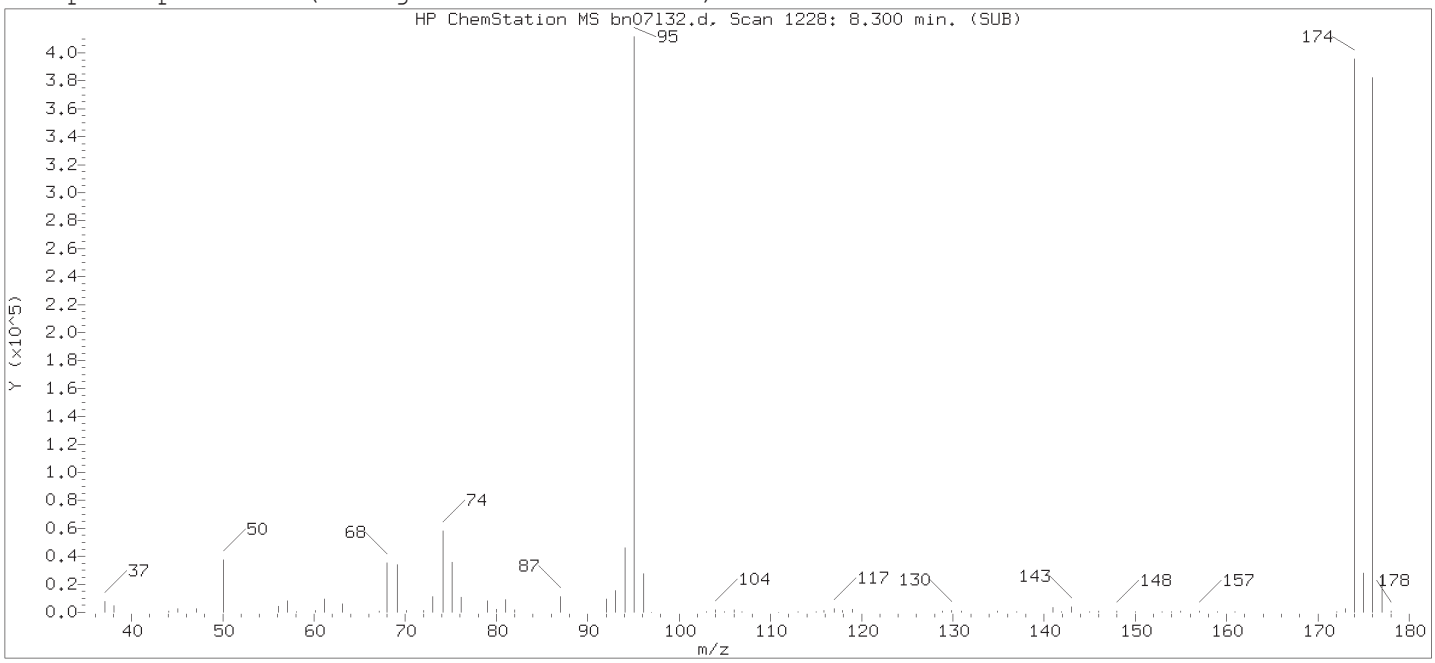
Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area (flag) : 498906M
On-Column Amount (ng) : 49.6714
Integration start scan : 1221 Integration stop scan: 1244
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

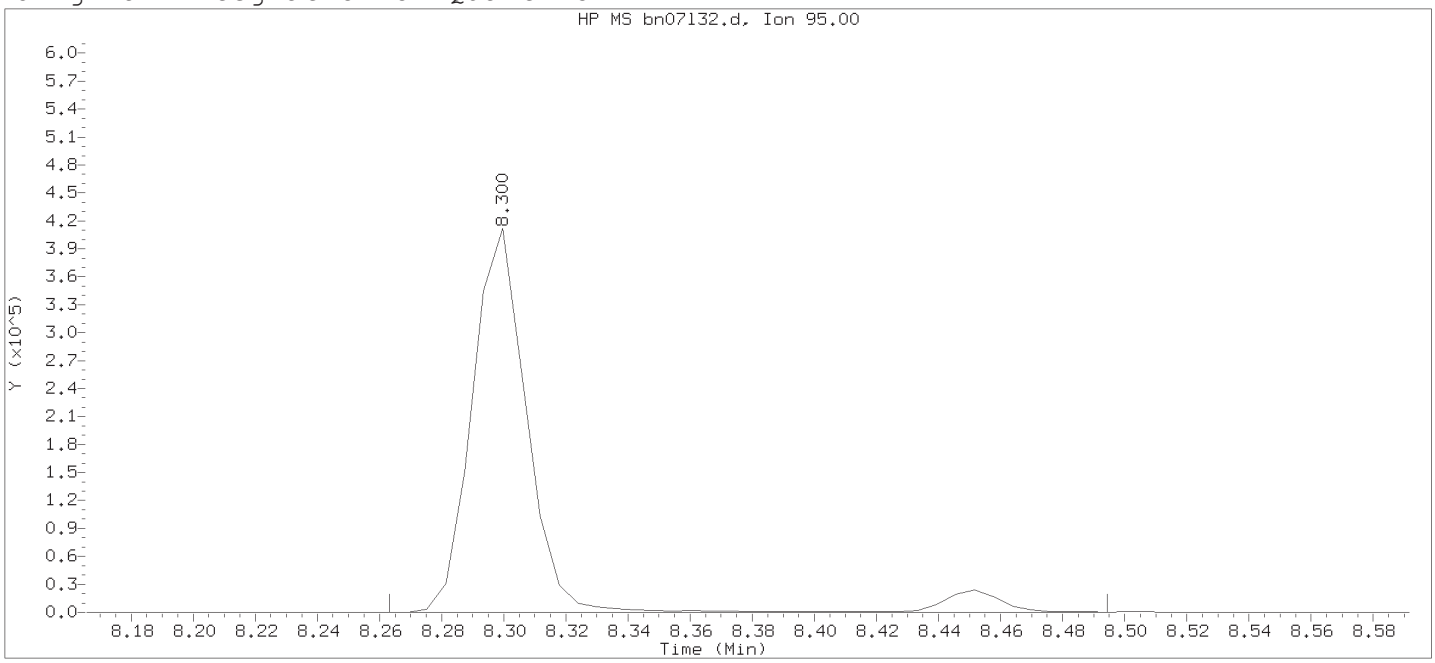
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 11/07/2018 at 11:03.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/12/2018 at 14:12.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/18nov07a.b/bn07132.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2018 09:24 Analyst ID: JKH09052

Method used: /chem2/HP09953.i/18nov07a.b/di8260c.m Sublist used: B183112
Calibration date and time: 07-NOV-2018 10:39
Date, time and analyst ID of latest file update: 07-Nov-2018 10:40 jkh09052

Sample Name: LCDB97 Lab Sample ID: LCDB97

Compound Number : 119
Compound Name : 4-Bromofluorobenzene
Scan Number : 1228
Retention Time (minutes): 8.300
Quant Ion : 95.00
Area : 529222
On-column Amount (ng) : 52.6897
Integration start scan : 1221 Integration stop scan: 1259
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 11/07/2018 at 11:03.
Target 3.5 esignature used.

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSQ57

Data file: /chem/HP07536.i/18nov07a.b/qn07l20.d Injection date and time: **07-NOV-2018 08:42**
Data file Sample Info. Line: LCSQ57;LCSQ57;2;3;LCS;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.006(-0.014)	752	65	160297 (8)	250.00	
70) Fluorobenzene	7.511(-0.004)	1844	96	1245086 (1)	50.00	
105) Chlorobenzene-d5	11.037(-0.001)	2943	117	969940 (0)	50.00	
140) 1,4-Dichlorobenzene-d4	12.930(-0.004)	3533	152	428915 (-1)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.609(0.001)	113	319376	47.150	94%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.077(-0.001)	102	87673	49.779	100%		71 - 136
91) Toluene-d8	(3)	9.548(0.000)	98	1213842	45.843	92%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.045(0.000)	95	382610	45.387	91%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.879(0.000)	85	155165	12.801	640.03			30	250
4) Chloromethane	(2)	2.059(-0.000)	50	175982	13.627	681.33			30	250
5) Vinyl Chloride	(2)	2.165(-0.000)	62	188677	15.016	750.79			30	250
9) Bromomethane	(2)	2.444(-0.000)	94	59136	12.819	640.97			35	250
10) Chloroethane	(2)	2.521(0.000)	64	59935	13.409	670.45			50	250
13) Trichlorofluoromethane	(2)	2.810(0.000)	101	204680	13.319	665.95			35	250
19) 1,1-Dichloroethene	(2)	3.349(0.001)	96	128654	20.822	1041.08			25	250
20) Acetone	(1)	3.384(0.000)	58	91621	118.809	5940.43			300	1000
22) Freon 113	(2)	3.384(-0.000)	101	113709	21.605	1080.23			30	500
25) Carbon Disulfide	(2)	3.670(-0.000)	76	397627	17.701	885.03			30	250
27) Methyl Acetate	(2)	3.779(-0.000)	43	111460	18.408	920.39			50	250
31) Methylene Chloride	(2)	3.997(-0.001)	84	155125	21.026	1051.32			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.382(-0.000)	73	405048	19.162	958.10			25	250
35) trans-1,2-Dichloroethene	(2)	4.388(0.000)	96	151696	21.748	1087.40			25	250
40) 1,1-Dichloroethane	(2)	5.052(0.000)	63	243273	19.510	975.51			25	250
44) 2-Butanone	(1)	5.871(0.003)	43	447154	107.742	5387.10			50	500
45) cis-1,2-Dichloroethene	(2)	5.896(-0.000)	96	164983	21.429	1071.47			25	250
54) Chloroform	(2)	6.391(0.000)	83	237395	19.881	994.05			30	250
57) 1,1,1-Trichloroethane	(2)	6.615(0.000)	97	196672	20.081	1004.06			30	250
58) Cyclohexane	(2)	6.718(0.000)	56	170324	19.852	992.61			25	250
61) Carbon Tetrachloride	(2)	6.833(-0.000)	117	154192	21.550	1077.51			25	250
64) Benzene	(2)	7.096(0.000)	78	559548	20.467	1023.37			25	250
67) 1,2-Dichloroethane	(2)	7.180(-0.000)	62	184226	19.455	972.76			30	250
75) Trichloroethene	(2)	7.995(0.000)	95	136811	20.163	1008.16			25	250
76) Methylcyclohexane	(2)	8.300(0.000)	83	137365	21.036	1051.78			30	250
77) 1,2-Dichloropropane	(2)	8.335(0.000)	63	147103	19.729	986.44			25	250
84) Bromodichloromethane	(2)	8.682(0.000)	83	157951	20.408	1020.41			20	250
89) cis-1,3-Dichloropropene	(2)	9.237(0.000)	75	221844	20.331	1016.55			20	250

Digitally signed by Stephen C. Nolte on 11/07/2018 at 11:00. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07l20.d Injection date and time: **07-NOV-2018 08:42**
Data file Sample Info. Line: LCSQ57;LCSQ57;2;3;LCS;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

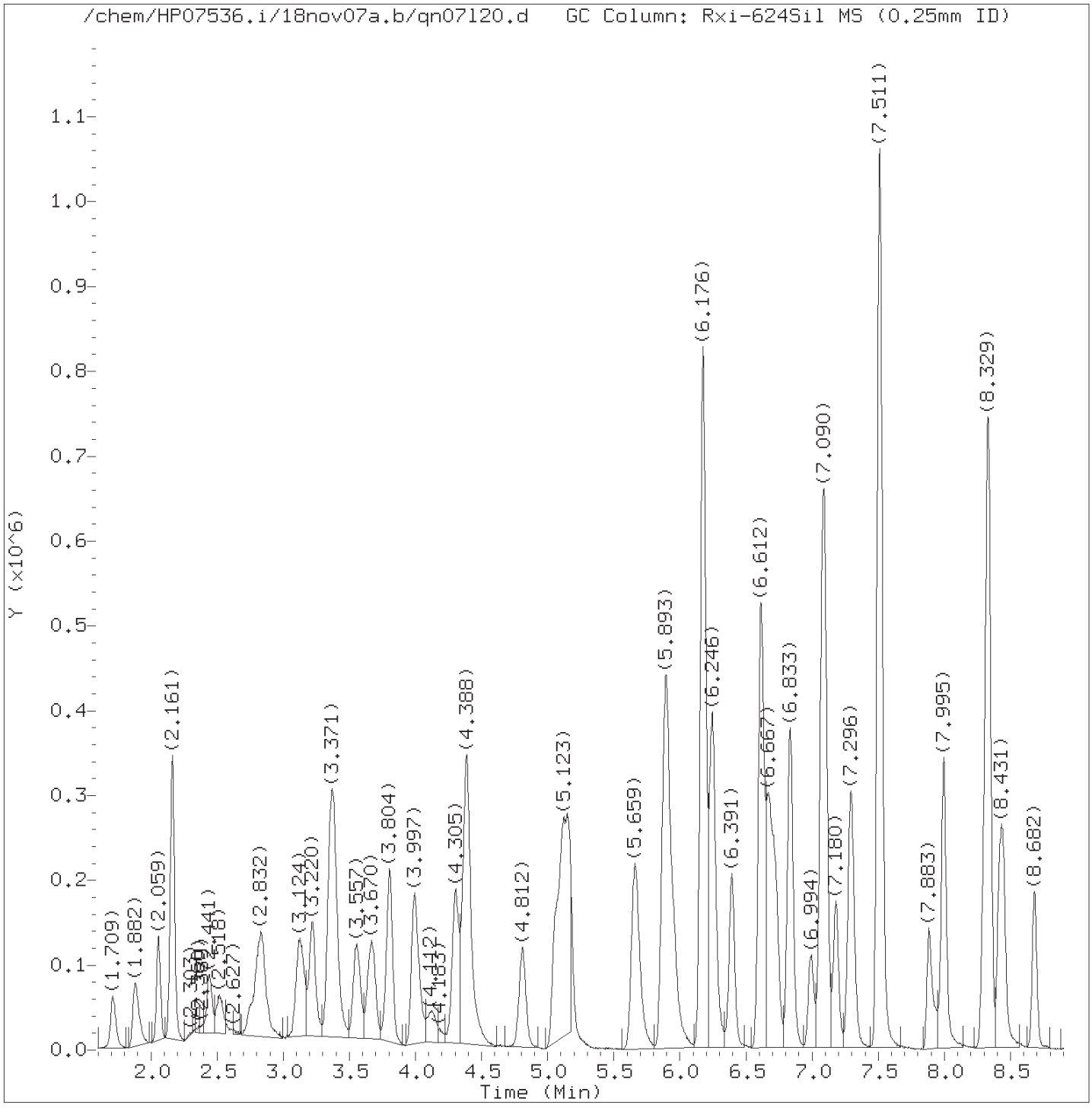
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
90) 4-Methyl-2-pentanone	(2)	9.404(0.000)	43	678068	90.406	4520.28			50	500
92) Toluene	(3)	9.628(-0.000)	92	339253	20.133	1006.66			30	250
93) trans-1,3-Dichloropropene	(3)	9.904(-0.000)	75	196570	18.893	944.66			15	250
96) 1,1,2-Trichloroethane	(3)	10.110(-0.000)	97	136854	20.535	1026.74			25	250
98) Tetrachloroethene	(3)	10.190(0.000)	166	137749	20.488	1024.39			25	250
101) 2-Hexanone	(3)	10.318(-0.000)	43	434604	83.153	4157.65			50	500
103) Dibromochloromethane	(3)	10.495(-0.000)	129	130110	22.025	1101.27			20	250
104) 1,2-Dibromoethane	(3)	10.607(-0.000)	107	139488	19.960	998.02			20	250
107) Chlorobenzene	(3)	11.063(0.000)	112	376593	19.809	990.43			25	250
109) Ethylbenzene	(3)	11.149(-0.000)	91	555984	19.225	961.25			20	250
110) m+p-Xylene	(3)	11.265(-0.000)	106	452985	40.069	2003.45			50	250
111) o-Xylene	(3)	11.592(0.000)	106	220923	19.629	981.44			20	250
112) Xylene (Total)	(3)		106	673908	59.698	2984.89			50	250
113) Styrene	(3)	11.614(-0.000)	104	376920	18.858	942.90			15	250
114) Bromoform	(3)	11.775(0.000)	173	77438	19.665	983.26			250	500
115) Isopropylbenzene	(3)	11.897(0.000)	105	478912	19.940	996.98			20	250
118) Cyclohexanone	(1)	11.974(0.009)	55	117652	452.298	22614.92			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.144(0.000)	83	164844	17.852	892.62			20	250
138) 1,3-Dichlorobenzene	(4)	12.872(0.000)	146	255042	19.821	991.06			25	250
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	284882	19.716	985.78			20	250
147) 1,2-Dichlorobenzene	(4)	13.203(0.000)	146	264545	19.838	991.89			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.752(0.000)	75	22453	15.663	783.13			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.300(0.000)	180	185288	23.016	1150.82			250	500

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/07/2018 at 11:00. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

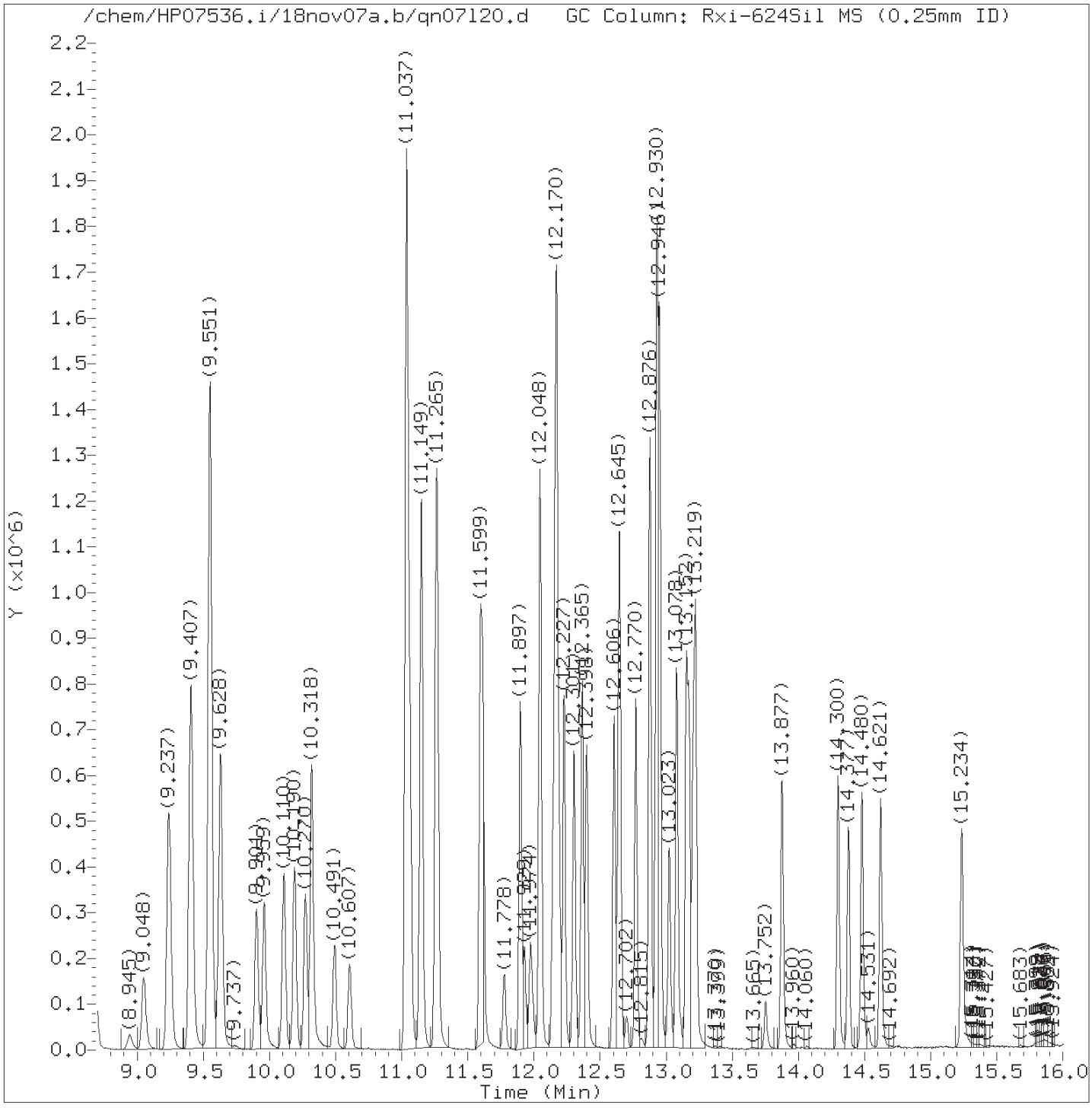
Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07120.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:42 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Sample Name: LCSQ57 Lab Sample ID: LCSQ57

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07120.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:42 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Sample Name: LCSQ57 Lab Sample ID: LCSQ57

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07l20.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:42 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Sample Name: LCSQ57 Lab Sample ID: LCSQ57

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.879	85	155165	12.801
4) Chloromethane	(2)	2.059	50	175982	13.627
5) Vinyl Chloride	(2)	2.165	62	188677	15.016
9) Bromomethane	(2)	2.444	94	59136	12.819
10) Chloroethane	(2)	2.521	64	59935	13.409
13) Trichlorofluoromethane	(2)	2.810	101	204680	13.319
19) 1,1-Dichloroethene	(2)	3.349	96	128654	20.822
20) Acetone	(1)	3.384	58	91621	118.809
22) Freon 113	(2)	3.384	101	113709	21.605
25) Carbon Disulfide	(2)	3.670	76	397627	17.701
27) Methyl Acetate	(2)	3.779	43	111460	18.408
31) Methylene Chloride	(2)	3.997	84	155125	21.026
30)*t-Butyl alcohol-d10	(1)	4.006	65	160297	250.000
34) Methyl Tertiary Butyl Ether	(2)	4.382	73	405048	19.162
35) trans-1,2-Dichloroethene	(2)	4.388	96	151696	21.748
40) 1,1-Dichloroethane	(2)	5.053	63	243273	19.510
44) 2-Butanone	(1)	5.871	43	447154	107.742
45) cis-1,2-Dichloroethene	(2)	5.896	96	164983	21.429
54) Chloroform	(2)	6.391	83	237395	19.881
56)$Dibromofluoromethane	(2)	6.609	113	319376	47.150
57) 1,1,1-Trichloroethane	(2)	6.615	97	196672	20.081
58) Cyclohexane	(2)	6.718	56	170324	19.852
61) Carbon Tetrachloride	(2)	6.833	117	154192	21.550
63)$1,2-Dichloroethane-d4	(2)	7.077	102	87673	49.779
64) Benzene	(2)	7.097	78	559548	20.467
67) 1,2-Dichloroethane	(2)	7.180	62	184226	19.455
70)*Fluorobenzene	(2)	7.511	96	1245086	50.000
75) Trichloroethene	(2)	7.995	95	136811	20.163
76) Methylcyclohexane	(2)	8.300	83	137365	21.036
77) 1,2-Dichloropropane	(2)	8.335	63	147103	19.729
84) Bromodichloromethane	(2)	8.682	83	157951	20.408
89) cis-1,3-Dichloropropene	(2)	9.237	75	221844	20.331
90) 4-Methyl-2-pentanone	(2)	9.404	43	678068	90.406
91)$Toluene-d8	(3)	9.548	98	1213842	45.843
92) Toluene	(3)	9.628	92	339253	20.133
93) trans-1,3-Dichloropropene	(3)	9.904	75	196570	18.893
96) 1,1,2-Trichloroethane	(3)	10.110	97	136854	20.535
98) Tetrachloroethene	(3)	10.190	166	137749	20.488

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07l20.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 08:42 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:50 scn10072

Sample Name: LCSQ57 Lab Sample ID: LCSQ57

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.318	43	434604	83.153
103) Dibromochloromethane	(3)	10.495	129	130110	22.025
104) 1,2-Dibromoethane	(3)	10.607	107	139488	19.960
105)*Chlorobenzene-d5	(3)	11.037	117	969940	50.000
107) Chlorobenzene	(3)	11.063	112	376593	19.809
109) Ethylbenzene	(3)	11.149	91	555984	19.225
110) m+p-Xylene	(3)	11.265	106	452985	40.069
111) o-Xylene	(3)	11.592	106	220923	19.629
113) Styrene	(3)	11.615	104	376920	18.858
112) Xylene (Total)	(3)		106	673908	59.698
114) Bromoform	(3)	11.775	173	77438	19.665
115) Isopropylbenzene	(3)	11.897	105	478912	19.940
118) Cyclohexanone	(1)	11.974	55	117652	452.298
119)$4-Bromofluorobenzene	(3)	12.045	95	382610	45.387
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	164844	17.852
138) 1,3-Dichlorobenzene	(4)	12.872	146	255042	19.821
140)*1,4-Dichlorobenzene-d4	(4)	12.930	152	428915	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	284882	19.716
147) 1,2-Dichlorobenzene	(4)	13.203	146	264545	19.838
151) 1,2-Dibromo-3-chloropropane	(4)	13.752	75	22453	15.663
153) 1,2,4-Trichlorobenzene	(4)	14.300	180	185288	23.016

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov07a.b/qn07l21.d Injection date and time: **07-NOV-2018 09:05**
Data file Sample Info. Line: LCDQ57;LCDQ57;2;3;LCSD;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.991	(0.002)	748	65	140506	(-5)	250.00	
70) Fluorobenzene	7.504	(0.002)	1843	96	1114071	(-10)	50.00	
105) Chlorobenzene-d5	11.034	(0.002)	2943	117	857261	(-11)	50.00	
140) 1,4-Dichlorobenzene-d4	12.927	(-0.001)	3533	152	367825	(-15)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.609	(0.000)	113	313689	51.757	104%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.068	(0.000)	102	86235	54.721	109%		71 - 136
91) Toluene-d8	(3)	9.548	(0.000)	98	1188195	50.773	102%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.045	(0.000)	95	376394	50.518	101%		79 - 119

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	1.886	(-0.000)	85	142863	13.172	658.58			30	250
4) Chloromethane	(2)	2.053	(0.000)	50	173684	15.030	751.52			30	250
5) Vinyl Chloride	(2)	2.158	(0.000)	62	177937	15.826	791.32			30	250
9) Bromomethane	(2)	2.441	(-0.000)	94	53203	12.890	644.48			35	250
10) Chloroethane	(2)	2.515	(0.001)	64	56212	14.055	702.75			50	250
13) Trichlorofluoromethane	(2)	2.807	(0.000)	101	204566	14.877	743.85			35	250
19) 1,1-Dichloroethene	(2)	3.349	(0.001)	96	125845	22.762	1138.11			25	250
20) Acetone	(1)	3.378	(-0.001)	58	89064	131.761	6588.03			300	1000
22) Freon 113	(2)	3.378	(0.000)	101	110797	23.527	1176.34			30	500
25) Carbon Disulfide	(2)	3.657	(0.000)	76	383234	19.066	953.30			30	250
27) Methyl Acetate	(2)	3.782	(-0.001)	43	112276	20.723	1036.16			50	250
31) Methylene Chloride	(2)	3.994	(-0.001)	84	151028	22.879	1143.93			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.376	(-0.000)	73	402517	21.282	1064.08			25	250
35) trans-1,2-Dichloroethene	(2)	4.389	(0.000)	96	145768	23.356	1167.79			25	250
40) 1,1-Dichloroethane	(2)	5.056	(-0.000)	63	233731	20.949	1047.46			25	250
44) 2-Butanone	(1)	5.868	(-0.001)	43	436754	120.059	6002.96			50	500
45) cis-1,2-Dichloroethene	(2)	5.897	(-0.000)	96	159252	23.118	1155.88			25	250
54) Chloroform	(2)	6.391	(-0.000)	83	234761	21.972	1098.62			30	250
57) 1,1,1-Trichloroethane	(2)	6.616	(0.000)	97	189172	21.587	1079.35			30	250
58) Cyclohexane	(2)	6.718	(0.000)	56	165516	21.560	1078.02			25	250
61) Carbon Tetrachloride	(2)	6.827	(0.000)	117	148099	23.133	1156.64			25	250
64) Benzene	(2)	7.097	(-0.000)	78	549785	22.475	1123.76			25	250
67) 1,2-Dichloroethane	(2)	7.180	(-0.000)	62	181927	21.472	1073.59			30	250
75) Trichloroethene	(2)	7.998	(-0.000)	95	134860	22.213	1110.65			25	250
76) Methylcyclohexane	(2)	8.300	(-0.000)	83	132520	22.680	1134.01			30	250
77) 1,2-Dichloropropane	(2)	8.329	(-0.000)	63	147116	22.051	1102.54			25	250
84) Bromodichloromethane	(2)	8.676	(-0.000)	83	156609	22.614	1130.72			20	250
89) cis-1,3-Dichloropropene	(2)	9.240	(-0.000)	75	217105	22.237	1111.83			20	250

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Data file: /chem/HP07536.i/18nov07a.b/qn07l21.d Injection date and time: **07-NOV-2018 09:05**
Data file Sample Info. Line: LCDQ57;LCDQ57;2;3;LCSD;;DODSW;;qn07b20; Instrument ID: **HP07536.i** Batch: **Q183112AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov07a.b/qn07b20.d**

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 07-NOV-2018 10:27
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov07a.b/qn07c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)	9.404(-0.000)	43	668123	99.555	4977.77			50	500
92) Toluene	(3)	9.629(-0.000)	92	326590	21.929	1096.46			30	250
93) trans-1,3-Dichloropropene	(3)	9.901(-0.000)	75	193372	21.029	1051.43			15	250
96) 1,1,2-Trichloroethane	(3)	10.107(-0.000)	97	132607	22.513	1125.64			25	250
98) Tetrachloroethene	(3)	10.190(0.000)	166	132109	22.232	1111.58			25	250
101) 2-Hexanone	(3)	10.318(-0.000)	43	434108	93.975	4698.77			50	500
103) Dibromochloromethane	(3)	10.492(-0.000)	129	129064	24.720	1236.01			20	250
104) 1,2-Dibromoethane	(3)	10.604(-0.000)	107	137338	22.236	1111.80			20	250
107) Chlorobenzene	(3)	11.060(-0.000)	112	366097	21.787	1089.37			25	250
109) Ethylbenzene	(3)	11.150(-0.000)	91	543503	21.264	1063.18			20	250
110) m+p-Xylene	(3)	11.265(-0.000)	106	444470	44.483	2224.17			50	250
111) o-Xylene	(3)	11.596(-0.000)	106	219930	22.109	1105.45			20	250
112) Xylene (Total)	(3)		106	664400	66.592	3329.62			50	250
113) Styrene	(3)	11.615(-0.000)	104	373125	21.122	1056.09			15	250
114) Bromoform	(3)	11.775(-0.000)	173	77004	21.782	1089.09			250	500
115) Isopropylbenzene	(3)	11.897(-0.000)	105	473296	22.296	1114.79			20	250
118) Cyclohexanone	(1)	11.977(-0.002)	55	111538	489.192	24459.59			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.144(-0.000)	83	168567	21.288	1064.38			20	250
138) 1,3-Dichlorobenzene	(4)	12.873(0.000)	146	248791	22.547	1127.33			25	250
141) 1,4-Dichlorobenzene	(4)	12.946(0.000)	146	272024	21.952	1097.62			20	250
147) 1,2-Dichlorobenzene	(4)	13.203(0.000)	146	254825	22.283	1114.13			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.749(0.000)	75	22456	18.266	913.32			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.297(0.000)	180	170919	24.758	1237.88			250	500

Total number of targets = 51

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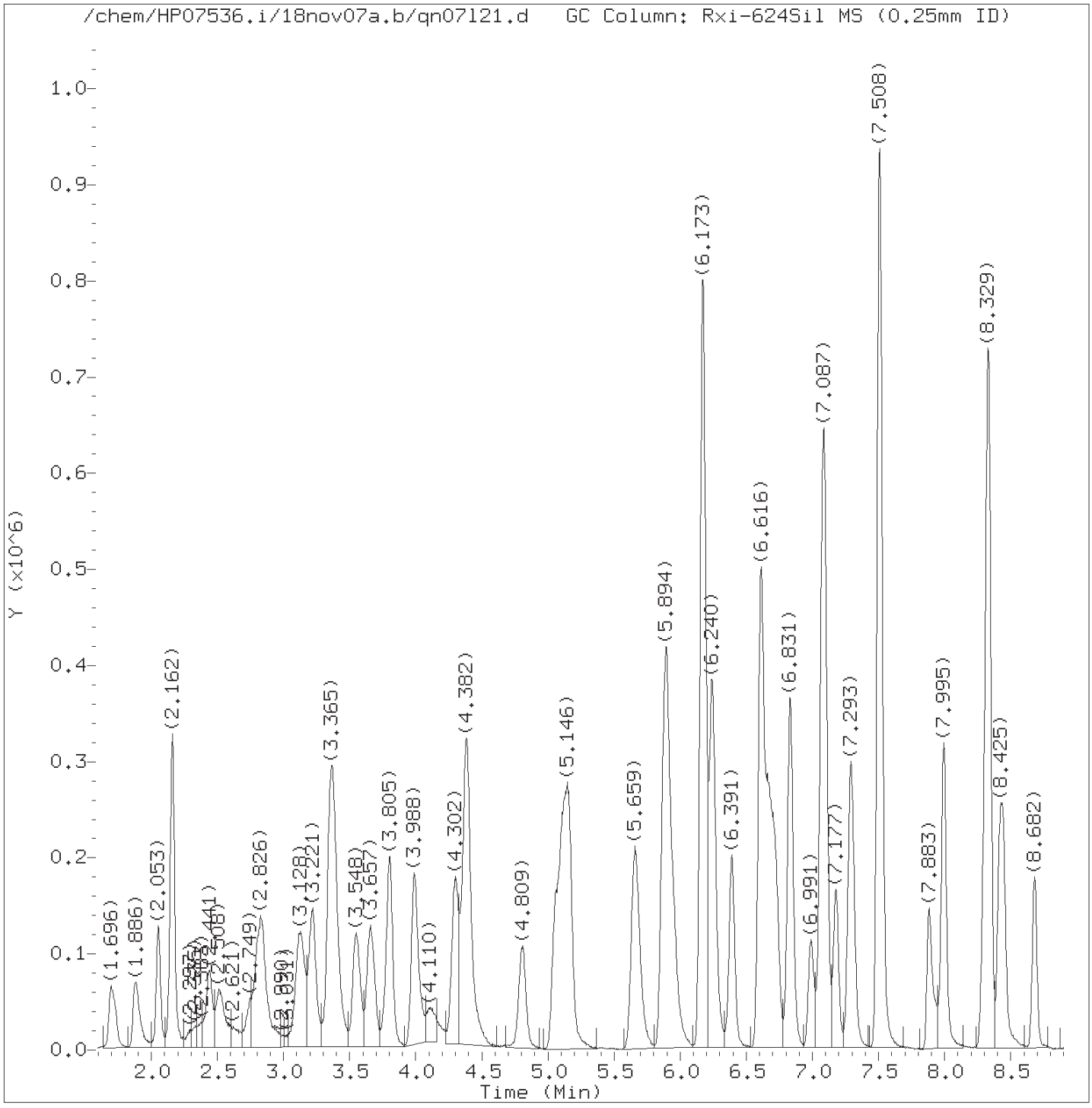
Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:42. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07121.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 09:05 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Sample Name: LCDQ57 Lab Sample ID: LCDQ57

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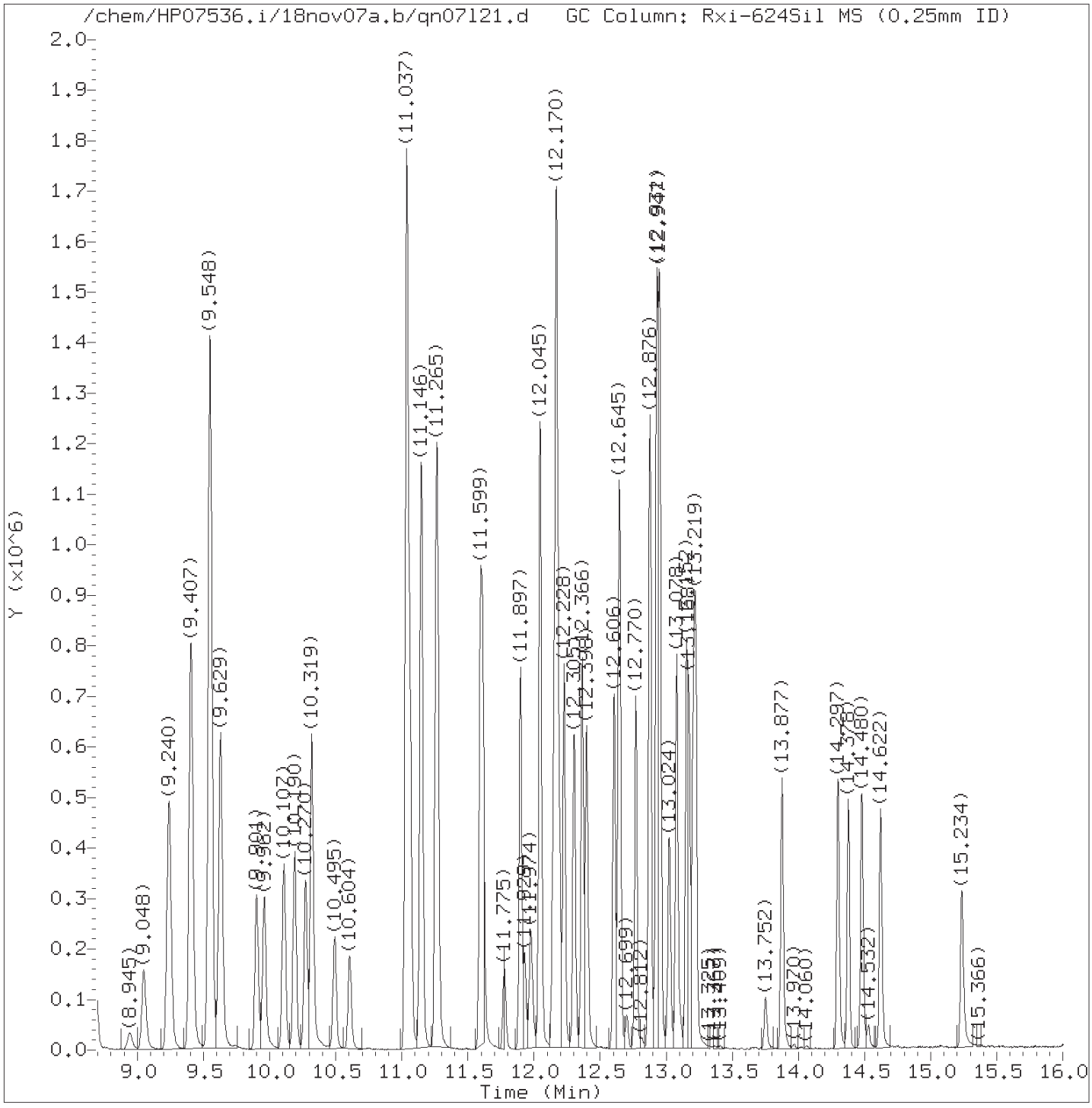
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07l21.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 09:05 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Sample Name: LCDQ57 Lab Sample ID: LCDQ57

Digitally signed by Stephen C. Nolte
on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07l21.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 09:05 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Sample Name: LCDQ57 Lab Sample ID: LCDQ57

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.886	85	142863	13.172
4) Chloromethane	(2)	2.053	50	173684	15.030
5) Vinyl Chloride	(2)	2.159	62	177937	15.826
9) Bromomethane	(2)	2.441	94	53203	12.890
10) Chloroethane	(2)	2.515	64	56212	14.055
13) Trichlorofluoromethane	(2)	2.807	101	204566	14.877
19) 1,1-Dichloroethene	(2)	3.349	96	125845	22.762
20) Acetone	(1)	3.378	58	89064	131.761
22) Freon 113	(2)	3.378	101	110797	23.527
25) Carbon Disulfide	(2)	3.657	76	383234	19.066
27) Methyl Acetate	(2)	3.782	43	112276	20.723
30)*t-Butyl alcohol-d10	(1)	3.991	65	140506	250.000
31) Methylene Chloride	(2)	3.994	84	151028	22.879
34) Methyl Tertiary Butyl Ether	(2)	4.376	73	402517	21.282
35) trans-1,2-Dichloroethene	(2)	4.389	96	145768	23.356
40) 1,1-Dichloroethane	(2)	5.056	63	233731	20.949
44) 2-Butanone	(1)	5.868	43	436754	120.059
45) cis-1,2-Dichloroethene	(2)	5.897	96	159252	23.118
54) Chloroform	(2)	6.391	83	234761	21.972
56)$Dibromofluoromethane	(2)	6.609	113	313689	51.757
57) 1,1,1-Trichloroethane	(2)	6.616	97	189172	21.587
58) Cyclohexane	(2)	6.718	56	165516	21.560
61) Carbon Tetrachloride	(2)	6.827	117	148099	23.133
63)$1,2-Dichloroethane-d4	(2)	7.068	102	86235	54.721
64) Benzene	(2)	7.097	78	549785	22.475
67) 1,2-Dichloroethane	(2)	7.180	62	181927	21.472
70)*Fluorobenzene	(2)	7.504	96	1114071	50.000
75) Trichloroethene	(2)	7.999	95	134860	22.213
76) Methylcyclohexane	(2)	8.300	83	132520	22.680
77) 1,2-Dichloropropane	(2)	8.329	63	147116	22.051
84) Bromodichloromethane	(2)	8.676	83	156609	22.614
89) cis-1,3-Dichloropropene	(2)	9.240	75	217105	22.237
90) 4-Methyl-2-pentanone	(2)	9.404	43	668123	99.555
91)$Toluene-d8	(3)	9.548	98	1188195	50.773
92) Toluene	(3)	9.629	92	326590	21.929
93) trans-1,3-Dichloropropene	(3)	9.901	75	193372	21.029
96) 1,1,2-Trichloroethane	(3)	10.107	97	132607	22.513
98) Tetrachloroethene	(3)	10.190	166	132109	22.232

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov07a.b/qn07l21.d Instrument ID: HP07536.i
Injection date and time: 07-NOV-2018 09:05 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov07a.b/me8260c.m Sublist used: 25809
Calibration date and time: 07-NOV-2018 10:27
Date, time and analyst ID of latest file update: 07-Nov-2018 10:51 scn10072

Sample Name: LCDQ57 Lab Sample ID: LCDQ57

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.319	43	434108	93.975
103) Dibromochloromethane	(3)	10.492	129	129064	24.720
104) 1,2-Dibromoethane	(3)	10.604	107	137338	22.236
105)*Chlorobenzene-d5	(3)	11.034	117	857261	50.000
107) Chlorobenzene	(3)	11.060	112	366097	21.787
109) Ethylbenzene	(3)	11.150	91	543503	21.264
110) m+p-Xylene	(3)	11.265	106	444470	44.483
111) o-Xylene	(3)	11.596	106	219930	22.109
113) Styrene	(3)	11.615	104	373125	21.122
112) Xylene (Total)	(3)		106	664400	66.592
114) Bromoform	(3)	11.775	173	77004	21.782
115) Isopropylbenzene	(3)	11.897	105	473296	22.296
118) Cyclohexanone	(1)	11.977	55	111538	489.192
119)$4-Bromofluorobenzene	(3)	12.045	95	376394	50.518
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	168567	21.288
138) 1,3-Dichlorobenzene	(4)	12.873	146	248791	22.547
140)*1,4-Dichlorobenzene-d4	(4)	12.927	152	367825	50.000
141) 1,4-Dichlorobenzene	(4)	12.947	146	272024	21.952
147) 1,2-Dichlorobenzene	(4)	13.203	146	254825	22.283
151) 1,2-Dibromo-3-chloropropane	(4)	13.749	75	22456	18.266
153) 1,2,4-Trichlorobenzene	(4)	14.297	180	170919	24.758

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/07/2018 at 11:00.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSQ62

Data file: /chem/HP07536.i/18nov08a.b/qn08l20.d Injection date and time: **08-NOV-2018 09:20**
Data file Sample Info. Line: LCSQ62;LCSQ62;2;3;LCS;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	3.991(0.013)	748	65	147631 (10)	250.00	
70) Fluorobenzene	7.508(0.000)	1844	96	1199151 (10)	50.00	
105) Chlorobenzene-d5	11.034(0.000)	2943	117	942100 (9)	50.00	
140) 1,4-Dichlorobenzene-d4	12.928(0.000)	3533	152	406561 (6)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.609(0.000)	113	309294	47.411	95%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.078(-0.001)	102	84215	49.647	99%		71 - 136
91) Toluene-d8	(3)	9.549(0.000)	98	1181595	45.944	92%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.045(0.000)	95	362566	44.280	89%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.876(0.000)	85	118837	10.179	508.96			30	250
4) Chloromethane	(2)	2.056(-0.000)	50	156600	12.590	629.52			30	250
5) Vinyl Chloride	(2)	2.162(-0.000)	62	166874	13.789	689.47			30	250
9) Bromomethane	(2)	2.441(0.000)	94	55421	12.474	623.71			35	250
10) Chloroethane	(2)	2.521(0.000)	64	56691	13.169	658.45			50	250
13) Trichlorofluoromethane	(2)	2.807(0.000)	101	202875	13.707	685.36			35	250
19) 1,1-Dichloroethene	(2)	3.362(-0.000)	96	123987	20.835	1041.75			25	250
20) Acetone	(1)	3.385(-0.005)	58	84171	118.512	5925.61			300	1000
22) Freon 113	(2)	3.381(0.001)	101	107781	21.263	1063.13			30	500
25) Carbon Disulfide	(2)	3.670(-0.000)	76	369527	17.080	853.99			30	250
27) Methyl Acetate	(2)	3.779(-0.000)	43	106650	18.288	914.41			50	250
31) Methylene Chloride	(2)	3.991(-0.000)	84	148244	20.863	1043.17			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.379(-0.000)	73	385361	18.929	946.45			25	250
35) trans-1,2-Dichloroethene	(2)	4.392(-0.000)	96	141594	21.077	1053.87			25	250
40) 1,1-Dichloroethane	(2)	5.060(-0.000)	63	232513	19.361	968.07			25	250
44) 2-Butanone	(1)	5.871(-0.006)	43	418343	109.448	5472.41			50	500
45) cis-1,2-Dichloroethene	(2)	5.904(-0.000)	96	159780	21.549	1077.43			25	250
54) Chloroform	(2)	6.391(-0.000)	83	226812	19.722	986.11			30	250
57) 1,1,1-Trichloroethane	(2)	6.619(-0.000)	97	187377	19.865	993.25			30	250
58) Cyclohexane	(2)	6.718(-0.000)	56	160743	19.453	972.66			25	250
61) Carbon Tetrachloride	(2)	6.831(-0.000)	117	145294	21.084	1054.22			25	250
64) Benzene	(2)	7.097(-0.000)	78	532409	20.221	1011.04			25	250
67) 1,2-Dichloroethane	(2)	7.184(-0.000)	62	174148	19.095	954.77			30	250
75) Trichloroethene	(2)	7.992(-0.000)	95	134995	20.658	1032.88			25	250
76) Methylcyclohexane	(2)	8.304(0.000)	83	132674	21.096	1054.78			30	250
77) 1,2-Dichloropropane	(2)	8.332(0.000)	63	143084	19.925	996.24			25	250
84) Bromodichloromethane	(2)	8.679(0.000)	83	153420	20.582	1029.11			20	250
89) cis-1,3-Dichloropropene	(2)	9.237(-0.000)	75	214994	20.458	1022.90			20	250

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:36. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08l20.d Injection date and time: **08-NOV-2018 09:20**
Data file Sample Info. Line: LCSQ62;LCSQ62;2;3;LCS;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

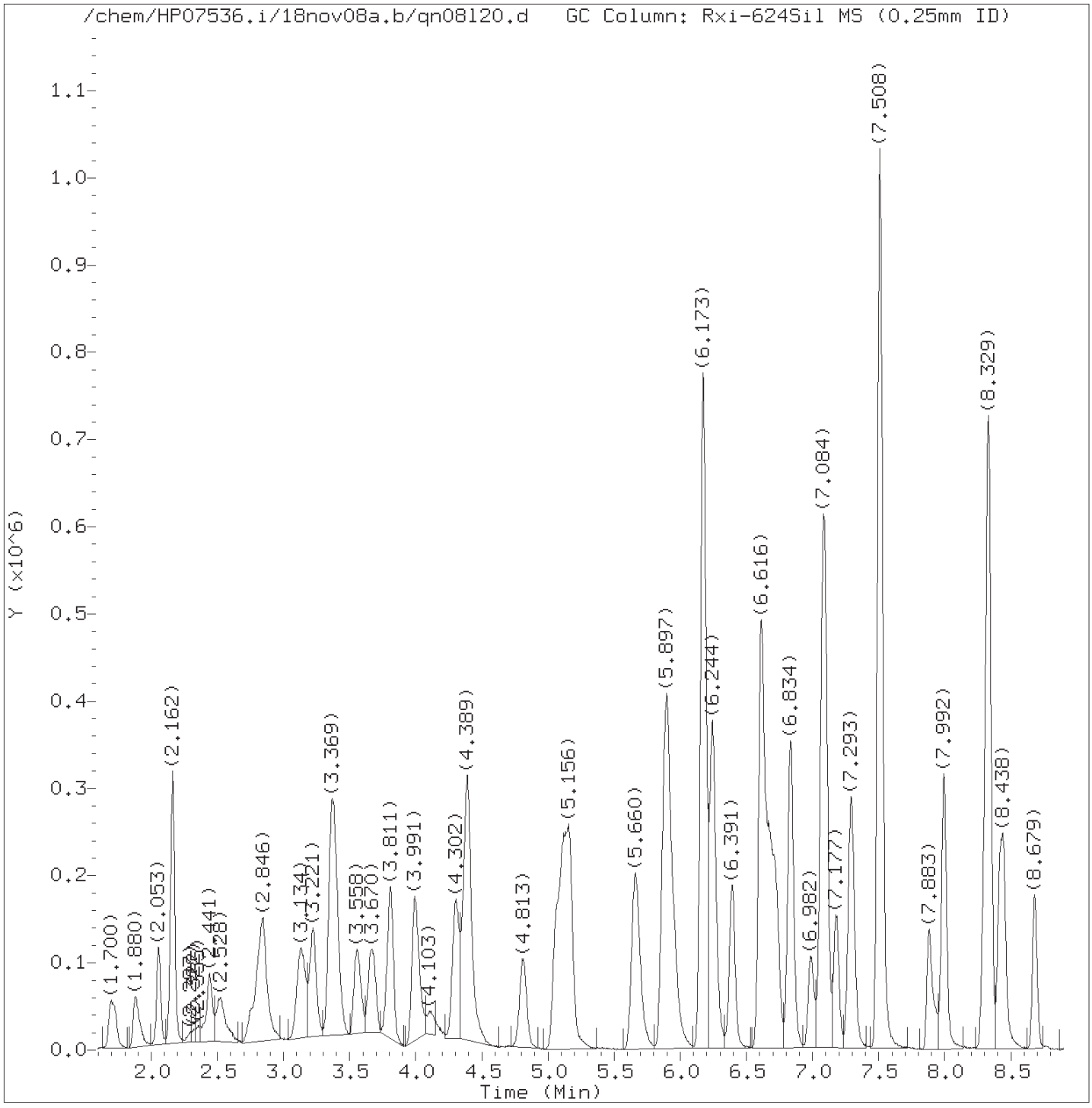
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)	9.408(-0.000)	43	659515	91.300	4565.01			50	500
92) Toluene	(3)	9.629(-0.000)	92	329336	20.122	1006.11			30	250
93) trans-1,3-Dichloropropene	(3)	9.902(-0.000)	75	190547	18.855	942.77			15	250
96) 1,1,2-Trichloroethane	(3)	10.107(-0.000)	97	133465	20.618	1030.90			25	250
98) Tetrachloroethene	(3)	10.187(0.000)	166	131708	20.168	1008.41			25	250
101) 2-Hexanone	(3)	10.319(0.000)	43	428381	84.384	4219.22			50	500
103) Dibromochloromethane	(3)	10.489(0.000)	129	124628	21.721	1086.05			20	250
104) 1,2-Dibromoethane	(3)	10.604(0.000)	107	136467	20.105	1005.26			20	250
107) Chlorobenzene	(3)	11.063(0.000)	112	367728	19.914	995.69			25	250
109) Ethylbenzene	(3)	11.150(-0.000)	91	539392	19.202	960.12			20	250
110) m+p-Xylene	(3)	11.265(0.000)	106	435179	39.631	1981.57			50	250
111) o-Xylene	(3)	11.596(-0.000)	106	217354	19.882	994.12			20	250
112) Xylene (Total)	(3)		106	652533	59.514	2975.69			50	250
113) Styrene	(3)	11.612(0.000)	104	368830	18.999	949.93			15	250
114) Bromoform	(3)	11.776(-0.000)	173	76507	19.956	997.80			250	500
115) Isopropylbenzene	(3)	11.898(0.000)	105	462856	19.841	992.03			20	250
118) Cyclohexanone	(1)	11.971(-0.008)	55	102460A	427.689	21384.44			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.145(-0.000)	83	164903	18.841	942.04			20	250
138) 1,3-Dichlorobenzene	(4)	12.873(-0.000)	146	246337	20.197	1009.86			25	250
141) 1,4-Dichlorobenzene	(4)	12.947(-0.000)	146	272901	19.925	996.24			20	250
147) 1,2-Dichlorobenzene	(4)	13.204(0.000)	146	253566	20.060	1002.99			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.749(0.000)	75	21862	16.089	804.44			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.301(-0.000)	180	188752	24.736	1236.79			250	500

A = User selected an alternate peak.

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:36. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:51. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

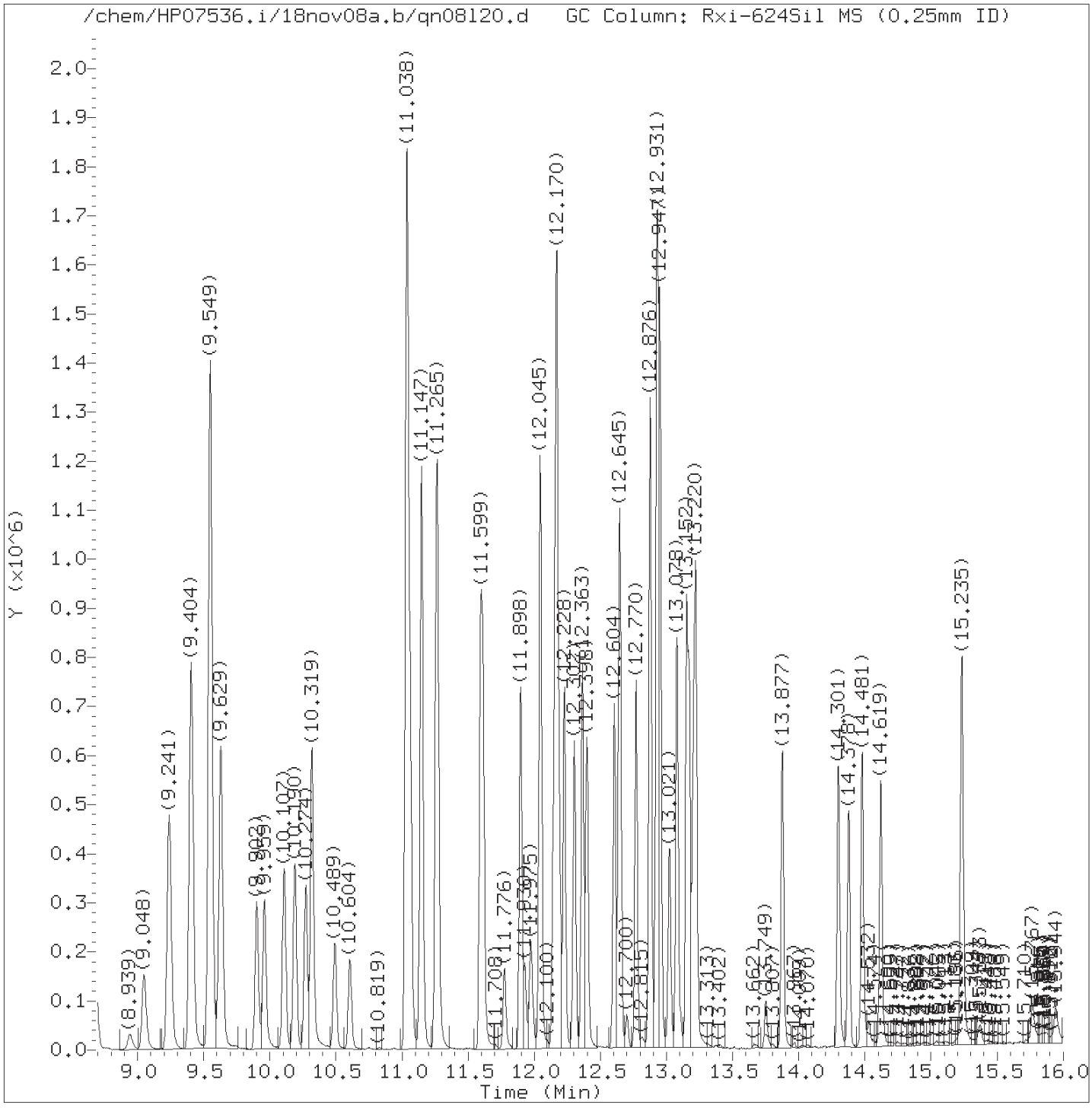
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: LCSQ62 Lab Sample ID: LCSQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: LCSQ62 Lab Sample ID: LCSQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: LCSQ62 Lab Sample ID: LCSQ62

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.876	85	118837	10.179
4) Chloromethane	(2)	2.056	50	156600	12.590
5) Vinyl Chloride	(2)	2.162	62	166874	13.789
9) Bromomethane	(2)	2.441	94	55421	12.474
10) Chloroethane	(2)	2.521	64	56691	13.169
13) Trichlorofluoromethane	(2)	2.807	101	202875	13.707
19) 1,1-Dichloroethene	(2)	3.362	96	123987	20.835
22) Freon 113	(2)	3.381	101	107781	21.263
20) Acetone	(1)	3.385	58	84171	118.512
25) Carbon Disulfide	(2)	3.670	76	369527	17.080
27) Methyl Acetate	(2)	3.779	43	106650	18.288
30)*t-Butyl alcohol-d10	(1)	3.991	65	147631	250.000
31) Methylene Chloride	(2)	3.991	84	148244	20.863
34) Methyl Tertiary Butyl Ether	(2)	4.379	73	385361	18.929
35) trans-1,2-Dichloroethene	(2)	4.392	96	141594	21.077
40) 1,1-Dichloroethane	(2)	5.060	63	232513	19.361
44) 2-Butanone	(1)	5.871	43	418343	109.448
45) cis-1,2-Dichloroethene	(2)	5.904	96	159780	21.549
54) Chloroform	(2)	6.391	83	226812	19.722
56)$Dibromofluoromethane	(2)	6.609	113	309294	47.411
57) 1,1,1-Trichloroethane	(2)	6.619	97	187377	19.865
58) Cyclohexane	(2)	6.719	56	160743	19.453
61) Carbon Tetrachloride	(2)	6.831	117	145294	21.084
63)$1,2-Dichloroethane-d4	(2)	7.078	102	84215	49.647
64) Benzene	(2)	7.097	78	532409	20.221
67) 1,2-Dichloroethane	(2)	7.184	62	174148	19.095
70)*Fluorobenzene	(2)	7.508	96	1199151	50.000
75) Trichloroethene	(2)	7.992	95	134995	20.658
76) Methylcyclohexane	(2)	8.304	83	132674	21.096
77) 1,2-Dichloropropane	(2)	8.333	63	143084	19.925
84) Bromodichloromethane	(2)	8.679	83	153420	20.582
89) cis-1,3-Dichloropropene	(2)	9.237	75	214994	20.458
90) 4-Methyl-2-pentanone	(2)	9.408	43	659515	91.300
91)$Toluene-d8	(3)	9.549	98	1181595	45.944
92) Toluene	(3)	9.629	92	329336	20.122
93) trans-1,3-Dichloropropene	(3)	9.902	75	190547	18.855
96) 1,1,2-Trichloroethane	(3)	10.107	97	133465	20.618
98) Tetrachloroethene	(3)	10.187	166	131708	20.168

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

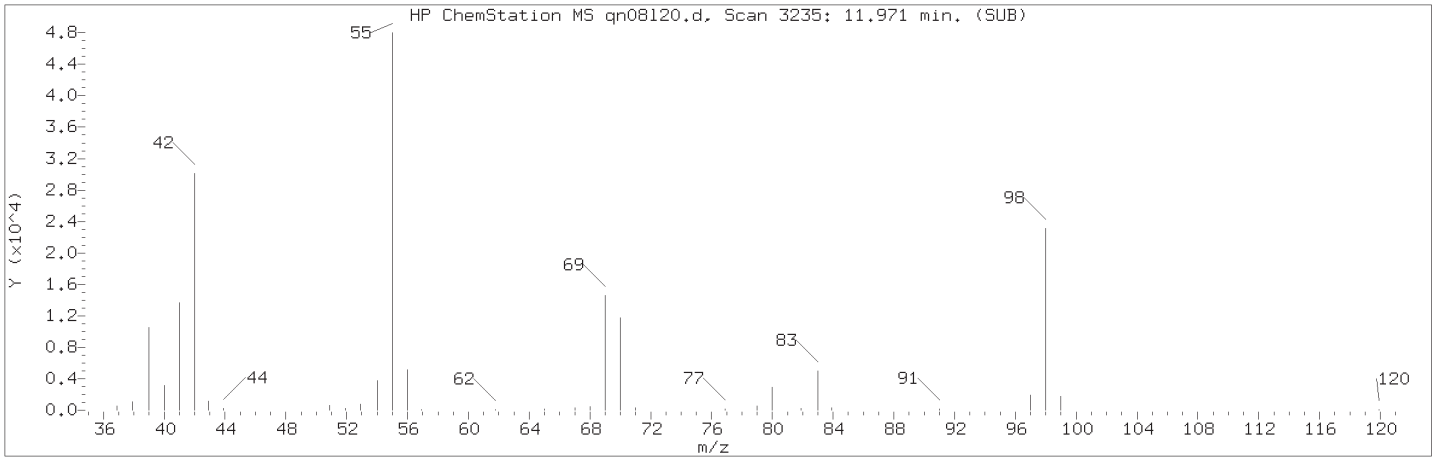
Sample Name: LCSQ62 Lab Sample ID: LCSQ62

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.319	43	428381	84.384
103) Dibromochloromethane	(3)	10.489	129	124628	21.721
104) 1,2-Dibromoethane	(3)	10.604	107	136467	20.105
105)*Chlorobenzene-d5	(3)	11.034	117	942100	50.000
107) Chlorobenzene	(3)	11.063	112	367728	19.914
109) Ethylbenzene	(3)	11.150	91	539392	19.202
110) m+p-Xylene	(3)	11.265	106	435179	39.631
111) o-Xylene	(3)	11.596	106	217354	19.882
113) Styrene	(3)	11.612	104	368830	18.999
112) Xylene (Total)	(3)		106	652533	59.514
114) Bromoform	(3)	11.776	173	76507	19.956
115) Isopropylbenzene	(3)	11.898	105	462856	19.841
118) Cyclohexanone	(1)	11.971	55	102460A	427.689
119)$4-Bromofluorobenzene	(3)	12.045	95	362566	44.280
120) 1,1,2,2-Tetrachloroethane	(4)	12.145	83	164903	18.841
138) 1,3-Dichlorobenzene	(4)	12.873	146	246337	20.197
140)*1,4-Dichlorobenzene-d4	(4)	12.928	152	406561	50.000
141) 1,4-Dichlorobenzene	(4)	12.947	146	272901	19.925
147) 1,2-Dichlorobenzene	(4)	13.204	146	253566	20.060
151) 1,2-Dibromo-3-chloropropane	(4)	13.749	75	21862	16.089
153) 1,2,4-Trichlorobenzene	(4)	14.301	180	188752	24.736

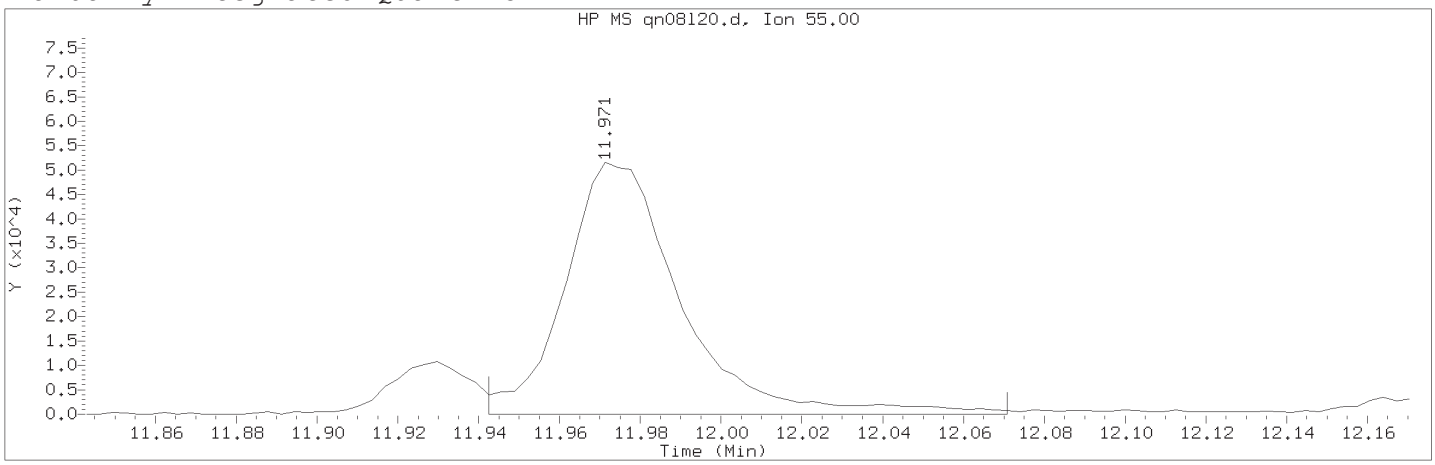
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08l20.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:20 scn10072

Sample Name: LCSQ62 Lab Sample ID: LCSQ62

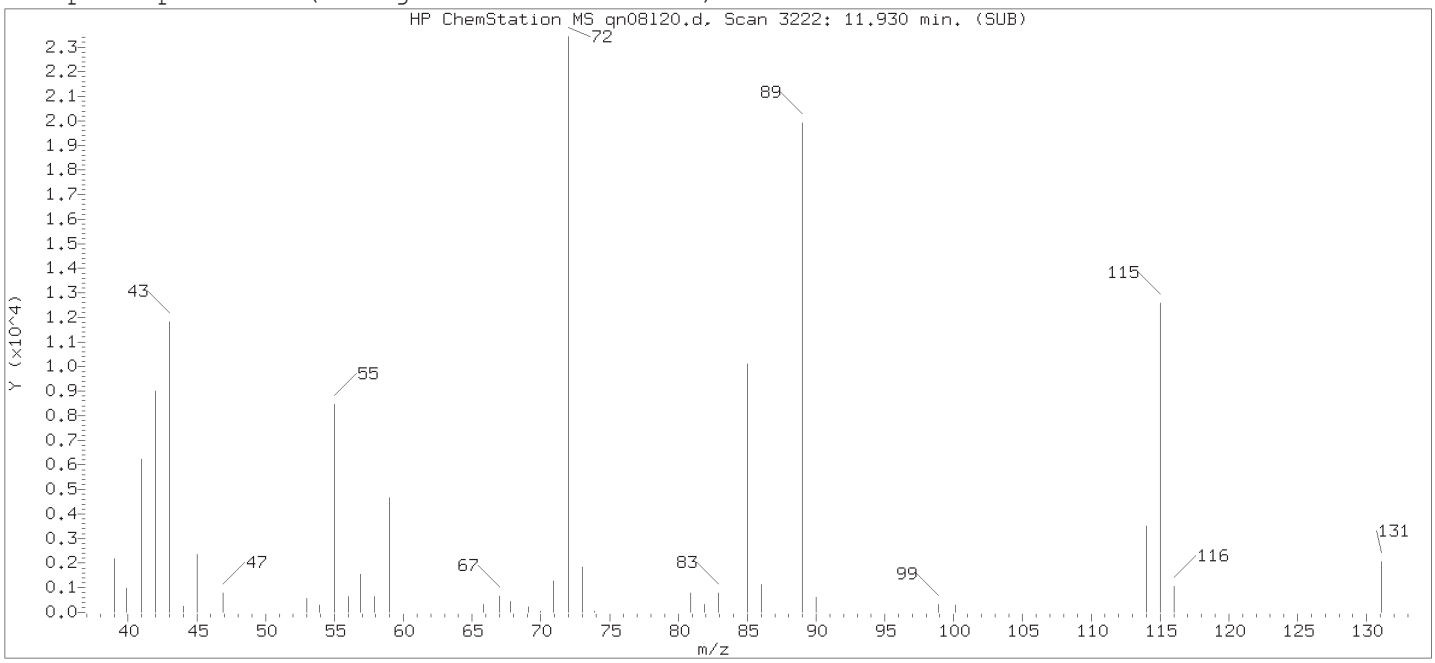
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3235
Retention Time (minutes): 11.971
Quant Ion : 55.00
Area (flag) : 102460A
On-Column Amount (ng) : 427.6889
Integration start scan : 3225 Integration stop scan: 3265
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

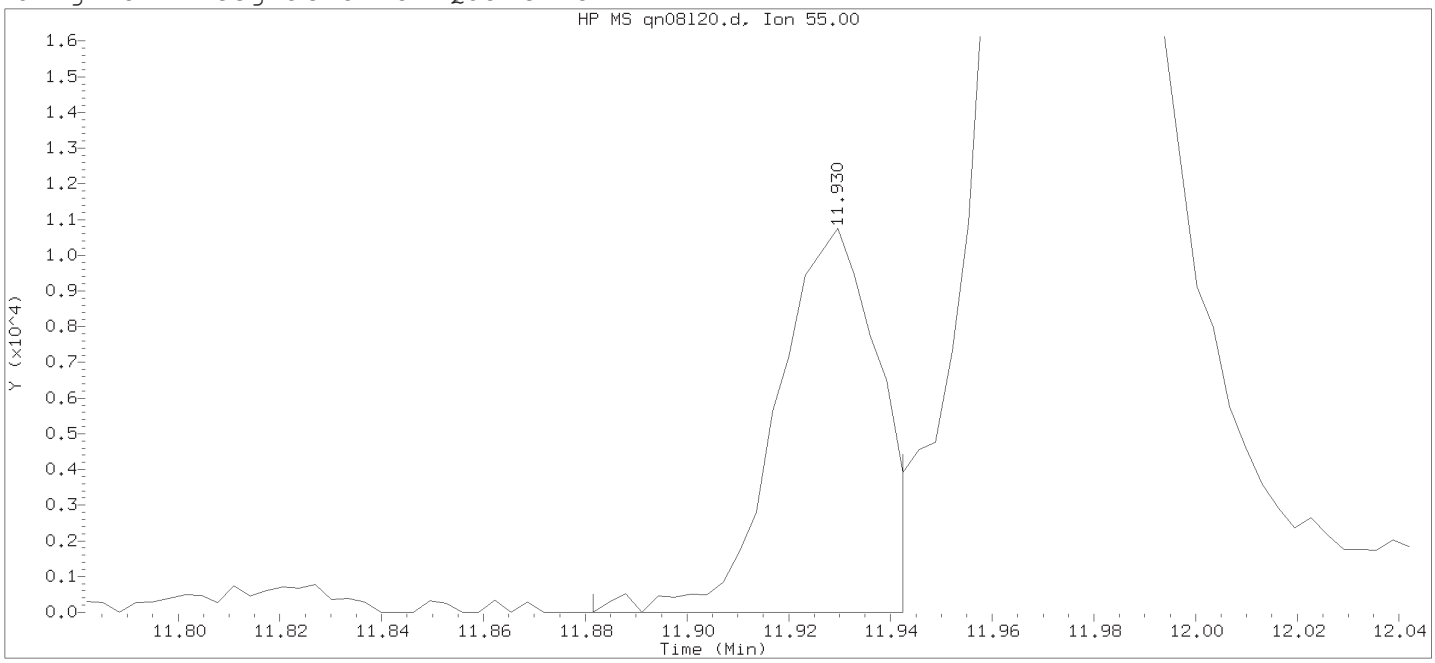
Analyst responsible for change: Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:51.
PARALLAX ID: kel01973

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07536.i/18nov08a.b/qn08120.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:20 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 09:57 scn10072

Sample Name: LCSQ62 Lab Sample ID: LCSQ62

Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 3222
Retention Time (minutes): 11.930
Quant Ion : 55.00
Area : 14789
On-column Amount (ng) : 61.7354
Integration start scan : 3206 Integration stop scan: 3225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:36.
Target 3.5 esignature used: D12 Page 1495 of 7494

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08l21.d Injection date and time: **08-NOV-2018 09:43**
Data file Sample Info. Line: LCDQ62;LCDQ62;2;3;LCSD;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.003(0.000)	752	65	148986 (11)	250.00	
70) Fluorobenzene	7.507(0.000)	1844	96	1206956 (10)	50.00	
105) Chlorobenzene-d5	11.034(0.000)	2943	117	955652 (11)	50.00	
140) 1,4-Dichlorobenzene-d4	12.927(0.000)	3533	152	412303 (8)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
56) Dibromofluoromethane	(2)	6.615(0.000)	113	306742	46.715	93%		78 - 119
63) 1,2-Dichloroethane-d4	(2)	7.071(0.000)	102	85302	49.963	100%		71 - 136
91) Toluene-d8	(3)	9.548(0.000)	98	1187995	45.538	91%		85 - 116
119) 4-Bromofluorobenzene	(3)	12.045(0.000)	95	369162	44.446	89%		79 - 119

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.886(-0.000)	85	108748	9.255	462.74			30	250
4) Chloromethane	(2)	2.056(0.000)	50	154345	12.329	616.44			30	250
5) Vinyl Chloride	(2)	2.165(-0.000)	62	162410	13.334	666.69			30	250
9) Bromomethane	(2)	2.438(0.000)	94	52678	11.780	589.01			35	250
10) Chloroethane	(2)	2.527(-0.000)	64	56429	13.023	651.17			50	250
13) Trichlorofluoromethane	(2)	2.810(0.000)	101	196117	13.165	658.25			35	250
19) 1,1-Dichloroethene	(2)	3.349(0.000)	96	122946	20.526	1026.32			25	250
20) Acetone	(1)	3.374(0.000)	58	82922	115.692	5784.59			300	1000
22) Freon 113	(2)	3.378(0.001)	101	103190	20.225	1011.27			30	500
25) Carbon Disulfide	(2)	3.673(-0.001)	76	362767	16.659	832.94			30	250
27) Methyl Acetate	(2)	3.772(0.000)	43	104182	17.749	887.47			50	250
31) Methylene Chloride	(2)	3.990(0.000)	84	146472	20.481	1024.04			100	250
34) Methyl Tertiary Butyl Ether	(2)	4.382(-0.000)	73	387787	18.925	946.25			25	250
35) trans-1,2-Dichloroethene	(2)	4.392(-0.000)	96	143723	21.256	1062.79			25	250
40) 1,1-Dichloroethane	(2)	5.056(0.000)	63	233733	19.337	966.86			25	250
44) 2-Butanone	(1)	5.871(-0.001)	43	412919	107.047	5352.33			50	500
45) cis-1,2-Dichloroethene	(2)	5.903(-0.000)	96	158468	21.233	1061.67			25	250
54) Chloroform	(2)	6.391(-0.000)	83	227811	19.681	984.05			30	250
57) 1,1,1-Trichloroethane	(2)	6.622(-0.000)	97	186608	19.656	982.78			30	250
58) Cyclohexane	(2)	6.721(-0.000)	56	157690	18.960	948.01			25	250
61) Carbon Tetrachloride	(2)	6.834(-0.000)	117	145192	20.933	1046.67			25	250
64) Benzene	(2)	7.097(-0.000)	78	543955	20.526	1026.28			25	250
67) 1,2-Dichloroethane	(2)	7.180(-0.000)	62	177875	19.378	968.89			30	250
75) Trichloroethene	(2)	7.995(-0.000)	95	135657	20.625	1031.23			25	250
76) Methylcyclohexane	(2)	8.303(-0.000)	83	127809	20.191	1009.53			30	250
77) 1,2-Dichloropropane	(2)	8.326(0.000)	63	145122	20.078	1003.90			25	250
84) Bromodichloromethane	(2)	8.682(-0.000)	83	154040	20.532	1026.58			20	250
89) cis-1,3-Dichloropropene	(2)	9.237(-0.000)	75	220632	20.859	1042.94			20	250

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:36. Target 3.5 esignature user ID: scn10072

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07536.i/18nov08a.b/qn08l21.d Injection date and time: **08-NOV-2018 09:43**
Data file Sample Info. Line: LCDQ62;LCDQ62;2;3;LCSD;;DODSW;;qn08b20; Instrument ID: **HP07536.i** Batch: **Q183122AA**
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Blank Data file reference: **/chem/HP07536.i/18nov08a.b/qn08b20.d**

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: **25809**
Calibration date and time (Last Method Edit): 08-NOV-2018 09:51
Mid Level Daily Calibration Standard Reference: **/chem/HP07536.i/18nov08a.b/qn08c10.d**

Bottle Code: Matrix: SOIL Level: Med

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vi/Ws*Vt/Va) VOA Prep Factor: **50.00**

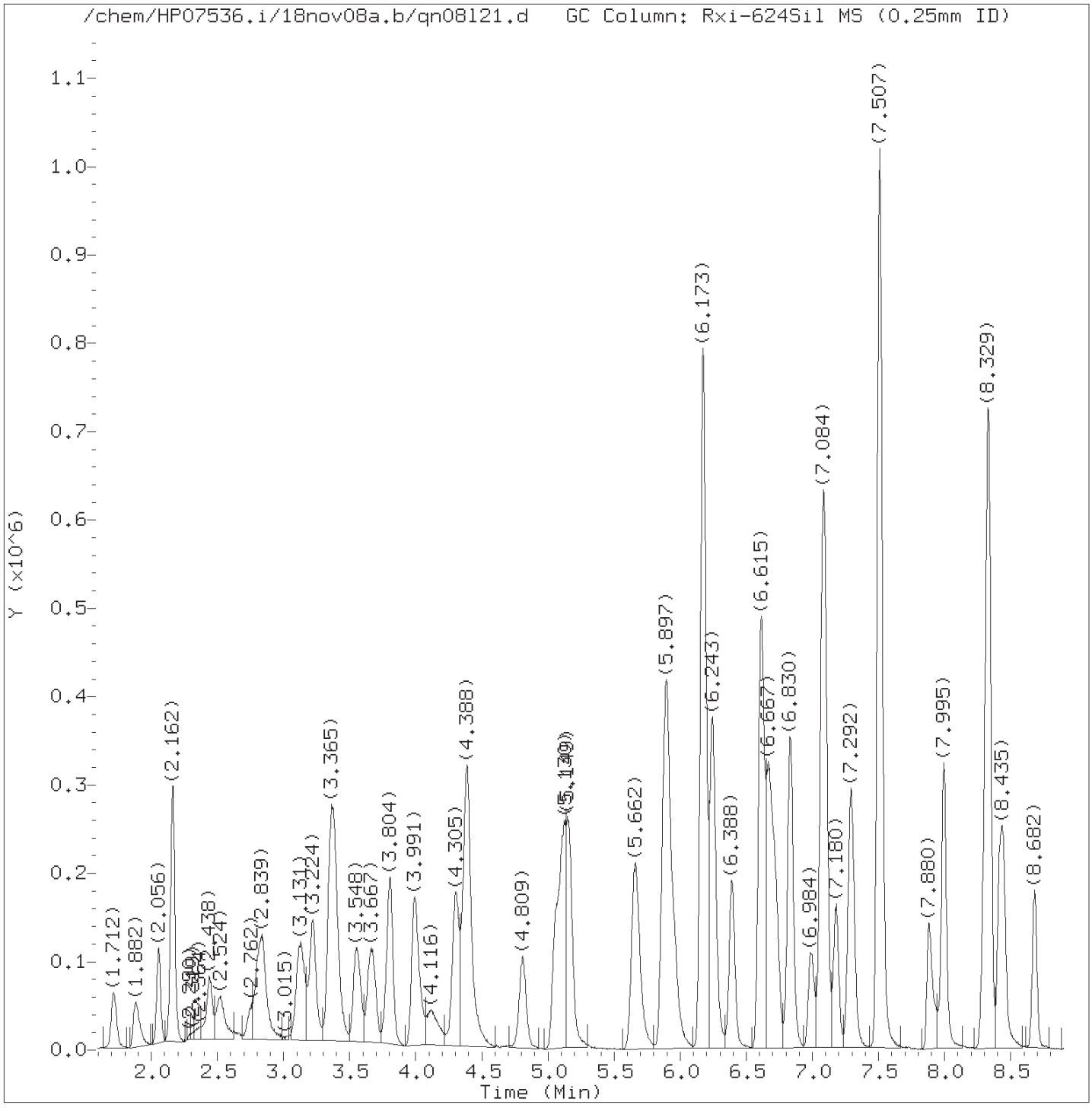
Methanolic Extract Volume (Vi): 5 ml Sample Weight (Ws): 5 g
Volume Purged (Vt): 5 ml Aliquot Volume Added (Va): 0.1 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
90) 4-Methyl-2-pentanone	(2)	9.404(-0.000)	43	668701	91.973	4598.66			50	500
92) Toluene	(3)	9.628(0.000)	92	331506	19.968	998.38			30	250
93) trans-1,3-Dichloropropene	(3)	9.901(-0.000)	75	189179	18.455	922.73			15	250
96) 1,1,2-Trichloroethane	(3)	10.106(0.000)	97	135465	20.630	1031.51			25	250
98) Tetrachloroethene	(3)	10.193(-0.000)	166	133779	20.195	1009.74			25	250
101) 2-Hexanone	(3)	10.318(0.000)	43	420320	81.622	4081.12			50	500
103) Dibromochloromethane	(3)	10.492(0.000)	129	126701	21.769	1088.45			20	250
104) 1,2-Dibromoethane	(3)	10.604(0.000)	107	136742	19.860	993.00			20	250
107) Chlorobenzene	(3)	11.063(-0.000)	112	367410	19.614	980.72			25	250
109) Ethylbenzene	(3)	11.149(-0.000)	91	544262	19.101	955.05			20	250
110) m+p-Xylene	(3)	11.265(0.000)	106	440301	39.529	1976.46			50	250
111) o-Xylene	(3)	11.595(-0.000)	106	218411	19.696	984.79			20	250
112) Xylene (Total)	(3)		106	658712	59.225	2961.25			50	250
113) Styrene	(3)	11.611(0.000)	104	371141	18.846	942.32			15	250
114) Bromoform	(3)	11.775(-0.000)	173	76808	19.779	988.93			250	500
115) Isopropylbenzene	(3)	11.897(-0.000)	105	463125	19.571	978.53			20	250
118) Cyclohexanone	(1)	11.977(-0.000)	55	110762	458.138	22906.91			1300	13000
120) 1,1,2,2-Tetrachloroethane	(4)	12.144(0.000)	83	165284	18.621	931.06			20	250
138) 1,3-Dichlorobenzene	(4)	12.872(-0.000)	146	241356	19.513	975.66			25	250
141) 1,4-Dichlorobenzene	(4)	12.946(-0.000)	146	268329	19.318	965.91			20	250
147) 1,2-Dichlorobenzene	(4)	13.203(-0.000)	146	248026	19.348	967.42			25	250
151) 1,2-Dibromo-3-chloropropane	(4)	13.748(0.000)	75	21058	15.281	764.07			20	250
153) 1,2,4-Trichlorobenzene	(4)	14.300(-0.000)	180	167783	21.682	1084.08			250	500

Total number of targets = 51

Digitally signed by Stephen C. Nolte on 11/08/2018 at 11:36. Target 3.5 esignature user ID: scn10072

Secondary review performed and digitally signed by Kerri E. Legerlotz on 11/11/2018 at 07:51. PARALLAX ID: kel01973



Total Ion Chromatogram (TIC)

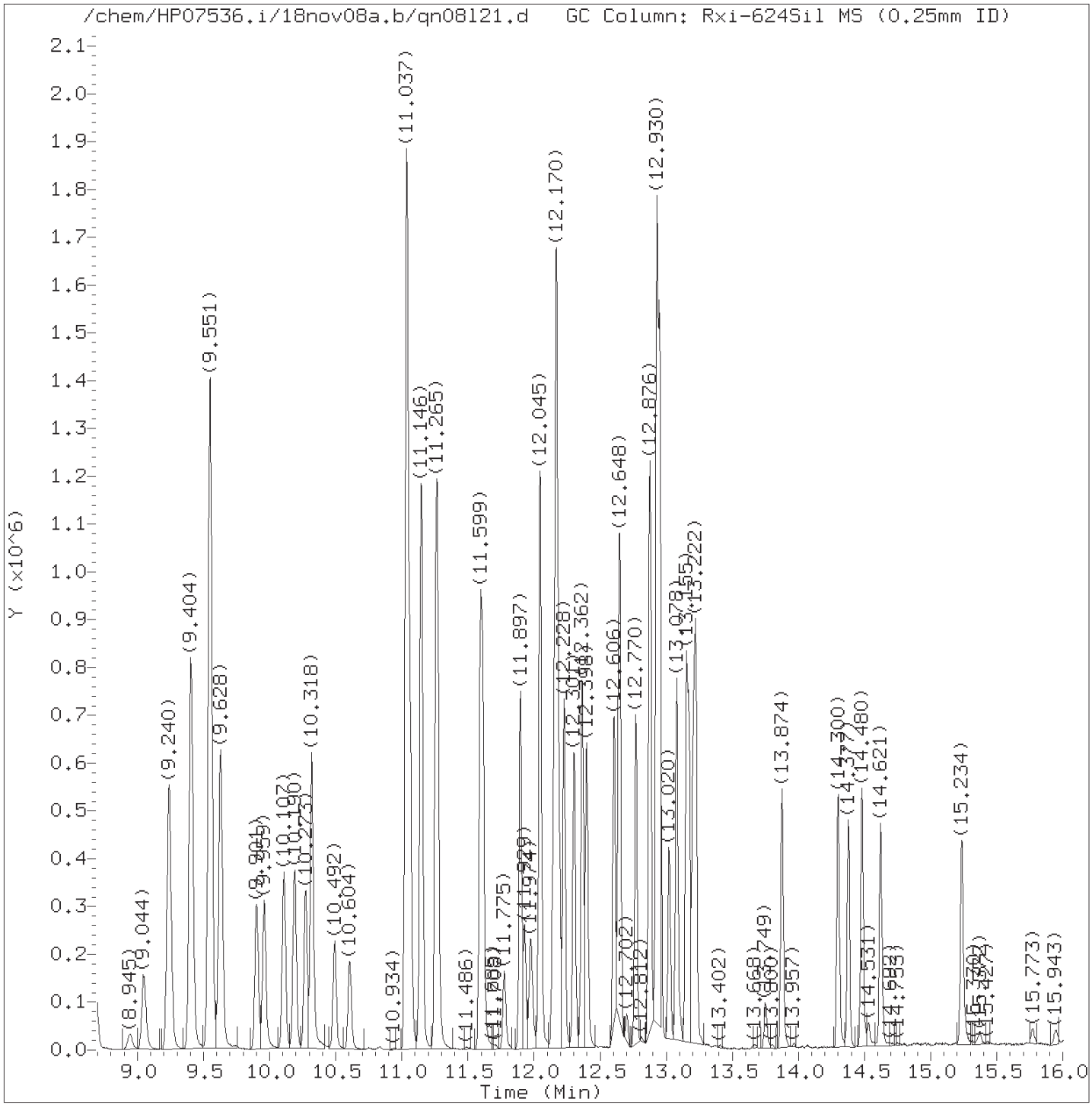
Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l21.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Sample Name: LCDQ62 Lab Sample ID: LCDQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l21.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Sample Name: LCDQ62 Lab Sample ID: LCDQ62

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l21.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Sample Name: LCDQ62 Lab Sample ID: LCDQ62

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.886	85	108748	9.255
4) Chloromethane	(2)	2.056	50	154345	12.329
5) Vinyl Chloride	(2)	2.165	62	162410	13.334
9) Bromomethane	(2)	2.438	94	52678	11.780
10) Chloroethane	(2)	2.527	64	56429	13.023
13) Trichlorofluoromethane	(2)	2.810	101	196117	13.165
19) 1,1-Dichloroethene	(2)	3.349	96	122946	20.526
20) Acetone	(1)	3.374	58	82922	115.692
22) Freon 113	(2)	3.378	101	103190	20.225
25) Carbon Disulfide	(2)	3.673	76	362767	16.659
27) Methyl Acetate	(2)	3.772	43	104182	17.749
31) Methylene Chloride	(2)	3.991	84	146472	20.481
30)*t-Butyl alcohol-d10	(1)	4.003	65	148986	250.000
34) Methyl Tertiary Butyl Ether	(2)	4.382	73	387787	18.925
35) trans-1,2-Dichloroethene	(2)	4.392	96	143723	21.256
40) 1,1-Dichloroethane	(2)	5.056	63	233733	19.337
44) 2-Butanone	(1)	5.871	43	412919	107.047
45) cis-1,2-Dichloroethene	(2)	5.903	96	158468	21.233
54) Chloroform	(2)	6.391	83	227811	19.681
56)$Dibromofluoromethane	(2)	6.615	113	306742	46.715
57) 1,1,1-Trichloroethane	(2)	6.622	97	186608	19.656
58) Cyclohexane	(2)	6.721	56	157690	18.960
61) Carbon Tetrachloride	(2)	6.834	117	145192	20.933
63)$1,2-Dichloroethane-d4	(2)	7.071	102	85302	49.963
64) Benzene	(2)	7.097	78	543955	20.526
67) 1,2-Dichloroethane	(2)	7.180	62	177875	19.378
70)*Fluorobenzene	(2)	7.507	96	1206956	50.000
75) Trichloroethene	(2)	7.995	95	135657	20.625
76) Methylcyclohexane	(2)	8.303	83	127809	20.191
77) 1,2-Dichloropropane	(2)	8.326	63	145122	20.078
84) Bromodichloromethane	(2)	8.682	83	154040	20.532
89) cis-1,3-Dichloropropene	(2)	9.237	75	220632	20.859
90) 4-Methyl-2-pentanone	(2)	9.404	43	668701	91.973
91)$Toluene-d8	(3)	9.548	98	1187995	45.538
92) Toluene	(3)	9.628	92	331506	19.968
93) trans-1,3-Dichloropropene	(3)	9.901	75	189179	18.455
96) 1,1,2-Trichloroethane	(3)	10.107	97	135465	20.630
98) Tetrachloroethene	(3)	10.193	166	133779	20.195

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Quant Report

Target Revision 3.5

Data File: /chem/HP07536.i/18nov08a.b/qn08l21.d Instrument ID: HP07536.i
Injection date and time: 08-NOV-2018 09:43 Analyst ID: scn10072

Method used: /chem/HP07536.i/18nov08a.b/me8260c.m Sublist used: 25809
Calibration date and time: 08-NOV-2018 09:51
Date, time and analyst ID of latest file update: 08-Nov-2018 11:21 scn10072

Sample Name: LCDQ62 Lab Sample ID: LCDQ62

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 2-Hexanone	(3)	10.318	43	420320	81.622
103) Dibromochloromethane	(3)	10.492	129	126701	21.769
104) 1,2-Dibromoethane	(3)	10.604	107	136742	19.860
105)*Chlorobenzene-d5	(3)	11.034	117	955652	50.000
107) Chlorobenzene	(3)	11.063	112	367410	19.614
109) Ethylbenzene	(3)	11.149	91	544262	19.101
110) m+p-Xylene	(3)	11.265	106	440301	39.529
111) o-Xylene	(3)	11.595	106	218411	19.696
113) Styrene	(3)	11.611	104	371141	18.846
112) Xylene (Total)	(3)		106	658712	59.225
114) Bromoform	(3)	11.775	173	76808	19.779
115) Isopropylbenzene	(3)	11.897	105	463125	19.571
118) Cyclohexanone	(1)	11.977	55	110762	458.138
119)$4-Bromofluorobenzene	(3)	12.045	95	369162	44.446
120) 1,1,2,2-Tetrachloroethane	(4)	12.144	83	165284	18.621
138) 1,3-Dichlorobenzene	(4)	12.873	146	241356	19.513
140)*1,4-Dichlorobenzene-d4	(4)	12.927	152	412303	50.000
141) 1,4-Dichlorobenzene	(4)	12.946	146	268329	19.318
147) 1,2-Dichlorobenzene	(4)	13.203	146	248026	19.348
151) 1,2-Dibromo-3-chloropropane	(4)	13.749	75	21058	15.281
153) 1,2,4-Trichlorobenzene	(4)	14.300	180	167783	21.682

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephen C. Nolte
on 11/08/2018 at 11:36.
Target 3.5 esignature user ID: scn10072

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSH97

Data file: /chem2/HP19094.i/18nov05b.b/hn05s73.d Injection date and time: **05-NOV-2018 21:43**
Data file Sample Info. Line: LCSH97;LCSH97;1;3;LCS;;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.489	(-0.006)	476	65	122558	(0)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2570449	(1)	10.00	
97) Chlorobenzene-d5	11.378	(0.006)	1606	117	1839489	(-1)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	937740	(2)	10.00	

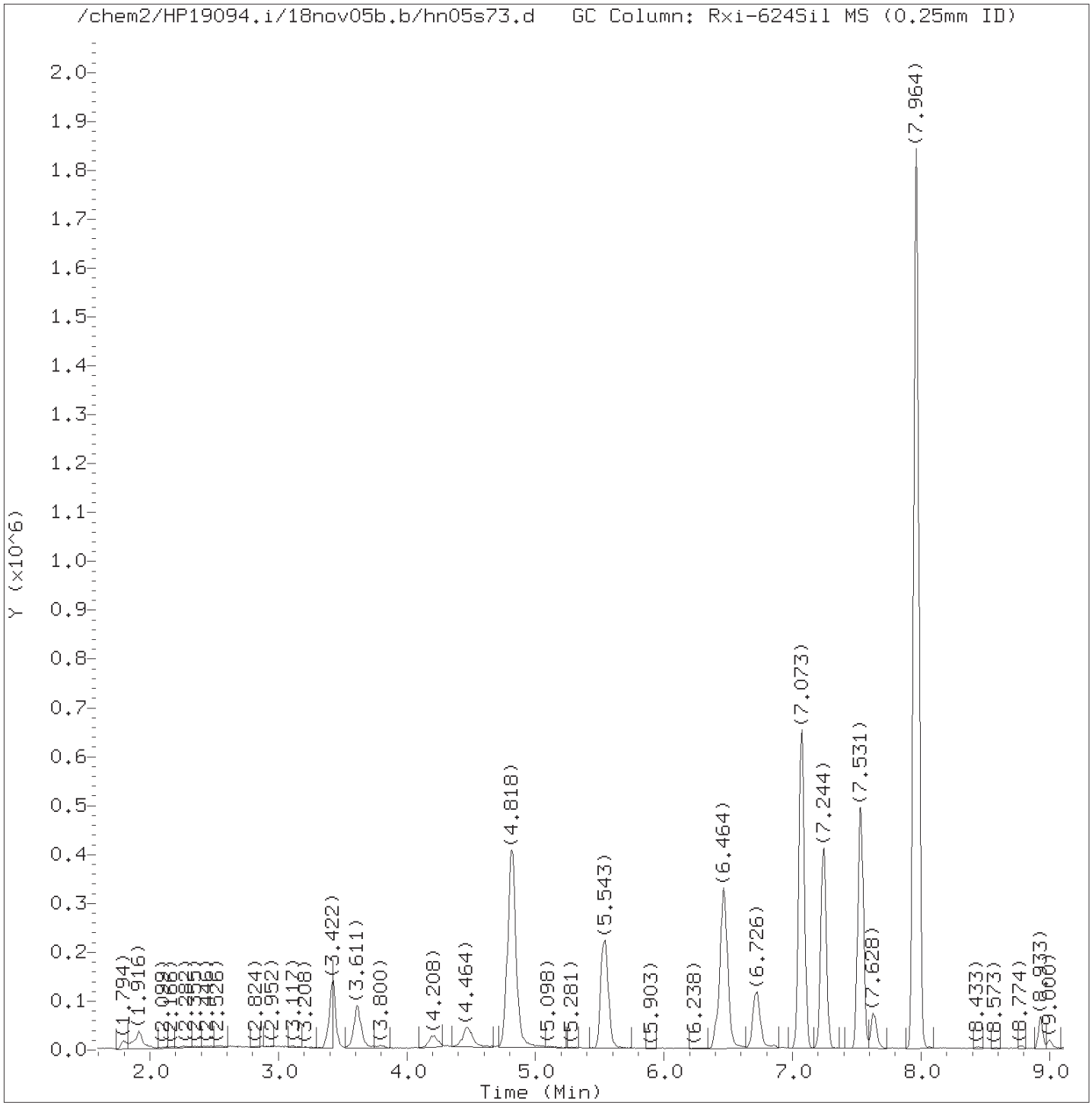
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.067	(0.000)	113	618684	9.550	95%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.525	(0.000)	102	111320	9.856	99%		81 - 118
82) Toluene-d8	(3)	9.951	(0.000)	98	2485166	10.497	105%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	863717	10.020	100%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
112) Cyclohexanone	(1)	12.310	(0.003)	55	79688	98.721	98.72			2	25

Total number of targets = 1

Digitally signed by Joel G. Chachapoya on 11/07/2018 at 15:13. Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

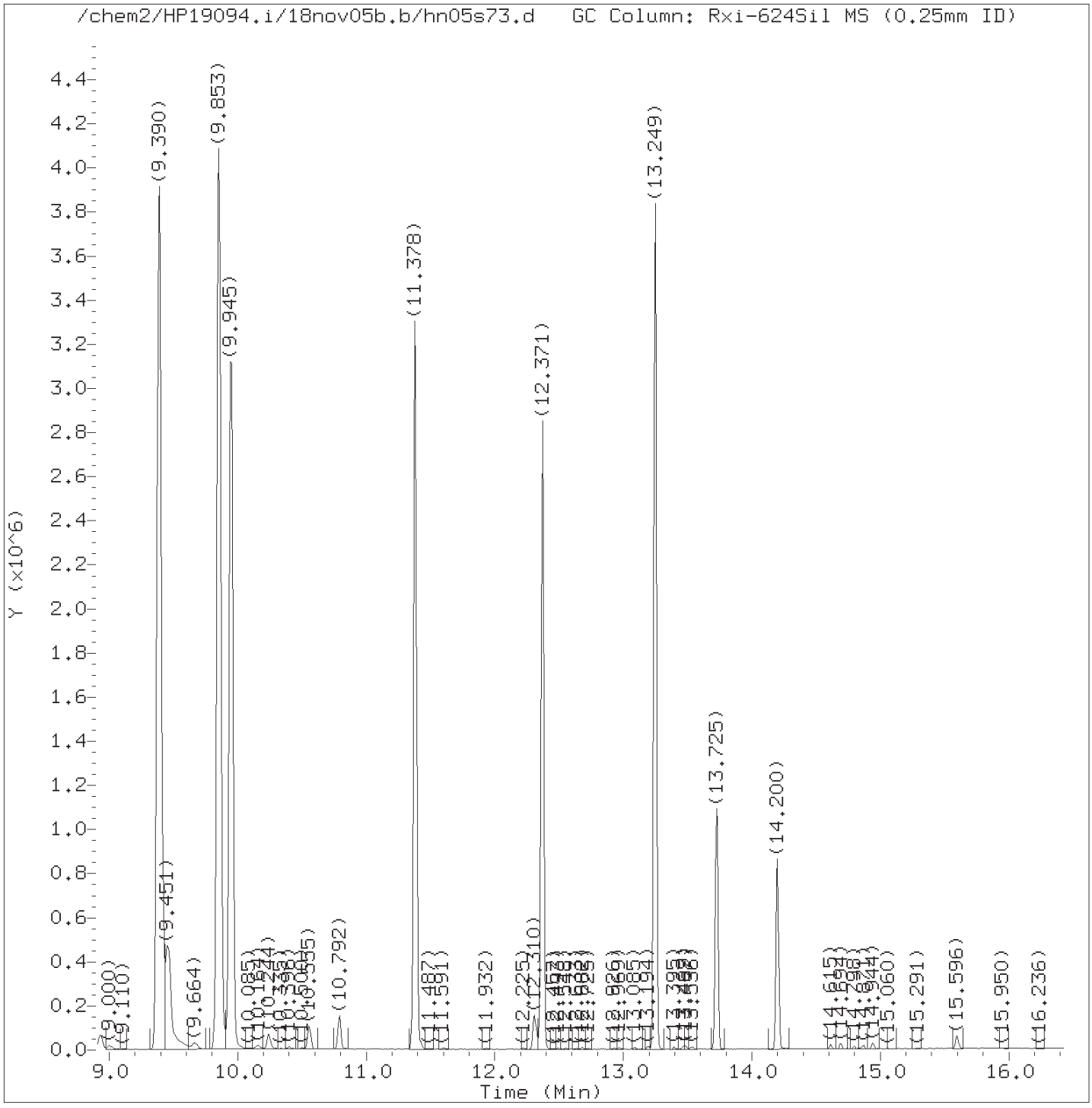
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s73.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:43 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH97 Lab Sample ID: LCSH97

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s73.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:43 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH97 Lab Sample ID: LCSH97

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s73.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:43 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH97 Lab Sample ID: LCSH97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.489	65	122558	50.000
50)$Dibromofluoromethane	(2)	7.067	113	618684	9.550
57)$1,2-Dichloroethane-d4	(2)	7.525	102	111320	9.856
63)*Fluorobenzene	(2)	7.964	96	2570449	10.000
82)$Toluene-d8	(3)	9.951	98	2485166	10.497
97)*Chlorobenzene-d5	(3)	11.378	117	1839489	10.000
112) Cyclohexanone	(1)	12.310	55	79688	98.721
111)$4-Bromofluorobenzene	(3)	12.371	95	863717	10.020
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	937740	10.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05s74.d Injection date and time: **05-NOV-2018 22:05**
Data file Sample Info. Line: LCDH97;LCDH97;1;3;LCSD;;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.483	(0.000)	475	65	125004M	(2)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2585990	(1)	10.00	
97) Chlorobenzene-d5	11.377	(0.006)	1606	117	1868311	(0)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	942166	(2)	10.00	

M = Internal Standard was manually integrated

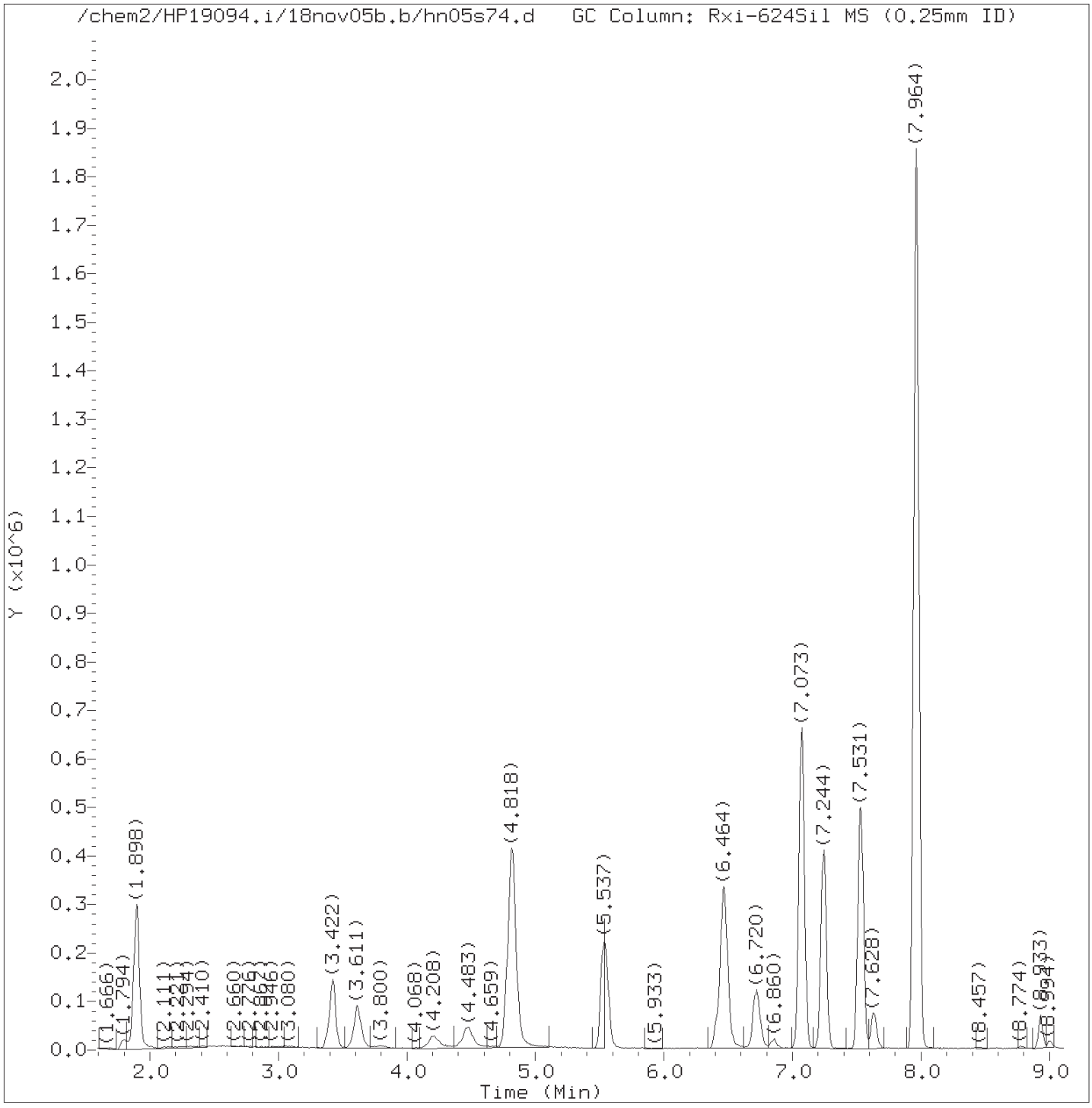
Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.073	(-0.001)	113	626823	9.617	96%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.537	(-0.001)	102	118698	10.447	104%		81 - 118
82) Toluene-d8	(3)	9.945	(0.000)	98	2509422	10.436	104%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	870444	9.942	99%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
112) Cyclohexanone	(1)	12.304	(0.001)	55	90994	110.522	110.52			2	25

Total number of targets = 1

Digitally signed by Joel G. Chachapoya on 11/07/2018 at 15:13. Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

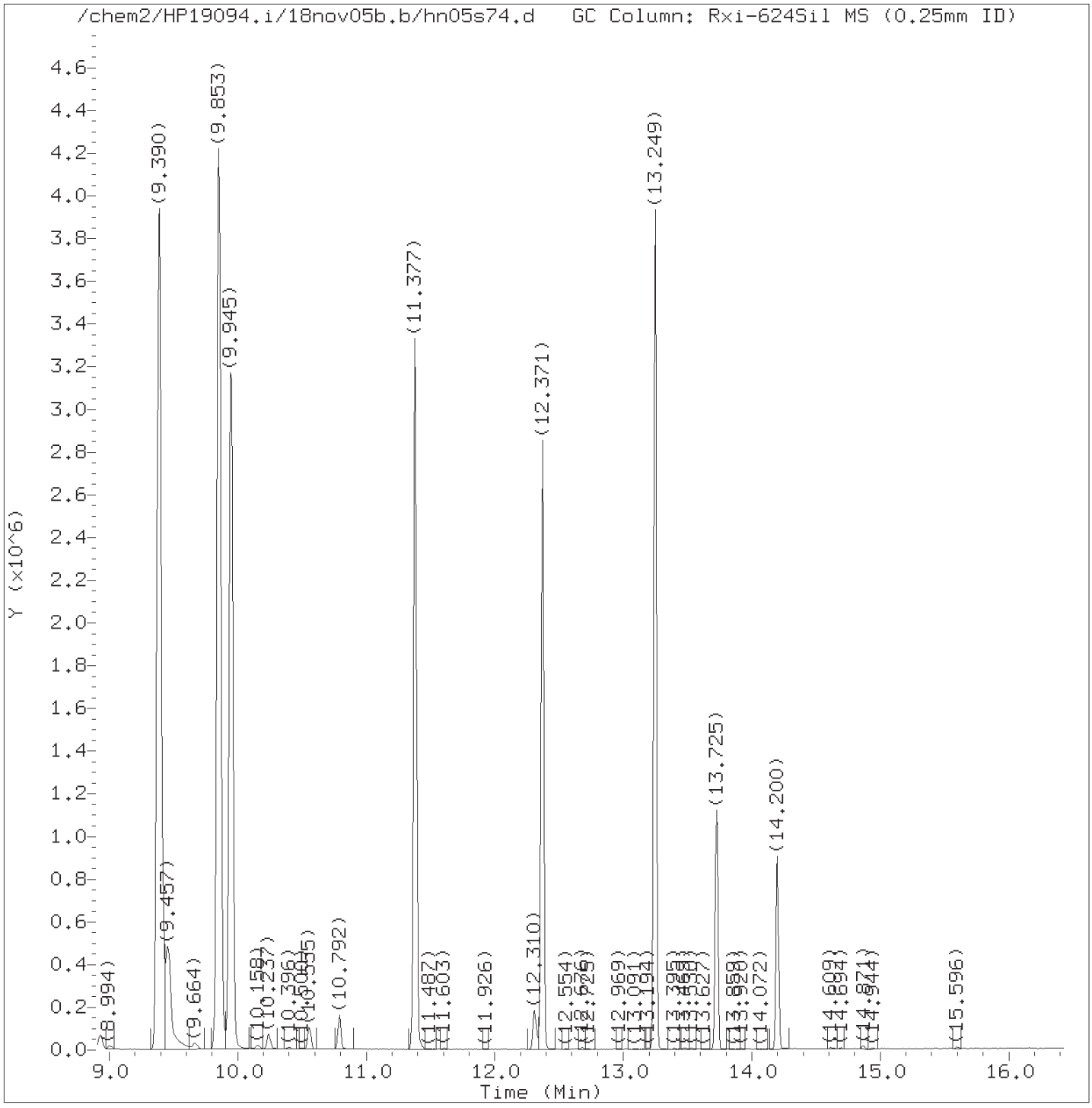
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s74.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:05 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: LCDH97 Lab Sample ID: LCDH97

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s74.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:05 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: LCDH97 Lab Sample ID: LCDH97

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s74.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:05 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: LCDH97 Lab Sample ID: LCDH97

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(1)	4.483	65	125004M	50.000
50)$Dibromofluoromethane	(2)	7.073	113	626823	9.617
57)$1,2-Dichloroethane-d4	(2)	7.537	102	118698	10.447
63)*Fluorobenzene	(2)	7.964	96	2585990	10.000
82)$Toluene-d8	(3)	9.945	98	2509422	10.436
97)*Chlorobenzene-d5	(3)	11.377	117	1868311	10.000
112) Cyclohexanone	(1)	12.304	55	90994	110.522
111)$4-Bromofluorobenzene	(3)	12.371	95	870444	9.942
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	942166	10.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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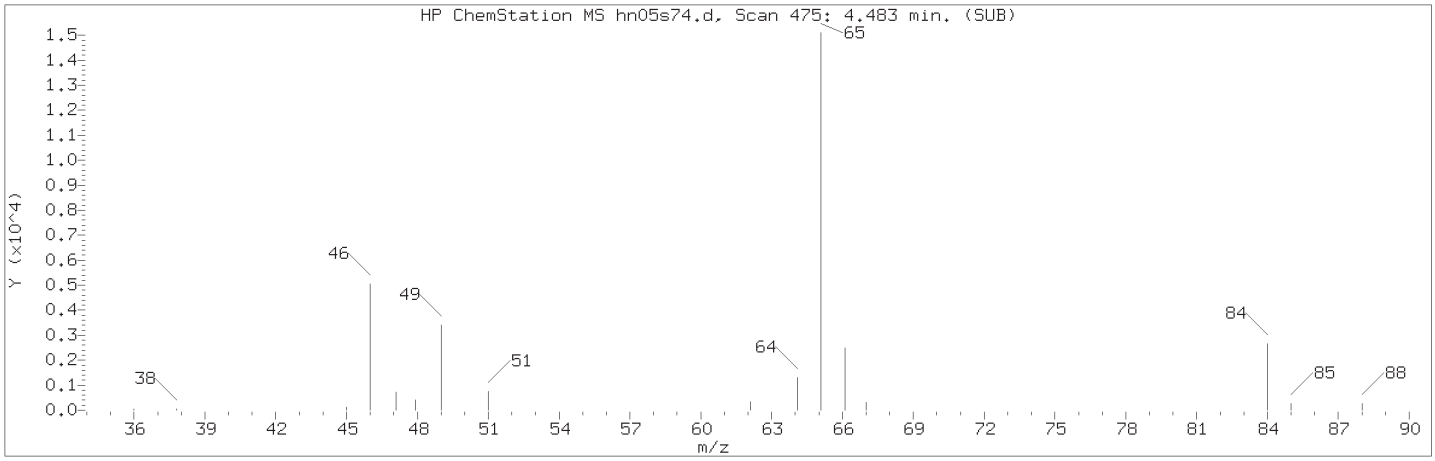
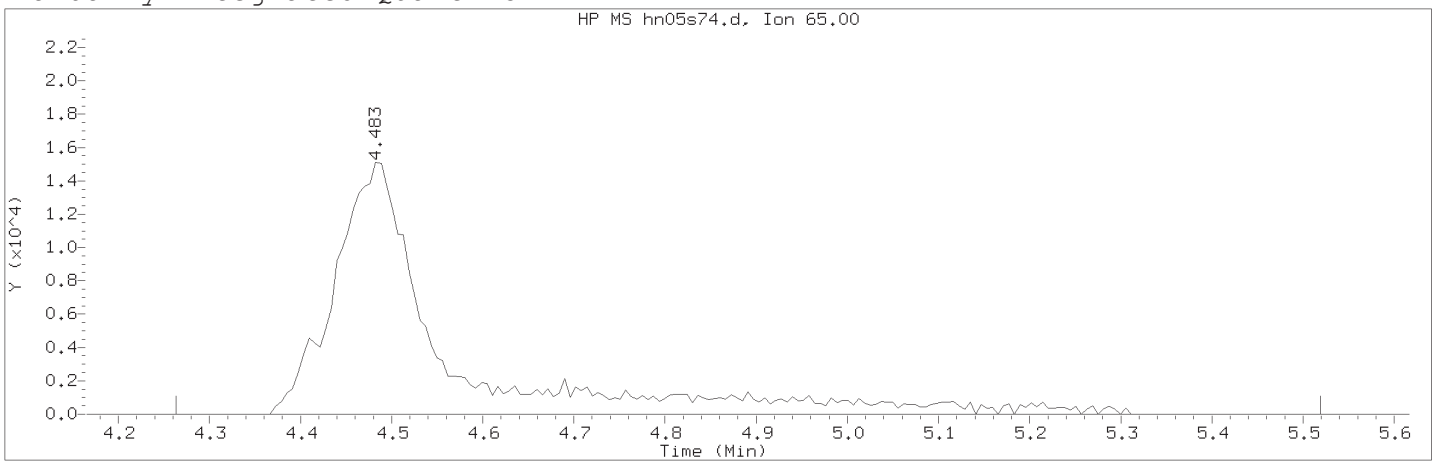
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05s74.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:05 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:12 jgc14951

Sample Name: LCDH97 Lab Sample ID: LCDH97

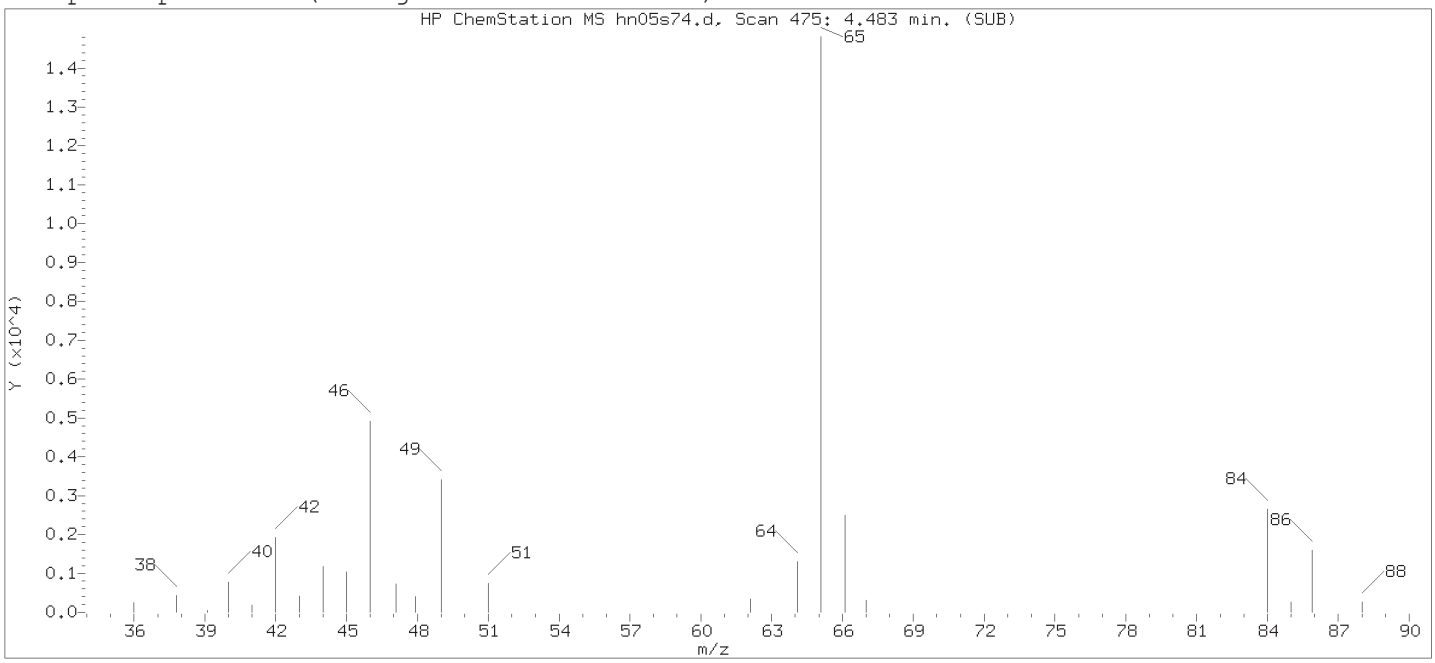
Compound Number : 26
Compound Name : t-Butyl Alcohol-d10
Scan Number : 475
Retention Time (minutes): 4.483
Quant Ion : 65.00
Area (flag) : 125004M
On-Column Amount (ng) : 50.0000
Integration start scan : 438 Integration stop scan: 644
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

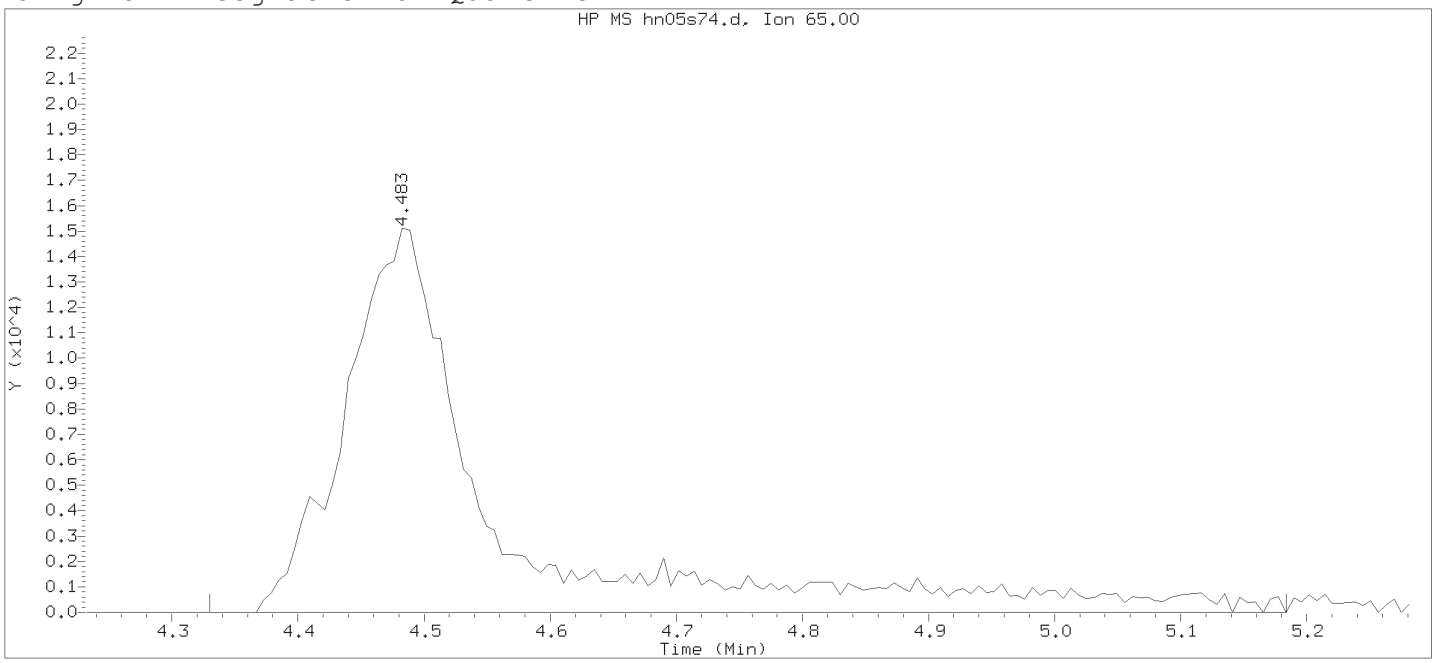
Analyst responsible for change: Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP19094.i/18nov05b.b/hn05s74.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 22:05 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: SMQC-2
Calibration date and time: 05-NOV-2018 22:04
Date, time and analyst ID of latest file update: 05-Nov-2018 23:19 jgc14951

Sample Name: LCDH97 Lab Sample ID: LCDH97

Compound Number	: 26		
Compound Name	: t-Butyl Alcohol-d10		
Scan Number	: 475		
Retention Time (minutes)	: 4.483		
Quant Ion	: 65.00		
Area	: 122312		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 449	Integration stop scan:	589
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Joel G. Chachapoya on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: JGC14951

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05s72.d Injection date and time: **05-NOV-2018 21:22**
Data file Sample Info. Line: LCSH96;LCSH96;1;3;LCS;;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789-SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.476	(0.006)	474	65	131378	(7)	50.00	
63) Fluorobenzene	7.964	(0.006)	1046	96	2594120	(1)	10.00	
97) Chlorobenzene-d5	11.378	(0.006)	1606	117	1875552	(0)	10.00	
133) 1,4-Dichlorobenzene-d4	13.249	(0.000)	1913	152	945698	(3)	10.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
50) Dibromofluoromethane	(2)	7.074	(-0.001)	113	624676	9.554	96%		80 - 119
57) 1,2-Dichloroethane-d4	(2)	7.531	(-0.001)	102	115973	10.175	102%		81 - 118
82) Toluene-d8	(3)	9.945	(0.000)	98	2506286	10.383	104%		89 - 112
111) 4-Bromofluorobenzene	(3)	12.371	(-0.001)	95	875537	9.962	100%		85 - 114

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(2)	2.074	(-0.000)	85	286211	2.823	2.82			0.05	0.5
2) Chloromethane	(2)	2.276	(-0.000)	50	335545	3.380	3.38			0.06	0.5
5) Vinyl Chloride	(2)	2.404	(-0.000)	62	322841	3.472	3.47			0.1	0.5
7) Bromomethane	(2)	2.739	(-0.000)	94	243767	3.372	3.37			0.07	0.5
8) Chloroethane	(2)	2.836	(0.000)	64	196867	3.491	3.49			0.07	0.5
10) Trichlorofluoromethane	(2)	3.141	(0.000)	101	405357	3.451	3.45			0.05	0.5
15) 1,1-Dichloroethene	(2)	3.751	(0.000)	96	229652	4.515	4.52			0.06	0.5
16) Freon 113	(2)	3.794	(-0.000)	101	237417	3.960	3.96			0.06	0.5
14) Acetone	(1)	3.794	(0.000)	43	232383	29.677	29.68			0.9	5
18) Carbon Disulfide	(2)	4.074	(0.000)	76	623413	3.852	3.85			0.06	1
21) Methyl Acetate	(1)	4.233	(0.000)	43	87773	3.993	3.99			0.1	1
23) Methylene Chloride	(2)	4.464	(-0.000)	84	249122	4.342	4.34			0.07	0.5
31) trans-1,2-Dichloroethene	(2)	4.891	(-0.000)	96	260391	4.536	4.54			0.06	0.5
30) Methyl Tertiary Butyl Ether	(2)	4.879	(-0.001)	73	465554	4.450	4.45			0.05	0.5
33) 1,1-Dichloroethane	(2)	5.549	(0.000)	63	497514	4.552	4.55			0.07	0.5
39) cis-1,2-Dichloroethene	(2)	6.378	(-0.000)	96	296191	4.670	4.67			0.05	0.5
38) 2-Butanone	(1)	6.348	(-0.001)	43	422855	32.989	32.99			0.6	5
49) Chloroform	(2)	6.854	(0.000)	83	475019	4.675	4.67			0.09	0.5
51) 1,1,1-Trichloroethane	(2)	7.086	(0.000)	97	394636	4.540	4.54			0.06	0.5
52) Cyclohexane	(2)	7.183	(0.000)	56	447694	3.946	3.95			0.05	0.5
54) Carbon Tetrachloride	(2)	7.293	(0.000)	117	338122	4.529	4.53			0.07	0.5
58) Benzene	(2)	7.561	(0.000)	78	1102224	4.527	4.53			0.05	0.5
59) 1,2-Dichloroethane	(2)	7.634	(0.000)	62	252490	4.506	4.51			0.05	0.5
67) Trichloroethene	(2)	8.439	(-0.000)	95	282017	4.524	4.52			0.06	0.5
69) Methylcyclohexane	(2)	8.750	(-0.000)	83	439931	3.736	3.74			0.05	0.5
70) 1,2-Dichloropropane	(2)	8.780	(-0.000)	63	277576	4.699	4.70			0.06	0.5
74) Bromodichloromethane	(2)	9.122	(-0.000)	83	311472	4.690	4.69			0.05	0.5
80) cis-1,3-Dichloropropene	(2)	9.646	(-0.000)	75	361556	4.676	4.68			0.05	0.5
81) 4-Methyl-2-Pentanone	(1)	9.811	(-0.003)	43	683104	21.425	21.42			0.7	5
83) Toluene	(3)	10.024	(-0.000)	92	680772	4.891	4.89			0.07	0.5
84) trans-1,3-Dichloropropene	(3)	10.268	(0.000)	75	271337	5.060	5.06			0.06	0.5

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP19094.i/18nov05b.b/hn05s72.d Injection date and time: **05-NOV-2018 21:22**
Data file Sample Info. Line: LCSH96;LCSH96;1;3;LCS;;DOD25;;hn05b10; Instrument ID: **HP19094.i** Batch: **H183094AA**
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Blank Data file reference: **/chem2/HP19094.i/18nov05b.b/hn05b10.d**

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: **25789-SM**
Calibration date and time (Last Method Edit): 06-NOV-2018 09:05
Mid Level Daily Calibration Standard Reference: **/chem2/HP19094.i/18nov05b.b/hn05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 25 ml Sample Volume (Vo): 25 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
88) 1,1,2-Trichloroethane	(3)	10.475(-0.000)	97	165803	5.177	5.18			0.06	0.5
89) Tetrachloroethene	(3)	10.554(0.000)	166	303170	4.821	4.82			0.06	0.5
91) 2-Hexanone	(1)	10.676(-0.003)	43	465804	21.463	21.46			0.6	5
93) Dibromochloromethane	(3)	10.847(-0.000)	129	190837	4.972	4.97			0.07	0.5
95) 1,2-Dibromoethane	(3)	10.957(-0.000)	107	149444	4.978	4.98			0.06	0.5
98) Chlorobenzene	(3)	11.408(-0.000)	112	725539	4.914	4.91			0.06	0.5
100) Ethylbenzene	(3)	11.487(-0.000)	91	1340631	4.928	4.93			0.06	0.5
101) m+p-Xylene	(3)	11.603(-0.000)	106	1002943	9.940	9.94			0.1	0.5
104) o-Xylene	(3)	11.926(-0.000)	106	478743	4.963	4.96			0.05	0.5
105) Xylene (Total)	(3)		106	1481686	14.903	14.90			0.1	0.5
106) Styrene	(3)	11.944(-0.000)	104	777931	5.041	5.04			0.05	0.5
107) Bromoform	(3)	12.103(-0.000)	173	103921	4.926	4.93			0.3	1
108) Isopropylbenzene	(3)	12.225(-0.000)	105	1296221	4.922	4.92			0.05	0.5
113) 1,1,2,2-Tetrachloroethane	(4)	12.469(0.000)	83	186182	4.963	4.96			0.07	0.5
131) 1,3-Dichlorobenzene	(4)	13.194(0.000)	146	559729	4.940	4.94			0.06	0.5
134) 1,4-Dichlorobenzene	(4)	13.267(0.000)	146	551515	4.958	4.96			0.07	0.5
139) 1,2-Dichlorobenzene	(4)	13.524(0.000)	146	490387	4.905	4.91			0.06	0.5
143) 1,2-Dibromo-3-chloropropane	(1)	14.066(-0.004)	155	23277	4.307	4.31			0.1	0.5
145) 1,2,4-Trichlorobenzene	(4)	14.615(0.000)	180	311647	4.539	4.54			0.06	0.5

Total number of targets = 50

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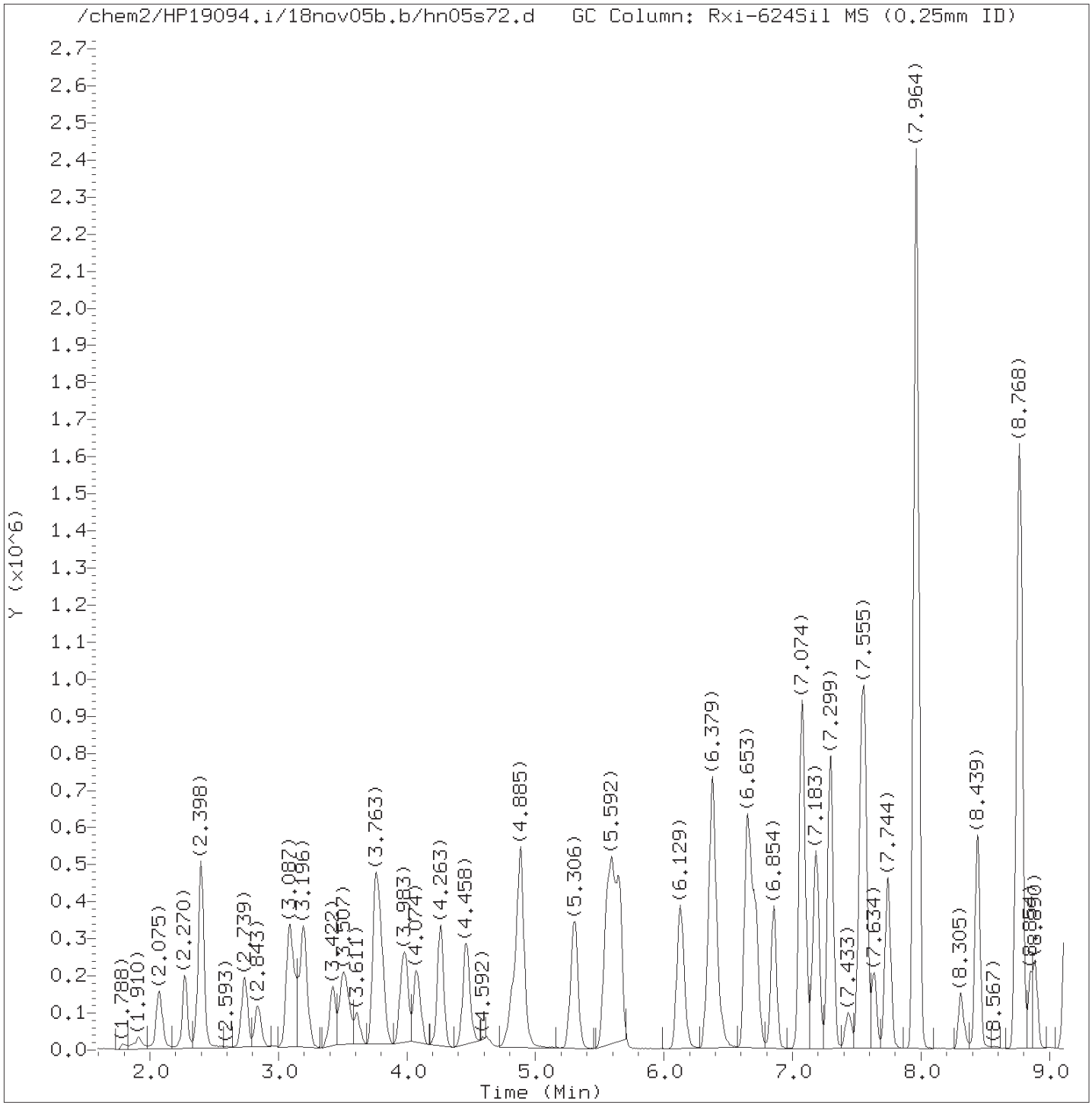
Secondary review performed and digitally signed by Chad A. Moline on 11/09/2018 at 14:16. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

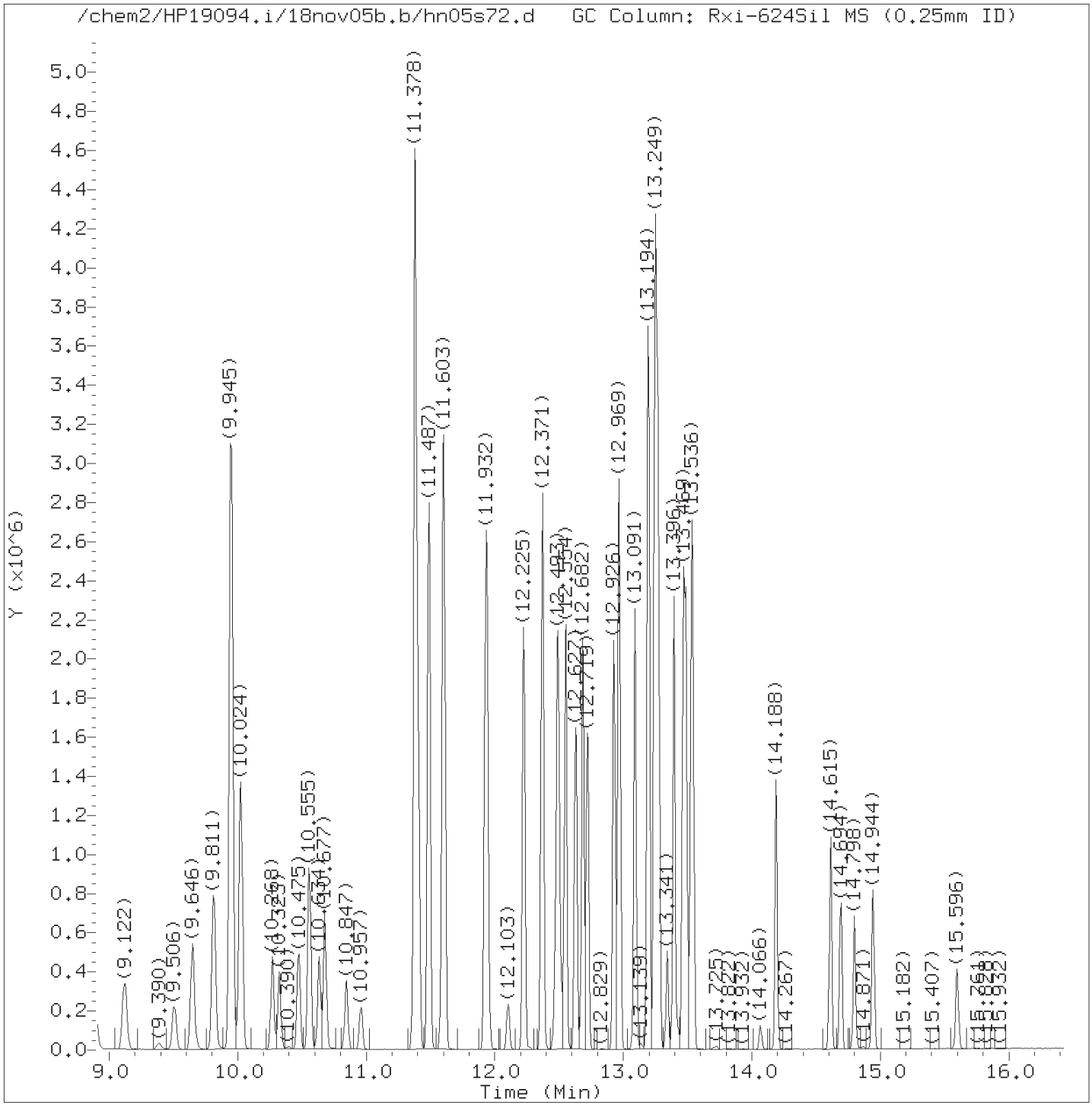
Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s72.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH96 Lab Sample ID: LCSH96

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s72.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH96 Lab Sample ID: LCSH96

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s72.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH96 Lab Sample ID: LCSH96

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(2)	2.075	85	286211	2.823
2) Chloromethane	(2)	2.276	50	335545	3.380
5) Vinyl Chloride	(2)	2.404	62	322841	3.472
7) Bromomethane	(2)	2.739	94	243767	3.372
8) Chloroethane	(2)	2.837	64	196867	3.491
10) Trichlorofluoromethane	(2)	3.141	101	405357	3.451
15) 1,1-Dichloroethene	(2)	3.751	96	229652	4.515
16) Freon 113	(2)	3.794	101	237417	3.960
14) Acetone	(1)	3.794	43	232383	29.677
18) Carbon Disulfide	(2)	4.074	76	623413	3.852
21) Methyl Acetate	(1)	4.233	43	87773	3.993
23) Methylene Chloride	(2)	4.464	84	249122	4.342
26)*t-Butyl Alcohol-d10	(1)	4.476	65	131378	50.000
30) Methyl Tertiary Butyl Ether	(2)	4.879	73	465554	4.450
31) trans-1,2-Dichloroethene	(2)	4.891	96	260391	4.536
33) 1,1-Dichloroethane	(2)	5.549	63	497514	4.552
38) 2-Butanone	(1)	6.348	43	422855	32.989
39) cis-1,2-Dichloroethene	(2)	6.379	96	296191	4.670
49) Chloroform	(2)	6.854	83	475019	4.675
50)$Dibromofluoromethane	(2)	7.074	113	624676	9.554
51) 1,1,1-Trichloroethane	(2)	7.086	97	394636	4.540
52) Cyclohexane	(2)	7.183	56	447694	3.946
54) Carbon Tetrachloride	(2)	7.293	117	338122	4.529
57)$1,2-Dichloroethane-d4	(2)	7.531	102	115973	10.175
58) Benzene	(2)	7.561	78	1102224	4.527
59) 1,2-Dichloroethane	(2)	7.634	62	252490	4.506
63)*Fluorobenzene	(2)	7.964	96	2594120	10.000
67) Trichloroethene	(2)	8.439	95	282017	4.524
69) Methylcyclohexane	(2)	8.750	83	439931	3.736
70) 1,2-Dichloropropane	(2)	8.781	63	277576	4.699
74) Bromodichloromethane	(2)	9.122	83	311472	4.690
80) cis-1,3-Dichloropropene	(2)	9.646	75	361556	4.676
81) 4-Methyl-2-Pentanone	(1)	9.811	43	683104	21.425
82)$Toluene-d8	(3)	9.945	98	2506286	10.383
83) Toluene	(3)	10.024	92	680772	4.891
84) trans-1,3-Dichloropropene	(3)	10.268	75	271337	5.060
88) 1,1,2-Trichloroethane	(3)	10.475	97	165803	5.177
89) Tetrachloroethene	(3)	10.555	166	303170	4.821

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Quant Report

Target Revision 3.5

Data File: /chem2/HP19094.i/18nov05b.b/hn05s72.d Instrument ID: HP19094.i
Injection date and time: 05-NOV-2018 21:22 Analyst ID: JGC14951

Method used: /chem2/HP19094.i/18nov05b.b/m8260c25.m Sublist used: 25789-SM
Calibration date and time: 06-NOV-2018 09:05
Date, time and analyst ID of latest file update: 07-Nov-2018 15:11 jgc14951

Sample Name: LCSH96 Lab Sample ID: LCSH96

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) 2-Hexanone	(1)	10.677	43	465804	21.463
93) Dibromochloromethane	(3)	10.847	129	190837	4.972
95) 1,2-Dibromoethane	(3)	10.957	107	149444	4.978
97)*Chlorobenzene-d5	(3)	11.378	117	1875552	10.000
98) Chlorobenzene	(3)	11.408	112	725539	4.914
100) Ethylbenzene	(3)	11.487	91	1340631	4.928
101) m+p-Xylene	(3)	11.603	106	1002943	9.940
105) Xylene (Total)	(3)		106	1481686	14.903
104) o-Xylene	(3)	11.926	106	478743	4.963
106) Styrene	(3)	11.945	104	777931	5.041
107) Bromoform	(3)	12.103	173	103921	4.926
108) Isopropylbenzene	(3)	12.225	105	1296221	4.922
111)$4-Bromofluorobenzene	(3)	12.371	95	875537	9.962
113) 1,1,2,2-Tetrachloroethane	(4)	12.469	83	186182	4.963
131) 1,3-Dichlorobenzene	(4)	13.194	146	559729	4.940
133)*1,4-Dichlorobenzene-d4	(4)	13.249	152	945698	10.000
134) 1,4-Dichlorobenzene	(4)	13.267	146	551515	4.958
139) 1,2-Dichlorobenzene	(4)	13.524	146	490387	4.905
143) 1,2-Dibromo-3-chloropropane	(1)	14.066	155	23277	4.307
145) 1,2,4-Trichlorobenzene	(4)	14.615	180	311647	4.539

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joel G. Chachapoya
on 11/07/2018 at 15:13.
Target 3.5 esignature user ID: jgc14951

Preparation Logs

Volatiles by GC/MS

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VOA Prep Summary by SDG: TID12

21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets require-ments?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
9872060	014A	07579	18818717	Y	10/26/18 09:30	10/26/18 09:30	29.69 g	35.36 g	5.67 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9872060	050A	06176	18818705	N	10/26/18 09:30	10/27/18 12:48	32.13 g	38.23 g	6.10 g	4.50 g - 5.50 g	N	6-08-16	DI Water (5 mL)	5.000	A
9872060	050B	06176	18818706	N	10/26/18 09:30	10/27/18 12:48	32.21 g	37.63 g	5.42 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9872061	014A	07579	18818718	Y	10/26/18 09:30	10/26/18 09:30	29.61 g	35.45 g	5.84 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9872061	050A	06176	18818707	N	10/26/18 09:30	10/27/18 12:48	32.38 g	38.05 g	5.67 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9872061	050B	06176	18818708	N	10/26/18 09:30	10/27/18 12:48	31.93 g	37.24 g	5.31 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	
9872062	014A	07579	18818719	Y	10/26/18 11:10	10/26/18 11:10	29.54 g	34.71 g	5.17 g	4.50 g - 5.50 g	Y	17030507	MeOH (5 mL)	5.000	
9872062	050A	06176	18818709	N	10/26/18 11:10	10/27/18 12:48	31.93 g	37.05 g	5.12 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9872062	050B	06176	18818710	N	10/26/18 11:10	10/27/18 12:48	31.80 g	36.90 g	5.10 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9872063	014A	07579	18818720	Y	10/26/18 14:55	10/26/18 14:55	29.64 g	33.85 g	4.21 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9872063	050A	06176	18818711	N	10/26/18 14:55	10/27/18 12:48	32.04 g	36.09 g	4.05 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9872063	050B	06176	18818712	N	10/26/18 14:55	10/27/18 12:48	31.81 g	36.21 g	4.40 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9872064	014A	07579	18818721	Y	10/26/18 15:40	10/26/18 15:40	29.57 g	33.66 g	4.09 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9872064	050A	06176	18818713	N	10/26/18 15:40	10/27/18 12:48	32.42 g	36.62 g	4.20 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9872064	050B	06176	18818714	N	10/26/18 15:40	10/27/18 12:48	32.46 g	37.03 g	4.57 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	
9872065	014A	07579	18818722	N	10/26/18 16:45	10/16/18 16:45	29.43 g	33.80 g	4.37 g	4.50 g - 5.50 g	N	17030507	MeOH (5 mL)	5.000	A
9872065	050A	06176	18818715	N	10/26/18 16:45	10/27/18 12:48	31.52 g	36.11 g	4.59 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9872065	050B	06176	18818716	Y	10/26/18 16:45	10/27/18 12:48	32.18 g	36.93 g	4.75 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9863853	014A	07579	18817845	N	10/22/18 11:30	10/22/18 11:30	29.37 g	35.37 g	6.00 g	4.50 g - 5.50 g	N	17030507	MeOH (5 mL)	5.000	A
9863853	050A	06176	18817833	Y	10/22/18 11:30	10/23/18 16:15	31.63 g	38.39 g	6.76 g	4.50 g - 5.50 g	N	6-08-16	DI Water (5 mL)	5.000	A
9863853	050B	06176	18817834	N	10/22/18 11:30	10/23/18 16:15	32.03 g	38.74 g	6.71 g	4.50 g - 5.50 g	N	6-08-16	DI Water (5 mL)	5.000	A
9863854	014A	07579	18817846	N	10/22/18 11:30	10/22/18 11:30	29.50 g	35.88 g	6.38 g	4.50 g - 5.50 g	N	17030507	MeOH (5 mL)	5.000	A
9863854	050A	06176	18817835	Y	10/22/18 11:30	10/23/18 16:15	32.42 g	38.61 g	6.19 g	4.50 g - 5.50 g	N	6-08-16	DI Water (5 mL)	5.000	A
9863854	050B	06176	18817836	N	10/22/18 11:30	10/23/18 16:15	32.25 g	38.83 g	6.58 g	4.50 g - 5.50 g	N	6-08-16	DI Water (5 mL)	5.000	A
9863855	014A	07579	18817847	N	10/22/18 11:30	10/22/18 11:30	29.66 g	34.31 g	4.65 g	4.50 g - 5.50 g	Y	17102494	MeOH (5 mL)	5.000	
9863855	050A	06176	18817837	N	10/22/18 11:30	10/23/18 16:16	31.97 g	38.34 g	6.37 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9863855	050B	06176	18817838	Y	10/22/18 11:30	10/23/18 16:16	32.45 g	38.65 g	6.20 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9867762	014A	07579	18818193	N	10/24/18 09:50	10/24/18 09:50	29.56 g	34.02 g	4.46 g	4.50 g - 5.50 g	N	17030507	MeOH (5 mL)	5.000	A
9867762	050A	06176	18818194	Y	10/24/18 09:50	10/25/18 16:09	31.96 g	36.70 g	4.74 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	

Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements B = vial leaked C# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
D = sampler not full E = effervescence observed F = pH >= 2 G = headspace in container

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VOA Prep Summary by SDG: TID12

21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets require-ments?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
9867762	050B	06176	18818195	N	10/24/18 09:50	10/25/18 16:09	32.04 g	36.69 g	4.65 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	
9867763	014A	07579	18818198	N	10/24/18 09:50	10/24/18 09:50	29.68 g	33.91 g	4.23 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9867763	050A	06176	18818196	N	10/24/18 09:50	10/25/18 16:09	32.21 g	36.75 g	4.54 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9867763	050B	06176	18818197	Y	10/24/18 09:50	10/25/18 16:09	32.06 g	36.93 g	4.87 g	4.50 g - 5.50 g	Y	6-08-16	DI Water (5 mL)	5.000	
9867764	014A	07579	18818199	N	10/24/18 09:50	10/24/18 09:50	29.47 g	33.12 g	3.65 g	4.50 g - 5.50 g	N	17102494	MeOH (5 mL)	5.000	A
9867764	050A	06176	18818200	Y	10/24/18 09:50	10/25/18 16:09	32.07 g	37.09 g	5.02 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	
9867764	050B	06176	18818201	N	10/24/18 09:50	10/25/18 16:09	32.07 g	36.87 g	4.80 g	4.50 g - 5.50 g	Y	3-27-17	DI Water (5 mL)	5.000	
9870251	014A	07579	18818437	N	10/25/18 11:15	10/25/18 11:15	29.60 g	34.56 g	4.96 g	4.50 g - 5.50 g	Y	17102494	MeOH (5 mL)	5.000	
9870251	050A	06176	18818429	N	10/25/18 11:15	10/26/18 15:53	32.05 g	37.84 g	5.79 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A
9870251	050B	06176	18818430	Y	10/25/18 11:15	10/26/18 15:53	31.86 g	37.47 g	5.61 g	4.50 g - 5.50 g	N	3-27-17	DI Water (5 mL)	5.000	A

Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements B = vial leaked C# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
D = sampler not full E = effervescence observed F = pH >= 2 G = headspace in container

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Semivolatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
9872060	OU2-1-SU005-06		X	1; 10	
9872061	OU2-1-SU005-06-DUP		X	1; 10	Field Duplicate Sample
9872062	OU2-1-SU005-16		X	1	
9872063	OU2-1-SU006-05		X	1	
9872064	OU2-1-SU006-14		X	10	
9872065	OU2-1-SU008-02		X	1	

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.
See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

(Sample number(s): 9872060-9872063: Analysis: 10726)
The response for Pentachlorophenol and 2-Nitroaniline in the initial calibration verification marginally exceeds the DoD acceptance criteria. Due to the marginal nature of the outlier(s), the data is reported.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method Blank

For noncompliant preparation/method blanks, corrective action is not required if the sample is ND or > 10 times the blank concentration, unless otherwise specified in the method or by the client.

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

(Sample number(s): 9872065: Analysis: 10726)
Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

LCS/LCSD

Batch#: 18302SLC026 (Sample number(s): 9872060-9872063)
The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 2,2'-oxybis(1-Chloropropane), Pyridine

Batch#: 18317SLB026 (Sample number(s): 9872065)
The recovery(ies) for the following analyte(s) in the LCS and LCSD were below the acceptance window: Pyridine

Refer to the QC Summary forms for more information.

(Sample number(s): 9872060-9872063: Analysis: 10726)
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the TNI/DoD Standards. The following analytes are accepted based on this allowance: Pyridine and 2,2'-oxybis(1-Chloropropane)

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Quality Control and Calibration Summary Forms

Semivolatiles by GC/MS

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Quality Control Reference List
GC/MS Semivolatiles

CLIENT: Tidewater, Inc.
SDG: TID12

Fraction: Semivolatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
SVOA 8270D (microwave)	18302SLC026	SBLKLC302	11/07/2018 12:00
		302LCLCS	11/07/2018 12:24
		9872060	11/12/2018 11:20
		9872060	11/12/2018 13:25
		9872061	11/12/2018 11:44
		9872061	11/12/2018 13:50
		9872062	11/12/2018 12:09
		9872063	11/12/2018 12:33
SVOA 8270D (microwave)	18302SLI026	SBLKLI302	11/11/2018 21:57
		302LILCS	11/11/2018 22:44
		9872064	11/12/2018 01:51
		9872065	11/12/2018 02:14
SVOA 8270D (microwave)	18317SLB026	SBLKLB317	11/16/2018 14:51
		317LBLCS	11/16/2018 15:39
		317LBLCSD	11/16/2018 16:03
		9872065RE	11/16/2018 18:06

Fraction: Semivolatiles by GC/MS

18302SLC026 / SBLKLC302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Pyridine	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
1,2-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
Phenol	11/07/18	N.D.	mg/kg	0.023	0.047	0.050
Aniline	11/07/18	N.D.	mg/kg	0.17	0.33	0.50
bis(2-Chloroethyl)ether	11/07/18	N.D.	mg/kg	0.023	0.047	0.050
2-Chlorophenol	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
1,3-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
1,4-Dichlorobenzene	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
Benzyl alcohol	11/07/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylphenol	11/07/18	N.D.	mg/kg	0.027	0.053	0.067
2,2'-oxybis(1-Chloropropane)	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
Hexachloroethane	11/07/18	N.D.	mg/kg	0.033	0.067	0.17
4-Methylphenol	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
Nitrobenzene	11/07/18	N.D.	mg/kg	0.027	0.053	0.067
N-Nitroso-di-n-propylamine	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
bis(2-Chloroethoxy)methane	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dichlorophenol	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dimethylphenol	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
Isophorone	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
2-Nitrophenol	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
1,2,4-Trichlorobenzene	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloro-3-methylphenol	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloroaniline	11/07/18	N.D.	mg/kg	0.033	0.067	0.17
2-Chloronaphthalene	11/07/18	N.D.	mg/kg	0.007	0.013	0.033
Dimethylphthalate	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
Hexachlorobutadiene	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorocyclopentadiene	11/07/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylnaphthalene	11/07/18	N.D.	mg/kg	0.010	0.020	0.033
2-Nitroaniline	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,5-Trichlorophenol	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,6-Trichlorophenol	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
4-Bromophenyl-phenylether	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
Carbazole	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chlorophenyl-phenylether	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
Dibenzofuran	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
3,3'-Dichlorobenzidine	11/07/18	N.D.	mg/kg	0.10	0.20	0.33
Diethylphthalate	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
4,6-Dinitro-2-methylphenol	11/07/18	N.D.	mg/kg	0.17	0.33	0.50
2,4-Dinitrophenol	11/07/18	N.D.	mg/kg	0.37	0.73	1.0
2,4-Dinitrotoluene	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
2,6-Dinitrotoluene	11/07/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorobenzene	11/07/18	N.D.	mg/kg	0.003	0.007	0.017
3-Nitroaniline	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitroaniline	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitrophenol	11/07/18	N.D.	mg/kg	0.17	0.33	0.50

Fraction: Semivolatiles by GC/MS

18302SLC026 / SBLKLC302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
N-Nitrosodiphenylamine	11/07/18	N.D.	mg/kg	0.017	0.033	0.037
Di-n-octylphthalate	11/07/18	N.D.	mg/kg	0.067	0.13	0.17
Pentachlorophenol	11/07/18	N.D.	mg/kg	0.037	0.13	0.17

18302SLI026 / SBLKLI302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Pyridine	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
1,2-Dichlorobenzene	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
Phenol	11/11/18	N.D.	mg/kg	0.023	0.047	0.050
Aniline	11/11/18	N.D.	mg/kg	0.17	0.33	0.50
bis(2-Chloroethyl)ether	11/11/18	N.D.	mg/kg	0.023	0.047	0.050
2-Chlorophenol	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
1,3-Dichlorobenzene	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
1,4-Dichlorobenzene	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
Benzyl alcohol	11/11/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylphenol	11/11/18	N.D.	mg/kg	0.027	0.053	0.067
2,2'-oxybis(1-Chloropropane)	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
Hexachloroethane	11/11/18	N.D.	mg/kg	0.033	0.067	0.17
4-Methylphenol	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
Nitrobenzene	11/11/18	N.D.	mg/kg	0.027	0.053	0.067
N-Nitroso-di-n-propylamine	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
bis(2-Chloroethoxy)methane	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dichlorophenol	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dimethylphenol	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
Isophorone	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
2-Nitrophenol	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
1,2,4-Trichlorobenzene	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloro-3-methylphenol	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloroaniline	11/11/18	N.D.	mg/kg	0.033	0.067	0.17
2-Chloronaphthalene	11/11/18	N.D.	mg/kg	0.007	0.013	0.033
Dimethylphthalate	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
Hexachlorobutadiene	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorocyclopentadiene	11/11/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylnaphthalene	11/11/18	0.012 J	mg/kg	0.010	0.020	0.033
2-Nitroaniline	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,5-Trichlorophenol	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,6-Trichlorophenol	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
4-Bromophenyl-phenylether	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
Carbazole	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chlorophenyl-phenylether	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
Dibenzofuran	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
3,3'-Dichlorobenzidine	11/11/18	N.D.	mg/kg	0.10	0.20	0.33
Diethylphthalate	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
4,6-Dinitro-2-methylphenol	11/11/18	N.D.	mg/kg	0.17	0.33	0.50
2,4-Dinitrophenol	11/11/18	N.D.	mg/kg	0.37	0.73	1.0

Fraction: Semivolatiles by GC/MS

18302SLI026 / SBLKLI302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
2,4-Dinitrotoluene	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
2,6-Dinitrotoluene	11/11/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorobenzene	11/11/18	N.D.	mg/kg	0.003	0.007	0.017
3-Nitroaniline	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitroaniline	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitrophenol	11/11/18	N.D.	mg/kg	0.17	0.33	0.50
N-Nitrosodiphenylamine	11/11/18	N.D.	mg/kg	0.017	0.033	0.037
Di-n-octylphthalate	11/11/18	N.D.	mg/kg	0.067	0.13	0.17
Pentachlorophenol	11/11/18	N.D.	mg/kg	0.037	0.13	0.17

18317SLB026 / SBLKLB317 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Pyridine	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
1,2-Dichlorobenzene	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
Phenol	11/16/18	N.D.	mg/kg	0.023	0.047	0.050
Aniline	11/16/18	N.D.	mg/kg	0.17	0.33	0.50
bis(2-Chloroethyl)ether	11/16/18	N.D.	mg/kg	0.023	0.047	0.050
2-Chlorophenol	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
1,3-Dichlorobenzene	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
1,4-Dichlorobenzene	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
Benzyl alcohol	11/16/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylphenol	11/16/18	N.D.	mg/kg	0.027	0.053	0.067
2,2'-oxybis(1-Chloropropane)	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
Hexachloroethane	11/16/18	N.D.	mg/kg	0.033	0.067	0.17
4-Methylphenol	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
Nitrobenzene	11/16/18	N.D.	mg/kg	0.027	0.053	0.067
N-Nitroso-di-n-propylamine	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
bis(2-Chloroethoxy)methane	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dichlorophenol	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
2,4-Dimethylphenol	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
Isophorone	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
2-Nitrophenol	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
1,2,4-Trichlorobenzene	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloro-3-methylphenol	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
4-Chloroaniline	11/16/18	N.D.	mg/kg	0.033	0.067	0.17
2-Chloronaphthalene	11/16/18	N.D.	mg/kg	0.007	0.013	0.033
Dimethylphthalate	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
Hexachlorobutadiene	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorocyclopentadiene	11/16/18	N.D.	mg/kg	0.17	0.33	0.50
2-Methylnaphthalene	11/16/18	N.D.	mg/kg	0.010	0.020	0.033
2-Nitroaniline	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,5-Trichlorophenol	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
2,4,6-Trichlorophenol	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
4-Bromophenyl-phenylether	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
Carbazole	11/16/18	N.D.	mg/kg	0.017	0.033	0.037

Fraction: Semivolatiles by GC/MS

18317SLB026 / SBLKLB317 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
4-Chlorophenyl-phenylether	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
Dibenzofuran	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
3,3'-Dichlorobenzidine	11/16/18	N.D.	mg/kg	0.10	0.20	0.33
Diethylphthalate	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
4,6-Dinitro-2-methylphenol	11/16/18	N.D.	mg/kg	0.17	0.33	0.50
2,4-Dinitrophenol	11/16/18	N.D.	mg/kg	0.37	0.73	1.0
2,4-Dinitrotoluene	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
2,6-Dinitrotoluene	11/16/18	N.D.	mg/kg	0.020	0.040	0.050
Hexachlorobenzene	11/16/18	N.D.	mg/kg	0.003	0.007	0.017
3-Nitroaniline	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitroaniline	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
4-Nitrophenol	11/16/18	N.D.	mg/kg	0.17	0.33	0.50
N-Nitrosodiphenylamine	11/16/18	N.D.	mg/kg	0.017	0.033	0.037
Di-n-octylphthalate	11/16/18	N.D.	mg/kg	0.067	0.13	0.17
Pentachlorophenol	11/16/18	N.D.	mg/kg	0.037	0.13	0.17

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Quality Control Summary
Surrogates
GC/MS Semivolatiles
SDG: TID12
Matrix: SOLID

Fraction: Semivolatiles by GC/MS

18302SLC026	2,4,6-Tribromophenol		2-Fluorobiphenyl		2-Fluorophenol		Nitrobenzene-d5		Phenol-d6		Terphenyl-d14	
	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLC302	88	39 - 132	89	44 - 115	102	35 - 115	90	37 - 122	94	47 - 120	89	54 - 127
302LCLCS	74	39 - 132	77	44 - 115	90	35 - 115	82	37 - 122	87	47 - 120	78	54 - 127
9872060	72	39 - 132	90	44 - 115	96	35 - 115	90	37 - 122	90	47 - 120	81	54 - 127
9872061	68	39 - 132	83	44 - 115	87	35 - 115	94	37 - 122	84	47 - 120	87	54 - 127
9872062	67	39 - 132	81	44 - 115	90	35 - 115	95	37 - 122	86	47 - 120	82	54 - 127
9872063	71	39 - 132	95	44 - 115	81	35 - 115	94	37 - 122	80	47 - 120	94	54 - 127

18302SLI026	2,4,6-Tribromophenol		2-Fluorobiphenyl		2-Fluorophenol		Nitrobenzene-d5		Phenol-d6		Terphenyl-d14	
	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLI302	87	39 - 132	86	44 - 115	87	35 - 115	84	37 - 122	81	47 - 120	100	54 - 127
302LILCS	95	39 - 132	94	44 - 115	87	35 - 115	86	37 - 122	81	47 - 120	98	54 - 127
9872064	82	39 - 132	91	44 - 115	84	35 - 115	88	37 - 122	82	47 - 120	100	54 - 127
9872065	45	39 - 132	77	44 - 115	58	35 - 115	70	37 - 122	62	47 - 120	83	54 - 127

18317SLB026	2,4,6-Tribromophenol		2-Fluorobiphenyl		2-Fluorophenol		Nitrobenzene-d5		Phenol-d6		Terphenyl-d14	
	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg	Spike Added	6.666667 mg/kg	Spike Added	3.333333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLB317	96	39 - 132	75	44 - 115	78	35 - 115	74	37 - 122	73	47 - 120	82	54 - 127
317LBLCS	98	39 - 132	75	44 - 115	85	35 - 115	77	37 - 122	80	47 - 120	82	54 - 127
317LBLCSD	98	39 - 132	75	44 - 115	83	35 - 115	77	37 - 122	79	47 - 120	81	54 - 127
9872065RE	54	39 - 132	64	44 - 115	60	35 - 115	62	37 - 122	59	47 - 120	67	54 - 127

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: TID12
Matrix: SOLID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 302LCLCS	Batch: **18302SLC026** (Sample number(s): 9872060-9872063)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Pyridine	1.67	0.927	NA	56 *	NA	57-96	NA	NA
1,2-Dichlorobenzene	1.67	1.43	NA	86	NA	33-117	NA	NA
Phenol	1.67	1.59	NA	96	NA	34-121	NA	NA
Aniline	1.67	1.15	NA	69	NA	44-113	NA	NA
bis(2-Chloroethyl)ether	1.67	1.49	NA	89	NA	31-120	NA	NA
2-Chlorophenol	1.67	1.39	NA	84	NA	34-121	NA	NA
1,3-Dichlorobenzene	1.67	1.37	NA	82	NA	30-115	NA	NA
1,4-Dichlorobenzene	1.67	1.44	NA	87	NA	31-115	NA	NA
Benzyl alcohol	1.67	1.42	NA	85	NA	29-122	NA	NA
2-Methylphenol	1.67	1.58	NA	95	NA	32-122	NA	NA
2,2'-oxybis(1-Chloropropane)	1.67	1.09	NA	65 *	NA	68-112	NA	NA
4-Methylphenol	1.67	1.56	NA	94	NA	42-126	NA	NA
Hexachloroethane	1.67	1.29	NA	77	NA	28-117	NA	NA
Nitrobenzene	1.67	1.35	NA	81	NA	34-122	NA	NA
N-Nitroso-di-n-propylamine	1.67	1.27	NA	76	NA	36-120	NA	NA
1,2,4-Trichlorobenzene	1.67	1.48	NA	89	NA	34-118	NA	NA
2,4-Dichlorophenol	1.67	1.60	NA	96	NA	40-122	NA	NA
2,4-Dimethylphenol	1.67	1.20	NA	72	NA	30-127	NA	NA
2-Nitrophenol	1.67	1.61	NA	97	NA	36-123	NA	NA
bis(2-Chloroethoxy)methane	1.67	1.49	NA	90	NA	36-121	NA	NA
Isophorone	1.67	1.44	NA	86	NA	30-122	NA	NA
2,4,5-Trichlorophenol	1.67	1.46	NA	88	NA	41-124	NA	NA
2,4,6-Trichlorophenol	1.67	1.53	NA	92	NA	39-126	NA	NA
2-Chloronaphthalene	1.67	1.48	NA	89	NA	41-114	NA	NA
2-Methylnaphthalene	1.67	1.45	NA	87	NA	38-122	NA	NA
2-Nitroaniline	1.67	1.53	NA	92	NA	44-127	NA	NA
4-Chloro-3-methylphenol	1.67	1.58	NA	95	NA	45-122	NA	NA
4-Chloroaniline	1.67	1.01	NA	61	NA	17-106	NA	NA
Dimethylphthalate	1.67	1.35	NA	81	NA	48-124	NA	NA
Hexachlorobutadiene	1.67	1.52	NA	91	NA	32-123	NA	NA
Hexachlorocyclopentadiene	3.33	2.12	NA	64	NA	37-161	NA	NA
2,4-Dinitrophenol	3.33	3.25	NA	97	NA	41-136	NA	NA
2,4-Dinitrotoluene	1.67	1.47	NA	88	NA	48-126	NA	NA
2,6-Dinitrotoluene	1.67	1.52	NA	91	NA	46-124	NA	NA
3,3'-Dichlorobenzidine	1.67	1.13	NA	68	NA	22-121	NA	NA
3-Nitroaniline	1.67	1.45	NA	87	NA	33-119	NA	NA
4,6-Dinitro-2-methylphenol	1.67	1.69	NA	101	NA	29-132	NA	NA
4-Bromophenyl-phenylether	1.67	1.31	NA	79	NA	46-124	NA	NA
4-Chlorophenyl-phenylether	1.67	1.34	NA	80	NA	45-121	NA	NA
4-Nitroaniline	1.67	1.11	NA	66	NA	54-103	NA	NA
4-Nitrophenol	1.67	1.08	NA	65	NA	30-132	NA	NA
Carbazole	1.67	1.42	NA	85	NA	50-123	NA	NA

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 302LCLCS	Batch: **18302SLC026** (Sample number(s): 9872060-9872063)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dibenzofuran	1.67	1.41	NA	84	NA	44-120	NA	NA
Diethylphthalate	1.67	1.30	NA	78	NA	50-124	NA	NA
Di-n-octylphthalate	1.67	1.47	NA	88	NA	45-140	NA	NA
Hexachlorobenzene	1.67	1.28	NA	77	NA	45-122	NA	NA
N-Nitrosodiphenylamine	1.67	1.40	NA	84	NA	38-127	NA	NA
Pentachlorophenol	1.67	1.20	NA	72	NA	25-133	NA	NA

LCS: 302LILCS	Batch: **18302SLI026** (Sample number(s): 9872064-9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Pyridine	1.67	0.993	NA	60	NA	57-96	NA	NA
1,2-Dichlorobenzene	1.67	1.33	NA	80	NA	33-117	NA	NA
Phenol	1.67	1.42	NA	85	NA	34-121	NA	NA
Aniline	1.67	0.843	NA	51	NA	44-113	NA	NA
bis(2-Chloroethyl)ether	1.67	1.32	NA	79	NA	31-120	NA	NA
2-Chlorophenol	1.67	1.41	NA	84	NA	34-121	NA	NA
1,3-Dichlorobenzene	1.67	1.35	NA	81	NA	30-115	NA	NA
1,4-Dichlorobenzene	1.67	1.37	NA	82	NA	31-115	NA	NA
Benzyl alcohol	1.67	1.42	NA	85	NA	29-122	NA	NA
2-Methylphenol	1.67	1.40	NA	84	NA	32-122	NA	NA
2,2'-oxybis(1-Chloropropane)	1.67	1.30	NA	78	NA	68-112	NA	NA
4-Methylphenol	1.67	1.39	NA	83	NA	42-126	NA	NA
Hexachloroethane	1.67	1.35	NA	81	NA	28-117	NA	NA
Nitrobenzene	1.67	1.43	NA	86	NA	34-122	NA	NA
N-Nitroso-di-n-propylamine	1.67	1.35	NA	81	NA	36-120	NA	NA
1,2,4-Trichlorobenzene	1.67	1.48	NA	89	NA	34-118	NA	NA
2,4-Dichlorophenol	1.67	1.51	NA	91	NA	40-122	NA	NA
2,4-Dimethylphenol	1.67	1.16	NA	70	NA	30-127	NA	NA
2-Nitrophenol	1.67	1.48	NA	89	NA	36-123	NA	NA
bis(2-Chloroethoxy)methane	1.67	1.48	NA	89	NA	36-121	NA	NA
Isophorone	1.67	1.46	NA	88	NA	30-122	NA	NA
2,4,5-Trichlorophenol	1.67	1.66	NA	99	NA	41-124	NA	NA
2,4,6-Trichlorophenol	1.67	1.65	NA	99	NA	39-126	NA	NA
2-Chloronaphthalene	1.67	1.54	NA	92	NA	41-114	NA	NA
2-Methylnaphthalene	1.67	1.49	NA	89	NA	38-122	NA	NA
2-Nitroaniline	1.67	1.60	NA	96	NA	44-127	NA	NA
4-Chloro-3-methylphenol	1.67	1.53	NA	92	NA	45-122	NA	NA
4-Chloroaniline	1.67	0.936	NA	56	NA	17-106	NA	NA
Dimethylphthalate	1.67	1.60	NA	96	NA	48-124	NA	NA
Hexachlorobutadiene	1.67	1.54	NA	93	NA	32-123	NA	NA
Hexachlorocyclopentadiene	3.33	2.51	NA	75	NA	37-161	NA	NA

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 302LILCS	Batch: **18302SLI026** (Sample number(s): 9872064-9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
2,4-Dinitrophenol	3.33	3.39	NA	102	NA	41-136	NA	NA
2,4-Dinitrotoluene	1.67	1.58	NA	95	NA	48-126	NA	NA
2,6-Dinitrotoluene	1.67	1.56	NA	94	NA	46-124	NA	NA
3,3'-Dichlorobenzidine	1.67	1.23	NA	74	NA	22-121	NA	NA
3-Nitroaniline	1.67	1.50	NA	90	NA	33-119	NA	NA
4,6-Dinitro-2-methylphenol	1.67	1.56	NA	94	NA	29-132	NA	NA
4-Bromophenyl-phenylether	1.67	1.58	NA	95	NA	46-124	NA	NA
4-Chlorophenyl-phenylether	1.67	1.54	NA	92	NA	45-121	NA	NA
4-Nitroaniline	1.67	1.30	NA	78	NA	54-103	NA	NA
4-Nitrophenol	1.67	1.47	NA	88	NA	30-132	NA	NA
Carbazole	1.67	1.58	NA	95	NA	50-123	NA	NA
Dibenzofuran	1.67	1.58	NA	95	NA	44-120	NA	NA
Diethylphthalate	1.67	1.60	NA	96	NA	50-124	NA	NA
Di-n-octylphthalate	1.67	1.65	NA	99	NA	45-140	NA	NA
Hexachlorobenzene	1.67	1.57	NA	94	NA	45-122	NA	NA
N-Nitrosodiphenylamine	1.67	1.56	NA	94	NA	38-127	NA	NA
Pentachlorophenol	1.67	1.64	NA	99	NA	25-133	NA	NA

LCS: 317LBLCS LCSD: 317LBLCSD	Batch: **18317SLB026** (Sample number(s): 9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Pyridine	1.67	0.921	0.834	55 *	50 *	57-96	10	30
1,2-Dichlorobenzene	1.67	1.23	1.21	74	73	33-117	2	20
Phenol	1.67	1.28	1.26	77	75	34-121	1	20
Aniline	1.67	0.873	0.851	52	51	44-113	3	30
bis(2-Chloroethyl)ether	1.67	1.23	1.24	74	74	31-120	1	20
2-Chlorophenol	1.67	1.50	1.45	90	87	34-121	4	20
1,3-Dichlorobenzene	1.67	1.28	1.21	77	73	30-115	6	20
1,4-Dichlorobenzene	1.67	1.30	1.19	78	71	31-115	10	20
Benzyl alcohol	1.67	1.38	1.42	83	85	29-122	3	20
2-Methylphenol	1.67	1.31	1.33	79	80	32-122	1	20
2,2'-oxybis(1-Chloropropane)	1.67	1.21	1.21	73	73	68-112	0	30
4-Methylphenol	1.67	1.47	1.48	88	89	42-126	1	20
Hexachloroethane	1.67	1.34	1.26	81	76	28-117	6	20
Nitrobenzene	1.67	1.27	1.28	76	77	34-122	1	20
N-Nitroso-di-n-propylamine	1.67	1.28	1.28	77	77	36-120	0	20
1,2,4-Trichlorobenzene	1.67	1.35	1.36	81	82	34-118	1	20
2,4-Dichlorophenol	1.67	1.47	1.52	88	91	40-122	4	20
2,4-Dimethylphenol	1.67	1.14	1.19	68	71	30-127	4	20
2-Nitrophenol	1.67	1.41	1.41	85	84	36-123	0	20
bis(2-Chloroethoxy)methane	1.67	1.34	1.36	80	81	36-121	2	20

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 317LBLCS LCSD: 317LBLCSD	Batch: **18317SLB026** (Sample number(s): 9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Isophorone	1.67	1.29	1.32	77	79	30-122	3	20
2,4,5-Trichlorophenol	1.67	1.49	1.41	89	85	41-124	5	20
2,4,6-Trichlorophenol	1.67	1.46	1.48	87	89	39-126	1	20
2-Chloronaphthalene	1.67	1.29	1.28	78	77	41-114	1	20
2-Methylnaphthalene	1.67	1.36	1.42	82	85	38-122	4	20
2-Nitroaniline	1.67	1.50	1.52	90	91	44-127	1	20
4-Chloro-3-methylphenol	1.67	1.55	1.62	93	97	45-122	5	20
4-Chloroaniline	1.67	0.391	0.466	23	28	17-106	18	20
Dimethylphthalate	1.67	1.41	1.34	85	80	48-124	5	20
Hexachlorobutadiene	1.67	1.33	1.38	80	83	32-123	4	20
Hexachlorocyclopentadiene	3.33	2.14	1.99	64	60	37-161	7	30
2,4-Dinitrophenol	3.33	2.48	2.55	74	77	41-136	3	30
2,4-Dinitrotoluene	1.67	1.43	1.46	86	88	48-126	2	20
2,6-Dinitrotoluene	1.67	1.44	1.47	86	88	46-124	2	20
3,3'-Dichlorobenzidine	1.67	0.994	0.989	60	59	22-121	1	20
3-Nitroaniline	1.67	1.27	1.30	76	78	33-119	2	20
4,6-Dinitro-2-methylphenol	1.67	1.36	1.33	82	80	29-132	2	20
4-Bromophenyl-phenylether	1.67	1.31	1.24	78	75	46-124	5	20
4-Chlorophenyl-phenylether	1.67	1.37	1.35	82	81	45-121	2	20
4-Nitroaniline	1.67	1.10	1.07	66	64	54-103	3	30
4-Nitrophenol	1.67	1.46	1.36	88	81	30-132	7	20
Carbazole	1.67	1.46	1.40	88	84	50-123	5	20
Dibenzofuran	1.67	1.41	1.35	84	81	44-120	4	20
Diethylphthalate	1.67	1.40	1.41	84	84	50-124	0	20
Di-n-octylphthalate	1.67	1.46	1.48	88	89	45-140	1	20
Hexachlorobenzene	1.67	1.36	1.25	82	75	45-122	9	20
N-Nitrosodiphenylamine	1.67	1.43	1.36	86	81	38-127	5	20
Pentachlorophenol	1.67	1.15	1.11	69	66	25-133	4	20

Fraction: Semivolatiles by GC/MS

10726: SVOA 8270D (microwave) Analyte Name	Default DL	Default LOD	Default LOQ	Units
Pyridine	0.067	0.13	0.17	mg/kg
1,2-Dichlorobenzene	0.020	0.040	0.050	mg/kg
Phenol	0.023	0.047	0.050	mg/kg
Aniline	0.17	0.33	0.50	mg/kg
bis(2-Chloroethyl)ether	0.023	0.047	0.050	mg/kg
2-Chlorophenol	0.017	0.033	0.037	mg/kg
1,3-Dichlorobenzene	0.017	0.033	0.037	mg/kg
1,4-Dichlorobenzene	0.017	0.033	0.037	mg/kg
Benzyl alcohol	0.17	0.33	0.50	mg/kg
2-Methylphenol	0.027	0.053	0.067	mg/kg
2,2'-oxybis(1-Chloropropane)	0.017	0.033	0.037	mg/kg
4-Methylphenol	0.020	0.040	0.050	mg/kg
N-Nitroso-di-n-propylamine	0.020	0.040	0.050	mg/kg
Hexachloroethane	0.033	0.067	0.17	mg/kg
Nitrobenzene	0.027	0.053	0.067	mg/kg
Isophorone	0.017	0.033	0.037	mg/kg
2-Nitrophenol	0.017	0.033	0.037	mg/kg
2,4-Dimethylphenol	0.017	0.033	0.037	mg/kg
bis(2-Chloroethoxy)methane	0.017	0.033	0.037	mg/kg
2,4-Dichlorophenol	0.017	0.033	0.037	mg/kg
1,2,4-Trichlorobenzene	0.017	0.033	0.037	mg/kg
4-Chloroaniline	0.033	0.067	0.17	mg/kg
Hexachlorobutadiene	0.020	0.040	0.050	mg/kg
4-Chloro-3-methylphenol	0.017	0.033	0.037	mg/kg
2-Methylnaphthalene	0.010	0.020	0.033	mg/kg
Hexachlorocyclopentadiene	0.17	0.33	0.50	mg/kg
2,4,6-Trichlorophenol	0.020	0.040	0.050	mg/kg
2,4,5-Trichlorophenol	0.020	0.040	0.050	mg/kg
2-Chloronaphthalene	0.007	0.013	0.033	mg/kg
2-Nitroaniline	0.020	0.040	0.050	mg/kg
Dimethylphthalate	0.067	0.13	0.17	mg/kg
2,6-Dinitrotoluene	0.020	0.040	0.050	mg/kg
3-Nitroaniline	0.067	0.13	0.17	mg/kg
2,4-Dinitrophenol	0.37	0.73	1.0	mg/kg
4-Nitrophenol	0.17	0.33	0.50	mg/kg
2,4-Dinitrotoluene	0.067	0.13	0.17	mg/kg
Dibenzofuran	0.017	0.033	0.037	mg/kg
Diethylphthalate	0.067	0.13	0.17	mg/kg
4-Chlorophenyl-phenylether	0.017	0.033	0.037	mg/kg
4-Nitroaniline	0.067	0.13	0.17	mg/kg
4,6-Dinitro-2-methylphenol	0.17	0.33	0.50	mg/kg
N-Nitrosodiphenylamine	0.017	0.033	0.037	mg/kg
4-Bromophenyl-phenylether	0.020	0.040	0.050	mg/kg
Hexachlorobenzene	0.003	0.007	0.017	mg/kg
Pentachlorophenol	0.037	0.13	0.17	mg/kg
Carbazole	0.017	0.033	0.037	mg/kg
3,3'-Dichlorobenzidine	0.10	0.20	0.33	mg/kg

Fraction: Semivolatiles by GC/MS

10726: SVOA 8270D (microwave) Analyte Name	Default DL	Default LOD	Default LOQ	Units
Di-n-octylphthalate	0.067	0.13	0.17	mg/kg

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gj1180b.d DFTPP Injection Date: 10/20/18

Instrument ID: HP11165 DFTPP Injection Time: 01:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	59.5
68	Less than 2.0% of mass 69	1.06 (1.68)1
69	Mass 69 relative abundance	63.0
70	Less than 2.0% of mass 69	0.42 (0.67)1
127	10.0 - 80.00% of mass 198	61.4
197	Less than 2.0% of mass 198	0.74
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.04
275	10.0 - 60.0% of mass 198	26.2
365	Greater than 1.00% of mass 198	3.27
441	Present, and less than mass 443	10.6
442	Greater than 50.00% of mass 198	71.7
443	15.00 - 24.00% of mass 442	14.7 (20.5)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gj1181a.d	10/20/18	01:30
02	STD2928 - SSTD120	gj1182.d	10/20/18	01:56
03	STD2928 - SSTD80	gj1183.d	10/20/18	02:22
04	STD2928 - SSTD50	gj1184.d	10/20/18	02:48
05	STD2928 - SSTD15	gj1185.d	10/20/18	03:14
06	STD2928 - SSTD5	gj1186.d	10/20/18	03:40
07	STD2928 - SSTD1	gj1187.d	10/20/18	04:06
08	STD2928 - SSTD.5	gj1188.d	10/20/18	04:32
09	MDL2928 - SSTD0.50	gj1189.d	10/20/18	04:58
10	MDLPAH2928 - SSTD0.10	gj1190.d	10/20/18	05:24
11	BAS2408 - SSTD50	gj1192.d	10/20/18	06:16
12	BAS2408 - SSTD120	gj1193.d	10/20/18	06:42
13	BAS2408 - SSTD80	gj1194.d	10/20/18	07:08
14	BAS2408 - SSTD30	gj1195.d	10/20/18	07:34
15	BAS2408 - SSTD15	gj1196.d	10/20/18	08:00
16	BAS2408 - SSTD5	gj1197.d	10/20/18	08:26
17	BASMDL2408 - SSTD001	gj1198.d	10/20/18	08:52
18	BASICV1218 - SSTD050	gj1199.d	10/20/18	10:11

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gj1180b.d DFTPP Injection Date: 10/20/18

Instrument ID: HP11165 DFTPP Injection Time: 01:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	59.5
68	Less than 2.0% of mass 69	1.06 (1.68)1
69	Mass 69 relative abundance	63.0
70	Less than 2.0% of mass 69	0.42 (0.67)1
127	10.0 - 80.00% of mass 198	61.4
197	Less than 2.0% of mass 198	0.74
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.04
275	10.0 - 60.0% of mass 198	26.2
365	Greater than 1.00% of mass 198	3.27
441	Present, and less than mass 443	10.6
442	Greater than 50.00% of mass 198	71.7
443	15.00 - 24.00% of mass 442	14.7 (20.5)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED

FORM V SV

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gj1220a.d DFTPP Injection Date: 10/21/18

Instrument ID: HP11165 DFTPP Injection Time: 11:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	61.6
68	Less than 2.0% of mass 69	1.26 (1.97)1
69	Mass 69 relative abundance	64.3
70	Less than 2.0% of mass 69	0.36 (0.55)1
127	10.0 - 80.00% of mass 198	63.5
197	Less than 2.0% of mass 198	0.61
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.19
275	10.0 - 60.0% of mass 198	27.2
365	Greater than 1.00% of mass 198	3.08
441	Present, and less than mass 443	11.3
442	Greater than 50.00% of mass 198	75.2
443	15.00 - 24.00% of mass 442	14.4 (19.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gj1221.d	10/21/18	11:40
02	BAS2408 - SSTD30	gj1222.d	10/21/18	12:22
03	ICV2628 - SSTD050	gj1225.d	10/21/18	13:42

FORM V SV

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0310.d DFTPP Injection Date: 11/07/18

Instrument ID: HP11165 DFTPP Injection Time: 08:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	44.4
68	Less than 2.0% of mass 69	0.67 (1.31)1
69	Mass 69 relative abundance	51.3
70	Less than 2.0% of mass 69	0.34 (0.66)1
127	10.0 - 80.00% of mass 198	54.6
197	Less than 2.0% of mass 198	0.5
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.44
275	10.0 - 60.0% of mass 198	28.0
365	Greater than 1.00% of mass 198	3.17
441	Present, and less than mass 443	9.47
442	Greater than 50.00% of mass 198	64.9
443	15.00 - 24.00% of mass 442	13.7 (21.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gk0311.d	11/07/18	09:12
02	BAS3108 - SSTD50	gk0312.d	11/07/18	09:50
03	SBLKLC302	gk0313.d	11/07/18	12:00
04	302LCLCS	gk0314.d	11/07/18	12:24
05	9863853	gk0315.d	11/07/18	12:49
06	9863854MS	gk0316.d	11/07/18	13:13
07	9863855MSD	gk0317.d	11/07/18	13:38
08	9863851	gk0318.d	11/07/18	14:03
09	9863852	gk0319.d	11/07/18	14:28
10	9863857	gk0320.d	11/07/18	14:52
11	9863858	gk0321.d	11/07/18	15:17
12	9866461	gk0322.d	11/07/18	15:41
13	9866462	gk0323.d	11/07/18	16:06
14	9866463	gk0324.d	11/07/18	16:31
15	9866464	gk0325.d	11/07/18	16:56
16	9866465	gk0326.d	11/07/18	17:20
17	9866466	gk0327.d	11/07/18	17:45
18	9866467	gk0328.d	11/07/18	18:10

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0310.d DFTPP Injection Date: 11/07/18

Instrument ID: HP11165 DFTPP Injection Time: 08:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	44.4
68	Less than 2.0% of mass 69	0.67 (1.31)1
69	Mass 69 relative abundance	51.3
70	Less than 2.0% of mass 69	0.34 (0.66)1
127	10.0 - 80.00% of mass 198	54.6
197	Less than 2.0% of mass 198	0.5
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.44
275	10.0 - 60.0% of mass 198	28.0
365	Greater than 1.00% of mass 198	3.17
441	Present, and less than mass 443	9.47
442	Greater than 50.00% of mass 198	64.9
443	15.00 - 24.00% of mass 442	13.7 (21.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	9870251	gk0329.d	11/07/18	18:34
20	9870253	gk0331.d	11/07/18	19:23
21	STD2928	gk0337.d	11/07/18	19:48

FORM V SV

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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0550c.d DFTPP Injection Date: 11/11/18

Instrument ID: HP11165 DFTPP Injection Time: 10:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	50.8
68	Less than 2.0% of mass 69	0.83 (1.37)1
69	Mass 69 relative abundance	60.5
70	Less than 2.0% of mass 69	0.51 (0.84)1
127	10.0 - 80.00% of mass 198	57.2
197	Less than 2.0% of mass 198	1.25
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.26
275	10.0 - 60.0% of mass 198	23.8
365	Greater than 1.00% of mass 198	2.56
441	Present, and less than mass 443	8.15
442	Greater than 50.00% of mass 198	55.2
443	15.00 - 24.00% of mass 442	10.1 (18.3)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gk0551.d	11/11/18	10:36
02	STD2928 - SSTD120	gk0552.d	11/11/18	12:07
03	STD2928 - SSTD80	gk0553.d	11/11/18	12:31
04	STD2928 - SSTD50	gk0554.d	11/11/18	12:55
05	STD2928 - SSTD15	gk0555.d	11/11/18	13:20
06	STD2928 - SSTD5	gk0556.d	11/11/18	13:44
07	STD2928 - SSTD1	gk0557.d	11/11/18	14:08
08	STD2928 - SSTD.5	gk0558.d	11/11/18	14:32
09	MDL2928 - SSTD0.50	gk0559.d	11/11/18	14:57
10	MDLPAH2928 - SSTD0.10	gk0560.d	11/11/18	15:21
11	ICV2968 - SSTD050	gk0561.d	11/11/18	15:45
12	BAS3108 - SSTD50	gk0562.d	11/11/18	16:10
13	BAS3108 - SSTD120	gk0563.d	11/11/18	16:34
14	BAS3108 - SSTD80	gk0564.d	11/11/18	16:58
15	BAS3108 - SSTD30	gk0565.d	11/11/18	17:22
16	BAS3108 - SSTD15	gk0566.d	11/11/18	17:47
17	BAS3108 - SSTD5	gk0567.d	11/11/18	18:11
18	BASMDL3108 - SSTD001	gk0568.d	11/11/18	18:36

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0550c.d DFTPP Injection Date: 11/11/18

Instrument ID: HP11165 DFTPP Injection Time: 10:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	50.8
68	Less than 2.0% of mass 69	0.83 (1.37)1
69	Mass 69 relative abundance	60.5
70	Less than 2.0% of mass 69	0.51 (0.84)1
127	10.0 - 80.00% of mass 198	57.2
197	Less than 2.0% of mass 198	1.25
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.26
275	10.0 - 60.0% of mass 198	23.8
365	Greater than 1.00% of mass 198	2.56
441	Present, and less than mass 443	8.15
442	Greater than 50.00% of mass 198	55.2
443	15.00 - 24.00% of mass 442	10.1 (18.3)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	BASICV2578 - SSTD050	gk0569.d	11/11/18	19:01

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0590.d DFTPP Injection Date: 11/12/18

Instrument ID: HP11165 DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	51.7
68	Less than 2.0% of mass 69	1.17 (1.88)1
69	Mass 69 relative abundance	62.5
70	Less than 2.0% of mass 69	0.7 (1.12)1
127	10.0 - 80.00% of mass 198	53.3
197	Less than 2.0% of mass 198	1.02
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.54
275	10.0 - 60.0% of mass 198	22.1
365	Greater than 1.00% of mass 198	2.49
441	Present, and less than mass 443	7.95
442	Greater than 50.00% of mass 198	50.8
443	15.00 - 24.00% of mass 442	8.71 (17.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gk0591.d	11/12/18	08:52
02	BAS3108 - SSTD50	gk0592.d	11/12/18	09:26
03	9870252	gk0593.d	11/12/18	10:07
04	9870252DL	gk0594.d	11/12/18	10:31
05	9870254	gk0595.d	11/12/18	10:55
06	9872060	gk0596.d	11/12/18	11:20
07	9872061	gk0597.d	11/12/18	11:44
08	9872062	gk0598.d	11/12/18	12:09
09	9872063	gk0599.d	11/12/18	12:33
10	9872060DL	gk0596a.d	11/12/18	13:25
11	9872061DL	gk0597a.d	11/12/18	13:50
12	STD2928	gk0608.d	11/12/18	14:14
13	9878581DL	gk0600.d	11/12/18	14:39
14	9878582DL	gk0602.d	11/12/18	15:28
15	9879403	gk0603.d	11/12/18	15:53
16	9879404	gk0604.d	11/12/18	16:17
17	9879405	gk0605.d	11/12/18	16:41
18	9879405MS	gk0606.d	11/12/18	17:06

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0590.d DFTPP Injection Date: 11/12/18

Instrument ID: HP11165 DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	51.7
68	Less than 2.0% of mass 69	1.17 (1.88)1
69	Mass 69 relative abundance	62.5
70	Less than 2.0% of mass 69	0.7 (1.12)1
127	10.0 - 80.00% of mass 198	53.3
197	Less than 2.0% of mass 198	1.02
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.54
275	10.0 - 60.0% of mass 198	22.1
365	Greater than 1.00% of mass 198	2.49
441	Present, and less than mass 443	7.95
442	Greater than 50.00% of mass 198	50.8
443	15.00 - 24.00% of mass 442	8.71 (17.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	9879405MSD	gk0607.d	11/12/18	17:30
20	9879404DL	gk0604a.d	11/12/18	18:19
21	9878582DL2	gk0602b.d	11/12/18	18:44

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: gk0850.d DFTPP Injection Date: 11/16/18

Instrument ID: HP11165 DFTPP Injection Time: 09:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	47.6
68	Less than 2.0% of mass 69	0.86 (1.52)1
69	Mass 69 relative abundance	56.4
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.00% of mass 198	56.6
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.11
275	10.0 - 60.0% of mass 198	25.0
365	Greater than 1.00% of mass 198	2.8
441	Present, and less than mass 443	9.22
442	Greater than 50.00% of mass 198	63.9
443	15.00 - 24.00% of mass 442	11.9 (18.6)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	gk0851.d	11/16/18	10:04
02	BAS3108 - SSTD50	gk0852.d	11/16/18	13:33
03	318LELCS	gk0853.d	11/16/18	13:57
04	SBLKLB317	gk0854.d	11/16/18	14:51
05	SBLKLE318	gk0863.d	11/16/18	15:15
06	317LBLCS	gk0855.d	11/16/18	15:39
07	317LBLCSD	gk0856.d	11/16/18	16:03
08	9867761RE	gk0857.d	11/16/18	16:28
09	9867762RE	gk0858.d	11/16/18	16:53
10	9867766RE	gk0859.d	11/16/18	17:17
11	9867767RE	gk0860.d	11/16/18	17:42
12	9872065RE	gk0861.d	11/16/18	18:06
13	STD2928	gk0862.d	11/16/18	18:30
14	BAS3108	gk0863a.d	11/16/18	18:55

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: pk0310.d DFTPP Injection Date: 11/09/18

Instrument ID: HP23262 DFTPP Injection Time: 15:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	44.1
68	Less than 2.0% of mass 69	0.7 (1.45)1
69	Mass 69 relative abundance	48.3
70	Less than 2.0% of mass 69	0.26 (0.53)1
127	10.0 - 80.00% of mass 198	44.4
197	Less than 2.0% of mass 198	1.02
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.88
275	10.0 - 60.0% of mass 198	23.1
365	Greater than 1.00% of mass 198	2.1
441	Present, and less than mass 443	9.95
442	Greater than 50.00% of mass 198	66.6
443	15.00 - 24.00% of mass 442	12.8 (19.3)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	pk0311.d	11/09/18	15:38
02	STD2928 - SSTD.5	pk0312.d	11/09/18	16:05
03	STD292 - SSTD120	pk0313.d	11/09/18	16:29
04	STD2928 - SSTD80	pk0314.d	11/09/18	16:52
05	STD2928 - SSTD1	pk0315.d	11/09/18	17:15
06	STD2928 - SSTD50	pk0316.d	11/09/18	17:38
07	STD2928 - SSTD15	pk0317.d	11/09/18	18:01
08	STD2928 - SSTD5	pk0318.d	11/09/18	18:24
09	MDL2928 - SSTD0.5	pk0320.d	11/09/18	19:11
10	PAHMDL2928 - SSTD0.1	pk0321.d	11/09/18	19:34
11	ICV2968 - SSTD050	pk0322.d	11/09/18	19:57
12	BASICV2578 - SSTD050	pk0323.d	11/09/18	20:20
13	ICV2338 - SSTD050	pk0325.d	11/09/18	21:06

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: pk0360d.d DFTPP Injection Date: 11/11/18

Instrument ID: HP23262 DFTPP Injection Time: 20:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	43.8
68	Less than 2.0% of mass 69	0.78 (1.61)1
69	Mass 69 relative abundance	48.3
70	Less than 2.0% of mass 69	0.32 (0.67)1
127	10.0 - 80.00% of mass 198	45.0
197	Less than 2.0% of mass 198	0.27
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.11
275	10.0 - 60.0% of mass 198	24.1
365	Greater than 1.00% of mass 198	2.4
441	Present, and less than mass 443	10.6
442	Greater than 50.00% of mass 198	72.6
443	15.00 - 24.00% of mass 442	13.9 (19.2)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD2928 - SSTD30	pk0361.d	11/11/18	20:58
02	BAS3108 - SSTD50	pk0362.d	11/11/18	21:23
03	SBLKLI302	pk0363.d	11/11/18	21:57
04	SBLKLA311	pk0367.d	11/11/18	22:21
05	302LILCS	pk0364.d	11/11/18	22:44
06	311LALCS	pk0368.d	11/11/18	23:08
07	9867761	pk0371.d	11/11/18	23:31
08	9867762	pk0372.d	11/11/18	23:55
09	9867763MS	pk0373.d	11/12/18	00:18
10	9867764MSD	pk0374.d	11/12/18	00:41
11	9867766	pk0375.d	11/12/18	01:05
12	9867767	pk0376.d	11/12/18	01:28
13	9872064	pk0377.d	11/12/18	01:51
14	9872065	pk0378.d	11/12/18	02:14
15	STD2928x	pk0392a.d	11/12/18	02:38
16	9884645	pk0379.d	11/12/18	03:01
17	9884646	pk0380.d	11/12/18	03:24
18	9884647	pk0381.d	11/12/18	03:48

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: pk0360d.d DFTPP Injection Date: 11/11/18

Instrument ID: HP23262 DFTPP Injection Time: 20:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	43.8
68	Less than 2.0% of mass 69	0.78 (1.61)1
69	Mass 69 relative abundance	48.3
70	Less than 2.0% of mass 69	0.32 (0.67)1
127	10.0 - 80.00% of mass 198	45.0
197	Less than 2.0% of mass 198	0.27
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.11
275	10.0 - 60.0% of mass 198	24.1
365	Greater than 1.00% of mass 198	2.4
441	Present, and less than mass 443	10.6
442	Greater than 50.00% of mass 198	72.6
443	15.00 - 24.00% of mass 442	13.9 (19.2)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	9885261	pk0382.d	11/12/18	04:11
20	9884806	pk0383.d	11/12/18	04:34
21	9884807	pk0384.d	11/12/18	04:57
22	9884808	pk0385.d	11/12/18	05:20
23	9884809	pk0386.d	11/12/18	05:43
24	9884810MS	pk0387.d	11/12/18	06:06
25	9884811MSD	pk0388.d	11/12/18	06:30
26	9884813	pk0389.d	11/12/18	06:53
27	9884814	pk0390.d	11/12/18	07:16
28	9884815	pk0391.d	11/12/18	07:40
29	STD2928	pk0392.d	11/12/18	08:03

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 10/20/18 10/20/18

Calibration Times: 01:30 04:32

LAB FILE ID:RRF0.5 = gj1188.d RRF1 = gj1187.d RRF5 = gj1186.d RRF15 = gj1185.d
RRF30 = gj1181a.d RRF50 = gj1184.d RRF80 = gj1183.d RRF120 = gj1182.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
1,4-Dioxane			0.710	0.591	0.645	0.589	0.576	0.573	0.614	9	AVG
N-Nitrosodimethylamine			1.048	0.962	1.081	1.027	1.042	1.042	1.034	4	AVG
Pyridine			1.946	1.653	1.848	1.758	1.731	1.744	1.780	6	AVG
2-Picoline			1.923	1.750	1.908	1.821	1.835	1.833	1.845	3	AVG
N-Nitrosomethylethylamine			0.902	0.810	0.863	0.812	0.814	0.813	0.836	5	AVG
Methyl methanesulfonate			0.926	0.874	0.960	0.901	0.922	0.915	0.916	3	AVG
N-Nitrosodiethylamine		0.725	0.853	0.799	0.881	0.850	0.878	0.864	0.836	7	AVG
Ethyl methanesulfonate		0.919	0.877	0.827	0.875	0.854	0.863	0.845	0.866	3	AVG
Phenol		2.018	2.202	2.098	2.299	2.434	2.519	2.519	2.299	9	AVG
Aniline		2.722	2.823	2.532	2.831	2.765	2.813	2.784	2.753	4	AVG
a-methylstyrene			0.169	0.128	0.153	0.152	0.146	0.146	0.149	9	AVG
bis(2-Chloroethyl)ether		1.755	1.749	1.637	1.787	1.745	1.732	1.741	1.735	3	AVG
2-Chlorophenol		1.563	1.669	1.507	1.683	1.597	1.636	1.644	1.614	4	AVG
1,3-Dichlorobenzene		1.589	1.697	1.519	1.656	1.628	1.604	1.637	1.619	3	AVG
1,4-Dichlorobenzene		1.580	1.680	1.544	1.669	1.609	1.643	1.652	1.625	3	AVG
Benzyl alcohol		1.473	1.190	1.071	1.206	1.233	1.188	1.160	1.217	10	AVG
1,2-Dichlorobenzene		1.533	1.586	1.486	1.609	1.550	1.563	1.600	1.561	3	AVG
Indene			1.852	1.614	1.851	1.824	1.783	1.757	1.780	5	AVG
2-Methylphenol	1.446	1.464	1.589	1.522	1.684	1.630	1.654	1.645	1.579	6	AVG
2,2'-oxybis(1-Chloropropane)		2.521	2.409	2.187	2.354	2.280	2.292	2.287	2.333	5	AVG
bis(2-Chloroisopropyl)ether		2.521	2.409	2.187	2.354	2.280	2.292	2.287	2.333	5	AVG
N-Nitrosopyrrolidine		0.987	0.914	0.903	0.972	0.975	0.998	1.016	0.966	4	AVG
Acetophenone		2.316	2.361	2.215	2.518	2.487	2.566	2.414	2.411	5	AVG
4-Methylphenol		1.760	1.739	1.639	1.784	1.734	1.810	1.816	1.755	3	AVG
Total Cresols		1.612	1.664	1.581	1.734	1.682	1.732	1.730	1.676	4	AVG
N-Nitroso-di-n-propylamine		1.666	1.650	1.498	1.625	1.538	1.554	1.542	1.582	4	AVG
N-Nitrosomorpholine			1.275	1.177	1.267	1.208	1.210	1.185	1.220	3	AVG
o-Toluidine		2.852	2.952	2.716	2.929	2.847	2.872	2.860	2.861	3	AVG
Hexachloroethane			0.664	0.576	0.657	0.624	0.630	0.637	0.631	5	AVG
Nitrobenzene		0.520	0.459	0.444	0.482	0.468	0.461	0.475	0.473	5	AVG
N-Nitrosopiperidine		0.210	0.204	0.204	0.211	0.210	0.204	0.211	0.208	2	AVG
Isophorone		0.874	0.897	0.853	0.888	0.873	0.845	0.871	0.871	2	AVG
2-Nitrophenol		0.142	0.187	0.181	0.194	0.203	0.204	0.209	0.188	12	AVG
2,4-Dimethylphenol	0.370	0.383	0.396	0.392	0.423	0.412	0.404	0.420	0.400	5	AVG
O,O,O-Triethylphosphorothioate			0.174	0.164	0.171	0.172	0.168	0.176	0.171	2	AVG
bis(2-Chloroethoxy)methane		0.513	0.496	0.486	0.516	0.508	0.485	0.514	0.503	3	AVG
Benzoic acid			0.330	0.339	0.336	0.349	0.340	0.350	0.340	2	AVG
2,4-Dichlorophenol		0.277	0.298	0.286	0.307	0.306	0.296	0.309	0.297	4	AVG
1,2,4-Trichlorobenzene			0.303	0.279	0.296	0.290	0.288	0.305	0.294	3	AVG
Naphthalene	1.116	1.196	1.179	1.069	1.142	1.129	1.101	1.141	1.134	4	AVG
4-Chloroaniline		0.415	0.488	0.467	0.493	0.478	0.470	0.492	0.472	6	AVG
2,6-Dichlorophenol		0.291	0.301	0.286	0.292	0.302	0.289	0.306	0.295	3	AVG
Hexachloropropene			0.115	0.110	0.119	0.127	0.129	0.134	0.122	7	AVG
Hexachlorobutadiene	0.116	0.148	0.134	0.127	0.140	0.136	0.135	0.143	0.135	7	AVG
Quinoline			0.792	0.729	0.765	0.758	0.745	0.759	0.758	3	AVG
Caprolactam			0.149	0.133	0.149	0.149	0.141	0.138	0.143	5	AVG
N-Nitrosodi-n-butylamine		0.451	0.406	0.389	0.417	0.410	0.307		0.396	12	AVG
4-Chloro-3-methylphenol		0.317	0.371	0.348	0.378	0.365	0.364	0.371	0.359	6	AVG
Safrole			0.285	0.274	0.292	0.292	0.288	0.303	0.289	3	AVG
2-Methylnaphthalene	0.773	0.772	0.820	0.756	0.791	0.788	0.777	0.804	0.785	3	AVG
1-Methylnaphthalene	0.680	0.765	0.784	0.708	0.753	0.753	0.749	0.762	0.744	5	AVG
Hexachlorocyclopentadiene			0.231	0.251	0.282	0.294	0.318	0.324	0.283	13	AVG

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 10/20/18 10/20/18

Calibration Times: 01:30 04:32

LAB FILE ID:RRF0.5 = gj1188.d RRF1 = gj1187.d RRF5 = gj1186.d RRF15 = gj1185.d
RRF30 = gj1181a.d RRF50 = gj1184.d RRF80 = gj1183.d RRF120 = gj1182.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	___ RRF	% RSD	CAL. METHOD
1,2,4,5-Tetrachlorobenzene		0.504	0.525	0.506	0.557	0.551	0.568	0.575	0.541	5	AVG
cis-Isosafrole			0.562	0.547	0.610	0.574	0.595	0.582	0.578	4	AVG
2,4,6-Trichlorophenol		0.274	0.376	0.358	0.415	0.387	0.412	0.419	0.377	13	AVG
2,4,5-Trichlorophenol		0.408	0.425	0.392	0.437	0.431	0.443	0.447	0.426	5	AVG
trans-Isosafrole			0.568	0.525	0.596	0.571	0.584	0.588	0.572	4	AVG
Isosafrole			0.567	0.528	0.598	0.571	0.586	0.587	0.573	4	AVG
1,1'-Biphenyl		1.761	1.775	1.619	1.838	1.821	1.827	1.788	1.775	4	AVG
2-Chloronaphthalene		1.214	1.335	1.182	1.647	1.390	1.314	1.478	1.366	12	AVG
1-Chloronaphthalene		1.209	1.402	1.338	1.368	1.256	1.440	1.295	1.330	6	AVG
Diphenyl ether		0.884	0.962	0.899	0.977	0.939	0.953	0.969	0.941	4	AVG
2-Nitroaniline		0.343	0.439	0.450	0.486	0.472	0.489	0.498	0.454	12	AVG
1,4-Naphthoquinone			0.574	0.569	0.627	0.617	0.626	0.611	0.604	4	AVG
1,4-Dinitrobenzene			0.194	0.211	0.236	0.238	0.256	0.258	0.232	11	AVG
Dimethylphthalate			1.677	1.565	1.669	1.610	1.665	1.622	1.635	3	AVG
1,3-Dinitrobenzene			0.234	0.237	0.277	0.274	0.291	0.290	0.267	10	AVG
2,6-Dinitrotoluene		0.275	0.335	0.344	0.386	0.363	0.390	0.387	0.354	12	AVG
Acenaphthylene	1.602	1.789	2.014	1.880	2.074	1.981	2.092	2.080	1.939	9	AVG
3-Nitroaniline		0.358	0.397	0.412	0.443	0.431	0.444	0.449	0.419	8	AVG
Acenaphthene	1.419	1.417	1.527	1.430	1.519	1.502	1.546	1.539	1.487	4	AVG
2,4-Dinitrophenol				0.183	0.208	0.215	0.236	0.237	0.216	10	AVG
4-Nitrophenol			0.253	0.257	0.279	0.274	0.275	0.283	0.270	5	AVG
Pentachlorobenzene		0.477	0.532	0.482	0.518	0.500	0.540	0.523	0.510	5	AVG
2,4-Dinitrotoluene			0.454	0.454	0.494	0.493	0.521	0.532	0.491	7	AVG
2,4_2,6-Dinitrotoluenes			0.395	0.399	0.440	0.428	0.456	0.460	0.430	6	AVG
Dibenzofuran		1.866	2.005	1.859	2.003	1.935	2.048	2.014	1.961	4	AVG
1-Naphthylamine			1.643	1.588	1.726	1.654	1.693	1.701	1.668	3	AVG
2,3,4,6-Tetrachlorophenol		0.304	0.313	0.324	0.351	0.340	0.342	0.347	0.332	5	AVG
2-Naphthylamine			1.688	1.547	1.705	1.626	1.654	1.634	1.642	3	AVG
Diethylphthalate			1.676	1.586	1.689	1.598	1.643	1.651	1.641	3	AVG
Thionazin			0.257	0.263	0.289	0.274	0.286	0.293	0.277	5	AVG
Fluorene	1.618	1.545	1.724	1.597	1.728	1.684	1.771	1.773	1.680	5	AVG
4-Chlorophenyl-phenylether		0.671	0.764	0.663	0.745	0.719	0.760	0.783	0.729	6	AVG
5-Nitro-o-toluidine		0.432	0.504	0.469	0.523	0.484	0.520	0.503	0.491	7	AVG
4-Nitroaniline		0.434	0.469	0.466	0.502	0.475	0.458	0.467	0.467	4	AVG
4,6-Dinitro-2-methylphenol			0.101	0.122	0.134	0.145	0.152	0.158	0.135	16	AVG
N-Nitrosodiphenylamine (1)	0.638	0.726	0.751	0.740	0.794	0.793	0.799	0.794	0.754	7	AVG
NDPA as diphenylamine	0.638	0.726	0.751	0.740	0.794	0.793	0.799	0.794	0.754	7	AVG
1,2-Diphenylhydrazine		0.944	1.027	1.030	1.112	1.112	1.106	1.083	1.059	6	AVG
Tetraethyldithiopyrophosphate			0.149	0.146	0.162	0.158	0.167	0.163	0.158	5	AVG
1,3,5-Trinitrobenzene				0.066	0.081	0.088	0.096	0.098	0.086	15	AVG
Diallate (peak 1)			0.471	0.474	0.509	0.502	0.507	0.504	0.494	4	AVG
Phorate		0.488	0.575	0.607	0.677	0.666	0.675	0.661	0.621	11	AVG
Phenacetin		0.415	0.483	0.485	0.530	0.502	0.523	0.504	0.492	8	AVG
4-Bromophenyl-phenylether			0.228	0.218	0.233	0.234	0.228	0.233	0.229	3	AVG
Diallate (peak 2)			0.394	0.379	0.434	0.411	0.417	0.422	0.410	5	AVG
Diallate trans/cis			0.458	0.458	0.496	0.486	0.492	0.490	0.480	4	AVG
Hexachlorobenzene	0.231	0.218	0.233	0.236	0.248	0.251	0.259	0.246	0.240	5	AVG
Dimethoate			0.358	0.379	0.419	0.385	0.393	0.367	0.384	6	AVG
Pentachlorophenol			0.144	0.152	0.163	0.167	0.172	0.172	0.162	7	AVG
4-Aminobiphenyl		0.366	0.325	0.328	0.351	0.346	0.340		0.343	4	AVG
Pentachloronitrobenzene			0.074	0.081	0.087	0.089	0.093	0.091	0.086	8	AVG
Pronamide		0.298	0.332	0.345	0.385	0.378	0.398	0.392	0.361	10	AVG

(1) Cannot be separated from Diphenylamine
4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 10/20/18 10/20/18

Calibration Times: 01:30 04:32

LAB FILE ID:RRF0.5 = gj1188.d RRF1 = gj1187.d RRF5 = gj1186.d RRF15 = gj1185.d
RRF30 = gj1181a.d RRF50 = gj1184.d RRF80 = gj1183.d RRF120 = gj1182.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
Dinoseb				0.151	0.178	0.202	0.215	0.219	0.193	15	AVG
Phenanthrene	1.246	1.249	1.285	1.225	1.316	1.273	1.279	1.277	1.269	2	AVG
Anthracene	1.186	1.236	1.273	1.242	1.351	1.329	1.335	1.322	1.284	5	AVG
Carbazole		1.177	1.209	1.173	1.265	1.234	1.240	1.221	1.217	3	AVG
Methyl parathion			0.234	0.262	0.296	0.299	0.304	0.288	0.280	10	AVG
Di-n-butylphthalate			1.381	1.423	1.579	1.542	1.587	1.557	1.511	6	AVG
Parathion			0.135	0.165	0.191	0.197	0.201	0.205	0.183	15	AVG
4-Nitroquinoline-1-oxide				0.072	0.096	0.101	0.112	0.112	0.099	17	AVG
Octachlorostyrene			0.094	0.093	0.095	0.104	0.101	0.096	0.097	4	AVG
Isodrin		0.136	0.122	0.126	0.138	0.135	0.138	0.141	0.134	5	AVG
Fluoranthene	1.153	1.173	1.286	1.282	1.369	1.347	1.364	1.385	1.295	7	AVG
Benzidine			0.684	0.803	1.002	1.044	1.086	1.081	0.950	18	AVG
Pyrene	1.621	1.512	1.519	1.397	1.487	1.457	1.462	1.503	1.495	4	AVG
p-Dimethylaminoazobenzene		0.171	0.202	0.214	0.228	0.231	0.237	0.246	0.218	12	AVG
Chlorobenzilate		0.382	0.455	0.452	0.489	0.485	0.495	0.498	0.465	9	AVG
3,3'-Dimethylbenzidine			0.769	0.793	0.890	0.891	0.936	0.960	0.873	9	AVG
Butylbenzylphthalate			0.685	0.711	0.751	0.739	0.747	0.762	0.733	4	AVG
2-Acetylaminofluorene			0.499	0.511	0.599	0.576	0.590	0.581	0.559	8	AVG
3,3'-Dichlorobenzidine			0.456	0.481	0.519	0.522	0.547	0.540	0.511	7	AVG
4,4'-Methylenebis(2-chloroanil			0.231	0.237	0.258	0.253	0.269	0.278	0.254	7	AVG
Benzo(a)anthracene	1.224	1.313	1.344	1.279	1.353	1.336	1.343	1.363	1.319	4	AVG
Chrysene	1.444	1.333	1.305	1.248	1.320	1.273	1.273	1.249	1.306	5	AVG
bis(2-Ethylhexyl)phthalate			0.933	0.949	1.047	1.018	1.041	1.056	1.007	5	AVG
6-Methylchrysene			0.941	0.884	0.927	0.931	0.948	0.897	0.921	3	AVG
Di-n-octylphthalate			1.348	1.444	1.736	1.793	2.011	2.162	1.749	18	AVG
Benzo(b)fluoranthene	1.206	1.112	1.224	1.330	1.382	1.524	1.500	1.550	1.353	12	AVG
7,12-Dimethylbenz[a]anthracene		0.491	0.564	0.583	0.676	0.695	0.749	0.789	0.650	17	AVG
Benzo(k)fluoranthene	1.291	1.254	1.320	1.212	1.410	1.346	1.546	1.532	1.364	9	AVG
Benzo(a)pyrene	0.965	1.024	1.149	1.141	1.245	1.273	1.324	1.345	1.183	12	AVG
3-Methylcholanthrene		0.439	0.456	0.446	0.509	0.507	0.535	0.533	0.489	8	AVG
Dibenz(a,h)acridine			0.855	0.886	0.953	0.930	0.972	0.997	0.932	6	AVG
Dibenz(a,j)acridine			0.993	1.002	1.032	1.018	1.065	1.070	1.030	3	AVG
Indeno(1,2,3-cd)pyrene	1.103	1.155	1.336	1.293	1.367	1.337	1.381	1.403	1.297	8	AVG
Dibenz(a,h)anthracene	0.987	0.981	1.141	1.056	1.147	1.097	1.154	1.243	1.101	8	AVG
Benzo(g,h,i)perylene	0.984	1.011	1.116	1.064	1.106	1.062	1.117	1.143	1.075	5	AVG
Total PAHs	1.067	1.067	1.155	1.154	1.299	1.347	1.474	1.552	1.264	15	AVG
2-Fluorophenol			1.568	1.377	1.536	1.460	1.508	1.529	1.496	5	AVG
Phenol-d6			2.160	2.023	2.214	2.133	2.193	2.196	2.153	3	AVG
Nitrobenzene-d5			0.442	0.426	0.457	0.452	0.447	0.464	0.448	3	AVG
2-Fluorobiphenyl			1.581	1.492	1.634	1.592	1.635	1.642	1.596	4	AVG
2,4,6-Tribromophenol			0.232	0.214	0.231	0.225	0.228	0.239	0.228	4	AVG
Terphenyl-d14			1.010	1.001	1.059	1.063	1.122	1.106	1.060	5	AVG

Average %RSD 6

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP11165.i/18oct19a.b/gj1181a.d SSTD030
/chem/HP11165.i/18oct19a.b/gj1182.d SSTD120
/chem/HP11165.i/18oct19a.b/gj1183.d SSTD080
/chem/HP11165.i/18oct19a.b/gj1184.d SSTD050
/chem/HP11165.i/18oct19a.b/gj1185.d SSTD015
/chem/HP11165.i/18oct19a.b/gj1186.d SSTD005
/chem/HP11165.i/18oct19a.b/gj1187.d SSTD001
/chem/HP11165.i/18oct19a.b/gj1188.d SSTD0.50

Area Summary

	File ID:										
Internal Standard Name	gj1181a.d	gj1182.d	gj1183.d	gj1184.d	gj1185.d	gj1186.d	gj1187.d	gj1188.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	130686	143530	146117	140183	142785	136421	132364	130246	137792	5	Yes
Naphthalene-d8	585261	626629	665881	619704	634177	617574	580602	570278	612513	5	Yes
Acenaphthene-d10	295759	315151	325966	320838	335653	330970	322110	308890	319417	4	Yes
Phenanthrene-d10	548325	579059	591678	576234	622771	645177	618787	603002	598129	5	Yes
Pyrene-d10	504972	521548	542948	527077	566503	587959	575246	553457	547464	5	Yes
Perylene-d12	474523	398187	436614	465462	571083	621830	613542	586461	520963	17	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:								
Internal Standard Name	gj1181a.d	gj1182.d	gj1183.d	gj1184.d	gj1185.d	gj1186.d	gj1187.d	gj1188.d	Avg. RT
1,4-Dichlorobenzene-d4	5.928	5.934	5.934	5.934	5.928	5.928	5.928	5.928	5.930
Naphthalene-d8	7.169	7.169	7.169	7.169	7.169	7.163	7.163	7.163	7.167
Acenaphthene-d10	8.886	8.892	8.892	8.887	8.886	8.886	8.886	8.886	8.888
Phenanthrene-d10	10.351	10.357	10.351	10.351	10.345	10.345	10.345	10.345	10.349
Pyrene-d10	11.745	11.751	11.751	11.751	11.745	11.745	11.745	11.745	11.747
Perylene-d12	14.474	14.480	14.474	14.474	14.474	14.474	14.474	14.474	14.475

Comments:_____

_____

Report generated on 10/21/2018 at 10:44

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gj1199.d

ICV SAMPLE ID: BASICV1218 BATCH: 18OCT19A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Benzaldehyde	50.00	53.24	6	30	YES
Caprolactam	50.00	52.41	5	30	YES
Atrazine	50.00	53.59	7	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gj1225.d

ICV SAMPLE ID: ICV2628 BATCH: 18OCT21026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	50.00	48.85	-2	30	YES
N-Nitrosodimethylamine	50.00	53.87	8	30	YES
Pyridine	50.00	51.30	3	30	YES
2-Picoline	50.00	52.11	4	30	YES
N-Nitrosomethylethylamine	50.00	45.01	-10	30	YES
Methyl methanesulfonate	50.00	51.46	3	30	YES
N-Nitrosodiethylamine	50.00	46.40	-7	30	YES
Ethyl methanesulfonate	50.00	44.64	-11	30	YES
Phenol	50.00	50.64	1	30	YES
Aniline	50.00	49.56	-1	30	YES
bis(2-Chloroethyl)ether	50.00	51.82	4	30	YES
2-Chlorophenol	50.00	51.86	4	30	YES
1,3-Dichlorobenzene	50.00	53.82	8	30	YES
1,4-Dichlorobenzene	50.00	55.28	11	30	YES
Benzyl alcohol	50.00	49.95	0	30	YES
1,2-Dichlorobenzene	50.00	53.84	8	30	YES
Indene	50.00	75.57	51	30	NO*
2-Methylphenol	50.00	52.87	6	30	YES
2,2'-oxybis(1-Chloropropane	50.00	49.11	-2	30	YES
bis(2-Chloroisopropyl)ether	50.00	49.11	-2	30	YES
N-Nitrosopyrrolidine	50.00	44.39	-11	30	YES
Acetophenone	50.00	53.42	7	30	YES
4-Methylphenol	50.00	52.68	5	30	YES
N-Nitroso-di-n-propylamine	50.00	51.05	2	30	YES
N-Nitrosomorpholine	50.00	45.13	-10	30	YES
o-Toluidine	50.00	50.71	1	30	YES
Total Cresols	100.00	105.56	6	30	YES
Hexachloroethane	50.00	50.83	2	30	YES
Nitrobenzene	50.00	52.43	5	30	YES
N-Nitrosopiperidine	50.00	45.45	-9	30	YES
Isophorone	50.00	53.38	7	30	YES
2-Nitrophenol	50.00	56.57	13	30	YES
bis(2-Chloroethoxy)methane	50.00	54.68	9	30	YES
Benzoic acid	100.00	96.25	-4	30	YES
O,O,O-Triethylphosphorothio	50.00	47.96	-4	30	YES
2,4-Dichlorophenol	50.00	54.57	9	30	YES
1,2,4-Trichlorobenzene	50.00	54.07	8	30	YES

NC = Could not calculate

Comments: __*Run hits under valid ICV em10340 10/21/18

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS | LAB CODE: LANCAS | INSTRUMENT: HP11165

Method: SW-846 8270D | File ID: gj1225.d

ICV SAMPLE ID: ICV2628 | BATCH: 18OCT21026 | Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Naphthalene	50.00	53.95	8	30	YES
4-Chloroaniline	50.00	55.91	12	30	YES
2,6-Dichlorophenol	50.00	47.80	-4	30	YES
Hexachloropropene	50.00	58.99	18	30	YES
Hexachlorobutadiene	50.00	56.21	12	30	YES
Quinoline	50.00	47.47	-5	30	YES
N-Nitrosodi-n-butylamine	50.00	37.06	-26	30	YES
4-Chloro-3-methylphenol	50.00	54.07	8	30	YES
Safrole	50.00	46.87	-6	30	YES
2-Methylnaphthalene	50.00	53.69	7	30	YES
1-Methylnaphthalene	50.00	52.56	5	30	YES
Hexachlorocyclopentadiene	100.00	98.04	-2	30	YES
1,2,4,5-Tetrachlorobenzene	50.00	53.61	7	30	YES
cis-Isosafrole	6.00	5.97	0	30	YES
2,4,6-Trichlorophenol	50.00	58.11	16	30	YES
2,4,5-Trichlorophenol	50.00	54.77	10	30	YES
trans-Isosafrole	44.00	52.02	18	30	YES
1,1'-Biphenyl	50.00	57.09	14	30	YES
2-Chloronaphthalene	50.00	56.03	12	30	YES
Isosafrole	50.00	57.99	16	30	YES
1-Chloronaphthalene	50.00	45.50	-9	30	YES
Diphenyl ether	50.00	48.35	-3	30	YES
2-Nitroaniline	50.00	58.25	17	30	YES
1,4-Naphthoquinone	62.50	59.52	-5	30	YES
1,4-Dinitrobenzene	50.00	56.31	13	30	YES
Dimethylphthalate	50.00	53.62	7	30	YES
1,3-Dinitrobenzene	50.00	55.63	11	30	YES
2,6-Dinitrotoluene	50.00	56.80	14	30	YES
Acenaphthylene	50.00	62.19	24	30	YES
3-Nitroaniline	50.00	56.00	12	30	YES
Acenaphthene	50.00	56.29	13	30	YES
2,4-Dinitrophenol	100.00	115.01	15	30	YES
4-Nitrophenol	50.00	54.42	9	30	YES
Pentachlorobenzene	50.00	47.13	-6	30	YES
2,4-Dinitrotoluene	50.00	56.05	12	30	YES
Dibenzofuran	50.00	55.17	10	30	YES
2,4_2,6-Dinitrotoluenes	100.00	112.85	13	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gj1225.d

ICV SAMPLE ID: ICV2628 BATCH: 18OCT21026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1-Naphthylamine	100.00	103.68	4	30	YES
2,3,4,6-Tetrachlorophenol	50.00	52.27	5	30	YES
Diethylphthalate	50.00	53.48	7	30	YES
Thionazin	50.00	51.61	3	30	YES
Fluorene	50.00	54.82	10	30	YES
4-Chlorophenyl-phenylether	50.00	53.45	7	30	YES
5-Nitro-o-toluidine	50.00	51.09	2	30	YES
4-Nitroaniline	50.00	53.63	7	30	YES
4,6-Dinitro-2-methylphenol	50.00	56.62	13	30	YES
N-Nitrosodiphenylamine	50.00	55.33	11	30	YES
NDPA as diphenylamine	50.00	55.33	11	30	YES
1,2-Diphenylhydrazine	50.00	55.71	11	30	YES
Tetraethyldithiopyrophospha	50.00	47.56	-5	30	YES
1,3,5-Trinitrobenzene	50.00	45.81	-8	30	YES
Diallate (peak 1)	37.50	33.17	-12	30	YES
Phorate	50.00	50.26	1	30	YES
Phenacetin	50.00	46.82	-6	30	YES
4-Bromophenyl-phenylether	50.00	50.76	2	30	YES
Diallate (peak 2)	12.50	12.95	4	30	YES
Hexachlorobenzene	50.00	53.67	7	30	YES
Diallate trans/cis	50.00	46.12	-8	30	YES
Dimethoate	50.00	45.38	-9	30	YES
Pentachlorophenol	50.00	55.31	11	30	YES
4-Aminobiphenyl	50.00	137.50	175	30	NO*
Pentachloronitrobenzene	50.00	48.90	-2	30	YES
Pronamide	50.00	48.36	-3	30	YES
Dinoseb	50.00	45.13	-10	30	YES
Phenanthrene	50.00	52.37	5	30	YES
Anthracene	50.00	53.27	7	30	YES
Carbazole	50.00	54.28	9	30	YES
Methyl parathion	50.00	48.28	-3	30	YES
Di-n-butylphthalate	50.00	53.01	6	30	YES
Parathion	50.00	48.97	-2	30	YES
4-Nitroquinoline-1-oxide	600.00	930.15	55	30	NO*
Isodrin	50.00	47.64	-5	30	YES
Fluoranthene	50.00	52.65	5	30	YES
Benzidine	250.00	248.06	-1	30	YES

NC = Could not calculate

Comments: ___*Run hits under valid ICV em10340 10/21/18_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gj1225.d

ICV SAMPLE ID: ICV2628 BATCH: 18OCT21026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Pyrene	50.00	54.69	9	30	YES
p-Dimethylaminoazobenzene	50.00	62.59	25	30	YES
Chlorobenzilate	50.00	54.53	9	30	YES
3,3'-Dimethylbenzidine	100.00	92.98	-7	30	YES
Butylbenzylphthalate	50.00	57.90	16	30	YES
2-Acetylaminofluorene	50.00	48.21	-4	30	YES
3,3'-Dichlorobenzidine	50.00	47.43	-5	30	YES
Benzo(a)anthracene	50.00	54.18	8	30	YES
Chrysene	50.00	53.36	7	30	YES
4,4'-Methylenebis(2-chloroa	50.00	47.99	-4	30	YES
bis(2-Ethylhexyl)phthalate	50.00	56.21	12	30	YES
6-Methylchrysene	50.00	48.32	-3	30	YES
Di-n-octylphthalate	50.00	56.32	13	30	YES
Benzo(b)fluoranthene	50.00	59.73	19	30	YES
7,12-Dimethylbenz[a]anthrac	50.00	60.06	20	30	YES
Benzo(k)fluoranthene	50.00	55.30	11	30	YES
Benzo(a)pyrene	50.00	58.02	16	30	YES
3-Methylcholanthrene	50.00	62.81	26	30	YES
Dibenz(a,h)acridine	50.00	43.80	-12	30	YES
Dibenz(a,j)acridine	50.00	47.43	-5	30	YES
Indeno(1,2,3-cd)pyrene	50.00	54.40	9	30	YES
Dibenz(a,h)anthracene	50.00	53.90	8	30	YES
Benzo(g,h,i)perylene	50.00	52.38	5	30	YES
Total PAHs	900.00	987.75	10	30	YES

NC = Could not calculate

Comments: _____

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 11/11/18 11/11/18

Calibration Times: 10:36 14:32

LAB FILE ID:RRF0.5 = gk0558.d RRF1 = gk0557.d RRF5 = gk0556.d RRF15 = gk0555.d
RRF30 = gk0551.d RRF50 = gk0554.d RRF80 = gk0553.d RRF120 = gk0552.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	___ RRF	% RSD	CAL. METHOD
1,4-Dioxane			0.789	0.643	0.776	0.670	0.702	0.653	0.706	9	AVG
N-Nitrosodimethylamine			1.090	0.913	1.117	1.062	1.136	1.118	1.073	8	AVG
Pyridine			1.792	1.727	1.843	1.899	1.761	1.793	1.803	3	AVG
2-Picoline			1.958	1.992	1.973	1.992	1.909	1.892	1.953	2	AVG
N-Nitrosomethylethylamine			1.029	0.943	1.015	0.970	0.940	0.889	0.964	5	AVG
Methyl methanesulfonate			1.010	1.017	1.071	1.045	0.989	0.917	1.008	5	AVG
N-Nitrosodiethylamine		0.676	0.844	0.849	0.958	0.933	0.912	0.879	0.864	11	AVG
Ethyl methanesulfonate		1.039	0.936	0.860	0.936	0.920	0.869	0.857	0.917	7	AVG
Phenol		2.298	2.528	2.787	2.822	2.852	2.722	2.712	2.674	7	AVG
Aniline		3.380	2.977	3.136	3.252	3.201	3.039	2.982	3.138	5	AVG
a-methylstyrene			0.168	0.158	0.156	0.155	0.137	0.137	0.152	8	AVG
bis(2-Chloroethyl)ether		1.883	2.016	1.827	1.999	2.047	1.877	1.797	1.921	5	AVG
2-Chlorophenol		1.296	1.419	1.494	1.611	1.544	1.460	1.495	1.474	7	AVG
1,3-Dichlorobenzene		1.691	1.626	1.571	1.709	1.658	1.562	1.551	1.624	4	AVG
1,4-Dichlorobenzene		1.976	1.625	1.638	1.713	1.691	1.608	1.613	1.695	8	AVG
Benzyl alcohol		1.064	1.122	1.166	1.230	1.277	1.187	1.175	1.174	6	AVG
1,2-Dichlorobenzene		1.934	1.735	1.491	1.643	1.598	1.540	1.541	1.640	9	AVG
Indene			1.868	1.774	1.871	1.930	1.728	1.670	1.807	5	AVG
2-Methylphenol	2.530	1.710	1.653	1.630	1.777	1.777	1.676	1.672	1.803	17	AVG
2,2'-oxybis(1-Chloropropane)		1.685	1.949	2.017	2.107	2.061	1.934	1.894	1.949	7	AVG
bis(2-Chloroisopropyl)ether		1.685	1.949	2.017	2.107	2.061	1.934	1.894	1.949	7	AVG
N-Nitrosopyrrolidine		0.811	0.971	0.962	0.988	1.029	0.965	0.979	0.958	7	AVG
Acetophenone		2.160	2.404	2.299	2.604	2.718	2.485	2.362	2.433	8	AVG
4-Methylphenol		1.529	1.772	1.718	1.880	1.948	1.965	1.971	1.826	9	AVG
Total Cresols		1.620	1.712	1.674	1.828	1.862	1.820	1.822	1.763	5	AVG
N-Nitroso-di-n-propylamine		1.595	1.748	1.758	1.785	1.758	1.715	1.671	1.719	4	AVG
N-Nitrosomorpholine			1.213	1.253	1.279	1.340	1.268	1.198	1.259	4	AVG
o-Toluidine		2.691	2.835	2.911	2.994	2.995	2.828	2.784	2.863	4	AVG
Hexachloroethane			0.616	0.601	0.688	0.657	0.638	0.627	0.638	5	AVG
Nitrobenzene		0.513	0.551	0.537	0.571	0.549	0.567	0.558	0.550	4	AVG
N-Nitrosopiperidine		0.178	0.217	0.206	0.221	0.211	0.225	0.223	0.212	8	AVG
Isophorone		0.858	1.047	0.951	1.064	0.996	1.040	0.998	0.993	7	AVG
2-Nitrophenol		0.168	0.189	0.192	0.207	0.204	0.215	0.211	0.198	8	AVG
2,4-Dimethylphenol	0.388	0.423	0.443	0.432	0.463	0.438	0.457	0.455	0.438	5	AVG
O,O,O-Triethylphosphorothioate			0.195	0.181	0.207	0.177	0.198	0.190	0.191	6	AVG
bis(2-Chloroethoxy)methane		0.468	0.583	0.555	0.577	0.564	0.549	0.569	0.552	7	AVG
Benzoic acid			0.277	0.335	0.344	0.352	0.360	0.371	0.340	10	AVG
2,4-Dichlorophenol		0.244	0.296	0.308	0.328	0.317	0.315	0.329	0.305	10	AVG
1,2,4-Trichlorobenzene			0.325	0.318	0.328	0.308	0.329	0.324	0.322	2	AVG
Naphthalene	1.221	1.100	1.146	1.070	1.153	1.080	1.131	1.136	1.130	4	AVG
4-Chloroaniline		0.448	0.479	0.467	0.475	0.454	0.462	0.471	0.465	2	AVG
2,6-Dichlorophenol		0.279	0.308	0.306	0.314	0.311	0.316	0.324	0.308	5	AVG
Hexachloropropene			0.155	0.156	0.162	0.163	0.167	0.164	0.161	3	AVG
Hexachlorobutadiene	0.196	0.144	0.181	0.157	0.181	0.170	0.178	0.175	0.173	9	AVG
Quinoline			0.745	0.733	0.751	0.724	0.741	0.725	0.737	1	AVG
Caprolactam			0.132	0.136	0.138	0.155	0.152	0.138	0.142	6	AVG
N-Nitrosodi-n-butylamine		0.507	0.456	0.473	0.494	0.464	0.462		0.476	4	AVG
4-Chloro-3-methylphenol		0.340	0.361	0.371	0.416	0.385	0.394	0.399	0.381	7	AVG
Safrole			0.322	0.295	0.312	0.303	0.314	0.309	0.309	3	AVG
2-Methylnaphthalene	0.838	0.804	0.827	0.773	0.795	0.777	0.797	0.799	0.801	3	AVG
1-Methylnaphthalene	0.757	0.809	0.745	0.740	0.783	0.743	0.767	0.767	0.764	3	AVG
Hexachlorocyclopentadiene			0.291	0.298	0.307	0.296	0.294	0.283	0.295	3	AVG

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 11/11/18 11/11/18

Calibration Times: 10:36 14:32

LAB FILE ID:RRF0.5 = gk0558.d RRF1 = gk0557.d RRF5 = gk0556.d RRF15 = gk0555.d
RRF30 = gk0551.d RRF50 = gk0554.d RRF80 = gk0553.d RRF120 = gk0552.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	___ RRF	% RSD	CAL. METHOD
1,2,4,5-Tetrachlorobenzene		0.707	0.545	0.560	0.562	0.572	0.578	0.596	0.589	9	AVG
cis-Isosafrole			0.562	0.565	0.610	0.587	0.549	0.595	0.578	4	AVG
2,4,6-Trichlorophenol		0.367	0.378	0.387	0.417	0.419	0.396	0.424	0.398	6	AVG
2,4,5-Trichlorophenol		0.382	0.454	0.434	0.439	0.451	0.435	0.442	0.434	6	AVG
trans-Isosafrole			0.500	0.537	0.567	0.566	0.568	0.587	0.554	6	AVG
Isosafrole			0.510	0.541	0.574	0.569	0.565	0.588	0.558	5	AVG
1,1'-Biphenyl		1.860	1.823	1.595	1.767	1.803	1.743	1.752	1.763	5	AVG
2-Chloronaphthalene		1.278	1.395	1.308	1.264	1.616	1.324	1.502	1.384	9	AVG
1-Chloronaphthalene		1.198	1.291	1.266	1.410	1.302	1.293	1.212	1.282	5	AVG
Diphenyl ether		0.953	0.952	0.921	0.977	0.945	0.919	0.961	0.947	2	AVG
2-Nitroaniline		0.251	0.466	0.441	0.450	0.484	0.464	0.470	0.432	19	AVG
1,4-Naphthoquinone			0.575	0.517	0.581	0.588	0.574	0.569	0.567	5	AVG
1,4-Dinitrobenzene			0.198	0.228	0.241	0.253	0.246	0.265	0.238	10	AVG
Dimethylphthalate			1.651	1.626	1.607	1.622	1.574	1.645	1.621	2	AVG
1,3-Dinitrobenzene			0.287	0.259	0.267	0.280	0.280	0.287	0.277	4	AVG
2,6-Dinitrotoluene		0.254	0.375	0.363	0.393	0.394	0.387	0.382	0.364	14	AVG
Acenaphthylene	2.057	1.659	1.861	1.848	1.976	1.990	1.937	1.941	1.909	6	AVG
3-Nitroaniline		0.359	0.437	0.405	0.406	0.432	0.400	0.417	0.408	6	AVG
Acenaphthene	1.471	1.450	1.340	1.342	1.417	1.418	1.382	1.465	1.411	4	AVG
2,4-Dinitrophenol				0.214	0.242	0.256	0.251	0.264	0.245	8	AVG
4-Nitrophenol			0.278	0.273	0.276	0.297	0.286	0.290	0.283	3	AVG
Pentachlorobenzene		0.472	0.519	0.500	0.518	0.497	0.505	0.521	0.505	3	AVG
2,4-Dinitrotoluene			0.492	0.479	0.492	0.539	0.503	0.530	0.506	5	AVG
2,4_2,6-Dinitrotoluenes			0.434	0.421	0.443	0.466	0.445	0.456	0.444	4	AVG
Dibenzofuran		1.795	1.999	1.908	2.028	2.007	1.964	2.049	1.964	4	AVG
1-Naphthylamine			1.563	1.473	1.522	1.593	1.497	1.534	1.530	3	AVG
2,3,4,6-Tetrachlorophenol		0.268	0.343	0.359	0.362	0.376	0.365	0.374	0.350	11	AVG
2-Naphthylamine			1.465	1.479	1.515	1.531	1.473	1.469	1.489	2	AVG
Diethylphthalate			1.673	1.621	1.653	1.642	1.572	1.602	1.627	2	AVG
Thionazin			0.332	0.286	0.295	0.300	0.331	0.314	0.310	6	AVG
Fluorene	1.634	1.371	1.727	1.594	1.671	1.706	1.657	1.773	1.642	7	AVG
4-Chlorophenyl-phenylether		0.758	0.769	0.702	0.779	0.772	0.760	0.803	0.763	4	AVG
5-Nitro-o-toluidine		0.518	0.526	0.451	0.473	0.507	0.480	0.490	0.492	5	AVG
4-Nitroaniline		0.363	0.477	0.448	0.474	0.483	0.429	0.438	0.445	9	AVG
4,6-Dinitro-2-methylphenol			0.114	0.134	0.150	0.166	0.159	0.166	0.148	14	AVG
N-Nitrosodiphenylamine (1)	0.604	0.618	0.755	0.709	0.742	0.727	0.724	0.764	0.706	9	AVG
NDPA as diphenylamine	0.604	0.618	0.755	0.709	0.742	0.727	0.724	0.764	0.706	9	AVG
1,2-Diphenylhydrazine		0.919	1.133	1.060	1.145	1.118	1.112	1.173	1.094	8	AVG
Tetraethyldithiopyrophosphate			0.144	0.154	0.170	0.160	0.162	0.173	0.161	7	AVG
1,3,5-Trinitrobenzene				0.077	0.092	0.101	0.099	0.105	0.095	11	AVG
Diallate (peak 1)			0.458	0.483	0.516	0.512	0.529	0.554	0.509	7	AVG
Phorate		0.532	0.628	0.652	0.703	0.685	0.687	0.740	0.661	10	AVG
Phenacetin		0.383	0.423	0.457	0.487	0.488	0.499	0.509	0.464	10	AVG
4-Bromophenyl-phenylether			0.222	0.213	0.218	0.223	0.220	0.223	0.220	2	AVG
Diallate (peak 2)			0.461	0.399	0.450	0.402	0.408	0.429	0.425	6	AVG
Diallate trans/cis			0.459	0.468	0.505	0.493	0.509	0.533	0.495	6	AVG
Hexachlorobenzene	0.243	0.174	0.215	0.205	0.200	0.201	0.196	0.207	0.205	9	AVG
Dimethoate			0.353	0.381	0.402	0.387	0.376	0.382	0.380	4	AVG
Pentachlorophenol			0.101	0.132	0.143	0.148	0.148	0.148	0.137	14	AVG
4-Aminobiphenyl		0.354	0.338	0.318	0.330	0.297	0.275		0.319	9	AVG
Pentachloronitrobenzene			0.099	0.094	0.095	0.098	0.098	0.099	0.097	2	AVG
Pronamide		0.315	0.347	0.348	0.367	0.362	0.365	0.390	0.356	6	AVG

(1) Cannot be separated from Diphenylamine
4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date(s): 11/11/18 11/11/18

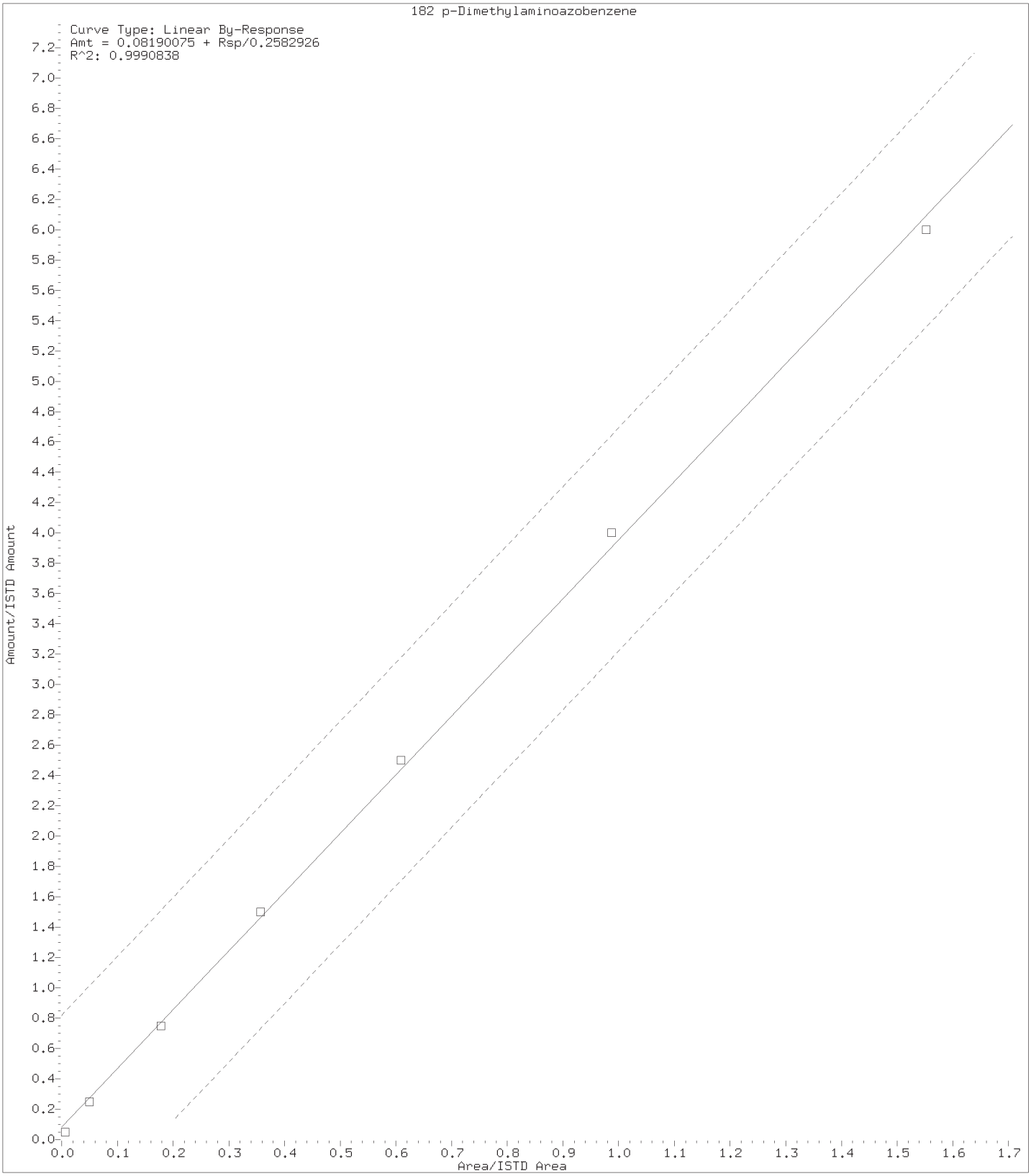
Calibration Times: 10:36 14:32

LAB FILE ID:RRF0.5 = gk0558.d RRF1 = gk0557.d RRF5 = gk0556.d RRF15 = gk0555.d
RRF30 = gk0551.d RRF50 = gk0554.d RRF80 = gk0553.d RRF120 = gk0552.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
Dinoseb				0.189	0.206	0.212	0.234	0.240	0.216	10	AVG
Phenanthrene	1.291	1.309	1.321	1.174	1.236	1.205	1.210	1.253	1.250	4	AVG
Anthracene	1.135	1.253	1.248	1.184	1.259	1.238	1.252	1.303	1.234	4	AVG
Carbazole		1.012	1.152	1.105	1.144	1.134	1.120	1.169	1.119	5	AVG
Methyl parathion			0.236	0.267	0.303	0.302	0.287	0.289	0.281	9	AVG
Di-n-butylphthalate			1.238	1.324	1.437	1.431	1.432	1.513	1.396	7	AVG
Parathion			0.150	0.164	0.193	0.196	0.192	0.209	0.184	12	AVG
4-Nitroquinoline-1-oxide				0.096	0.110	0.132	0.126	0.136	0.120	14	AVG
Octachlorostyrene			0.078	0.073	0.083	0.081	0.080	0.083	0.080	5	AVG
Isodrin		0.162	0.142	0.118	0.142	0.141	0.135	0.141	0.140	9	AVG
Fluoranthene	1.155	1.303	1.304	1.258	1.310	1.311	1.300	1.358	1.287	5	AVG
Benzidine			0.832	0.865	0.948	0.926	0.918	0.885	0.896	5	AVG
Pyrene	1.713	1.364	1.387	1.342	1.436	1.392	1.458	1.455	1.443	8	AVG
p-Dimethylaminoazobenzene		0.121	0.199	0.238	0.238	0.244	0.247	0.259	0.221	22	1STDEG
Chlorobenzilate		0.294	0.413	0.417	0.461	0.449	0.480	0.480	0.428	15	AVG
3,3'-Dimethylbenzidine			0.653	0.682	0.804	0.726	0.762	0.787	0.735	8	AVG
Butylbenzylphthalate			0.628	0.617	0.682	0.691	0.697	0.713	0.671	6	AVG
2-Acetylaminofluorene			0.403	0.508	0.568	0.576	0.590	0.602	0.541	14	AVG
3,3'-Dichlorobenzidine			0.422	0.437	0.459	0.455	0.476	0.493	0.457	6	AVG
4,4'-Methylenebis(2-chloroanil			0.204	0.235	0.257	0.252	0.267	0.277	0.249	11	AVG
Benzo(a)anthracene	1.405	1.110	1.323	1.273	1.341	1.348	1.377	1.383	1.320	7	AVG
Chrysene	1.292	1.231	1.244	1.227	1.279	1.265	1.315	1.305	1.270	3	AVG
bis(2-Ethylhexyl)phthalate			0.800	0.849	0.923	0.943	0.953	0.990	0.910	8	AVG
6-Methylchrysene			0.834	0.814	0.857	0.892	0.894	0.914	0.868	4	AVG
Di-n-octylphthalate			1.416	1.632	1.843	1.897	1.904	2.115	1.801	14	AVG
Benzo(b)fluoranthene	1.559	1.270	1.319	1.389	1.505	1.439	1.454	1.494	1.429	7	AVG
7,12-Dimethylbenz[a]anthracene		0.500	0.610	0.639	0.686	0.687	0.693	0.738	0.651	12	AVG
Benzo(k)fluoranthene	1.124	1.217	1.454	1.297	1.370	1.437	1.411	1.537	1.356	10	AVG
Benzo(a)pyrene	1.031	0.998	1.277	1.264	1.341	1.333	1.327	1.371	1.243	12	AVG
3-Methylcholanthrene		0.357	0.463	0.480	0.536	0.518	0.510	0.533	0.485	13	AVG
Dibenz(a,h)acridine			0.847	0.900	0.945	0.948	0.941	0.935	0.919	4	AVG
Dibenz(a,j)acridine			0.907	0.996	1.028	0.992	1.007	0.997	0.988	4	AVG
Indeno(1,2,3-cd)pyrene	1.050	1.033	1.298	1.319	1.380	1.307	1.329	1.327	1.256	11	AVG
Dibenz(a,h)anthracene	0.785	0.919	1.083	1.072	1.118	1.108	1.114	1.091	1.036	12	AVG
Benzo(g,h,i)perylene	1.078	0.904	1.075	1.065	1.156	1.073	1.100	1.082	1.067	7	AVG
Total PAHs	1.161	1.119	1.240	1.260	1.372	1.342	1.371	1.466	1.291	9	AVG
2-Fluorophenol			1.572	1.437	1.564	1.535	1.509	1.484	1.517	3	AVG
Phenol-d6			2.279	2.243	2.457	2.489	2.323	2.303	2.349	4	AVG
Nitrobenzene-d5			0.524	0.500	0.541	0.518	0.544	0.535	0.527	3	AVG
2-Fluorobiphenyl			1.662	1.543	1.611	1.603	1.603	1.691	1.619	3	AVG
2,4,6-Tribromophenol			0.136	0.161	0.161	0.171	0.161	0.171	0.160	8	AVG
Terphenyl-d14			0.929	0.912	0.969	0.960	0.995	1.037	0.967	5	AVG

Average %RSD 7

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.



Digitally signed by Edward Monborne on 11/12/2018 at 09:55.
Target 3.5 esignature user ID: em10340

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP11165.i/18nov11.b/gk0551.d SSTD030
/chem/HP11165.i/18nov11.b/gk0552.d SSTD120
/chem/HP11165.i/18nov11.b/gk0553.d SSTD080
/chem/HP11165.i/18nov11.b/gk0554.d SSTD050
/chem/HP11165.i/18nov11.b/gk0555.d SSTD015
/chem/HP11165.i/18nov11.b/gk0556.d SSTD005
/chem/HP11165.i/18nov11.b/gk0557.d SSTD001
/chem/HP11165.i/18nov11.b/gk0558.d SSTD0.50

Area Summary

	File ID:										
Internal Standard Name	gk0551.d	gk0552.d	gk0553.d	gk0554.d	gk0555.d	gk0556.d	gk0557.d	gk0558.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	157805	158544	148142	133331	136077	135792	133153	138219	142633	7	Yes
Naphthalene-d8	667588	647478	607174	609035	589762	565387	562185	560145	601094	7	Yes
Acenaphthene-d10	367881	346664	334621	324050	324996	321301	308573	316541	330578	6	Yes
Phenanthrene-d10	724156	666035	646762	656356	643241	640283	629388	663990	658776	4	Yes
Pyrene-d10	669260	600487	572891	602684	605873	627172	602904	622130	612925	5	Yes
Perylene-d12	544347	467493	478558	493502	506110	545328	548893	584152	521048	8	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:								
Internal Standard Name	gk0551.d	gk0552.d	gk0553.d	gk0554.d	gk0555.d	gk0556.d	gk0557.d	gk0558.d	Avg. RT
1,4-Dichlorobenzene-d4	5.734	5.734	5.734	5.734	5.734	5.734	5.734	5.734	5.734
Naphthalene-d8	6.969	6.975	6.975	6.969	6.969	6.969	6.969	6.969	6.970
Acenaphthene-d10	8.686	8.692	8.687	8.686	8.687	8.686	8.686	8.687	8.687
Phenanthrene-d10	10.139	10.145	10.145	10.139	10.139	10.139	10.139	10.139	10.141
Pyrene-d10	11.533	11.539	11.533	11.533	11.528	11.527	11.527	11.528	11.531
Perylene-d12	14.204	14.210	14.210	14.204	14.204	14.204	14.204	14.204	14.205

Comments:_____

_____

Report generated on 11/12/2018 at 07:56

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gk0561.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV11026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	50.00	47.72	-5	30	YES
N-Nitrosodimethylamine	50.00	58.17	16	30	YES
Pyridine	50.00	51.50	3	30	YES
2-Picoline	50.00	53.05	6	30	YES
N-Nitrosomethylethylamine	50.00	44.88	-10	30	YES
Methyl methanesulfonate	50.00	54.48	9	30	YES
N-Nitrosodiethylamine	50.00	49.30	-1	30	YES
Ethyl methanesulfonate	50.00	45.46	-9	30	YES
Phenol	50.00	53.48	7	30	YES
Aniline	50.00	50.11	0	30	YES
bis(2-Chloroethyl)ether	50.00	54.48	9	30	YES
2-Chlorophenol	50.00	56.57	13	30	YES
1,3-Dichlorobenzene	50.00	53.76	8	30	YES
1,4-Dichlorobenzene	50.00	53.54	7	30	YES
Benzyl alcohol	50.00	58.50	17	30	YES
1,2-Dichlorobenzene	50.00	51.68	3	30	YES
Indene	50.00	77.25	55	30	NO*
2-Methylphenol	50.00	51.28	3	30	YES
2,2'-oxybis(1-Chloropropane	50.00	51.90	4	30	YES
bis(2-Chloroisopropyl)ether	50.00	51.90	4	30	YES
N-Nitrosopyrrolidine	50.00	47.53	-5	30	YES
Acetophenone	50.00	57.53	15	30	YES
4-Methylphenol	50.00	54.93	10	30	YES
N-Nitroso-di-n-propylamine	50.00	54.89	10	30	YES
N-Nitrosomorpholine	50.00	47.16	-6	30	YES
o-Toluidine	50.00	53.40	7	30	YES
Total Cresols	100.00	106.20	6	30	YES
Hexachloroethane	50.00	55.04	10	30	YES
Nitrobenzene	50.00	54.51	9	30	YES
N-Nitrosopiperidine	50.00	47.43	-5	30	YES
Isophorone	50.00	55.33	11	30	YES
2-Nitrophenol	50.00	55.76	12	30	YES
bis(2-Chloroethoxy)methane	50.00	57.01	14	30	YES
Benzoic acid	100.00	105.27	5	30	YES
O,O,O-Triethylphosphorothio	50.00	46.33	-7	30	YES
2,4-Dichlorophenol	50.00	54.76	10	30	YES
1,2,4-Trichlorobenzene	50.00	53.84	8	30	YES

NC = Could not calculate

Comments: _____*Run hits undervalid ICV ECM10340 11/12/18_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gk0561.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV11026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Naphthalene	50.00	52.46	5	30	YES
4-Chloroaniline	50.00	54.67	9	30	YES
2,6-Dichlorophenol	50.00	47.62	-5	30	YES
Hexachloropropene	50.00	62.68	25	30	YES
Hexachlorobutadiene	50.00	56.71	13	30	YES
Quinoline	50.00	48.21	-4	30	YES
N-Nitrosodi-n-butylamine	50.00	35.76	-28	30	YES
4-Chloro-3-methylphenol	50.00	56.20	12	30	YES
Safrole	50.00	47.84	-4	30	YES
2-Methylnaphthalene	50.00	52.70	5	30	YES
1-Methylnaphthalene	50.00	51.09	2	30	YES
Hexachlorocyclopentadiene	100.00	118.90	19	30	YES
1,2,4,5-Tetrachlorobenzene	50.00	54.94	10	30	YES
cis-Isosafrole	6.00	6.31	5	30	YES
2,4,6-Trichlorophenol	50.00	58.62	17	30	YES
2,4,5-Trichlorophenol	50.00	58.31	17	30	YES
trans-Isosafrole	44.00	53.44	21	30	YES
1,1'-Biphenyl	50.00	55.77	12	30	YES
2-Chloronaphthalene	50.00	62.33	25	30	YES
Isosafrole	50.00	59.75	20	30	YES
1-Chloronaphthalene	50.00	47.46	-5	30	YES
Diphenyl ether	50.00	48.20	-4	30	YES
2-Nitroaniline	50.00	61.01	22	30	YES**
1,4-Naphthoquinone	62.50	62.72	0	30	YES
1,4-Dinitrobenzene	50.00	56.58	13	30	YES
Dimethylphthalate	50.00	56.00	12	30	YES
1,3-Dinitrobenzene	50.00	57.14	14	30	YES
2,6-Dinitrotoluene	50.00	58.41	17	30	YES
Acenaphthylene	50.00	62.56	25	30	YES**
3-Nitroaniline	50.00	56.64	13	30	YES
Acenaphthene	50.00	57.31	15	30	YES
2,4-Dinitrophenol	100.00	120.24	20	30	YES
4-Nitrophenol	50.00	56.73	13	30	YES
Pentachlorobenzene	50.00	50.11	0	30	YES
2,4-Dinitrotoluene	50.00	56.89	14	30	YES
Dibenzofuran	50.00	56.83	14	30	YES
2,4_2,6-Dinitrotoluenes	100.00	115.30	15	30	YES

NC = Could not calculate

Comments: _____**For samples run on or after Nov 21 see ICV file HP11165/18nov20a_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS | LAB CODE: LANCAS | INSTRUMENT: HP11165

Method: SW-846 8270D | File ID: gk0561.d

ICV SAMPLE ID: ICV2968 | BATCH: 18NOV11026 | Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1-Naphthylamine	100.00	107.98	8	30	YES
2,3,4,6-Tetrachlorophenol	50.00	55.94	12	30	YES
Diethylphthalate	50.00	56.32	13	30	YES
Thionazin	50.00	49.29	-1	30	YES
Fluorene	50.00	56.42	13	30	YES
4-Chlorophenyl-phenylether	50.00	56.45	13	30	YES
5-Nitro-o-toluidine	50.00	49.13	-2	30	YES
4-Nitroaniline	50.00	58.62	17	30	YES
4,6-Dinitro-2-methylphenol	50.00	59.98	20	30	YES
N-Nitrosodiphenylamine	50.00	59.23	18	30	YES
NDPA as diphenylamine	50.00	59.23	18	30	YES
1,2-Diphenylhydrazine	50.00	59.00	18	30	YES
Tetraethyldithiopyrophospha	50.00	50.99	2	30	YES
1,3,5-Trinitrobenzene	50.00	44.84	-10	30	YES
Diallate (peak 1)	37.50	36.16	-4	30	YES
Phorate	50.00	51.84	4	30	YES
Phenacetin	50.00	52.89	6	30	YES
4-Bromophenyl-phenylether	50.00	54.25	9	30	YES
Diallate (peak 2)	12.50	13.58	9	30	YES
Hexachlorobenzene	50.00	54.52	9	30	YES
Diallate trans/cis	50.00	49.74	-1	30	YES
Dimethoate	50.00	49.89	0	30	YES
Pentachlorophenol	50.00	64.55	29	30	YES**
4-Aminobiphenyl	50.00	142.05	184	30	NO*
Pentachloronitrobenzene	50.00	52.24	4	30	YES
Pronamide	50.00	50.89	2	30	YES
Dinoseb	50.00	47.71	-5	30	YES
Phenanthrene	50.00	55.75	12	30	YES
Anthracene	50.00	55.97	12	30	YES
Carbazole	50.00	58.26	17	30	YES
Methyl parathion	50.00	55.08	10	30	YES
Di-n-butylphthalate	50.00	58.19	16	30	YES
Parathion	50.00	52.65	5	30	YES
4-Nitroquinoline-1-oxide	600.00	860.28	43	30	NO*
Isodrin	50.00	48.93	-2	30	YES
Fluoranthene	50.00	55.67	11	30	YES
Benzidine	250.00	245.58	-2	30	YES

NC = Could not calculate

Comments: __*Run hits undervalid ICV ECM10340 11/12/18_____

_____**For samples run on or after Nov 21 see ICV file HP11165/18nov20a_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS | LAB CODE: LANCAS | INSTRUMENT: HP11165

Method: SW-846 8270D | File ID: gk0561.d

ICV SAMPLE ID: ICV2968 | BATCH: 18NOV11026 | Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Pyrene	50.00	52.97	6	30	YES
p-Dimethylaminoazobenzene	50.00	57.19	14	30	YES
Chlorobenzilate	50.00	54.74	9	30	YES
3,3'-Dimethylbenzidine	100.00	108.73	9	30	YES
Butylbenzylphthalate	50.00	57.12	14	30	YES
2-Acetylaminofluorene	50.00	48.53	-3	30	YES
3,3'-Dichlorobenzidine	50.00	49.39	-1	30	YES
Benzo(a)anthracene	50.00	54.77	10	30	YES
Chrysene	50.00	53.55	7	30	YES
4,4'-Methylenebis(2-chloroa	50.00	51.01	2	30	YES
bis(2-Ethylhexyl)phthalate	50.00	55.02	10	30	YES
6-Methylchrysene	50.00	47.58	-5	30	YES
Di-n-octylphthalate	50.00	53.94	8	30	YES
Benzo(b)fluoranthene	50.00	51.41	3	30	YES
7,12-Dimethylbenz[a]anthrac	50.00	56.55	13	30	YES
Benzo(k)fluoranthene	50.00	57.28	15	30	YES
Benzo(a)pyrene	50.00	56.44	13	30	YES
3-Methylcholanthrene	50.00	61.55	23	30	YES
Dibenz(a,h)acridine	50.00	45.37	-9	30	YES
Dibenz(a,j)acridine	50.00	46.28	-7	30	YES
Indeno(1,2,3-cd)pyrene	50.00	54.31	9	30	YES
Dibenz(a,h)anthracene	50.00	56.60	13	30	YES
Benzo(g,h,i)perylene	50.00	52.23	4	30	YES
Total PAHs	900.00	989.49	10	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP11165

Method: SW-846 8270D File ID: gk0569.d

ICV SAMPLE ID: BASICV2578 BATCH: 18NOV11026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Benzaldehyde	50.00	50.53	1	30	YES
Caprolactam	50.00	46.60	-7	30	YES
Atrazine	50.00	50.51	1	30	YES

NC = Could not calculate

Comments: _____

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date(s): 11/09/18 11/09/18

Calibration Times: 15:38 18:24

LAB FILE ID:RRF0.5 = pk0312.d RRF1 = pk0315.d RRF5 = pk0318.d RRF15 = pk0317.d
RRF30 = pk0311.d RRF50 = pk0316.d RRF80 = pk0314.d RRF120 = pk0313.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
1,4-Dioxane			0.792	0.755	0.729	0.717	0.703	0.698	0.732	5	AVG
N-Nitrosodimethylamine			1.038	1.132	1.184	1.119	1.276	1.253	1.167	8	AVG
Pyridine			2.184	1.950	2.153	1.899	2.199	2.150	2.089	6	AVG
2-Picoline			2.128	2.095	2.181	2.116	2.210	2.151	2.147	2	AVG
N-Nitrosomethylethylamine			0.955	0.901	0.941	0.924	0.998	0.976	0.949	4	AVG
Methyl methanesulfonate			0.898	0.950	0.969	0.925	0.975	0.960	0.946	3	AVG
N-Nitrosodiethylamine		0.895	0.906	0.929	0.910	0.911	0.919	0.944	0.916	2	AVG
Ethyl methanesulfonate		1.055	0.941	0.853	0.894	0.880	0.927	0.912	0.923	7	AVG
Phenol		2.873	2.910	2.723	2.818	2.806	3.000	2.953	2.869	3	AVG
Aniline		3.353	3.184	3.042	3.217	3.128	3.257	3.251	3.204	3	AVG
bis(2-Chloroethyl)ether		1.973	2.145	1.880	2.074	1.998	2.054	2.067	2.027	4	AVG
2-Chlorophenol		1.668	1.493	1.445	1.552	1.506	1.553	1.596	1.545	5	AVG
1,3-Dichlorobenzene		1.556	1.532	1.532	1.542	1.518	1.581	1.565	1.546	1	AVG
1,4-Dichlorobenzene		1.424	1.619	1.490	1.548	1.490	1.617	1.574	1.538	5	AVG
Benzyl alcohol			1.272	1.157	1.267	1.251	1.261	1.278	1.248	4	AVG
1,2-Dichlorobenzene		1.584	1.602	1.433	1.576	1.473	1.559	1.530	1.537	4	AVG
Indene			1.843	1.693	1.853	1.867	1.859	1.829	1.824	4	AVG
2-Methylphenol		1.710	1.702	1.685	1.783	1.754	1.815	1.844	1.756	3	AVG
2,2'-oxybis(1-Chloropropane)		2.798	2.954	2.878	3.011	2.958	3.035	3.035	2.953	3	AVG
bis(2-Chloroisopropyl)ether		2.798	2.954	2.878	3.011	2.958	3.035	3.035	2.953	3	AVG
N-Nitrosopyrrolidine		1.092	1.195	1.105	1.129	1.130	1.201	1.160	1.145	4	AVG
Acetophenone		2.939	2.564	2.400	2.636	2.648	2.682	2.572	2.634	6	AVG
4-Methylphenol		2.028	2.065	1.991	2.066	2.080	2.108	2.122	2.066	2	AVG
Total Cresols		1.869	1.883	1.838	1.925	1.917	1.961	1.983	1.911	3	AVG
N-Nitroso-di-n-propylamine		1.768	1.758	1.734	1.766	1.729	1.782	1.780	1.759	1	AVG
N-Nitrosomorpholine			1.466	1.384	1.407	1.399	1.432	1.389	1.413	2	AVG
o-Toluidine		2.951	2.948	2.843	3.032	2.909	3.028	3.033	2.964	2	AVG
Hexachloroethane			0.697	0.611	0.652	0.646	0.670	0.654	0.655	4	AVG
Nitrobenzene		0.577	0.581	0.559	0.567	0.548	0.550	0.538	0.560	3	AVG
N-Nitrosopiperidine		0.274	0.235	0.230	0.237	0.237	0.222	0.221	0.236	7	AVG
Isophorone		0.987	1.056	1.037	1.082	1.065	1.022	1.038	1.041	3	AVG
2-Nitrophenol		0.198	0.192	0.190	0.210	0.203	0.208	0.200	0.200	4	AVG
2,4-Dimethylphenol		0.473	0.454	0.456	0.475	0.453	0.449	0.442	0.458	3	AVG
O,O,O-Triethylphosphorothioate			0.220	0.216	0.231	0.219	0.210	0.209	0.218	4	AVG
bis(2-Chloroethoxy)methane		0.631	0.633	0.604	0.633	0.633	0.602	0.606	0.620	2	AVG
Benzoic acid			0.294	0.314	0.325	0.328	0.313	0.321	0.316	4	AVG
2,4-Dichlorophenol		0.357	0.321	0.317	0.351	0.334	0.328	0.326	0.333	5	AVG
1,2,4-Trichlorobenzene			0.367	0.336	0.353	0.339	0.340	0.341	0.346	3	AVG
Naphthalene	1.166	1.252	1.201	1.088	1.131	1.118	1.095	1.091	1.143	5	AVG
4-Chloroaniline		0.439	0.470	0.445	0.480	0.470	0.456	0.456	0.459	3	AVG
2,6-Dichlorophenol		0.347	0.342	0.315	0.326	0.329	0.316	0.312	0.327	4	AVG
Hexachloropropene			0.215	0.194	0.213	0.195	0.193	0.197	0.201	5	AVG
Hexachlorobutadiene		0.161	0.218	0.200	0.205	0.202	0.199	0.202	0.198	9	AVG
Quinoline			0.804	0.764	0.808	0.788	0.767	0.745	0.779	3	AVG
Caprolactam			0.184	0.159	0.167	0.168	0.153	0.144	0.162	8	AVG
N-Nitrosodi-n-butylamine		0.582	0.559	0.505	0.535	0.517	0.502	0.380	0.512	13	AVG
4-Chloro-3-methylphenol		0.462	0.444	0.413	0.427	0.424	0.412	0.401	0.426	5	AVG
Safrole			0.306	0.310	0.322	0.316	0.310	0.311	0.312	2	AVG
2-Methylnaphthalene	0.792	0.743	0.781	0.781	0.823	0.792	0.760	0.768	0.780	3	AVG
1-Methylnaphthalene	0.793	0.713	0.782	0.762	0.764	0.756	0.740	0.739	0.756	3	AVG
Hexachlorocyclopentadiene				0.324	0.383	0.332	0.322	0.307	0.333	9	AVG
1,2,4,5-Tetrachlorobenzene		0.695	0.704	0.635	0.686	0.650	0.658	0.650	0.668	4	AVG

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date(s): 11/09/18 11/09/18

Calibration Times: 15:38 18:24

LAB FILE ID:RRF0.5 = pk0312.d RRF1 = pk0315.d RRF5 = pk0318.d RRF15 = pk0317.d
RRF30 = pk0311.d RRF50 = pk0316.d RRF80 = pk0314.d RRF120 = pk0313.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	___ RRF	% RSD	CAL. METHOD
cis-Isosafrole			0.593	0.563	0.561	0.530	0.542	0.536	0.554	4	AVG
2,4,6-Trichlorophenol		0.434	0.447	0.429	0.475	0.445	0.447	0.440	0.445	3	AVG
2,4,5-Trichlorophenol		0.517	0.489	0.461	0.508	0.481	0.487	0.472	0.488	4	AVG
trans-Isosafrole			0.566	0.534	0.571	0.526	0.542	0.539	0.546	3	AVG
Isosafrole			0.571	0.539	0.570	0.527	0.542	0.538	0.548	3	AVG
1,1'-Biphenyl		1.877	1.695	1.523	1.720	1.680	1.650	1.579	1.675	7	AVG
2-Chloronaphthalene		1.446	1.480	1.318	1.326	1.192	1.526	1.224	1.359	9	AVG
1-Chloronaphthalene		1.336	1.377	1.203	1.312	1.346	1.278	1.308	1.309	4	AVG
Diphenyl ether		1.062	1.000	0.936	0.966	0.936	0.940	0.930	0.967	5	AVG
2-Nitroaniline		0.474	0.453	0.453	0.470	0.440	0.451	0.446	0.456	3	AVG
1,4-Naphthoquinone			0.558	0.553	0.621	0.580	0.589	0.568	0.578	4	AVG
1,4-Dinitrobenzene			0.237	0.236	0.259	0.255	0.252	0.253	0.249	4	AVG
Dimethylphthalate			1.674	1.601	1.682	1.594	1.603	1.573	1.621	3	AVG
1,3-Dinitrobenzene			0.284	0.269	0.310	0.283	0.303	0.283	0.289	5	AVG
2,6-Dinitrotoluene		0.429	0.389	0.355	0.405	0.376	0.376	0.370	0.386	6	AVG
Acenaphthylene	2.009	1.927	1.963	1.888	1.997	1.919	1.917	1.874	1.937	3	AVG
3-Nitroaniline		0.405	0.359	0.405	0.418	0.402	0.400	0.381	0.396	5	AVG
Acenaphthene	1.247	1.462	1.453	1.332	1.437	1.365	1.367	1.351	1.377	5	AVG
2,4-Dinitrophenol			0.174	0.193	0.218	0.223	0.229	0.230	0.211	11	AVG
4-Nitrophenol			0.256	0.246	0.297	0.259	0.274	0.254	0.264	7	AVG
Pentachlorobenzene		0.684	0.635	0.599	0.628	0.620	0.611	0.588	0.623	5	AVG
2,4-Dinitrotoluene			0.518	0.492	0.547	0.505	0.509	0.491	0.510	4	AVG
2,4_2,6-Dinitrotoluenes			0.453	0.423	0.476	0.440	0.442	0.430	0.444	4	AVG
Dibenzofuran		2.176	2.213	2.018	2.165	2.069	2.045	1.996	2.097	4	AVG
1-Naphthylamine			1.488	1.389	1.563	1.426	1.437	1.367	1.445	5	AVG
2,3,4,6-Tetrachlorophenol		0.444	0.408	0.389	0.446	0.408	0.407	0.397	0.414	5	AVG
2-Naphthylamine			1.565	1.450	1.572	1.426	1.386	1.303	1.450	7	AVG
Diethylphthalate			1.803	1.600	1.740	1.646	1.623	1.582	1.666	5	AVG
Thionazin			0.312	0.306	0.311	0.309	0.291	0.280	0.302	4	AVG
Fluorene	1.608	1.814	1.758	1.642	1.757	1.700	1.650	1.602	1.691	5	AVG
4-Chlorophenyl-phenylether		0.988	1.025	0.861	0.940	0.896	0.883	0.845	0.920	7	AVG
5-Nitro-o-toluidine		0.461	0.523	0.495	0.507	0.474	0.475	0.465	0.486	5	AVG
4-Nitroaniline		0.531	0.473	0.457	0.461	0.423	0.416	0.406	0.452	10	AVG
4,6-Dinitro-2-methylphenol			0.104	0.118	0.131	0.133	0.138	0.144	0.128	11	AVG
N-Nitrosodiphenylamine (1)		0.655	0.641	0.617	0.652	0.639	0.633	0.669	0.644	3	AVG
NDPA as diphenylamine		0.655	0.641	0.617	0.652	0.639	0.633	0.669	0.644	3	AVG
1,2-Diphenylhydrazine		0.969	0.963	0.920	0.998	0.968	0.973	1.018	0.973	3	AVG
Tetraethyldithiopyrophosphate			0.150	0.136	0.142	0.139	0.140	0.142	0.141	3	AVG
1,3,5-Trinitrobenzene			0.083	0.090	0.095	0.095	0.099	0.099	0.094	6	AVG
Diallate (peak 1)			0.430	0.452	0.467	0.439	0.441	0.454	0.447	3	AVG
Phorate		0.628	0.621	0.625	0.656	0.827	0.841	0.863	0.723	16	AVG
Phenacetin		0.463	0.419	0.403	0.441	0.416	0.412	0.419	0.425	5	AVG
4-Bromophenyl-phenylether			0.229	0.202	0.229	0.216	0.216	0.225	0.219	5	AVG
Diallate (peak 2)			0.421	0.392	0.367	0.364	0.376	0.390	0.385	5	AVG
Diallate trans/cis			0.428	0.441	0.450	0.427	0.430	0.443	0.437	2	AVG
Hexachlorobenzene	0.209	0.163	0.233	0.216	0.215	0.208	0.211	0.223	0.209	10	AVG
Dimethoate			0.392	0.377	0.400	0.375	0.366	0.353	0.377	5	AVG
Pentachlorophenol			0.095	0.107	0.131	0.127	0.132	0.134	0.121	13	AVG
4-Aminobiphenyl		0.419	0.325	0.285	0.298	0.285	0.262	0.250	0.303	19	AVG
Pentachloronitrobenzene			0.099	0.096	0.103	0.099	0.102	0.100	0.100	2	AVG
Pronamide		0.333	0.331	0.329	0.353	0.347	0.342	0.350	0.341	3	AVG
Dinoseb			0.149	0.176	0.201	0.204	0.215	0.227	0.195	15	AVG

(1) Cannot be separated from Diphenylamine

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date(s): 11/09/18 11/09/18

Calibration Times: 15:38 18:24

LAB FILE ID:RRF0.5 = pk0312.d RRF1 = pk0315.d RRF5 = pk0318.d RRF15 = pk0317.d
RRF30 = pk0311.d RRF50 = pk0316.d RRF80 = pk0314.d RRF120 = pk0313.d

COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	___ RRF	% RSD	CAL. METHOD
Phenanthrene	1.190	1.185	1.152	1.086	1.164	1.094	1.110	1.104	1.136	4	AVG
Anthracene	1.133	1.113	1.153	1.124	1.207	1.142	1.151	1.176	1.150	3	AVG
Carbazole		1.066	1.135	1.014	1.072	1.032	1.043	1.053	1.059	4	AVG
Methyl parathion			0.282	0.271	0.283	0.276	0.269	0.258	0.273	3	AVG
Di-n-butylphthalate			1.310	1.238	1.346	1.291	1.281	1.116	1.264	6	AVG
Parathion			0.157	0.167	0.179	0.177	0.178	0.176	0.172	5	AVG
4-Nitroquinoline-1-oxide				0.093	0.108	0.109	0.118	0.117	0.109	9	AVG
Octachlorostyrene			0.090	0.080	0.085	0.082	0.076	0.081	0.082	6	AVG
Isodrin		0.173	0.140	0.126	0.144	0.136	0.133	0.136	0.141	11	AVG
Fluoranthene	1.268	1.217	1.347	1.289	1.392	1.338	1.344	1.258	1.307	4	AVG
Benzidine			0.846	0.802	0.869	0.791	0.698	0.572	0.763	14	AVG
Pyrene	1.474	1.336	1.452	1.293	1.396	1.309	1.330	1.270	1.357	6	AVG
p-Dimethylaminoazobenzene		0.246	0.234	0.224	0.232	0.237	0.236	0.239	0.235	3	AVG
Chlorobenzilate		0.300	0.366	0.325	0.356	0.332	0.344	0.344	0.338	6	AVG
3,3'-Dimethylbenzidine			0.911	0.823	0.818	0.764	0.738	0.737	0.798	8	AVG
Butylbenzylphthalate			0.601	0.546	0.581	0.572	0.576	0.572	0.575	3	AVG
2-Acetylaminofluorene			0.518	0.462	0.497	0.480	0.493	0.488	0.490	4	AVG
3,3'-Dichlorobenzidine			0.498	0.459	0.466	0.443	0.449	0.446	0.460	4	AVG
4,4'-Methylenebis(2-chloroanil			0.276	0.249	0.246	0.239	0.240	0.231	0.247	6	AVG
Benzo(a)anthracene	1.234	1.165	1.321	1.232	1.318	1.240	1.256	1.228	1.249	4	AVG
Chrysene	1.106	1.170	1.264	1.227	1.242	1.201	1.207	1.194	1.201	4	AVG
bis(2-Ethylhexyl)phthalate			0.840	0.777	0.820	0.810	0.815	0.820	0.814	3	AVG
6-Methylchrysene			0.863	0.823	0.828	0.812	0.832	0.832	0.832	2	AVG
Di-n-octylphthalate			1.603	1.503	1.625	1.662	1.704	1.467	1.594	6	AVG
Benzo(b)fluoranthene	1.467	1.441	1.356	1.310	1.427	1.340	1.443	1.421	1.401	4	AVG
7,12-Dimethylbenz[a]anthracene		0.571	0.620	0.610	0.671	0.634	0.671	0.666	0.635	6	AVG
Benzo(k)fluoranthene	1.503	1.256	1.358	1.337	1.378	1.396	1.392	1.355	1.372	5	AVG
Benzo(a)pyrene	1.381	1.212	1.298	1.218	1.293	1.271	1.315	1.310	1.287	4	AVG
3-Methylcholanthrene		0.503	0.525	0.500	0.531	0.514	0.528	0.517	0.517	2	AVG
Dibenz(a,h)acridine			1.014	0.965	0.999	0.999	1.039	1.007	1.004	2	AVG
Dibenz(a,j)acridine			1.066	0.999	1.046	1.022	1.059	1.035	1.038	2	AVG
Indeno(1,2,3-cd)pyrene	1.291	1.261	1.334	1.340	1.365	1.349	1.396	1.311	1.331	3	AVG
Dibenz(a,h)anthracene	1.270	1.065	1.157	1.114	1.179	1.154	1.173	1.141	1.156	5	AVG
Benzo(g,h,i)perylene	1.165	1.081	1.158	1.116	1.161	1.125	1.151	1.100	1.132	3	AVG
Total PAHs	1.073	1.082	1.092	1.103	1.184	1.154	1.211	1.212	1.139	5	AVG
2-Fluorophenol			1.522	1.450	1.528	1.508	1.591	1.588	1.531	3	AVG
Phenol-d6			2.400	2.292	2.420	2.350	2.505	2.508	2.413	4	AVG
Nitrobenzene-d5			0.534	0.496	0.530	0.520	0.519	0.513	0.518	3	AVG
2-Fluorobiphenyl			1.587	1.531	1.631	1.570	1.576	1.351	1.541	6	AVG
2,4,6-Tribromophenol			0.213	0.194	0.213	0.197	0.195	0.188	0.200	5	AVG
Terphenyl-d14			0.894	0.856	0.914	0.853	0.875	0.727	0.853	8	AVG

Average %RSD 5

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

Internal Standard
Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP23262.i/18nov09a.b/pk0311.d SSTD030
/chem/HP23262.i/18nov09a.b/pk0312.d SSTD0.5
/chem/HP23262.i/18nov09a.b/pk0313.d SSTD120
/chem/HP23262.i/18nov09a.b/pk0314.d SSTD080
/chem/HP23262.i/18nov09a.b/pk0315.d SSTD001
/chem/HP23262.i/18nov09a.b/pk0316.d SSTD050
/chem/HP23262.i/18nov09a.b/pk0317.d SSTD015
/chem/HP23262.i/18nov09a.b/pk0318.d SSTD005

Area Summary

	File ID:										
Internal Standard Name	pk0311.d	pk0312.d	pk0313.d	pk0314.d	pk0315.d	pk0316.d	pk0317.d	pk0318.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	179919	150966	200868	180240	169195	180715	169972	161042	174115	9	Yes
Naphthalene-d8	781428	655810	923313	823867	697610	781992	739955	696589	762570	11	Yes
Acenaphthene-d10	475081	401180	549853	493748	413747	486294	458927	420761	462449	11	Yes
Phenanthrene-d10	1108399	971463	1163404	1120477	1036748	1118293	1061095	1004124	1073000	6	Yes
Pyrene-d10	1141913	1046297	1176300	1124935	1116077	1157721	1097432	1065028	1115713	4	Yes
Perylene-d12	982327	1000248	953612	924931	969720	978450	967102	1005502	972736	3	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:								
Internal Standard Name	pk0311.d	pk0312.d	pk0313.d	pk0314.d	pk0315.d	pk0316.d	pk0317.d	pk0318.d	Avg. RT
1,4-Dichlorobenzene-d4	5.501	5.501	5.501	5.501	5.501	5.501	5.501	5.501	5.501
Naphthalene-d8	6.737	6.731	6.737	6.737	6.731	6.737	6.731	6.731	6.734
Acenaphthene-d10	8.442	8.442	8.448	8.448	8.442	8.442	8.442	8.442	8.444
Phenanthrene-d10	9.895	9.889	9.895	9.895	9.889	9.895	9.889	9.889	9.892
Pyrene-d10	11.277	11.277	11.283	11.277	11.278	11.278	11.277	11.277	11.278
Perylene-d12	13.907	13.907	13.913	13.913	13.907	13.907	13.907	13.907	13.908

Comments:_____

_____

Report generated on 11/11/2018 at 19:00

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0322.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	50.00	46.57	-7	30	YES
N-Nitrosodimethylamine	50.00	59.89	20	30	YES
Pyridine	50.00	53.69	7	30	YES
2-Picoline	50.00	55.62	11	30	YES
N-Nitrosomethylethylamine	50.00	49.90	0	30	YES
Methyl methanesulfonate	50.00	54.67	9	30	YES
N-Nitrosodiethylamine	50.00	49.14	-2	30	YES
Ethyl methanesulfonate	50.00	46.71	-7	30	YES
Phenol	50.00	56.79	14	30	YES
Aniline	50.00	51.60	3	30	YES
bis(2-Chloroethyl)ether	50.00	53.74	7	30	YES
2-Chlorophenol	50.00	54.28	9	30	YES
1,3-Dichlorobenzene	50.00	54.62	9	30	YES
1,4-Dichlorobenzene	50.00	57.51	15	30	YES
Benzyl alcohol	50.00	58.45	17	30	YES
1,2-Dichlorobenzene	50.00	55.15	10	30	YES
Indene	50.00	79.11	58	30	NO*
2-Methylphenol	50.00	55.46	11	30	YES
2,2'-oxybis(1-Chloropropane	50.00	53.05	6	30	YES
bis(2-Chloroisopropyl)ether	50.00	53.05	6	30	YES
N-Nitrosopyrrolidine	50.00	49.34	-1	30	YES
Acetophenone	50.00	55.91	12	30	YES
4-Methylphenol	50.00	56.86	14	30	YES
N-Nitroso-di-n-propylamine	50.00	55.93	12	30	YES
N-Nitrosomorpholine	50.00	48.49	-3	30	YES
o-Toluidine	50.00	55.02	10	30	YES
Total Cresols	100.00	112.43	12	30	YES
Hexachloroethane	50.00	52.78	6	30	YES
Nitrobenzene	50.00	51.71	3	30	YES
N-Nitrosopiperidine	50.00	44.51	-11	30	YES
Isophorone	50.00	55.56	11	30	YES
2-Nitrophenol	50.00	54.47	9	30	YES
2,4-Dimethylphenol	50.00	44.68	-11	30	YES
bis(2-Chloroethoxy)methane	50.00	54.70	9	30	YES
Benzoic acid	100.00	105.56	6	30	YES
O,O,O-Triethylphosphorothio	50.00	47.07	-6	30	YES
2,4-Dichlorophenol	50.00	55.55	11	30	YES

NC = Could not calculate

Comments: _____*re-run any hits under valid ICV_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0322.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,2,4-Trichlorobenzene	50.00	53.41	7	30	YES
Naphthalene	50.00	52.47	5	30	YES
4-Chloroaniline	50.00	57.60	15	30	YES
2,6-Dichlorophenol	50.00	47.66	-5	30	YES
Hexachloropropene	50.00	57.93	16	30	YES
Hexachlorobutadiene	50.00	55.32	11	30	YES
Quinoline	50.00	48.37	-3	30	YES
N-Nitrosodi-n-butylamine	50.00	36.74	-27	30	YES
4-Chloro-3-methylphenol	50.00	55.52	11	30	YES
Safrole	50.00	49.45	-1	30	YES
2-Methylnaphthalene	50.00	55.22	10	30	YES
1-Methylnaphthalene	50.00	53.53	7	30	YES
Hexachlorocyclopentadiene	100.00	113.93	14	30	YES
1,2,4,5-Tetrachlorobenzene	50.00	54.60	9	30	YES
cis-Isosafrole	6.00	6.68	11	30	YES
2,4,6-Trichlorophenol	50.00	57.55	15	30	YES
2,4,5-Trichlorophenol	50.00	58.68	17	30	YES
trans-Isosafrole	44.00	52.85	20	30	YES
1,1'-Biphenyl	50.00	56.67	13	30	YES
2-Chloronaphthalene	50.00	52.20	4	30	YES
Isosafrole	50.00	59.48	19	30	YES
1-Chloronaphthalene	50.00	48.70	-3	30	YES
Diphenyl ether	50.00	48.70	-3	30	YES
2-Nitroaniline	50.00	58.22	16	30	YES
1,4-Naphthoquinone	62.50	64.44	3	30	YES
1,4-Dinitrobenzene	50.00	57.44	15	30	YES
Dimethylphthalate	50.00	56.56	13	30	YES
1,3-Dinitrobenzene	50.00	57.89	16	30	YES
2,6-Dinitrotoluene	50.00	57.81	16	30	YES
3-Nitroaniline	50.00	58.91	18	30	YES
Acenaphthene	50.00	56.64	13	30	YES
4-Nitrophenol	50.00	55.35	11	30	YES
Pentachlorobenzene	50.00	50.04	0	30	YES
2,4-Dinitrotoluene	50.00	56.46	13	30	YES
Dibenzofuran	50.00	56.54	13	30	YES
2,4_2,6-Dinitrotoluenes	100.00	115.00	15	30	YES
1-Naphthylamine	100.00	107.44	7	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0322.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
2,3,4,6-Tetrachlorophenol	50.00	52.27	5	30	YES
2-Naphthylamine	100.00	104.79	5	30	YES
Diethylphthalate	50.00	56.63	13	30	YES
Thionazin	50.00	51.53	3	30	YES
Fluorene	50.00	57.16	14	30	YES
4-Chlorophenyl-phenylether	50.00	54.20	8	30	YES
5-Nitro-o-toluidine	50.00	49.35	-1	30	YES
4-Nitroaniline	50.00	52.42	5	30	YES
N-Nitrosodiphenylamine	50.00	57.71	15	30	YES
NDPA as diphenylamine	50.00	57.71	15	30	YES
1,2-Diphenylhydrazine	50.00	57.42	15	30	YES
Tetraethyldithiopyrophospha	50.00	47.09	-6	30	YES
1,3,5-Trinitrobenzene	50.00	46.07	-8	30	YES
Diallate (peak 1)	37.50	35.85	-4	30	YES
Phorate	50.00	56.10	12	30	YES
Phenacetin	50.00	47.00	-6	30	YES
4-Bromophenyl-phenylether	50.00	54.78	10	30	YES
Diallate (peak 2)	12.50	13.38	7	30	YES
Hexachlorobenzene	50.00	57.26	15	30	YES
Diallate trans/cis	50.00	48.52	-3	30	YES
Dimethoate	50.00	48.23	-4	30	YES
4-Aminobiphenyl	50.00	131.95	164	30	NO*
Pentachloronitrobenzene	50.00	49.44	-1	30	YES
Pronamide	50.00	49.85	0	30	YES
Dinoseb	50.00	49.38	-1	30	YES
Phenanthrene	50.00	54.56	9	30	YES
Anthracene	50.00	55.81	12	30	YES
Carbazole	50.00	55.80	12	30	YES
Methyl parathion	50.00	50.05	0	30	YES
Di-n-butylphthalate	50.00	57.35	15	30	YES
Parathion	50.00	48.85	-2	30	YES
4-Nitroquinoline-1-oxide	600.00	807.39	35	30	NO*
Isodrin	50.00	48.42	-3	30	YES
Fluoranthene	50.00	56.59	13	30	YES
Benzidine	250.00	236.21	-6	30	YES
Pyrene	50.00	54.34	9	30	YES
p-Dimethylaminoazobenzene	50.00	58.79	18	30	YES

NC = Could not calculate

Comments: _____*re-run any hits under valid ICV_____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0322.d

ICV SAMPLE ID: ICV2968 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Chlorobenzilate	50.00	50.91	2	30	YES
3,3'-Dimethylbenzidine	100.00	99.53	0	30	YES
Butylbenzylphthalate	50.00	55.63	11	30	YES
2-Acetylaminofluorene	50.00	47.11	-6	30	YES
3,3'-Dichlorobenzidine	50.00	48.67	-3	30	YES
Benzo(a)anthracene	50.00	53.96	8	30	YES
Chrysene	50.00	54.38	9	30	YES
4,4'-Methylenebis(2-chloroa	50.00	49.33	-1	30	YES
bis(2-Ethylhexyl)phthalate	50.00	54.44	9	30	YES
6-Methylchrysene	50.00	47.13	-6	30	YES
Di-n-octylphthalate	50.00	57.46	15	30	YES
Benzo(b)fluoranthene	50.00	55.39	11	30	YES
7,12-Dimethylbenz[a]anthrac	50.00	58.88	18	30	YES
Benzo(k)fluoranthene	50.00	57.77	16	30	YES
Benzo(a)pyrene	50.00	56.94	14	30	YES
3-Methylcholanthrene	50.00	64.10	28	30	YES
Dibenz(a,h)acridine	50.00	49.12	-2	30	YES
Dibenz(a,j)acridine	50.00	49.70	-1	30	YES
Indeno(1,2,3-cd)pyrene	50.00	56.58	13	30	YES
Dibenz(a,h)anthracene	50.00	56.90	14	30	YES
Benzo(g,h,i)perylene	50.00	54.49	9	30	YES
Total PAHs	900.00	1004.58	12	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0323.d

ICV SAMPLE ID: BASICV2578 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Caprolactam	50.00	51.25	3	30	YES

NC = Could not calculate

Comments: _____

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP23262

Method: SW-846 8270D File ID: pk0325.d

ICV SAMPLE ID: ICV2338 BATCH: 18NOV09A026 Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
Acenaphthylene	50.00	57.92	16	30	YES
2,4-Dinitrophenol	100.00	118.79	19	30	YES
4,6-Dinitro-2-methylphenol	50.00	57.95	16	30	YES
Pentachlorophenol	50.00	55.37	11	30	YES

NC = Could not calculate

Comments: _____

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/07/18 Time: 09:12

Lab File ID: gk0311.d Init. Calib. Date(s): 10/20/18 10/20/18

Init. Calib. Times(s): 01:30 04:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.614	0.721	35.220	30.0	17
N-Nitrosodimethylamine	1.034	1.182	34.300	30.0	14
Pyridine	1.780	1.714	28.890	30.0	-4
2-Picoline	1.845	1.884	30.630	30.0	2
N-Nitrosomethylethylamine	0.836	0.924	33.160	30.0	11
Methyl methanesulfonate	0.916	0.804	26.330	30.0	-12
N-Nitrosodiethylamine	0.836	0.918	32.940	30.0	10
Ethyl methanesulfonate	0.866	0.884	30.650	30.0	2
Phenol	2.299	2.536	33.100	30.0	10
Aniline	2.753	2.978	32.460	30.0	8
a-methylstyrene	0.149	0.153	30.710	30.0	2
bis(2-Chloroethyl)ether	1.735	1.869	32.320	30.0	8
2-Chlorophenol	1.614	1.615	30.010	30.0	0
1,3-Dichlorobenzene	1.619	1.703	31.560	30.0	5
1,4-Dichlorobenzene	1.625	1.733	32.000	30.0	7
Benzyl alcohol	1.217	1.232	30.370	30.0	1
1,2-Dichlorobenzene	1.561	1.669	32.070	30.0	7
Indene	1.780	1.784	30.070	30.0	0
2-Methylphenol	1.579	1.777	33.760	30.0	13
2,2'-oxybis(1-Chloropropane)	2.333	1.956	25.150	30.0	-16
bis(2-Chloroisopropyl)ether	2.333	1.956	25.150	30.0	-16
N-Nitrosopyrrolidine	0.966	1.094	33.970	30.0	13
Acetophenone	2.411	2.393	29.770	30.0	-1
4-Methylphenol	1.755	1.897	32.440	30.0	8
Total Cresols	1.676	1.837	66.200	60.0	10
N-Nitroso-di-n-propylamine	1.582	1.507	28.590	30.0	-5
N-Nitrosomorpholine	1.220	1.090	26.790	30.0	-11
o-Toluidine	2.861	2.933	30.760	30.0	3
Hexachloroethane	0.631	0.633	30.100	30.0	0
Nitrobenzene	0.473	0.469	29.750	30.0	-1
N-Nitrosopiperidine	0.208	0.220	31.800	30.0	6
Isophorone	0.871	0.907	31.220	30.0	4
2-Nitrophenol	0.188	0.216	34.470	30.0	15
2,4-Dimethylphenol	0.400	0.423	31.720	30.0	6
O,O,O-Triethylphosphorothioate	0.171	0.183	32.140	30.0	7
bis(2-Chloroethoxy)methane	0.503	0.543	32.390	30.0	8

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/07/18 Time: 09:12

Lab File ID: gk0311.d Init. Calib. Date(s): 10/20/18 10/20/18

Init. Calib. Times(s): 01:30 04:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Benzoic acid	0.340	0.306	35.890	40.0	-10
2,4-Dichlorophenol	0.297	0.336	33.930	30.0	13
1,2,4-Trichlorobenzene	0.294	0.318	32.480	30.0	8
Naphthalene	1.134	1.168	30.910	30.0	3
4-Chloroaniline	0.472	0.489	31.060	30.0	4
2,6-Dichlorophenol	0.295	0.330	33.530	30.0	12
Hexachloropropene	0.122	0.141	34.540	30.0	15
Hexachlorobutadiene	0.135	0.144	32.050	30.0	7
Quinoline	0.758	0.812	32.160	30.0	7
Caprolactam	0.143	0.166	34.860	30.0	16
N-Nitrosodi-n-butylamine	0.396	0.317	24.000	30.0	-20
4-Chloro-3-methylphenol	0.359	0.397	33.170	30.0	11
Safrole	0.289	0.321	33.270	30.0	11
2-Methylnaphthalene	0.785	0.825	31.520	30.0	5
1-Methylnaphthalene	0.744	0.791	31.890	30.0	6
Hexachlorocyclopentadiene	0.283	0.246	26.050	30.0	-13
1,2,4,5-Tetrachlorobenzene	0.541	0.519	28.800	30.0	-4
cis-Isosafrole	0.578	0.582	5.130	5.1	1
2,4,6-Trichlorophenol	0.377	0.401	31.860	30.0	6
2,4,5-Trichlorophenol	0.426	0.439	30.890	30.0	3
trans-Isosafrole	0.572	0.568	24.710	24.9	-1
Isosafrole	0.573	0.570	29.840	30.0	-1
1,1'-Biphenyl	1.775	1.712	28.930	30.0	-4
2-Chloronaphthalene	1.366	1.543	33.890	30.0	13
1-Chloronaphthalene	1.330	1.362	30.740	30.0	2
Diphenyl ether	0.941	0.926	29.520	30.0	-2
2-Nitroaniline	0.454	0.497	32.880	30.0	10
1,4-Naphthoquinone	0.604	0.594	29.520	30.0	-2
1,4-Dinitrobenzene	0.232	0.260	33.670	30.0	12
Dimethylphthalate	1.635	1.586	29.100	30.0	-3
1,3-Dinitrobenzene	0.267	0.295	33.120	30.0	10
2,6-Dinitrotoluene	0.354	0.390	33.030	30.0	10
Acenaphthylene	1.939	2.015	31.180	30.0	4
3-Nitroaniline	0.419	0.451	32.280	30.0	8
Acenaphthene	1.487	1.435	28.950	30.0	-3
2,4-Dinitrophenol	0.216	0.243	44.980	40.0	12

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/07/18 Time: 09:12

Lab File ID: gk0311.d Init. Calib. Date(s): 10/20/18 10/20/18

Init. Calib. Times(s): 01:30 04:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
4-Nitrophenol	0.270	0.218	24.240	30.0	-19
Pentachlorobenzene	0.510	0.490	28.800	30.0	-4
2,4-Dinitrotoluene	0.491	0.515	31.460	30.0	5
2,4_2,6-Dinitrotoluenes	0.430	0.453	64.490	60.0	7
Dibenzofuran	1.961	2.005	30.660	30.0	2
1-Naphthylamine	1.668	1.675	30.140	30.0	0
2,3,4,6-Tetrachlorophenol	0.332	0.329	29.780	30.0	-1
2-Naphthylamine	1.642	1.633	29.830	30.0	-1
Diethylphthalate	1.640	1.537	28.110	30.0	-6
Thionazin	0.277	0.290	31.440	30.0	5
Fluorene	1.680	1.677	29.950	30.0	0
4-Chlorophenyl-phenylether	0.729	0.742	30.510	30.0	2
5-Nitro-o-toluidine	0.491	0.524	32.030	30.0	7
4-Nitroaniline	0.467	0.498	31.980	30.0	7
4,6-Dinitro-2-methylphenol	0.135	0.159	35.170	30.0	17
N-Nitrosodiphenylamine (1)	0.754	0.721	28.670	30.0	-4
NDPA as diphenylamine	0.754	0.721	28.670	30.0	-4
1,2-Diphenylhydrazine	1.059	0.923	26.160	30.0	-13
Tetraethyldithiopyrophosphate	0.158	0.132	25.160	30.0	-16
1,3,5-Trinitrobenzene	0.086	0.097	33.920	30.0	13
Diallate (peak 1)	0.494	0.449	22.630	24.9	-9
Phorate	0.621	0.595	28.710	30.0	-4
Phenacetin	0.492	0.472	28.820	30.0	-4
4-Bromophenyl-phenylether	0.229	0.214	28.030	30.0	-7
Diallate (peak 2)	0.410	0.391	4.860	5.1	-5
Diallate trans/cis	0.480	0.439	27.490	30.0	-8
Hexachlorobenzene	0.240	0.211	26.350	30.0	-12
Dimethoate	0.384	0.415	32.420	30.0	8
Pentachlorophenol	0.162	0.135	25.020	30.0	-17
4-Aminobiphenyl	0.343	0.315	27.580	30.0	-8
Pentachloronitrobenzene	0.086	0.082	28.660	30.0	-4
Pronamide	0.361	0.348	28.890	30.0	-4
Dinoseb	0.193	0.212	32.870	30.0	10
Phenanthrene	1.269	1.238	29.280	30.0	-2
Anthracene	1.285	1.262	29.470	30.0	-2
Carbazole	1.217	1.207	29.750	30.0	-1

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/07/18 Time: 09:12

Lab File ID: gk0311.d Init. Calib. Date(s): 10/20/18 10/20/18

Init. Calib. Times(s): 01:30 04:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Methyl parathion	0.280	0.298	31.860	30.0	6
Di-n-butylphthalate	1.511	1.391	27.620	30.0	-8
Parathion	0.183	0.185	30.390	30.0	1
4-Nitroquinoline-1-oxide	0.099	0.099	30.150	30.0	0
Octachlorostyrene	0.097	0.086	26.410	30.0	-12
Isodrin	0.134	0.130	29.150	30.0	-3
Fluoranthene	1.295	1.311	30.370	30.0	1
Benzidine	0.950	1.034	97.910	90.0	9
Pyrene	1.495	1.402	28.130	30.0	-6
p-Dimethylaminoazobenzene	0.218	0.239	32.840	30.0	9
Chlorobenzilate	0.465	0.408	26.310	30.0	-12
3,3'-Dimethylbenzidine	0.873	0.891	30.620	30.0	2
Butylbenzylphthalate	0.733	0.700	28.660	30.0	-4
2-Acetylaminofluorene	0.559	0.614	32.960	30.0	10
3,3'-Dichlorobenzidine	0.511	0.547	32.090	30.0	7
4,4'-Methylenebis(2-chloroanil	0.254	0.257	30.330	30.0	1
Benzo(a)anthracene	1.319	1.378	31.320	30.0	4
Chrysene	1.306	1.310	30.110	30.0	0
bis(2-Ethylhexyl)phthalate	1.007	0.936	27.870	30.0	-7
6-Methylchrysene	0.921	0.969	31.560	30.0	5
Di-n-octylphthalate	1.749	1.667	28.590	30.0	-5
Benzo(b)fluoranthene	1.353	1.369	30.340	30.0	1
7,12-Dimethylbenz[a]anthracene	0.650	0.683	31.540	30.0	5
Benzo(k)fluoranthene	1.364	1.363	29.980	30.0	0
Benzo(a)pyrene	1.183	1.268	32.150	30.0	7
3-Methylcholanthrene	0.489	0.529	32.410	30.0	8
Dibenz(a,h)acridine	0.932	0.998	32.120	30.0	7
Dibenz(a,j)acridine	1.030	1.088	31.680	30.0	6
Indeno(1,2,3-cd)pyrene	1.297	1.401	32.410	30.0	8
Dibenz(a,h)anthracene	1.101	1.190	32.420	30.0	8
Benzo(g,h,i)perylene	1.075	1.162	32.420	30.0	8
Total PAHs	1.264	1.191	552.810	540.0	2
2-Fluorophenol	1.496	1.593	63.900	60.0	6
Phenol-d6	2.153	2.328	64.870	60.0	8
Nitrobenzene-d5	0.448	0.445	59.610	60.0	-1

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/07/18 Time: 09:12

Lab File ID: gk0311.d Init. Calib. Date(s): 10/20/18 10/20/18

Init. Calib. Times(s): 01:30 04:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
2-Fluorobiphenyl	1.596	1.509	56.740	60.0	-5
2,4,6-Tribromophenol	0.228	0.197	51.670	60.0	-14
Terphenyl-d14	1.060	0.986	55.790	60.0	-7
			Average	%Drift:	7

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP11165.i/18oct19a.b/gj1181a.d **
/chem/HP11165.i/18oct19a.b/gj1182.d
/chem/HP11165.i/18oct19a.b/gj1183.d
/chem/HP11165.i/18oct19a.b/gj1184.d
/chem/HP11165.i/18oct19a.b/gj1185.d
/chem/HP11165.i/18oct19a.b/gj1186.d
/chem/HP11165.i/18oct19a.b/gj1187.d
/chem/HP11165.i/18oct19a.b/gj1188.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP11165.i/18nov07.b/gk0311.d

Area Summary

File ID:

Internal Standard Name	gk0311.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	117346	130686	65343	261372	Yes
Naphthalene-d8	512196	585261	292630	1170522	Yes
Acenaphthene-d10	293901	295759	147880	591518	Yes
Phenanthrene-d10	590993	548325	274162	1096650	Yes
Pyrene-d10	552897	504972	252486	1009944	Yes
Perylene-d12	544132	474523	237262	949046	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	gk0311.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	5.107	5.928	No
Naphthalene-d8	6.337	7.169	No
Acenaphthene-d10	8.037	8.886	No
Phenanthrene-d10	9.478	10.351	No
Pyrene-d10	10.848	11.745	No
Perylene-d12	13.424	14.474	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

Data File: /chem/HP11165.i/18nov07.b/gk0337.d
Report Date: 11/07/2018 20:50

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP11165.i
Client ID: SECC050
Lab Sample ID: STD2928
Sublist used: 25806.sub

Injection Date and Time: 07-NOV-2018 19:48
Initial Calibration Date(s): 20-OCT-2018 ~~21-OCT-2018~~
Initial Calibration Time(s): 01:30 ~~19:22~~
Method used: /chem/HP11165.i/18nov07.b/m8270d.m

20-OCT-2018 04:32 (3) BC253163 11/7/18

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Pyridine	1.77998	1.81791	0.010	-2.1	20.0
Phenol	2.29852	2.55094	0.010	-11.0	20.0
Aniline	2.75280	2.99024	0.010	-8.6	20.0
bis(2-Chloroethyl)ether	1.73505	1.93971	0.010	-11.8	20.0
2-Chlorophenol	1.61410	1.53147	0.010	5.1	20.0
1,3-Dichlorobenzene	1.61859	1.58168	0.010	2.3	20.0
1,4-Dichlorobenzene	1.62535	1.62317	0.010	0.1	20.0
Benzyl alcohol	1.21729	1.28985	0.010	-6.0	20.0
1,2-Dichlorobenzene	1.56096	1.57885	0.010	-1.1	20.0
2-Methylphenol	1.57925	1.77469	0.010	-12.4	20.0
2,2'-oxybis(1-Chloropropane)	2.33279	1.83023	0.010	21.5	20.0
4-Methylphenol	1.75450	1.87737	0.010	-7.0	20.0
N-Nitroso-di-n-propylamine	1.58168	1.57354	0.010	0.5	20.0
Hexachloroethane	0.63130	0.60892	0.010	3.5	20.0
Nitrobenzene	0.47259	0.49862	0.010	-5.5	20.0
Isophorone	0.87140	0.94256	0.010	-8.2	20.0
2-Nitrophenol	0.18834	0.21412	0.010	-13.7	20.0
2,4-Dimethylphenol	0.39988	0.43232	0.010	-8.1	20.0
bis(2-Chloroethoxy)methane	0.50264	0.54944	0.010	-9.3	20.0
2,4-Dichlorophenol	0.29707	0.33756	0.010	-13.6	20.0
1,2,4-Trichlorobenzene	0.29358	0.32436	0.010	-10.5	20.0
4-Chloroaniline	0.47186	0.44660	0.010	5.4	20.0
Hexachlorobutadiene	0.13495	0.15827	0.010	-17.3	20.0
4-Chloro-3-methylphenol	0.35910	0.39344	0.010	-9.6	20.0
2-Methylnaphthalene	0.78487	0.81191	0.010	-3.4	20.0
Hexachlorocyclopentadiene	0.28335	0.18413	0.010	35.0	20.0
2,4,6-Trichlorophenol	0.37716	0.41921	0.010	-11.1	20.0
2,4,5-Trichlorophenol	0.42612	0.44773	0.010	-5.1	20.0
2-Chloronaphthalene	1.36581	1.65753	0.010	-21.4	20.0
2-Nitroaniline	0.45381	0.46184	0.010	-1.8	20.0
Dimethylphthalate	1.63484	1.51912	0.010	7.1	20.0
2,6-Dinitrotoluene	0.35428	0.37343	0.010	-5.4	20.0
3-Nitroaniline	0.41916	0.41180	0.010	1.8	20.0
2,4-Dinitrophenol	0.21590	0.19527	0.010	9.6	20.0
4-Nitrophenol	0.27014	0.20959	0.010	22.4	20.0
2,4-Dinitrotoluene	0.49138	0.48356	0.010	1.6	20.0
Dibenzofuran	1.96139	1.93156	0.010	1.5	20.0
Diethylphthalate	1.64053	1.43502	0.010	12.5	20.0
4-Chlorophenyl-phenylether	0.72930	0.75512	0.010	-3.5	20.0
4-Nitroaniline	0.46719	0.41712	0.010	10.7	20.0
4,6-Dinitro-2-methylphenol	0.13534	0.14682	0.010	-8.5	20.0
N-Nitrosodiphenylamine	0.75431	0.74168	0.010	1.7	20.0
4-Bromophenyl-phenylether	0.22906	0.22347	0.010	2.4	20.0
Hexachlorobenzene	0.24018	0.21777	0.010	9.3	20.0
Pentachlorophenol	0.16171	0.12515	0.010	22.6	20.0
Carbazole	1.21706	1.10080	0.010	9.6	20.0
3,3'-Dichlorobenzidine	0.51089	0.43926	0.010	14.0	20.0
Di-n-octylphthalate	1.74892	1.95840	0.010	-12.0	20.0

Data File: /chem/HP11165.i/18nov07.b/gk0337.d
Report Date: 11/07/2018 20:50

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

20-Oct-2018 04:32 3dlw 13766 11/16/18

Instrument ID: HP11165.i
Client ID: SECC050
Lab Sample ID: STD2928
Sublist used: 25806.sub
Injection Date and Time: 07-NOV-2018 19:48
Initial Calibration Date(s): 20-OCT-2018 ~~21-OCT-2018~~
Initial Calibration Time(s): 01:30 19:22
Method used: /chem/HP11165.i/18nov07.b/m8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Surrogate Standards					
2-Fluorophenol	1.49626	1.49905	0.010	-0.2	20.0
Phenol-d6	2.15312	2.35286	0.010	-9.3	20.0
Nitrobenzene-d5	0.44787	0.48248	0.010	-7.7	20.0
2-Fluorobiphenyl	1.59610	1.55091	0.010	2.8	20.0
2,4,6-Tribromophenol	0.22823	0.19173	0.010	16.0	20.0
Terphenyl-d14	1.06014	0.94493	0.010	10.9	20.0

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/12/18 Time: 08:52

Lab File ID: gk0591.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.706	0.691	29.390	30.0	-2
N-Nitrosodimethylamine	1.073	1.152	32.210	30.0	7
Pyridine	1.803	1.690	28.130	30.0	-6
2-Picoline	1.953	2.033	31.230	30.0	4
N-Nitrosomethylethylamine	0.964	1.000	31.110	30.0	4
Methyl methanesulfonate	1.008	1.031	30.680	30.0	2
N-Nitrosodiethylamine	0.864	0.956	33.190	30.0	11
Ethyl methanesulfonate	0.917	0.902	29.500	30.0	-2
Phenol	2.674	2.893	32.450	30.0	8
Aniline	3.138	3.326	31.790	30.0	6
a-methylstyrene	0.152	0.152	30.060	30.0	0
bis(2-Chloroethyl)ether	1.921	2.049	32.000	30.0	7
2-Chlorophenol	1.474	1.617	32.910	30.0	10
1,3-Dichlorobenzene	1.624	1.732	32.000	30.0	7
1,4-Dichlorobenzene	1.695	1.738	30.770	30.0	3
Benzyl alcohol	1.174	1.316	33.620	30.0	12
1,2-Dichlorobenzene	1.640	1.670	30.550	30.0	2
Indene	1.807	1.913	31.760	30.0	6
2-Methylphenol	1.803	1.833	30.500	30.0	2
2,2'-oxybis(1-Chloropropane)	1.949	2.174	33.460	30.0	12
bis(2-Chloroisopropyl)ether	1.949	2.174	33.460	30.0	12
N-Nitrosopyrrolidine	0.958	1.063	33.280	30.0	11
Acetophenone	2.433	2.775	34.220	30.0	14
4-Methylphenol	1.826	2.139	35.140	30.0	17
Total Cresols	1.763	1.986	65.640	60.0	9
N-Nitroso-di-n-propylamine	1.719	1.889	32.970	30.0	10
N-Nitrosomorpholine	1.259	1.330	31.700	30.0	6
o-Toluidine	2.863	3.136	32.870	30.0	10
Hexachloroethane	0.638	0.670	31.500	30.0	5
Nitrobenzene	0.550	0.561	30.630	30.0	2
N-Nitrosopiperidine	0.212	0.216	30.640	30.0	2
Isophorone	0.993	1.043	31.510	30.0	5
2-Nitrophenol	0.198	0.200	30.250	30.0	1
2,4-Dimethylphenol	0.438	0.465	31.900	30.0	6
O,O,O-Triethylphosphorothioate	0.191	0.189	29.650	30.0	-1
bis(2-Chloroethoxy)methane	0.552	0.556	30.210	30.0	1

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/12/18 Time: 08:52

Lab File ID: gk0591.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Benzoic acid	0.340	0.331	38.930	40.0	-3
2,4-Dichlorophenol	0.305	0.321	31.540	30.0	5
1,2,4-Trichlorobenzene	0.322	0.316	29.430	30.0	-2
Naphthalene	1.130	1.138	30.230	30.0	1
4-Chloroaniline	0.465	0.480	30.950	30.0	3
2,6-Dichlorophenol	0.308	0.323	31.410	30.0	5
Hexachloropropene	0.161	0.167	31.020	30.0	3
Hexachlorobutadiene	0.173	0.175	30.380	30.0	1
Quinoline	0.737	0.761	30.990	30.0	3
Caprolactam	0.142	0.157	33.210	30.0	11
N-Nitrosodi-n-butylamine	0.476	0.493	31.100	30.0	4
4-Chloro-3-methylphenol	0.381	0.421	33.120	30.0	10
Safrole	0.309	0.312	30.240	30.0	1
2-Methylnaphthalene	0.801	0.798	29.900	30.0	0
1-Methylnaphthalene	0.764	0.804	31.580	30.0	5
Hexachlorocyclopentadiene	0.295	0.302	30.710	30.0	2
1,2,4,5-Tetrachlorobenzene	0.589	0.580	29.550	30.0	-1
cis-Isosafrole	0.578	0.567	5.000	5.1	-2
2,4,6-Trichlorophenol	0.398	0.386	29.060	30.0	-3
2,4,5-Trichlorophenol	0.434	0.438	30.270	30.0	1
trans-Isosafrole	0.554	0.593	26.650	24.9	7
Isosafrole	0.558	0.588	31.650	30.0	5
1,1'-Biphenyl	1.763	1.727	29.380	30.0	-2
2-Chloronaphthalene	1.384	1.281	27.760	30.0	-7
1-Chloronaphthalene	1.282	1.389	32.510	30.0	8
Diphenyl ether	0.947	0.950	30.100	30.0	0
2-Nitroaniline	0.432	0.472	32.780	30.0	9
1,4-Naphthoquinone	0.567	0.601	31.770	30.0	6
1,4-Dinitrobenzene	0.238	0.249	31.290	30.0	4
Dimethylphthalate	1.621	1.655	30.630	30.0	2
1,3-Dinitrobenzene	0.277	0.293	31.820	30.0	6
2,6-Dinitrotoluene	0.364	0.375	30.930	30.0	3
Acenaphthylene	1.909	2.029	31.890	30.0	6
3-Nitroaniline	0.408	0.414	30.460	30.0	2
Acenaphthene	1.411	1.433	30.470	30.0	2
2,4-Dinitrophenol	0.245	0.230	37.500	40.0	-6

FORM VII SV-1

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/12/18 Time: 08:52

Lab File ID: gk0591.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
4-Nitrophenol	0.283	0.294	31.140	30.0	4
Pentachlorobenzene	0.505	0.522	31.020	30.0	3
2,4-Dinitrotoluene	0.506	0.537	31.840	30.0	6
2,4_2,6-Dinitrotoluenes	0.444	0.456	62.760	60.0	5
Dibenzofuran	1.964	2.071	31.630	30.0	5
1-Naphthylamine	1.530	1.611	31.580	30.0	5
2,3,4,6-Tetrachlorophenol	0.350	0.356	30.600	30.0	2
2-Naphthylamine	1.489	1.553	31.290	30.0	4
Diethylphthalate	1.627	1.665	30.690	30.0	2
Thionazin	0.310	0.302	29.280	30.0	-2
Fluorene	1.642	1.750	31.970	30.0	7
4-Chlorophenyl-phenylether	0.763	0.788	30.980	30.0	3
5-Nitro-o-toluidine	0.492	0.511	31.170	30.0	4
4-Nitroaniline	0.445	0.480	32.360	30.0	8
4,6-Dinitro-2-methylphenol	0.148	0.165	33.460	30.0	12
N-Nitrosodiphenylamine (1)	0.706	0.758	32.230	30.0	7
NDPA as diphenylamine	0.706	0.758	32.230	30.0	7
1,2-Diphenylhydrazine	1.094	1.175	32.210	30.0	7
Tetraethyldithiopyrophosphate	0.161	0.165	30.810	30.0	3
1,3,5-Trinitrobenzene	0.094	0.090	28.540	30.0	-5
Diallate (peak 1)	0.509	0.540	26.420	24.9	6
Phorate	0.661	0.718	32.610	30.0	9
Phenacetin	0.464	0.514	33.240	30.0	11
4-Bromophenyl-phenylether	0.220	0.214	29.270	30.0	-2
Diallate (peak 2)	0.425	0.459	5.510	5.1	8
Diallate trans/cis	0.495	0.526	31.930	30.0	6
Hexachlorobenzene	0.205	0.195	28.600	30.0	-5
Dimethoate	0.380	0.409	32.310	30.0	8
Pentachlorophenol	0.137	0.144	31.530	30.0	5
4-Aminobiphenyl	0.319	0.337	31.710	30.0	6
Pentachloronitrobenzene	0.097	0.105	32.360	30.0	8
Pronamide	0.356	0.381	32.100	30.0	7
Dinoseb	0.216	0.209	29.040	30.0	-3
Phenanthrene	1.250	1.268	30.420	30.0	1
Anthracene	1.234	1.326	32.250	30.0	7
Carbazole	1.119	1.185	31.750	30.0	6

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/12/18 Time: 08:52

Lab File ID: gk0591.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Methyl parathion	0.281	0.312	33.350	30.0	11
Di-n-butylphthalate	1.396	1.491	32.050	30.0	7
Parathion	0.184	0.192	31.290	30.0	4
4-Nitroquinoline-1-oxide	0.120	0.114	28.490	30.0	-5
Octachlorostyrene	0.080	0.081	30.680	30.0	2
Isodrin	0.140	0.134	28.600	30.0	-5
Fluoranthene	1.287	1.383	32.220	30.0	7
Benzidine	0.896	0.957	96.220	90.0	7
Pyrene	1.443	1.416	29.440	30.0	-2
p-Dimethylaminoazobenzene	0.221	0.240	29.520	30.0	-2
Chlorobenzilate	0.428	0.470	32.990	30.0	10
3,3'-Dimethylbenzidine	0.735	0.786	32.050	30.0	7
Butylbenzylphthalate	0.671	0.696	31.090	30.0	4
2-Acetylaminofluorene	0.541	0.558	30.940	30.0	3
3,3'-Dichlorobenzidine	0.457	0.465	30.490	30.0	2
4,4'-Methylenebis(2-chloroanil	0.249	0.266	32.100	30.0	7
Benzo(a)anthracene	1.320	1.317	29.920	30.0	0
Chrysene	1.270	1.287	30.420	30.0	1
bis(2-Ethylhexyl)phthalate	0.910	0.914	30.160	30.0	1
6-Methylchrysene	0.868	0.915	31.650	30.0	5
Di-n-octylphthalate	1.801	1.826	30.410	30.0	1
Benzo(b)fluoranthene	1.429	1.325	27.820	30.0	-7
7,12-Dimethylbenz[a]anthracene	0.651	0.696	32.070	30.0	7
Benzo(k)fluoranthene	1.356	1.545	34.200	30.0	14
Benzo(a)pyrene	1.243	1.310	31.620	30.0	5
3-Methylcholanthrene	0.485	0.500	30.880	30.0	3
Dibenz(a,h)acridine	0.919	0.924	30.150	30.0	1
Dibenz(a,j)acridine	0.988	0.994	30.200	30.0	1
Indeno(1,2,3-cd)pyrene	1.256	1.285	30.700	30.0	2
Dibenz(a,h)anthracene	1.036	1.111	32.150	30.0	7
Benzo(g,h,i)perylene	1.066	1.090	30.670	30.0	2
Total PAHs	1.291	1.339	557.870	540.0	3
2-Fluorophenol	1.517	1.601	63.330	60.0	6
Phenol-d6	2.349	2.573	65.720	60.0	10
Nitrobenzene-d5	0.527	0.549	62.510	60.0	4

FORM VII SV-1

7C cont

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/12/18 Time: 08:52

Lab File ID: gk0591.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
2-Fluorobiphenyl	1.619	1.595	59.110	60.0	-1
2,4,6-Tribromophenol	0.160	0.158	59.200	60.0	-1
Terphenyl-d14	0.967	0.989	61.380	60.0	2
			Average %Drift:		5

Continuing Calibration Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP11165.i/18nov11.b/gk0551.d **
/chem/HP11165.i/18nov11.b/gk0552.d
/chem/HP11165.i/18nov11.b/gk0553.d
/chem/HP11165.i/18nov11.b/gk0554.d
/chem/HP11165.i/18nov11.b/gk0555.d
/chem/HP11165.i/18nov11.b/gk0556.d
/chem/HP11165.i/18nov11.b/gk0557.d
/chem/HP11165.i/18nov11.b/gk0558.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP11165.i/18nov12.b/gk0591.d

Area Summary

Internal Standard Name	File ID: gk0591.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	130460	157805	78902	315610	Yes
Naphthalene-d8	592101	667588	333794	1335176	Yes
Acenaphthene-d10	330410	367881	183940	735762	Yes
Phenanthrene-d10	645961	724156	362078	1448312	Yes
Pyrene-d10	611192	669260	334630	1338520	Yes
Perylene-d12	509224	544347	272174	1088694	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

Internal Standard Name	File ID: gk0591.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	5.734	5.734	Yes
Naphthalene-d8	6.969	6.969	Yes
Acenaphthene-d10	8.686	8.686	Yes
Phenanthrene-d10	10.139	10.139	Yes
Pyrene-d10	11.533	11.533	Yes
Perylene-d12	14.204	14.204	Yes

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: _____

_____

Report generated on 11/12/2018 at 09:23

Data File: /chem/HP11165.i/18nov12.b/gk0608.d
Report Date: 11/12/2018 15:00

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP11165.i
Client ID: SECC050
Lab Sample ID: STD2928
Sublist used: 25806.sub

Injection Date and Time: 12-NOV-2018 14:14
Initial Calibration Date(s): 11-NOV-2018 11-NOV-2018
Initial Calibration Time(s): 10:36 ~~18:11~~
Method used: /chem/HP11165.i/18nov12.b/m8270d.m 14:32
11/16/18
13766

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Pyridine	1.80273	2.00624	0.010	-11.3	20.0
Phenol	2.67435	2.76152	0.010	-3.3	20.0
Aniline	3.13810	3.24661	0.010	-3.5	20.0
bis(2-Chloroethyl)ether	1.92074	1.96069	0.010	-2.1	20.0
2-Chlorophenol	1.47414	1.54402	0.010	-4.7	20.0
1,3-Dichlorobenzene	1.62383	1.64382	0.010	-1.2	20.0
1,4-Dichlorobenzene	1.69489	1.62651	0.010	4.0	20.0
Benzyl alcohol	1.17438	1.29381	0.010	-10.2	20.0
1,2-Dichlorobenzene	1.64042	1.61913	0.010	1.3	20.0
2-Methylphenol	1.80307	1.74643	0.010	3.1	20.0
2,2'-oxybis(1-Chloropropane)	1.94937	2.06419	0.010	-5.9	20.0
4-Methylphenol	1.82604	2.03637	0.010	-11.5	20.0
N-Nitroso-di-n-propylamine	1.71866	1.80244	0.010	-4.9	20.0
Hexachloroethane	0.63795	0.67373	0.010	-5.6	20.0
Nitrobenzene	0.54964	0.55033	0.010	-0.1	20.0
Isophorone	0.99335	0.98878	0.010	0.5	20.0
2-Nitrophenol	0.19802	0.19857	0.010	-0.3	20.0
2,4-Dimethylphenol	0.43757	0.42828	0.010	2.1	20.0
bis(2-Chloroethoxy)methane	0.55217	0.56189	0.010	-1.8	20.0
2,4-Dichlorophenol	0.30532	0.29229	0.010	4.3	20.0
1,2,4-Trichlorobenzene	0.32198	0.30268	0.010	6.0	20.0
4-Chloroaniline	0.46507	0.42801	0.010	8.0	20.0
Hexachlorobutadiene	0.17278	0.16656	0.010	3.6	20.0
4-Chloro-3-methylphenol	0.38108	0.38151	0.010	-0.1	20.0
2-Methylnaphthalene	0.80112	0.73292	0.010	8.5	20.0
Hexachlorocyclopentadiene	0.29479	0.21235	0.010	28.0	20.0
2,4,6-Trichlorophenol	0.39837	0.39512	0.010	0.8	20.0
2,4,5-Trichlorophenol	0.43392	0.42506	0.010	2.0	20.0
2-Chloronaphthalene	1.38381	1.39883	0.010	-1.1	20.0
2-Nitroaniline	0.43236	0.46784	0.010	-8.2	20.0
Dimethylphthalate	1.62095	1.57792	0.010	2.7	20.0
2,6-Dinitrotoluene	0.36399	0.36549	0.010	-0.4	20.0
3-Nitroaniline	0.40810	0.39688	0.010	2.7	20.0
2,4-Dinitrophenol	0.24546	0.21229	0.010	13.5	20.0
4-Nitrophenol	0.28332	0.32751	0.010	-15.6	20.0
2,4-Dinitrotoluene	0.50578	0.49790	0.010	1.6	20.0
Dibenzofuran	1.96408	1.93834	0.010	1.3	20.0
Diethylphthalate	1.62709	1.54611	0.010	5.0	20.0
4-Chlorophenyl-phenylether	0.76317	0.74135	0.010	2.9	20.0
4-Nitroaniline	0.44456	0.42627	0.010	4.1	20.0
4,6-Dinitro-2-methylphenol	0.14821	0.15536	0.010	-4.8	20.0
N-Nitrosodiphenylamine	0.70554	0.77028	0.010	-9.2	20.0
4-Bromophenyl-phenylether	0.21979	0.23055	0.010	-4.9	20.0
Hexachlorobenzene	0.20500	0.20824	0.010	-1.6	20.0
Pentachlorophenol	0.13690	0.12861	0.010	6.0	20.0
Carbazole	1.11941	1.12739	0.010	-0.7	20.0
3,3'-Dichlorobenzidine	0.45712	0.44532	0.010	2.6	20.0
Di-n-octylphthalate	1.80122	2.08636	0.010	-15.8	20.0

Data File: /chem/HP11165.i/18nov12.b/gk0608.d
Report Date: 11/12/2018 15:00

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP11165.i
Client ID: SECC050
Lab Sample ID: STD2928
Sublist used: 25806.sub

Injection Date and Time: 12-NOV-2018 14:14
Initial Calibration Date(s): 11-NOV-2018 11-NOV-2018
Initial Calibration Time(s): 10:36 ~~18:11~~ 14:32
Method used: /chem/HP11165.i/18nov12.b/m8270d.m

(3) dlw 11/16/18
13766

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
2-Fluorophenol	1.51691	1.53849	0.010	-1.4	20.0
Phenol-d6	2.34894	2.42373	0.010	-3.2	20.0
Nitrobenzene-d5	0.52693	0.52043	0.010	1.2	20.0
2-Fluorobiphenyl	1.61877	1.56606	0.010	3.3	20.0
2,4,6-Tribromophenol	0.16019	0.15700	0.010	2.0	20.0
Terphenyl-d14	0.96713	0.97052	0.010	-0.4	20.0

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/16/18 Time: 10:04

Lab File ID: gk0851.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.706	0.666	28.300	30.0	-6
N-Nitrosodimethylamine	1.073	1.067	29.840	30.0	-1
Pyridine	1.803	1.584	26.370	30.0	-12
2-Picoline	1.953	1.826	28.060	30.0	-6
N-Nitrosomethylethylamine	0.964	0.872	27.140	30.0	-10
Methyl methanesulfonate	1.008	1.020	30.370	30.0	1
N-Nitrosodiethylamine	0.864	0.943	32.720	30.0	9
Ethyl methanesulfonate	0.917	0.957	31.330	30.0	4
Phenol	2.674	2.664	29.880	30.0	0
Aniline	3.138	3.116	29.790	30.0	-1
a-methylstyrene	0.152	0.156	30.840	30.0	3
bis(2-Chloroethyl)ether	1.921	1.887	29.470	30.0	-2
2-Chlorophenol	1.474	1.666	33.910	30.0	13
1,3-Dichlorobenzene	1.624	1.647	30.430	30.0	1
1,4-Dichlorobenzene	1.695	1.718	30.410	30.0	1
Benzyl alcohol	1.174	1.285	32.830	30.0	9
1,2-Dichlorobenzene	1.640	1.627	29.760	30.0	-1
Indene	1.807	1.910	31.710	30.0	6
2-Methylphenol	1.803	1.884	31.350	30.0	5
2,2'-oxybis(1-Chloropropane)	1.949	1.902	29.270	30.0	-2
bis(2-Chloroisopropyl)ether	1.949	1.902	29.270	30.0	-2
N-Nitrosopyrrolidine	0.958	1.184	37.080	30.0	24
Acetophenone	2.433	2.595	32.000	30.0	7
4-Methylphenol	1.826	2.113	34.710	30.0	16
Total Cresols	1.763	1.999	66.060	60.0	10
N-Nitroso-di-n-propylamine	1.719	1.705	29.750	30.0	-1
N-Nitrosomorpholine	1.259	1.392	33.180	30.0	11
o-Toluidine	2.863	3.053	32.000	30.0	7
Hexachloroethane	0.638	0.674	31.680	30.0	6
Nitrobenzene	0.550	0.545	29.730	30.0	-1
N-Nitrosopiperidine	0.212	0.233	33.060	30.0	10
Isophorone	0.993	0.987	29.820	30.0	-1
2-Nitrophenol	0.198	0.219	33.170	30.0	11
2,4-Dimethylphenol	0.438	0.464	31.830	30.0	6
O,O,O-Triethylphosphorothioate	0.191	0.201	31.480	30.0	5
bis(2-Chloroethoxy)methane	0.552	0.582	31.620	30.0	5

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/16/18 Time: 10:04

Lab File ID: gk0851.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Benzoic acid	0.340	0.295	34.670	40.0	-13
2,4-Dichlorophenol	0.305	0.331	32.500	30.0	8
1,2,4-Trichlorobenzene	0.322	0.325	30.280	30.0	1
Naphthalene	1.130	1.197	31.780	30.0	6
4-Chloroaniline	0.465	0.480	30.960	30.0	3
2,6-Dichlorophenol	0.308	0.326	31.700	30.0	6
Hexachloropropene	0.161	0.184	34.330	30.0	14
Hexachlorobutadiene	0.173	0.171	29.730	30.0	-1
Quinoline	0.737	0.821	33.450	30.0	12
Caprolactam	0.142	0.166	35.130	30.0	17
N-Nitrosodi-n-butylamine	0.476	0.503	31.720	30.0	6
4-Chloro-3-methylphenol	0.381	0.439	34.530	30.0	15
Safrole	0.309	0.341	33.090	30.0	10
2-Methylnaphthalene	0.801	0.830	31.080	30.0	4
1-Methylnaphthalene	0.764	0.775	30.430	30.0	1
Hexachlorocyclopentadiene	0.295	0.264	26.820	30.0	-11
1,2,4,5-Tetrachlorobenzene	0.589	0.557	28.400	30.0	-5
cis-Isosafrole	0.578	0.548	4.840	5.1	-5
2,4,6-Trichlorophenol	0.398	0.403	30.360	30.0	1
2,4,5-Trichlorophenol	0.434	0.441	30.460	30.0	2
trans-Isosafrole	0.554	0.561	25.210	24.9	1
Isosafrole	0.558	0.559	30.050	30.0	0
1,1'-Biphenyl	1.763	1.604	27.280	30.0	-9
2-Chloronaphthalene	1.384	1.282	27.790	30.0	-7
1-Chloronaphthalene	1.282	1.201	28.110	30.0	-6
Diphenyl ether	0.947	0.894	28.330	30.0	-6
2-Nitroaniline	0.432	0.456	31.670	30.0	6
1,4-Naphthoquinone	0.567	0.546	28.850	30.0	-4
1,4-Dinitrobenzene	0.238	0.250	31.510	30.0	5
Dimethylphthalate	1.621	1.582	29.270	30.0	-2
1,3-Dinitrobenzene	0.277	0.295	32.020	30.0	7
2,6-Dinitrotoluene	0.364	0.379	31.260	30.0	4
Acenaphthylene	1.909	1.905	29.940	30.0	0
3-Nitroaniline	0.408	0.410	30.160	30.0	1
Acenaphthene	1.411	1.391	29.570	30.0	-1
2,4-Dinitrophenol	0.245	0.227	36.930	40.0	-8

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/16/18 Time: 10:04

Lab File ID: gk0851.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
4-Nitrophenol	0.283	0.298	31.540	30.0	5
Pentachlorobenzene	0.505	0.499	29.690	30.0	-1
2,4-Dinitrotoluene	0.506	0.536	31.790	30.0	6
2,4_2,6-Dinitrotoluenes	0.444	0.458	63.040	60.0	5
Dibenzofuran	1.964	1.993	30.440	30.0	1
1-Naphthylamine	1.530	1.508	29.560	30.0	-1
2,3,4,6-Tetrachlorophenol	0.350	0.344	29.520	30.0	-2
2-Naphthylamine	1.489	1.487	29.960	30.0	0
Diethylphthalate	1.627	1.625	29.970	30.0	0
Thionazin	0.310	0.302	29.280	30.0	-2
Fluorene	1.642	1.650	30.140	30.0	0
4-Chlorophenyl-phenylether	0.763	0.781	30.690	30.0	2
5-Nitro-o-toluidine	0.492	0.503	30.650	30.0	2
4-Nitroaniline	0.445	0.453	30.590	30.0	2
4,6-Dinitro-2-methylphenol	0.148	0.155	31.410	30.0	5
N-Nitrosodiphenylamine (1)	0.706	0.723	30.750	30.0	2
NDPA as diphenylamine	0.706	0.723	30.750	30.0	2
1,2-Diphenylhydrazine	1.094	1.042	28.560	30.0	-5
Tetraethyldithiopyrophosphate	0.161	0.164	30.560	30.0	2
1,3,5-Trinitrobenzene	0.094	0.099	31.290	30.0	4
Diallate (peak 1)	0.509	0.500	24.470	24.9	-2
Phorate	0.661	0.912	41.400	30.0	38
Phenacetin	0.464	0.513	33.200	30.0	11
4-Bromophenyl-phenylether	0.220	0.209	28.480	30.0	-5
Diallate (peak 2)	0.425	0.390	4.680	5.1	-8
Diallate trans/cis	0.495	0.481	29.150	30.0	-3
Hexachlorobenzene	0.205	0.202	29.600	30.0	-1
Dimethoate	0.380	0.415	32.740	30.0	9
Pentachlorophenol	0.137	0.114	25.040	30.0	-17
4-Aminobiphenyl	0.319	0.300	28.190	30.0	-6
Pentachloronitrobenzene	0.097	0.096	29.640	30.0	-1
Pronamide	0.356	0.386	32.460	30.0	8
Dinoseb	0.216	0.221	30.680	30.0	2
Phenanthrene	1.250	1.233	29.590	30.0	-1
Anthracene	1.234	1.268	30.820	30.0	3
Carbazole	1.119	1.159	31.060	30.0	4

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/16/18 Time: 10:04

Lab File ID: gk0851.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Methyl parathion	0.281	0.321	34.370	30.0	15
Di-n-butylphthalate	1.396	1.431	30.760	30.0	3
Parathion	0.184	0.209	34.010	30.0	13
4-Nitroquinoline-1-oxide	0.120	0.100	24.940	30.0	-17
Octachlorostyrene	0.080	0.087	32.670	30.0	9
Isodrin	0.140	0.136	29.050	30.0	-3
Fluoranthene	1.287	1.337	31.150	30.0	4
Benzidine	0.896	0.939	94.370	90.0	5
Pyrene	1.443	1.449	30.120	30.0	0
p-Dimethylaminoazobenzene	0.221	0.240	29.540	30.0	-2
Chlorobenzilate	0.428	0.457	32.080	30.0	7
3,3'-Dimethylbenzidine	0.735	0.852	34.740	30.0	16
Butylbenzylphthalate	0.671	0.690	30.820	30.0	3
2-Acetylaminofluorene	0.541	0.634	35.160	30.0	17
3,3'-Dichlorobenzidine	0.457	0.475	31.190	30.0	4
4,4'-Methylenebis(2-chloroanil	0.249	0.254	30.680	30.0	2
Benzo(a)anthracene	1.320	1.340	30.440	30.0	1
Chrysene	1.270	1.219	28.800	30.0	-4
bis(2-Ethylhexyl)phthalate	0.910	0.930	30.680	30.0	2
6-Methylchrysene	0.868	0.878	30.340	30.0	1
Di-n-octylphthalate	1.801	1.878	31.290	30.0	4
Benzo(b)fluoranthene	1.429	1.410	29.610	30.0	-1
7,12-Dimethylbenz[a]anthracene	0.651	0.695	32.030	30.0	7
Benzo(k)fluoranthene	1.356	1.400	30.990	30.0	3
Benzo(a)pyrene	1.243	1.307	31.550	30.0	5
3-Methylcholanthrene	0.485	0.564	34.870	30.0	16
Dibenz(a,h)acridine	0.919	0.972	31.720	30.0	6
Dibenz(a,j)acridine	0.988	1.026	31.140	30.0	4
Indeno(1,2,3-cd)pyrene	1.256	1.354	32.360	30.0	8
Dibenz(a,h)anthracene	1.036	1.168	33.810	30.0	13
Benzo(g,h,i)perylene	1.066	1.131	31.820	30.0	6
Total PAHs	1.291	1.295	554.000	540.0	3
2-Fluorophenol	1.517	1.543	61.040	60.0	2
Phenol-d6	2.349	2.540	64.890	60.0	8
Nitrobenzene-d5	0.527	0.525	59.790	60.0	0

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP11165 Calibration Date: 11/16/18 Time: 10:04

Lab File ID: gk0851.d Init. Calib. Date(s): 11/11/18 11/11/18

Init. Calib. Times(s): 10:36 14:32

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
2-Fluorobiphenyl	1.619	1.530	56.710	60.0	-5
2,4,6-Tribromophenol	0.160	0.188	70.520	60.0	18
Terphenyl-d14	0.967	0.944	58.560	60.0	-2
			Average %Drift:		6

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP11165.i/18nov11.b/gk0551.d **
/chem/HP11165.i/18nov11.b/gk0552.d
/chem/HP11165.i/18nov11.b/gk0553.d
/chem/HP11165.i/18nov11.b/gk0554.d
/chem/HP11165.i/18nov11.b/gk0555.d
/chem/HP11165.i/18nov11.b/gk0556.d
/chem/HP11165.i/18nov11.b/gk0557.d
/chem/HP11165.i/18nov11.b/gk0558.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP11165.i/18nov16.b/gk0851.d

Area Summary

Internal Standard Name	File ID: gk0851.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	150545	157805	78902	315610	Yes
Naphthalene-d8	668579	667588	333794	1335176	Yes
Acenaphthene-d10	405368	367881	183940	735762	Yes
Phenanthrene-d10	821448	724156	362078	1448312	Yes
Pyrene-d10	780631	669260	334630	1338520	Yes
Perylene-d12	653821	544347	272174	1088694	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

Internal Standard Name	File ID: gk0851.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	5.451	5.734	No
Naphthalene-d8	6.686	6.969	No
Acenaphthene-d10	8.398	8.686	No
Phenanthrene-d10	9.851	10.139	No
Pyrene-d10	11.239	11.533	No
Perylene-d12	13.874	14.204	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

Data File: /chem/HP11165.i/18nov16.b/gk0862.d
Report Date: 11/19/2018 19:13

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP11165.i
Client ID: SECC50
Lab Sample ID: STD2928
Sublist used: 18nov16.sub
Injection Date and Time: 16-NOV-2018 18:30
Initial Calibration Date(s): 11-NOV-2018 11-NOV-2018
Initial Calibration Time(s): 10:36 ~~18:11~~
Method used: /chem/HP11165.i/18nov16.b/m8270d.m 14:32

3 dcw 13766 11/21/18

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Pyridine	1.80273	1.82707	0.010	-1.4	20.0
Phenol	2.67435	2.72639	0.010	-1.9	20.0
Aniline	3.13810	2.98565	0.010	4.9	20.0
bis(2-Chloroethyl)ether	1.92074	1.89013	0.010	1.6	20.0
2-Chlorophenol	1.47414	1.60436	0.010	-8.8	20.0
1,3-Dichlorobenzene	1.62383	1.57750	0.010	2.9	20.0
1,4-Dichlorobenzene	1.69489	1.59844	0.010	5.7	20.0
Benzyl alcohol	1.17438	1.33312	0.010	-13.5	20.0
1,2-Dichlorobenzene	1.64042	1.54838	0.010	5.6	20.0
2-Methylphenol	1.80307	1.83442	0.010	-1.7	20.0
2,2'-oxybis(1-Chloropropane)	1.94937	1.92307	0.010	1.3	20.0
Acetophenone	2.43307	2.63362	0.010	-8.2	20.0
4-Methylphenol	1.82604	2.12948	0.010	-16.6	20.0
N-Nitroso-di-n-propylamine	1.71866	1.72053	0.010	-0.1	20.0
Hexachloroethane	0.63795	0.65618	0.010	-2.9	20.0
Nitrobenzene	0.54964	0.53422	0.010	2.8	20.0
Isophorone	0.99335	0.98113	0.010	1.2	20.0
2-Nitrophenol	0.19802	0.21075	0.010	-6.4	20.0
2,4-Dimethylphenol	0.43757	0.47313	0.010	-8.1	20.0
bis(2-Chloroethoxy)methane	0.55217	0.55535	0.010	-0.6	20.0
2,4-Dichlorophenol	0.30532	0.32703	0.010	-7.1	20.0
1,2,4-Trichlorobenzene	0.32198	0.31996	0.010	0.6	20.0
Naphthalene	1.12970	1.15371	0.010	-2.1	20.0
4-Chloroaniline	0.46507	0.46770	0.010	-0.6	20.0
Hexachlorobutadiene	0.17278	0.16417	0.010	5.0	20.0
Caprolactam	0.14177	0.17103	0.010	-20.6	20.0
4-Chloro-3-methylphenol	0.38108	0.44057	0.010	-15.6	20.0
2-Methylnaphthalene	0.80112	0.81818	0.010	-2.1	20.0
1-Methylnaphthalene	0.76378	0.77380	0.010	-1.3	20.0
Hexachlorocyclopentadiene	0.29479	0.19049	0.010	35.4	20.0
2,4,6-Trichlorophenol	0.39837	0.43123	0.010	-8.2	20.0
2,4,5-Trichlorophenol	0.43392	0.47679	0.010	-9.9	20.0
1,1'-Biphenyl	1.76341	1.71300	0.010	2.9	20.0
2-Chloronaphthalene	1.38381	1.54377	0.010	-11.6	20.0
2-Nitroaniline	0.43236	0.50077	0.010	-15.8	20.0
Dimethylphthalate	1.62095	1.62718	0.010	-0.4	20.0
2,6-Dinitrotoluene	0.36399	0.39380	0.010	-8.2	20.0
Acenaphthylene	1.90860	1.92622	0.010	-0.9	20.0
3-Nitroaniline	0.40810	0.43369	0.010	-6.3	20.0
Acenaphthene	1.41074	1.44486	0.010	-2.4	20.0
2,4-Dinitrophenol	0.24546	0.25308	0.010	-3.1	20.0
4-Nitrophenol	0.28332	0.32265	0.010	-13.9	20.0
2,4-Dinitrotoluene	0.50578	0.56119	0.010	-11.0	20.0
Dibenzofuran	1.96408	2.01455	0.010	-2.6	20.0
Diethylphthalate	1.62709	1.60306	0.010	1.5	20.0
Fluorene	1.64171	1.74872	0.010	-6.5	20.0
4-Chlorophenyl-phenylether	0.76317	0.81106	0.010	-6.3	20.0
4-Nitroaniline	0.44456	0.48113	0.010	-8.2	20.0

Data File: /chem/HP11165.i/18nov16.b/gk0862.d
Report Date: 11/19/2018 19:13

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP11165.i
Client ID: SECC50
Lab Sample ID: STD2928
Sublist used: 18nov16.sub
Injection Date and Time: 16-NOV-2018 18:30
Initial Calibration Date(s): 11-NOV-2018 11-NOV-2018
Initial Calibration Time(s): 10:36 ~~18:11~~ 14:32
Method used: /chem/HP11165.i/18nov16.b/m8270d.m

(3) dcw 13766 11/21/18

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
4,6-Dinitro-2-methylphenol	0.14821	0.17066	0.010	-15.1	20.0
N-Nitrosodiphenylamine	0.70554	0.75099	0.010	-6.4	20.0
4-Bromophenyl-phenylether	0.21979	0.22019	0.010	-0.2	20.0
Hexachlorobenzene	0.20500	0.20876	0.010	-1.8	20.0
Pentachlorophenol	0.13690	0.11358	0.010	17.0	20.0
Phenanthrene	1.24991	1.23655	0.010	1.1	20.0
Anthracene	1.23412	1.25536	0.010	-1.7	20.0
Carbazole	1.11941	1.13191	0.010	-1.1	20.0
Di-n-butylphthalate	1.39593	1.37528	0.010	1.5	20.0
Fluoranthene	1.28725	1.25714	0.010	2.3	20.0
Pyrene	1.44329	1.36414	0.010	5.5	20.0
Butylbenzylphthalate	0.67143	0.70962	0.010	-5.7	20.0
3,3'-Dichlorobenzidine	0.45712	0.48157	0.010	-5.3	20.0
Benzo(a)anthracene	1.32016	1.33964	0.010	-1.5	20.0
Chrysene	1.26971	1.19313	0.010	6.0	20.0
bis(2-Ethylhexyl)phthalate	0.90956	0.99790	0.010	-9.7	20.0
Di-n-octylphthalate	1.80122	2.01397	0.010	-11.8	20.0
Benzo(b)fluoranthene	1.42863	1.38777	0.010	2.9	20.0
Benzo(k)fluoranthene	1.35577	1.31209	0.010	3.2	20.0
Benzo(a)pyrene	1.24269	1.23934	0.010	0.3	20.0
Indeno(1,2,3-cd)pyrene	1.25557	1.28687	0.010	-2.5	20.0
Dibenz(a,h)anthracene	1.03640	1.10942	0.010	-7.0	20.0
Benzo(g,h,i)perylene	1.06652	1.06220	0.010	0.4	20.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
2-Fluorophenol	1.51691	1.52700	0.010	-0.7	20.0
Phenol-d6	2.34894	2.50446	0.010	-6.6	20.0
Nitrobenzene-d5	0.52693	0.51997	0.010	1.3	20.0
2-Fluorobiphenyl	1.61877	1.56946	0.010	3.0	20.0
2,4,6-Tribromophenol	0.16019	0.19447	0.010	-21.4	20.0
Terphenyl-d14	0.96713	0.94439	0.010	2.4	20.0

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date: 11/11/18 Time: 20:58

Lab File ID: pk0361.d Init. Calib. Date(s): 11/09/18 11/09/18

Init. Calib. Times(s): 15:38 18:24

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.732	0.750	30.740	30.0	2
N-Nitrosodimethylamine	1.167	1.246	32.020	30.0	7
Pyridine	2.089	2.111	30.310	30.0	1
2-Picoline	2.147	2.169	30.310	30.0	1
N-Nitrosomethylethylamine	0.949	0.995	31.460	30.0	5
Methyl methanesulfonate	0.946	0.981	31.120	30.0	4
N-Nitrosodiethylamine	0.916	0.944	30.910	30.0	3
Ethyl methanesulfonate	0.923	0.946	30.740	30.0	2
Phenol	2.869	2.830	29.590	30.0	-1
Aniline	3.204	3.267	30.580	30.0	2
bis(2-Chloroethyl)ether	2.027	2.082	30.810	30.0	3
2-Chlorophenol	1.545	1.581	30.710	30.0	2
1,3-Dichlorobenzene	1.546	1.606	31.160	30.0	4
1,4-Dichlorobenzene	1.538	1.574	30.700	30.0	2
Benzyl alcohol	1.248	1.262	30.350	30.0	1
1,2-Dichlorobenzene	1.537	1.552	30.290	30.0	1
Indene	1.824	1.883	30.970	30.0	3
2-Methylphenol	1.756	1.786	30.500	30.0	2
2,2'-oxybis(1-Chloropropane)	2.953	3.050	30.990	30.0	3
bis(2-Chloroisopropyl)ether	2.953	3.050	30.990	30.0	3
N-Nitrosopyrrolidine	1.145	1.103	28.910	30.0	-4
Acetophenone	2.635	2.697	30.710	30.0	2
4-Methylphenol	2.066	2.084	30.260	30.0	1
Total Cresols	1.911	1.935	60.750	60.0	1
N-Nitroso-di-n-propylamine	1.760	1.733	29.550	30.0	-1
N-Nitrosomorpholine	1.413	1.422	30.200	30.0	1
o-Toluidine	2.964	2.967	30.040	30.0	0
Hexachloroethane	0.655	0.664	30.420	30.0	1
Nitrobenzene	0.560	0.559	29.960	30.0	0
N-Nitrosopiperidine	0.236	0.223	28.260	30.0	-6
Isophorone	1.041	1.039	29.950	30.0	0
2-Nitrophenol	0.200	0.207	30.950	30.0	3
2,4-Dimethylphenol	0.458	0.456	29.880	30.0	0
O,O,O-Triethylphosphorothioate	0.218	0.224	30.890	30.0	3
bis(2-Chloroethoxy)methane	0.620	0.638	30.840	30.0	3
Benzoic acid	0.316	0.282	35.690	40.0	-11

FORM VII SV-1

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date: 11/11/18 Time: 20:58

Lab File ID: pk0361.d Init. Calib. Date(s): 11/09/18 11/09/18

Init. Calib. Times(s): 15:38 18:24

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
2,4-Dichlorophenol	0.333	0.323	29.060	30.0	-3
1,2,4-Trichlorobenzene	0.346	0.356	30.840	30.0	3
Naphthalene	1.143	1.120	29.400	30.0	-2
4-Chloroaniline	0.459	0.475	31.050	30.0	4
2,6-Dichlorophenol	0.327	0.322	29.530	30.0	-2
Hexachloropropene	0.201	0.202	30.140	30.0	0
Hexachlorobutadiene	0.198	0.215	32.550	30.0	8
Quinoline	0.779	0.784	30.200	30.0	1
Caprolactam	0.162	0.160	29.570	30.0	-1
N-Nitrosodi-n-butylamine	0.512	0.502	29.410	30.0	-2
4-Chloro-3-methylphenol	0.426	0.406	28.600	30.0	-5
Safrole	0.312	0.313	30.090	30.0	0
2-Methylnaphthalene	0.780	0.816	31.370	30.0	5
1-Methylnaphthalene	0.756	0.755	29.970	30.0	0
Hexachlorocyclopentadiene	0.333	0.363	32.670	30.0	9
1,2,4,5-Tetrachlorobenzene	0.668	0.713	32.010	30.0	7
cis-Isosafrole	0.554	0.553	5.090	5.1	0
2,4,6-Trichlorophenol	0.445	0.458	30.860	30.0	3
2,4,5-Trichlorophenol	0.488	0.499	30.670	30.0	2
trans-Isosafrole	0.546	0.578	26.330	24.9	6
Isosafrole	0.548	0.574	31.420	30.0	5
1,1'-Biphenyl	1.675	1.695	30.370	30.0	1
2-Chloronaphthalene	1.359	1.400	30.910	30.0	3
1-Chloronaphthalene	1.309	1.286	29.490	30.0	-2
Diphenyl ether	0.967	0.985	30.540	30.0	2
2-Nitroaniline	0.456	0.465	30.630	30.0	2
1,4-Naphthoquinone	0.578	0.611	31.730	30.0	6
1,4-Dinitrobenzene	0.249	0.263	31.720	30.0	6
Dimethylphthalate	1.621	1.677	31.040	30.0	3
1,3-Dinitrobenzene	0.289	0.284	29.560	30.0	-1
2,6-Dinitrotoluene	0.386	0.392	30.460	30.0	2
Acenaphthylene	1.937	1.979	30.660	30.0	2
3-Nitroaniline	0.396	0.415	31.420	30.0	5
Acenaphthene	1.377	1.424	31.040	30.0	3
2,4-Dinitrophenol	0.211	0.208	39.390	40.0	-2
4-Nitrophenol	0.264	0.265	30.060	30.0	0

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date: 11/11/18 Time: 20:58

Lab File ID: pk0361.d Init. Calib. Date(s): 11/09/18 11/09/18

Init. Calib. Times(s): 15:38 18:24

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Pentachlorobenzene	0.623	0.625	30.080	30.0	0
2,4-Dinitrotoluene	0.510	0.532	31.270	30.0	4
2,4_2,6-Dinitrotoluenes	0.444	0.462	62.340	60.0	4
Dibenzofuran	2.097	2.164	30.950	30.0	3
1-Naphthylamine	1.445	1.512	31.380	30.0	5
2,3,4,6-Tetrachlorophenol	0.414	0.425	30.780	30.0	3
2-Naphthylamine	1.450	1.523	31.500	30.0	5
Diethylphthalate	1.666	1.695	30.530	30.0	2
Thionazin	0.302	0.317	31.510	30.0	5
Fluorene	1.691	1.735	30.770	30.0	3
4-Chlorophenyl-phenylether	0.920	0.918	29.930	30.0	0
5-Nitro-o-toluidine	0.486	0.530	32.760	30.0	9
4-Nitroaniline	0.452	0.464	30.790	30.0	3
4,6-Dinitro-2-methylphenol	0.128	0.134	31.460	30.0	5
N-Nitrosodiphenylamine (1)	0.644	0.666	31.020	30.0	3
NDPA as diphenylamine	0.644	0.666	31.020	30.0	3
1,2-Diphenylhydrazine	0.973	0.976	30.090	30.0	0
Tetraethyldithiopyrophosphate	0.141	0.147	31.170	30.0	4
1,3,5-Trinitrobenzene	0.094	0.094	30.170	30.0	1
Diallate (peak 1)	0.447	0.462	25.740	24.9	3
Phorate	0.723	0.596	24.750	30.0	-17
Phenacetin	0.425	0.426	30.070	30.0	0
4-Bromophenyl-phenylether	0.219	0.234	32.020	30.0	7
Diallate (peak 2)	0.385	0.380	5.040	5.1	-1
Diallate trans/cis	0.437	0.448	30.800	30.0	3
Hexachlorobenzene	0.209	0.221	31.710	30.0	6
Dimethoate	0.377	0.384	30.530	30.0	2
Pentachlorophenol	0.121	0.123	30.600	30.0	2
4-Aminobiphenyl	0.303	0.306	30.300	30.0	1
Pentachloronitrobenzene	0.100	0.108	32.370	30.0	8
Pronamide	0.341	0.354	31.180	30.0	4
Dinoseb	0.195	0.192	29.550	30.0	-2
Phenanthrene	1.136	1.155	30.520	30.0	2
Anthracene	1.150	1.203	31.380	30.0	5
Carbazole	1.059	1.085	30.720	30.0	2
Methyl parathion	0.273	0.293	32.260	30.0	8

(1) Cannot be Separated from Diphenylamine

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date: 11/11/18 Time: 20:58

Lab File ID: pk0361.d Init. Calib. Date(s): 11/09/18 11/09/18

Init. Calib. Times(s): 15:38 18:24

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
Di-n-butylphthalate	1.264	1.324	31.440	30.0	5
Parathion	0.172	0.172	29.980	30.0	0
4-Nitroquinoline-1-oxide	0.109	0.105	29.020	30.0	-3
Octachlorostyrene	0.082	0.080	29.020	30.0	-3
Isodrin	0.141	0.142	30.120	30.0	0
Fluoranthene	1.307	1.406	32.270	30.0	8
Benzidine	0.763	0.876	103.270	90.0	15
Pyrene	1.357	1.378	30.460	30.0	2
p-Dimethylaminoazobenzene	0.235	0.235	29.960	30.0	0
Chlorobenzilate	0.338	0.344	30.510	30.0	2
3,3'-Dimethylbenzidine	0.798	0.855	32.140	30.0	7
Butylbenzylphthalate	0.575	0.603	31.460	30.0	5
2-Acetylaminofluorene	0.490	0.490	30.030	30.0	0
3,3'-Dichlorobenzidine	0.460	0.480	31.330	30.0	4
4,4'-Methylenebis(2-chloroanil	0.247	0.257	31.210	30.0	4
Benzo(a)anthracene	1.249	1.322	31.740	30.0	6
Chrysene	1.201	1.297	32.380	30.0	8
bis(2-Ethylhexyl)phthalate	0.814	0.832	30.690	30.0	2
6-Methylchrysene	0.832	0.867	31.270	30.0	4
Di-n-octylphthalate	1.594	1.640	30.870	30.0	3
Benzo(b)fluoranthene	1.401	1.375	29.440	30.0	-2
7,12-Dimethylbenz[a]anthracene	0.635	0.662	31.300	30.0	4
Benzo(k)fluoranthene	1.372	1.483	32.440	30.0	8
Benzo(a)pyrene	1.287	1.320	30.770	30.0	3
3-Methylcholanthrene	0.517	0.529	30.720	30.0	2
Dibenz(a,h)acridine	1.004	1.009	30.150	30.0	1
Dibenz(a,j)acridine	1.038	1.054	30.480	30.0	2
Indeno(1,2,3-cd)pyrene	1.331	1.383	31.180	30.0	4
Dibenz(a,h)anthracene	1.156	1.189	30.830	30.0	3
Benzo(g,h,i)perylene	1.132	1.178	31.230	30.0	4
Total PAHs	1.139	1.183	561.050	540.0	4
2-Fluorophenol	1.531	1.579	61.880	60.0	3
Phenol-d6	2.412	2.480	61.670	60.0	3
Nitrobenzene-d5	0.518	0.536	62.000	60.0	3
2-Fluorobiphenyl	1.541	1.639	63.810	60.0	6

FORM VII SV-1

7C cont
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP23262 Calibration Date: 11/11/18 Time: 20:58

Lab File ID: pk0361.d Init. Calib. Date(s): 11/09/18 11/09/18

Init. Calib. Times(s): 15:38 18:24

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
2,4,6-Tribromophenol	0.200	0.204	61.070	60.0	2
Terphenyl-d14	0.853	0.924	64.980	60.0	8
			Average %Drift:		3

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP23262.i/18nov09a.b/pk0311.d **
/chem/HP23262.i/18nov09a.b/pk0312.d
/chem/HP23262.i/18nov09a.b/pk0313.d
/chem/HP23262.i/18nov09a.b/pk0314.d
/chem/HP23262.i/18nov09a.b/pk0315.d
/chem/HP23262.i/18nov09a.b/pk0316.d
/chem/HP23262.i/18nov09a.b/pk0317.d
/chem/HP23262.i/18nov09a.b/pk0318.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP23262.i/18nov11.b/pk0361.d

Area Summary

File ID:

Internal Standard Name	pk0361.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	148838	179919	89960	359838	Yes
Naphthalene-d8	645044	781428	390714	1562856	Yes
Acenaphthene-d10	380233	475081	237540	950162	Yes
Phenanthrene-d10	868007	1108399	554200	2216798	Yes
Pyrene-d10	898203	1141913	570956	2283826	Yes
Perylene-d12	788919	982327	491164	1964654	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	pk0361.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	5.501	5.501	Yes
Naphthalene-d8	6.731	6.737	Yes
Acenaphthene-d10	8.442	8.442	Yes
Phenanthrene-d10	9.889	9.895	Yes
Pyrene-d10	11.277	11.277	Yes
Perylene-d12	13.907	13.907	Yes

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: _____

Data File: /chem/HP23262.i/18nov11.b/pk0392.d
Report Date: 11/12/2018 23:33

09-NOV-2018
15:38
(3) dew 13766
11/14/18

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP23262.i
Client ID: SECC50
Lab Sample ID: STD2928
Sublist used: 311SLA.sub

Injection Date and Time: 12-NOV-2018 08:03
Initial Calibration Date(s): 06-NOV-~~2018~~ 09-NOV-2018
Initial Calibration Time(s): ~~14:30~~ 18:24
Method used: /chem/HP23262.i/18nov11.b/m8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,4-Dioxane	0.73235	0.59134	0.010	19.3	20.0
Benzaldehyde	1.82250	0.95245	0.010	47.7	20.0
Phenol	2.86890	2.83122	0.010	1.3	20.0
bis(2-Chloroethyl)ether	2.02726	1.92536	0.010	5.0	20.0
2-Chlorophenol	1.54470	1.53751	0.010	0.5	20.0
2-Methylphenol	1.75623	1.75002	0.010	0.4	20.0
2,2'-oxybis(1-Chloropropane)	2.95288	2.80873	0.010	4.9	20.0
Acetophenone	2.63448	2.46371	0.010	6.5	20.0
4-Methylphenol	2.06566	1.93806	0.010	6.2	20.0
N-Nitroso-di-n-propylamine	1.75946	1.63554	0.010	7.0	20.0
Hexachloroethane	0.65497	0.59228	0.010	9.6	20.0
Nitrobenzene	0.56014	0.53594	0.010	4.3	20.0
Isophorone	1.04098	0.98902	0.010	5.0	20.0
2-Nitrophenol	0.20015	0.19811	0.010	1.0	20.0
2,4-Dimethylphenol	0.45764	0.43944	0.010	4.0	20.0
bis(2-Chloroethoxy)methane	0.62038	0.59141	0.010	4.7	20.0
2,4-Dichlorophenol	0.33347	0.32013	0.010	4.0	20.0
Naphthalene	1.14275	1.07424	0.010	6.0	20.0
4-Chloroaniline	0.45935	0.43034	0.010	6.3	20.0
Hexachlorobutadiene	0.19793	0.20596	0.010	-4.1	20.0
Caprolactam	0.16249	0.14866	0.010	8.5	20.0
4-Chloro-3-methylphenol	0.42600	0.40376	0.010	5.2	20.0
2-Methylnaphthalene	0.78006	0.77416	0.010	0.8	20.0
1-Methylnaphthalene	0.75598	0.73655	0.010	2.6	20.0
Hexachlorocyclopentadiene	0.33352	0.15075	0.010	54.8	20.0
1,2,4,5-Tetrachlorobenzene	0.66825	0.68503	0.010	-2.5	20.0
2,4,6-Trichlorophenol	0.44536	0.47720	0.010	-7.1	20.0
2,4,5-Trichlorophenol	0.48817	0.49173	0.010	-0.7	20.0
1,1'-Biphenyl	1.67488	1.71629	0.010	-2.5	20.0
2-Chloronaphthalene	1.35905	1.22434	0.010	9.9	20.0
2-Nitroaniline	0.45557	0.45345	0.010	0.5	20.0
Dimethylphthalate	1.62122	1.58234	0.010	2.4	20.0
2,6-Dinitrotoluene	0.38566	0.36608	0.010	5.1	20.0
Acenaphthylene	1.93677	1.90976	0.010	1.4	20.0
3-Nitroaniline	0.39580	0.39084	0.010	1.3	20.0
Acenaphthene	1.37672	1.39855	0.010	-1.6	20.0
2,4-Dinitrophenol	0.21112	0.18879	0.010	10.6	20.0
4-Nitrophenol	0.26426	0.27063	0.010	-2.4	20.0
2,4-Dinitrotoluene	0.51017	0.50612	0.010	0.8	20.0
Dibenzofuran	2.09741	2.05989	0.010	1.8	20.0
2,3,4,6-Tetrachlorophenol	0.41423	0.41741	0.010	-0.8	20.0
Diethylphthalate	1.66565	1.61622	0.010	3.0	20.0
Fluorene	1.69140	1.69721	0.010	-0.3	20.0
4-Chlorophenyl-phenylether	0.91970	0.91462	0.010	0.6	20.0
4-Nitroaniline	0.45228	0.41265	0.010	8.8	20.0
4,6-Dinitro-2-methylphenol	0.12797	0.12029	0.010	6.0	20.0
N-Nitrosodiphenylamine	0.64363	0.65344	0.010	-1.5	20.0
4-Bromophenyl-phenylether	0.21932	0.22528	0.010	-2.7	20.0

Data File: /chem/HP23262.i/18nov11.b/pk0392.d
Report Date: 11/12/2018 23:33

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

09-NOV-2018
15:38
dlw 13706
11/14/18

Instrument ID: HP23262.i
Client ID: SECC50
Lab Sample ID: STD2928
Sublist used: 311SLA.sub

Injection Date and Time: 12-NOV-2018 08:03
Initial Calibration Date(s): 06-NOV-2018 09-NOV-2018
Initial Calibration Time(s): 14:30 18:24
Method used: /chem/HP23262.i/18nov11.b/m8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
Hexachlorobenzene	0.20954	0.22062	0.010	-5.3	20.0
Atrazine	0.22581	0.18251	0.010	19.2	20.0
Pentachlorophenol	0.12097	0.12024	0.010	0.6	20.0
Phenanthrene	1.13568	1.10183	0.010	3.0	20.0
Anthracene	1.14981	1.13344	0.010	1.4	20.0
Carbazole	1.05920	1.02399	0.010	3.3	20.0
Di-n-butylphthalate	1.26361	1.27418	0.010	-0.8	20.0
Fluoranthene	1.30680	1.29159	0.010	1.2	20.0
Pyrene	1.35738	1.32438	0.010	2.4	20.0
Butylbenzylphthalate	0.57496	0.56546	0.010	1.7	20.0
3,3'-Dichlorobenzidine	0.45991	0.42384	0.010	7.8	20.0
Benzo(a)anthracene	1.24904	1.17821	0.010	5.7	20.0
Chrysene	1.20141	1.13059	0.010	5.9	20.0
bis(2-Ethylhexyl)phthalate	0.81360	0.79608	0.010	2.2	20.0
Di-n-octylphthalate	1.59421	1.71745	0.010	-7.7	20.0
Benzo(b)fluoranthene	1.40074	1.36738	0.010	2.4	20.0
Benzo(k)fluoranthene	1.37177	1.39881	0.010	-2.0	20.0
Benzo(a)pyrene	1.28729	1.29687	0.010	-0.7	20.0
Indeno(1,2,3-cd)pyrene	1.33105	1.37762	0.010	-3.5	20.0
Dibenz(a,h)anthracene	1.15650	1.14107	0.010	1.3	20.0
Benzo(g,h,i)perylene	1.13205	1.13798	0.010	-0.5	20.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
2-Fluorophenol	1.53110	1.45586	0.010	4.9	20.0
Phenol-d6	2.41254	2.37390	0.010	1.6	20.0
Nitrobenzene-d5	0.51851	0.50702	0.010	2.2	20.0
2-Fluorobiphenyl	1.54102	1.60709	0.010	-4.3	20.0
2,4,6-Tribromophenol	0.20001	0.20309	0.010	-1.5	20.0
Terphenyl-d14	0.85311	0.88722	0.010	-4.0	20.0

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0311.d Date Analyzed: 11/07/18

Instrument ID: HP11165 Time Analyzed: 09:12

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	117346	5.107	512196	6.337	293901	8.037
UPPER LIMIT	234692	5.607	1024392	6.837	587802	8.537
LOWER LIMIT	58673	4.607	256098	5.837	146951	7.537
LLI SAMPLE NO.						
01 SBLKLC302	111520	5.107	461753	6.336	256787	8.036
02 302LCLCS	119801	5.107	508626	6.336	302799	8.036
03 9863853	124155	5.107	526030	6.337	306057	8.036
04 9863854MS	130224	5.107	570439	6.337	333490	8.037
05 9863855MSD	121632	5.107	525351	6.337	313948	8.036
06 9863851	127713	5.107	545543	6.337	318882	8.036
07 9863852	131108	5.107	593876	6.336	340443	8.036
08 9863857	120170	5.107	532281	6.336	307363	8.036
09 9863858	130341	5.107	582240	6.337	339371	8.037
10 9866461	119530	5.107	538180	6.336	322014	8.036
11 9866462	140282	5.107	605214	6.336	334237	8.036
12 9866463	135584	5.113	581618	6.343	322009	8.042
13 9866464	143459	5.113	635789	6.343	356087	8.042
14 9866465	136258	5.107	593611	6.342	348881	8.042
15 9866466	144326	5.107	639429	6.343	359658	8.037
16 9866467	136663	5.107	591275	6.342	327176	8.036
17 9870251	136393	5.107	608112	6.342	347394	8.042

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0311.d Date Analyzed: 11/07/18

Instrument ID: HP11165 Time Analyzed: 09:12

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	590993	9.478	552897	10.848	544132	13.424
UPPER LIMIT	1181986	9.978	1105794	11.348	1088264	13.924
LOWER LIMIT	295497	8.978	276449	10.348	272066	12.924
LLI SAMPLE NO.						
01 SBLKLC302	528842	9.472	482847	10.848	473422	13.418
02 302LCLCS	583384	9.477	525861	10.848	433267	13.424
03 9863853	605188	9.472	509054	10.848	432903	13.418
04 9863854MS	656580	9.478	568210	10.848	440230	13.424
05 9863855MSD	615731	9.478	535520	10.848	424573	13.424
06 9863851	653325	9.472	557949	10.848	481926	13.418
07 9863852	621516	9.472	482432	10.848	432097	13.430
08 9863857	588094	9.477	460267	10.848	391572	13.424
09 9863858	651636	9.478	499681	10.854	431250	13.430
10 9866461	628767	9.477	507003	10.854	408797	13.424
11 9866462	572785	9.477	466696	10.854	453179	13.442
12 9866463	576262	9.484	456044	10.860	392917	13.436
13 9866464	653002	9.484	529138	10.854	445054	13.436
14 9866465	674608	9.477	539823	10.854	437069	13.430
15 9866466	654068	9.478	496292	10.854	442975	13.436
16 9866467	612354	9.477	482909	10.860	413099	13.436
17 9870251	638054	9.483	488923	10.854	417669	13.436

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0311.d Date Analyzed: 11/07/18

Instrument ID: HP11165 Time Analyzed: 09:12

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	117346	5.107	512196	6.337	293901	8.037
UPPER LIMIT	234692	5.607	1024392	6.837	587802	8.537
LOWER LIMIT	58673	4.607	256098	5.837	146951	7.537
LLI SAMPLE NO.						
18 9870253	132428	5.113	558721	6.354	307663	8.048
19 STD2928	131850	5.119	568773	6.348	334201	8.048

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0311.d Date Analyzed: 11/07/18

Instrument ID: HP11165 Time Analyzed: 09:12

		IS4(PHN)		IS5(PYR)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	590993	9.478	552897	10.848	544132	13.424
	UPPER LIMIT	1181986	9.978	1105794	11.348	1088264	13.924
	LOWER LIMIT	295497	8.978	276449	10.348	272066	12.924
	LLI SAMPLE NO.						
18	9870253	526482	9.501	511064	10.889	473323	13.489
19	STD2928	632575	9.495	532256	10.872	397331	13.448

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0591.d Date Analyzed: 11/12/18

Instrument ID: HP11165 Time Analyzed: 08:52

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	130460	5.734	592101	6.969	330410	8.686
UPPER LIMIT	260920	6.234	1184202	7.469	660820	9.186
LOWER LIMIT	65230	5.234	296051	6.469	165205	8.186
LLI SAMPLE NO.						
01 9870252	153331	5.734	628972	6.975	313793	8.687
02 9870252DL	168826	5.740	705562	6.975	364641	8.686
03 9870254	155962	5.739	638557	6.975	325174	8.692
04 9872060	154685	5.740	617135	6.981	323068	8.698
05 9872061	159815	5.746	625769	6.981	337561	8.698
06 9872062	158821	5.745	643068	6.987	347373	8.704
07 9872063	165893	5.745	661344	6.981	313918	8.698
08 9872060DL	147535	5.739	640296	6.981	315273	8.698
09 9872061DL	157014	5.740	665965	6.981	346757	8.698
10 STD2928	187225	5.745	849581	6.981	438447	8.698
11 9878581DL	163014	5.740	688987	6.975	379526	8.692
12 9878582DL	164913	5.739	680368	6.975	366790	8.692
13 9879403	137717	5.740	583365	6.975	292547	8.692
14 9879404	158844	5.740	617382	6.975	309568	8.692
15 9879405	81987	5.739	343310	6.975	175381	8.692
16 9879405MS	157589	5.745	608358	6.981	320761	8.698
17 9879405MSD	41273*	5.745	150974*	6.981	80277*	8.698

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0591.d Date Analyzed: 11/12/18

Instrument ID: HP11165 Time Analyzed: 08:52

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	645961	10.139	611192	11.533	509224	14.204
UPPER LIMIT	1291922	10.639	1222384	12.033	1018448	14.704
LOWER LIMIT	322981	9.639	305596	11.033	254612	13.704
LLI SAMPLE NO.						
01 9870252	528027	10.145	460447	11.545	410254	14.227
02 9870252DL	637430	10.145	518590	11.539	462638	14.216
03 9870254	550618	10.151	519062	11.551	478060	14.245
04 9872060	533503	10.157	538477	11.563	507307	14.257
05 9872061	552568	10.157	510765	11.563	565468	14.263
06 9872062	582211	10.169	563124	11.574	564182	14.280
07 9872063	519064	10.157	459032	11.551	456297	14.239
08 9872060DL	565379	10.157	470481	11.551	446868	14.239
09 9872061DL	607821	10.151	496245	11.551	446438	14.233
10 STD2928	796905	10.157	646850	11.551	534938	14.233
11 9878581DL	677616	10.151	589709	11.545	498900	14.233
12 9878582DL	684674	10.151	595608	11.551	467354	14.233
13 9879403	514591	10.151	442056	11.545	411489	14.227
14 9879404	511285	10.157	464279	11.551	435143	14.233
15 9879405	275253*	10.151	238056*	11.551	211186*	14.233
16 9879405MS	511000	10.157	458951	11.557	451406	14.251
17 9879405MSD	125541*	10.157	113383*	11.551	121414*	14.239

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0591.d Date Analyzed: 11/12/18

Instrument ID: HP11165 Time Analyzed: 08:52

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	130460	5.734	592101	6.969	330410	8.686
UPPER LIMIT	260920	6.234	1184202	7.469	660820	9.186
LOWER LIMIT	65230	5.234	296051	6.469	165205	8.186
LLI SAMPLE NO.						
18 9879404DL	145980	5.745	605738	6.980	310292	8.698
19 9878582DL2	152570	5.746	613389	6.981	328346	8.698

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0591.d Date Analyzed: 11/12/18

Instrument ID: HP11165 Time Analyzed: 08:52

		IS4(PHN)		IS5(PYR)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	645961	10.139	611192	11.533	509224	14.204
	UPPER LIMIT	1291922	10.639	1222384	12.033	1018448	14.704
	LOWER LIMIT	322981	9.639	305596	11.033	254612	13.704
	LLI SAMPLE NO.						
18	9879404DL	546501	10.157	474367	11.551	432188	14.239
19	9878582DL2	588430	10.157	499128	11.551	410203	14.239

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0851.d Date Analyzed: 11/16/18

Instrument ID: HP11165 Time Analyzed: 10:04

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	150545	5.451	668579	6.686	405368	8.398
UPPER LIMIT	301090	5.951	1337158	7.186	810736	8.898
LOWER LIMIT	75273	4.951	334290	6.186	202684	7.898
LLI SAMPLE NO.						
01 318LELCS	136003	5.451	580364	6.686	338518	8.398
02 SBLKLB317	181226	5.451	739497	6.687	421612	8.398
03 SBLKLE318	144716	5.451	585295	6.687	326908	8.398
04 317LBLCS	159924	5.451	689812	6.687	409783	8.398
05 317LBLCSD	146941	5.451	625614	6.687	391458	8.398
06 9867761RE	186280	5.451	820307	6.686	495832	8.398
07 9867762RE	176014	5.451	773155	6.687	448281	8.398
08 9867766RE	193131	5.451	834468	6.687	468348	8.398
09 9867767RE	178695	5.451	751693	6.686	390259	8.398
10 9872065RE	180346	5.451	788290	6.687	422953	8.404
11 STD2928	187367	5.457	846796	6.692	495328	8.410
12 BAS3108	147818	5.451	638899	6.687	406659	8.404

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): gk0851.d Date Analyzed: 11/16/18

Instrument ID: HP11165 Time Analyzed: 10:04

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	821448	9.851	780631	11.239	653821	13.874
UPPER LIMIT	1642896	10.351	1561262	11.739	1307642	14.374
LOWER LIMIT	410724	9.351	390316	10.739	326911	13.374
LLI SAMPLE NO.						
01 318LELCS	702432	9.851	681084	11.239	570684	13.874
02 SBLKLB317	905534	9.851	894746	11.239	829920	13.874
03 SBLKLE318	734252	9.845	726794	11.233	617828	13.874
04 317LBLCS	847381	9.851	800819	11.239	655680	13.874
05 317LBLCSD	849945	9.851	770844	11.239	616840	13.874
06 9867761RE	932625	9.845	826022	11.239	653558	13.874
07 9867762RE	879157	9.851	747032	11.239	606453	13.874
08 9867766RE	908503	9.851	736933	11.239	615752	13.880
09 9867767RE	722684	9.851	629932	11.245	656198	13.915
10 9872065RE	740958	9.857	658637	11.251	766958	13.922
11 STD2928	998220	9.863	912794	11.251	784007	13.892
12 BAS3108	840243	9.857	729693	11.245	574789	13.886

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): pk0361.d Date Analyzed: 11/11/18

Instrument ID: HP23262 Time Analyzed: 20:58

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	148838	5.501	645044	6.731	380233	8.442
UPPER LIMIT	297676	6.001	1290088	7.231	760466	8.942
LOWER LIMIT	74419	5.001	322522	6.231	190117	7.942
LLI SAMPLE NO.						
01 SBLKLI302	156552	5.495	640809	6.731	384147	8.442
02 SBLKLA311	156107	5.501	632191	6.731	382008	8.442
03 302LILCS	156824	5.501	633783	6.731	359776	8.442
04 311LALCS	154860	5.501	671157	6.731	408376	8.442
05 9867761	173782	5.501	775634	6.731	457788	8.442
06 9867762	167613	5.501	728879	6.731	428623	8.442
07 9867763MS	157746	5.501	702180	6.737	407318	8.442
08 9867764MSD	165913	5.501	730129	6.737	411814	8.442
09 9867766	155162	5.501	703777	6.737	419729	8.442
10 9867767	154837	5.501	660821	6.736	377399	8.442
11 9872064	147807	5.501	623270	6.737	376449	8.442
12 9872065	169026	5.501	711917	6.736	397874	8.448
13 STD2928x	159144	5.507	755193	6.736	474932	8.448
14 9884645	160182	5.501	689591	6.737	415492	8.442
15 9884646	179098	5.501	783383	6.737	472953	8.448
16 9884647	148453	5.501	636621	6.737	391080	8.448
17 9885261	167623	5.507	670890	6.737	406469	8.460

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): pk0361.d Date Analyzed: 11/11/18

Instrument ID: HP23262 Time Analyzed: 20:58

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	868007	9.889	898203	11.277	788919	13.907
UPPER LIMIT	1736014	10.389	1796406	11.777	1577838	14.407
LOWER LIMIT	434004	9.389	449102	10.777	394460	13.407
LLI SAMPLE NO.						
01 SBLKLI302	898742	9.889	879313	11.272	799889	13.901
02 SBLKLA311	919701	9.889	950920	11.271	749601	13.901
03 302LILCS	842516	9.889	846551	11.277	700027	13.907
04 311LALCS	918756	9.889	935969	11.277	738592	13.907
05 9867761	949571	9.889	832119	11.272	648702	13.907
06 9867762	871841	9.889	784289	11.277	629212	13.907
07 9867763MS	817175	9.889	784053	11.277	585196	13.913
08 9867764MSD	872834	9.895	788441	11.278	626205	13.913
09 9867766	885277	9.895	763288	11.277	604749	13.913
10 9867767	803266	9.895	706851	11.283	605216	13.924
11 9872064	808122	9.895	771058	11.283	678083	13.918
12 9872065	781708	9.895	677592	11.283	586156	13.936
13 STD2928x	1048447	9.901	1007362	11.283	772851	13.918
14 9884645	902599	9.895	842135	11.283	647207	13.913
15 9884646	1006877	9.895	946801	11.278	704504	13.913
16 9884647	855385	9.895	838748	11.283	666291	13.918
17 9885261	809227	9.907	806416	11.289	684090	13.913

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): pk0361.d Date Analyzed: 11/11/18

Instrument ID: HP23262 Time Analyzed: 20:58

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	148838	5.501	645044	6.731	380233	8.442
UPPER LIMIT	297676	6.001	1290088	7.231	760466	8.942
LOWER LIMIT	74419	5.001	322522	6.231	190117	7.942
LLI SAMPLE NO.						
18 9884806	158702	5.501	696925	6.737	401175	8.448
19 9884807	152306	5.501	670779	6.737	414575	8.448
20 9884808	143970	5.501	628615	6.737	379147	8.448
21 9884809	143114	5.501	620967	6.737	364961	8.448
22 9884810MS	145973	5.501	632254	6.736	376104	8.448
23 9884811MSD	148095	5.501	619768	6.737	365759	8.448
24 9884813	144138	5.501	641284	6.737	387435	8.448
25 9884814	160543	5.501	692504	6.737	392665	8.448
26 9884815	151483	5.501	674766	6.736	381187	8.448
27 STD2928	177925	5.507	782350	6.736	456396	8.448

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): pk0361.d Date Analyzed: 11/11/18

Instrument ID: HP23262 Time Analyzed: 20:58

	IS4(PHN)		IS5(PYR)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	868007	9.889	898203	11.277	788919	13.907
UPPER LIMIT	1736014	10.389	1796406	11.777	1577838	14.407
LOWER LIMIT	434004	9.389	449102	10.777	394460	13.407
LLI SAMPLE NO.						
18 9884806	845344	9.895	817191	11.283	655763	13.919
19 9884807	889132	9.895	886748	11.283	680586	13.919
20 9884808	810083	9.895	789124	11.283	657891	13.919
21 9884809	813657	9.895	768933	11.283	672684	13.918
22 9884810MS	843574	9.895	787007	11.283	650360	13.918
23 9884811MSD	792694	9.895	751580	11.283	609639	13.918
24 9884813	808799	9.895	775531	11.283	647340	13.919
25 9884814	805875	9.895	766274	11.283	628557	13.918
26 9884815	845158	9.895	828090	11.283	659179	13.918
27 STD2928	1034118	9.901	994218	11.283	773269	13.918

IS4 (PHN) = Phenanthrene-d10
IS5 (PYR) = Pyrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

Sample Data

Semivolatiles by GC/MS

12T02 Lancaster Laboratories, Inc. 9872060
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0596.d Injection date and time: **12-NOV-2018 11:20**
Data file Sample Info. Line: 12T02;9872060;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.740(-0.006)	621	152	154685 (19)	21.00	
65) Naphthalene-d8	6.981(-0.012)	832	136	617135 (4)	21.00	
113) Acenaphthene-d10	8.698(-0.012)	1124	164	323068 (-2)	21.00	
153) Phenanthrene-d10	10.157(-0.018)	1372	188	533503 (-17)	21.00	
175) Pyrene-d10	11.563(-0.030)	1611	212	538477A (-12)	20.00	
213) Perylene-d12	14.257(-0.053)	2069	264	507307A (0)	21.00	

A = User selected an alternate peak

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.469(-0.002)	112	2137912	191.338	96%		35 - 115
17) Phenol-d6	(1)	5.410(-0.004)	99	3105763A	179.502	90%		47 - 120
44) Nitrobenzene-d5	(2)	6.275(0.001)	82	1392883	89.950	90%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.039(0.001)	172	2240056	89.949	90%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.481(-0.001)	330	354403	143.814	72%		39 - 132
179) Terphenyl-d14	(5)	11.745(0.000)	244	2117884A	81.335	81%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)			Not Detected					2
18) Phenol	(1)	5.422(-0.004)	94	288812	14.661	483.55			0.7
19) Aniline	(1)			Not Detected					5
22) bis(2-Chloroethyl)ether	(1)			Not Detected					0.7
23) 2-Chlorophenol	(1)			Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)			Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.757(0.000)	146	130645	10.465	345.14			0.5
27) Benzyl alcohol	(1)			Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.904(-0.000)	146	72386	5.991	197.58			0.6
31) 2-Methylphenol	(1)	5.992(0.000)	108	88795	6.686	220.51			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.5
37) 4-Methylphenol	(1)	6.151(-0.001)	108	861213	64.028	2111.74			0.6
38) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.6
43) Hexachloroethane	(1)			Not Detected					1
45) Nitrobenzene	(2)			Not Detected					0.8
50) Isophorone	(2)			Not Detected					0.5
51) 2-Nitrophenol	(2)			Not Detected					0.5
53) 2,4-Dimethylphenol	(2)	6.663(-0.000)	107	273812	21.293	702.29			0.5
55) bis(2-Chloroethoxy)methane	(2)			Not Detected					0.5
60) 2,4-Dichlorophenol	(2)			Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)			Not Detected					0.5
67) 4-Chloroaniline	(2)			Not Detected					1
71) Hexachlorobutadiene	(2)			Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)			Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.681(0.000)	142	6034853	256.334	8454.29		E	0.3

E = Compound concentration above calibration range.

Digitally signed by Edward Monborne on 11/14/2018 at 11:03. Target 3.5 esignature user ID: em10340

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0596.d Injection date and time: **12-NOV-2018 11:20**
Data file Sample Info. Line: 12T02;9872060;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

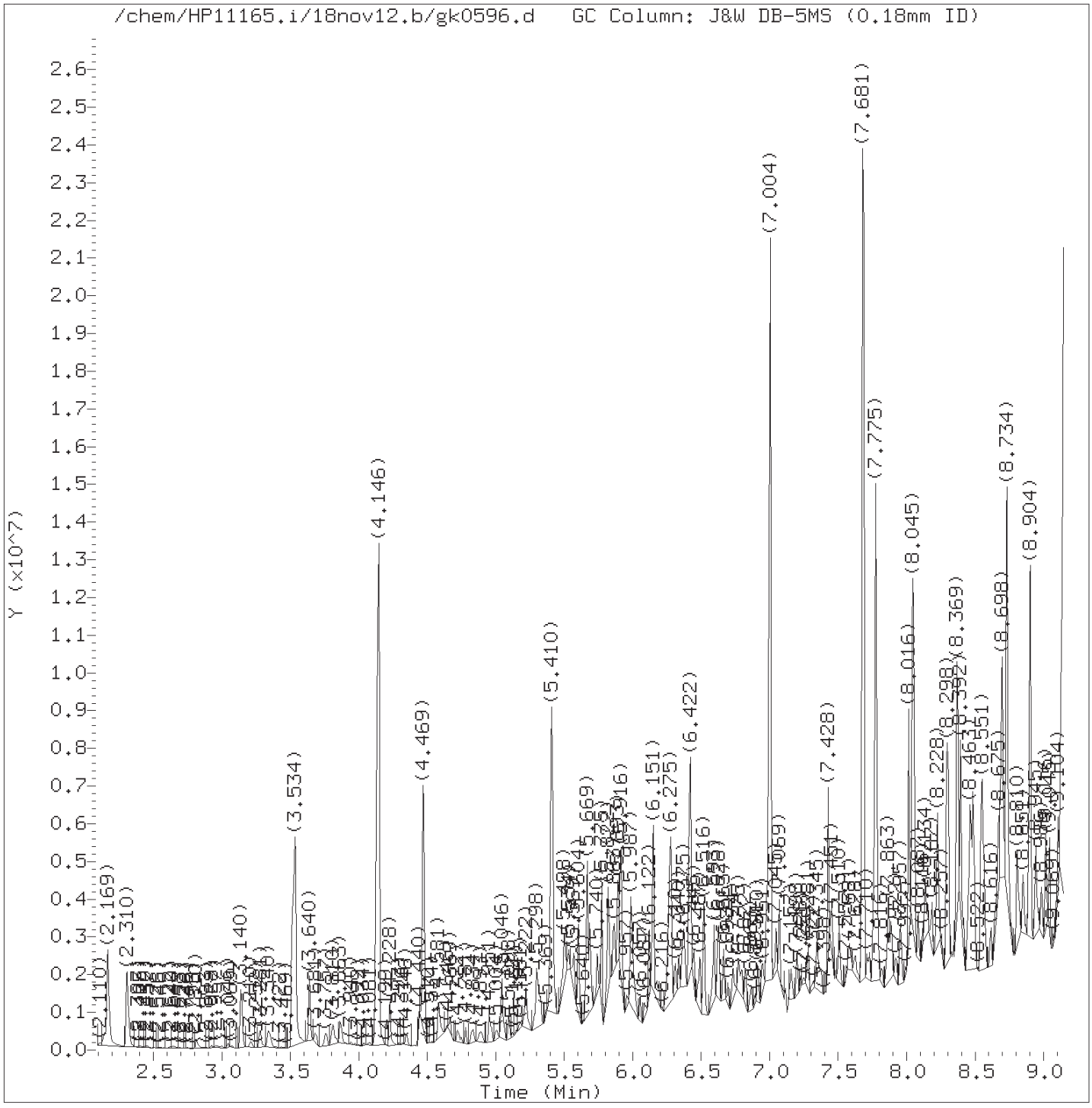
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
85) Hexachlorocyclopentadiene	(3)			Not Detected					5
90) 2,4,6-Trichlorophenol	(3)			Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)			Not Detected					0.6
96) 2-Chloronaphthalene	(3)	8.151(0.000)	162	234583	11.019	363.43			0.2
100) 2-Nitroaniline	(3)			Not Detected					0.6
106) Dimethylphthalate	(3)			Not Detected					2
108) 2,6-Dinitrotoluene	(3)			Not Detected					0.6
112) 3-Nitroaniline	(3)			Not Detected					2
115) 2,4-Dinitrophenol	(3)			Not Detected					11
116) 4-Nitrophenol	(3)			Not Detected					5
118) 2,4-Dinitrotoluene	(3)			Not Detected					2
119) Dibenzofuran	(3)	8.904(-0.000)	168	3097221	102.503	3380.71			0.5
124) Diethylphthalate	(3)			Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.5
129) 4-Nitroaniline	(3)			Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					5
131) N-Nitrosodiphenylamine	(4)			Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)			Not Detected					0.6
145) Hexachlorobenzene	(4)			Not Detected					0.1
149) Pentachlorophenol	(4)			Not Detected					1
163) Carbazole	(4)	10.392(0.000)	167	149041	5.241	172.85			0.5
193) 3,3'-Dichlorobenzidine	(5)			Not Detected					3
205) Di-n-octylphthalate	(6)			Not Detected					2

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:03. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

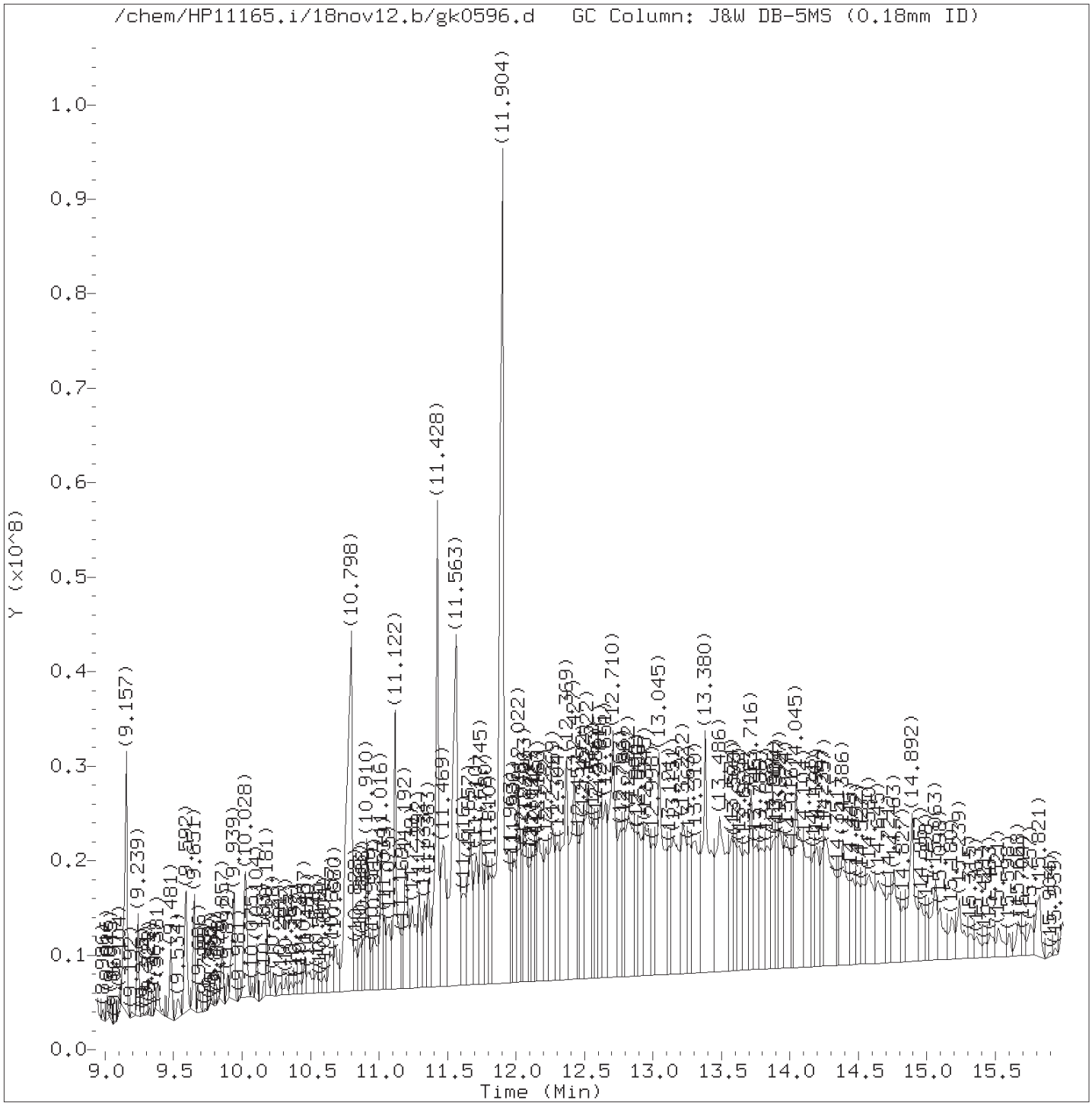
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

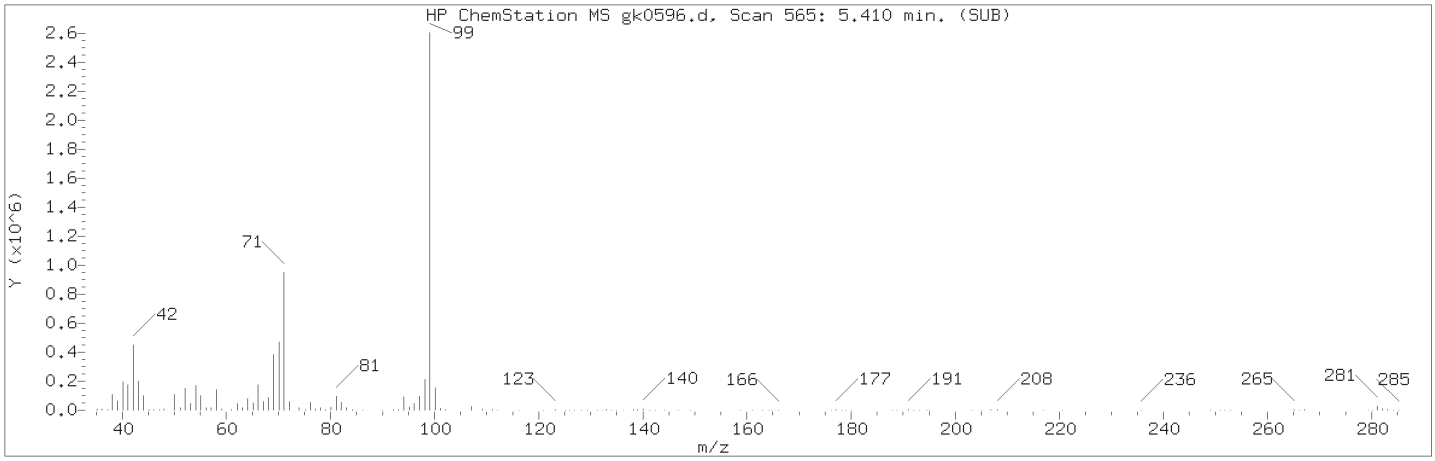
Sample Name: 12T02 Lab Sample ID: 9872060

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.469	112	2137912	191.338
17)$Phenol-d6	(1)	5.410	99	3105763A	179.502
18) Phenol	(1)	5.422	94	288812	14.661
25)*1,4-Dichlorobenzene-d4	(1)	5.740	152	154685	21.000
26) 1,4-Dichlorobenzene	(1)	5.757	146	130645	10.465
28) 1,2-Dichlorobenzene	(1)	5.904	146	72386	5.991
31) 2-Methylphenol	(1)	5.993	108	88795	6.686
37) 4-Methylphenol	(1)	6.151	108	861213	64.028
44)$Nitrobenzene-d5	(2)	6.275	82	1392883	89.950
53) 2,4-Dimethylphenol	(2)	6.663	107	273812	21.293
65)*Naphthalene-d8	(2)	6.981	136	617135	21.000
83) 2-Methylnaphthalene	(2)	7.681	142	6034853	256.334
93)$2-Fluorobiphenyl	(3)	8.039	172	2240056	89.949
96) 2-Chloronaphthalene	(3)	8.151	162	234583	11.019
113)*Acenaphthene-d10	(3)	8.698	164	323068	21.000
119) Dibenzofuran	(3)	8.904	168	3097221	102.503
135)$2,4,6-Tribromophenol	(3)	9.481	330	354403	143.814
153)*Phenanthrene-d10	(4)	10.157	188	533503	21.000
163) Carbazole	(4)	10.392	167	149041	5.241
175)*Pyrene-d10	(5)	11.563	212	538477A	20.000
179)$Terphenyl-d14	(5)	11.745	244	2117884A	81.335
213)*Perylene-d12	(6)	14.257	264	507307A	21.000

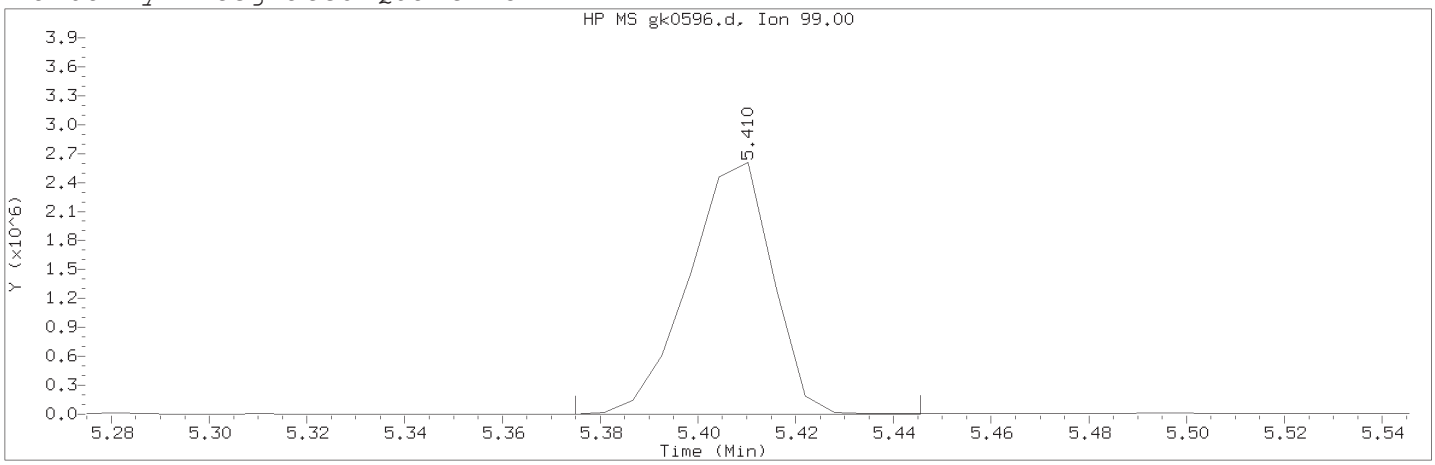
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

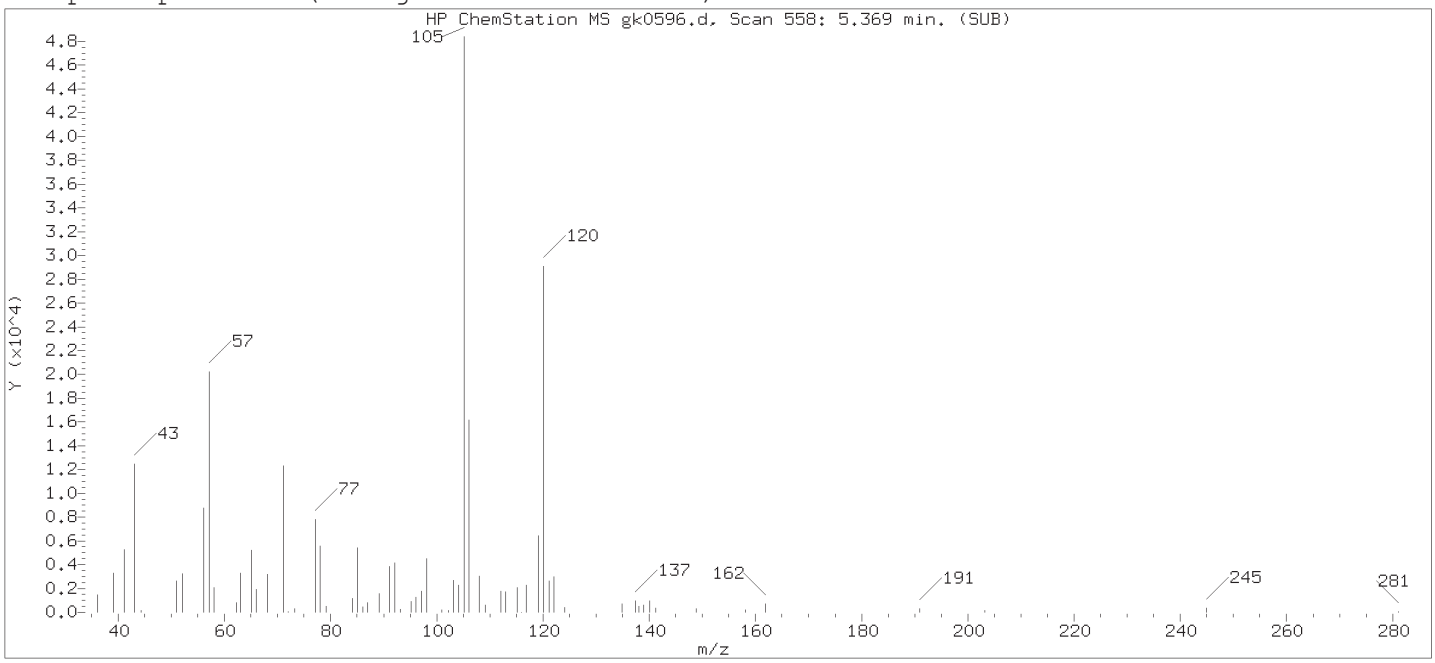
Compound Number : 17
Compound Name : Phenol-d6
Scan Number : 565
Retention Time (minutes) : 5.410
Quant Ion : 99.00
Area (flag) : 3105763A
On-column Amount (ng/ul) : 179.5016
Integration start scan : 558 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

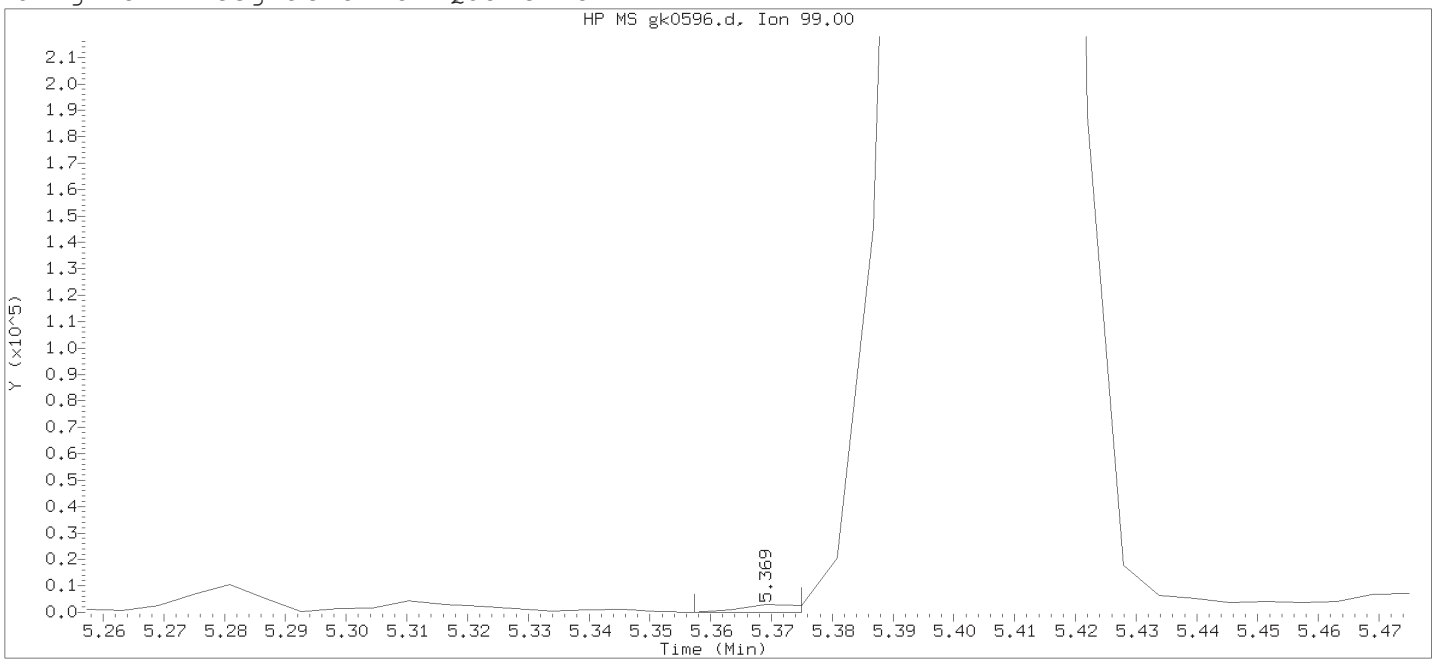
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

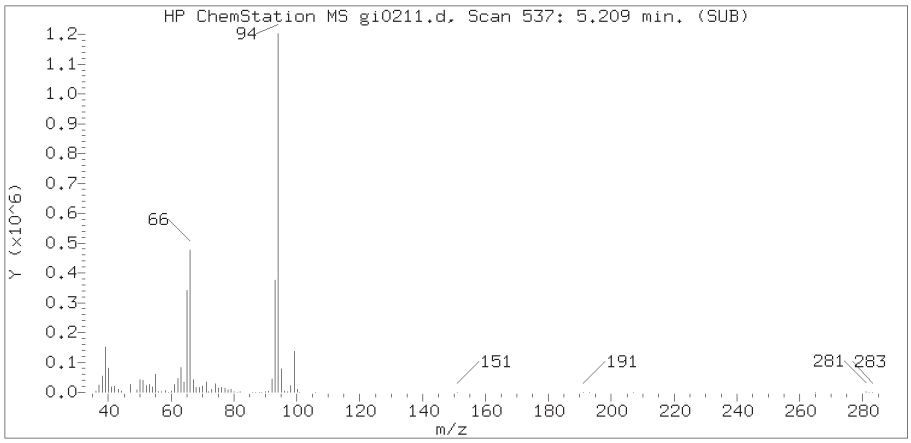
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 11:41 Automation

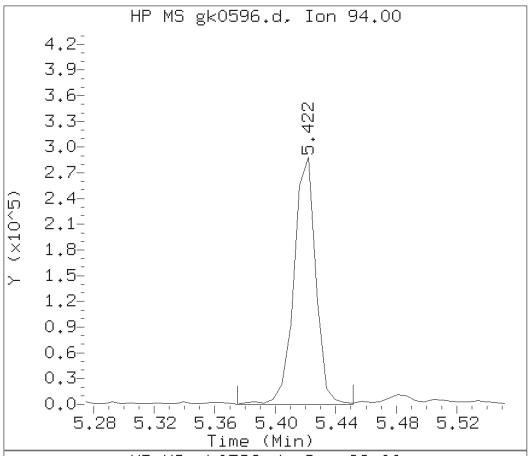
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 17		
Compound Name	: Phenol-d6		
Scan Number	: 558		
Retention Time (minutes)	: 5.369		
Quant Ion	: 99.00		
Area	: 1788		
On-column Amount (ng/ul)	: 0.0984		
Integration start scan	: 555	Integration stop scan:	558
Y at integration start	: 0	Y at integration end:	0

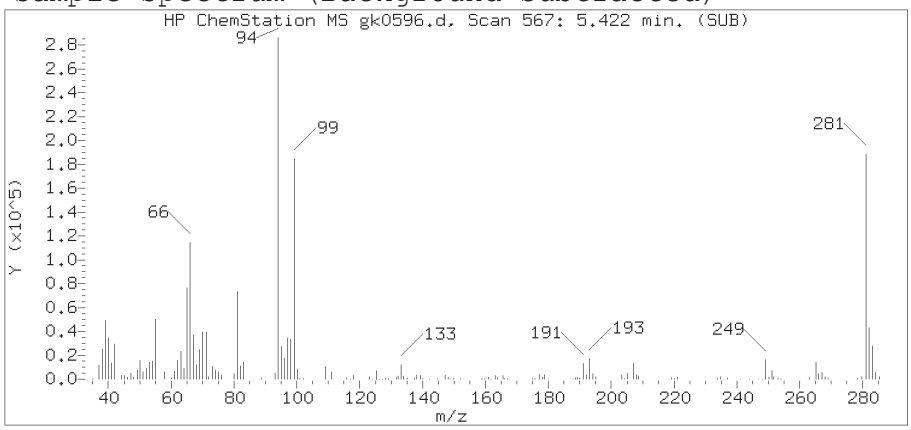
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used: 1.0.1634

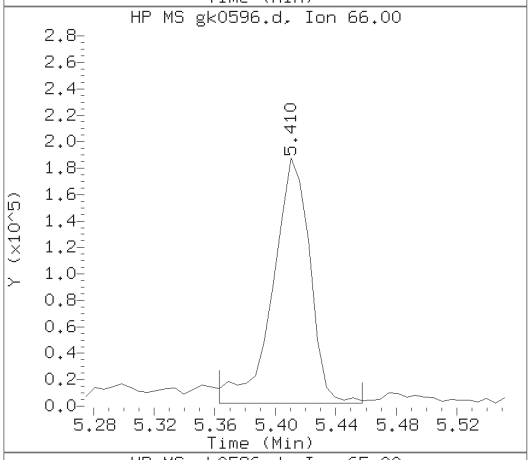
Reference Standard Spectrum for Phenol



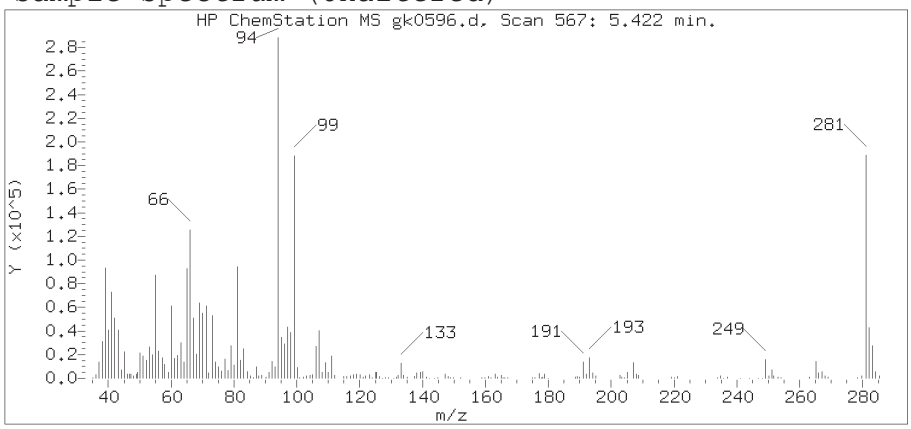


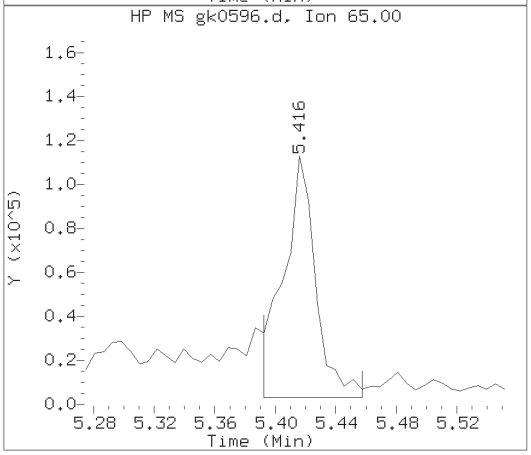
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 18
Compound Name	: Phenol
Scan Number	: 567
Retention Time (minutes)	: 5.422
Relative Retention Time	:-0.00416
Quant Ion	: 94.00
Area (flag)	: 288812
On-column Amount (ng/ul)	: 14.6612

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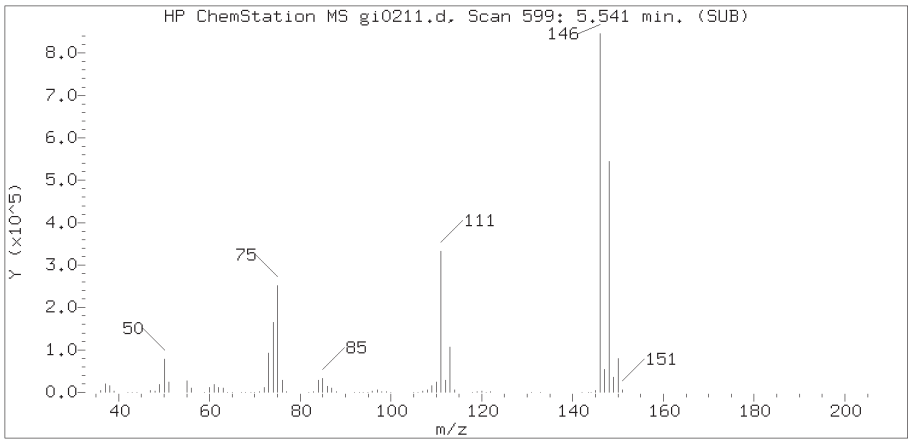
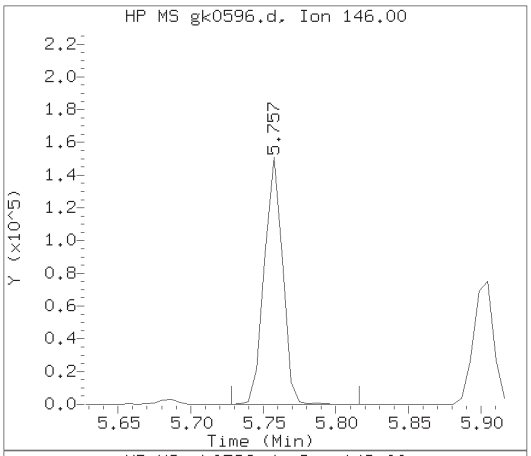
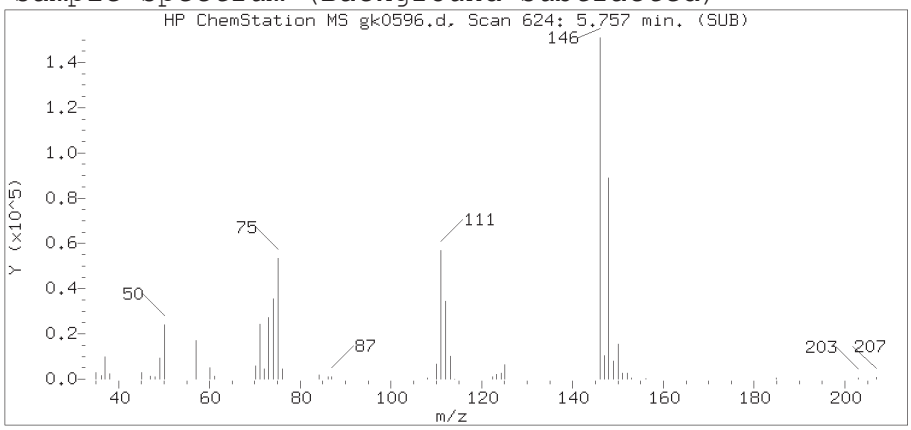
Target 3.5 esignature user ID: em10340

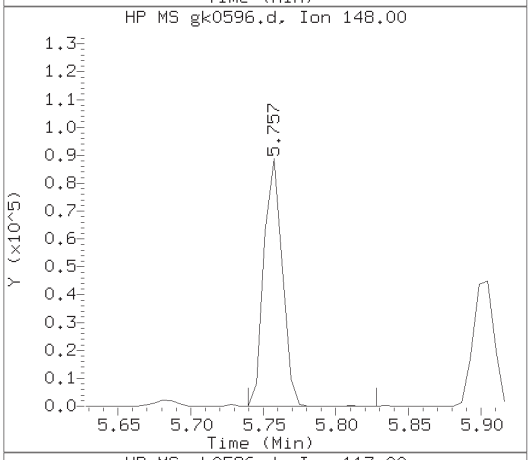
Reference Standard Spectrum for 1,4-Dichlorobenzene



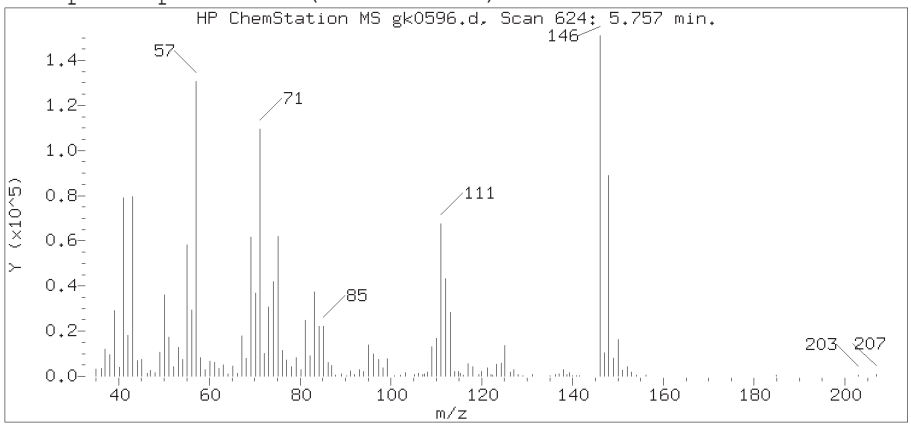


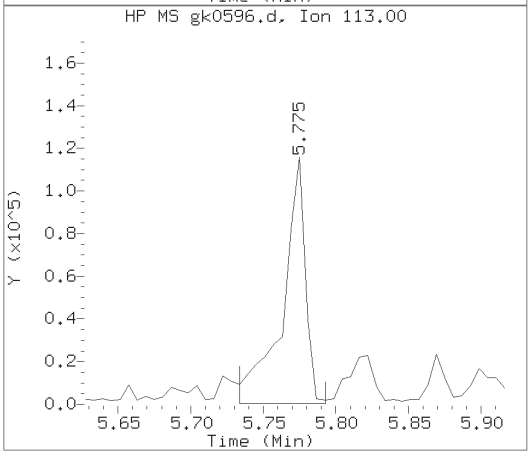
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 624
Retention Time (minutes)	: 5.757
Relative Retention Time	: 0.00000
Quant Ion	: 146.00
Area (flag)	: 130645
On-column Amount (ng/ul)	: 10.4646

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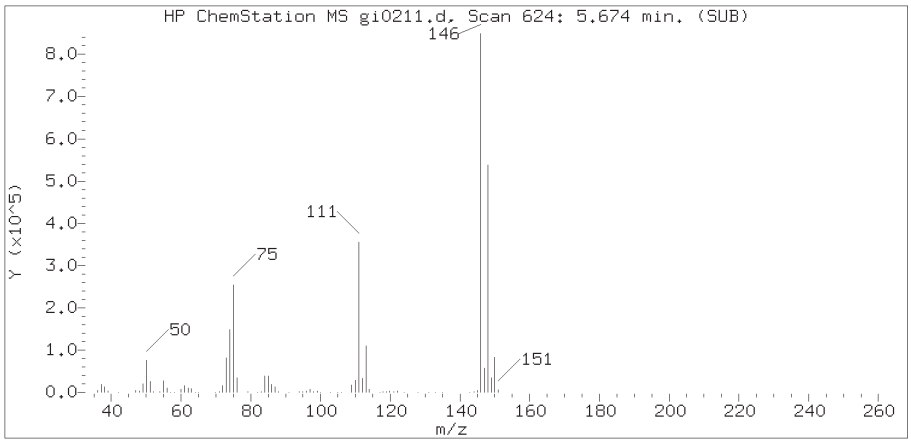
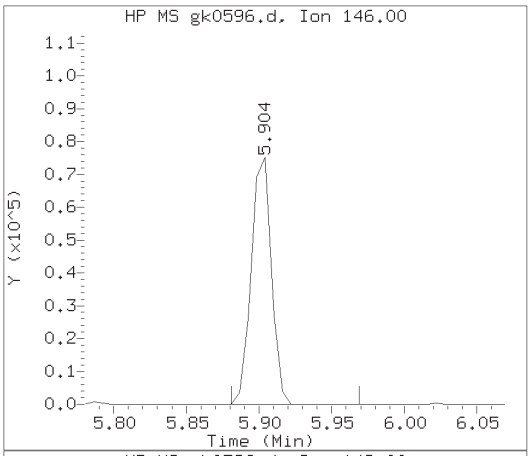
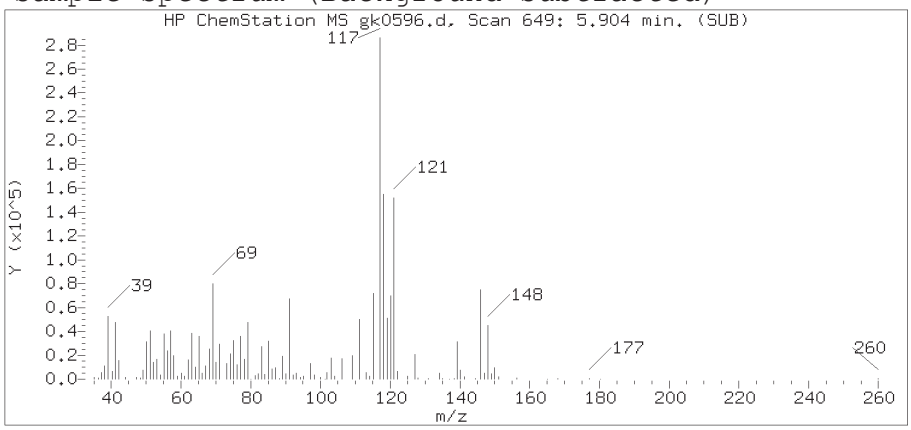
Target 3.5 esignature user ID: em10340

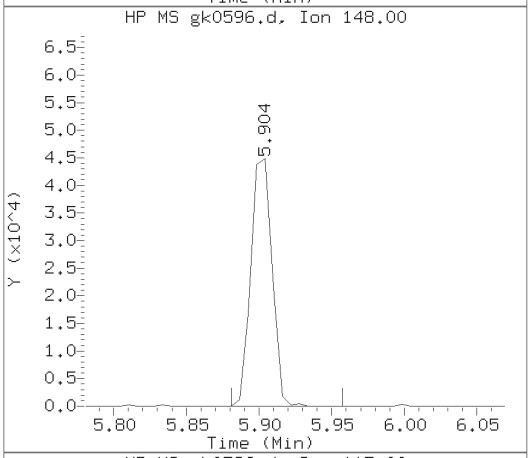
Reference Standard Spectrum for 1,2-Dichlorobenzene



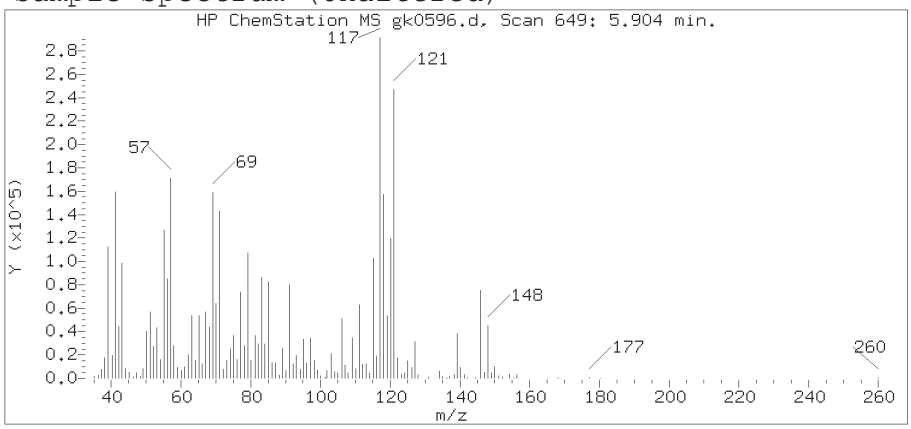


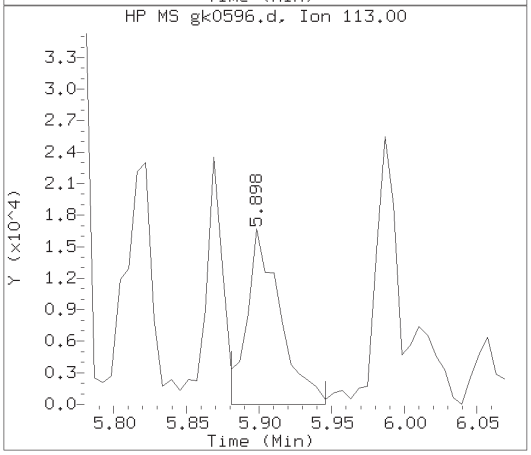
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 649
Retention Time (minutes)	: 5.904
Relative Retention Time	:-0.00100
Quant Ion	: 146.00
Area (flag)	: 72386
On-column Amount (ng/ul)	: 5.9906

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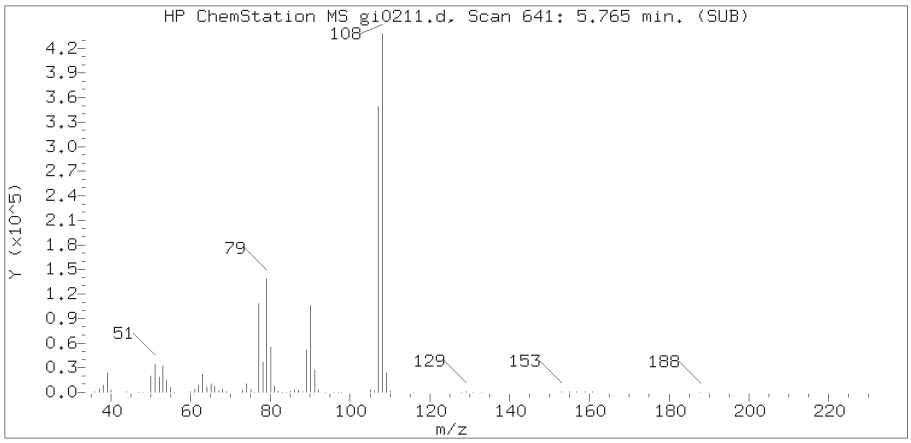
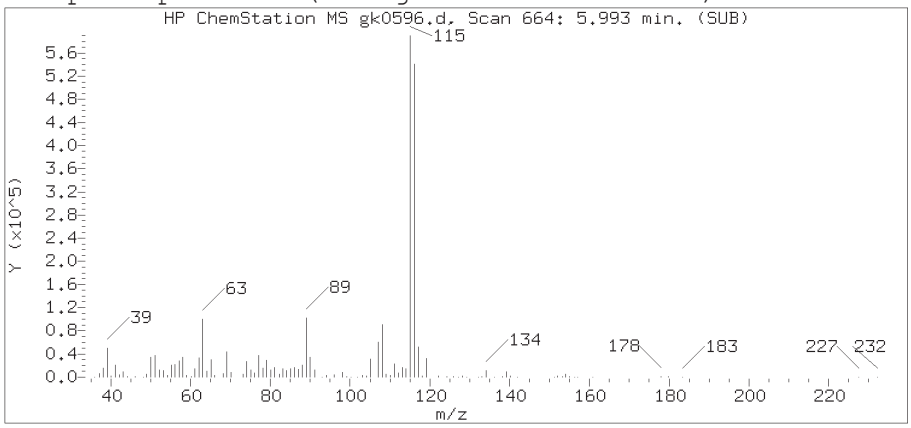
Target 3.5 esignature user ID: em10340

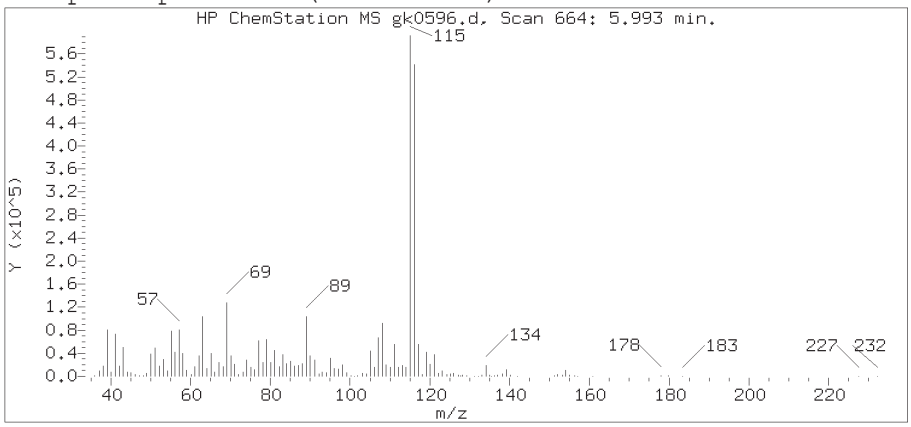
Reference Standard Spectrum for 2-Methylphenol

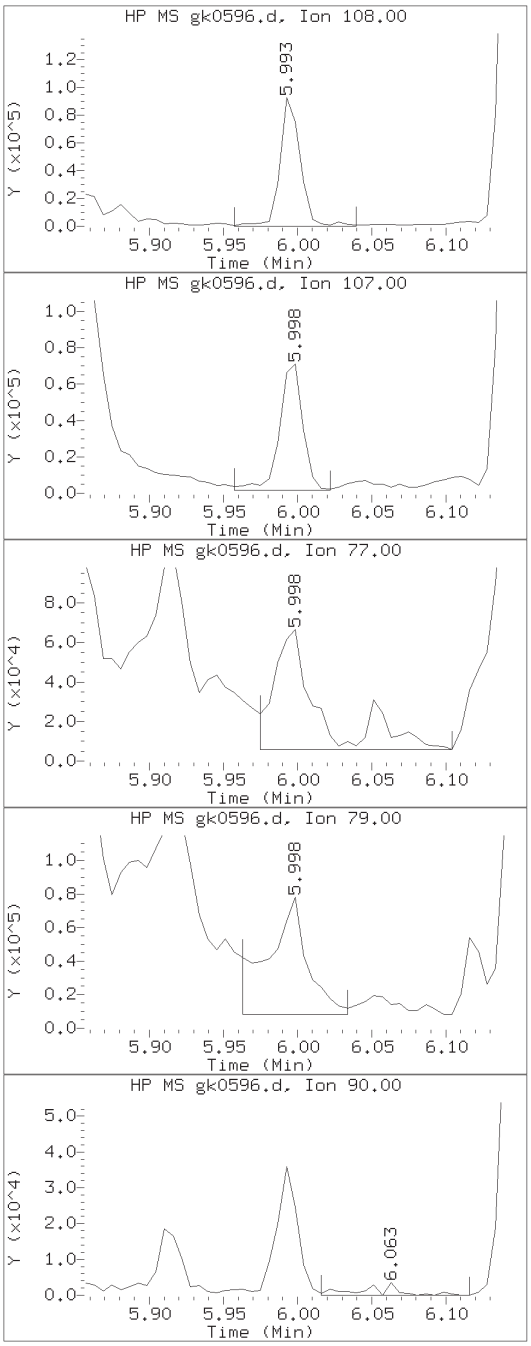


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

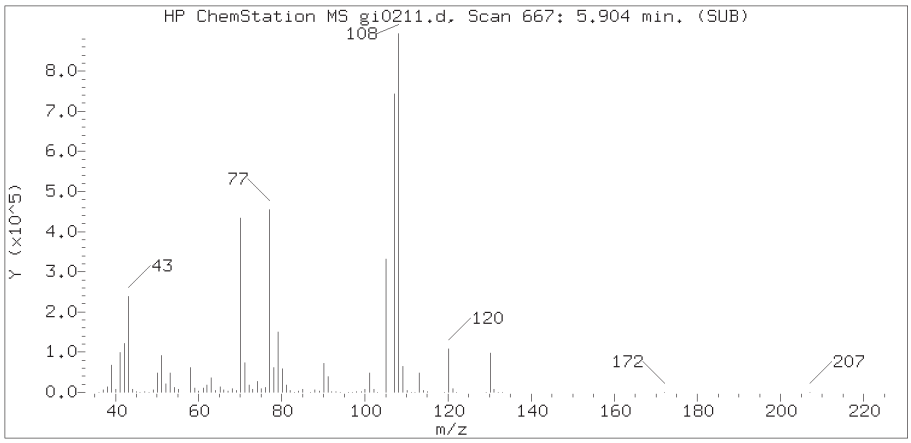
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

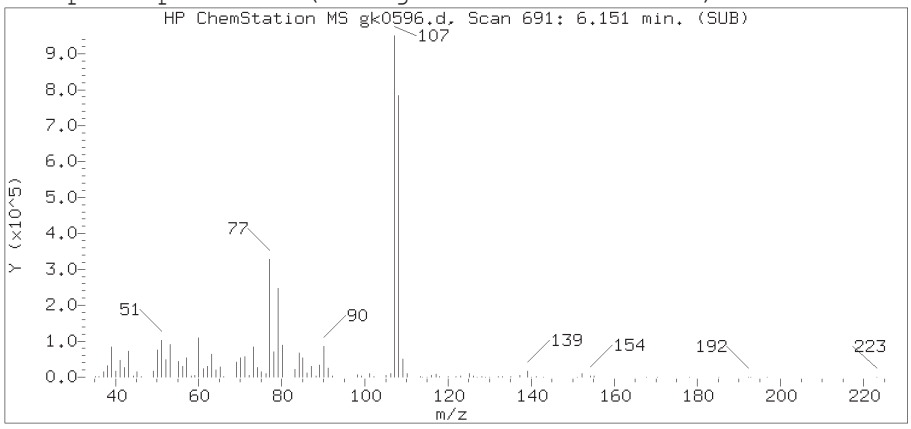
Compound Number	: 31
Compound Name	: 2-Methylphenol
Scan Number	: 664
Retention Time (minutes)	: 5.993
Relative Retention Time	: 0.00005
Quant Ion	: 108.00
Area (flag)	: 88795
On-column Amount (ng/ul)	: 6.6857

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

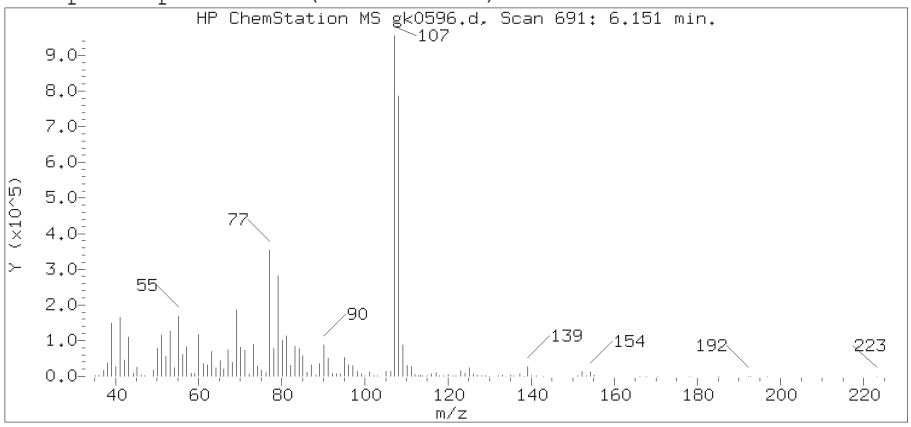
Reference Standard Spectrum for 4-Methylphenol

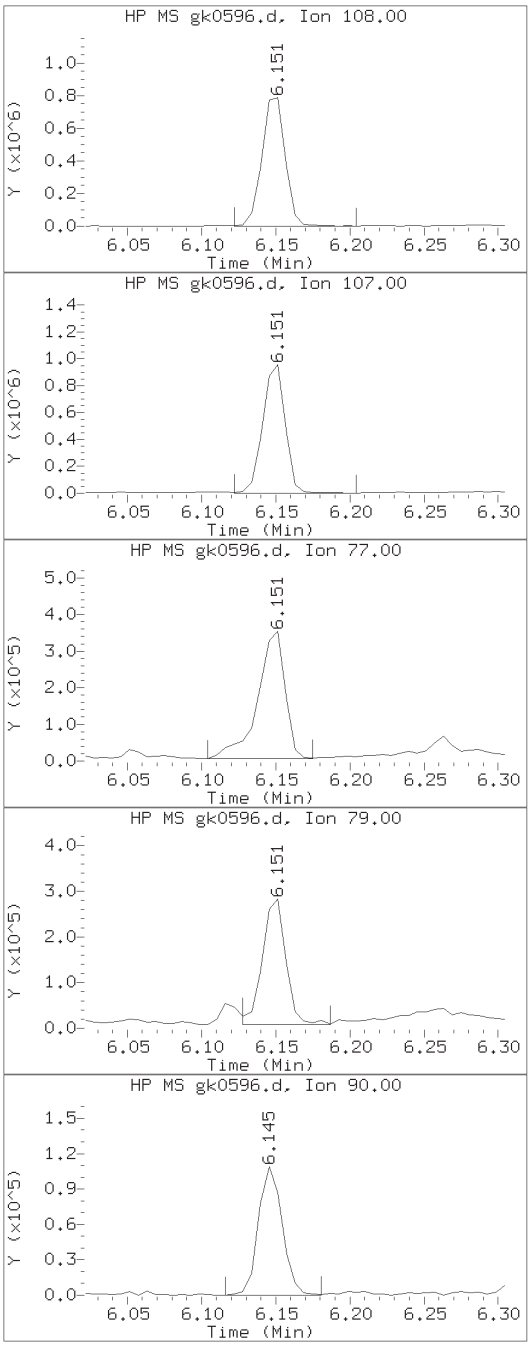


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

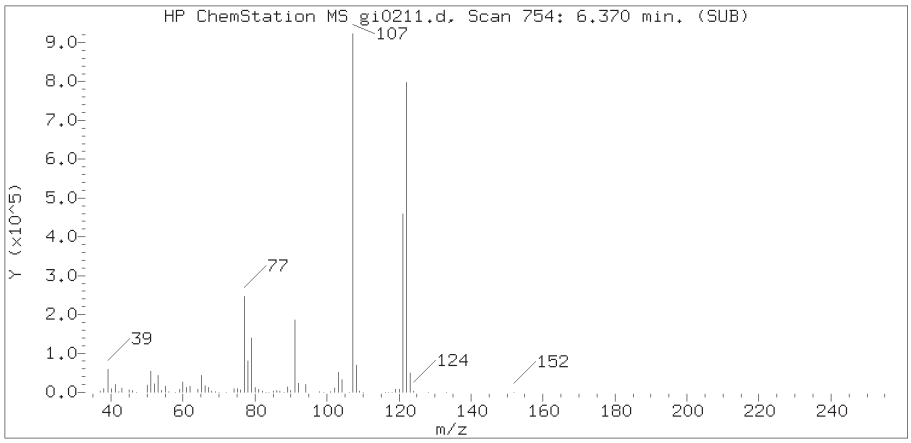
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

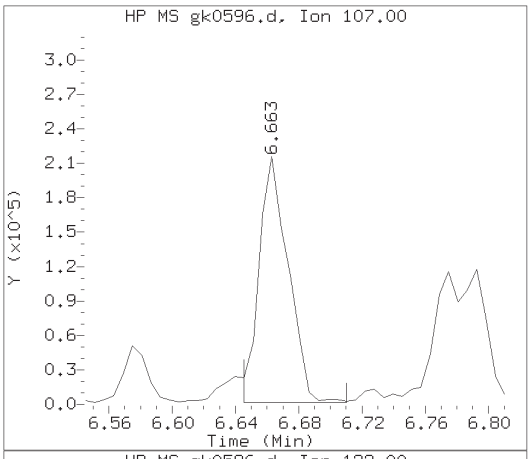
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 691
Retention Time (minutes)	: 6.151
Relative Retention Time	:-0.00198
Quant Ion	: 108.00
Area (flag)	: 861213
On-column Amount (ng/ul)	: 64.0281

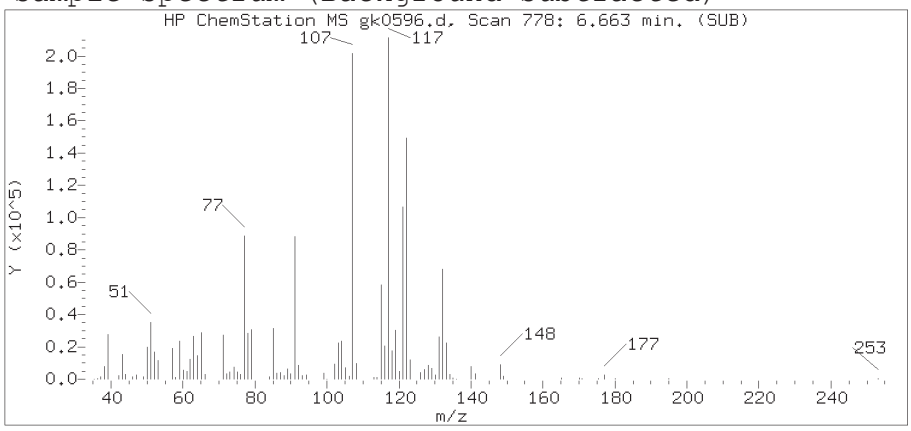
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

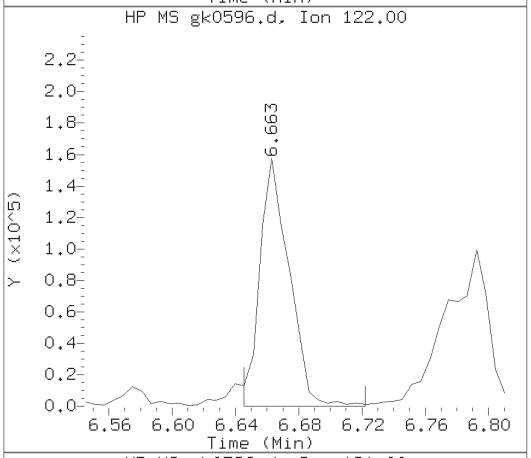
Reference Standard Spectrum for 2,4-Dimethylphenol



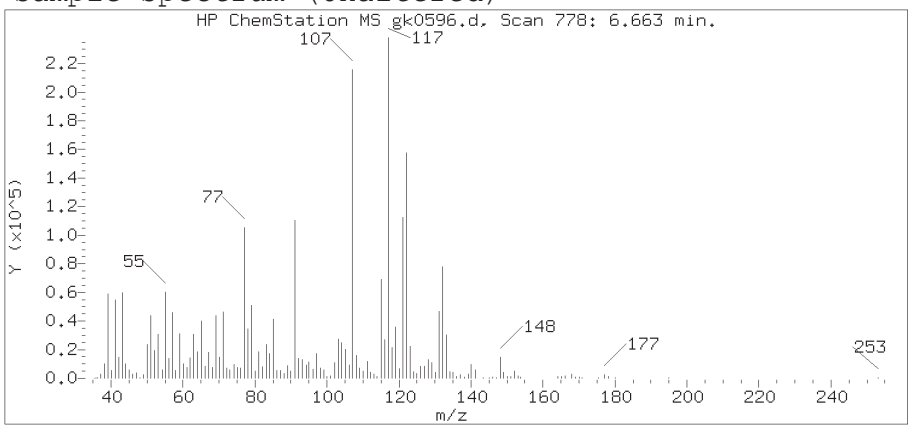


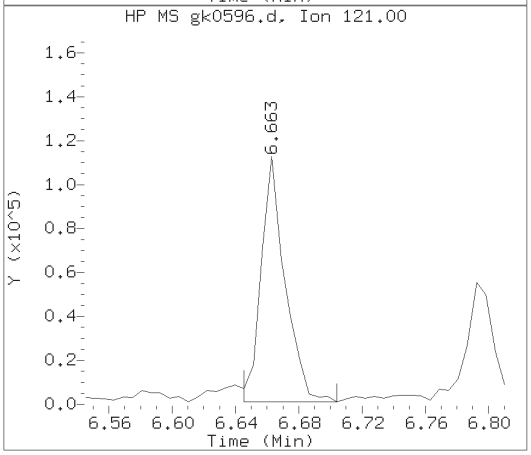
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

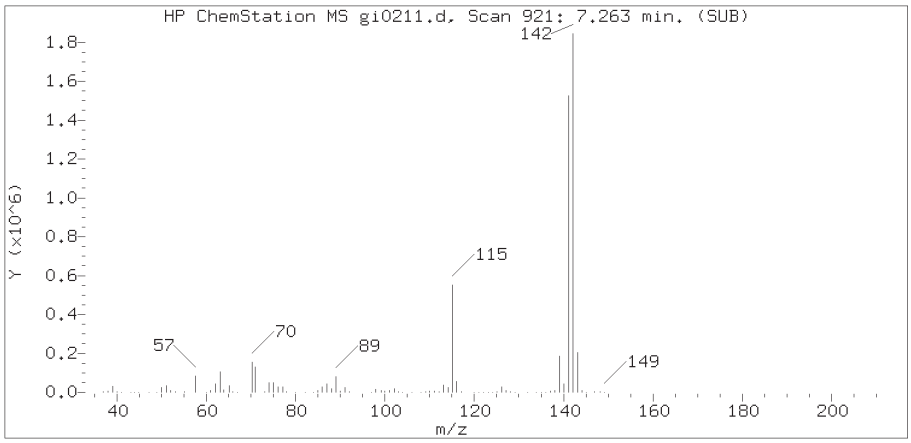
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

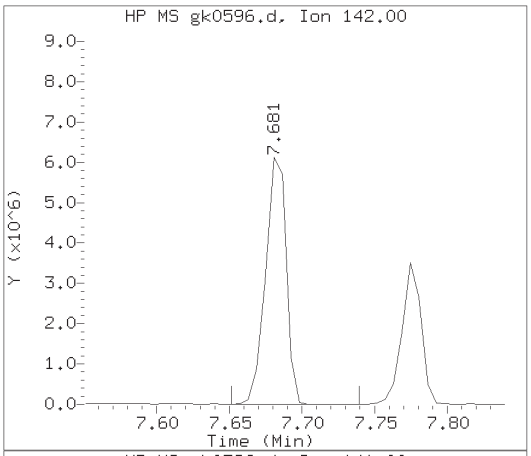
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 53
Compound Name	: 2,4-Dimethylphenol
Scan Number	: 778
Retention Time (minutes)	: 6.663
Relative Retention Time	:-0.00092
Quant Ion	: 107.00
Area (flag)	: 273812
On-column Amount (ng/ul)	: 21.2935

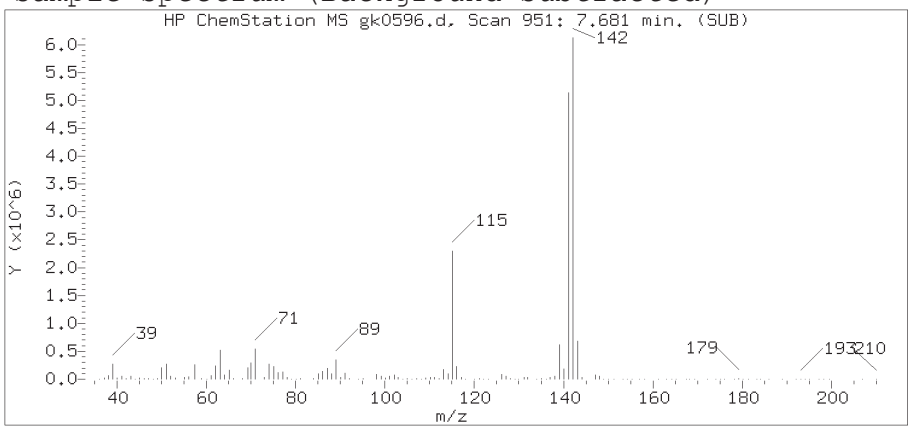
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

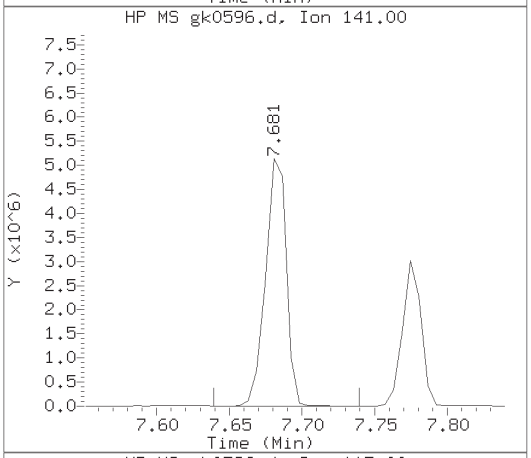
Reference Standard Spectrum for 2-Methylnaphthalene



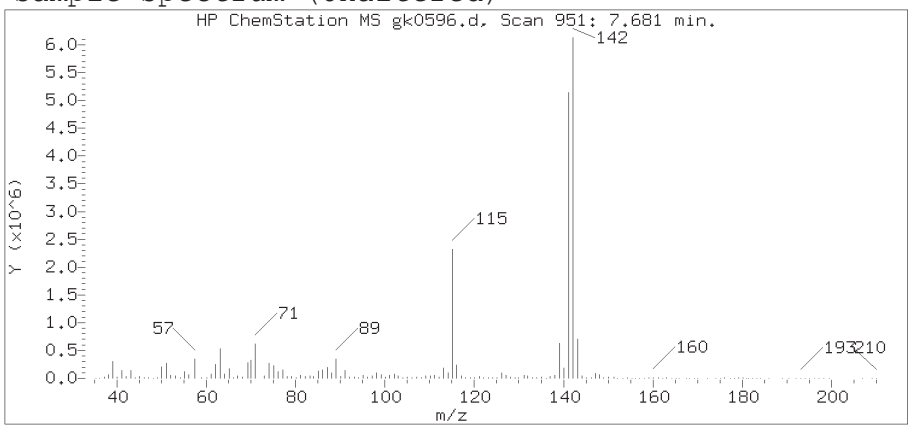


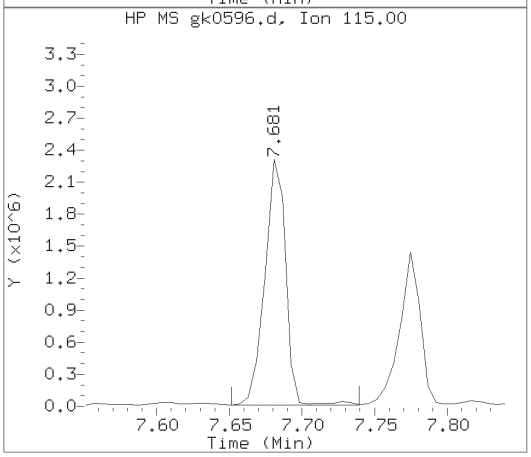
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

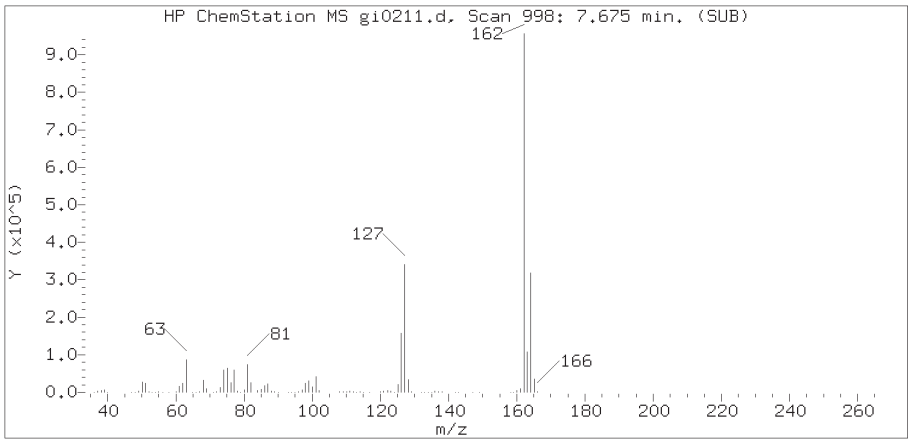
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

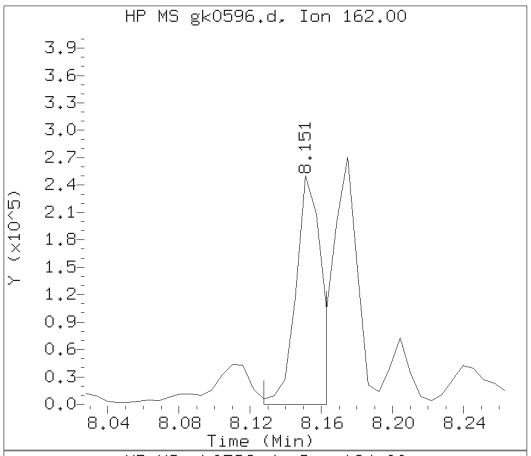
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 951
Retention Time (minutes)	: 7.681
Relative Retention Time	: 0.00017
Quant Ion	: 142.00
Area (flag)	: 6034853
On-column Amount (ng/ul)	: 256.3342

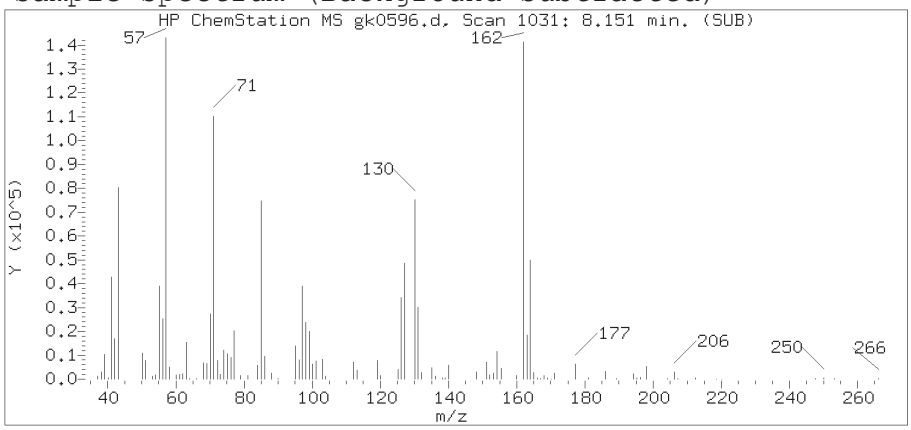
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

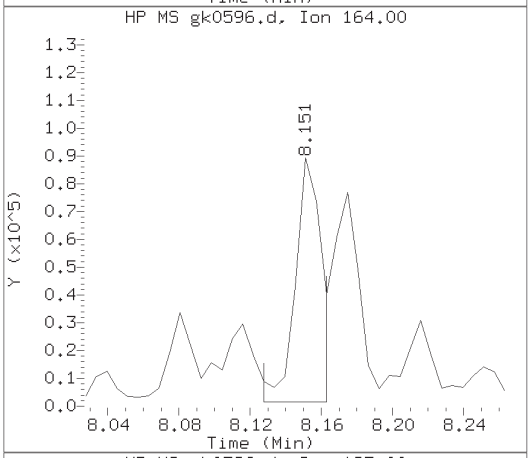
Reference Standard Spectrum for 2-Chloronaphthalene



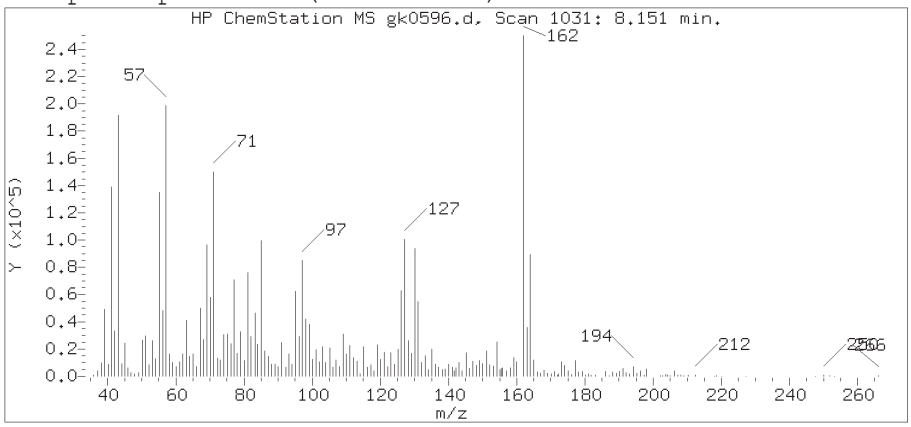


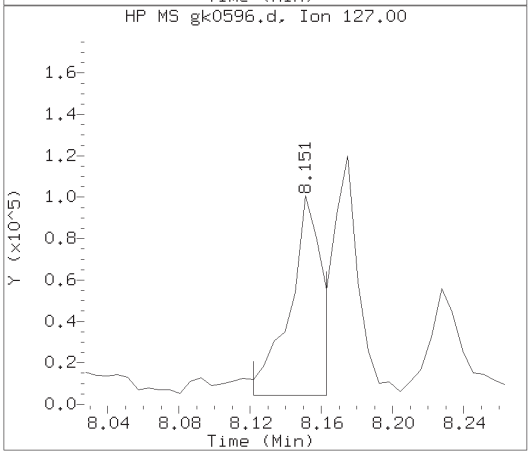
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

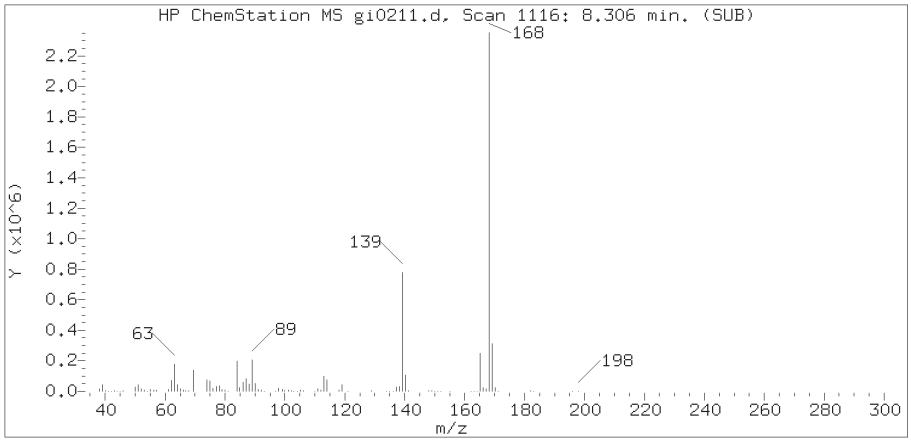
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

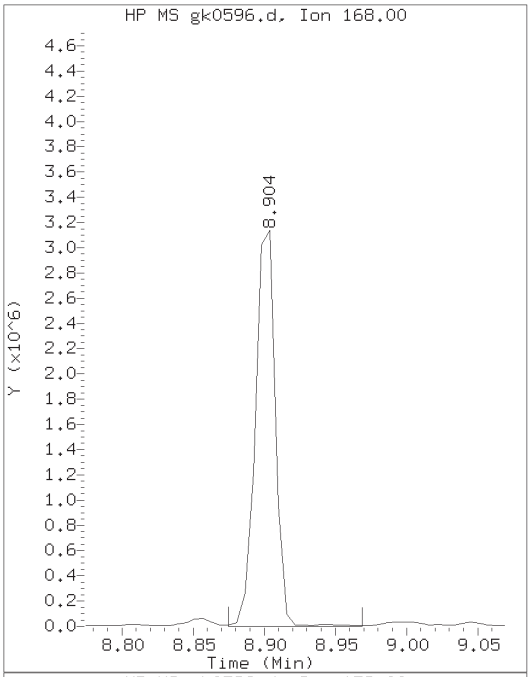
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 1031
Retention Time (minutes)	: 8.151
Relative Retention Time	: 0.00059
Quant Ion	: 162.00
Area (flag)	: 234583
On-column Amount (ng/ul)	: 11.0191

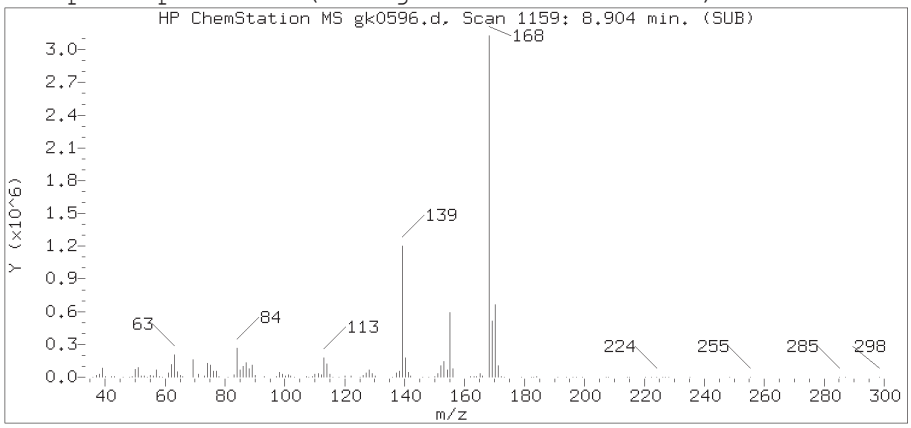
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

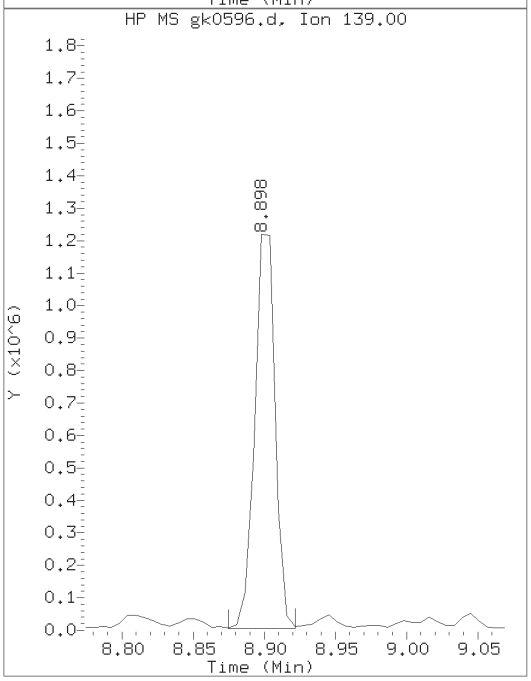
Reference Standard Spectrum for Dibenzofuran



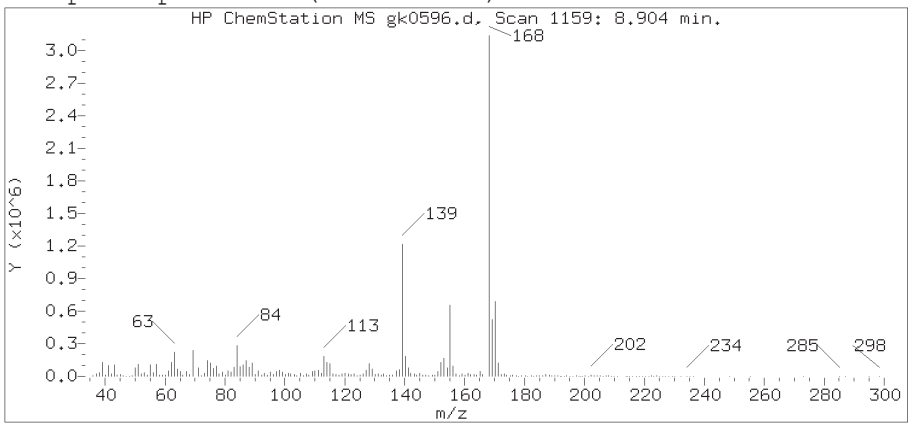


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

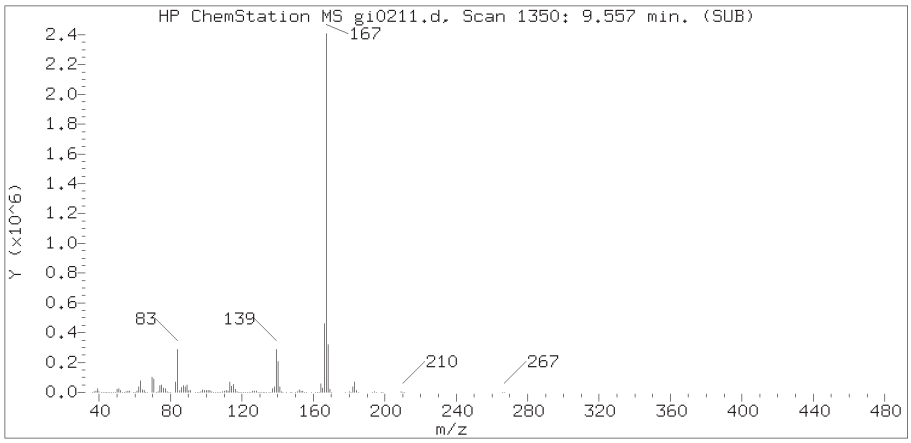
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

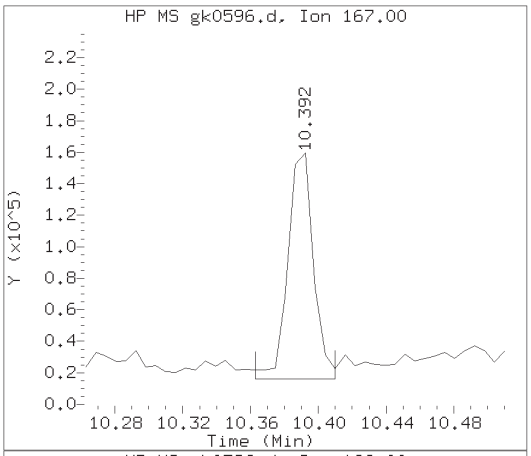
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1159
Retention Time (minutes)	: 8.904
Relative Retention Time	:-0.00064
Quant Ion	: 168.00
Area (flag)	: 3097221
On-column Amount (ng/ul)	: 102.5032

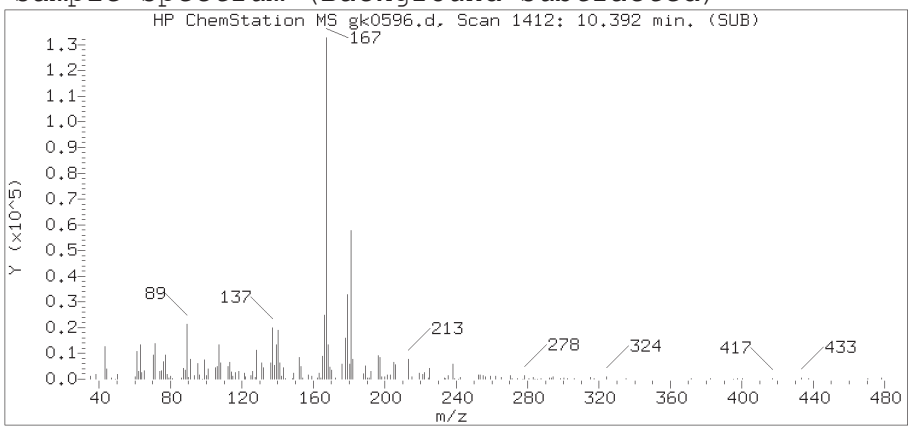
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

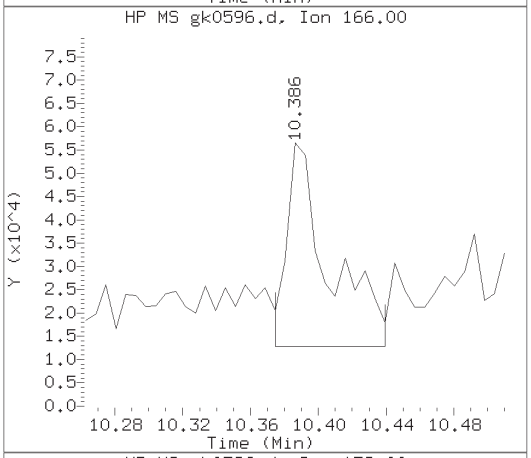
Reference Standard Spectrum for Carbazole



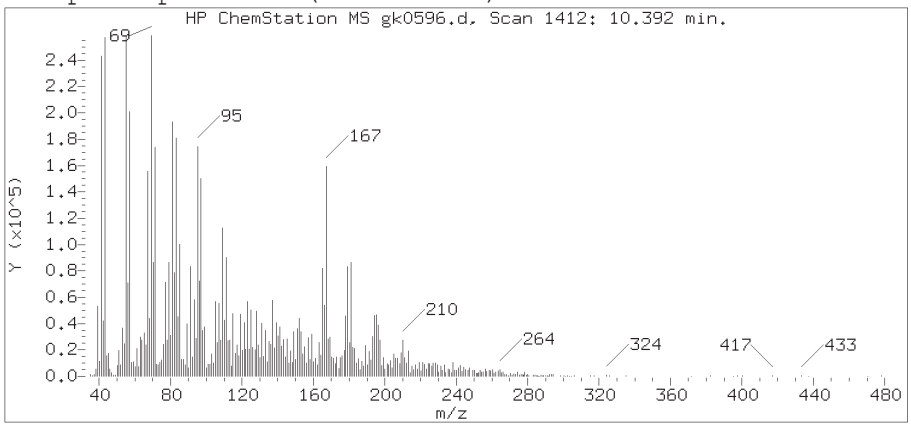


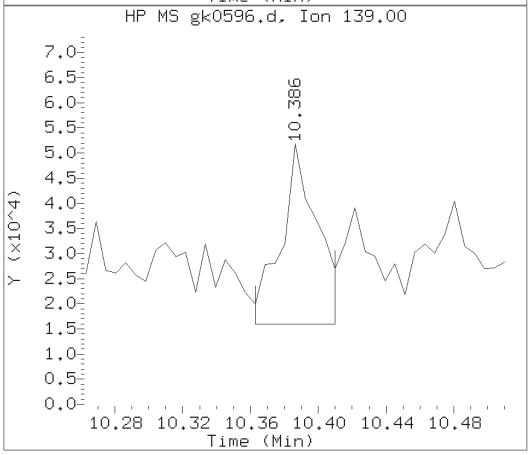
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

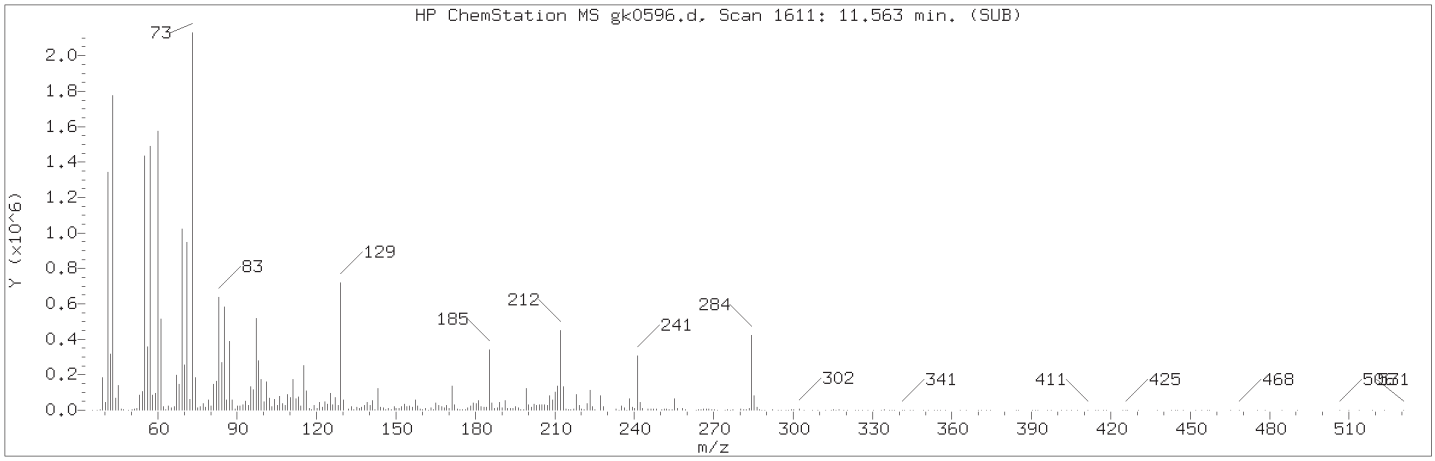
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

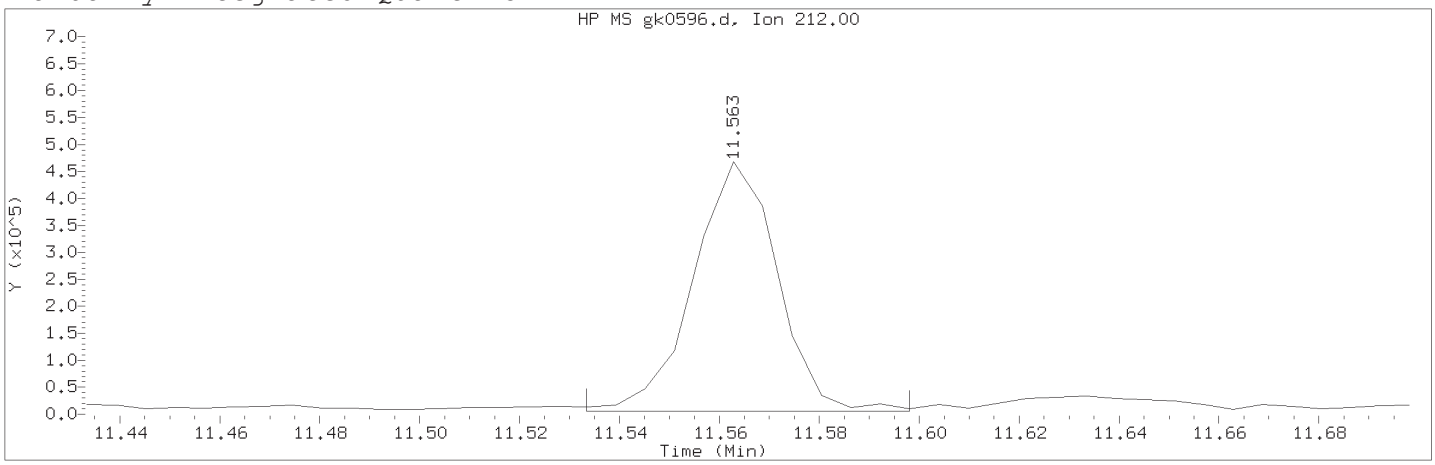
Compound Number	: 163
Compound Name	: Carbazole
Scan Number	: 1412
Retention Time (minutes)	: 10.392
Relative Retention Time	: 0.00004
Quant Ion	: 167.00
Area (flag)	: 149041
On-column Amount (ng/ul)	: 5.2408

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

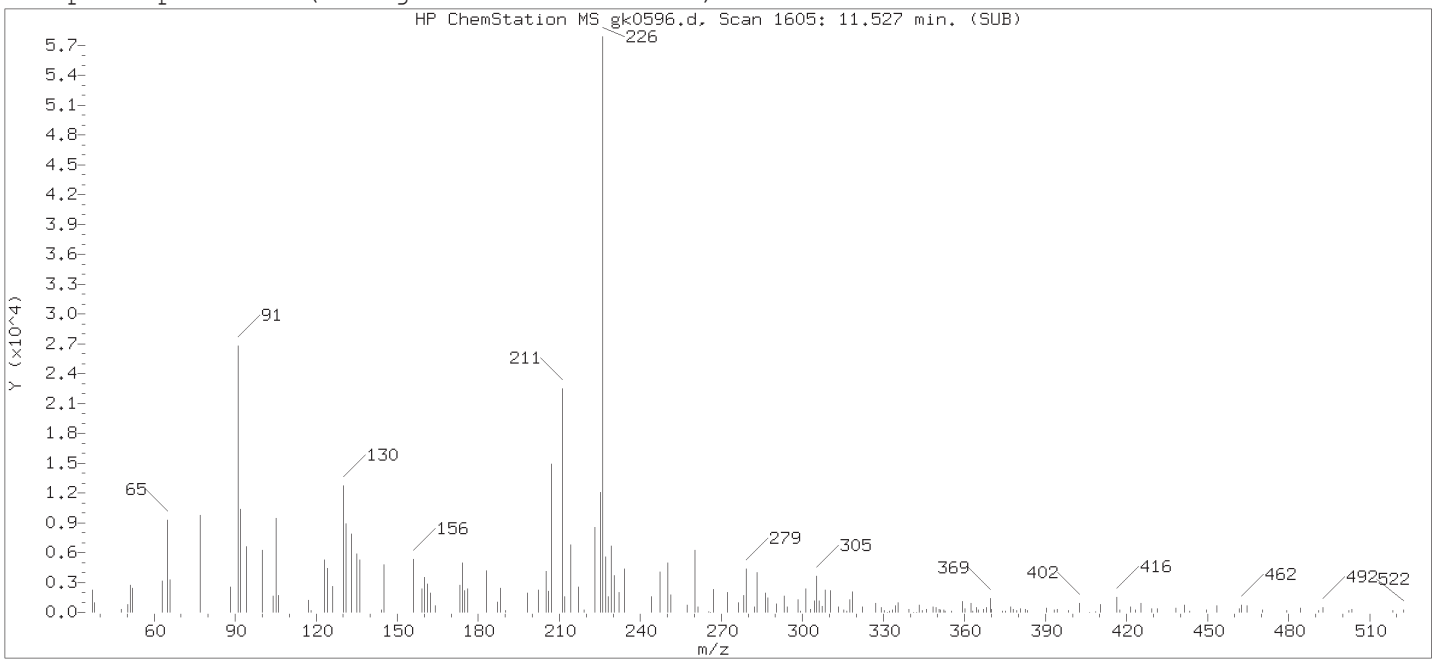
Compound Number	: 175		
Compound Name	: Pyrene-d10		
Scan Number	: 1611		
Retention Time (minutes)	: 11.563		
Quant Ion	: 212.00		
Area (flag)	: 538477A		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 1605	Integration stop scan:	1616
Y at integration start	: 5875	Y at integration end:	5875

Reason for manual integration: improper integration

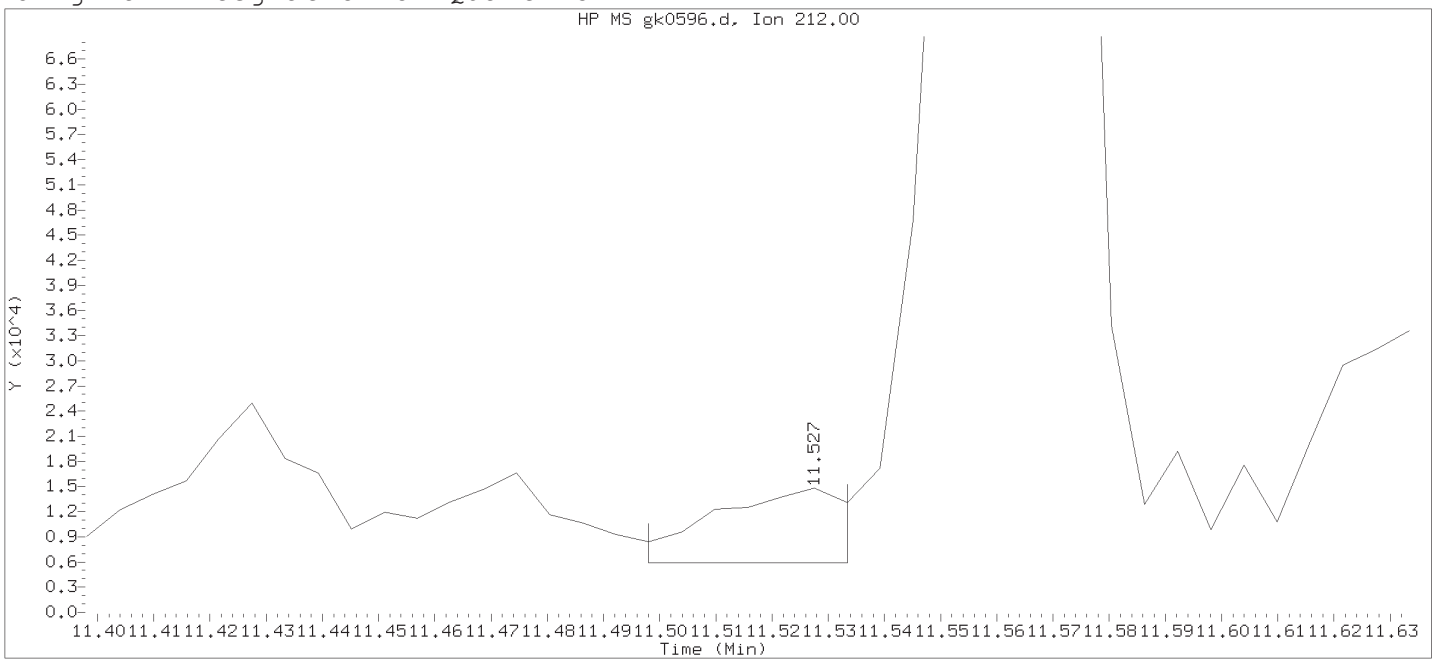
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

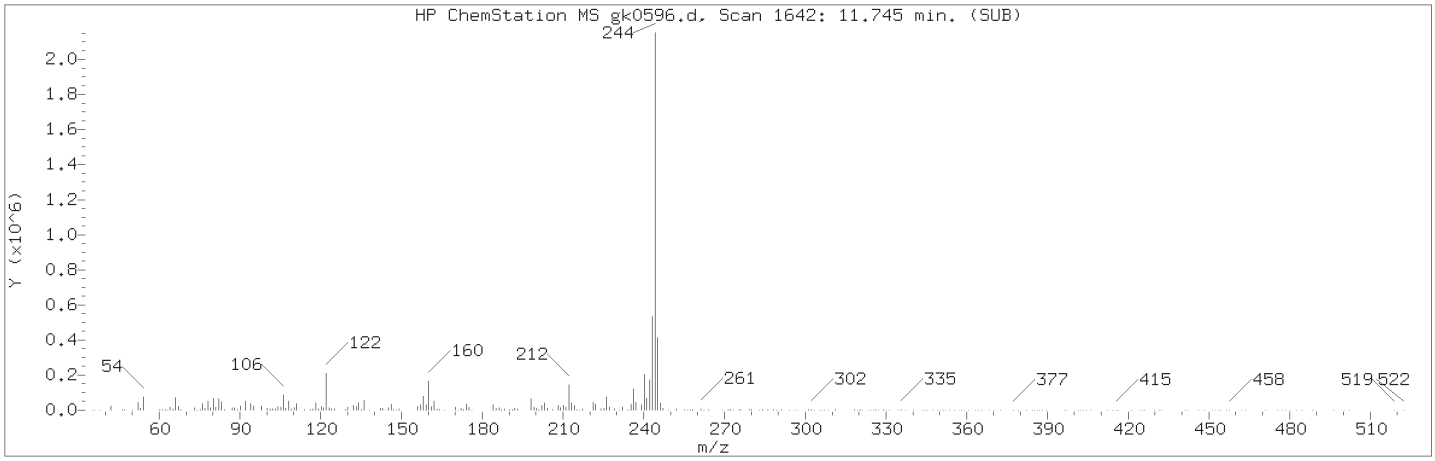
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 11:41 Automation

Sample Name: 12T02 Lab Sample ID: 9872060

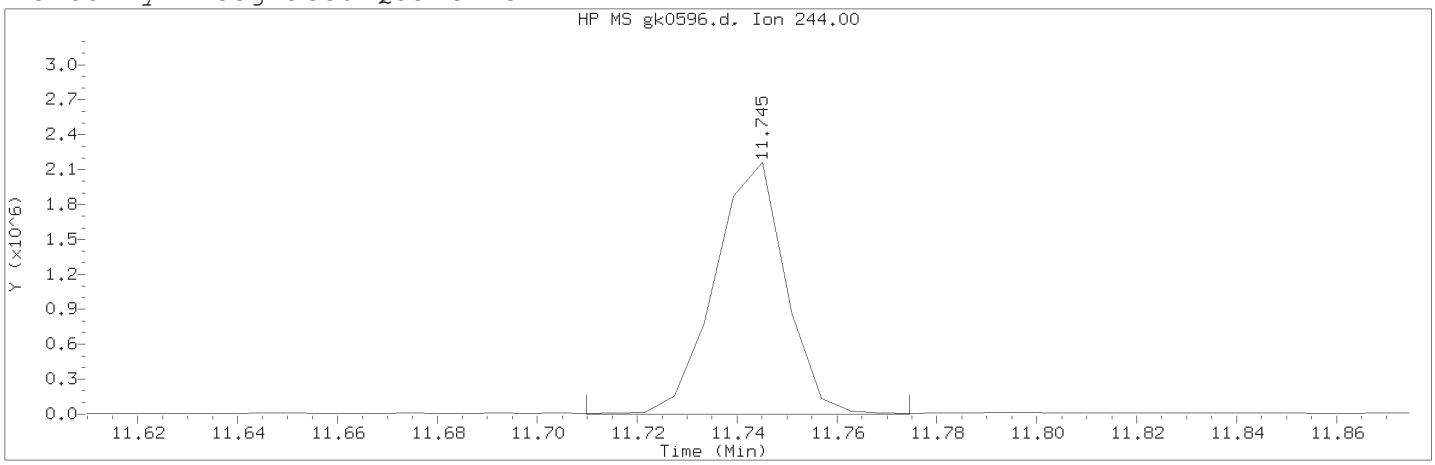
Compound Number	: 175		
Compound Name	: Pyrene-d10		
Scan Number	: 1605		
Retention Time (minutes)	: 11.527		
Quant Ion	: 212.00		
Area	: 13567		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 1599	Integration stop scan:	1605
Y at integration start	: 5875	Y at integration end:	5875

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used 11/12/2018 16:44

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

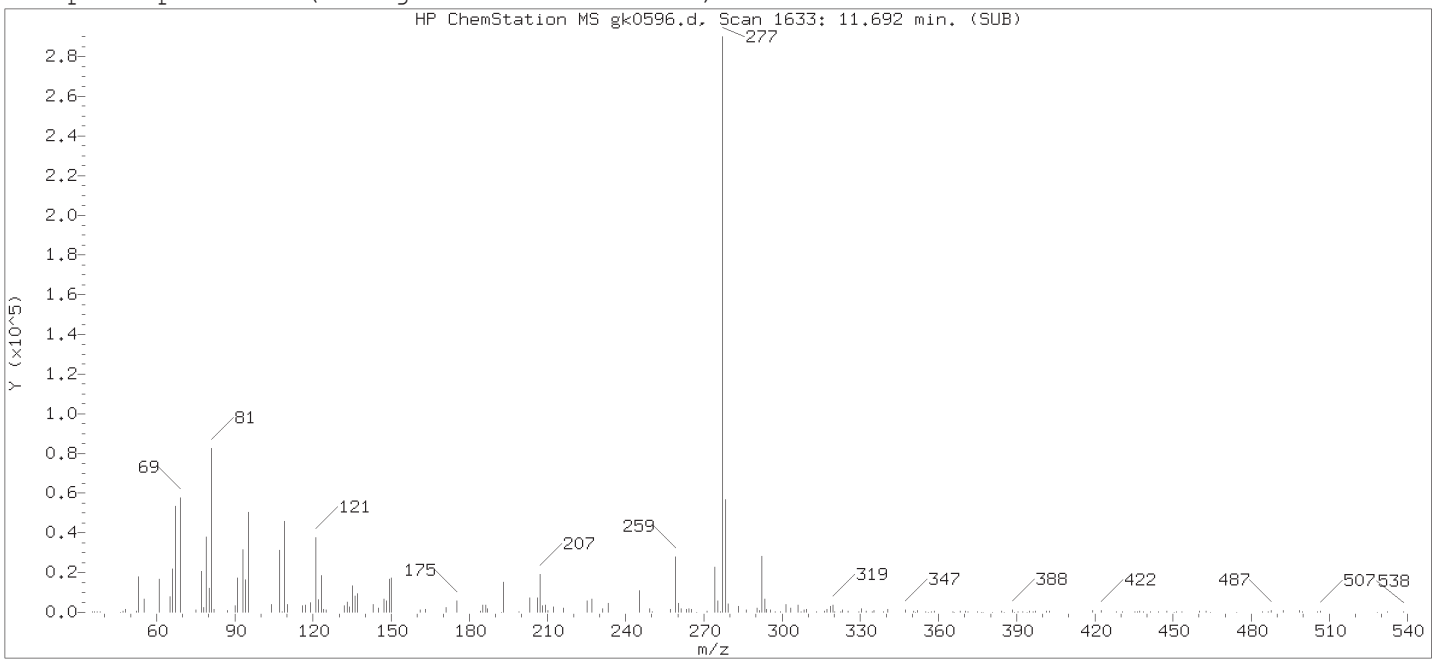
Compound Number : 179
Compound Name : Terphenyl-d14
Scan Number : 1642
Retention Time (minutes) : 11.745
Quant Ion : 244.00
Area (flag) : 2117884A
On-column Amount (ng/ul) : 81.3355
Integration start scan : 1635 Integration stop scan: 1646
Y at integration start : 2576 Y at integration end: 2576

Reason for manual integration: improper integration

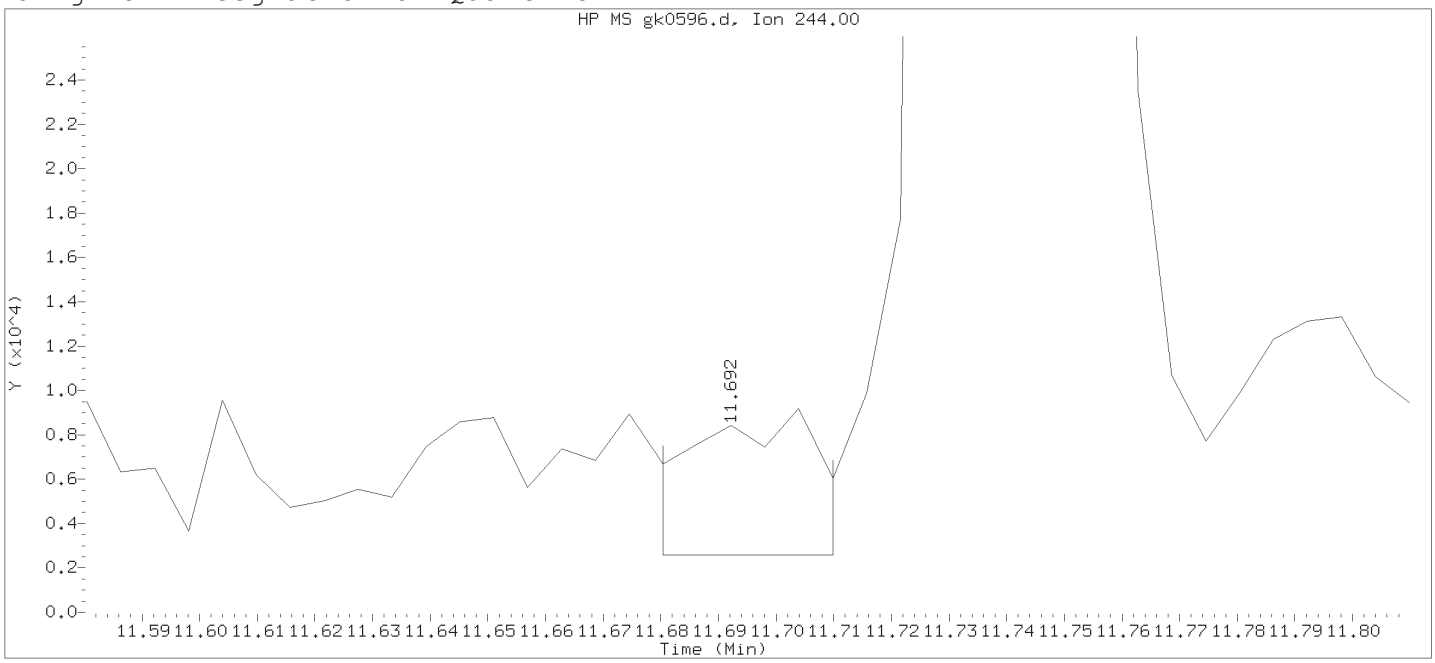
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

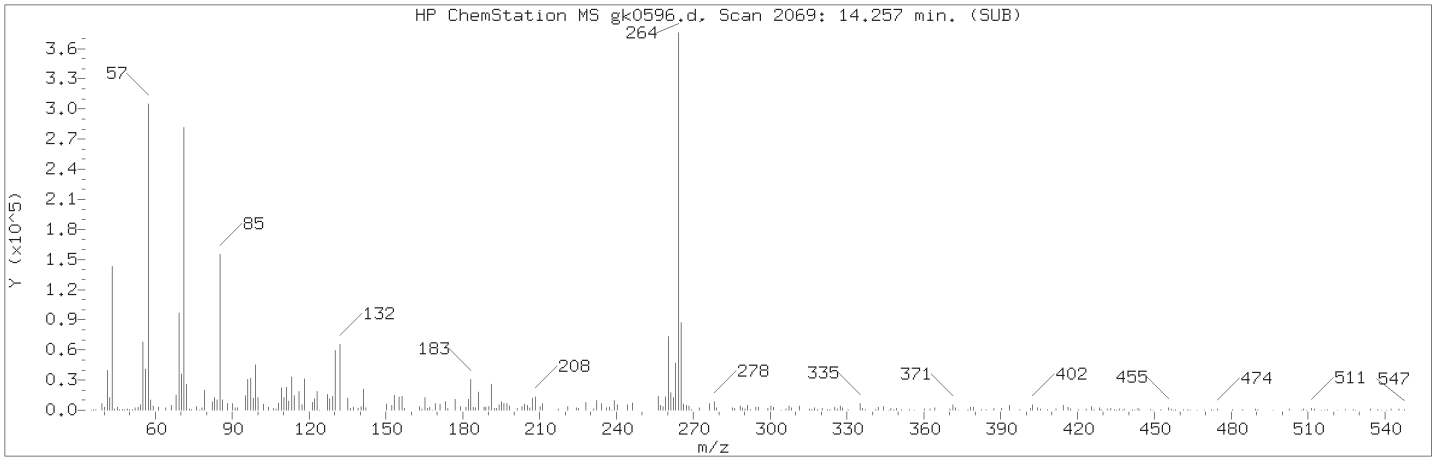
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 11:41 Automation

Sample Name: 12T02 Lab Sample ID: 9872060

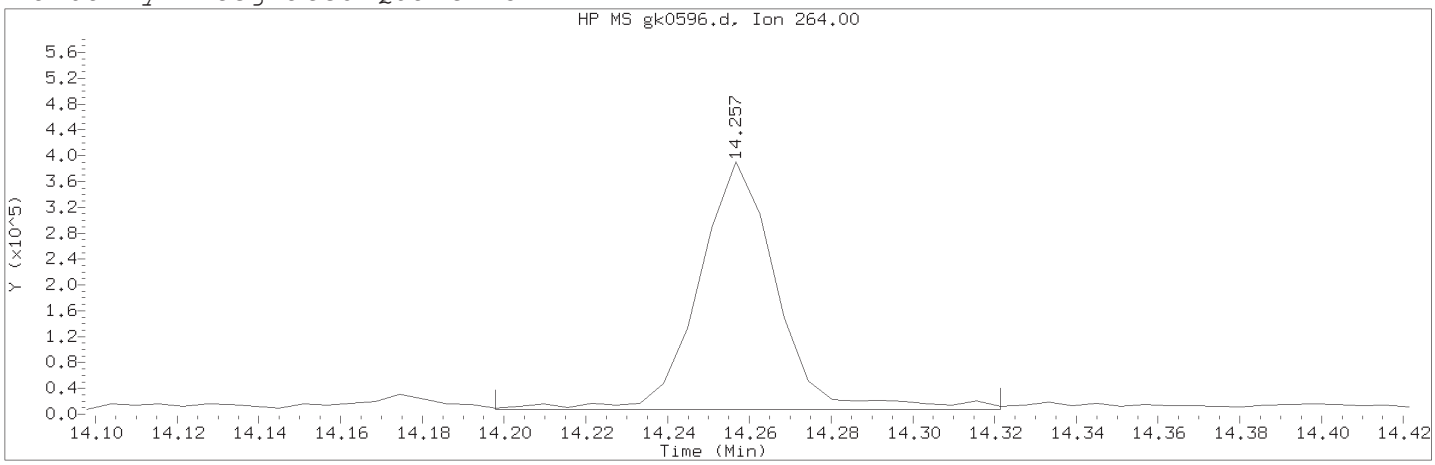
Compound Number	: 179		
Compound Name	: Terphenyl-d14		
Scan Number	: 1633		
Retention Time (minutes)	: 11.692		
Quant Ion	: 244.00		
Area	: 9224		
On-column Amount (ng/ul)	: 14.0601		
Integration start scan	: 1630	Integration stop scan:	1635
Y at integration start	: 2576	Y at integration end:	2576

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used: 1.0.0.1648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:57 em10340

Sample Name: 12T02 Lab Sample ID: 9872060

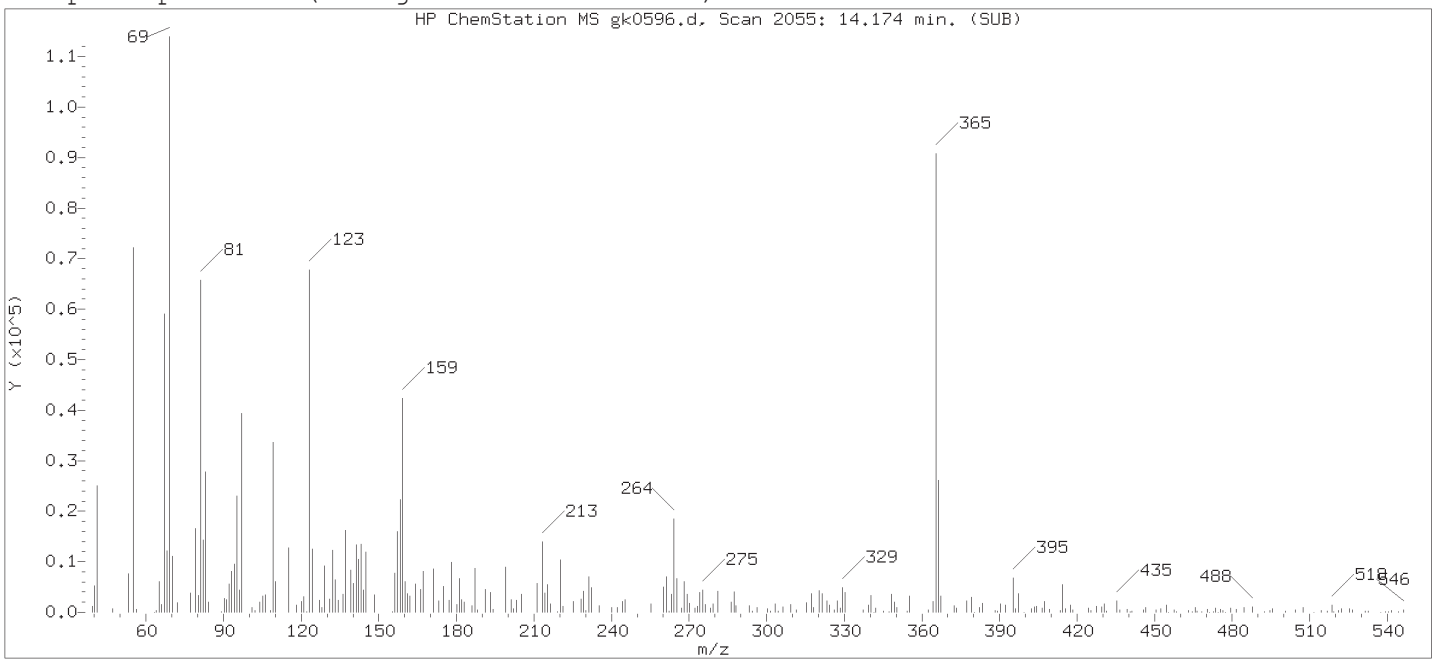
Compound Number : 213
Compound Name : Perylene-d12
Scan Number : 2069
Retention Time (minutes) : 14.257
Quant Ion : 264.00
Area (flag) : 507307A
On-column Amount (ng/ul) : 21.0000
Integration start scan : 2058 Integration stop scan: 2079
Y at integration start : 7844 Y at integration end: 7844

Reason for manual integration: improper integration

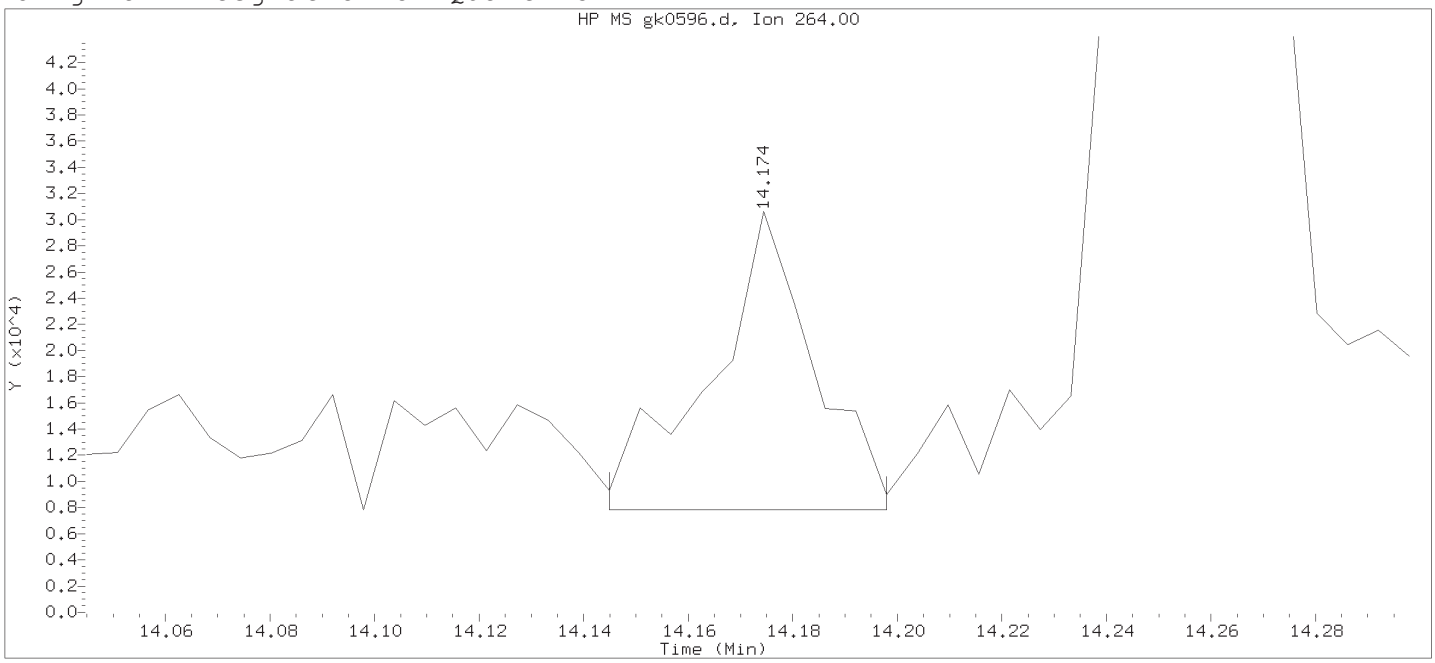
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 11:41 Automation

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 213		
Compound Name	: Perylene-d12		
Scan Number	: 2055		
Retention Time (minutes)	: 14.174		
Quant Ion	: 264.00		
Area	: 31411		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 2049	Integration stop scan:	2058
Y at integration start	: 7844	Y at integration end:	7844

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used 11/12/2018 16:50

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0596a.d Injection date and time: **12-NOV-2018 13:25**
Data file Sample Info. Line: 12T02DL;9872060DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.739	(-0.006)	621	152	147535	(13)	21.00	
65) Naphthalene-d8	6.981	(-0.012)	832	136	640296	(8)	21.00	
113) Acenaphthene-d10	8.698	(-0.012)	1124	164	315273	(-5)	21.00	
153) Phenanthrene-d10	10.157	(-0.018)	1372	188	565379A	(-12)	21.00	
175) Pyrene-d10	11.551	(-0.018)	1609	212	470481A	(-23)	20.00	
213) Perylene-d12	14.239	(-0.035)	2066	264	446868	(-12)	21.00	

A = User selected an alternate peak

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.469	(-0.002)	112	200277	18.793	94%		35 - 115
17) Phenol-d6	(1)	5.404	(-0.003)	99	317896A	19.264	96%		47 - 120
44) Nitrobenzene-d5	(2)	6.275	(0.001)	82	139712	8.696	87%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.039	(0.001)	172	227078	9.344	93%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.475	(-0.001)	330	34609	14.391	72%		39 - 132
179) Terphenyl-d14	(5)	11.733	(0.000)	244	217718A	9.570	96%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)	5.416	(-0.003)	94	32408	1.725	568.89			0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.763	(-0.001)	146	14679	1.233	406.58			0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.904	(-0.000)	146	8690	0.754	248.69		J	0.6
31) 2-Methylphenol	(1)	5.998	(-0.000)	108	10159	0.802	264.51		J	0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	6.145	(-0.000)	108	82939	6.465	2132.27			0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)	6.663	(-0.000)	107	32814	2.460	811.19			0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.680	(0.000)	142	578410	23.680	7809.91			0.3

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Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0596a.d Injection date and time: **12-NOV-2018 13:25**
Data file Sample Info. Line: 12T02DL;9872060DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

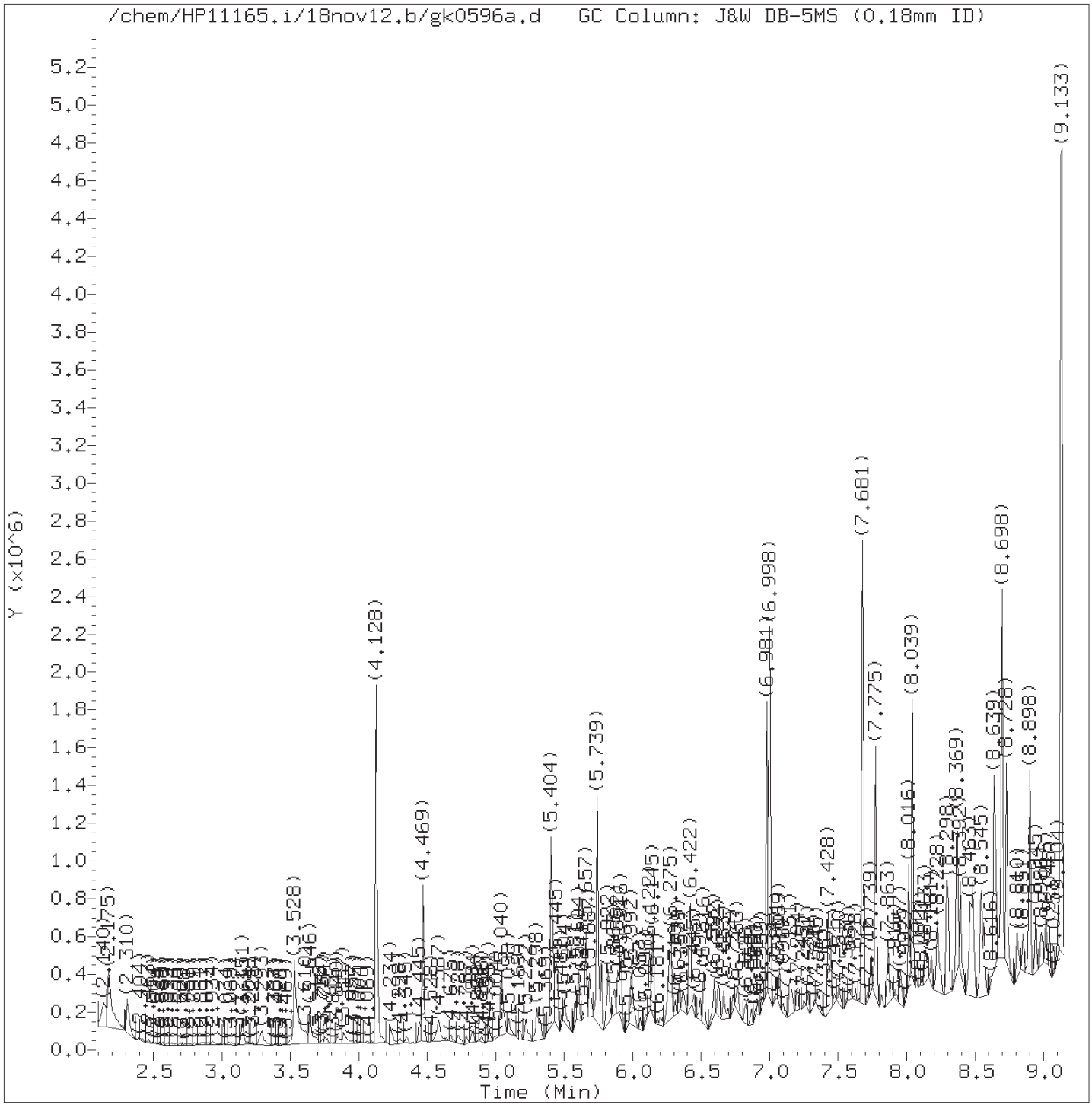
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)	8.157	(-0.000)	162	26136	1.258	414.92			0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)	8.898	(0.000)	168	326991	11.089	3657.46			0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)	10.392	(0.000)	167	22044M	0.731	241.24		J	0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

M = Compound was manually integrated.

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:03. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

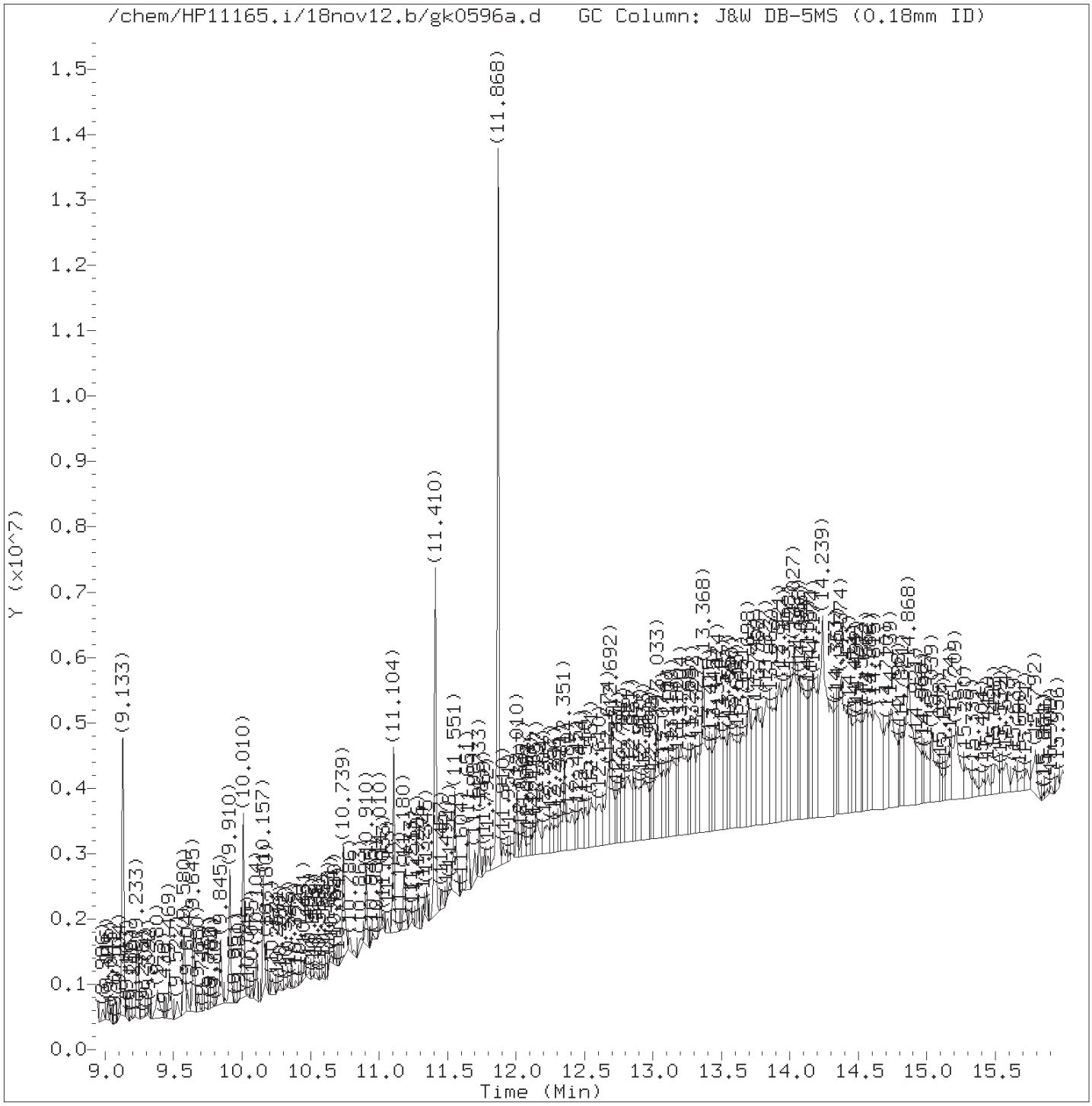
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

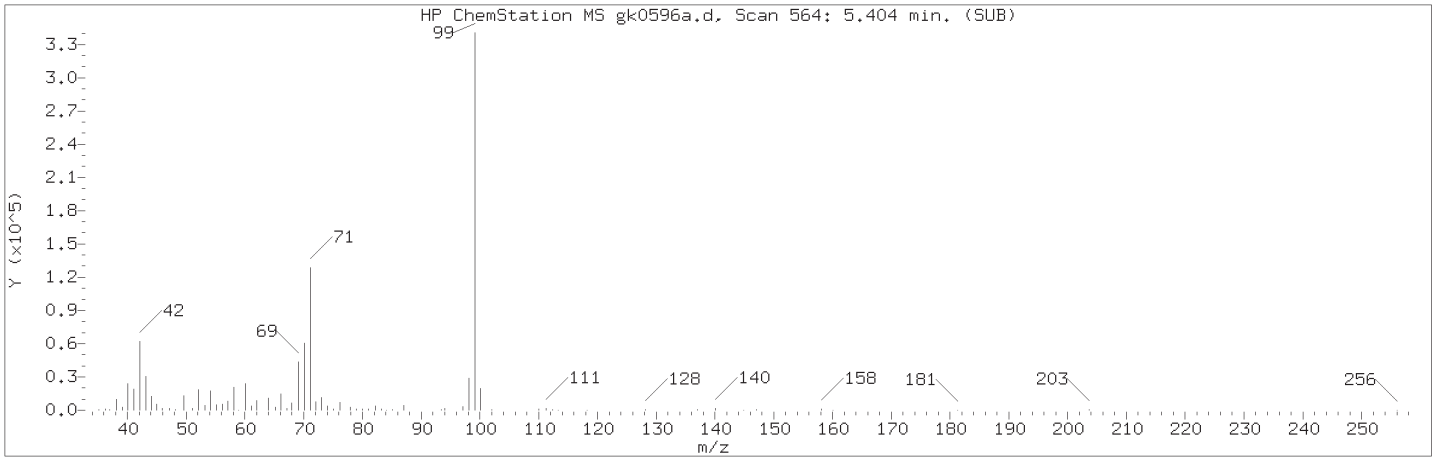
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.469	112	200277	18.793
17)$Phenol-d6	(1)	5.404	99	317896A	19.264
18) Phenol	(1)	5.416	94	32408	1.725
25)*1,4-Dichlorobenzene-d4	(1)	5.739	152	147535	21.000
26) 1,4-Dichlorobenzene	(1)	5.763	146	14679	1.233
28) 1,2-Dichlorobenzene	(1)	5.904	146	8690	0.754
31) 2-Methylphenol	(1)	5.998	108	10159	0.802
37) 4-Methylphenol	(1)	6.145	108	82939	6.465
44)$Nitrobenzene-d5	(2)	6.275	82	139712	8.696
53) 2,4-Dimethylphenol	(2)	6.663	107	32814	2.460
65)*Naphthalene-d8	(2)	6.981	136	640296	21.000
83) 2-Methylnaphthalene	(2)	7.681	142	578410	23.680
93)$2-Fluorobiphenyl	(3)	8.039	172	227078	9.344
96) 2-Chloronaphthalene	(3)	8.157	162	26136	1.258
113)*Acenaphthene-d10	(3)	8.698	164	315273	21.000
119) Dibenzofuran	(3)	8.898	168	326991	11.089
135)$2,4,6-Tribromophenol	(3)	9.475	330	34609	14.391
153)*Phenanthrene-d10	(4)	10.157	188	565379A	21.000
163) Carbazole	(4)	10.392	167	22044M	0.731
175)*Pyrene-d10	(5)	11.551	212	470481A	20.000
179)$Terphenyl-d14	(5)	11.733	244	217718A	9.570
213)*Perylene-d12	(6)	14.239	264	446868	21.000

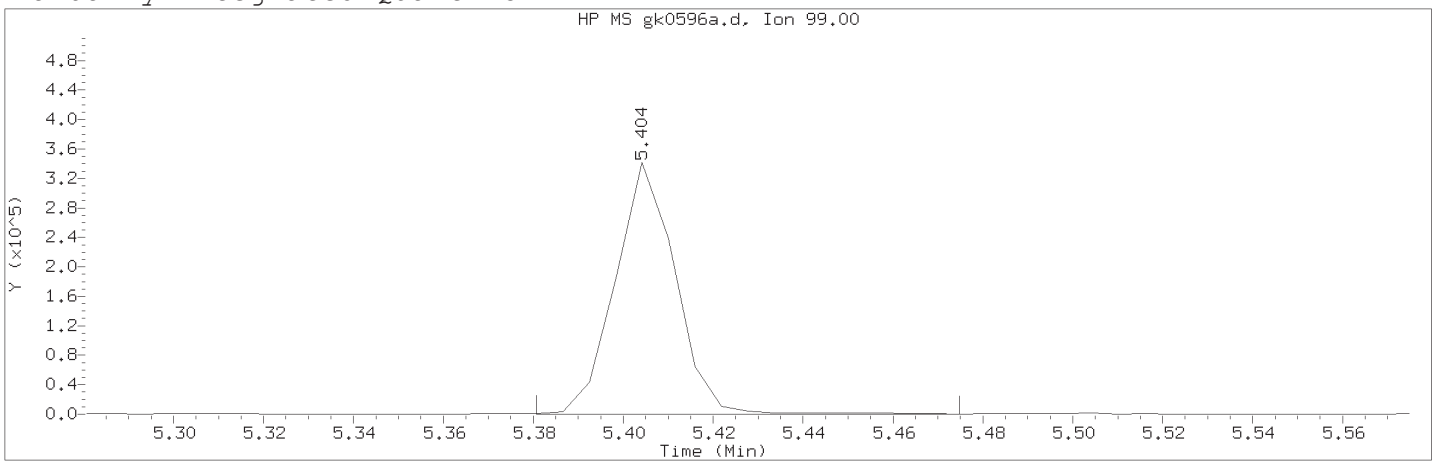
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

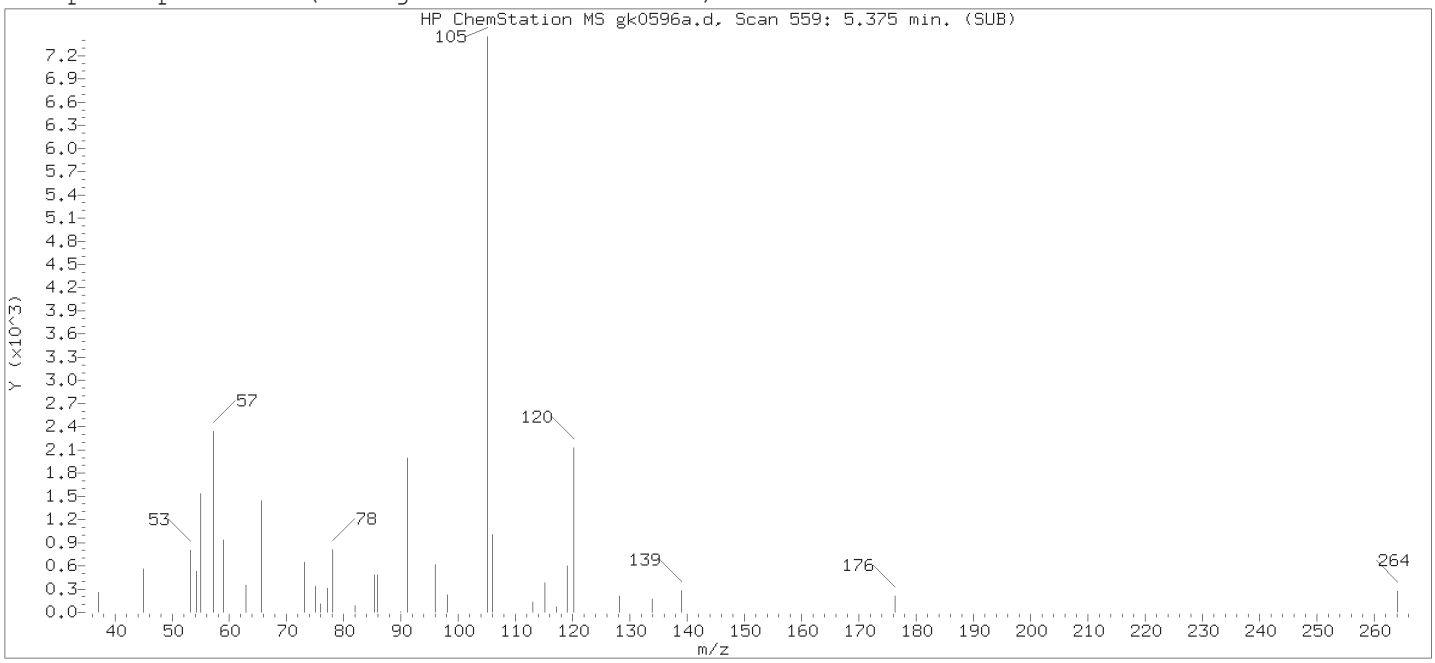
Compound Number : 17
Compound Name : Phenol-d6
Scan Number : 564
Retention Time (minutes) : 5.404
Quant Ion : 99.00
Area (flag) : 317896A
On-column Amount (ng/ul) : 19.2636
Integration start scan : 559 Integration stop scan: 575
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

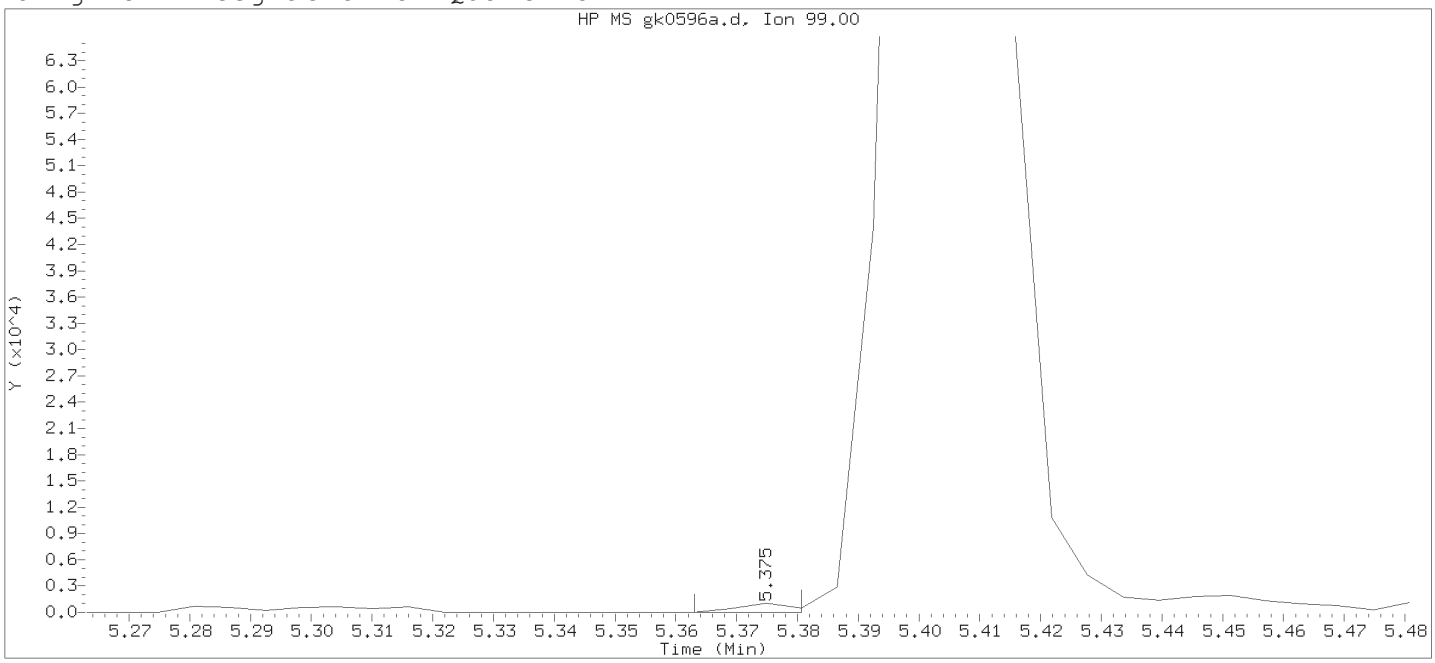
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

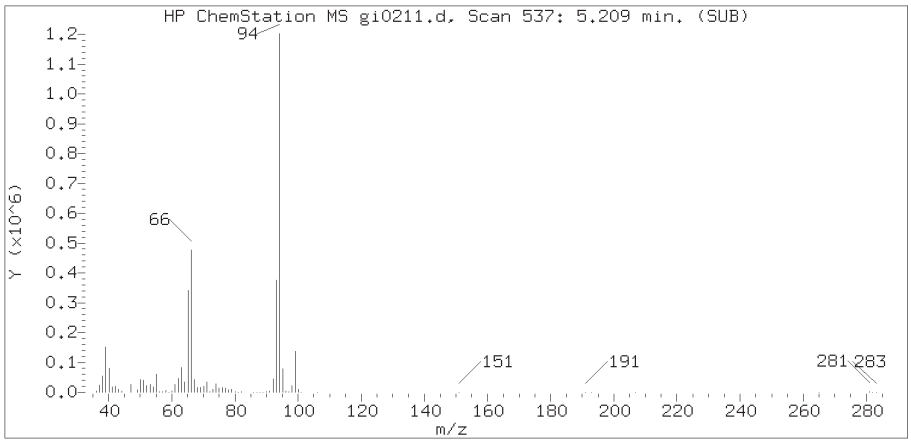
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 13:47 Automation

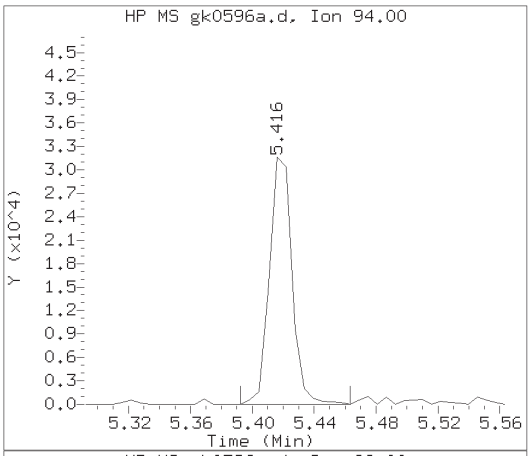
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 17		
Compound Name	: Phenol-d6		
Scan Number	: 559		
Retention Time (minutes)	: 5.375		
Quant Ion	: 99.00		
Area	: 590		
On-column Amount (ng/ul)	: 0.0358		
Integration start scan	: 556	Integration stop scan:	559
Y at integration start	: 0	Y at integration end:	0

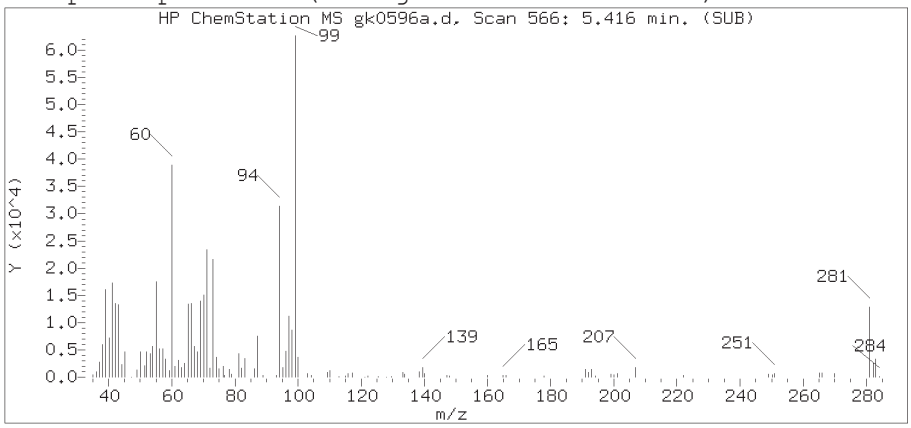
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

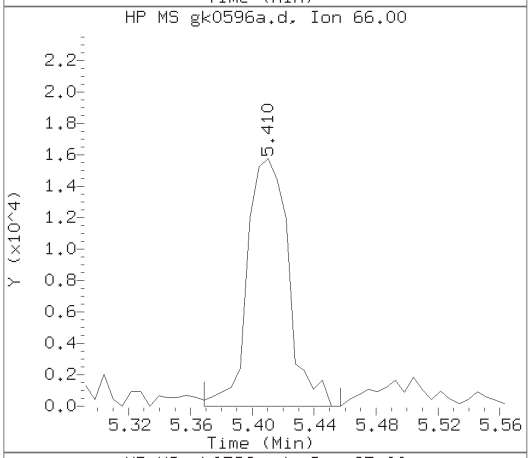
Reference Standard Spectrum for Phenol



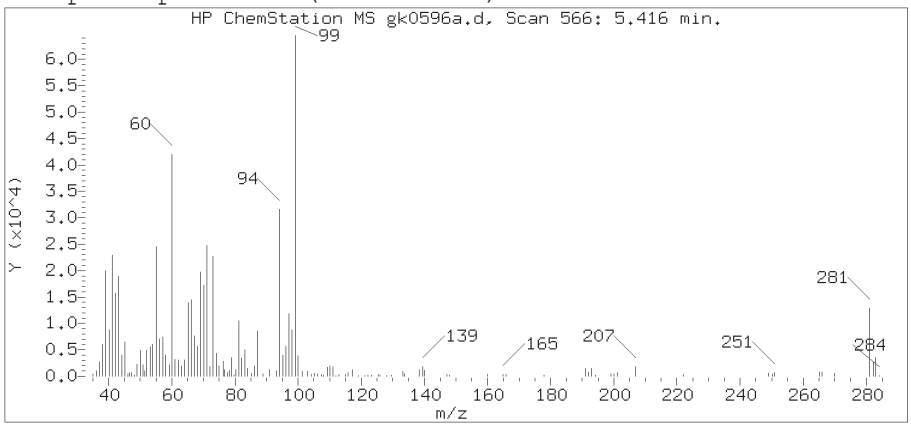


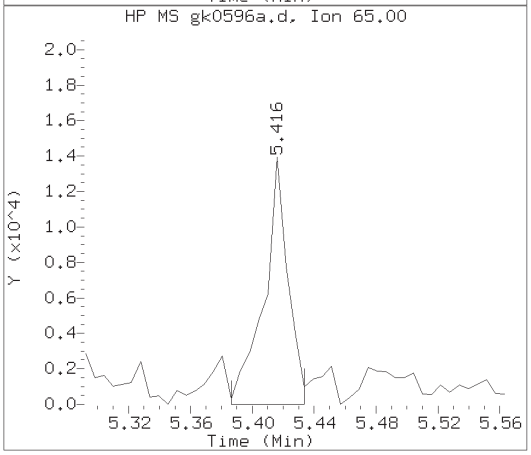
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

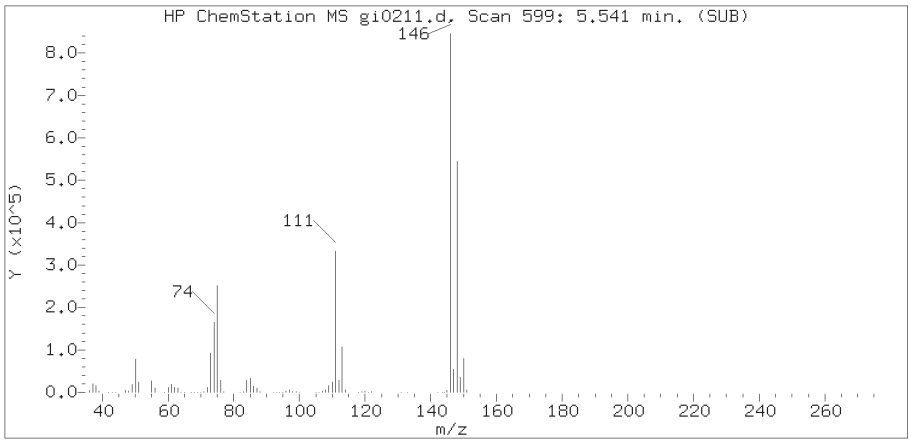
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

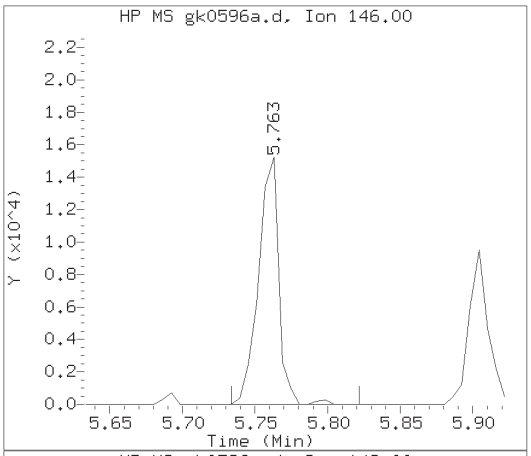
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 18
Compound Name	: Phenol
Scan Number	: 566
Retention Time (minutes)	: 5.416
Relative Retention Time	:-0.00314
Quant Ion	: 94.00
Area (flag)	: 32408
On-column Amount (ng/ul)	: 1.7249

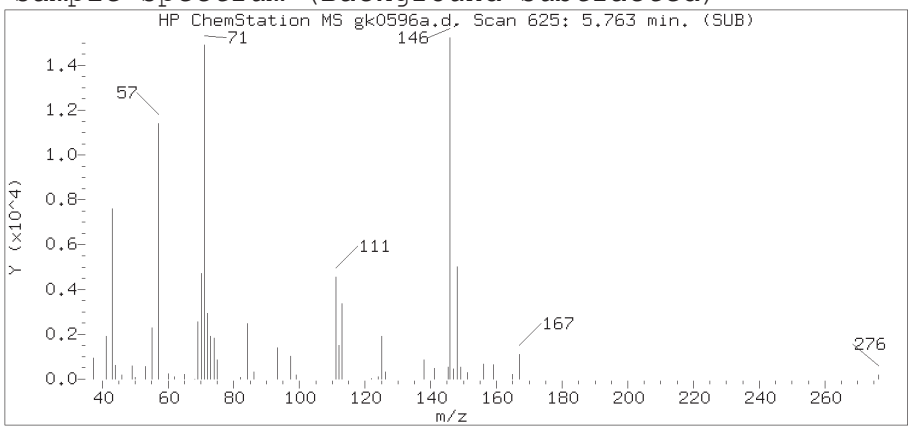
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

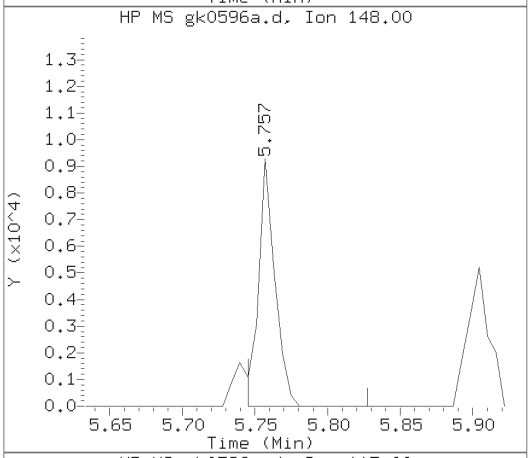
Reference Standard Spectrum for 1,4-Dichlorobenzene



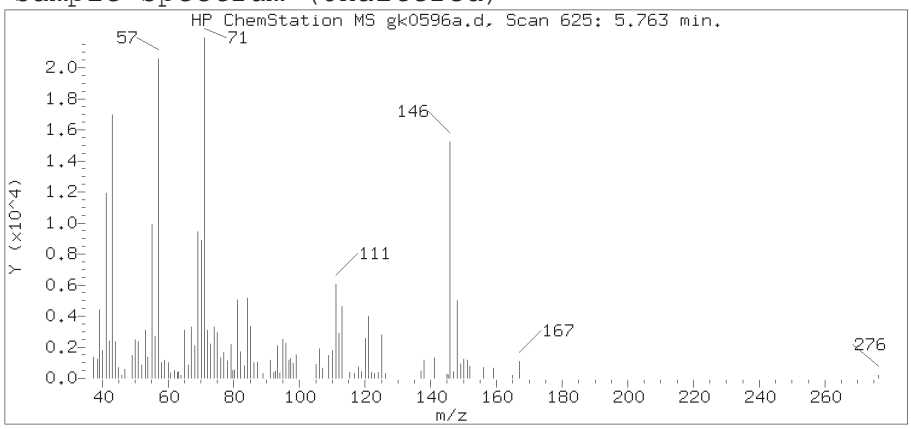


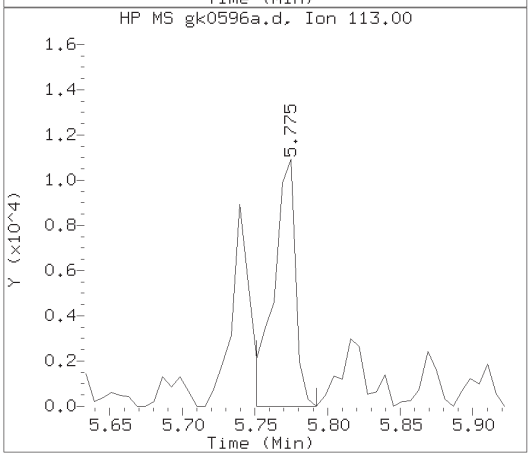
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

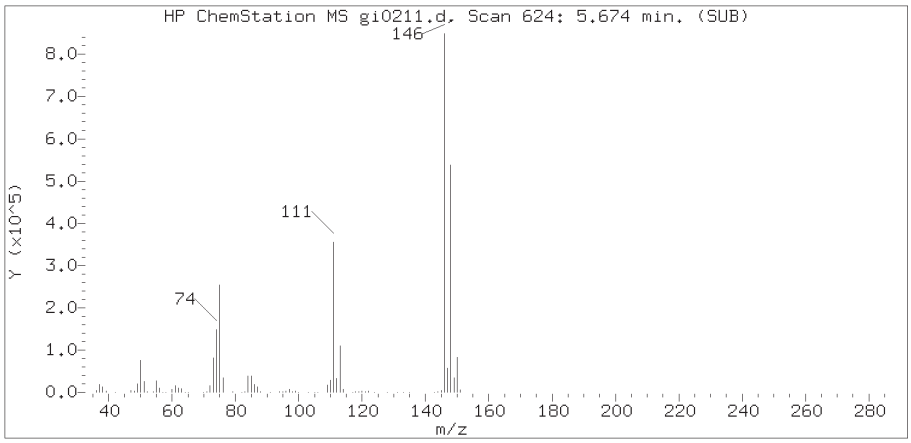
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

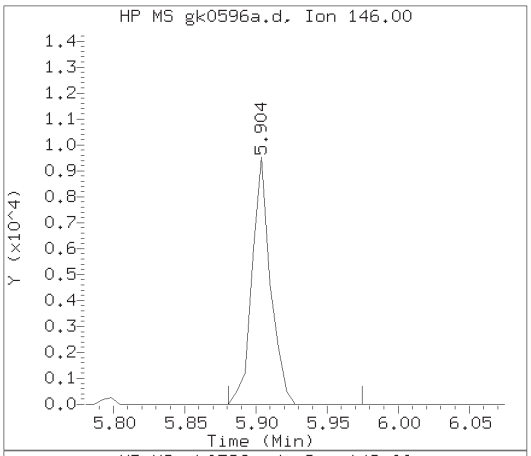
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 625
Retention Time (minutes)	: 5.763
Relative Retention Time	:-0.00102
Quant Ion	: 146.00
Area (flag)	: 14679
On-column Amount (ng/ul)	: 1.2328

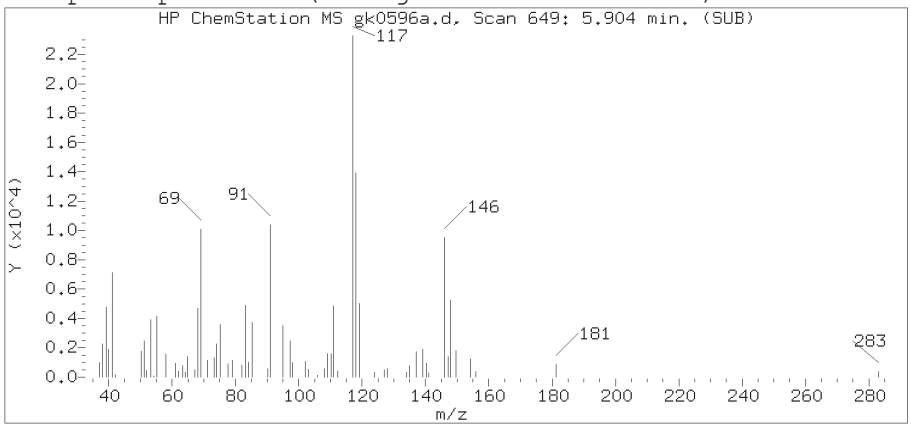
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

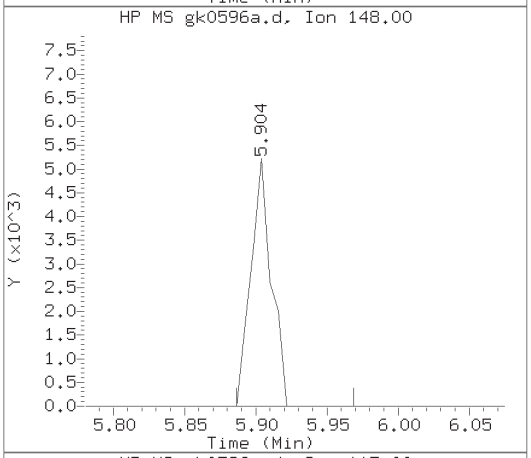
Reference Standard Spectrum for 1,2-Dichlorobenzene



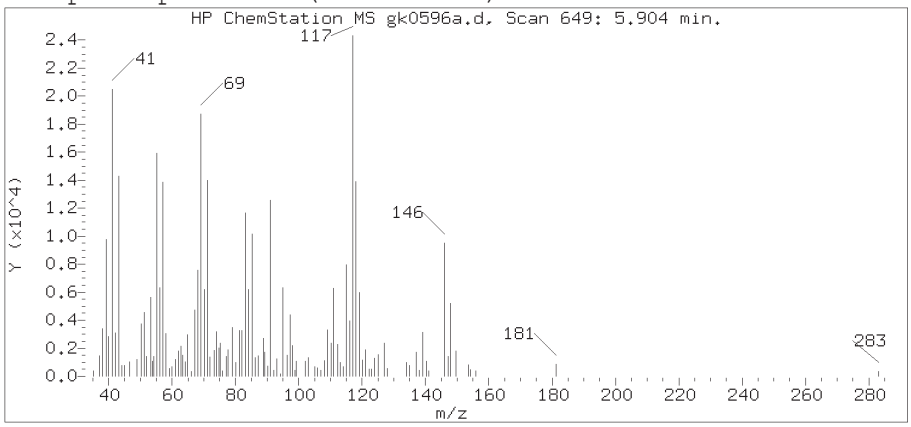


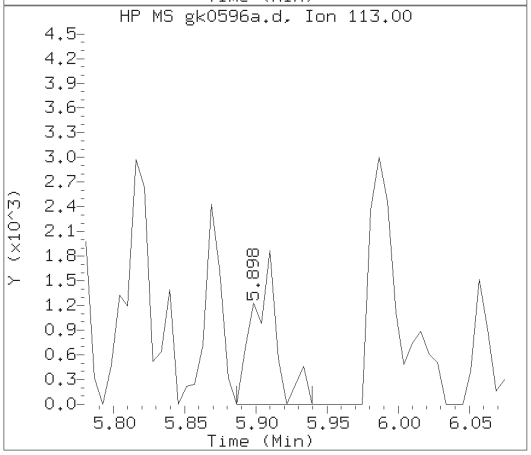
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 649
Retention Time (minutes)	: 5.904
Relative Retention Time	:-0.00100
Quant Ion	: 146.00
Area (flag)	: 8690
On-column Amount (ng/ul)	: 0.7540

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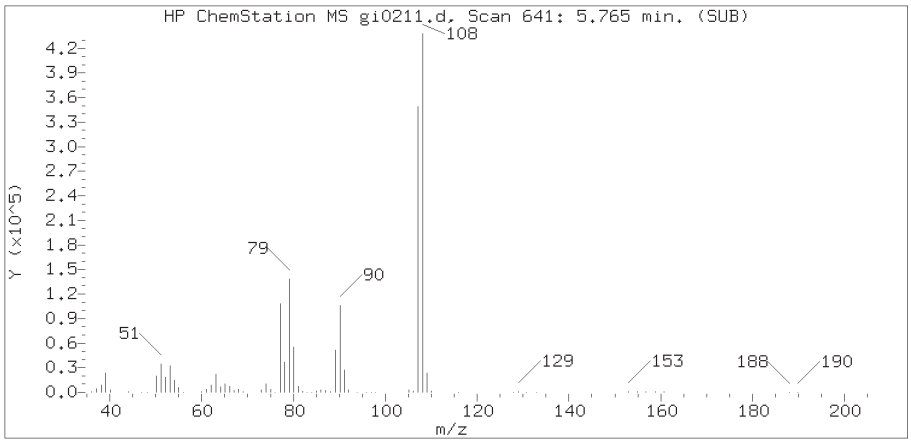
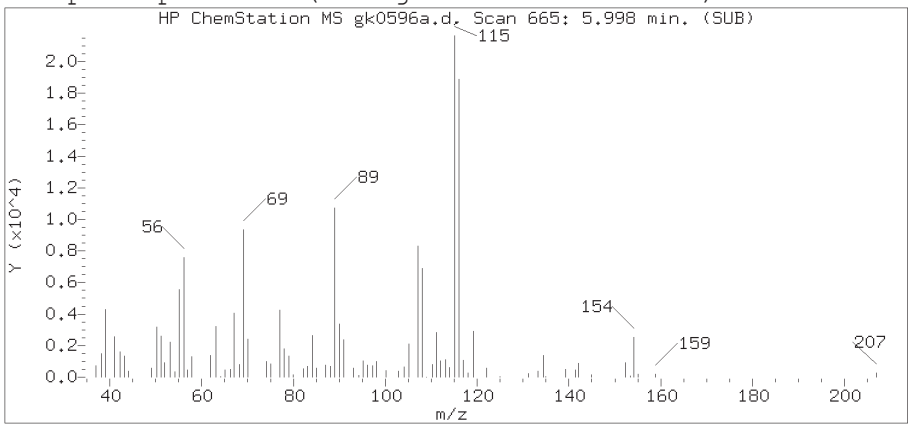
Target 3.5 esignature user ID: em10340

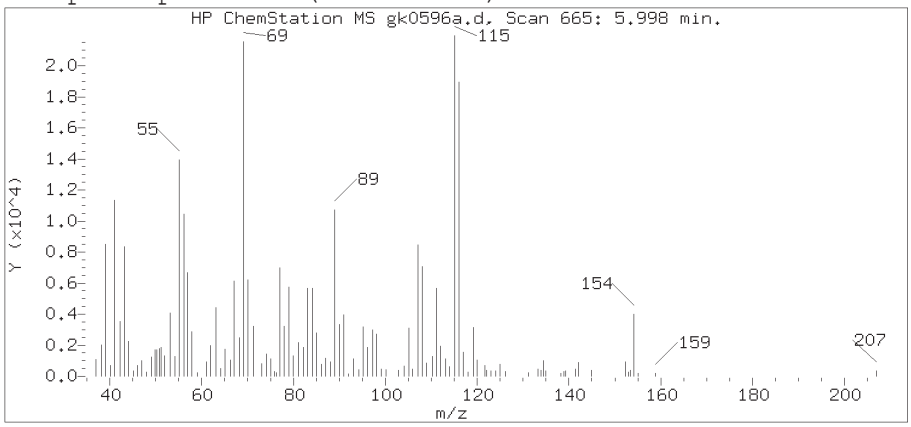
Reference Standard Spectrum for 2-Methylphenol

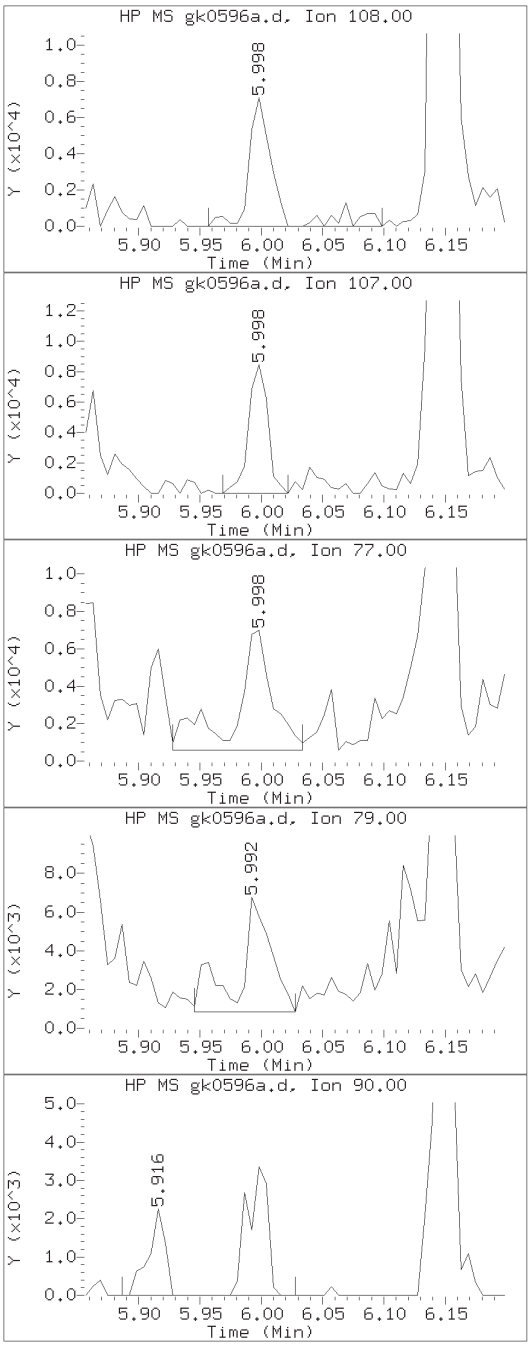


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 31
Compound Name	: 2-Methylphenol
Scan Number	: 665
Retention Time (minutes)	: 5.998
Relative Retention Time	:-0.00098
Quant Ion	: 108.00
Area (flag)	: 10159
On-column Amount (ng/ul)	: 0.8020

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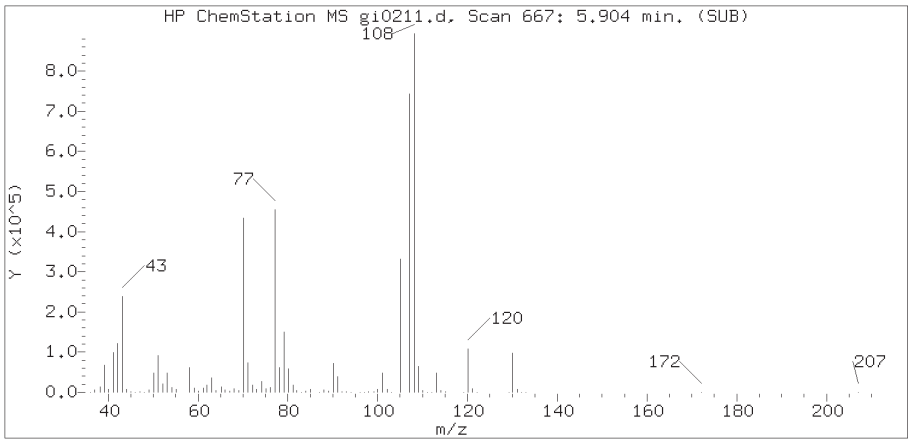
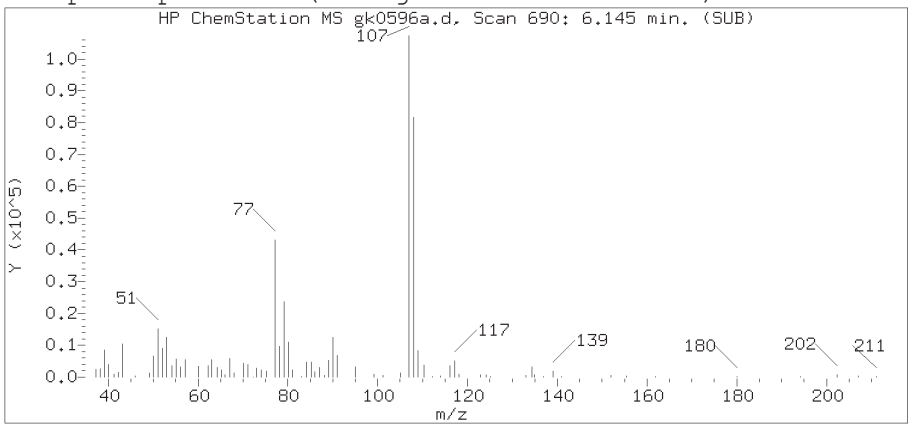
Target 3.5 esignature user ID: em10340

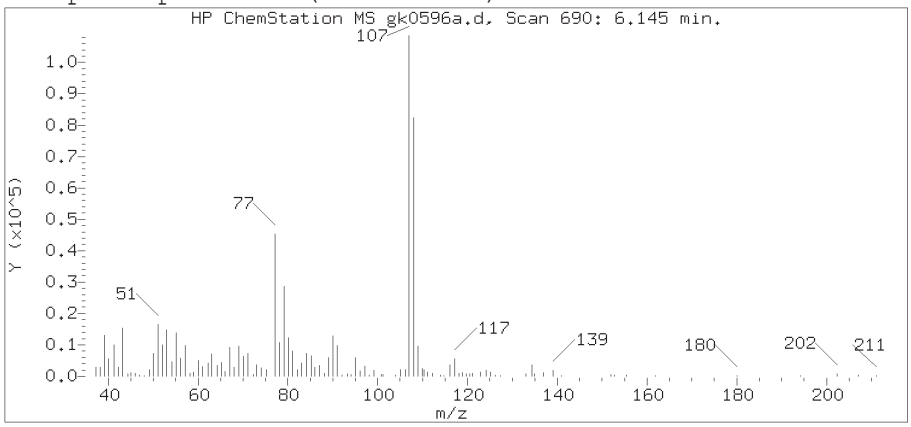
Reference Standard Spectrum for 4-Methylphenol

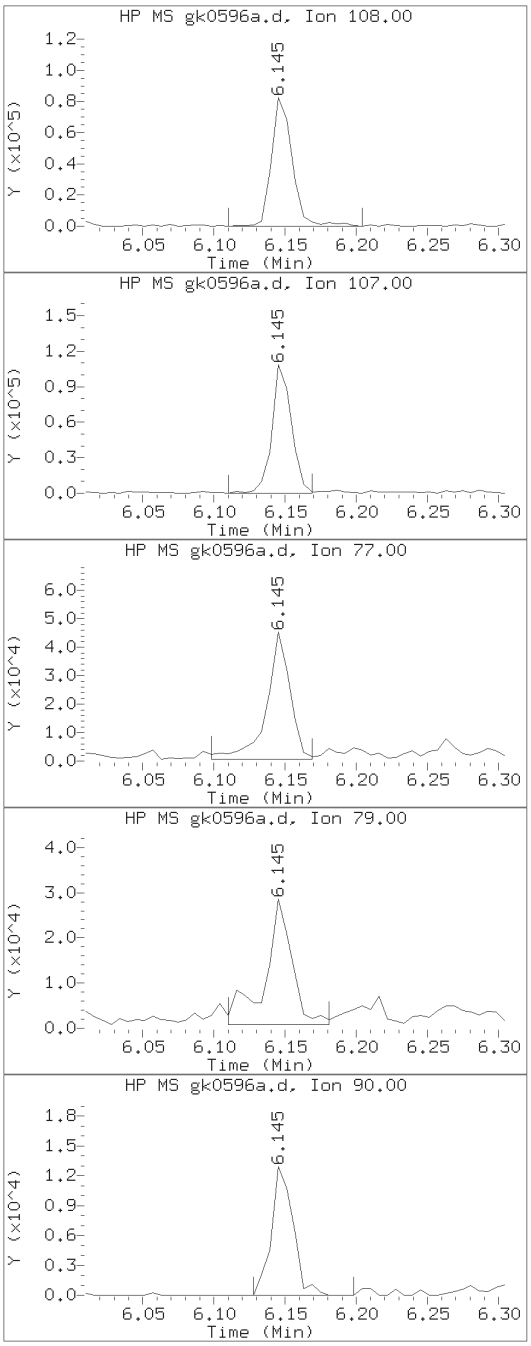


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

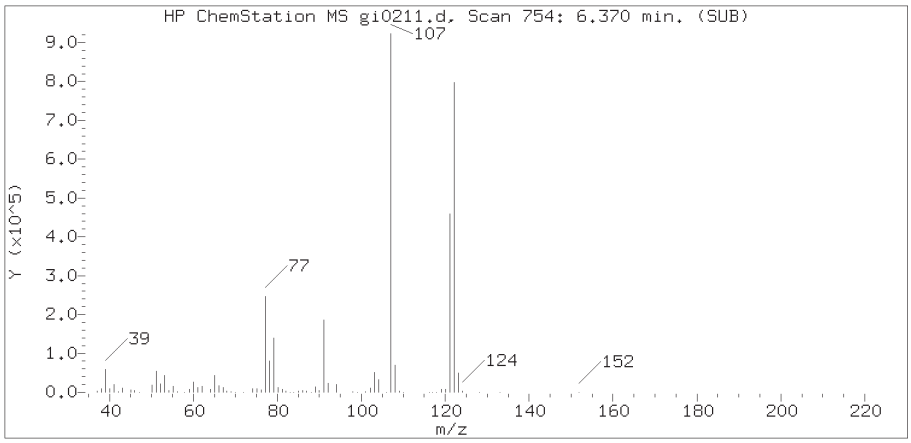
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

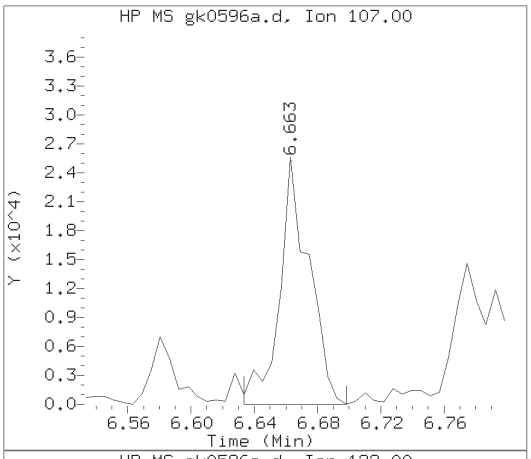
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 690
Retention Time (minutes)	: 6.145
Relative Retention Time	:-0.00096
Quant Ion	: 108.00
Area (flag)	: 82939
On-column Amount (ng/ul)	: 6.4651

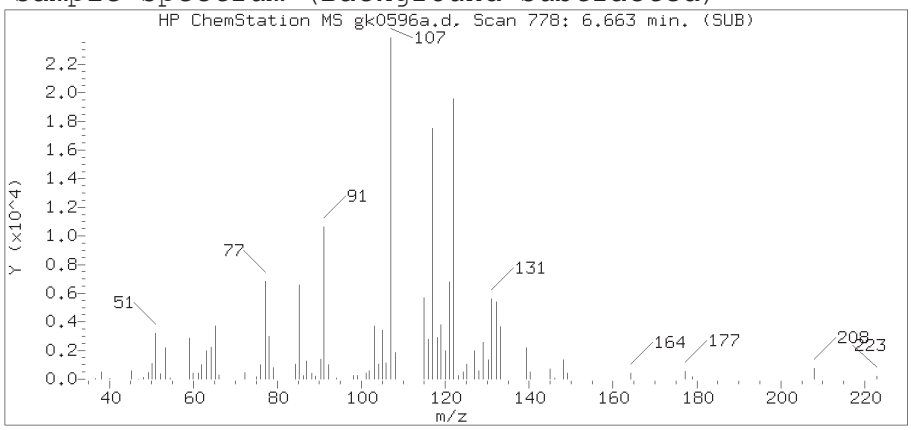
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

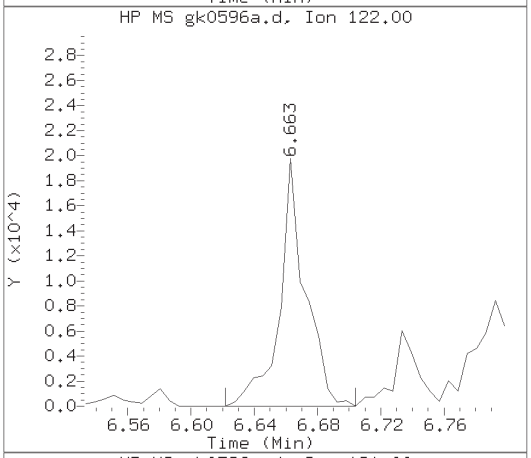
Reference Standard Spectrum for 2,4-Dimethylphenol



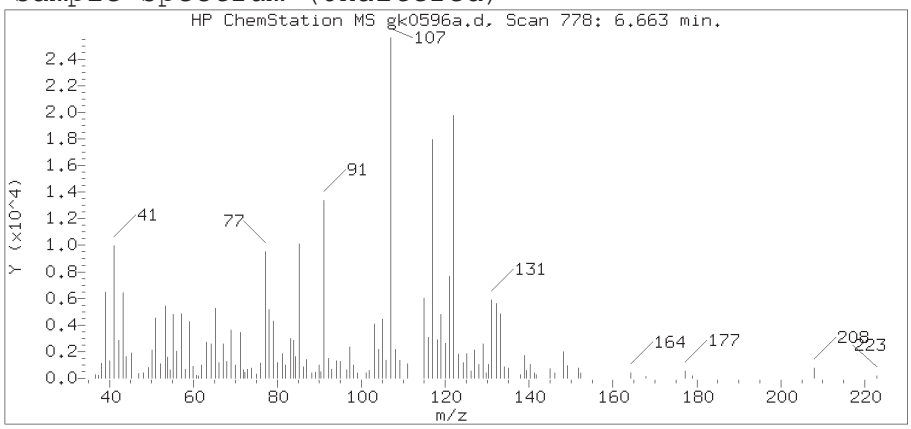


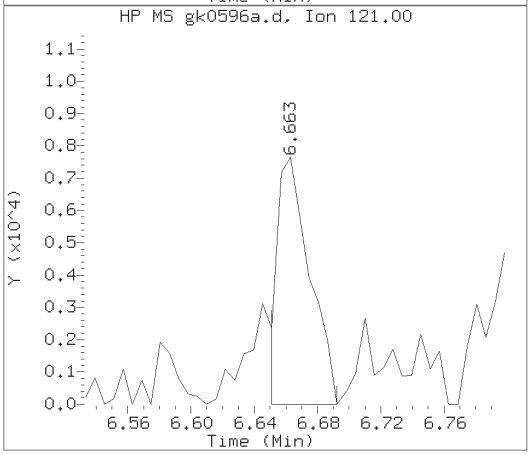
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 53
Compound Name	: 2,4-Dimethylphenol
Scan Number	: 778
Retention Time (minutes)	: 6.663
Relative Retention Time	:-0.00092
Quant Ion	: 107.00
Area (flag)	: 32814
On-column Amount (ng/ul)	: 2.4595

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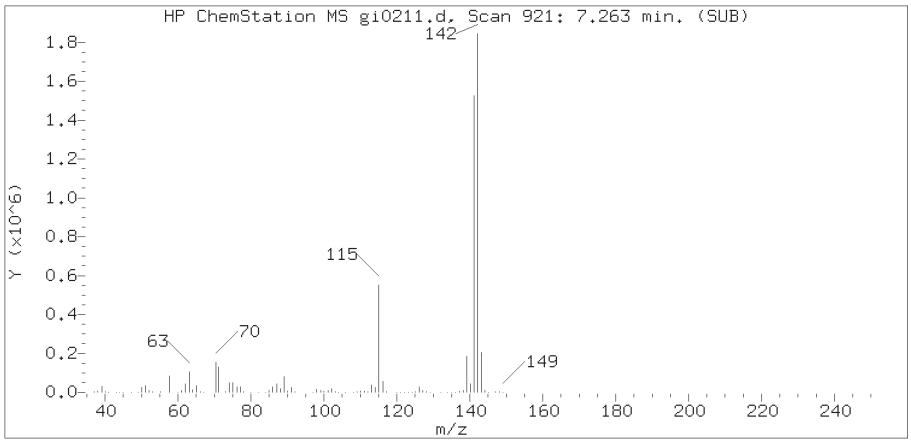
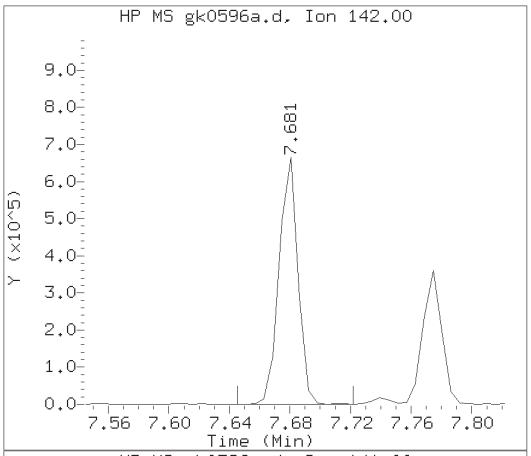
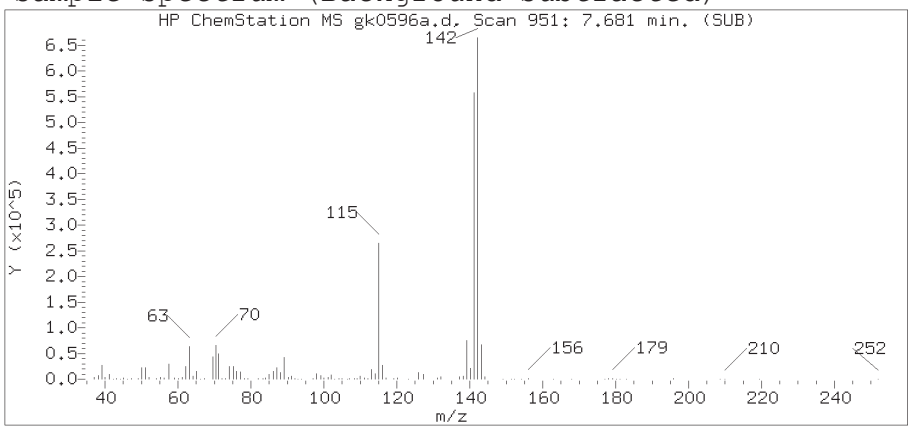
Target 3.5 esignature user ID: em10340

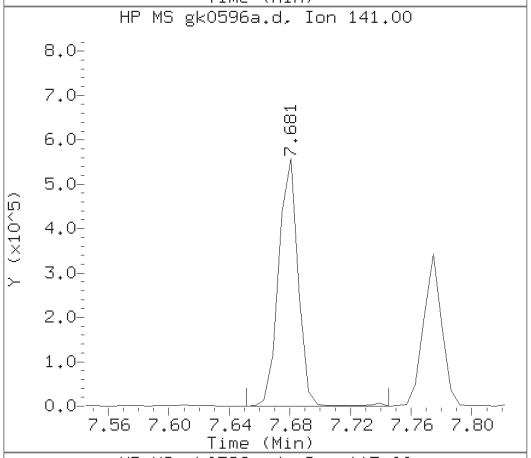
Reference Standard Spectrum for 2-Methylnaphthalene



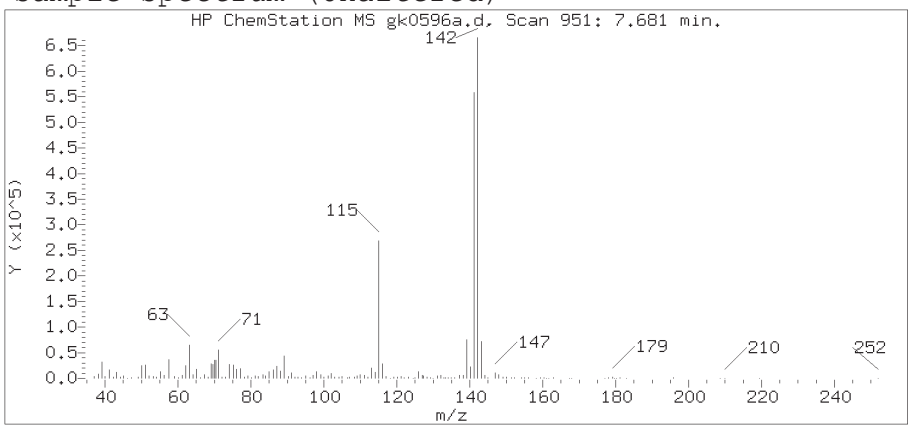


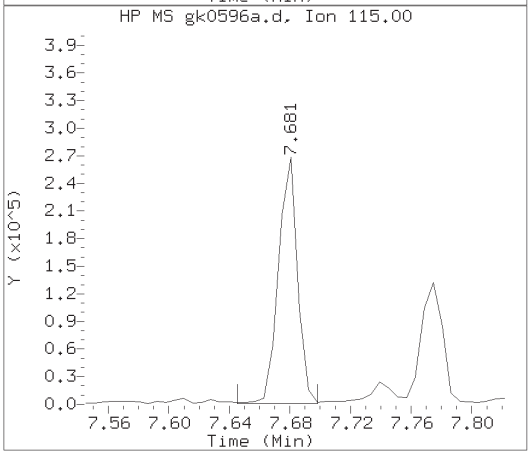
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 951
Retention Time (minutes)	: 7.681
Relative Retention Time	: 0.00017
Quant Ion	: 142.00
Area (flag)	: 578410
On-column Amount (ng/ul)	: 23.6796

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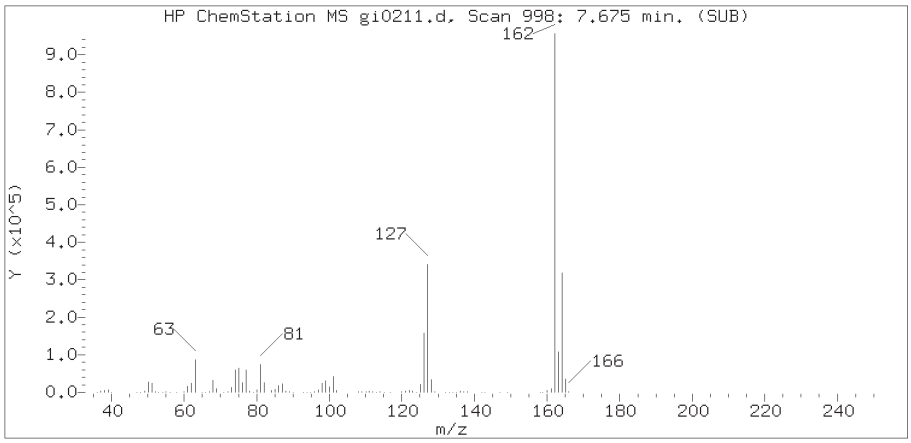
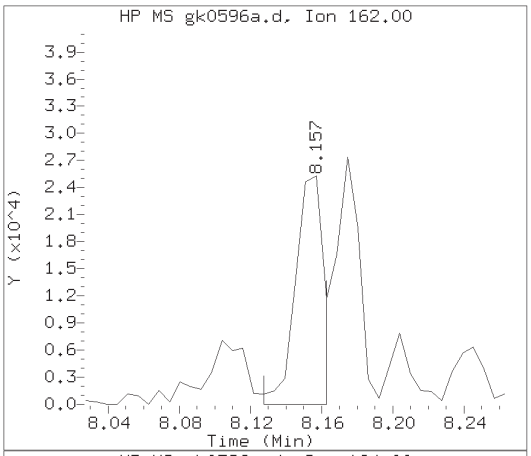
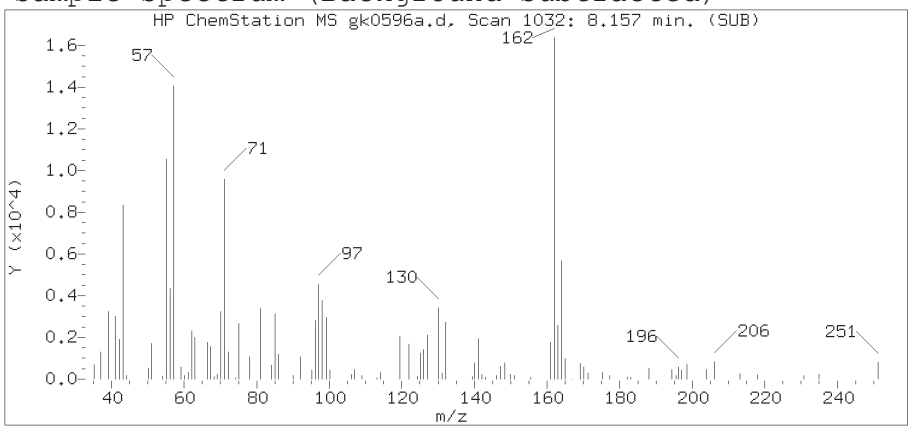
Target 3.5 esignature user ID: em10340

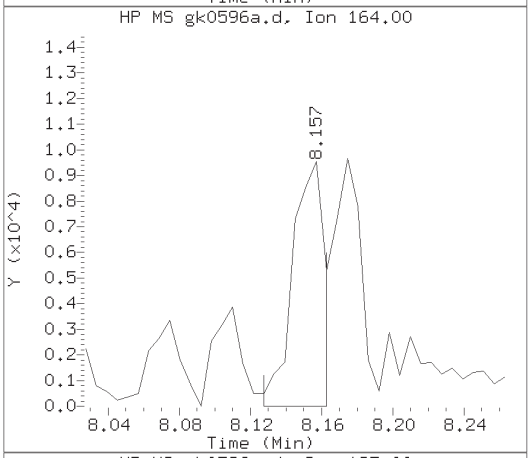
Reference Standard Spectrum for 2-Chloronaphthalene



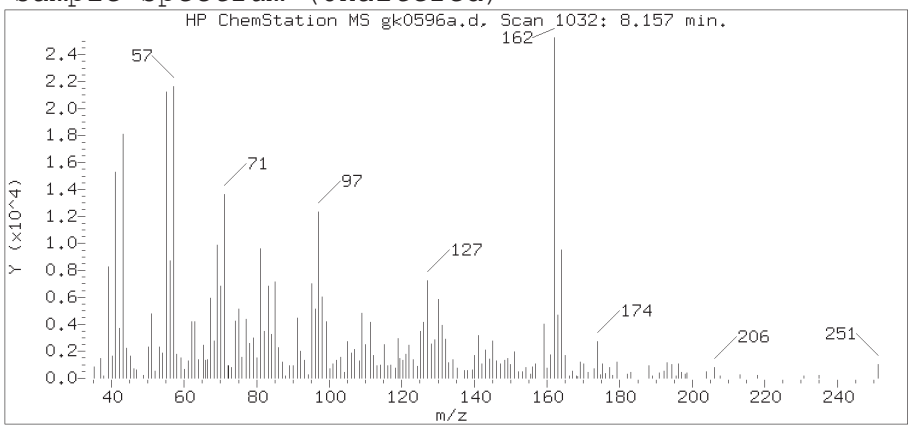


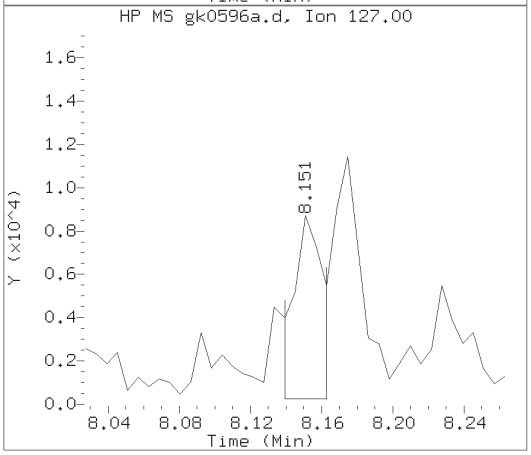
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 1032
Retention Time (minutes)	: 8.157
Relative Retention Time	:-0.00008
Quant Ion	: 162.00
Area (flag)	: 26136
On-column Amount (ng/ul)	: 1.2580

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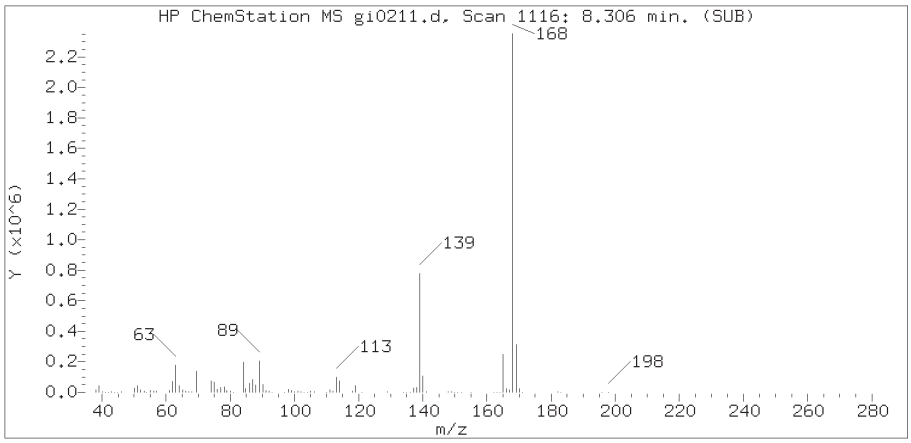
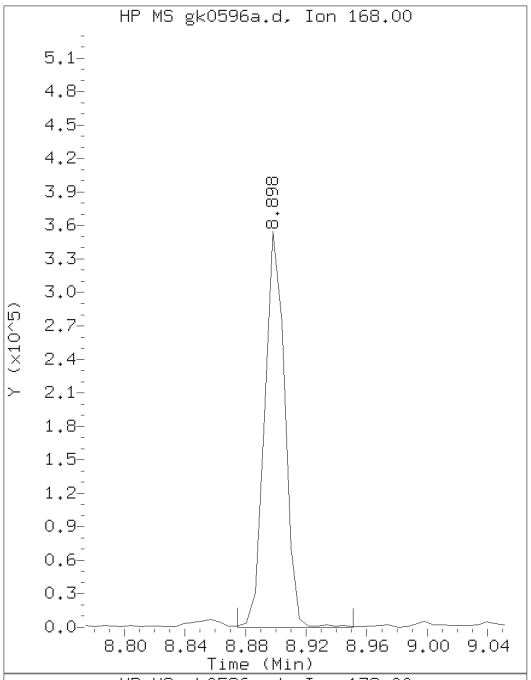
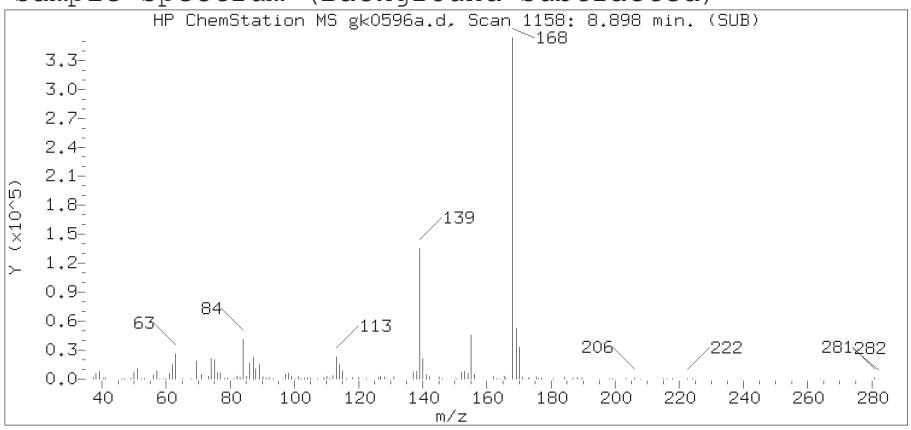
Target 3.5 esignature user ID: em10340

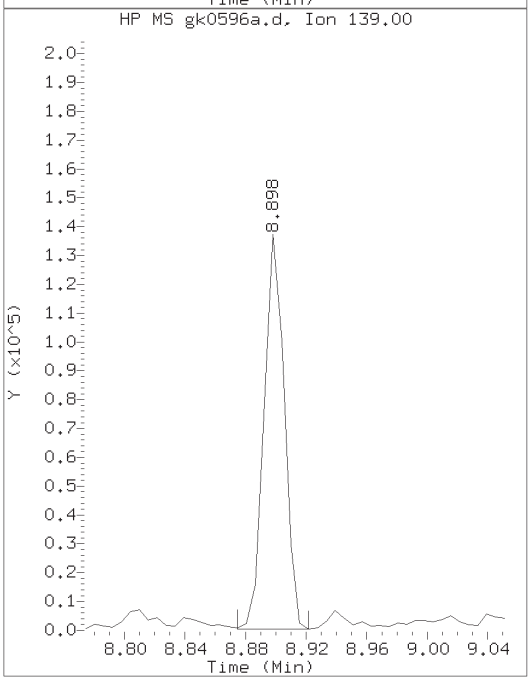
Reference Standard Spectrum for Dibenzofuran



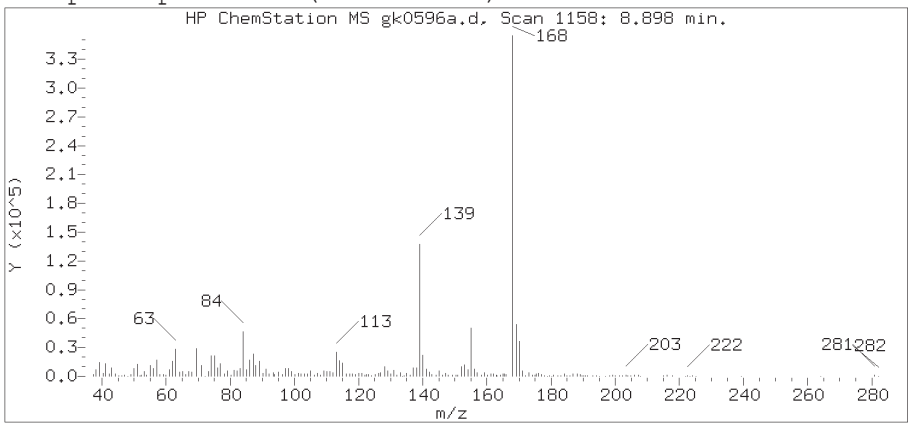


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

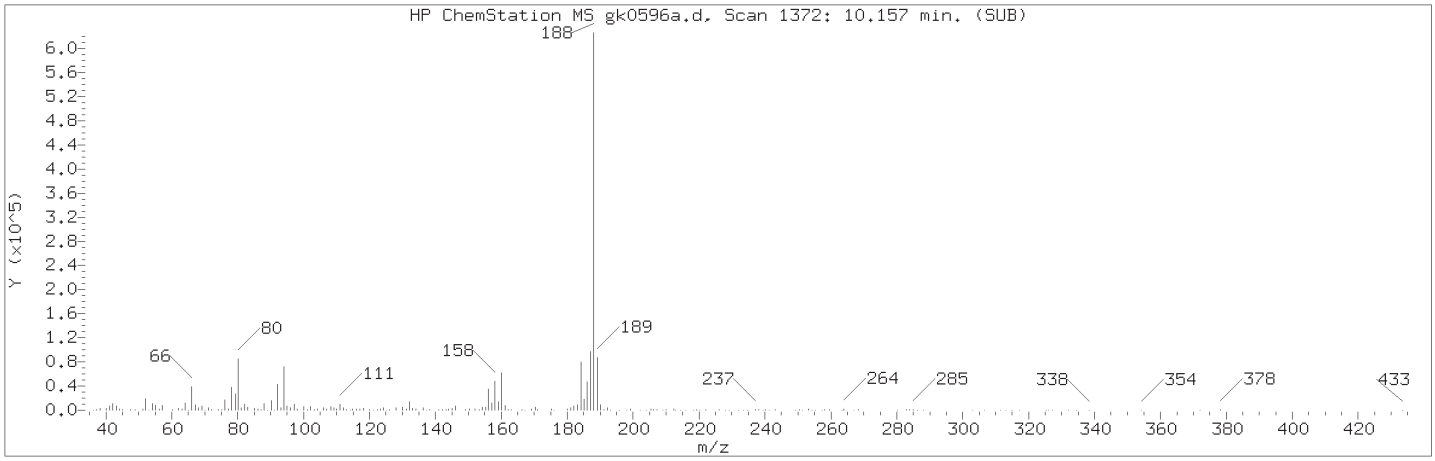
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

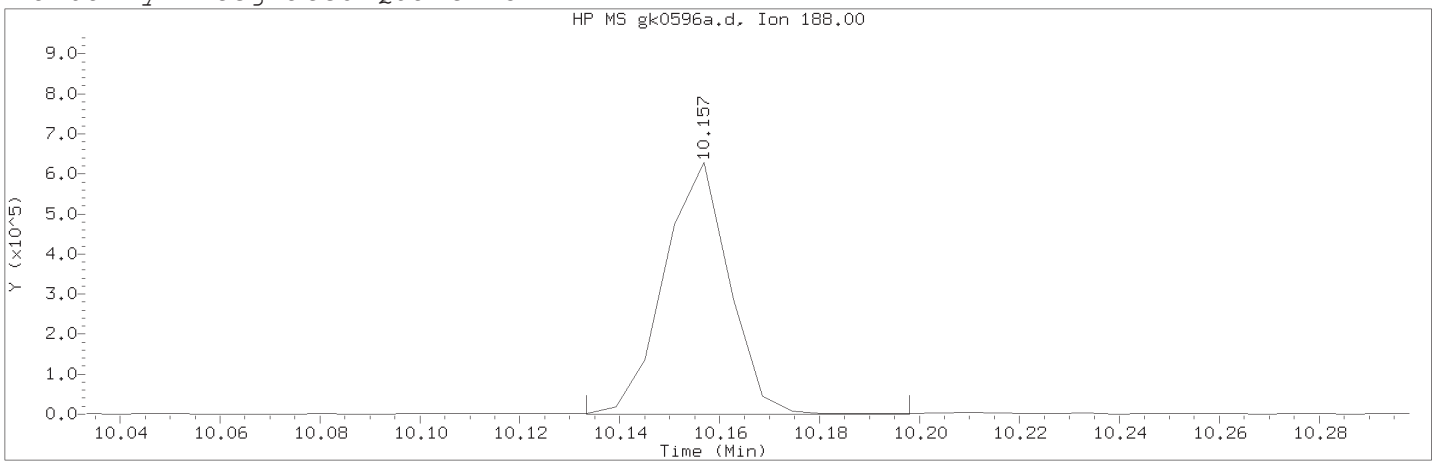
Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1158
Retention Time (minutes)	: 8.898
Relative Retention Time	: 0.00003
Quant Ion	: 168.00
Area (flag)	: 326991
On-column Amount (ng/ul)	: 11.0894

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

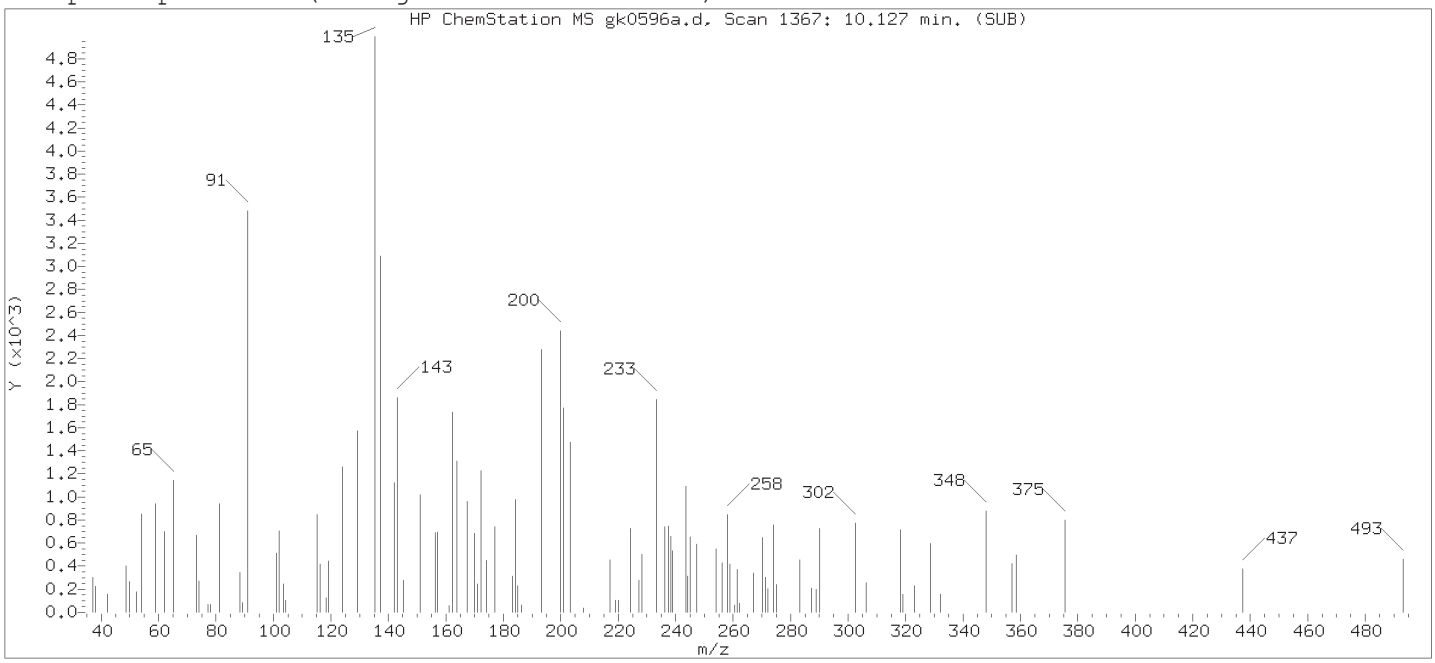
Compound Number : 153
Compound Name : Phenanthrene-d10
Scan Number : 1372
Retention Time (minutes) : 10.157
Quant Ion : 188.00
Area (flag) : 565379A
On-column Amount (ng/ul) : 21.0000
Integration start scan : 1367 Integration stop scan: 1378
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

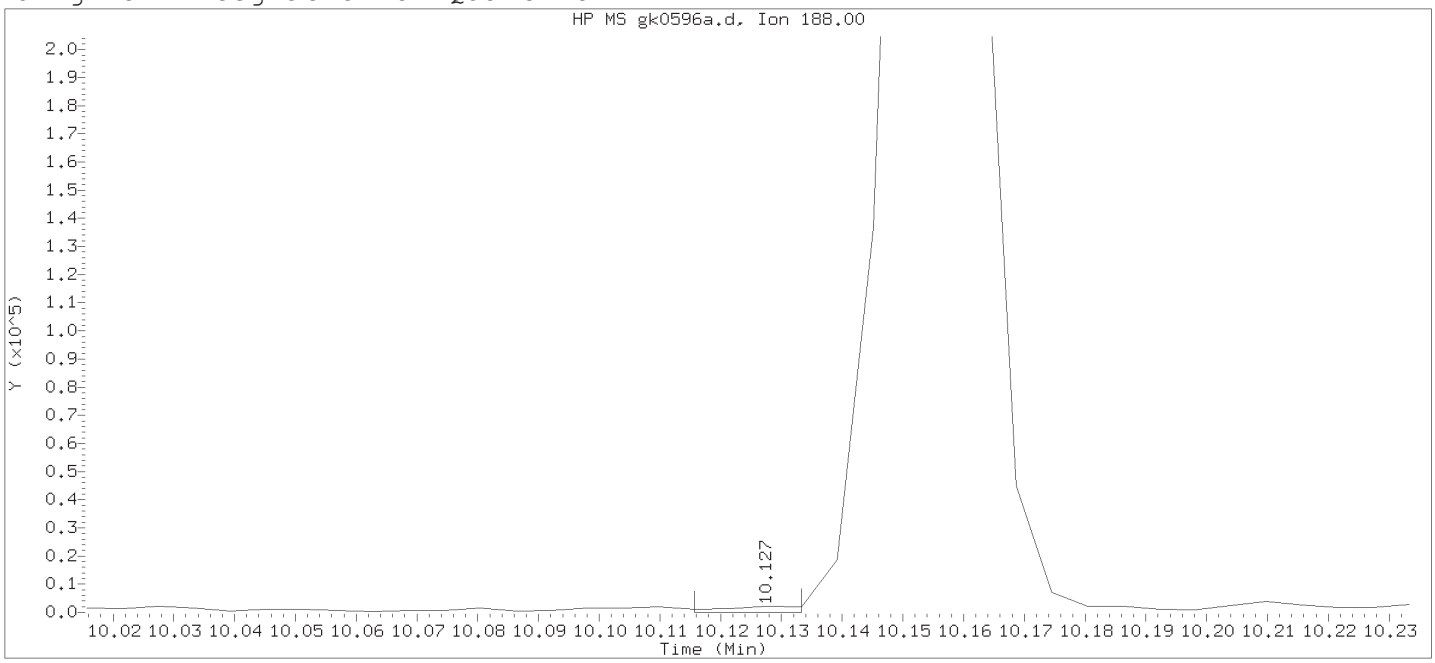
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

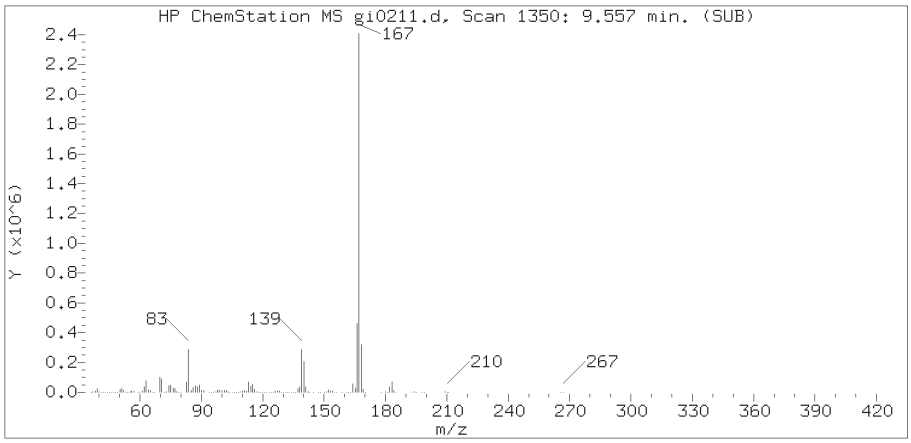
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 13:47 Automation

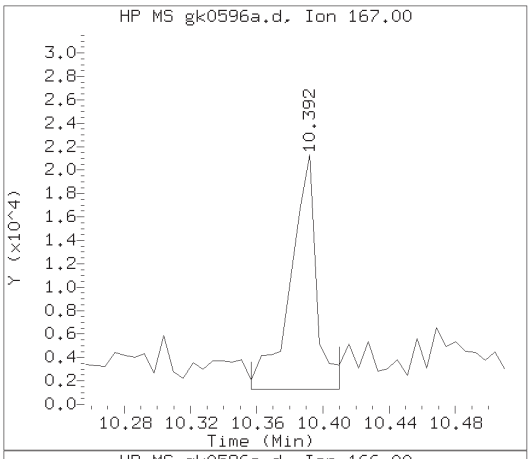
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 153		
Compound Name	: Phenanthrene-d10		
Scan Number	: 1367		
Retention Time (minutes)	: 10.127		
Quant Ion	: 188.00		
Area	: 1730		
On-column Amount (ng/ul)	: 21.0000		
Integration start scan	: 1364	Integration stop scan:	1367
Y at integration start	: 0	Y at integration end:	0

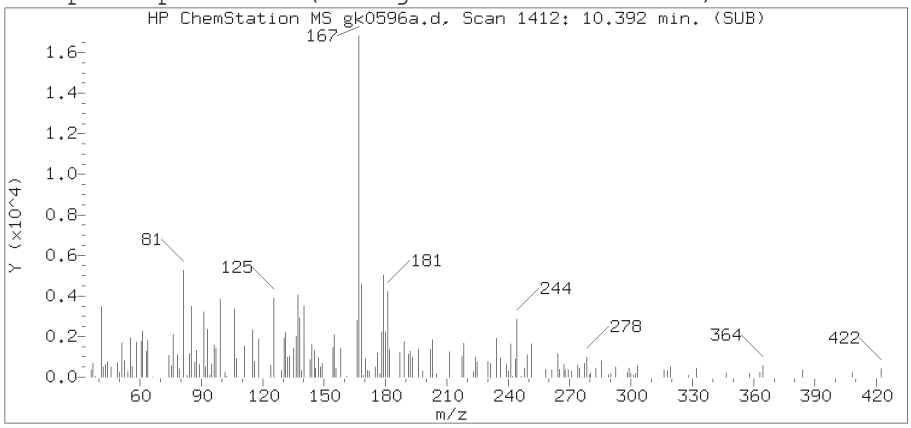
Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used 11/12/2018 13:47.

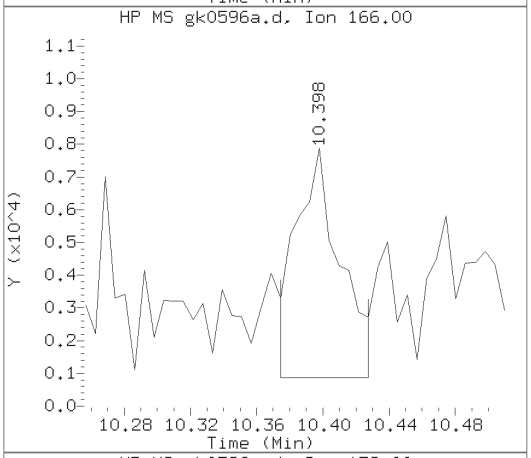
Reference Standard Spectrum for Carbazole



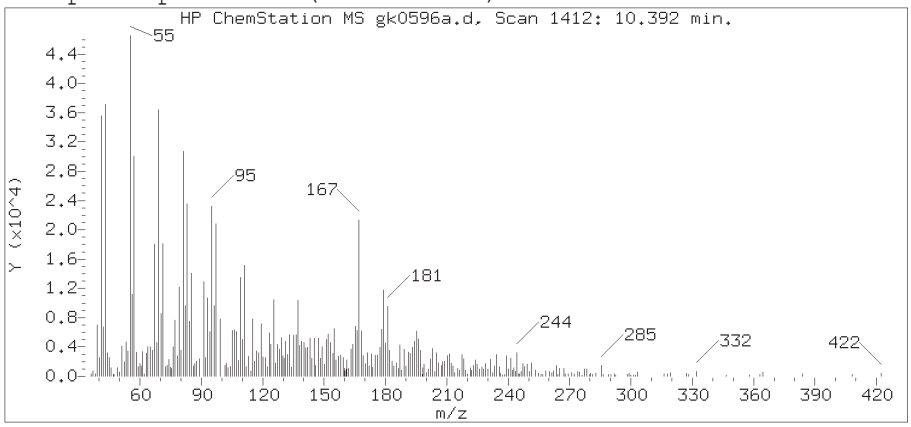


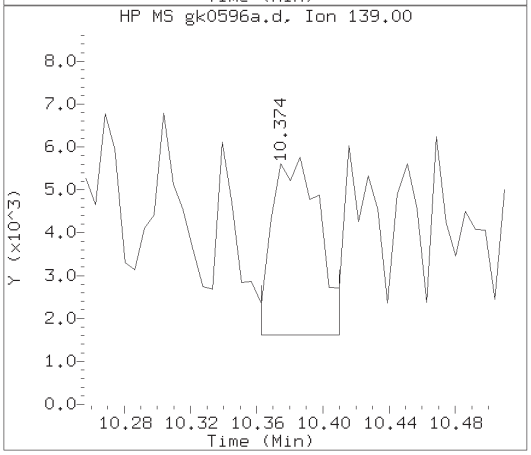
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

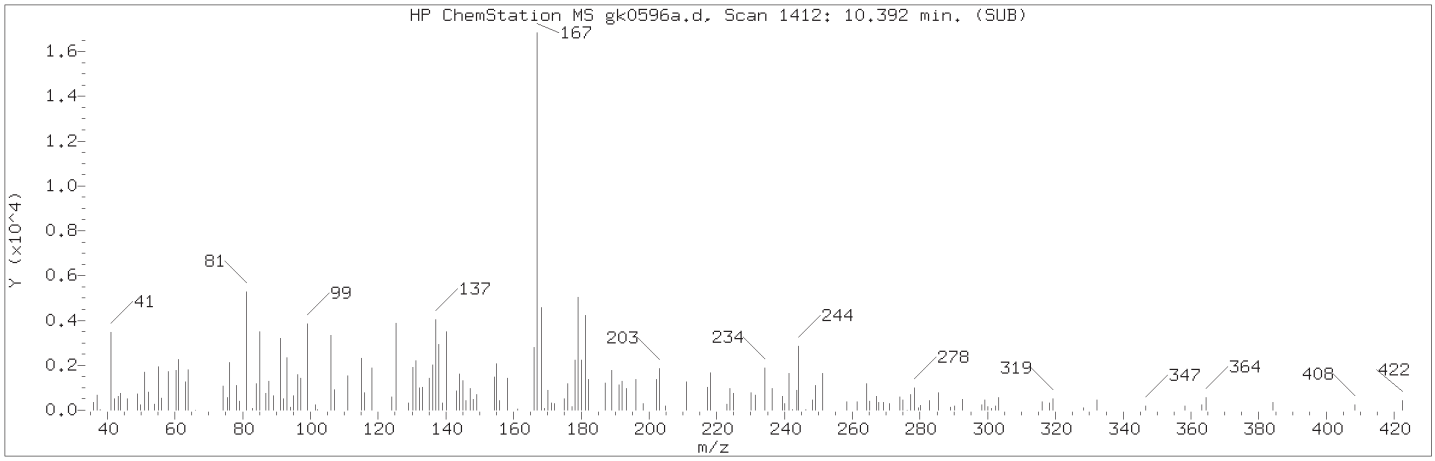
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

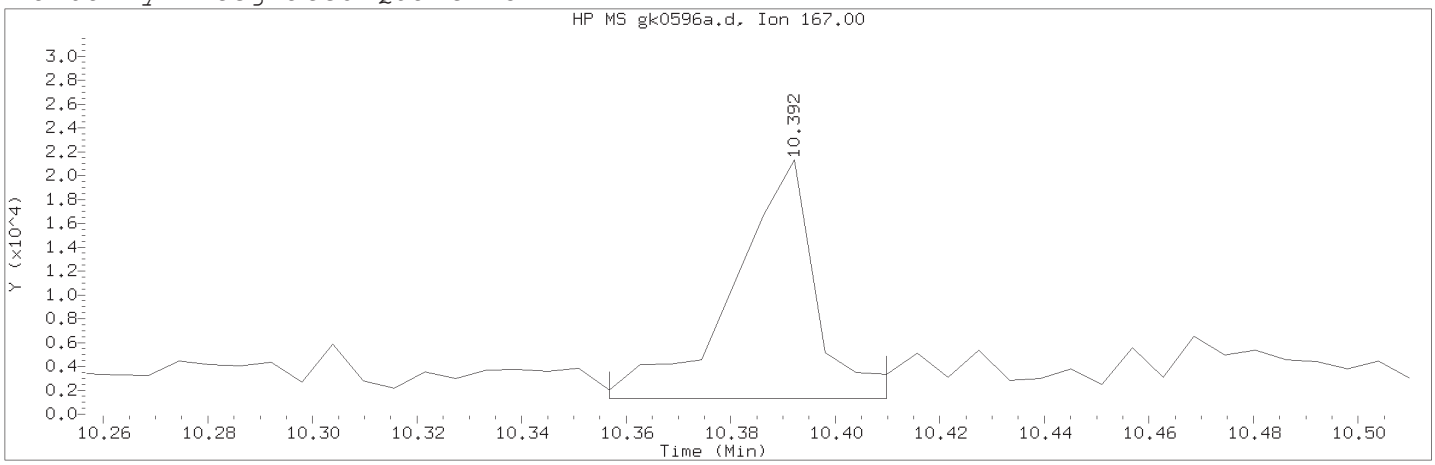
Compound Number	: 163
Compound Name	: Carbazole
Scan Number	: 1412
Retention Time (minutes)	: 10.392
Relative Retention Time	: 0.00004
Quant Ion	: 167.00
Area (flag)	: 22044M
On-column Amount (ng/ul)	: 0.7314

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

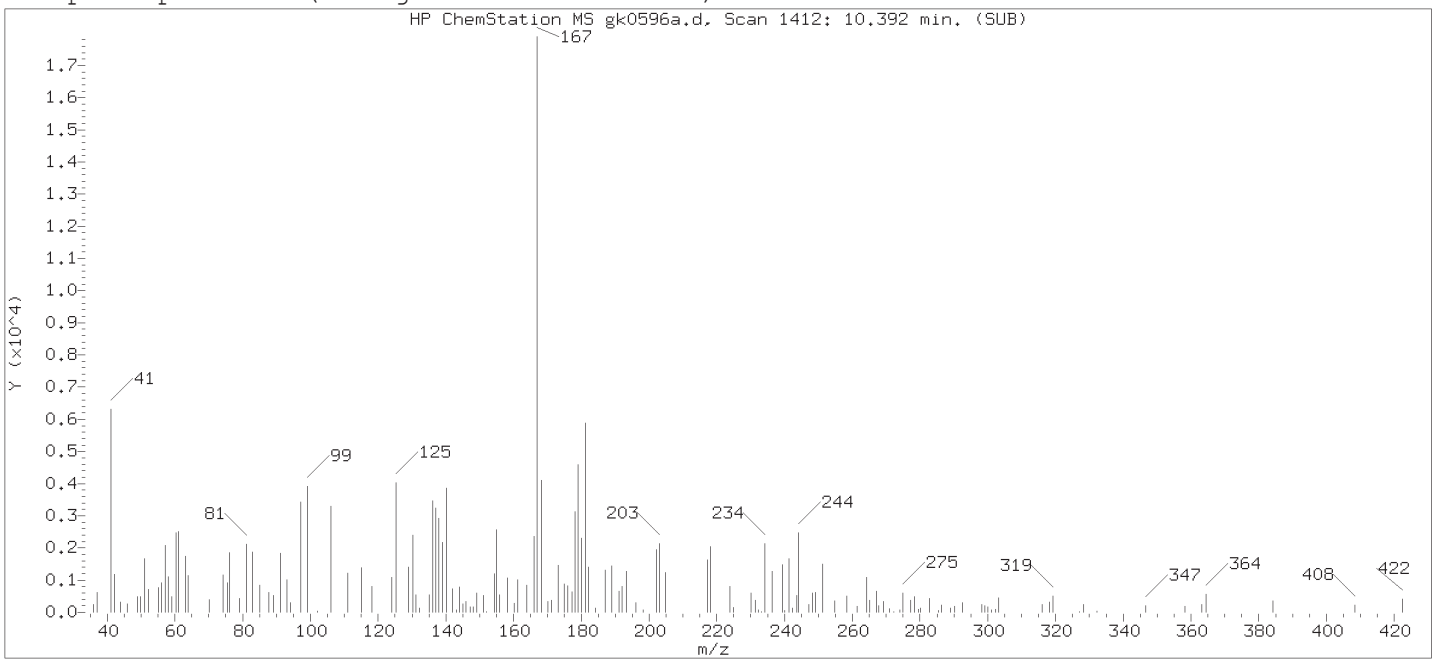
Compound Number : 163
Compound Name : Carbazole
Scan Number : 1412
Retention Time (minutes) : 10.392
Quant Ion : 167.00
Area (flag) : 22044M
On-column Amount (ng/ul) : 0.7314
Integration start scan : 1405 Integration stop scan: 1414
Y at integration start : 1311 Y at integration end: 1311

Reason for manual integration: improper integration

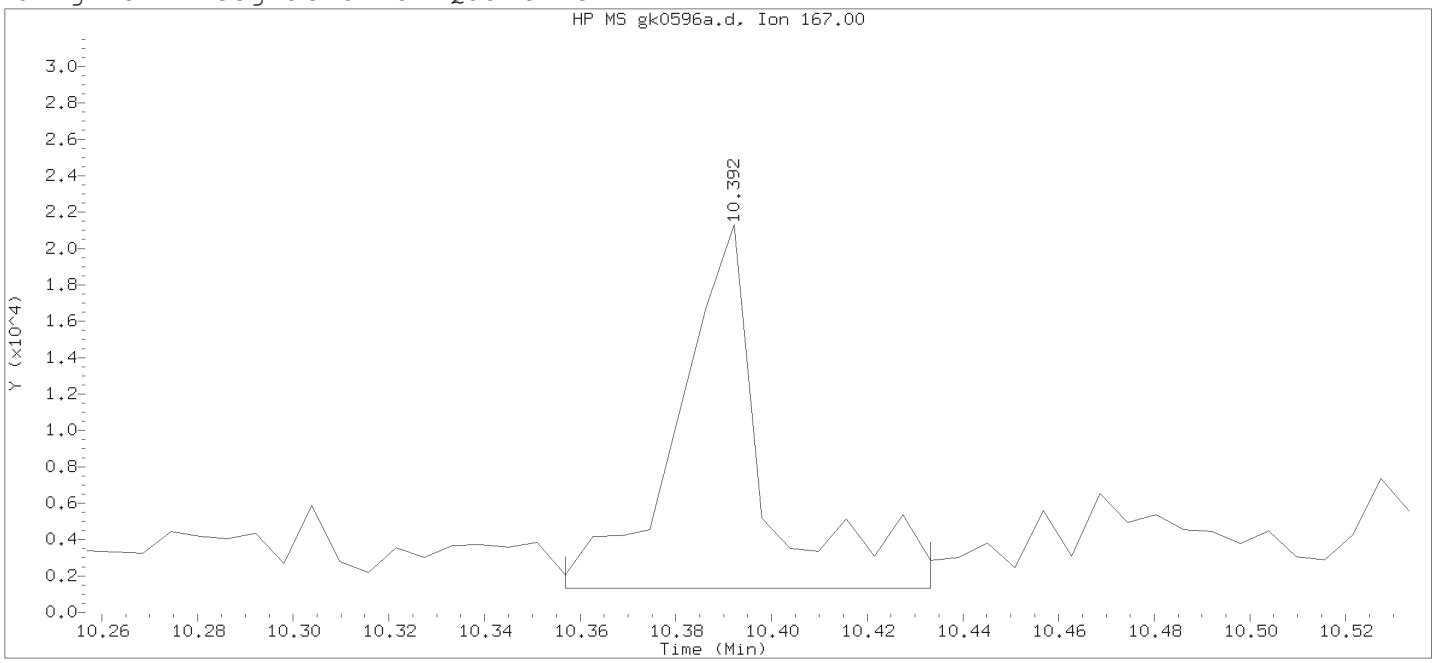
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

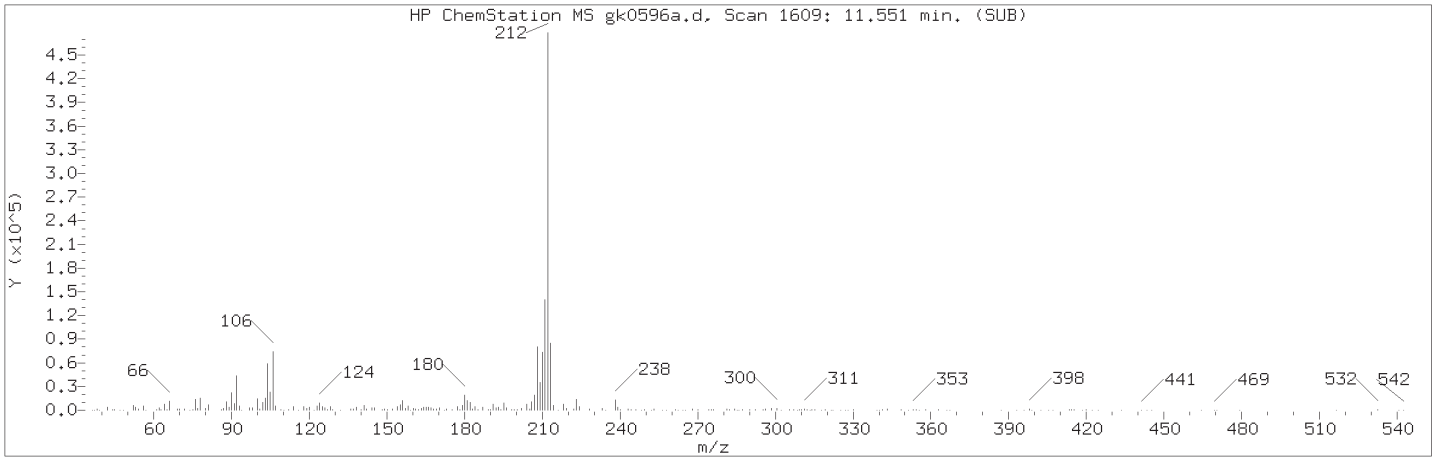
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 13:47 Automation

Sample Name: 12T02DL Lab Sample ID: 9872060DL

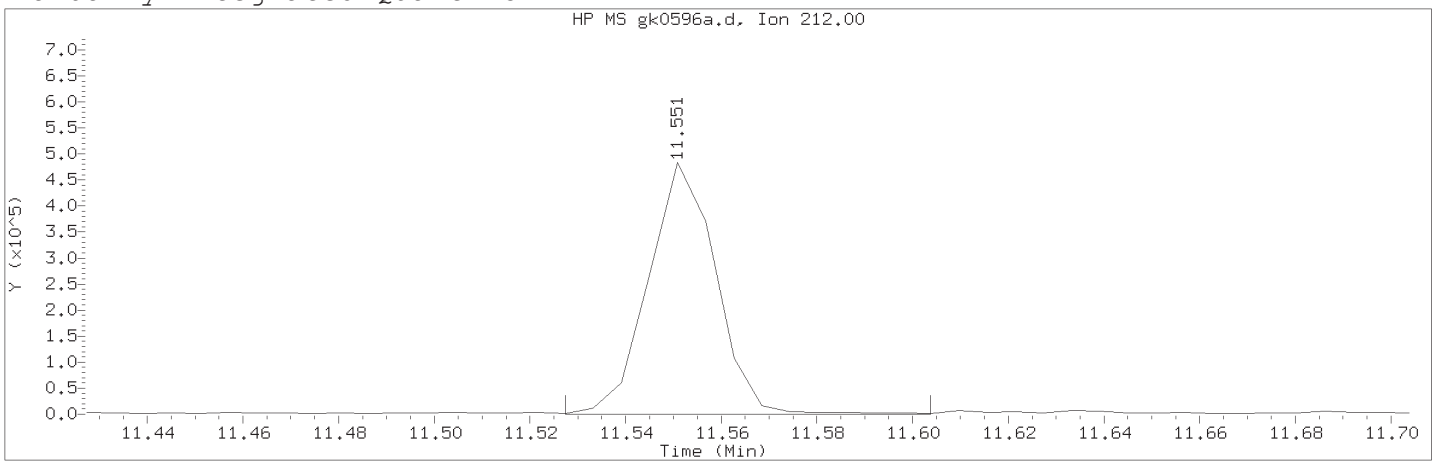
Compound Number	: 163		
Compound Name	: Carbazole		
Scan Number	: 1412		
Retention Time (minutes)	: 10.392		
Quant Ion	: 167.00		
Area	: 25599		
On-column Amount (ng/ul)	: 277.5111		
Integration start scan	: 1405	Integration stop scan:	1418
Y at integration start	: 1311	Y at integration end:	1311

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

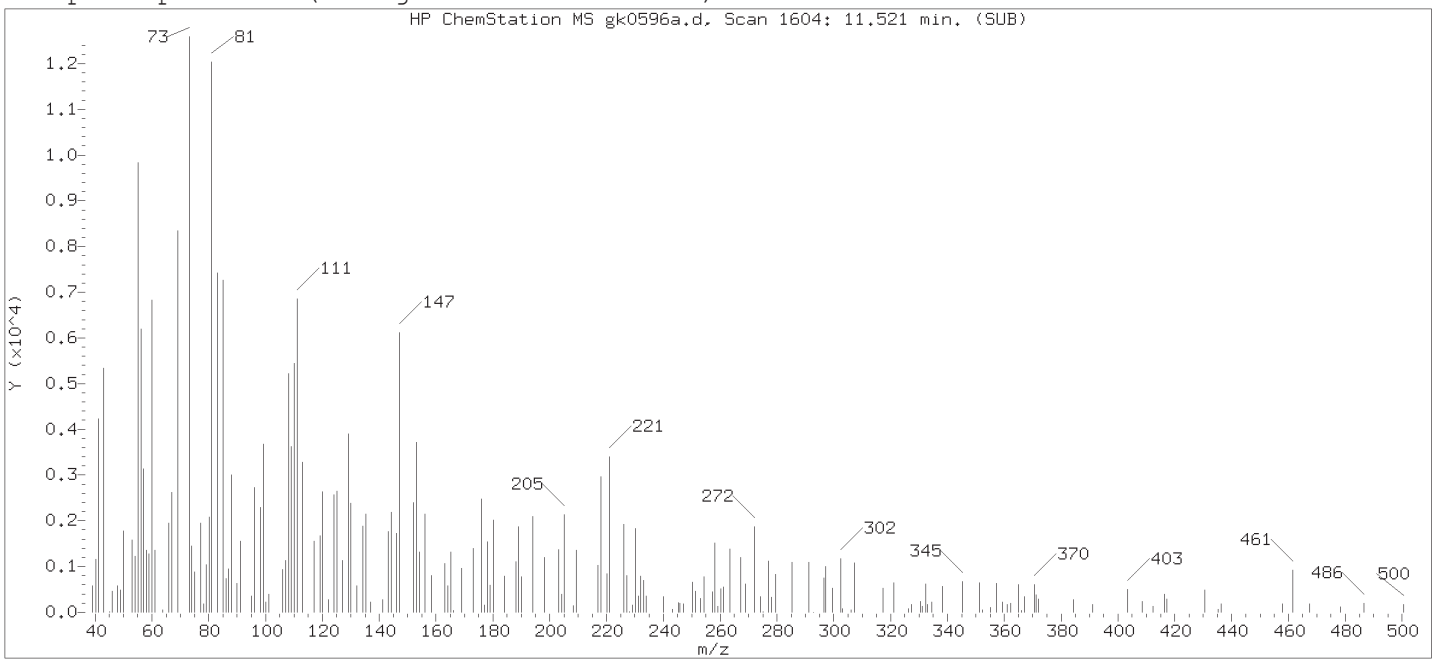
Compound Number : 175
Compound Name : Pyrene-d10
Scan Number : 1609
Retention Time (minutes) : 11.551
Quant Ion : 212.00
Area (flag) : 470481A
On-column Amount (ng/ul) : 20.0000
Integration start scan : 1604 Integration stop scan: 1617
Y at integration start : 412 Y at integration end: 412

Reason for manual integration: improper integration

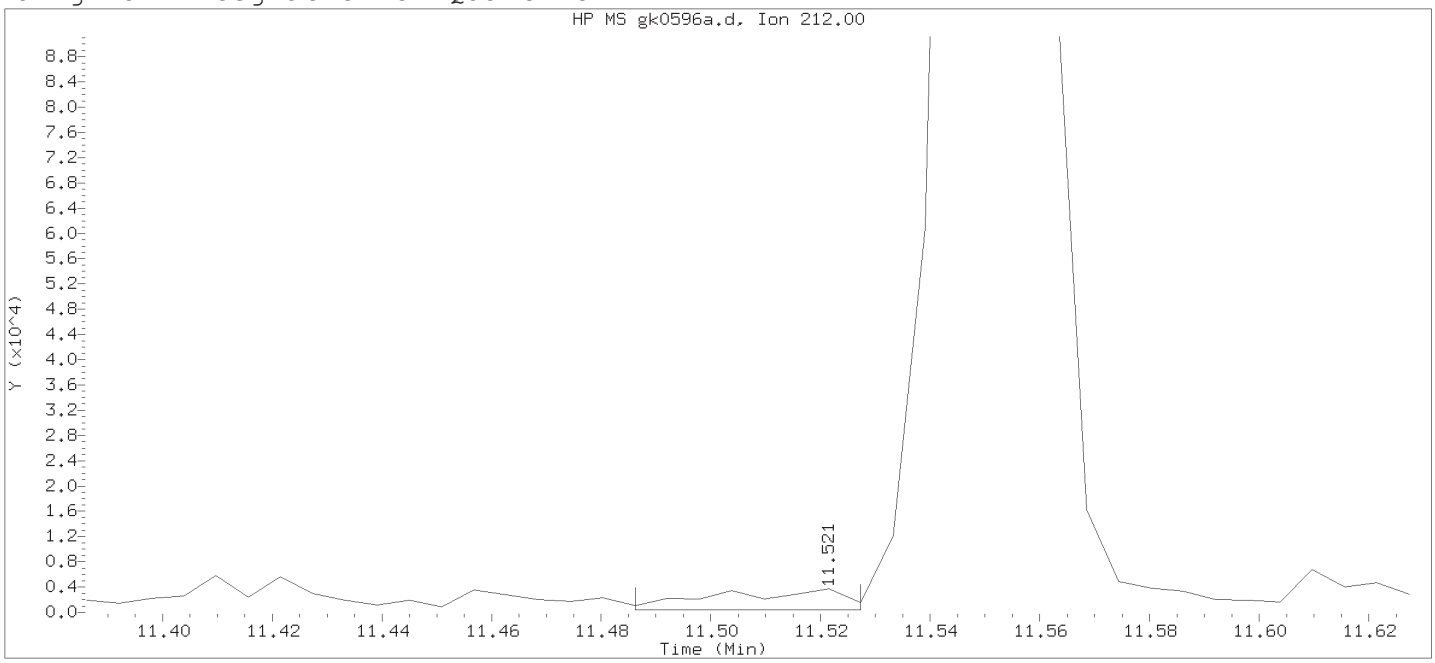
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

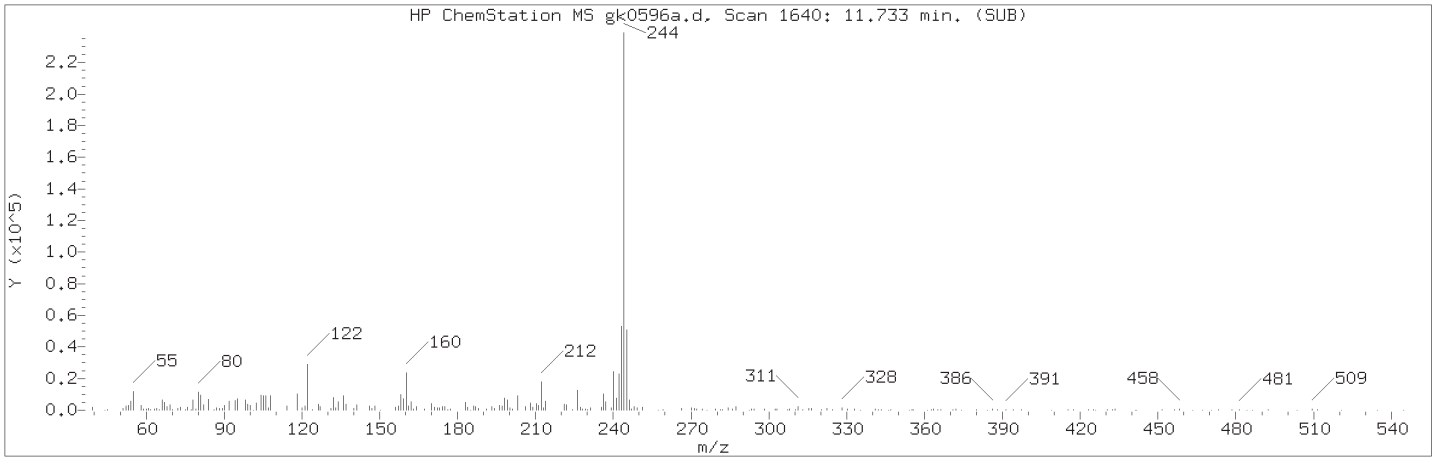
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 13:47 Automation

Sample Name: 12T02DL Lab Sample ID: 9872060DL

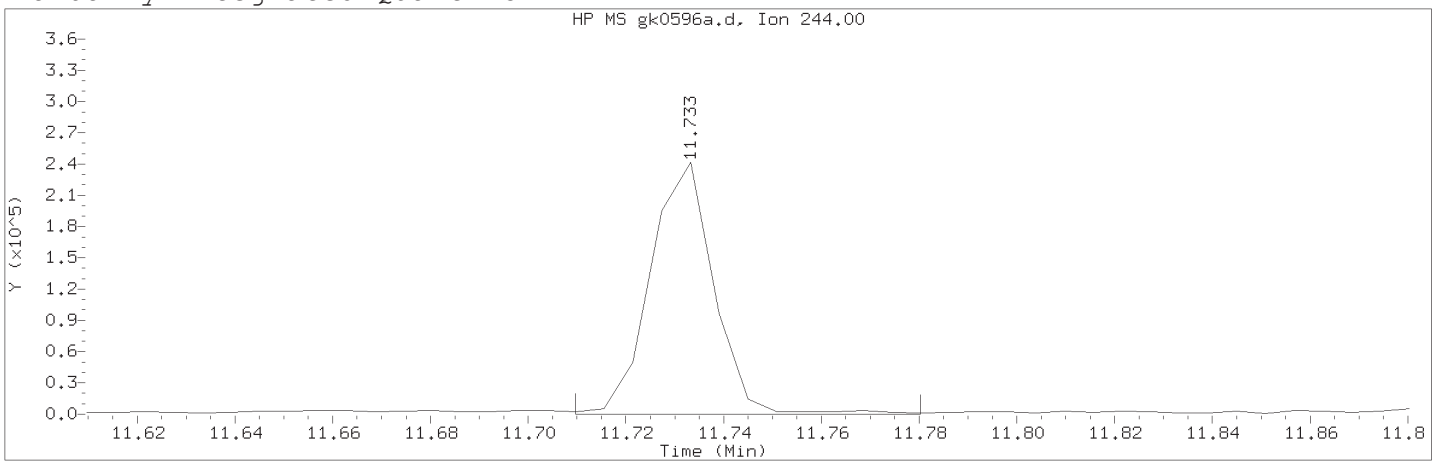
Compound Number	: 175		
Compound Name	: Pyrene-d10		
Scan Number	: 1604		
Retention Time (minutes)	: 11.521		
Quant Ion	: 212.00		
Area	: 5173		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 1597	Integration stop scan:	1604
Y at integration start	: 412	Y at integration end:	412

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used: 1.0.167

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T02DL Lab Sample ID: 9872060DL

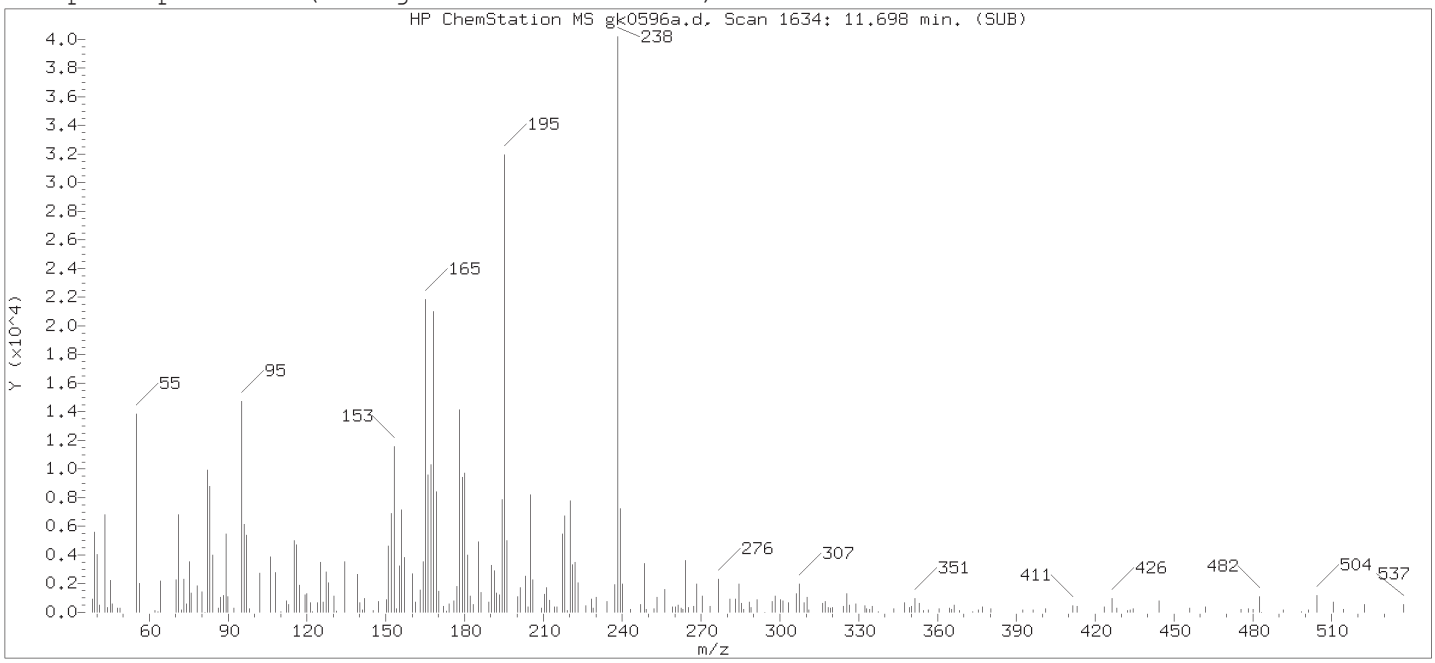
Compound Number : 179
Compound Name : Terphenyl-d14
Scan Number : 1640
Retention Time (minutes) : 11.733
Quant Ion : 244.00
Area (flag) : 217718A
On-column Amount (ng/ul) : 9.5697
Integration start scan : 1635 Integration stop scan: 1647
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

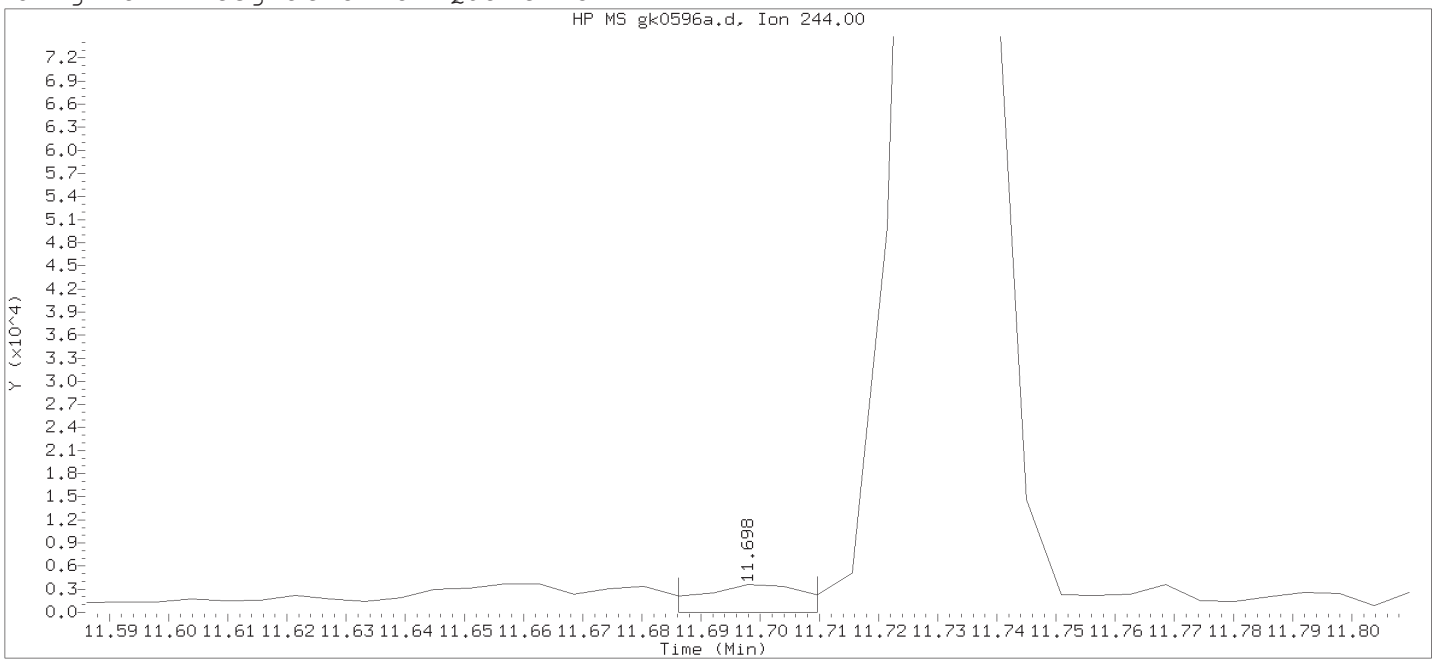
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:03.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0596a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:25 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 13:47 Automation

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 179		
Compound Name	: Terphenyl-d14		
Scan Number	: 1634		
Retention Time (minutes)	: 11.698		
Quant Ion	: 244.00		
Area	: 4101		
On-column Amount (ng/ul)	: 16.3979		
Integration start scan	: 1631	Integration stop scan:	1635
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/14/2018 at 11:03.
Target 3.5 esignature used: 1.0.1.1677

12T03 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 9872061

Data file: /chem/HP11165.i/18nov12.b/gk0597.d Injection date and time: **12-NOV-2018 11:44**
Data file Sample Info. Line: 12T03;9872061;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.746(-0.012)	622	152	159815 (23)	21.00	
65) Naphthalene-d8	6.981(-0.012)	832	136	625769 (6)	21.00	
113) Acenaphthene-d10	8.698(-0.012)	1124	164	337561 (2)	21.00	
153) Phenanthrene-d10	10.157(-0.018)	1372	188	552568A (-14)	21.00	
175) Pyrene-d10	11.563(-0.030)	1611	212	510765A (-16)	20.00	
213) Perylene-d12	14.263(-0.059)	2070	264	565468A (11)	21.00	

A = User selected an alternate peak

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.475(-0.003)	112	2003738	173.573	87%		35 - 115
17) Phenol-d6	(1)	5.410(-0.003)	99	3011938	168.491	84%		47 - 120
44) Nitrobenzene-d5	(2)	6.281(0.000)	82	1480573	94.293	94%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.045(0.000)	172	2150491	82.645	83%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.486(-0.002)	330	348567	135.373	68%		39 - 132
179) Terphenyl-d14	(5)	11.745(0.000)	244	2140944A	86.682	87%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)			Not Detected					2
18) Phenol	(1)			Not Detected					0.7
19) Aniline	(1)			Not Detected					5
22) bis(2-Chloroethyl)ether	(1)			Not Detected					0.7
23) 2-Chlorophenol	(1)			Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)			Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.757(0.001)	146	112198	8.699	289.37			0.5
27) Benzyl alcohol	(1)			Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.904(0.000)	146	57496	4.606	153.21			0.6
31) 2-Methylphenol	(1)			Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.5
37) 4-Methylphenol	(1)	6.151(-0.000)	108	621888	44.751	1488.72			0.6
38) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.6
43) Hexachloroethane	(1)			Not Detected					1
45) Nitrobenzene	(2)			Not Detected					0.8
50) Isophorone	(2)			Not Detected					0.5
51) 2-Nitrophenol	(2)			Not Detected					0.5
53) 2,4-Dimethylphenol	(2)	6.663(-0.000)	107	262072	20.099	668.64			0.5
55) bis(2-Chloroethoxy)methane	(2)			Not Detected					0.5
60) 2,4-Dichlorophenol	(2)			Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)			Not Detected					0.5
67) 4-Chloroaniline	(2)			Not Detected					1
71) Hexachlorobutadiene	(2)			Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)			Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.687(-0.000)	142	6089639	255.092	8486.11		E	0.3

E = Compound concentration above calibration range.

Digitally signed by Edward Monborne on 11/14/2018 at 11:02. Target 3.5 esignature user ID: em10340

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0597.d Injection date and time: **12-NOV-2018 11:44**
Data file Sample Info. Line: 12T03;9872061;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

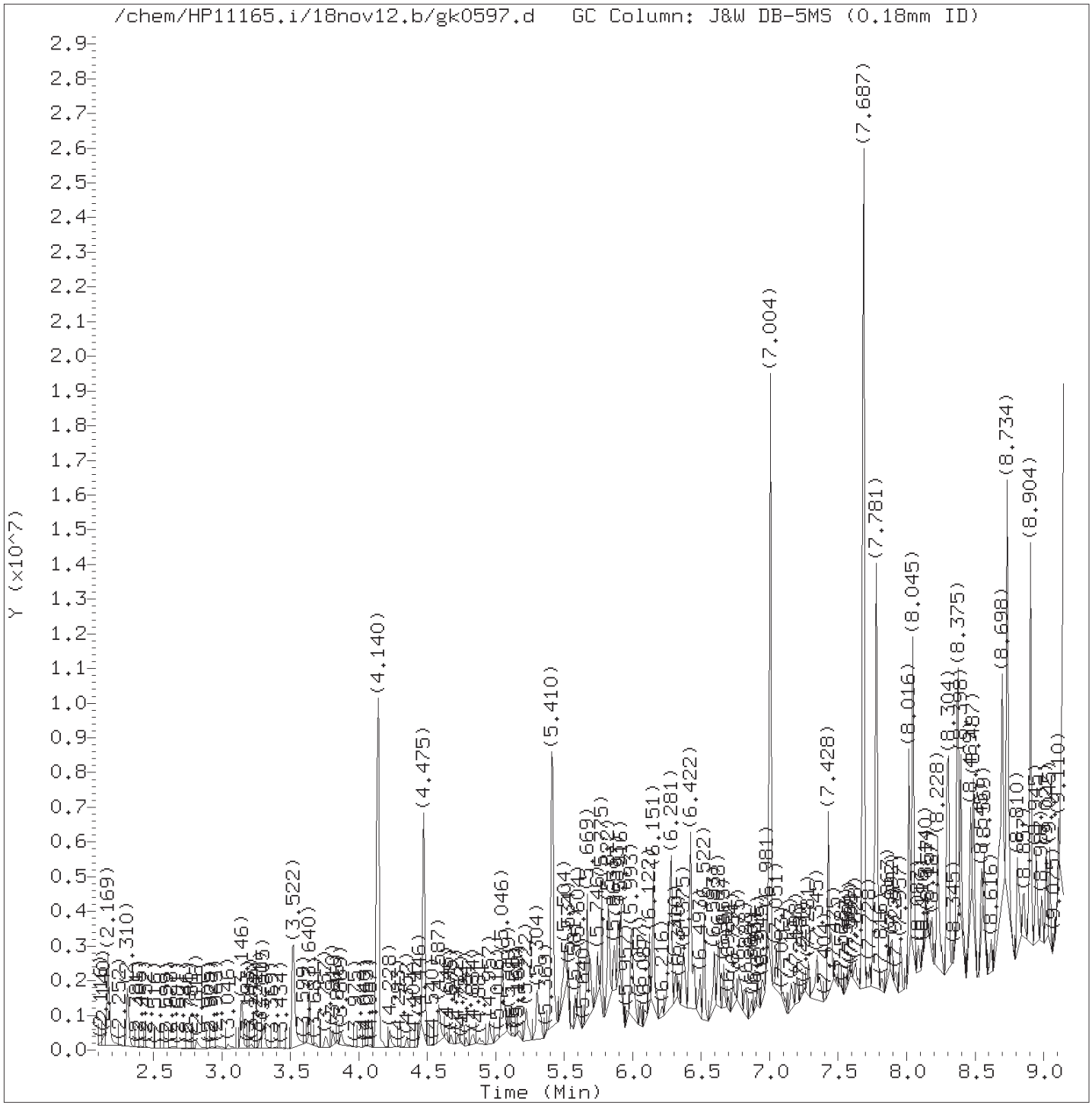
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
85) Hexachlorocyclopentadiene	(3)			Not Detected					5
90) 2,4,6-Trichlorophenol	(3)			Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)			Not Detected					0.6
96) 2-Chloronaphthalene	(3)	8.157(-0.000)	162	218514	9.824	326.80			0.2
100) 2-Nitroaniline	(3)			Not Detected					0.6
106) Dimethylphthalate	(3)			Not Detected					2
108) 2,6-Dinitrotoluene	(3)			Not Detected					0.6
112) 3-Nitroaniline	(3)			Not Detected					2
115) 2,4-Dinitrophenol	(3)			Not Detected					11
116) 4-Nitrophenol	(3)			Not Detected					5
118) 2,4-Dinitrotoluene	(3)			Not Detected					2
119) Dibenzofuran	(3)	8.904(-0.000)	168	3287497	104.129	3464.04			0.5
124) Diethylphthalate	(3)			Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.5
129) 4-Nitroaniline	(3)			Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					5
131) N-Nitrosodiphenylamine	(4)			Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)			Not Detected					0.6
145) Hexachlorobenzene	(4)			Not Detected					0.1
149) Pentachlorophenol	(4)			Not Detected					1
163) Carbazole	(4)	10.392(0.000)	167	171910A	5.836	194.16			0.5
193) 3,3'-Dichlorobenzidine	(5)			Not Detected					3
205) Di-n-octylphthalate	(6)			Not Detected					2

A = User selected an alternate peak.

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:02. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

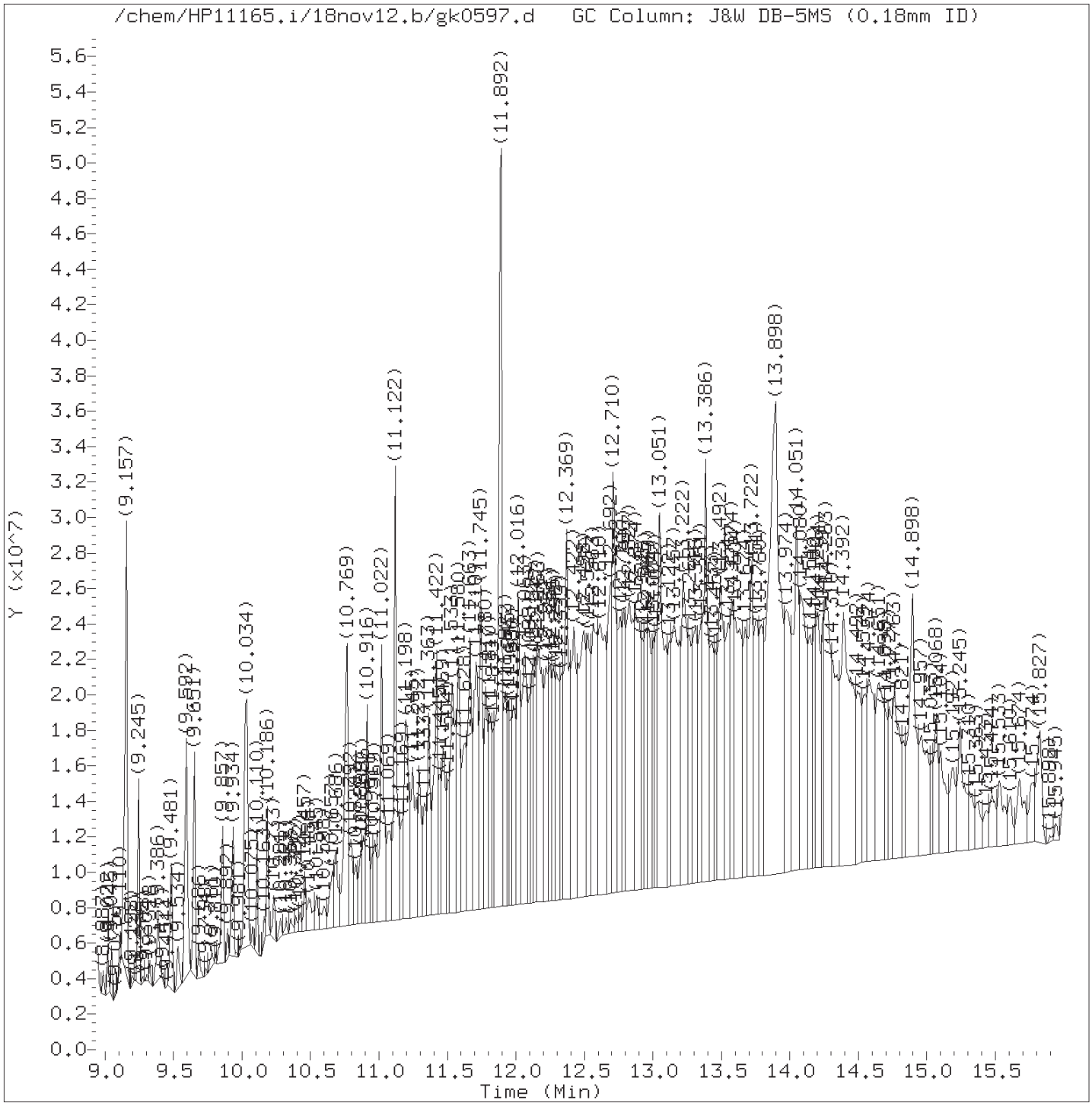
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

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on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.475	112	2003738	173.573
17)$Phenol-d6	(1)	5.410	99	3011938	168.491
25)*1,4-Dichlorobenzene-d4	(1)	5.746	152	159815	21.000
26) 1,4-Dichlorobenzene	(1)	5.757	146	112198	8.699
28) 1,2-Dichlorobenzene	(1)	5.904	146	57496	4.606
37) 4-Methylphenol	(1)	6.151	108	621888	44.751
44)$Nitrobenzene-d5	(2)	6.281	82	1480573	94.293
53) 2,4-Dimethylphenol	(2)	6.663	107	262072	20.099
65)*Naphthalene-d8	(2)	6.981	136	625769	21.000
83) 2-Methylnaphthalene	(2)	7.687	142	6089639	255.092
93)$2-Fluorobiphenyl	(3)	8.045	172	2150491	82.645
96) 2-Chloronaphthalene	(3)	8.157	162	218514	9.824
113)*Acenaphthene-d10	(3)	8.698	164	337561	21.000
119) Dibenzofuran	(3)	8.904	168	3287497	104.129
135)$2,4,6-Tribromophenol	(3)	9.486	330	348567	135.373
153)*Phenanthrene-d10	(4)	10.157	188	552568A	21.000
163) Carbazole	(4)	10.392	167	171910A	5.836
175)*Pyrene-d10	(5)	11.563	212	510765A	20.000
179)$Terphenyl-d14	(5)	11.745	244	2140944A	86.682
213)*Perylene-d12	(6)	14.263	264	565468A	21.000

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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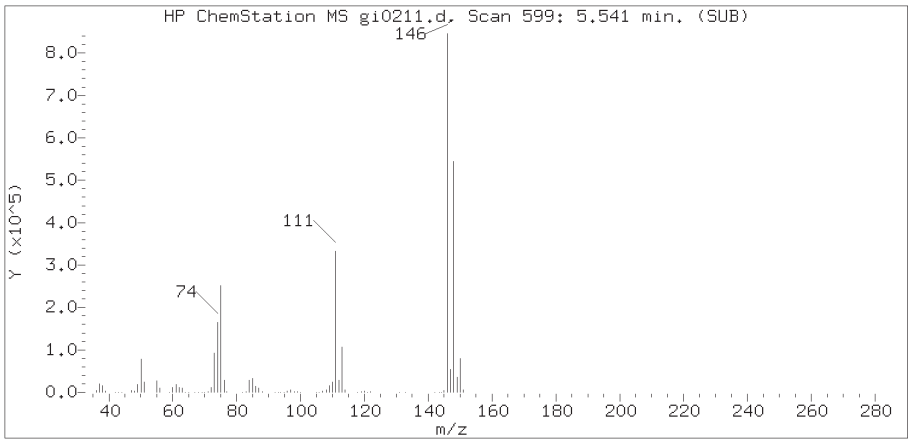
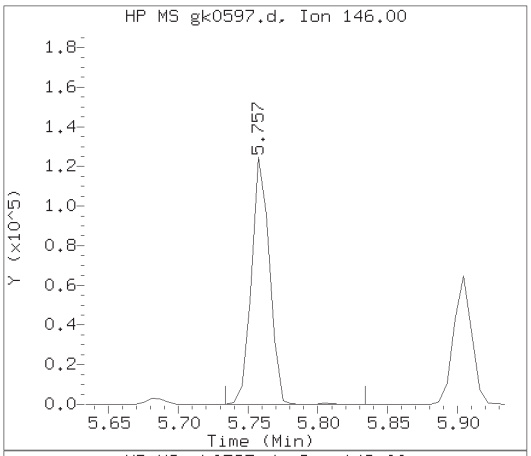
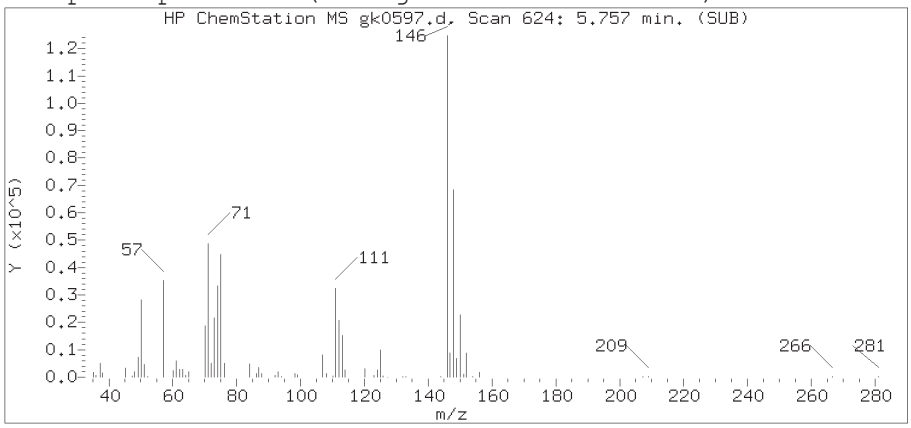
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

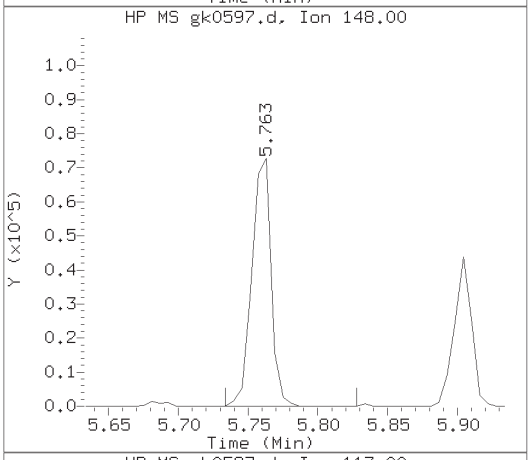
Reference Standard Spectrum for 1,4-Dichlorobenzene



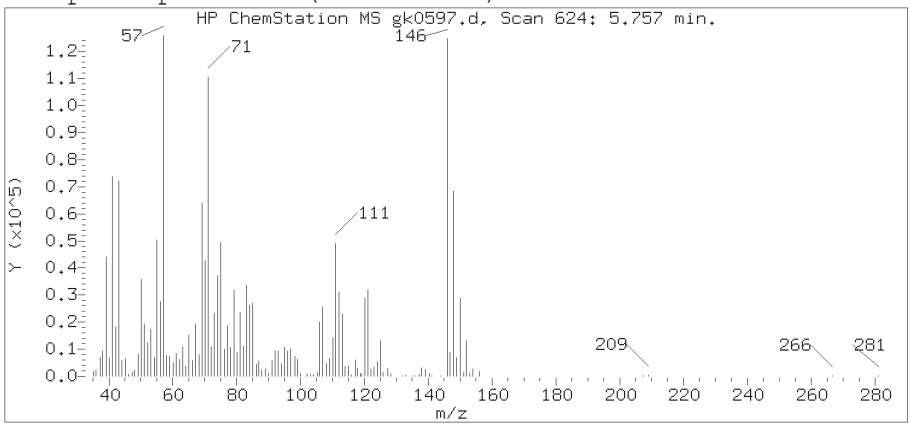


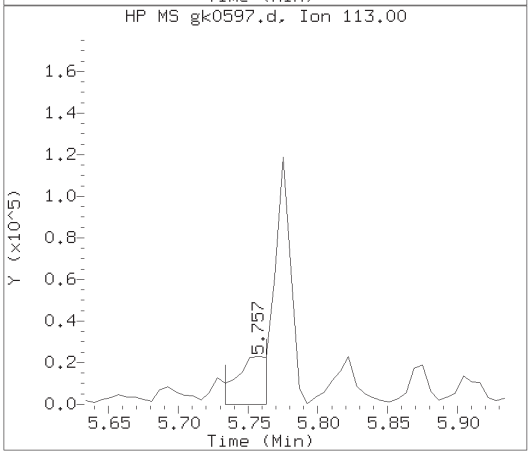
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 624
Retention Time (minutes)	: 5.757
Relative Retention Time	: 0.00103
Quant Ion	: 146.00
Area (flag)	: 112198
On-column Amount (ng/ul)	: 8.6985

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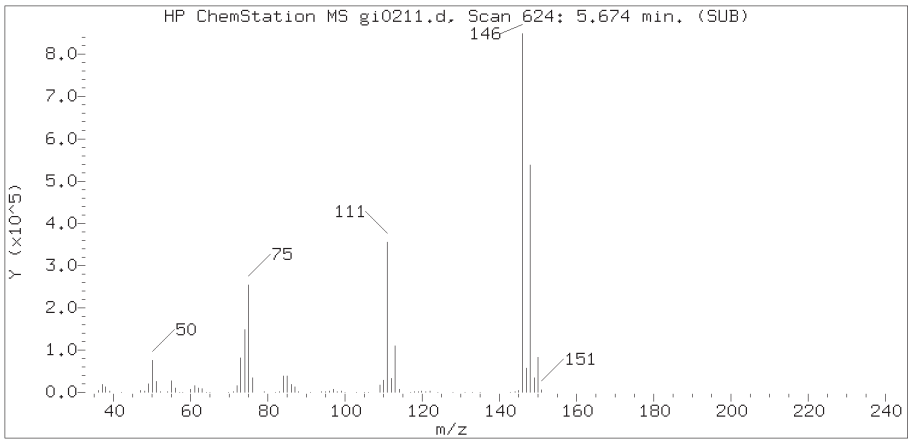
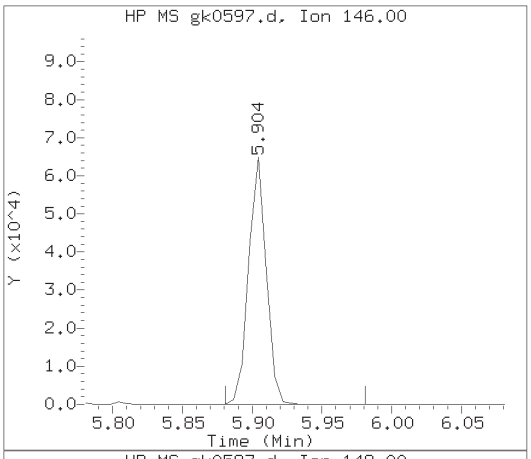
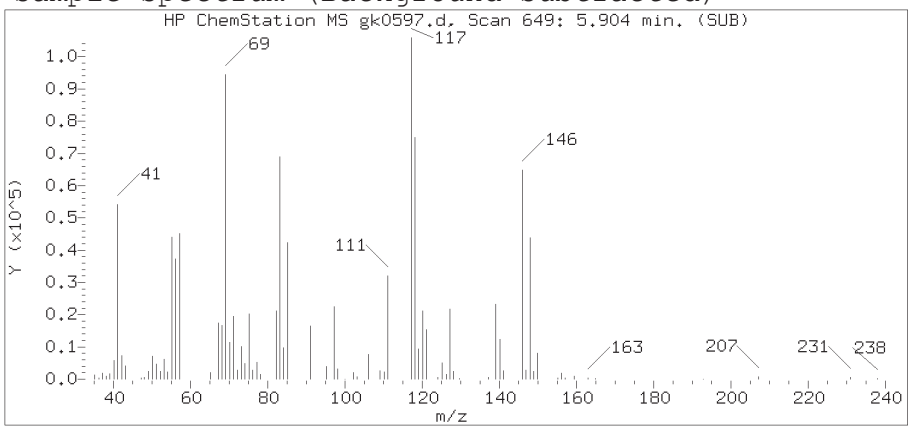
Target 3.5 esignature user ID: em10340

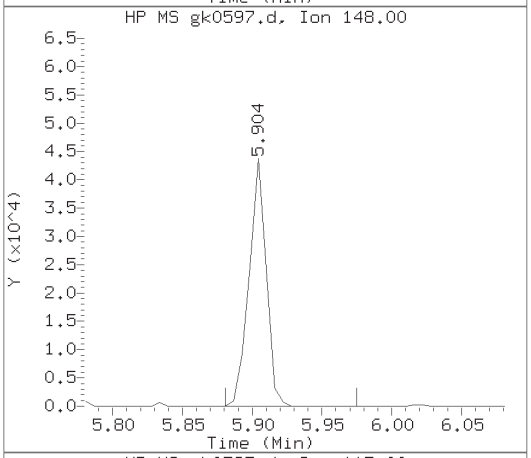
Reference Standard Spectrum for 1,2-Dichlorobenzene



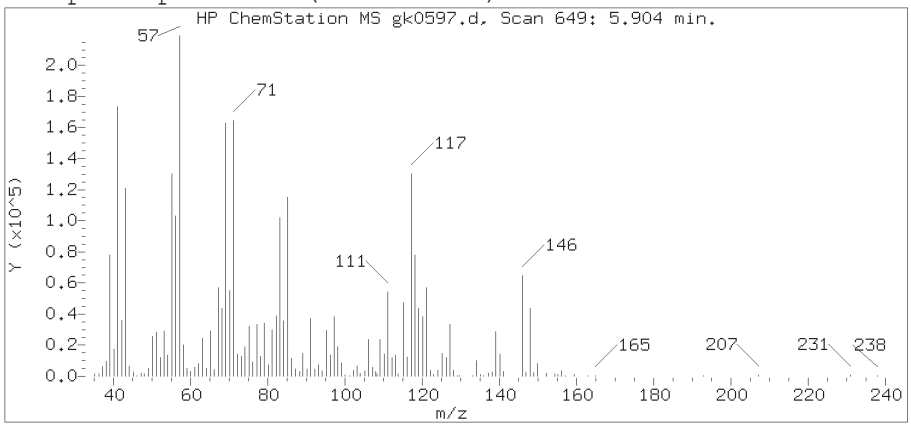


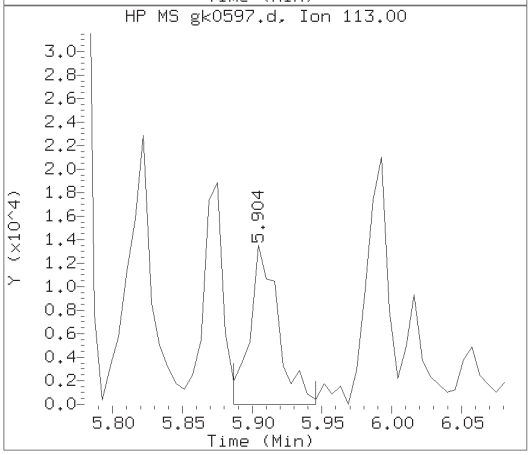
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 649
Retention Time (minutes)	: 5.904
Relative Retention Time	: 0.00005
Quant Ion	: 146.00
Area (flag)	: 57496
On-column Amount (ng/ul)	: 4.6056

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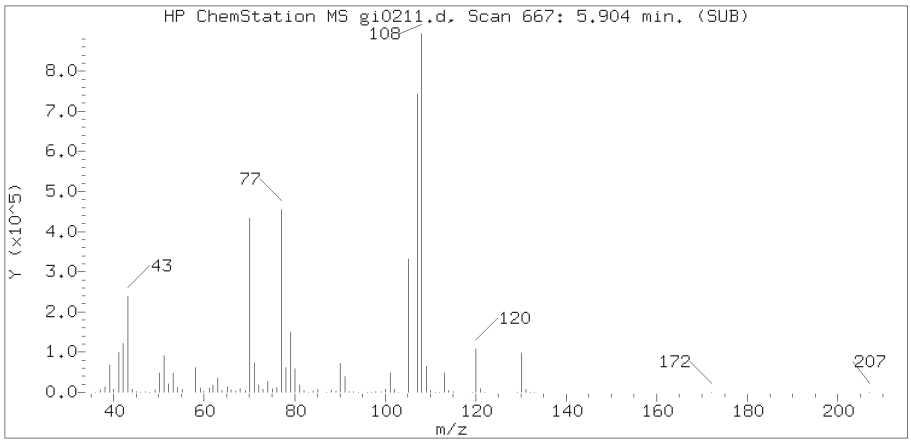
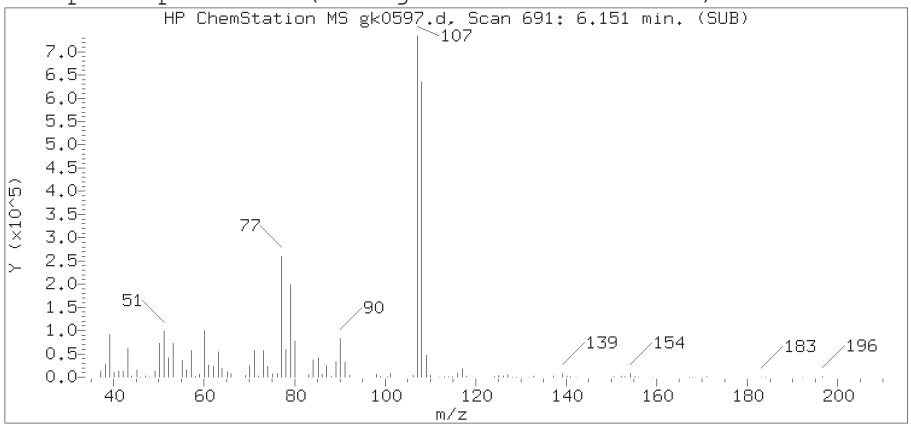
Target 3.5 esignature user ID: em10340

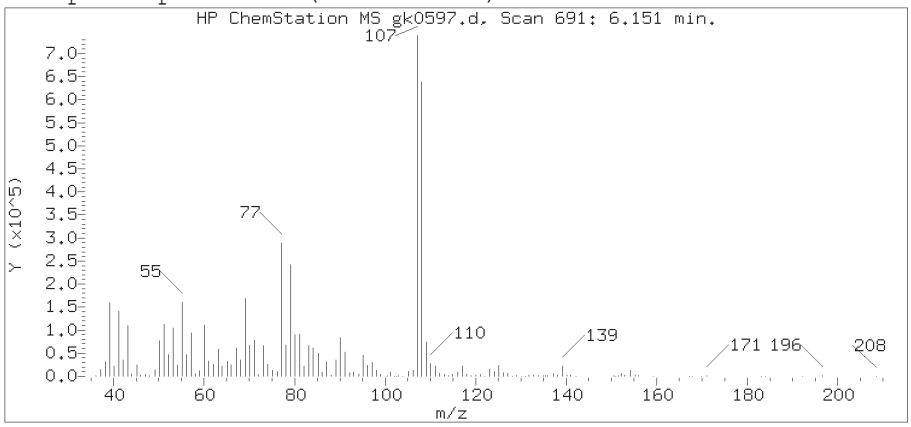
Reference Standard Spectrum for 4-Methylphenol

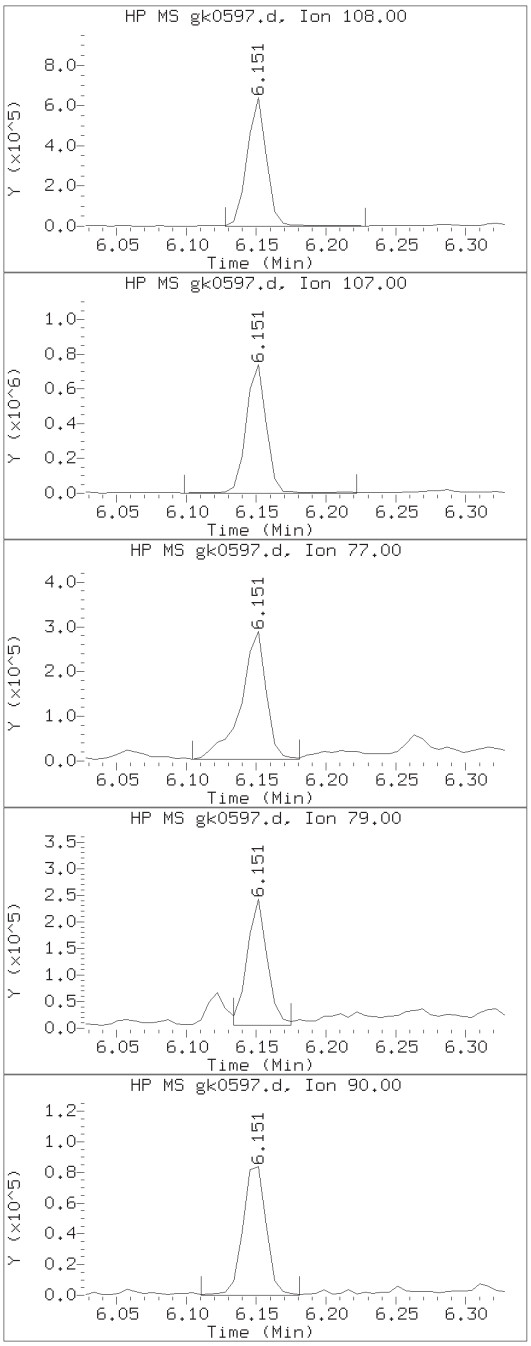


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 691
Retention Time (minutes)	: 6.151
Relative Retention Time	:-0.00088
Quant Ion	: 108.00
Area (flag)	: 621888
On-column Amount (ng/ul)	: 44.7510

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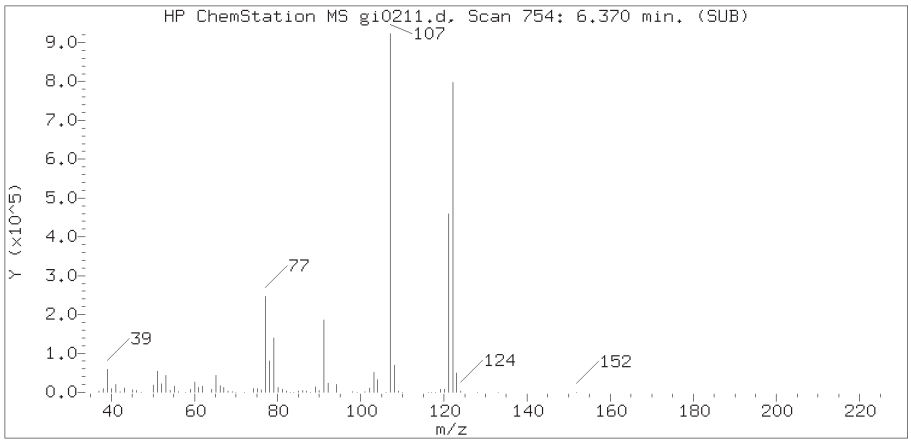
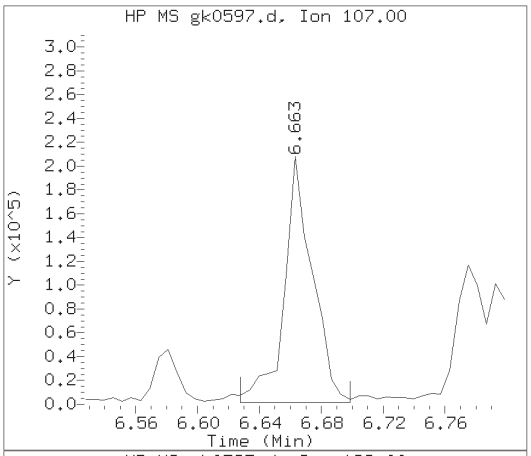
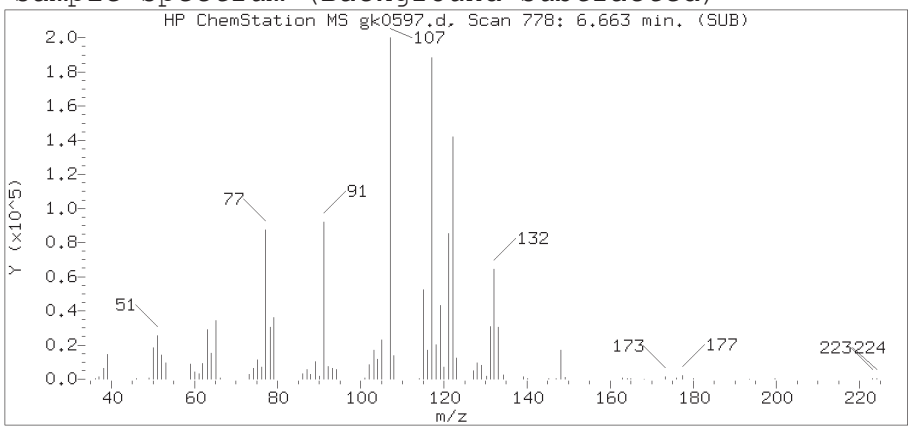
Target 3.5 esignature user ID: em10340

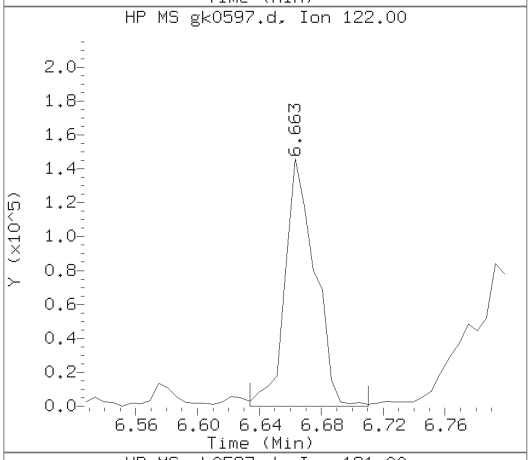
Reference Standard Spectrum for 2,4-Dimethylphenol



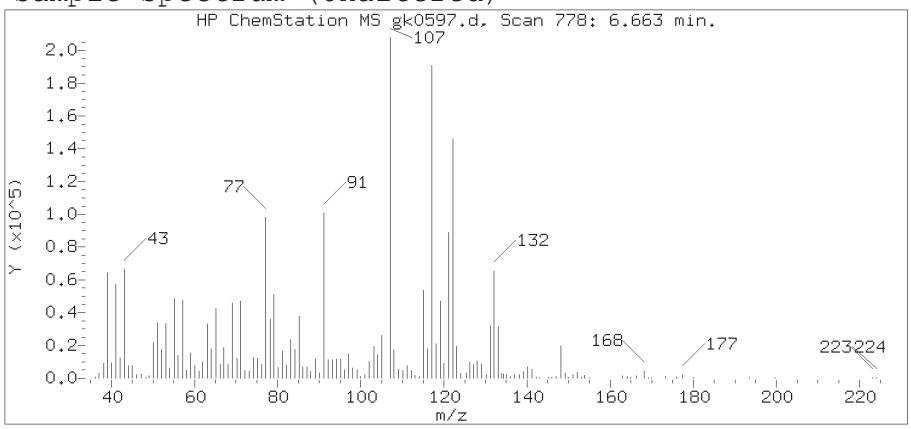


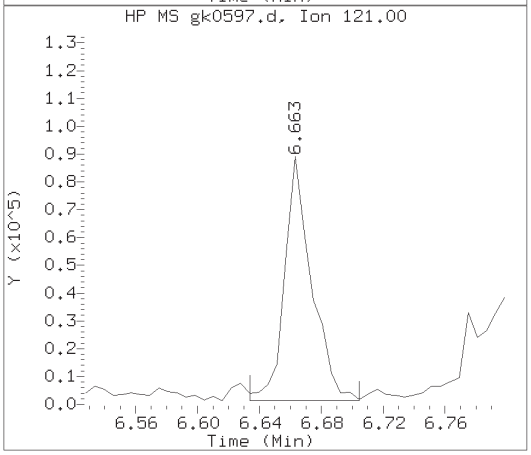
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 53
Compound Name	: 2,4-Dimethylphenol
Scan Number	: 778
Retention Time (minutes)	: 6.663
Relative Retention Time	:-0.00092
Quant Ion	: 107.00
Area (flag)	: 262072
On-column Amount (ng/ul)	: 20.0993

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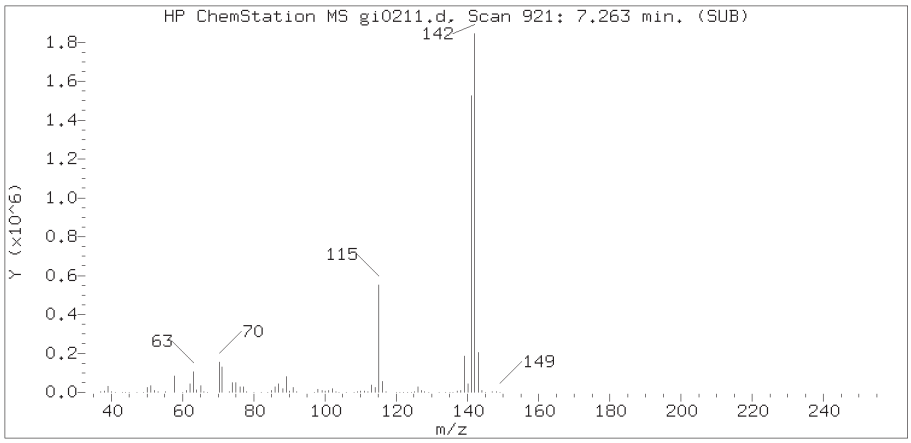
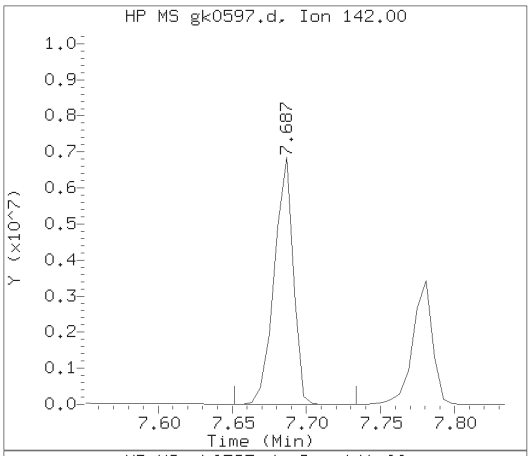
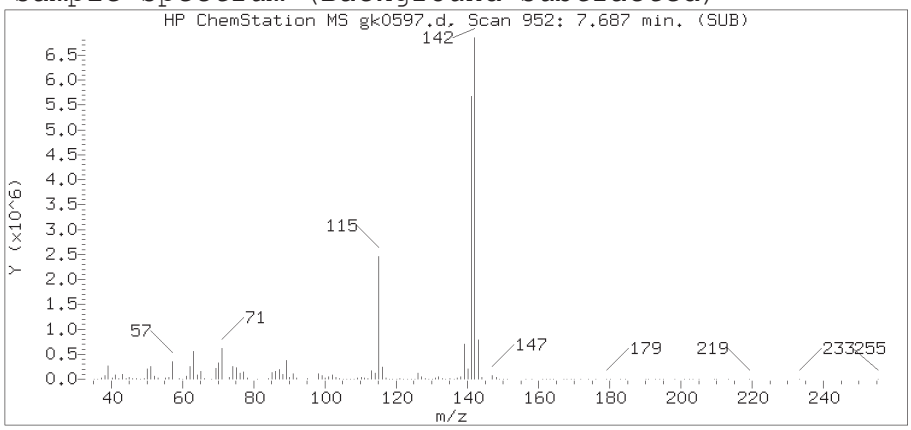
Target 3.5 esignature user ID: em10340

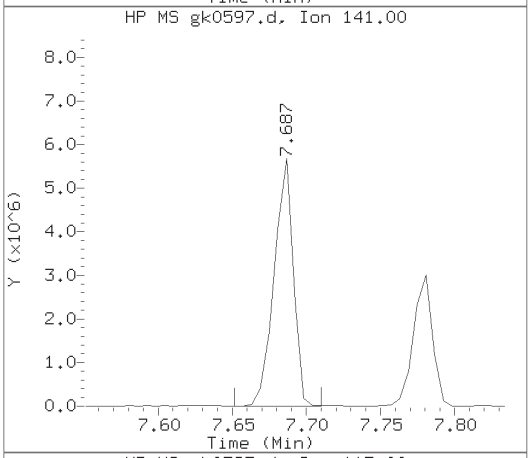
Reference Standard Spectrum for 2-Methylnaphthalene



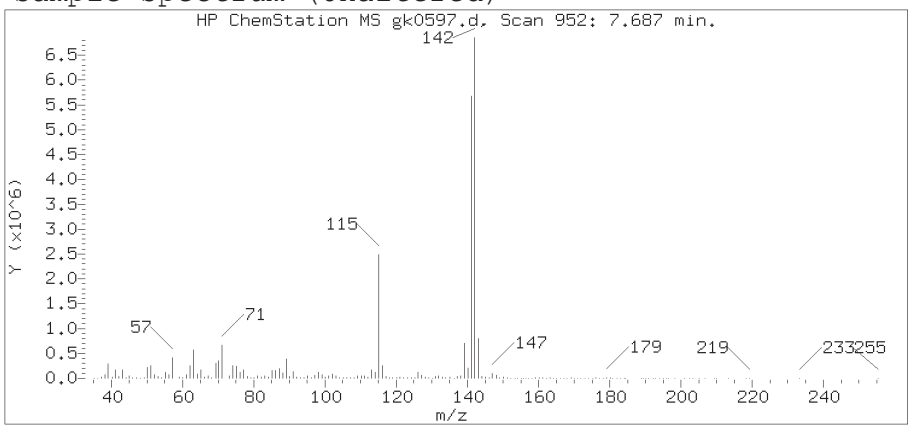


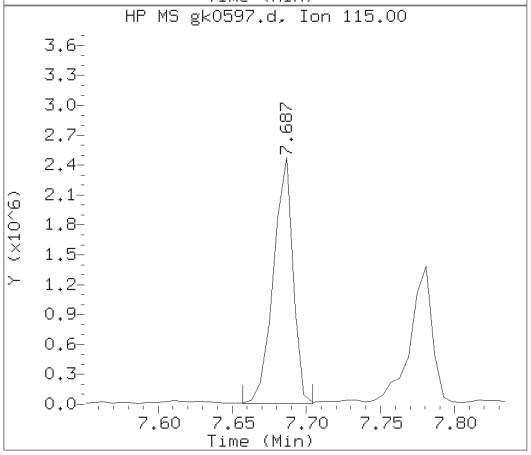
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 952
Retention Time (minutes)	: 7.687
Relative Retention Time	:-0.00067
Quant Ion	: 142.00
Area (flag)	: 6089639
On-column Amount (ng/ul)	: 255.0924

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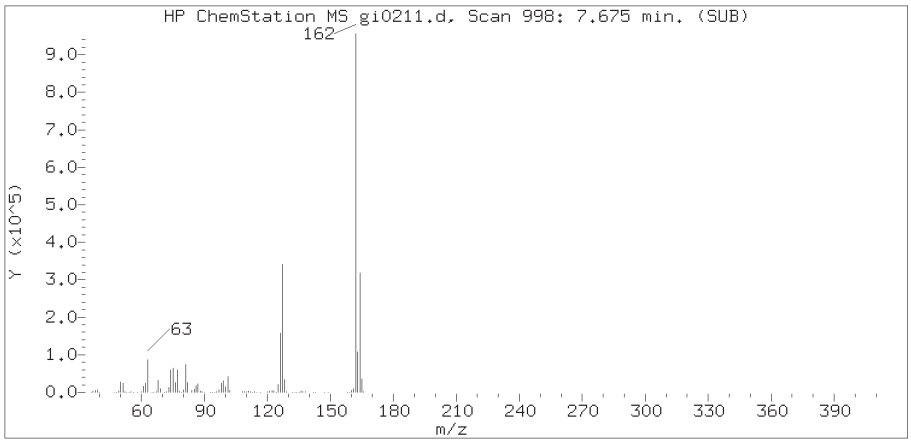
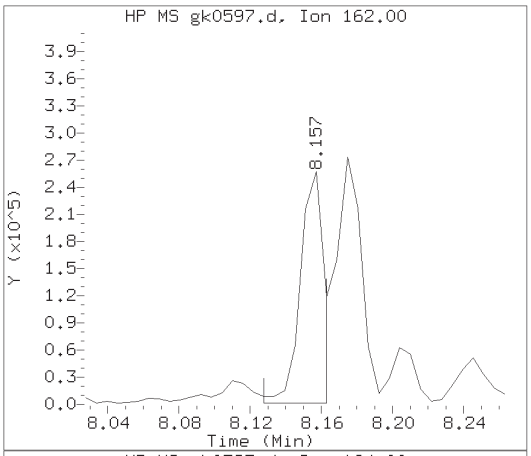
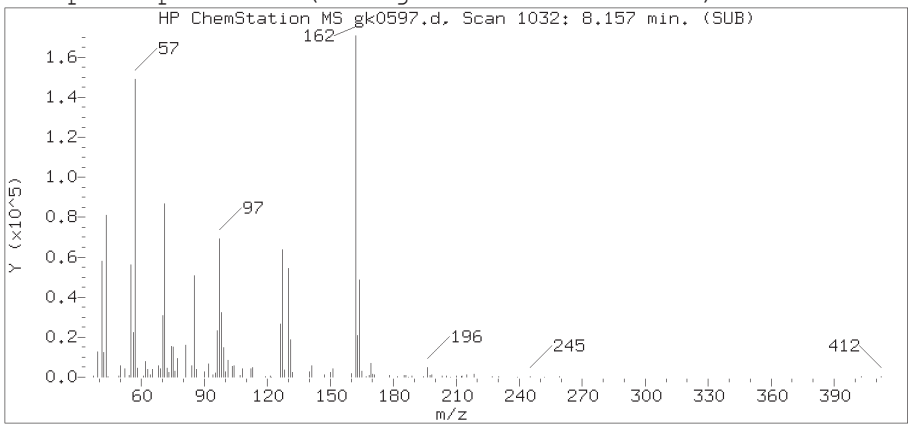
Target 3.5 esignature user ID: em10340

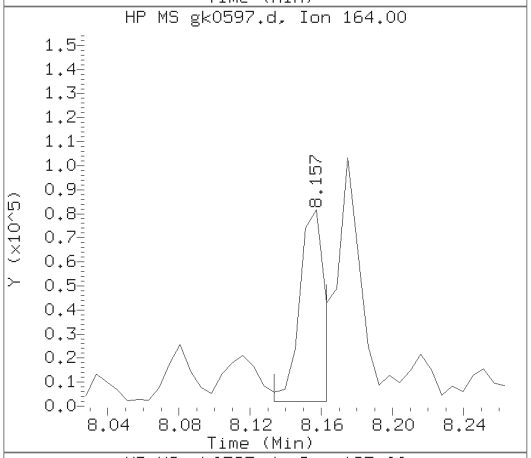
Reference Standard Spectrum for 2-Chloronaphthalene



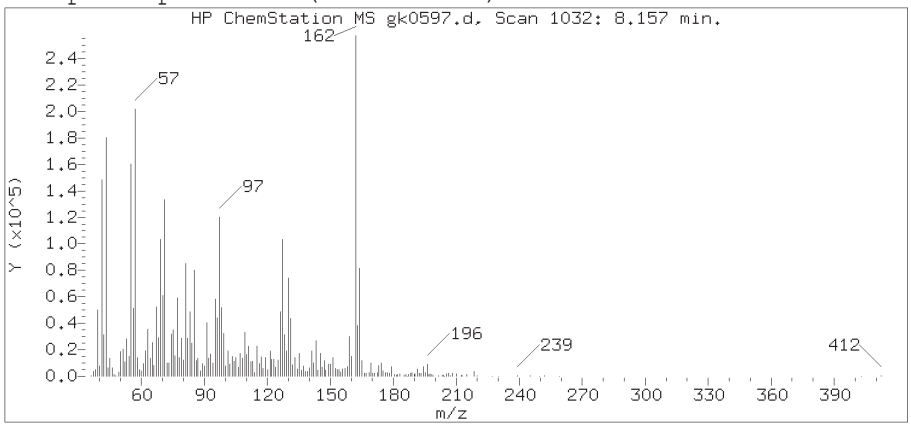


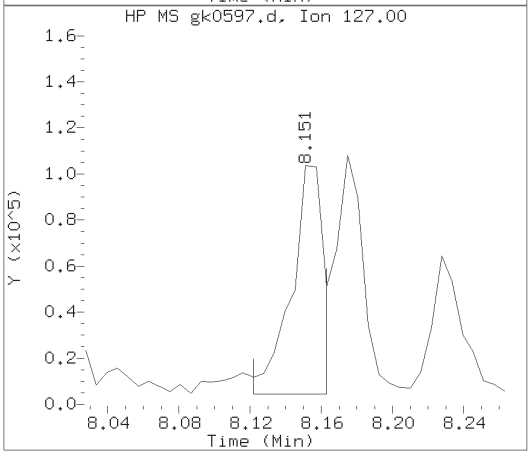
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

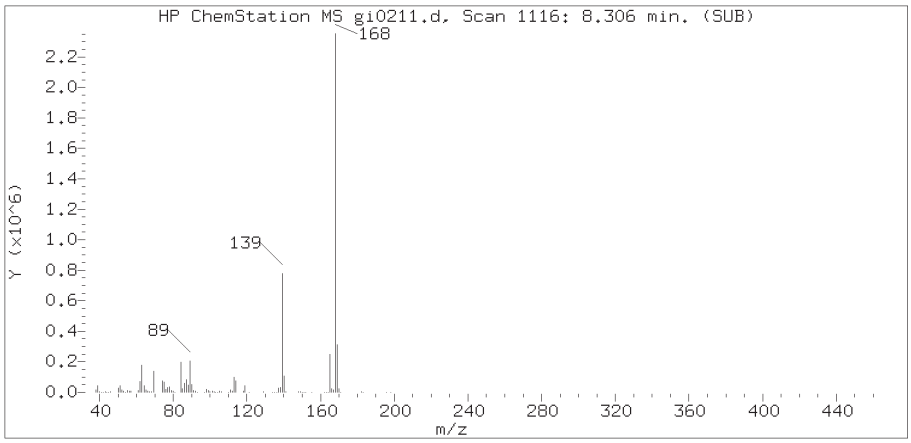
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

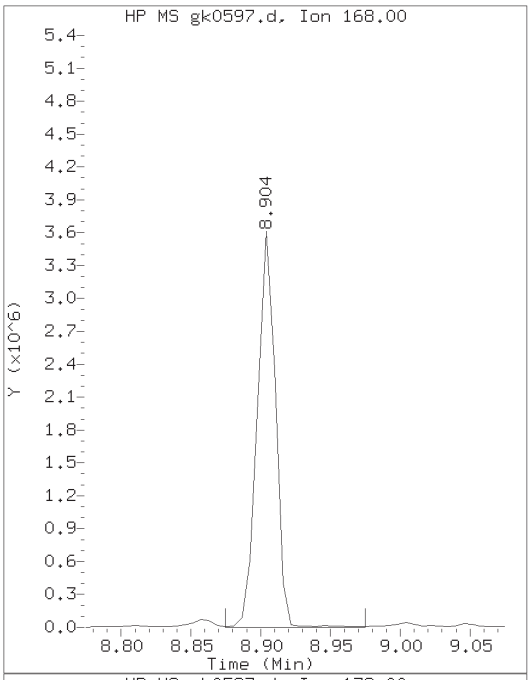
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 1032
Retention Time (minutes)	: 8.157
Relative Retention Time	:-0.00009
Quant Ion	: 162.00
Area (flag)	: 218514
On-column Amount (ng/ul)	: 9.8236

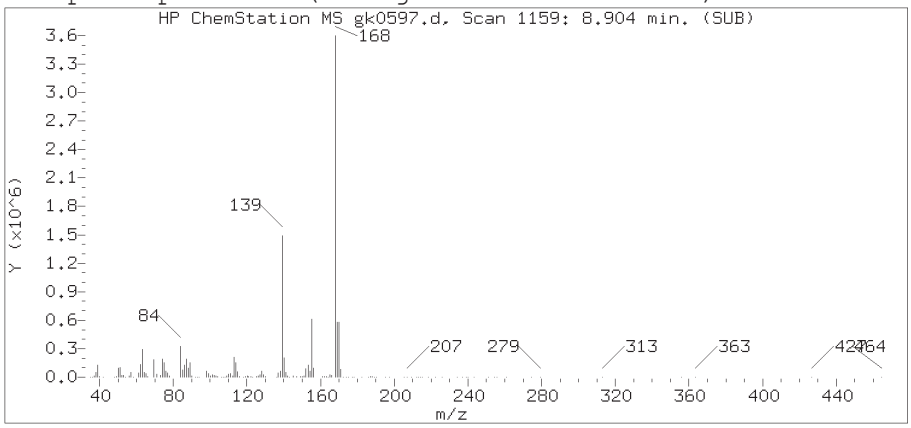
Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

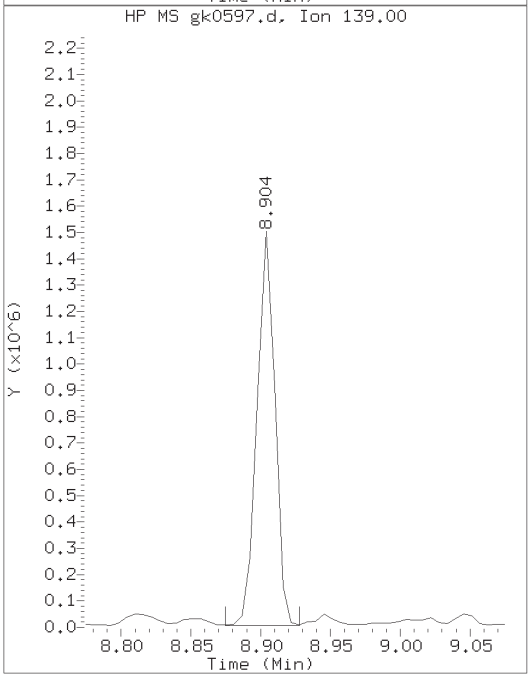
Reference Standard Spectrum for Dibenzofuran



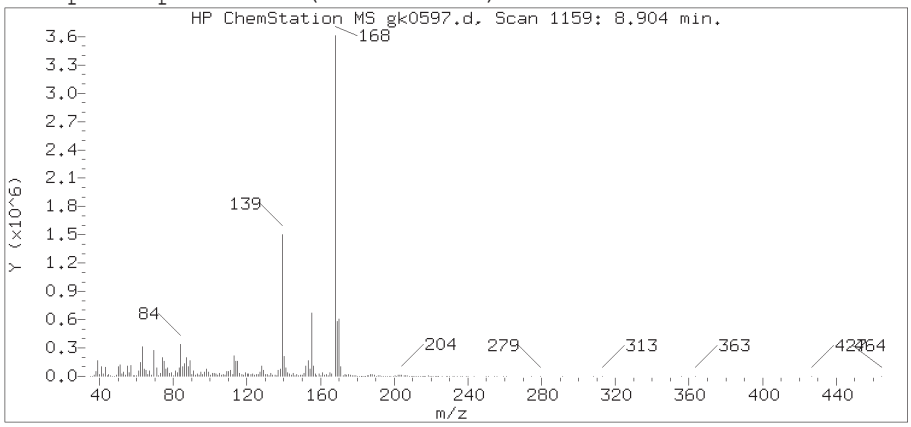


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

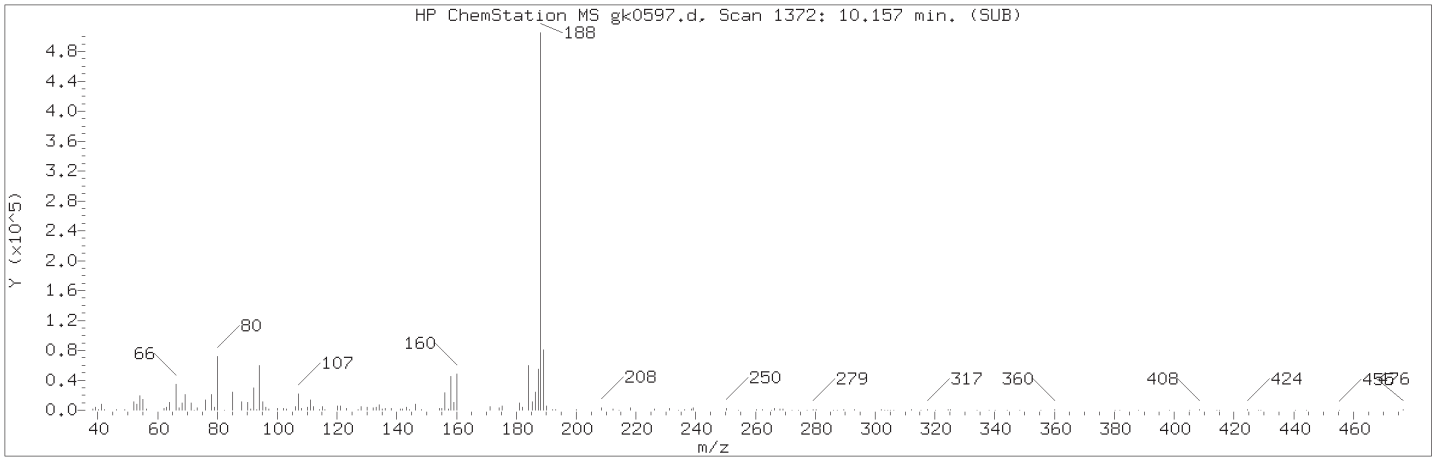
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

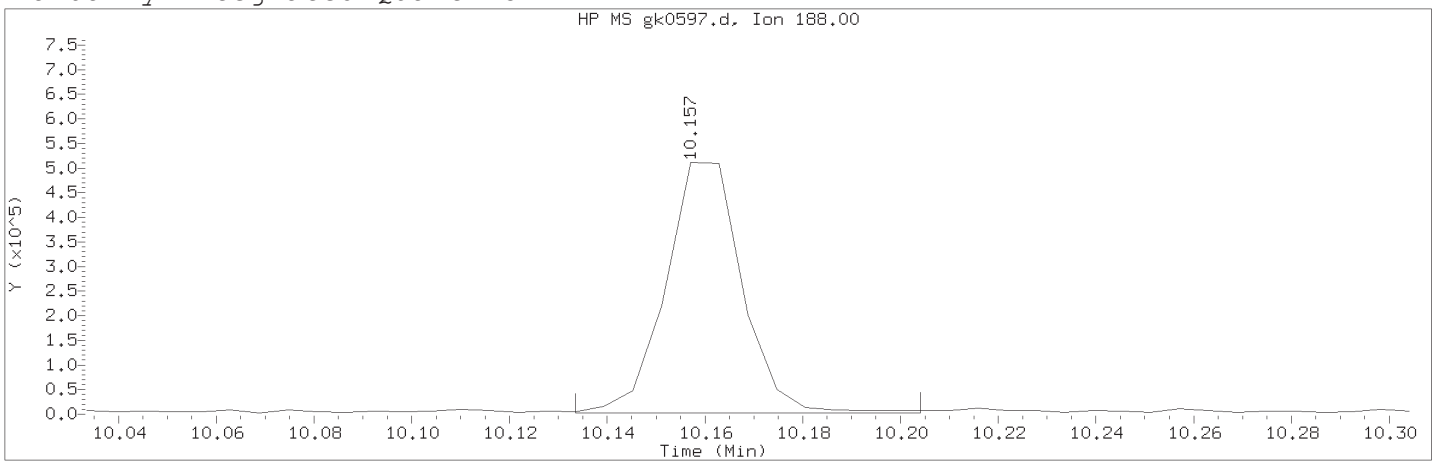
Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1159
Retention Time (minutes)	: 8.904
Relative Retention Time	:-0.00064
Quant Ion	: 168.00
Area (flag)	: 3287497
On-column Amount (ng/ul)	: 104.1292

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

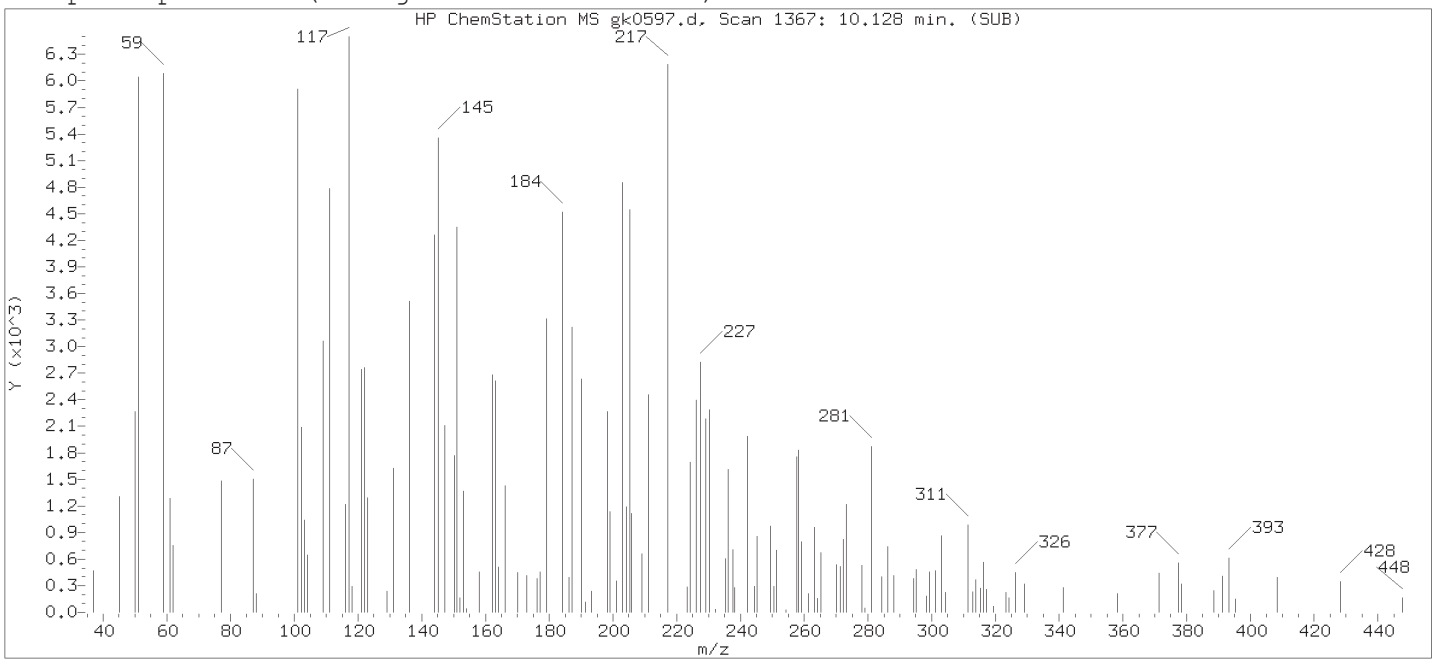
Compound Number : 153
Compound Name : Phenanthrene-d10
Scan Number : 1372
Retention Time (minutes) : 10.157
Quant Ion : 188.00
Area (flag) : 552568A
On-column Amount (ng/ul) : 21.0000
Integration start scan : 1367 Integration stop scan: 1379
Y at integration start : 2891 Y at integration end: 2891

Reason for manual integration: improper integration

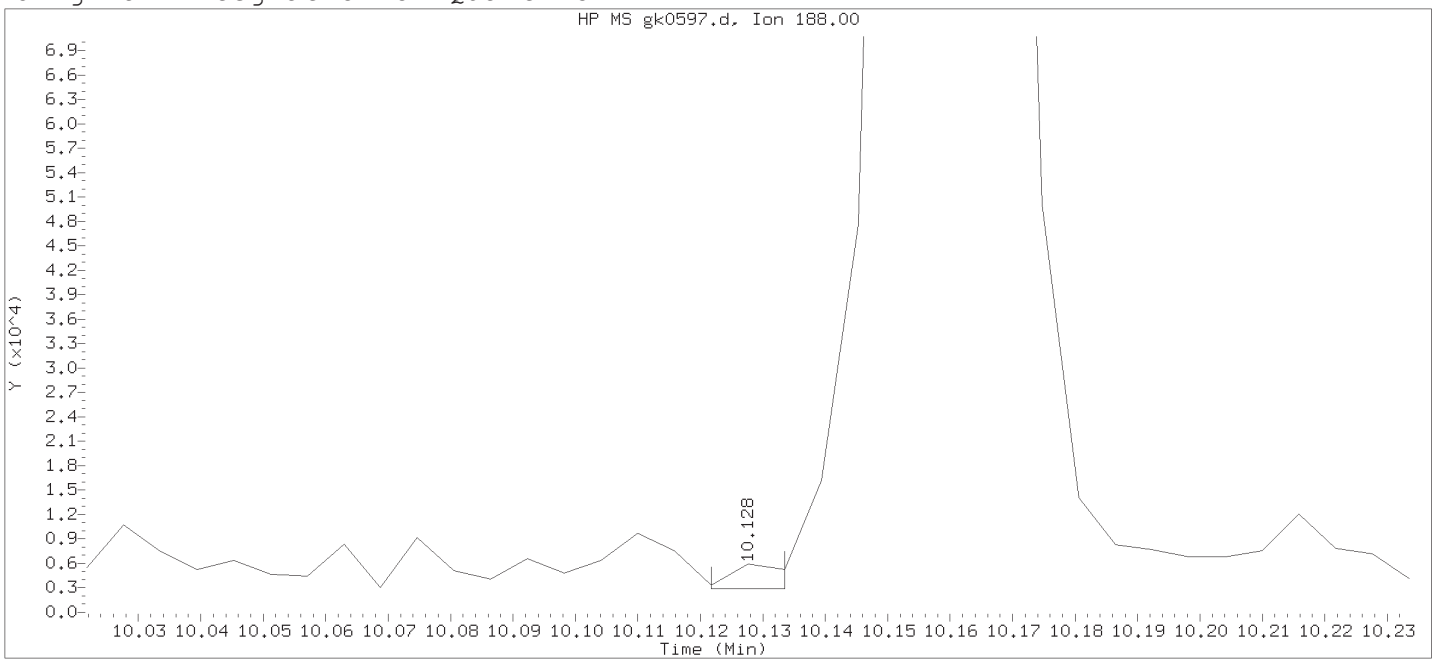
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

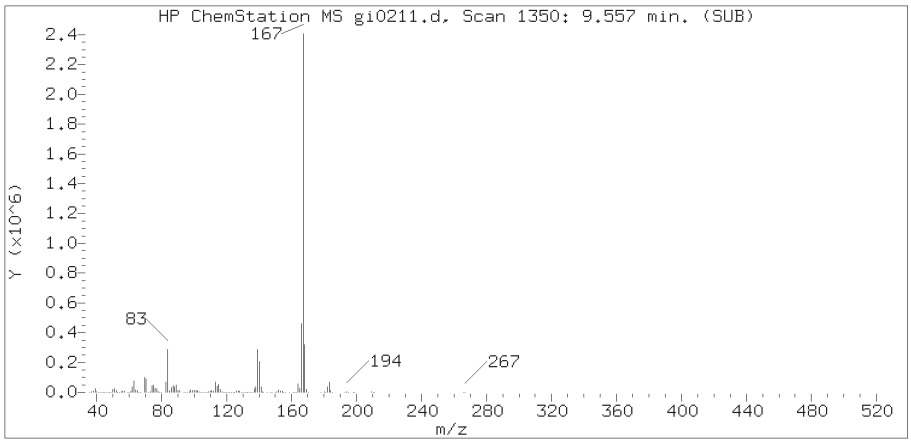
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 12:06 Automation

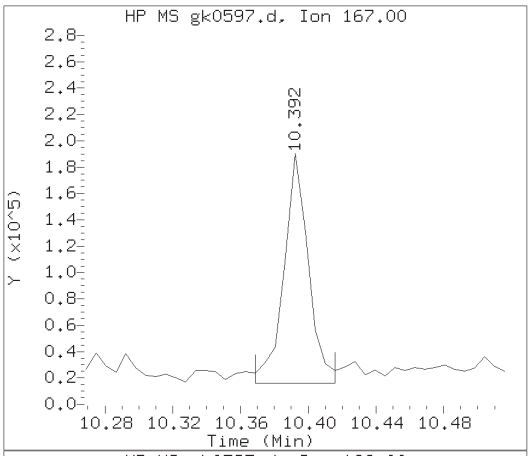
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 153		
Compound Name	: Phenanthrene-d10		
Scan Number	: 1367		
Retention Time (minutes)	: 10.128		
Quant Ion	: 188.00		
Area	: 1565		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 1365	Integration stop scan:	1367
Y at integration start	: 2891	Y at integration end:	2891

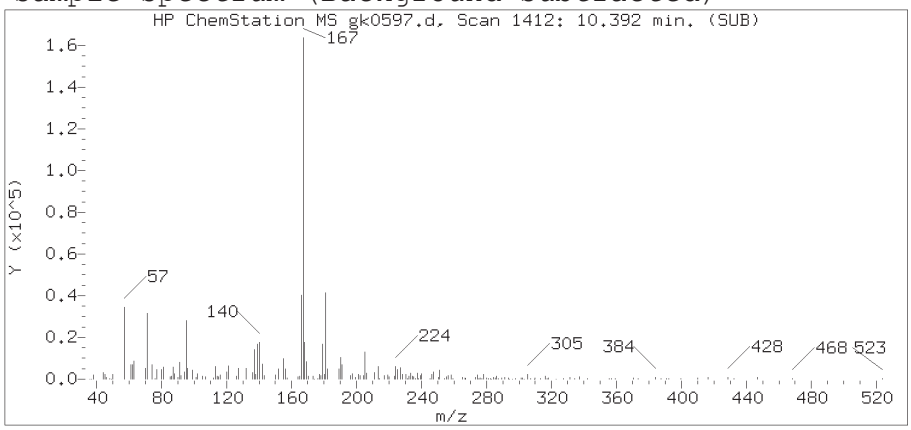
Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used 11/12/2018.

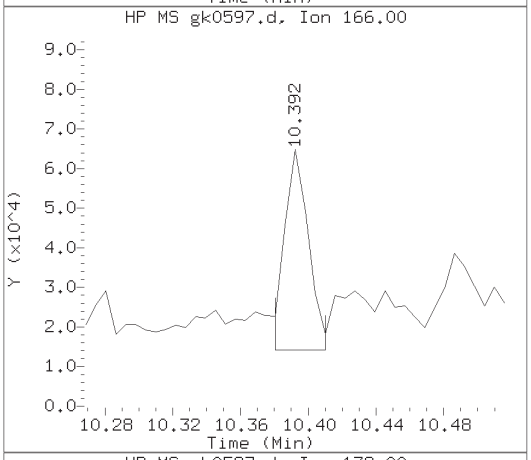
Reference Standard Spectrum for Carbazole



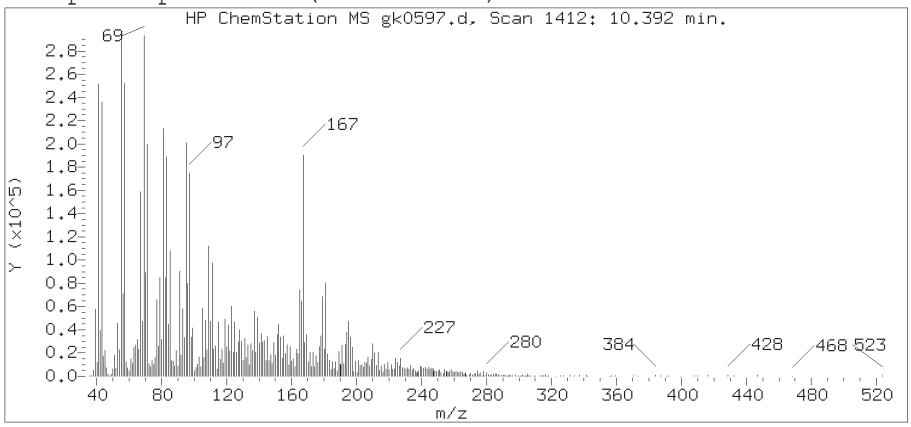


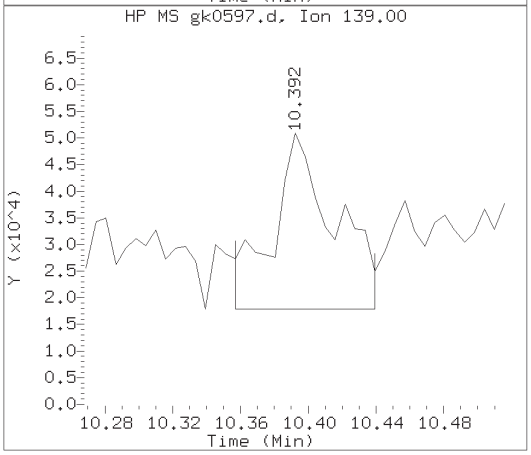
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

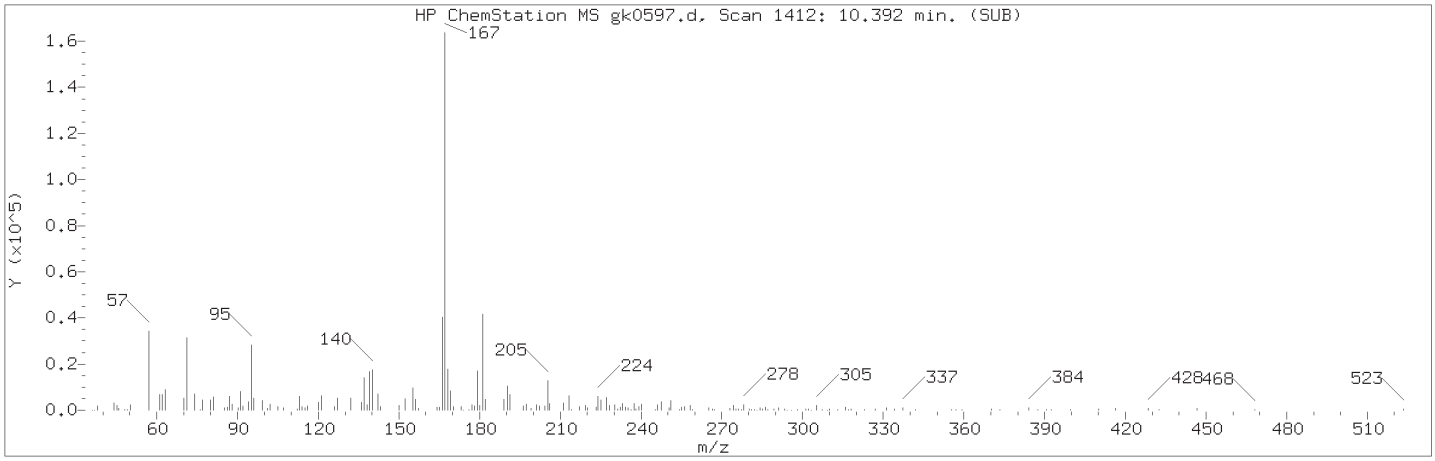
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

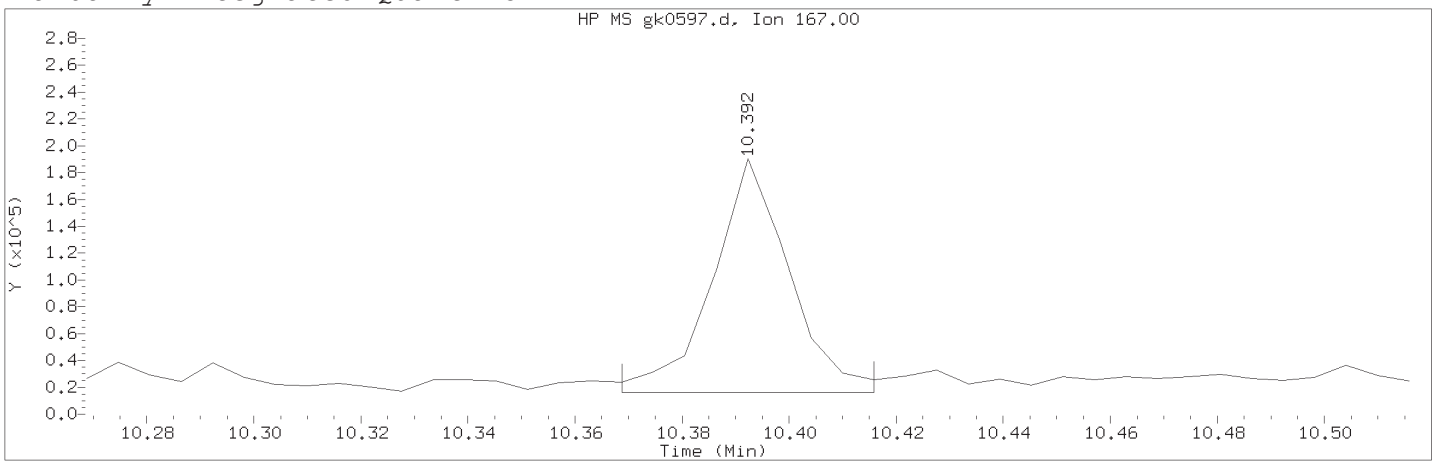
Compound Number	: 163
Compound Name	: Carbazole
Scan Number	: 1412
Retention Time (minutes)	: 10.392
Relative Retention Time	: 0.00004
Quant Ion	: 167.00
Area (flag)	: 171910A
On-column Amount (ng/ul)	: 5.8364

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

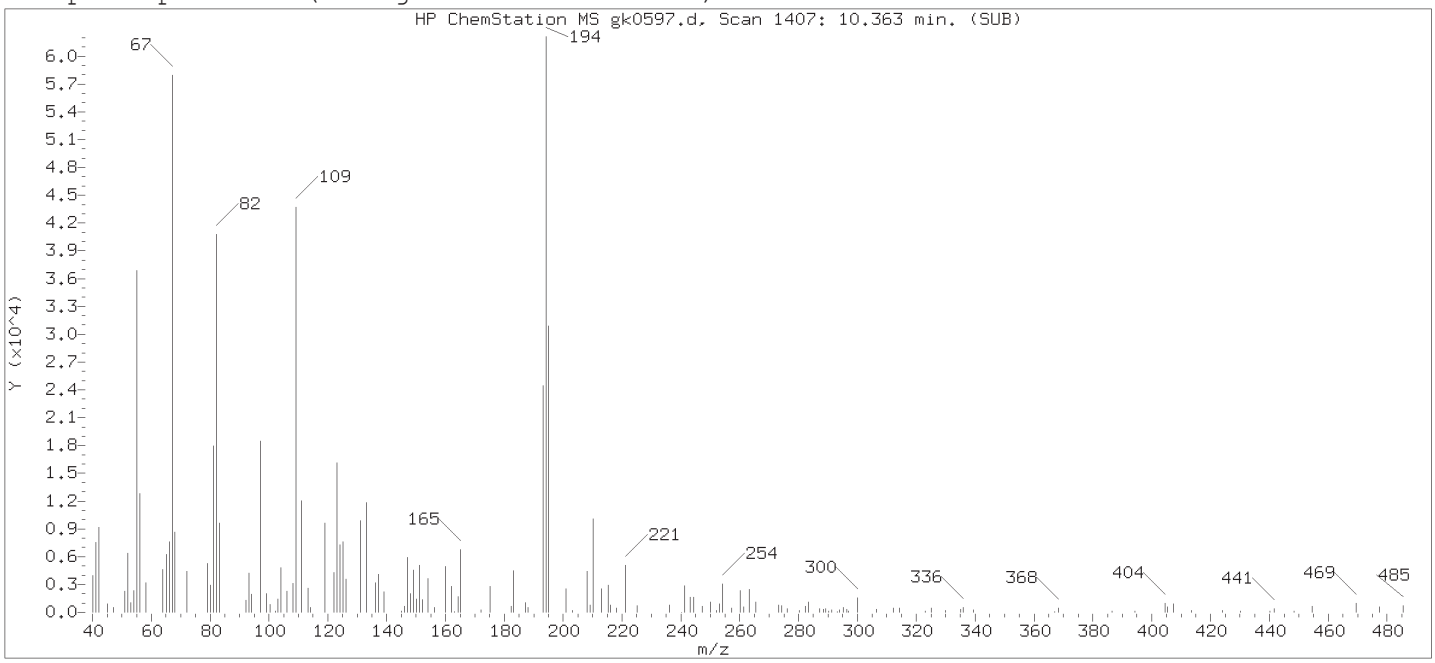
Compound Number : 163
Compound Name : Carbazole
Scan Number : 1412
Retention Time (minutes) : 10.392
Quant Ion : 167.00
Area (flag) : 171910A
On-column Amount (ng/ul) : 5.8364
Integration start scan : 1407 Integration stop scan: 1415
Y at integration start : 16120 Y at integration end: 16120

Reason for manual integration: improper integration

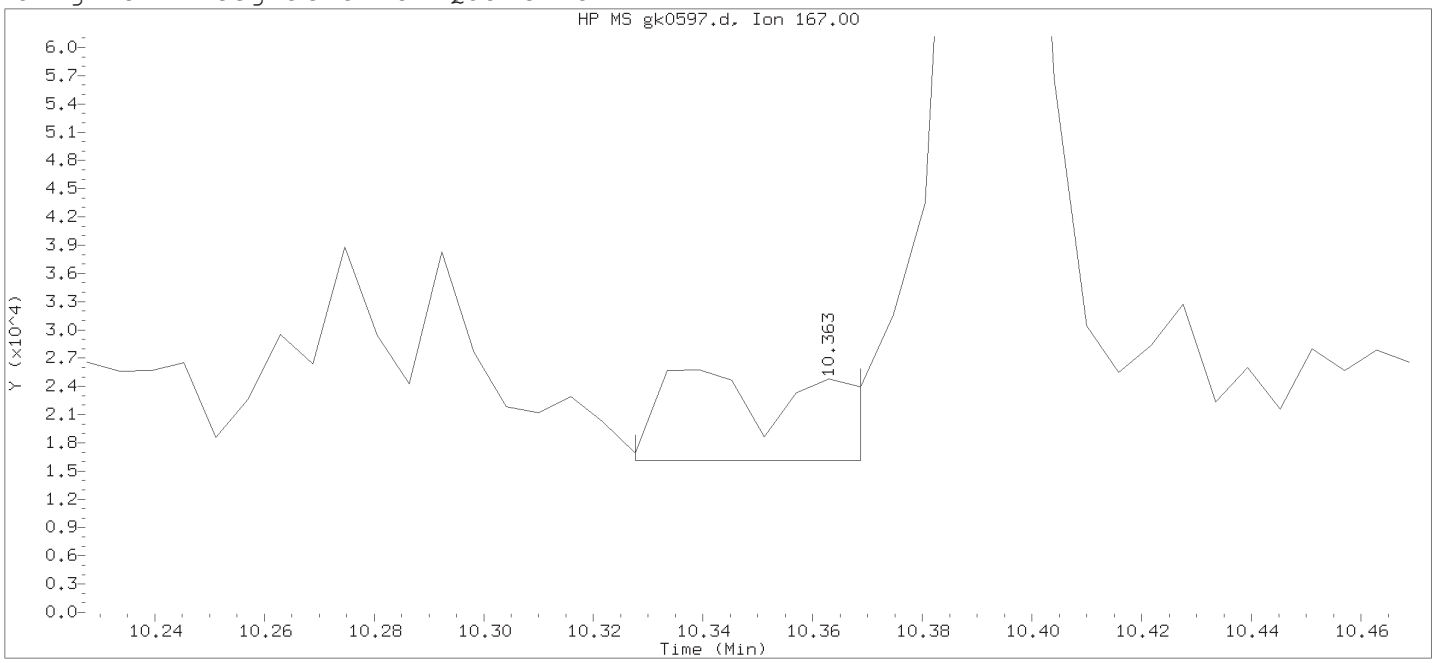
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

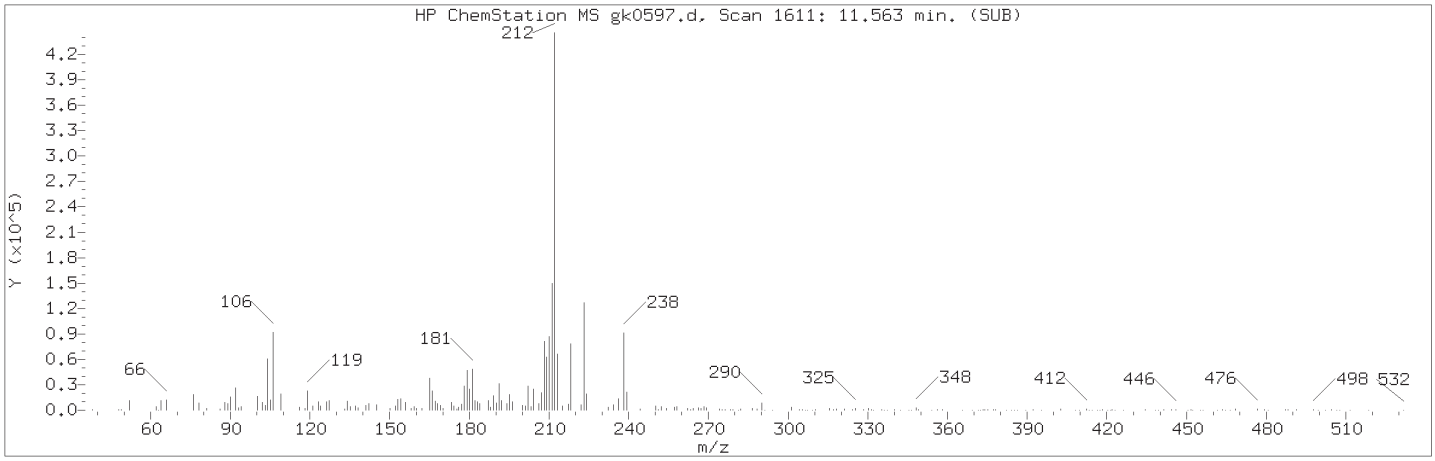
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 12:06 Automation

Sample Name: 12T03 Lab Sample ID: 9872061

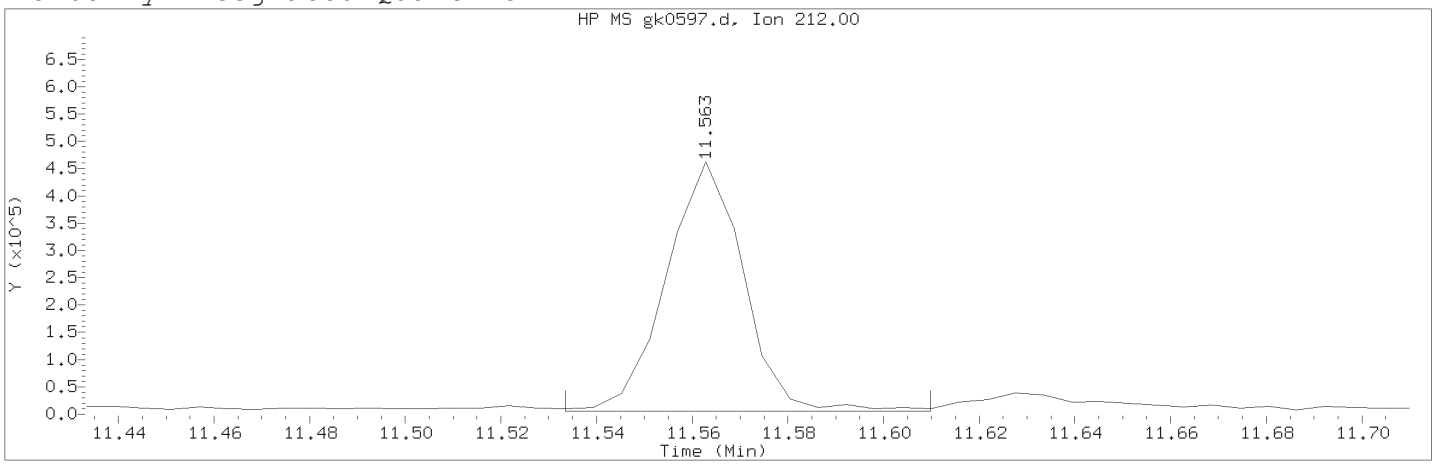
Compound Number	:	163
Compound Name	:	Carbazole
Scan Number	:	1407
Retention Time (minutes)	:	10.363
Quant Ion	:	167.00
Area	:	17771
On-column Amount (ng/ul)	:	202.8838
Integration start scan	:	1400 Integration stop scan: 1407
Y at integration start	:	16120 Y at integration end: 16120

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used: 1.0.0.1692

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

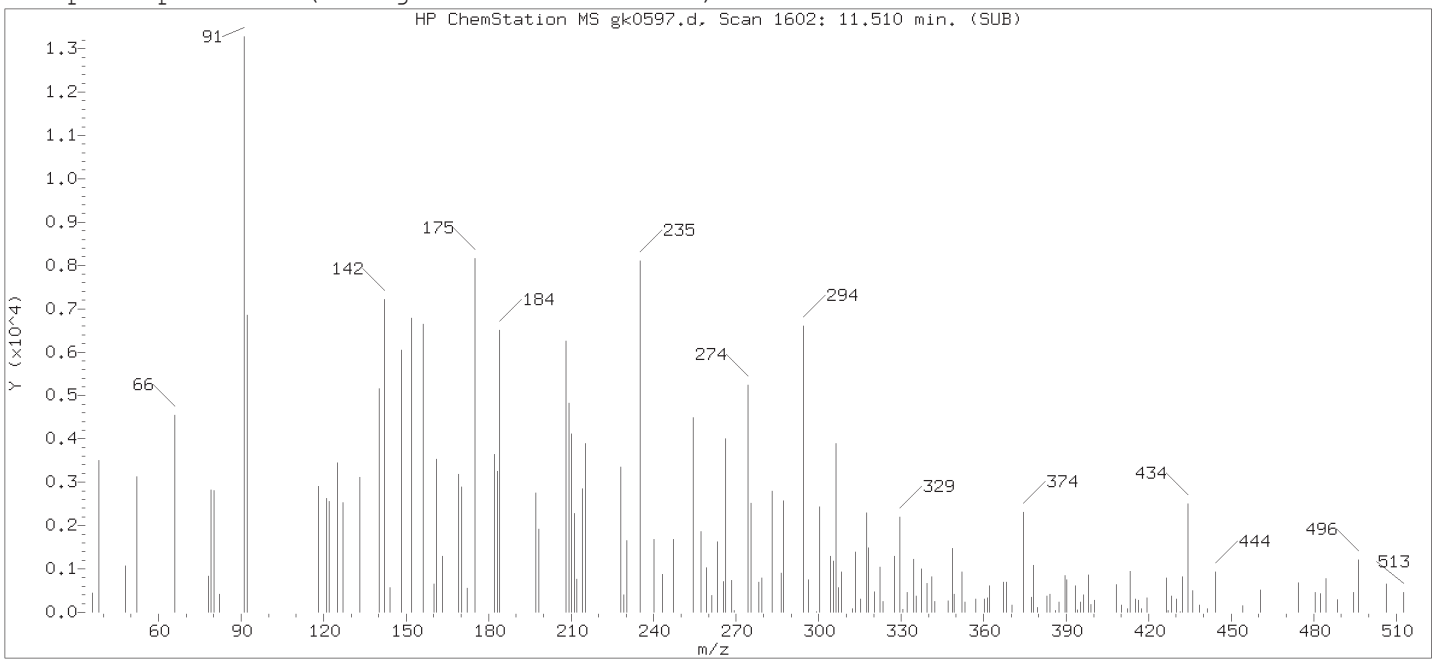
Compound Number : 175
Compound Name : Pyrene-d10
Scan Number : 1611
Retention Time (minutes) : 11.563
Quant Ion : 212.00
Area (flag) : 510765A
On-column Amount (ng/ul) : 20.0000
Integration start scan : 1605 Integration stop scan: 1618
Y at integration start : 5743 Y at integration end: 5743

Reason for manual integration: improper integration

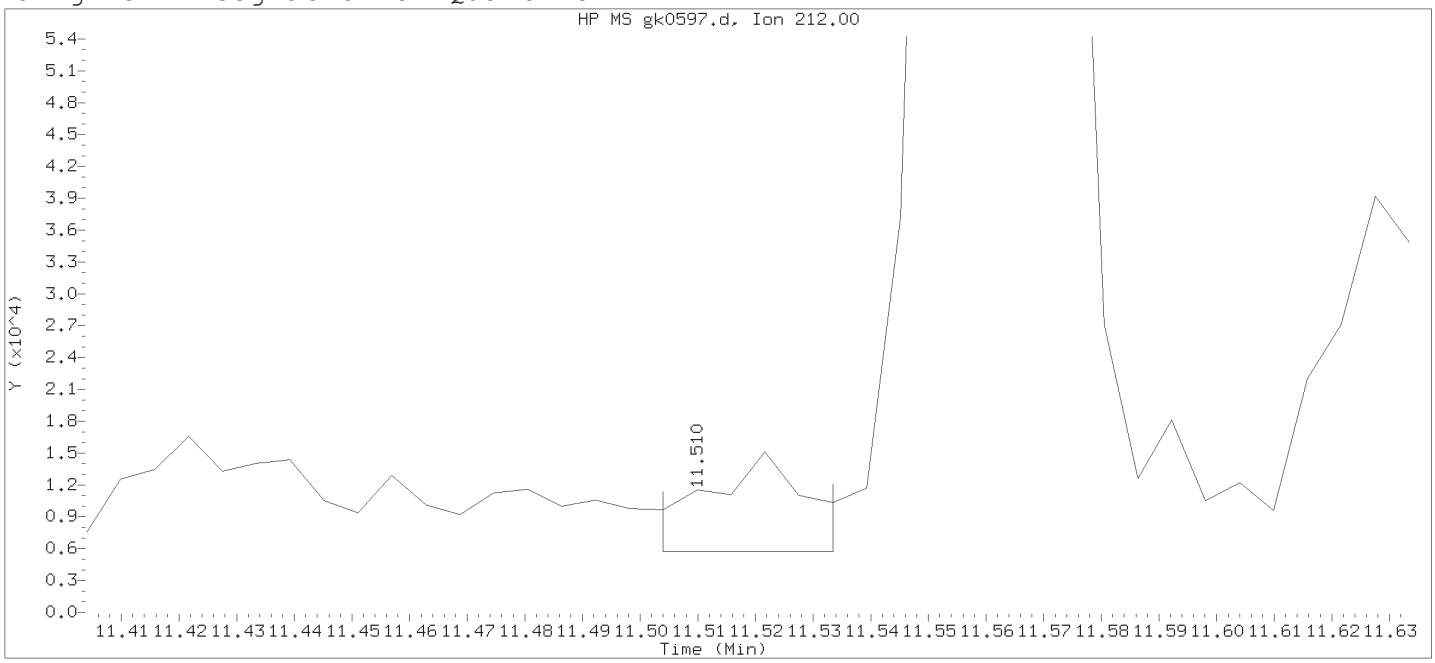
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

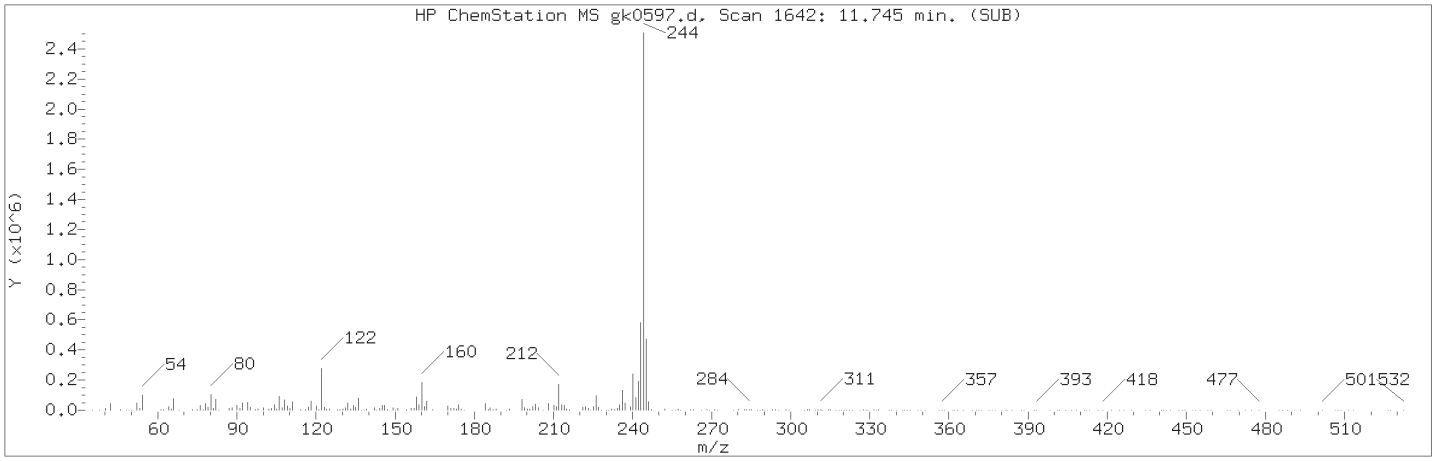
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 12:06 Automation

Sample Name: 12T03 Lab Sample ID: 9872061

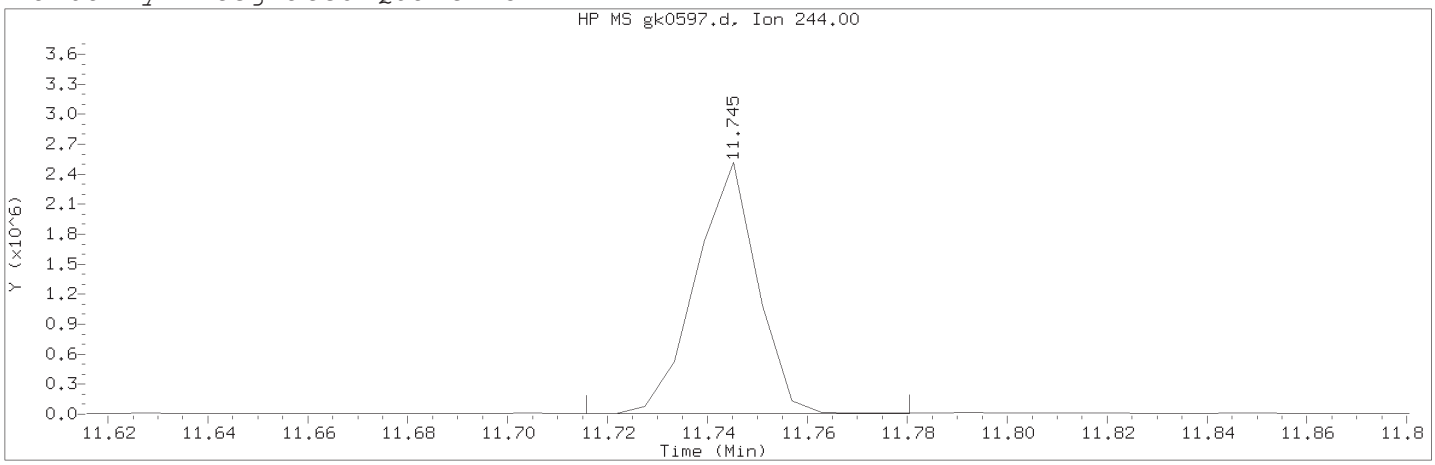
Compound Number	: 175		
Compound Name	: Pyrene-d10		
Scan Number	: 1602		
Retention Time (minutes)	: 11.510		
Quant Ion	: 212.00		
Area	: 10554		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 1600	Integration stop scan	: 1605
Y at integration start	: 5743	Y at integration end	: 5743

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used: 1102

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

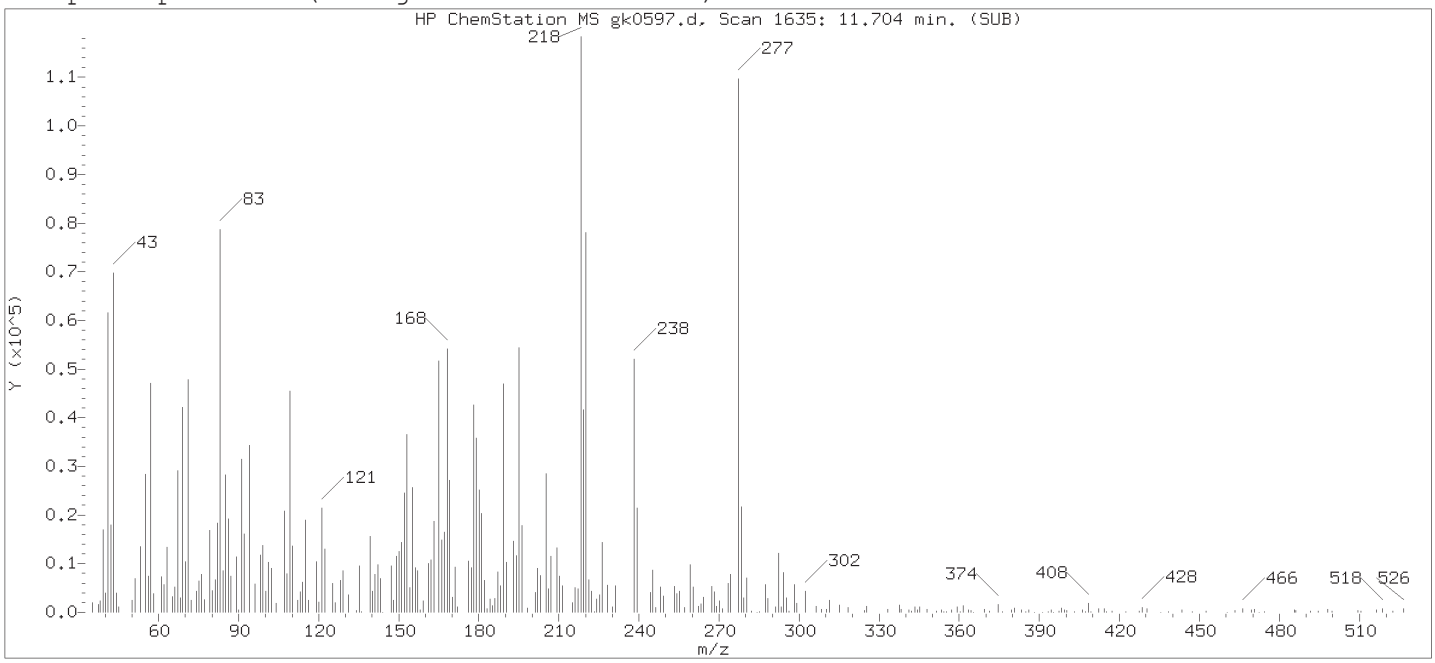
Compound Number : 179
Compound Name : Terphenyl-d14
Scan Number : 1642
Retention Time (minutes) : 11.745
Quant Ion : 244.00
Area (flag) : 2140944A
On-column Amount (ng/ul) : 86.6820
Integration start scan : 1636 Integration stop scan: 1647
Y at integration start : 4263 Y at integration end: 4263

Reason for manual integration: improper integration

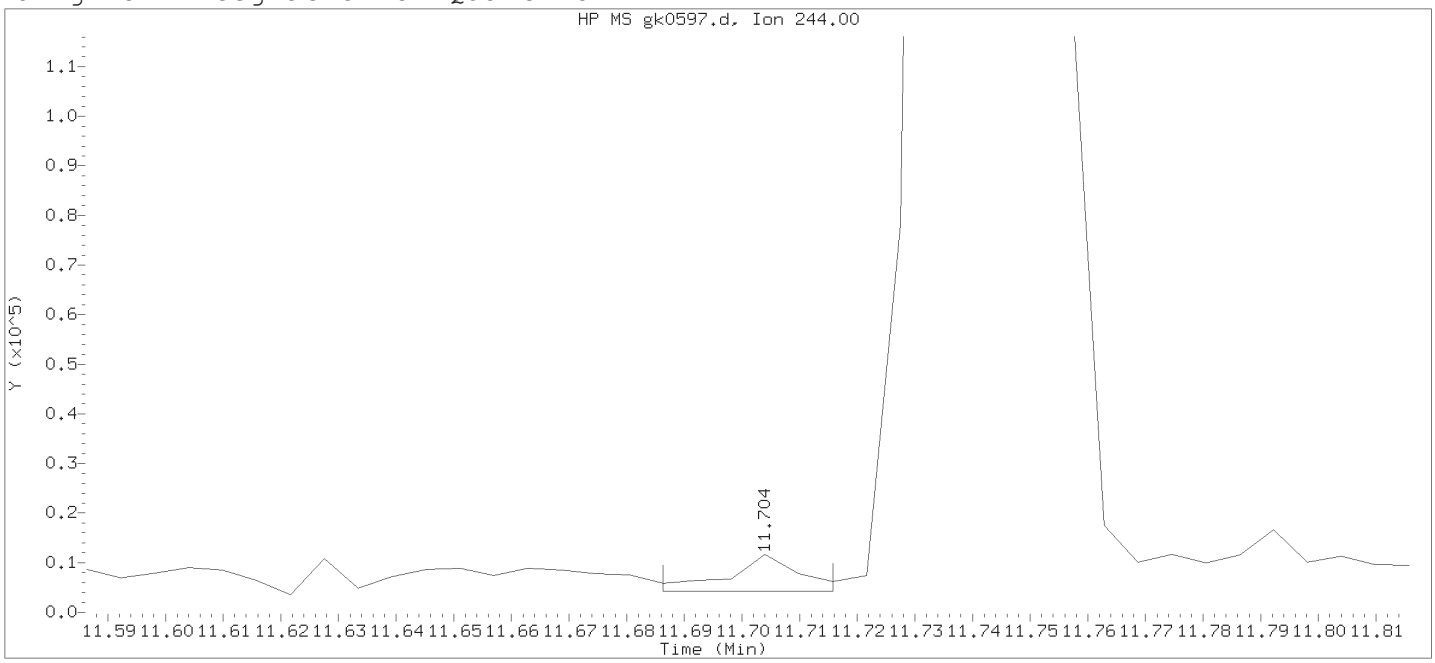
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

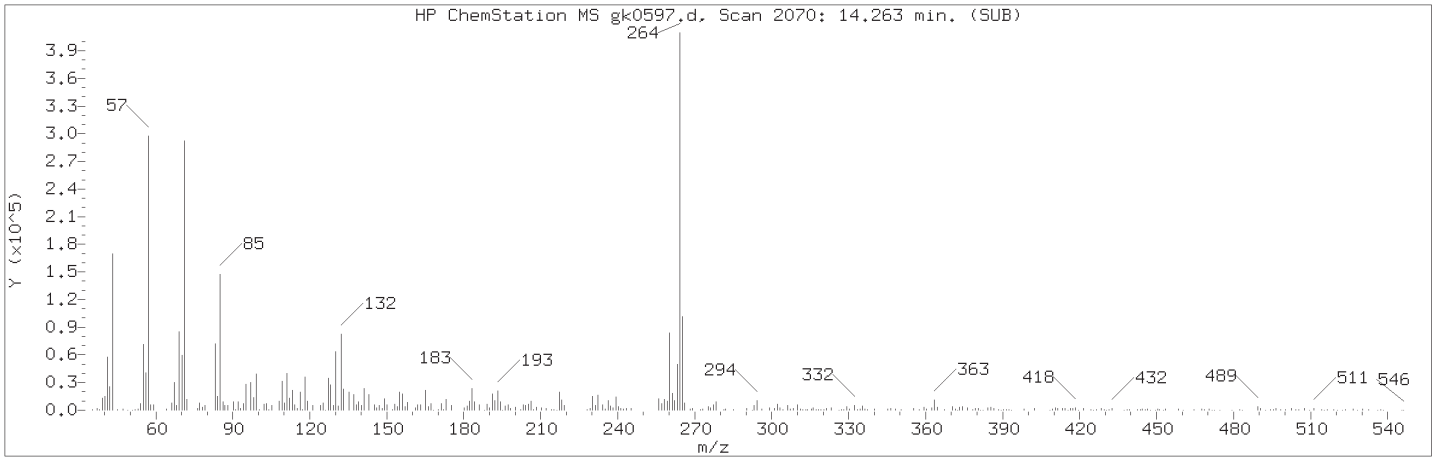
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 12:06 Automation

Sample Name: 12T03 Lab Sample ID: 9872061

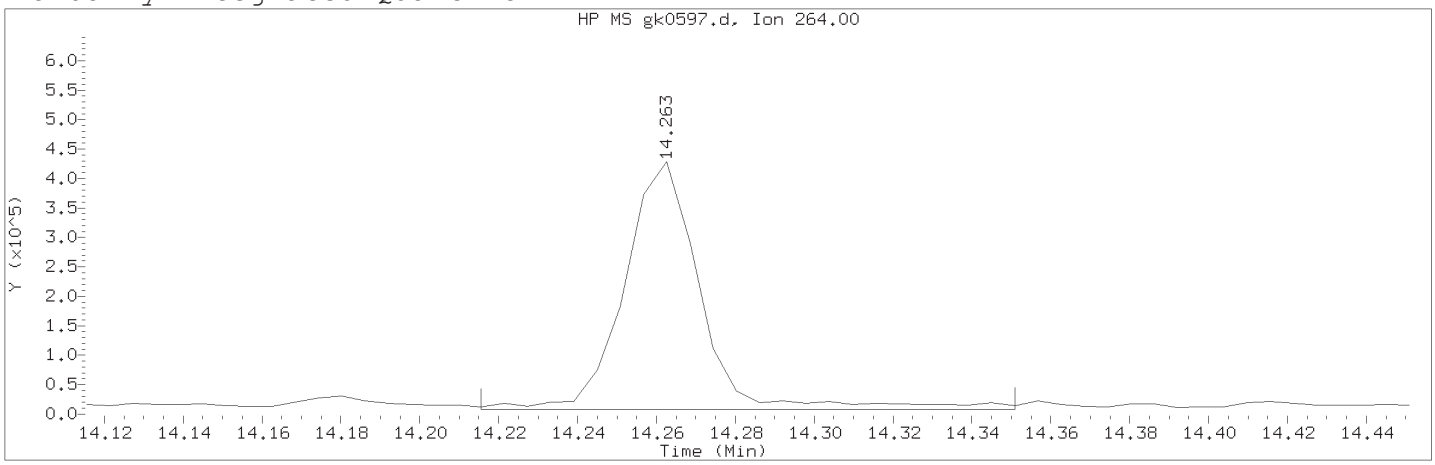
Compound Number	: 179		
Compound Name	: Terphenyl-d14		
Scan Number	: 1635		
Retention Time (minutes)	: 11.704		
Quant Ion	: 244.00		
Area	: 6025		
On-column Amount (ng/ul)	: 11.8057		
Integration start scan	: 1631	Integration stop scan:	1636
Y at integration start	: 4263	Y at integration end:	4263

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used 11/12/2018 09:59

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T03 Lab Sample ID: 9872061

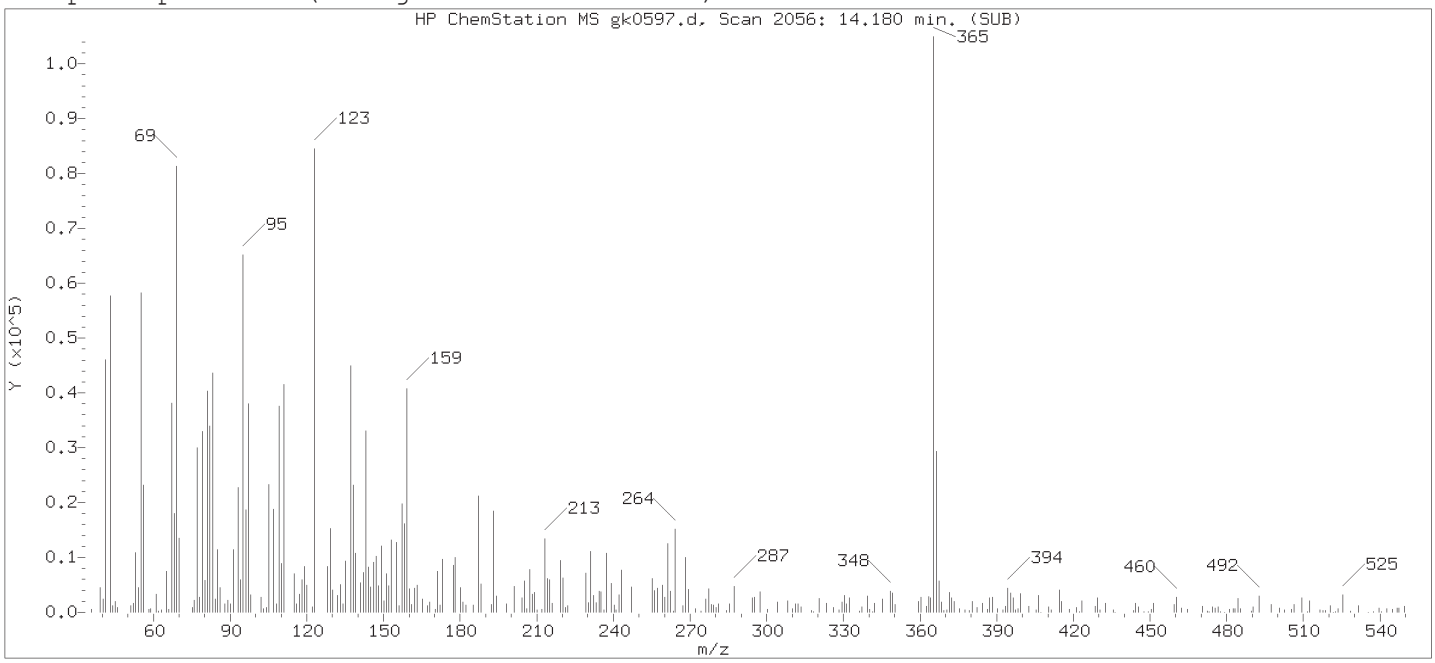
Compound Number : 213
Compound Name : Perylene-d12
Scan Number : 2070
Retention Time (minutes) : 14.263
Quant Ion : 264.00
Area (flag) : 565468A
On-column Amount (ng/ul) : 21.0000
Integration start scan : 2061 Integration stop scan: 2084
Y at integration start : 8136 Y at integration end: 8136

Reason for manual integration: improper integration

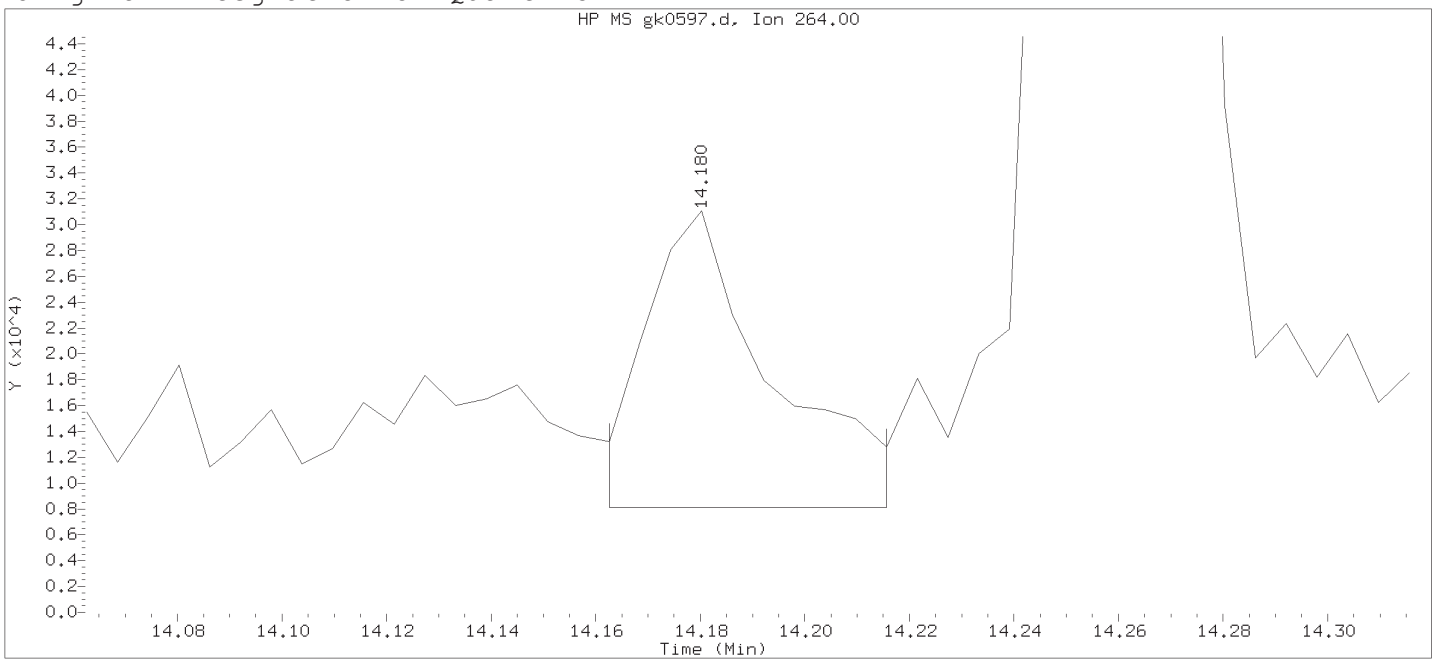
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 11:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 12:06 Automation

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 213		
Compound Name	: Perylene-d12		
Scan Number	: 2056		
Retention Time (minutes)	: 14.180		
Quant Ion	: 264.00		
Area	: 37934		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 2052	Integration stop scan:	2061
Y at integration start	: 8136	Y at integration end:	8136

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used: 1.0.1.1699

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0597a.d Injection date and time: **12-NOV-2018 13:50**
Data file Sample Info. Line: 12T03DL;9872061DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.740	(-0.006)	621	152	157014	(20)	21.00	
65) Naphthalene-d8	6.981	(-0.012)	832	136	665965	(12)	21.00	
113) Acenaphthene-d10	8.698	(-0.012)	1124	164	346757	(5)	21.00	
153) Phenanthrene-d10	10.151	(-0.012)	1371	188	607821	(-6)	21.00	
175) Pyrene-d10	11.551	(-0.018)	1609	212	496245	(-19)	20.00	
213) Perylene-d12	14.233	(-0.030)	2065	264	446438	(-12)	21.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.469	(-0.002)	112	196229	17.302	87%		35 - 115
17) Phenol-d6	(1)	5.404	(-0.003)	99	295529A	16.827	84%		47 - 120
44) Nitrobenzene-d5	(2)	6.275	(0.001)	82	142694	8.539	85%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.040	(0.001)	172	211639	7.918	79%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.469	(0.000)	330	35445	13.401	67%		39 - 132
179) Terphenyl-d14	(5)	11.727	(0.001)	244	212095	8.839	88%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.757	(0.000)	146	12572	0.992	330.03		J	0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)				Not Detected					0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	6.146	(-0.000)	108	56353	4.127	1373.09			0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)	6.663	(-0.000)	107	28169	2.030	675.31			0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.681	(0.000)	142	587286	23.116	7690.05			0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5

Digitally signed by Edward Monborne on 11/14/2018 at 11:02. Target 3.5 esignature user ID: em10340

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0597a.d Injection date and time: **12-NOV-2018 13:50**
Data file Sample Info. Line: 12T03DL;9872061DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

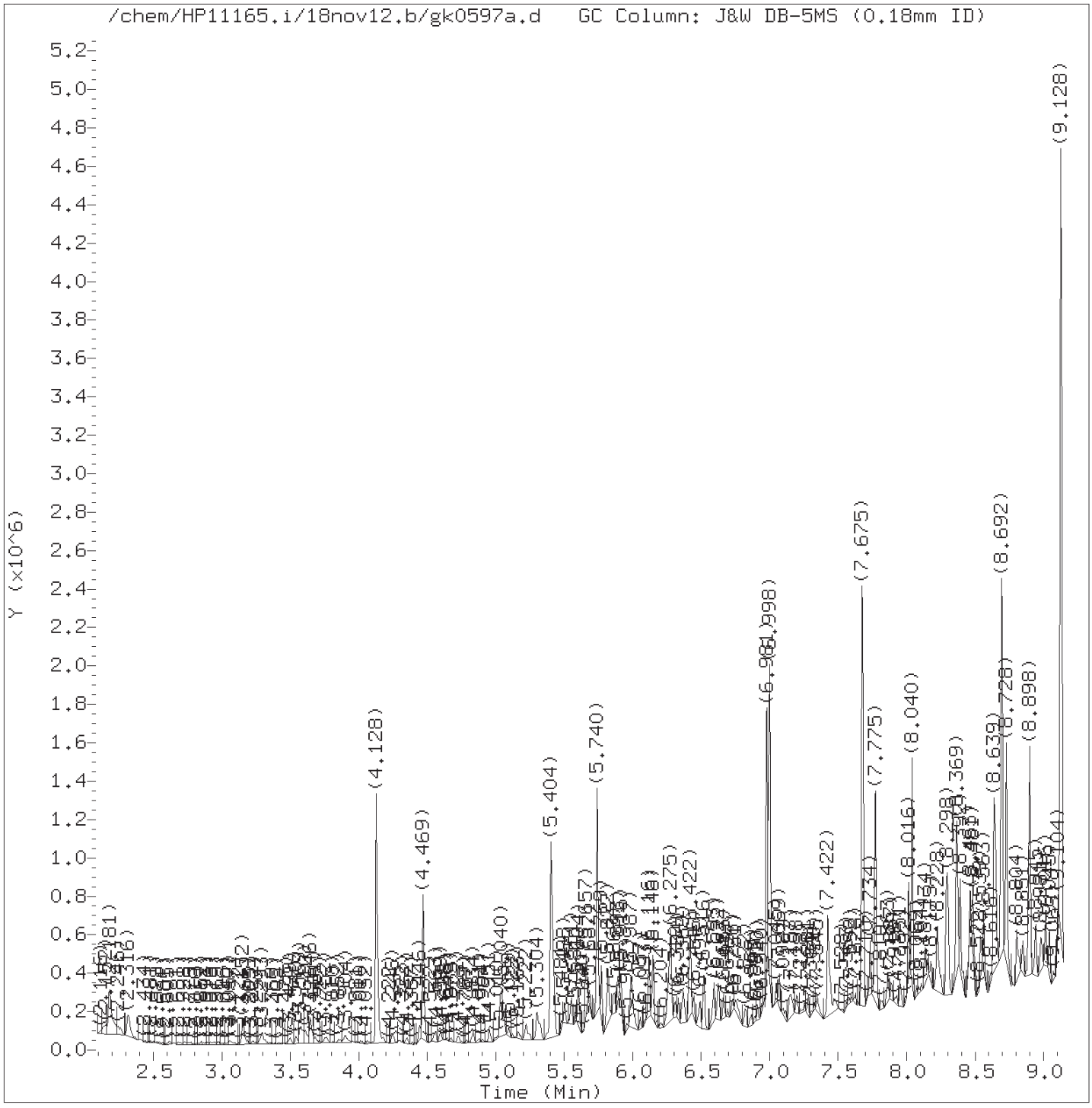
Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
90) 2,4,6-Trichlorophenol	(3)			Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)			Not Detected					0.6
96) 2-Chloronaphthalene	(3)	8.151(0.000)	162	26836	1.174	390.70			0.2
100) 2-Nitroaniline	(3)			Not Detected					0.6
106) Dimethylphthalate	(3)			Not Detected					2
108) 2,6-Dinitrotoluene	(3)			Not Detected					0.6
112) 3-Nitroaniline	(3)			Not Detected					2
115) 2,4-Dinitrophenol	(3)			Not Detected					11
116) 4-Nitrophenol	(3)			Not Detected					5
118) 2,4-Dinitrotoluene	(3)			Not Detected					2
119) Dibenzofuran	(3)	8.898(0.000)	168	346348	10.679	3552.69			0.5
124) Diethylphthalate	(3)			Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.5
129) 4-Nitroaniline	(3)			Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					5
131) N-Nitrosodiphenylamine	(4)			Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)			Not Detected					0.6
145) Hexachlorobenzene	(4)			Not Detected					0.1
149) Pentachlorophenol	(4)			Not Detected					1
163) Carbazole	(4)	10.386(0.000)	167	24108	0.744	247.53		J	0.5
193) 3,3'-Dichlorobenzidine	(5)			Not Detected					3
205) Di-n-octylphthalate	(6)			Not Detected					2

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:02. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

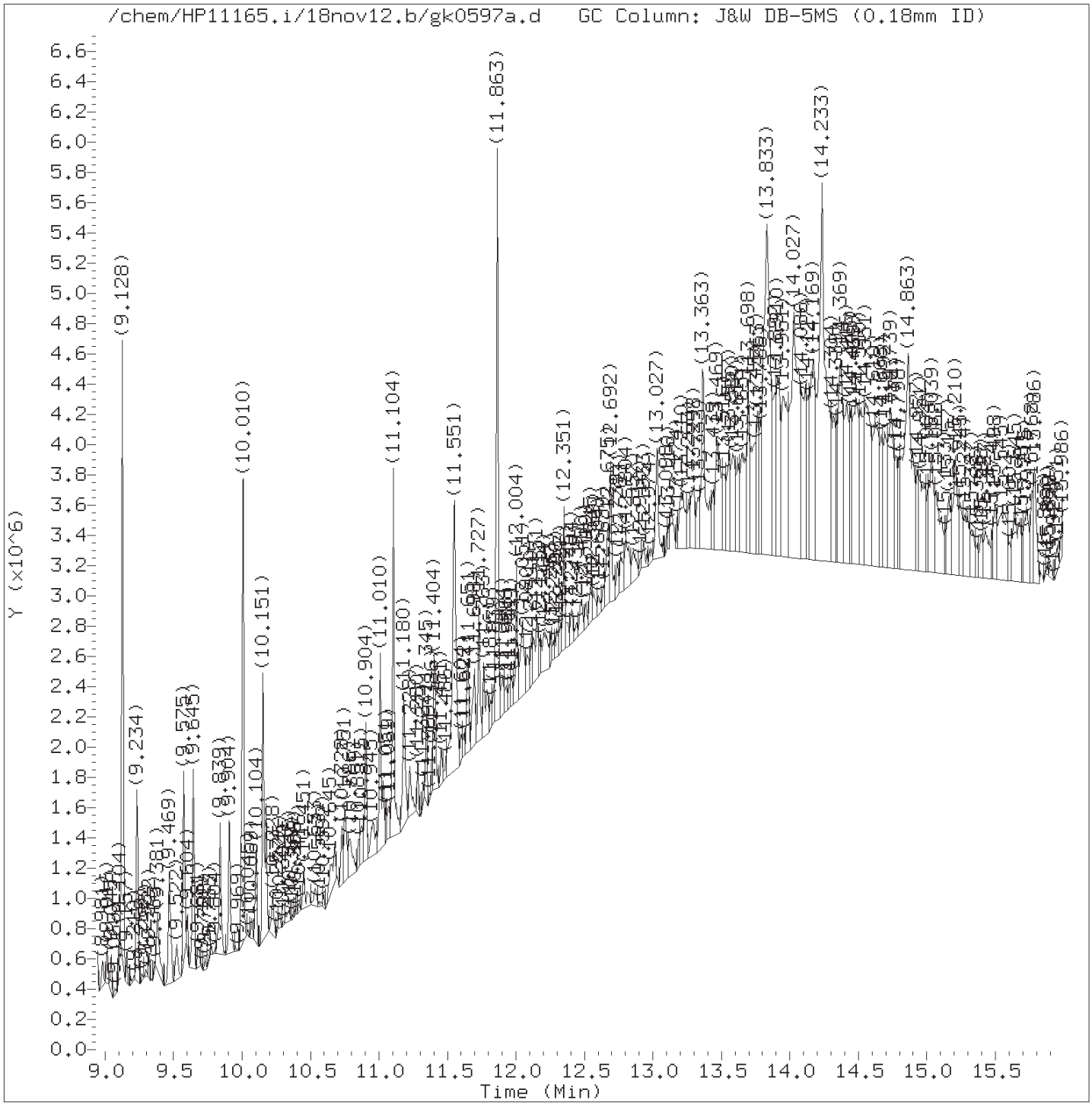
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

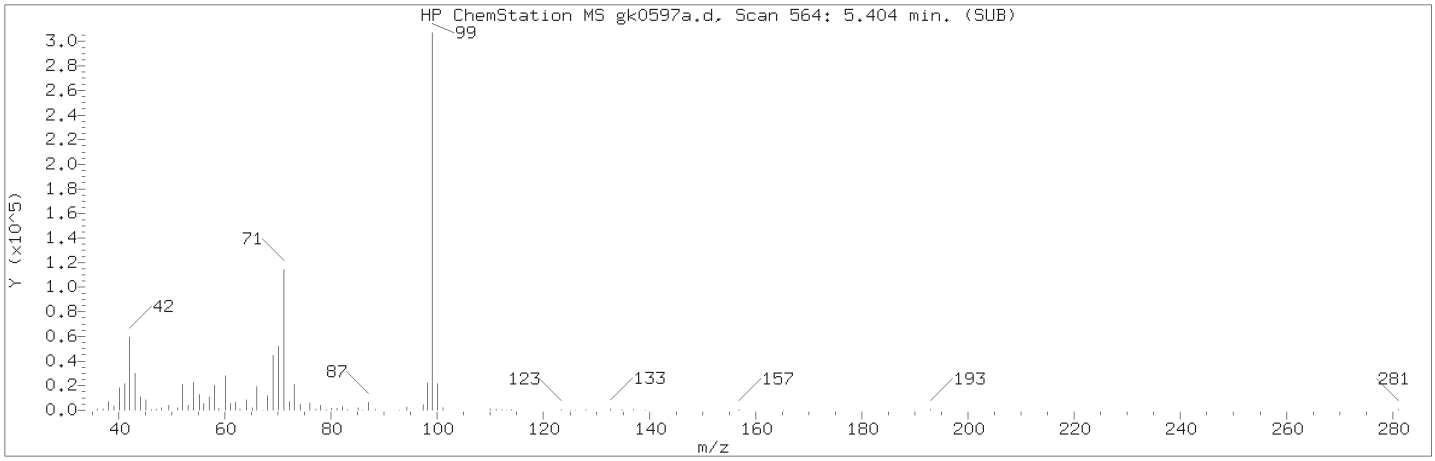
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.469	112	196229	17.302
17)$Phenol-d6	(1)	5.404	99	295529A	16.827
25)*1,4-Dichlorobenzene-d4	(1)	5.740	152	157014	21.000
26) 1,4-Dichlorobenzene	(1)	5.757	146	12572	0.992
37) 4-Methylphenol	(1)	6.146	108	56353	4.127
44)$Nitrobenzene-d5	(2)	6.275	82	142694	8.539
53) 2,4-Dimethylphenol	(2)	6.663	107	28169	2.030
65)*Naphthalene-d8	(2)	6.981	136	665965	21.000
83) 2-Methylnaphthalene	(2)	7.681	142	587286	23.116
93)$2-Fluorobiphenyl	(3)	8.040	172	211639	7.918
96) 2-Chloronaphthalene	(3)	8.151	162	26836	1.174
113)*Acenaphthene-d10	(3)	8.698	164	346757	21.000
119) Dibenzofuran	(3)	8.898	168	346348	10.679
135)$2,4,6-Tribromophenol	(3)	9.469	330	35445	13.401
153)*Phenanthrene-d10	(4)	10.151	188	607821	21.000
163) Carbazole	(4)	10.386	167	24108	0.744
175)*Pyrene-d10	(5)	11.551	212	496245	20.000
179)$Terphenyl-d14	(5)	11.727	244	212095	8.839
213)*Perylene-d12	(6)	14.233	264	446438	21.000

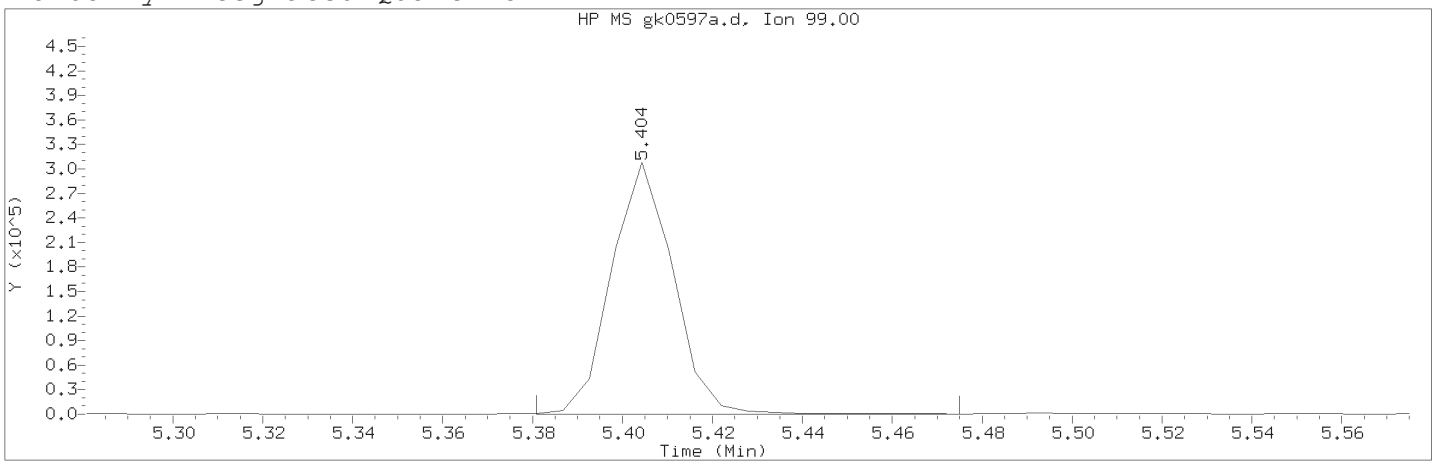
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

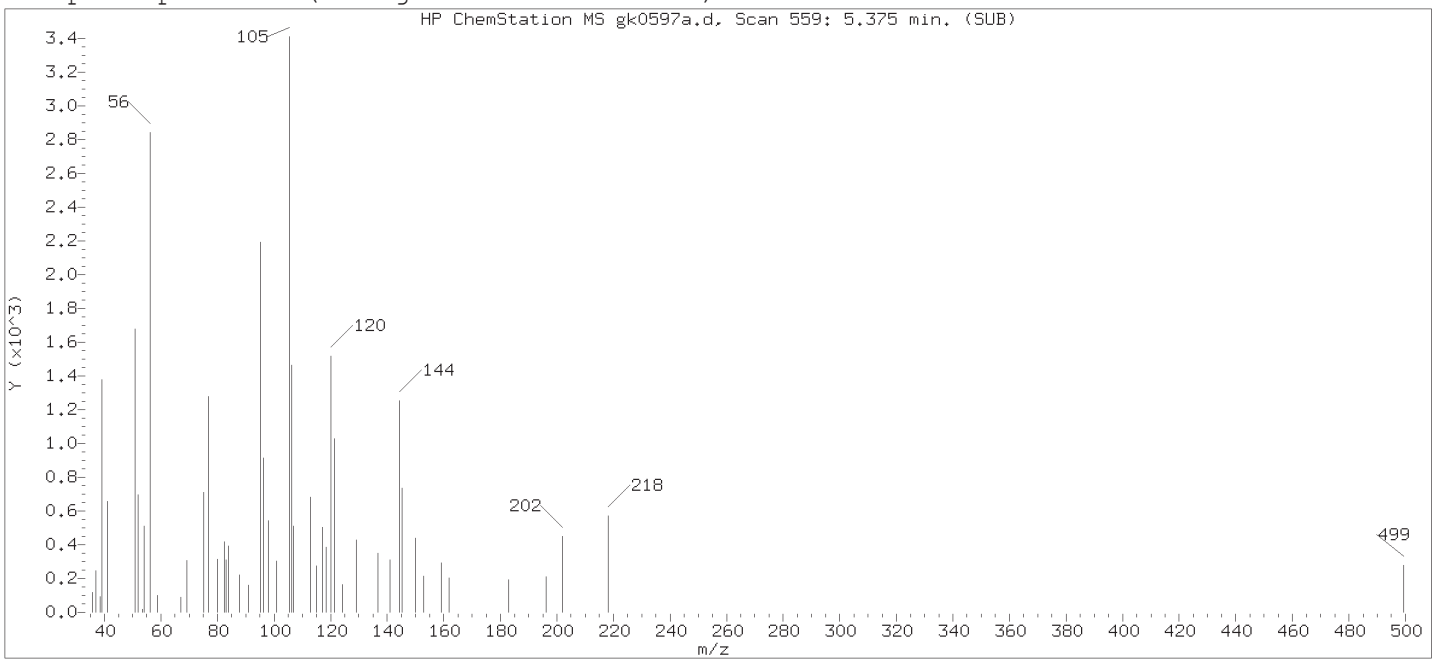
Compound Number : 17
Compound Name : Phenol-d6
Scan Number : 564
Retention Time (minutes) : 5.404
Quant Ion : 99.00
Area (flag) : 295529A
On-column Amount (ng/ul) : 16.8271
Integration start scan : 559 Integration stop scan: 575
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

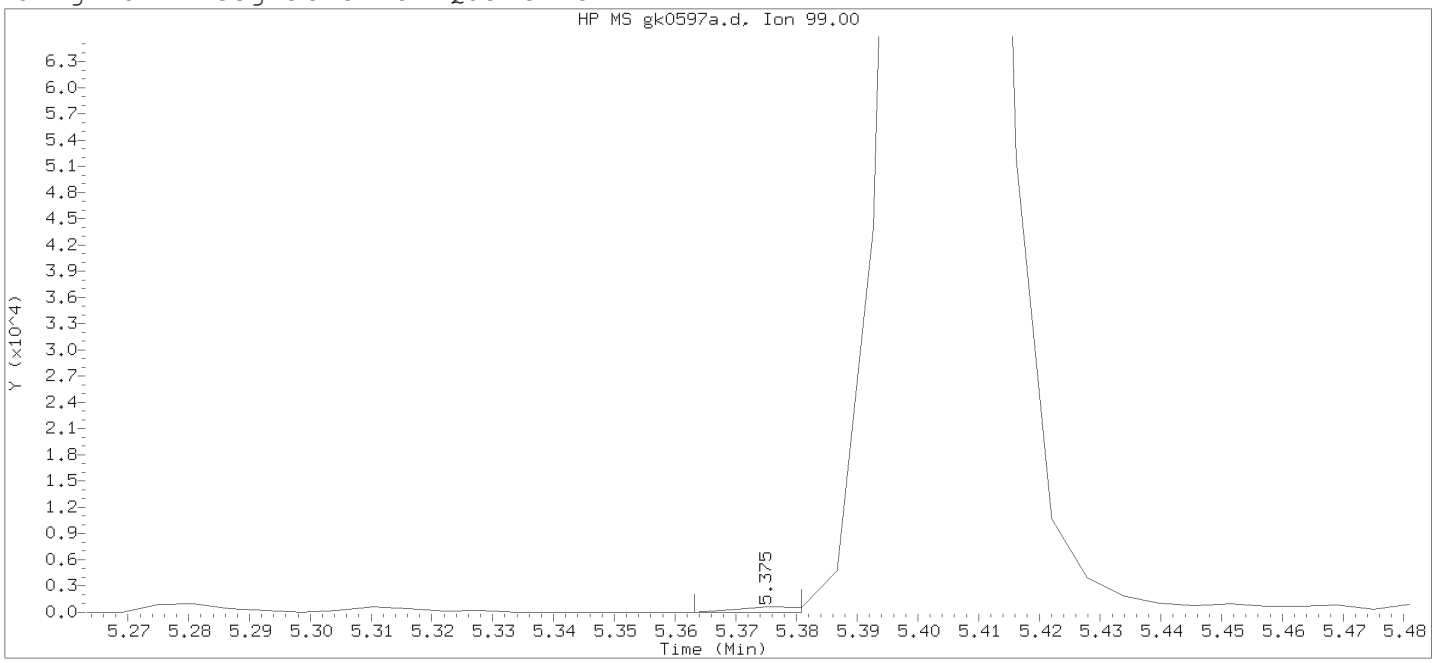
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

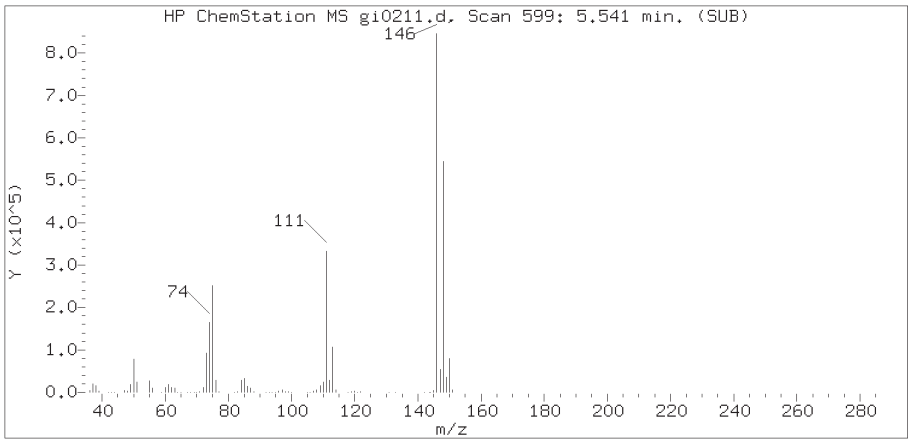
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 14:11 Automation

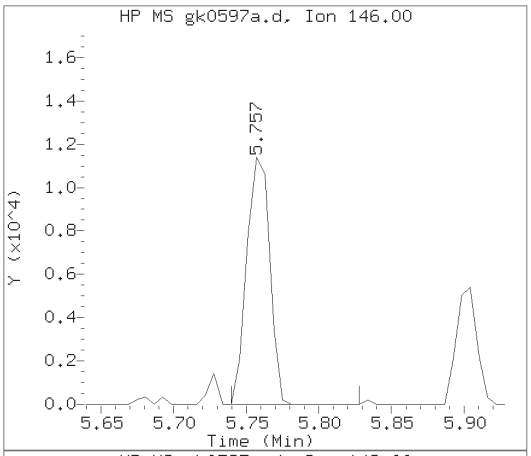
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 17		
Compound Name	: Phenol-d6		
Scan Number	: 559		
Retention Time (minutes)	: 5.375		
Quant Ion	: 99.00		
Area	: 413		
On-column Amount (ng/ul)	: 0.0236		
Integration start scan	: 556	Integration stop scan:	559
Y at integration start	: 0	Y at integration end:	0

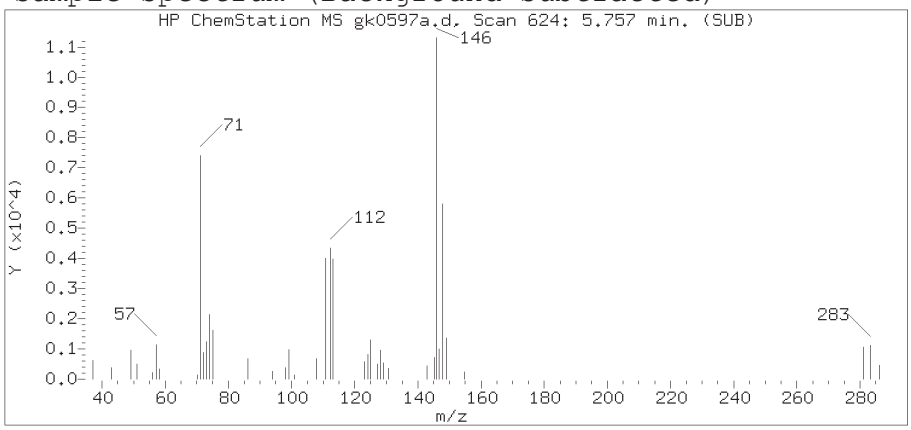
Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature used: 1.0.0.1405

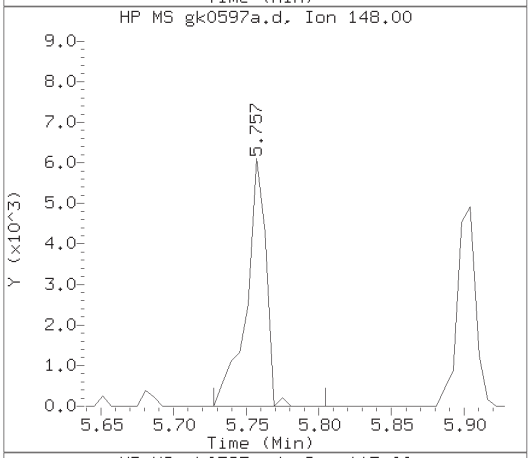
Reference Standard Spectrum for 1,4-Dichlorobenzene



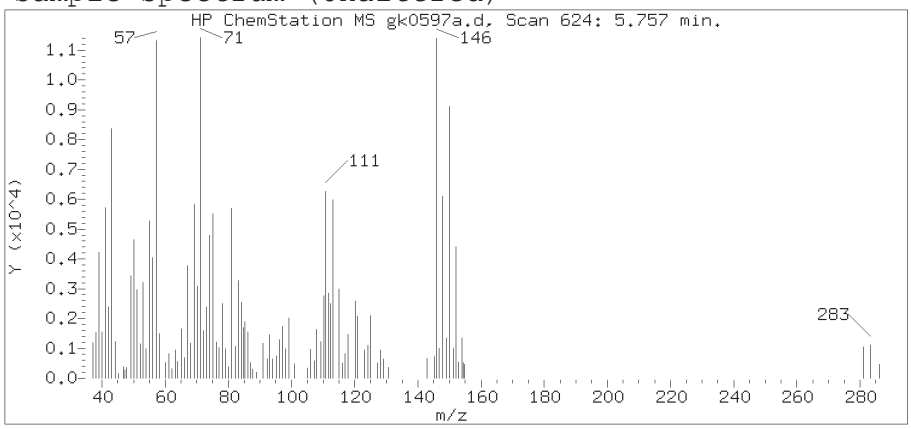


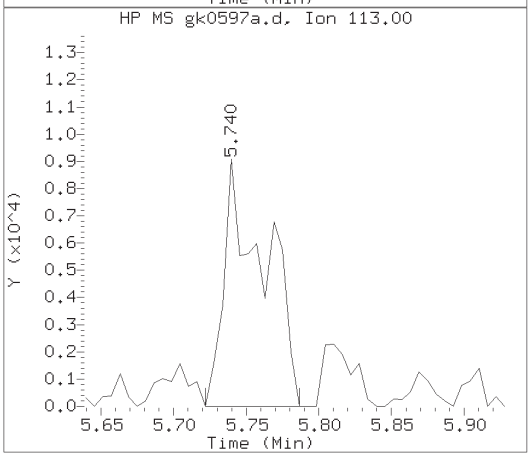
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

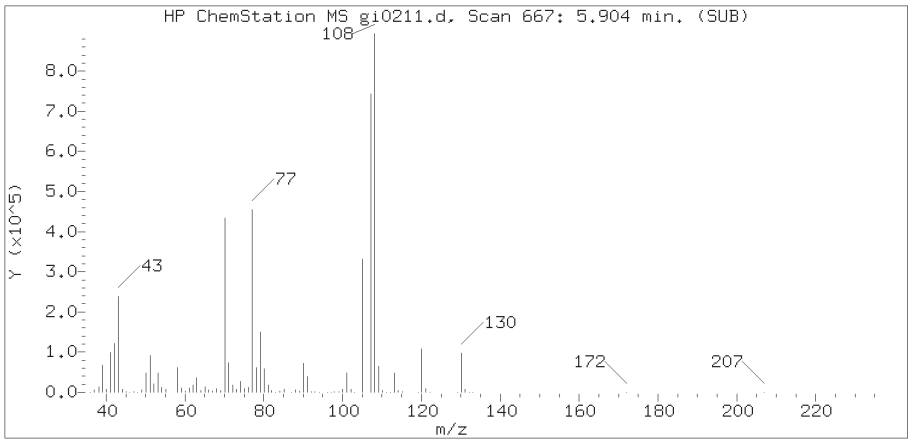
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

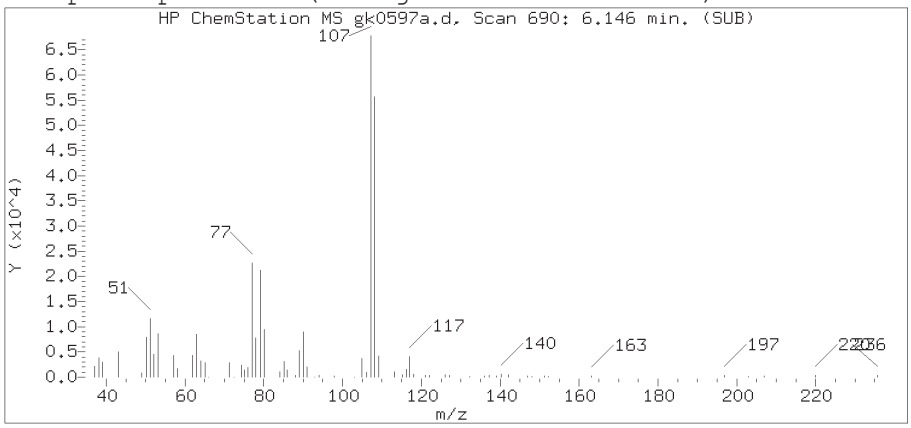
Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 624
Retention Time (minutes)	: 5.757
Relative Retention Time	: 0.00000
Quant Ion	: 146.00
Area (flag)	: 12572
On-column Amount (ng/ul)	: 0.9921

Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

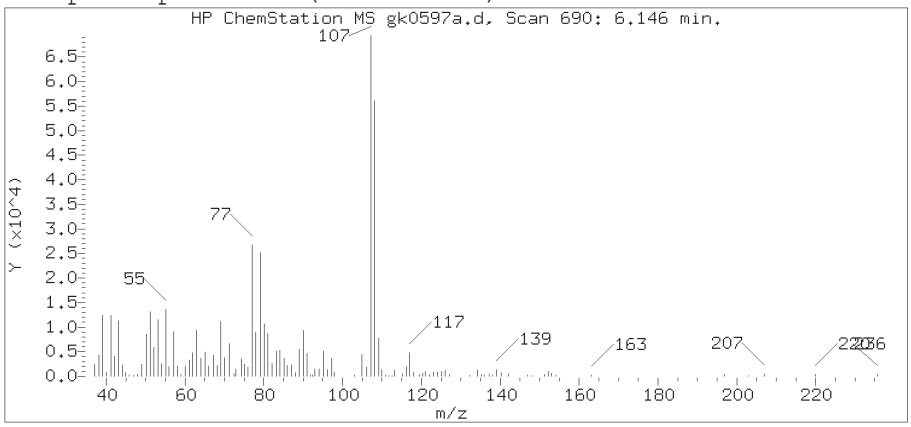
Reference Standard Spectrum for 4-Methylphenol

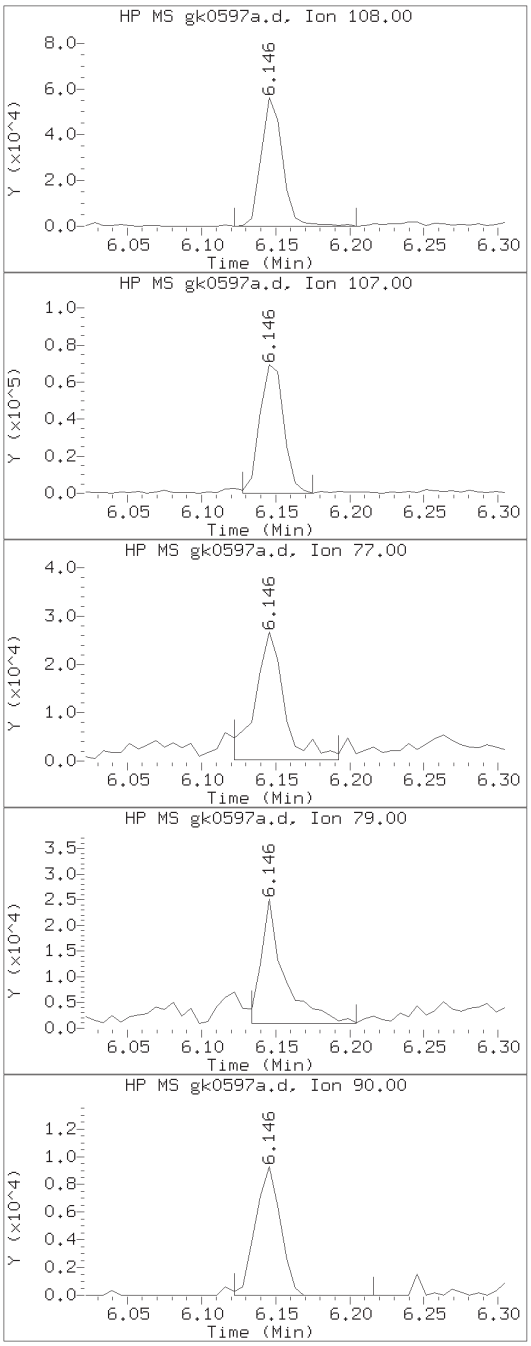


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

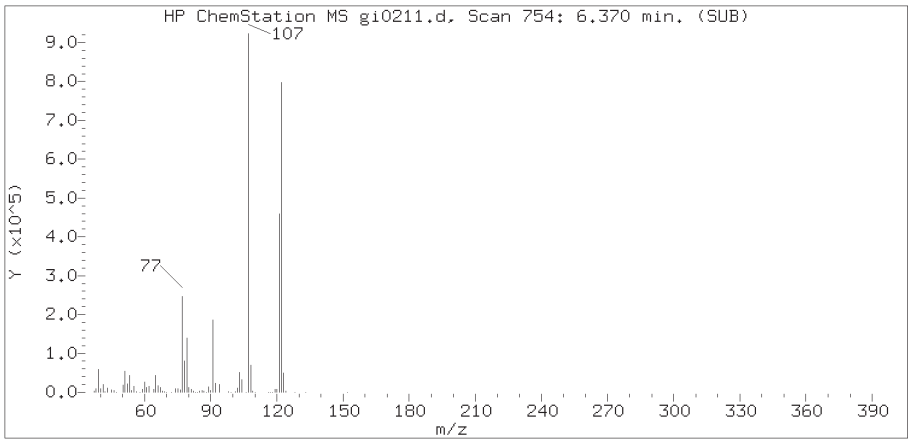
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

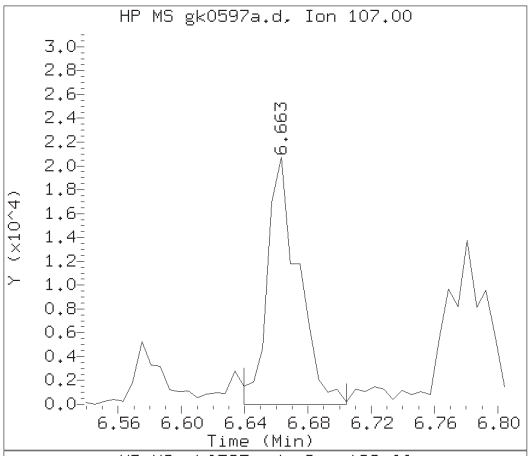
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 690
Retention Time (minutes)	: 6.146
Relative Retention Time	:-0.00095
Quant Ion	: 108.00
Area (flag)	: 56353
On-column Amount (ng/ul)	: 4.1275

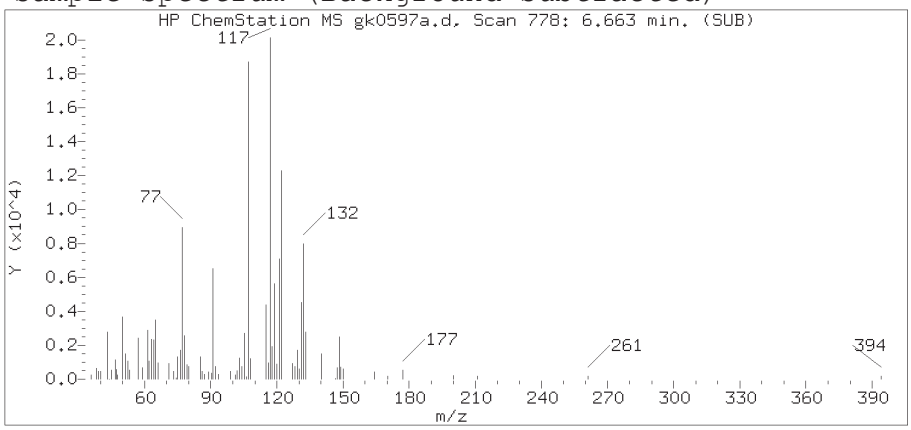
Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

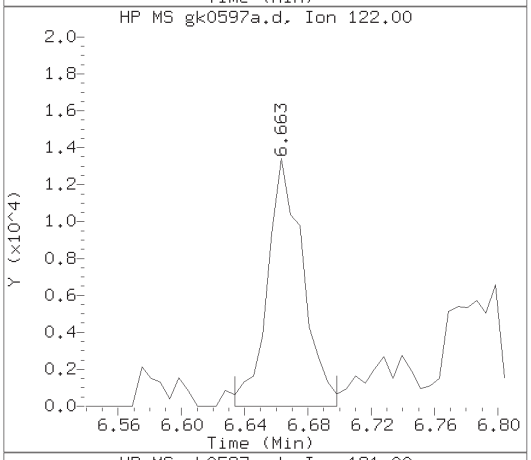
Reference Standard Spectrum for 2,4-Dimethylphenol



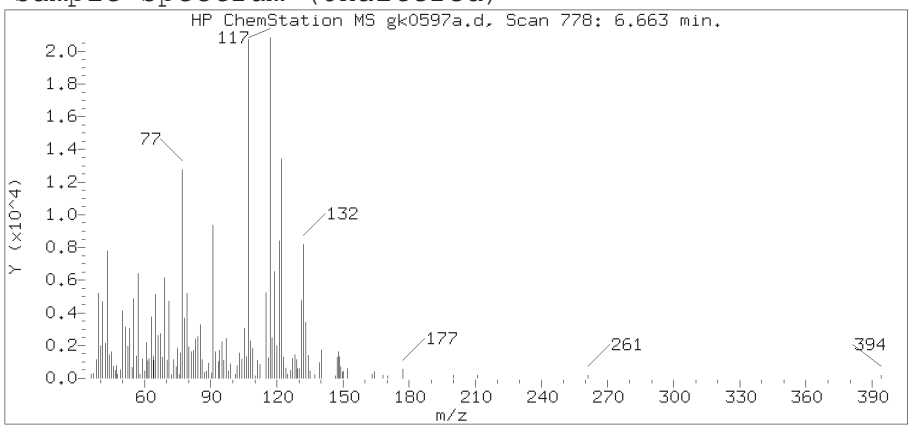


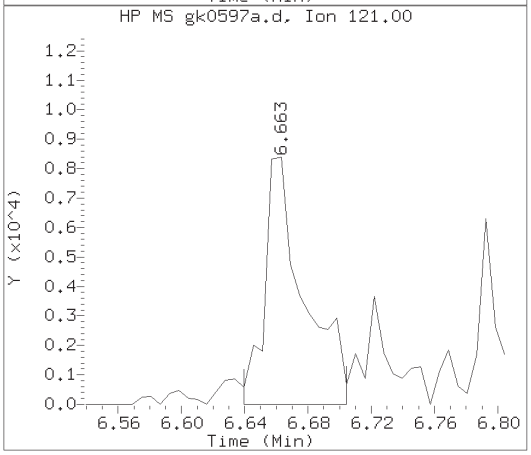
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 53
Compound Name	: 2,4-Dimethylphenol
Scan Number	: 778
Retention Time (minutes)	: 6.663
Relative Retention Time	:-0.00092
Quant Ion	: 107.00
Area (flag)	: 28169
On-column Amount (ng/ul)	: 2.0300

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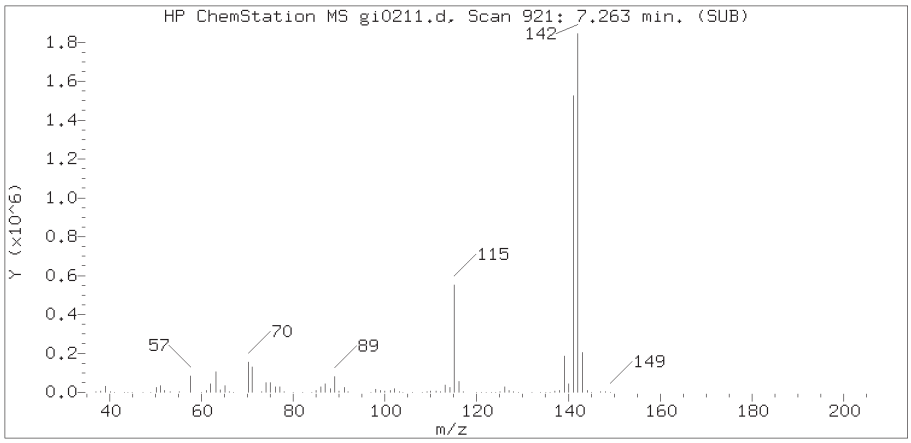
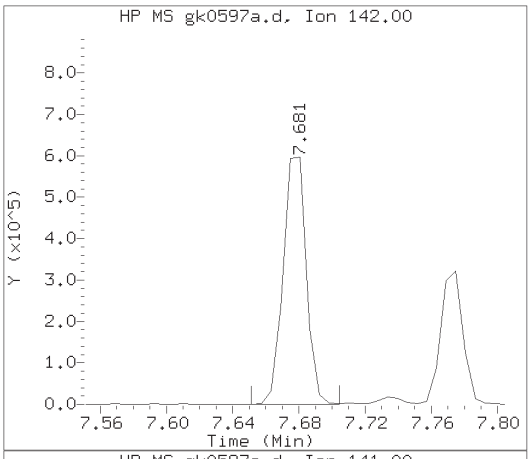
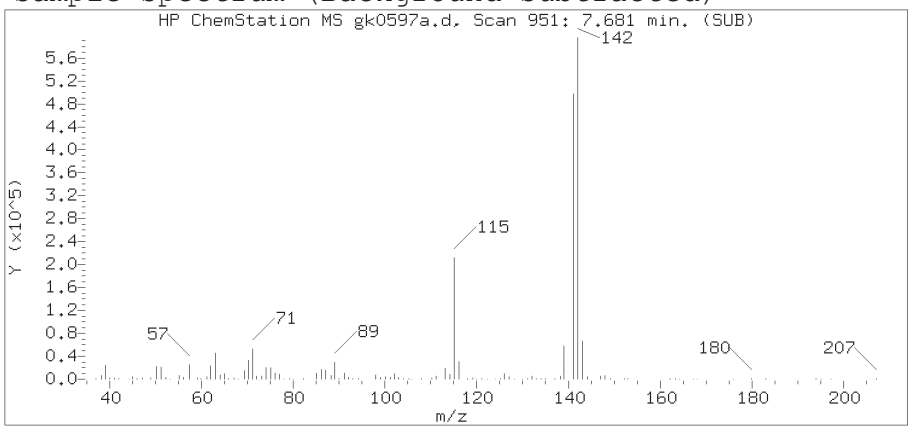
Target 3.5 esignature user ID: em10340

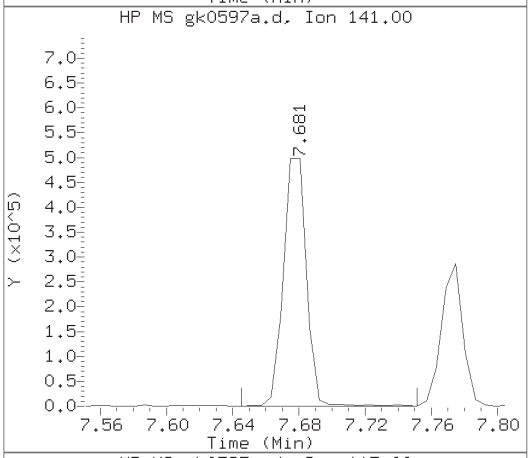
Reference Standard Spectrum for 2-Methylnaphthalene



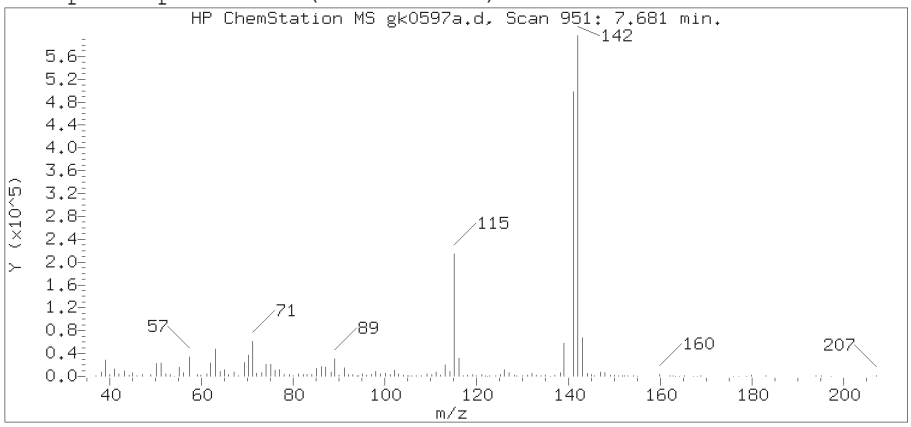


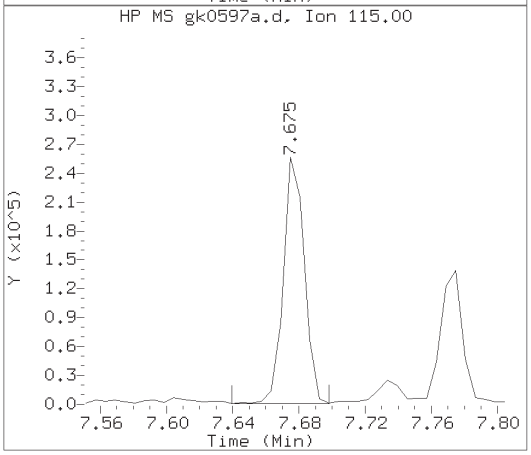
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 951
Retention Time (minutes)	: 7.681
Relative Retention Time	: 0.00017
Quant Ion	: 142.00
Area (flag)	: 587286
On-column Amount (ng/ul)	: 23.1163

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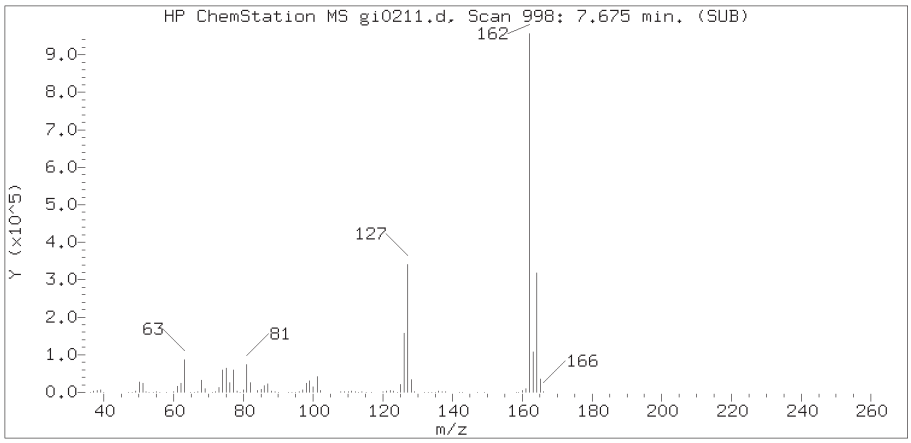
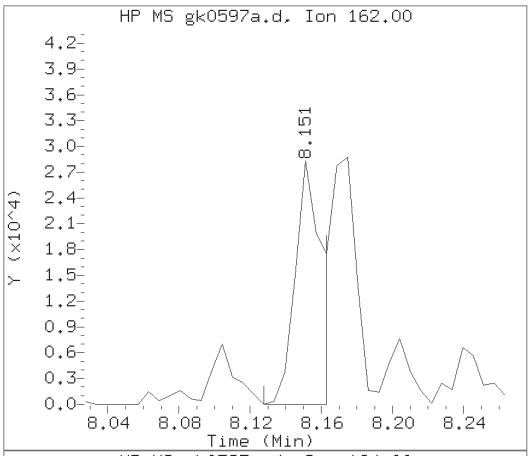
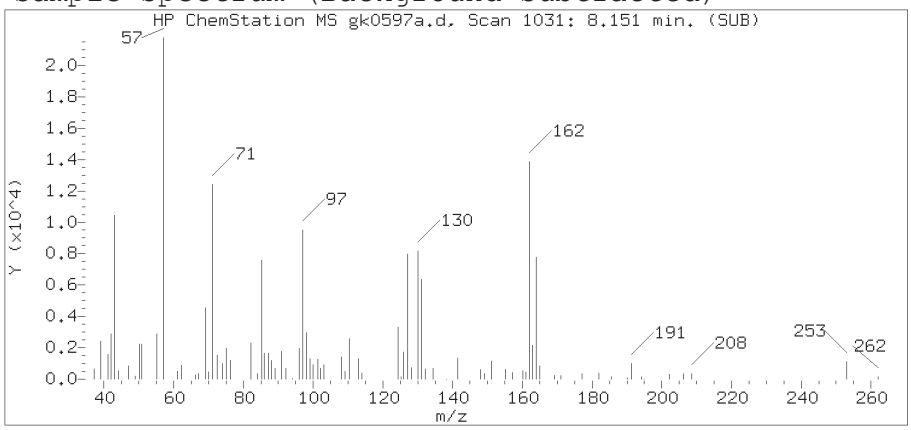
Target 3.5 esignature user ID: em10340

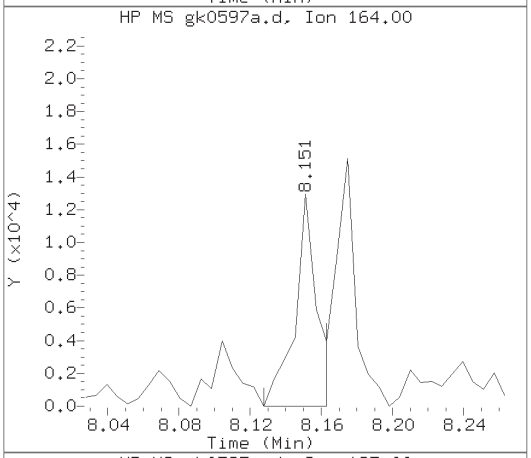
Reference Standard Spectrum for 2-Chloronaphthalene



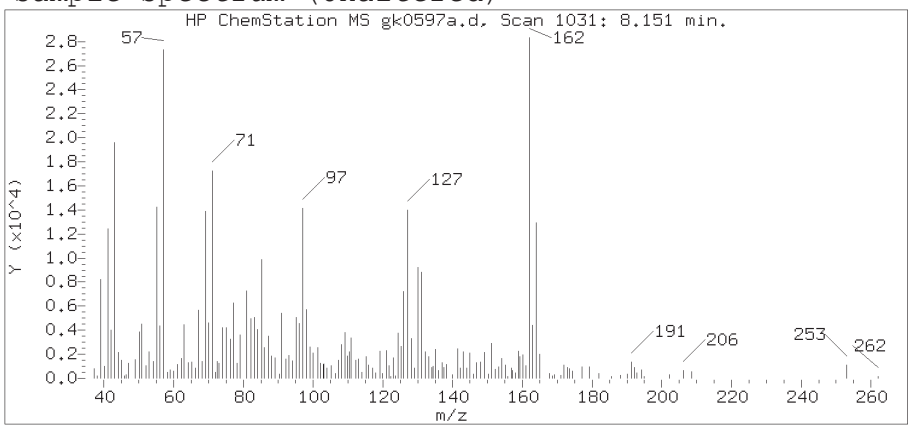


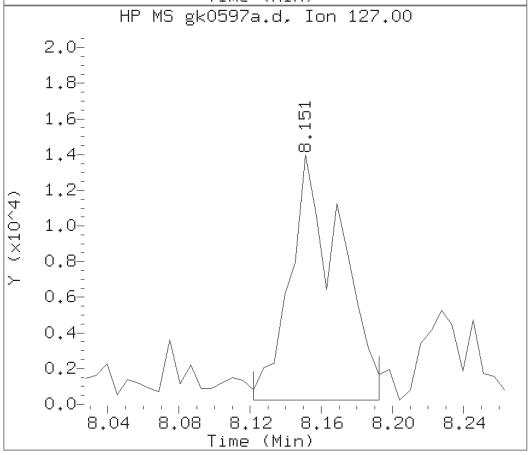
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

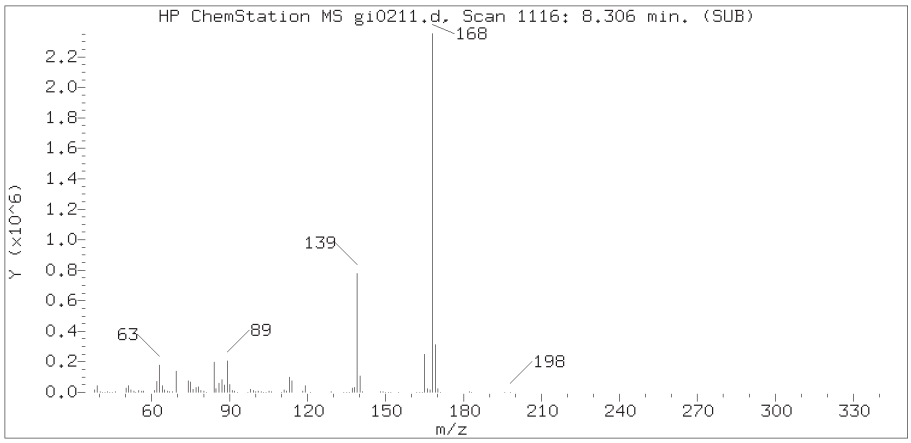
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

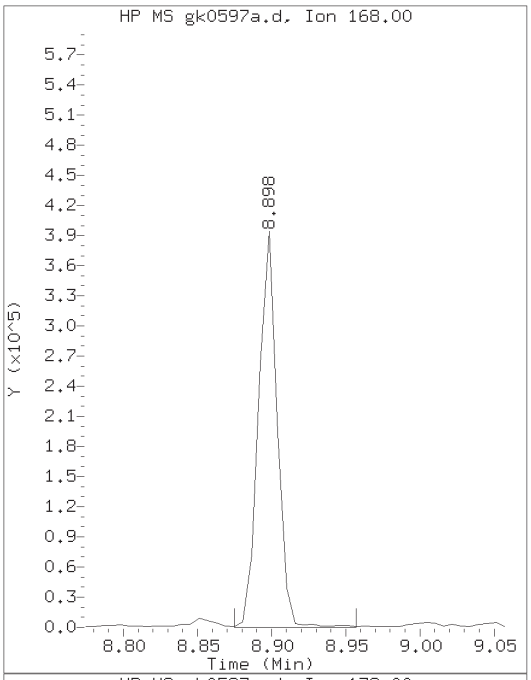
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 1031
Retention Time (minutes)	: 8.151
Relative Retention Time	: 0.00059
Quant Ion	: 162.00
Area (flag)	: 26836
On-column Amount (ng/ul)	: 1.1745

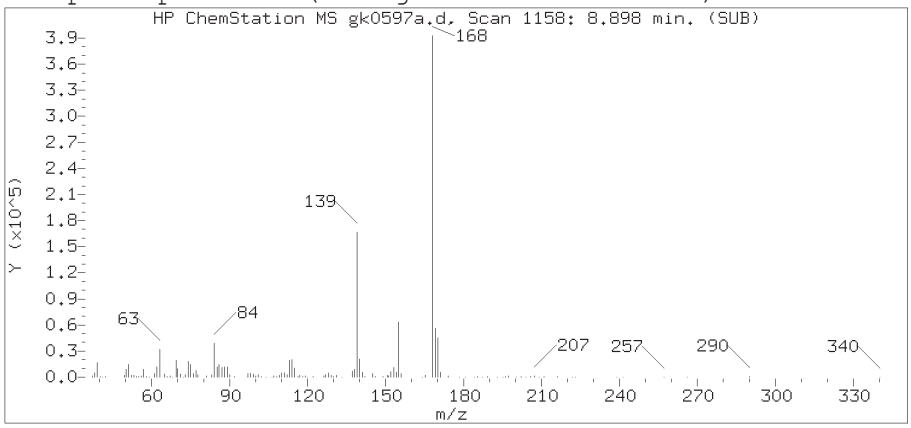
Digitally signed by Edward Monborne on 11/14/2018 at 11:02.
Target 3.5 esignature user ID: em10340

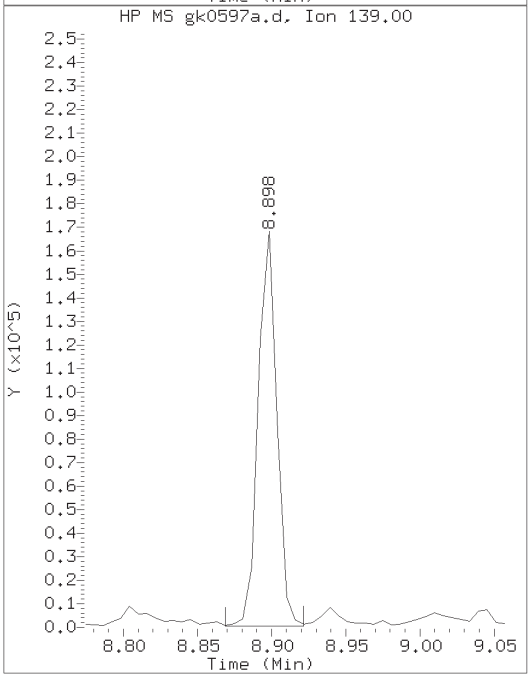
Reference Standard Spectrum for Dibenzofuran



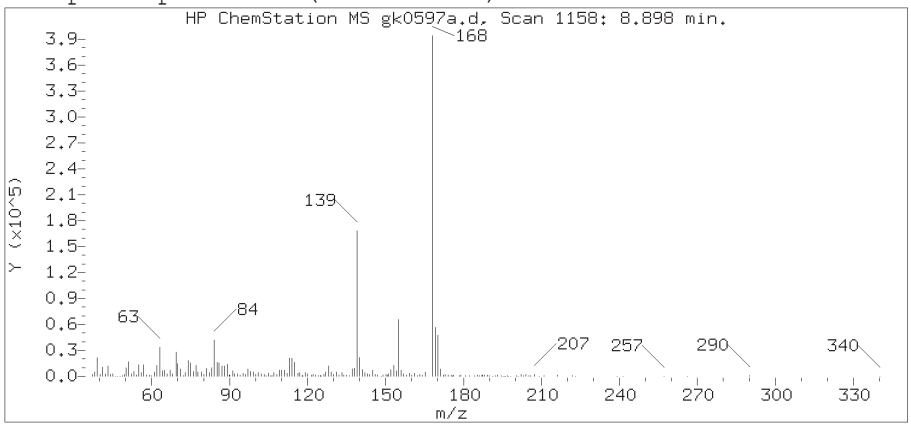


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1158
Retention Time (minutes)	: 8.898
Relative Retention Time	: 0.00003
Quant Ion	: 168.00
Area (flag)	: 346348
On-column Amount (ng/ul)	: 10.6794

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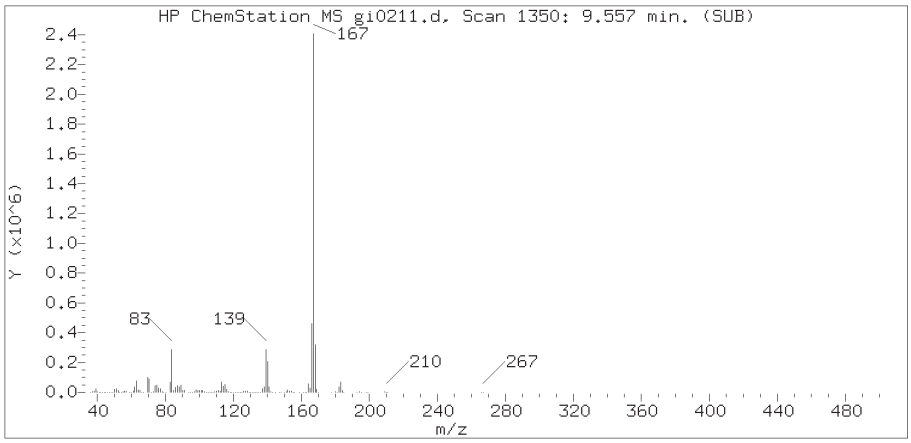
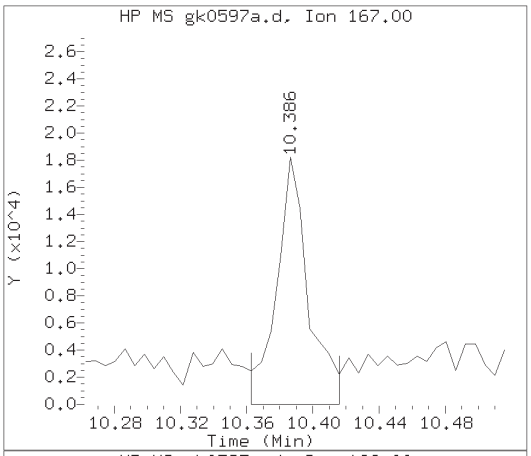
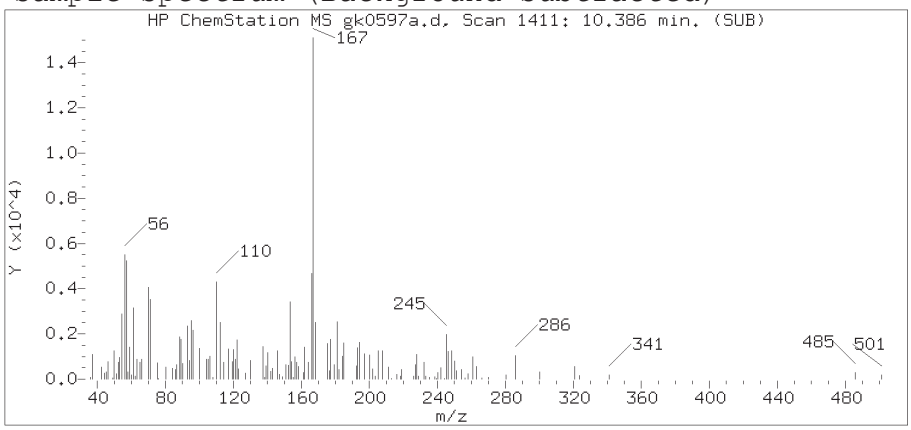
Target 3.5 esignature user ID: em10340

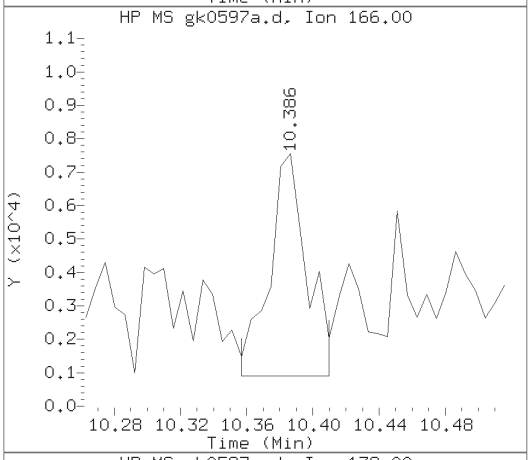
Reference Standard Spectrum for Carbazole



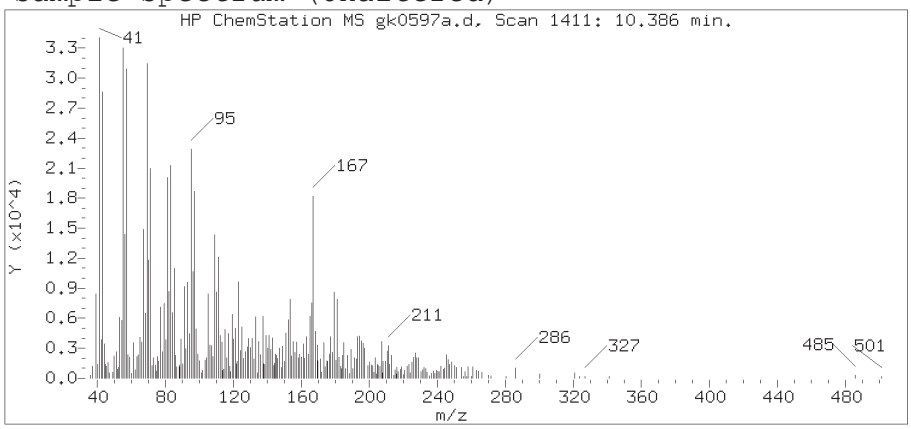


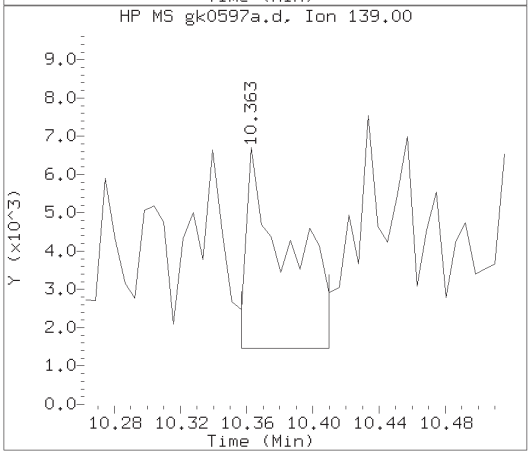
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0597a.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 13:50 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:59 em10340

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 163
Compound Name	: Carbazole
Scan Number	: 1411
Retention Time (minutes)	: 10.386
Relative Retention Time	: 0.00003
Quant Ion	: 167.00
Area (flag)	: 24108
On-column Amount (ng/ul)	: 0.7441

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Target 3.5 esignature user ID: em10340

12T04 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 9872062

Data file: /chem/HP11165.i/18nov12.b/gk0598.d Injection date and time: **12-NOV-2018 12:09**
Data file Sample Info. Line: 12T04;9872062;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.745	(-0.012)	622	152	158821	(22)	21.00	
65) Naphthalene-d8	6.987	(-0.018)	833	136	643068	(9)	21.00	
113) Acenaphthene-d10	8.704	(-0.018)	1125	164	347373	(5)	21.00	
153) Phenanthrene-d10	10.169	(-0.029)	1374	188	582211A	(-10)	21.00	
175) Pyrene-d10	11.574	(-0.041)	1613	212	563124A	(-8)	20.00	
213) Perylene-d12	14.280	(-0.076)	2073	264	564182MA	(11)	21.00	

M = Internal Standard was manually integrated A = User selected an alternate peak

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.481	(-0.004)	112	2064706A	179.974	90%		35 - 115
17) Phenol-d6	(1)	5.416	(-0.004)	99	3047819	171.565	86%		47 - 120
44) Nitrobenzene-d5	(2)	6.287	(0.000)	82	1530451	94.848	95%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.051	(0.000)	172	2168418	80.980	81%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.498	(-0.003)	330	356159	134.414	67%		39 - 132
179) Terphenyl-d14	(5)	11.757	(0.000)	244	2227507A	81.801	82%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)	5.428	(-0.004)	94	283776	14.030	463.05			0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.763	(0.000)	146	481223	37.542	1239.01			0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.910	(-0.000)	146	239104	19.273	636.06			0.6
31) 2-Methylphenol	(1)	6.004	(-0.000)	108	49823	3.654	120.58			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	6.157	(-0.001)	108	1314815	95.206	3142.12			0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.686	(0.000)	142	1588535	64.753	2137.06			0.3

Digitally signed by Edward Monborne on 11/14/2018 at 11:01. Target 3.5 esignature user ID: em10340

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0598.d Injection date and time: **12-NOV-2018 12:09**
Data file Sample Info. Line: 12T04;9872062;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

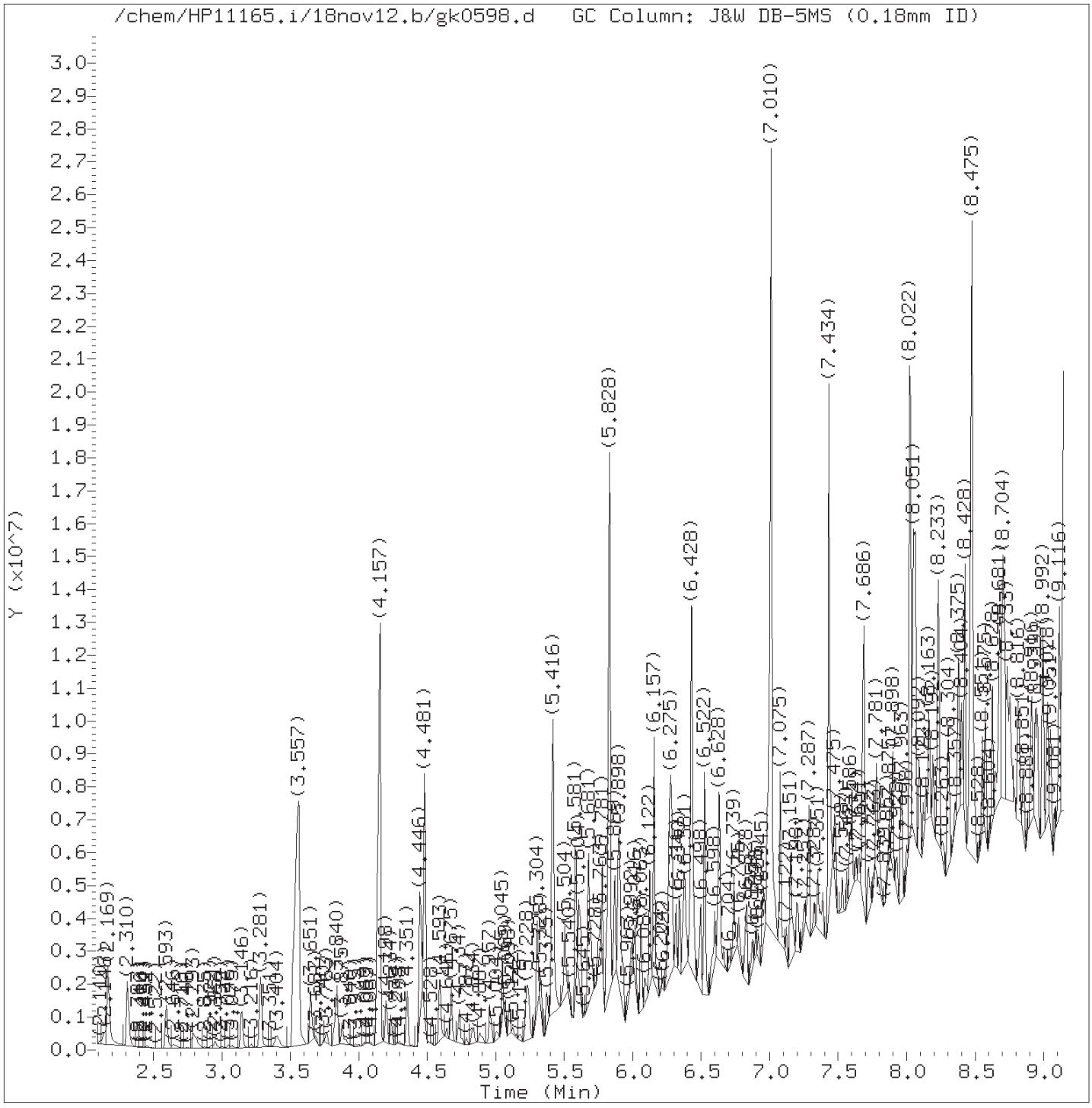
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)	8.904	(0.000)	168	339742	10.457	345.12			0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)	10.404	(0.000)	167	222006	7.153	236.09			0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:01. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

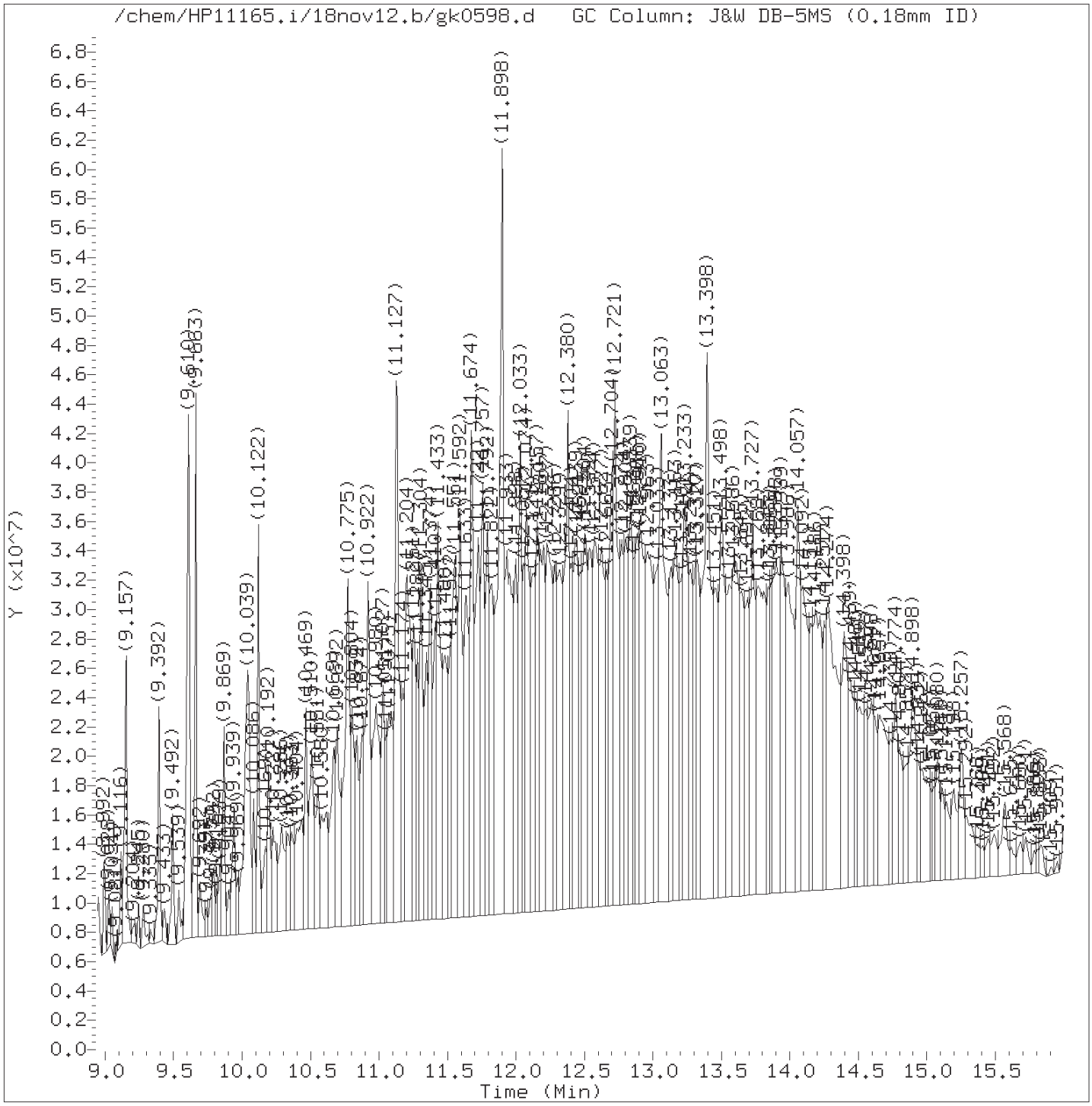
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

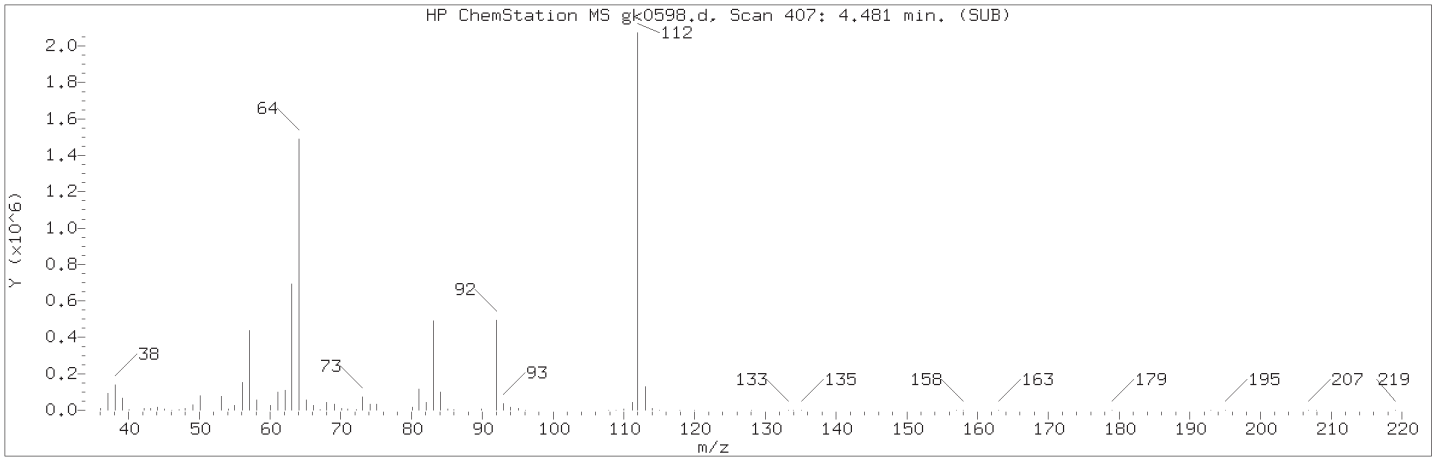
Sample Name: 12T04 Lab Sample ID: 9872062

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.481	112	2064706A	179.974
17)$Phenol-d6	(1)	5.416	99	3047819	171.565
18) Phenol	(1)	5.428	94	283776	14.030
25)*1,4-Dichlorobenzene-d4	(1)	5.745	152	158821	21.000
26) 1,4-Dichlorobenzene	(1)	5.763	146	481223	37.542
28) 1,2-Dichlorobenzene	(1)	5.910	146	239104	19.273
31) 2-Methylphenol	(1)	6.004	108	49823	3.654
37) 4-Methylphenol	(1)	6.157	108	1314815	95.206
44)$Nitrobenzene-d5	(2)	6.287	82	1530451	94.848
65)*Naphthalene-d8	(2)	6.987	136	643068	21.000
83) 2-Methylnaphthalene	(2)	7.686	142	1588535	64.753
93)$2-Fluorobiphenyl	(3)	8.051	172	2168418	80.980
113)*Acenaphthene-d10	(3)	8.704	164	347373	21.000
119) Dibenzofuran	(3)	8.904	168	339742	10.457
135)$2,4,6-Tribromophenol	(3)	9.498	330	356159	134.414
153)*Phenanthrene-d10	(4)	10.169	188	582211A	21.000
163) Carbazole	(4)	10.404	167	222006	7.153
175)*Pyrene-d10	(5)	11.574	212	563124A	20.000
179)$Terphenyl-d14	(5)	11.757	244	2227507A	81.801
213)*Perylene-d12	(6)	14.280	264	564182MA	21.000

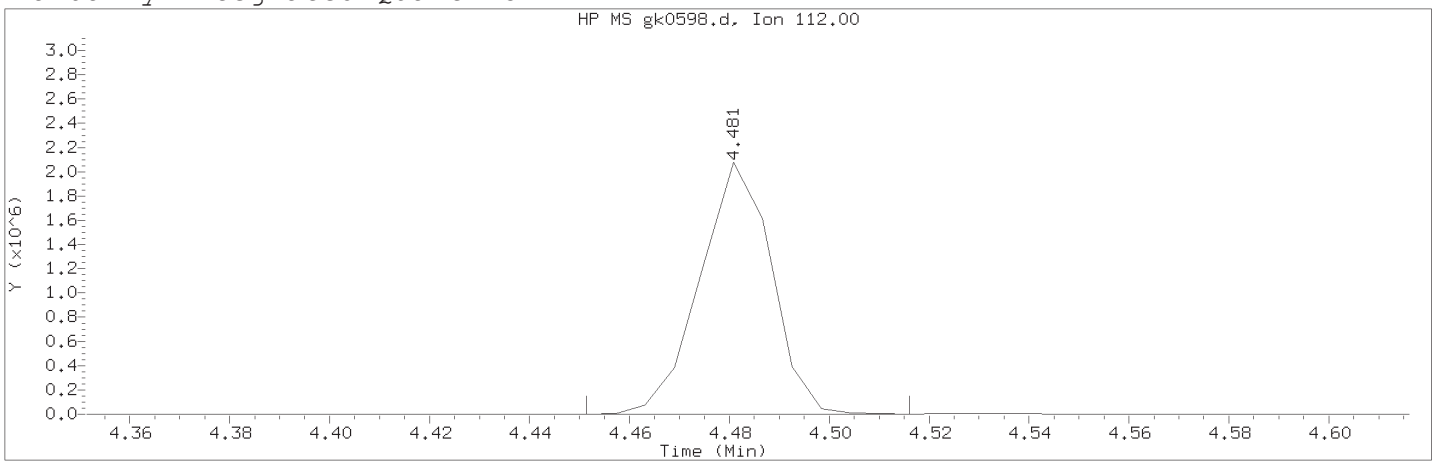
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

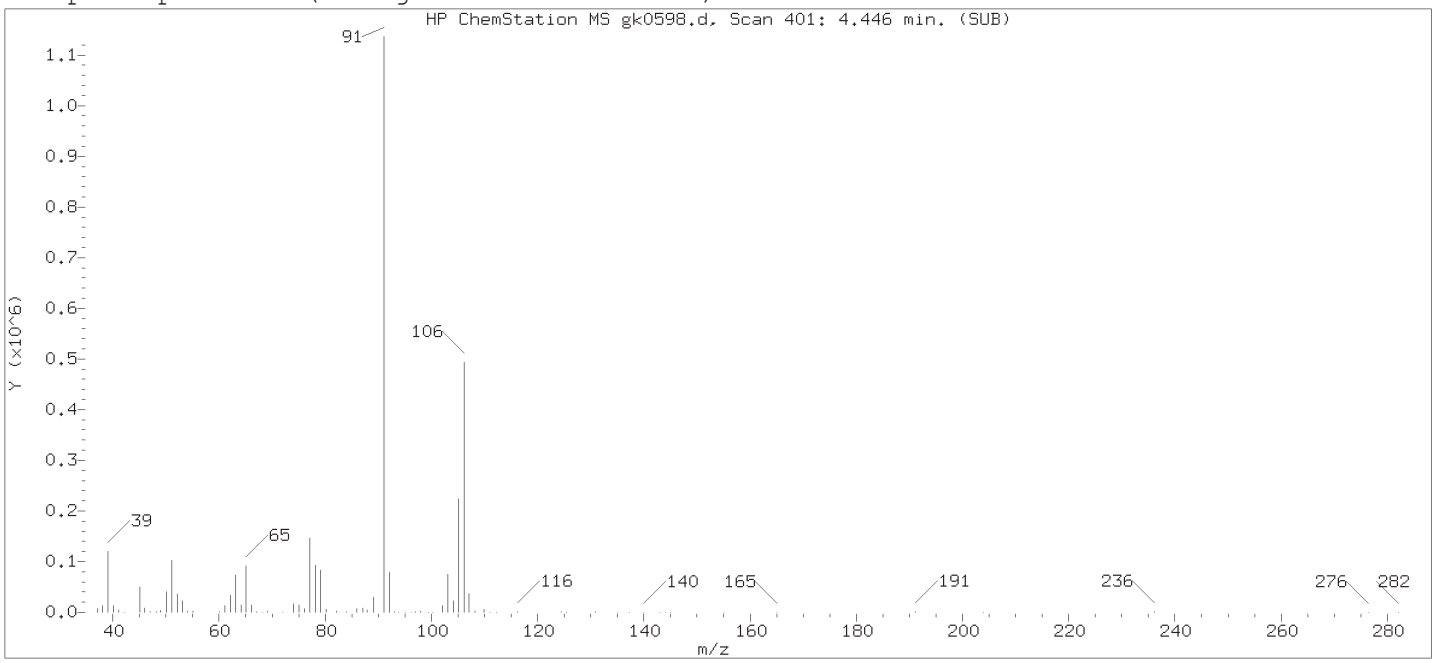
Compound Number : 11
Compound Name : 2-Fluorophenol
Scan Number : 407
Retention Time (minutes) : 4.481
Quant Ion : 112.00
Area (flag) : 2064706A
On-column Amount (ng/ul) : 179.9742
Integration start scan : 401 Integration stop scan: 412
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

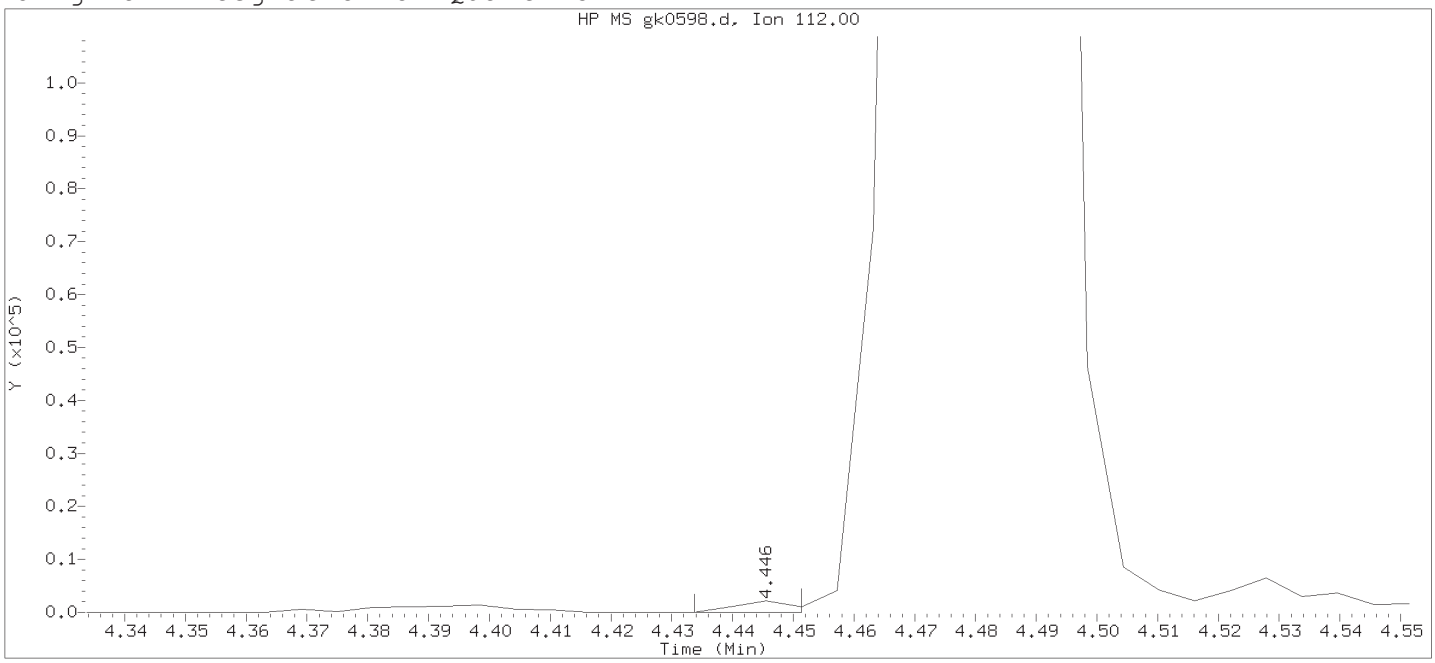
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

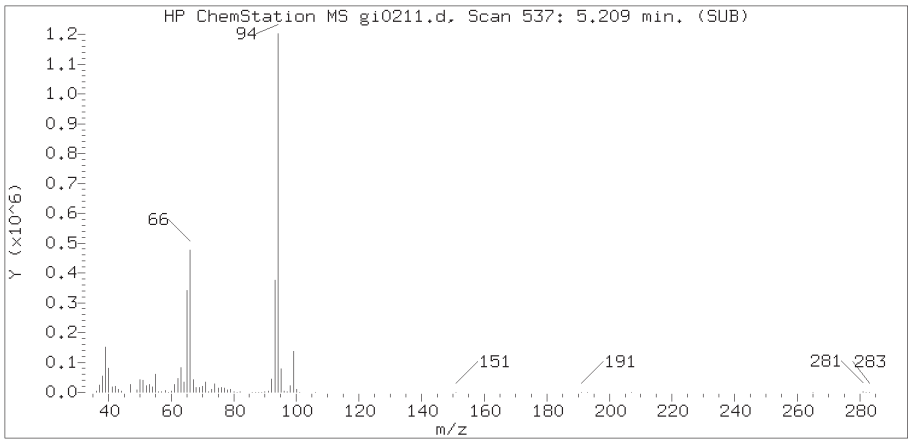
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:30 Automation

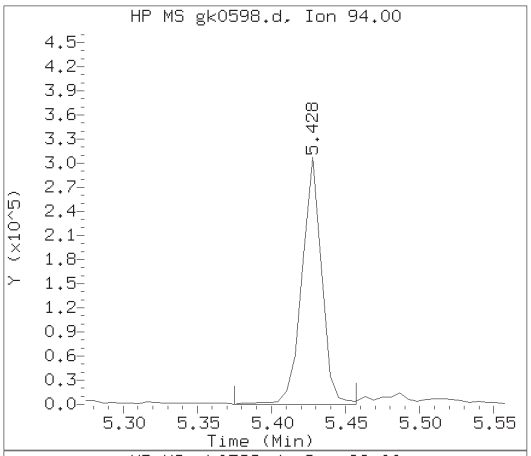
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 11		
Compound Name	: 2-Fluorophenol		
Scan Number	: 401		
Retention Time (minutes)	: 4.446		
Quant Ion	: 112.00		
Area	: 1328		
On-column Amount (ng/ul)	: 0.1158		
Integration start scan	: 398	Integration stop scan:	401
Y at integration start	: 0	Y at integration end:	0

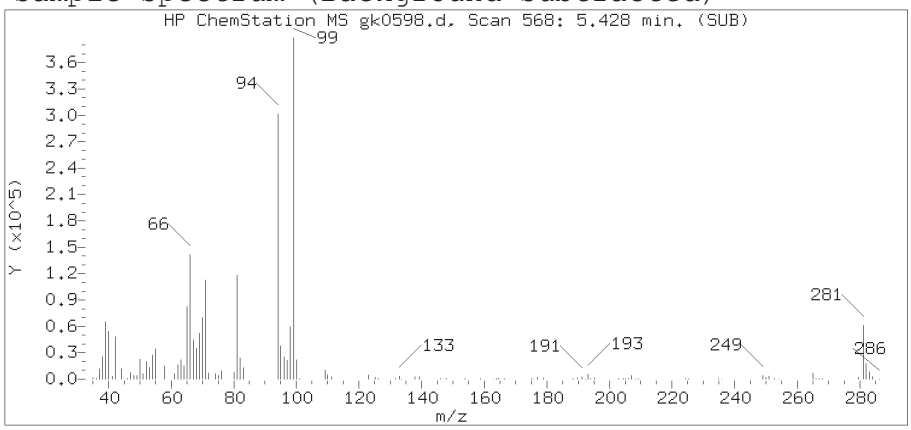
Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature used: 1.0.0.1410

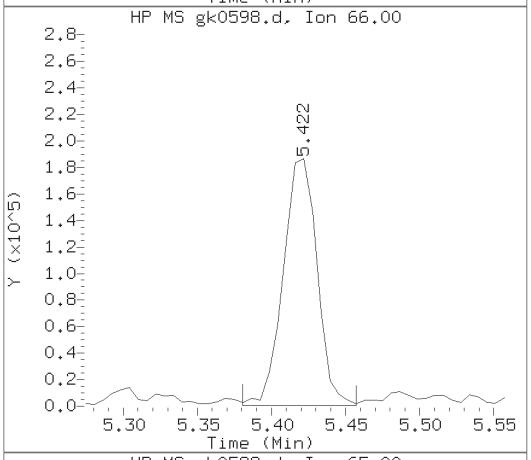
Reference Standard Spectrum for Phenol



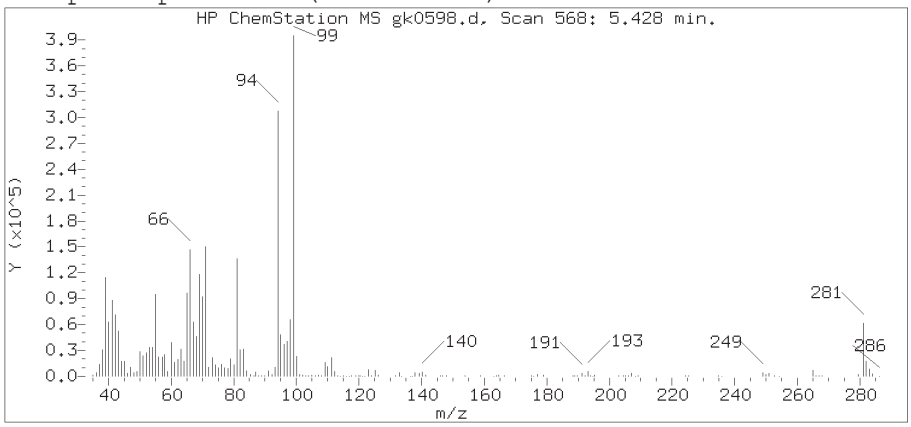


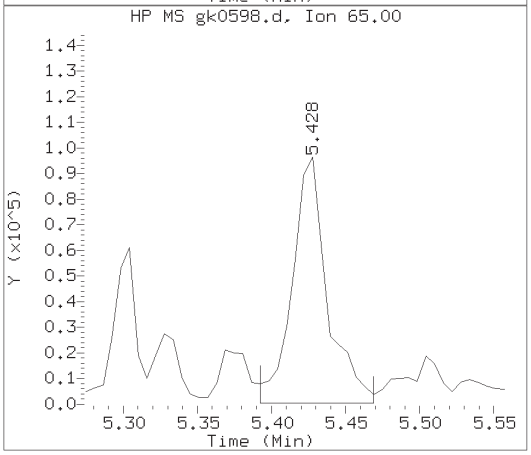
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 18
Compound Name	: Phenol
Scan Number	: 568
Retention Time (minutes)	: 5.428
Relative Retention Time	:-0.00422
Quant Ion	: 94.00
Area (flag)	: 283776
On-column Amount (ng/ul)	: 14.0304

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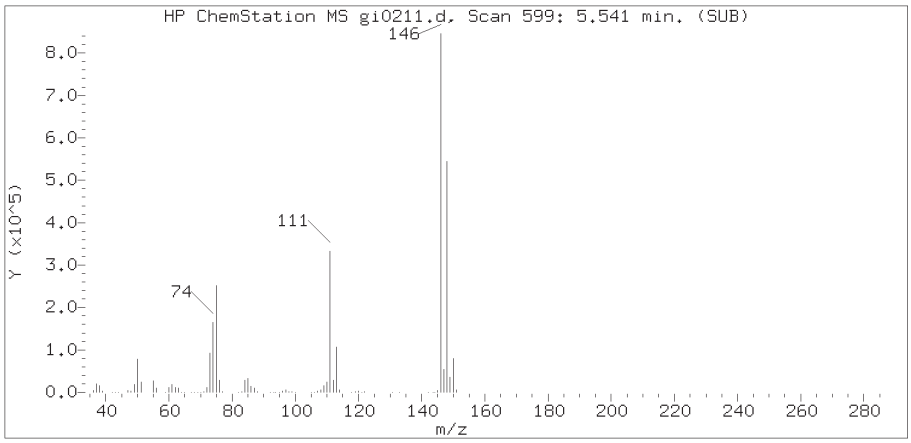
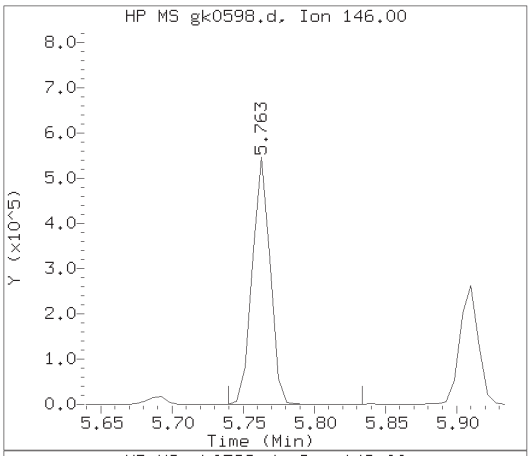
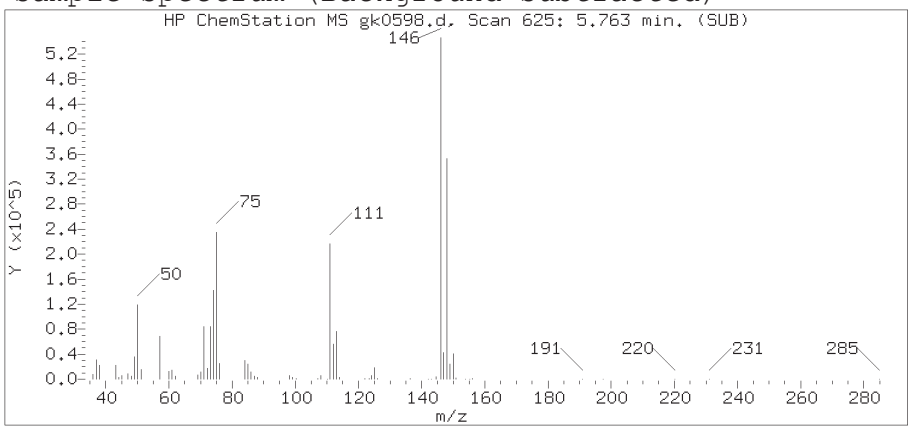
Target 3.5 esignature user ID: em10340

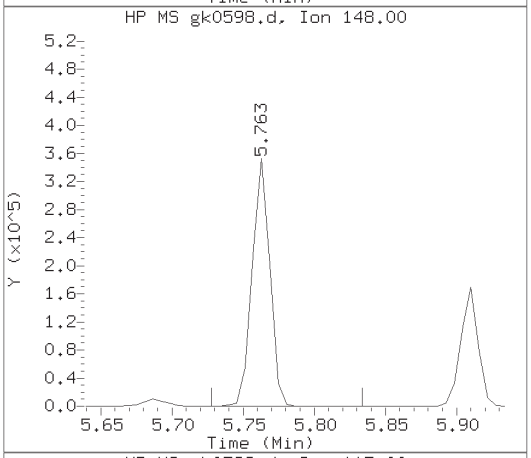
Reference Standard Spectrum for 1,4-Dichlorobenzene



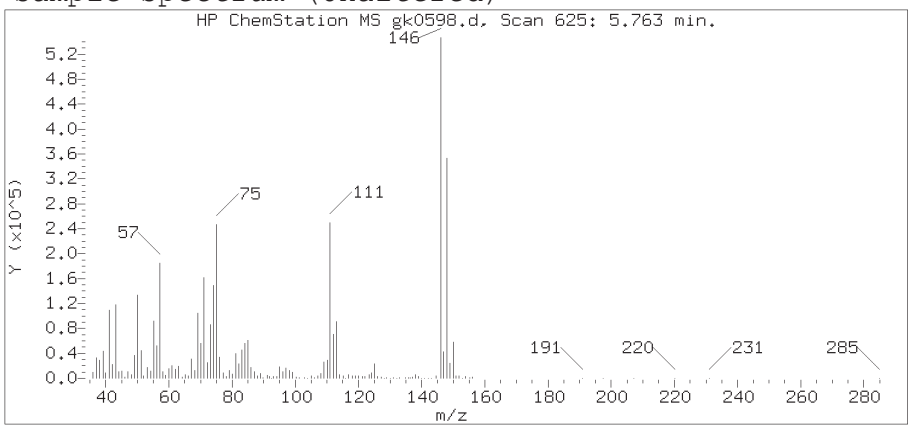


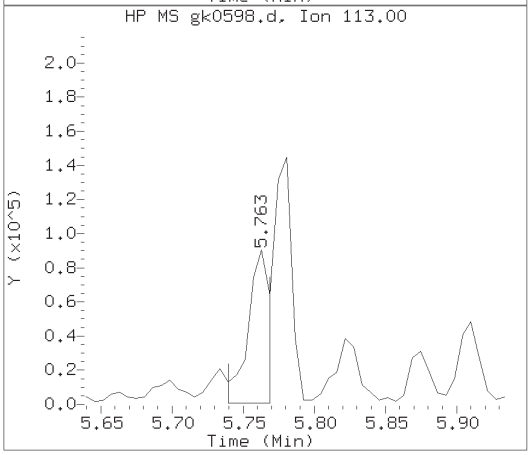
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 625
Retention Time (minutes)	: 5.763
Relative Retention Time	: 0.00001
Quant Ion	: 146.00
Area (flag)	: 481223
On-column Amount (ng/ul)	: 37.5419

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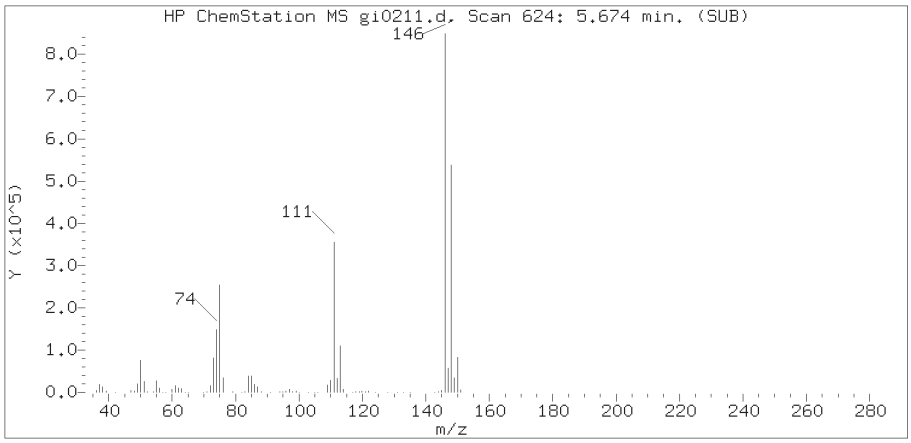
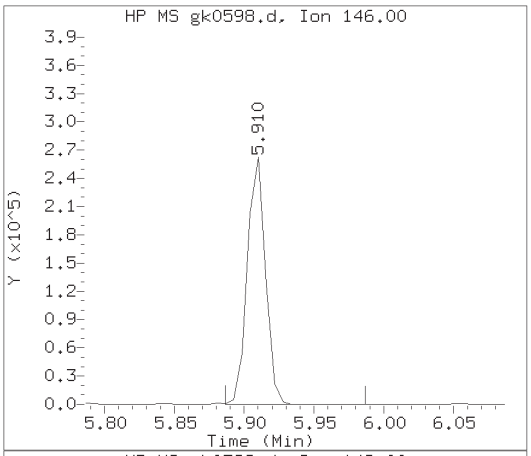
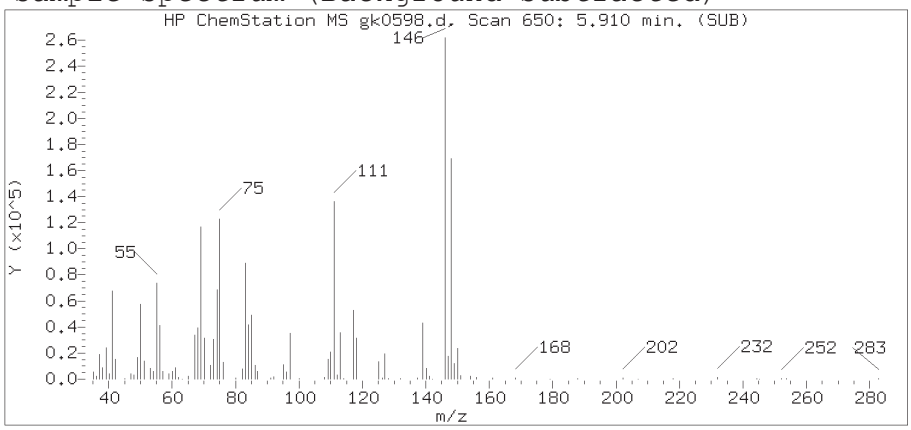
Target 3.5 esignature user ID: em10340

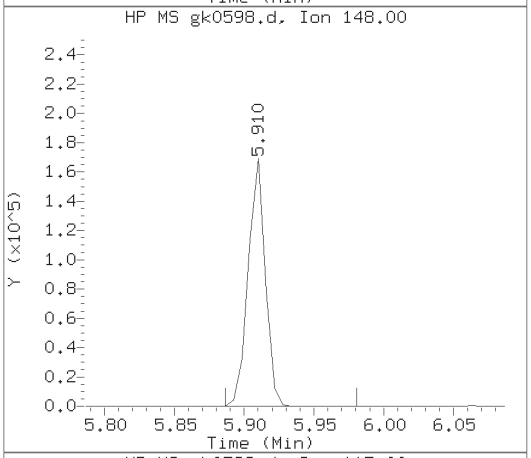
Reference Standard Spectrum for 1,2-Dichlorobenzene



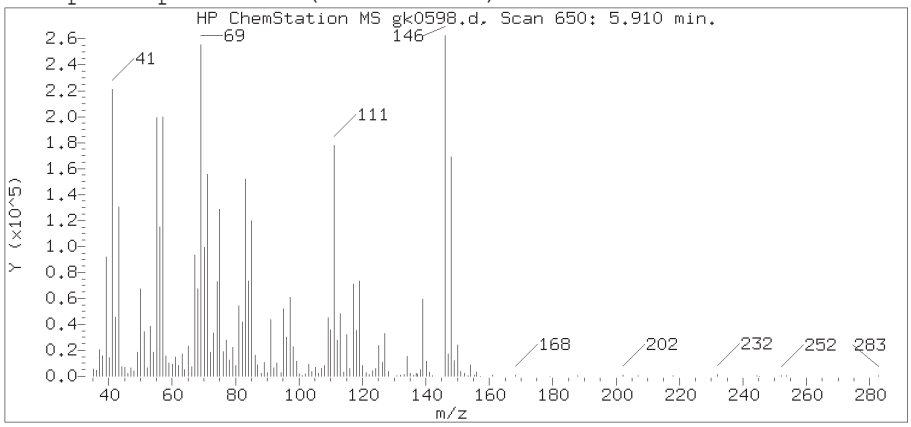


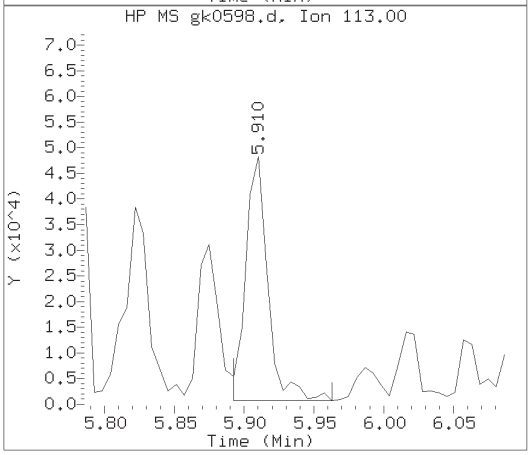
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

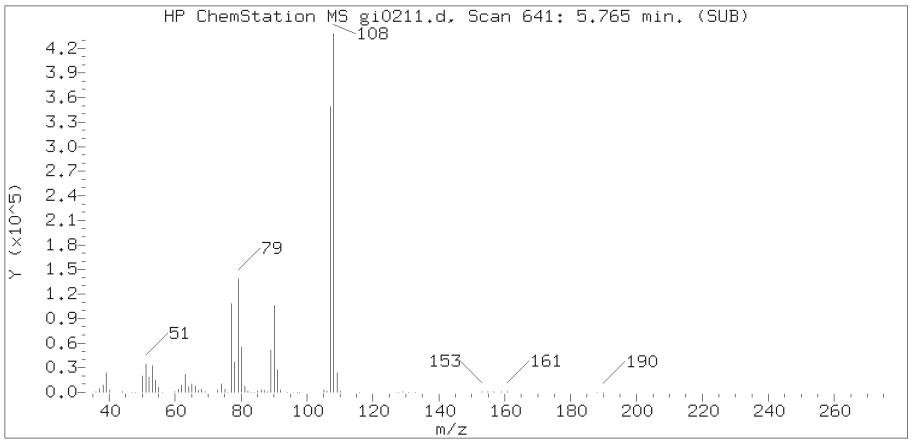
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

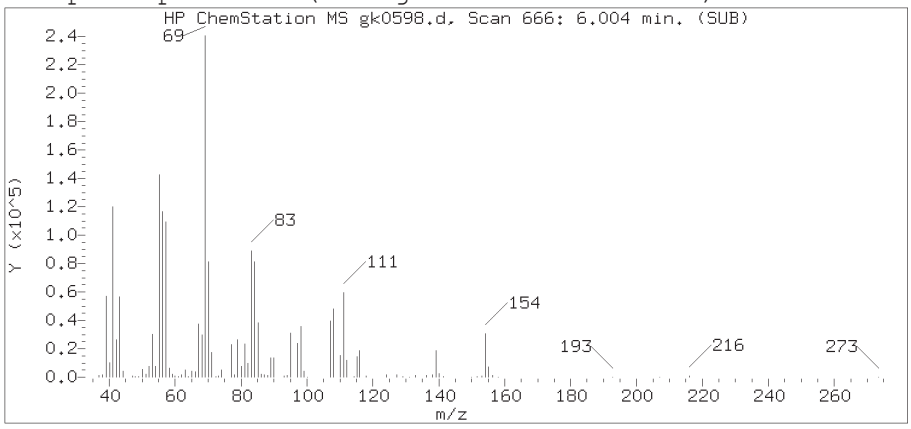
Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 650
Retention Time (minutes)	: 5.910
Relative Retention Time	:-0.00097
Quant Ion	: 146.00
Area (flag)	: 239104
On-column Amount (ng/ul)	: 19.2727

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

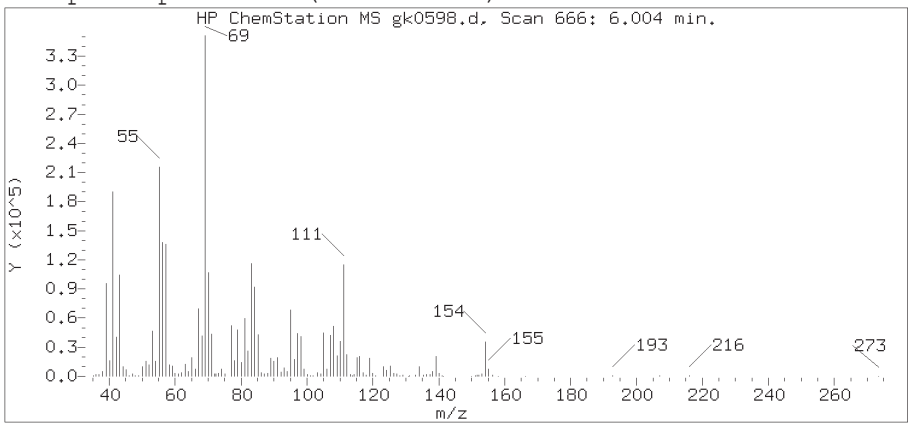
Reference Standard Spectrum for 2-Methylphenol

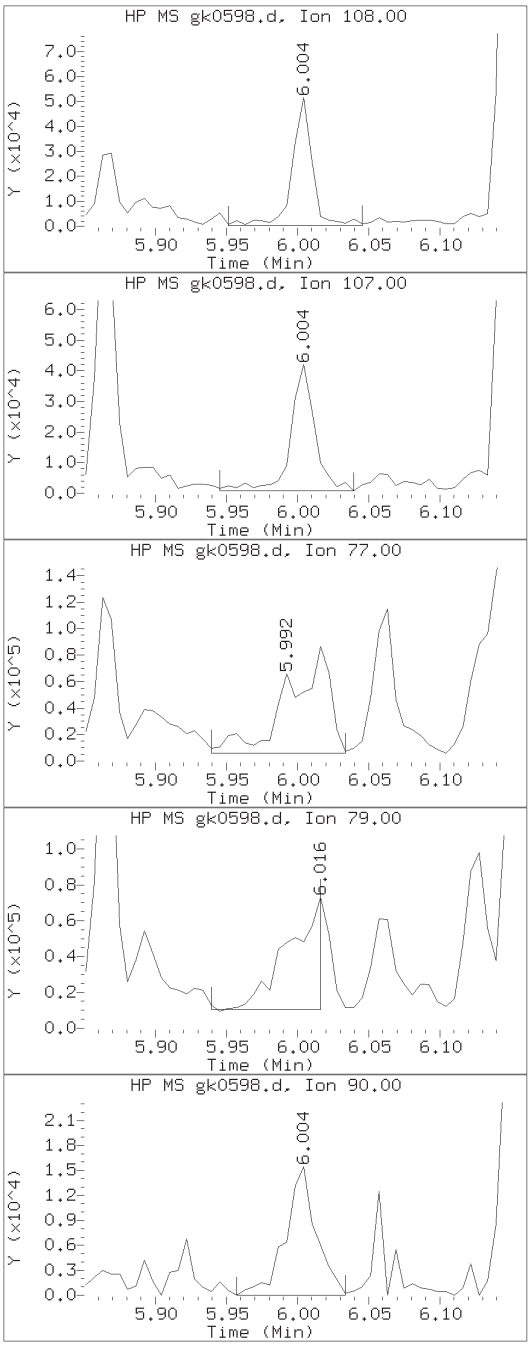


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

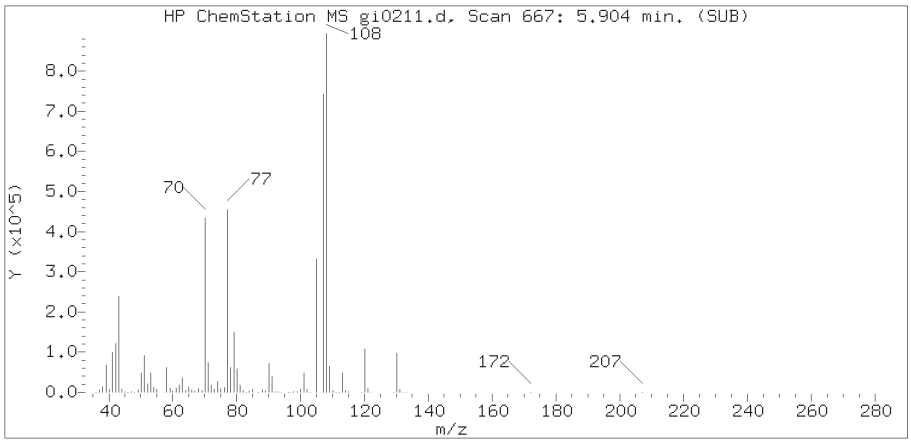
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

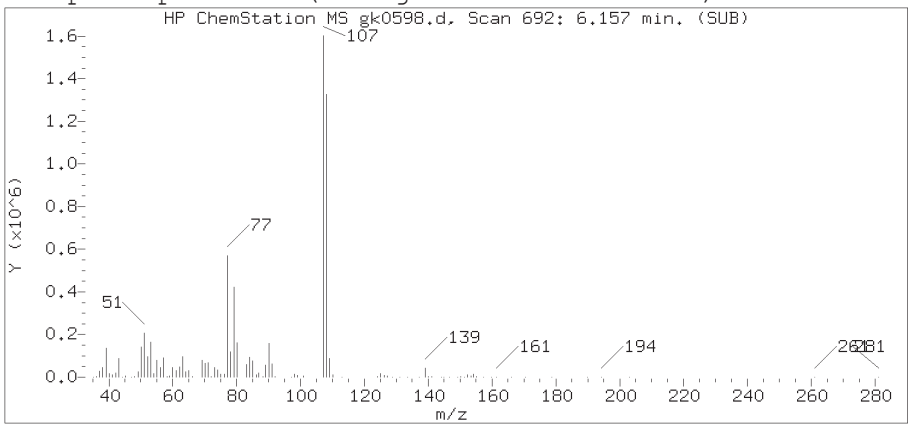
Compound Number	: 31
Compound Name	: 2-Methylphenol
Scan Number	: 666
Retention Time (minutes)	: 6.004
Relative Retention Time	:-0.00093
Quant Ion	: 108.00
Area (flag)	: 49823
On-column Amount (ng/ul)	: 3.6537

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

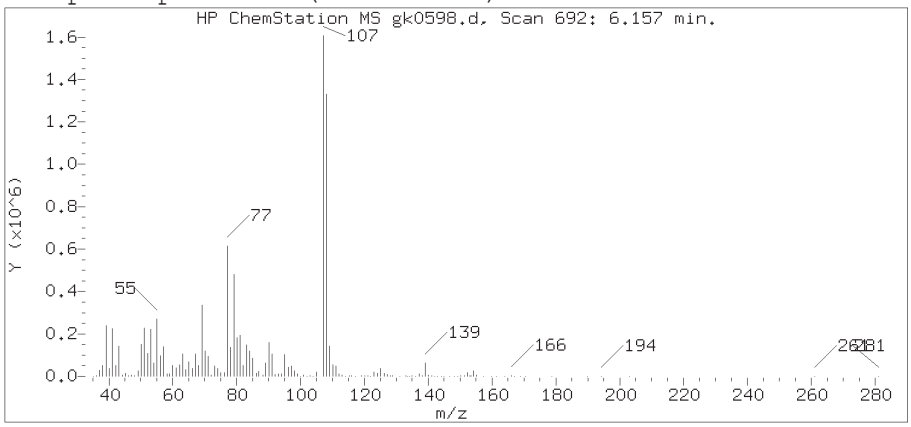
Reference Standard Spectrum for 4-Methylphenol

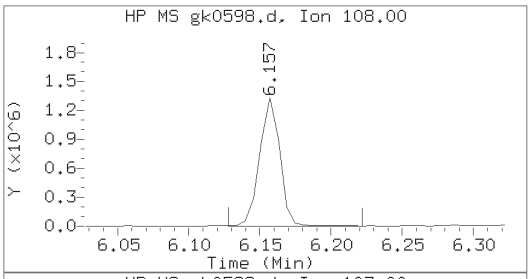


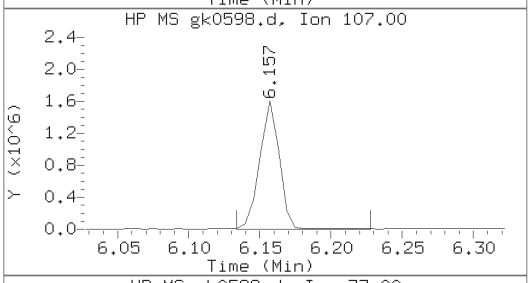
Sample Spectrum (Background Subtracted)

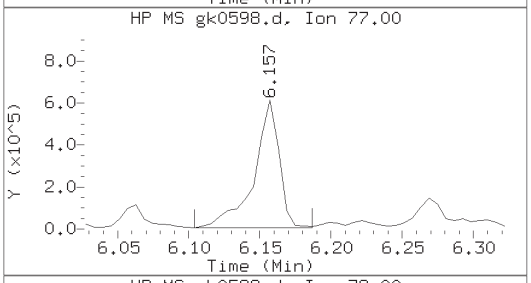


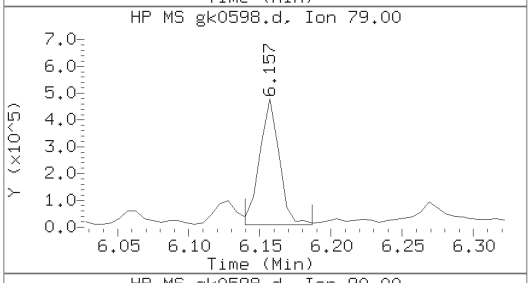
Sample Spectrum (Unaltered)

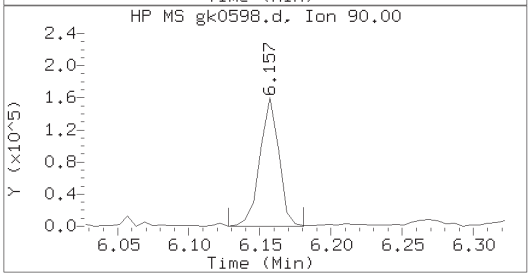












Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

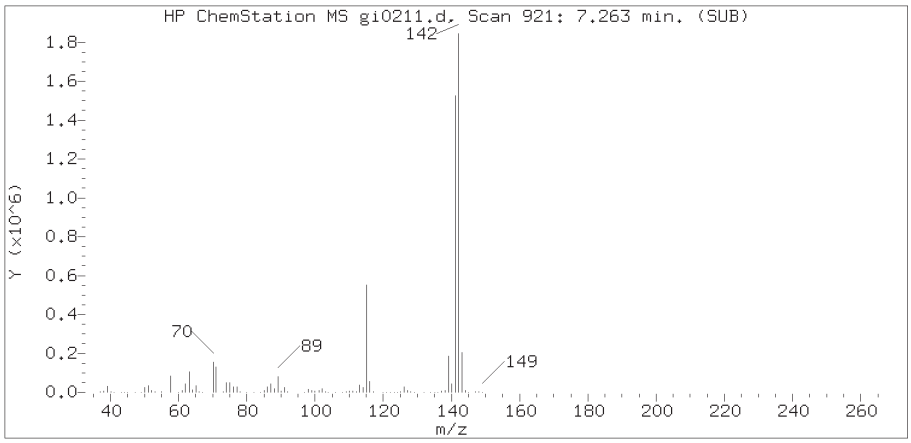
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

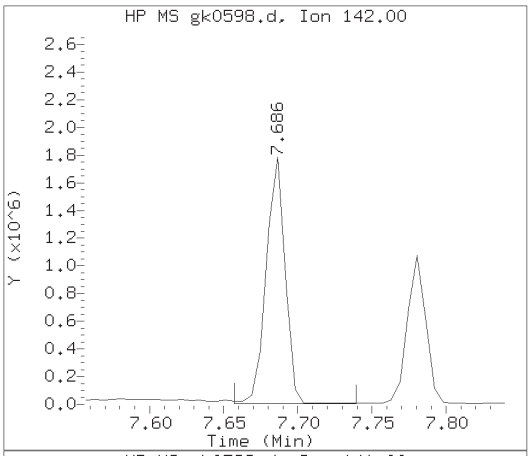
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 692
Retention Time (minutes)	: 6.157
Relative Retention Time	:-0.00191
Quant Ion	: 108.00
Area (flag)	: 1314815
On-column Amount (ng/ul)	: 95.2062

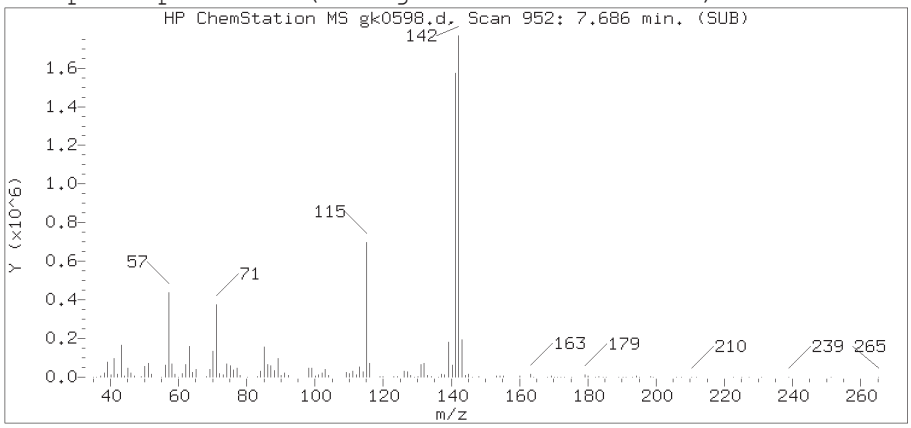
Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

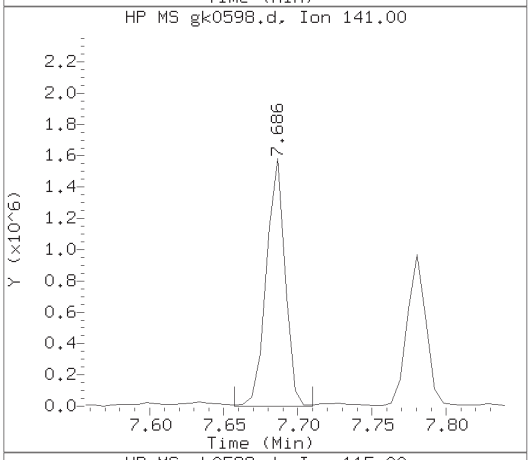
Reference Standard Spectrum for 2-Methylnaphthalene



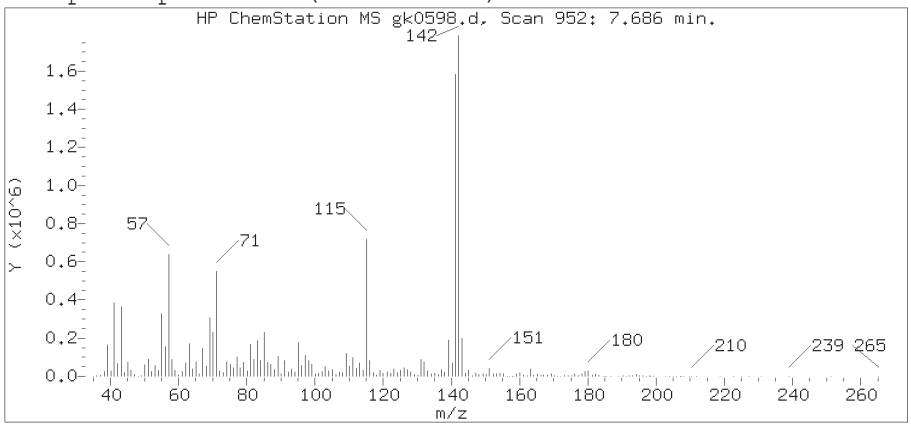


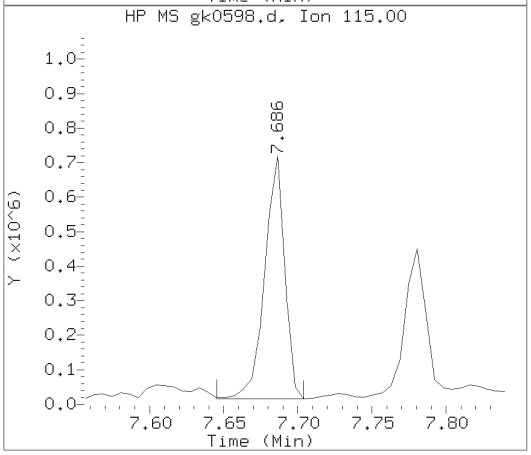
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

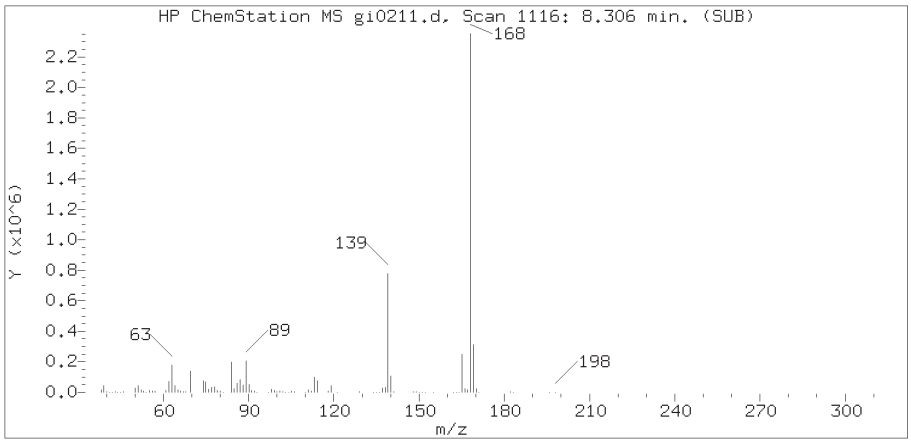
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

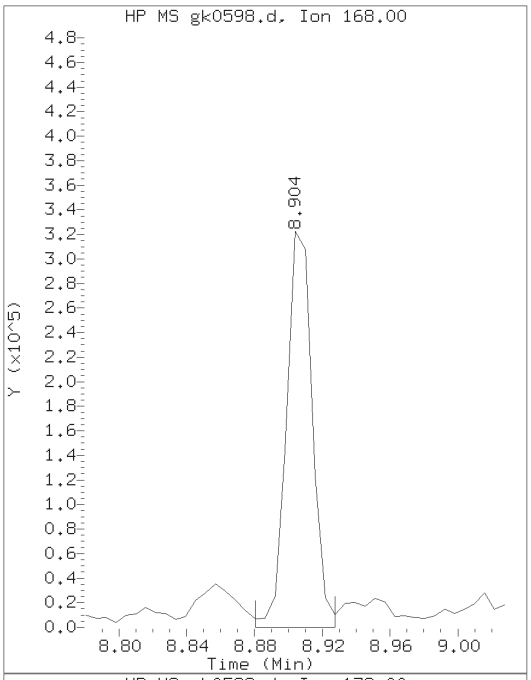
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 952
Retention Time (minutes)	: 7.686
Relative Retention Time	: 0.00025
Quant Ion	: 142.00
Area (flag)	: 1588535
On-column Amount (ng/ul)	: 64.7530

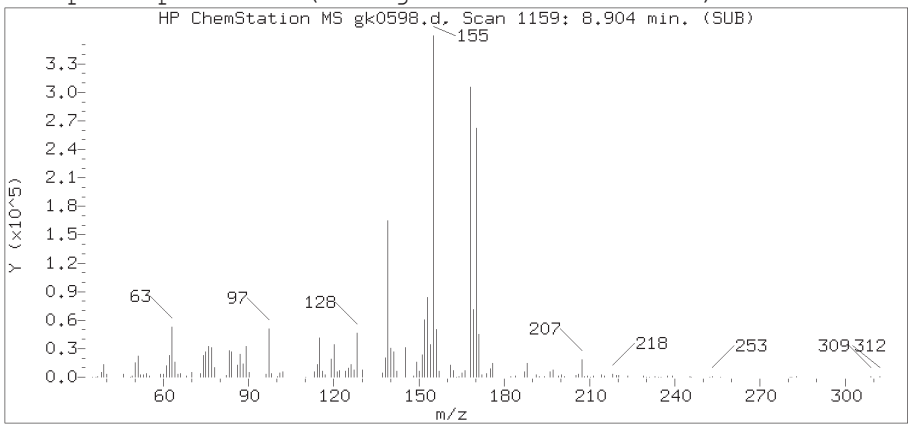
Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

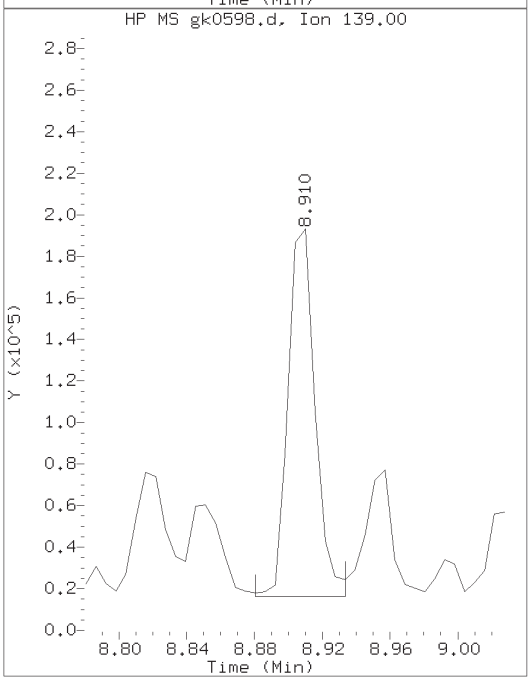
Reference Standard Spectrum for Dibenzofuran



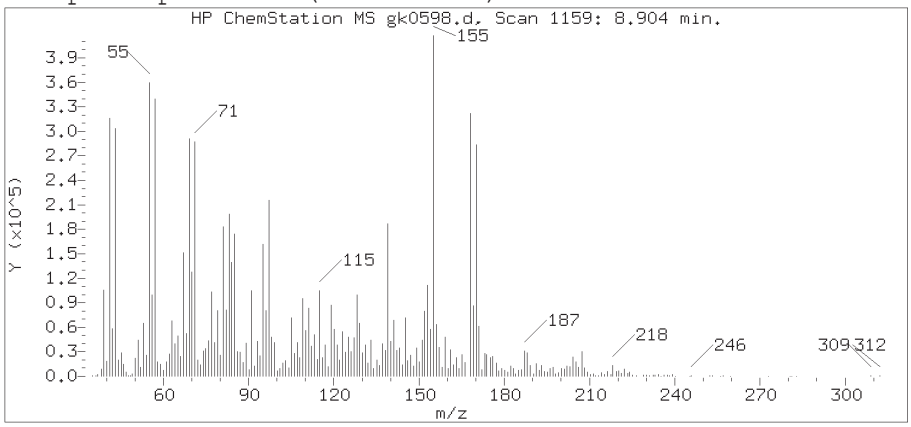


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

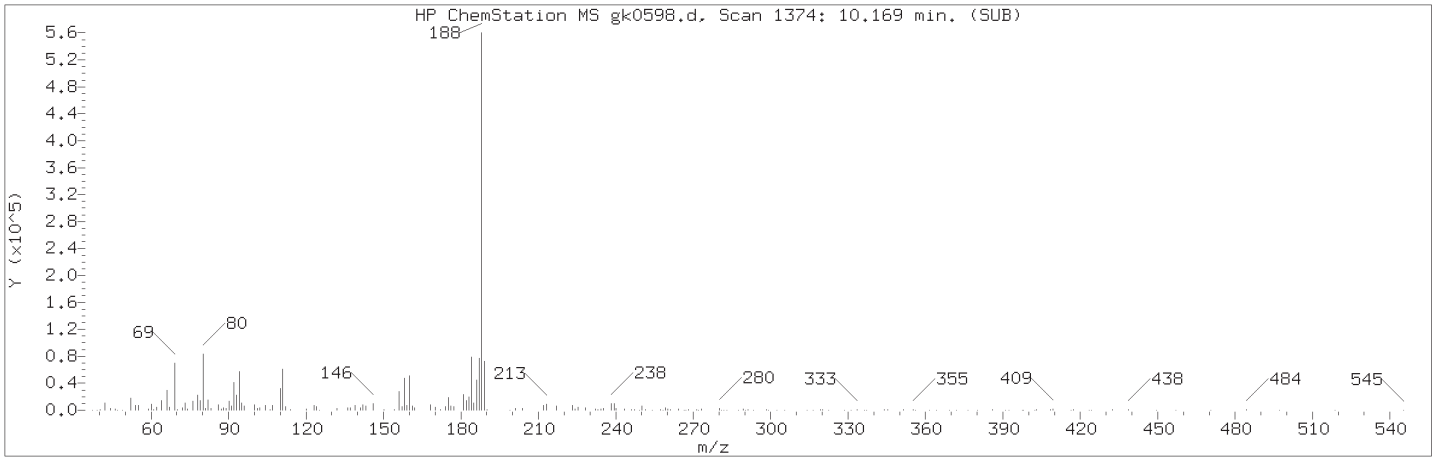
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

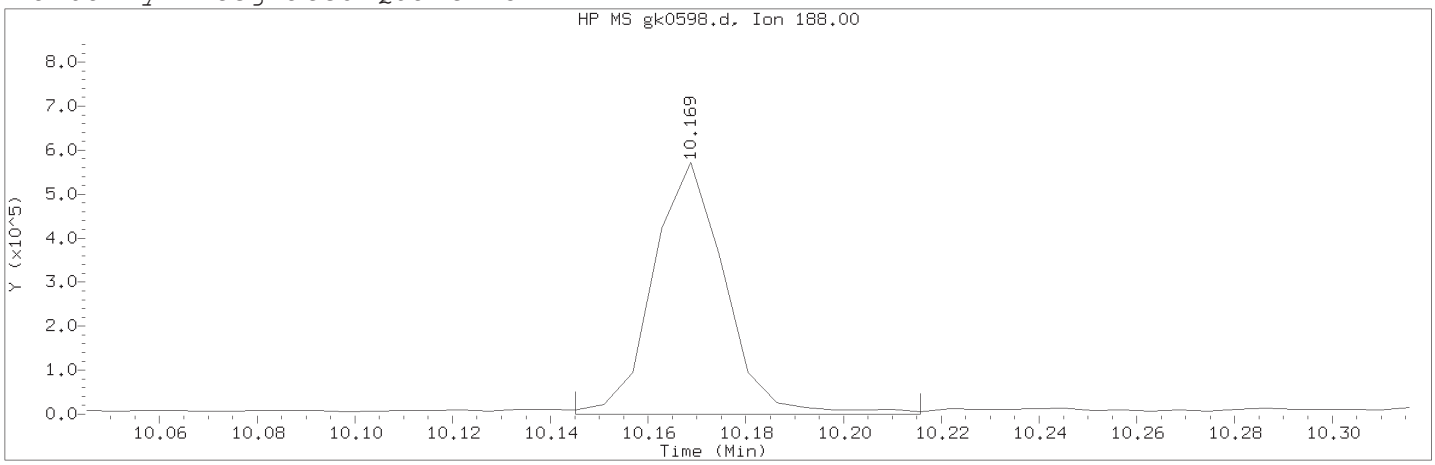
Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1159
Retention Time (minutes)	: 8.904
Relative Retention Time	: 0.00005
Quant Ion	: 168.00
Area (flag)	: 339742
On-column Amount (ng/ul)	: 10.4571

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

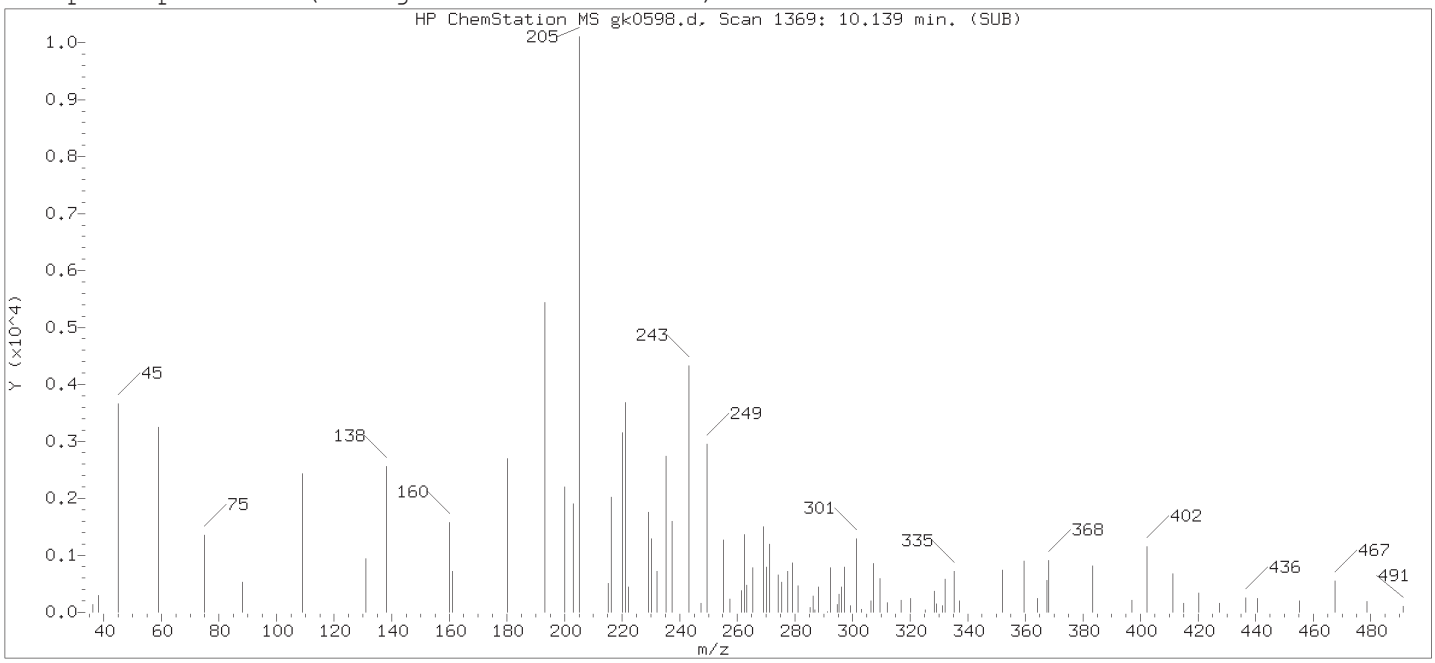
Compound Number : 153
Compound Name : Phenanthrene-d10
Scan Number : 1374
Retention Time (minutes) : 10.169
Quant Ion : 188.00
Area (flag) : 582211A
On-column Amount (ng/ul) : 21.0000
Integration start scan : 1369 Integration stop scan: 1381
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

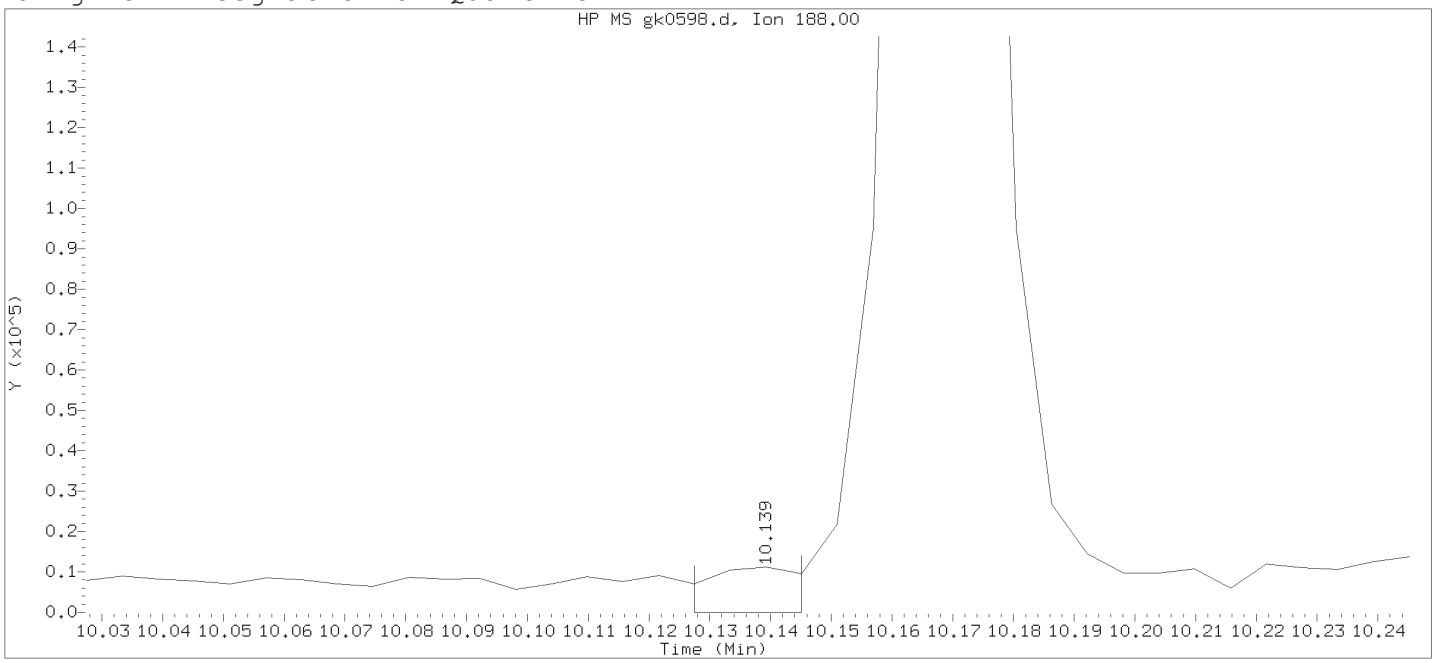
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

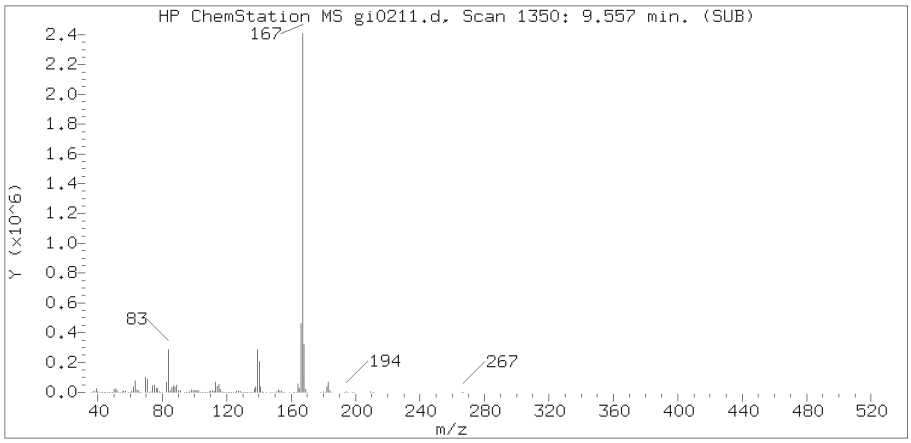
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:30 Automation

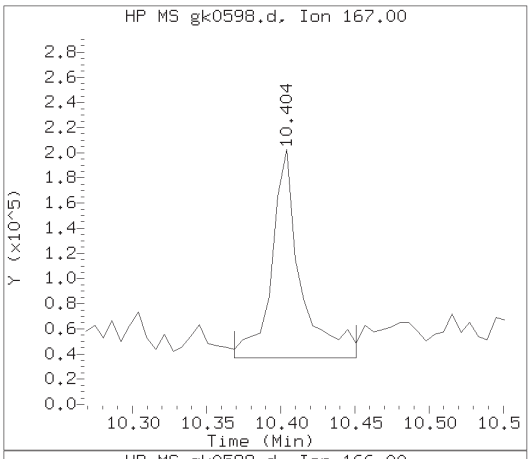
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 153		
Compound Name	: Phenanthrene-d10		
Scan Number	: 1369		
Retention Time (minutes)	: 10.139		
Quant Ion	: 188.00		
Area	: 10521		
On-column Amount (ng/ul)	: 21.0000		
Integration start scan	: 1366	Integration stop scan:	1369
Y at integration start	: 0	Y at integration end:	0

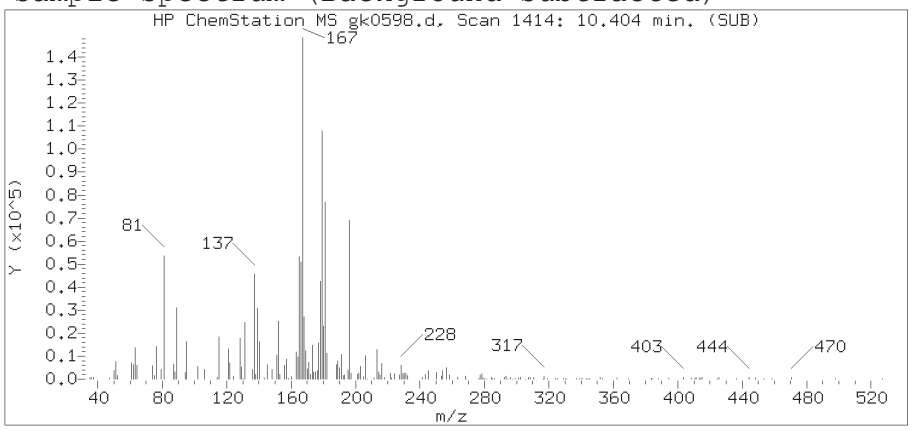
Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature used: 1.0.0.1428

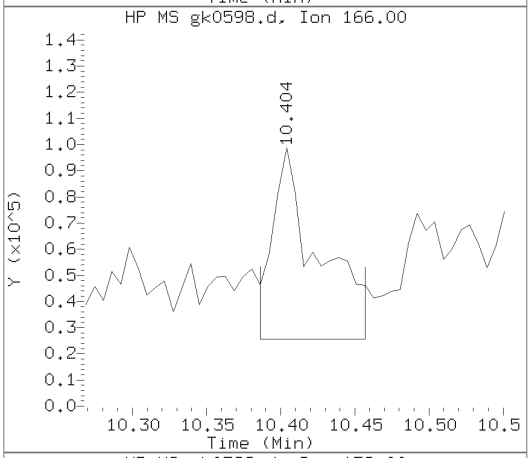
Reference Standard Spectrum for Carbazole



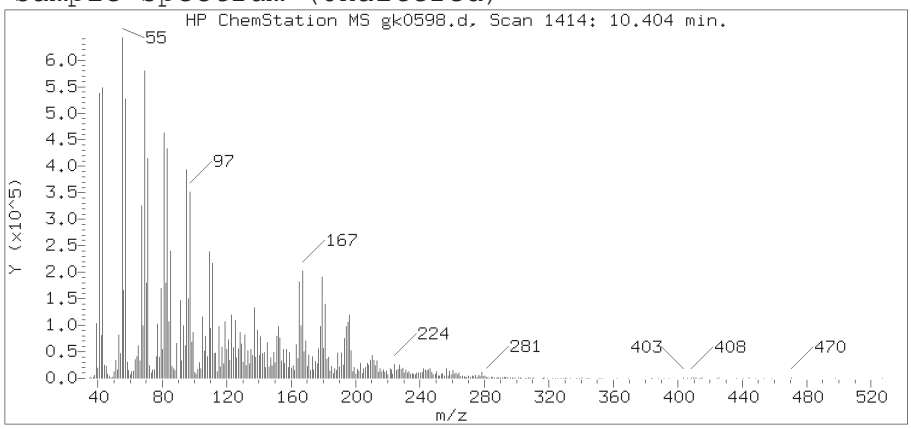


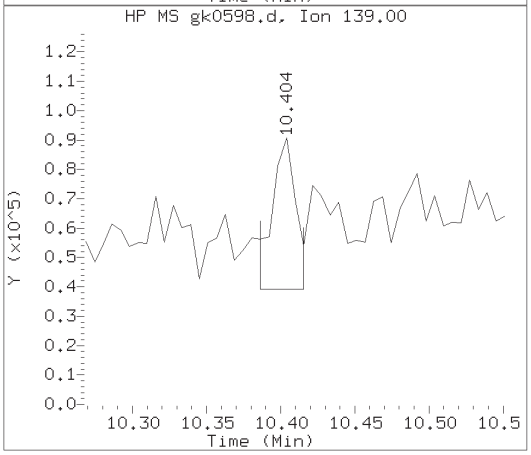
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

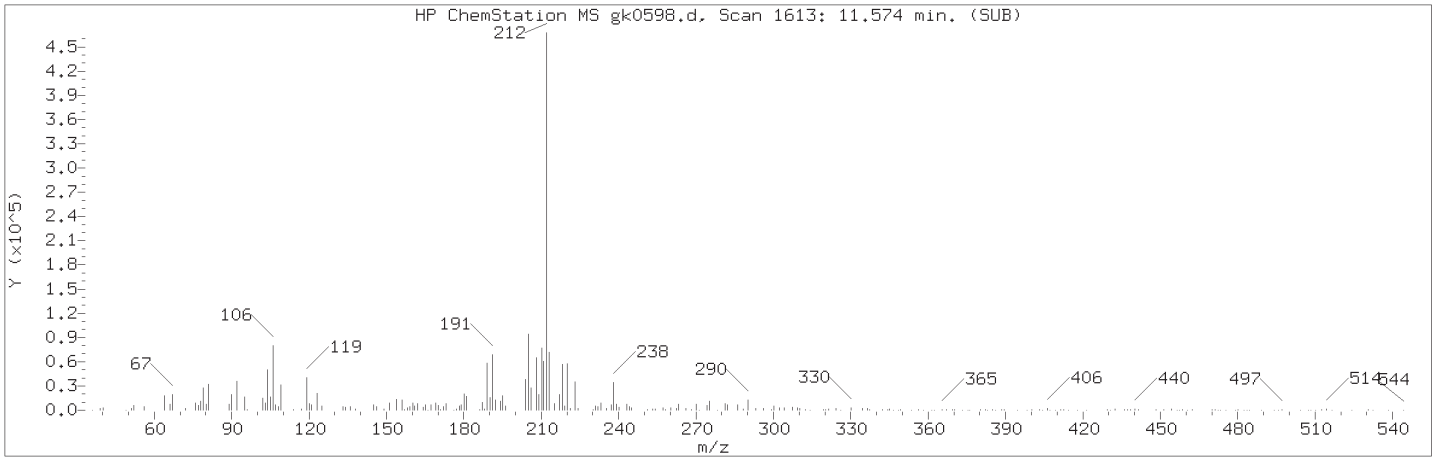
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

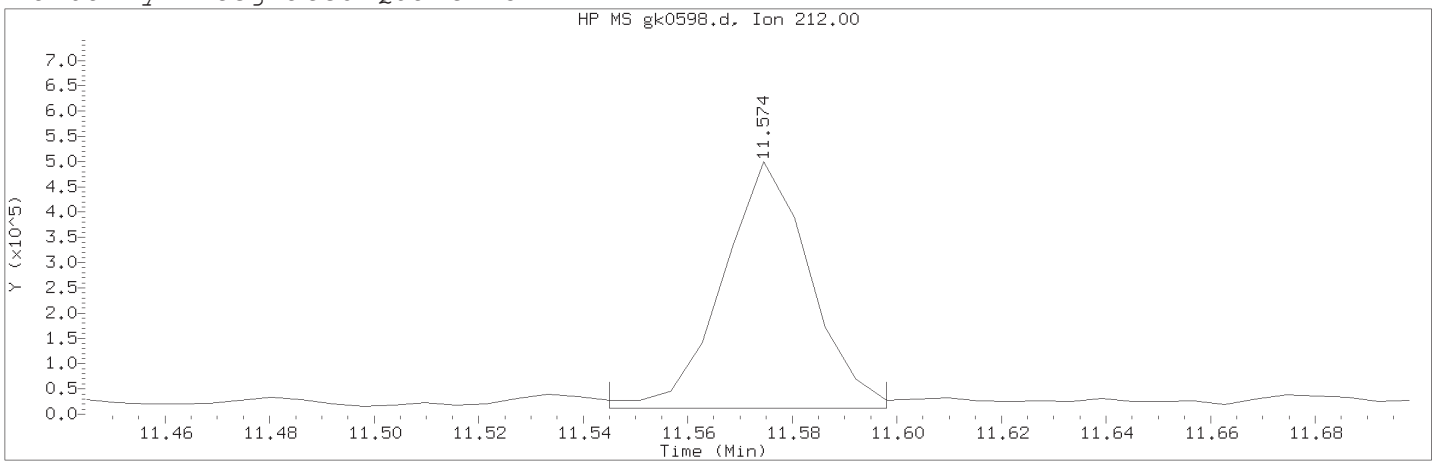
Compound Number	: 163
Compound Name	: Carbazole
Scan Number	: 1414
Retention Time (minutes)	: 10.404
Relative Retention Time	: 0.00007
Quant Ion	: 167.00
Area (flag)	: 222006
On-column Amount (ng/ul)	: 7.1534

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

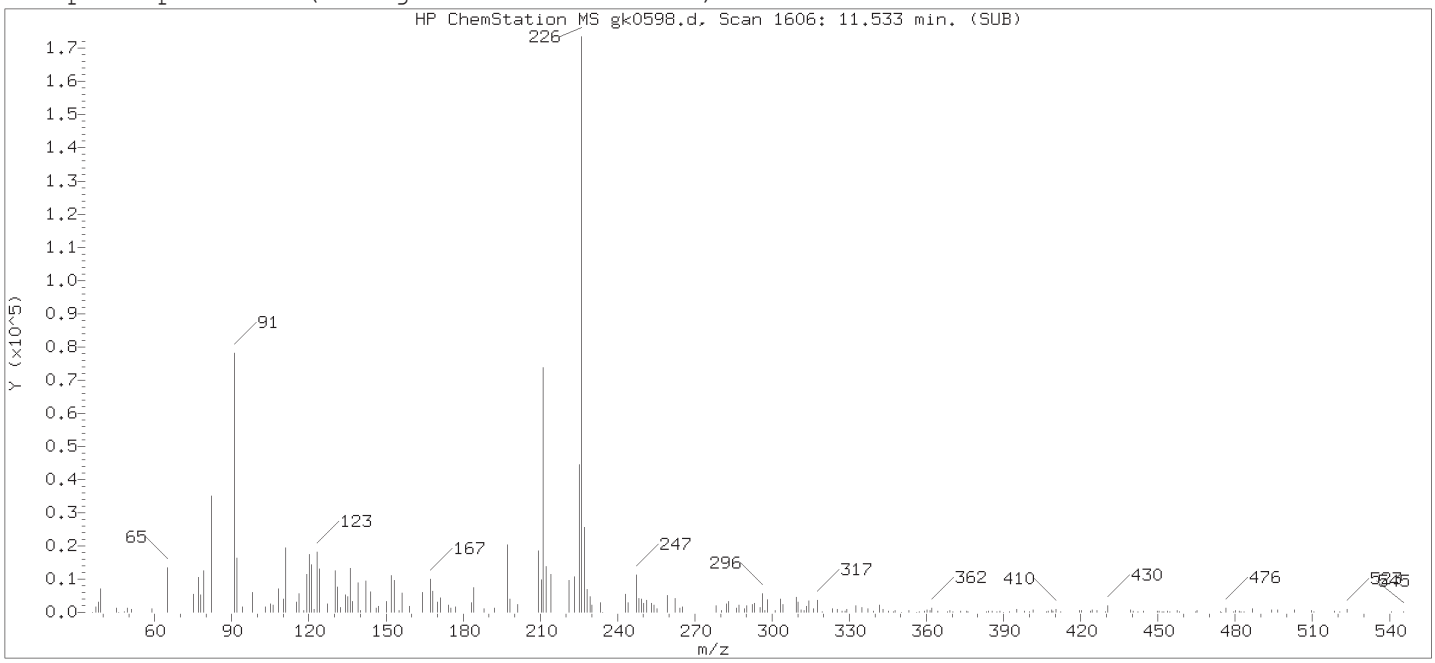
Compound Number : 175
Compound Name : Pyrene-d10
Scan Number : 1613
Retention Time (minutes) : 11.574
Quant Ion : 212.00
Area (flag) : 563124A
On-column Amount (ng/ul) : 20.0000
Integration start scan : 1607 Integration stop scan: 1616
Y at integration start : 12197 Y at integration end: 12197

Reason for manual integration: improper integration

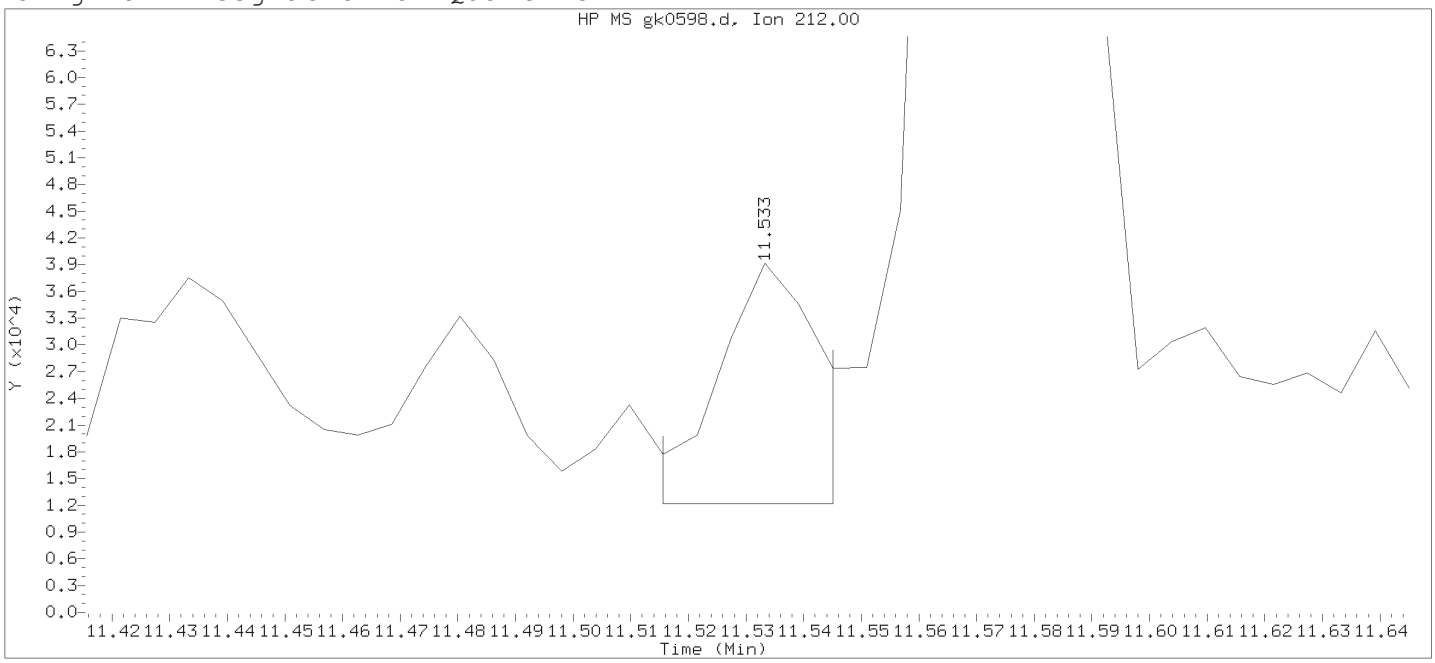
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

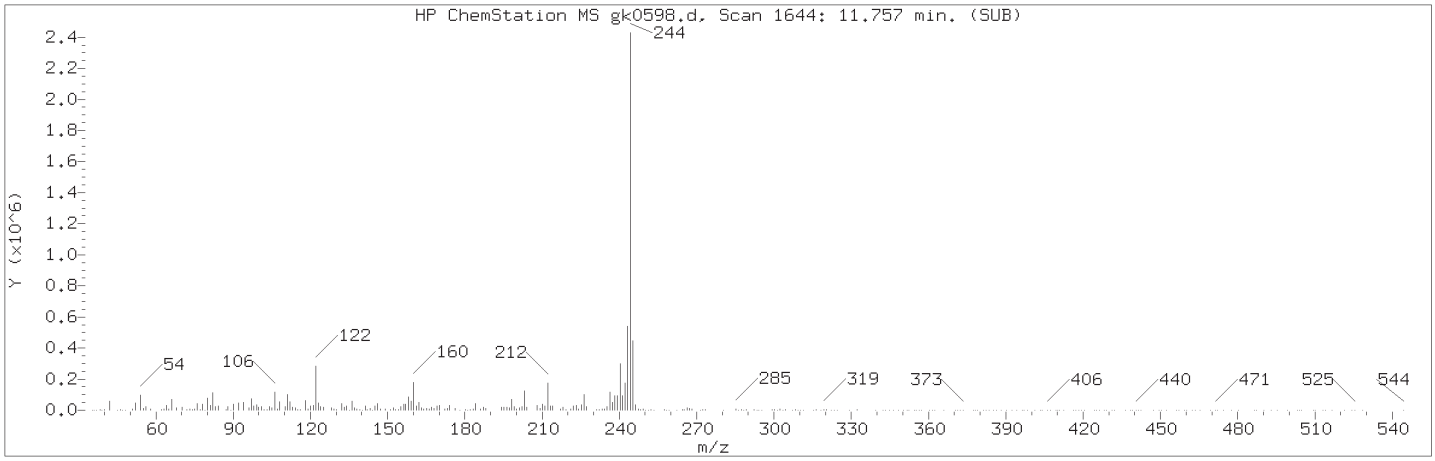
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:30 Automation

Sample Name: 12T04 Lab Sample ID: 9872062

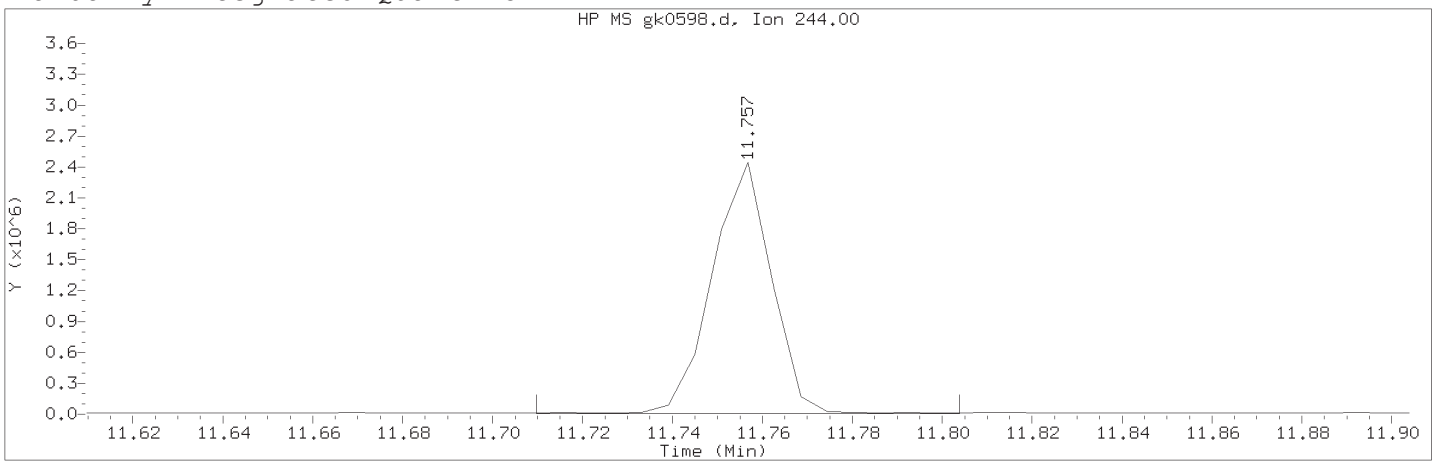
Compound Number	: 175
Compound Name	: Pyrene-d10
Scan Number	: 1606
Retention Time (minutes)	: 11.533
Quant Ion	: 212.00
Area	: 30312
On-column Amount (ng/ul)	: 20.0000
Integration start scan	: 1602 Integration stop scan: 1607
Y at integration start	: 12197 Y at integration end: 12197

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

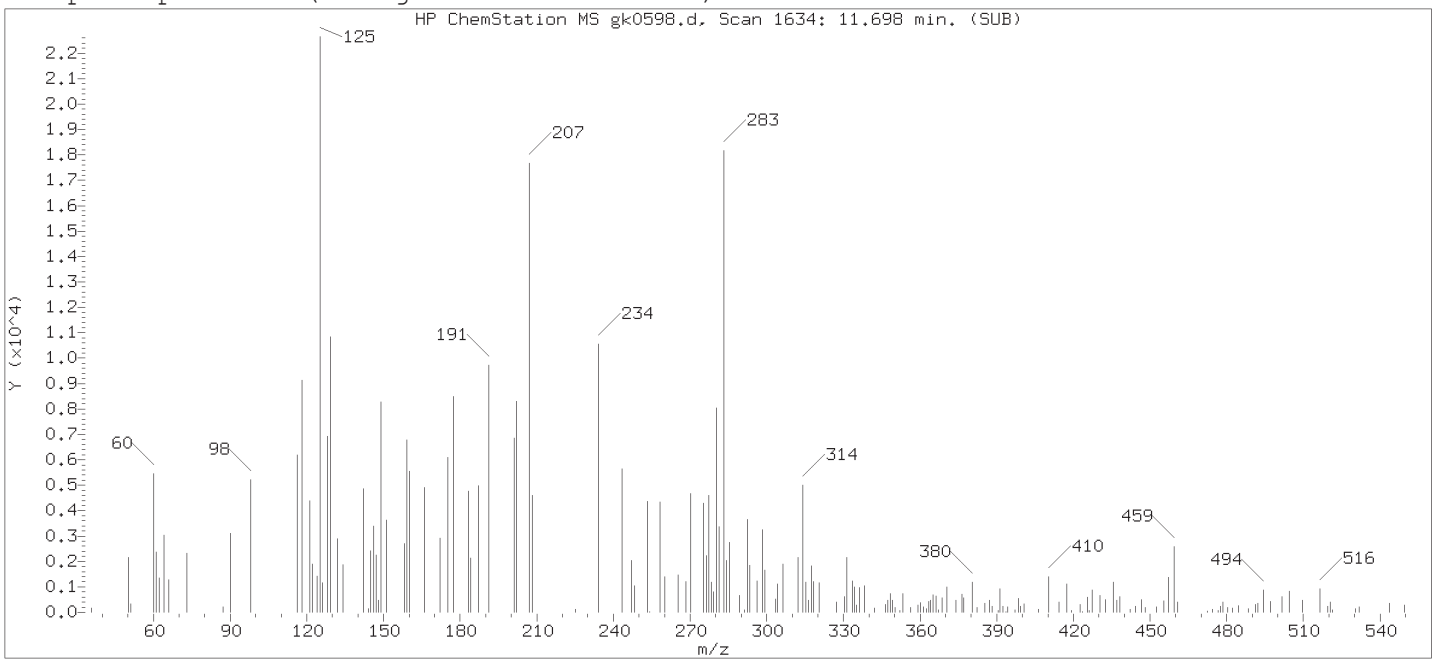
Compound Number : 179
Compound Name : Terphenyl-d14
Scan Number : 1644
Retention Time (minutes) : 11.757
Quant Ion : 244.00
Area (flag) : 2227507A
On-column Amount (ng/ul) : 81.8013
Integration start scan : 1635 Integration stop scan: 1651
Y at integration start : 7839 Y at integration end: 7839

Reason for manual integration: improper integration

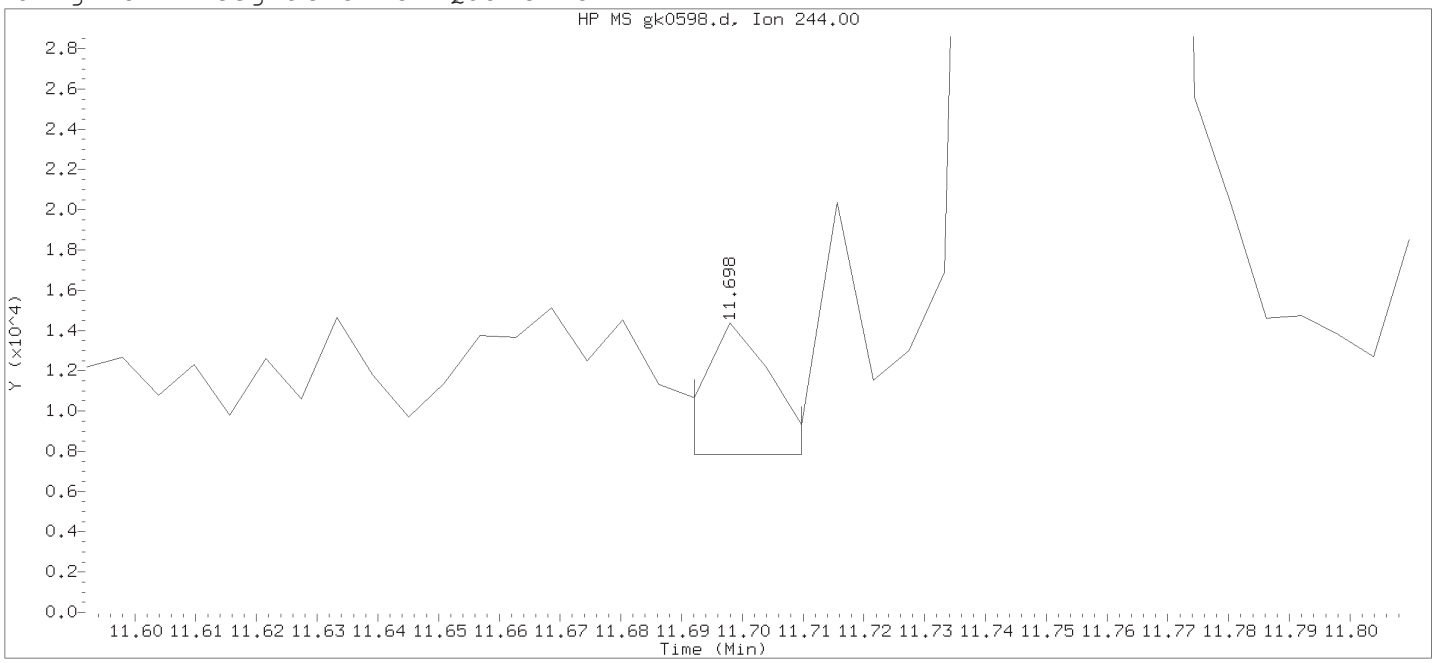
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

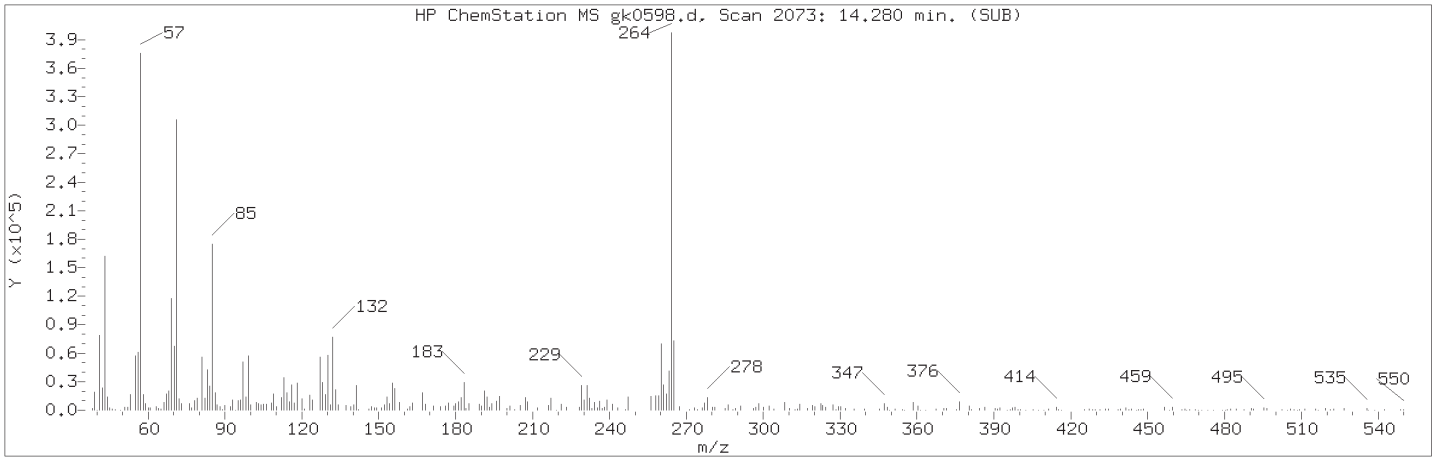
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:30 Automation

Sample Name: 12T04 Lab Sample ID: 9872062

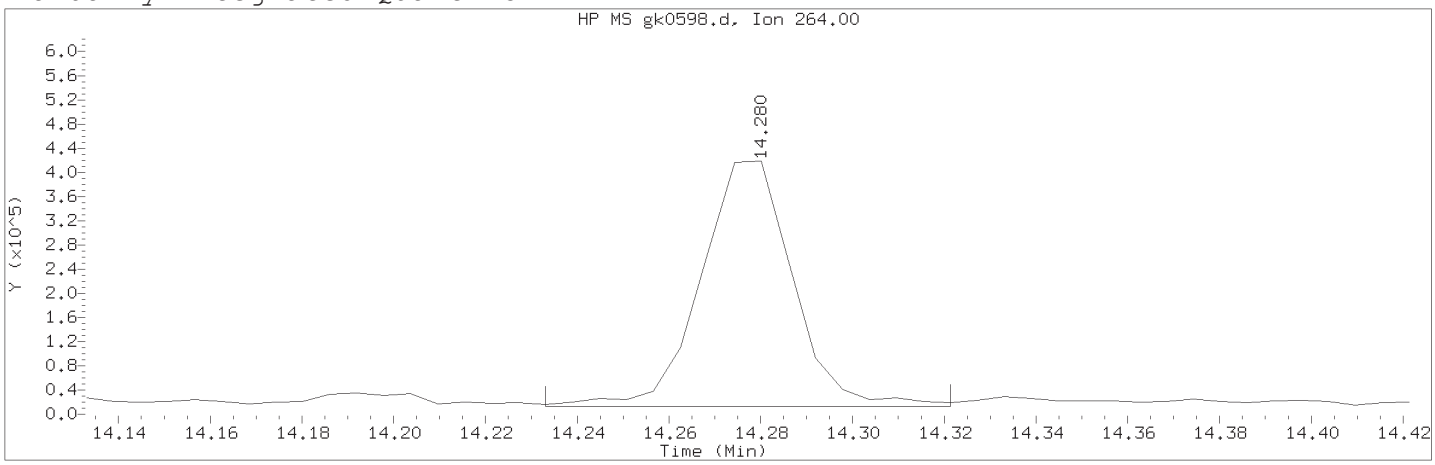
Compound Number	: 179		
Compound Name	: Terphenyl-d14		
Scan Number	: 1634		
Retention Time (minutes)	: 11.698		
Quant Ion	: 244.00		
Area	: 4610		
On-column Amount (ng/ul)	: 3.1455		
Integration start scan	: 1632	Integration stop scan:	1635
Y at integration start	: 7839	Y at integration end:	7839

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature used: 1.0.0.433

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T04 Lab Sample ID: 9872062

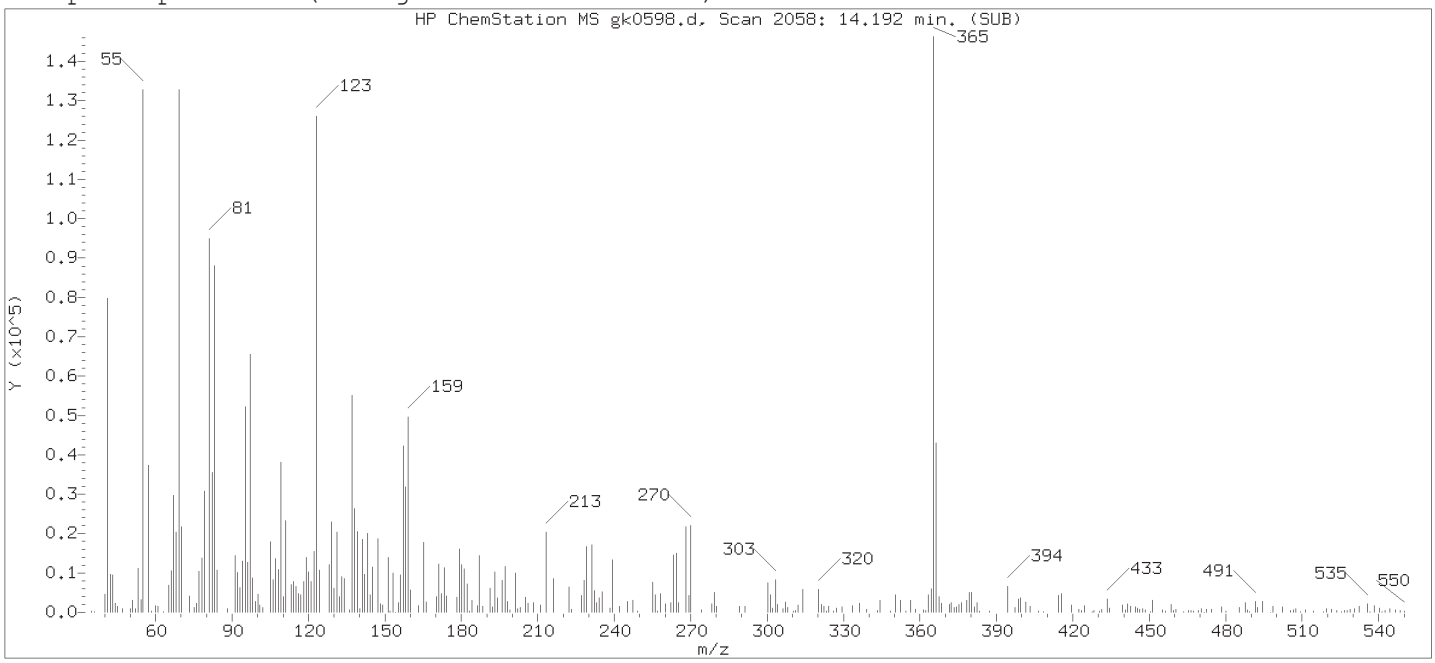
Compound Number : 213
Compound Name : Perylene-d12
Scan Number : 2073
Retention Time (minutes) : 14.280
Quant Ion : 264.00
Area (flag) : 564182AM
On-column Amount (ng/ul) : 21.0000
Integration start scan : 2064 Integration stop scan: 2079
Y at integration start : 13485 Y at integration end: 13485

Reason for manual integration: improper integration

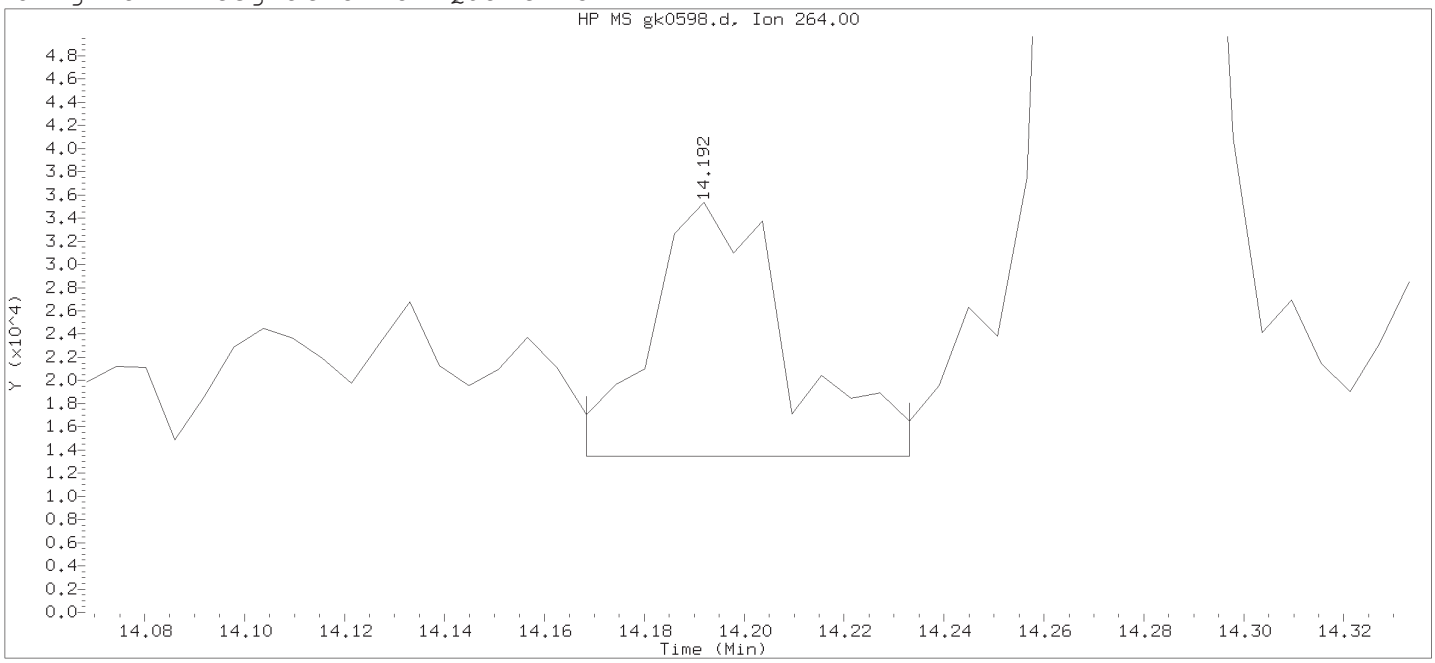
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:01.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:06.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0598.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:09 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:30 Automation

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 213
Compound Name	: Perylene-d12
Scan Number	: 2058
Retention Time (minutes)	: 14.192
Quant Ion	: 264.00
Area	: 41225
On-column Amount (ng/ul)	: 21.0000
Integration start scan	: 2053 Integration stop scan: 2064
Y at integration start	: 13485 Y at integration end: 13485

Digitally signed by Edward Monborne on 11/14/2018 at 11:01.
Target 3.5 esignature used: 1.0.1.1435

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov12.b/gk0599.d
Injection date and time: **12-NOV-2018 12:33**
Data file Sample Info. Line: 12T05;9872063;2;0;SAMPLE;;DOD26;
Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.04 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.745	(-0.012)	622	152	165893	(27)	21.00	
65) Naphthalene-d8	6.981	(-0.012)	832	136	661344	(12)	21.00	
113) Acenaphthene-d10	8.698	(-0.012)	1124	164	313918	(-5)	21.00	
153) Phenanthrene-d10	10.157	(-0.018)	1372	188	519064	(-20)	21.00	
175) Pyrene-d10	11.551	(-0.018)	1609	212	459032	(-25)	20.00	
213) Perylene-d12	14.239	(-0.035)	2066	264	456297	(-10)	21.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.481	(-0.004)	112	1947137	162.491	81%		35 - 115
17) Phenol-d6	(1)	5.416	(-0.004)	99	2980587A	160.628	80%		47 - 120
44) Nitrobenzene-d5	(2)	6.281	(0.000)	82	1568011	94.490	94%		37 - 122
93) 2-Fluorobiphenyl	(3)	8.045	(0.000)	172	2301518	95.111	95%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.475	(-0.001)	330	338157	141.221	71%		39 - 132
179) Terphenyl-d14	(5)	11.733	(0.000)	244	2082964	93.839	94%		54 - 127

A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.763	(0.000)	146	51396	3.839	127.78			0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.904	(0.000)	146	20886	1.612	53.65			0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	6.145	(0.000)	108	127556	8.843	294.36			0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.680	(0.000)	142	88869	3.522	117.26			0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5

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Analysis Summary for GC/MS Semivolatiles

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Data file Sample Info. Line: 12T05;9872063;2;0;SAMPLE;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
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Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 10:56
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov12.b/gk0591.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.04 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)	8.898	(0.000)	168	65487	2.230	74.25			0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)				Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

Total number of targets = 48

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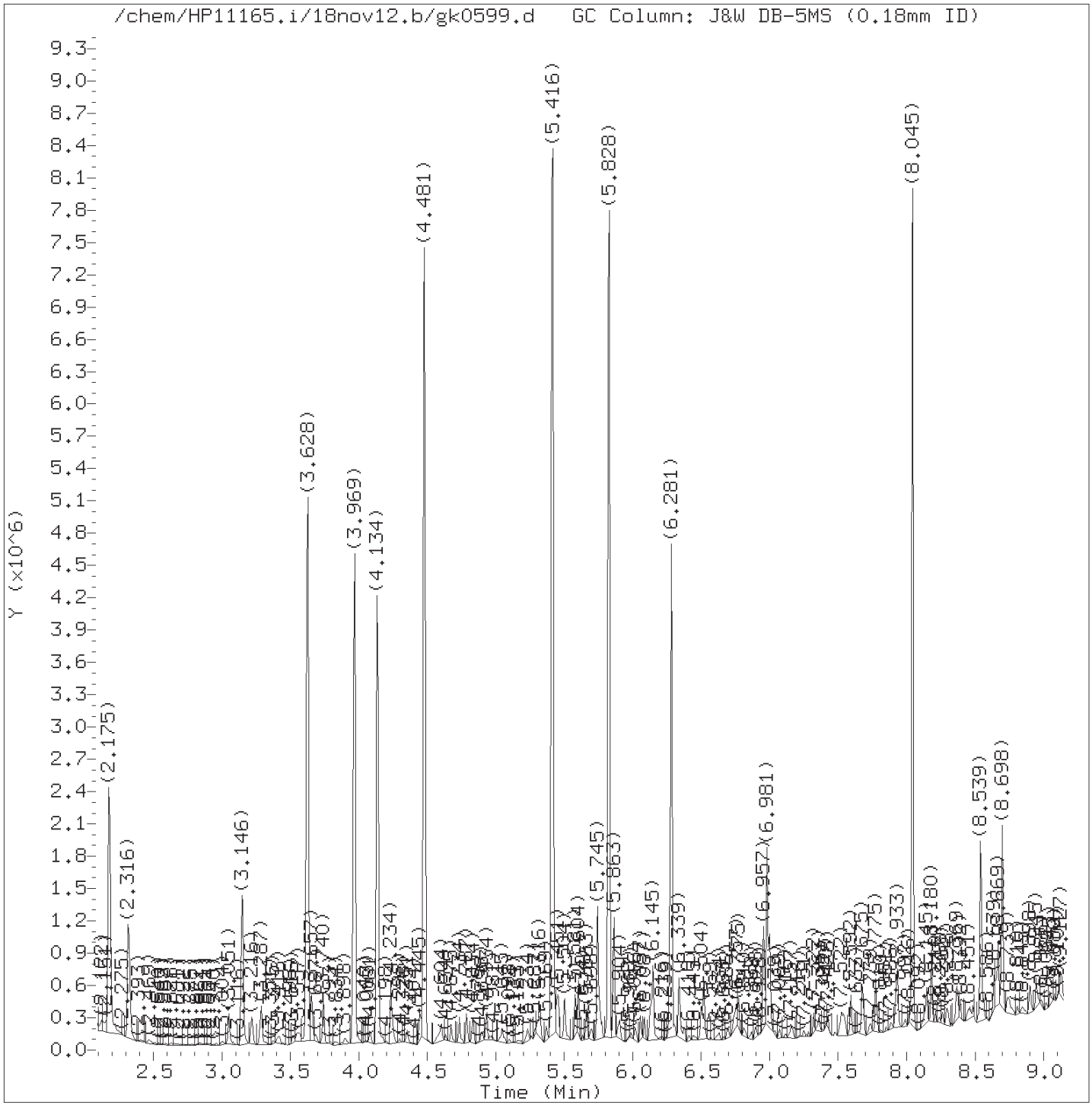
Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

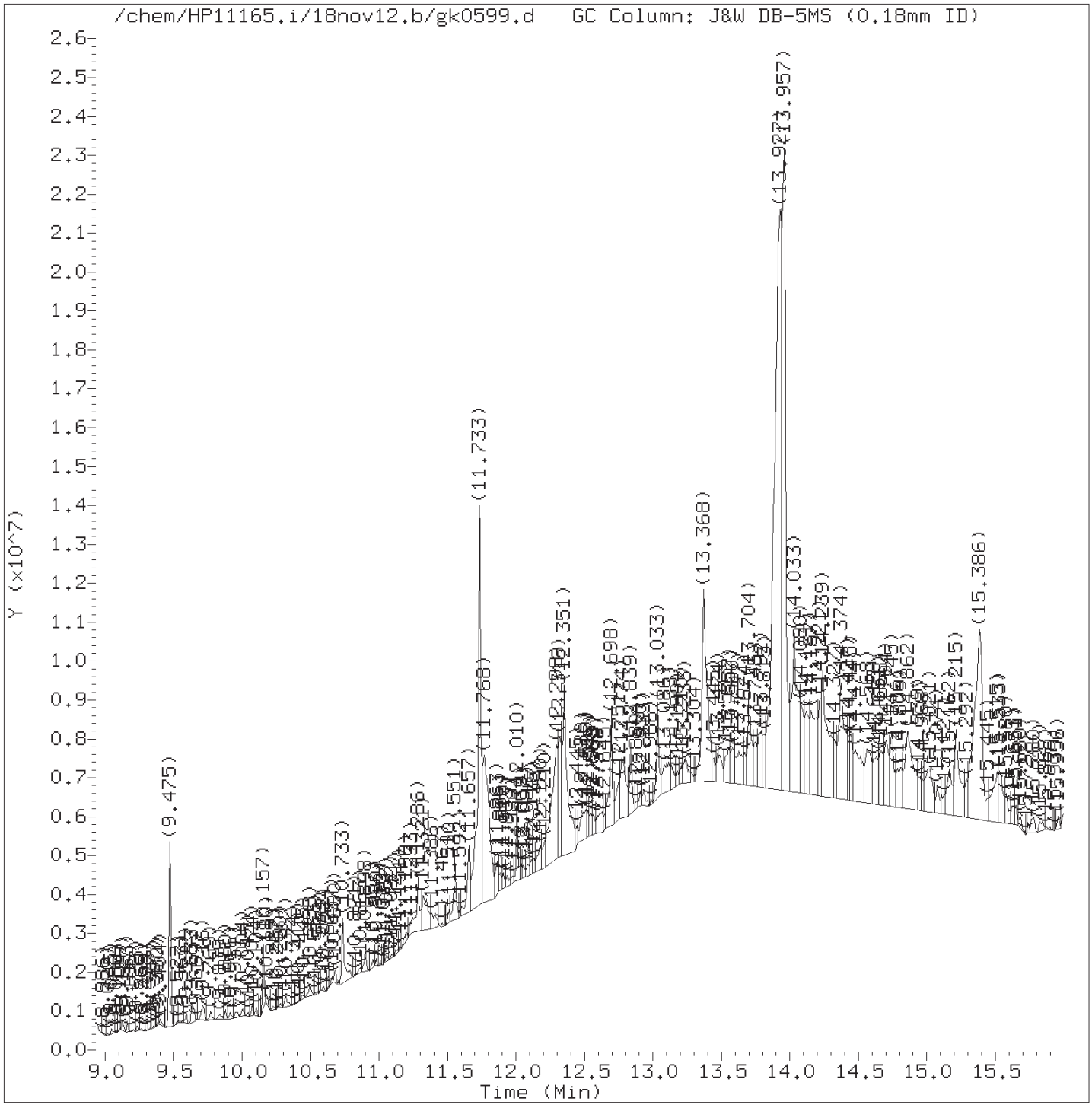
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Digitally signed by Edward Monborne
on 11/14/2018 at 11:00.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

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on 11/14/2018 at 11:00.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.481	112	1947137	162.491
17)$Phenol-d6	(1)	5.416	99	2980587A	160.628
25)*1,4-Dichlorobenzene-d4	(1)	5.745	152	165893	21.000
26) 1,4-Dichlorobenzene	(1)	5.763	146	51396	3.839
28) 1,2-Dichlorobenzene	(1)	5.904	146	20886	1.612
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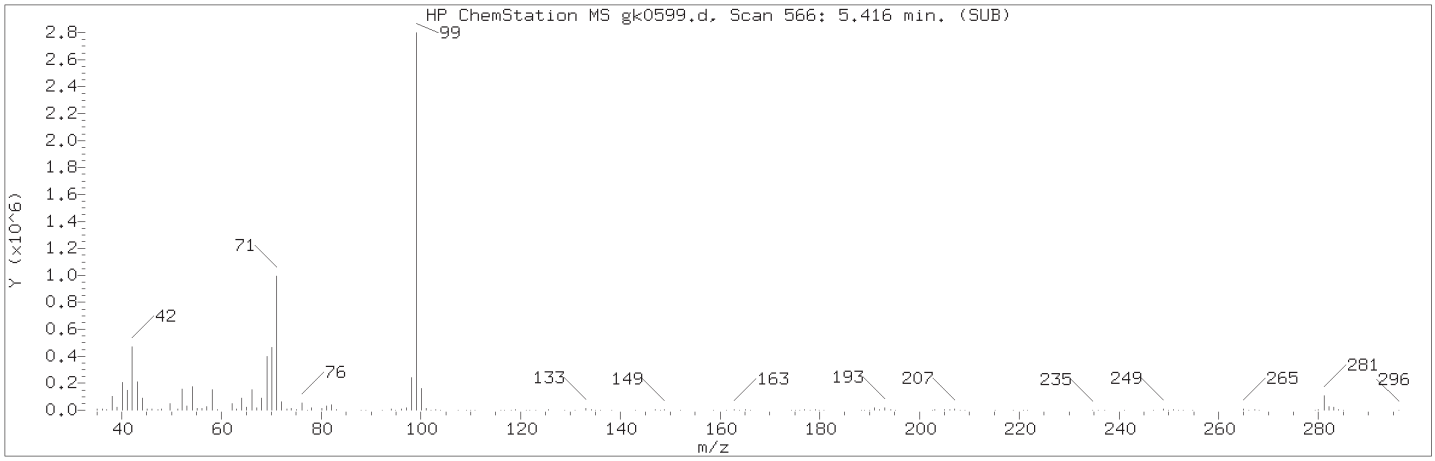
113)*Acenaphthene-d10	(3)	8.698	164	313918	21.000
119) Dibenzofuran	(3)	8.898	168	65487	2.230
135)$2,4,6-Tribromophenol	(3)	9.475	330	338157	141.221
153)*Phenanthrene-d10	(4)	10.157	188	519064	21.000
175)*Pyrene-d10	(5)	11.551	212	459032	20.000
179)$Terphenyl-d14	(5)	11.733	244	2082964	93.839
213)*Perylene-d12	(6)	14.239	264	456297	21.000

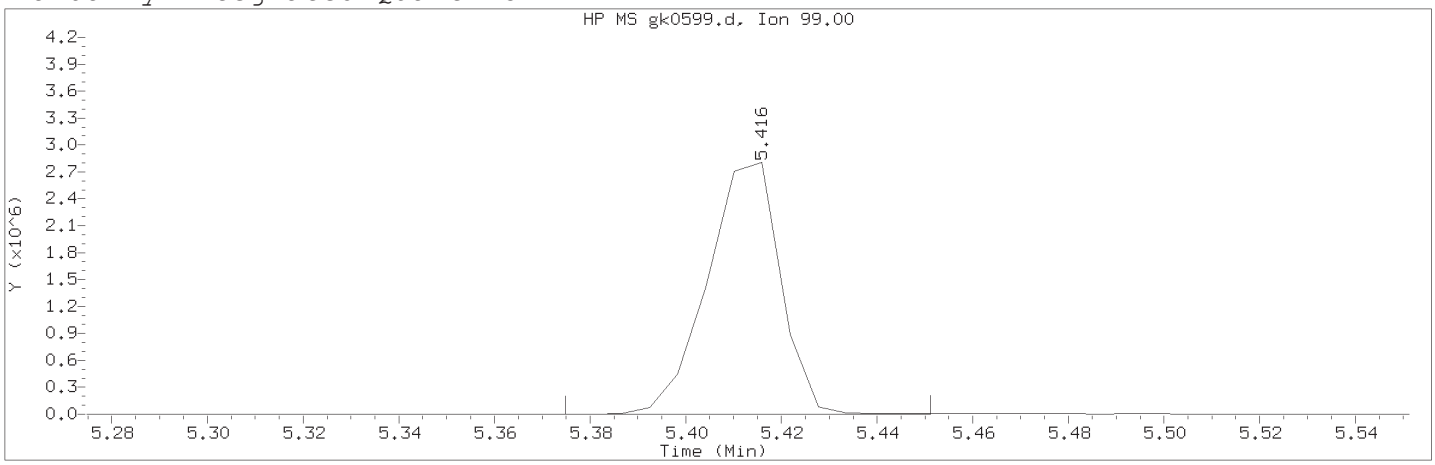
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:00.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

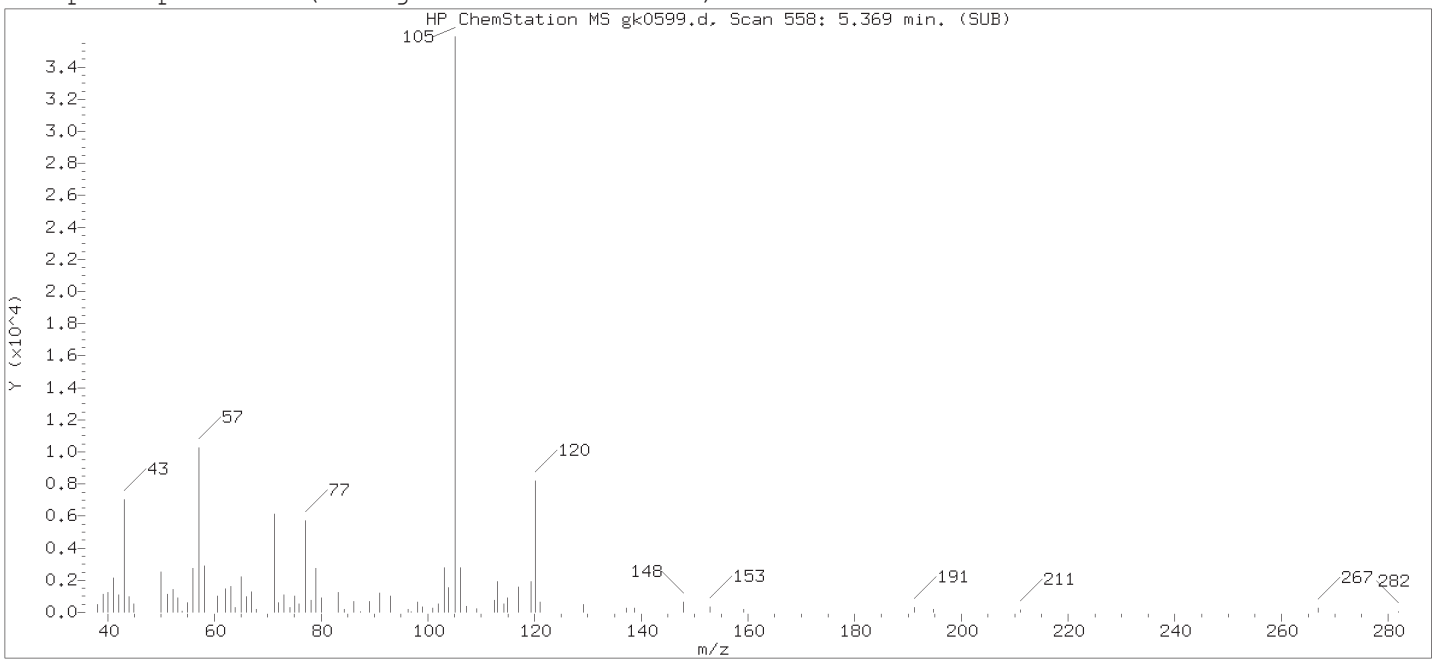
Compound Number : 17
Compound Name : Phenol-d6
Scan Number : 566
Retention Time (minutes) : 5.416
Quant Ion : 99.00
Area (flag) : 2980587A
On-column Amount (ng/ul) : 160.6283
Integration start scan : 558 Integration stop scan: 571
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

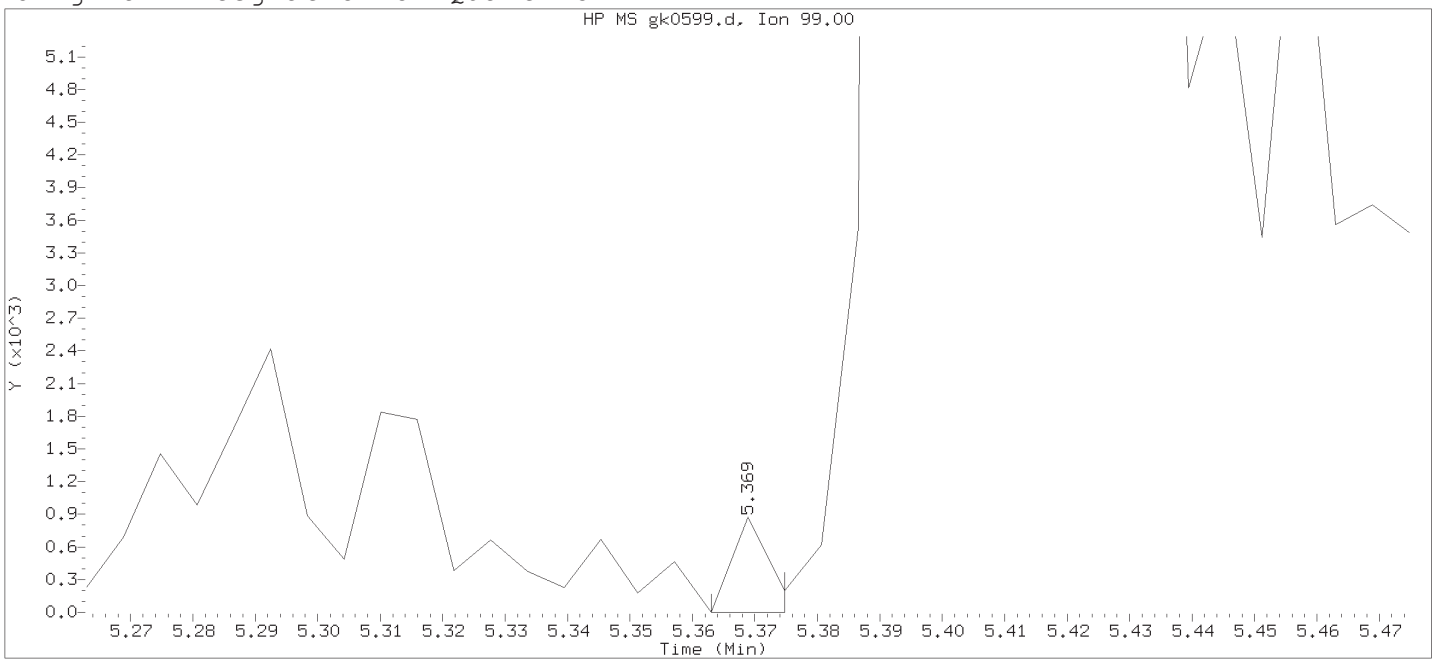
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:00.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 11:09.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

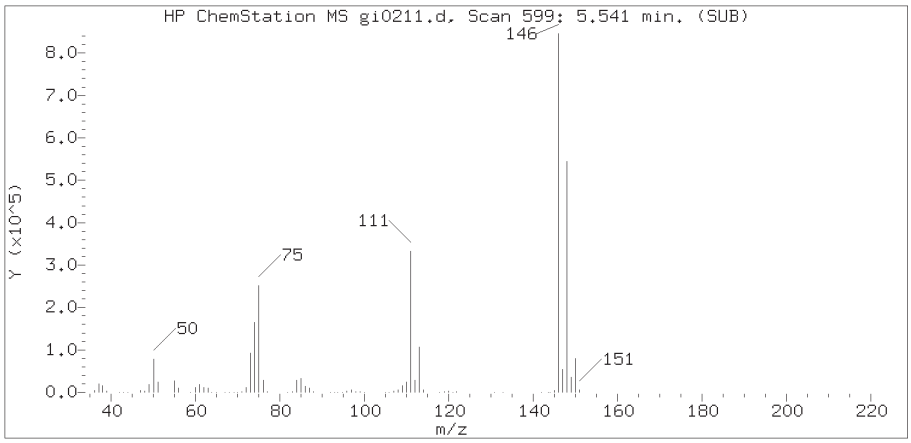
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 12:55 Automation

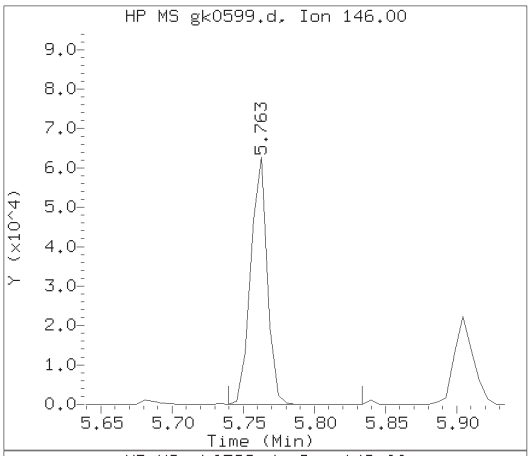
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 17		
Compound Name	: Phenol-d6		
Scan Number	: 558		
Retention Time (minutes)	: 5.369		
Quant Ion	: 99.00		
Area	: 344		
On-column Amount (ng/ul)	: 0.0186		
Integration start scan	: 556	Integration stop scan:	558
Y at integration start	: 0	Y at integration end:	0

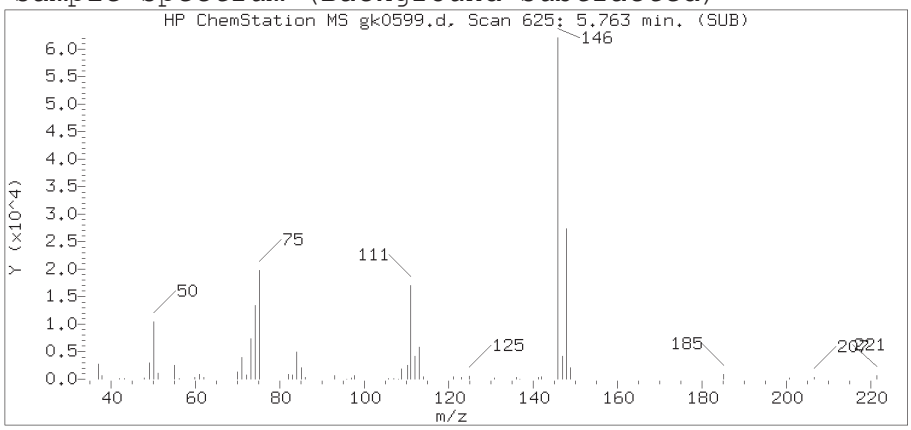
Digitally signed by Edward Monborne on 11/14/2018 at 11:00.
Target 3.5 esignature user ID: EM10340

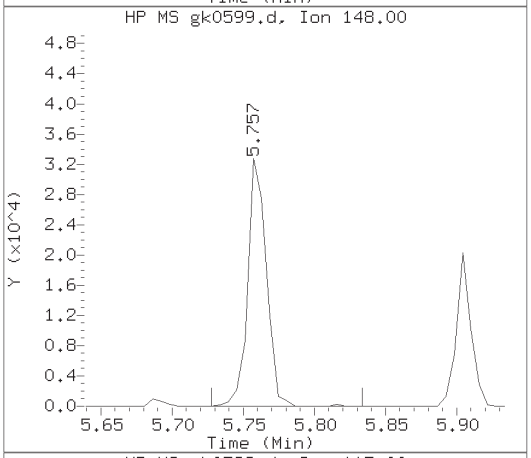
Reference Standard Spectrum for 1,4-Dichlorobenzene



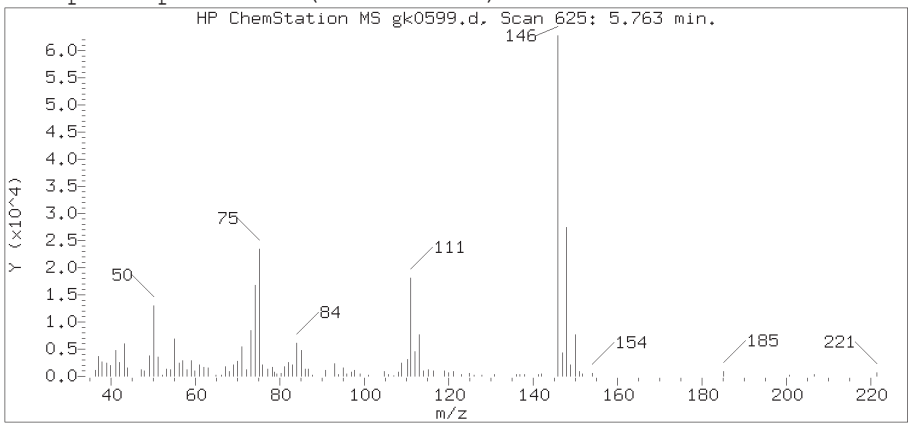


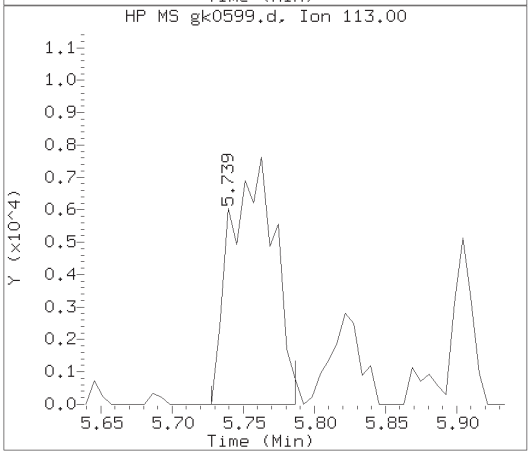
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 625
Retention Time (minutes)	: 5.763
Relative Retention Time	: 0.00001
Quant Ion	: 146.00
Area (flag)	: 51396
On-column Amount (ng/ul)	: 3.8387

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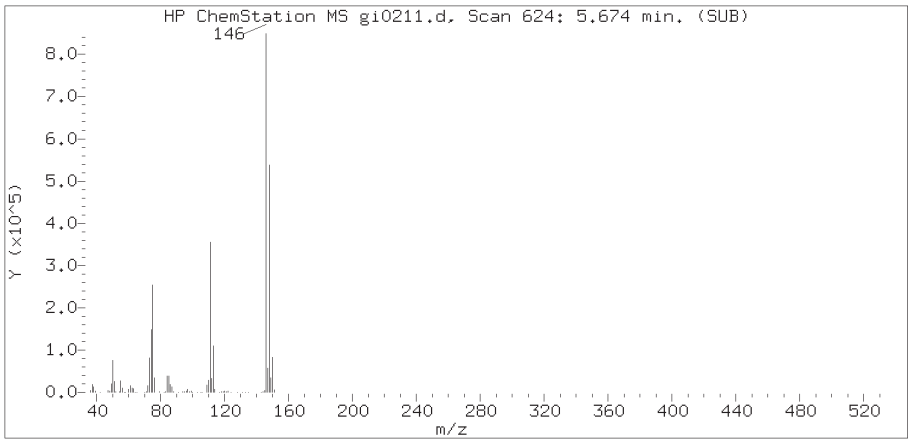
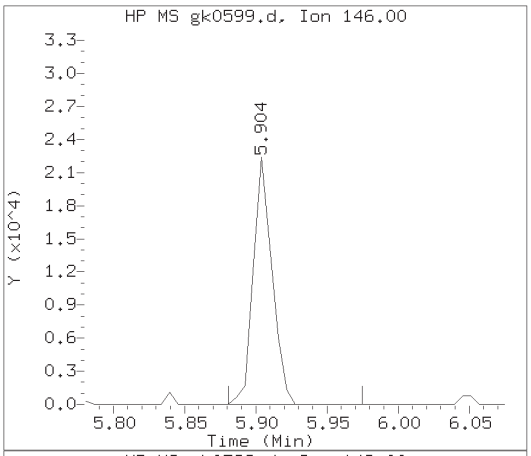
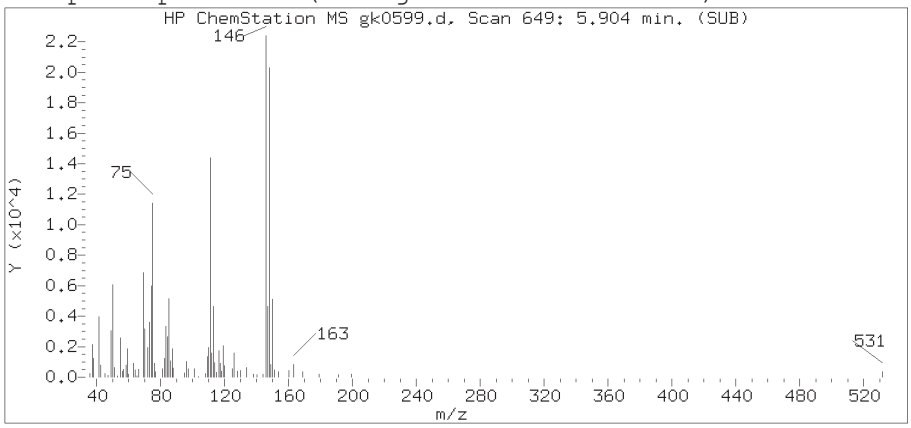
Target 3.5 esignature user ID: em10340

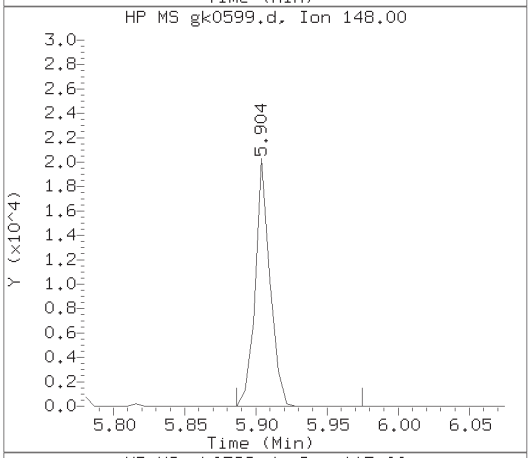
Reference Standard Spectrum for 1,2-Dichlorobenzene



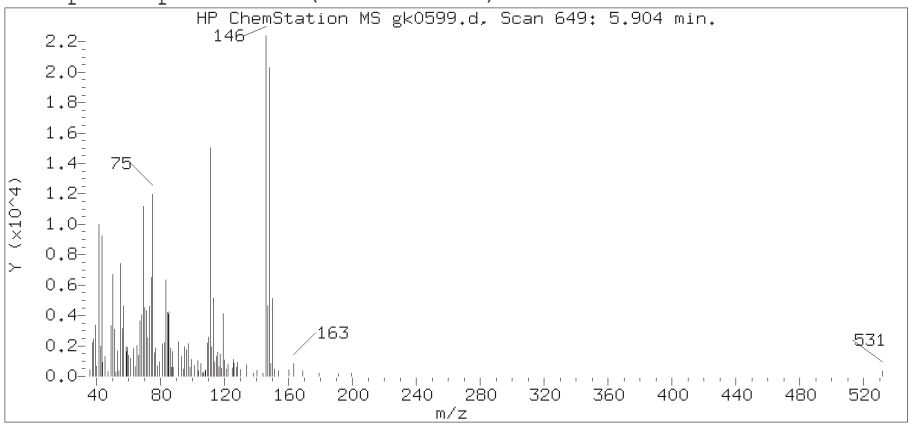


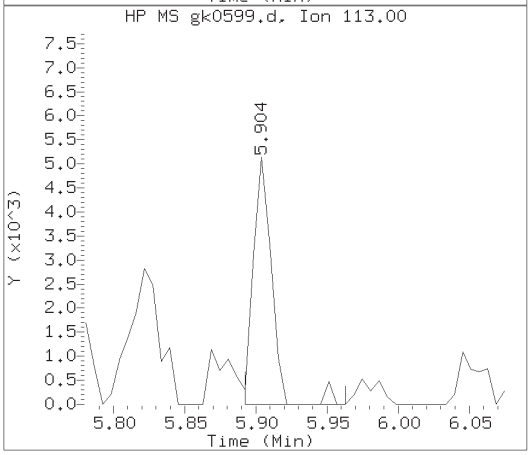
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 649
Retention Time (minutes)	: 5.904
Relative Retention Time	: 0.00006
Quant Ion	: 146.00
Area (flag)	: 20886
On-column Amount (ng/ul)	: 1.6117

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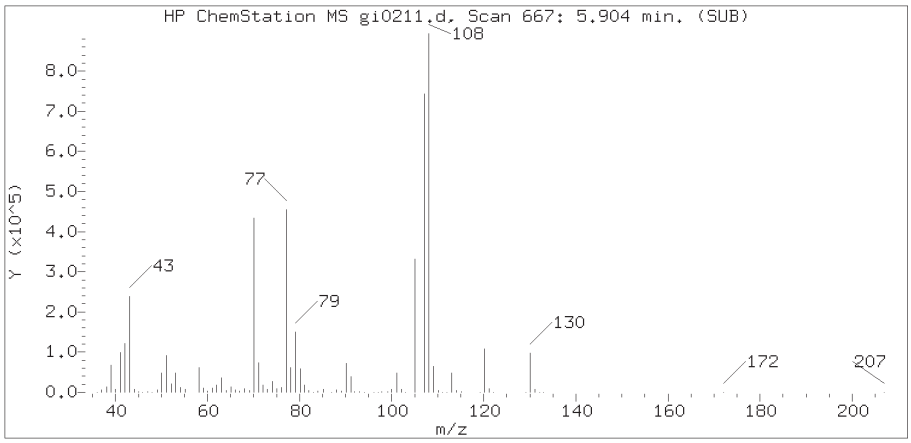
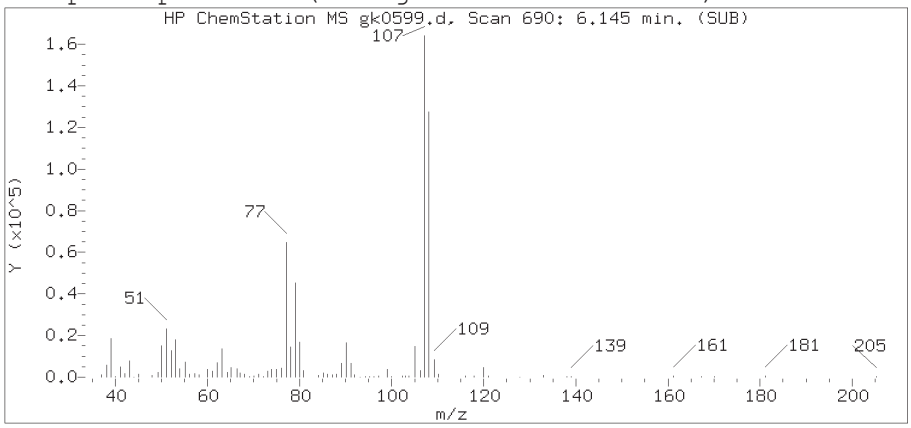
Target 3.5 esignature user ID: em10340

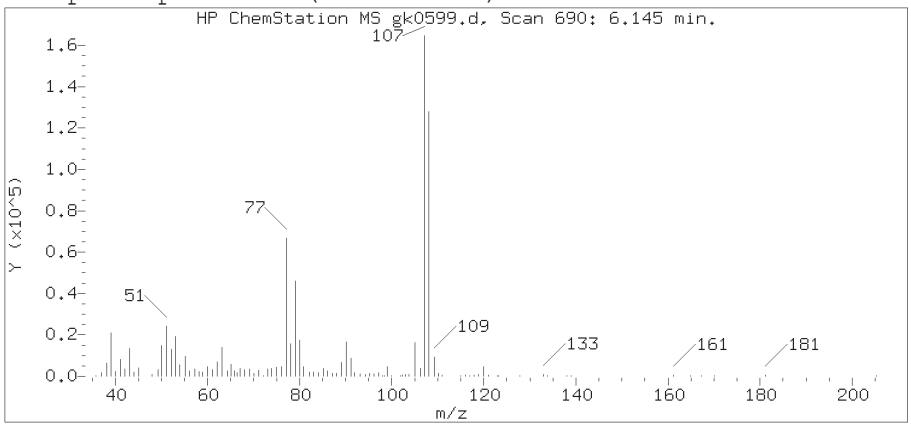
Reference Standard Spectrum for 4-Methylphenol

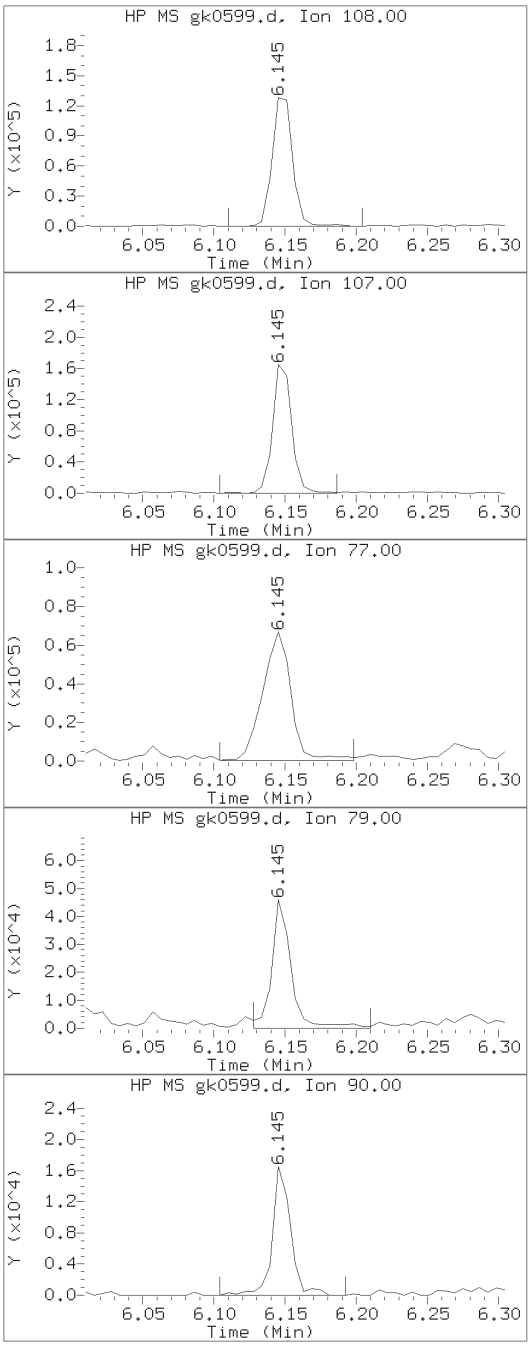


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 690
Retention Time (minutes)	: 6.145
Relative Retention Time	: 0.00014
Quant Ion	: 108.00
Area (flag)	: 127556
On-column Amount (ng/ul)	: 8.8426

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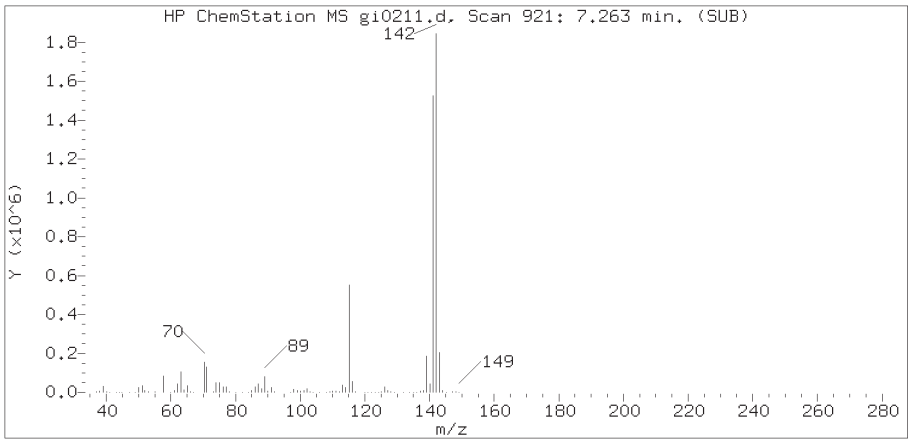
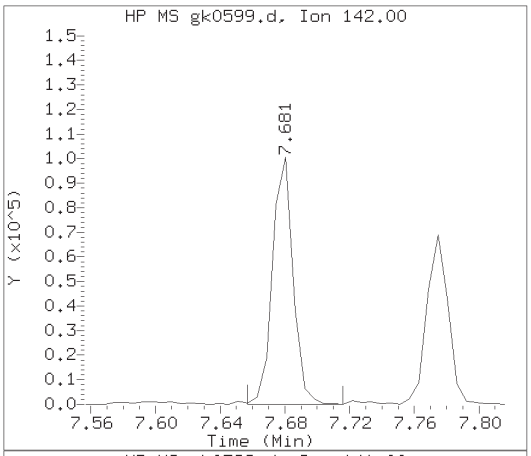
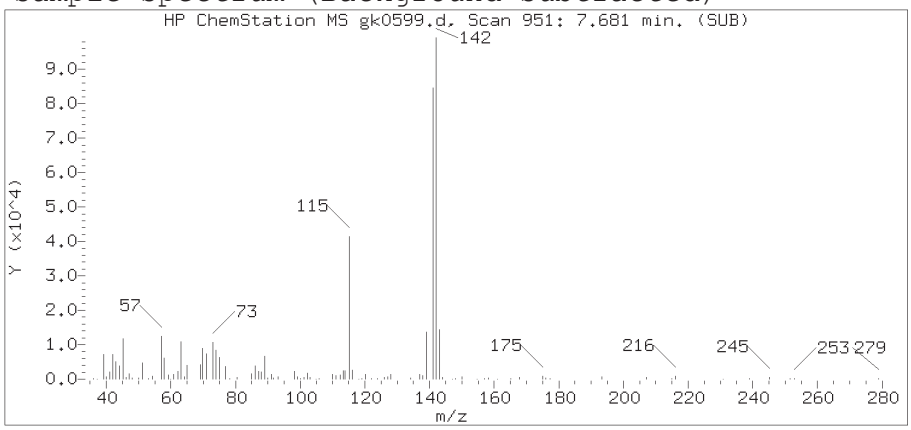
Target 3.5 esignature user ID: em10340

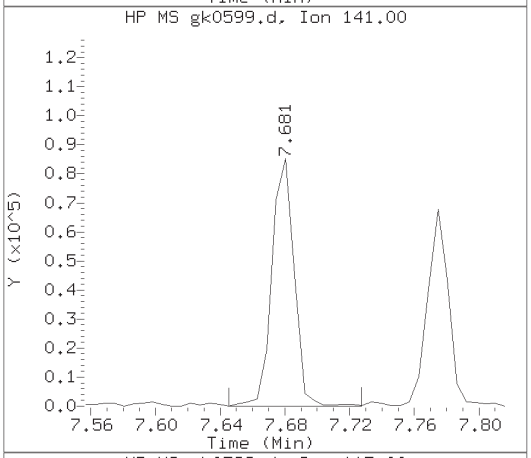
Reference Standard Spectrum for 2-Methylnaphthalene



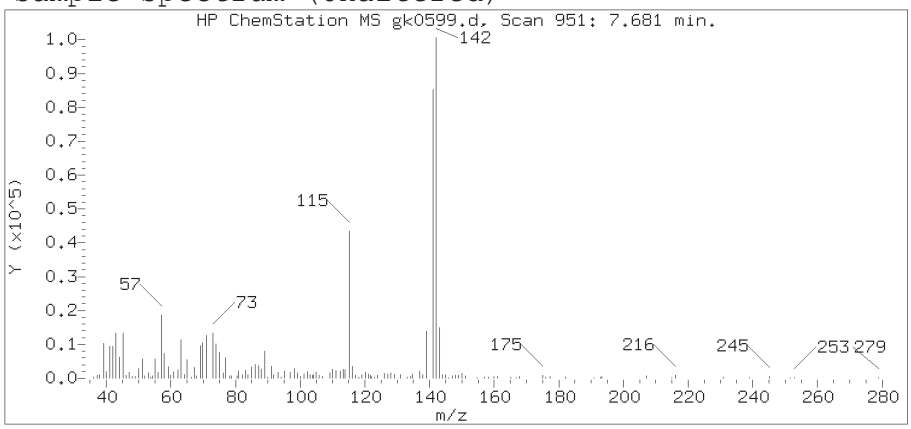


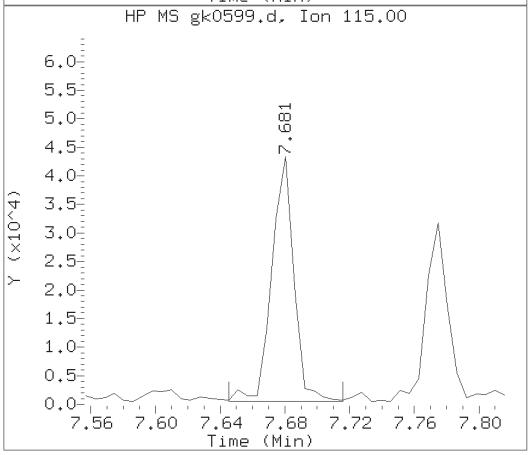
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 951
Retention Time (minutes)	: 7.681
Relative Retention Time	: 0.00017
Quant Ion	: 142.00
Area (flag)	: 88869
On-column Amount (ng/ul)	: 3.5224

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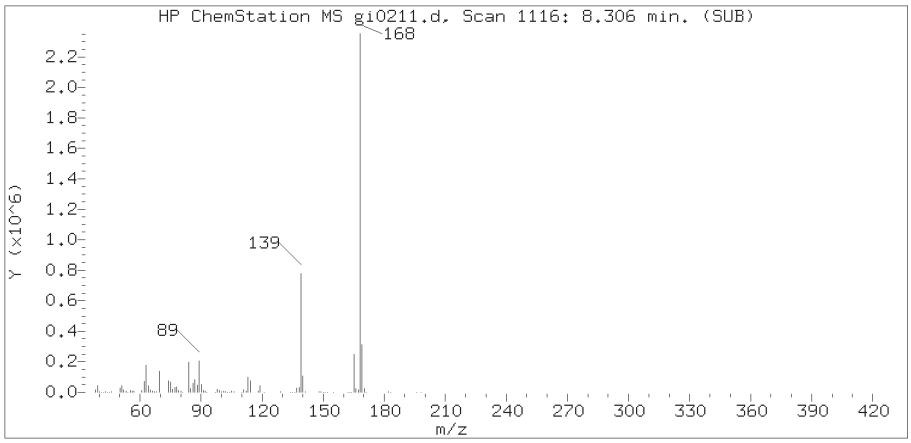
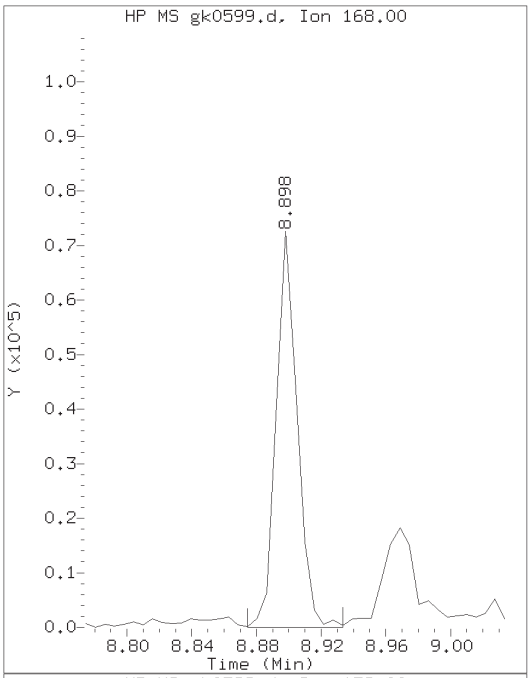
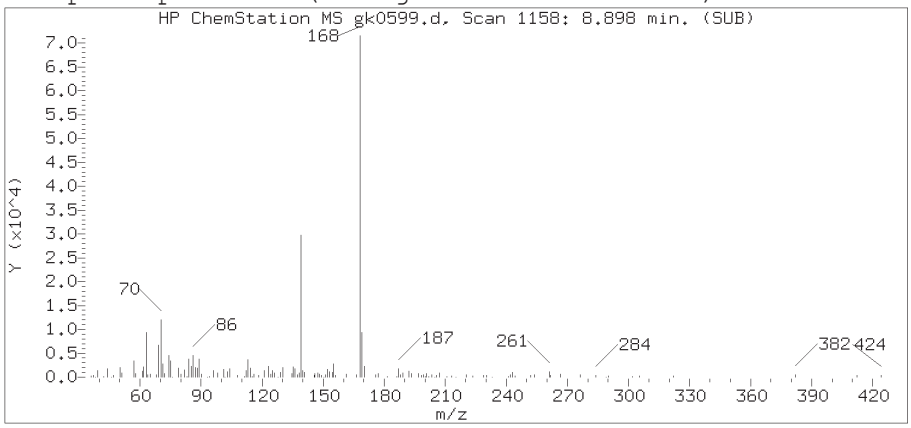
Target 3.5 esignature user ID: em10340

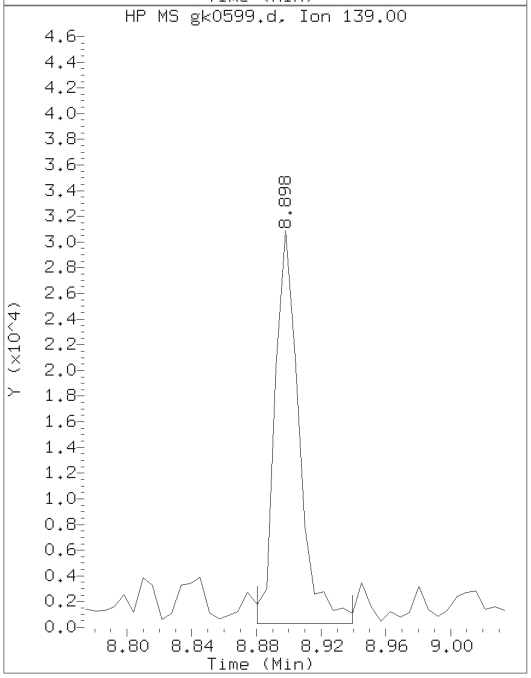
Reference Standard Spectrum for Dibenzofuran



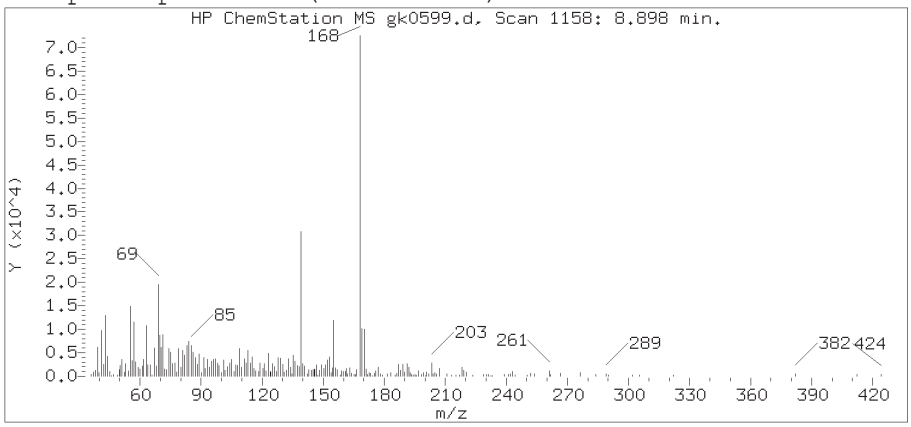


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov12.b/gk0599.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 12:33 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 10:56
Date, time and analyst ID of latest file update: 14-Nov-2018 10:58 em10340

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1158
Retention Time (minutes)	: 8.898
Relative Retention Time	: 0.00003
Quant Ion	: 168.00
Area (flag)	: 65487
On-column Amount (ng/ul)	: 2.2305

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Target 3.5 esignature user ID: em10340

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP23262.i/18nov11.b/pk0377.d
Injection date and time: **12-NOV-2018 01:51**
Data file Sample Info. Line: 12T06;9872064;2;0;SAMPLE;;DOD26;
Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 13-NOV-2018 11:28
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.23 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.501	(0.000)	590	152	147807	(-1)	20.00	
65) Naphthalene-d8	6.737	(-0.006)	800	136	623270	(-3)	20.00	
113) Acenaphthene-d10	8.442	(0.000)	1090	164	376449	(-1)	20.00	
153) Phenanthrene-d10	9.895	(-0.006)	1337	188	808122	(-7)	20.00	
175) Pyrene-d10	11.283	(-0.006)	1573	212	771058	(-14)	20.00	
213) Perylene-d12	13.918	(-0.012)	2021	264	678083	(-14)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.231	(-0.002)	112	189386	16.737	84%		35 - 115
17) Phenol-d6	(1)	5.184	(-0.003)	99	291511	16.350	82%		47 - 120
44) Nitrobenzene-d5	(2)	6.037	(0.001)	82	141493	8.756	88%		37 - 122
93) 2-Fluorobiphenyl	(3)	7.795	(0.000)	172	265040	9.138	91%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.219	(-0.001)	330	61542	16.347	82%		39 - 132
179) Terphenyl-d14	(5)	11.466	(0.000)	244	328219	9.979	100%		54 - 127

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)	5.196	(-0.002)	94	31645M	1.493	493.73		J	0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)	5.519	(-0.000)	146	11043	0.972	321.48		J	0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)				Not Detected					0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	5.919	(-0.001)	108	87468	5.730	1895.34			0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.431	(0.000)	142	45468	1.870	618.72	12.196	B	0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36. Target 3.5 esignature user ID: lmh00956

Data file: /chem/HP23262.i/18nov11.b/pk0377.d Injection date and time: **12-NOV-2018 01:51**
Data file Sample Info. Line: 12T06;9872064;2;0;SAMPLE;;DOD26; Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 13-NOV-2018 11:28
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.23 g

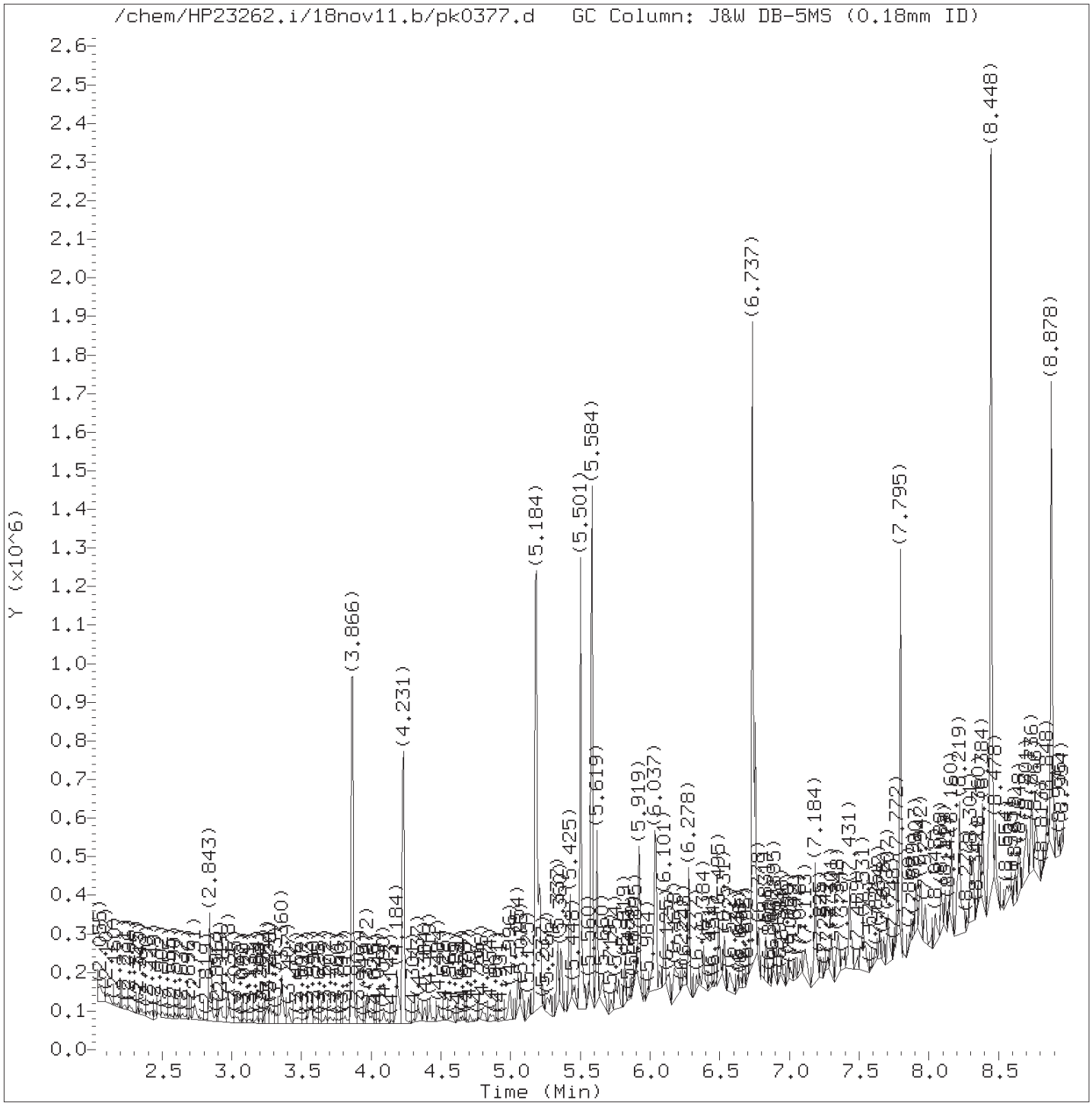
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)			Not Detected					0.6
96) 2-Chloronaphthalene	(3)			Not Detected					0.2
100) 2-Nitroaniline	(3)			Not Detected					0.6
106) Dimethylphthalate	(3)			Not Detected					2
108) 2,6-Dinitrotoluene	(3)			Not Detected					0.6
112) 3-Nitroaniline	(3)			Not Detected					2
115) 2,4-Dinitrophenol	(3)			Not Detected					11
116) 4-Nitrophenol	(3)			Not Detected					5
118) 2,4-Dinitrotoluene	(3)			Not Detected					2
119) Dibenzofuran	(3)	8.648(-0.000)	168	26279M	0.666	220.20		J	0.5
124) Diethylphthalate	(3)			Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.5
129) 4-Nitroaniline	(3)			Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					5
131) N-Nitrosodiphenylamine	(4)	9.107(0.000)	169	30277M	1.164	385.12			0.5
143) 4-Bromophenyl-phenylether	(4)			Not Detected					0.6
145) Hexachlorobenzene	(4)			Not Detected					0.1
149) Pentachlorophenol	(4)			Not Detected					1
163) Carbazole	(4)			Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)			Not Detected					3
205) Di-n-octylphthalate	(6)			Not Detected					2

M = Compound was manually integrated.

Total number of targets = 48

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36. Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 12:19. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

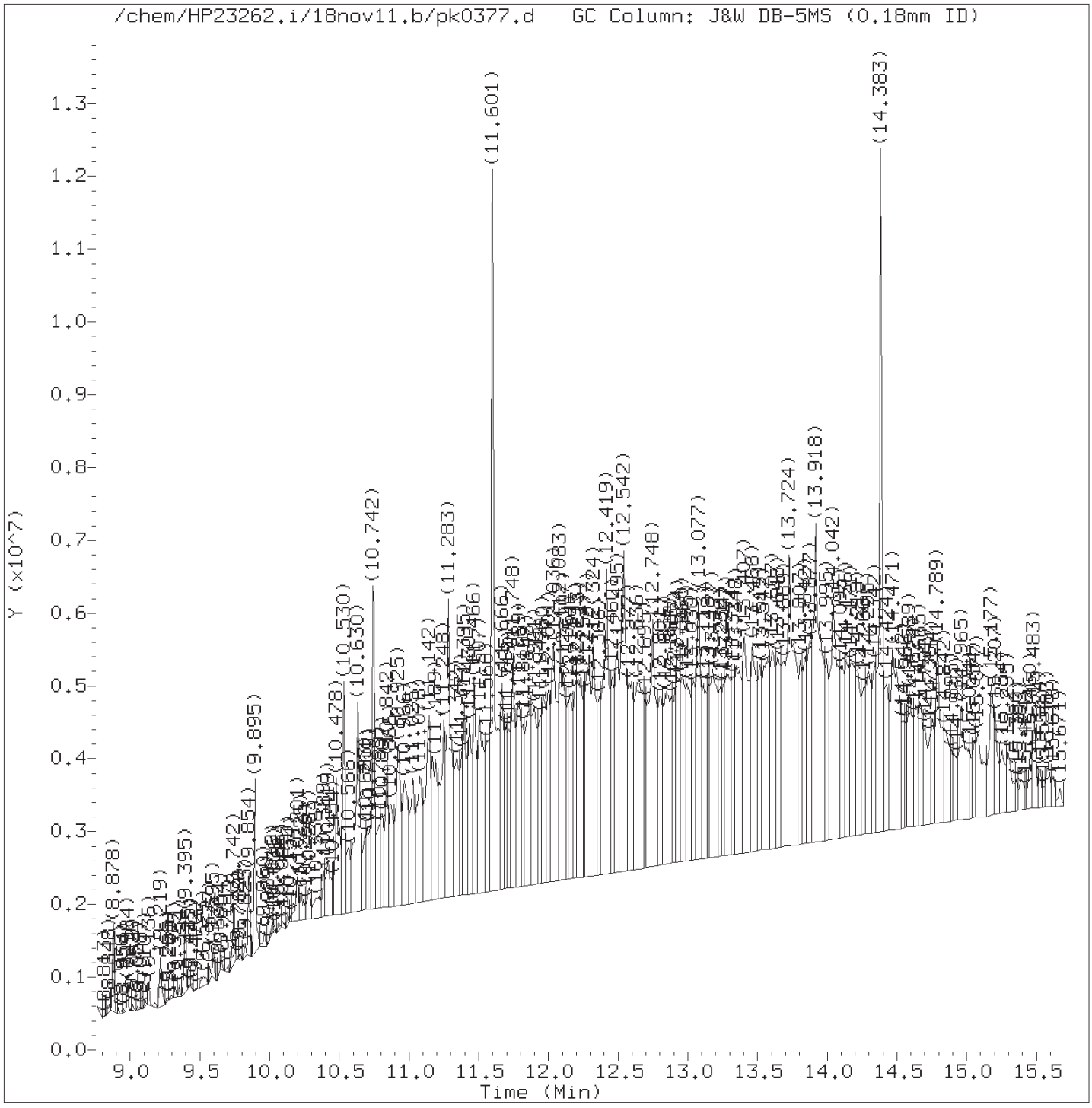
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Linda M. Hartenstine
on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Linda M. Hartenstine
on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

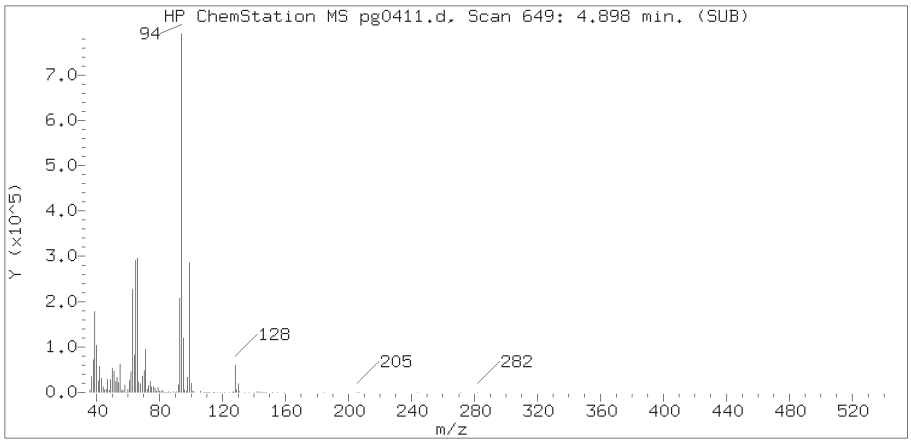
Sample Name: 12T06 Lab Sample ID: 9872064

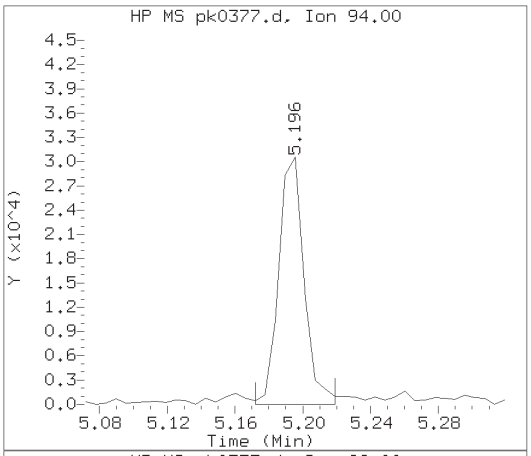
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.231	112	189386	16.737
17)$Phenol-d6	(1)	5.184	99	291511	16.350
18) Phenol	(1)	5.196	94	31645M	1.493
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	147807	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	11043	0.972
37) 4-Methylphenol	(1)	5.919	108	87468	5.730
44)$Nitrobenzene-d5	(2)	6.037	82	141493	8.756
65)*Naphthalene-d8	(2)	6.737	136	623270	20.000
83) 2-Methylnaphthalene	(2)	7.431	142	45468	1.870
93)$2-Fluorobiphenyl	(3)	7.795	172	265040	9.138
113)*Acenaphthene-d10	(3)	8.442	164	376449	20.000
119) Dibenzofuran	(3)	8.648	168	26279M	0.666
131) N-Nitrosodiphenylamine	(4)	9.107	169	30277M	1.164
135)$2,4,6-Tribromophenol	(3)	9.219	330	61542	16.347
153)*Phenanthrene-d10	(4)	9.895	188	808122	20.000
175)*Pyrene-d10	(5)	11.283	212	771058	20.000
179)$Terphenyl-d14	(5)	11.466	244	328219	9.979
213)*Perylene-d12	(6)	13.918	264	678083	20.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

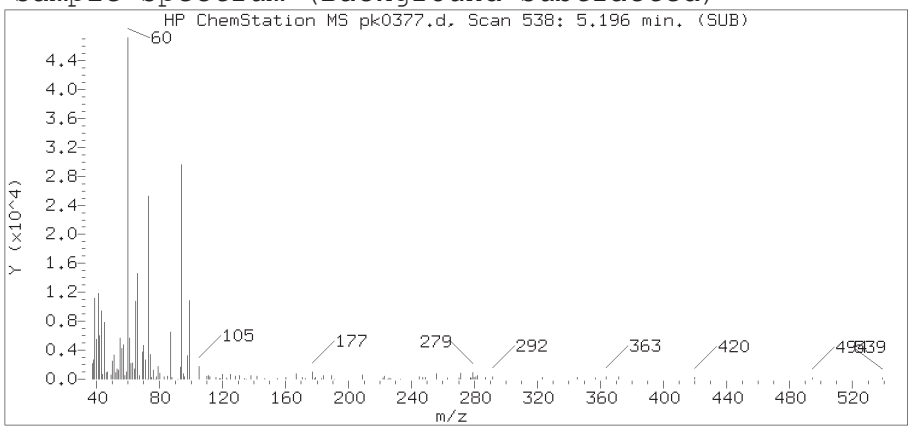
Digitally signed by Linda M. Hartenstine
on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

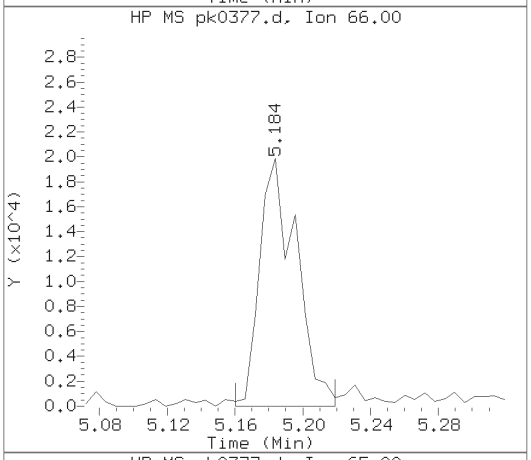
Reference Standard Spectrum for Phenol



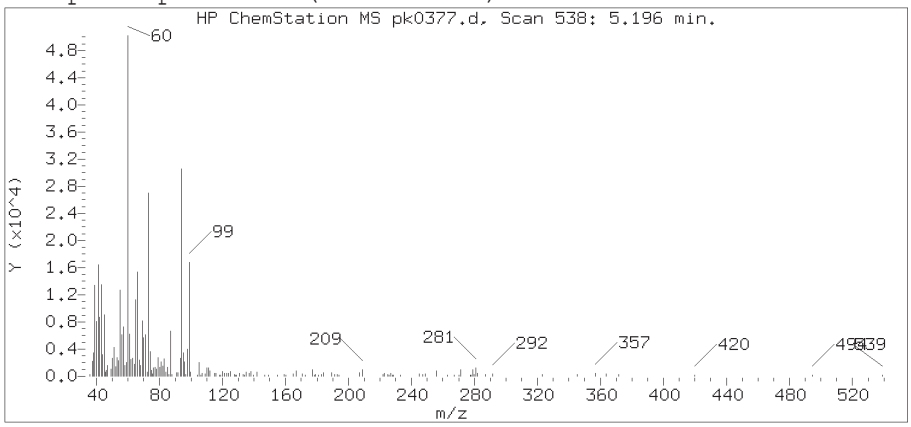


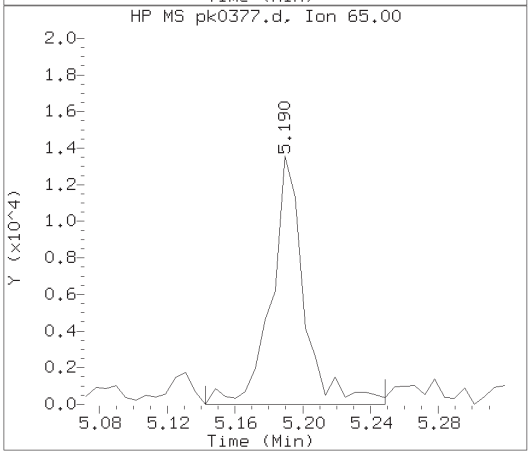
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

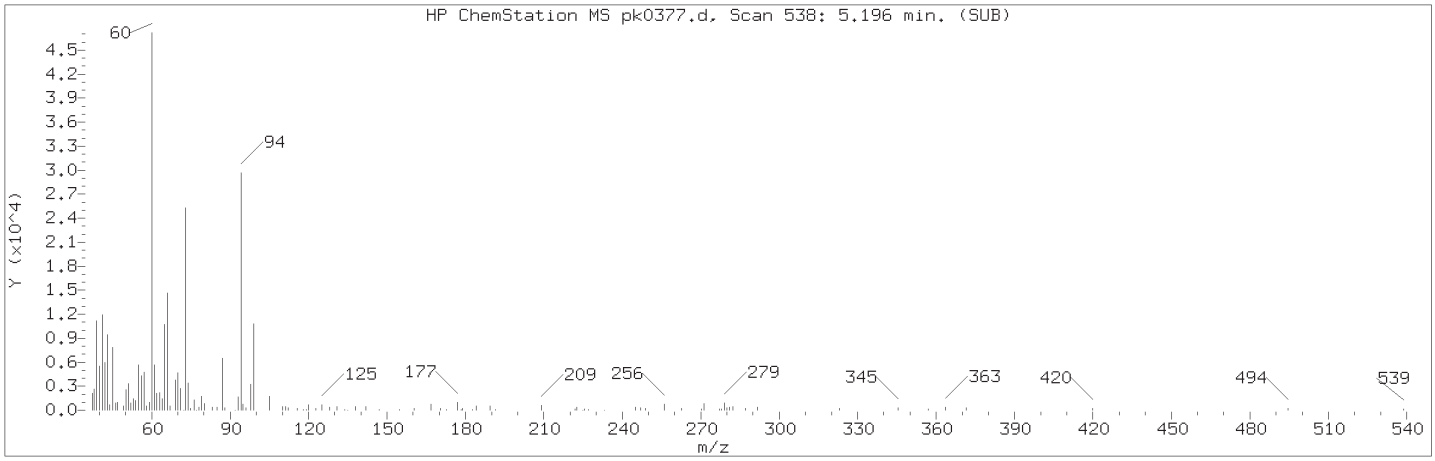
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

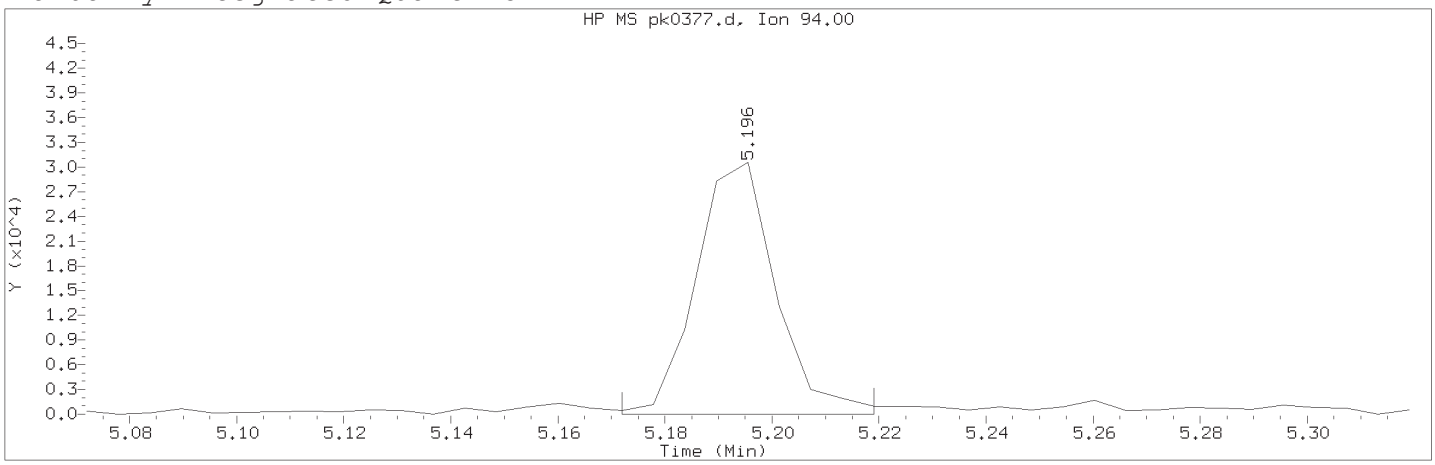
Compound Number	: 18
Compound Name	: Phenol
Scan Number	: 538
Retention Time (minutes)	: 5.196
Relative Retention Time	:-0.00214
Quant Ion	: 94.00
Area (flag)	: 31645M
On-column Amount (ng/ul)	: 1.4925

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

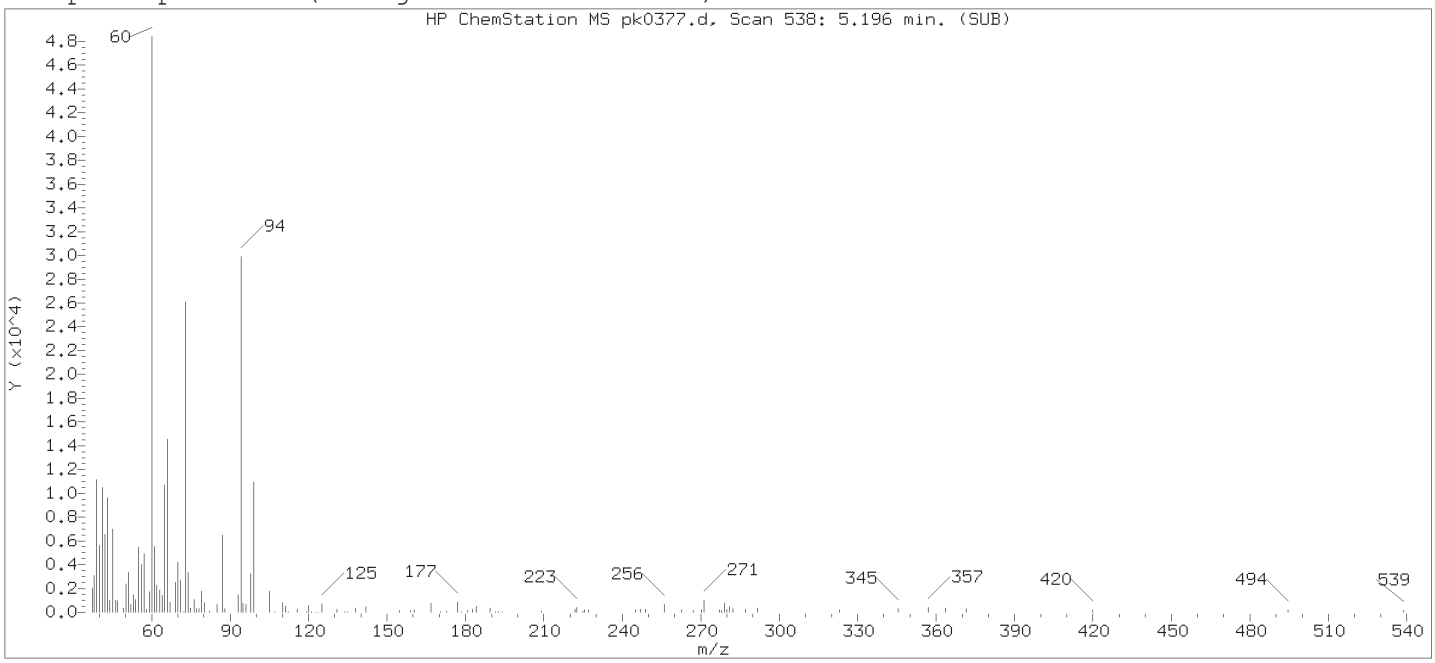
Compound Number	: 18		
Compound Name	: Phenol		
Scan Number	: 538		
Retention Time (minutes)	: 5.196		
Quant Ion	: 94.00		
Area (flag)	: 31645M		
On-column Amount (ng/ul)	: 1.4925		
Integration start scan	: 533	Integration stop scan:	541
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

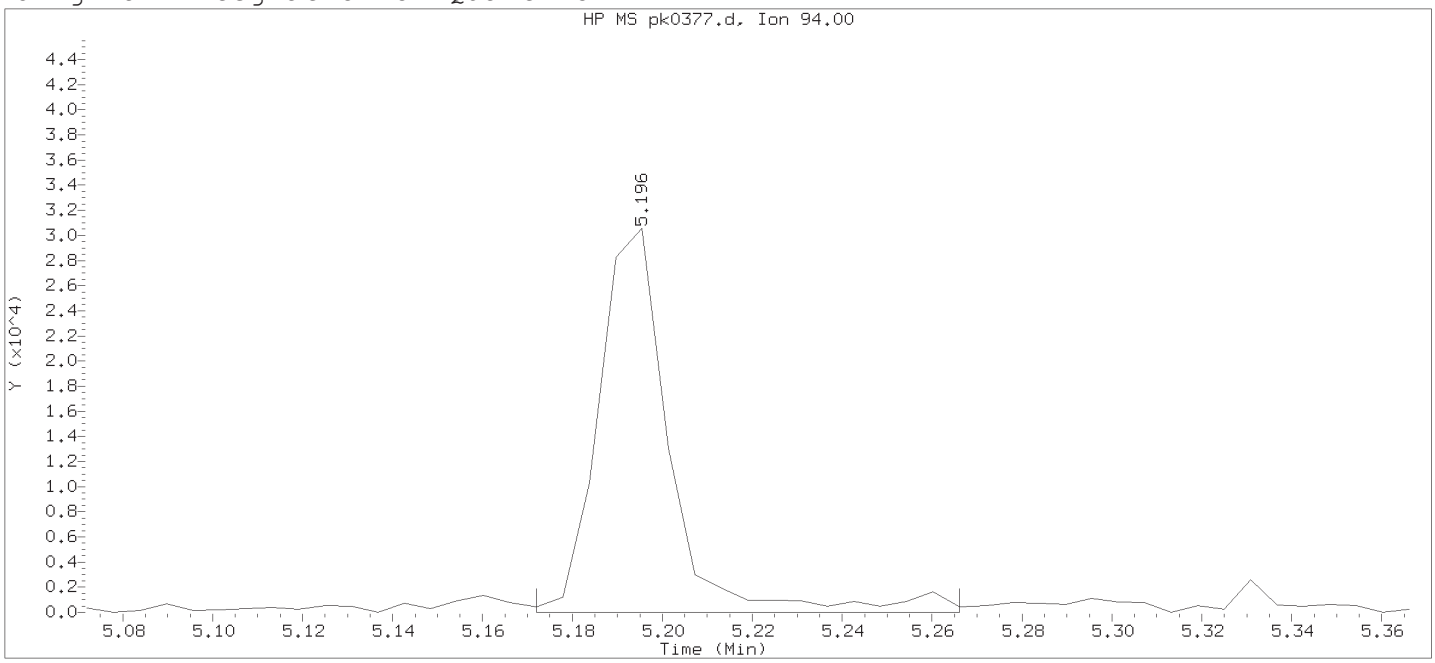
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 12:19.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

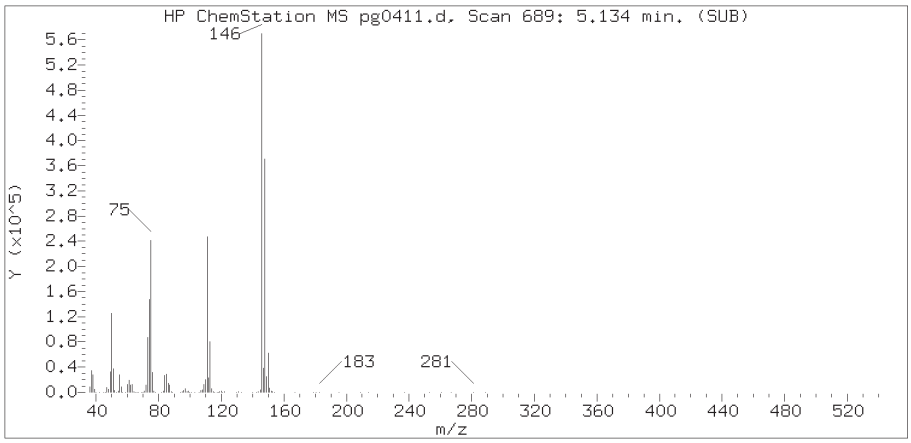
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:12 Automation

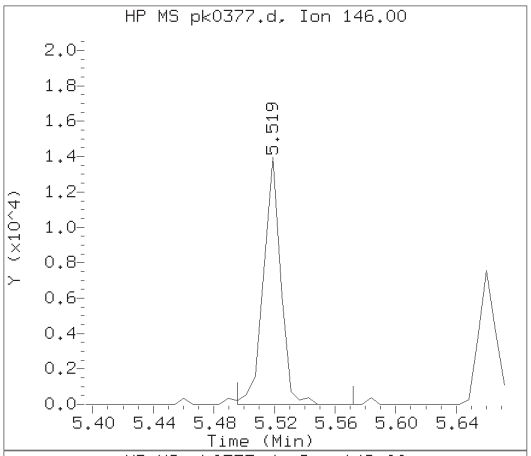
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 18		
Compound Name	: Phenol		
Scan Number	: 538		
Retention Time (minutes)	: 5.196		
Quant Ion	: 94.00		
Area	: 33858		
On-column Amount (ng/ul)	: 1.6768		
Integration start scan	: 533	Integration stop scan:	549
Y at integration start	: 0	Y at integration end:	0

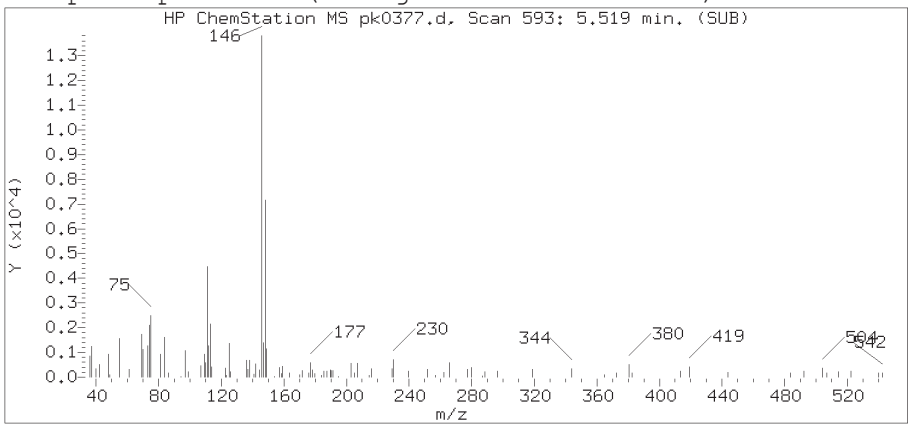
Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature used. D12 Page 1755

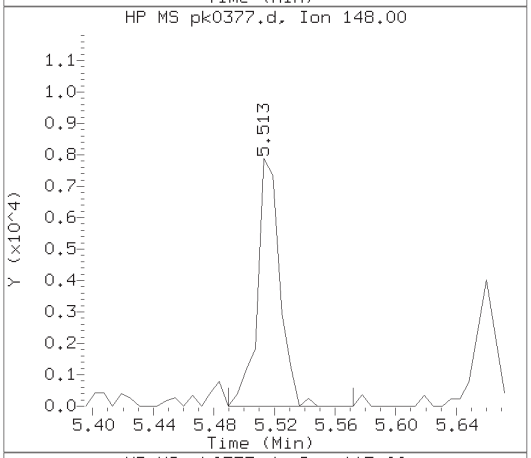
Reference Standard Spectrum for 1,4-Dichlorobenzene



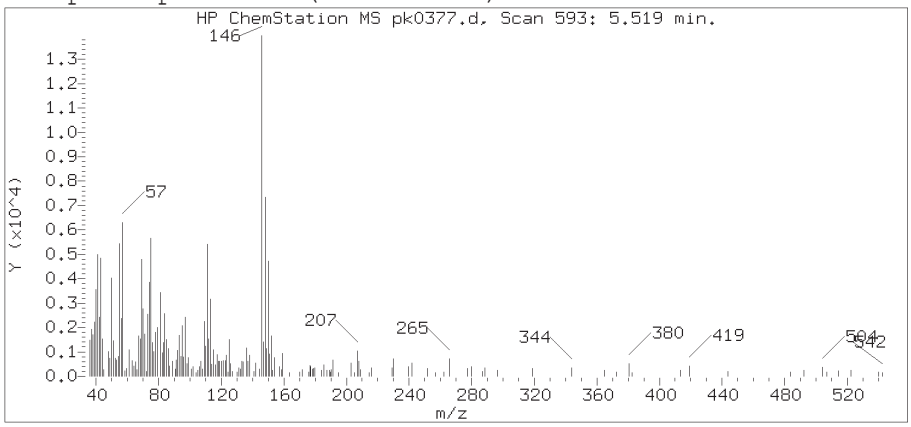


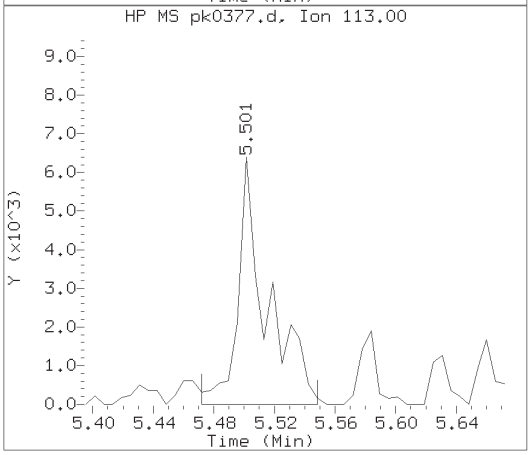
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

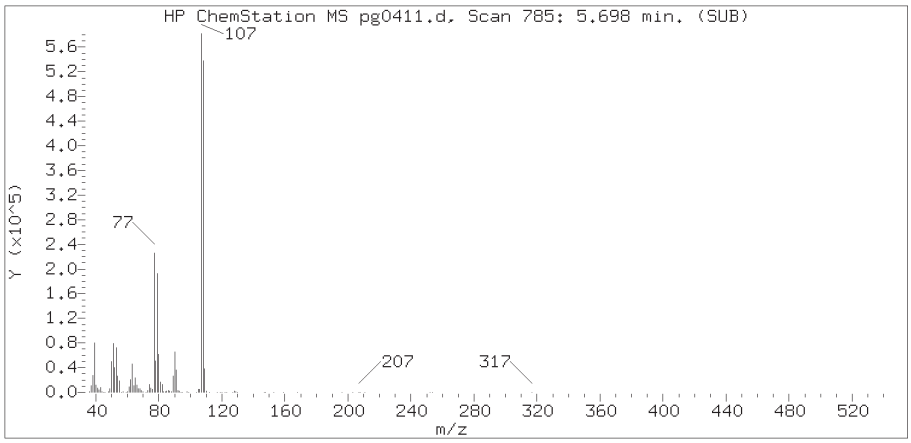
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

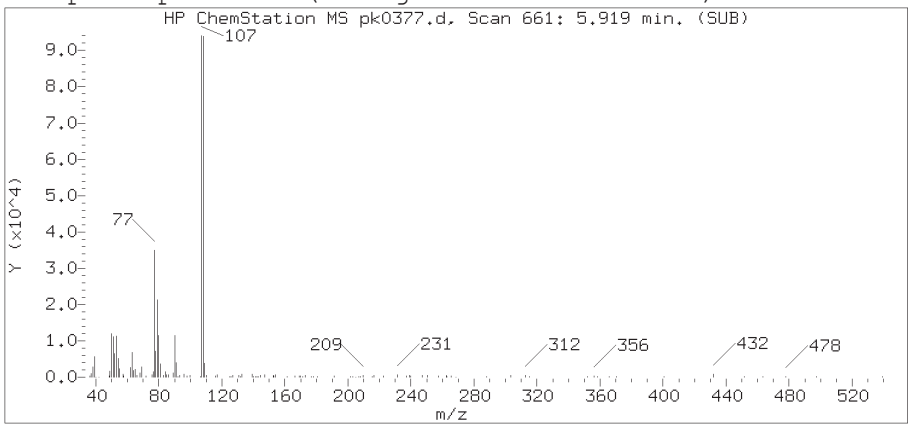
Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 593
Retention Time (minutes)	: 5.519
Relative Retention Time	:-0.00000
Quant Ion	: 146.00
Area (flag)	: 11043
On-column Amount (ng/ul)	: 0.9718

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

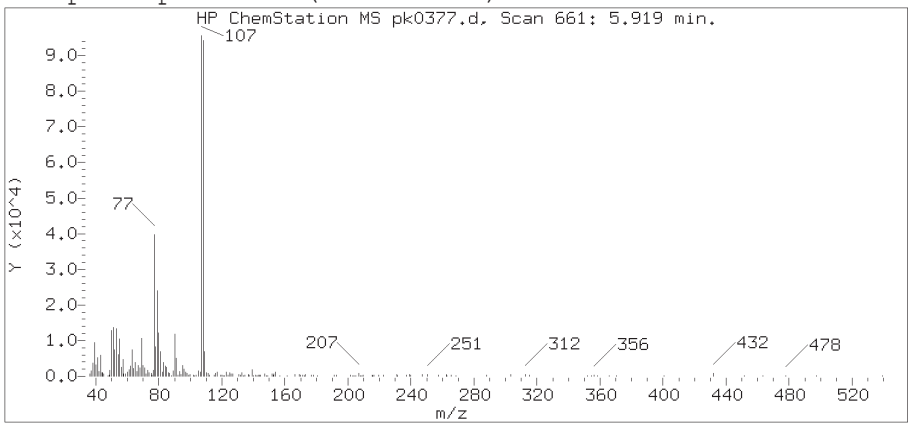
Reference Standard Spectrum for 4-Methylphenol

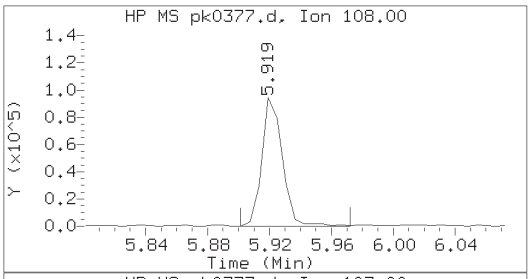


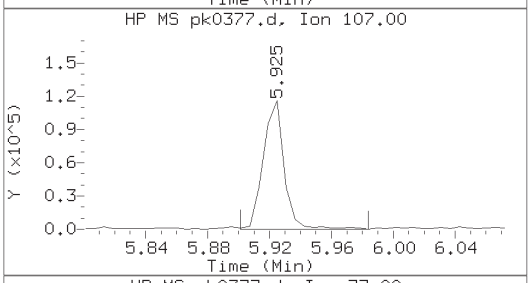
Sample Spectrum (Background Subtracted)

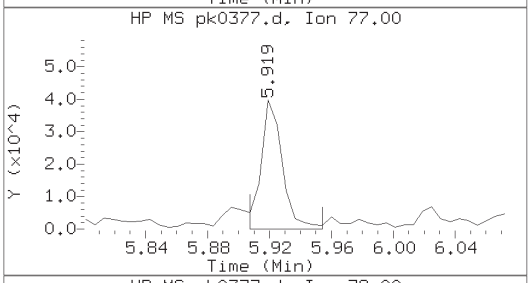


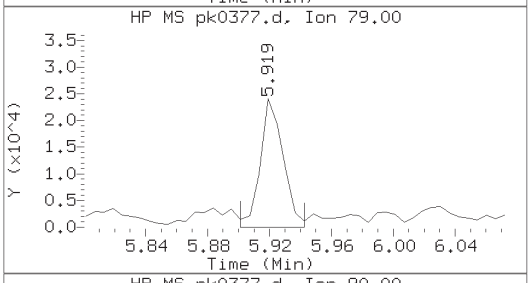
Sample Spectrum (Unaltered)

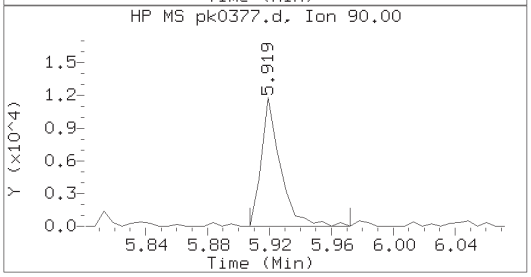












Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

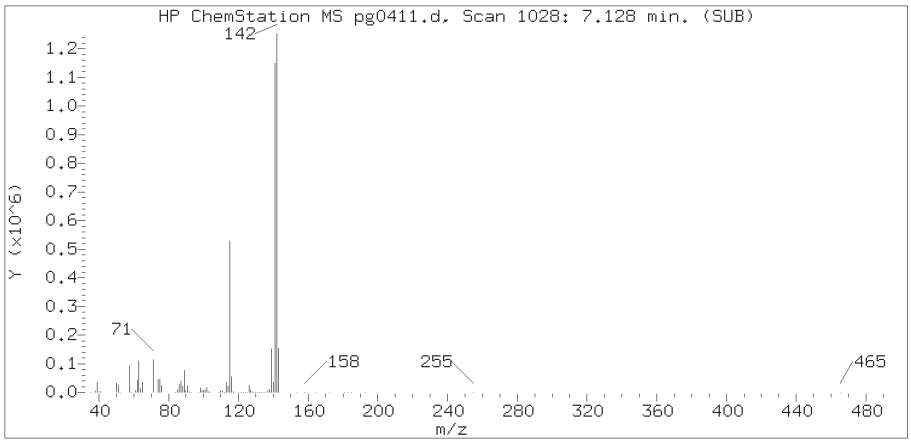
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

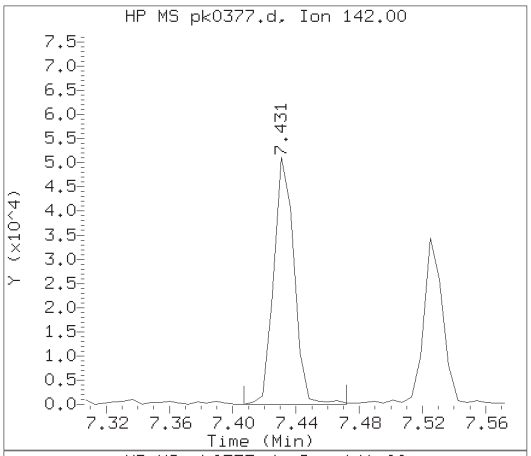
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 37
Compound Name : 4-Methylphenol
Scan Number : 661
Retention Time (minutes) : 5.919
Relative Retention Time :-0.00107
Quant Ion : 108.00
Area (flag) : 87468
On-column Amount (ng/ul) : 5.7296

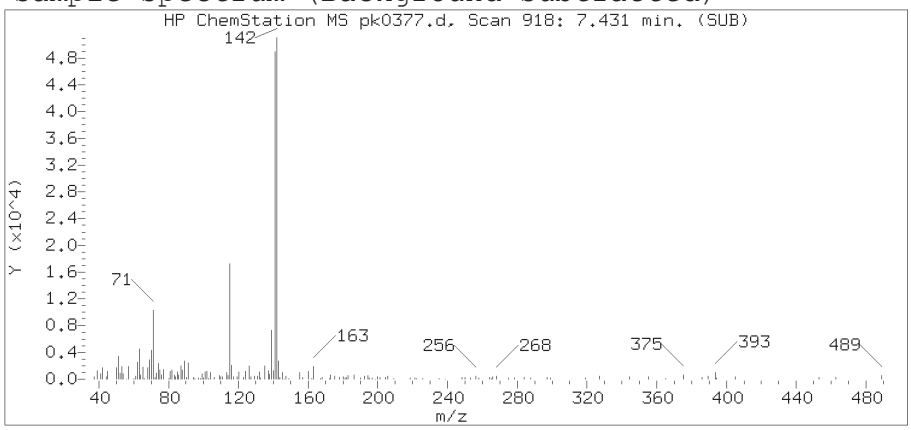
Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

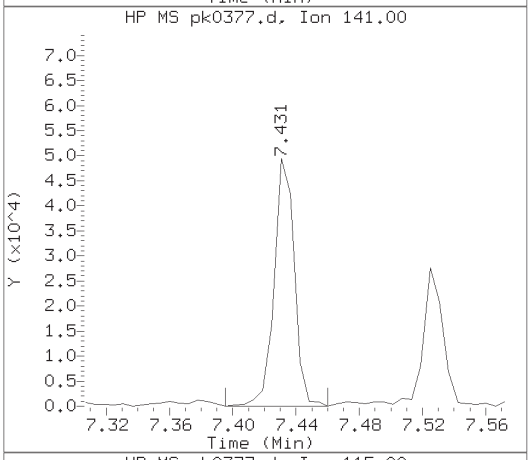
Reference Standard Spectrum for 2-Methylnaphthalene



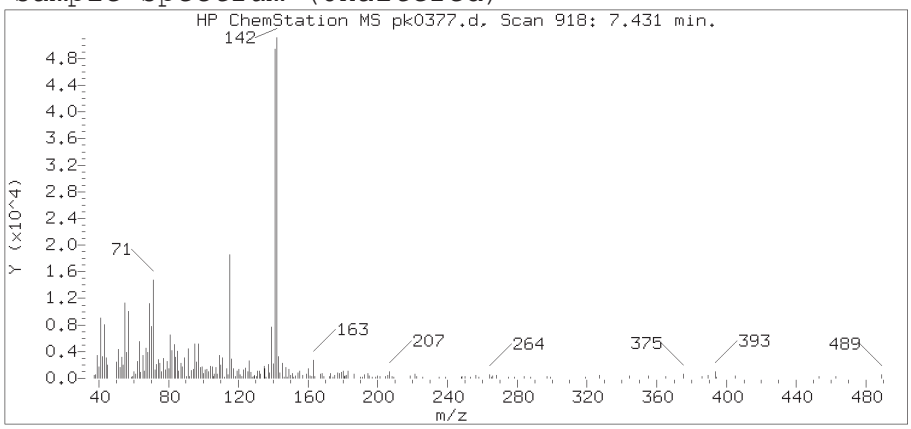


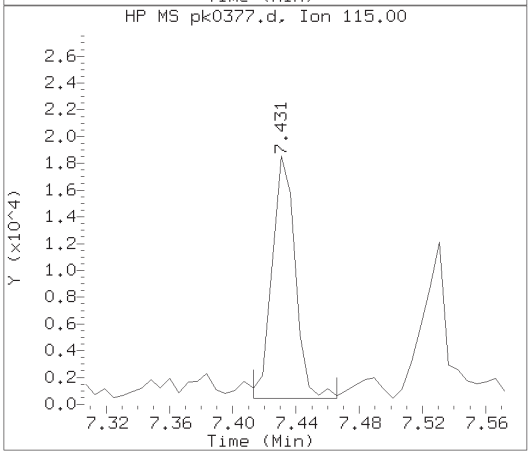
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

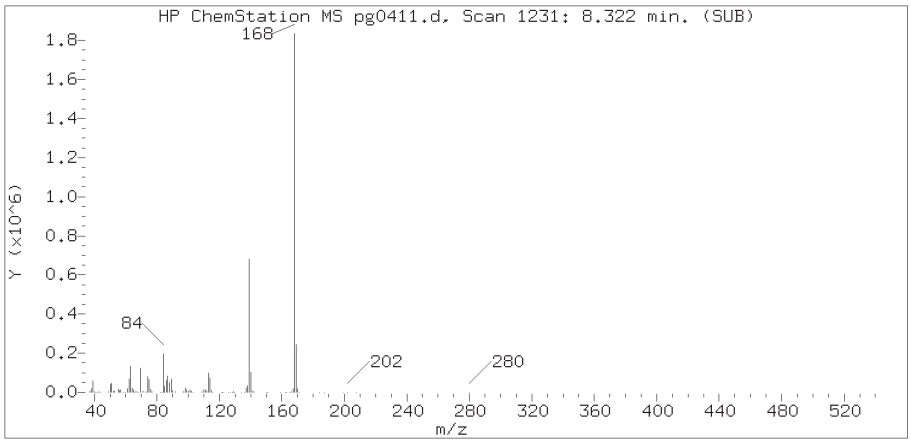
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

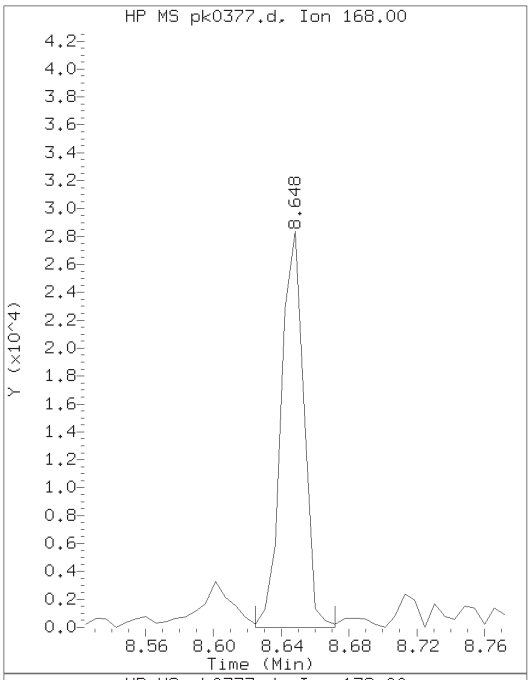
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 918
Retention Time (minutes)	: 7.431
Relative Retention Time	: 0.00096
Quant Ion	: 142.00
Area (flag)	: 45468
On-column Amount (ng/ul)	: 1.8704

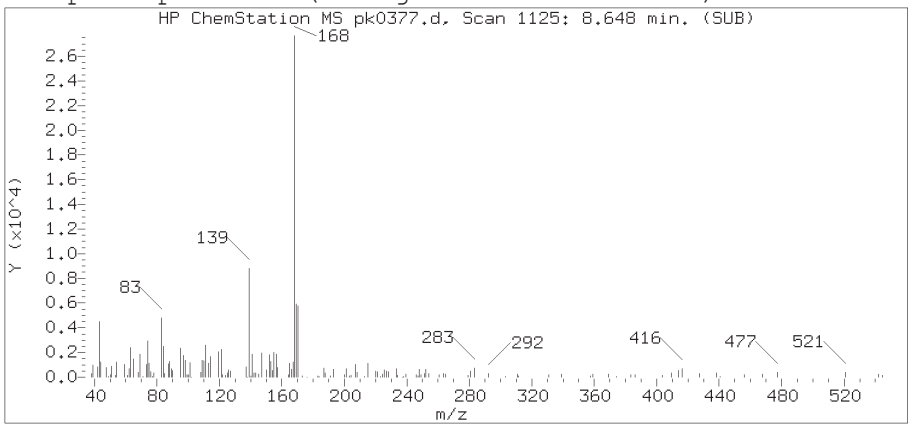
Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

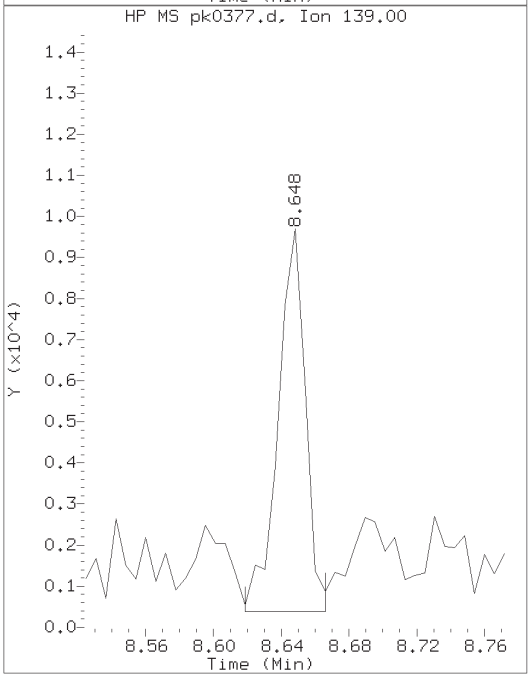
Reference Standard Spectrum for Dibenzofuran



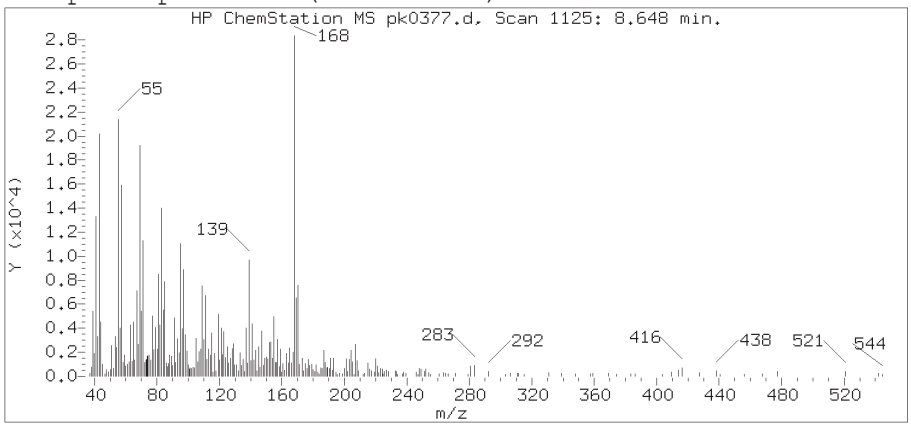


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

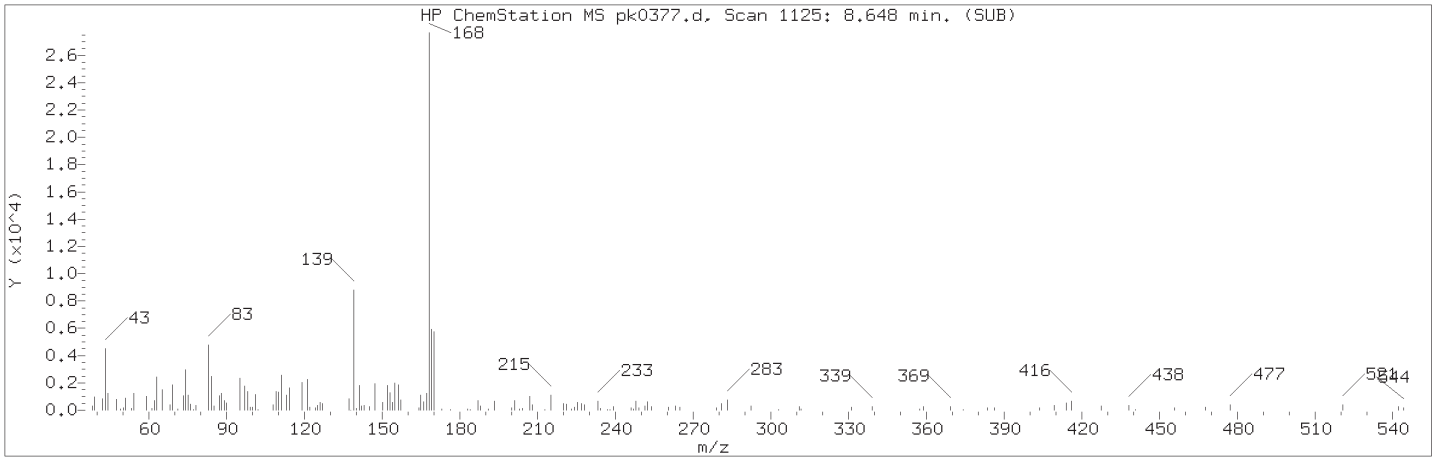
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

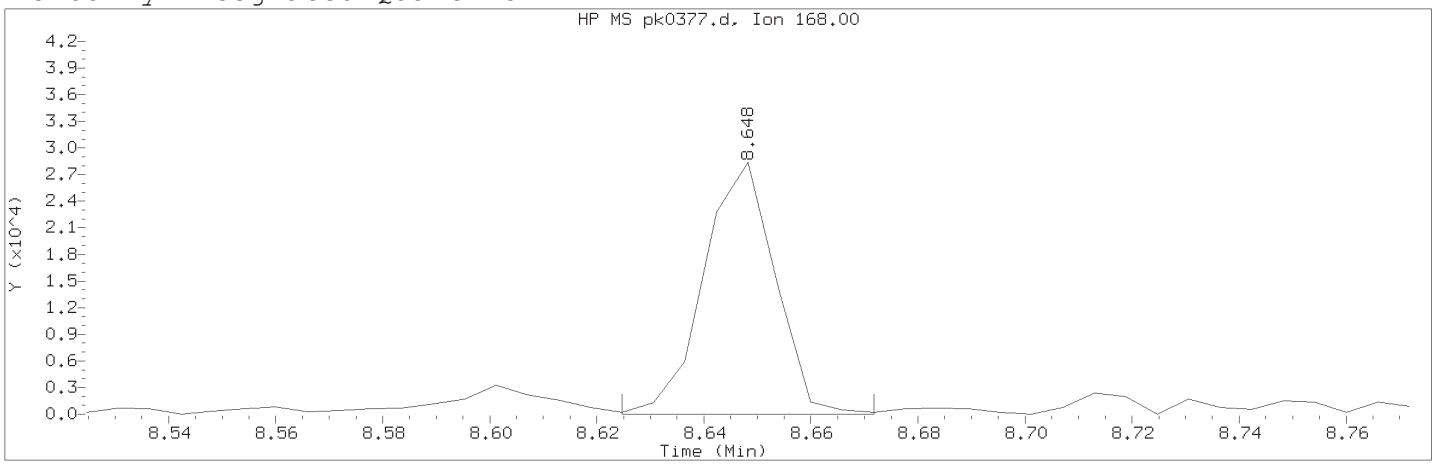
Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1125
Retention Time (minutes)	: 8.648
Relative Retention Time	:-0.00070
Quant Ion	: 168.00
Area (flag)	: 26279M
On-column Amount (ng/ul)	: 0.6657

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

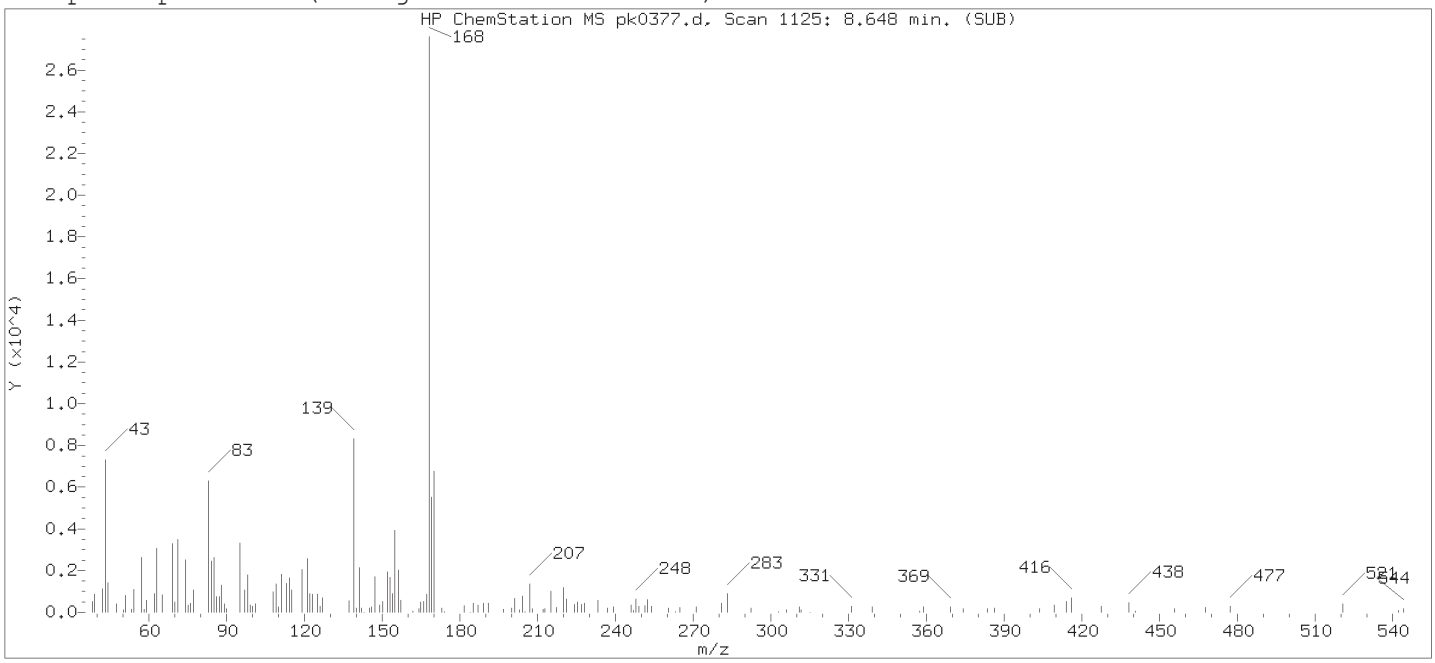
Compound Number : 119
Compound Name : Dibenzofuran
Scan Number : 1125
Retention Time (minutes) : 8.648
Quant Ion : 168.00
Area (flag) : 26279M
On-column Amount (ng/ul) : 0.6657
Integration start scan : 1120 Integration stop scan: 1128
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

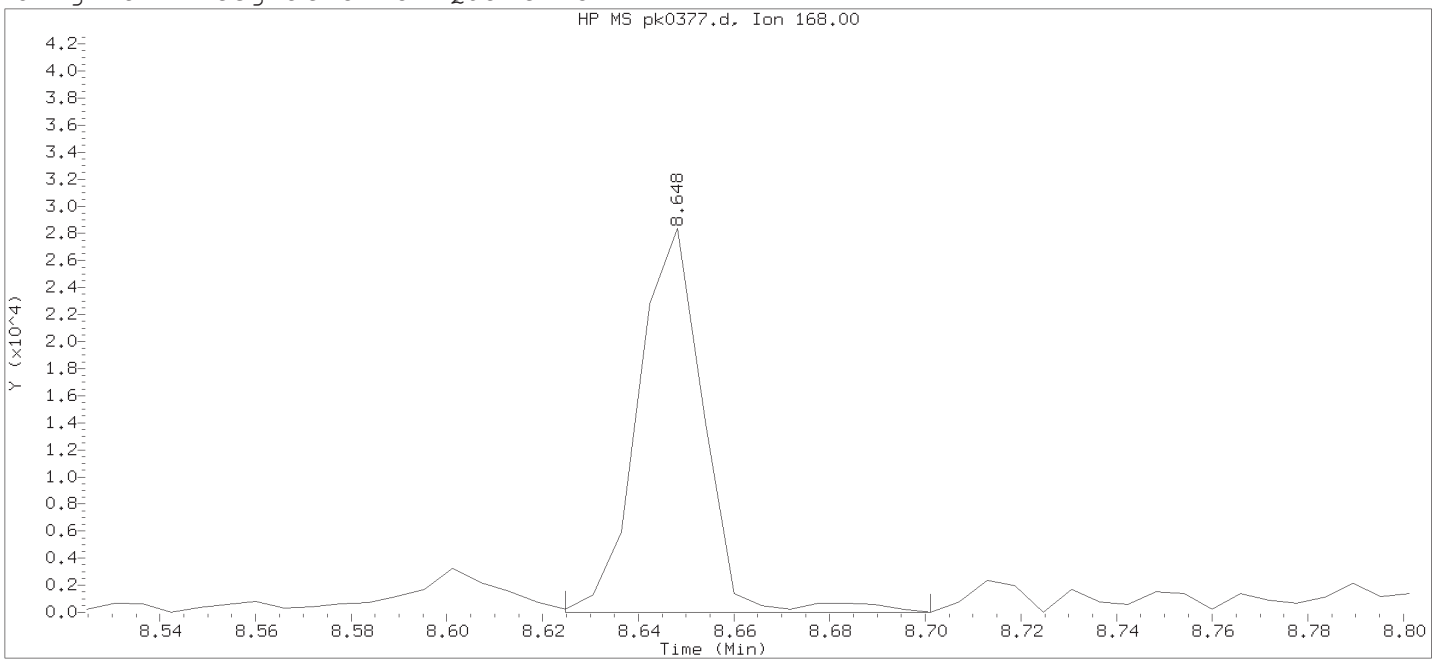
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 12:19.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

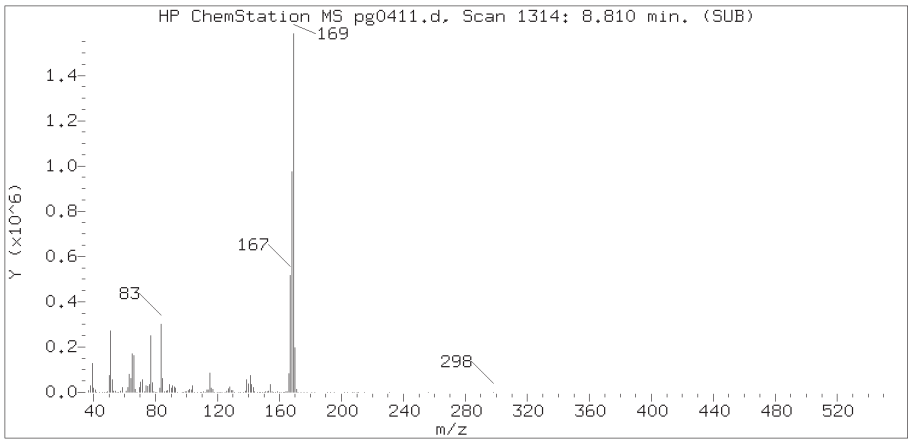
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:12 Automation

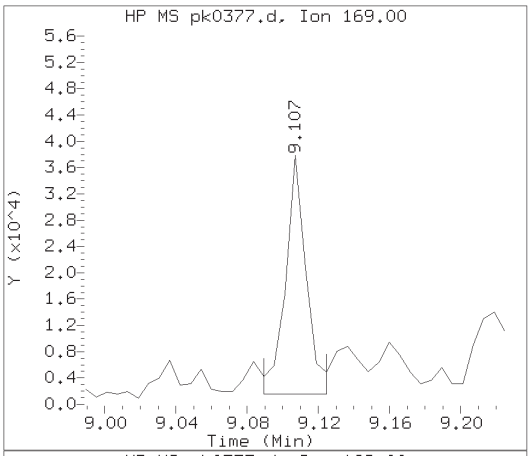
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 119		
Compound Name	: Dibenzofuran		
Scan Number	: 1125		
Retention Time (minutes)	: 8.648		
Quant Ion	: 168.00		
Area	: 26991		
On-column Amount (ng/ul)	: 0.7179		
Integration start scan	: 1120	Integration stop scan:	1133
Y at integration start	: 0	Y at integration end:	0

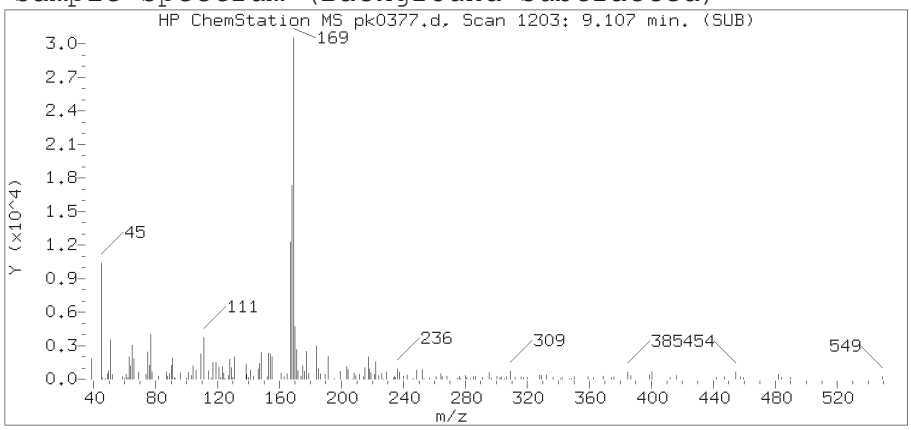
Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: LMH0176

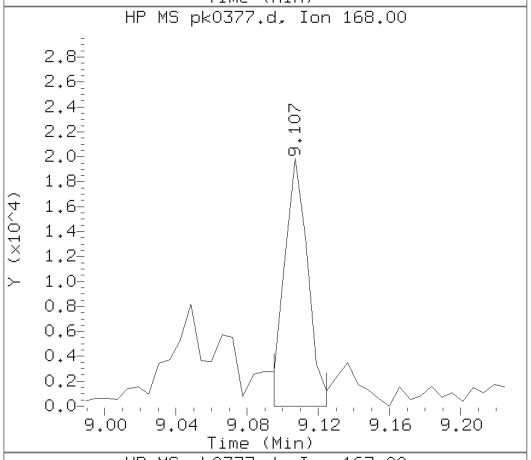
Reference Standard Spectrum for N-Nitrosodiphenylamine



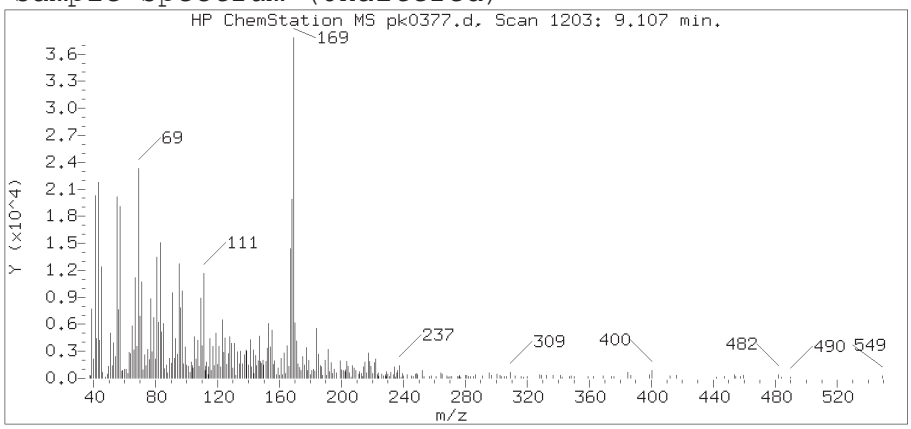


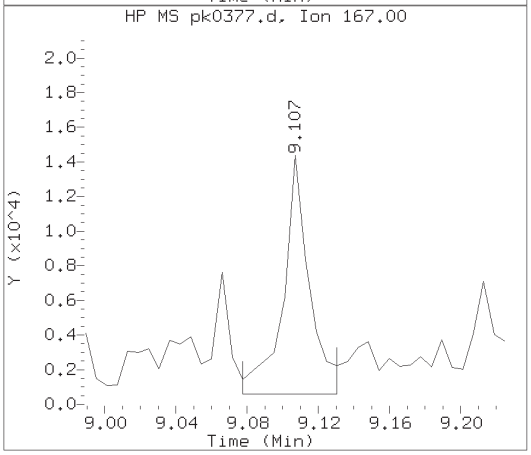
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

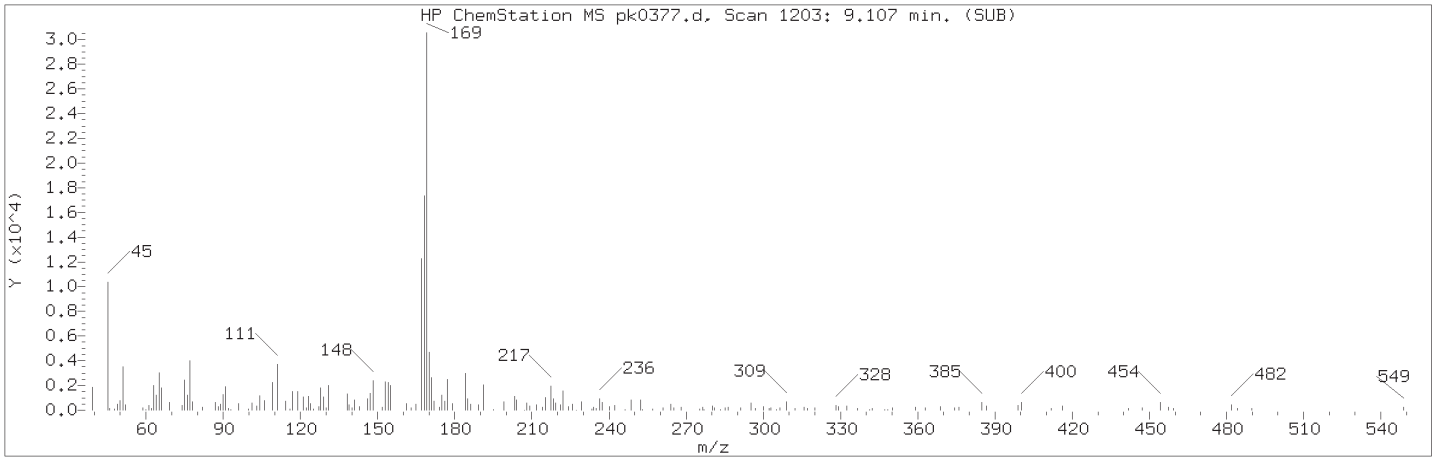
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

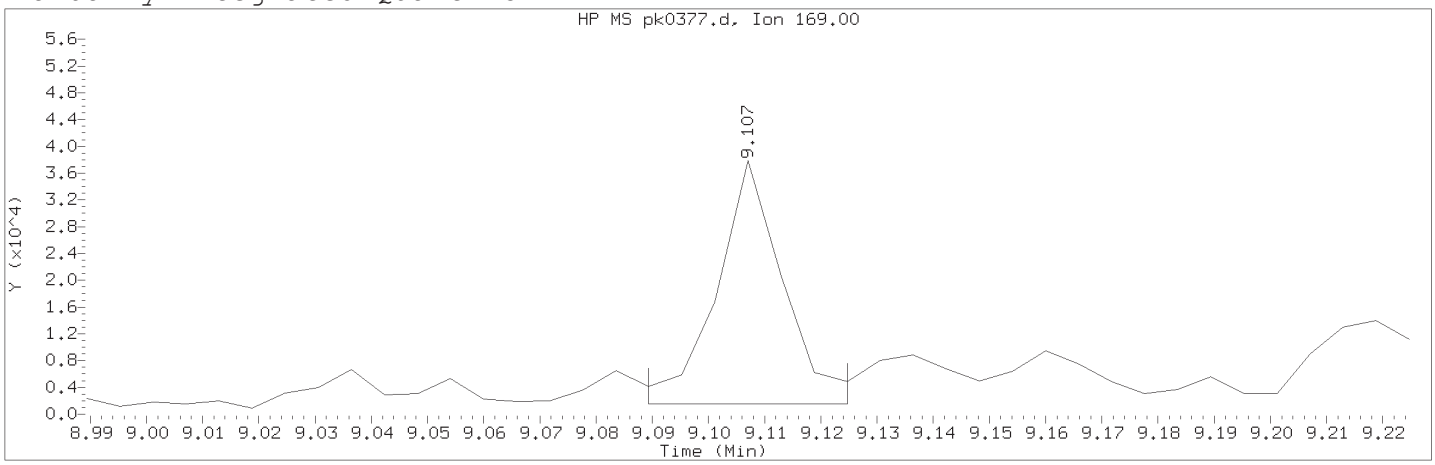
Compound Number	: 131
Compound Name	: N-Nitrosodiphenylamine
Scan Number	: 1203
Retention Time (minutes)	: 9.107
Relative Retention Time	: 0.00055
Quant Ion	: 169.00
Area (flag)	: 30277M
On-column Amount (ng/ul)	: 1.1642

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 13-Nov-2018 11:30 lmh00956

Sample Name: 12T06 Lab Sample ID: 9872064

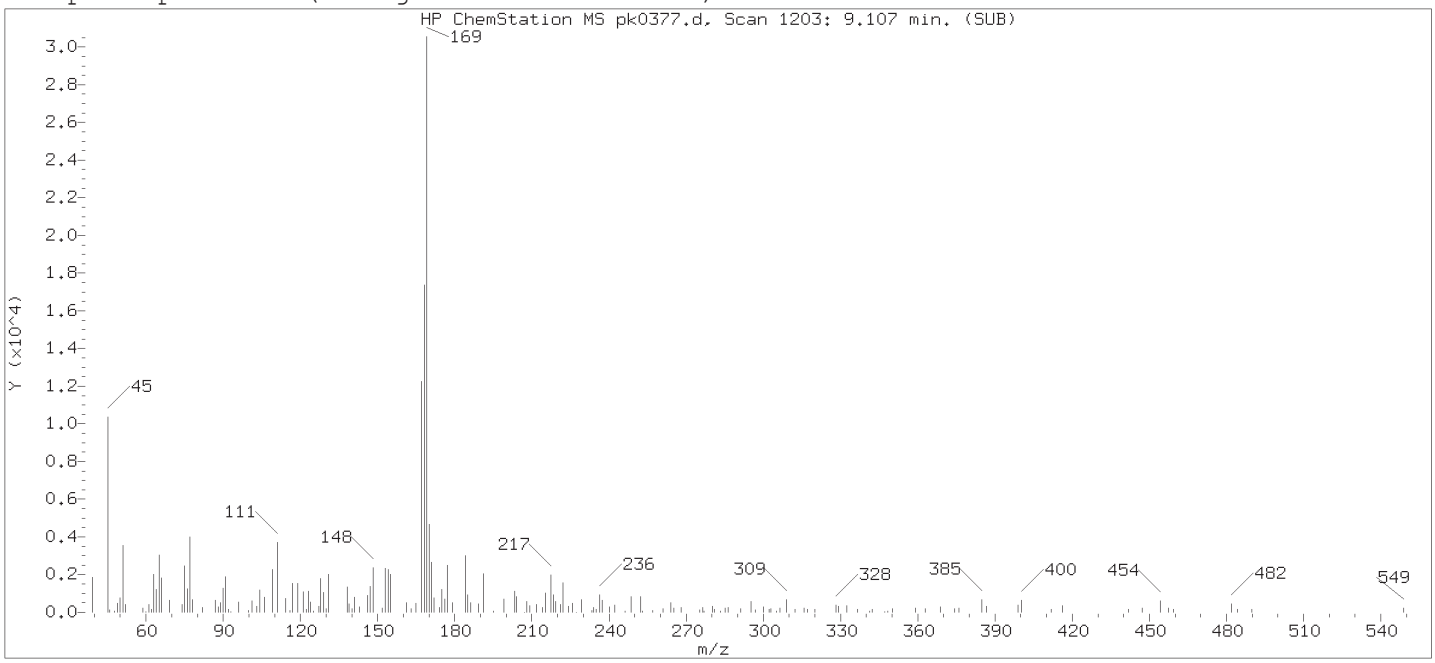
Compound Number : 131
Compound Name : N-Nitrosodiphenylamine
Scan Number : 1203
Retention Time (minutes) : 9.107
Quant Ion : 169.00
Area (flag) : 30277M
On-column Amount (ng/ul) : 1.1642
Integration start scan : 1199 Integration stop scan: 1205
Y at integration start : 1535 Y at integration end: 1535

Reason for manual integration: improper integration

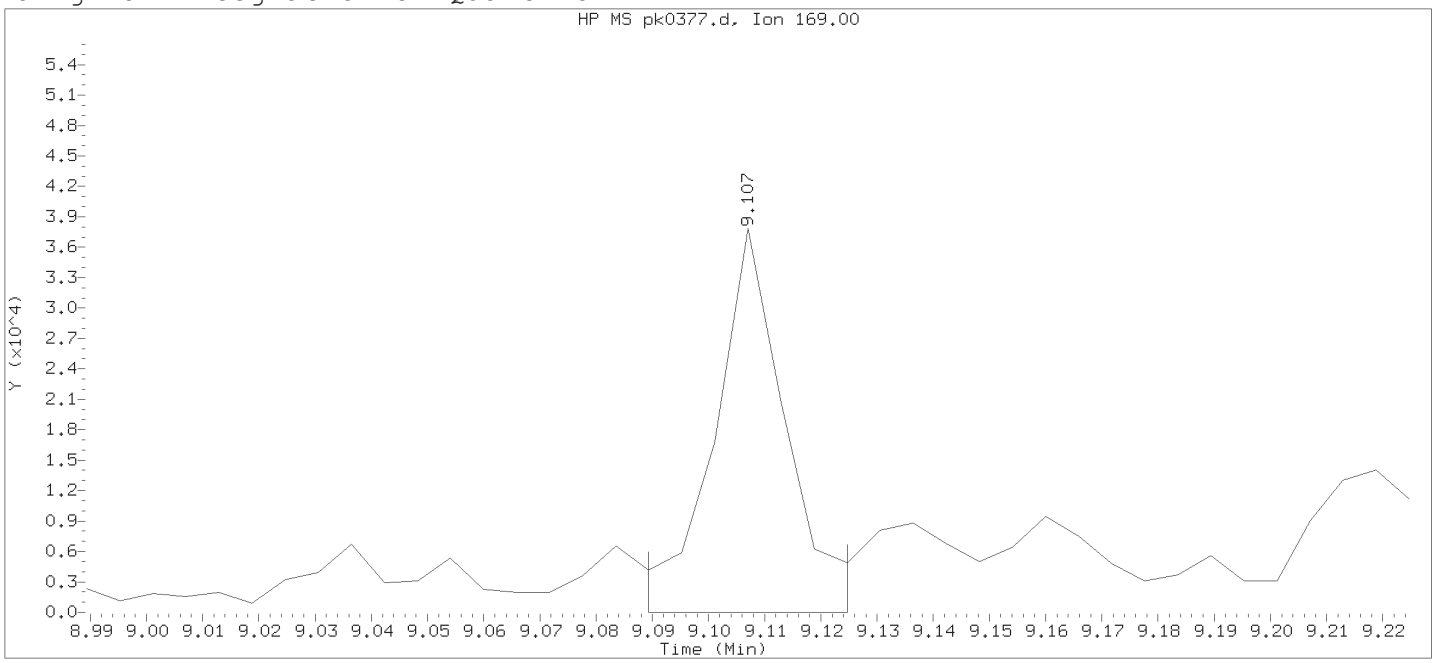
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 12:19.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0377.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 01:51 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:12 Automation

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 131		
Compound Name	: N-Nitrosodiphenylamine		
Scan Number	: 1203		
Retention Time (minutes)	: 9.107		
Quant Ion	: 169.00		
Area	: 32468		
On-column Amount (ng/ul)	: 1.3109		
Integration start scan	: 1199	Integration stop scan:	1205
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Linda M. Hartenstine on 11/13/2018 at 11:36.
Target 3.5 esignature used: D12 Page 1764 of 7494

Lancaster Laboratories, Inc.

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP23262.i/18nov11.b/pk0378.d Injection date and time: **12-NOV-2018 02:14**
Data file Sample Info. Line: 12T07;9872065;2;0;SAMPLE;;DOD26;T1 Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 13-NOV-2018 11:28
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.501(0.000)	590	152	169026 (14)	20.00	
65) Naphthalene-d8	6.736(-0.006)	800	136	711917 (10)	20.00	
113) Acenaphthene-d10	8.448(-0.006)	1091	164	397874 (5)	20.00	
153) Phenanthrene-d10	9.895(-0.006)	1337	188	781708 (-10)	20.00	
175) Pyrene-d10	11.283(-0.006)	1573	212	677592 (-25)	20.00	
213) Perylene-d12	13.936(-0.029)	2024	264	586156 (-26)	20.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.231(-0.002)	112	1507786	116.524	58%		35 - 115
17) Phenol-d6	(1)	5.184(-0.003)	99	2529092	124.042	62%		47 - 120
44) Nitrobenzene-d5	(2)	6.042(0.000)	82	1298102	70.332	70%		37 - 122
93) 2-Fluorobiphenyl	(3)	7.795(0.001)	172	2351894	76.718	77%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.219(0.000)	330	358711	90.154	45%		39 - 132
179) Terphenyl-d14	(5)	11.471(-0.001)	244	2398148	82.972	83%		54 - 127

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)			Not Detected					2
18) Phenol	(1)	5.201(-0.003)	94	25400	1.048	34.75		J	0.7
19) Aniline	(1)			Not Detected					5
22) bis(2-Chloroethyl)ether	(1)			Not Detected					0.7
23) 2-Chlorophenol	(1)			Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)	5.442(0.000)	146	10116	0.774	25.67		J	0.5
26) 1,4-Dichlorobenzene	(1)	5.519(-0.000)	146	23805M	1.832	60.76			0.5
27) Benzyl alcohol	(1)			Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.660(-0.000)	146	8142M	0.627	20.79		J	0.6
31) 2-Methylphenol	(1)			Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)			Not Detected					0.5
37) 4-Methylphenol	(1)			Not Detected					0.6
38) N-Nitroso-di-n-propylamine	(1)			Not Detected					0.6
43) Hexachloroethane	(1)			Not Detected					1
45) Nitrobenzene	(2)			Not Detected					0.8
50) Isophorone	(2)			Not Detected					0.5
51) 2-Nitrophenol	(2)			Not Detected					0.5
53) 2,4-Dimethylphenol	(2)			Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)			Not Detected					0.5
60) 2,4-Dichlorophenol	(2)			Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)	6.684(-0.000)	180	9218M	0.748	24.82		J	0.5
67) 4-Chloroaniline	(2)			Not Detected					1
71) Hexachlorobutadiene	(2)			Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)			Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.430(0.000)	142	43481	1.566	51.94	12.196	B	0.3
85) Hexachlorocyclopentadiene	(3)			Not Detected					5
90) 2,4,6-Trichlorophenol	(3)			Not Detected					0.6

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45. Target 3.5 esignature user ID: lmh00956

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP23262.i/18nov11.b/pk0378.d Injection date and time: **12-NOV-2018 02:14**
Data file Sample Info. Line: 12T07;9872065;2;0;SAMPLE;;DOD26;T1 Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 13-NOV-2018 11:28
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

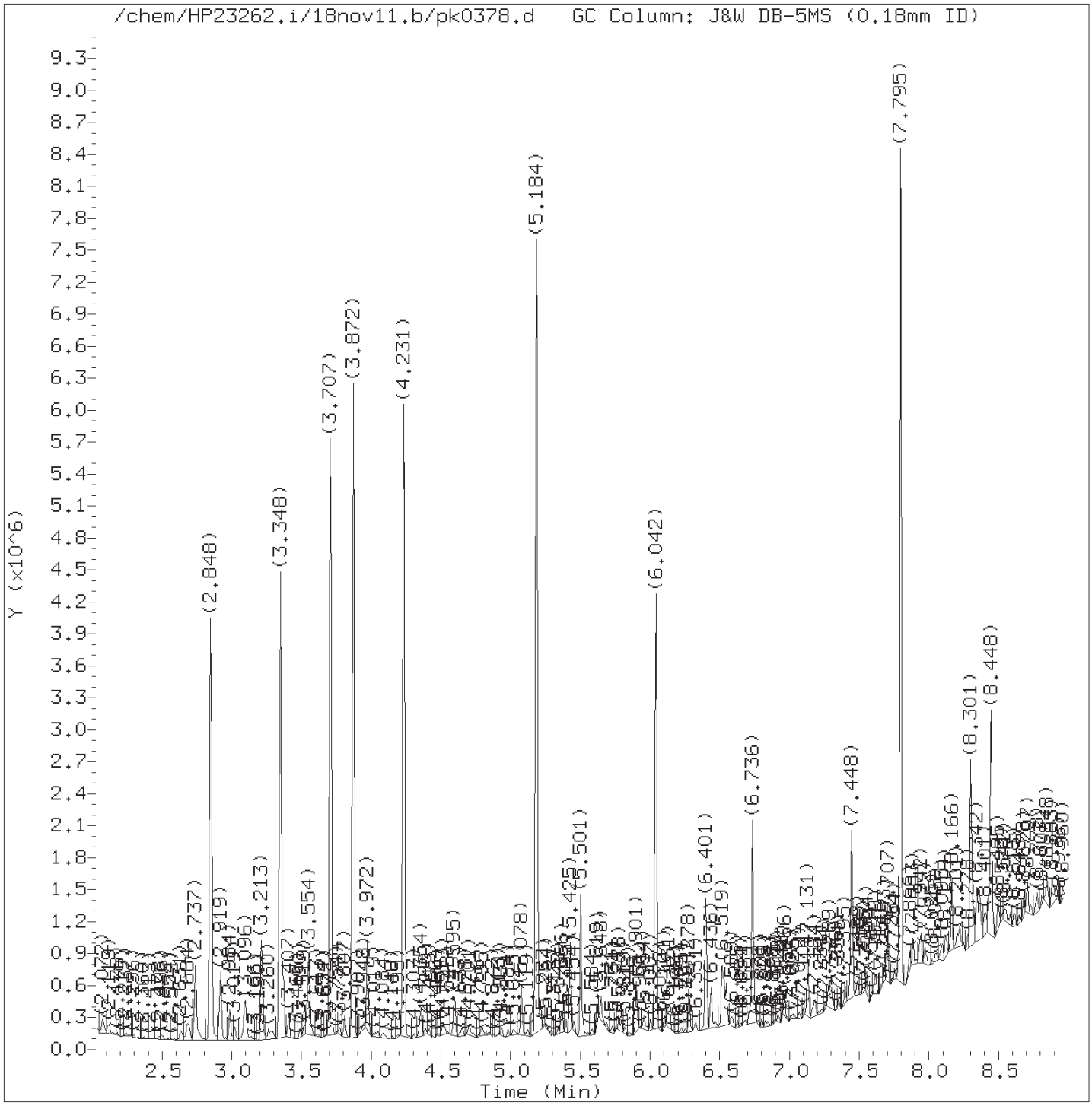
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)	7.754	(-0.000)	196	22883M	2.356	78.15			0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)				Not Detected					0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)				Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

M = Compound was manually integrated.

Total number of targets = 48

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45. Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 08:45. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

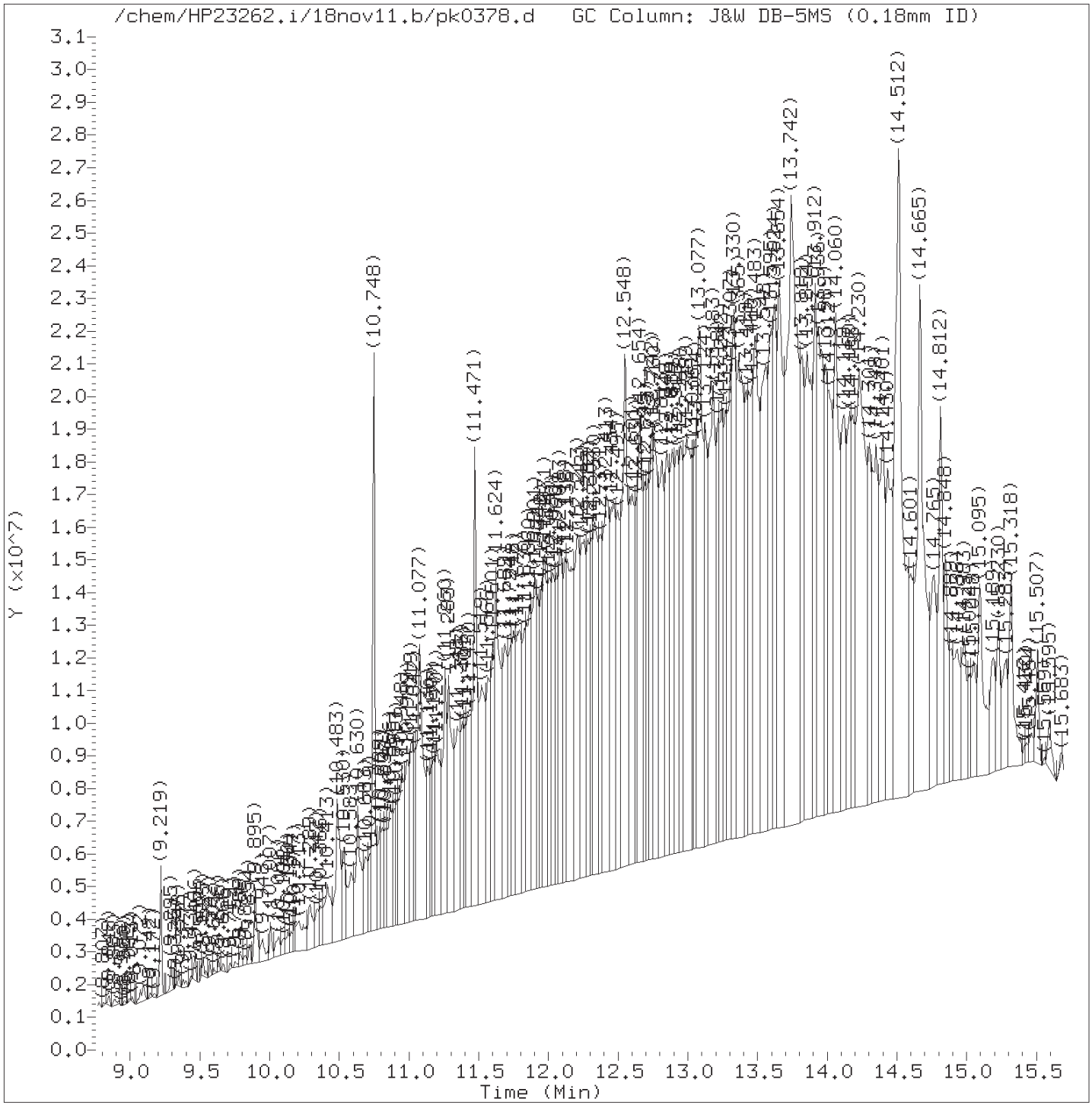
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Linda M. Hartenstine
on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Linda M. Hartenstine
on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

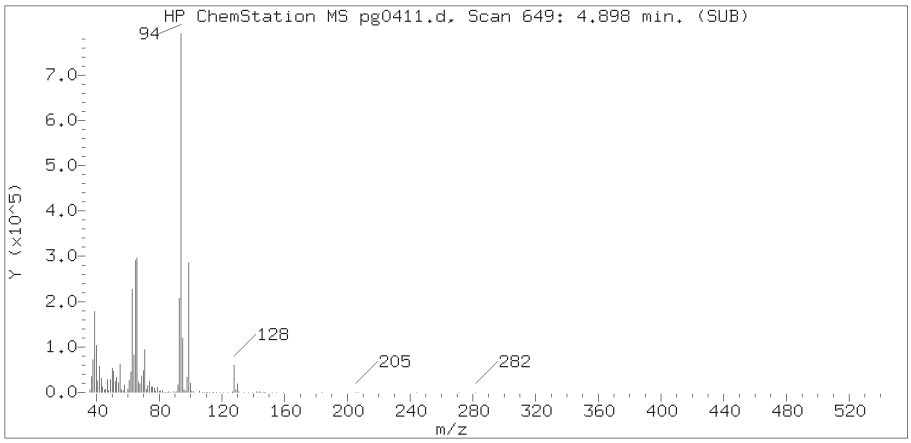
Sample Name: 12T07 Lab Sample ID: 9872065

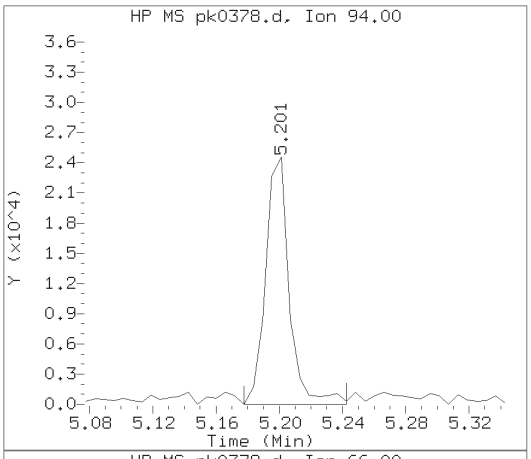
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.231	112	1507786	116.524
17)$Phenol-d6	(1)	5.184	99	2529092	124.042
18) Phenol	(1)	5.201	94	25400	1.048
24) 1,3-Dichlorobenzene	(1)	5.442	146	10116	0.774
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	169026	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	23805M	1.832
28) 1,2-Dichlorobenzene	(1)	5.660	146	8142M	0.627
44)$Nitrobenzene-d5	(2)	6.042	82	1298102	70.332
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	9218M	0.748
65)*Naphthalene-d8	(2)	6.736	136	711917	20.000
83) 2-Methylnaphthalene	(2)	7.431	142	43481	1.566
92) 2,4,5-Trichlorophenol	(3)	7.754	196	22883M	2.356
93)$2-Fluorobiphenyl	(3)	7.795	172	2351894	76.718
113)*Acenaphthene-d10	(3)	8.448	164	397874	20.000
135)$2,4,6-Tribromophenol	(3)	9.219	330	358711	90.154
153)*Phenanthrene-d10	(4)	9.895	188	781708	20.000
175)*Pyrene-d10	(5)	11.283	212	677592	20.000
179)$Terphenyl-d14	(5)	11.471	244	2398148	82.972
213)*Perylene-d12	(6)	13.936	264	586156	20.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

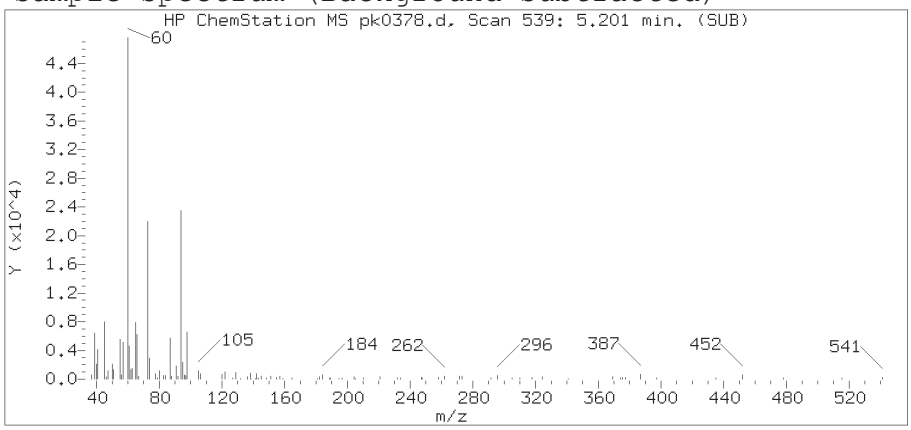
Digitally signed by Linda M. Hartenstine
on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

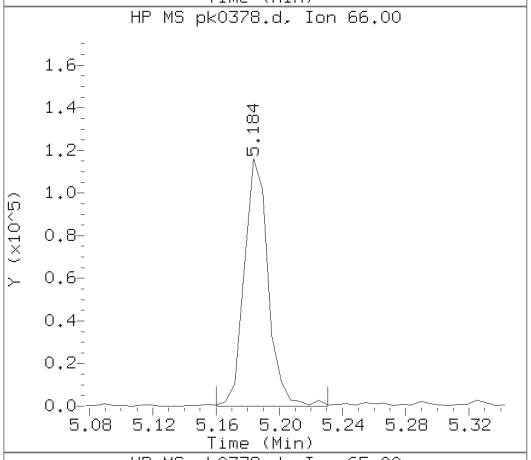
Reference Standard Spectrum for Phenol



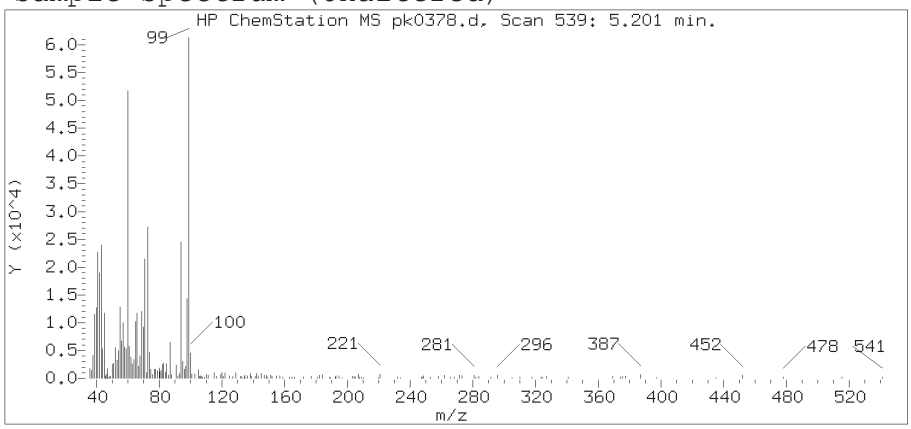


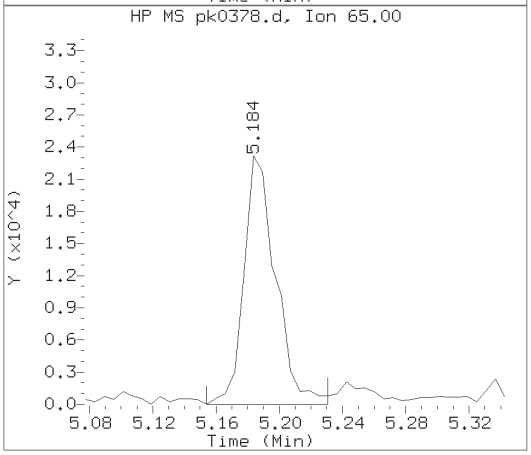
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

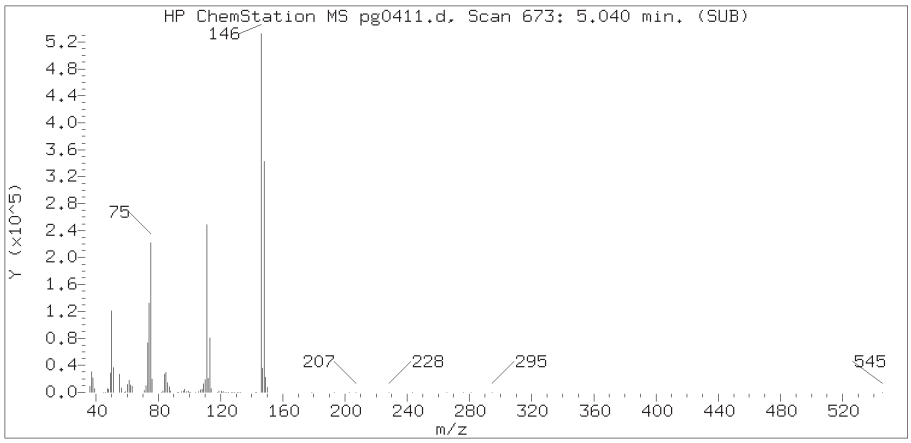
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

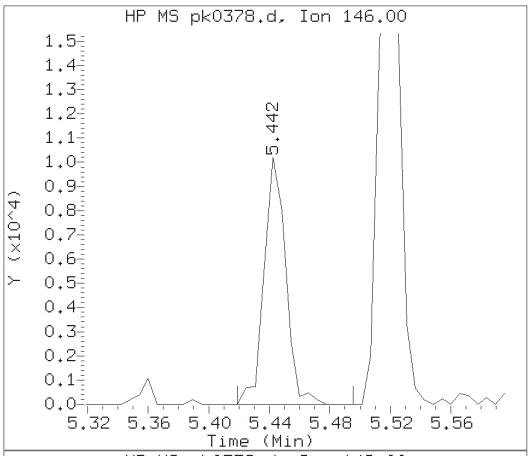
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 18
Compound Name	: Phenol
Scan Number	: 539
Retention Time (minutes)	: 5.201
Relative Retention Time	:-0.00321
Quant Ion	: 94.00
Area (flag)	: 25400
On-column Amount (ng/ul)	: 1.0476

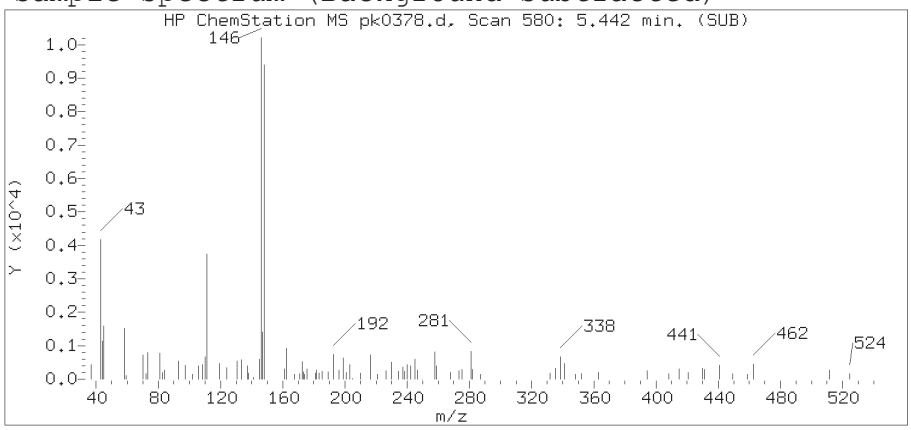
Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

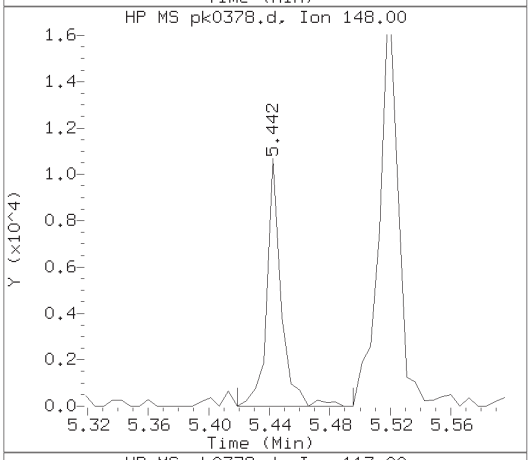
Reference Standard Spectrum for 1,3-Dichlorobenzene



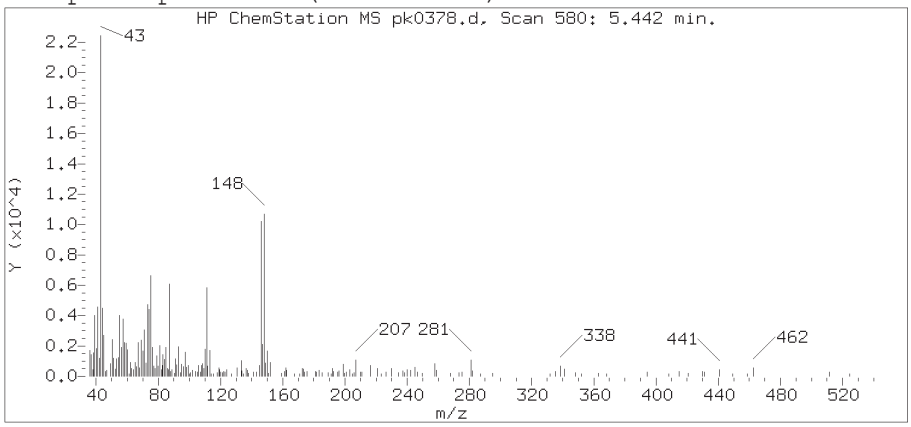


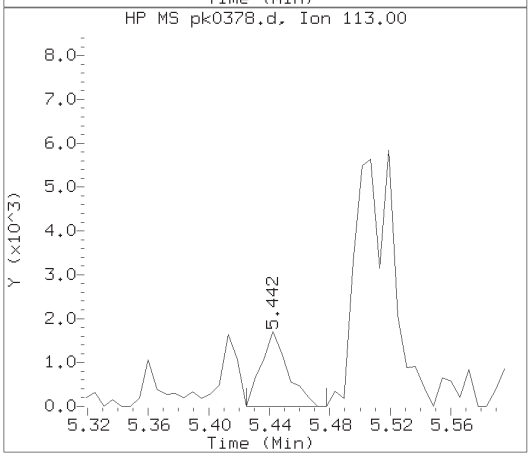
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

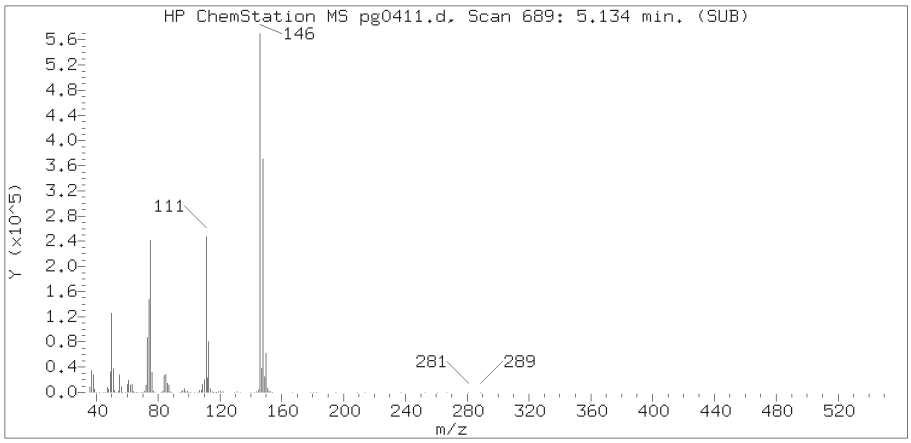
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

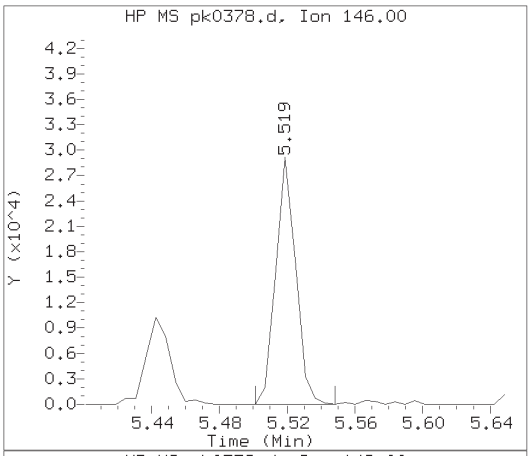
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 24
Compound Name	: 1,3-Dichlorobenzene
Scan Number	: 580
Retention Time (minutes)	: 5.442
Relative Retention Time	: 0.00000
Quant Ion	: 146.00
Area (flag)	: 10116
On-column Amount (ng/ul)	: 0.7740

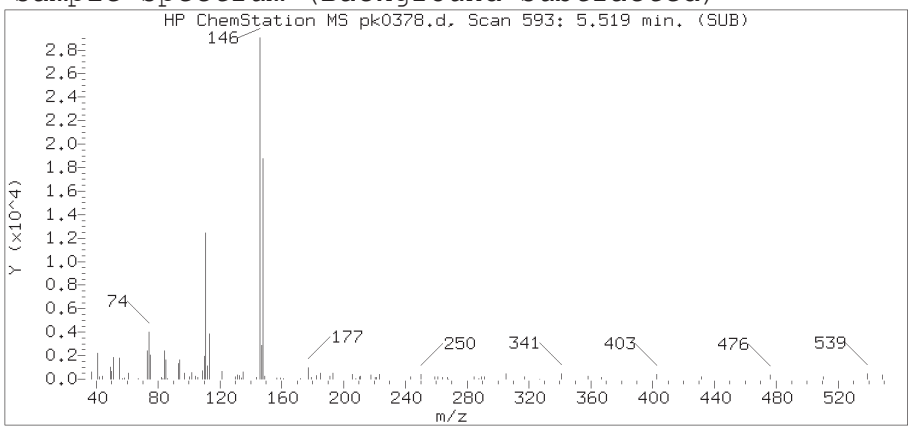
Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

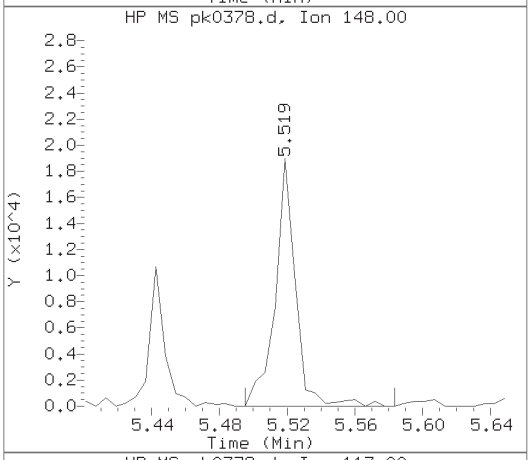
Reference Standard Spectrum for 1,4-Dichlorobenzene



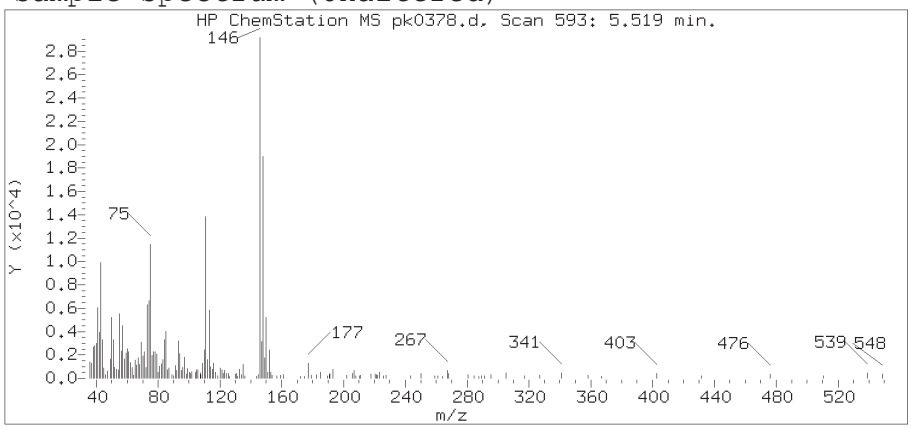


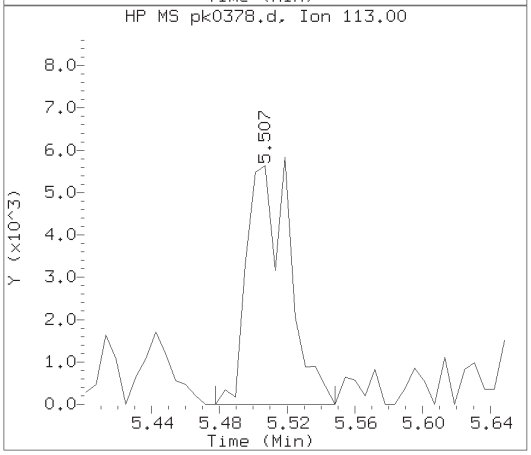
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

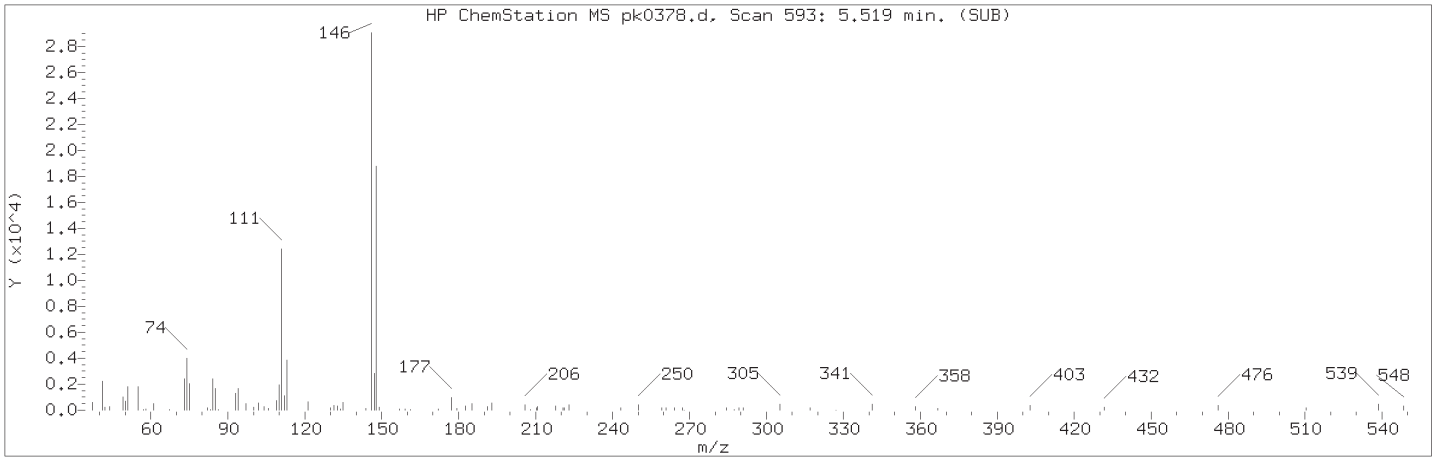
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

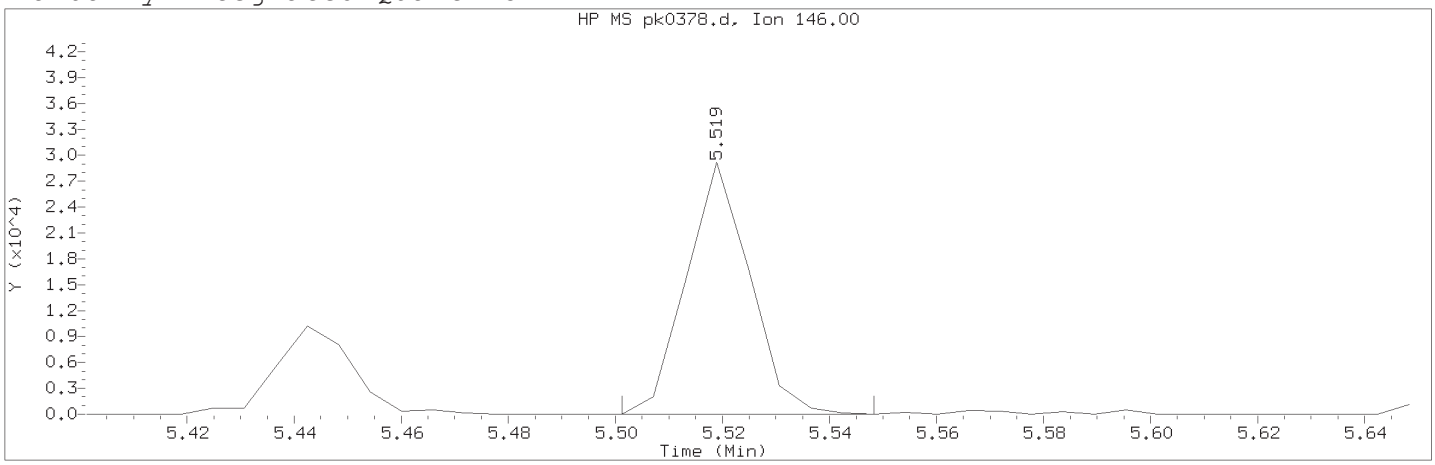
Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 593
Retention Time (minutes)	: 5.519
Relative Retention Time	:-0.00000
Quant Ion	: 146.00
Area (flag)	: 23805M
On-column Amount (ng/ul)	: 1.8319

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

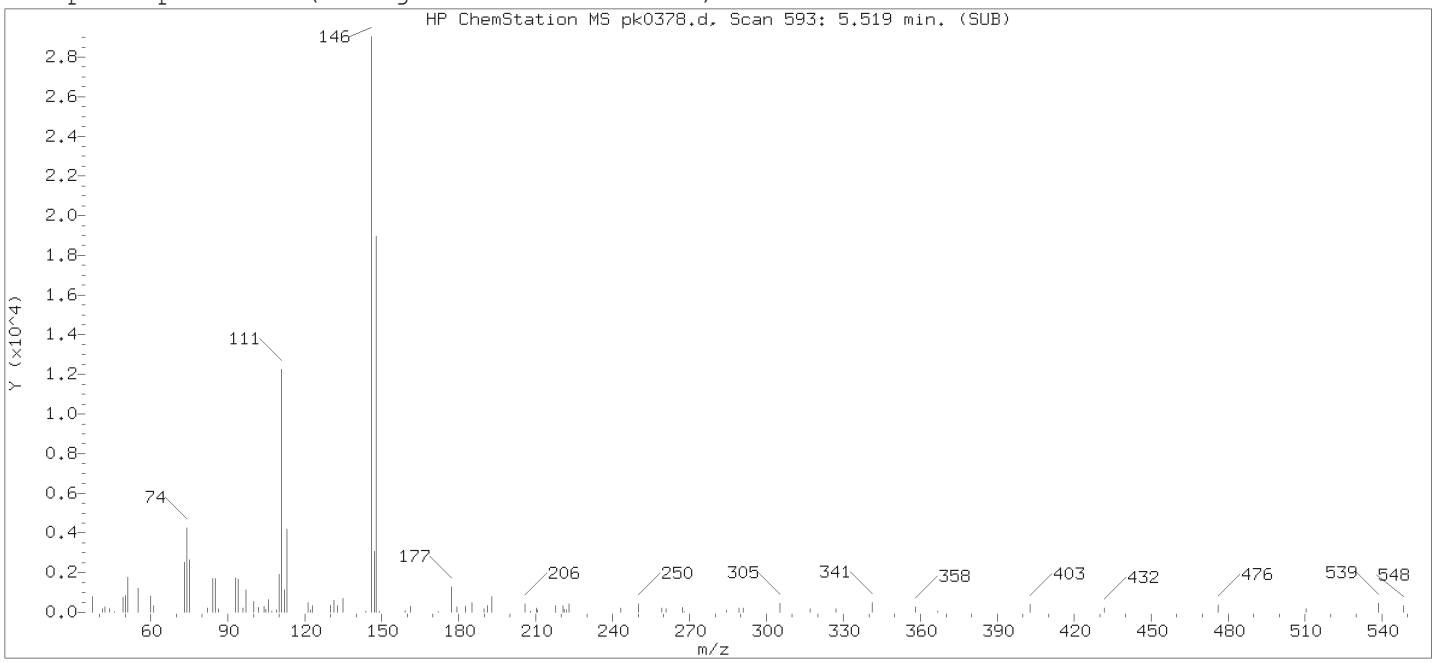
Compound Number : 26
Compound Name : 1,4-Dichlorobenzene
Scan Number : 593
Retention Time (minutes) : 5.519
Quant Ion : 146.00
Area (flag) : 23805M
On-column Amount (ng/ul) : 1.8319
Integration start scan : 589 Integration stop scan: 597
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

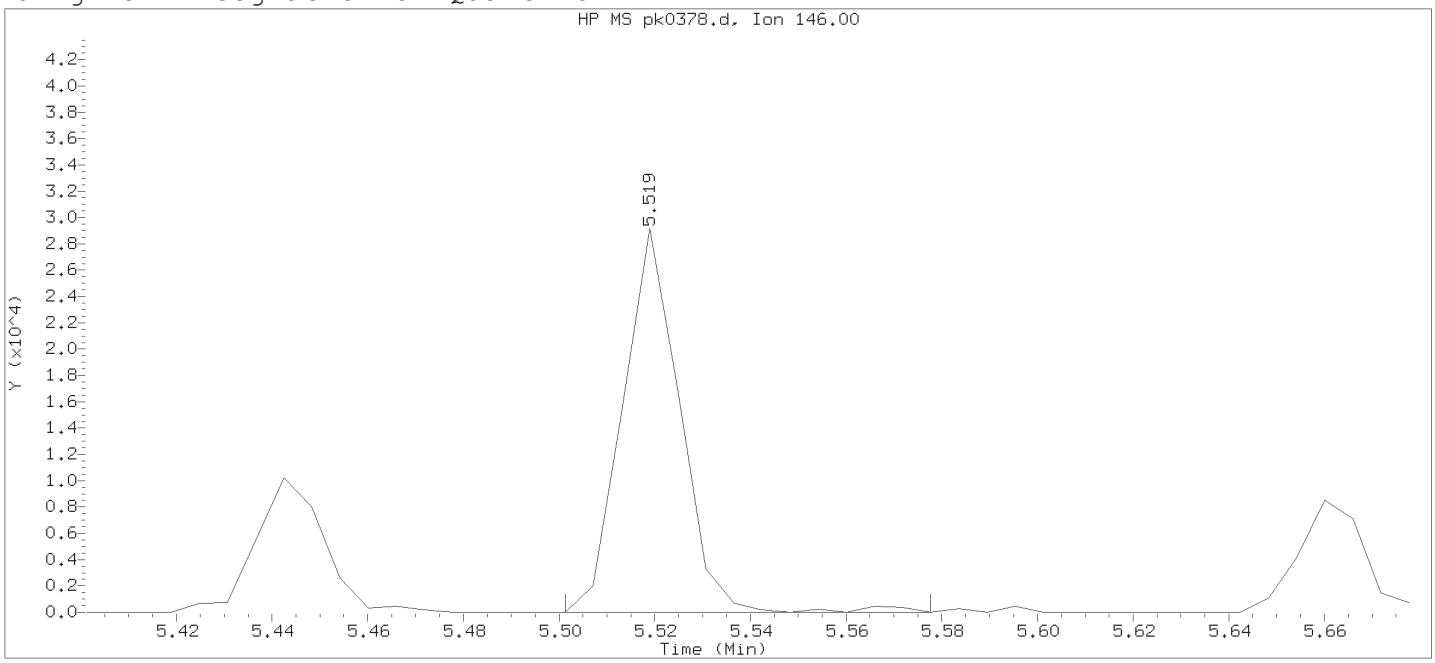
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 08:45.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

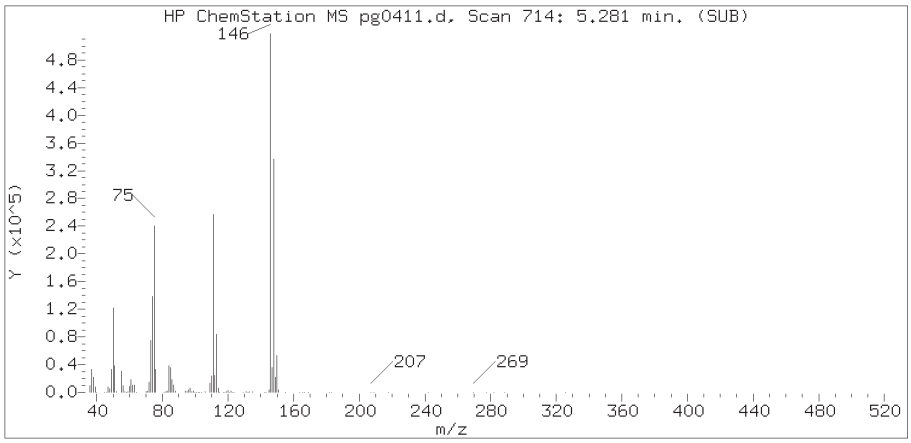
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 Automation

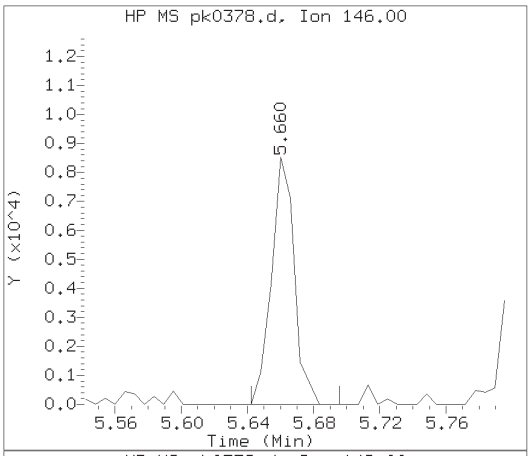
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 26		
Compound Name	: 1,4-Dichlorobenzene		
Scan Number	: 593		
Retention Time (minutes)	: 5.519		
Quant Ion	: 146.00		
Area	: 24167		
On-column Amount (ng/ul)	: 1.9528		
Integration start scan	: 589	Integration stop scan:	602
Y at integration start	: 0	Y at integration end:	0

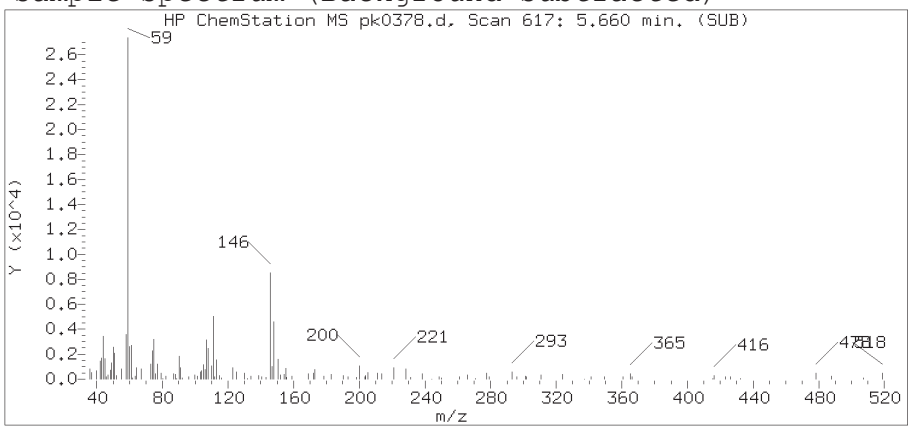
Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature used: D12 Page 1774

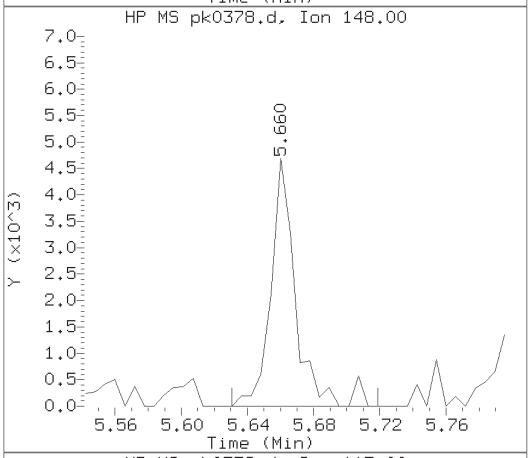
Reference Standard Spectrum for 1,2-Dichlorobenzene



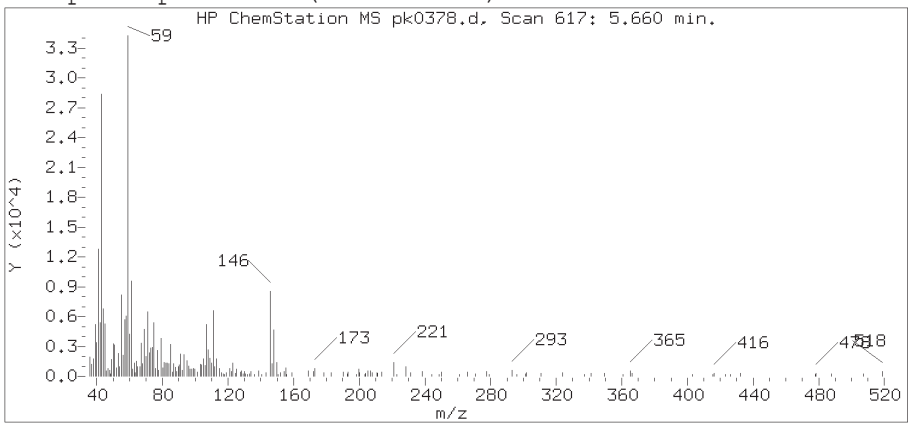


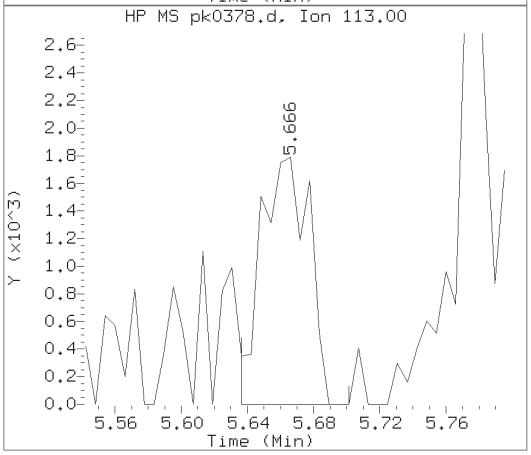
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

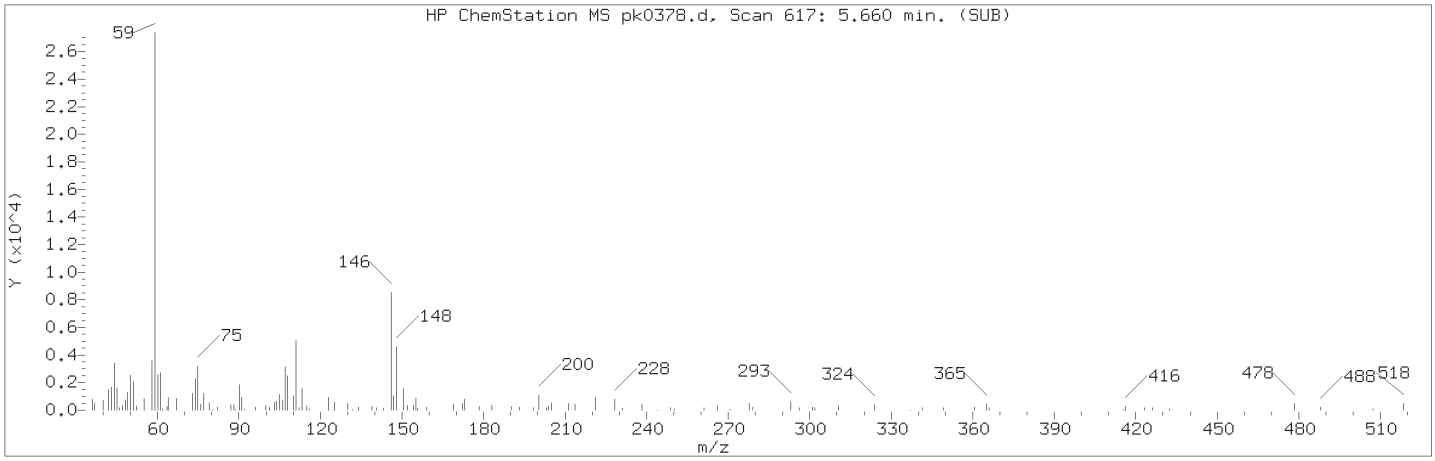
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

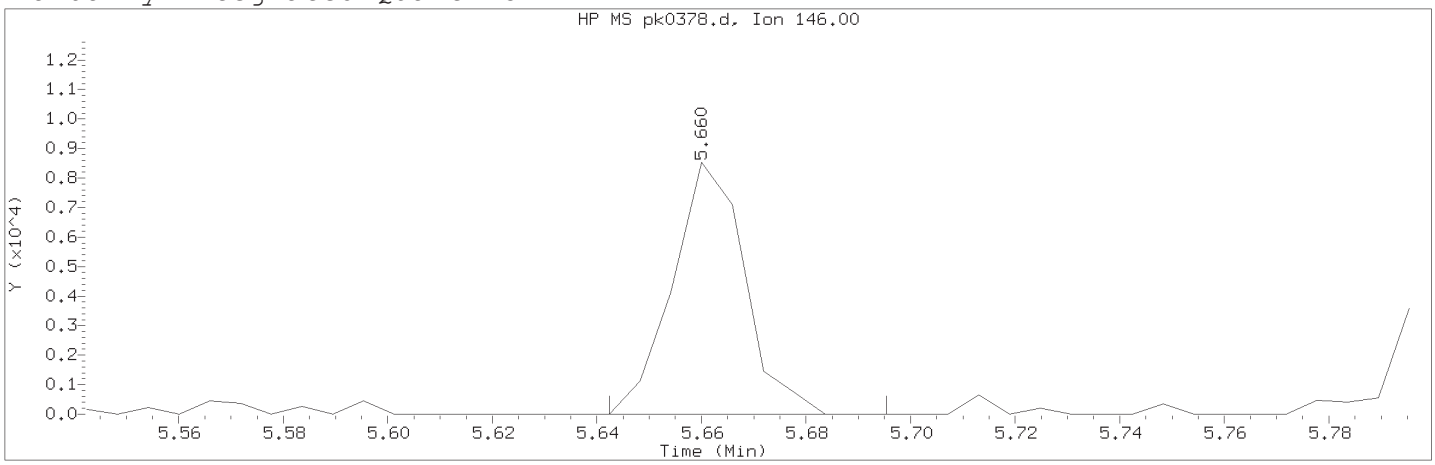
Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 617
Retention Time (minutes)	: 5.660
Relative Retention Time	:-0.00000
Quant Ion	: 146.00
Area (flag)	: 8142M
On-column Amount (ng/ul)	: 0.6269

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

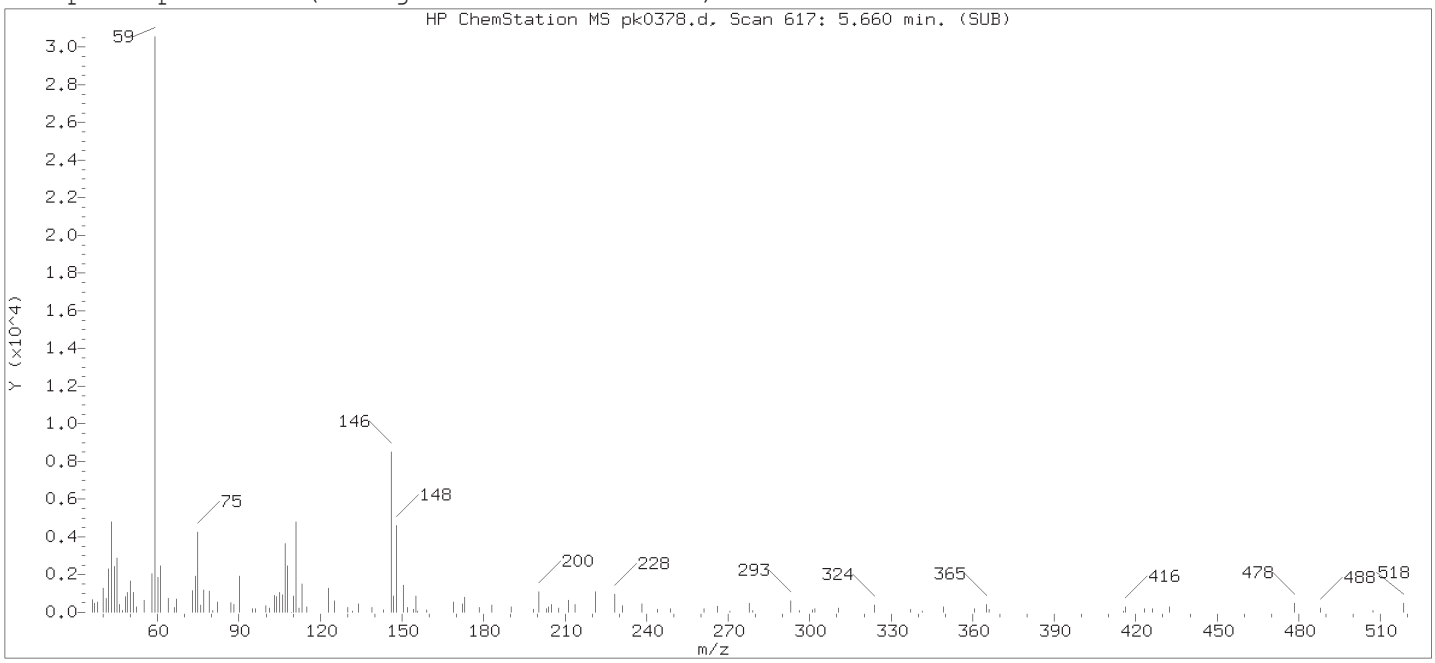
Compound Number : 28
Compound Name : 1,2-Dichlorobenzene
Scan Number : 617
Retention Time (minutes) : 5.660
Quant Ion : 146.00
Area (flag) : 8142M
On-column Amount (ng/ul) : 0.6269
Integration start scan : 613 Integration stop scan: 622
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

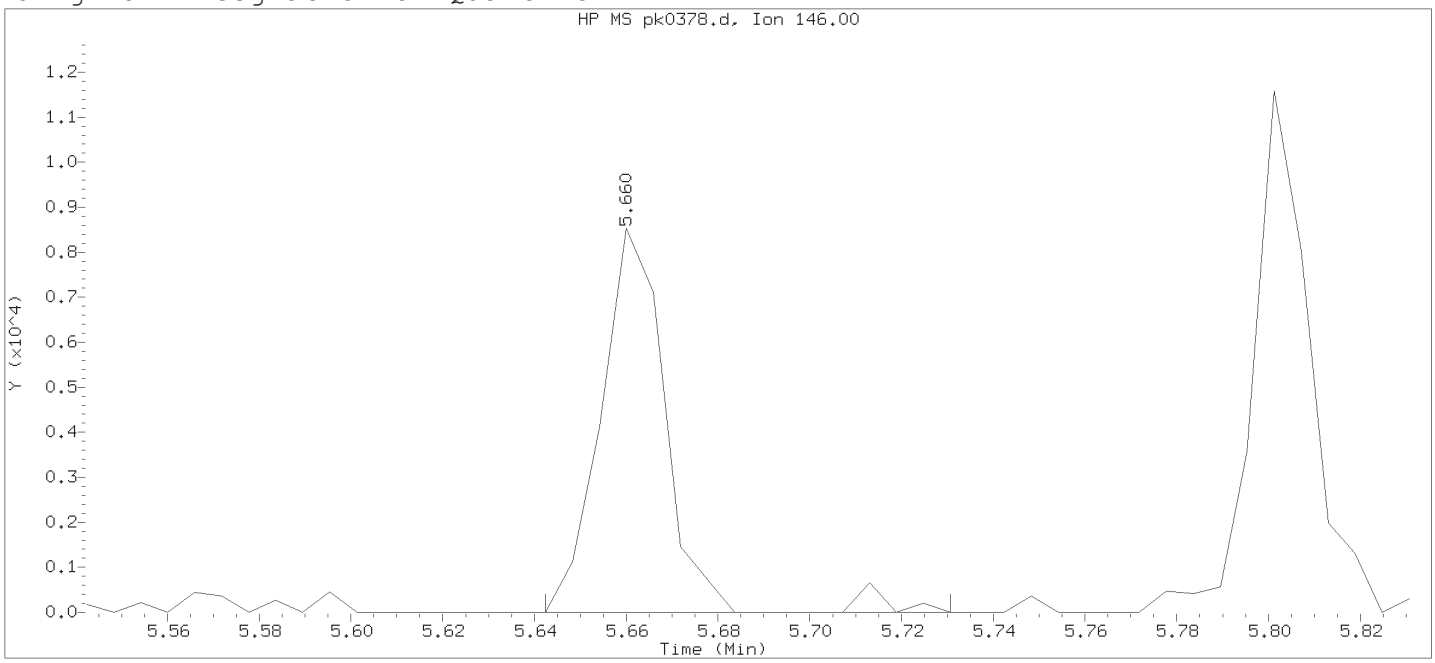
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 08:45.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

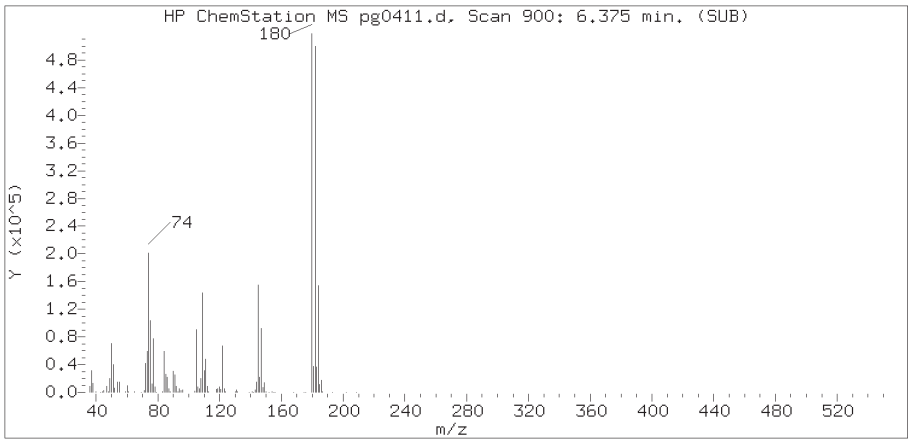
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 Automation

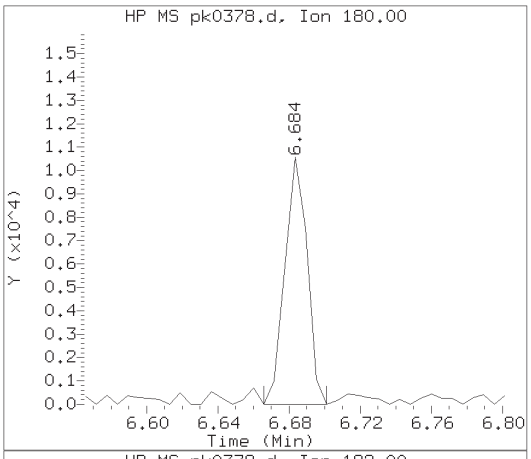
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 28		
Compound Name	: 1,2-Dichlorobenzene		
Scan Number	: 617		
Retention Time (minutes)	: 5.660		
Quant Ion	: 146.00		
Area	: 8444		
On-column Amount (ng/ul)	: 0.6827		
Integration start scan	: 613	Integration stop scan:	628
Y at integration start	: 0	Y at integration end:	0

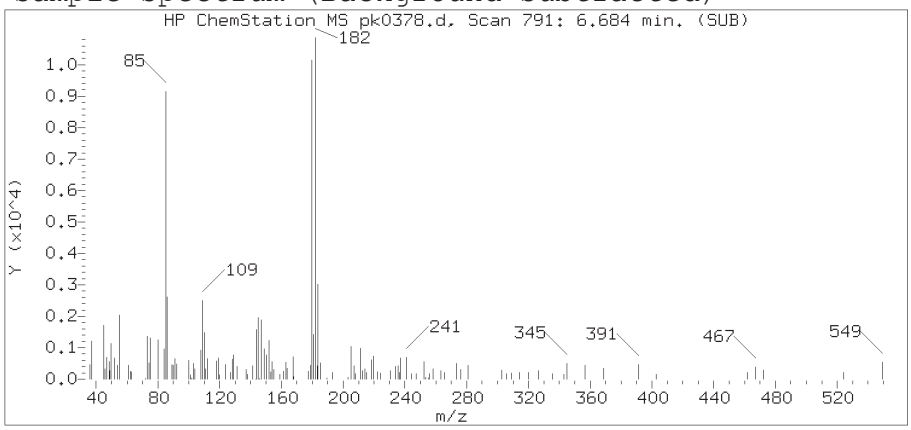
Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature used 11/12/2018.

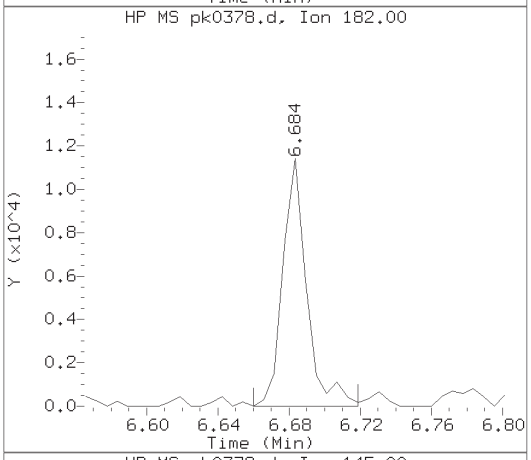
Reference Standard Spectrum for 1,2,4-Trichlorobenzene



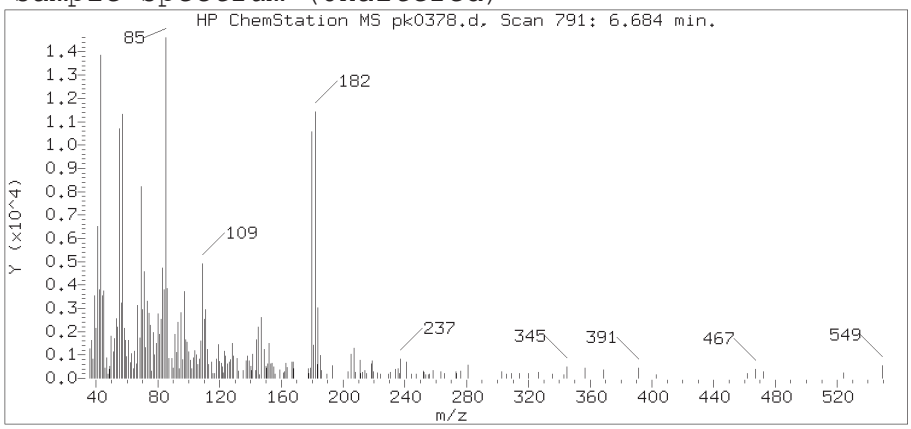


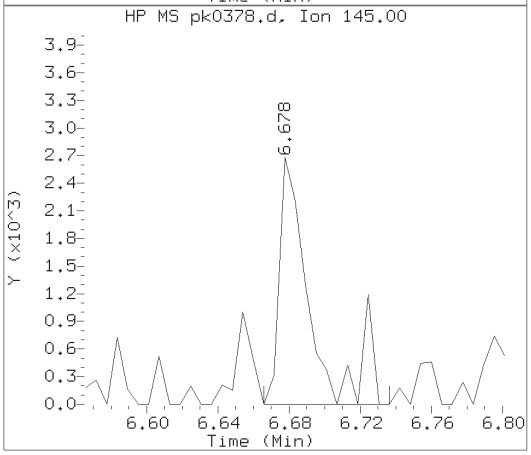
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

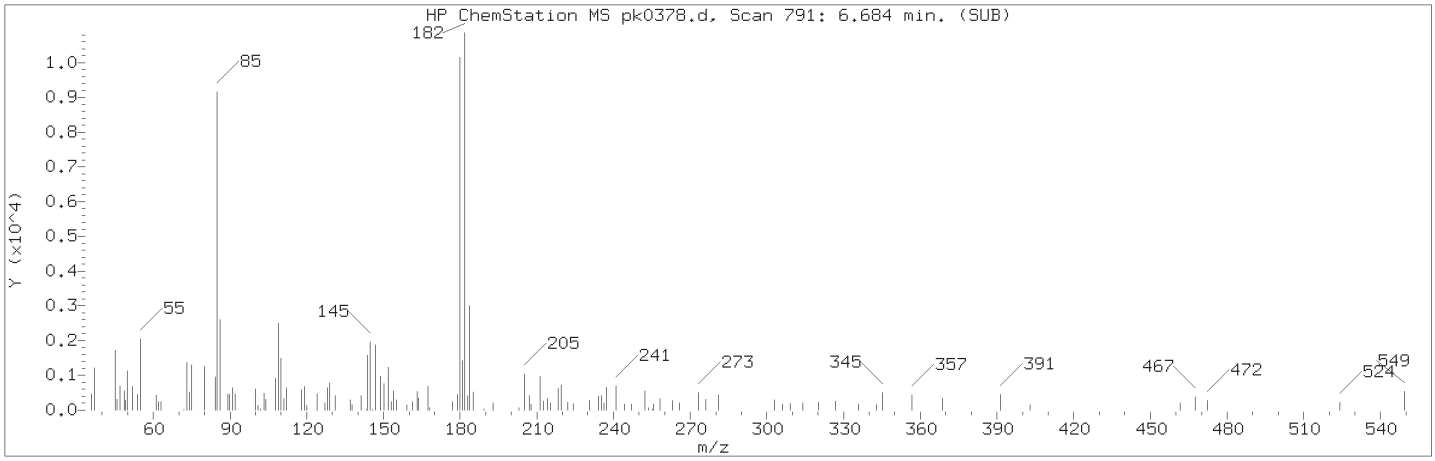
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

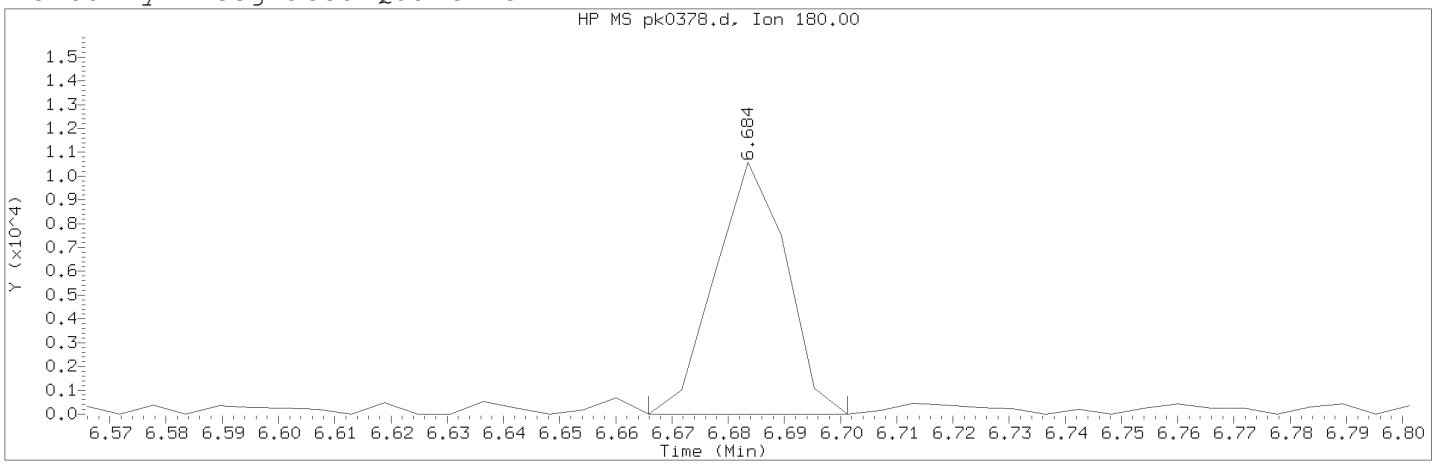
Compound Number	: 62
Compound Name	: 1,2,4-Trichlorobenzene
Scan Number	: 791
Retention Time (minutes)	: 6.684
Relative Retention Time	:-0.00001
Quant Ion	: 180.00
Area (flag)	: 9218M
On-column Amount (ng/ul)	: 0.7484

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

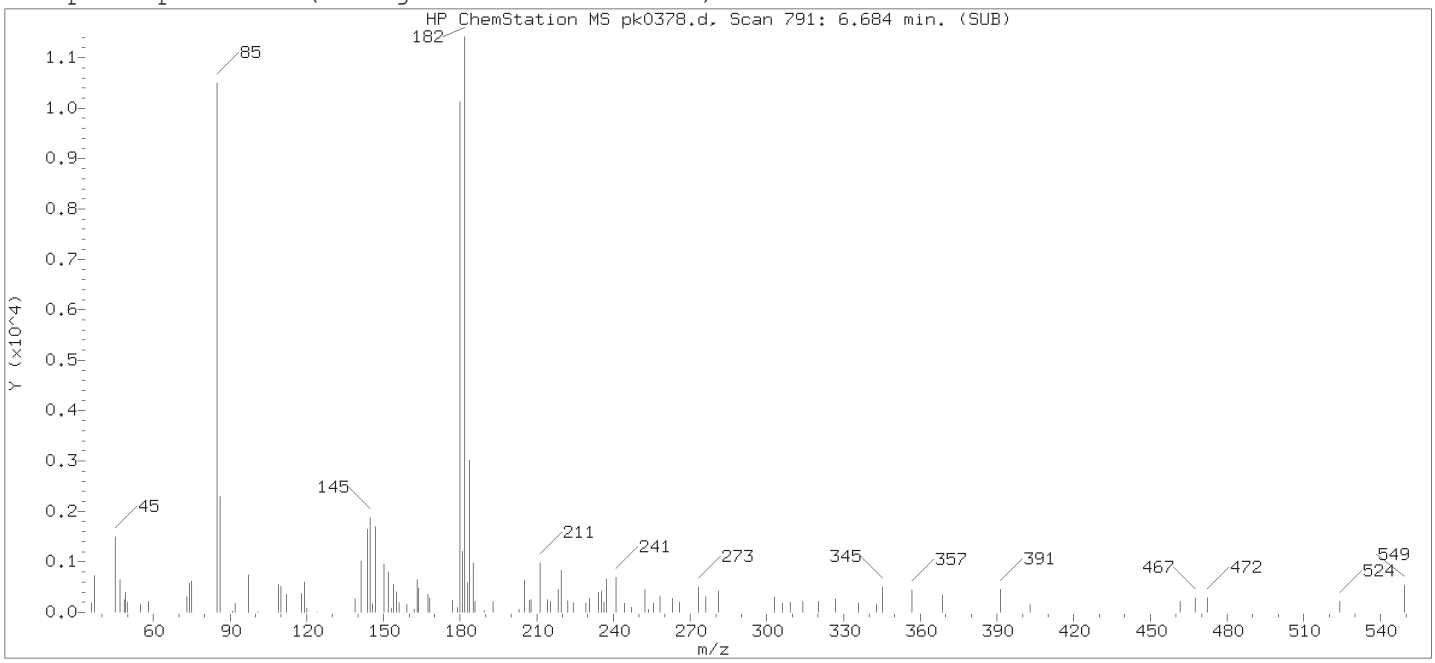
Compound Number : 62
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 791
Retention Time (minutes) : 6.684
Quant Ion : 180.00
Area (flag) : 9218M
On-column Amount (ng/ul) : 0.7484
Integration start scan : 787 Integration stop scan: 793
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

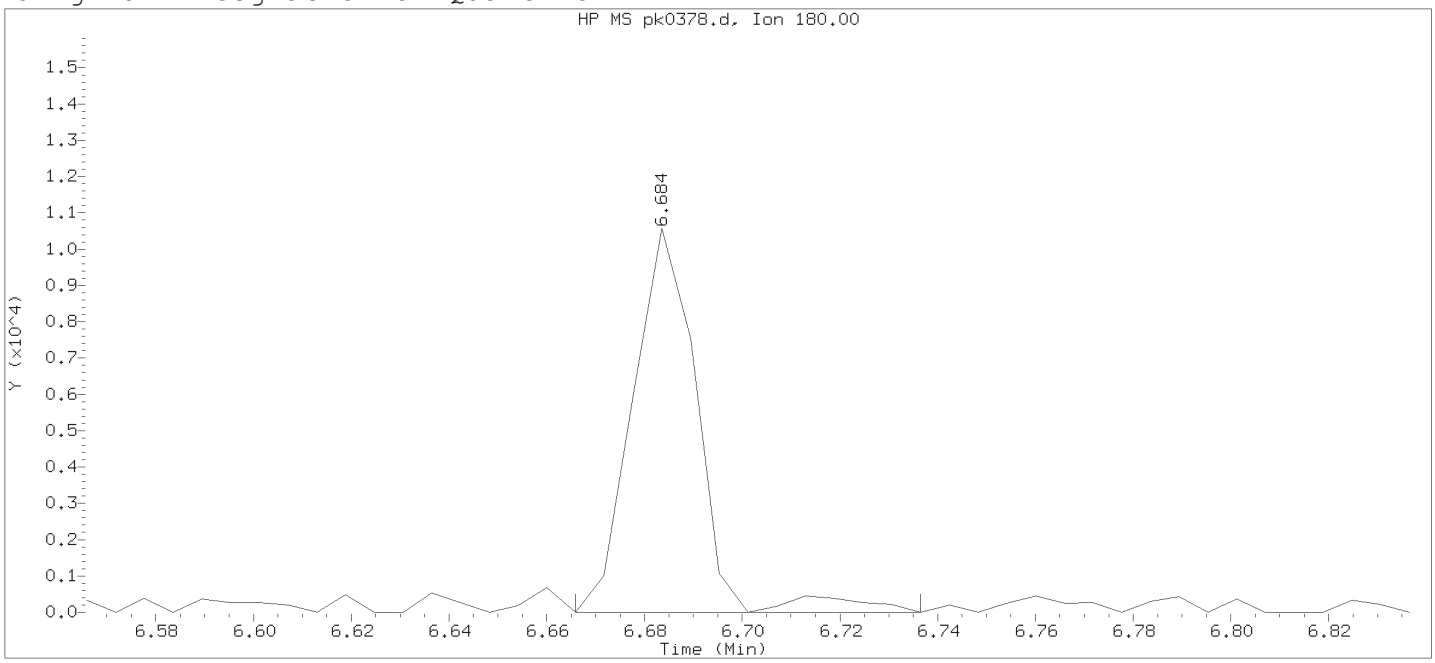
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 08:45.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

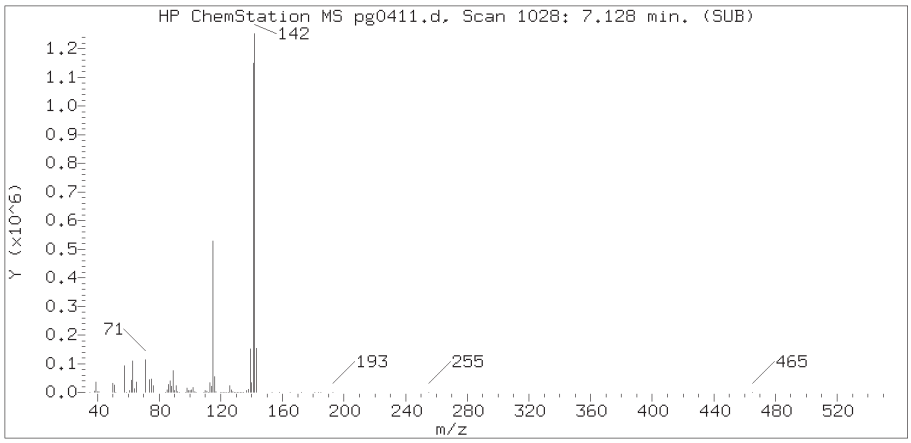
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 Automation

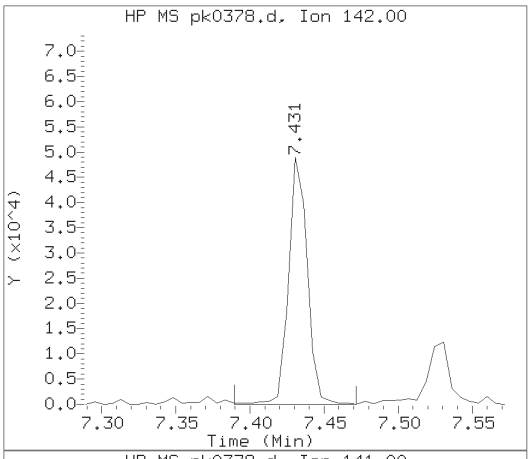
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 62		
Compound Name	: 1,2,4-Trichlorobenzene		
Scan Number	: 791		
Retention Time (minutes)	: 6.684		
Quant Ion	: 180.00		
Area	: 9743		
On-column Amount (ng/ul)	: 0.8306		
Integration start scan	: 787	Integration stop scan:	799
Y at integration start	: 0	Y at integration end:	0

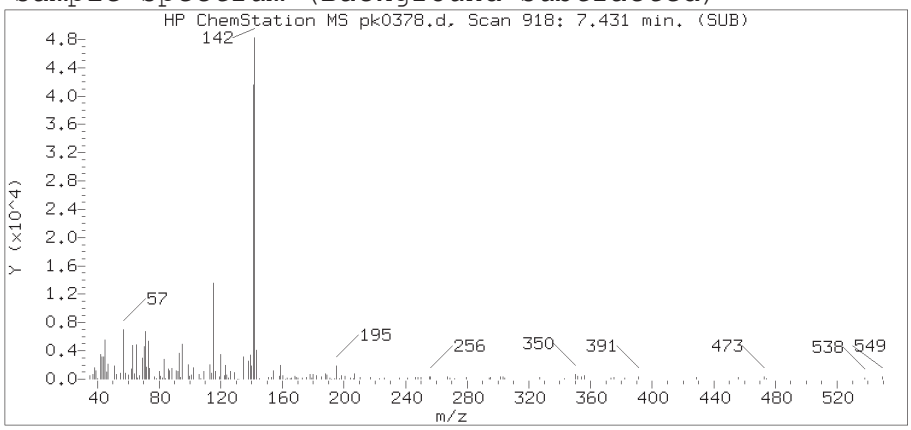
Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature used 12 Page 1780

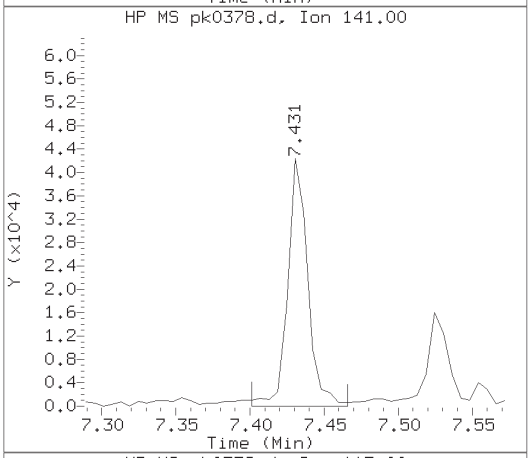
Reference Standard Spectrum for 2-Methylnaphthalene



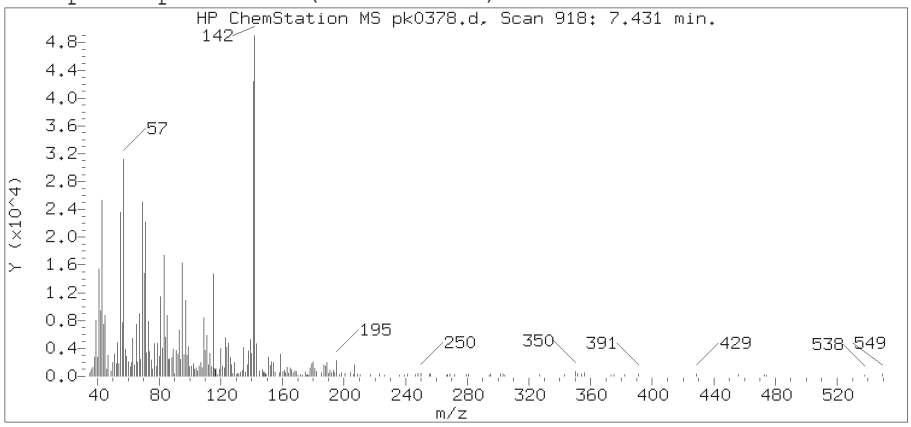


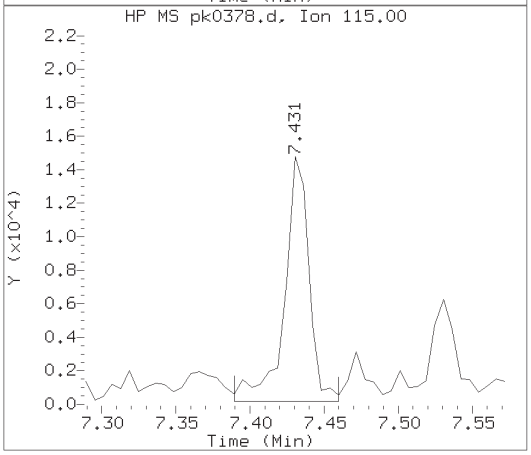
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

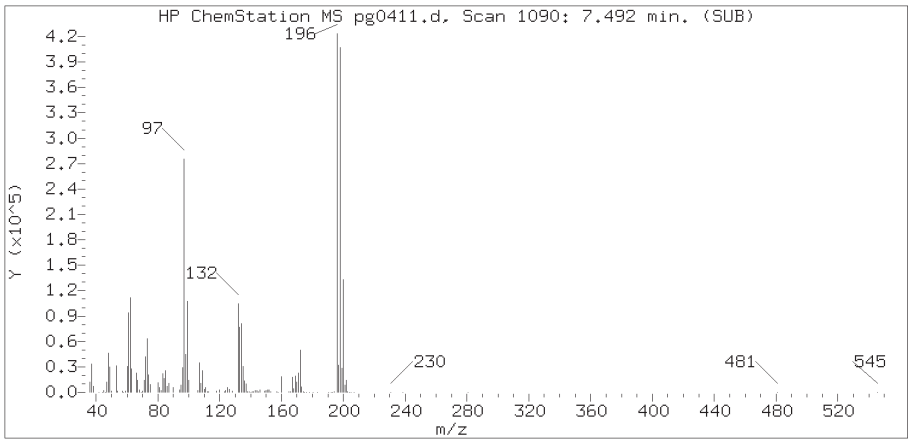
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

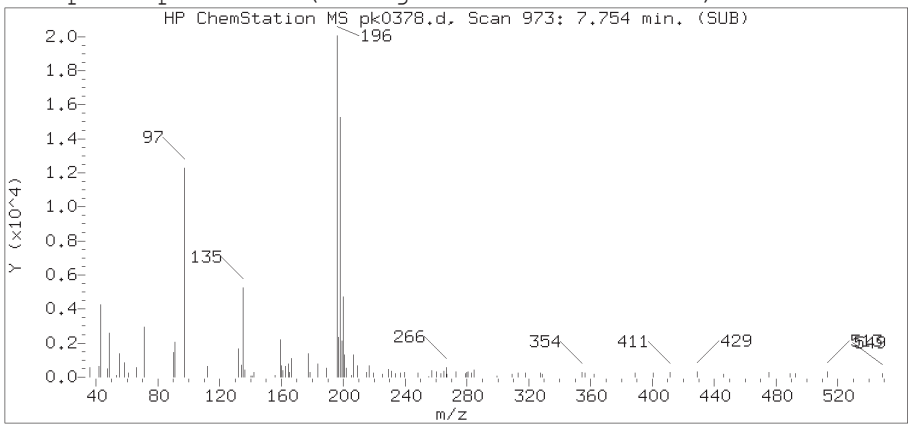
Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 918
Retention Time (minutes)	: 7.431
Relative Retention Time	: 0.00096
Quant Ion	: 142.00
Area (flag)	: 43481
On-column Amount (ng/ul)	: 1.5659

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

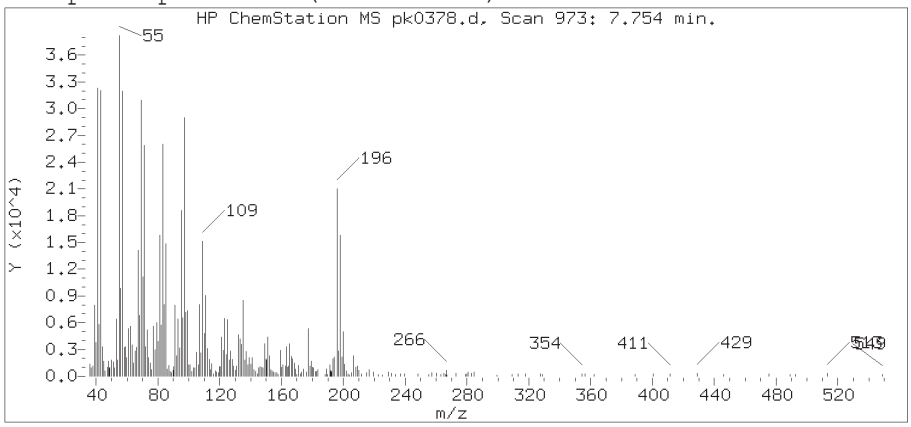
Reference Standard Spectrum for 2,4,5-Trichlorophenol

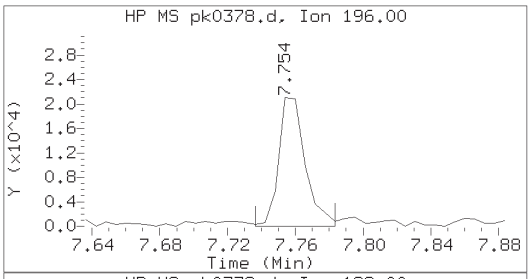


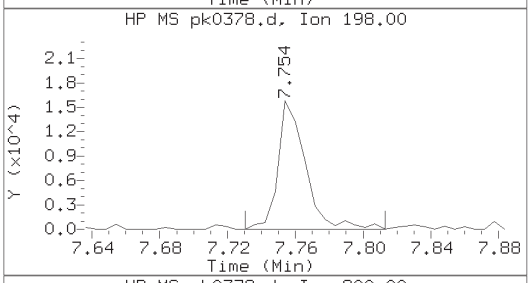
Sample Spectrum (Background Subtracted)

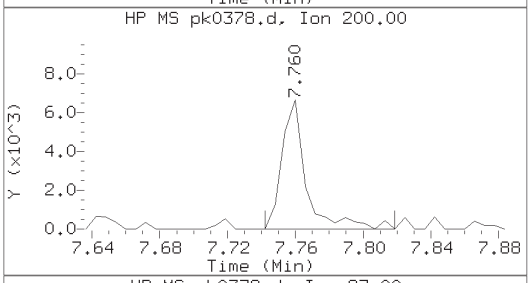


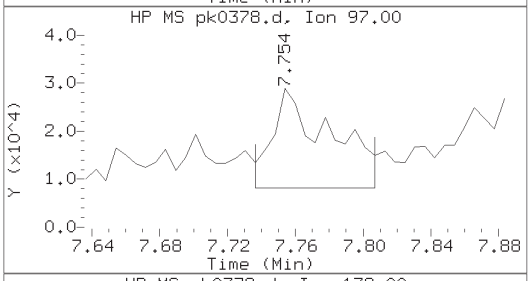
Sample Spectrum (Unaltered)

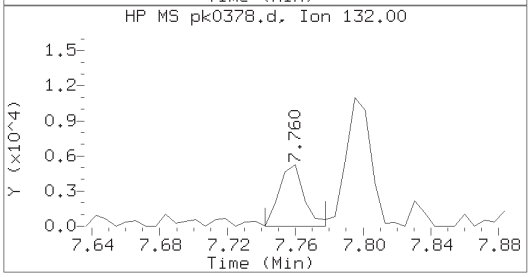












Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

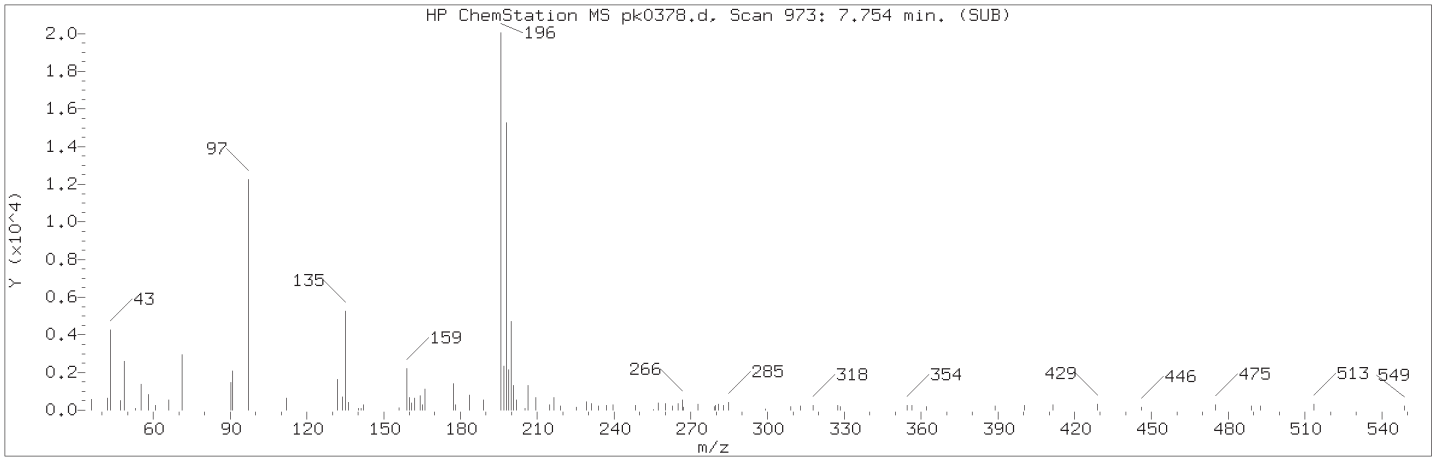
Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

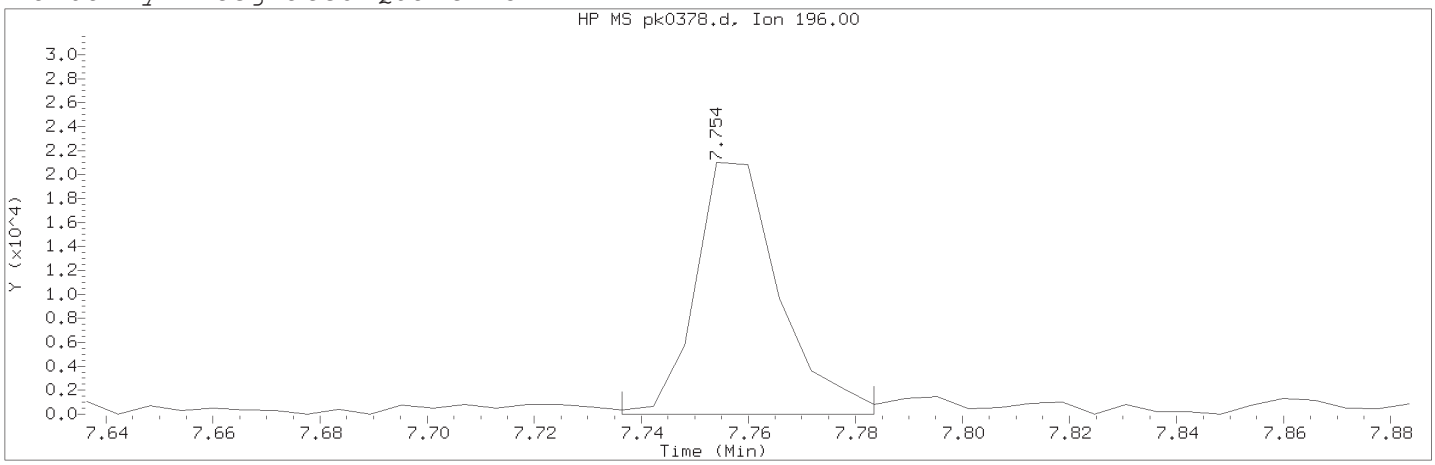
Compound Number	: 92
Compound Name	: 2,4,5-Trichlorophenol
Scan Number	: 973
Retention Time (minutes)	: 7.754
Relative Retention Time	:-0.00006
Quant Ion	: 196.00
Area (flag)	: 22883M
On-column Amount (ng/ul)	: 2.3563

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 13-NOV-2018 11:28
Date, time and analyst ID of latest file update: 14-Nov-2018 08:43 lmh00956

Sample Name: 12T07 Lab Sample ID: 9872065

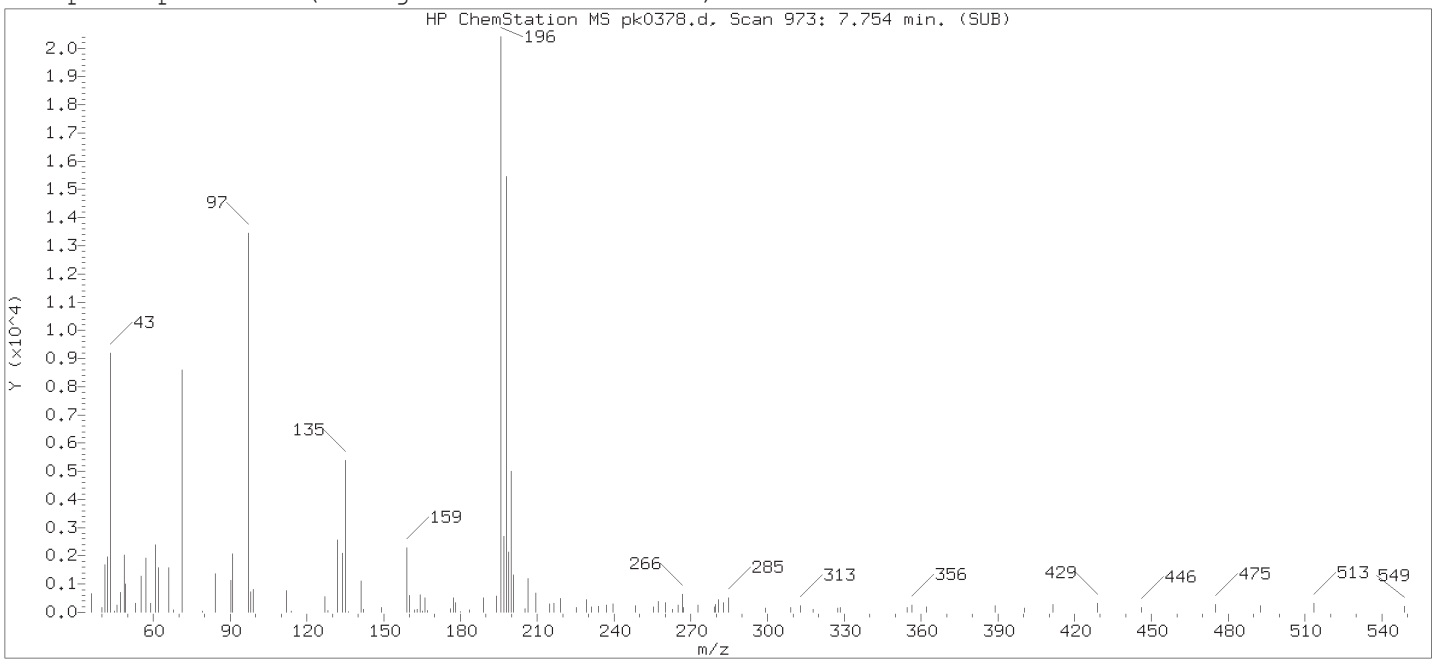
Compound Number : 92
Compound Name : 2,4,5-Trichlorophenol
Scan Number : 973
Retention Time (minutes) : 7.754
Quant Ion : 196.00
Area (flag) : 22883M
On-column Amount (ng/ul) : 2.3563
Integration start scan : 969 Integration stop scan: 977
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

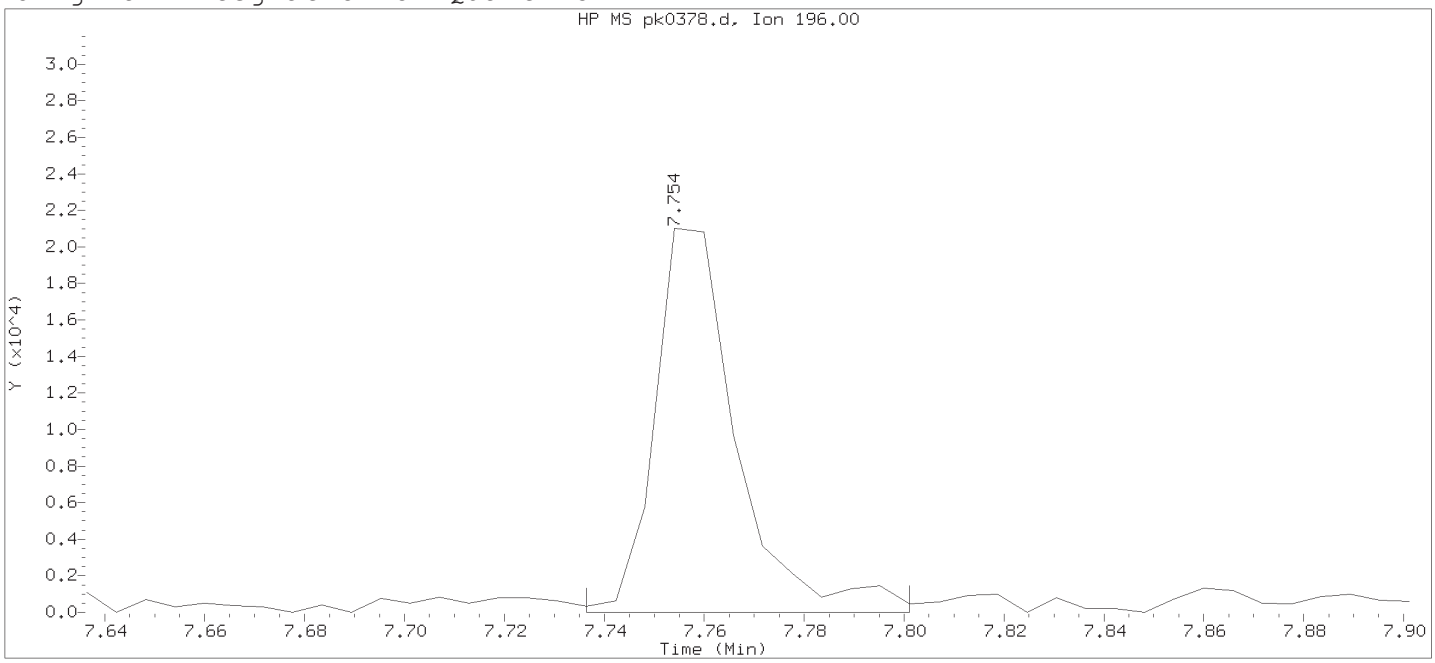
Analyst responsible for change: Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature user ID: lmh00956

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 08:45.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0378.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 02:14 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:34
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 Automation

Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 92		
Compound Name	: 2,4,5-Trichlorophenol		
Scan Number	: 973		
Retention Time (minutes)	: 7.754		
Quant Ion	: 196.00		
Area	: 23871		
On-column Amount (ng/ul)	: 2.5809		
Integration start scan	: 969	Integration stop scan:	980
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Linda M. Hartenstine on 11/14/2018 at 08:45.
Target 3.5 esignature used. Page 1784

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov16.b/gk0861.d Injection date and time: **16-NOV-2018 18:06**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;SAMPLE;;DOD26;T2 Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.451	(0.000)	606	152	180346	(20)	20.00	
65) Naphthalene-d8	6.687	(0.000)	816	136	788290	(18)	20.00	
113) Acenaphthene-d10	8.404	(-0.006)	1108	164	422953	(4)	20.00	
153) Phenanthrene-d10	9.857	(-0.006)	1355	188	740958	(-10)	20.00	
175) Pyrene-d10	11.251	(-0.012)	1592	212	658637	(-16)	20.00	
213) Perylene-d12	13.922	(-0.047)	2046	264	766958A	(17)	20.00	

A = User selected an alternate peak

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
11) 2-Fluorophenol	(1)	4.216	(-0.003)	112	1636568	119.646	60%		35 - 115
17) Phenol-d6	(1)	5.175	(-0.002)	99	2501571	118.104	59%		47 - 120
44) Nitrobenzene-d5	(2)	5.998	(-0.001)	82	1292108	62.214	62%		37 - 122
93) 2-Fluorobiphenyl	(3)	7.757	(0.000)	172	2188942	63.942	64%		44 - 115
135) 2,4,6-Tribromophenol	(3)	9.187	(0.000)	330	368595	108.809	54%		39 - 132
179) Terphenyl-d14	(5)	11.445	(0.000)	244	2120230	66.570	67%		54 - 127

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)	5.398	(-0.001)	146	13536	0.924	30.81		J	0.5
26) 1,4-Dichlorobenzene	(1)	5.469	(0.000)	146	30810	2.016	67.20			0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)	5.610	(0.000)	146	10044	0.679	22.63		J	0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)	5.904	(0.000)	108	22661	1.376	45.87		J	0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)	6.640	(-0.000)	180	11448A	0.902	30.07		J	0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.387	(0.000)	142	52579	1.665	55.51			0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5

A = User selected an alternate peak.

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14. Target 3.5 esignature user ID: bkc25363

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov16.b/gk0861.d Injection date and time: **16-NOV-2018 18:06**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;SAMPLE;;DOD26;T2 Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

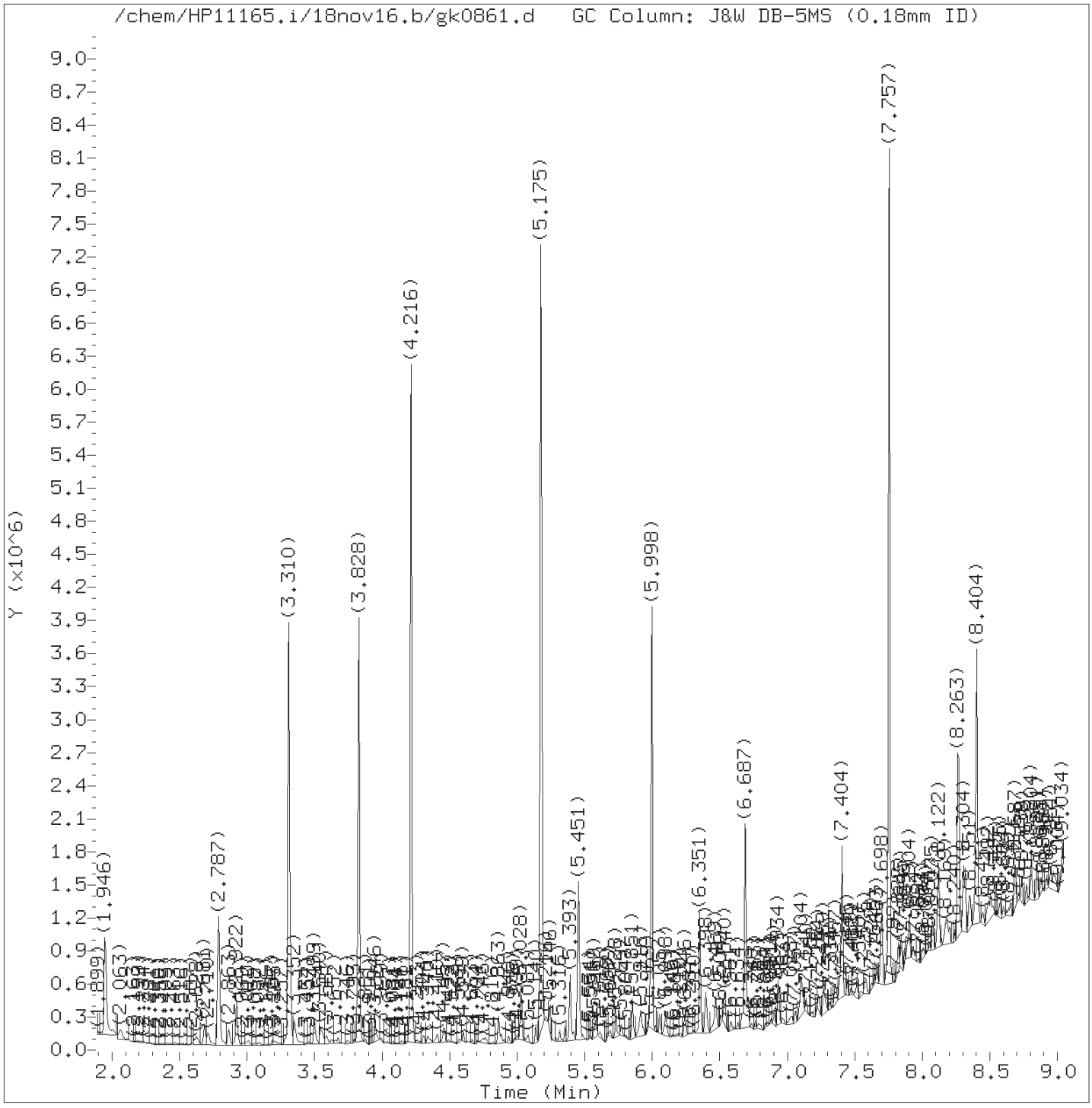
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
90) 2,4,6-Trichlorophenol	(3)			Not Detected					0.6
92) 2,4,5-Trichlorophenol	(3)	7.734(-0.000)	196	9234	1.006	33.54		J	0.6
96) 2-Chloronaphthalene	(3)			Not Detected					0.2
100) 2-Nitroaniline	(3)			Not Detected					0.6
106) Dimethylphthalate	(3)			Not Detected					2
108) 2,6-Dinitrotoluene	(3)			Not Detected					0.6
112) 3-Nitroaniline	(3)			Not Detected					2
115) 2,4-Dinitrophenol	(3)			Not Detected					11
116) 4-Nitrophenol	(3)			Not Detected					5
118) 2,4-Dinitrotoluene	(3)			Not Detected					2
119) Dibenzofuran	(3)	8.604(0.000)	168	22918	0.552	18.39		J	0.5
124) Diethylphthalate	(3)			Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)			Not Detected					0.5
129) 4-Nitroaniline	(3)			Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)			Not Detected					5
131) N-Nitrosodiphenylamine	(4)			Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)			Not Detected					0.6
145) Hexachlorobenzene	(4)			Not Detected					0.1
149) Pentachlorophenol	(4)			Not Detected					1
163) Carbazole	(4)			Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)			Not Detected					3
205) Di-n-octylphthalate	(6)			Not Detected					2

Total number of targets = 48

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14. Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 13:00. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

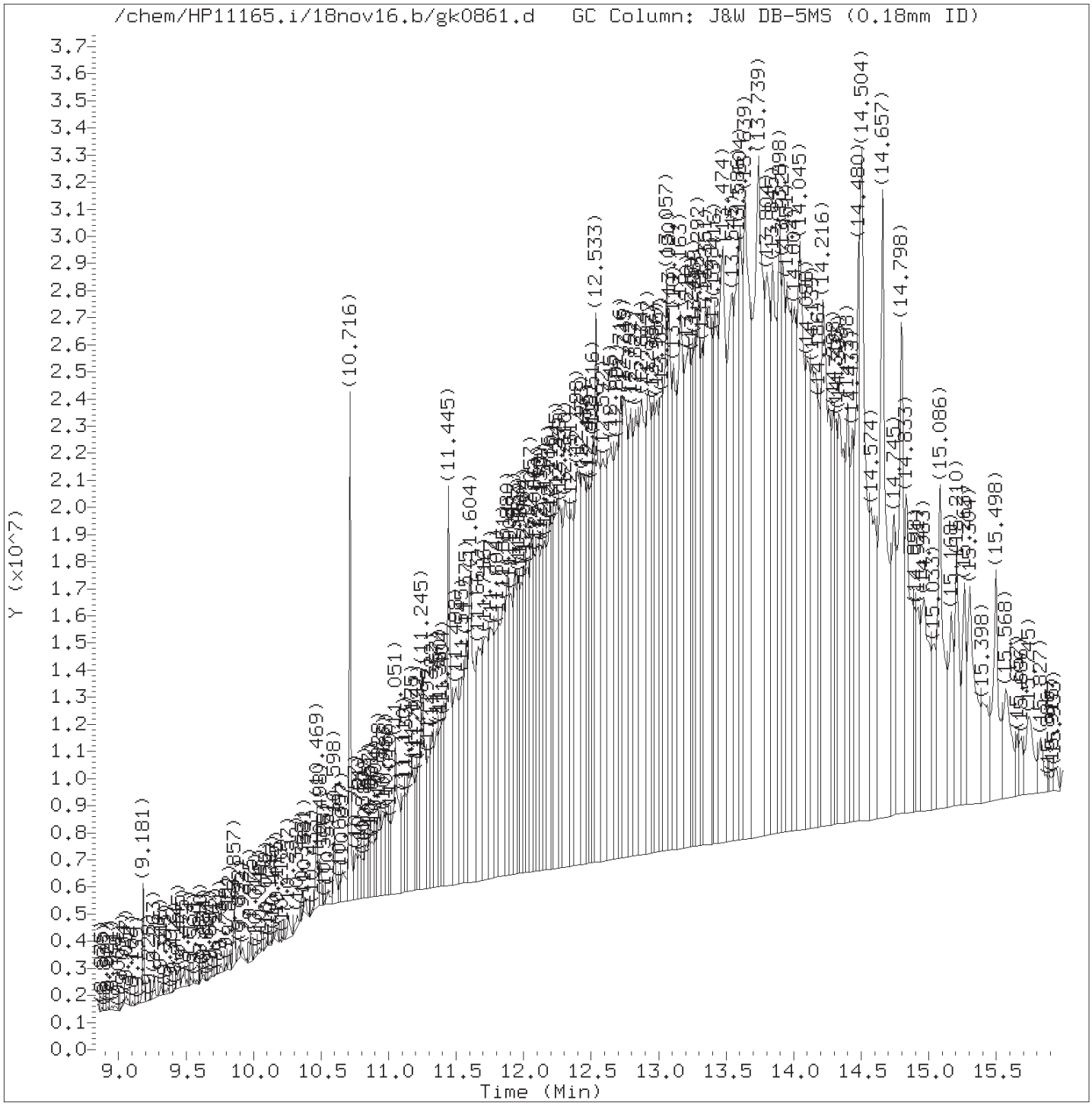
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

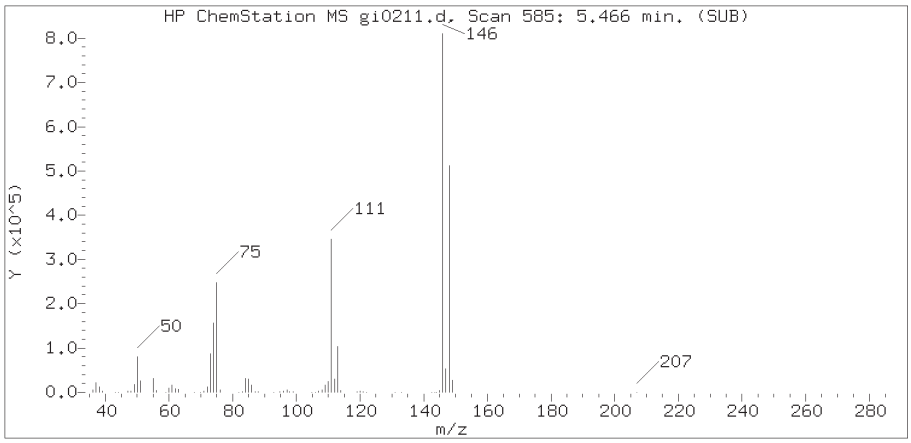
Sample Name: 12T07RE Lab Sample ID: 9872065RE

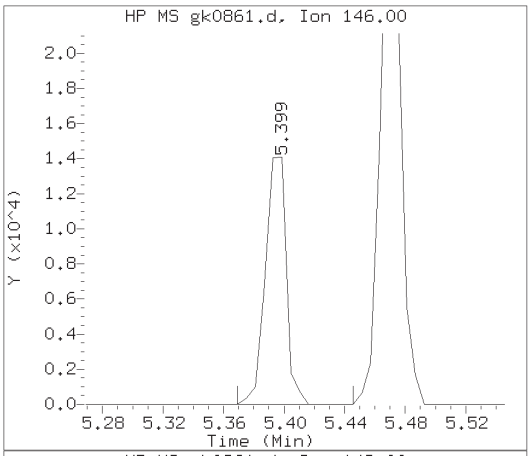
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.216	112	1636568	119.646
17)$Phenol-d6	(1)	5.175	99	2501571	118.104
24) 1,3-Dichlorobenzene	(1)	5.399	146	13536	0.924
25)*1,4-Dichlorobenzene-d4	(1)	5.451	152	180346	20.000
26) 1,4-Dichlorobenzene	(1)	5.469	146	30810	2.016
28) 1,2-Dichlorobenzene	(1)	5.610	146	10044	0.679
37) 4-Methylphenol	(1)	5.904	108	22661	1.376
44)$Nitrobenzene-d5	(2)	5.998	82	1292108	62.214
62) 1,2,4-Trichlorobenzene	(2)	6.640	180	11448A	0.902
65)*Naphthalene-d8	(2)	6.687	136	788290	20.000
83) 2-Methylnaphthalene	(2)	7.387	142	52579	1.665
92) 2,4,5-Trichlorophenol	(3)	7.734	196	9234	1.006
93)$2-Fluorobiphenyl	(3)	7.757	172	2188942	63.942
113)*Acenaphthene-d10	(3)	8.404	164	422953	20.000
119) Dibenzofuran	(3)	8.604	168	22918	0.552
135)$2,4,6-Tribromophenol	(3)	9.187	330	368595	108.809
153)*Phenanthrene-d10	(4)	9.857	188	740958	20.000
175)*Pyrene-d10	(5)	11.251	212	658637	20.000
179)$Terphenyl-d14	(5)	11.445	244	2120230	66.570
213)*Perylene-d12	(6)	13.922	264	766958A	20.000

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

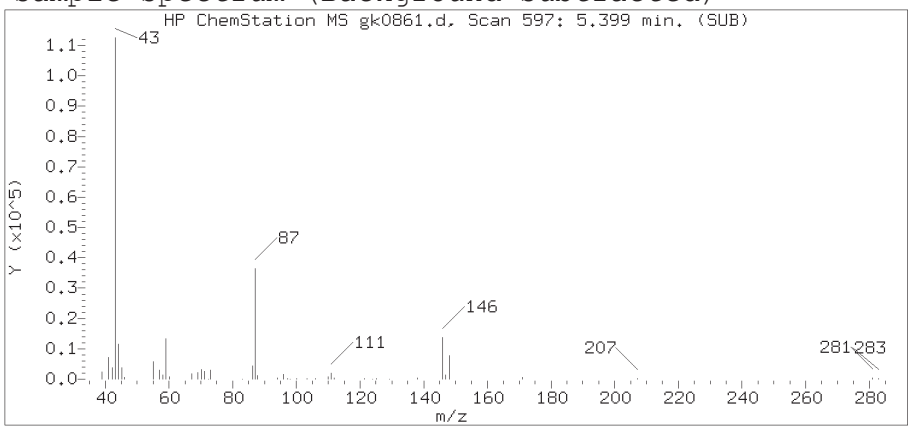
Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

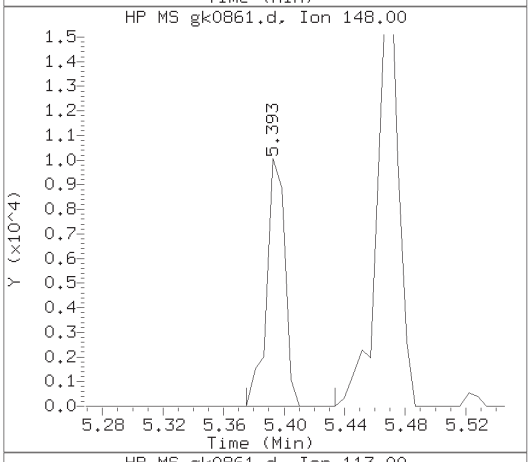
Reference Standard Spectrum for 1,3-Dichlorobenzene



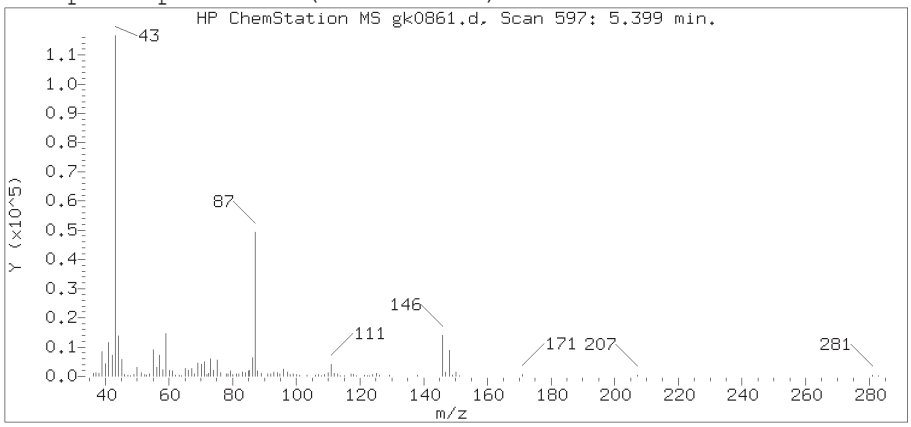


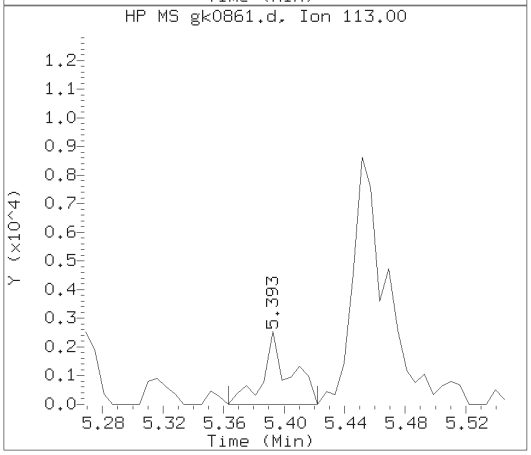
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 24
Compound Name	: 1,3-Dichlorobenzene
Scan Number	: 597
Retention Time (minutes)	: 5.399
Relative Retention Time	:-0.00108
Quant Ion	: 146.00
Area (flag)	: 13536
On-column Amount (ng/ul)	: 0.9244

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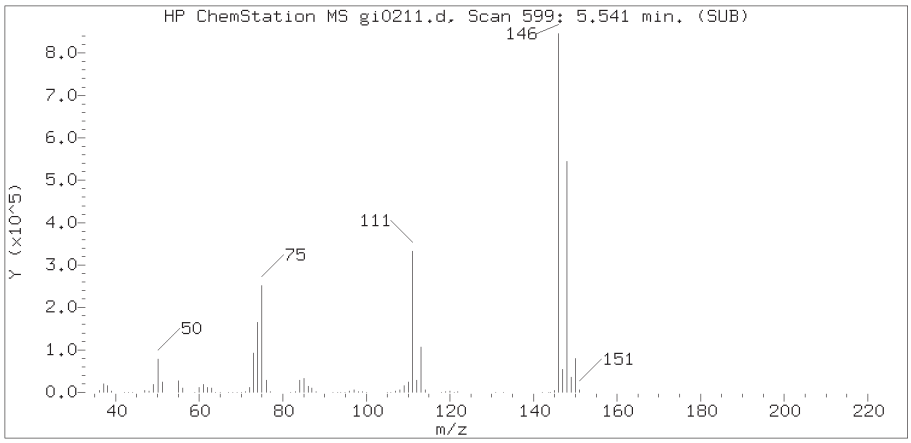
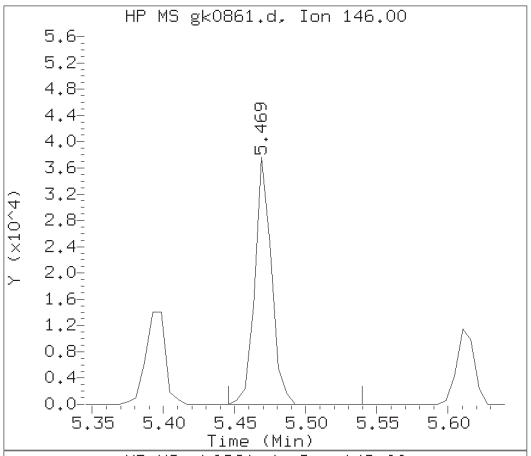
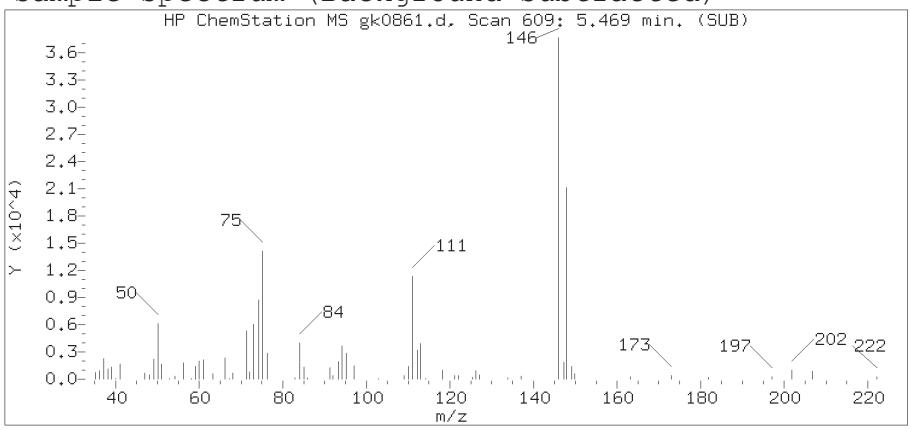
Target 3.5 esignature user ID: bkc25363

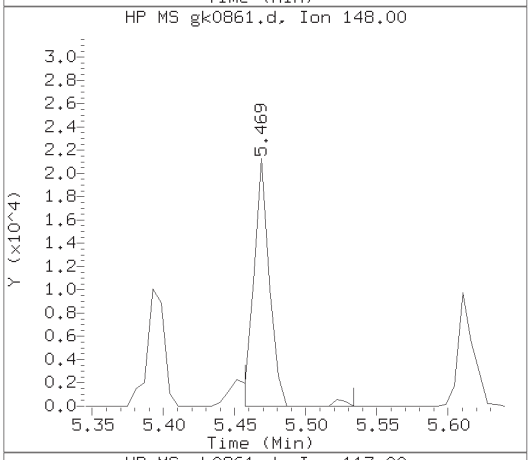
Reference Standard Spectrum for 1,4-Dichlorobenzene



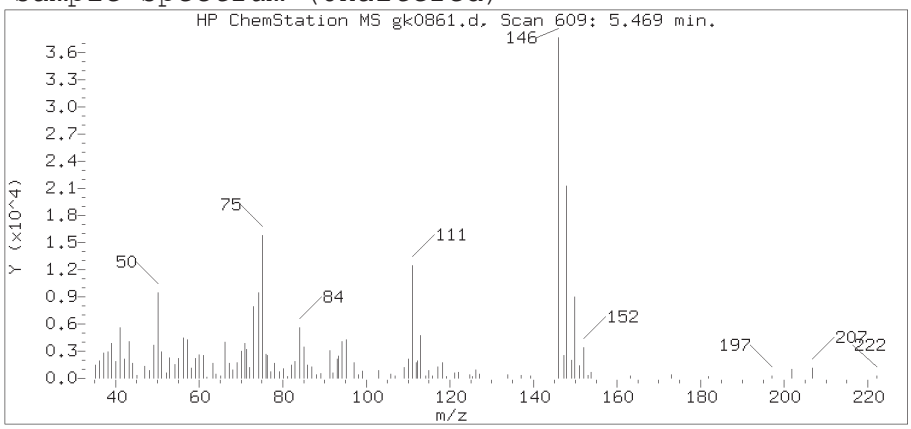


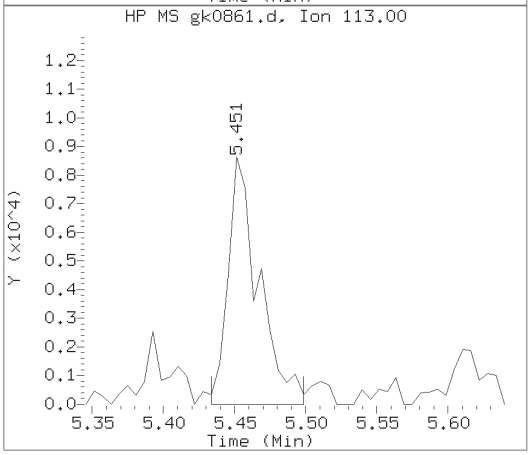
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 26
Compound Name	: 1,4-Dichlorobenzene
Scan Number	: 609
Retention Time (minutes)	: 5.469
Relative Retention Time	: 0.00000
Quant Ion	: 146.00
Area (flag)	: 30810
On-column Amount (ng/ul)	: 2.0159

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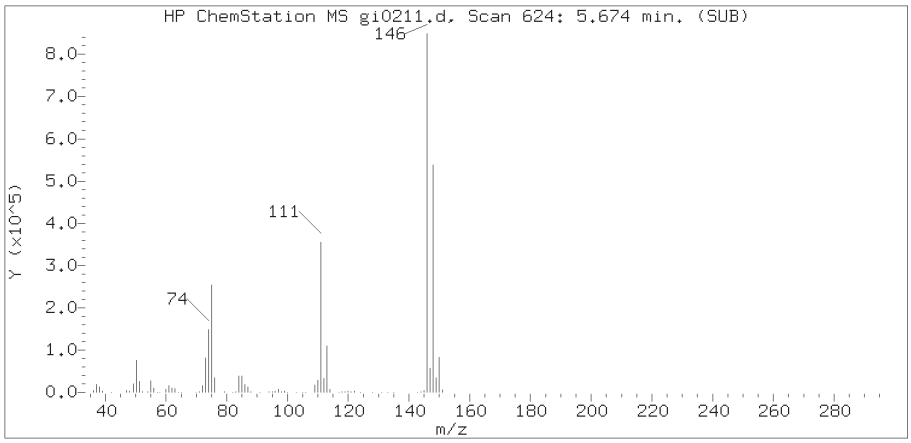
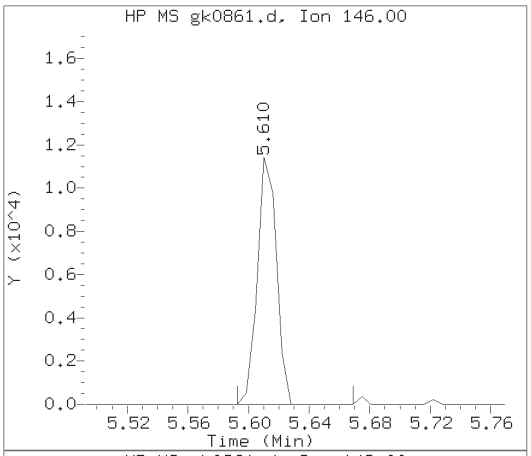
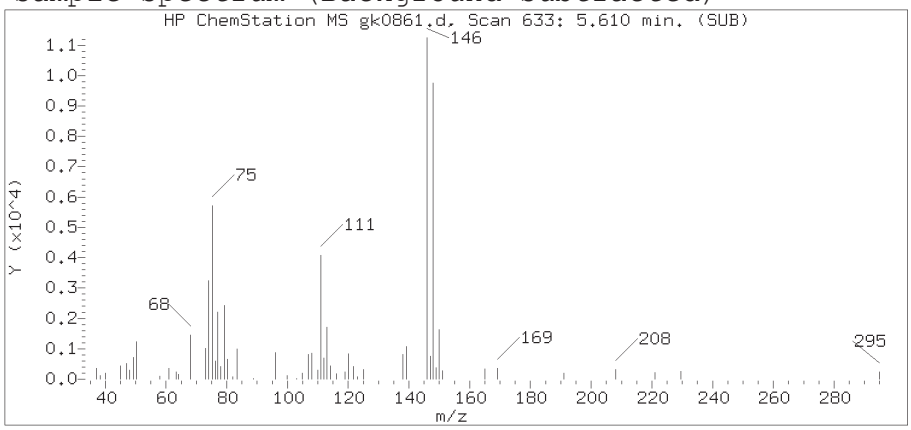
Target 3.5 esignature user ID: bkc25363

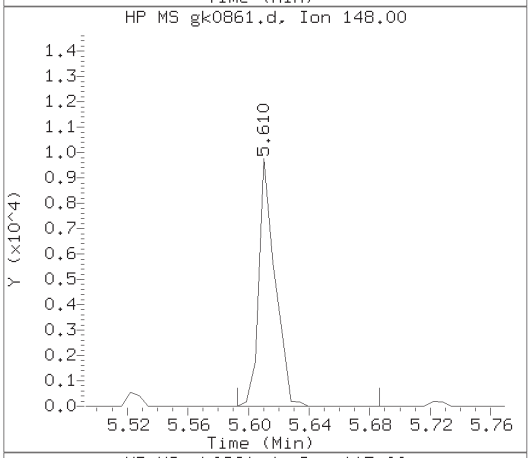
Reference Standard Spectrum for 1,2-Dichlorobenzene



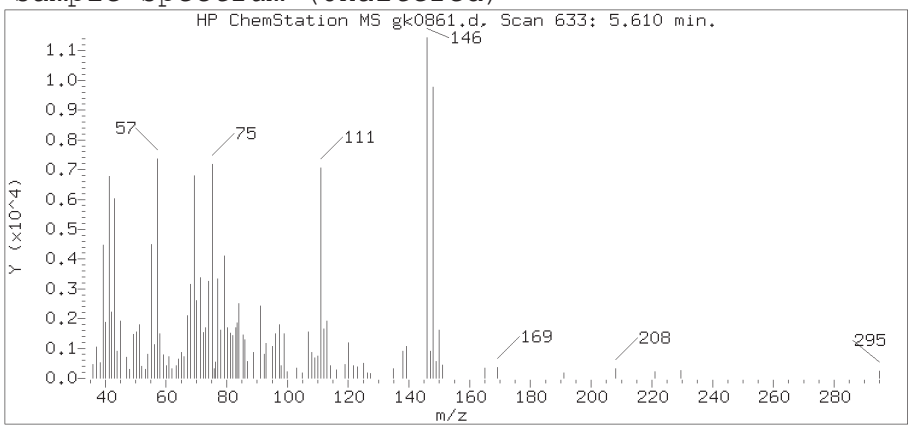


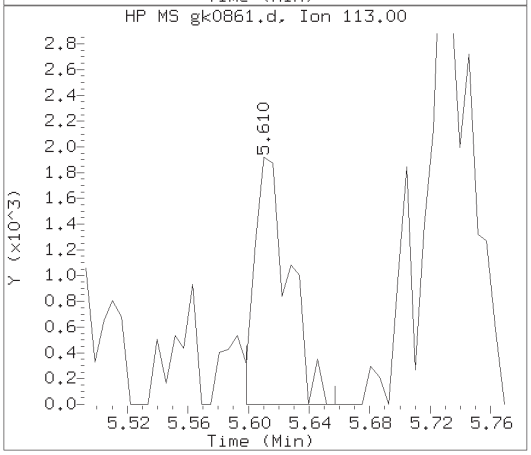
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 28
Compound Name	: 1,2-Dichlorobenzene
Scan Number	: 633
Retention Time (minutes)	: 5.610
Relative Retention Time	: 0.00000
Quant Ion	: 146.00
Area (flag)	: 10044
On-column Amount (ng/ul)	: 0.6790

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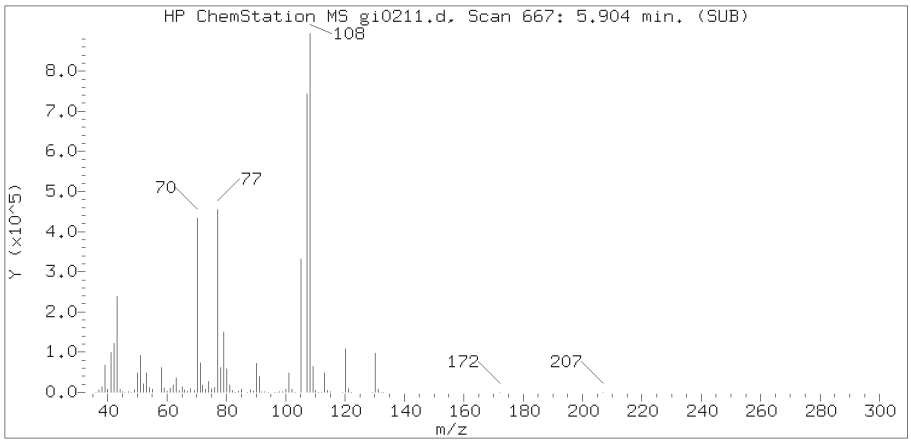
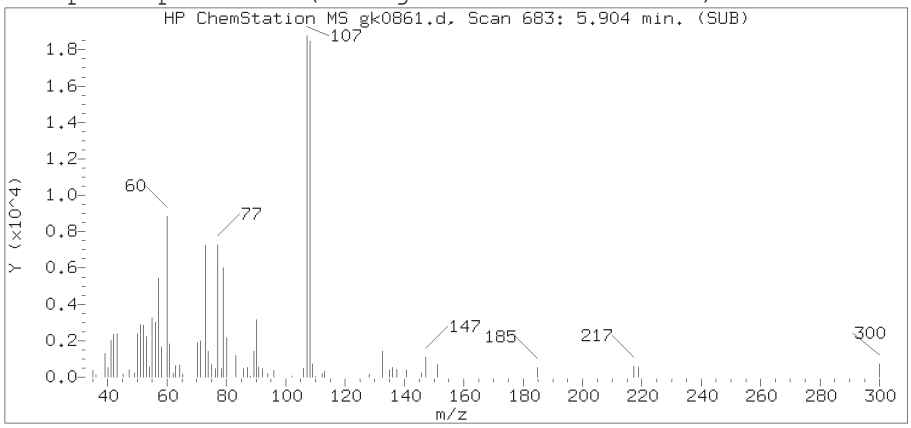
Target 3.5 esignature user ID: bkc25363

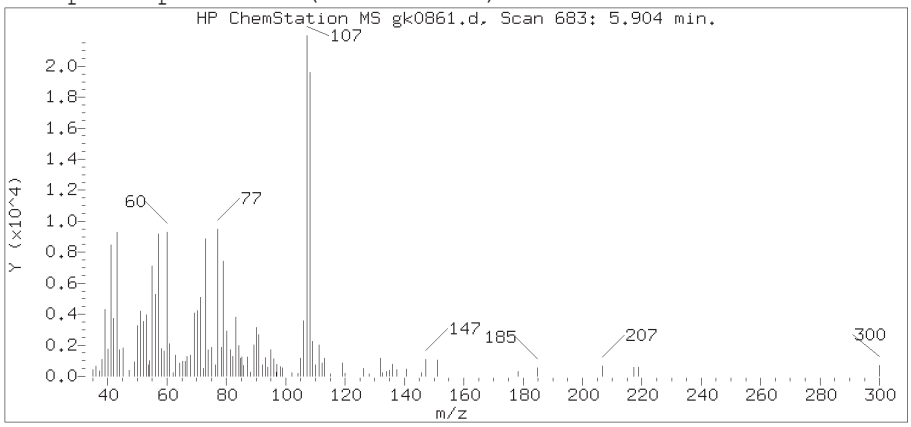
Reference Standard Spectrum for 4-Methylphenol

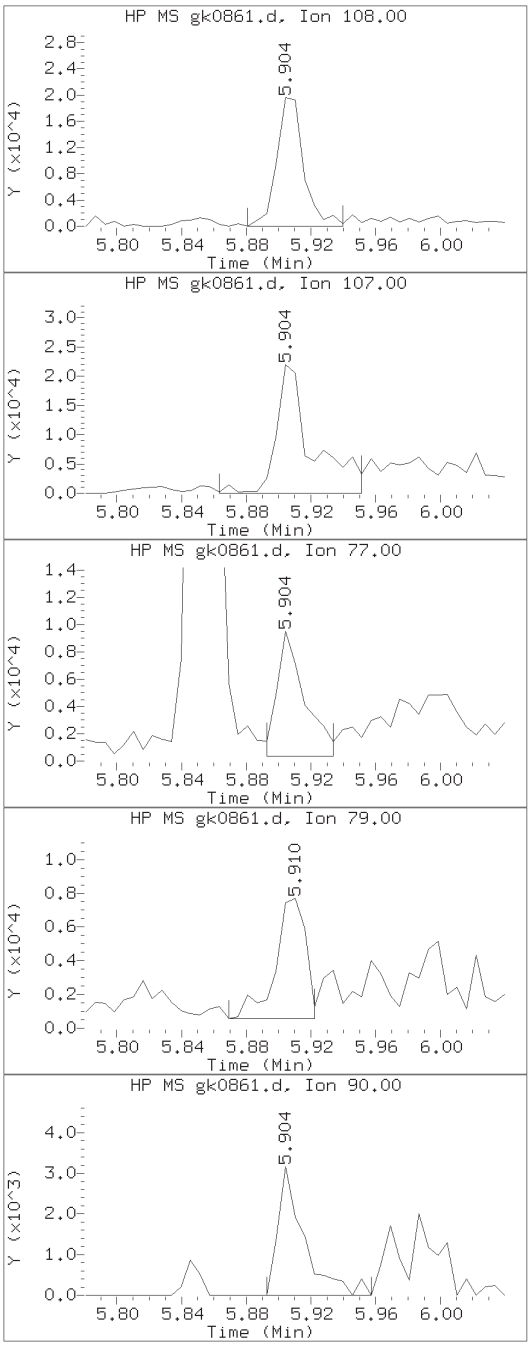


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 37
Compound Name	: 4-Methylphenol
Scan Number	: 683
Retention Time (minutes)	: 5.904
Relative Retention Time	: 0.00001
Quant Ion	: 108.00
Area (flag)	: 22661
On-column Amount (ng/ul)	: 1.3762

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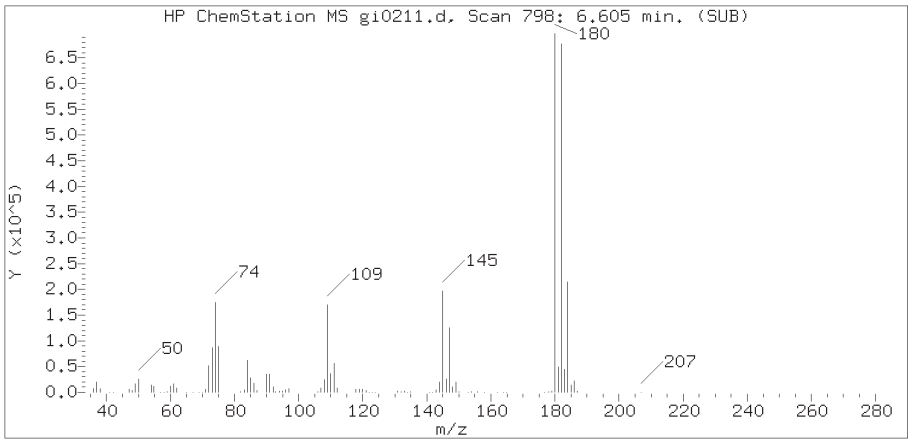
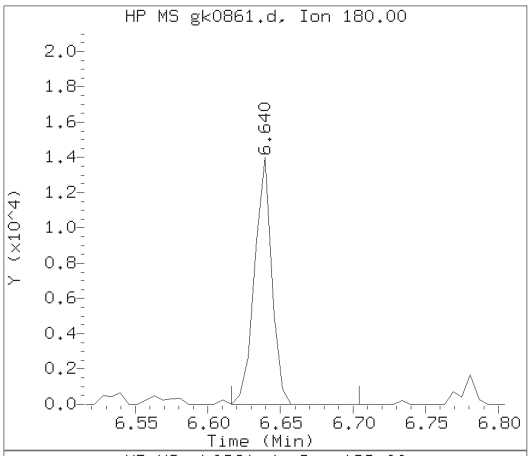
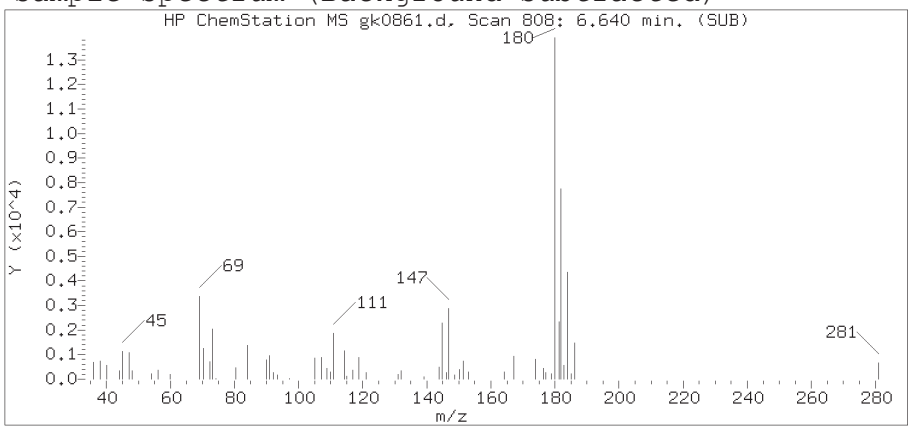
Target 3.5 esignature user ID: bkc25363

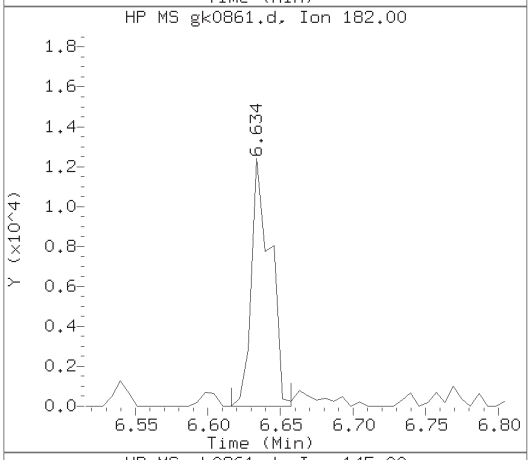
Reference Standard Spectrum for 1,2,4-Trichlorobenzene



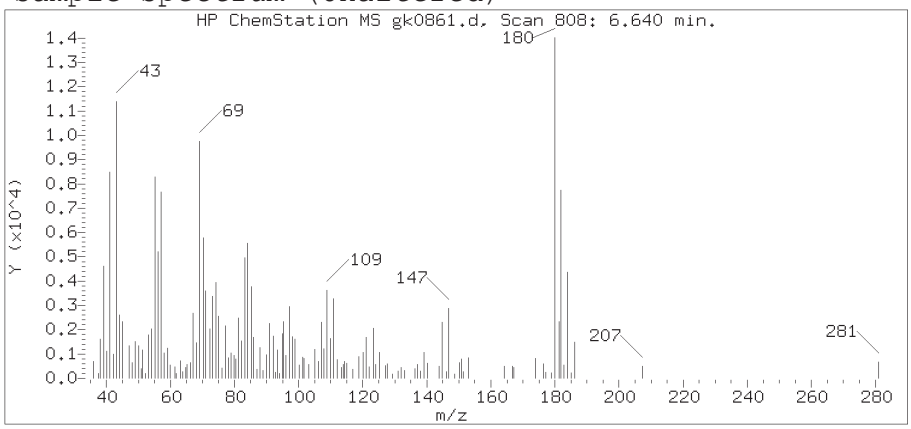


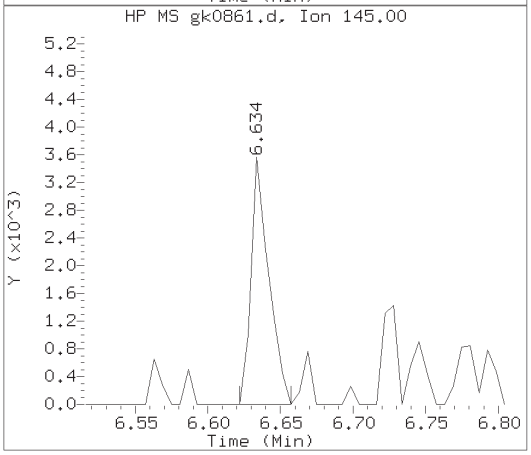
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

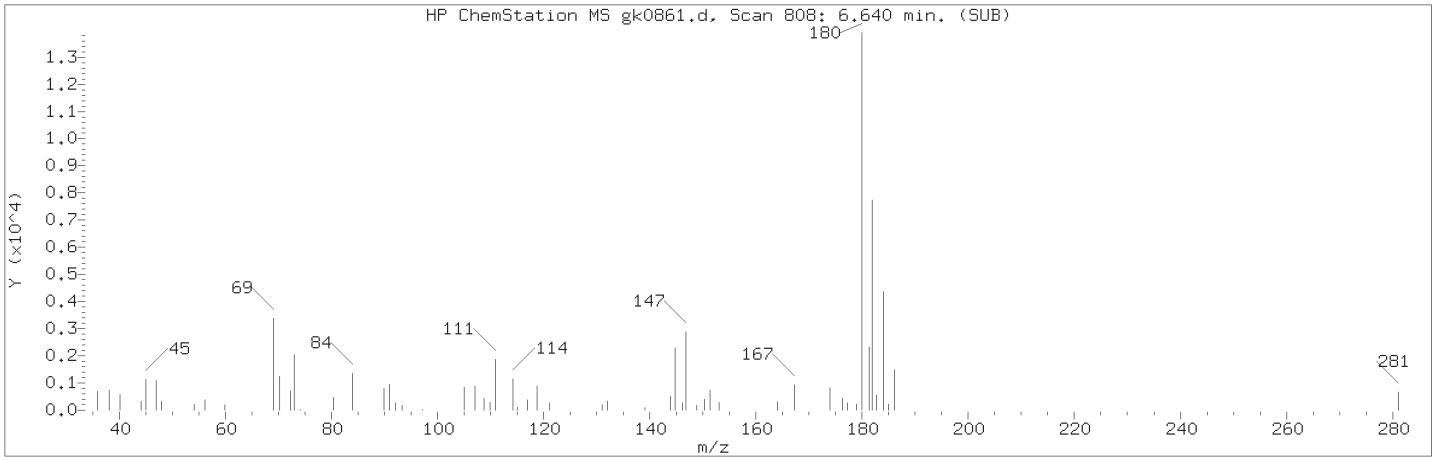
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

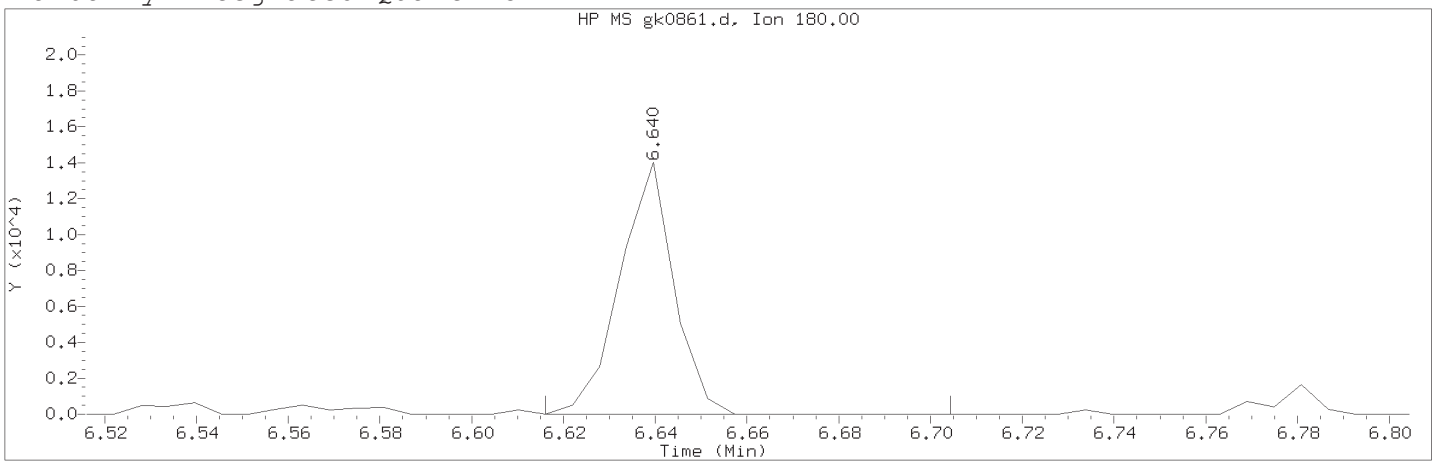
Compound Number	: 62
Compound Name	: 1,2,4-Trichlorobenzene
Scan Number	: 808
Retention Time (minutes)	: 6.640
Relative Retention Time	:-0.00088
Quant Ion	: 180.00
Area (flag)	: 11448A
On-column Amount (ng/ul)	: 0.9021

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

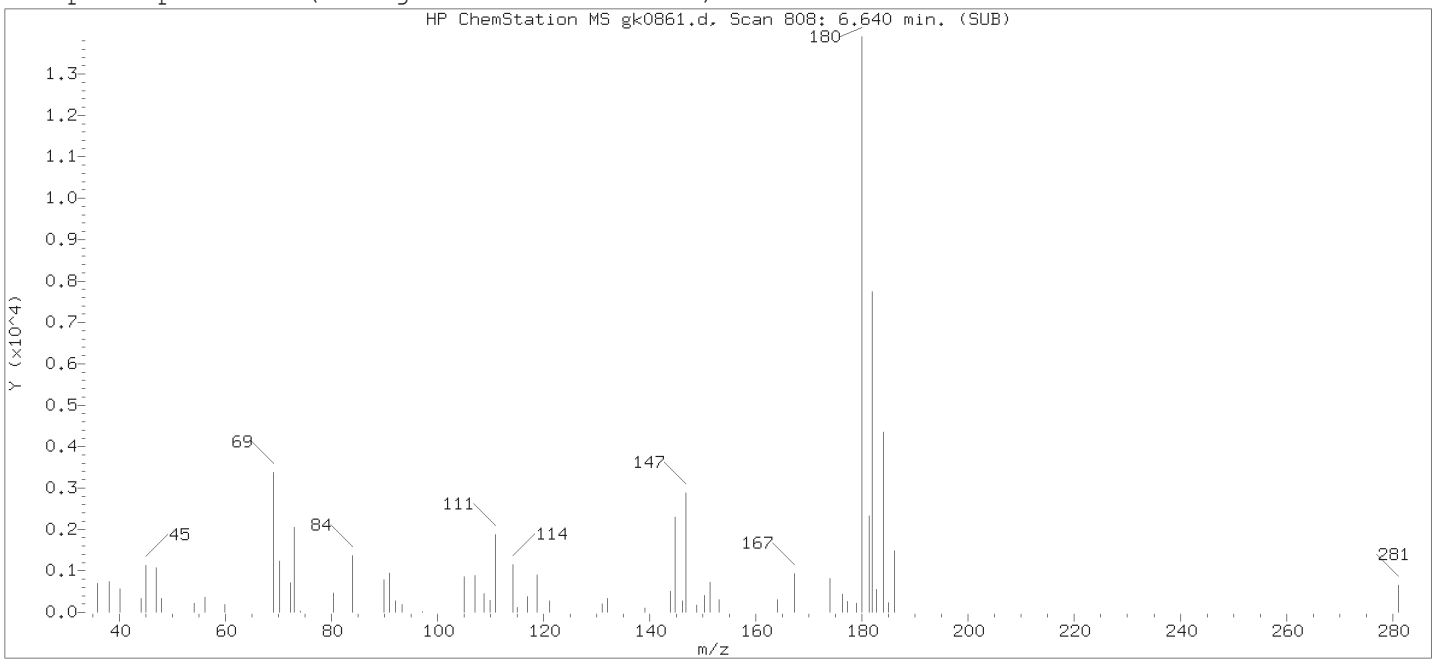
Compound Number : 62
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 808
Retention Time (minutes) : 6.640
Quant Ion : 180.00
Area (flag) : 11448A
On-column Amount (ng/ul) : 0.9021
Integration start scan : 803 Integration stop scan: 818
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

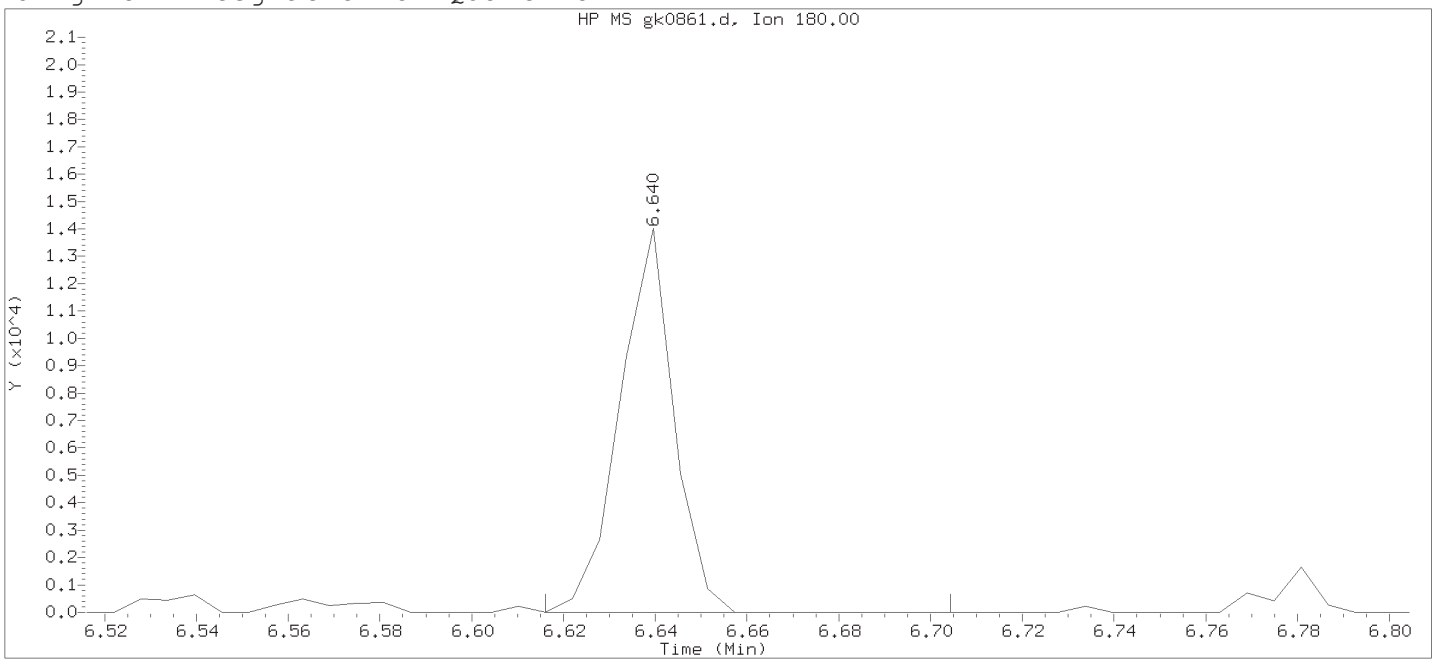
Analyst responsible for change: Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 13:00.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

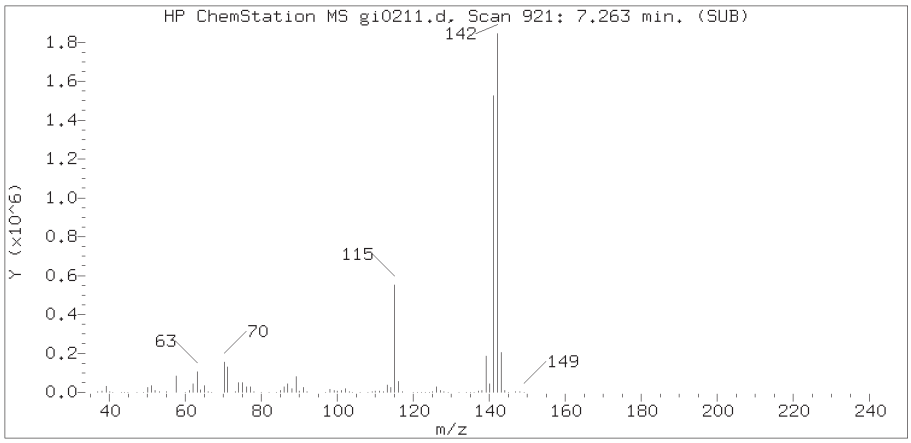
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 16-NOV-2018 14:59
Date, time and analyst ID of latest file update: 16-Nov-2018 18:27 Automation

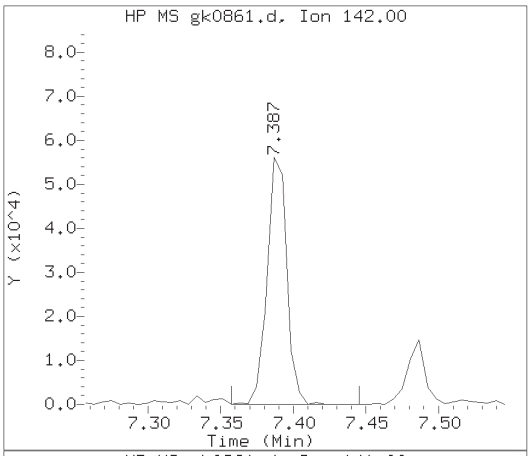
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 62		
Compound Name	: 1,2,4-Trichlorobenzene		
Scan Number	: 808		
Retention Time (minutes)	: 6.640		
Quant Ion	: 180.00		
Area	: 11448		
On-column Amount (ng/ul)	: 0.9021		
Integration start scan	: 803	Integration stop scan:	818
Y at integration start	: 0	Y at integration end:	0

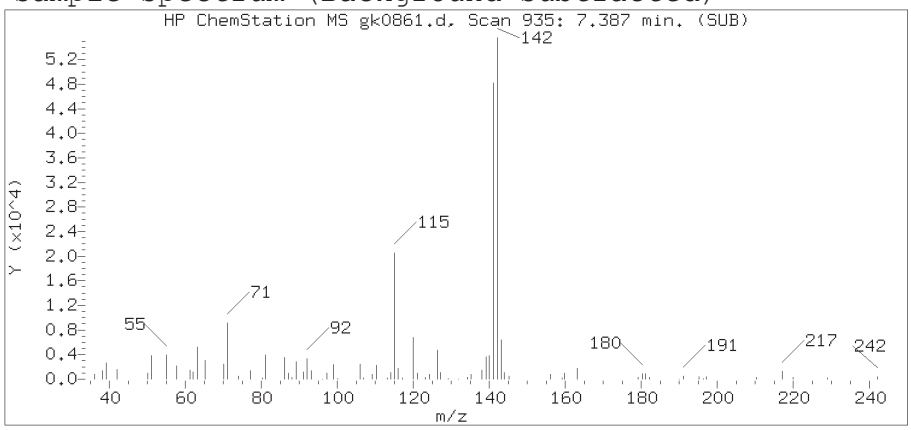
Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature used: D12 Page 1796

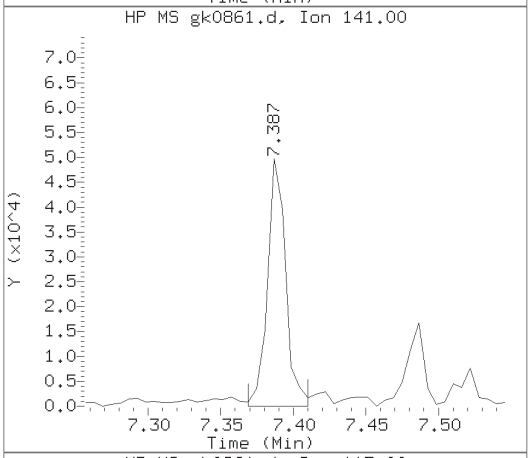
Reference Standard Spectrum for 2-Methylnaphthalene



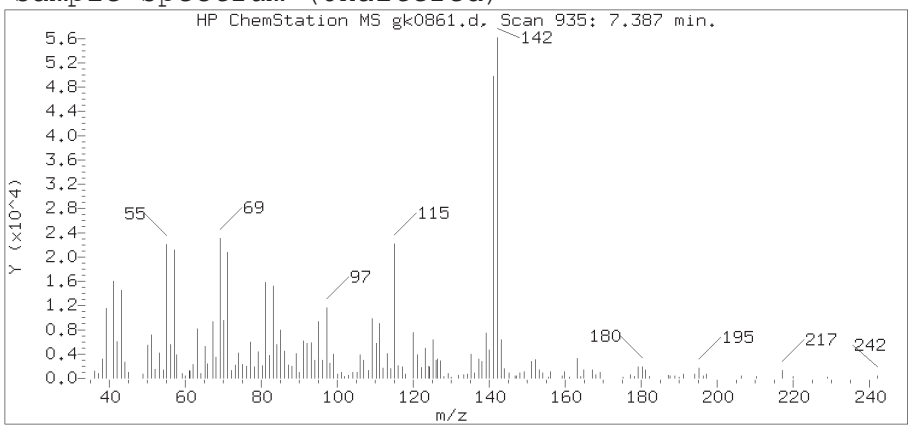


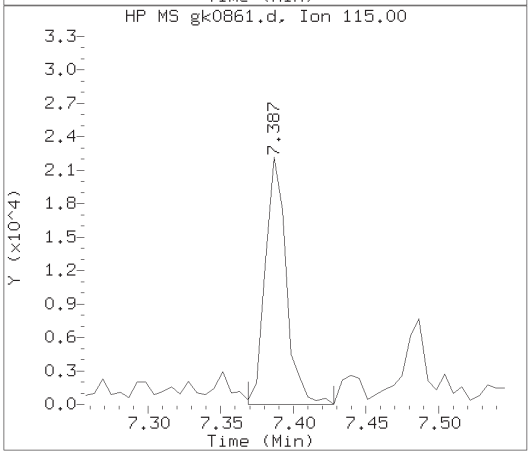
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

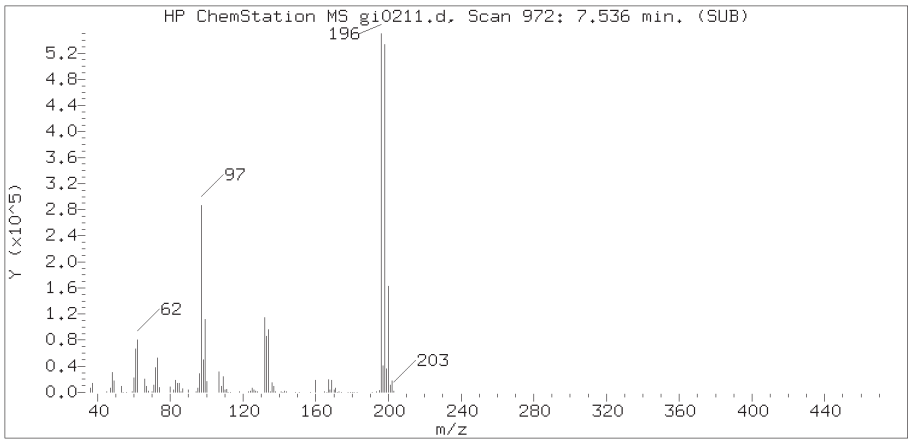
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

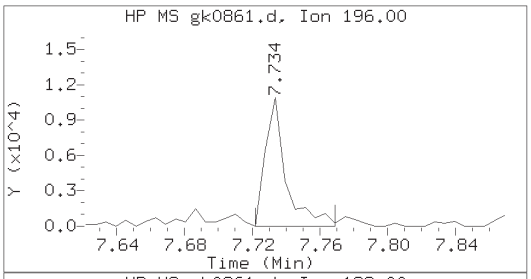
Sample Name: 12T07RE Lab Sample ID: 9872065RE

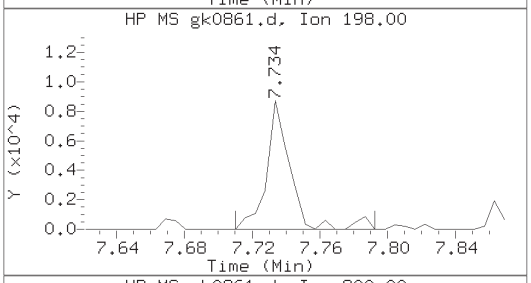
Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 935
Retention Time (minutes)	: 7.387
Relative Retention Time	: 0.00000
Quant Ion	: 142.00
Area (flag)	: 52579
On-column Amount (ng/ul)	: 1.6652

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

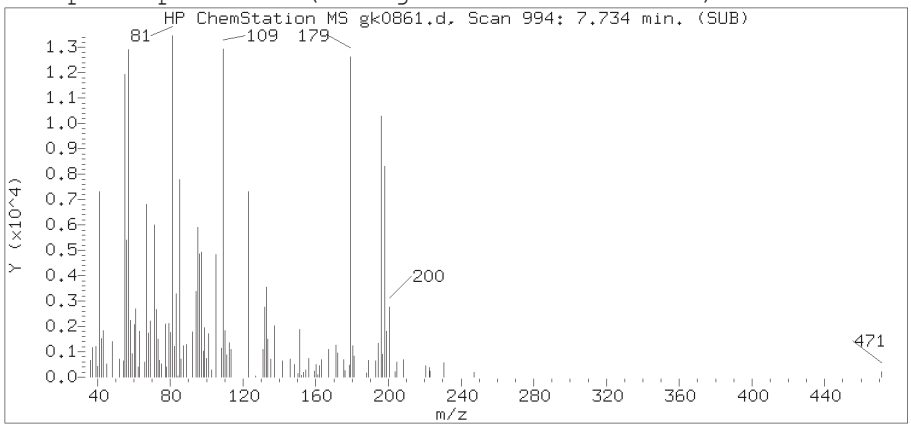
Reference Standard Spectrum for 2,4,5-Trichlorophenol

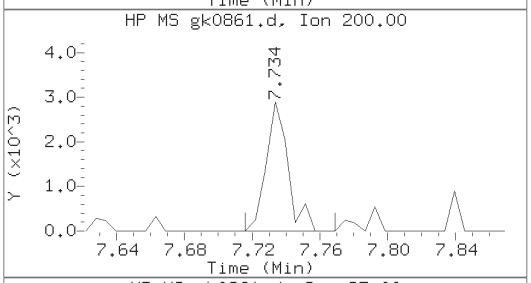


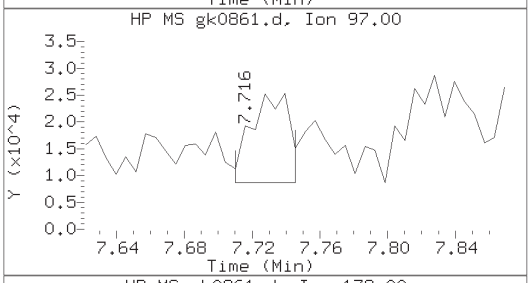




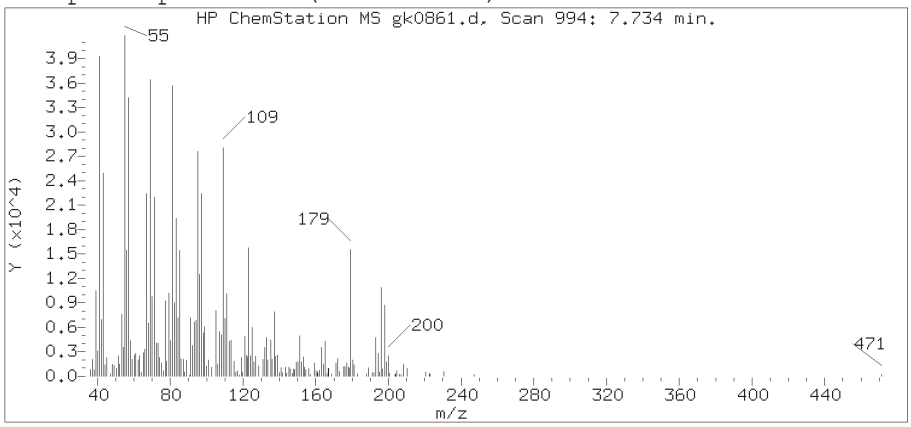
Sample Spectrum (Background Subtracted)

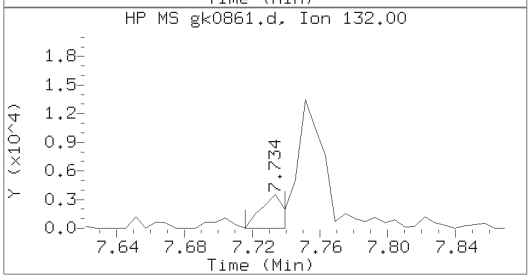






Sample Spectrum (Unaltered)





Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

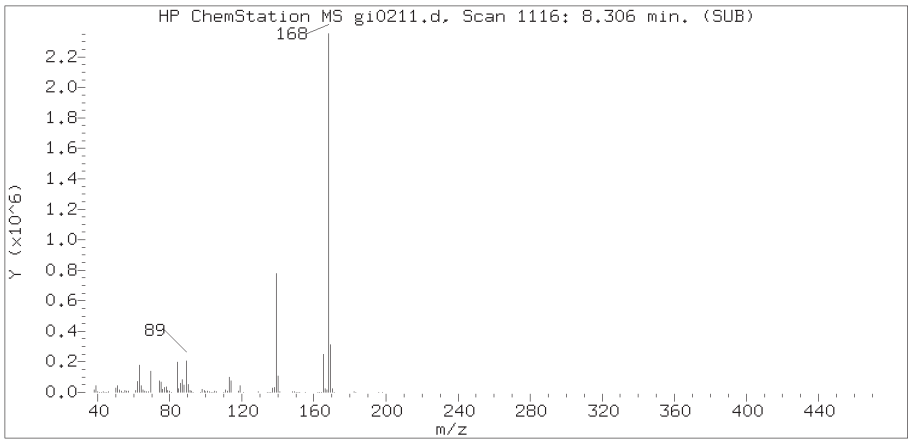
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

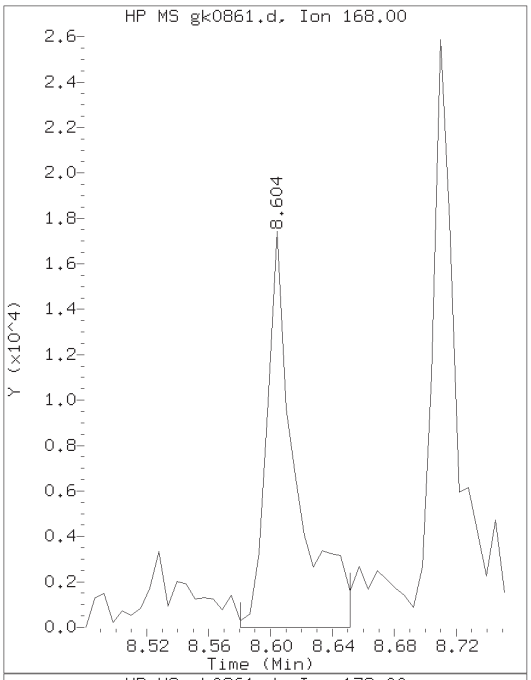
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 92
Compound Name	: 2,4,5-Trichlorophenol
Scan Number	: 994
Retention Time (minutes)	: 7.734
Relative Retention Time	:-0.00076
Quant Ion	: 196.00
Area (flag)	: 9234
On-column Amount (ng/ul)	: 1.0063

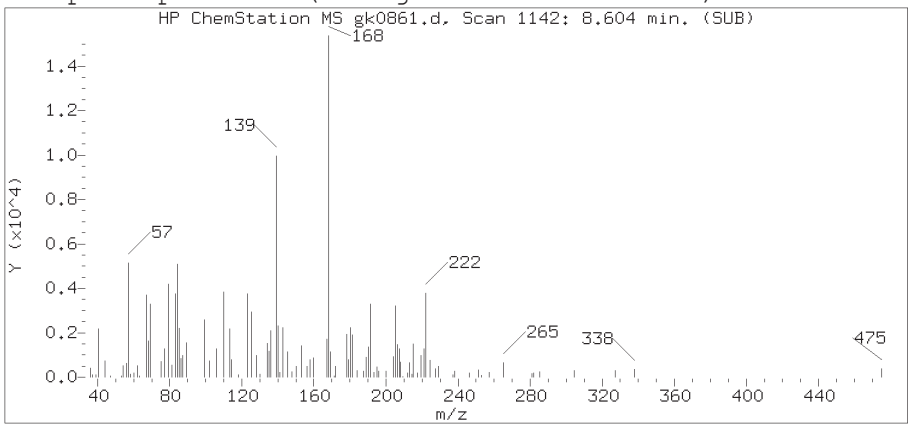
Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

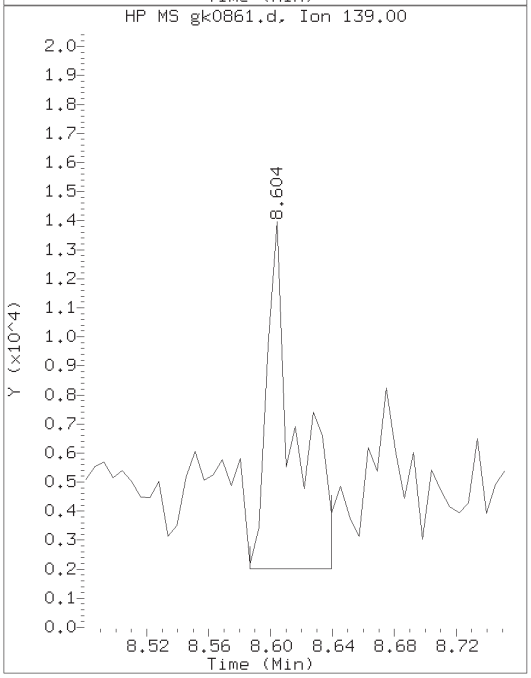
Reference Standard Spectrum for Dibenzofuran



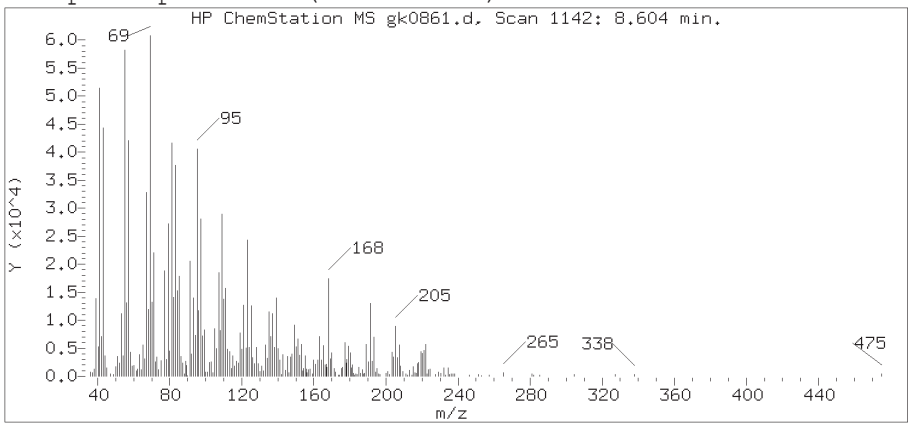


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

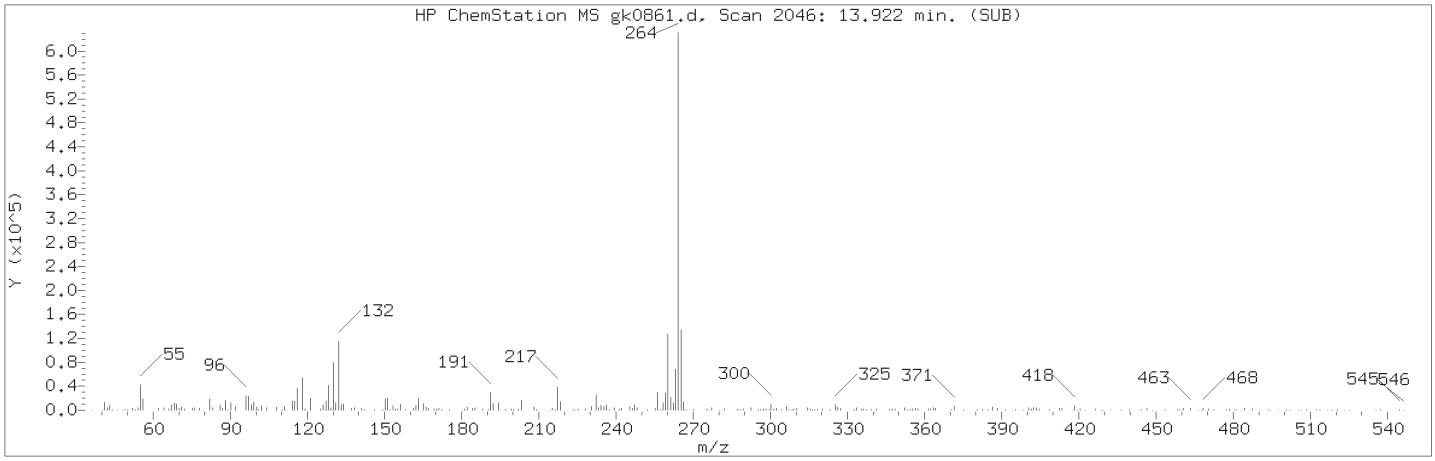
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

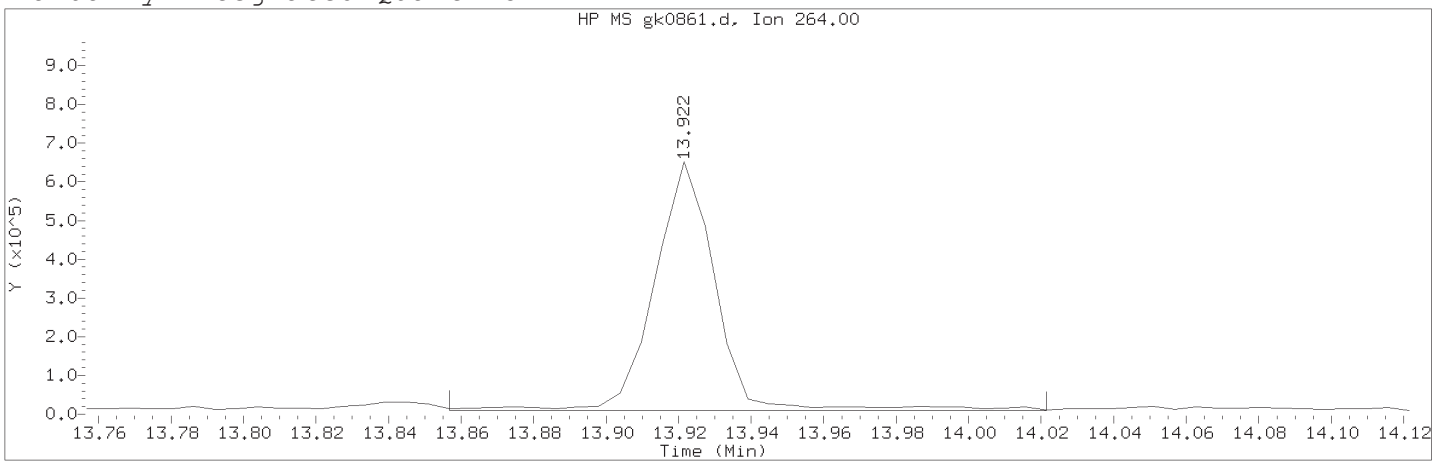
Compound Number	: 119
Compound Name	: Dibenzofuran
Scan Number	: 1142
Retention Time (minutes)	: 8.604
Relative Retention Time	: 0.00072
Quant Ion	: 168.00
Area (flag)	: 22918
On-column Amount (ng/ul)	: 0.5518

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: 12T07RE Lab Sample ID: 9872065RE

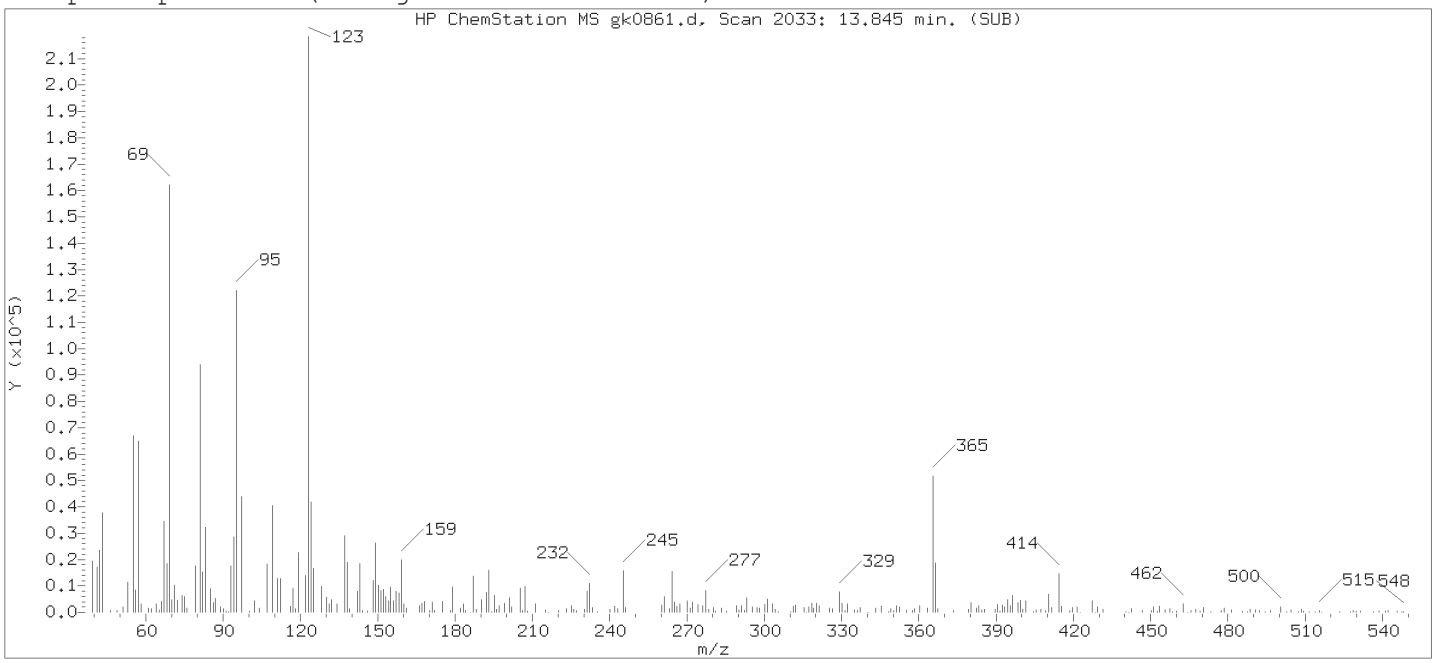
Compound Number : 213
Compound Name : Perylene-d12
Scan Number : 2046
Retention Time (minutes) : 13.922
Quant Ion : 264.00
Area (flag) : 766958A
On-column Amount (ng/ul) : 20.0000
Integration start scan : 2034 Integration stop scan: 2062
Y at integration start : 8797 Y at integration end: 8797

Reason for manual integration: improper integration

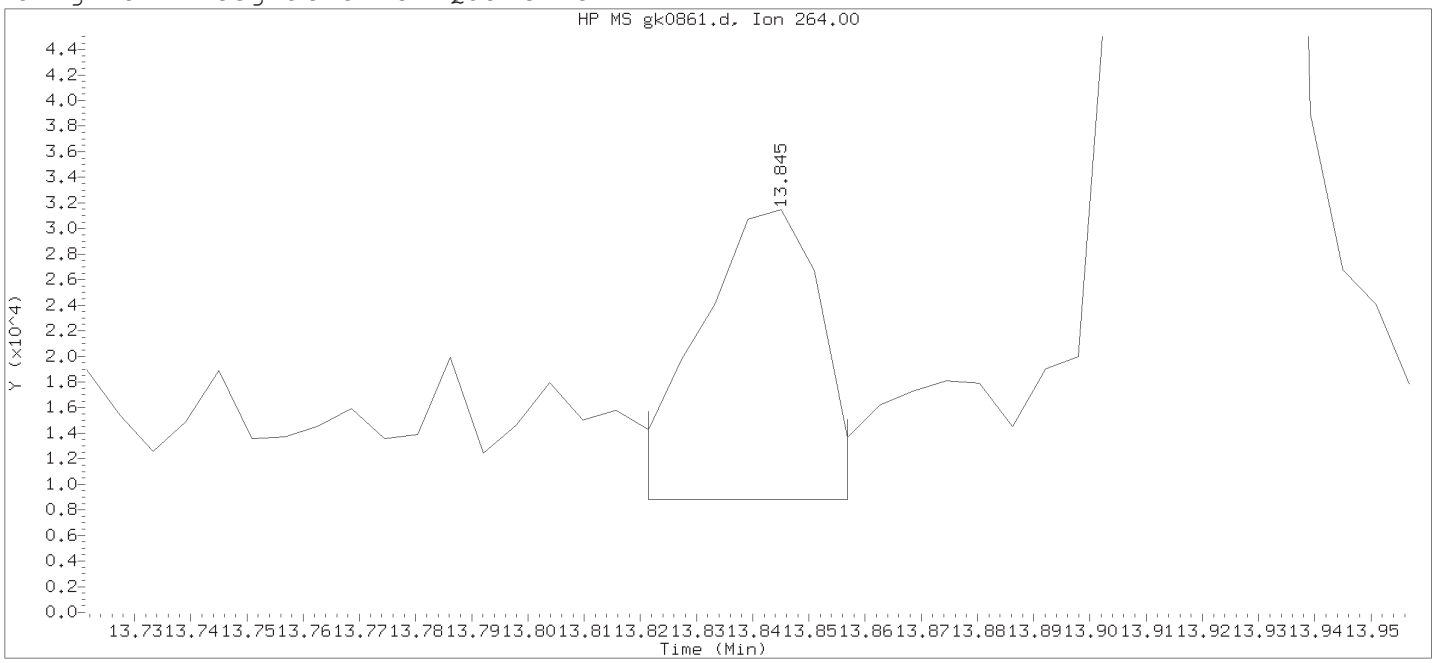
Analyst responsible for change: Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:14.
Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 13:00.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0861.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:06 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 16-NOV-2018 14:59
Date, time and analyst ID of latest file update: 16-Nov-2018 18:27 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 213		
Compound Name	: Perylene-d12		
Scan Number	: 2033		
Retention Time (minutes)	: 13.845		
Quant Ion	: 264.00		
Area	: 33159		
On-column Amount (ng/ul)	: 20.0000		
Integration start scan	: 2028	Integration stop scan:	2034
Y at integration start	: 8797	Y at integration end:	8797

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:14.
Target 3.5 esignature used 11/16/2018 18:03

Standards Data

Semivolatiles by GC/MS

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - C:\msdchem\1\data\18oct19a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
bkc25363	GJ1180.D	DFTPP2408	10/20/2018	00:01		
bkc25363	GJ1180a.D	DFTPP2408	10/20/2018	00:14		
bkc25363	GJ1181.D	STD2928	10/20/2018	00:32		
bkc25363	GJ1180b.D	DFTPP2408	10/20/2018	01:09		
bkc25363	GJ1181a.D	STD2928	10/20/2018	01:30		
bkc25363	GJ1182.D	STD2928	10/20/2018	01:56		
bkc25363	GJ1183.D	STD2928	10/20/2018	02:22		
bkc25363	GJ1184.D	STD2928	10/20/2018	02:48		
bkc25363	GJ1185.D	STD2928	10/20/2018	03:14		
bkc25363	GJ1186.D	STD2928	10/20/2018	03:40		
bkc25363	GJ1187.D	STD2928	10/20/2018	04:06		
bkc25363	GJ1188.D	STD2928	10/20/2018	04:32		
bkc25363	GJ1189.D	MDL2928	10/20/2018	04:58		
bkc25363	GJ1190.D	MDLPAH2928	10/20/2018	05:24		
bkc25363	GJ1191.D	ICV1918	10/20/2018	05:50		
bkc25363	GJ1192.D	BAS2408	10/20/2018	06:16		
bkc25363	GJ1193.D	BAS2408	10/20/2018	06:42		
bkc25363	GJ1194.D	BAS2408	10/20/2018	07:08		
bkc25363	GJ1195.D	BAS2408	10/20/2018	07:34		
bkc25363	GJ1196.D	BAS2408	10/20/2018	08:00		
bkc25363	GJ1197.D	BAS2408	10/20/2018	08:26		
bkc25363	GJ1198.D	BASMDL2408	10/20/2018	08:52		
bkc25363	GJ1199.D	BASICV1218	10/20/2018	10:11		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - C:\msdchem\1\data\18oct21\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
em10340	GJ1220.D	DFTPP2408	10/21/2018	10:59		
em10340	GJ1220a.D	DFTPP2408	10/21/2018	11:11		
em10340	GJ1221.D	STD2388	10/21/2018	11:40		
em10340	GJ1222.D	BAS2408	10/21/2018	12:22		
em10340	GJ1223.D	ICV2338	10/21/2018	12:48		
em10340	GJ1224.D	ICV2608	10/21/2018	13:16		
em10340	GJ1225.D	ICV2628	10/21/2018	13:42		
bkc25363	GJ1239.D	SBLKLK291	10/21/2018	20:25	18291SLK	

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - D:\data\18nov07\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
em10340	GK0300.D	DFTPP3108	11/07/2018	07:35		
em10340	GK0300a.D	DFTPP3108	11/07/2018	07:53		
em10340	GK0301.D	STD2928	11/07/2018	08:13		
em10340	GK0310.D	DFTPP3108	11/07/2018	08:54		
em10340	GK0311.D	STD2928	11/07/2018	09:12		
em10340	GK0312.D	BAS3108	11/07/2018	09:50		
em10340	GK0313a.D	SBLKLC302	11/07/2018	11:05	18302SLC	
em10340	GK0313.D	SBLKLC302	11/07/2018	12:00	18302SLC	
em10340	GK0314.D	302LCLCS	11/07/2018	12:24	18302SLC	
em10340	GK0315.D	9863853	11/07/2018	12:49	18302SLC	
em10340	GK0316.D	9863854	11/07/2018	13:13	18302SLC	
em10340	GK0317.D	9863855	11/07/2018	13:38	18302SLC	
em10340	GK0318.D	9863851	11/07/2018	14:03	18302SLC	
em10340	GK0319.D	9863852	11/07/2018	14:28	18302SLC	
em10340	GK0320.D	9863857	11/07/2018	14:52	18302SLC	
em10340	GK0321.D	9863858	11/07/2018	15:17	18302SLC	
em10340	GK0322.D	9866461	11/07/2018	15:41	18302SLC	
em10340	GK0323.D	9866462	11/07/2018	16:06	18302SLC	
em10340	GK0324.D	9866463	11/07/2018	16:31	18302SLC	
em10340	GK0325.D	9866464	11/07/2018	16:56	18302SLC	
em10340	GK0326.D	9866465	11/07/2018	17:20	18302SLC	
em10340	GK0327.D	9866466	11/07/2018	17:45	18302SLC	
em10340	GK0328.D	9866467	11/07/2018	18:10	18302SLC	
em10340	GK0329.D	9870251	11/07/2018	18:34	18302SLC	
em10340	GK0330.D	9870252	11/07/2018	18:59	18302SLC	
em10340	GK0331.D	9870253	11/07/2018	19:23	18302SLC	
em10340	GK0337.D	STD2928	11/07/2018	19:48		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - D:\data\18nov11\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
em10340	GK0550.D	DFTPP2408	11/11/2018	09:38		
em10340	GK0550a.D	DFTPP2408	11/11/2018	09:53		
em10340	GK0550b.D	DFTPP2408	11/11/2018	10:08		
em10340	GK0550c.D	DFTPP2408	11/11/2018	10:20		
em10340	GK0551.D	STD2928	11/11/2018	10:36		
em10340	GK0552.D	STD2928	11/11/2018	12:07		
em10340	GK0553.D	STD2928	11/11/2018	12:31		
em10340	GK0554.D	STD2928	11/11/2018	12:55		
em10340	GK0555.D	STD2928	11/11/2018	13:20		
em10340	GK0556.D	STD2928	11/11/2018	13:44		
em10340	GK0557.D	STD2928	11/11/2018	14:08		
em10340	GK0558.D	STD2928	11/11/2018	14:32		
em10340	GK0559.D	MDL2928	11/11/2018	14:57		
em10340	GK0560.D	MDLPAH2928	11/11/2018	15:21		
em10340	GK0561.D	ICV2968	11/11/2018	15:45		
em10340	GK0562.D	BAS3108	11/11/2018	16:10		
em10340	GK0563.D	BAS3108	11/11/2018	16:34		
em10340	GK0564.D	BAS3108	11/11/2018	16:58		
em10340	GK0565.D	BAS3108	11/11/2018	17:22		
em10340	GK0566.D	BAS3108	11/11/2018	17:47		
em10340	GK0567.D	BAS3108	11/11/2018	18:11		
em10340	GK0568.D	BASMDL3108	11/11/2018	18:36		
em10340	GK0569.D	BASICV2578	11/11/2018	19:01		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - D:\data\18nov12\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
em10340	GK0590.D	DFTPP3108	11/12/2018	08:35		
em10340	GK0591.D	STD2928	11/12/2018	08:52		
em10340	GK0592.D	BAS3108	11/12/2018	09:26		
em10340	GK0593.D	9870252	11/12/2018	10:07	18302SLC	
em10340	GK0594.D	9870252DL	11/12/2018	10:31	18302SLC	10
em10340	GK0595.D	9870254	11/12/2018	10:55	18302SLC	
em10340	GK0596.D	9872060	11/12/2018	11:20	18302SLC	
em10340	GK0597.D	9872061	11/12/2018	11:44	18302SLC	
em10340	GK0598.D	9872062	11/12/2018	12:09	18302SLC	
em10340	GK0599.D	9872063	11/12/2018	12:33	18302SLC	
em10340	GK0596a.D	9872060DL	11/12/2018	13:25	18302SLC	10
em10340	GK0597a.D	9872061DL	11/12/2018	13:50	18302SLC	10
em10340	GK0608.D	STD2928	11/12/2018	14:14		
em10340	GK0600.D	9878581DL	11/12/2018	14:39	18306SLC	50
em10340	GK0601.D	9878582DL	11/12/2018	15:04	18306SLC	50
em10340	GK0602.D	9878582DL2	11/12/2018	15:28	18306SLC	100
em10340	GK0603.D	9879403	11/12/2018	15:53	18306SLF	
em10340	GK0604.D	9879404	11/12/2018	16:17	18306SLF	
em10340	GK0605.D	9879405	11/12/2018	16:41	18306SLF	
em10340	GK0606.D	9879405	11/12/2018	17:06	18306SLF	
em10340	GK0607.D	9879405	11/12/2018	17:30	18306SLF	
em10340	GK0602a.D	9878582DL2	11/12/2018	17:55	18306SLC	500
em10340	GK0604a.D	9879404DL	11/12/2018	18:19	18306SLF	5
em10340	GK0602b.D	9878582DL2	11/12/2018	18:44	18306SLC	500

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP11165 **HP #07**

Data Directory Path is - D:\data\18nov16\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lmh00956	GK0850.D	DFTPP3108	11/16/2018	09:46		
lmh00956	GK0851.D	STD2928	11/16/2018	10:04		
lmh00956	GK0852.D	BAS3108	11/16/2018	13:33		
lmh00956	GK0853.D	318LELCS	11/16/2018	13:57	18318SLE	
whs02991	GK0854.D	SBLKLB317	11/16/2018	14:51	18317SLB	
whs02991	GK0863.D	SBLKLE318	11/16/2018	15:15	18318SLE	
whs02991	GK0855.D	317LBLCS	11/16/2018	15:39	18317SLB	
whs02991	GK0856.D	317LBLCSD	11/16/2018	16:03	18317SLB	
whs02991	GK0857.D	9867761RE	11/16/2018	16:28	18317SLB	
whs02991	GK0858.D	9867762RE	11/16/2018	16:53	18317SLB	
whs02991	GK0859.D	9867766RE	11/16/2018	17:17	18317SLB	
whs02991	GK0860.D	9867767RE	11/16/2018	17:42	18317SLB	
whs02991	GK0861.D	9872065RE	11/16/2018	18:06	18317SLB	
whs02991	GK0862.D	STD2928	11/16/2018	18:30		
whs02991	GK0863a.D	BAS3108	11/16/2018	18:55		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP23262 **HP #16**

Data Directory Path is - D:\data\18nov09a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lmh00956	PK0300.D	DFTPP2408	11/09/2018	14:11		
lmh00956	PK0300.D	DFTPP2408	11/09/2018	14:29		
lmh00956	PK0301.D	STD2928	11/09/2018	14:45		
lmh00956	PK0310.D	DFTPP2408	11/09/2018	15:24		
lmh00956	PK0311.D	STD2928	11/09/2018	15:38		
lmh00956	PK0312.D	STD2928	11/09/2018	16:05		
lmh00956	PK0313.D	STD292	11/09/2018	16:29		
lmh00956	PK0314.D	STD2928	11/09/2018	16:52		
lmh00956	PK0315.D	STD2928	11/09/2018	17:15		
lmh00956	PK0316.D	STD2928	11/09/2018	17:38		
lmh00956	PK0317.D	STD2928	11/09/2018	18:01		
lmh00956	PK0318.D	STD2928	11/09/2018	18:24		
lmh00956	PK0319.D	STD2928	11/09/2018	18:48		
lmh00956	PK0320.D	MDL2928	11/09/2018	19:11		
lmh00956	PK0321.D	PAHMDL2928	11/09/2018	19:34		
lmh00956	PK0322.D	ICV2968	11/09/2018	19:57		
lmh00956	PK0323.D	BASICV2578	11/09/2018	20:20		
lmh00956	PK0324.D	ICV2628	11/09/2018	20:43		
lmh00956	PK0325.D	ICV2338	11/09/2018	21:06		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP23262 **HP #16**

Data Directory Path is - D:\data\18nov11\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	PK0350.D	DFTPP2408	11/11/2018	19:05		
apb10206	PK0351.D	STD2928	11/11/2018	19:20		
apb10206	PK0350.D	DFTPP2408	11/11/2018	19:43		
apb10206	PK0360.D	DFTPP2408	11/11/2018	19:55		
apb10206	PK0360a.D	DFTPP2408	11/11/2018	20:06		
apb10206	PK0360b.D	DFTPP2408	11/11/2018	20:21		
apb10206	PK0360c.D	DFTPP2408	11/11/2018	20:31		
apb10206	PK0360d.D	DFTPP2408	11/11/2018	20:44		
apb10206	PK0361.D	STD2928	11/11/2018	20:58		
apb10206	PK0362.D	BAS3108	11/11/2018	21:23		
apb10206	PK0363.D	SBLKLI302	11/11/2018	21:57	18302SLI	
apb10206	PK0367.D	SBLKLA311	11/11/2018	22:21	18311SLA	
apb10206	PK0364.D	302LILCS	11/11/2018	22:44	18302SLI	
apb10206	PK0368.D	311LALCS	11/11/2018	23:08	18311SLA	
apb10206	PK0371.D	9867761	11/11/2018	23:31	18302SLI	
apb10206	PK0372.D	9867762	11/11/2018	23:55	18302SLI	
apb10206	PK0373.D	9867763	11/12/2018	00:18	18302SLI	
apb10206	PK0374.D	9867764	11/12/2018	00:41	18302SLI	
apb10206	PK0375.D	9867766	11/12/2018	01:05	18302SLI	
apb10206	PK0376.D	9867767	11/12/2018	01:28	18302SLI	
apb10206	PK0377.D	9872064	11/12/2018	01:51	18302SLI	
apb10206	PK0378.D	9872065	11/12/2018	02:14	18302SLI	
apb10206	PK0392a.D	STD2928x	11/12/2018	02:38		
apb10206	PK0379.D	9884645	11/12/2018	03:01	18311SLA	
apb10206	PK0380.D	9884646	11/12/2018	03:24	18311SLA	
apb10206	PK0381.D	9884647	11/12/2018	03:48	18311SLA	5
apb10206	PK0382.D	9885261	11/12/2018	04:11	18311SLA	5
apb10206	PK0383.D	9884806	11/12/2018	04:34	18311SLA	5
apb10206	PK0384.D	9884807	11/12/2018	04:57	18311SLA	5
apb10206	PK0385.D	9884808	11/12/2018	05:20	18311SLA	5
apb10206	PK0386.D	9884809	11/12/2018	05:43	18311SLA	5
apb10206	PK0387.D	9884810	11/12/2018	06:06	18311SLA	5
apb10206	PK0388.D	9884811	11/12/2018	06:30	18311SLA	5
apb10206	PK0389.D	9884813	11/12/2018	06:53	18311SLA	5
apb10206	PK0390.D	9884814	11/12/2018	07:16	18311SLA	5
apb10206	PK0391.D	9884815	11/12/2018	07:40	18311SLA	5
apb10206	PK0392.D	STD2928	11/12/2018	08:03		
apb10206	PK0393.D	BAS3108	11/12/2018	08:26		

Data File: /chem/HP11165.i/18oct19a.b/gj1180b.d

Date : 20-OCT-2018 01:09

Client ID: DFTPP

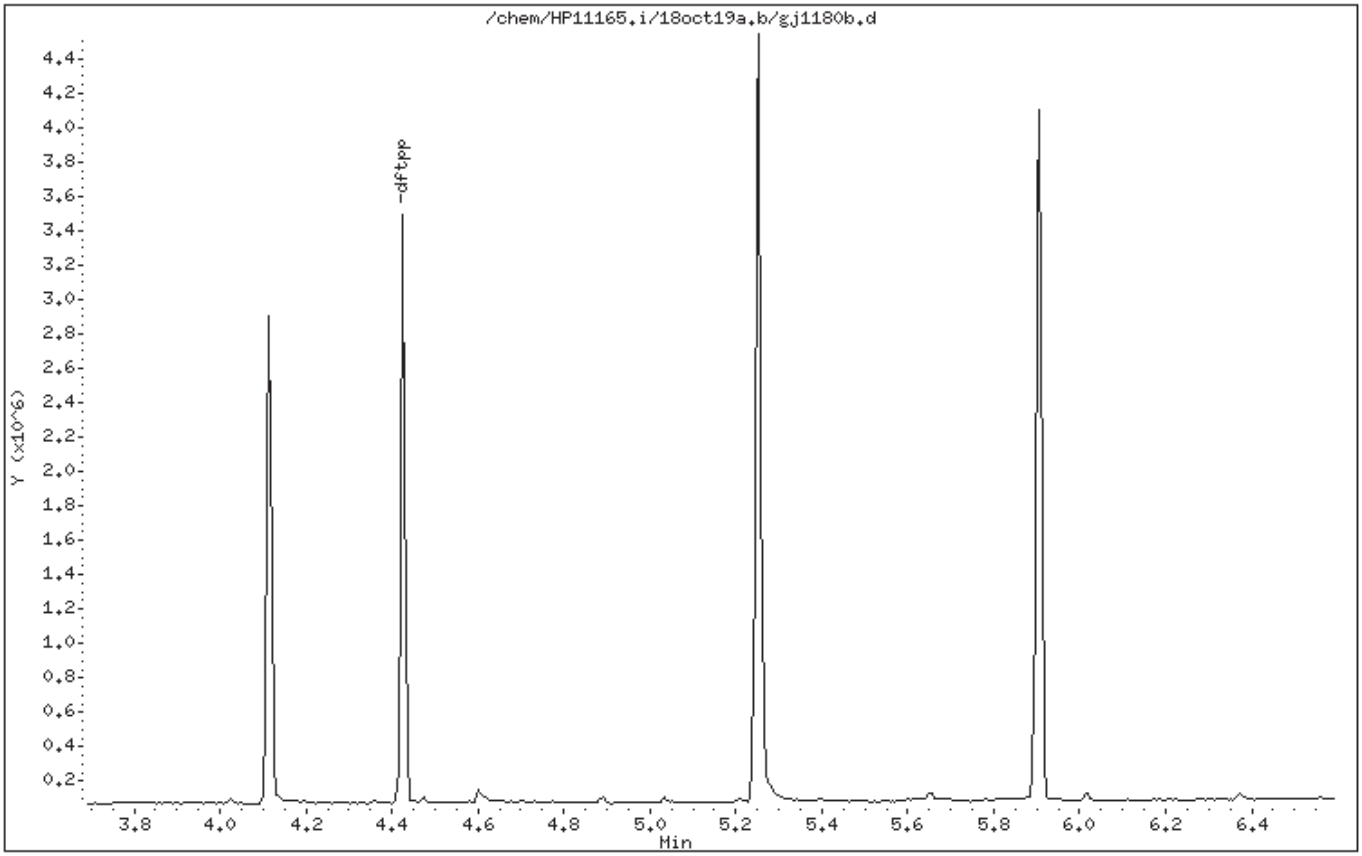
Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18oct19a.b/gj1180b.d

Date : 20-OCT-2018 01:09

Client ID: DFTPP

Instrument: HP11165.i

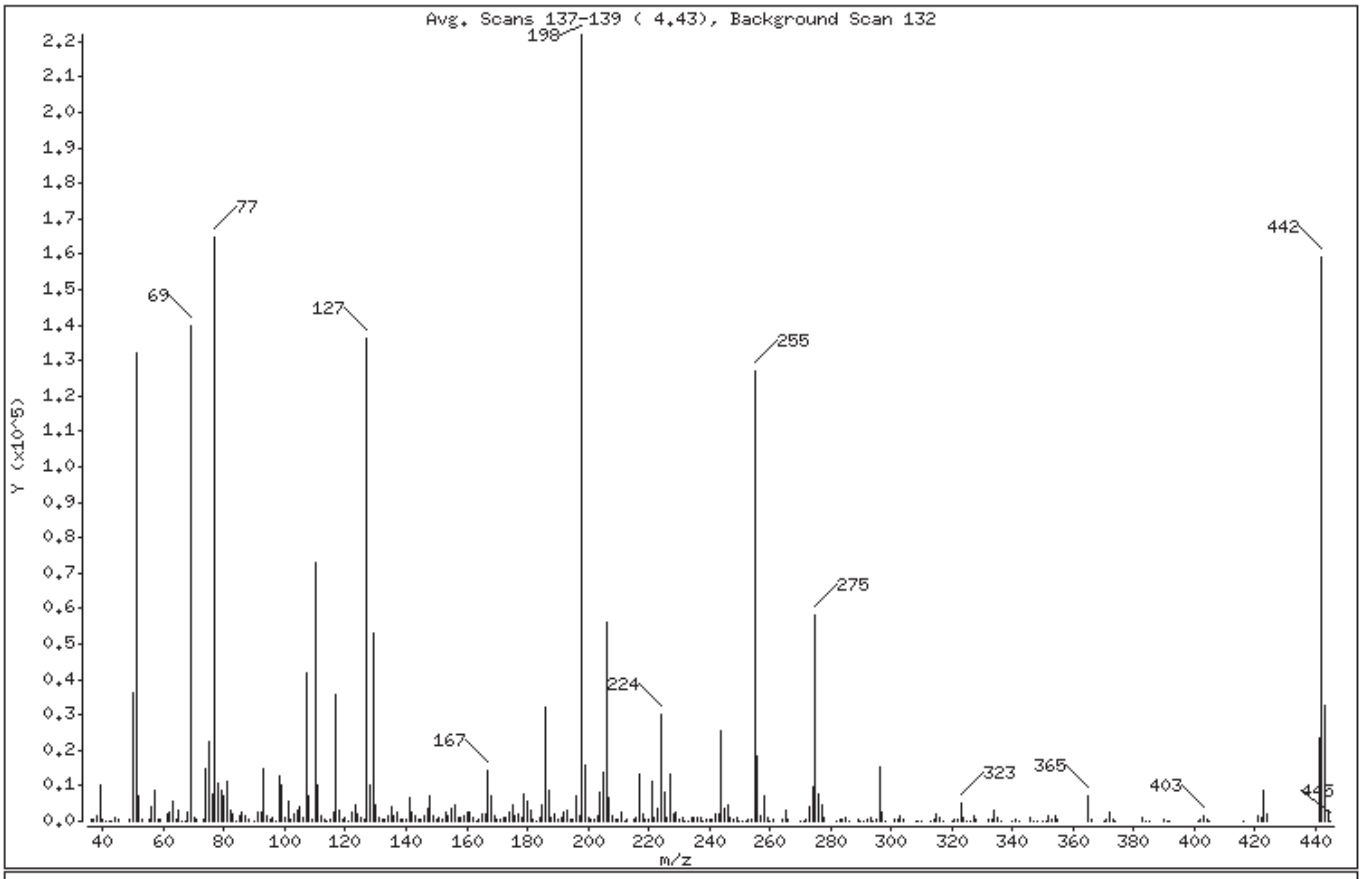
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	59.46
68	Less than 2.00% of mass 69	1.06 (1.68)
69	Mass 69 relative abundance	62.95
70	Less than 2.00% of mass 69	0.42 (0.67)
127	10.00 - 80.00% of mass 198	61.43
197	Less than 2.00% of mass 198	0.74
199	5.00 - 9.00% of mass 198	7.04
275	10.00 - 60.00% of mass 198	26.19
365	Greater than 1.00% of mass 198	3.27
441	0.01 - 24.00% of mass 442	10.56 (14.73)
442	50.00 - 99.99% of mass 198	71.65
443	15.00 - 24.00% of mass 442	14.67 (20.47)

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Date : 20-OCT-2018 01:09

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

Data File: gj1180b.d
Spectrum: Avg. Scans 137-139 (4.43), Background Scan 132
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	523	121.00	237	199.00	15633	286.00	53
37.00	693	122.00	2472	200.00	1232	289.00	317
38.00	1703	123.00	4702	201.00	652	290.00	64
39.00	10386	124.00	2269	202.00	616	291.00	102
40.00	334	125.00	1229	203.00	1598	292.00	294
41.00	1	126.00	460	204.00	7971	293.00	1173
42.00	67	127.00	136320	205.00	13991	294.00	164
43.00	249	128.00	10083	206.00	56272	295.00	536
44.00	1107	129.00	53072	207.00	6657	296.00	15171
45.00	551	130.00	4429	208.00	1779	297.00	2779
49.00	747	131.00	814	209.00	578	298.00	222
50.00	36392	132.00	737	210.00	688	301.00	397
51.00	131968	133.00	359	211.00	2435	302.00	361
52.00	7344	134.00	1357	212.00	131	303.00	1624
53.00	551	135.00	4315	213.00	364	304.00	433
55.00	308	136.00	1695	215.00	632	308.00	79
56.00	3863	137.00	2617	216.00	1274	309.00	179
57.00	8493	138.00	285	217.00	13410	310.00	212
58.00	488	139.00	624	218.00	2066	313.00	51
59.00	279	140.00	722	219.00	270	314.00	663
61.00	1861	141.00	6493	220.00	305	315.00	1918
62.00	2638	142.00	2354	221.00	11070	316.00	1063
63.00	5715	143.00	1584	222.00	906	317.00	65
64.00	416	144.00	660	223.00	3619	320.00	126
65.00	2907	145.00	315	224.00	30080	321.00	623
66.00	188	146.00	1319	225.00	8108	322.00	474
67.00	17	147.00	3611	226.00	920	323.00	5041
68.00	2351	148.00	7343	227.00	13260	324.00	1204
69.00	139712	149.00	1353	228.00	1970	325.00	186
70.00	932	150.00	719	229.00	2690	326.00	80
71.00	409	151.00	1134	230.00	439	327.00	1444
73.00	722	152.00	382	231.00	1222	328.00	429
74.00	15000	153.00	2430	232.00	177	332.00	334
75.00	22648	154.00	1751	233.00	205	333.00	320
76.00	7720	155.00	3378	234.00	1023	334.00	3176

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Date : 20-OCT-2018 01:09

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

Data File: gj1180b.d
Spectrum: Avg. Scans 137-139 (4.43), Background Scan 132
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	164864	156.00	4674	235.00	989	335.00	1126
78.00	10852	157.00	827	236.00	952	336.00	125
79.00	8570	158.00	1239	237.00	1139	340.00	61
80.00	7277	159.00	1278	238.00	111	341.00	443
81.00	11061	160.00	2410	239.00	611	342.00	230
82.00	3050	161.00	2591	240.00	430	346.00	914
83.00	2082	162.00	1035	241.00	695	347.00	246
84.00	40	163.00	248	242.00	1952	348.00	125
85.00	1291	164.00	451	243.00	1920	350.00	57
86.00	2457	165.00	1993	244.00	25688	351.00	51
87.00	1279	166.00	2256	245.00	3454	352.00	1429
88.00	564	167.00	14053	246.00	4403	353.00	722
90.00	177	168.00	7027	247.00	896	354.00	1365
91.00	2475	169.00	1333	248.00	275	355.00	437
92.00	2320	170.00	516	249.00	836	365.00	7251
93.00	14948	171.00	489	250.00	153	366.00	728
94.00	1541	172.00	835	251.00	214	370.00	126
95.00	541	173.00	901	252.00	232	371.00	421
96.00	856	174.00	2549	253.00	609	372.00	2523
97.00	213	175.00	4728	254.00	699	373.00	604
98.00	12725	176.00	1524	255.00	127288	374.00	171
99.00	10265	177.00	2110	256.00	18352	383.00	835
100.00	842	178.00	988	257.00	1783	384.00	254
101.00	5653	179.00	7651	258.00	6902	385.00	86
102.00	361	180.00	5524	259.00	1034	390.00	430
103.00	1972	181.00	2823	260.00	229	391.00	226
104.00	3146	182.00	588	261.00	385	392.00	239
105.00	3887	183.00	161	264.00	262	401.00	187
106.00	1183	184.00	855	265.00	3134	402.00	760
107.00	41856	185.00	4471	266.00	362	403.00	1277
108.00	6936	186.00	31952	270.00	76	404.00	443
109.00	702	187.00	8736	271.00	227	405.00	150
110.00	73136	188.00	918	272.00	369	416.00	66
111.00	9968	189.00	1999	273.00	3888	421.00	1332
112.00	1546	190.00	257	274.00	9888	422.00	1136

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Date : 20-OCT-2018 01:09

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: bkc25363

Column phase: DB-5MS Column diameter: 0.18

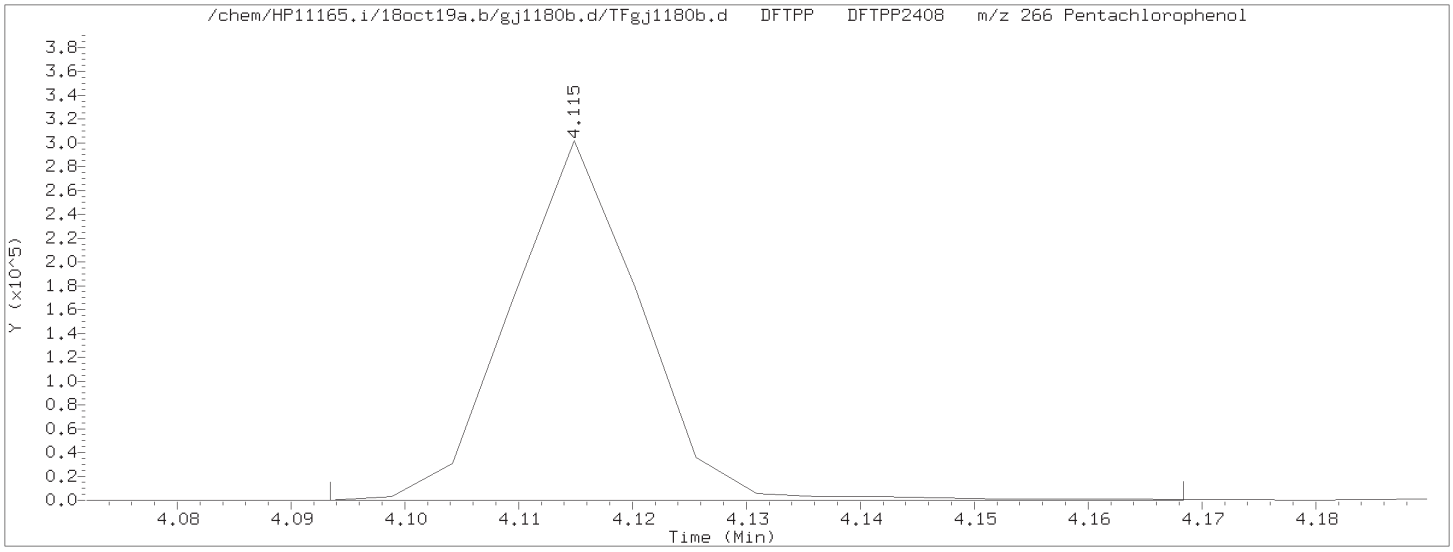
Data File: gj1180b.d
Spectrum: Avg. Scans 137-139 (4.43), Background Scan 132
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	718	191.00	884	275.00	58144	423.00	8504
114.00	115	192.00	2593	276.00	7491	424.00	1936
115.00	330	193.00	3197	277.00	4674	441.00	23432
116.00	2345	194.00	525	278.00	875	442.00	159040
117.00	35720	195.00	493	282.00	82	443.00	32560
118.00	2811	196.00	7017	283.00	541	444.00	3043
119.00	618	197.00	1642	284.00	501	445.00	95
120.00	789	198.00	221952	285.00	1100		

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

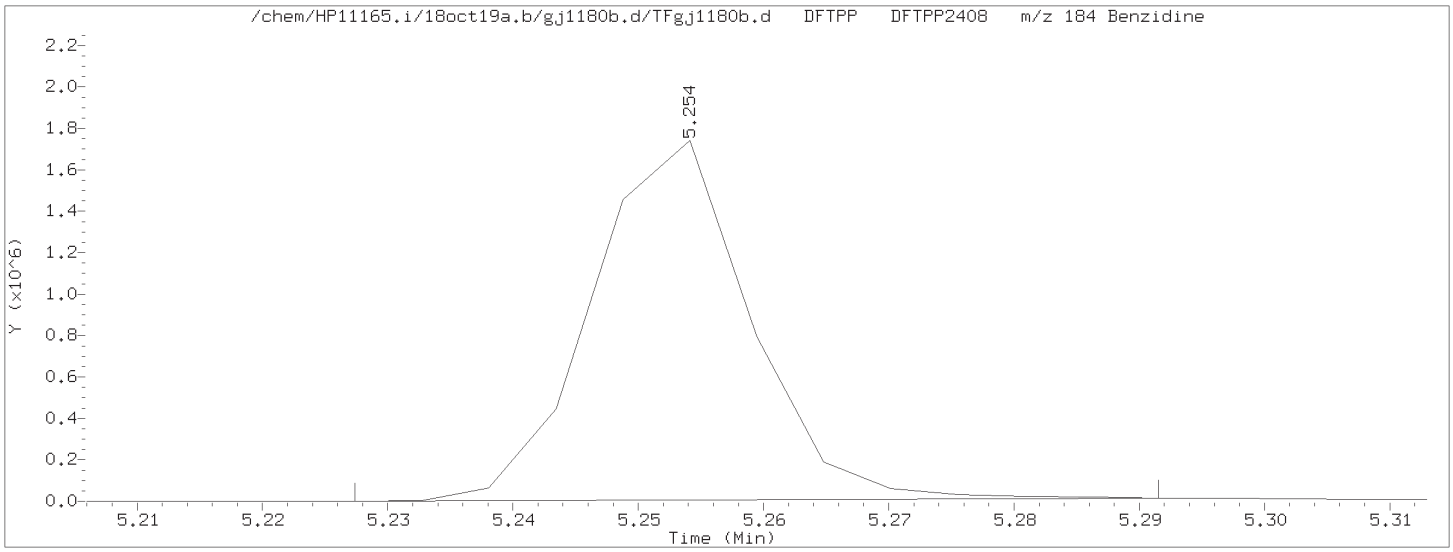
Instrument ID: HP11165.i Injection Date: 20-OCT-2018 01:09 Operator: bkc25363



Pentachlorophenol EICP peak height = 301952 EICP peak height at 10% = 30195 Pentachlorophenol EICP area = 236508

Pentachlorophenol EICP peak apex (min.) = 4.115
RT at 10% of front half of EICP (min.) = 4.104 'Front' peak width (min.) = 0.0107833333
RT at 10% of back half of EICP (min.) = 4.127 'Tailing' peak width (min.) = 0.0116666667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0116666667}{0.0107833333} = 1.082$



Benzidine EICP peak height = 1736553 EICP peak height at 10% = 173655 Benzidine EICP area = 1525168

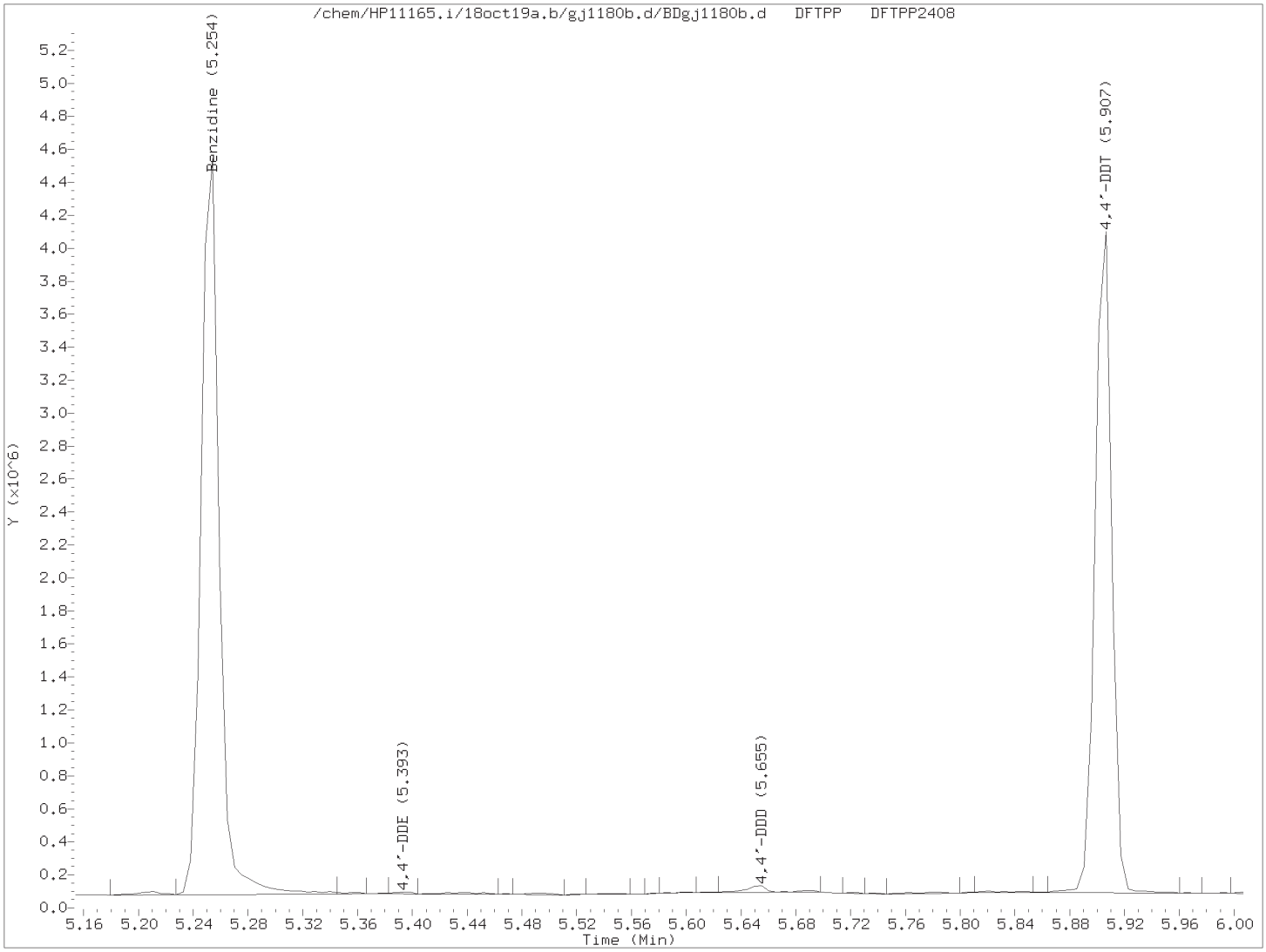
Benzidine EICP peak apex (min.) = 5.254
RT at 10% of front half of EICP (min.) = 5.240 'Front' peak width (min.) = 0.0144000000
RT at 10% of back half of EICP (min.) = 5.265 'Tailing' peak width (min.) = 0.0111000000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0111000000}{0.0144000000} = 0.771$

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:19. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

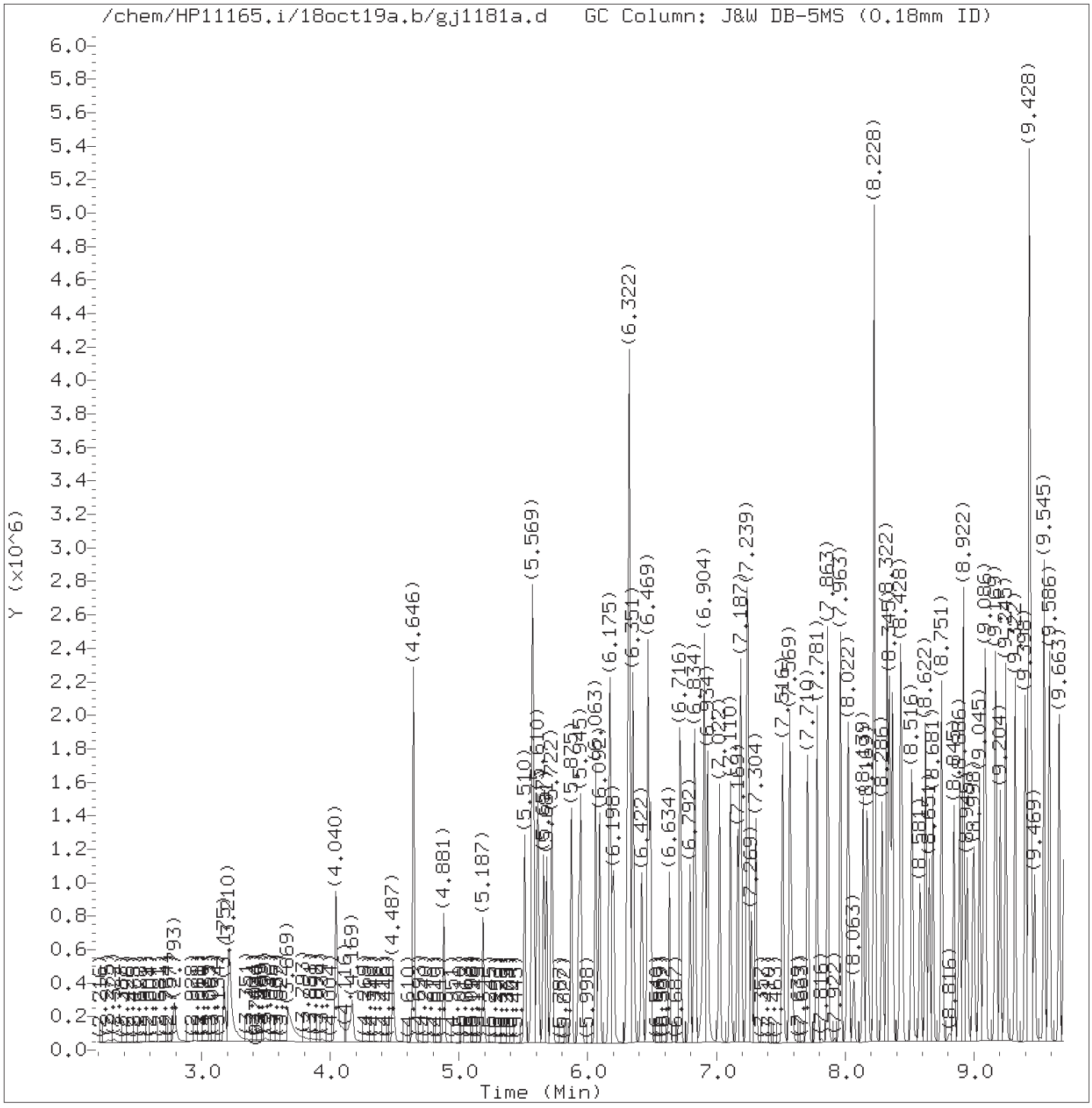
Instrument ID: HP11165.i Injection Date: 20-OCT-2018 01:09 Operator: bkc25363



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{9891 + 54509}{9891 + 54509 + 3415132} \times 100 = 1.9$$

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:19. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

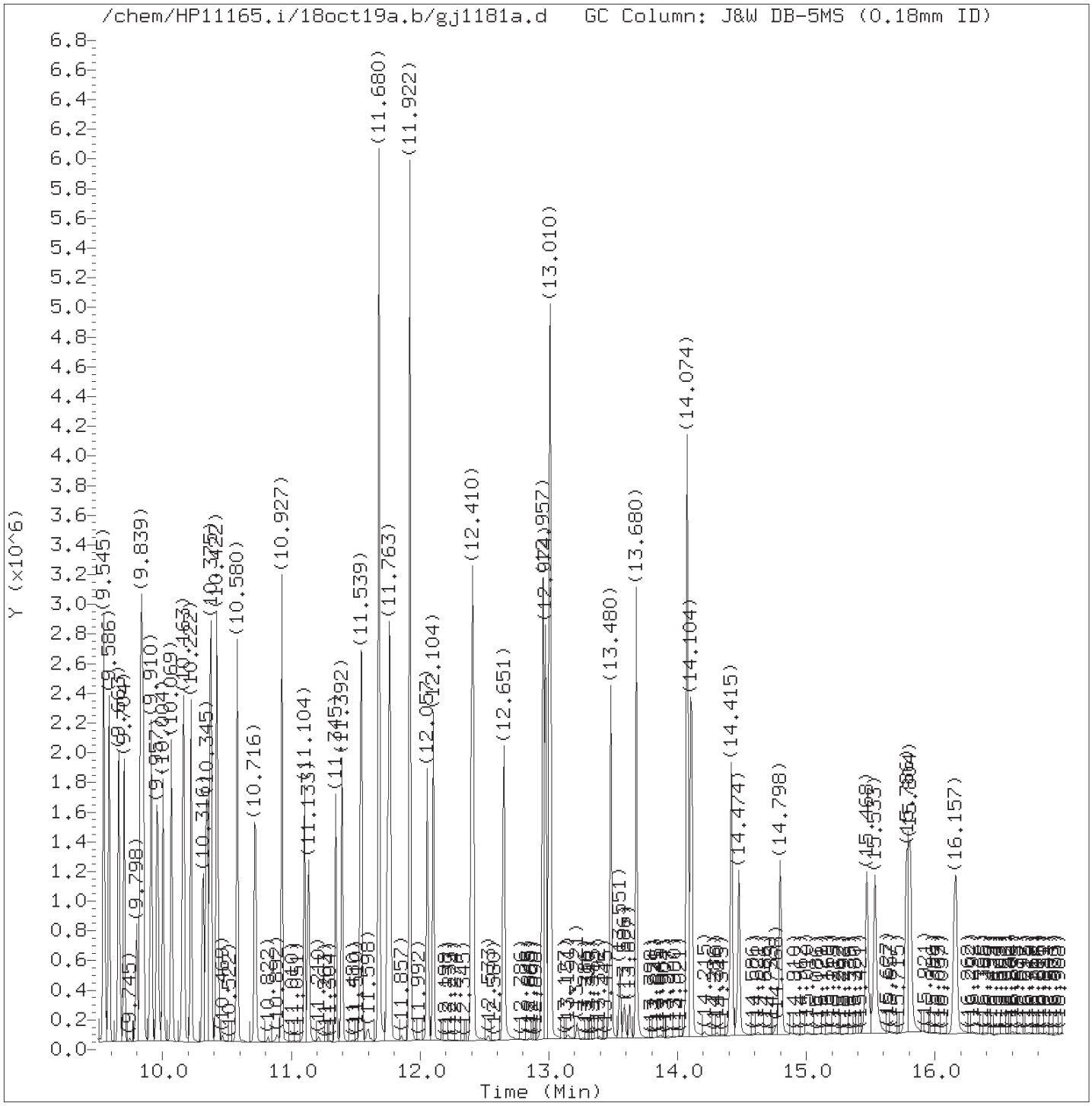
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.793	88	126464	30.000
4) N-Nitrosodimethylamine	(1)	3.175	74	211956	30.000
5) Pyridine	(1)	3.216	79	362288	30.000
7) 2-Picoline	(1)	4.040	93	374056	30.000
8) N-Nitrosomethylethylamine	(1)	4.169	88	169080	30.000
9) Methyl methanesulfonate	(1)	4.487	80	188150	30.000
11)$2-Fluorophenol	(1)	4.646	112	602184	60.000
13) N-Nitrosodiethylamine	(1)	4.881	102	172796	30.000
15) Ethyl methanesulfonate	(1)	5.187	109	171557	30.000
17)$Phenol-d6	(1)	5.569	99	868189	60.000
18) Phenol	(1)	5.581	94	450741	30.000
19) Aniline	(1)	5.610	93	555032	30.000
20) a-methylstyrene	(1)	5.657	118	29991	30.000
42) Total Cresols	(1)			679765	60.000
22) bis(2-Chloroethyl)ether	(1)	5.681	93	350233	30.000
23) 2-Chlorophenol	(1)	5.722	128	329896	30.000
24) 1,3-Dichlorobenzene	(1)	5.875	146	324711	30.000
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	130686	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	327102	30.000
27) Benzyl alcohol	(1)	6.063	108	236351	30.000
28) 1,2-Dichlorobenzene	(1)	6.092	146	315417	30.000
31) 2-Methylphenol	(1)	6.169	108	330063	30.000
30) Indene	(1)	6.175	115	362768	30.000
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	461477	30.000
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	461477	30.000
35) N-Nitrosopyrrolidine	(1)	6.304	100	190468	30.000
37) 4-Methylphenol	(1)	6.316	108	349702	30.000
38) N-Nitroso-di-n-propylamine	(1)	6.322	70	318532	30.000
36) Acetophenone	(1)	6.322	105	493635	30.000
39) N-Nitrosomorpholine	(1)	6.345	56	248290	30.000
40) o-Toluidine	(1)	6.351	106	574185	30.000
43) Hexachloroethane	(1)	6.422	117	128733	30.000
44)$Nitrobenzene-d5	(2)	6.469	82	801567	60.000
45) Nitrobenzene	(2)	6.487	77	422990	30.000
48) N-Nitrosopiperidine	(2)	6.634	114	185170	30.000
50) Isophorone	(2)	6.716	82	779892	30.000
51) 2-Nitrophenol	(2)	6.792	139	170142	30.000
53) 2,4-Dimethylphenol	(2)	6.834	107	371742	30.000
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	149689	30.000
56) Benzoic acid	(2)	6.922	105	392988	40.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.934	93	452719	30.000
60) 2,4-Dichlorophenol	(2)	7.022	162	269398	30.000
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	259732	30.000
65)*Naphthalene-d8	(2)	7.169	136	585261	20.000
66) Naphthalene	(2)	7.187	128	1002615	30.000
67) 4-Chloroaniline	(2)	7.239	127	432470	30.000
68) 2,6-Dichlorophenol	(2)	7.245	162	256578	30.000
69) Hexachloropropene	(2)	7.269	213	104900	30.000
71) Hexachlorobutadiene	(2)	7.304	225	123334	30.000
97) Isosafrole	(3)			265430	30.000
75) Quinoline	(2)	7.516	129	671281	30.000
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	366108	30.000
76) Caprolactam	(2)	7.586	113	130389	30.000
80) 4-Chloro-3-methylphenol	(2)	7.710	107	331504	30.000
82) Safrole	(2)	7.781	162	256531	30.000
83) 2-Methylnaphthalene	(2)	7.863	142	694049	30.000
84) 1-Methylnaphthalene	(2)	7.963	142	661104	30.000
85) Hexachlorocyclopentadiene	(3)	8.016	237	125328	30.000
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	246920	30.000
120) 2,4_2,6-Dinitrotoluenes	(3)			390165	60.000
88) cis-Isosafrole	(3)	8.069	162	45994	5.100
90) 2,4,6-Trichlorophenol	(3)	8.139	196	184030	30.000
92) 2,4,5-Trichlorophenol	(3)	8.175	196	193873	30.000
93)$2-Fluorobiphenyl	(3)	8.228	172	1449865	60.000
94) trans-Isosafrole	(3)	8.286	162	219436	24.900
95) 1,1'-Biphenyl	(3)	8.322	154	815188	30.000
96) 2-Chloronaphthalene	(3)	8.345	162	730776M	30.000
98) 1-Chloronaphthalene	(3)	8.363	162	606890M	30.000
99) Diphenyl ether	(3)	8.428	170	433287	30.000
100) 2-Nitroaniline	(3)	8.445	138	215644	30.000
104) 1,4-Naphthoquinone	(3)	8.522	158	278348	30.000
105) 1,4-Dinitrobenzene	(3)	8.581	168	104833	30.000
106) Dimethylphthalate	(3)	8.628	163	740586	30.000
107) 1,3-Dinitrobenzene	(3)	8.651	168	123028	30.000
108) 2,6-Dinitrotoluene	(3)	8.681	165	171089	30.000
109) Acenaphthylene	(3)	8.751	152	920133	30.000
146) Diallate trans/cis	(4)			408200	30.000
112) 3-Nitroaniline	(3)	8.845	138	196416	30.000
113)*Acenaphthene-d10	(3)	8.886	164	295759	20.000
114) Acenaphthene	(3)	8.922	153	673991	30.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.945	184	122759	40.000
116) 4-Nitrophenol	(3)	8.998	109	123992	30.000
117) Pentachlorobenzene	(3)	9.045	250	229763	30.000
118) 2,4-Dinitrotoluene	(3)	9.075	165	219076	30.000
119) Dibenzofuran	(3)	9.092	168	888703	30.000
121) 1-Naphthylamine	(3)	9.169	143	765668	30.000
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	155782	30.000
123) 2-Naphthylamine	(3)	9.245	143	756297	30.000
124) Diethylphthalate	(3)	9.322	149	749205	30.000
125) Thionazin	(3)	9.398	107	128231	30.000
126) Fluorene	(3)	9.428	166	766591	30.000
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	330502	30.000
128) 5-Nitro-o-toluidine	(3)	9.439	152	231924	30.000
129) 4-Nitroaniline	(3)	9.445	138	222608	30.000
130) 4,6-Dinitro-2-methylphenol	(4)	9.469	198	110347	30.000
131) N-Nitrosodiphenylamine	(4)	9.545	169	652796	30.000
132) NDPA as diphenylamine	(4)	9.545	169	652796	30.000
134) 1,2-Diphenylhydrazine	(4)	9.586	77	914769	30.000
135)$2,4,6-Tribromophenol	(3)	9.663	330	204833	60.000
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	133305	30.000
139) 1,3,5-Trinitrobenzene	(4)	9.798	213	66858	30.000
140) Diallate (peak 1)	(4)	9.828	86	347468	24.900
141) Phorate	(4)	9.839	75	556634	30.000
142) Phenacetin	(4)	9.851	108	435913	30.000
143) 4-Bromophenyl-phenylether	(4)	9.910	248	191837	30.000
144) Diallate (peak 2)	(4)	9.916	86	60732	5.100
145) Hexachlorobenzene	(4)	9.963	284	204304	30.000
147) Dimethoate	(4)	10.004	87	344493	30.000
149) Pentachlorophenol	(4)	10.157	266	133961	30.000
150) 4-Aminobiphenyl	(4)	10.163	169	288628	30.000
151) Pentachloronitrobenzene	(4)	10.169	237	71833	30.000
152) Pronamide	(4)	10.222	173	316422	30.000
154) Dinoseb	(4)	10.339	211	146733	30.000
153)*Phenanthrene-d10	(4)	10.351	188	548325	20.000
155) Phenanthrene	(4)	10.375	178	1082396	30.000
157) Anthracene	(4)	10.422	178	1111049	30.000
163) Carbazole	(4)	10.580	167	1040131	30.000
164) Methyl parathion	(4)	10.716	109	243167	30.000
165) Di-n-butylphthalate	(4)	10.927	149	1298975	30.000
167) Parathion	(4)	11.104	109	157157	30.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

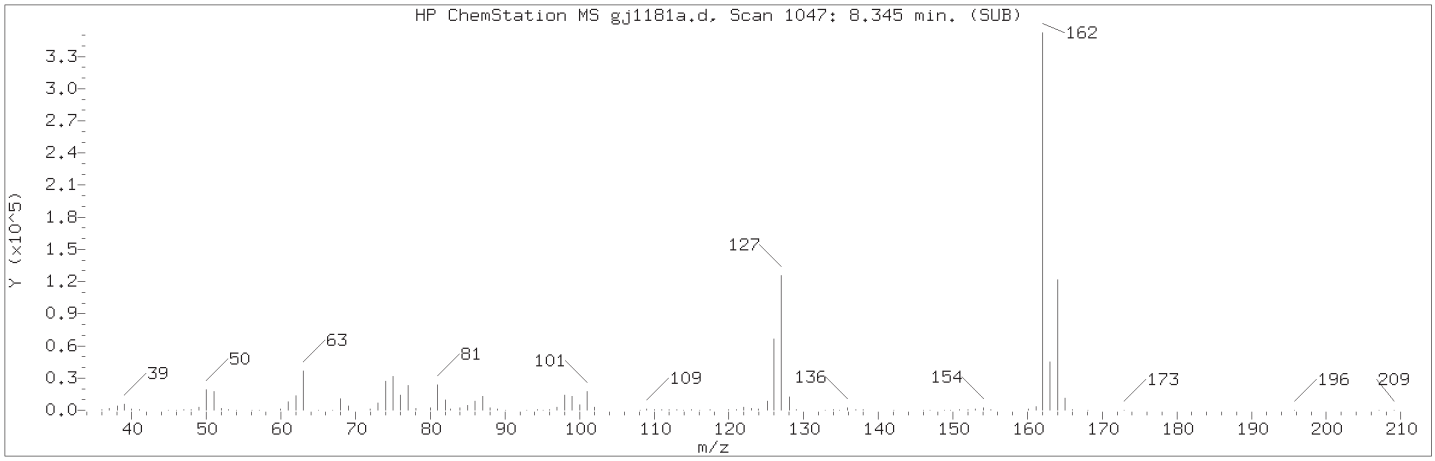
Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.133	190	78971	30.000
169) Octachlorostyrene	(4)	11.345	308	78217	30.000
171) Isodrin	(4)	11.392	193	113898	30.000
173) Fluoranthene	(4)	11.545	202	1125993	30.000
174) Benzidine	(5)	11.680	184	2277349	90.000
175)*Pyrene-d10	(5)	11.745	212	504972	20.000
177) Pyrene	(5)	11.769	202	1126573	30.000
179)$Terphenyl-d14	(5)	11.922	244	1603938	60.000
182) p-Dimethylaminoazobenzene	(5)	12.057	225	172323	30.000
185) Chlorobenzilate	(5)	12.104	139	370411	30.000
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	673874	30.000
188) Butylbenzylphthalate	(5)	12.410	149	568755	30.000
191) 2-Acetylaminofluorene	(5)	12.651	181	453349	30.000
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	393378	30.000
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	195535	30.000
195) Benzo(a)anthracene	(5)	12.974	228	1025201	30.000
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	792870	30.000
196) Chrysene	(5)	13.016	228	999894	30.000
203) 6-Methylchrysene	(5)	13.480	242	702165	30.000
205) Di-n-octylphthalate	(6)	13.680	149	1235373	30.000
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.074	256	480949	30.000
206) Benzo(b)fluoranthene	(6)	14.080	252	983838	30.000
208) Benzo(k)fluoranthene	(6)	14.110	252	1003958	30.000
211) Benzo(a)pyrene	(6)	14.415	252	886343	30.000
213)*Perylene-d12	(6)	14.474	264	474523	20.000
215) 3-Methylcholanthrene	(6)	14.798	268	362531	30.000
222) Total PAHs	(6)			16640541	540.000
217) Dibenz(a,h)acridine	(6)	15.468	279	677988	30.000
218) Dibenz(a,j)acridine	(6)	15.533	279	734444	30.000
219) Indeno(1,2,3-cd)pyrene	(6)	15.780	276	972994	30.000
220) Dibenz(a,h)anthracene	(6)	15.804	278	816678	30.000
221) Benzo(g,h,i)perylene	(6)	16.162	276	787141	30.000

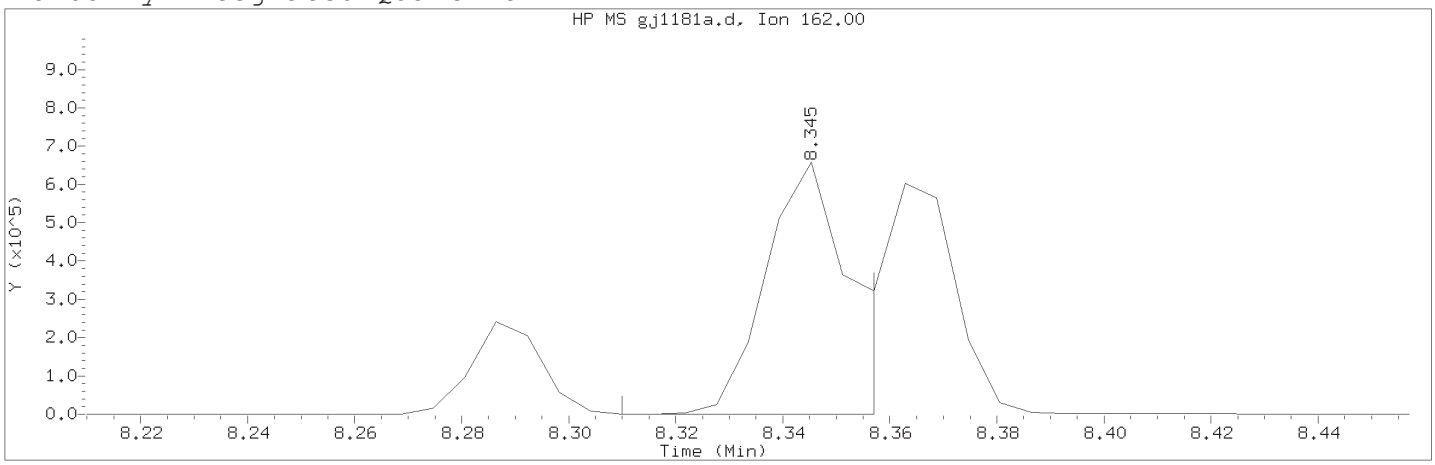
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

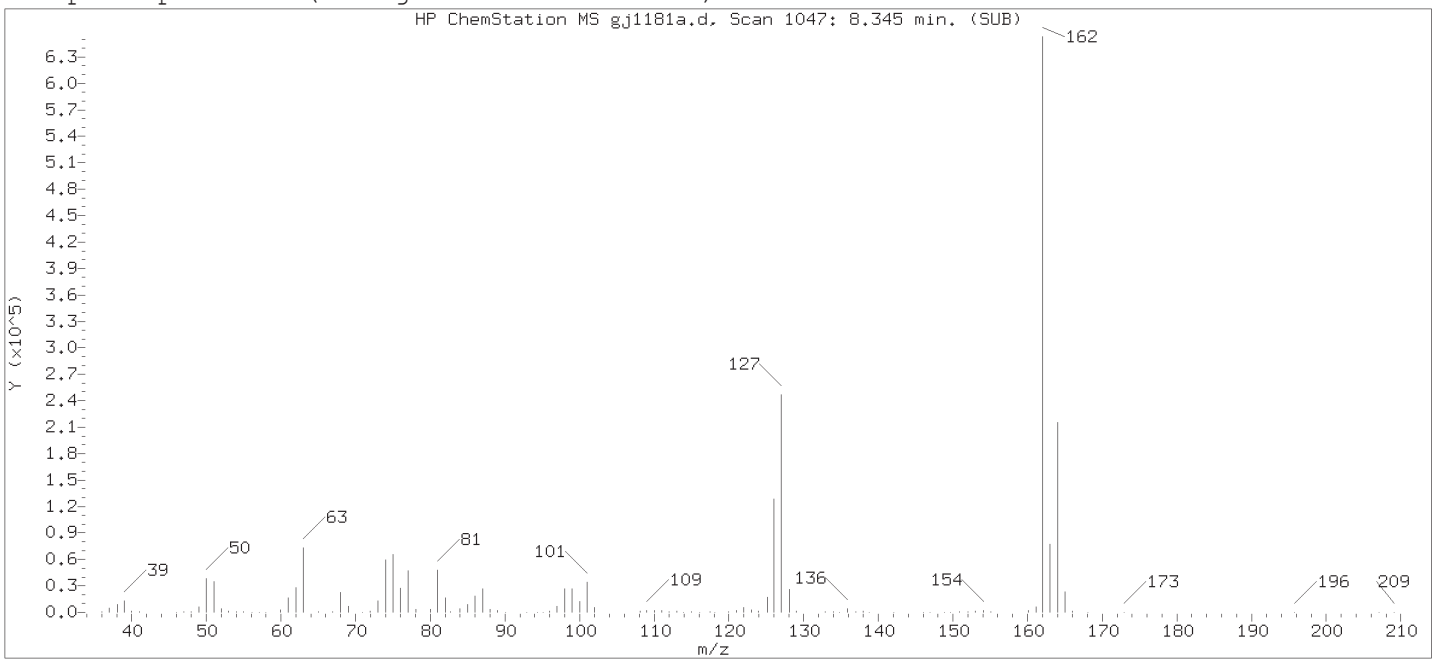
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1047		
Retention Time (minutes)	: 8.345		
Quant Ion	: 162.00		
Area (flag)	: 730776M		
On-Column Amount (ng/ul)	: 30.0000		
Integration start scan	: 1040	Integration stop scan:	1048
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

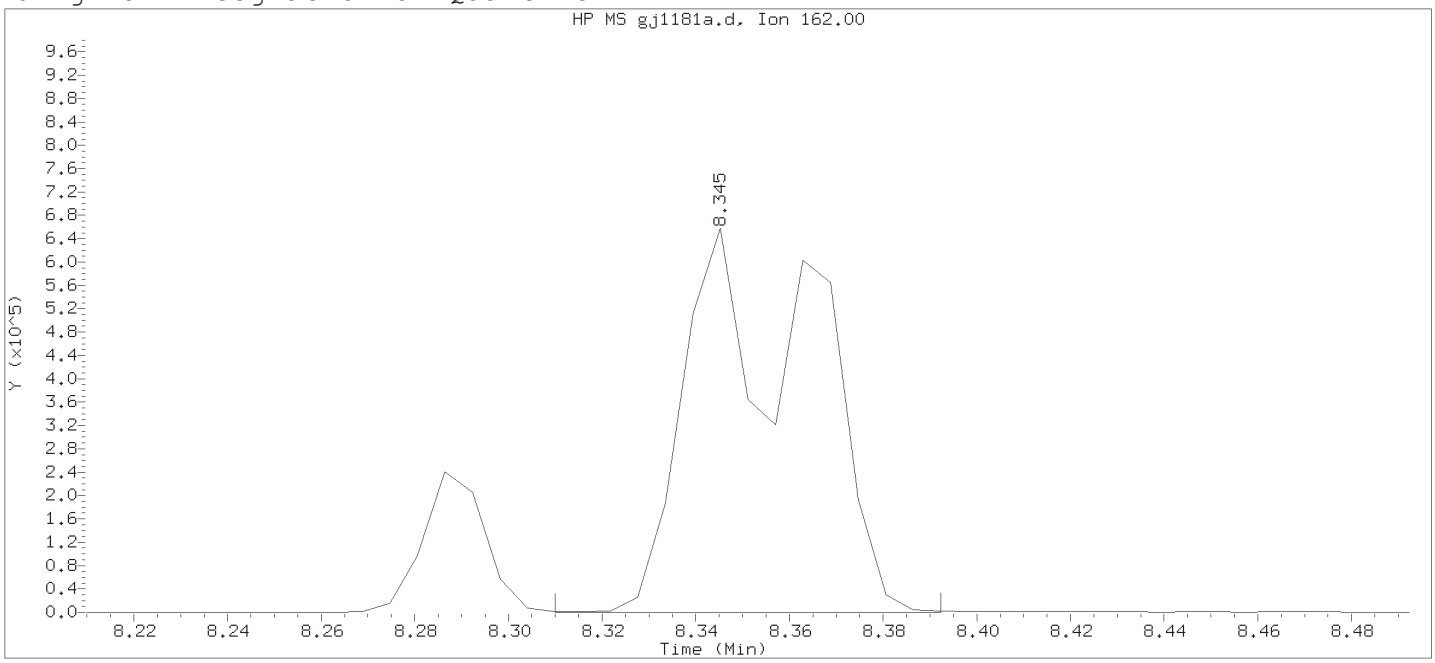
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

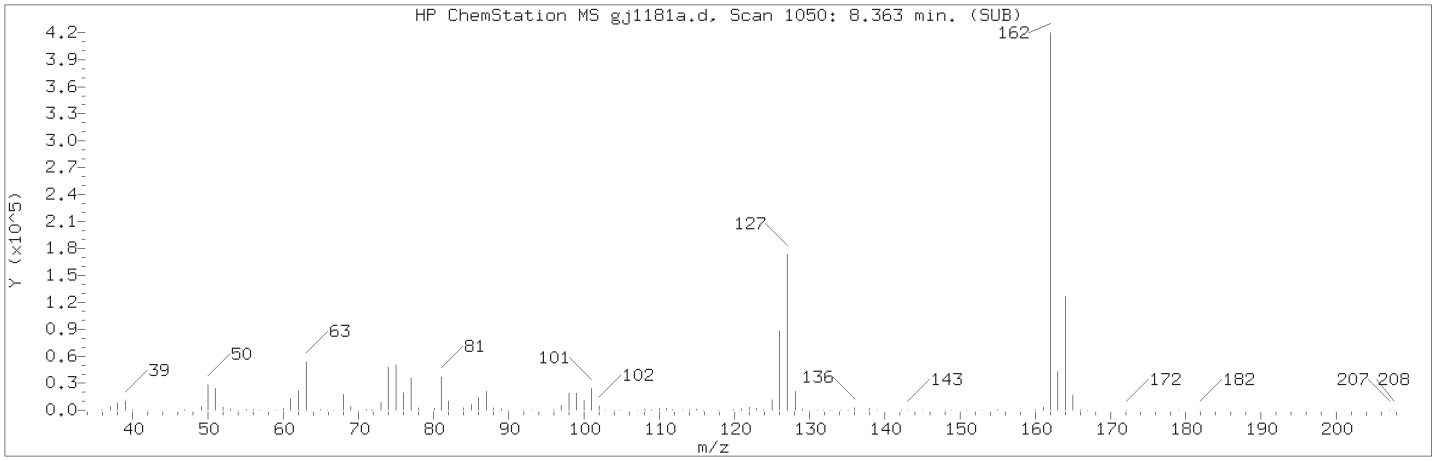
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 01:52
Date, time and analyst ID of latest file update: 20-Oct-2018 01:52 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

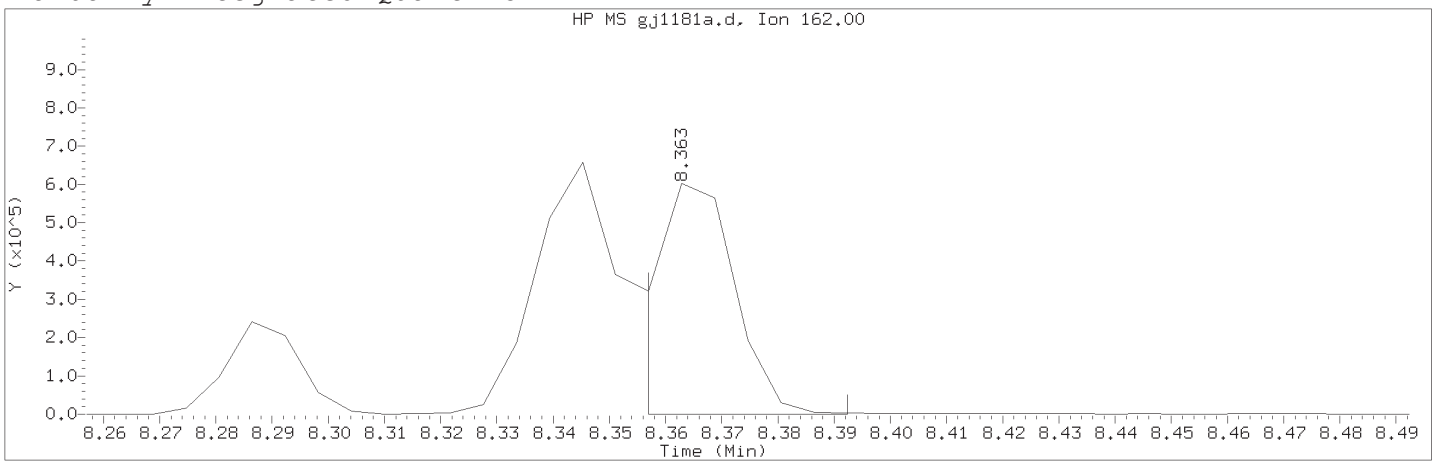
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1047		
Retention Time (minutes)	: 8.345		
Quant Ion	: 162.00		
Area	: 1223325		
On-column Amount (ng/ul)	: 57.2711		
Integration start scan	: 1040	Integration stop scan:	1054
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

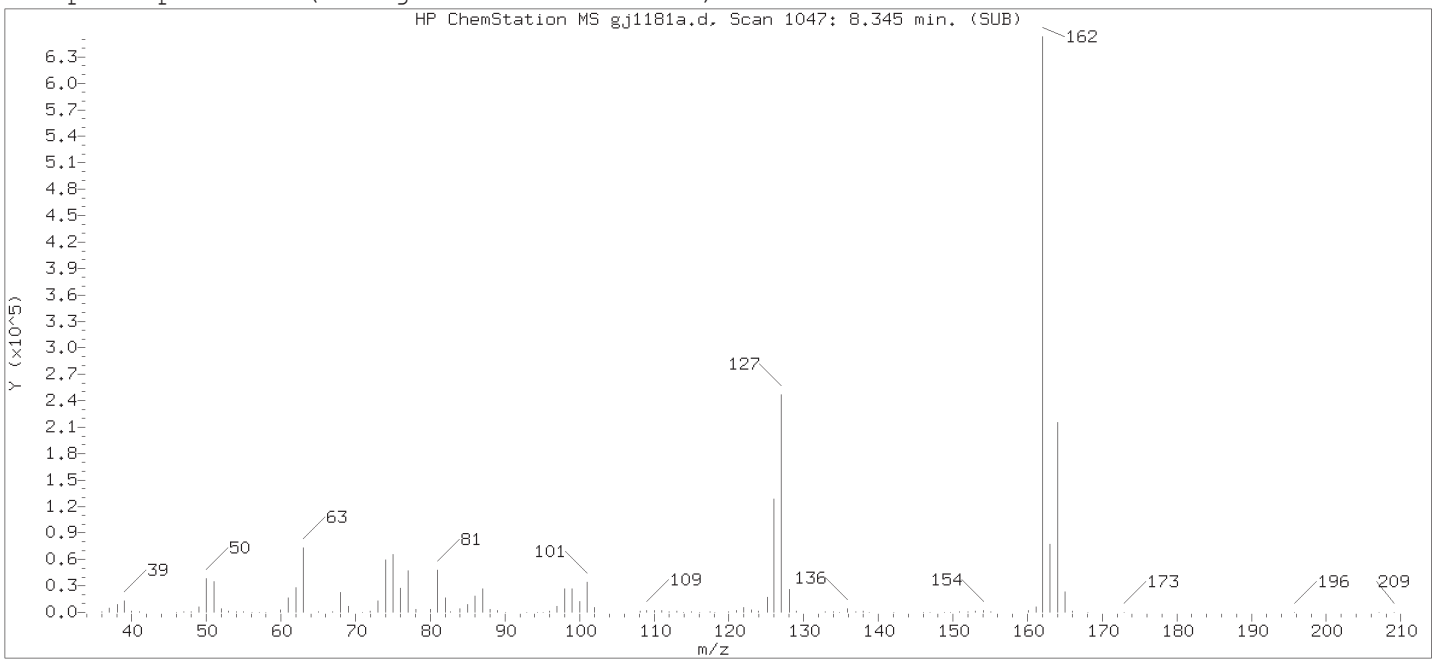
Compound Number : 98
Compound Name : 1-Chloronaphthalene
Scan Number : 1050
Retention Time (minutes) : 8.363
Quant Ion : 162.00
Area (flag) : 606890M
On-Column Amount (ng/ul) : 30.0000
Integration start scan : 1048 Integration stop scan: 1054
Y at integration start : -198 Y at integration end: -198

Reason for manual integration: improper integration

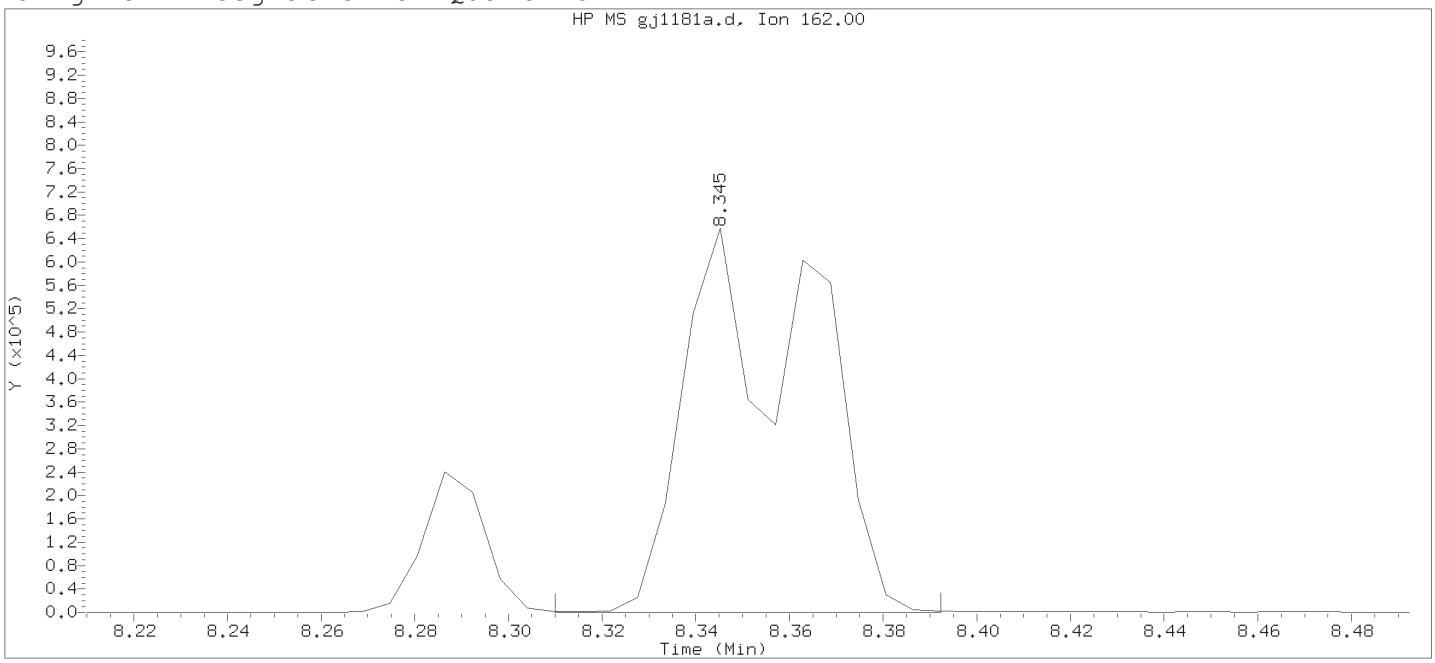
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



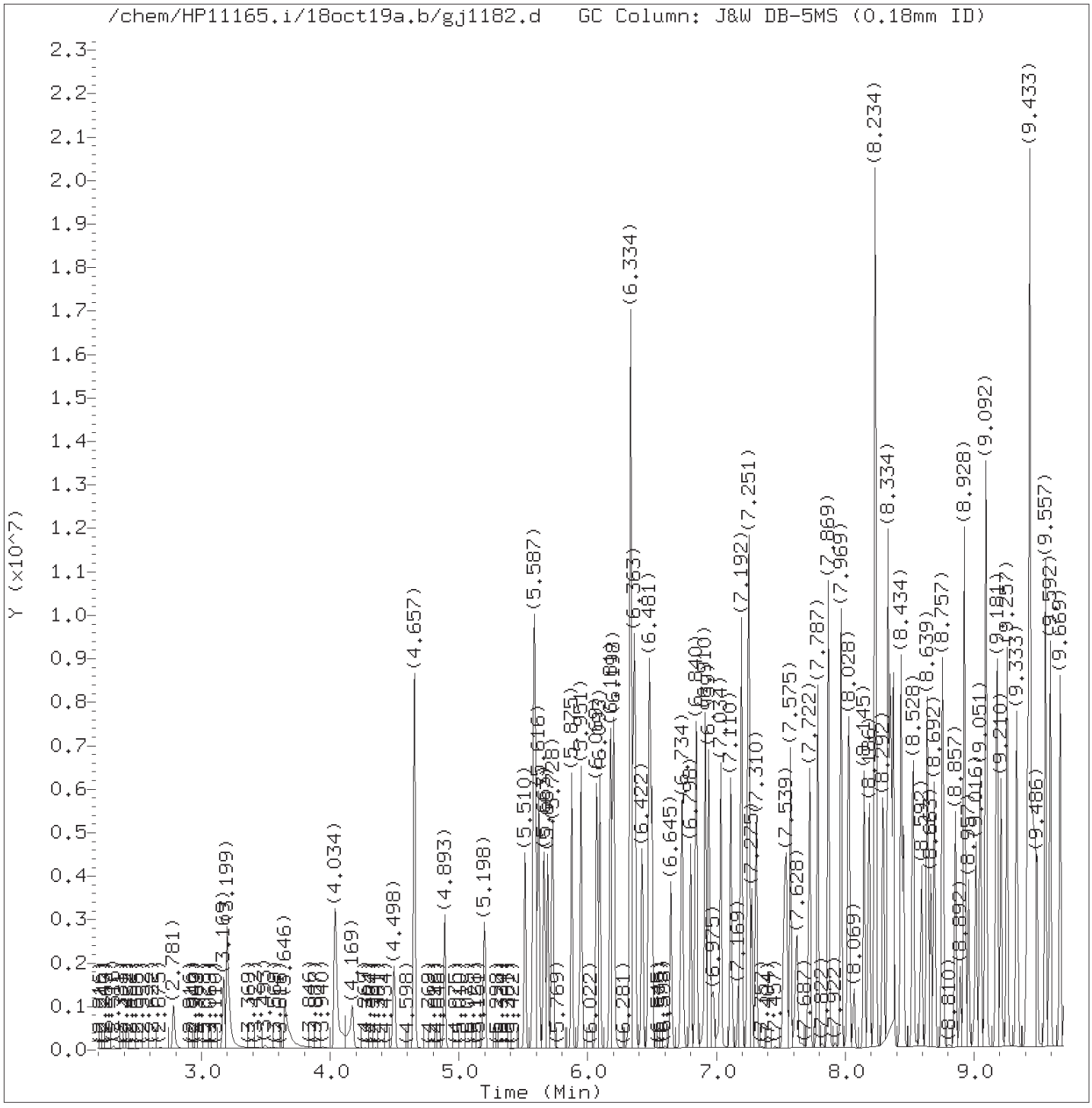
Data File: /chem/HP11165.i/18oct19a.b/gj1181a.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:30 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 01:52
Date, time and analyst ID of latest file update: 20-Oct-2018 01:52 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1047		
Retention Time (minutes)	: 8.345		
Quant Ion	: 162.00		
Area	: 1223325		
On-column Amount (ng/ul)	: 66.2332		
Integration start scan	: 1040	Integration stop scan:	1054
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

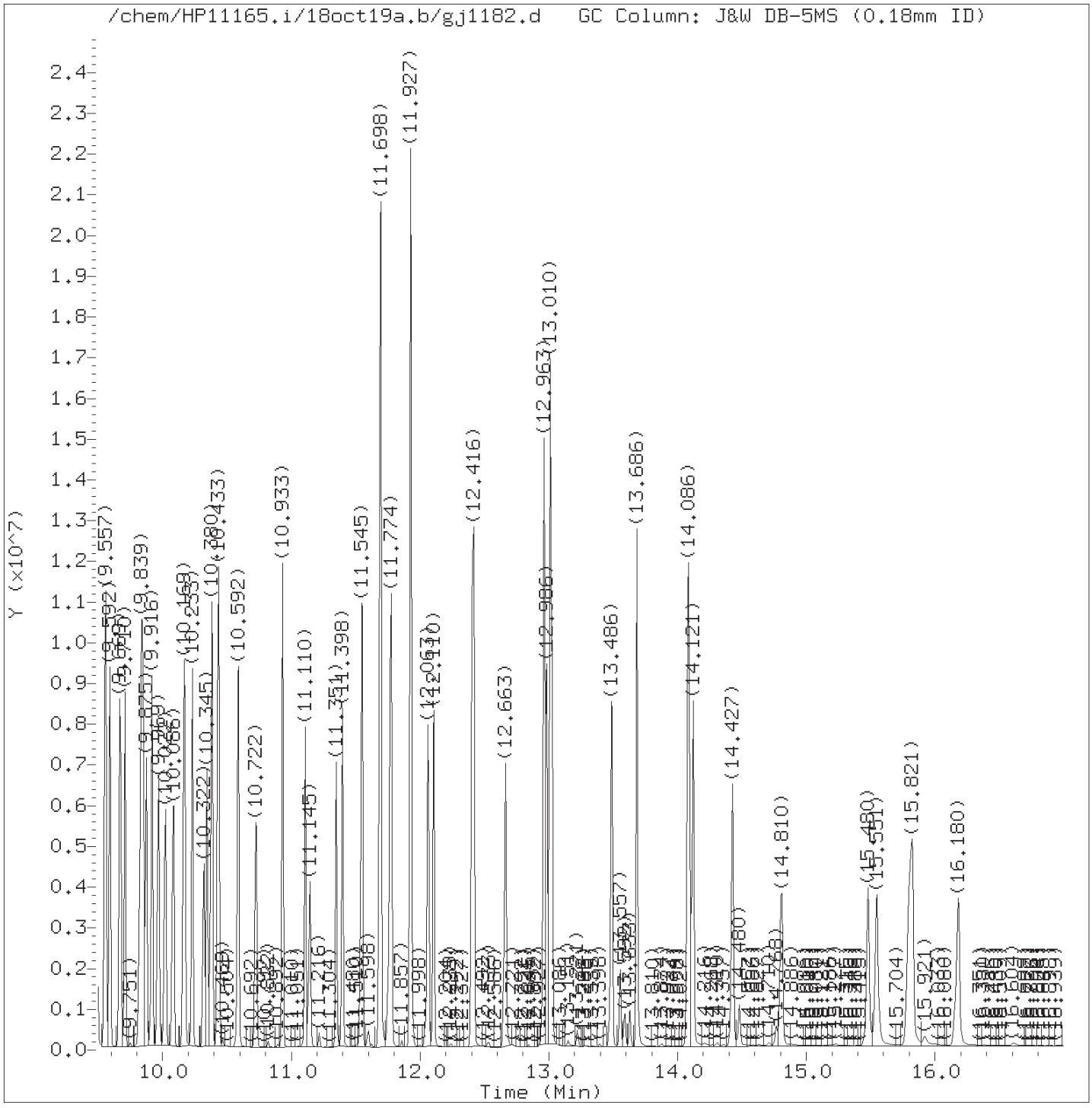
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.787	88	493400	112.888
4) N-Nitrosodimethylamine	(1)	3.169	74	897584	117.797
5) Pyridine	(1)	3.199	79	1501869	116.520
7) 2-Picoline	(1)	4.034	93	1578584	117.591
8) N-Nitrosomethylethylamine	(1)	4.169	88	700257	116.463
9) Methyl methanesulfonate	(1)	4.498	80	788378	117.162
11)$2-Fluorophenol	(1)	4.657	112	2634266	239.491
13) N-Nitrosodiethylamine	(1)	4.893	102	744061	118.798
15) Ethyl methanesulfonate	(1)	5.198	109	727999	117.921
17)$Phenol-d6	(1)	5.581	99	3783075	239.021
18) Phenol	(1)	5.598	94	2169090	125.464
19) Aniline	(1)	5.616	93	2397335	118.983
20) a-methylstyrene	(1)	5.657	118	125748	117.201
42) Total Cresols	(1)			2980481	239.669
22) bis(2-Chloroethyl)ether	(1)	5.687	93	1499275	118.446
23) 2-Chlorophenol	(1)	5.728	128	1416157	118.613
24) 1,3-Dichlorobenzene	(1)	5.875	146	1409766	119.292
25)*1,4-Dichlorobenzene-d4	(1)	5.934	152	143530	20.000
26) 1,4-Dichlorobenzene	(1)	5.951	146	1422674	119.399
27) Benzyl alcohol	(1)	6.069	108	998712	117.667
28) 1,2-Dichlorobenzene	(1)	6.093	146	1378034	119.669
31) 2-Methylphenol	(1)	6.175	108	1416514	118.598
30) Indene	(1)	6.181	115	1513406	116.900
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.204	45	1969177	118.254
34) bis(2-Chloroisopropyl)ether	(1)	6.204	45	1969177	118.254
35) N-Nitrosopyrrolidine	(1)	6.328	100	874725	122.663
36) Acetophenone	(1)	6.328	105	2078703	117.460
37) 4-Methylphenol	(1)	6.334	108	1563967	121.071
38) N-Nitroso-di-n-propylamine	(1)	6.345	70	1328058	116.863
40) o-Toluidine	(1)	6.363	106	2462982	118.568
39) N-Nitrosomorpholine	(1)	6.369	56	1020725	116.019
43) Hexachloroethane	(1)	6.422	117	548806	118.198
44)$Nitrobenzene-d5	(2)	6.481	82	3487472	241.893
45) Nitrobenzene	(2)	6.498	77	1787297	119.191
48) N-Nitrosopiperidine	(2)	6.645	114	791924	119.916
50) Isophorone	(2)	6.734	82	3273369	118.790
51) 2-Nitrophenol	(2)	6.798	139	784030	124.391
53) 2,4-Dimethylphenol	(2)	6.840	107	1580177	119.550
57) O,O,O-Triethylphosphorothioate	(2)	6.916	198	660983	121.834
55) bis(2-Chloroethoxy)methane	(2)	6.939	93	1933388	119.830

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.975	105	1316792	122.536
60) 2,4-Dichlorophenol	(2)	7.034	162	1163139	120.486
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	1146902	121.835
65)*Naphthalene-d8	(2)	7.169	136	626629	20.000
66) Naphthalene	(2)	7.192	128	4289160	119.933
67) 4-Chloroaniline	(2)	7.245	127	1851025	119.963
68) 2,6-Dichlorophenol	(2)	7.251	162	1152317	122.850
69) Hexachloropropene	(2)	7.275	213	502735	126.741
71) Hexachlorobutadiene	(2)	7.310	225	536784	120.966
97) Isosafrole	(3)			1110388	118.881
75) Quinoline	(2)	7.539	129	2853486	119.551
77) N-Nitrosodi-n-butylamine	(2)	7.575	84	1195499	91.496
76) Caprolactam	(2)	7.628	113	518488A	115.550
80) 4-Chloro-3-methylphenol	(2)	7.722	107	1395530	118.968
82) Safrole	(2)	7.787	162	1138096	122.116
83) 2-Methylnaphthalene	(2)	7.869	142	3023195	121.016
84) 1-Methylnaphthalene	(2)	7.969	142	2866421	120.739
85) Hexachlorocyclopentadiene	(3)	8.022	237	612245	128.171
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.034	216	1086855	121.930
120) 2,4_2,6-Dinitrotoluenes	(3)			1738021	244.695
88) cis-Isosafrole	(3)	8.069	162	187011	19.919
90) 2,4,6-Trichlorophenol	(3)	8.145	196	791761	120.562
92) 2,4,5-Trichlorophenol	(3)	8.186	196	844738	121.321
93)$2-Fluorobiphenyl	(3)	8.234	172	6209133	240.570
94) trans-Isosafrole	(3)	8.292	162	923377	98.961
95) 1,1'-Biphenyl	(3)	8.334	154	3381759	118.376
96) 2-Chloronaphthalene	(3)	8.351	162	2795136	113.510
98) 1-Chloronaphthalene	(3)	8.375	162	2448783	116.713
99) Diphenyl ether	(3)	8.434	170	1833063	119.553
100) 2-Nitroaniline	(3)	8.457	138	941952	121.471
104) 1,4-Naphthoquinone	(3)	8.528	158	1155966	118.441
105) 1,4-Dinitrobenzene	(3)	8.592	168	487275	125.196
106) Dimethylphthalate	(3)	8.639	163	3066252	118.258
107) 1,3-Dinitrobenzene	(3)	8.663	168	547876	122.630
108) 2,6-Dinitrotoluene	(3)	8.692	165	731889	120.219
109) Acenaphthylene	(3)	8.757	152	3933692	120.181
146) Diallate trans/cis	(4)			1701444	119.175
112) 3-Nitroaniline	(3)	8.857	138	849777	120.896
113)*Acenaphthene-d10	(3)	8.892	164	315151	20.000
114) Acenaphthene	(3)	8.928	153	2909655	120.766

A = User selected an alternate hit.
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$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.957	184	448712	128.030
116) 4-Nitrophenol	(3)	9.016	109	535162	120.753
117) Pentachlorobenzene	(3)	9.051	250	988894	120.584
118) 2,4-Dinitrotoluene	(3)	9.092	165	1006132	124.477
119) Dibenzofuran	(3)	9.098	168	3808007	120.318
121) 1-Naphthylamine	(3)	9.181	143	3215515	119.112
122) 2,3,4,6-Tetrachlorophenol	(3)	9.210	232	655474	119.226
123) 2-Naphthylamine	(3)	9.257	143	3089091	117.444
124) Diethylphthalate	(3)	9.333	149	3121951	118.644
125) Thionazin	(3)	9.416	107	553414	120.748
126) Fluorene	(3)	9.433	166	3353086	121.553
127) 4-Chlorophenyl-phenylether	(3)	9.433	204	1480787	122.994
128) 5-Nitro-o-toluidine	(3)	9.451	152	951229	117.693
129) 4-Nitroaniline	(3)	9.475	138	882363A	115.645
130) 4,6-Dinitro-2-methylphenol	(4)	9.492	198	548931	129.789
131) N-Nitrosodiphenylamine	(4)	9.557	169	2759728	120.048
132) NDPA as diphenylamine	(4)	9.557	169	2759728	120.048
134) 1,2-Diphenylhydrazine	(4)	9.592	77	3761793	118.389
135)$2,4,6-Tribromophenol	(3)	9.675	330	903339	244.092
137) Tetraethyldithiopyrophosphate	(4)	9.710	97	567020	120.415
139) 1,3,5-Trinitrobenzene	(4)	9.822	213	341266	131.322
140) Diallate (peak 1)	(4)	9.833	86	1452144	99.067
141) Phorate	(4)	9.845	75	2297854	118.620
142) Phenacetin	(4)	9.875	108	1750799	116.974
143) 4-Bromophenyl-phenylether	(4)	9.916	248	809537	119.939
144) Diallate (peak 2)	(4)	9.922	86	249300	20.108
145) Hexachlorobenzene	(4)	9.969	284	854245	119.387
147) Dimethoate	(4)	10.022	87	1276336	112.142
149) Pentachlorophenol	(4)	10.163	266	597480	123.260
150) 4-Aminobiphenyl	(4)	10.169	169	1176641	115.809
151) Pentachloronitrobenzene	(4)	10.175	237	317886	122.791
152) Pronamide	(4)	10.233	173	1362134	121.134
154) Dinoseb	(4)	10.345	211	760579	132.235
153)*Phenanthrene-d10	(4)	10.357	188	579059	20.000
155) Phenanthrene	(4)	10.380	178	4435947	118.184
157) Anthracene	(4)	10.433	178	4592884	118.702
163) Carbazole	(4)	10.592	167	4243218	117.909
164) Methyl parathion	(4)	10.722	109	1000841	118.441
165) Di-n-butylphthalate	(4)	10.933	149	5408537	119.134
167) Parathion	(4)	11.110	109	713512	124.326

A = User selected an alternate hit.
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Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.145	190	389933	129.345
169) Octachlorostyrene	(4)	11.351	308	332253	120.335
171) Isodrin	(4)	11.398	193	489463	121.030
173) Fluoranthene	(4)	11.551	202	4812597	120.704
174) Benzidine	(5)	11.698	184	10150783	373.664
175)*Pyrene-d10	(5)	11.751	212	521548	20.000
177) Pyrene	(5)	11.774	202	4704883	120.650
179)$Terphenyl-d14	(5)	11.927	244	6919752	245.198
182) p-Dimethylaminoazobenzene	(5)	12.063	225	769423	124.658
185) Chlorobenzilate	(5)	12.110	139	1559570	121.138
187) 3,3'-Dimethylbenzidine	(5)	12.404	212	3003309	124.548
188) Butylbenzylphthalate	(5)	12.416	149	2384924	120.893
191) 2-Acetylaminofluorene	(5)	12.663	181	1819474	118.263
193) 3,3'-Dichlorobenzidine	(5)	12.957	252	1689945	122.345
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.963	231	870024	124.449
195) Benzo(a)anthracene	(5)	12.986	228	4263983	120.403
199) bis(2-Ethylhexyl)phthalate	(5)	13.010	149	3305701	120.549
196) Chrysene	(5)	13.027	228	3907491	116.665
203) 6-Methylchrysene	(5)	13.492	242	2805884	118.003
205) Di-n-octylphthalate	(6)	13.686	149	5166342	133.140
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.080	256	1884656	129.271
206) Benzo(b)fluoranthene	(6)	14.092	252	3704172	126.883
208) Benzo(k)fluoranthene	(6)	14.121	252	3660523	124.962
211) Benzo(a)pyrene	(6)	14.427	252	3212567	124.607
213)*Perylene-d12	(6)	14.480	264	398187	20.000
215) 3-Methylcholanthrene	(6)	14.810	268	1272489	122.682
222) Total PAHs	(6)			66722429	2184.285
217) Dibenz(a,h)acridine	(6)	15.480	279	2382063	122.741
218) Dibenz(a,j)acridine	(6)	15.551	279	2555468	122.158
219) Indeno(1,2,3-cd)pyrene	(6)	15.798	276	3352981	121.579
220) Dibenz(a,h)anthracene	(6)	15.827	278	2969203	124.791
221) Benzo(g,h,i)perylene	(6)	16.180	276	2729989	121.964

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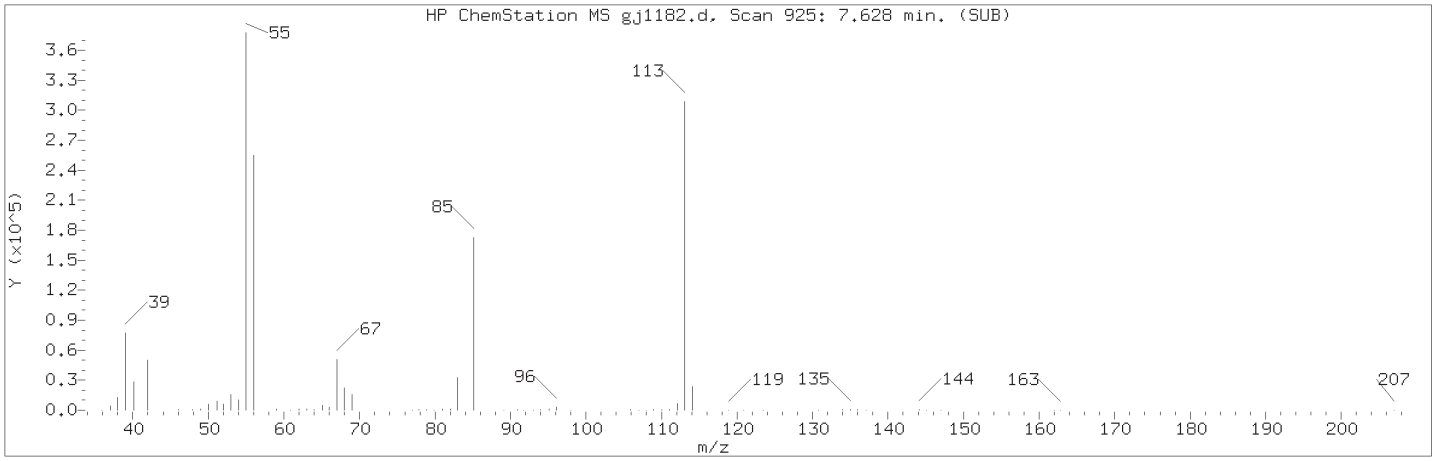
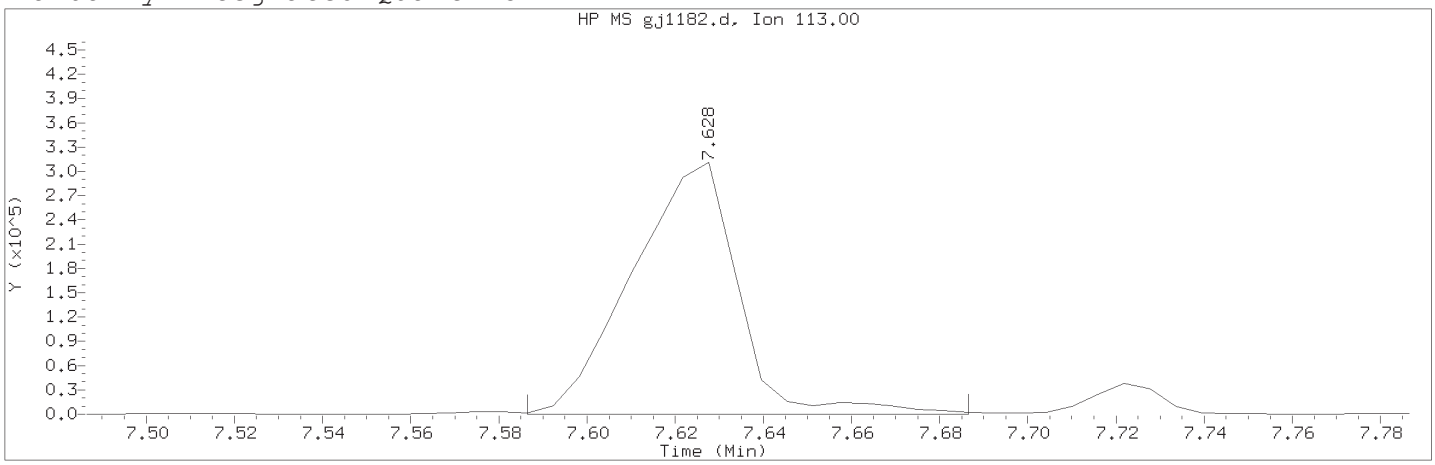
Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

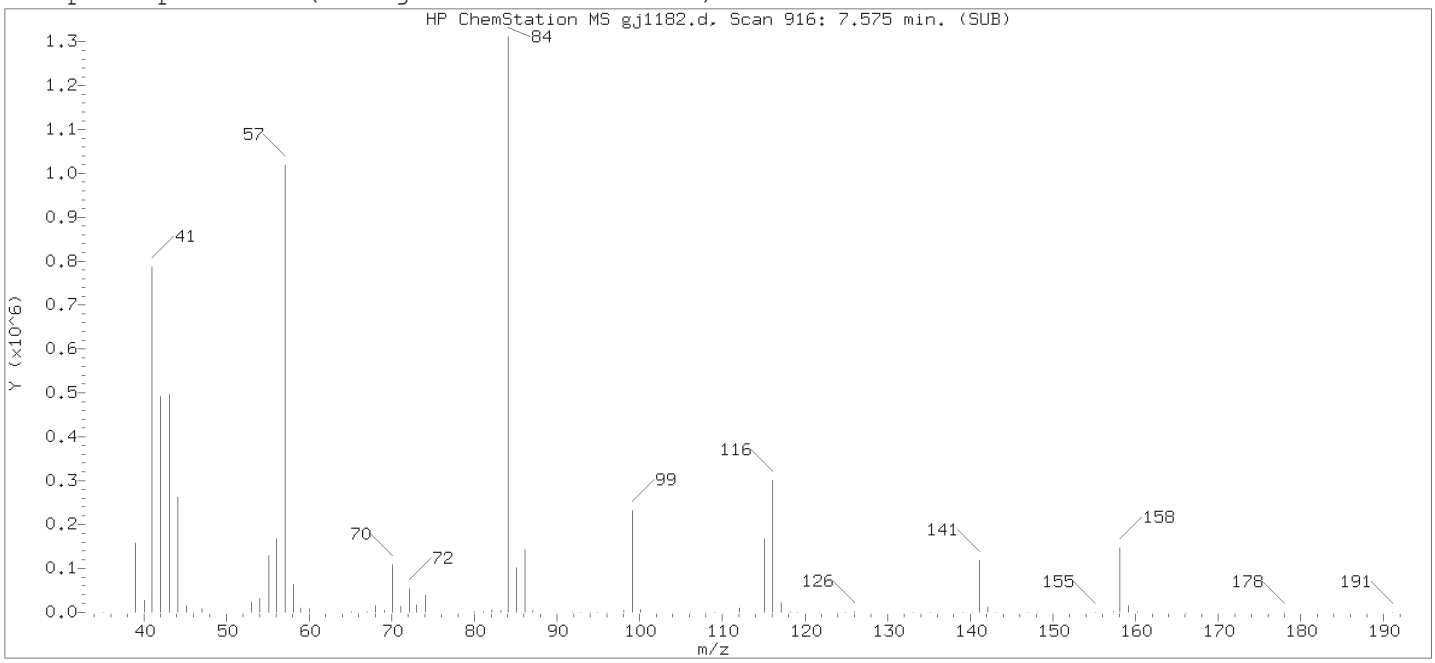
Compound Number	: 76		
Compound Name	: Caprolactam		
Scan Number	: 925		
Retention Time (minutes)	: 7.628		
Quant Ion	: 113.00		
Area (flag)	: 518488A		
On-Column Amount (ng/ul)	: 115.5502		
Integration start scan	: 917	Integration stop scan:	934
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

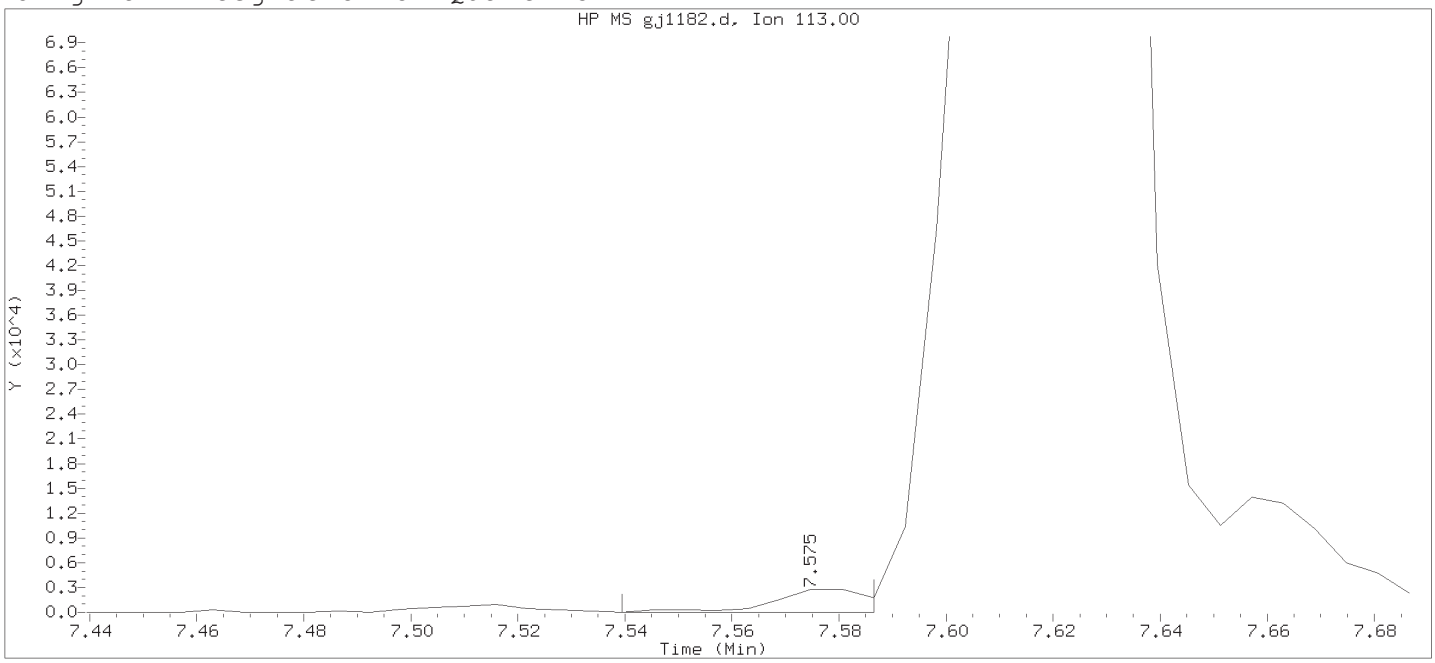
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

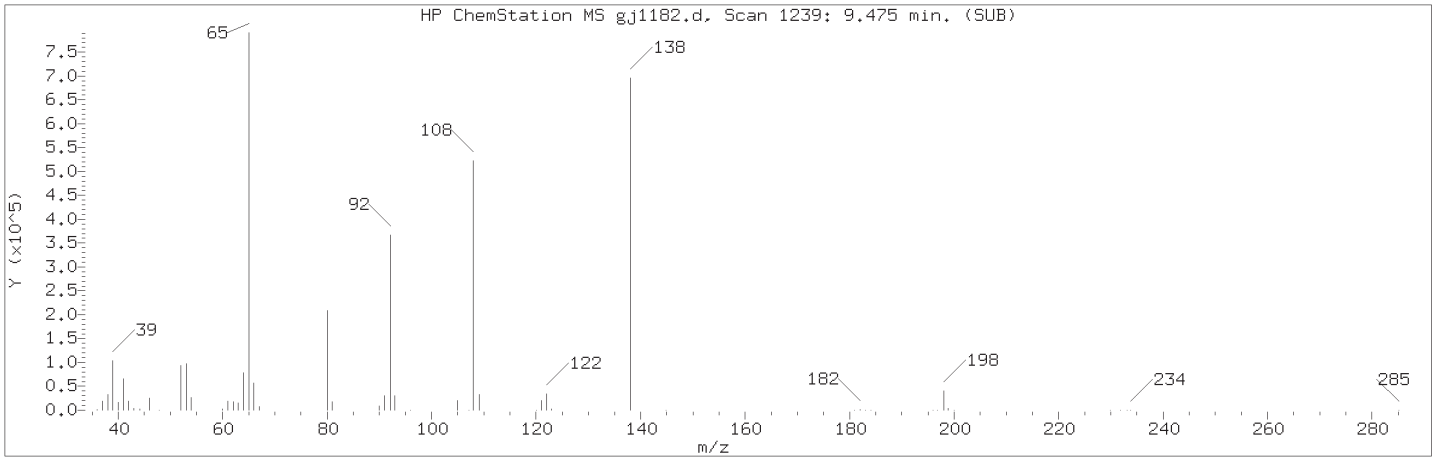
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 02:18
Date, time and analyst ID of latest file update: 20-Oct-2018 02:18 Automation

Sample Name: SSTD120 Lab Sample ID: STD2928

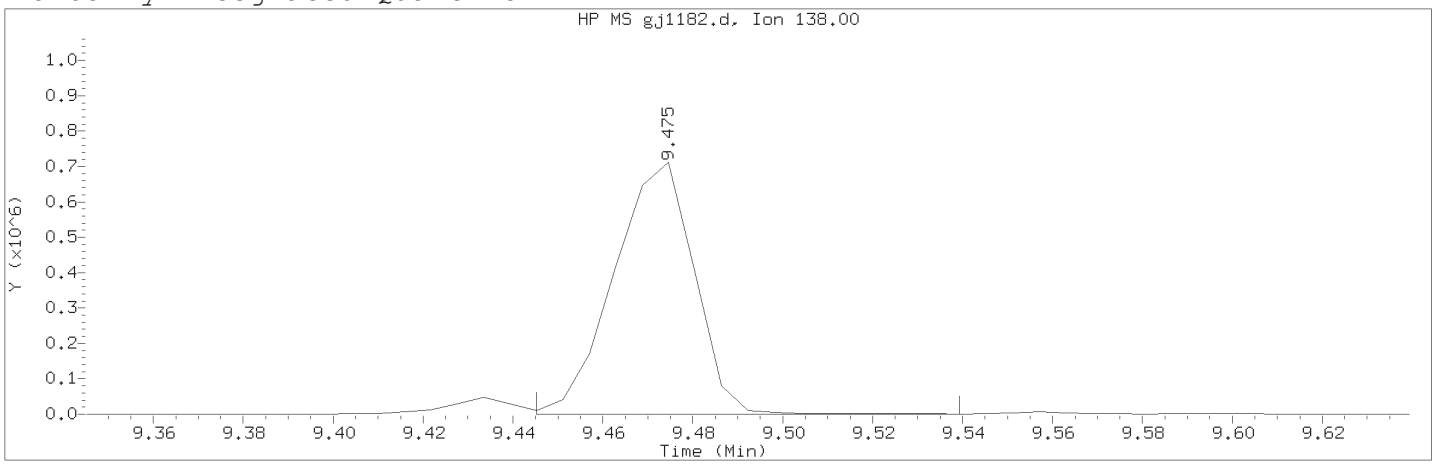
Compound Number	: 76		
Compound Name	: Caprolactam		
Scan Number	: 916		
Retention Time (minutes)	: 7.575		
Quant Ion	: 113.00		
Area	: 3231		
On-column Amount (ng/ul)	: 0.8721		
Integration start scan	: 909	Integration stop scan:	917
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: EMonborne

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

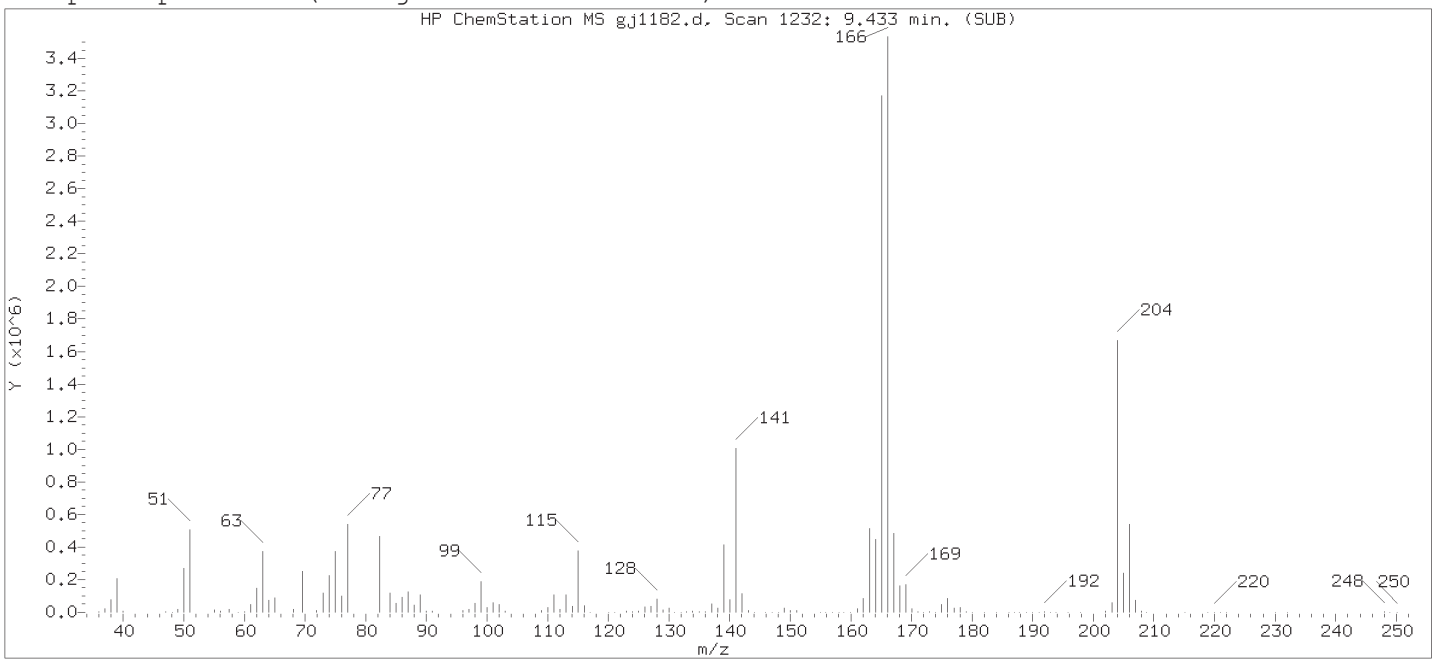
Compound Number : 129
Compound Name : 4-Nitroaniline
Scan Number : 1239
Retention Time (minutes) : 9.475
Quant Ion : 138.00
Area (flag) : 882363A
On-Column Amount (ng/ul) : 115.6453
Integration start scan : 1233 Integration stop scan: 1249
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

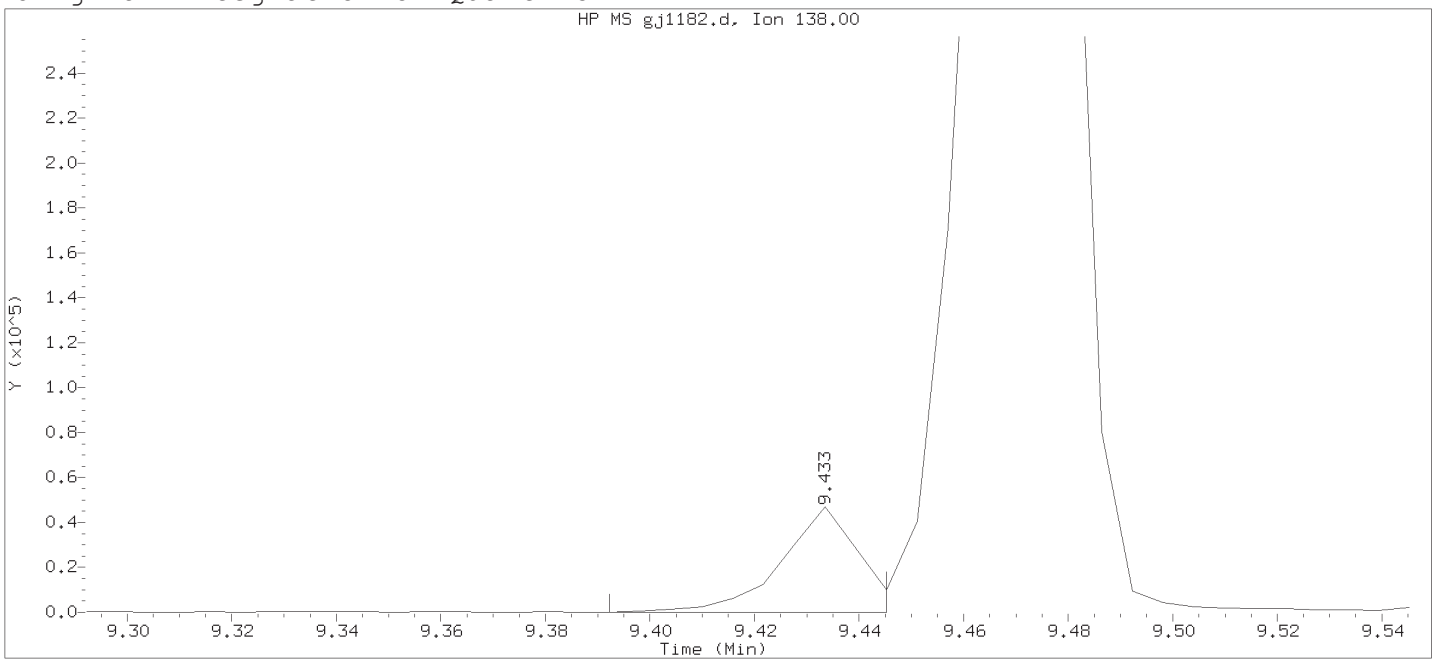
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



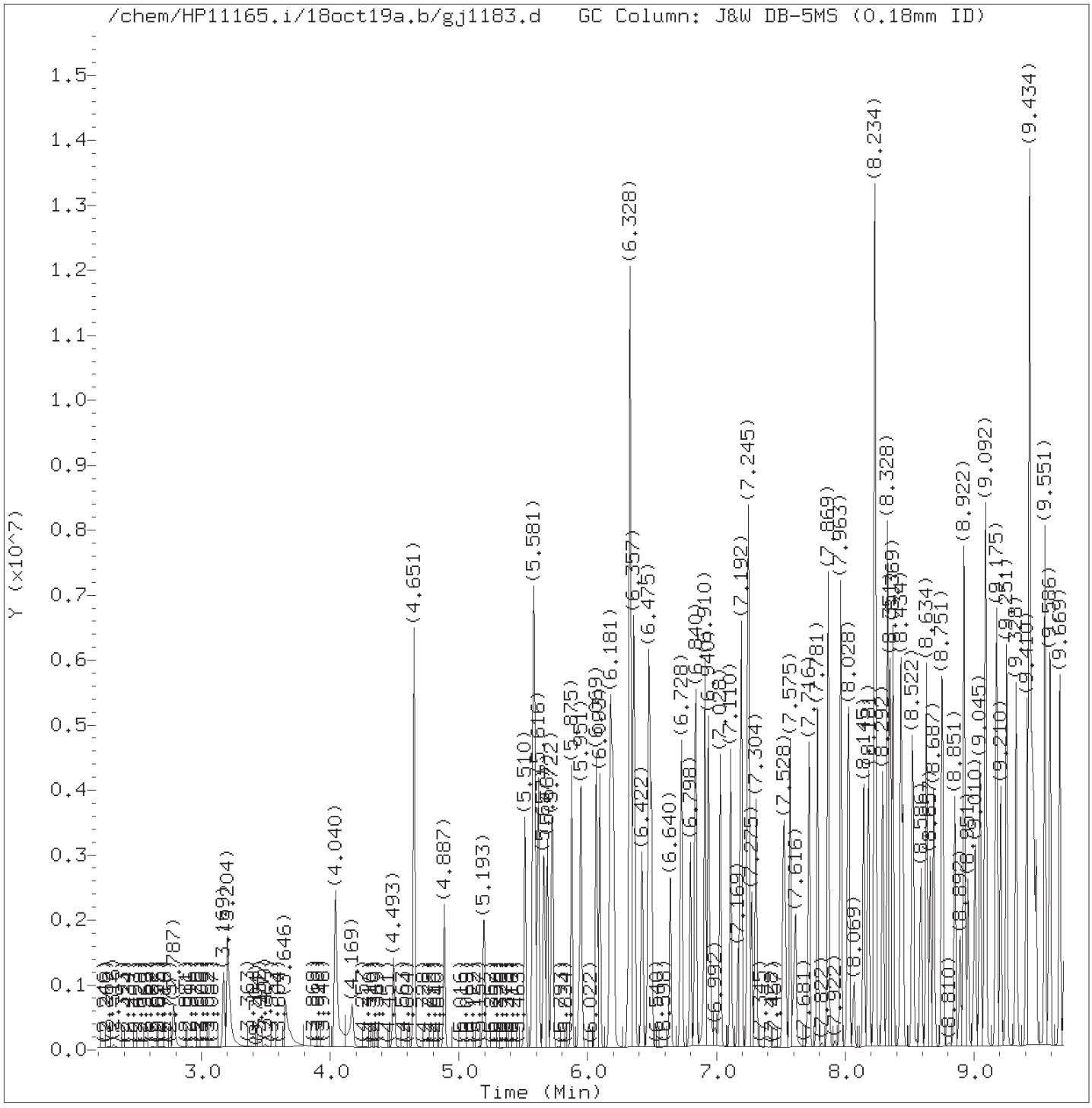
Data File: /chem/HP11165.i/18oct19a.b/gj1182.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 01:56 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 02:18
Date, time and analyst ID of latest file update: 20-Oct-2018 02:18 Automation

Sample Name: SSTD120 Lab Sample ID: STD2928

Compound Number	: 129		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1232		
Retention Time (minutes)	: 9.433		
Quant Ion	: 138.00		
Area	: 46967		
On-column Amount (ng/ul)	: 7.3128		
Integration start scan	: 1224	Integration stop scan:	1233
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:49.
Target 3.5 esignature used: 1.0.1.3



Total Ion Chromatogram (TIC)

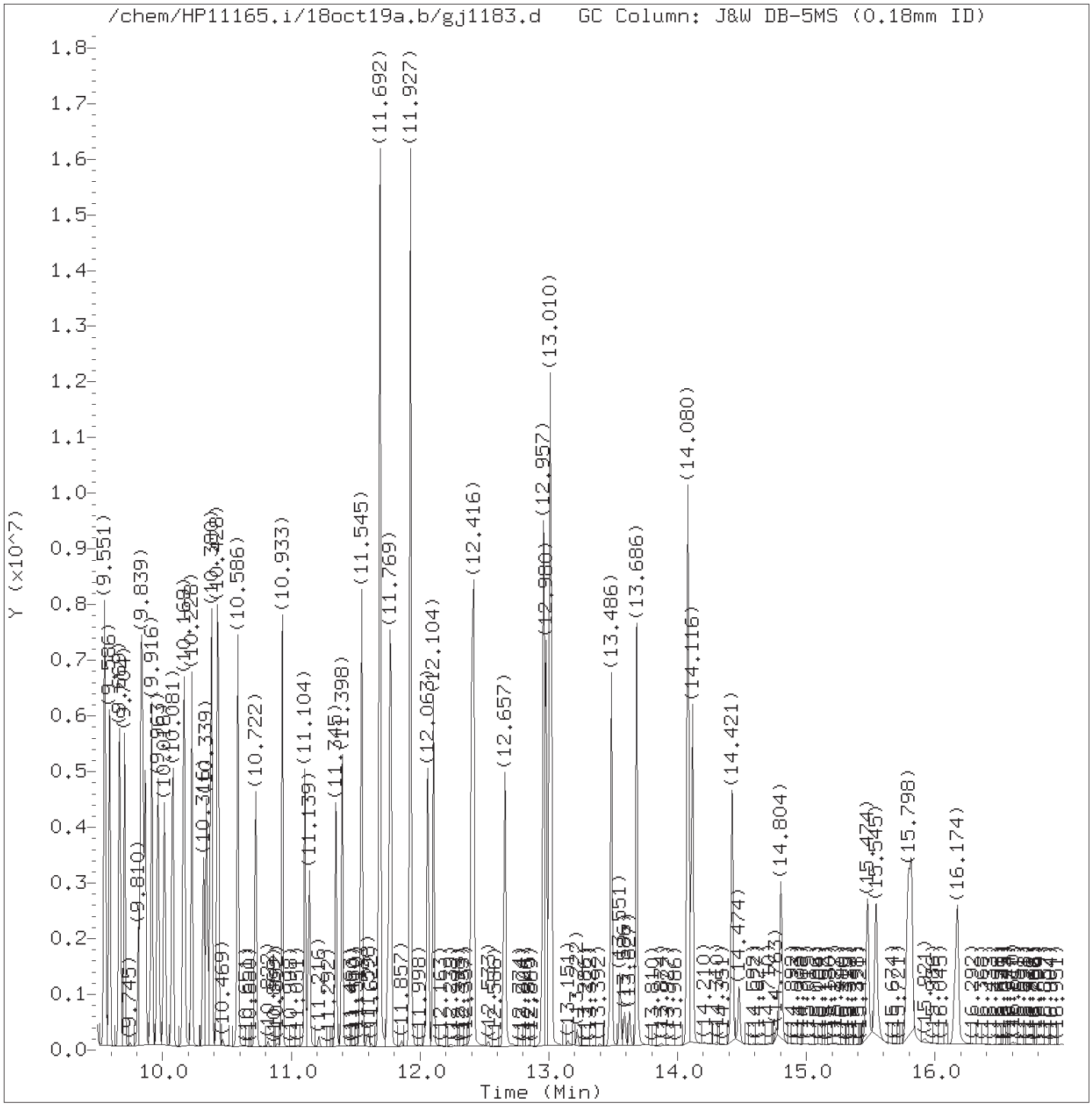
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.787	88	336704	77.062
4) N-Nitrosodimethylamine	(1)	3.169	74	608882	78.990
5) Pyridine	(1)	3.204	79	1011736	78.046
7) 2-Picoline	(1)	4.040	93	1072569	78.982
8) N-Nitrosomethylethylamine	(1)	4.169	88	475556	78.446
9) Methyl methanesulfonate	(1)	4.493	80	538824	79.100
11)$2-Fluorophenol	(1)	4.651	112	1762279	158.243
13) N-Nitrosodiethylamine	(1)	4.887	102	513017	80.305
15) Ethyl methanesulfonate	(1)	5.198	109	504201	80.149
17)$Phenol-d6	(1)	5.575	99	2563045	159.379
18) Phenol	(1)	5.593	94	1472347	82.400
19) Aniline	(1)	5.616	93	1643963	80.098
20) a-methylstyrene	(1)	5.657	118	85505	78.847
42) Total Cresols	(1)			2024617	159.967
22) bis(2-Chloroethyl)ether	(1)	5.687	93	1012326	79.034
23) 2-Chlorophenol	(1)	5.722	128	956429	79.121
24) 1,3-Dichlorobenzene	(1)	5.875	146	937394	78.599
25)*1,4-Dichlorobenzene-d4	(1)	5.934	152	146117	20.000
26) 1,4-Dichlorobenzene	(1)	5.951	146	960128	79.433
27) Benzyl alcohol	(1)	6.069	108	694478	80.249
28) 1,2-Dichlorobenzene	(1)	6.093	146	913521	78.605
30) Indene	(1)	6.181	115	1041983	79.371
31) 2-Methylphenol	(1)	6.187	108	966862	79.678
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	1339328	79.335
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	1339328	79.335
35) N-Nitrosopyrrolidine	(1)	6.322	100	583533	80.253
37) 4-Methylphenol	(1)	6.328	108	1057755	80.289
36) Acetophenone	(1)	6.328	105	1499592	82.129
38) N-Nitroso-di-n-propylamine	(1)	6.340	70	908021	78.985
39) N-Nitrosomorpholine	(1)	6.357	56	707446	79.322
40) o-Toluidine	(1)	6.357	106	1678453	79.579
43) Hexachloroethane	(1)	6.422	117	368097	78.570
44)$Nitrobenzene-d5	(2)	6.475	82	2378808	156.815
45) Nitrobenzene	(2)	6.493	77	1228298	78.032
48) N-Nitrosopiperidine	(2)	6.645	114	544396	78.367
50) Isophorone	(2)	6.728	82	2250476	77.876
51) 2-Nitrophenol	(2)	6.798	139	542936	80.705
53) 2,4-Dimethylphenol	(2)	6.840	107	1075211	77.667
57) O,O,O-Triethylphosphorothioate	(2)	6.910	198	447456	78.394
55) bis(2-Chloroethoxy)methane	(2)	6.940	93	1291903	76.840

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 10/21/2018 at 10:49.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.951	105	904497	79.470
60) 2,4-Dichlorophenol	(2)	7.028	162	789646	77.958
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	766806	77.739
65)*Naphthalene-d8	(2)	7.169	136	665881	20.000
66) Naphthalene	(2)	7.192	128	2932233	78.082
67) 4-Chloroaniline	(2)	7.245	127	1250774	77.483
68) 2,6-Dichlorophenol	(2)	7.251	162	769529	78.114
69) Hexachloropropene	(2)	7.275	213	342425	80.821
71) Hexachlorobutadiene	(2)	7.304	225	360044	77.532
97) Isosafrole	(3)			764151	79.394
75) Quinoline	(2)	7.528	129	1983036	78.781
77) N-Nitrosodi-n-butylamine	(2)	7.575	84	816749	67.797
76) Caprolactam	(2)	7.616	113	375733	79.196
80) 4-Chloro-3-methylphenol	(2)	7.716	107	969288	78.493
82) Safrole	(2)	7.787	162	767657	78.325
83) 2-Methylnaphthalene	(2)	7.869	142	2068695	78.606
84) 1-Methylnaphthalene	(2)	7.963	142	1994740	79.377
85) Hexachlorocyclopentadiene	(3)	8.016	237	414450	82.549
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	740997	80.247
120) 2,4_2,6-Dinitrotoluenes	(3)			1188021	161.347
88) cis-Isosafrole	(3)	8.069	162	131957	13.593
90) 2,4,6-Trichlorophenol	(3)	8.145	196	537061	79.374
92) 2,4,5-Trichlorophenol	(3)	8.181	196	577335	80.110
93)$2-Fluorobiphenyl	(3)	8.234	172	4263027	159.792
94) trans-Isosafrole	(3)	8.292	162	632194	65.802
95) 1,1'-Biphenyl	(3)	8.328	154	2381553	80.398
96) 2-Chloronaphthalene	(3)	8.351	162	1713361	71.039
98) 1-Chloronaphthalene	(3)	8.369	162	1878054	84.245
99) Diphenyl ether	(3)	8.434	170	1242258	78.880
100) 2-Nitroaniline	(3)	8.451	138	637183	79.628
104) 1,4-Naphthoquinone	(3)	8.522	158	815767	80.539
105) 1,4-Dinitrobenzene	(3)	8.586	168	333603	81.890
106) Dimethylphthalate	(3)	8.634	163	2171286	80.639
107) 1,3-Dinitrobenzene	(3)	8.657	168	378983	81.330
108) 2,6-Dinitrotoluene	(3)	8.692	165	508395	80.490
109) Acenaphthylene	(3)	8.757	152	2727761	80.381
146) Diallate trans/cis	(4)			1163899	79.833
112) 3-Nitroaniline	(3)	8.851	138	579285	79.786
113)*Acenaphthene-d10	(3)	8.892	164	325966	20.000
114) Acenaphthene	(3)	8.922	153	2016244	80.603

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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.951	184	308072	83.256
116) 4-Nitrophenol	(3)	9.010	109	358080	78.734
117) Pentachlorobenzene	(3)	9.051	250	703452	81.931
118) 2,4-Dinitrotoluene	(3)	9.086	165	679626	80.857
119) Dibenzofuran	(3)	9.092	168	2669714	81.029
121) 1-Naphthylamine	(3)	9.175	143	2207328	79.366
122) 2,3,4,6-Tetrachlorophenol	(3)	9.210	232	445837	78.929
123) 2-Naphthylamine	(3)	9.251	143	2155955	79.497
124) Diethylphthalate	(3)	9.328	149	2142540	79.143
125) Thionazin	(3)	9.410	107	373529	79.193
126) Fluorene	(3)	9.434	166	2309694	80.631
127) 4-Chlorophenyl-phenylether	(3)	9.434	204	991342	79.739
128) 5-Nitro-o-toluidine	(3)	9.445	152	678654	80.784
129) 4-Nitroaniline	(3)	9.463	138	597040	77.049
130) 4,6-Dinitro-2-methylphenol	(4)	9.481	198	358816	81.994
131) N-Nitrosodiphenylamine	(4)	9.551	169	1889944	80.305
132) NDPA as diphenylamine	(4)	9.551	169	1889944	80.305
134) 1,2-Diphenylhydrazine	(4)	9.586	77	2616883	80.399
135)$2,4,6-Tribromophenol	(3)	9.669	330	595097	156.949
137) Tetraethyldithiopyrophosphate	(4)	9.704	97	395752	81.487
139) 1,3,5-Trinitrobenzene	(4)	9.816	213	226529	83.464
140) Diallate (peak 1)	(4)	9.833	86	995969	66.465
141) Phorate	(4)	9.845	75	1598626	80.508
142) Phenacetin	(4)	9.863	108	1238435	80.649
143) 4-Bromophenyl-phenylether	(4)	9.916	248	540499	78.907
144) Diallate (peak 2)	(4)	9.916	86	167930	13.369
145) Hexachlorobenzene	(4)	9.963	284	612243	82.455
147) Dimethoate	(4)	10.016	87	931023	80.038
149) Pentachlorophenol	(4)	10.157	266	407771	81.538
150) 4-Aminobiphenyl	(4)	10.169	169	805165	78.759
151) Pentachloronitrobenzene	(4)	10.169	237	220838	82.290
152) Pronamide	(4)	10.228	173	941743	81.298
154) Dinoseb	(4)	10.339	211	509515	84.343
153)*Phenanthrene-d10	(4)	10.351	188	591678	20.000
155) Phenanthrene	(4)	10.380	178	3027067	79.282
157) Anthracene	(4)	10.428	178	3160208	79.955
163) Carbazole	(4)	10.586	167	2933749	79.855
164) Methyl parathion	(4)	10.722	109	720548	82.269
165) Di-n-butylphthalate	(4)	10.933	149	3755456	80.636
167) Parathion	(4)	11.104	109	476581	80.843

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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1183.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:22 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.139	190	264607	83.840
169) Octachlorostyrene	(4)	11.351	308	240057	83.322
171) Isodrin	(4)	11.398	193	326370	79.318
173) Fluoranthene	(4)	11.545	202	3227816	79.485
174) Benzidine	(5)	11.692	184	7077383	246.743
175)*Pyrene-d10	(5)	11.751	212	542948	20.000
177) Pyrene	(5)	11.769	202	3174310	78.786
179)$Terphenyl-d14	(5)	11.927	244	4872006	163.842
182) p-Dimethylaminoazobenzene	(5)	12.063	225	515133	80.113
185) Chlorobenzilate	(5)	12.104	139	1074789	80.128
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	2033657	80.672
188) Butylbenzylphthalate	(5)	12.416	149	1623383	79.362
191) 2-Acetylaminofluorene	(5)	12.657	181	1281293	80.000
193) 3,3'-Dichlorobenzidine	(5)	12.957	252	1186998	81.680
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.963	231	583981	80.160
195) Benzo(a)anthracene	(5)	12.980	228	2915723	79.389
199) bis(2-Ethylhexyl)phthalate	(5)	13.010	149	2260581	79.456
196) Chrysene	(5)	13.022	228	2764688	79.526
203) 6-Methylchrysene	(5)	13.486	242	2059205	82.097
205) Di-n-octylphthalate	(6)	13.686	149	3511646	81.671
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.080	256	1308808	81.238
206) Benzo(b)fluoranthene	(6)	14.086	252	2619704	81.216
208) Benzo(k)fluoranthene	(6)	14.116	252	2700312	82.668
211) Benzo(a)pyrene	(6)	14.427	252	2312931	81.202
213)*Perylene-d12	(6)	14.474	264	436614	20.000
215) 3-Methylcholanthrene	(6)	14.804	268	934832	81.451
222) Total PAHs	(6)			46329666	1436.811
217) Dibenz(a,h)acridine	(6)	15.474	279	1697481	79.845
218) Dibenz(a,j)acridine	(6)	15.545	279	1859587	80.710
219) Indeno(1,2,3-cd)pyrene	(6)	15.792	276	2412490	79.852
220) Dibenz(a,h)anthracene	(6)	15.815	278	2014600	78.124
221) Benzo(g,h,i)perylene	(6)	16.174	276	1950450	79.645

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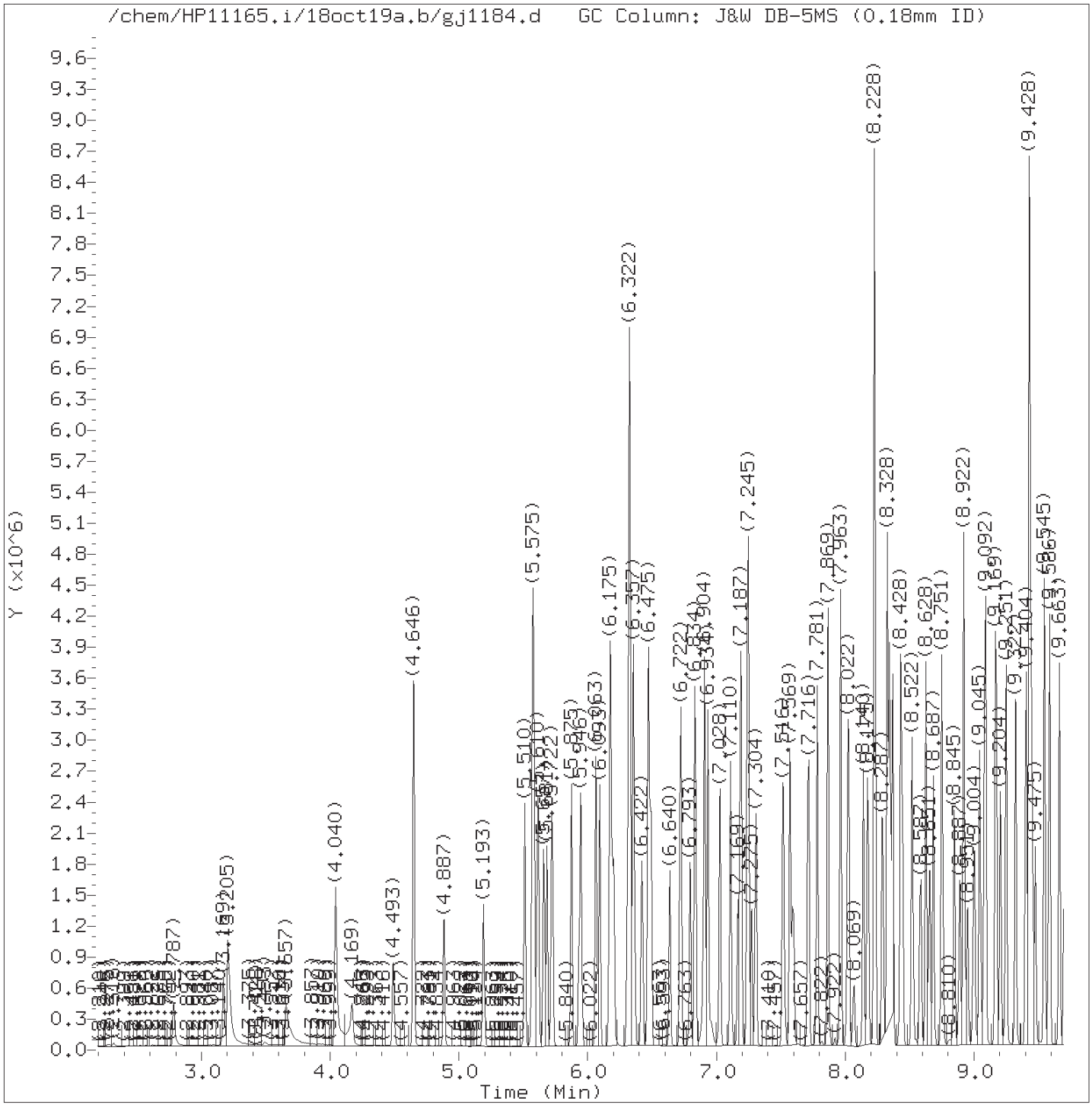
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

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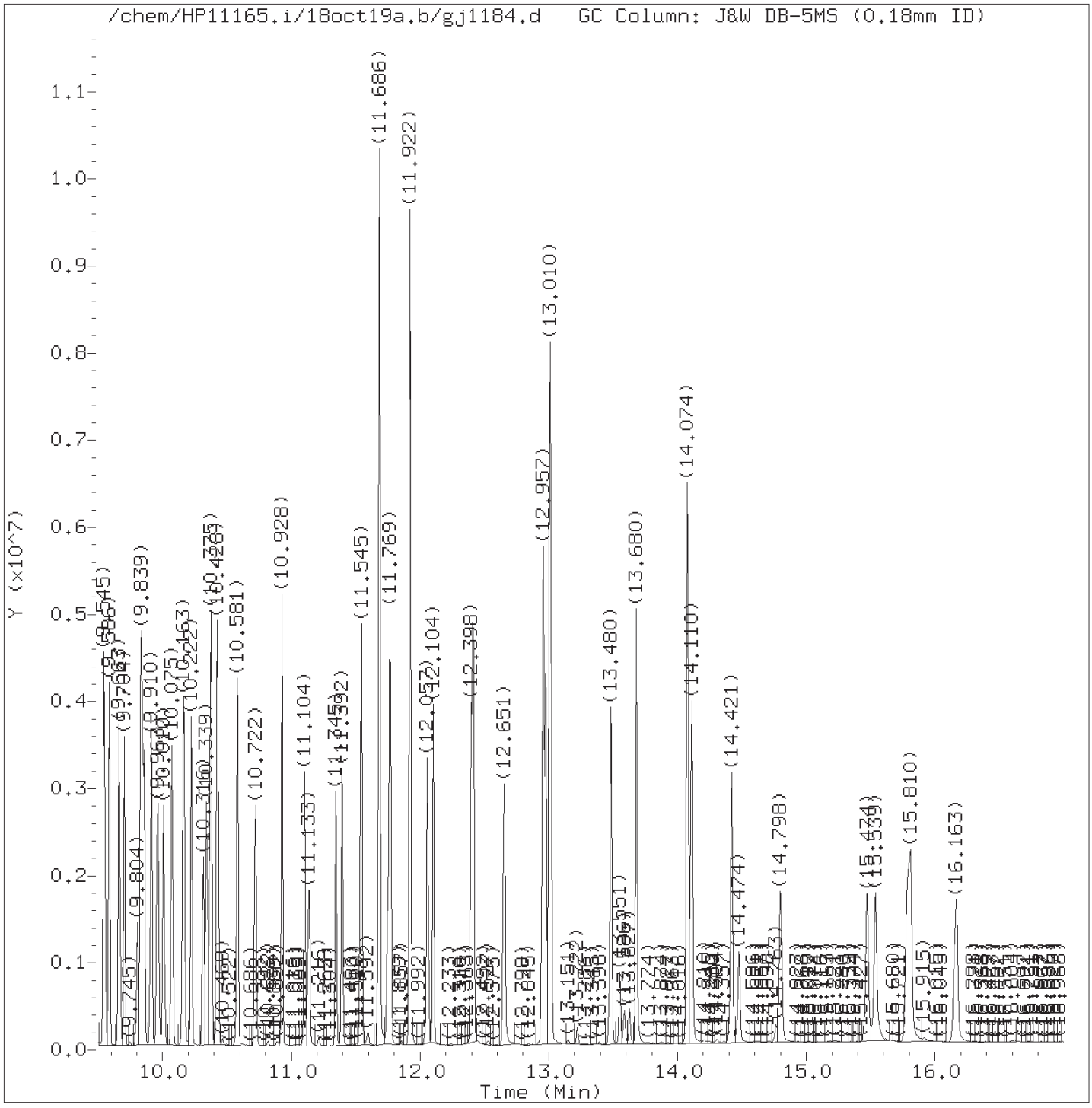
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

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on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.787	88	206334	49.415
4) N-Nitrosodimethylamine	(1)	3.169	74	359776	48.980
5) Pyridine	(1)	3.205	79	616260	49.662
7) 2-Picoline	(1)	4.040	93	638269	49.239
8) N-Nitrosomethylethylamine	(1)	4.169	88	284685	49.207
9) Methyl methanesulfonate	(1)	4.493	80	315750	48.725
11)$2-Fluorophenol	(1)	4.652	112	1023354	96.802
13) N-Nitrosodiethylamine	(1)	4.887	102	297930	48.951
15) Ethyl methanesulfonate	(1)	5.193	109	299141	49.673
17)$Phenol-d6	(1)	5.569	99	1495095	97.661
18) Phenol	(1)	5.587	94	853034	49.821
19) Aniline	(1)	5.610	93	969117	49.410
20) a-methylstyrene	(1)	5.657	118	53342	50.947
42) Total Cresols	(1)			1178883	97.840
22) bis(2-Chloroethyl)ether	(1)	5.681	93	611617	49.828
23) 2-Chlorophenol	(1)	5.722	128	559678	48.683
24) 1,3-Dichlorobenzene	(1)	5.875	146	570370	49.887
25)*1,4-Dichlorobenzene-d4	(1)	5.934	152	140183	20.000
26) 1,4-Dichlorobenzene	(1)	5.946	146	564026	48.972
27) Benzyl alcohol	(1)	6.063	108	432280	51.533
28) 1,2-Dichlorobenzene	(1)	6.093	146	543381	49.045
31) 2-Methylphenol	(1)	6.175	108	571198	49.295
30) Indene	(1)	6.175	115	639254	50.564
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	799085	49.501
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	799085	49.501
35) N-Nitrosopyrrolidine	(1)	6.310	100	341656	49.229
36) Acetophenone	(1)	6.322	105	871622	49.818
37) 4-Methylphenol	(1)	6.322	108	607685	48.545
38) N-Nitroso-di-n-propylamine	(1)	6.334	70	539070	49.153
39) N-Nitrosomorpholine	(1)	6.351	56	423313	49.604
40) o-Toluidine	(1)	6.357	106	997629	49.475
43) Hexachloroethane	(1)	6.422	117	218673	48.982
44)$Nitrobenzene-d5	(2)	6.475	82	1400549	99.403
45) Nitrobenzene	(2)	6.493	77	724551	49.594
48) N-Nitrosopiperidine	(2)	6.640	114	325443	50.254
50) Isophorone	(2)	6.722	82	1351794	50.197
51) 2-Nitrophenol	(2)	6.798	139	313871	50.099
53) 2,4-Dimethylphenol	(2)	6.834	107	637618	49.616
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	266484	50.125
56) Benzoic acid	(2)	6.928	105	540026	50.733

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$ = Compound is a surrogate standard.

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on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.934	93	787604	50.251
60) 2,4-Dichlorophenol	(2)	7.028	162	474193	50.227
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	449996	49.261
65)*Naphthalene-d8	(2)	7.169	136	619704	20.000
66) Naphthalene	(2)	7.187	128	1748791	50.029
67) 4-Chloroaniline	(2)	7.240	127	740102	49.446
68) 2,6-Dichlorophenol	(2)	7.245	162	467199	50.716
69) Hexachloropropene	(2)	7.275	213	196596	49.894
71) Hexachlorobutadiene	(2)	7.304	225	211132	49.135
97) Isosafrole	(3)			458342	48.777
75) Quinoline	(2)	7.522	129	1173930	50.084
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	635342	54.256
76) Caprolactam	(2)	7.598	113	230636	51.658
80) 4-Chloro-3-methylphenol	(2)	7.716	107	564942	49.366
82) Safrole	(2)	7.781	162	452553	49.711
83) 2-Methylnaphthalene	(2)	7.869	142	1220378	49.870
84) 1-Methylnaphthalene	(2)	7.963	142	1166449	49.907
85) Hexachlorocyclopentadiene	(3)	8.016	237	235913	48.285
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	441641	48.937
120) 2,4_2,6-Dinitrotoluenes	(3)			686578	95.924
88) cis-Isosafrole	(3)	8.069	162	78303	8.269
90) 2,4,6-Trichlorophenol	(3)	8.140	196	310296	47.400
92) 2,4,5-Trichlorophenol	(3)	8.175	196	345822	49.059
93)$2-Fluorobiphenyl	(3)	8.228	172	2554606	97.950
94) trans-Isosafrole	(3)	8.292	162	380039	40.508
95) 1,1'-Biphenyl	(3)	8.328	154	1460887	50.079
96) 2-Chloronaphthalene	(3)	8.345	162	1114714	47.682
98) 1-Chloronaphthalene	(3)	8.369	162	1007330	46.867
99) Diphenyl ether	(3)	8.428	170	753124	48.932
100) 2-Nitroaniline	(3)	8.445	138	378514	48.530
104) 1,4-Naphthoquinone	(3)	8.522	158	494658	49.712
105) 1,4-Dinitrobenzene	(3)	8.587	168	190530	48.115
106) Dimethylphthalate	(3)	8.628	163	1291658	49.047
107) 1,3-Dinitrobenzene	(3)	8.657	168	219818	48.429
108) 2,6-Dinitrotoluene	(3)	8.687	165	291414	47.619
109) Acenaphthylene	(3)	8.751	152	1589237	48.163
146) Diallate trans/cis	(4)			700454	49.494
112) 3-Nitroaniline	(3)	8.845	138	345682	48.769
113)*Acenaphthene-d10	(3)	8.887	164	320838	20.000
114) Acenaphthene	(3)	8.922	153	1204928	49.200

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.951	184	172474	47.990
116) 4-Nitrophenol	(3)	9.004	109	219403	49.256
117) Pentachlorobenzene	(3)	9.045	250	401047	48.068
118) 2,4-Dinitrotoluene	(3)	9.081	165	395164	48.305
119) Dibenzofuran	(3)	9.092	168	1552170	48.380
121) 1-Naphthylamine	(3)	9.169	143	1326936	48.846
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	272918	49.313
123) 2-Naphthylamine	(3)	9.251	143	1304479	49.147
124) Diethylphthalate	(3)	9.328	149	1281455	48.555
125) Thionazin	(3)	9.404	107	220077	48.028
126) Fluorene	(3)	9.428	166	1350635	48.412
127) 4-Chlorophenyl-phenylether	(3)	9.434	204	576757	47.819
128) 5-Nitro-o-toluidine	(3)	9.439	152	387986	47.656
129) 4-Nitroaniline	(3)	9.451	138	380771	49.943
130) 4,6-Dinitro-2-methylphenol	(4)	9.475	198	209245	49.319
131) N-Nitrosodiphenylamine	(4)	9.545	169	1142111	49.872
132) NDPA as diphenylamine	(4)	9.545	169	1142111	49.872
134) 1,2-Diphenylhydrazine	(4)	9.586	77	1602608	50.417
135)$2,4,6-Tribromophenol	(3)	9.663	330	361573	97.645
137) Tetraethyldithiopyrophosphate	(4)	9.704	97	228003	48.642
139) 1,3,5-Trinitrobenzene	(4)	9.804	213	126258	48.306
140) Diallate (peak 1)	(4)	9.828	86	599733	41.196
141) Phorate	(4)	9.839	75	959607	49.716
142) Phenacetin	(4)	9.857	108	723796	48.789
143) 4-Bromophenyl-phenylether	(4)	9.910	248	336884	50.374
144) Diallate (peak 2)	(4)	9.916	86	100721	8.298
145) Hexachlorobenzene	(4)	9.963	284	361166	49.958
147) Dimethoate	(4)	10.010	87	555222	49.254
149) Pentachlorophenol	(4)	10.157	266	240432	49.522
150) 4-Aminobiphenyl	(4)	10.163	169	498991	50.079
151) Pentachloronitrobenzene	(4)	10.169	237	128051	49.242
152) Pronamide	(4)	10.222	173	544170	48.665
154) Dinoseb	(4)	10.339	211	290917	49.585
153)*Phenanthrene-d10	(4)	10.351	188	576234	20.000
155) Phenanthrene	(4)	10.375	178	1834224	49.494
157) Anthracene	(4)	10.428	178	1915136	49.814
163) Carbazole	(4)	10.581	167	1777680	49.763
164) Methyl parathion	(4)	10.722	109	430292	50.333
165) Di-n-butylphthalate	(4)	10.928	149	2221443	49.228
167) Parathion	(4)	11.104	109	283821	49.575

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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1184.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 02:48 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.139	190	145774	48.044
169) Octachlorostyrene	(4)	11.345	308	149483	52.417
171) Isodrin	(4)	11.392	193	193796	48.760
173) Fluoranthene	(4)	11.545	202	1940888	49.303
174) Benzidine	(5)	11.686	184	4128822	148.706
175)*Pyrene-d10	(5)	11.751	212	527077	20.000
177) Pyrene	(5)	11.769	202	1920060	49.315
179)$Terphenyl-d14	(5)	11.922	244	2802669	97.801
182) p-Dimethylaminoazobenzene	(5)	12.057	225	303901	49.008
185) Chlorobenzilate	(5)	12.104	139	639568	49.335
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	1173649	48.453
188) Butylbenzylphthalate	(5)	12.416	149	973626	49.269
191) 2-Acetylaminofluorene	(5)	12.651	181	759157	49.115
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	688305	49.087
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	333343	47.819
195) Benzo(a)anthracene	(5)	12.980	228	1760634	49.535
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	1341950	48.934
196) Chrysene	(5)	13.016	228	1677292	49.775
203) 6-Methylchrysene	(5)	13.480	242	1227048	50.295
205) Di-n-octylphthalate	(6)	13.680	149	2086110	46.555
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.074	256	809131	47.801
206) Benzo(b)fluoranthene	(6)	14.080	252	1773116	51.163
208) Benzo(k)fluoranthene	(6)	14.110	252	1565713	46.124
211) Benzo(a)pyrene	(6)	14.421	252	1480960	49.072
213)*Perylene-d12	(6)	14.474	264	465462	20.000
215) 3-Methylcholanthrene	(6)	14.804	268	589779	48.639
222) Total PAHs	(6)			28215653	883.121
217) Dibenz(a,h)acridine	(6)	15.474	279	1082613	48.307
218) Dibenz(a,j)acridine	(6)	15.539	279	1184575	48.658
219) Indeno(1,2,3-cd)pyrene	(6)	15.786	276	1555440	48.709
220) Dibenz(a,h)anthracene	(6)	15.810	278	1276008	47.263
221) Benzo(g,h,i)perylene	(6)	16.163	276	1235764	47.973

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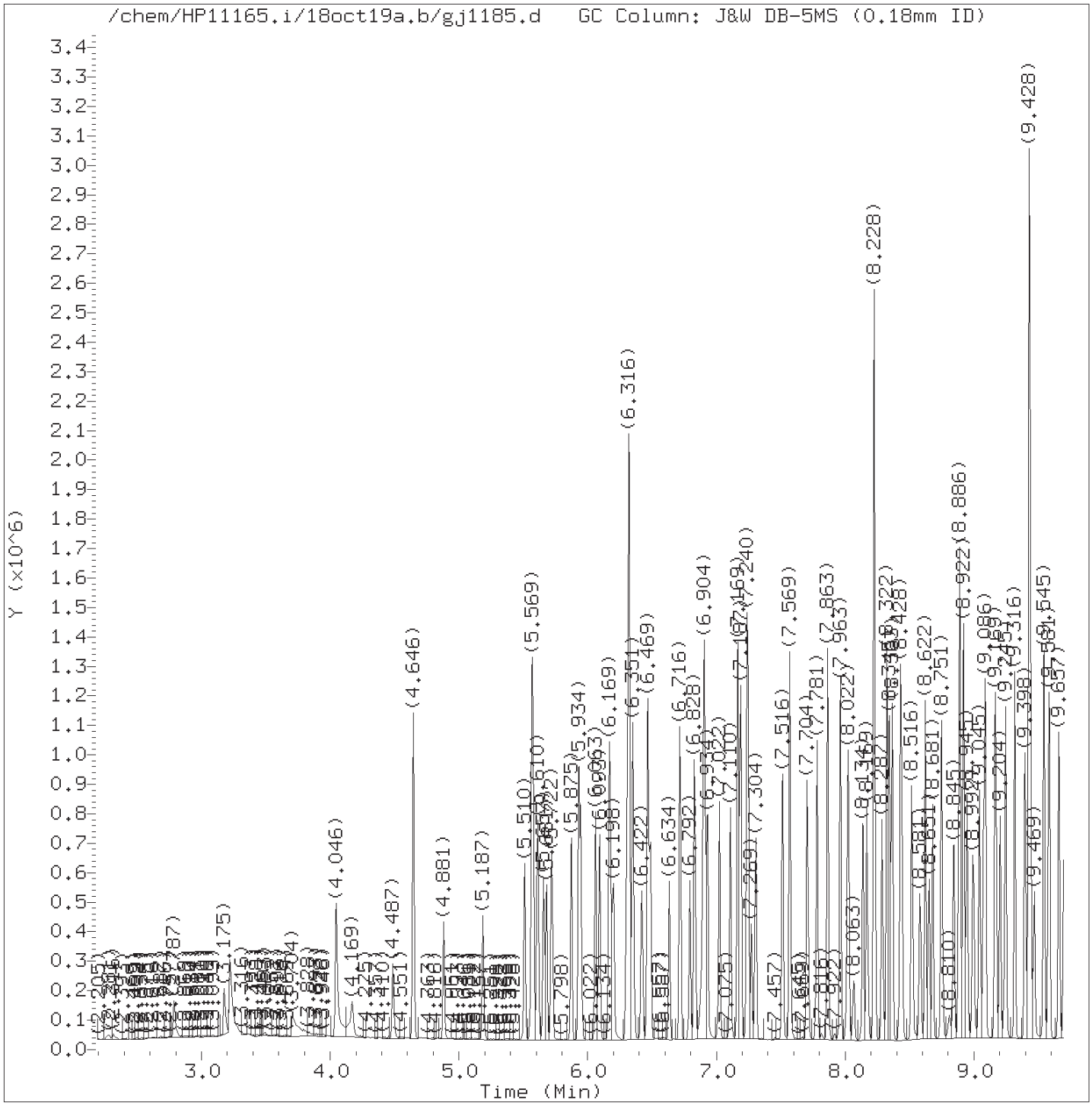
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

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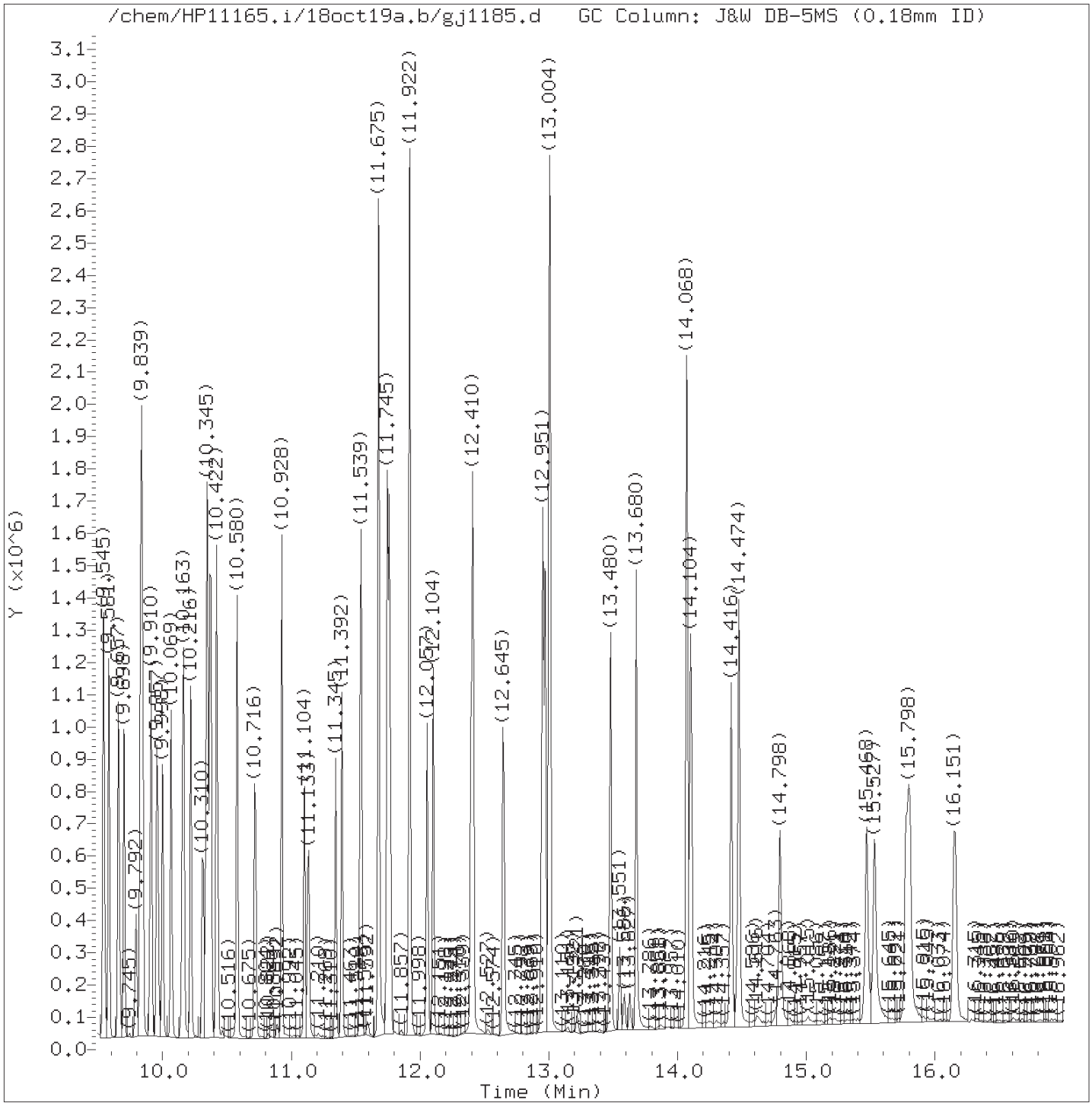
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.787	88	63295	14.906
4) N-Nitrosodimethylamine	(1)	3.175	74	103039	14.001
5) Pyridine	(1)	3.216	79	176978	14.191
7) 2-Picoline	(1)	4.046	93	187422	14.349
8) N-Nitrosomethylethylamine	(1)	4.169	88	86701M	14.770
9) Methyl methanesulfonate	(1)	4.487	80	93578	14.335
11)$2-Fluorophenol	(1)	4.646	112	294933	27.875
13) N-Nitrosodiethylamine	(1)	4.881	102	85593	14.030
15) Ethyl methanesulfonate	(1)	5.187	109	88570	14.548
17)$Phenol-d6	(1)	5.563	99	433178	28.197
18) Phenol	(1)	5.581	94	224676	13.257
19) Aniline	(1)	5.610	93	271151	13.836
20) a-methylstyrene	(1)	5.657	118	13721	13.243
42) Total Cresols	(1)			338525	28.030
22) bis(2-Chloroethyl)ether	(1)	5.681	93	175305	14.207
23) 2-Chlorophenol	(1)	5.722	128	161346	14.007
24) 1,3-Dichlorobenzene	(1)	5.875	146	162702	14.165
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	142785	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	165368	14.268
27) Benzyl alcohol	(1)	6.063	108	114689	13.712
28) 1,2-Dichlorobenzene	(1)	6.093	146	159129	14.272
31) 2-Methylphenol	(1)	6.169	108	162984	14.032
30) Indene	(1)	6.175	115	172813	13.709
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	234233	14.390
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	234233	14.390
35) N-Nitrosopyrrolidine	(1)	6.304	100	96731	13.928
37) 4-Methylphenol	(1)	6.316	108	175541	13.998
38) N-Nitroso-di-n-propylamine	(1)	6.322	70	160373	14.481
36) Acetophenone	(1)	6.322	105	237182	13.616
39) N-Nitrosomorpholine	(1)	6.340	56	126051	14.598
40) o-Toluidine	(1)	6.351	106	290804	14.319
43) Hexachloroethane	(1)	6.422	117	61644	13.822
44)$Nitrobenzene-d5	(2)	6.469	82	405373	28.472
45) Nitrobenzene	(2)	6.487	77	211000	14.282
48) N-Nitrosopiperidine	(2)	6.634	114	97095	14.719
50) Isophorone	(2)	6.716	82	405622	14.774
51) 2-Nitrophenol	(2)	6.792	139	86072	13.713
53) 2,4-Dimethylphenol	(2)	6.828	107	186293	14.325
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	78121	14.483
56) Benzoic acid	(2)	6.916	105	322549M	29.688

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.934	93	231129	14.524
60) 2,4-Dichlorophenol	(2)	7.022	162	136049	14.256
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	132593	14.340
65)*Naphthalene-d8	(2)	7.169	136	634177	20.000
66) Naphthalene	(2)	7.187	128	508277	14.360
67) 4-Chloroaniline	(2)	7.240	127	222232	14.604
68) 2,6-Dichlorophenol	(2)	7.245	162	136175	14.553
69) Hexachloropropene	(2)	7.269	213	52304	13.332
71) Hexachlorobutadiene	(2)	7.304	225	60399	13.971
97) Isosafrole	(3)			133033	13.802
75) Quinoline	(2)	7.516	129	346842	14.565
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	184882	15.319
76) Caprolactam	(2)	7.575	113	63137	14.040
80) 4-Chloro-3-methylphenol	(2)	7.704	107	165703	14.311
82) Safrole	(2)	7.781	162	130500	14.195
83) 2-Methylnaphthalene	(2)	7.863	142	359359	14.475
84) 1-Methylnaphthalene	(2)	7.963	142	336935	14.260
85) Hexachlorocyclopentadiene	(3)	8.016	237	63138	12.804
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	127274	13.759
120) 2,4_2,6-Dinitrotoluenes	(3)			201080	27.473
88) cis-Isosafrole	(3)	8.069	162	23416	2.399
90) 2,4,6-Trichlorophenol	(3)	8.139	196	90061	13.483
92) 2,4,5-Trichlorophenol	(3)	8.169	196	98632	13.671
93)$2-Fluorobiphenyl	(3)	8.228	172	751314	27.996
94) trans-Isosafrole	(3)	8.287	162	109617	11.403
95) 1,1'-Biphenyl	(3)	8.322	154	407451	13.651
96) 2-Chloronaphthalene	(3)	8.345	162	297537	12.643
98) 1-Chloronaphthalene	(3)	8.363	162	336868	14.985
99) Diphenyl ether	(3)	8.428	170	226311	14.234
100) 2-Nitroaniline	(3)	8.439	138	113368	14.101
104) 1,4-Naphthoquinone	(3)	8.516	158	143284	13.995
105) 1,4-Dinitrobenzene	(3)	8.581	168	53047	13.191
106) Dimethylphthalate	(3)	8.622	163	394023	14.436
107) 1,3-Dinitrobenzene	(3)	8.651	168	59788	13.009
108) 2,6-Dinitrotoluene	(3)	8.681	165	86685	13.809
109) Acenaphthylene	(3)	8.751	152	473354	13.952
146) Diallate trans/cis	(4)			213723	14.160
112) 3-Nitroaniline	(3)	8.845	138	103629	14.168
113)*Acenaphthene-d10	(3)	8.886	164	335653	20.000
114) Acenaphthene	(3)	8.922	153	360057	14.233

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on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.945	184	92307	25.476
116) 4-Nitrophenol	(3)	8.992	109	64646	14.084
117) Pentachlorobenzene	(3)	9.045	250	121255	14.100
118) 2,4-Dinitrotoluene	(3)	9.075	165	114395	13.664
119) Dibenzofuran	(3)	9.086	168	467912	14.140
121) 1-Naphthylamine	(3)	9.169	143	399812	14.245
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	81471	14.248
123) 2-Naphthylamine	(3)	9.245	143	389411	14.209
124) Diethylphthalate	(3)	9.316	149	399371	14.569
125) Thionazin	(3)	9.398	107	66087	14.013
126) Fluorene	(3)	9.428	166	402001	14.002
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	166913	13.548
129) 4-Nitroaniline	(3)	9.439	138	117227	14.757
128) 5-Nitro-o-toluidine	(3)	9.439	152	118124	14.081
130) 4,6-Dinitro-2-methylphenol	(4)	9.469	198	57094	12.890
131) N-Nitrosodiphenylamine	(4)	9.545	169	345748	14.164
132) NDPA as diphenylamine	(4)	9.545	169	345748	14.164
134) 1,2-Diphenylhydrazine	(4)	9.581	77	480927	14.188
135)$2,4,6-Tribromophenol	(3)	9.663	330	107768	28.229
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	68174	13.740
139) 1,3,5-Trinitrobenzene	(4)	9.792	213	30738	11.514
140) Diallate (peak 1)	(4)	9.828	86	183595	11.817
141) Phorate	(4)	9.839	75	283640	13.856
142) Phenacetin	(4)	9.845	108	226389	14.288
143) 4-Bromophenyl-phenylether	(4)	9.910	248	101632	14.239
144) Diallate (peak 2)	(4)	9.916	86	30128	2.343
145) Hexachlorobenzene	(4)	9.957	284	110204	14.275
147) Dimethoate	(4)	9.998	87	177033	14.623
149) Pentachlorophenol	(4)	10.151	266	70893	13.785
150) 4-Aminobiphenyl	(4)	10.163	169	153387	14.425
151) Pentachloronitrobenzene	(4)	10.163	237	38062	13.811
152) Pronamide	(4)	10.216	173	161202	13.641
154) Dinoseb	(4)	10.333	211	70526	11.729
153)*Phenanthrene-d10	(4)	10.345	188	622771	20.000
155) Phenanthrene	(4)	10.375	178	572188	14.423
157) Anthracene	(4)	10.422	178	580279	14.161
163) Carbazole	(4)	10.580	167	547913	14.346
164) Methyl parathion	(4)	10.716	109	122303	13.556
165) Di-n-butylphthalate	(4)	10.928	149	664561	13.881
167) Parathion	(4)	11.098	109	77029	12.888

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$ = Compound is a surrogate standard.

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on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

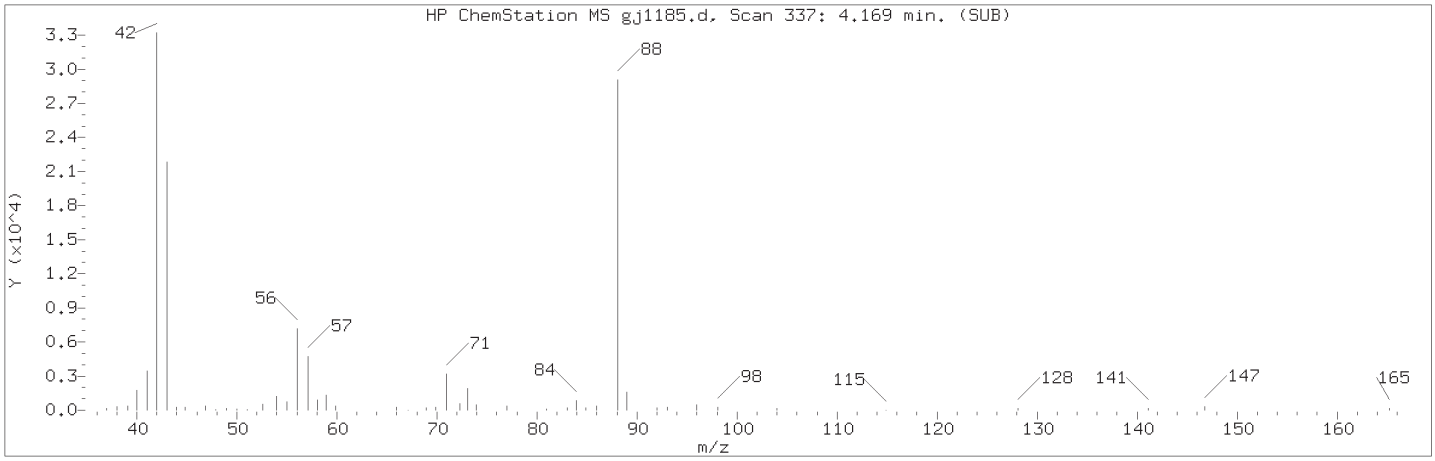
Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.133	190	33449	10.898
169) Octachlorostyrene	(4)	11.345	308	43520	14.288
171) Isodrin	(4)	11.392	193	58780	13.929
173) Fluoranthene	(4)	11.539	202	598568	14.246
174) Benzidine	(5)	11.675	184	1023906	36.022
175)*Pyrene-d10	(5)	11.745	212	566503	20.000
177) Pyrene	(5)	11.763	202	593468	14.338
179)$Terphenyl-d14	(5)	11.922	244	850573	28.062
182) p-Dimethylaminoazobenzene	(5)	12.057	225	91069	13.912
185) Chlorobenzilate	(5)	12.104	139	192185	14.019
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	337127	13.313
188) Butylbenzylphthalate	(5)	12.410	149	302220	14.377
191) 2-Acetylaminofluorene	(5)	12.645	181	217007	13.409
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	204513	13.834
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	100849	13.742
195) Benzo(a)anthracene	(5)	12.974	228	543385	14.373
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	403382	13.930
196) Chrysene	(5)	13.010	228	530074	14.707
203) 6-Methylchrysene	(5)	13.480	242	375513	14.451
205) Di-n-octylphthalate	(6)	13.680	149	618470	11.842
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.068	256	249557	12.514
206) Benzo(b)fluoranthene	(6)	14.074	252	569532	13.687
208) Benzo(k)fluoranthene	(6)	14.104	252	519057	12.899
211) Benzo(a)pyrene	(6)	14.416	252	488550M	13.520
213)*Perylene-d12	(6)	14.474	264	571083	20.000
215) 3-Methylcholanthrene	(6)	14.798	268	191162	13.229
222) Total PAHs	(6)			8897392	254.385
217) Dibenz(a,h)acridine	(6)	15.468	279	379518	14.026
218) Dibenz(a,j)acridine	(6)	15.533	279	428995	14.486
219) Indeno(1,2,3-cd)pyrene	(6)	15.774	276	553911	14.302
220) Dibenz(a,h)anthracene	(6)	15.804	278	452511	13.909
221) Benzo(g,h,i)perylene	(6)	16.157	276	455886	14.536

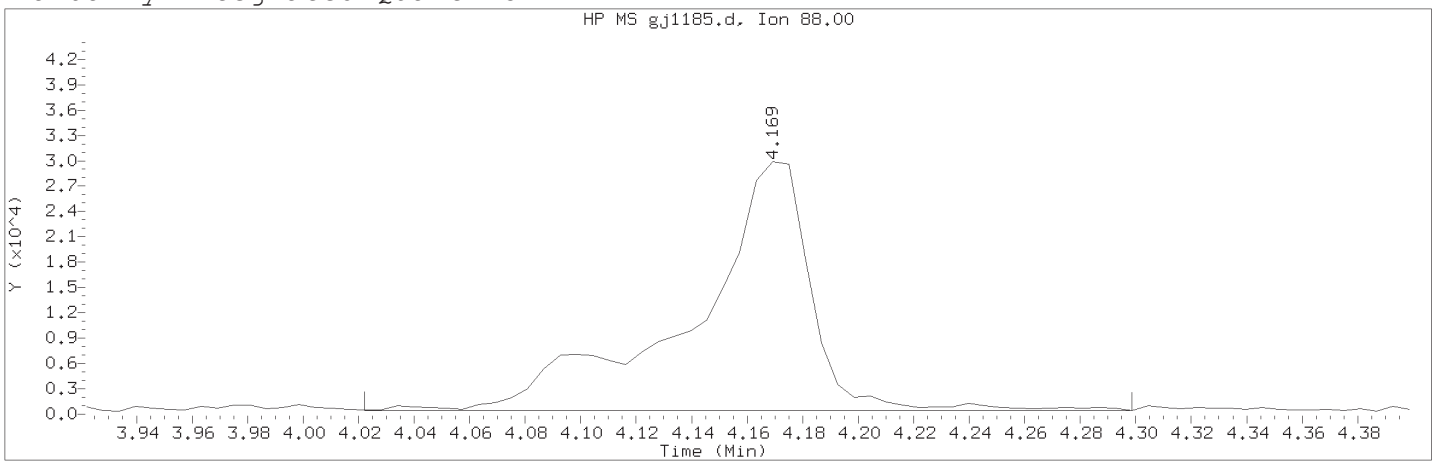
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

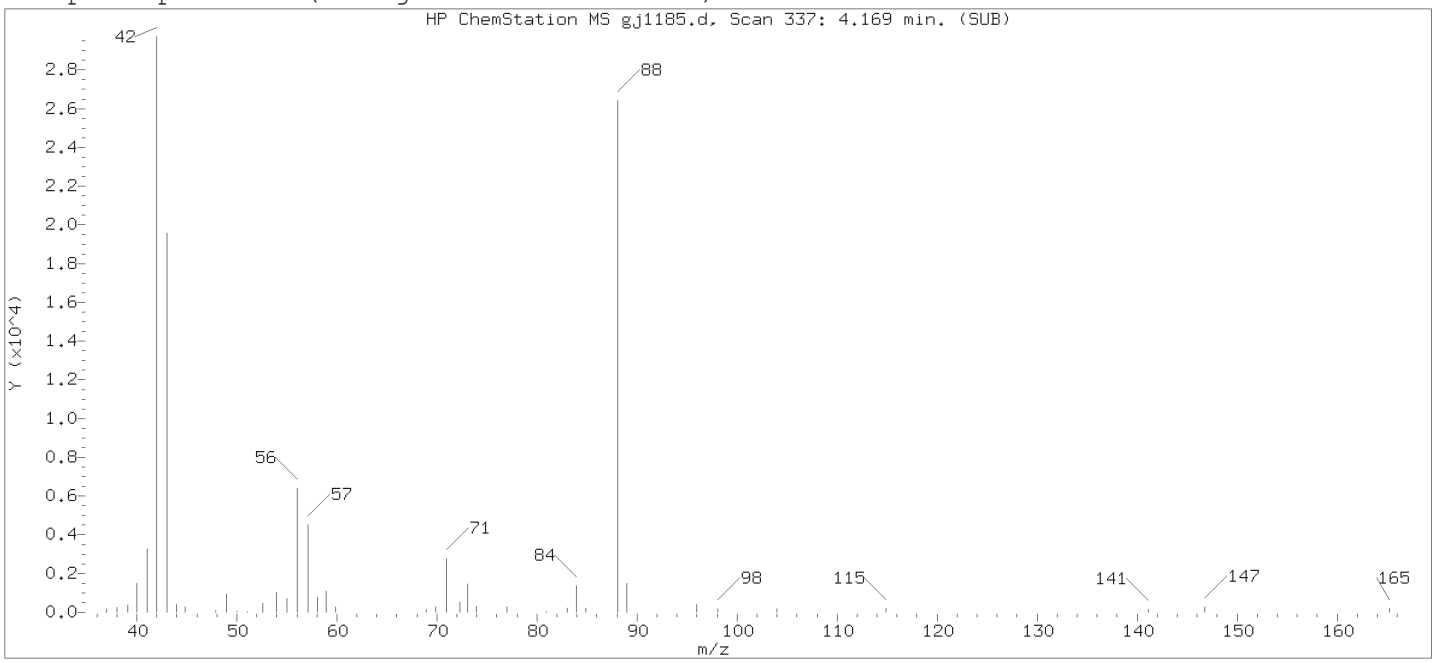
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 337		
Retention Time (minutes)	: 4.169		
Quant Ion	: 88.00		
Area (flag)	: 86701M		
On-Column Amount (ng/ul)	: 14.7695		
Integration start scan	: 311	Integration stop scan:	358
Y at integration start	: 441	Y at integration end:	441

Reason for manual integration: improper integration

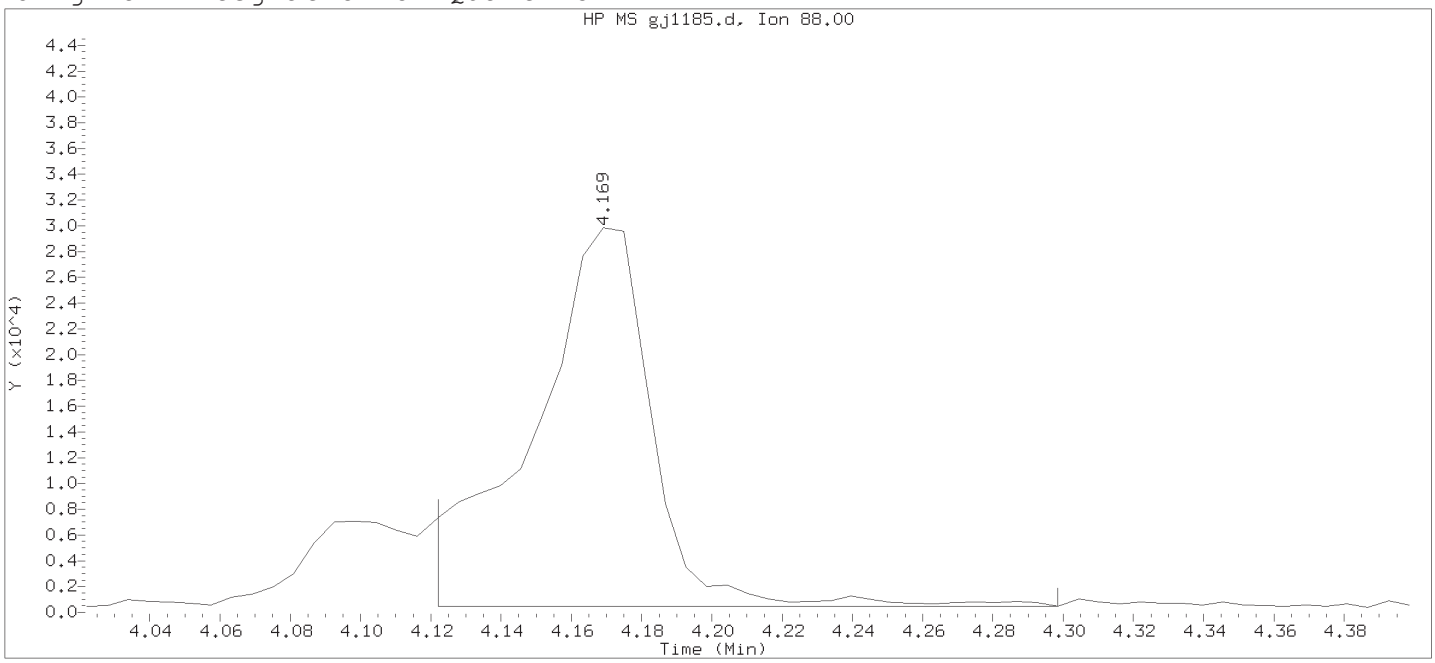
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

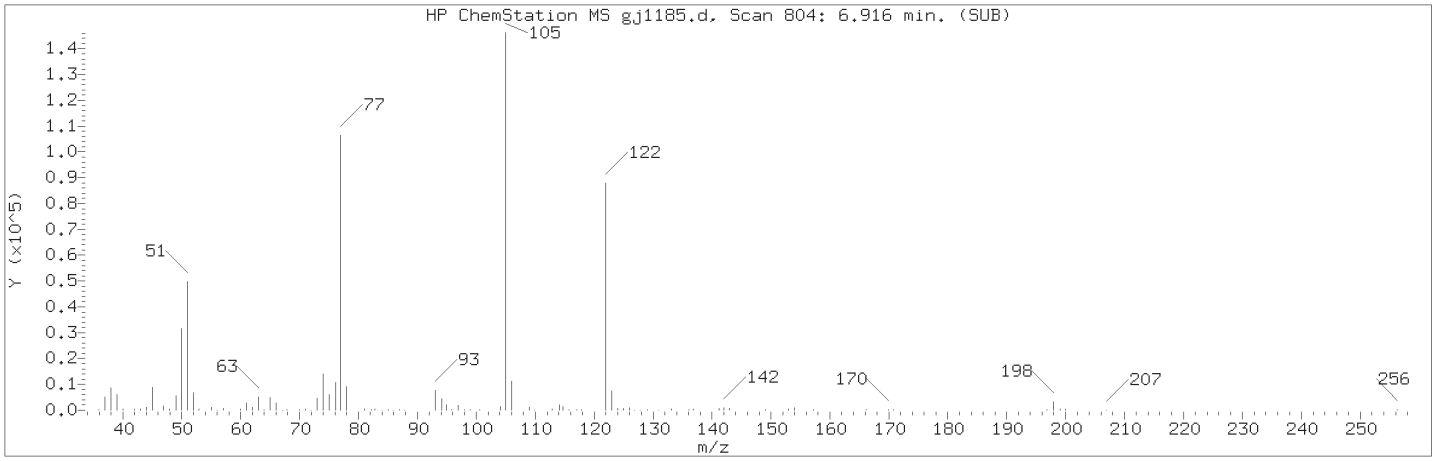
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 03:36
Date, time and analyst ID of latest file update: 20-Oct-2018 03:36 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

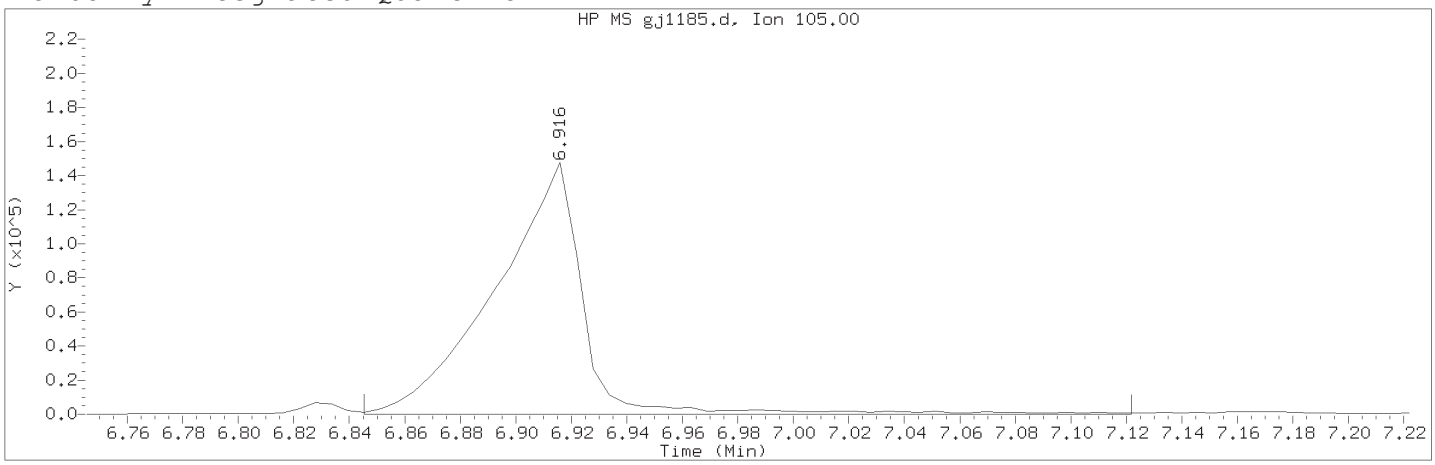
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 337		
Retention Time (minutes)	: 4.169		
Quant Ion	: 88.00		
Area	: 69891		
On-column Amount (ng/ul)	: 12.3927		
Integration start scan	: 328	Integration stop scan:	358
Y at integration start	: 462	Y at integration end:	462

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 10/21/2018.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

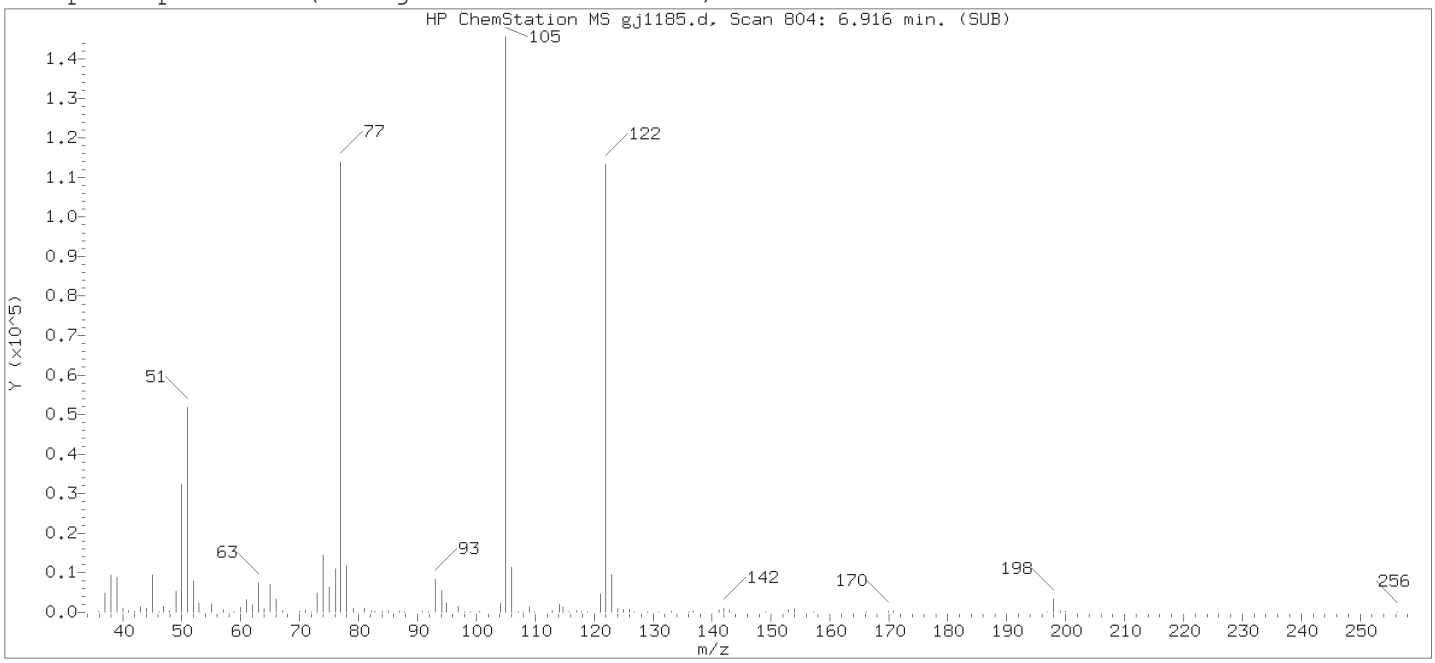
Compound Number	: 56		
Compound Name	: Benzoic acid		
Scan Number	: 804		
Retention Time (minutes)	: 6.916		
Quant Ion	: 105.00		
Area (flag)	: 322549M		
On-Column Amount (ng/ul)	: 29.6877		
Integration start scan	: 791	Integration stop scan:	838
Y at integration start	: -1	Y at integration end:	-1

Reason for manual integration: improper integration

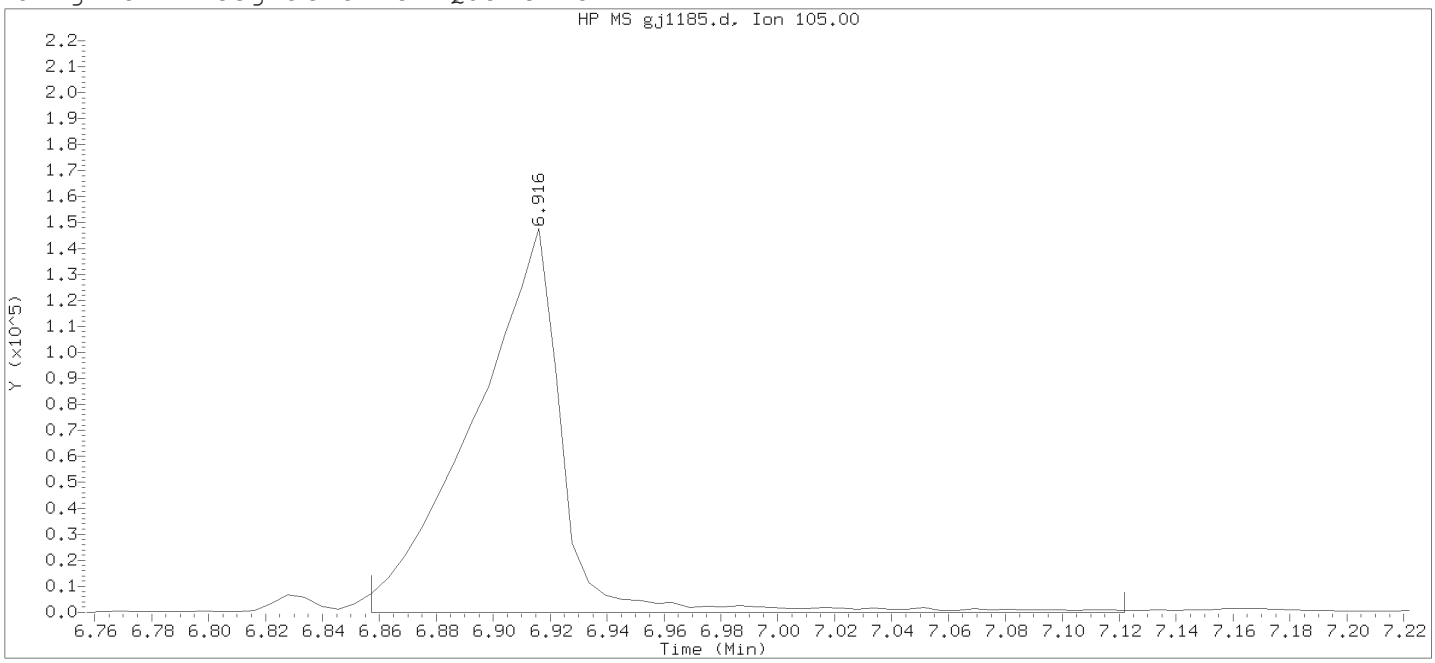
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

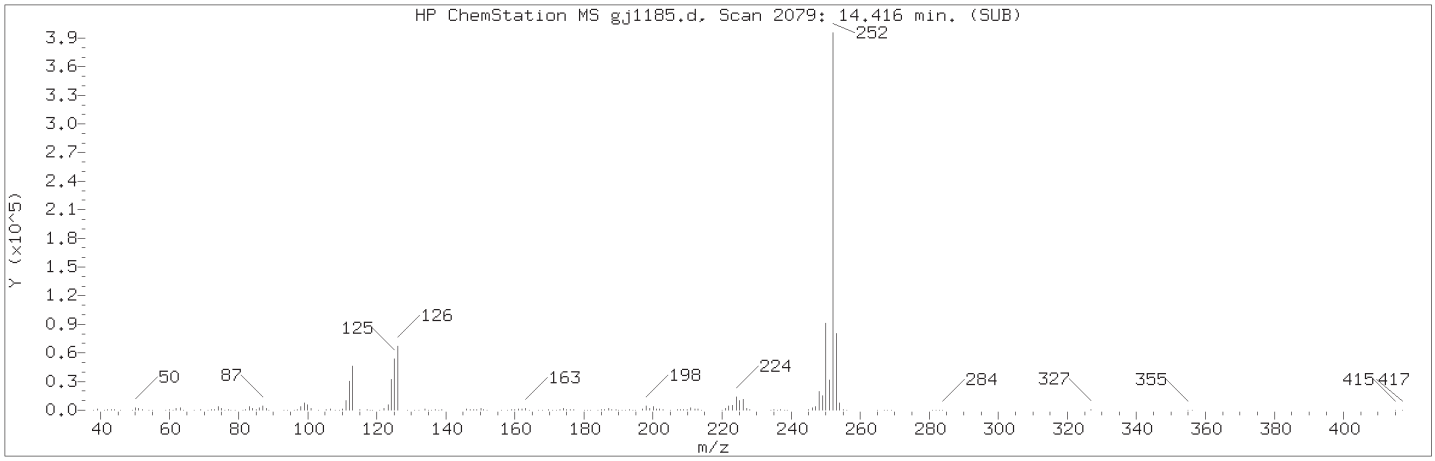
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 03:36
Date, time and analyst ID of latest file update: 20-Oct-2018 03:36 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

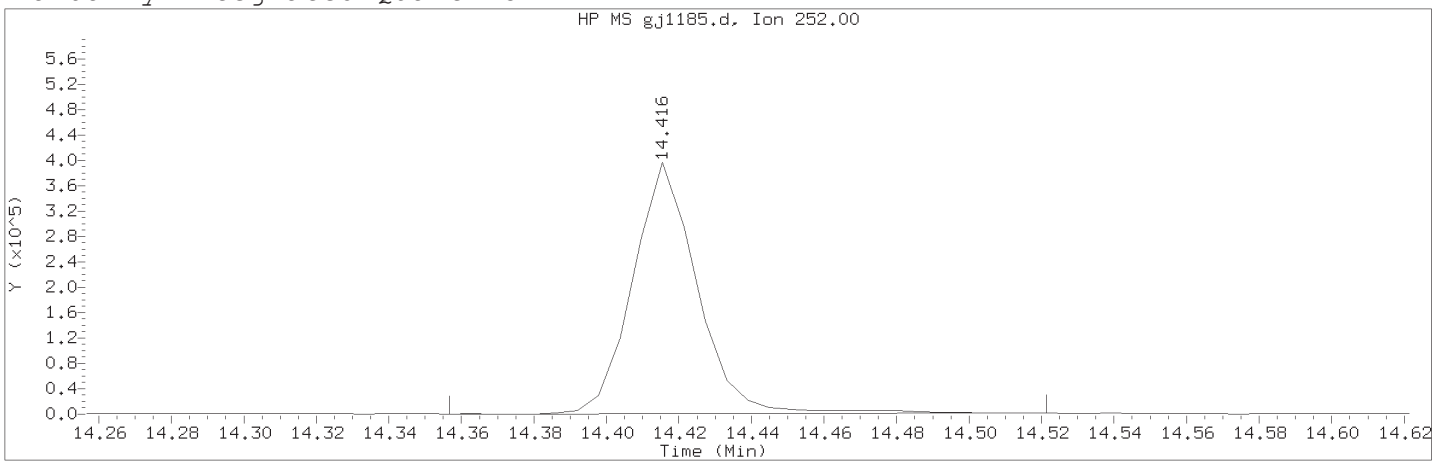
Compound Number	: 56		
Compound Name	: Benzoic acid		
Scan Number	: 804		
Retention Time (minutes)	: 6.916		
Quant Ion	: 105.00		
Area	: 319613		
On-column Amount (ng/ul)	: 30.6396		
Integration start scan	: 793	Integration stop scan:	838
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.1.3859

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

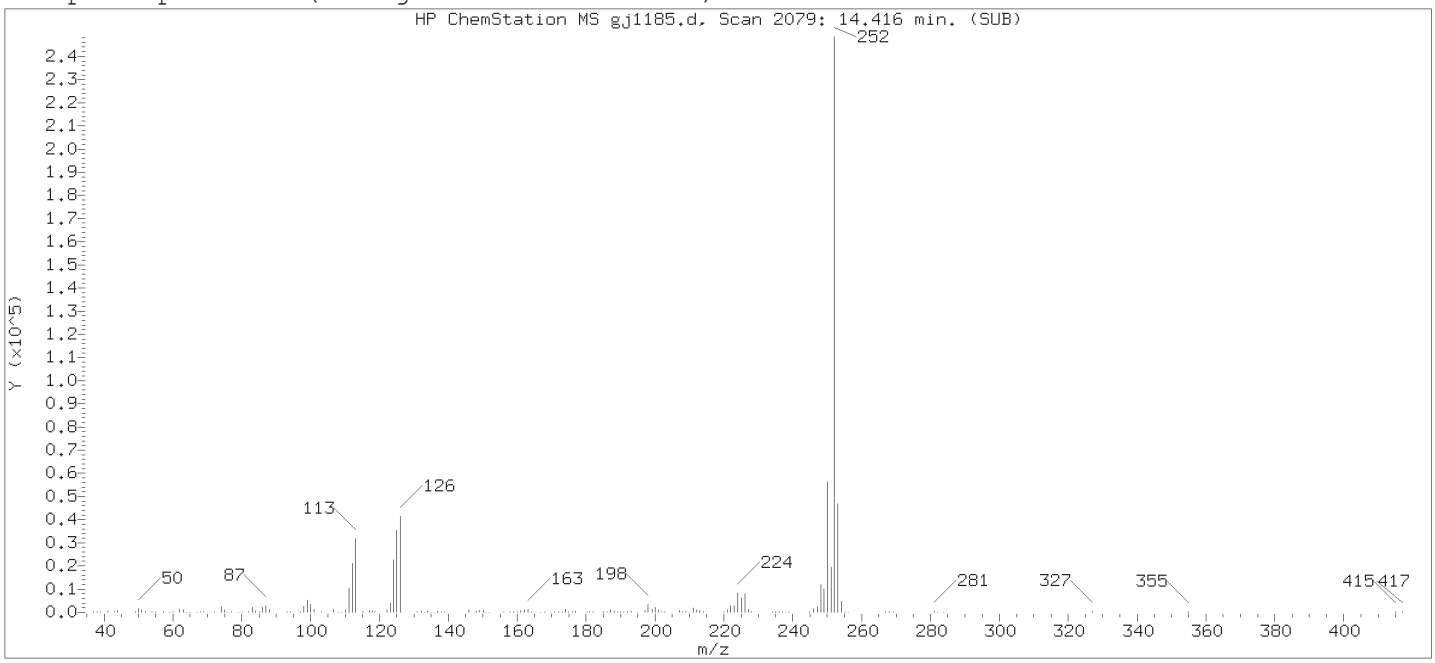
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2079		
Retention Time (minutes)	: 14.416		
Quant Ion	: 252.00		
Area (flag)	: 488550M		
On-Column Amount (ng/ul)	: 13.5199		
Integration start scan	: 2068	Integration stop scan:	2096
Y at integration start	: 365	Y at integration end:	1659

Reason for manual integration: improper integration

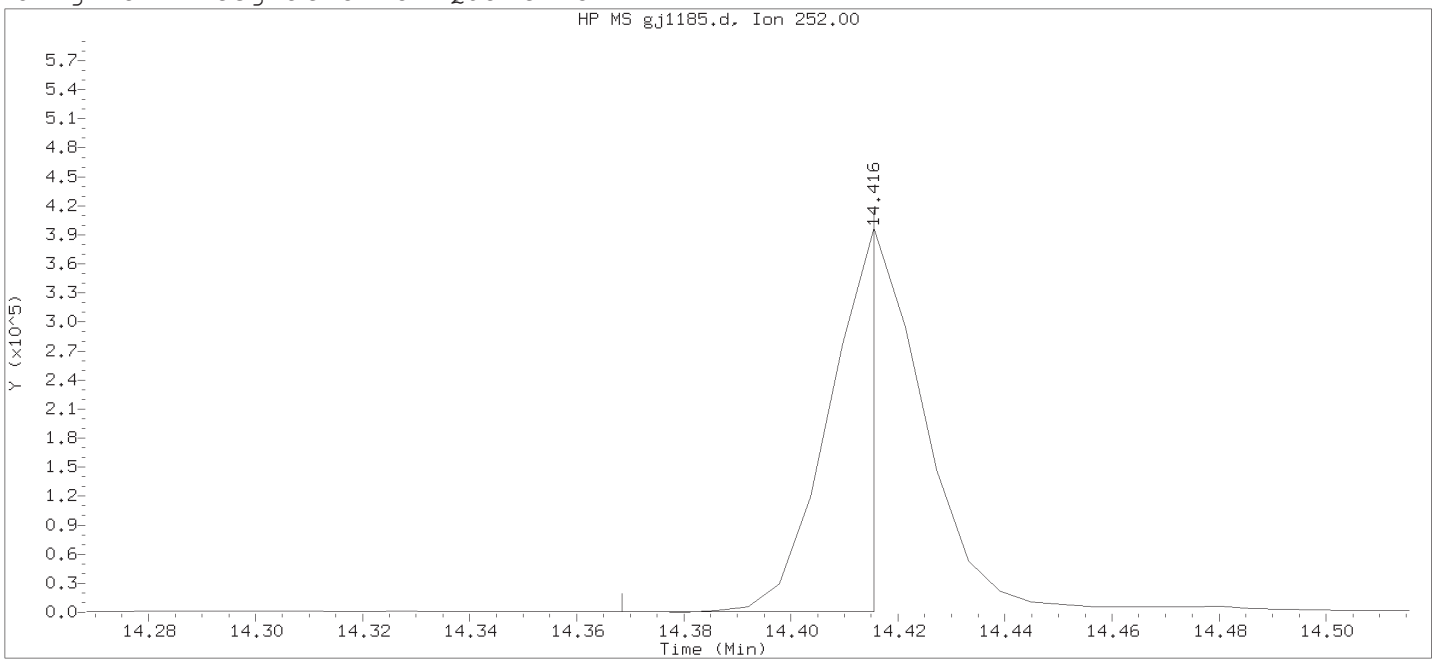
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



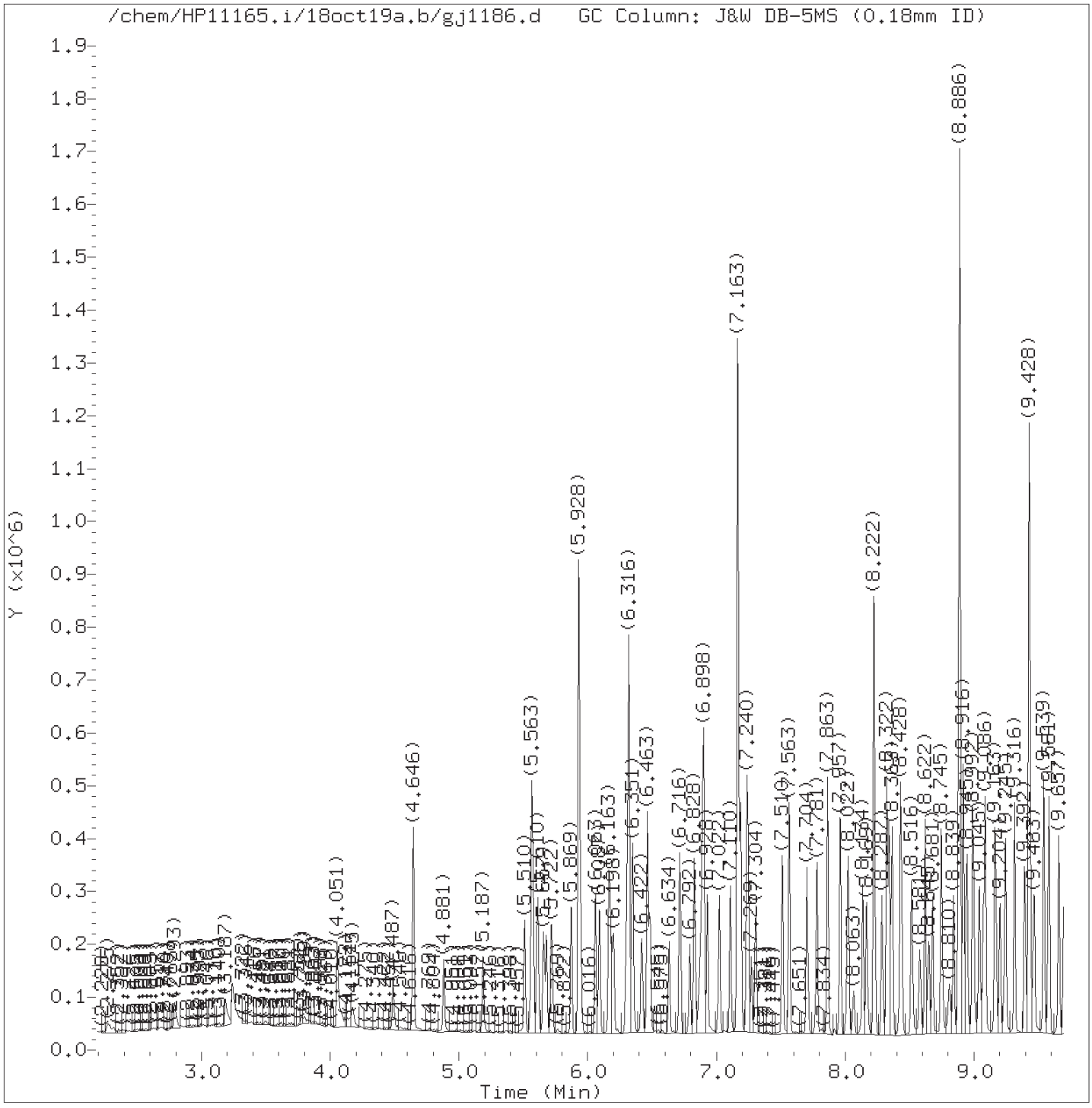
Data File: /chem/HP11165.i/18oct19a.b/gj1185.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:14 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 03:36
Date, time and analyst ID of latest file update: 20-Oct-2018 03:36 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2079		
Retention Time (minutes)	: 14.416		
Quant Ion	: 252.00		
Area	: 222367		
On-column Amount (ng/ul)	: 7.1103		
Integration start scan	: 2070	Integration stop scan:	2078
Y at integration start	: 321	Y at integration end:	321

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: EMONBORNE



Total Ion Chromatogram (TIC)

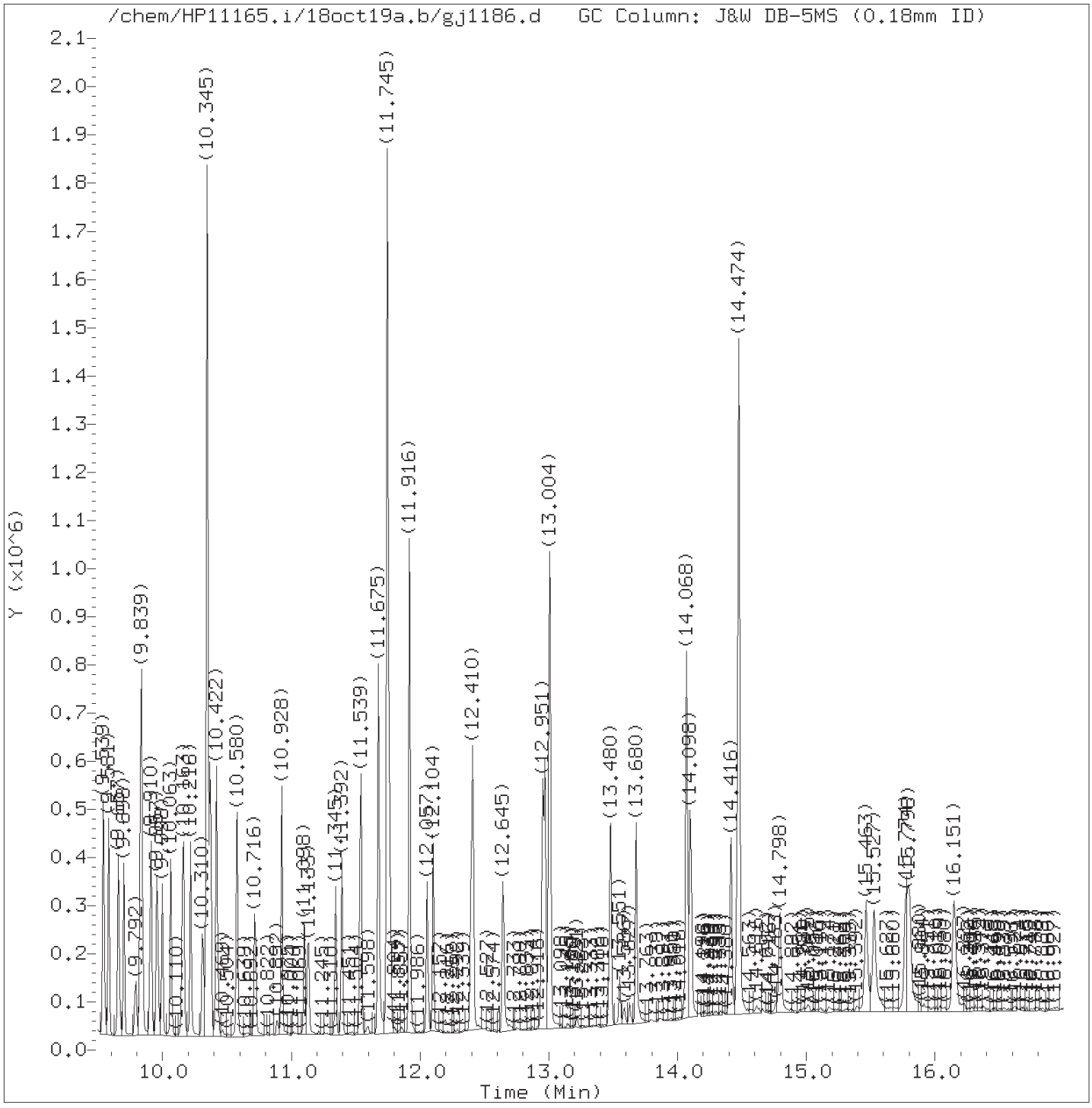
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.793	88	24210	5.781
4) N-Nitrosodimethylamine	(1)	3.187	74	35745	5.070
5) Pyridine	(1)	3.234	79	66357	5.465
7) 2-Picoline	(1)	4.051	93	65575	5.210
8) N-Nitrosomethylethylamine	(1)	4.175	88	30780M	5.400
9) Methyl methanesulfonate	(1)	4.487	80	31578	5.052
11)$2-Fluorophenol	(1)	4.646	112	106920	10.476
13) N-Nitrosodiethylamine	(1)	4.881	102	29095	4.993
15) Ethyl methanesulfonate	(1)	5.187	109	29895	5.116
17)$Phenol-d6	(1)	5.563	99	147308	10.030
18) Phenol	(1)	5.575	94	75108	4.695
19) Aniline	(1)	5.610	93	96267	5.117
20) a-methylstyrene	(1)	5.657	118	5777	5.678
42) Total Cresols	(1)			113502	9.861
22) bis(2-Chloroethyl)ether	(1)	5.675	93	59643	5.049
23) 2-Chlorophenol	(1)	5.722	128	56910	5.142
24) 1,3-Dichlorobenzene	(1)	5.875	146	57874	5.226
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	136421	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	57307	5.145
27) Benzyl alcohol	(1)	6.063	108	40571	5.064
28) 1,2-Dichlorobenzene	(1)	6.093	146	54074	5.063
31) 2-Methylphenol	(1)	6.163	108	54193	4.902
30) Indene	(1)	6.175	115	63155	5.201
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.193	45	82169	5.234
34) bis(2-Chloroisopropyl)ether	(1)	6.193	45	82169	5.234
35) N-Nitrosopyrrolidine	(1)	6.298	100	31175	4.746
37) 4-Methylphenol	(1)	6.310	108	59309	4.958
38) N-Nitroso-di-n-propylamine	(1)	6.316	70	56266	5.262
36) Acetophenone	(1)	6.316	105	80532	4.865
39) N-Nitrosomorpholine	(1)	6.340	56	43485	5.224
40) o-Toluidine	(1)	6.351	106	100670	5.156
43) Hexachloroethane	(1)	6.422	117	22661	5.262
44)$Nitrobenzene-d5	(2)	6.463	82	136555	9.874
45) Nitrobenzene	(2)	6.481	77	70822	4.935
48) N-Nitrosopiperidine	(2)	6.634	114	31559	4.927
50) Isophorone	(2)	6.716	82	138421	5.147
51) 2-Nitrophenol	(2)	6.792	139	28799	4.757
53) 2,4-Dimethylphenol	(2)	6.828	107	61107	4.853
56) Benzoic acid	(2)	6.892	105	152829	14.534
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	26832	5.090

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.928	93	76577	4.951
60) 2,4-Dichlorophenol	(2)	7.022	162	45972	4.956
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	46848	5.168
65)*Naphthalene-d8	(2)	7.163	136	617574	20.000
66) Naphthalene	(2)	7.187	128	181993	5.231
67) 4-Chloroaniline	(2)	7.240	127	75358	5.071
68) 2,6-Dichlorophenol	(2)	7.245	162	46466	5.082
69) Hexachloropropene	(2)	7.269	213	17740	4.699
71) Hexachlorobutadiene	(2)	7.304	225	20725	4.935
97) Isosafrole	(3)			46941	4.949
75) Quinoline	(2)	7.510	129	122346	5.228
76) Caprolactam	(2)	7.563	113	23033	5.214
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	62631	5.260
80) 4-Chloro-3-methylphenol	(2)	7.704	107	57231	5.063
82) Safrole	(2)	7.781	162	43958	4.925
83) 2-Methylnaphthalene	(2)	7.863	142	126554	5.194
84) 1-Methylnaphthalene	(2)	7.957	142	121106	5.218
85) Hexachlorocyclopentadiene	(3)	8.016	237	19118	4.077
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	43448	4.801
120) 2,4_2,6-Dinitrotoluenes	(3)			65300	9.179
88) cis-Isosafrole	(3)	8.063	162	7903	0.826
90) 2,4,6-Trichlorophenol	(3)	8.134	196	31111	4.767
92) 2,4,5-Trichlorophenol	(3)	8.169	196	35192	4.956
93)$2-Fluorobiphenyl	(3)	8.228	172	261670	9.907
94) trans-Isosafrole	(3)	8.287	162	39038	4.124
95) 1,1'-Biphenyl	(3)	8.322	154	146846	4.991
96) 2-Chloronaphthalene	(3)	8.339	162	110460	4.799
98) 1-Chloronaphthalene	(3)	8.363	162	115971	5.192
99) Diphenyl ether	(3)	8.428	170	79599	5.064
100) 2-Nitroaniline	(3)	8.439	138	36307	4.645
104) 1,4-Naphthoquinone	(3)	8.516	158	47473	4.749
105) 1,4-Dinitrobenzene	(3)	8.581	168	16031	4.176
106) Dimethylphthalate	(3)	8.622	163	138785	5.130
107) 1,3-Dinitrobenzene	(3)	8.651	168	19327	4.372
108) 2,6-Dinitrotoluene	(3)	8.681	165	27729	4.559
109) Acenaphthylene	(3)	8.745	152	166680	4.985
146) Diallate trans/cis	(4)			73819	4.770
112) 3-Nitroaniline	(3)	8.839	138	32857	4.624
113)*Acenaphthene-d10	(3)	8.886	164	330970	20.000
114) Acenaphthene	(3)	8.916	153	126357	5.054

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.945	184	41191	11.529
116) 4-Nitrophenol	(3)	8.992	109	41926	9.379
117) Pentachlorobenzene	(3)	9.045	250	44052	5.161
118) 2,4-Dinitrotoluene	(3)	9.075	165	37571	4.620
119) Dibenzofuran	(3)	9.086	168	165935	5.071
121) 1-Naphthylamine	(3)	9.163	143	135977	4.928
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	25937	4.662
123) 2-Naphthylamine	(3)	9.245	143	139662	5.139
124) Diethylphthalate	(3)	9.316	149	138680	5.108
125) Thionazin	(3)	9.392	107	21275	4.641
126) Fluorene	(3)	9.428	166	142626	5.032
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	63194	5.167
128) 5-Nitro-o-toluidine	(3)	9.434	152	41669	5.031
129) 4-Nitroaniline	(3)	9.439	138	38843	4.966
130) 4,6-Dinitro-2-methylphenol	(4)	9.469	198	32515	7.447
131) N-Nitrosodiphenylamine	(4)	9.539	169	121126	4.824
132) NDPA as diphenylamine	(4)	9.539	169	121126	4.824
134) 1,2-Diphenylhydrazine	(4)	9.581	77	165617	4.761
135)$2,4,6-Tribromophenol	(3)	9.657	330	38395	10.166
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	24086	4.735
139) 1,3,5-Trinitrobenzene	(4)	9.792	213	7701	2.784
140) Diallate (peak 1)	(4)	9.828	86	63020	3.953
141) Phorate	(4)	9.833	75	92667	4.463
142) Phenacetin	(4)	9.839	108	77977	4.790
143) 4-Bromophenyl-phenylether	(4)	9.910	248	36825	4.984
144) Diallate (peak 2)	(4)	9.916	86	10799	0.817
145) Hexachlorobenzene	(4)	9.957	284	37517	4.740
147) Dimethoate	(4)	9.998	87	57747	4.666
149) Pentachlorophenol	(4)	10.151	266	23302	4.467
150) 4-Aminobiphenyl	(4)	10.163	169	52454	4.808
151) Pentachloronitrobenzene	(4)	10.163	237	11877	4.280
152) Pronamide	(4)	10.216	173	53528	4.466
154) Dinoseb	(4)	10.333	211	18097	2.905
153)*Phenanthrene-d10	(4)	10.345	188	645177	20.000
155) Phenanthrene	(4)	10.369	178	207285	5.036
157) Anthracene	(4)	10.422	178	205353	4.864
163) Carbazole	(4)	10.580	167	195063	4.942
164) Methyl parathion	(4)	10.716	109	37772	4.175
165) Di-n-butylphthalate	(4)	10.928	149	222748	4.568
167) Parathion	(4)	11.098	109	21804	3.704

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

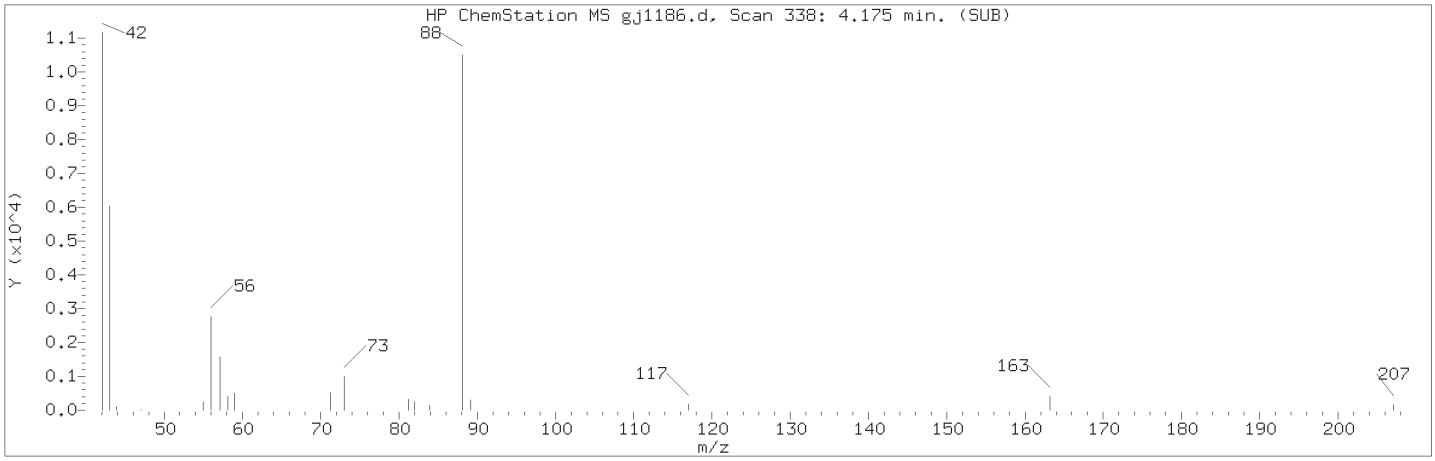
Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.133	190	8419	2.648
169) Octachlorostyrene	(4)	11.345	308	15201	4.847
171) Isodrin	(4)	11.392	193	19750	4.591
173) Fluoranthene	(4)	11.539	202	207486	4.804
174) Benzidine	(5)	11.675	184	301563	10.795
175)*Pyrene-d10	(5)	11.745	212	587959	20.000
177) Pyrene	(5)	11.763	202	223301	5.164
179)$Terphenyl-d14	(5)	11.916	244	297020	9.530
182) p-Dimethylaminoazobenzene	(5)	12.057	225	29663	4.460
185) Chlorobenzilate	(5)	12.104	139	66818	4.744
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	113039	4.404
188) Butylbenzylphthalate	(5)	12.410	149	100723	4.676
191) 2-Acetylaminofluorene	(5)	12.645	181	73314	4.459
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	66988	4.460
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	33893	4.533
195) Benzo(a)anthracene	(5)	12.969	228	197500	5.028
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	137093	4.629
196) Chrysene	(5)	13.010	228	191890	5.108
203) 6-Methylchrysene	(5)	13.480	242	138339	5.108
205) Di-n-octylphthalate	(6)	13.680	149	209570	3.854
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.063	256	87720	4.173
206) Benzo(b)fluoranthene	(6)	14.074	252	190230	4.314
208) Benzo(k)fluoranthene	(6)	14.098	252	205227	4.734
211) Benzo(a)pyrene	(6)	14.416	252	178657	4.611
213)*Perylene-d12	(6)	14.474	264	621830	20.000
215) 3-Methylcholanthrene	(6)	14.798	268	70838	4.578
222) Total PAHs	(6)			3230862	89.388
217) Dibenz(a,h)acridine	(6)	15.463	279	132891	4.585
218) Dibenz(a,j)acridine	(6)	15.527	279	154348	4.821
219) Indeno(1,2,3-cd)pyrene	(6)	15.774	276	207728	4.938
220) Dibenz(a,h)anthracene	(6)	15.798	278	177340	5.005
221) Benzo(g,h,i)perylene	(6)	16.151	276	173549	5.068

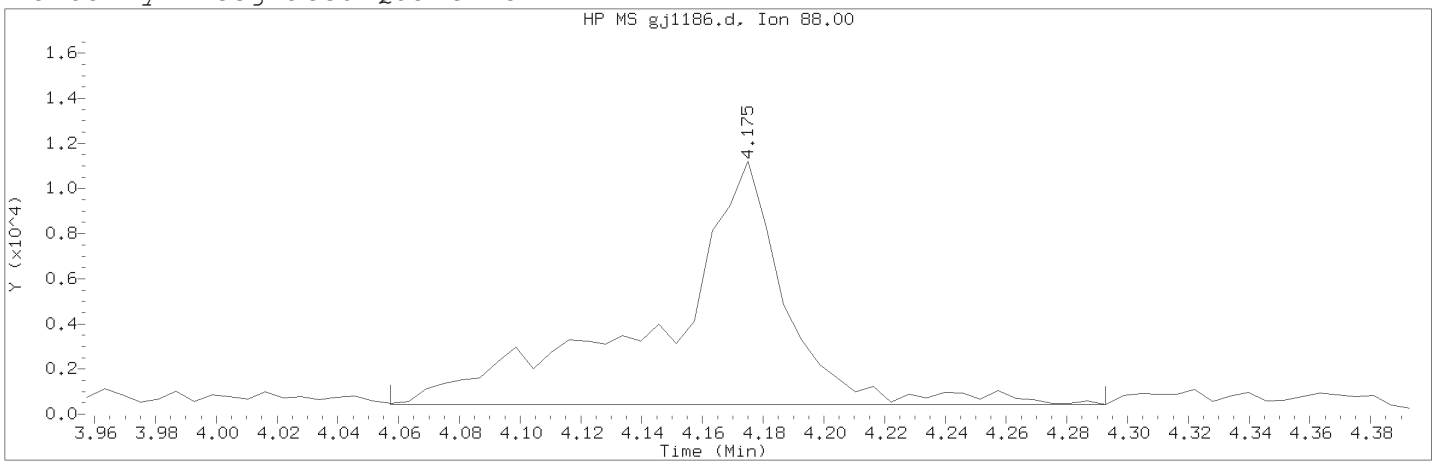
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

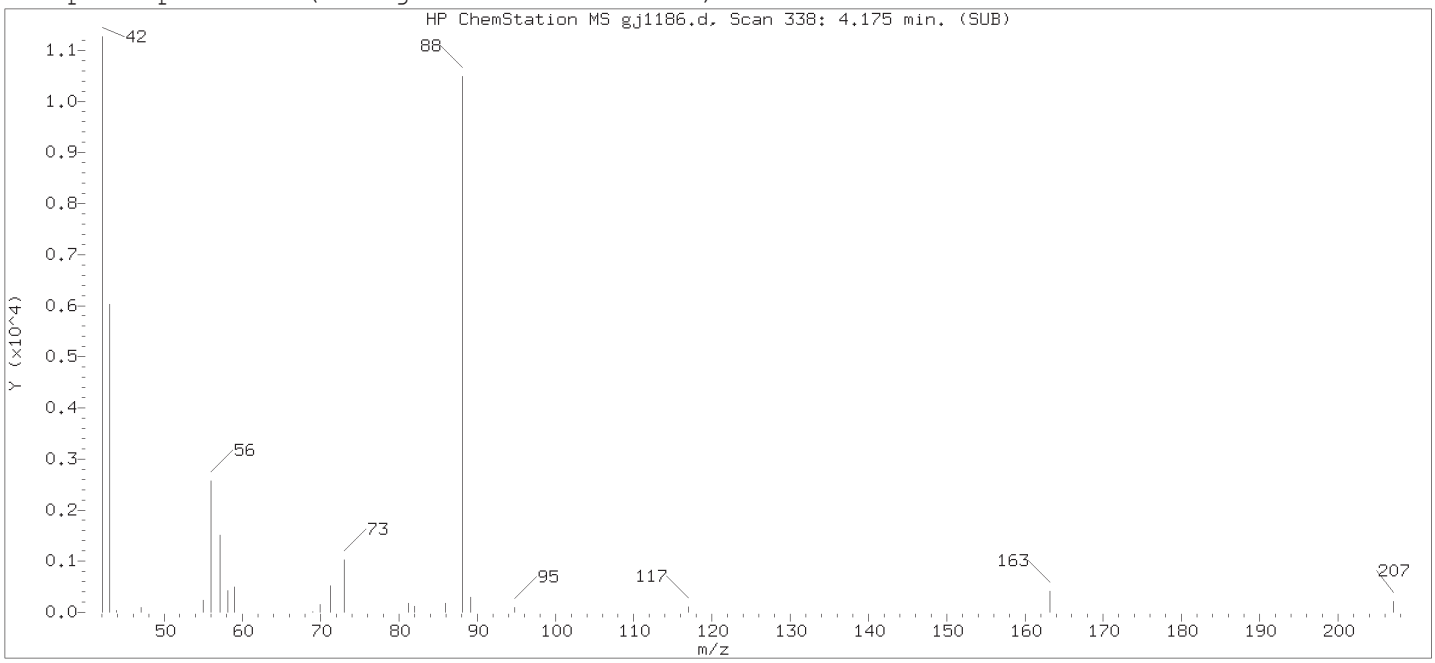
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 338		
Retention Time (minutes)	: 4.175		
Quant Ion	: 88.00		
Area (flag)	: 30780M		
On-Column Amount (ng/ul)	: 5.4001		
Integration start scan	: 317	Integration stop scan:	357
Y at integration start	: 421	Y at integration end:	421

Reason for manual integration: improper integration

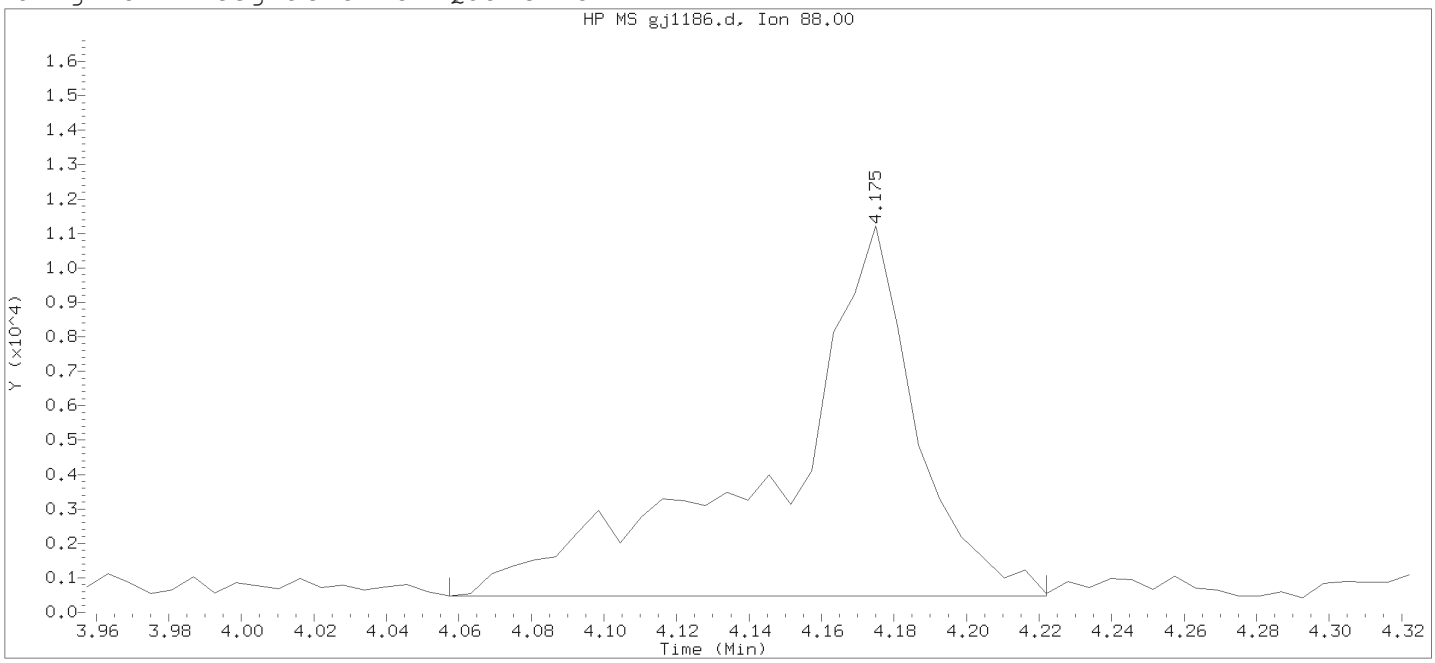
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



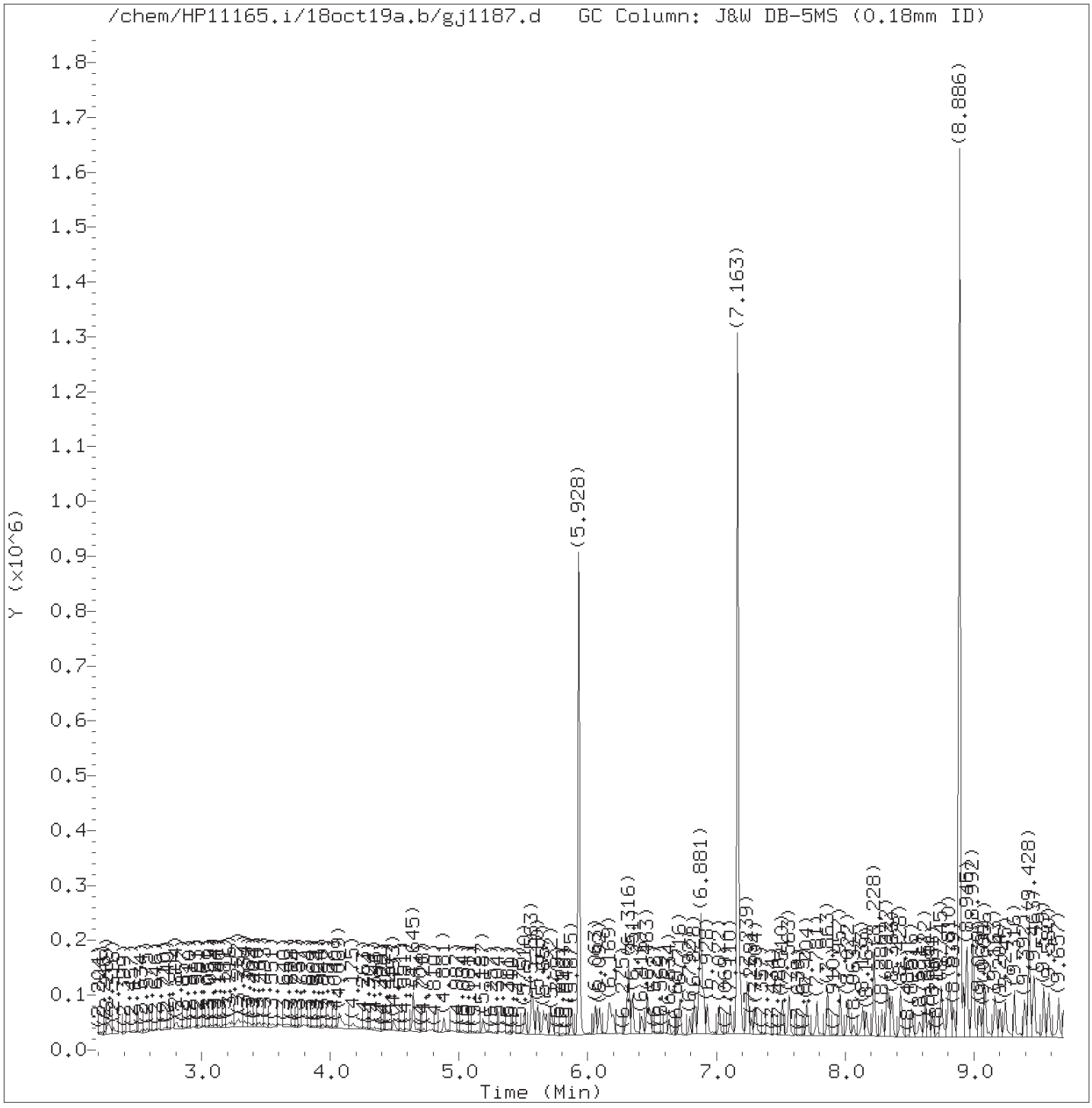
Data File: /chem/HP11165.i/18oct19a.b/gj1186.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 03:40 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:02
Date, time and analyst ID of latest file update: 20-Oct-2018 04:02 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 338		
Retention Time (minutes)	: 4.175		
Quant Ion	: 88.00		
Area	: 29011		
On-column Amount (ng/ul)	: 5.3111		
Integration start scan	: 317	Integration stop scan:	345
Y at integration start	: 472	Y at integration end:	472

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

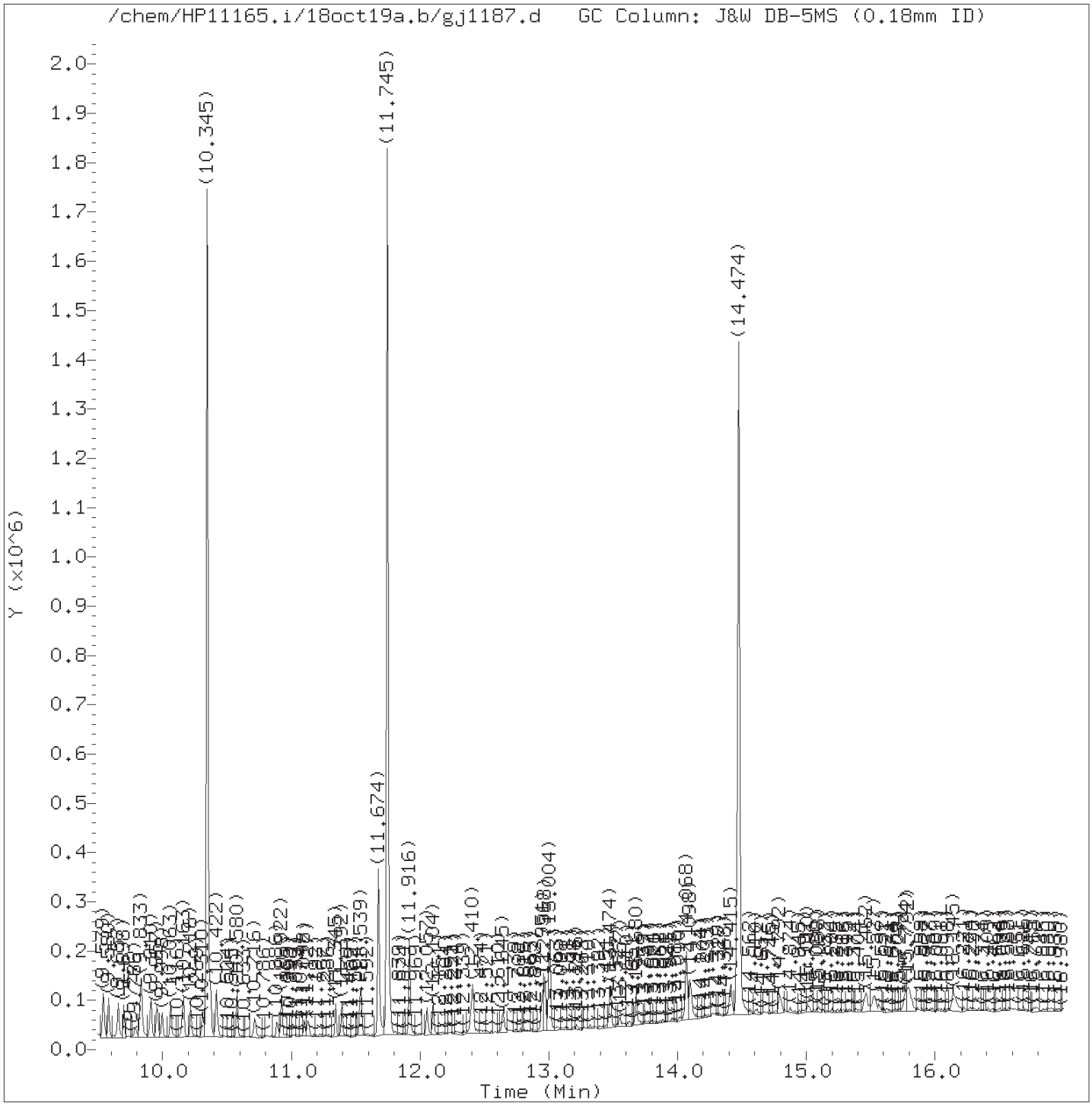
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.799	88	4698	1.156
4) N-Nitrosodimethylamine	(1)	3.216	74	7633M	1.116
5) Pyridine	(1)	3.281	79	13168A	1.118
7) 2-Picoline	(1)	4.069	93	13100	1.073
8) N-Nitrosomethylethylamine	(1)	4.181	88	7020M	1.269
9) Methyl methanesulfonate	(1)	4.493	80	6036	0.995
11)$2-Fluorophenol	(1)	4.645	112	18346	1.853
13) N-Nitrosodiethylamine	(1)	4.881	102	4796	0.867
15) Ethyl methanesulfonate	(1)	5.187	109	6079	1.061
17)$Phenol-d6	(1)	5.563	99	25400	1.782
18) Phenol	(1)	5.575	94	13356	0.878
19) Aniline	(1)	5.610	93	18013	0.989
20) a-methylstyrene	(1)	5.657	118	1402	1.420
42) Total Cresols	(1)			21337	1.919
22) bis(2-Chloroethyl)ether	(1)	5.681	93	11613	1.011
23) 2-Chlorophenol	(1)	5.722	128	10342	0.968
24) 1,3-Dichlorobenzene	(1)	5.875	146	10517	0.982
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	132364	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	10458	0.972
27) Benzyl alcohol	(1)	6.063	108	9751	1.210
28) 1,2-Dichlorobenzene	(1)	6.092	146	10143	0.982
31) 2-Methylphenol	(1)	6.163	108	9692	0.916
30) Indene	(1)	6.181	115	14799	1.256
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	16682M	1.081
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	16682M	1.081
35) N-Nitrosopyrrolidine	(1)	6.298	100	6535	1.022
37) 4-Methylphenol	(1)	6.310	108	11645	1.003
38) N-Nitroso-di-n-propylamine	(1)	6.316	70	11023	1.053
36) Acetophenone	(1)	6.316	105	15331	0.961
39) N-Nitrosomorpholine	(1)	6.340	56	7773	0.962
40) o-Toluidine	(1)	6.351	106	18872	0.997
43) Hexachloroethane	(1)	6.422	117	4641	1.111
44)$Nitrobenzene-d5	(2)	6.463	82	25422	1.955
45) Nitrobenzene	(2)	6.481	77	15088	1.100
48) N-Nitrosopiperidine	(2)	6.634	114	6110	1.013
50) Isophorone	(2)	6.716	82	25372	1.003
51) 2-Nitrophenol	(2)	6.792	139	4125	0.754
53) 2,4-Dimethylphenol	(2)	6.828	107	11118	0.947
56) Benzoic acid	(2)	6.881	105	89383	9.042
57) O,O,O-Triethylphosphorothioate	(2)	6.898	198	4473	0.903

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.928	93	14900	1.021
60) 2,4-Dichlorophenol	(2)	7.022	162	8039	0.932
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	8669	1.017
65)*Naphthalene-d8	(2)	7.163	136	580602	20.000
66) Naphthalene	(2)	7.186	128	34712	1.052
67) 4-Chloroaniline	(2)	7.239	127	12060	0.880
68) 2,6-Dichlorophenol	(2)	7.245	162	8443	0.985
69) Hexachloropropene	(2)	7.269	213	2952	0.832
71) Hexachlorobutadiene	(2)	7.304	225	4288	1.073
97) Isosafrole	(3)			8512	0.922
75) Quinoline	(2)	7.510	129	23121	1.051
76) Caprolactam	(2)	7.557	113	5136M	1.237
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	13095	1.138
80) 4-Chloro-3-methylphenol	(2)	7.704	107	9211	0.884
82) Safrole	(2)	7.781	162	7946	0.947
83) 2-Methylnaphthalene	(2)	7.863	142	22409	0.981
84) 1-Methylnaphthalene	(2)	7.963	142	22218	1.016
85) Hexachlorocyclopentadiene	(3)	8.016	237	3428	0.751
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.022	216	8115	0.932
120) 2,4_2,6-Dinitrotoluenes	(3)			10310	1.519
88) cis-Isosafrole	(3)	8.069	162	1551	0.167
90) 2,4,6-Trichlorophenol	(3)	8.133	196	4414	0.727
92) 2,4,5-Trichlorophenol	(3)	8.169	196	6572	0.958
93)$2-Fluorobiphenyl	(3)	8.228	172	47262	1.839
94) trans-Isosafrole	(3)	8.286	162	6961	0.756
95) 1,1'-Biphenyl	(3)	8.322	154	28360	0.992
96) 2-Chloronaphthalene	(3)	8.339	162	19560	0.889
98) 1-Chloronaphthalene	(3)	8.363	162	19467	0.909
99) Diphenyl ether	(3)	8.428	170	14244	0.940
100) 2-Nitroaniline	(3)	8.439	138	5519	0.755
104) 1,4-Naphthoquinone	(3)	8.516	158	7803	0.802
105) 1,4-Dinitrobenzene	(3)	8.581	168	3425	0.917
106) Dimethylphthalate	(3)	8.622	163	24997	0.949
107) 1,3-Dinitrobenzene	(3)	8.645	168	2762	0.642
108) 2,6-Dinitrotoluene	(3)	8.681	165	4422	0.775
109) Acenaphthylene	(3)	8.751	152	28819	0.900
146) Diallate trans/cis	(4)			13188	0.897
112) 3-Nitroaniline	(3)	8.839	138	5765	0.854
113)*Acenaphthene-d10	(3)	8.886	164	322110	20.000
114) Acenaphthene	(3)	8.916	153	22818	0.946

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.945	184	18382	5.287
116) 4-Nitrophenol	(3)	8.992	109	18520	4.257
117) Pentachlorobenzene	(3)	9.045	250	7683	0.935
118) 2,4-Dinitrotoluene	(3)	9.069	165	5888	0.744
119) Dibenzofuran	(3)	9.086	168	30050	0.951
121) 1-Naphthylamine	(3)	9.163	143	24226	0.902
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	4898	0.917
123) 2-Naphthylamine	(3)	9.245	143	22320	0.844
124) Diethylphthalate	(3)	9.316	149	24065	0.911
125) Thionazin	(3)	9.392	107	3880	0.870
126) Fluorene	(3)	9.428	166	24888	0.915
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	10804	0.920
129) 4-Nitroaniline	(3)	9.433	138	6993	0.929
128) 5-Nitro-o-toluidine	(3)	9.433	152	6964	0.881
130) 4,6-Dinitro-2-methylphenol	(4)	9.469	198	12963	3.096
131) N-Nitrosodiphenylamine	(4)	9.539	169	22456	0.941
132) NDPA as diphenylamine	(4)	9.539	169	22456	0.941
134) 1,2-Diphenylhydrazine	(4)	9.580	77	29193	0.891
135)$2,4,6-Tribromophenol	(3)	9.657	330	7139	1.942
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	5480	1.123
139) 1,3,5-Trinitrobenzene	(4)	9.792	213	1130	0.426
140) Diallate (peak 1)	(4)	9.828	86	10601	0.693
141) Phorate	(4)	9.833	75	15094	0.785
142) Phenacetin	(4)	9.839	108	12827	0.843
143) 4-Bromophenyl-phenylether	(4)	9.910	248	7015	0.990
144) Diallate (peak 2)	(4)	9.916	86	2587	0.204
145) Hexachlorobenzene	(4)	9.957	284	6753	0.904
147) Dimethoate	(4)	9.998	87	9671	0.815
149) Pentachlorophenol	(4)	10.151	266	3817	0.763
151) Pentachloronitrobenzene	(4)	10.157	237	2026	0.761
150) 4-Aminobiphenyl	(4)	10.163	169	11317	1.067
152) Pronamide	(4)	10.216	173	9207	0.824
154) Dinoseb	(4)	10.333	211	2416	0.404
153)*Phenanthrene-d10	(4)	10.345	188	618787	20.000
155) Phenanthrene	(4)	10.369	178	38634	0.982
157) Anthracene	(4)	10.422	178	38253	0.952
163) Carbazole	(4)	10.580	167	36430	0.967
164) Methyl parathion	(4)	10.716	109	5262	0.606
165) Di-n-butylphthalate	(4)	10.927	149	39828	0.852
167) Parathion	(4)	11.098	109	3450	0.611

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

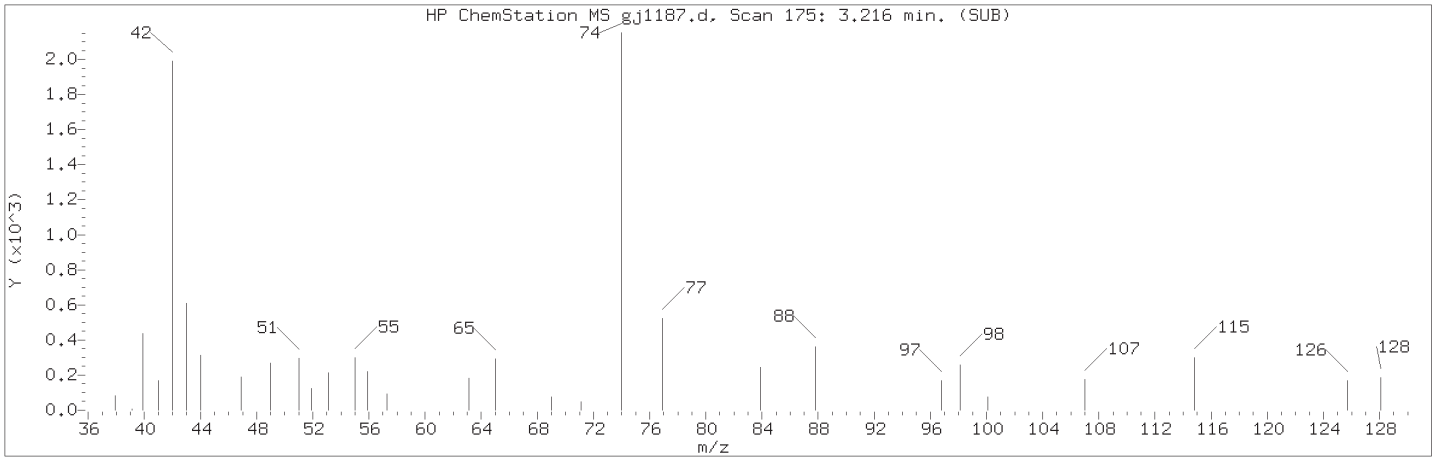
Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.133	190	1250	0.410
169) Octachlorostyrene	(4)	11.345	308	3791	1.260
171) Isodrin	(4)	11.392	193	4207	1.017
173) Fluoranthene	(4)	11.539	202	36288	0.892
174) Benzidine	(5)	11.674	184	146681	5.367
175)*Pyrene-d10	(5)	11.745	212	575246	20.000
177) Pyrene	(5)	11.763	202	43499	1.024
179)$Terphenyl-d14	(5)	11.916	244	54644	1.792
182) p-Dimethylaminoazobenzene	(5)	12.057	225	4922	0.784
185) Chlorobenzilate	(5)	12.104	139	10984	0.821
187) 3,3'-Dimethylbenzidine	(5)	12.392	212	13702	0.546
188) Butylbenzylphthalate	(5)	12.410	149	17529	0.832
191) 2-Acetylaminofluorene	(5)	12.645	181	9970	0.620
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	11710	0.797
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	4720	0.645
195) Benzo(a)anthracene	(5)	12.968	228	37769	0.985
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	23781	0.821
196) Chrysene	(5)	13.010	228	38334	1.037
203) 6-Methylchrysene	(5)	13.474	242	24898	0.940
205) Di-n-octylphthalate	(6)	13.680	149	30758	0.573
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.063	256	15050	0.755
206) Benzo(b)fluoranthene	(6)	14.068	252	34105	0.809
208) Benzo(k)fluoranthene	(6)	14.104	252	38468	0.912
211) Benzo(a)pyrene	(6)	14.415	252	31424	0.843
213)*Perylene-d12	(6)	14.474	264	613542	20.000
215) 3-Methylcholanthrene	(6)	14.792	268	13468	0.897
222) Total PAHs	(6)			589206	16.926
217) Dibenz(a,h)acridine	(6)	15.462	279	19738	0.690
218) Dibenz(a,j)acridine	(6)	15.527	279	28457	0.901
219) Indeno(1,2,3-cd)pyrene	(6)	15.768	276	35437	0.872
220) Dibenz(a,h)anthracene	(6)	15.792	278	30103	0.879
221) Benzo(g,h,i)perylene	(6)	16.151	276	31028	0.929

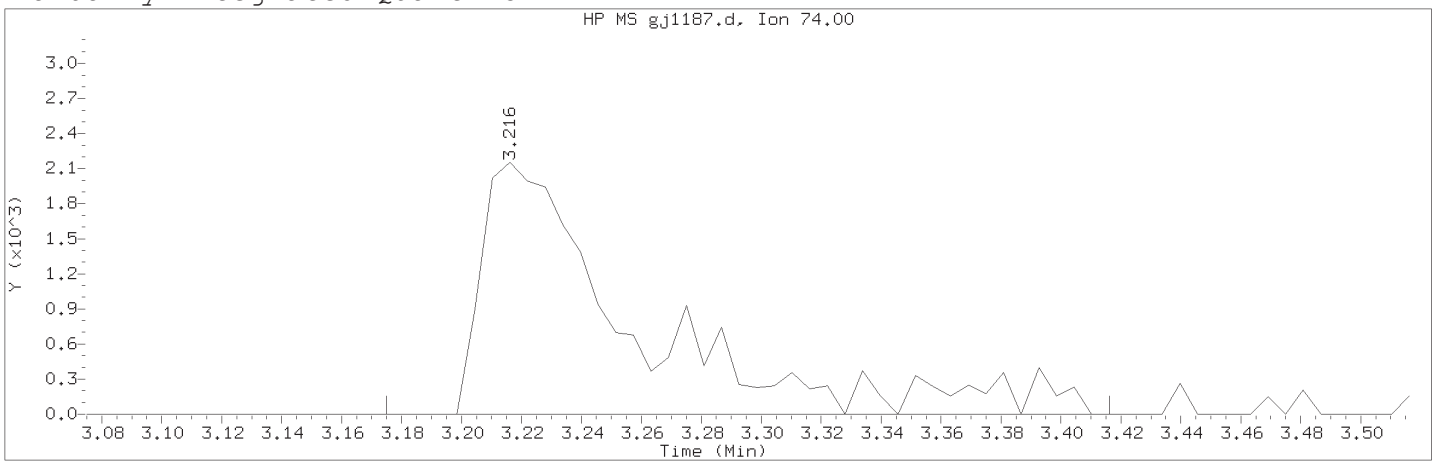
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

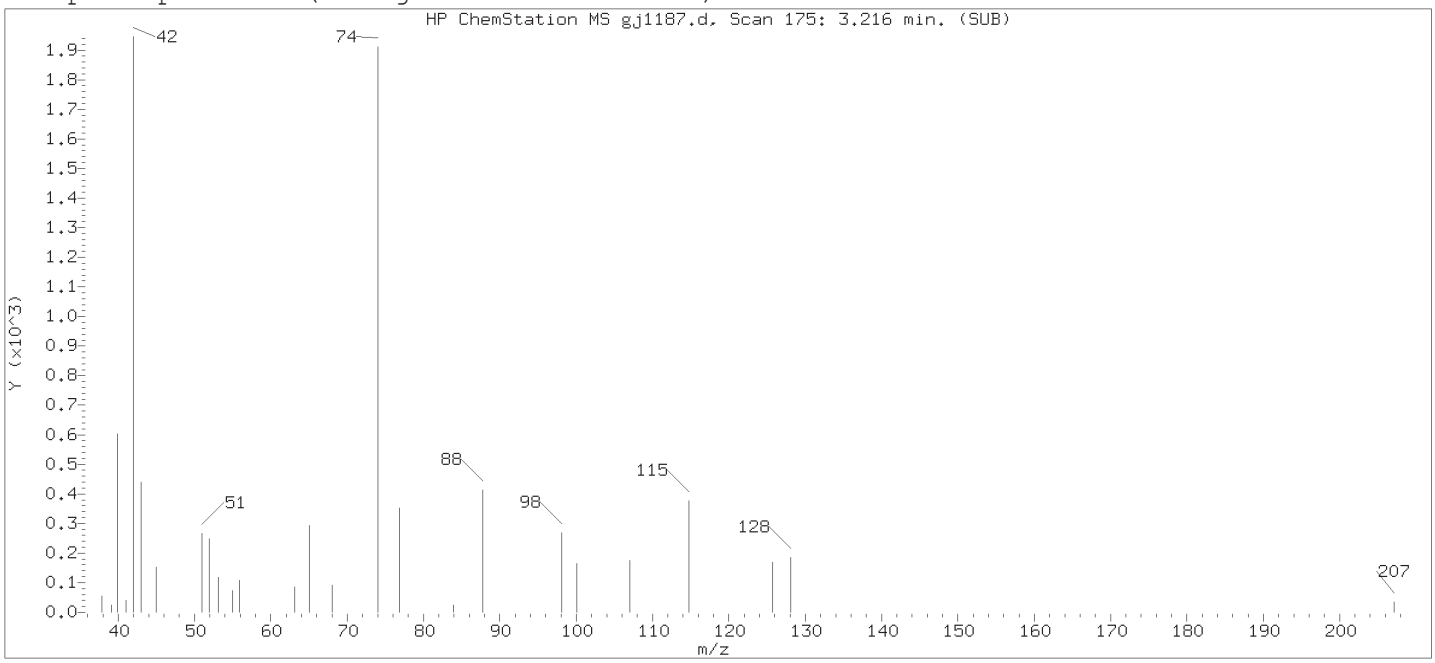
Compound Number : 4
Compound Name : N-Nitrosodimethylamine
Scan Number : 175
Retention Time (minutes) : 3.216
Quant Ion : 74.00
Area (flag) : 7633M
On-Column Amount (ng/ul) : 1.1157
Integration start scan : 167 Integration stop scan: 208
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

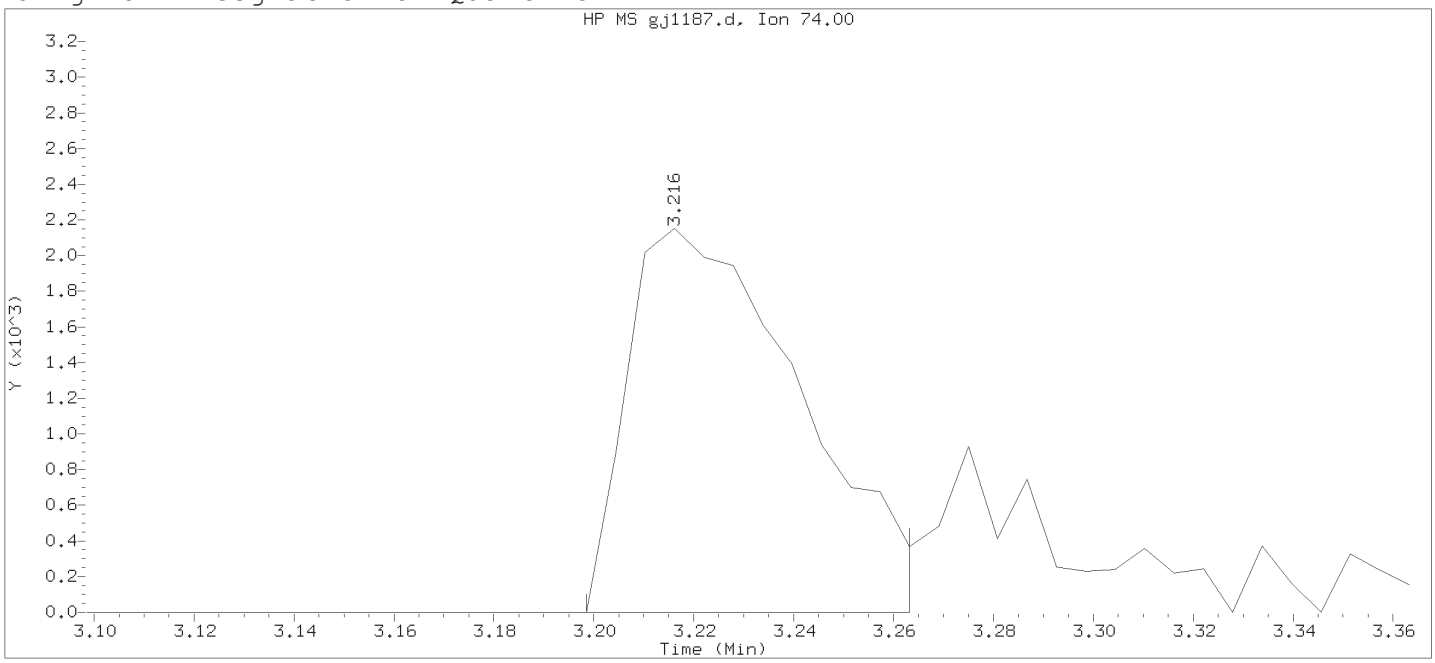
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

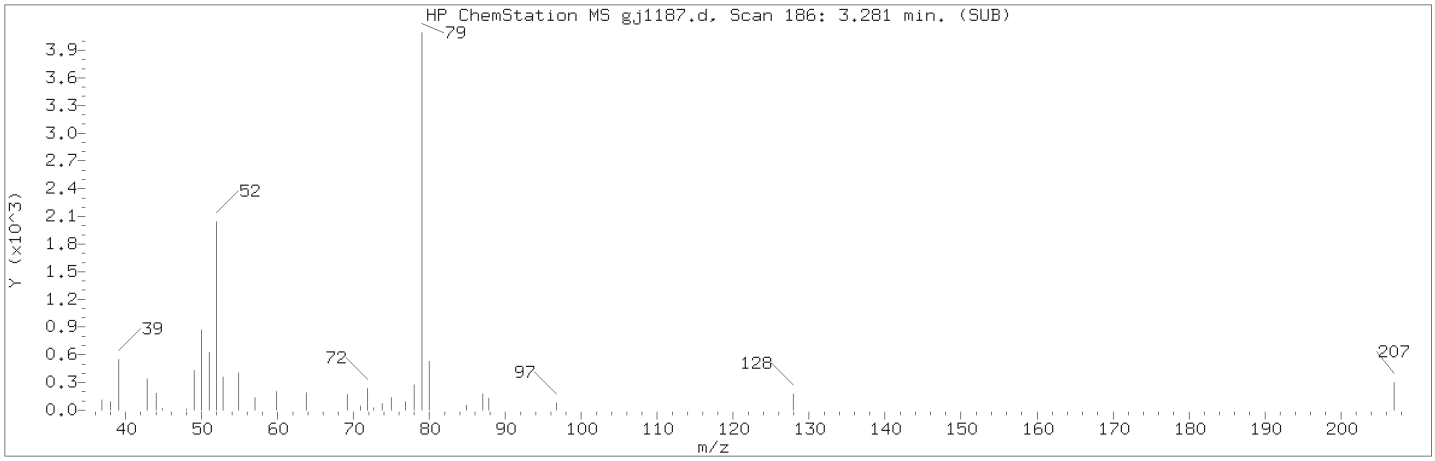
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

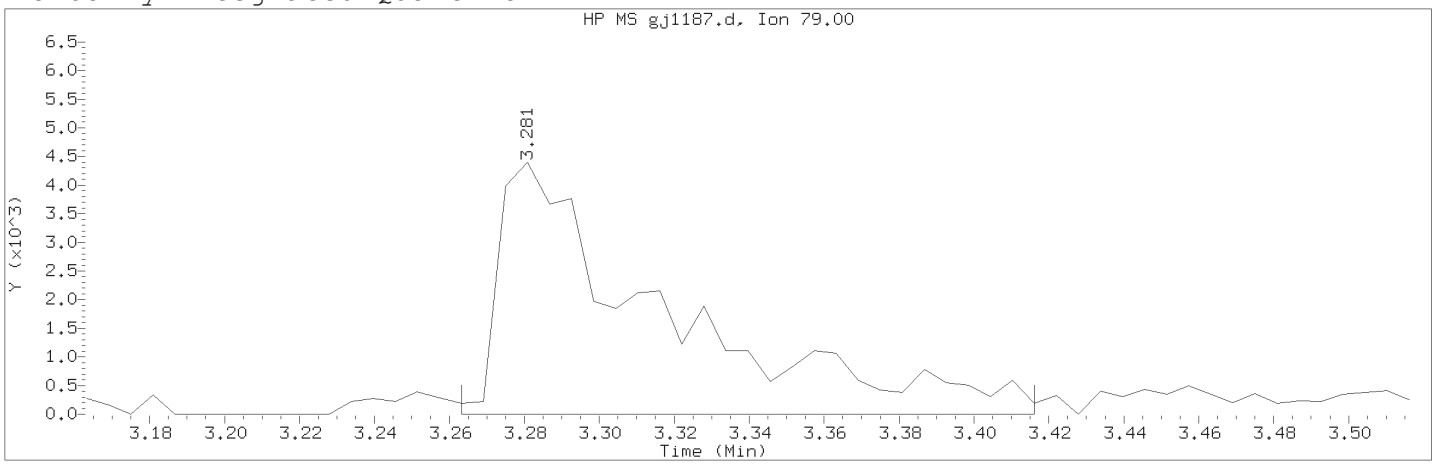
Compound Number	: 4
Compound Name	: N-Nitrosodimethylamine
Scan Number	: 175
Retention Time (minutes)	: 3.216
Quant Ion	: 74.00
Area	: 5119
On-column Amount (ng/ul)	: 0.7484
Integration start scan	: 171 Integration stop scan: 182
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: 12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

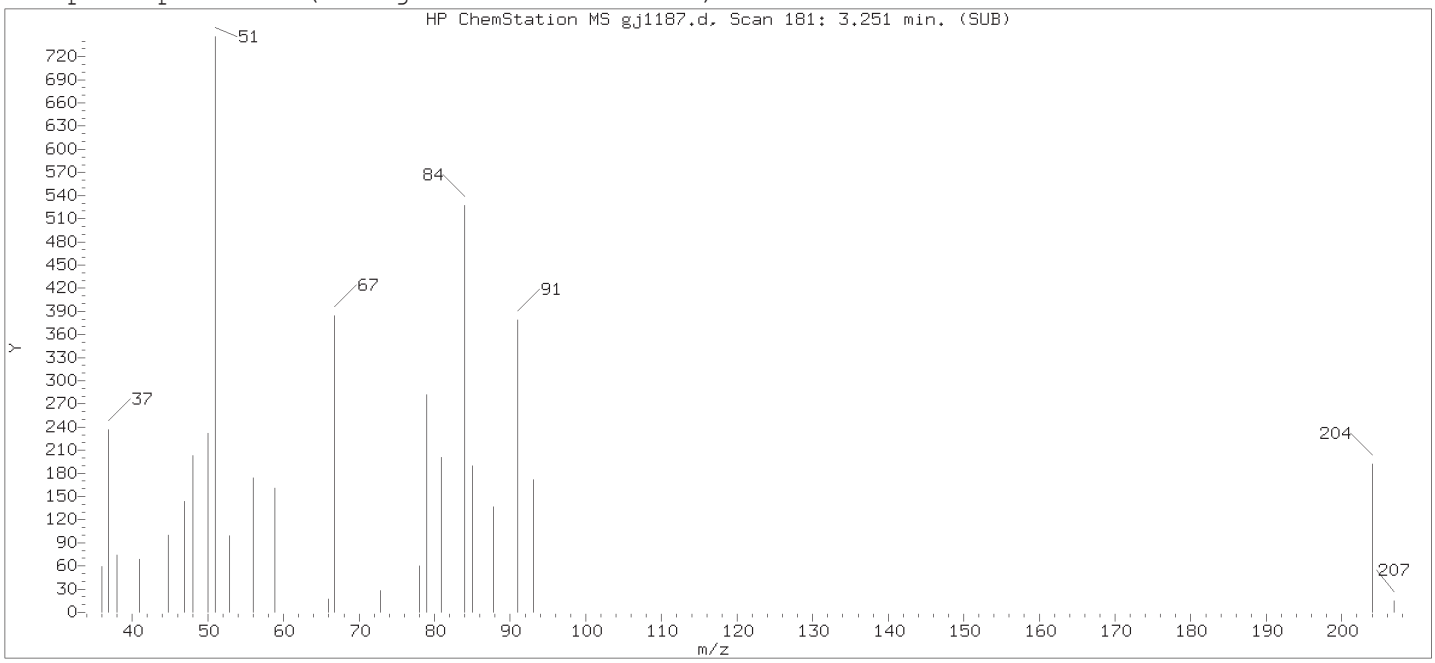
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 186		
Retention Time (minutes)	: 3.281		
Quant Ion	: 79.00		
Area (flag)	: 13168A		
On-Column Amount (ng/ul)	: 1.1178		
Integration start scan	: 182	Integration stop scan:	208
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

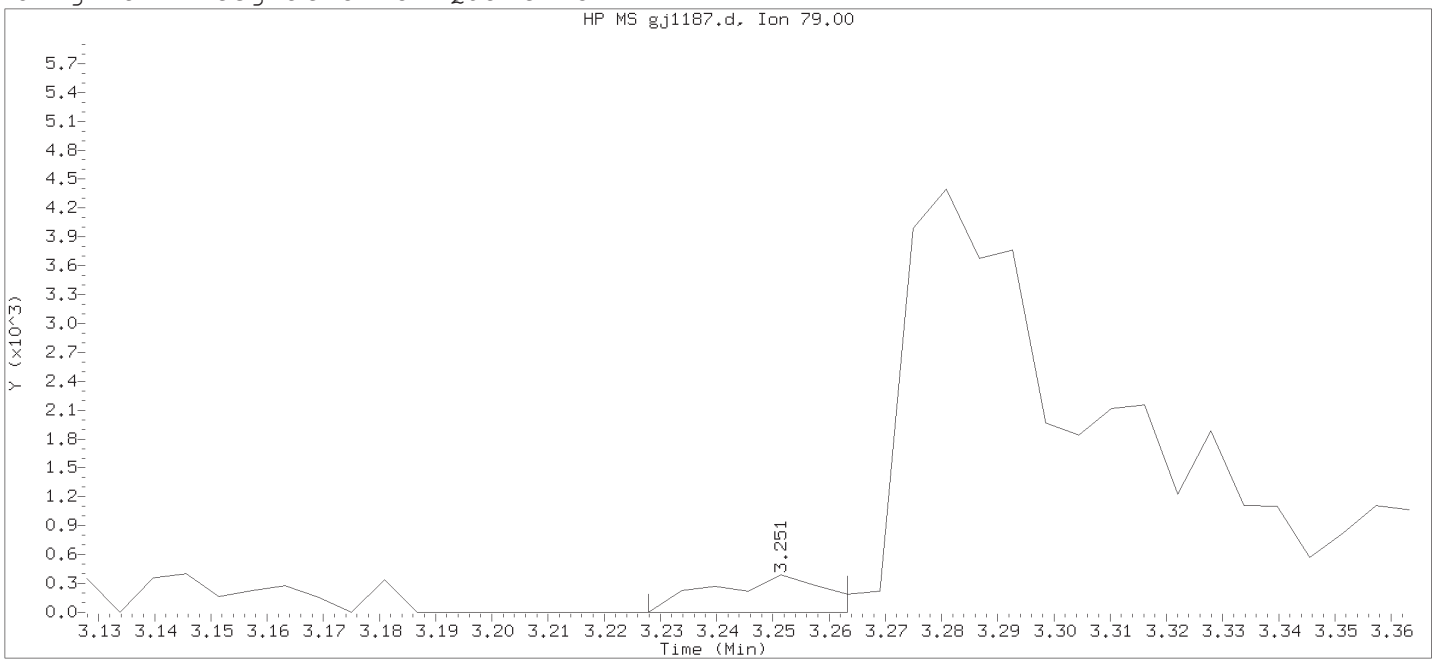
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

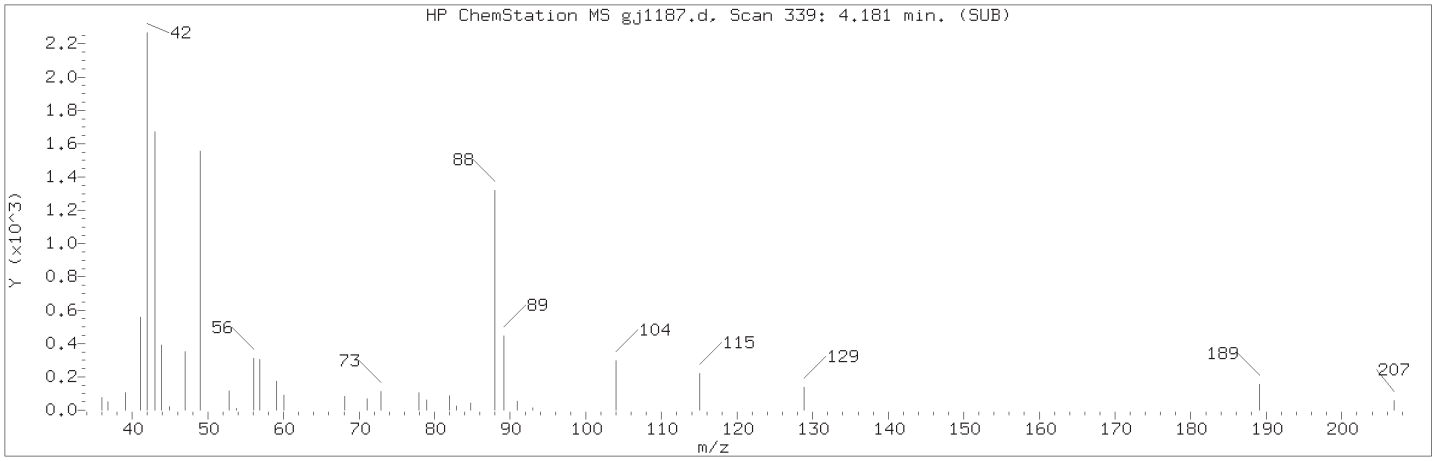
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

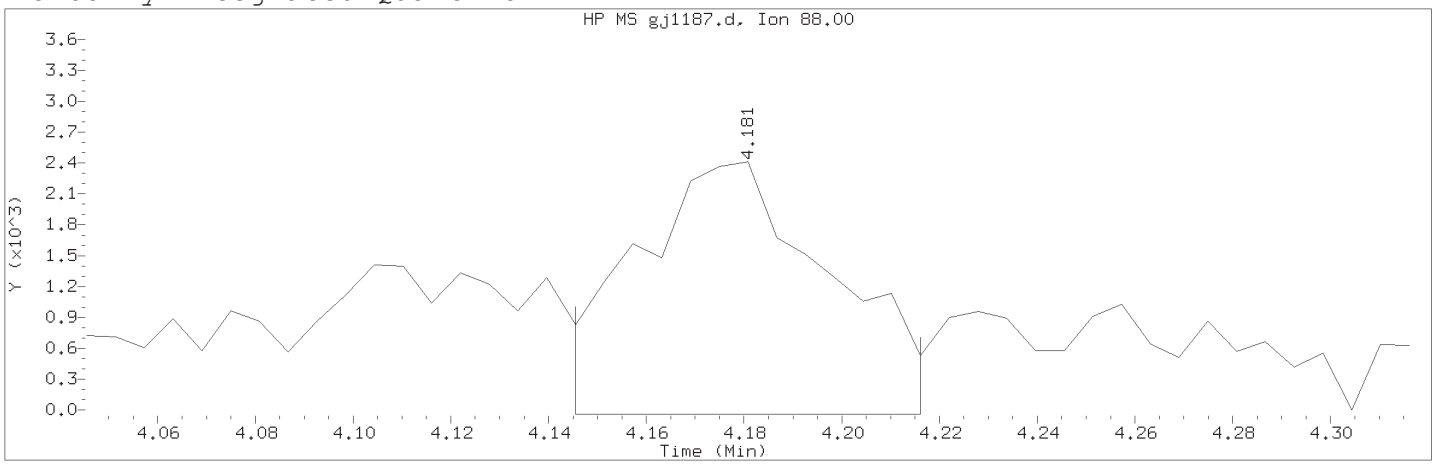
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 181		
Retention Time (minutes)	: 3.251		
Quant Ion	: 79.00		
Area	: 523		
On-column Amount (ng/ul)	: 0.0444		
Integration start scan	: 176	Integration stop scan:	182
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 0.0377

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

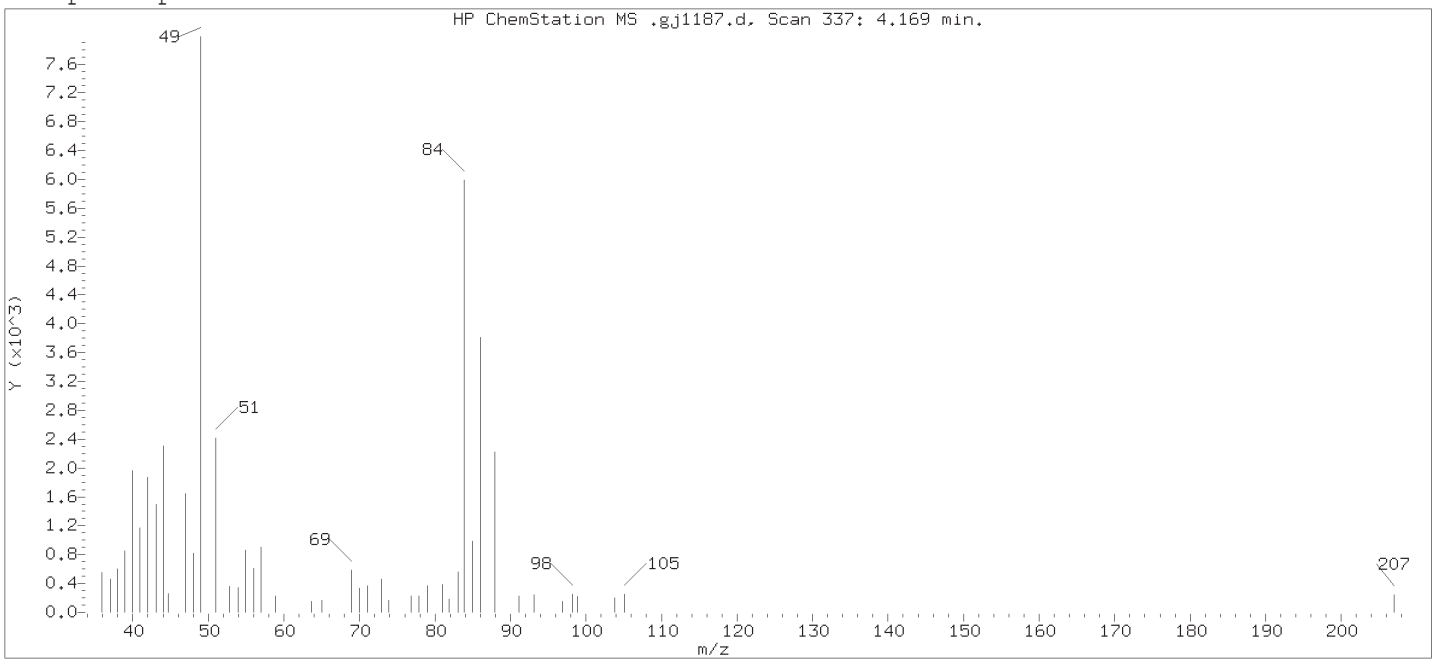
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 339		
Retention Time (minutes)	: 4.181		
Quant Ion	: 88.00		
Area (flag)	: 7020M		
On-Column Amount (ng/ul)	: 1.2694		
Integration start scan	: 332	Integration stop scan:	344
Y at integration start	: -40	Y at integration end:	-40

Reason for manual integration: missed peak

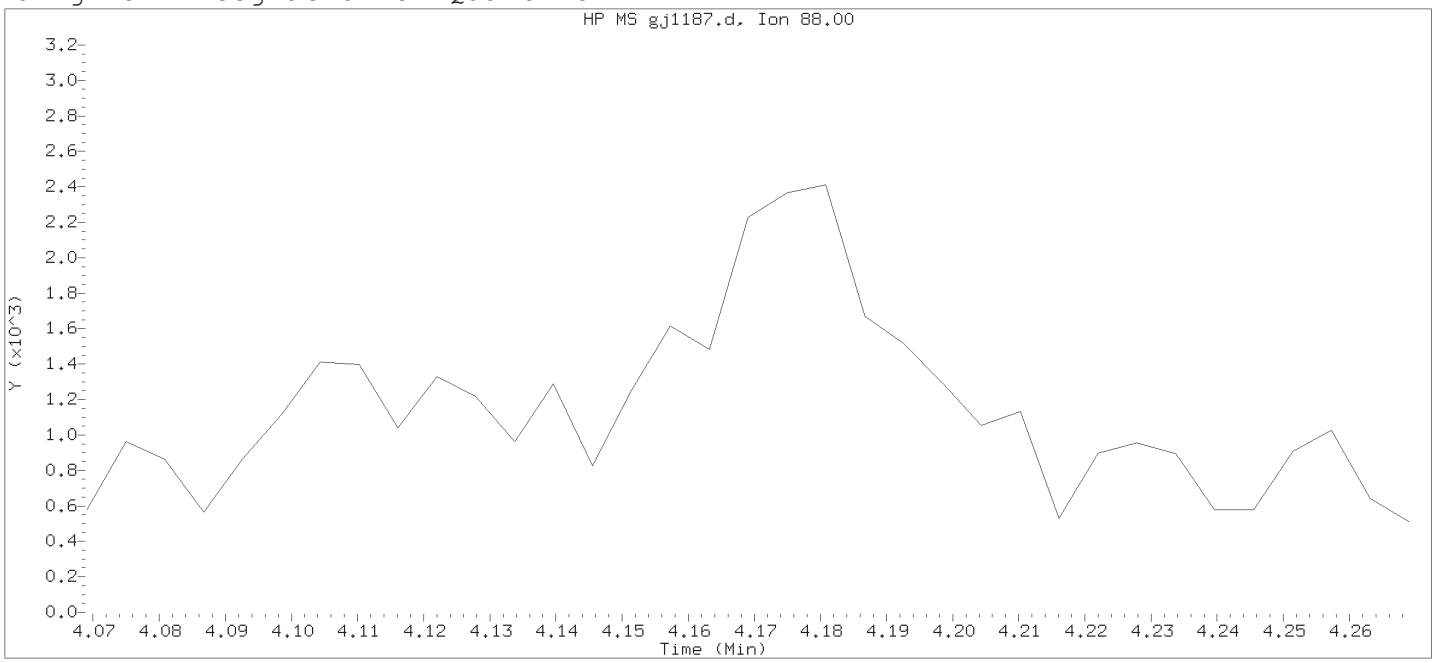
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

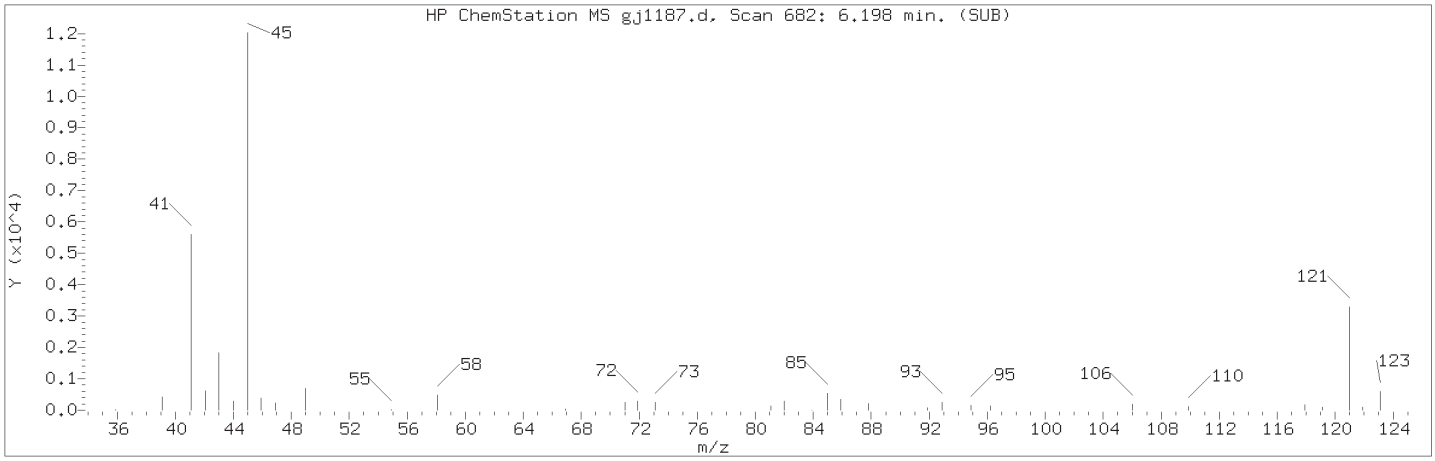
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

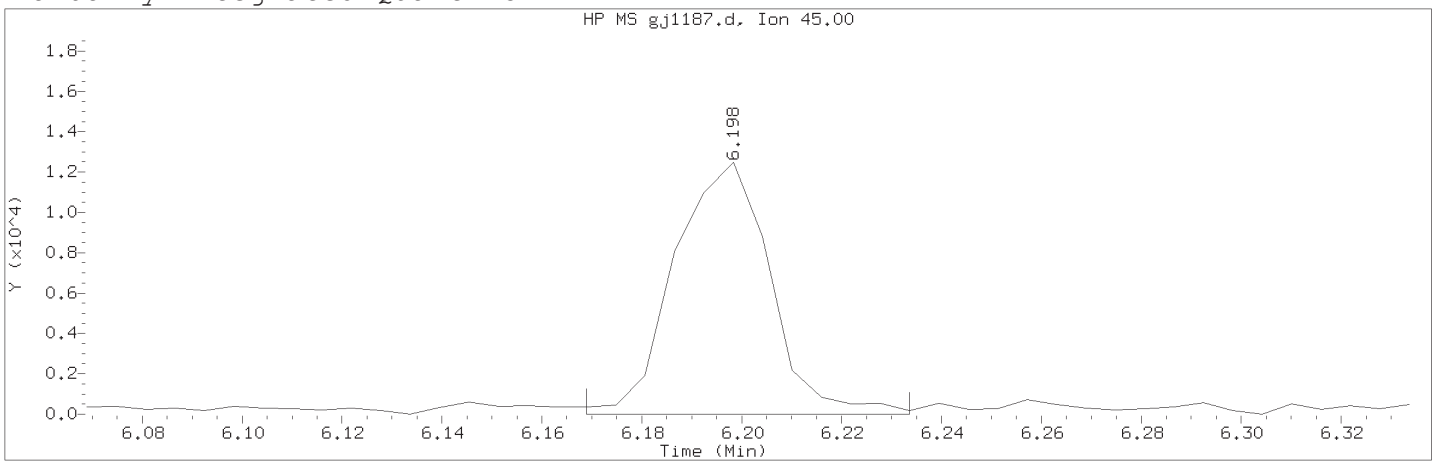
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 4.169
Quant Ion : 88.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 10/21/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

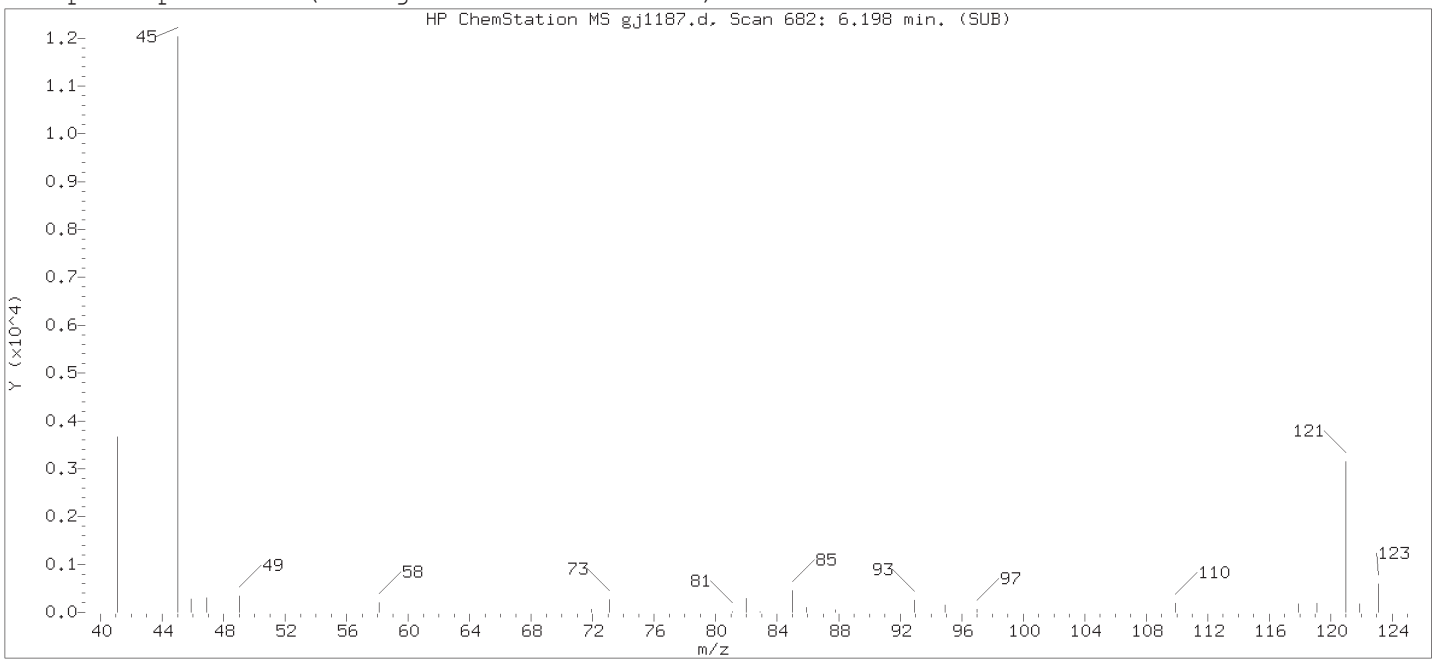
Compound Number	: 33		
Compound Name	: 2,2'-oxybis(1-Chloropropane)		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area (flag)	: 16682M		
On-Column Amount (ng/ul)	: 1.0805		
Integration start scan	: 676	Integration stop scan:	687
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

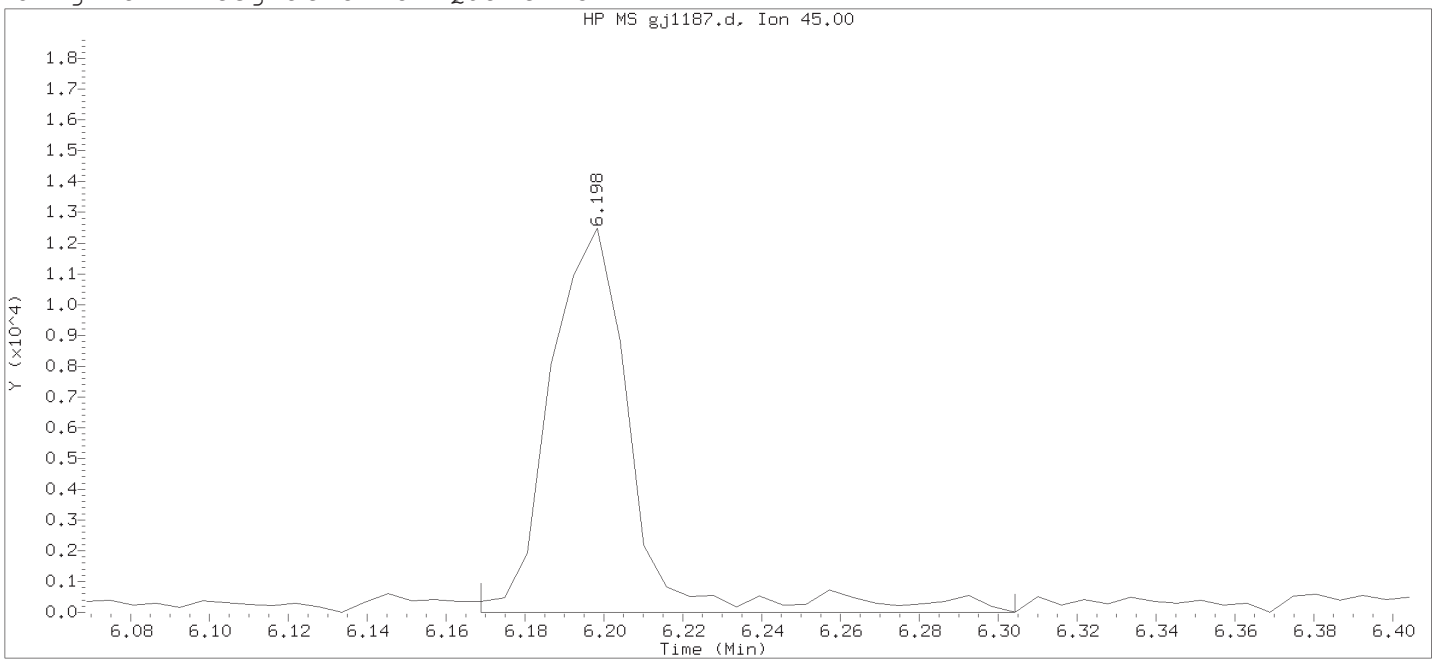
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

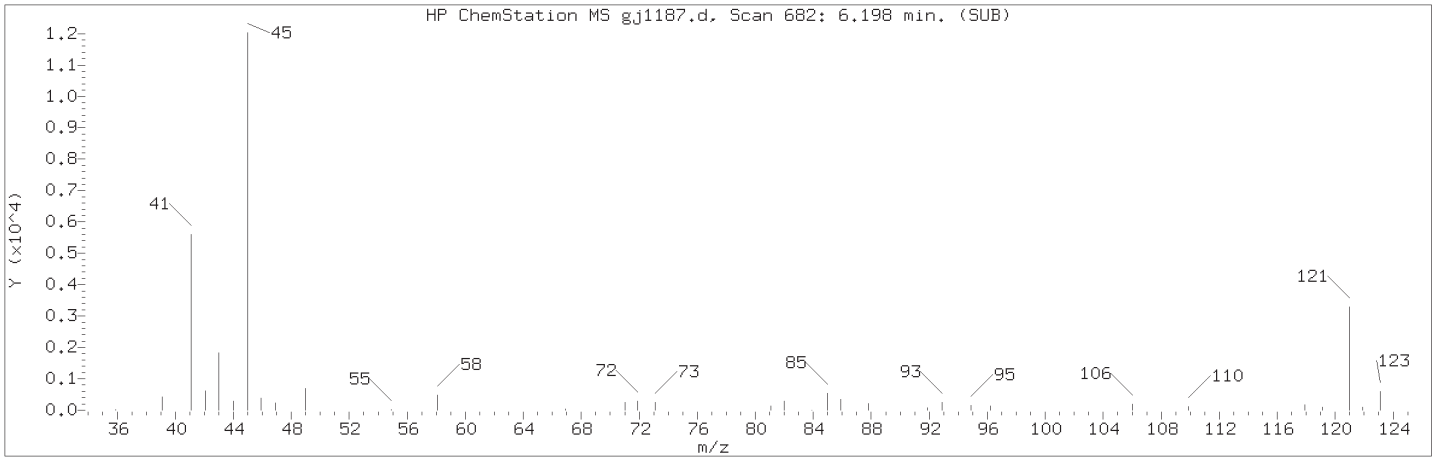
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

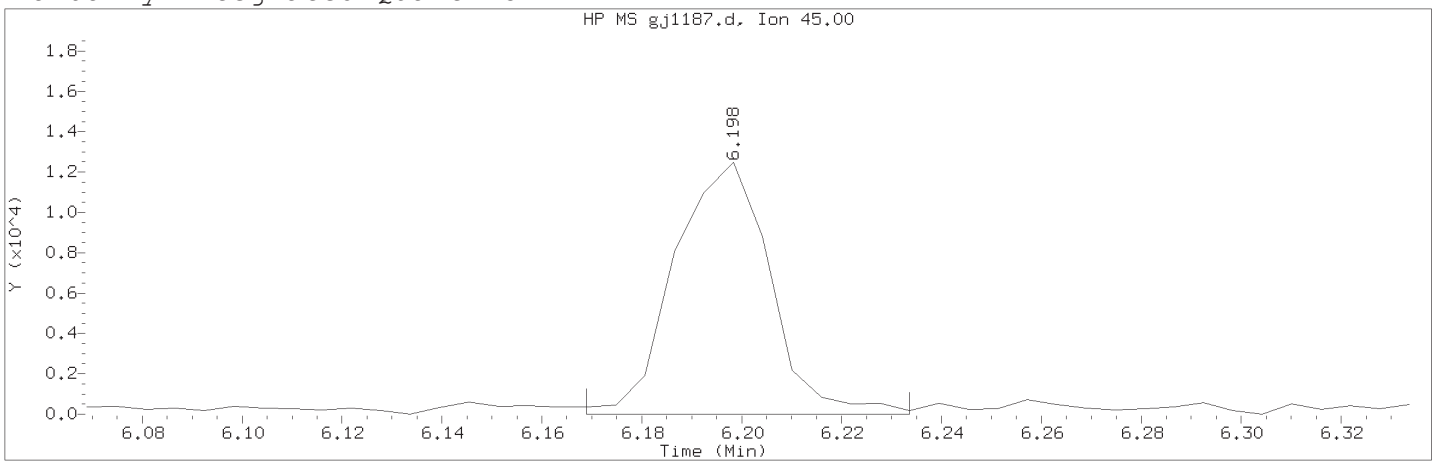
Compound Number	: 33		
Compound Name	: 2,2'-oxybis(1-Chloropropane)		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area	: 18070		
On-column Amount (ng/ul)	: 1.1556		
Integration start scan	: 676	Integration stop scan:	699
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

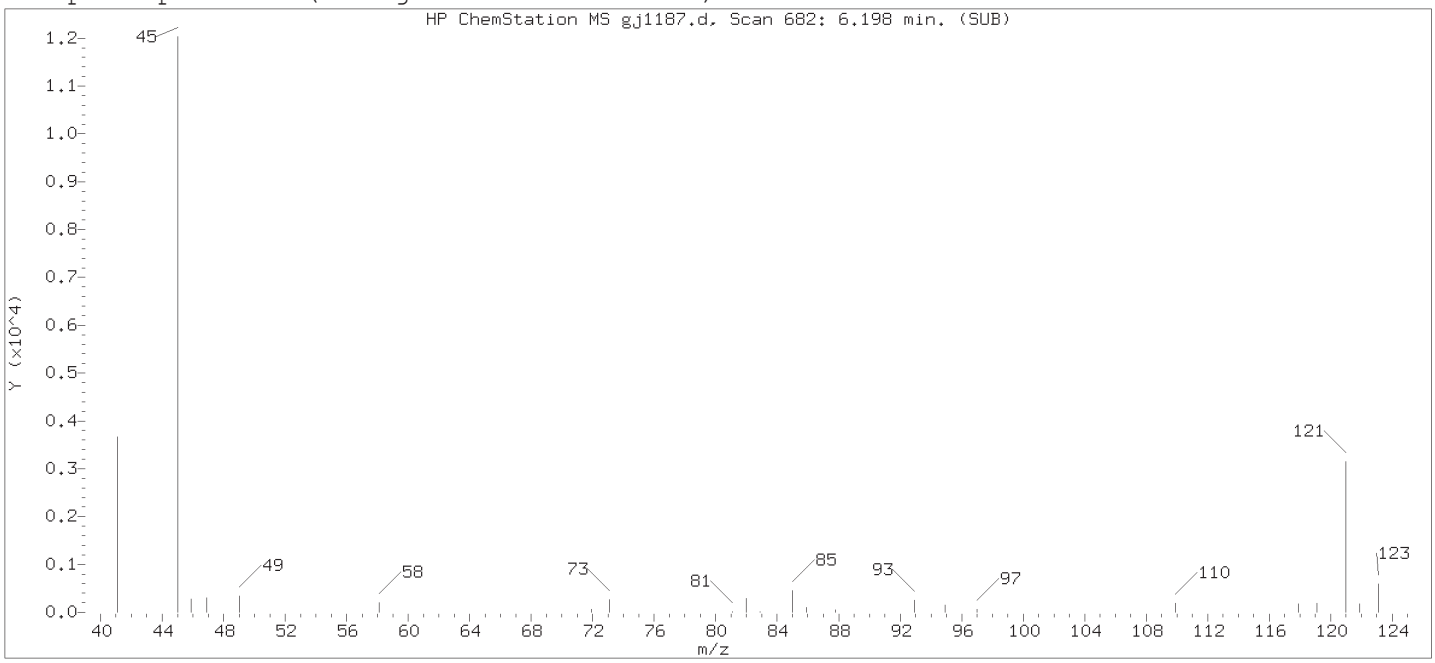
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area (flag)	: 16682M		
On-Column Amount (ng/ul)	: 1.0805		
Integration start scan	: 676	Integration stop scan:	687
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

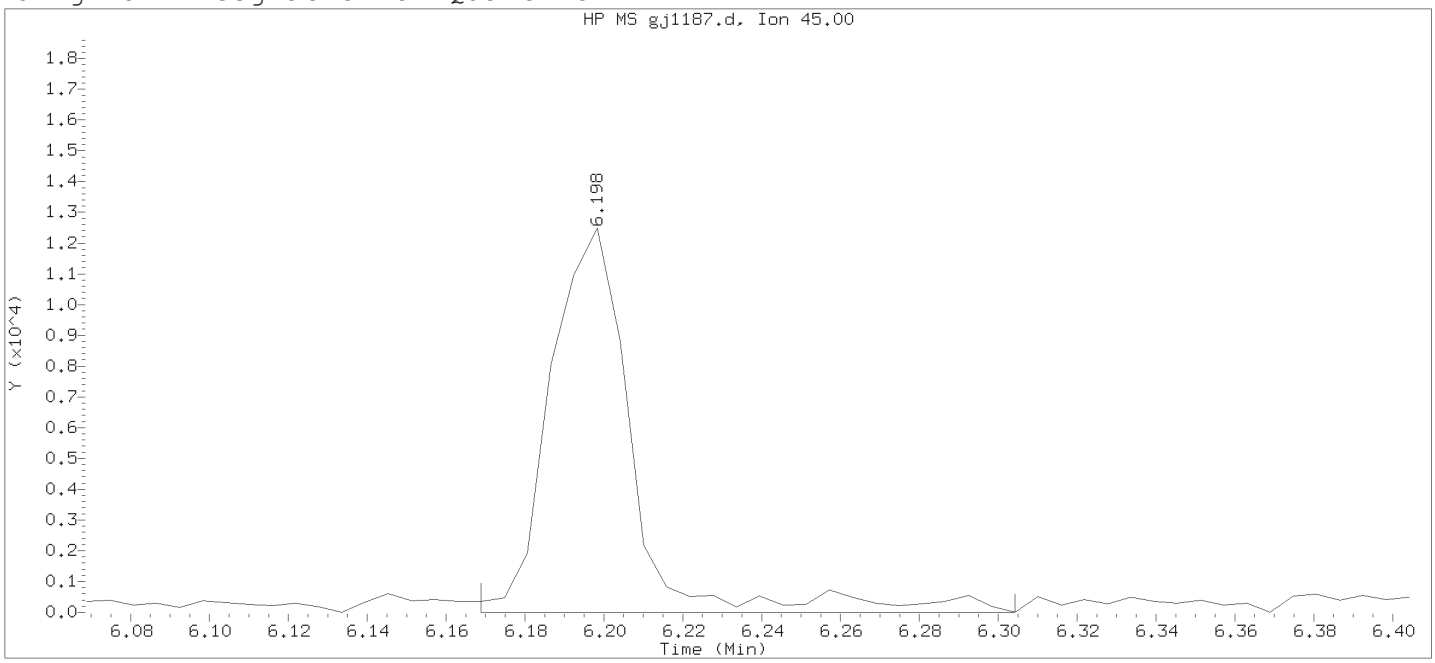
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

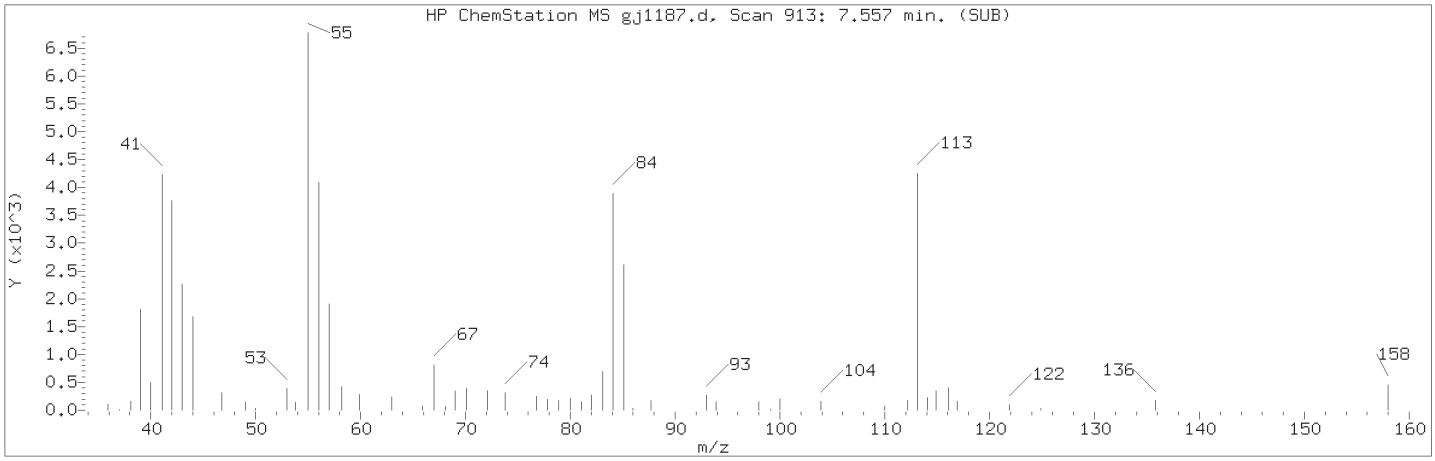
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

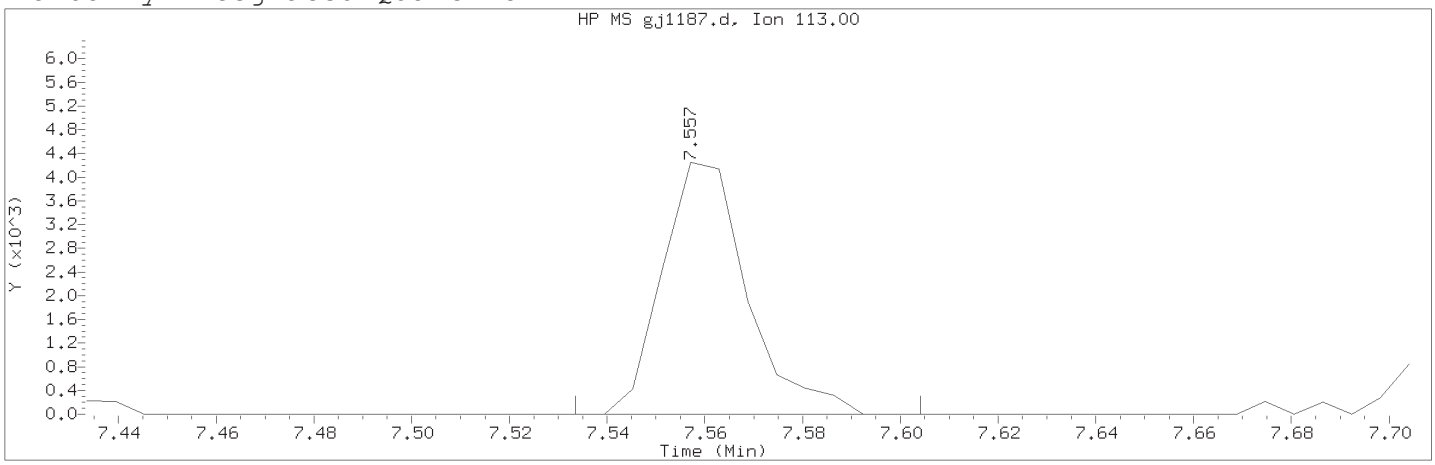
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area	: 18070		
On-column Amount (ng/ul)	: 1.1556		
Integration start scan	: 676	Integration stop scan:	699
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 Page 1885 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

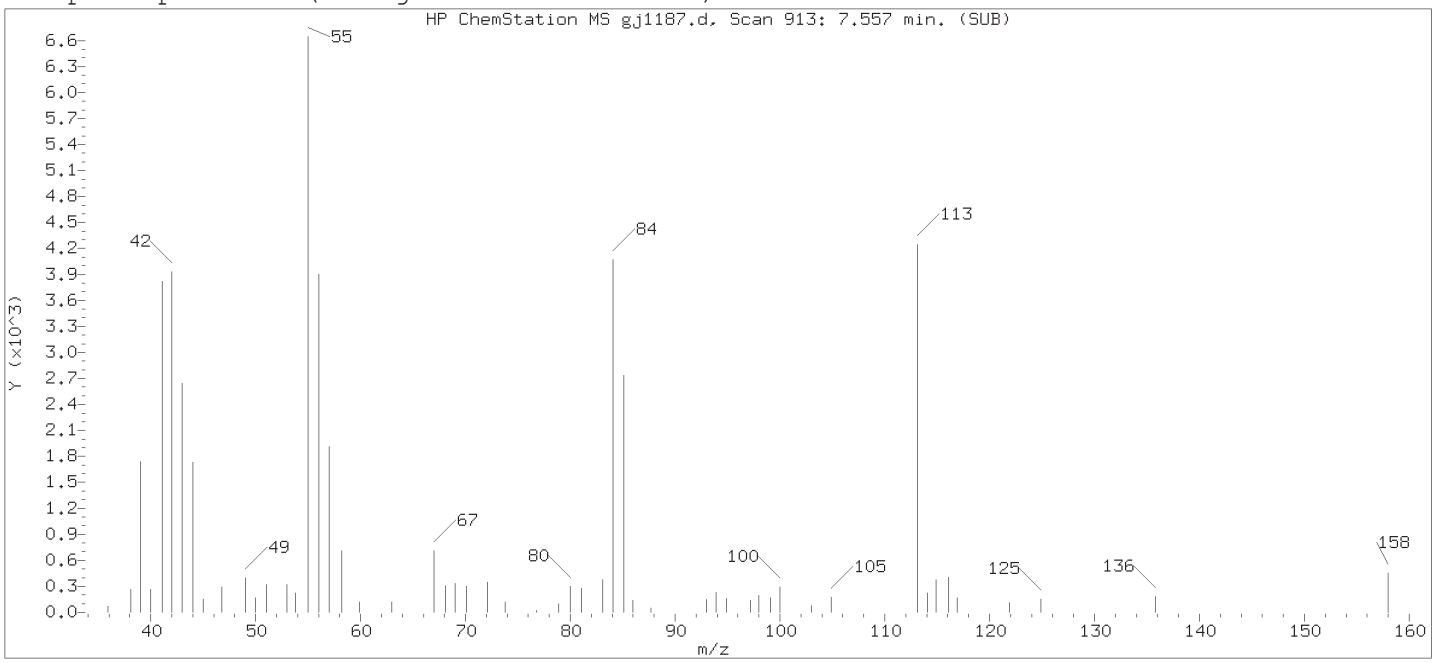
Compound Number : 76
Compound Name : Caprolactam
Scan Number : 913
Retention Time (minutes) : 7.557
Quant Ion : 113.00
Area (flag) : 5136M
On-Column Amount (ng/ul) : 1.2368
Integration start scan : 908 Integration stop scan: 920
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

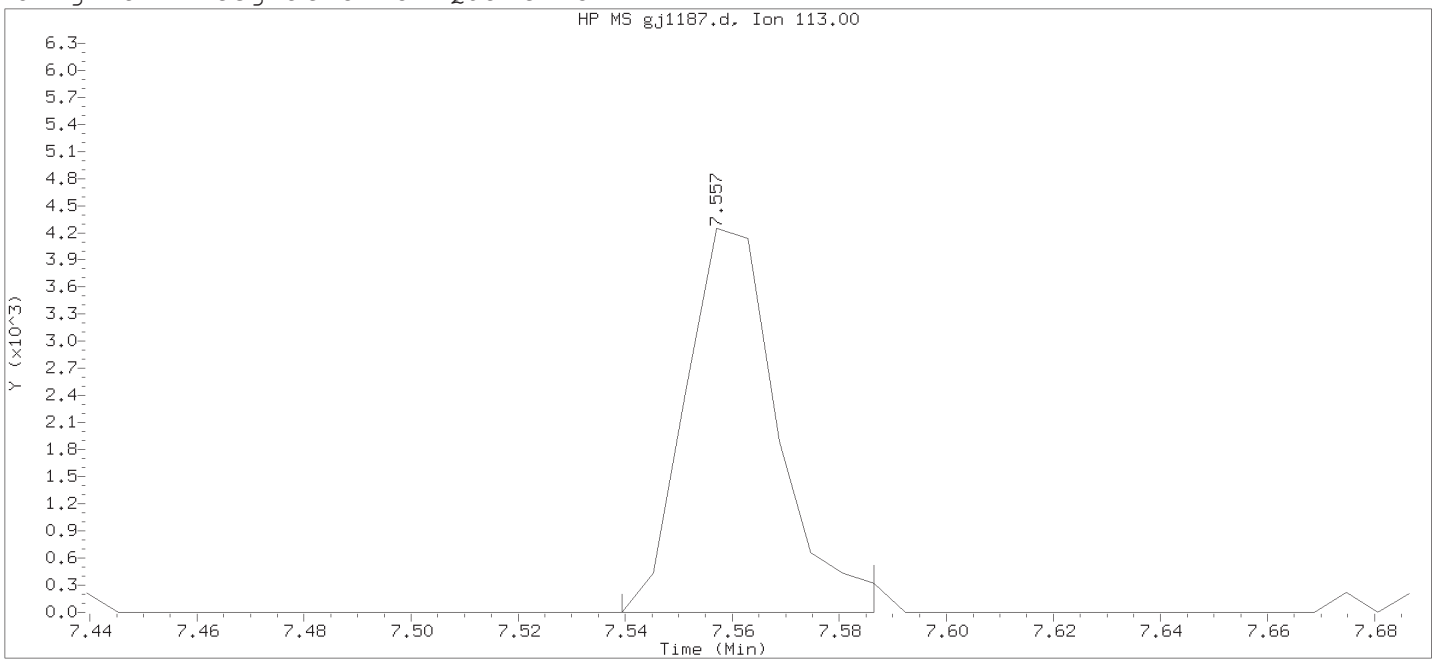
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



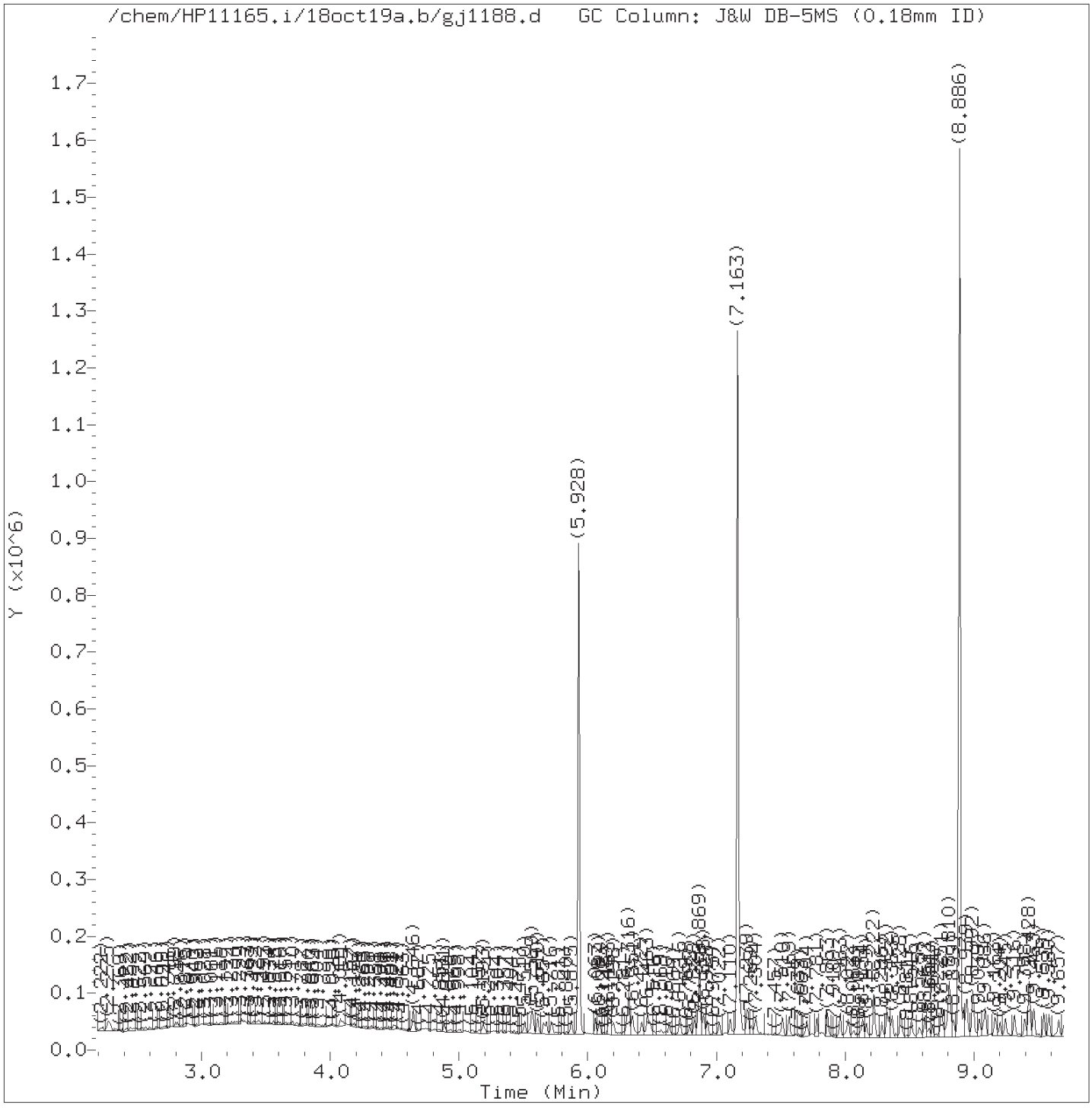
Data File: /chem/HP11165.i/18oct19a.b/gj1187.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:06 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:28
Date, time and analyst ID of latest file update: 20-Oct-2018 04:28 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

Compound Number	: 76		
Compound Name	: Caprolactam		
Scan Number	: 913		
Retention Time (minutes)	: 7.557		
Quant Ion	: 113.00		
Area	: 5079		
On-column Amount (ng/ul)	: 1.4557		
Integration start scan	: 909	Integration stop scan:	917
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.1.0



Total Ion Chromatogram (TIC)

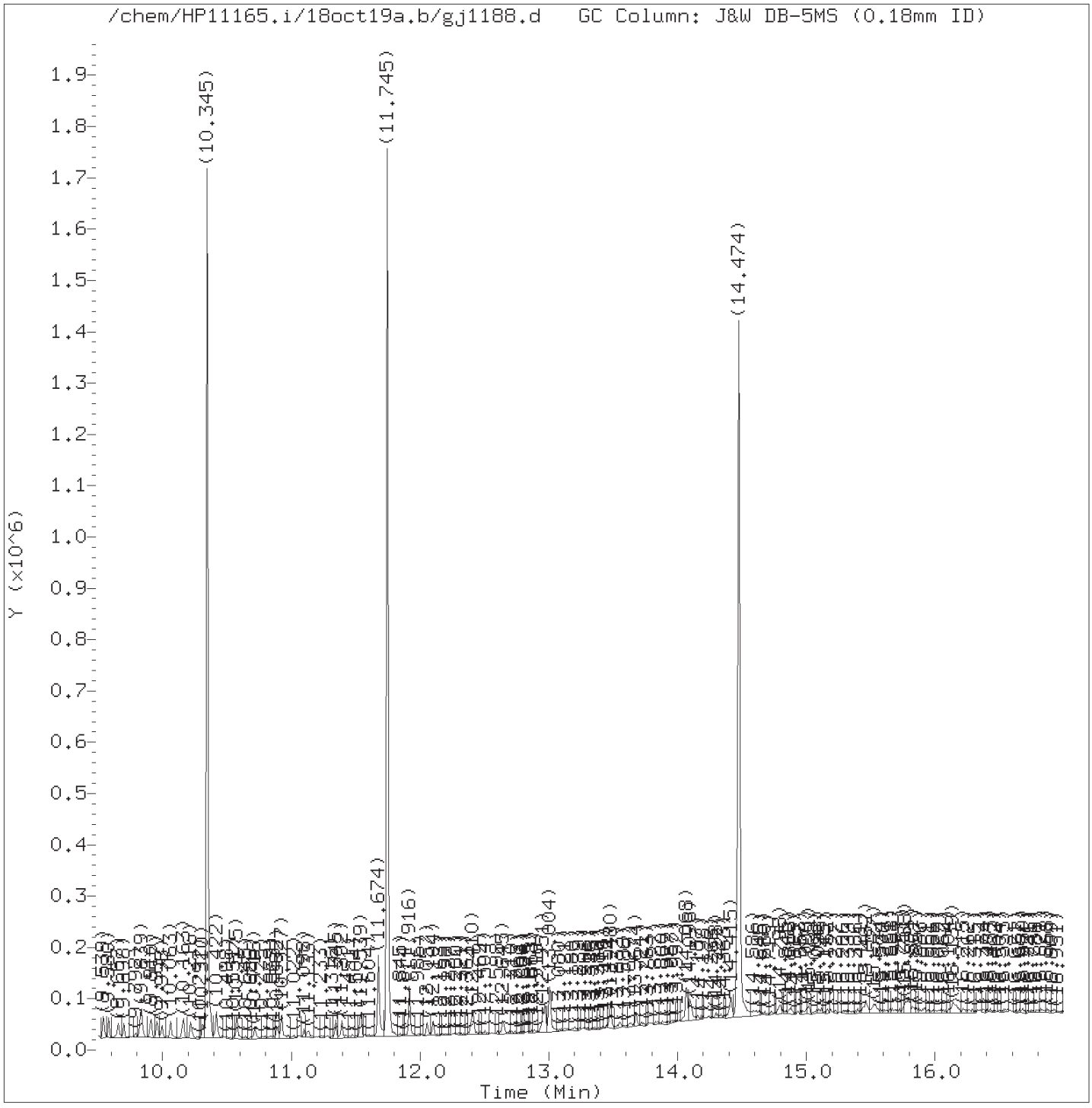
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.810	88	4299M	1.075
4) N-Nitrosodimethylamine	(1)	3.228	74	3823M	0.568
5) Pyridine	(1)	3.299	79	7389M	0.637
7) 2-Picoline	(1)	4.081	93	5907A	0.492
8) N-Nitrosomethylethylamine	(1)	4.193	88	1733M	0.318
9) Methyl methanesulfonate	(1)	4.493	80	3052	0.511
11)$2-Fluorophenol	(1)	4.646	112	9534	0.978
13) N-Nitrosodiethylamine	(1)	4.887	102	3320	0.610
15) Ethyl methanesulfonate	(1)	5.193	109	2945	0.522
17)$Phenol-d6	(1)	5.563	99	11780	0.840
18) Phenol	(1)	5.575	94	5794	0.387
19) Aniline	(1)	5.610	93	8247	0.460
20) a-methylstyrene	(1)	5.657	118	792M	0.815
42) Total Cresols	(1)			10911	1.001
22) bis(2-Chloroethyl)ether	(1)	5.681	93	5821	0.515
23) 2-Chlorophenol	(1)	5.716	128	4968	0.473
24) 1,3-Dichlorobenzene	(1)	5.875	146	5671	0.538
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	130246	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	5100	0.482
27) Benzyl alcohol	(1)	6.063	108	3944	0.498
28) 1,2-Dichlorobenzene	(1)	6.092	146	5197	0.511
31) 2-Methylphenol	(1)	6.163	108	4708	0.458
30) Indene	(1)	6.181	115	7203	0.621
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.192	45	8397M	0.553
34) bis(2-Chloroisopropyl)ether	(1)	6.192	45	8397M	0.553
35) N-Nitrosopyrrolidine	(1)	6.298	100	3174	0.504
37) 4-Methylphenol	(1)	6.310	108	6203	0.543
38) N-Nitroso-di-n-propylamine	(1)	6.316	70	5584	0.542
36) Acetophenone	(1)	6.316	105	7775	0.495
39) N-Nitrosomorpholine	(1)	6.340	56	4136	0.520
40) o-Toluidine	(1)	6.351	106	8751	0.470
43) Hexachloroethane	(1)	6.416	117	2219	0.540
44)$Nitrobenzene-d5	(2)	6.463	82	10970	0.859
45) Nitrobenzene	(2)	6.481	77	8193	0.608
48) N-Nitrosopiperidine	(2)	6.634	114	2782	0.469
50) Isophorone	(2)	6.716	82	11482	0.462
51) 2-Nitrophenol	(2)	6.792	139	2425	0.452
53) 2,4-Dimethylphenol	(2)	6.828	107	5270	0.462
56) Benzoic acid	(2)	6.869	105	39645	4.083
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	2198	0.452

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.928	93	7110	0.496
60) 2,4-Dichlorophenol	(2)	7.022	162	3041	0.359
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	4193	0.501
65)*Naphthalene-d8	(2)	7.163	136	570278	20.000
66) Naphthalene	(2)	7.187	128	15912	0.492
67) 4-Chloroaniline	(2)	7.239	127	5204	0.387
68) 2,6-Dichlorophenol	(2)	7.245	162	3469	0.412
69) Hexachloropropene	(2)	7.269	213	1349M	0.387
71) Hexachlorobutadiene	(2)	7.304	225	1653	0.430
97) Isosafrole	(3)			4181	0.472
75) Quinoline	(2)	7.510	129	11178	0.517
76) Caprolactam	(2)	7.557	113	2410	0.591
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	6318M	0.559
80) 4-Chloro-3-methylphenol	(2)	7.704	107	5217	0.510
82) Safrole	(2)	7.781	162	4056	0.492
83) 2-Methylnaphthalene	(2)	7.863	142	11017	0.492
84) 1-Methylnaphthalene	(2)	7.963	142	9690	0.457
85) Hexachlorocyclopentadiene	(3)	8.016	237	1311	0.300
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	3837	0.459
120) 2,4_2,6-Dinitrotoluenes	(3)			3787	0.582
88) cis-Isosafrole	(3)	8.063	162	883M	0.099
90) 2,4,6-Trichlorophenol	(3)	8.139	196	2581	0.443
92) 2,4,5-Trichlorophenol	(3)	8.169	196	2669	0.406
93)$2-Fluorobiphenyl	(3)	8.222	172	22232	0.902
94) trans-Isosafrole	(3)	8.286	162	3298	0.373
95) 1,1'-Biphenyl	(3)	8.322	154	13214	0.482
96) 2-Chloronaphthalene	(3)	8.345	162	9043	0.429
98) 1-Chloronaphthalene	(3)	8.363	162	8775	0.427
99) Diphenyl ether	(3)	8.428	170	7202	0.496
100) 2-Nitroaniline	(3)	8.439	138	3269	0.466
104) 1,4-Naphthoquinone	(3)	8.516	158	3549	0.380
105) 1,4-Dinitrobenzene	(3)	8.586	168	1880M	0.525
106) Dimethylphthalate	(3)	8.622	163	11161	0.442
107) 1,3-Dinitrobenzene	(3)	8.651	168	1166M	0.283
108) 2,6-Dinitrotoluene	(3)	8.681	165	1633	0.298
109) Acenaphthylene	(3)	8.751	152	12370	0.413
146) Diallate trans/cis	(4)			8081	0.569
112) 3-Nitroaniline	(3)	8.845	138	2853	0.441
113)*Acenaphthene-d10	(3)	8.886	164	308890	20.000
114) Acenaphthene	(3)	8.922	153	10958	0.477

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.945	184	7592	2.277
116) 4-Nitrophenol	(3)	8.992	109	9186	2.202
117) Pentachlorobenzene	(3)	9.045	250	3936	0.499
118) 2,4-Dinitrotoluene	(3)	9.075	165	2154	0.284
119) Dibenzofuran	(3)	9.086	168	14999	0.495
121) 1-Naphthylamine	(3)	9.169	143	11443	0.444
122) 2,3,4,6-Tetrachlorophenol	(3)	9.204	232	1905	0.372
123) 2-Naphthylamine	(3)	9.239	143	11551	0.455
124) Diethylphthalate	(3)	9.316	149	11752	0.464
125) Thionazin	(3)	9.398	107	2062	0.482
126) Fluorene	(3)	9.422	166	12498	0.482
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	5058	0.449
128) 5-Nitro-o-toluidine	(3)	9.433	152	3044	0.402
129) 4-Nitroaniline	(3)	9.439	138	3554	0.493
130) 4,6-Dinitro-2-methylphenol	(4)	9.469	198	4940	1.211
131) N-Nitrosodiphenylamine	(4)	9.545	169	9619	0.423
132) NDPA as diphenylamine	(4)	9.545	169	9619	0.423
134) 1,2-Diphenylhydrazine	(4)	9.580	77	14335	0.449
135)$2,4,6-Tribromophenol	(3)	9.657	330	2550	0.723
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	3935M	0.828
139) 1,3,5-Trinitrobenzene	(4)	9.786	213	442M	0.171
140) Diallate (peak 1)	(4)	9.828	86	6161	0.413
141) Phorate	(4)	9.833	75	7414	0.396
142) Phenacetin	(4)	9.839	108	6259M	0.422
143) 4-Bromophenyl-phenylether	(4)	9.910	248	3371	0.488
144) Diallate (peak 2)	(4)	9.916	86	1920M	0.155
145) Hexachlorobenzene	(4)	9.957	284	3482	0.481
147) Dimethoate	(4)	9.998	87	3977	0.344
149) Pentachlorophenol	(4)	10.151	266	1508	0.309
150) 4-Aminobiphenyl	(4)	10.163	169	5266	0.509
151) Pentachloronitrobenzene	(4)	10.163	237	1099	0.424
152) Pronamide	(4)	10.216	173	3825	0.351
154) Dinoseb	(4)	10.333	211	827M	0.142
153)*Phenanthrene-d10	(4)	10.345	188	603002	20.000
155) Phenanthrene	(4)	10.369	178	18784	0.491
157) Anthracene	(4)	10.422	178	17884	0.462
163) Carbazole	(4)	10.575	167	16050	0.437
164) Methyl parathion	(4)	10.716	109	2355	0.278
165) Di-n-butylphthalate	(4)	10.927	149	18558	0.407
167) Parathion	(4)	11.098	109	1399	0.254

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

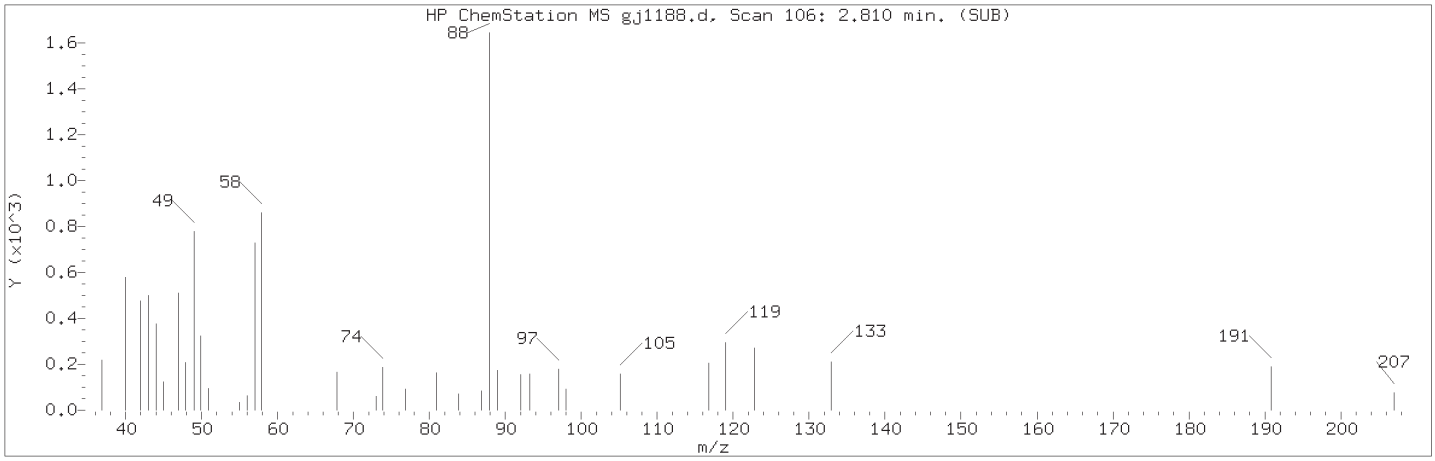
Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	11.127	190	382M	0.129
169) Octachlorostyrene	(4)	11.345	308	1617	0.552
171) Isodrin	(4)	11.392	193	2815	0.698
173) Fluoranthene	(4)	11.539	202	17380	0.445
174) Benzidine	(5)	11.674	184	58382	2.220
175)*Pyrene-d10	(5)	11.745	212	553457	20.000
177) Pyrene	(5)	11.763	202	22431	0.542
179)$Terphenyl-d14	(5)	11.916	244	27477	0.937
182) p-Dimethylaminoazobenzene	(5)	12.057	225	2136	0.353
185) Chlorobenzilate	(5)	12.104	139	5674	0.441
187) 3,3'-Dimethylbenzidine	(5)	12.398	212	7059	0.292
188) Butylbenzylphthalate	(5)	12.410	149	8794	0.434
191) 2-Acetylaminofluorene	(5)	12.645	181	5477	0.354
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	5407	0.382
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.951	231	2391	0.340
195) Benzo(a)anthracene	(5)	12.969	228	16940	0.464
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	9787	0.351
196) Chrysene	(5)	13.010	228	19974	0.553
203) 6-Methylchrysene	(5)	13.480	242	12888	0.505
205) Di-n-octylphthalate	(6)	13.680	149	12900	0.252
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.068	256	6533	0.343
206) Benzo(b)fluoranthene	(6)	14.074	252	17680	0.445
208) Benzo(k)fluoranthene	(6)	14.098	252	18923	0.473
211) Benzo(a)pyrene	(6)	14.415	252	14153	0.408
213)*Perylene-d12	(6)	14.474	264	586461	20.000
215) 3-Methylcholanthrene	(6)	14.798	268	6770	0.472
222) Total PAHs	(6)			281648	8.427
217) Dibenz(a,h)acridine	(6)	15.462	279	9388	0.343
218) Dibenz(a,j)acridine	(6)	15.521	279	10736	0.356
219) Indeno(1,2,3-cd)pyrene	(6)	15.768	276	16166	0.425
220) Dibenz(a,h)anthracene	(6)	15.798	278	14466	0.448
221) Benzo(g,h,i)perylene	(6)	16.151	276	14422	0.457

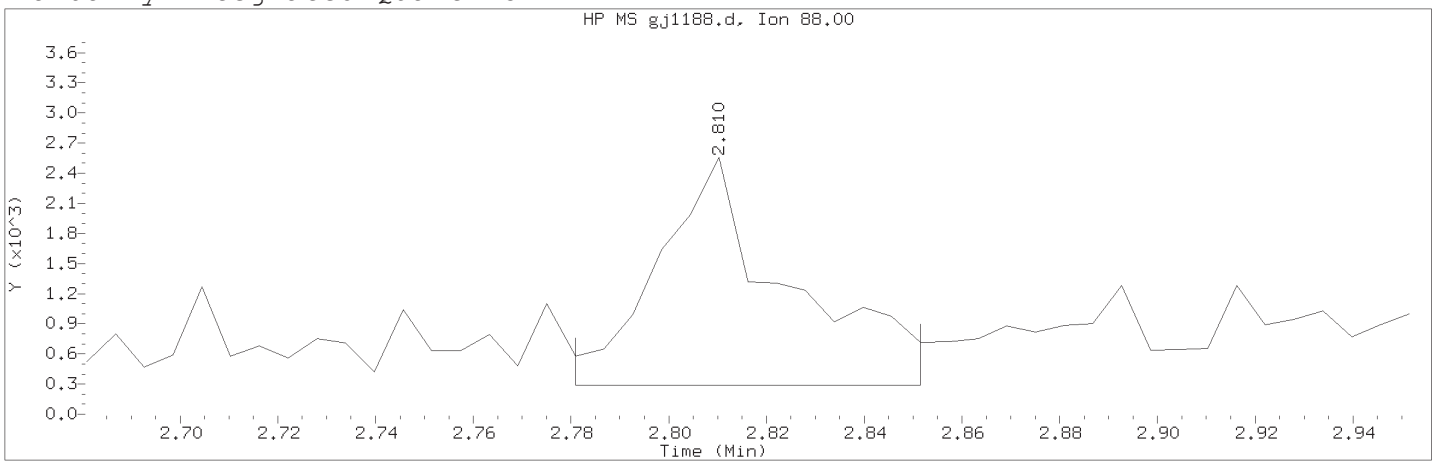
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

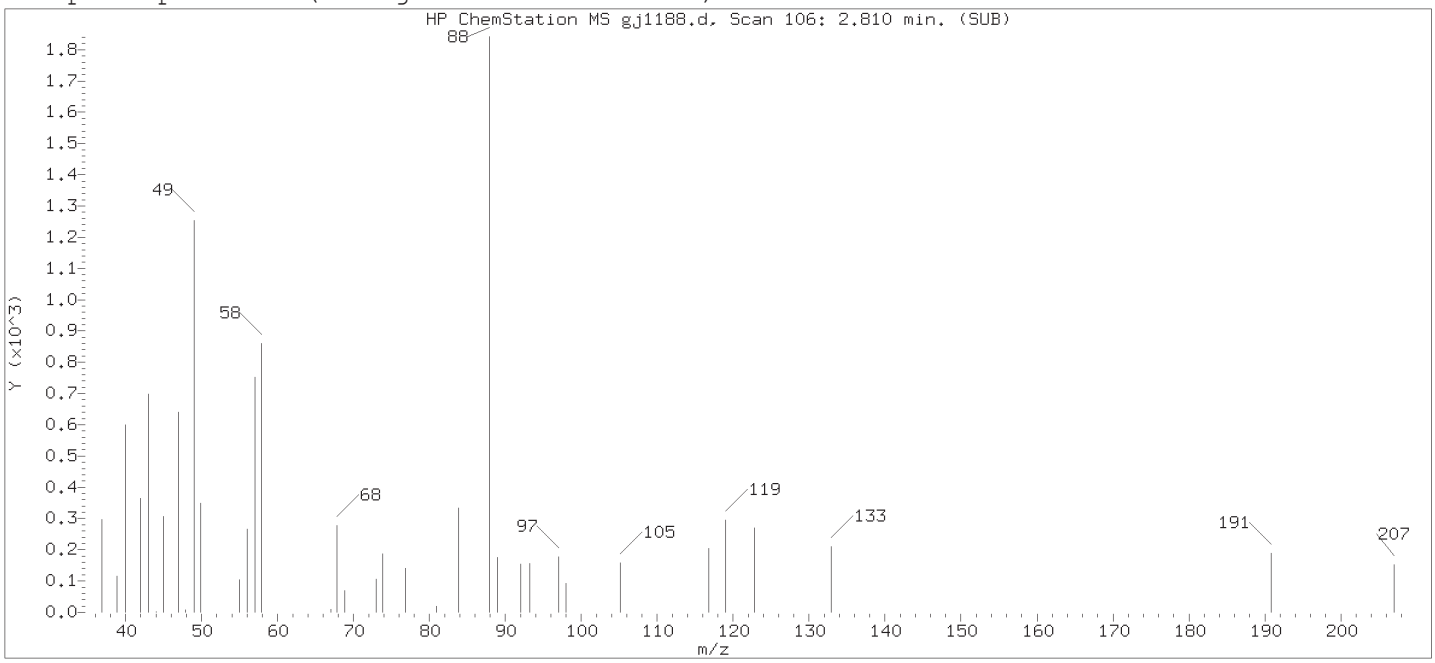
Compound Number : 1
Compound Name : 1,4-Dioxane
Scan Number : 106
Retention Time (minutes) : 2.810
Quant Ion : 88.00
Area (flag) : 4299M
On-Column Amount (ng/ul) : 1.0752
Integration start scan : 100 Integration stop scan: 112
Y at integration start : 289 Y at integration end: 289

Reason for manual integration: improper integration

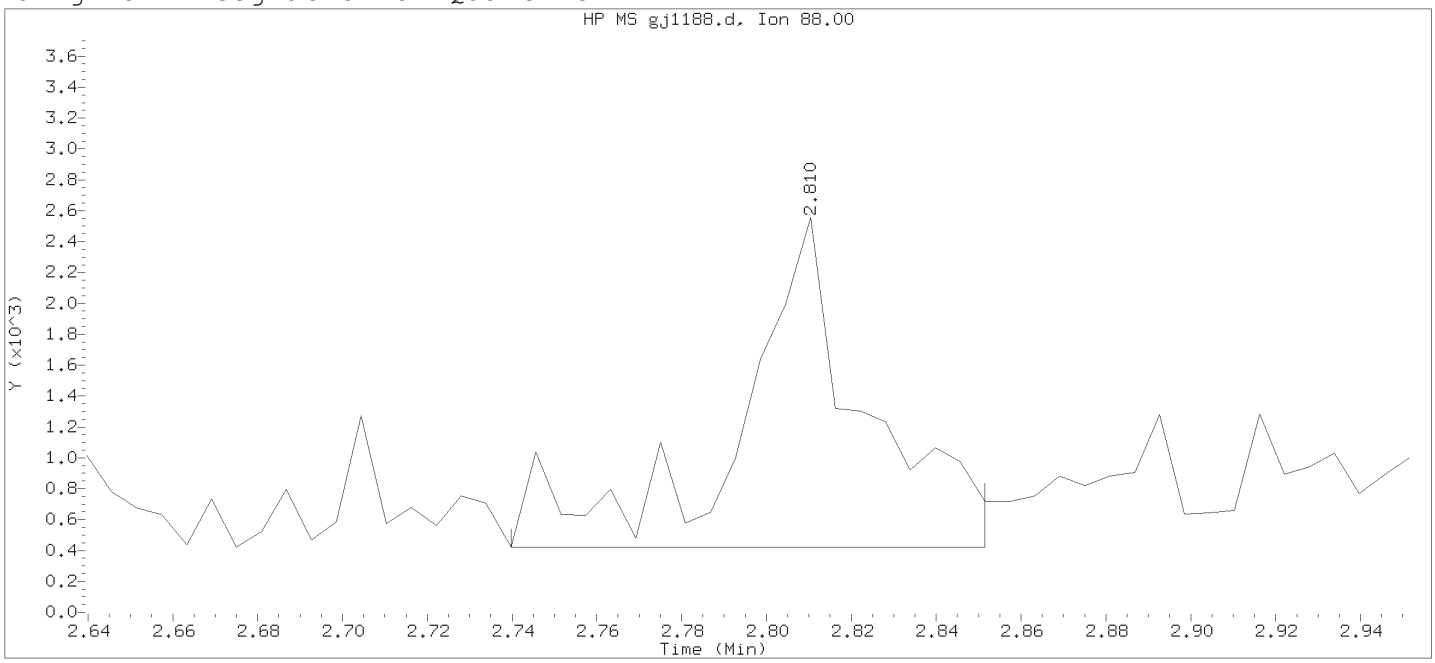
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

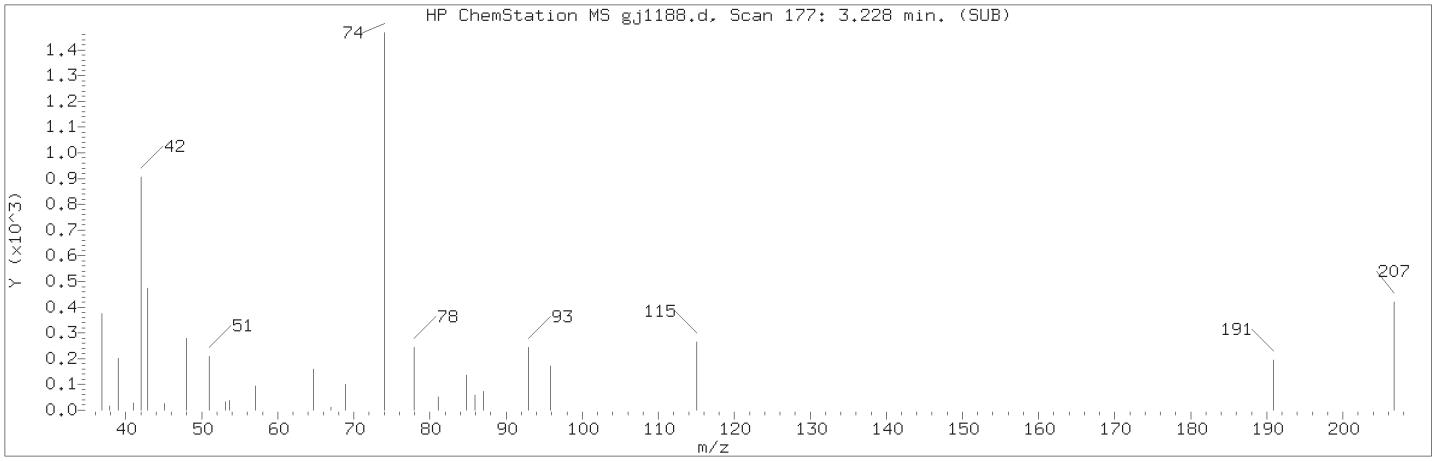
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

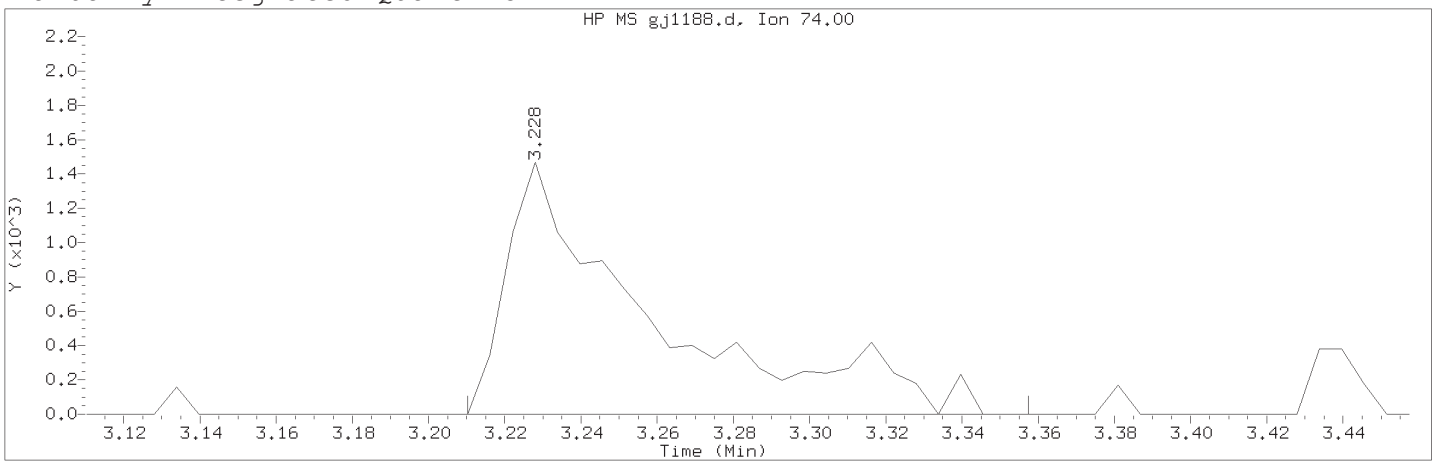
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 106		
Retention Time (minutes)	: 2.810		
Quant Ion	: 88.00		
Area	: 4408		
On-column Amount (ng/ul)	: 1.1027		
Integration start scan	: 93	Integration stop scan:	112
Y at integration start	: 420	Y at integration end:	420

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: EDWARD

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

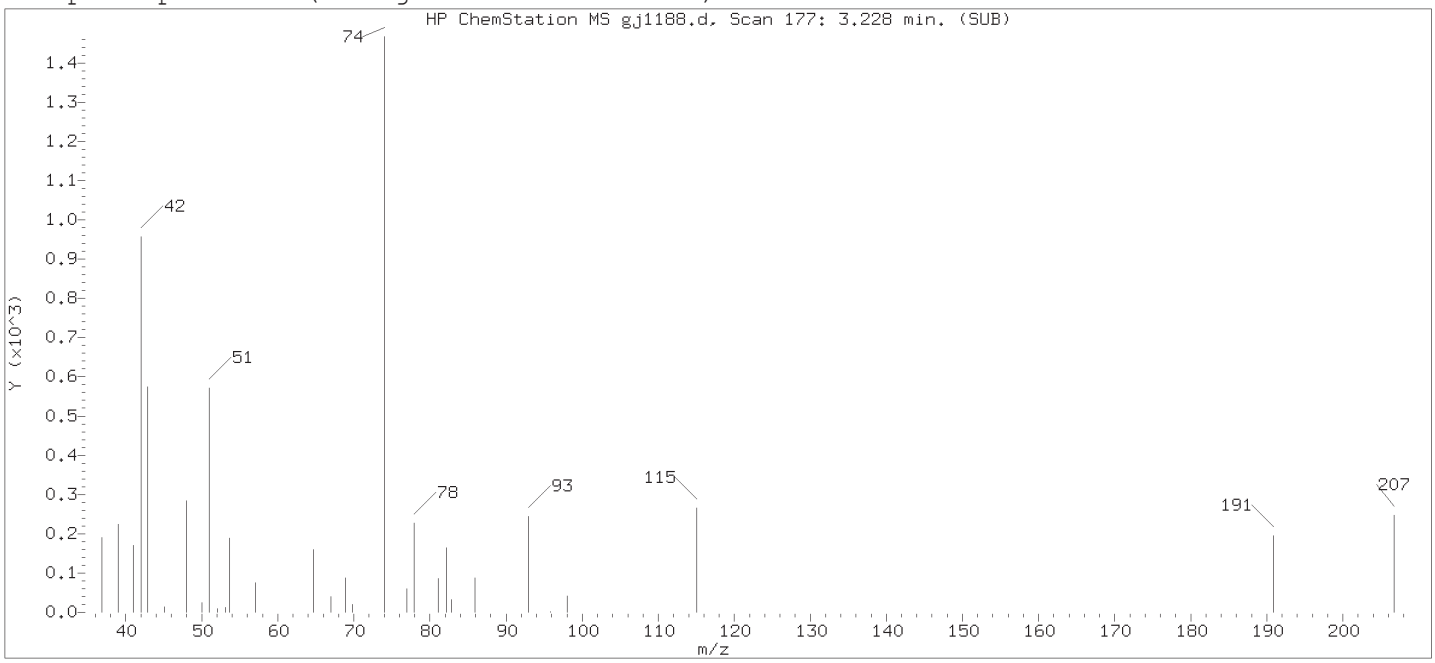
Compound Number : 4
Compound Name : N-Nitrosodimethylamine
Scan Number : 177
Retention Time (minutes) : 3.228
Quant Ion : 74.00
Area (flag) : 3823M
On-Column Amount (ng/ul) : 0.5679
Integration start scan : 173 Integration stop scan: 198
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

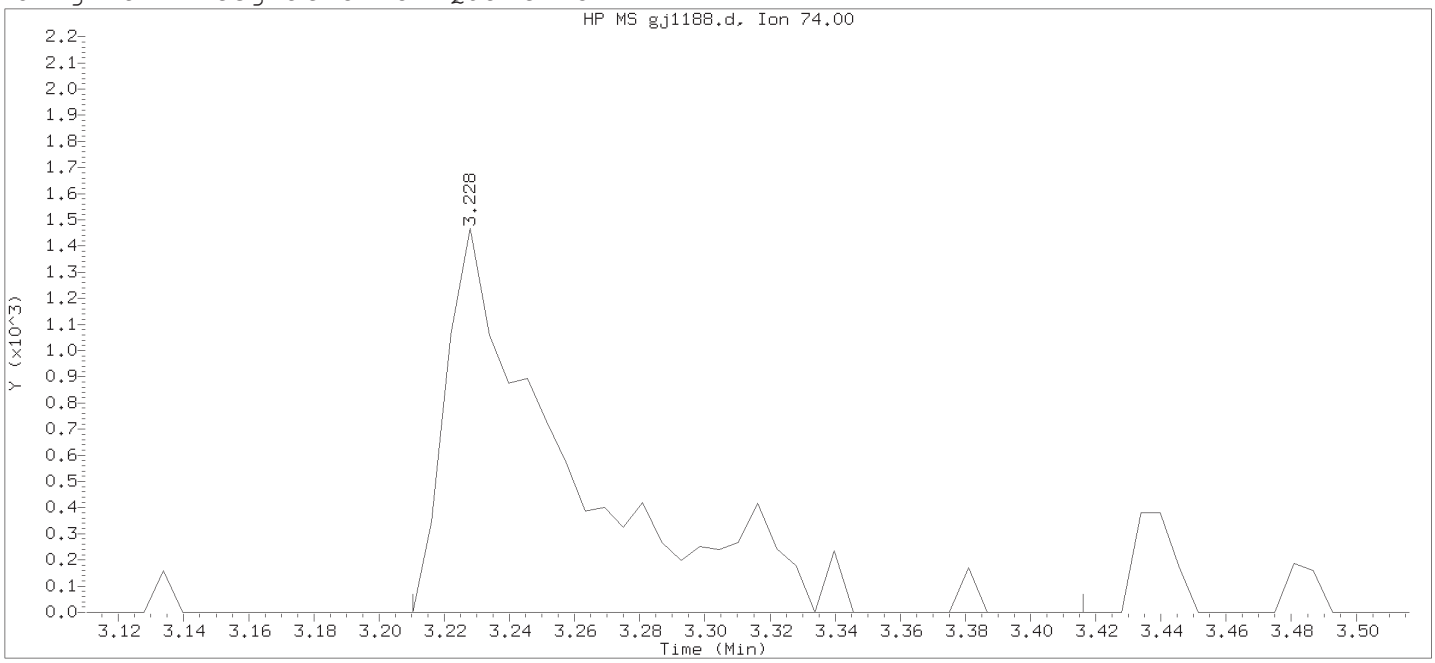
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

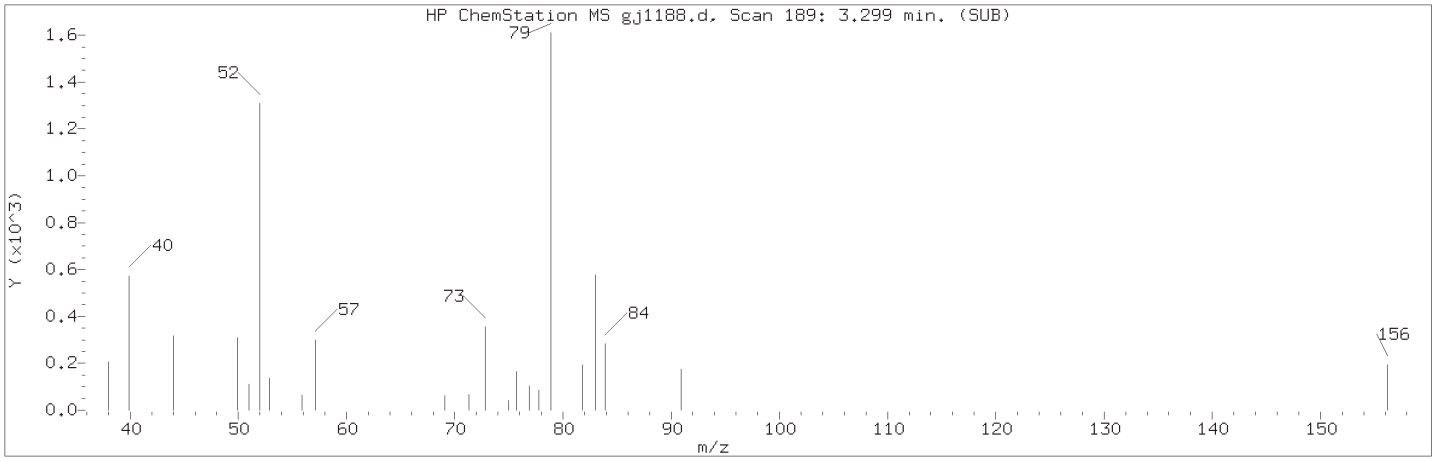
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

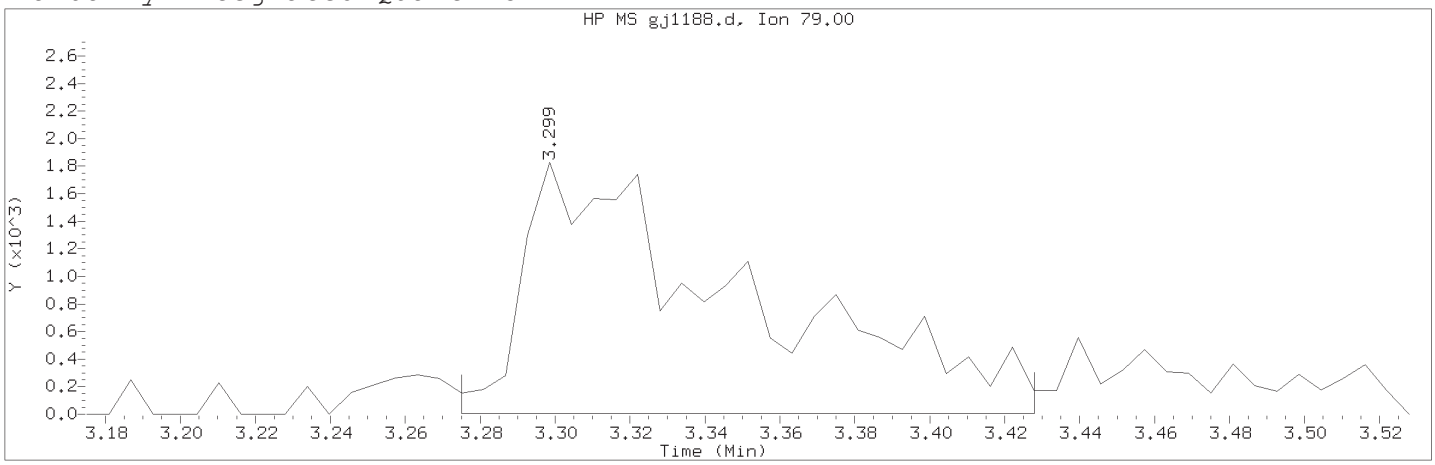
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 177		
Retention Time (minutes)	: 3.228		
Quant Ion	: 74.00		
Area	: 3883		
On-column Amount (ng/ul)	: 0.5769		
Integration start scan	: 173	Integration stop scan:	208
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 1 time(s).

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

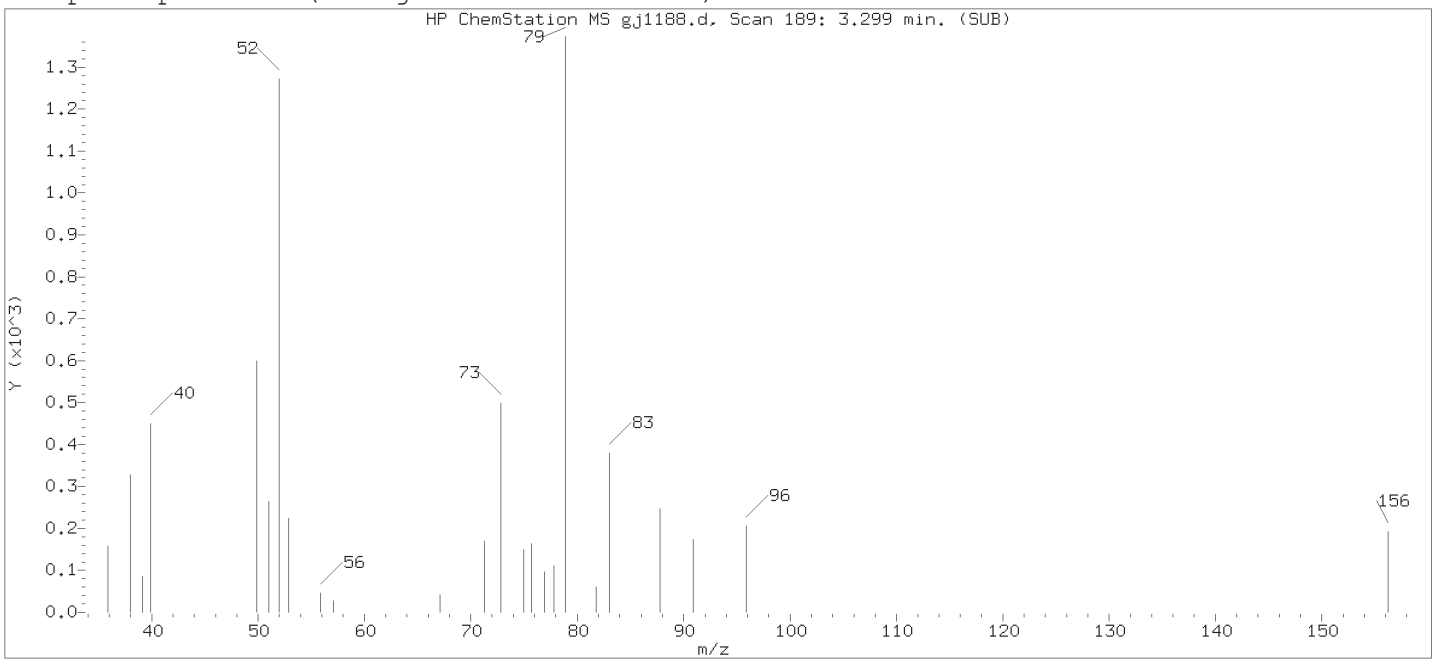
Compound Number : 5
Compound Name : Pyridine
Scan Number : 189
Retention Time (minutes) : 3.299
Quant Ion : 79.00
Area (flag) : 7389M
On-Column Amount (ng/ul) : 0.6374
Integration start scan : 184 Integration stop scan: 210
Y at integration start : 3 Y at integration end: 3

Reason for manual integration: improper integration

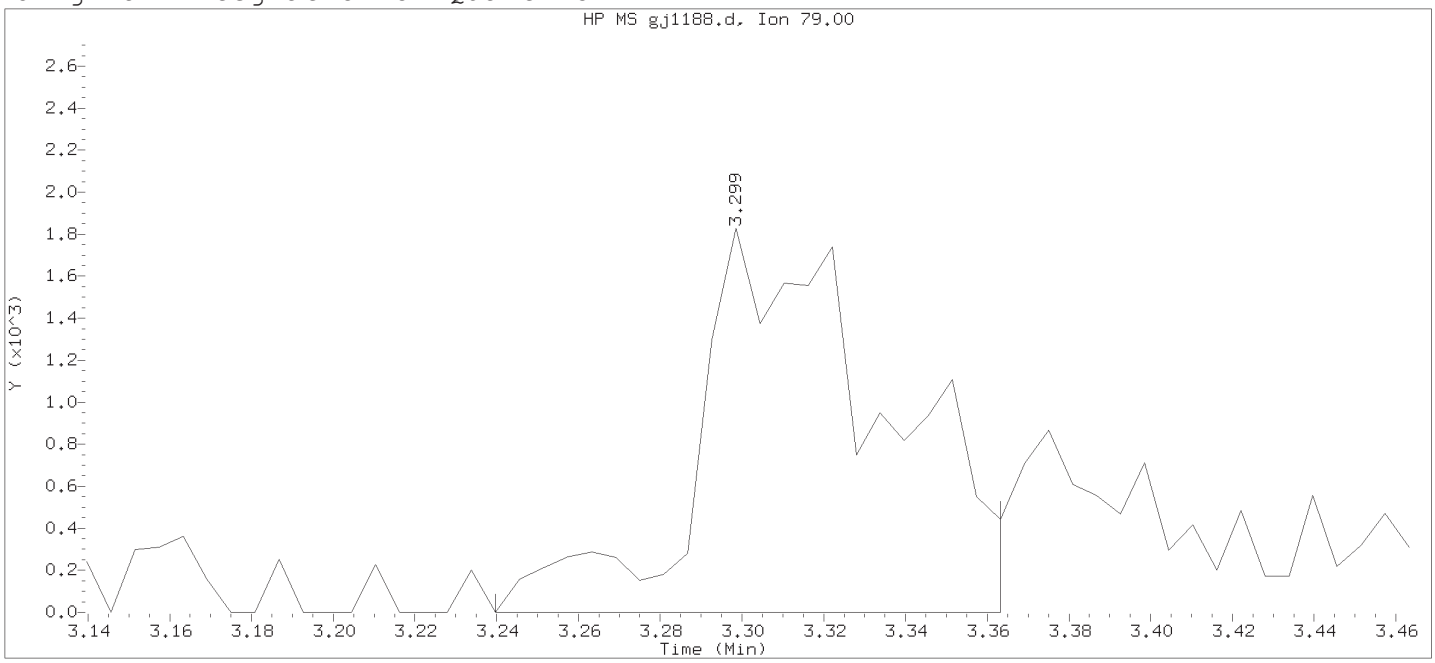
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

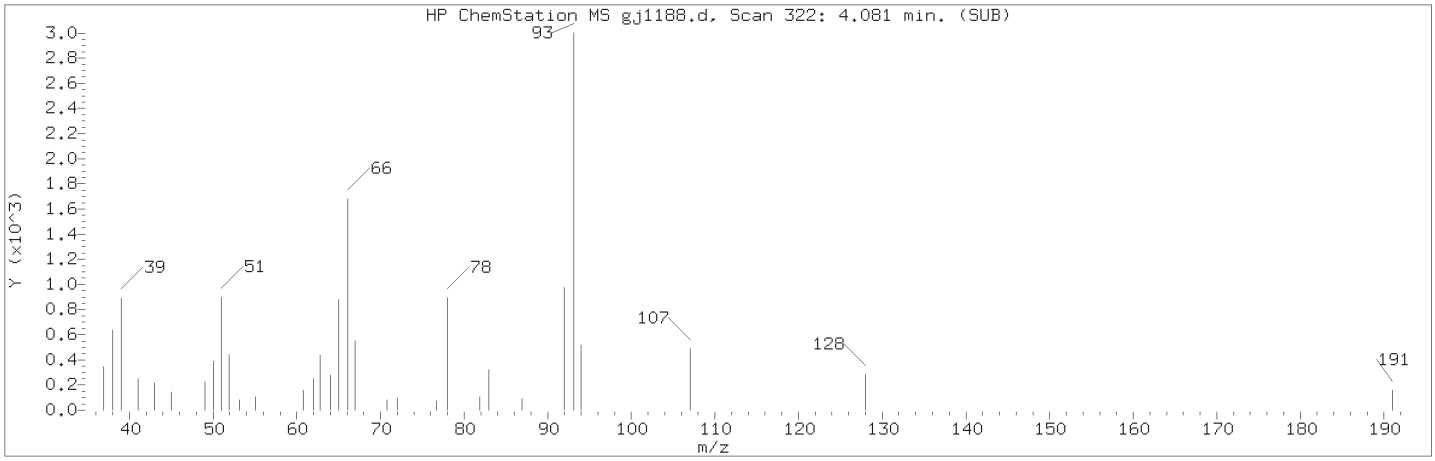
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

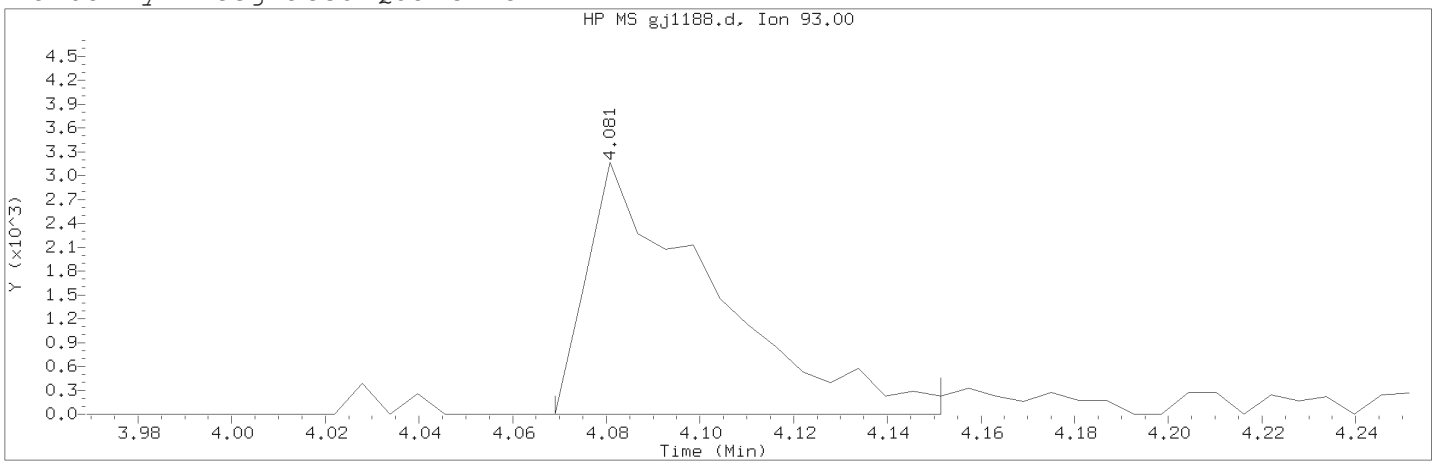
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 189		
Retention Time (minutes)	: 3.299		
Quant Ion	: 79.00		
Area	: 5819		
On-column Amount (ng/ul)	: 0.5020		
Integration start scan	: 178	Integration stop scan:	199
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: 12345

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

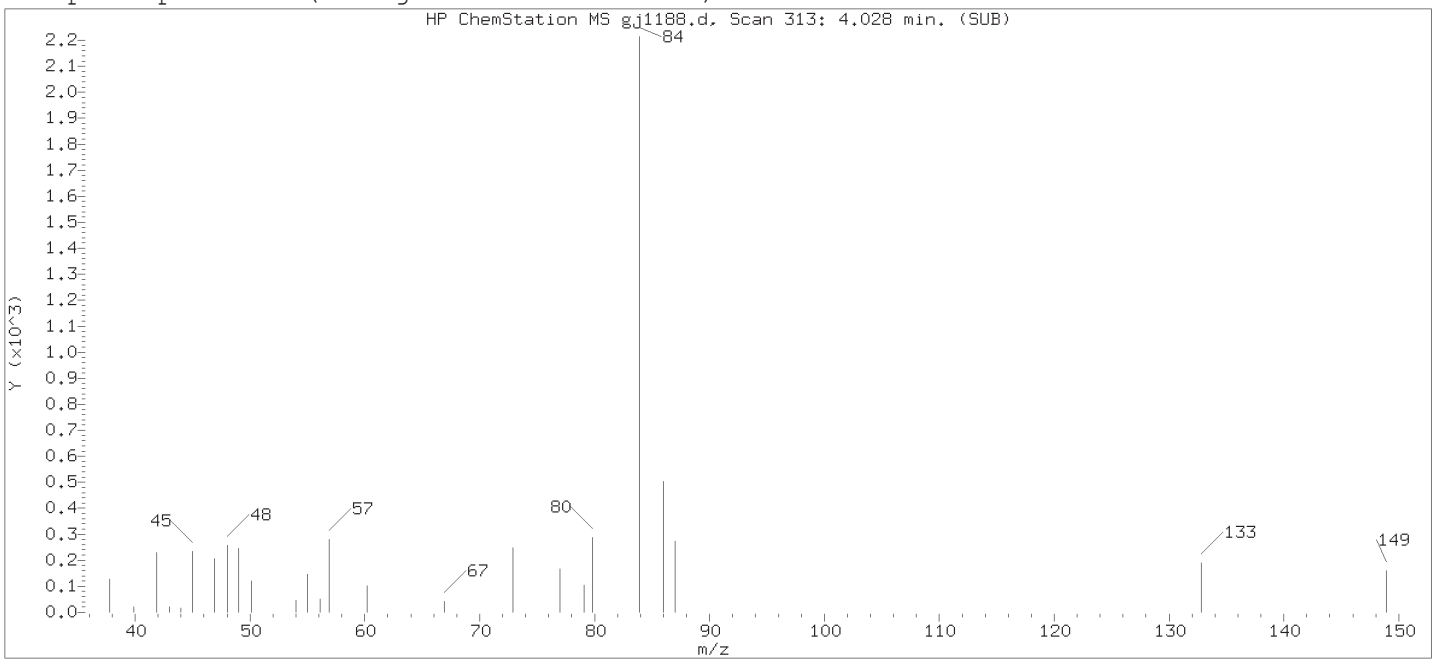
Compound Number : 7
Compound Name : 2-Picoline
Scan Number : 322
Retention Time (minutes) : 4.081
Quant Ion : 93.00
Area (flag) : 5907A
On-Column Amount (ng/ul) : 0.4916
Integration start scan : 319 Integration stop scan: 333
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

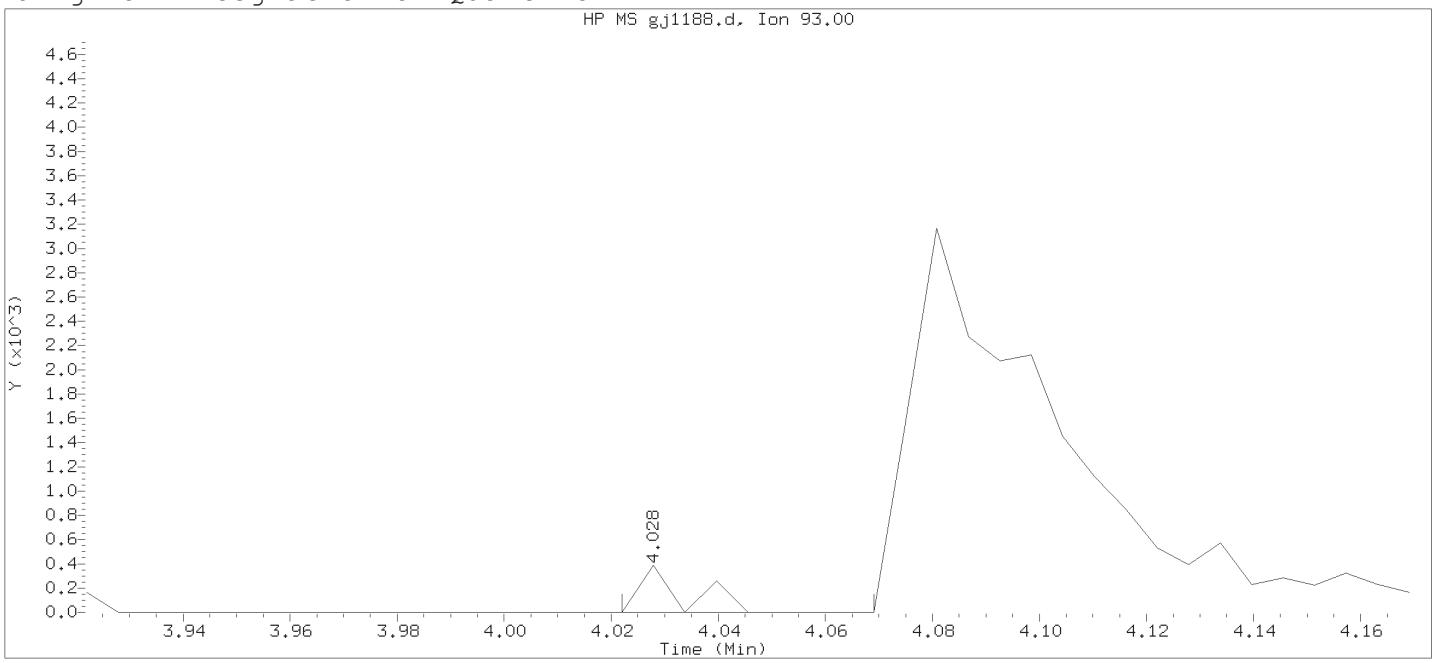
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

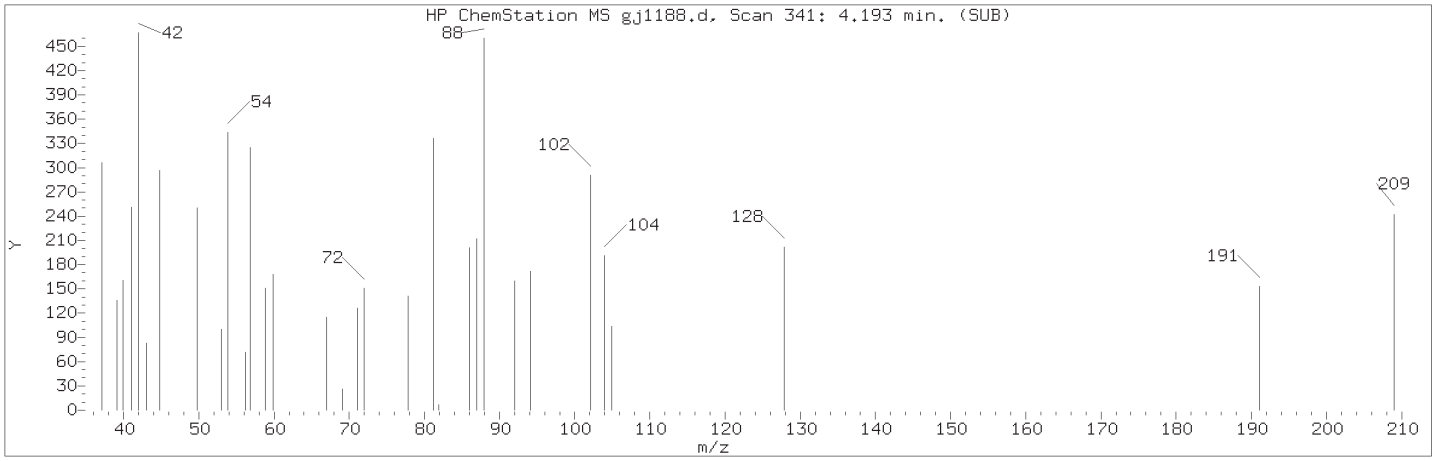
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

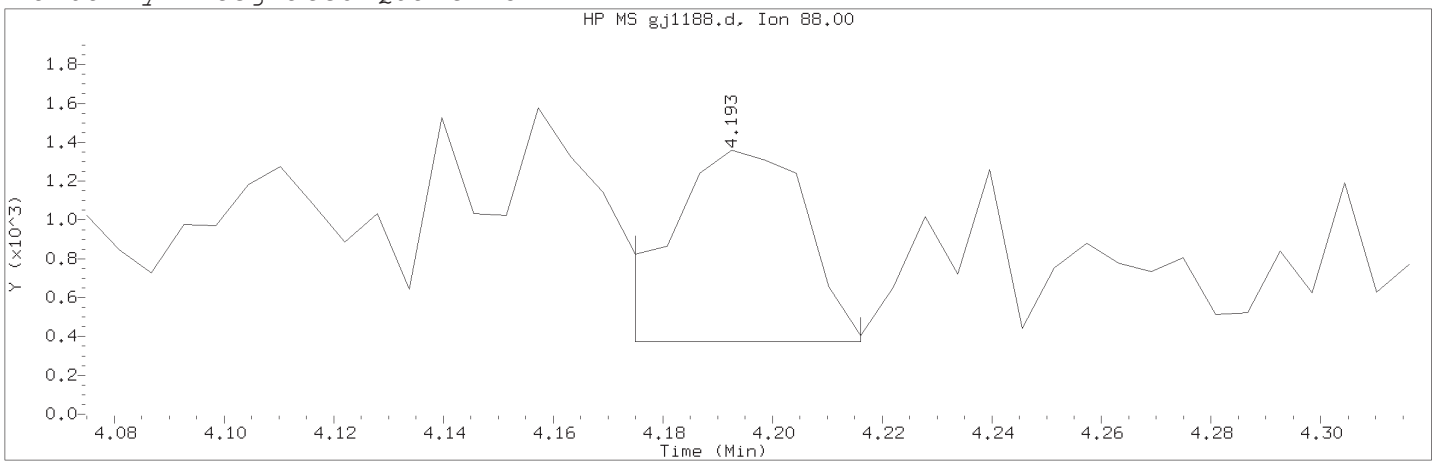
Compound Number	: 7
Compound Name	: 2-Picoline
Scan Number	: 313
Retention Time (minutes)	: 4.028
Quant Ion	: 93.00
Area	: 227
On-column Amount (ng/ul)	: 0.0189
Integration start scan	: 311 Integration stop scan: 319
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: EMONBORNE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

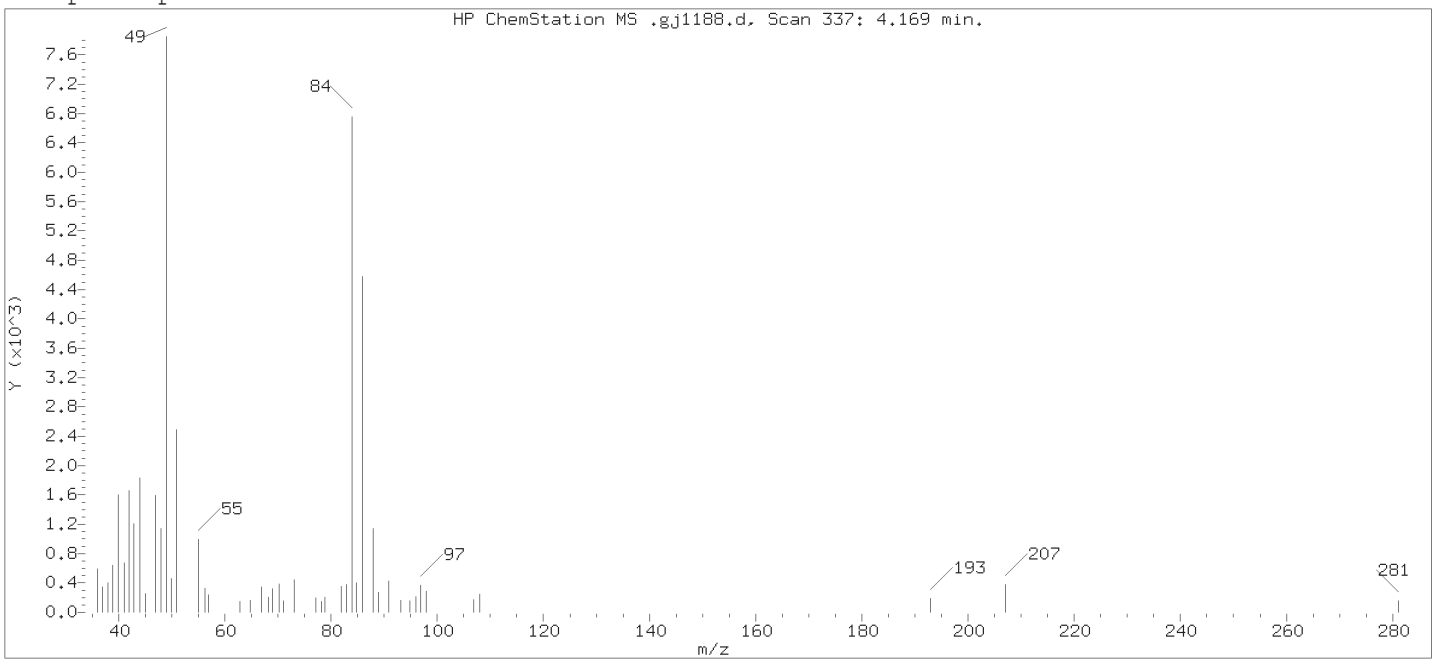
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 341		
Retention Time (minutes)	: 4.193		
Quant Ion	: 88.00		
Area (flag)	: 1733M		
On-Column Amount (ng/ul)	: 0.3185		
Integration start scan	: 337	Integration stop scan:	344
Y at integration start	: 373	Y at integration end:	373

Reason for manual integration: missed peak

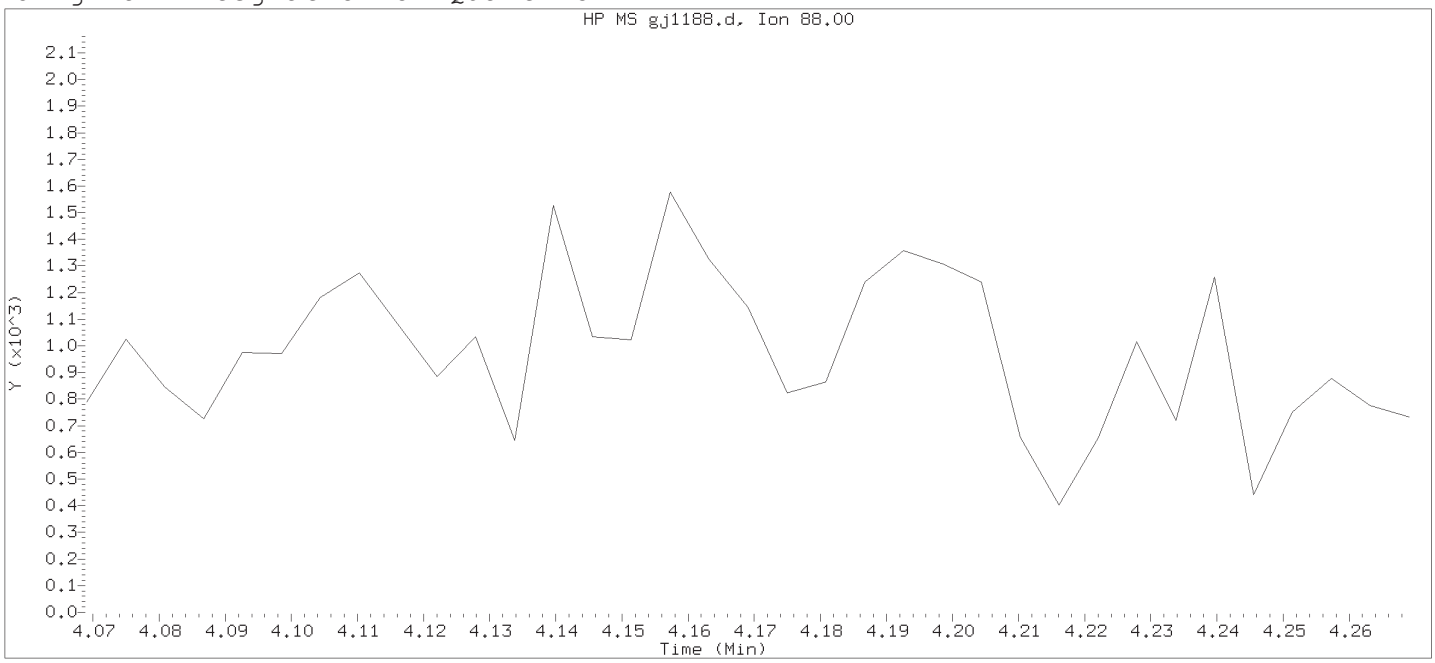
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

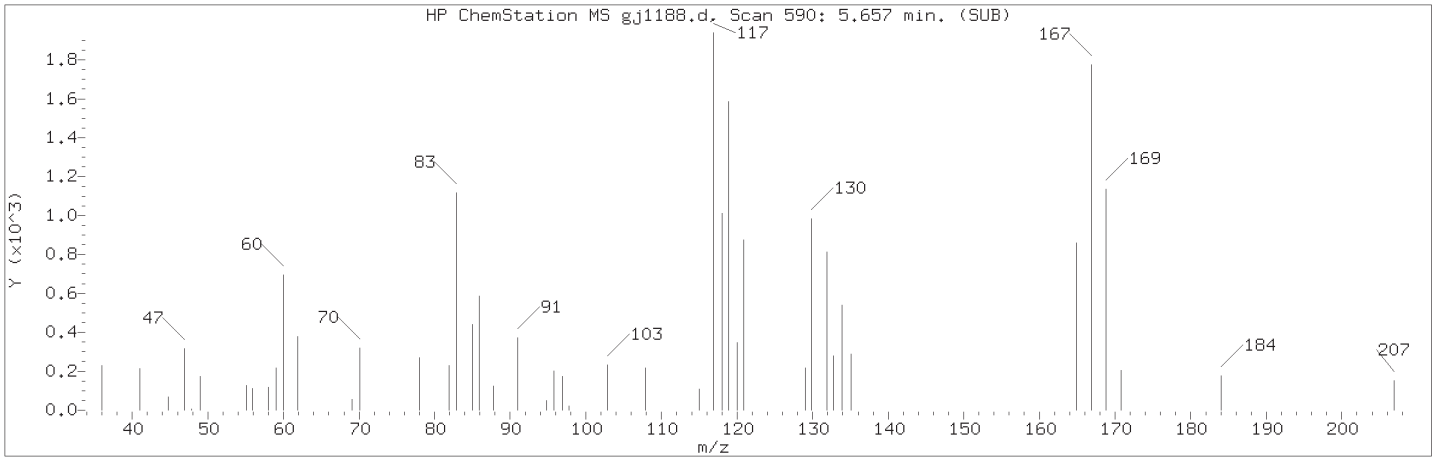
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

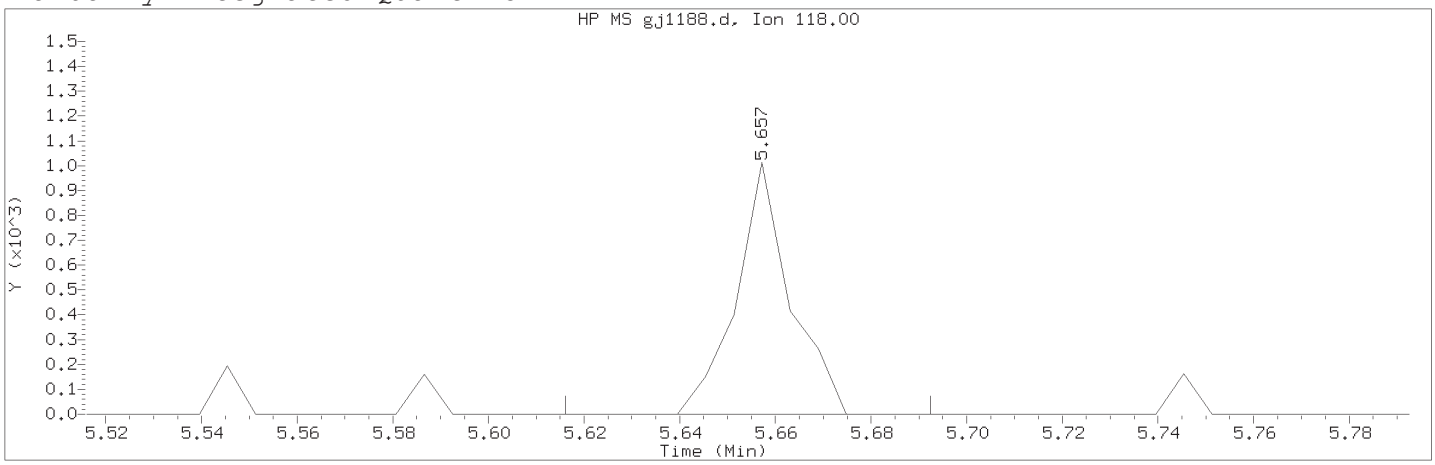
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 4.169
Quant Ion : 88.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 Page 1903 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

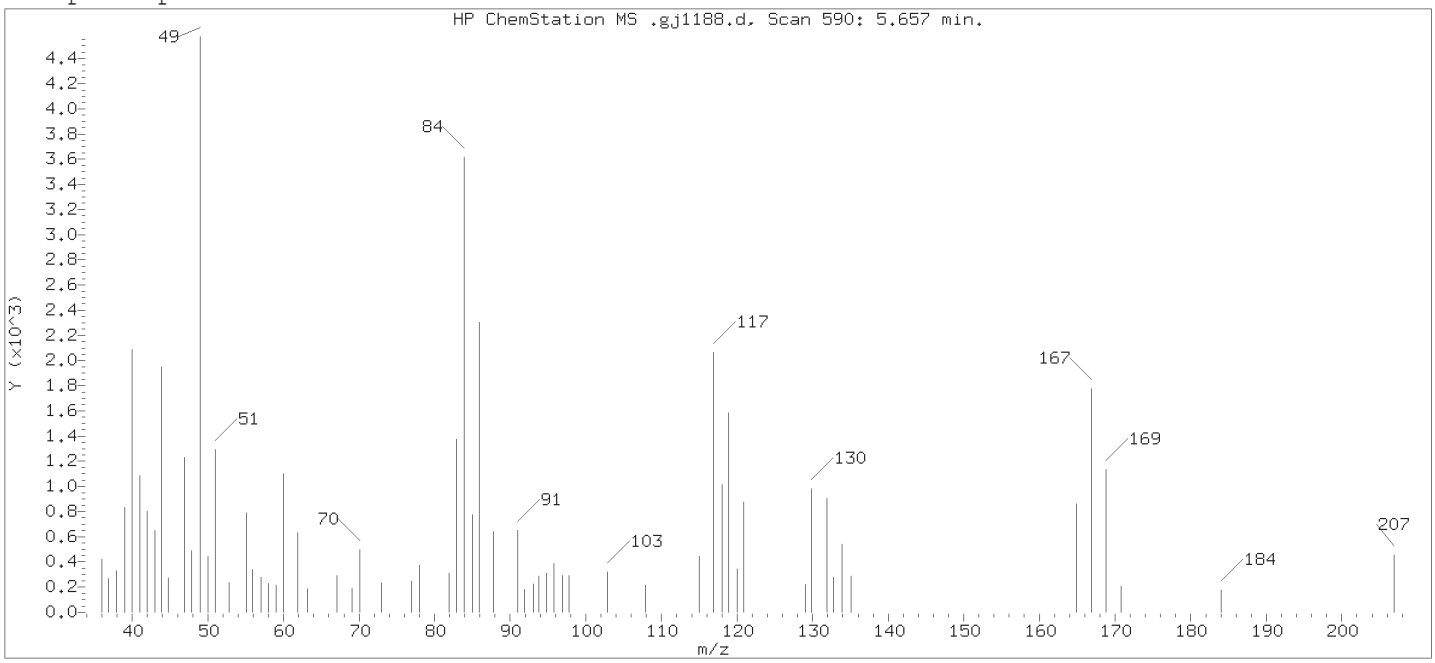
Compound Number	: 20		
Compound Name	: a-methylstyrene		
Scan Number	: 590		
Retention Time (minutes)	: 5.657		
Quant Ion	: 118.00		
Area (flag)	: 792M		
On-Column Amount (ng/ul)	: 0.8153		
Integration start scan	: 582	Integration stop scan:	595
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

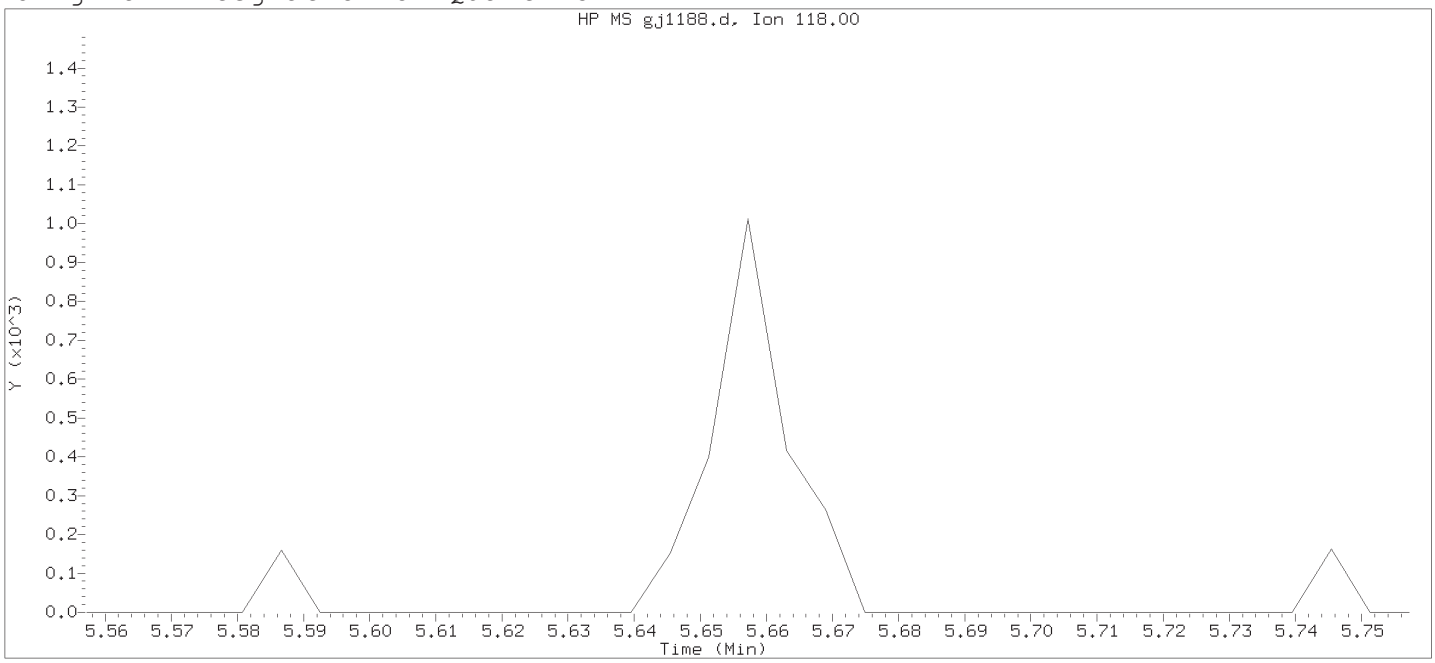
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

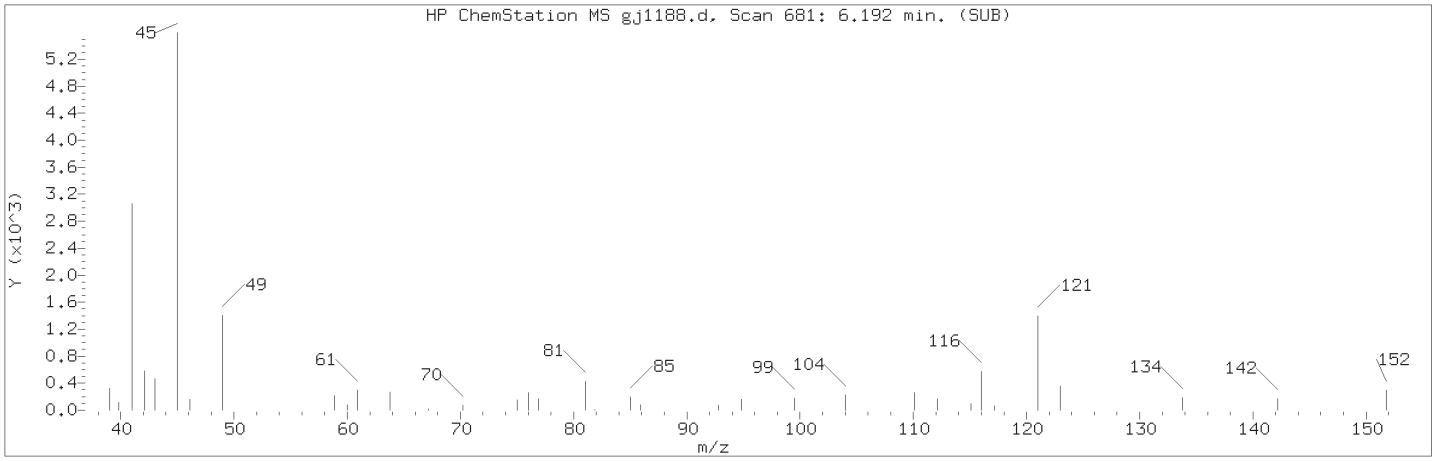
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

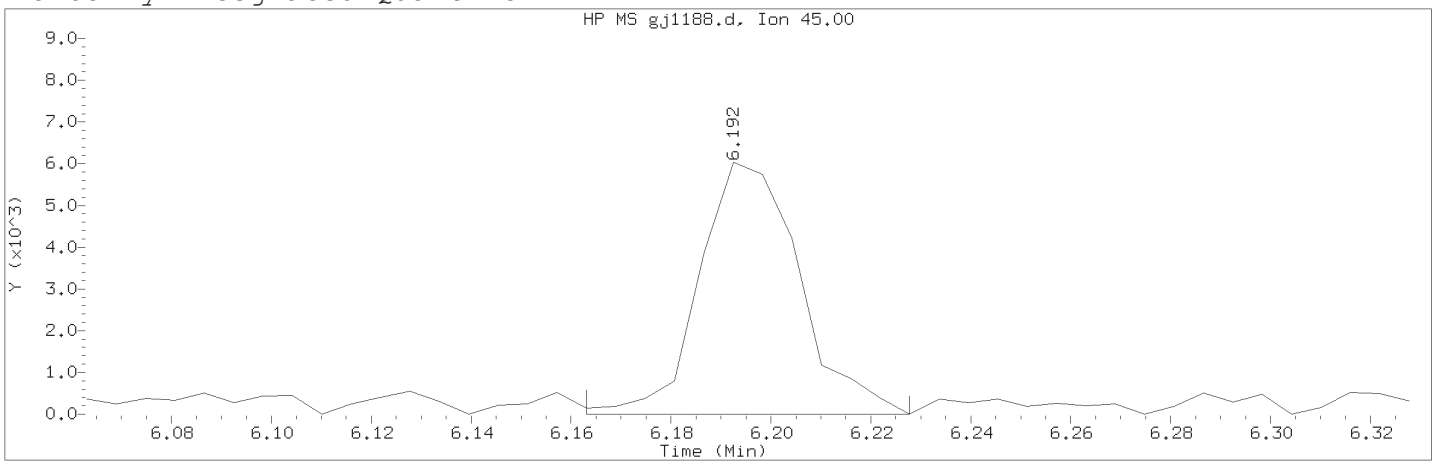
Compound Number : 20
Compound Name : a-methylstyrene
Expected RT (minutes) : 5.657
Quant Ion : 118.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11 Page 1905 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

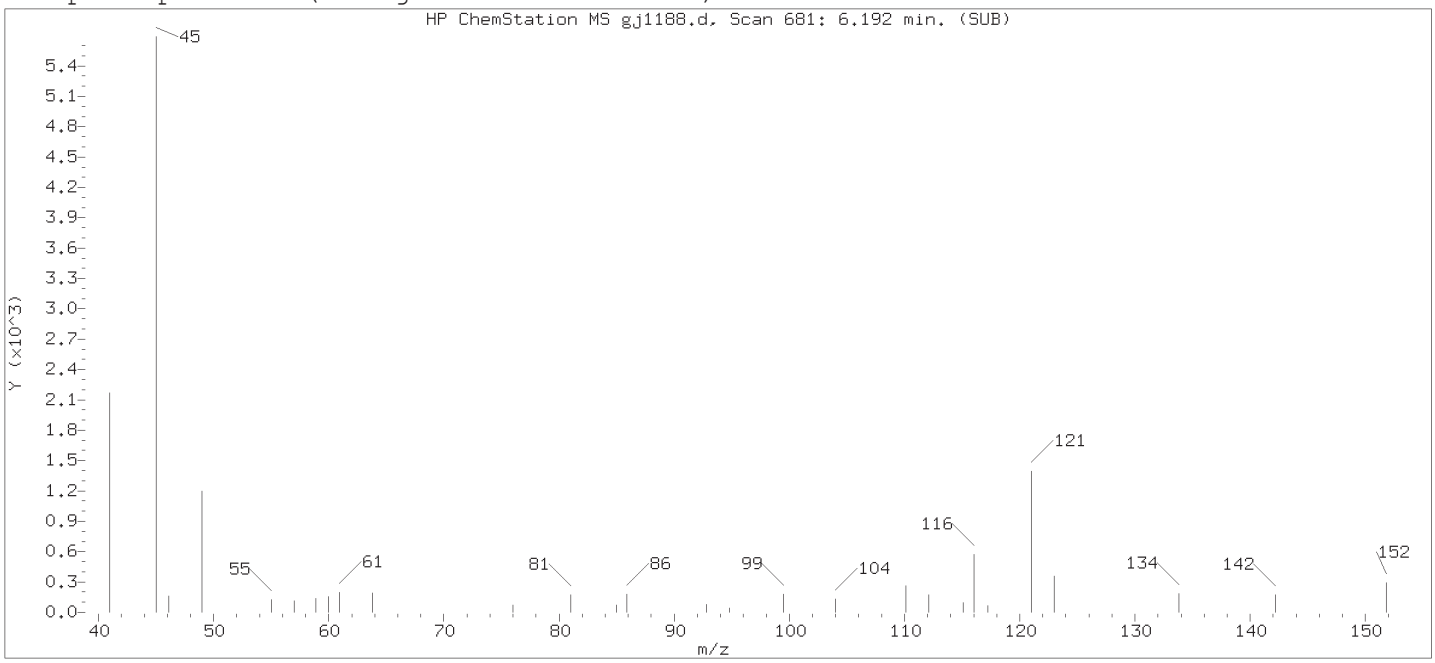
Compound Number : 33
Compound Name : 2,2'-oxybis(1-Chloropropane)
Scan Number : 681
Retention Time (minutes) : 6.192
Quant Ion : 45.00
Area (flag) : 8397M
On-Column Amount (ng/ul) : 0.5527
Integration start scan : 675 Integration stop scan: 686
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

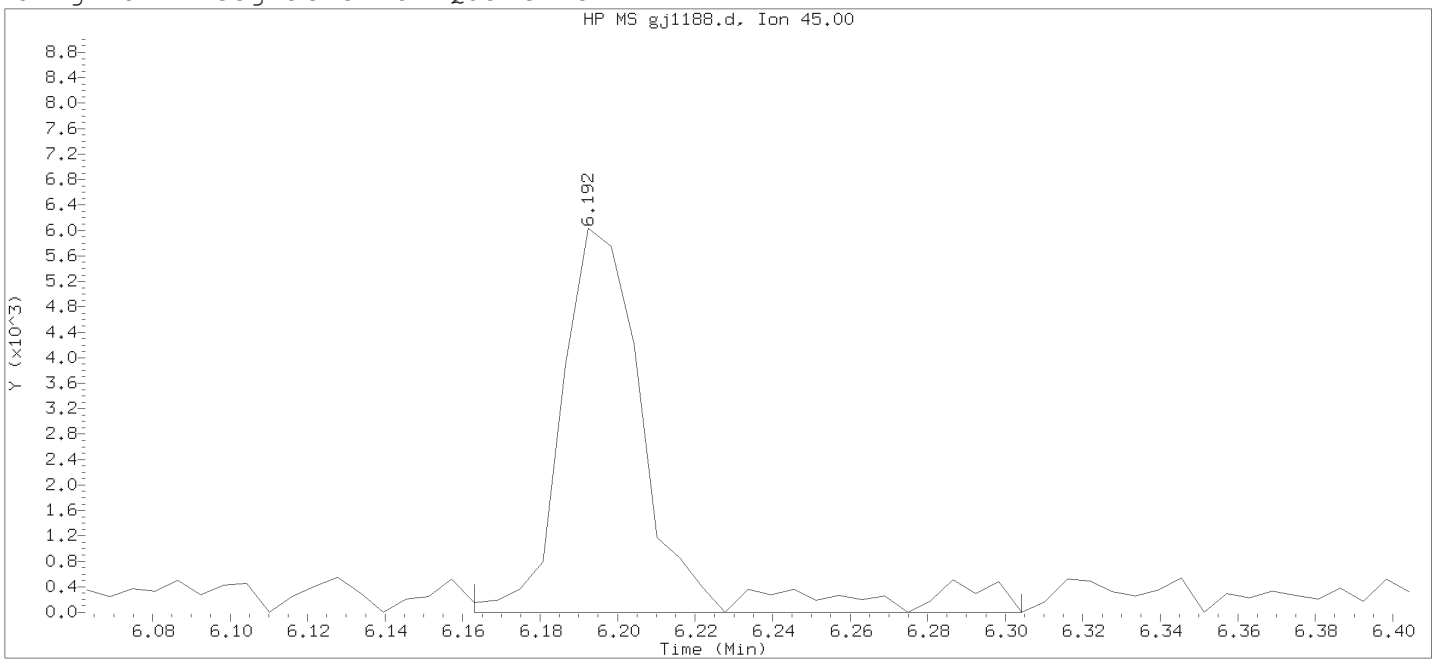
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

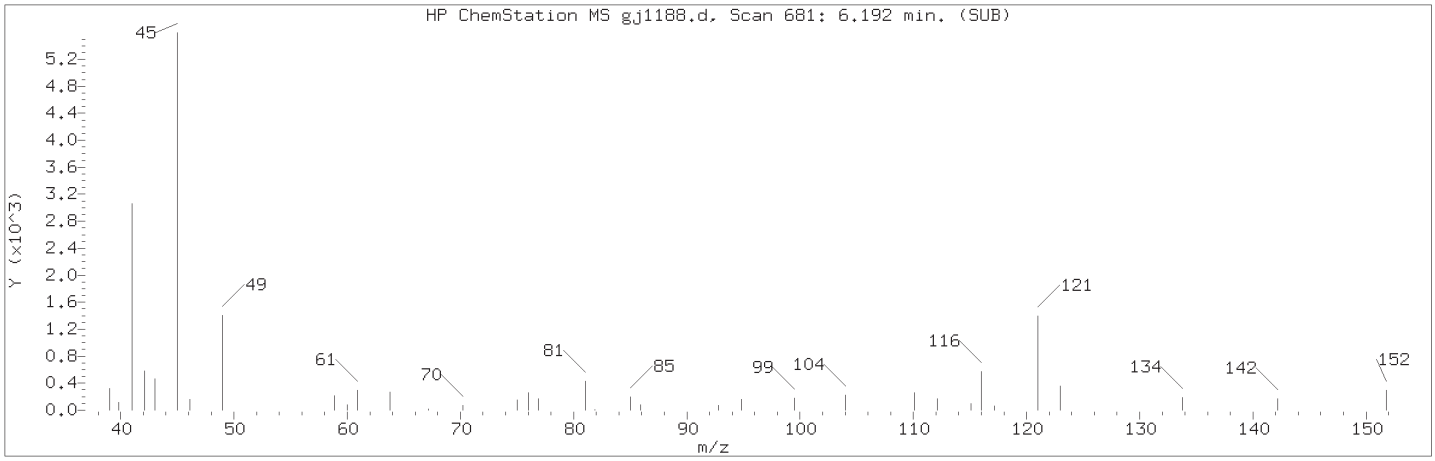
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

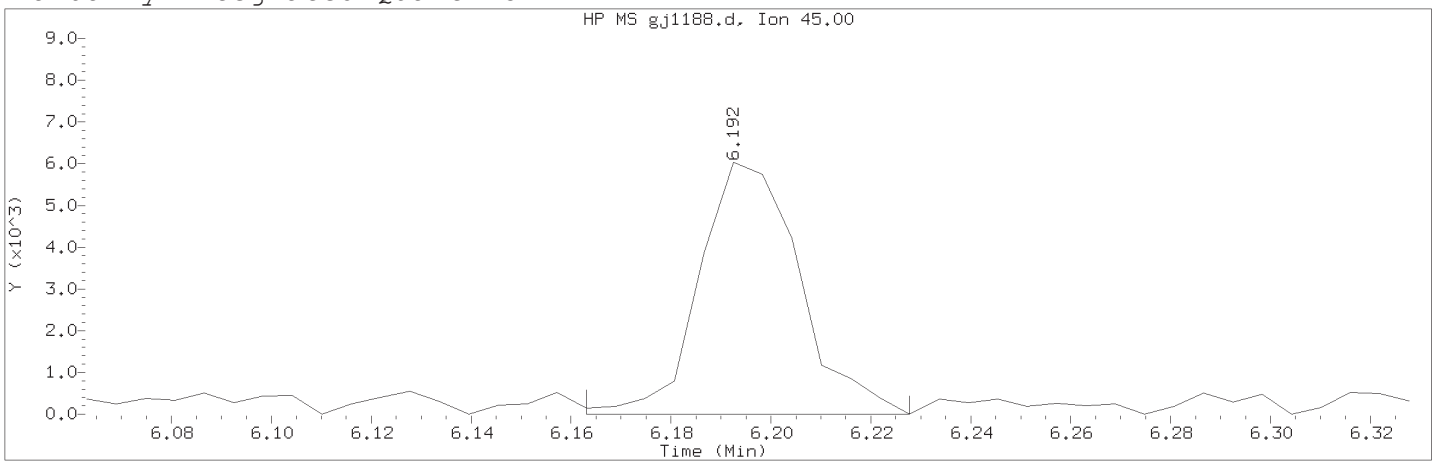
Compound Number	: 33		
Compound Name	: 2,2'-oxybis(1-Chloropropane)		
Scan Number	: 681		
Retention Time (minutes)	: 6.192		
Quant Ion	: 45.00		
Area	: 9558		
On-column Amount (ng/ul)	: 0.6212		
Integration start scan	: 675	Integration stop scan:	699
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

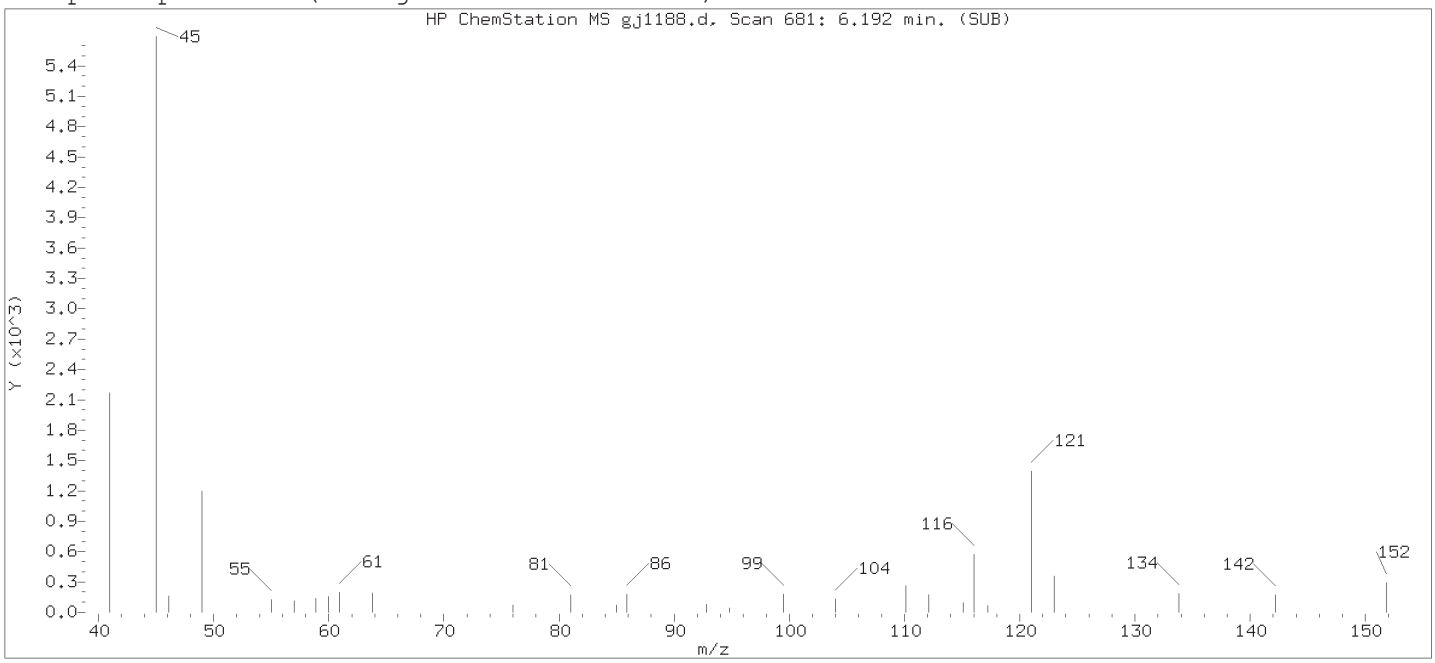
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 681		
Retention Time (minutes)	: 6.192		
Quant Ion	: 45.00		
Area (flag)	: 8397M		
On-Column Amount (ng/ul)	: 0.5527		
Integration start scan	: 675	Integration stop scan:	686
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

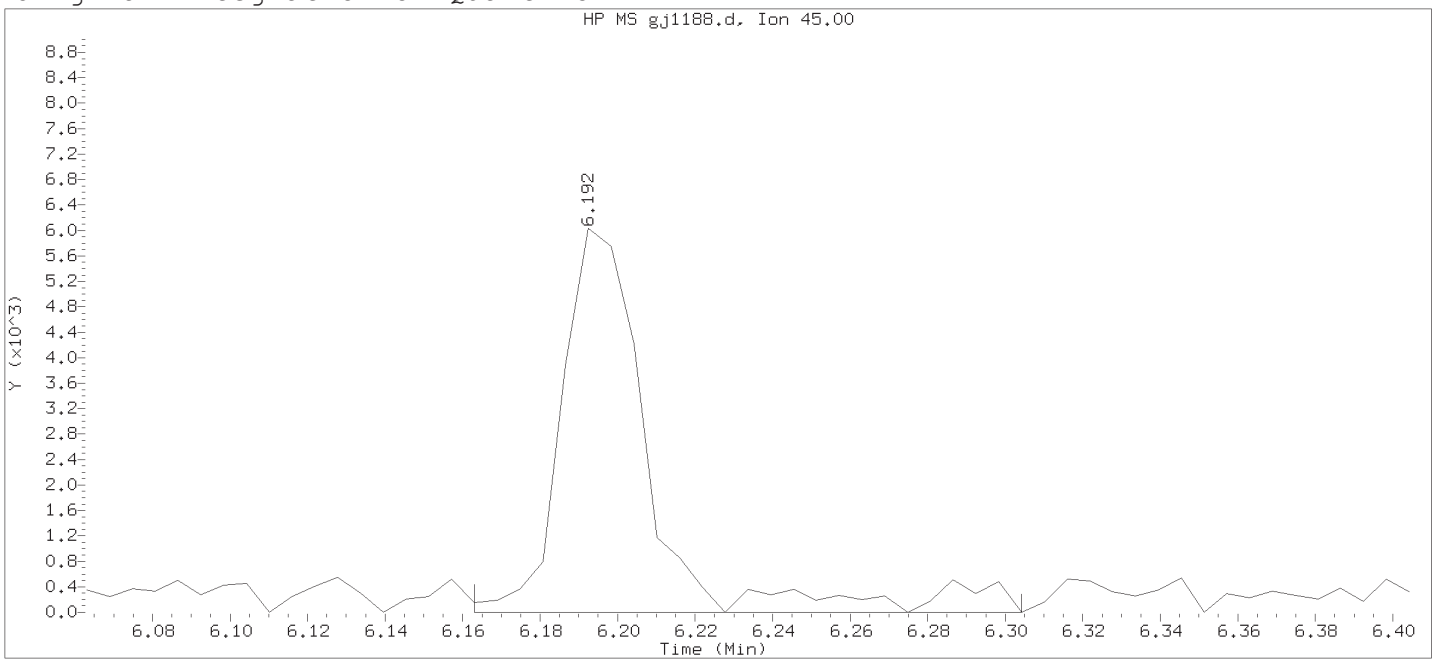
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

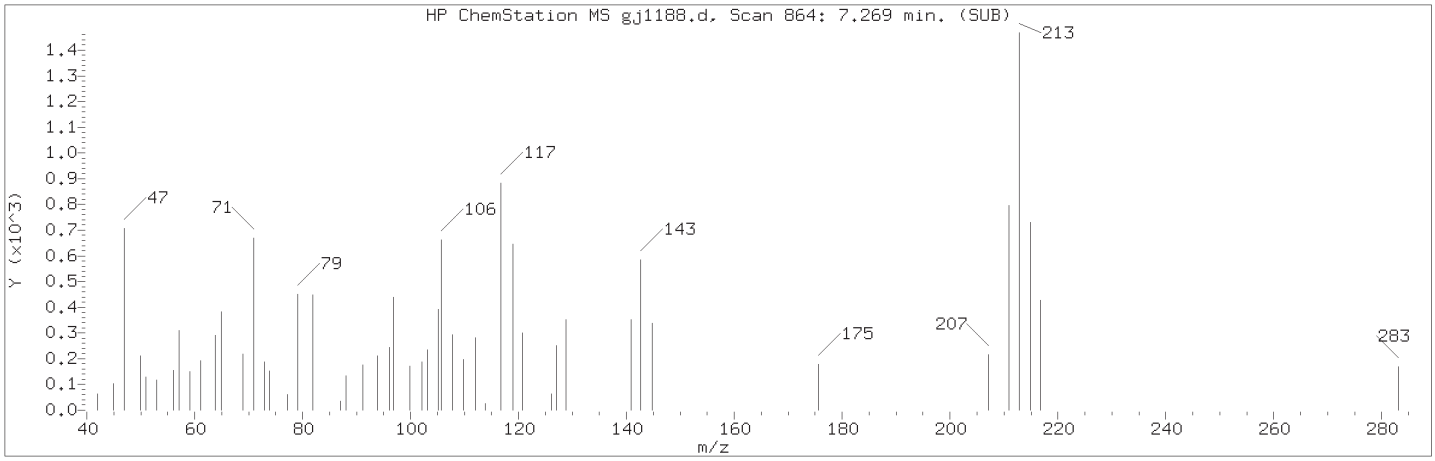
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

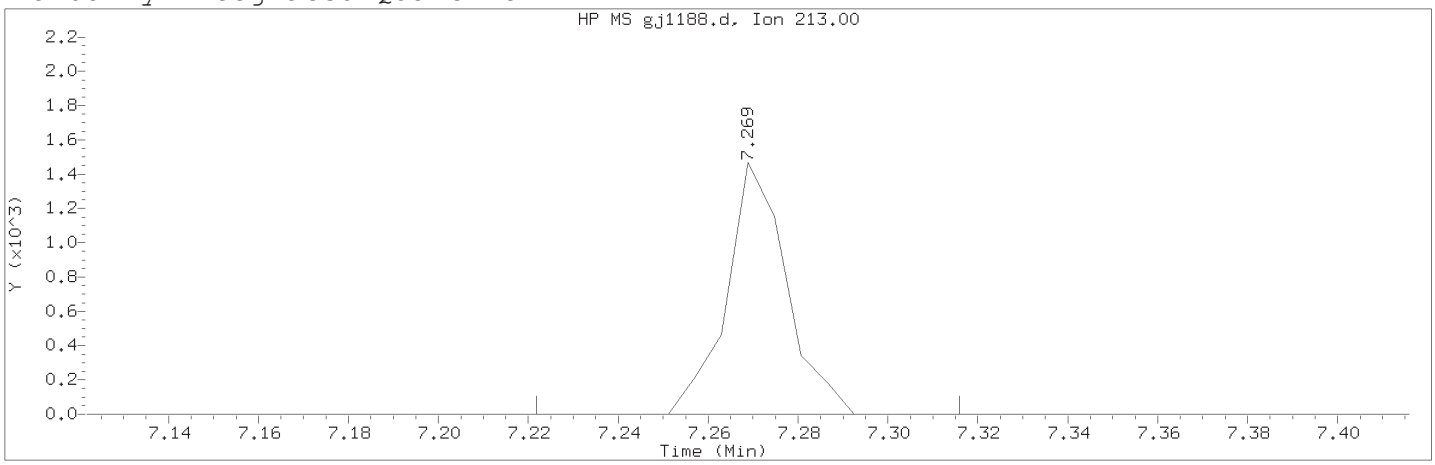
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 681		
Retention Time (minutes)	: 6.192		
Quant Ion	: 45.00		
Area	: 9558		
On-column Amount (ng/ul)	: 0.6212		
Integration start scan	: 675	Integration stop scan:	699
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

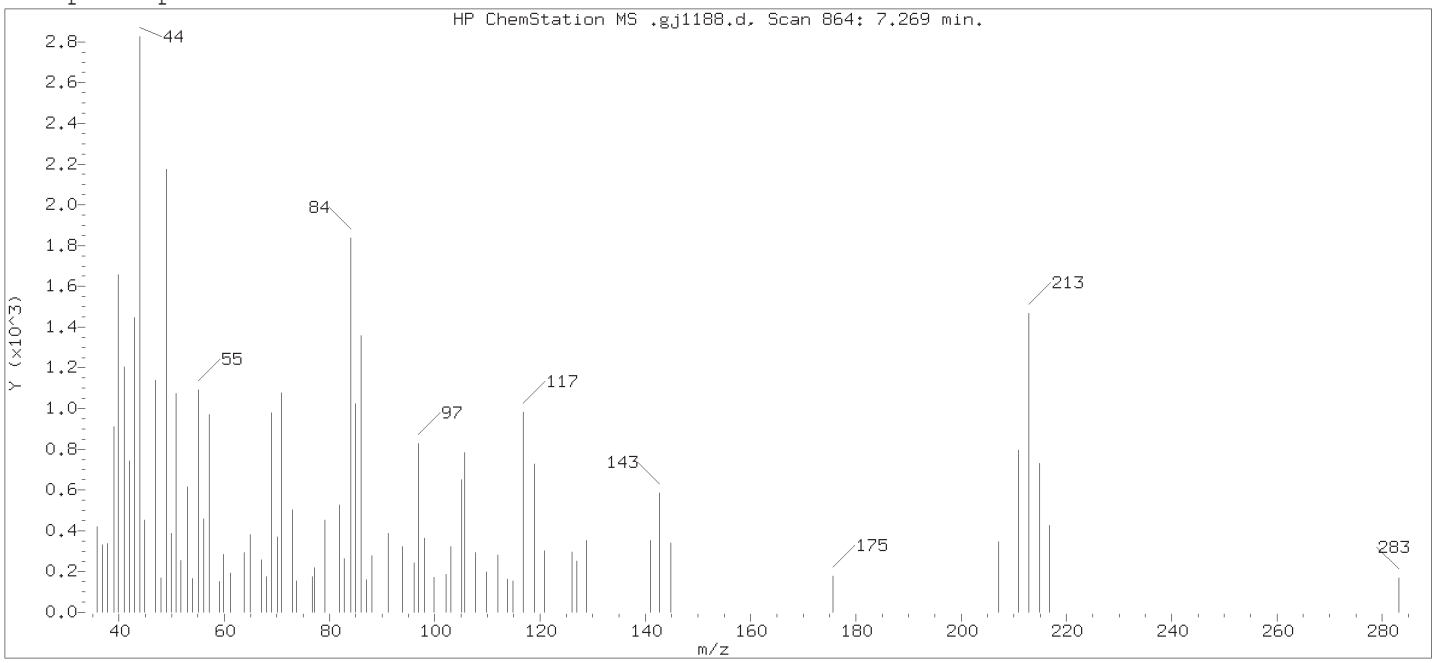
Compound Number : 69
Compound Name : Hexachloropropene
Scan Number : 864
Retention Time (minutes) : 7.269
Quant Ion : 213.00
Area (flag) : 1349M
On-Column Amount (ng/ul) : 0.3870
Integration start scan : 855 Integration stop scan: 871
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

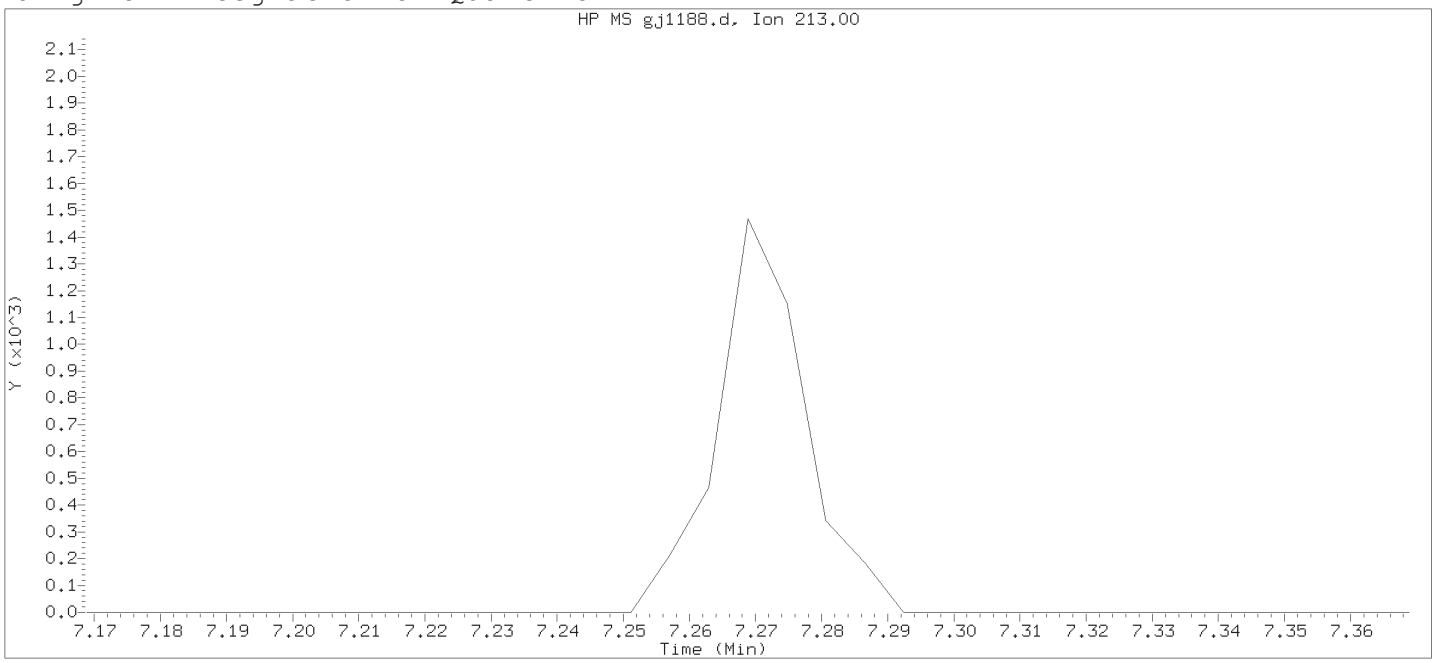
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

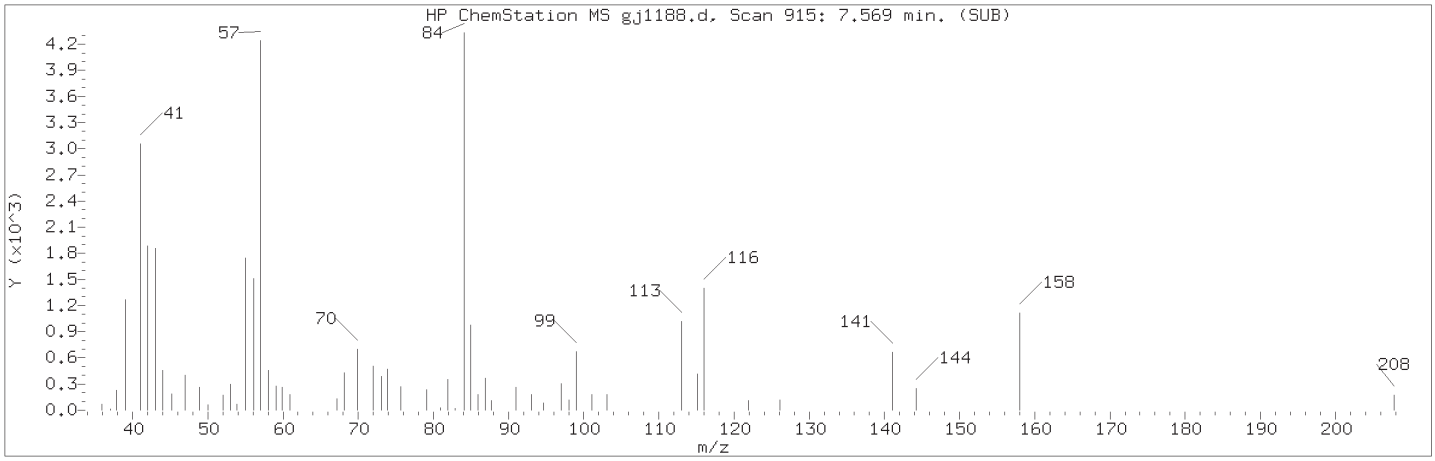
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

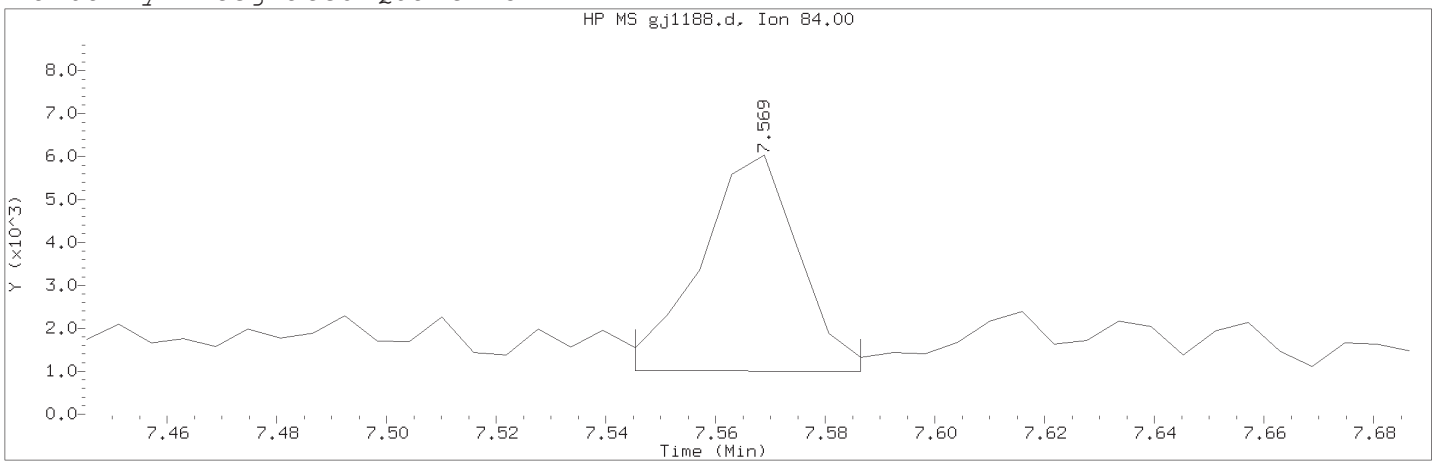
Compound Number : 69
Compound Name : Hexachloropropene
Expected RT (minutes) : 7.269
Quant Ion : 213.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 10/21/2018 10:50:41

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

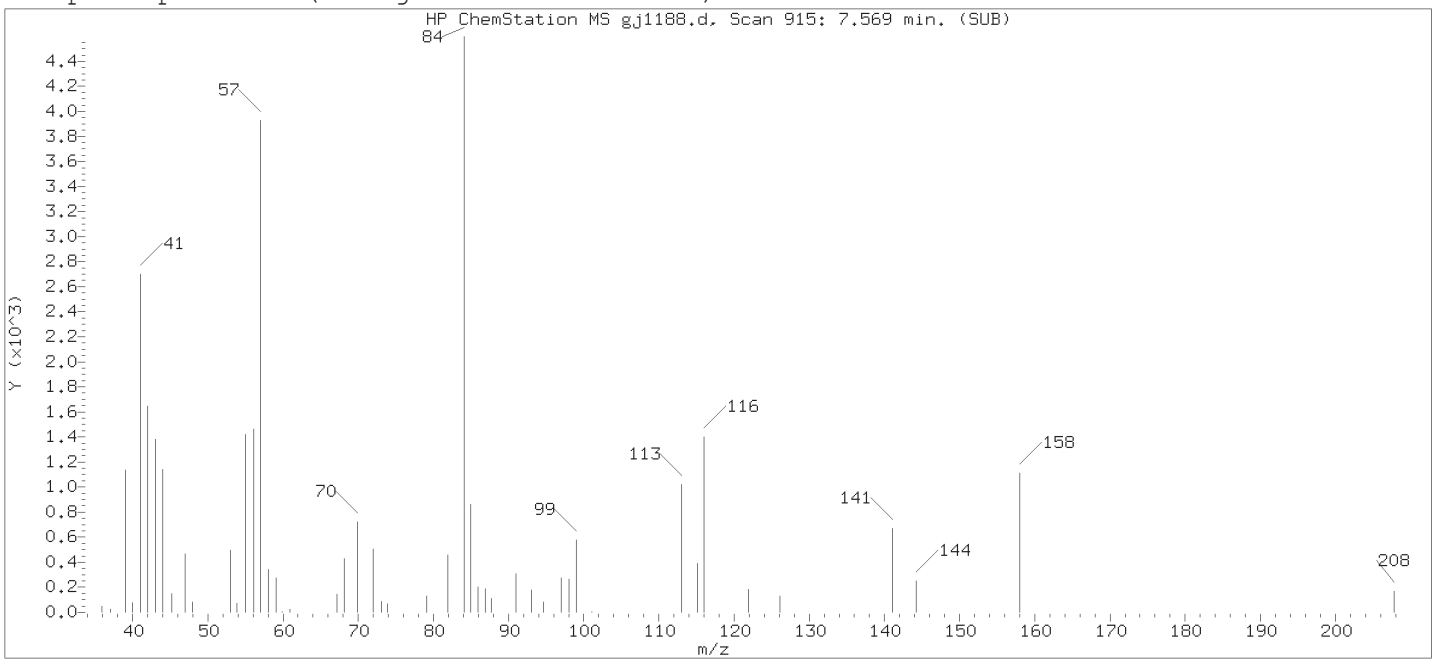
Compound Number : 77
Compound Name : N-Nitrosodi-n-butylamine
Scan Number : 915
Retention Time (minutes) : 7.569
Quant Ion : 84.00
Area (flag) : 6318M
On-Column Amount (ng/ul) : 0.5588
Integration start scan : 910 Integration stop scan: 917
Y at integration start : 1014 Y at integration end: 1005

Reason for manual integration: improper integration

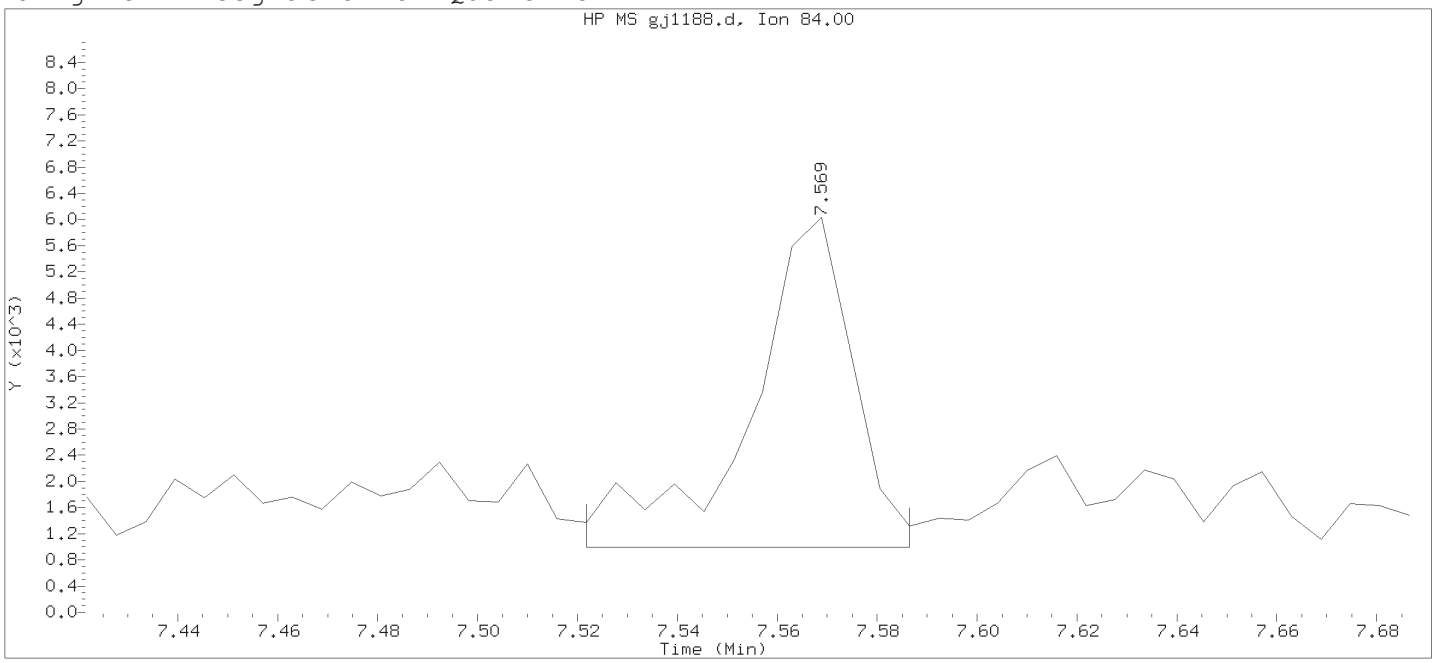
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

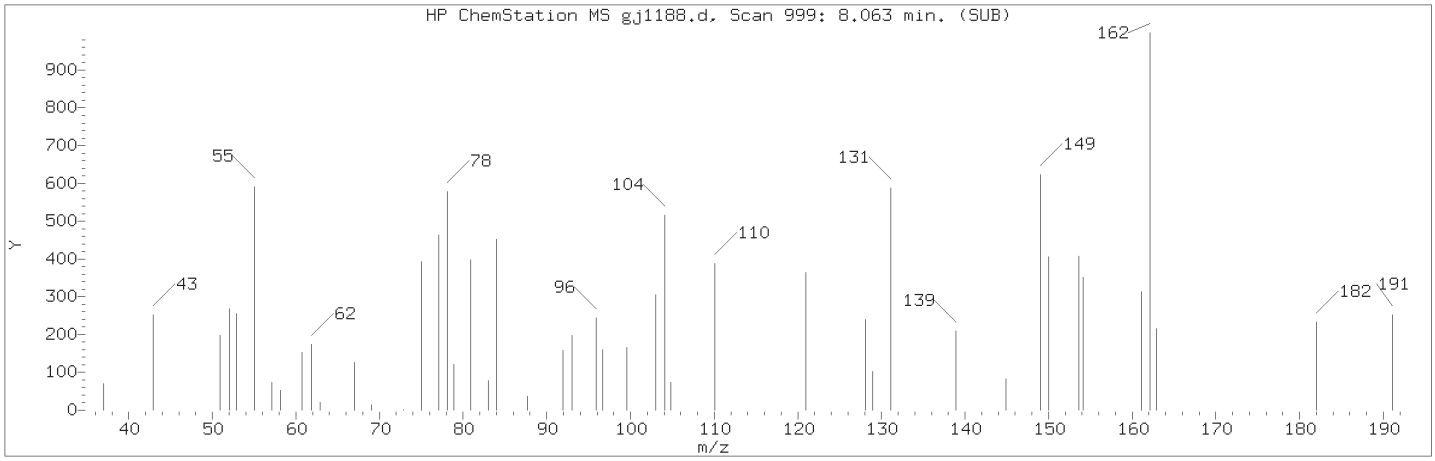
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

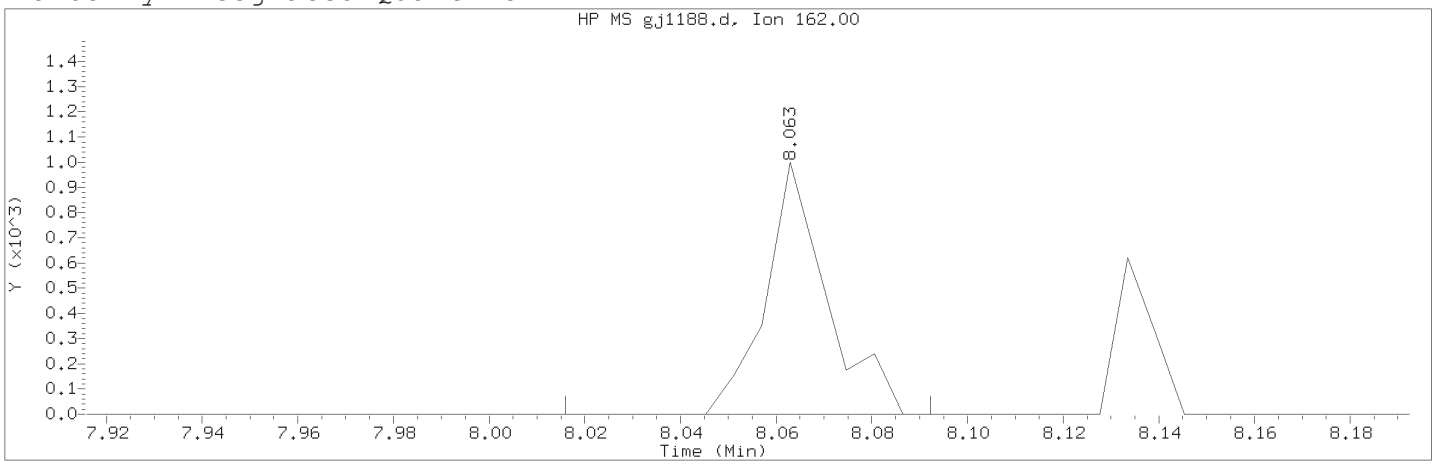
Compound Number	: 77		
Compound Name	: N-Nitrosodi-n-butylamine		
Scan Number	: 915		
Retention Time (minutes)	: 7.569		
Quant Ion	: 84.00		
Area	: 7251		
On-column Amount (ng/ul)	: 0.6413		
Integration start scan	: 906	Integration stop scan:	917
Y at integration start	: 997	Y at integration end:	997

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

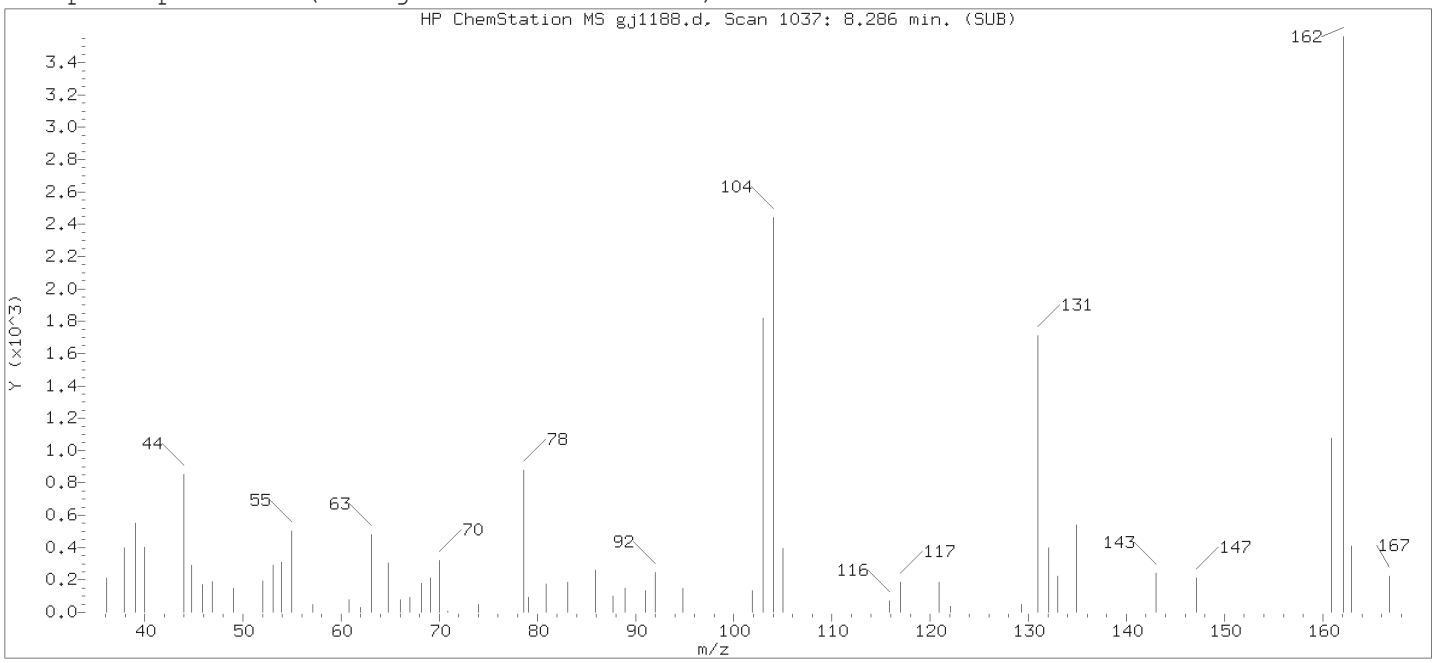
Compound Number : 88
Compound Name : cis-Isosafrole
Scan Number : 999
Retention Time (minutes) : 8.063
Quant Ion : 162.00
Area (flag) : 883M
On-Column Amount (ng/ul) : 0.0989
Integration start scan : 990 Integration stop scan: 1003
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

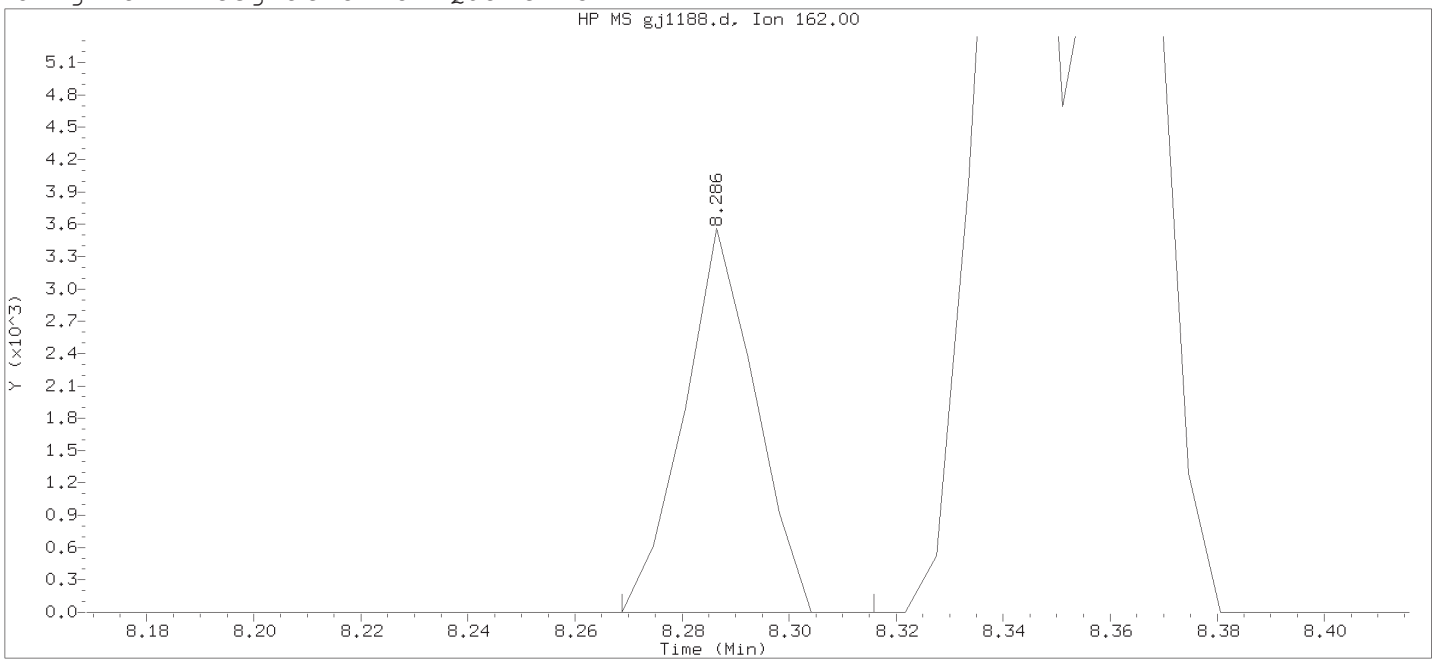
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

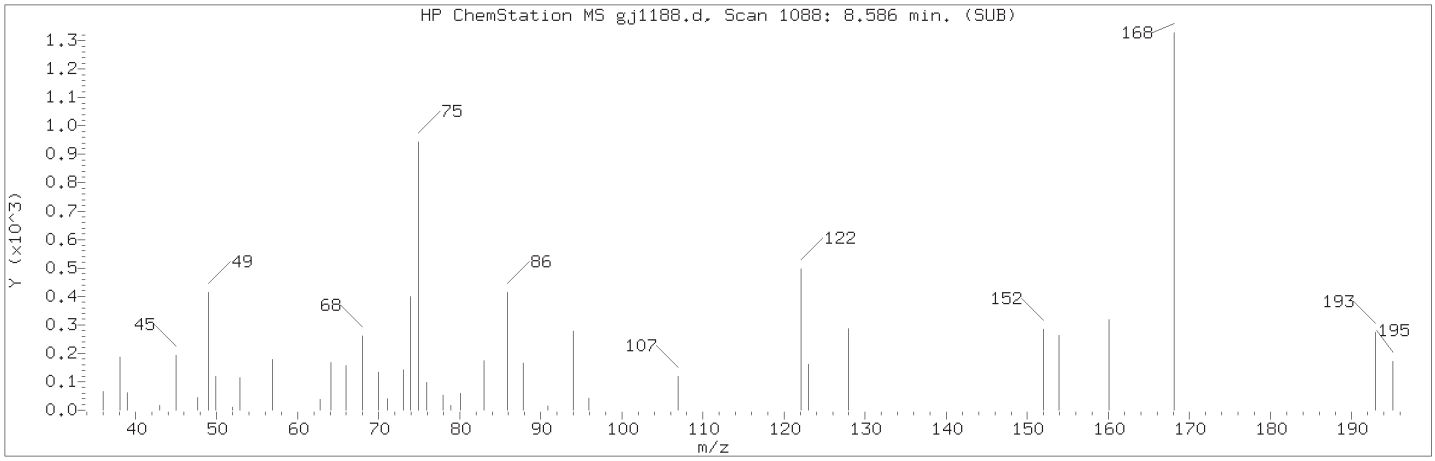
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

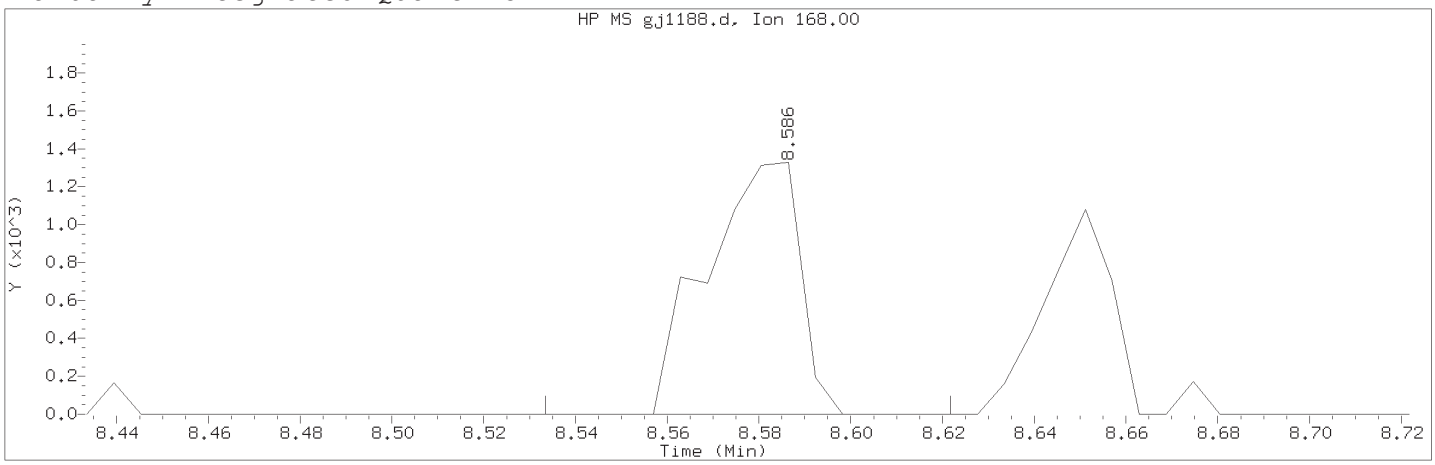
Compound Number	: 88		
Compound Name	: cis-Isosafrole		
Scan Number	: 1037		
Retention Time (minutes)	: 8.286		
Quant Ion	: 162.00		
Area	: 3298		
On-column Amount (ng/ul)	: 0.3693		
Integration start scan	: 1033	Integration stop scan:	1041
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: 1012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

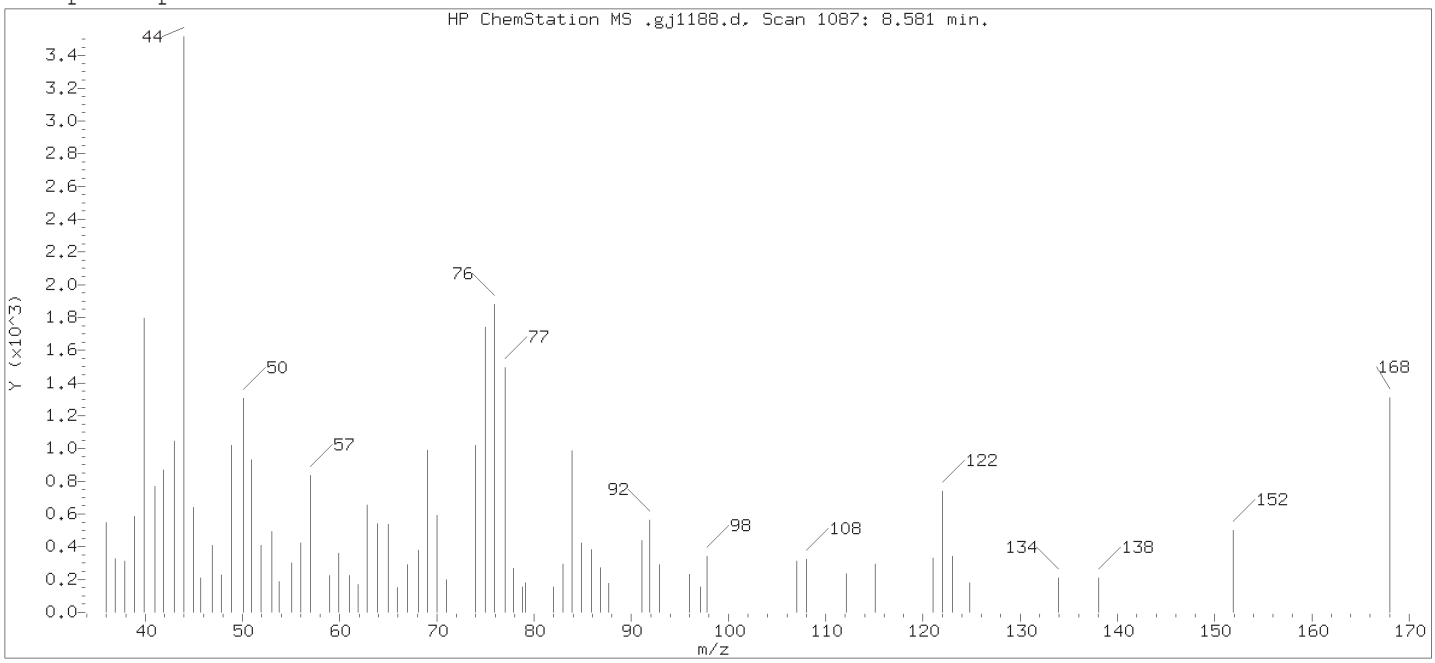
Compound Number : 105
Compound Name : 1,4-Dinitrobenzene
Scan Number : 1088
Retention Time (minutes) : 8.586
Quant Ion : 168.00
Area (flag) : 1880M
On-Column Amount (ng/ul) : 0.5247
Integration start scan : 1078 Integration stop scan: 1093
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

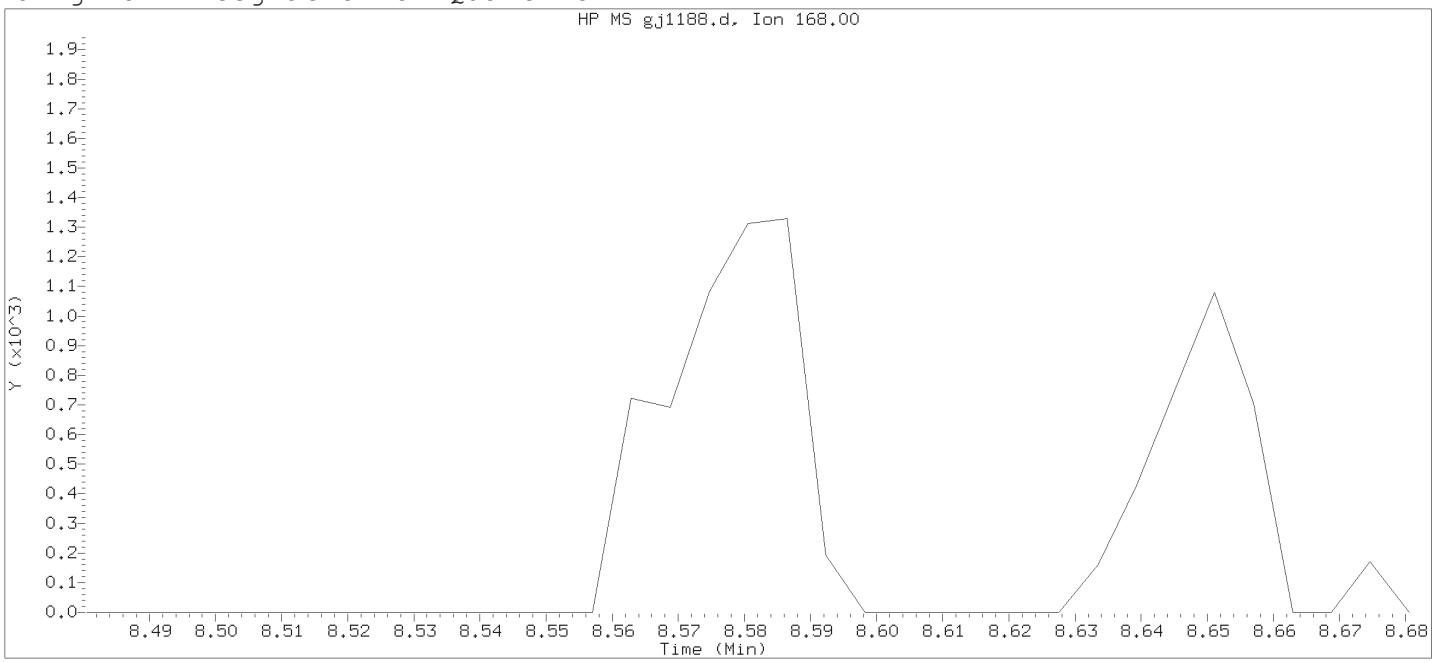
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

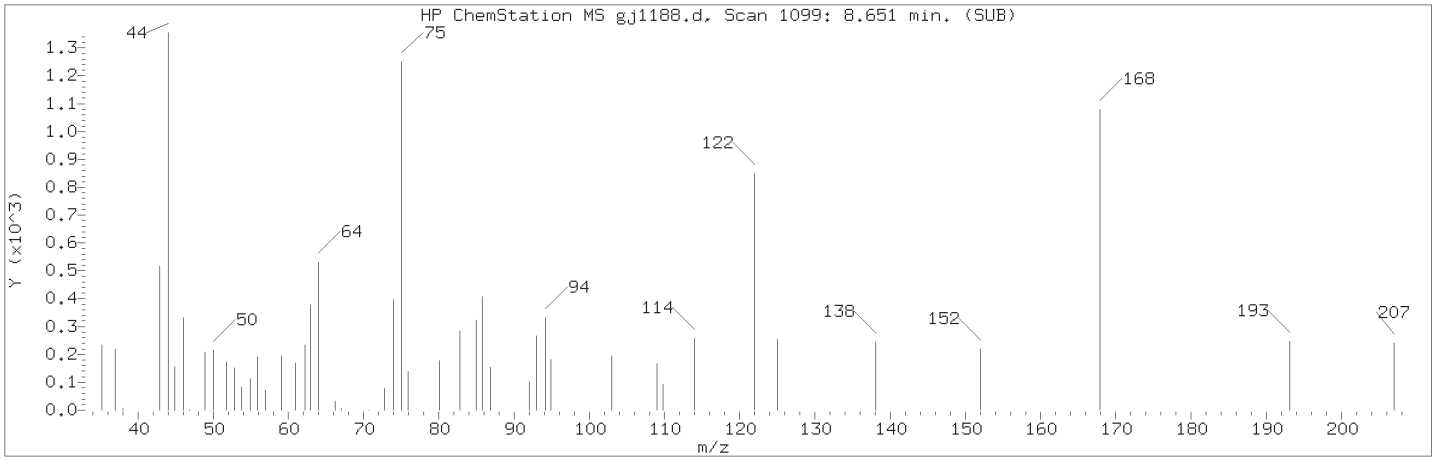
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

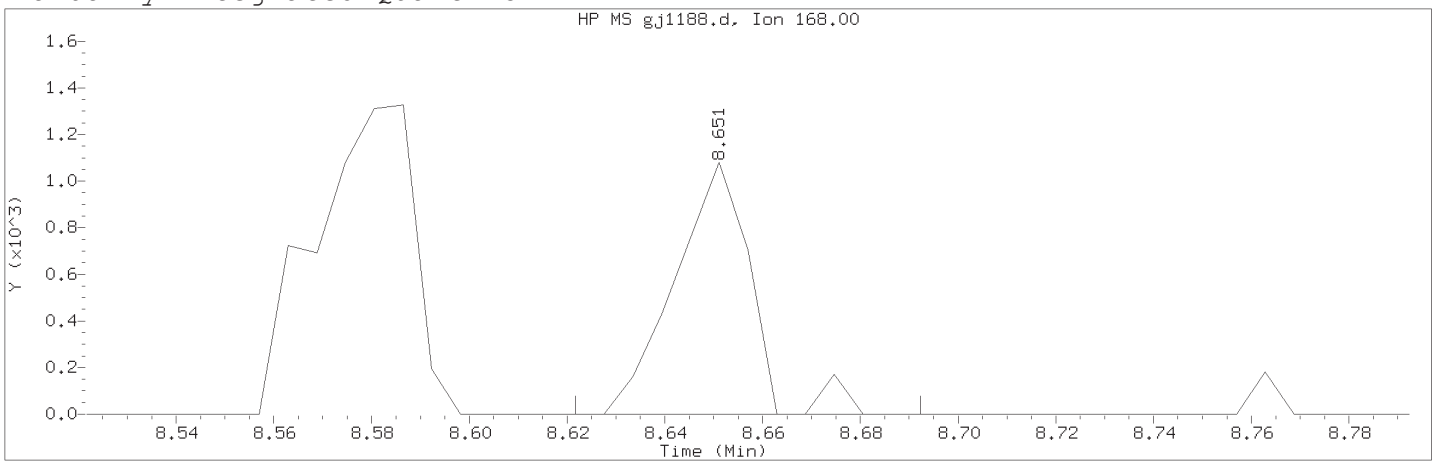
Compound Number : 105
Compound Name : 1,4-Dinitrobenzene
Expected RT (minutes) : 8.581
Quant Ion : 168.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11 Page 1907 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

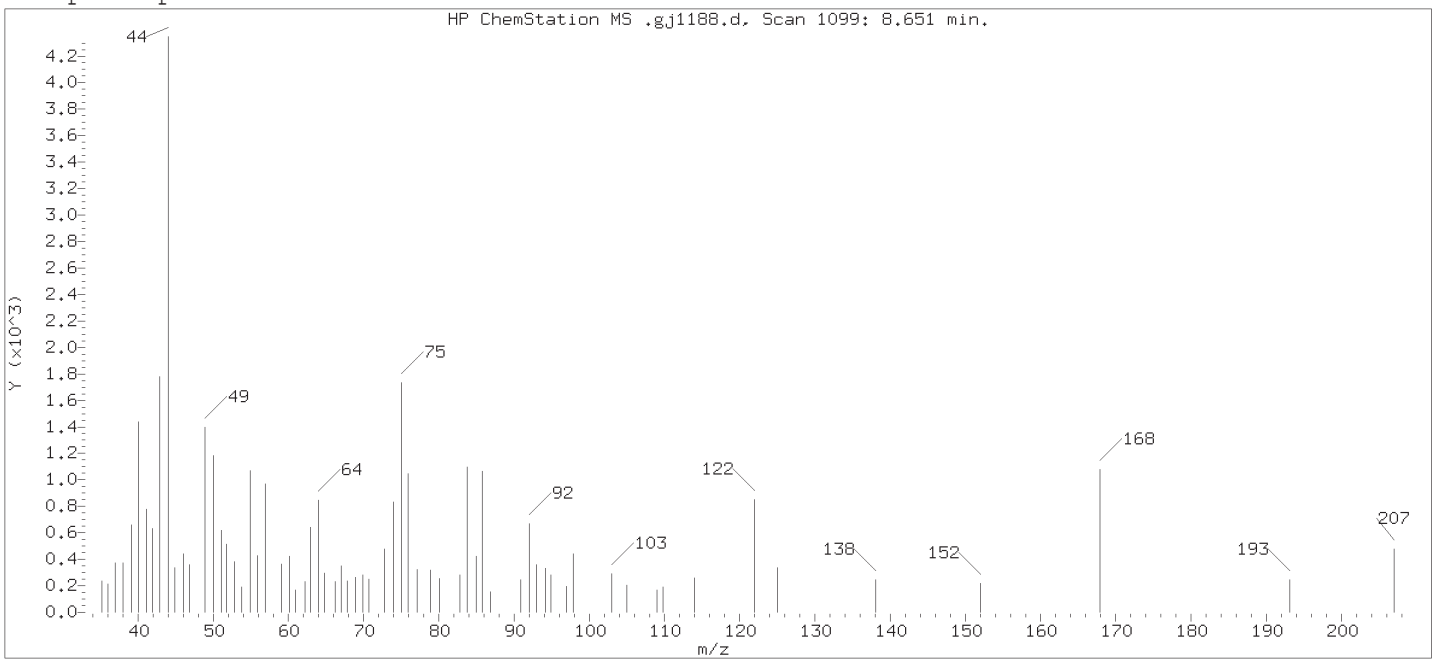
Compound Number : 107
Compound Name : 1,3-Dinitrobenzene
Scan Number : 1099
Retention Time (minutes) : 8.651
Quant Ion : 168.00
Area (flag) : 1166M
On-Column Amount (ng/ul) : 0.2826
Integration start scan : 1093 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

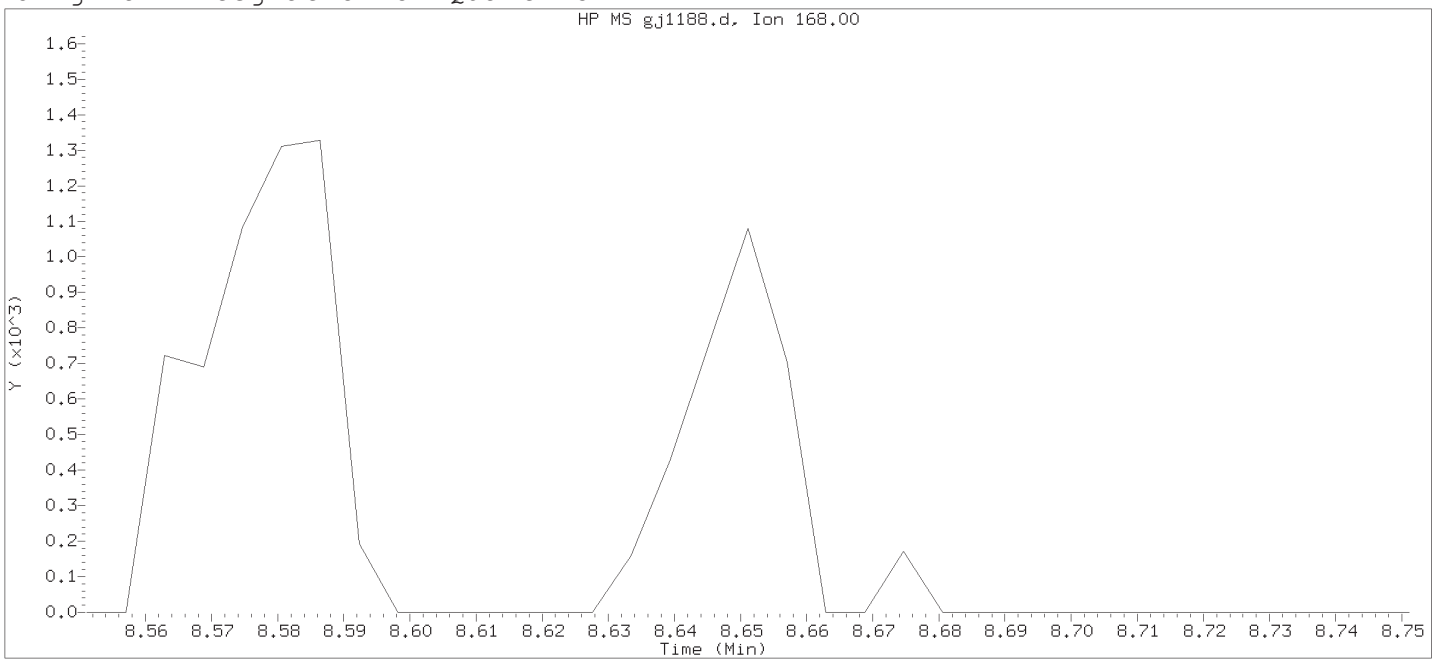
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

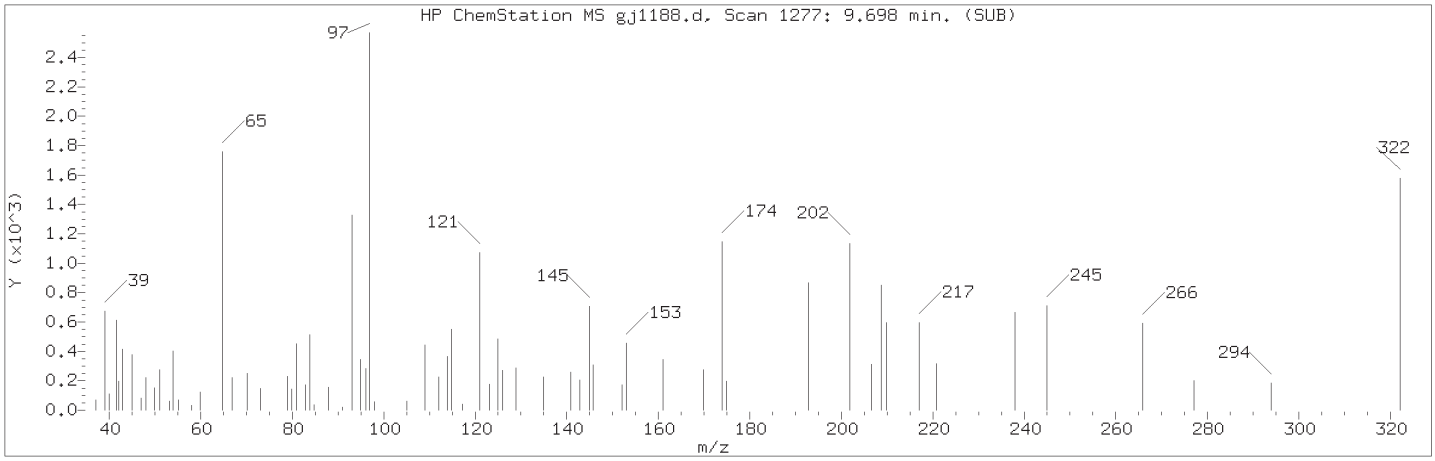
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

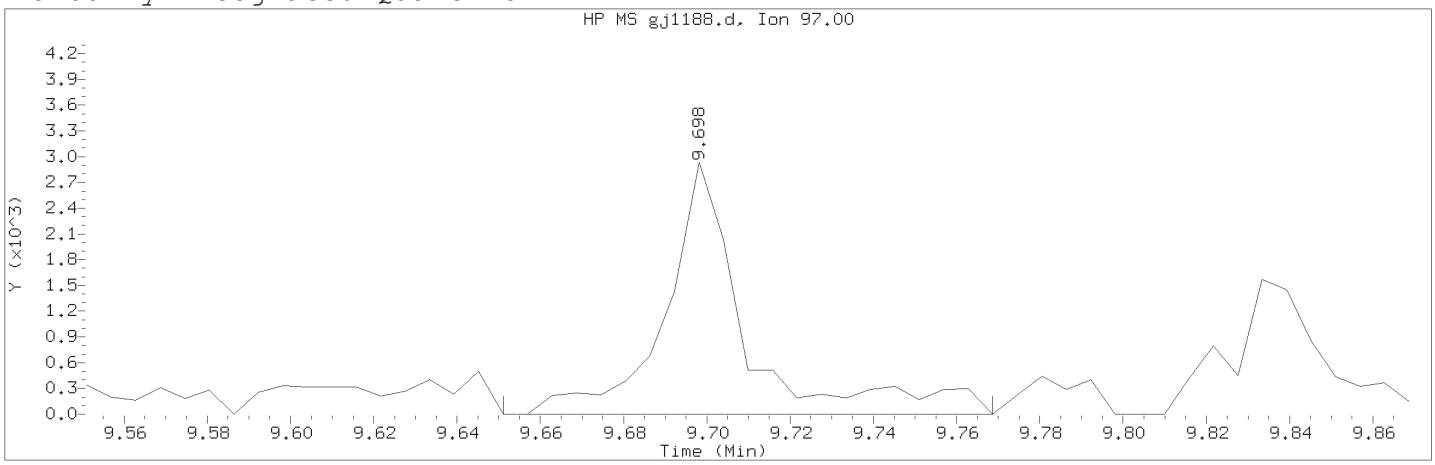
Compound Number : 107
Compound Name : 1,3-Dinitrobenzene
Expected RT (minutes) : 8.651
Quant Ion : 168.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 Page 1910 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

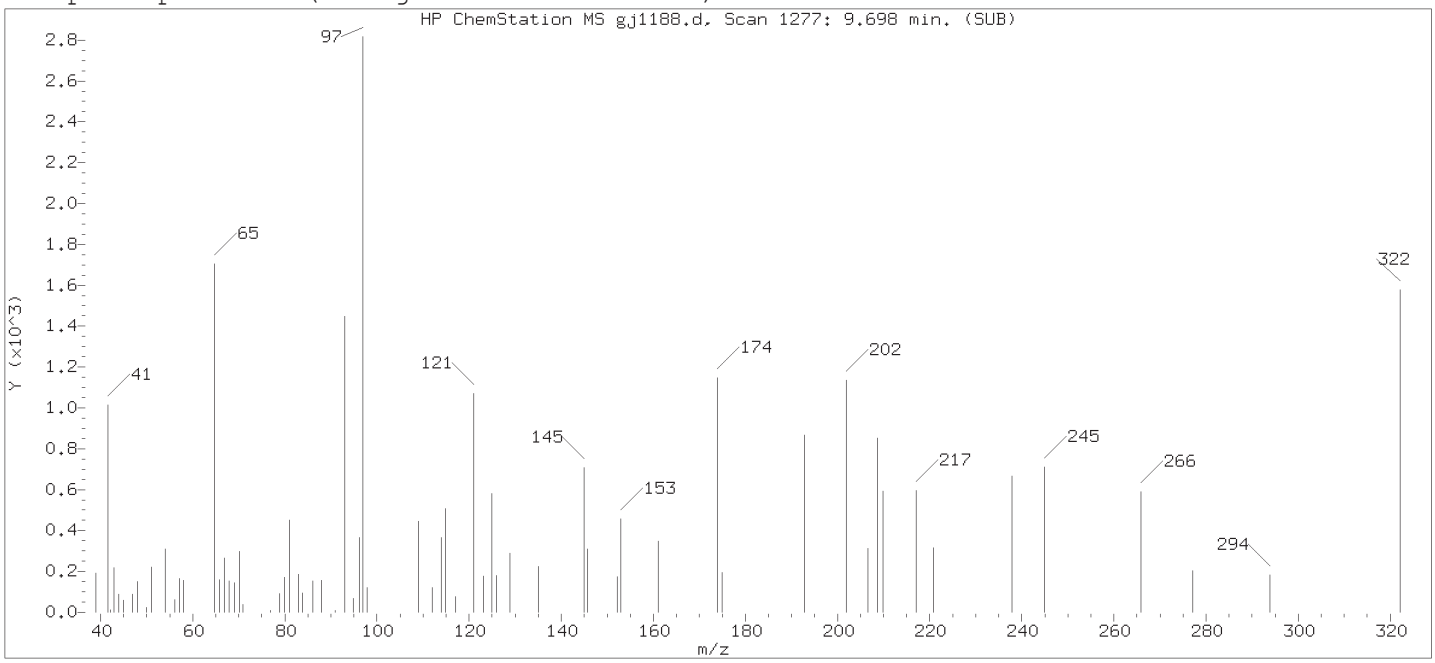
Compound Number : 137
Compound Name : Tetraethyldithiopyrophosphate
Scan Number : 1277
Retention Time (minutes) : 9.698
Quant Ion : 97.00
Area (flag) : 3935M
On-Column Amount (ng/ul) : 0.8277
Integration start scan : 1268 Integration stop scan: 1288
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

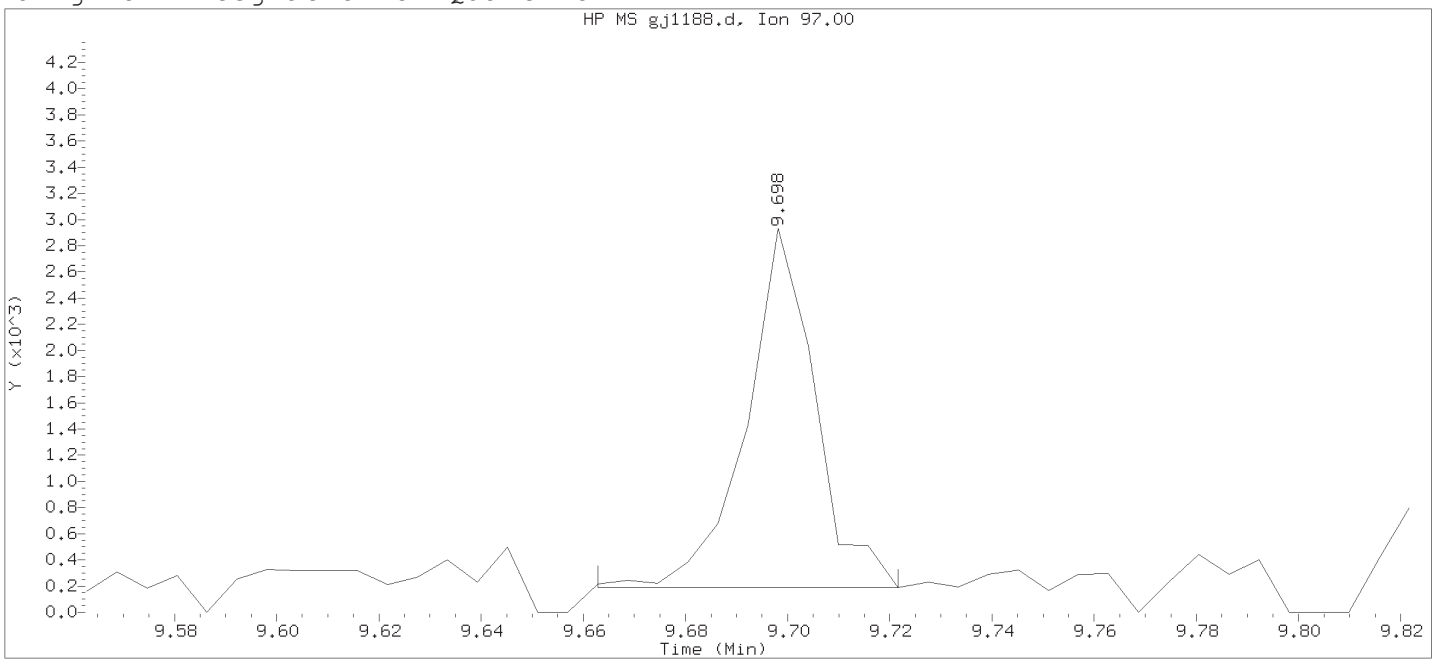
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

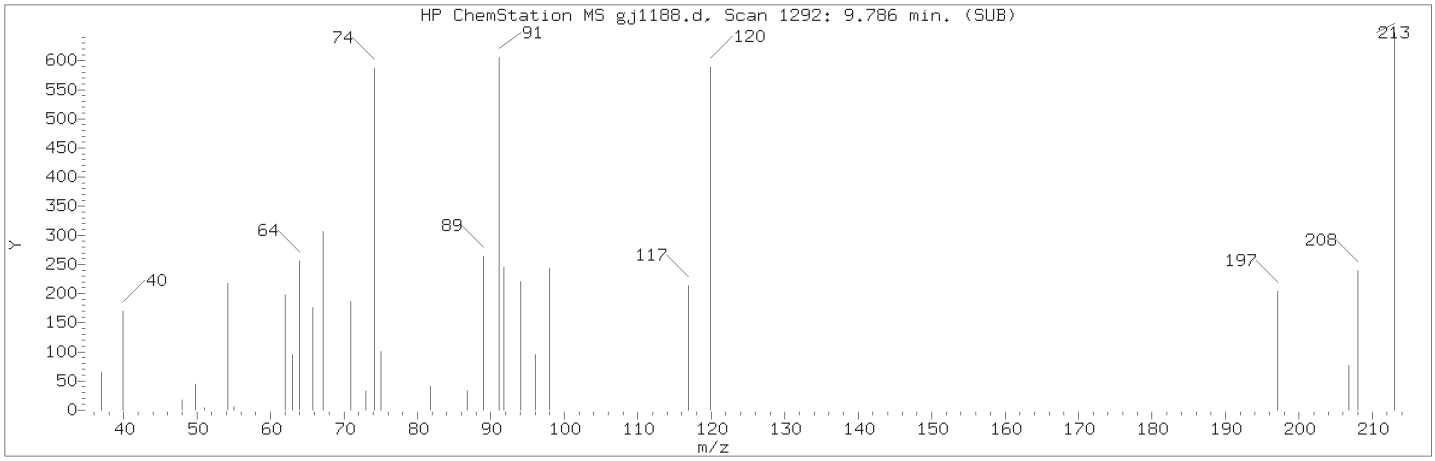
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

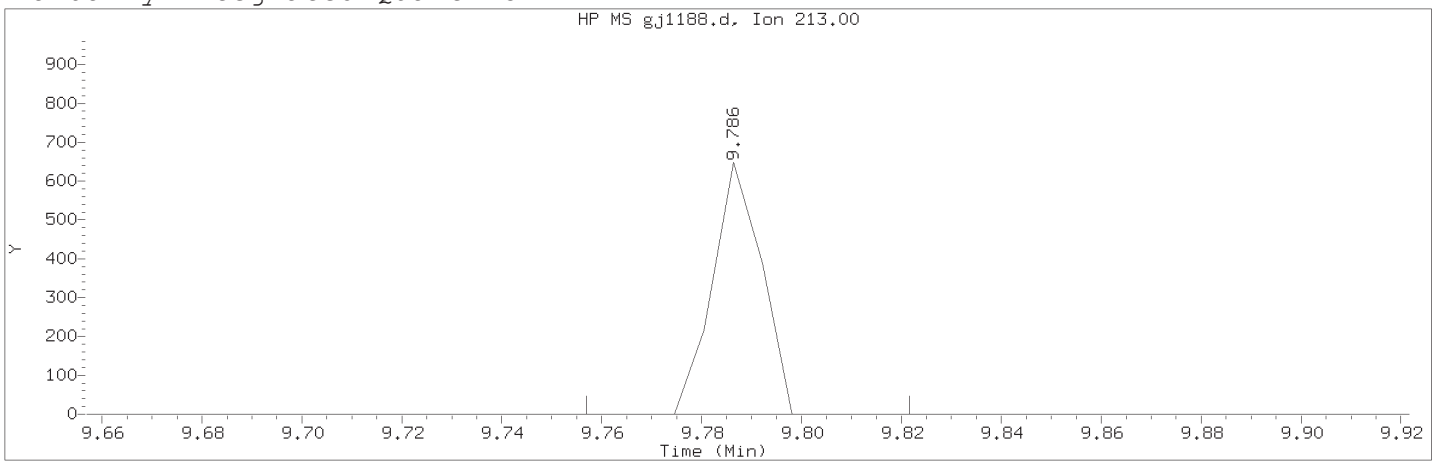
Compound Number	: 137		
Compound Name	: Tetraethyldithiopyrophosphate		
Scan Number	: 1277		
Retention Time (minutes)	: 9.698		
Quant Ion	: 97.00		
Area	: 2569		
On-column Amount (ng/ul)	: 0.5404		
Integration start scan	: 1270	Integration stop scan:	1280
Y at integration start	: 188	Y at integration end:	188

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

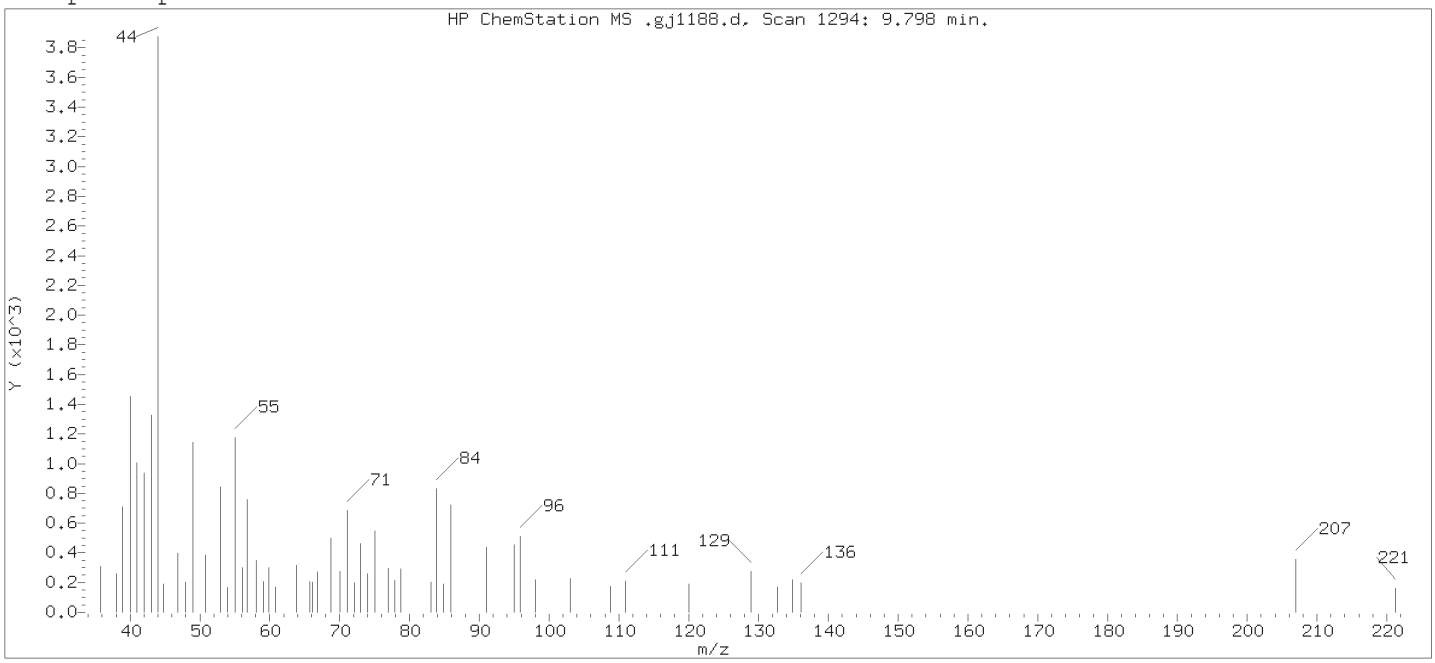
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1292
Retention Time (minutes) : 9.786
Quant Ion : 213.00
Area (flag) : 442M
On-Column Amount (ng/ul) : 0.1710
Integration start scan : 1286 Integration stop scan: 1297
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

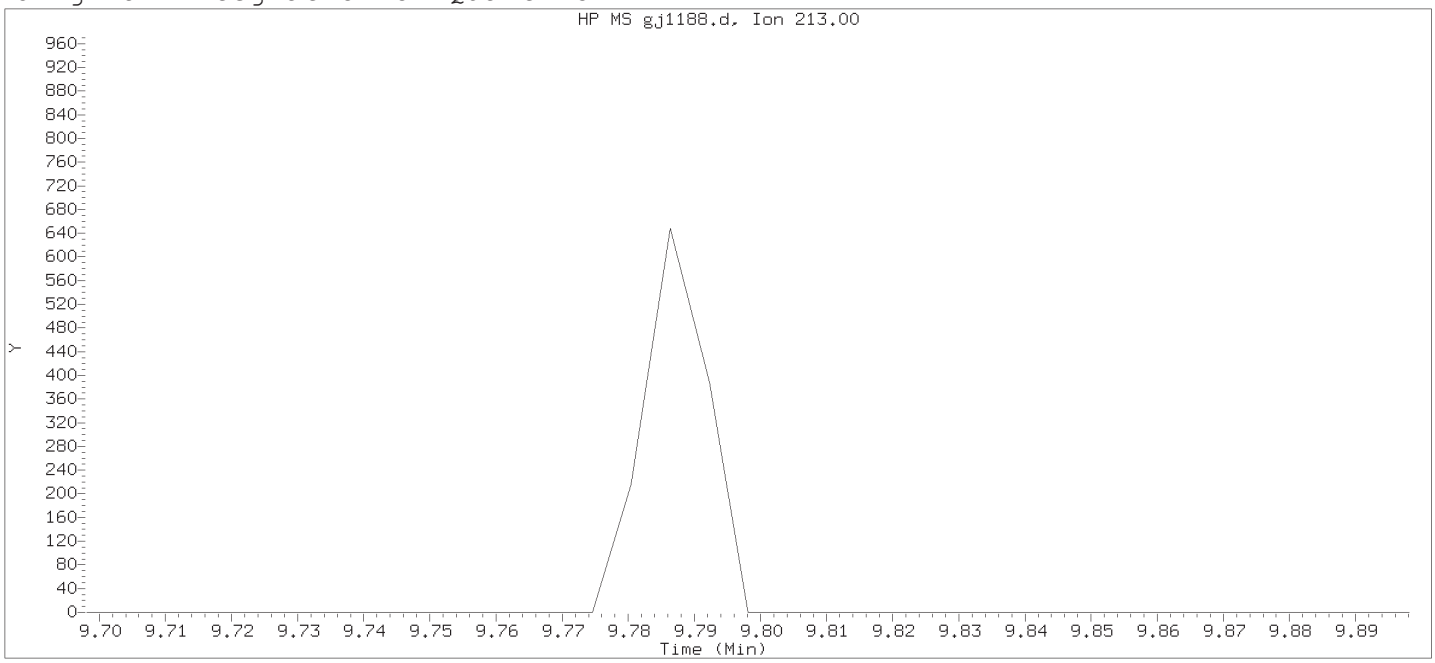
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

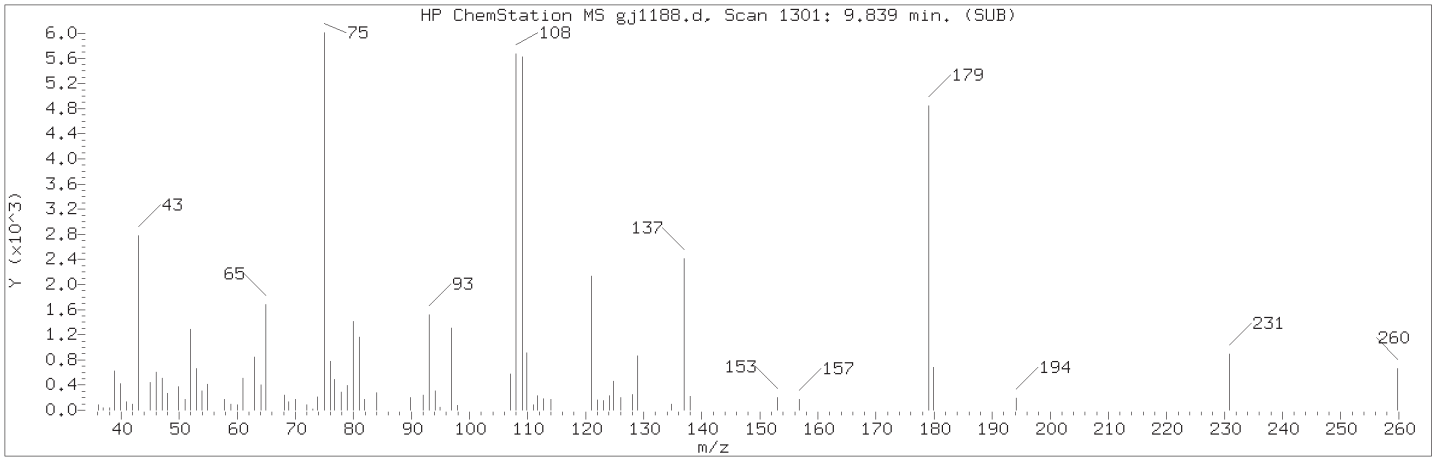
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

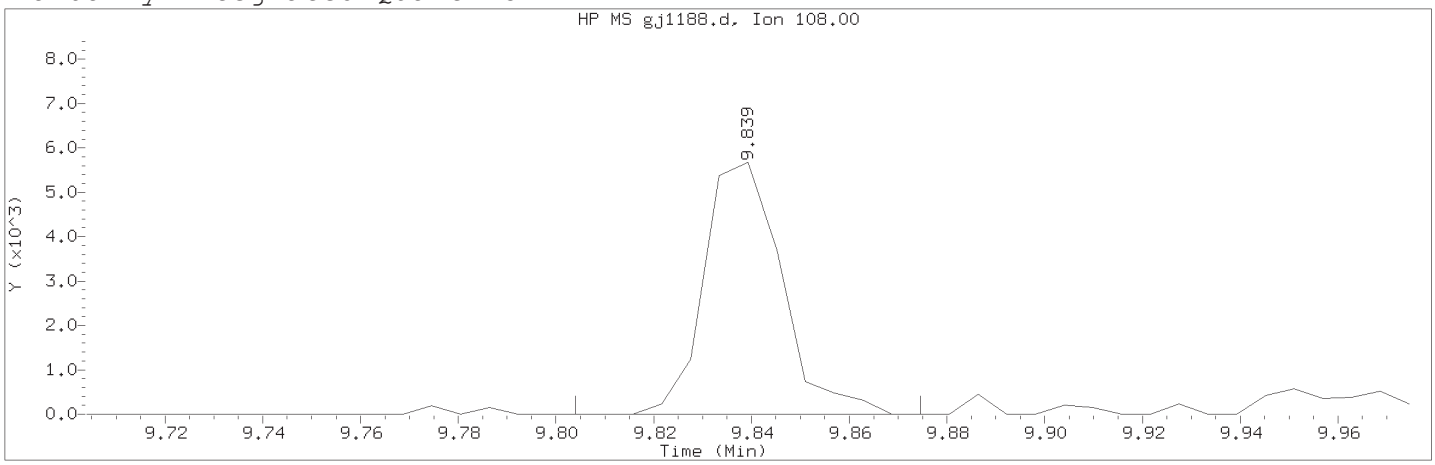
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 9.798
Quant Ion : 213.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

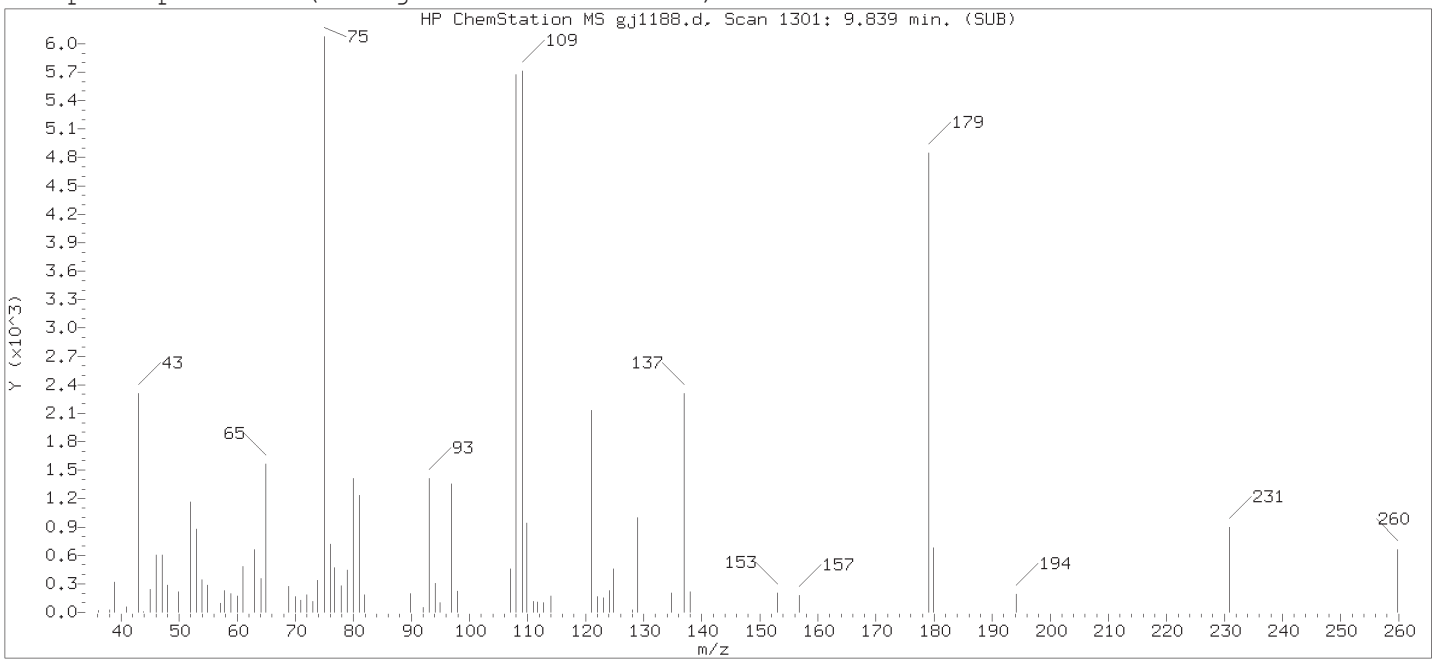
Compound Number : 142
Compound Name : Phenacetin
Scan Number : 1301
Retention Time (minutes) : 9.839
Quant Ion : 108.00
Area (flag) : 6259M
On-Column Amount (ng/ul) : 0.4221
Integration start scan : 1294 Integration stop scan: 1306
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

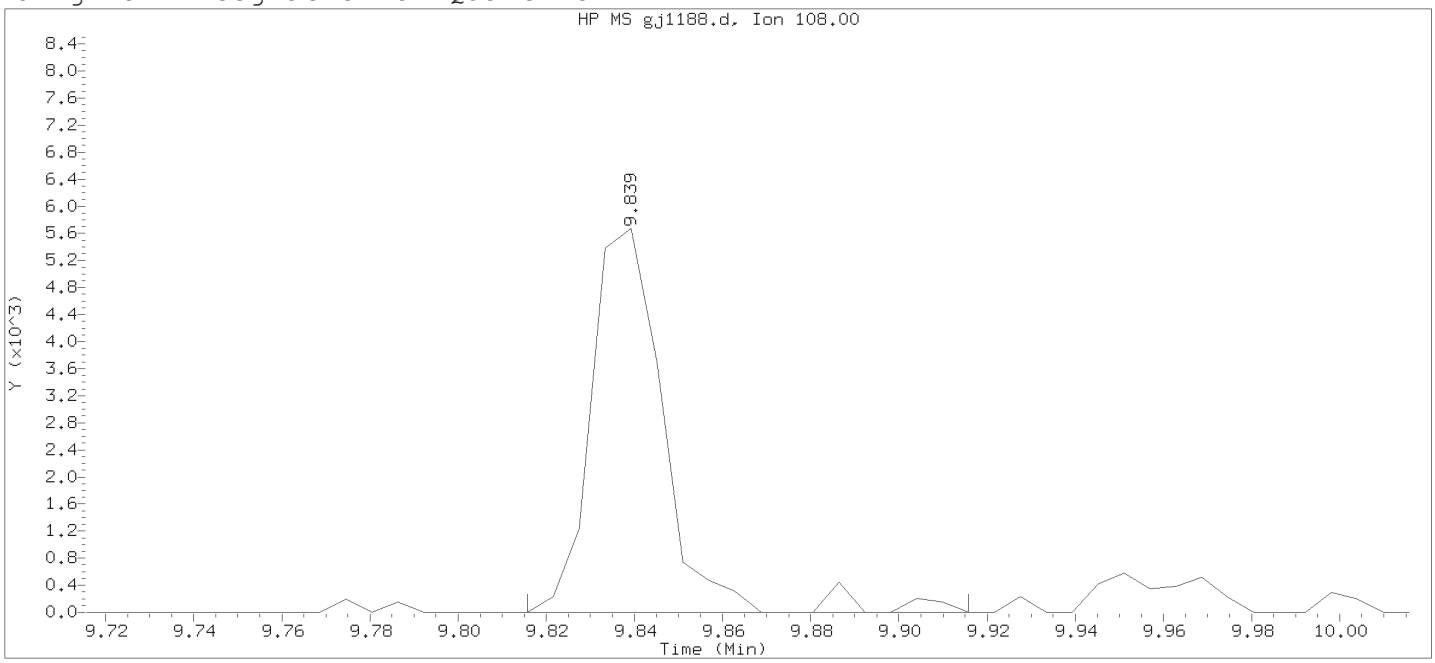
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

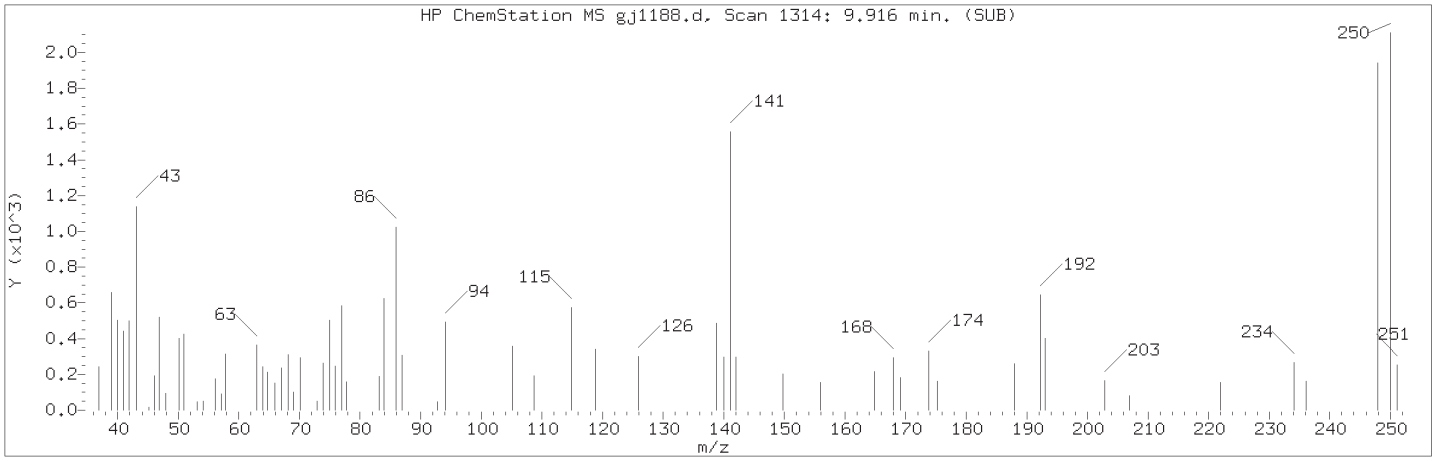
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

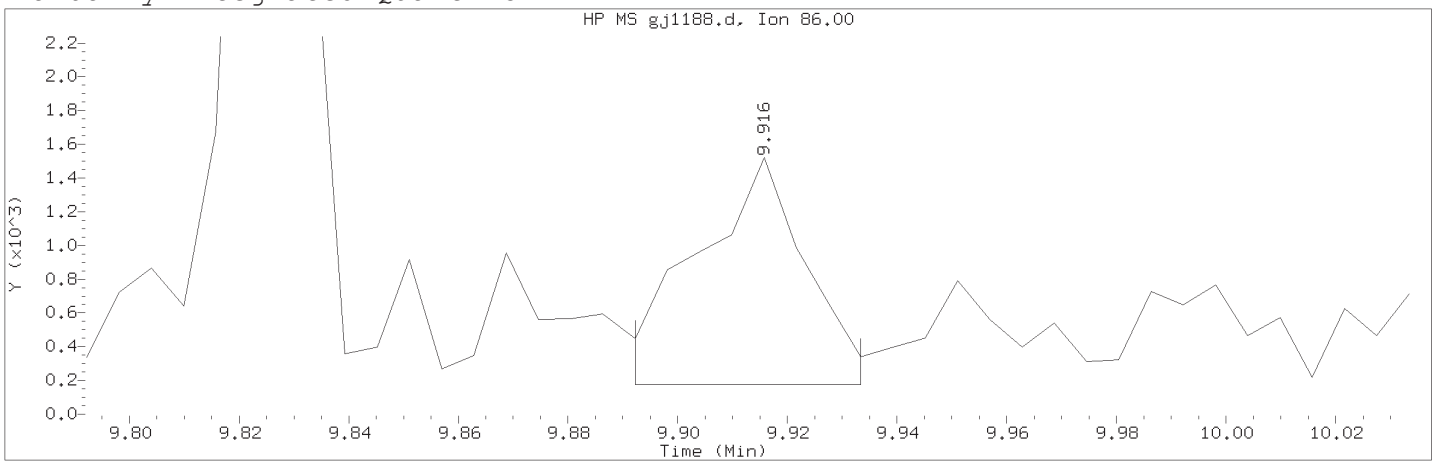
Compound Number	: 142		
Compound Name	: Phenacetin		
Scan Number	: 1301		
Retention Time (minutes)	: 9.839		
Quant Ion	: 108.00		
Area	: 6541		
On-column Amount (ng/ul)	: 0.4412		
Integration start scan	: 1296	Integration stop scan:	1313
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.1.1925

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

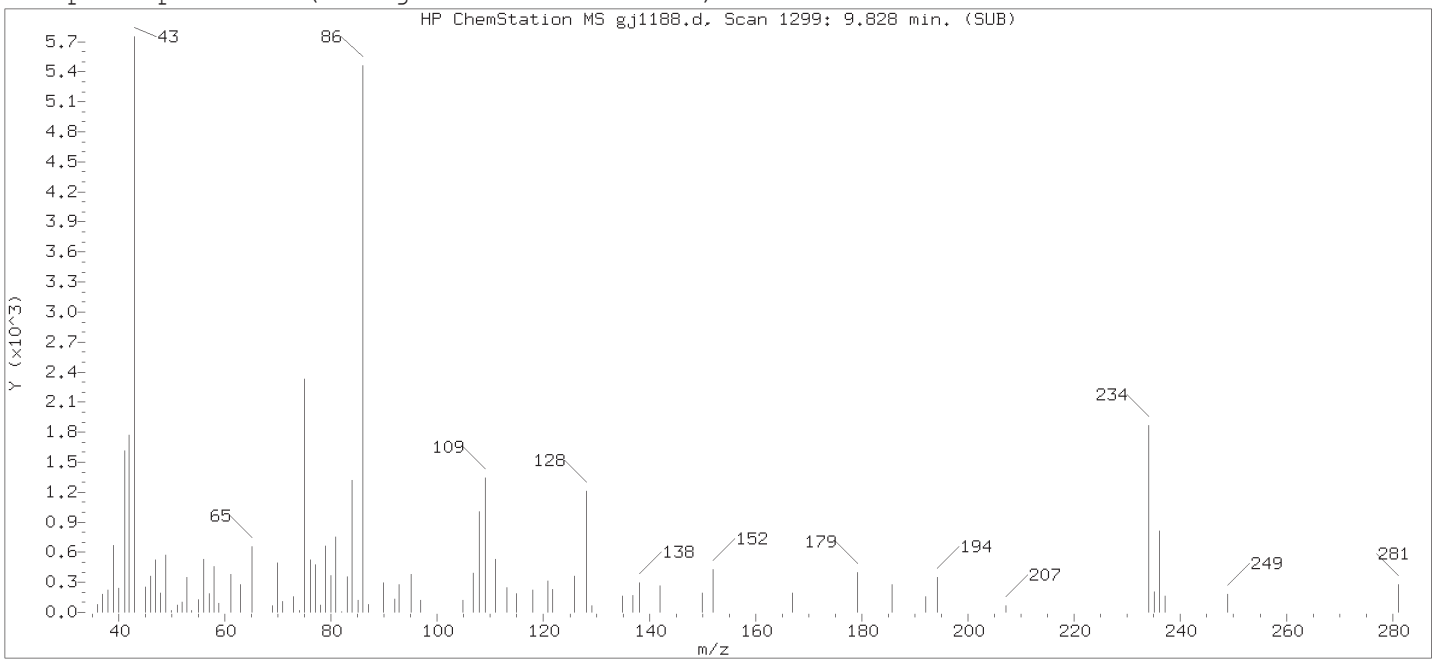
Compound Number	: 144		
Compound Name	: Diallate (peak 2)		
Scan Number	: 1314		
Retention Time (minutes)	: 9.916		
Quant Ion	: 86.00		
Area (flag)	: 1920M		
On-Column Amount (ng/ul)	: 0.1554		
Integration start scan	: 1309	Integration stop scan:	1316
Y at integration start	: 174	Y at integration end:	174

Reason for manual integration: improper integration

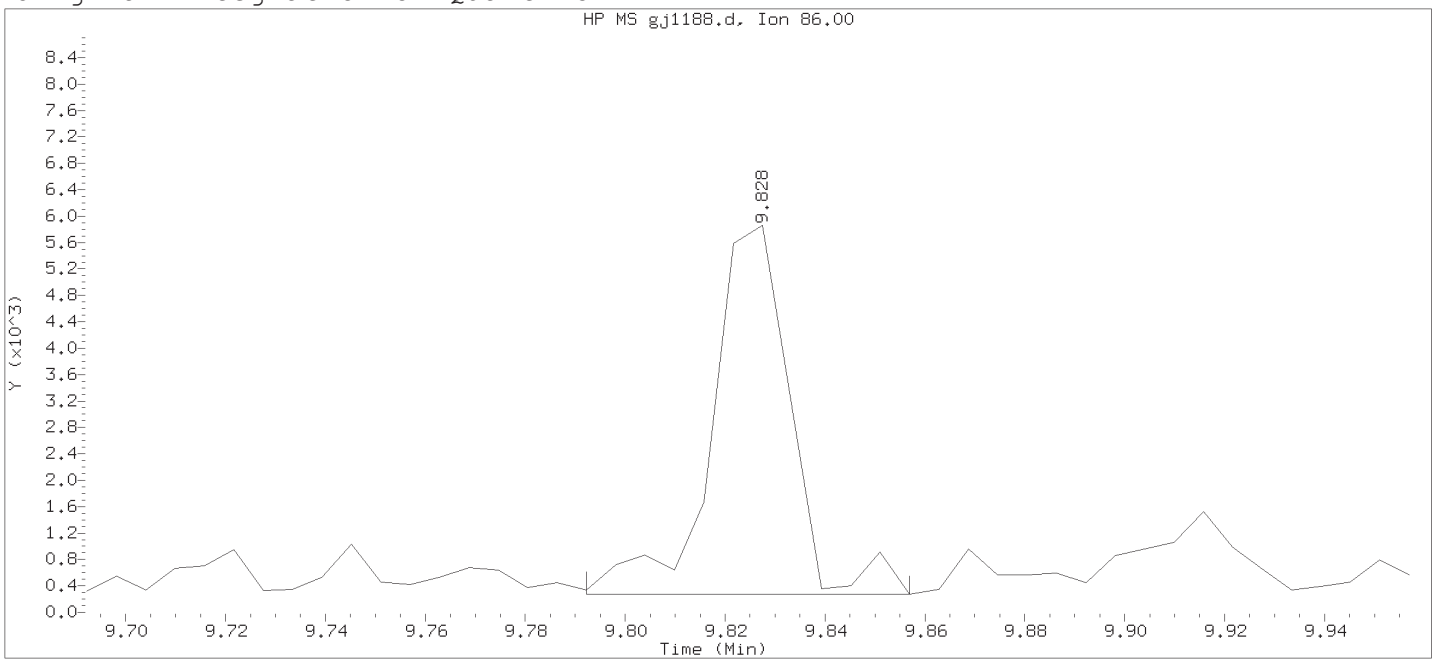
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

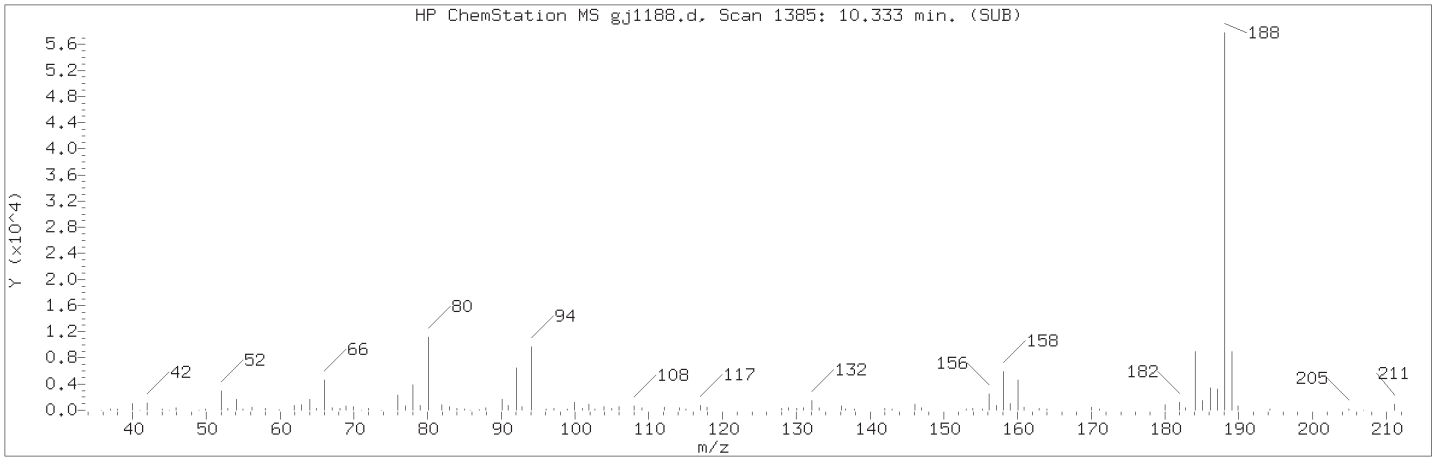
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

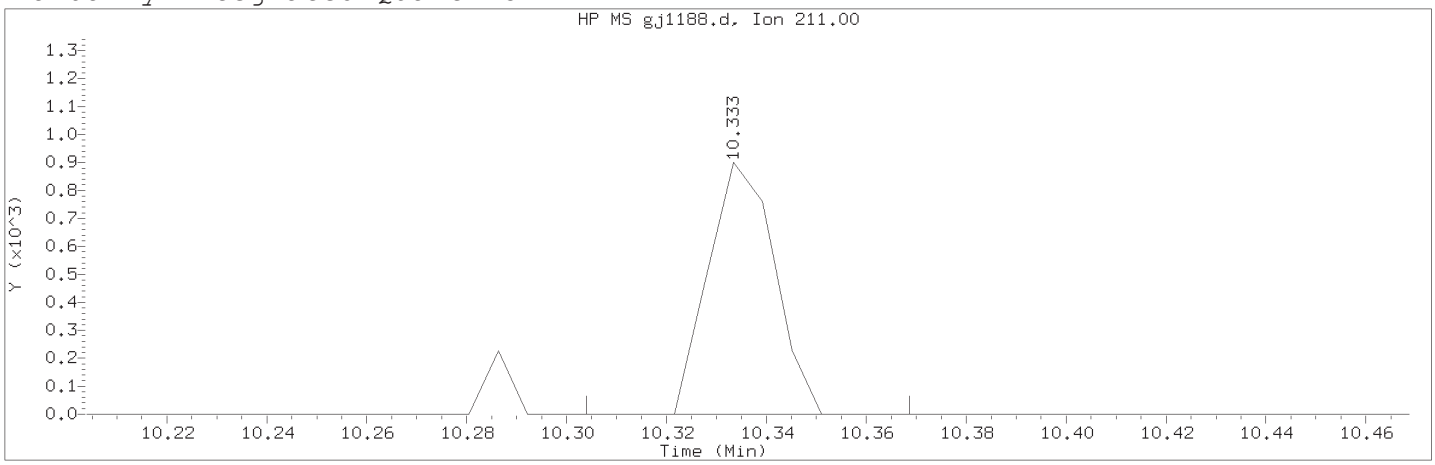
Compound Number	: 144		
Compound Name	: Diallate (peak 2)		
Scan Number	: 1299		
Retention Time (minutes)	: 9.828		
Quant Ion	: 86.00		
Area	: 6161		
On-column Amount (ng/ul)	: 0.4988		
Integration start scan	: 1292	Integration stop scan:	1303
Y at integration start	: 270	Y at integration end:	270

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.1.92

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

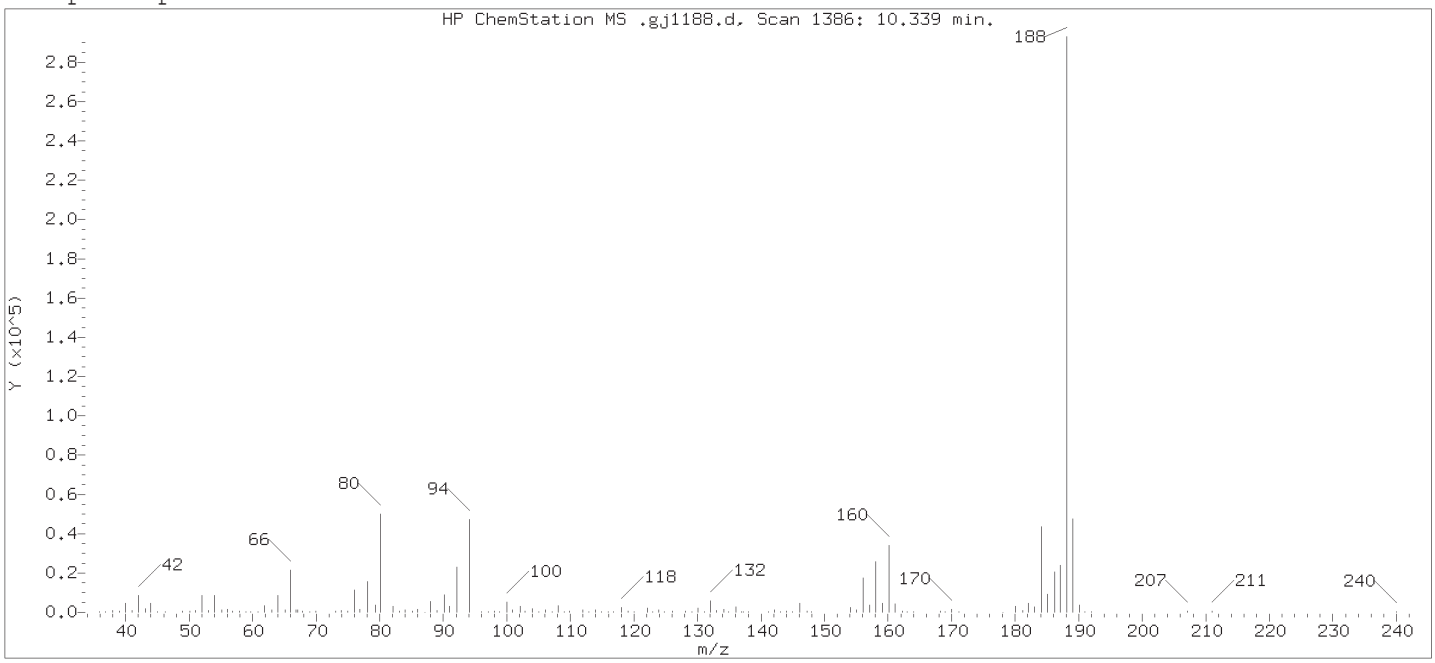
Compound Number	: 154		
Compound Name	: Dinoseb		
Scan Number	: 1385		
Retention Time (minutes)	: 10.333		
Quant Ion	: 211.00		
Area (flag)	: 827M		
On-Column Amount (ng/ul)	: 0.1420		
Integration start scan	: 1379	Integration stop scan:	1390
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

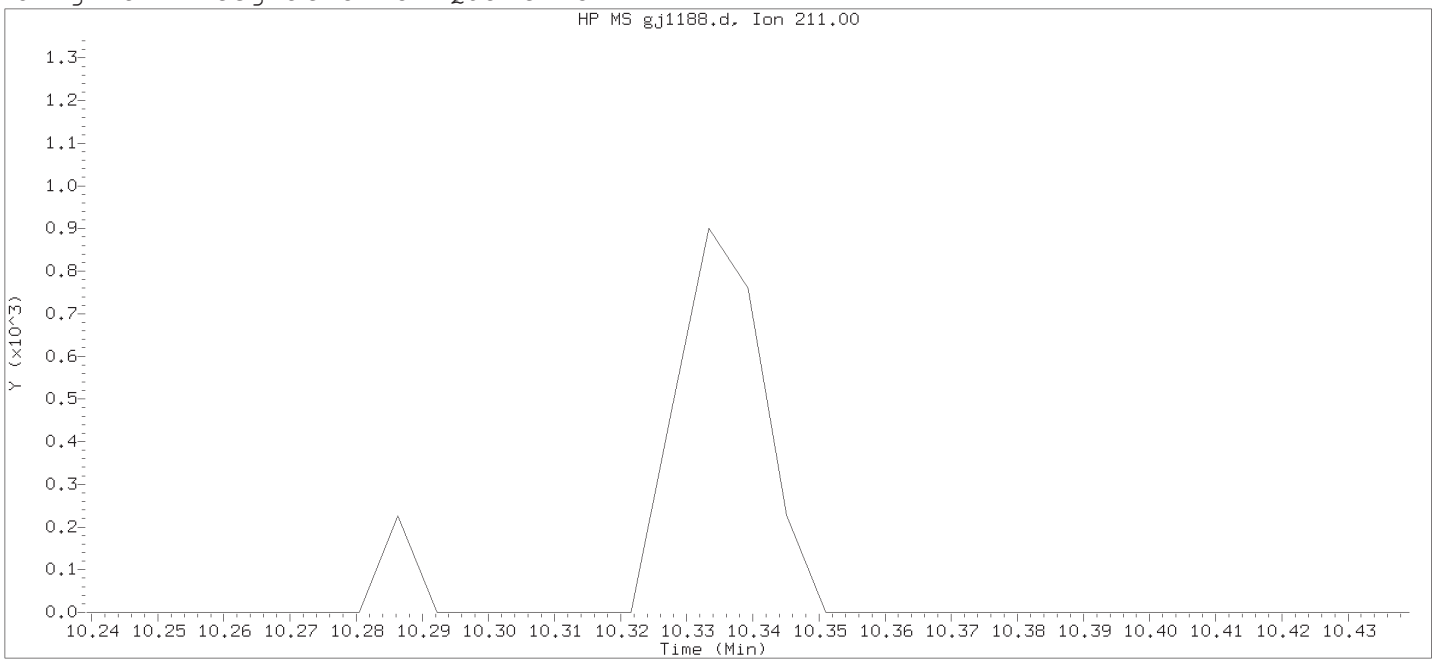
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

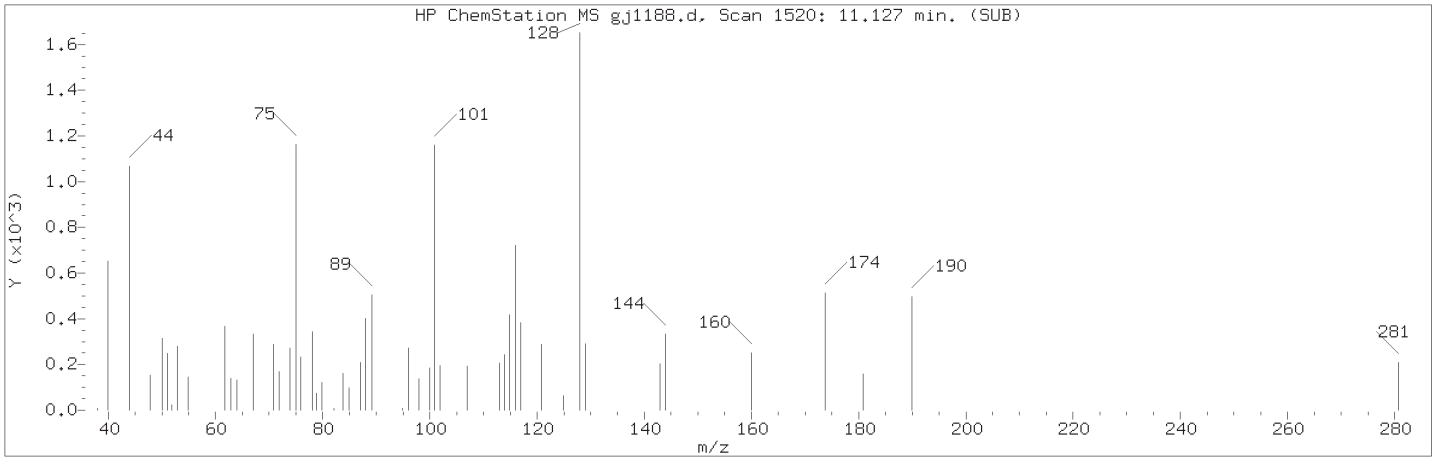
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

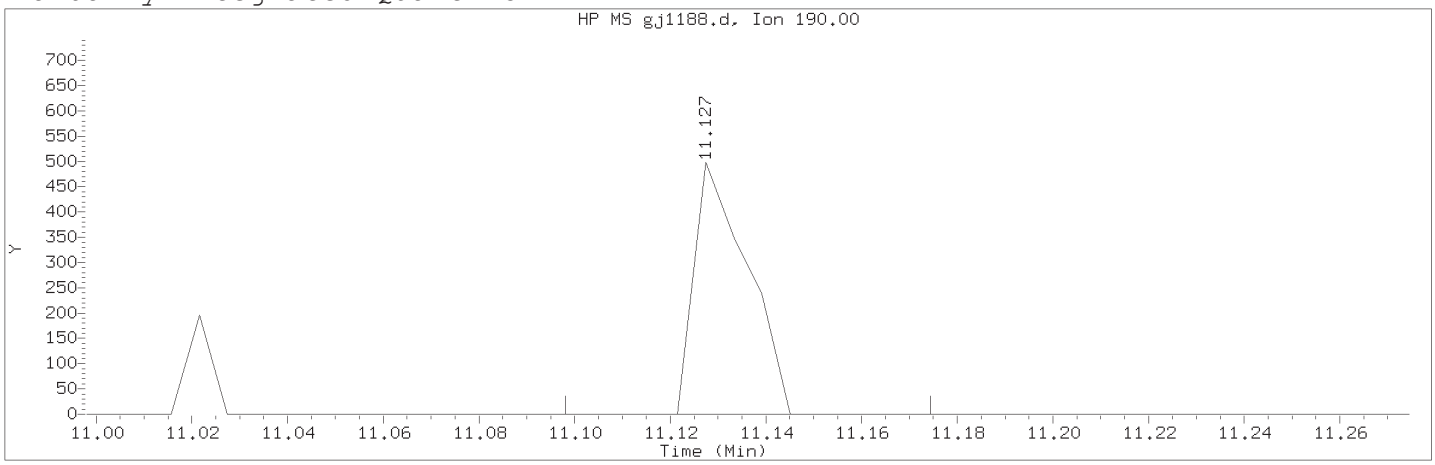
Compound Number : 154
Compound Name : Dinoseb
Expected RT (minutes) : 10.339
Quant Ion : 211.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 Page 1929 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 21-OCT-2018 10:33
Date, time and analyst ID of latest file update: 21-Oct-2018 10:33 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

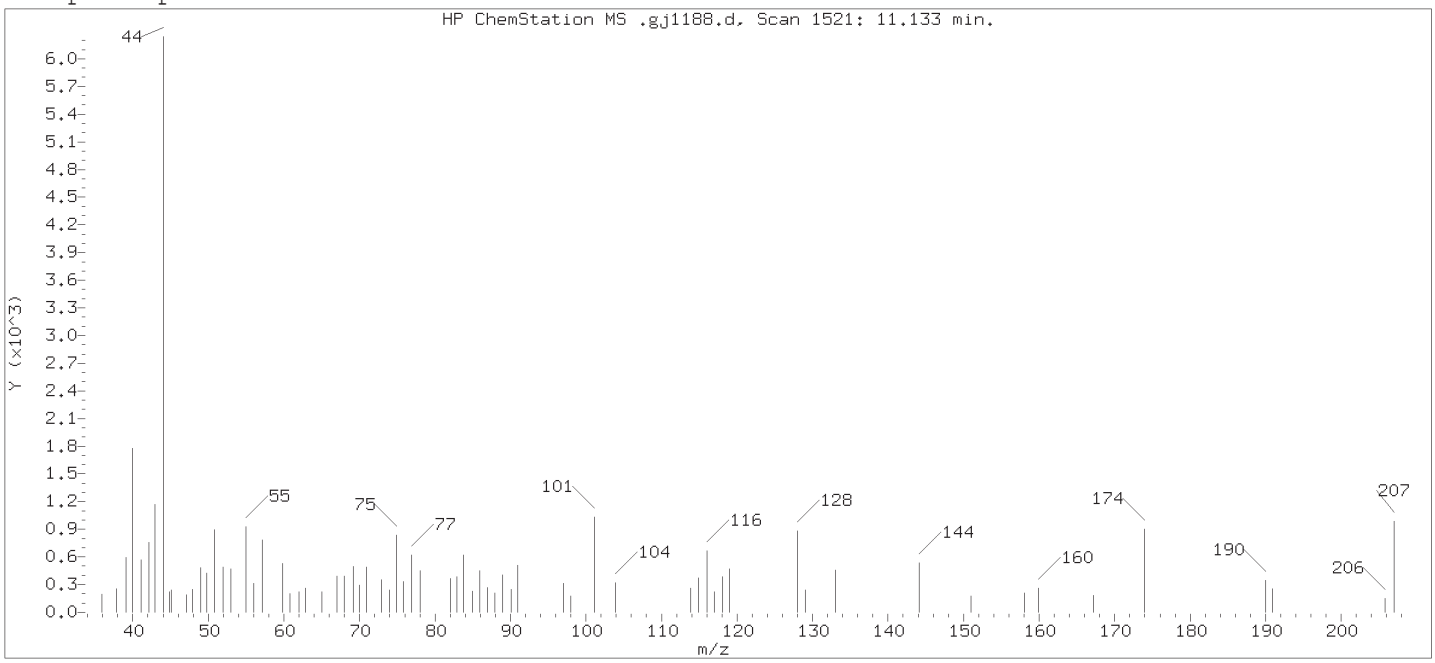
Compound Number : 168
Compound Name : 4-Nitroquinoline-1-oxide
Scan Number : 1520
Retention Time (minutes) : 11.127
Quant Ion : 190.00
Area (flag) : 382M
On-Column Amount (ng/ul) : 0.1285
Integration start scan : 1514 Integration stop scan: 1527
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

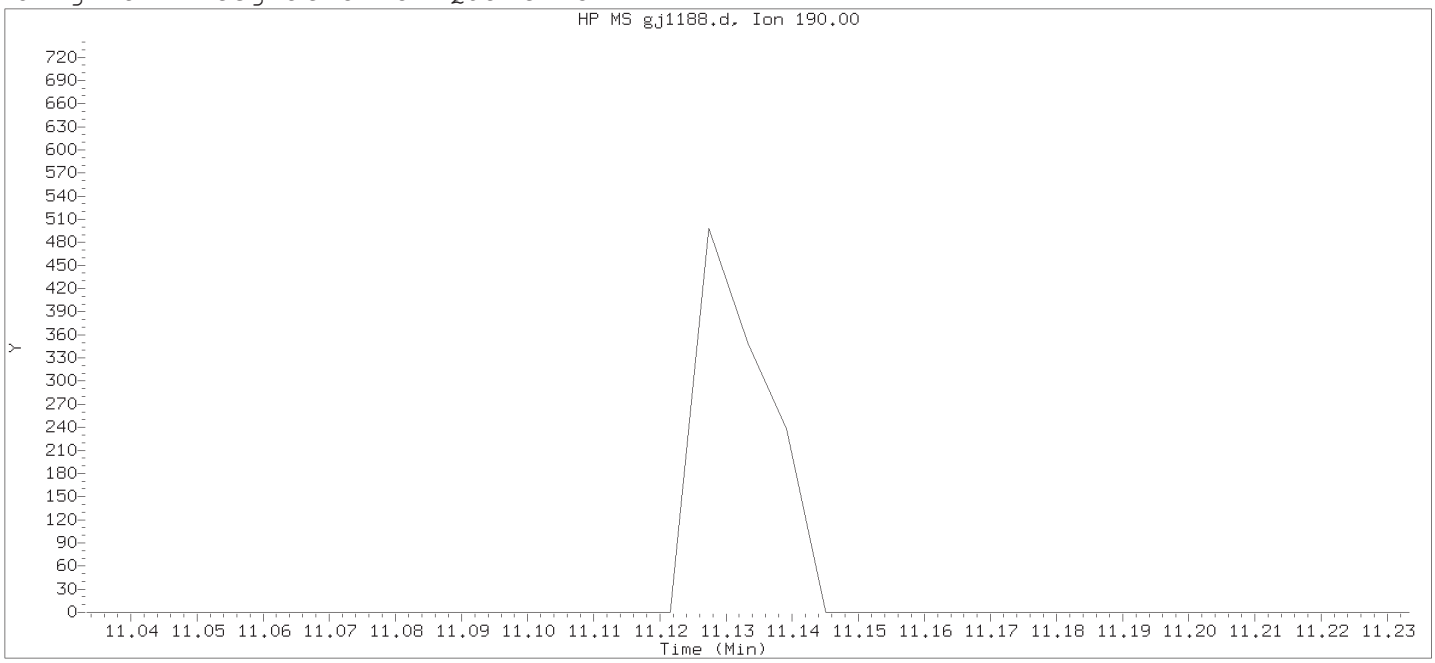
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



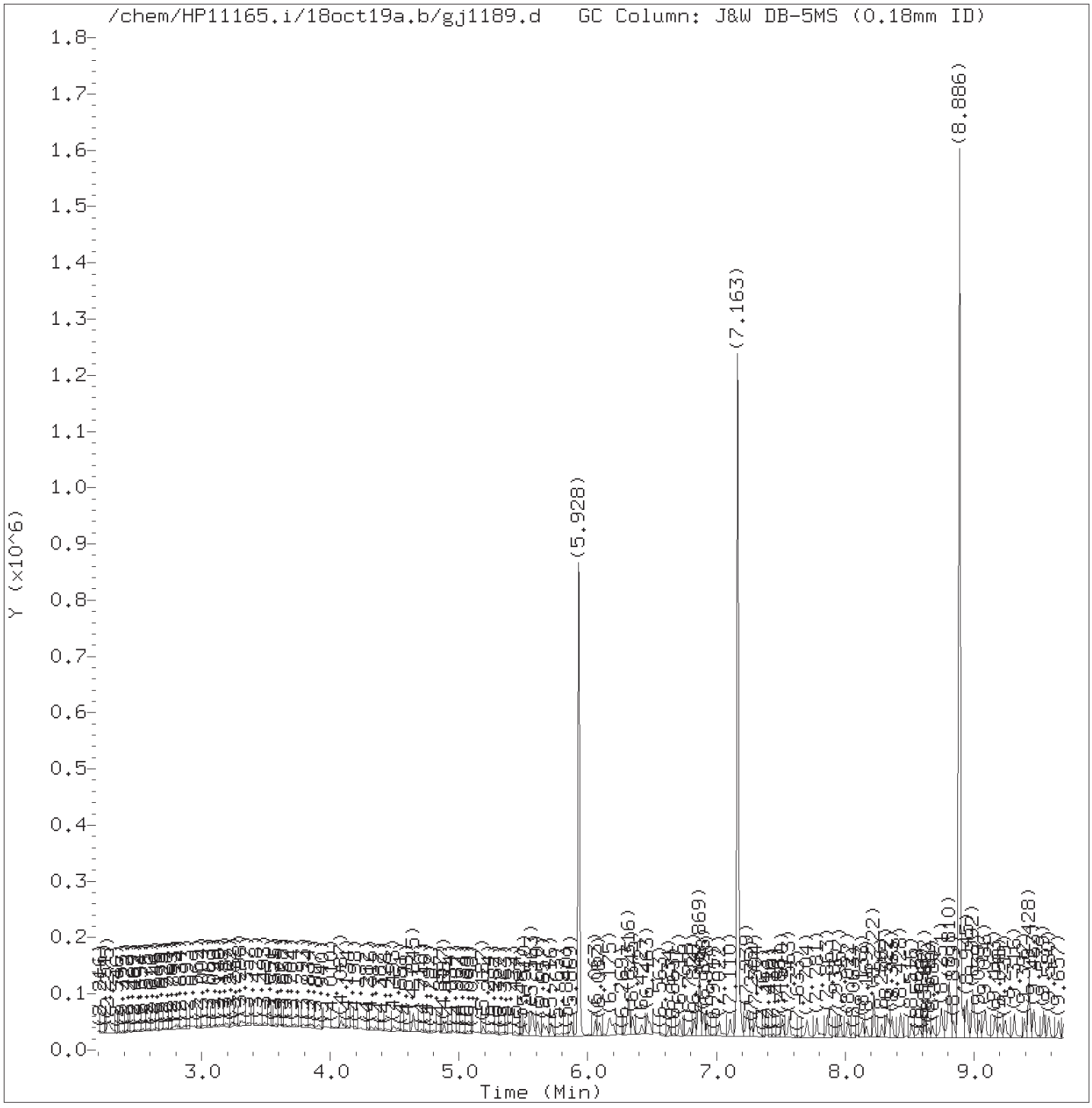
Data File: /chem/HP11165.i/18oct19a.b/gj1188.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:32 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: all1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 04:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compound Number : 168
Compound Name : 4-Nitroquinoline-1-oxide
Expected RT (minutes) : 11.133
Quant Ion : 190.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018 1931



Total Ion Chromatogram (TIC)

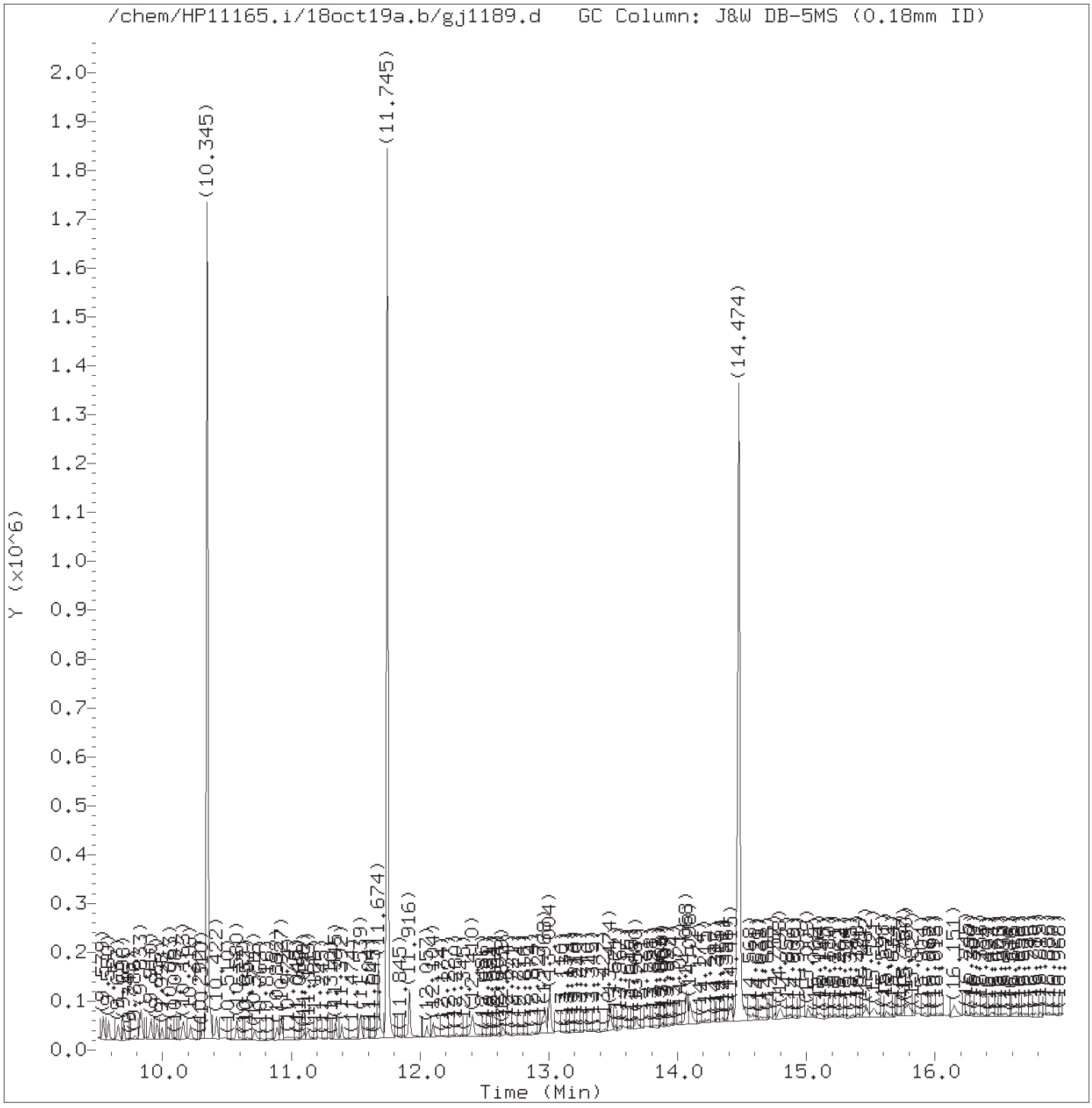
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.804	88	2964	0.743
4) N-Nitrosodimethylamine	(1)	3.246	74	3827A	0.570
5) Pyridine	(1)	3.310	79	6265M	0.542
7) 2-Picoline	(1)	4.081	93	5752	0.480
8) N-Nitrosomethylethylamine	(1)	4.187	88	3307M	0.609
9) Methyl methanesulfonate	(1)	4.493	80	3341	0.561
11)$2-Fluorophenol	(1)	4.645	112	8907	0.916
13) N-Nitrosodiethylamine	(1)	4.887	102	2860	0.527
15) Ethyl methanesulfonate	(1)	5.187	109	3408	0.606
17)$Phenol-d6	(1)	5.563	99	13076	0.935
18) Phenol	(1)	5.575	94	6754	0.452
19) Aniline	(1)	5.610	93	8542	0.478
20) a-methylstyrene	(1)	5.657	118	591M	0.610
42) Total Cresols	(1)			9902	0.912
22) bis(2-Chloroethyl)ether	(1)	5.675	93	5840	0.518
23) 2-Chlorophenol	(1)	5.716	128	4737	0.452
24) 1,3-Dichlorobenzene	(1)	5.875	146	4984	0.474
25)*1,4-Dichlorobenzene-d4	(1)	5.934	152	129959	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	5478	0.519
27) Benzyl alcohol	(1)	6.063	108	4069	0.514
28) 1,2-Dichlorobenzene	(1)	6.092	146	5237	0.516
31) 2-Methylphenol	(1)	6.163	108	4473M	0.436
30) Indene	(1)	6.175	115	7577	0.655
34) bis(2-Chloroisopropyl)ether	(1)	6.198	45	9272M	0.612
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.198	45	9272M	0.612
35) N-Nitrosopyrrolidine	(1)	6.298	100	2366	0.377
37) 4-Methylphenol	(1)	6.310	108	5429	0.476
38) N-Nitroso-di-n-propylamine	(1)	6.316	70	4751	0.462
36) Acetophenone	(1)	6.316	105	8308	0.530
39) N-Nitrosomorpholine	(1)	6.339	56	5213	0.657
40) o-Toluidine	(1)	6.351	106	8977	0.483
43) Hexachloroethane	(1)	6.416	117	2562	0.625
44)$Nitrobenzene-d5	(2)	6.463	82	11595	0.913
45) Nitrobenzene	(2)	6.481	77	6810	0.508
48) N-Nitrosopiperidine	(2)	6.634	114	3098	0.526
50) Isophorone	(2)	6.716	82	11596	0.469
51) 2-Nitrophenol	(2)	6.792	139	2190	0.410
53) 2,4-Dimethylphenol	(2)	6.828	107	5510	0.486
56) Benzoic acid	(2)	6.869	105	39384	4.080
57) O,O,O-Triethylphosphorothioate	(2)	6.898	198	2199	0.454

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.928	93	6735	0.473
60) 2,4-Dichlorophenol	(2)	7.022	162	3136	0.372
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	3620	0.435
65)*Naphthalene-d8	(2)	7.163	136	566893	20.000
67) 4-Chloroaniline	(2)	7.239	127	6101	0.456
68) 2,6-Dichlorophenol	(2)	7.245	162	3697	0.442
69) Hexachloropropene	(2)	7.269	213	1353M	0.391
71) Hexachlorobutadiene	(2)	7.304	225	1644	0.430
97) Isosafrole	(3)			3756	0.416
75) Quinoline	(2)	7.516	129	11558	0.538
76) Caprolactam	(2)	7.557	113	2088	0.515
77) N-Nitrosodi-n-butylamine	(2)	7.563	84	7438	0.662
80) 4-Chloro-3-methylphenol	(2)	7.704	107	5439	0.534
82) Safrole	(2)	7.781	162	3615	0.441
85) Hexachlorocyclopentadiene	(3)	8.016	237	1527	0.342
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	4039	0.474
120) 2,4_2,6-Dinitrotoluenes	(3)			4539	0.674
88) cis-Isosafrole	(3)	8.063	162	521M	0.057
90) 2,4,6-Trichlorophenol	(3)	8.133	196	2655	0.447
92) 2,4,5-Trichlorophenol	(3)	8.163	196	2561	0.382
93)$2-Fluorobiphenyl	(3)	8.222	172	23041	0.917
94) trans-Isosafrole	(3)	8.286	162	3235	0.359
95) 1,1'-Biphenyl	(3)	8.322	154	13585	0.486
96) 2-Chloronaphthalene	(3)	8.339	162	8729	0.406
98) 1-Chloronaphthalene	(3)	8.363	162	9493	0.453
99) Diphenyl ether	(3)	8.428	170	7355	0.497
100) 2-Nitroaniline	(3)	8.439	138	2609	0.365
104) 1,4-Naphthoquinone	(3)	8.516	158	3000	0.315
105) 1,4-Dinitrobenzene	(3)	8.575	168	2175M	0.596
106) Dimethylphthalate	(3)	8.622	163	13263	0.515
107) 1,3-Dinitrobenzene	(3)	8.651	168	1450	0.345
108) 2,6-Dinitrotoluene	(3)	8.680	165	1748	0.313
146) Diallate trans/cis	(4)			8150	0.561
112) 3-Nitroaniline	(3)	8.839	138	2481	0.376
113)*Acenaphthene-d10	(3)	8.886	164	314928	20.000
115) 2,4-Dinitrophenol	(3)	8.945	184	6581	1.936
116) 4-Nitrophenol	(3)	8.992	109	8221	1.933
117) Pentachlorobenzene	(3)	9.045	250	3914	0.487
118) 2,4-Dinitrotoluene	(3)	9.075	165	2791	0.361
119) Dibenzofuran	(3)	9.086	168	14689	0.476

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
121) 1-Naphthylamine	(3)	9.163	143	10738	0.409
122) 2,3,4,6-Tetrachlorophenol	(3)	9.198	232	2440	0.467
123) 2-Naphthylamine	(3)	9.245	143	12474	0.482
124) Diethylphthalate	(3)	9.316	149	12367	0.479
125) Thionazin	(3)	9.392	107	1944	0.446
127) 4-Chlorophenyl-phenylether	(3)	9.428	204	5937	0.517
128) 5-Nitro-o-toluidine	(3)	9.433	152	3074	0.398
129) 4-Nitroaniline	(3)	9.439	138	2634	0.358
130) 4,6-Dinitro-2-methylphenol	(4)	9.463	198	5669	1.353
131) N-Nitrosodiphenylamine	(4)	9.539	169	10045	0.430
132) NDPA as diphenylamine	(4)	9.539	169	10045	0.430
134) 1,2-Diphenylhydrazine	(4)	9.580	77	13684	0.417
135)$2,4,6-Tribromophenol	(3)	9.657	330	3024	0.841
137) Tetraethyldithiopyrophosphate	(4)	9.698	97	2343	0.480
139) 1,3,5-Trinitrobenzene	(4)	9.786	213	488M	0.184
140) Diallate (peak 1)	(4)	9.827	86	6060	0.396
141) Phorate	(4)	9.833	75	7354	0.382
142) Phenacetin	(4)	9.839	108	5823	0.383
143) 4-Bromophenyl-phenylether	(4)	9.910	248	3693	0.521
144) Diallate (peak 2)	(4)	9.910	86	2090M	0.165
147) Dimethoate	(4)	9.998	87	4516	0.380
149) Pentachlorophenol	(4)	10.145	266	1963	0.392
151) Pentachloronitrobenzene	(4)	10.163	237	951	0.357
150) 4-Aminobiphenyl	(4)	10.163	169	4713	0.444
152) Pronamide	(4)	10.216	173	3735	0.334
154) Dinoseb	(4)	10.339	211	922	0.154
153)*Phenanthrene-d10	(4)	10.345	188	619070	20.000
163) Carbazole	(4)	10.580	167	17057	0.453
164) Methyl parathion	(4)	10.716	109	2201	0.254
165) Di-n-butylphthalate	(4)	10.927	149	18790	0.402
167) Parathion	(4)	11.104	109	1352M	0.239
168) 4-Nitroquinoline-1-oxide	(4)	11.139	190	404M	0.132
169) Octachlorostyrene	(4)	11.345	308	1497	0.497
171) Isodrin	(4)	11.392	193	1827M	0.441
174) Benzidine	(5)	11.674	184	62259	2.306
175)*Pyrene-d10	(5)	11.745	212	568328	20.000
179)$Terphenyl-d14	(5)	11.916	244	26656	0.885
182) p-Dimethylaminoazobenzene	(5)	12.057	225	2122	0.342
185) Chlorobenzilate	(5)	12.104	139	5448	0.412
187) 3,3'-Dimethylbenzidine	(5)	12.392	212	6310	0.254

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

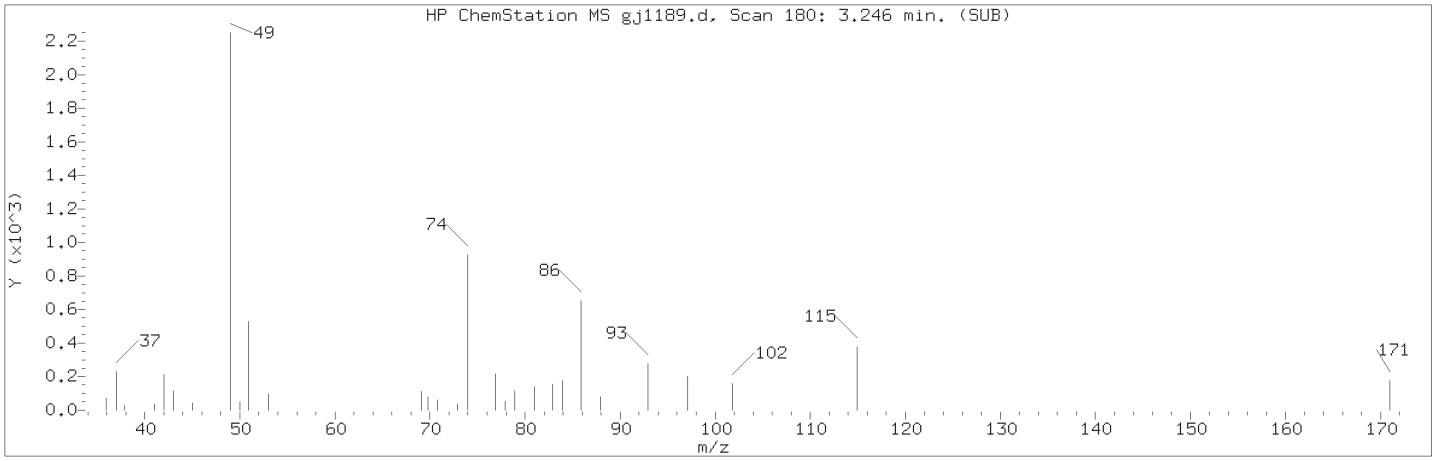
Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
188) Butylbenzylphthalate	(5)	12.410	149	7531	0.362
191) 2-Acetylaminofluorene	(5)	12.645	181	3650	0.230
193) 3,3'-Dichlorobenzidine	(5)	12.951	252	4786	0.330
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.963	231	1852	0.256
199) bis(2-Ethylhexyl)phthalate	(5)	13.004	149	9820	0.343
203) 6-Methylchrysene	(5)	13.480	242	13200	0.504
205) Di-n-octylphthalate	(6)	13.680	149	12549	0.240
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.068	256	6369	0.328
213)*Perylene-d12	(6)	14.474	264	598095	20.000
215) 3-Methylcholanthrene	(6)	14.798	268	6491	0.444
217) Dibenz(a,h)acridine	(6)	15.462	279	10331	0.371
218) Dibenz(a,j)acridine	(6)	15.521	279	9866	0.320

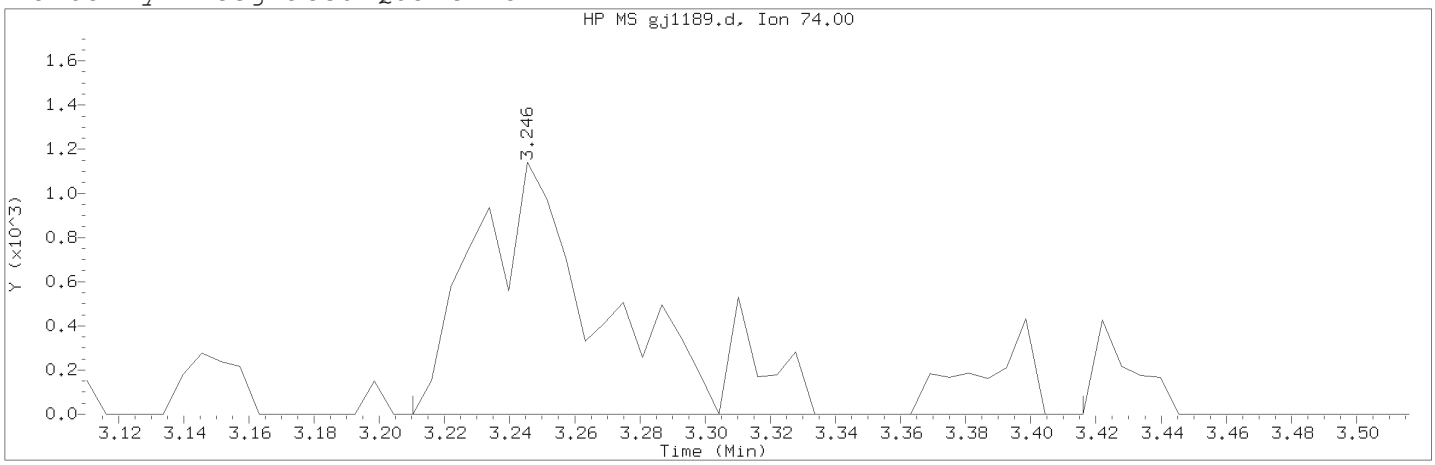
* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

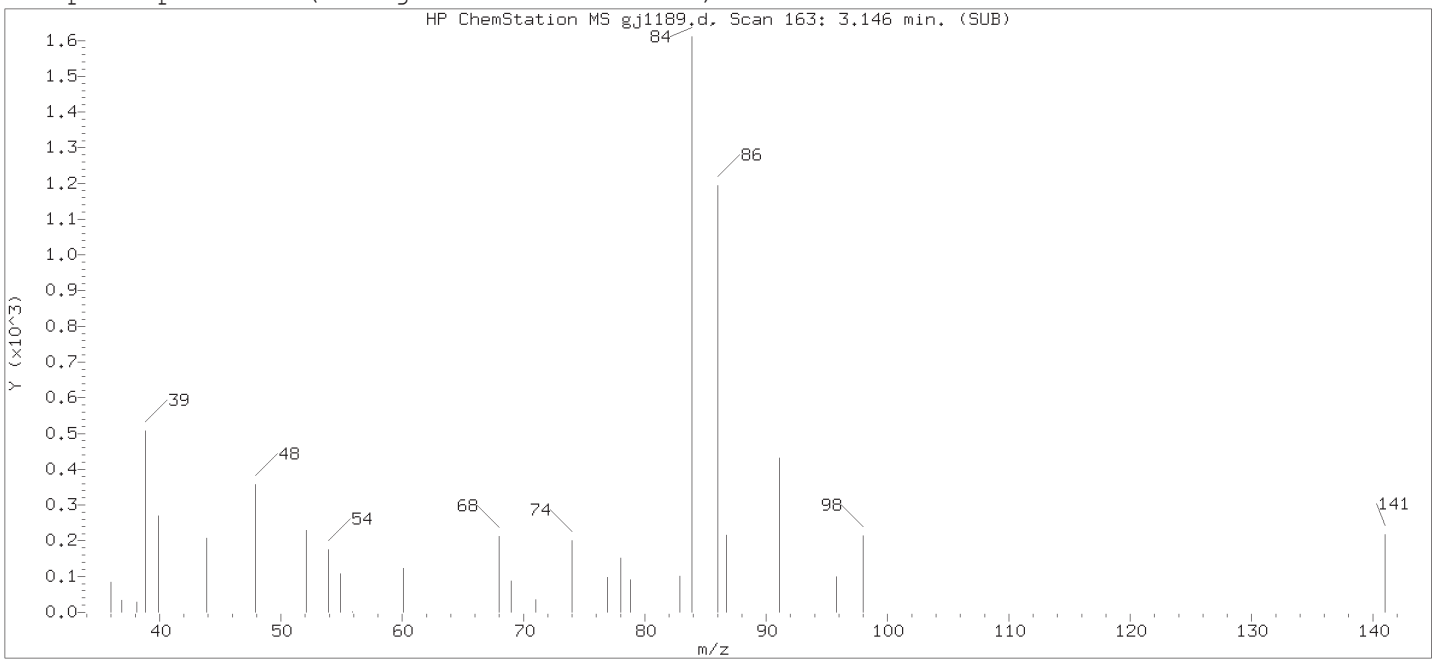
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 180		
Retention Time (minutes)	: 3.246		
Quant Ion	: 74.00		
Area (flag)	: 3827A		
On-Column Amount (ng/ul)	: 0.5698		
Integration start scan	: 173	Integration stop scan:	208
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

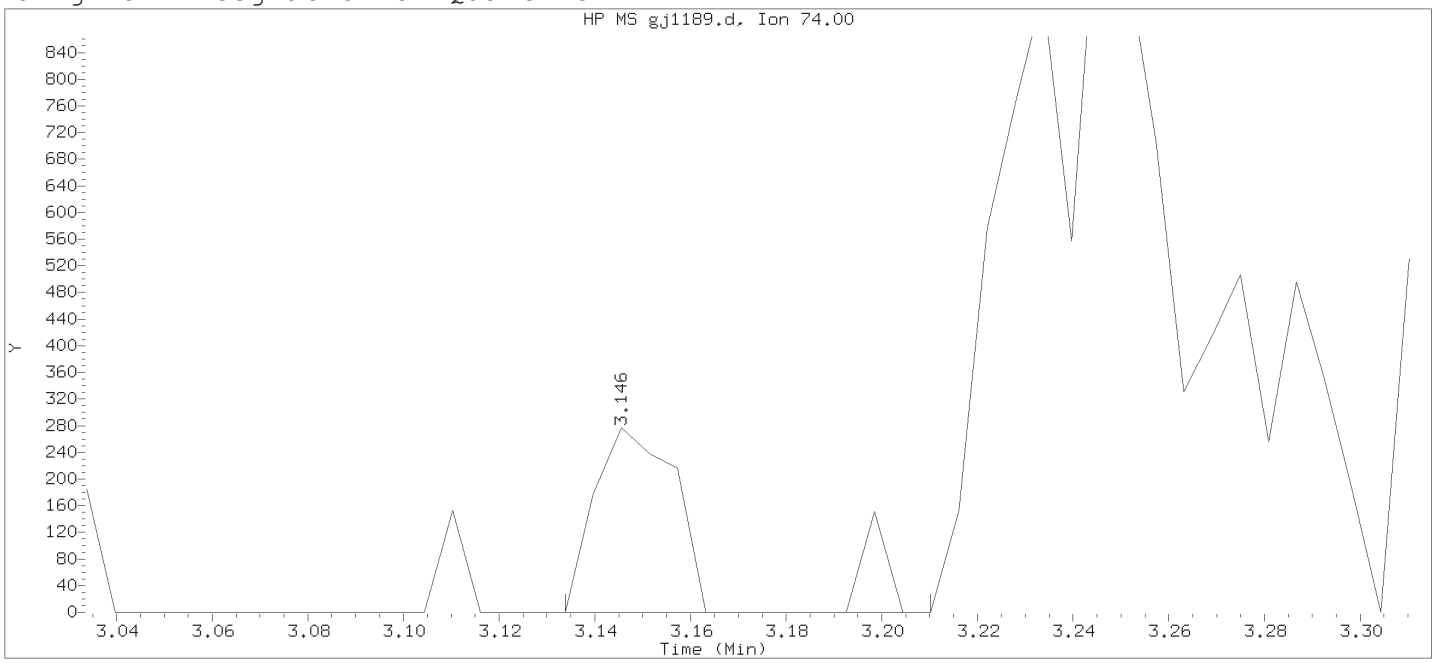
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

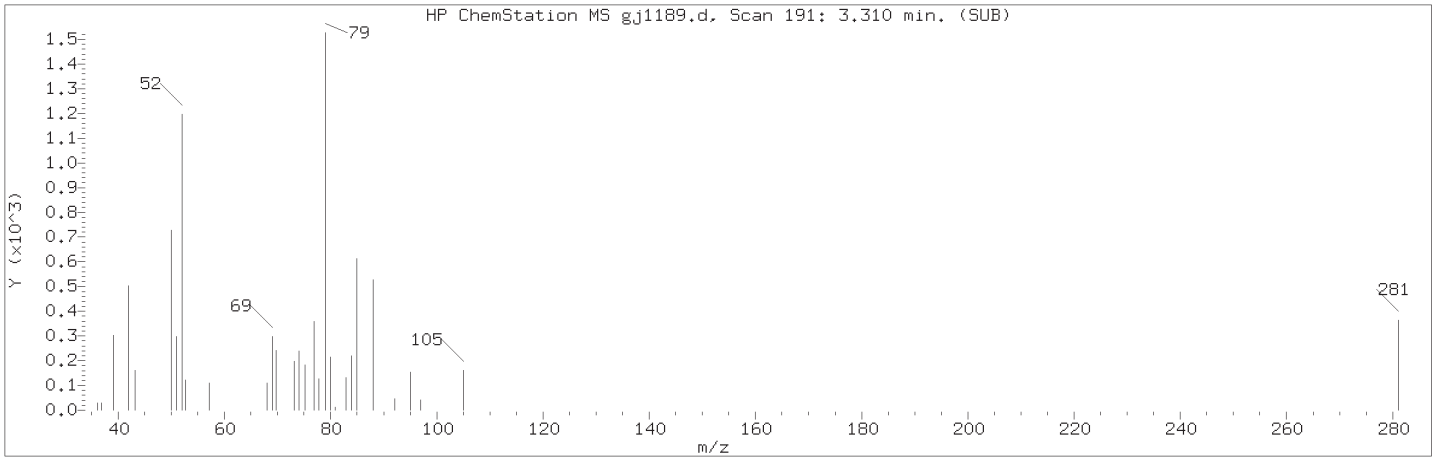
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

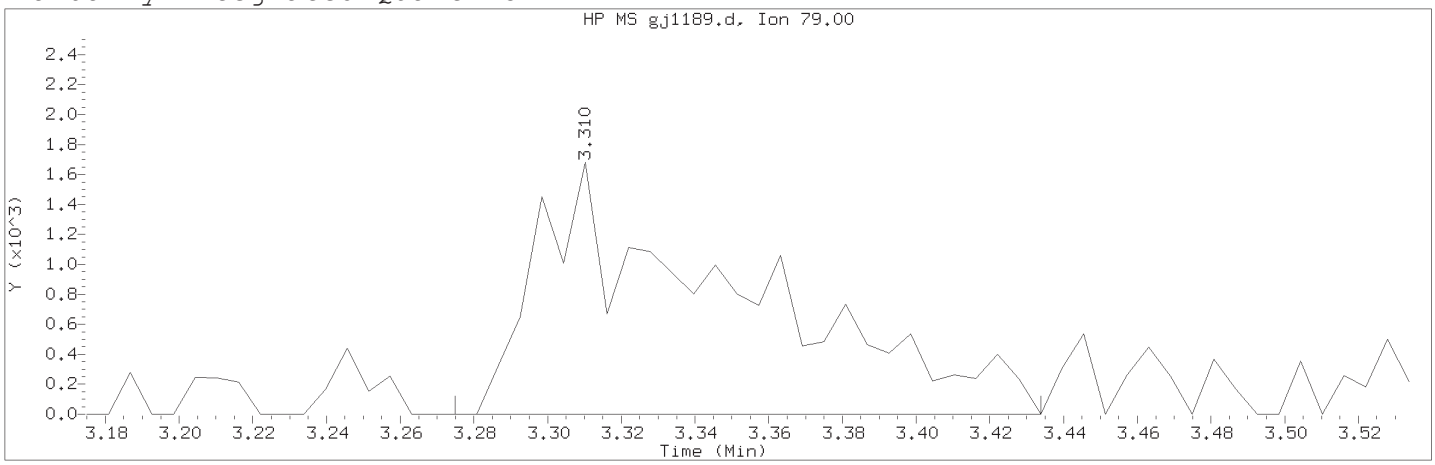
Compound Number	: 4
Compound Name	: N-Nitrosodimethylamine
Scan Number	: 163
Retention Time (minutes)	: 3.146
Quant Ion	: 74.00
Area	: 373
On-column Amount (ng/ul)	: 0.0556
Integration start scan	: 160 Integration stop scan: 173
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

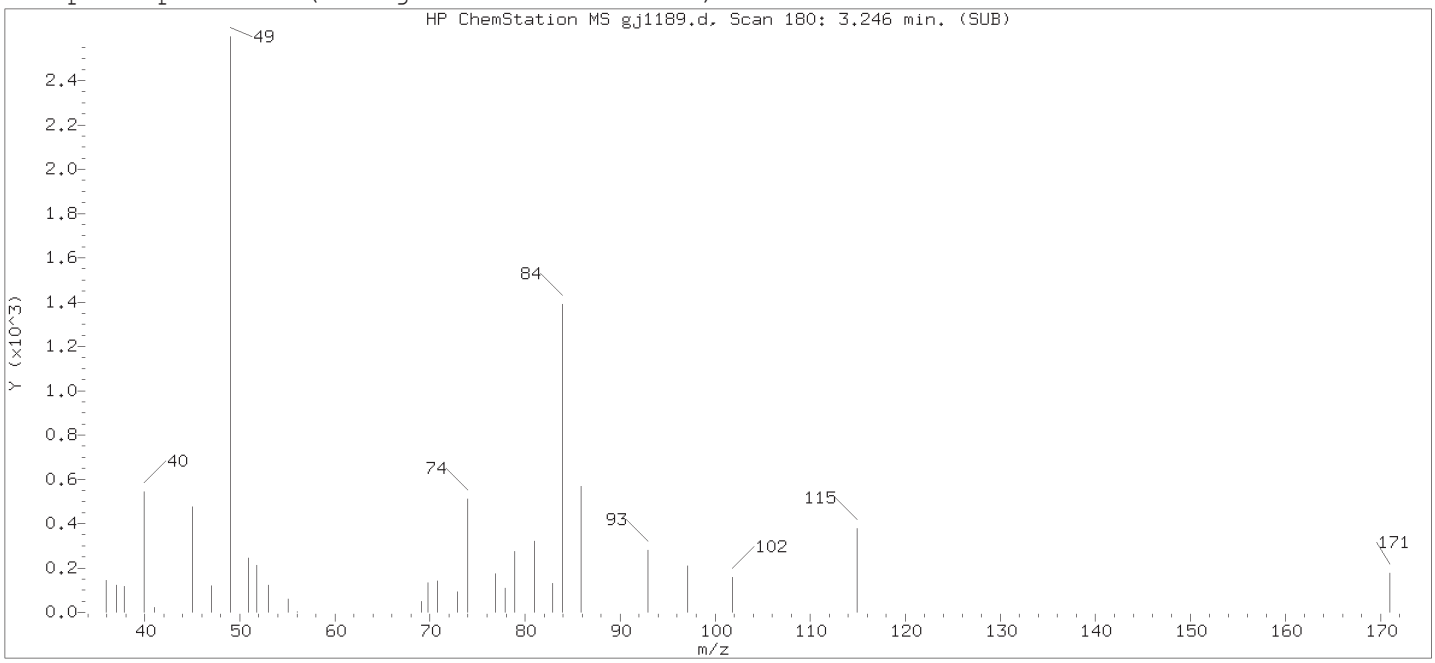
Compound Number : 5
Compound Name : Pyridine
Scan Number : 191
Retention Time (minutes) : 3.310
Quant Ion : 79.00
Area (flag) : 6265M
On-Column Amount (ng/ul) : 0.5417
Integration start scan : 184 Integration stop scan: 211
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

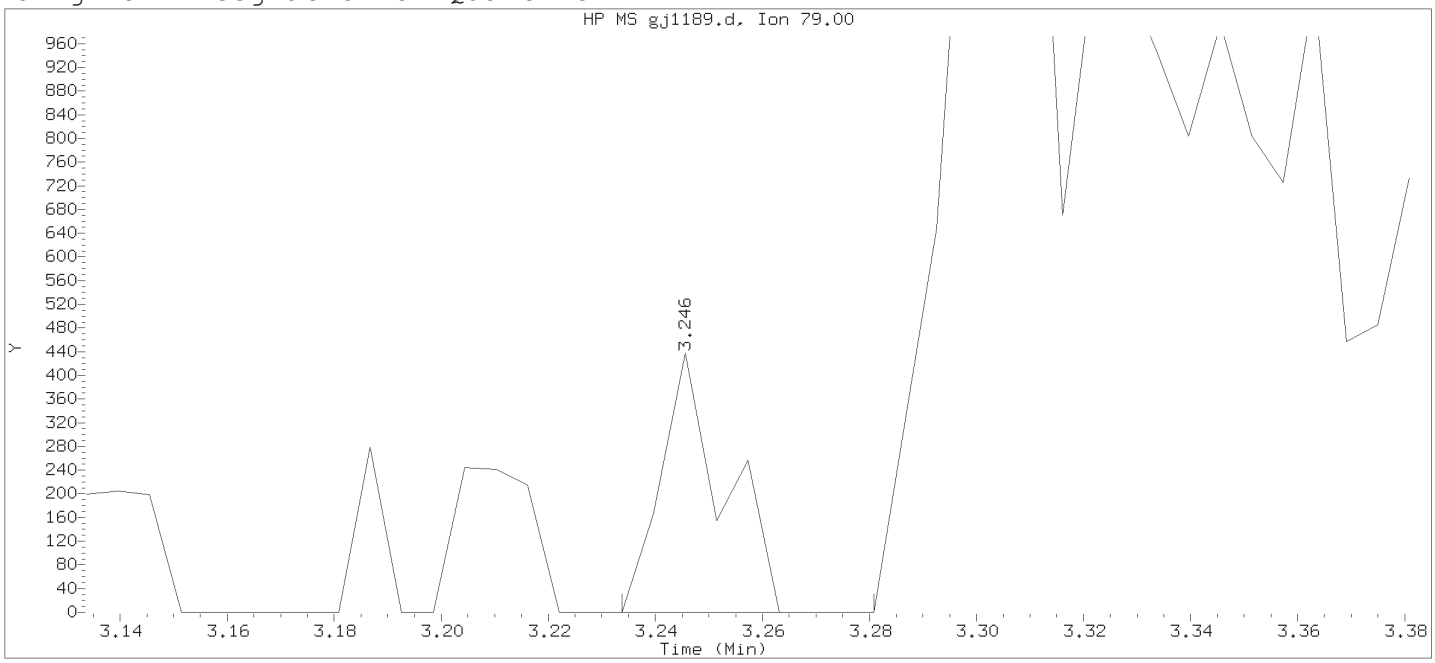
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

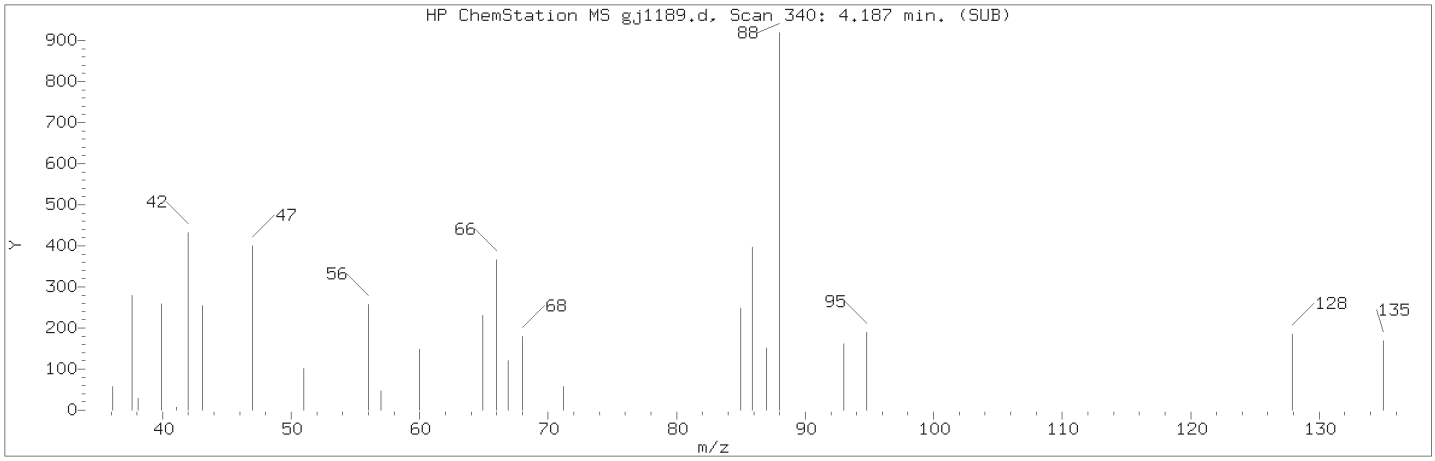
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

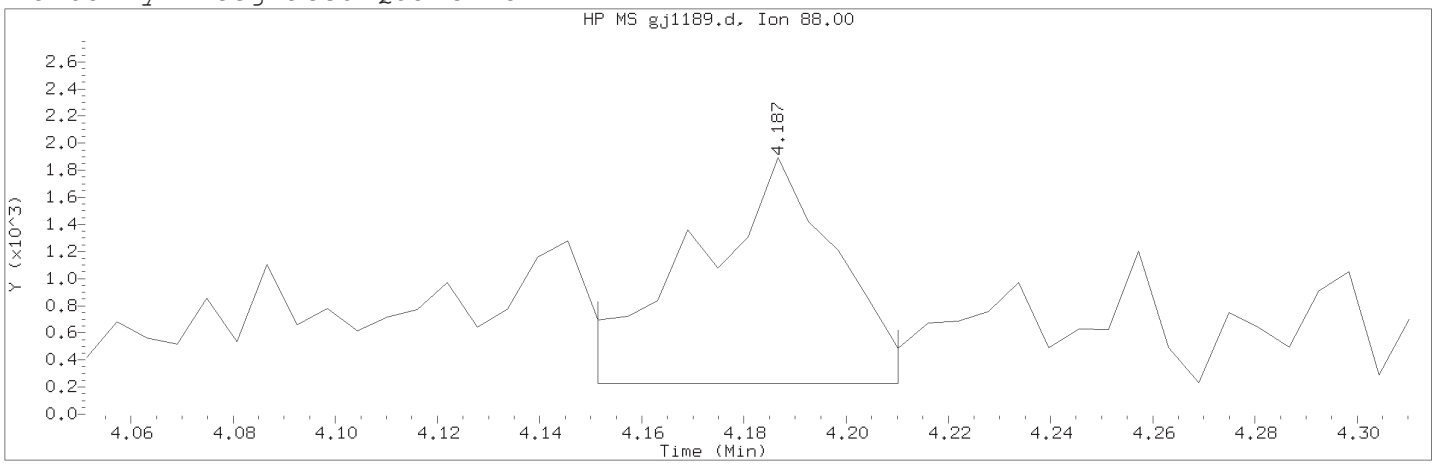
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 180		
Retention Time (minutes)	: 3.246		
Quant Ion	: 79.00		
Area	: 358		
On-column Amount (ng/ul)	: 0.0310		
Integration start scan	: 177	Integration stop scan:	185
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: EMonborne

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

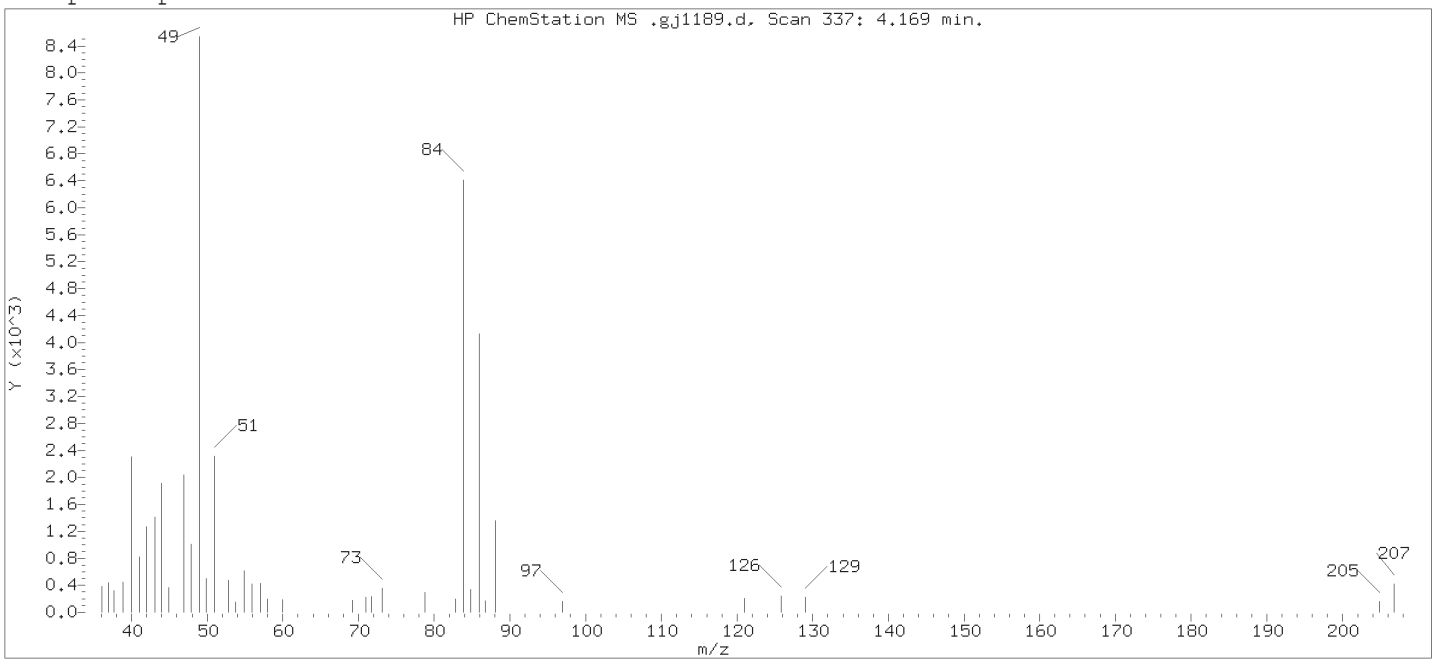
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 340		
Retention Time (minutes)	: 4.187		
Quant Ion	: 88.00		
Area (flag)	: 3307M		
On-Column Amount (ng/ul)	: 0.6091		
Integration start scan	: 333	Integration stop scan:	343
Y at integration start	: 226	Y at integration end:	226

Reason for manual integration: missed peak

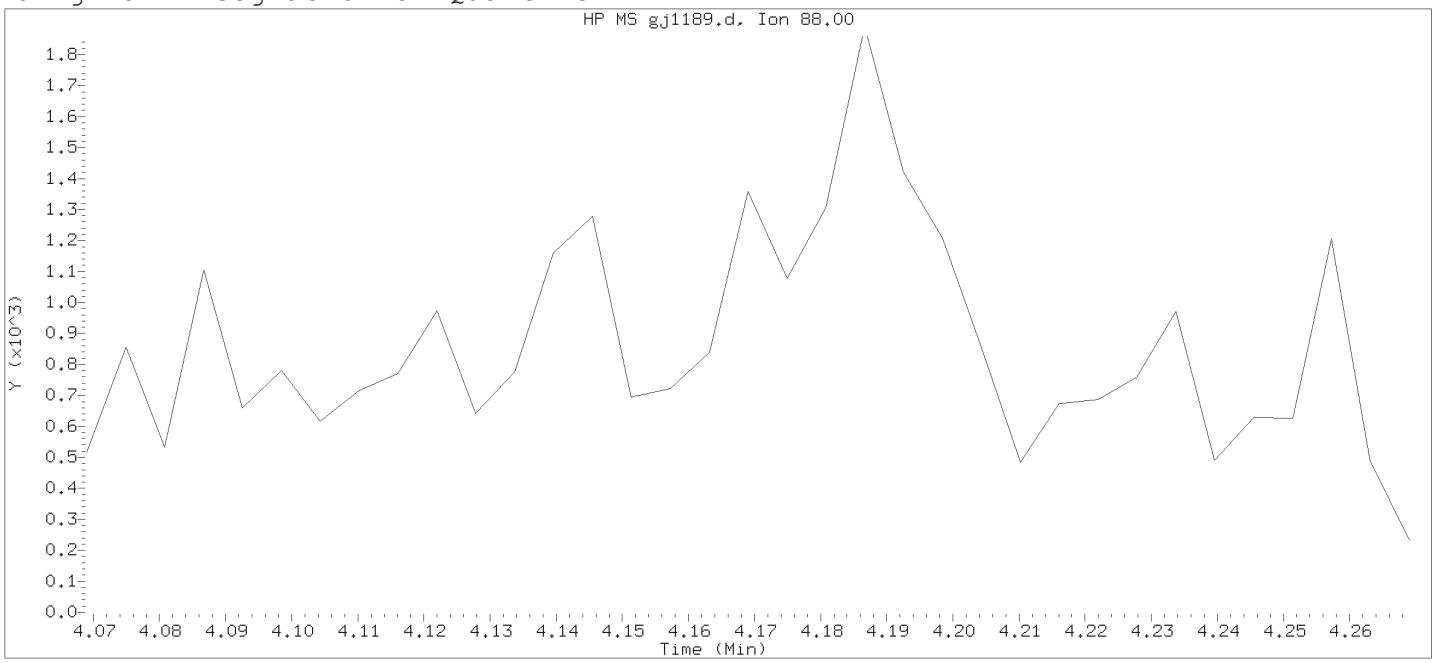
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

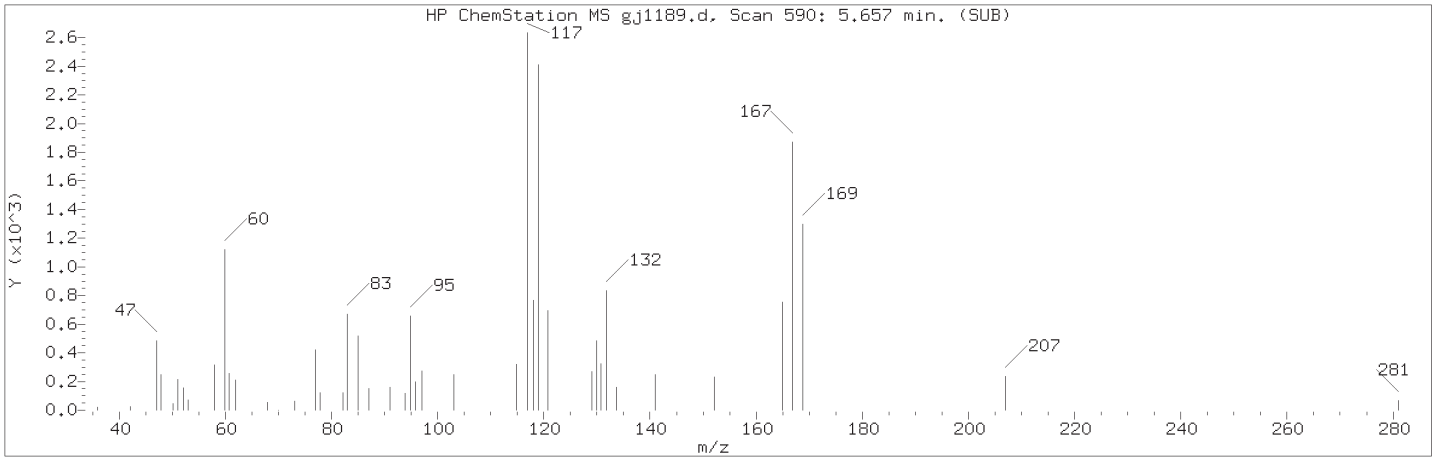
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

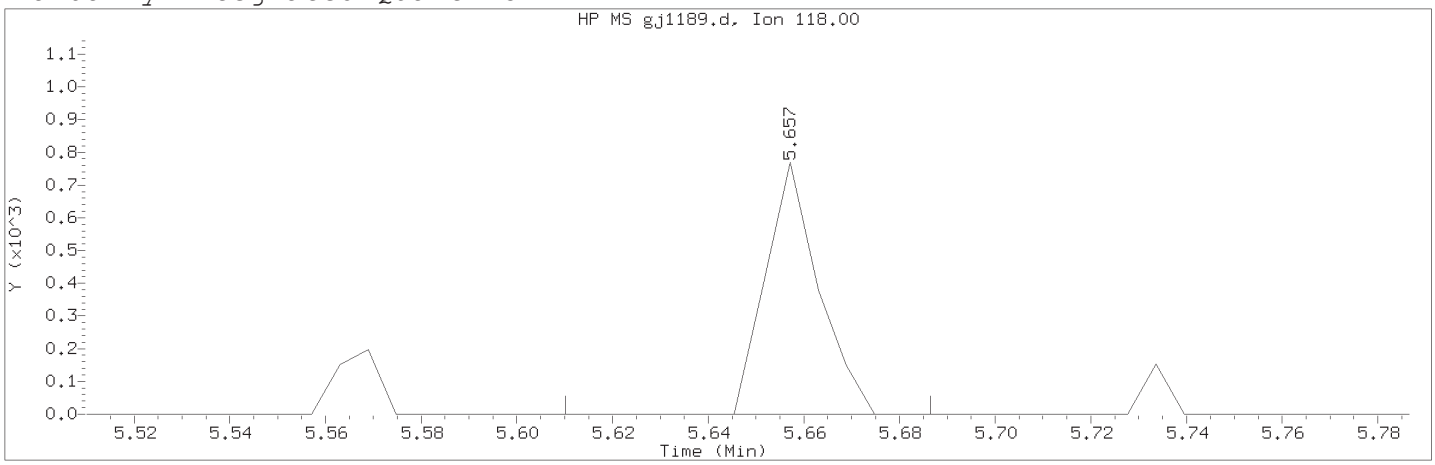
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 4.169
Quant Ion : 88.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 Page 1943 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

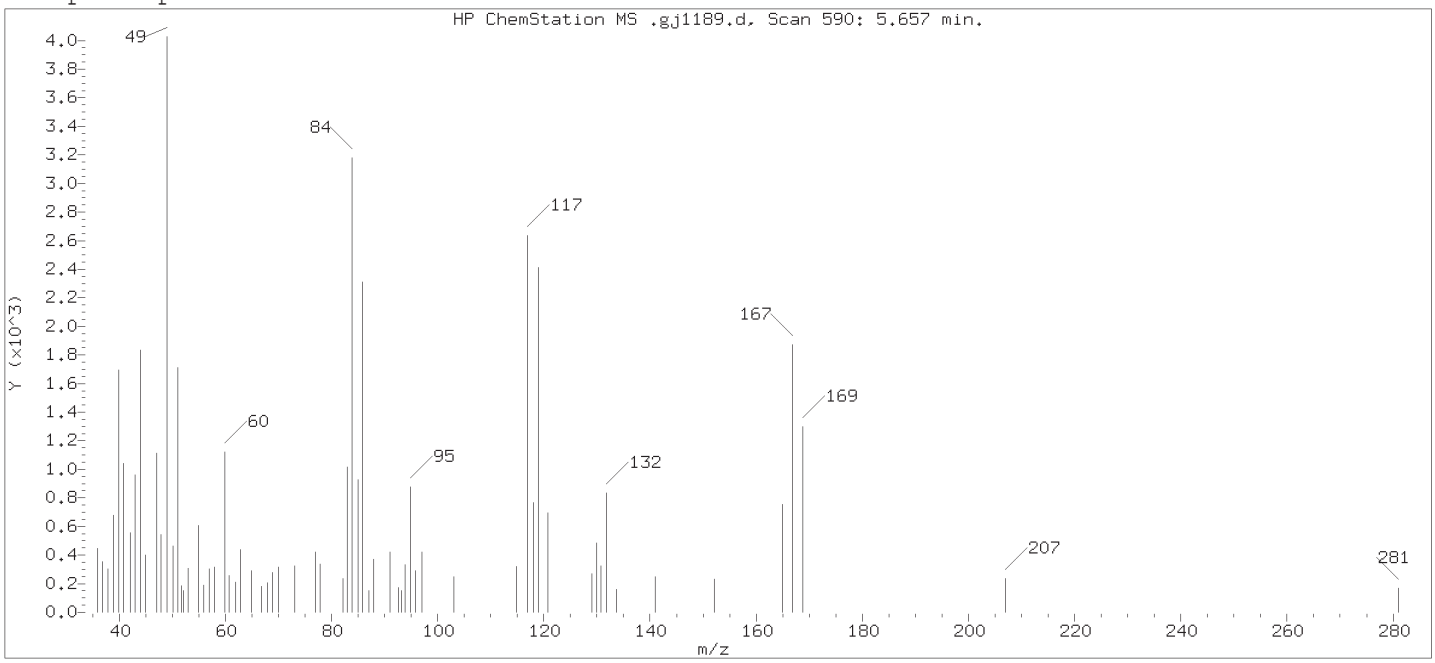
Compound Number : 20
Compound Name : a-methylstyrene
Scan Number : 590
Retention Time (minutes) : 5.657
Quant Ion : 118.00
Area (flag) : 591M
On-Column Amount (ng/ul) : 0.6099
Integration start scan : 581 Integration stop scan: 594
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

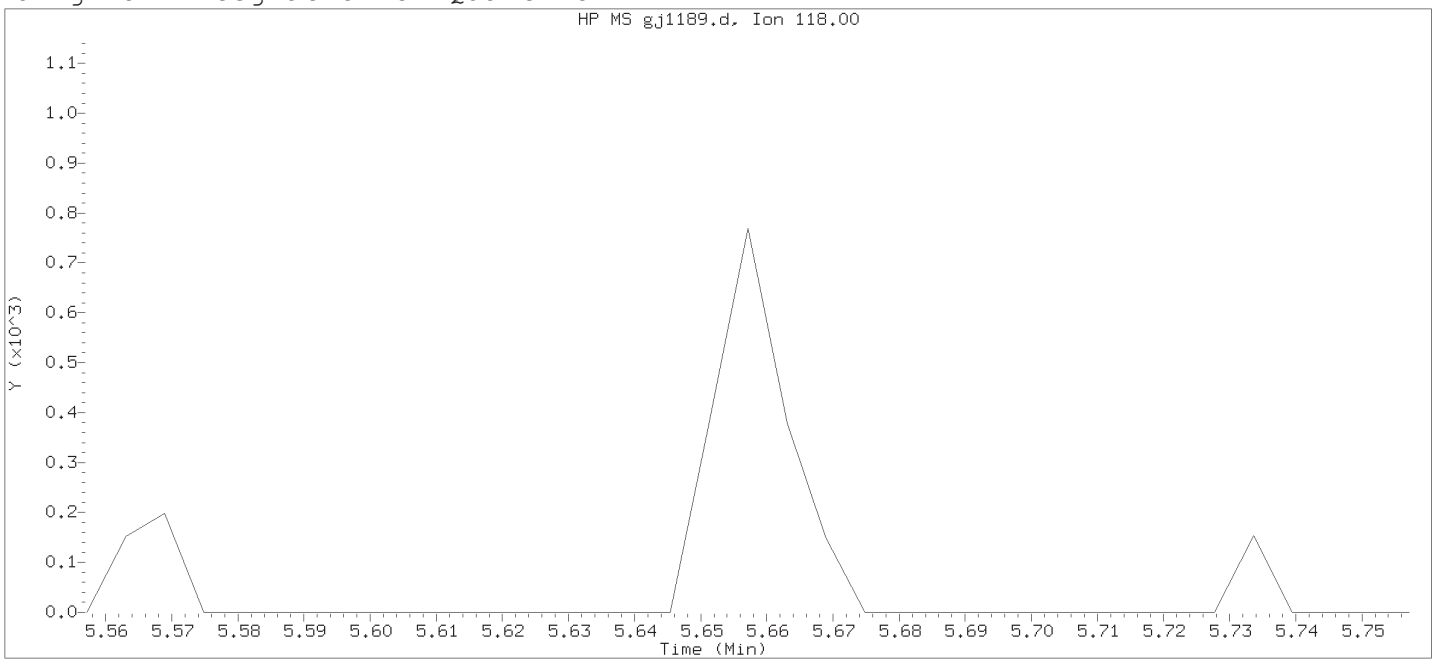
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

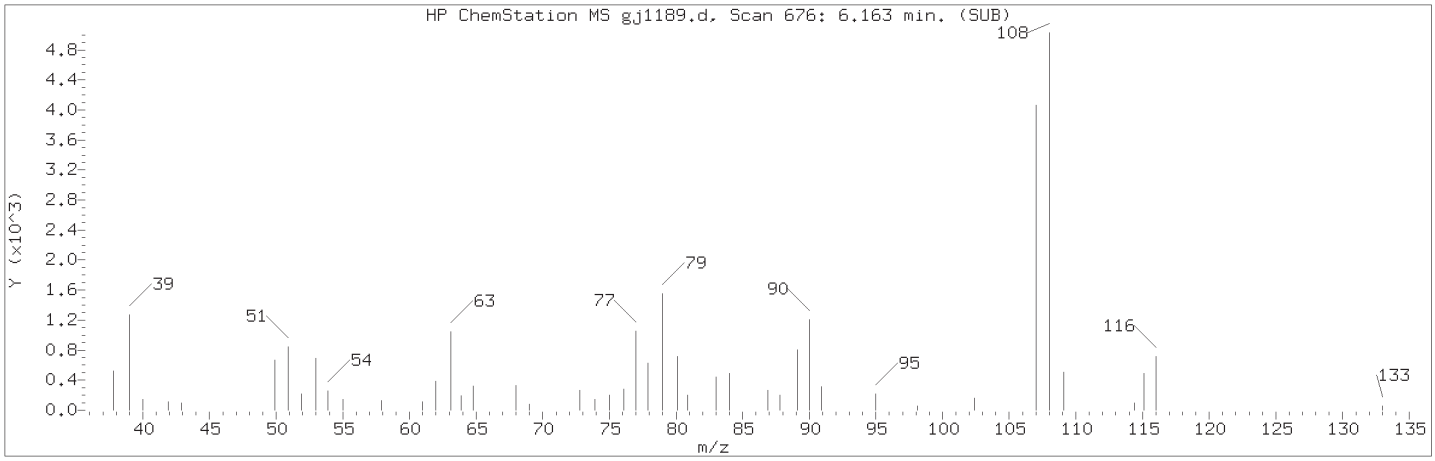
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

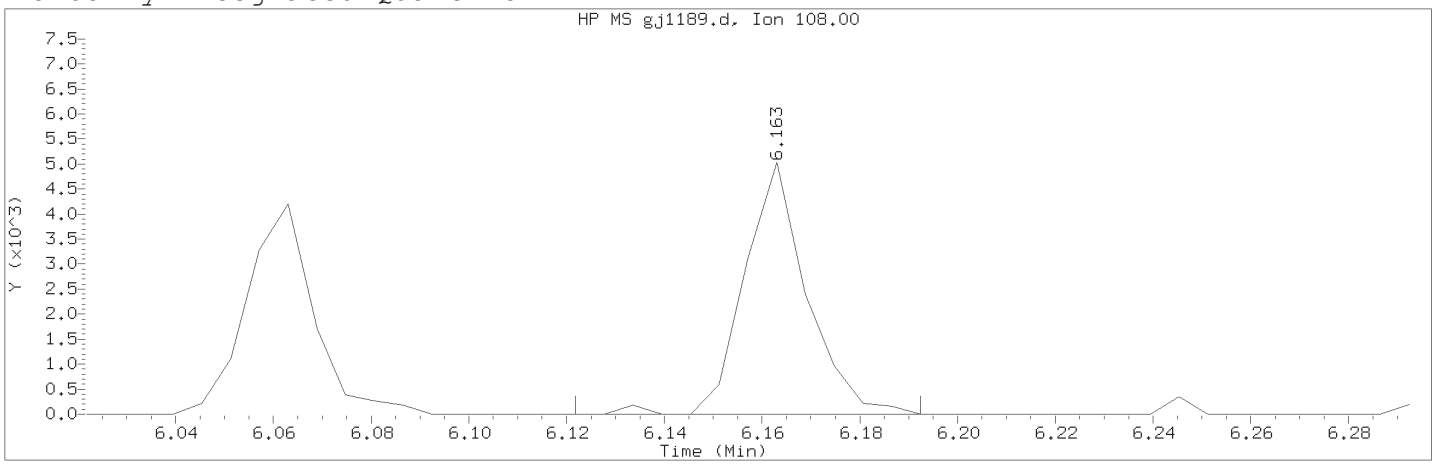
Compound Number : 20
Compound Name : a-methylstyrene
Expected RT (minutes) : 5.657
Quant Ion : 118.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

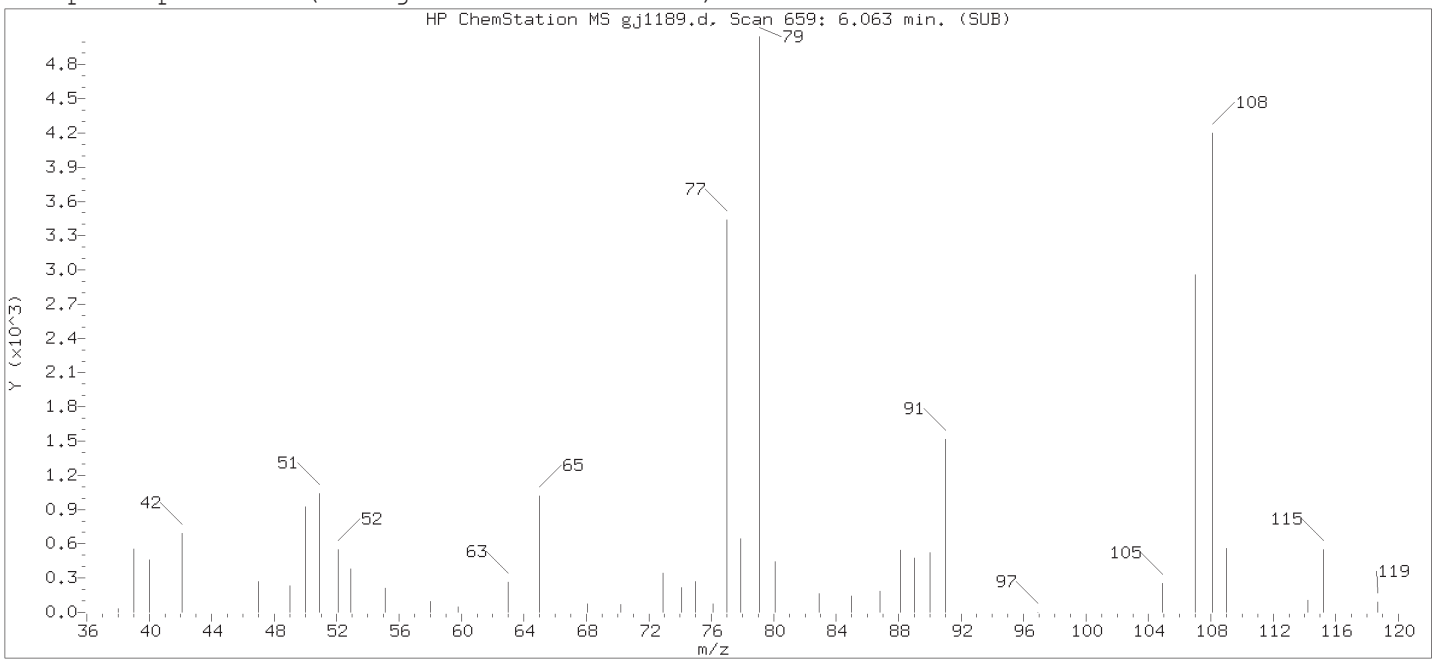
Compound Number : 31
Compound Name : 2-Methylphenol
Scan Number : 676
Retention Time (minutes) : 6.163
Quant Ion : 108.00
Area (flag) : 4473M
On-Column Amount (ng/ul) : 0.4360
Integration start scan : 668 Integration stop scan: 680
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

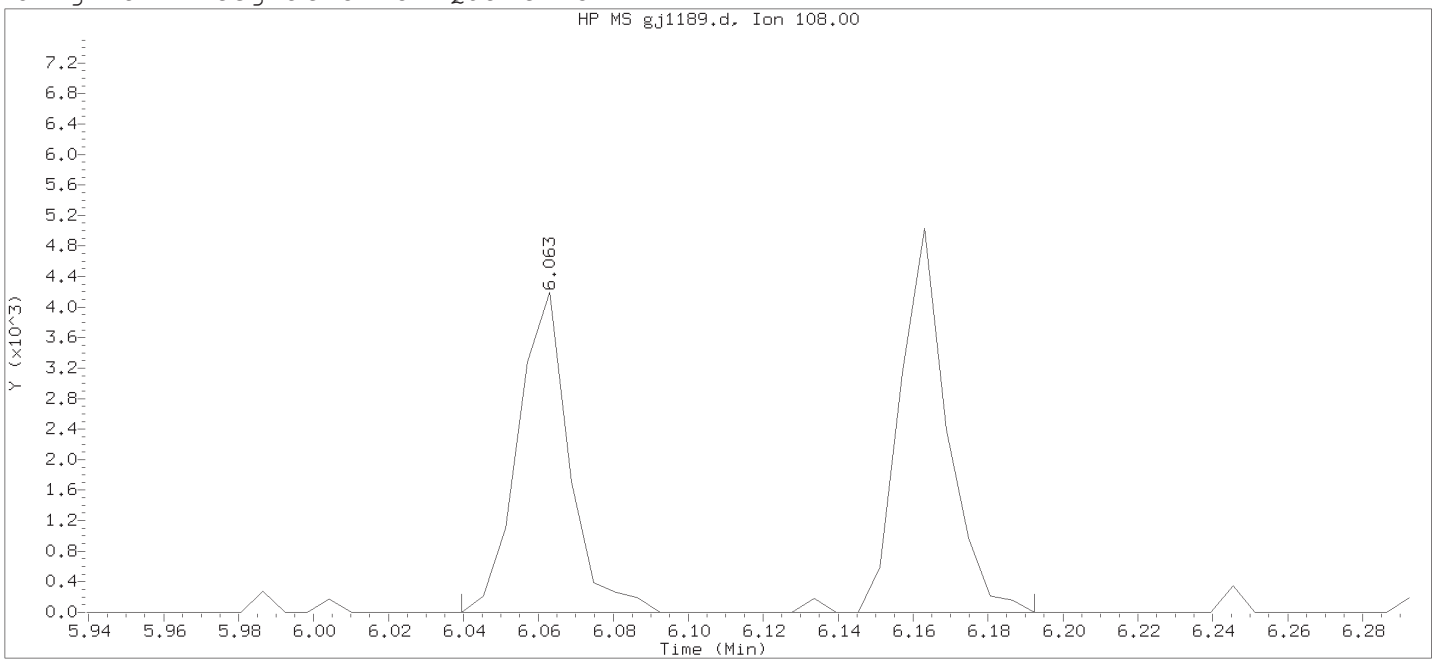
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

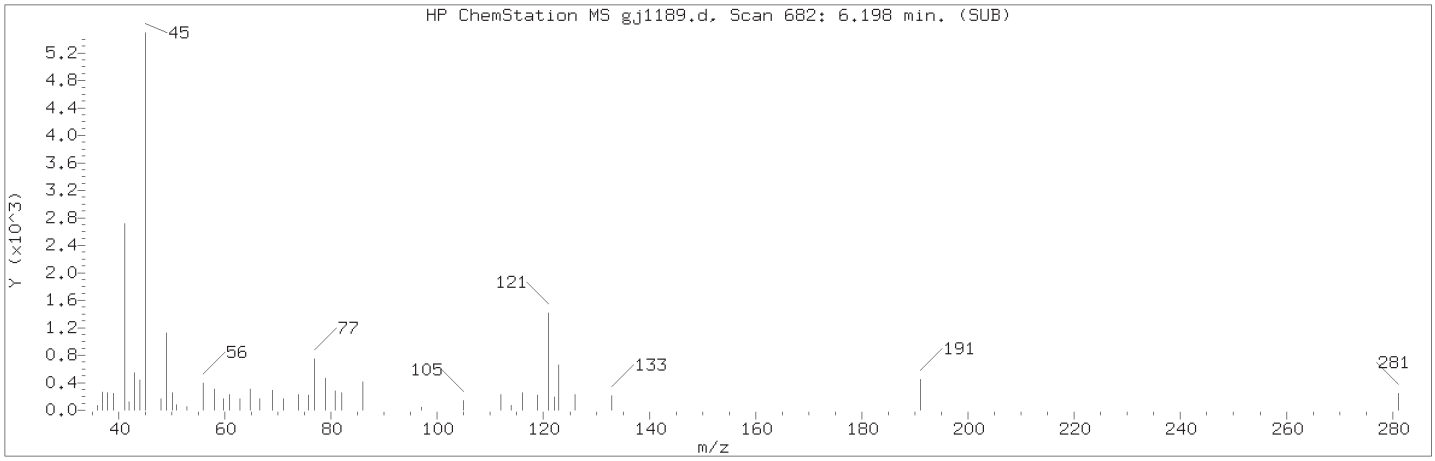
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

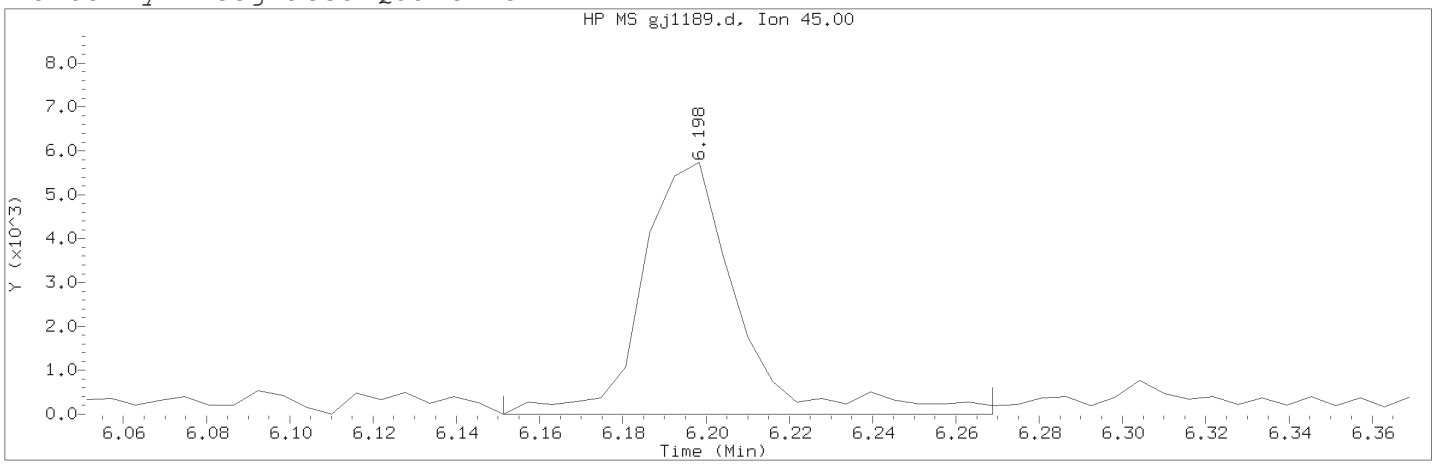
Compound Number	: 31		
Compound Name	: 2-Methylphenol		
Scan Number	: 659		
Retention Time (minutes)	: 6.063		
Quant Ion	: 108.00		
Area	: 8479		
On-column Amount (ng/ul)	: 0.8263		
Integration start scan	: 654	Integration stop scan:	680
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12 version 1.4

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

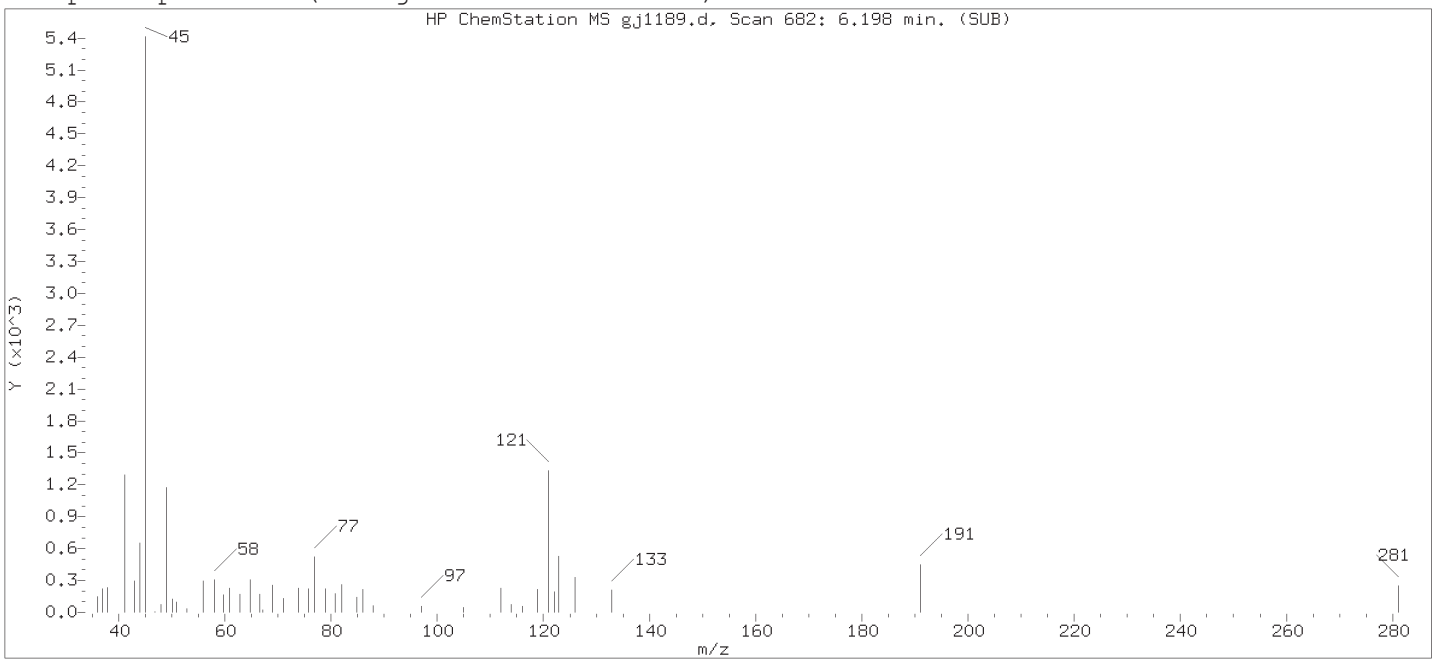
Compound Number : 34
Compound Name : bis(2-Chloroisopropyl)ether
Scan Number : 682
Retention Time (minutes) : 6.198
Quant Ion : 45.00
Area (flag) : 9272M
On-Column Amount (ng/ul) : 0.6117
Integration start scan : 673 Integration stop scan: 693
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

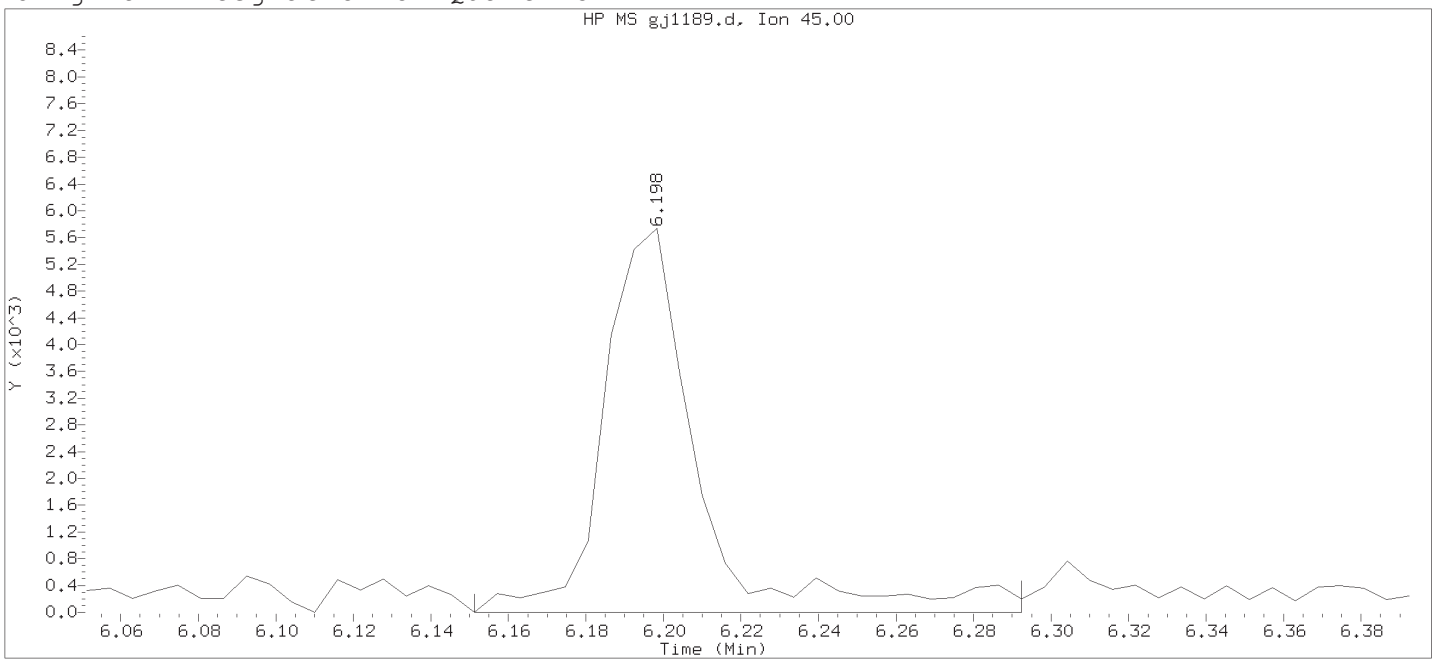
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

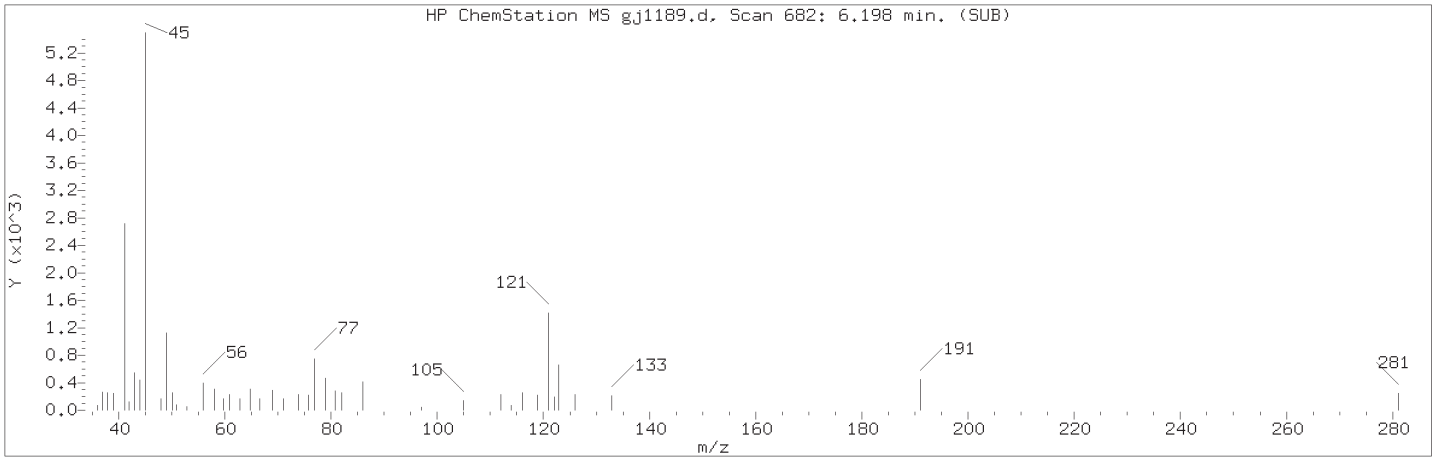
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

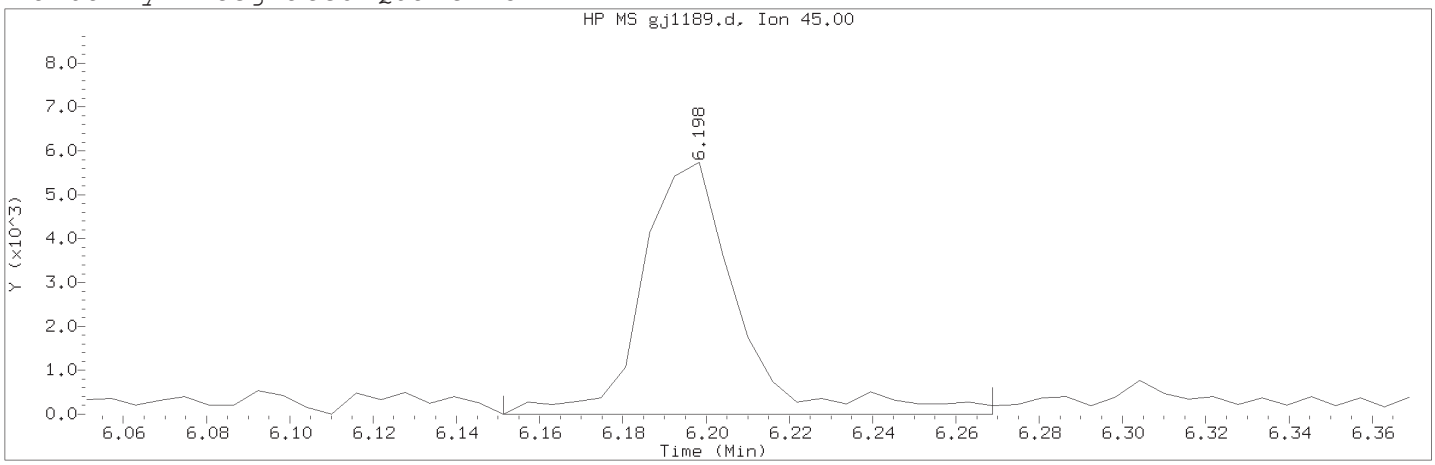
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area	: 9658		
On-column Amount (ng/ul)	: 0.6291		
Integration start scan	: 673	Integration stop scan:	697
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 1.0.1.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

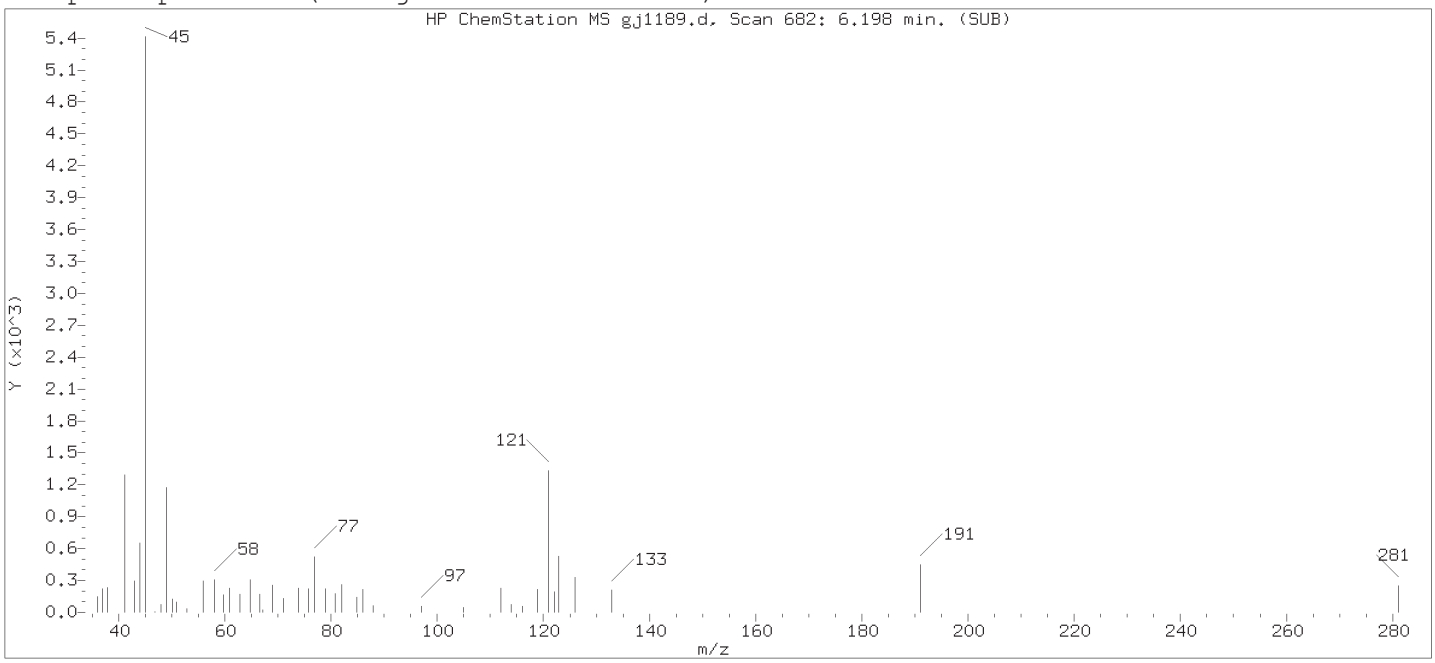
Compound Number : 33
Compound Name : 2,2'-oxybis(1-Chloropropane)
Scan Number : 682
Retention Time (minutes) : 6.198
Quant Ion : 45.00
Area (flag) : 9272M
On-Column Amount (ng/ul) : 0.6117
Integration start scan : 673 Integration stop scan: 693
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

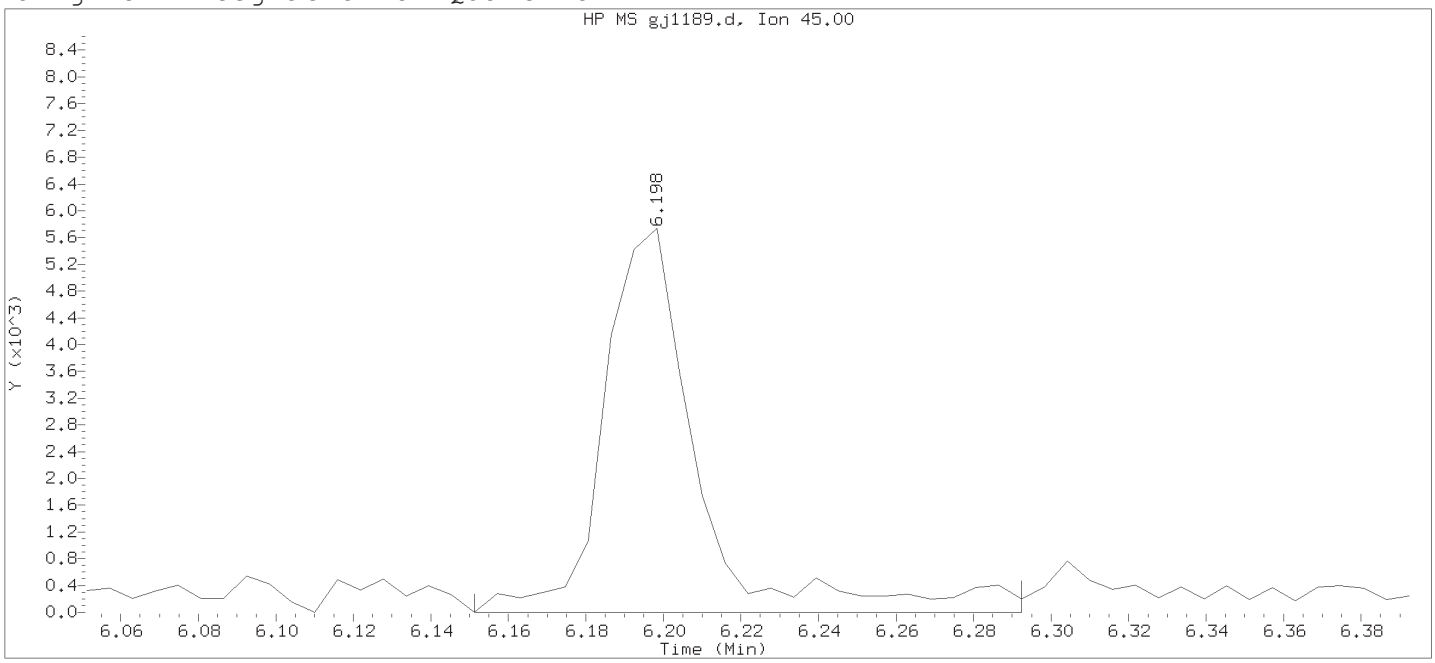
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

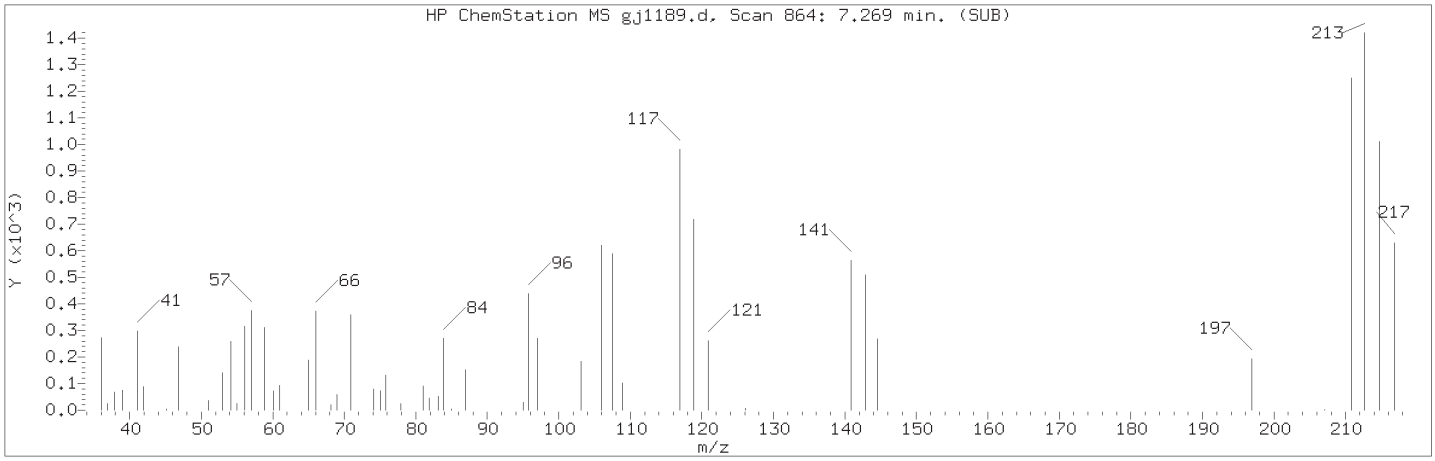
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

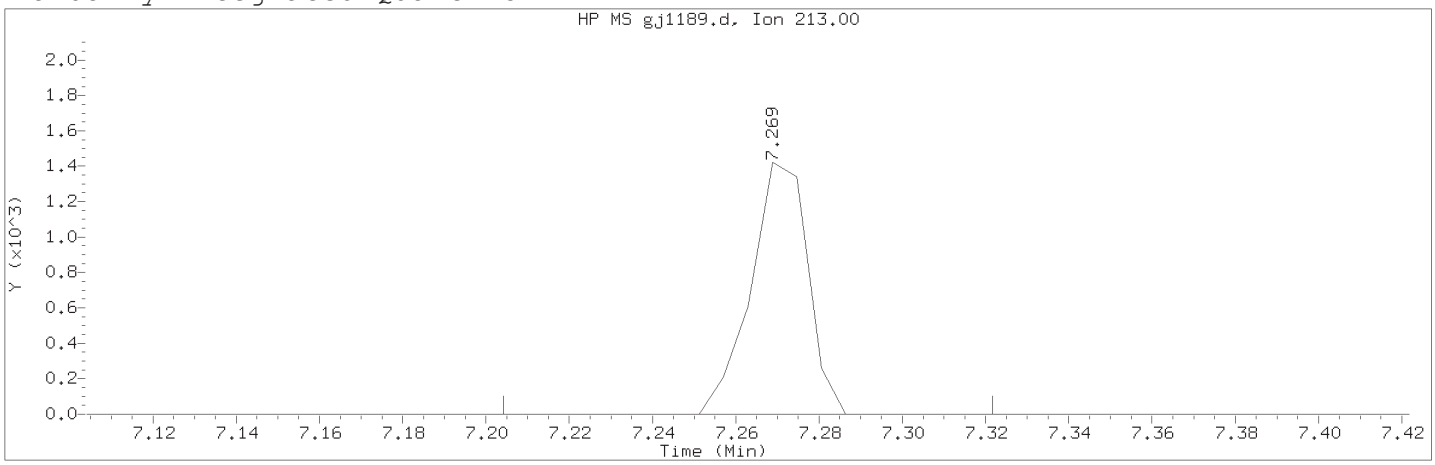
Compound Number	: 33		
Compound Name	: 2,2'-oxybis(1-Chloropropane)		
Scan Number	: 682		
Retention Time (minutes)	: 6.198		
Quant Ion	: 45.00		
Area	: 9658		
On-column Amount (ng/ul)	: 0.6291		
Integration start scan	: 673	Integration stop scan:	697
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.0.1951

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

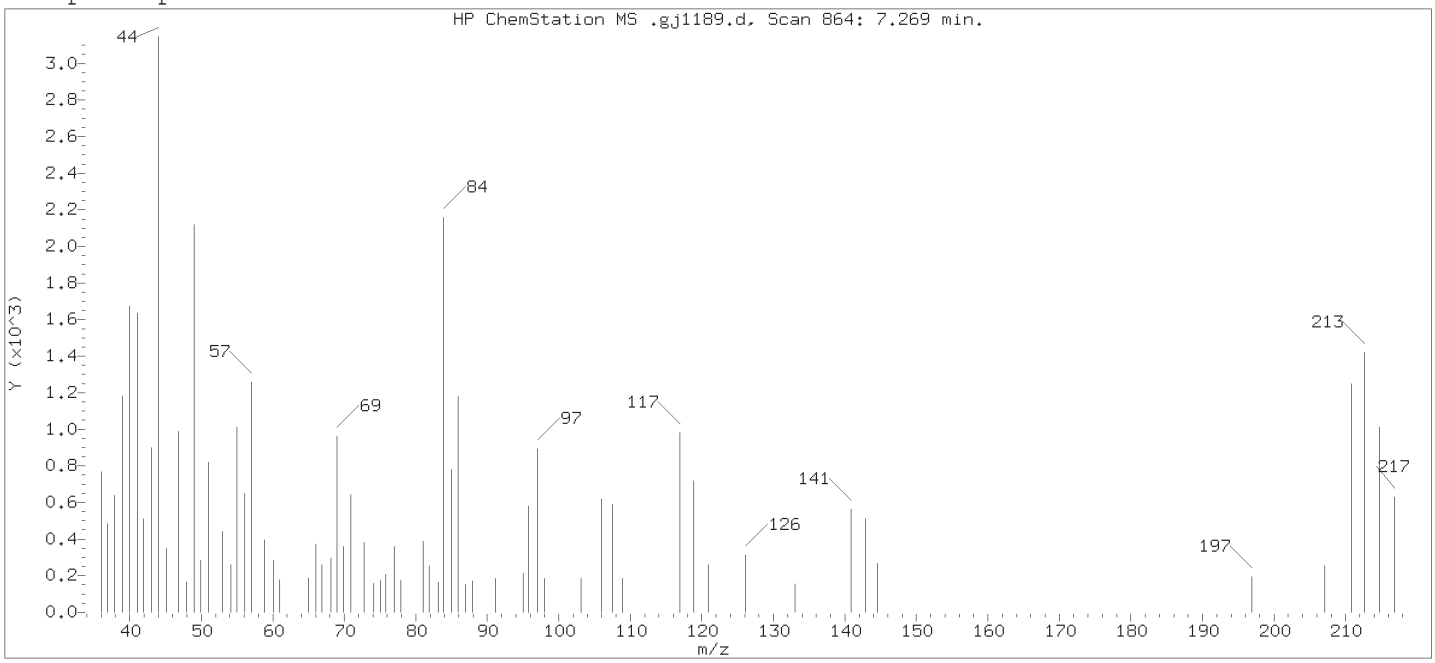
Compound Number : 69
Compound Name : Hexachloropropene
Scan Number : 864
Retention Time (minutes) : 7.269
Quant Ion : 213.00
Area (flag) : 1353M
On-Column Amount (ng/ul) : 0.3907
Integration start scan : 852 Integration stop scan: 872
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

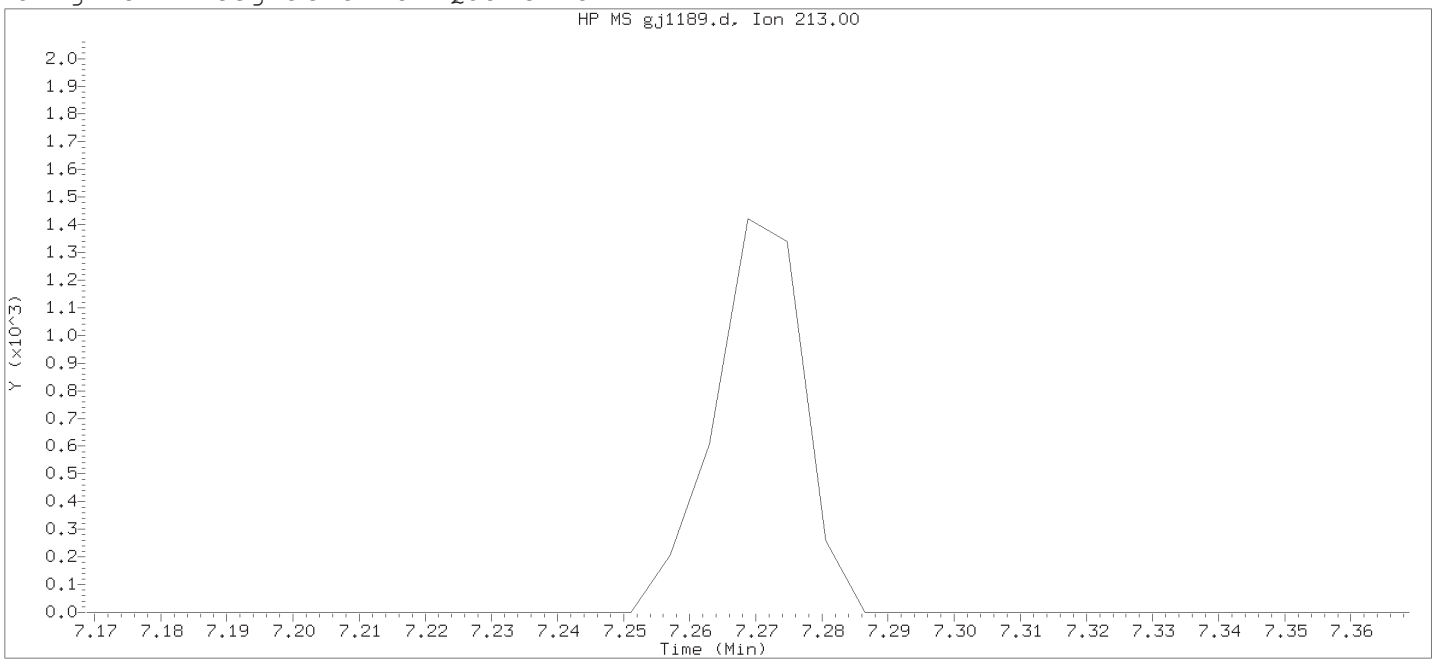
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

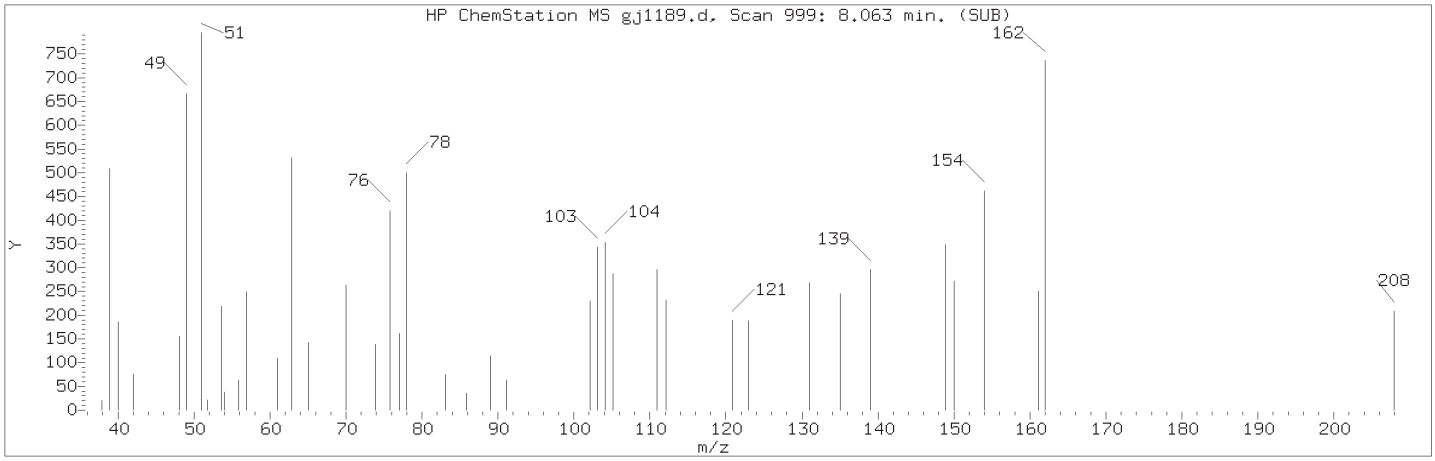
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

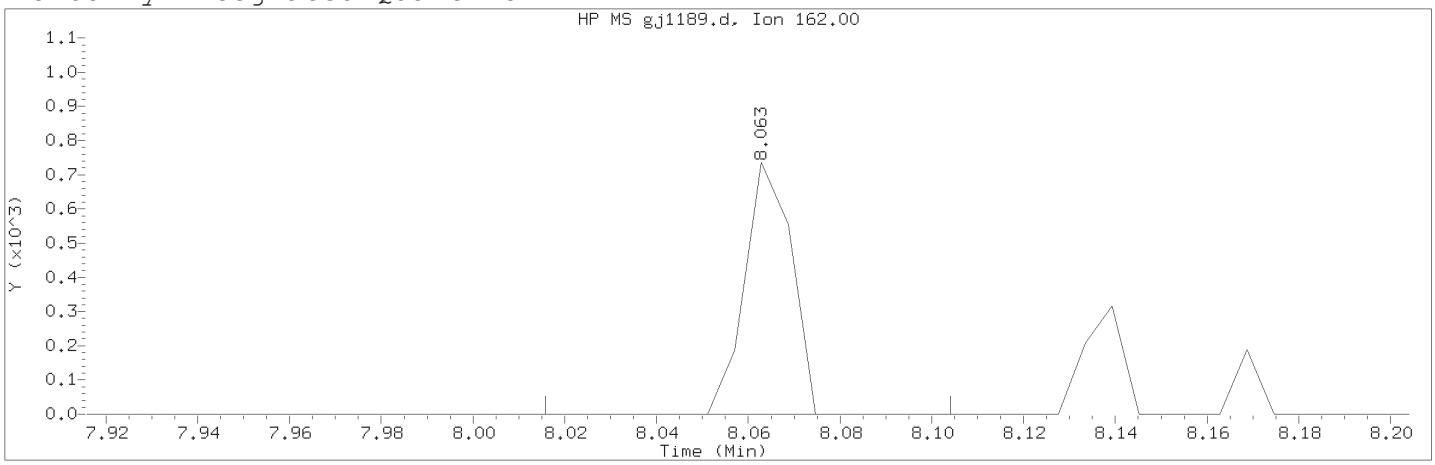
Compound Number : 69
Compound Name : Hexachloropropene
Expected RT (minutes) : 7.269
Quant Ion : 213.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

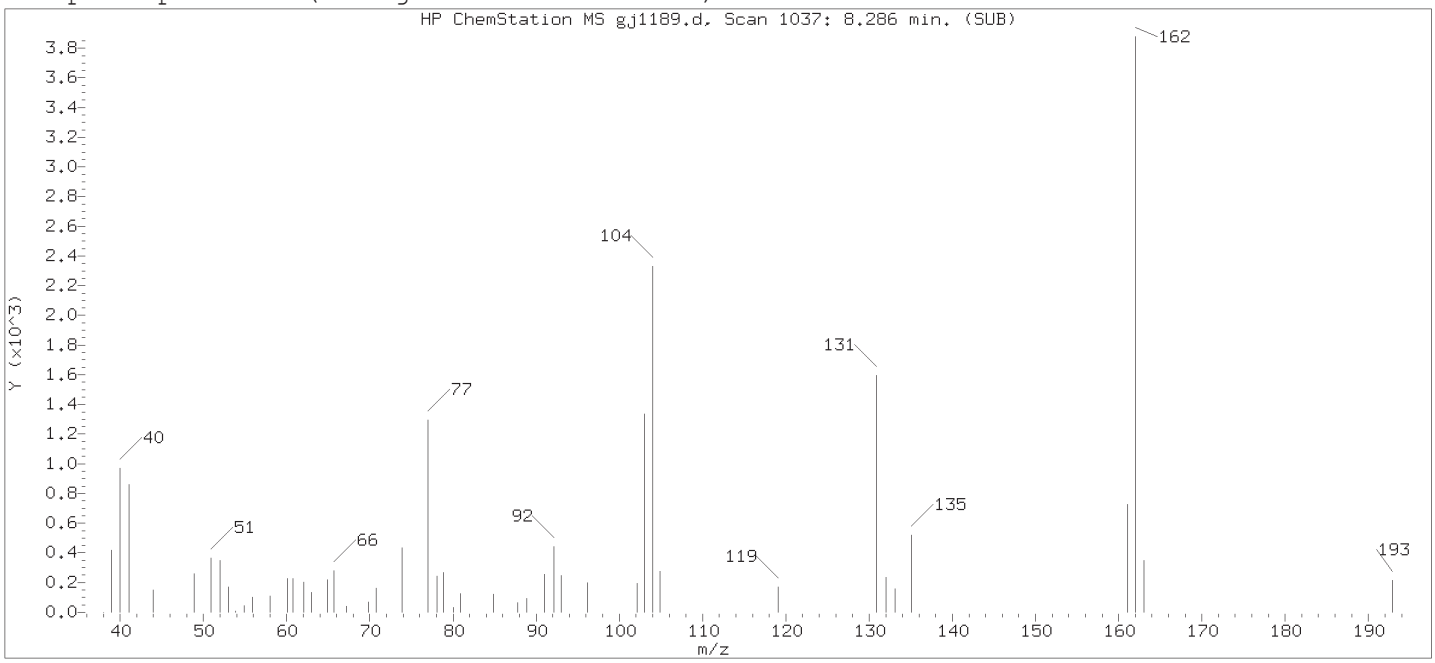
Compound Number : 88
Compound Name : cis-Isosafrole
Scan Number : 999
Retention Time (minutes) : 8.063
Quant Ion : 162.00
Area (flag) : 521M
On-Column Amount (ng/ul) : 0.0573
Integration start scan : 990 Integration stop scan: 1005
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

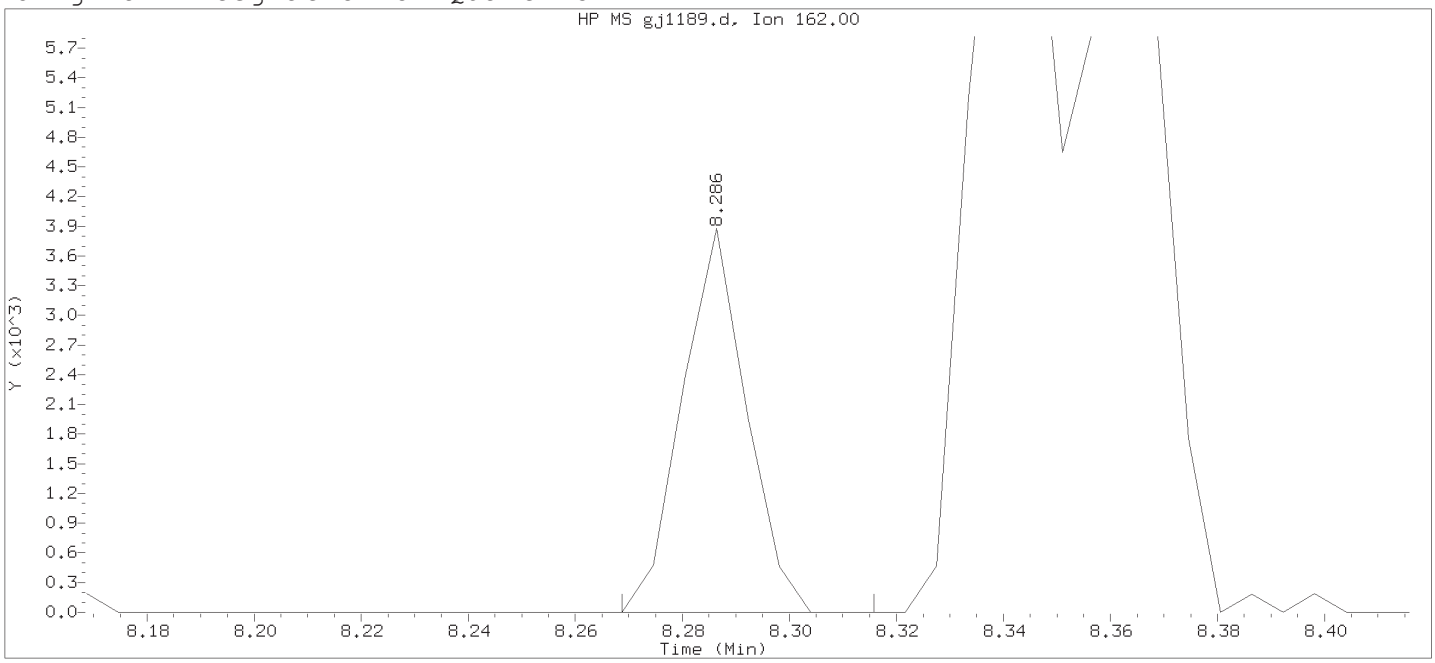
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

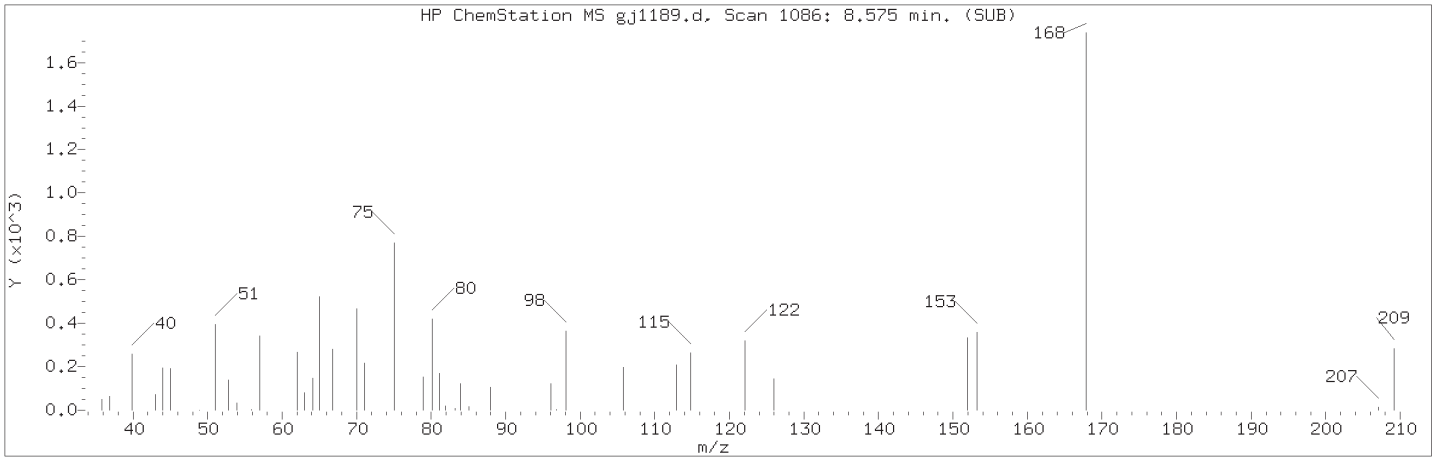
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

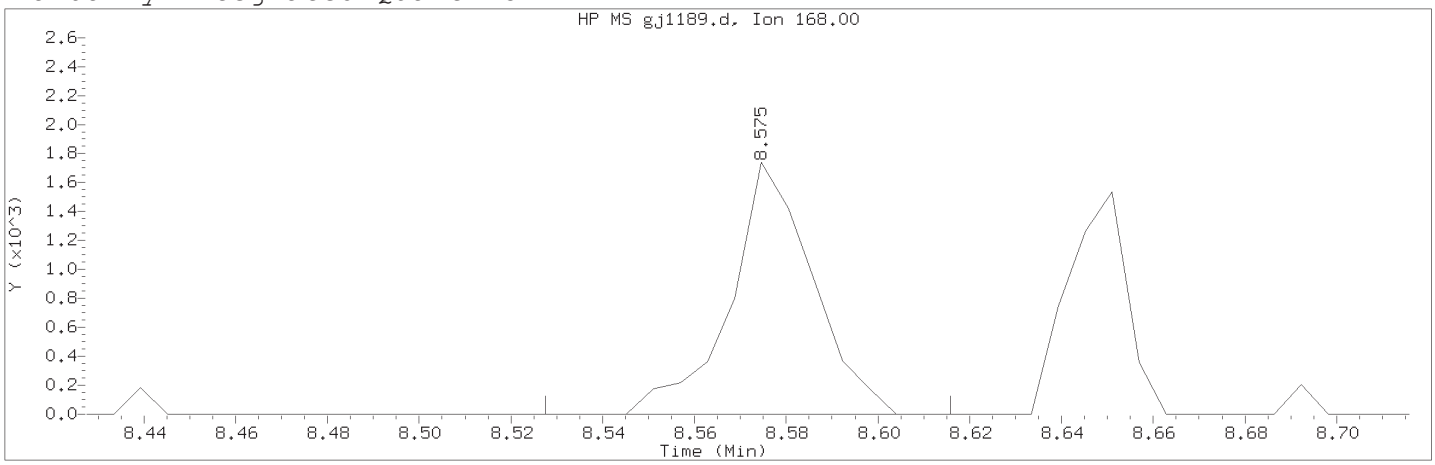
Compound Number	: 88		
Compound Name	: cis-Isosafrole		
Scan Number	: 1037		
Retention Time (minutes)	: 8.286		
Quant Ion	: 162.00		
Area	: 3235		
On-column Amount (ng/ul)	: 0.3553		
Integration start scan	: 1033	Integration stop scan:	1041
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: EMONBORNE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

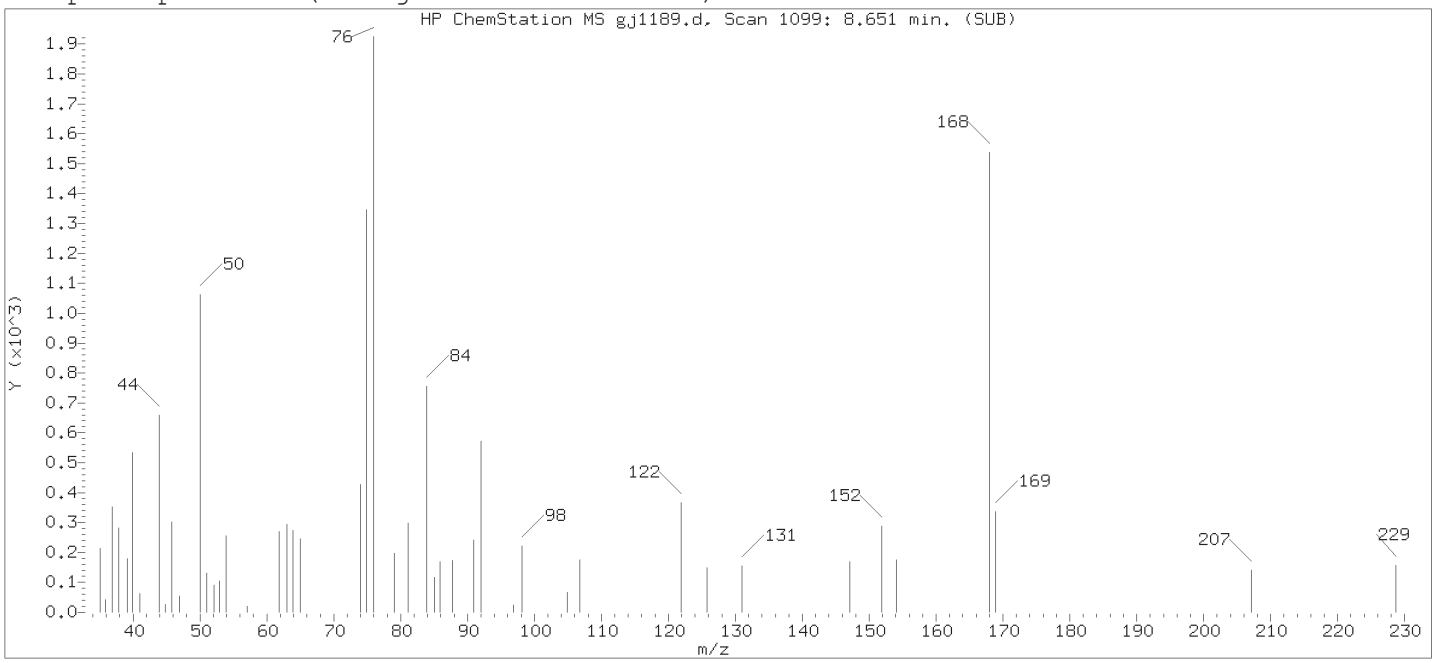
Compound Number : 105
Compound Name : 1,4-Dinitrobenzene
Scan Number : 1086
Retention Time (minutes) : 8.575
Quant Ion : 168.00
Area (flag) : 2175M
On-Column Amount (ng/ul) : 0.5956
Integration start scan : 1077 Integration stop scan: 1092
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

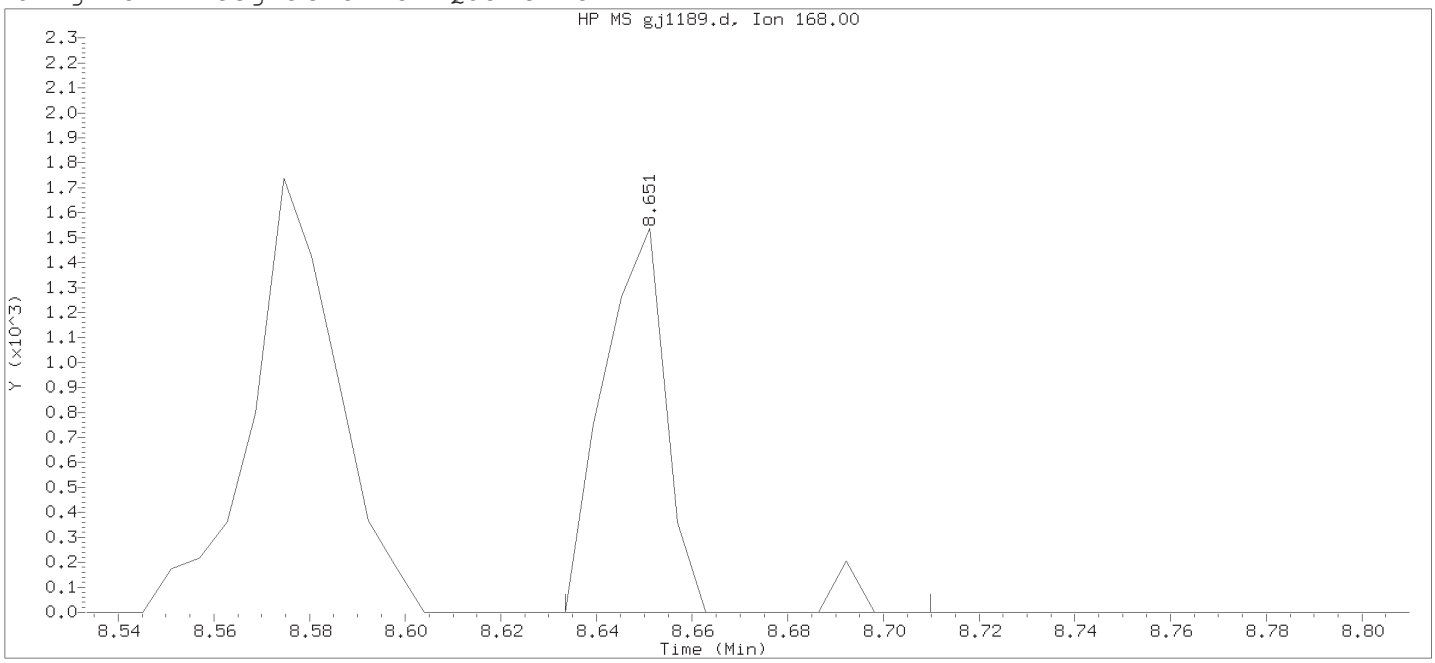
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

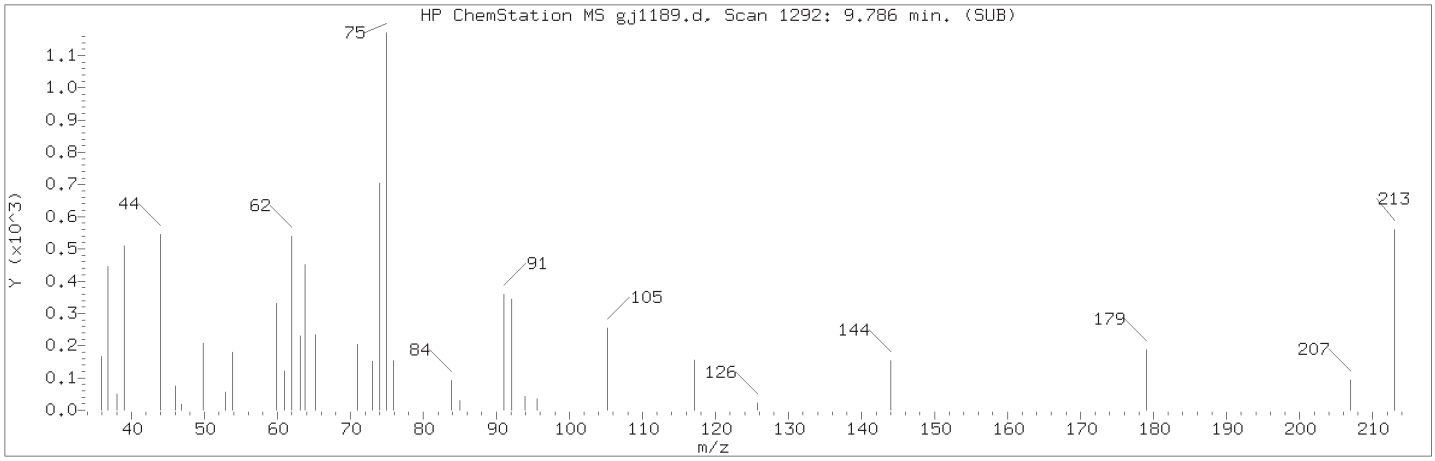
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

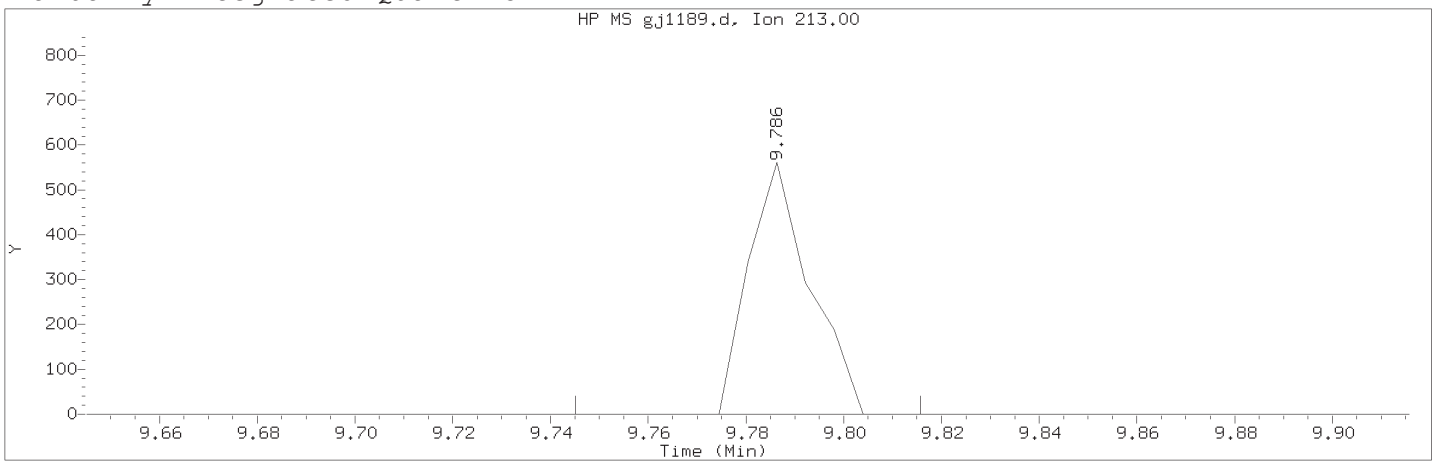
Compound Number	: 105		
Compound Name	: 1,4-Dinitrobenzene		
Scan Number	: 1099		
Retention Time (minutes)	: 8.651		
Quant Ion	: 168.00		
Area	: 1450		
On-column Amount (ng/ul)	: 0.3971		
Integration start scan	: 1095	Integration stop scan:	1108
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: 1.0.1.1957

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

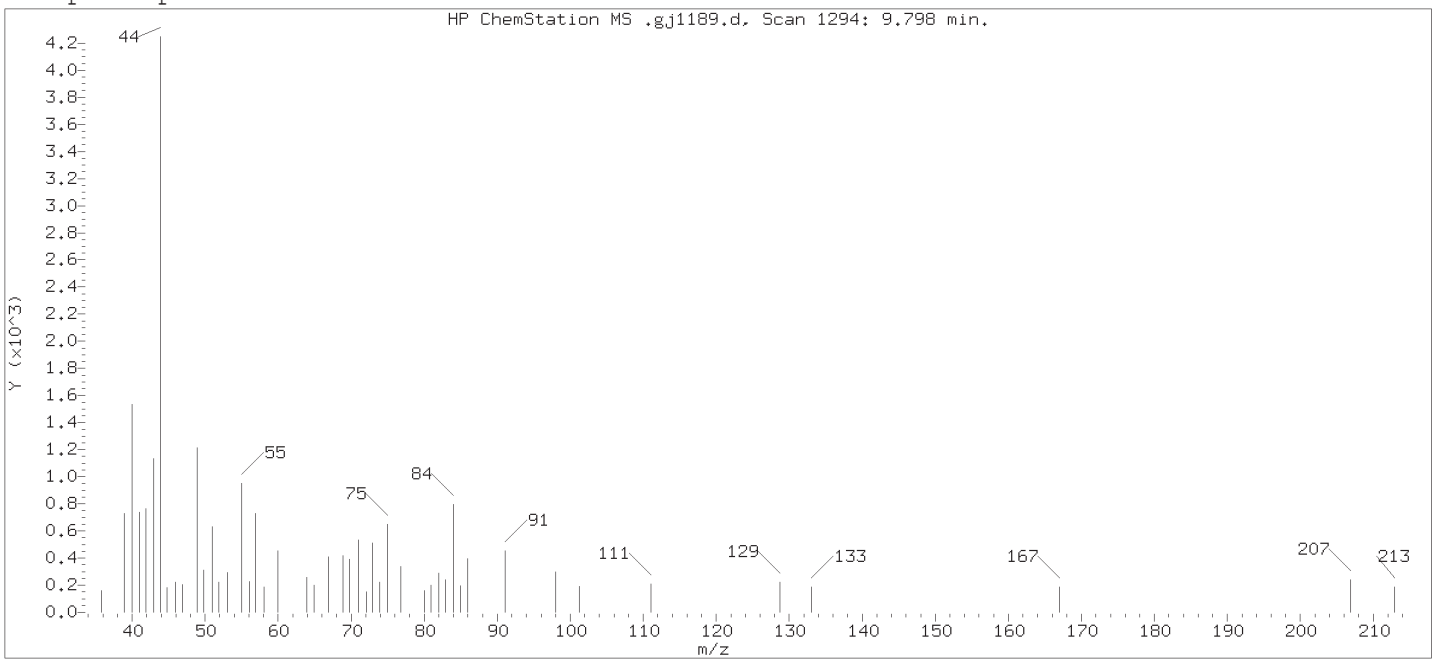
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1292
Retention Time (minutes) : 9.786
Quant Ion : 213.00
Area (flag) : 488M
On-Column Amount (ng/ul) : 0.1839
Integration start scan : 1284 Integration stop scan: 1296
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

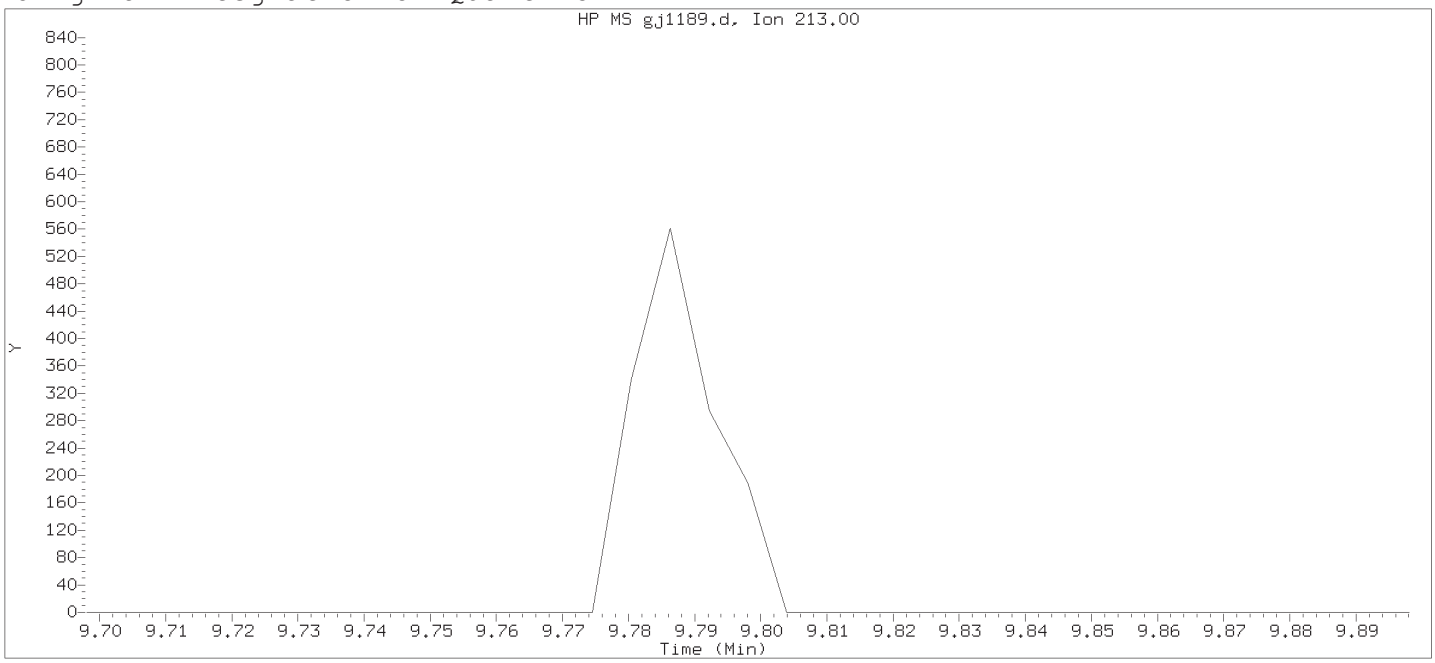
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

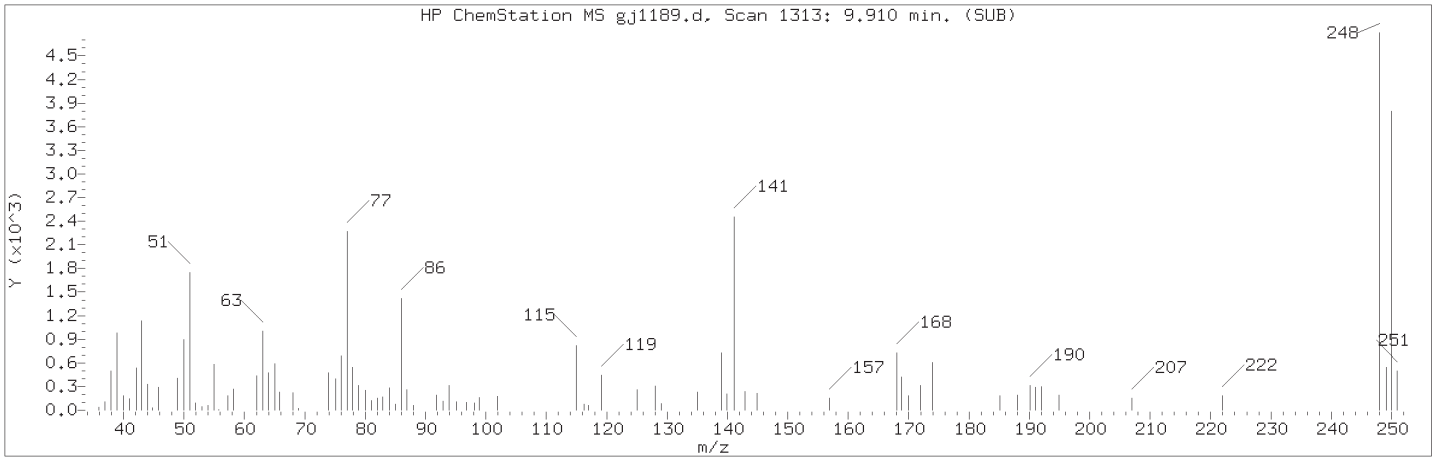
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

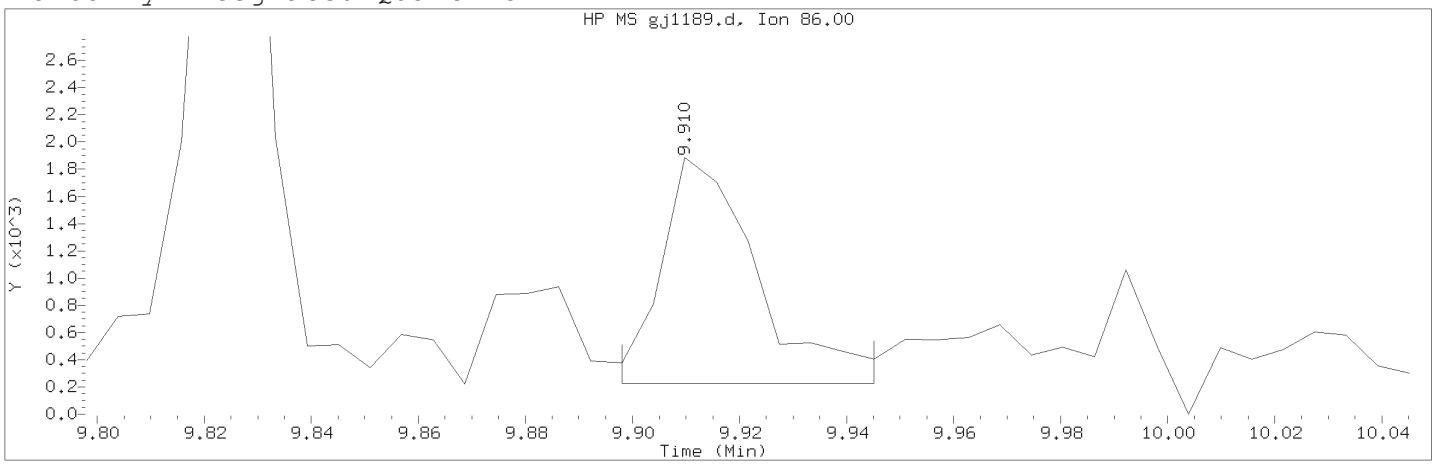
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 9.798
Quant Ion : 213.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 10/21/2018 10:50

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

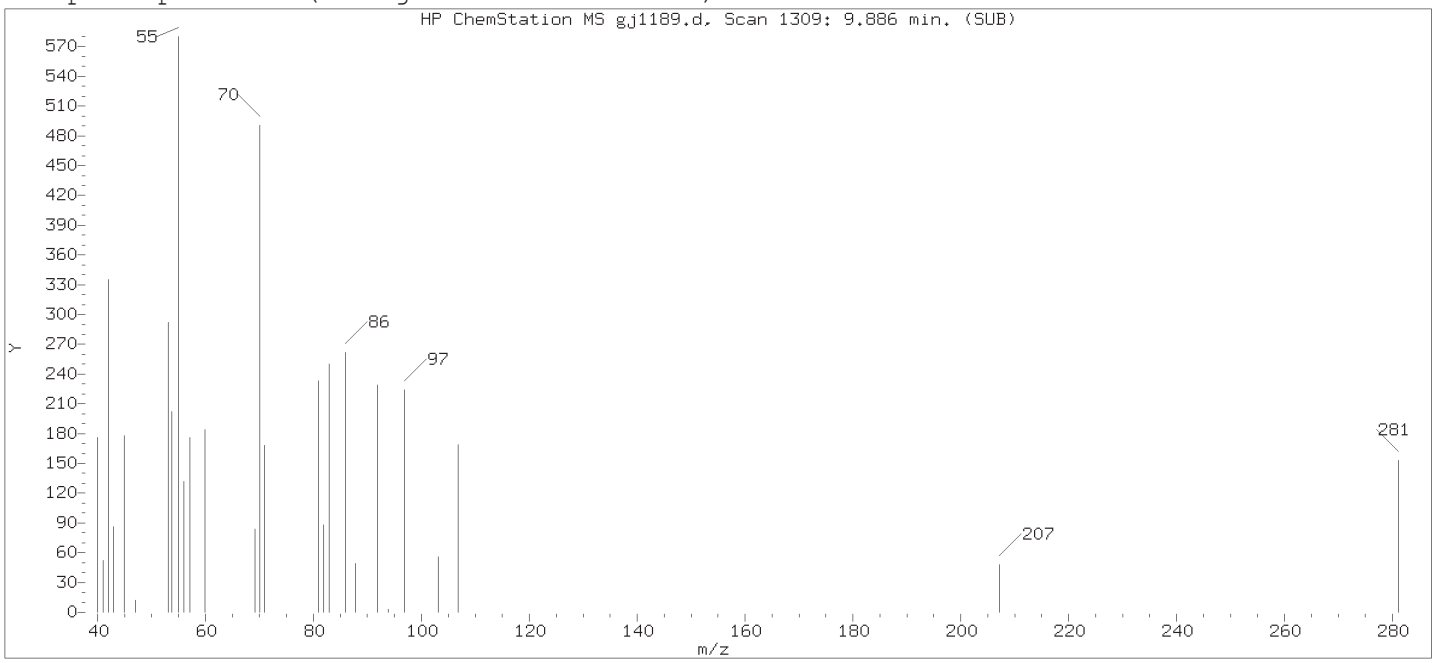
Compound Number	: 144		
Compound Name	: Diallate (peak 2)		
Scan Number	: 1313		
Retention Time (minutes)	: 9.910		
Quant Ion	: 86.00		
Area (flag)	: 2090M		
On-Column Amount (ng/ul)	: 0.1648		
Integration start scan	: 1310	Integration stop scan:	1318
Y at integration start	: 226	Y at integration end:	226

Reason for manual integration: improper integration

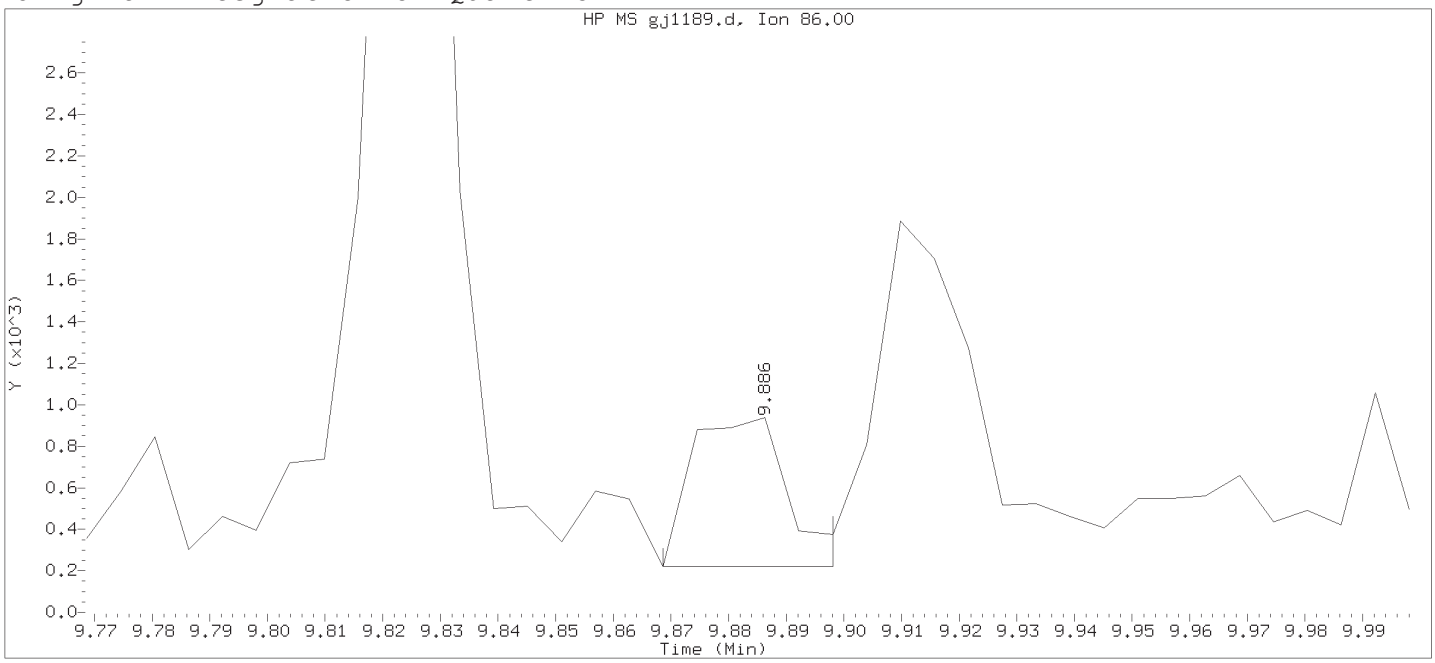
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

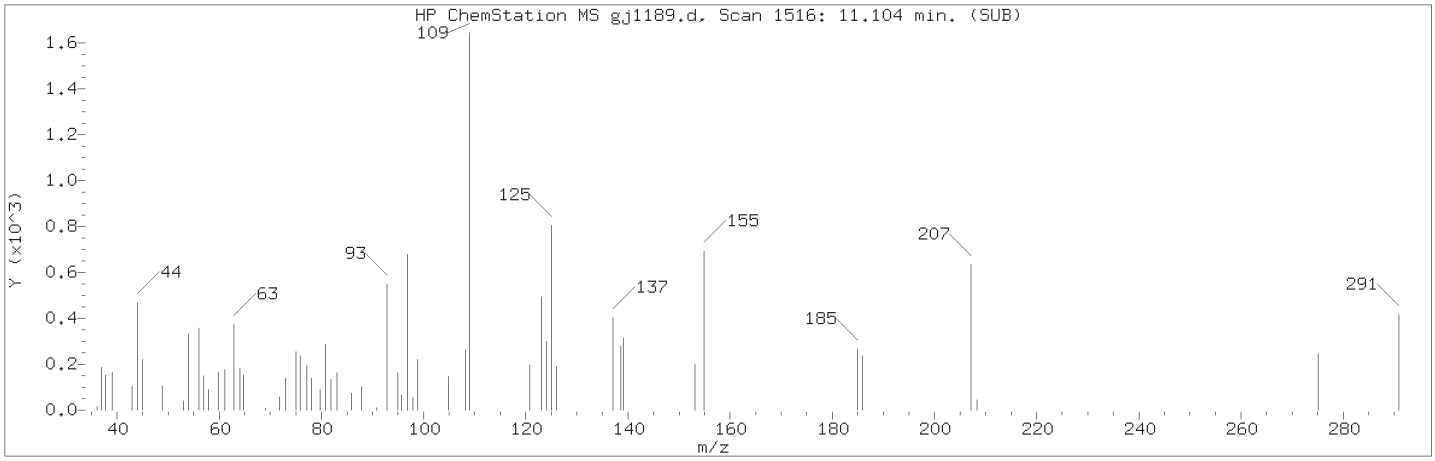
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

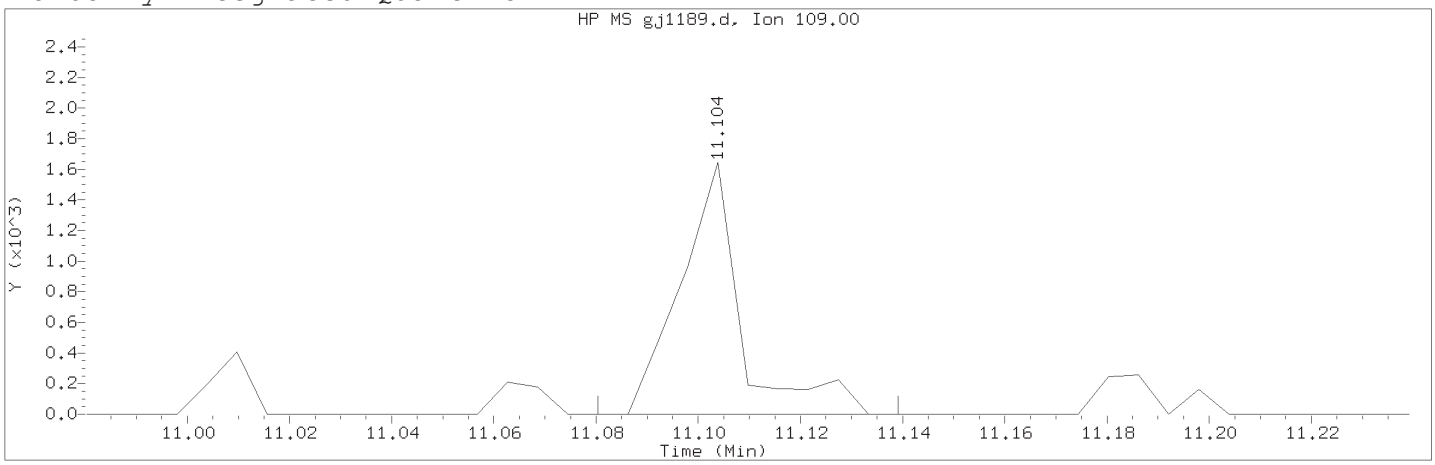
Compound Number	: 144		
Compound Name	: Diallate (peak 2)		
Scan Number	: 1309		
Retention Time (minutes)	: 9.886		
Quant Ion	: 86.00		
Area	: 807		
On-column Amount (ng/ul)	: 0.0637		
Integration start scan	: 1305	Integration stop scan:	1310
Y at integration start	: 222	Y at integration end:	222

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

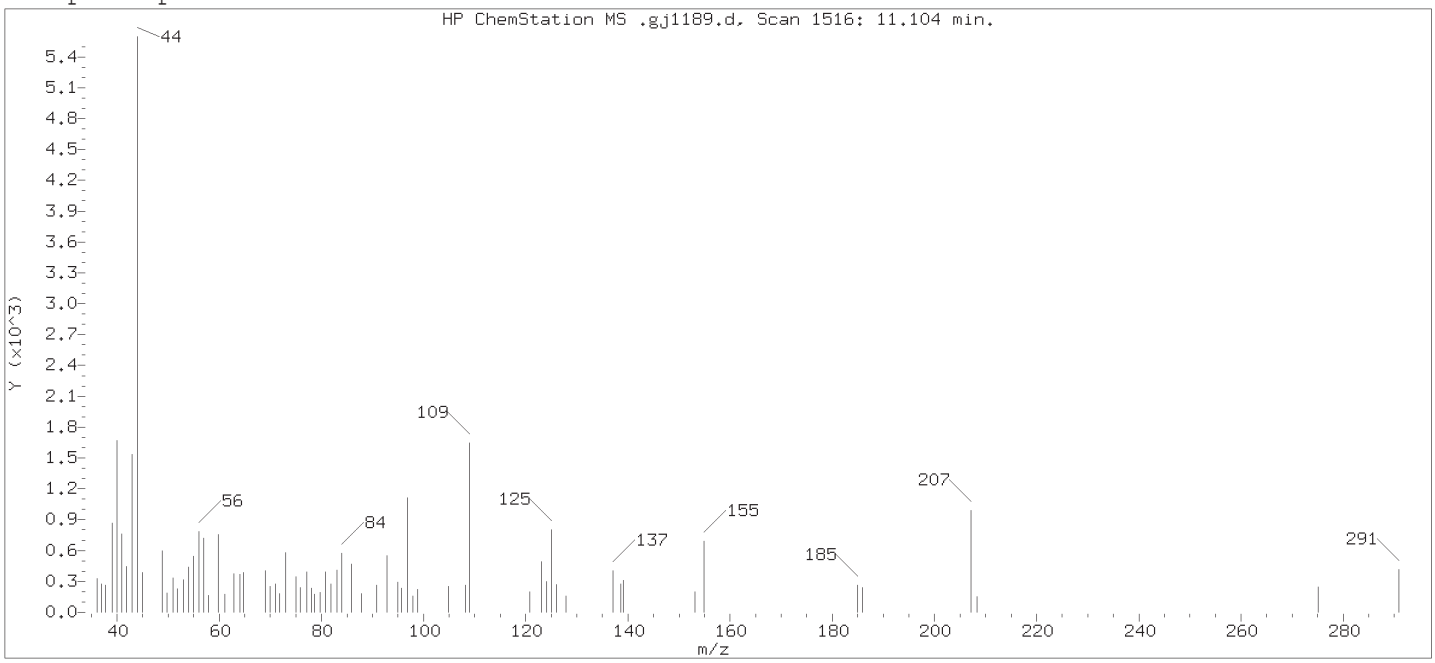
Compound Number	: 167		
Compound Name	: Parathion		
Scan Number	: 1516		
Retention Time (minutes)	: 11.104		
Quant Ion	: 109.00		
Area (flag)	: 1352M		
On-Column Amount (ng/ul)	: 0.2394		
Integration start scan	: 1511	Integration stop scan:	1521
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

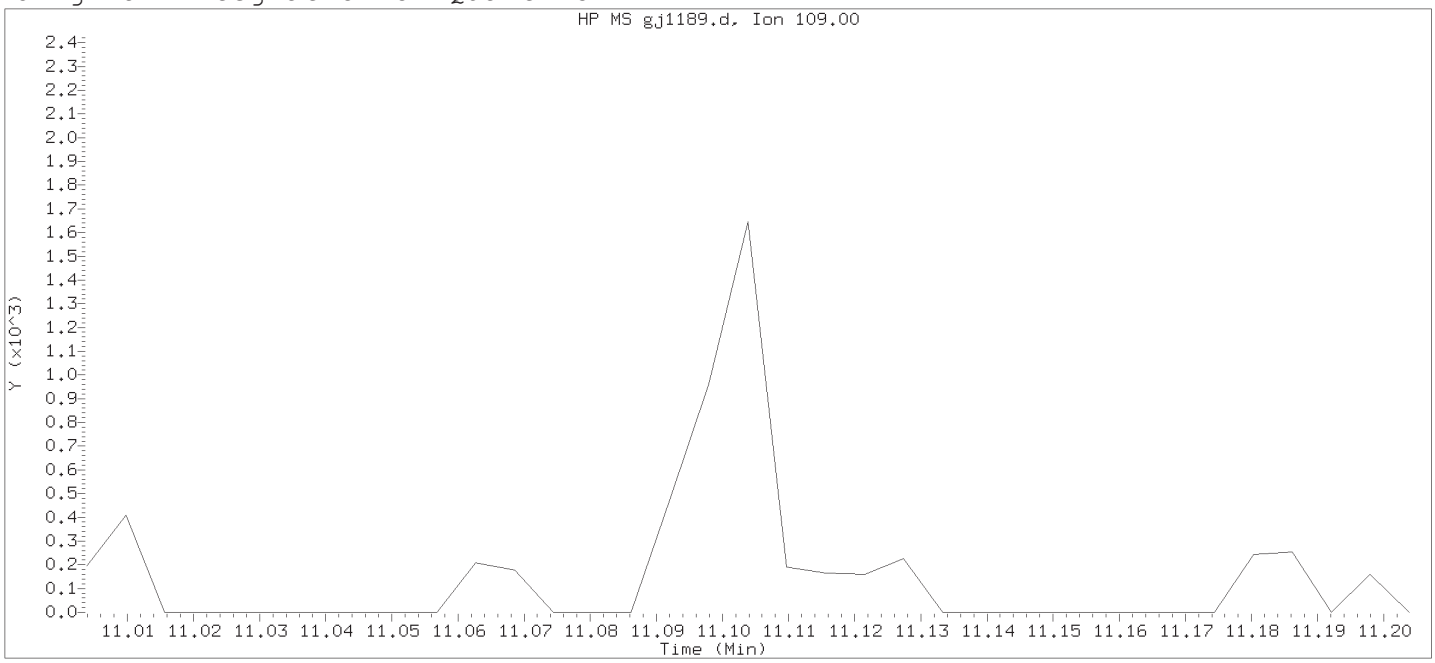
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

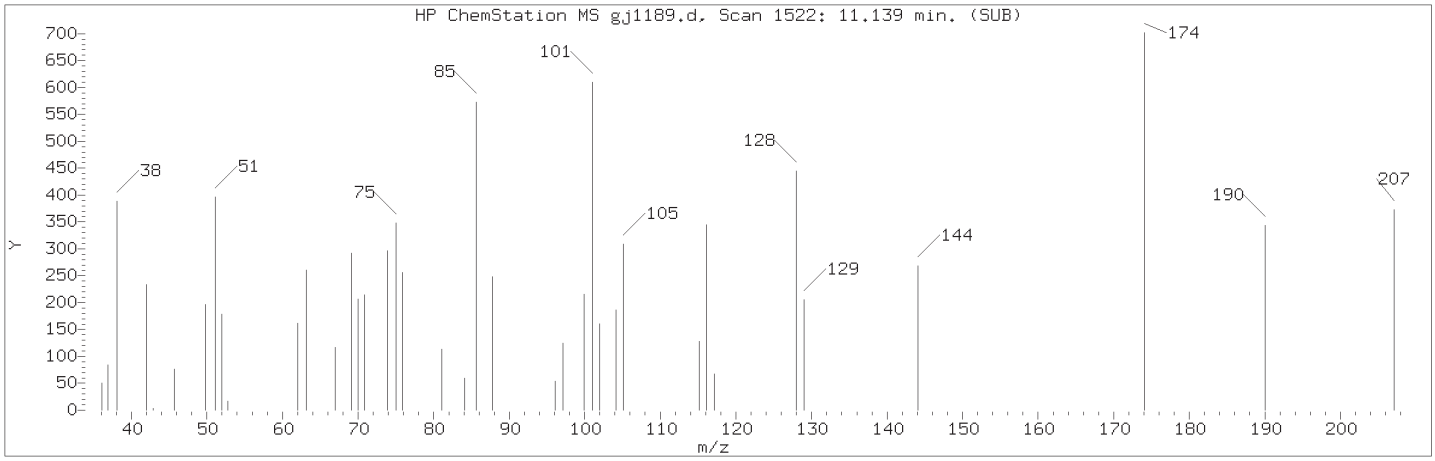
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

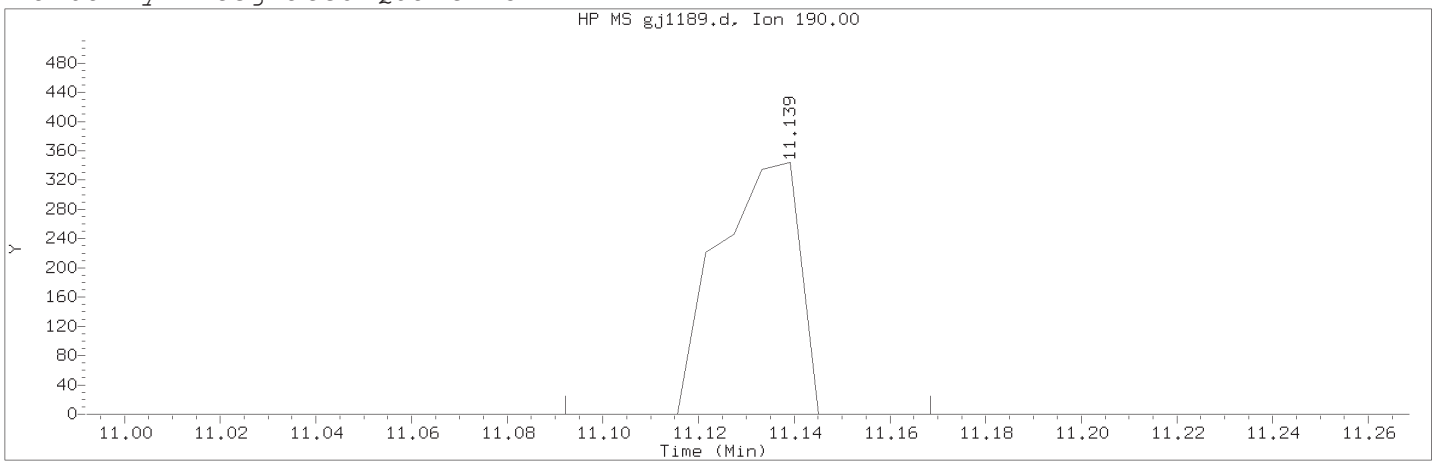
Compound Number : 167
Compound Name : Parathion
Expected RT (minutes) : 11.104
Quant Ion : 109.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

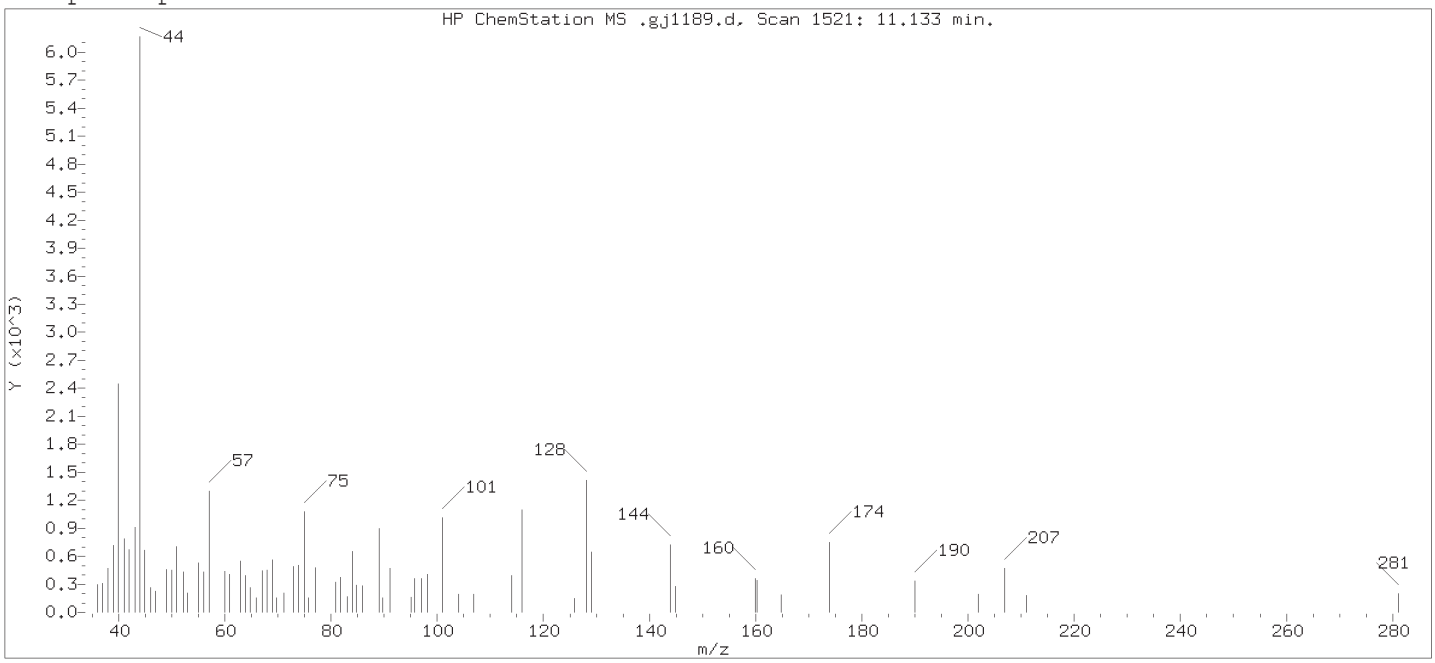
Compound Number : 168
Compound Name : 4-Nitroquinoline-1-oxide
Scan Number : 1522
Retention Time (minutes) : 11.139
Quant Ion : 190.00
Area (flag) : 404M
On-Column Amount (ng/ul) : 0.1324
Integration start scan : 1513 Integration stop scan: 1526
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

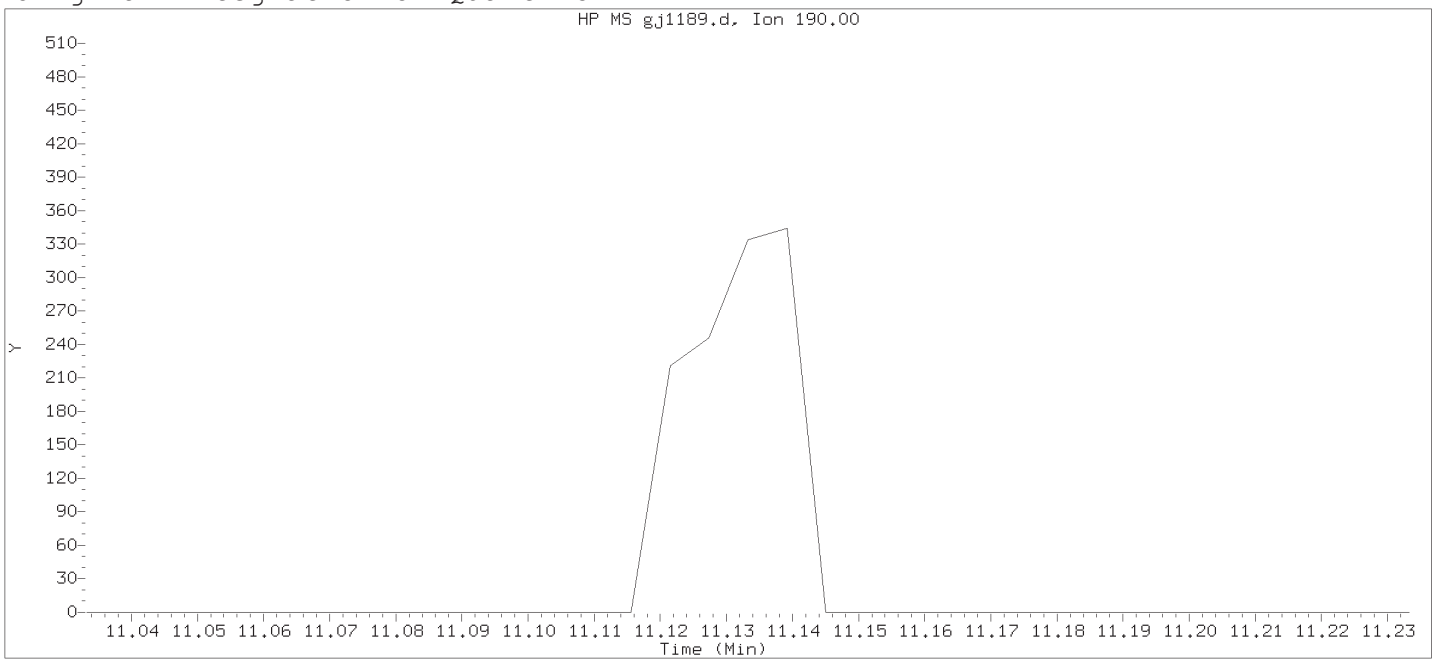
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

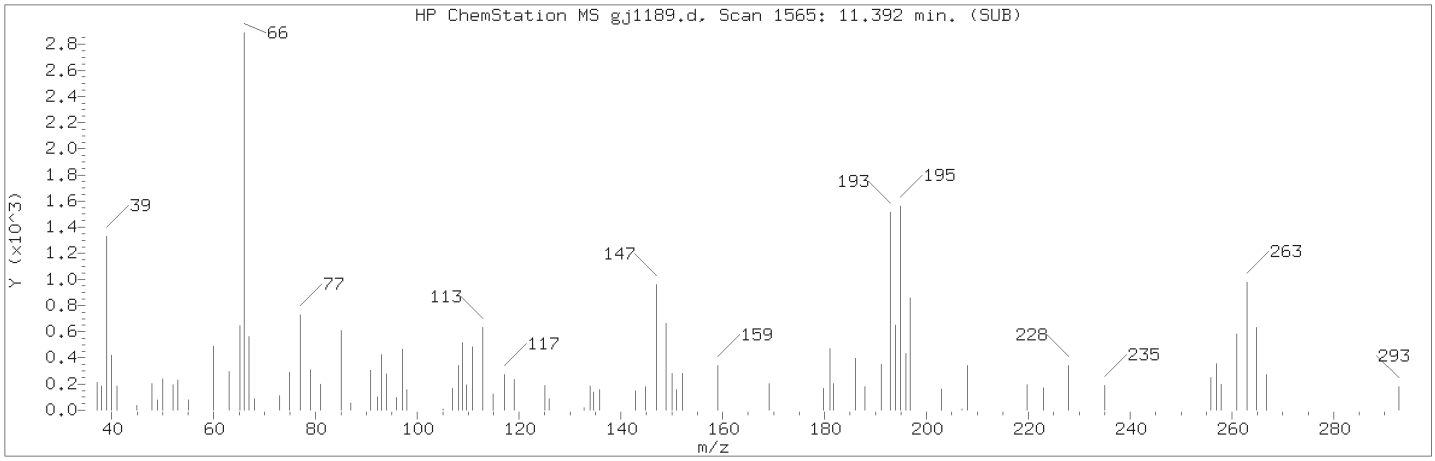
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

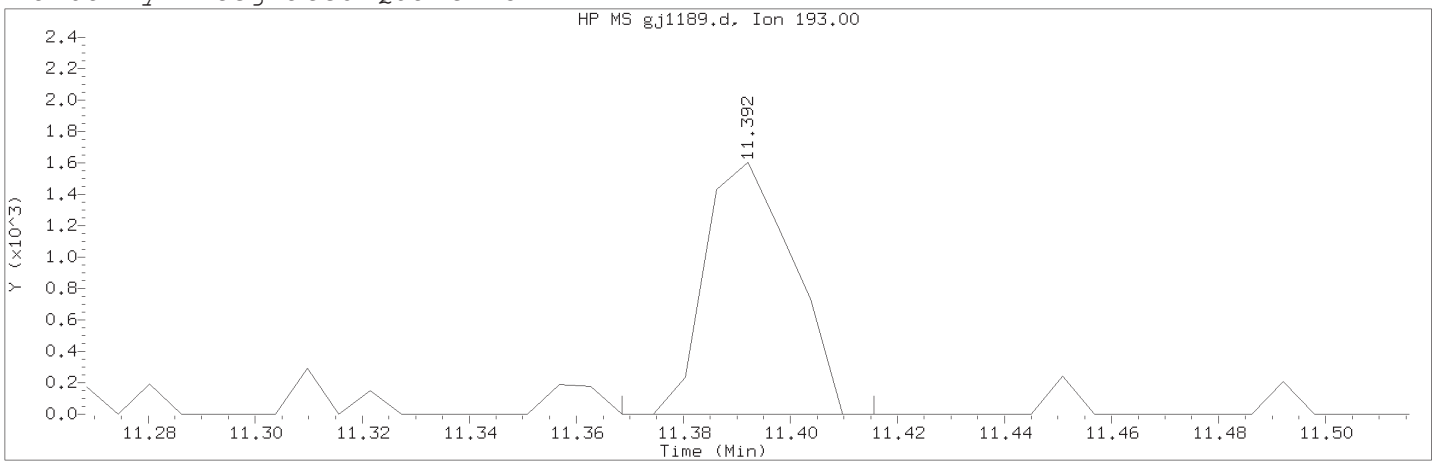
Compound Number : 168
Compound Name : 4-Nitroquinoline-1-oxide
Expected RT (minutes) : 11.133
Quant Ion : 190.00

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:40 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

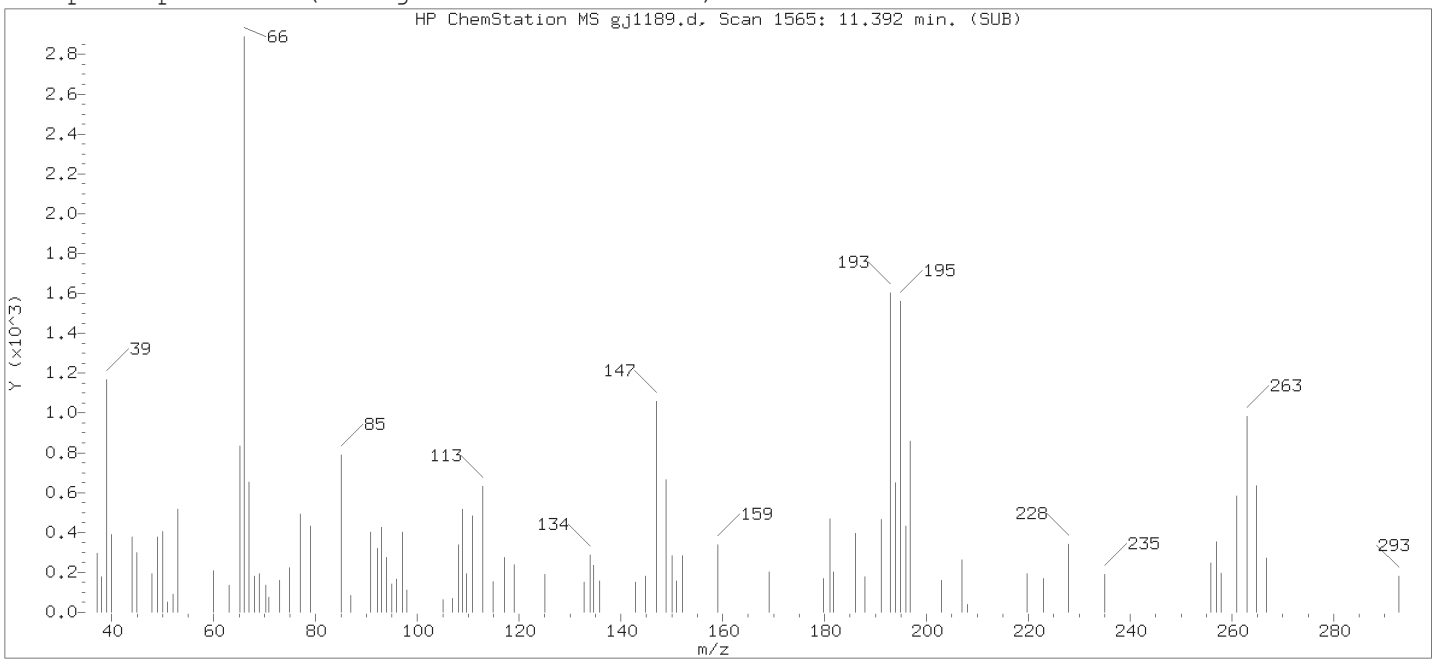
Compound Number : 171
Compound Name : Isodrin
Scan Number : 1565
Retention Time (minutes) : 11.392
Quant Ion : 193.00
Area (flag) : 1827M
On-Column Amount (ng/ul) : 0.4415
Integration start scan : 1560 Integration stop scan: 1568
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

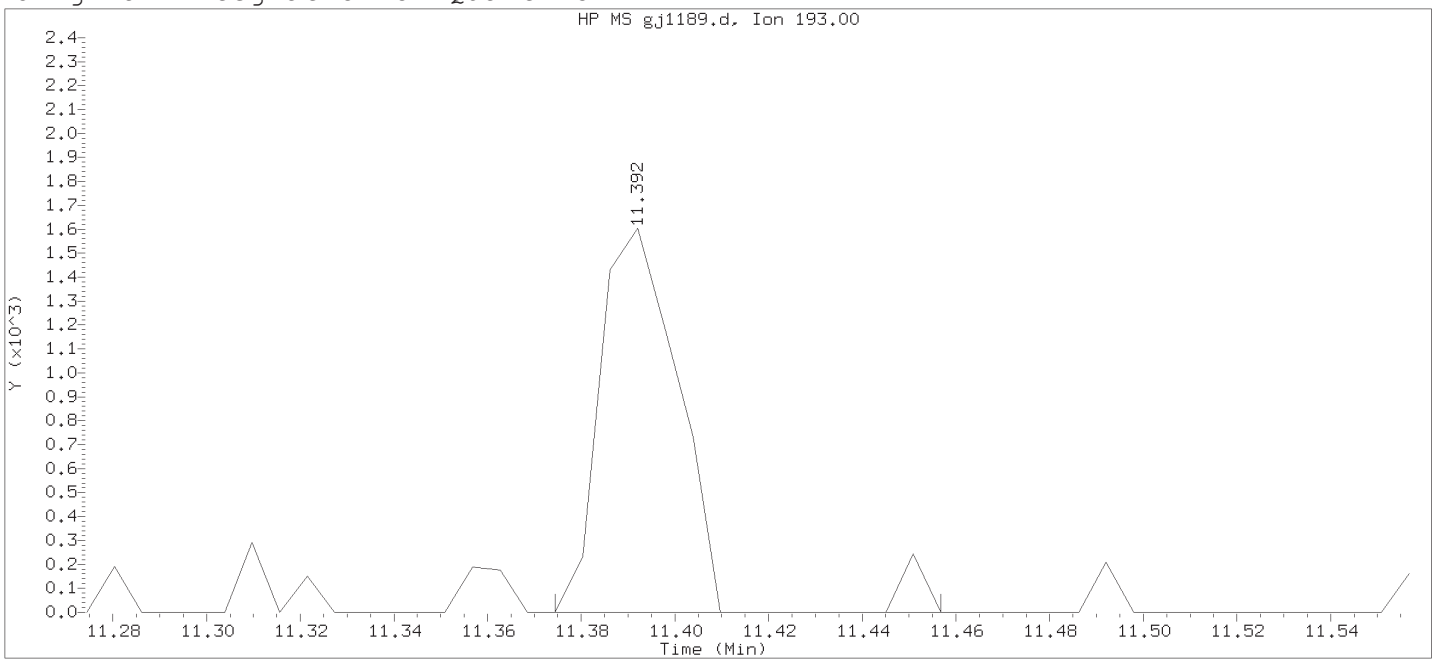
Analyst responsible for change: Digitally signed by Edward Monborne
on 10/21/2018 at 10:50.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



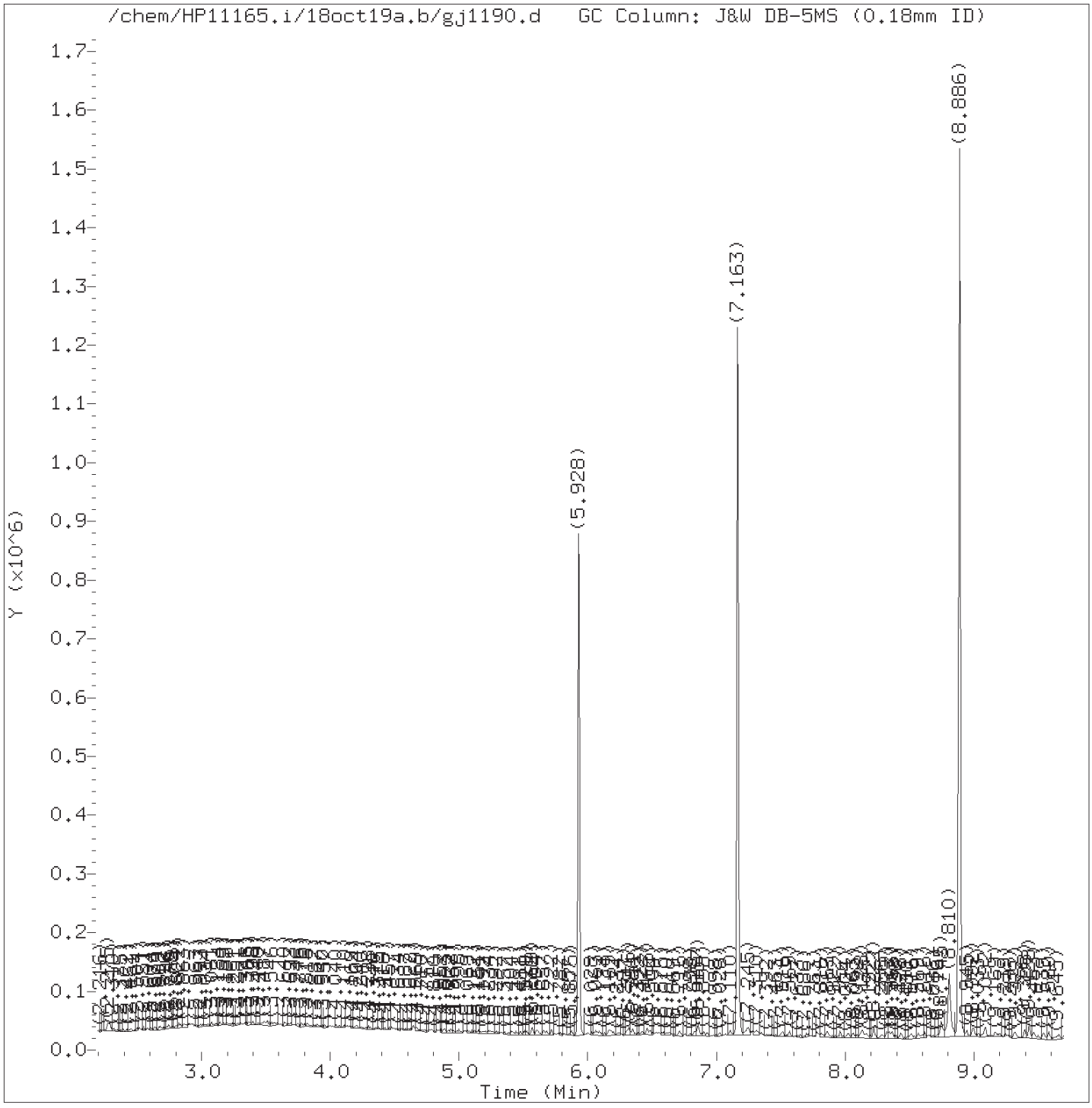
Data File: /chem/HP11165.i/18oct19a.b/gj1189.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 04:58 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:20 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compound Number	: 171		
Compound Name	: Isodrin		
Scan Number	: 1565		
Retention Time (minutes)	: 11.392		
Quant Ion	: 193.00		
Area	: 1913		
On-column Amount (ng/ul)	: 0.4623		
Integration start scan	: 1561	Integration stop scan:	1575
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 10/21/2018 at 10:50.
Target 3.5 esignature used 11/12/2018 10:50



Total Ion Chromatogram (TIC)

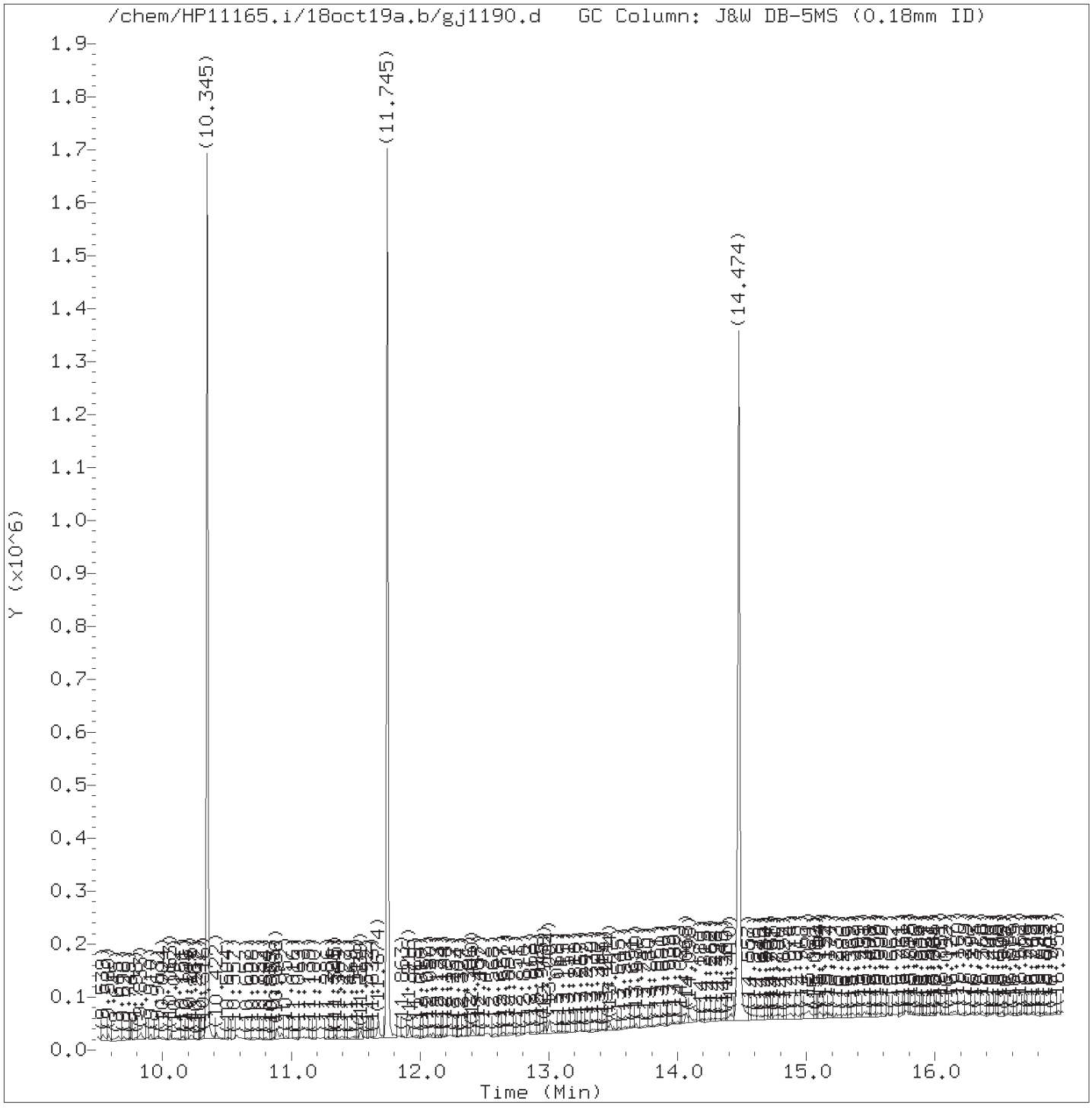
Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

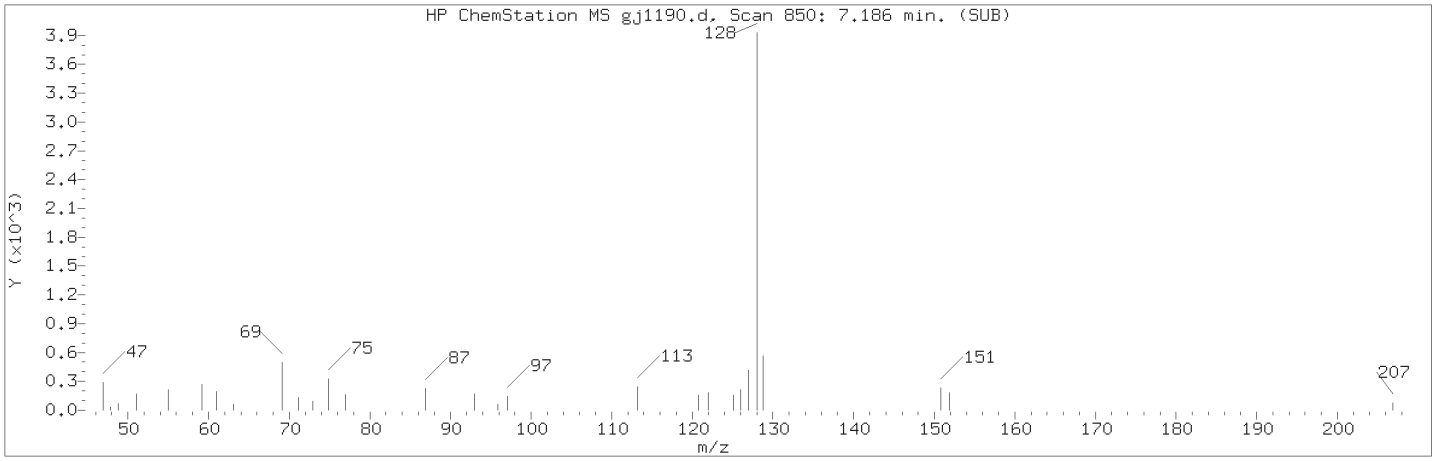
Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
25)*1,4-Dichlorobenzene-d4	(1)	5.928	152	127912	20.000
44)$Nitrobenzene-d5	(2)	6.463	82	3340	0.267
65)*Naphthalene-d8	(2)	7.163	136	558466	20.000
66) Naphthalene	(2)	7.186	128	3900M	0.123
83) 2-Methylnaphthalene	(2)	7.863	142	2328	0.106
84) 1-Methylnaphthalene	(2)	7.957	142	1547	0.074
93)$2-Fluorobiphenyl	(3)	8.222	172	4467	0.185
109) Acenaphthylene	(3)	8.745	152	2746	0.094
113)*Acenaphthene-d10	(3)	8.886	164	301862	20.000
114) Acenaphthene	(3)	8.922	153	1663	0.074
126) Fluorene	(3)	9.428	166	2596	0.102
145) Hexachlorobenzene	(4)	9.957	284	1017	0.142
153)*Phenanthrene-d10	(4)	10.345	188	595977	20.000
155) Phenanthrene	(4)	10.369	178	4169	0.110
157) Anthracene	(4)	10.422	178	3649	0.095
173) Fluoranthene	(4)	11.539	202	4604	0.119
175)*Pyrene-d10	(5)	11.745	212	539302	20.000
177) Pyrene	(5)	11.763	202	5998M	0.149
179)$Terphenyl-d14	(5)	11.916	244	5768	0.202
195) Benzo(a)anthracene	(5)	12.968	228	4228	0.119
196) Chrysene	(5)	13.010	228	5255	0.149
206) Benzo(b)fluoranthene	(6)	14.074	252	5371M	0.138
208) Benzo(k)fluoranthene	(6)	14.104	252	4321M	0.110
211) Benzo(a)pyrene	(6)	14.410	252	4047M	0.119
213)*Perylene-d12	(6)	14.474	264	574720	20.000
222) Total PAHs	(6)			65571	1.959
219) Indeno(1,2,3-cd)pyrene	(6)	15.757	276	3445M	0.092
220) Dibenz(a,h)anthracene	(6)	15.798	278	2461M	0.078
221) Benzo(g,h,i)perylene	(6)	16.156	276	3243M	0.105

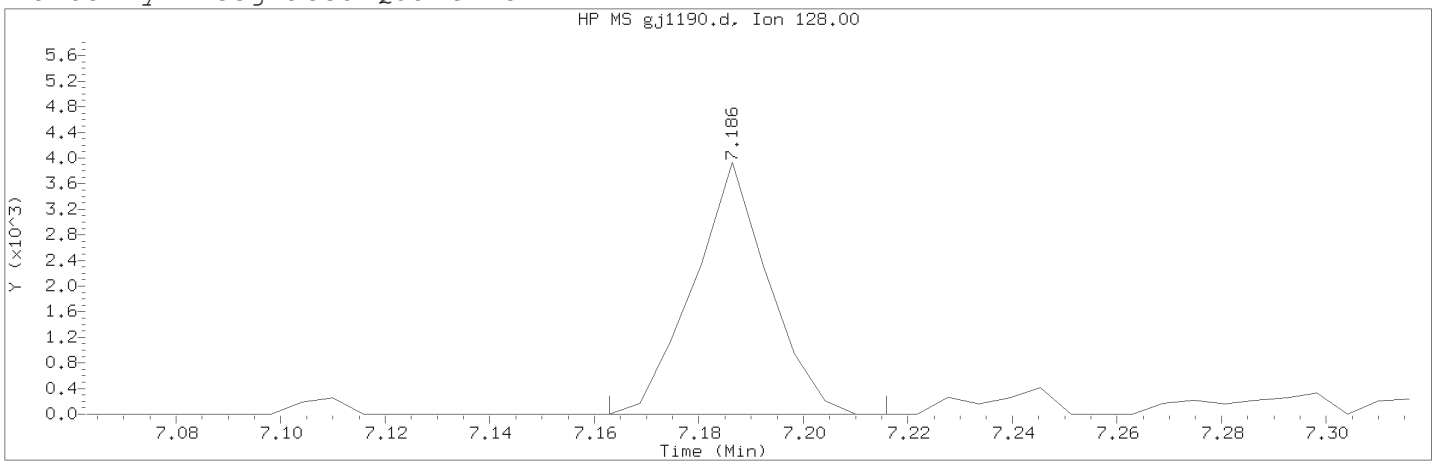
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

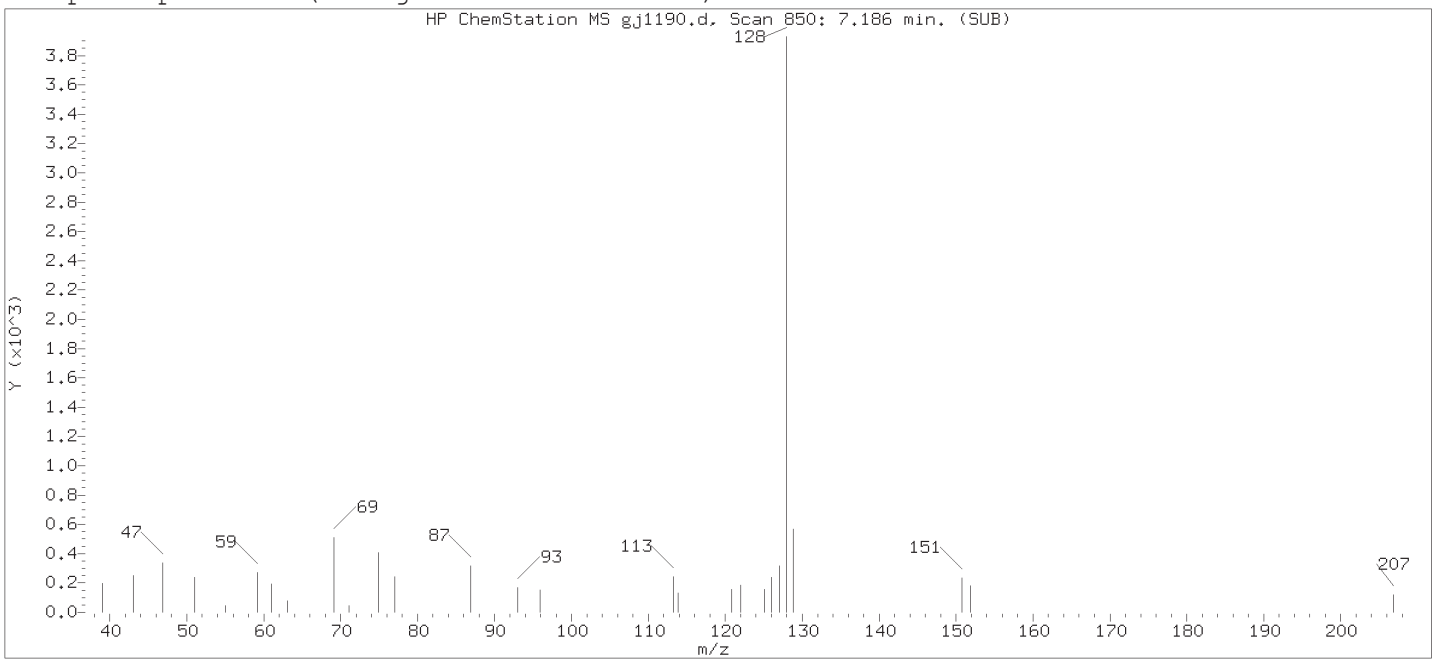
Compound Number	: 66		
Compound Name	: Naphthalene		
Scan Number	: 850		
Retention Time (minutes)	: 7.186		
Quant Ion	: 128.00		
Area (flag)	: 3900M		
On-Column Amount (ng/ul)	: 0.1232		
Integration start scan	: 845	Integration stop scan:	854
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

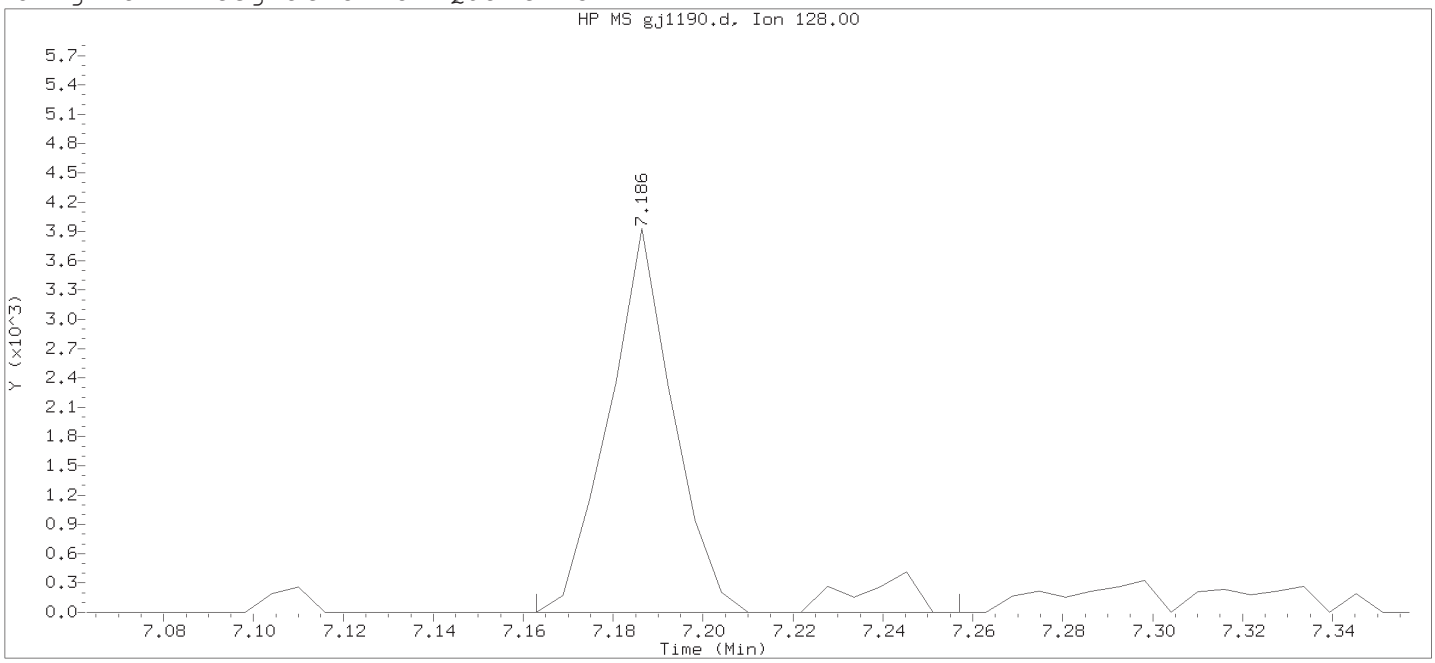
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

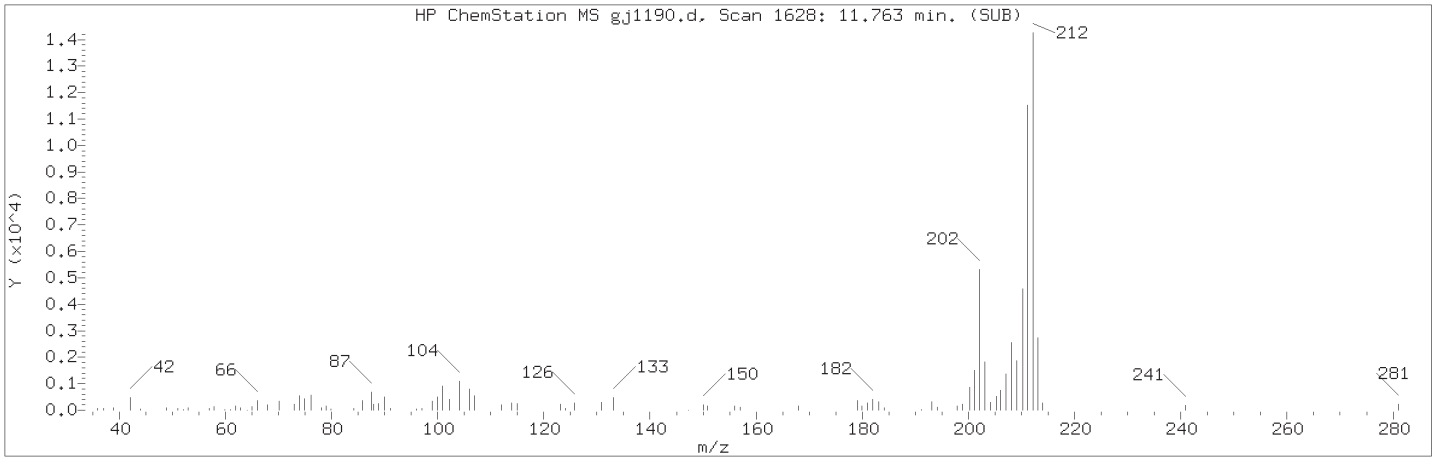
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

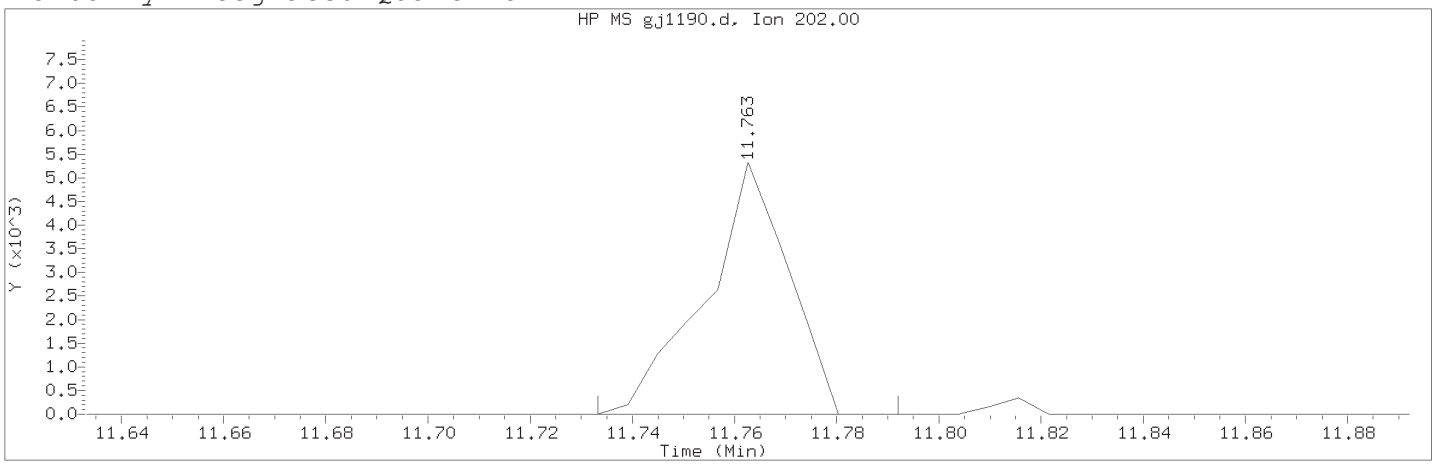
Compound Number	: 66		
Compound Name	: Naphthalene		
Scan Number	: 850		
Retention Time (minutes)	: 7.186		
Quant Ion	: 128.00		
Area	: 4286		
On-column Amount (ng/ul)	: 0.1354		
Integration start scan	: 845	Integration stop scan:	861
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: 12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

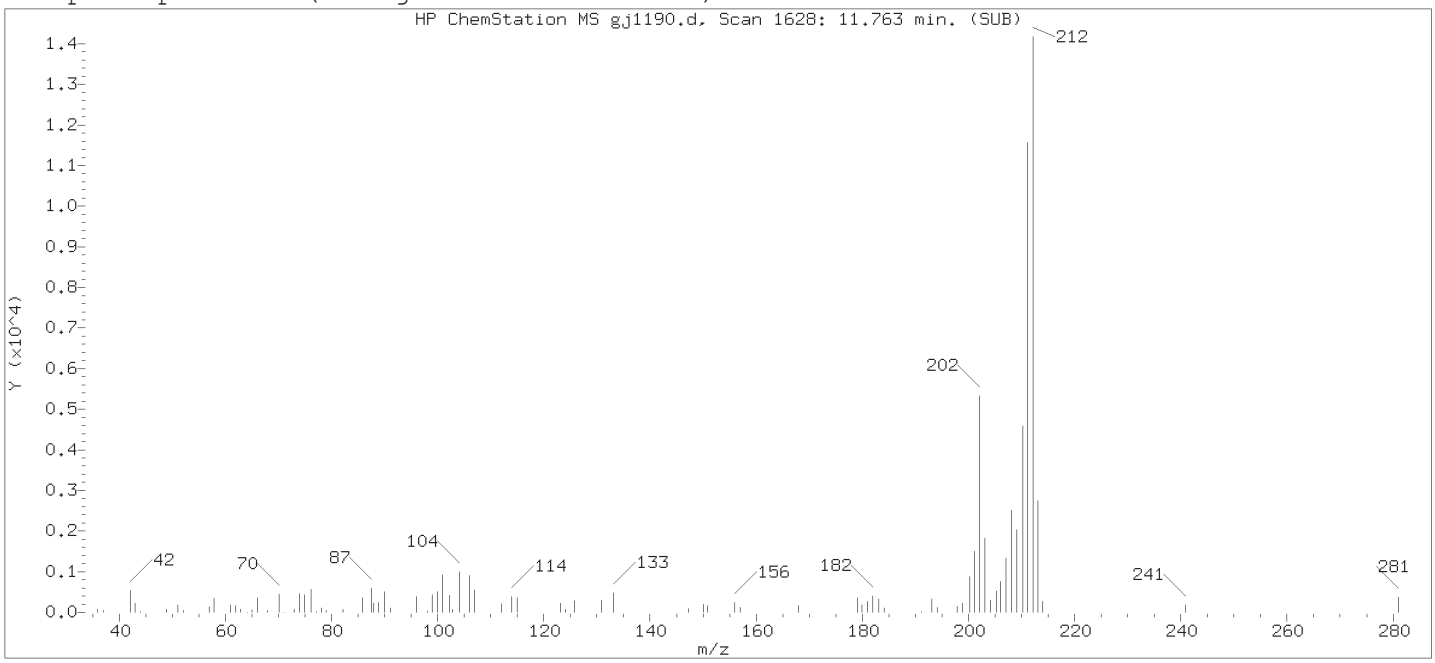
Compound Number	: 177		
Compound Name	: Pyrene		
Scan Number	: 1628		
Retention Time (minutes)	: 11.763		
Quant Ion	: 202.00		
Area (flag)	: 5998M		
On-Column Amount (ng/ul)	: 0.1488		
Integration start scan	: 1622	Integration stop scan:	1632
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

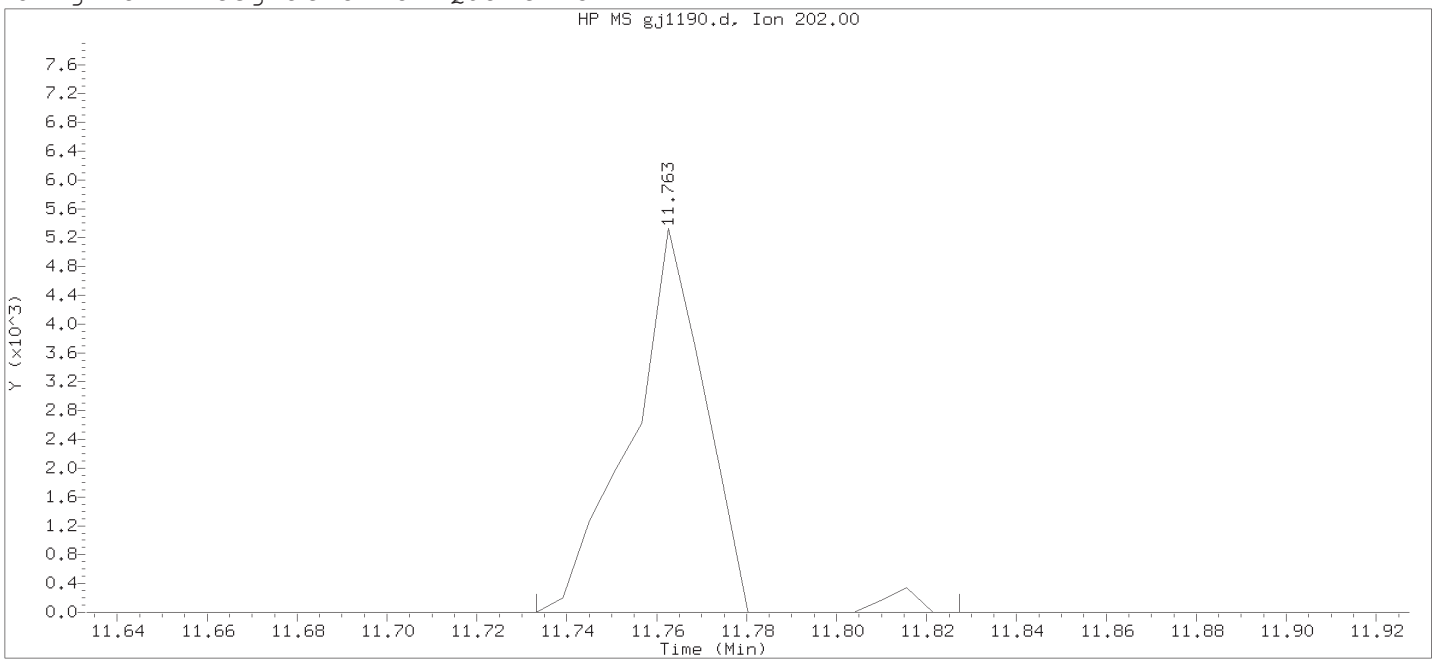
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

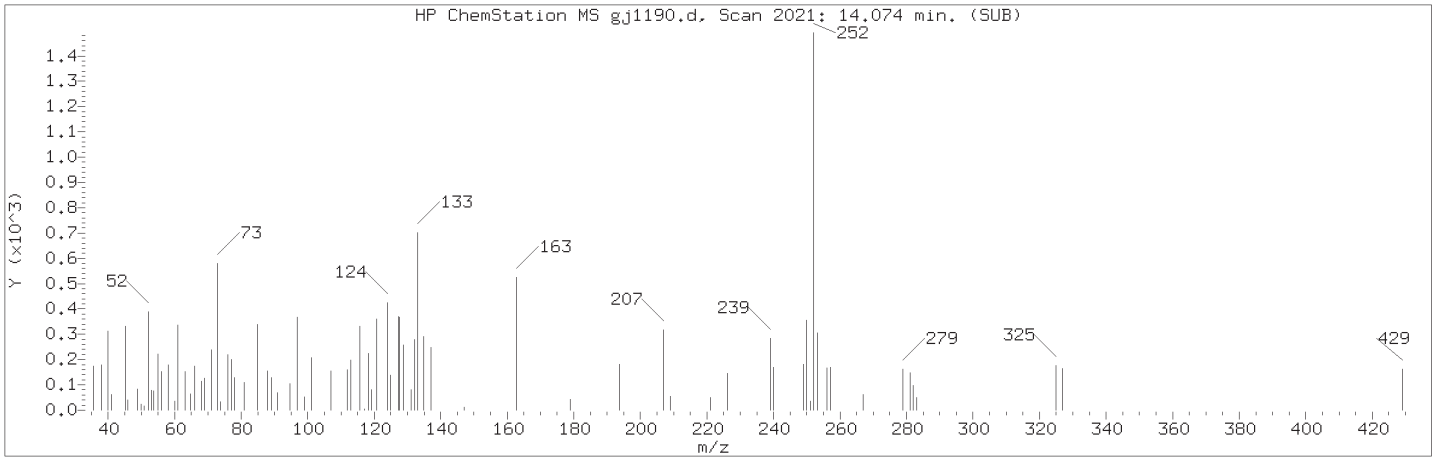
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

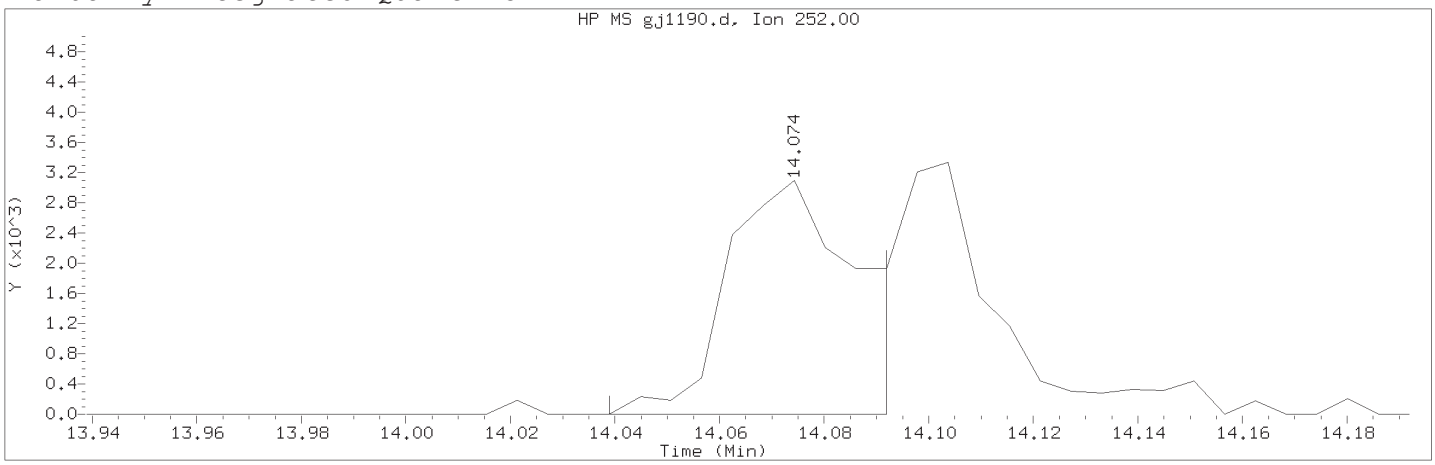
Compound Number	: 177		
Compound Name	: Pyrene		
Scan Number	: 1628		
Retention Time (minutes)	: 11.763		
Quant Ion	: 202.00		
Area	: 6176		
On-column Amount (ng/ul)	: 0.1532		
Integration start scan	: 1622	Integration stop scan:	1638
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used 11 Feb 2014

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

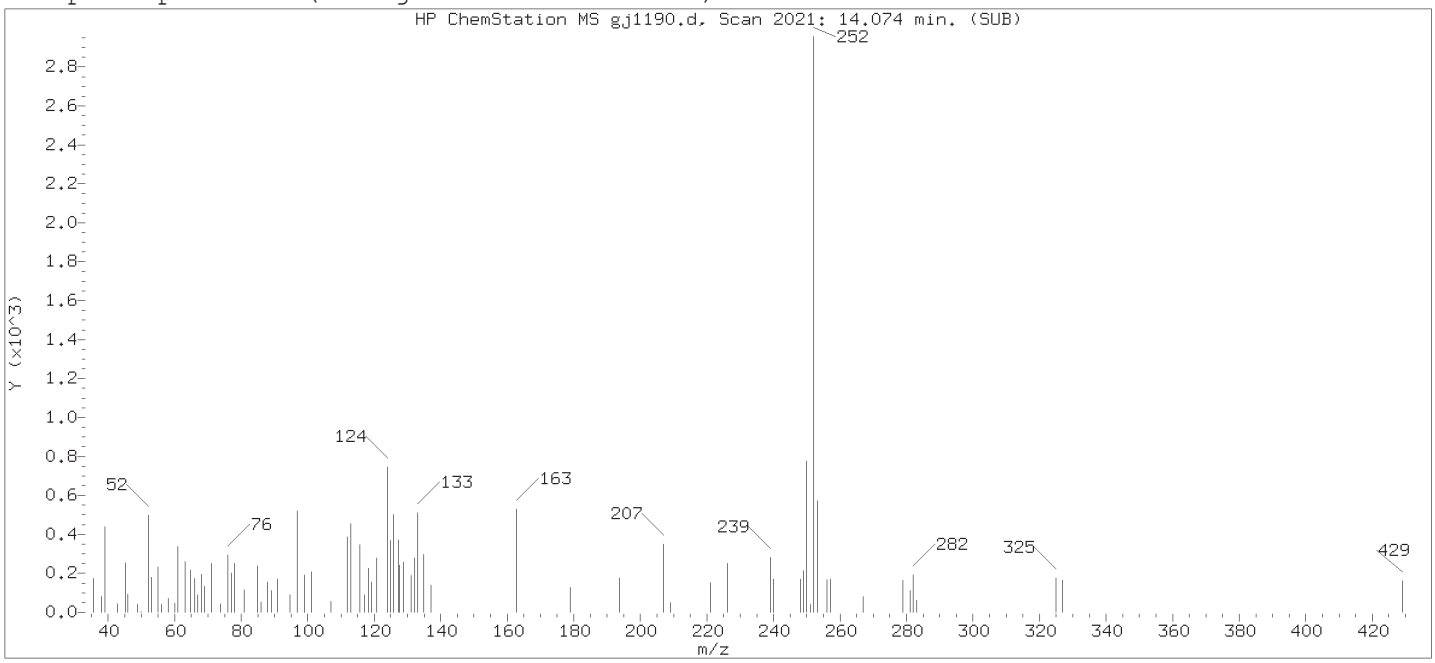
Compound Number	: 206		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 2021		
Retention Time (minutes)	: 14.074		
Quant Ion	: 252.00		
Area (flag)	: 5371M		
On-Column Amount (ng/ul)	: 0.1381		
Integration start scan	: 2014	Integration stop scan:	2023
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

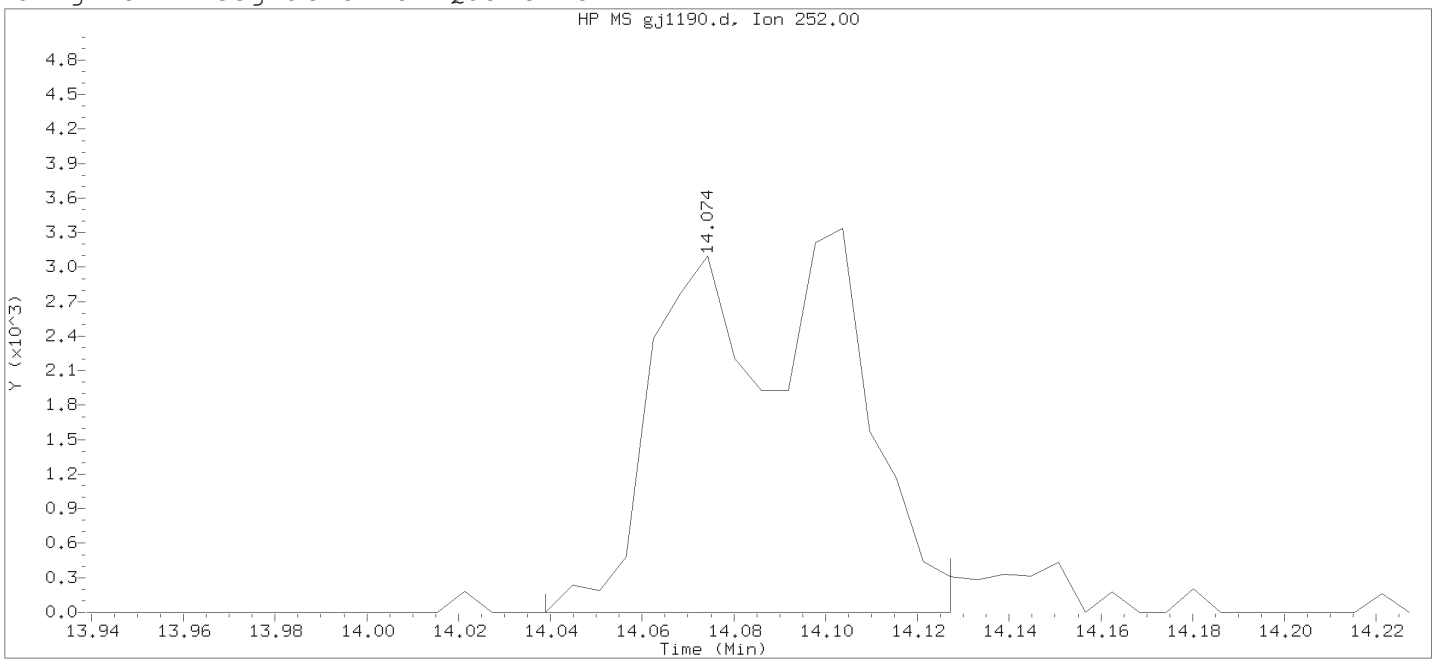
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

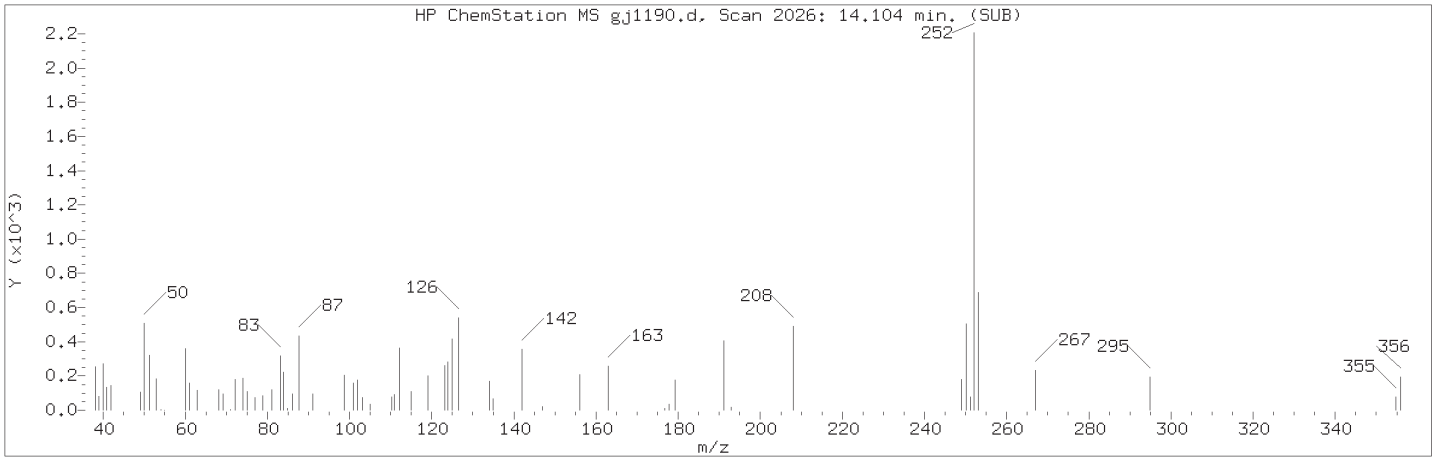
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

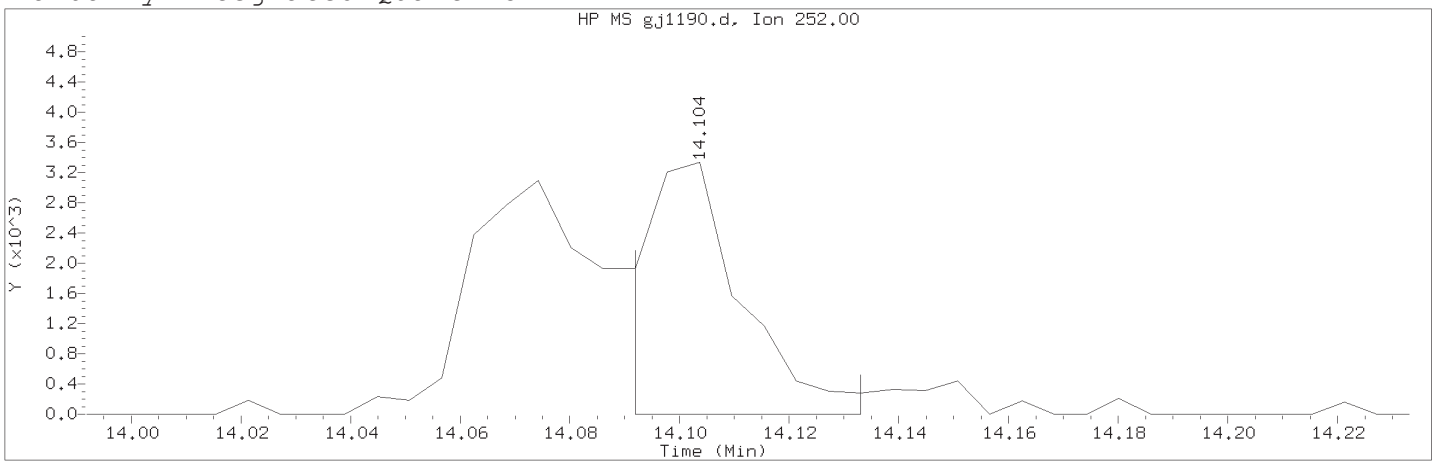
Compound Number	: 206		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 2021		
Retention Time (minutes)	: 14.074		
Quant Ion	: 252.00		
Area	: 8857		
On-column Amount (ng/ul)	: 0.2277		
Integration start scan	: 2014	Integration stop scan:	2029
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used: D12 Reason: I ...

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

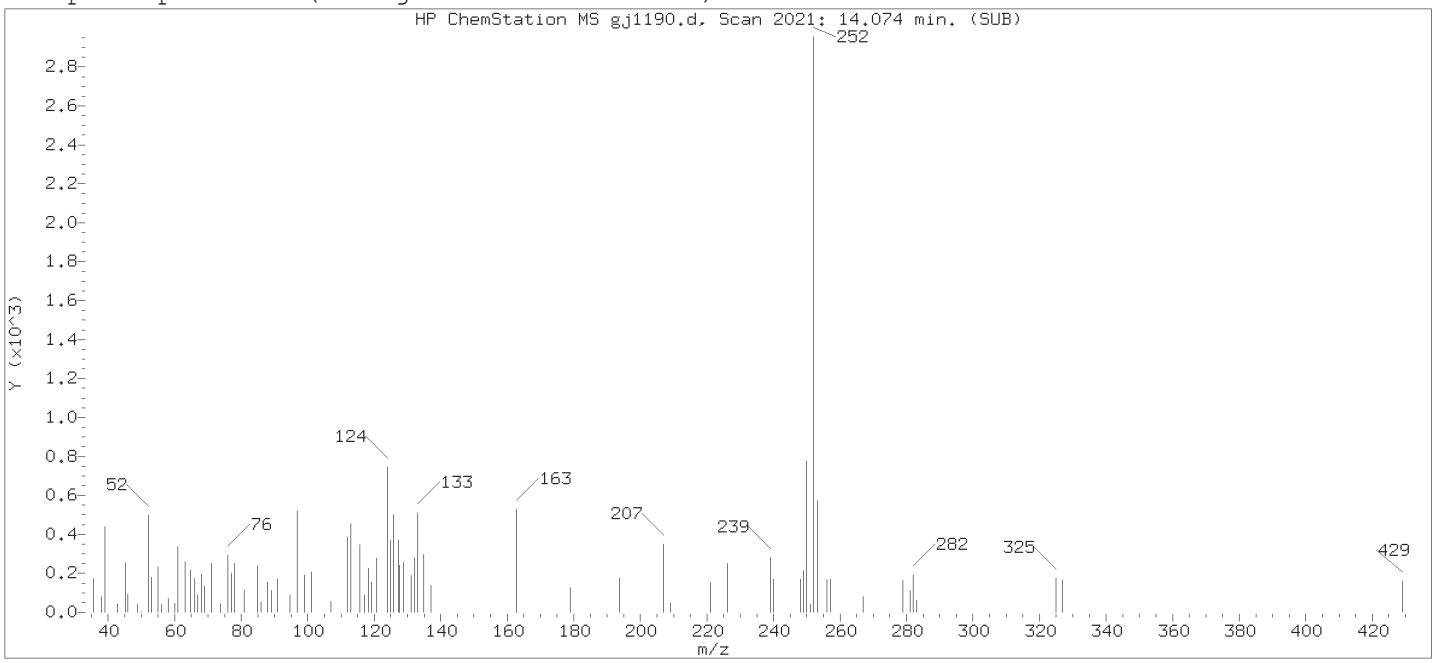
Compound Number : 208
Compound Name : Benzo(k)fluoranthene
Scan Number : 2026
Retention Time (minutes) : 14.104
Quant Ion : 252.00
Area (flag) : 4321M
On-Column Amount (ng/ul) : 0.1103
Integration start scan : 2023 Integration stop scan: 2030
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

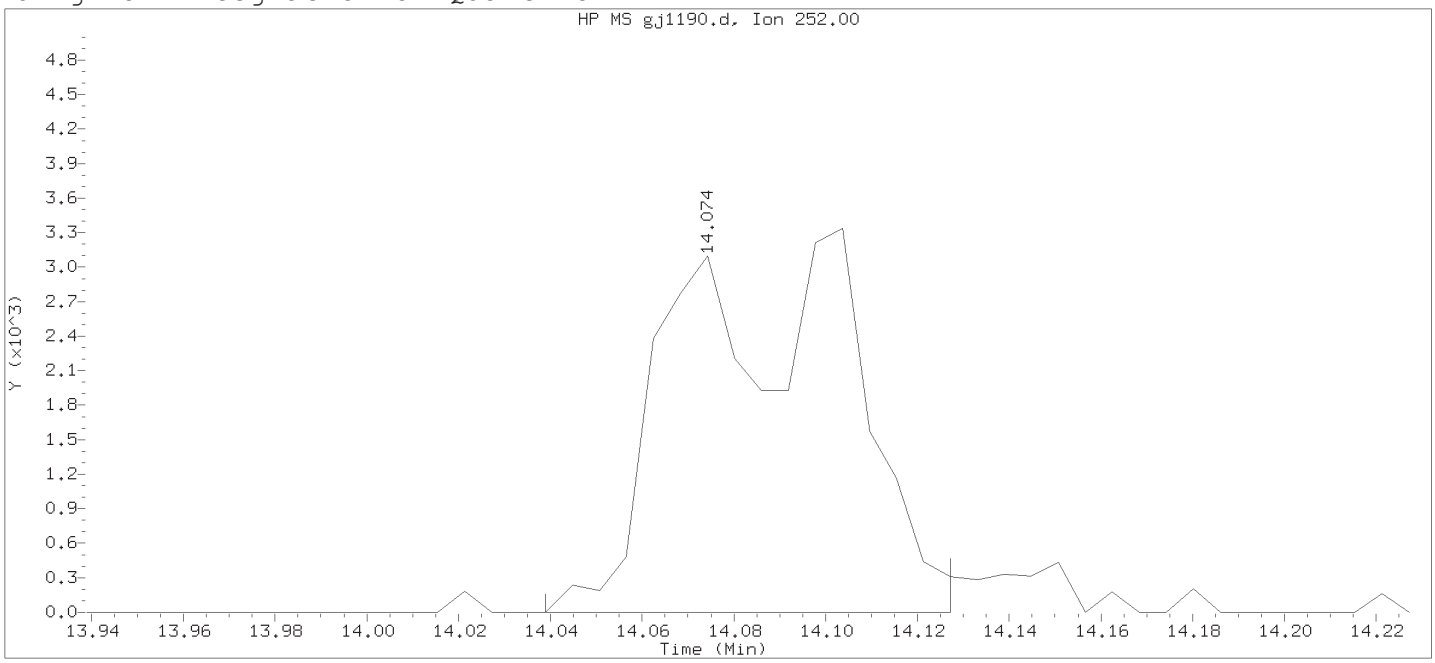
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

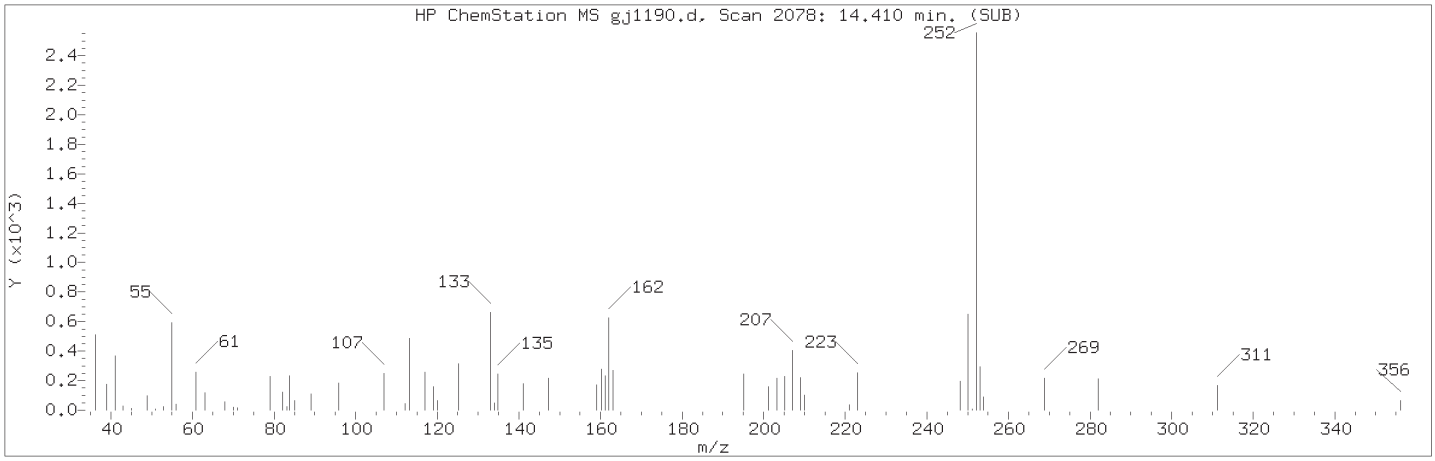
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

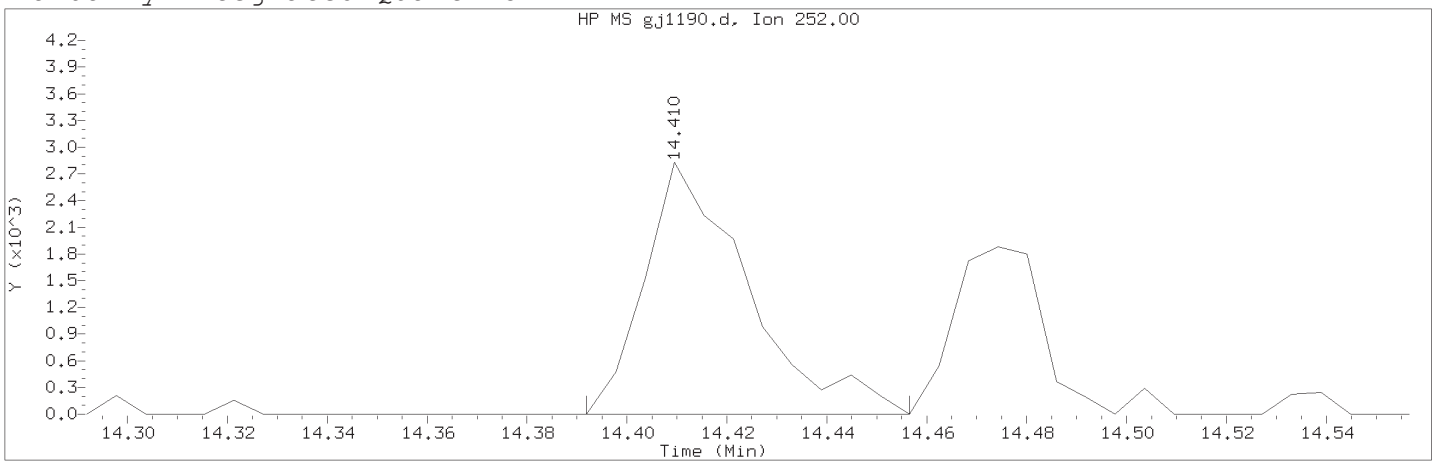
Compound Number	: 208		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 2021		
Retention Time (minutes)	: 14.074		
Quant Ion	: 252.00		
Area	: 8857		
On-column Amount (ng/ul)	: 0.2260		
Integration start scan	: 2014	Integration stop scan:	2029
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used. Reason: I approve this

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

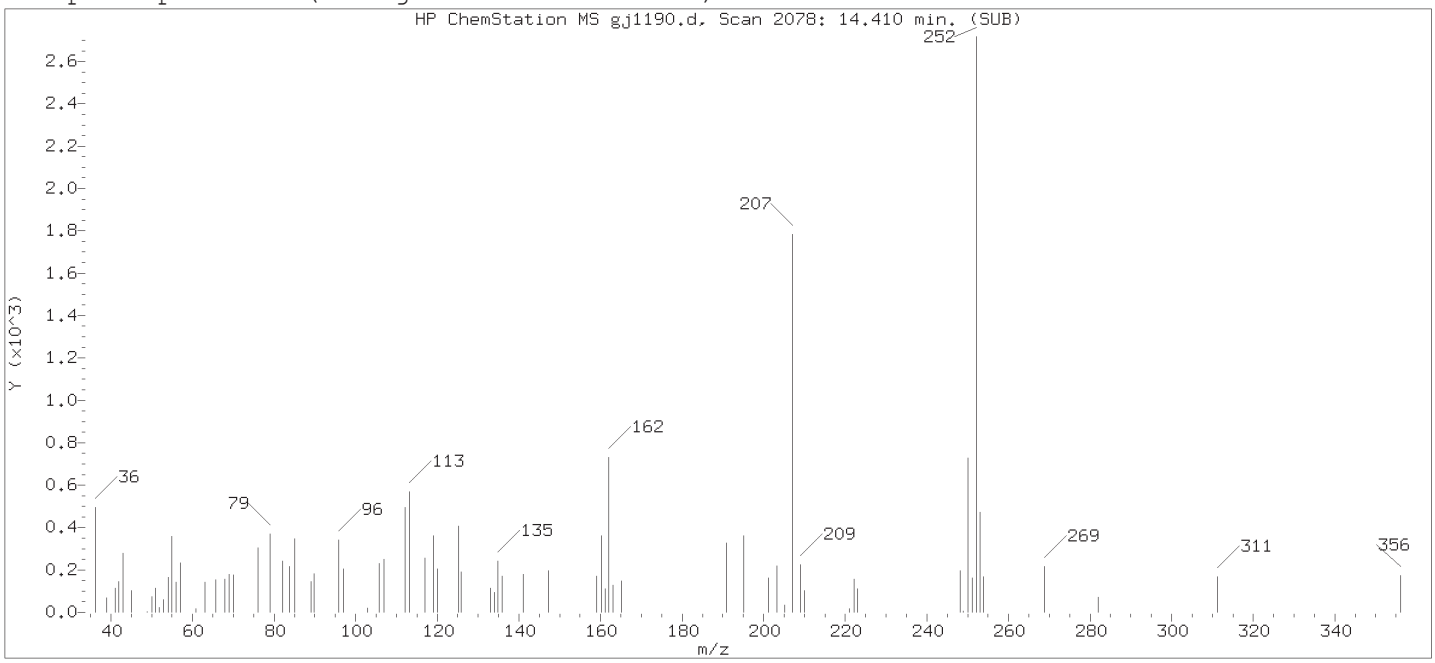
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2078		
Retention Time (minutes)	: 14.410		
Quant Ion	: 252.00		
Area (flag)	: 4047M		
On-Column Amount (ng/ul)	: 0.1190		
Integration start scan	: 2074	Integration stop scan:	2085
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

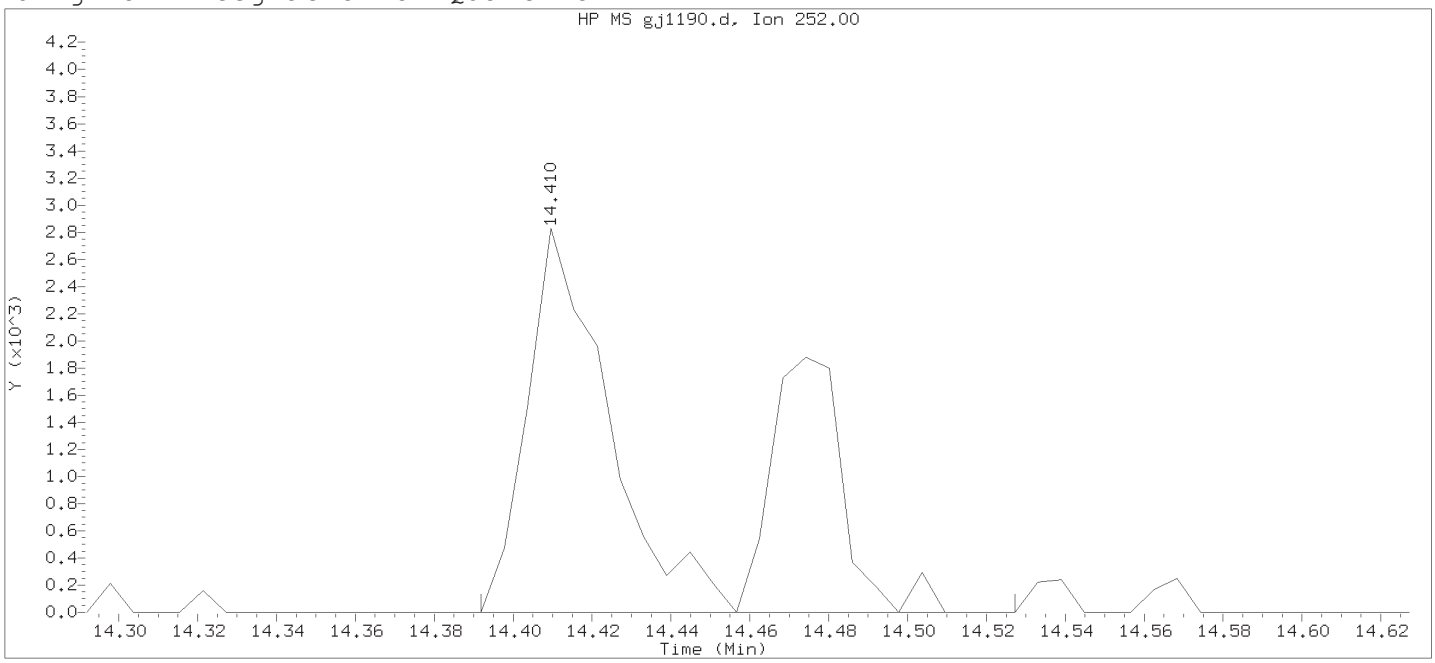
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

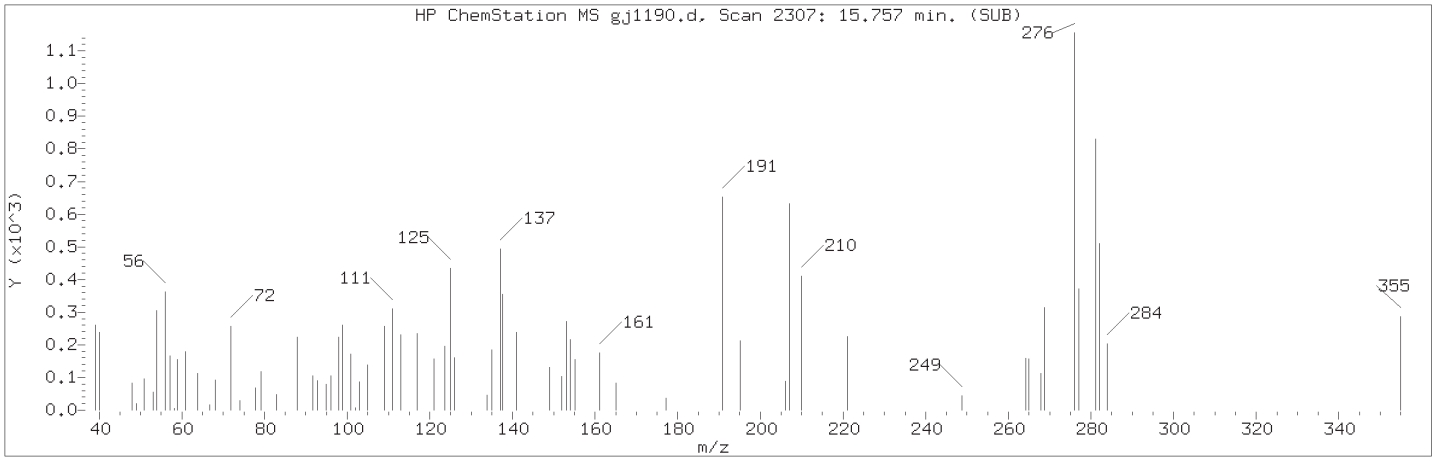
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

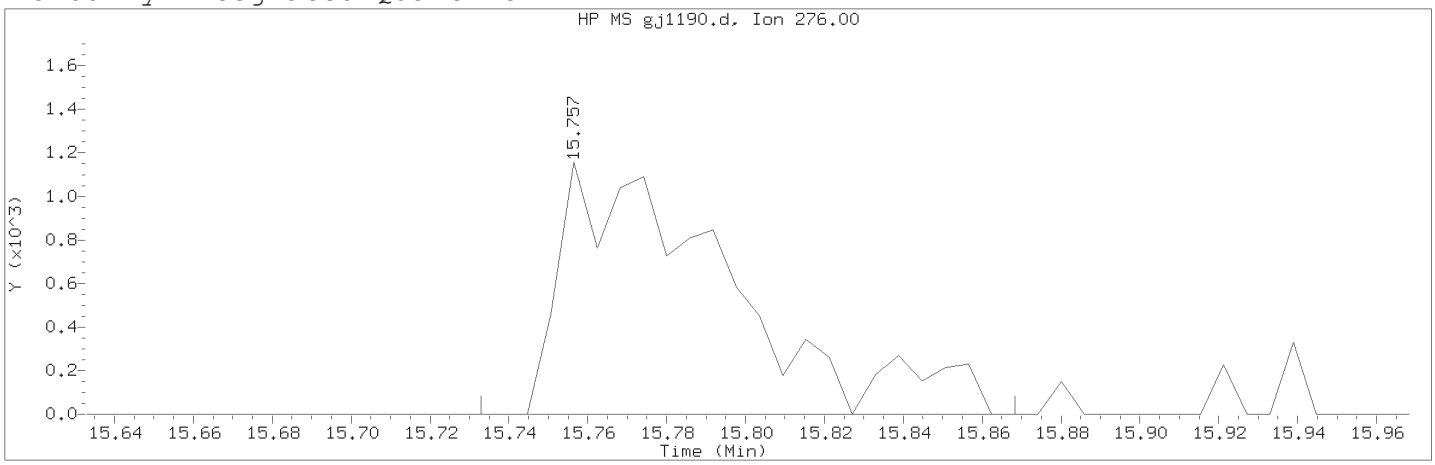
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2078		
Retention Time (minutes)	: 14.410		
Quant Ion	: 252.00		
Area	: 6447		
On-column Amount (ng/ul)	: 0.2029		
Integration start scan	: 2074	Integration stop scan:	2097
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used 11 reason(s).

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

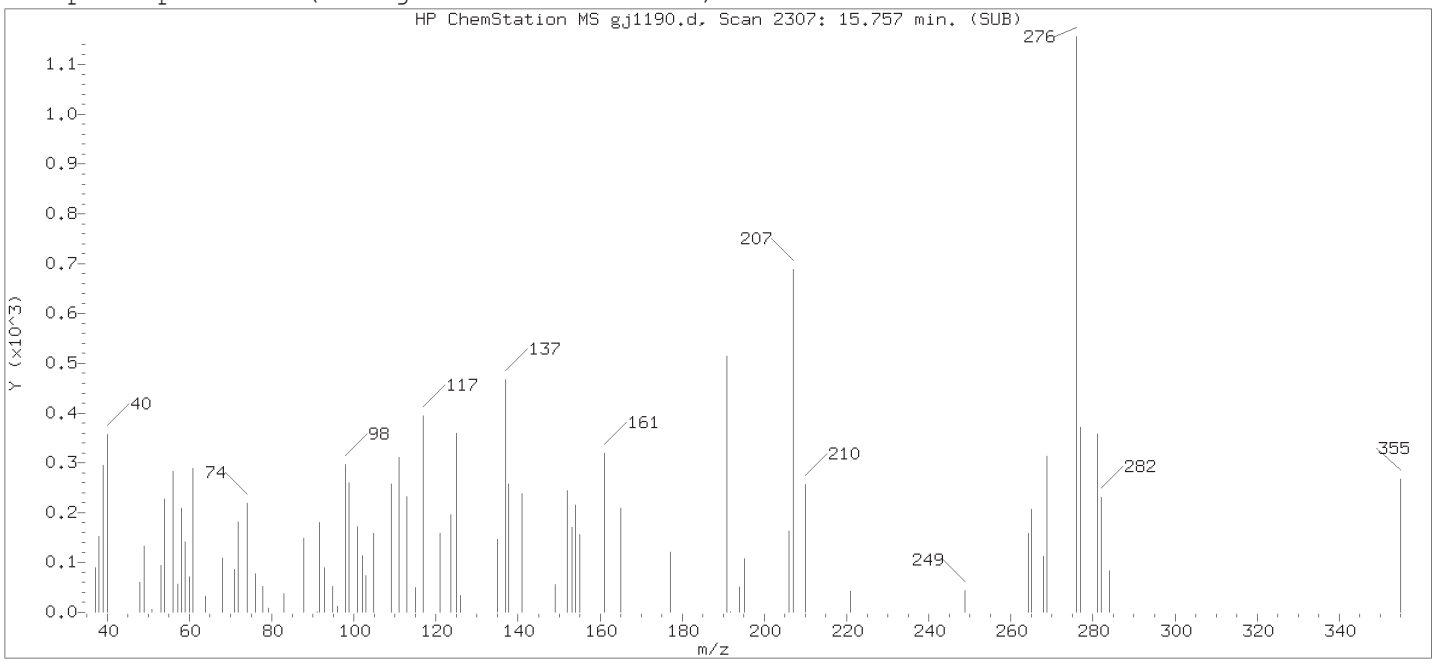
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2307		
Retention Time (minutes)	: 15.757		
Quant Ion	: 276.00		
Area (flag)	: 3445M		
On-Column Amount (ng/ul)	: 0.0924		
Integration start scan	: 2302	Integration stop scan:	2325
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

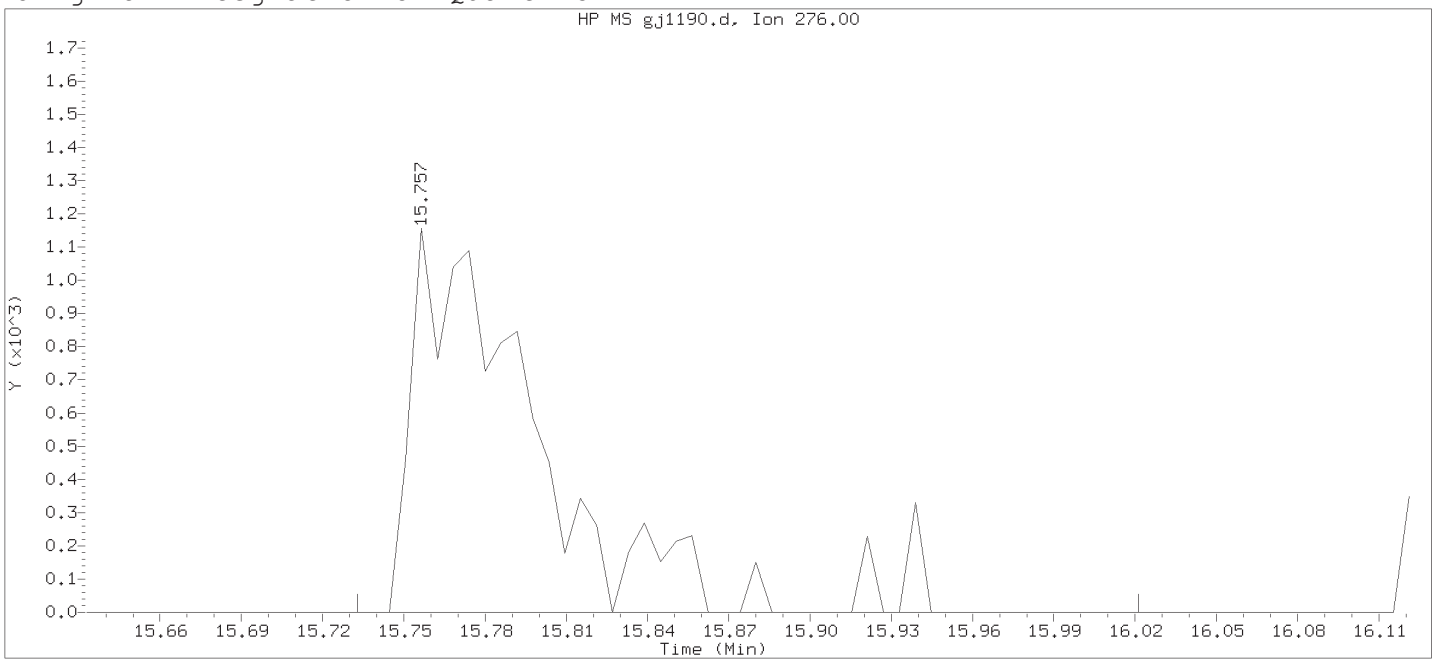
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

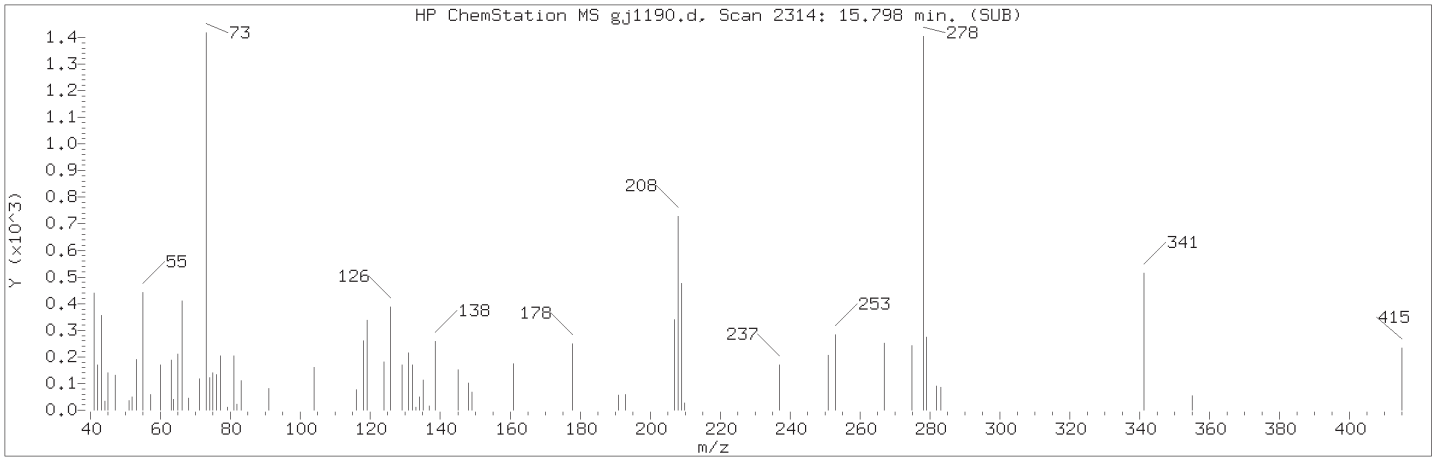
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

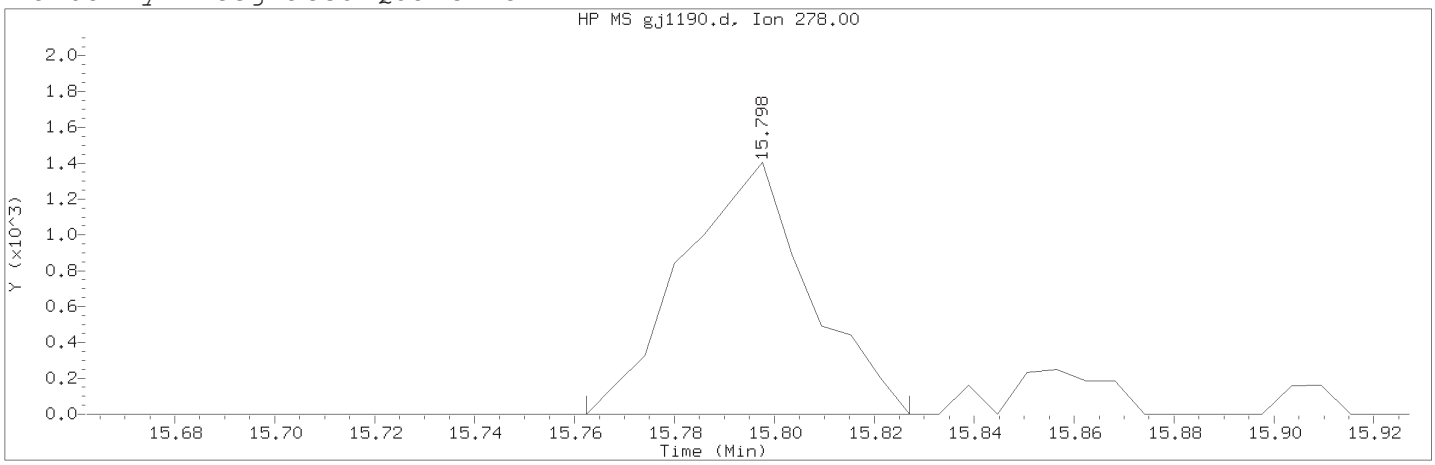
Compound Number	:	219
Compound Name	:	Indeno(1,2,3-cd)pyrene
Scan Number	:	2307
Retention Time (minutes)	:	15.757
Quant Ion	:	276.00
Area	:	3695
On-column Amount (ng/ul)	:	0.0992
Integration start scan	:	2302 Integration stop scan: 2351
Y at integration start	:	0 Y at integration end: 0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used: D12 Page 1982

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

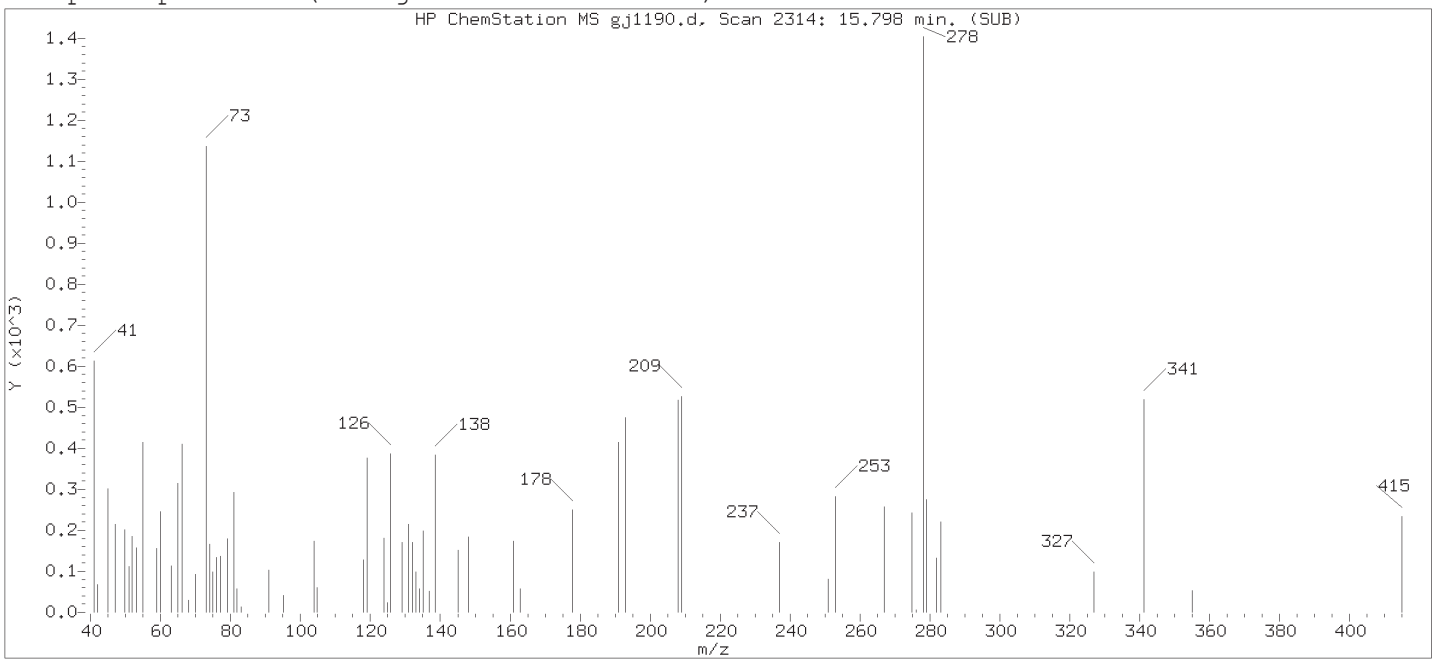
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2314		
Retention Time (minutes)	: 15.798		
Quant Ion	: 278.00		
Area (flag)	: 2461M		
On-Column Amount (ng/ul)	: 0.0778		
Integration start scan	: 2307	Integration stop scan:	2318
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

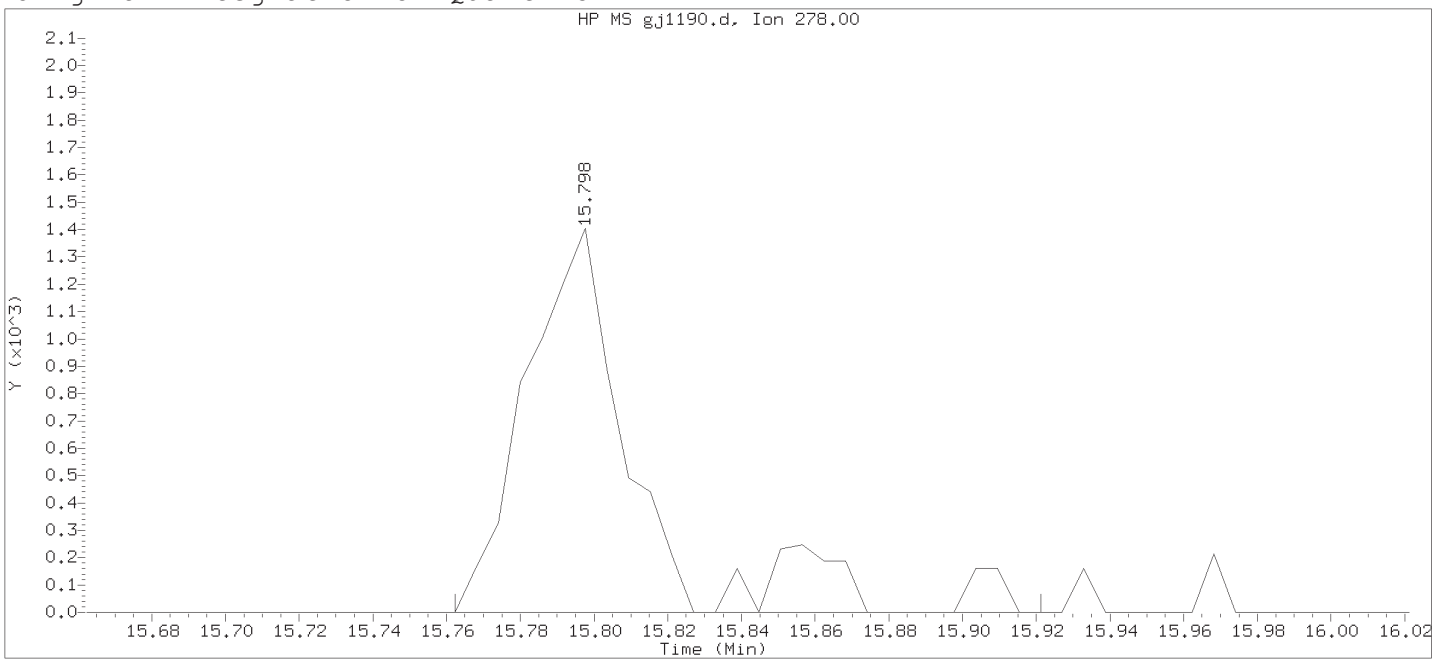
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

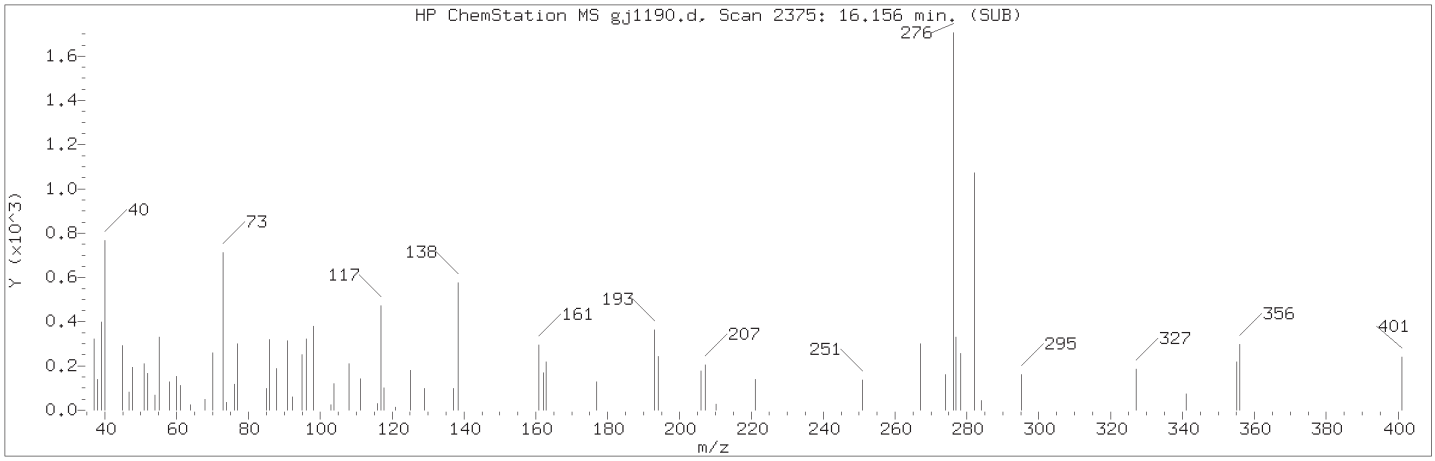
Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

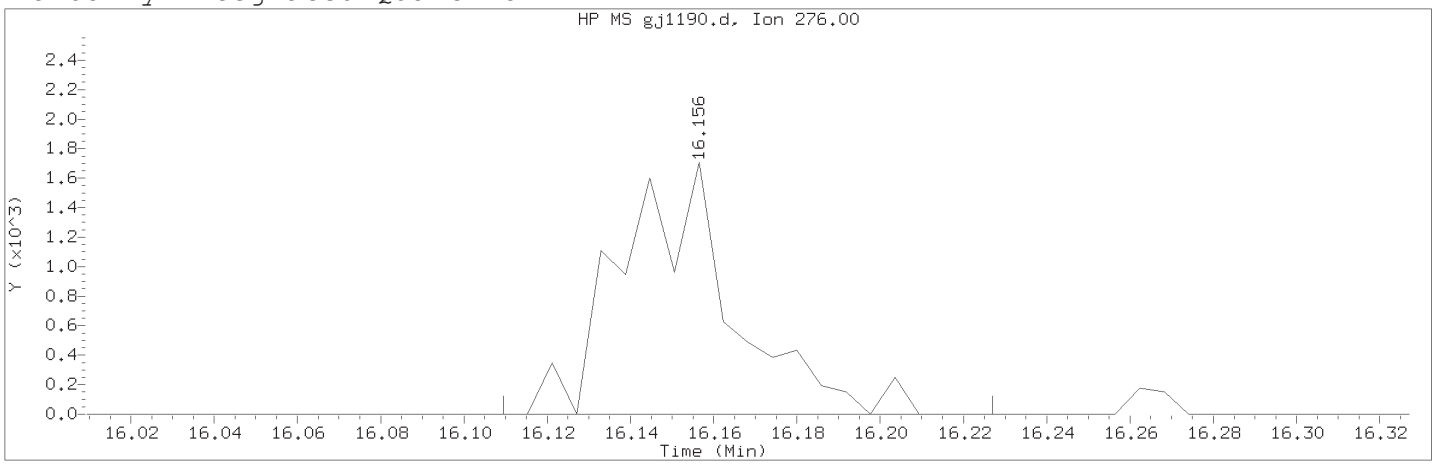
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2314		
Retention Time (minutes)	: 15.798		
Quant Ion	: 278.00		
Area	: 2933		
On-column Amount (ng/ul)	: 0.0927		
Integration start scan	: 2307	Integration stop scan:	2334
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used: D12 Reason: I

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 21-Oct-2018 10:41 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

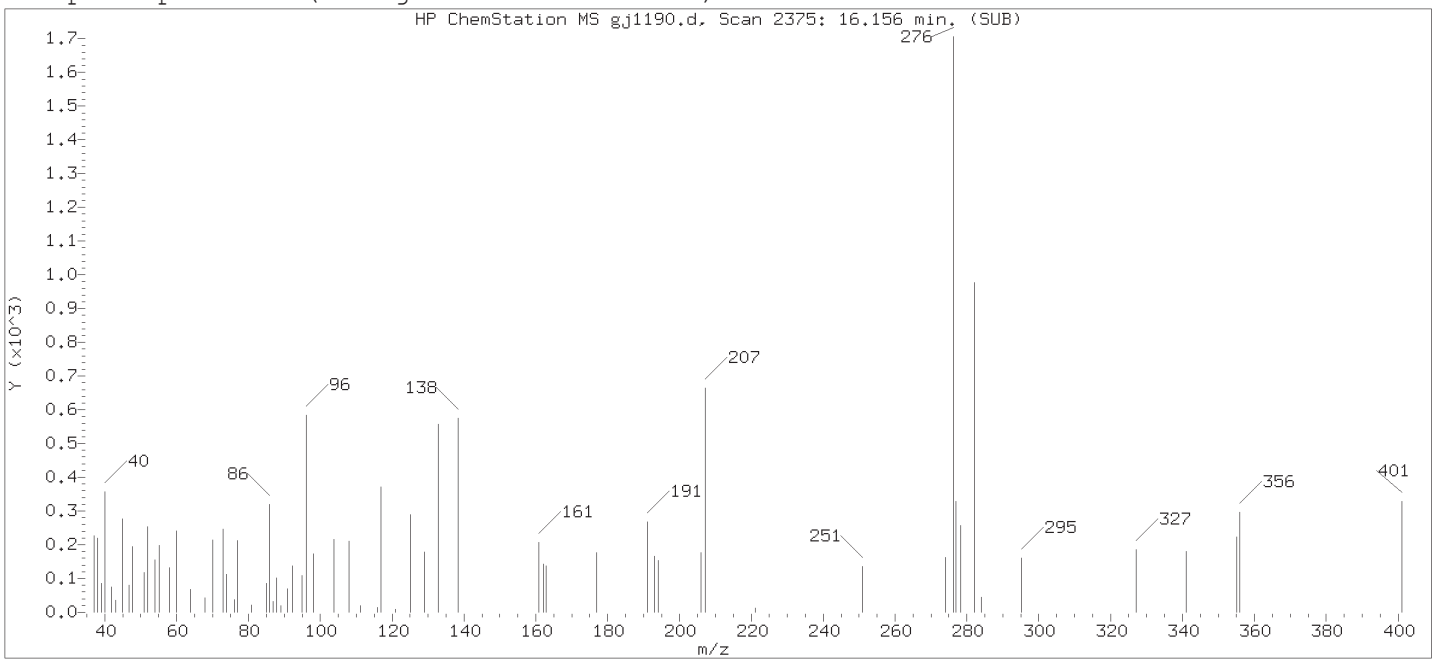
Compound Number : 221
Compound Name : Benzo(g,h,i)perylene
Scan Number : 2375
Retention Time (minutes) : 16.156
Quant Ion : 276.00
Area (flag) : 3243M
On-Column Amount (ng/ul) : 0.1050
Integration start scan : 2366 Integration stop scan: 2386
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

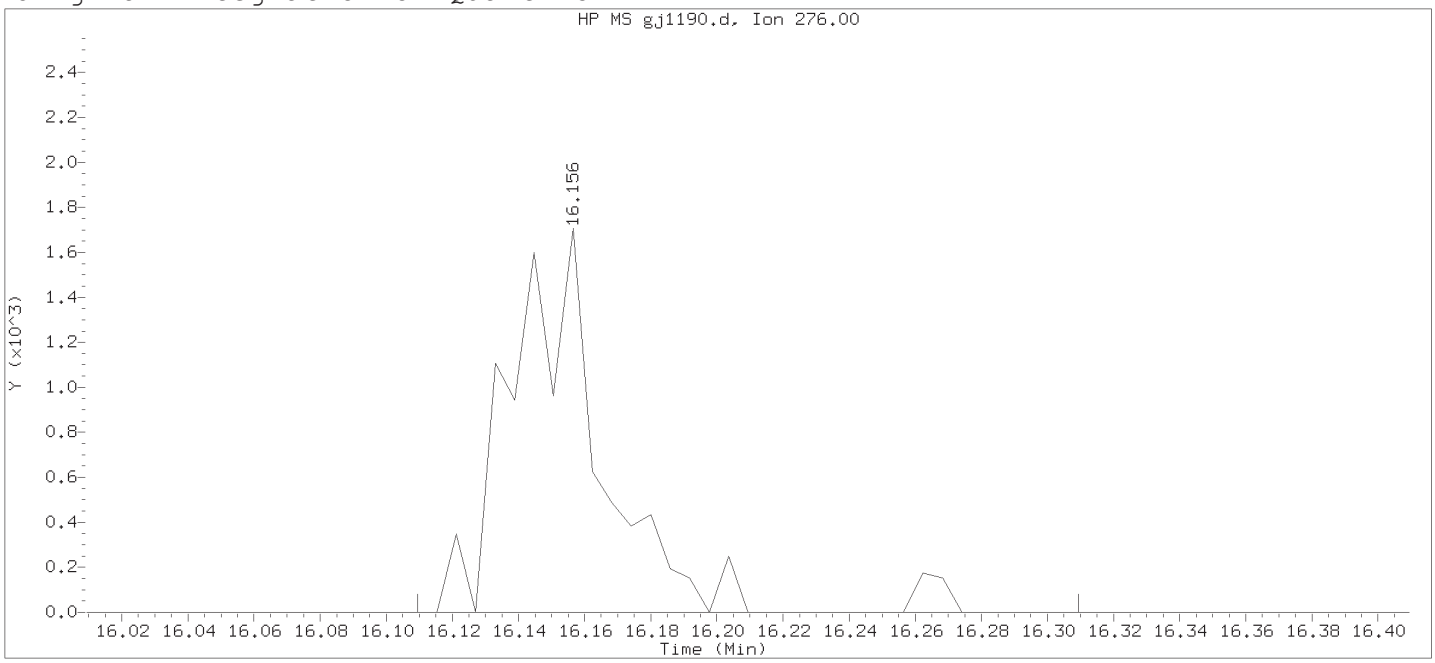
Analyst responsible for change: Digitally signed by Chad A. Moline
on 10/24/2018 at 10:16.
Target 3.5 esignature user ID: cam01237

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18oct19a.b/gj1190.d Instrument ID: HP11165.i
Injection date and time: 20-OCT-2018 05:24 Analyst ID: bkc25363

Method used: /chem/HP11165.i/18oct19a.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 20-OCT-2018 04:54
Date, time and analyst ID of latest file update: 20-Oct-2018 05:46 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2375		
Retention Time (minutes)	: 16.156		
Quant Ion	: 276.00		
Area	: 3359		
On-column Amount (ng/ul)	: 0.1087		
Integration start scan	: 2366	Integration stop scan:	2400
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Chad A. Moline on 10/24/2018 at 10:16.
Target 3.5 esignature used: D12

Data File: /chem/HP11165.i/18oct21.b/gj1220a.d

Date : 21-OCT-2018 11:11

Client ID: DFTPP

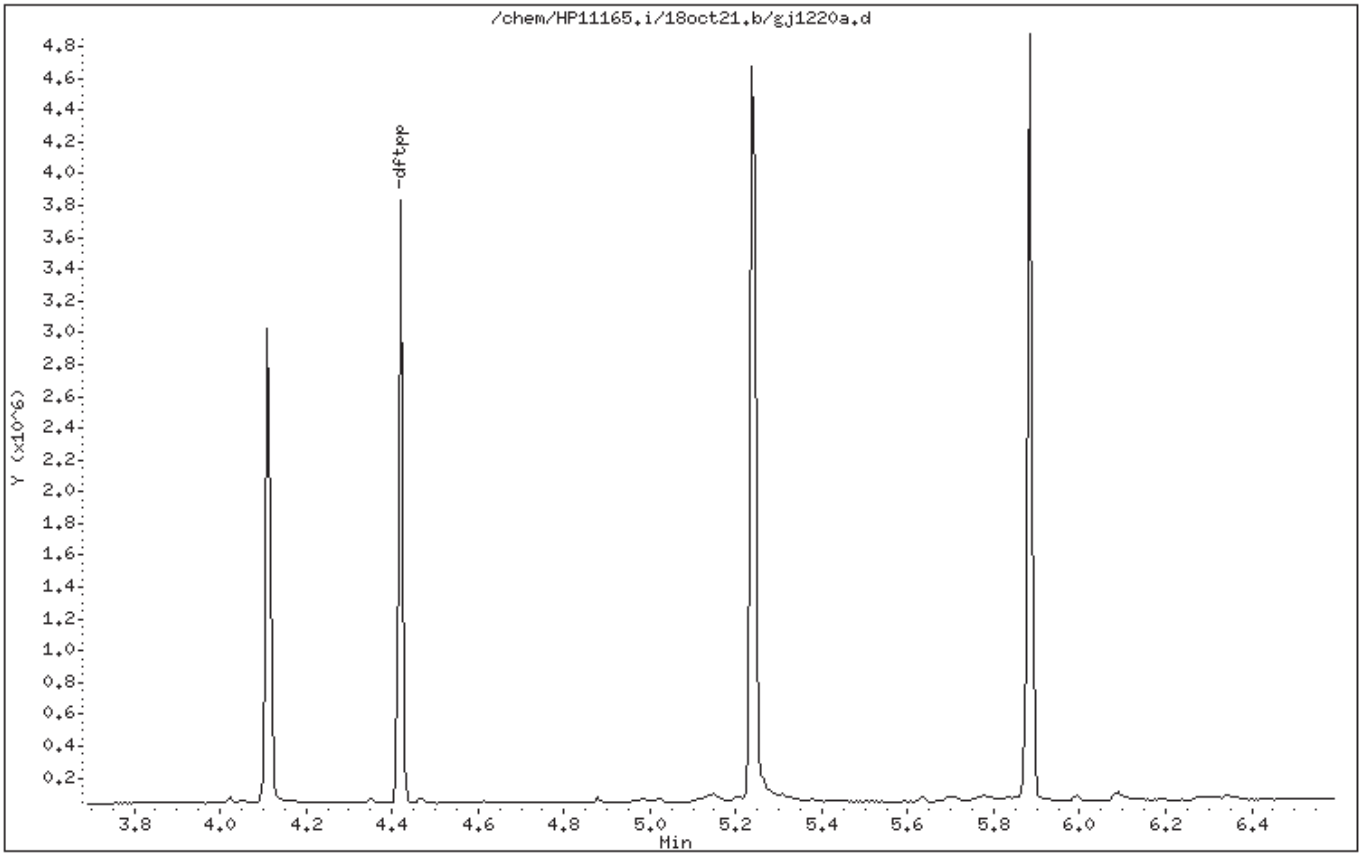
Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 10/21/2018 at 14:19.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18oct21.b/gj1220a.d

Date : 21-OCT-2018 11:11

Client ID: DFTPP

Instrument: HP11165.i

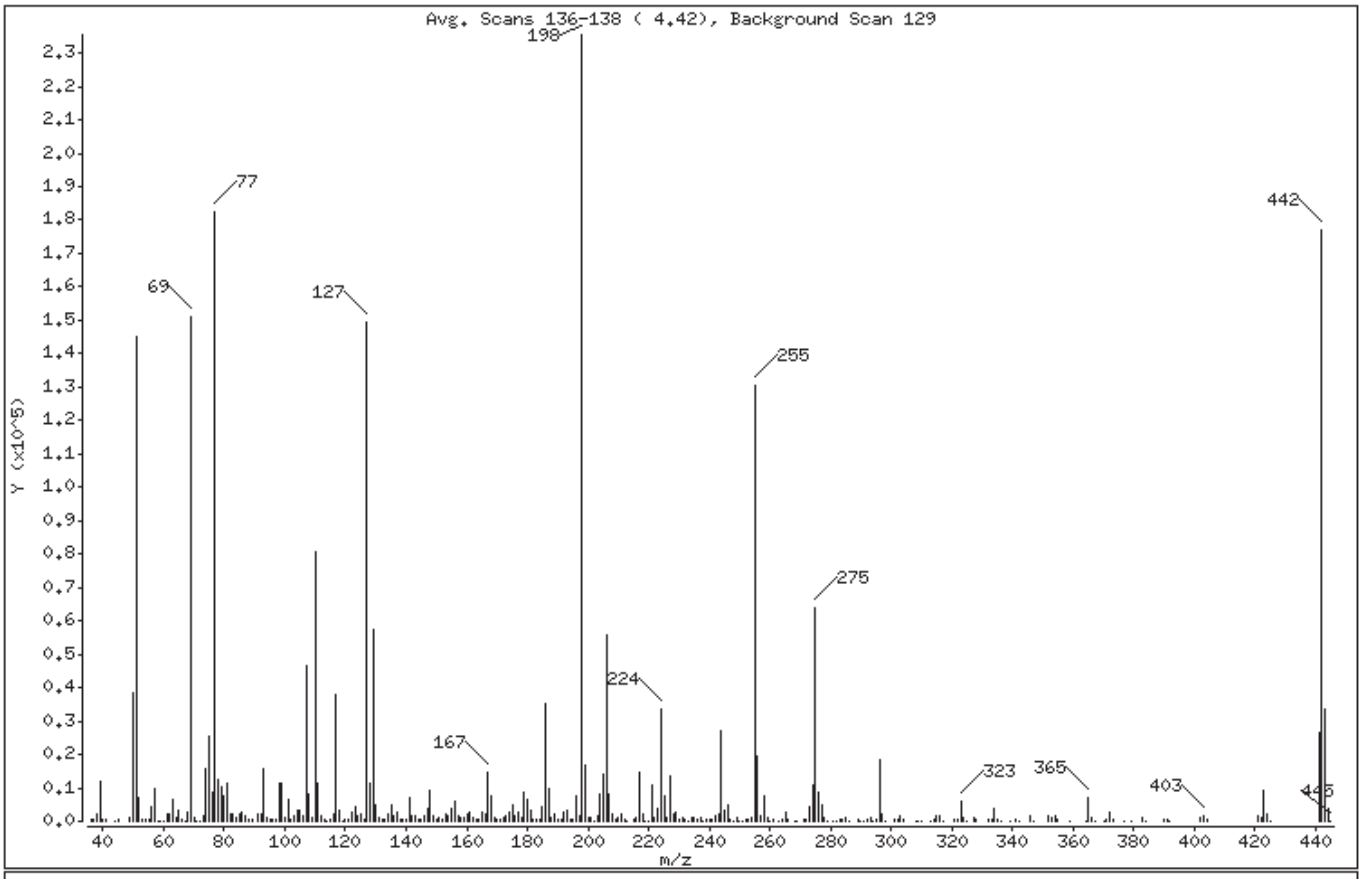
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	61.60
68	Less than 2.00% of mass 69	1.26 (1.97)
69	Mass 69 relative abundance	64.25
70	Less than 2.00% of mass 69	0.36 (0.55)
127	10.00 - 80.00% of mass 198	63.47
197	Less than 2.00% of mass 198	0.61
199	5.00 - 9.00% of mass 198	7.19
275	10.00 - 60.00% of mass 198	27.16
365	Greater than 1.00% of mass 198	3.08
441	0.01 - 24.00% of mass 442	11.29 (15.01)
442	50.00 - 99.99% of mass 198	75.19
443	15.00 - 24.00% of mass 442	14.35 (19.08)

Digitally signed by Edward Monborne on 10/21/2018 at 14:19.
Target 3.5 esignature user ID: em10340

Date : 21-OCT-2018 11:11

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gj1220a.d
Spectrum: Avg. Scans 136-138 (4.42), Background Scan 129
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	538	121.00	368	200.00	1179	284.00	475
37.00	556	122.00	2736	201.00	1130	285.00	818
38.00	1904	123.00	4167	202.00	225	286.00	82
39.00	12118	124.00	1885	203.00	1769	289.00	288
40.00	568	125.00	2105	204.00	7939	290.00	207
41.00	618	126.00	634	205.00	14133	291.00	161
44.00	70	127.00	149440	206.00	55992	292.00	339
45.00	406	128.00	11154	207.00	8199	293.00	1214
49.00	1307	129.00	57208	208.00	2262	294.00	253
50.00	38520	130.00	4892	209.00	687	295.00	321
51.00	145024	131.00	1109	210.00	989	296.00	18360
52.00	7284	132.00	627	211.00	2331	297.00	2070
53.00	441	133.00	399	212.00	373	298.00	191
54.00	297	134.00	1976	213.00	160	301.00	307
55.00	353	135.00	4620	215.00	603	302.00	464
56.00	4138	136.00	1837	216.00	1201	303.00	1818
57.00	9612	137.00	2918	217.00	14391	304.00	370
58.00	166	138.00	524	218.00	2241	308.00	175
59.00	246	139.00	319	219.00	212	309.00	180
60.00	48	140.00	538	220.00	254	310.00	55
61.00	1922	141.00	6933	221.00	10976	313.00	112
62.00	2339	142.00	1811	222.00	1049	314.00	771
63.00	6421	143.00	1714	223.00	3825	315.00	1726
64.00	856	144.00	576	224.00	33296	316.00	1405
65.00	3517	145.00	472	225.00	7762	317.00	143
66.00	350	146.00	1578	226.00	891	321.00	610
67.00	232	147.00	3570	227.00	13755	322.00	361
68.00	2973	148.00	9445	228.00	2282	323.00	5769
69.00	151232	149.00	1410	229.00	2976	324.00	1092
70.00	838	150.00	492	230.00	276	325.00	165
71.00	158	151.00	931	231.00	1195	327.00	1103
72.00	123	152.00	430	232.00	298	328.00	631
73.00	1399	153.00	2213	233.00	167	332.00	380
74.00	15799	154.00	1791	234.00	865	333.00	618
75.00	25432	155.00	3911	235.00	886	334.00	3902

Digitally signed by Edward Monborne on 10/21/2018 at 14:19.
Target 3.5 esignature user ID: em10340

Date : 21-OCT-2018 11:11

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gj1220a.d
Spectrum: Avg. Scans 136-138 (4.42), Background Scan 129
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8899	156.00	5685	236.00	785	335.00	703
77.00	182528	157.00	1541	237.00	993	336.00	60
78.00	12358	158.00	1306	238.00	80	339.00	230
79.00	10271	159.00	1196	239.00	436	341.00	784
80.00	7797	160.00	2342	240.00	515	342.00	95
81.00	11428	161.00	2759	241.00	654	346.00	1625
82.00	2313	162.00	1296	242.00	1846	347.00	237
83.00	2054	163.00	441	243.00	1951	352.00	1614
84.00	1147	164.00	373	244.00	27240	353.00	1320
85.00	2052	165.00	2542	245.00	3249	354.00	1561
86.00	2789	166.00	2043	246.00	4653	355.00	384
87.00	1450	167.00	14358	247.00	779	359.00	50
88.00	423	168.00	7754	248.00	222	364.00	82
89.00	357	169.00	1031	249.00	1129	365.00	7249
91.00	2086	170.00	499	250.00	204	366.00	1323
92.00	2385	171.00	436	251.00	160	367.00	61
93.00	15900	172.00	1027	252.00	353	370.00	147
94.00	1211	173.00	1547	253.00	567	371.00	369
95.00	393	174.00	2540	254.00	867	372.00	2874
96.00	651	175.00	5002	255.00	130272	373.00	702
97.00	481	176.00	1561	256.00	19352	377.00	54
98.00	11631	177.00	2493	257.00	1619	379.00	60
99.00	11509	178.00	952	258.00	7591	383.00	852
100.00	874	179.00	8848	259.00	1003	384.00	267
101.00	6728	180.00	6239	260.00	257	390.00	409
102.00	502	181.00	3217	261.00	377	391.00	365
103.00	1758	182.00	537	263.00	160	392.00	209
104.00	3491	183.00	457	264.00	290	402.00	1102
105.00	3354	184.00	586	265.00	2886	403.00	1779
106.00	1517	185.00	4513	266.00	395	404.00	503
107.00	46536	186.00	35168	268.00	203	421.00	1444
108.00	7949	187.00	10000	269.00	136	422.00	1175
109.00	1346	188.00	951	271.00	458	423.00	9446
110.00	80720	189.00	2195	272.00	495	424.00	2203
111.00	11448	190.00	439	273.00	4146	425.00	168

Digitally signed by Edward Monborne on 10/21/2018 at 14:19.
Target 3.5 esignature user ID: em10340

Date : 21-OCT-2018 11:11

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

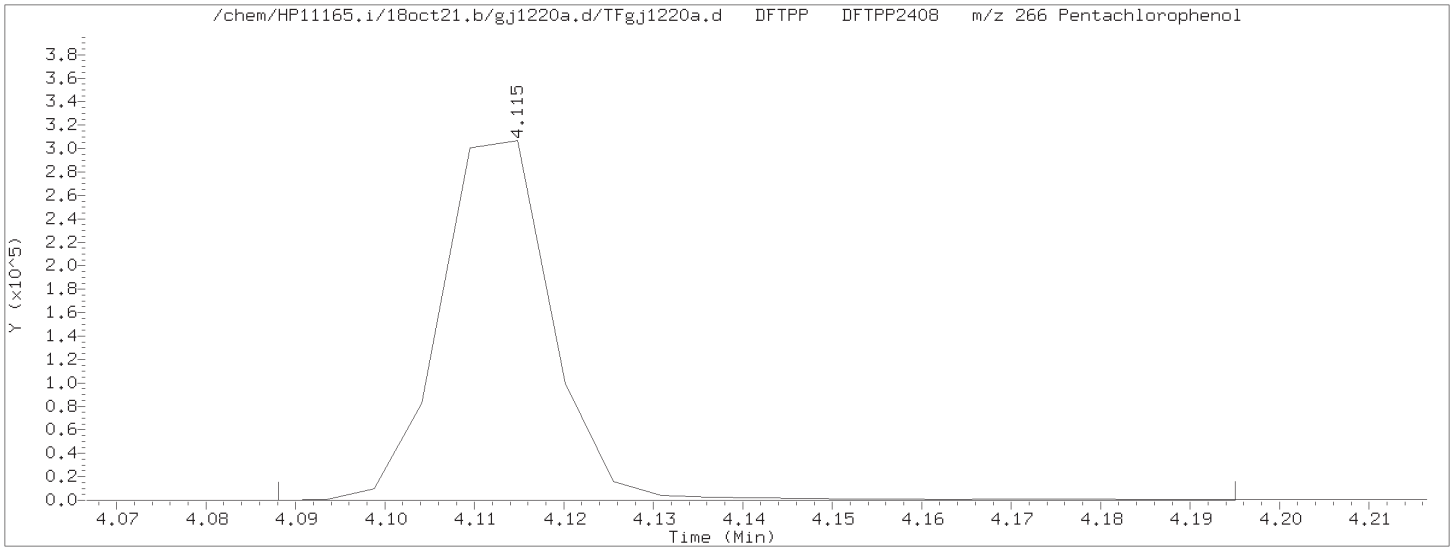
Data File: gj1220a.d
Spectrum: Avg. Scans 136-138 (4.42), Background Scan 129
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	1517	191.00	742	274.00	10983	441.00	26576
113.00	613	192.00	2960	275.00	63960	442.00	177024
114.00	71	193.00	3427	276.00	8424	443.00	33784
115.00	432	194.00	311	277.00	5094	444.00	3614
116.00	2263	195.00	387	278.00	965	445.00	122
117.00	38032	196.00	7488	279.00	60		
118.00	3354	197.00	1437	281.00	10		
119.00	264	198.00	235456	282.00	258		
120.00	650	199.00	16920	283.00	581		

Digitally signed by Edward Monborne on 10/21/2018 at 14:19.
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

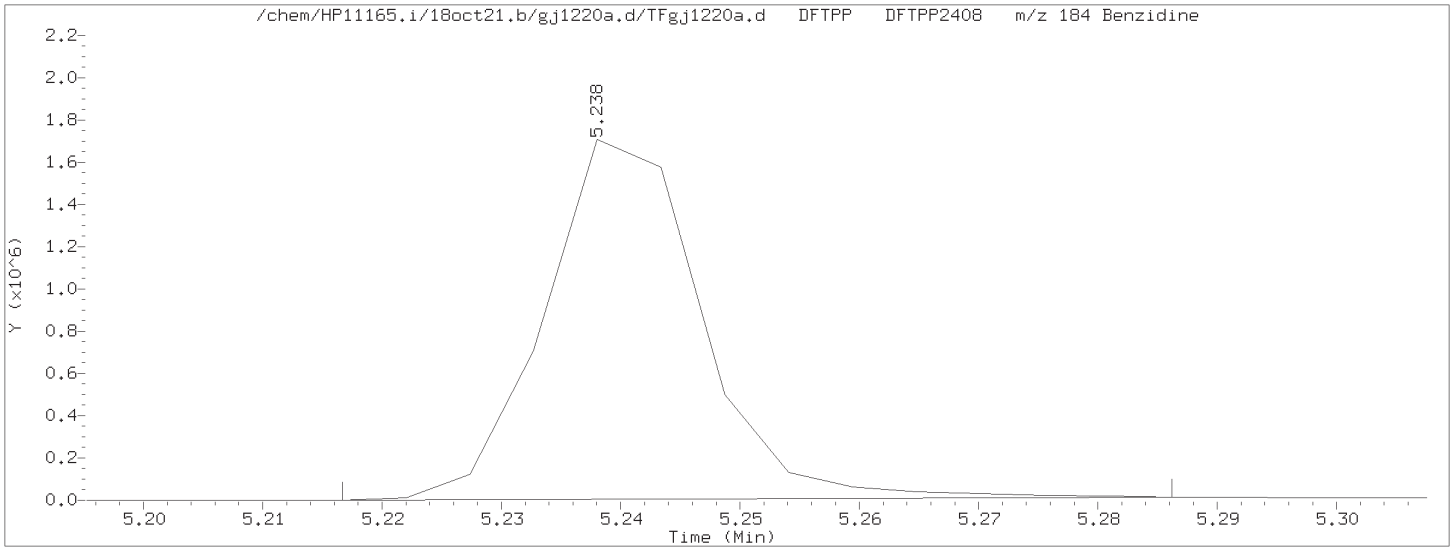
Instrument ID: HP11165.i Injection Date: 21-OCT-2018 11:11 Operator: em10340



Pentachlorophenol EICP peak height = 306816 EICP peak height at 10% = 30682 Pentachlorophenol EICP area = 267555

Pentachlorophenol EICP peak apex (min.) = 4.115
RT at 10% of front half of EICP (min.) = 4.100 'Front' peak width (min.) = 0.0145000000
RT at 10% of back half of EICP (min.) = 4.125 'Tailing' peak width (min.) = 0.0097333333

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0097333333}{0.0145000000} = 0.671$



Benzidine EICP peak height = 1702329 EICP peak height at 10% = 170233 Benzidine EICP area = 1552455

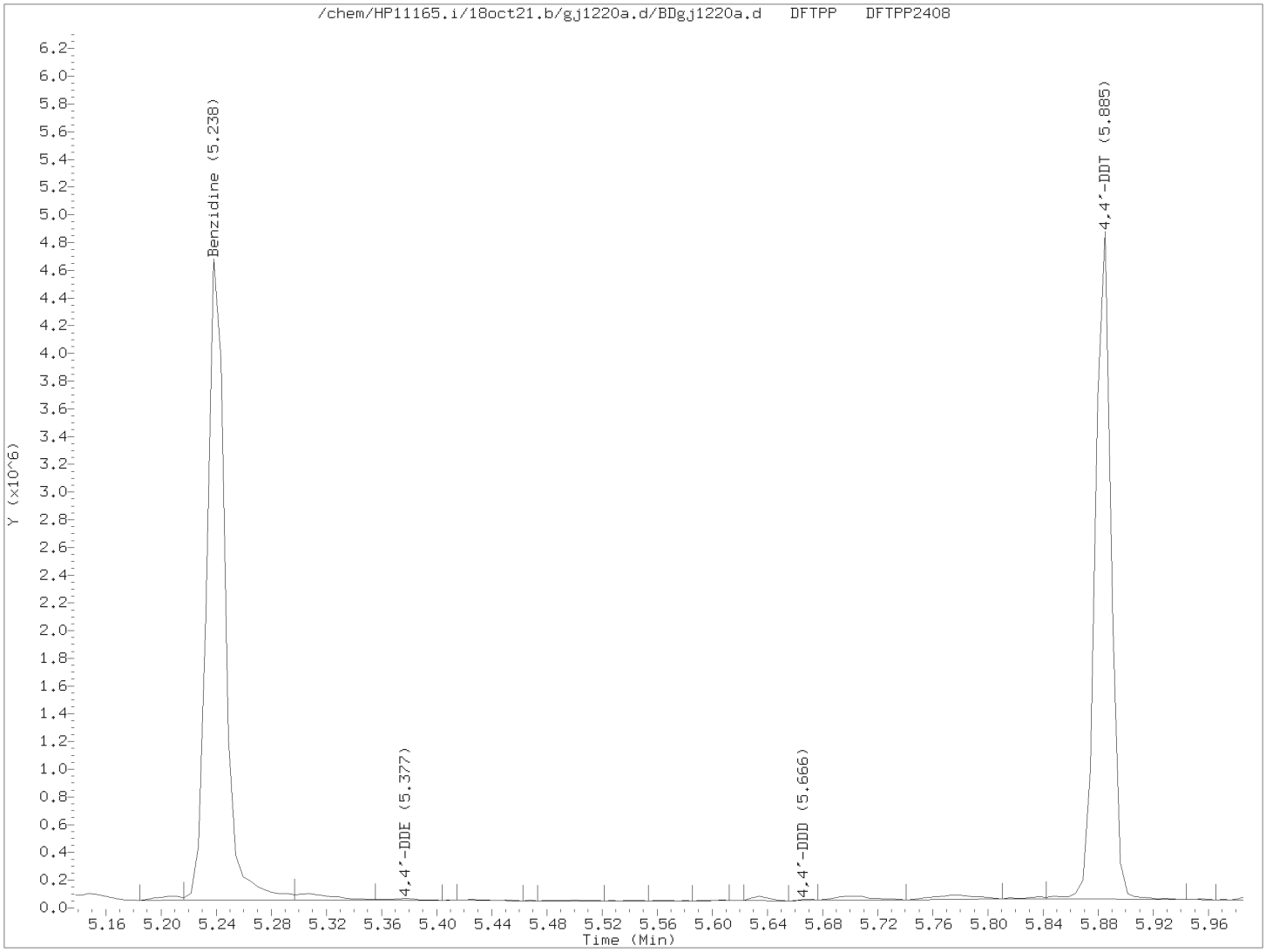
Benzidine EICP peak apex (min.) = 5.238
RT at 10% of front half of EICP (min.) = 5.228 'Front' peak width (min.) = 0.0101833333
RT at 10% of back half of EICP (min.) = 5.253 'Tailing' peak width (min.) = 0.0154000000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0154000000}{0.0101833333} = 1.512$

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:47. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

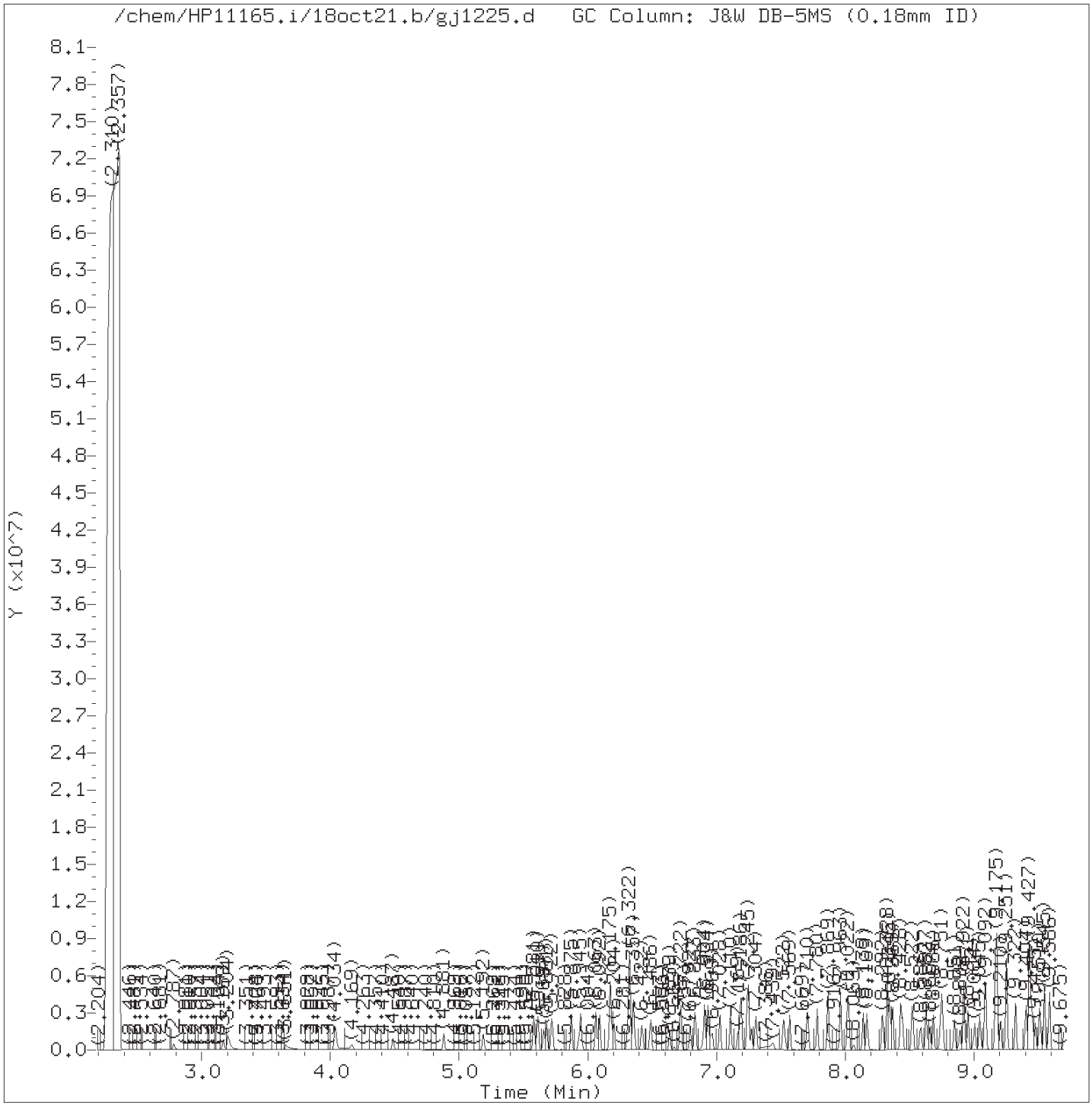
Instrument ID: HP11165.i Injection Date: 21-OCT-2018 11:11 Operator: em10340



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{16179 + 4793}{16179 + 4793 + 3827824} \times 100 = 0.5$$

Secondary review performed and digitally signed by Chad A. Moline on 10/24/2018 at 10:47. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

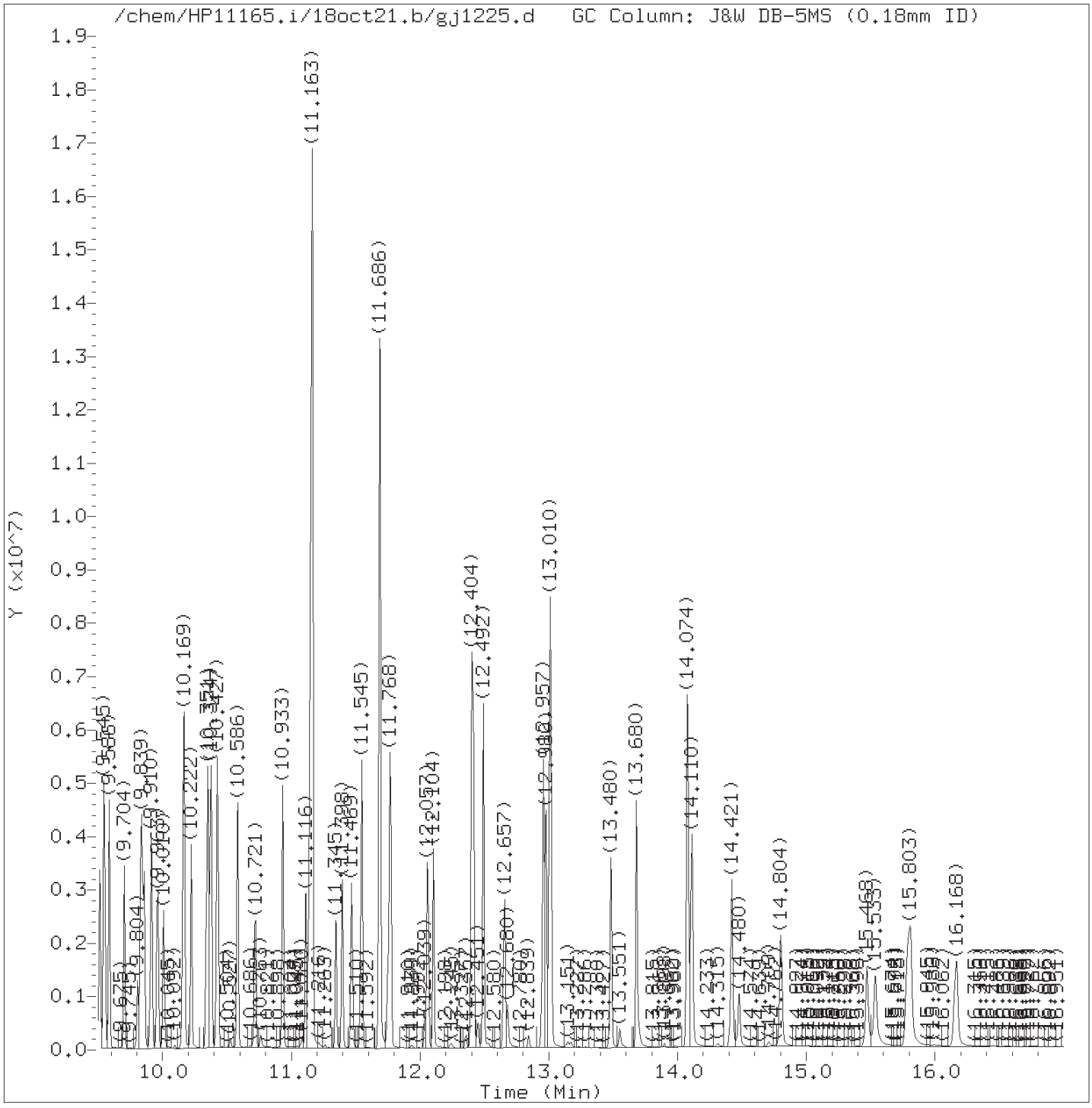
Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.787	88	222862	48.855
4) N-Nitrosodimethylamine	(1)	3.169	74	413763	53.874
5) Pyridine	(1)	3.204	79	678387	51.296
7) 2-Picoline	(1)	4.034	93	714381	52.112
8) N-Nitrosomethylethylamine	(1)	4.169	88	279442	45.009
9) Methyl methanesulfonate	(1)	4.487	80	350337	51.459
13) N-Nitrosodiethylamine	(1)	4.881	102	288153	46.404
15) Ethyl methanesulfonate	(1)	5.192	109	287057	44.637
18) Phenol	(1)	5.581	94	864804	50.640
19) Aniline	(1)	5.610	93	1013730	49.564
42) Total Cresols	(1)	5.660	100	1307140	105.555
22) bis(2-Chloroethyl)ether	(1)	5.681	93	668052	51.823
23) 2-Chlorophenol	(1)	5.722	128	621886	51.856
24) 1,3-Dichlorobenzene	(1)	5.875	146	647255	53.822
25)*1,4-Dichlorobenzene-d4	(1)	5.934	152	148597	20.000
26) 1,4-Dichlorobenzene	(1)	5.945	146	667610	55.283
27) Benzyl alcohol	(1)	6.063	108	451753	49.949
28) 1,2-Dichlorobenzene	(1)	6.092	146	624469	53.844
31) 2-Methylphenol	(1)	6.175	108	620358	52.870
30) Indene	(1)	6.181	115	999506	75.574
34) bis(2-Chloroisopropyl)ether	(1)	6.204	45	851214	49.111
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.204	45	851214	49.111
35) N-Nitrosopyrrolidine	(1)	6.310	100	318790	44.394
37) 4-Methylphenol	(1)	6.322	108	686782	52.685
36) Acetophenone	(1)	6.322	105	956957	53.420
38) N-Nitroso-di-n-propylamine	(1)	6.328	70	599883	51.047
39) N-Nitrosomorpholine	(1)	6.351	56	409183	45.128
40) o-Toluidine	(1)	6.357	106	1077861	50.708
43) Hexachloroethane	(1)	6.422	117	238411	50.829
45) Nitrobenzene	(2)	6.486	77	778873	52.433
48) N-Nitrosopiperidine	(2)	6.639	114	296937	45.448
50) Isophorone	(2)	6.722	82	1462180	53.383
51) 2-Nitrophenol	(2)	6.798	139	334863	56.565
57) O,O,O-Triethylphosphorothioate	(2)	6.904	198	257366	47.959
55) bis(2-Chloroethoxy)methane	(2)	6.934	93	863886	54.678
56) Benzoic acid	(2)	6.969	105	1030267	96.254
60) 2,4-Dichlorophenol	(2)	7.028	162	509600	54.575
62) 1,2,4-Trichlorobenzene	(2)	7.110	180	498989	54.074
65)*Naphthalene-d8	(2)	7.169	136	628651	20.000
66) Naphthalene	(2)	7.186	128	1923025	53.952

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
67) 4-Chloroaniline	(2)	7.245	127	829193	55.907
68) 2,6-Dichlorophenol	(2)	7.245	162	443686	47.795
69) Hexachloropropene	(2)	7.275	213	226703	58.994
71) Hexachlorobutadiene	(2)	7.304	225	238435	56.211
97) Isosafrole	(3)	7.383	162	524392	57.988
75) Quinoline	(2)	7.522	129	1131002	47.475
77) N-Nitrosodi-n-butylamine	(2)	7.569	84	461886	37.057
80) 4-Chloro-3-methylphenol	(2)	7.710	107	610292	54.068
82) Safrole	(2)	7.780	162	425879	46.874
83) 2-Methylnaphthalene	(2)	7.869	142	1324659	53.694
84) 1-Methylnaphthalene	(2)	7.963	142	1229701	52.556
85) Hexachlorocyclopentadiene	(3)	8.016	237	438632	98.036
86) 1,2,4,5-Tetrachlorobenzene	(3)	8.028	216	457658	53.606
120) 2,4_2,6-Dinitrotoluenes	(3)	8.050	165	752612	112.846
88) cis-Isosafrole	(3)	8.069	162	54533	5.971
90) 2,4,6-Trichlorophenol	(3)	8.139	196	346062	58.109
92) 2,4,5-Trichlorophenol	(3)	8.169	196	368551	54.775
94) trans-Isosafrole	(3)	8.292	162	469859	52.017
95) 1,1'-Biphenyl	(3)	8.328	154	1600352	57.086
96) 2-Chloronaphthalene	(3)	8.345	162	1208436	56.034
98) 1-Chloronaphthalene	(3)	8.369	162	955196	45.495
99) Diphenyl ether	(3)	8.428	170	718027	48.353
100) 2-Nitroaniline	(3)	8.445	138	417415	58.253
104) 1,4-Naphthoquinone	(3)	8.522	158	567610	59.515
105) 1,4-Dinitrobenzene	(3)	8.586	168	206266	56.312
106) Dimethylphthalate	(3)	8.627	163	1384030	53.615
107) 1,3-Dinitrobenzene	(3)	8.657	168	234658	55.630
108) 2,6-Dinitrotoluene	(3)	8.686	165	317725	56.796
109) Acenaphthylene	(3)	8.751	152	1904134	62.185
146) Diallate trans/cis	(4)	8.775	86	651462	46.121
112) 3-Nitroaniline	(3)	8.851	138	370609	55.996
113)*Acenaphthene-d10	(3)	8.892	164	315800	20.000
114) Acenaphthene	(3)	8.922	153	1322092	56.290
115) 2,4-Dinitrophenol	(3)	8.957	184	392056	115.007
116) 4-Nitrophenol	(3)	9.004	109	232116	54.417
117) Pentachlorobenzene	(3)	9.045	250	379683	47.129
118) 2,4-Dinitrotoluene	(3)	9.086	165	434887	56.050
119) Dibenzofuran	(3)	9.092	168	1708703	55.172
121) 1-Naphthylamine	(3)	9.175	143	2729993	103.682
122) 2,3,4,6-Tetrachlorophenol	(3)	9.210	232	273662	52.266

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
124) Diethylphthalate	(3)	9.322	149	1385366	53.481
125) Thionazin	(3)	9.404	107	225746	51.606
126) Fluorene	(3)	9.427	166	1454374	54.822
127) 4-Chlorophenyl-phenylether	(3)	9.433	204	615453	53.445
128) 5-Nitro-o-toluidine	(3)	9.445	152	395865	51.086
129) 4-Nitroaniline	(3)	9.457	138	395619	53.629
130) 4,6-Dinitro-2-methylphenol	(4)	9.475	198	230041	56.618
132) NDPA as diphenylamine	(4)	9.545	169	1253050	55.335
131) N-Nitrosodiphenylamine	(4)	9.545	169	1253050	55.335
134) 1,2-Diphenylhydrazine	(4)	9.586	77	1771061	55.707
137) Tetraethyldithiopyrophosphate	(4)	9.704	97	225112	47.557
139) 1,3,5-Trinitrobenzene	(4)	9.804	213	117912	45.811
140) Diallate (peak 1)	(4)	9.827	86	492174	33.171
141) Phorate	(4)	9.839	75	937496	50.260
142) Phenacetin	(4)	9.857	108	691210	46.820
143) 4-Bromophenyl-phenylether	(4)	9.910	248	349073	50.762
144) Diallate (peak 2)	(4)	9.916	86	159288	12.950
145) Hexachlorobenzene	(4)	9.963	284	386964	53.667
147) Dimethoate	(4)	10.010	87	522651	45.376
149) Pentachlorophenol	(4)	10.157	266	268537	55.314
150) 4-Aminobiphenyl	(4)	10.169	169	1415077	137.499
151) Pentachloronitrobenzene	(4)	10.169	237	126280	48.897
152) Pronamide	(4)	10.222	173	524102	48.360
154) Dinoseb	(4)	10.339	211	261652	45.134
153)*Phenanthrene-d10	(4)	10.351	188	600416	20.000
155) Phenanthrene	(4)	10.374	178	1994575	52.367
157) Anthracene	(4)	10.427	178	2054289	53.274
163) Carbazole	(4)	10.586	167	1983336	54.283
164) Methyl parathion	(4)	10.721	109	406548	48.282
165) Di-n-butylphthalate	(4)	10.933	149	2405533	53.015
167) Parathion	(4)	11.110	109	268264	48.967
168) 4-Nitroquinoline-1-oxide	(4)	11.163	190	2752467	930.146
171) Isodrin	(4)	11.398	193	191255	47.642
173) Fluoranthene	(4)	11.545	202	2046826	52.654
174) Benzidine	(5)	11.692	184	5935785	248.061
175)*Pyrene-d10	(5)	11.751	212	503646	20.000
177) Pyrene	(5)	11.768	202	2058836	54.692
182) p-Dimethylaminoazobenzene	(5)	12.063	225	344136	62.586
185) Chlorobenzilate	(5)	12.104	139	638806	54.529
187) 3,3'-Dimethylbenzidine	(5)	12.404	212	2044364	92.975

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18oct21.b/gj1225.d Instrument ID: HP11165.i
Injection date and time: 21-OCT-2018 13:42 Analyst ID: em10340

Method used: /chem/HP11165.i/18oct21.b/m8270d.m Sublist used: icvall1
Calibration date and time: 21-OCT-2018 13:09
Date, time and analyst ID of latest file update: 21-Oct-2018 14:16 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2628

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
188) Butylbenzylphthalate	(5)	12.415	149	1068321	57.904
191) 2-Acetylaminofluorene	(5)	12.657	181	678994	48.212
193) 3,3'-Dichlorobenzidine	(5)	12.957	252	610217	47.430
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.957	231	307389	47.995
195) Benzo(a)anthracene	(5)	12.980	228	1799944	54.176
199) bis(2-Ethylhexyl)phthalate	(5)	13.010	149	1425894	56.206
196) Chrysene	(5)	13.015	228	1754307	53.362
203) 6-Methylchrysene	(5)	13.480	242	1121180	48.324
205) Di-n-octylphthalate	(6)	13.680	149	2199918	56.318
207) 7,12-Dimethylbenz[a]anthracene	(6)	14.074	256	871300	60.058
206) Benzo(b)fluoranthene	(6)	14.080	252	1805533	59.729
208) Benzo(k)fluoranthene	(6)	14.110	252	1684649	55.303
211) Benzo(a)pyrene	(6)	14.421	252	1533343	58.017
213)*Perylene-d12	(6)	14.480	264	446703	20.000
215) 3-Methylcholanthrene	(6)	14.804	268	686440	62.812
222) Total PAHs	(6)	15.000	100	30049259	987.748
217) Dibenz(a,h)acridine	(6)	15.468	279	911886	43.800
218) Dibenz(a,j)acridine	(6)	15.539	279	1091006	47.434
219) Indeno(1,2,3-cd)pyrene	(6)	15.786	276	1575846	54.400
220) Dibenz(a,h)anthracene	(6)	15.809	278	1325091	53.901
221) Benzo(g,h,i)perylene	(6)	16.168	276	1258035	52.376

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 10/21/2018 at 14:17.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov07.b/gk0310.d

Date : 07-NOV-2018 08:54

Client ID: DFTPP

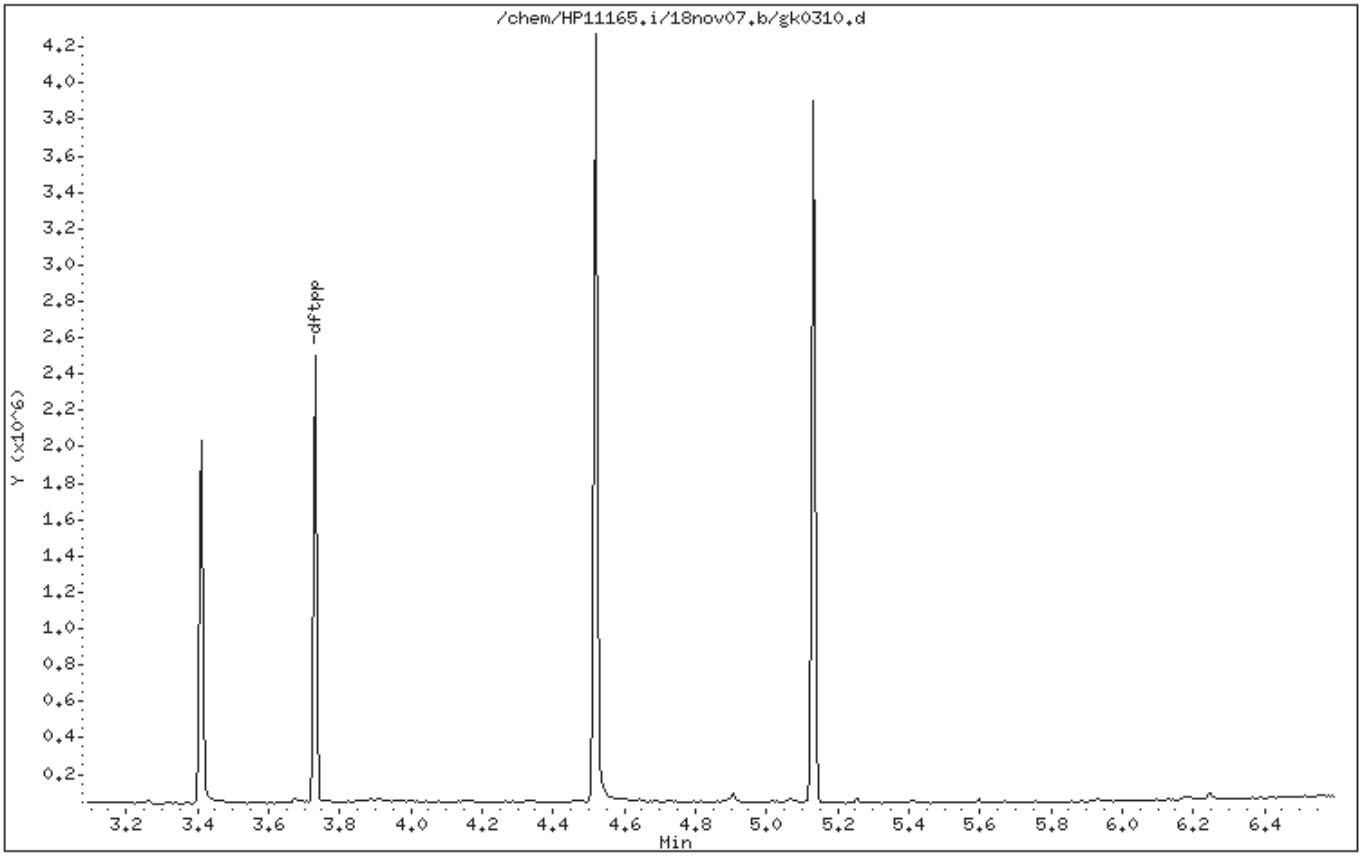
Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov07.b/gk0310.d

Date : 07-NOV-2018 08:54

Client ID: DFTPP

Instrument: HP11165.i

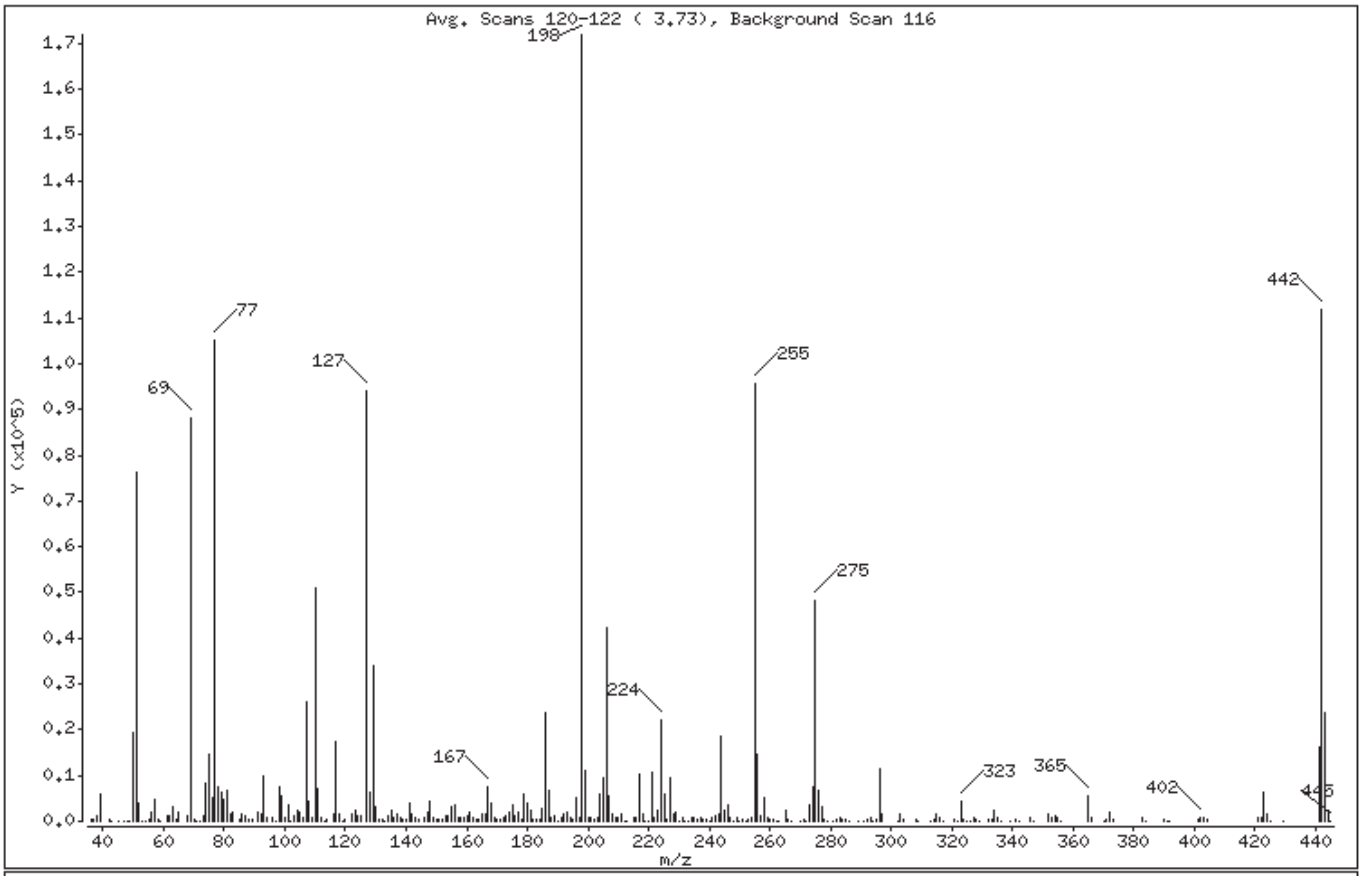
Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	44.41
68	Less than 2.00% of mass 69	0.67 (1.31)
69	Mass 69 relative abundance	51.35
70	Less than 2.00% of mass 69	0.34 (0.66)
127	10.00 - 80.00% of mass 198	54.63
197	Less than 2.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.44
275	10.00 - 60.00% of mass 198	28.05
365	Greater than 1.00% of mass 198	3.17
441	0.01 - 24.00% of mass 442	9.47 (14.58)
442	50.00 - 99.99% of mass 198	64.95
443	15.00 - 24.00% of mass 442	13.70 (21.09)

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Date : 07-NOV-2018 08:54

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0310.d
Spectrum: Avg. Scans 120-122 (3.73), Background Scan 116
Location of Maximum: 198.00
Number of points: 300

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	355	124.00	1383	202.00	320	283.00	685
37.00	239	125.00	1065	203.00	979	284.00	324
38.00	1094	127.00	93936	204.00	6041	285.00	565
39.00	6101	128.00	6477	205.00	9426	286.00	183
42.00	394	129.00	34128	206.00	42416	289.00	171
43.00	69	130.00	3108	207.00	5573	291.00	65
45.00	98	131.00	574	208.00	1408	292.00	222
47.00	169	132.00	414	209.00	704	293.00	789
48.00	71	133.00	23	210.00	836	294.00	165
49.00	29	134.00	992	211.00	1457	295.00	405
50.00	19288	135.00	2355	212.00	100	296.00	11576
51.00	76352	136.00	767	213.00	197	297.00	1614
52.00	4119	137.00	1505	215.00	702	302.00	70
53.00	168	138.00	615	216.00	812	303.00	1607
54.00	27	139.00	246	217.00	10392	304.00	309
55.00	222	140.00	520	218.00	1627	308.00	229
56.00	2036	141.00	4004	219.00	102	309.00	112
57.00	4935	142.00	1413	220.00	159	313.00	118
58.00	361	143.00	682	221.00	10867	314.00	454
59.00	158	144.00	279	222.00	986	315.00	1434
61.00	1139	146.00	777	223.00	2389	316.00	946
62.00	1191	147.00	2065	224.00	22248	317.00	110
63.00	3309	148.00	4433	225.00	6038	321.00	447
64.00	495	149.00	820	226.00	491	322.00	97
65.00	2148	150.00	277	227.00	9345	323.00	4265
68.00	1154	151.00	412	228.00	1495	324.00	480
69.00	88288	152.00	452	229.00	2127	325.00	129
70.00	583	153.00	1189	230.00	196	326.00	115
71.00	122	154.00	1267	231.00	823	327.00	875
72.00	115	155.00	3063	232.00	140	328.00	396
73.00	1209	156.00	3715	233.00	190	329.00	53
74.00	8429	157.00	950	234.00	764	332.00	233
75.00	14454	158.00	832	235.00	783	333.00	432
76.00	4967	159.00	613	236.00	513	334.00	2441
77.00	105192	160.00	1354	237.00	640	335.00	812

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Date : 07-NOV-2018 08:54

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0310.d
Spectrum: Avg. Scans 120-122 (3.73), Background Scan 116
Location of Maximum: 198.00
Number of points: 300

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	7394	161.00	2115	238.00	210	336.00	57
79.00	6152	162.00	660	239.00	548	339.00	119
80.00	4902	163.00	424	240.00	193	341.00	515
81.00	6747	164.00	268	241.00	602	342.00	183
82.00	1701	165.00	1714	242.00	1251	346.00	981
83.00	1830	166.00	1524	243.00	1477	347.00	87
85.00	577	167.00	7379	244.00	18608	352.00	1511
86.00	1442	168.00	3993	245.00	2523	353.00	775
87.00	1160	169.00	795	246.00	3656	354.00	1168
88.00	333	170.00	493	247.00	737	355.00	604
89.00	259	171.00	564	248.00	164	356.00	55
91.00	2098	172.00	728	249.00	965	365.00	5443
92.00	1710	173.00	1219	250.00	108	366.00	878
93.00	9832	174.00	2115	251.00	315	370.00	56
94.00	593	175.00	3552	252.00	60	371.00	436
96.00	618	176.00	1200	253.00	540	372.00	1784
97.00	134	177.00	1850	254.00	728	373.00	546
98.00	7486	178.00	343	255.00	95656	383.00	666
99.00	5614	179.00	6010	256.00	14676	384.00	123
100.00	846	180.00	4138	257.00	1203	390.00	224
101.00	3668	181.00	2232	258.00	5068	391.00	174
102.00	194	182.00	335	259.00	793	392.00	81
103.00	1288	183.00	242	260.00	219	401.00	226
104.00	2412	184.00	445	261.00	309	402.00	806
105.00	1916	185.00	2938	262.00	50	403.00	791
106.00	841	186.00	23712	263.00	68	404.00	423
107.00	26168	187.00	6605	265.00	2504	421.00	981
108.00	4209	188.00	780	266.00	211	422.00	909
109.00	843	189.00	1315	267.00	74	423.00	6321
110.00	50872	190.00	174	270.00	179	424.00	1400
111.00	7133	191.00	842	271.00	240	425.00	134
112.00	618	192.00	1748	272.00	182	429.00	133
113.00	194	193.00	2029	273.00	3364	441.00	16279
114.00	211	194.00	663	274.00	7440	442.00	111688
116.00	1430	195.00	559	275.00	48232	443.00	23552

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Date : 07-NOV-2018 08:54

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

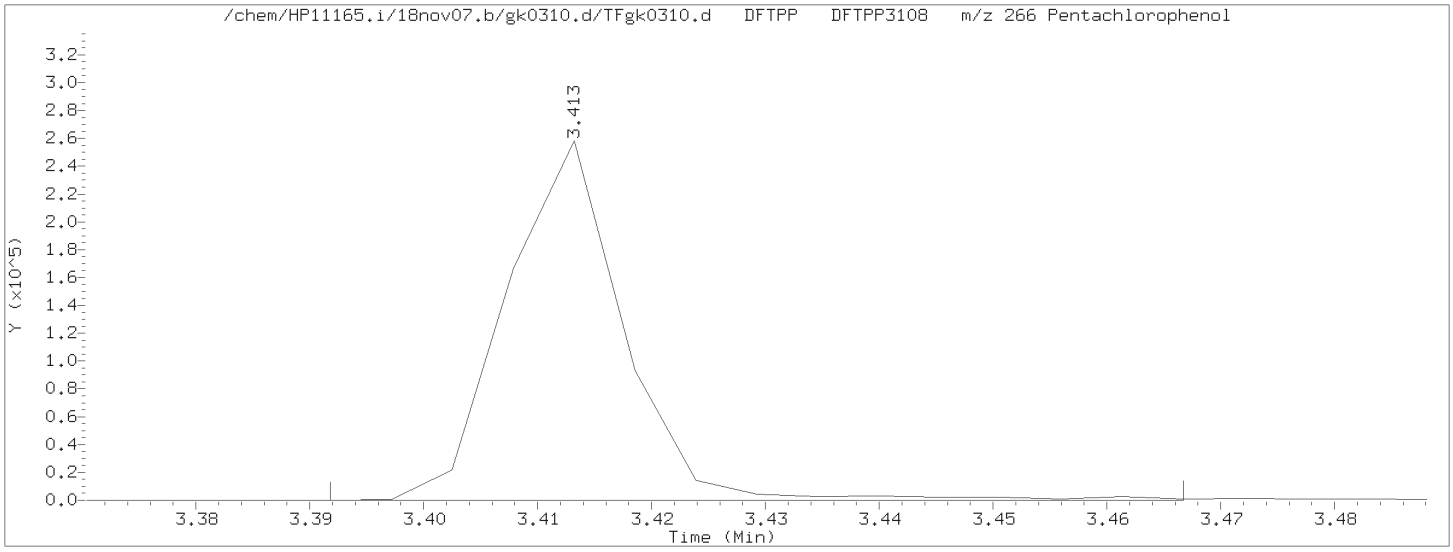
Data File: gk0310.d
Spectrum: Avg. Scans 120-122 (3.73), Background Scan 116
Location of Maximum: 198.00
Number of points: 300

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	17504	196.00	5088	276.00	6761	444.00	2265
118.00	1770	197.00	868	277.00	3182	445.00	113
119.00	127	198.00	171904	278.00	554		
120.00	566	199.00	11078	279.00	120		
122.00	1505	200.00	871	281.00	181		
123.00	2232	201.00	772	282.00	400		

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

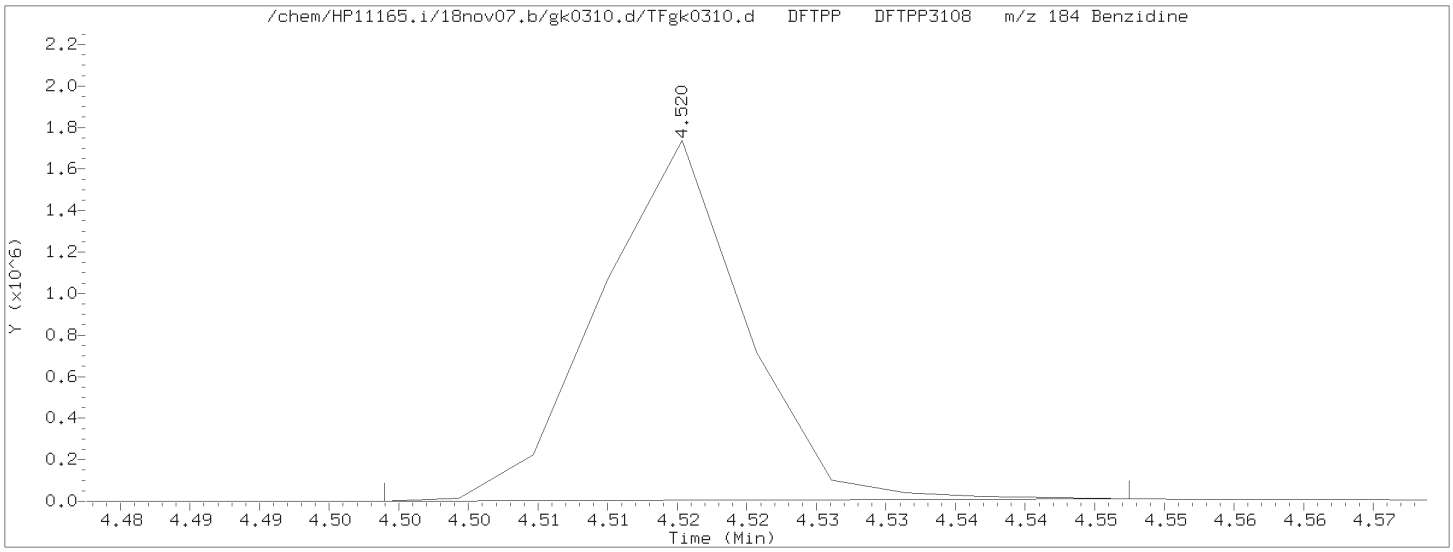
Instrument ID: HP11165.i Injection Date: 07-NOV-2018 08:54 Operator: em10340



Pentachlorophenol EICP peak height = 258432 EICP peak height at 10% = 25843 Pentachlorophenol EICP area = 183957

Pentachlorophenol EICP peak apex (min.) = 3.413
RT at 10% of front half of EICP (min.) = 3.403 'Front' peak width (min.) = 0.0105333333
RT at 10% of back half of EICP (min.) = 3.423 'Tailing' peak width (min.) = 0.0098833333

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0098833333}{0.0105333333} = 0.938$



Benzidine EICP peak height = 1732351 EICP peak height at 10% = 173235 Benzidine EICP area = 1246387

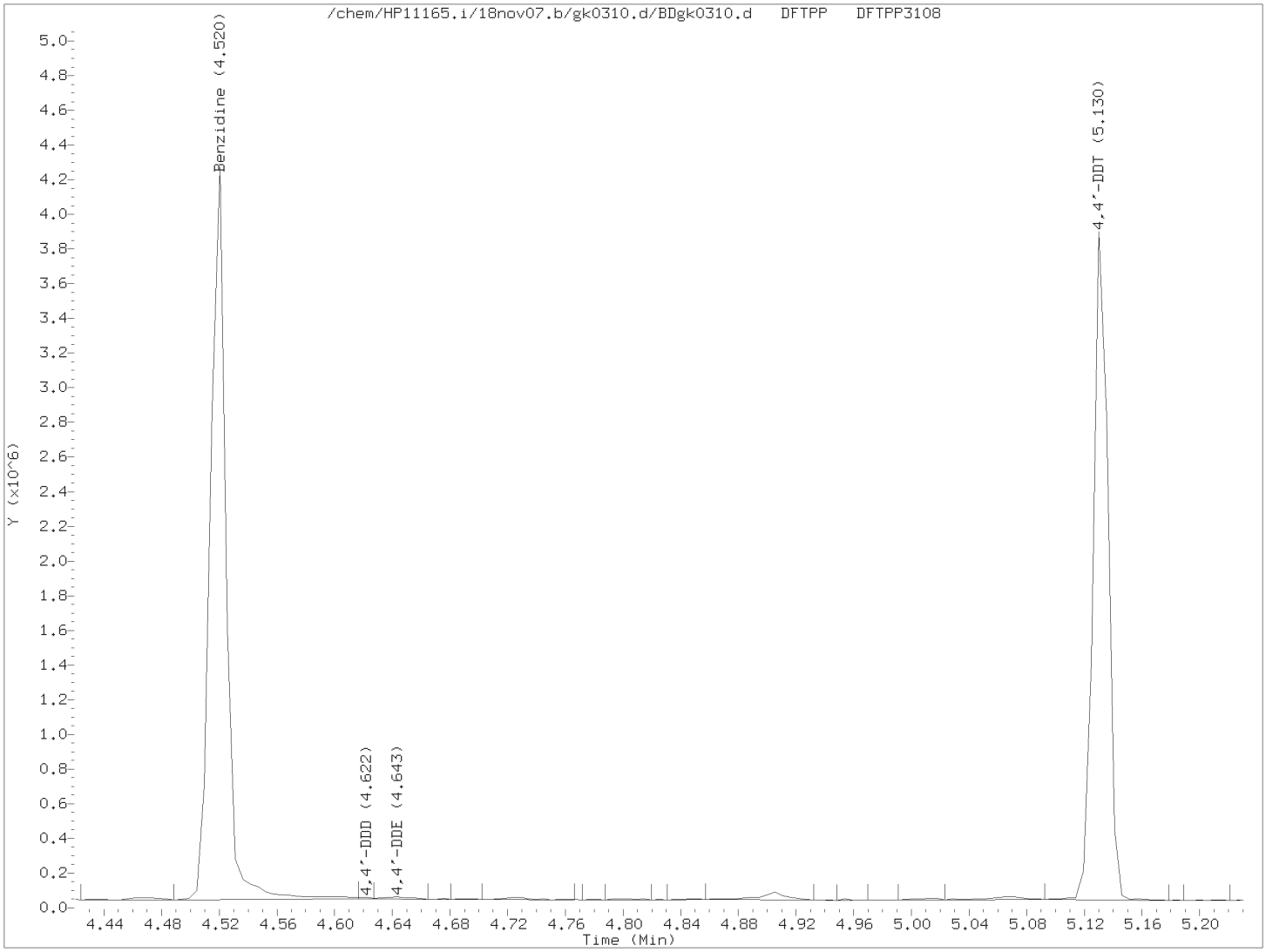
Benzidine EICP peak apex (min.) = 4.520
RT at 10% of front half of EICP (min.) = 4.509 'Front' peak width (min.) = 0.0118500000
RT at 10% of back half of EICP (min.) = 4.530 'Tailing' peak width (min.) = 0.0100166667

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0100166667}{0.0118500000} = 0.845$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

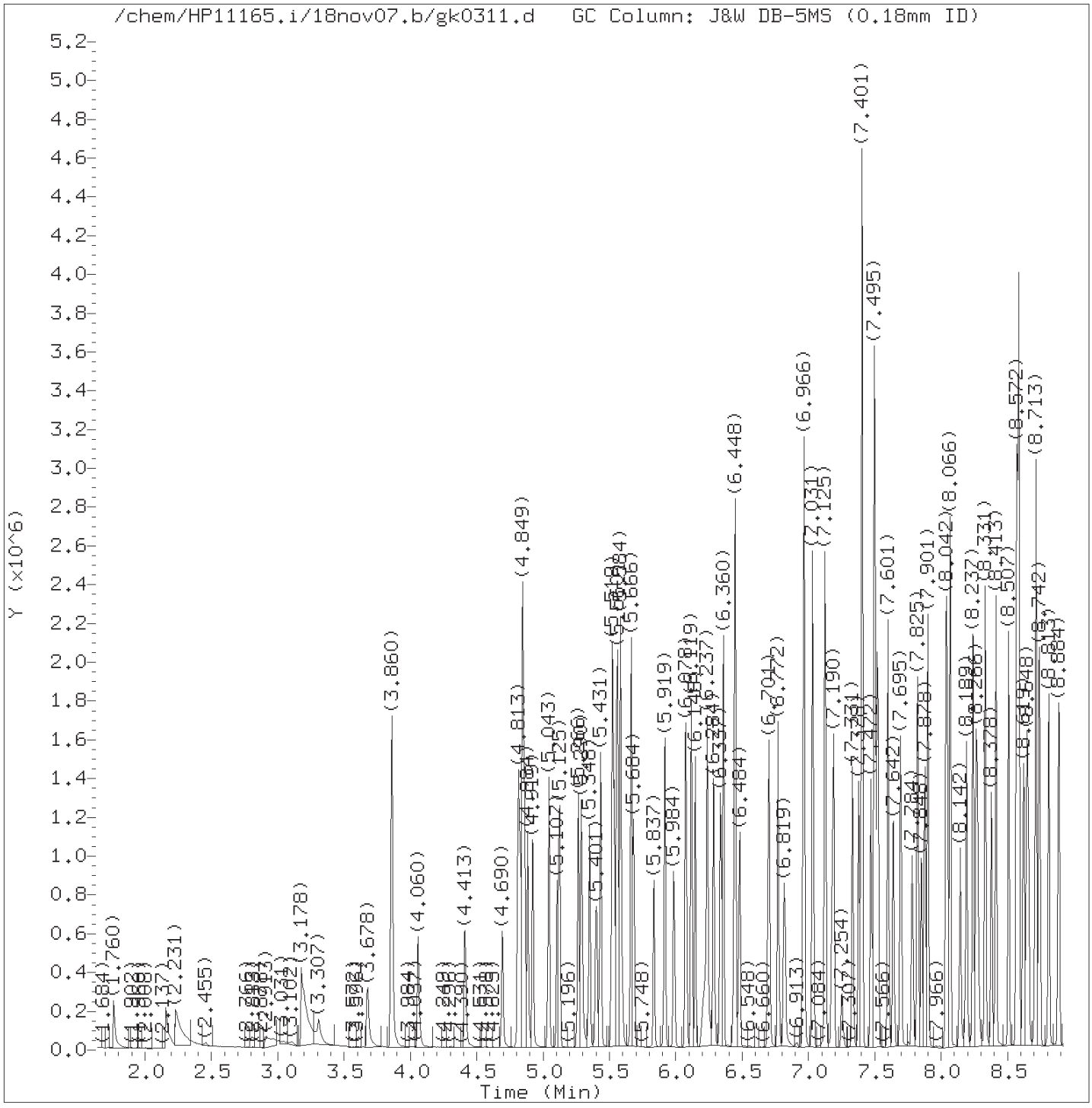
Instrument ID: HP11165.i Injection Date: 07-NOV-2018 08:54 Operator: em10340



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{17592 + 5778}{17592 + 5778 + 2779013} \times 100 = 0.8$$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

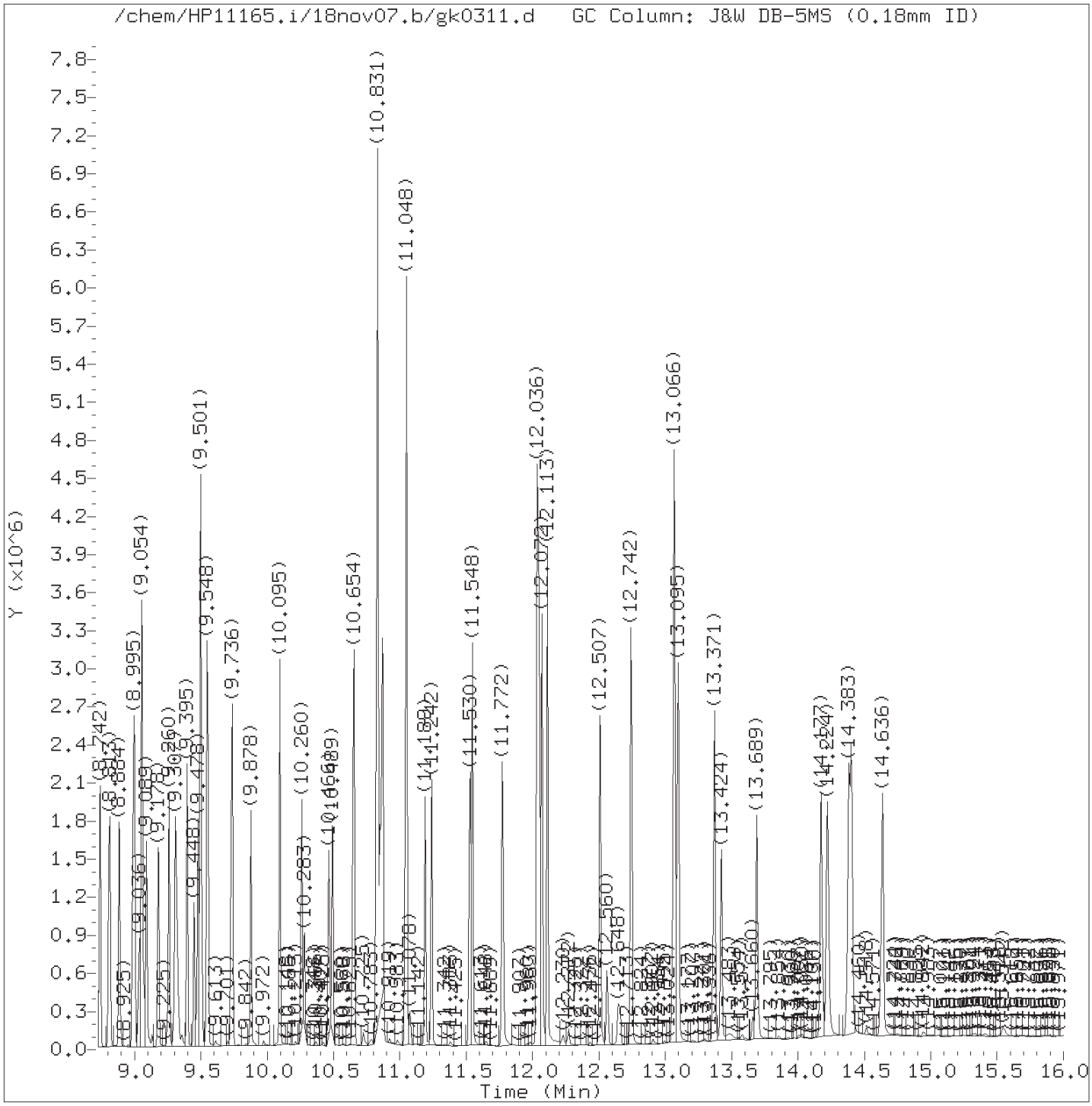
Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	1.760	88	126871	35.219
4) N-Nitrosodimethylamine	(1)	2.155	74	208035M	34.301
5) Pyridine	(1)	2.231	79	301678	28.886
7) 2-Picoline	(1)	3.178	93	331542	30.626
8) N-Nitrosomethylethylamine	(1)	3.307	88	162571M	33.158
9) Methyl methanesulfonate	(1)	3.678	80	141557	26.330
11)$2-Fluorophenol	(1)	3.860	112	560970	63.899
13) N-Nitrosodiethylamine	(1)	4.060	102	161535	32.941
15) Ethyl methanesulfonate	(1)	4.413	109	155658	30.650
19) Aniline	(1)	4.813	93	524217	32.456
20) a-methylstyrene	(1)	4.837	118	26881	30.713
17)$Phenol-d6	(1)	4.849	99	819497	64.870
18) Phenol	(1)	4.860	94	446354	33.097
22) bis(2-Chloroethyl)ether	(1)	4.884	93	329015	32.320
23) 2-Chlorophenol	(1)	4.925	128	284191	30.008
24) 1,3-Dichlorobenzene	(1)	5.043	146	299695	31.558
25)*1,4-Dichlorobenzene-d4	(1)	5.107	152	117346	20.000
26) 1,4-Dichlorobenzene	(1)	5.125	146	305122	31.995
28) 1,2-Dichlorobenzene	(1)	5.266	146	293754	32.074
27) Benzyl alcohol	(1)	5.290	108	216884	30.367
30) Indene	(1)	5.348	115	314007	30.066
34) bis(2-Chloroisopropyl)ether	(1)	5.401	45	344298	25.155
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.401	45	344298	25.155
31) 2-Methylphenol	(1)	5.431	108	312843	33.763
36) Acetophenone	(1)	5.519	105	421208	29.775
35) N-Nitrosopyrrolidine	(1)	5.525	100	192649	33.973
38) N-Nitroso-di-n-propylamine	(1)	5.537	70	265309	28.589
40) o-Toluidine	(1)	5.560	106	516283	30.757
39) N-Nitrosomorpholine	(1)	5.566	56	191790	26.785
43) Hexachloroethane	(1)	5.584	117	111485	30.098
37) 4-Methylphenol	(1)	5.584	108	333953	32.441
42) Total Cresols	(1)			646796	66.204
44)$Nitrobenzene-d5	(2)	5.666	82	683669	59.605
45) Nitrobenzene	(2)	5.684	77	360002	29.745
48) N-Nitrosopiperidine	(2)	5.837	114	169281	31.800
50) Isophorone	(2)	5.919	82	696722	31.220
51) 2-Nitrophenol	(2)	5.990	139	166235	34.465
53) 2,4-Dimethylphenol	(2)	6.078	107	324858	31.722
57) O,O,O-Triethylphosphorothioate	(2)	6.119	198	140538	32.143
55) bis(2-Chloroethoxy)methane	(2)	6.148	93	416939	32.390

M = Compound was manually integrated.
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Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.231	105	313025	35.894
60) 2,4-Dichlorophenol	(2)	6.237	162	258160	33.933
62) 1,2,4-Trichlorobenzene	(2)	6.290	180	244235	32.485
65)*Naphthalene-d8	(2)	6.337	136	512196	20.000
66) Naphthalene	(2)	6.360	128	897732	30.913
69) Hexachloropropene	(2)	6.437	213	108127	34.535
67) 4-Chloroaniline	(2)	6.448	127	375332	31.060
68) 2,6-Dichlorophenol	(2)	6.448	162	253587	33.528
71) Hexachlorobutadiene	(2)	6.484	225	110777	32.053
75) Quinoline	(2)	6.701	129	624162	32.157
77) N-Nitrosodi-n-butylamine	(2)	6.772	84	243757	24.003
76) Caprolactam	(2)	6.819	113	127706	34.860
80) 4-Chloro-3-methylphenol	(2)	6.960	107	305063	33.172
82) Safrole	(2)	6.966	162	246303	33.272
83) 2-Methylnaphthalene	(2)	7.031	142	633633	31.523
84) 1-Methylnaphthalene	(2)	7.125	142	607855	31.886
85) Hexachlorocyclopentadiene	(3)	7.178	237	108478	26.052
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.190	216	228844	28.802
88) cis-Isosafrole	(3)	7.254	162	43633	5.134
90) 2,4,6-Trichlorophenol	(3)	7.331	196	176581	31.860
92) 2,4,5-Trichlorophenol	(3)	7.378	196	193439	30.891
97) Isosafrole	(3)			251353	29.843
93)$2-Fluorobiphenyl	(3)	7.401	172	1330865	56.742
94) trans-Isosafrole	(3)	7.472	162	207720	24.710
95) 1,1'-Biphenyl	(3)	7.495	154	754755	28.929
96) 2-Chloronaphthalene	(3)	7.501	162	680099M	33.885
98) 1-Chloronaphthalene	(3)	7.519	162	600585M	30.737
99) Diphenyl ether	(3)	7.601	170	408024	29.524
100) 2-Nitroaniline	(3)	7.642	138	219264	32.880
104) 1,4-Naphthoquinone	(3)	7.695	158	262046	29.523
105) 1,4-Dinitrobenzene	(3)	7.784	168	114786	33.672
106) Dimethylphthalate	(3)	7.825	163	699119	29.101
107) 1,3-Dinitrobenzene	(3)	7.854	168	130018	33.120
108) 2,6-Dinitrotoluene	(3)	7.878	165	171942	33.027
109) Acenaphthylene	(3)	7.901	152	888449	31.177
113)*Acenaphthene-d10	(3)	8.037	164	293901	20.000
112) 3-Nitroaniline	(3)	8.042	138	198850	32.283
120) 2,4_2,6-Dinitrotoluenes	(3)			399133	64.489
114) Acenaphthene	(3)	8.066	153	632803	28.950
115) 2,4-Dinitrophenol	(3)	8.142	184	142704	44.980

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.189	250	215947	28.802
119) Dibenzofuran	(3)	8.242	168	883689	30.659
118) 2,4-Dinitrotoluene	(3)	8.266	165	227191	31.463
116) 4-Nitrophenol	(3)	8.278	109	96236	24.243
121) 1-Naphthylamine	(3)	8.331	143	738503	30.137
122) 2,3,4,6-Tetrachlorophenol	(3)	8.378	232	145124	29.782
123) 2-Naphthylamine	(3)	8.413	143	719743	29.825
124) Diethylphthalate	(3)	8.507	149	677634	28.109
126) Fluorene	(3)	8.572	166	739438	29.950
125) Thionazin	(3)	8.584	107	127978	31.436
127) 4-Chlorophenyl-phenylether	(3)	8.589	204	326933	30.506
128) 5-Nitro-o-toluidine	(3)	8.619	152	231002	32.032
129) 4-Nitroaniline	(3)	8.648	138	219526	31.976
130) 4,6-Dinitro-2-methylphenol	(4)	8.654	198	140656	35.170
132) NDPA as diphenylamine	(4)	8.713	169	639010	28.669
131) N-Nitrosodiphenylamine	(4)	8.713	169	639010	28.669
134) 1,2-Diphenylhydrazine	(4)	8.742	77	818536	26.157
146) Diallate trans/cis	(4)			389387	27.493
135)$2,4,6-Tribromophenol	(3)	8.813	330	173309	51.675
137) Tetraethyldithiopyrophosphate	(4)	8.884	97	117223	25.159
140) Diallate (peak 1)	(4)	8.989	86	330536	22.632
141) Phorate	(4)	9.001	75	527200	28.714
139) 1,3,5-Trinitrobenzene	(4)	9.036	213	85946	33.924
142) Phenacetin	(4)	9.054	108	418749	28.817
143) 4-Bromophenyl-phenylether	(4)	9.060	248	189698	28.026
144) Diallate (peak 2)	(4)	9.072	86	58851	4.861
145) Hexachlorobenzene	(4)	9.089	284	187024	26.351
147) Dimethoate	(4)	9.178	87	367536	32.418
151) Pentachloronitrobenzene	(4)	9.307	237	72850	28.658
149) Pentachlorophenol	(4)	9.313	266	119547	25.017
150) 4-Aminobiphenyl	(4)	9.325	169	279387	27.580
152) Pronamide	(4)	9.395	173	308176	28.889
153)*Phenanthrene-d10	(4)	9.478	188	590993	20.000
154) Dinoseb	(4)	9.501	211	187541	32.866
155) Phenanthrene	(4)	9.501	178	1097682	29.279
157) Anthracene	(4)	9.548	178	1118663	29.473
163) Carbazole	(4)	9.736	167	1070019	29.753
164) Methyl parathion	(4)	9.878	109	264066	31.861
165) Di-n-butylphthalate	(4)	10.095	149	1233461	27.617
167) Parathion	(4)	10.260	109	163891	30.393

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$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.283	190	87812	30.148
169) Octachlorostyrene	(4)	10.466	308	75887	26.414
171) Isodrin	(4)	10.495	193	115167	29.146
173) Fluoranthene	(4)	10.654	202	1161958	30.368
174) Benzidine	(5)	10.831	184	2571958	97.909
175)*Pyrene-d10	(5)	10.848	212	552897	20.000
177) Pyrene	(5)	10.872	202	1162646	28.134
179)$Terphenyl-d14	(5)	11.048	244	1635137	55.793
182) p-Dimethylaminoazobenzene	(5)	11.189	225	198256	32.844
185) Chlorobenzilate	(5)	11.242	139	338391	26.312
187) 3,3'-Dimethylbenzidine	(5)	11.530	212	739125	30.620
188) Butylbenzylphthalate	(5)	11.548	149	580461	28.659
191) 2-Acetylaminofluorene	(5)	11.772	181	509621	32.962
195) Benzo(a)anthracene	(5)	12.036	228	1142463	31.323
193) 3,3'-Dichlorobenzidine	(5)	12.042	252	453266	32.093
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.054	231	213244	30.329
196) Chrysene	(5)	12.072	228	1086630	30.108
199) bis(2-Ethylhexyl)phthalate	(5)	12.113	149	776221	27.872
203) 6-Methylchrysene	(5)	12.513	242	803947	31.564
205) Di-n-octylphthalate	(6)	12.742	149	1360335	28.589
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.066	256	557390	31.541
206) Benzo(b)fluoranthene	(6)	13.072	252	1117255	30.342
208) Benzo(k)fluoranthene	(6)	13.095	252	1112603	29.984
211) Benzo(a)pyrene	(6)	13.371	252	1034942	32.147
213)*Perylene-d12	(6)	13.424	264	544132	20.000
215) 3-Methylcholanthrene	(6)	13.689	268	431455	32.411
217) Dibenz(a,h)acridine	(6)	14.177	279	814468	32.116
218) Dibenz(a,j)acridine	(6)	14.224	279	887650	31.683
219) Indeno(1,2,3-cd)pyrene	(6)	14.383	276	1143521	32.407
220) Dibenz(a,h)anthracene	(6)	14.401	278	970970	32.424
221) Benzo(g,h,i)perylene	(6)	14.636	276	948454	32.417
222) Total PAHs	(6)			17497697	552.805

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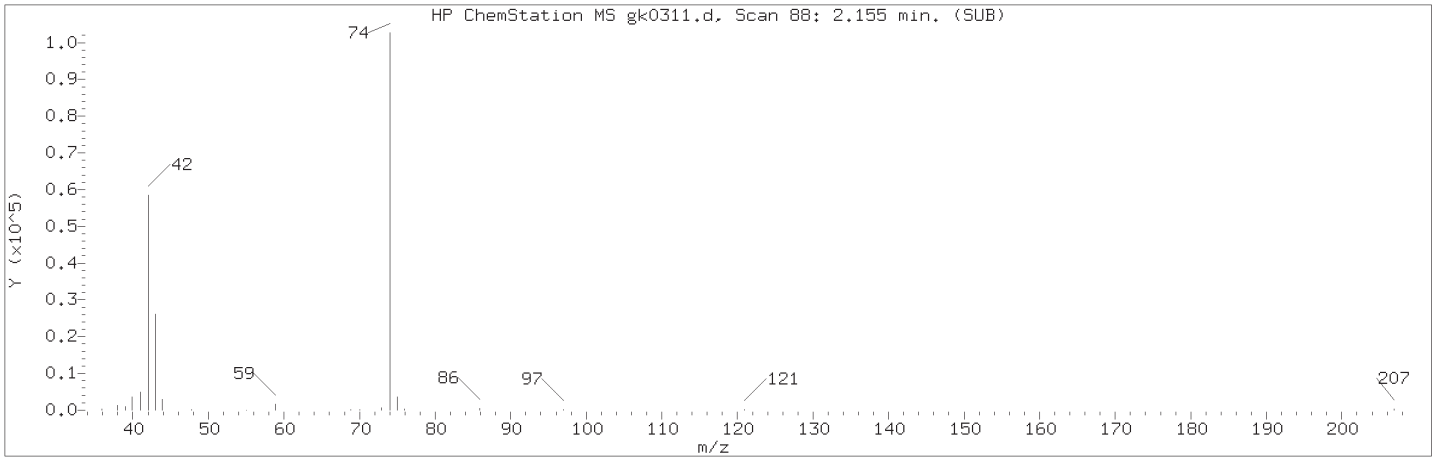
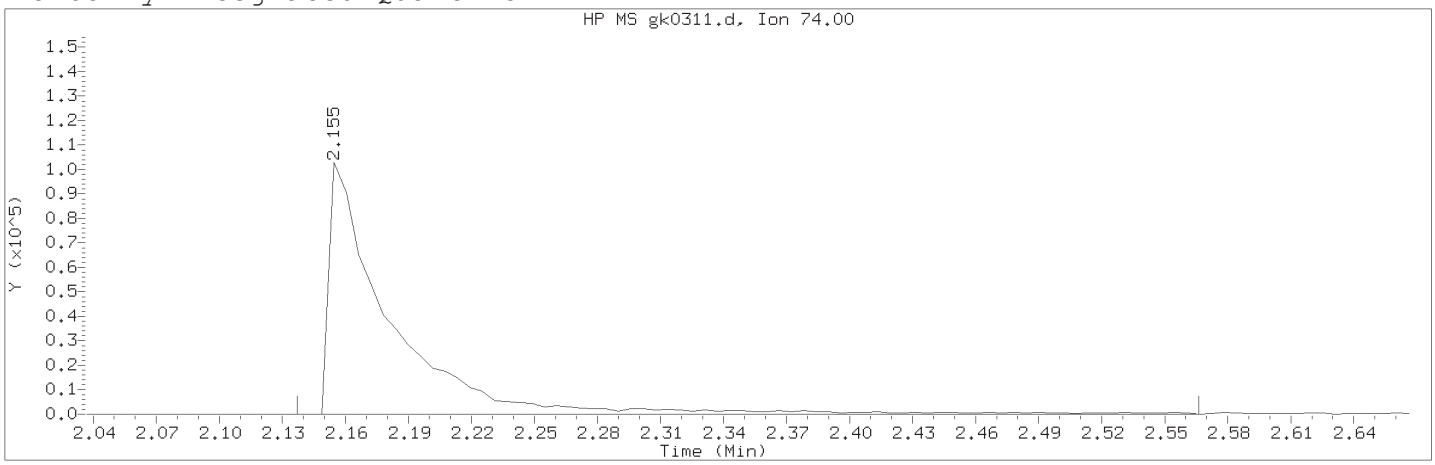
Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

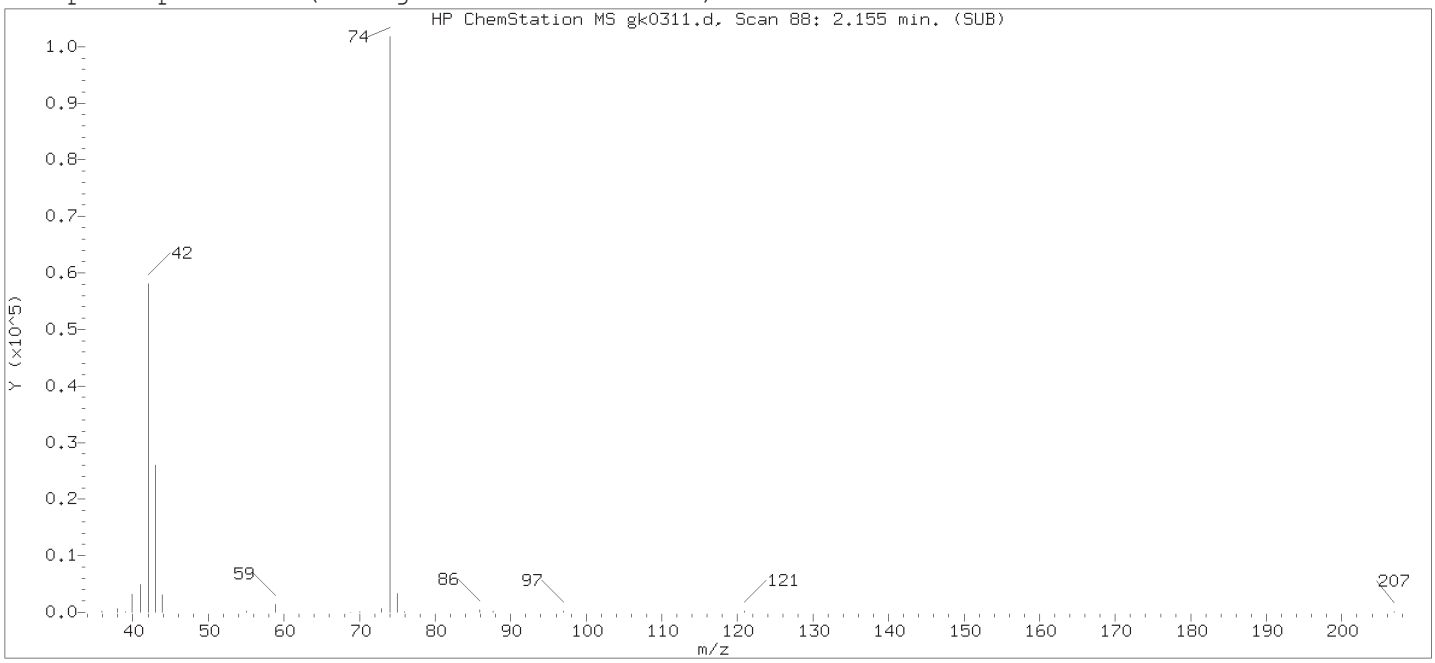
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 88		
Retention Time (minutes)	: 2.155		
Quant Ion	: 74.00		
Area (flag)	: 208035M		
On-Column Amount (ng/ul)	: 34.3011		
Integration start scan	: 84	Integration stop scan:	157
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

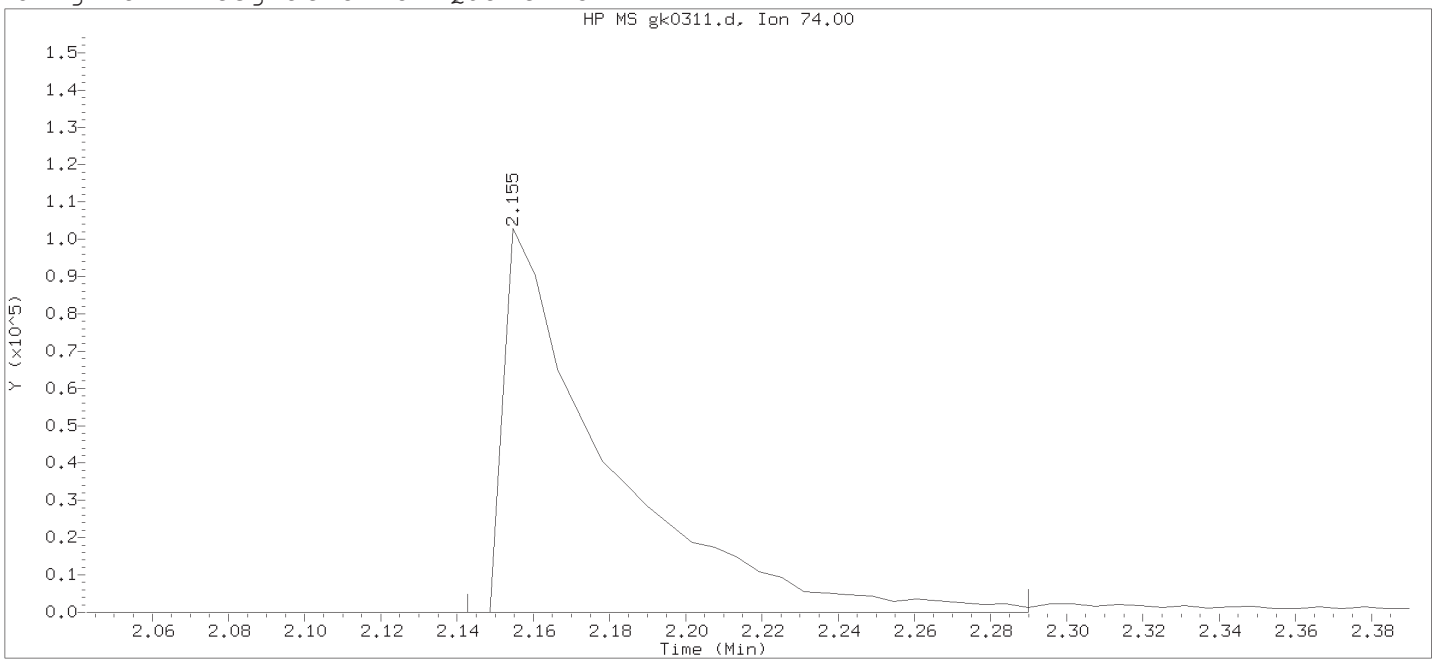
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

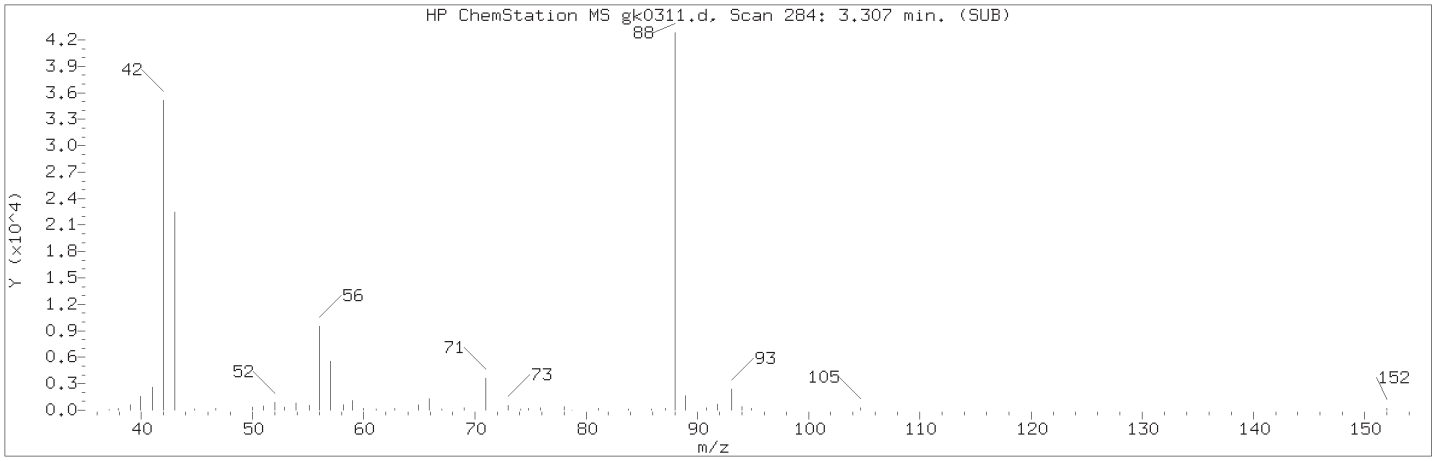
Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 09:34
Date, time and analyst ID of latest file update: 07-Nov-2018 09:34 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

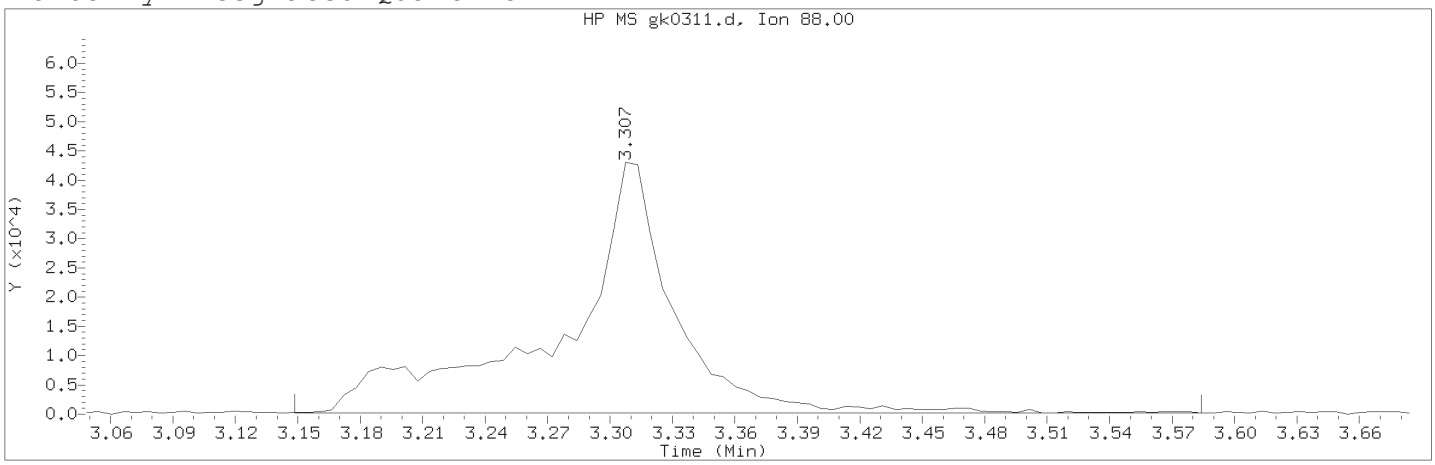
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 88		
Retention Time (minutes)	: 2.155		
Quant Ion	: 74.00		
Area	: 193004		
On-column Amount (ng/ul)	: 31.8227		
Integration start scan	: 85	Integration stop scan:	110
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

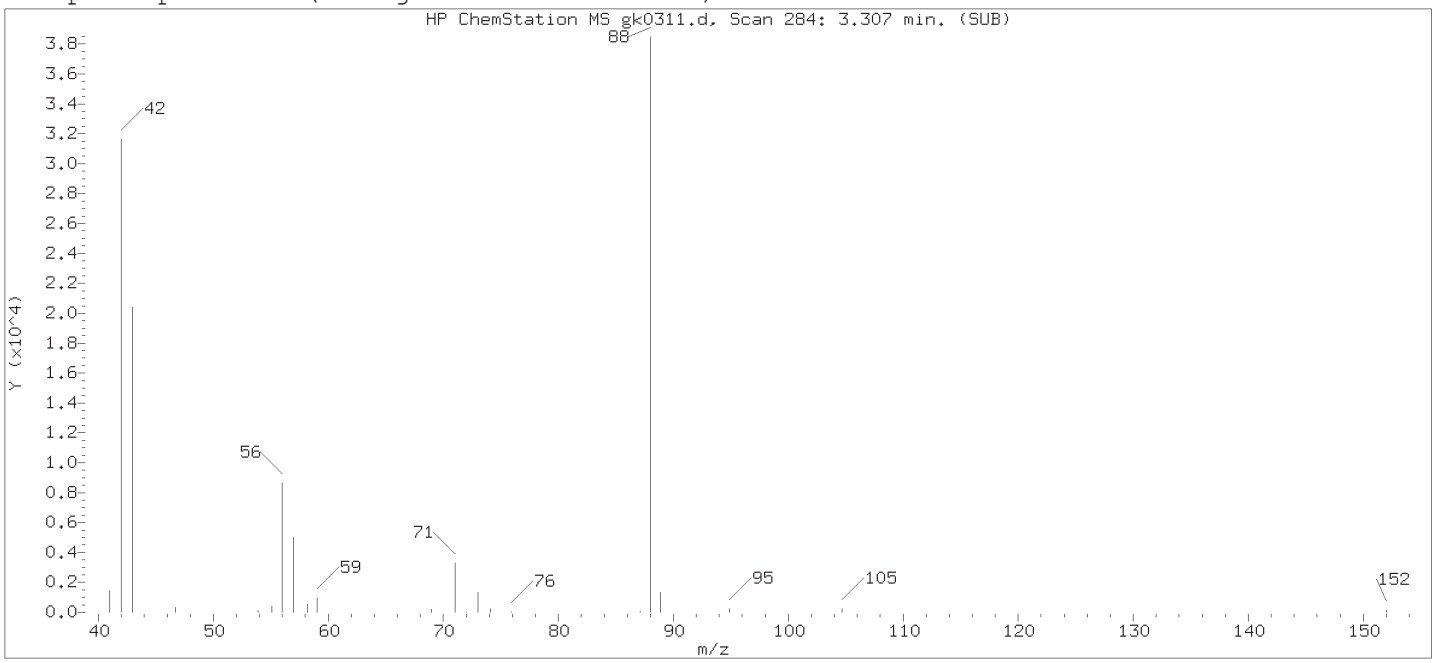
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 284		
Retention Time (minutes)	: 3.307		
Quant Ion	: 88.00		
Area (flag)	: 162571M		
On-Column Amount (ng/ul)	: 33.1583		
Integration start scan	: 256	Integration stop scan:	330
Y at integration start	: 185	Y at integration end:	185

Reason for manual integration: improper integration

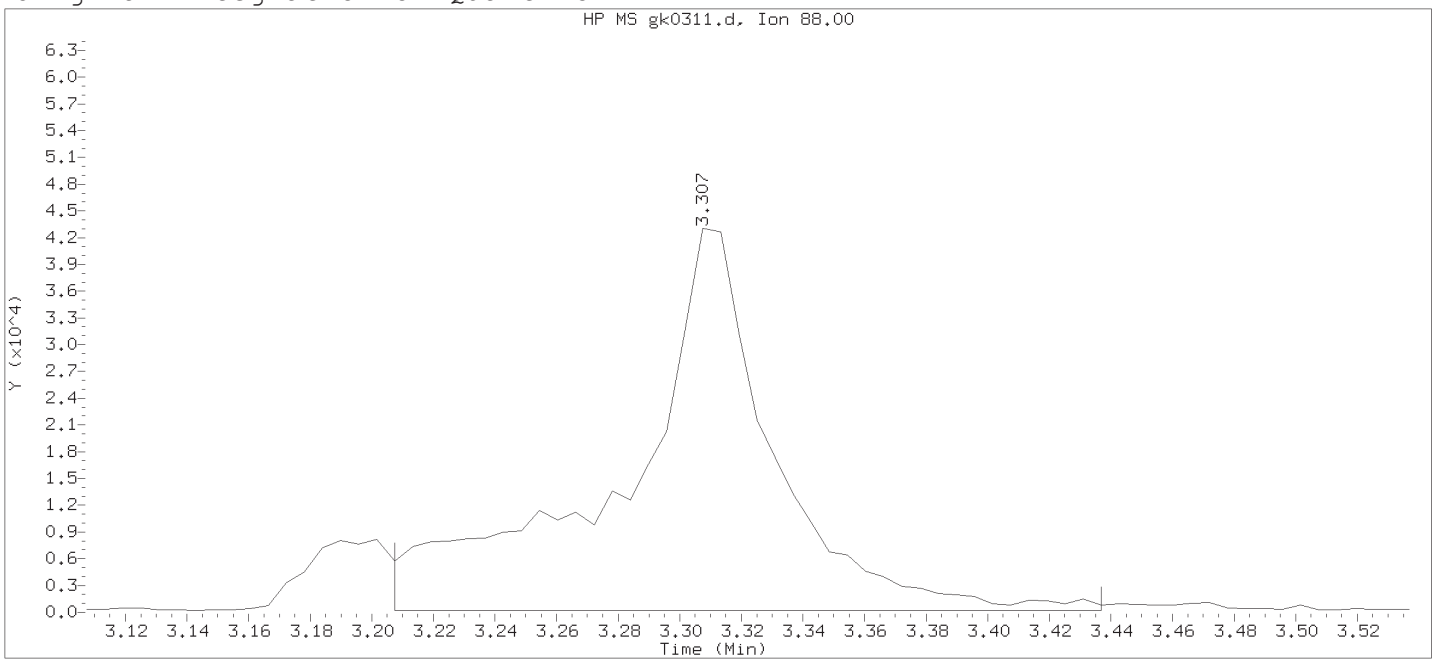
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

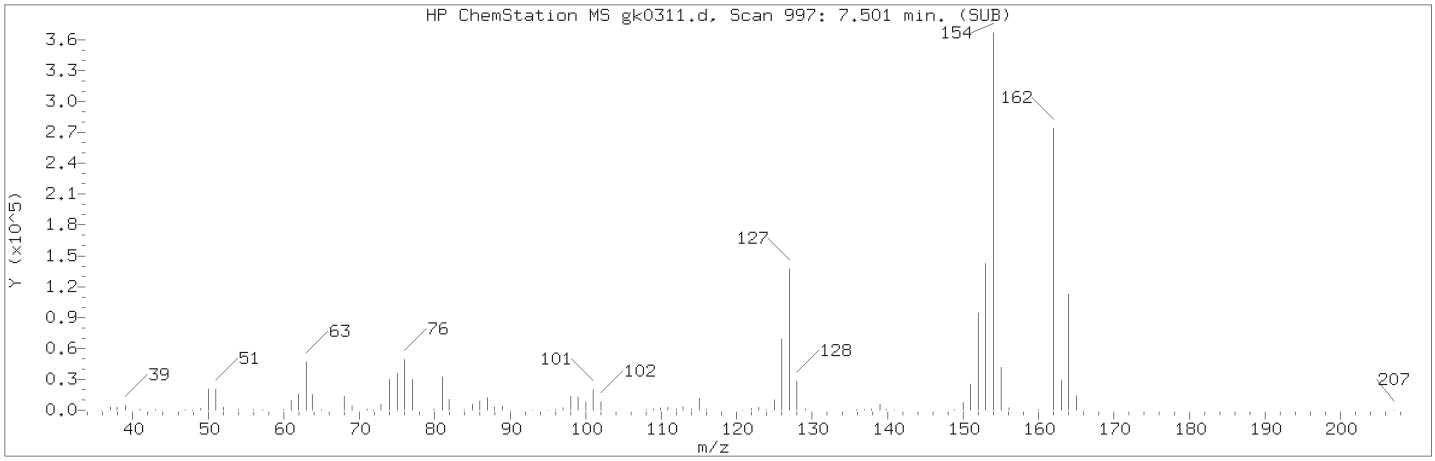
Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 09:34
Date, time and analyst ID of latest file update: 07-Nov-2018 09:34 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

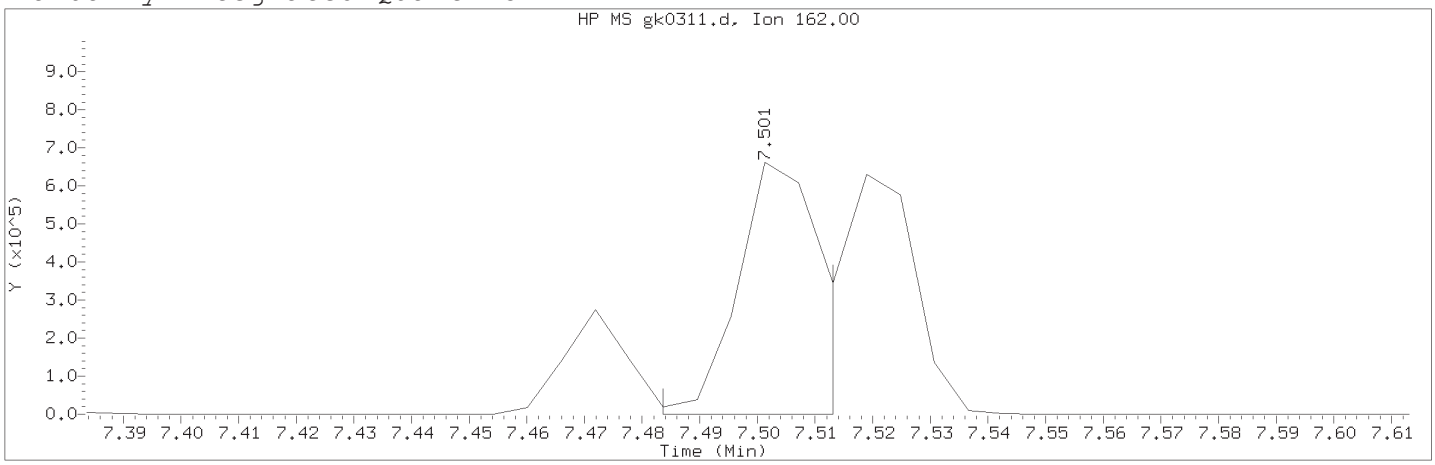
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 284		
Retention Time (minutes)	: 3.307		
Quant Ion	: 88.00		
Area	: 145030		
On-column Amount (ng/ul)	: 29.5805		
Integration start scan	: 266	Integration stop scan:	305
Y at integration start	: 179	Y at integration end:	179

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature used 11/07/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

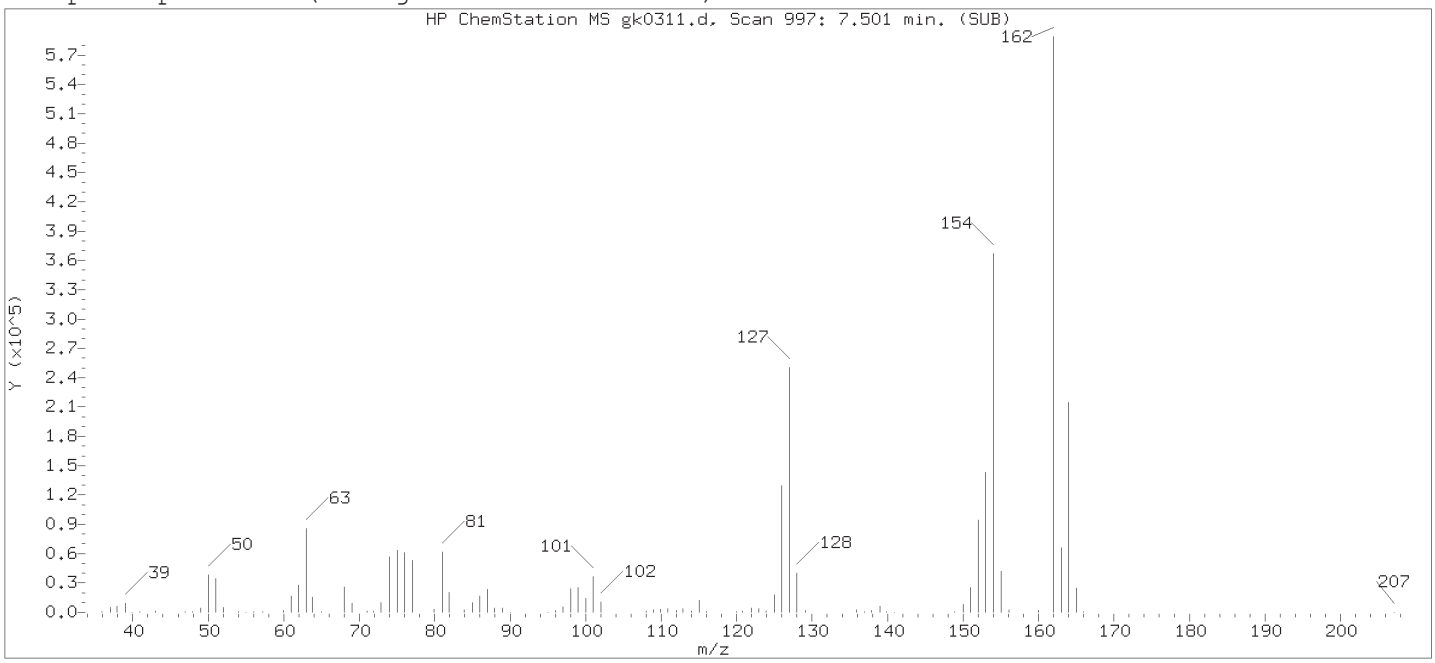
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 997		
Retention Time (minutes)	: 7.501		
Quant Ion	: 162.00		
Area (flag)	: 680099M		
On-Column Amount (ng/ul)	: 33.8853		
Integration start scan	: 993	Integration stop scan:	998
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

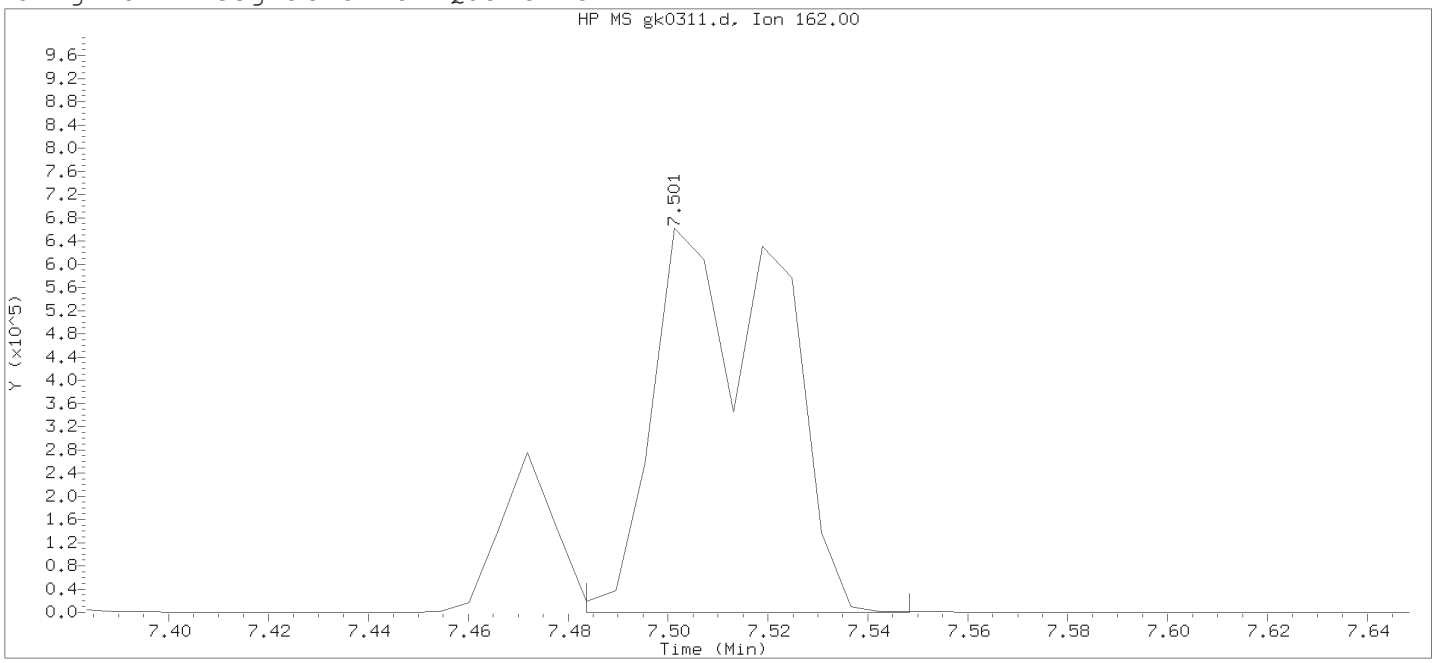
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

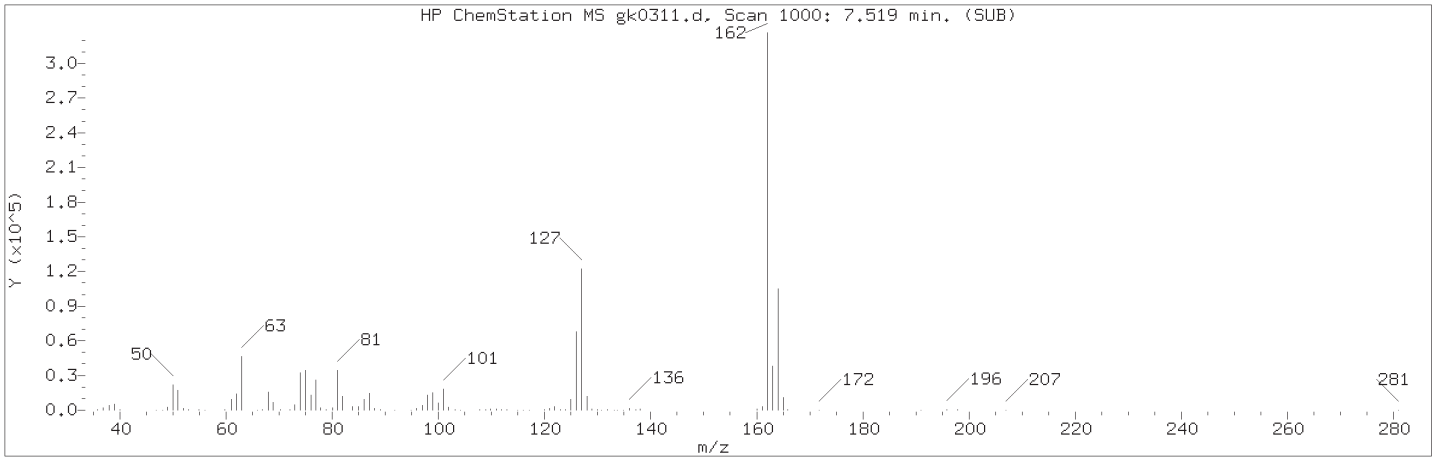
Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 09:34
Date, time and analyst ID of latest file update: 07-Nov-2018 09:34 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

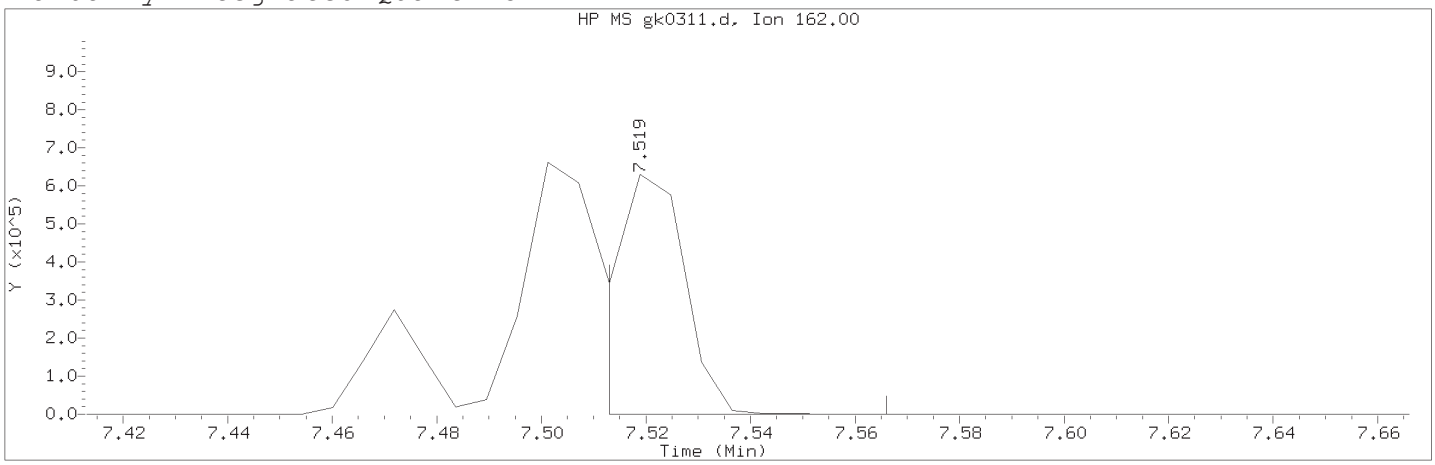
Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 997
Retention Time (minutes)	: 7.501
Quant Ion	: 162.00
Area	: 1154921
On-column Amount (ng/ul)	: 57.5429
Integration start scan	: 993 Integration stop scan: 1004
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature used 11/07/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:30 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

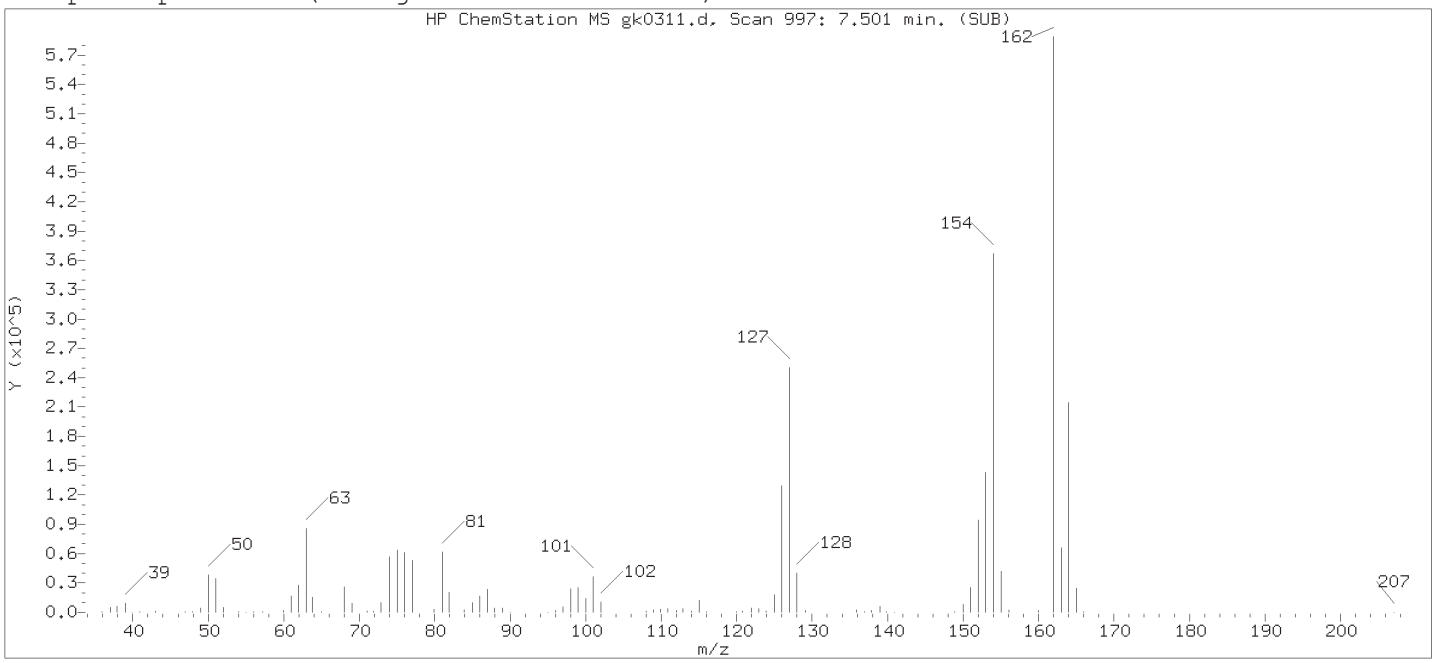
Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1000		
Retention Time (minutes)	: 7.519		
Quant Ion	: 162.00		
Area (flag)	: 600585M		
On-Column Amount (ng/ul)	: 30.7367		
Integration start scan	: 998	Integration stop scan:	1007
Y at integration start	: -68	Y at integration end:	-68

Reason for manual integration: improper integration

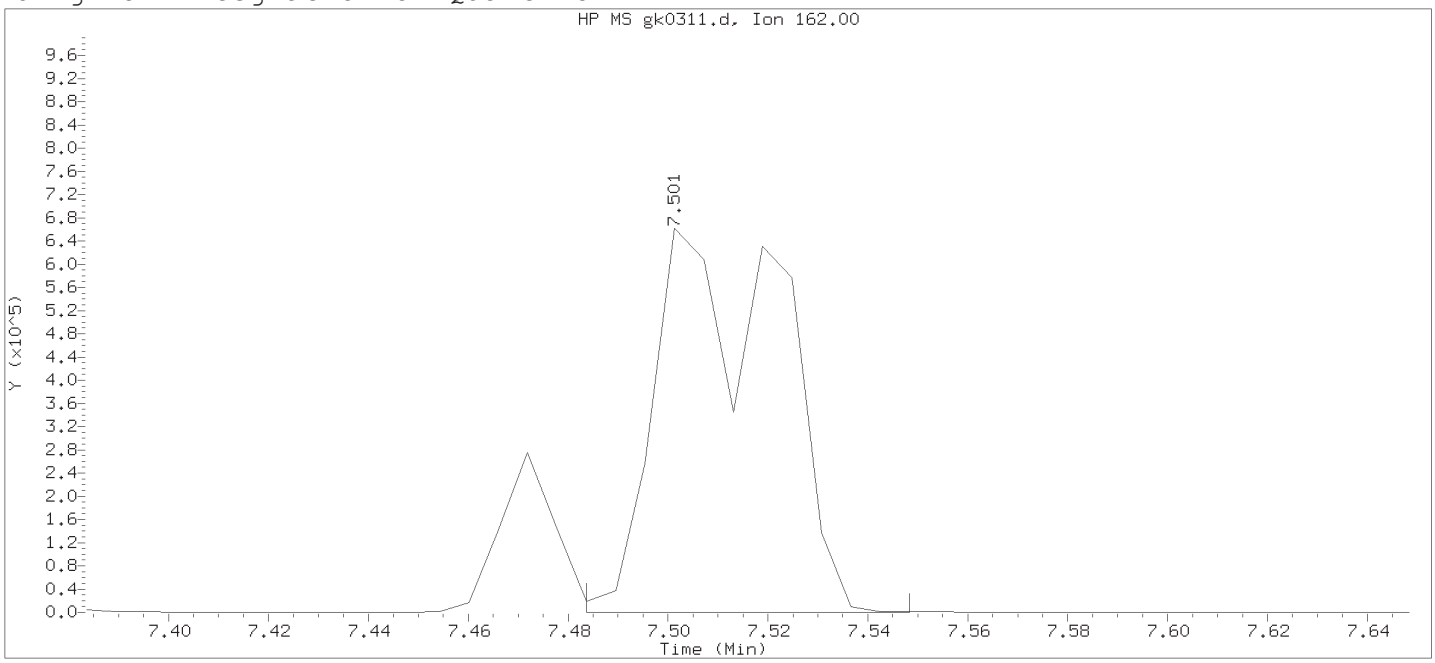
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/07/2018 at 13:29.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 10:20.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



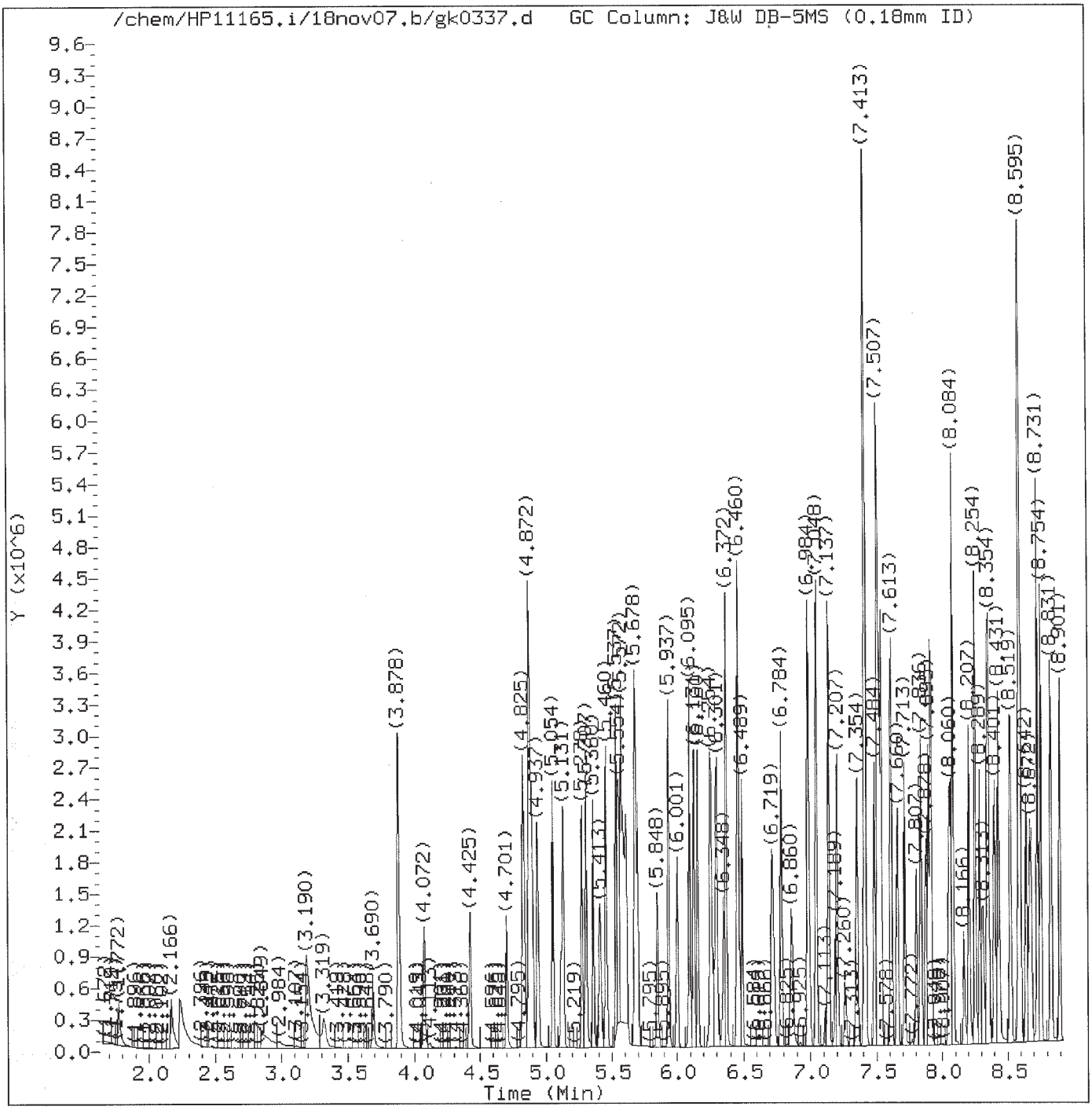
Data File: /chem/HP11165.i/18nov07.b/gk0311.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 09:12 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 09:34
Date, time and analyst ID of latest file update: 07-Nov-2018 09:34 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 997		
Retention Time (minutes)	: 7.501		
Quant Ion	: 162.00		
Area	: 1154921		
On-column Amount (ng/ul)	: 59.1065		
Integration start scan	: 993	Integration stop scan:	1004
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/07/2018 at 13:29.
Target 3.5 esignature used 11/07/2018



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0337.d
Injection date and time: 07-NOV-2018 19:48

Instrument ID: HP11165.i
Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m
Calibration date and time: 07-NOV-2018 20:00

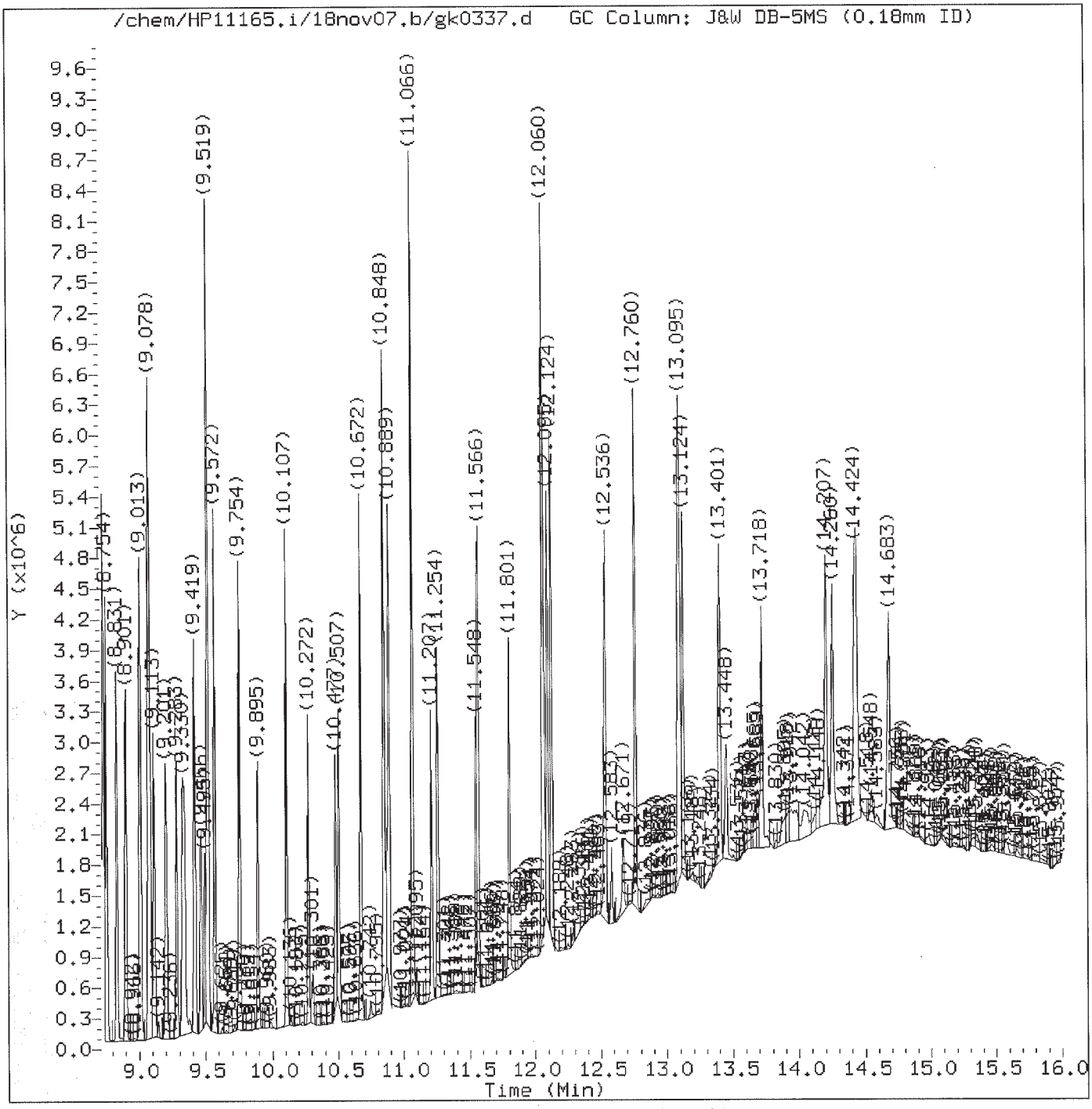
Sublist used: 25806

Date, time and analyst ID of latest file update: 07-Nov-2018 20:48 bkc25363

Sample Name: SECC050

Lab Sample ID: STD2928

Digitally signed by Brandon K. Cordova
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0337.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 19:48 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 07-NOV-2018 20:00
Date, time and analyst ID of latest file update: 07-Nov-2018 20:48 bkc25363

Sample Name: SECC050 Lab Sample ID: STD2928

Digitally signed by Brandon K. Cordova
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0337.d
Injection date and time: 07-NOV-2018 19:48
Instrument ID: HP11165.i
Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m
Calibration date and time: 07-NOV-2018 20:00
Sublist used: 25806
Date, time and analyst ID of latest file update: 07-Nov-2018 20:48 bkc25363

Sample Name: SECC050
Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.231	79	599227	51.065
11)$2-Fluorophenol	(1)	3.884	112	988250	100.186
19) Aniline	(1)	4.825	93	985657	54.313
17)$Phenol-d6	(1)	4.872	99	1551123	109.277
18) Phenol	(1)	4.884	94	840855	55.491
22) bis(2-Chloroethyl)ether	(1)	4.895	93	639376	55.898
23) 2-Chlorophenol	(1)	4.937	128	504810	47.440
24) 1,3-Dichlorobenzene	(1)	5.054	146	521360	48.860
25)*1,4-Dichlorobenzene-d4	(1)	5.119	152	131850	20.000
26) 1,4-Dichlorobenzene	(1)	5.137	146	535039	49.933
28) 1,2-Dichlorobenzene	(1)	5.278	146	520428	50.573
27) Benzyl alcohol	(1)	5.307	108	425166	52.980
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.413	45	603288	39.228
31) 2-Methylphenol	(1)	5.460	108	584982	56.188
38) N-Nitroso-di-n-propylamine	(1)	5.554	70	518677	49.743
43) Hexachloroethane	(1)	5.590	117	200715	48.227
37) 4-Methylphenol	(1)	5.607	108	618827	53.501
44)$Nitrobenzene-d5	(2)	5.678	82	1372112	107.727
45) Nitrobenzene	(2)	5.695	77	709009	52.755
50) Isophorone	(2)	5.937	82	1340259	54.083
51) 2-Nitrophenol	(2)	6.001	139	304467	56.845
53) 2,4-Dimethylphenol	(2)	6.095	107	614727	54.056
55) bis(2-Chloroethoxy)methane	(2)	6.160	93	781267	54.655
60) 2,4-Dichlorophenol	(2)	6.254	162	479985	56.815
62) 1,2,4-Trichlorobenzene	(2)	6.301	180	461213	55.242
65)*Naphthalene-d8	(2)	6.348	136	568773	20.000
67) 4-Chloroaniline	(2)	6.466	127	635040	47.324
71) Hexachlorobutadiene	(2)	6.489	225	225055	58.642
80) 4-Chloro-3-methylphenol	(2)	6.989	107	559451	54.782
83) 2-Methylnaphthalene	(2)	7.048	142	1154487	51.723
85) Hexachlorocyclopentadiene	(3)	7.189	237	153837	32.490
90) 2,4,6-Trichlorophenol	(3)	7.354	196	350250	55.574
92) 2,4,5-Trichlorophenol	(3)	7.407	196	374079	52.535
93)$2-Fluorobiphenyl	(3)	7.419	172	2591582	97.169
96) 2-Chloronaphthalene	(3)	7.519	162	1384867M	60.679
100) 2-Nitroaniline	(3)	7.660	138	385869	50.885
106) Dimethylphthalate	(3)	7.842	163	1269227	46.461
108) 2,6-Dinitrotoluene	(3)	7.895	165	312005	52.703
113)*Acenaphthene-d10	(3)	8.048	164	334201	20.000
112) 3-Nitroaniline	(3)	8.066	138	344057	49.122

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0337.d
Injection date and time: 07-NOV-2018 19:48
Instrument ID: HP11165.i
Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m
Calibration date and time: 07-NOV-2018 20:00
Sublist used: 25806
Date, time and analyst ID of latest file update: 07-Nov-2018 20:48 bkc25363

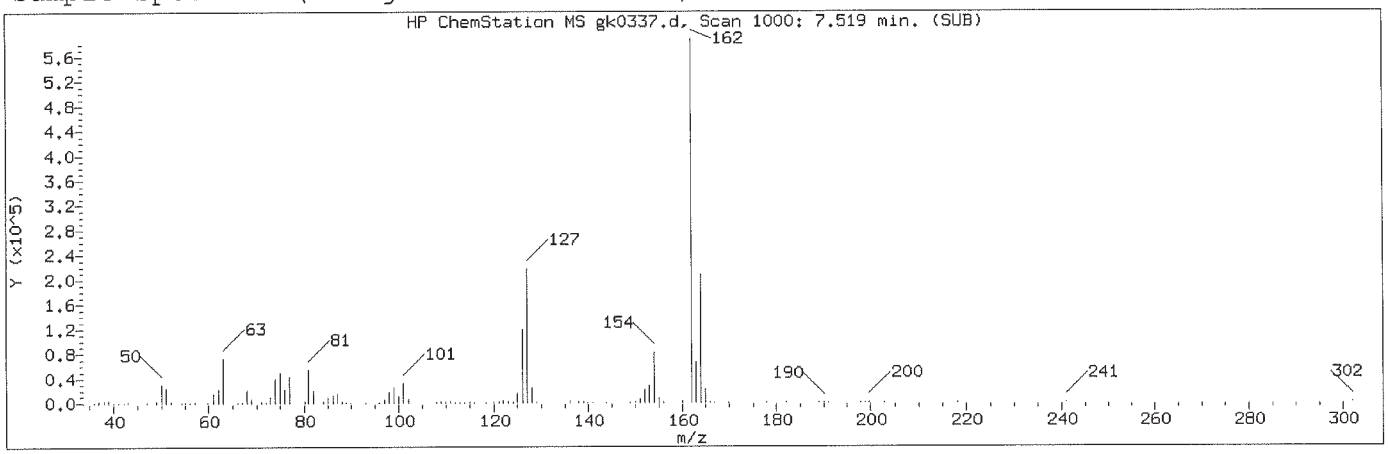
Sample Name: SECC050
Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.172	184	163150	45.224
119) Dibenzofuran	(3)	8.254	168	1613822	49.240
118) 2,4-Dinitrotoluene	(3)	8.289	165	404016	49.204
116) 4-Nitrophenol	(3)	8.313	109	175117	38.794
124) Diethylphthalate	(3)	8.525	149	1198961	43.737
127) 4-Chlorophenyl-phenylether	(3)	8.601	204	630905	51.771
129) 4-Nitroaniline	(3)	8.672	138	348503	44.641
130) 4,6-Dinitro-2-methylphenol	(4)	8.683	198	232188	54.241
131) N-Nitrosodiphenylamine	(4)	8.731	169	1172918	49.163
135)$2,4,6-Tribromophenol	(3)	8.831	330	320380	84.007
143) 4-Bromophenyl-phenylether	(4)	9.072	248	353401	48.779
145) Hexachlorobenzene	(4)	9.113	284	344395	45.335
149) Pentachlorophenol	(4)	9.336	266	197909	38.693
153)*Phenanthrene-d10	(4)	9.495	188	632575	20.000
163) Carbazole	(4)	9.754	167	1740842	45.224
175)*Pyrene-d10	(5)	10.872	212	532256	20.000
179)$Terphenyl-d14	(5)	11.066	244	2514729	89.133
193) 3,3'-Dichlorobenzidine	(5)	12.066	252	584500	42.990
205) Di-n-octylphthalate	(6)	12.760	149	1945331	55.989
213)*Perylene-d12	(6)	13.448	264	397331	20.000

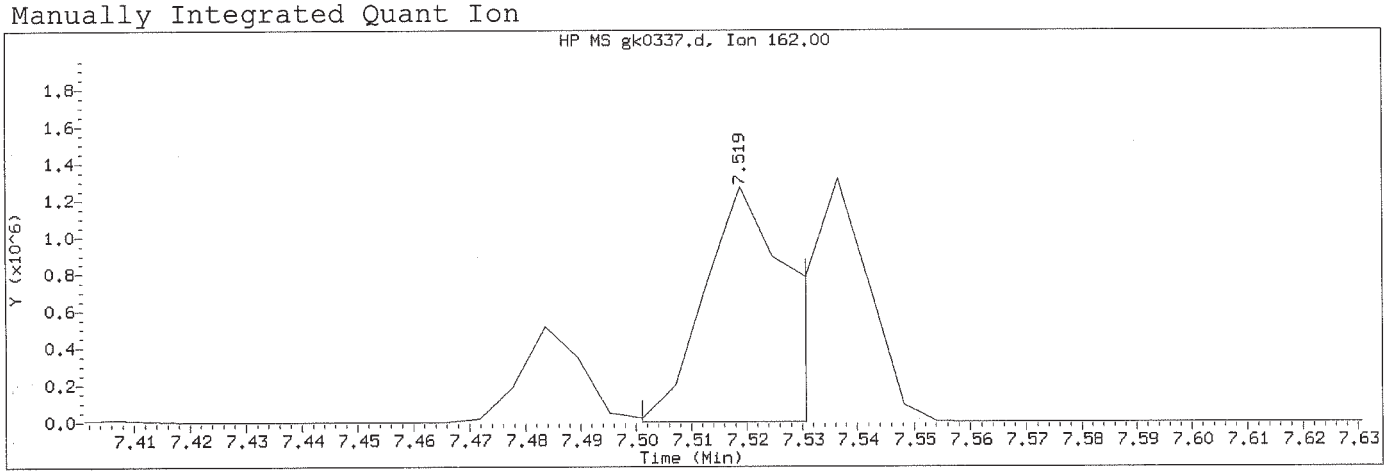
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0337.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 19:48 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 07-NOV-2018 20:00
Date, time and analyst ID of latest file update: 07-Nov-2018 20:48 bkc25363

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1000		
Retention Time (minutes)	: 7.519		
Quant Ion	: 162.00		
Area (flag)	: 1384867M		
On-Column Amount (ng/ul)	: 60.6794		
Integration start scan	: 996	Integration stop scan:	1001
Y at integration start	: 0	Y at integration end:	0

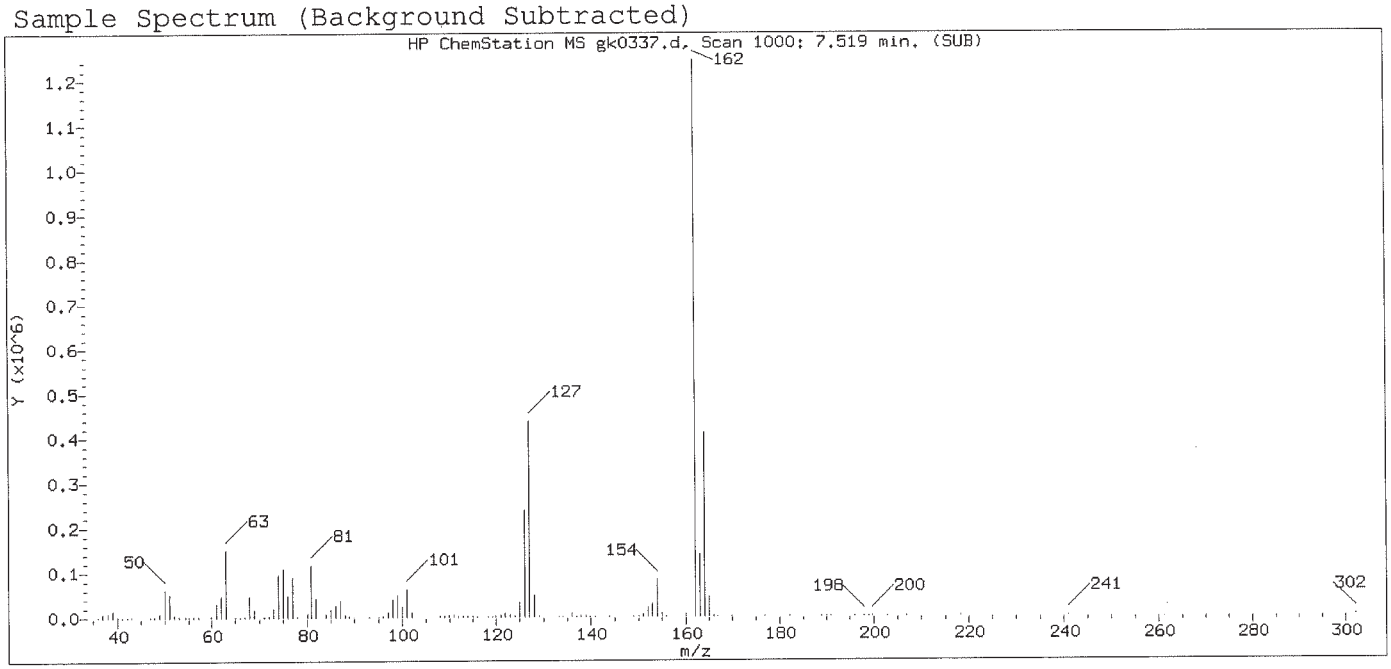
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Brandon K. Cordova
on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363

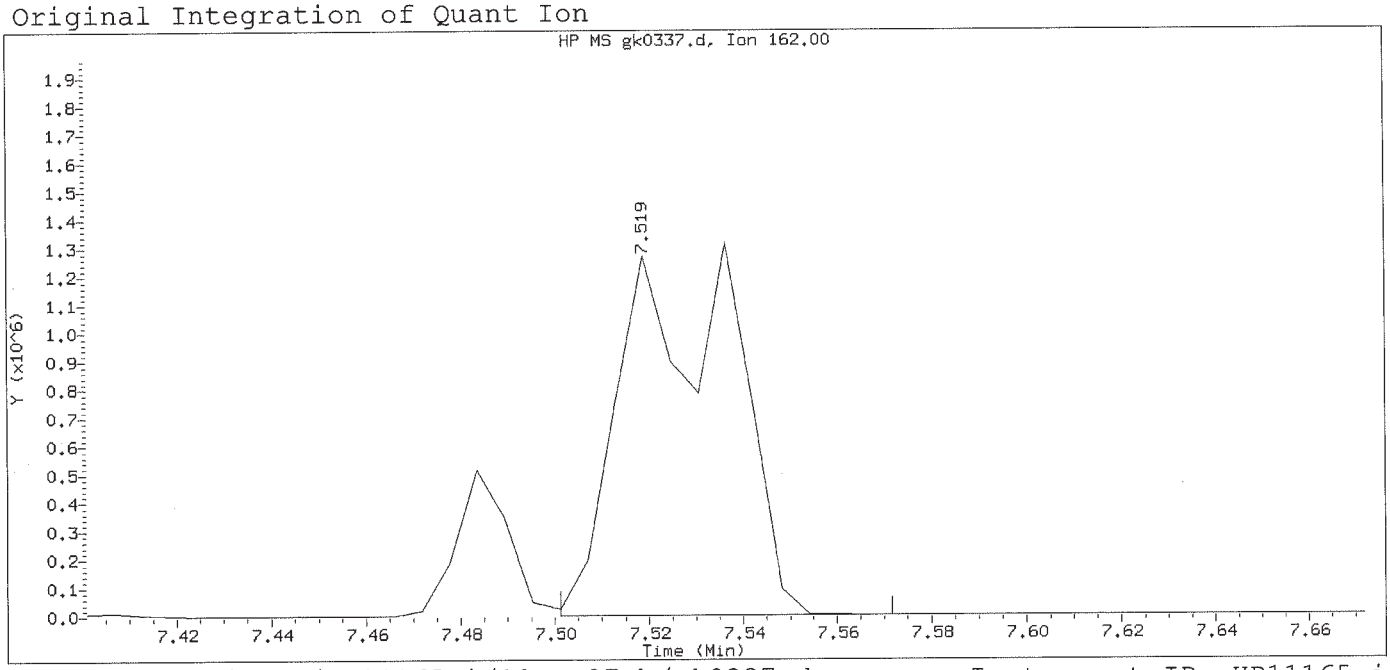
Matthew E. Barton
Principal Specialist

GC/MS audit/management approval: NOV 12 2018

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0337.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 19:48 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 07-NOV-2018 20:00
Date, time and analyst ID of latest file update: 07-Nov-2018 20:11 Automation

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1000		
Retention Time (minutes)	: 7.519		
Quant Ion	: 162.00		
Area	: 2136288		
On-column Amount (ng/ul)	: 93.6035		
Integration start scan	: 996	Integration stop scan:	1008
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Brandon K. Cordova on 11/07/2018 at 20:50.
Target 3.5 esignature user ID: bkc25363

Data File: /chem/HP11165.i/18nov11.b/gk0550c.d

Date : 11-NOV-2018 10:20

Client ID: DFTPP

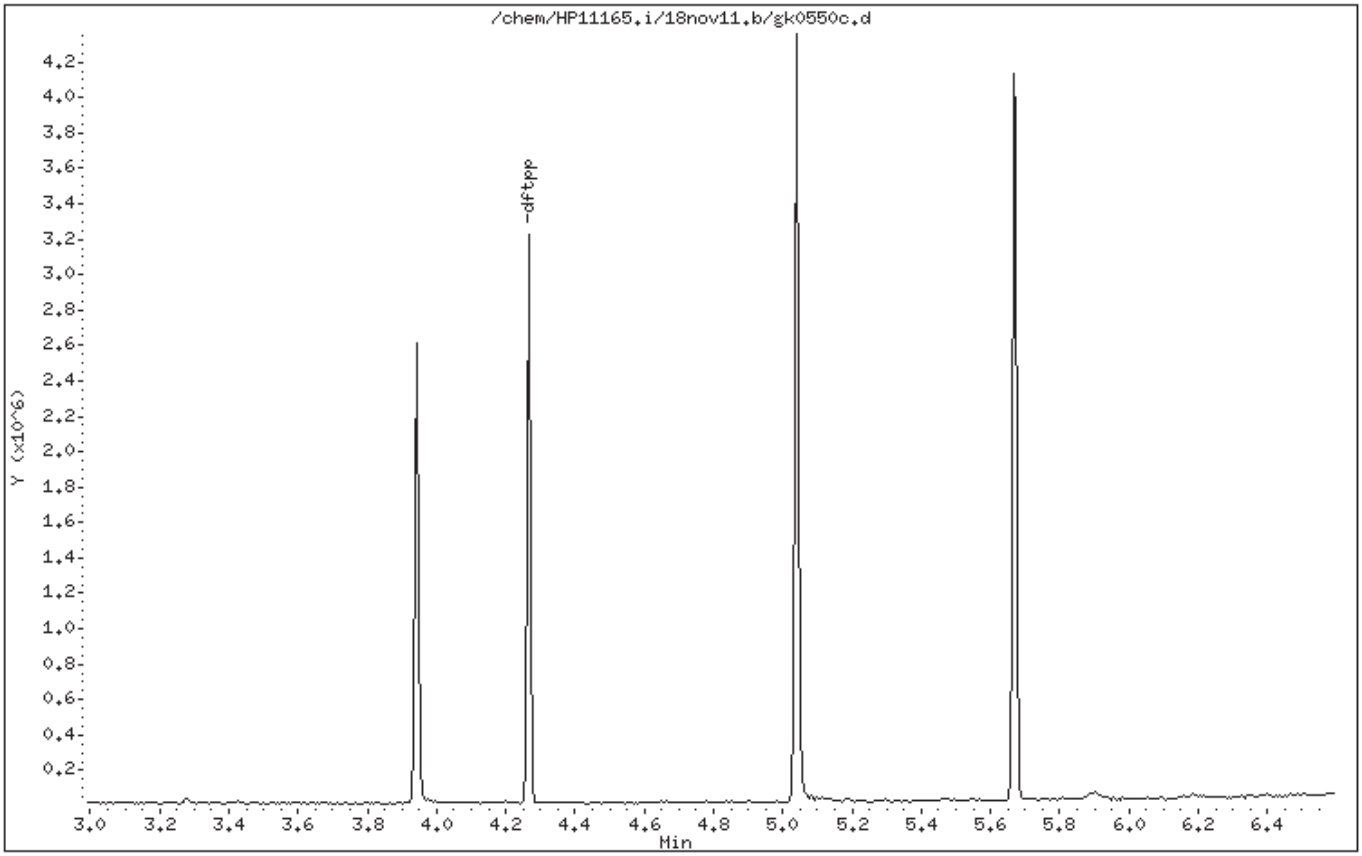
Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov11.b/gk0550c.d

Date : 11-NOV-2018 10:20

Client ID: DFTPP

Instrument: HP11165.i

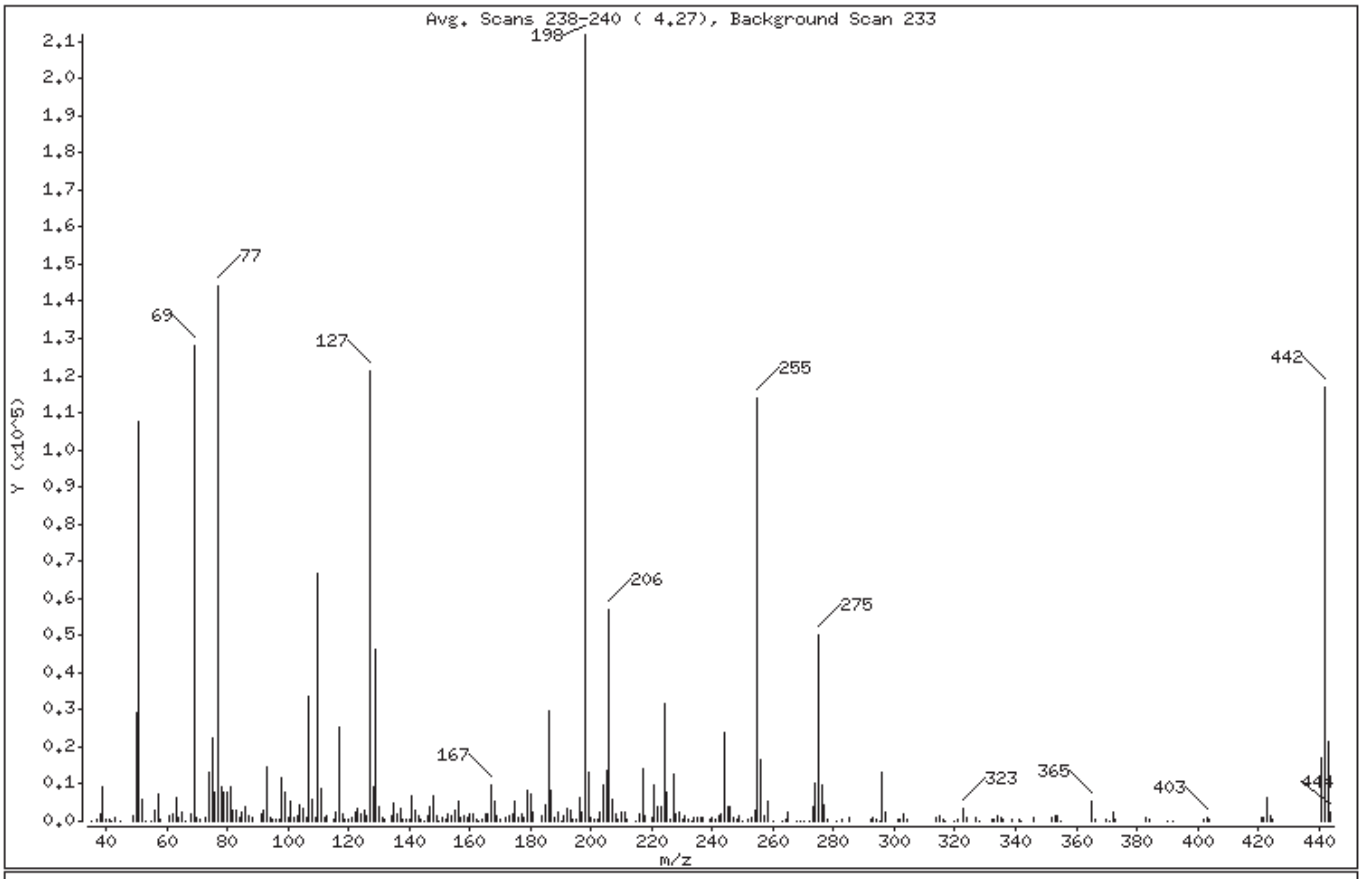
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	50.81
68	Less than 2.00% of mass 69	0.83 (1.37)
69	Mass 69 relative abundance	60.47
70	Less than 2.00% of mass 69	0.51 (0.84)
127	10.00 - 80.00% of mass 198	57.18
197	Less than 2.00% of mass 198	1.25
199	5.00 - 9.00% of mass 198	6.26
275	10.00 - 60.00% of mass 198	23.77
365	Greater than 1.00% of mass 198	2.56
441	0.01 - 24.00% of mass 442	8.15 (14.75)
442	50.00 - 99.99% of mass 198	55.22
443	15.00 - 24.00% of mass 442	10.12 (18.32)

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Date : 11-NOV-2018 10:20

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0550c.d
Spectrum: Avg. Scans 238-240 (4.27), Background Scan 233
Location of Maximum: 198.00
Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	230	117.00	25488	190.00	134	269.00	59
37.00	548	118.00	2076	191.00	1357	270.00	67
38.00	2184	119.00	637	192.00	3597	272.00	200
39.00	9037	120.00	308	193.00	2779	273.00	4127
40.00	449	121.00	754	194.00	518	274.00	10303
41.00	292	122.00	2368	195.00	410	275.00	50352
42.00	123	123.00	3341	196.00	6474	276.00	9617
43.00	764	124.00	1910	197.00	2640	277.00	4560
45.00	183	125.00	2931	198.00	211776	278.00	659
49.00	1543	126.00	1499	199.00	13255	281.00	50
50.00	29088	127.00	121128	200.00	1022	283.00	655
51.00	107624	128.00	9097	201.00	363	285.00	741
52.00	6068	129.00	46216	202.00	270	292.00	542
53.00	90	130.00	4099	203.00	2621	293.00	994
55.00	60	131.00	993	204.00	9975	294.00	364
56.00	2836	132.00	580	205.00	13453	295.00	192
57.00	7114	134.00	1508	206.00	57040	296.00	13010
58.00	470	135.00	4633	207.00	5648	297.00	2249
61.00	1590	136.00	1889	208.00	1826	301.00	389
62.00	1784	137.00	3237	209.00	531	302.00	508
63.00	6414	138.00	297	210.00	2452	303.00	1747
64.00	1078	139.00	400	211.00	2560	304.00	600
65.00	2339	140.00	630	212.00	415	314.00	869
66.00	57	141.00	6864	215.00	80	315.00	1428
68.00	1752	142.00	2836	216.00	1730	316.00	637
69.00	128096	143.00	1539	217.00	14099	317.00	81
70.00	1071	144.00	348	218.00	1357	320.00	56
71.00	262	145.00	72	220.00	1132	321.00	437
73.00	886	146.00	1519	221.00	9896	323.00	3604
74.00	13038	147.00	3678	222.00	4093	324.00	1017
75.00	22408	148.00	6914	223.00	3986	327.00	927
76.00	7858	149.00	1482	224.00	31568	328.00	240
77.00	144064	150.00	166	225.00	8013	332.00	262
78.00	9365	151.00	996	226.00	685	333.00	410
79.00	7827	152.00	500	227.00	12777	334.00	1602

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Date : 11-NOV-2018 10:20

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0550c.d
Spectrum: Avg. Scans 238-240 (4.27), Background Scan 233
Location of Maximum: 198.00
Number of points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	7573	153.00	1835	228.00	1763	335.00	828
81.00	9030	154.00	1336	229.00	2487	336.00	412
82.00	2689	155.00	3110	230.00	442	339.00	259
83.00	2887	156.00	5138	231.00	1248	341.00	543
84.00	762	157.00	950	232.00	282	342.00	101
85.00	2331	158.00	1629	233.00	186	346.00	737
86.00	4026	159.00	1058	234.00	986	352.00	1062
87.00	1651	160.00	1766	235.00	1039	353.00	1599
88.00	1031	161.00	2147	236.00	823	354.00	1322
91.00	2041	162.00	609	237.00	1083	355.00	71
92.00	2915	163.00	68	239.00	447	365.00	5415
93.00	14604	164.00	330	240.00	1129	366.00	630
94.00	1089	165.00	1828	241.00	641	370.00	300
95.00	622	166.00	1885	242.00	1493	371.00	237
96.00	300	167.00	9906	243.00	1725	372.00	2417
97.00	522	168.00	5262	244.00	23968	373.00	500
98.00	11848	169.00	1358	245.00	3805	383.00	745
99.00	7553	170.00	484	246.00	4121	384.00	358
100.00	1030	172.00	1184	247.00	886	390.00	131
101.00	5475	173.00	1438	248.00	552	392.00	228
102.00	908	174.00	1746	249.00	1402	402.00	713
103.00	1538	175.00	5126	250.00	236	403.00	1008
104.00	4240	176.00	1048	252.00	336	404.00	559
105.00	3167	177.00	2010	253.00	910	421.00	732
106.00	1125	178.00	985	254.00	2758	422.00	1094
107.00	33472	179.00	8196	255.00	114080	423.00	6298
108.00	5967	180.00	7281	256.00	16369	424.00	1560
109.00	1069	181.00	2601	257.00	1392	425.00	253
110.00	66680	184.00	1232	258.00	5233	441.00	17248
111.00	8608	185.00	4262	260.00	154	442.00	116976
112.00	911	186.00	29744	263.00	177	443.00	21432
113.00	1438	187.00	8196	264.00	498	444.00	2567
115.00	248	188.00	1135	265.00	2281		
116.00	2376	189.00	2571	268.00	144		

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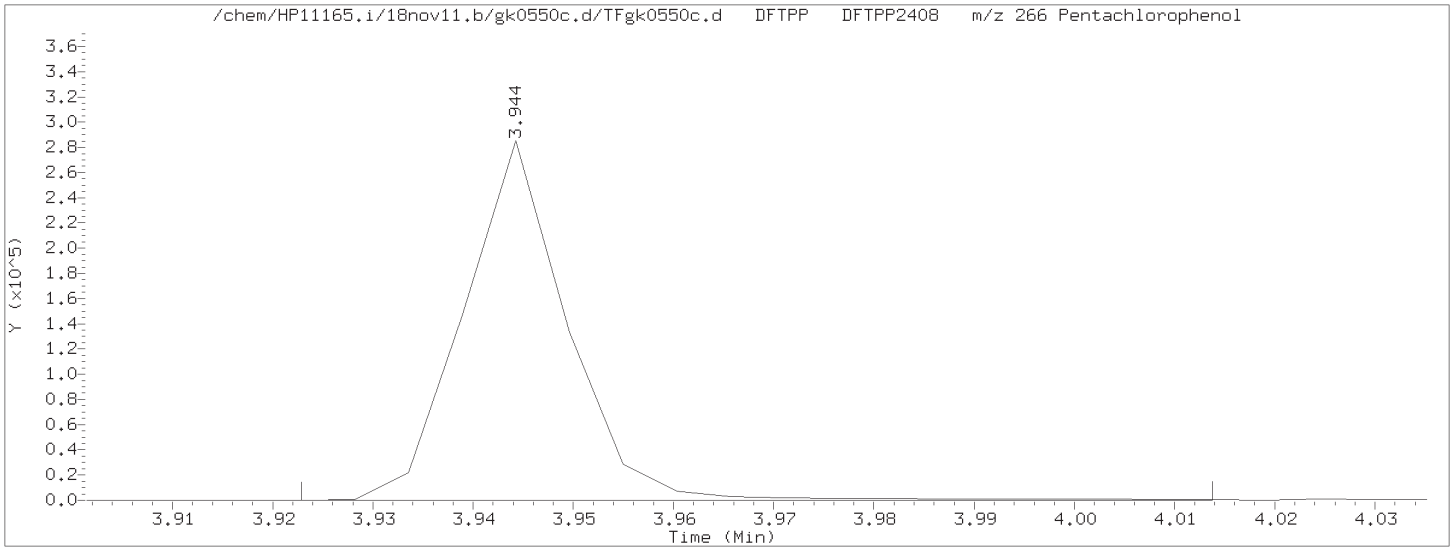
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

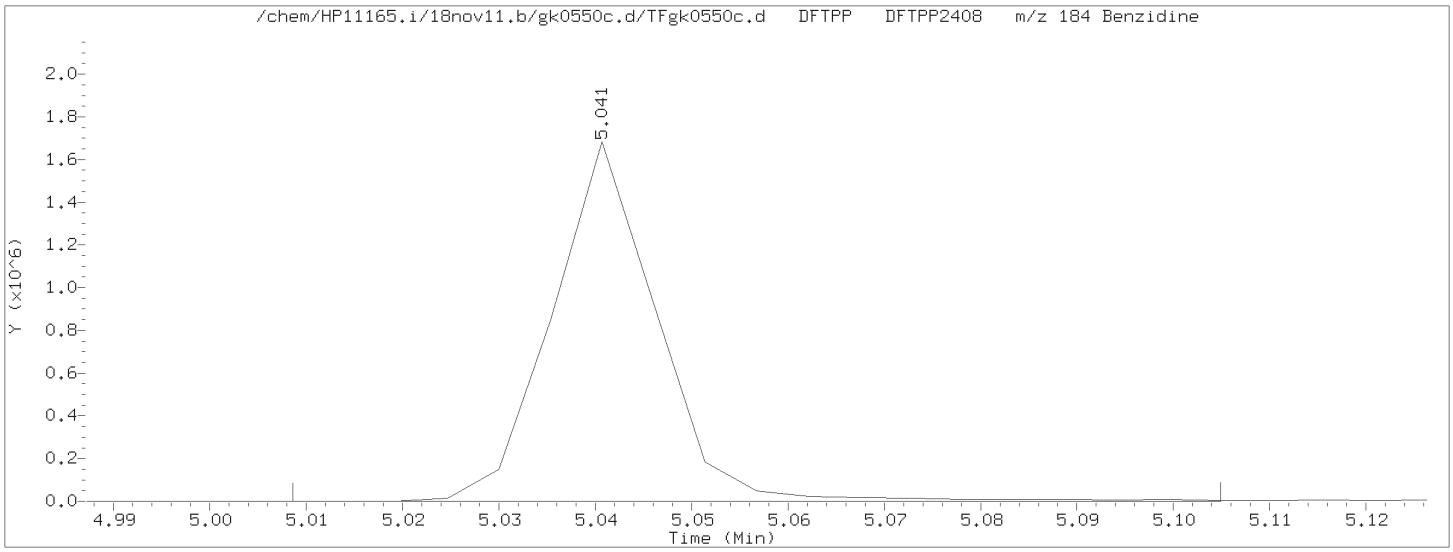
Instrument ID: HP11165.i Injection Date: 11-NOV-2018 10:20 Operator: em10340



Pentachlorophenol EICP peak height = 285376 EICP peak height at 10% = 28538 Pentachlorophenol EICP area = 204040

Pentachlorophenol EICP peak apex (min.) = 3.944
RT at 10% of front half of EICP (min.) = 3.934 'Front' peak width (min.) = 0.0104166667
RT at 10% of back half of EICP (min.) = 3.955 'Tailing' peak width (min.) = 0.0107666667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0107666667}{0.0104166667} = 1.034$



Benzidine EICP peak height = 1684480 EICP peak height at 10% = 168448 Benzidine EICP area = 1268374

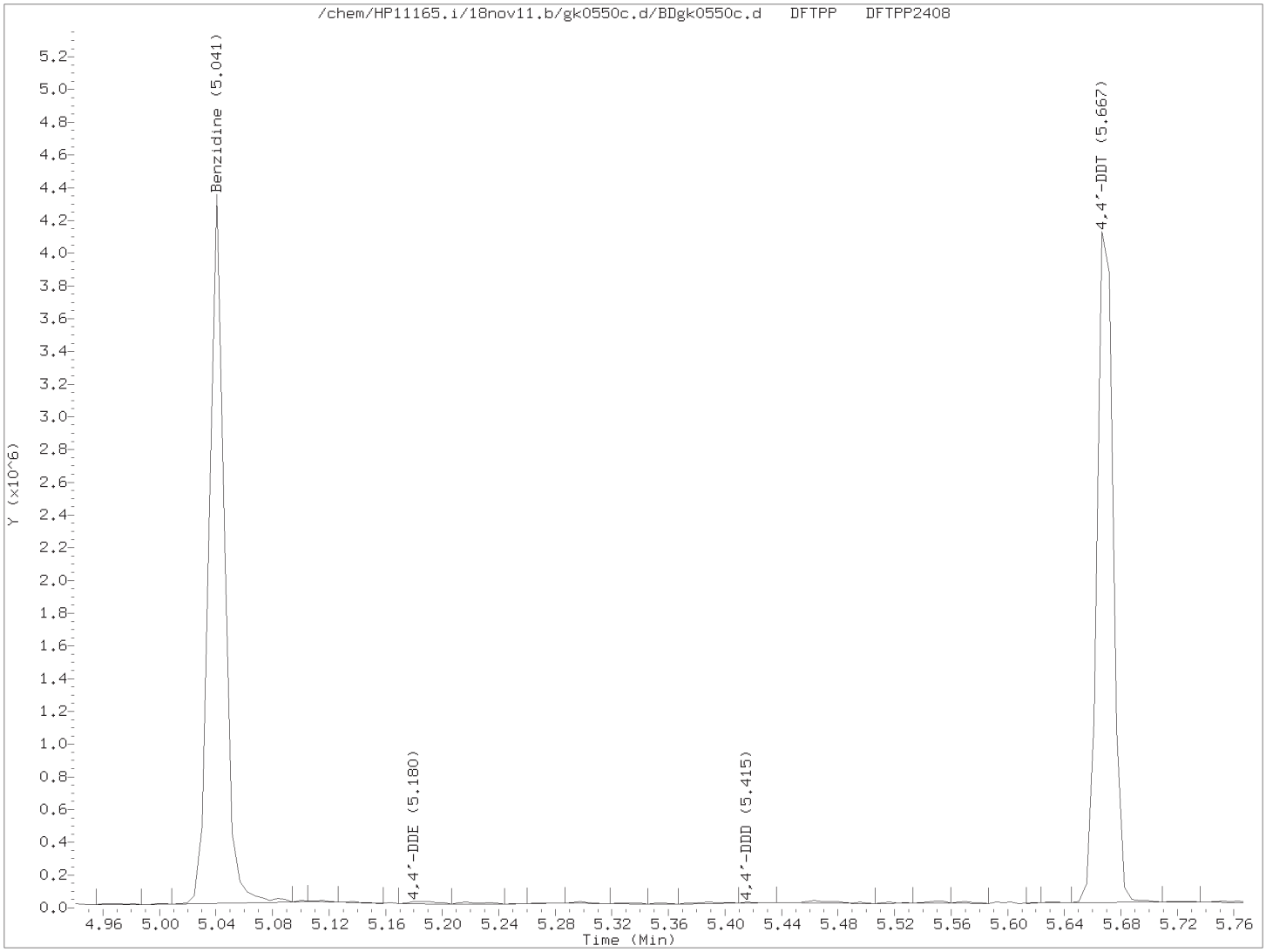
Benzidine EICP peak apex (min.) = 5.041
RT at 10% of front half of EICP (min.) = 5.030 'Front' peak width (min.) = 0.0105333333
RT at 10% of back half of EICP (min.) = 5.052 'Tailing' peak width (min.) = 0.0112333333

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0112333333}{0.0105333333} = 1.066$

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

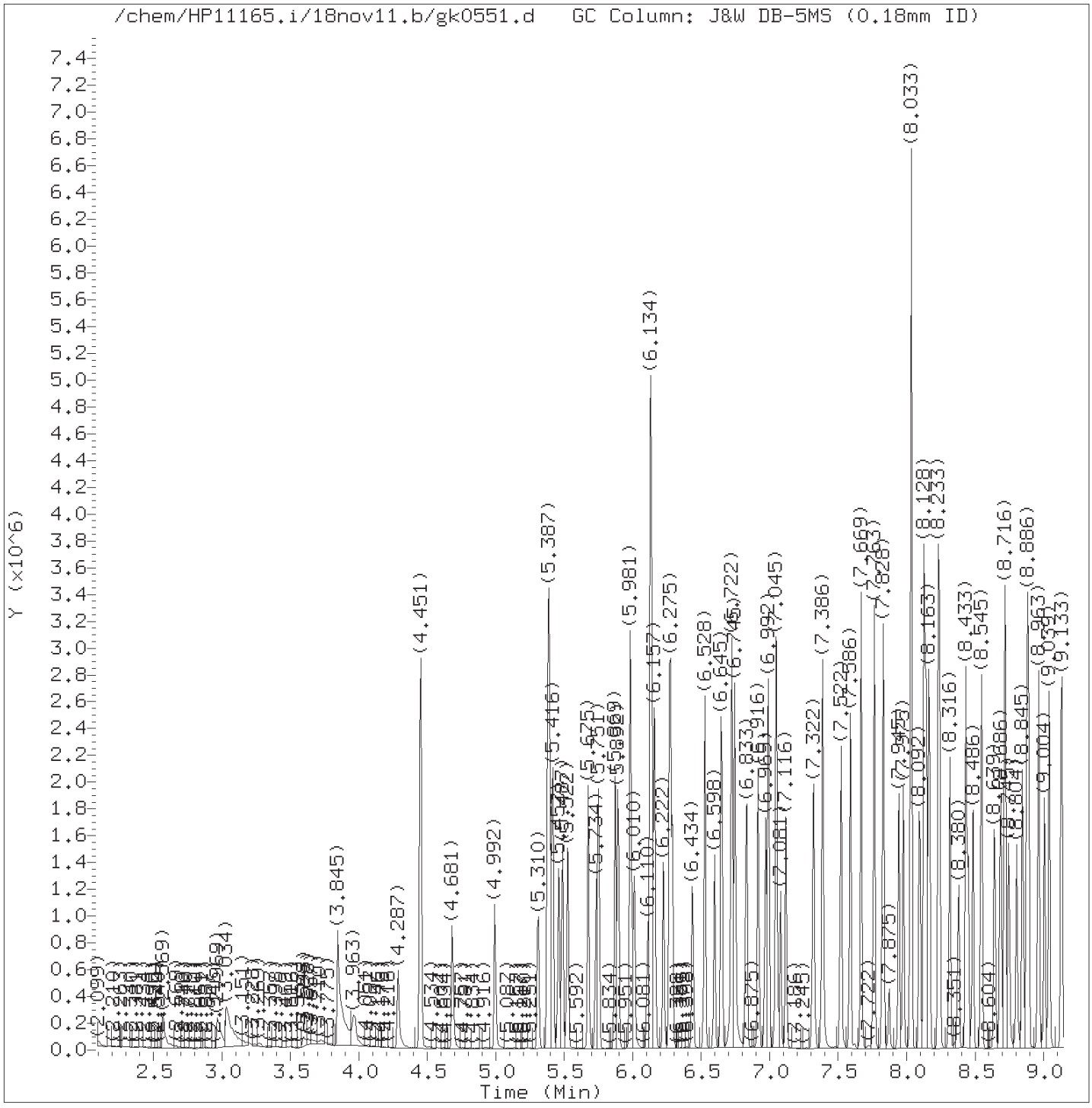
Instrument ID: HP11165.i Injection Date: 11-NOV-2018 10:20 Operator: em10340



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{21260 + 4754}{21260 + 4754 + 3323748} \times 100 = 0.8$$

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

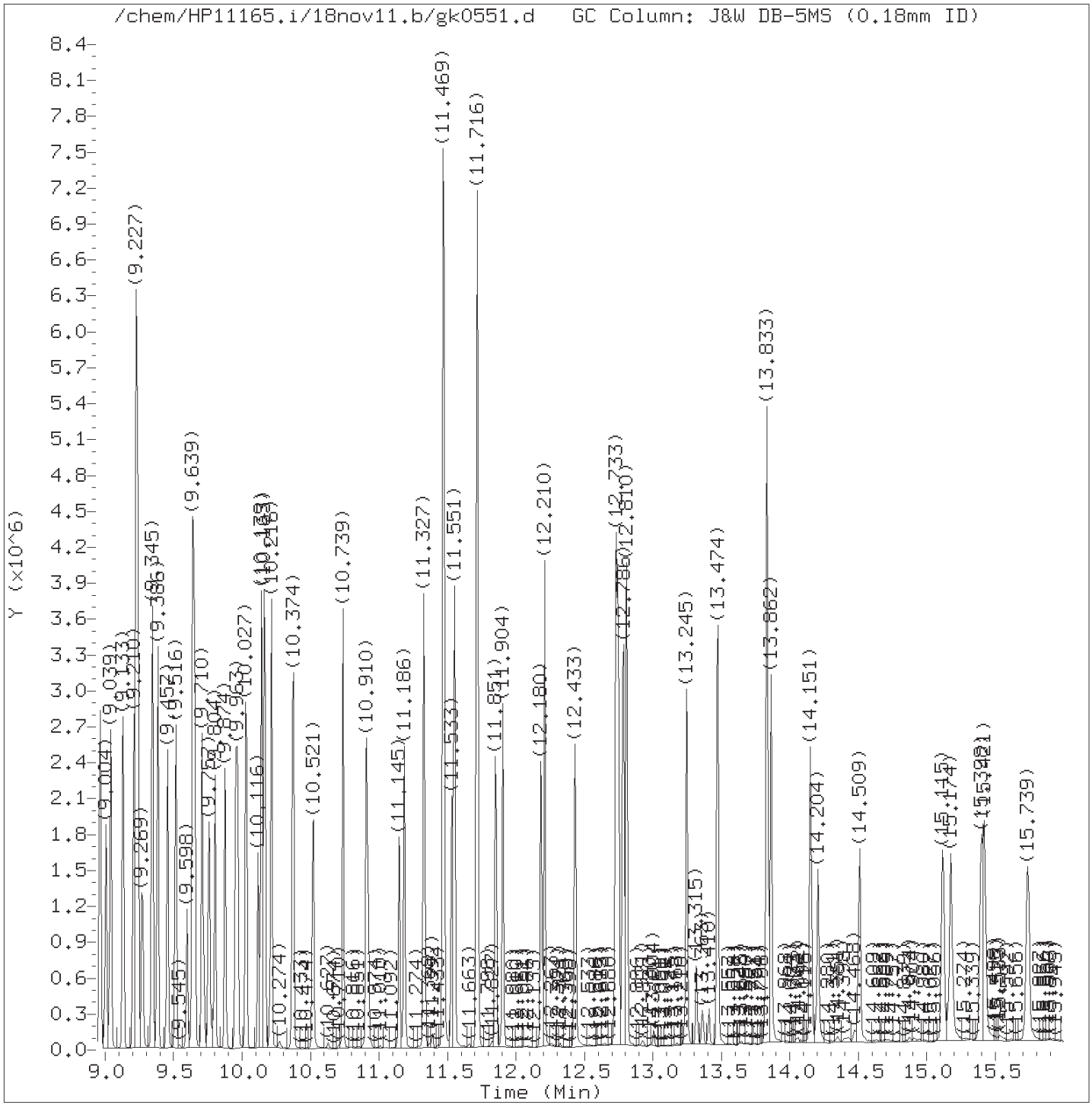
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

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Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.569	88	183742	30.000
4) N-Nitrosodimethylamine	(1)	2.969	74	264398	30.000
5) Pyridine	(1)	3.028	79	436331	30.000
7) 2-Picoline	(1)	3.845	93	467073	30.000
8) N-Nitrosomethylethylamine	(1)	3.975	88	240361	30.000
9) Methyl methanesulfonate	(1)	4.287	80	253617	30.000
11)$2-Fluorophenol	(1)	4.451	112	740634	60.000
13) N-Nitrosodiethylamine	(1)	4.681	102	226661	30.000
15) Ethyl methanesulfonate	(1)	4.992	109	221550	30.000
17)$Phenol-d6	(1)	5.381	99	1163231	60.000
18) Phenol	(1)	5.392	94	667880	30.000
19) Aniline	(1)	5.416	93	769691	30.000
20) a-methylstyrene	(1)	5.463	118	36890	30.000
22) bis(2-Chloroethyl)ether	(1)	5.487	93	473095	30.000
23) 2-Chlorophenol	(1)	5.522	128	381346	30.000
42) Total Cresols	(1)			865551	60.000
24) 1,3-Dichlorobenzene	(1)	5.675	146	404570	30.000
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	157805	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	405580	30.000
27) Benzyl alcohol	(1)	5.869	108	291082	30.000
28) 1,2-Dichlorobenzene	(1)	5.892	146	388901	30.000
30) Indene	(1)	5.981	115	442836	30.000
31) 2-Methylphenol	(1)	5.987	108	420540	30.000
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	498629	30.000
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	498629	30.000
35) N-Nitrosopyrrolidine	(1)	6.110	100	233794	30.000
36) Acetophenone	(1)	6.128	105	616342	30.000
37) 4-Methylphenol	(1)	6.134	108	445011	30.000
38) N-Nitroso-di-n-propylamine	(1)	6.139	70	422629	30.000
39) N-Nitrosomorpholine	(1)	6.151	56	302838	30.000
40) o-Toluidine	(1)	6.163	106	708603	30.000
43) Hexachloroethane	(1)	6.222	117	162790	30.000
44)$Nitrobenzene-d5	(2)	6.275	82	1082706	60.000
45) Nitrobenzene	(2)	6.286	77	572145	30.000
48) N-Nitrosopiperidine	(2)	6.439	114	221206	30.000
50) Isophorone	(2)	6.528	82	1065469	30.000
51) 2-Nitrophenol	(2)	6.598	139	207067	30.000
53) 2,4-Dimethylphenol	(2)	6.645	107	463737	30.000
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	206887	30.000
55) bis(2-Chloroethoxy)methane	(2)	6.745	93	577480	30.000

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.745	105	459102	40.000
60) 2,4-Dichlorophenol	(2)	6.833	162	328468	30.000
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	328310	30.000
65)*Naphthalene-d8	(2)	6.969	136	667588	20.000
66) Naphthalene	(2)	6.992	128	1154744	30.000
67) 4-Chloroaniline	(2)	7.045	127	475457	30.000
68) 2,6-Dichlorophenol	(2)	7.051	162	314306	30.000
69) Hexachloropropene	(2)	7.081	213	162089	30.000
71) Hexachlorobutadiene	(2)	7.116	225	181128	30.000
75) Quinoline	(2)	7.322	129	751999	30.000
97) Isosafrole	(3)			316940	30.000
77) N-Nitrosodi-n-butylamine	(2)	7.386	84	494609	30.000
76) Caprolactam	(2)	7.392	113	138629	30.000
80) 4-Chloro-3-methylphenol	(2)	7.522	107	416646	30.000
82) Safrole	(2)	7.586	162	312784	30.000
83) 2-Methylnaphthalene	(2)	7.669	142	795760	30.000
84) 1-Methylnaphthalene	(2)	7.763	142	783846	30.000
85) Hexachlorocyclopentadiene	(3)	7.828	237	169513	30.000
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.833	216	310209	30.000
88) cis-Isosafrole	(3)	7.875	162	57245	5.100
90) 2,4,6-Trichlorophenol	(3)	7.945	196	230332	30.000
92) 2,4,5-Trichlorophenol	(3)	7.975	196	242191	30.000
93)$2-Fluorobiphenyl	(3)	8.033	172	1777457	60.000
120) 2,4_2,6-Dinitrotoluenes	(3)			488423	60.000
94) trans-Isosafrole	(3)	8.092	162	259695	24.900
95) 1,1'-Biphenyl	(3)	8.128	154	974966	30.000
96) 2-Chloronaphthalene	(3)	8.145	162	697281	30.000
98) 1-Chloronaphthalene	(3)	8.163	162	777807	30.000
99) Diphenyl ether	(3)	8.233	170	538855	30.000
100) 2-Nitroaniline	(3)	8.245	138	248466	30.000
104) 1,4-Naphthoquinone	(3)	8.316	158	320495	30.000
105) 1,4-Dinitrobenzene	(3)	8.380	168	132836	30.000
106) Dimethylphthalate	(3)	8.433	163	886990	30.000
107) 1,3-Dinitrobenzene	(3)	8.451	168	147248	30.000
108) 2,6-Dinitrotoluene	(3)	8.486	165	216822	30.000
109) Acenaphthylene	(3)	8.545	152	1090421	30.000
112) 3-Nitroaniline	(3)	8.645	138	224155	30.000
113)*Acenaphthene-d10	(3)	8.686	164	367881	20.000
114) Acenaphthene	(3)	8.716	153	782043	30.000
115) 2,4-Dinitrophenol	(3)	8.745	184	178132	40.000

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			548197	30.000
116) 4-Nitrophenol	(3)	8.804	109	152478	30.000
117) Pentachlorobenzene	(3)	8.845	250	285871	30.000
118) 2,4-Dinitrotoluene	(3)	8.875	165	271601	30.000
119) Dibenzofuran	(3)	8.886	168	1119198	30.000
121) 1-Naphthylamine	(3)	8.963	143	839702	30.000
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	200035	30.000
123) 2-Naphthylamine	(3)	9.039	143	835764	30.000
124) Diethylphthalate	(3)	9.133	149	912307	30.000
125) Thionazin	(3)	9.210	107	162905	30.000
126) Fluorene	(3)	9.222	166	922135	30.000
128) 5-Nitro-o-toluidine	(3)	9.233	152	261150	30.000
127) 4-Chlorophenyl-phenylether	(3)	9.233	204	430078	30.000
129) 4-Nitroaniline	(3)	9.239	138	261514	30.000
130) 4,6-Dinitro-2-methylphenol	(4)	9.275	198	163460	30.000
131) N-Nitrosodiphenylamine	(4)	9.345	169	806194	30.000
132) NDPA as diphenylamine	(4)	9.345	169	806194	30.000
134) 1,2-Diphenylhydrazine	(4)	9.386	77	1243997	30.000
135)$2,4,6-Tribromophenol	(3)	9.457	330	177342	60.000
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	184692	30.000
139) 1,3,5-Trinitrobenzene	(4)	9.598	213	99495	30.000
140) Diallate (peak 1)	(4)	9.639	86	465138	24.900
141) Phorate	(4)	9.645	75	763848	30.000
142) Phenacetin	(4)	9.657	108	529312	30.000
143) 4-Bromophenyl-phenylether	(4)	9.710	248	236750	30.000
144) Diallate (peak 2)	(4)	9.722	86	83059	5.100
145) Hexachlorobenzene	(4)	9.763	284	216806	30.000
147) Dimethoate	(4)	9.804	87	436704	30.000
149) Pentachlorophenol	(4)	9.951	266	155785	30.000
150) 4-Aminobiphenyl	(4)	9.963	169	358715	30.000
151) Pentachloronitrobenzene	(4)	9.969	237	103680	30.000
152) Pronamide	(4)	10.027	173	398473	30.000
153)*Phenanthrene-d10	(4)	10.139	188	724156	20.000
154) Dinoseb	(4)	10.145	211	223711	30.000
155) Phenanthrene	(4)	10.163	178	1342962	30.000
157) Anthracene	(4)	10.216	178	1367270	30.000
163) Carbazole	(4)	10.374	167	1242682	30.000
164) Methyl parathion	(4)	10.516	109	329334	30.000
165) Di-n-butylphthalate	(4)	10.739	149	1560904	30.000
167) Parathion	(4)	10.904	109	210115	30.000

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Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0551.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 10:36 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.921	190	119515	30.000
169) Octachlorostyrene	(4)	11.151	308	90504	30.000
171) Isodrin	(4)	11.186	193	154680	30.000
173) Fluoranthene	(4)	11.327	202	1422482	30.000
174) Benzidine	(5)	11.469	184	2855311	90.000
175)*Pyrene-d10	(5)	11.533	212	669260	20.000
177) Pyrene	(5)	11.551	202	1441402	30.000
179)$Terphenyl-d14	(5)	11.716	244	1946386	60.000
182) p-Dimethylaminoazobenzene	(5)	11.851	225	239034	30.000
185) Chlorobenzilate	(5)	11.904	139	462421	30.000
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	806631	30.000
188) Butylbenzylphthalate	(5)	12.210	149	684505	30.000
191) 2-Acetylaminofluorene	(5)	12.433	181	570490	30.000
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	460617	30.000
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	258498	30.000
195) Benzo(a)anthracene	(5)	12.745	228	1346286	30.000
196) Chrysene	(5)	12.786	228	1284221	30.000
199) bis(2-Ethylhexyl)phthalate	(5)	12.810	149	926249	30.000
203) 6-Methylchrysene	(5)	13.245	242	860187	30.000
205) Di-n-octylphthalate	(6)	13.474	149	1504446	30.000
206) Benzo(b)fluoranthene	(6)	13.833	252	1229066	30.000
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.833	256	560529	30.000
208) Benzo(k)fluoranthene	(6)	13.862	252	1118427	30.000
211) Benzo(a)pyrene	(6)	14.151	252	1095031	30.000
213)*Perylene-d12	(6)	14.204	264	544347	20.000
215) 3-Methylcholanthrene	(6)	14.509	268	437549	30.000
222) Total PAHs	(6)			20160305	540.000
217) Dibenz(a,h)acridine	(6)	15.115	279	771611	30.000
218) Dibenz(a,j)acridine	(6)	15.174	279	839560	30.000
219) Indeno(1,2,3-cd)pyrene	(6)	15.398	276	1126988	30.000
220) Dibenz(a,h)anthracene	(6)	15.421	278	913229	30.000
221) Benzo(g,h,i)perylene	(6)	15.739	276	943992	30.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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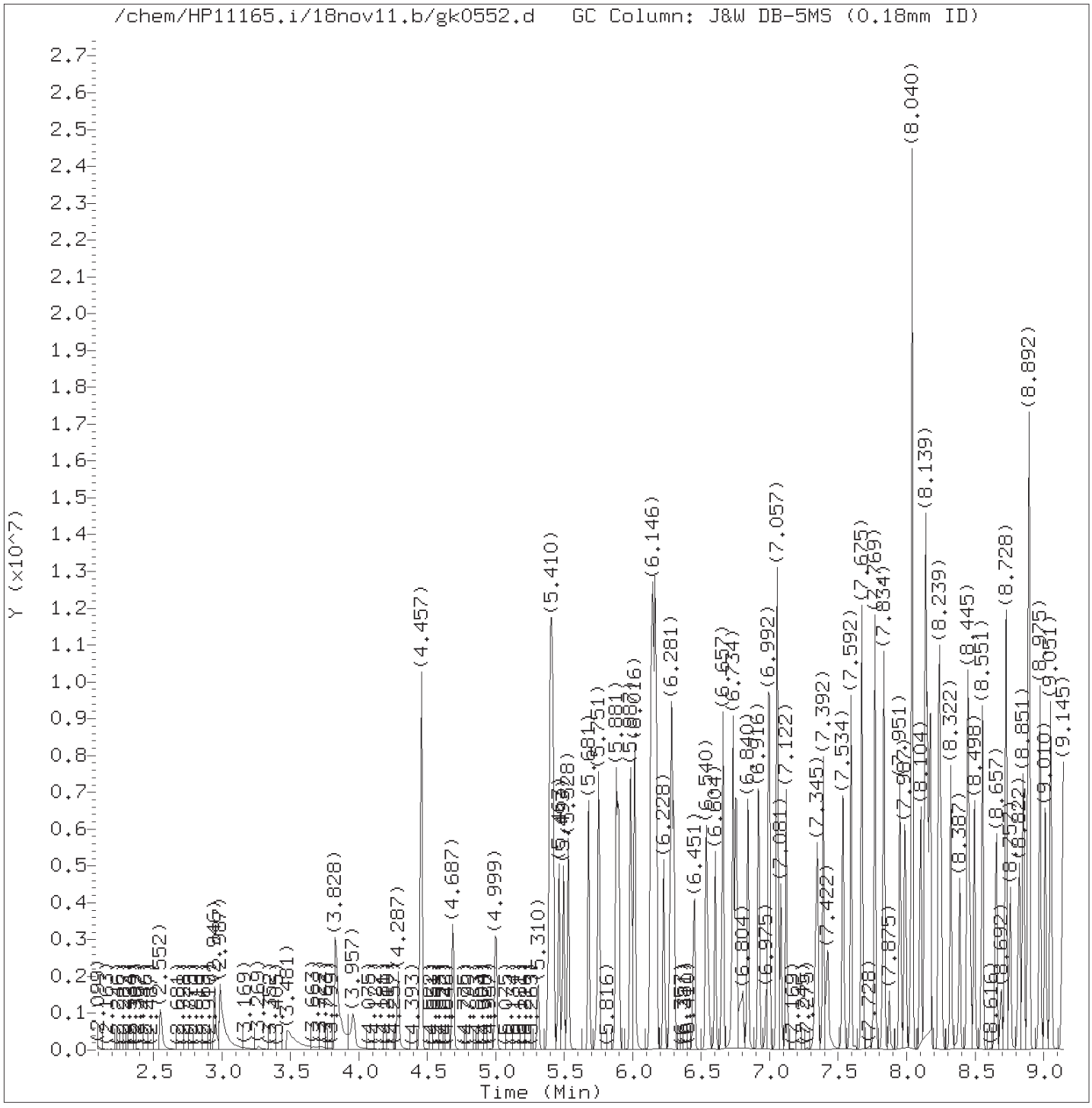
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

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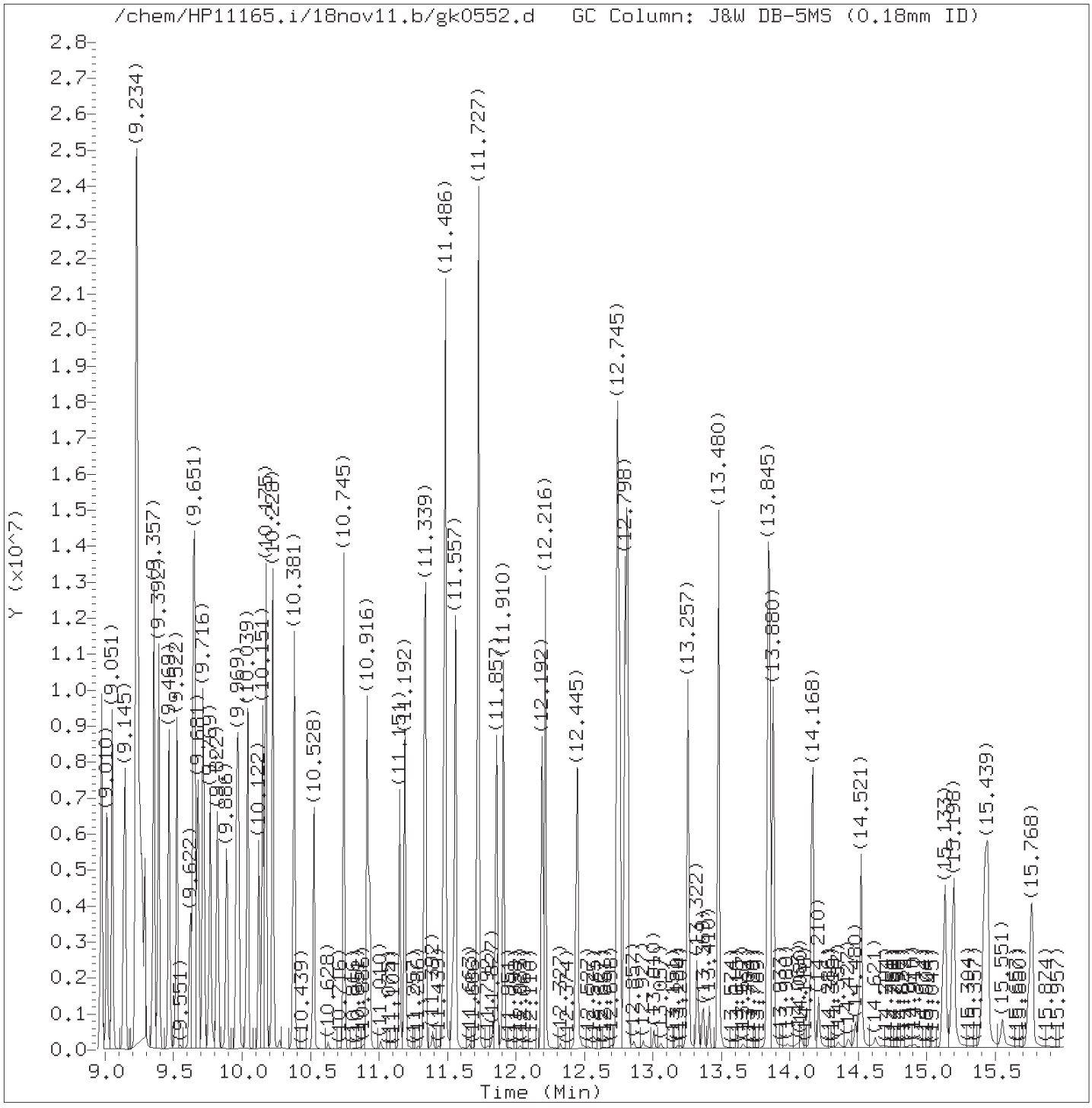
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.552	88	621118	109.647
4) N-Nitrosodimethylamine	(1)	2.946	74	1063545	120.056
5) Pyridine	(1)	2.987	79	1705715	118.342
7) 2-Picoline	(1)	3.828	93	1799759	117.478
8) N-Nitrosomethylethylamine	(1)	3.957	88	845348	112.010
9) Methyl methanesulfonate	(1)	4.287	80	872491	110.692
11)$2-Fluorophenol	(1)	4.457	112	2823731	233.682
13) N-Nitrosodiethylamine	(1)	4.687	102	836129	114.865
15) Ethyl methanesulfonate	(1)	4.999	109	815601	114.742
17)$Phenol-d6	(1)	5.398	99	4380845	232.212
18) Phenol	(1)	5.410	94	2579839	117.625
19) Aniline	(1)	5.422	93	2837075	114.818
20) a-methylstyrene	(1)	5.463	118	130514	112.365
22) bis(2-Chloroethyl)ether	(1)	5.493	93	1709287	113.620
23) 2-Chlorophenol	(1)	5.528	128	1422262	115.522
42) Total Cresols	(1)			3465614	239.200
24) 1,3-Dichlorobenzene	(1)	5.681	146	1475336	114.176
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	158544	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	1534307	116.374
27) Benzyl alcohol	(1)	5.881	108	1117450	117.254
28) 1,2-Dichlorobenzene	(1)	5.898	146	1465752	116.151
30) Indene	(1)	5.981	115	1588424	113.187
31) 2-Methylphenol	(1)	5.993	108	1590560	116.361
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.016	45	1801247	113.610
34) bis(2-Chloroisopropyl)ether	(1)	6.016	45	1801247	113.610
35) N-Nitrosopyrrolidine	(1)	6.134	100	931206	119.464
36) Acetophenone	(1)	6.134	105	2246751	114.153
37) 4-Methylphenol	(1)	6.146	108	1875054	122.839
38) N-Nitroso-di-n-propylamine	(1)	6.163	70	1589731	116.033
40) o-Toluidine	(1)	6.169	106	2648637	115.654
39) N-Nitrosomorpholine	(1)	6.169	56	1139754	116.066
43) Hexachloroethane	(1)	6.228	117	596600	114.473
44)$Nitrobenzene-d5	(2)	6.281	82	4154792	238.691
45) Nitrobenzene	(2)	6.298	77	2168925	118.613
48) N-Nitrosopiperidine	(2)	6.451	114	864613	120.449
50) Isophorone	(2)	6.540	82	3875657	116.137
51) 2-Nitrophenol	(2)	6.604	139	818706	121.138
53) 2,4-Dimethylphenol	(2)	6.657	107	1768096	118.958
57) O,O,O-Triethylphosphorothioate	(2)	6.734	198	740041	115.132
55) bis(2-Chloroethoxy)methane	(2)	6.757	93	2211259	119.216

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.804	105	1442160	124.594
60) 2,4-Dichlorophenol	(2)	6.845	162	1276622	120.110
62) 1,2,4-Trichlorobenzene	(2)	6.922	180	1257168	119.217
65)*Naphthalene-d8	(2)	6.975	136	647478	20.000
66) Naphthalene	(2)	6.998	128	4413372	119.103
67) 4-Chloroaniline	(2)	7.057	127	1829989	119.525
68) 2,6-Dichlorophenol	(2)	7.057	162	1257028	121.826
69) Hexachloropropene	(2)	7.081	213	637421	120.815
71) Hexachlorobutadiene	(2)	7.122	225	678623	117.909
75) Quinoline	(2)	7.345	129	2816268	117.884
97) Isosafrole	(3)			1223348	121.447
77) N-Nitrosodi-n-butylamine	(2)	7.392	84	1465974	91.679
76) Caprolactam	(2)	7.428	113	534942	119.679
80) 4-Chloro-3-methylphenol	(2)	7.534	107	1550883	117.518
82) Safrole	(2)	7.592	162	1199877	119.325
83) 2-Methylnaphthalene	(2)	7.675	142	3102989	120.307
84) 1-Methylnaphthalene	(2)	7.769	142	2981145	118.809
85) Hexachlorocyclopentadiene	(3)	7.828	237	588740	115.093
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.840	216	1240270	123.536
88) cis-Isosafrole	(3)	7.875	162	210489	20.147
90) 2,4,6-Trichlorophenol	(3)	7.951	196	882358	120.971
92) 2,4,5-Trichlorophenol	(3)	7.992	196	919762	120.450
93)$2-Fluorobiphenyl	(3)	8.040	172	7033984	245.840
120) 2,4_2,6-Dinitrotoluenes	(3)			1895946	242.693
94) trans-Isosafrole	(3)	8.104	162	1012859	101.300
95) 1,1'-Biphenyl	(3)	8.139	154	3644990	119.509
96) 2-Chloronaphthalene	(3)	8.151	162	3124248	130.346
98) 1-Chloronaphthalene	(3)	8.175	162	2520781	110.954
99) Diphenyl ether	(3)	8.239	170	1999093	119.047
100) 2-Nitroaniline	(3)	8.251	138	978115	122.605
104) 1,4-Naphthoquinone	(3)	8.322	158	1183709	118.779
105) 1,4-Dinitrobenzene	(3)	8.387	168	551531	125.797
106) Dimethylphthalate	(3)	8.445	163	3421556	121.388
107) 1,3-Dinitrobenzene	(3)	8.463	168	596457	124.318
108) 2,6-Dinitrotoluene	(3)	8.498	165	794528	118.307
109) Acenaphthylene	(3)	8.551	152	4038196	118.941
112) 3-Nitroaniline	(3)	8.657	138	868072	121.623
113)*Acenaphthene-d10	(3)	8.692	164	346664	20.000
114) Acenaphthene	(3)	8.728	153	3047518	121.997
115) 2,4-Dinitrophenol	(3)	8.757	184	549549	125.239

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			2129790	123.087
116) 4-Nitrophenol	(3)	8.822	109	602723	122.852
117) Pentachlorobenzene	(3)	8.851	250	1083187	120.314
118) 2,4-Dinitrotoluene	(3)	8.892	165	1101418	124.386
119) Dibenzofuran	(3)	8.892	168	4260970	120.600
121) 1-Naphthylamine	(3)	8.975	143	3190303	120.476
122) 2,3,4,6-Tetrachlorophenol	(3)	9.016	232	777782	121.864
123) 2-Naphthylamine	(3)	9.051	143	3056220	118.182
124) Diethylphthalate	(3)	9.145	149	3332548	118.118
125) Thionazin	(3)	9.228	107	652456	123.640
126) Fluorene	(3)	9.228	166	3688705	123.566
127) 4-Chlorophenyl-phenylether	(3)	9.234	204	1669840	121.777
128) 5-Nitro-o-toluidine	(3)	9.251	152	1018783	122.062
129) 4-Nitroaniline	(3)	9.269	138	911050A	115.276
130) 4,6-Dinitro-2-methylphenol	(4)	9.292	198	662253	125.782
131) N-Nitrosodiphenylamine	(4)	9.357	169	3054375	121.762
132) NDPA as diphenylamine	(4)	9.357	169	3054375	121.762
134) 1,2-Diphenylhydrazine	(4)	9.392	77	4688158	121.445
135)$2,4,6-Tribromophenol	(3)	9.469	330	711291	247.451
137) Tetraethyldithiopyrophosphate	(4)	9.522	97	691065	121.015
139) 1,3,5-Trinitrobenzene	(4)	9.622	213	418838	128.073
140) Diallate (peak 1)	(4)	9.645	86	1838024	103.158
141) Phorate	(4)	9.651	75	2955997	123.035
142) Phenacetin	(4)	9.681	108	2035137	122.646
143) 4-Bromophenyl-phenylether	(4)	9.716	248	892144	121.440
144) Diallate (peak 2)	(4)	9.728	86	291766	19.929
145) Hexachlorobenzene	(4)	9.769	284	827080	122.176
147) Dimethoate	(4)	9.822	87	1525485	116.892
149) Pentachlorophenol	(4)	9.963	266	593377	122.083
150) 4-Aminobiphenyl	(4)	9.969	169	1079919	98.197
151) Pentachloronitrobenzene	(4)	9.975	237	396775	122.366
152) Pronamide	(4)	10.045	173	1559452	123.708
153)*Phenanthrene-d10	(4)	10.145	188	666035	20.000
154) Dinoseb	(4)	10.151	211	959156	129.166
155) Phenanthrene	(4)	10.175	178	5006472	120.793
157) Anthracene	(4)	10.228	178	5207931	122.084
163) Carbazole	(4)	10.381	167	4671310	121.292
164) Methyl parathion	(4)	10.528	109	1154968	117.128
165) Di-n-butylphthalate	(4)	10.745	149	6044598	123.076
167) Parathion	(4)	10.916	109	836362	124.724

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.933	190	545195	132.855
169) Octachlorostyrene	(4)	11.151	308	330127	119.487
171) Isodrin	(4)	11.192	193	563228	119.382
173) Fluoranthene	(4)	11.339	202	5427349	122.185
174) Benzidine	(5)	11.486	184	9567590	347.646
175)*Pyrene-d10	(5)	11.539	212	600487	20.000
177) Pyrene	(5)	11.563	202	5240772	120.779
179)$Terphenyl-d14	(5)	11.727	244	7475564	248.133
182) p-Dimethylaminoazobenzene	(5)	11.863	225	931794	124.956
185) Chlorobenzilate	(5)	11.910	139	1728783	122.450
187) 3,3'-Dimethylbenzidine	(5)	12.192	212	2834669	118.737
188) Butylbenzylphthalate	(5)	12.216	149	2569389	122.691
191) 2-Acetylaminofluorene	(5)	12.445	181	2168092	123.434
193) 3,3'-Dichlorobenzidine	(5)	12.739	252	1776145	124.304
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.745	231	997571	124.352
195) Benzo(a)anthracene	(5)	12.757	228	4984587	121.868
196) Chrysene	(5)	12.798	228	4700209	121.175
199) bis(2-Ethylhexyl)phthalate	(5)	12.816	149	3565883	124.208
203) 6-Methylchrysene	(5)	13.257	242	3294283	123.895
205) Di-n-octylphthalate	(6)	13.480	149	5931849	128.256
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.845	256	2071292	124.375
206) Benzo(b)fluoranthene	(6)	13.851	252	4191544	119.563
208) Benzo(k)fluoranthene	(6)	13.880	252	4311924	126.914
211) Benzo(a)pyrene	(6)	14.168	252	3846412	121.336
213)*Perylene-d12	(6)	14.210	264	467493	20.000
215) 3-Methylcholanthrene	(6)	14.521	268	1495855	119.710
222) Total PAHs	(6)			74006767	2171.598
217) Dibenz(a,h)acridine	(6)	15.133	279	2622047	119.348
218) Dibenz(a,j)acridine	(6)	15.198	279	2796964	118.159
219) Indeno(1,2,3-cd)pyrene	(6)	15.421	276	3723431	117.661
220) Dibenz(a,h)anthracene	(6)	15.445	278	3059377	118.493
221) Benzo(g,h,i)perylene	(6)	15.768	276	3034834	116.024

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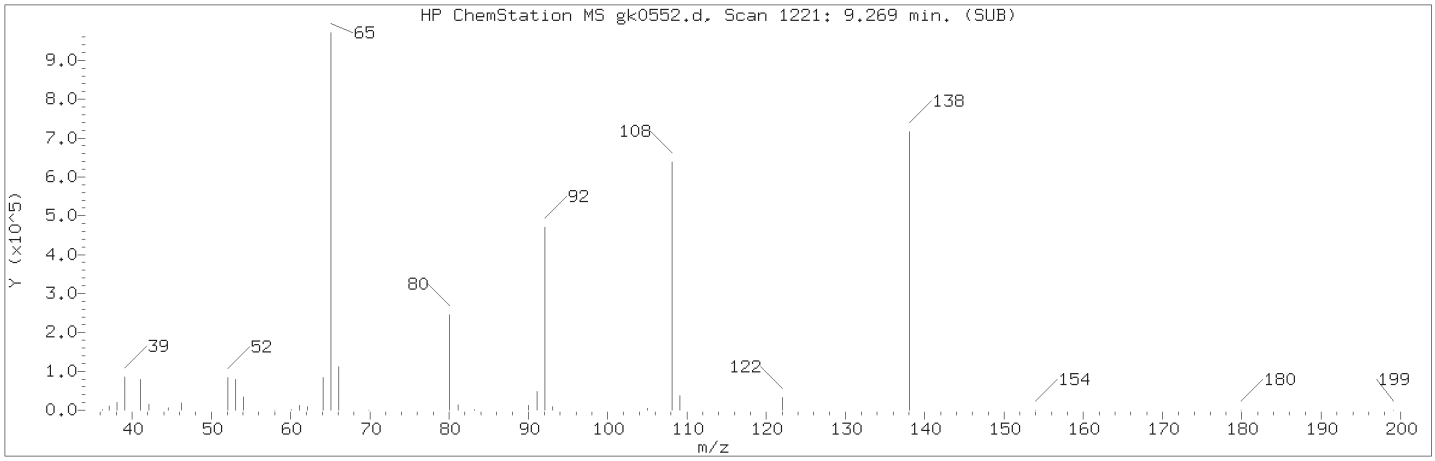
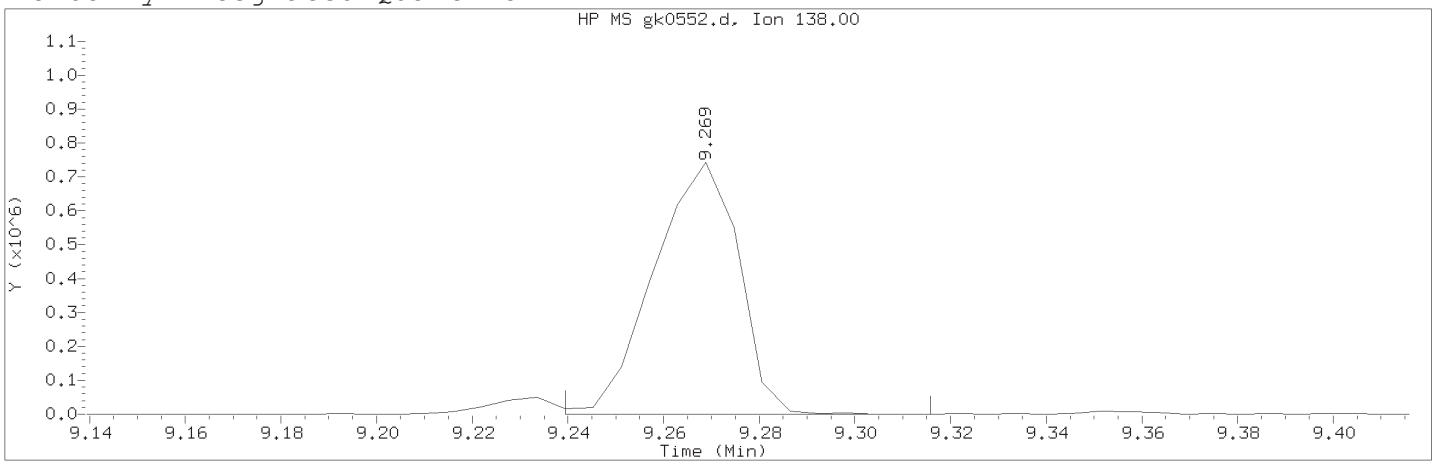
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD120 Lab Sample ID: STD2928

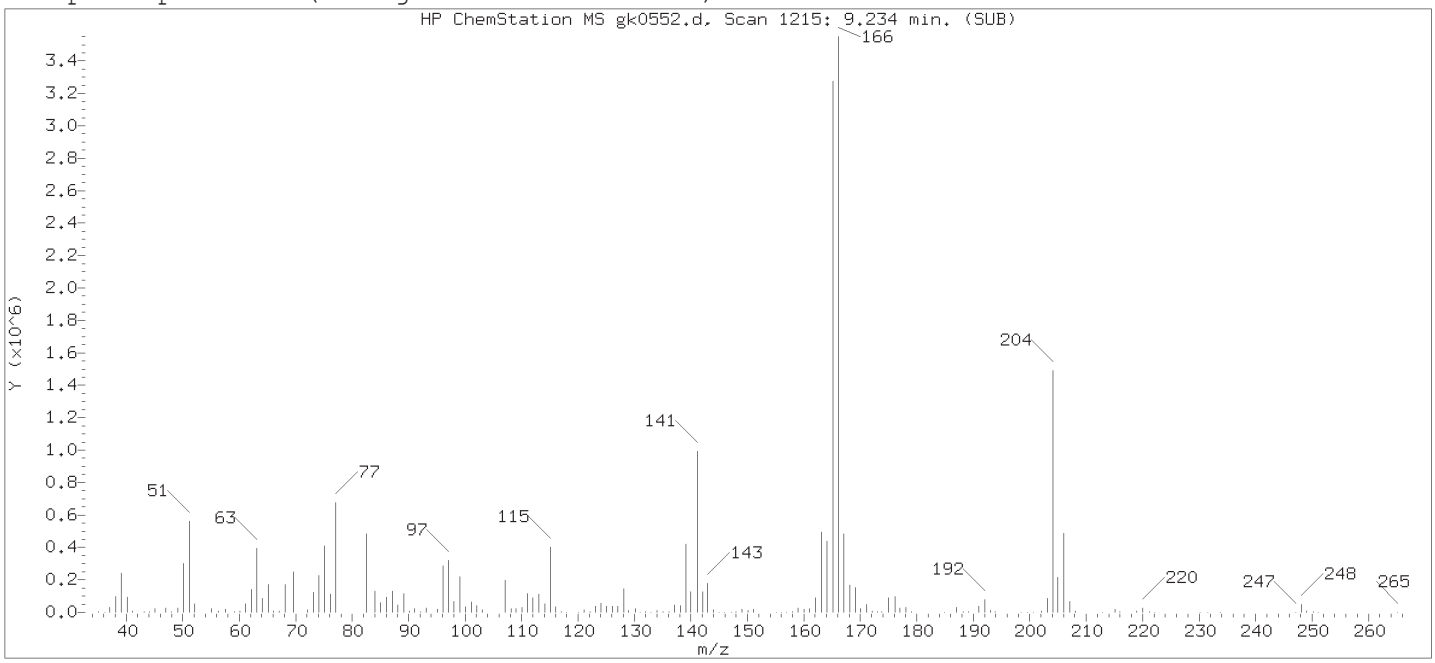
Compound Number : 129
Compound Name : 4-Nitroaniline
Scan Number : 1221
Retention Time (minutes) : 9.269
Quant Ion : 138.00
Area (flag) : 911050A
On-Column Amount (ng/ul) : 115.2756
Integration start scan : 1215 Integration stop scan: 1228
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

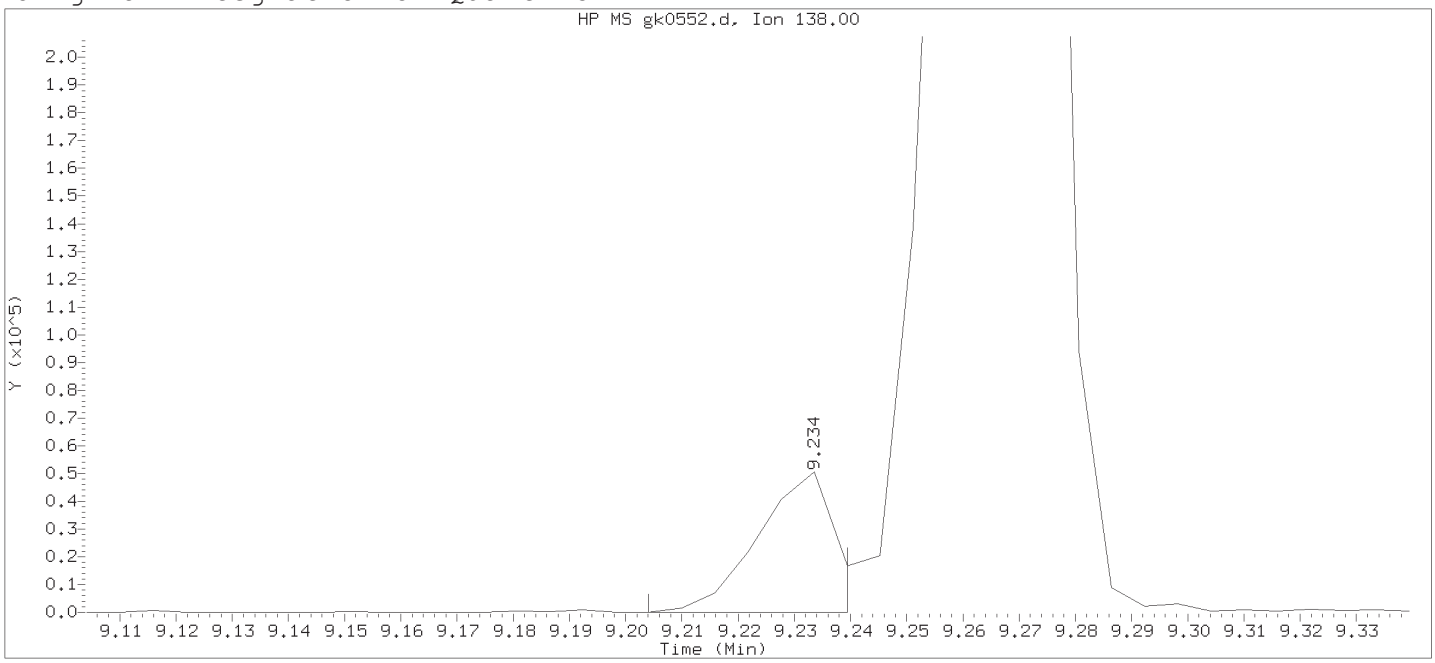
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



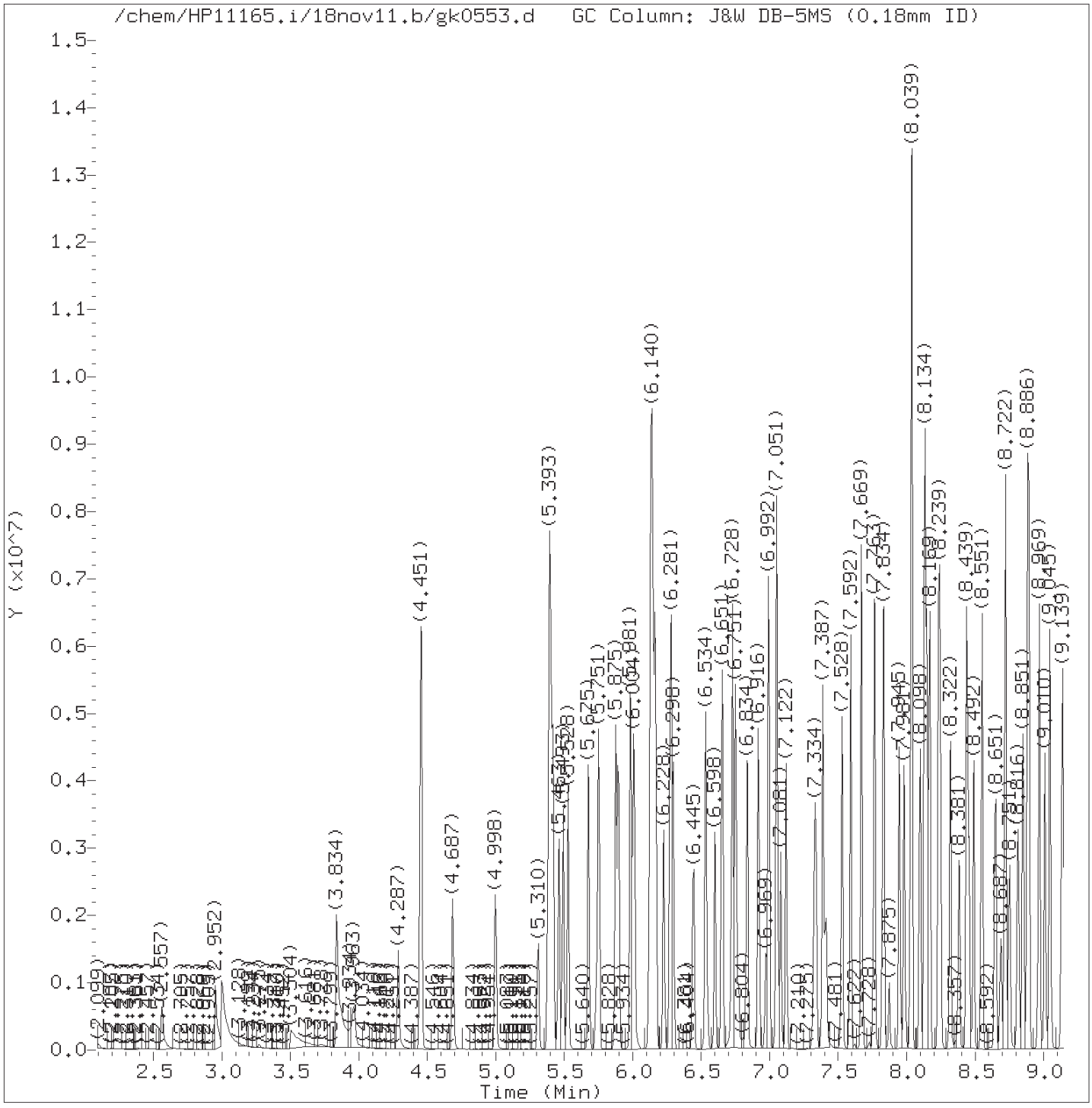
Data File: /chem/HP11165.i/18nov11.b/gk0552.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:07 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 12:28
Date, time and analyst ID of latest file update: 11-Nov-2018 12:28 Automation

Sample Name: SSTD120 Lab Sample ID: STD2928

Compound Number	: 129		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1215		
Retention Time (minutes)	: 9.234		
Quant Ion	: 138.00		
Area	: 45726		
On-column Amount (ng/ul)	: 6.5352		
Integration start scan	: 1209	Integration stop scan:	1215
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature used: 1112



Total Ion Chromatogram (TIC)

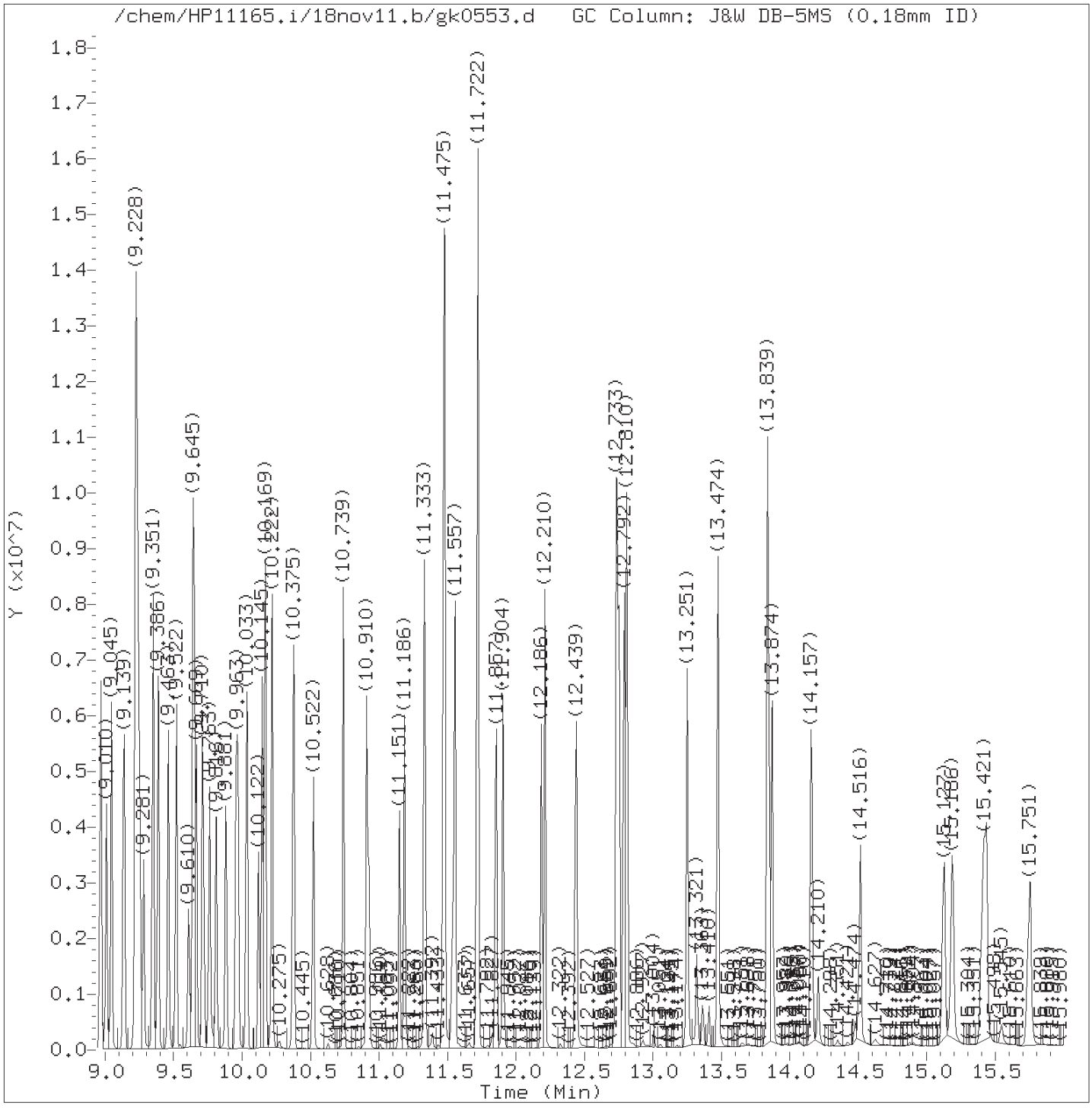
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.557	88	415888	79.043
4) N-Nitrosodimethylamine	(1)	2.952	74	672955	80.862
5) Pyridine	(1)	2.999	79	1043708	78.314
7) 2-Picoline	(1)	3.834	93	1131224	79.347
8) N-Nitrosomethylethylamine	(1)	3.963	88	557263	79.346
9) Methyl methanesulfonate	(1)	4.287	80	586133	79.722
11)$2-Fluorophenol	(1)	4.457	112	1788129	158.910
13) N-Nitrosodiethylamine	(1)	4.687	102	540666	79.660
15) Ethyl methanesulfonate	(1)	4.998	109	514746	78.317
17)$Phenol-d6	(1)	5.393	99	2752633	157.414
18) Phenol	(1)	5.404	94	1613220	79.140
19) Aniline	(1)	5.416	93	1800538	78.645
20) a-methylstyrene	(1)	5.463	118	81441	76.623
22) bis(2-Chloroethyl)ether	(1)	5.493	93	1112242	79.414
23) 2-Chlorophenol	(1)	5.528	128	865158	76.739
42) Total Cresols	(1)			2157095	159.553
24) 1,3-Dichlorobenzene	(1)	5.675	146	925331	77.728
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	148142	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	952946	78.216
27) Benzyl alcohol	(1)	5.875	108	703590	79.339
28) 1,2-Dichlorobenzene	(1)	5.893	146	912364	78.231
30) Indene	(1)	5.981	115	1023718	78.703
31) 2-Methylphenol	(1)	5.987	108	992866	78.476
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	1146080	78.222
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	1146080	78.222
35) N-Nitrosopyrrolidine	(1)	6.122	100	571878	79.006
36) Acetophenone	(1)	6.134	105	1472438	80.043
37) 4-Methylphenol	(1)	6.140	108	1164229	81.077
38) N-Nitroso-di-n-propylamine	(1)	6.151	70	1016226	79.587
39) N-Nitrosomorpholine	(1)	6.157	56	751660	81.269
40) o-Toluidine	(1)	6.169	106	1676029	78.874
43) Hexachloroethane	(1)	6.228	117	378077	78.409
44)$Nitrobenzene-d5	(2)	6.281	82	2640330	161.165
45) Nitrobenzene	(2)	6.298	77	1376691	80.190
48) N-Nitrosopiperidine	(2)	6.445	114	547057	80.842
50) Isophorone	(2)	6.534	82	2524670	80.449
51) 2-Nitrophenol	(2)	6.604	139	521265	81.485
53) 2,4-Dimethylphenol	(2)	6.651	107	1110212	79.769
57) O,O,O-Triethylphosphorothioate	(2)	6.728	198	479867	79.740
55) bis(2-Chloroethoxy)methane	(2)	6.751	93	1333123	77.731

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.769	105	873829	80.336
60) 2,4-Dichlorophenol	(2)	6.840	162	765884	77.866
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	798981	80.529
65)*Naphthalene-d8	(2)	6.975	136	607174	20.000
66) Naphthalene	(2)	6.992	128	2746715	79.361
67) 4-Chloroaniline	(2)	7.051	127	1121726	78.742
68) 2,6-Dichlorophenol	(2)	7.057	162	766786	79.496
69) Hexachloropropene	(2)	7.081	213	404753	81.196
71) Hexachlorobutadiene	(2)	7.122	225	433314	80.190
75) Quinoline	(2)	7.334	129	1800389	80.242
97) Isosafrole	(3)			756366	78.514
77) N-Nitrosodi-n-butylamine	(2)	7.387	84	1120935	77.288
76) Caprolactam	(2)	7.410	113	368118	85.051
80) 4-Chloro-3-methylphenol	(2)	7.528	107	957622	78.235
82) Safrole	(2)	7.592	162	761814	80.525
83) 2-Methylnaphthalene	(2)	7.669	142	1934887	79.999
84) 1-Methylnaphthalene	(2)	7.769	142	1862211	79.426
85) Hexachlorocyclopentadiene	(3)	7.828	237	393044	79.734
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.834	216	773562	79.882
88) cis-Isosafrole	(3)	7.875	162	124847	12.762
90) 2,4,6-Trichlorophenol	(3)	7.945	196	530321	76.820
92) 2,4,5-Trichlorophenol	(3)	7.981	196	582626	79.361
93)$2-Fluorobiphenyl	(3)	8.039	172	4292356	156.916
120) 2,4_2,6-Dinitrotoluenes	(3)			1190936	159.073
94) trans-Isosafrole	(3)	8.098	162	631519	65.753
95) 1,1'-Biphenyl	(3)	8.134	154	2332856	79.492
96) 2-Chloronaphthalene	(3)	8.145	162	1771489	77.679
98) 1-Chloronaphthalene	(3)	8.169	162	1730596	79.274
99) Diphenyl ether	(3)	8.234	170	1229525	77.187
100) 2-Nitroaniline	(3)	8.245	138	621195	80.444
104) 1,4-Naphthoquinone	(3)	8.322	158	768570	79.932
105) 1,4-Dinitrobenzene	(3)	8.387	168	328876	78.460
106) Dimethylphthalate	(3)	8.439	163	2106934	78.274
107) 1,3-Dinitrobenzene	(3)	8.457	168	374269	80.542
108) 2,6-Dinitrotoluene	(3)	8.492	165	517375	79.874
109) Acenaphthylene	(3)	8.551	152	2592366	79.400
112) 3-Nitroaniline	(3)	8.651	138	535632	78.483
113)*Acenaphthene-d10	(3)	8.687	164	334621	20.000
114) Acenaphthene	(3)	8.722	153	1850346	77.795
115) 2,4-Dinitrophenol	(3)	8.751	184	335632	79.492

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			1316117	78.861
116) 4-Nitrophenol	(3)	8.816	109	383071	80.592
117) Pentachlorobenzene	(3)	8.851	250	676098	78.520
118) 2,4-Dinitrotoluene	(3)	8.886	165	673561	79.199
119) Dibenzofuran	(3)	8.892	168	2628772	78.030
121) 1-Naphthylamine	(3)	8.969	143	2003226	78.906
122) 2,3,4,6-Tetrachlorophenol	(3)	9.010	232	488992	79.581
123) 2-Naphthylamine	(3)	9.045	143	1971038	79.305
124) Diethylphthalate	(3)	9.139	149	2103802	78.145
125) Thionazin	(3)	9.216	107	443001	84.515
126) Fluorene	(3)	9.228	166	2217830	77.953
127) 4-Chlorophenyl-phenylether	(3)	9.234	204	1016578	77.841
128) 5-Nitro-o-toluidine	(3)	9.245	152	642495	79.833
129) 4-Nitroaniline	(3)	9.257	138	573769A	76.743
130) 4,6-Dinitro-2-methylphenol	(4)	9.281	198	411875	80.372
131) N-Nitrosodiphenylamine	(4)	9.351	169	1874212	77.935
132) NDPA as diphenylamine	(4)	9.351	169	1874212	77.935
134) 1,2-Diphenylhydrazine	(4)	9.386	77	2876439	77.792
135)$2,4,6-Tribromophenol	(3)	9.463	330	431044	156.872
137) Tetraethyldithiopyrophosphate	(4)	9.522	97	418986	76.982
139) 1,3,5-Trinitrobenzene	(4)	9.610	213	255170	80.234
140) Diallate (peak 1)	(4)	9.639	86	1136644	65.928
141) Phorate	(4)	9.651	75	1778156	77.437
142) Phenacetin	(4)	9.669	108	1292086	80.125
143) 4-Bromophenyl-phenylether	(4)	9.716	248	569132	79.853
144) Diallate (peak 2)	(4)	9.722	86	179473	12.933
145) Hexachlorobenzene	(4)	9.763	284	506907	78.051
147) Dimethoate	(4)	9.816	87	973349	77.842
149) Pentachlorophenol	(4)	9.957	266	382750	80.727
150) 4-Aminobiphenyl	(4)	9.963	169	712419	72.753
151) Pentachloronitrobenzene	(4)	9.975	237	254515	80.552
152) Pronamide	(4)	10.033	173	944884	78.104
153)*Phenanthrene-d10	(4)	10.145	188	646762	20.000
154) Dinoseb	(4)	10.145	211	605301	82.586
155) Phenanthrene	(4)	10.169	178	3131272	78.520
157) Anthracene	(4)	10.222	178	3239079	78.786
163) Carbazole	(4)	10.375	167	2896875	78.288
164) Methyl parathion	(4)	10.522	109	741470	78.272
165) Di-n-butylphthalate	(4)	10.739	149	3704642	78.437
167) Parathion	(4)	10.910	109	497468	77.561

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.928	190	326276	81.242
169) Octachlorostyrene	(4)	11.151	308	207212	78.134
171) Isodrin	(4)	11.186	193	348254	77.299
173) Fluoranthene	(4)	11.333	202	3362978	78.633
174) Benzidine	(5)	11.480	184	6308690	240.182
175)*Pyrene-d10	(5)	11.533	212	572891	20.000
177) Pyrene	(5)	11.557	202	3340191	80.456
179)$Terphenyl-d14	(5)	11.722	244	4557996	159.050
182) p-Dimethylaminoazobenzene	(5)	11.857	225	565482	79.656
185) Chlorobenzilate	(5)	11.904	139	1099409	81.074
187) 3,3'-Dimethylbenzidine	(5)	12.186	212	1745390	77.722
188) Butylbenzylphthalate	(5)	12.210	149	1597592	79.974
191) 2-Acetylaminofluorene	(5)	12.439	181	1352496	80.471
193) 3,3'-Dichlorobenzidine	(5)	12.733	252	1091283	80.035
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.739	231	610965	79.886
195) Benzo(a)anthracene	(5)	12.751	228	3155207	80.570
196) Chrysene	(5)	12.792	228	3014136	80.961
199) bis(2-Ethylhexyl)phthalate	(5)	12.810	149	2184494	79.837
203) 6-Methylchrysene	(5)	13.251	242	2048540	80.501
205) Di-n-octylphthalate	(6)	13.474	149	3645531	77.975
206) Benzo(b)fluoranthene	(6)	13.839	252	2782649	78.343
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.839	256	1327284	78.558
208) Benzo(k)fluoranthene	(6)	13.874	252	2701922	78.444
211) Benzo(a)pyrene	(6)	14.157	252	2539540	78.830
213)*Perylene-d12	(6)	14.210	264	478558	20.000
215) 3-Methylcholanthrene	(6)	14.516	268	975687	77.479
222) Total PAHs	(6)			47252990	1426.020
217) Dibenz(a,h)acridine	(6)	15.127	279	1802178	80.089
218) Dibenz(a,j)acridine	(6)	15.186	279	1927465	79.696
219) Indeno(1,2,3-cd)pyrene	(6)	15.410	276	2544297	79.021
220) Dibenz(a,h)anthracene	(6)	15.433	278	2131946	80.441
221) Benzo(g,h,i)perylene	(6)	15.757	276	2105418	79.082

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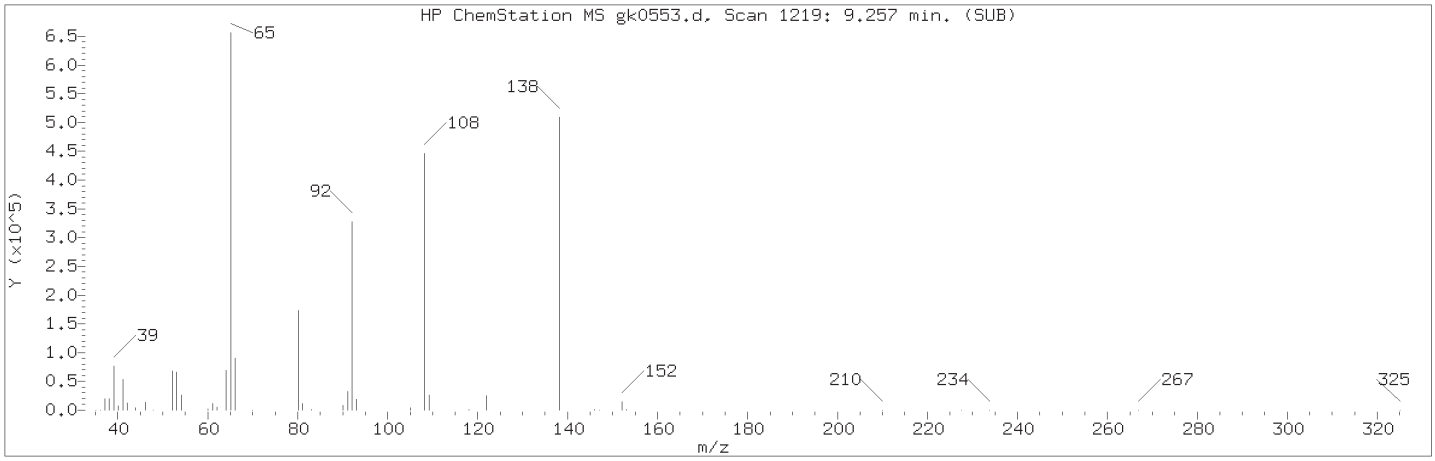
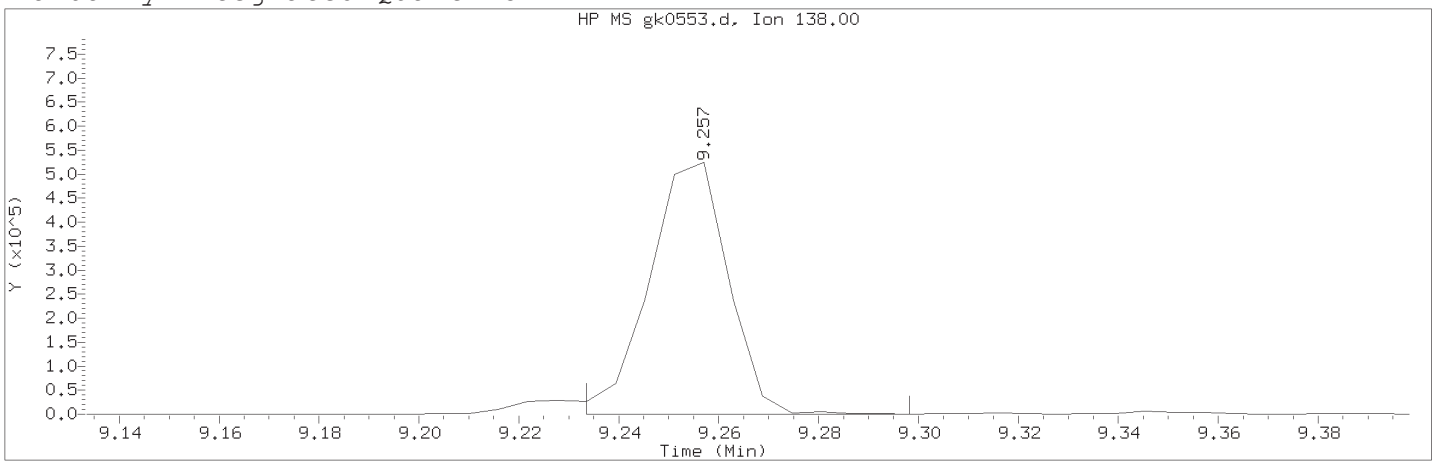
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD080 Lab Sample ID: STD2928

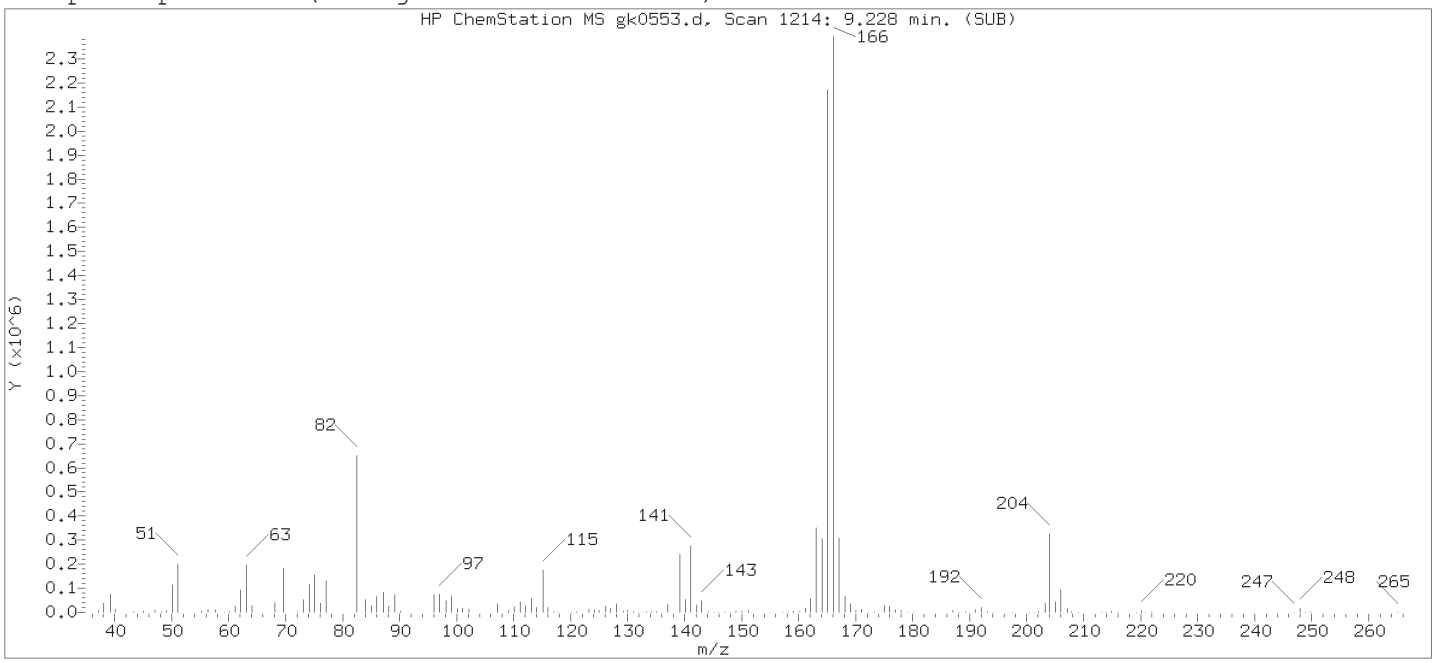
Compound Number : 129
Compound Name : 4-Nitroaniline
Scan Number : 1219
Retention Time (minutes) : 9.257
Quant Ion : 138.00
Area (flag) : 573769A
On-Column Amount (ng/ul) : 76.7431
Integration start scan : 1214 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

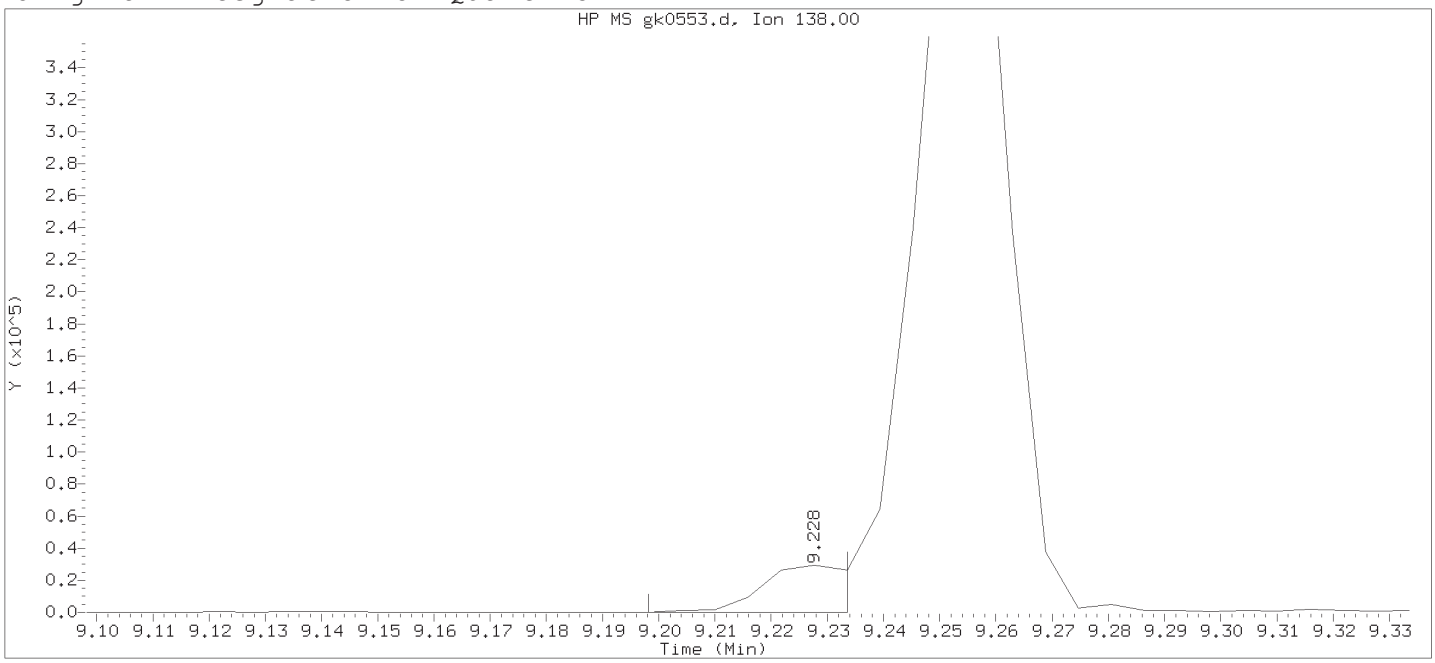
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



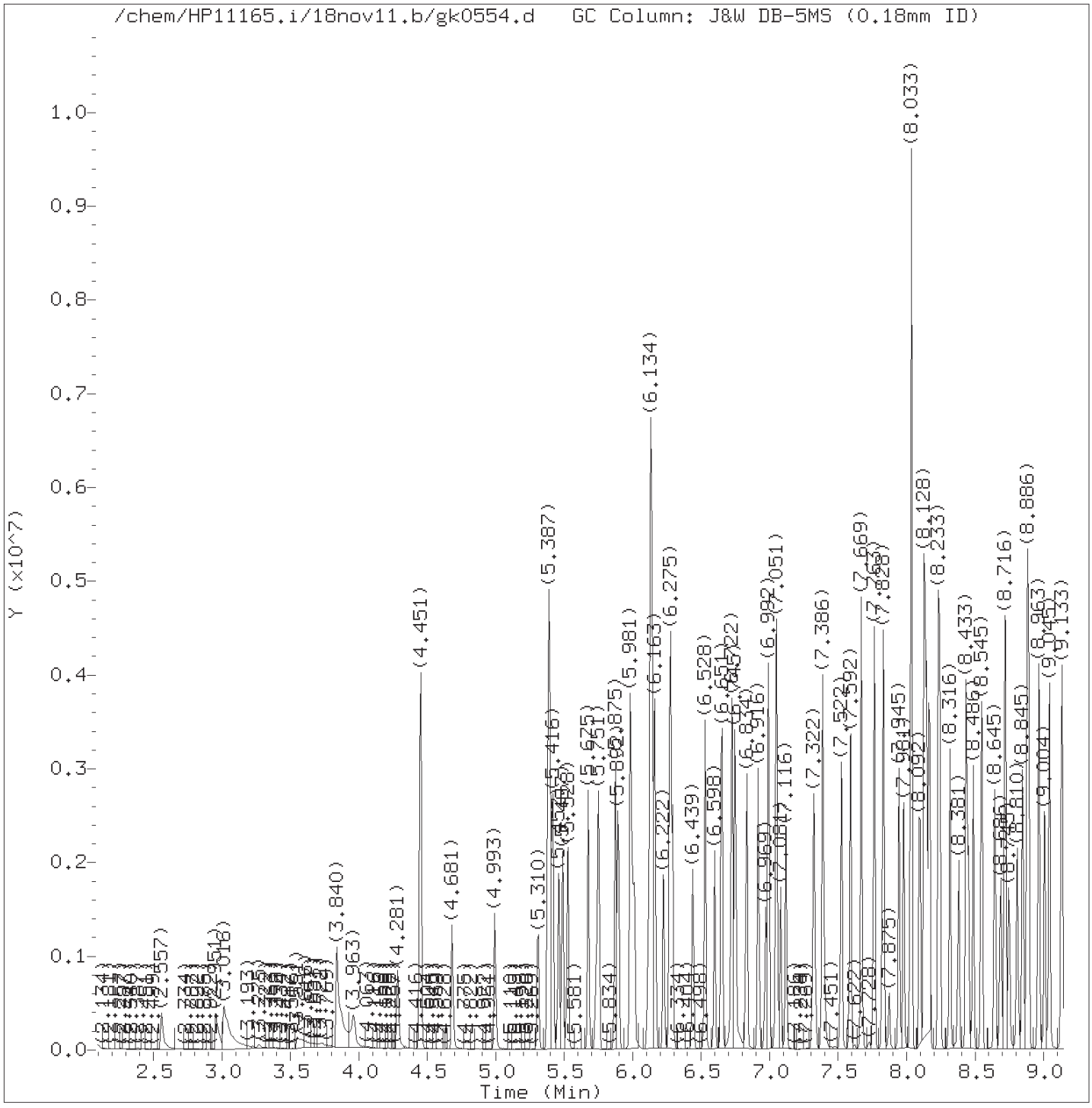
Data File: /chem/HP11165.i/18nov11.b/gk0553.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:31 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 12:52
Date, time and analyst ID of latest file update: 11-Nov-2018 12:53 Automation

Sample Name: SSTD080 Lab Sample ID: STD2928

Compound Number	: 129		
Compound Name	: 4-Nitroaniline		
Scan Number	: 1214		
Retention Time (minutes)	: 9.228		
Quant Ion	: 138.00		
Area	: 28633		
On-column Amount (ng/ul)	: 4.2706		
Integration start scan	: 1208	Integration stop scan:	1214
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

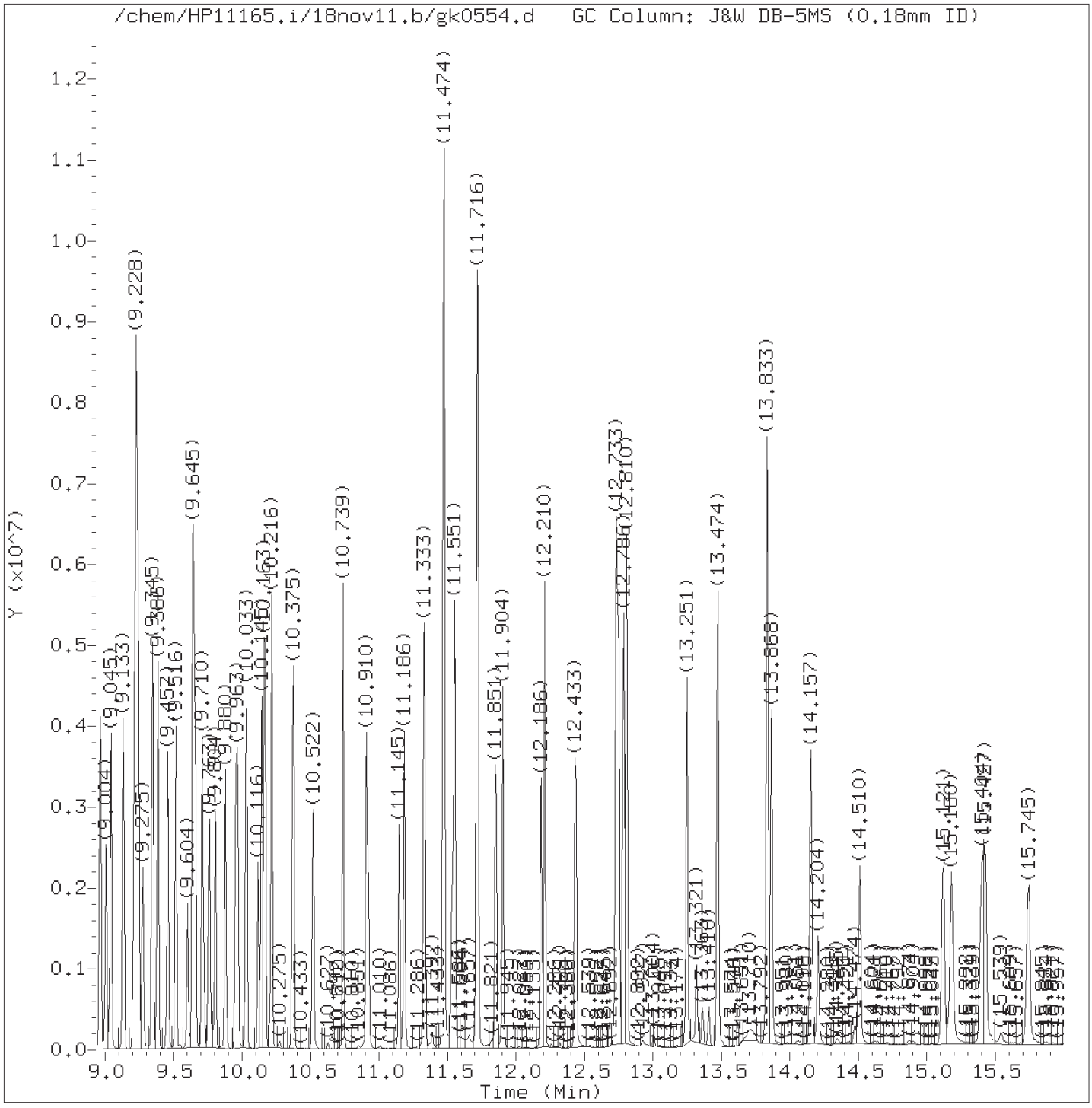
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.557	88	223258	47.828
4) N-Nitrosodimethylamine	(1)	2.957	74	354020	47.920
5) Pyridine	(1)	3.016	79	633115	52.058
7) 2-Picoline	(1)	3.840	93	663908	51.295
8) N-Nitrosomethylethylamine	(1)	3.957	88	323269	50.852
9) Methyl methanesulfonate	(1)	4.281	80	348257	51.947
11)$2-Fluorophenol	(1)	4.451	112	1022996	100.757
13) N-Nitrosodiethylamine	(1)	4.681	102	310851	50.662
15) Ethyl methanesulfonate	(1)	4.993	109	306802	51.385
17)$Phenol-d6	(1)	5.387	99	1659422	104.024
18) Phenol	(1)	5.398	94	950498	51.344
19) Aniline	(1)	5.416	93	1067147	51.330
20) a-methylstyrene	(1)	5.469	118	51758	53.017
22) bis(2-Chloroethyl)ether	(1)	5.487	93	682160	53.025
23) 2-Chlorophenol	(1)	5.528	128	514584	50.533
42) Total Cresols	(1)			1241605	101.677
24) 1,3-Dichlorobenzene	(1)	5.675	146	552497	51.165
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	133331	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	563750	51.051
27) Benzyl alcohol	(1)	5.875	108	425806	52.470
28) 1,2-Dichlorobenzene	(1)	5.892	146	532818	50.569
30) Indene	(1)	5.981	115	643310	53.624
31) 2-Methylphenol	(1)	5.992	108	592266	51.495
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	686893	51.551
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	686893	51.551
35) N-Nitrosopyrrolidine	(1)	6.116	100	342938	51.954
36) Acetophenone	(1)	6.128	105	905941	53.457
37) 4-Methylphenol	(1)	6.134	108	649339	50.182
38) N-Nitroso-di-n-propylamine	(1)	6.139	70	586109	50.747
39) N-Nitrosomorpholine	(1)	6.151	56	446499	52.680
40) o-Toluidine	(1)	6.163	106	998469	51.638
43) Hexachloroethane	(1)	6.222	117	218993	50.346
44)$Nitrobenzene-d5	(2)	6.275	82	1577806	96.981
45) Nitrobenzene	(2)	6.292	77	836161	48.909
48) N-Nitrosopiperidine	(2)	6.439	114	320869	47.925
50) Isophorone	(2)	6.528	82	1516062	48.609
51) 2-Nitrophenol	(2)	6.598	139	311302	48.877
53) 2,4-Dimethylphenol	(2)	6.651	107	667209	48.326
57) O,O,O-Triethylphosphorothioate	(2)	6.728	198	269911	45.928
55) bis(2-Chloroethoxy)methane	(2)	6.745	93	859464	49.970

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.751	105	536138	49.352
60) 2,4-Dichlorophenol	(2)	6.834	162	482526	49.176
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	468938	47.808
65)*Naphthalene-d8	(2)	6.969	136	609035	20.000
66) Naphthalene	(2)	6.992	128	1645099	48.014
67) 4-Chloroaniline	(2)	7.045	127	691052	48.761
68) 2,6-Dichlorophenol	(2)	7.051	162	472961	49.158
69) Hexachloropropene	(2)	7.081	213	247439	49.614
71) Hexachlorobutadiene	(2)	7.122	225	259305	48.363
75) Quinoline	(2)	7.322	129	1102530	49.238
97) Isosafrole	(3)			461164	49.566
77) N-Nitrosodi-n-butylamine	(2)	7.386	84	705971	49.009
76) Caprolactam	(2)	7.398	113	235356	53.093
80) 4-Chloro-3-methylphenol	(2)	7.522	107	586216	48.290
82) Safrole	(2)	7.592	162	461529	48.969
83) 2-Methylnaphthalene	(2)	7.669	142	1183299	49.075
84) 1-Methylnaphthalene	(2)	7.763	142	1130731	48.546
85) Hexachlorocyclopentadiene	(3)	7.828	237	239962	50.200
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.833	216	463722	49.585
88) cis-Isosafrole	(3)	7.875	162	80786	8.520
90) 2,4,6-Trichlorophenol	(3)	7.945	196	339164	50.548
92) 2,4,5-Trichlorophenol	(3)	7.981	196	365642	51.065
93)$2-Fluorobiphenyl	(3)	8.033	172	2597116	98.523
120) 2,4_2,6-Dinitrotoluenes	(3)			755302	102.835
94) trans-Isosafrole	(3)	8.098	162	380378	41.046
95) 1,1'-Biphenyl	(3)	8.128	154	1460583	51.037
96) 2-Chloronaphthalene	(3)	8.145	162	1309513M	56.661
98) 1-Chloronaphthalene	(3)	8.163	162	1055120M	49.931
99) Diphenyl ether	(3)	8.233	170	765576	49.721
100) 2-Nitroaniline	(3)	8.245	138	392031	51.796
104) 1,4-Naphthoquinone	(3)	8.316	158	476363	50.864
105) 1,4-Dinitrobenzene	(3)	8.381	168	205086	50.392
106) Dimethylphthalate	(3)	8.433	163	1313873	50.302
107) 1,3-Dinitrobenzene	(3)	8.451	168	226980	50.329
108) 2,6-Dinitrotoluene	(3)	8.486	165	318943	50.632
109) Acenaphthylene	(3)	8.545	152	1611821	50.730
112) 3-Nitroaniline	(3)	8.645	138	349767	52.160
113)*Acenaphthene-d10	(3)	8.686	164	324050	20.000
114) Acenaphthene	(3)	8.722	153	1148754	49.905
115) 2,4-Dinitrophenol	(3)	8.745	184	207602	50.578

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			809709	48.355
116) 4-Nitrophenol	(3)	8.810	109	240826	51.719
117) Pentachlorobenzene	(3)	8.845	250	402866	48.724
118) 2,4-Dinitrotoluene	(3)	8.880	165	436359	52.204
119) Dibenzofuran	(3)	8.886	168	1625523	49.868
121) 1-Naphthylamine	(3)	8.963	143	1290817	51.854
122) 2,3,4,6-Tetrachlorophenol	(3)	9.010	232	304751	50.905
123) 2-Naphthylamine	(3)	9.045	143	1240249	51.138
124) Diethylphthalate	(3)	9.133	149	1329845	50.752
125) Thionazin	(3)	9.210	107	243092	48.400
126) Fluorene	(3)	9.222	166	1382132	50.123
127) 4-Chlorophenyl-phenylether	(3)	9.233	204	625012	49.563
128) 5-Nitro-o-toluidine	(3)	9.239	152	410534	51.979
129) 4-Nitroaniline	(3)	9.245	138	391694	53.013
130) 4,6-Dinitro-2-methylphenol	(4)	9.275	198	273014	51.849
131) N-Nitrosodiphenylamine	(4)	9.345	169	1193166	49.163
132) NDPA as diphenylamine	(4)	9.345	169	1193166	49.163
134) 1,2-Diphenylhydrazine	(4)	9.386	77	1833912	49.150
135)$2,4,6-Tribromophenol	(3)	9.457	330	277843	103.275
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	262758	48.156
139) 1,3,5-Trinitrobenzene	(4)	9.604	213	164917	50.819
140) Diallate (peak 1)	(4)	9.639	86	697646	40.268
141) Phorate	(4)	9.645	75	1123384	48.643
142) Phenacetin	(4)	9.657	108	800123	49.164
143) 4-Bromophenyl-phenylether	(4)	9.710	248	365372	50.385
144) Diallate (peak 2)	(4)	9.722	86	112063	8.087
145) Hexachlorobenzene	(4)	9.763	284	329844	50.034
147) Dimethoate	(4)	9.804	87	635360	50.052
149) Pentachlorophenol	(4)	9.957	266	243431	50.443
150) 4-Aminobiphenyl	(4)	9.963	169	487230	49.349
151) Pentachloronitrobenzene	(4)	9.969	237	161265	50.220
152) Pronamide	(4)	10.033	173	593836	48.767
153)*Phenanthrene-d10	(4)	10.139	188	656356	20.000
154) Dinoseb	(4)	10.145	211	348413	47.593
155) Phenanthrene	(4)	10.169	178	1977859	49.149
157) Anthracene	(4)	10.216	178	2032220	49.025
163) Carbazole	(4)	10.375	167	1861511	49.678
164) Methyl parathion	(4)	10.522	109	494867	51.099
165) Di-n-butylphthalate	(4)	10.739	149	2348582	49.246
167) Parathion	(4)	10.904	109	320883	49.472

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.922	190	216131	52.238
169) Octachlorostyrene	(4)	11.151	308	132732	49.487
171) Isodrin	(4)	11.186	193	231024	50.396
173) Fluoranthene	(4)	11.333	202	2151948	49.685
174) Benzidine	(5)	11.474	184	4184254	151.067
175)*Pyrene-d10	(5)	11.533	212	602684	20.000
177) Pyrene	(5)	11.551	202	2097960	48.513
179)$Terphenyl-d14	(5)	11.716	244	2892489	96.926
182) p-Dimethylaminoazobenzene	(5)	11.857	225	367085	49.362
185) Chlorobenzilate	(5)	11.904	139	676859	48.060
187) 3,3'-Dimethylbenzidine	(5)	12.186	212	1094471	47.194
188) Butylbenzylphthalate	(5)	12.210	149	1041061	49.653
191) 2-Acetylaminofluorene	(5)	12.433	181	868421	49.334
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	686018	48.351
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	380023	47.896
195) Benzo(a)anthracene	(5)	12.751	228	2031531	49.482
196) Chrysene	(5)	12.786	228	1905330	48.979
199) bis(2-Ethylhexyl)phthalate	(5)	12.810	149	1420170	49.502
203) 6-Methylchrysene	(5)	13.251	242	1344692	50.172
205) Di-n-octylphthalate	(6)	13.474	149	2340922	48.908
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.833	256	847269	48.965
206) Benzo(b)fluoranthene	(6)	13.839	252	1774760	48.831
208) Benzo(k)fluoranthene	(6)	13.868	252	1772473	49.926
211) Benzo(a)pyrene	(6)	14.157	252	1644036	49.615
213)*Perylene-d12	(6)	14.204	264	493502	20.000
215) 3-Methylcholanthrene	(6)	14.510	268	638856	49.394
222) Total PAHs	(6)			29794438	887.208
217) Dibenz(a,h)acridine	(6)	15.121	279	1170200	50.321
218) Dibenz(a,j)acridine	(6)	15.180	279	1223401	49.286
219) Indeno(1,2,3-cd)pyrene	(6)	15.404	276	1612997	48.927
220) Dibenz(a,h)anthracene	(6)	15.427	278	1367524	50.027
221) Benzo(g,h,i)perylene	(6)	15.745	276	1323964	48.656

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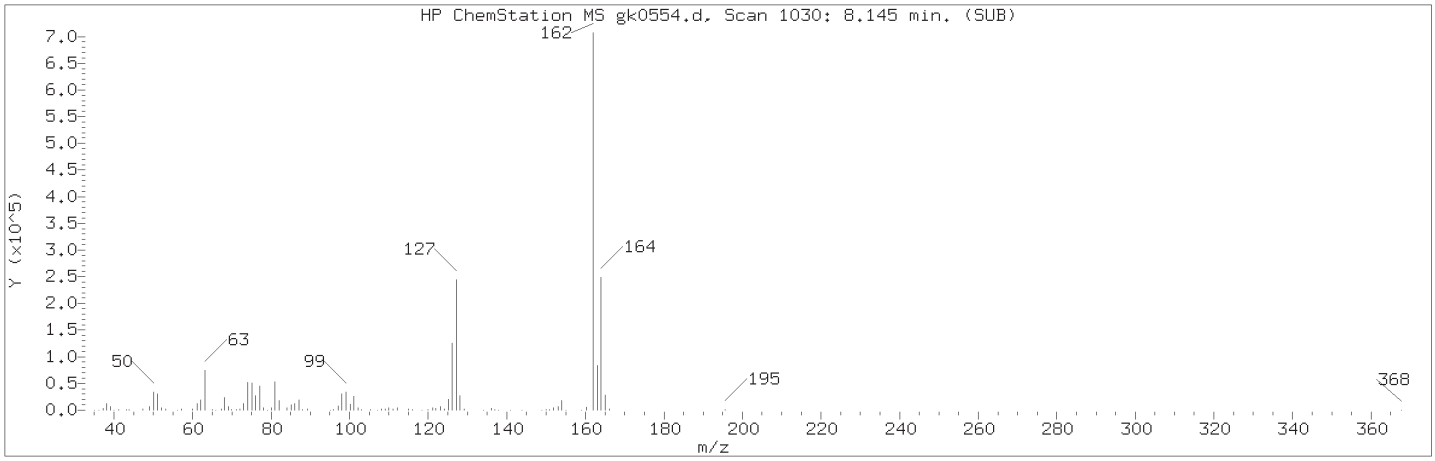
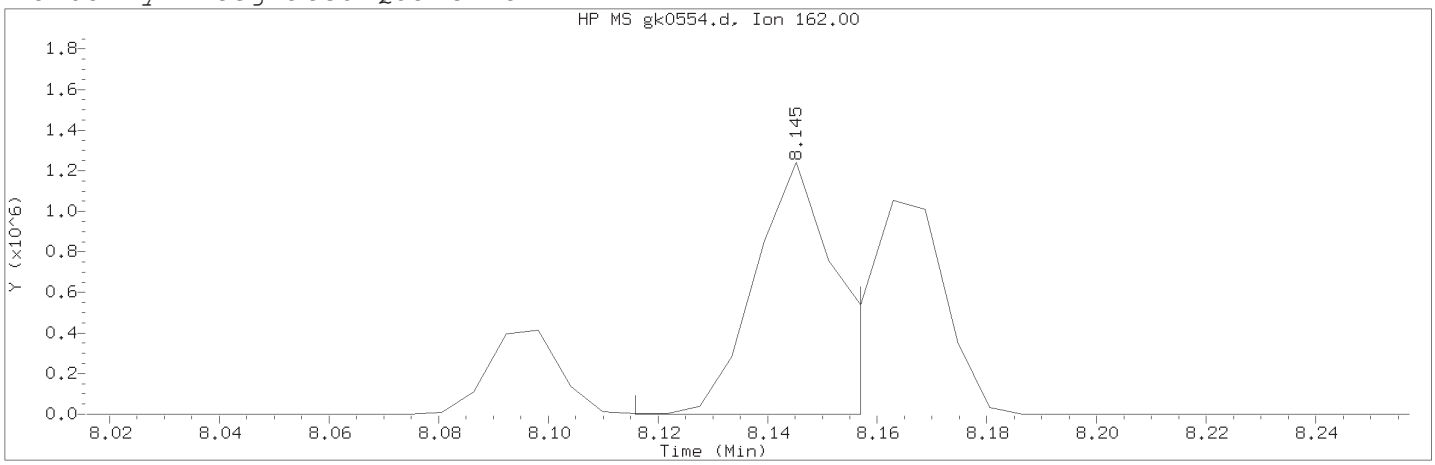
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

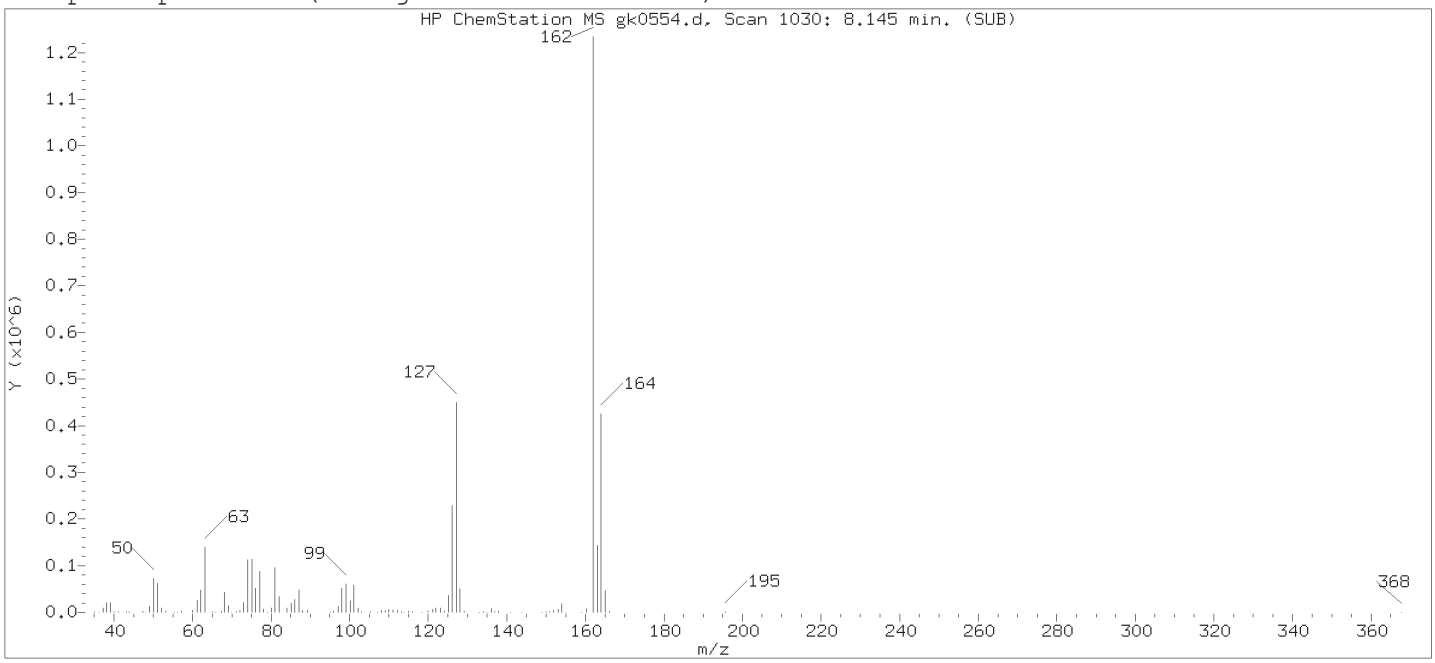
Compound Number : 96
Compound Name : 2-Chloronaphthalene
Scan Number : 1030
Retention Time (minutes) : 8.145
Quant Ion : 162.00
Area (flag) : 1309513M
On-Column Amount (ng/ul) : 56.6614
Integration start scan : 1024 Integration stop scan: 1031
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

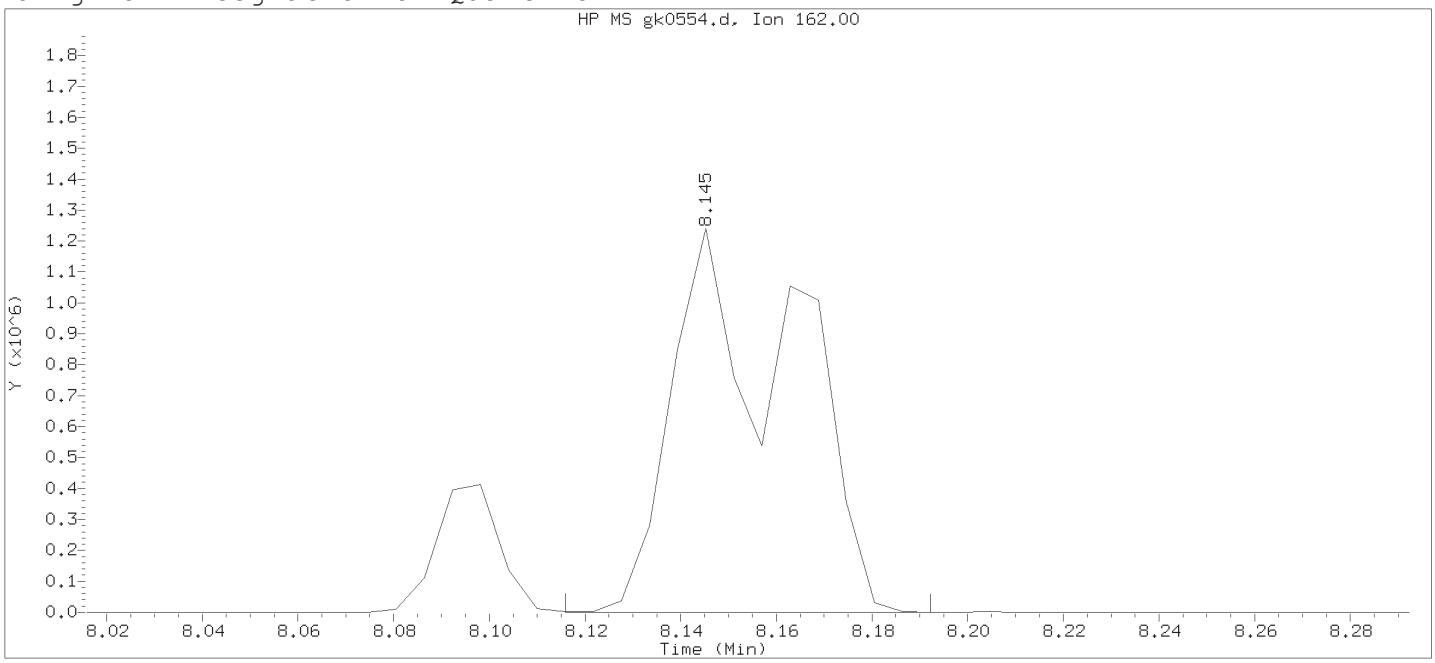
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

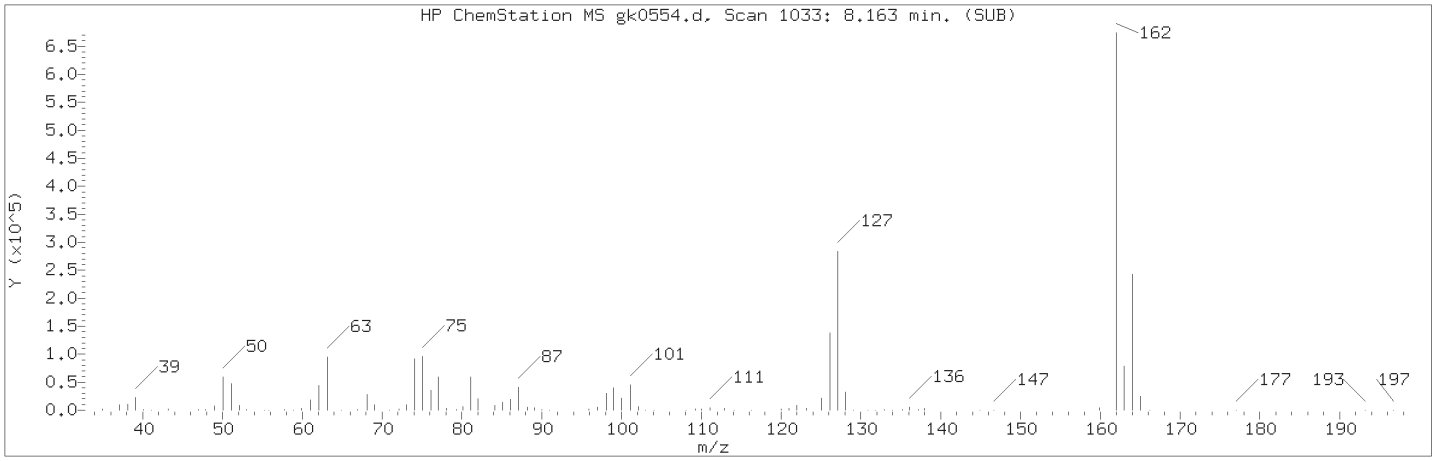
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 13:17
Date, time and analyst ID of latest file update: 11-Nov-2018 13:17 Automation

Sample Name: SSTD050 Lab Sample ID: STD2928

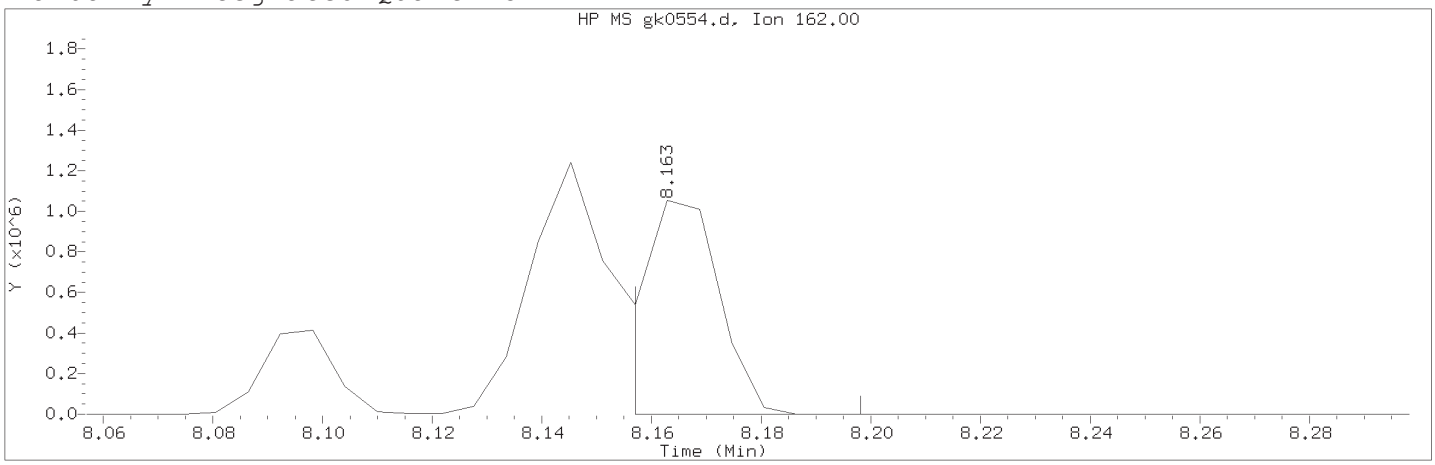
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1030		
Retention Time (minutes)	: 8.145		
Quant Ion	: 162.00		
Area	: 2174367		
On-column Amount (ng/ul)	: 86.2766		
Integration start scan	: 1024	Integration stop scan:	1037
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD050 Lab Sample ID: STD2928

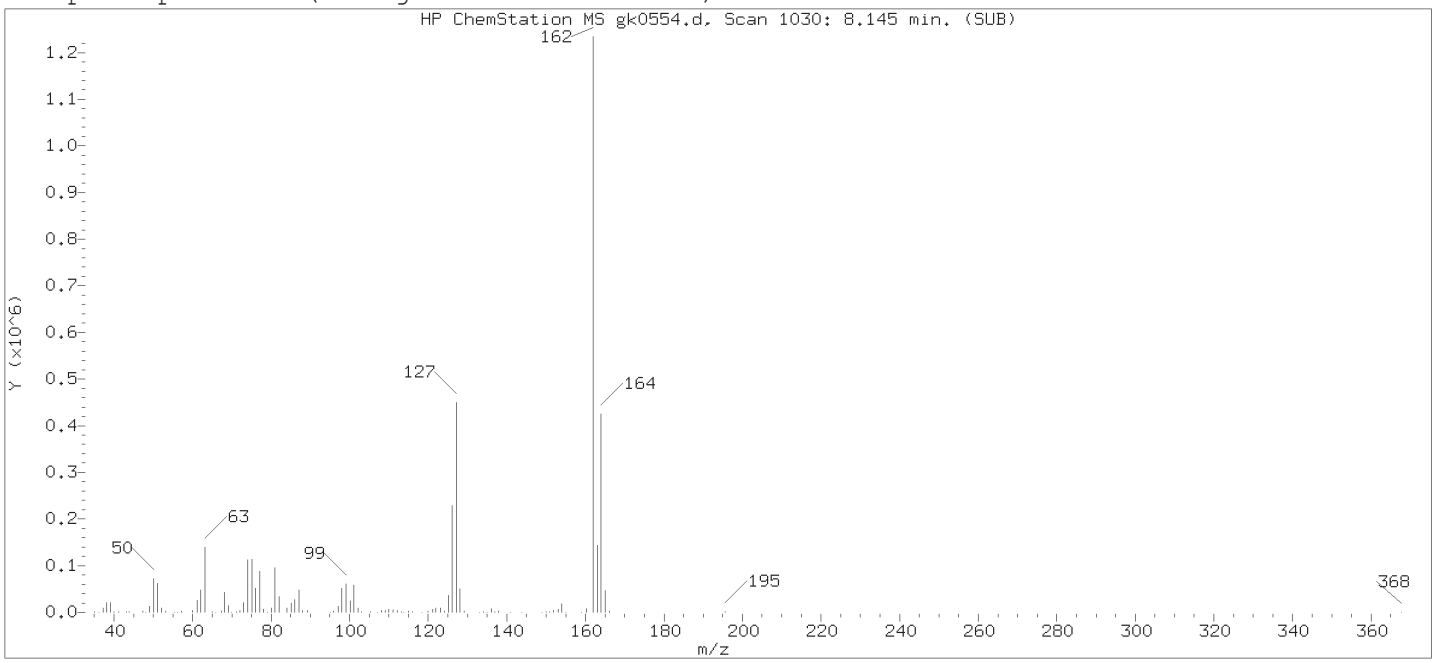
Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1033		
Retention Time (minutes)	: 8.163		
Quant Ion	: 162.00		
Area (flag)	: 1055120M		
On-Column Amount (ng/ul)	: 49.9314		
Integration start scan	: 1031	Integration stop scan:	1038
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

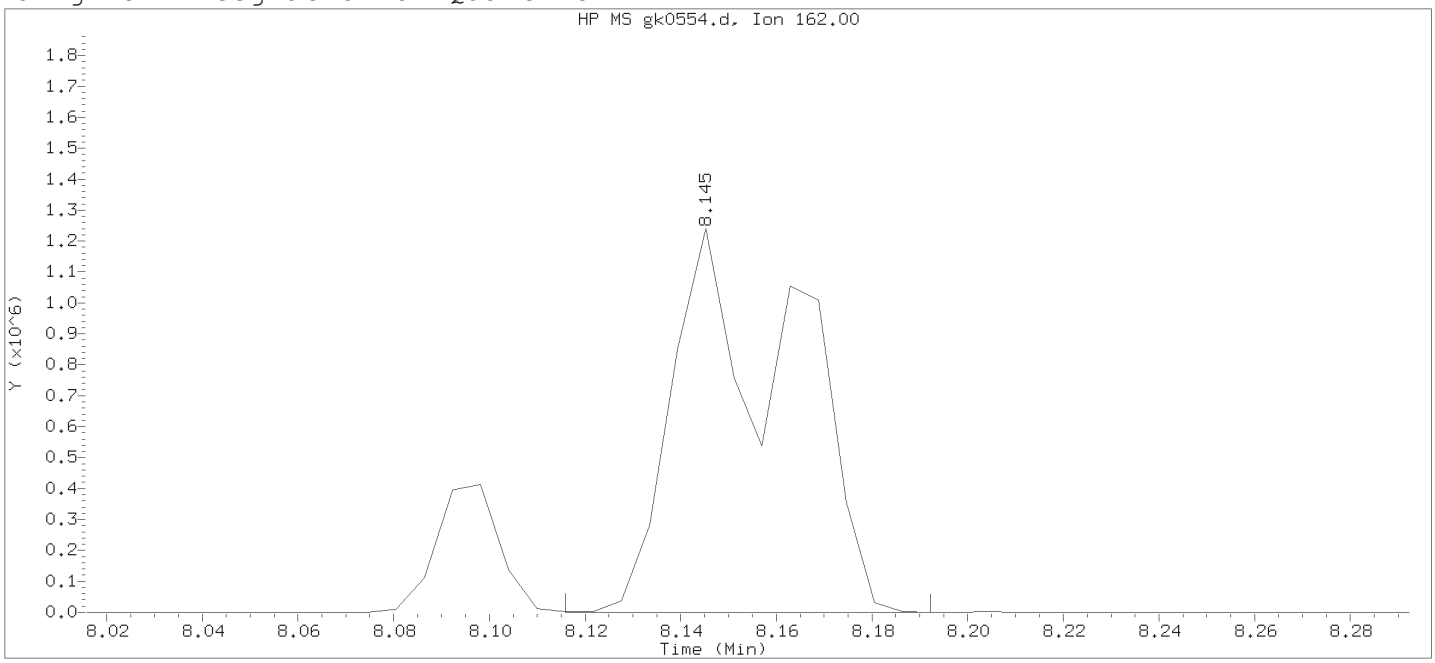
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:22.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



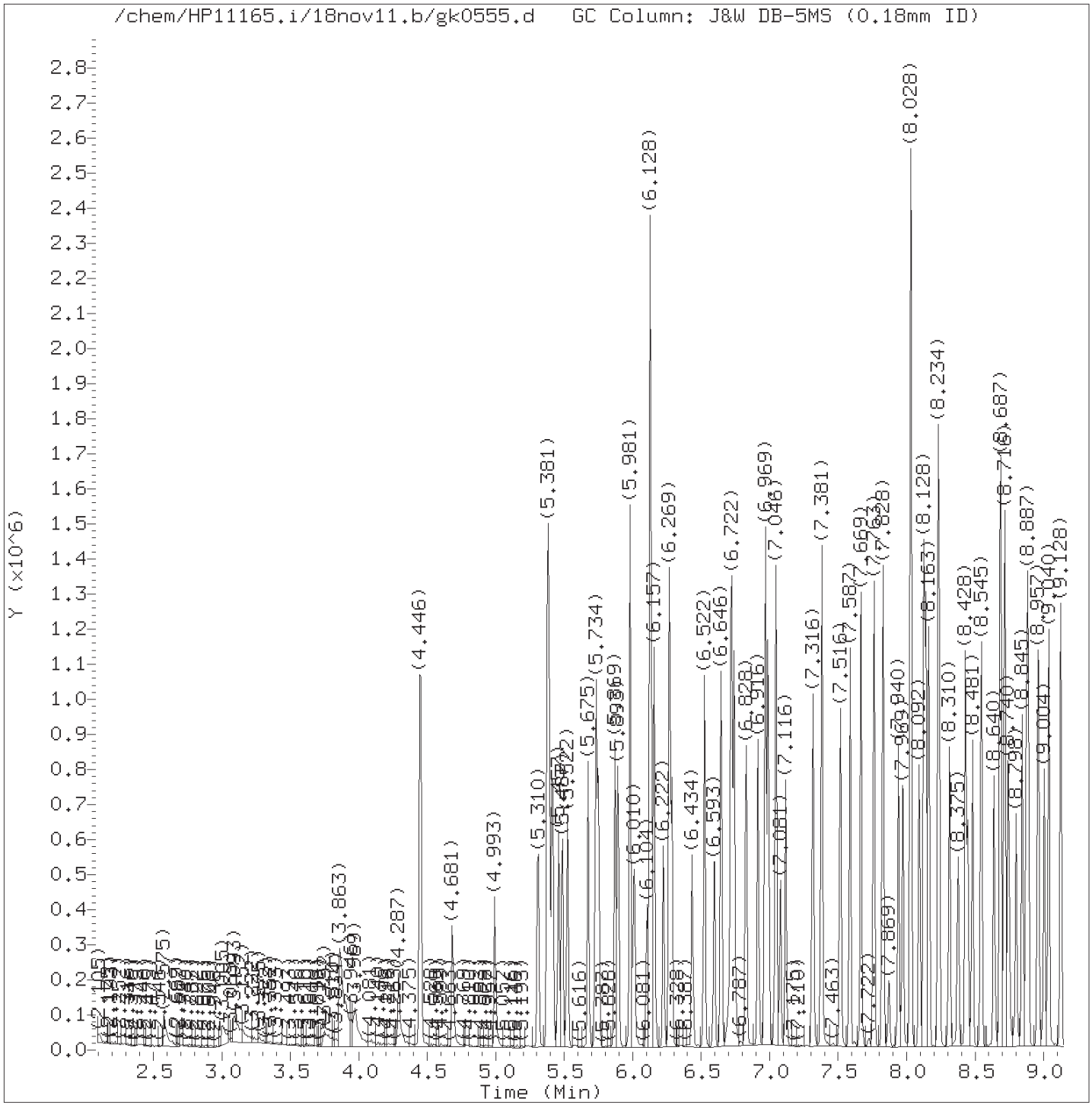
Data File: /chem/HP11165.i/18nov11.b/gk0554.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 12:55 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 13:17
Date, time and analyst ID of latest file update: 11-Nov-2018 13:17 Automation

Sample Name: SSTD050 Lab Sample ID: STD2928

Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1030		
Retention Time (minutes)	: 8.145		
Quant Ion	: 162.00		
Area	: 2174361		
On-column Amount (ng/ul)	: 89.4207		
Integration start scan	: 1024	Integration stop scan:	1037
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:22.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

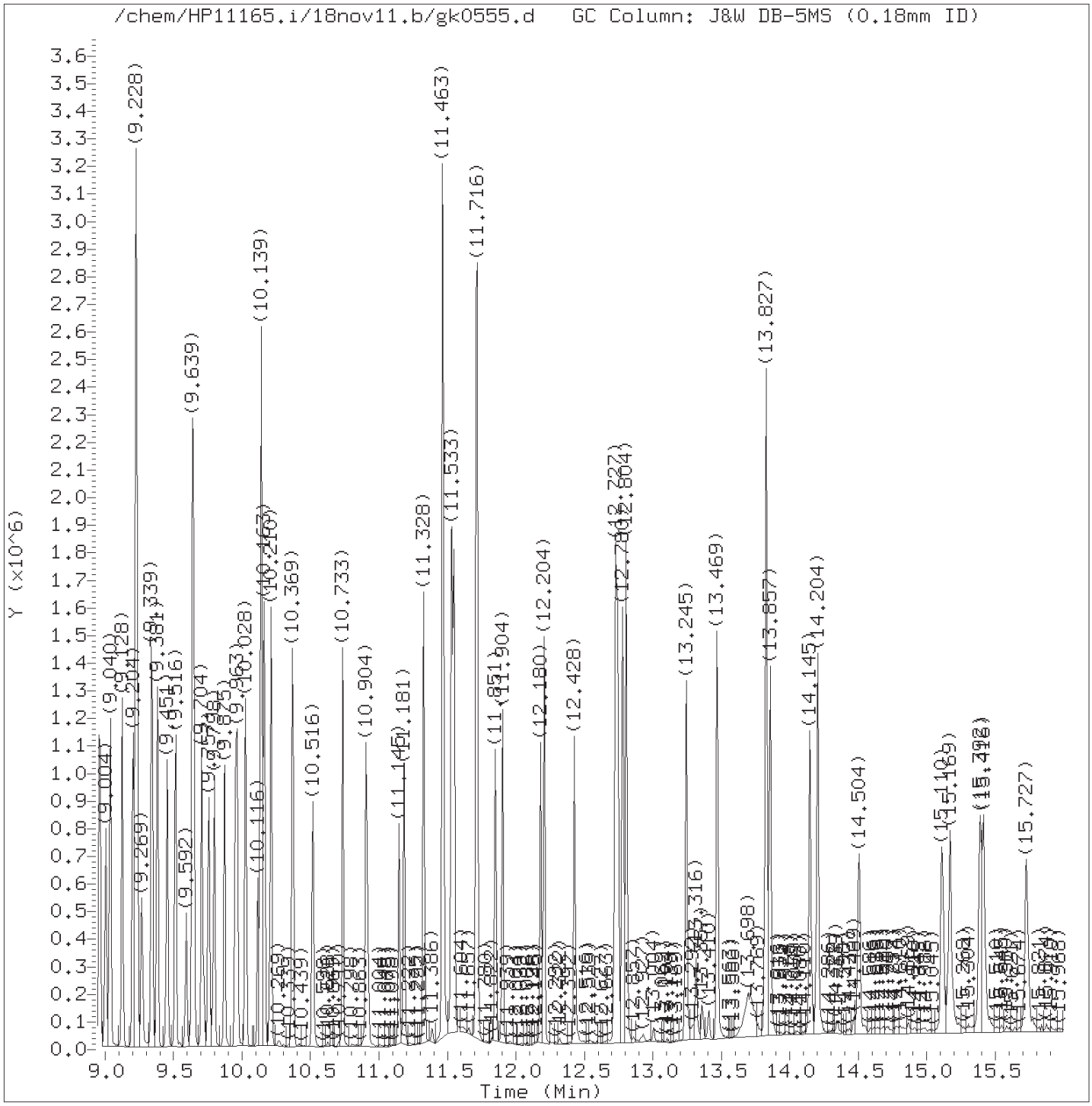
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.575	88	65669	14.011
4) N-Nitrosodimethylamine	(1)	3.005	74	93225	12.815
5) Pyridine	(1)	3.099	79	176249M	14.353
7) 2-Picoline	(1)	3.863	93	203277M	15.309
8) N-Nitrosomethylethylamine	(1)	3.975	88	96205M	14.862
9) Methyl methanesulfonate	(1)	4.287	80	103775	15.133
11)$2-Fluorophenol	(1)	4.452	112	293363	28.633
13) N-Nitrosodiethylamine	(1)	4.681	102	86683	14.059
15) Ethyl methanesulfonate	(1)	4.993	109	87722	14.513
17)$Phenol-d6	(1)	5.381	99	457890	28.481
18) Phenol	(1)	5.393	94	284413	15.043
19) Aniline	(1)	5.416	93	320003	15.065
20) a-methylstyrene	(1)	5.463	118	16110	15.921
22) bis(2-Chloroethyl)ether	(1)	5.487	93	186473	14.355
23) 2-Chlorophenol	(1)	5.522	128	152491	14.737
42) Total Cresols	(1)			341668	27.918
24) 1,3-Dichlorobenzene	(1)	5.675	146	160305	14.634
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	136077	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	167133	14.863
27) Benzyl alcohol	(1)	5.869	108	119015	14.492
28) 1,2-Dichlorobenzene	(1)	5.893	146	152205	14.316
31) 2-Methylphenol	(1)	5.981	108	166352	14.330
30) Indene	(1)	5.981	115	181089	14.832
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.004	45	205889	15.112
34) bis(2-Chloroisopropyl)ether	(1)	6.004	45	205889	15.112
35) N-Nitrosopyrrolidine	(1)	6.104	100	98217	14.662
36) Acetophenone	(1)	6.128	105	234672	13.832
37) 4-Methylphenol	(1)	6.128	108	175316	13.588
38) N-Nitroso-di-n-propylamine	(1)	6.134	70	179389	15.174
39) N-Nitrosomorpholine	(1)	6.146	56	127904	14.828
40) o-Toluidine	(1)	6.157	106	297046	15.042
43) Hexachloroethane	(1)	6.222	117	61386	14.047
44)$Nitrobenzene-d5	(2)	6.269	82	442399	28.445
45) Nitrobenzene	(2)	6.287	77	237704	14.482
48) N-Nitrosopiperidine	(2)	6.434	114	91068	14.227
50) Isophorone	(2)	6.522	82	420664	14.130
51) 2-Nitrophenol	(2)	6.598	139	84924	13.999
53) 2,4-Dimethylphenol	(2)	6.646	107	191066	14.428
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	80218	14.268
56) Benzoic acid	(2)	6.734	105	296556	28.534

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.746	93	245446	14.789
60) 2,4-Dichlorophenol	(2)	6.828	162	136338	14.474
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	140764	14.856
65)*Naphthalene-d8	(2)	6.969	136	589762	20.000
66) Naphthalene	(2)	6.987	128	473424	14.409
67) 4-Chloroaniline	(2)	7.046	127	206400	15.032
68) 2,6-Dichlorophenol	(2)	7.051	162	135295	14.615
69) Hexachloropropene	(2)	7.081	213	69021	14.428
71) Hexachlorobutadiene	(2)	7.116	225	69647	13.704
75) Quinoline	(2)	7.316	129	324134	14.959
76) Caprolactam	(2)	7.375	113	60255	14.220
77) N-Nitrosodi-n-butylamine	(2)	7.381	84	209379	15.008
97) Isosafrole	(3)			131966	14.305
80) 4-Chloro-3-methylphenol	(2)	7.516	107	164216	14.164
82) Safrole	(2)	7.587	162	130281	14.414
83) 2-Methylnaphthalene	(2)	7.669	142	341949	14.715
84) 1-Methylnaphthalene	(2)	7.763	142	327472	14.613
85) Hexachlorocyclopentadiene	(3)	7.822	237	72629	15.120
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.828	216	136460	14.637
88) cis-Isosafrole	(3)	7.875	162	23413	2.479
90) 2,4,6-Trichlorophenol	(3)	7.940	196	94209	14.189
92) 2,4,5-Trichlorophenol	(3)	7.975	196	105769	14.782
93)$2-Fluorobiphenyl	(3)	8.028	172	752215	28.749
120) 2,4_2,6-Dinitrotoluenes	(3)			205338	28.336
94) trans-Isosafrole	(3)	8.092	162	108553	11.826
95) 1,1'-Biphenyl	(3)	8.128	154	388789	13.814
96) 2-Chloronaphthalene	(3)	8.140	162	318832	13.988
98) 1-Chloronaphthalene	(3)	8.163	162	308555	14.645
99) Diphenyl ether	(3)	8.234	170	224458	14.626
100) 2-Nitroaniline	(3)	8.240	138	107438	14.315
104) 1,4-Naphthoquinone	(3)	8.310	158	125969	13.701
105) 1,4-Dinitrobenzene	(3)	8.375	168	55476	13.851
106) Dimethylphthalate	(3)	8.428	163	396441	15.107
107) 1,3-Dinitrobenzene	(3)	8.445	168	63061	14.141
108) 2,6-Dinitrotoluene	(3)	8.481	165	88580	14.206
109) Acenaphthylene	(3)	8.545	152	450325	14.298
112) 3-Nitroaniline	(3)	8.640	138	98779	14.749
113)*Acenaphthene-d10	(3)	8.687	164	324996	20.000
114) Acenaphthene	(3)	8.716	153	327205	14.331
115) 2,4-Dinitrophenol	(3)	8.745	184	104315	26.153

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$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			225958	14.016
116) 4-Nitrophenol	(3)	8.798	109	66501	14.386
117) Pentachlorobenzene	(3)	8.845	250	121781	14.748
118) 2,4-Dinitrotoluene	(3)	8.875	165	116758	14.130
119) Dibenzofuran	(3)	8.887	168	464975	14.372
121) 1-Naphthylamine	(3)	8.957	143	359013	14.500
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	87440	14.649
123) 2-Naphthylamine	(3)	9.040	143	360492	14.856
124) Diethylphthalate	(3)	9.128	149	395156	15.030
125) Thionazin	(3)	9.204	107	69732	14.060
126) Fluorene	(3)	9.222	166	388598	14.231
128) 5-Nitro-o-toluidine	(3)	9.228	152	109827	14.078
127) 4-Chlorophenyl-phenylether	(3)	9.228	204	171062	13.797
129) 4-Nitroaniline	(3)	9.234	138	109090	14.776
130) 4,6-Dinitro-2-methylphenol	(4)	9.269	198	64550	12.939
131) N-Nitrosodiphenylamine	(4)	9.339	169	342245	14.507
132) NDPA as diphenylamine	(4)	9.339	169	342245	14.507
134) 1,2-Diphenylhydrazine	(4)	9.381	77	511572	14.181
135)$2,4,6-Tribromophenol	(3)	9.457	330	78451	29.256
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	74366	14.113
139) 1,3,5-Trinitrobenzene	(4)	9.592	213	37209	12.238
140) Diallate (peak 1)	(4)	9.634	86	193212	11.579
141) Phorate	(4)	9.639	75	314408	14.100
142) Phenacetin	(4)	9.645	108	220321	14.036
143) 4-Bromophenyl-phenylether	(4)	9.710	248	102862	14.576
144) Diallate (peak 2)	(4)	9.722	86	32746	2.438
145) Hexachlorobenzene	(4)	9.757	284	98861	15.241
147) Dimethoate	(4)	9.798	87	183745	14.815
149) Pentachlorophenol	(4)	9.951	266	63550	13.723
150) 4-Aminobiphenyl	(4)	9.957	169	153353	15.628
151) Pentachloronitrobenzene	(4)	9.963	237	45556	14.578
152) Pronamide	(4)	10.028	173	167711	14.233
153)*Phenanthrene-d10	(4)	10.139	188	643241	20.000
154) Dinoseb	(4)	10.139	211	91194	13.111
155) Phenanthrene	(4)	10.163	178	566225	14.482
157) Anthracene	(4)	10.210	178	571248	14.240
163) Carbazole	(4)	10.369	167	533035	14.610
164) Methyl parathion	(4)	10.516	109	128907	13.844
165) Di-n-butylphthalate	(4)	10.733	149	638890	13.916
167) Parathion	(4)	10.904	109	79141	12.888

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$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.916	190	46189	11.967
169) Octachlorostyrene	(4)	11.145	308	35130	13.663
171) Isodrin	(4)	11.186	193	56974	13.086
173) Fluoranthene	(4)	11.328	202	606722	14.430
174) Benzidine	(5)	11.463	184	1179361	42.859
175)*Pyrene-d10	(5)	11.528	212	605873	20.000
177) Pyrene	(5)	11.545	202	609944	14.214
179)$Terphenyl-d14	(5)	11.716	244	829142	28.080
182) p-Dimethylaminoazobenzene	(5)	11.851	225	108035	14.558
185) Chlorobenzilate	(5)	11.904	139	189602	13.685
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	309738	13.597
188) Butylbenzylphthalate	(5)	12.204	149	280394	13.611
191) 2-Acetylaminofluorene	(5)	12.428	181	230612	13.383
193) 3,3'-Dichlorobenzidine	(5)	12.722	252	198629	14.128
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	106568	13.659
195) Benzo(a)anthracene	(5)	12.745	228	578447	14.202
196) Chrysene	(5)	12.780	228	557554	14.400
199) bis(2-Ethylhexyl)phthalate	(5)	12.804	149	385710	13.670
203) 6-Methylchrysene	(5)	13.245	242	369940	13.967
205) Di-n-octylphthalate	(6)	13.469	149	619466	13.033
206) Benzo(b)fluoranthene	(6)	13.827	252	527370	14.311
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.827	256	242661	13.920
208) Benzo(k)fluoranthene	(6)	13.857	252	492353	13.794
211) Benzo(a)pyrene	(6)	14.145	252	479951	14.290
213)*Perylene-d12	(6)	14.204	264	506110	20.000
215) 3-Methylcholanthrene	(6)	14.504	268	182349	13.981
222) Total PAHs	(6)			8610432	258.997
217) Dibenz(a,h)acridine	(6)	15.110	279	341443	14.449
218) Dibenz(a,j)acridine	(6)	15.169	279	378149	14.883
219) Indeno(1,2,3-cd)pyrene	(6)	15.392	276	500524	14.843
220) Dibenz(a,h)anthracene	(6)	15.416	278	407031	14.613
221) Benzo(g,h,i)perylene	(6)	15.727	276	404090	14.581

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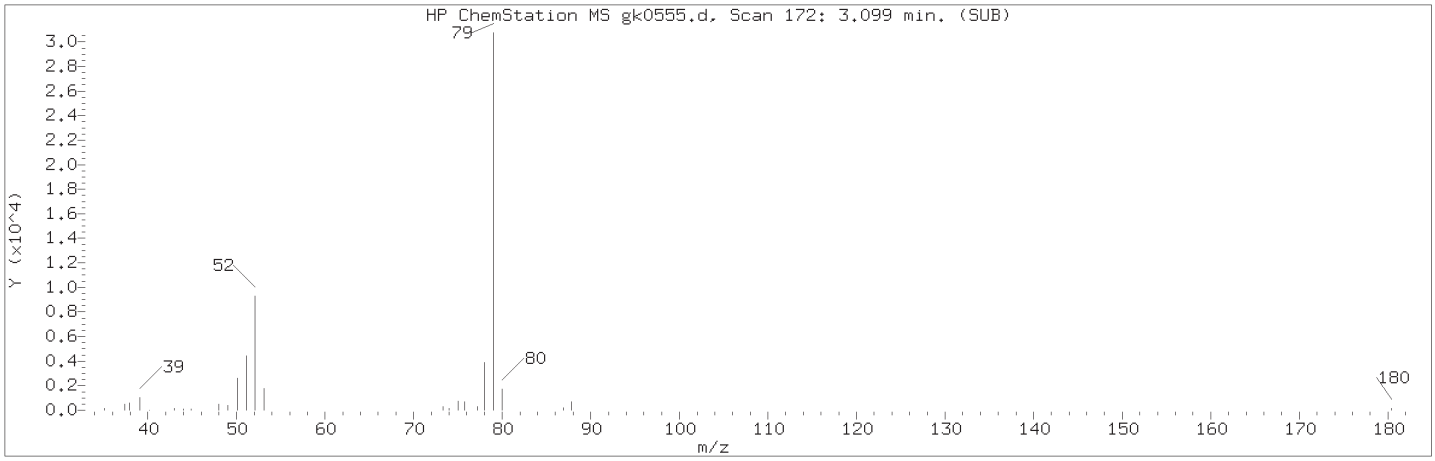
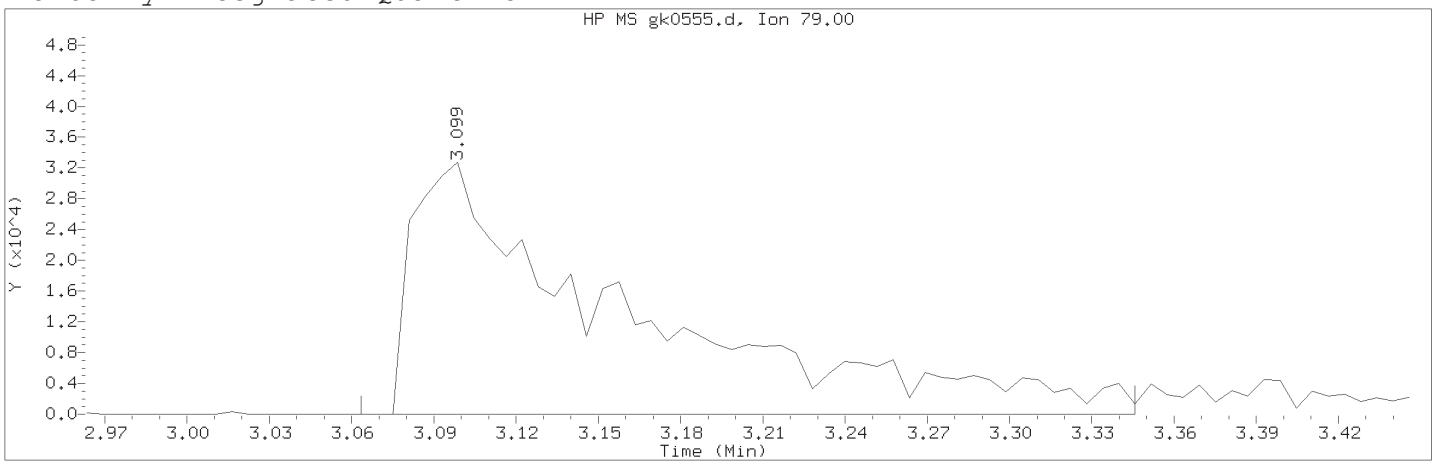
Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

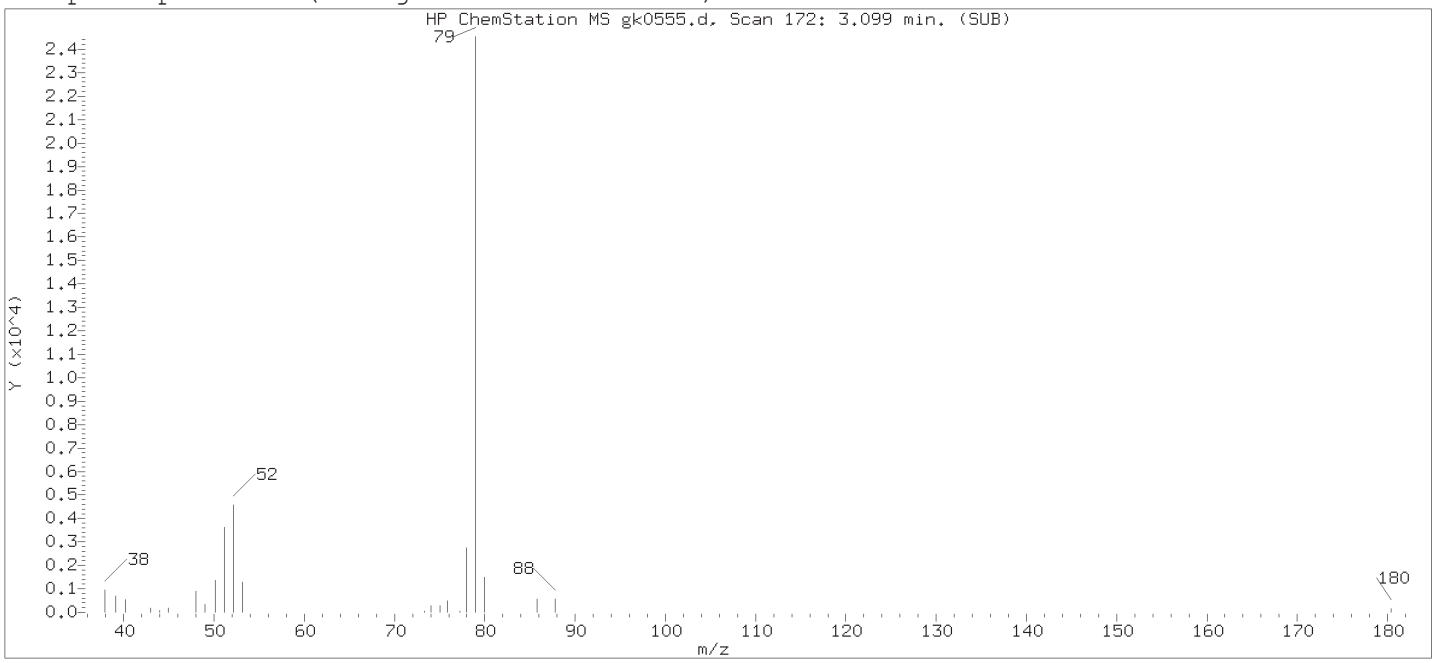
Compound Number : 5
Compound Name : Pyridine
Scan Number : 172
Retention Time (minutes) : 3.099
Quant Ion : 79.00
Area (flag) : 176249M
On-Column Amount (ng/ul) : 14.3528
Integration start scan : 165 Integration stop scan: 213
Y at integration start : 2 Y at integration end: 2

Reason for manual integration: improper integration

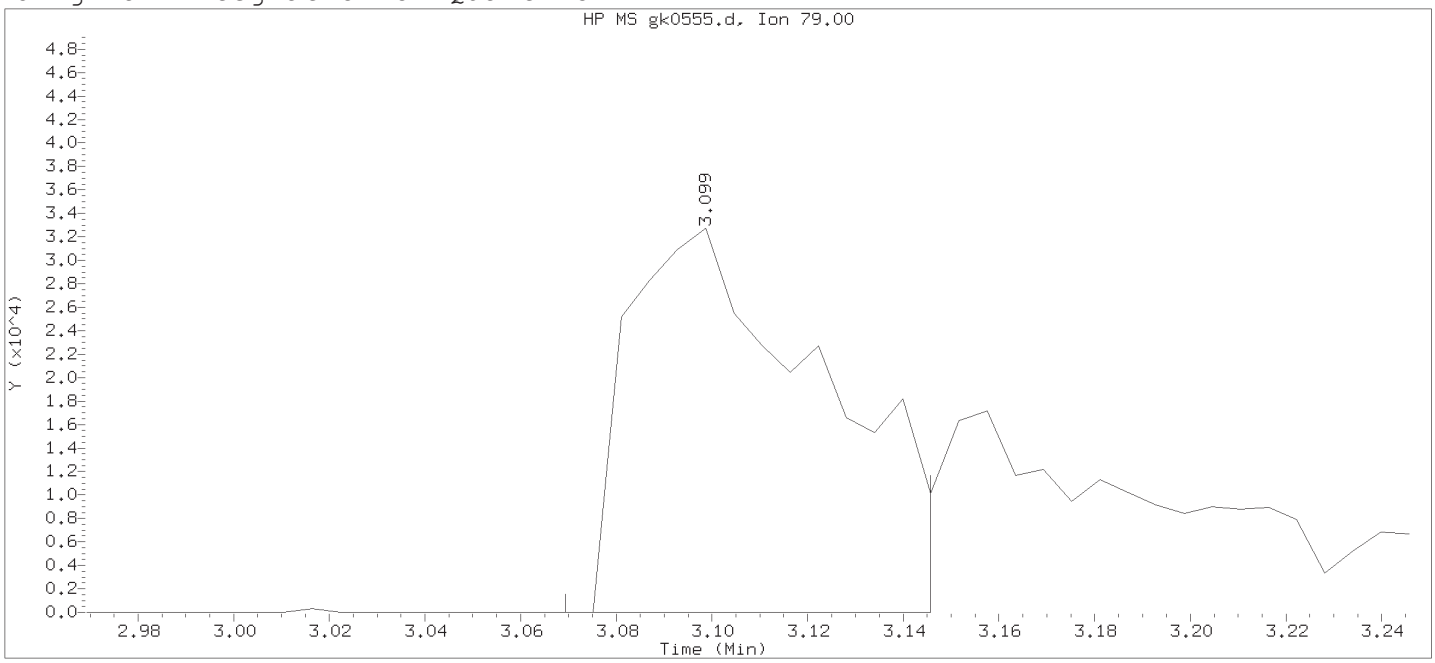
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

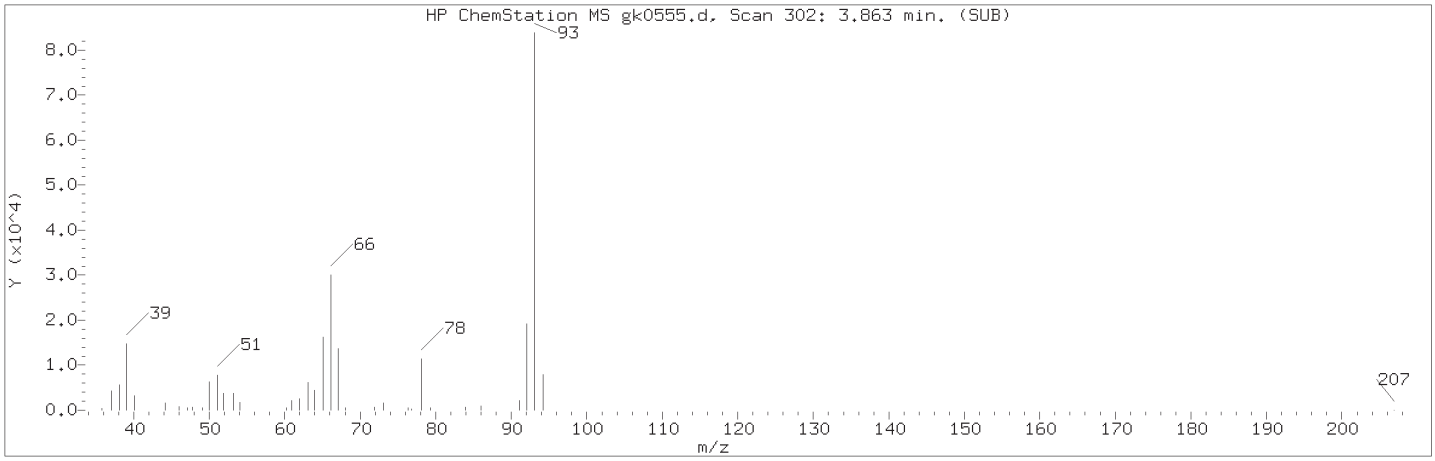
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 13:41
Date, time and analyst ID of latest file update: 11-Nov-2018 13:41 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

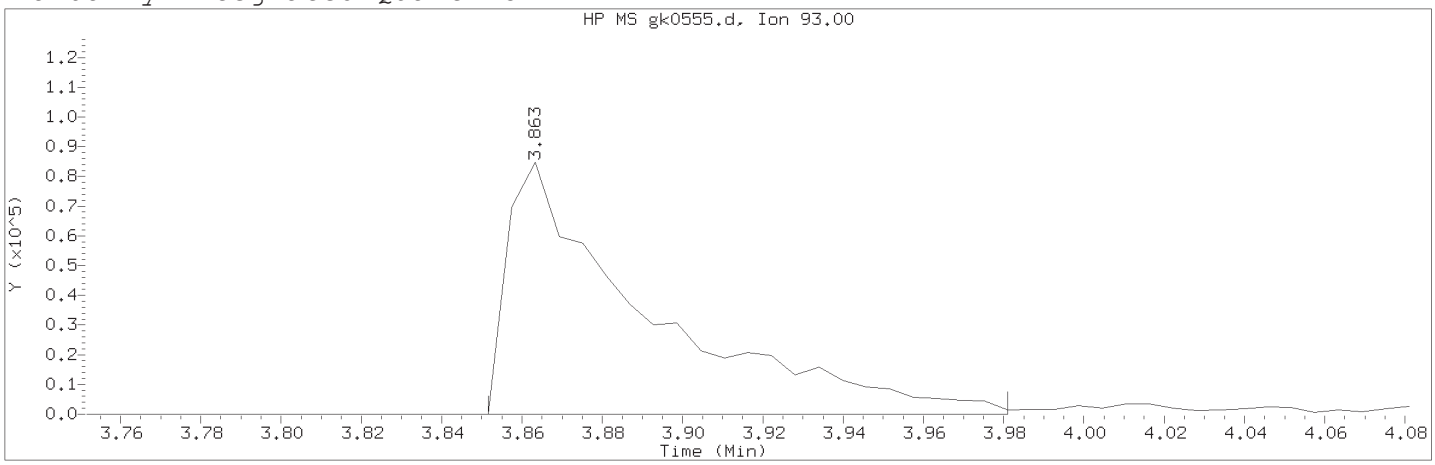
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 172		
Retention Time (minutes)	: 3.099		
Quant Ion	: 79.00		
Area	: 93084		
On-column Amount (ng/ul)	: 8.0796		
Integration start scan	: 166	Integration stop scan:	179
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

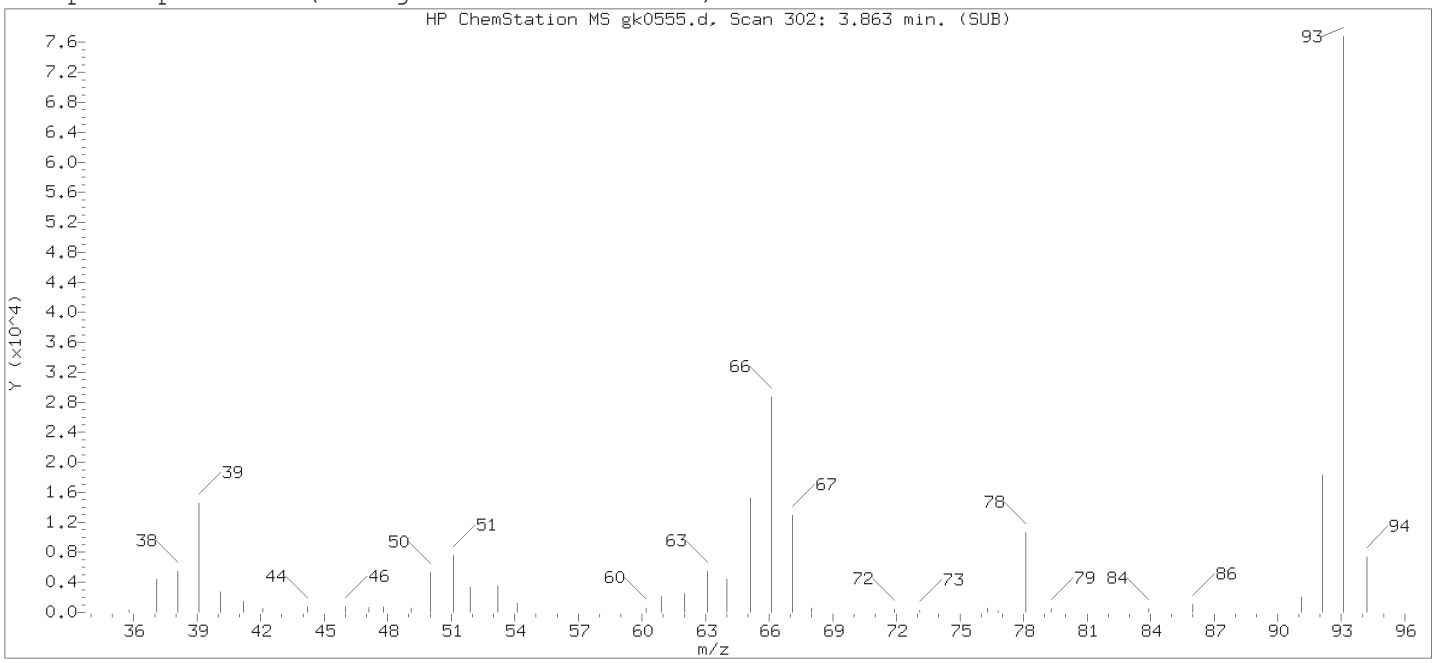
Compound Number : 7
Compound Name : 2-Picoline
Scan Number : 302
Retention Time (minutes) : 3.863
Quant Ion : 93.00
Area (flag) : 203277M
On-Column Amount (ng/ul) : 15.3093
Integration start scan : 299 Integration stop scan: 321
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

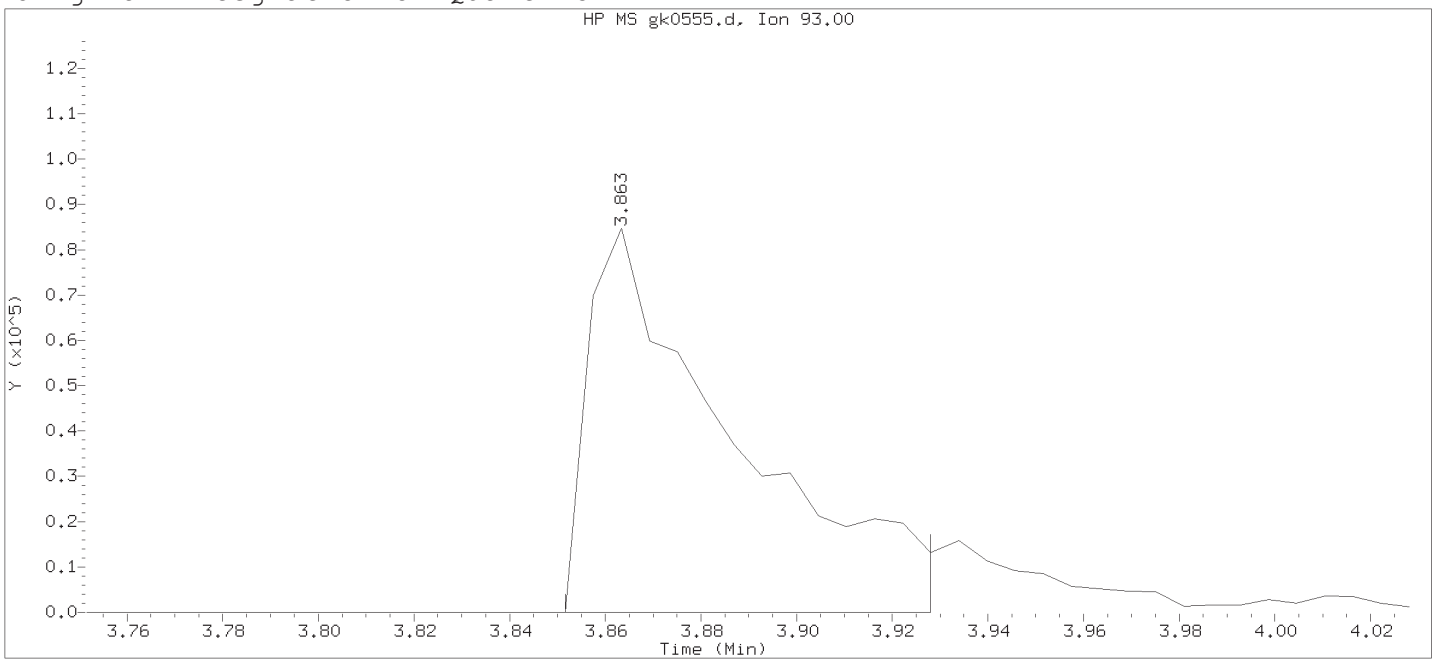
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

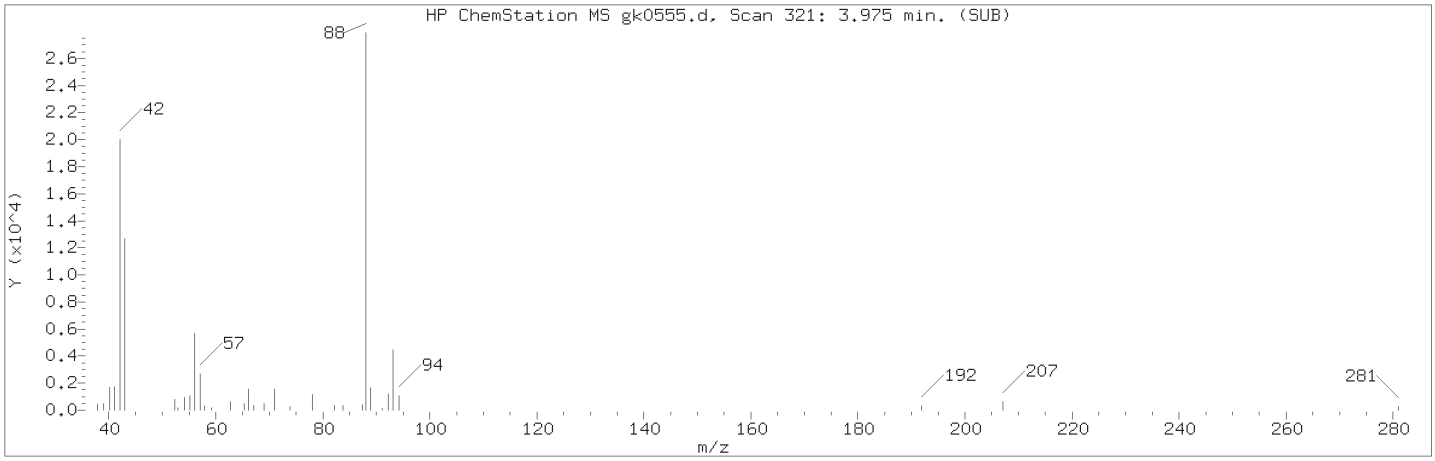
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 13:41
Date, time and analyst ID of latest file update: 11-Nov-2018 13:41 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

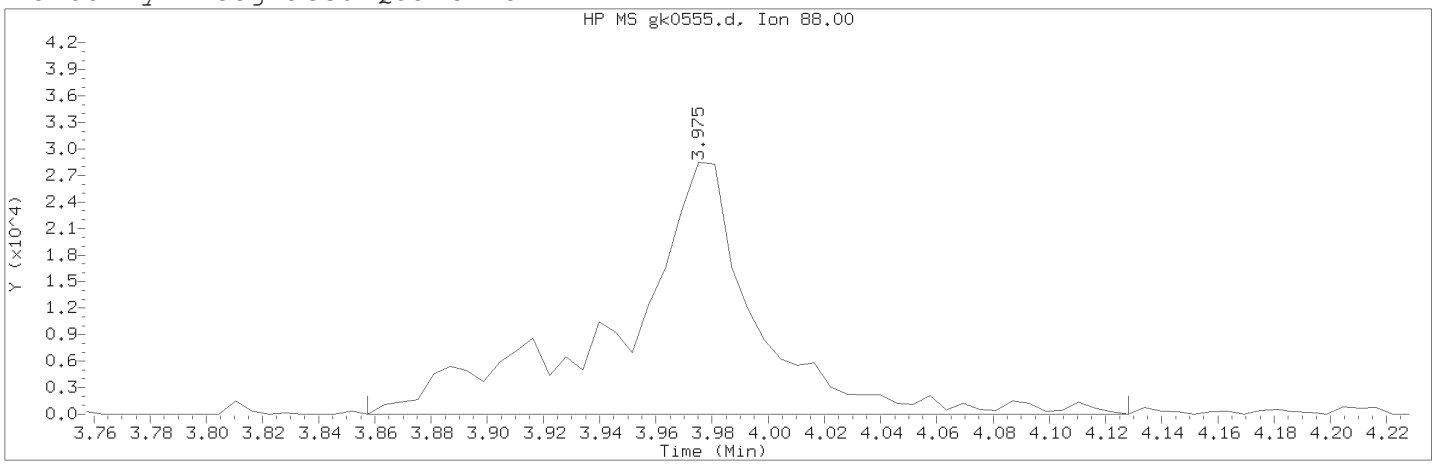
Compound Number	: 7		
Compound Name	: 2-Picoline		
Scan Number	: 302		
Retention Time (minutes)	: 3.863		
Quant Ion	: 93.00		
Area	: 177596		
On-column Amount (ng/ul)	: 13.7818		
Integration start scan	: 299	Integration stop scan:	312
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.0.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD015 Lab Sample ID: STD2928

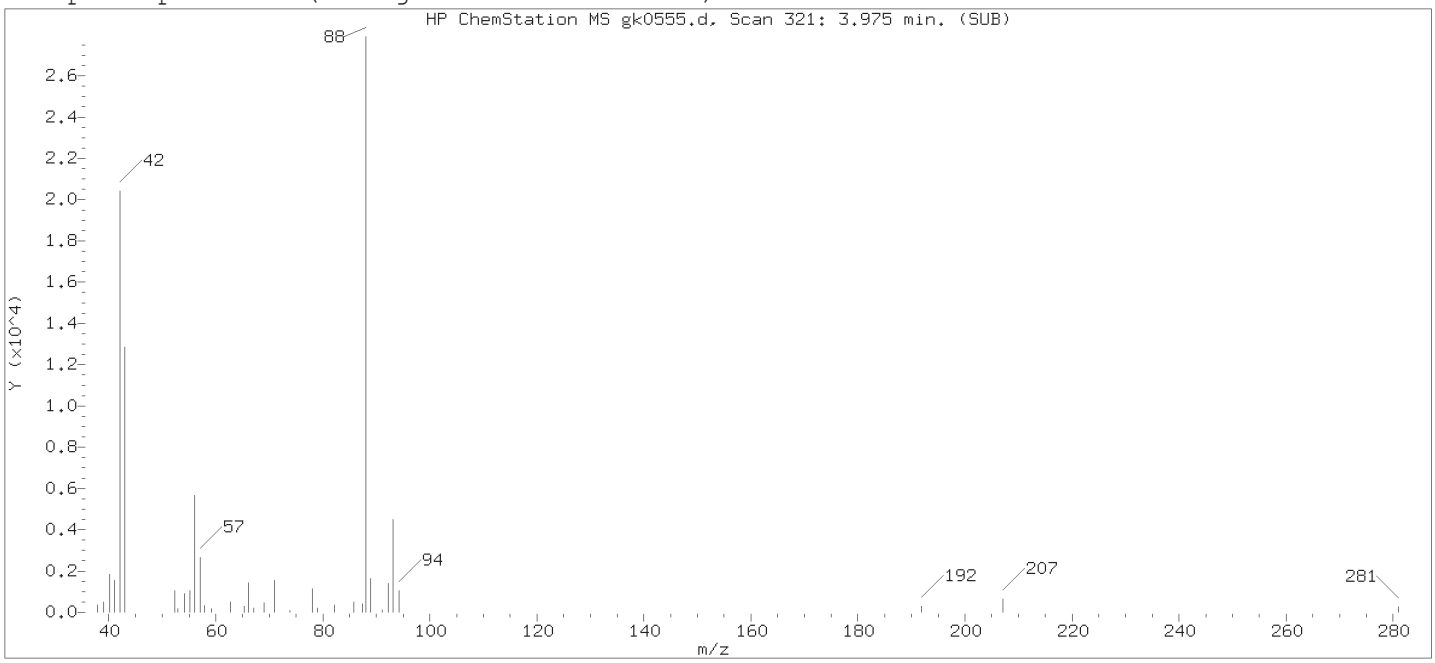
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 321		
Retention Time (minutes)	: 3.975		
Quant Ion	: 88.00		
Area (flag)	: 96205M		
On-Column Amount (ng/ul)	: 14.8621		
Integration start scan	: 300	Integration stop scan:	346
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

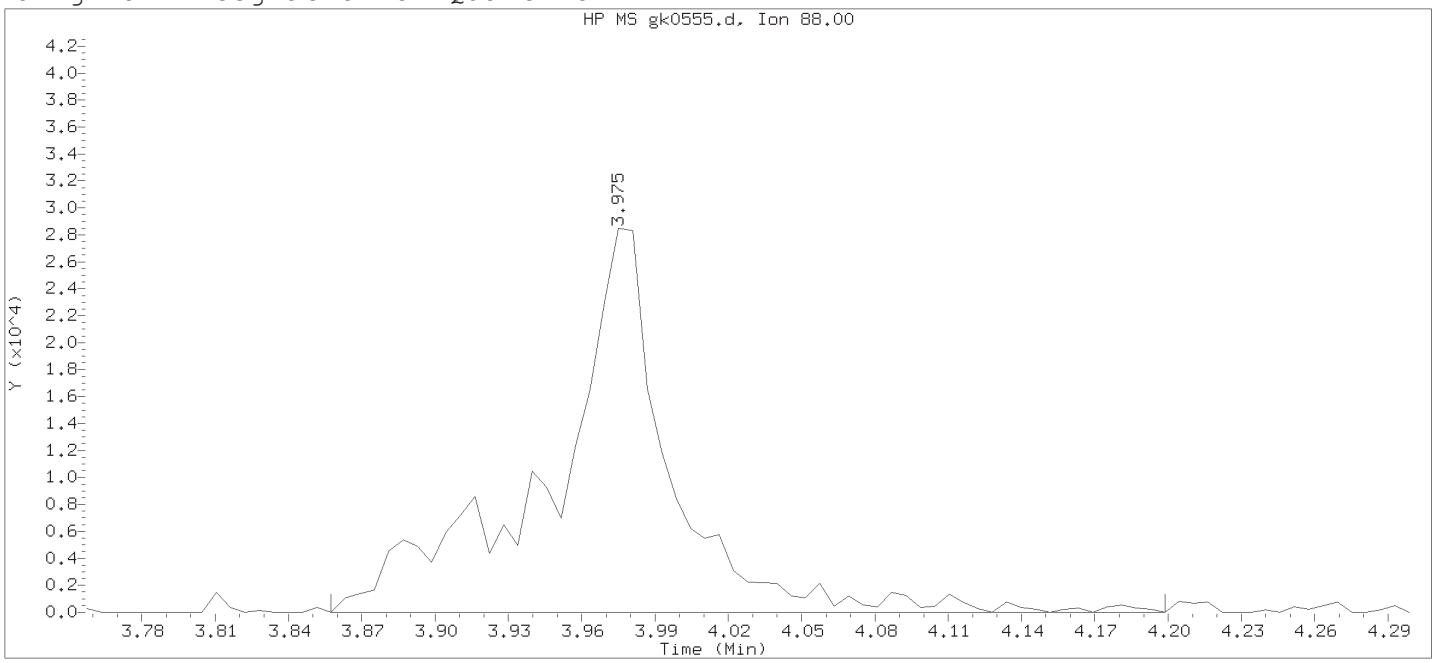
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0555.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:20 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 13:41
Date, time and analyst ID of latest file update: 11-Nov-2018 13:41 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 321		
Retention Time (minutes)	: 3.975		
Quant Ion	: 88.00		
Area	: 97400		
On-column Amount (ng/ul)	: 15.5651		
Integration start scan	: 300	Integration stop scan:	358
Y at integration start	: 0	Y at integration end:	0

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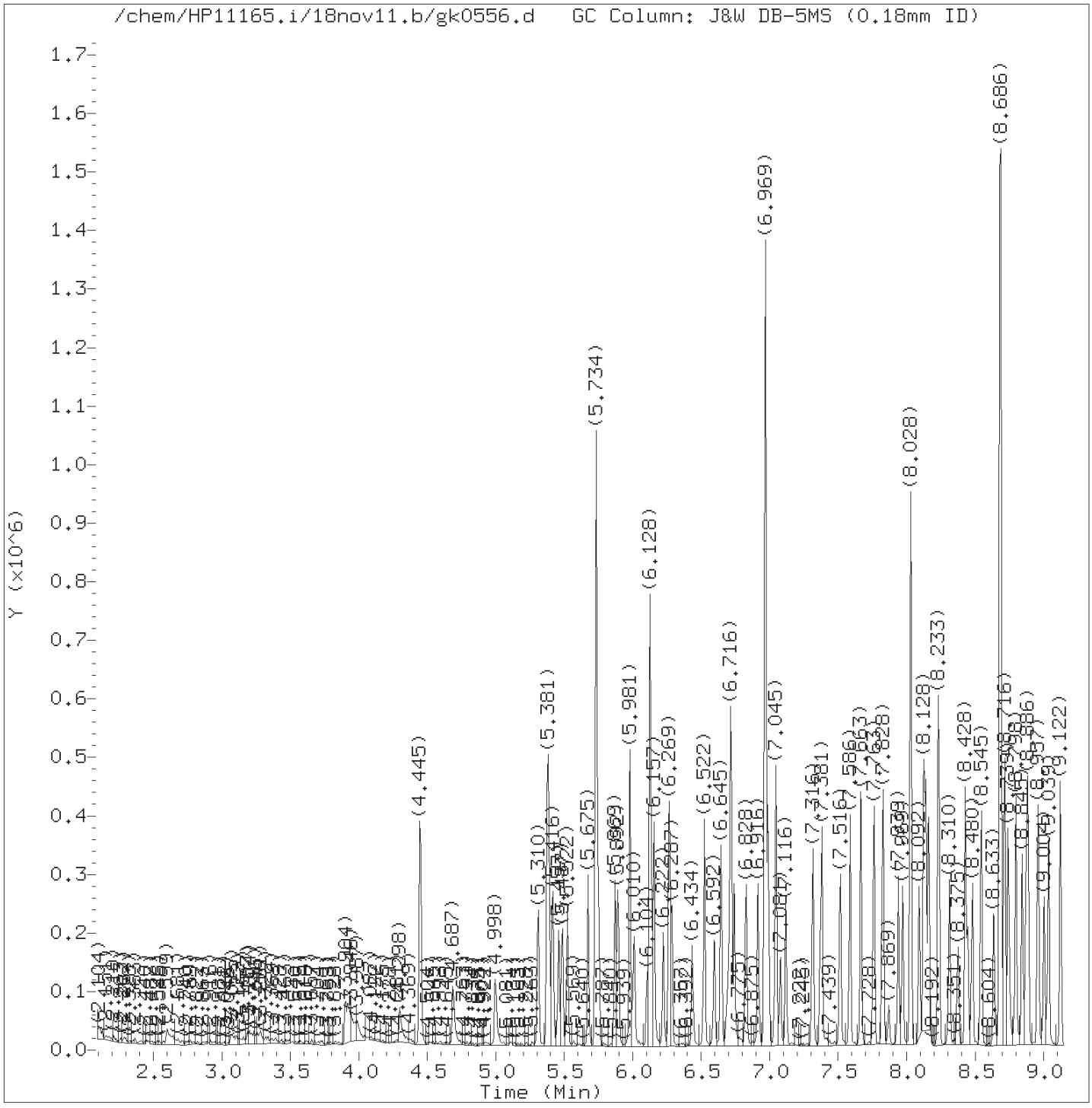
Target 3.5 esignature used: 1112 Page 2076



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

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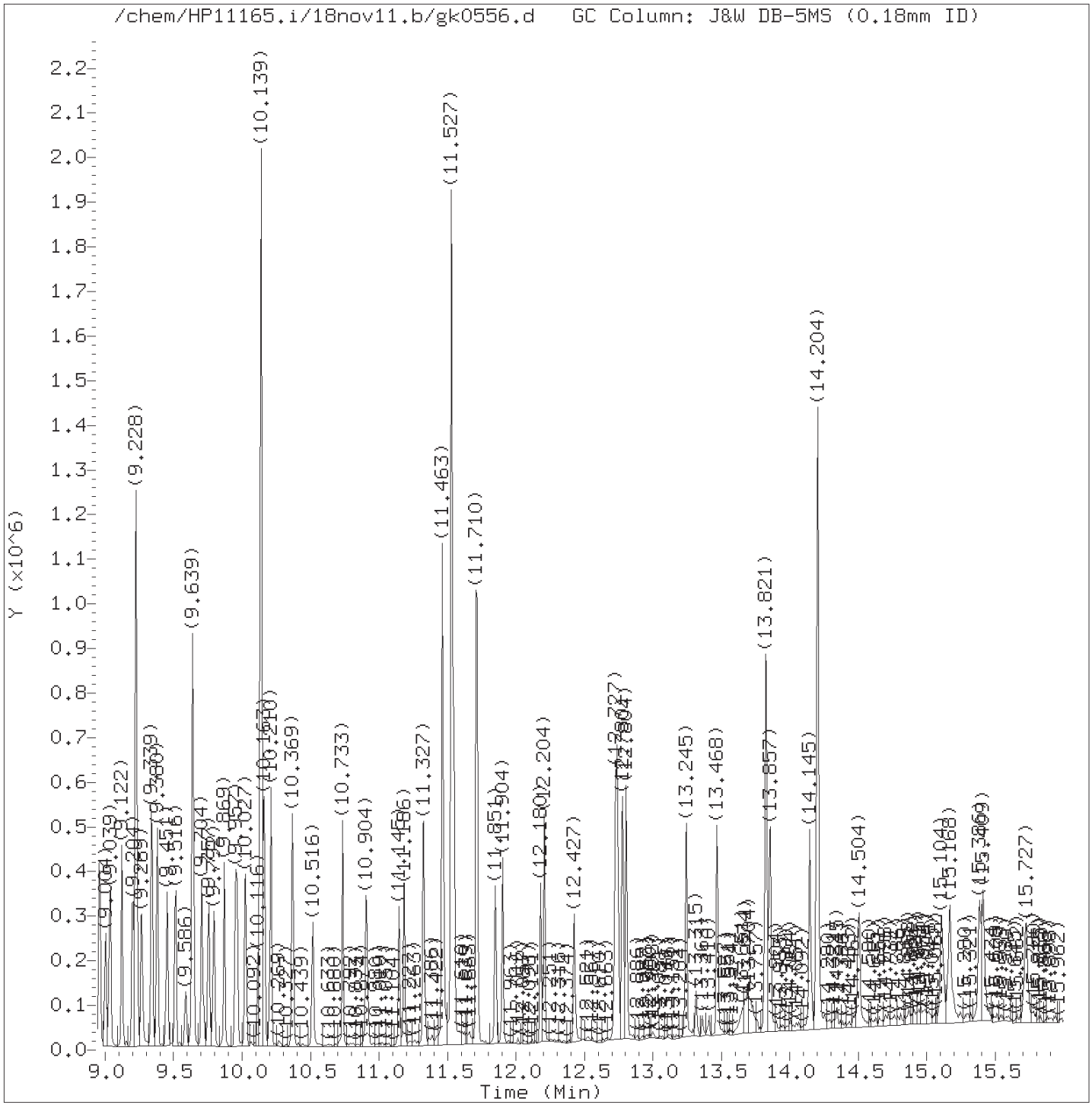
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.599	88	26801	5.594
4) N-Nitrosodimethylamine	(1)	3.063	74	37020M	5.083
5) Pyridine	(1)	3.187	79	60845M	4.971
7) 2-Picoline	(1)	3.898	93	66479M	5.014
8) N-Nitrosomethylethylamine	(1)	3.987	88	34943M	5.337
9) Methyl methanesulfonate	(1)	4.298	80	34272	5.007
11)$2-Fluorophenol	(1)	4.445	112	106749	10.365
13) N-Nitrosodiethylamine	(1)	4.693	102	28646	4.710
15) Ethyl methanesulfonate	(1)	4.998	109	31769	5.220
17)$Phenol-d6	(1)	5.375	99	154719	9.701
18) Phenol	(1)	5.392	94	85811	4.618
19) Aniline	(1)	5.416	93	101075	4.806
20) a-methylstyrene	(1)	5.469	118	5708	5.532
22) bis(2-Chloroethyl)ether	(1)	5.487	93	68447	5.231
23) 2-Chlorophenol	(1)	5.522	128	48163	4.717
42) Total Cresols	(1)			116260	9.592
24) 1,3-Dichlorobenzene	(1)	5.675	146	55193	5.041
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	135792	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	55167	4.930
27) Benzyl alcohol	(1)	5.869	108	38074	4.701
28) 1,2-Dichlorobenzene	(1)	5.892	146	58905	5.452
31) 2-Methylphenol	(1)	5.981	108	56115	4.869
30) Indene	(1)	5.981	115	63409	5.169
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	66148	4.887
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	66148	4.887
35) N-Nitrosopyrrolidine	(1)	6.104	100	32977	4.944
36) Acetophenone	(1)	6.122	105	81604	4.849
37) 4-Methylphenol	(1)	6.128	108	60145	4.723
38) N-Nitroso-di-n-propylamine	(1)	6.128	70	59335	5.025
39) N-Nitrosomorpholine	(1)	6.145	56	41183	4.819
40) o-Toluidine	(1)	6.157	106	96255	4.903
43) Hexachloroethane	(1)	6.222	117	20922	4.830
44)$Nitrobenzene-d5	(2)	6.269	82	148258	9.953
45) Nitrobenzene	(2)	6.287	77	77913	4.960
48) N-Nitrosopiperidine	(2)	6.434	114	30639	4.994
50) Isophorone	(2)	6.522	82	148035	5.155
51) 2-Nitrophenol	(2)	6.598	139	26734	4.660
53) 2,4-Dimethylphenol	(2)	6.645	107	62681	4.947
56) Benzoic acid	(2)	6.710	105	117419	12.222
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	27601	5.100

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
55) bis(2-Chloroethoxy)methane	(2)	6.739	93	82387	5.147
60) 2,4-Dichlorophenol	(2)	6.828	162	41896	4.696
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	45972	5.051
65)*Naphthalene-d8	(2)	6.969	136	565387	20.000
66) Naphthalene	(2)	6.986	128	161984	5.118
67) 4-Chloroaniline	(2)	7.045	127	67771	5.123
68) 2,6-Dichlorophenol	(2)	7.051	162	43485	4.916
69) Hexachloropropene	(2)	7.075	213	21968	4.824
71) Hexachlorobutadiene	(2)	7.116	225	25574	5.206
75) Quinoline	(2)	7.316	129	105249	5.055
76) Caprolactam	(2)	7.369	113	18677	4.660
77) N-Nitrosodi-n-butylamine	(2)	7.381	84	64466	4.855
97) Isosafrole	(3)			41002	4.571
80) 4-Chloro-3-methylphenol	(2)	7.516	107	51065	4.657
82) Safrole	(2)	7.586	162	45550	5.212
83) 2-Methylnaphthalene	(2)	7.669	142	116841	5.202
84) 1-Methylnaphthalene	(2)	7.763	142	105240	4.915
85) Hexachlorocyclopentadiene	(3)	7.822	237	23351	4.931
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.828	216	43776	4.790
88) cis-Isosafrole	(3)	7.875	162	7675	0.827
90) 2,4,6-Trichlorophenol	(3)	7.939	196	30373	4.685
92) 2,4,5-Trichlorophenol	(3)	7.969	196	36468	5.129
93)$2-Fluorobiphenyl	(3)	8.028	172	266979	10.266
120) 2,4_2,6-Dinitrotoluenes	(3)			69670	9.773
94) trans-Isosafrole	(3)	8.092	162	33327	3.744
95) 1,1'-Biphenyl	(3)	8.128	154	146464	5.218
96) 2-Chloronaphthalene	(3)	8.139	162	112080	4.978
98) 1-Chloronaphthalene	(3)	8.163	162	103713	4.983
99) Diphenyl ether	(3)	8.233	170	76436	5.032
100) 2-Nitroaniline	(3)	8.239	138	37454	5.040
104) 1,4-Naphthoquinone	(3)	8.310	158	46198	5.069
105) 1,4-Dinitrobenzene	(3)	8.375	168	15866	4.144
106) Dimethylphthalate	(3)	8.428	163	132611	5.092
107) 1,3-Dinitrobenzene	(3)	8.445	168	23076	5.194
108) 2,6-Dinitrotoluene	(3)	8.480	165	30143	4.908
109) Acenaphthylene	(3)	8.545	152	149525	4.834
112) 3-Nitroaniline	(3)	8.639	138	35118	5.251
113)*Acenaphthene-d10	(3)	8.686	164	321301	20.000
114) Acenaphthene	(3)	8.716	153	107629	4.805
115) 2,4-Dinitrophenol	(3)	8.745	184	45519	11.543

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			73396	4.659
116) 4-Nitrophenol	(3)	8.798	109	44586	9.796
117) Pentachlorobenzene	(3)	8.845	250	41719	5.092
118) 2,4-Dinitrotoluene	(3)	8.869	165	39527	4.865
119) Dibenzofuran	(3)	8.886	168	160571	5.017
121) 1-Naphthylamine	(3)	8.957	143	125567	5.108
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	27512	4.715
123) 2-Naphthylamine	(3)	9.039	143	117702	4.922
124) Diethylphthalate	(3)	9.122	149	134351	5.140
125) Thionazin	(3)	9.198	107	26704	5.366
126) Fluorene	(3)	9.222	166	138690	5.114
129) 4-Nitroaniline	(3)	9.228	138	38324	5.207
128) 5-Nitro-o-toluidine	(3)	9.228	152	42290	5.396
127) 4-Chlorophenyl-phenylether	(3)	9.228	204	61796	5.034
130) 4,6-Dinitro-2-methylphenol	(4)	9.269	198	36399	7.671
131) N-Nitrosodiphenylamine	(4)	9.339	169	120892	5.123
132) NDPA as diphenylamine	(4)	9.339	169	120892	5.123
134) 1,2-Diphenylhydrazine	(4)	9.380	77	181427	5.044
135)$2,4,6-Tribromophenol	(3)	9.451	330	21850	8.491
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	23075	4.489
139) 1,3,5-Trinitrobenzene	(4)	9.592	213	11858	3.918
140) Diallate (peak 1)	(4)	9.633	86	60847	3.736
141) Phorate	(4)	9.639	75	100469	4.599
142) Phenacetin	(4)	9.645	108	67678	4.430
143) 4-Bromophenyl-phenylether	(4)	9.710	248	35483	5.043
144) Diallate (peak 2)	(4)	9.722	86	12549	0.922
145) Hexachlorobenzene	(4)	9.757	284	34370	5.266
147) Dimethoate	(4)	9.792	87	56517	4.643
149) Pentachlorophenol	(4)	9.951	266	16238	3.705
150) 4-Aminobiphenyl	(4)	9.957	169	54081	5.420
151) Pentachloronitrobenzene	(4)	9.963	237	15867	5.084
152) Pronamide	(4)	10.027	173	55585	4.781
153)*Phenanthrene-d10	(4)	10.139	188	640283	20.000
154) Dinoseb	(4)	10.139	211	23126	3.340
155) Phenanthrene	(4)	10.163	178	211463	5.356
157) Anthracene	(4)	10.210	178	199827	5.004
163) Carbazole	(4)	10.369	167	184375	5.064
164) Methyl parathion	(4)	10.516	109	37738	4.202
165) Di-n-butylphthalate	(4)	10.733	149	198235	4.436
167) Parathion	(4)	10.904	109	23967	4.067

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

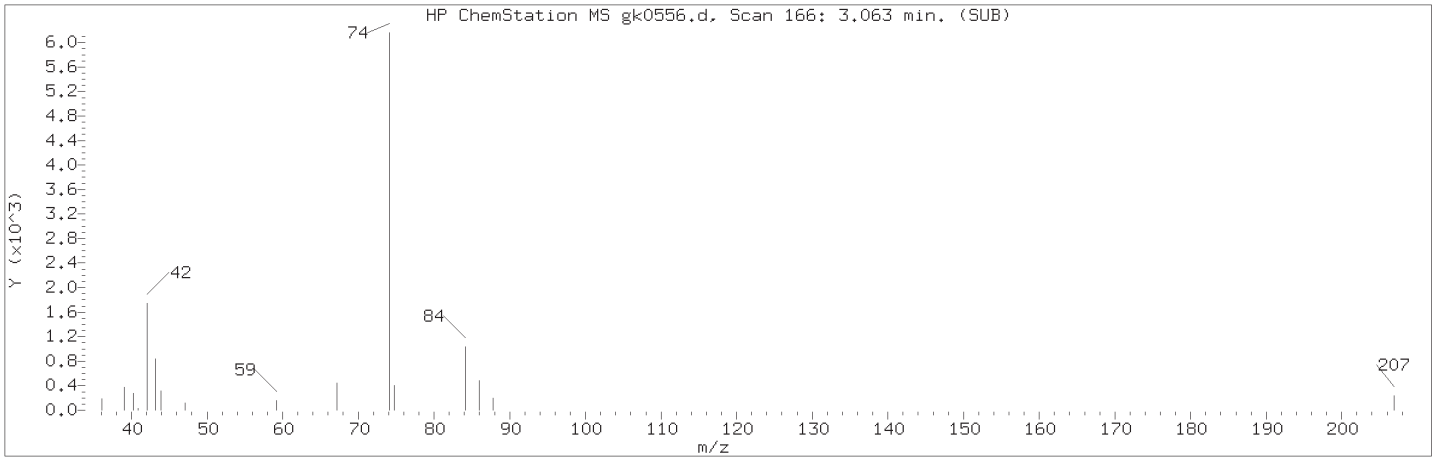
Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.916	190	11098	2.889
169) Octachlorostyrene	(4)	11.145	308	12506	4.905
171) Isodrin	(4)	11.186	193	22734	5.203
173) Fluoranthene	(4)	11.327	202	208722	4.989
174) Benzidine	(5)	11.463	184	391159	13.929
175)*Pyrene-d10	(5)	11.527	212	627172	20.000
177) Pyrene	(5)	11.545	202	217492	4.913
179)$Terphenyl-d14	(5)	11.716	244	291386	9.608
182) p-Dimethylaminoazobenzene	(5)	11.851	225	31258	4.199
185) Chlorobenzilate	(5)	11.904	139	64704	4.586
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	102407	4.440
188) Butylbenzylphthalate	(5)	12.210	149	98531	4.680
191) 2-Acetylaminofluorene	(5)	12.427	181	63205	3.724
193) 3,3'-Dichlorobenzidine	(5)	12.721	252	66206	4.619
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	31979	4.102
195) Benzo(a)anthracene	(5)	12.739	228	207467	4.934
196) Chrysene	(5)	12.780	228	195086	4.889
199) bis(2-Ethylhexyl)phthalate	(5)	12.804	149	125484	4.399
203) 6-Methylchrysene	(5)	13.245	242	130817	4.808
205) Di-n-octylphthalate	(6)	13.468	149	193075	3.931
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.821	256	83136	4.512
206) Benzo(b)fluoranthene	(6)	13.827	252	179864	4.602
208) Benzo(k)fluoranthene	(6)	13.857	252	198170	5.127
211) Benzo(a)pyrene	(6)	14.145	252	174056	4.840
213)*Perylene-d12	(6)	14.204	264	545328	20.000
215) 3-Methylcholanthrene	(6)	14.504	268	63162	4.571
222) Total PAHs	(6)			3043176	89.389
217) Dibenz(a,h)acridine	(6)	15.109	279	115415	4.604
218) Dibenz(a,j)acridine	(6)	15.168	279	123633	4.590
219) Indeno(1,2,3-cd)pyrene	(6)	15.386	276	176946	4.891
220) Dibenz(a,h)anthracene	(6)	15.409	278	147685	4.934
221) Benzo(g,h,i)perylene	(6)	15.721	276	146489	4.921

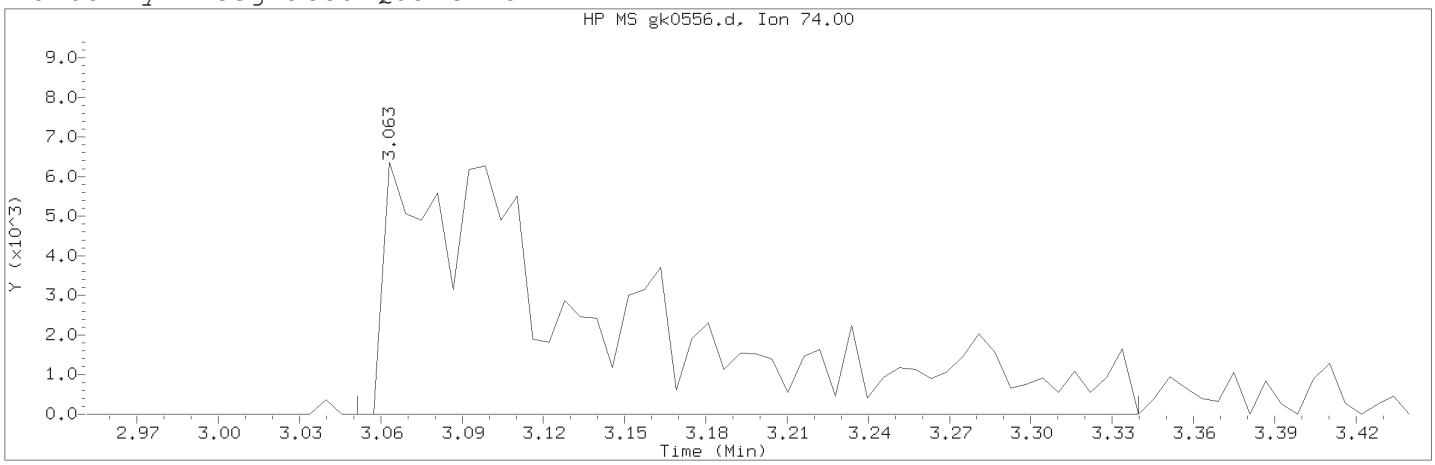
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

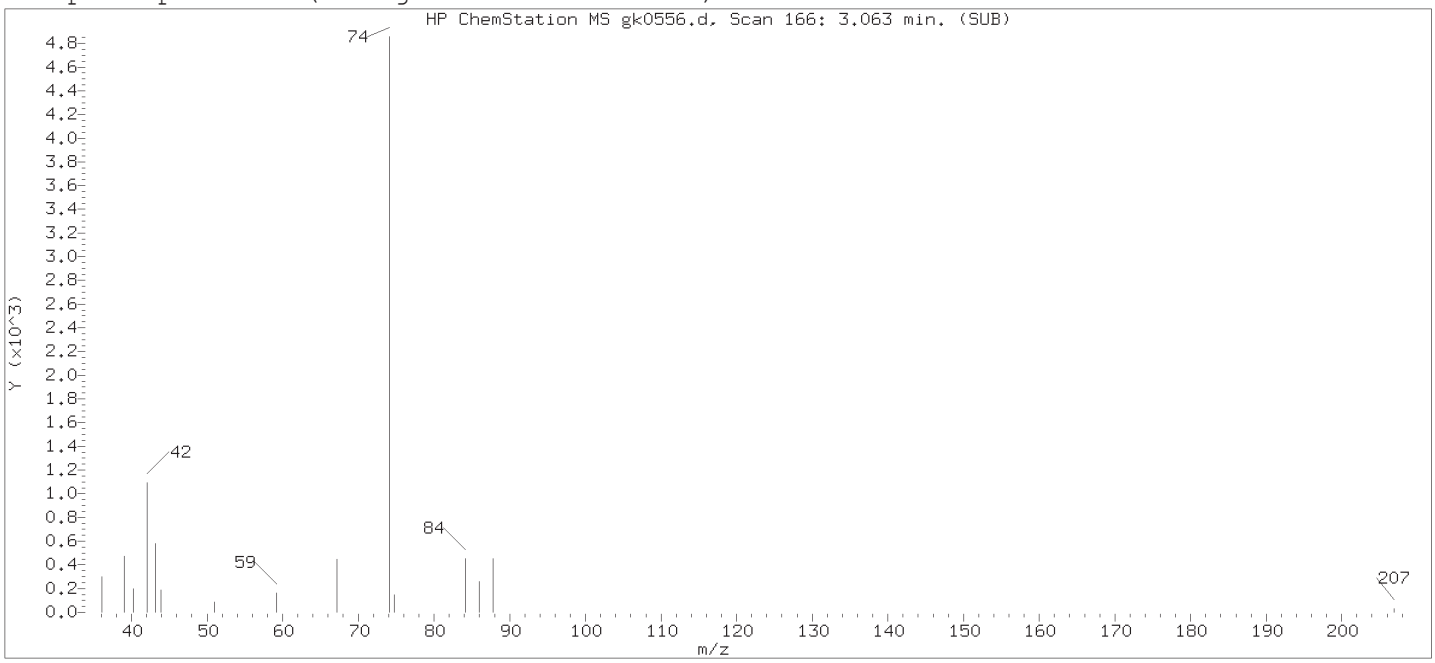
Compound Number : 4
Compound Name : N-Nitrosodimethylamine
Scan Number : 166
Retention Time (minutes) : 3.063
Quant Ion : 74.00
Area (flag) : 37020M
On-Column Amount (ng/ul) : 5.0825
Integration start scan : 163 Integration stop scan: 212
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

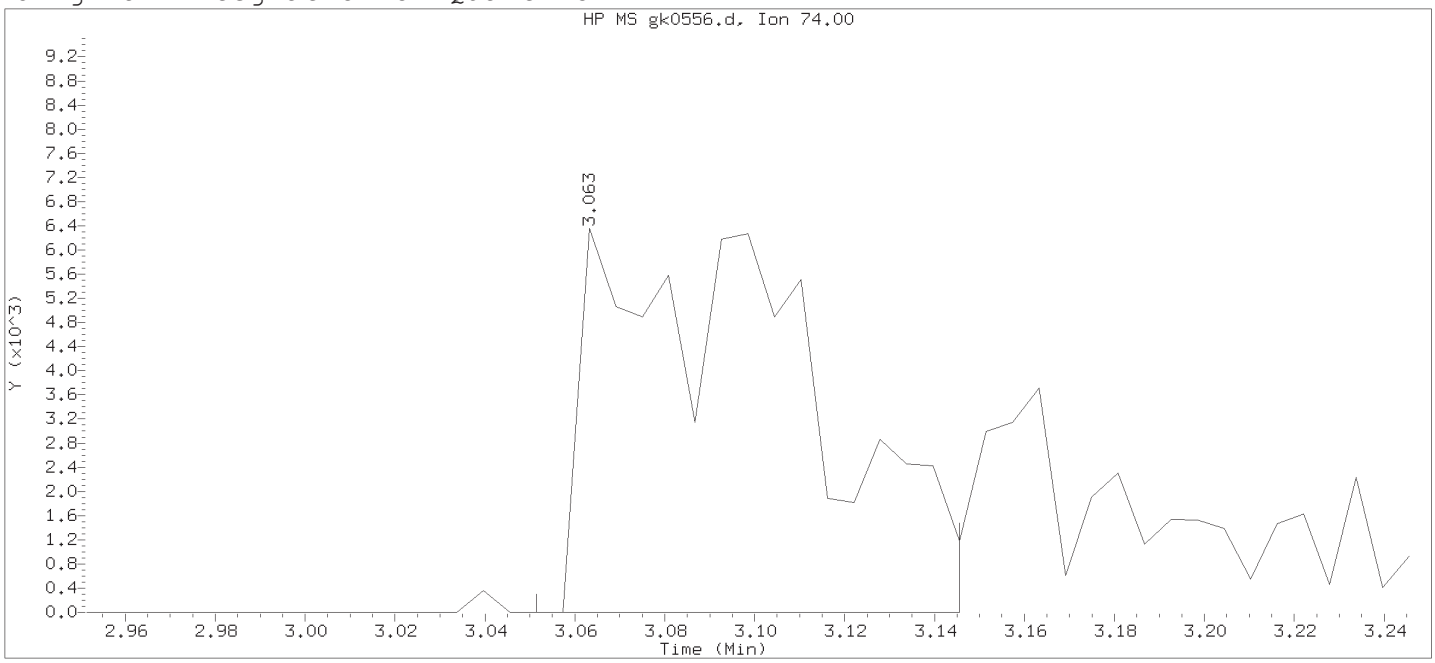
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

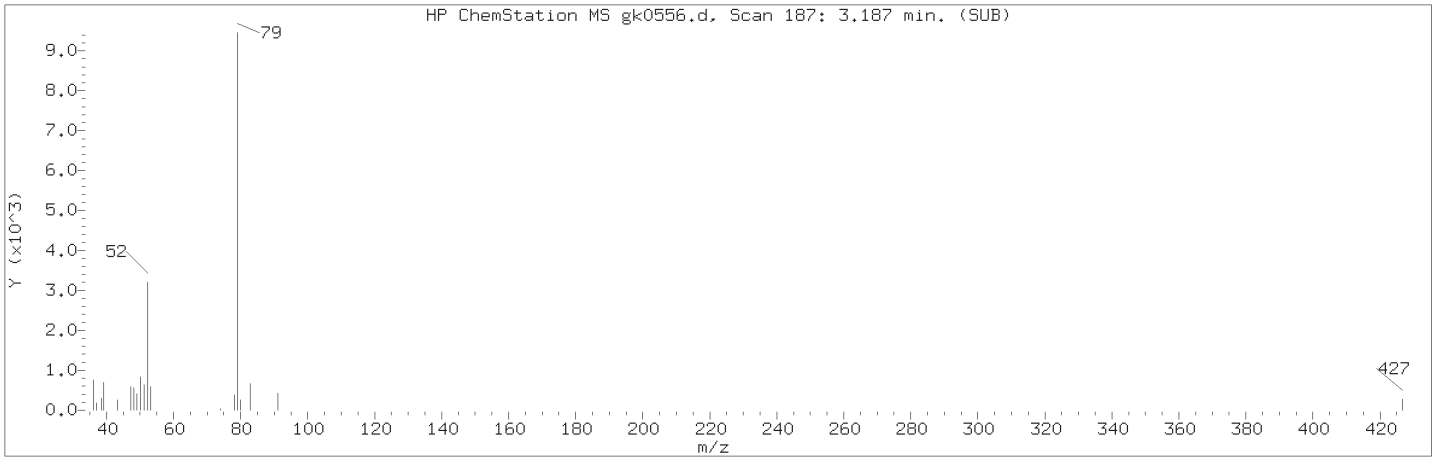
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:05
Date, time and analyst ID of latest file update: 11-Nov-2018 14:05 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

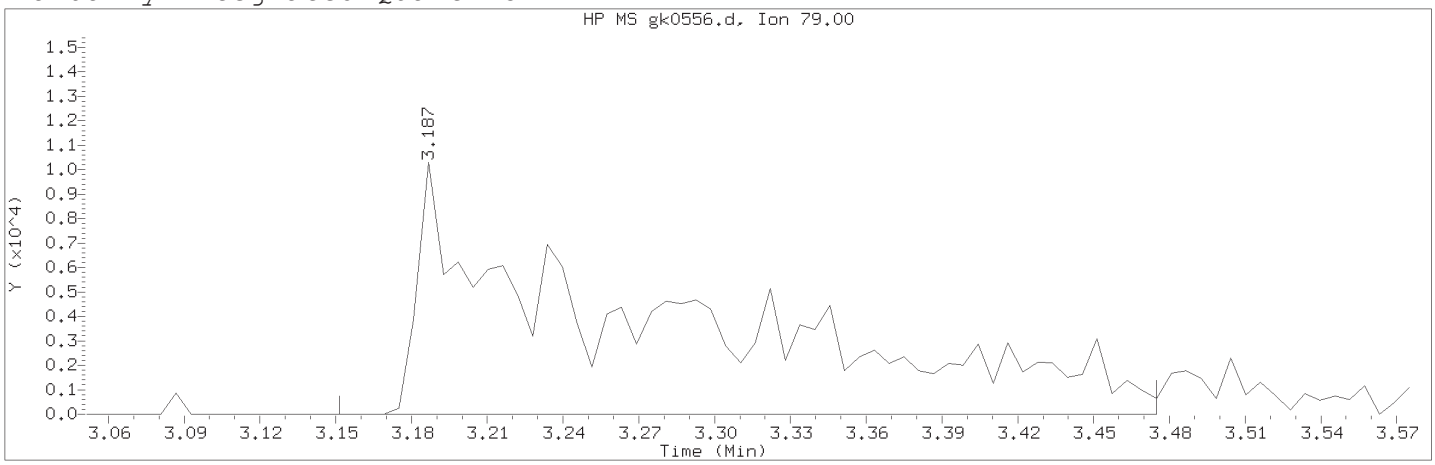
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 166		
Retention Time (minutes)	: 3.063		
Quant Ion	: 74.00		
Area	: 21156		
On-column Amount (ng/ul)	: 3.1509		
Integration start scan	: 163	Integration stop scan:	179
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

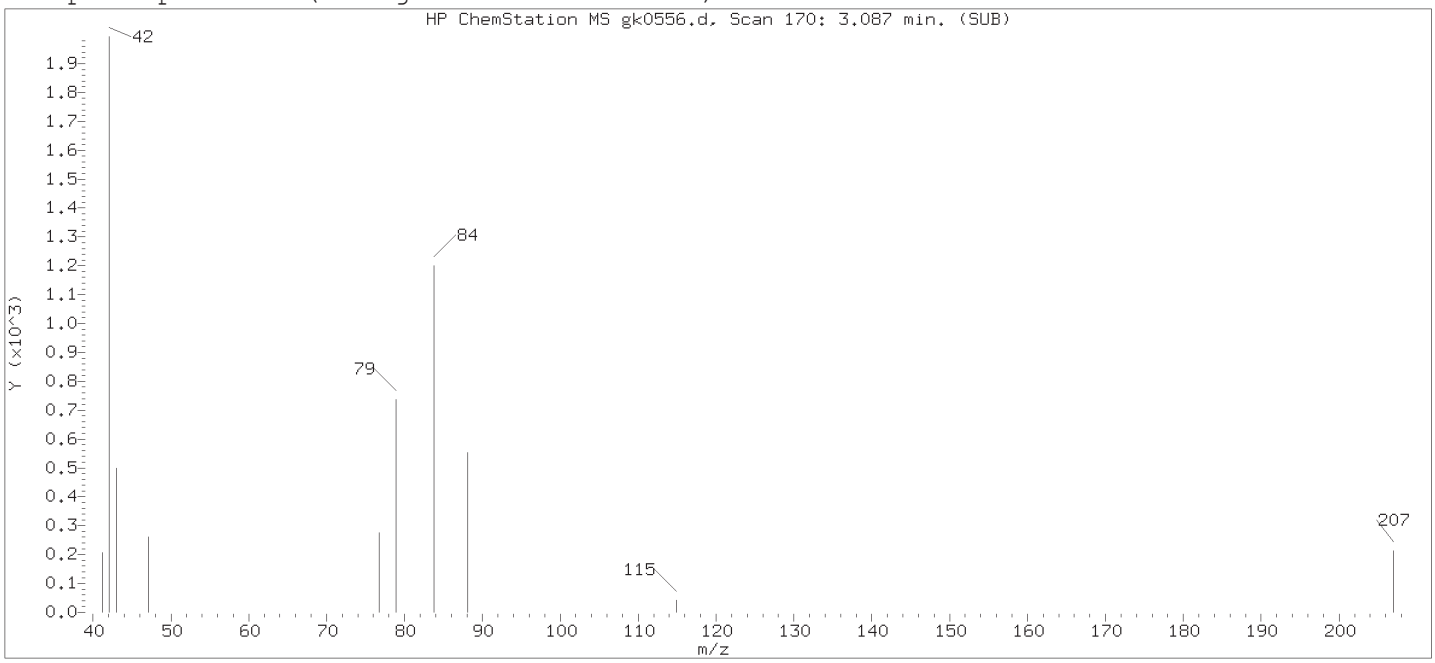
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 187		
Retention Time (minutes)	: 3.187		
Quant Ion	: 79.00		
Area (flag)	: 60845M		
On-Column Amount (ng/ul)	: 4.9711		
Integration start scan	: 180	Integration stop scan:	235
Y at integration start	: 1	Y at integration end:	1

Reason for manual integration: improper integration

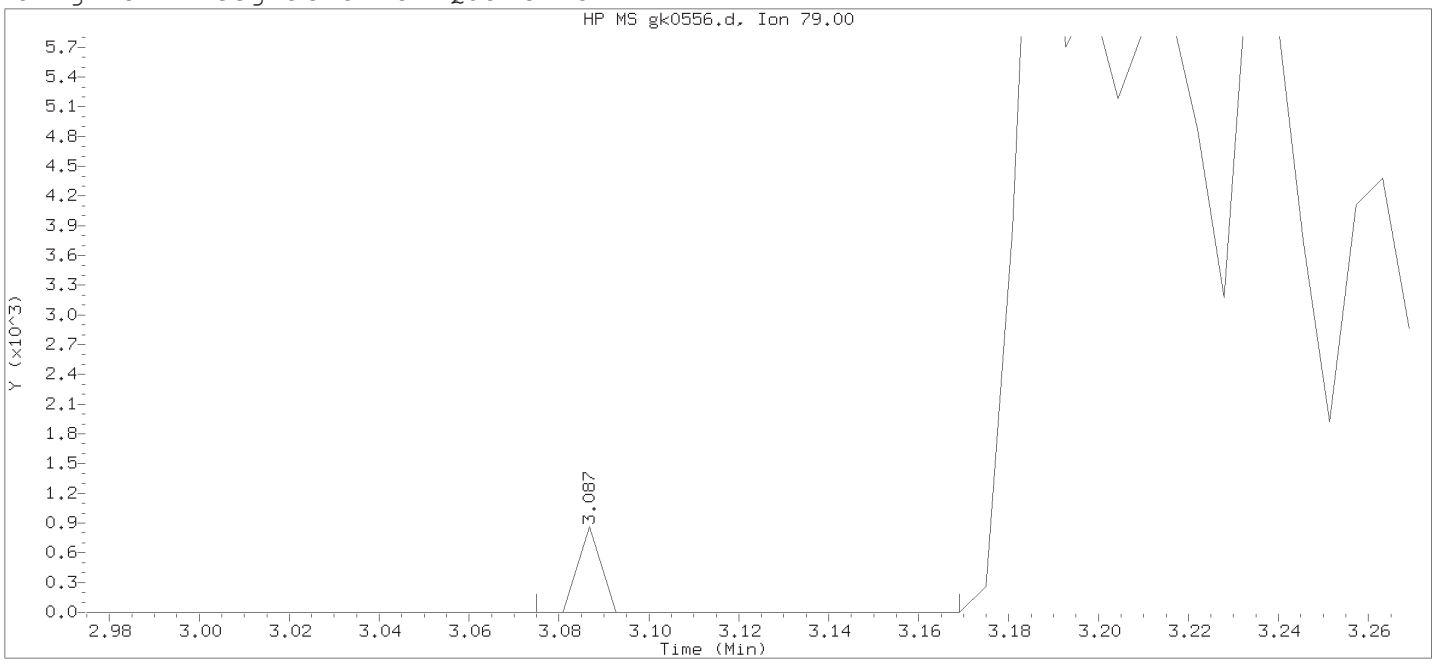
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

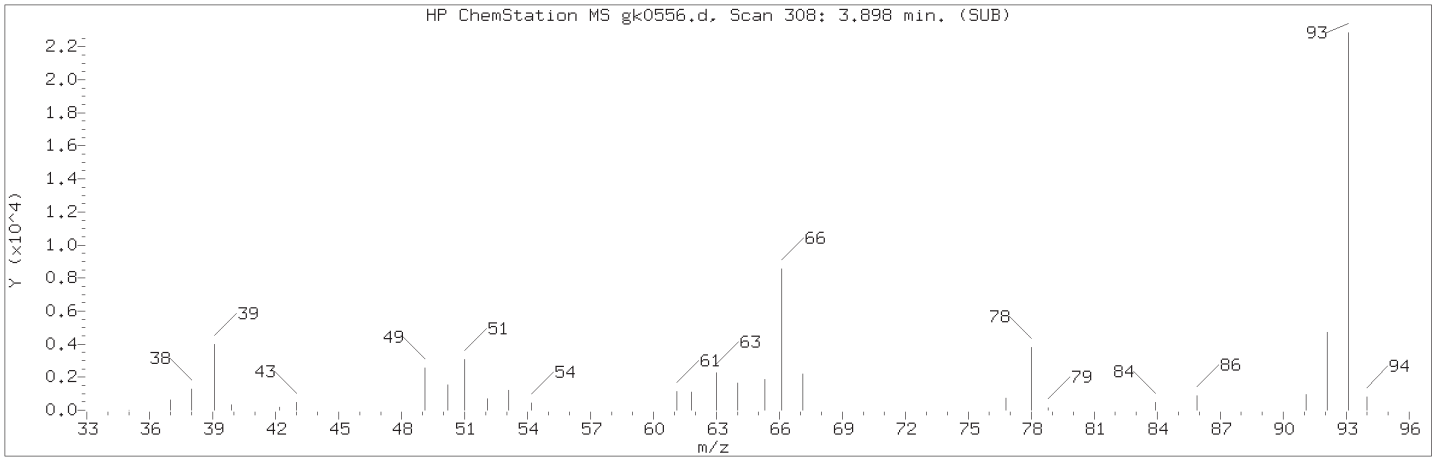
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:05
Date, time and analyst ID of latest file update: 11-Nov-2018 14:05 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

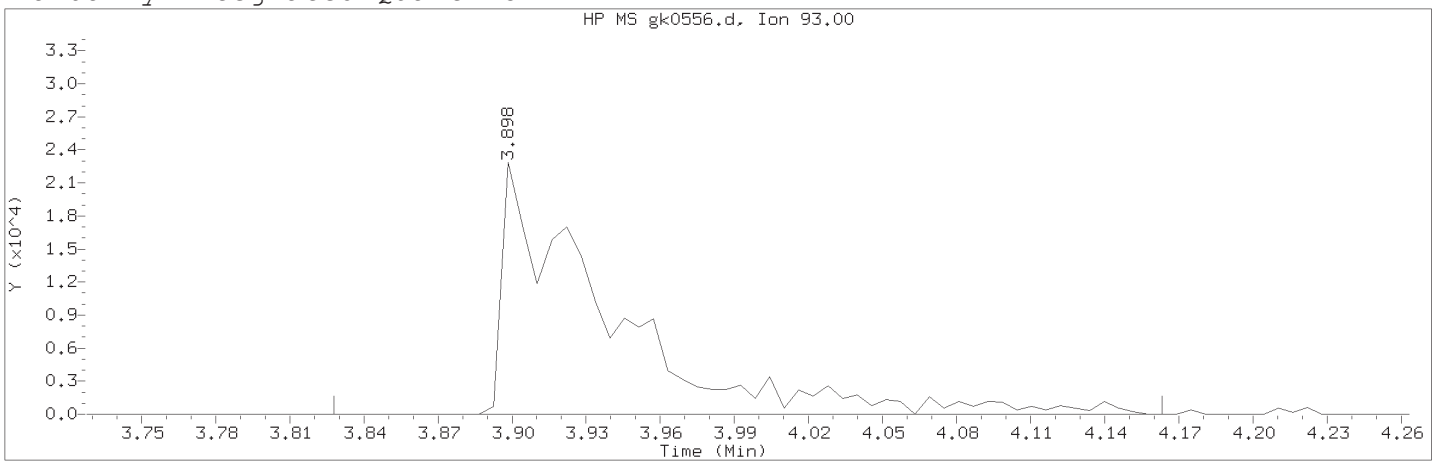
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 170		
Retention Time (minutes)	: 3.087		
Quant Ion	: 79.00		
Area	: 305		
On-column Amount (ng/ul)	: 0.0328		
Integration start scan	: 167	Integration stop scan:	183
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

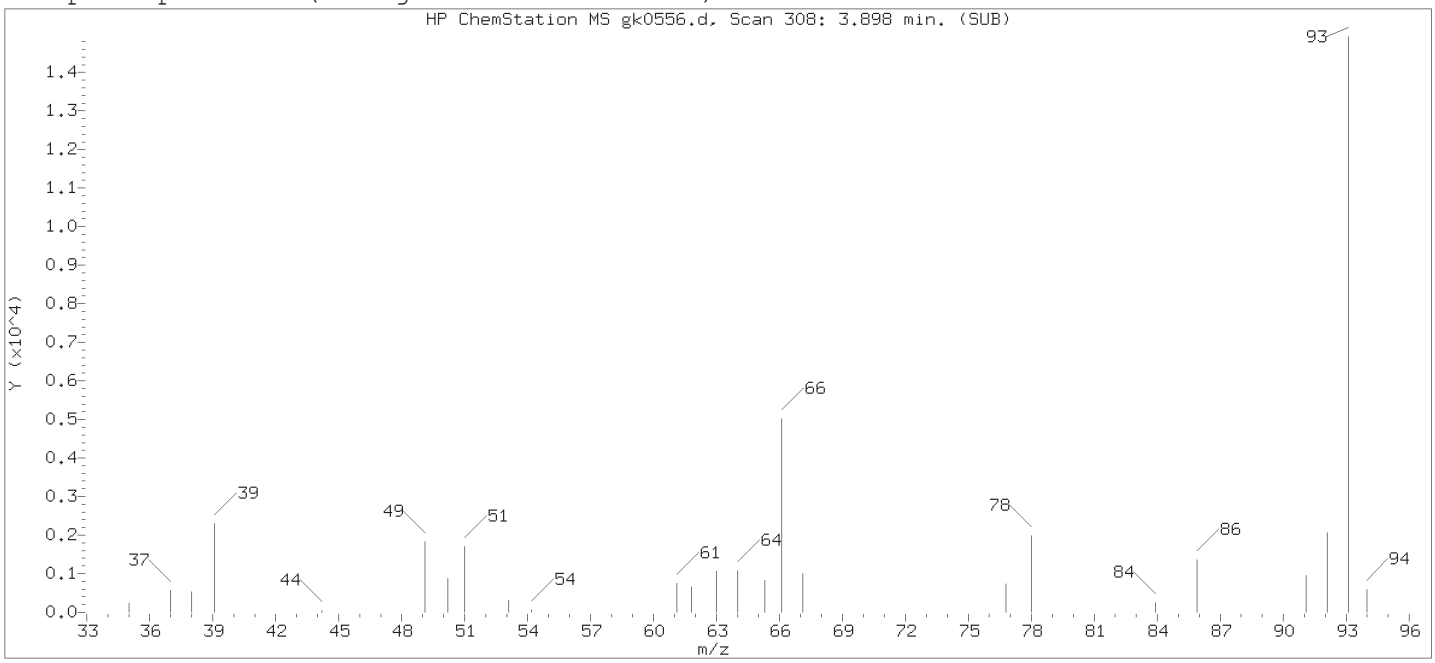
Compound Number : 7
Compound Name : 2-Picoline
Scan Number : 308
Retention Time (minutes) : 3.898
Quant Ion : 93.00
Area (flag) : 66479M
On-Column Amount (ng/ul) : 5.0143
Integration start scan : 295 Integration stop scan: 352
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

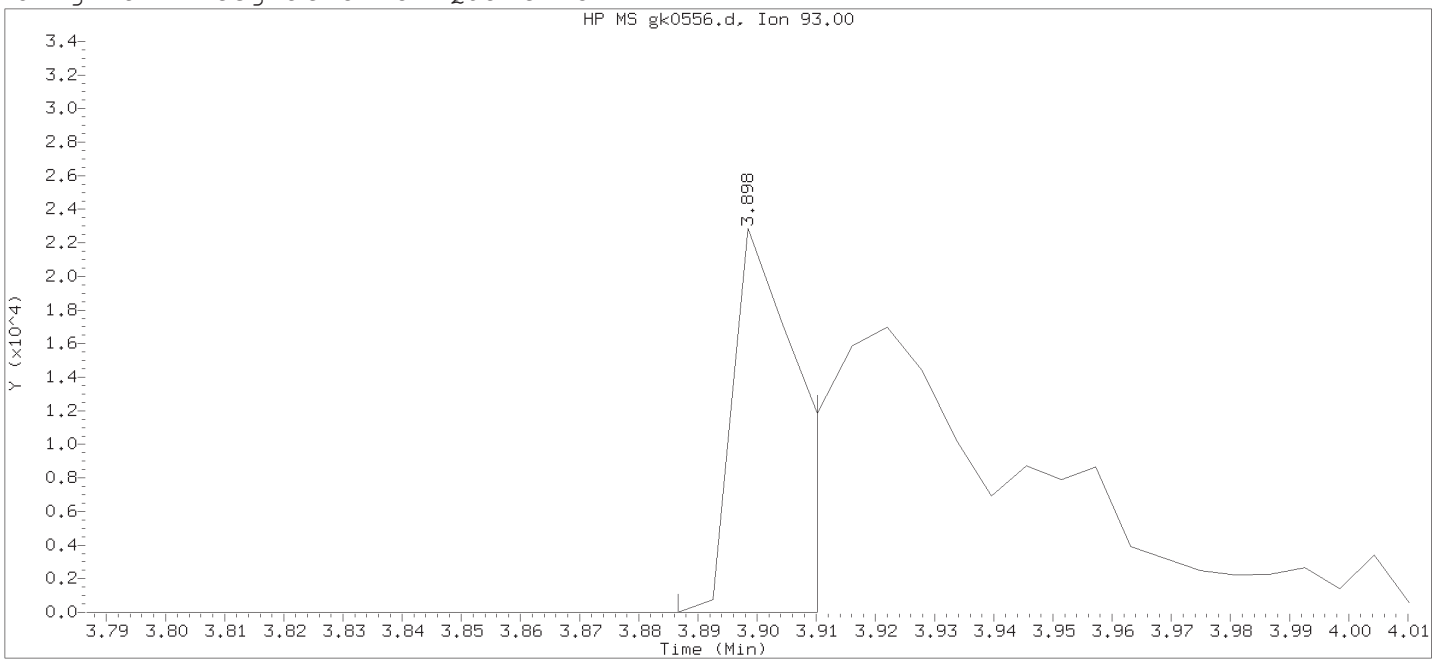
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

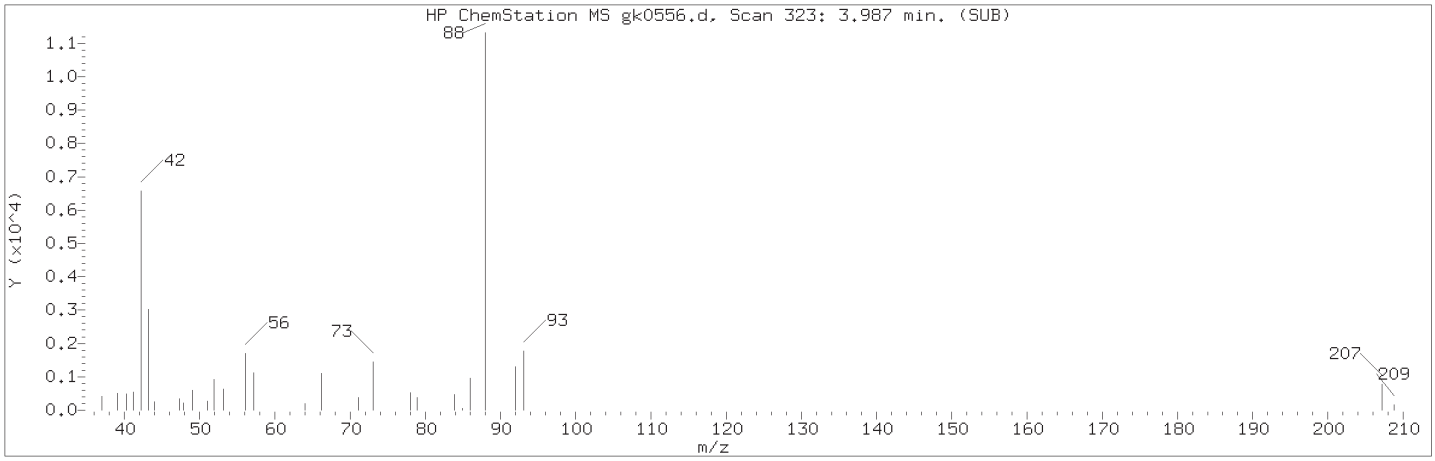
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:05
Date, time and analyst ID of latest file update: 11-Nov-2018 14:05 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

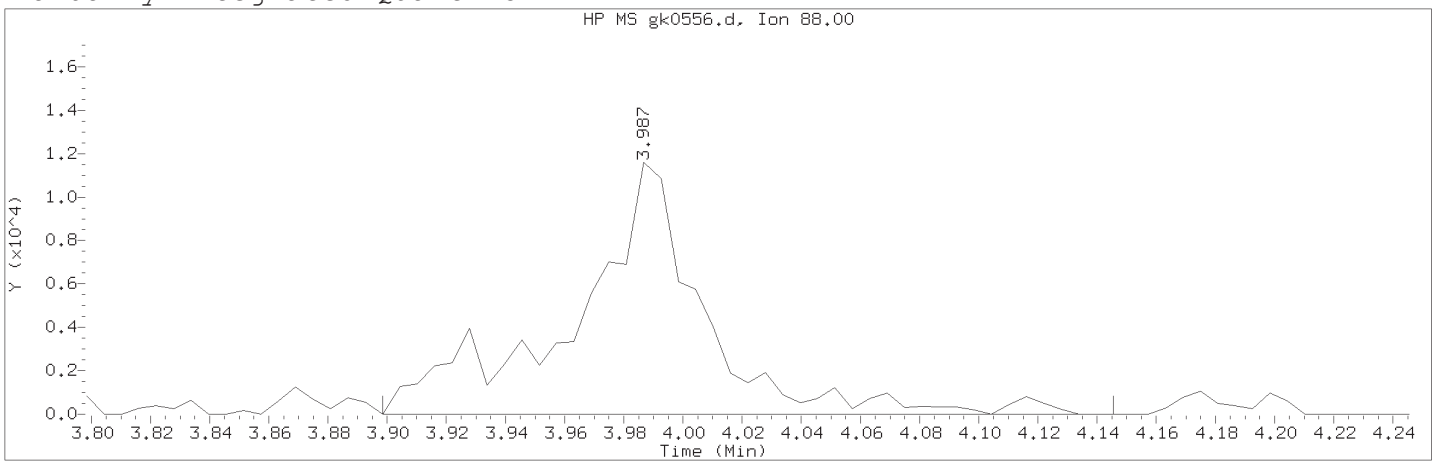
Compound Number	: 7		
Compound Name	: 2-Picoline		
Scan Number	: 308		
Retention Time (minutes)	: 3.898		
Quant Ion	: 93.00		
Area	: 16449		
On-column Amount (ng/ul)	: 1.4645		
Integration start scan	: 305	Integration stop scan:	309
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: EM10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD005 Lab Sample ID: STD2928

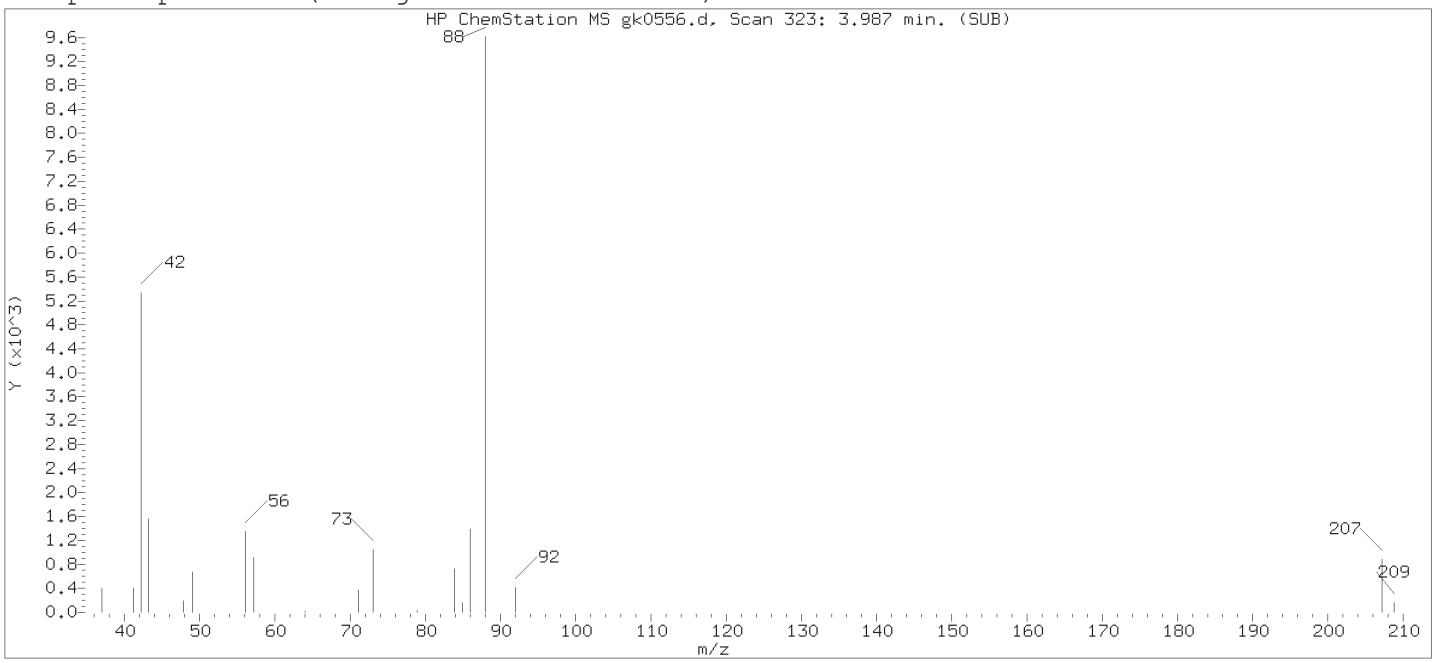
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Scan Number : 323
Retention Time (minutes) : 3.987
Quant Ion : 88.00
Area (flag) : 34943M
On-Column Amount (ng/ul) : 5.3366
Integration start scan : 307 Integration stop scan: 349
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

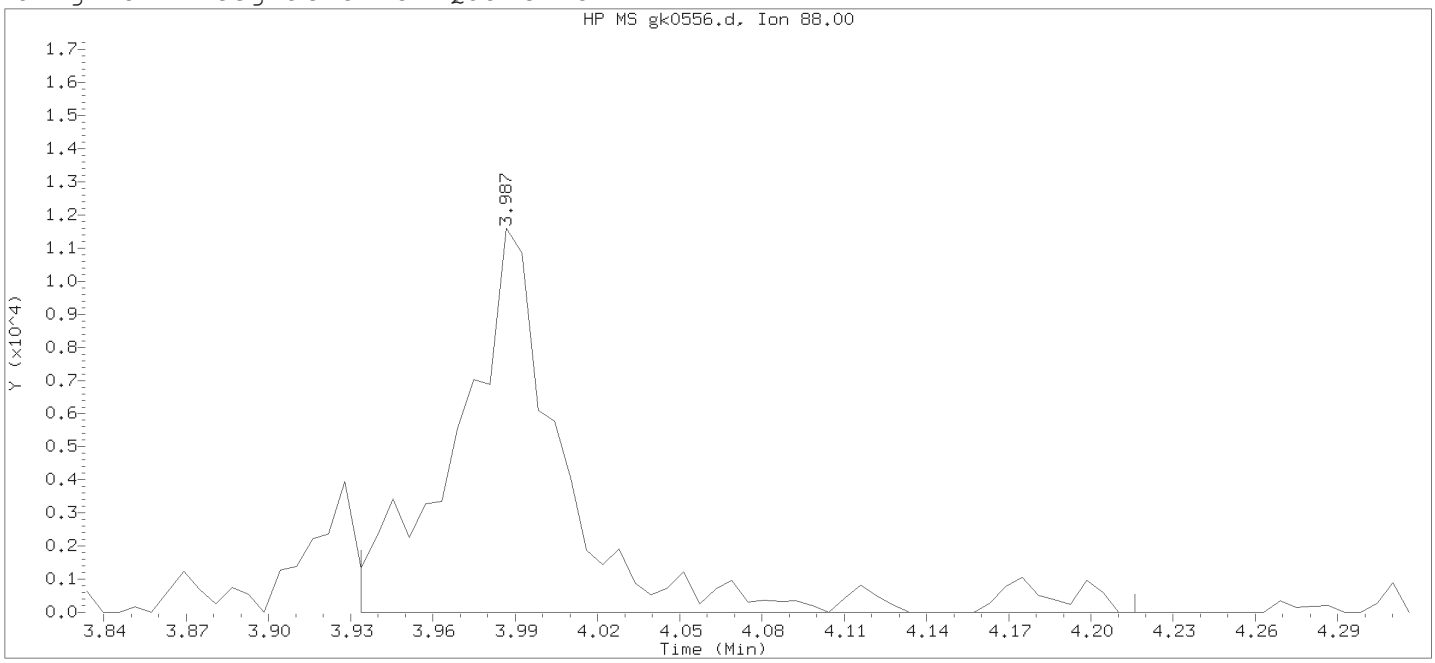
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



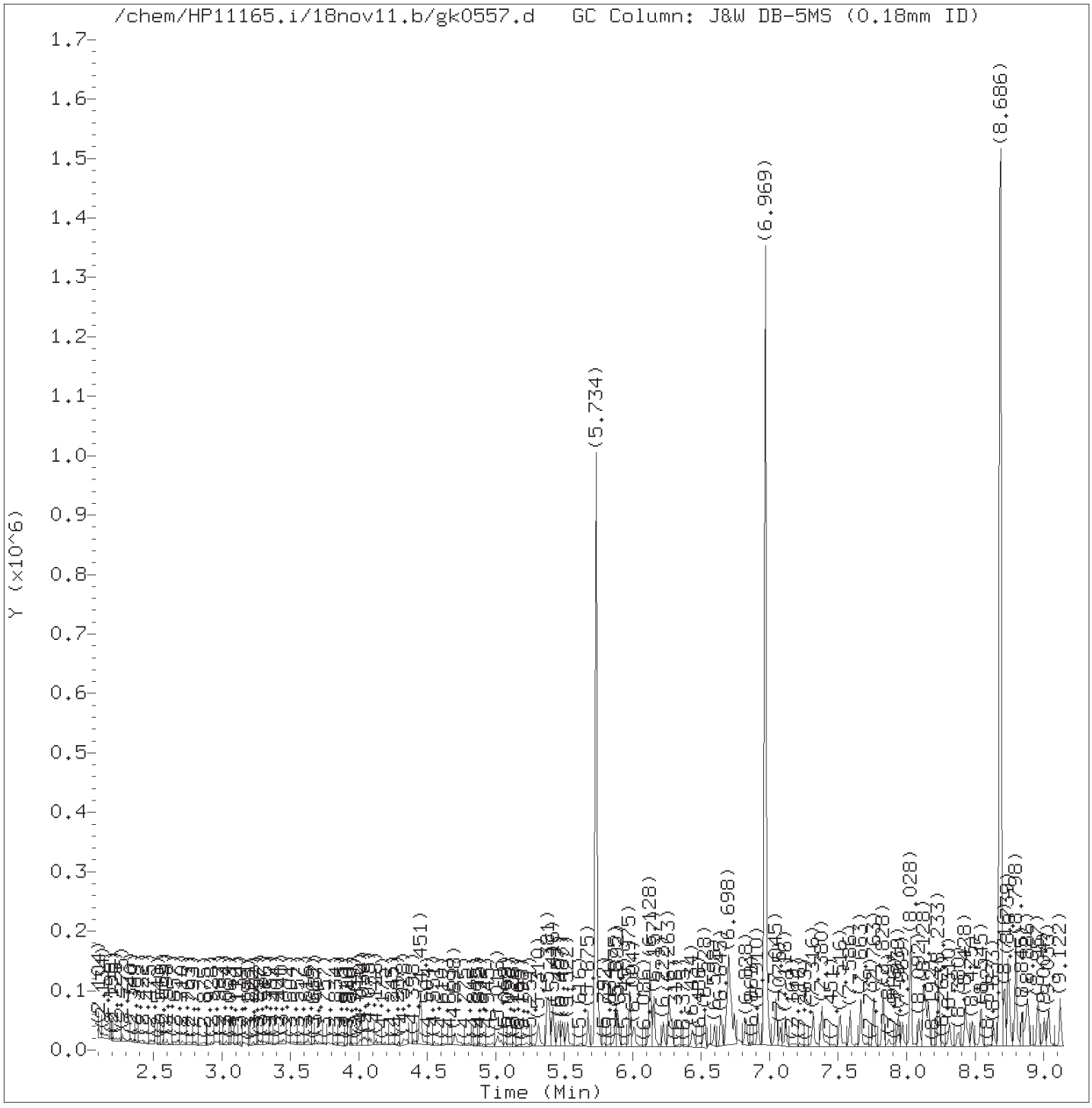
Data File: /chem/HP11165.i/18nov11.b/gk0556.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 13:44 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:05
Date, time and analyst ID of latest file update: 11-Nov-2018 14:05 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 323		
Retention Time (minutes)	: 3.987		
Quant Ion	: 88.00		
Area	: 32455		
On-column Amount (ng/ul)	: 5.1475		
Integration start scan	: 313	Integration stop scan:	361
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.2090



Total Ion Chromatogram (TIC)

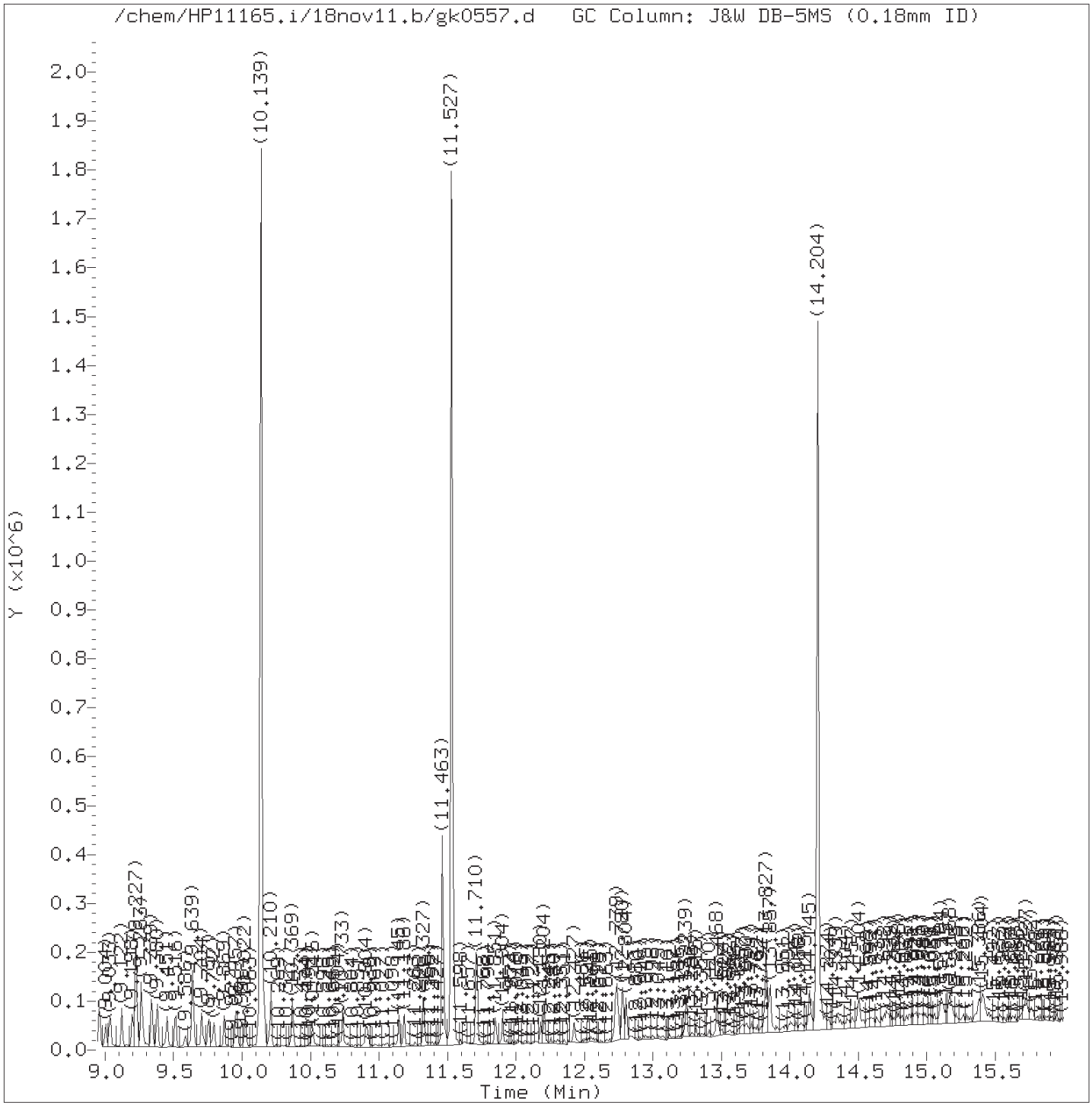
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
4) N-Nitrosodimethylamine	(1)	3.310	74	6675M	0.935
5) Pyridine	(1)	3.428	79	15564M	1.297
7) 2-Picoline	(1)	4.022	93	14947M	1.150
8) N-Nitrosomethylethylamine	(1)	4.057	88	8929M	1.391
9) Methyl methanesulfonate	(1)	4.334	80	6843M	1.020
11)$2-Fluorophenol	(1)	4.451	112	20256	2.006
13) N-Nitrosodiethylamine	(1)	4.704	102	4502	0.782
15) Ethyl methanesulfonate	(1)	5.010	109	6920	1.134
17)$Phenol-d6	(1)	5.375	99	25800	1.650
18) Phenol	(1)	5.392	94	15302	0.859
19) Aniline	(1)	5.416	93	22501	1.077
20) a-methylstyrene	(1)	5.469	118	1464	1.447
22) bis(2-Chloroethyl)ether	(1)	5.487	93	12535	0.980
23) 2-Chlorophenol	(1)	5.528	128	8629	0.879
42) Total Cresols	(1)			21566	1.844
24) 1,3-Dichlorobenzene	(1)	5.675	146	11259	1.041
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	133153	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	13154	1.166
27) Benzyl alcohol	(1)	5.869	108	7082	0.906
28) 1,2-Dichlorobenzene	(1)	5.892	146	12879	1.179
31) 2-Methylphenol	(1)	5.981	108	11387M	1.007
30) Indene	(1)	5.981	115	13656	1.135
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	11217	0.864
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	11217	0.864
35) N-Nitrosopyrrolidine	(1)	6.110	100	5399	0.847
36) Acetophenone	(1)	6.128	105	14380	0.888
37) 4-Methylphenol	(1)	6.128	108	10179	0.837
38) N-Nitroso-di-n-propylamine	(1)	6.134	70	10620	0.928
39) N-Nitrosomorpholine	(1)	6.145	56	6303	0.752
40) o-Toluidine	(1)	6.157	106	17916	0.940
43) Hexachloroethane	(1)	6.222	117	4123	0.971
44)$Nitrobenzene-d5	(2)	6.263	82	25803	1.742
45) Nitrobenzene	(2)	6.286	77	14426	0.934
48) N-Nitrosopiperidine	(2)	6.439	114	5005	0.842
50) Isophorone	(2)	6.528	82	24125	0.864
51) 2-Nitrophenol	(2)	6.598	139	4734	0.850
53) 2,4-Dimethylphenol	(2)	6.639	107	11899	0.952
56) Benzoic acid	(2)	6.698	105	69813	7.308
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	5838	1.085
55) bis(2-Chloroethoxy)methane	(2)	6.739	93	13159	0.848

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.828	162	6850	0.798
62) 1,2,4-Trichlorobenzene	(2)	6.910	180	9061	1.001
65)*Naphthalene-d8	(2)	6.969	136	562185	20.000
66) Naphthalene	(2)	6.986	128	30909	0.985
67) 4-Chloroaniline	(2)	7.039	127	12588	0.963
68) 2,6-Dichlorophenol	(2)	7.051	162	7844	0.906
69) Hexachloropropene	(2)	7.081	213	4862	1.074
71) Hexachlorobutadiene	(2)	7.116	225	4044	0.849
75) Quinoline	(2)	7.316	129	20013	0.967
77) N-Nitrosodi-n-butylamine	(2)	7.380	84	14245	1.065
97) Isosafrole	(3)			9109	1.056
76) Caprolactam	(2)	7.386	113	3404	0.854
80) 4-Chloro-3-methylphenol	(2)	7.510	107	9569	0.893
82) Safrole	(2)	7.586	162	5666	0.652
83) 2-Methylnaphthalene	(2)	7.663	142	22587	1.010
84) 1-Methylnaphthalene	(2)	7.757	142	22730	1.057
85) Hexachlorocyclopentadiene	(3)	7.828	237	4136	0.909
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.828	216	10911	1.201
88) cis-Isosafrole	(3)	7.869	162	2057	0.231
90) 2,4,6-Trichlorophenol	(3)	7.939	196	5670	0.922
92) 2,4,5-Trichlorophenol	(3)	7.969	196	5890	0.880
93)$2-Fluorobiphenyl	(3)	8.028	172	45905	1.838
120) 2,4_2,6-Dinitrotoluenes	(3)			10189	1.501
94) trans-Isosafrole	(3)	8.092	162	7052	0.825
95) 1,1'-Biphenyl	(3)	8.122	154	28703	1.055
96) 2-Chloronaphthalene	(3)	8.139	162	19713	0.923
98) 1-Chloronaphthalene	(3)	8.163	162	18486	0.935
99) Diphenyl ether	(3)	8.233	170	14704	1.007
100) 2-Nitroaniline	(3)	8.233	138	3871	0.580
104) 1,4-Naphthoquinone	(3)	8.310	158	7037M	0.804
105) 1,4-Dinitrobenzene	(3)	8.375	168	2795	0.760
106) Dimethylphthalate	(3)	8.428	163	25837	1.033
107) 1,3-Dinitrobenzene	(3)	8.445	168	2586	0.606
108) 2,6-Dinitrotoluene	(3)	8.475	165	3921	0.698
109) Acenaphthylene	(3)	8.545	152	25593	0.879
112) 3-Nitroaniline	(3)	8.639	138	5535	0.879
113)*Acenaphthene-d10	(3)	8.686	164	308573	20.000
114) Acenaphthene	(3)	8.716	153	22366	1.034
115) 2,4-Dinitrophenol	(3)	8.739	184	18290M	4.829
146) Diallate trans/cis	(4)			18452	1.198

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Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
116) 4-Nitrophenol	(3)	8.798	109	16282M	3.725
117) Pentachlorobenzene	(3)	8.839	250	7282	0.935
118) 2,4-Dinitrotoluene	(3)	8.869	165	6268	0.803
119) Dibenzofuran	(3)	8.886	168	27690	0.914
121) 1-Naphthylamine	(3)	8.957	143	23899	1.012
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	4129	0.766
123) 2-Naphthylamine	(3)	9.039	143	20760	0.904
124) Diethylphthalate	(3)	9.122	149	24395	0.972
125) Thionazin	(3)	9.198	107	5061	1.059
126) Fluorene	(3)	9.222	166	21160	0.835
129) 4-Nitroaniline	(3)	9.227	138	5603	0.817
128) 5-Nitro-o-toluidine	(3)	9.227	152	7990	1.052
127) 4-Chlorophenyl-phenylether	(3)	9.227	204	11693	0.993
130) 4,6-Dinitro-2-methylphenol	(4)	9.263	198	13181	2.826
131) N-Nitrosodiphenylamine	(4)	9.339	169	19443	0.858
132) NDPA as diphenylamine	(4)	9.339	169	19443	0.858
134) 1,2-Diphenylhydrazine	(4)	9.380	77	28908	0.839
135)$2,4,6-Tribromophenol	(3)	9.457	330	4884	1.976
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	5186	1.026
139) 1,3,5-Trinitrobenzene	(4)	9.592	213	909M	0.306
140) Diallate (peak 1)	(4)	9.633	86	14794	0.924
141) Phorate	(4)	9.639	75	16745	0.805
142) Phenacetin	(4)	9.639	108	12046	0.826
143) 4-Bromophenyl-phenylether	(4)	9.704	248	7451	1.077
144) Diallate (peak 2)	(4)	9.722	86	3658	0.274
145) Hexachlorobenzene	(4)	9.751	284	5481	0.873
147) Dimethoate	(4)	9.798	87	10272	0.859
149) Pentachlorophenol	(4)	9.945	266	2676	0.621
150) 4-Aminobiphenyl	(4)	9.957	169	11153	1.112
151) Pentachloronitrobenzene	(4)	9.963	237	2319	0.756
152) Pronamide	(4)	10.022	173	9922	0.885
153)*Phenanthrene-d10	(4)	10.139	188	629388	20.000
154) Dinoseb	(4)	10.145	211	3753	0.551
155) Phenanthrene	(4)	10.157	178	41181	1.052
157) Anthracene	(4)	10.210	178	39416	1.003
163) Carbazole	(4)	10.369	167	31846	0.904
164) Methyl parathion	(4)	10.516	109	5447	0.617
165) Di-n-butylphthalate	(4)	10.733	149	32563	0.741
167) Parathion	(4)	10.904	109	1927	0.333
168) 4-Nitroquinoline-1-oxide	(4)	10.916	190	1367	0.362

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* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

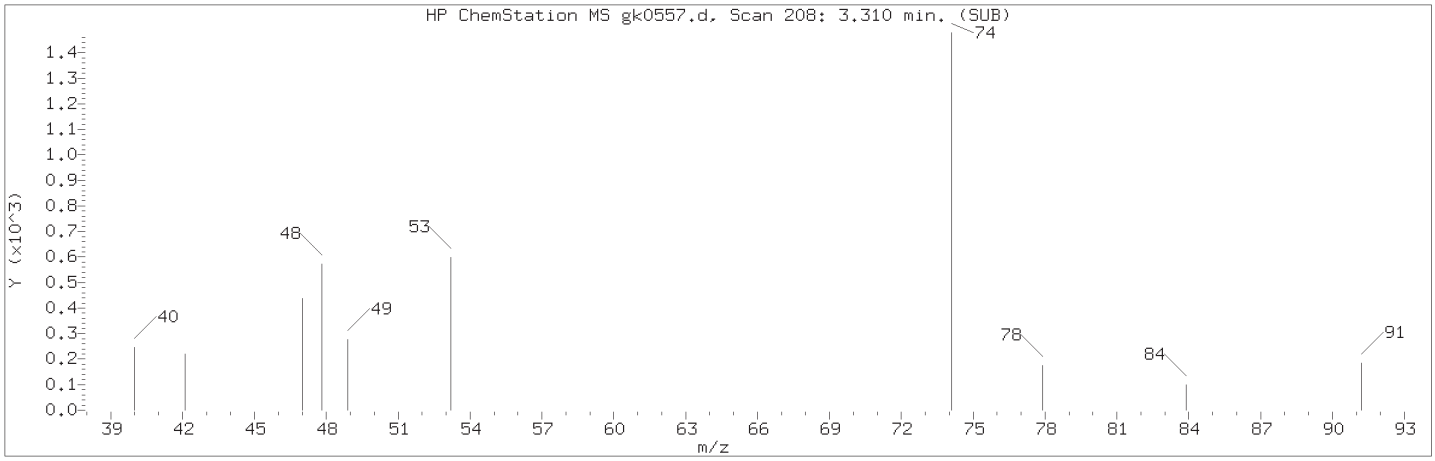
Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	11.151	308	2413	0.963
171) Isodrin	(4)	11.180	193	5093	1.155
173) Fluoranthene	(4)	11.327	202	41000	0.997
174) Benzidine	(5)	11.463	184	150359	5.570
175)*Pyrene-d10	(5)	11.527	212	602904	20.000
177) Pyrene	(5)	11.545	202	41111	0.971
179)$Terphenyl-d14	(5)	11.710	244	56077	1.923
182) p-Dimethylaminoazobenzene	(5)	11.851	225	3634	0.546
185) Chlorobenzilate	(5)	11.904	139	8877	0.689
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	13903	0.627
188) Butylbenzylphthalate	(5)	12.204	149	16393	0.810
191) 2-Acetylaminofluorene	(5)	12.427	181	9617	0.589
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	8539	0.620
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	5284	0.705
195) Benzo(a)anthracene	(5)	12.739	228	33472	0.849
196) Chrysene	(5)	12.780	228	37096	0.972
199) bis(2-Ethylhexyl)phthalate	(5)	12.804	149	15824	0.577
203) 6-Methylchrysene	(5)	13.245	242	25008	0.956
205) Di-n-octylphthalate	(6)	13.468	149	25169	0.509
206) Benzo(b)fluoranthene	(6)	13.827	252	34854	0.901
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.827	256	13734	0.769
208) Benzo(k)fluoranthene	(6)	13.857	252	33393	0.876
211) Benzo(a)pyrene	(6)	14.145	252	27392M	0.784
213)*Perylene-d12	(6)	14.204	264	548893	20.000
215) 3-Methylcholanthrene	(6)	14.504	268	9788M	0.735
222) Total PAHs	(6)			552659	16.715
217) Dibenz(a,h)acridine	(6)	15.104	279	18181	0.721
218) Dibenz(a,j)acridine	(6)	15.168	279	22317M	0.823
219) Indeno(1,2,3-cd)pyrene	(6)	15.380	276	28363M	0.804
220) Dibenz(a,h)anthracene	(6)	15.409	278	25230M	0.857
221) Benzo(g,h,i)perylene	(6)	15.721	276	24806M	0.849

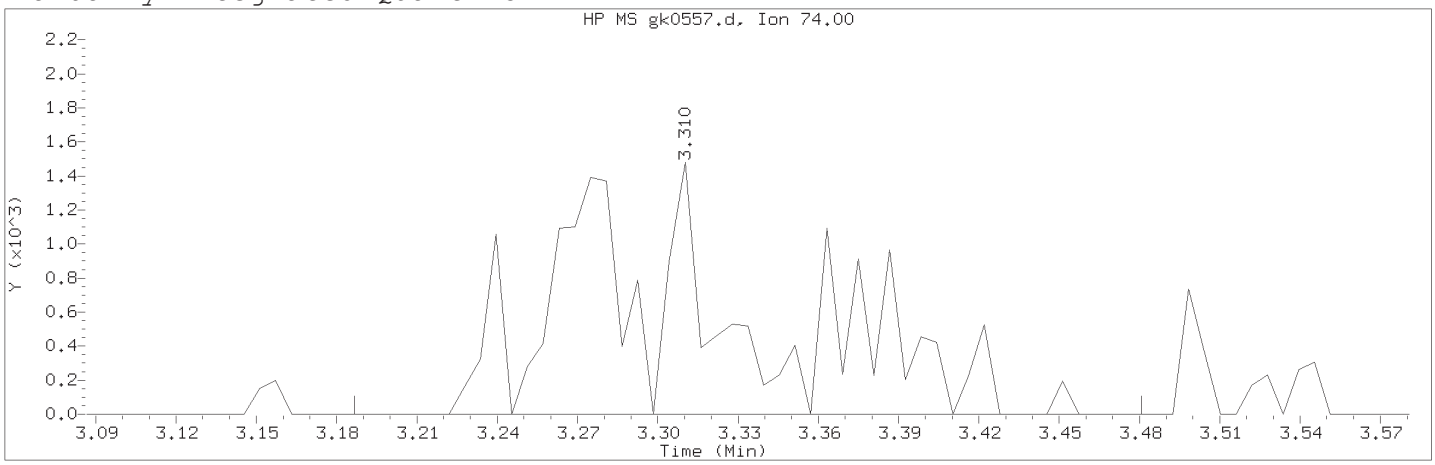
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

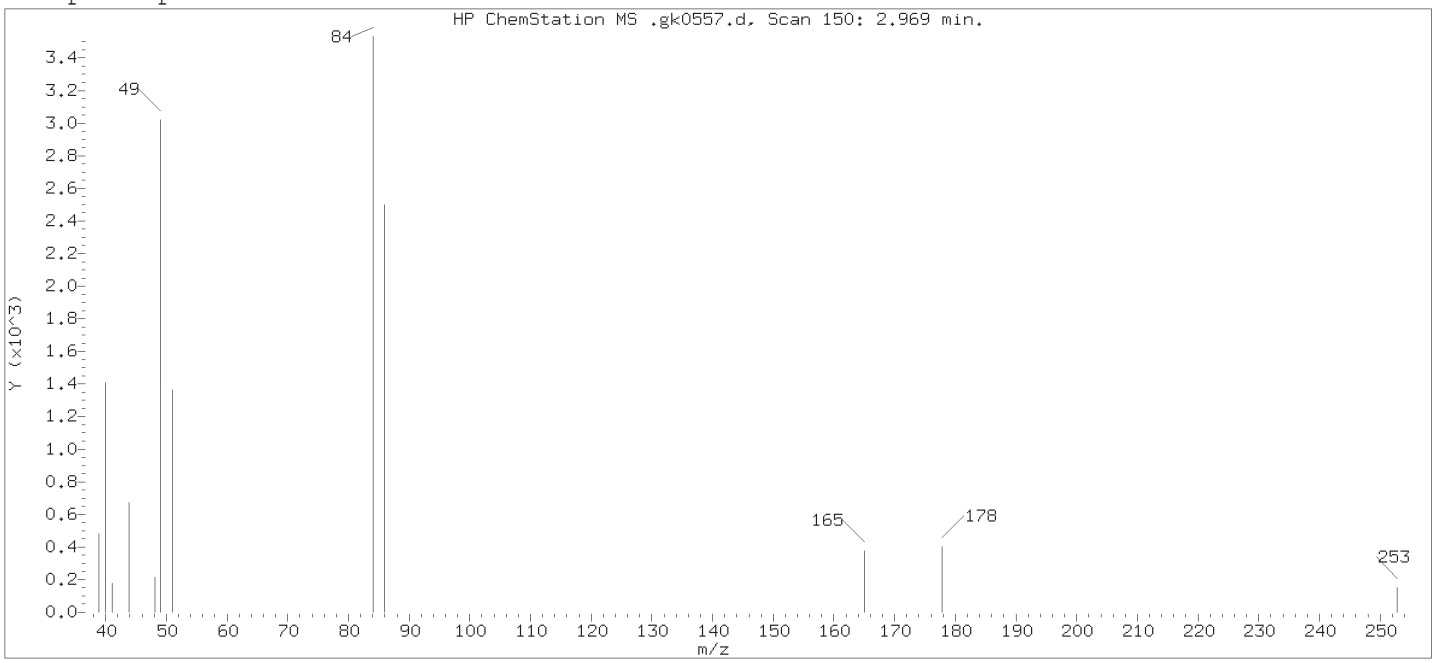
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 208		
Retention Time (minutes)	: 3.310		
Quant Ion	: 74.00		
Area (flag)	: 6675M		
On-Column Amount (ng/ul)	: 0.9346		
Integration start scan	: 186	Integration stop scan:	236
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

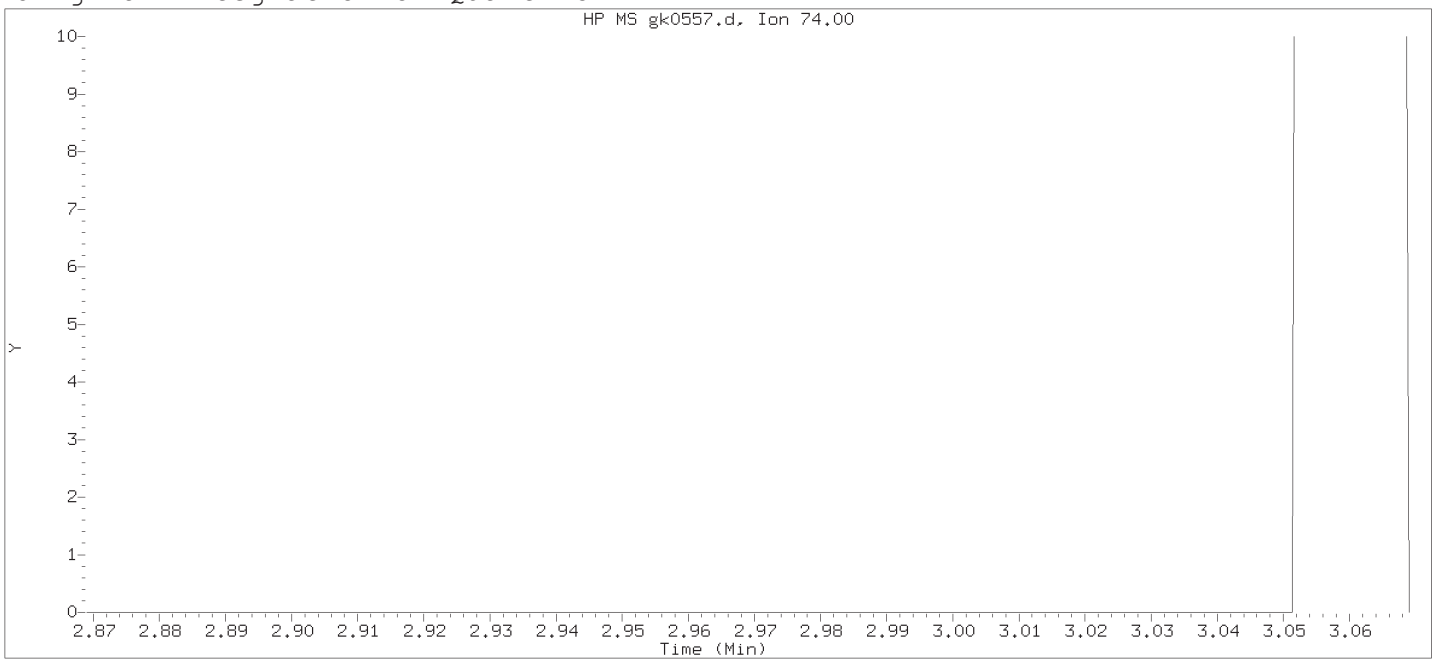
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

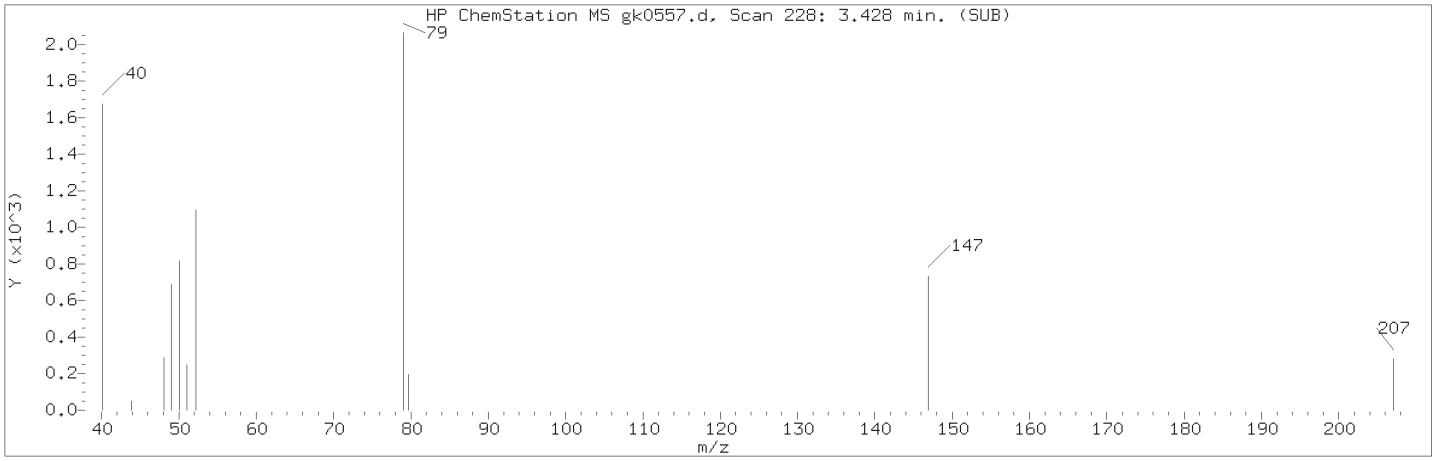
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

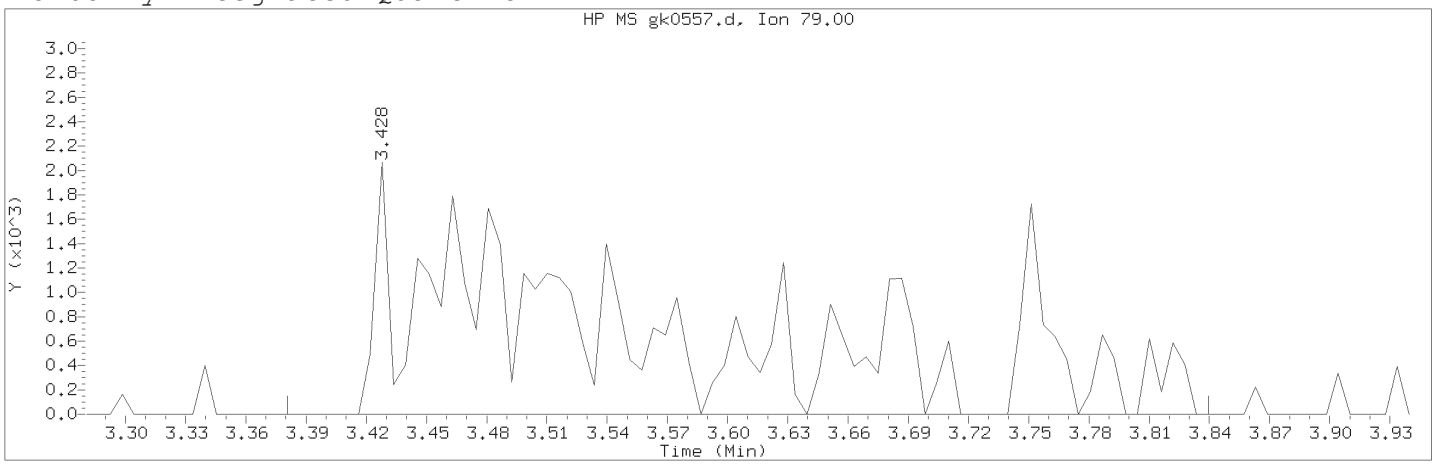
Compound Number : 4
Compound Name : N-Nitrosodimethylamine
Expected RT (minutes) : 2.969
Quant Ion : 74.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used to create PDF.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

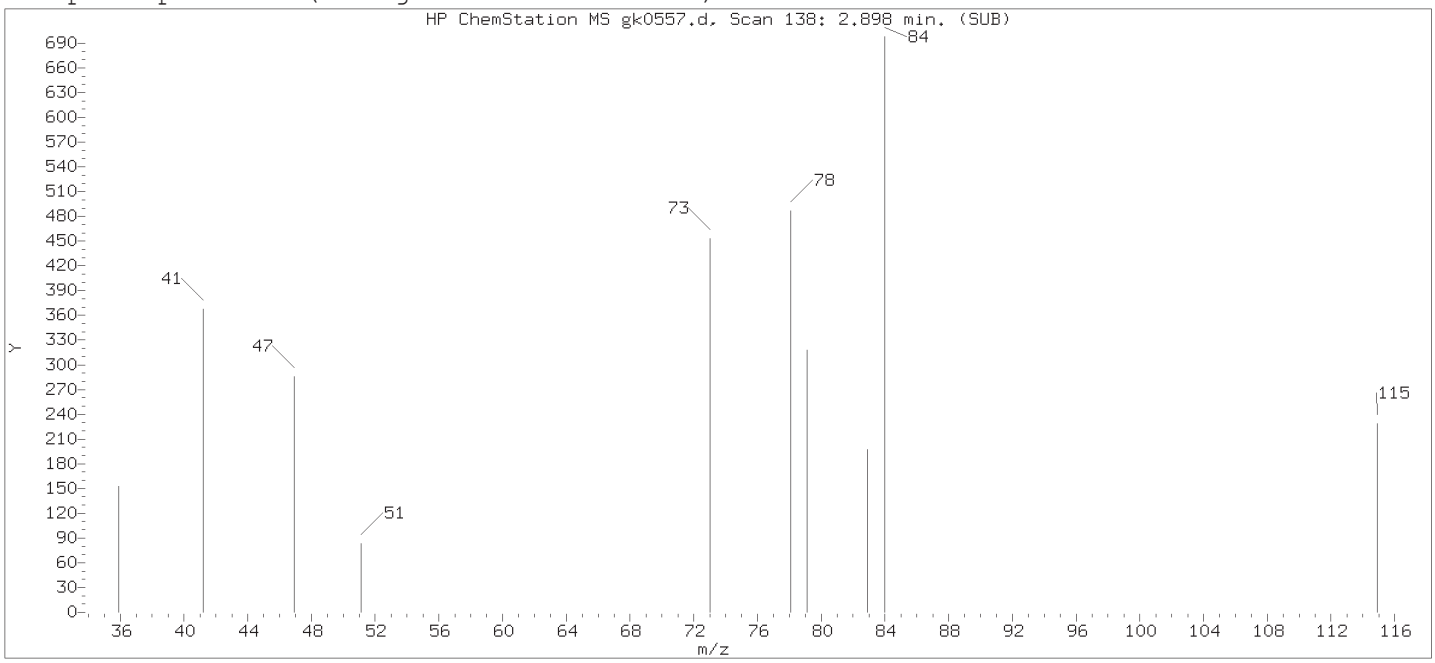
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 228		
Retention Time (minutes)	: 3.428		
Quant Ion	: 79.00		
Area (flag)	: 15564M		
On-Column Amount (ng/ul)	: 1.2968		
Integration start scan	: 219	Integration stop scan:	297
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

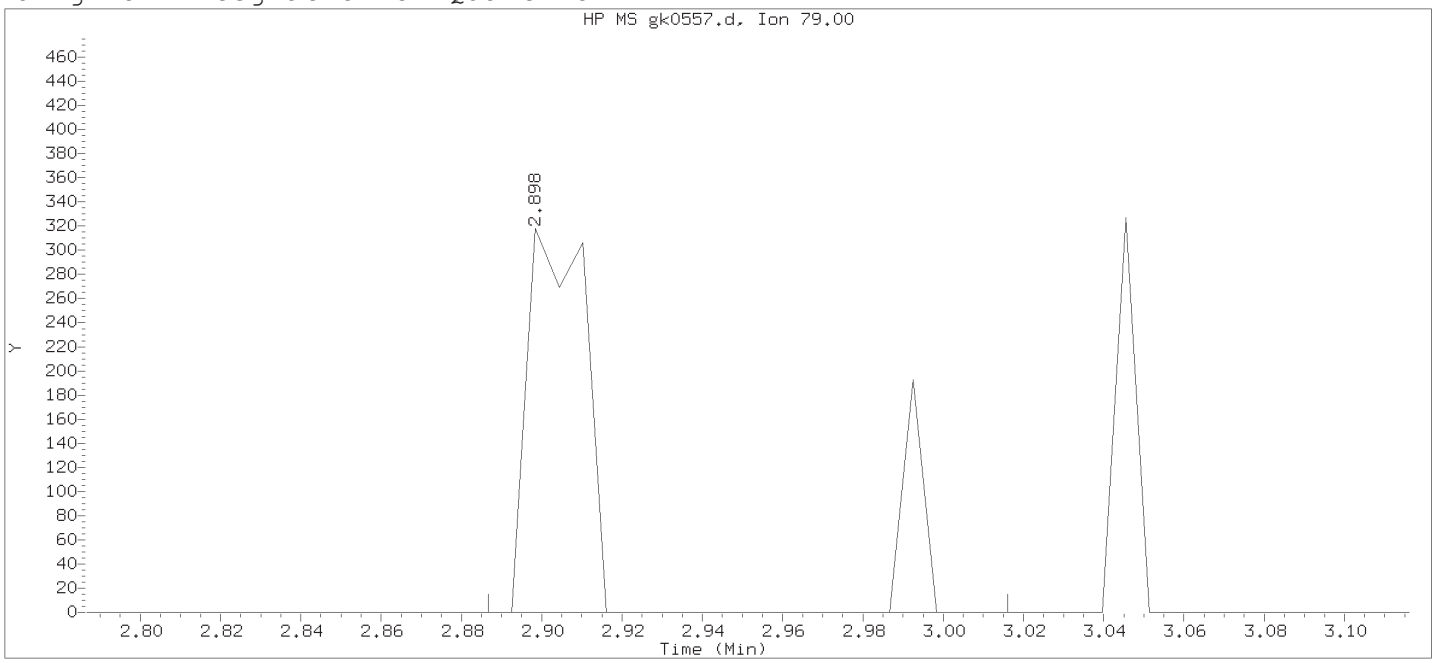
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

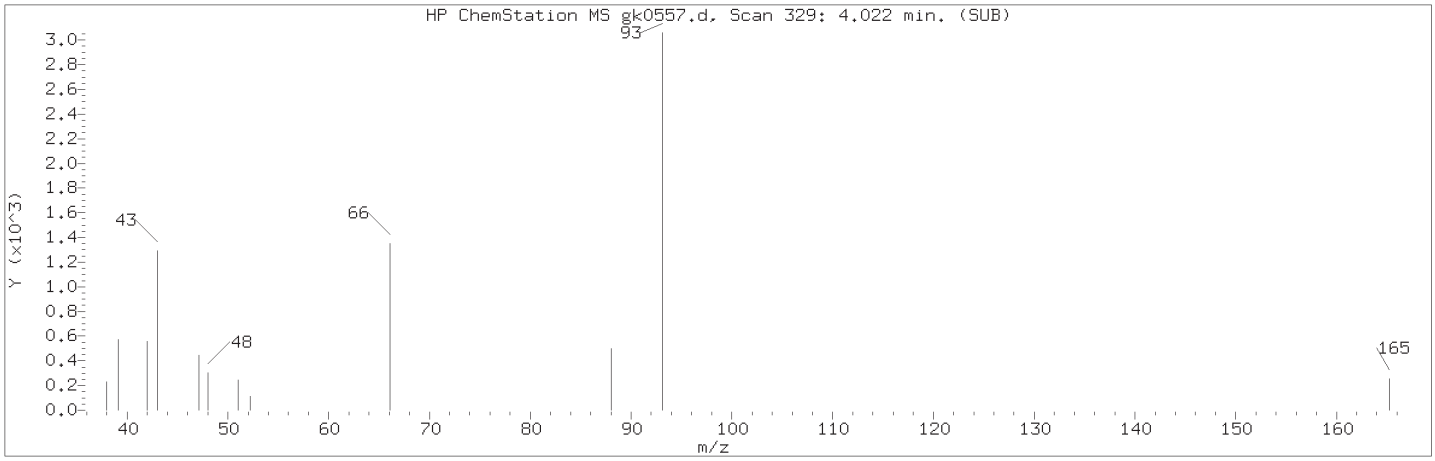
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

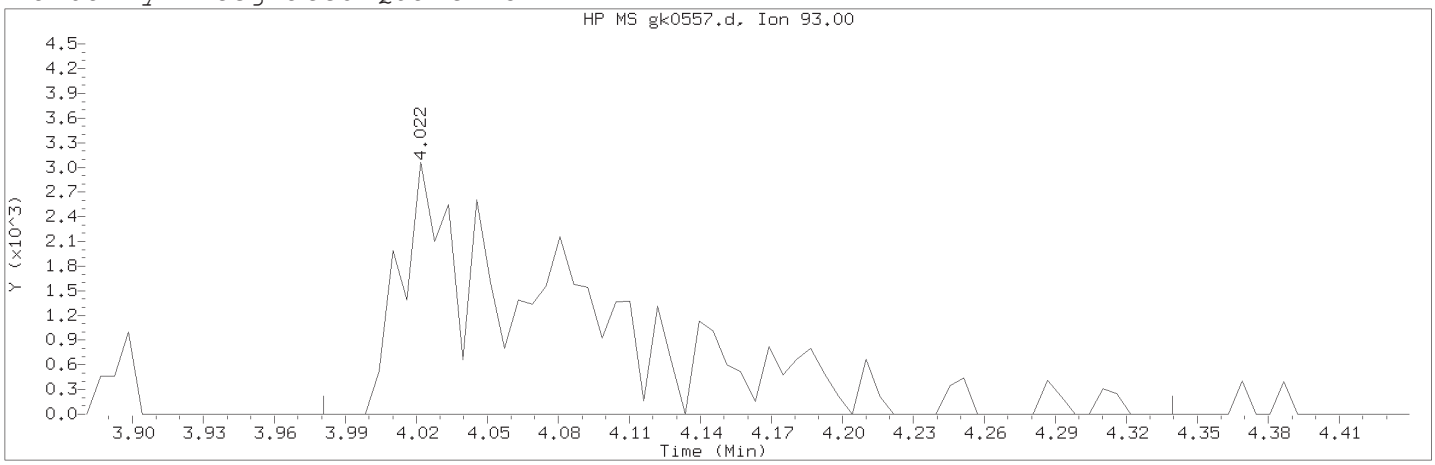
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 138		
Retention Time (minutes)	: 2.898		
Quant Ion	: 79.00		
Area	: 383		
On-column Amount (ng/ul)	: 0.0420		
Integration start scan	: 135	Integration stop scan:	157
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

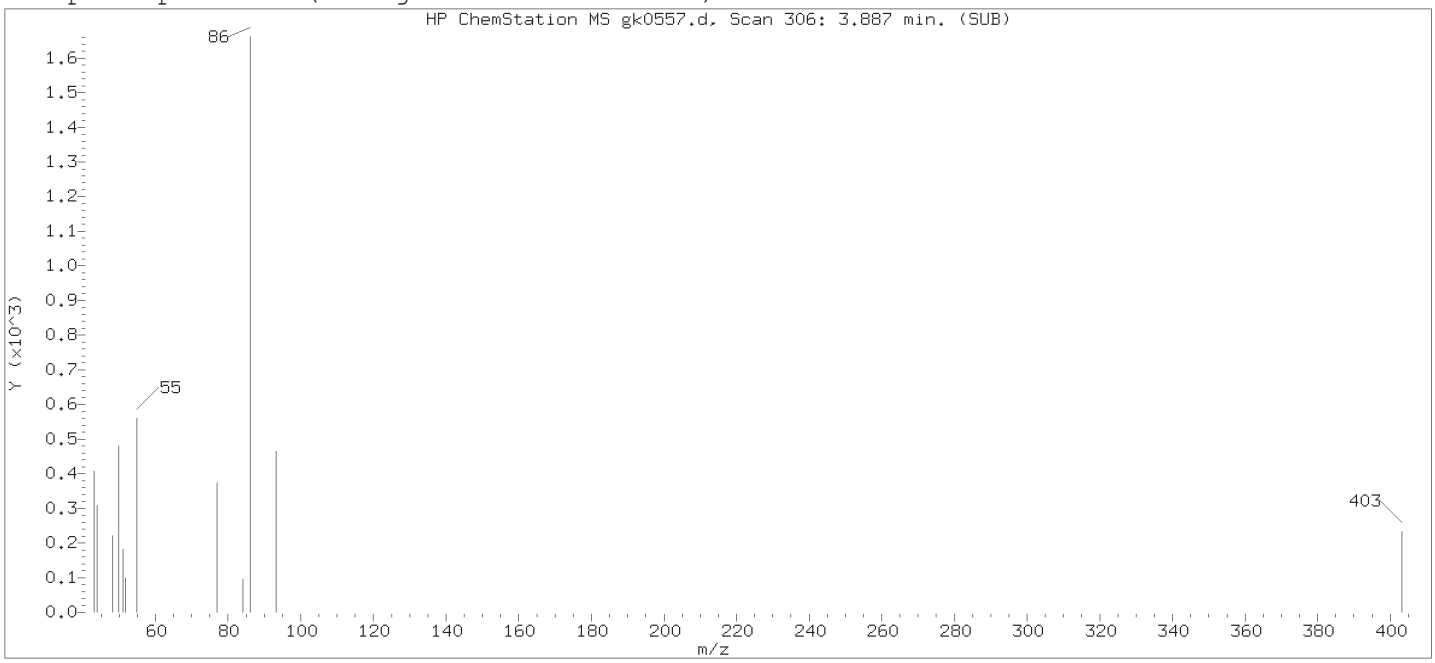
Compound Number : 7
Compound Name : 2-Picoline
Scan Number : 329
Retention Time (minutes) : 4.022
Quant Ion : 93.00
Area (flag) : 14947M
On-Column Amount (ng/ul) : 1.1498
Integration start scan : 321 Integration stop scan: 382
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

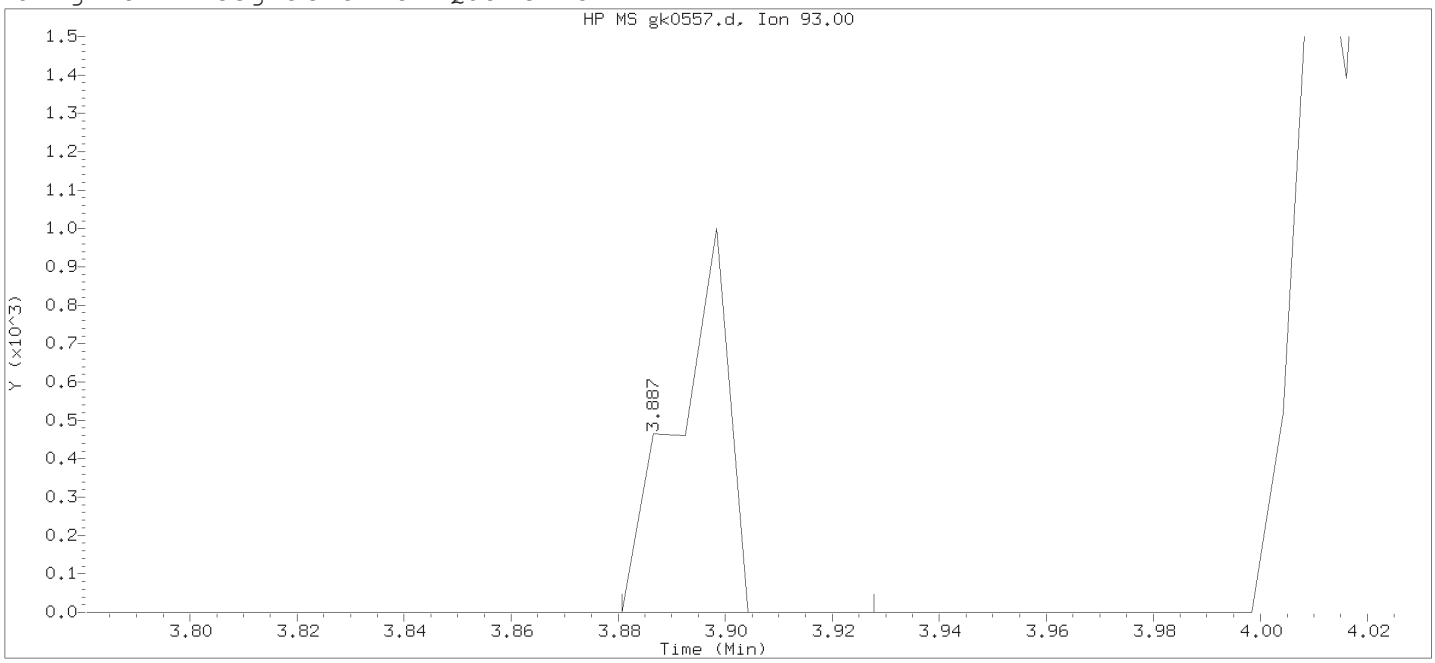
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

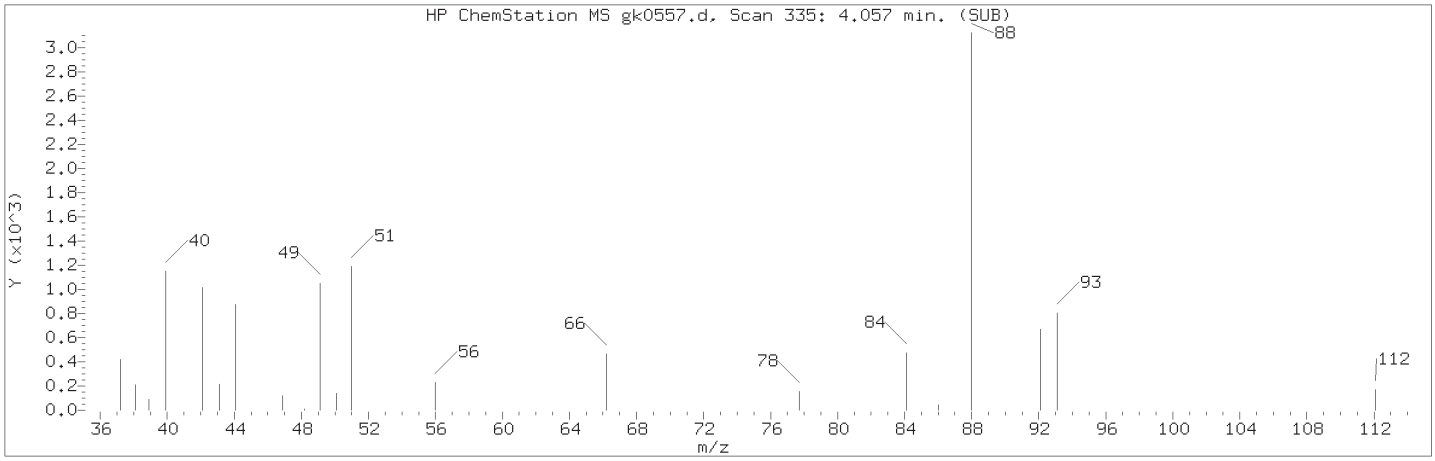
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

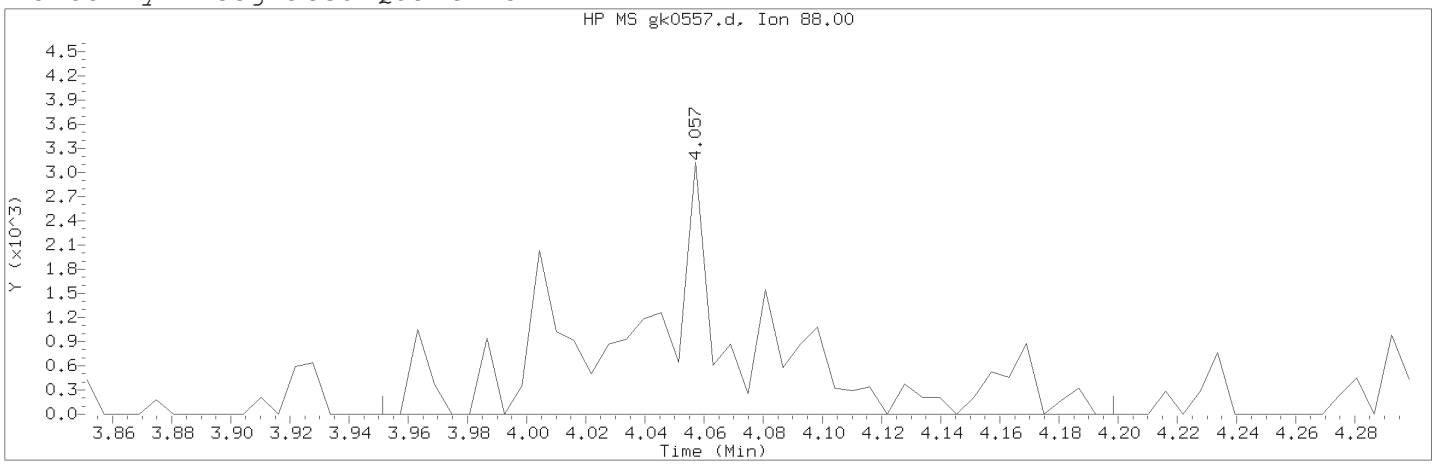
Compound Number	: 7		
Compound Name	: 2-Picoline		
Scan Number	: 306		
Retention Time (minutes)	: 3.887		
Quant Ion	: 93.00		
Area	: 679		
On-column Amount (ng/ul)	: 0.0617		
Integration start scan	: 304	Integration stop scan:	312
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: EM10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

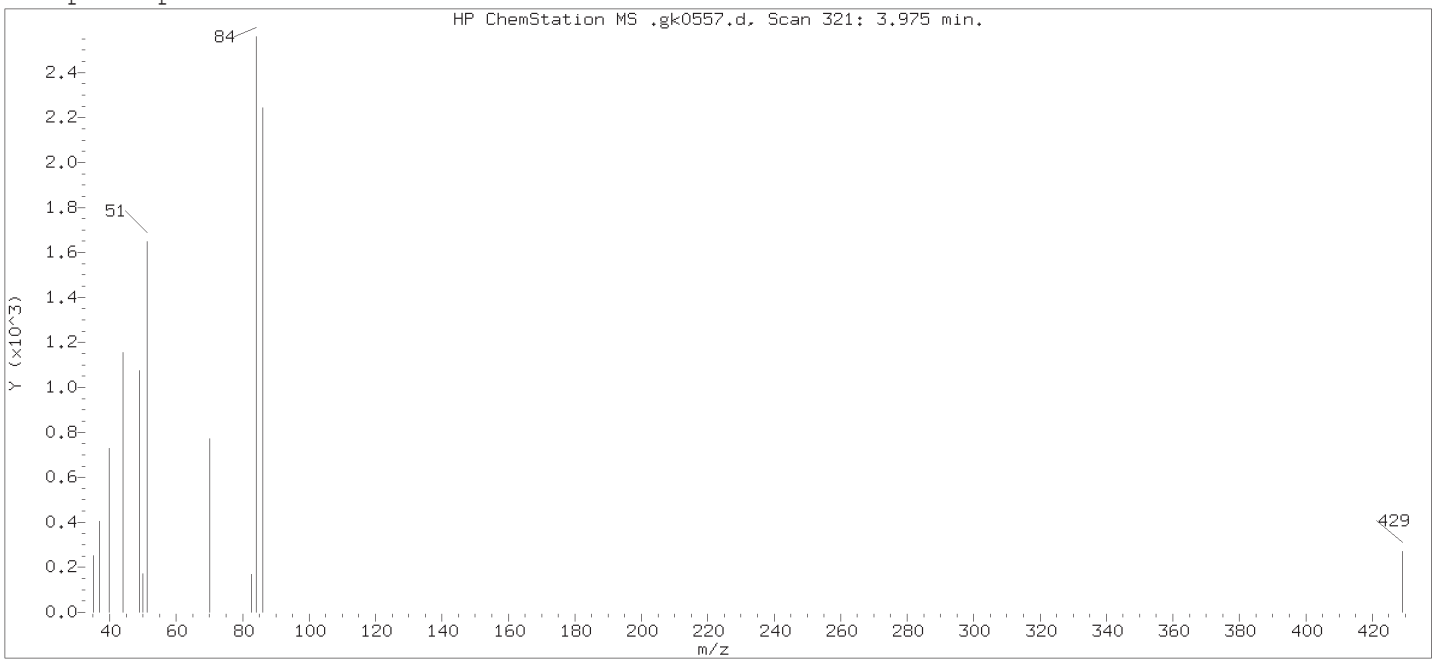
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 335		
Retention Time (minutes)	: 4.057		
Quant Ion	: 88.00		
Area (flag)	: 8929M		
On-Column Amount (ng/ul)	: 1.3907		
Integration start scan	: 316	Integration stop scan:	358
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

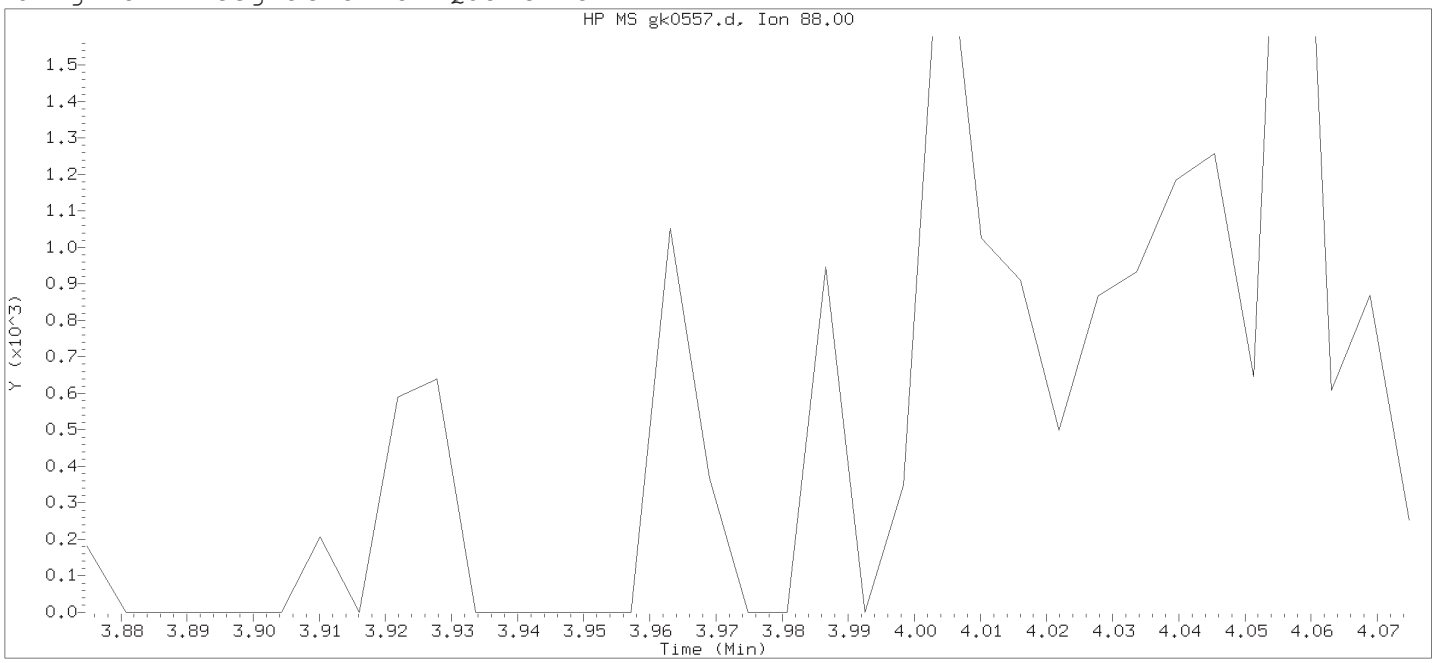
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

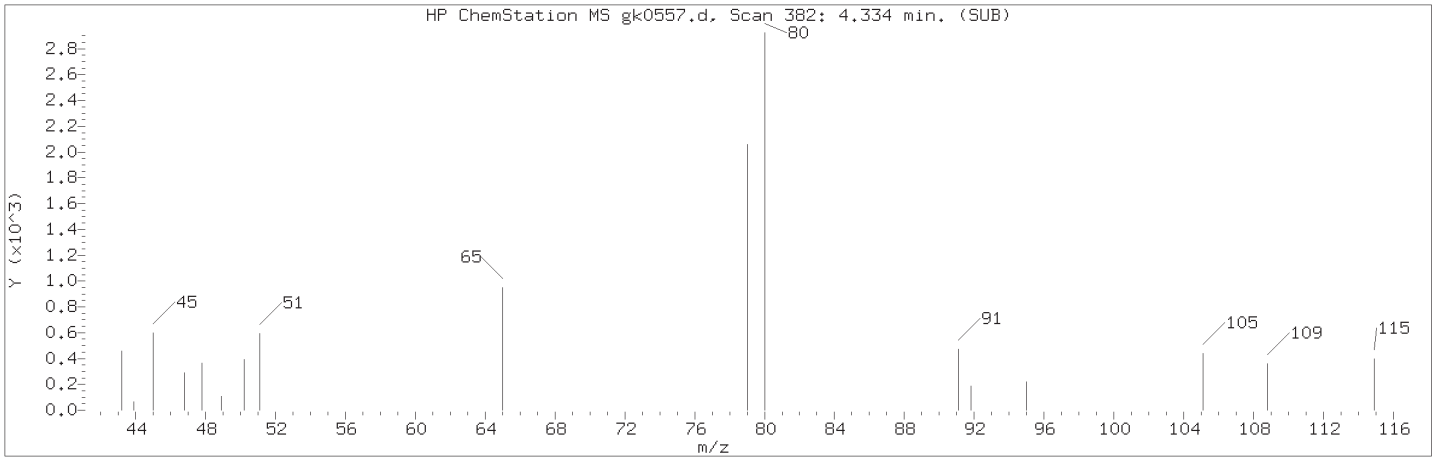
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

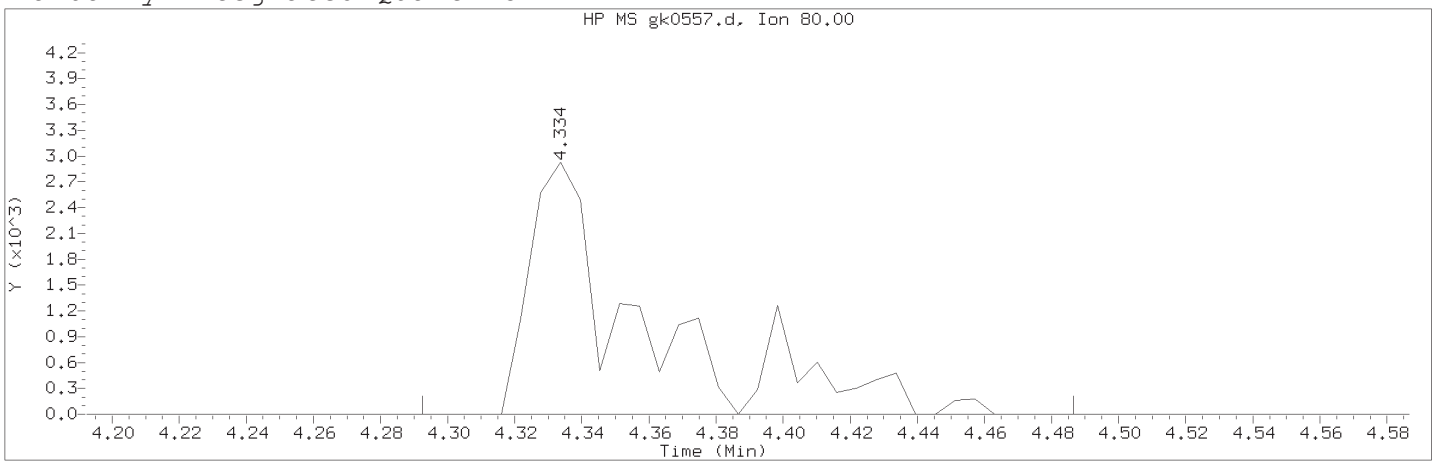
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 3.975
Quant Ion : 88.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used 11/12/2018 14:10

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

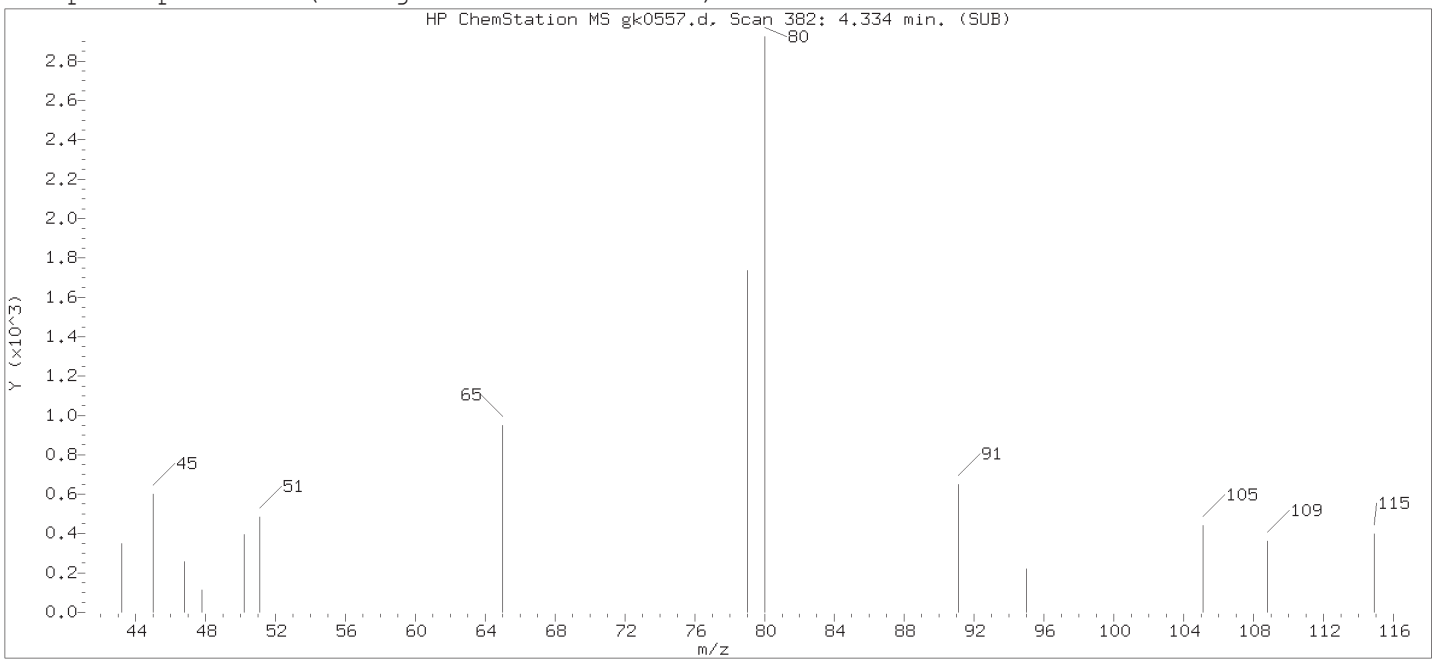
Compound Number	: 9		
Compound Name	: Methyl methanesulfonate		
Scan Number	: 382		
Retention Time (minutes)	: 4.334		
Quant Ion	: 80.00		
Area (flag)	: 6843M		
On-Column Amount (ng/ul)	: 1.0195		
Integration start scan	: 374	Integration stop scan:	407
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

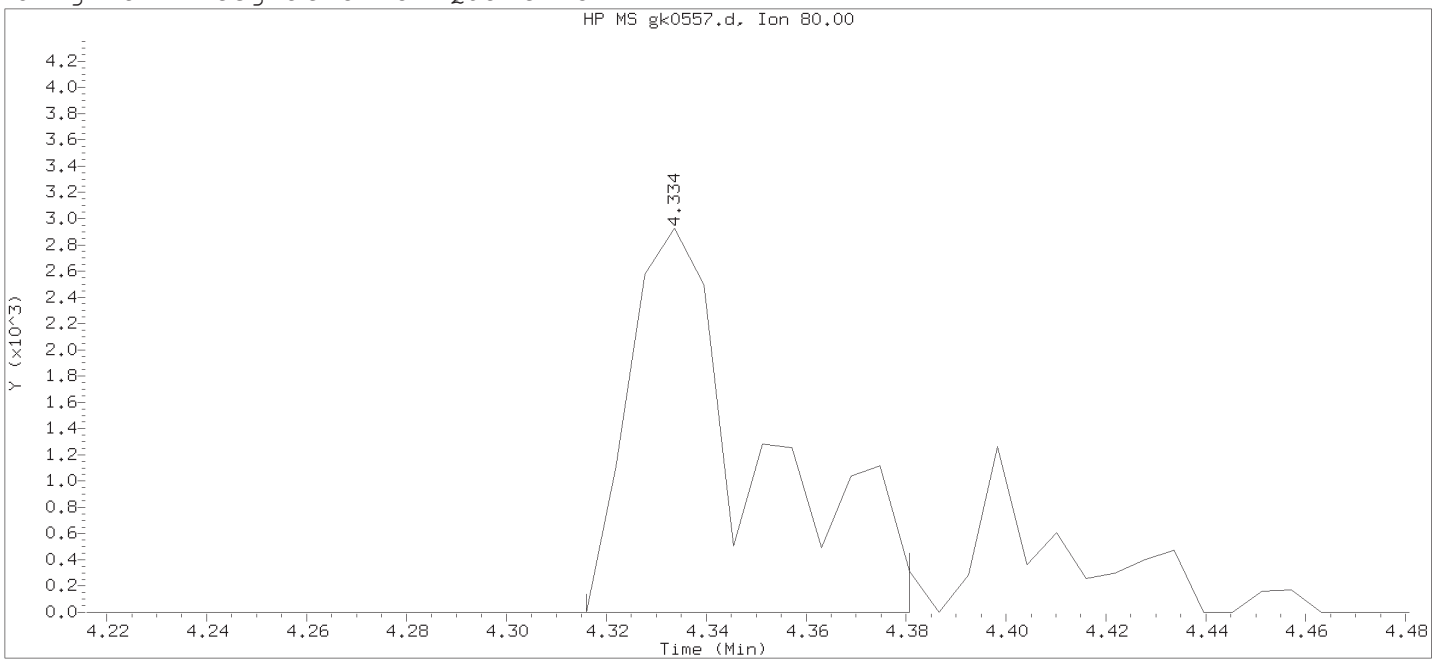
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

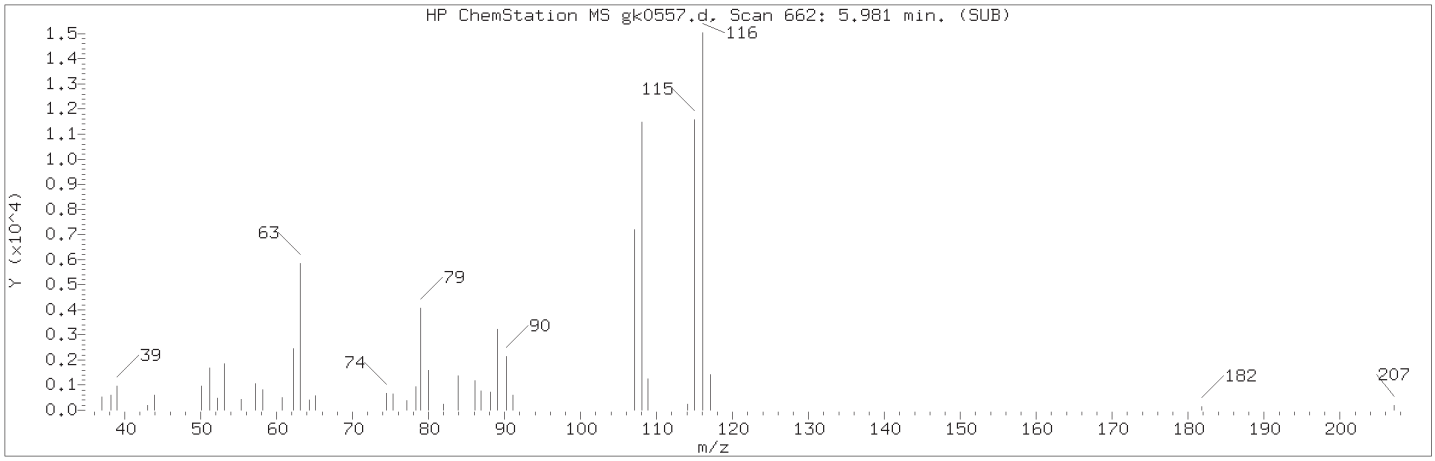
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

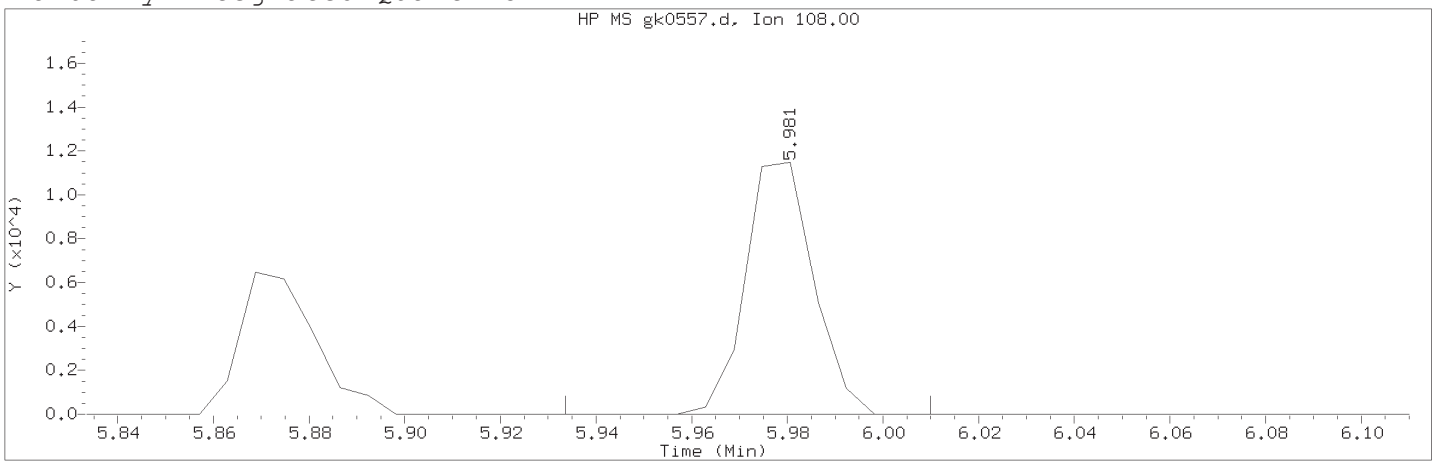
Compound Number	: 9
Compound Name	: Methyl methanesulfonate
Scan Number	: 382
Retention Time (minutes)	: 4.334
Quant Ion	: 80.00
Area	: 5277
On-column Amount (ng/ul)	: 0.8011
Integration start scan	: 378 Integration stop scan: 389
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

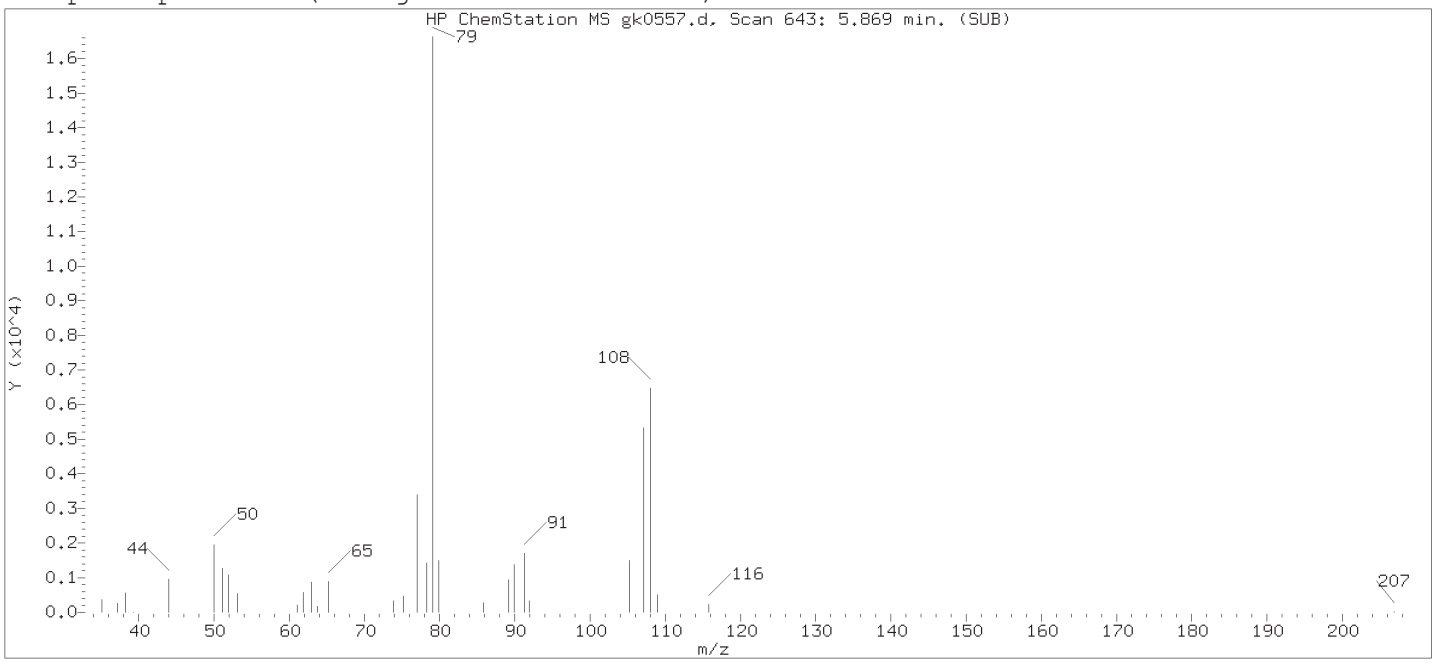
Compound Number	: 31		
Compound Name	: 2-Methylphenol		
Scan Number	: 662		
Retention Time (minutes)	: 5.981		
Quant Ion	: 108.00		
Area (flag)	: 11387M		
On-Column Amount (ng/ul)	: 1.0066		
Integration start scan	: 653	Integration stop scan:	666
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

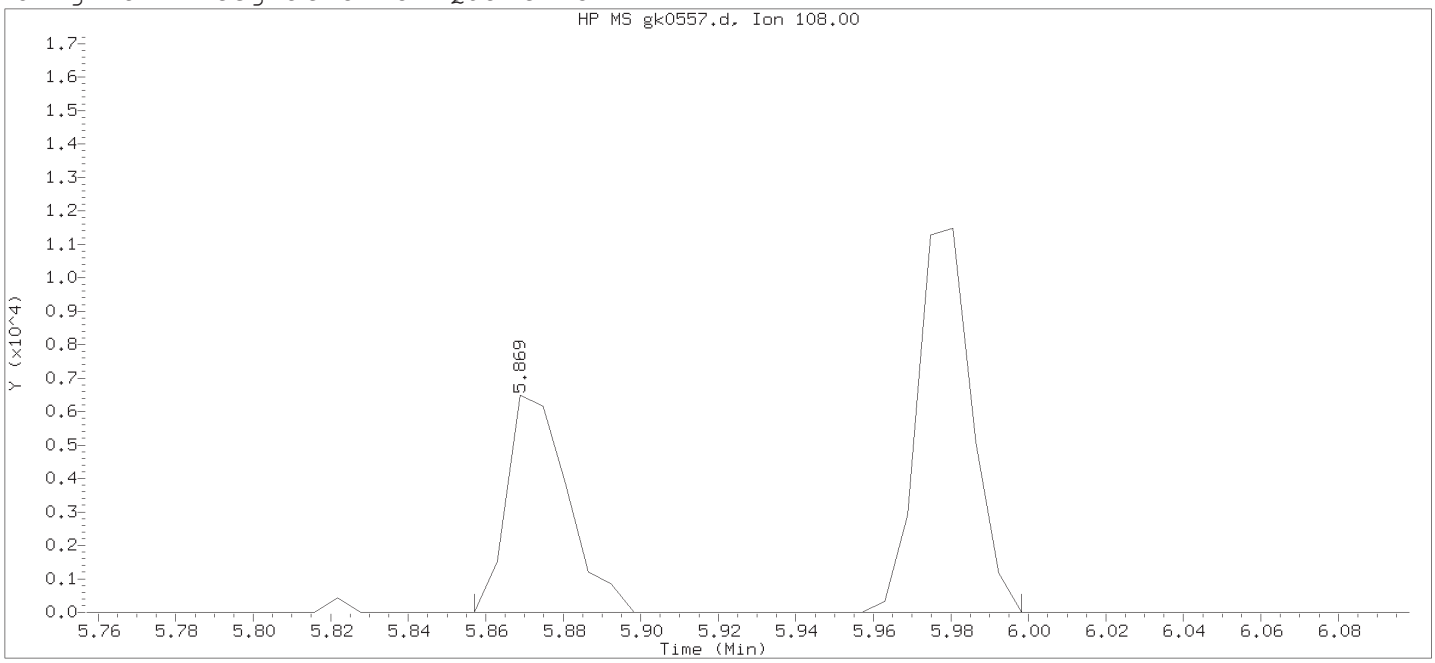
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

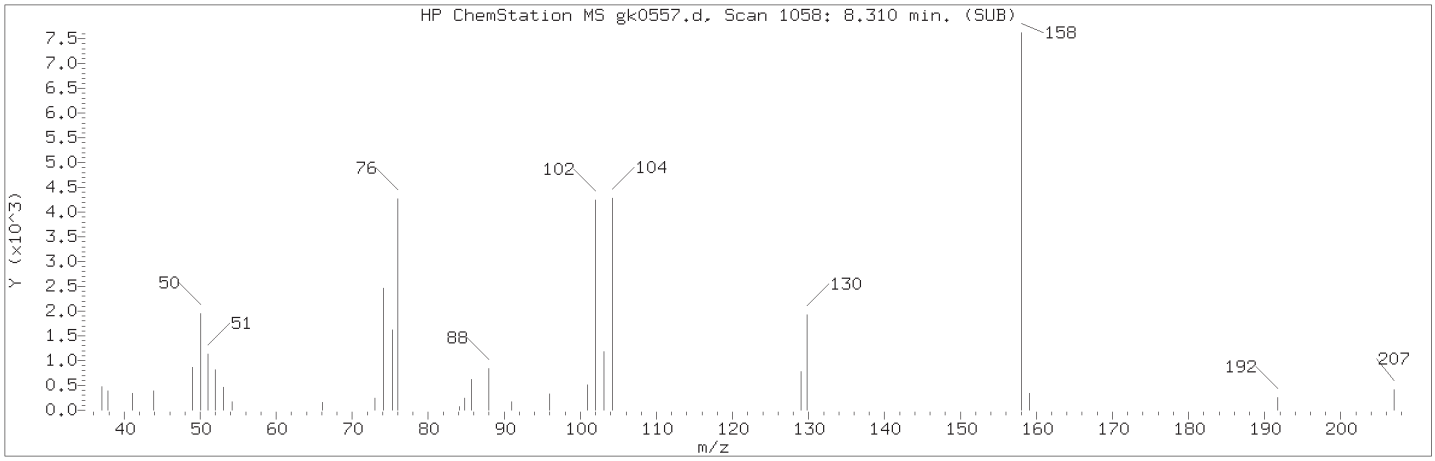
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

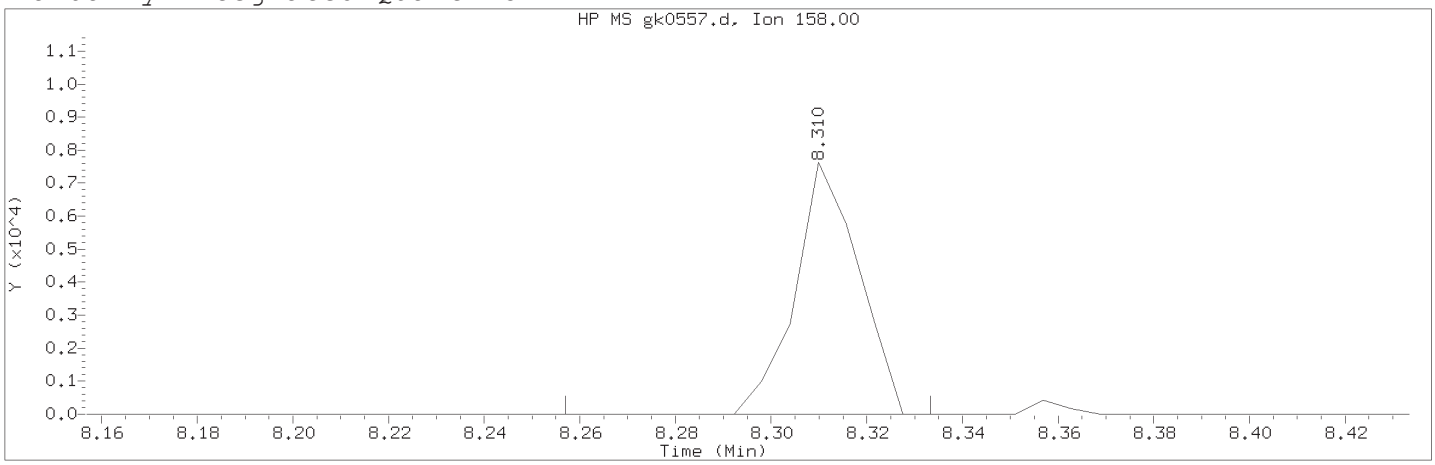
Compound Number	: 31		
Compound Name	: 2-Methylphenol		
Scan Number	: 643		
Retention Time (minutes)	: 5.869		
Quant Ion	: 108.00		
Area	: 18470		
On-column Amount (ng/ul)	: 1.5508		
Integration start scan	: 640	Integration stop scan:	664
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

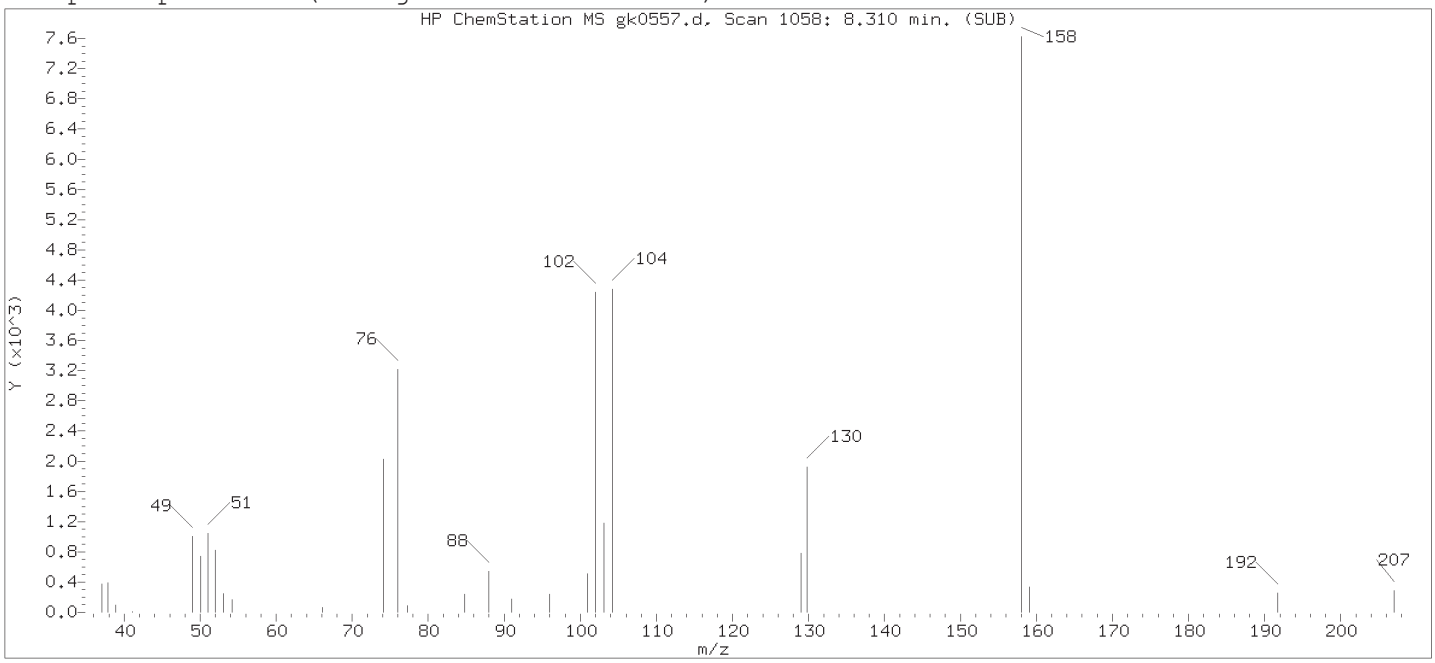
Compound Number : 104
Compound Name : 1,4-Naphthoquinone
Scan Number : 1058
Retention Time (minutes) : 8.310
Quant Ion : 158.00
Area (flag) : 7037M
On-Column Amount (ng/ul) : 0.8039
Integration start scan : 1048 Integration stop scan: 1061
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

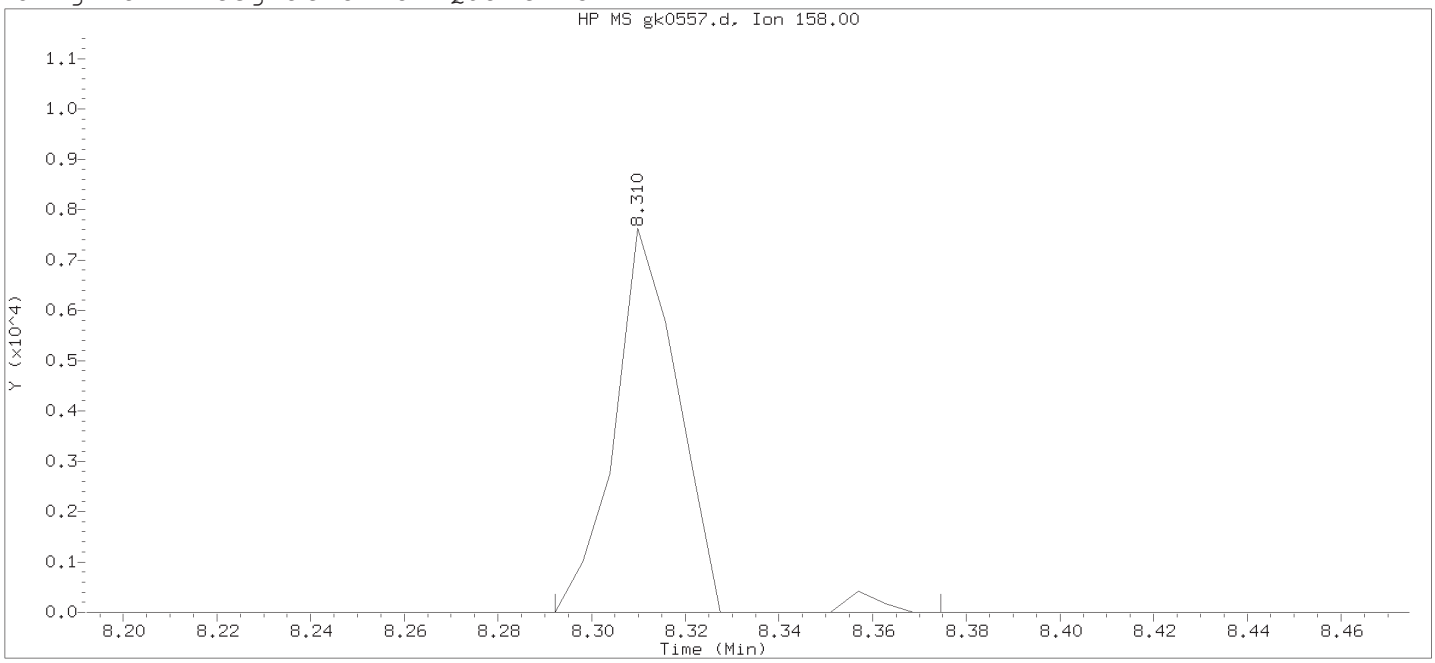
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

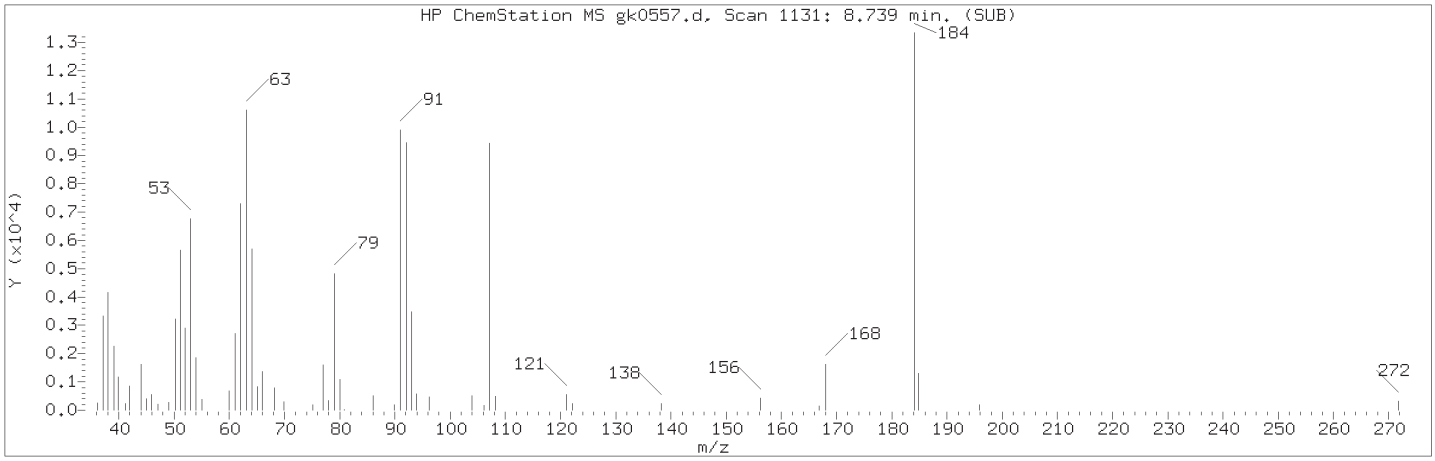
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

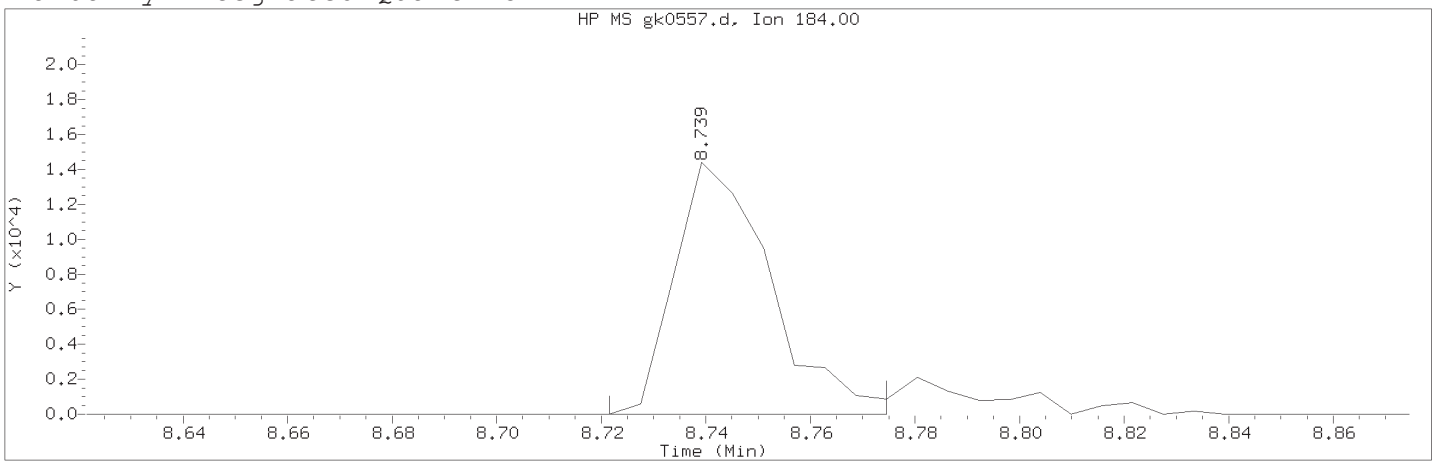
Compound Number	: 104		
Compound Name	: 1,4-Naphthoquinone		
Scan Number	: 1058		
Retention Time (minutes)	: 8.310		
Quant Ion	: 158.00		
Area	: 7242		
On-column Amount (ng/ul)	: 0.8162		
Integration start scan	: 1054	Integration stop scan:	1068
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.2.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

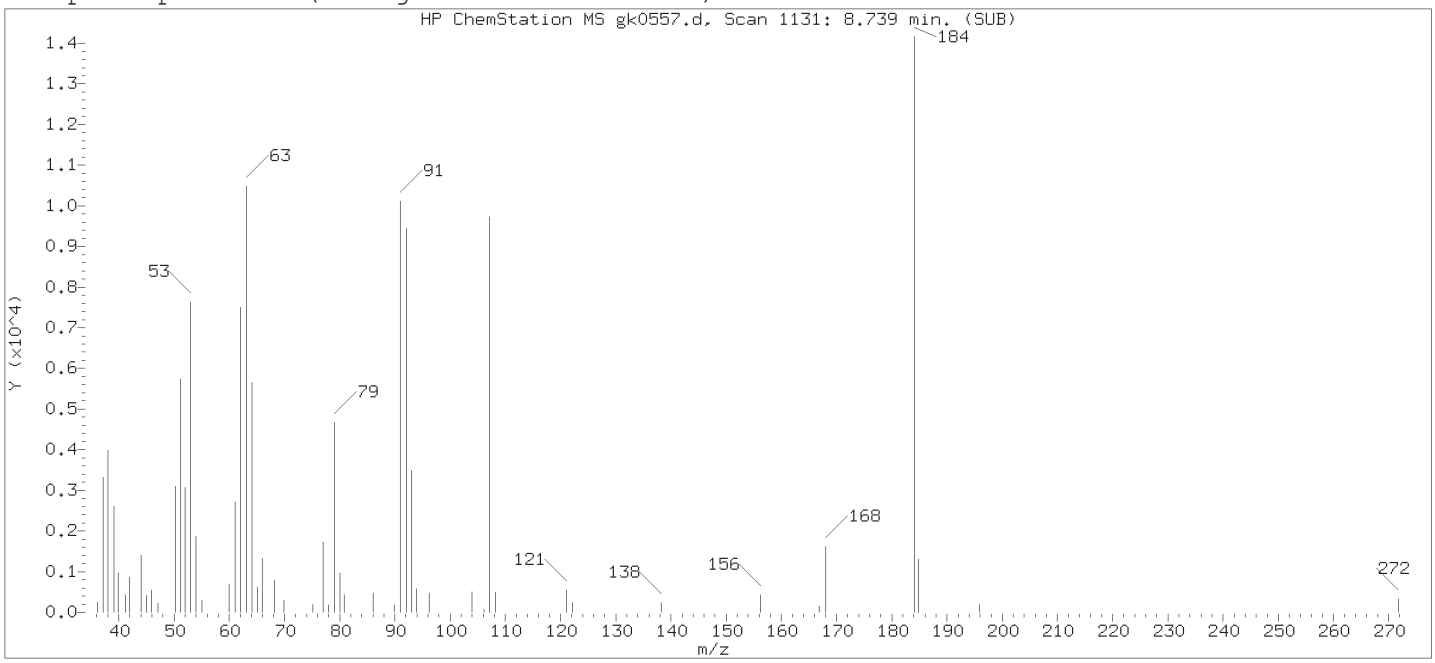
Compound Number	: 115		
Compound Name	: 2,4-Dinitrophenol		
Scan Number	: 1131		
Retention Time (minutes)	: 8.739		
Quant Ion	: 184.00		
Area (flag)	: 18290M		
On-Column Amount (ng/ul)	: 4.8295		
Integration start scan	: 1127	Integration stop scan:	1136
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

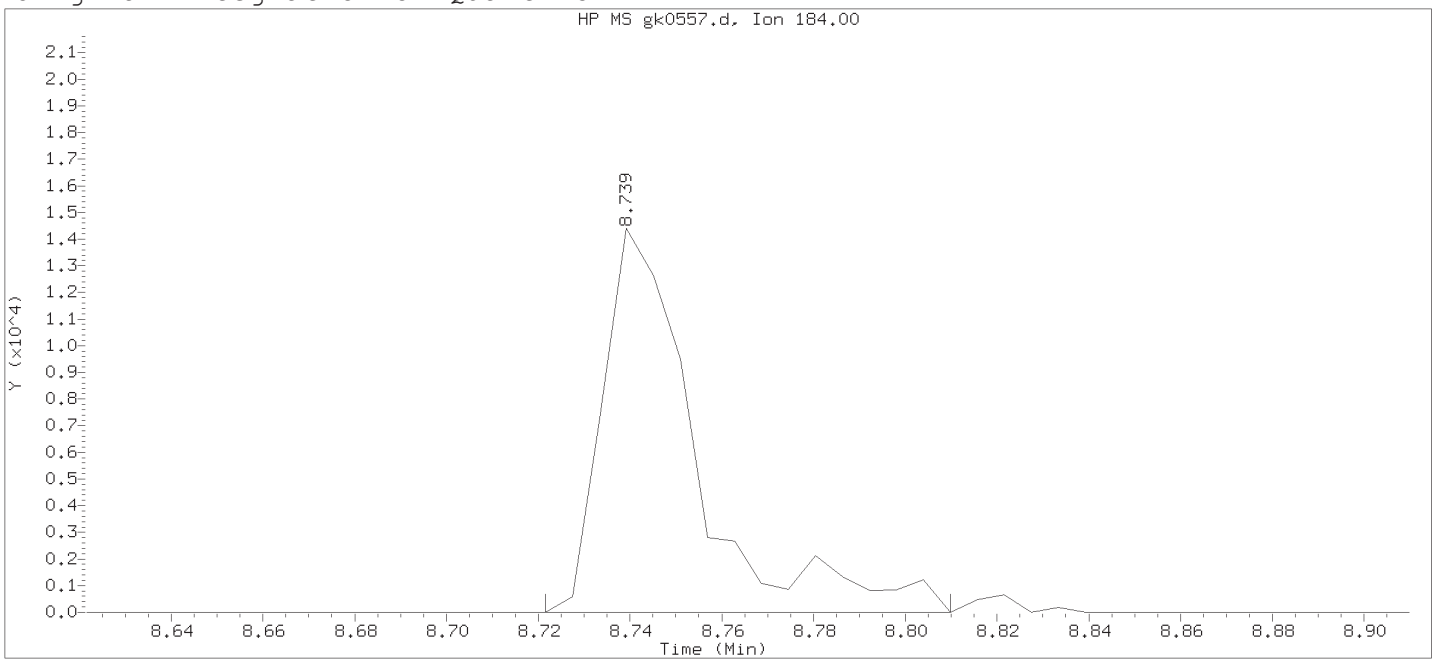
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

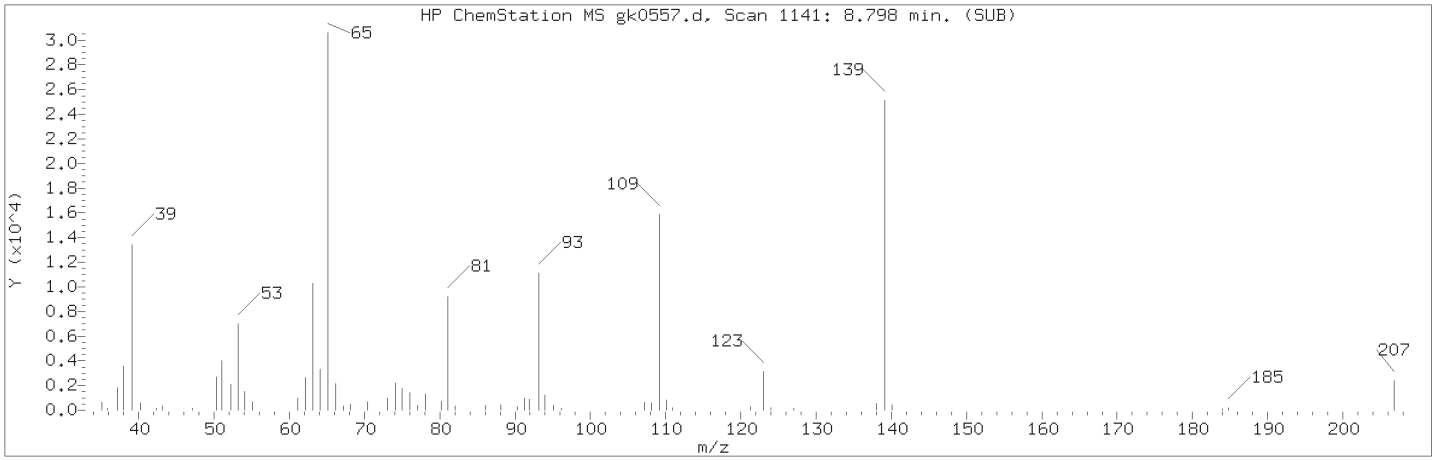
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

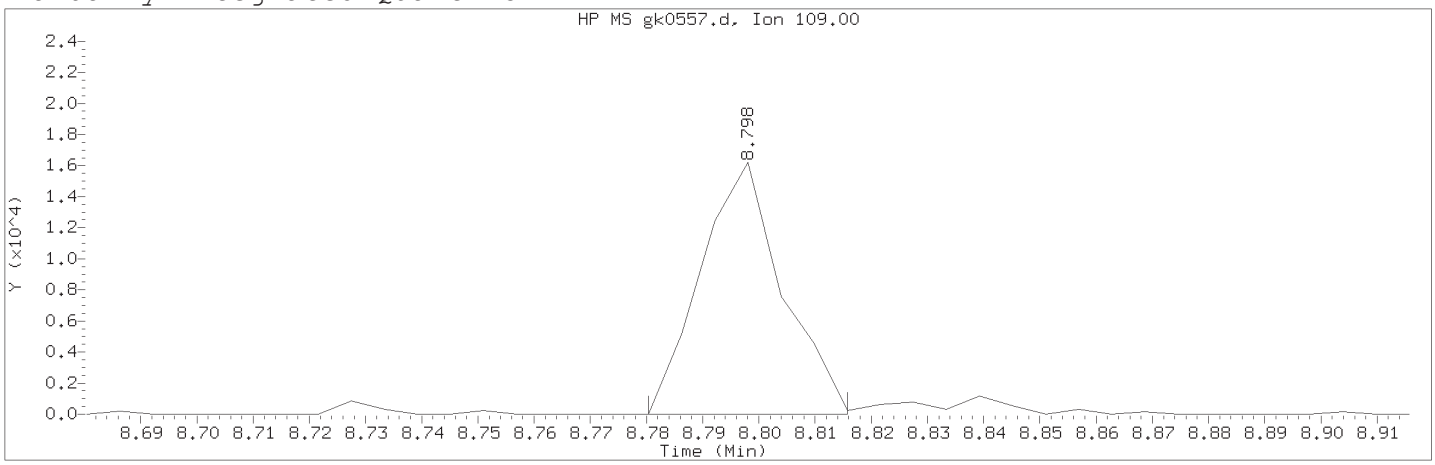
Compound Number	: 115		
Compound Name	: 2,4-Dinitrophenol		
Scan Number	: 1131		
Retention Time (minutes)	: 8.739		
Quant Ion	: 184.00		
Area	: 20518		
On-column Amount (ng/ul)	: 5.5751		
Integration start scan	: 1127	Integration stop scan:	1142
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D11 Page 2 of 2

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

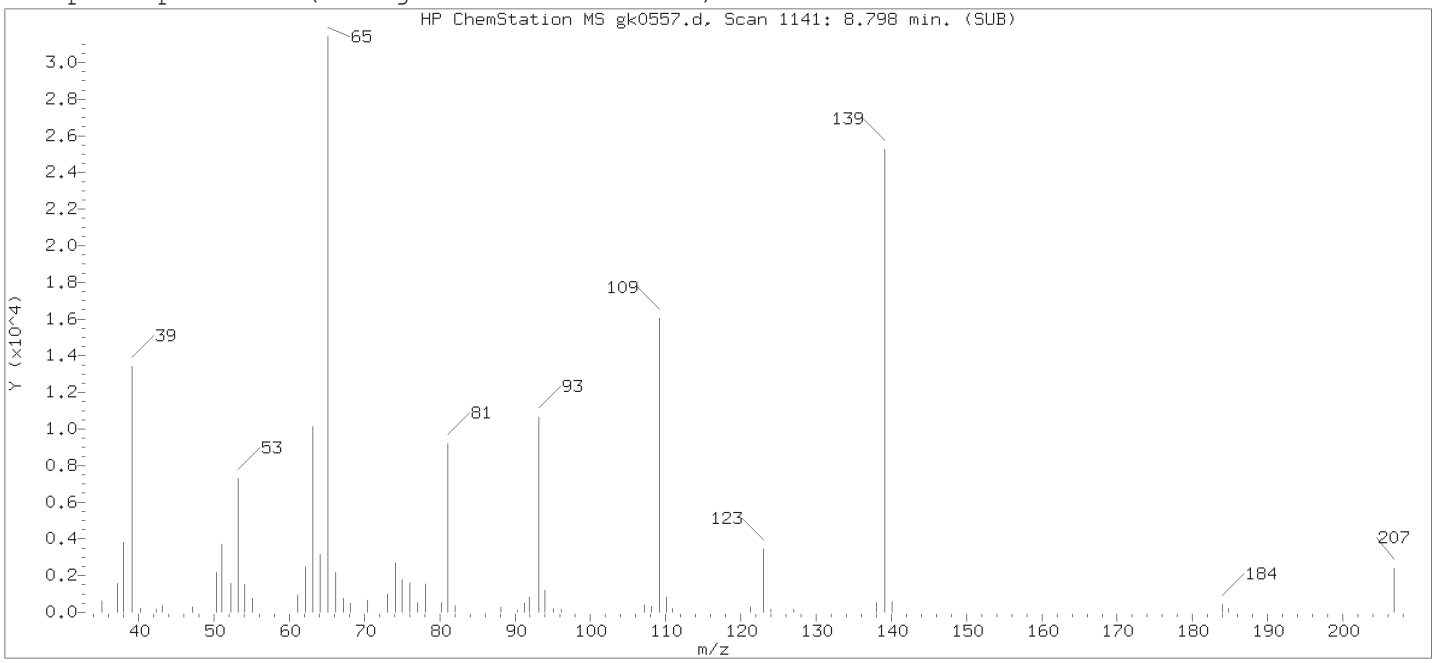
Compound Number : 116
Compound Name : 4-Nitrophenol
Scan Number : 1141
Retention Time (minutes) : 8.798
Quant Ion : 109.00
Area (flag) : 16282M
On-Column Amount (ng/ul) : 3.7248
Integration start scan : 1137 Integration stop scan: 1143
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

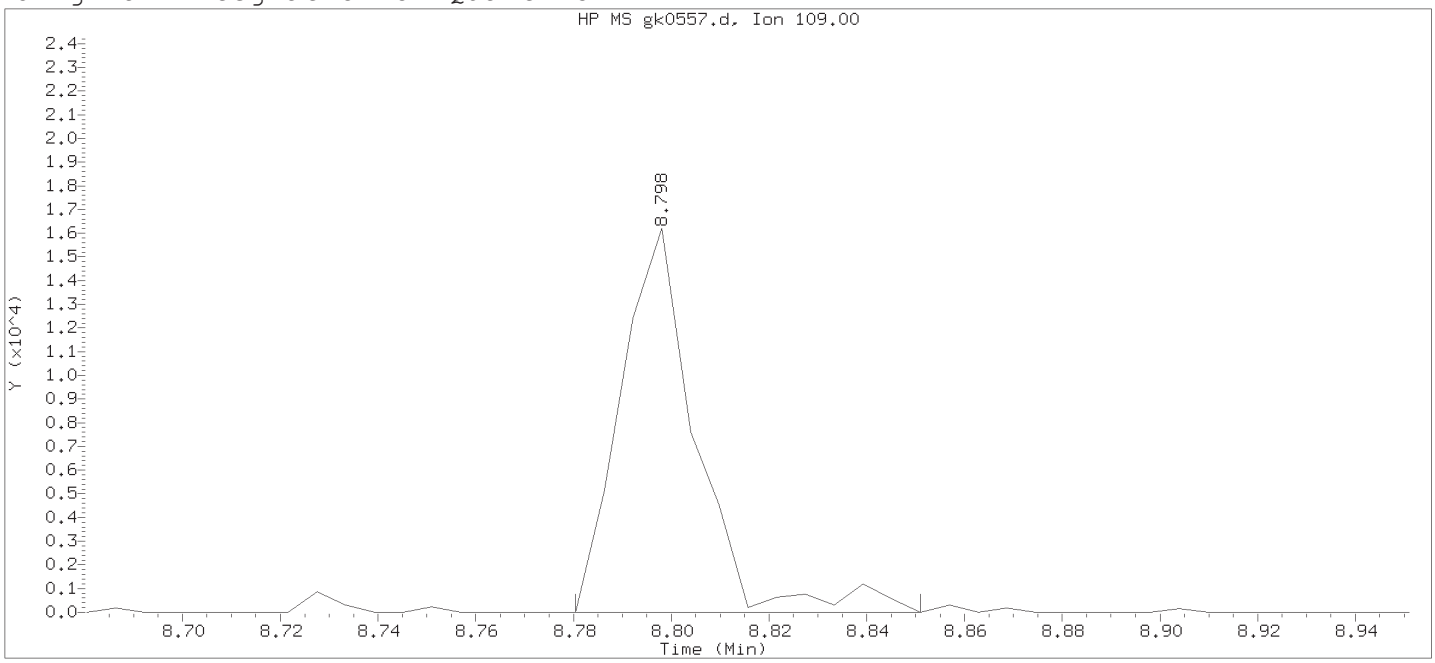
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

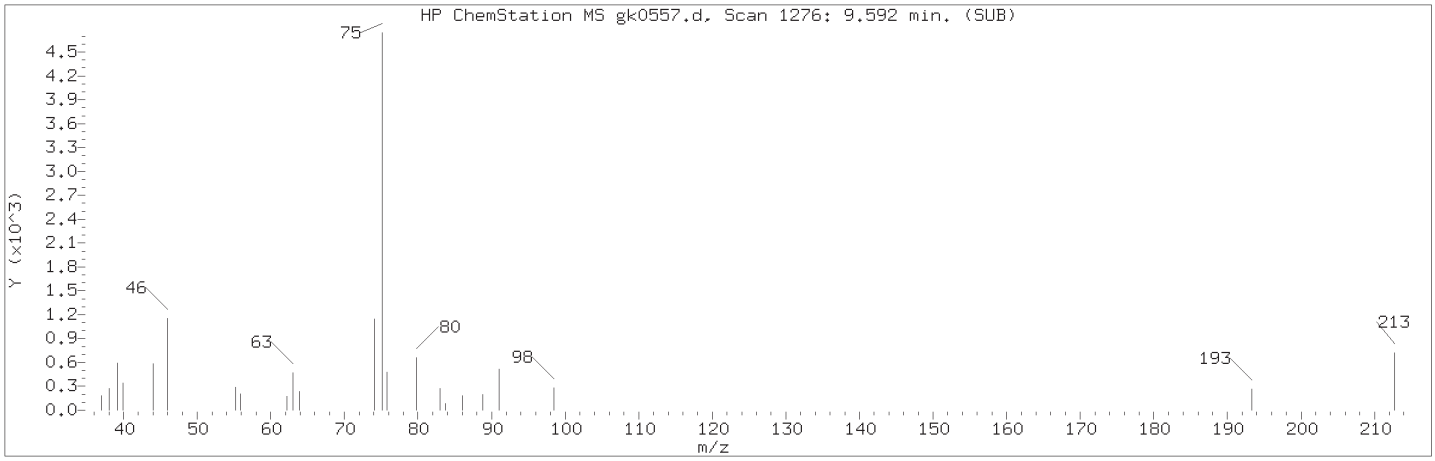
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

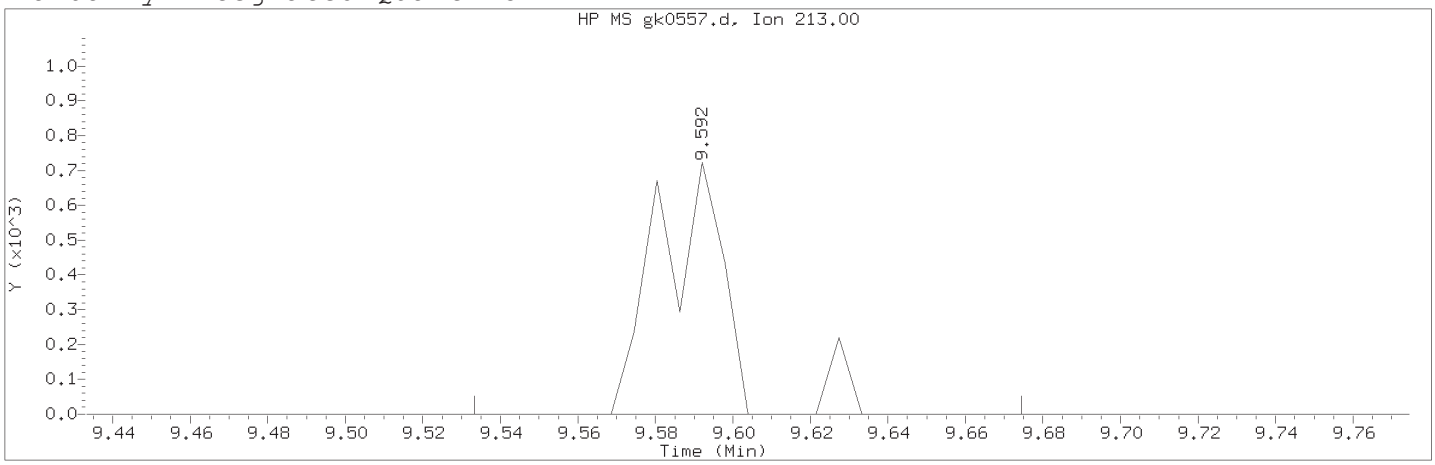
Compound Number	: 116		
Compound Name	: 4-Nitrophenol		
Scan Number	: 1141		
Retention Time (minutes)	: 8.798		
Quant Ion	: 109.00		
Area	: 17500		
On-column Amount (ng/ul)	: 3.9962		
Integration start scan	: 1137	Integration stop scan:	1149
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

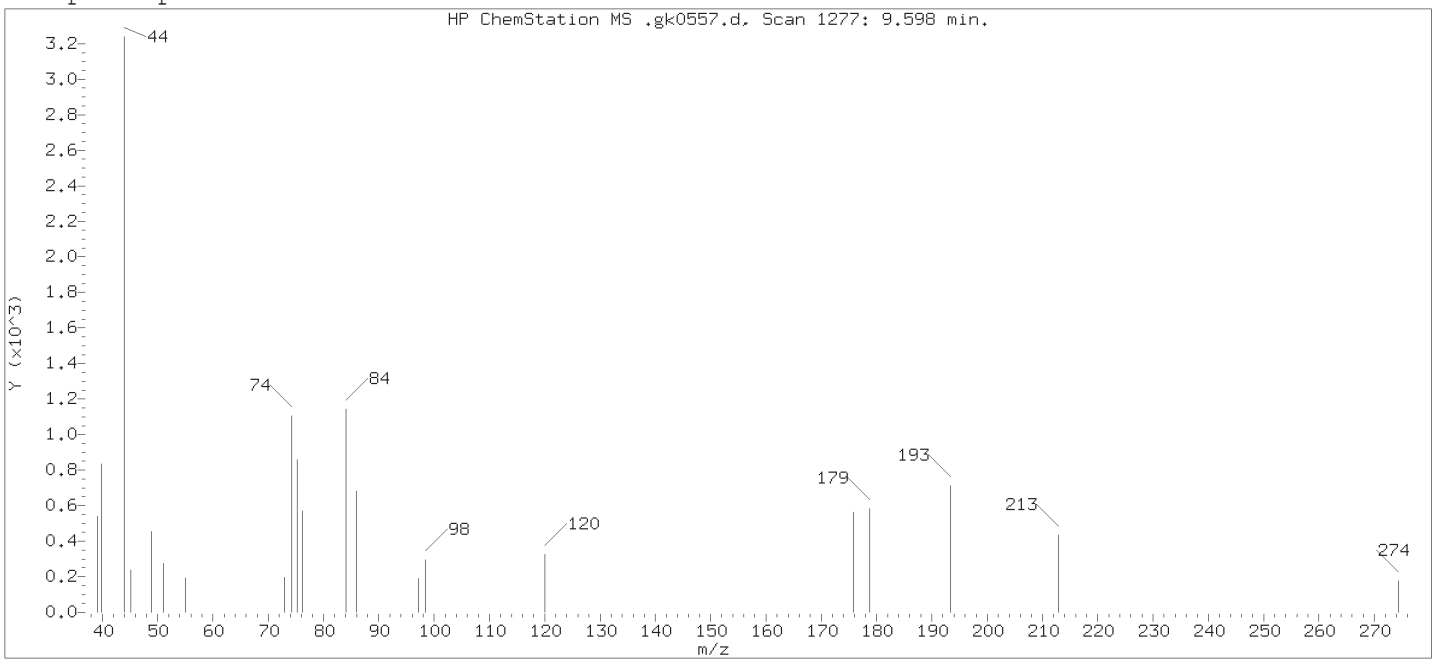
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1276
Retention Time (minutes) : 9.592
Quant Ion : 213.00
Area (flag) : 909M
On-Column Amount (ng/ul) : 0.3056
Integration start scan : 1265 Integration stop scan: 1289
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

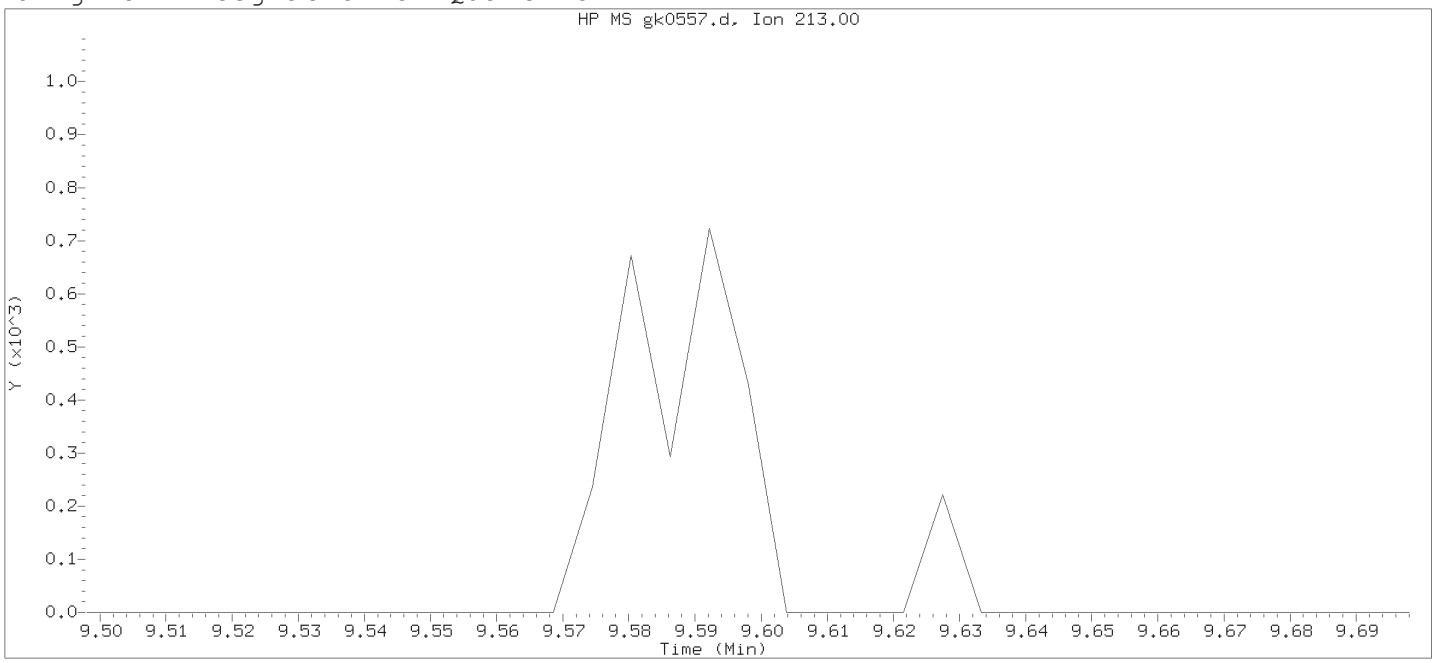
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

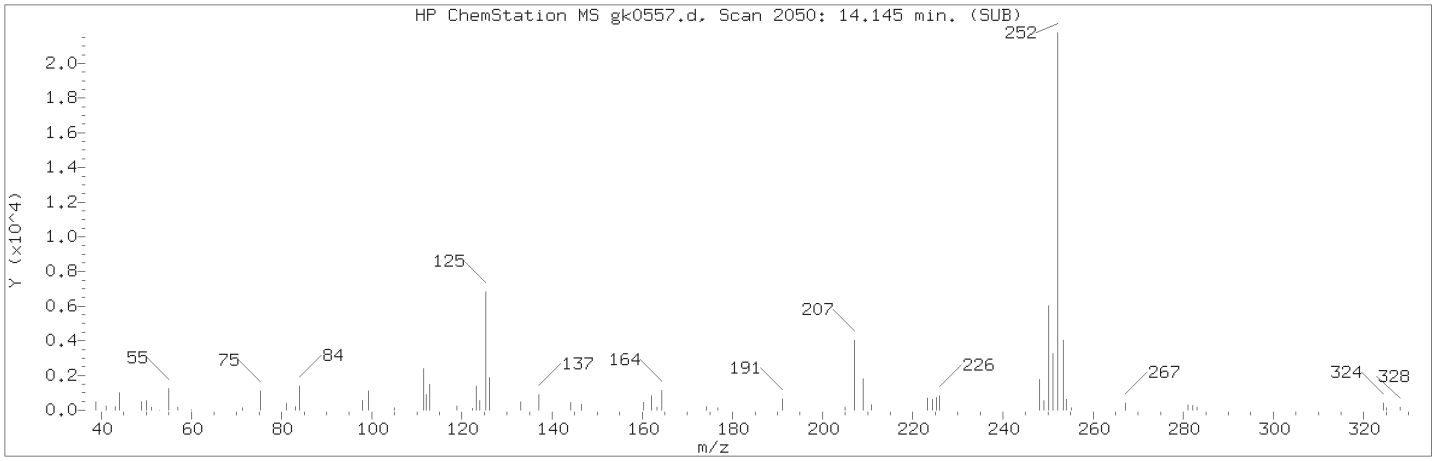
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

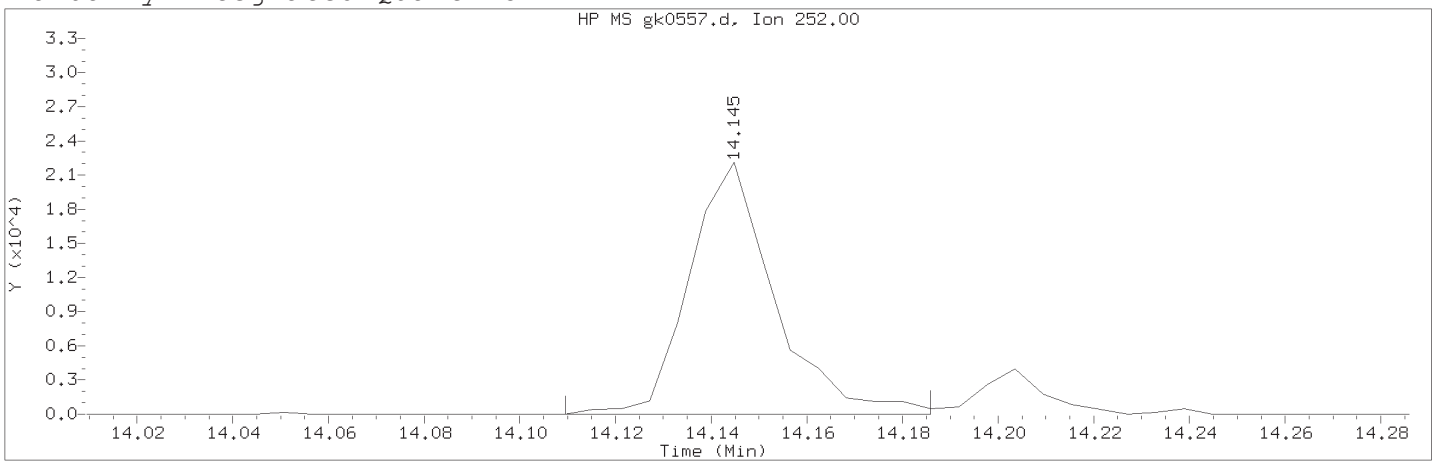
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 9.598
Quant Ion : 213.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

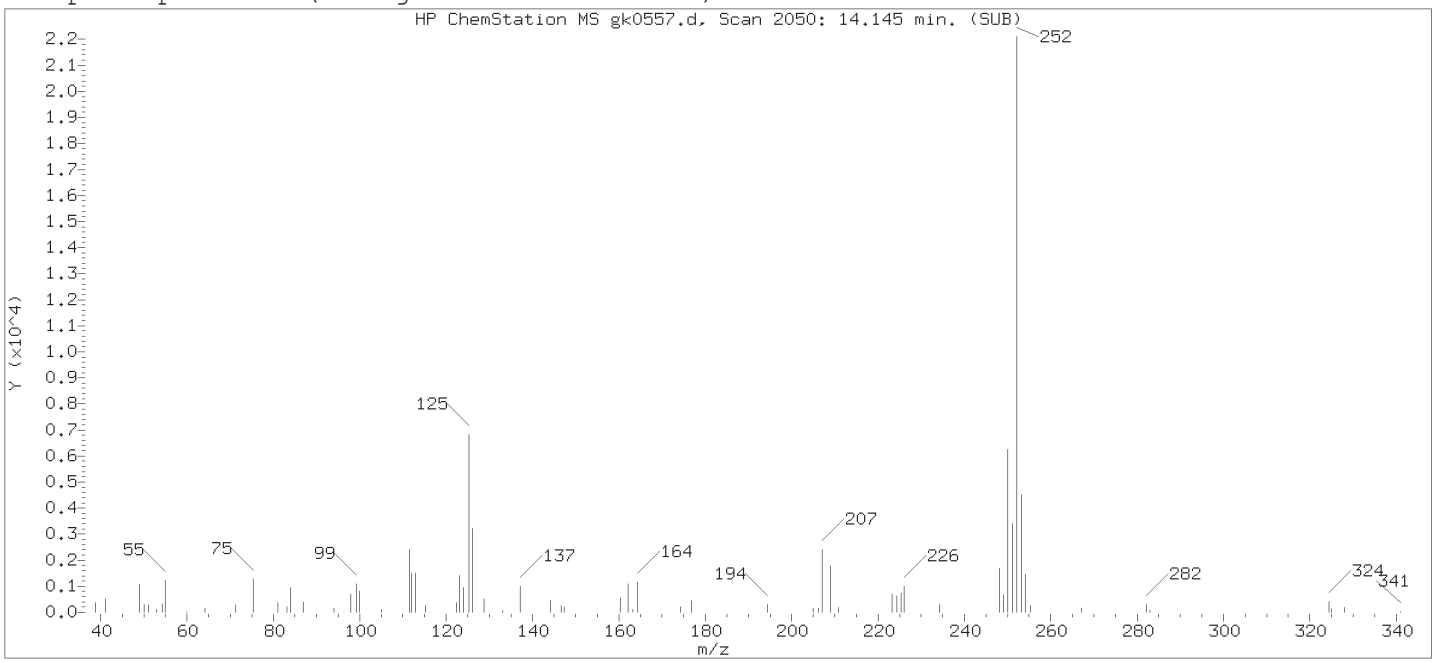
Compound Number : 211
Compound Name : Benzo(a)pyrene
Scan Number : 2050
Retention Time (minutes) : 14.145
Quant Ion : 252.00
Area (flag) : 27392M
On-Column Amount (ng/ul) : 0.7841
Integration start scan : 2043 Integration stop scan: 2056
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

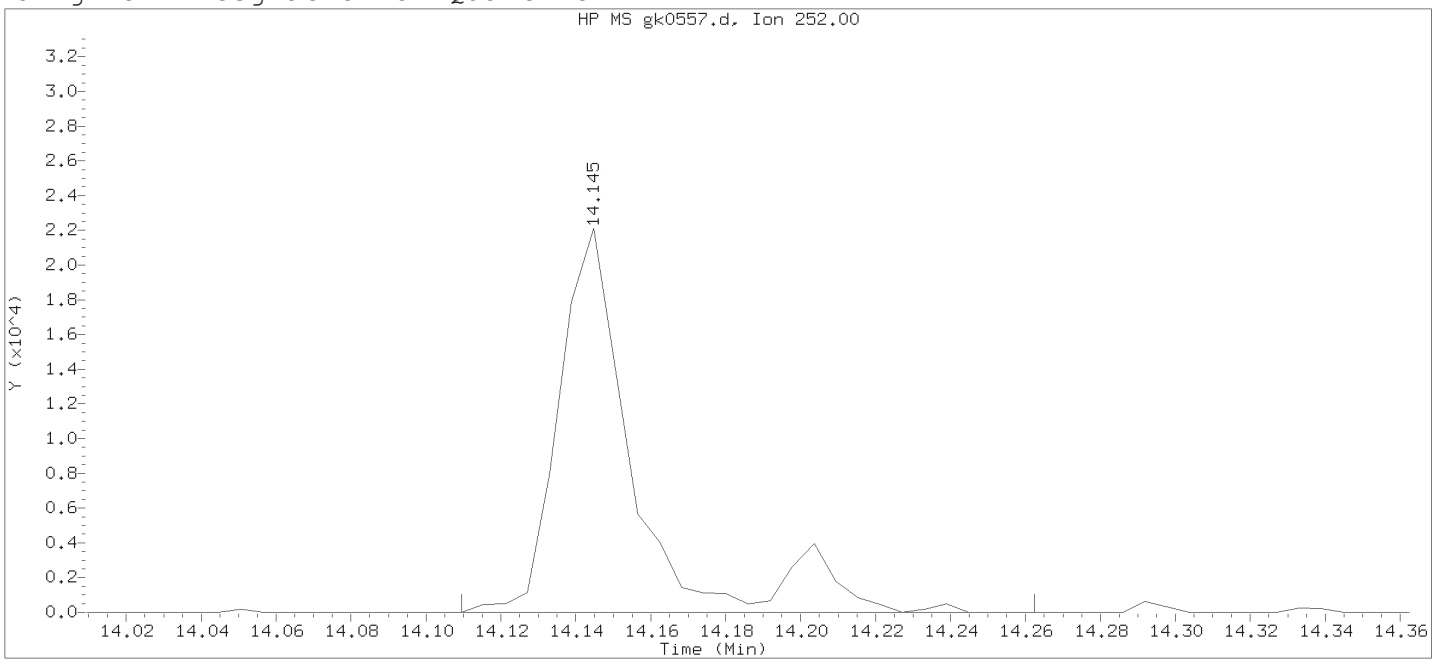
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

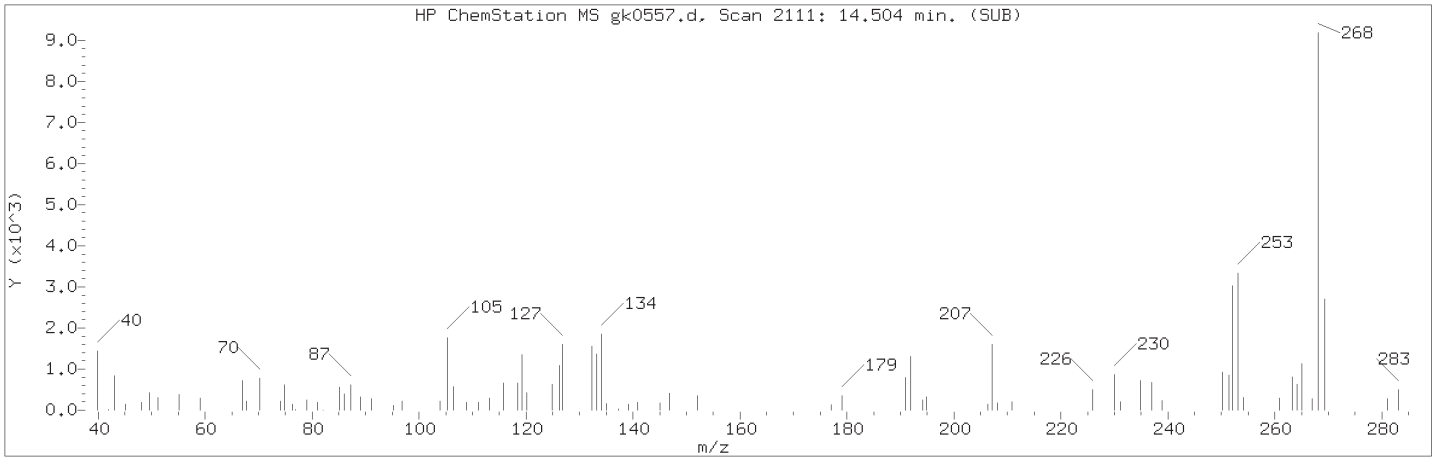
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

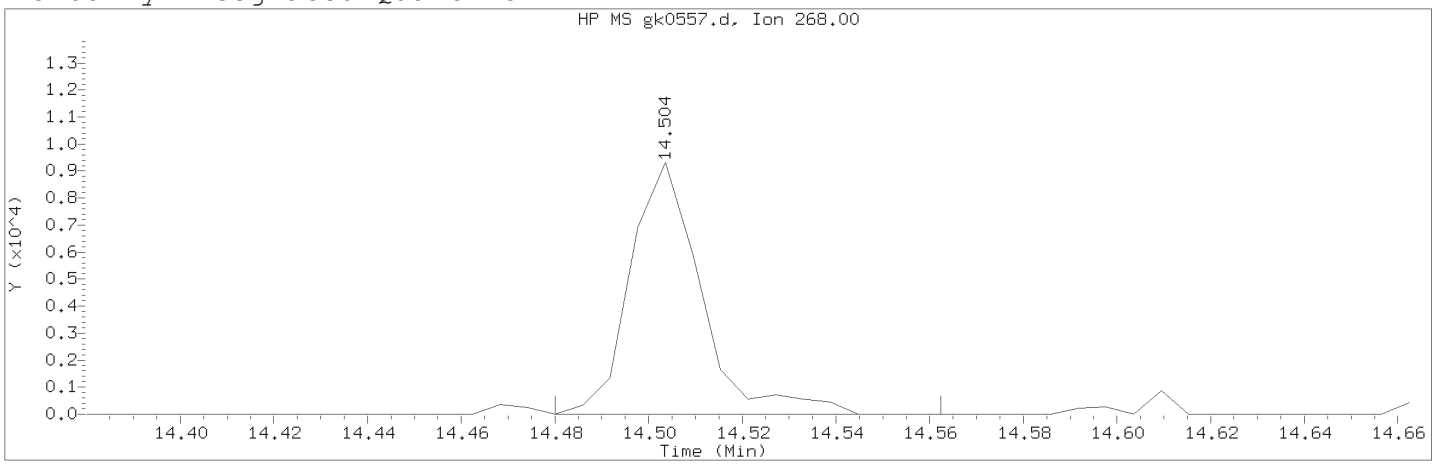
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2050		
Retention Time (minutes)	: 14.145		
Quant Ion	: 252.00		
Area	: 31266		
On-column Amount (ng/ul)	: 0.9186		
Integration start scan	: 2043	Integration stop scan:	2069
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.0.410

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

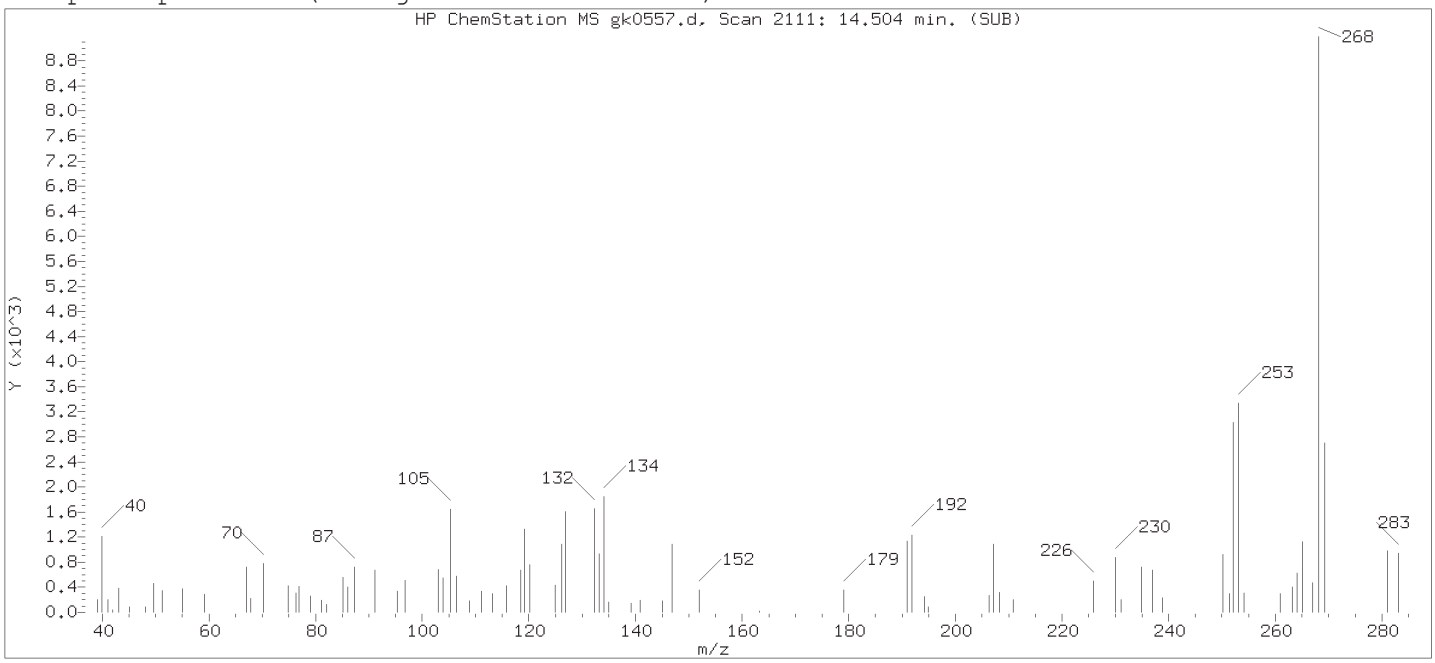
Compound Number : 215
Compound Name : 3-Methylcholanthrene
Scan Number : 2111
Retention Time (minutes) : 14.504
Quant Ion : 268.00
Area (flag) : 9788M
On-Column Amount (ng/ul) : 0.7349
Integration start scan : 2106 Integration stop scan: 2120
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

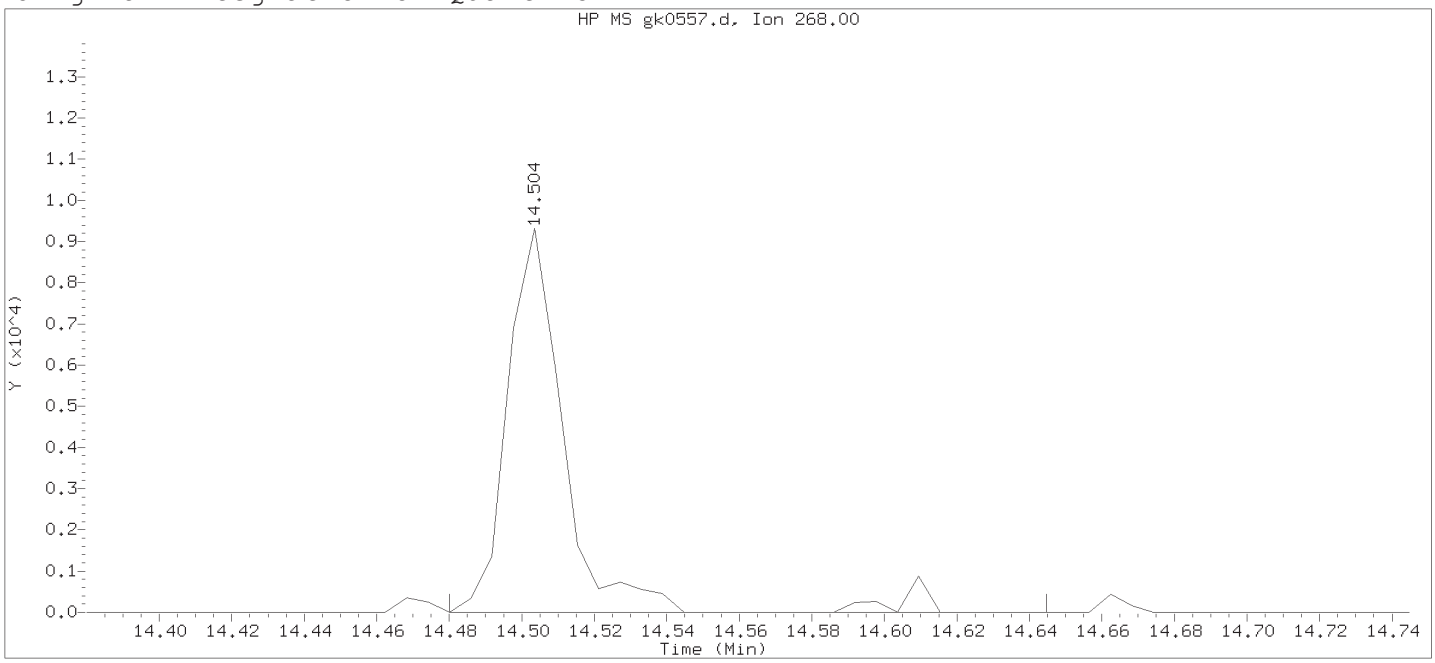
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

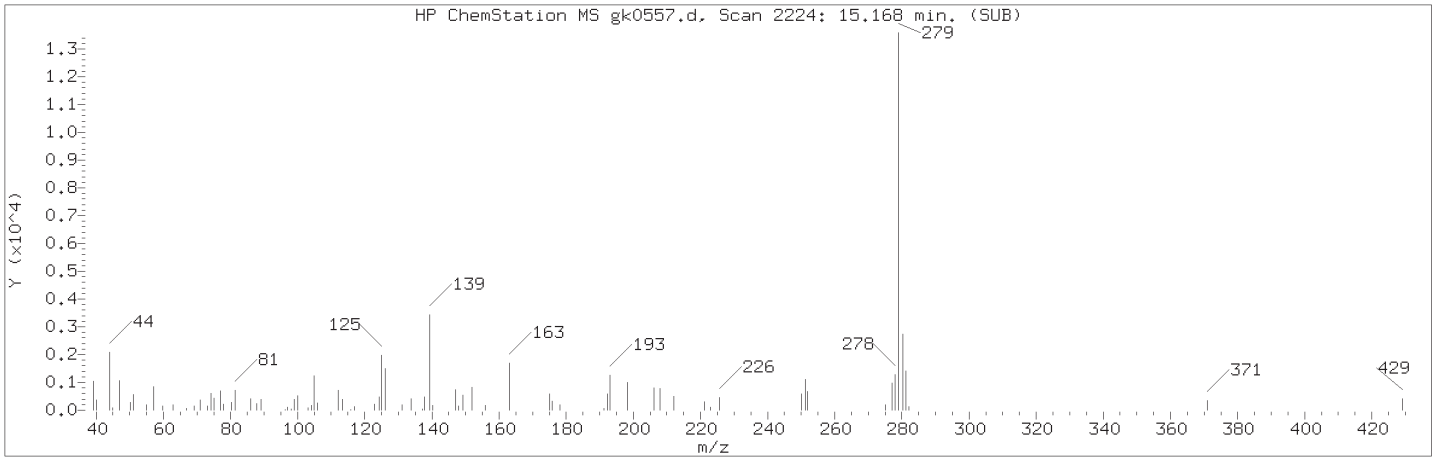
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

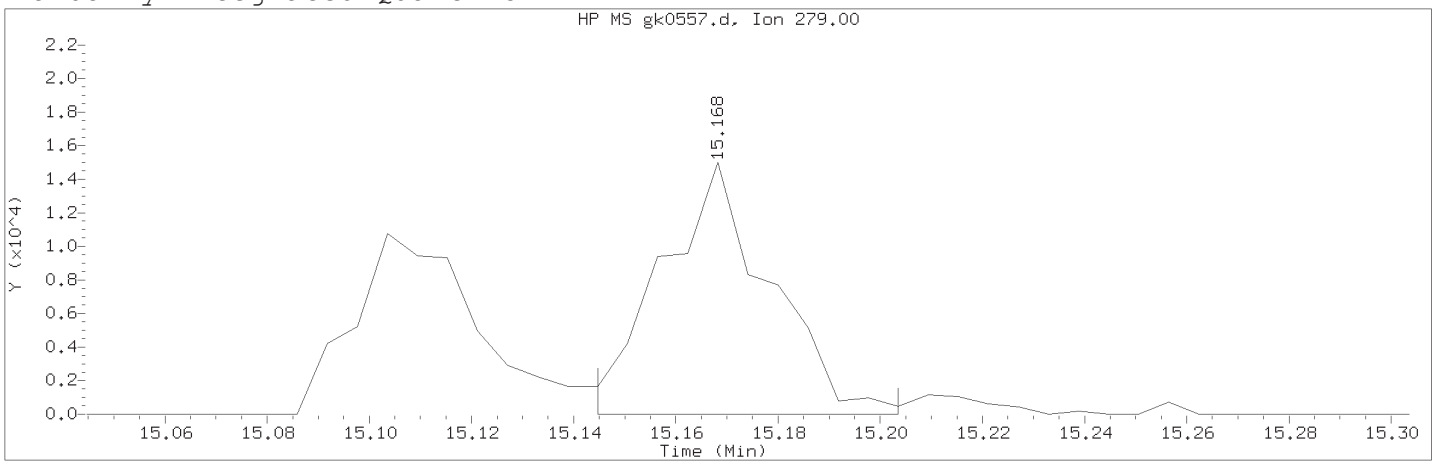
Compound Number	: 215		
Compound Name	: 3-Methylcholanthrene		
Scan Number	: 2111		
Retention Time (minutes)	: 14.504		
Quant Ion	: 268.00		
Area	: 10273		
On-column Amount (ng/ul)	: 0.7734		
Integration start scan	: 2106	Integration stop scan:	2134
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

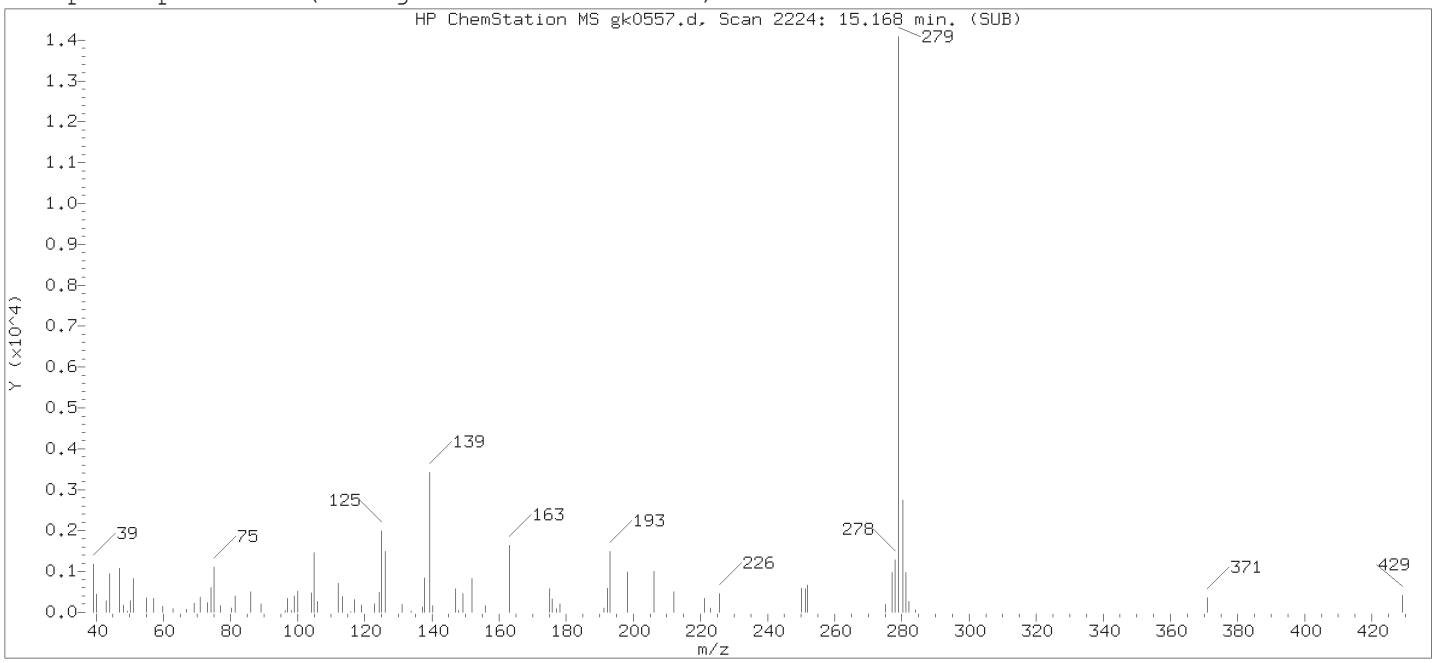
Compound Number : 218
Compound Name : Dibenz(a,j)acridine
Scan Number : 2224
Retention Time (minutes) : 15.168
Quant Ion : 279.00
Area (flag) : 22317M
On-Column Amount (ng/ul) : 0.8232
Integration start scan : 2219 Integration stop scan: 2229
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

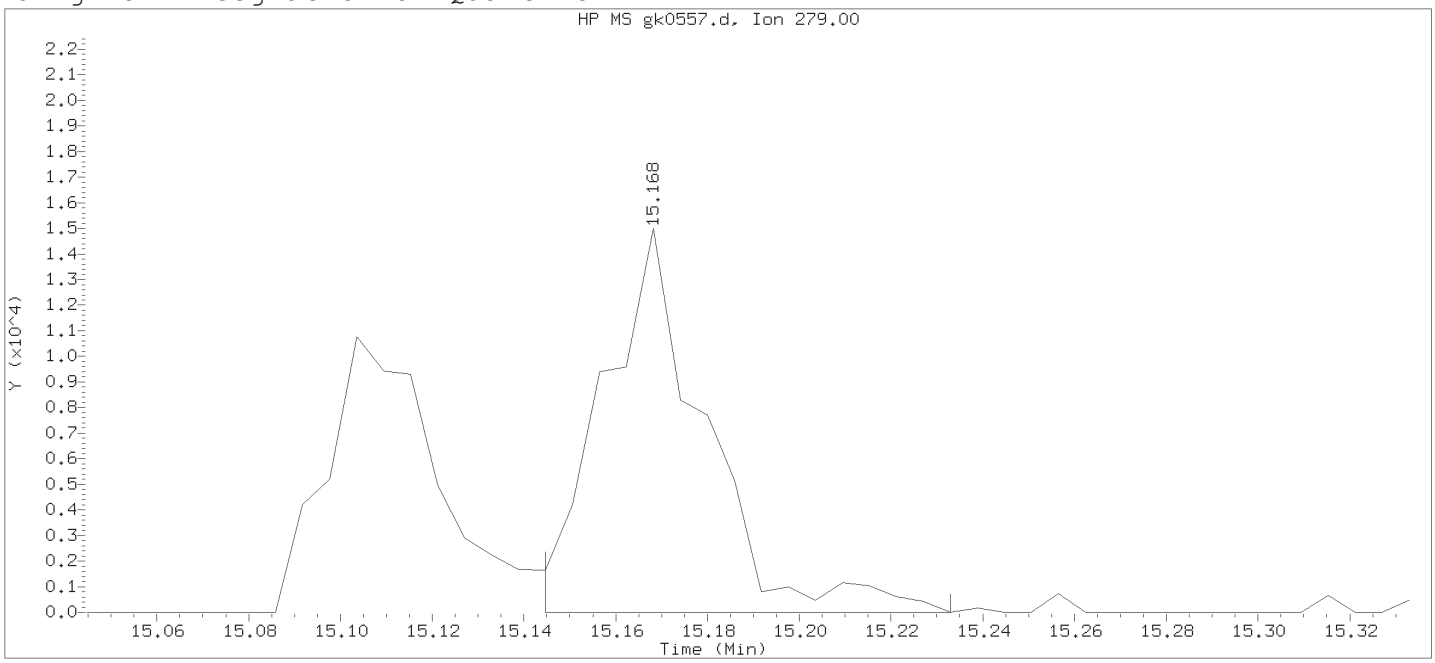
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

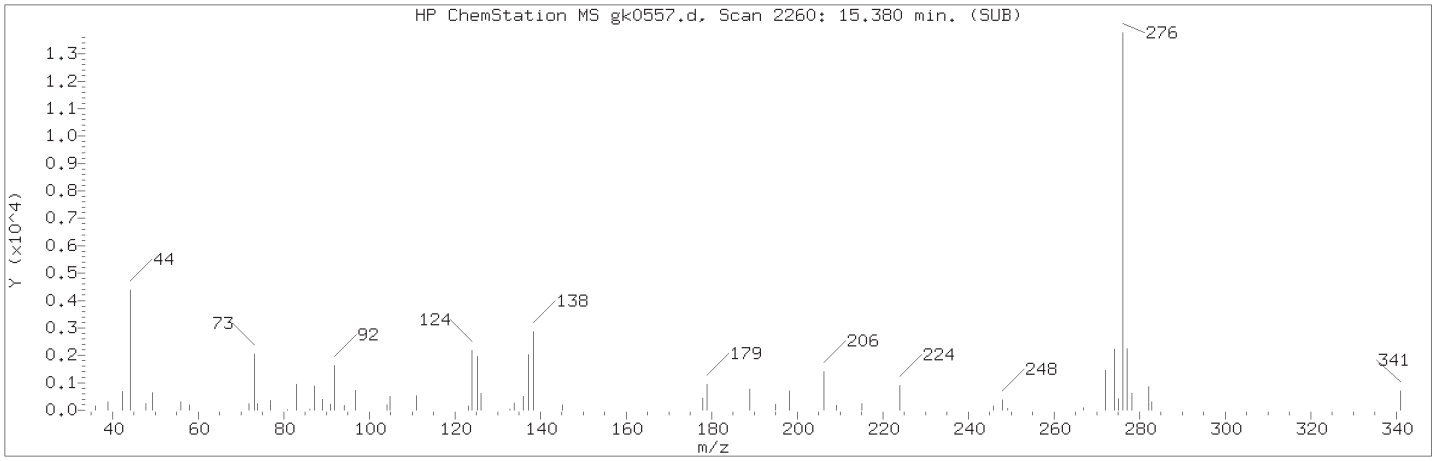
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

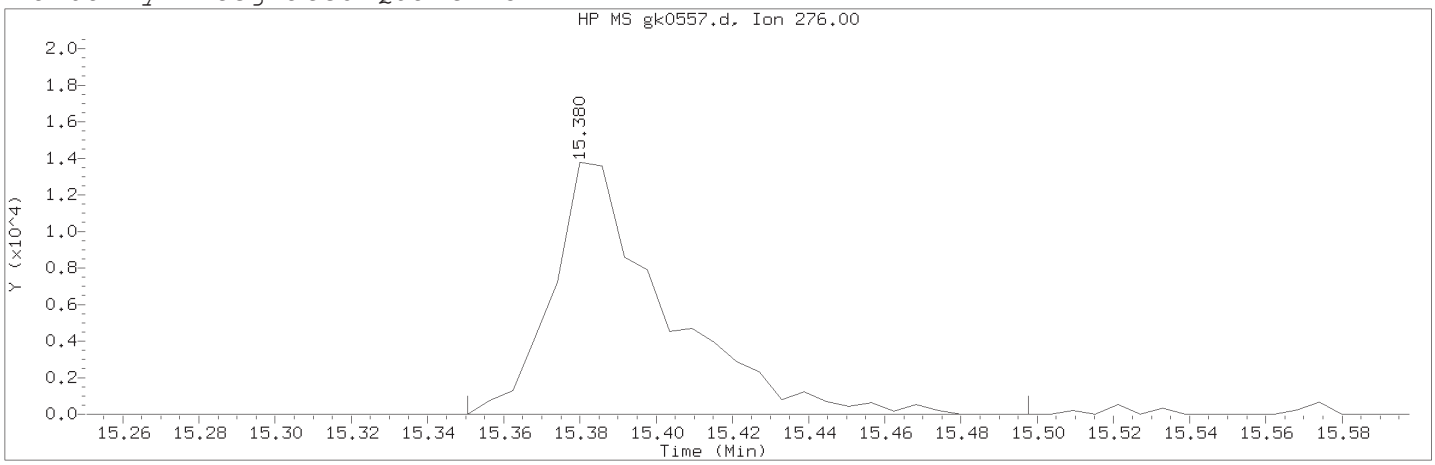
Compound Number	: 218		
Compound Name	: Dibenz(a,j)acridine		
Scan Number	: 2224		
Retention Time (minutes)	: 15.168		
Quant Ion	: 279.00		
Area	: 23163		
On-column Amount (ng/ul)	: 0.8539		
Integration start scan	: 2219	Integration stop scan:	2234
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used 11/12/2018 12:

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

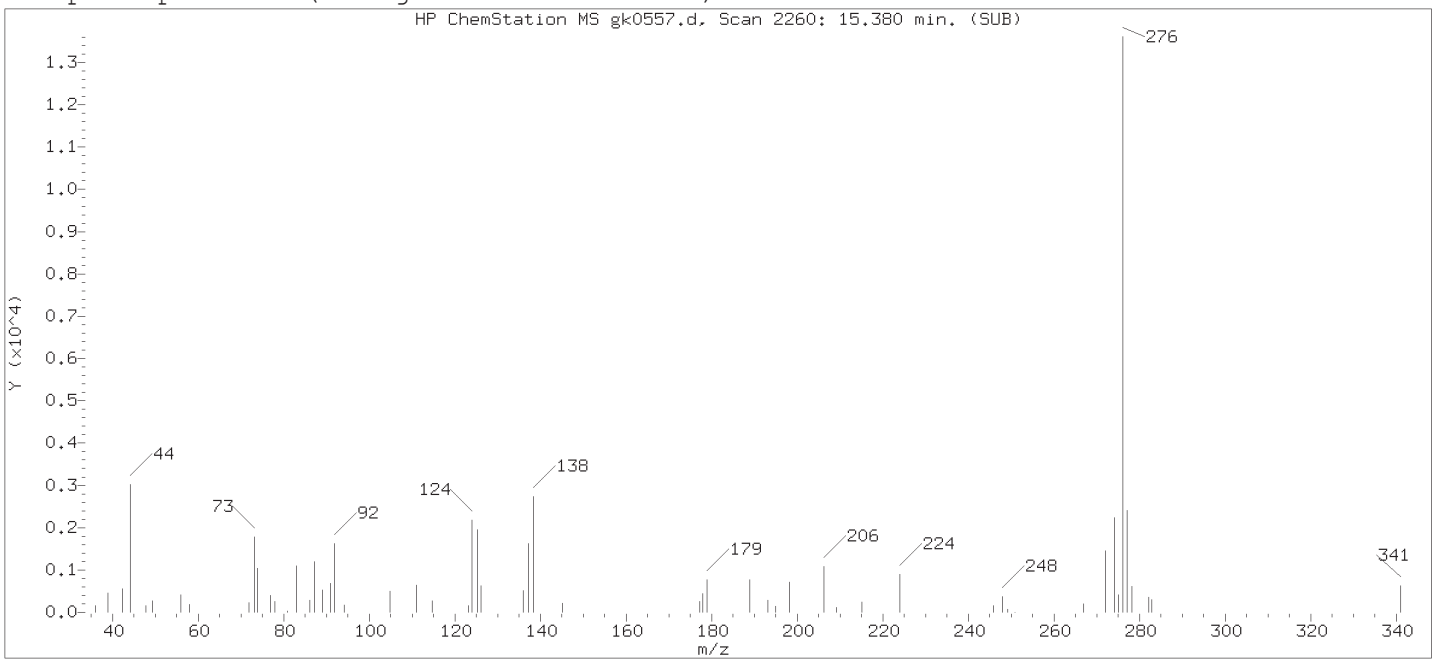
Compound Number : 219
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 2260
Retention Time (minutes) : 15.380
Quant Ion : 276.00
Area (flag) : 28363M
On-Column Amount (ng/ul) : 0.8043
Integration start scan : 2254 Integration stop scan: 2279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

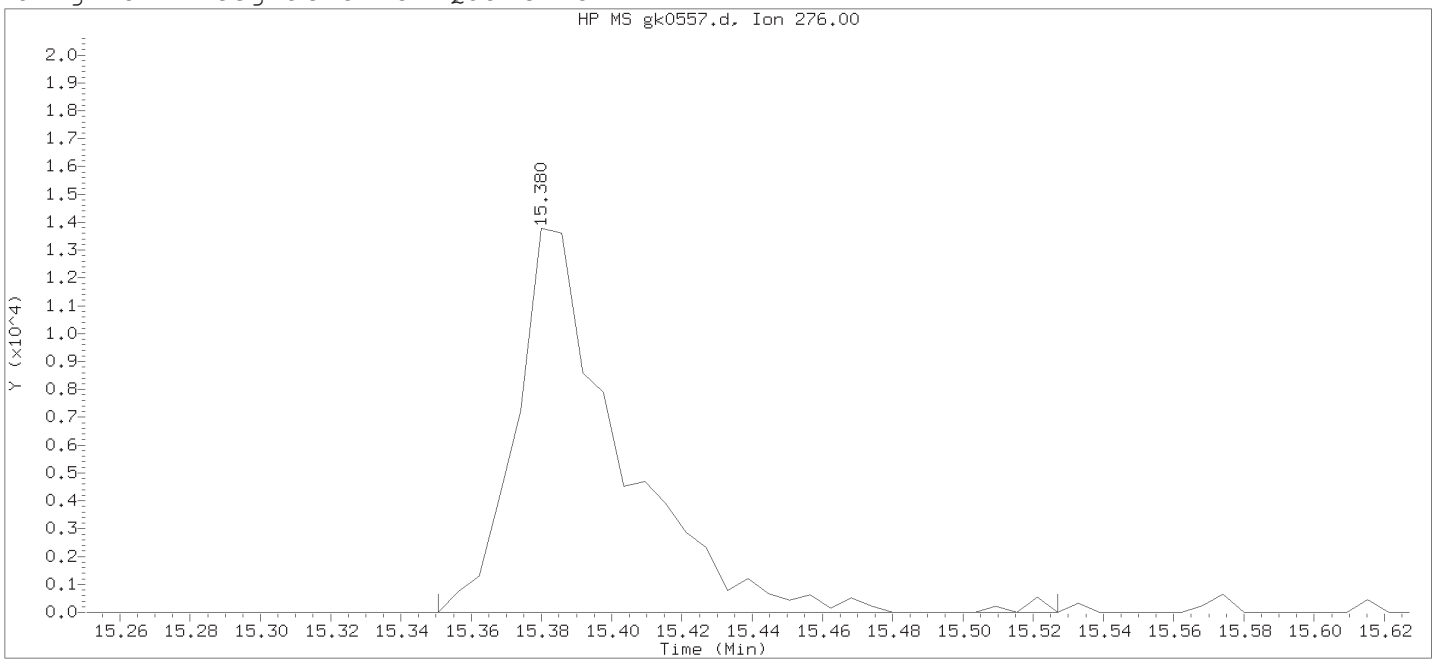
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

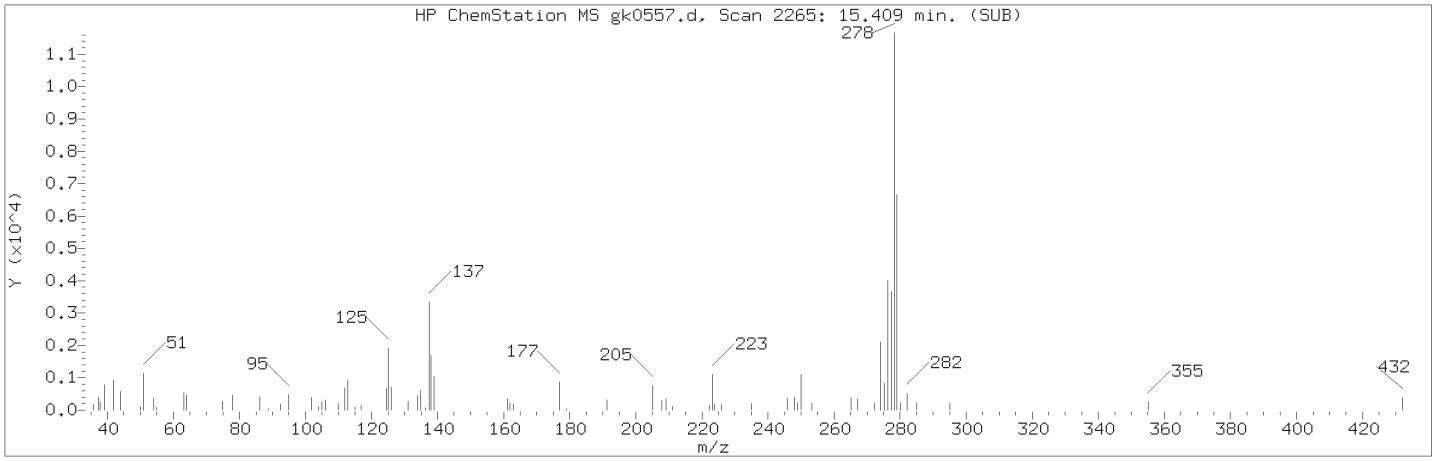
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

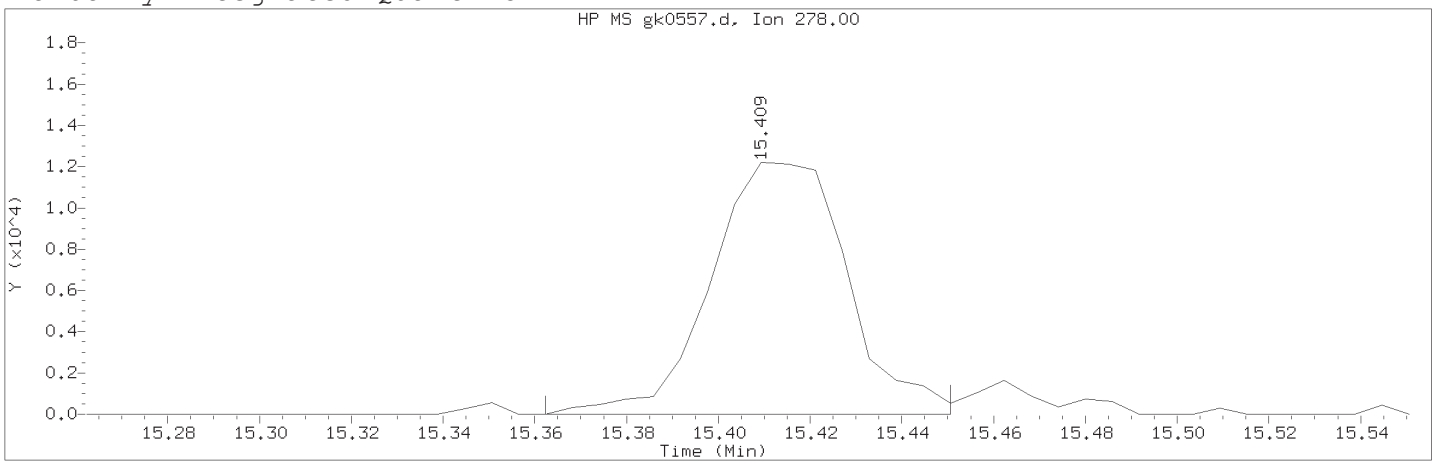
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2260		
Retention Time (minutes)	: 15.380		
Quant Ion	: 276.00		
Area	: 28627		
On-column Amount (ng/ul)	: 0.8268		
Integration start scan	: 2254	Integration stop scan:	2284
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

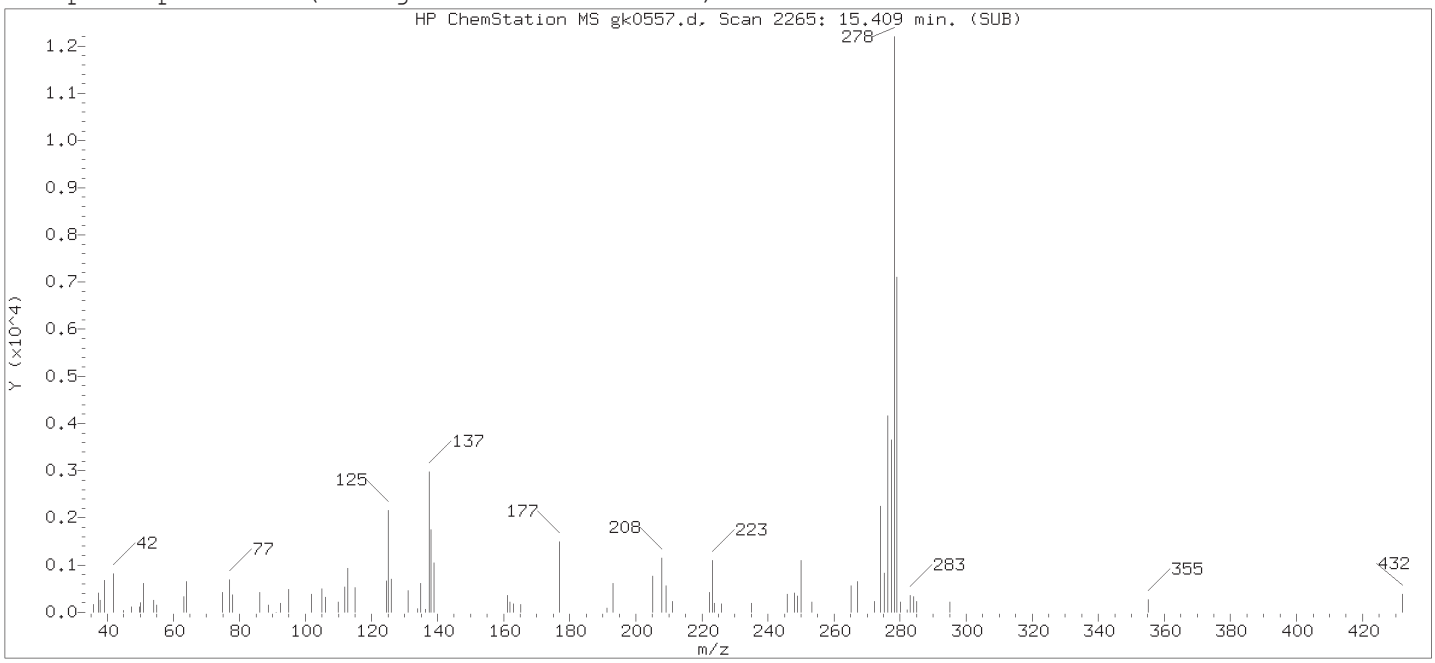
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2265		
Retention Time (minutes)	: 15.409		
Quant Ion	: 278.00		
Area (flag)	: 25230M		
On-Column Amount (ng/ul)	: 0.8573		
Integration start scan	: 2256	Integration stop scan:	2271
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

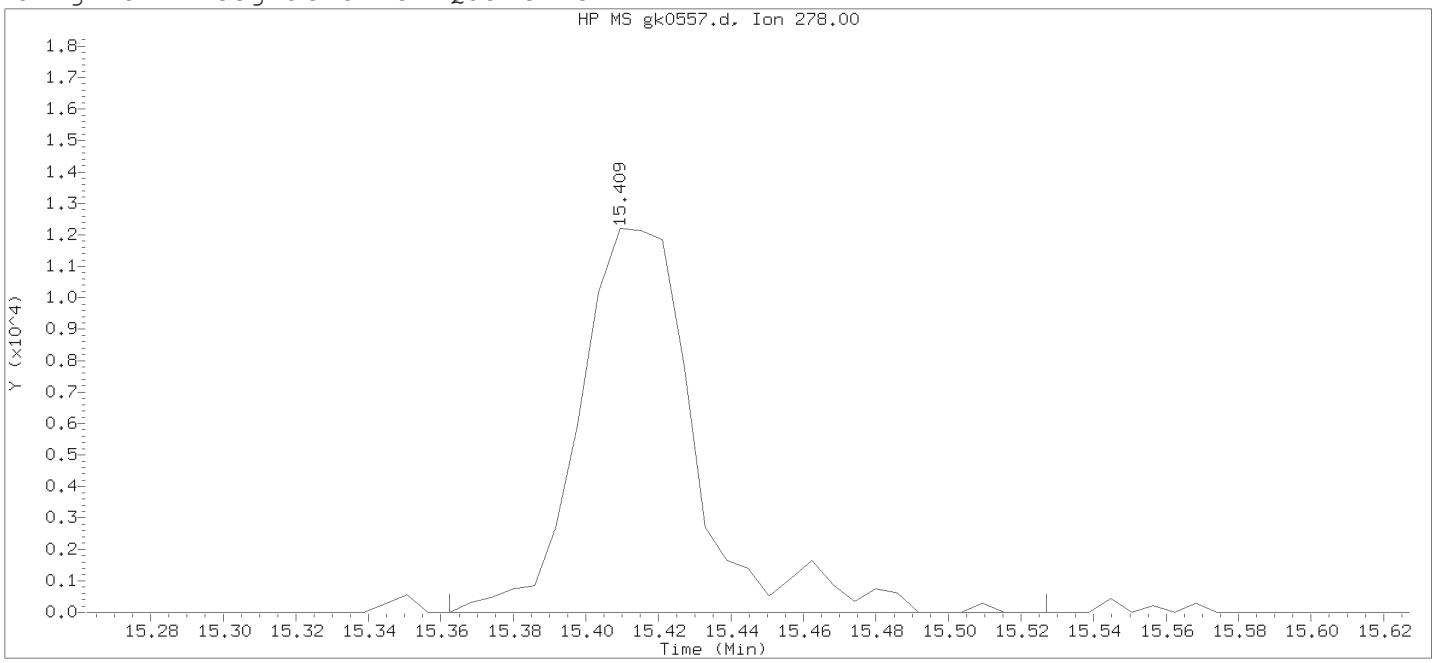
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

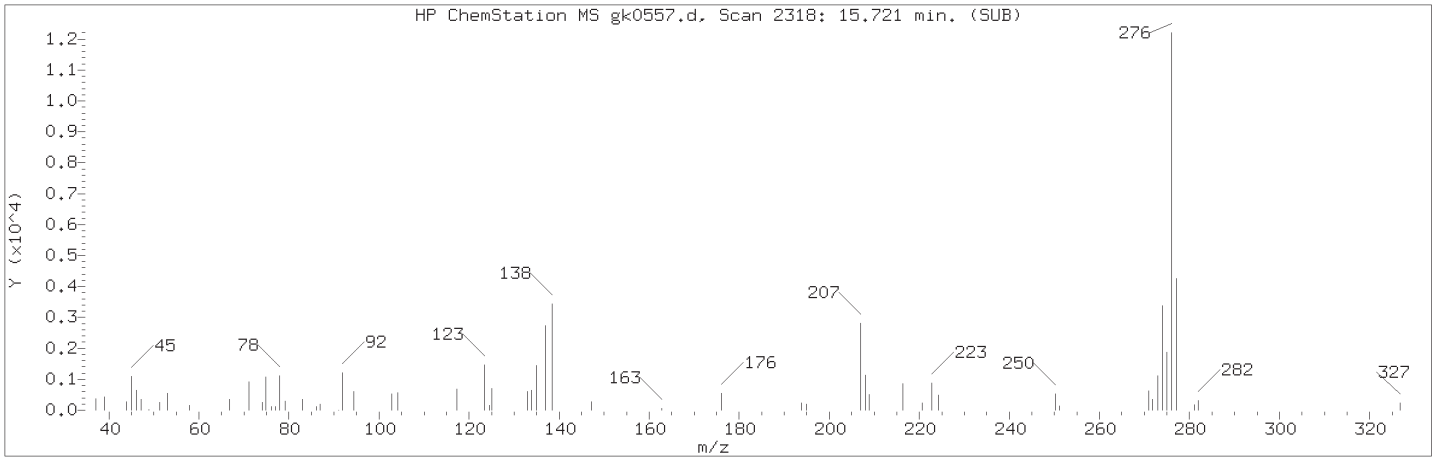
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

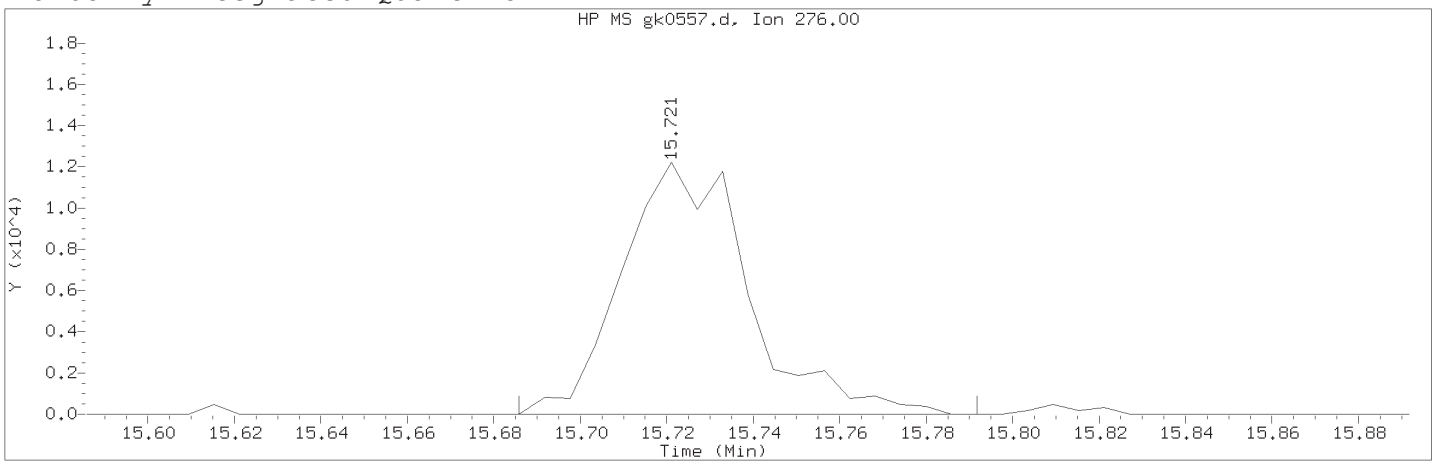
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2265		
Retention Time (minutes)	: 15.409		
Quant Ion	: 278.00		
Area	: 27193		
On-column Amount (ng/ul)	: 0.9224		
Integration start scan	: 2256	Integration stop scan:	2284
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used 11/12/2018 14:26:41

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD001 Lab Sample ID: STD2928

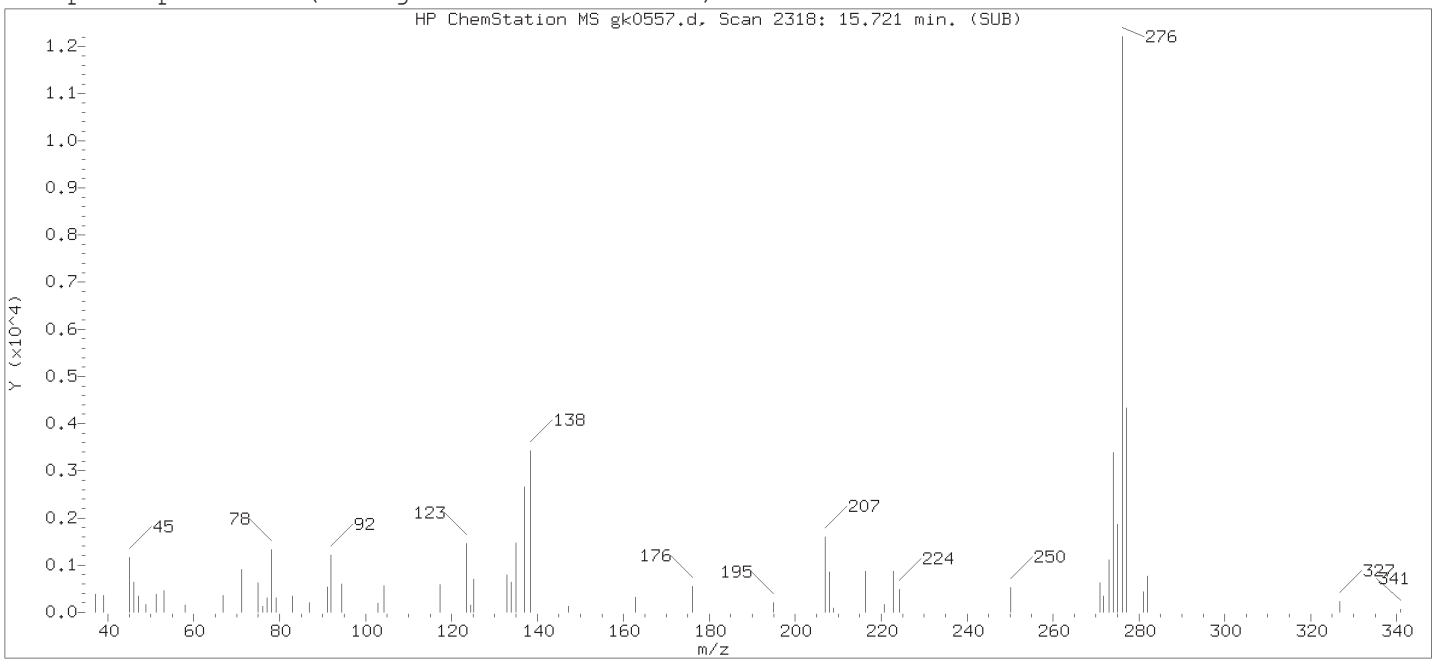
Compound Number : 221
Compound Name : Benzo(g,h,i)perylene
Scan Number : 2318
Retention Time (minutes) : 15.721
Quant Ion : 276.00
Area (flag) : 24806M
On-Column Amount (ng/ul) : 0.8488
Integration start scan : 2311 Integration stop scan: 2329
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

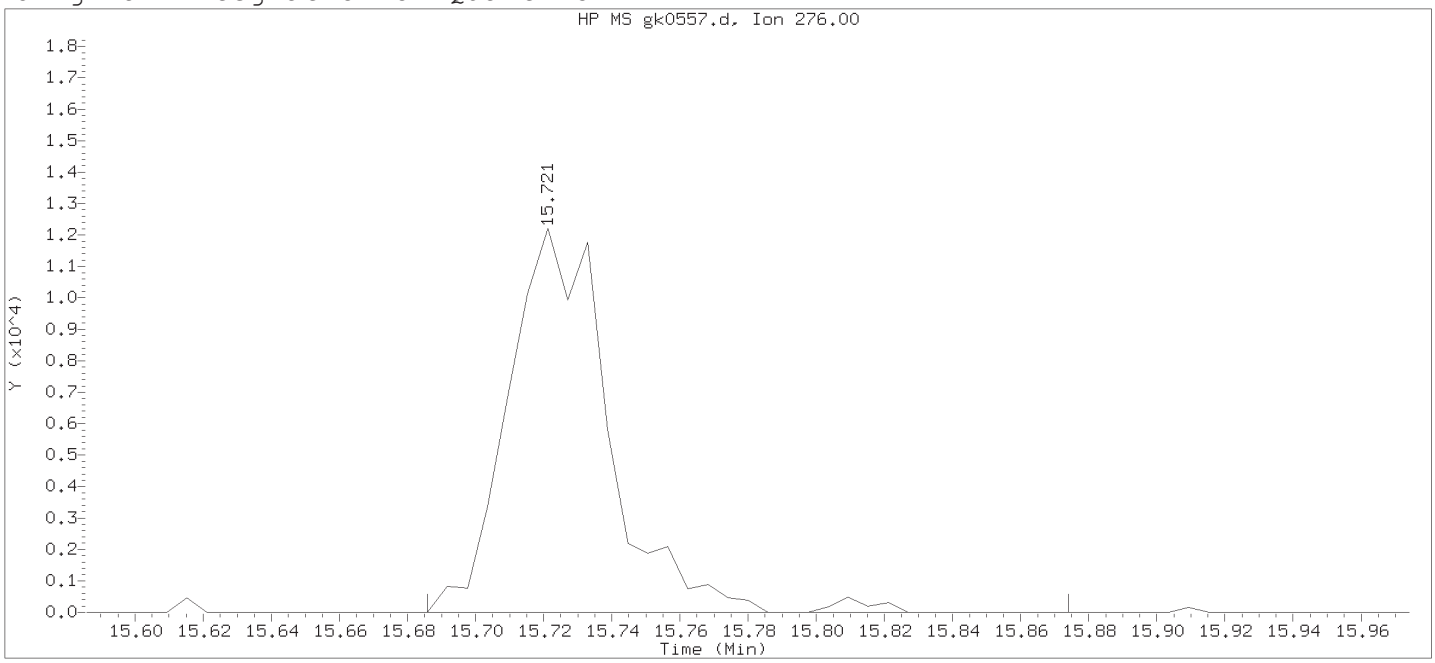
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



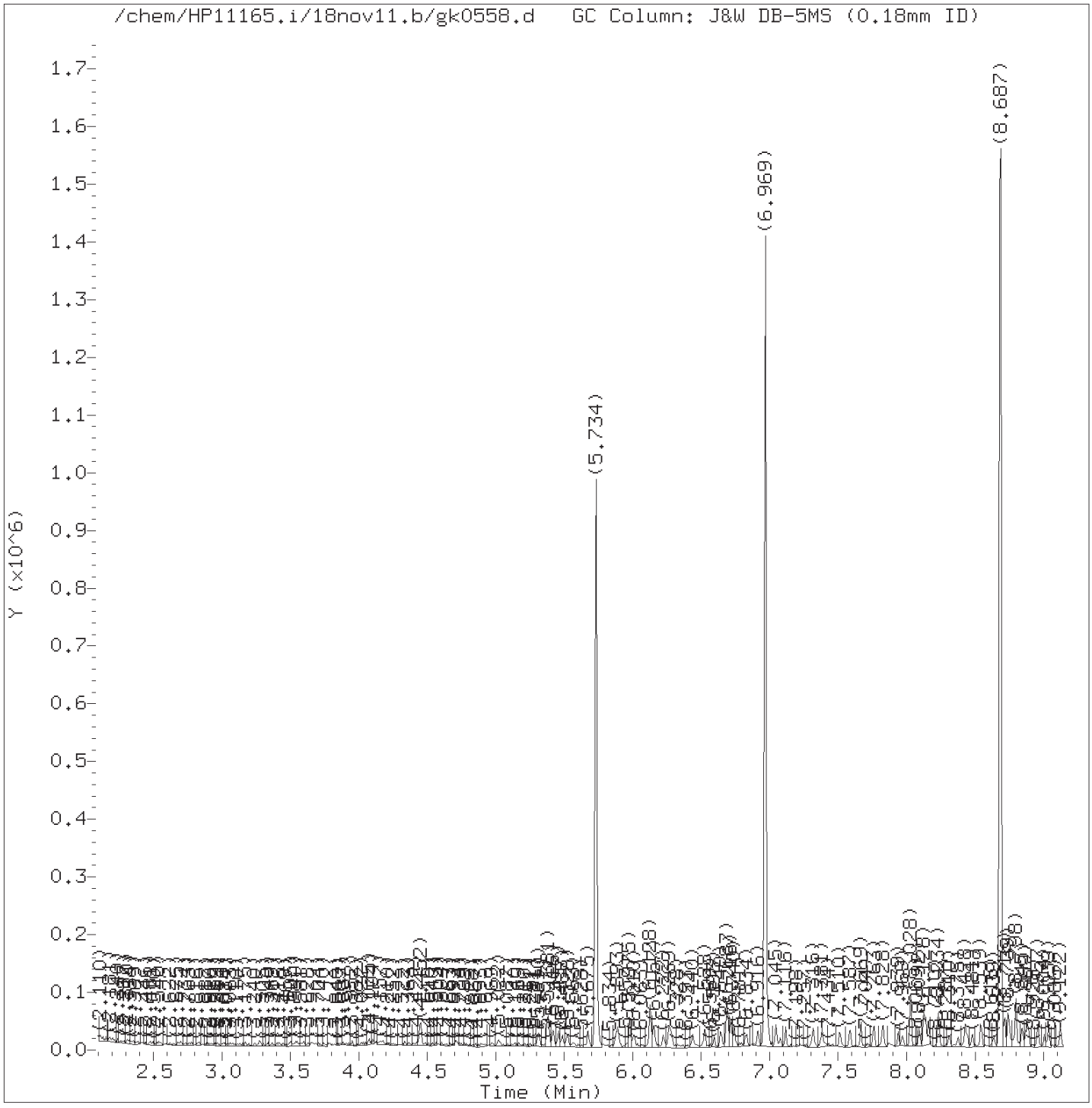
Data File: /chem/HP11165.i/18nov11.b/gk0557.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:08 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:29
Date, time and analyst ID of latest file update: 11-Nov-2018 14:29 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2318		
Retention Time (minutes)	: 15.721		
Quant Ion	: 276.00		
Area	: 25209		
On-column Amount (ng/ul)	: 0.8746		
Integration start scan	: 2311	Integration stop scan:	2343
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

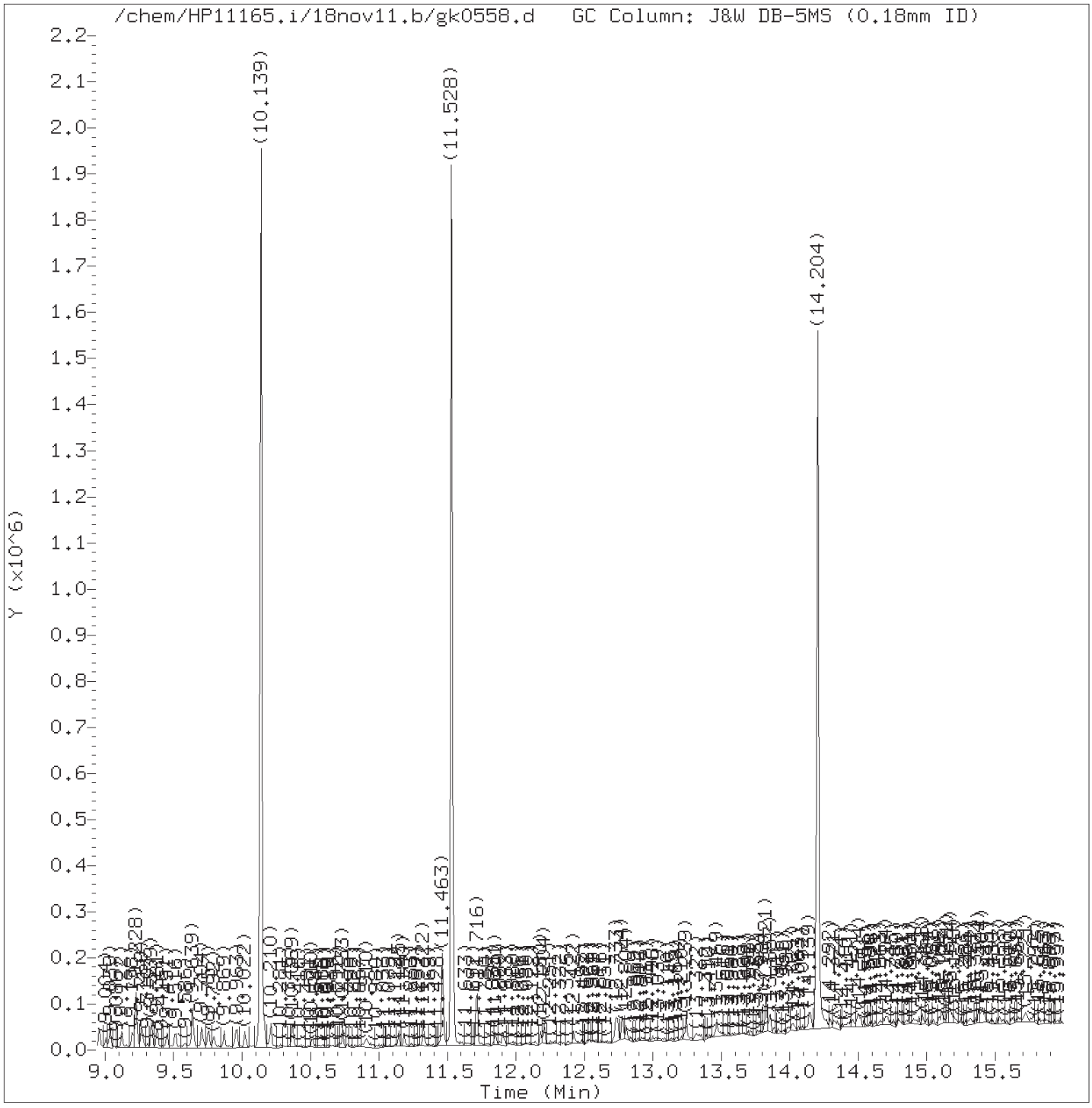
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	3.052	79	401	0.032
7) 2-Picoline	(1)	3.816	93	542	0.040
11)$2-Fluorophenol	(1)	4.452	112	9546	0.911
13) N-Nitrosodiethylamine	(1)	4.704	102	2756	0.461
15) Ethyl methanesulfonate	(1)	5.016	109	2858	0.451
17)$Phenol-d6	(1)	5.381	99	11284	0.695
18) Phenol	(1)	5.393	94	7101	0.384
19) Aniline	(1)	5.416	93	10155	0.468
22) bis(2-Chloroethyl)ether	(1)	5.487	93	6130	0.462
23) 2-Chlorophenol	(1)	5.522	128	5112	0.502
42) Total Cresols	(1)			14702	1.174
24) 1,3-Dichlorobenzene	(1)	5.675	146	5569	0.496
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	138219	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	6542	0.559
31) 2-Methylphenol	(1)	5.881	108	8743	0.702
27) Benzyl alcohol	(1)	5.881	108	3728	0.459
28) 1,2-Dichlorobenzene	(1)	5.893	146	6042	0.533
30) Indene	(1)	5.981	115	8193	0.656
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	7012	0.520
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	7012	0.520
35) N-Nitrosopyrrolidine	(1)	6.122	100	2150	0.325
36) Acetophenone	(1)	6.128	105	7842	0.466
38) N-Nitroso-di-n-propylamine	(1)	6.128	70	4023	0.339
37) 4-Methylphenol	(1)	6.134	108	5959	0.472
39) N-Nitrosomorpholine	(1)	6.151	56	3951	0.454
40) o-Toluidine	(1)	6.157	106	8271	0.418
43) Hexachloroethane	(1)	6.187	117	2036	0.462
44)$Nitrobenzene-d5	(2)	6.269	82	12600	0.854
45) Nitrobenzene	(2)	6.281	77	8277	0.538
48) N-Nitrosopiperidine	(2)	6.440	114	2368	0.400
50) Isophorone	(2)	6.528	82	10221	0.367
51) 2-Nitrophenol	(2)	6.593	139	1973	0.356
53) 2,4-Dimethylphenol	(2)	6.645	107	5437	0.444
56) Benzoic acid	(2)	6.687	105	27492	2.888
57) O,O,O-Triethylphosphorothioate	(2)	6.716	198	2926	0.546
55) bis(2-Chloroethoxy)methane	(2)	6.740	93	10241	0.662
60) 2,4-Dichlorophenol	(2)	6.828	162	3736	0.437
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	4285	0.475
65)*Naphthalene-d8	(2)	6.969	136	560145	20.000
66) Naphthalene	(2)	6.987	128	17099	0.540

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
67) 4-Chloroaniline	(2)	7.040	127	5580	0.428
68) 2,6-Dichlorophenol	(2)	7.045	162	2753	0.319
69) Hexachloropropene	(2)	7.075	213	1792	0.397
71) Hexachlorobutadiene	(2)	7.116	225	2740	0.566
75) Quinoline	(2)	7.316	129	8831	0.428
77) N-Nitrosodi-n-butylamine	(2)	7.381	84	6714	0.504
97) Isosafrole	(3)			5426	0.615
76) Caprolactam	(2)	7.410	113	1193	0.300
80) 4-Chloro-3-methylphenol	(2)	7.510	107	4627	0.434
82) Safrole	(2)	7.587	162	3418	0.395
83) 2-Methylnaphthalene	(2)	7.669	142	11742	0.523
84) 1-Methylnaphthalene	(2)	7.763	142	10603	0.496
85) Hexachlorocyclopentadiene	(3)	7.822	237	1668	0.358
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.828	216	4289	0.460
88) cis-Isosafrole	(3)	7.869	162	847	0.093
90) 2,4,6-Trichlorophenol	(3)	7.939	196	2613	0.414
92) 2,4,5-Trichlorophenol	(3)	7.963	196	3162	0.460
93)$2-Fluorobiphenyl	(3)	8.034	172	23333	0.911
120) 2,4_2,6-Dinitrotoluenes	(3)			4875	0.735
94) trans-Isosafrole	(3)	8.092	162	4579	0.522
95) 1,1'-Biphenyl	(3)	8.128	154	16938	0.607
98) 1-Chloronaphthalene	(3)	8.139	162	21385	1.054
96) 2-Chloronaphthalene	(3)	8.139	162	21385	0.976
99) Diphenyl ether	(3)	8.234	170	7578	0.506
100) 2-Nitroaniline	(3)	8.234	138	3325	0.486
104) 1,4-Naphthoquinone	(3)	8.310	158	3185	0.355
106) Dimethylphthalate	(3)	8.428	163	13273	0.517
105) 1,4-Dinitrobenzene	(3)	8.445	168	920	0.244
107) 1,3-Dinitrobenzene	(3)	8.445	168	920	0.210
108) 2,6-Dinitrotoluene	(3)	8.481	165	2583	0.448
109) Acenaphthylene	(3)	8.539	152	16279	0.539
112) 3-Nitroaniline	(3)	8.639	138	1953	0.302
113)*Acenaphthene-d10	(3)	8.687	164	316541	20.000
114) Acenaphthene	(3)	8.716	153	11642M	0.521
115) 2,4-Dinitrophenol	(3)	8.745	184	7177	1.847
146) Diallate trans/cis	(4)			9820	0.605
116) 4-Nitrophenol	(3)	8.798	109	8787M	1.960
117) Pentachlorobenzene	(3)	8.845	250	4366	0.547
118) 2,4-Dinitrotoluene	(3)	8.863	165	2292	0.286
119) Dibenzofuran	(3)	8.886	168	12549	0.404

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
121) 1-Naphthylamine	(3)	8.957	143	9753	0.403
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	2226	0.402
123) 2-Naphthylamine	(3)	9.039	143	11183	0.475
124) Diethylphthalate	(3)	9.128	149	12167	0.472
125) Thionazin	(3)	9.204	107	2083	0.425
126) Fluorene	(3)	9.222	166	12929	0.498
128) 5-Nitro-o-toluidine	(3)	9.228	152	2955	0.379
127) 4-Chlorophenyl-phenylether	(3)	9.228	204	6470	0.536
129) 4-Nitroaniline	(3)	9.234	138	2543	0.361
130) 4,6-Dinitro-2-methylphenol	(4)	9.269	198	4053M	0.824
131) N-Nitrosodiphenylamine	(4)	9.339	169	10022	0.428
132) NDPA as diphenylamine	(4)	9.339	169	10022	0.428
134) 1,2-Diphenylhydrazine	(4)	9.381	77	13440M	0.370
135)$2,4,6-Tribromophenol	(3)	9.451	330	2231	0.880
137) Tetraethyldithiopyrophosphate	(4)	9.510	97	3164	0.594
139) 1,3,5-Trinitrobenzene	(4)	9.581	213	235M	0.075
140) Diallate (peak 1)	(4)	9.634	86	7809	0.462
141) Phorate	(4)	9.639	75	10555	0.481
142) Phenacetin	(4)	9.639	108	5162	0.335
143) 4-Bromophenyl-phenylether	(4)	9.710	248	4107	0.563
144) Diallate (peak 2)	(4)	9.710	86	2011	0.143
145) Hexachlorobenzene	(4)	9.757	284	4029	0.592
147) Dimethoate	(4)	9.792	87	5453	0.432
150) 4-Aminobiphenyl	(4)	9.957	169	6478	0.612
149) Pentachlorophenol	(4)	9.957	266	1464	0.322
151) Pentachloronitrobenzene	(4)	9.963	237	601M	0.186
152) Pronamide	(4)	10.022	173	3999	0.338
153)*Phenanthrene-d10	(4)	10.139	188	663990	20.000
154) Dinoseb	(4)	10.139	211	1550	0.216
155) Phenanthrene	(4)	10.163	178	21431	0.516
157) Anthracene	(4)	10.210	178	18849	0.460
163) Carbazole	(4)	10.369	167	16204	0.436
164) Methyl parathion	(4)	10.510	109	2952	0.317
165) Di-n-butylphthalate	(4)	10.733	149	16143	0.348
167) Parathion	(4)	10.904	109	2119	0.347
168) 4-Nitroquinoline-1-oxide	(4)	10.910	190	832	0.209
169) Octachlorostyrene	(4)	11.151	308	2858	1.081
171) Isodrin	(4)	11.186	193	2059	0.443
173) Fluoranthene	(4)	11.322	202	19165	0.448
174) Benzidine	(5)	11.463	184	68999	2.477

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

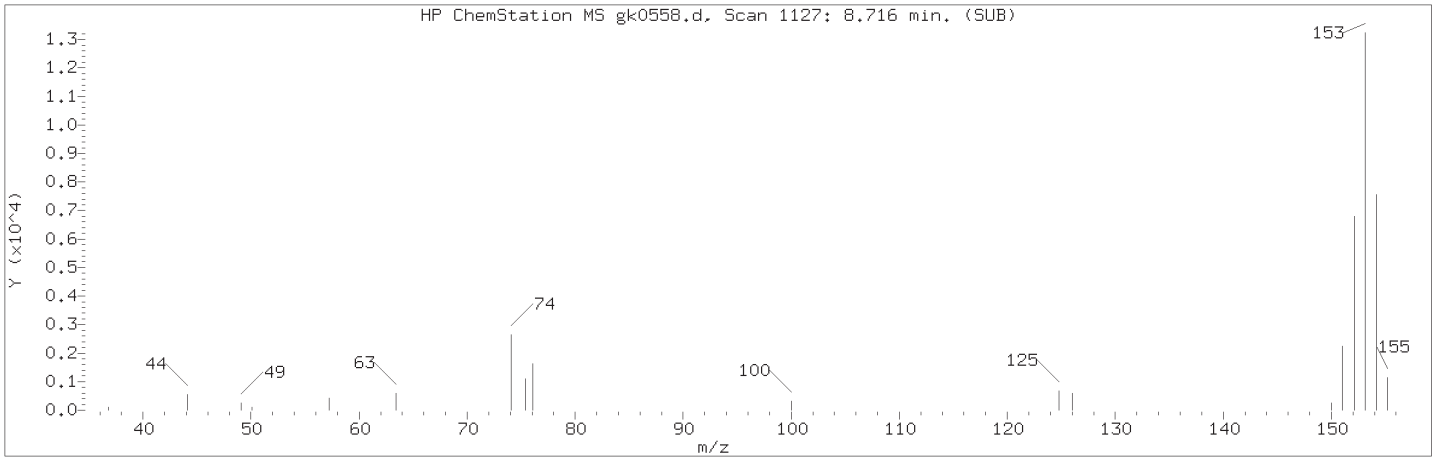
Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
175)*Pyrene-d10	(5)	11.528	212	622130	20.000
177) Pyrene	(5)	11.545	202	26638	0.593
179)$Terphenyl-d14	(5)	11.710	244	29831	0.992
182) p-Dimethylaminoazobenzene	(5)	11.845	225	2865	0.417
185) Chlorobenzilate	(5)	11.904	139	4557	0.343
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	8569	0.375
188) Butylbenzylphthalate	(5)	12.204	149	7299	0.349
191) 2-Acetylaminofluorene	(5)	12.422	181	4784	0.284
193) 3,3'-Dichlorobenzidine	(5)	12.710	252	4821	0.339
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.722	231	3762	0.486
195) Benzo(a)anthracene	(5)	12.745	228	21852	0.532
196) Chrysene	(5)	12.780	228	20098	0.509
199) bis(2-Ethylhexyl)phthalate	(5)	12.804	149	6366	0.225
203) 6-Methylchrysene	(5)	13.239	242	12968	0.480
205) Di-n-octylphthalate	(6)	13.469	149	11349	0.216
206) Benzo(b)fluoranthene	(6)	13.827	252	22762M	0.546
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.827	256	6324	0.333
208) Benzo(k)fluoranthene	(6)	13.851	252	16409M	0.414
211) Benzo(a)pyrene	(6)	14.145	252	15053M	0.415
213)*Perylene-d12	(6)	14.204	264	584152	20.000
215) 3-Methylcholanthrene	(6)	14.504	268	5879M	0.415
222) Total PAHs	(6)			305099	8.854
217) Dibenz(a,h)acridine	(6)	15.116	279	9662	0.360
218) Dibenz(a,j)acridine	(6)	15.151	279	13100	0.454
219) Indeno(1,2,3-cd)pyrene	(6)	15.386	276	15339M	0.418
220) Dibenz(a,h)anthracene	(6)	15.410	278	11464M	0.379
221) Benzo(g,h,i)perylene	(6)	15.727	276	15745	0.505

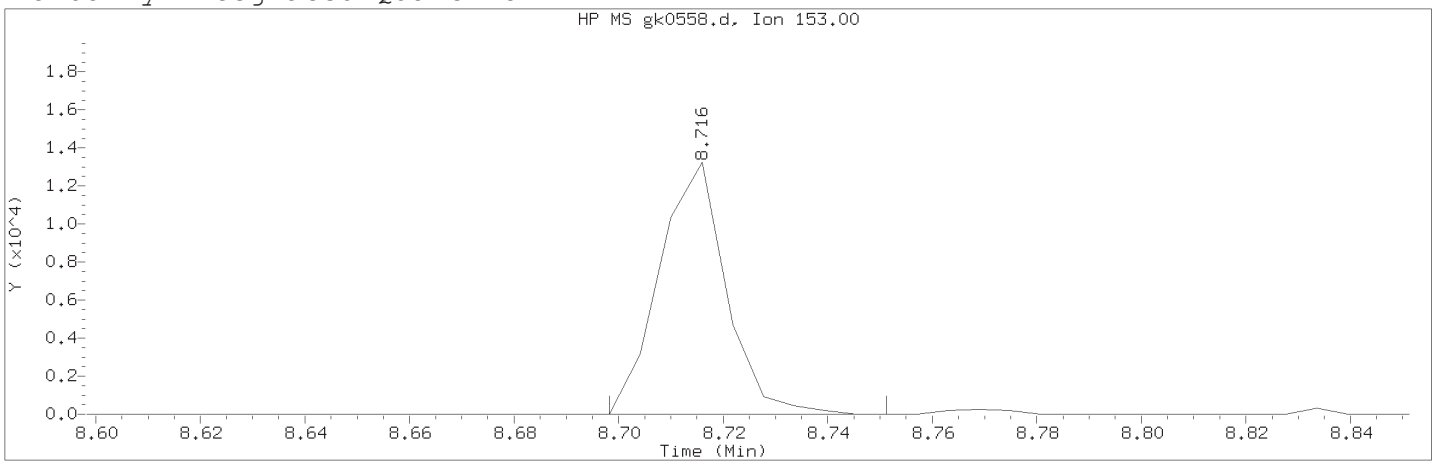
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

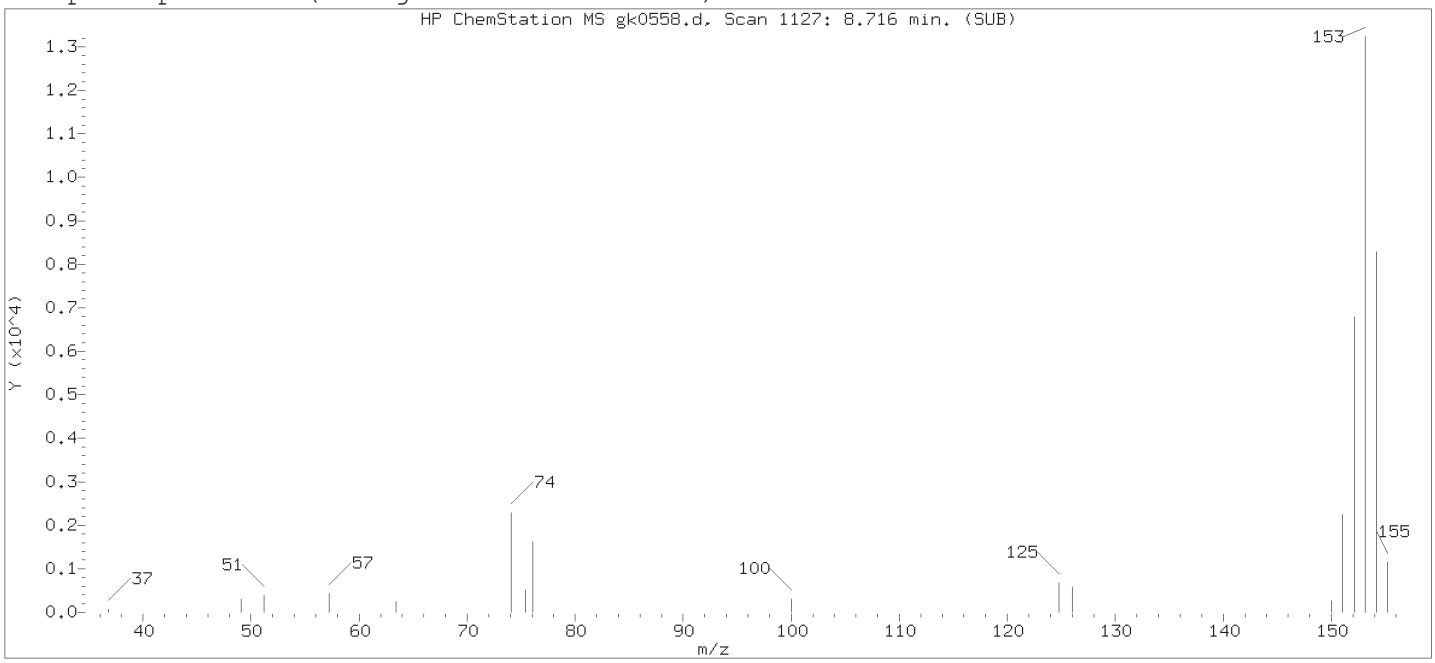
Compound Number : 114
Compound Name : Acenaphthene
Scan Number : 1127
Retention Time (minutes) : 8.716
Quant Ion : 153.00
Area (flag) : 11642M
On-Column Amount (ng/ul) : 0.5214
Integration start scan : 1123 Integration stop scan: 1132
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

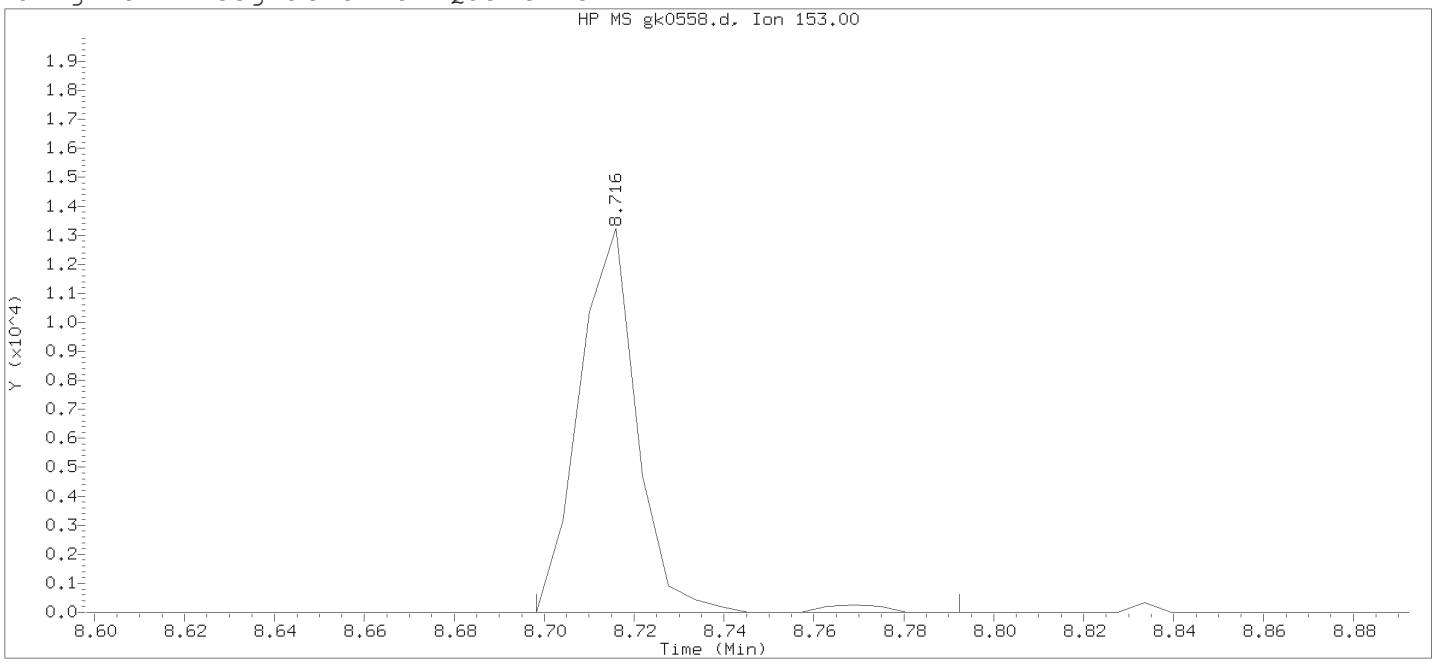
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

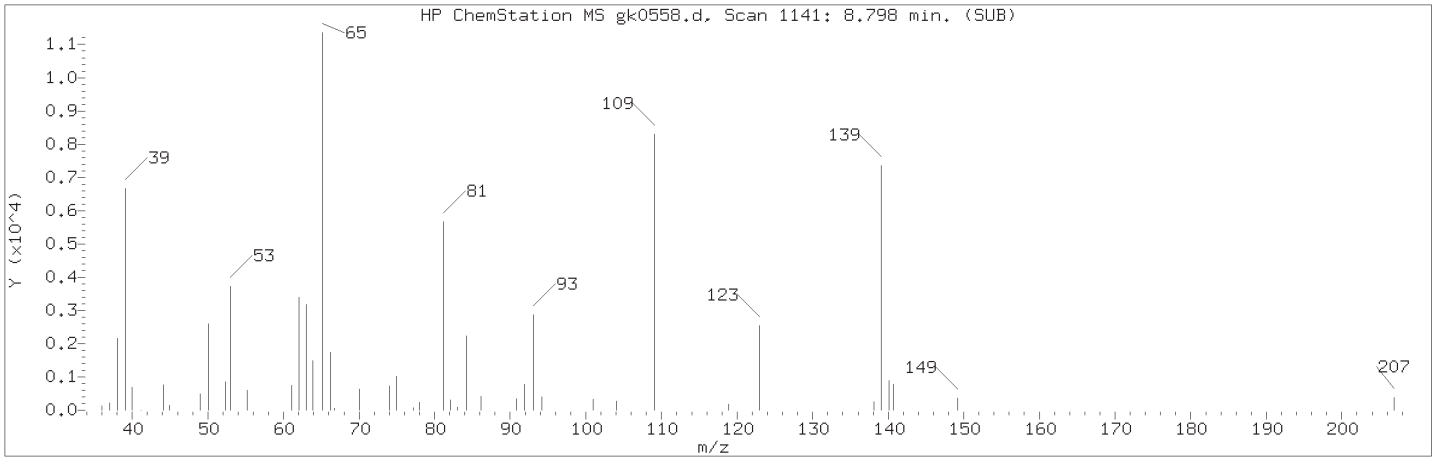
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

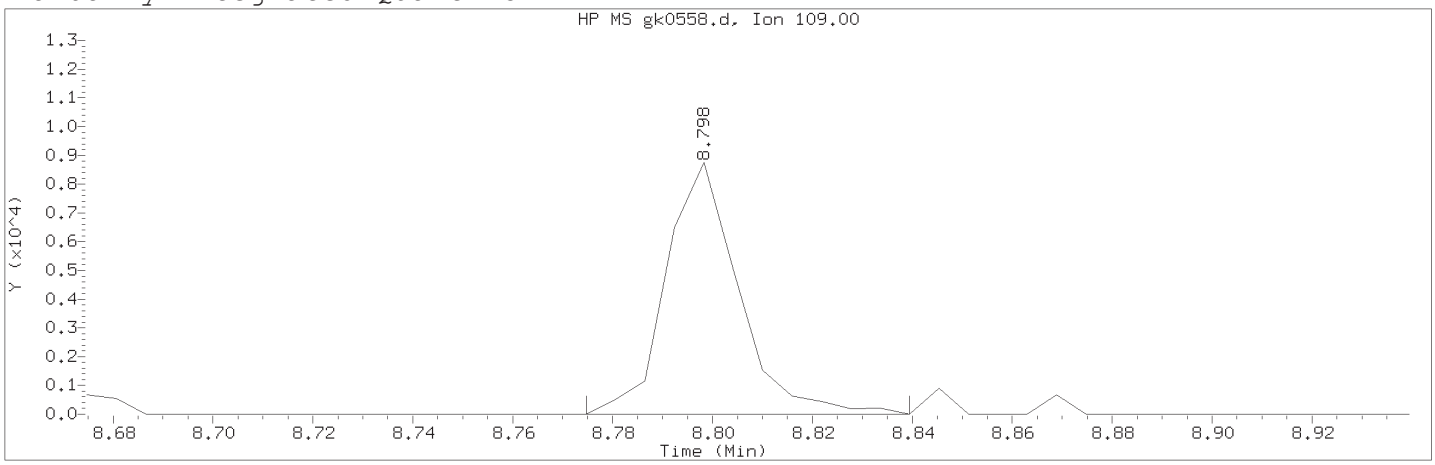
Compound Number	: 114		
Compound Name	: Acenaphthene		
Scan Number	: 1127		
Retention Time (minutes)	: 8.716		
Quant Ion	: 153.00		
Area	: 11871		
On-column Amount (ng/ul)	: 0.5256		
Integration start scan	: 1123	Integration stop scan:	1139
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

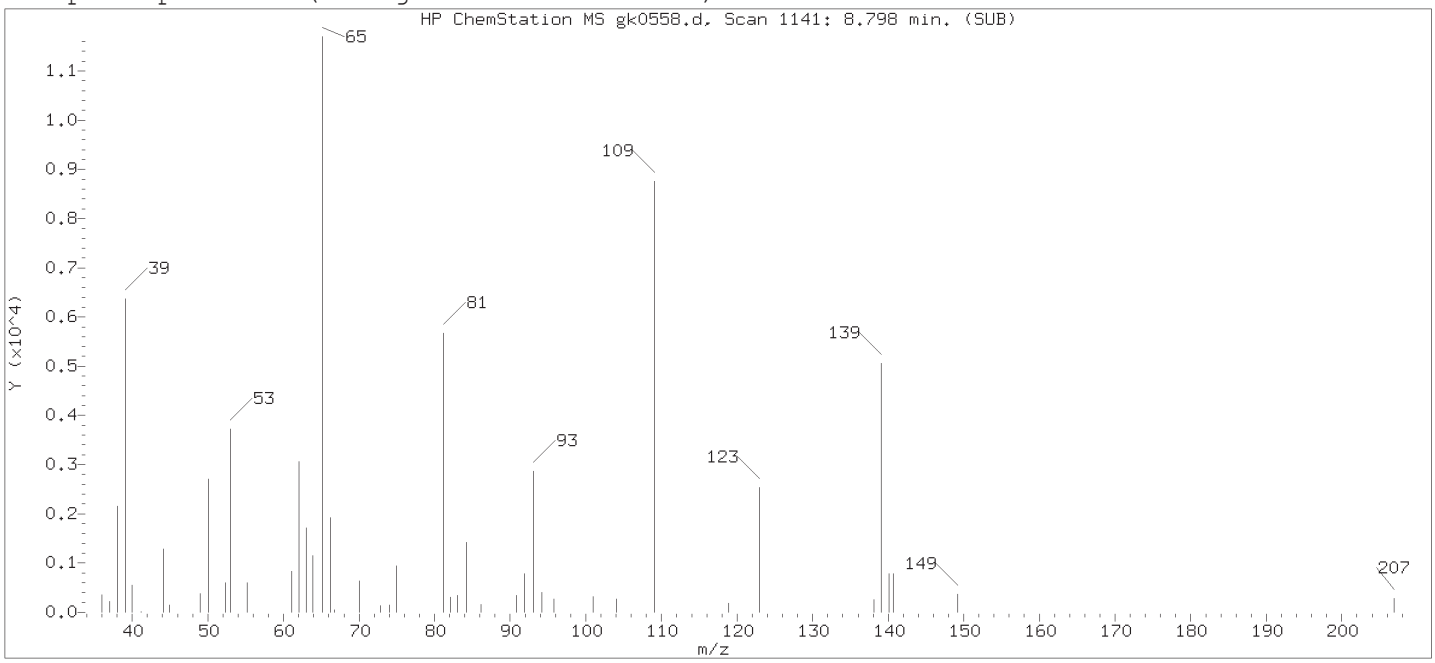
Compound Number : 116
Compound Name : 4-Nitrophenol
Scan Number : 1141
Retention Time (minutes) : 8.798
Quant Ion : 109.00
Area (flag) : 8787M
On-Column Amount (ng/ul) : 1.9596
Integration start scan : 1136 Integration stop scan: 1147
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

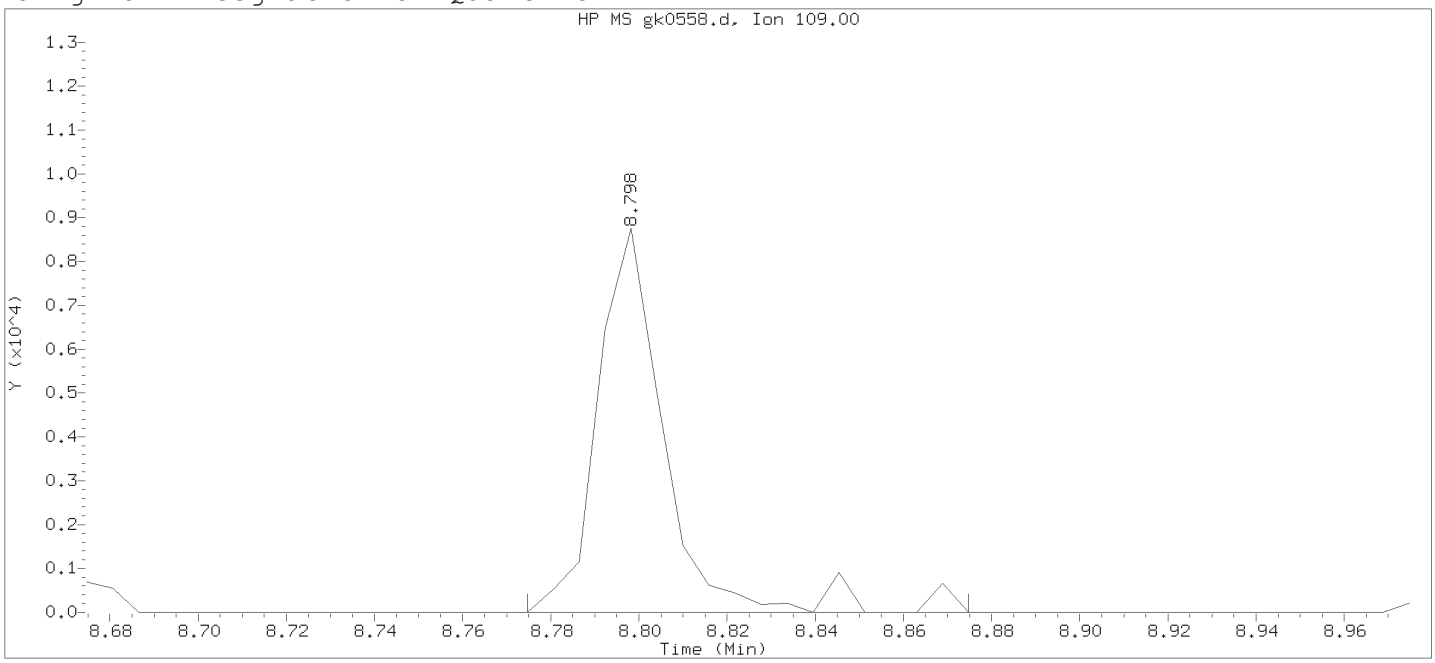
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

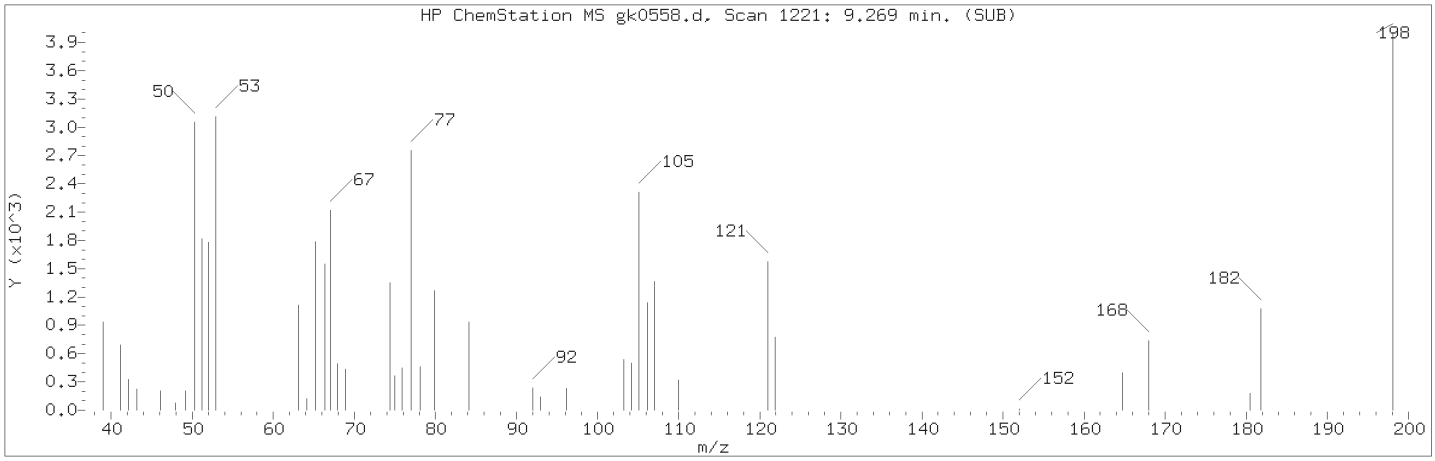
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

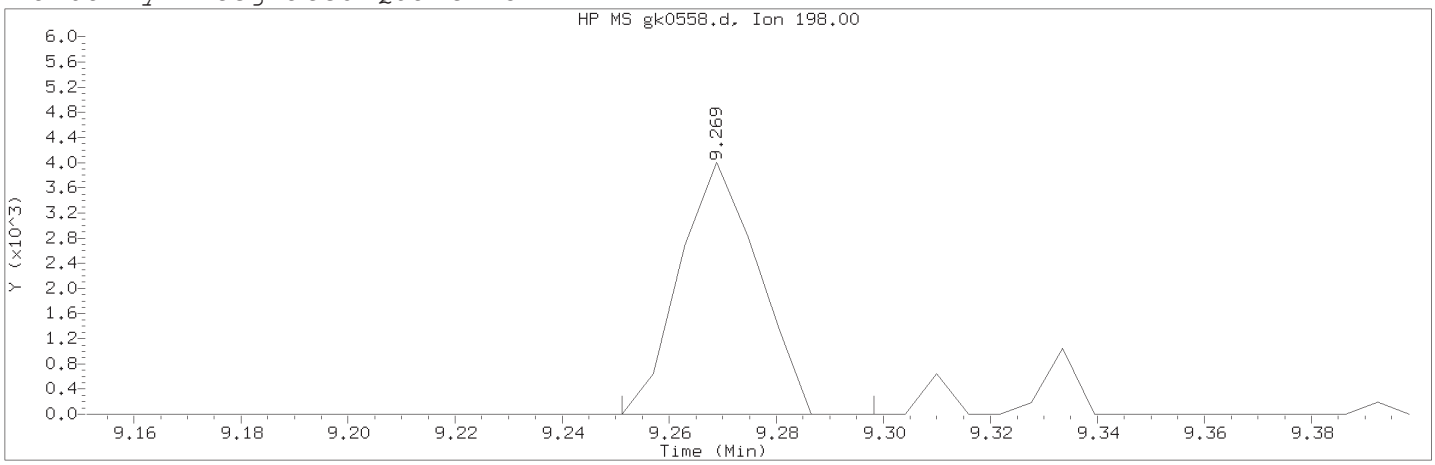
Compound Number	: 116		
Compound Name	: 4-Nitrophenol		
Scan Number	: 1141		
Retention Time (minutes)	: 8.798		
Quant Ion	: 109.00		
Area	: 9342		
On-column Amount (ng/ul)	: 2.0795		
Integration start scan	: 1136	Integration stop scan:	1153
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.2.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

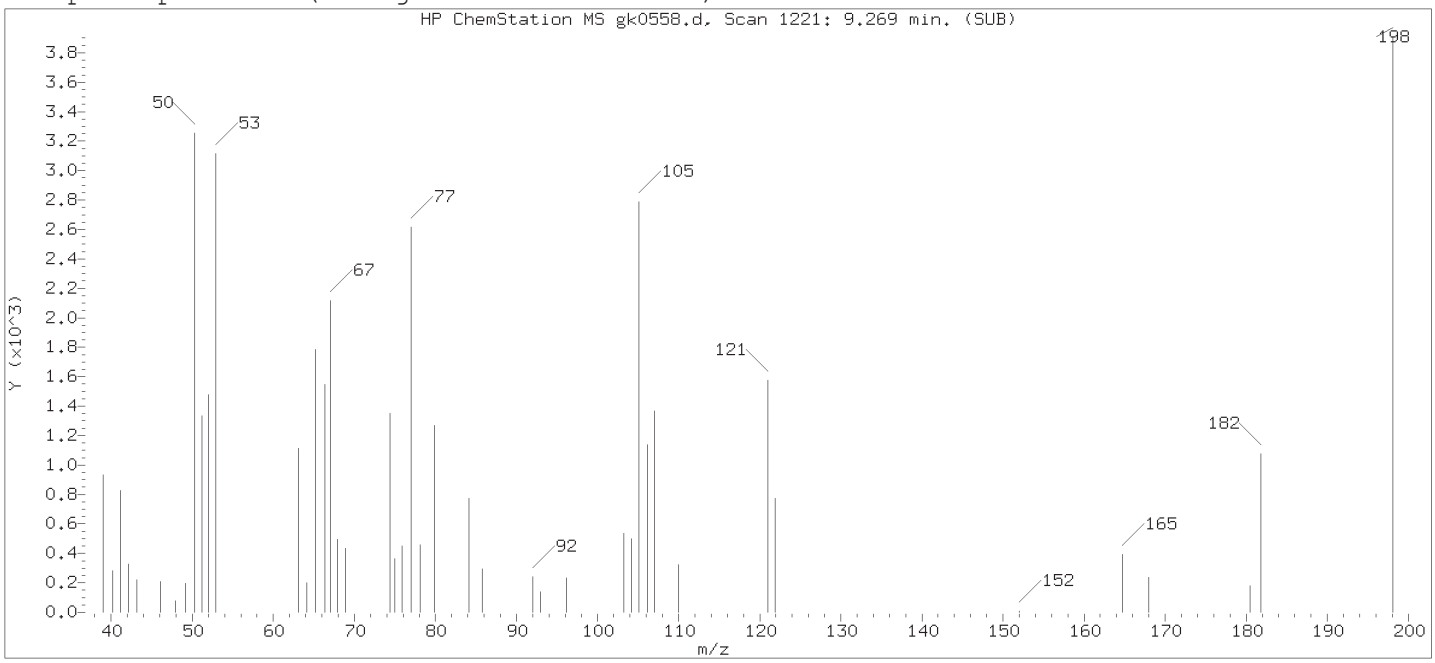
Compound Number : 130
Compound Name : 4,6-Dinitro-2-methylphenol
Scan Number : 1221
Retention Time (minutes) : 9.269
Quant Ion : 198.00
Area (flag) : 4053M
On-Column Amount (ng/ul) : 0.8237
Integration start scan : 1217 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

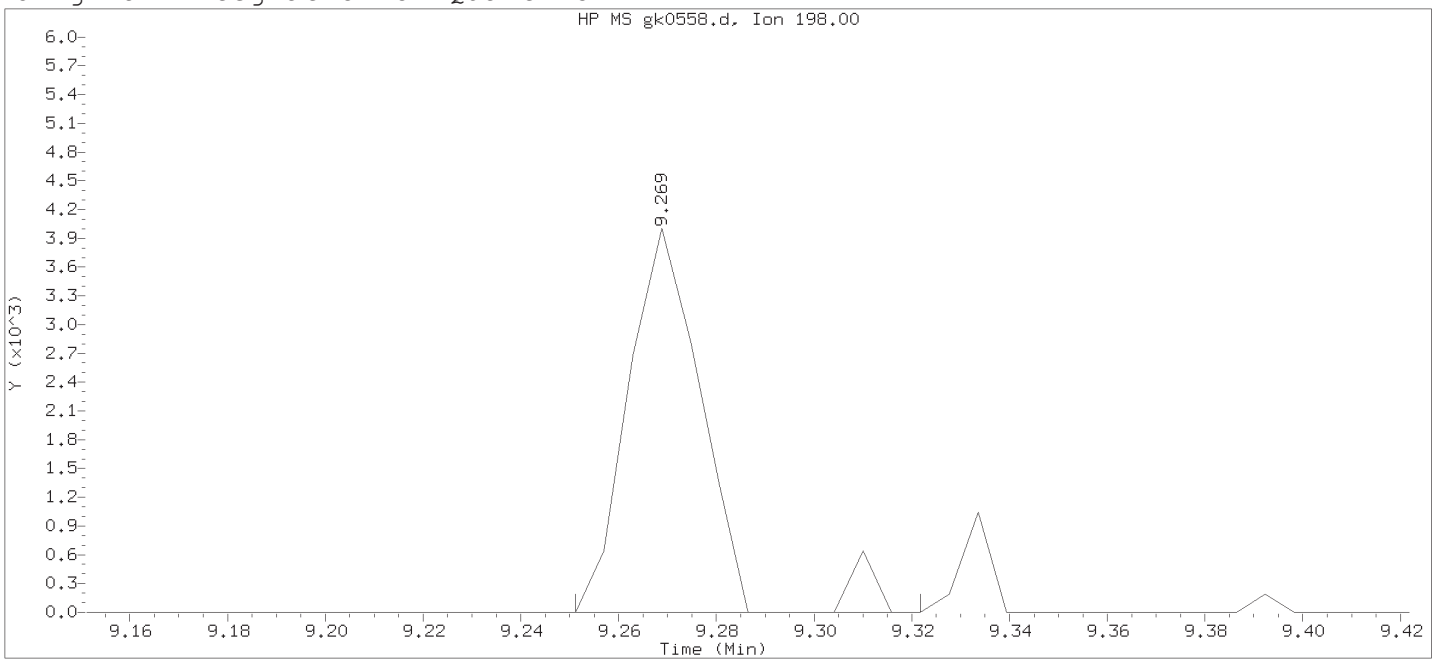
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

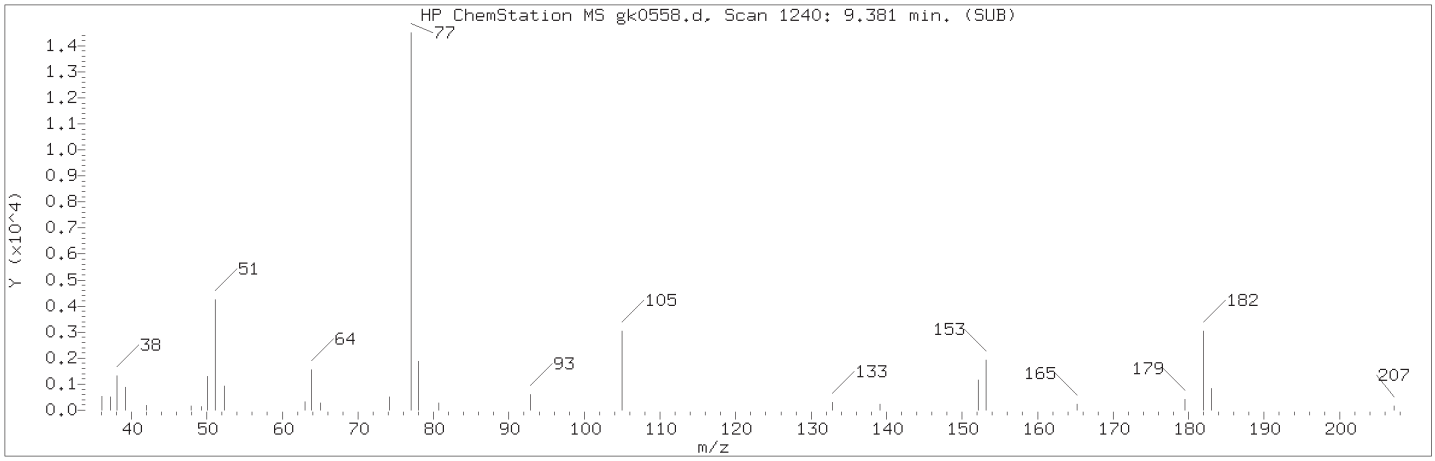
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

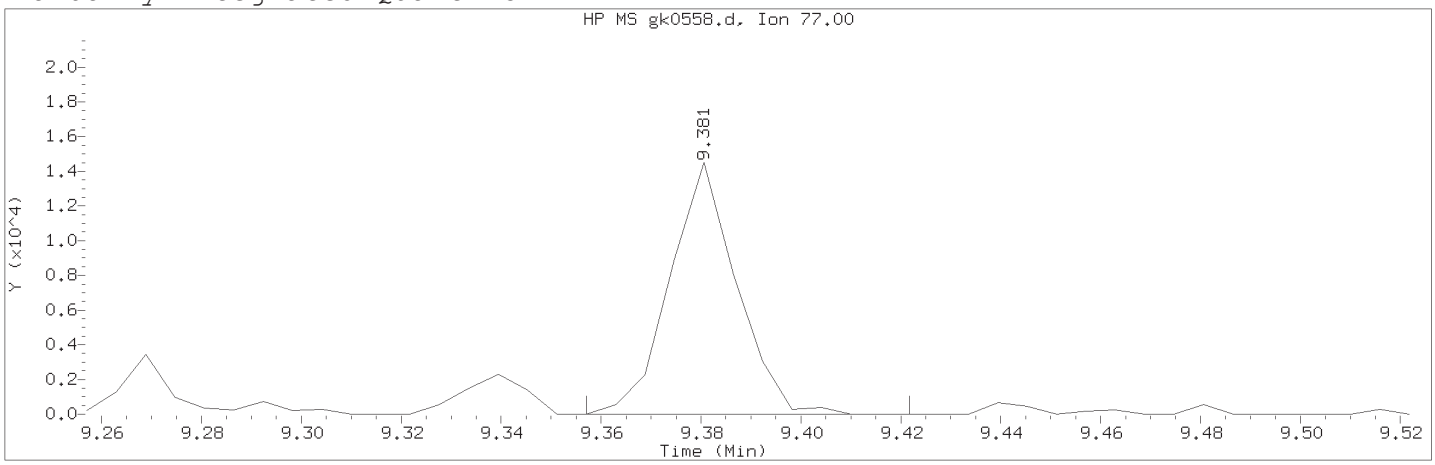
Compound Number	: 130	
Compound Name	: 4,6-Dinitro-2-methylphenol	
Scan Number	: 1221	
Retention Time (minutes)	: 9.269	
Quant Ion	: 198.00	
Area	: 4280	
On-column Amount (ng/ul)	: 0.8862	
Integration start scan	: 1217	Integration stop scan: 1229
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1.0.2.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

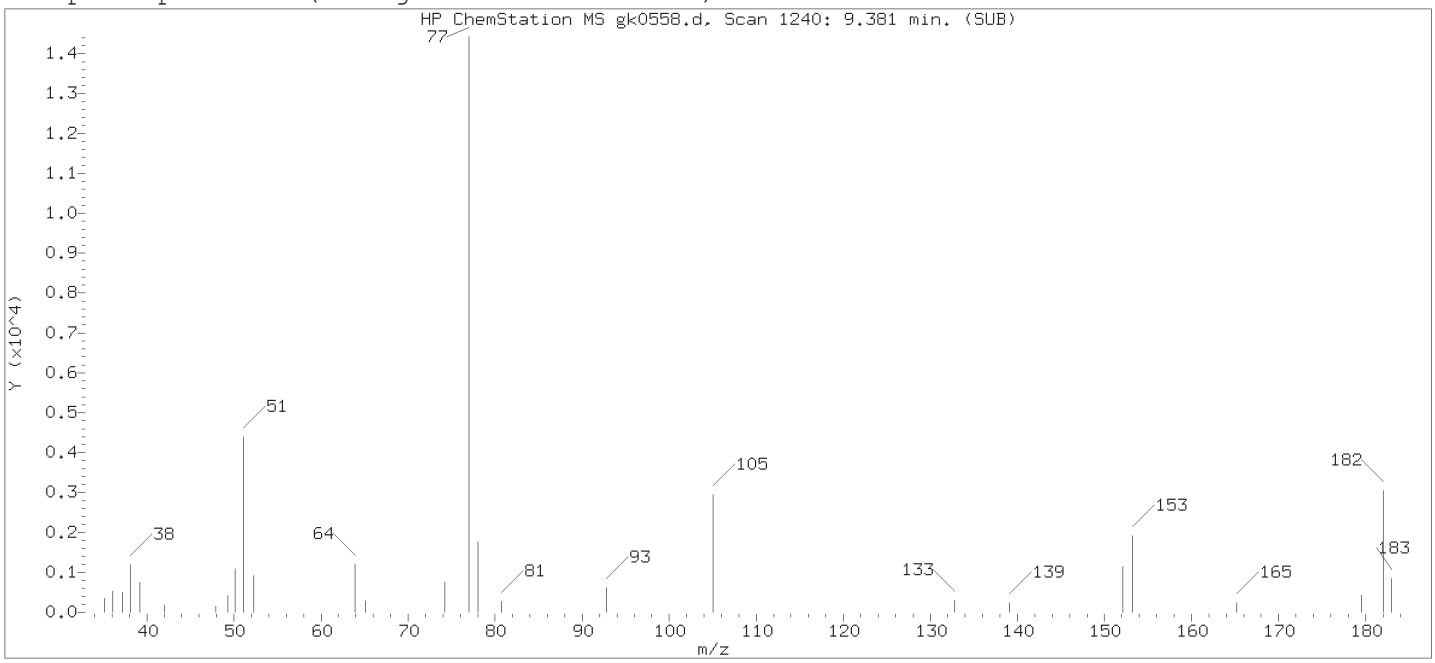
Compound Number : 134
Compound Name : 1,2-Diphenylhydrazine
Scan Number : 1240
Retention Time (minutes) : 9.381
Quant Ion : 77.00
Area (flag) : 13440M
On-Column Amount (ng/ul) : 0.3699
Integration start scan : 1235 Integration stop scan: 1246
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

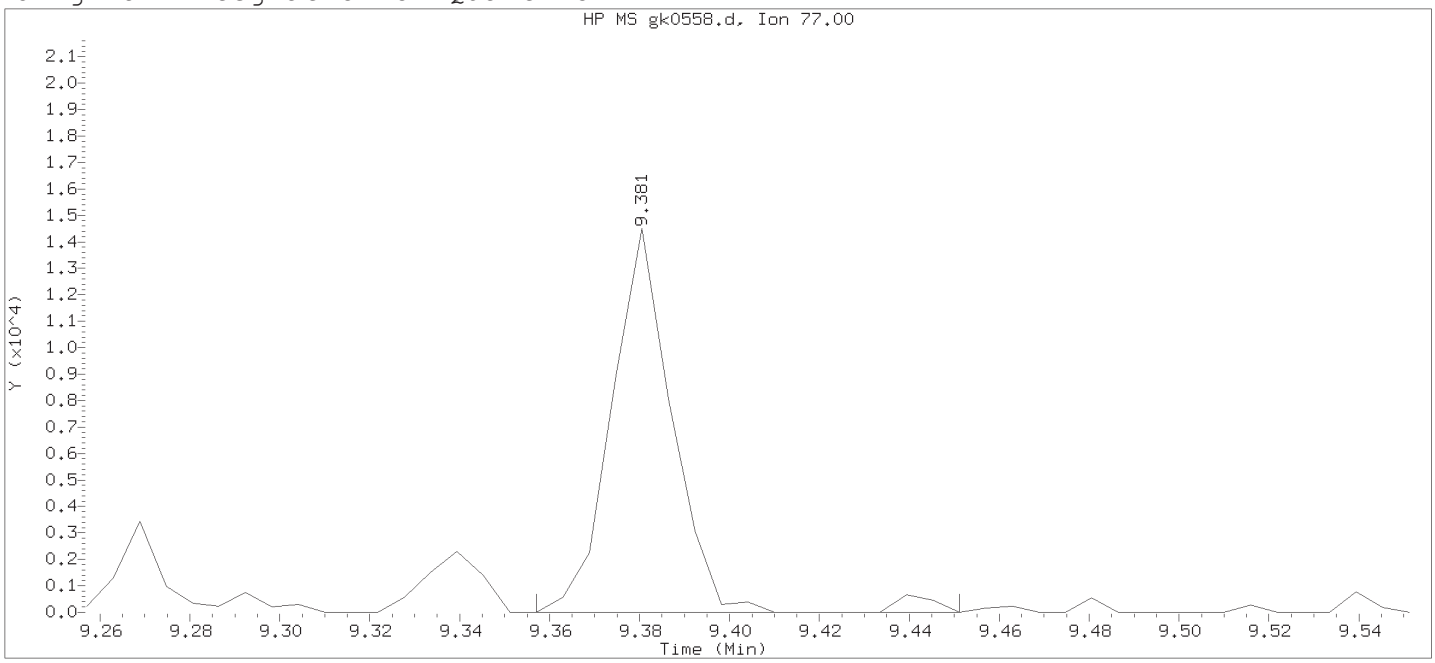
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

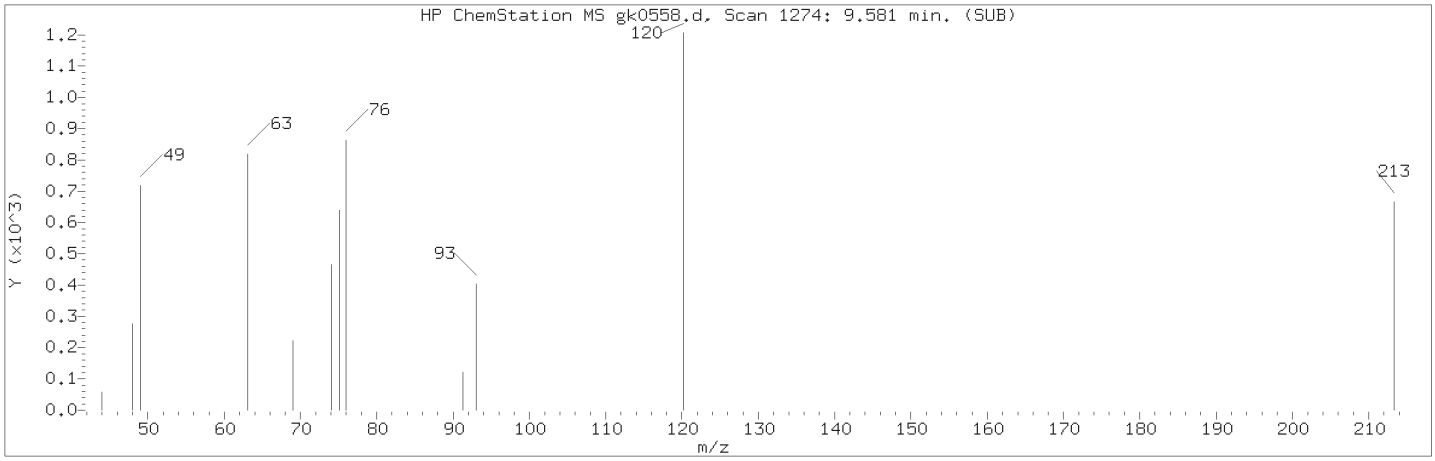
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

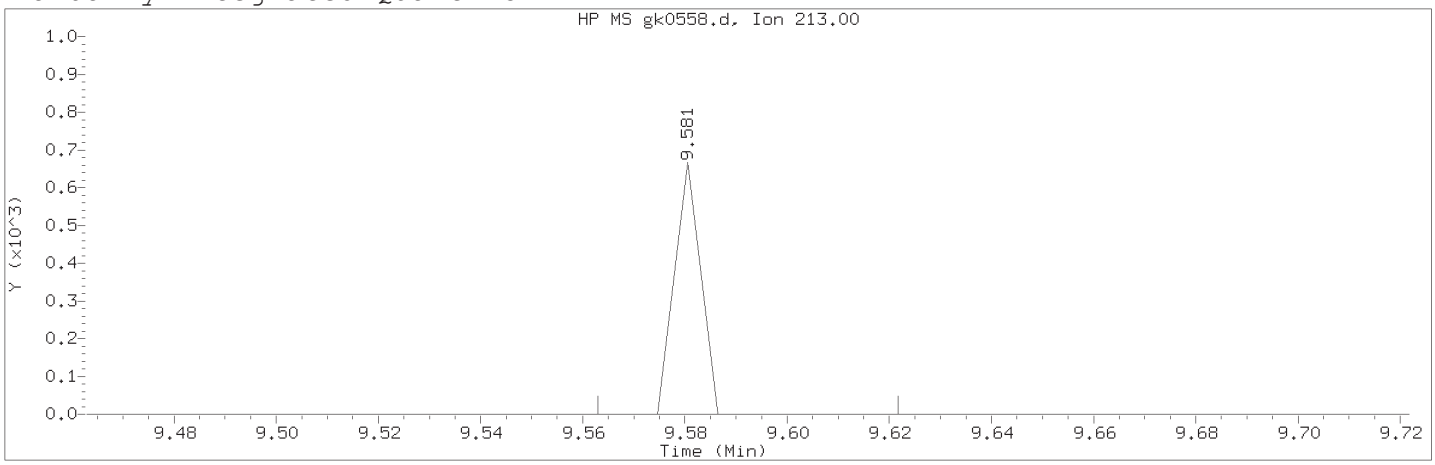
Compound Number	: 134		
Compound Name	: 1,2-Diphenylhydrazine		
Scan Number	: 1240		
Retention Time (minutes)	: 9.381		
Quant Ion	: 77.00		
Area	: 13833		
On-column Amount (ng/ul)	: 0.3824		
Integration start scan	: 1235	Integration stop scan:	1251
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

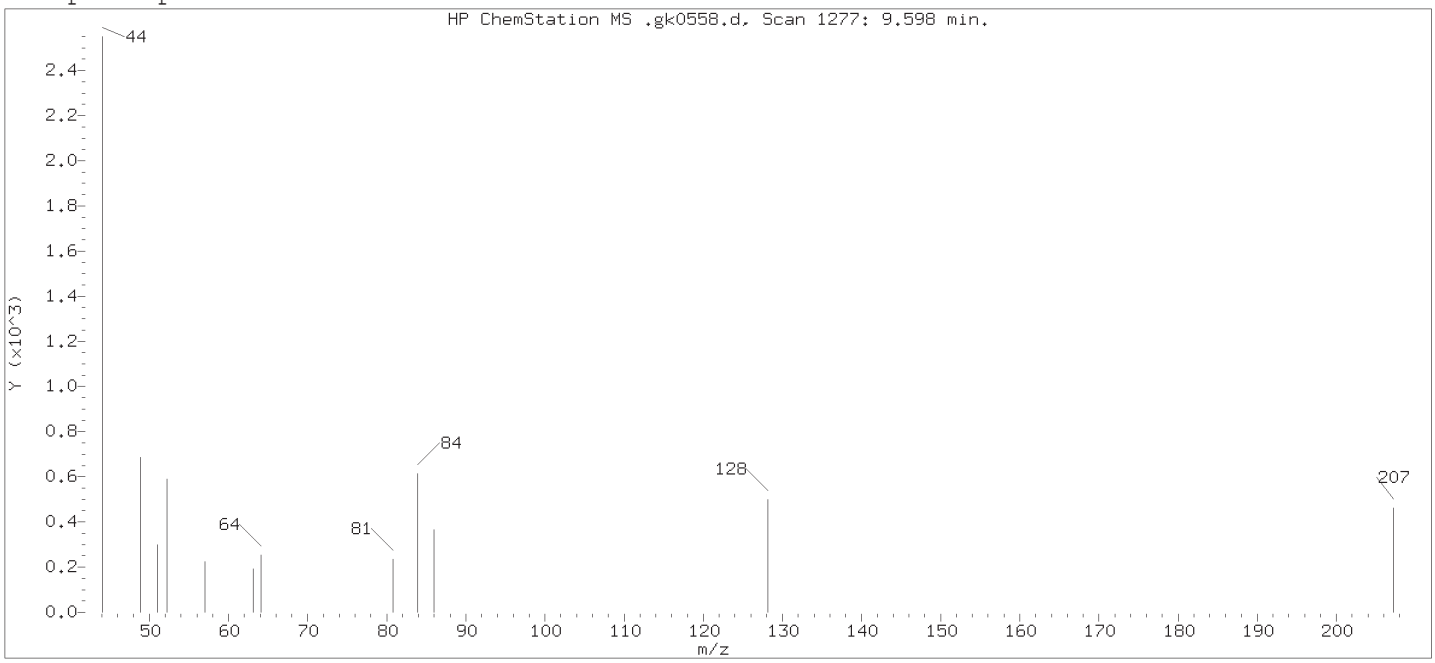
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1274
Retention Time (minutes) : 9.581
Quant Ion : 213.00
Area (flag) : 235M
On-Column Amount (ng/ul) : 0.0749
Integration start scan : 1270 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

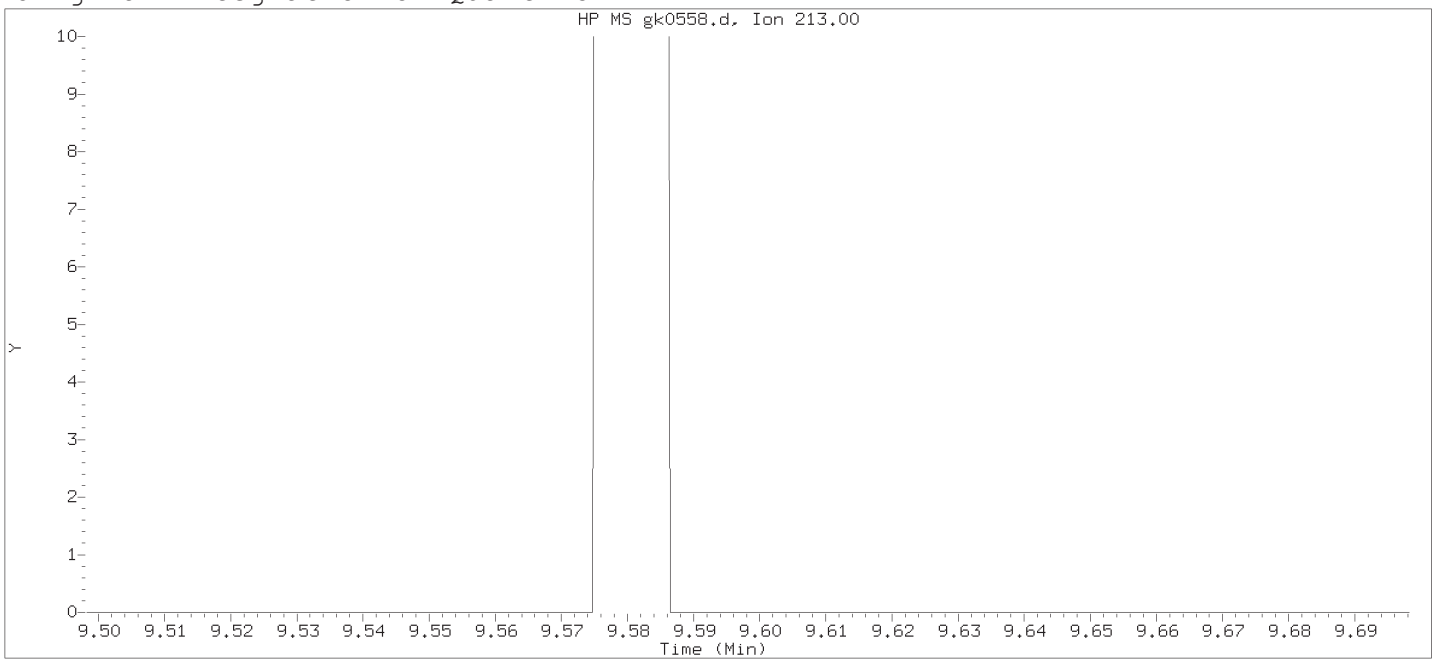
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

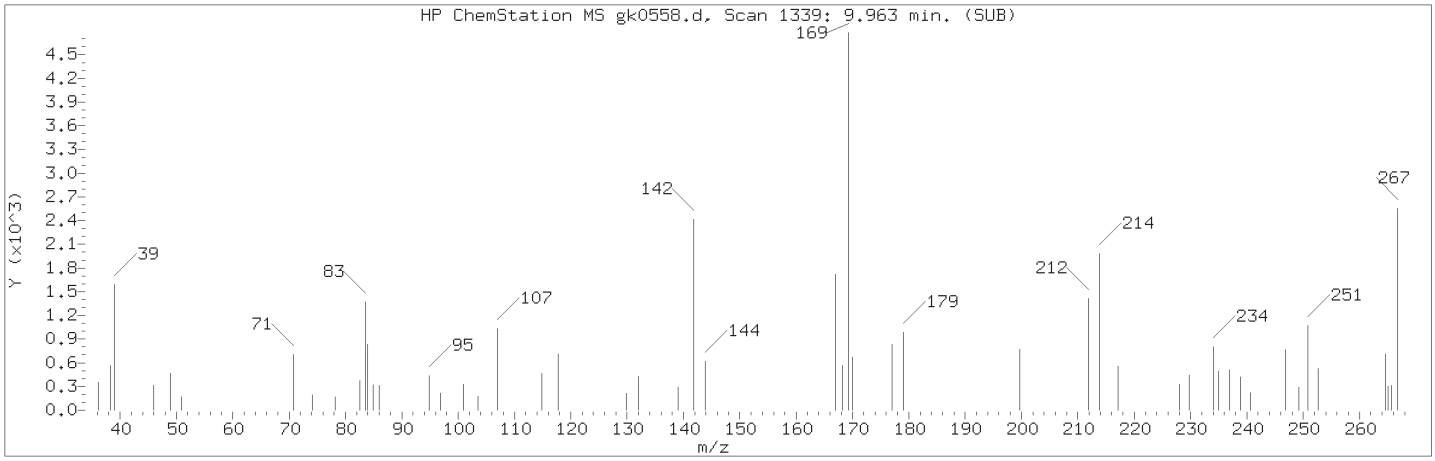
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

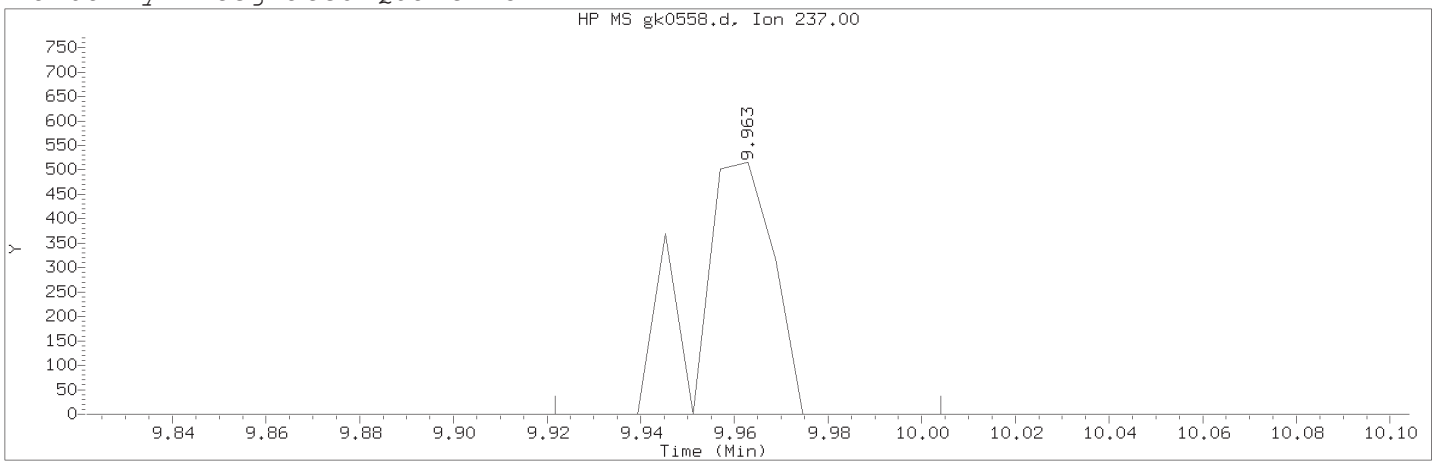
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 9.598
Quant Ion : 213.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

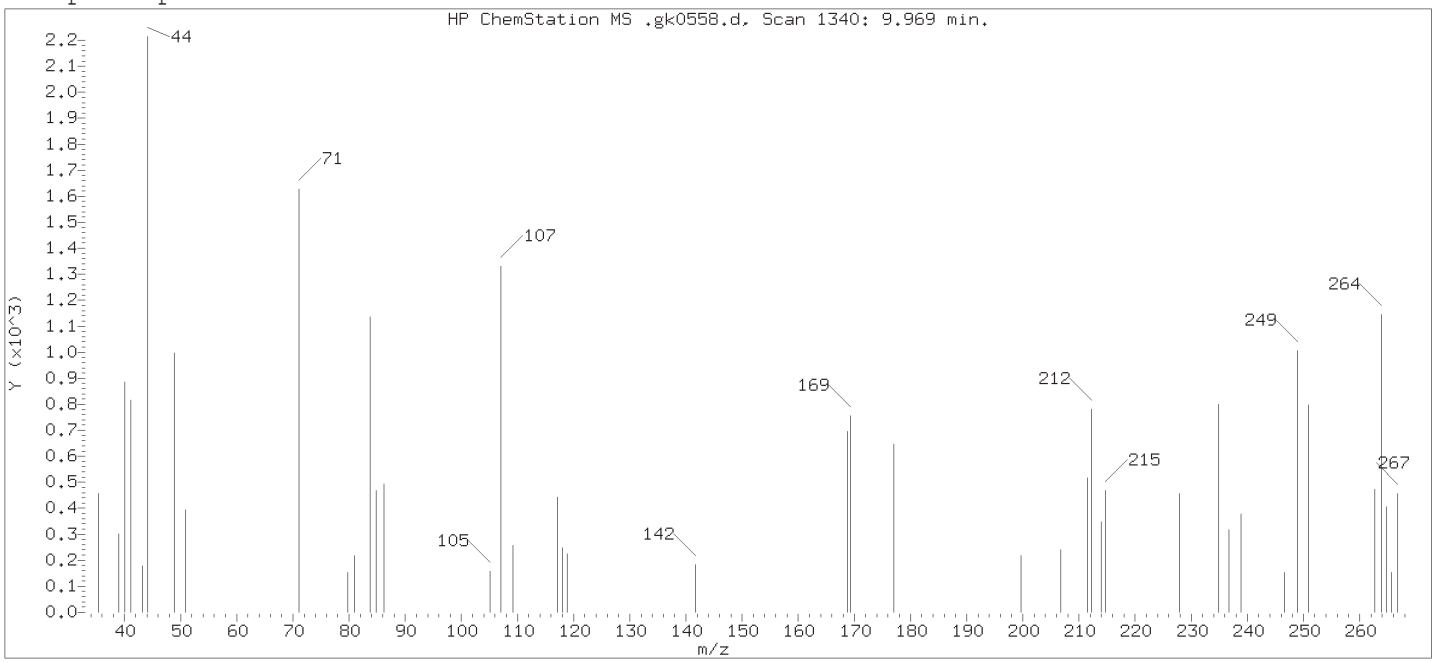
Compound Number	: 151		
Compound Name	: Pentachloronitrobenzene		
Scan Number	: 1339		
Retention Time (minutes)	: 9.963		
Quant Ion	: 237.00		
Area (flag)	: 601M		
On-Column Amount (ng/ul)	: 0.1857		
Integration start scan	: 1331	Integration stop scan:	1345
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

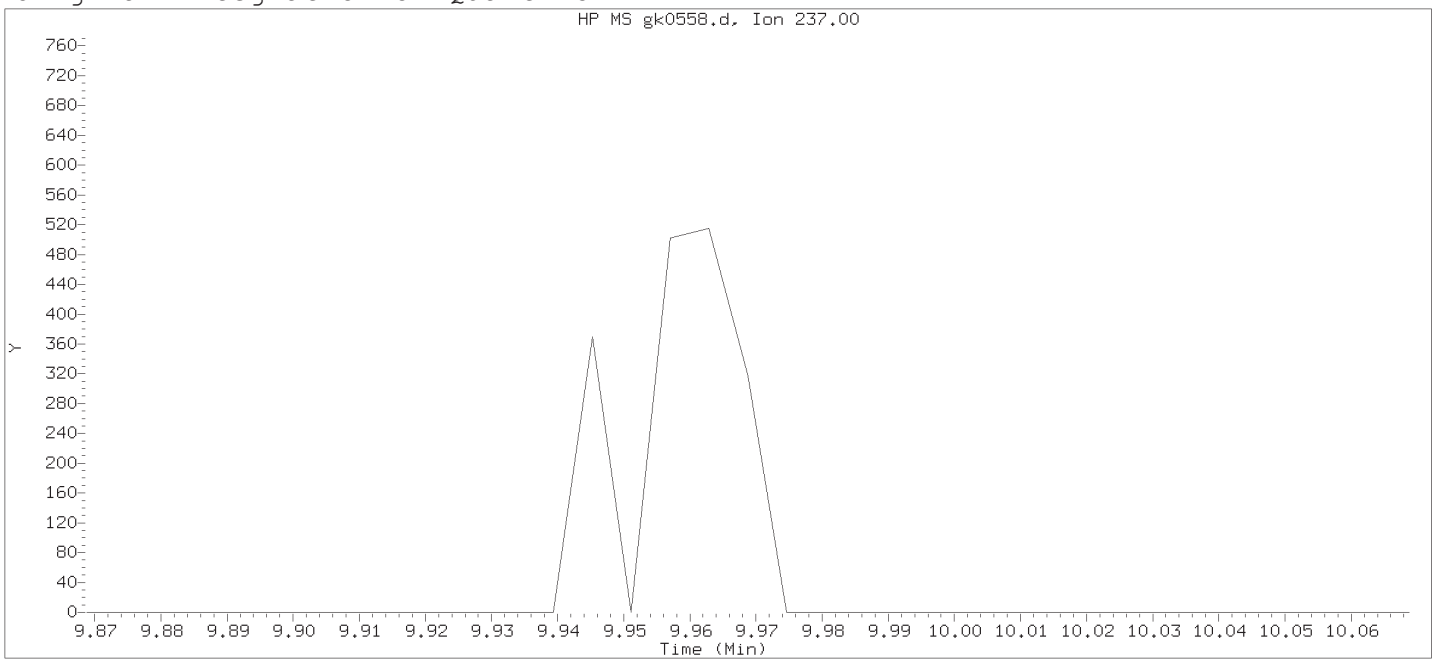
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

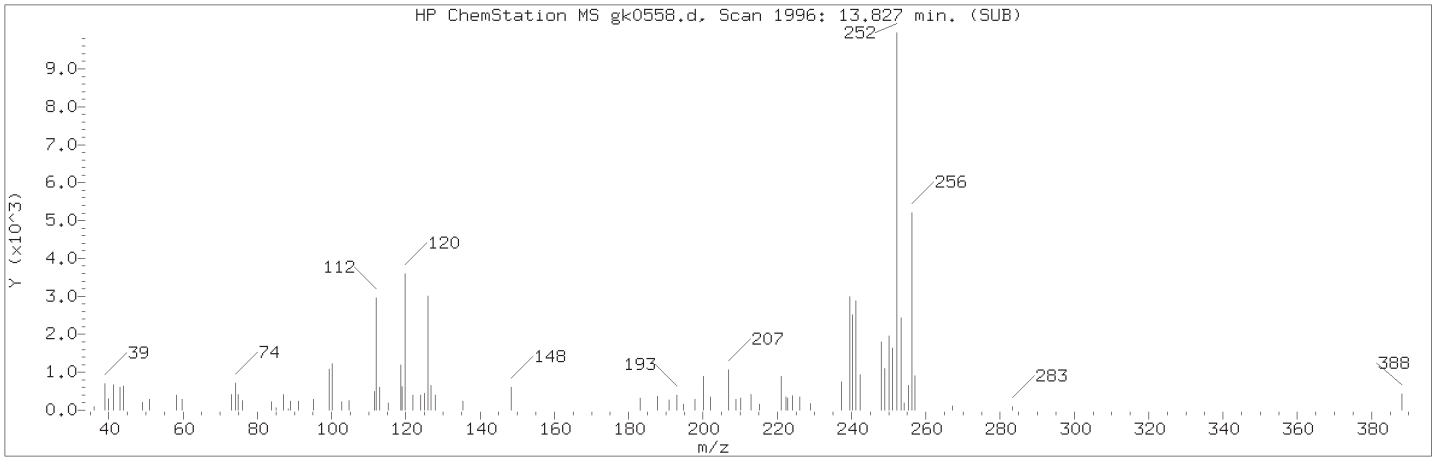
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

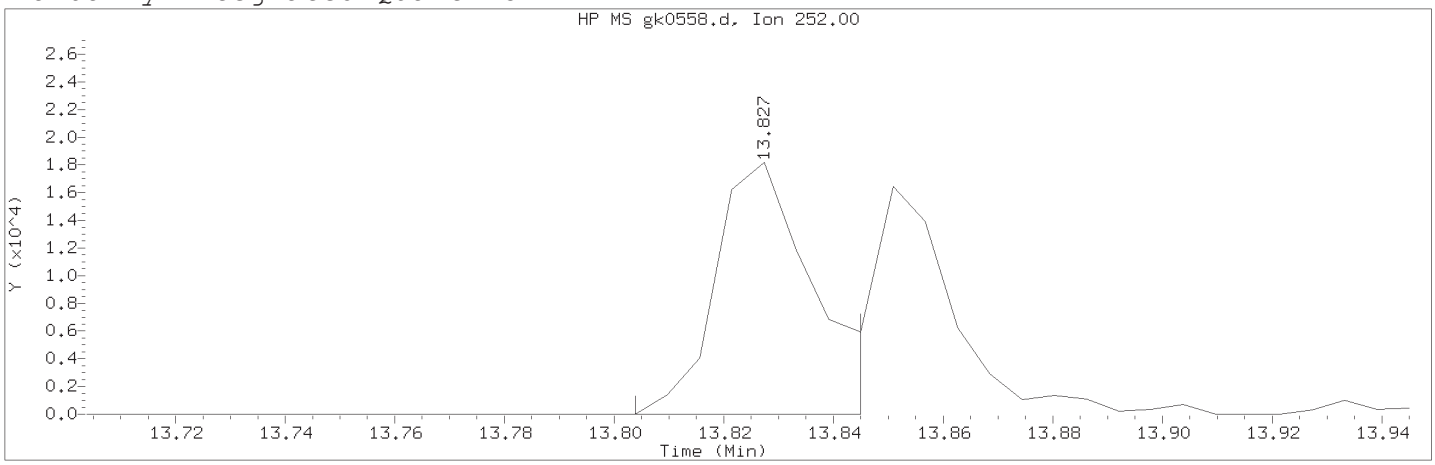
Compound Number : 151
Compound Name : Pentachloronitrobenzene
Expected RT (minutes) : 9.969
Quant Ion : 237.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used 11/12/2018 14:46

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

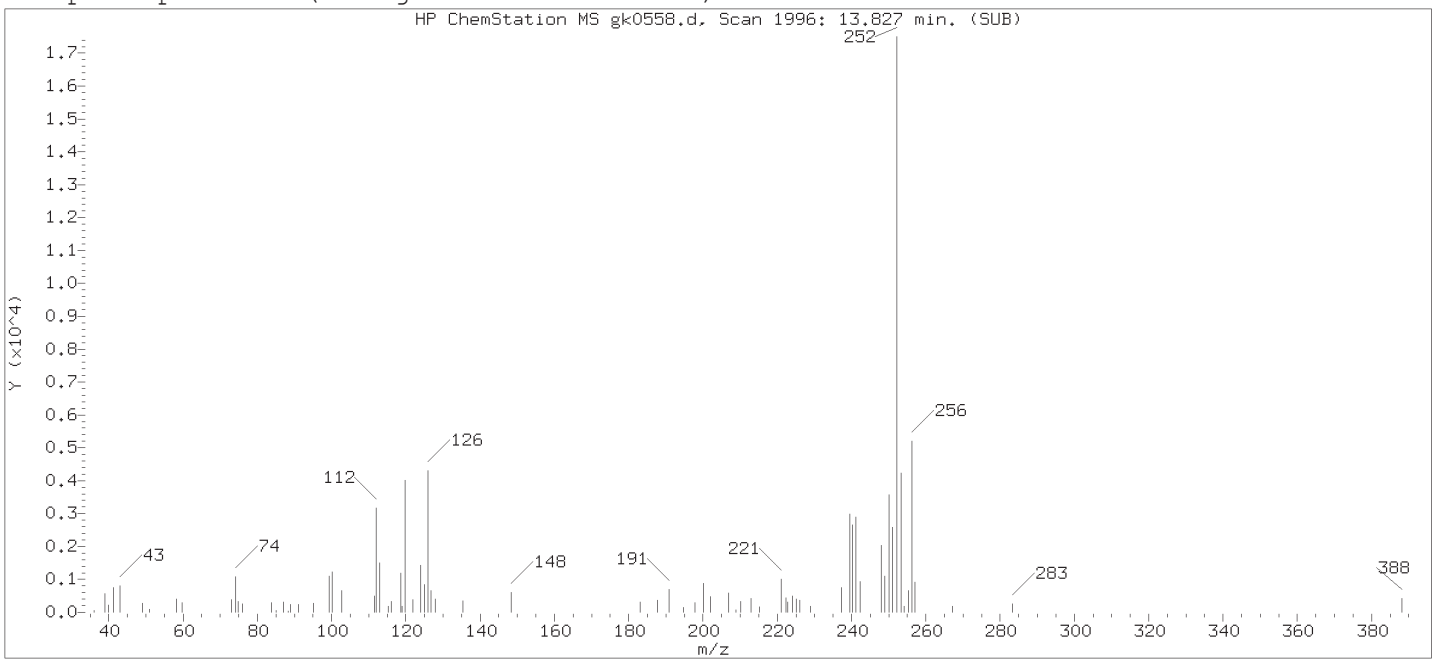
Compound Number : 206
Compound Name : Benzo(b)fluoranthene
Scan Number : 1996
Retention Time (minutes) : 13.827
Quant Ion : 252.00
Area (flag) : 22762M
On-Column Amount (ng/ul) : 0.5455
Integration start scan : 1991 Integration stop scan: 1998
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

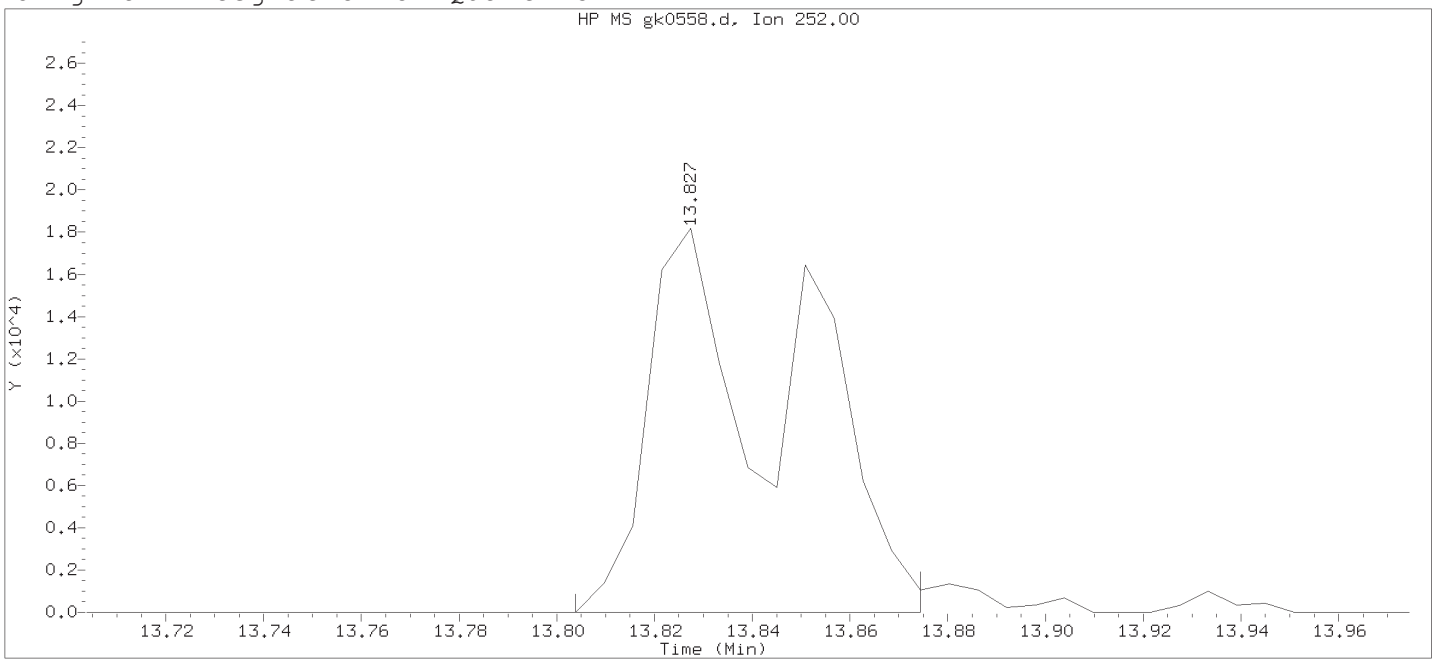
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

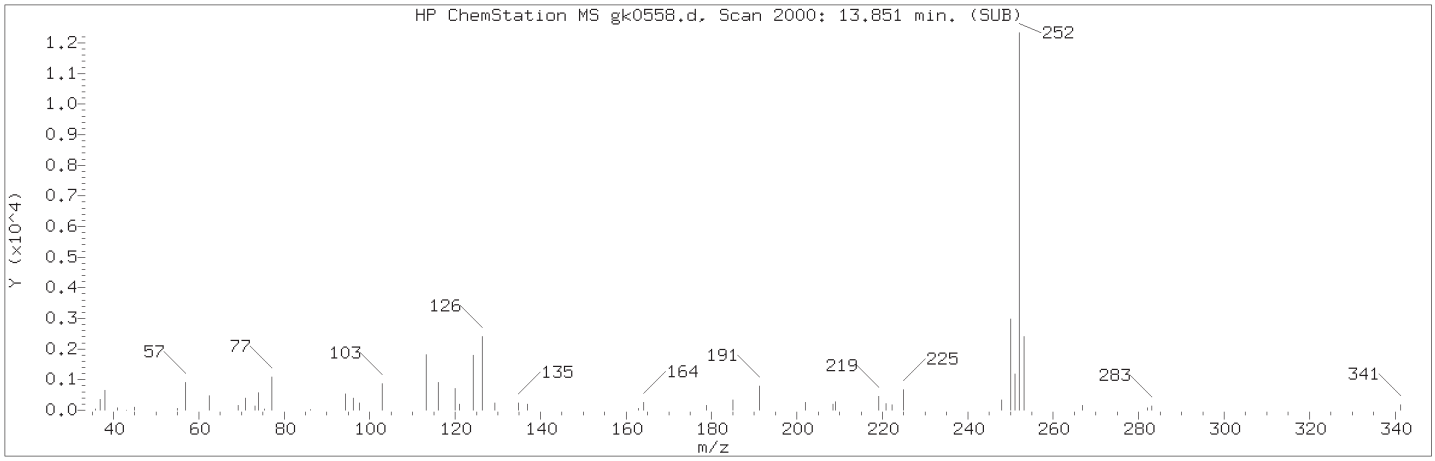
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

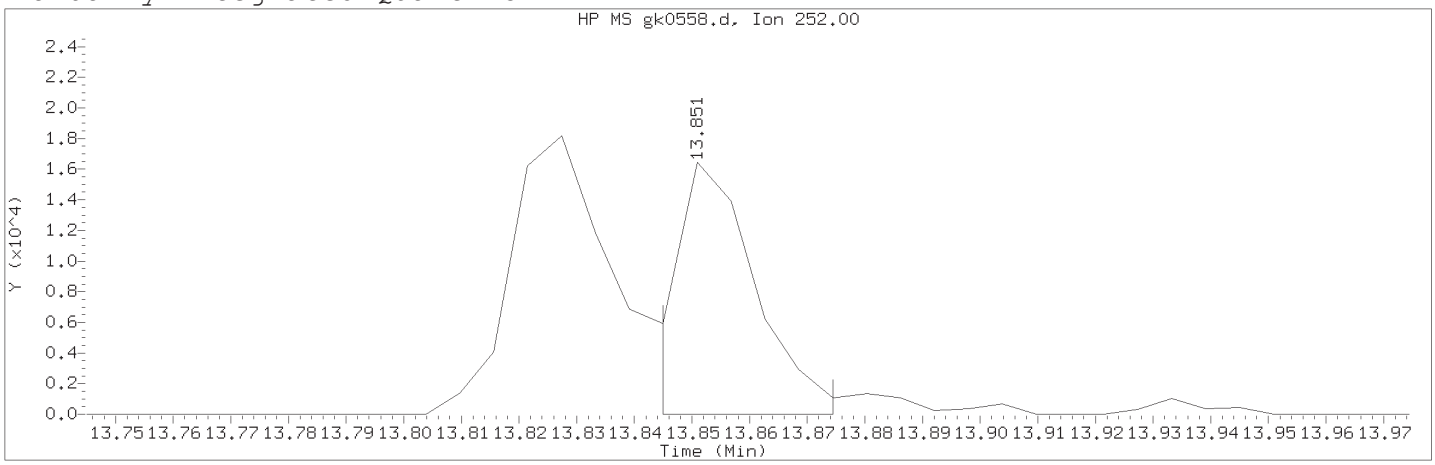
Compound Number	:	206
Compound Name	:	Benzo(b)fluoranthene
Scan Number	:	1996
Retention Time (minutes)	:	13.827
Quant Ion	:	252.00
Area	:	36902
On-column Amount (ng/ul)	:	0.8235
Integration start scan	:	1991 Integration stop scan: 2003
Y at integration start	:	0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

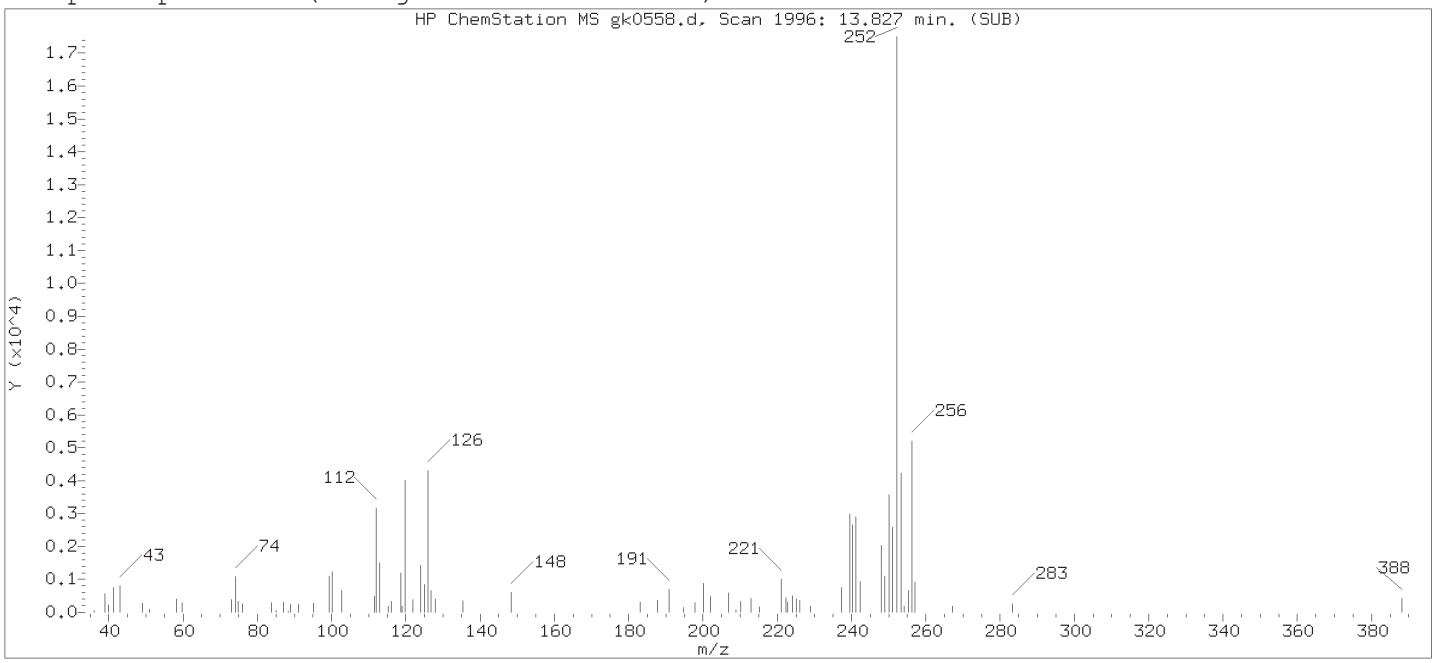
Compound Number : 208
Compound Name : Benzo(k)fluoranthene
Scan Number : 2000
Retention Time (minutes) : 13.851
Quant Ion : 252.00
Area (flag) : 16409M
On-Column Amount (ng/ul) : 0.4144
Integration start scan : 1998 Integration stop scan: 2003
Y at integration start : 3 Y at integration end: 3

Reason for manual integration: improper integration

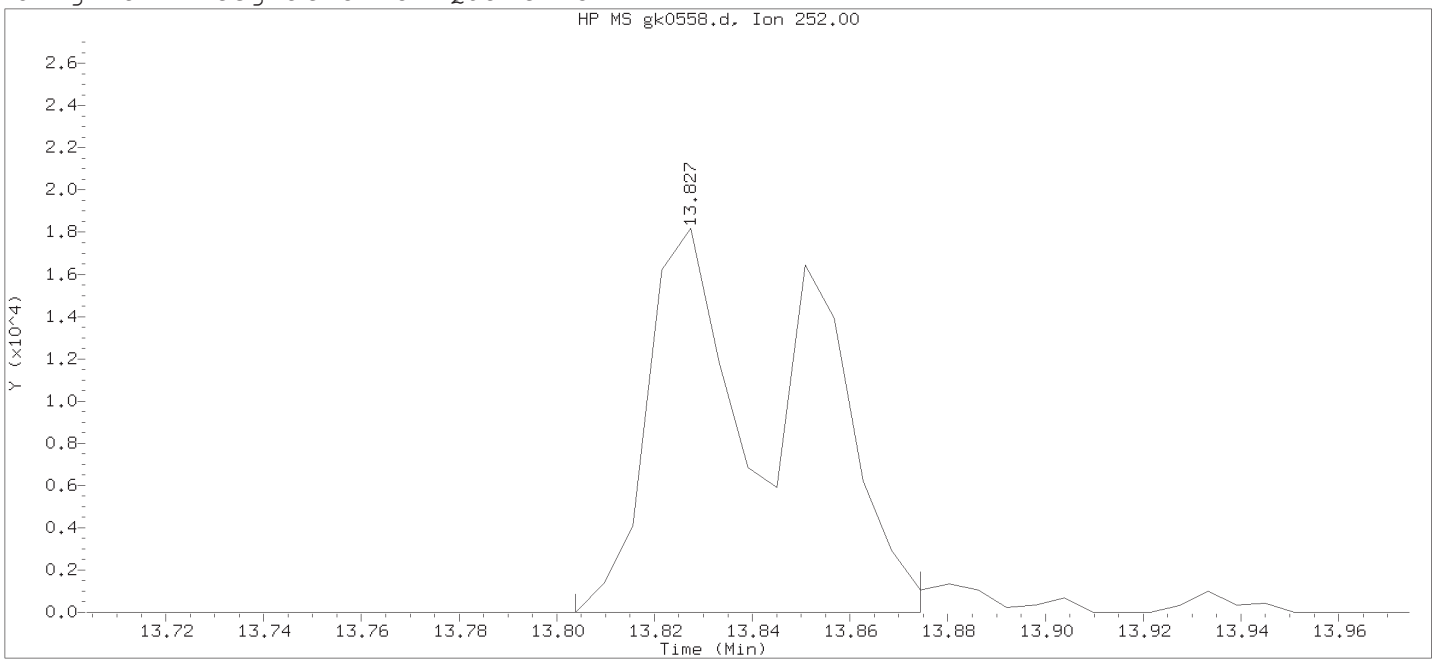
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

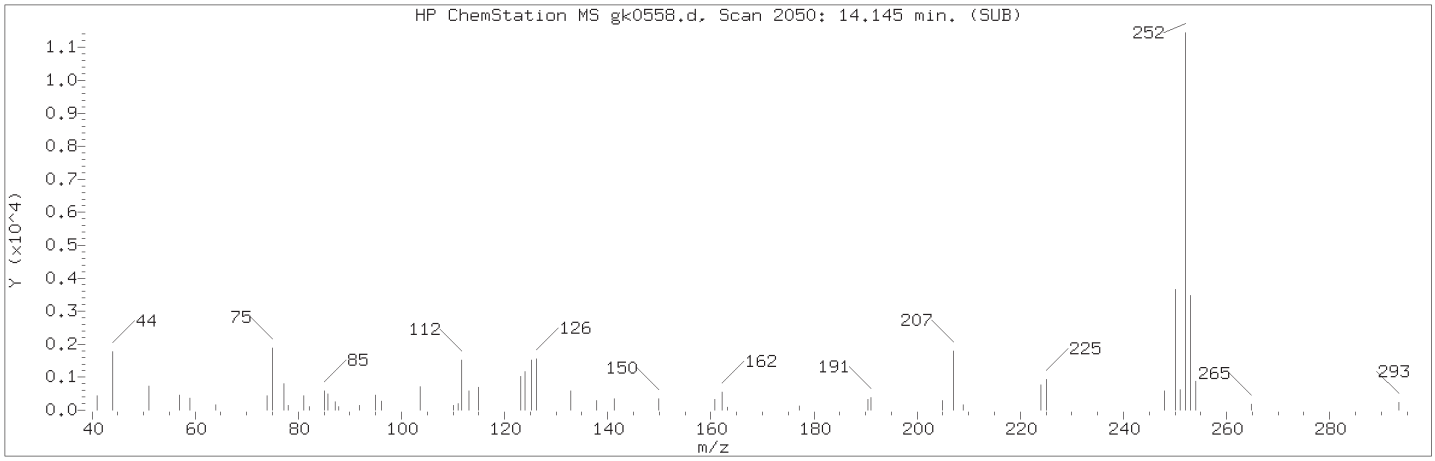
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

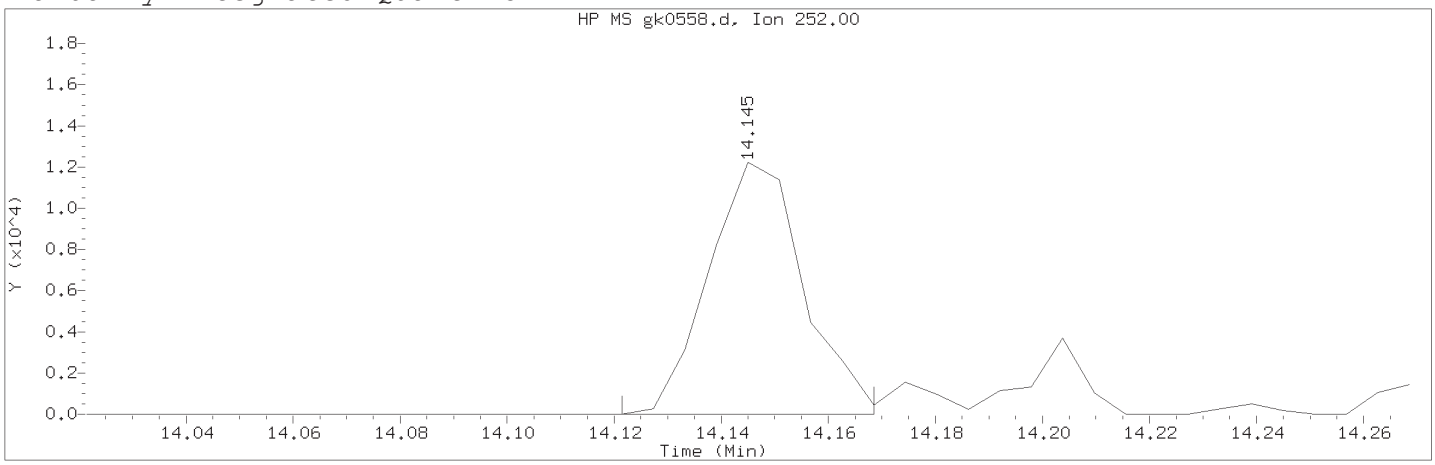
Compound Number	: 208		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1996		
Retention Time (minutes)	: 13.827		
Quant Ion	: 252.00		
Area	: 36902		
On-column Amount (ng/ul)	: 0.8224		
Integration start scan	: 1991	Integration stop scan:	2003
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used 11/12/2018 15:10

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

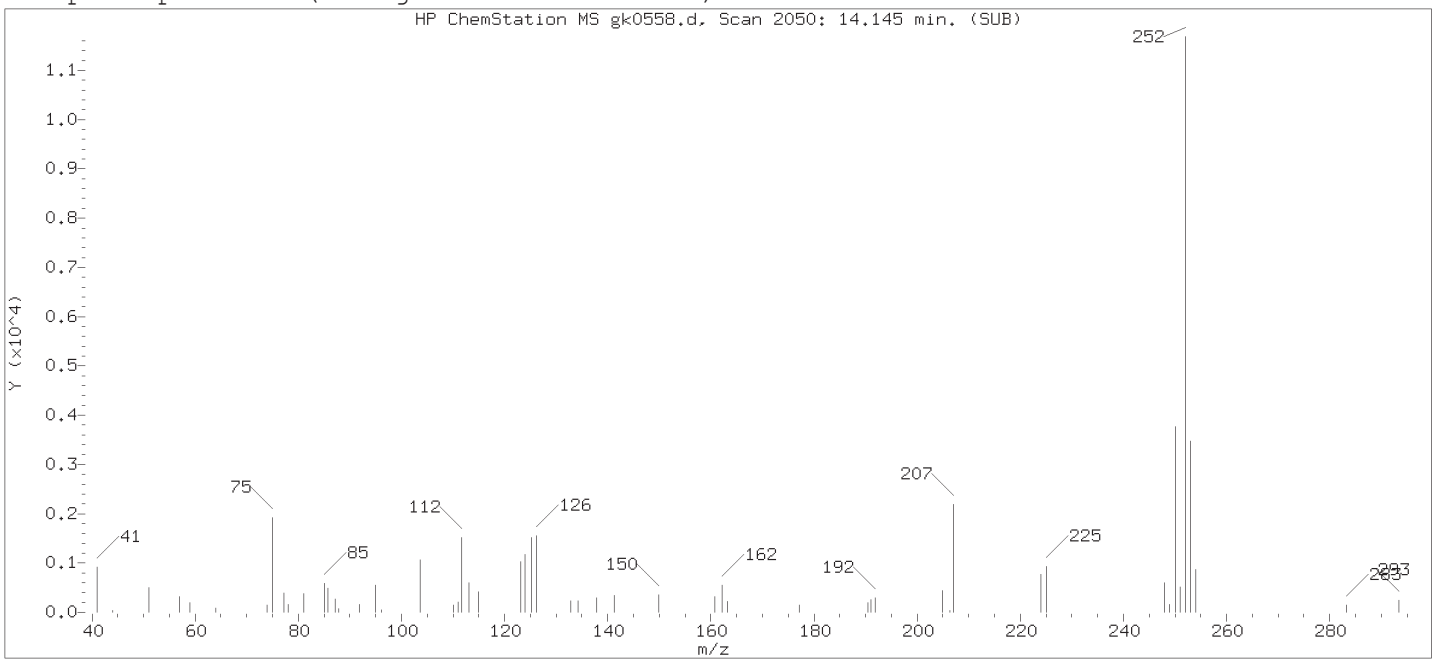
Compound Number : 211
Compound Name : Benzo(a)pyrene
Scan Number : 2050
Retention Time (minutes) : 14.145
Quant Ion : 252.00
Area (flag) : 15053M
On-Column Amount (ng/ul) : 0.4147
Integration start scan : 2045 Integration stop scan: 2053
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

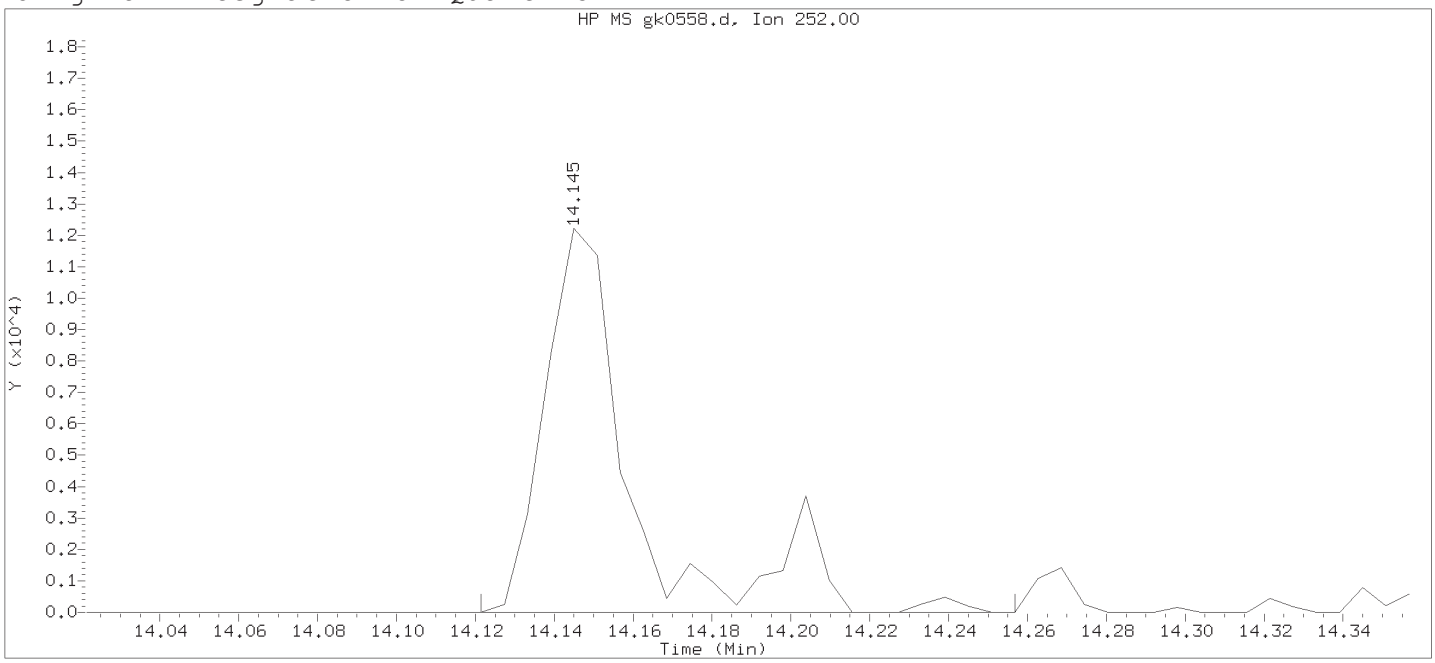
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

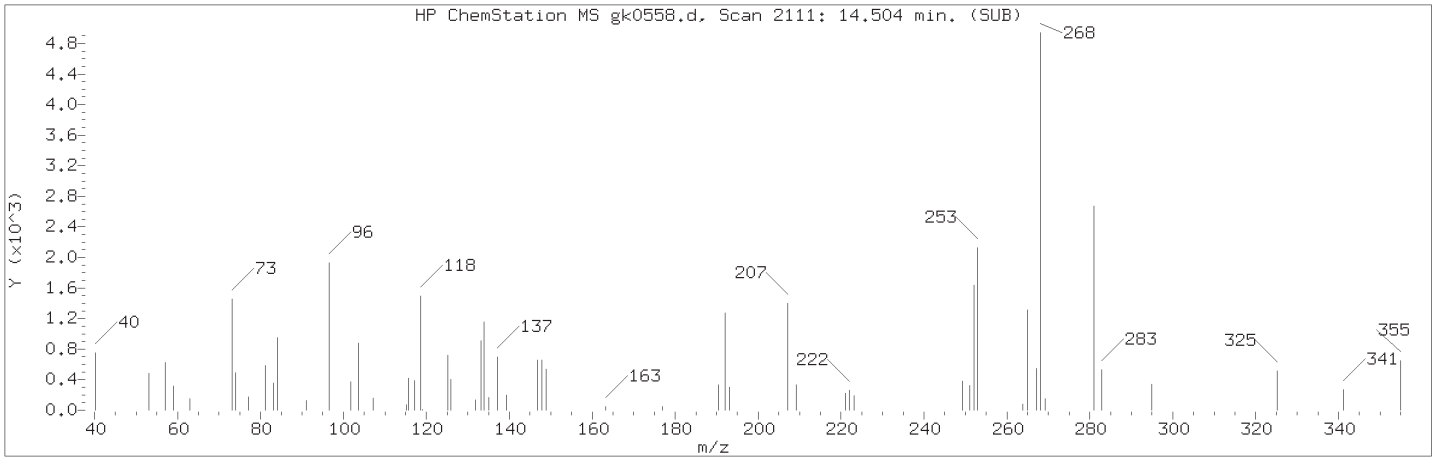
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

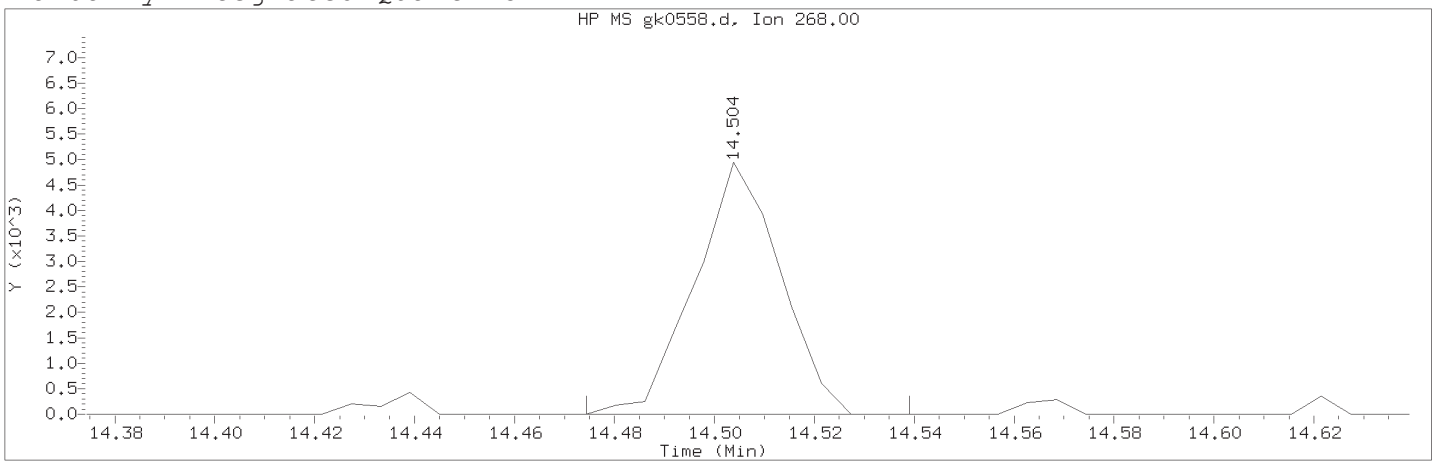
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2050		
Retention Time (minutes)	: 14.145		
Quant Ion	: 252.00		
Area	: 18901		
On-column Amount (ng/ul)	: 0.5051		
Integration start scan	: 2045	Integration stop scan:	2068
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

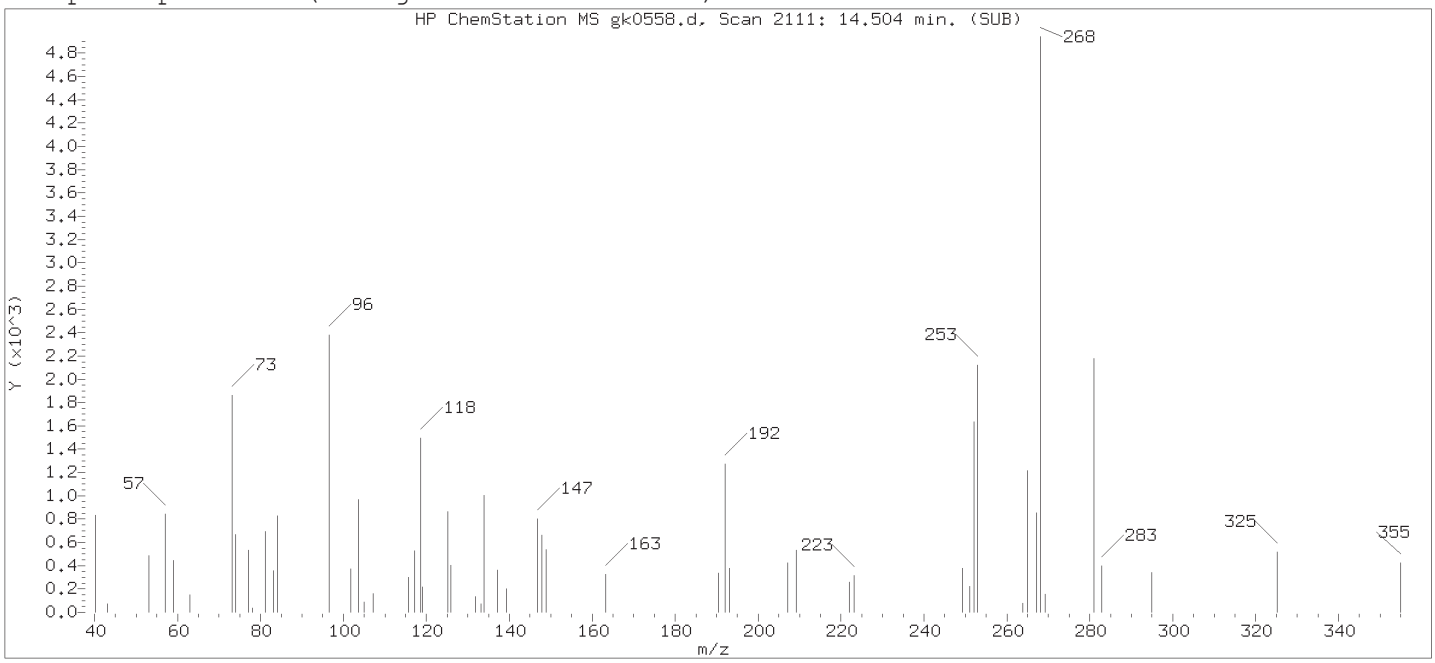
Compound Number : 215
Compound Name : 3-Methylcholanthrene
Scan Number : 2111
Retention Time (minutes) : 14.504
Quant Ion : 268.00
Area (flag) : 5879M
On-Column Amount (ng/ul) : 0.4148
Integration start scan : 2105 Integration stop scan: 2116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

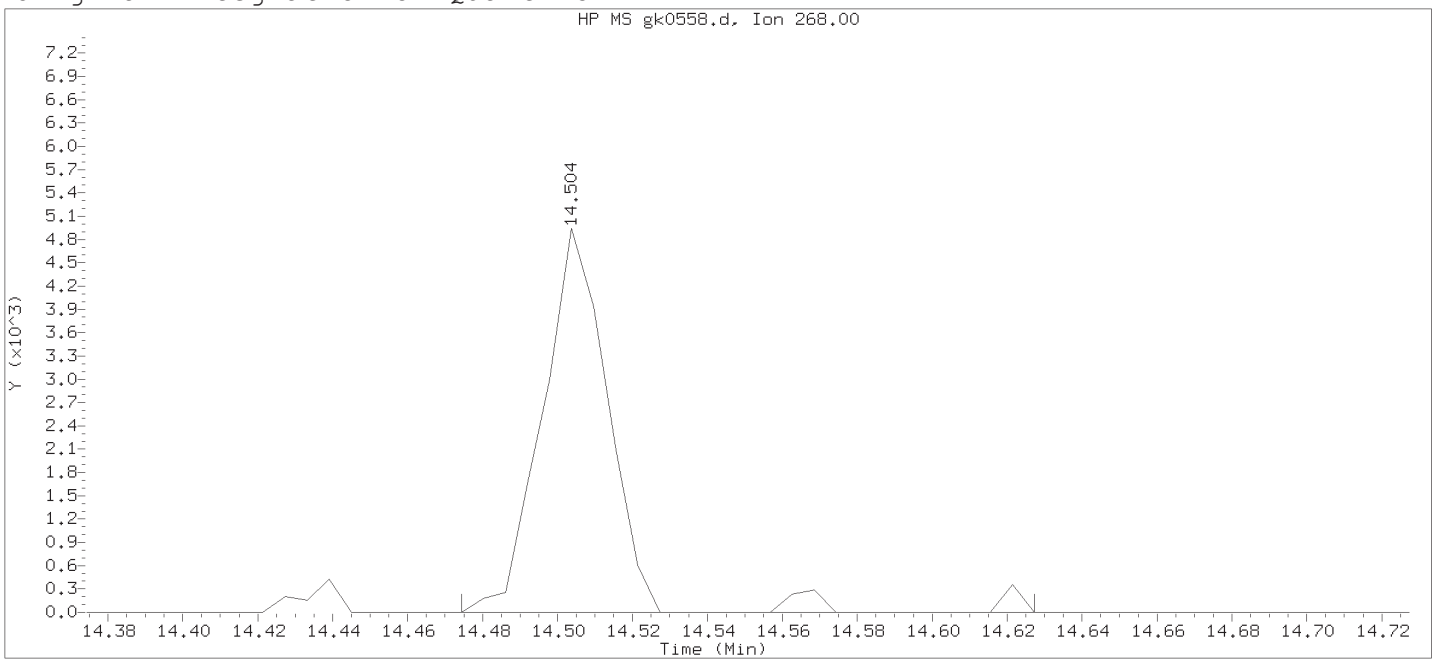
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

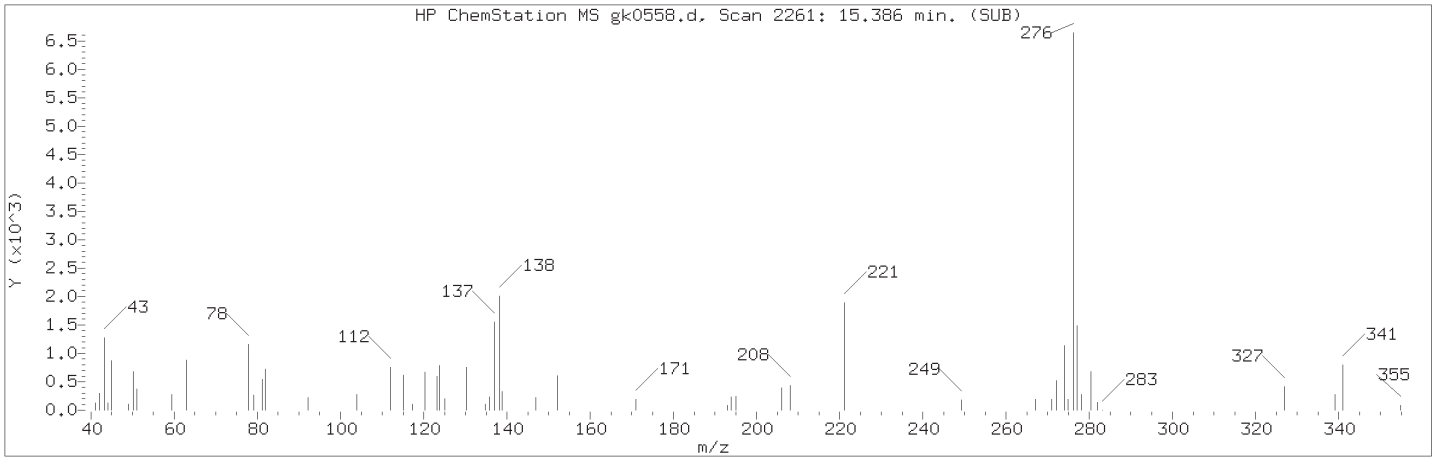
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

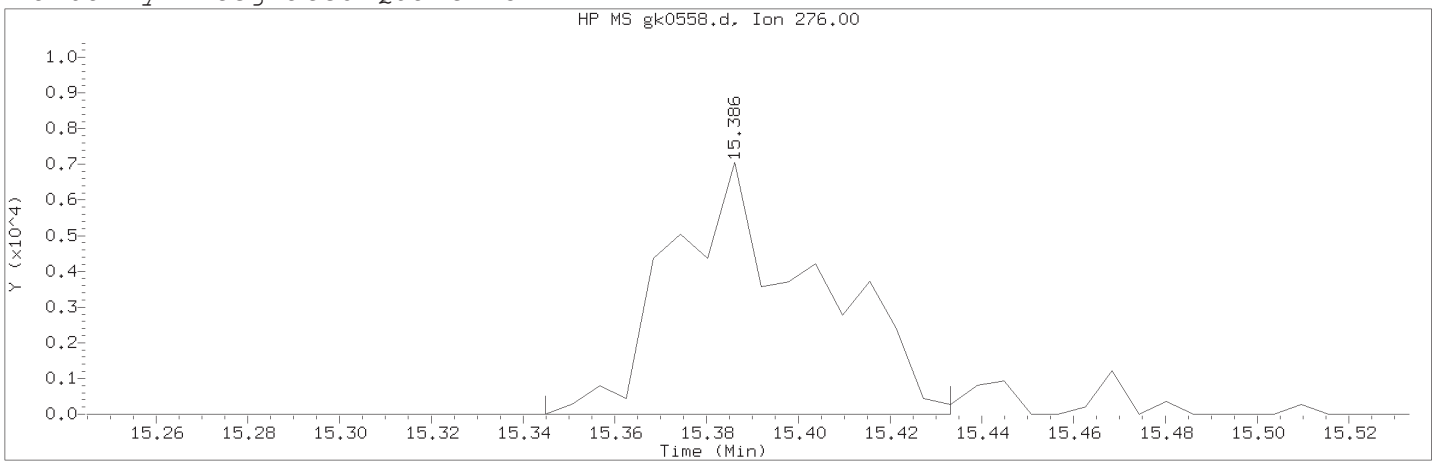
Compound Number	: 215		
Compound Name	: 3-Methylcholanthrene		
Scan Number	: 2111		
Retention Time (minutes)	: 14.504		
Quant Ion	: 268.00		
Area	: 6186		
On-column Amount (ng/ul)	: 0.4376		
Integration start scan	: 2105	Integration stop scan:	2131
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

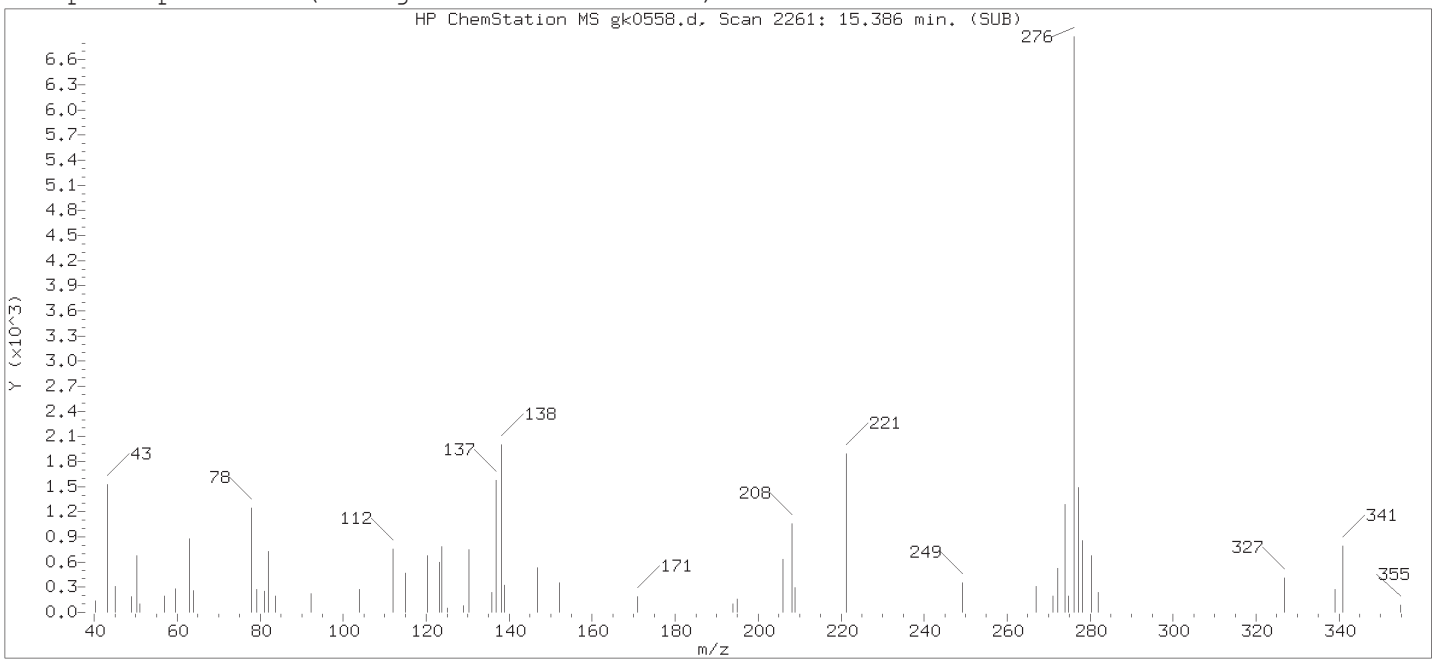
Compound Number : 219
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 2261
Retention Time (minutes) : 15.386
Quant Ion : 276.00
Area (flag) : 15339M
On-Column Amount (ng/ul) : 0.4183
Integration start scan : 2253 Integration stop scan: 2268
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

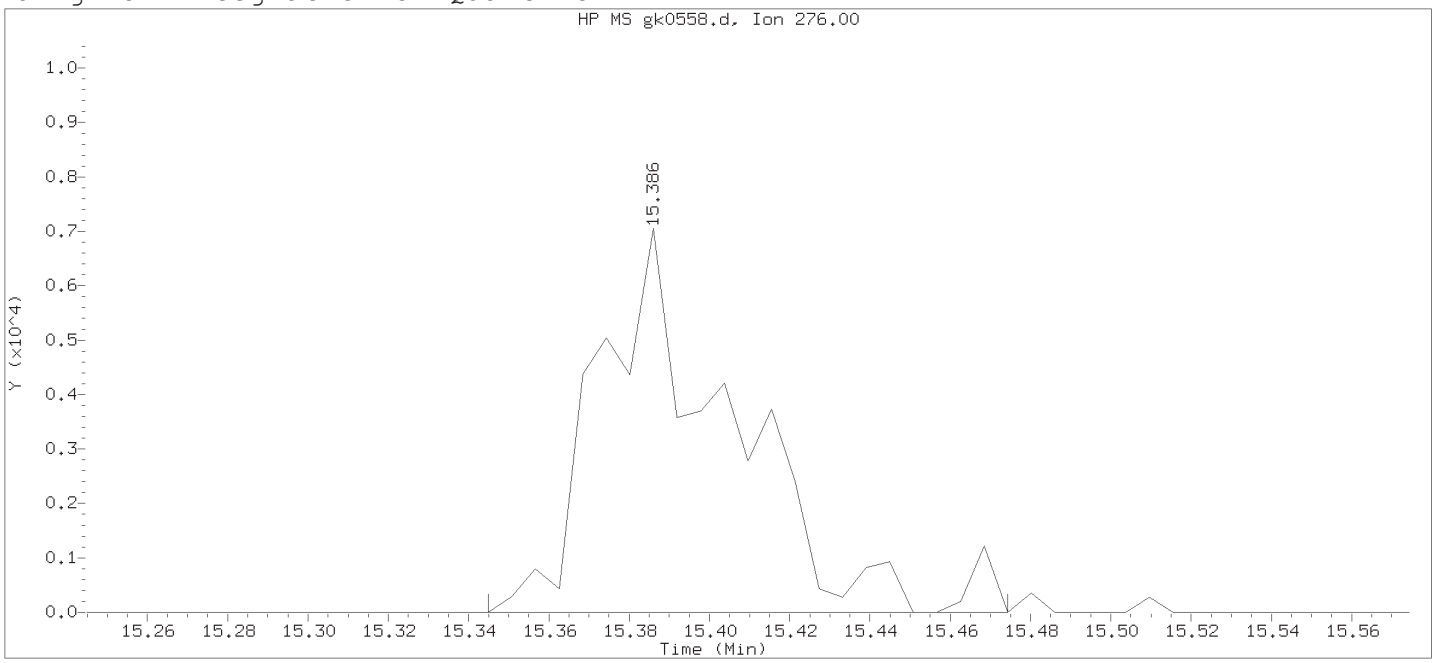
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

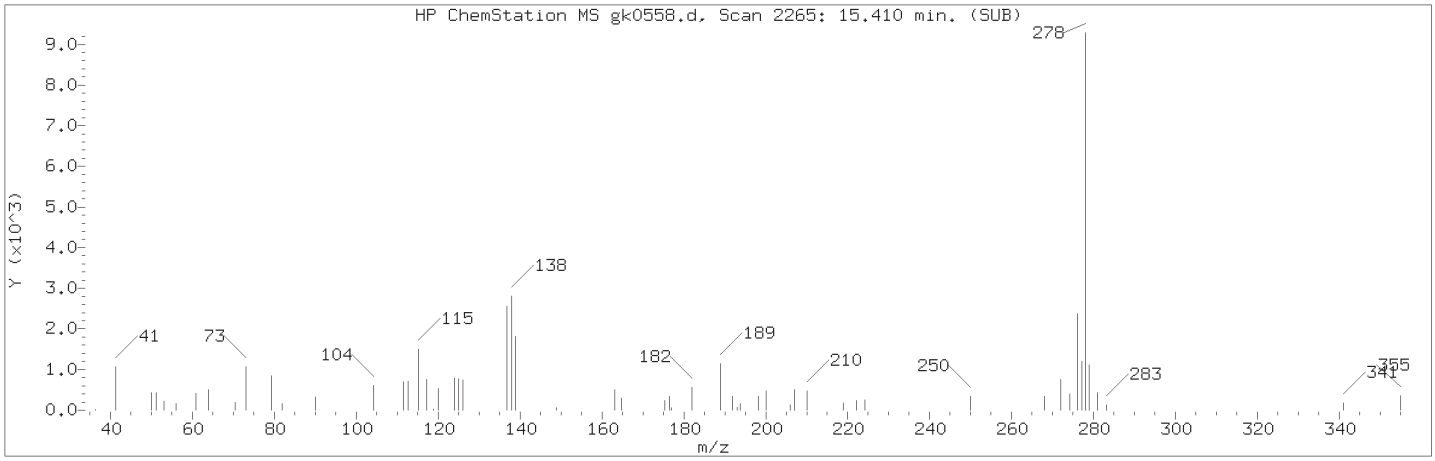
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

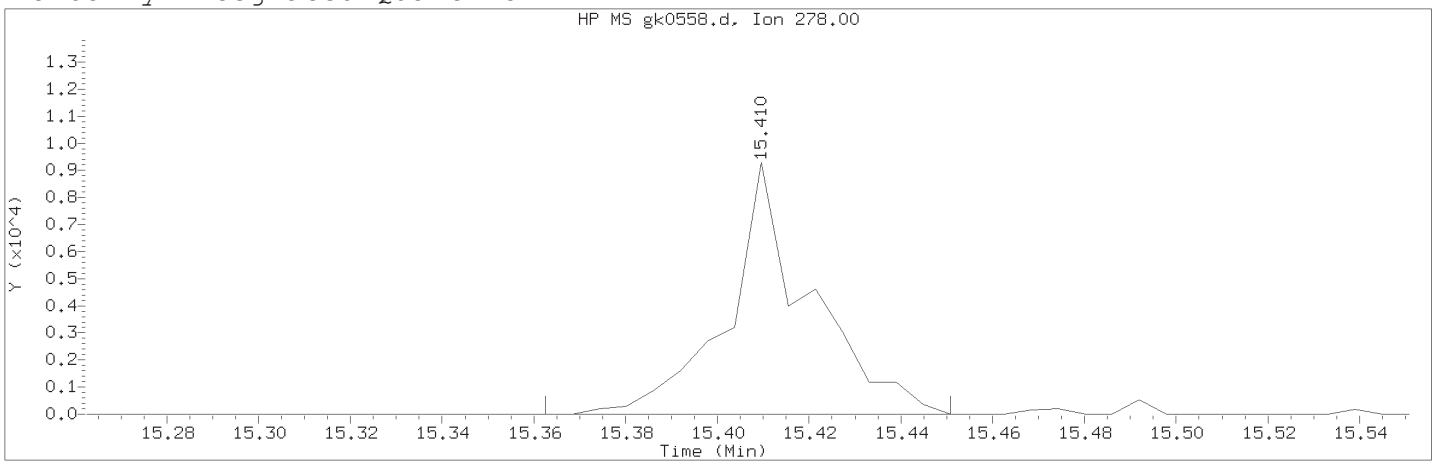
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2261		
Retention Time (minutes)	: 15.386		
Quant Ion	: 276.00		
Area	: 16456		
On-column Amount (ng/ul)	: 0.4455		
Integration start scan	: 2253	Integration stop scan:	2275
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 07:47
Date, time and analyst ID of latest file update: 12-Nov-2018 07:47 em10340

Sample Name: SSTD0.50 Lab Sample ID: STD2928

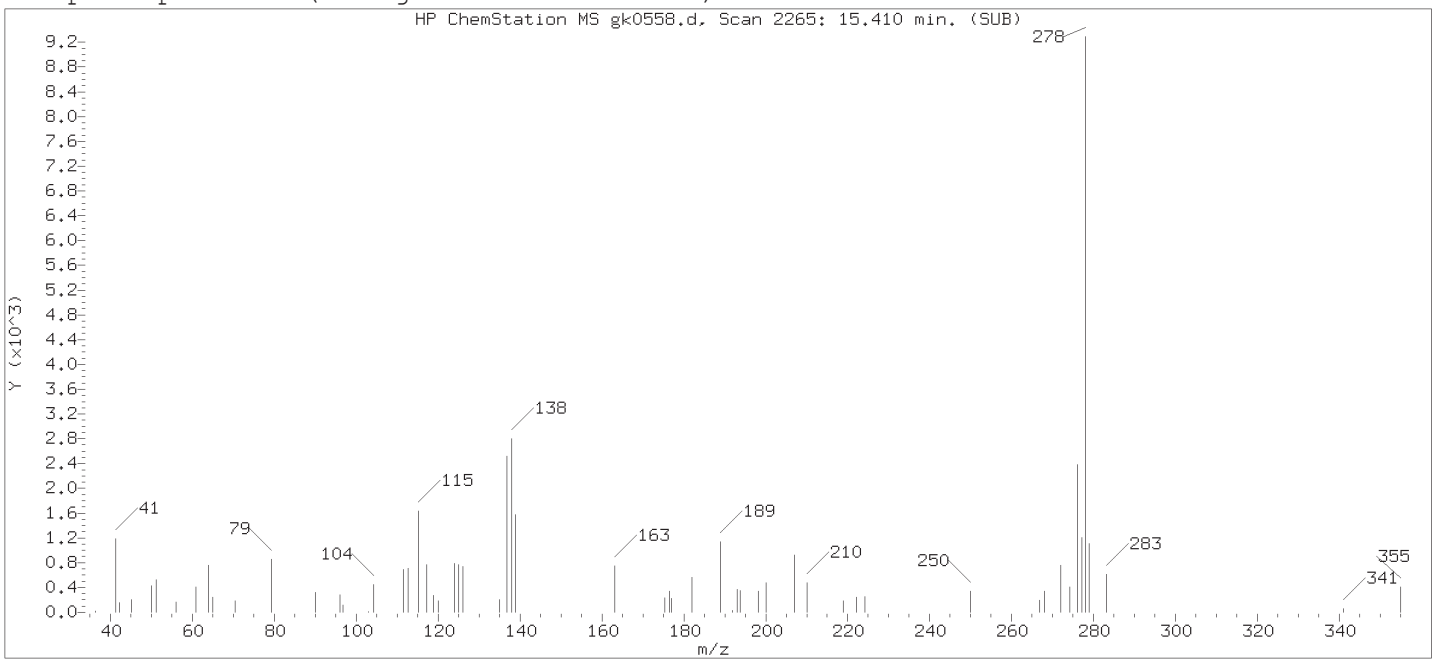
Compound Number : 220
Compound Name : Dibenz(a,h)anthracene
Scan Number : 2265
Retention Time (minutes) : 15.410
Quant Ion : 278.00
Area (flag) : 11464M
On-Column Amount (ng/ul) : 0.3787
Integration start scan : 2256 Integration stop scan: 2271
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

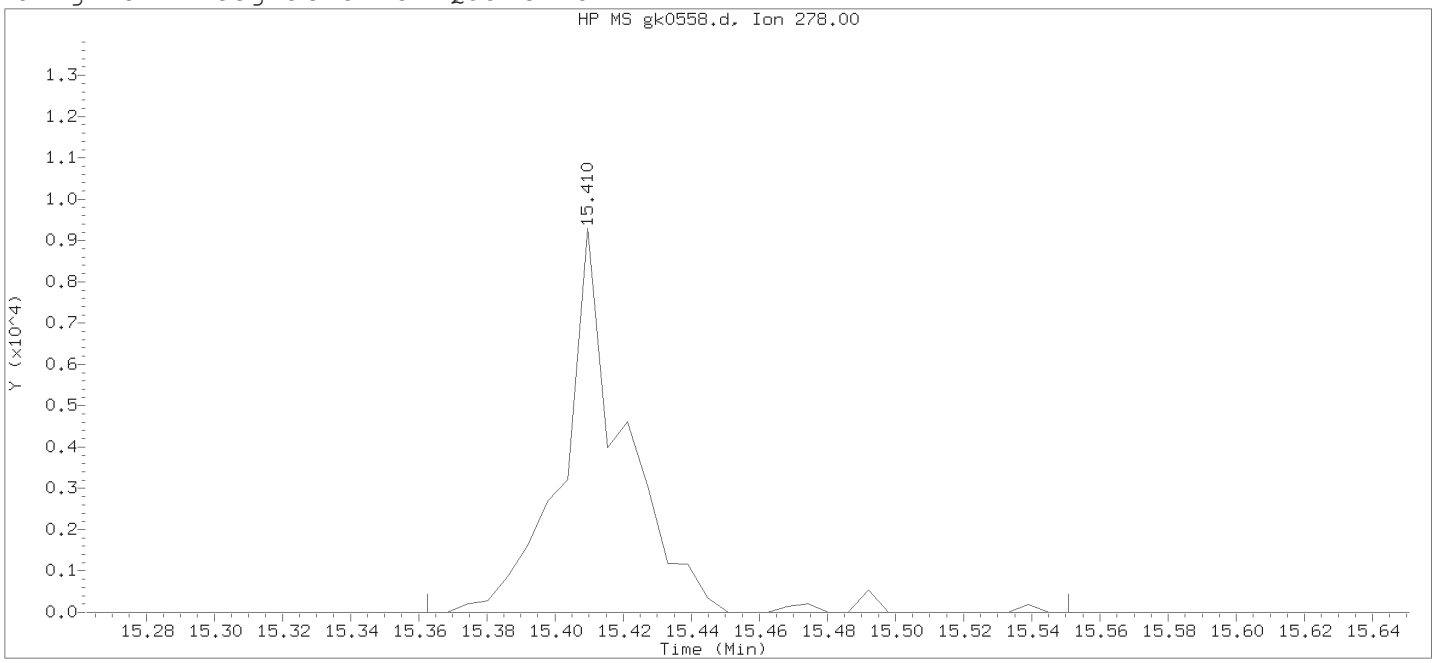
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:23.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



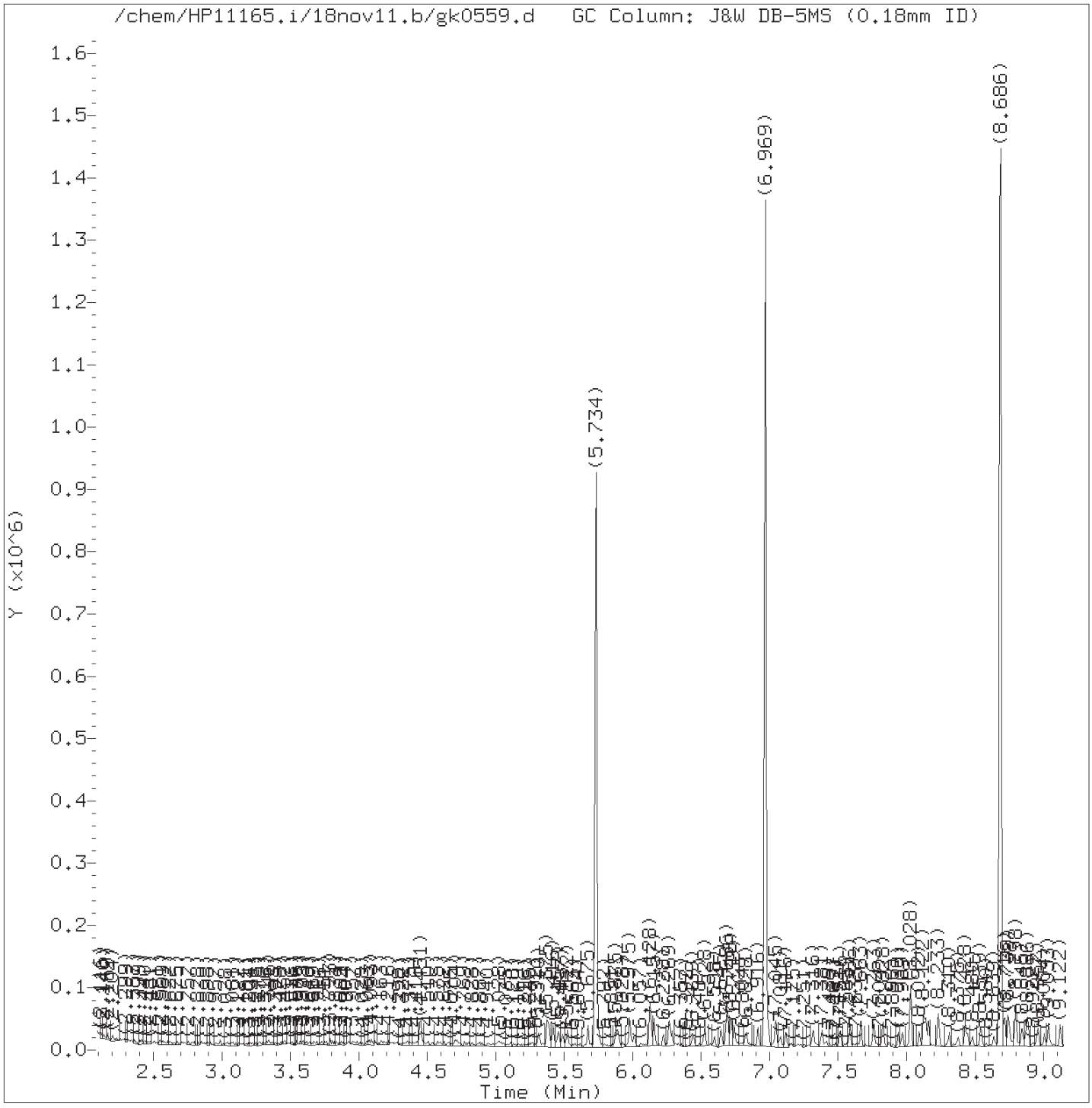
Data File: /chem/HP11165.i/18nov11.b/gk0558.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:32 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 14:54 Automation

Sample Name: SSTD0.50 Lab Sample ID: STD2928

Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2265		
Retention Time (minutes)	: 15.410		
Quant Ion	: 278.00		
Area	: 11848		
On-column Amount (ng/ul)	: 0.3855		
Integration start scan	: 2256	Integration stop scan:	2288
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:23.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

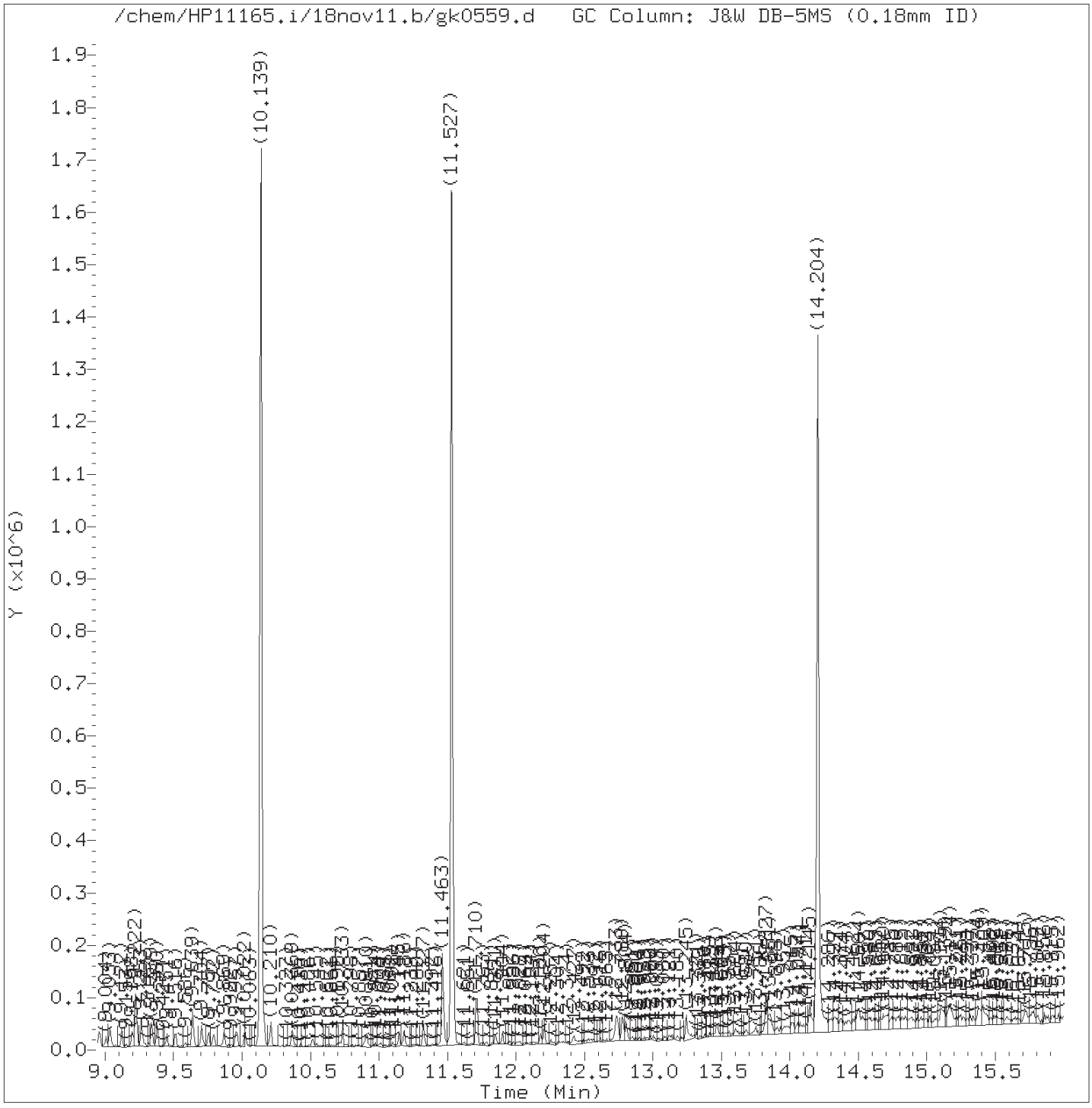
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	3.593	79	8319M	0.683
8) N-Nitrosomethylethylamine	(1)	4.063	88	3499M	0.537
7) 2-Picoline	(1)	4.087	93	5136M	0.389
9) Methyl methanesulfonate	(1)	4.357	80	3236M	0.475
11)$2-Fluorophenol	(1)	4.451	112	10749	1.048
13) N-Nitrosodiethylamine	(1)	4.716	102	1499	0.257
15) Ethyl methanesulfonate	(1)	5.022	109	2310	0.373
17)$Phenol-d6	(1)	5.375	99	15055	0.948
18) Phenol	(1)	5.392	94	8819	0.488
19) Aniline	(1)	5.416	93	10213	0.482
22) bis(2-Chloroethyl)ether	(1)	5.487	93	6398	0.493
23) 2-Chlorophenol	(1)	5.522	128	4715	0.473
42) Total Cresols	(1)			11555	0.942
24) 1,3-Dichlorobenzene	(1)	5.675	146	5803	0.529
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	135168	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	6050	0.528
27) Benzyl alcohol	(1)	5.875	108	3278	0.413
28) 1,2-Dichlorobenzene	(1)	5.892	146	6226	0.562
31) 2-Methylphenol	(1)	5.975	108	5484	0.450
30) Indene	(1)	5.981	115	5498	0.450
34) bis(2-Chloroisopropyl)ether	(1)	6.004	45	6014	0.456
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.004	45	6014	0.456
35) N-Nitrosopyrrolidine	(1)	6.122	100	1894M	0.293
36) Acetophenone	(1)	6.122	105	6937	0.422
37) 4-Methylphenol	(1)	6.128	108	6071	0.492
38) N-Nitroso-di-n-propylamine	(1)	6.134	70	4872	0.419
39) N-Nitrosomorpholine	(1)	6.151	56	3062	0.360
40) o-Toluidine	(1)	6.157	106	10226	0.529
43) Hexachloroethane	(1)	6.222	117	1490	0.346
44)$Nitrobenzene-d5	(2)	6.263	82	11115	0.763
45) Nitrobenzene	(2)	6.287	77	6176	0.406
48) N-Nitrosopiperidine	(2)	6.439	114	2066	0.353
50) Isophorone	(2)	6.528	82	12289	0.447
51) 2-Nitrophenol	(2)	6.598	139	2314	0.423
53) 2,4-Dimethylphenol	(2)	6.639	107	4995	0.413
56) Benzoic acid	(2)	6.686	105	22404	2.384
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	3087	0.583
55) bis(2-Chloroethoxy)methane	(2)	6.739	93	9237	0.605
60) 2,4-Dichlorophenol	(2)	6.828	162	3293	0.390
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	4836	0.543

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
65)*Naphthalene-d8	(2)	6.969	136	552957	20.000
67) 4-Chloroaniline	(2)	7.039	127	5877	0.457
68) 2,6-Dichlorophenol	(2)	7.045	162	3074	0.361
69) Hexachloropropene	(2)	7.081	213	2126M	0.477
71) Hexachlorobutadiene	(2)	7.116	225	1742	0.365
75) Quinoline	(2)	7.316	129	9179	0.451
77) N-Nitrosodi-n-butylamine	(2)	7.381	84	5098M	0.387
97) Isosafrole	(3)			4058	0.494
76) Caprolactam	(2)	7.392	113	1177	0.300
80) 4-Chloro-3-methylphenol	(2)	7.516	107	3588M	0.341
82) Safrole	(2)	7.586	162	3613	0.423
85) Hexachlorocyclopentadiene	(3)	7.822	237	2114	0.487
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.833	216	3759	0.434
88) cis-Isosafrole	(3)	7.875	162	711	0.084
90) 2,4,6-Trichlorophenol	(3)	7.939	196	3510	0.599
92) 2,4,5-Trichlorophenol	(3)	7.969	196	3055	0.479
93)$2-Fluorobiphenyl	(3)	8.028	172	24159	1.014
120) 2,4_2,6-Dinitrotoluenes	(3)			4750	0.721
94) trans-Isosafrole	(3)	8.092	162	3347	0.411
95) 1,1'-Biphenyl	(3)	8.122	154	14020	0.540
96) 2-Chloronaphthalene	(3)	8.139	162	13051	0.641
98) 1-Chloronaphthalene	(3)	8.163	162	9318	0.494
99) Diphenyl ether	(3)	8.228	170	6800	0.488
100) 2-Nitroaniline	(3)	8.239	138	2687	0.422
104) 1,4-Naphthoquinone	(3)	8.310	158	2666	0.319
105) 1,4-Dinitrobenzene	(3)	8.369	168	1158M	0.330
106) Dimethylphthalate	(3)	8.428	163	13632	0.572
107) 1,3-Dinitrobenzene	(3)	8.439	168	1533	0.377
108) 2,6-Dinitrotoluene	(3)	8.475	165	1579	0.295
112) 3-Nitroaniline	(3)	8.622	138	1257	0.209
113)*Acenaphthene-d10	(3)	8.686	164	294239	20.000
115) 2,4-Dinitrophenol	(3)	8.745	184	5341	1.479
146) Diallate trans/cis	(4)			11107	0.758
116) 4-Nitrophenol	(3)	8.798	109	7972	1.913
117) Pentachlorobenzene	(3)	8.839	250	4492	0.605
118) 2,4-Dinitrotoluene	(3)	8.869	165	3171	0.426
119) Dibenzofuran	(3)	8.886	168	16180	0.560
121) 1-Naphthylamine	(3)	8.957	143	10202	0.453
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	1248M	0.243
123) 2-Naphthylamine	(3)	9.033	143	10327	0.472

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
124) Diethylphthalate	(3)	9.122	149	10901	0.455
125) Thionazin	(3)	9.198	107	1748M	0.384
128) 5-Nitro-o-toluidine	(3)	9.222	152	2794	0.386
127) 4-Chlorophenyl-phenylether	(3)	9.233	204	6478	0.577
129) 4-Nitroaniline	(3)	9.233	138	3192	0.488
130) 4,6-Dinitro-2-methylphenol	(4)	9.269	198	5560	1.234
131) N-Nitrosodiphenylamine	(4)	9.339	169	9981	0.465
132) NDPA as diphenylamine	(4)	9.339	169	9981	0.465
134) 1,2-Diphenylhydrazine	(4)	9.380	77	12418	0.373
135)$2,4,6-Tribromophenol	(3)	9.457	330	1748	0.742
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	1865	0.382
139) 1,3,5-Trinitrobenzene	(4)	9.586	213	198M	0.069
140) Diallate (peak 1)	(4)	9.633	86	7954	0.514
141) Phorate	(4)	9.639	75	7748	0.386
142) Phenacetin	(4)	9.645	108	4302	0.305
143) 4-Bromophenyl-phenylether	(4)	9.710	248	3418M	0.512
144) Diallate (peak 2)	(4)	9.727	86	3153	0.244
147) Dimethoate	(4)	9.798	87	4218	0.365
149) Pentachlorophenol	(4)	9.945	266	1242	0.298
150) 4-Aminobiphenyl	(4)	9.951	169	4900	0.506
151) Pentachloronitrobenzene	(4)	9.963	237	1185M	0.400
152) Pronamide	(4)	10.022	173	5227	0.482
153)*Phenanthrene-d10	(4)	10.139	188	608065	20.000
154) Dinoseb	(4)	10.163	211	1630M	0.248
163) Carbazole	(4)	10.369	167	14271	0.419
164) Methyl parathion	(4)	10.516	109	3917	0.459
165) Di-n-butylphthalate	(4)	10.733	149	14297	0.337
167) Parathion	(4)	10.898	109	1896	0.339
168) 4-Nitroquinoline-1-oxide	(4)	10.910	190	960	0.263
169) Octachlorostyrene	(4)	11.145	308	1580	0.653
171) Isodrin	(4)	11.180	193	2006	0.471
174) Benzidine	(5)	11.463	184	57043	2.171
175)*Pyrene-d10	(5)	11.527	212	586830	20.000
179)$Terphenyl-d14	(5)	11.710	244	26269	0.926
182) p-Dimethylaminoazobenzene	(5)	11.851	225	2471	1.964
185) Chlorobenzilate	(5)	11.904	139	4644	0.370
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	8737	0.405
188) Butylbenzylphthalate	(5)	12.204	149	6203	0.315
191) 2-Acetylaminofluorene	(5)	12.416	181	3409	0.215
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	3685	0.275

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

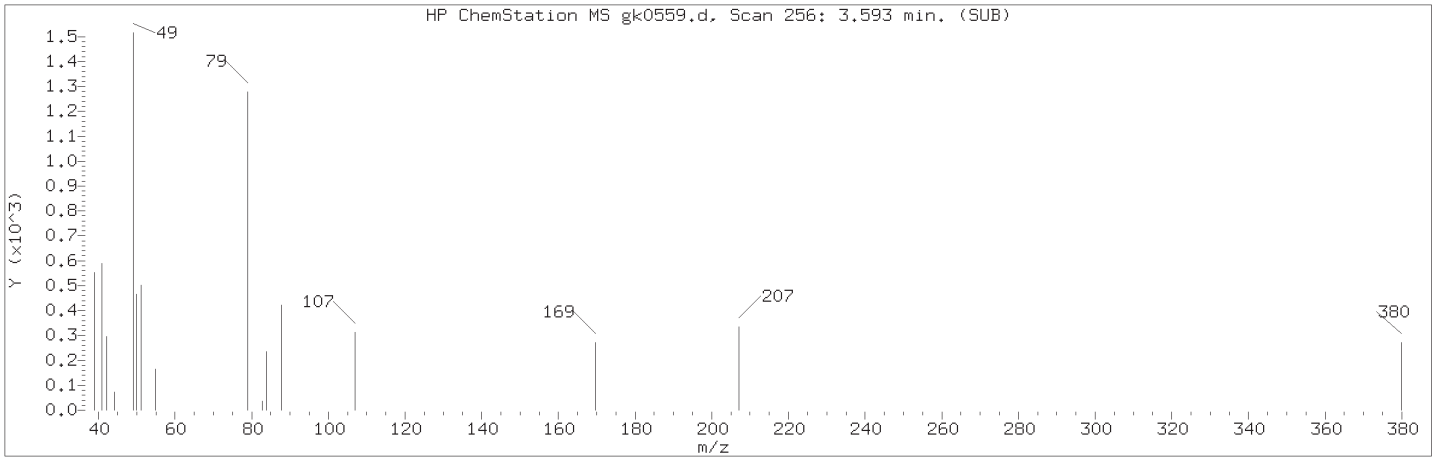
Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	2741	0.376
199) bis(2-Ethylhexyl)phthalate	(5)	12.804	149	6119	0.229
203) 6-Methylchrysene	(5)	13.245	242	10913	0.429
205) Di-n-octylphthalate	(6)	13.463	149	10062	0.217
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.821	256	7369	0.439
213)*Perylene-d12	(6)	14.204	264	515577	20.000
215) 3-Methylcholanthrene	(6)	14.498	268	5699	0.456
217) Dibenz(a,h)acridine	(6)	15.109	279	9384	0.396
218) Dibenz(a,j)acridine	(6)	15.168	279	9430	0.370

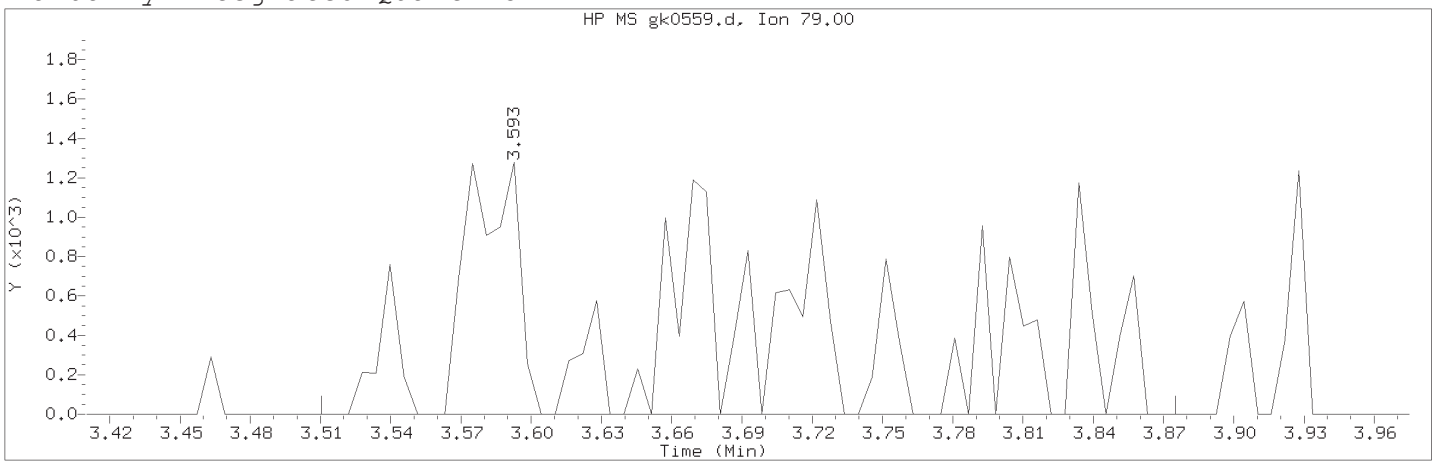
* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

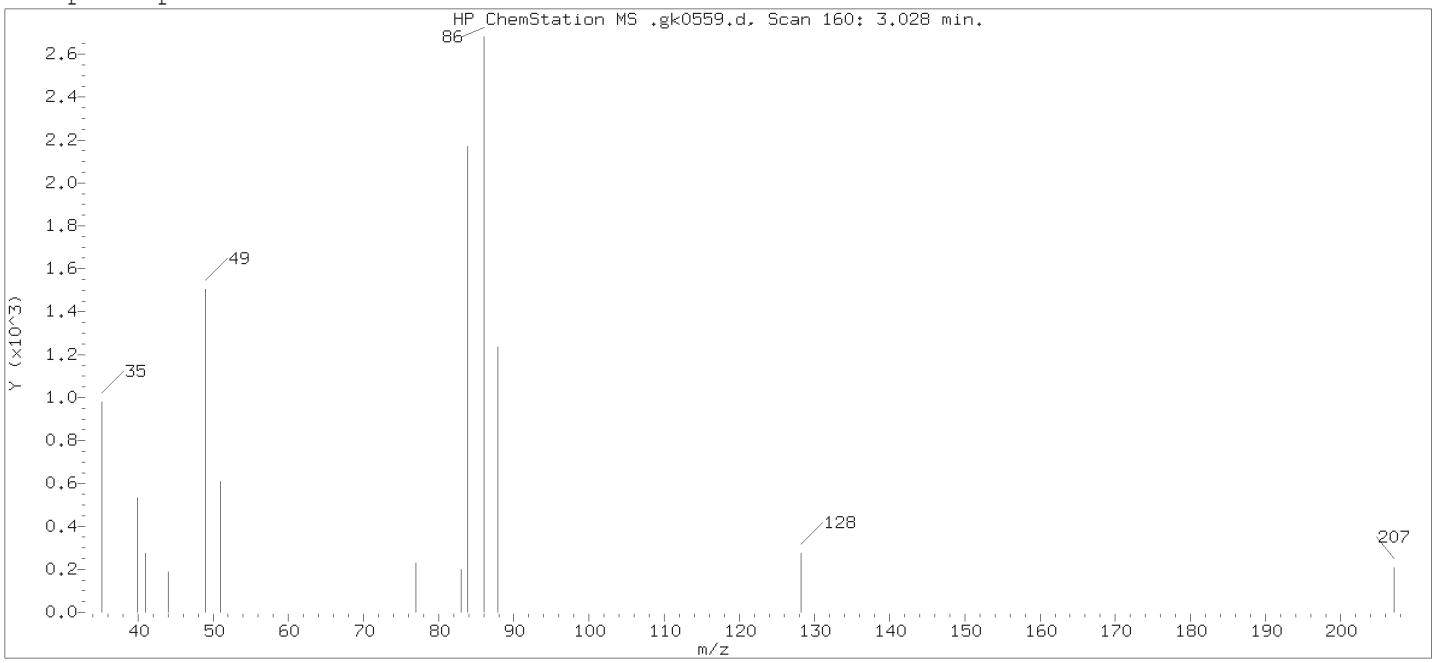
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 256		
Retention Time (minutes)	: 3.593		
Quant Ion	: 79.00		
Area (flag)	: 8319M		
On-Column Amount (ng/ul)	: 0.6828		
Integration start scan	: 241	Integration stop scan:	303
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

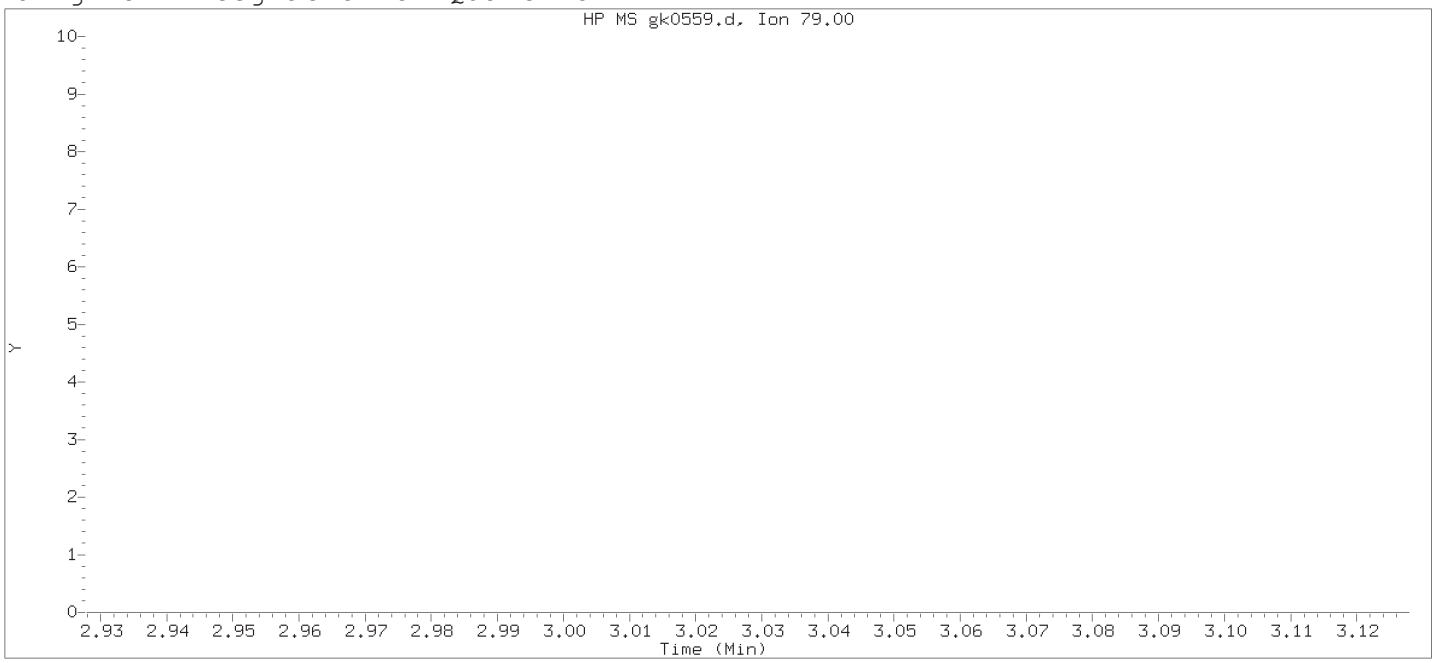
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

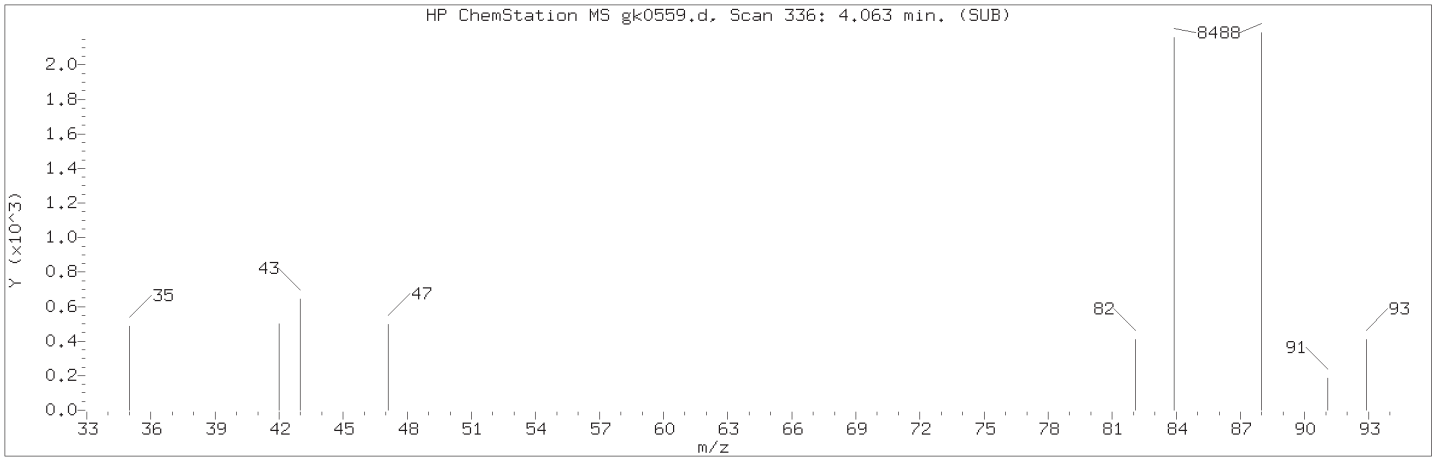
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

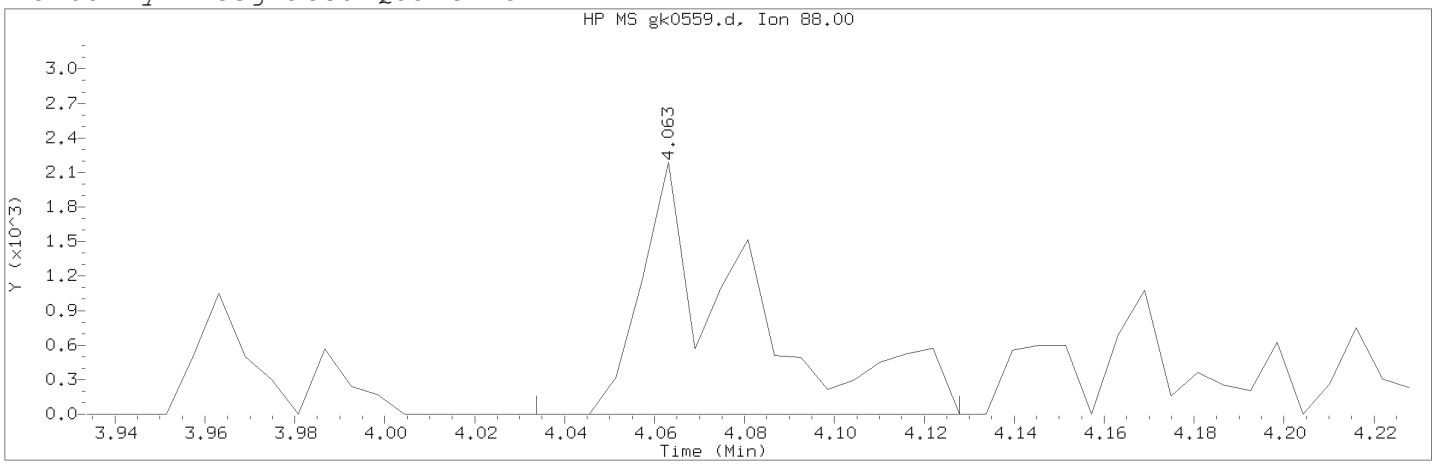
Compound Number : 5
Compound Name : Pyridine
Expected RT (minutes) : 3.028
Quant Ion : 79.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used 11/12/2018 08:24

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

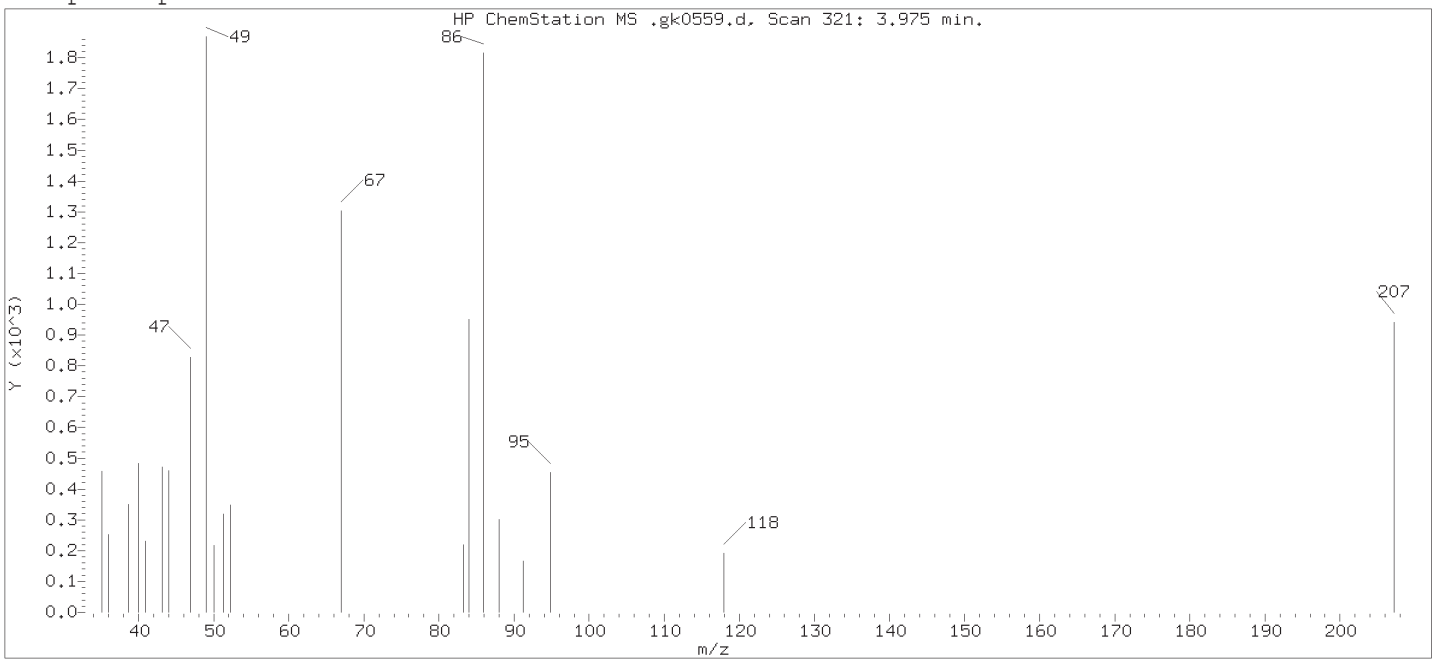
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 336		
Retention Time (minutes)	: 4.063		
Quant Ion	: 88.00		
Area (flag)	: 3499M		
On-Column Amount (ng/ul)	: 0.5369		
Integration start scan	: 330	Integration stop scan:	346
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

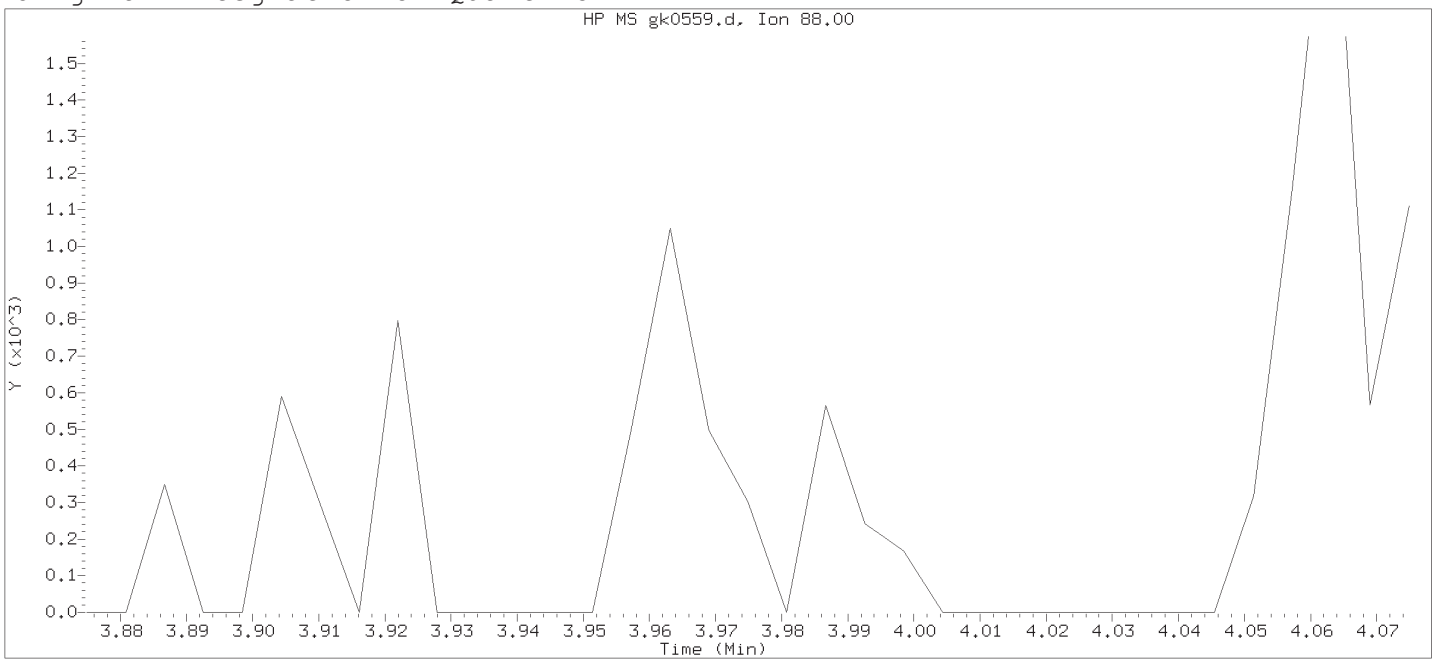
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

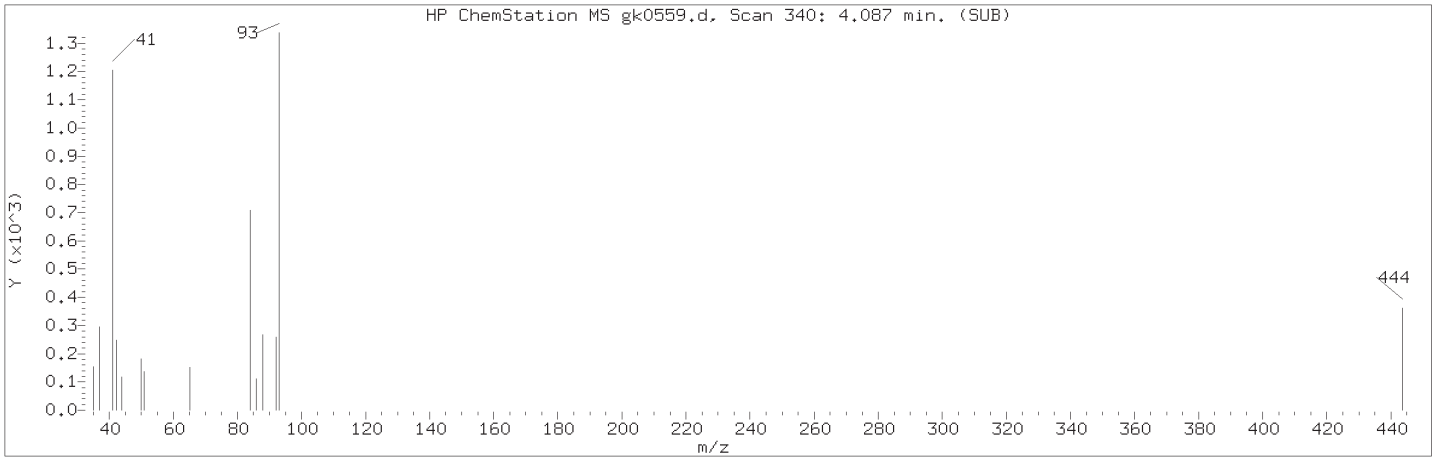
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

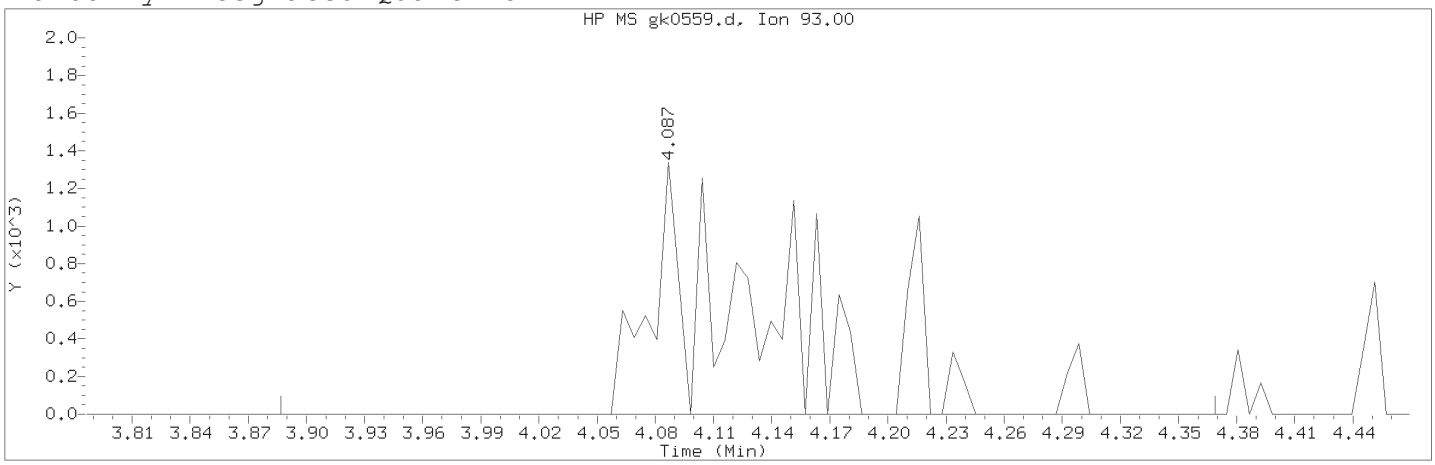
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Expected RT (minutes) : 3.975
Quant Ion : 88.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used to create.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

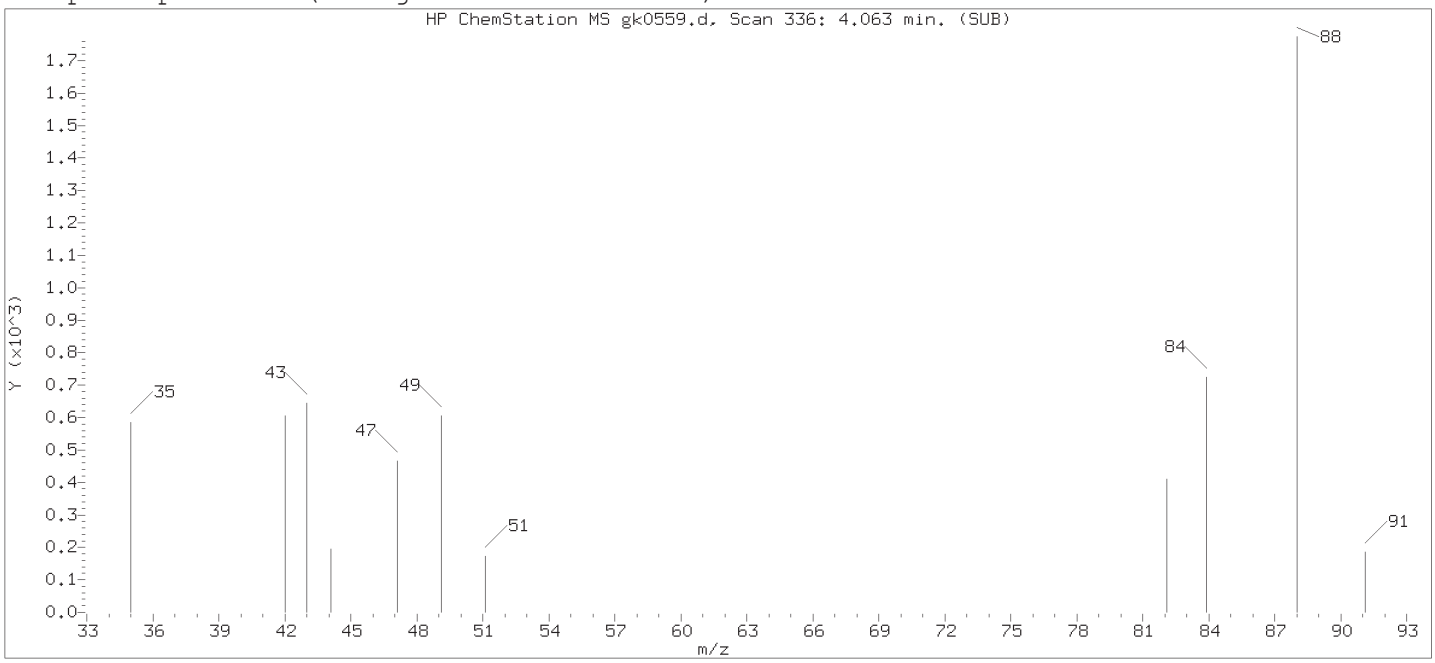
Compound Number	: 7		
Compound Name	: 2-Picoline		
Scan Number	: 340		
Retention Time (minutes)	: 4.087		
Quant Ion	: 93.00		
Area (flag)	: 5136M		
On-Column Amount (ng/ul)	: 0.3892		
Integration start scan	: 305	Integration stop scan:	387
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

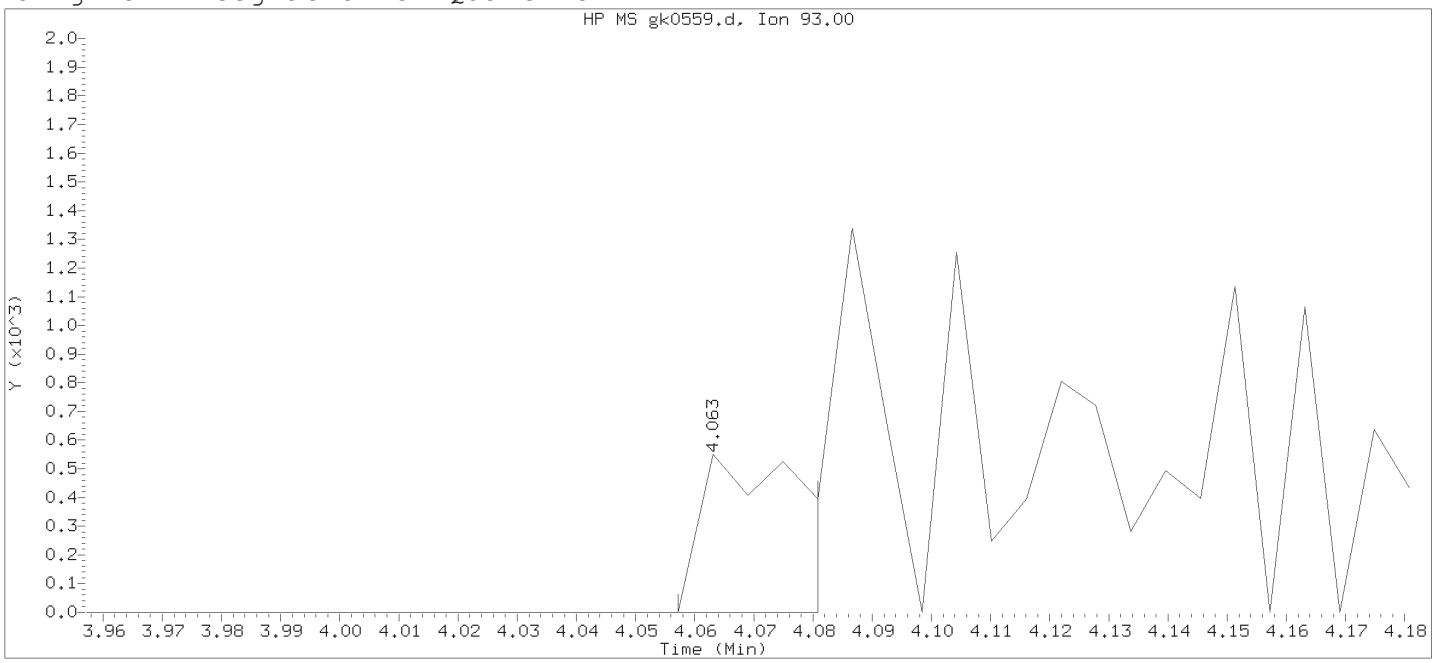
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

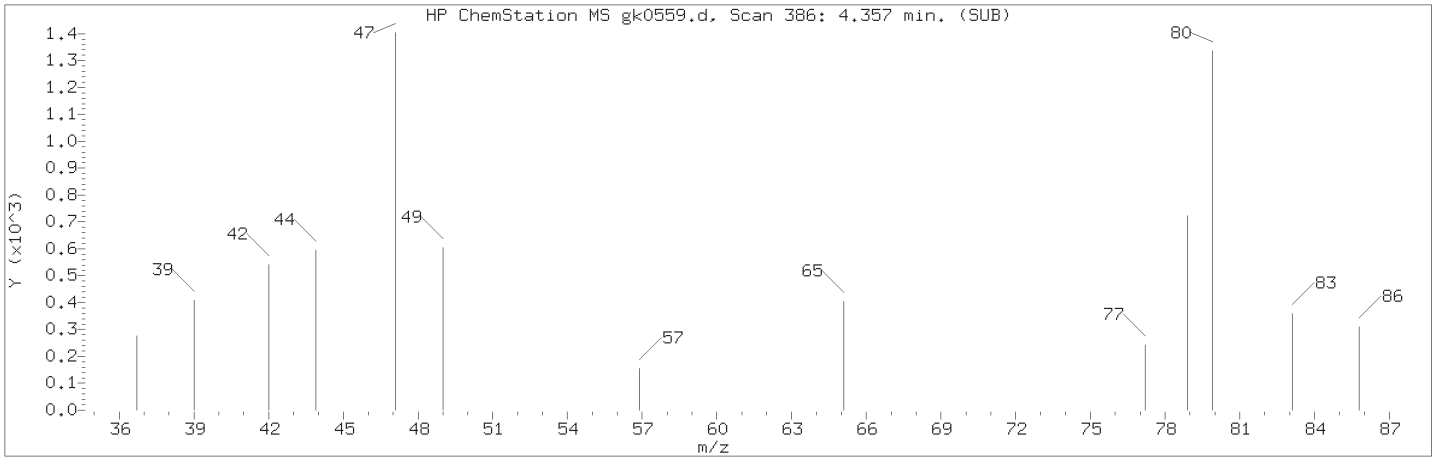
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

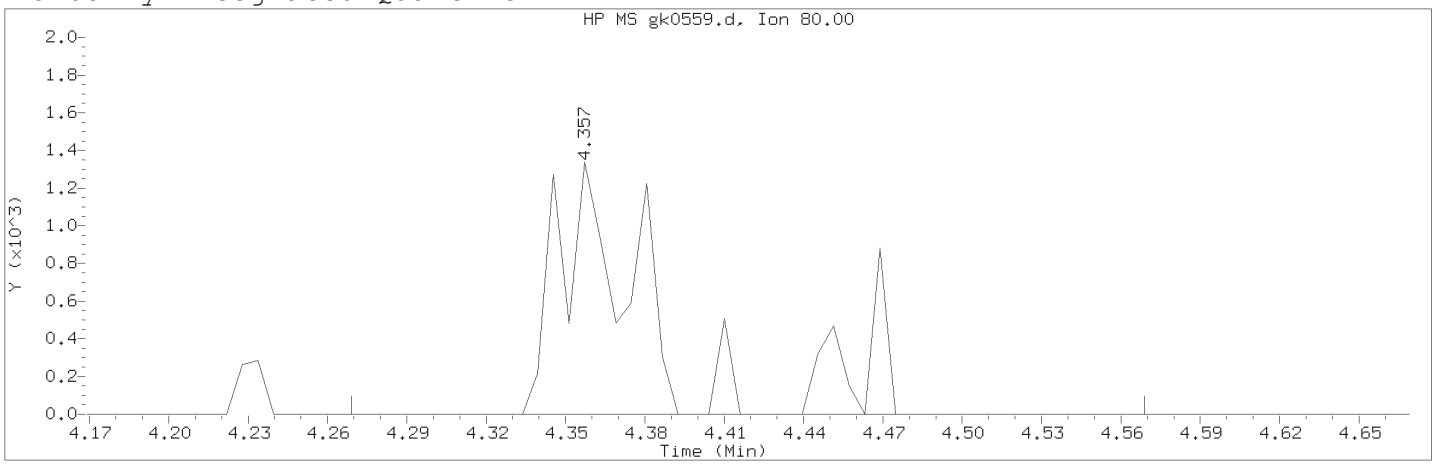
Compound Number	: 7
Compound Name	: 2-Picoline
Scan Number	: 336
Retention Time (minutes)	: 4.063
Quant Ion	: 93.00
Area	: 593
On-column Amount (ng/ul)	: 0.0531
Integration start scan	: 334 Integration stop scan: 338
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

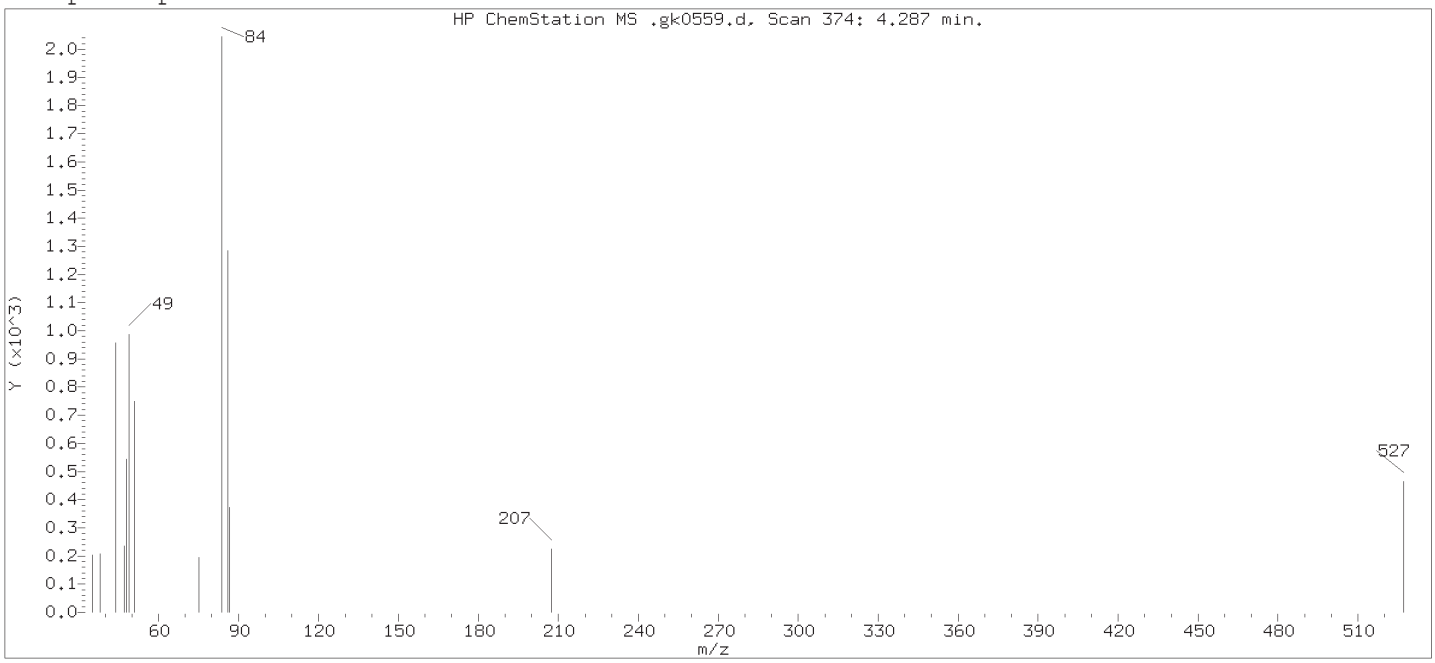
Compound Number	: 9		
Compound Name	: Methyl methanesulfonate		
Scan Number	: 386		
Retention Time (minutes)	: 4.357		
Quant Ion	: 80.00		
Area (flag)	: 3236M		
On-Column Amount (ng/ul)	: 0.4750		
Integration start scan	: 370	Integration stop scan:	421
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

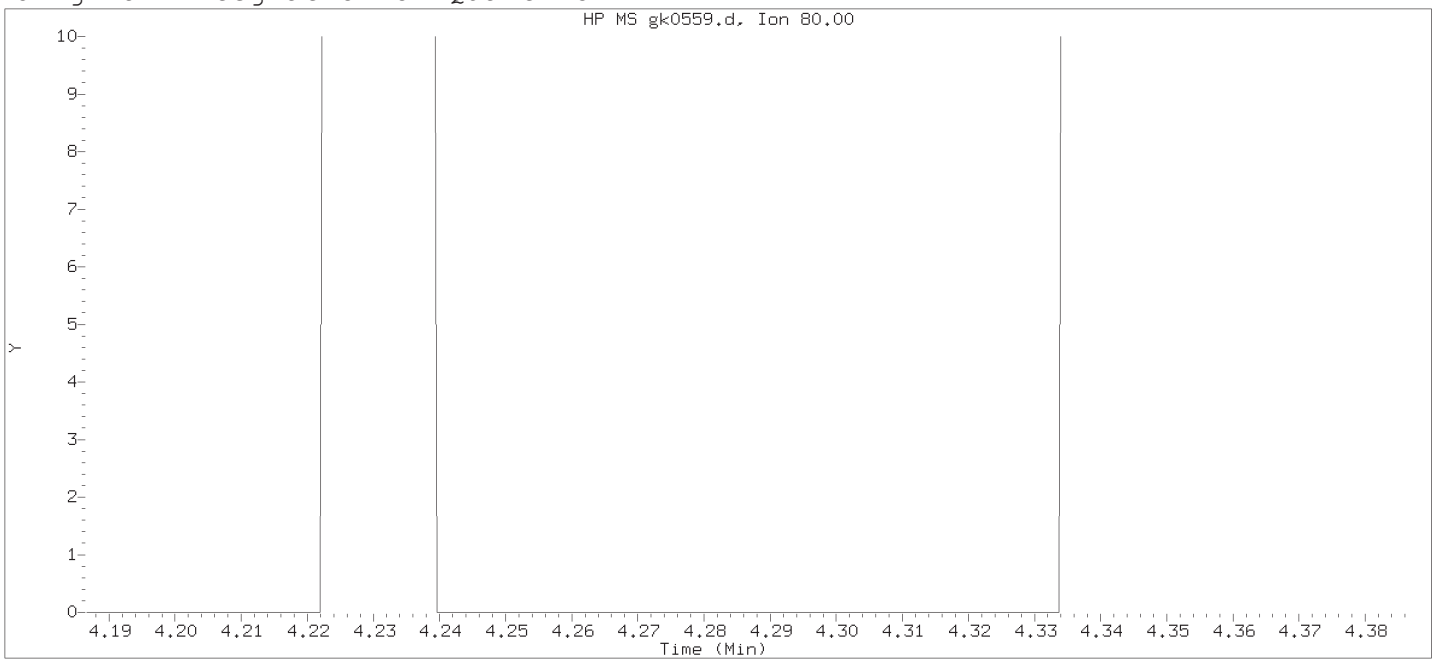
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

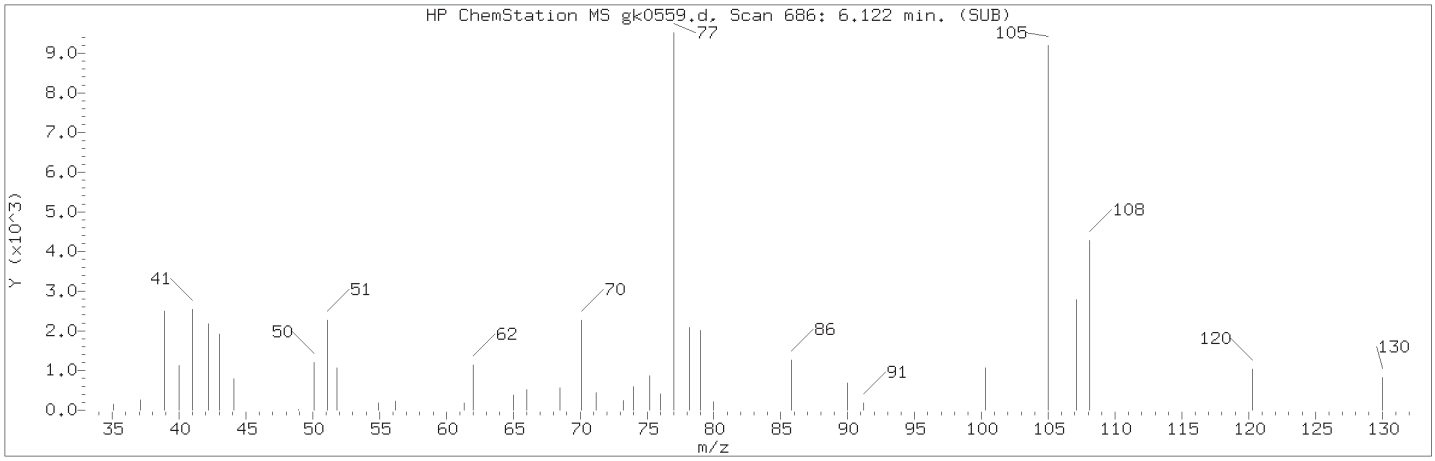
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

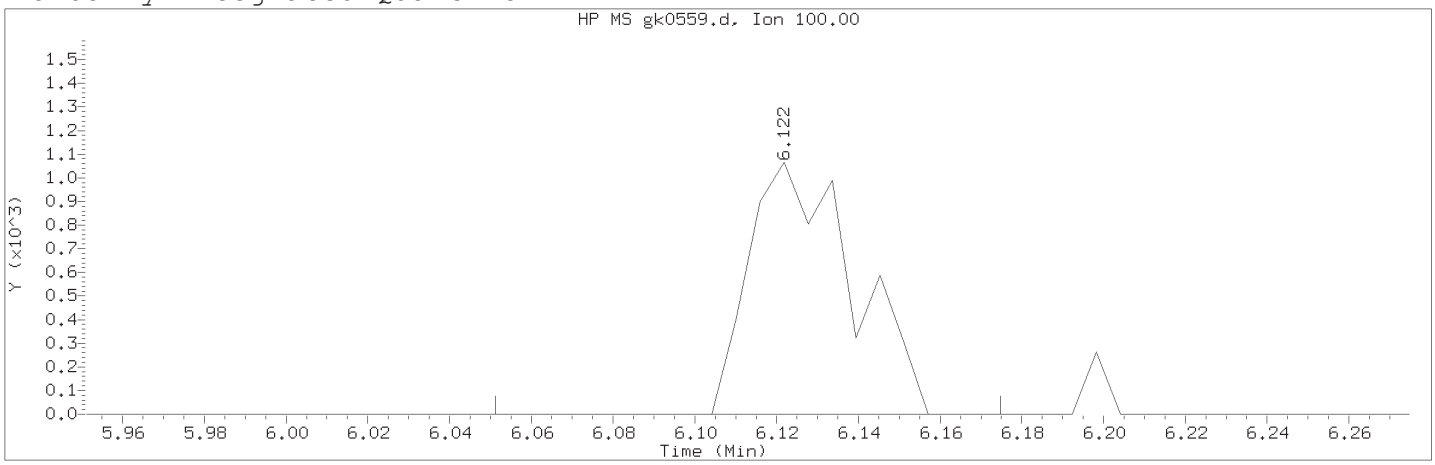
Compound Number : 9
Compound Name : Methyl methanesulfonate
Expected RT (minutes) : 4.287
Quant Ion : 80.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

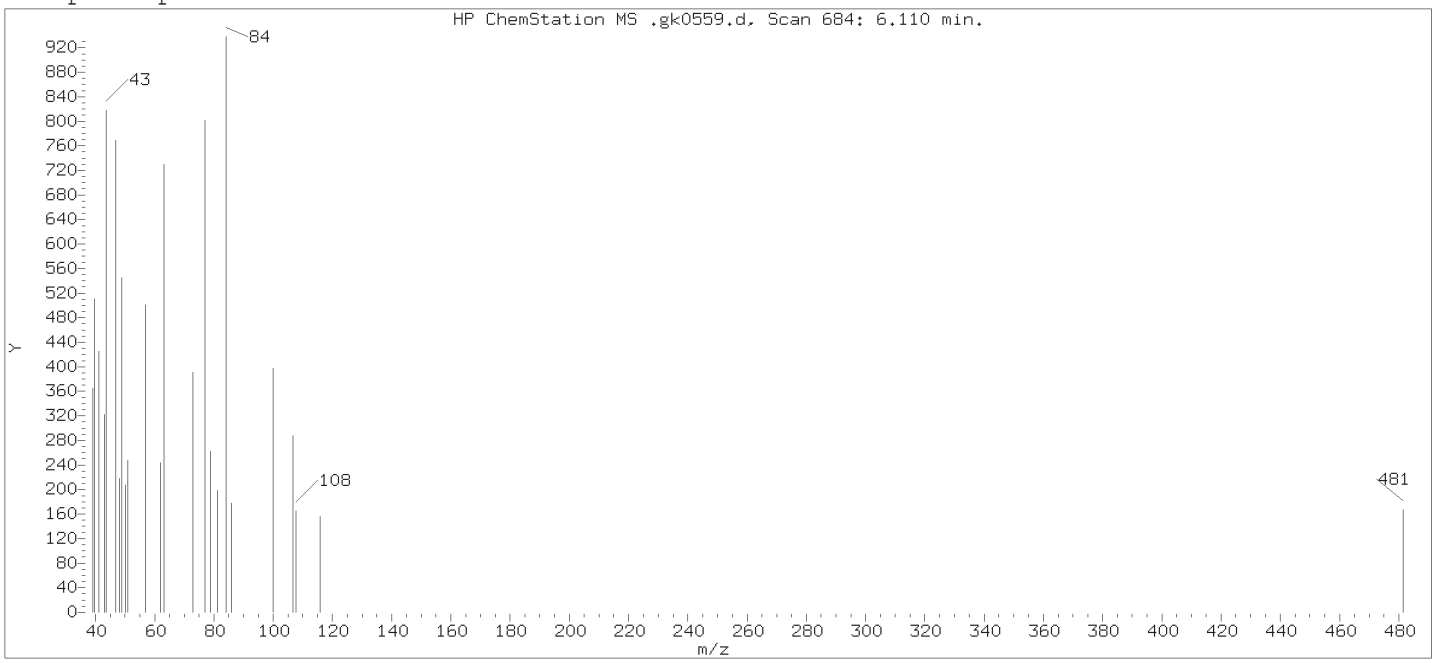
Compound Number	: 35		
Compound Name	: N-Nitrosopyrrolidine		
Scan Number	: 686		
Retention Time (minutes)	: 6.122		
Quant Ion	: 100.00		
Area (flag)	: 1894M		
On-Column Amount (ng/ul)	: 0.2927		
Integration start scan	: 673	Integration stop scan:	694
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

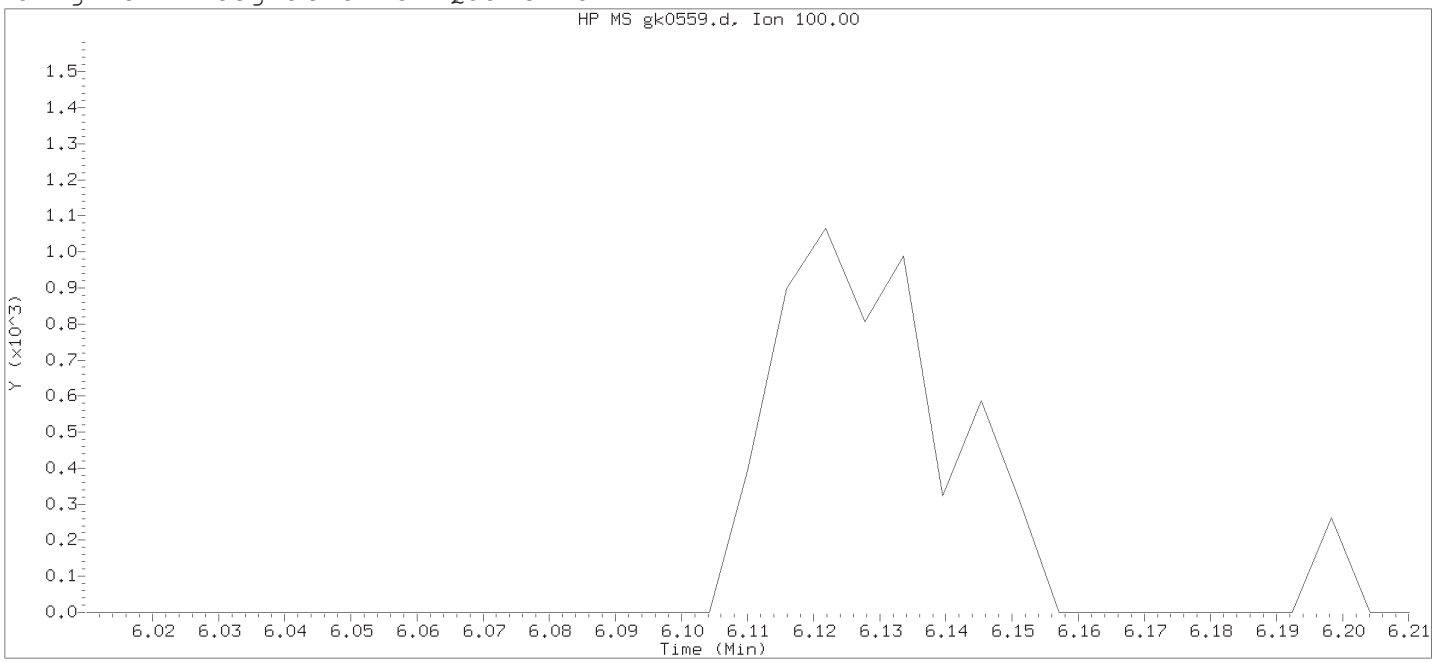
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

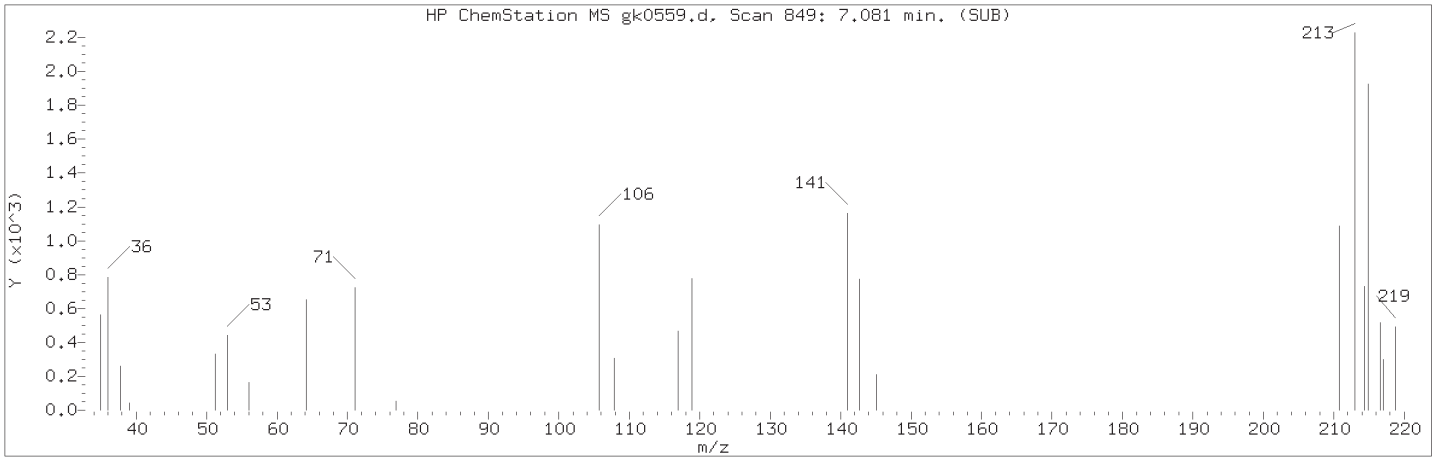
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

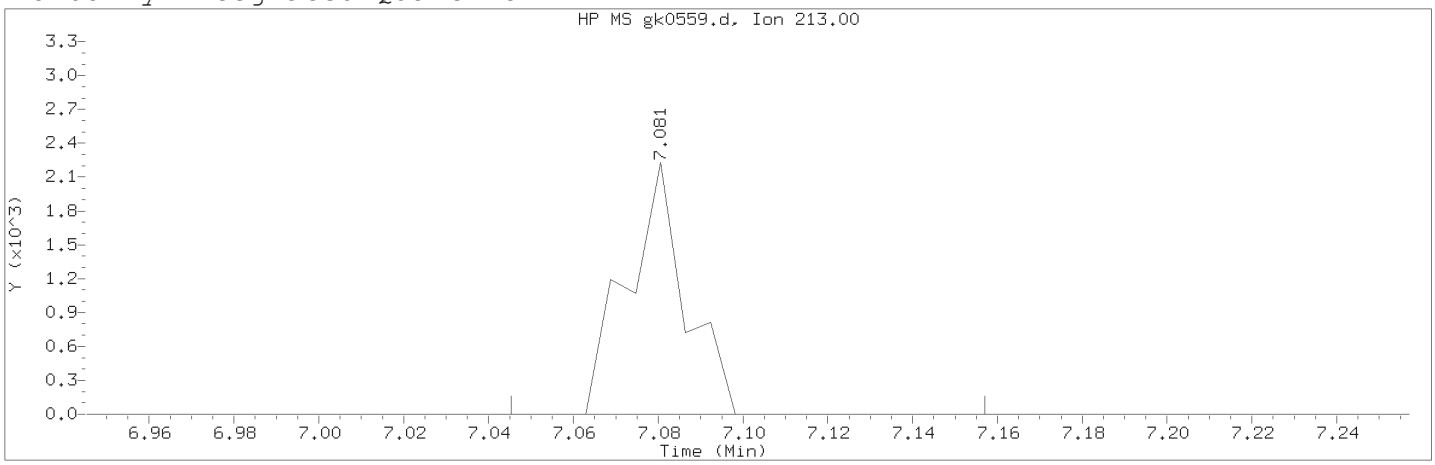
Compound Number : 35
Compound Name : N-Nitrosopyrrolidine
Expected RT (minutes) : 6.110
Quant Ion : 100.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used to create PDF.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

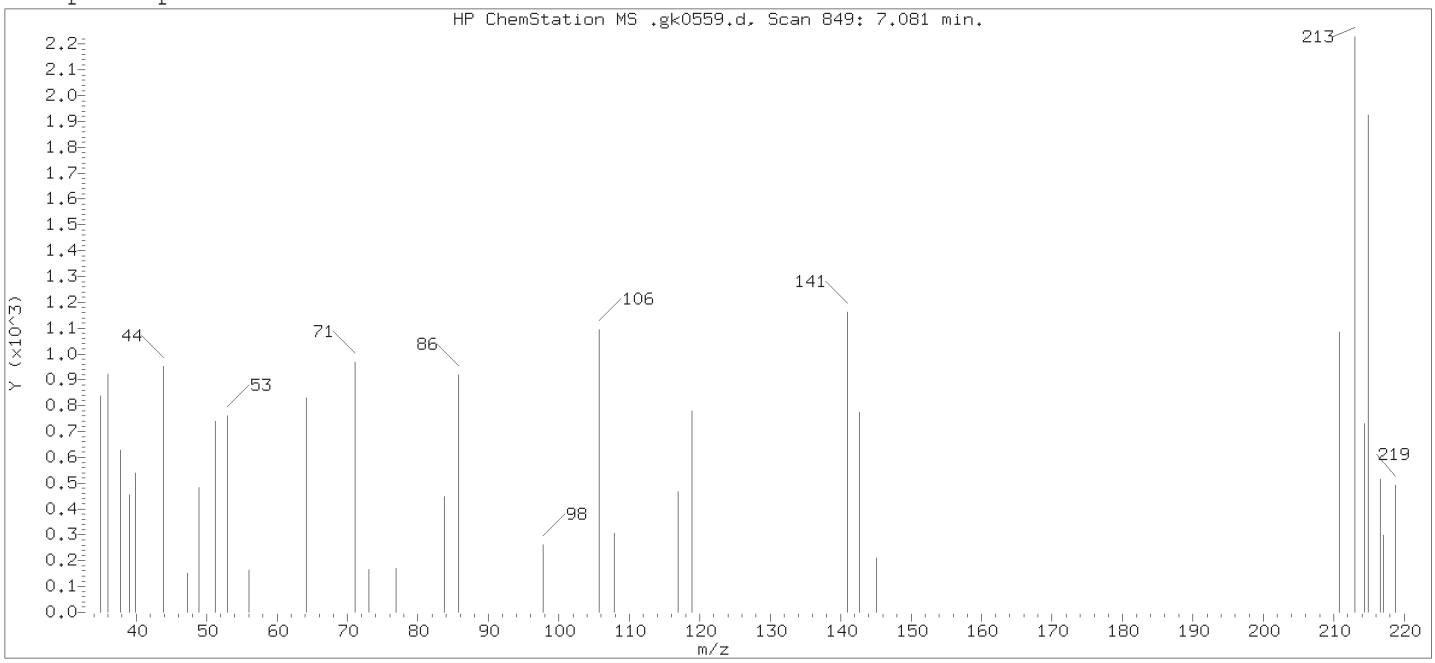
Compound Number	: 69		
Compound Name	: Hexachloropropene		
Scan Number	: 849		
Retention Time (minutes)	: 7.081		
Quant Ion	: 213.00		
Area (flag)	: 2126M		
On-Column Amount (ng/ul)	: 0.4775		
Integration start scan	: 842	Integration stop scan:	861
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

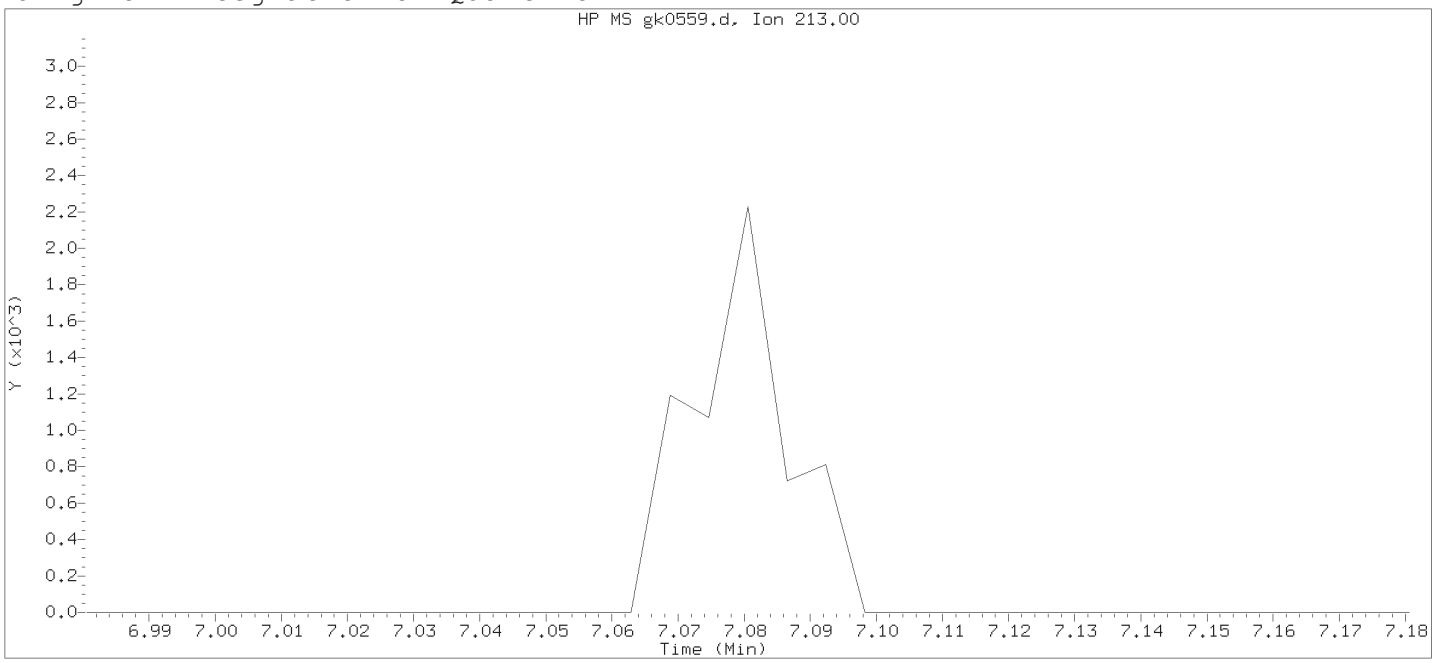
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

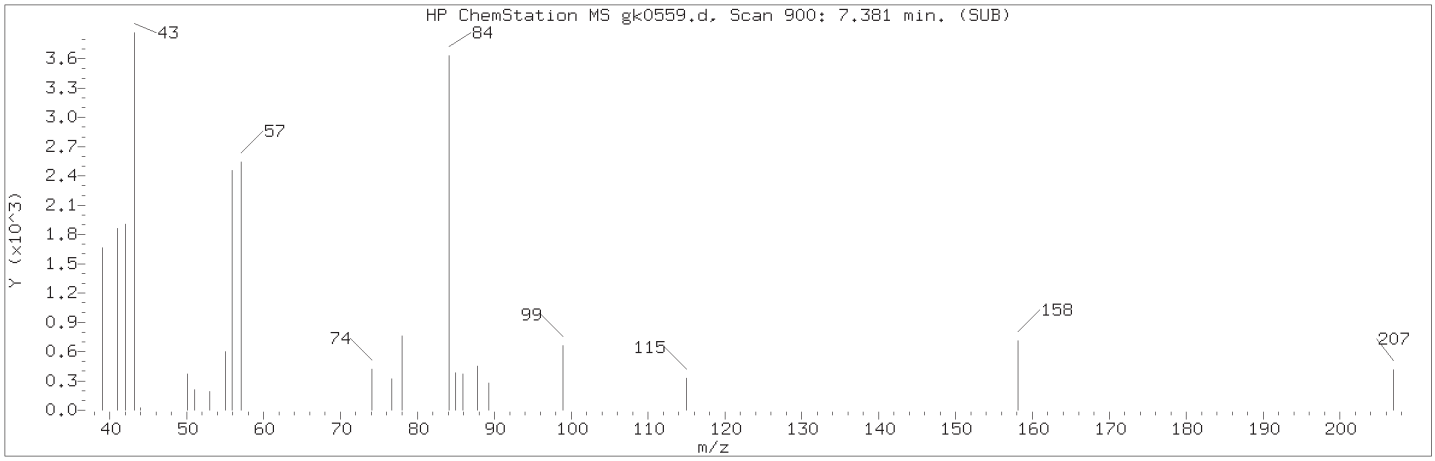
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

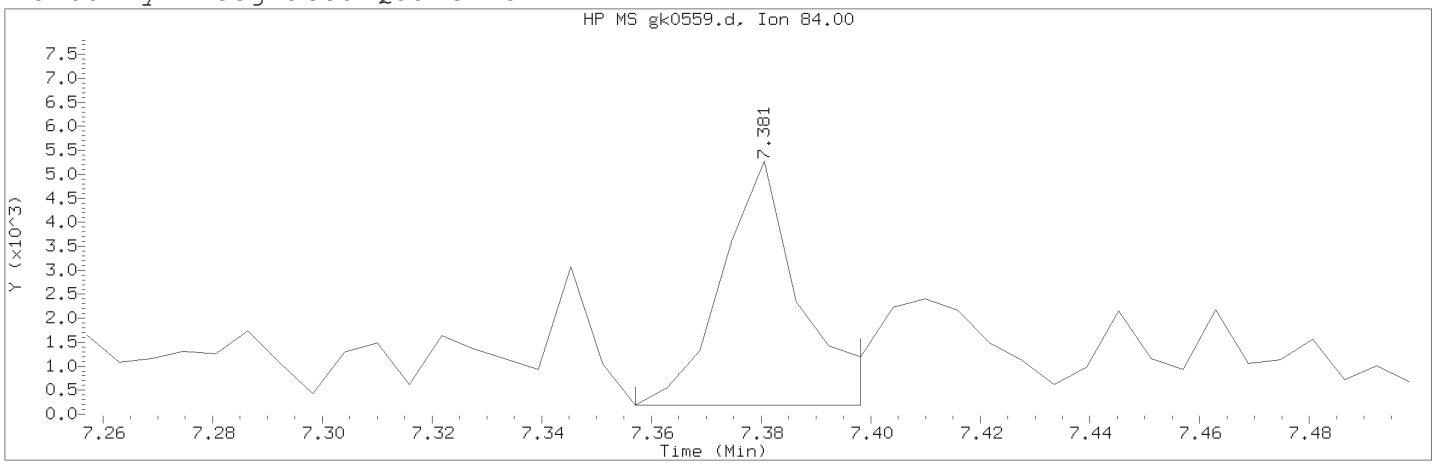
Compound Number : 69
Compound Name : Hexachloropropene
Expected RT (minutes) : 7.081
Quant Ion : 213.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used to create PDF.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

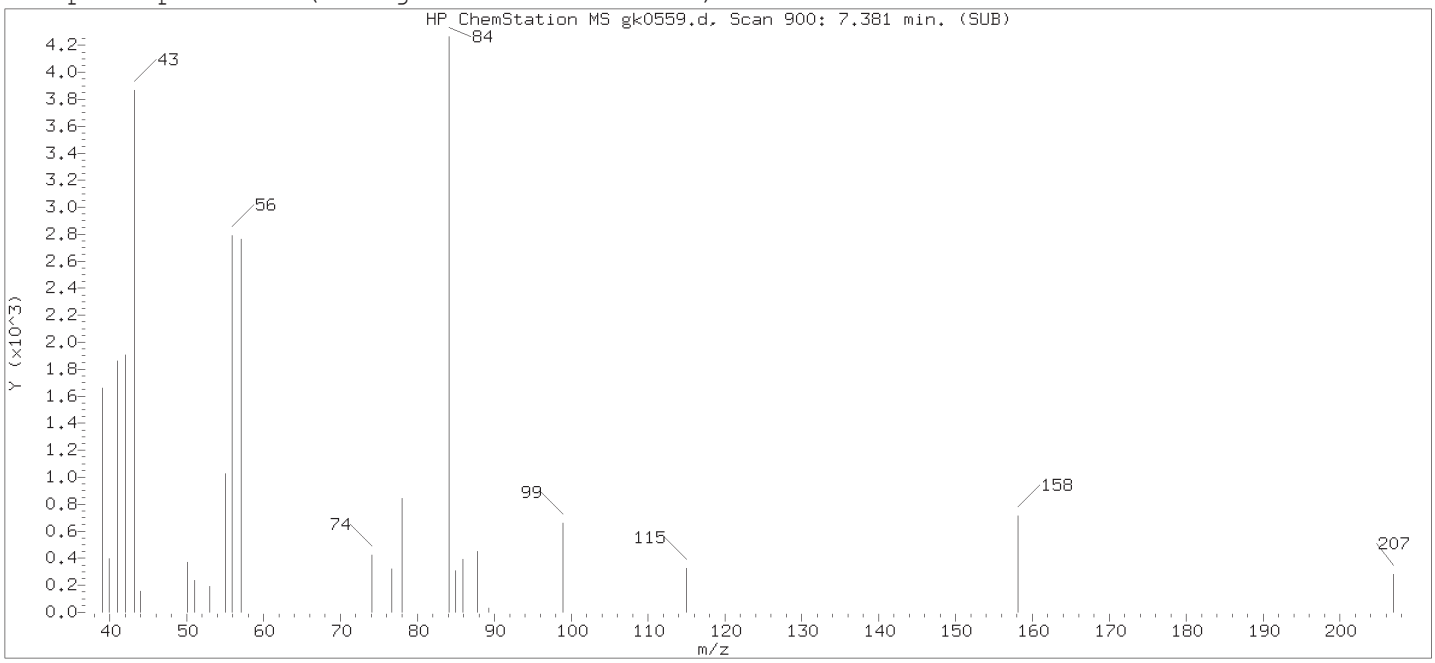
Compound Number	: 77		
Compound Name	: N-Nitrosodi-n-butylamine		
Scan Number	: 900		
Retention Time (minutes)	: 7.381		
Quant Ion	: 84.00		
Area (flag)	: 5098M		
On-Column Amount (ng/ul)	: 0.3875		
Integration start scan	: 895	Integration stop scan:	902
Y at integration start	: 183	Y at integration end:	183

Reason for manual integration: improper integration

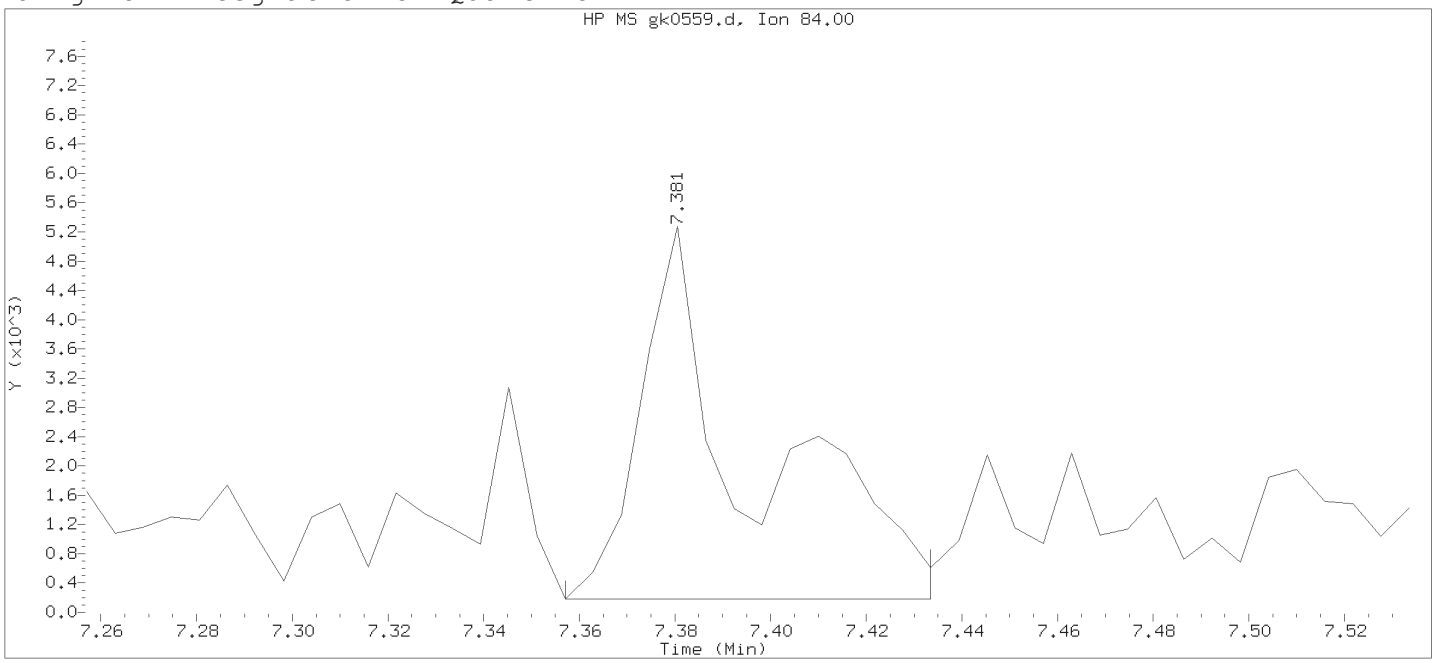
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

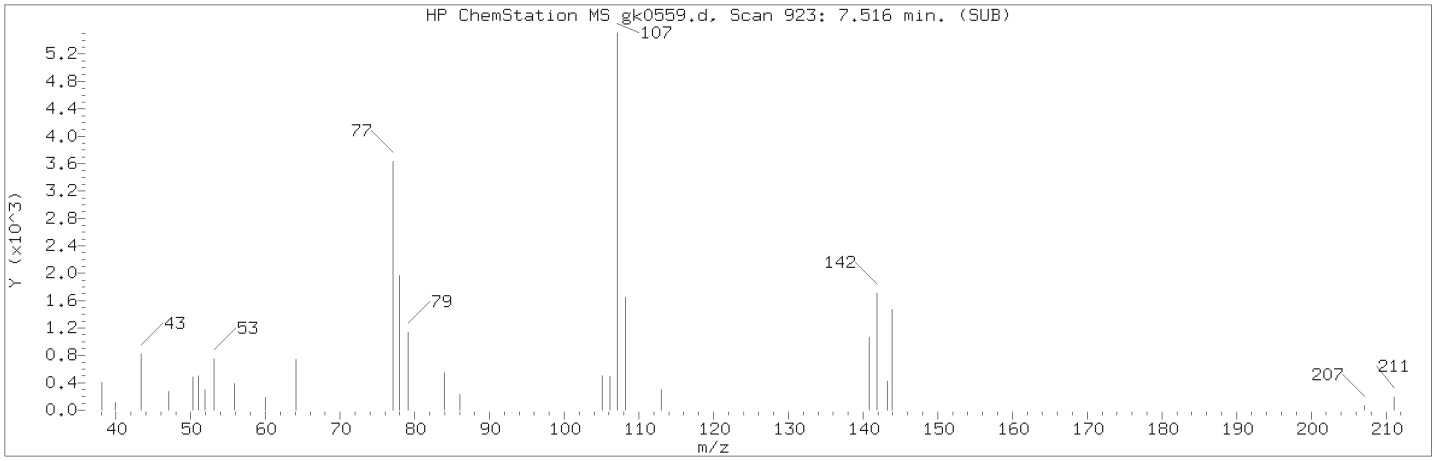
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

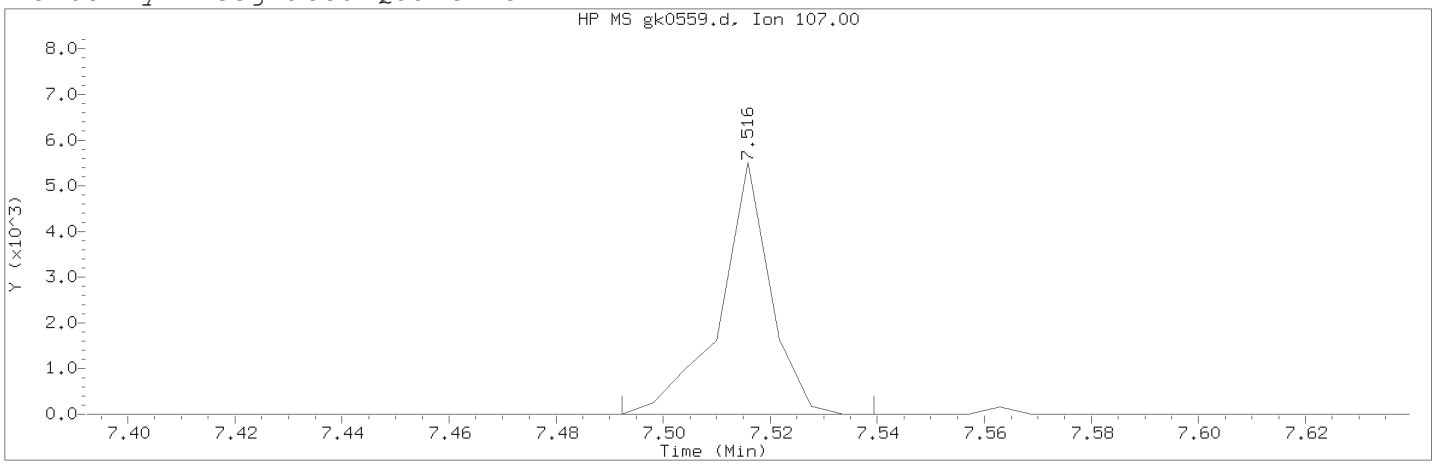
Compound Number	: 77		
Compound Name	: N-Nitrosodi-n-butylamine		
Scan Number	: 900		
Retention Time (minutes)	: 7.381		
Quant Ion	: 84.00		
Area	: 8176		
On-column Amount (ng/ul)	: 0.6386		
Integration start scan	: 895	Integration stop scan:	908
Y at integration start	: 183	Y at integration end:	183

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

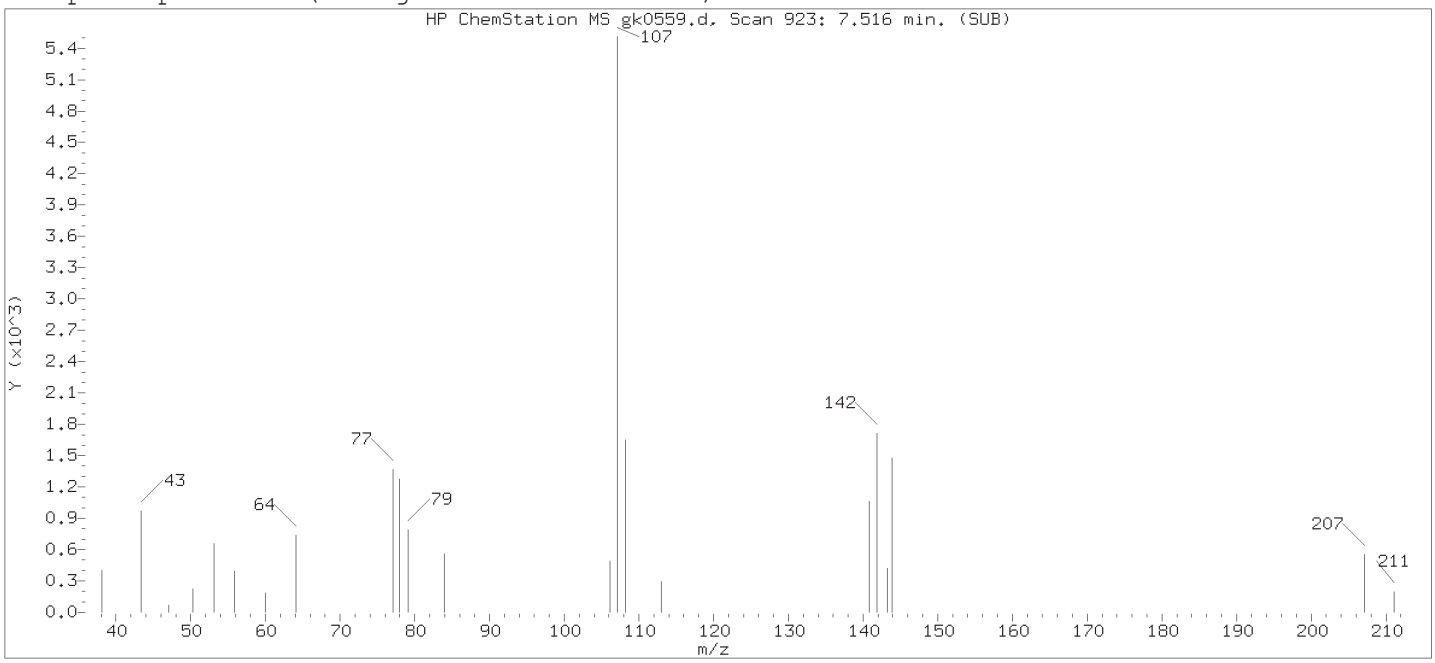
Compound Number : 80
Compound Name : 4-Chloro-3-methylphenol
Scan Number : 923
Retention Time (minutes) : 7.516
Quant Ion : 107.00
Area (flag) : 3588M
On-Column Amount (ng/ul) : 0.3406
Integration start scan : 918 Integration stop scan: 926
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

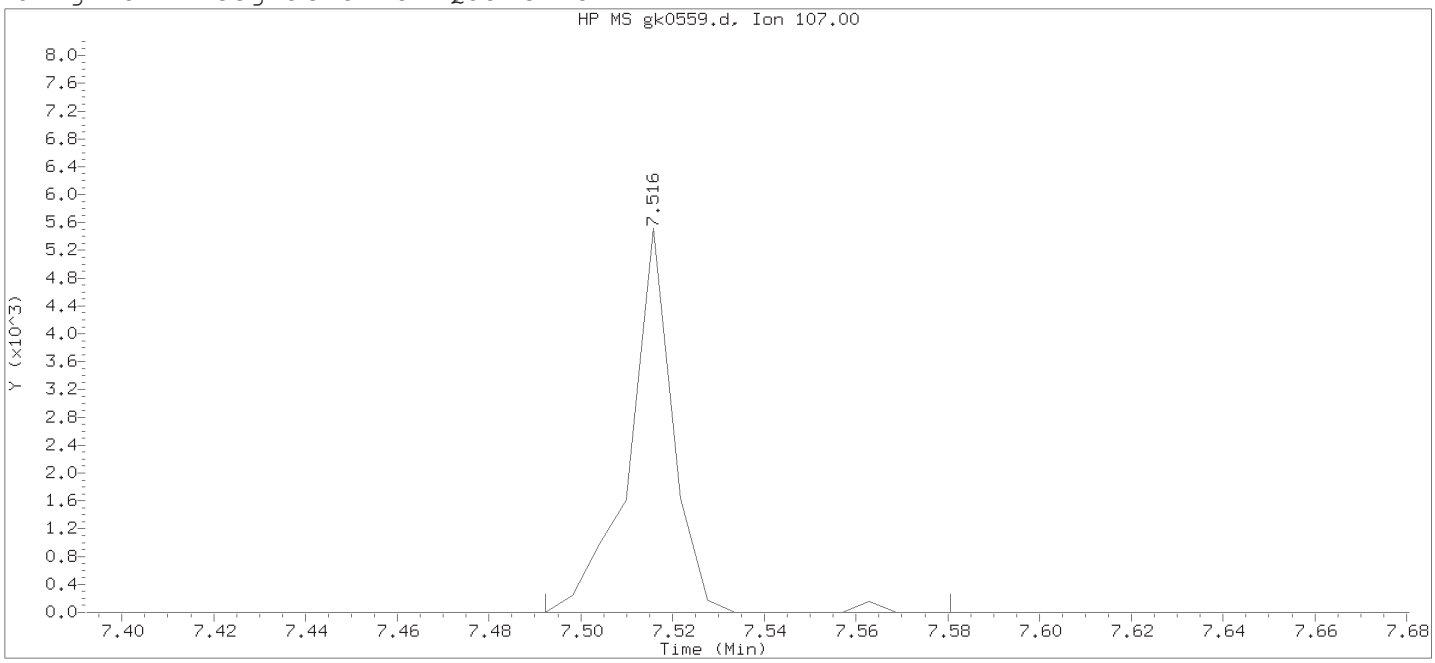
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

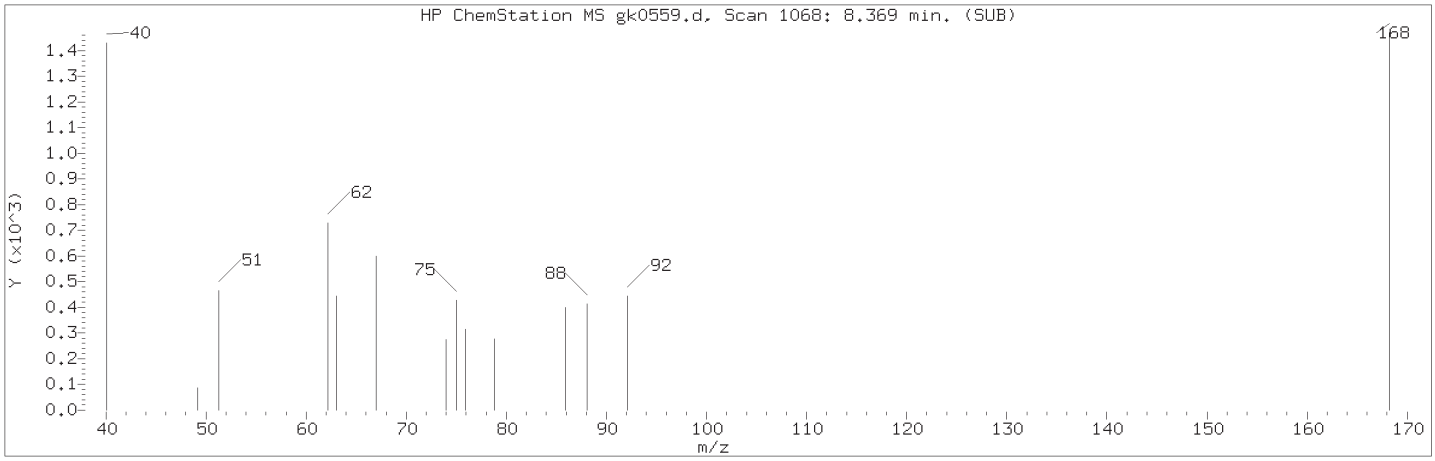
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

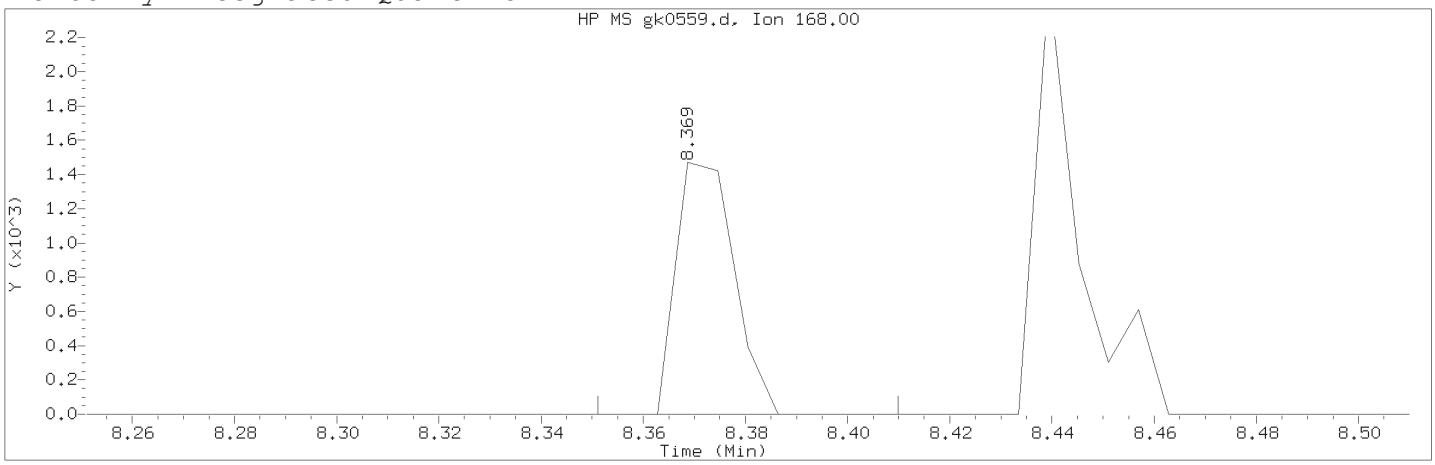
Compound Number	: 80
Compound Name	: 4-Chloro-3-methylphenol
Scan Number	: 923
Retention Time (minutes)	: 7.516
Quant Ion	: 107.00
Area	: 3644
On-column Amount (ng/ul)	: 0.3510
Integration start scan	: 918 Integration stop scan: 933
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

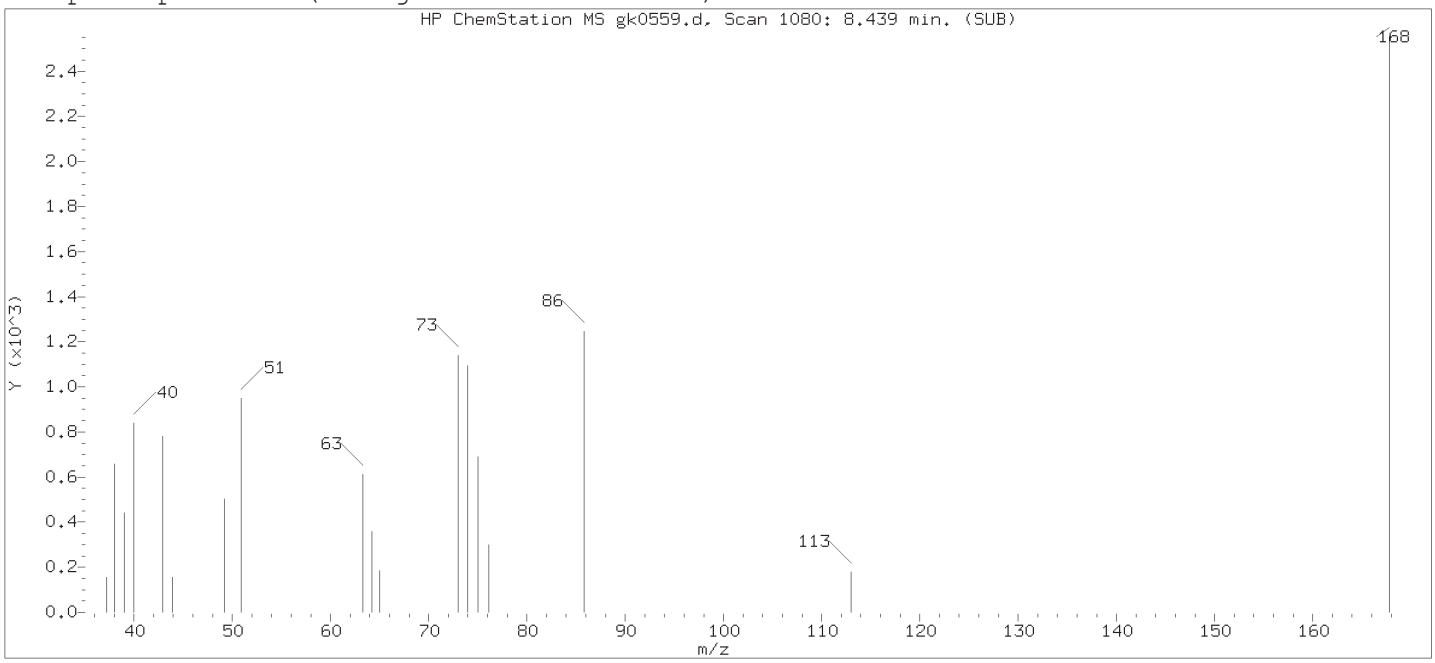
Compound Number : 105
Compound Name : 1,4-Dinitrobenzene
Scan Number : 1068
Retention Time (minutes) : 8.369
Quant Ion : 168.00
Area (flag) : 1158M
On-Column Amount (ng/ul) : 0.3304
Integration start scan : 1064 Integration stop scan: 1074
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

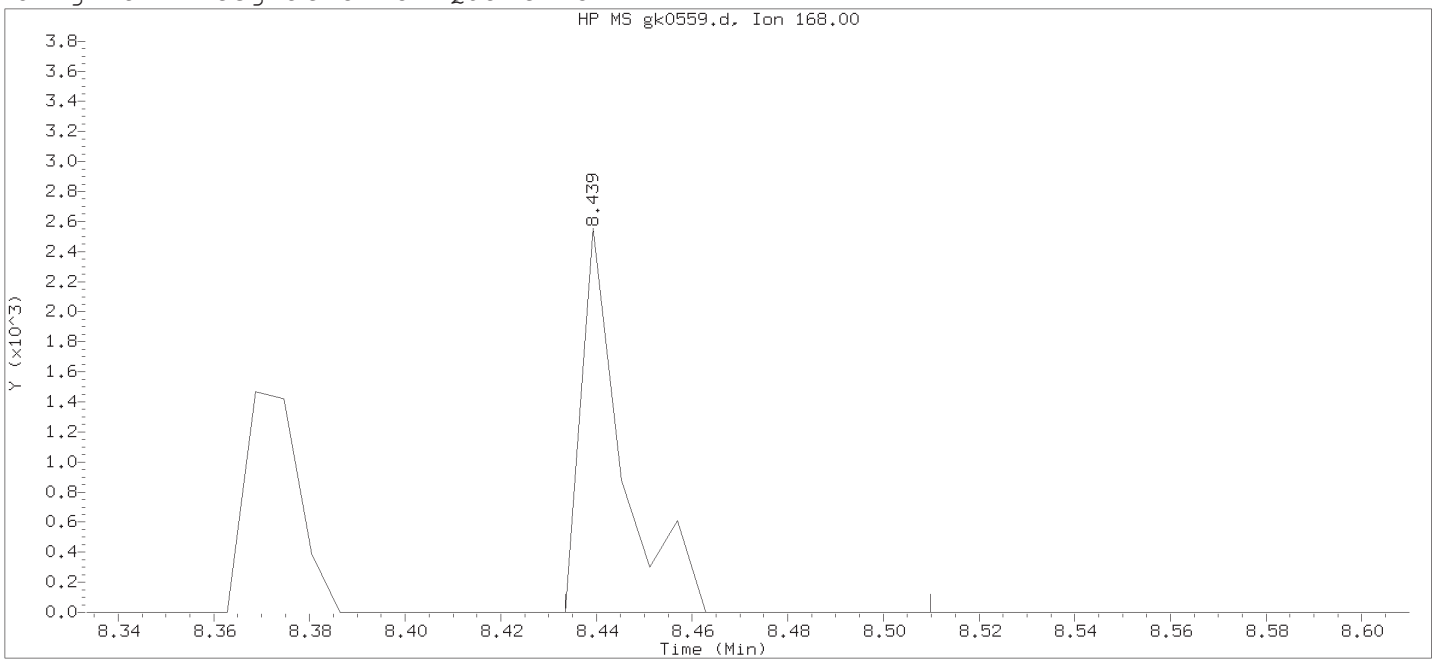
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

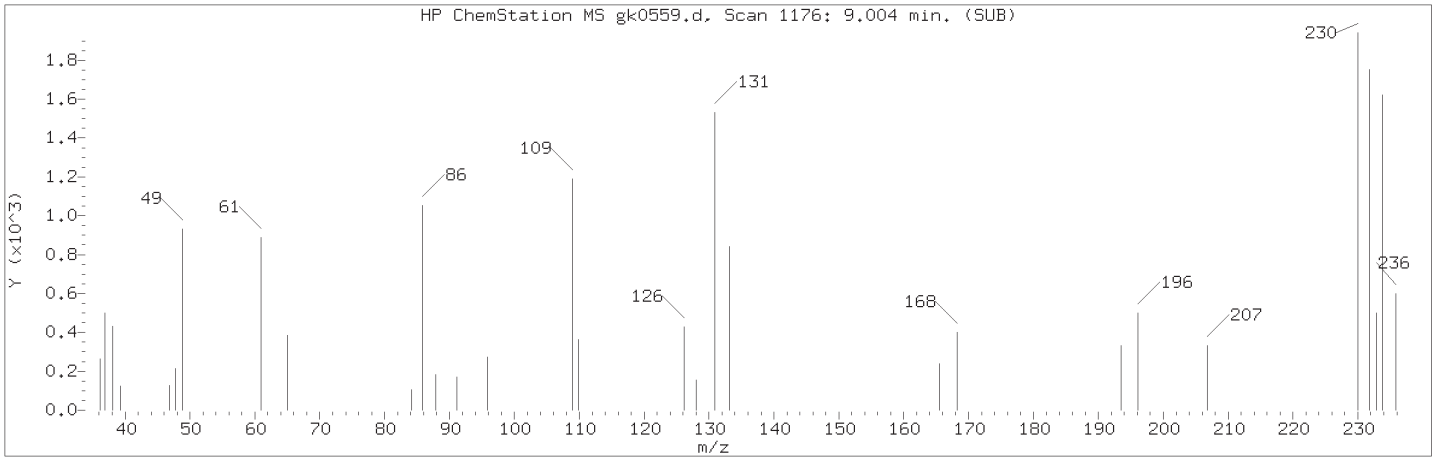
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

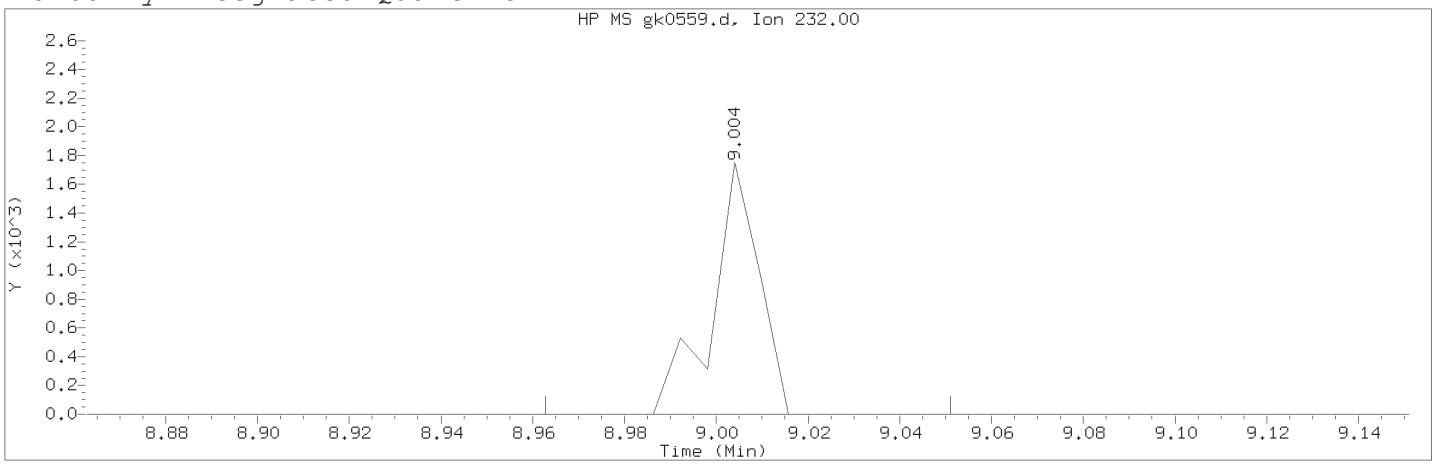
Compound Number	: 105
Compound Name	: 1,4-Dinitrobenzene
Scan Number	: 1080
Retention Time (minutes)	: 8.439
Quant Ion	: 168.00
Area	: 1533
On-column Amount (ng/ul)	: 0.4387
Integration start scan	: 1078 Integration stop scan: 1091
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: 1.0.2.48

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

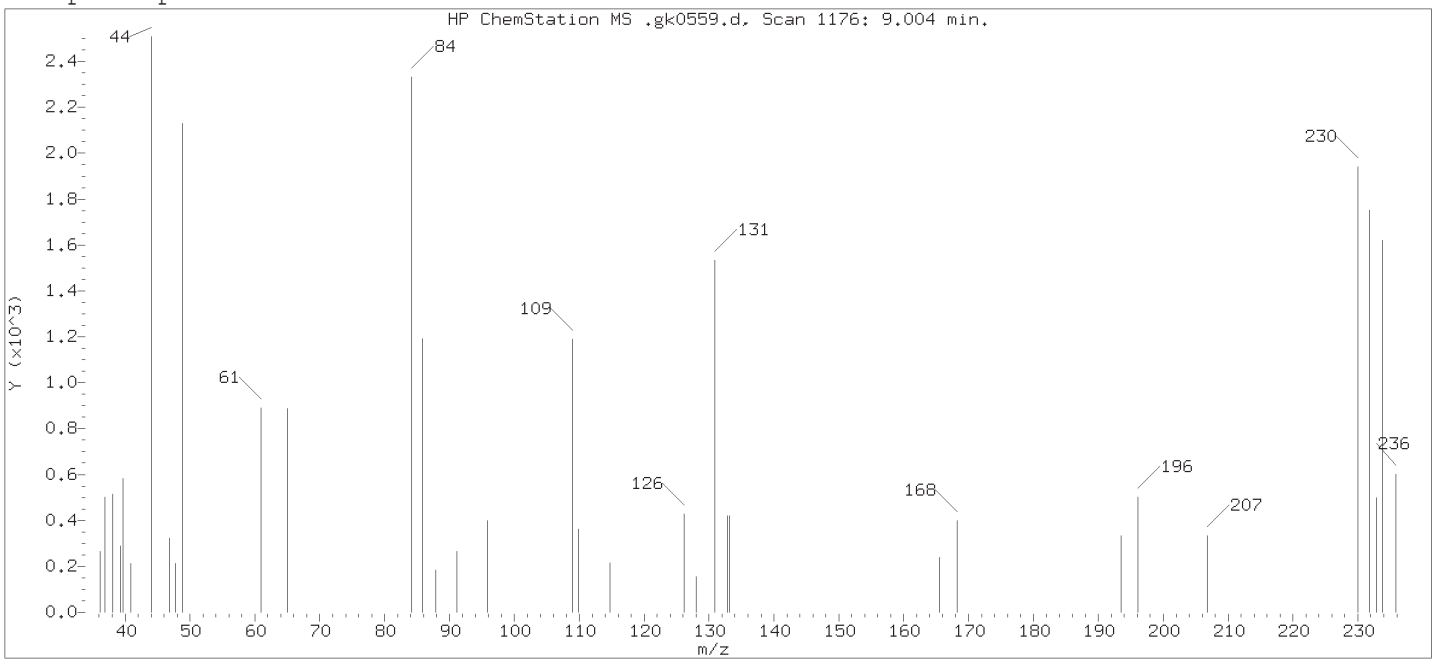
Compound Number	: 122		
Compound Name	: 2,3,4,6-Tetrachlorophenol		
Scan Number	: 1176		
Retention Time (minutes)	: 9.004		
Quant Ion	: 232.00		
Area (flag)	: 1248M		
On-Column Amount (ng/ul)	: 0.2427		
Integration start scan	: 1168	Integration stop scan:	1183
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

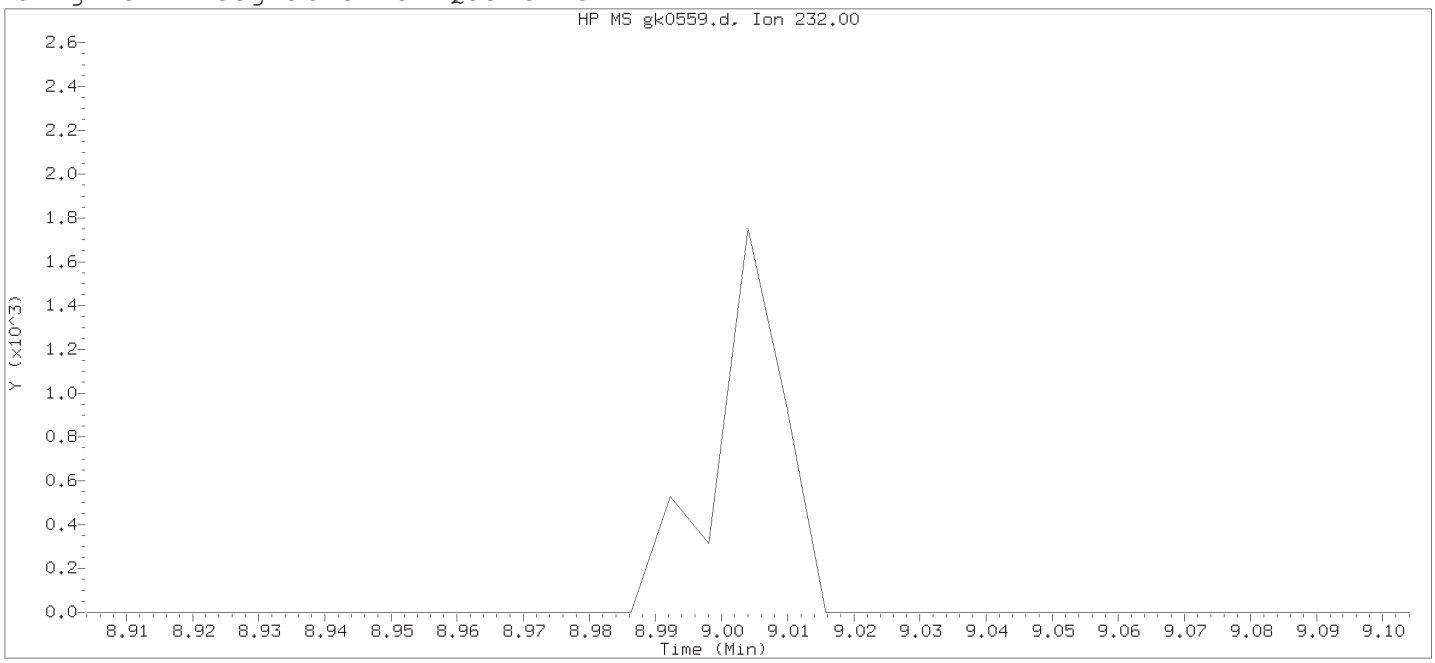
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

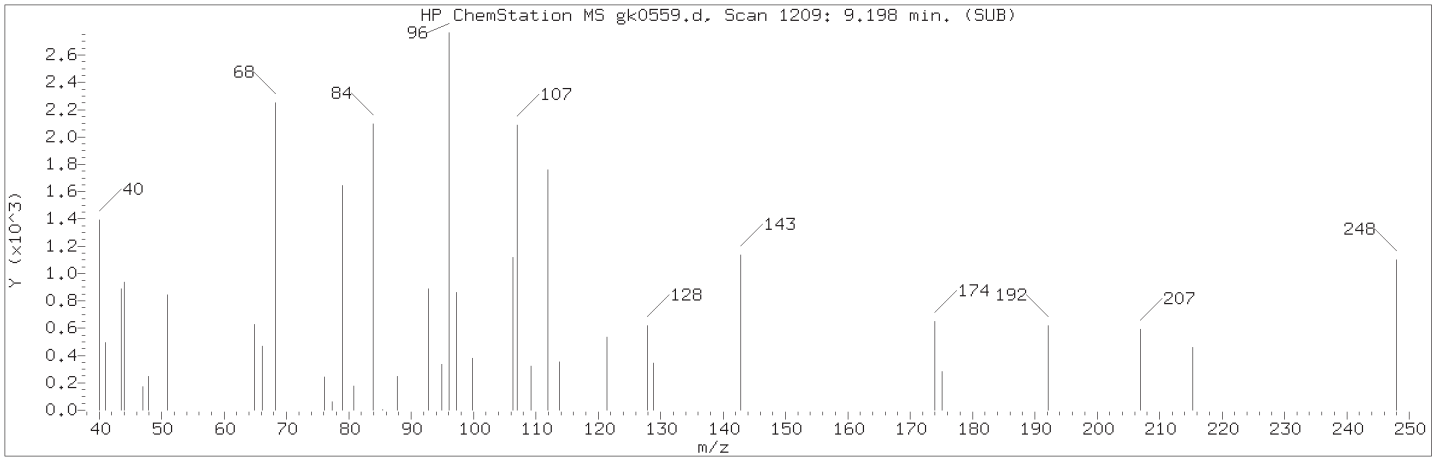
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

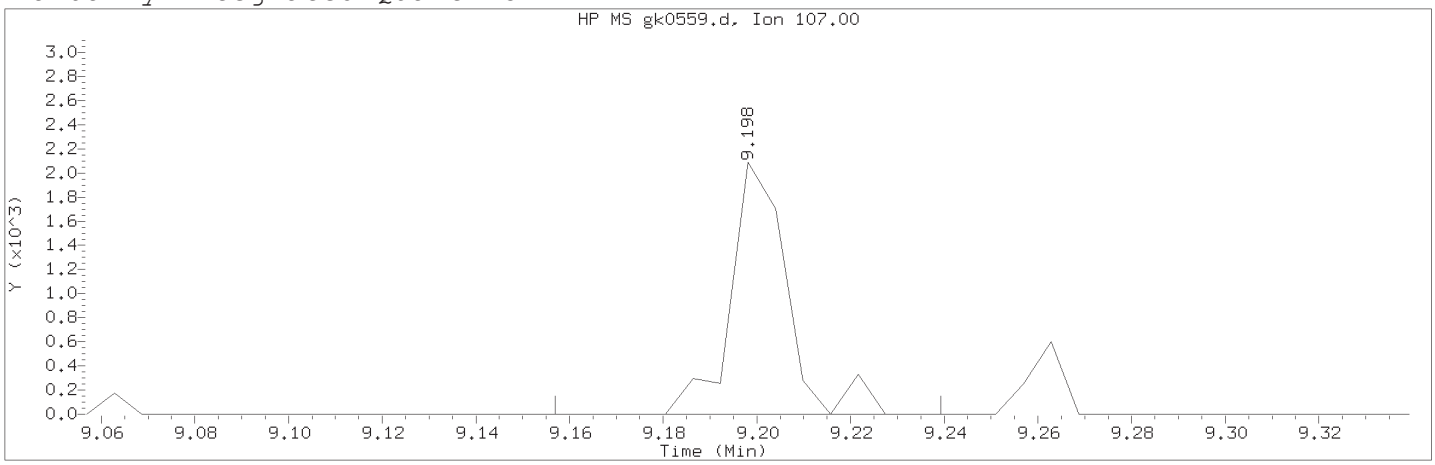
Compound Number : 122
Compound Name : 2,3,4,6-Tetrachlorophenol
Expected RT (minutes) : 9.004
Quant Ion : 232.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used 11/12/2018 at 08:24.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

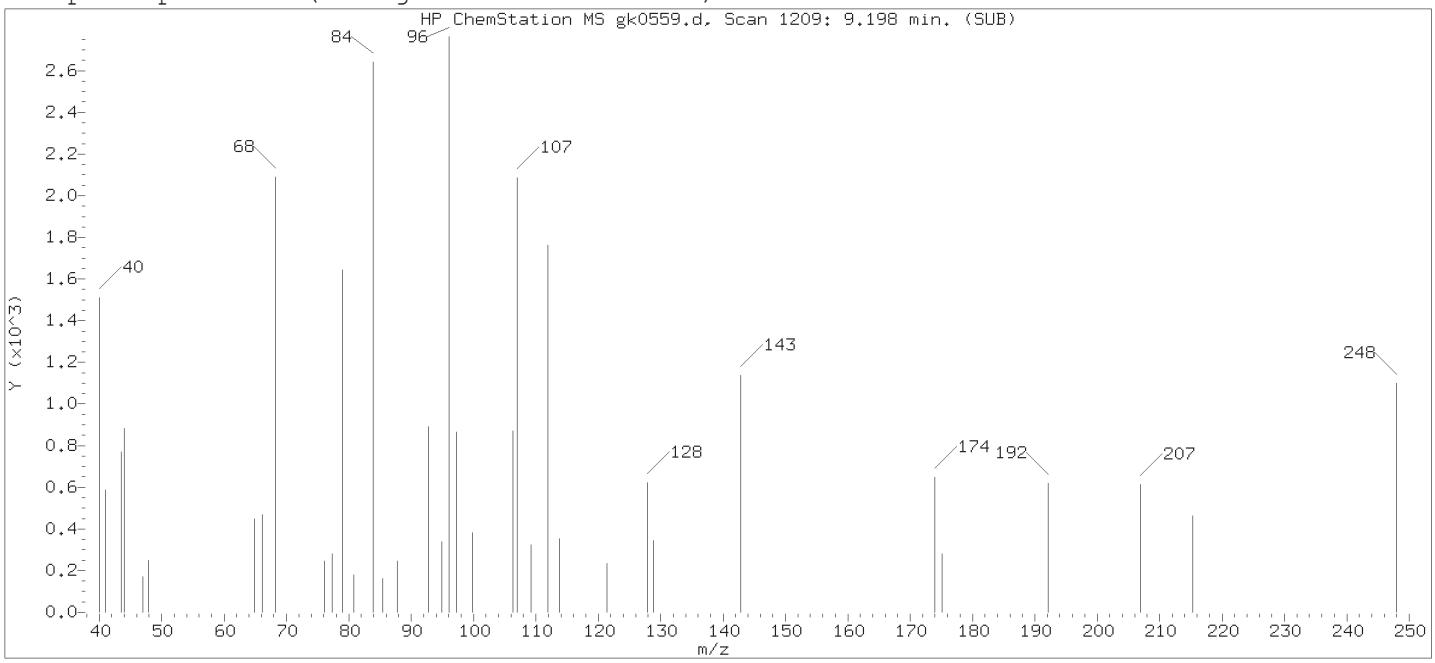
Compound Number	: 125		
Compound Name	: Thionazin		
Scan Number	: 1209		
Retention Time (minutes)	: 9.198		
Quant Ion	: 107.00		
Area (flag)	: 1748M		
On-Column Amount (ng/ul)	: 0.3837		
Integration start scan	: 1201	Integration stop scan:	1215
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

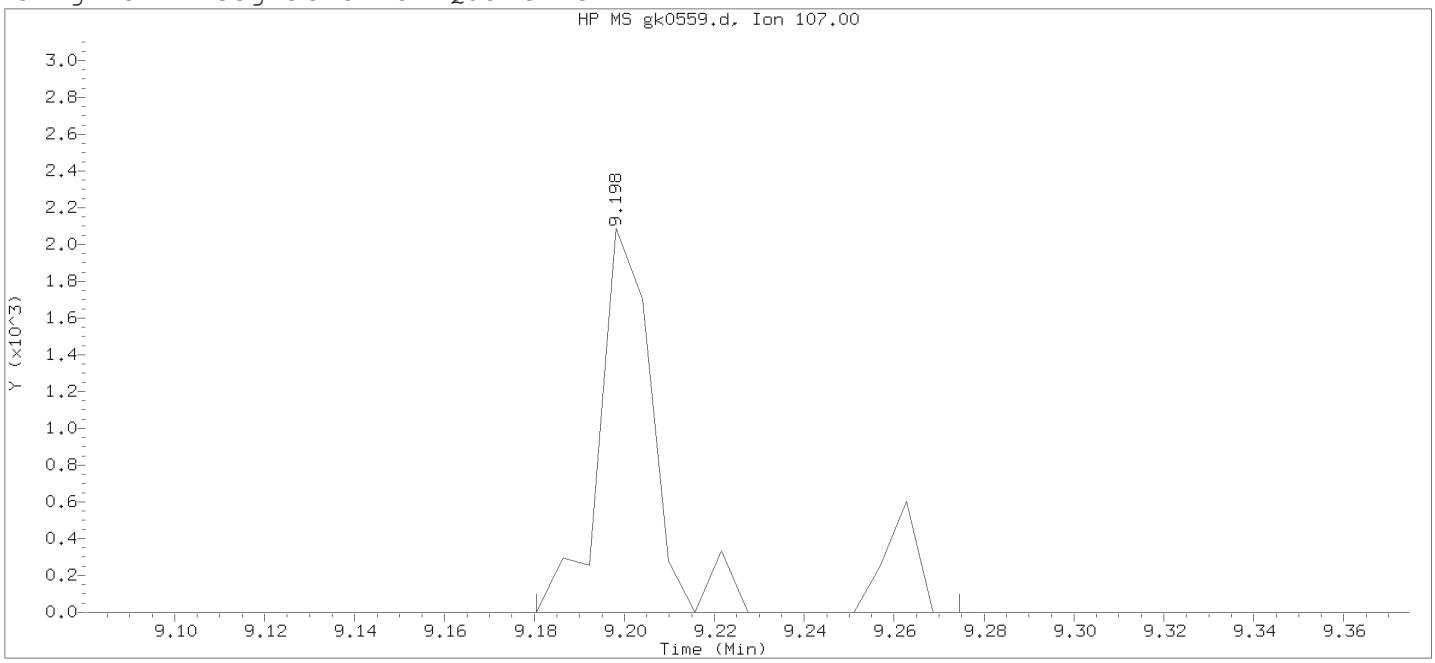
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

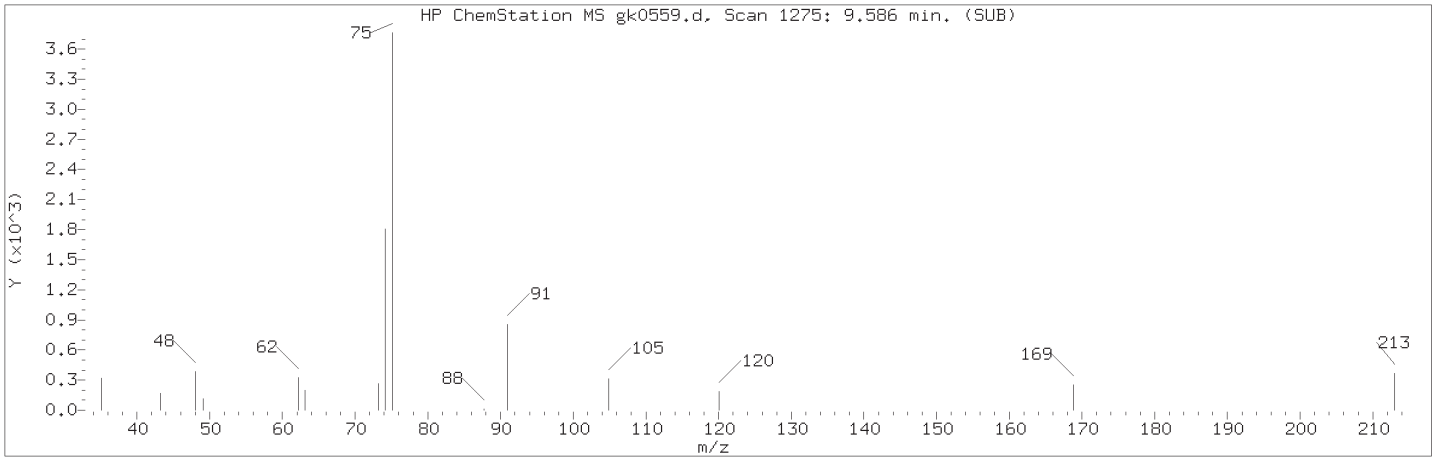
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

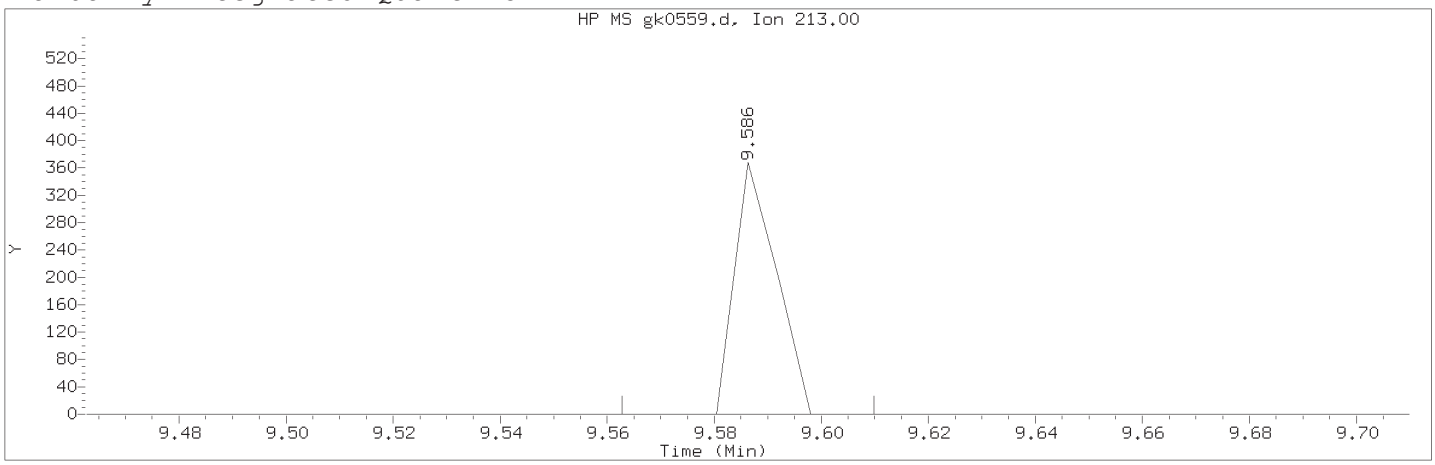
Compound Number	: 125
Compound Name	: Thionazin
Scan Number	: 1209
Retention Time (minutes)	: 9.198
Quant Ion	: 107.00
Area	: 2049
On-column Amount (ng/ul)	: 0.4512
Integration start scan	: 1205 Integration stop scan: 1221
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

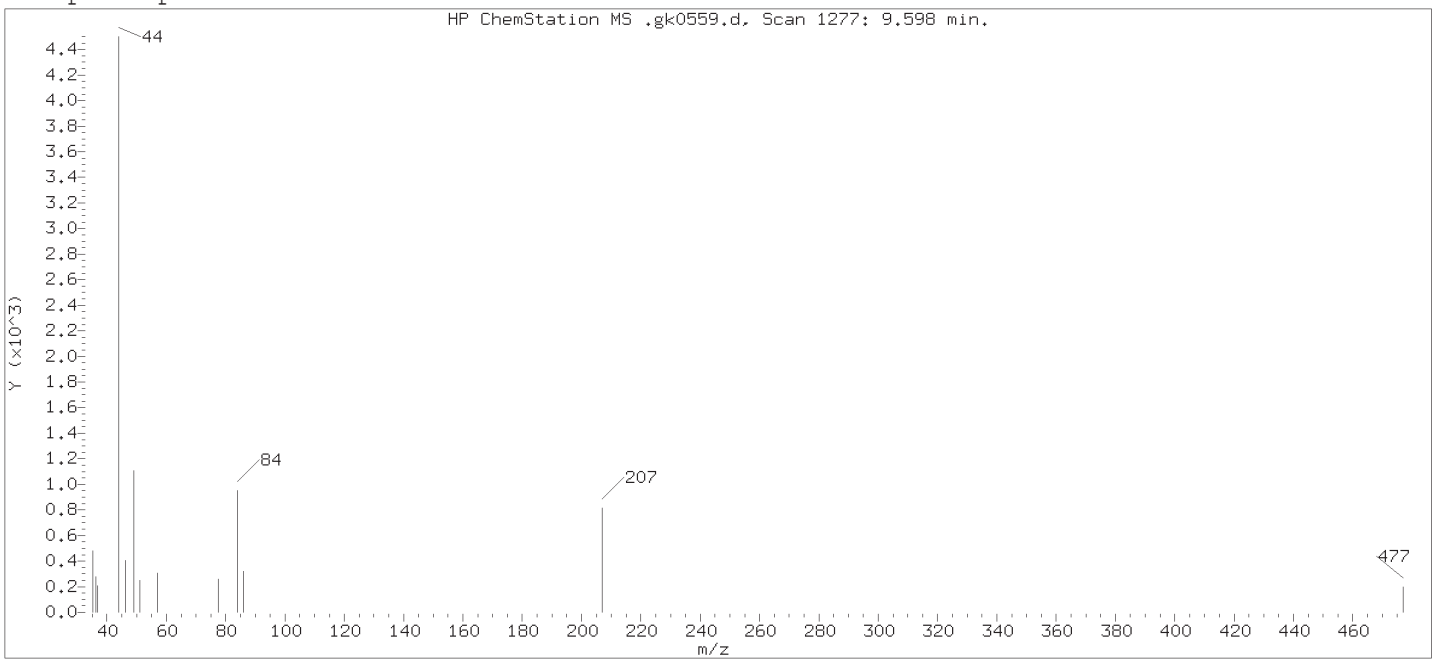
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1275
Retention Time (minutes) : 9.586
Quant Ion : 213.00
Area (flag) : 198M
On-Column Amount (ng/ul) : 0.0691
Integration start scan : 1270 Integration stop scan: 1278
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: missed peak

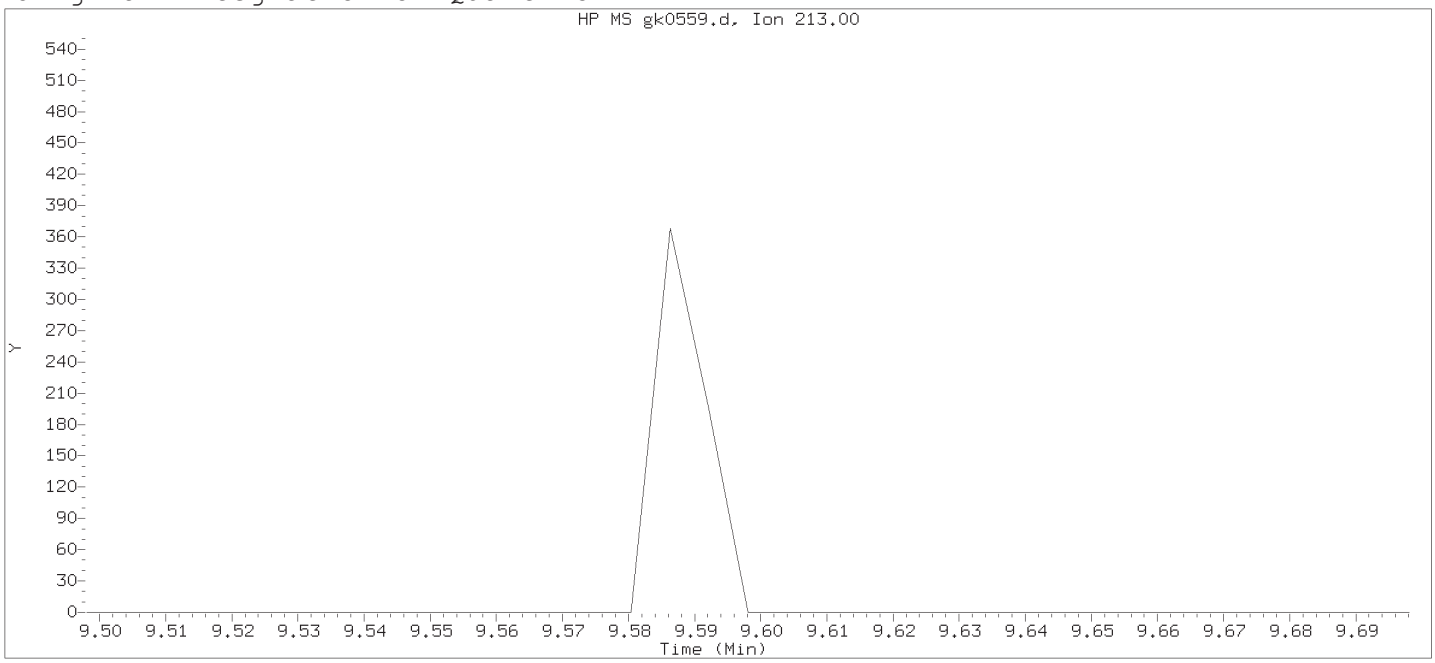
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

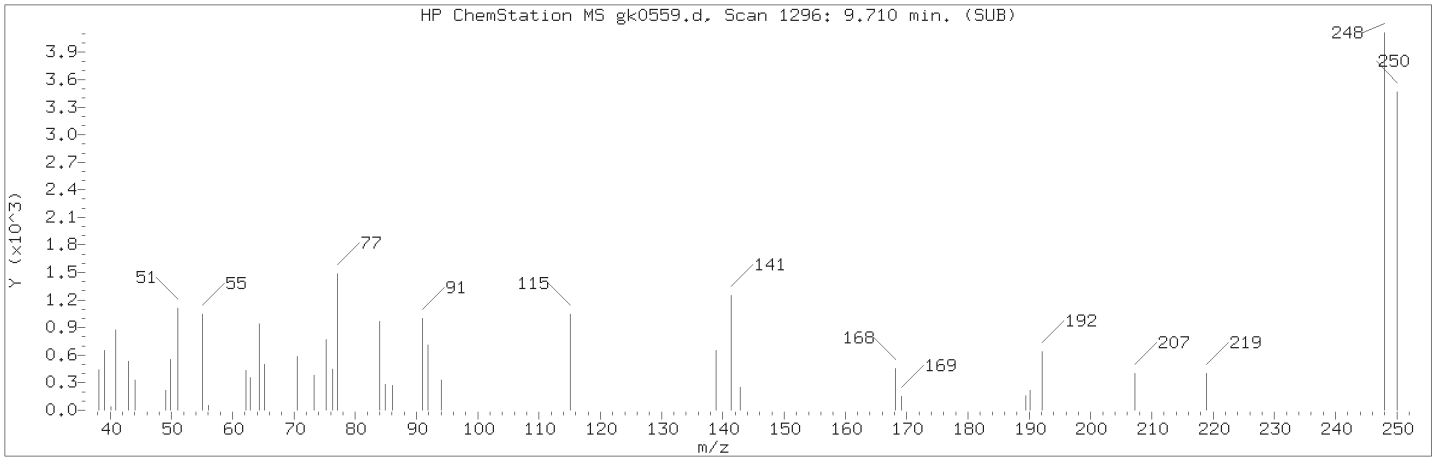
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

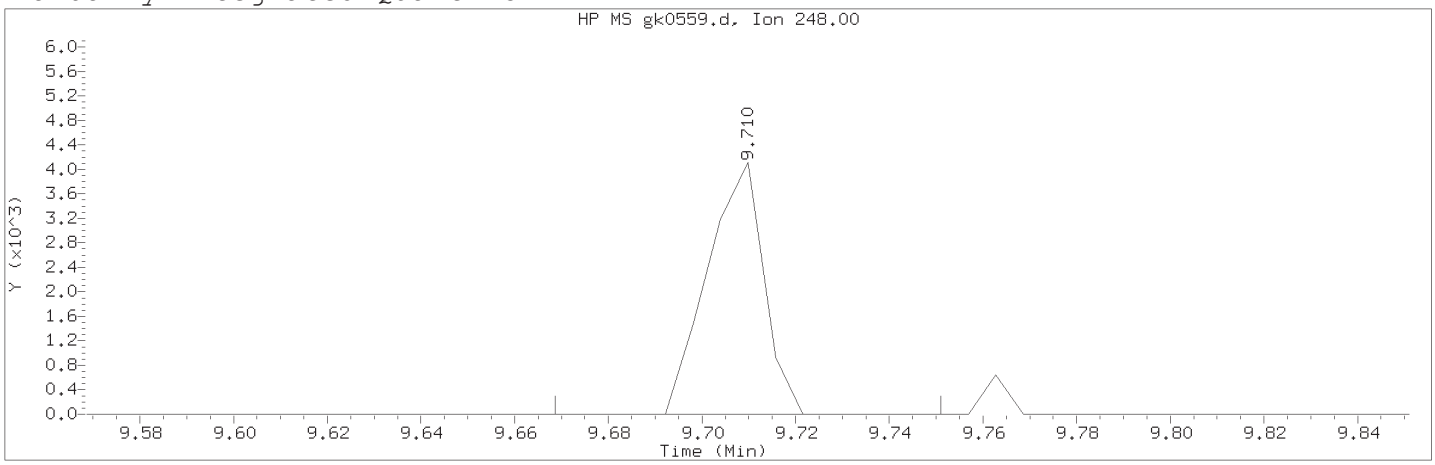
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Expected RT (minutes) : 9.598
Quant Ion : 213.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used 11/12/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

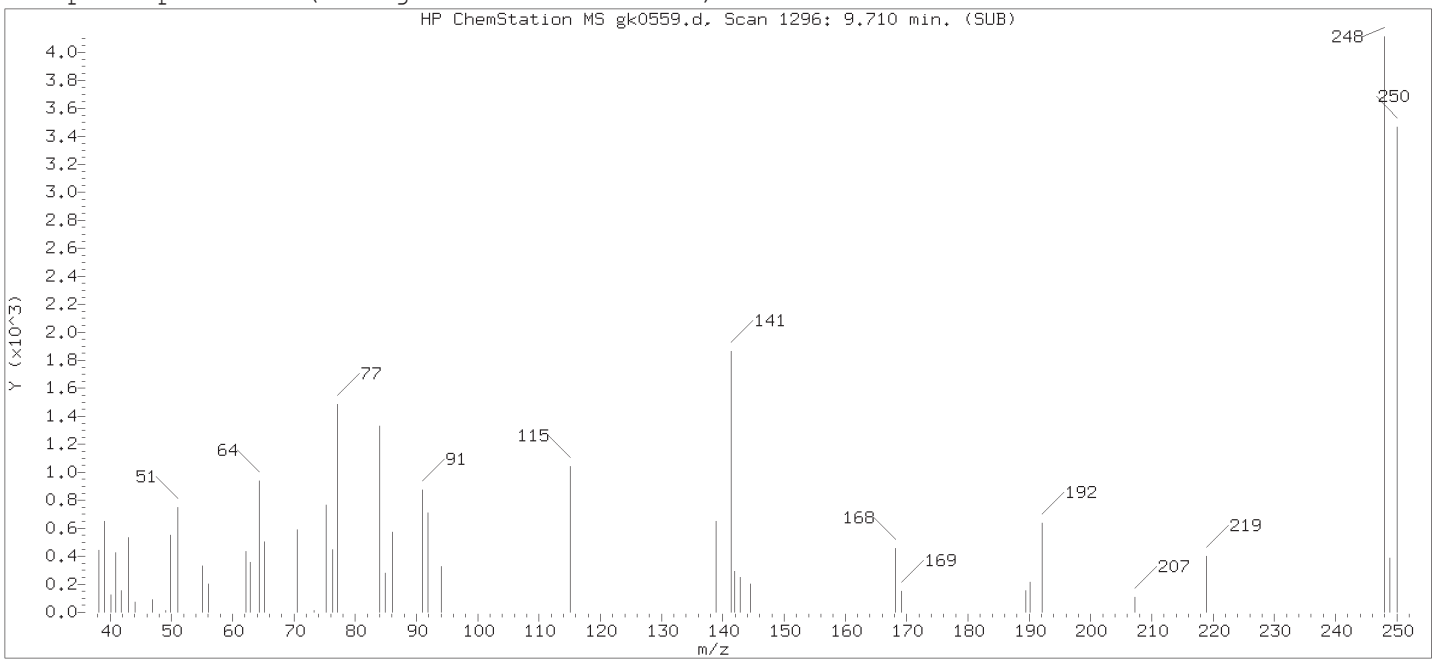
Compound Number : 143
Compound Name : 4-Bromophenyl-phenylether
Scan Number : 1296
Retention Time (minutes) : 9.710
Quant Ion : 248.00
Area (flag) : 3418M
On-Column Amount (ng/ul) : 0.5116
Integration start scan : 1288 Integration stop scan: 1302
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

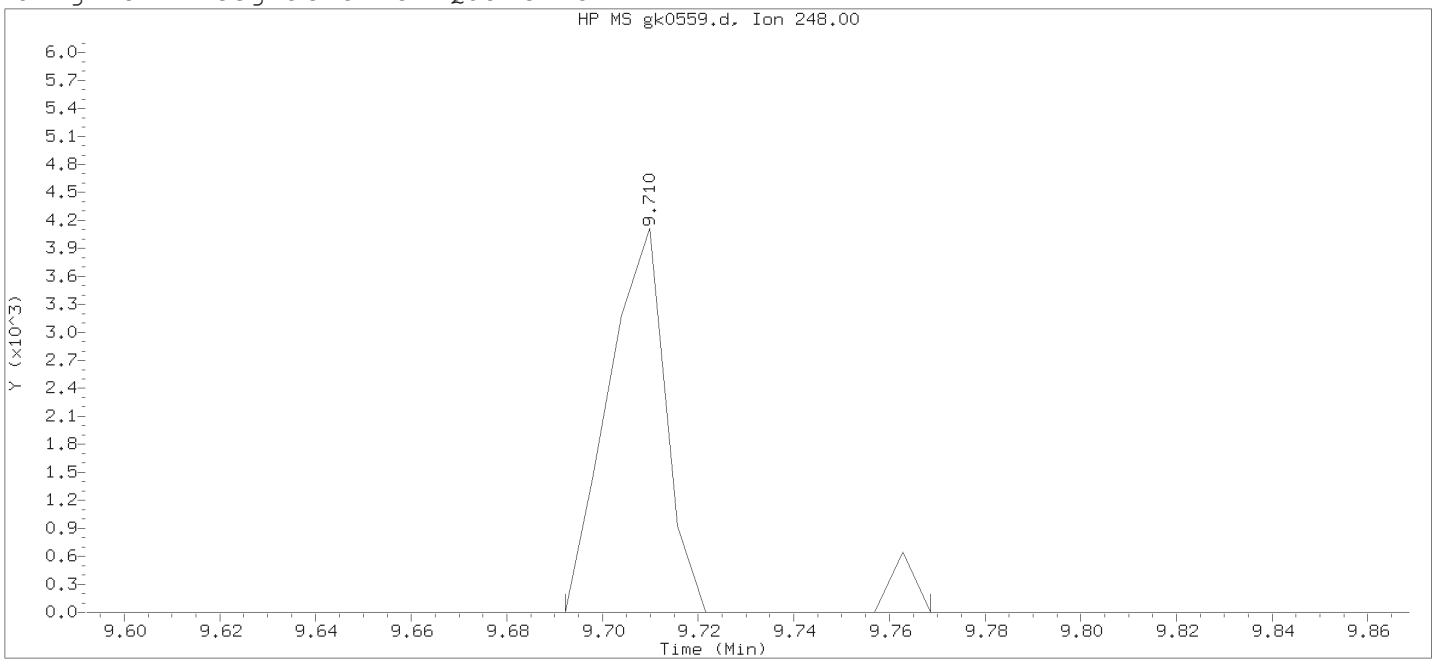
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

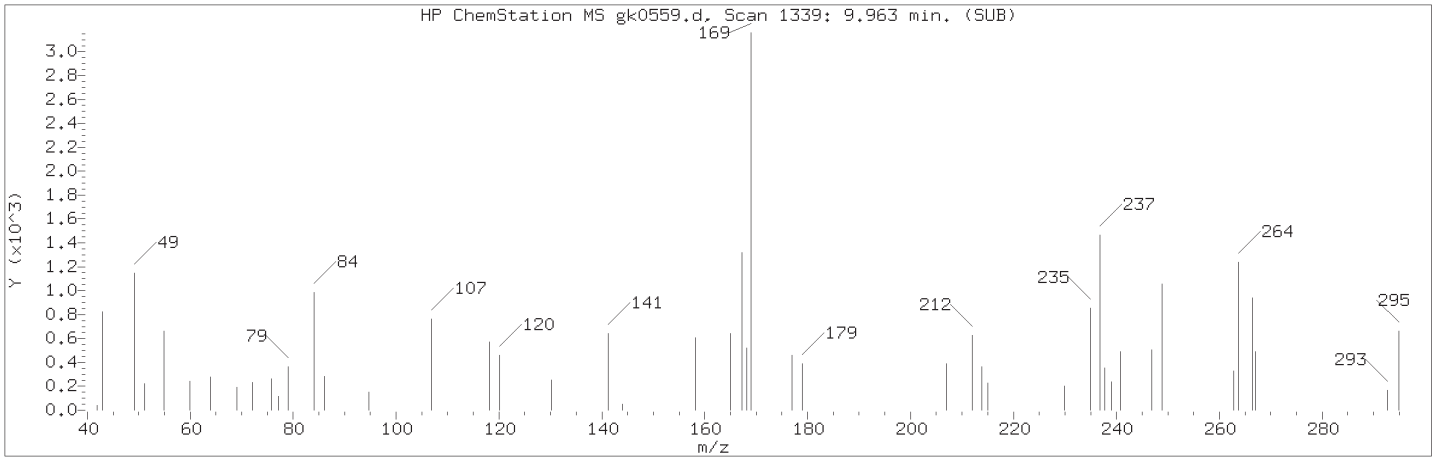
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

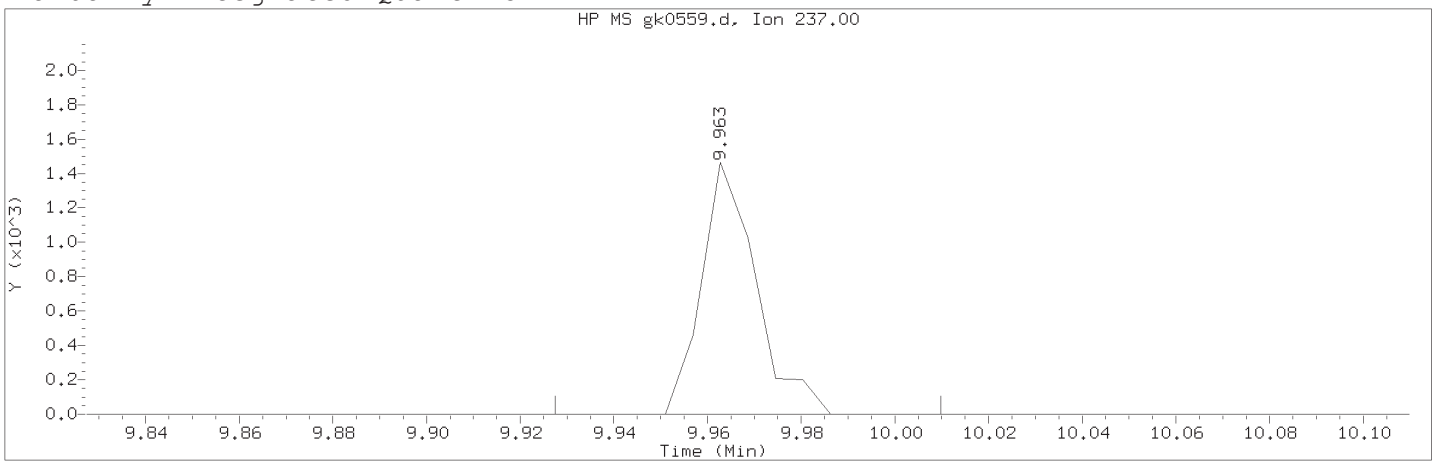
Compound Number	: 143		
Compound Name	: 4-Bromophenyl-phenylether		
Scan Number	: 1296		
Retention Time (minutes)	: 9.710		
Quant Ion	: 248.00		
Area	: 3646		
On-column Amount (ng/ul)	: 0.5394		
Integration start scan	: 1292	Integration stop scan:	1305
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

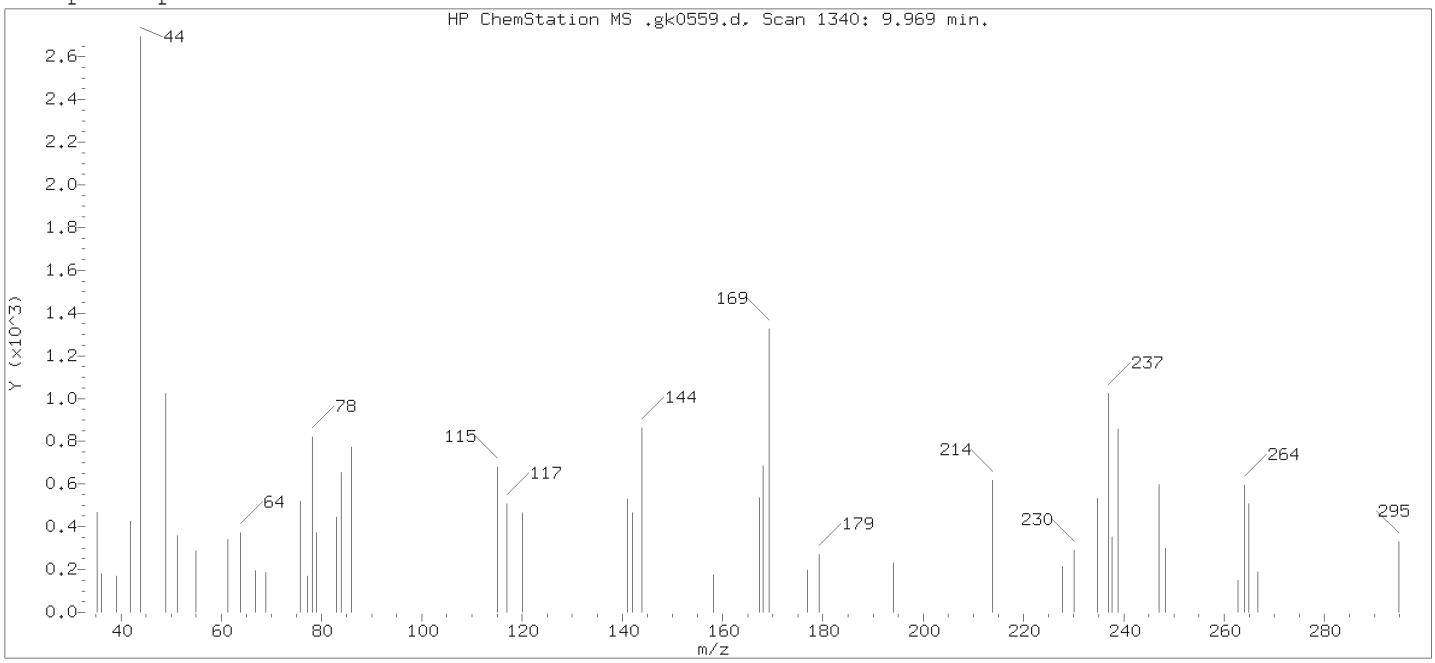
Compound Number	: 151		
Compound Name	: Pentachloronitrobenzene		
Scan Number	: 1339		
Retention Time (minutes)	: 9.963		
Quant Ion	: 237.00		
Area (flag)	: 1185M		
On-Column Amount (ng/ul)	: 0.3998		
Integration start scan	: 1332	Integration stop scan:	1346
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

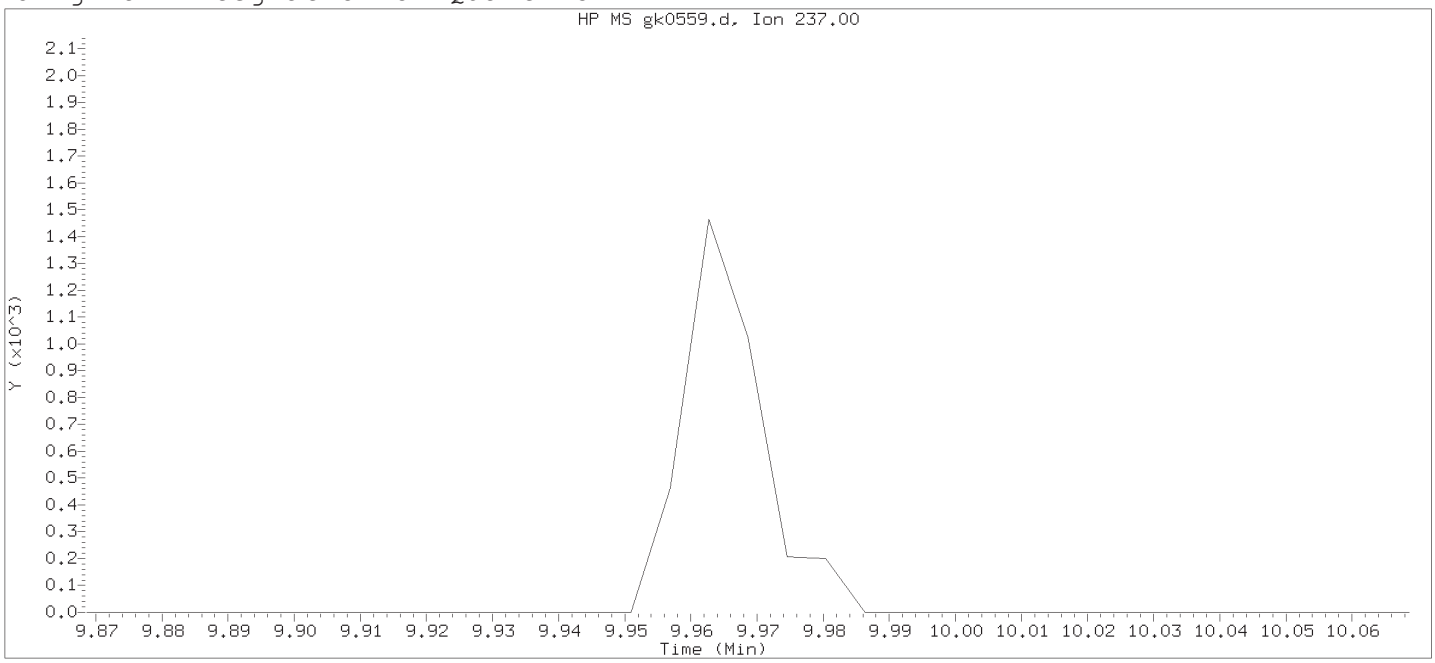
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

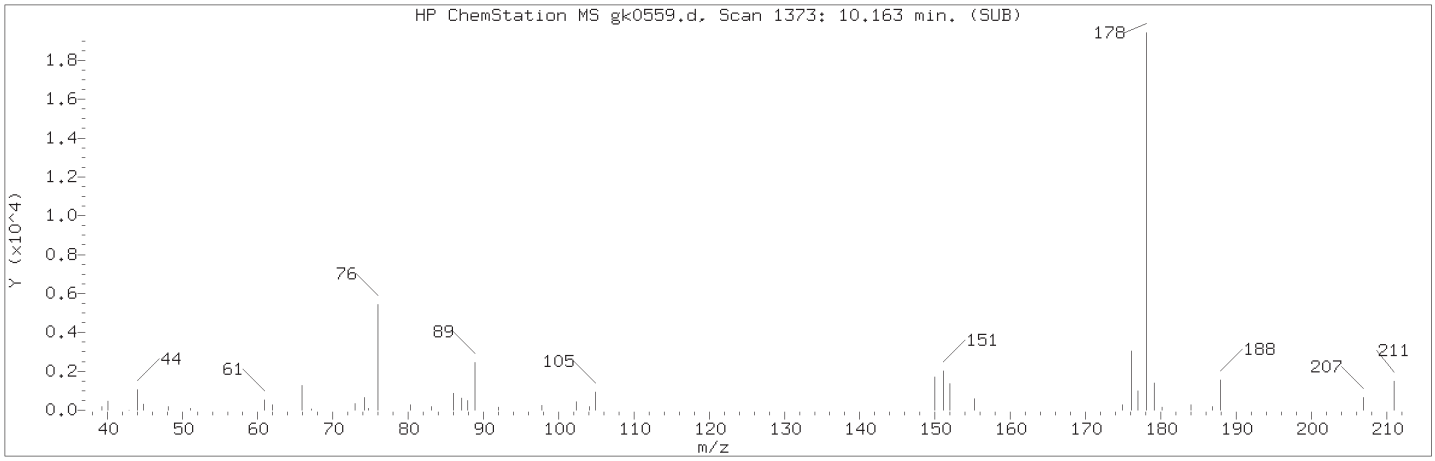
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

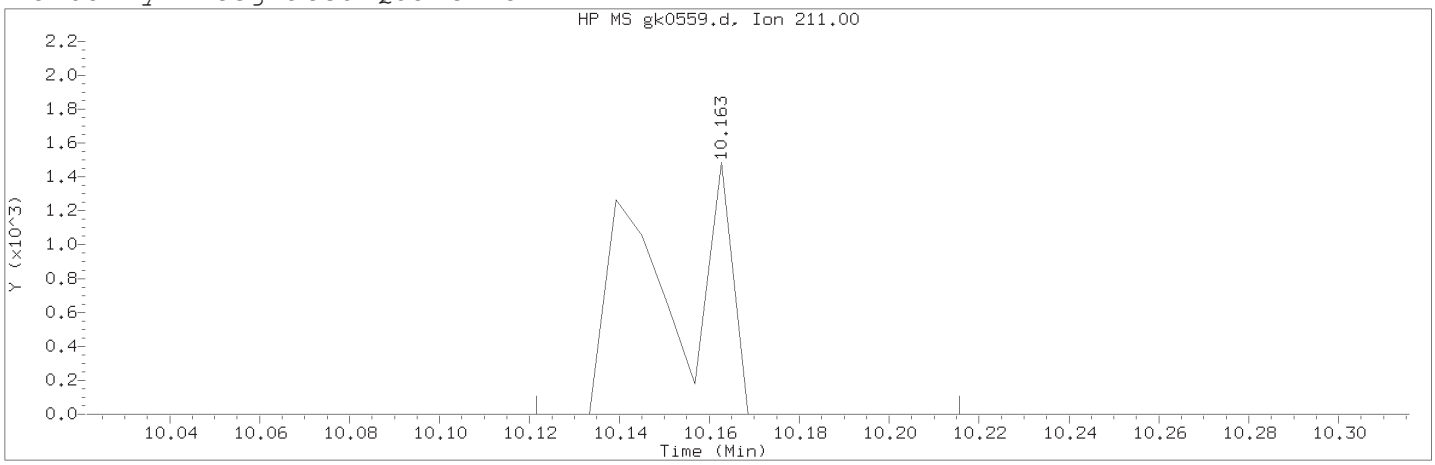
Compound Number : 151
Compound Name : Pentachloronitrobenzene
Expected RT (minutes) : 9.969
Quant Ion : 237.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used 11/12/2018 19:02

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:05 em10340

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

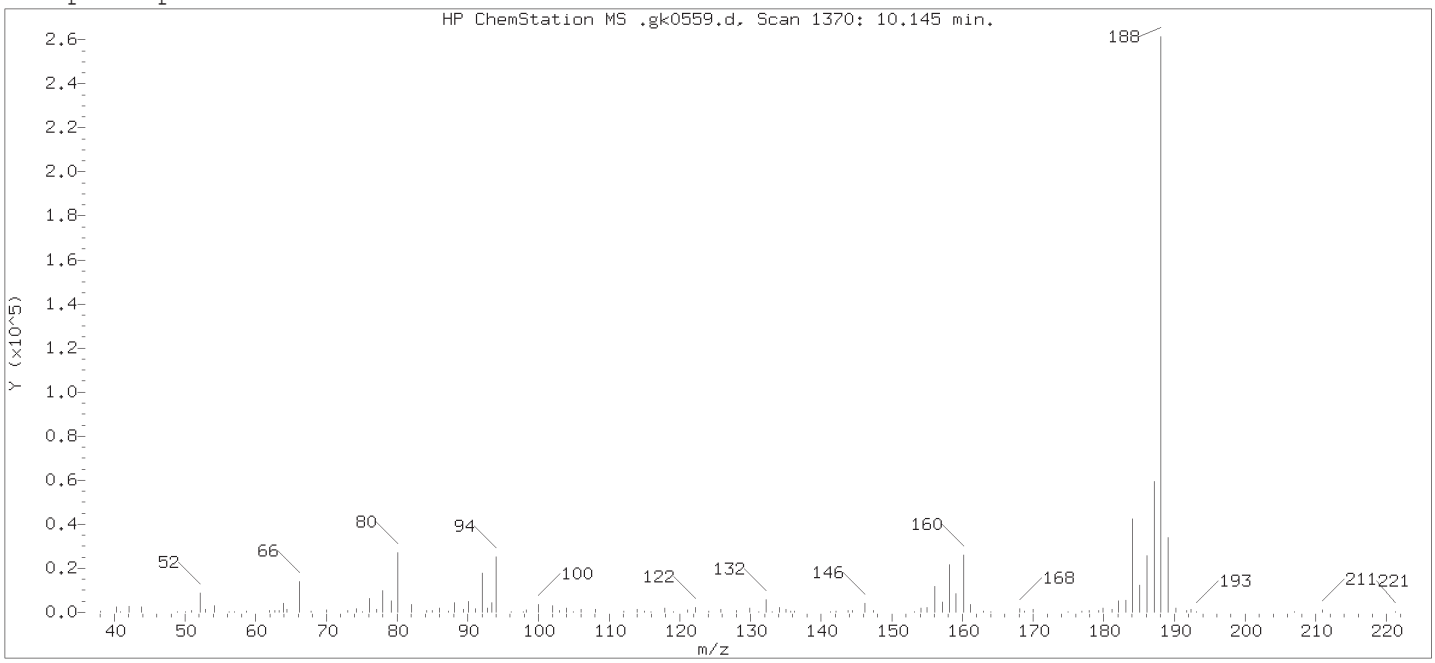
Compound Number	: 154		
Compound Name	: Dinoseb		
Scan Number	: 1373		
Retention Time (minutes)	: 10.163		
Quant Ion	: 211.00		
Area (flag)	: 1630M		
On-Column Amount (ng/ul)	: 0.2480		
Integration start scan	: 1365	Integration stop scan:	1381
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

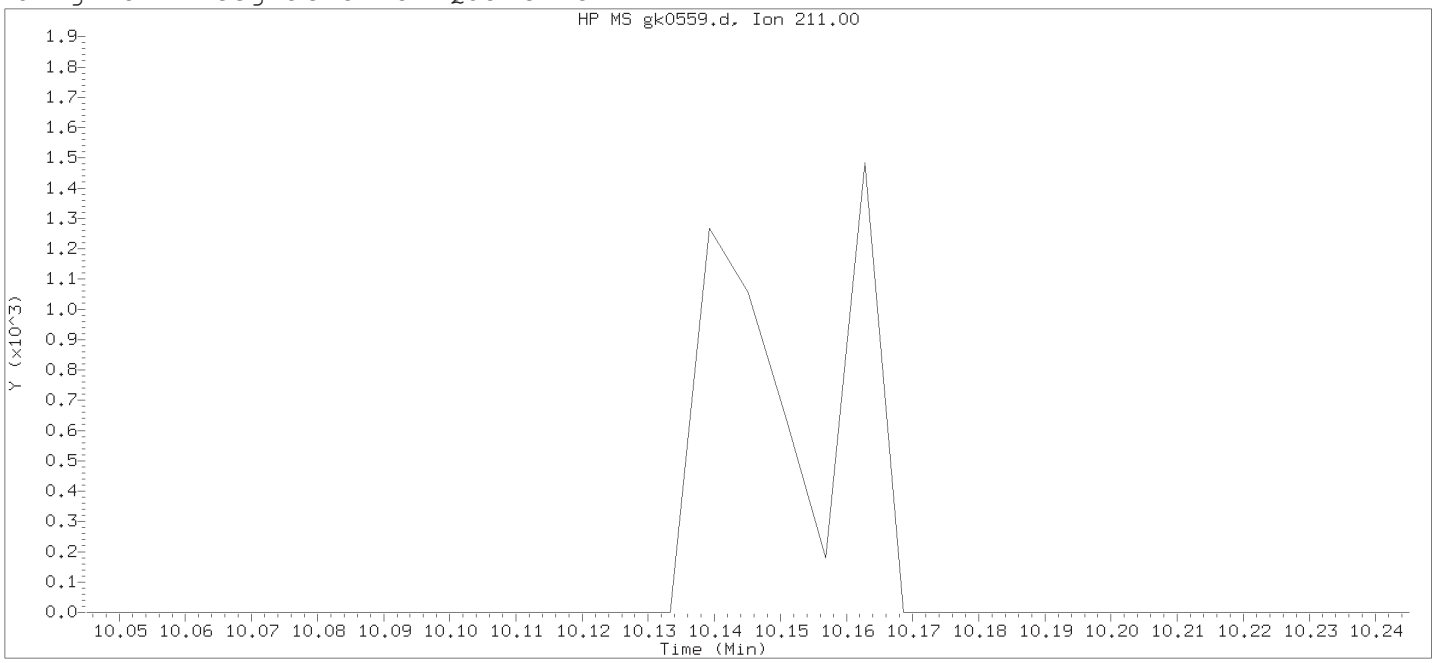
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum



Original Integration of Quant Ion



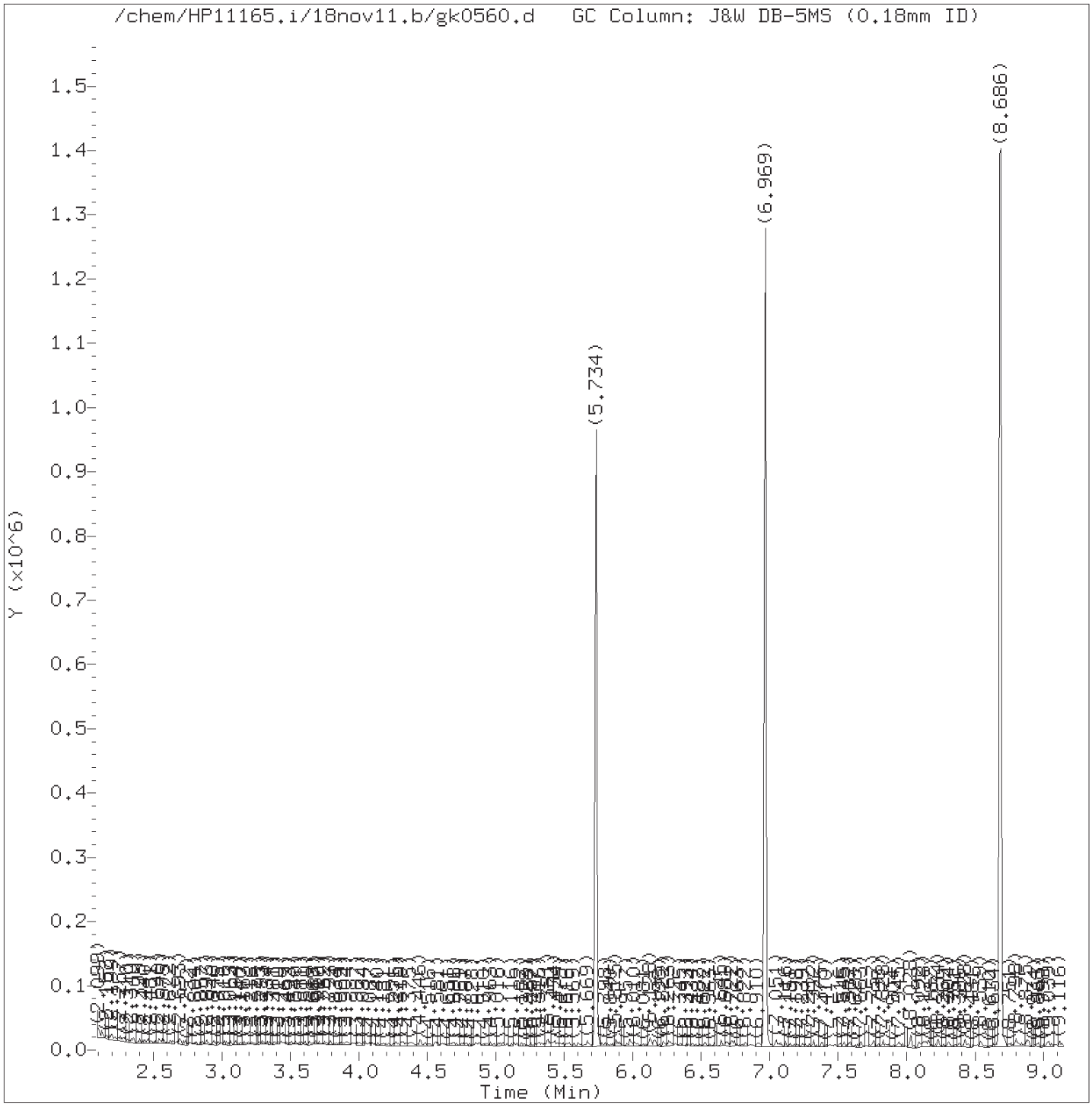
Data File: /chem/HP11165.i/18nov11.b/gk0559.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 14:57 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: mdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:18 Automation

Sample Name: SSTD0.50 Lab Sample ID: MDL2928

Compound Number : 154
Compound Name : Dinoseb
Expected RT (minutes) : 10.145
Quant Ion : 211.00

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used to create PDF



Total Ion Chromatogram (TIC)

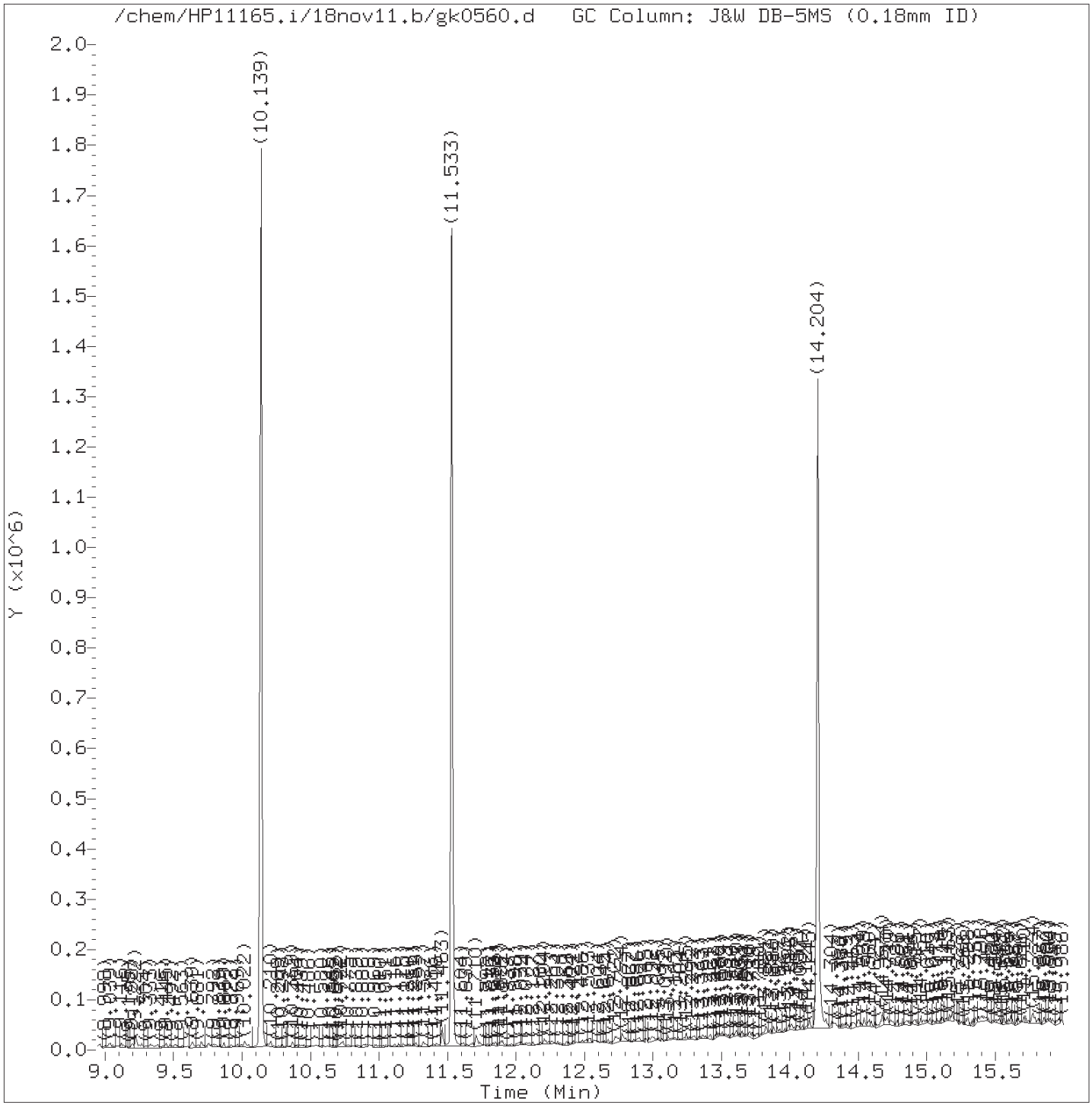
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

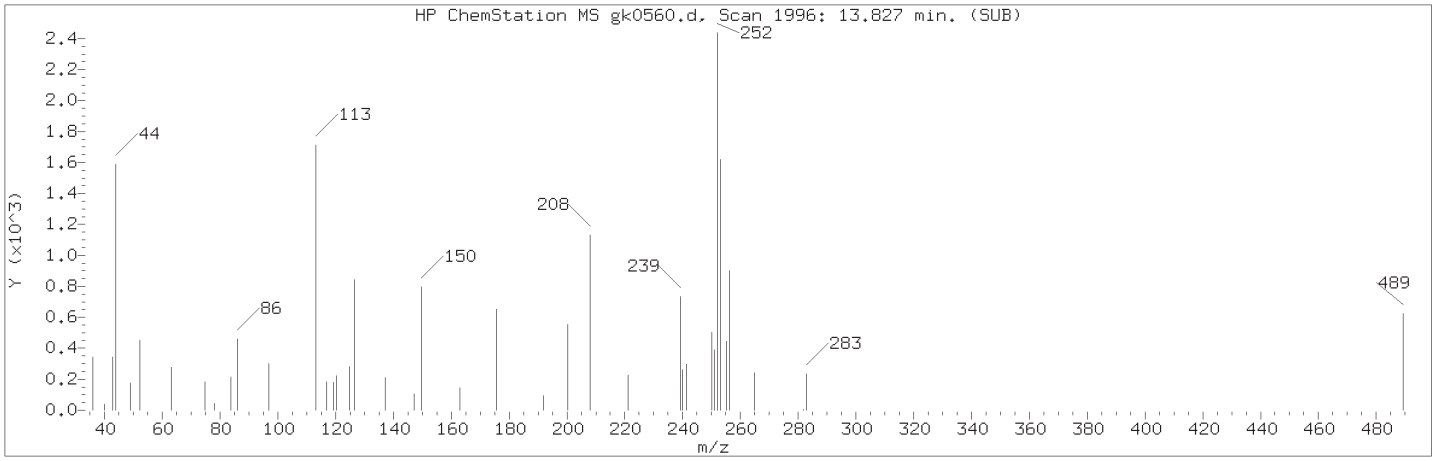
Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	143791	20.000
44)$Nitrobenzene-d5	(2)	6.263	82	2727	0.194
65)*Naphthalene-d8	(2)	6.969	136	532753	20.000
66) Naphthalene	(2)	6.987	128	3807	0.127
83) 2-Methylnaphthalene	(2)	7.669	142	2472	0.116
84) 1-Methylnaphthalene	(2)	7.757	142	3028	0.149
93)$2-Fluorobiphenyl	(3)	8.028	172	4748	0.205
109) Acenaphthylene	(3)	8.545	152	3102	0.114
113)*Acenaphthene-d10	(3)	8.686	164	286234	20.000
114) Acenaphthene	(3)	8.698	153	2517	0.125
126) Fluorene	(3)	9.222	166	1947	0.083
145) Hexachlorobenzene	(4)	9.757	284	1085	0.176
153)*Phenanthrene-d10	(4)	10.139	188	600709	20.000
155) Phenanthrene	(4)	10.163	178	3760	0.100
157) Anthracene	(4)	10.204	178	3702	0.100
173) Fluoranthene	(4)	11.322	202	4693	0.121
175)*Pyrene-d10	(5)	11.533	212	561243	20.000
177) Pyrene	(5)	11.545	202	7540	0.186
179)$Terphenyl-d14	(5)	11.710	244	5649	0.208
195) Benzo(a)anthracene	(5)	12.751	228	4403	0.119
196) Chrysene	(5)	12.780	228	4698	0.132
206) Benzo(b)fluoranthene	(6)	13.827	252	4273M	0.117
208) Benzo(k)fluoranthene	(6)	13.863	252	4094M	0.118
211) Benzo(a)pyrene	(6)	14.139	252	3988M	0.125
213)*Perylene-d12	(6)	14.204	264	513006	20.000
222) Total PAHs	(6)			68486	2.190
219) Indeno(1,2,3-cd)pyrene	(6)	15.374	276	4655M	0.145
220) Dibenz(a,h)anthracene	(6)	15.410	278	2695	0.101
221) Benzo(g,h,i)perylene	(6)	15.727	276	3112	0.114

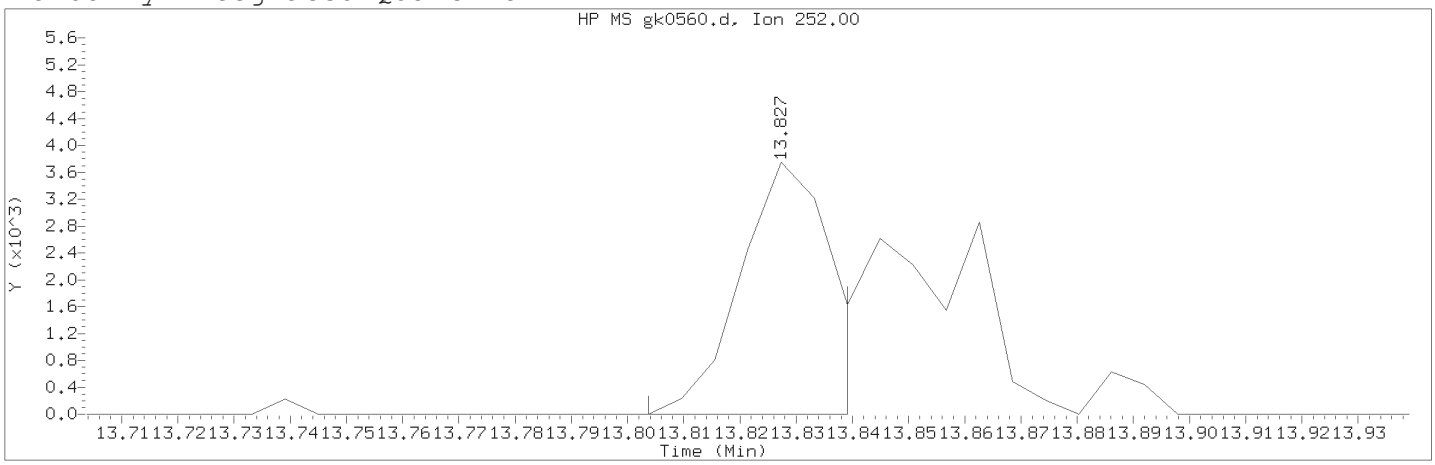
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

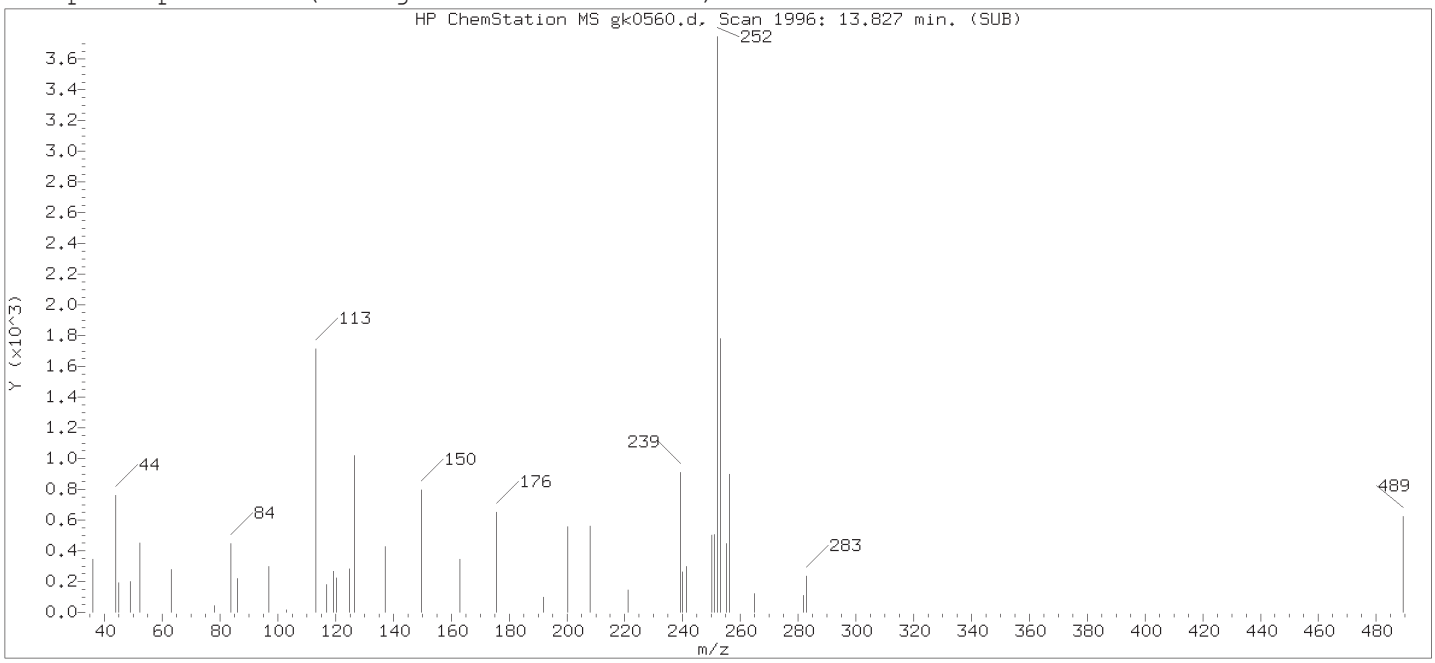
Compound Number : 206
Compound Name : Benzo(b)fluoranthene
Scan Number : 1996
Retention Time (minutes) : 13.827
Quant Ion : 252.00
Area (flag) : 4273M
On-Column Amount (ng/ul) : 0.1166
Integration start scan : 1991 Integration stop scan: 1997
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

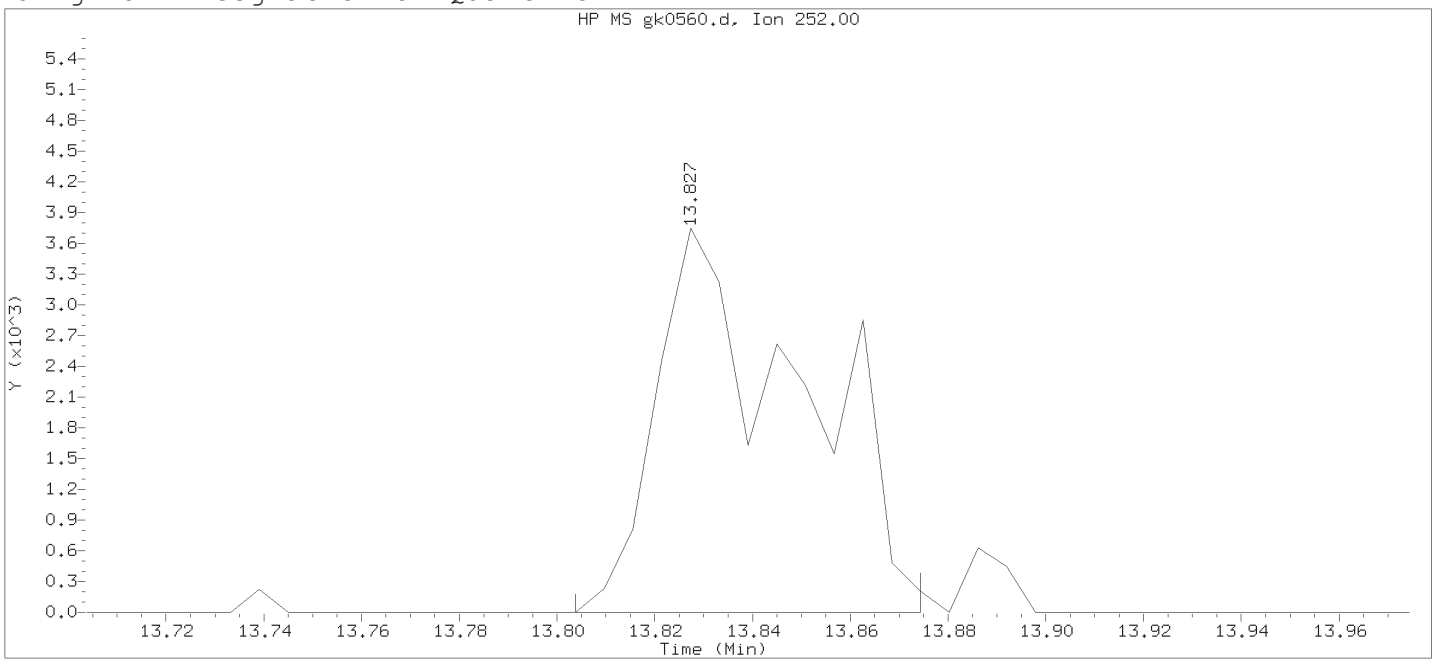
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

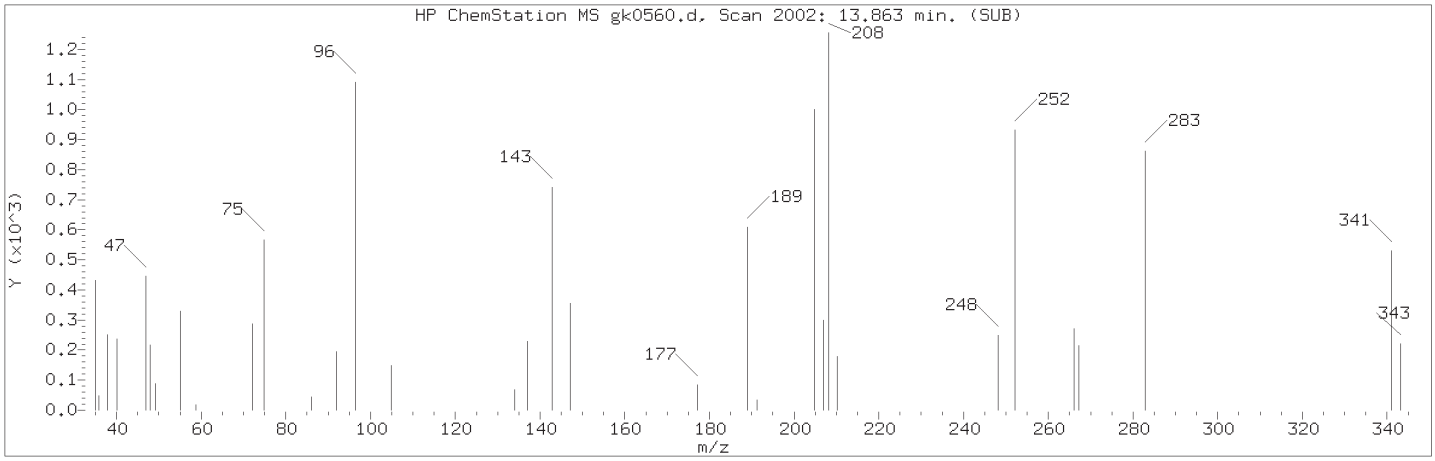
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:42 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

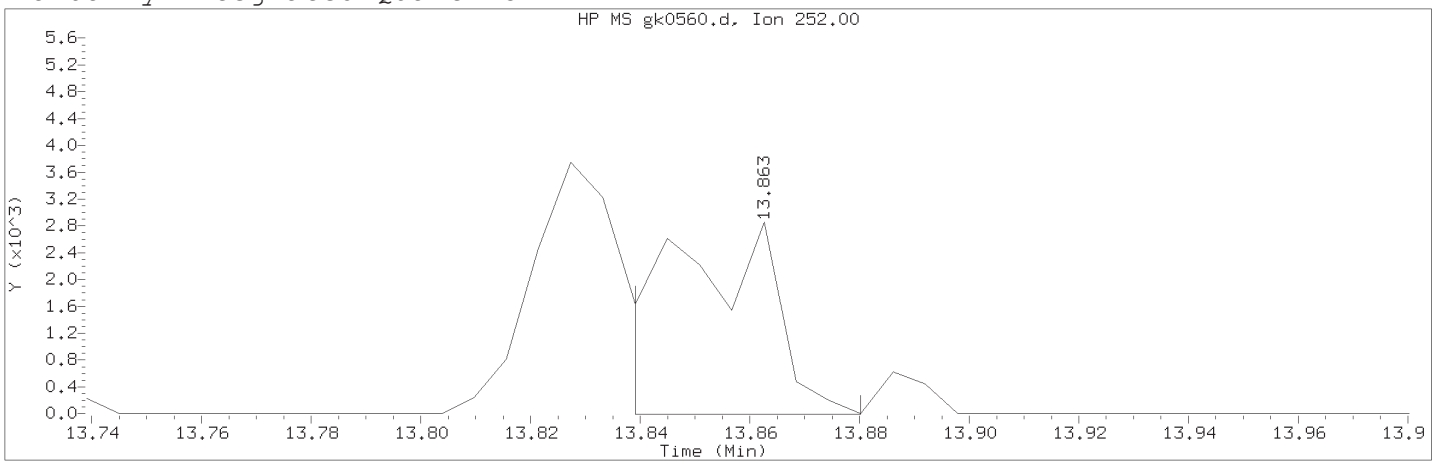
Compound Number	: 206		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1996		
Retention Time (minutes)	: 13.827		
Quant Ion	: 252.00		
Area	: 7739		
On-column Amount (ng/ul)	: 0.1967		
Integration start scan	: 1991	Integration stop scan:	2003
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used for this page.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

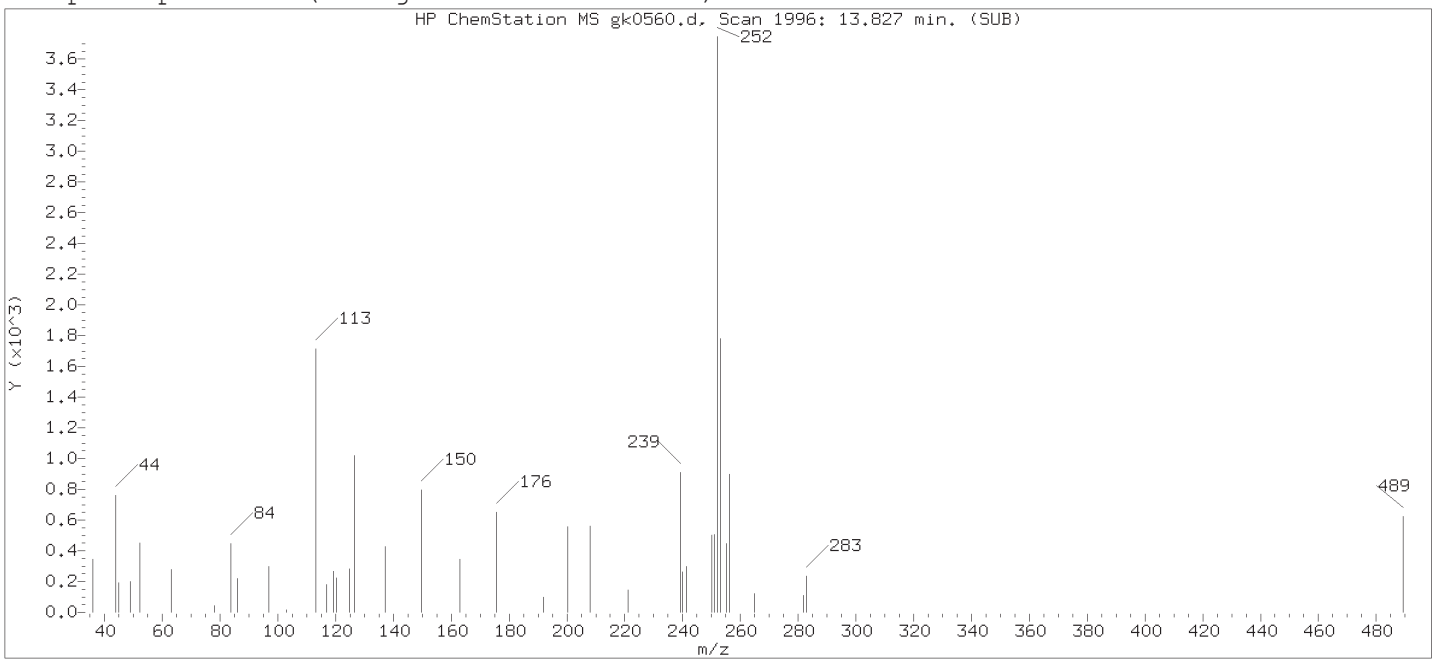
Compound Number : 208
Compound Name : Benzo(k)fluoranthene
Scan Number : 2002
Retention Time (minutes) : 13.863
Quant Ion : 252.00
Area (flag) : 4094M
On-Column Amount (ng/ul) : 0.1177
Integration start scan : 1997 Integration stop scan: 2004
Y at integration start : -6 Y at integration end: -6

Reason for manual integration: improper integration

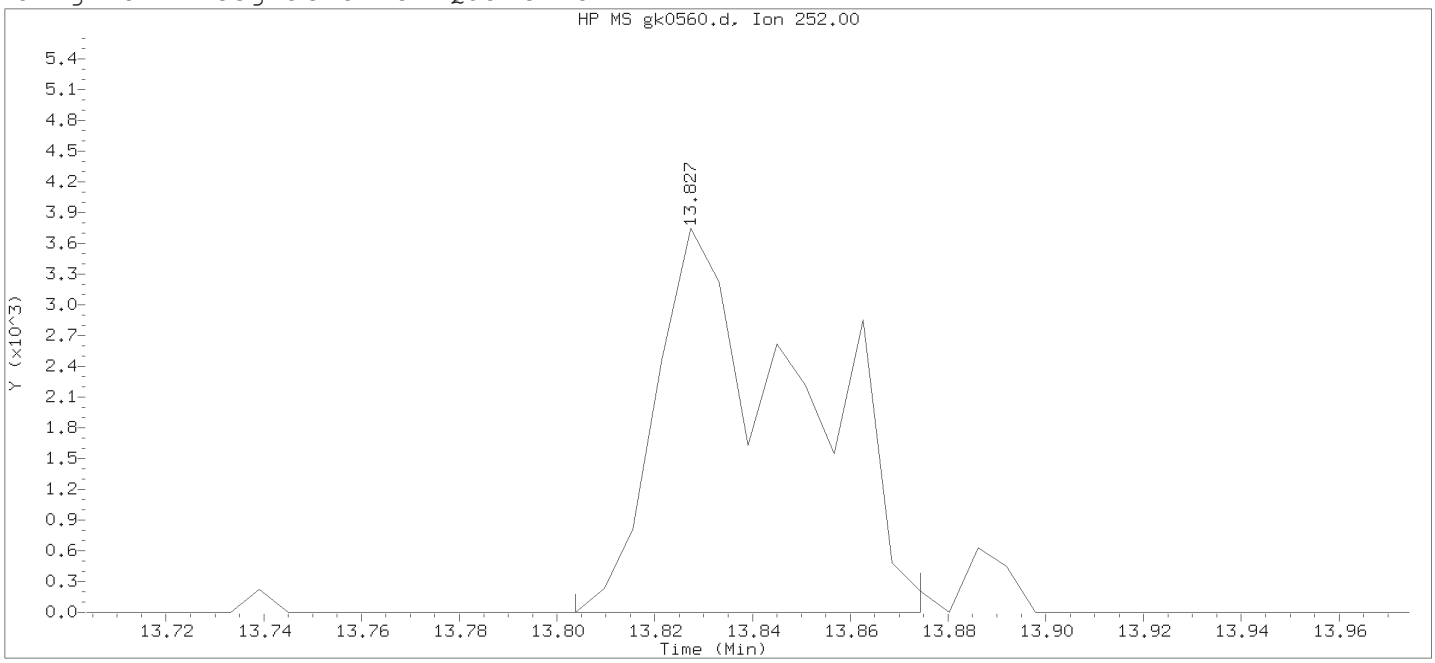
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:42 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Compound Number	: 208	
Compound Name	: Benzo(k)fluoranthene	
Scan Number	: 1996	
Retention Time (minutes)	: 13.827	
Quant Ion	: 252.00	
Area	: 7739	
On-column Amount (ng/ul)	: 0.1964	
Integration start scan	: 1991	Integration stop scan: 2003
Y at integration start	: 0	Y at integration end: 0

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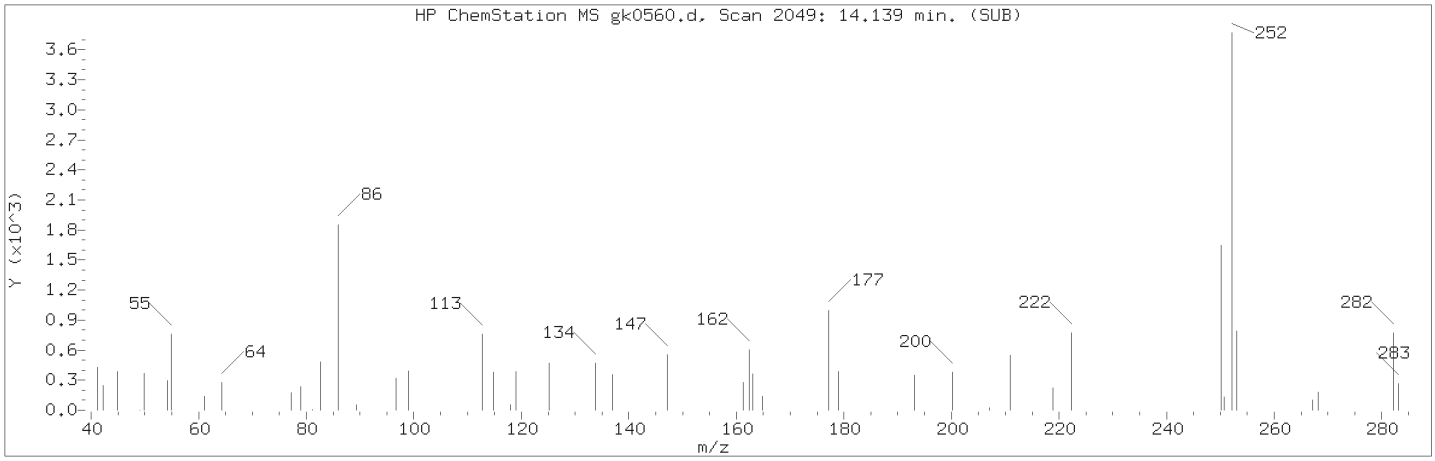
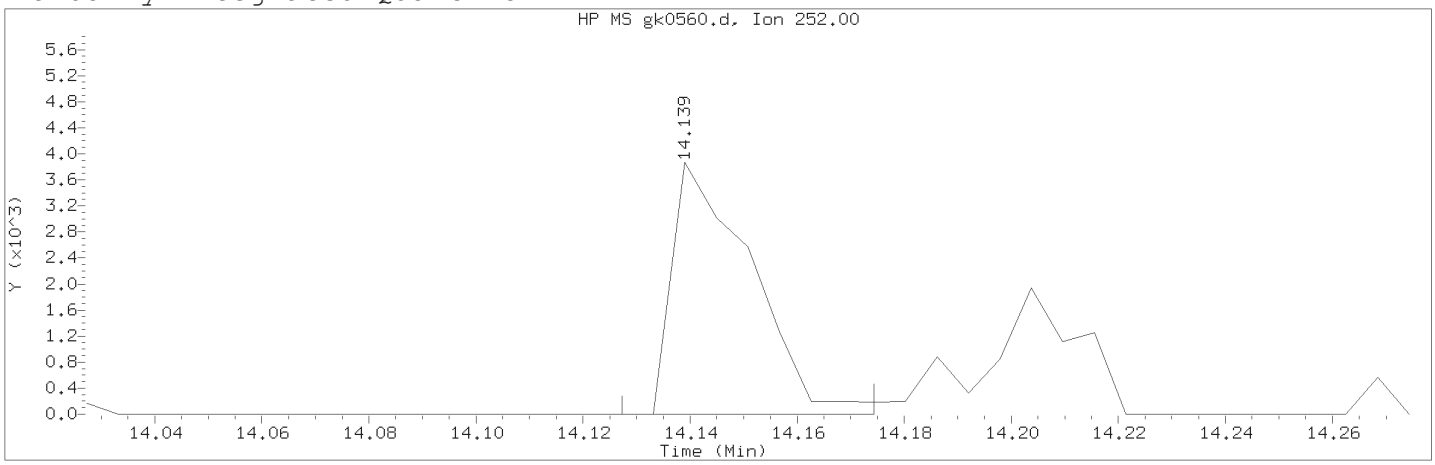
Target 3.5 esignature used: 1112

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

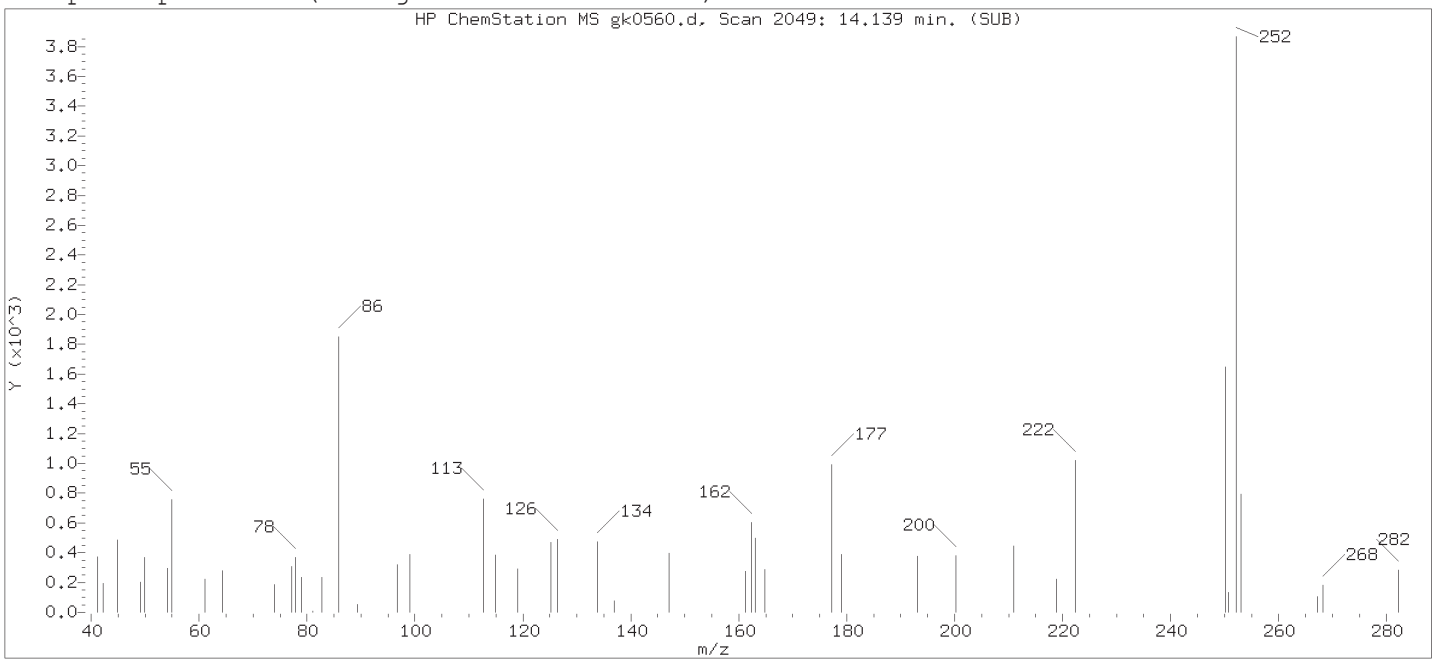
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2049		
Retention Time (minutes)	: 14.139		
Quant Ion	: 252.00		
Area (flag)	: 3988M		
On-Column Amount (ng/ul)	: 0.1251		
Integration start scan	: 2046	Integration stop scan:	2054
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

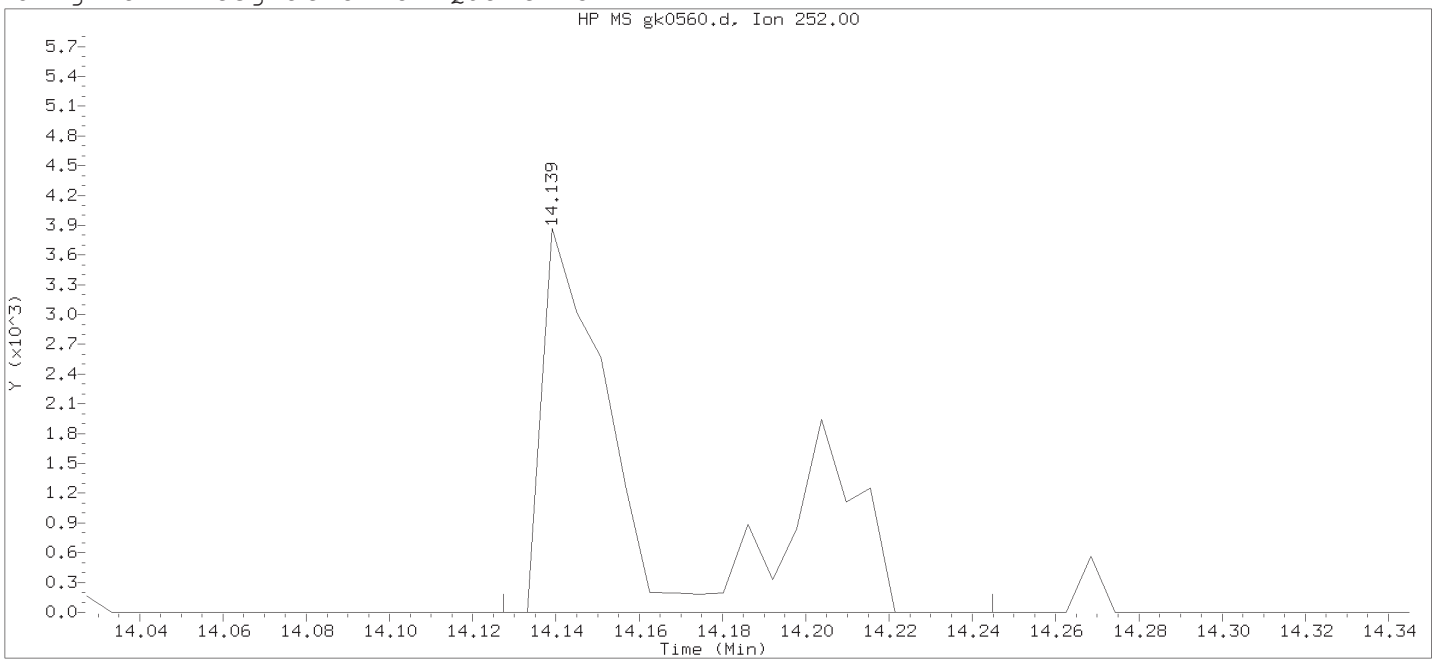
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

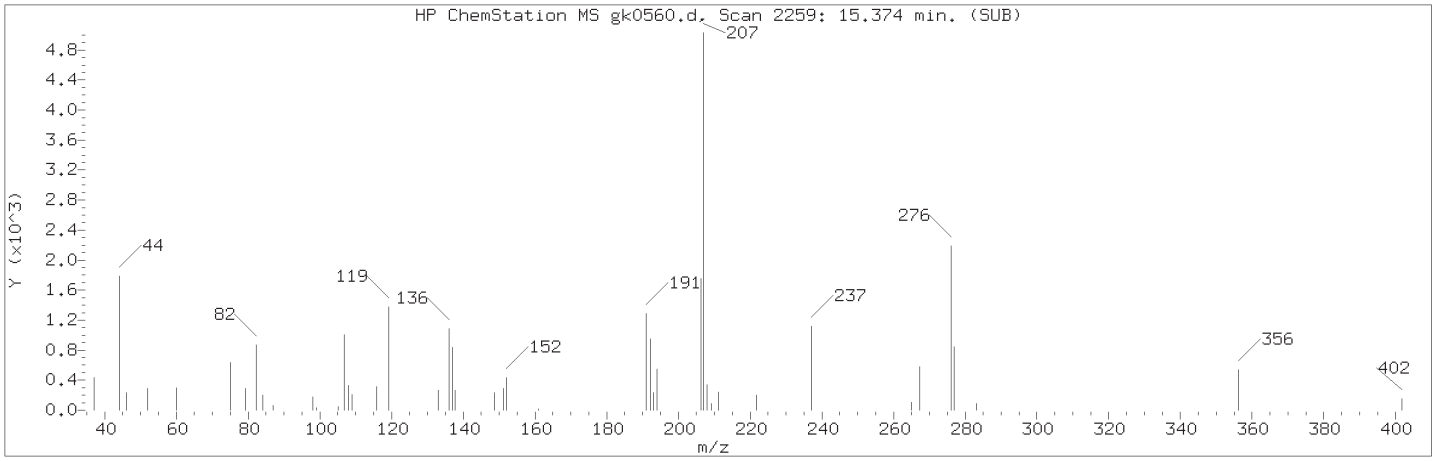
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:42 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

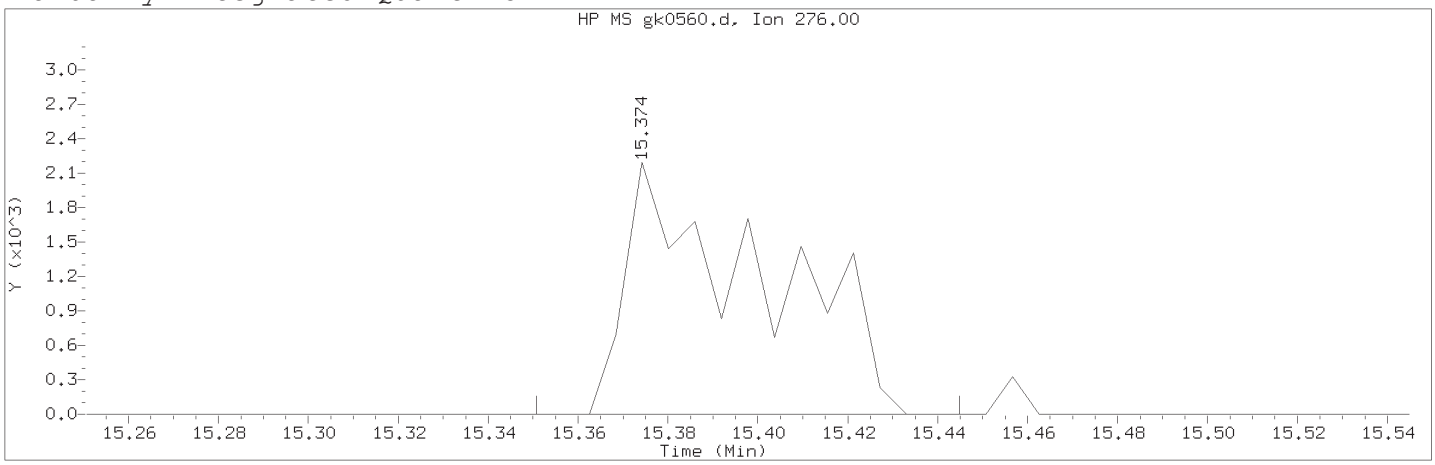
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2049		
Retention Time (minutes)	: 14.139		
Quant Ion	: 252.00		
Area	: 6299		
On-column Amount (ng/ul)	: 0.1917		
Integration start scan	: 2046	Integration stop scan:	2066
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: D12

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 12-Nov-2018 08:11 em10340

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

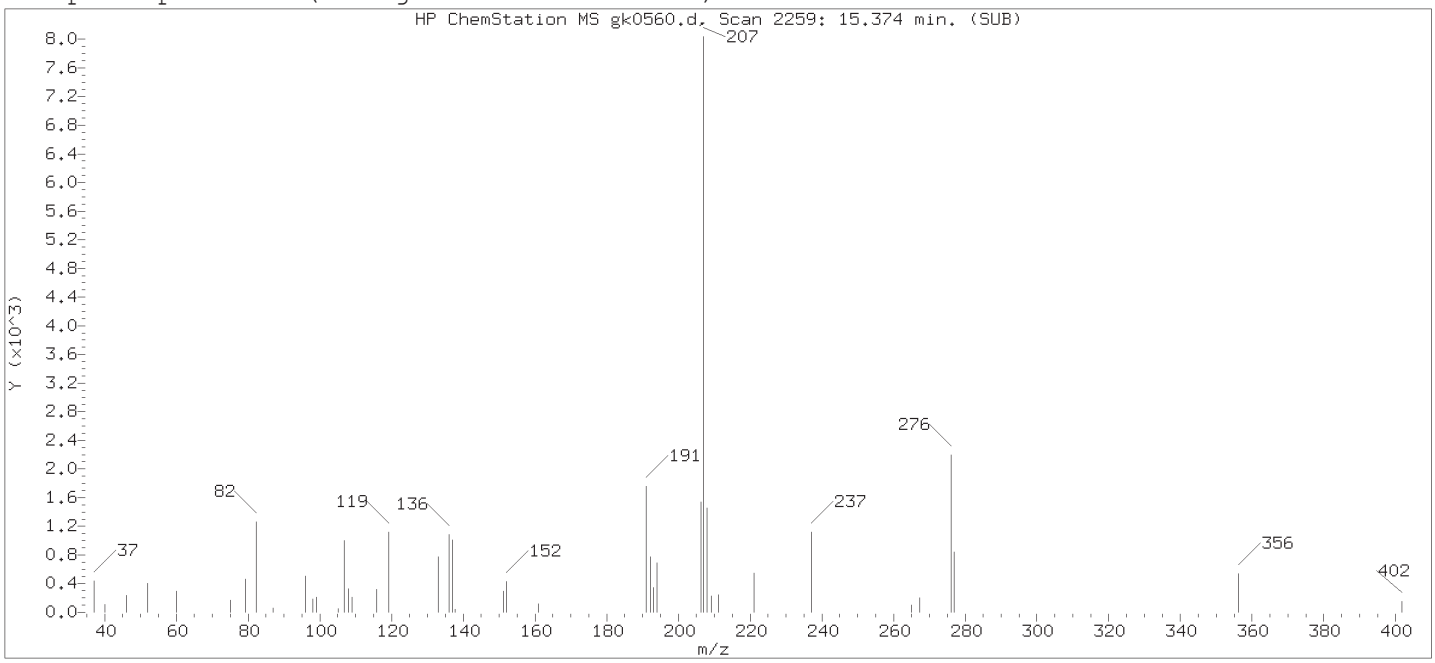
Compound Number : 219
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 2259
Retention Time (minutes) : 15.374
Quant Ion : 276.00
Area (flag) : 4655M
On-Column Amount (ng/ul) : 0.1446
Integration start scan : 2254 Integration stop scan: 2270
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

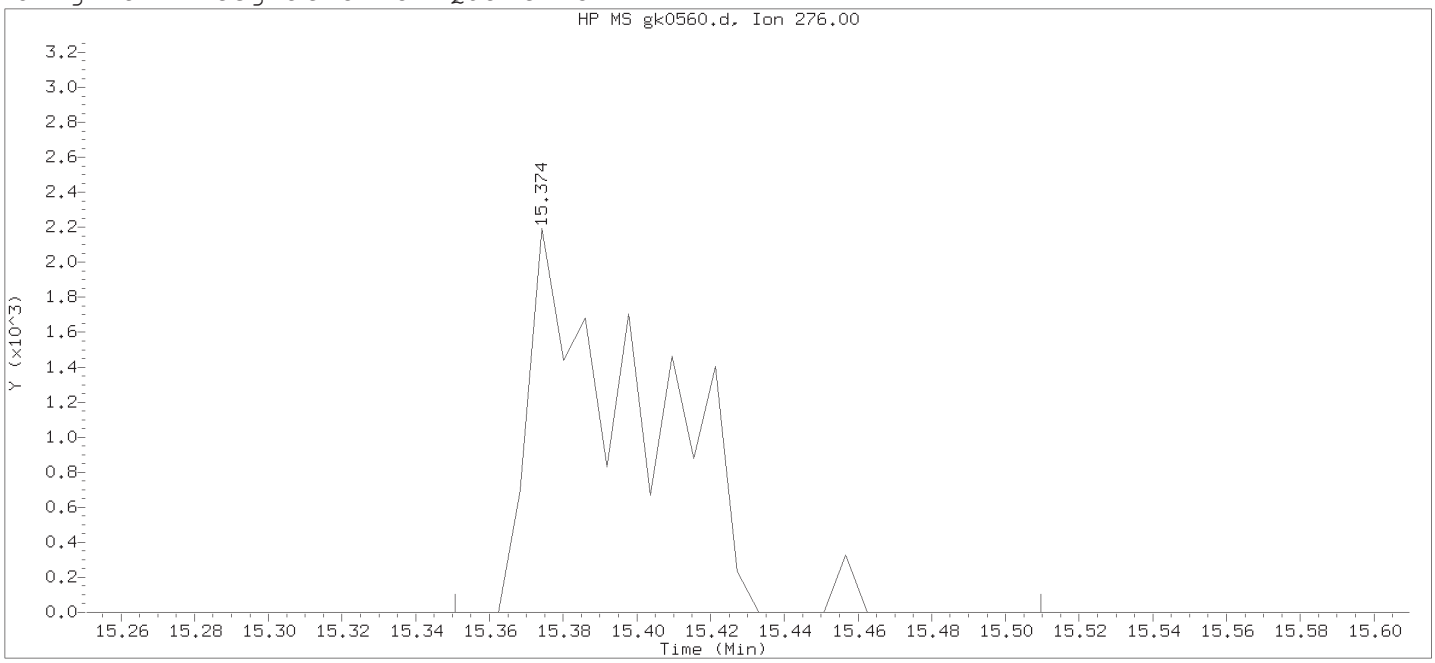
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:24.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



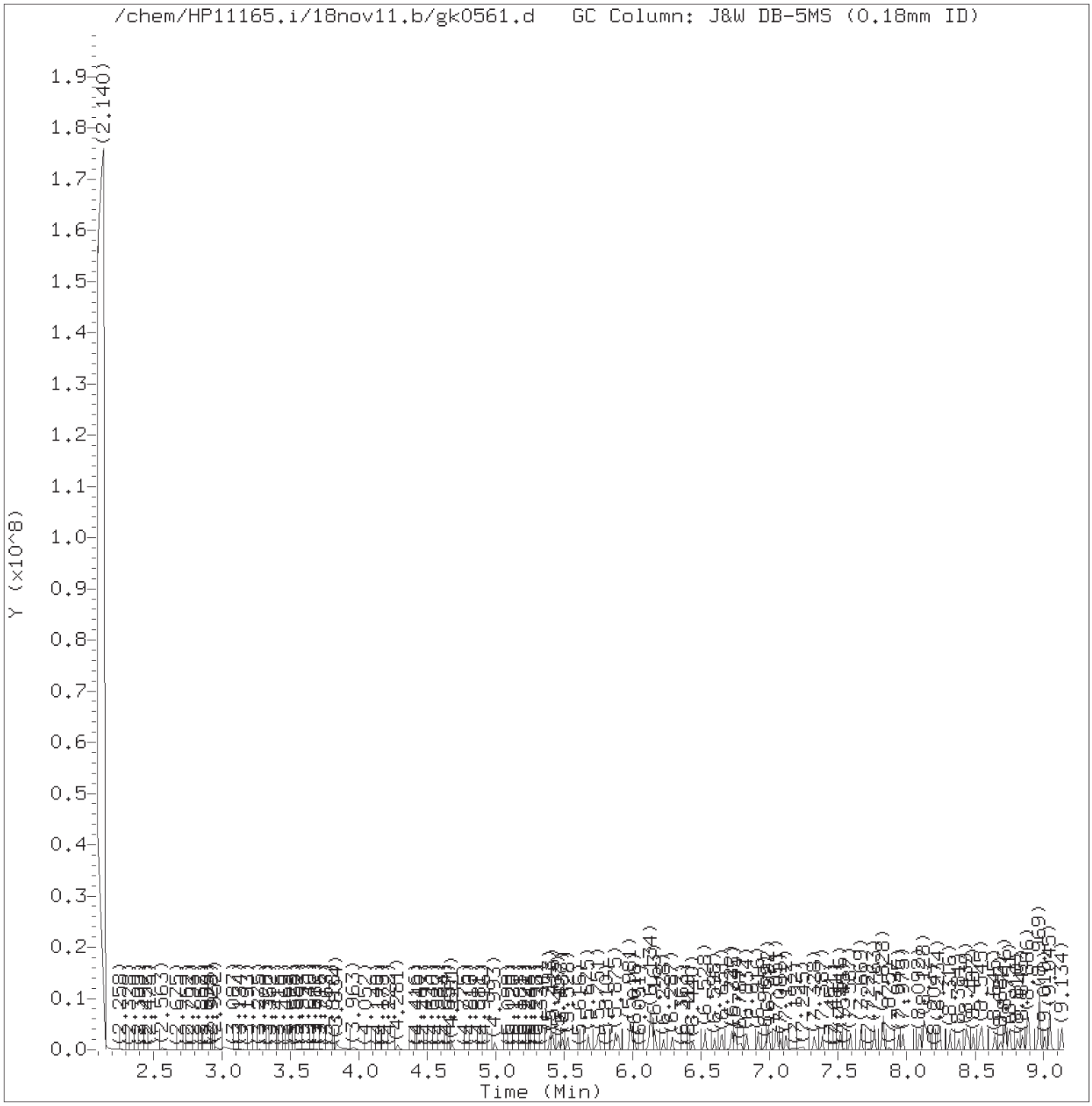
Data File: /chem/HP11165.i/18nov11.b/gk0560.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:21 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: pahmdlall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 15:42 Automation

Sample Name: SSTD0.10 Lab Sample ID: MDLPAH2928

Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2259		
Retention Time (minutes)	: 15.374		
Quant Ion	: 276.00		
Area	: 4770		
On-column Amount (ng/ul)	: 0.1471		
Integration start scan	: 2254	Integration stop scan:	2281
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:24.
Target 3.5 esignature used: D12



Total Ion Chromatogram (TIC)

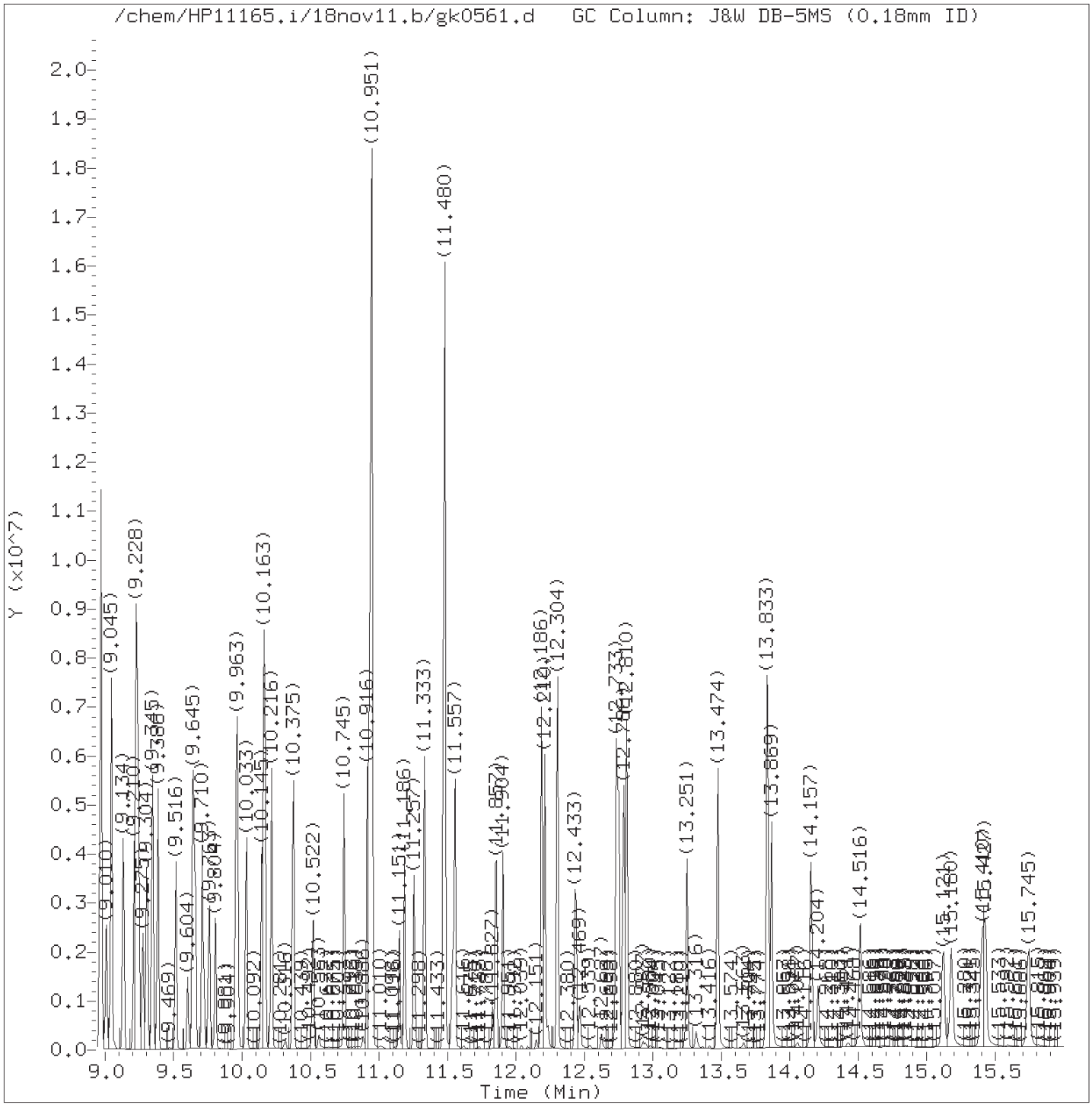
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.563	88	234813	47.715
4) N-Nitrosodimethylamine	(1)	2.952	74	435176	58.165
5) Pyridine	(1)	3.010	79	647520	51.503
7) 2-Picoline	(1)	3.834	93	722450	53.050
8) N-Nitrosomethylethylamine	(1)	3.963	88	301877	44.884
9) Methyl methanesulfonate	(1)	4.281	80	383021	54.476
13) N-Nitrosodiethylamine	(1)	4.681	102	297233	49.304
15) Ethyl methanesulfonate	(1)	4.993	109	290658	45.461
18) Phenol	(1)	5.393	94	997428	53.478
19) Aniline	(1)	5.416	93	1096689	50.110
22) bis(2-Chloroethyl)ether	(1)	5.487	93	729804	54.481
23) 2-Chlorophenol	(1)	5.528	128	581595	56.571
42) Total Cresols	(1)	5.660	100	1344304	106.204
24) 1,3-Dichlorobenzene	(1)	5.675	146	608823	53.760
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	139483	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	632867	53.540
27) Benzyl alcohol	(1)	5.875	108	479116	58.498
28) 1,2-Dichlorobenzene	(1)	5.893	146	591211	51.677
30) Indene	(1)	5.981	115	973387	77.250
31) 2-Methylphenol	(1)	5.987	108	644813	51.278
34) bis(2-Chloroisopropyl)ether	(1)	6.016	45	705572	51.899
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.016	45	705572	51.899
35) N-Nitrosopyrrolidine	(1)	6.116	100	317531	47.531
36) Acetophenone	(1)	6.128	105	976275	57.534
37) 4-Methylphenol	(1)	6.134	108	699491	54.926
38) N-Nitroso-di-n-propylamine	(1)	6.140	70	657870	54.886
39) N-Nitrosomorpholine	(1)	6.151	56	414012	47.165
40) o-Toluidine	(1)	6.163	106	1066129	53.401
43) Hexachloroethane	(1)	6.222	117	244898	55.044
45) Nitrobenzene	(2)	6.287	77	869762	54.515
48) N-Nitrosopiperidine	(2)	6.440	114	291092	47.426
50) Isophorone	(2)	6.528	82	1595535	55.335
51) 2-Nitrophenol	(2)	6.598	139	320518	55.762
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	257453	46.332
55) bis(2-Chloroethoxy)methane	(2)	6.745	93	913702	57.007
56) Benzoic acid	(2)	6.793	105	1038508	105.272
60) 2,4-Dichlorophenol	(2)	6.834	162	485332	54.763
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	503218	53.842
65)*Naphthalene-d8	(2)	6.969	136	580542	20.000
66) Naphthalene	(2)	6.992	128	1720384	52.464

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
67)	4-Chloroaniline	(2)	7.045	127	738017	54.669
68)	2,6-Dichlorophenol	(2)	7.051	162	425828	47.622
69)	Hexachloropropene	(2)	7.081	213	293078	62.675
71)	Hexachlorobutadiene	(2)	7.122	225	284419	56.712
75)	Quinoline	(2)	7.328	129	1030569	48.209
97)	Isosafrole	(3)	7.383	162	510810	59.753
77)	N-Nitrosodi-n-butylamine	(2)	7.387	84	493952	35.758
80)	4-Chloro-3-methylphenol	(2)	7.516	107	621609	56.195
82)	Safrole	(2)	7.592	162	429288	47.841
83)	2-Methylnaphthalene	(2)	7.669	142	1225469	52.699
84)	1-Methylnaphthalene	(2)	7.763	142	1132605	51.087
85)	Hexachlorocyclopentadiene	(3)	7.828	237	538357	118.898
86)	1,2,4,5-Tetrachlorobenzene	(3)	7.834	216	496750	54.939
88)	cis-Isosafrole	(3)	7.875	162	56002	6.308
90)	2,4,6-Trichlorophenol	(3)	7.945	196	358676	58.619
92)	2,4,5-Trichlorophenol	(3)	7.975	196	388603	58.308
120)	2,4_2,6-Dinitrotoluenes	(3)	8.050	165	768533	115.304
94)	trans-Isosafrole	(3)	8.098	162	454808	53.445
95)	1,1'-Biphenyl	(3)	8.128	154	1510502	55.769
96)	2-Chloronaphthalene	(3)	8.145	162	1324832M	62.332
98)	1-Chloronaphthalene	(3)	8.163	162	934366M	47.462
99)	Diphenyl ether	(3)	8.234	170	700885	48.203
100)	2-Nitroaniline	(3)	8.245	138	405126	61.006
104)	1,4-Naphthoquinone	(3)	8.316	158	546545	62.720
105)	1,4-Dinitrobenzene	(3)	8.381	168	207112	56.583
106)	Dimethylphthalate	(3)	8.439	163	1394346	56.005
107)	1,3-Dinitrobenzene	(3)	8.451	168	242726	57.140
108)	2,6-Dinitrotoluene	(3)	8.487	165	326572	58.413
109)	Acenaphthylene	(3)	8.545	152	1833811	62.555
112)	3-Nitroaniline	(3)	8.645	138	355010	56.637
113)	*Acenaphthene-d10	(3)	8.687	164	307189	20.000
114)	Acenaphthene	(3)	8.722	153	1241829	57.311
115)	2,4-Dinitrophenol	(3)	8.751	184	453316	120.238
146)	Diallate trans/cis	(4)	8.775	86	735340	49.740
116)	4-Nitrophenol	(3)	8.810	109	246855	56.727
117)	Pentachlorobenzene	(3)	8.845	250	388366	50.109
118)	2,4-Dinitrotoluene	(3)	8.886	165	441961	56.891
119)	Dibenzofuran	(3)	8.892	168	1714417	56.830
121)	1-Naphthylamine	(3)	8.969	143	2537921	107.978
122)	2,3,4,6-Tetrachlorophenol	(3)	9.010	232	300347	55.943

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
124) Diethylphthalate	(3)	9.134	149	1407495	56.320
125) Thionazin	(3)	9.210	107	234502	49.291
126) Fluorene	(3)	9.228	166	1422654	56.419
127) 4-Chlorophenyl-phenylether	(3)	9.234	204	661737	56.453
128) 5-Nitro-o-toluidine	(3)	9.239	152	371346	49.130
129) 4-Nitroaniline	(3)	9.245	138	400295	58.624
130) 4,6-Dinitro-2-methylphenol	(4)	9.275	198	270508	59.976
131) N-Nitrosodiphenylamine	(4)	9.345	169	1271758	59.234
132) NDPA as diphenylamine	(4)	9.345	169	1271758	59.234
134) 1,2-Diphenylhydrazine	(4)	9.386	77	1964813	59.001
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	249155	50.995
139) 1,3,5-Trinitrobenzene	(4)	9.604	213	128992	44.840
140) Diallate (peak 1)	(4)	9.639	86	559681	36.155
141) Phorate	(4)	9.645	75	1042548	51.838
142) Phenacetin	(4)	9.657	108	746287	52.888
143) 4-Bromophenyl-phenylether	(4)	9.710	248	362872	54.254
144) Diallate (peak 2)	(4)	9.722	86	175659	13.585
145) Hexachlorobenzene	(4)	9.763	284	340105	54.518
147) Dimethoate	(4)	9.804	87	577175	49.888
149) Pentachlorophenol	(4)	9.951	266	268914	64.552
150) 4-Aminobiphenyl	(4)	9.963	169	1377978	142.049
151) Pentachloronitrobenzene	(4)	9.969	237	154985	52.241
152) Pronamide	(4)	10.033	173	551784	50.885
153)*Phenanthrene-d10	(4)	10.139	188	608613	20.000
154) Dinoseb	(4)	10.145	211	313970	47.709
155) Phenanthrene	(4)	10.169	178	2120474	55.750
157) Anthracene	(4)	10.216	178	2102100	55.974
163) Carbazole	(4)	10.375	167	1984738	58.264
164) Methyl parathion	(4)	10.516	109	470224	55.077
165) Di-n-butylphthalate	(4)	10.745	149	2472027	58.194
167) Parathion	(4)	10.916	109	294871	52.646
168) 4-Nitroquinoline-1-oxide	(4)	10.951	190	3141624	860.278
171) Isodrin	(4)	11.186	193	208595	48.927
173) Fluoranthene	(4)	11.333	202	2180689	55.670
174) Benzidine	(5)	11.480	184	6306183	245.584
175)*Pyrene-d10	(5)	11.533	212	573462	20.000
177) Pyrene	(5)	11.557	202	2192239	52.974
182) p-Dimethylaminoazobenzene	(5)	11.857	225	411390	57.186
185) Chlorobenzilate	(5)	11.904	139	671291	54.740
187) 3,3'-Dimethylbenzidine	(5)	12.186	212	2293029	108.728

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

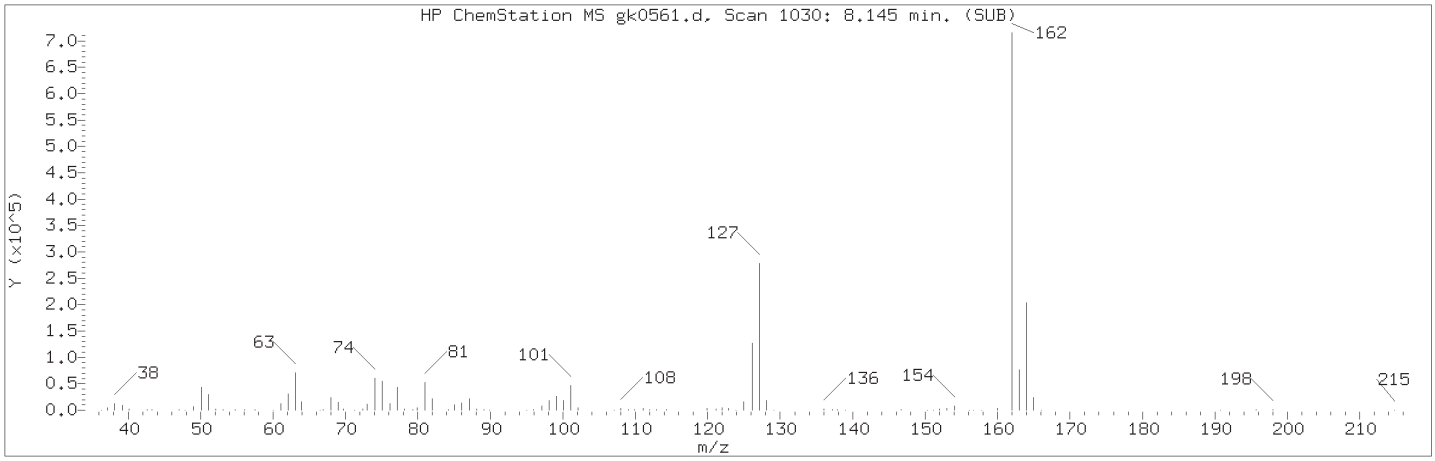
Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
188) Butylbenzylphthalate	(5)	12.210	149	1099717	57.122
191) 2-Acetylaminofluorene	(5)	12.433	181	753075	48.529
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	647302	49.386
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.739	231	363595	51.005
195) Benzo(a)anthracene	(5)	12.751	228	2073362	54.774
196) Chrysene	(5)	12.786	228	1949535	53.549
199) bis(2-Ethylhexyl)phthalate	(5)	12.810	149	1434889	55.019
203) 6-Methylchrysene	(5)	13.251	242	1183652	47.576
205) Di-n-octylphthalate	(6)	13.474	149	2398401	53.938
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.833	256	908382	56.553
206) Benzo(b)fluoranthene	(6)	13.839	252	1813139	51.410
208) Benzo(k)fluoranthene	(6)	13.869	252	1917011	57.276
211) Benzo(a)pyrene	(6)	14.157	252	1731604	56.444
213)*Perylene-d12	(6)	14.204	264	493736	20.000
215) 3-Methylcholanthrene	(6)	14.516	268	737414	61.553
222) Total PAHs	(6)	15.000	100	31163518	989.494
217) Dibenz(a,h)acridine	(6)	15.121	279	1029770	45.375
218) Dibenz(a,j)acridine	(6)	15.180	279	1128497	46.276
219) Indeno(1,2,3-cd)pyrene	(6)	15.404	276	1683278	54.306
220) Dibenz(a,h)anthracene	(6)	15.427	278	1448230	56.604
221) Benzo(g,h,i)perylene	(6)	15.745	276	1375105	52.228

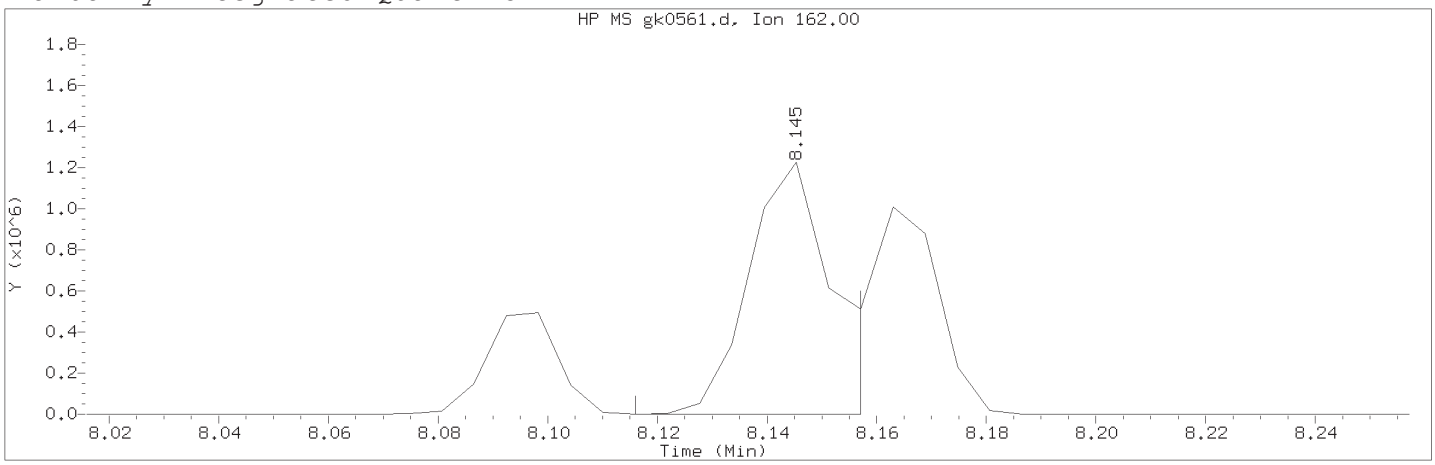
* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

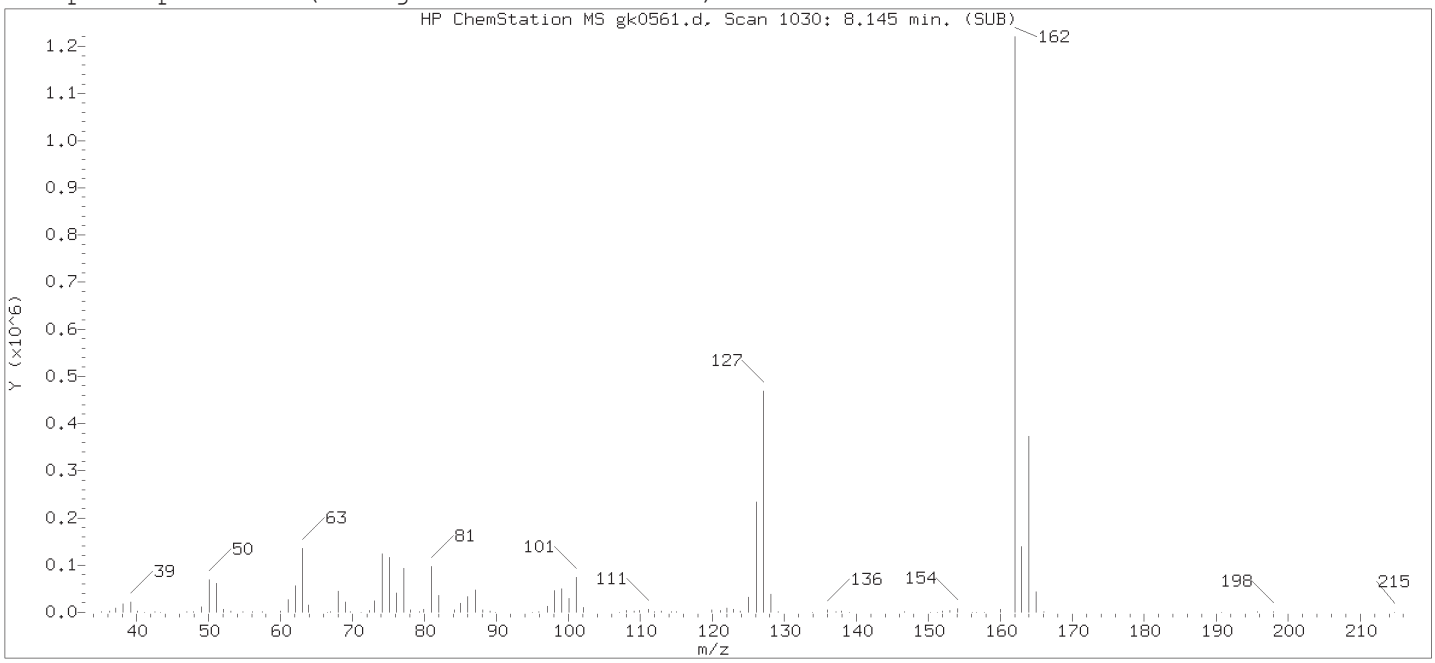
Compound Number : 96
Compound Name : 2-Chloronaphthalene
Scan Number : 1030
Retention Time (minutes) : 8.145
Quant Ion : 162.00
Area (flag) : 1324832M
On-Column Amount (ng/ul) : 62.3318
Integration start scan : 1024 Integration stop scan: 1031
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

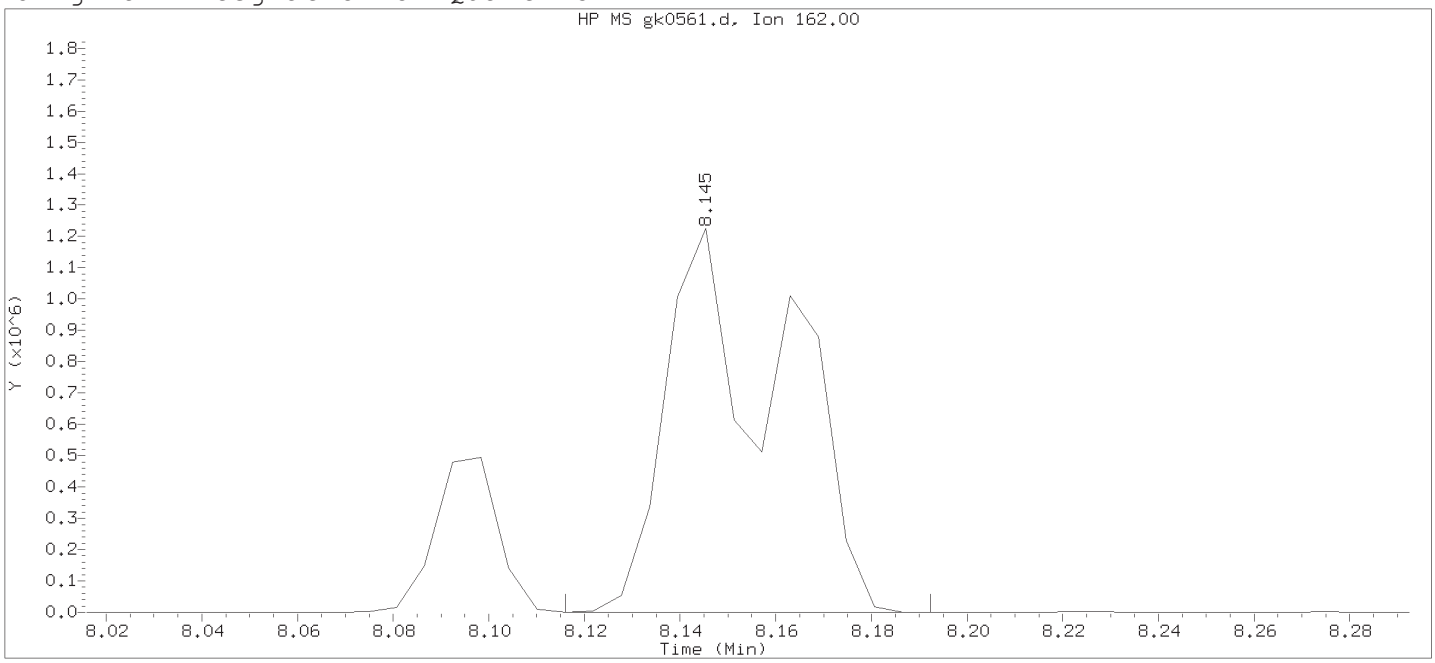
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

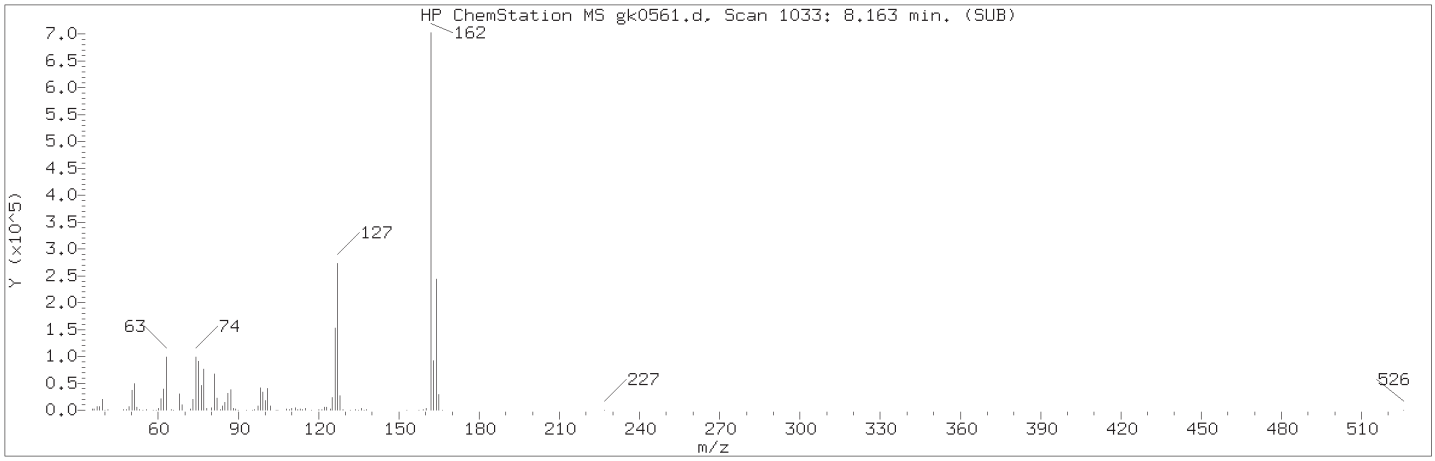
Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 16:07 Automation

Sample Name: SSTD050 Lab Sample ID: ICV2968

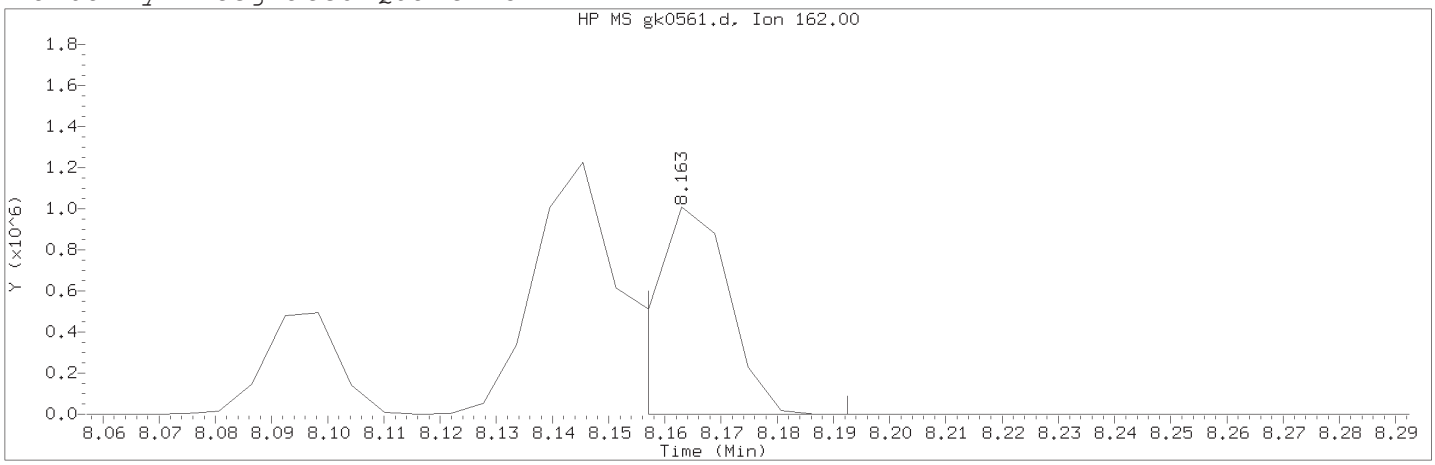
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1030		
Retention Time (minutes)	: 8.145		
Quant Ion	: 162.00		
Area	: 2078237		
On-column Amount (ng/ul)	: 85.0385		
Integration start scan	: 1024	Integration stop scan:	1037
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:25.
Target 3.5 esignature used: 1.0.2.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 12-NOV-2018 07:52
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: ICV2968

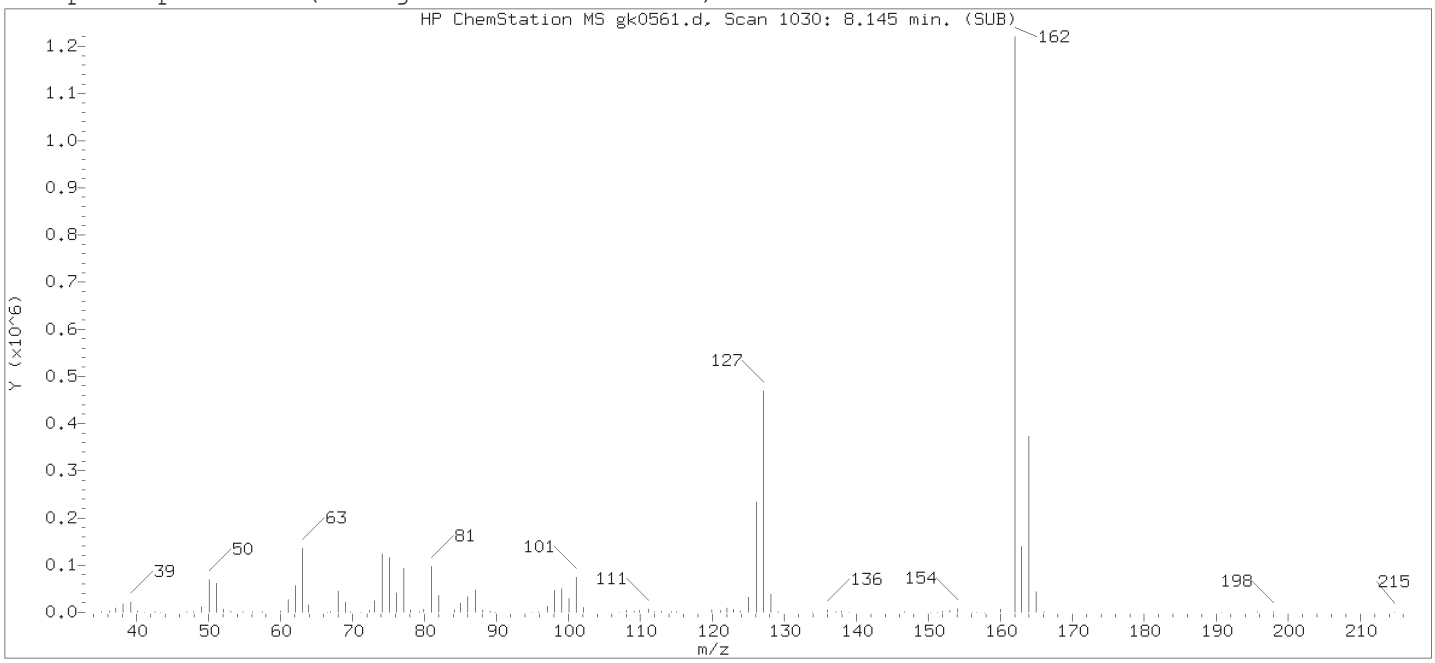
Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1033		
Retention Time (minutes)	: 8.163		
Quant Ion	: 162.00		
Area (flag)	: 934366M		
On-Column Amount (ng/ul)	: 47.4623		
Integration start scan	: 1031	Integration stop scan:	1037
Y at integration start	: -8	Y at integration end:	-8

Reason for manual integration: improper integration

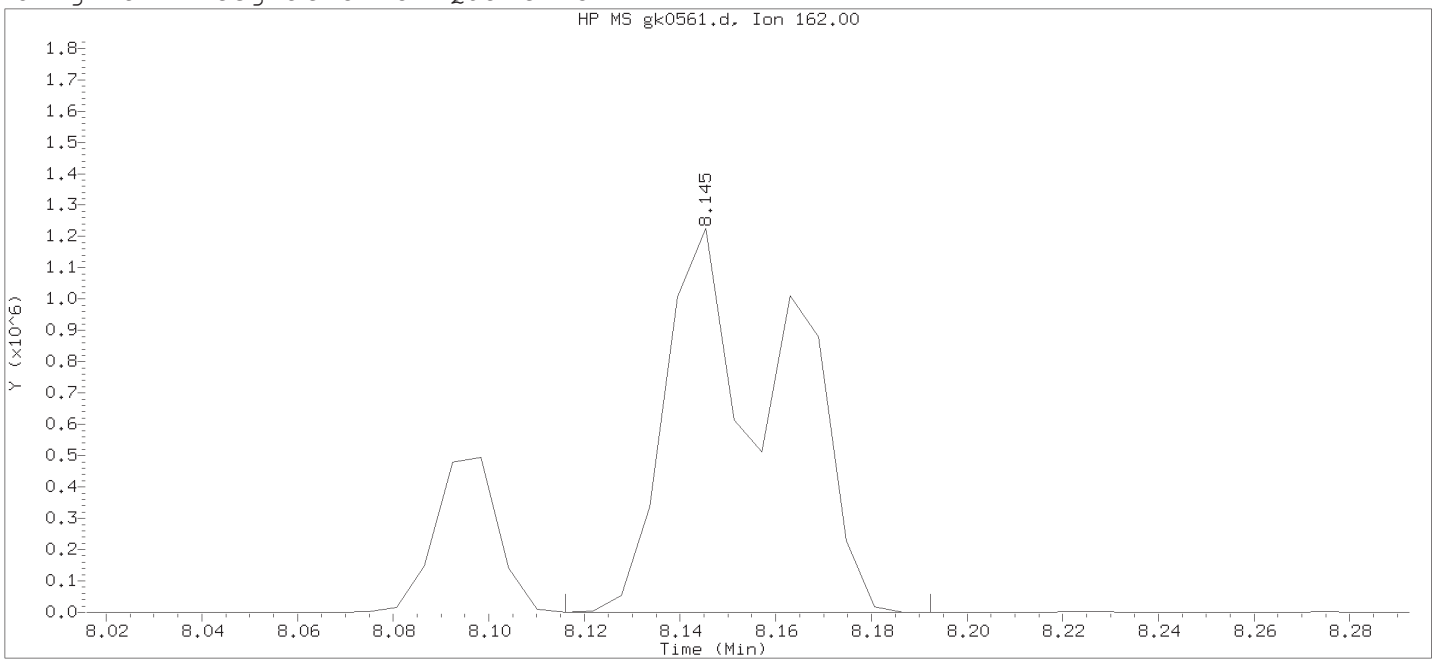
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/12/2018 at 10:11.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



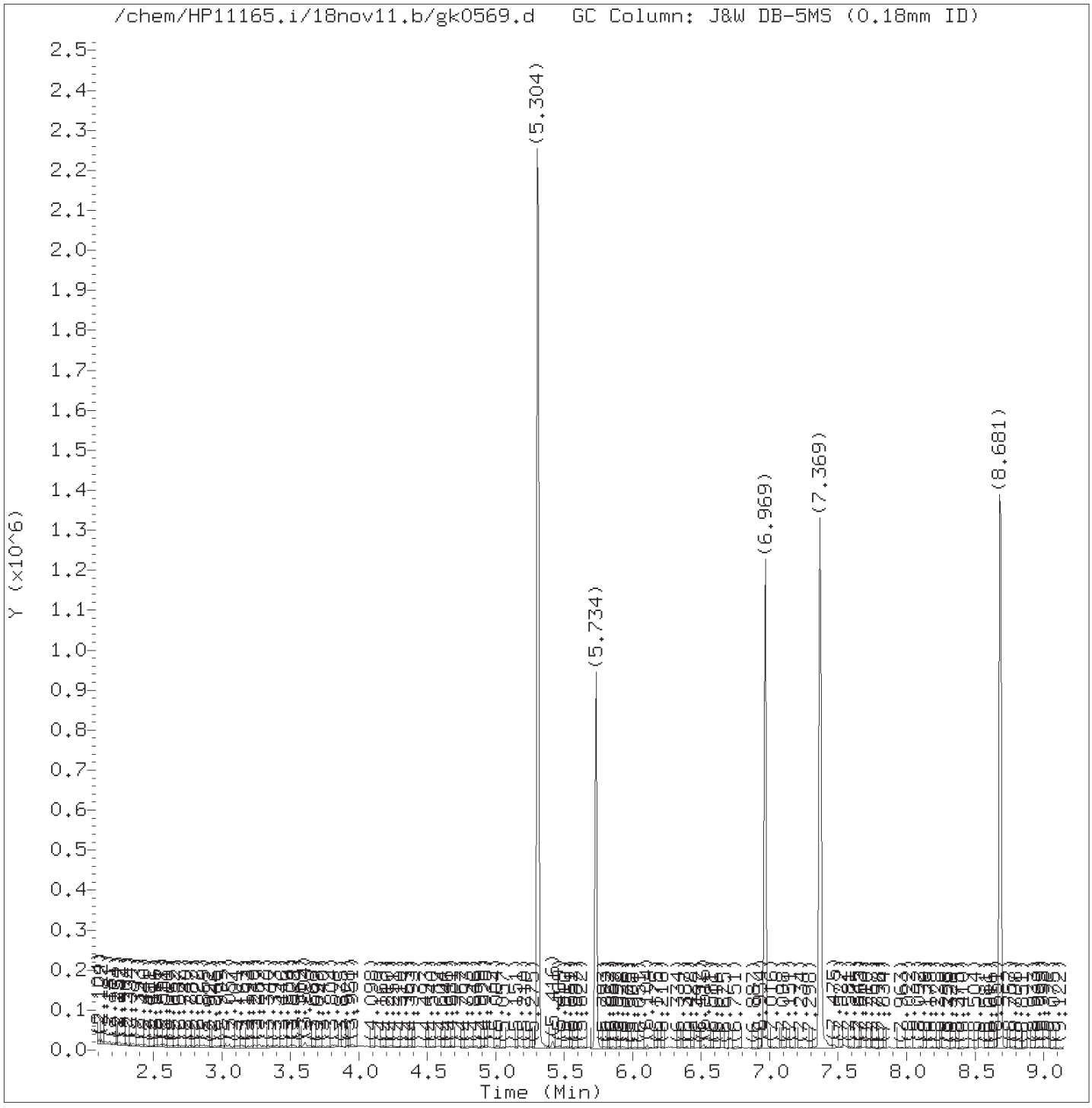
Data File: /chem/HP11165.i/18nov11.b/gk0561.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 15:45 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: icvall1
Calibration date and time: 11-NOV-2018 14:53
Date, time and analyst ID of latest file update: 11-Nov-2018 16:07 Automation

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 1030		
Retention Time (minutes)	: 8.145		
Quant Ion	: 162.00		
Area	: 2078237		
On-column Amount (ng/ul)	: 91.8484		
Integration start scan	: 1024	Integration stop scan:	1037
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 08:25.
Target 3.5 esignature used: 1.0.0.210



Total Ion Chromatogram (TIC)

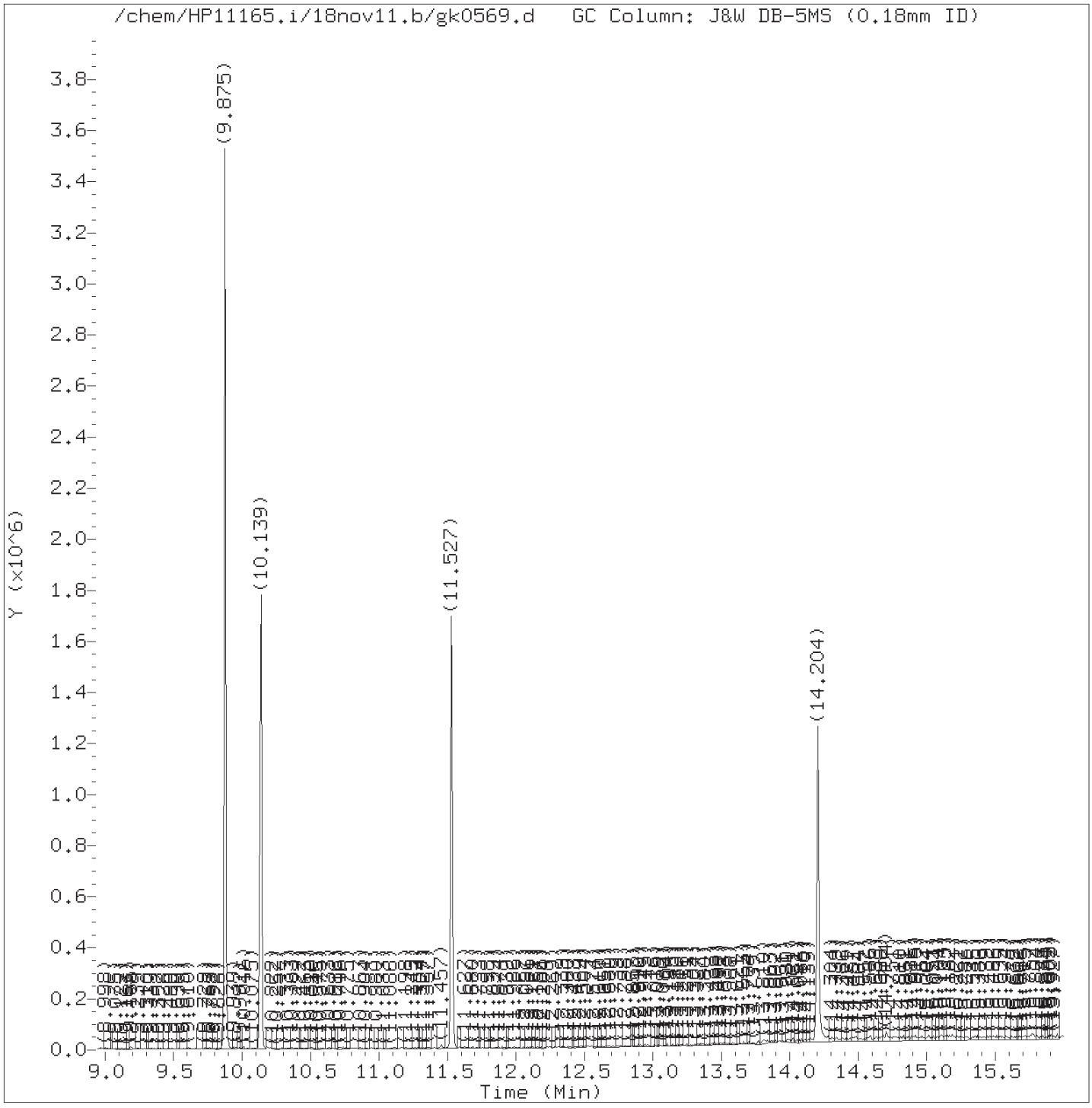
Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0569.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 19:01 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: basicv
Calibration date and time: 12-NOV-2018 08:15
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0569.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 19:01 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: basicv
Calibration date and time: 12-NOV-2018 08:15
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov11.b/gk0569.d Instrument ID: HP11165.i
Injection date and time: 11-NOV-2018 19:01 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov11.b/m8270d.m Sublist used: basicv
Calibration date and time: 12-NOV-2018 08:15
Date, time and analyst ID of latest file update: 12-Nov-2018 08:15 em10340

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
16) Benzaldehyde	(1)	5.304	77	529753	50.529
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	126835	20.000
65)*Naphthalene-d8	(2)	6.969	136	535887	20.000
76) Caprolactam	(2)	7.369	113	177023	46.600
113)*Acenaphthene-d10	(3)	8.681	164	299491	20.000
148) Atrazine	(4)	9.875	200	331435	50.510
153)*Phenanthrene-d10	(4)	10.139	188	631953	20.000
175)*Pyrene-d10	(5)	11.527	212	576416	20.000
213)*Perylene-d12	(6)	14.204	264	483388	20.000

* = Compound is an internal standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 08:25.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov12.b/gk0590.d

Date : 12-NOV-2018 08:35

Client ID: DFTPP

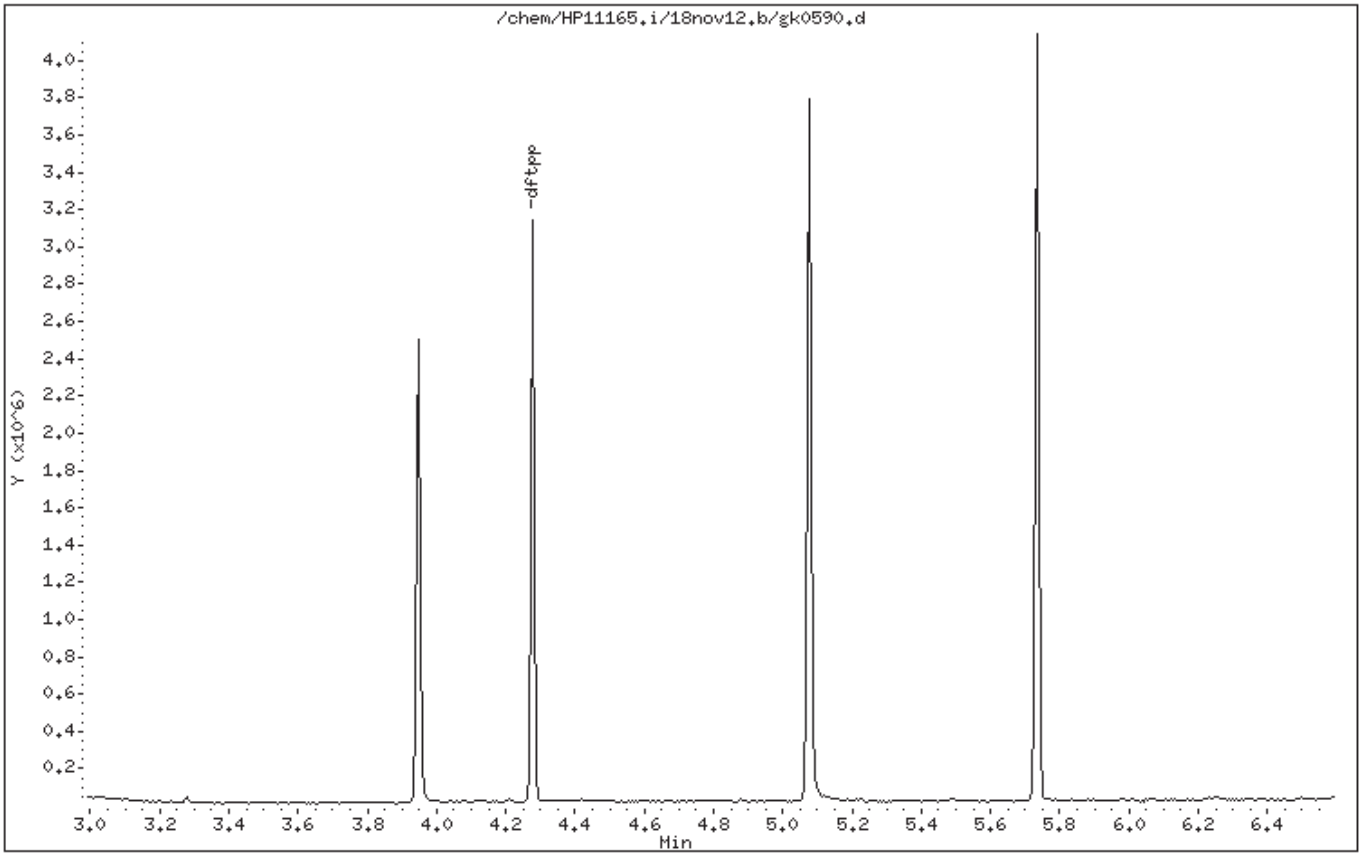
Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Edward Monborne on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov12.b/gk0590.d

Date : 12-NOV-2018 08:35

Client ID: DFTPP

Instrument: HP11165.i

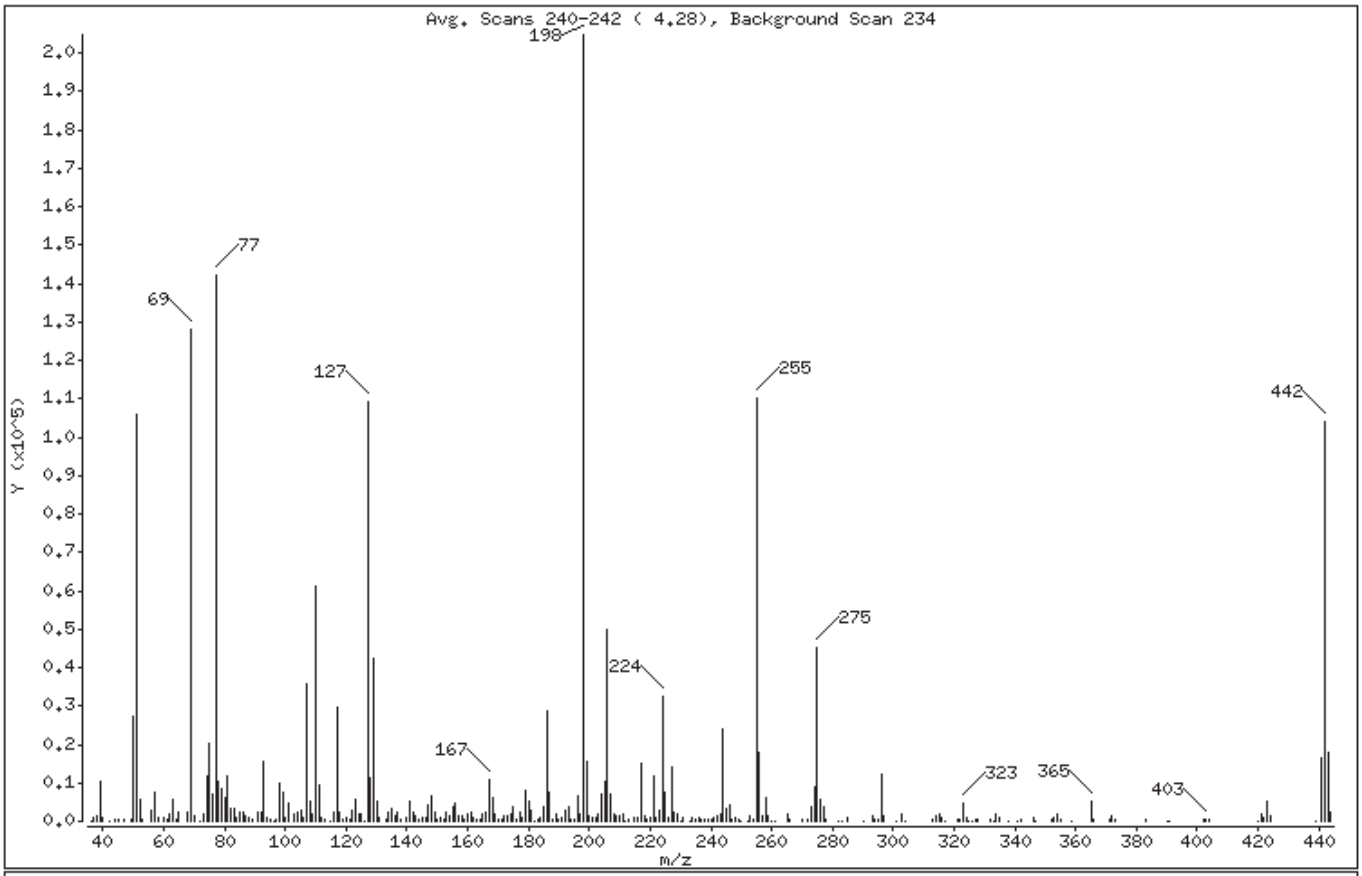
Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	51.68
68	Less than 2.00% of mass 69	1.17 (1.88)
69	Mass 69 relative abundance	62.48
70	Less than 2.00% of mass 69	0.70 (1.12)
127	10.00 - 80.00% of mass 198	53.32
197	Less than 2.00% of mass 198	1.02
199	5.00 - 9.00% of mass 198	7.54
275	10.00 - 60.00% of mass 198	22.10
365	Greater than 1.00% of mass 198	2.49
441	0.01 - 24.00% of mass 442	7.95 (15.66)
442	50.00 - 99.99% of mass 198	50.77
443	15.00 - 24.00% of mass 442	8.71 (17.15)

Digitally signed by Edward Monborne on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Date : 12-NOV-2018 08:35

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0590.d
Spectrum: Avg. Scans 240-242 (4.28), Background Scan 234
Location of Maximum: 198.00
Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	200	119.00	302	191.00	898	270.00	364
37.00	1083	120.00	1019	192.00	2871	272.00	447
38.00	1248	121.00	258	193.00	3847	273.00	3706
39.00	10502	122.00	2875	194.00	535	274.00	8945
40.00	822	123.00	5627	195.00	649	275.00	45264
42.00	184	124.00	1709	196.00	6727	276.00	5451
44.00	442	125.00	1974	197.00	2096	277.00	3885
45.00	434	126.00	233	198.00	204800	278.00	701
47.00	261	127.00	109240	199.00	15439	282.00	57
49.00	498	128.00	11155	200.00	1554	283.00	95
50.00	27176	129.00	42144	201.00	1070	285.00	714
51.00	105872	130.00	5031	202.00	912	290.00	77
52.00	5789	131.00	942	203.00	2117	293.00	1386
53.00	681	133.00	513	204.00	7046	294.00	335
56.00	3041	134.00	2246	205.00	10123	295.00	367
57.00	7310	135.00	3527	206.00	50056	296.00	12118
58.00	916	136.00	1342	207.00	7288	297.00	1629
60.00	806	137.00	2256	208.00	1835	301.00	101
61.00	700	138.00	421	209.00	1234	303.00	1677
62.00	1843	140.00	1072	210.00	1371	304.00	225
63.00	5531	141.00	5186	211.00	2013	313.00	606
64.00	661	142.00	2311	212.00	140	314.00	1572
65.00	2294	143.00	1299	213.00	329	315.00	1901
68.00	2402	144.00	374	215.00	1025	316.00	975
69.00	127992	145.00	737	216.00	1094	317.00	187
70.00	1438	146.00	921	217.00	14868	321.00	468
72.00	176	147.00	4031	218.00	1444	322.00	257
73.00	2012	148.00	6427	219.00	519	323.00	4536
74.00	11870	149.00	2368	220.00	795	324.00	987
75.00	20384	150.00	286	221.00	11946	325.00	53
76.00	6970	151.00	906	222.00	906	326.00	215
77.00	142016	152.00	396	223.00	2945	327.00	479
78.00	10491	153.00	2165	224.00	32688	328.00	389
79.00	8587	154.00	1570	225.00	7429	332.00	263
80.00	6270	155.00	3636	226.00	732	333.00	8

Digitally signed by Edward Monborne on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Date : 12-NOV-2018 08:35

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0590.d
Spectrum: Avg. Scans 240-242 (4.28), Background Scan 234
Location of Maximum: 198.00
Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	11949	156.00	4608	227.00	14270	334.00	1723
82.00	3137	157.00	1448	228.00	2160	335.00	788
83.00	3089	158.00	1343	229.00	1799	338.00	152
84.00	946	159.00	672	230.00	106	341.00	95
85.00	2204	160.00	1748	231.00	775	342.00	290
86.00	2270	161.00	2570	233.00	147	346.00	812
87.00	1518	162.00	1163	234.00	840	347.00	50
88.00	1166	163.00	392	235.00	609	352.00	616
89.00	382	164.00	341	236.00	796	353.00	810
91.00	2347	165.00	1678	237.00	702	354.00	1681
92.00	2154	166.00	2151	238.00	510	355.00	386
93.00	15645	167.00	10825	239.00	290	359.00	64
94.00	927	168.00	6182	240.00	440	365.00	5099
95.00	562	169.00	1904	241.00	719	366.00	439
96.00	144	170.00	310	242.00	1191	371.00	427
97.00	419	171.00	369	243.00	1739	372.00	1454
98.00	10043	172.00	1197	244.00	24168	373.00	439
99.00	7637	173.00	1482	245.00	3475	383.00	286
100.00	1018	174.00	1995	246.00	4340	390.00	145
101.00	4568	175.00	3950	247.00	649	391.00	113
103.00	1954	176.00	475	248.00	867	402.00	523
104.00	2537	177.00	2211	249.00	348	403.00	631
105.00	3018	178.00	718	250.00	221	404.00	368
106.00	1147	179.00	7900	252.00	89	420.00	89
107.00	35728	180.00	5172	253.00	1550	421.00	1719
108.00	5338	181.00	2679	254.00	442	422.00	946
109.00	1668	182.00	169	255.00	110192	423.00	4977
110.00	61424	183.00	296	256.00	17776	424.00	1191
111.00	9556	184.00	913	257.00	1213	439.00	70
112.00	892	185.00	3533	258.00	6213	441.00	16286
113.00	340	186.00	28696	259.00	1221	442.00	104000
115.00	227	187.00	7649	260.00	97	443.00	17832
116.00	2279	188.00	582	261.00	183	444.00	2485
117.00	29784	189.00	1739	265.00	2087		
118.00	2506	190.00	497	266.00	594		

Digitally signed by Edward Monborne on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Date : 12-NOV-2018 08:35

Client ID: DFTPP Instrument: HP11165.i

Sample Info: DFTPP;DFTPP3108;1;3;DFTPP;

Operator: em10340

Column phase: DB-5MS Column diameter: 0.18

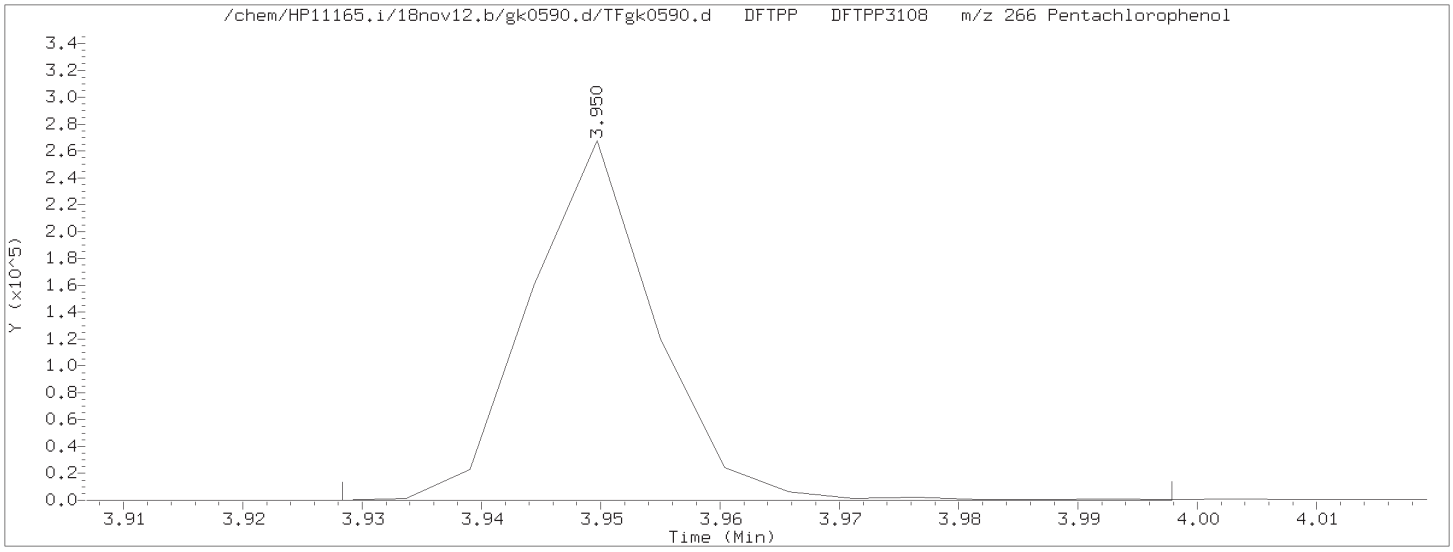
Data File: gk0590.d
Spectrum: Avg. Scans 240-242 (4.28), Background Scan 234
Location of Maximum: 198.00
Number of points: 278

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Digitally signed by Edward Monborne on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Assessment of GC Column Performance and Injection Port Inertness for

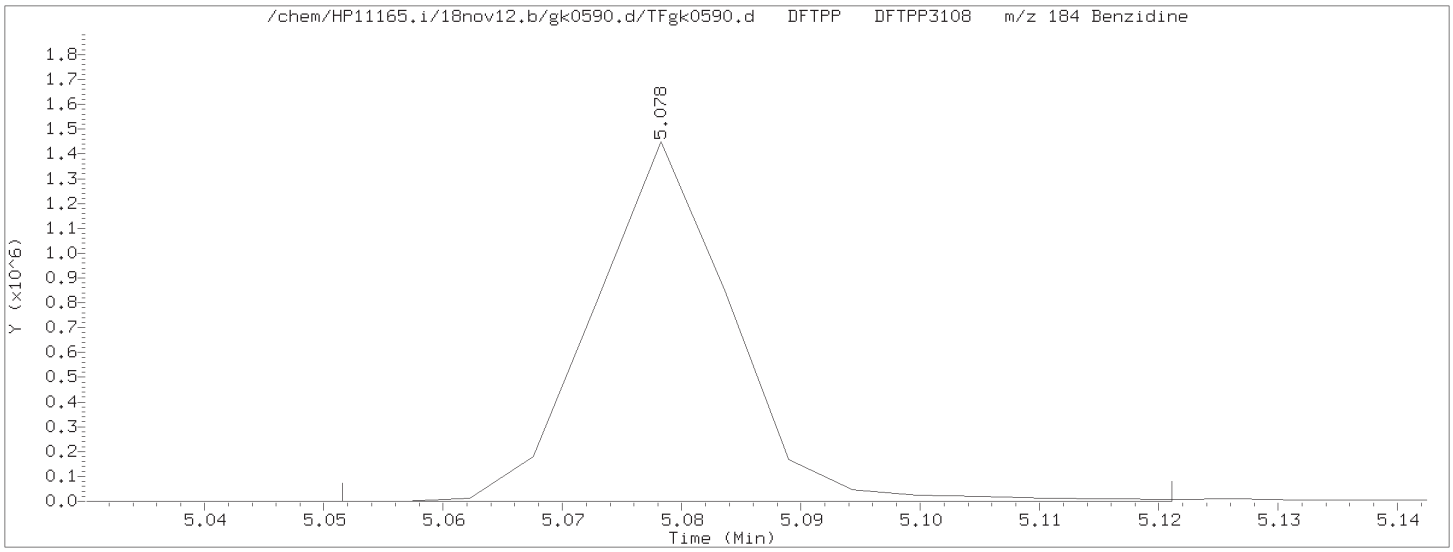
Instrument ID: HP11165.i Injection Date: 12-NOV-2018 08:35 Operator: em10340



Pentachlorophenol EICP peak height = 267776 EICP peak height at 10% = 26778 Pentachlorophenol EICP area = 194954

Pentachlorophenol EICP peak apex (min.) = 3.950
RT at 10% of front half of EICP (min.) = 3.939 'Front' peak width (min.) = 0.0105333333
RT at 10% of back half of EICP (min.) = 3.960 'Tailing' peak width (min.) = 0.0105166667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0105166667}{0.0105333333} = 0.998$



Benzidine EICP peak height = 1449984 EICP peak height at 10% = 144998 Benzidine EICP area = 1149467

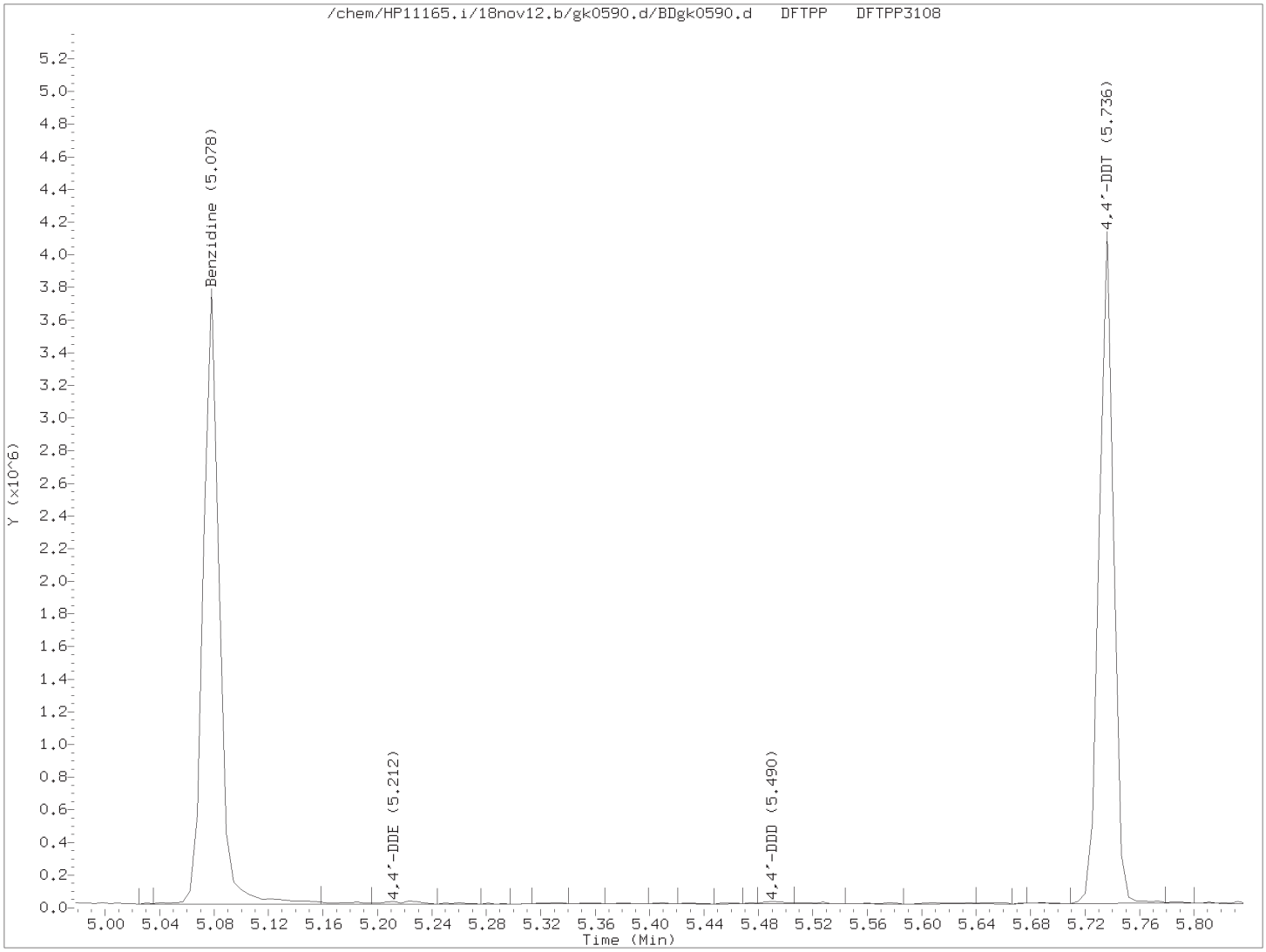
Benzidine EICP peak apex (min.) = 5.078
RT at 10% of front half of EICP (min.) = 5.067 'Front' peak width (min.) = 0.0117333333
RT at 10% of back half of EICP (min.) = 5.090 'Tailing' peak width (min.) = 0.0115500000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0115500000}{0.0117333333} = 0.984$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 08:43. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

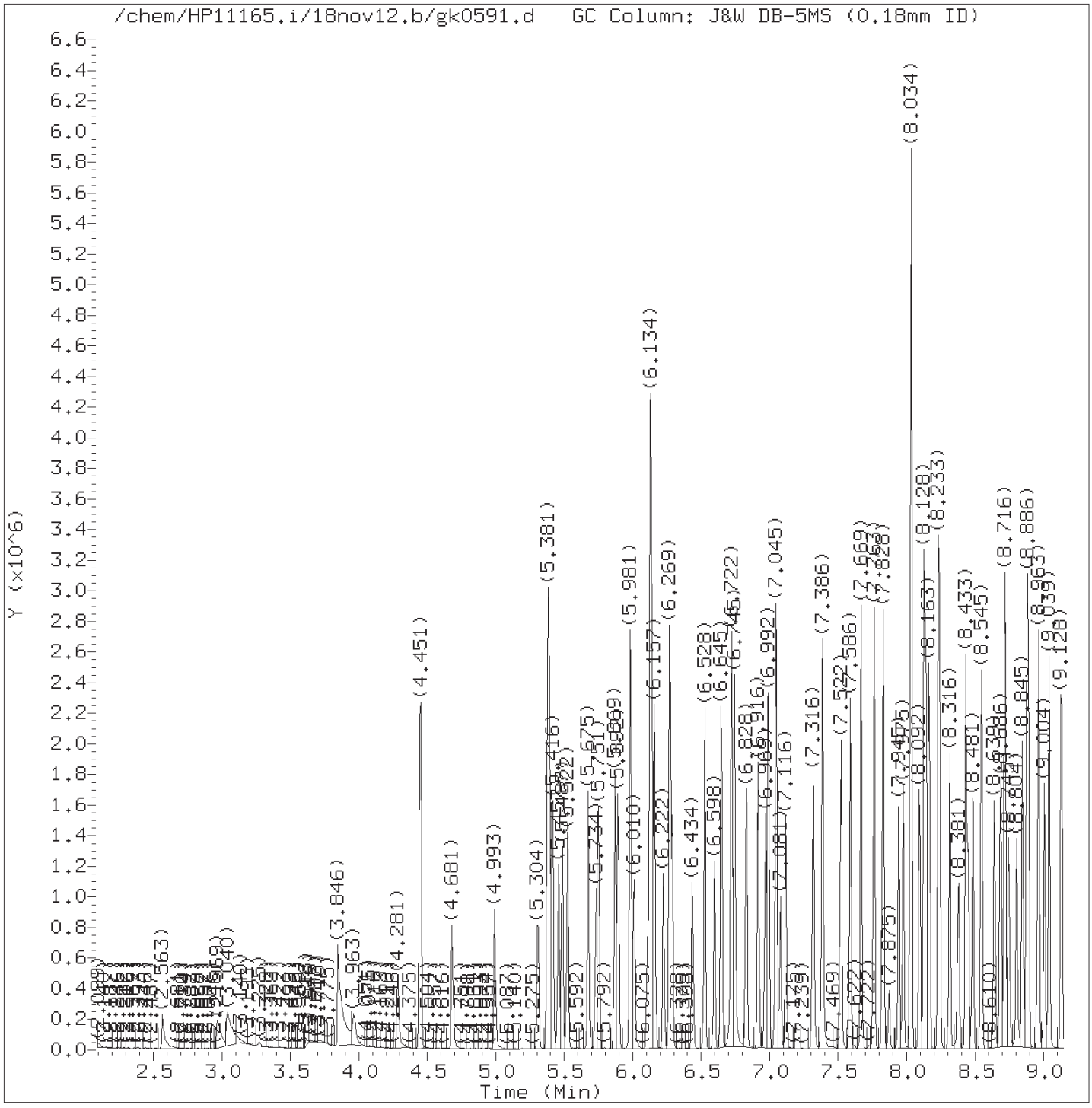
Instrument ID: HP11165.i Injection Date: 12-NOV-2018 08:35 Operator: em10340



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{28368 + 12518}{28368 + 12518 + 3056011} \times 100 = 1.3$$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 08:43. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

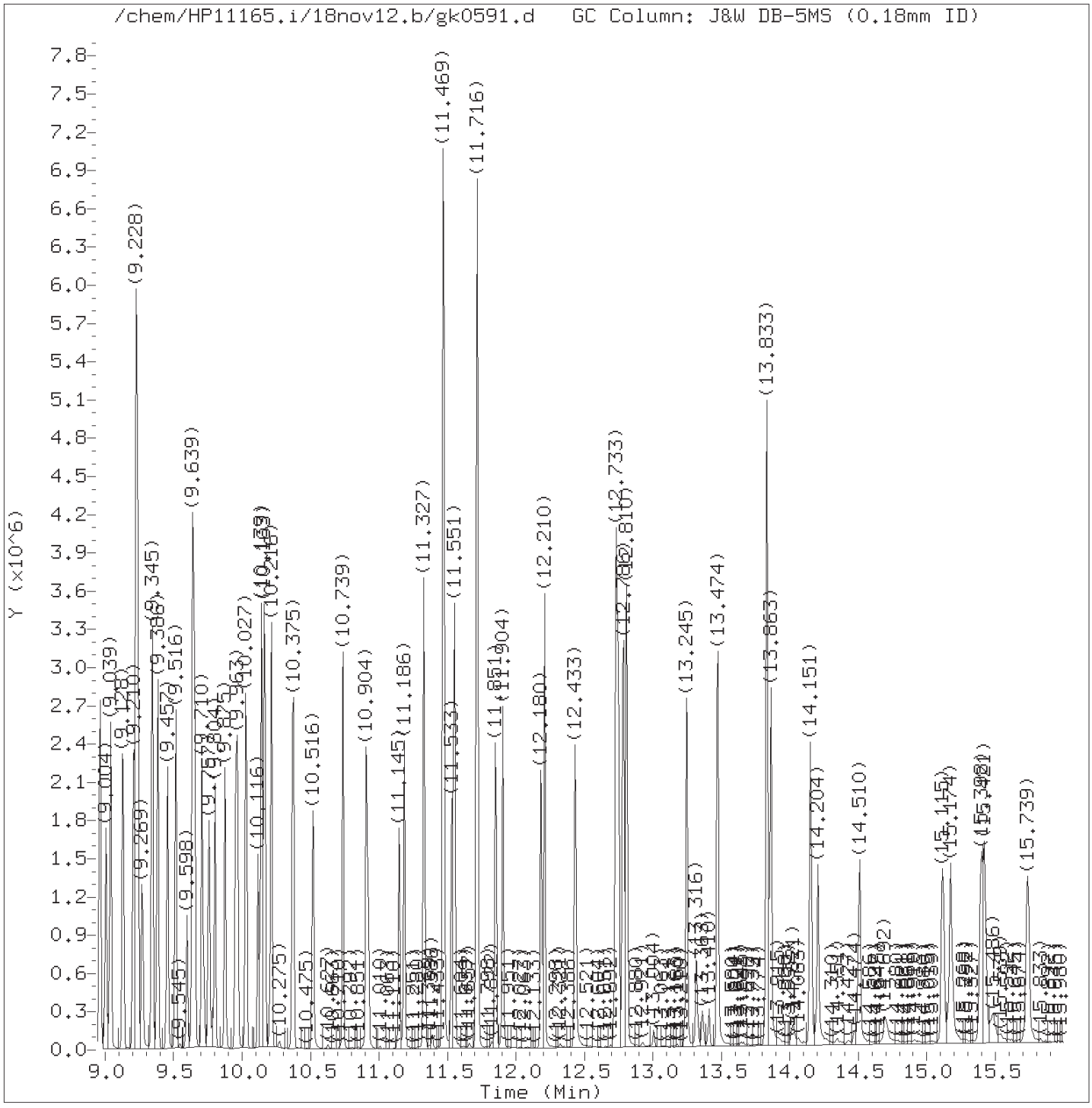
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.563	88	135298	29.395
4) N-Nitrosodimethylamine	(1)	2.969	74	225411	32.212
5) Pyridine	(1)	3.040	79	330791	28.130
7) 2-Picoline	(1)	3.846	93	397779	31.230
8) N-Nitrosomethylethylamine	(1)	3.963	88	195724	31.113
9) Methyl methanesulfonate	(1)	4.281	80	201768	30.682
11)$2-Fluorophenol	(1)	4.451	112	626670	63.333
13) N-Nitrosodiethylamine	(1)	4.681	102	187158	33.192
15) Ethyl methanesulfonate	(1)	4.993	109	176429	29.504
17)$Phenol-d6	(1)	5.381	99	1006944	65.718
18) Phenol	(1)	5.393	94	566083	32.450
19) Aniline	(1)	5.416	93	650809	31.794
20) a-methylstyrene	(1)	5.463	118	29792	30.056
22) bis(2-Chloroethyl)ether	(1)	5.487	93	400973	32.004
23) 2-Chlorophenol	(1)	5.522	128	316501	32.915
42) Total Cresols	(1)			777252	65.637
24) 1,3-Dichlorobenzene	(1)	5.675	146	338947	31.999
25)*1,4-Dichlorobenzene-d4	(1)	5.734	152	130460	20.000
26) 1,4-Dichlorobenzene	(1)	5.751	146	340193	30.771
27) Benzyl alcohol	(1)	5.869	108	257546	33.620
28) 1,2-Dichlorobenzene	(1)	5.892	146	326855	30.546
30) Indene	(1)	5.981	115	374335	31.763
31) 2-Methylphenol	(1)	5.987	108	358745	30.502
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.010	45	425476	33.461
34) bis(2-Chloroisopropyl)ether	(1)	6.010	45	425476	33.461
35) N-Nitrosopyrrolidine	(1)	6.110	100	207925	33.277
36) Acetophenone	(1)	6.128	105	543125	34.221
37) 4-Methylphenol	(1)	6.134	108	418507	35.135
38) N-Nitroso-di-n-propylamine	(1)	6.140	70	369610	32.969
39) N-Nitrosomorpholine	(1)	6.151	56	260273	31.701
40) o-Toluidine	(1)	6.157	106	613764	32.869
43) Hexachloroethane	(1)	6.222	117	131091	31.502
44)$Nitrobenzene-d5	(2)	6.269	82	975090	62.507
45) Nitrobenzene	(2)	6.287	77	498367	30.627
48) N-Nitrosopiperidine	(2)	6.434	114	191837	30.645
50) Isophorone	(2)	6.528	82	926680	31.511
51) 2-Nitrophenol	(2)	6.598	139	177349	30.252
53) 2,4-Dimethylphenol	(2)	6.645	107	413269	31.902
57) O,O,O-Triethylphosphorothioate	(2)	6.722	198	168013	29.646
55) bis(2-Chloroethoxy)methane	(2)	6.745	93	493917	30.215

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.745	105	391721	38.933
60) 2,4-Dichlorophenol	(2)	6.828	162	285105	31.542
62) 1,2,4-Trichlorobenzene	(2)	6.916	180	280551	29.431
65)*Naphthalene-d8	(2)	6.969	136	592101	20.000
66) Naphthalene	(2)	6.992	128	1011099	30.232
67) 4-Chloroaniline	(2)	7.045	127	426165	30.952
68) 2,6-Dichlorophenol	(2)	7.051	162	286477	31.412
69) Hexachloropropene	(2)	7.081	213	147929	31.017
71) Hexachlorobutadiene	(2)	7.116	225	155401	30.381
75) Quinoline	(2)	7.316	129	675595	30.987
97) Isosafrole	(3)			291642	31.646
77) N-Nitrosodi-n-butylamine	(2)	7.386	84	438177	31.101
76) Caprolactam	(2)	7.386	113	139399	33.212
80) 4-Chloro-3-methylphenol	(2)	7.522	107	373681	33.122
82) Safrole	(2)	7.586	162	276791	30.244
83) 2-Methylnaphthalene	(2)	7.669	142	709030	29.895
84) 1-Methylnaphthalene	(2)	7.763	142	714095	31.581
85) Hexachlorocyclopentadiene	(3)	7.828	237	149579	30.713
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.828	216	287390	29.550
88) cis-Isosafrole	(3)	7.875	162	47749	5.001
90) 2,4,6-Trichlorophenol	(3)	7.945	196	191266	29.062
92) 2,4,5-Trichlorophenol	(3)	7.975	196	216996	30.271
93)$2-Fluorobiphenyl	(3)	8.034	172	1580728	59.108
120) 2,4_2,6-Dinitrotoluenes	(3)			451976	62.761
94) trans-Isosafrole	(3)	8.092	162	243893	26.646
95) 1,1'-Biphenyl	(3)	8.128	154	856031	29.384
96) 2-Chloronaphthalene	(3)	8.145	162	634696	27.763
98) 1-Chloronaphthalene	(3)	8.163	162	688370	32.509
99) Diphenyl ether	(3)	8.233	170	470742	30.100
100) 2-Nitroaniline	(3)	8.239	138	234167	32.784
104) 1,4-Naphthoquinone	(3)	8.316	158	297730	31.765
105) 1,4-Dinitrobenzene	(3)	8.381	168	123201	31.293
106) Dimethylphthalate	(3)	8.433	163	820342	30.634
107) 1,3-Dinitrobenzene	(3)	8.451	168	145368	31.816
108) 2,6-Dinitrotoluene	(3)	8.486	165	185963	30.925
109) Acenaphthylene	(3)	8.545	152	1005537	31.890
112) 3-Nitroaniline	(3)	8.639	138	205357	30.460
113)*Acenaphthene-d10	(3)	8.686	164	330410	20.000
114) Acenaphthene	(3)	8.716	153	710049	30.466
115) 2,4-Dinitrophenol	(3)	8.745	184	152065	37.499

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
146) Diallate trans/cis	(4)			509684	31.929
116) 4-Nitrophenol	(3)	8.804	109	145754	31.140
117) Pentachlorobenzene	(3)	8.845	250	258625	31.024
118) 2,4-Dinitrotoluene	(3)	8.875	165	266013	31.836
119) Dibenzofuran	(3)	8.886	168	1026434	31.634
121) 1-Naphthylamine	(3)	8.963	143	798334	31.579
122) 2,3,4,6-Tetrachlorophenol	(3)	9.004	232	176684	30.597
123) 2-Naphthylamine	(3)	9.039	143	769623	31.295
124) Diethylphthalate	(3)	9.133	149	824963	30.690
125) Thionazin	(3)	9.210	107	149840	29.282
126) Fluorene	(3)	9.222	166	867200	31.974
128) 5-Nitro-o-toluidine	(3)	9.233	152	253442	31.174
127) 4-Chlorophenyl-phenylether	(3)	9.233	204	390561	30.977
129) 4-Nitroaniline	(3)	9.239	138	237683	32.363
130) 4,6-Dinitro-2-methylphenol	(4)	9.269	198	160160	33.457
131) N-Nitrosodiphenylamine	(4)	9.345	169	734490	32.232
132) NDPA as diphenylamine	(4)	9.345	169	734490	32.232
134) 1,2-Diphenylhydrazine	(4)	9.386	77	1138561	32.213
135)$2,4,6-Tribromophenol	(3)	9.457	330	156659	59.198
137) Tetraethyldithiopyrophosphate	(4)	9.516	97	159787	30.813
139) 1,3,5-Trinitrobenzene	(4)	9.598	213	87145	28.541
140) Diallate (peak 1)	(4)	9.633	86	434085	26.421
141) Phorate	(4)	9.645	75	696108	32.611
142) Phenacetin	(4)	9.657	108	497784	33.238
143) 4-Bromophenyl-phenylether	(4)	9.710	248	207783	29.270
144) Diallate (peak 2)	(4)	9.722	86	75599	5.509
145) Hexachlorobenzene	(4)	9.757	284	189363	28.599
147) Dimethoate	(4)	9.804	87	396715	32.307
149) Pentachlorophenol	(4)	9.951	266	139416	31.532
150) 4-Aminobiphenyl	(4)	9.963	169	326447	31.706
151) Pentachloronitrobenzene	(4)	9.969	237	101888	32.358
152) Pronamide	(4)	10.027	173	369461	32.102
153)*Phenanthrene-d10	(4)	10.139	188	645961	20.000
154) Dinoseb	(4)	10.145	211	202864	29.044
155) Phenanthrene	(4)	10.163	178	1228231	30.425
157) Anthracene	(4)	10.216	178	1285280	32.245
163) Carbazole	(4)	10.375	167	1147959	31.751
164) Methyl parathion	(4)	10.516	109	302160	33.345
165) Di-n-butylphthalate	(4)	10.739	149	1444978	32.049
167) Parathion	(4)	10.904	109	186024	31.292

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0591.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 08:52 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: all1
Calibration date and time: 12-NOV-2018 09:53
Date, time and analyst ID of latest file update: 12-Nov-2018 09:53 em10340

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.922	190	110432	28.491
169) Octachlorostyrene	(4)	11.151	308	78913	30.678
171) Isodrin	(4)	11.186	193	129428	28.603
173) Fluoranthene	(4)	11.327	202	1339598	32.221
174) Benzidine	(5)	11.469	184	2633331	96.220
175)*Pyrene-d10	(5)	11.533	212	611192	20.000
177) Pyrene	(5)	11.551	202	1298361	29.437
179)$Terphenyl-d14	(5)	11.716	244	1814071	61.379
182) p-Dimethylaminoazobenzene	(5)	11.851	225	220062	29.518
185) Chlorobenzilate	(5)	11.904	139	431213	32.992
187) 3,3'-Dimethylbenzidine	(5)	12.180	212	720283	32.045
188) Butylbenzylphthalate	(5)	12.210	149	637882	31.088
191) 2-Acetylaminofluorene	(5)	12.433	181	511769	30.943
193) 3,3'-Dichlorobenzidine	(5)	12.727	252	425902	30.488
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.733	231	243887	32.101
195) Benzo(a)anthracene	(5)	12.745	228	1207202	29.923
196) Chrysene	(5)	12.786	228	1180334	30.420
199) bis(2-Ethylhexyl)phthalate	(5)	12.810	149	838295	30.159
203) 6-Methylchrysene	(5)	13.245	242	839221	31.650
205) Di-n-octylphthalate	(6)	13.474	149	1394564	30.408
206) Benzo(b)fluoranthene	(6)	13.833	252	1011935	27.820
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.833	256	531360	32.075
208) Benzo(k)fluoranthene	(6)	13.863	252	1180491	34.198
211) Benzo(a)pyrene	(6)	14.151	252	1000488	31.620
213)*Perylene-d12	(6)	14.204	264	509224	20.000
215) 3-Methylcholanthrene	(6)	14.510	268	381584	30.883
222) Total PAHs	(6)			18411621	557.870
217) Dibenz(a,h)acridine	(6)	15.115	279	705756	30.152
218) Dibenz(a,j)acridine	(6)	15.174	279	759618	30.202
219) Indeno(1,2,3-cd)pyrene	(6)	15.398	276	981347	30.698
220) Dibenz(a,h)anthracene	(6)	15.421	278	848446	32.153
221) Benzo(g,h,i)perylene	(6)	15.739	276	832898	30.672

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 09:54.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov16.b/gk0850.d

Date : 16-NOV-2018 09:46

Client ID: DFTPP50

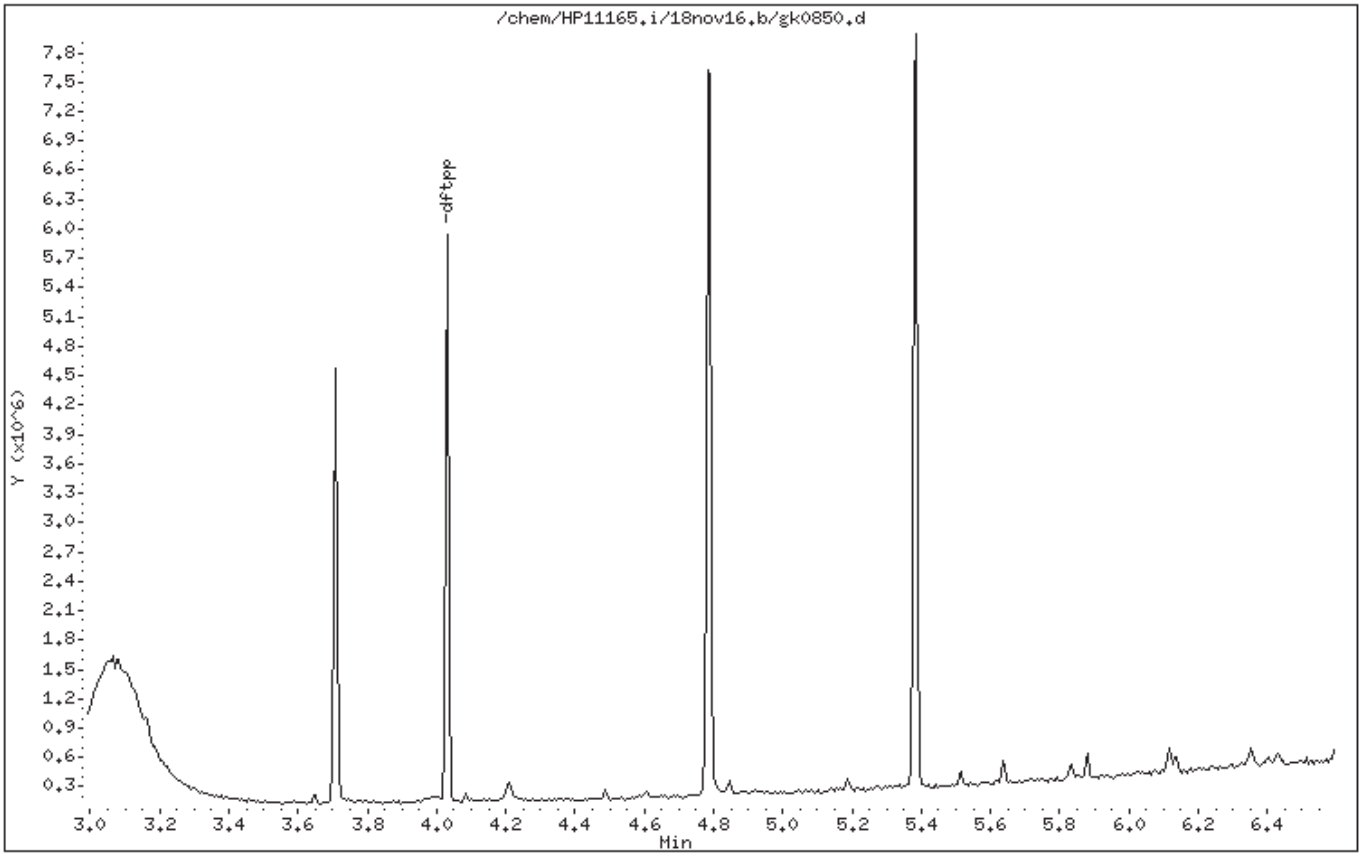
Instrument: HP11165.i

Sample Info: DFTPP50;DFTPP3108;1;3;DFTPP;

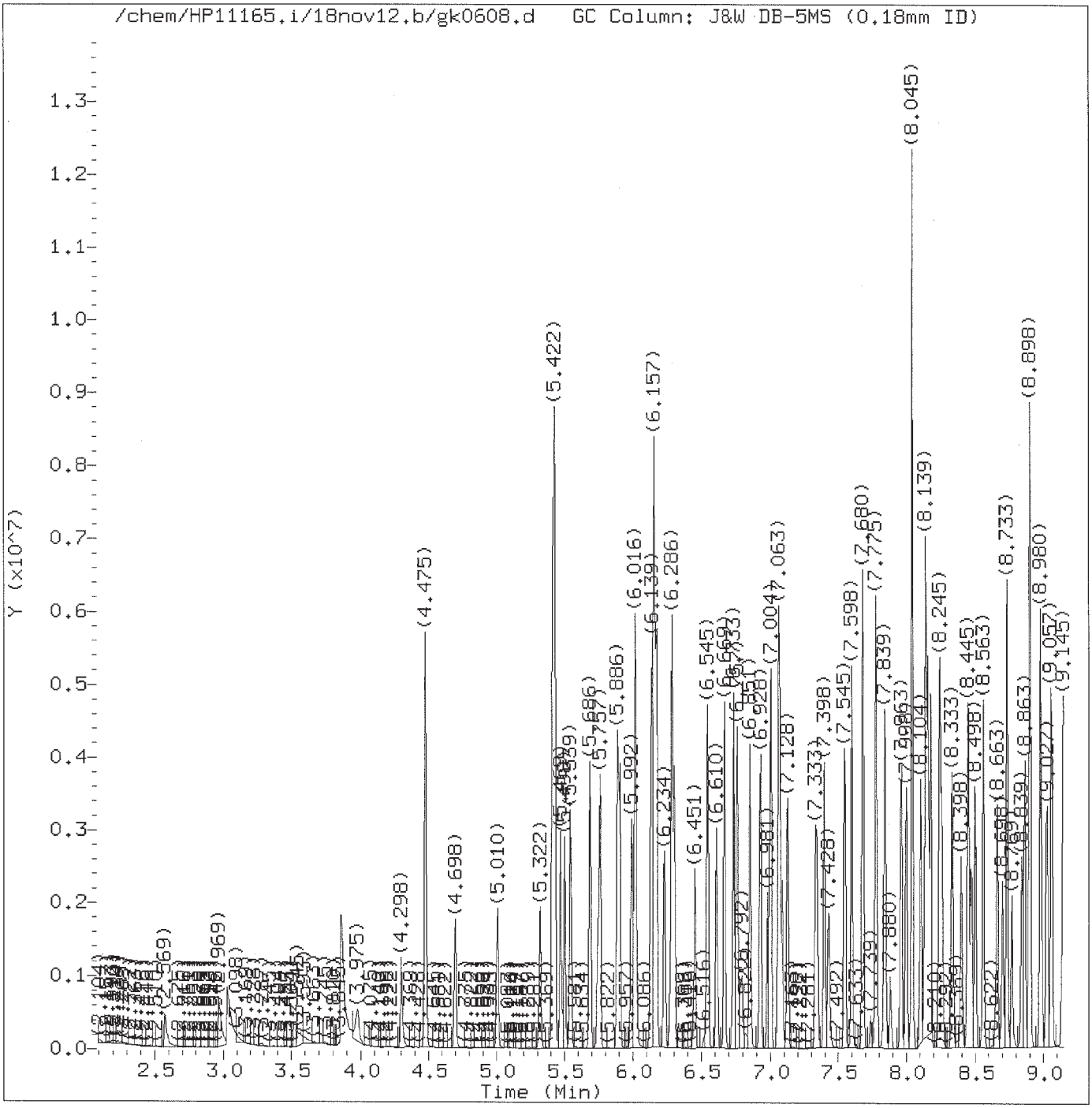
Operator: lmh00956

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Chad A. Moline on 11/19/2018 at 10:50.
Target 3.5 esignature user ID: cam01237



Total Ion Chromatogram (TIC)

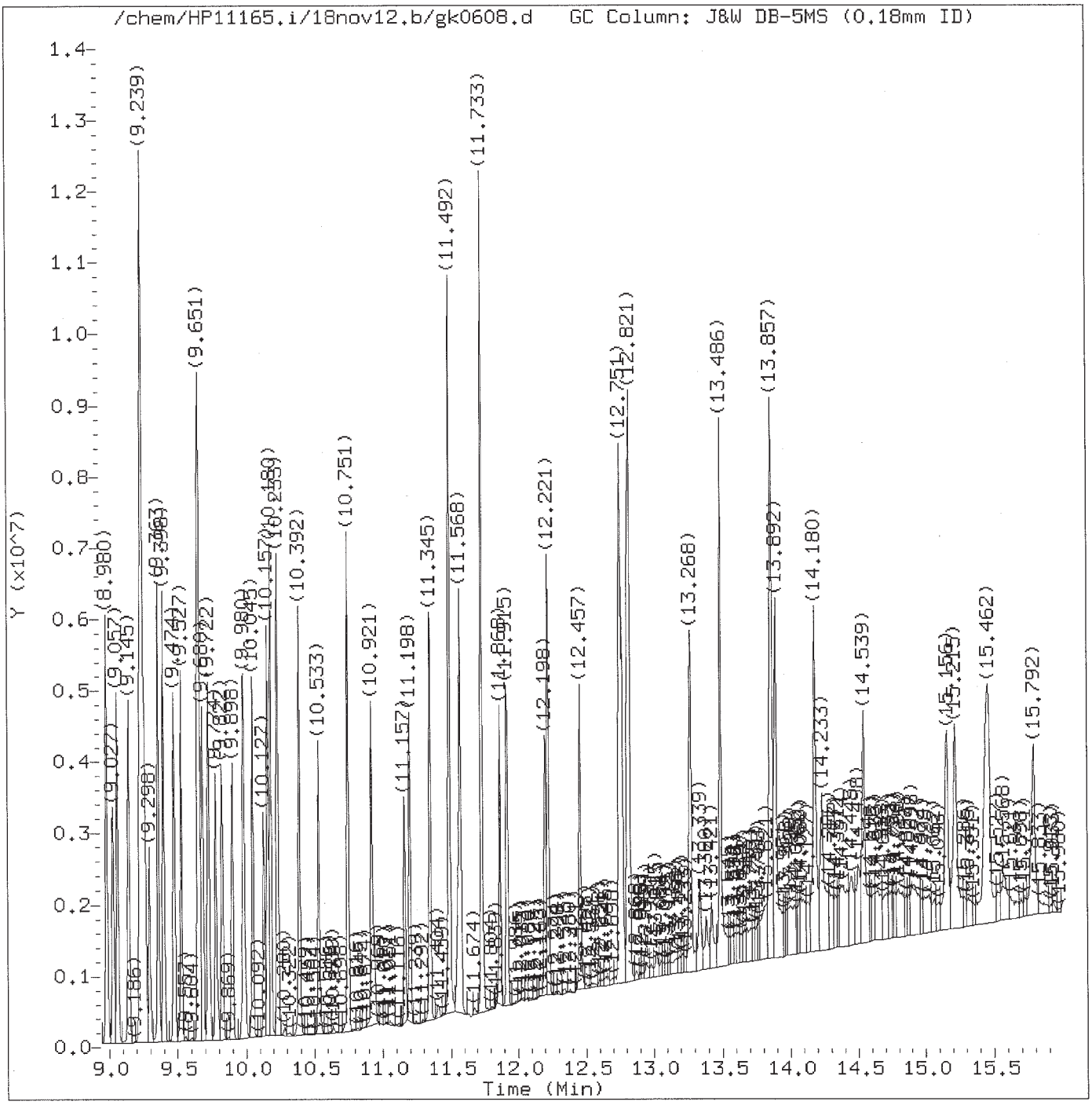
Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	3.028	79	939046	55.644
11)$2-Fluorophenol	(1)	4.475	112	1440219	101.423
17)$Phenol-d6	(1)	5.410	99	2268914	103.184
18) Phenol	(1)	5.422	94	1292566	51.630
19) Aniline	(1)	5.428	93	1519615	51.729
22) bis(2-Chloroethyl)ether	(1)	5.498	93	917727	51.040
23) 2-Chlorophenol	(1)	5.539	128	722697	52.370
24) 1,3-Dichlorobenzene	(1)	5.686	146	769412	50.616
25)*1,4-Dichlorobenzene-d4	(1)	5.745	152	187225	20.000
26) 1,4-Dichlorobenzene	(1)	5.757	146	761309	47.983
27) Benzyl alcohol	(1)	5.886	108	605584	55.085
28) 1,2-Dichlorobenzene	(1)	5.904	146	757856	49.351
31) 2-Methylphenol	(1)	6.016	108	817439	48.429
33) 2,2'-oxybis(1-Chloropropane)	(1)	6.022	45	966170	52.945
37) 4-Methylphenol	(1)	6.157	108	953147	55.759
38) N-Nitroso-di-n-propylamine	(1)	6.157	70	843653	52.437
43) Hexachloroethane	(1)	6.234	117	315346	52.804
44)$Nitrobenzene-d5	(2)	6.286	82	2210740	98.766
45) Nitrobenzene	(2)	6.304	77	1168868	50.062
50) Isophorone	(2)	6.545	82	2100115	49.770
51) 2-Nitrophenol	(2)	6.610	139	421750	50.138
53) 2,4-Dimethylphenol	(2)	6.669	107	909651	48.939
55) bis(2-Chloroethoxy)methane	(2)	6.757	93	1193426	50.880
60) 2,4-Dichlorophenol	(2)	6.851	162	620805	47.866
62) 1,2,4-Trichlorobenzene	(2)	6.928	180	642886	47.003
65)*Naphthalene-d8	(2)	6.981	136	849581	20.000
67) 4-Chloroaniline	(2)	7.057	127	909076	46.016
71) Hexachlorobutadiene	(2)	7.128	225	353767	48.202
80) 4-Chloro-3-methylphenol	(2)	7.545	107	810318	50.057
83) 2-Methylnaphthalene	(2)	7.680	142	1556681	45.743
85) Hexachlorocyclopentadiene	(3)	7.833	237	232765	36.017
90) 2,4,6-Trichlorophenol	(3)	7.963	196	433094	49.591
92) 2,4,5-Trichlorophenol	(3)	7.998	196	465919	48.980
93)$2-Fluorobiphenyl	(3)	8.045	172	3433165	96.743
96) 2-Chloronaphthalene	(3)	8.157	162	1533277	50.543
100) 2-Nitroaniline	(3)	8.257	138	512805	54.103
106) Dimethylphthalate	(3)	8.451	163	1729586	48.673
108) 2,6-Dinitrotoluene	(3)	8.504	165	400619	50.206
112) 3-Nitroaniline	(3)	8.663	138	435027	48.626
113)*Acenaphthene-d10	(3)	8.698	164	438447	20.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

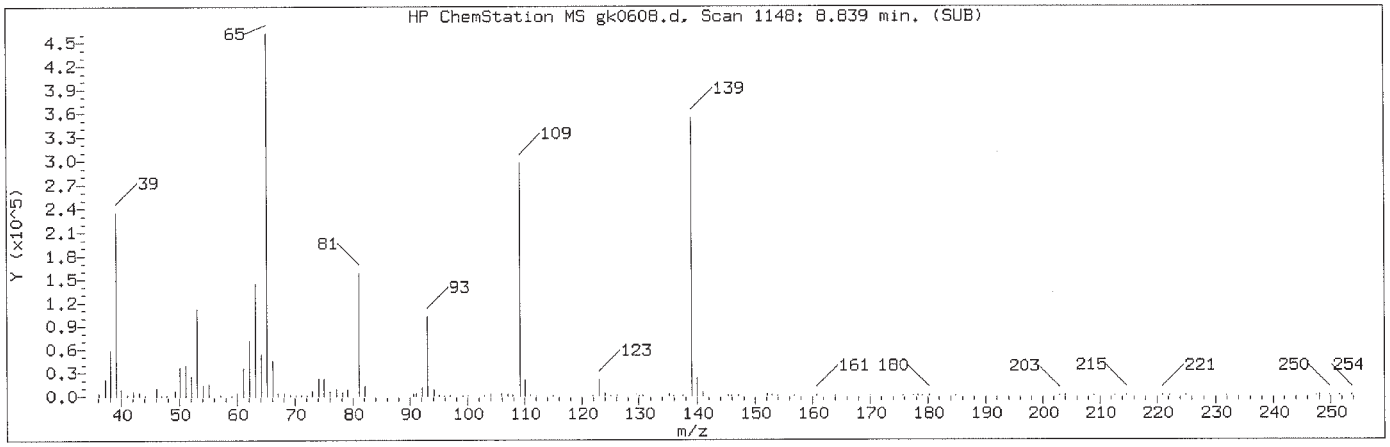
Sample Name: SECC050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.769	184	232699	43.244
116) 4-Nitrophenol	(3)	8.839	109	358985A	57.798
118) 2,4-Dinitrotoluene	(3)	8.898	165	545752	49.221
119) Dibenzofuran	(3)	8.904	168	2124646	49.345
124) Diethylphthalate	(3)	9.145	149	1694721	47.512
127) 4-Chlorophenyl-phenylether	(3)	9.239	204	812603	48.570
129) 4-Nitroaniline	(3)	9.263	138	467247	47.944
130) 4,6-Dinitro-2-methylphenol	(4)	9.298	198	309512	52.409
131) N-Nitrosodiphenylamine	(4)	9.363	169	1534604	54.588
135)$2,4,6-Tribromophenol	(3)	9.474	330	344178	98.011
143) 4-Bromophenyl-phenylether	(4)	9.722	248	459307	52.446
145) Hexachlorobenzene	(4)	9.774	284	414861	50.788
149) Pentachlorophenol	(4)	9.974	266	256234	46.975
153)*Phenanthrene-d10	(4)	10.157	188	796905	20.000
163) Carbazole	(4)	10.392	167	2246058	50.356
175)*Pyrene-d10	(5)	11.551	212	646850	20.000
179)$Terphenyl-d14	(5)	11.733	244	3138917	100.351
193) 3,3'-Dichlorobenzidine	(5)	12.745	252	720131	48.709
205) Di-n-octylphthalate	(6)	13.486	149	2790177A	57.915
213)*Perylene-d12	(6)	14.233	264	534938A	20.000

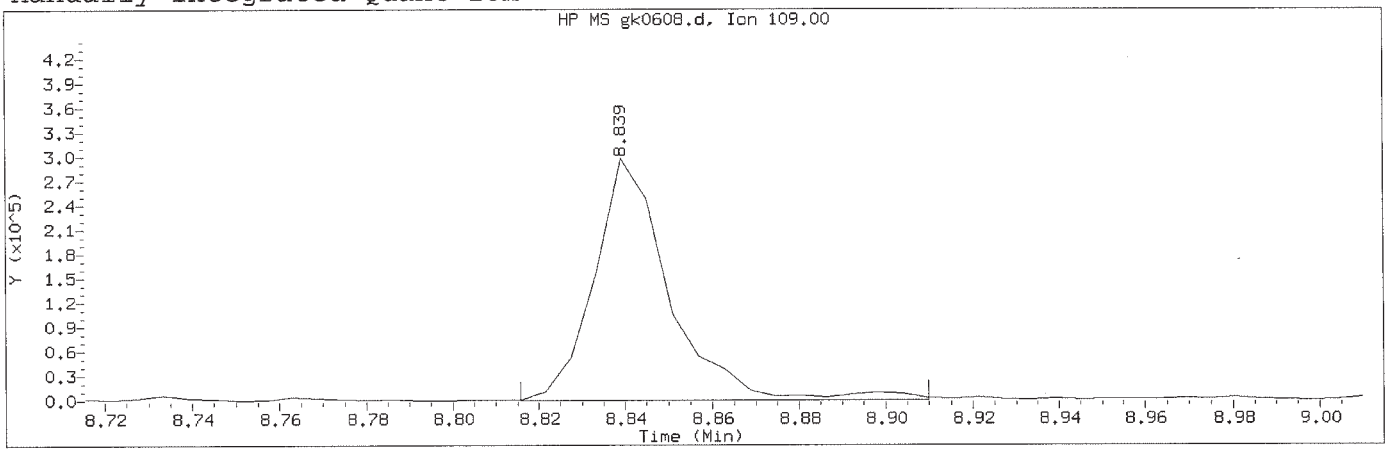
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 116		
Compound Name	: 4-Nitrophenol		
Scan Number	: 1148		
Retention Time (minutes)	: 8.839		
Quant Ion	: 109.00		
Area (flag)	: 358985A		
On-Column Amount (ng/ul)	: 57.7979		
Integration start scan	: 1143	Integration stop scan:	1159
Y at integration start	: 0	Y at integration end:	0

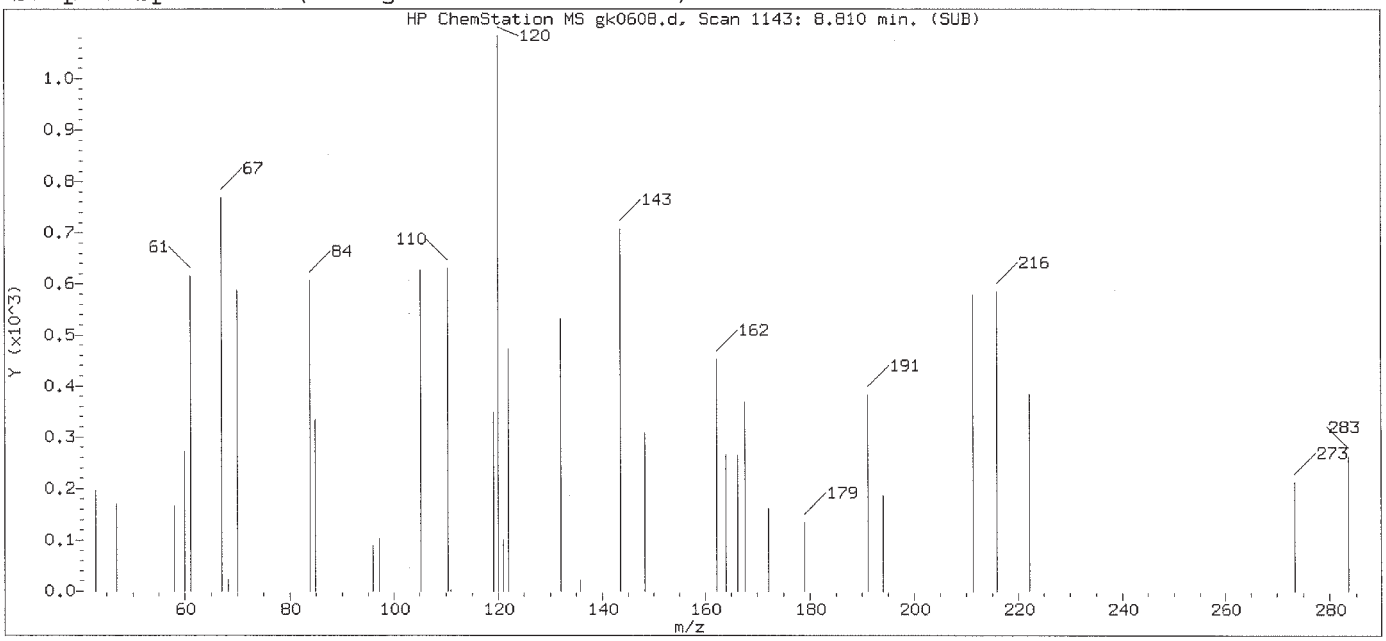
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

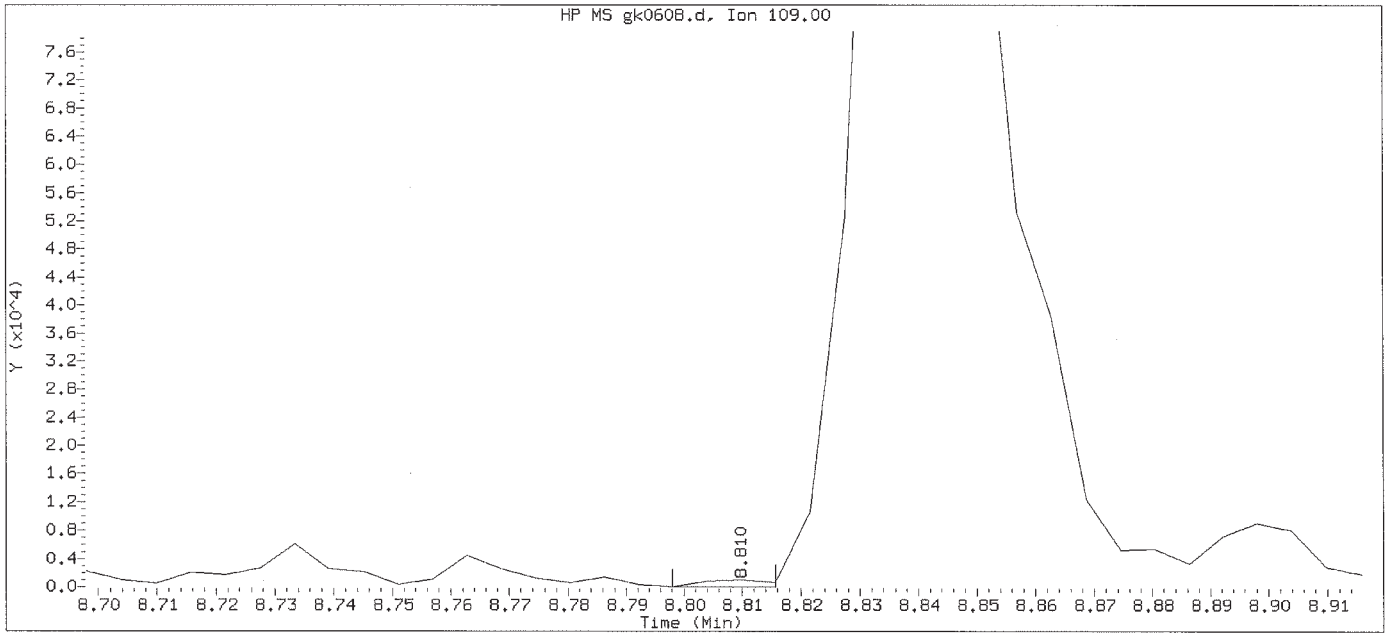
Matthew E. Barton
Principal Specialist

GC/MS audit/management approval: NOV 12 2018

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

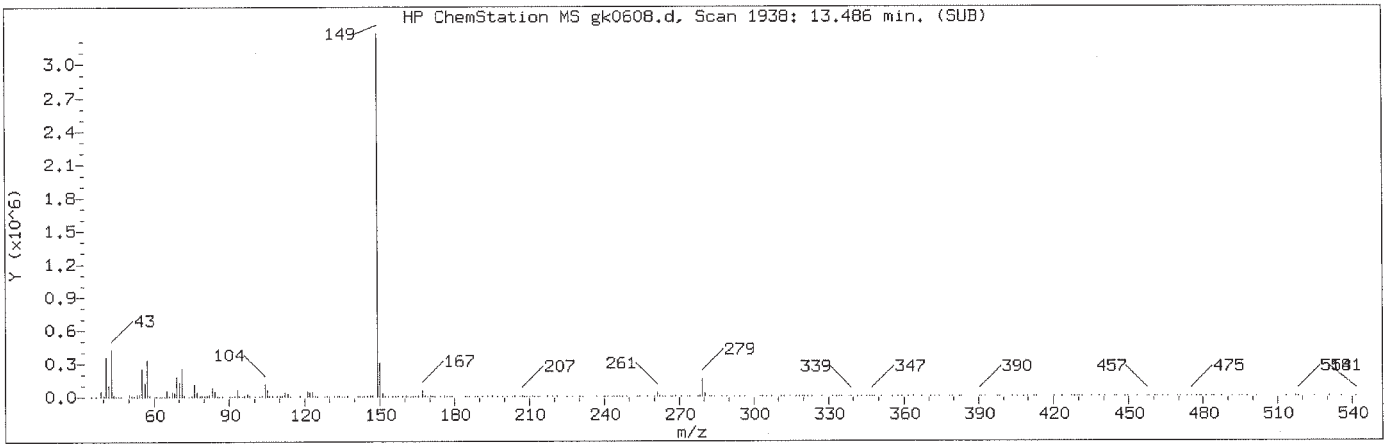
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 14:36 Automation

Sample Name: SECC050 Lab Sample ID: STD2928

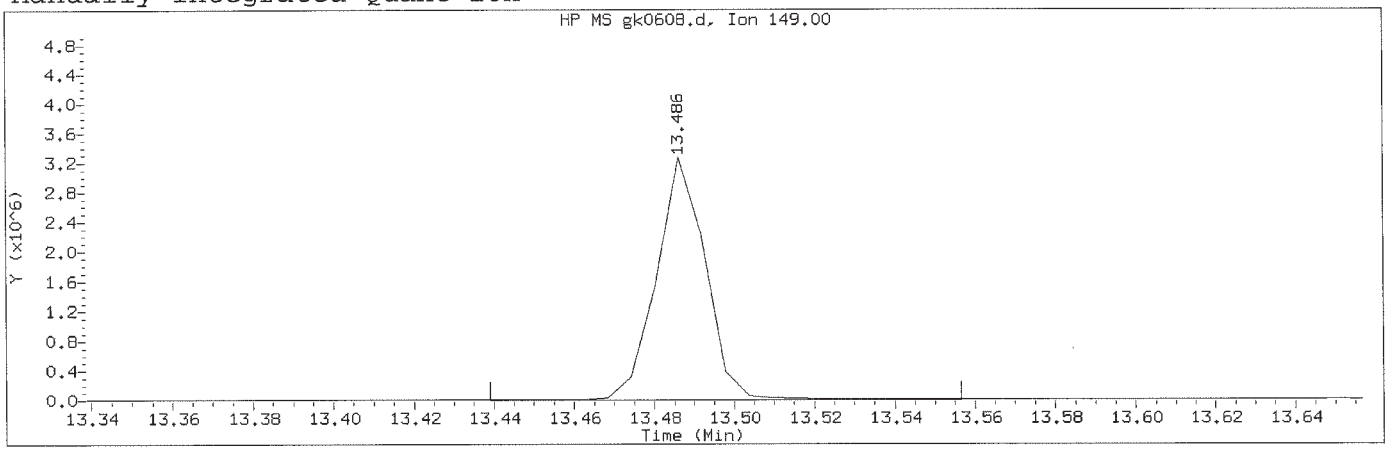
Compound Number	: 116		
Compound Name	: 4-Nitrophenol		
Scan Number	: 1143		
Retention Time (minutes)	: 8.810		
Quant Ion	: 109.00		
Area	: 763		
On-column Amount (ng/ul)	: 0.1290		
Integration start scan	: 1140	Integration stop scan:	1143
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 205		
Compound Name	: Di-n-octylphthalate		
Scan Number	: 1938		
Retention Time (minutes)	: 13.486		
Quant Ion	: 149.00		
Area (flag)	: 2790177A		
On-Column Amount (ng/ul)	: 57.9152		
Integration start scan	: 1929	Integration stop scan:	1949
Y at integration start	: 3618	Y at integration end:	3618

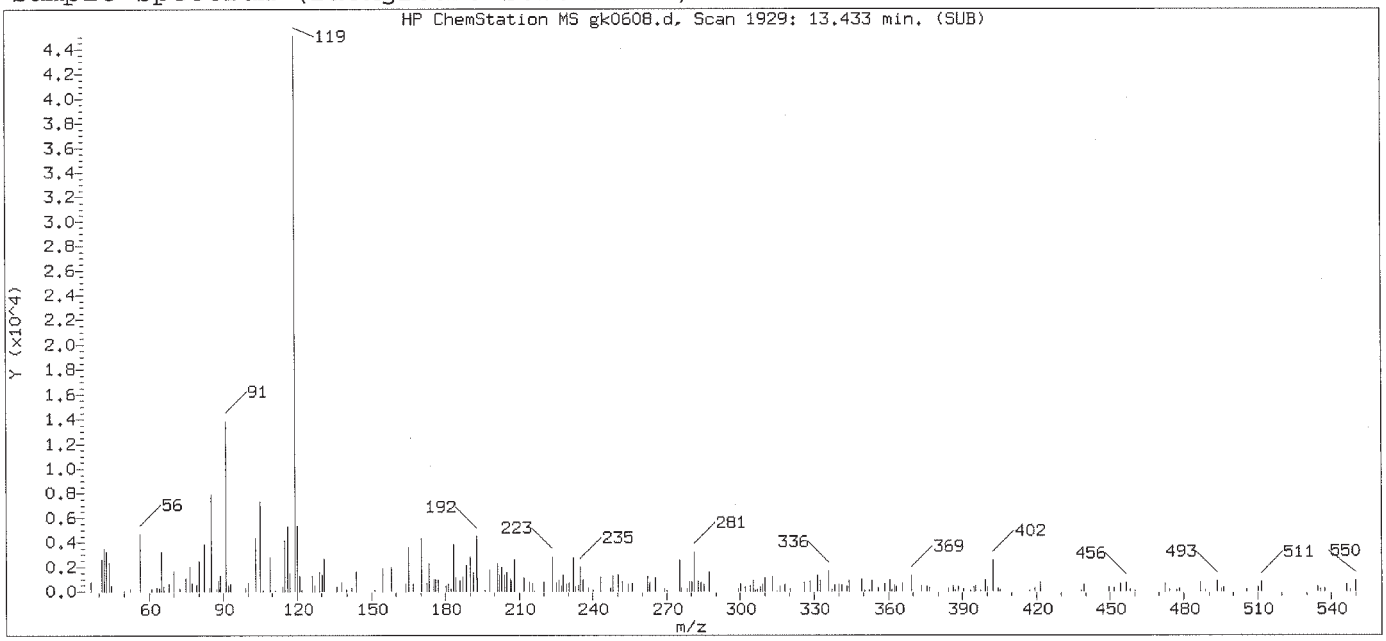
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

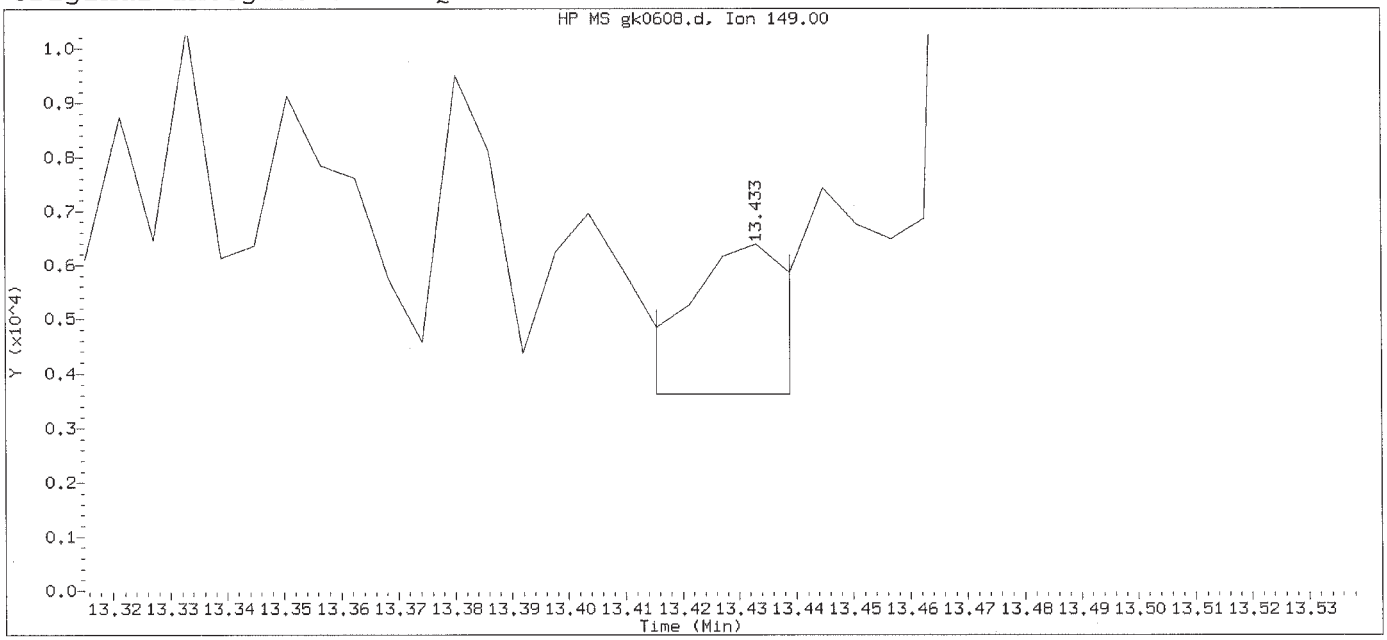
Matthew S. Barton
Principal Specialist

GC/MS audit/management approval: NOV 12 2018

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

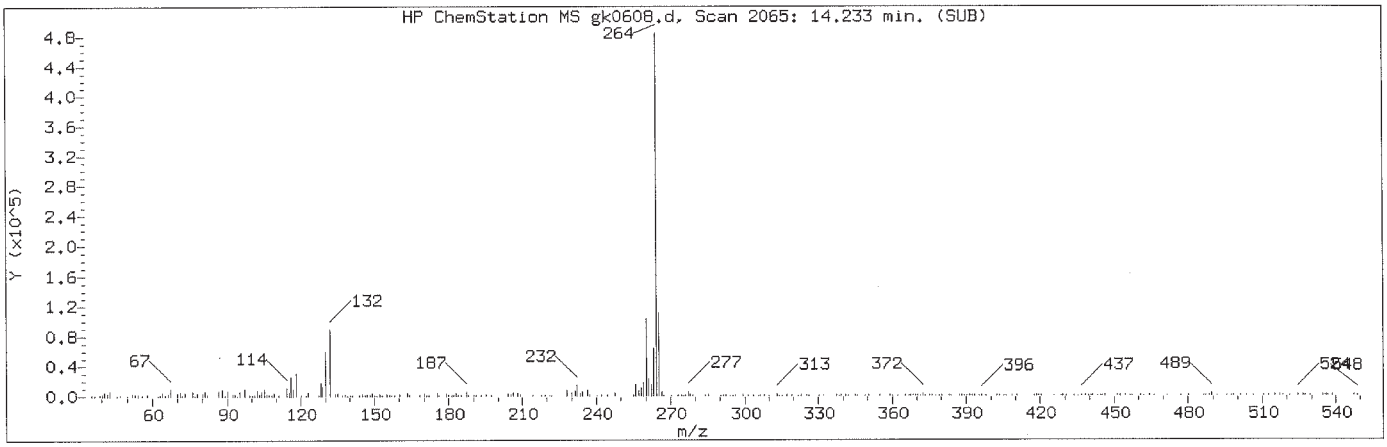
Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 14:36 Automation

Sample Name: SECC050 Lab Sample ID: STD2928

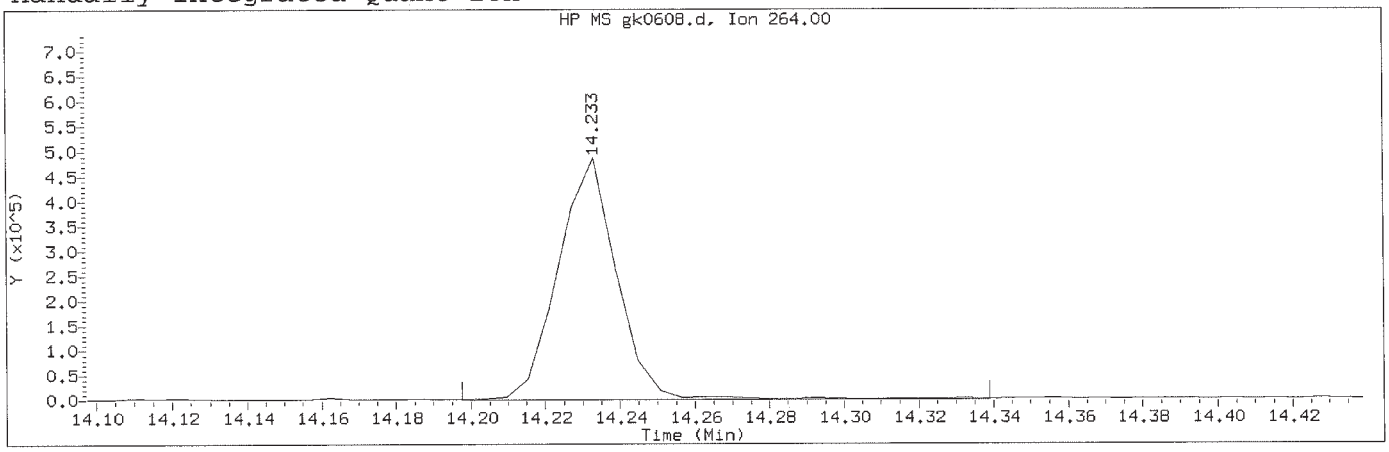
Compound Number	: 205		
Compound Name	: Di-n-octylphthalate		
Scan Number	: 1929		
Retention Time (minutes)	: 13.433		
Quant Ion	: 149.00		
Area	: 3069		
On-column Amount (ng/ul)	: 13.1017		
Integration start scan	: 1925	Integration stop scan:	1929
Y at integration start	: 3618	Y at integration end:	3618

Digitally signed by Edward Monborne on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 14:52
Date, time and analyst ID of latest file update: 12-Nov-2018 15:00 em10340

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 213		
Compound Name	: Perylene-d12		
Scan Number	: 2065		
Retention Time (minutes)	: 14.233		
Quant Ion	: 264.00		
Area (flag)	: 534938A		
On-Column Amount (ng/ul)	: 20.0000		
Integration start scan	: 2058	Integration stop scan:	2082
Y at integration start	: 0	Y at integration end:	0

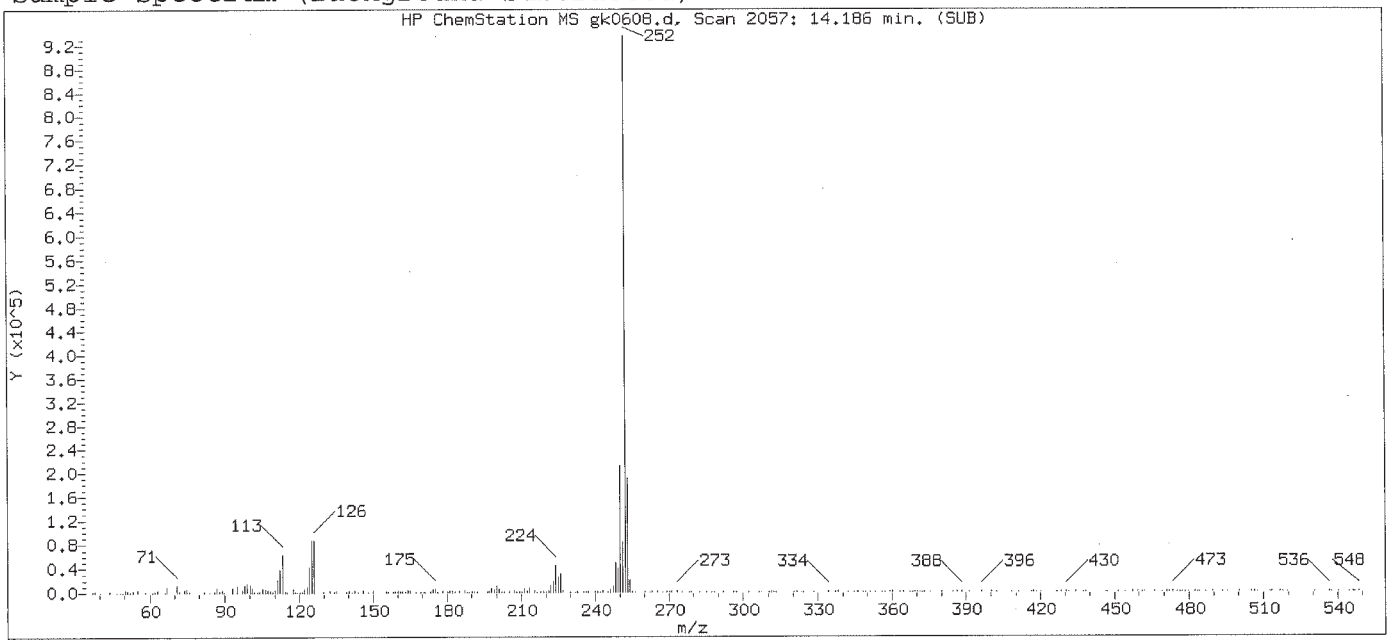
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Edward Monborne
on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

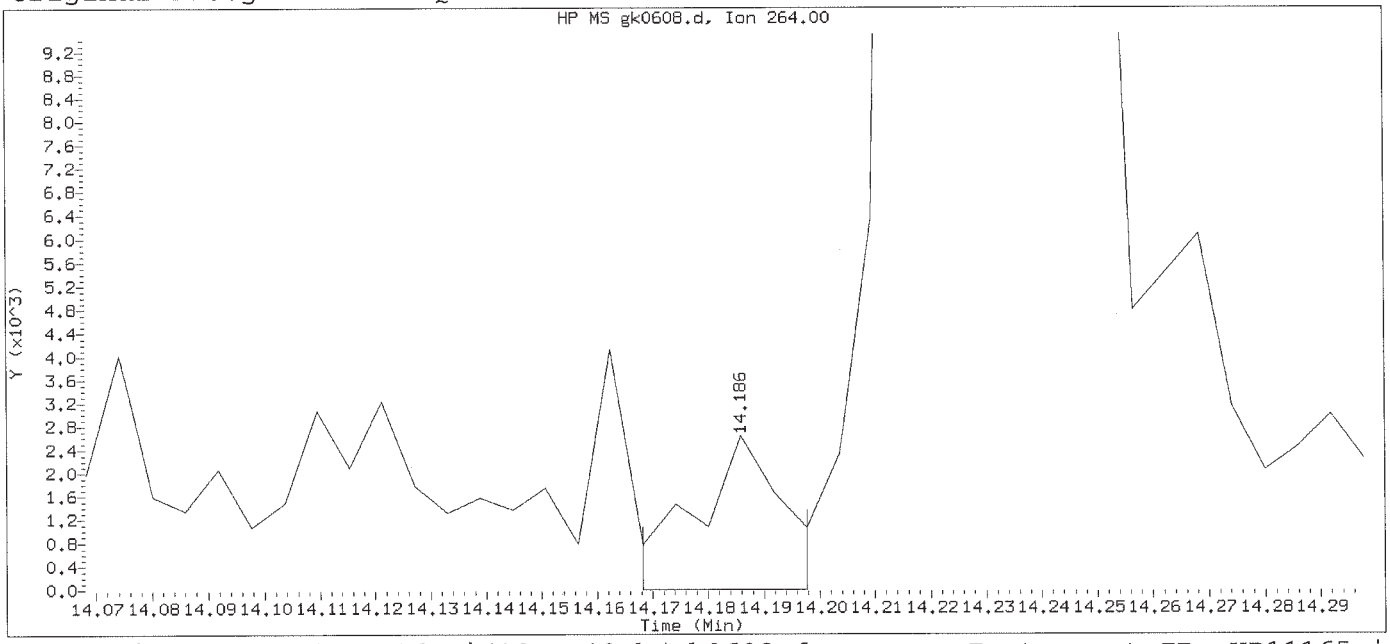
Matthew E. Barton
Principal Specialist

GC/MS audit/management approval: NOV 12 2018

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov12.b/gk0608.d Instrument ID: HP11165.i
Injection date and time: 12-NOV-2018 14:14 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov12.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 12:27
Date, time and analyst ID of latest file update: 12-Nov-2018 14:36 Automation

Sample Name: SECC050 Lab Sample ID: STD2928

Compound Number	: 213		
Compound Name	: Perylene-d12		
Scan Number	: 2057		
Retention Time (minutes)	: 14.186		
Quant Ion	: 264.00		
Area	: 2731		
On-column Amount (ng/ul)	: 21.0000		
Integration start scan	: 2053	Integration stop scan:	2058
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Edward Monborne on 11/12/2018 at 15:00.
Target 3.5 esignature user ID: em10340

Data File: /chem/HP11165.i/18nov16.b/gk0850.d

Date : 16-NOV-2018 09:46

Client ID: DFTPP50

Instrument: HP11165.i

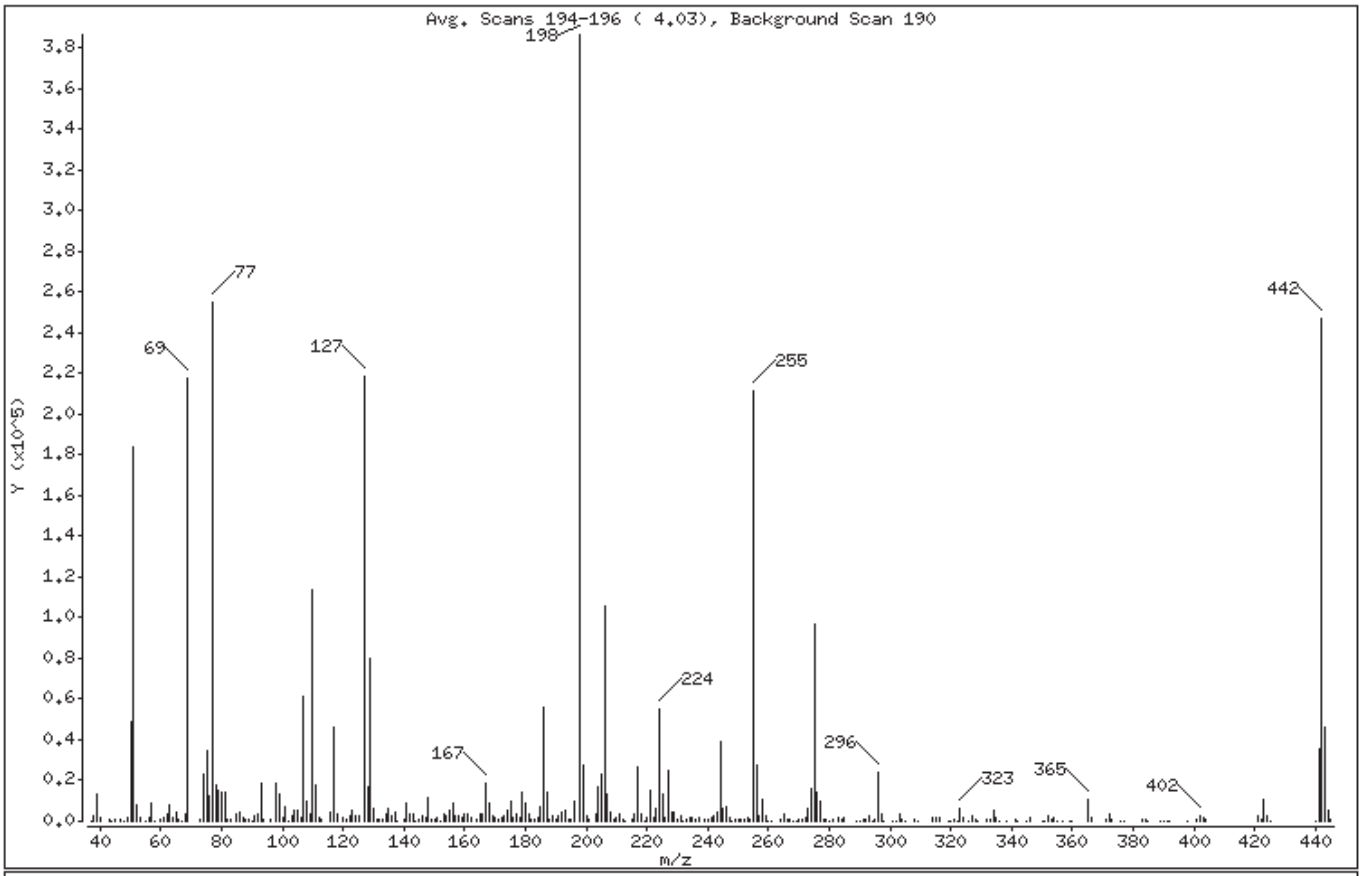
Sample Info: DFTPP50;DFTPP3108;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	47.57
68	Less than 2.00% of mass 69	0.86 (1.52)
69	Mass 69 relative abundance	56.36
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	56.60
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.11
275	10.00 - 60.00% of mass 198	25.01
365	Greater than 1.00% of mass 198	2.80
441	0.01 - 24.00% of mass 442	9.22 (14.42)
442	50.00 - 99.99% of mass 198	63.94
443	15.00 - 24.00% of mass 442	11.89 (18.59)

Digitally signed by Chad A. Moline on 11/19/2018 at 10:50.
Target 3.5 esignature user ID: cam01237

Date : 16-NOV-2018 09:46

Client ID: DFTPP50 Instrument: HP11165.i

Sample Info: DFTPP50;DFTPP3108;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0850.d
Spectrum: Avg. Scans 194-196 (4.03), Background Scan 190
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	426	129.00	80192	210.00	1883	295.00	601
38.00	2527	130.00	6271	211.00	3655	296.00	23768
39.00	13405	131.00	1277	212.00	941	297.00	3806
40.00	1427	132.00	753	213.00	140	298.00	334
43.00	967	133.00	1252	215.00	1038	301.00	358
44.00	266	134.00	3669	216.00	3534	302.00	342
45.00	718	135.00	6468	217.00	26728	303.00	3564
47.00	472	136.00	2254	218.00	3796	304.00	1326
48.00	138	137.00	4094	219.00	123	305.00	56
49.00	1715	138.00	332	220.00	1404	308.00	669
50.00	48968	140.00	1150	221.00	15063	309.00	178
51.00	183744	141.00	8957	222.00	1930	314.00	1424
52.00	7651	142.00	3137	223.00	6515	315.00	2037
53.00	1614	143.00	3429	224.00	55208	316.00	2155
55.00	37	144.00	254	225.00	13457	319.00	246
56.00	1854	145.00	948	226.00	1934	320.00	69
57.00	8621	146.00	2618	227.00	24712	321.00	1038
58.00	230	147.00	2177	228.00	4023	322.00	200
60.00	1258	148.00	11365	229.00	4661	323.00	6539
61.00	2218	149.00	1197	230.00	1051	324.00	1673
62.00	3687	150.00	559	231.00	2303	326.00	86
63.00	8247	151.00	1698	232.00	404	327.00	2457
64.00	1808	152.00	281	233.00	837	328.00	1048
65.00	4464	153.00	3517	234.00	1998	329.00	427
66.00	721	154.00	2548	235.00	1553	332.00	874
67.00	190	155.00	5768	236.00	1215	333.00	651
68.00	3320	156.00	8827	237.00	1979	334.00	5170
69.00	217728	157.00	2445	239.00	496	335.00	1785
73.00	1073	158.00	2634	240.00	949	336.00	221
74.00	22896	159.00	1518	241.00	1849	338.00	180
75.00	34776	160.00	3331	242.00	2615	341.00	1304
76.00	12317	161.00	3871	243.00	4524	342.00	150
77.00	254528	162.00	2149	244.00	39008	345.00	119
78.00	17512	164.00	582	245.00	6006	346.00	1456
79.00	14931	165.00	3996	246.00	7233	350.00	51

Digitally signed by Chad A. Moline on 11/19/2018 at 10:50.
Target 3.5 esignature user ID: cam01237

Date : 16-NOV-2018 09:46

Client ID: DFTPP50 Instrument: HP11165.i

Sample Info: DFTPP50;DFTPP3108;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

Data File: gk0850.d
Spectrum: Avg. Scans 194-196 (4.03), Background Scan 190
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	14130	166.00	3238	247.00	1479	351.00	296
81.00	13871	167.00	18680	248.00	349	352.00	2467
82.00	1199	168.00	8571	249.00	1216	353.00	968
83.00	1317	169.00	2859	250.00	523	354.00	1933
85.00	3355	170.00	2030	251.00	741	355.00	191
86.00	4426	171.00	801	252.00	837	357.00	132
87.00	1922	172.00	1379	253.00	1548	359.00	206
88.00	889	173.00	2862	254.00	682	360.00	201
89.00	1035	174.00	5180	255.00	211456	365.00	10811
90.00	315	175.00	9422	256.00	27136	366.00	1664
91.00	2945	176.00	1686	257.00	2969	371.00	585
92.00	3906	177.00	3880	258.00	10786	372.00	3844
93.00	19056	178.00	1437	259.00	2507	373.00	1281
94.00	1284	179.00	14585	260.00	146	376.00	117
96.00	1198	180.00	8658	261.00	48	377.00	165
98.00	18800	181.00	3854	264.00	605	383.00	779
99.00	13119	182.00	956	265.00	3760	384.00	545
100.00	1739	183.00	608	266.00	548	385.00	214
101.00	7473	184.00	1472	267.00	679	389.00	56
102.00	394	185.00	6759	268.00	274	390.00	273
103.00	2942	186.00	55736	269.00	325	391.00	57
104.00	5237	187.00	14273	270.00	1141	392.00	370
105.00	5300	188.00	1083	271.00	610	398.00	147
106.00	1748	189.00	2849	272.00	1355	401.00	485
107.00	61432	190.00	934	273.00	6138	402.00	2711
108.00	9442	191.00	2907	274.00	15887	403.00	1512
109.00	3551	192.00	4803	275.00	96600	404.00	733
110.00	113400	193.00	5672	276.00	13832	421.00	2921
111.00	17416	194.00	1200	277.00	9663	422.00	1113
112.00	1942	195.00	777	278.00	957	423.00	10957
113.00	822	196.00	9451	279.00	551	424.00	2824
116.00	4349	198.00	386304	280.00	215	425.00	148
117.00	46616	199.00	27448	281.00	1076	440.00	99
118.00	3114	200.00	2234	283.00	1552	441.00	35632
120.00	1384	201.00	1131	284.00	447	442.00	246976

Digitally signed by Chad A. Moline on 11/19/2018 at 10:50.
Target 3.5 esignature user ID: cam01237

Date : 16-NOV-2018 09:46

Client ID: DFTPP50 Instrument: HP11165.i

Sample Info: DFTPP50;DFTPP3108;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

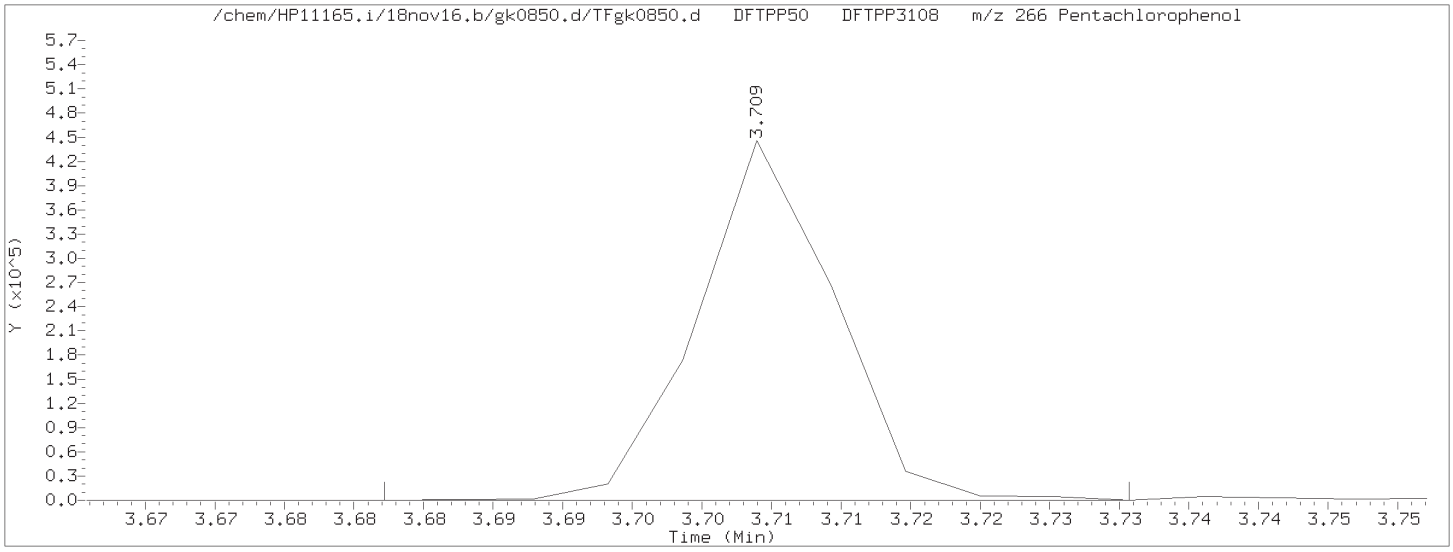
Data File: gk0850.d
Spectrum: Avg. Scans 194-196 (4.03), Background Scan 190
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	535	203.00	3112	285.00	1567	443.00	45928
122.00	2912	204.00	16568	289.00	193	444.00	5331
123.00	5030	205.00	22776	290.00	130	445.00	690
124.00	2310	206.00	105944	291.00	500		
125.00	2221	207.00	13425	292.00	561		
127.00	218624	208.00	4830	293.00	2227		
128.00	16440	209.00	910	294.00	108		

Digitally signed by Chad A. Moline on 11/19/2018 at 10:50.
Target 3.5 esignature user ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

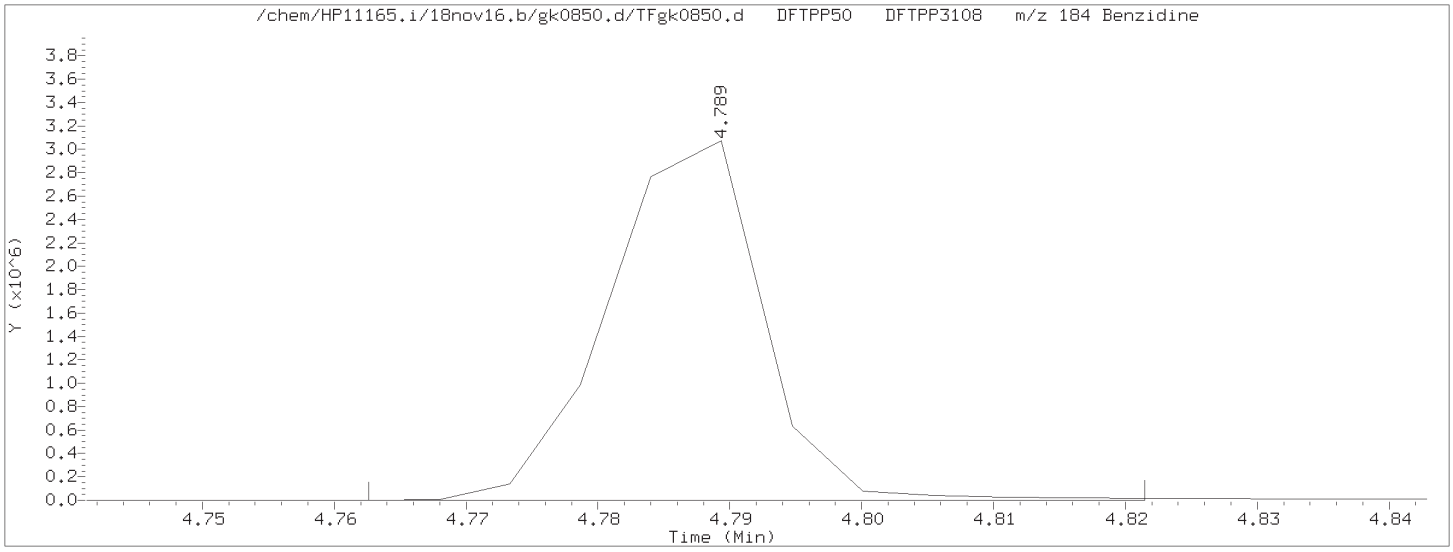
Instrument ID: HP11165.i Injection Date: 16-NOV-2018 09:46 Operator: lmh00956



Pentachlorophenol EICP peak height = 446016 EICP peak height at 10% = 44602 Pentachlorophenol EICP area = 306176

Pentachlorophenol EICP peak apex (min.) = 3.709
RT at 10% of front half of EICP (min.) = 3.699 'Front' peak width (min.) = 0.0098166667
RT at 10% of back half of EICP (min.) = 3.719 'Tailing' peak width (min.) = 0.0104833333

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0104833333}{0.0098166667} = 1.068$



Benzidine EICP peak height = 3075584 EICP peak height at 10% = 307558 Benzidine EICP area = 2493997

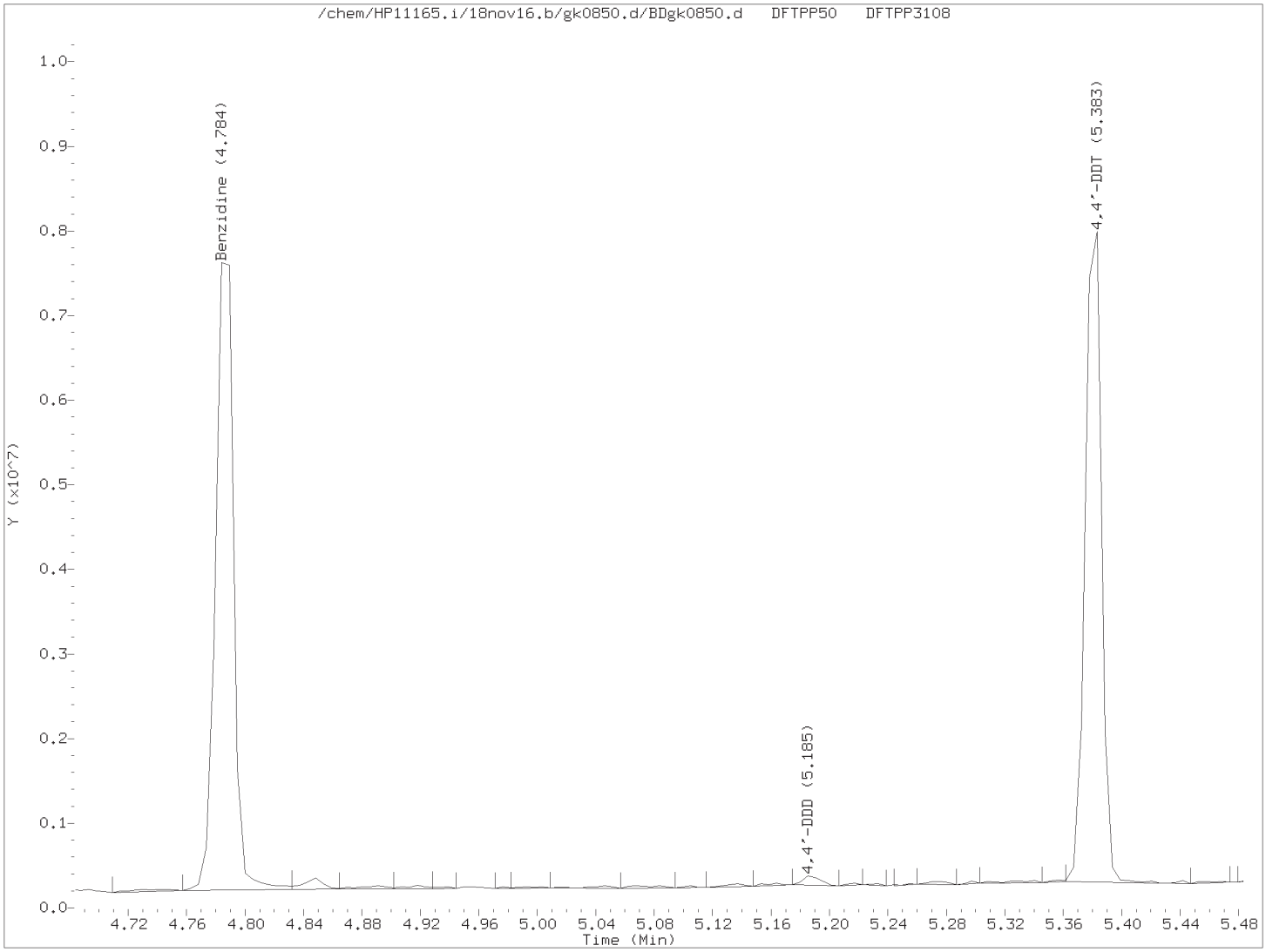
Benzidine EICP peak apex (min.) = 4.789
RT at 10% of front half of EICP (min.) = 4.774 'Front' peak width (min.) = 0.0149166667
RT at 10% of back half of EICP (min.) = 4.798 'Tailing' peak width (min.) = 0.0084166667

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0084166667}{0.0149166667} = 0.564$

Secondary review performed and digitally signed by Chad A. Moline on 11/19/2018 at 11:00. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

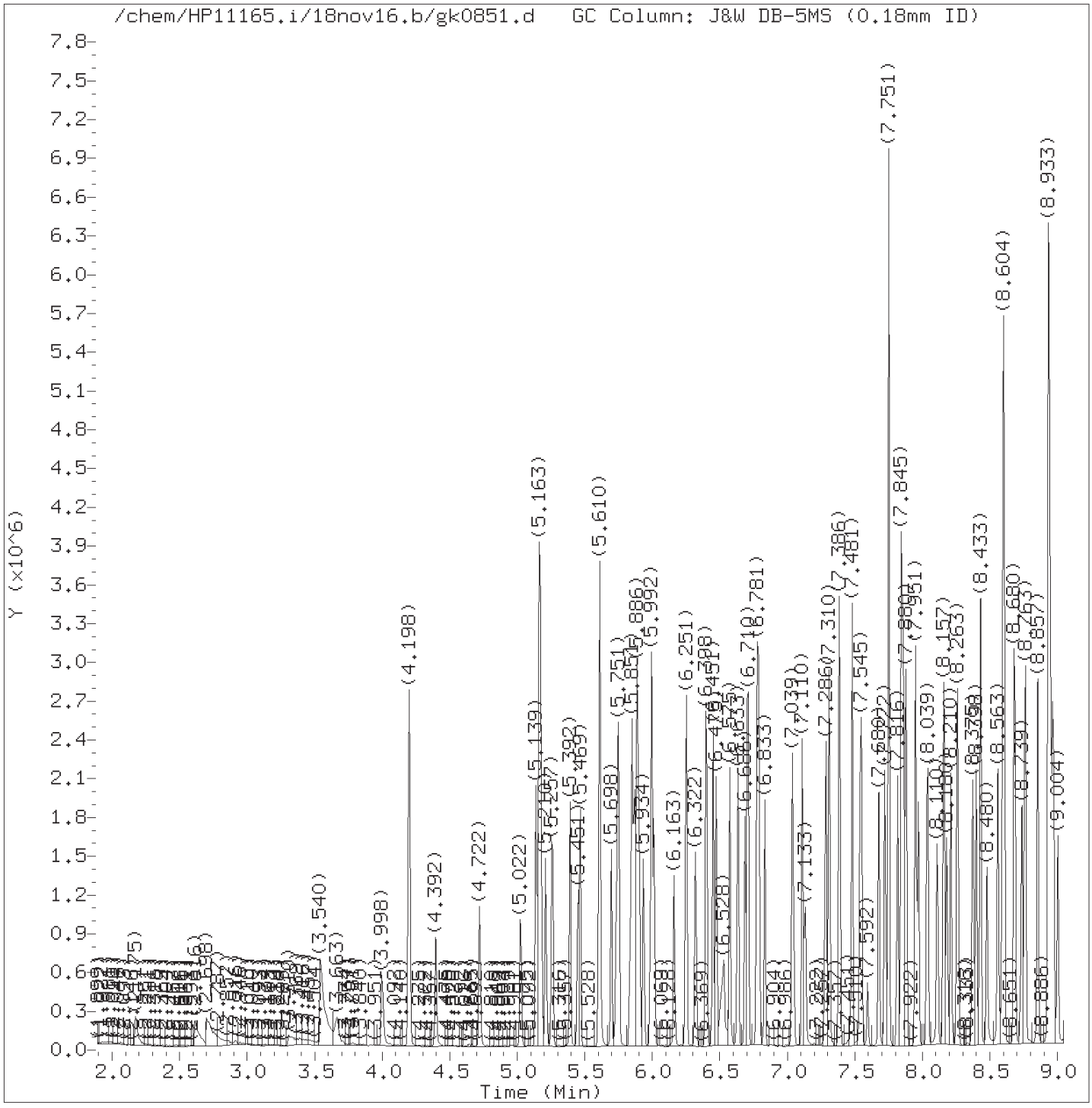
Instrument ID: HP11165.i Injection Date: 16-NOV-2018 09:46 Operator: lmh00956



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{0 + 90192}{0 + 90192 + 6079062} \times 100 = 1.5$$

Secondary review performed and digitally signed by Chad A. Moline on 11/19/2018 at 11:00. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

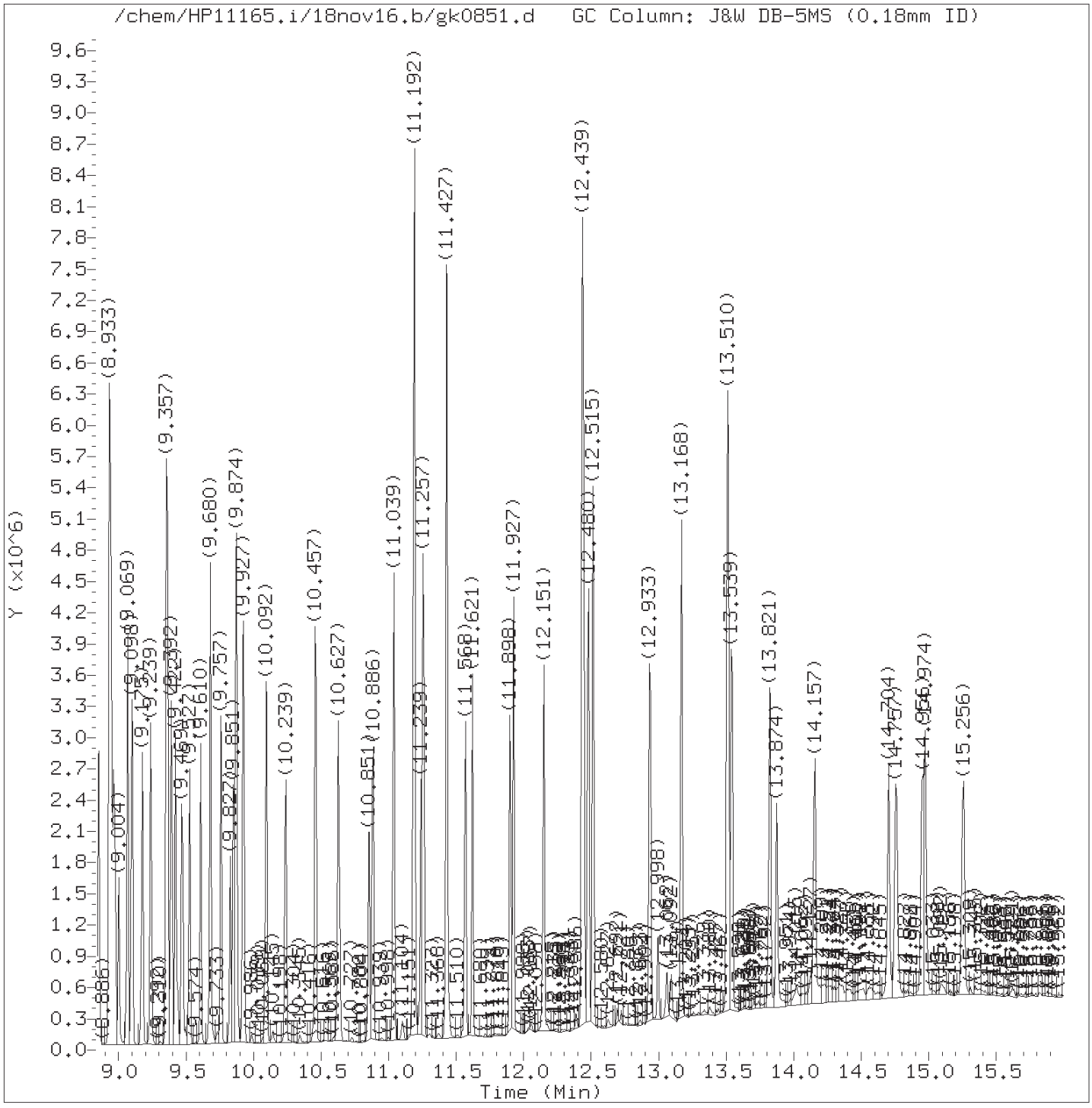
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.175	88	150308	28.299
4) N-Nitrosodimethylamine	(1)	2.616	74	240947	29.838
5) Pyridine	(1)	2.698	79	357769	26.365
7) 2-Picoline	(1)	3.545	93	412431	28.060
8) N-Nitrosomethylethylamine	(1)	3.663	88	196997	27.138
9) Methyl methanesulfonate	(1)	3.998	80	230444	30.367
11)$2-Fluorophenol	(1)	4.198	112	696974	61.041
13) N-Nitrosodiethylamine	(1)	4.398	102	212903	32.721
15) Ethyl methanesulfonate	(1)	4.722	109	216188	31.329
19) Aniline	(1)	5.139	93	703624	29.788
17)$Phenol-d6	(1)	5.163	99	1147303	64.889
18) Phenol	(1)	5.175	94	601576	29.884
20) a-methylstyrene	(1)	5.181	118	35273	30.838
22) bis(2-Chloroethyl)ether	(1)	5.210	93	426069	29.470
23) 2-Chlorophenol	(1)	5.257	128	376301	33.913
24) 1,3-Dichlorobenzene	(1)	5.392	146	371999	30.434
25)*1,4-Dichlorobenzene-d4	(1)	5.451	152	150545	20.000
26) 1,4-Dichlorobenzene	(1)	5.469	146	388028	30.415
27) Benzyl alcohol	(1)	5.610	108	290204	32.829
28) 1,2-Dichlorobenzene	(1)	5.610	146	367411	29.755
42) Total Cresols	(1)			902617	66.063
30) Indene	(1)	5.698	115	431298	31.714
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.734	45	429533	29.273
34) bis(2-Chloroisopropyl)ether	(1)	5.734	45	429533	29.273
31) 2-Methylphenol	(1)	5.751	108	425528	31.353
35) N-Nitrosopyrrolidine	(1)	5.839	100	267324	37.075
36) Acetophenone	(1)	5.851	105	585978	31.996
38) N-Nitroso-di-n-propylamine	(1)	5.869	70	384910	29.753
39) N-Nitrosomorpholine	(1)	5.881	56	314358	33.181
40) o-Toluidine	(1)	5.886	106	689462	31.996
37) 4-Methylphenol	(1)	5.904	108	477089	34.710
43) Hexachloroethane	(1)	5.934	117	152124	31.679
44)$Nitrobenzene-d5	(2)	5.992	82	1053255	59.794
45) Nitrobenzene	(2)	6.010	77	546269	29.731
48) N-Nitrosopiperidine	(2)	6.163	114	233674	33.058
50) Isophorone	(2)	6.251	82	990163	29.818
51) 2-Nitrophenol	(2)	6.322	139	219604	33.174
53) 2,4-Dimethylphenol	(2)	6.398	107	465642	31.834
57) O,O,O-Triethylphosphorothioate	(2)	6.451	198	201423	31.476
55) bis(2-Chloroethoxy)methane	(2)	6.475	93	583709	31.623

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
56) Benzoic acid	(2)	6.528	105	393895	34.671
60) 2,4-Dichlorophenol	(2)	6.575	162	331685	32.498
62) 1,2,4-Trichlorobenzene	(2)	6.633	180	325944	30.282
65)*Naphthalene-d8	(2)	6.686	136	668579	20.000
66) Naphthalene	(2)	6.710	128	1200133	31.779
67) 4-Chloroaniline	(2)	6.775	127	481352	30.961
68) 2,6-Dichlorophenol	(2)	6.786	162	326449	31.701
69) Hexachloropropene	(2)	6.792	213	184886	34.332
71) Hexachlorobutadiene	(2)	6.833	225	171696	29.727
75) Quinoline	(2)	7.039	129	823528	33.451
77) N-Nitrosodi-n-butylamine	(2)	7.110	84	504604	31.719
76) Caprolactam	(2)	7.133	113	166499	35.131
80) 4-Chloro-3-methylphenol	(2)	7.286	107	439863	34.529
82) Safrole	(2)	7.310	162	341925	33.087
97) Isosafrole	(3)			339800	30.050
83) 2-Methylnaphthalene	(2)	7.386	142	832458	31.084
84) 1-Methylnaphthalene	(2)	7.481	142	776939	30.430
85) Hexachlorocyclopentadiene	(3)	7.539	237	160269	26.823
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.551	216	338818	28.396
88) cis-Isosafrole	(3)	7.598	162	56692	4.839
90) 2,4,6-Trichlorophenol	(3)	7.680	196	245166	30.363
92) 2,4,5-Trichlorophenol	(3)	7.722	196	267893	30.460
93)$2-Fluorobiphenyl	(3)	7.751	172	1860731	56.712
94) trans-Isosafrole	(3)	7.816	162	283108	25.211
95) 1,1'-Biphenyl	(3)	7.845	154	975095	27.282
96) 2-Chloronaphthalene	(3)	7.857	162	779529	27.793
98) 1-Chloronaphthalene	(3)	7.880	162	730298	28.112
99) Diphenyl ether	(3)	7.951	170	543594	28.331
100) 2-Nitroaniline	(3)	7.969	138	277555	31.673
104) 1,4-Naphthoquinone	(3)	8.039	158	331755	28.850
120) 2,4_2,6-Dinitrotoluenes	(3)			556466	63.044
105) 1,4-Dinitrobenzene	(3)	8.110	168	152178	31.506
106) Dimethylphthalate	(3)	8.157	163	961644	29.270
107) 1,3-Dinitrobenzene	(3)	8.180	168	179487	32.019
108) 2,6-Dinitrotoluene	(3)	8.210	165	230587	31.255
109) Acenaphthylene	(3)	8.263	152	1158181	29.939
112) 3-Nitroaniline	(3)	8.375	138	249432	30.156
113)*Acenaphthene-d10	(3)	8.398	164	405368	20.000
114) Acenaphthene	(3)	8.433	153	845645	29.575
115) 2,4-Dinitrophenol	(3)	8.480	184	183744	36.933

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.563	250	303685	29.693
116) 4-Nitrophenol	(3)	8.592	109	181134A	31.543
118) 2,4-Dinitrotoluene	(3)	8.604	165	325879	31.789
119) Dibenzofuran	(3)	8.604	168	1211869	30.442
121) 1-Naphthylamine	(3)	8.680	143	916844	29.560
122) 2,3,4,6-Tetrachlorophenol	(3)	8.739	232	209174	29.525
123) 2-Naphthylamine	(3)	8.763	143	904082	29.964
146) Diallate trans/cis	(4)			592882	29.147
124) Diethylphthalate	(3)	8.857	149	988260	29.967
125) Thionazin	(3)	8.933	107	183798	29.276
126) Fluorene	(3)	8.939	166	1003027	30.144
127) 4-Chlorophenyl-phenylether	(3)	8.945	204	474784	30.694
128) 5-Nitro-o-toluidine	(3)	8.963	152	305753	30.654
129) 4-Nitroaniline	(3)	8.975	138	275590	30.585
130) 4,6-Dinitro-2-methylphenol	(4)	9.004	198	191197	31.408
131) N-Nitrosodiphenylamine	(4)	9.069	169	891084	30.750
132) NDPA as diphenylamine	(4)	9.069	169	891084	30.750
134) 1,2-Diphenylhydrazine	(4)	9.098	77	1283557	28.557
135)$2,4,6-Tribromophenol	(3)	9.180	330	228969	70.524
137) Tetraethyldithiopyrophosphate	(4)	9.239	97	201561	30.565
140) Diallate (peak 1)	(4)	9.351	86	511206	24.467
141) Phorate	(4)	9.363	75	1123847	41.402
139) 1,3,5-Trinitrobenzene	(4)	9.363	213	121482	31.288
142) Phenacetin	(4)	9.392	108	632242	33.197
143) 4-Bromophenyl-phenylether	(4)	9.422	248	257127	28.483
144) Diallate (peak 2)	(4)	9.439	86	81676	4.680
145) Hexachlorobenzene	(4)	9.469	284	249254	29.602
147) Dimethoate	(4)	9.527	87	511278	32.742
150) 4-Aminobiphenyl	(4)	9.680	169	369045	28.186
151) Pentachloronitrobenzene	(4)	9.680	237	118695	29.642
149) Pentachlorophenol	(4)	9.680	266	140794	25.041
152) Pronamide	(4)	9.763	173	475131	32.464
153)*Phenanthrene-d10	(4)	9.851	188	821448	20.000
154) Dinoseb	(4)	9.869	211	272515	30.681
155) Phenanthrene	(4)	9.874	178	1518803	29.585
157) Anthracene	(4)	9.927	178	1562022	30.816
163) Carbazole	(4)	10.092	167	1427855	31.056
164) Methyl parathion	(4)	10.239	109	396023	34.367
165) Di-n-butylphthalate	(4)	10.457	149	1763775	30.763
167) Parathion	(4)	10.627	109	257092	34.008

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

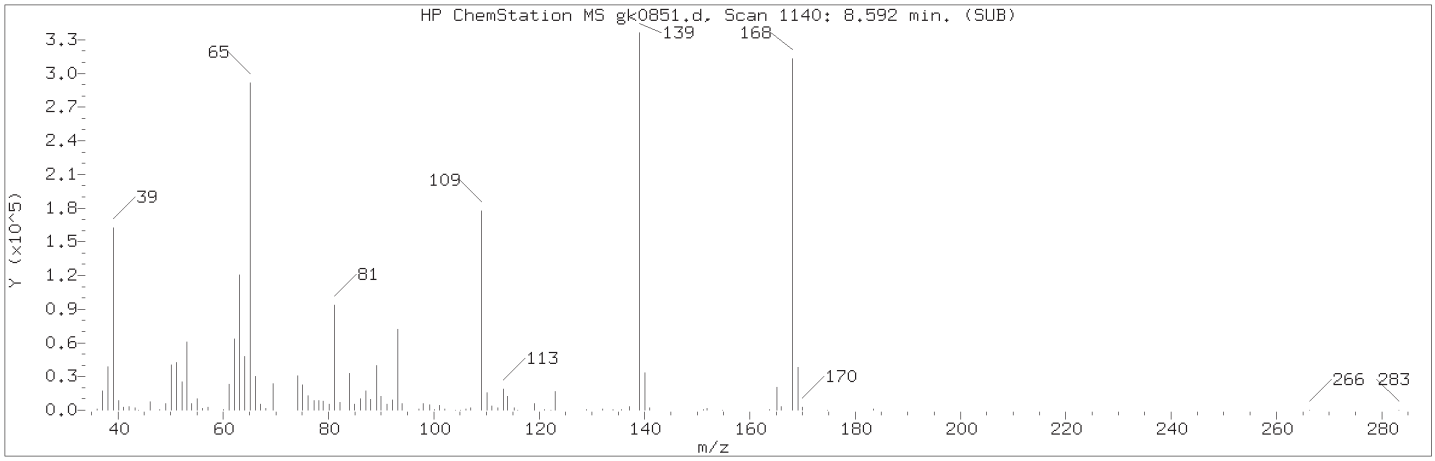
Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
168) 4-Nitroquinoline-1-oxide	(4)	10.639	190	122931	24.941
169) Octachlorostyrene	(4)	10.857	308	106877	32.673
171) Isodrin	(4)	10.886	193	167143	29.047
173) Fluoranthene	(4)	11.039	202	1647073	31.153
174) Benzidine	(5)	11.192	184	3298752	94.372
175)*Pyrene-d10	(5)	11.239	212	780631	20.000
177) Pyrene	(5)	11.257	202	1696956	30.123
179)$Terphenyl-d14	(5)	11.433	244	2210669	58.563
182) p-Dimethylaminoazobenzene	(5)	11.568	225	281327	29.543
185) Chlorobenzilate	(5)	11.621	139	535540	32.081
187) 3,3'-Dimethylbenzidine	(5)	11.898	212	997298	34.739
188) Butylbenzylphthalate	(5)	11.927	149	807705	30.820
191) 2-Acetylaminofluorene	(5)	12.151	181	742699	35.159
193) 3,3'-Dichlorobenzidine	(5)	12.433	252	556529	31.192
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.439	231	297709	30.680
195) Benzo(a)anthracene	(5)	12.445	228	1568649	30.443
196) Chrysene	(5)	12.480	228	1427189	28.798
199) bis(2-Ethylhexyl)phthalate	(5)	12.515	149	1089225	30.681
203) 6-Methylchrysene	(5)	12.933	242	1027574	30.342
205) Di-n-octylphthalate	(6)	13.168	149	1842287	31.287
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.510	256	681368	32.034
206) Benzo(b)fluoranthene	(6)	13.515	252	1382720	29.606
208) Benzo(k)fluoranthene	(6)	13.539	252	1373397	30.987
211) Benzo(a)pyrene	(6)	13.827	252	1281534	31.545
213)*Perylene-d12	(6)	13.874	264	653821	20.000
215) 3-Methylcholanthrene	(6)	14.157	268	553122	34.865
217) Dibenz(a,h)acridine	(6)	14.704	279	953178	31.716
218) Dibenz(a,j)acridine	(6)	14.757	279	1005753	31.145
219) Indeno(1,2,3-cd)pyrene	(6)	14.951	276	1328335	32.362
220) Dibenz(a,h)anthracene	(6)	14.974	278	1145618	33.813
222) Total PAHs	(6)			22858091	554.003
221) Benzo(g,h,i)perylene	(6)	15.256	276	1109412	31.820

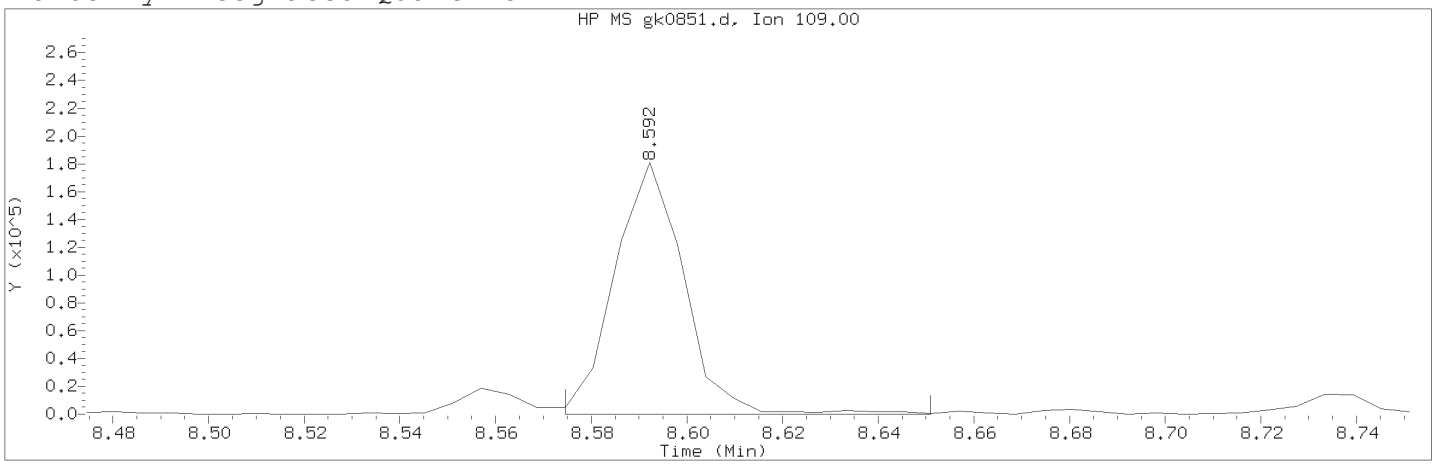
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 11:10
Date, time and analyst ID of latest file update: 16-Nov-2018 11:10 lmh00956

Sample Name: SSTD030 Lab Sample ID: STD2928

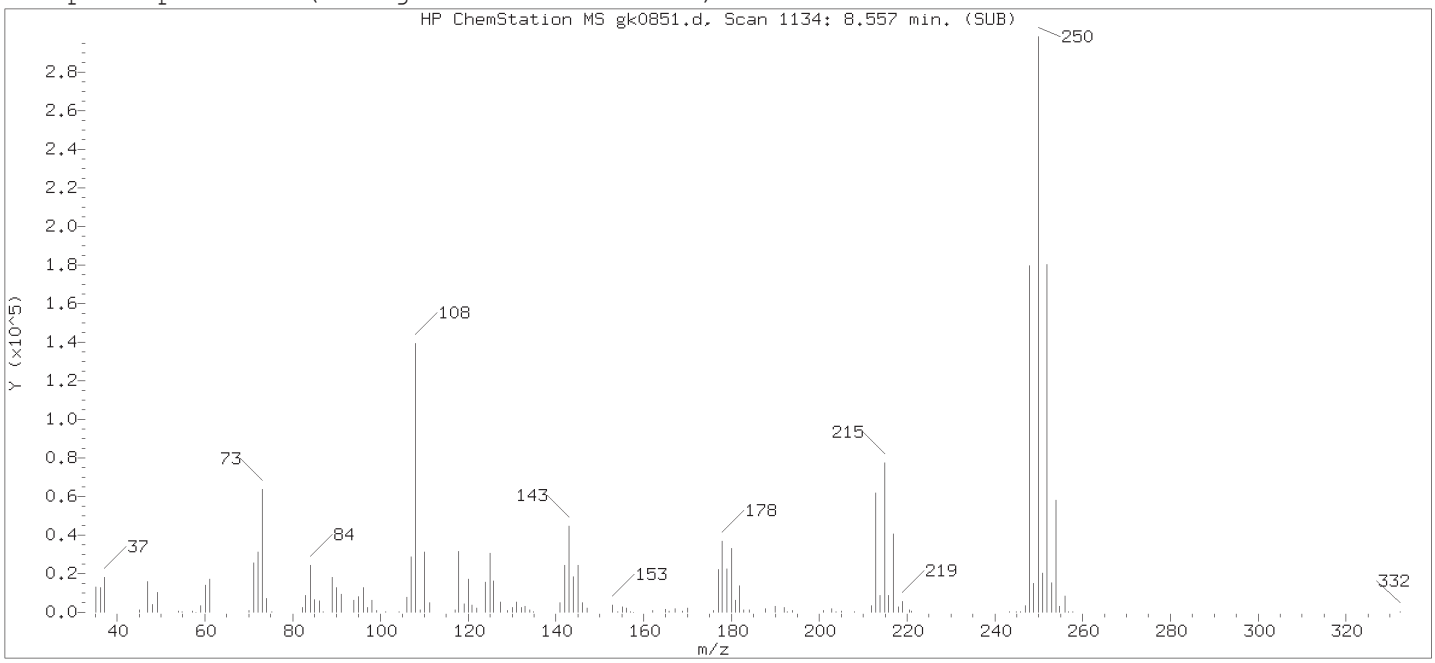
Compound Number : 116
Compound Name : 4-Nitrophenol
Scan Number : 1140
Retention Time (minutes) : 8.592
Quant Ion : 109.00
Area (flag) : 181134A
On-Column Amount (ng/ul) : 31.5430
Integration start scan : 1136 Integration stop scan: 1149
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

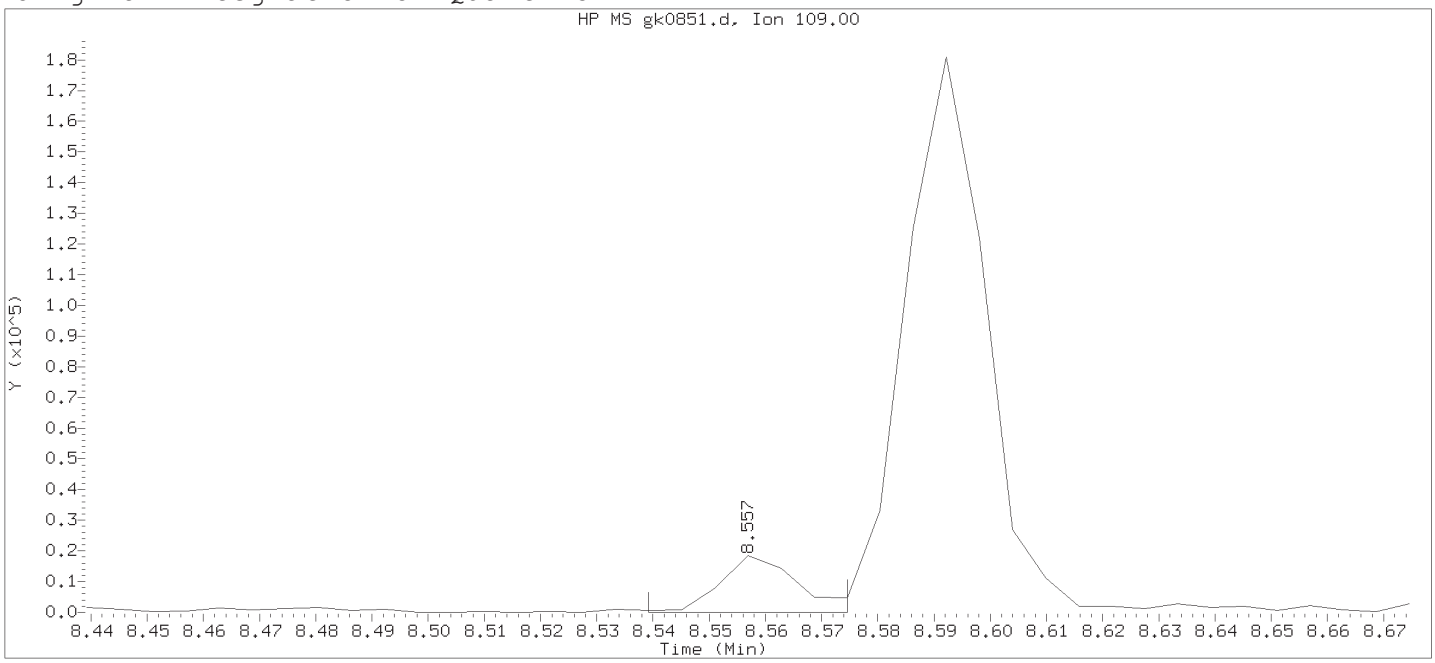
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 13:58.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/19/2018 at 11:00.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



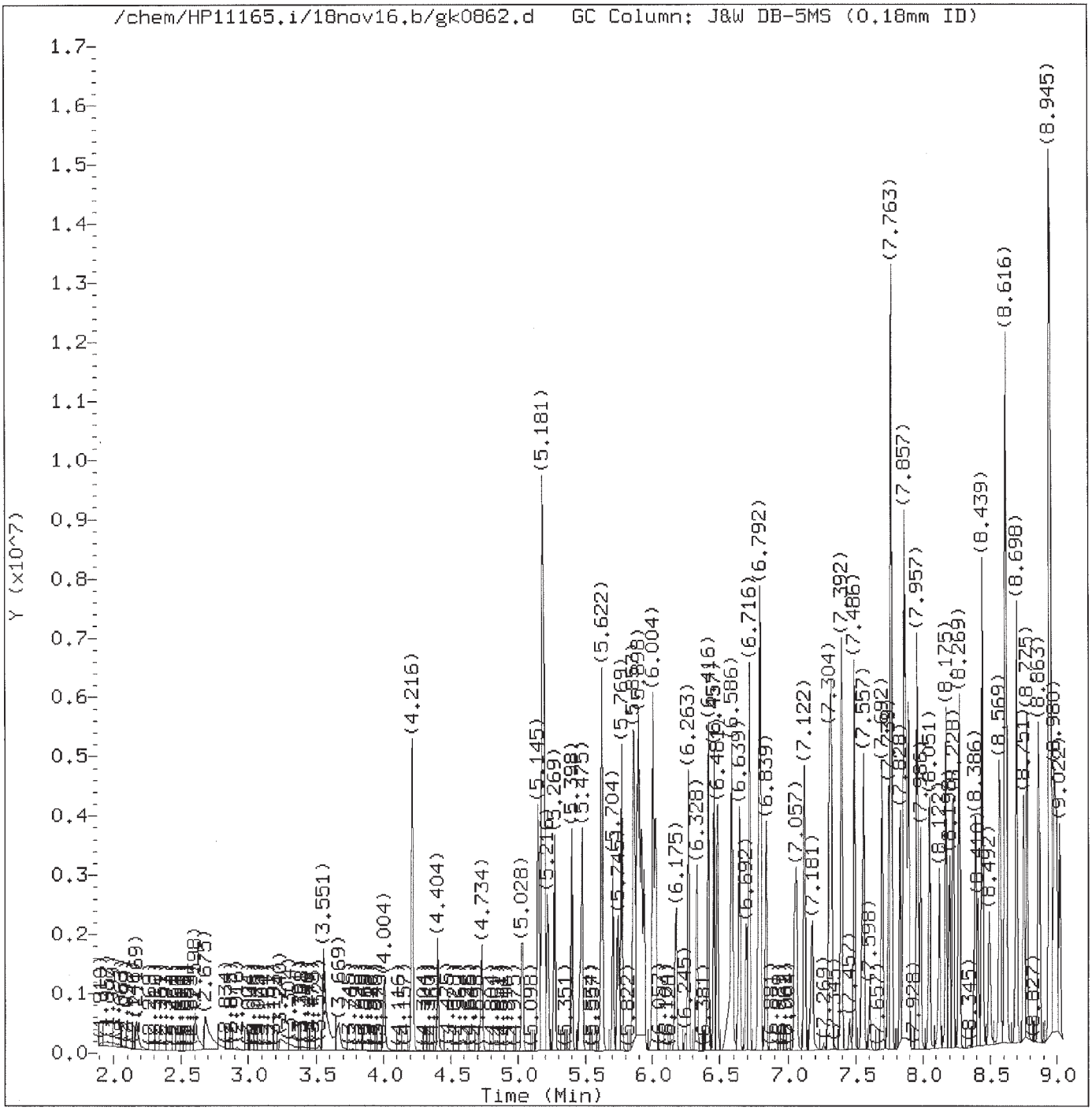
Data File: /chem/HP11165.i/18nov16.b/gk0851.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 10:04 Analyst ID: lmh00956

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 10:26
Date, time and analyst ID of latest file update: 16-Nov-2018 10:26 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

Compound Number	: 116		
Compound Name	: 4-Nitrophenol		
Scan Number	: 1134		
Retention Time (minutes)	: 8.557		
Quant Ion	: 109.00		
Area	: 17319		
On-column Amount (ng/ul)	: 3.0161		
Integration start scan	: 1130	Integration stop scan:	1136
Y at integration start	: 0	Y at integration end:	0

Digitally signed by William H Saadeh on 11/16/2018 at 13:58.
Target 3.5 esignature used (1112 bytes)



Total Ion Chromatogram (TIC)

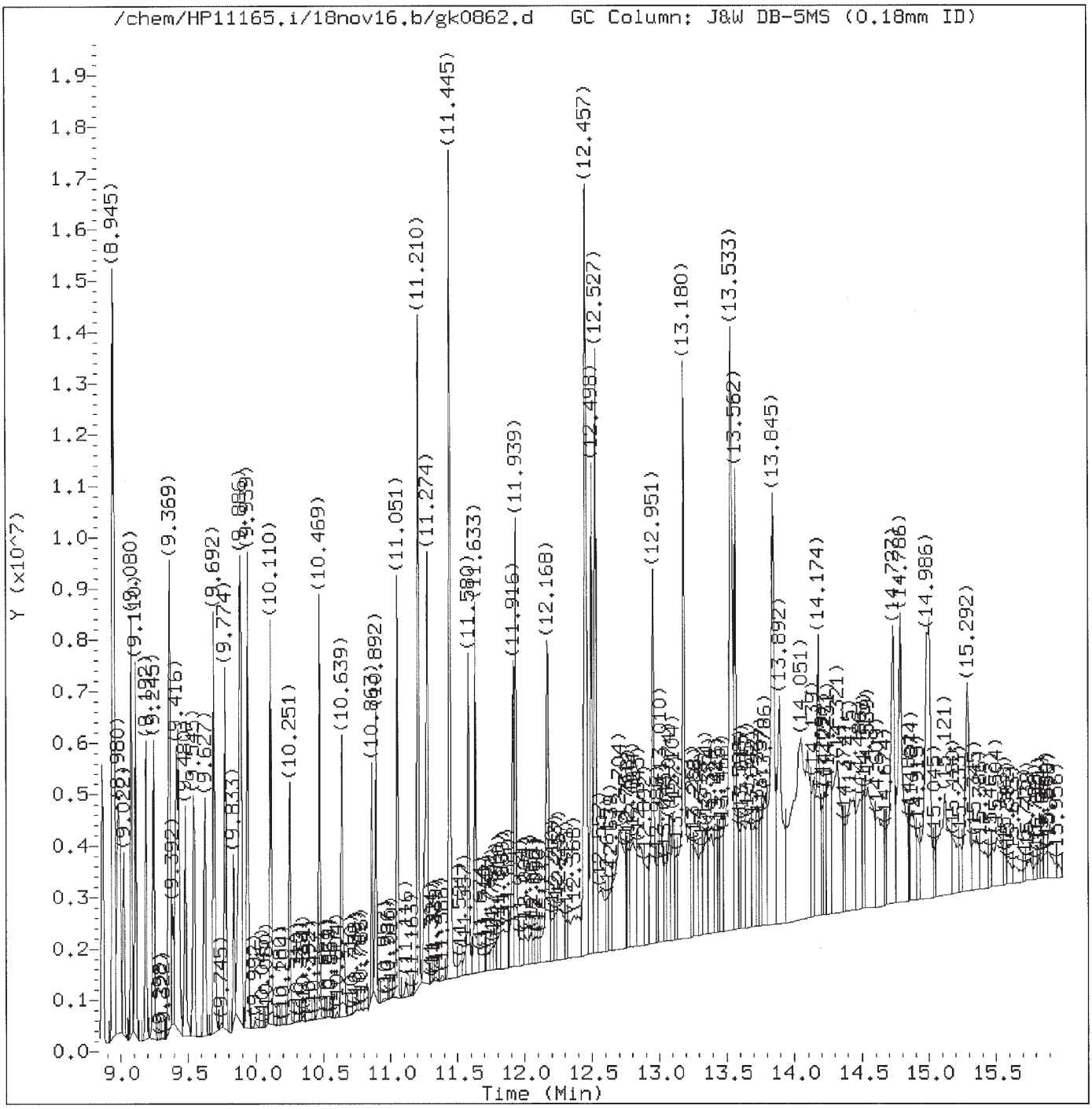
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.681	79	855833M	50.675
11)$2-Fluorophenol	(1)	4.216	112	1430551	100.666
19) Aniline	(1)	5.145	93	1398533	47.571
17)$Phenol-d6	(1)	5.181	99	2346270	106.621
18) Phenol	(1)	5.192	94	1277087	50.973
22) bis(2-Chloroethyl)ether	(1)	5.216	93	885369	49.203
23) 2-Chlorophenol	(1)	5.269	128	751510	54.417
24) 1,3-Dichlorobenzene	(1)	5.398	146	738928	48.573
25)*1,4-Dichlorobenzene-d4	(1)	5.457	152	187367	20.000
26) 1,4-Dichlorobenzene	(1)	5.475	146	748737	47.155
28) 1,2-Dichlorobenzene	(1)	5.616	146	725286	47.194
27) Benzyl alcohol	(1)	5.622	108	624459	56.759
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.745	45	900801	49.326
31) 2-Methylphenol	(1)	5.769	108	859274	50.869
36) Acetophenone	(1)	5.863	105	1233636	54.121
38) N-Nitroso-di-n-propylamine	(1)	5.881	70	805927	50.054
37) 4-Methylphenol	(1)	5.922	108	997486	58.309
43) Hexachloroethane	(1)	5.939	117	307365	51.429
44)$Nitrobenzene-d5	(2)	6.004	82	2201555	98.680
45) Nitrobenzene	(2)	6.022	77	1130942	48.597
50) Isophorone	(2)	6.269	82	2077050	49.385
51) 2-Nitrophenol	(2)	6.328	139	446162	53.215
53) 2,4-Dimethylphenol	(2)	6.416	107	1001614	54.064
55) bis(2-Chloroethoxy)methane	(2)	6.481	93	1175675	50.288
60) 2,4-Dichlorophenol	(2)	6.586	162	692322	53.556
62) 1,2,4-Trichlorobenzene	(2)	6.645	180	677353	49.686
65)*Naphthalene-d8	(2)	6.692	136	846796	20.000
66) Naphthalene	(2)	6.716	128	2442397	51.063
67) 4-Chloroaniline	(2)	6.786	127	990118	50.283
71) Hexachlorobutadiene	(2)	6.839	225	347550	47.510
76) Caprolactam	(2)	7.181	113	362065A	60.317
80) 4-Chloro-3-methylphenol	(2)	7.304	107	932683	57.806
83) 2-Methylnaphthalene	(2)	7.392	142	1732086	51.065
84) 1-Methylnaphthalene	(2)	7.486	142	1638117	50.656
85) Hexachlorocyclopentadiene	(3)	7.545	237	235892	32.310
90) 2,4,6-Trichlorophenol	(3)	7.692	196	533996	54.123
92) 2,4,5-Trichlorophenol	(3)	7.739	196	590413	54.940
93)$2-Fluorobiphenyl	(3)	7.763	172	3886983	96.953
95) 1,1'-Biphenyl	(3)	7.857	154	2121237	48.571
96) 2-Chloronaphthalene	(3)	7.869	162	1911682M	55.780

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
100) 2-Nitroaniline	(3)	7.986	138	620116	57.912
106) Dimethylphthalate	(3)	8.175	163	2014966	50.192
108) 2,6-Dinitrotoluene	(3)	8.228	165	487646	54.094
109) Acenaphthylene	(3)	8.269	152	2385280	50.462
112) 3-Nitroaniline	(3)	8.392	138	537049	53.136
113)*Acenaphthene-d10	(3)	8.410	164	495328	20.000
114) Acenaphthene	(3)	8.439	153	1789205	51.210
115) 2,4-Dinitrophenol	(3)	8.492	184	313392	51.551
119) Dibenzofuran	(3)	8.610	168	2494662	51.285
116) 4-Nitrophenol	(3)	8.616	109	399544	56.941
118) 2,4-Dinitrotoluene	(3)	8.622	165	694935	55.478
124) Diethylphthalate	(3)	8.863	149	1985100	49.262
126) Fluorene	(3)	8.945	166	2165479	53.259
127) 4-Chlorophenyl-phenylether	(3)	8.951	204	1004354	53.138
129) 4-Nitroaniline	(3)	8.998	138	595798	54.114
130) 4,6-Dinitro-2-methylphenol	(4)	9.022	198	425896	57.573
131) N-Nitrosodiphenylamine	(4)	9.080	169	1874138	53.221
135)$2,4,6-Tribromophenol	(3)	9.192	330	481644	121.406
143) 4-Bromophenyl-phenylether	(4)	9.433	248	549499	50.091
145) Hexachlorobenzene	(4)	9.486	284	520973	50.916
149) Pentachlorophenol	(4)	9.698	266	283454	41.485
153)*Phenanthrene-d10	(4)	9.863	188	998220	20.000
155) Phenanthrene	(4)	9.886	178	3085866	49.465
157) Anthracene	(4)	9.939	178	3132809	50.860
163) Carbazole	(4)	10.110	167	2824736	50.558
165) Di-n-butylphthalate	(4)	10.469	149	3432086	49.260
173) Fluoranthene	(4)	11.051	202	3137248	48.830
175)*Pyrene-d10	(5)	11.251	212	912794	20.000
177) Pyrene	(5)	11.274	202	3112936	47.258
179)$Terphenyl-d14	(5)	11.445	244	4310186	97.649
188) Butylbenzylphthalate	(5)	11.939	149	1619344	52.844
193) 3,3'-Dichlorobenzidine	(5)	12.451	252	1098941	52.675
195) Benzo(a)anthracene	(5)	12.463	228	3057043	50.738
196) Chrysene	(5)	12.498	228	2722716	46.985
199) bis(2-Ethylhexyl)phthalate	(5)	12.527	149	2277182	54.856
205) Di-n-octylphthalate	(6)	13.180	149	3947423	55.906
206) Benzo(b)fluoranthene	(6)	13.539	252	2720045	48.570
208) Benzo(k)fluoranthene	(6)	13.562	252	2571718	48.389
211) Benzo(a)pyrene	(6)	13.845	252	2429136	49.865
213)*Perylene-d12	(6)	13.892	264	784007	20.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

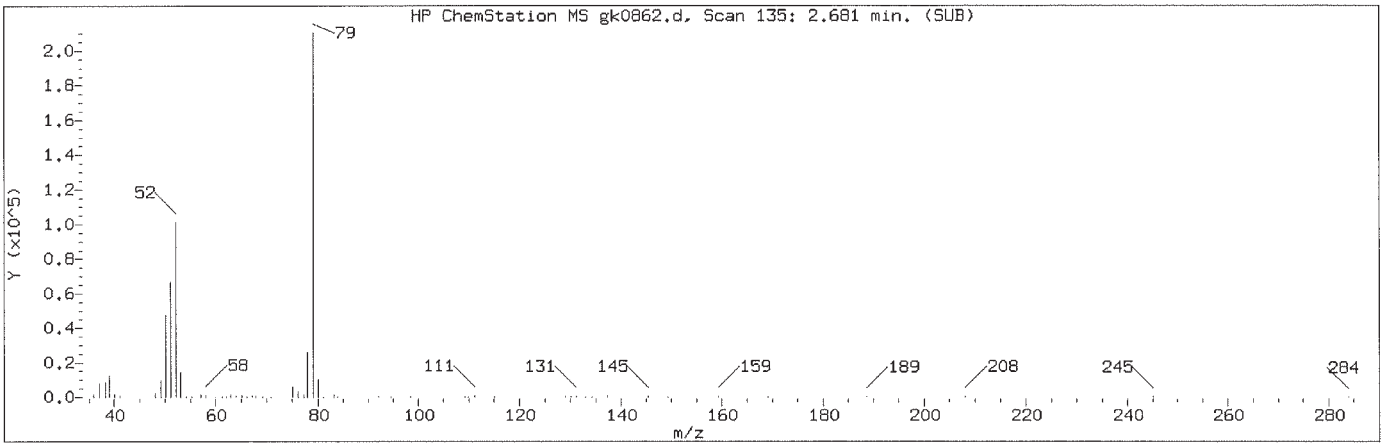
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

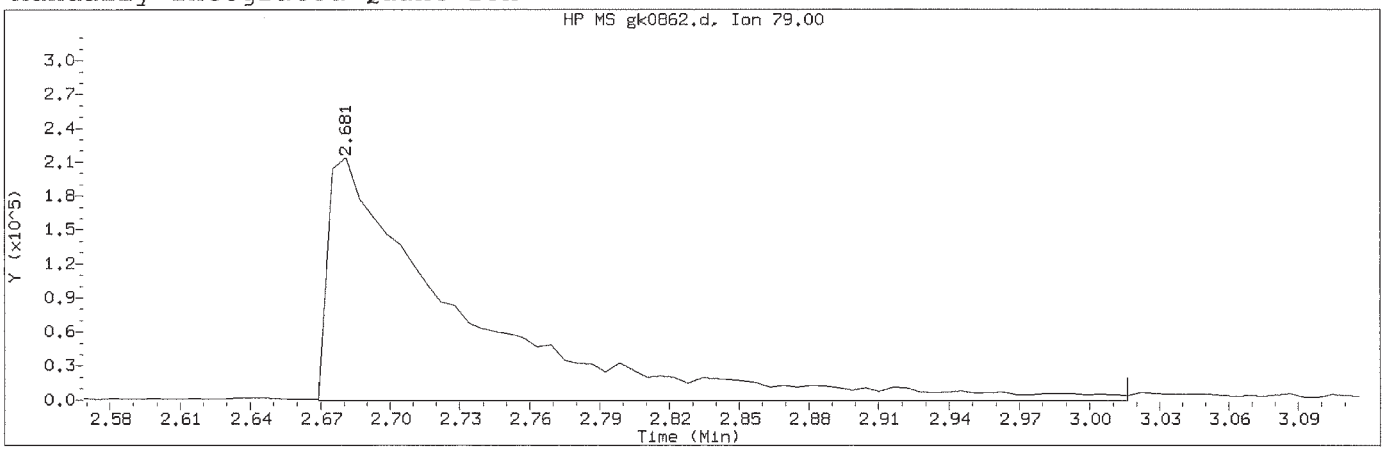
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
219) Indeno(1,2,3-cd)pyrene	(6)	14.986	276	2522289	51.247
220) Dibenz(a,h)anthracene	(6)	15.004	278	2174482	53.523
221) Benzo(g,h,i)perylene	(6)	15.292	276	2081921	49.797

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

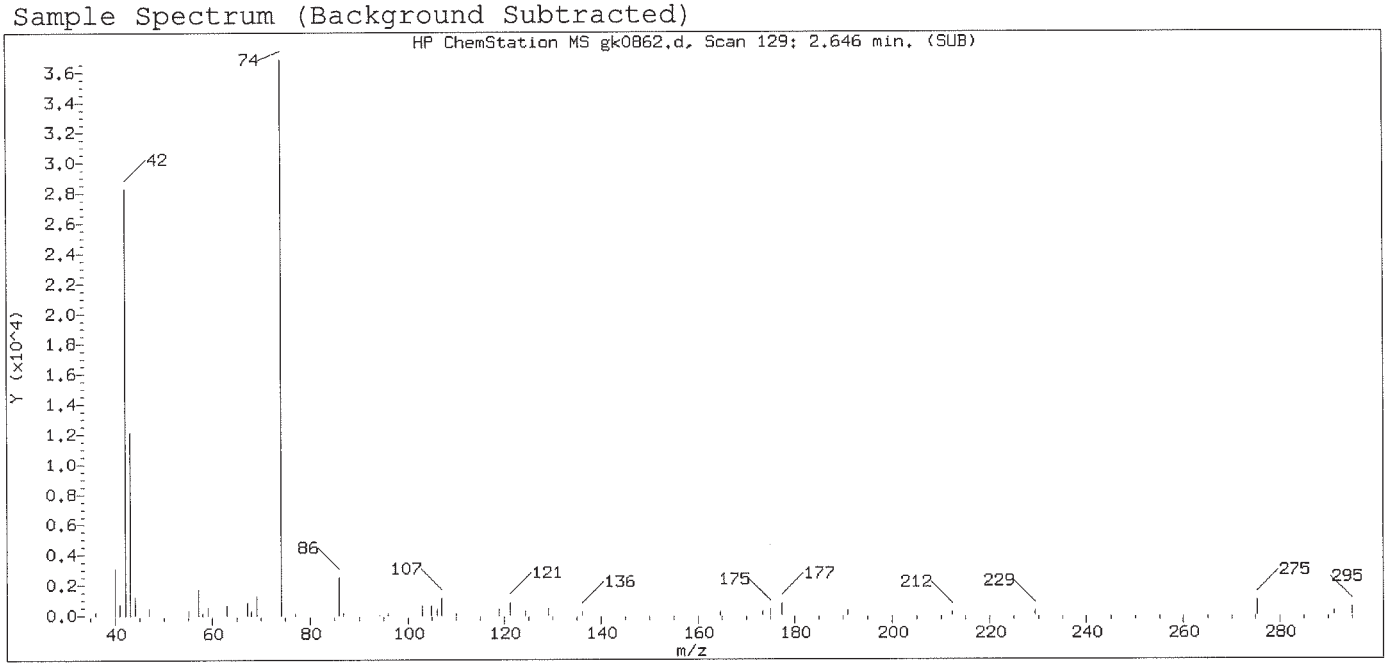
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 135		
Retention Time (minutes)	: 2.681		
Quant Ion	: 79.00		
Area (flag)	: 855833M		
On-Column Amount (ng/ul)	: 50.6751		
Integration start scan	: 132	Integration stop scan:	191
Y at integration start	: -675	Y at integration end:	-675

Reason for manual integration: improper integration

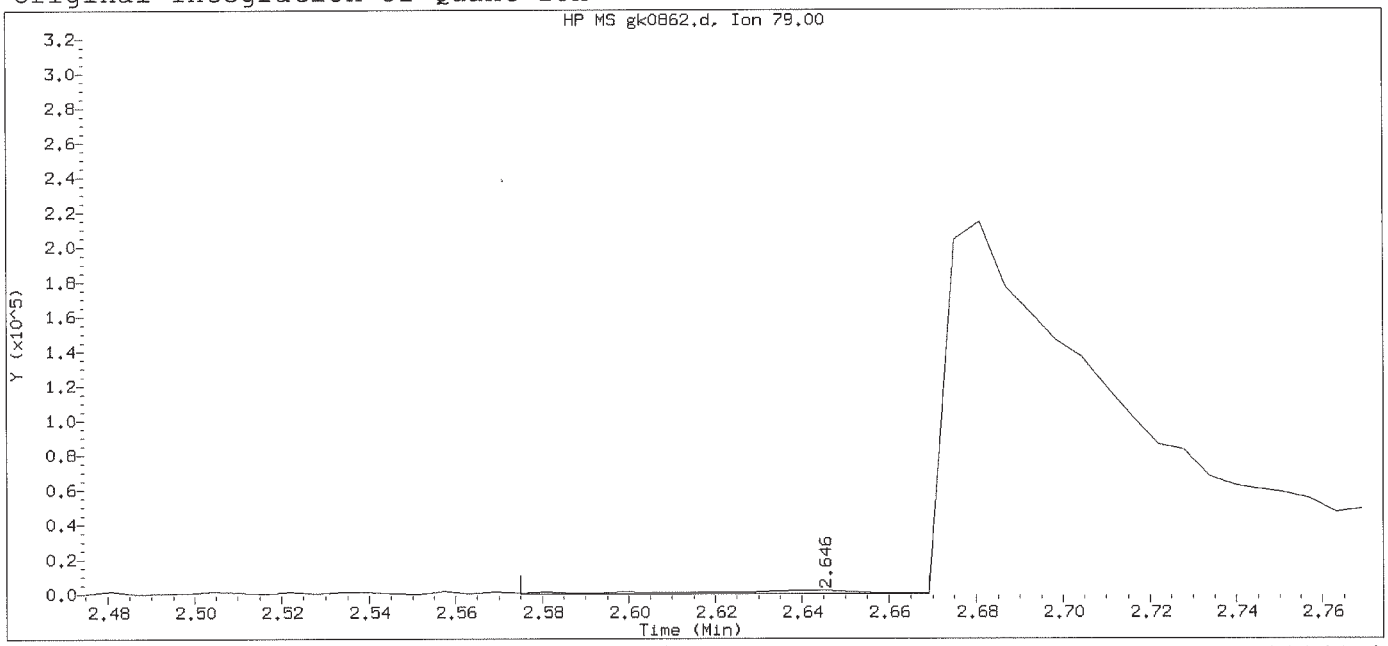
Analyst responsible for change: Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

GC/MS audit/management approval: CAM 1237 11-20-18

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

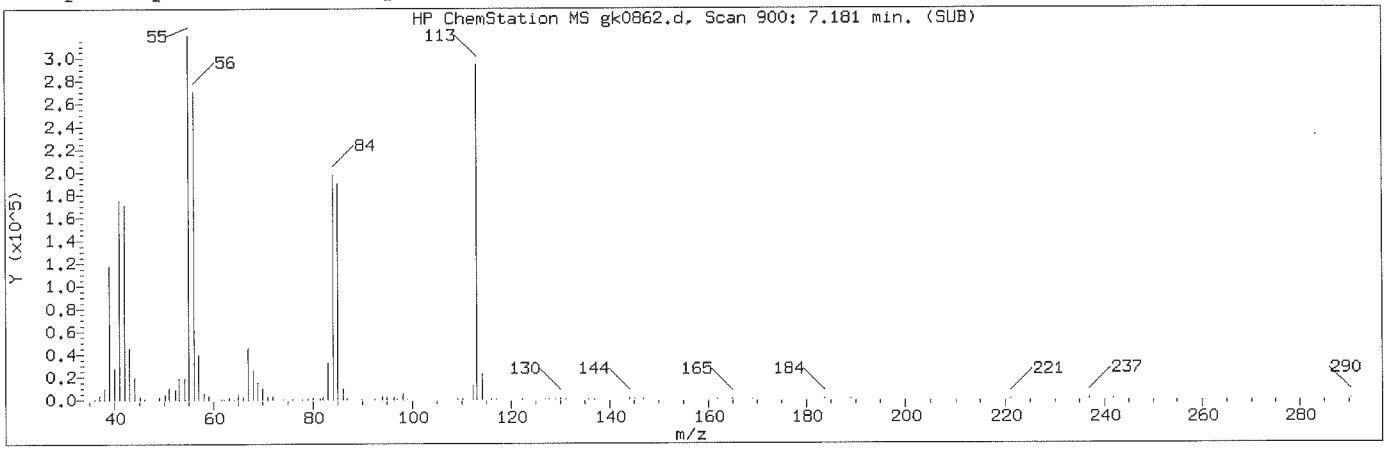
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 16-NOV-2018 19:10
Date, time and analyst ID of latest file update: 16-Nov-2018 19:15 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

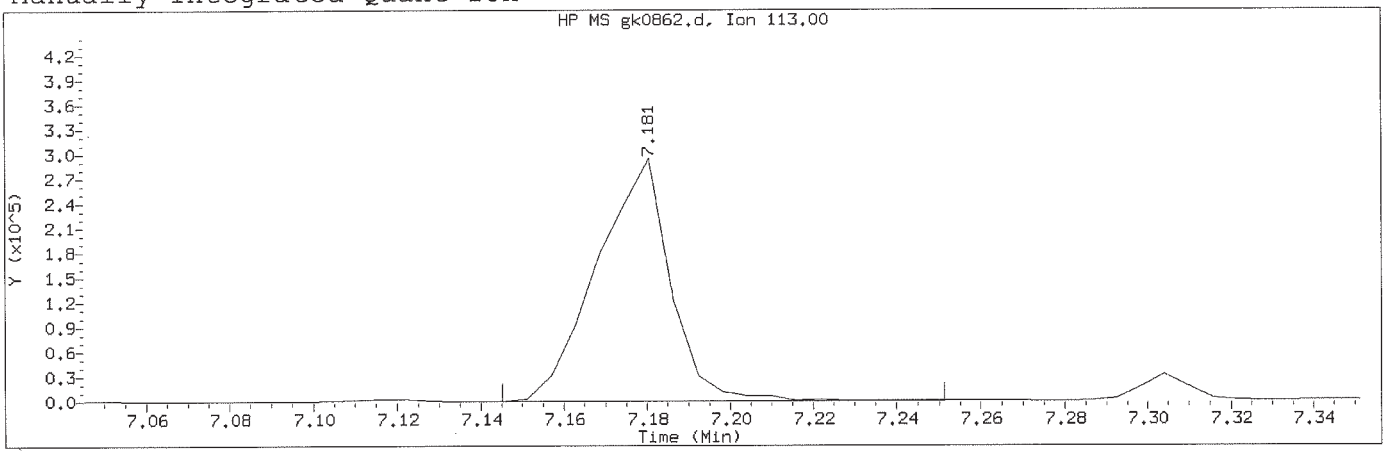
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 129		
Retention Time (minutes)	: 2.646		
Quant Ion	: 79.00		
Area	: 6248		
On-column Amount (ng/ul)	: 0.3885		
Integration start scan	: 116	Integration stop scan:	132
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

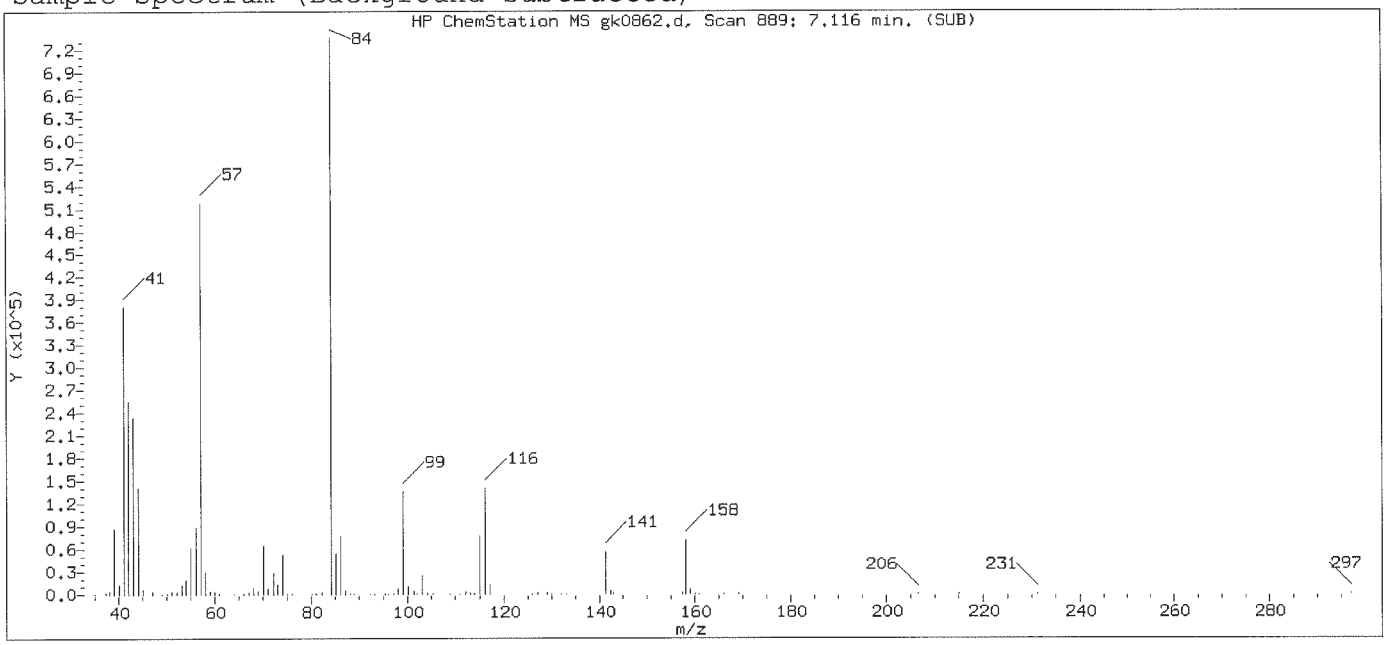
Compound Number	: 76		
Compound Name	: Caprolactam		
Scan Number	: 900		
Retention Time (minutes)	: 7.181		
Quant Ion	: 113.00		
Area (flag)	: 362065A		
On-Column Amount (ng/ul)	: 60.3172		
Integration start scan	: 893	Integration stop scan:	911
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

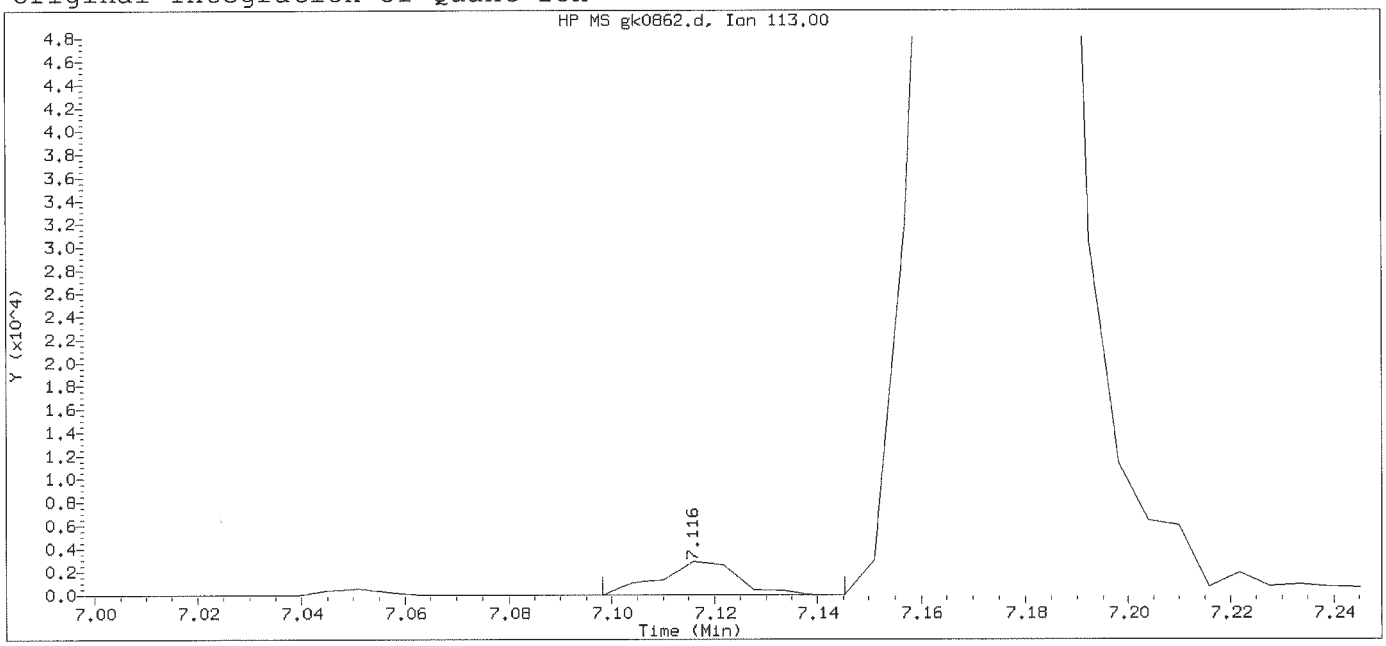
Analyst responsible for change: Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

GC/MS audit/management approval: CAM 1237 11-20-18

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

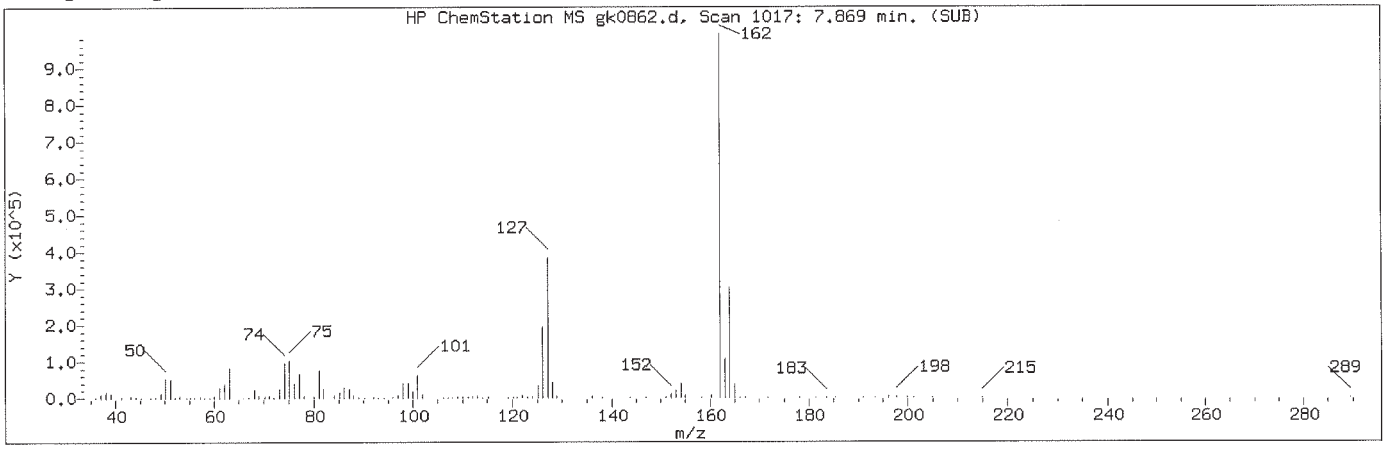
Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 16-NOV-2018 19:10
Date, time and analyst ID of latest file update: 16-Nov-2018 19:15 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

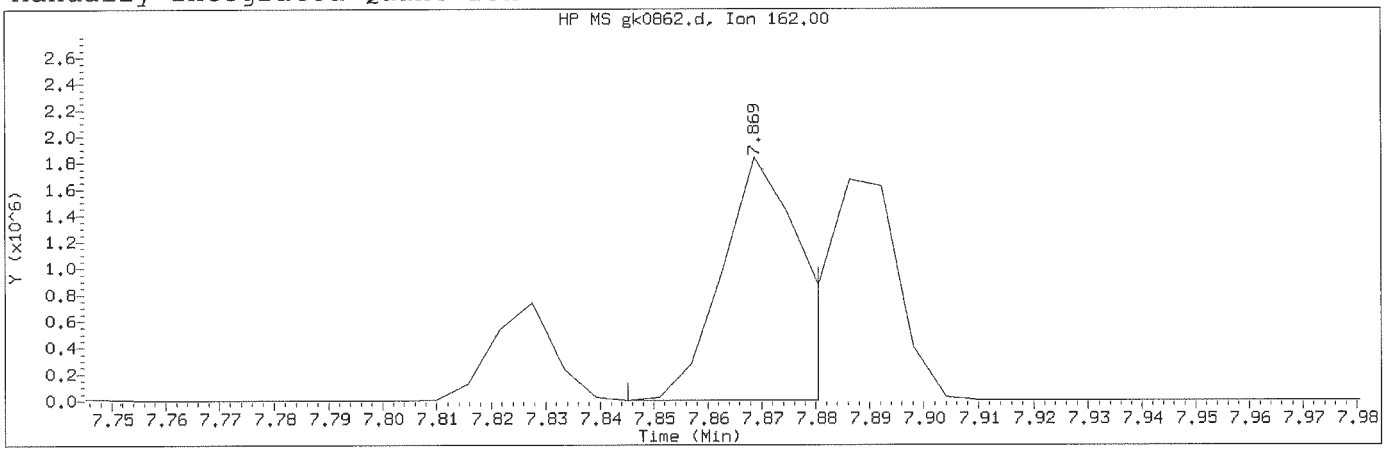
Compound Number	: 76		
Compound Name	: Caprolactam		
Scan Number	: 889		
Retention Time (minutes)	: 7.116		
Quant Ion	: 113.00		
Area	: 3058		
On-column Amount (ng/ul)	: 0.5349		
Integration start scan	: 885	Integration stop scan:	893
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:12 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

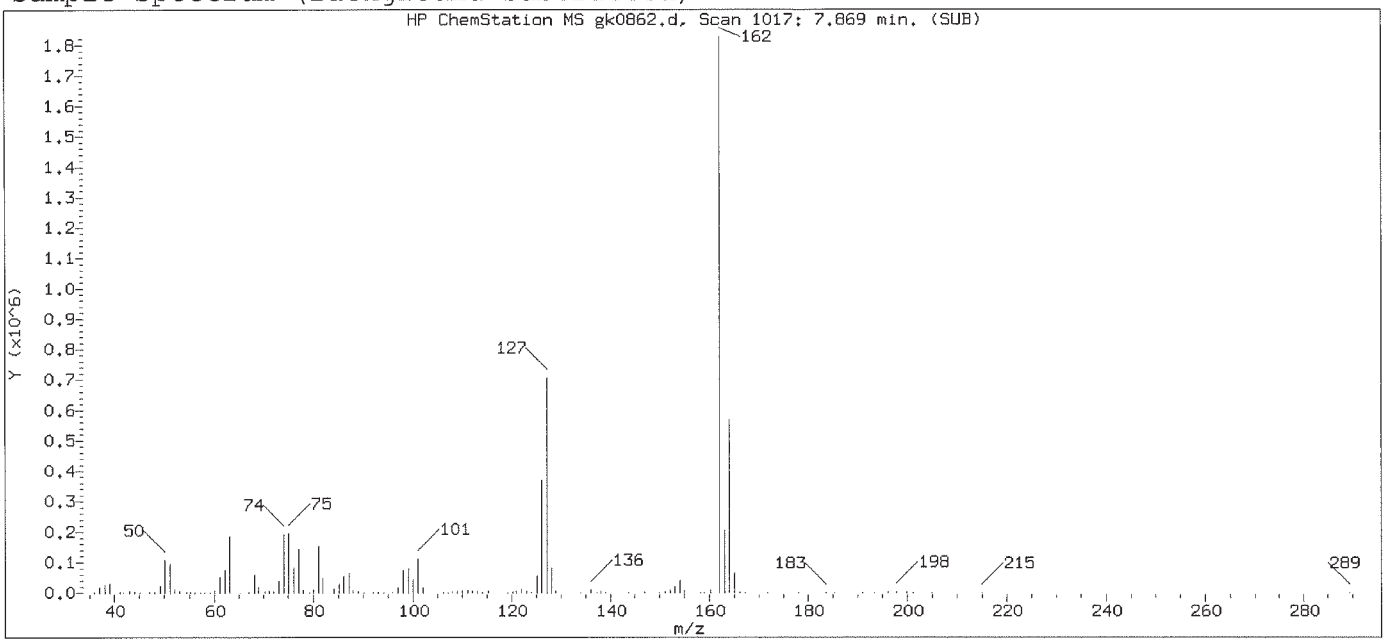
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1017		
Retention Time (minutes)	: 7.869		
Quant Ion	: 162.00		
Area (flag)	: 1911682M		
On-Column Amount (ng/ul)	: 55.7798		
Integration start scan	: 1012	Integration stop scan:	1018
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

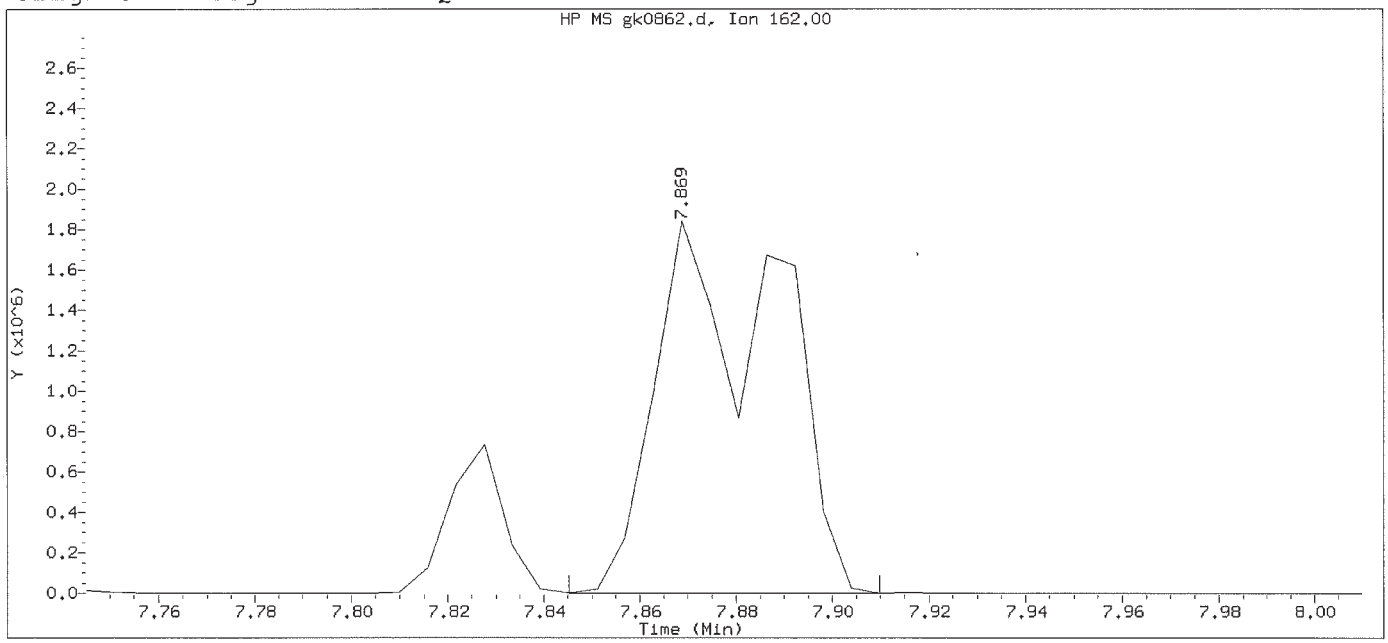
Analyst responsible for change: Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

GC/MS audit/management approval: CAM 1237 11-20-18

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0862.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 18:30 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 18nov16
Calibration date and time: 16-NOV-2018 19:10
Date, time and analyst ID of latest file update: 16-Nov-2018 19:15 bkc25363

Sample Name: SECC50 Lab Sample ID: STD2928

Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 1017		
Retention Time (minutes)	: 7.869		
Quant Ion	: 162.00		
Area	: 3223220		
On-column Amount (ng/ul)	: 98.7508		
Integration start scan	: 1012	Integration stop scan:	1023
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Data File: /chem/HP23262.i/18nov09a.b/pk0310.d

Date : 09-NOV-2018 15:24

Client ID: DFTPP050

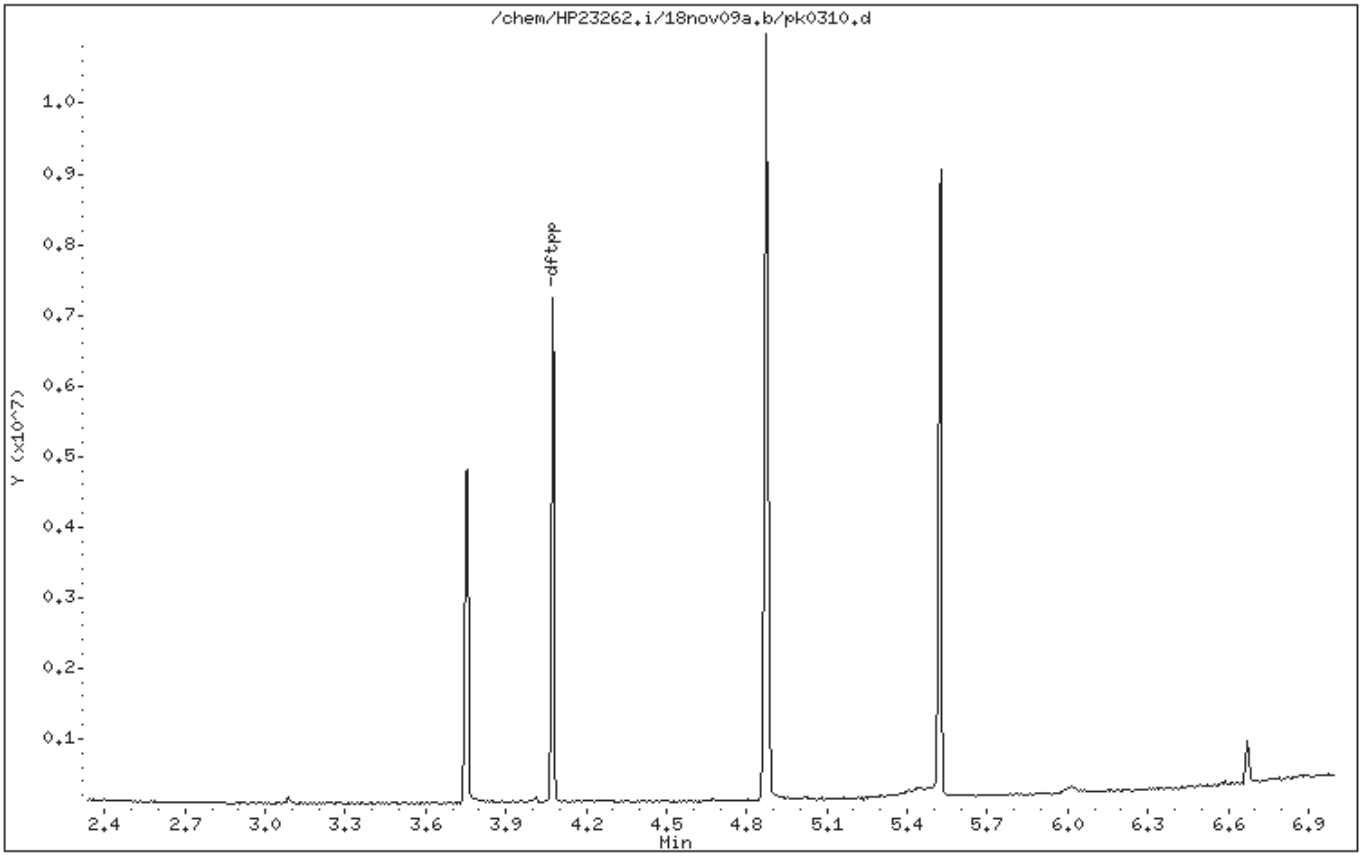
Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP23262.i/18nov09a.b/pk0310.d

Date : 09-NOV-2018 15:24

Client ID: DFTPP050

Instrument: HP23262.i

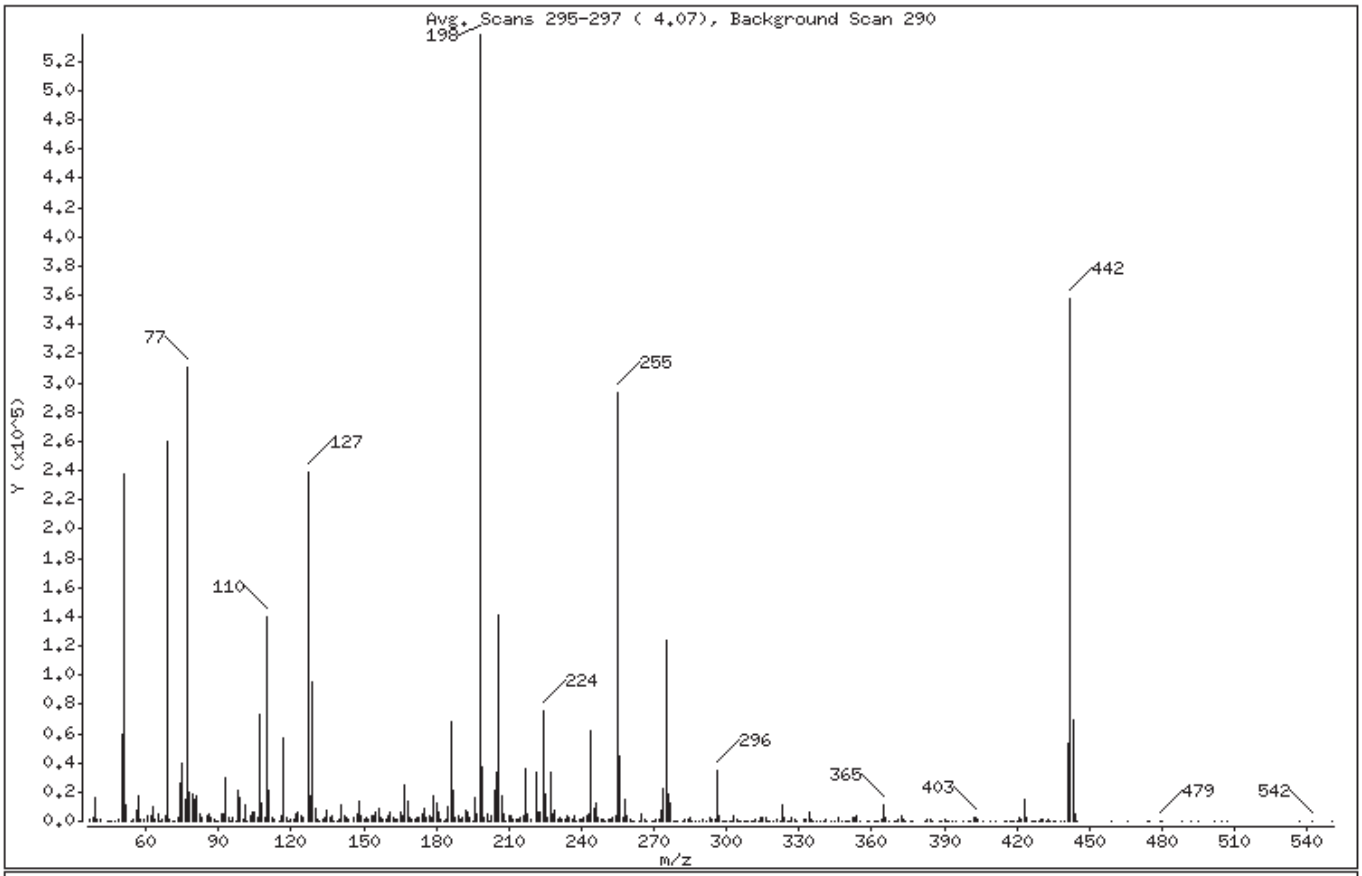
Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	44.08
68	Less than 2.00% of mass 69	0.70 (1.45)
69	Mass 69 relative abundance	48.28
70	Less than 2.00% of mass 69	0.26 (0.53)
127	10.00 - 80.00% of mass 198	44.37
197	Less than 2.00% of mass 198	1.02
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 60.00% of mass 198	23.09
365	Greater than 1.00% of mass 198	2.10
441	0.01 - 24.00% of mass 442	9.95 (14.95)
442	50.00 - 99.99% of mass 198	66.55
443	15.00 - 24.00% of mass 442	12.83 (19.28)

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Date : 09-NOV-2018 15:24

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

Data File: pk0310.d
Spectrum: Avg. Scans 295-297 (4.07), Background Scan 290
Location of Maximum: 198.00
Number of points: 377

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1457	140.00	1733	237.00	3438	341.00	1134
38.00	2653	141.00	11294	238.00	350	343.00	292
39.00	15668	142.00	3462	239.00	1504	345.00	113
40.00	1579	143.00	2751	240.00	1761	346.00	2161
41.00	1029	144.00	796	241.00	2059	348.00	58
44.00	161	146.00	2468	242.00	4282	349.00	295
45.00	159	147.00	4843	243.00	4836	350.00	387
46.00	139	148.00	13476	244.00	61648	351.00	374
47.00	215	149.00	3609	245.00	8504	352.00	2584
49.00	624	150.00	888	246.00	12316	353.00	2356
50.00	58824	151.00	1961	247.00	2676	354.00	3692
51.00	237248	152.00	1062	248.00	879	355.00	588
52.00	11095	153.00	4003	249.00	1589	358.00	198
54.00	574	154.00	3208	250.00	383	359.00	201
55.00	809	155.00	6228	251.00	1475	361.00	103
56.00	7883	156.00	9066	252.00	1539	362.00	76
57.00	17272	157.00	2370	253.00	1981	363.00	405
58.00	1144	158.00	1797	254.00	3617	364.00	624
59.00	910	159.00	1717	255.00	292992	365.00	11320
61.00	3126	160.00	4279	256.00	44864	366.00	2182
62.00	3340	161.00	5635	257.00	2693	367.00	132
63.00	9959	162.00	2034	258.00	15401	369.00	81
64.00	967	163.00	784	259.00	3529	370.00	520
65.00	4399	164.00	1394	260.00	960	371.00	848
66.00	517	165.00	6476	261.00	460	372.00	3819
67.00	867	166.00	3346	262.00	267	373.00	803
68.00	3770	167.00	24360	264.00	459	374.00	154
69.00	259840	168.00	13504	265.00	5358	376.00	73
70.00	1382	169.00	3027	266.00	988	377.00	61
71.00	312	170.00	1339	267.00	530	382.00	236
72.00	126	171.00	1594	269.00	41	383.00	1075
73.00	2982	172.00	1993	270.00	561	384.00	753
74.00	25928	173.00	2995	271.00	924	385.00	231
75.00	39448	174.00	4815	272.00	1089	388.00	260
76.00	14884	175.00	8425	273.00	7728	389.00	136

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Date : 09-NOV-2018 15:24

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

Data File: pk0310.d
Spectrum: Avg. Scans 295-297 (4.07), Background Scan 290
Location of Maximum: 198.00
Number of points: 377

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	310080	176.00	2566	274.00	22280	390.00	1252
78.00	19728	177.00	4307	275.00	124288	391.00	464
79.00	18304	178.00	2134	276.00	18000	392.00	490
80.00	14596	179.00	17024	277.00	12965	393.00	105
81.00	17616	180.00	12397	278.00	144	395.00	285
82.00	4500	181.00	5771	279.00	185	398.00	90
83.00	2749	182.00	1798	280.00	71	400.00	119
85.00	3786	183.00	309	282.00	10	401.00	367
86.00	4864	184.00	1475	283.00	1204	402.00	2074
87.00	2696	185.00	9804	284.00	793	403.00	2523
88.00	1289	186.00	68168	285.00	2058	404.00	867
89.00	432	187.00	21600	286.00	325	406.00	114
90.00	213	188.00	2166	287.00	132	409.00	135
91.00	5238	189.00	3435	289.00	67	411.00	320
92.00	4379	190.00	725	290.00	876	415.00	244
93.00	30216	191.00	2986	292.00	358	416.00	135
94.00	2173	192.00	7153	293.00	1893	417.00	79
95.00	512	193.00	6225	294.00	1039	418.00	176
96.00	2028	194.00	1881	295.00	1232	419.00	118
97.00	381	195.00	388	296.00	34328	420.00	453
98.00	21000	196.00	15719	297.00	3593	421.00	2202
99.00	16472	197.00	5515	298.00	135	422.00	1809
100.00	1721	198.00	538240	299.00	51	423.00	14830
101.00	11339	199.00	37016	300.00	420	424.00	2395
102.00	493	200.00	2708	301.00	171	426.00	163
103.00	3904	201.00	5506	302.00	123	427.00	151
104.00	5624	202.00	246	303.00	3601	428.00	346
105.00	5580	203.00	3515	304.00	1188	429.00	560
106.00	2001	204.00	21432	305.00	94	430.00	717
107.00	73520	205.00	32824	306.00	188	431.00	1065
108.00	12900	206.00	140608	307.00	388	432.00	244
109.00	2049	207.00	17656	308.00	143	433.00	905
110.00	139712	208.00	4565	309.00	414	434.00	349
111.00	21152	209.00	76	310.00	285	435.00	61
112.00	2962	210.00	4065	311.00	314	436.00	295

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Date : 09-NOV-2018 15:24

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: lmh00956

Column phase: DB-5MS Column diameter: 0.18

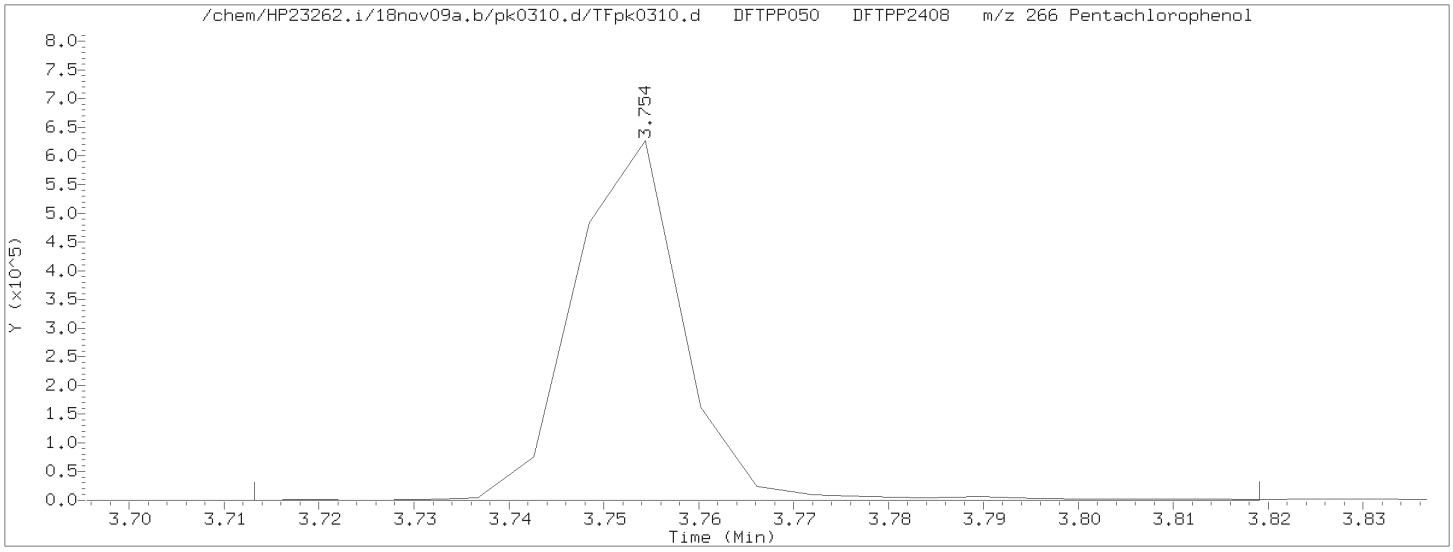
Data File: pk0310.d
Spectrum: Avg. Scans 295-297 (4.07), Background Scan 290
Location of Maximum: 198.00
Number of points: 377

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1537	211.00	3719	312.00	623	438.00	528
115.00	56	212.00	623	313.00	165	440.00	152
116.00	4075	213.00	1029	314.00	1940	441.00	53560
117.00	57200	214.00	759	315.00	2812	442.00	358208
118.00	2776	215.00	2612	316.00	2198	443.00	69064
119.00	576	216.00	3159	317.00	490	444.00	4711
120.00	710	217.00	35528	318.00	141	445.00	454
121.00	945	218.00	4684	319.00	103	459.00	83
122.00	4907	219.00	762	321.00	1429	466.00	104
123.00	6260	221.00	33096	322.00	525	474.00	53
124.00	3342	222.00	5923	323.00	10796	475.00	103
125.00	2769	223.00	6680	324.00	2630	479.00	191
127.00	238784	224.00	76016	325.00	456	480.00	117
128.00	17624	225.00	18432	326.00	219	488.00	51
129.00	94968	226.00	2060	327.00	2634	492.00	82
130.00	8411	227.00	34008	328.00	805	495.00	64
131.00	1236	228.00	4856	329.00	153	502.00	145
132.00	265	229.00	7751	332.00	762	505.00	82
133.00	742	230.00	1795	333.00	775	507.00	90
134.00	2947	231.00	3077	334.00	5603	537.00	61
135.00	7565	232.00	1154	335.00	1708	542.00	144
136.00	2065	233.00	852	336.00	278	550.00	76
137.00	4137	234.00	3244	337.00	130		
138.00	517	235.00	2635	339.00	91		
139.00	287	236.00	1511	340.00	212		

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

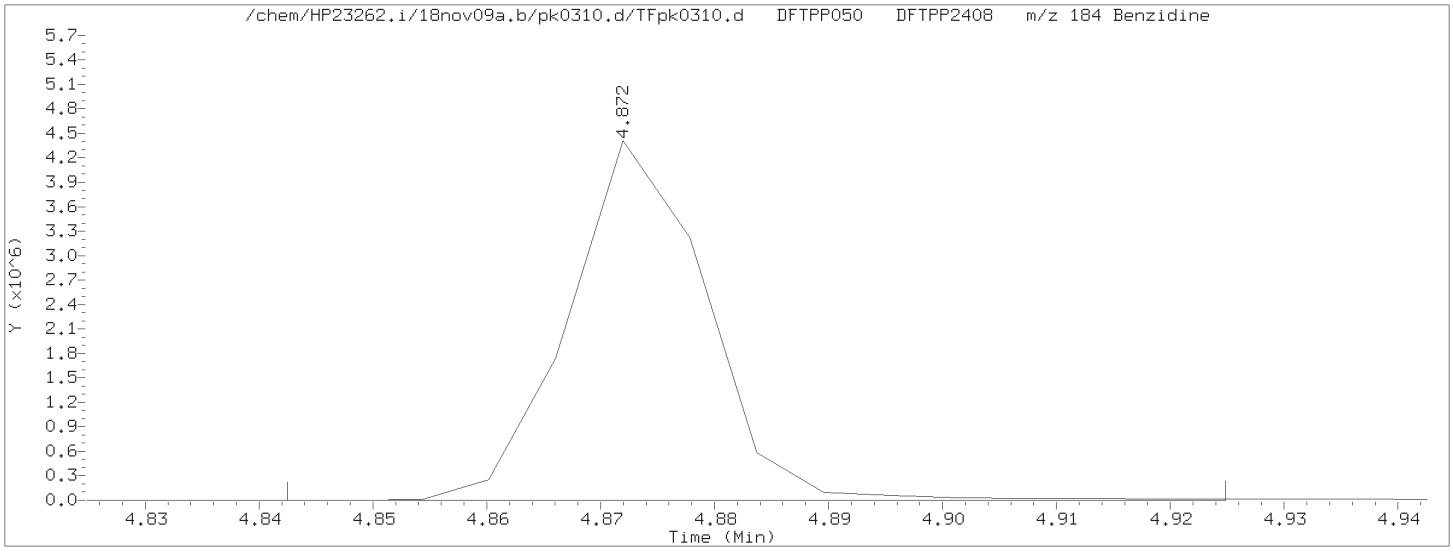
Instrument ID: HP23262.i Injection Date: 09-NOV-2018 15:24 Operator: lmh00956



Pentachlorophenol EICP peak height = 626944 EICP peak height at 10% = 62694 Pentachlorophenol EICP area = 498293

Pentachlorophenol EICP peak apex (min.) = 3.754
RT at 10% of front half of EICP (min.) = 3.742 'Front' peak width (min.) = 0.0127500000
RT at 10% of back half of EICP (min.) = 3.764 'Tailing' peak width (min.) = 0.0100666667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0100666667}{0.0127500000} = 0.790$



Benzidine EICP peak height = 4411768 EICP peak height at 10% = 441177 Benzidine EICP area = 3692081

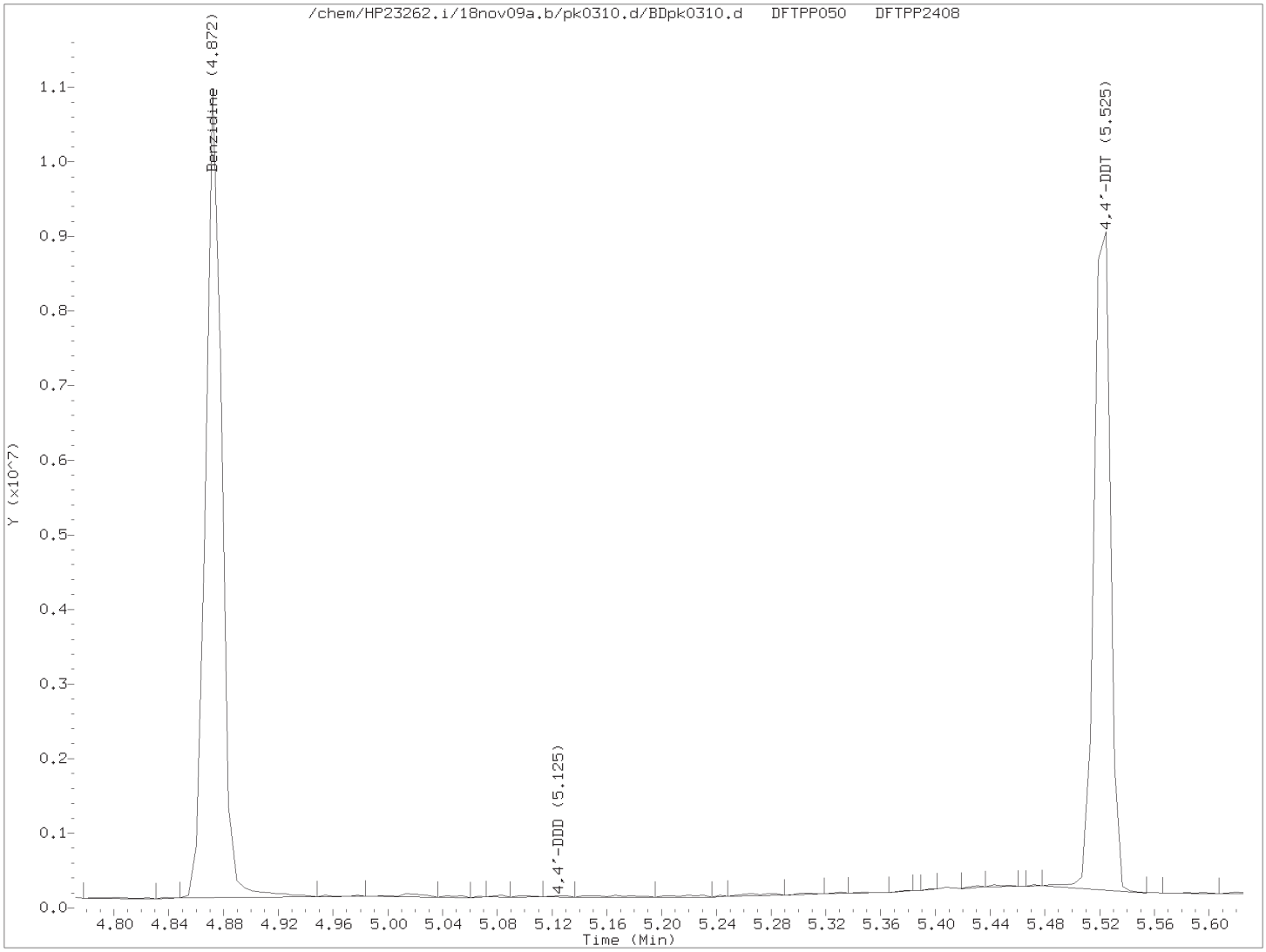
Benzidine EICP peak apex (min.) = 4.872
RT at 10% of front half of EICP (min.) = 4.861 'Front' peak width (min.) = 0.0109833333
RT at 10% of back half of EICP (min.) = 4.885 'Tailing' peak width (min.) = 0.0134166667

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0134166667}{0.0109833333} = 1.222$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

Instrument ID: HP23262.i Injection Date: 09-NOV-2018 15:24 Operator: lmh00956

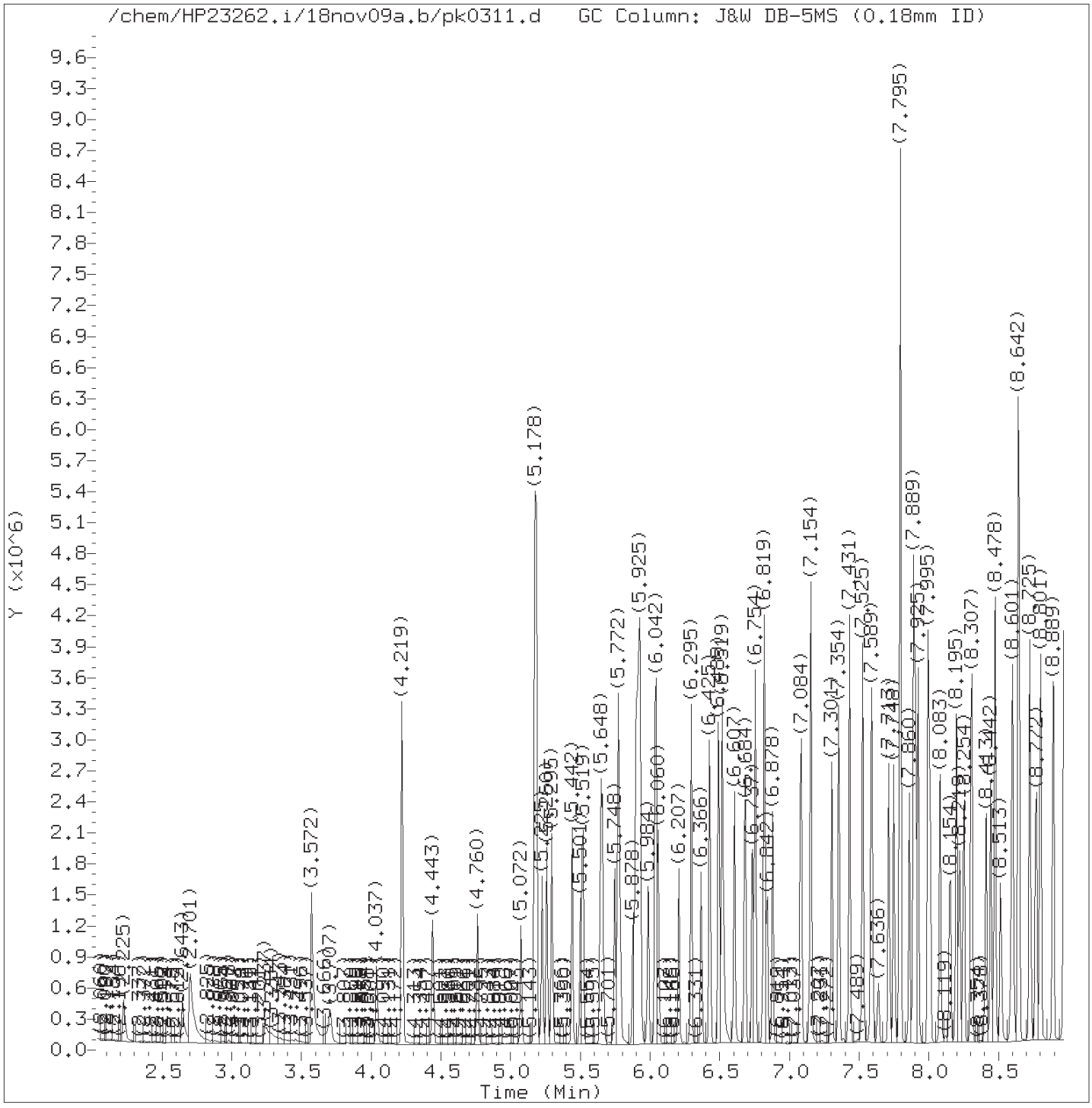


$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{0 + 13139}{0 + 13139 + 7541409} \times 100 = 0.2$$

printed on 11/09/2018 at 15:37

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

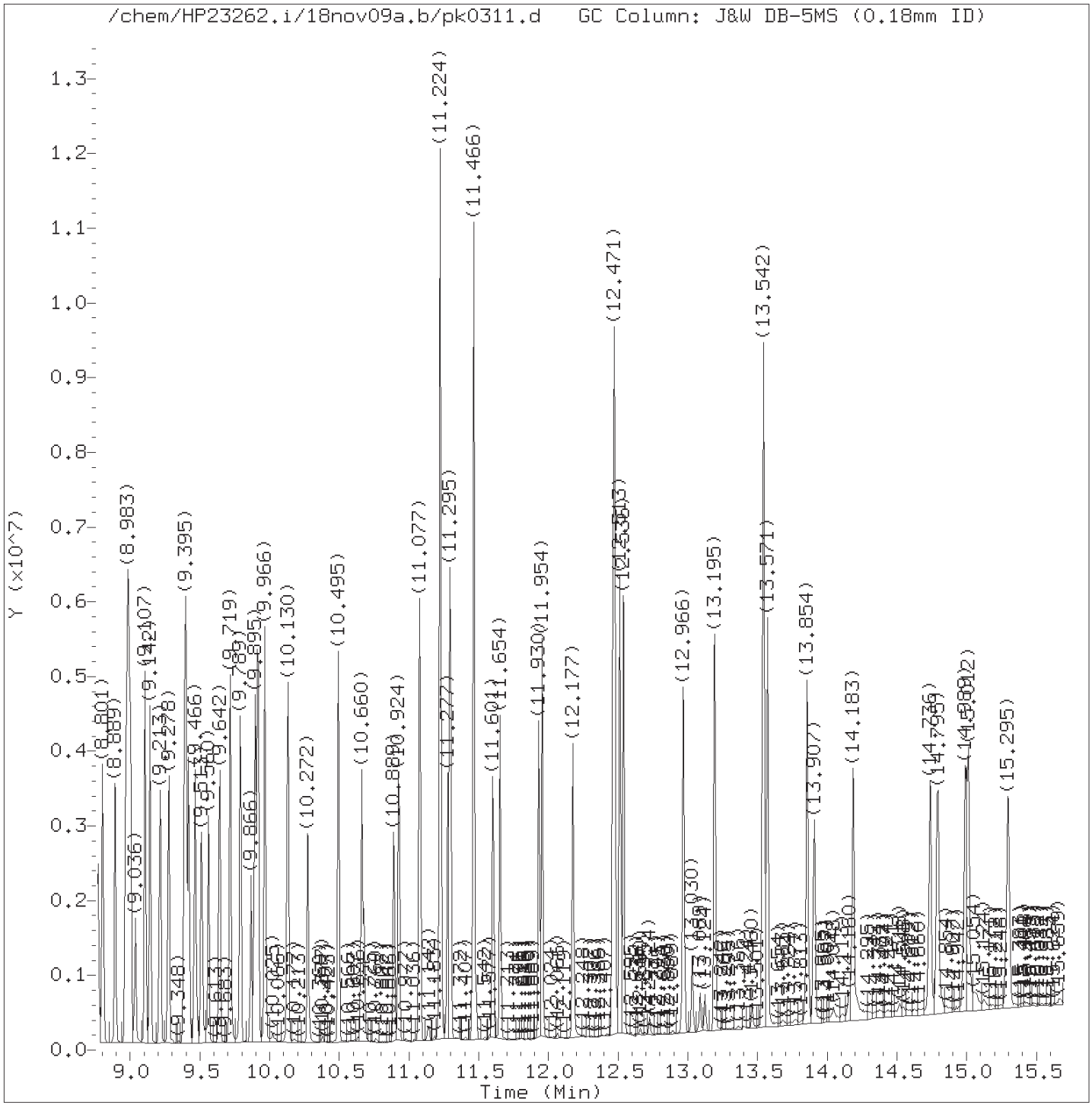
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.225	88	196677	30.000
4) N-Nitrosodimethylamine	(1)	2.643	74	319557	30.000
5) Pyridine	(1)	2.701	79	581139	30.000
7) 2-Picoline	(1)	3.572	93	588478	30.000
8) N-Nitrosomethylethylamine	(1)	3.707	88	253835M	30.000
9) Methyl methanesulfonate	(1)	4.037	80	261457	30.000
11)$2-Fluorophenol	(1)	4.219	112	824638	60.000
13) N-Nitrosodiethylamine	(1)	4.443	102	245596	30.000
15) Ethyl methanesulfonate	(1)	4.760	109	241289	30.000
17)$Phenol-d6	(1)	5.172	99	1306084	60.000
18) Phenol	(1)	5.184	94	760511	30.000
19) Aniline	(1)	5.184	93	868199	30.000
22) bis(2-Chloroethyl)ether	(1)	5.260	93	559649	30.000
23) 2-Chlorophenol	(1)	5.295	128	418744	30.000
24) 1,3-Dichlorobenzene	(1)	5.442	146	416137	30.000
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	179919	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	417661	30.000
27) Benzyl alcohol	(1)	5.648	108	341925	30.000
42) Total Cresols	(1)			1038868	60.000
28) 1,2-Dichlorobenzene	(1)	5.660	146	425381	30.000
30) Indene	(1)	5.748	115	500167	30.000
31) 2-Methylphenol	(1)	5.772	108	481241	30.000
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	812682	30.000
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	812682	30.000
35) N-Nitrosopyrrolidine	(1)	5.878	100	304803	30.000
36) Acetophenone	(1)	5.895	105	711454	30.000
38) N-Nitroso-di-n-propylamine	(1)	5.907	70	476638	30.000
39) N-Nitrosomorpholine	(1)	5.919	56	379712	30.000
37) 4-Methylphenol	(1)	5.919	108	557627	30.000
40) o-Toluidine	(1)	5.931	106	818334	30.000
43) Hexachloroethane	(1)	5.984	117	175910	30.000
44)$Nitrobenzene-d5	(2)	6.042	82	1241639	60.000
45) Nitrobenzene	(2)	6.060	77	664886	30.000
48) N-Nitrosopiperidine	(2)	6.207	114	277837	30.000
50) Isophorone	(2)	6.295	82	1268063	30.000
51) 2-Nitrophenol	(2)	6.366	139	246463	30.000
53) 2,4-Dimethylphenol	(2)	6.425	107	557305	30.000
57) O,O,O-Triethylphosphorothioate	(2)	6.495	198	271260	30.000
55) bis(2-Chloroethoxy)methane	(2)	6.519	93	742047	30.000
56) Benzoic acid	(2)	6.525	105	508334	40.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.607	162	411321	30.000
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	413720	30.000
65)*Naphthalene-d8	(2)	6.737	136	781428	20.000
66) Naphthalene	(2)	6.754	128	1325369	30.000
67) 4-Chloroaniline	(2)	6.819	127	562355	30.000
68) 2,6-Dichlorophenol	(2)	6.825	162	382303	30.000
69) Hexachloropropene	(2)	6.842	213	249657	30.000
71) Hexachlorobutadiene	(2)	6.878	225	240179	30.000
75) Quinoline	(2)	7.084	129	946635	30.000
77) N-Nitrosodi-n-butylamine	(2)	7.154	84	627580	30.000
76) Caprolactam	(2)	7.154	113	196205	30.000
80) 4-Chloro-3-methylphenol	(2)	7.301	107	500918	30.000
82) Safrole	(2)	7.354	162	377721	30.000
97) Isosafrole	(3)			405892	30.000
83) 2-Methylnaphthalene	(2)	7.431	142	964430	30.000
84) 1-Methylnaphthalene	(2)	7.525	142	895221	30.000
85) Hexachlorocyclopentadiene	(3)	7.584	237	273009	30.000
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.595	216	488969	30.000
88) cis-Isosafrole	(3)	7.636	162	67927	5.100
90) 2,4,6-Trichlorophenol	(3)	7.713	196	338315	30.000
92) 2,4,5-Trichlorophenol	(3)	7.748	196	362325	30.000
93)$2-Fluorobiphenyl	(3)	7.795	172	2324787	60.000
94) trans-Isosafrole	(3)	7.860	162	337965	24.900
95) 1,1'-Biphenyl	(3)	7.889	154	1225862	30.000
96) 2-Chloronaphthalene	(3)	7.907	162	945236	30.000
98) 1-Chloronaphthalene	(3)	7.925	162	935217	30.000
99) Diphenyl ether	(3)	7.995	170	688302	30.000
100) 2-Nitroaniline	(3)	8.007	138	334991	30.000
120) 2,4_2,6-Dinitrotoluenes	(3)			678797	60.000
104) 1,4-Naphthoquinone	(3)	8.083	158	442589	30.000
105) 1,4-Dinitrobenzene	(3)	8.154	168	184895	30.000
106) Dimethylphthalate	(3)	8.201	163	1198373	30.000
107) 1,3-Dinitrobenzene	(3)	8.219	168	221017	30.000
108) 2,6-Dinitrotoluene	(3)	8.254	165	288664	30.000
109) Acenaphthylene	(3)	8.307	152	1423437	30.000
112) 3-Nitroaniline	(3)	8.413	138	297897	30.000
113)*Acenaphthene-d10	(3)	8.442	164	475081	20.000
114) Acenaphthene	(3)	8.478	153	1024170	30.000
115) 2,4-Dinitrophenol	(3)	8.513	184	207417	40.000
116) 4-Nitrophenol	(3)	8.595	109	211736	30.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.601	250	447637	30.000
118) 2,4-Dinitrotoluene	(3)	8.642	165	390133	30.000
119) Dibenzofuran	(3)	8.648	168	1542676	30.000
121) 1-Naphthylamine	(3)	8.725	143	1114122	30.000
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	317971	30.000
146) Diallate trans/cis	(4)			748604	30.000
123) 2-Naphthylamine	(3)	8.801	143	1119950	30.000
124) Diethylphthalate	(3)	8.895	149	1239877	30.000
125) Thionazin	(3)	8.966	107	221804	30.000
126) Fluorene	(3)	8.978	166	1252273	30.000
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	669592	30.000
128) 5-Nitro-o-toluidine	(3)	9.001	152	361292	30.000
129) 4-Nitroaniline	(3)	9.007	138	328380	30.000
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	217040	30.000
132) NDPA as diphenylamine	(4)	9.107	169	1083973	30.000
131) N-Nitrosodiphenylamine	(4)	9.107	169	1083973	30.000
134) 1,2-Diphenylhydrazine	(4)	9.142	77	1659774	30.000
135)$2,4,6-Tribromophenol	(3)	9.213	330	303440	60.000
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	236494	30.000
139) 1,3,5-Trinitrobenzene	(4)	9.383	213	157873	30.000
140) Diallate (peak 1)	(4)	9.395	86	644785	24.900
141) Phorate	(4)	9.401	75	1091259	30.000
142) Phenacetin	(4)	9.419	108	732720	30.000
143) 4-Bromophenyl-phenylether	(4)	9.466	248	380383	30.000
144) Diallate (peak 2)	(4)	9.478	86	103819	5.100
145) Hexachlorobenzene	(4)	9.513	284	356986	30.000
147) Dimethoate	(4)	9.560	87	665781	30.000
149) Pentachlorophenol	(4)	9.713	266	217812	30.000
150) 4-Aminobiphenyl	(4)	9.719	169	495490	30.000
151) Pentachloronitrobenzene	(4)	9.719	237	171772	30.000
152) Pronamide	(4)	9.789	173	586750	30.000
153)*Phenanthrene-d10	(4)	9.895	188	1108399	20.000
154) Dinoseb	(4)	9.901	211	333756	30.000
155) Phenanthrene	(4)	9.919	178	1935498	30.000
157) Anthracene	(4)	9.966	178	2007119	30.000
163) Carbazole	(4)	10.130	167	1781970	30.000
164) Methyl parathion	(4)	10.272	109	470672	30.000
165) Di-n-butylphthalate	(4)	10.495	149	2237426	30.000
167) Parathion	(4)	10.660	109	297608	30.000
168) 4-Nitroquinoline-1-oxide	(4)	10.677	190	180227	30.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

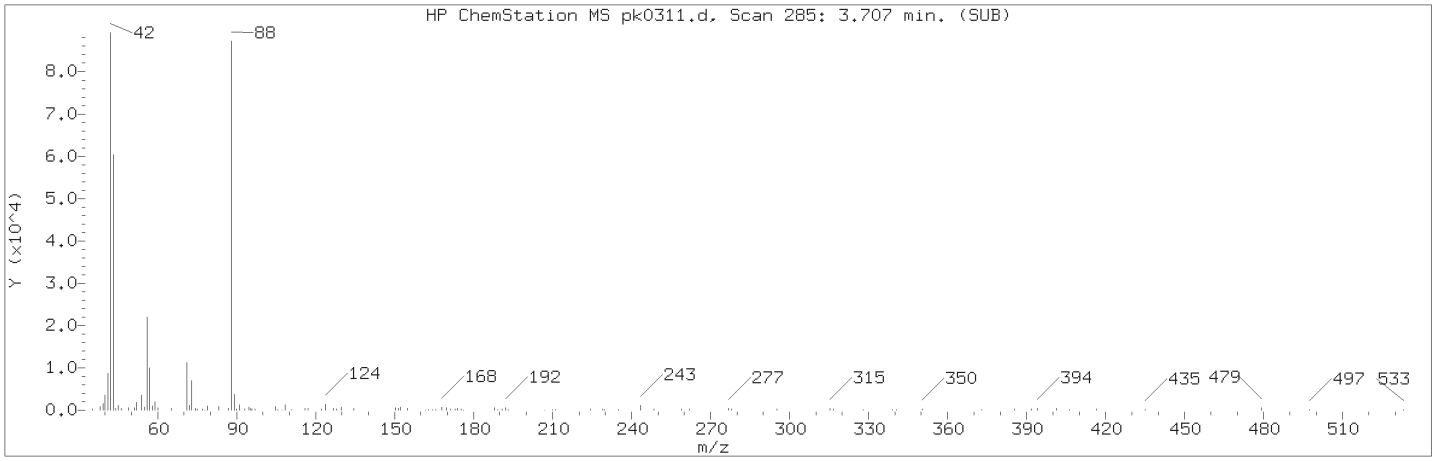
Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	140594	30.000
171) Isodrin	(4)	10.930	193	239570	30.000
173) Fluoranthene	(4)	11.077	202	2315151	30.000
174) Benzidine	(5)	11.224	184	4464539	90.000
175)*Pyrene-d10	(5)	11.277	212	1141913	20.000
177) Pyrene	(5)	11.295	202	2390474	30.000
179)$Terphenyl-d14	(5)	11.466	244	3132464	60.000
182) p-Dimethylaminoazobenzene	(5)	11.601	225	397317	30.000
185) Chlorobenzilate	(5)	11.654	139	610320	30.000
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	1400441	30.000
188) Butylbenzylphthalate	(5)	11.954	149	995557	30.000
191) 2-Acetylaminofluorene	(5)	12.177	181	852133	30.000
193) 3,3'-Dichlorobenzidine	(5)	12.466	252	797476	30.000
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.471	231	420577	30.000
195) Benzo(a)anthracene	(5)	12.477	228	2256879	30.000
196) Chrysene	(5)	12.513	228	2127009	30.000
199) bis(2-Ethylhexyl)phthalate	(5)	12.542	149	1404784	30.000
203) 6-Methylchrysene	(5)	12.971	242	1417924	30.000
205) Di-n-octylphthalate	(6)	13.195	149	2394388	30.000
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.542	256	988103	30.000
206) Benzo(b)fluoranthene	(6)	13.548	252	2102356	30.000
208) Benzo(k)fluoranthene	(6)	13.571	252	2029770	30.000
211) Benzo(a)pyrene	(6)	13.854	252	1905665	30.000
213)*Perylene-d12	(6)	13.907	264	982327	20.000
215) 3-Methylcholanthrene	(6)	14.189	268	781736	30.000
217) Dibenz(a,h)acridine	(6)	14.736	279	1472023	30.000
218) Dibenz(a,j)acridine	(6)	14.795	279	1540975	30.000
219) Indeno(1,2,3-cd)pyrene	(6)	14.989	276	2011668	30.000
222) Total PAHs	(6)			31414584	540.000
220) Dibenz(a,h)anthracene	(6)	15.012	278	1737586	30.000
221) Benzo(g,h,i)perylene	(6)	15.301	276	1710509	30.000

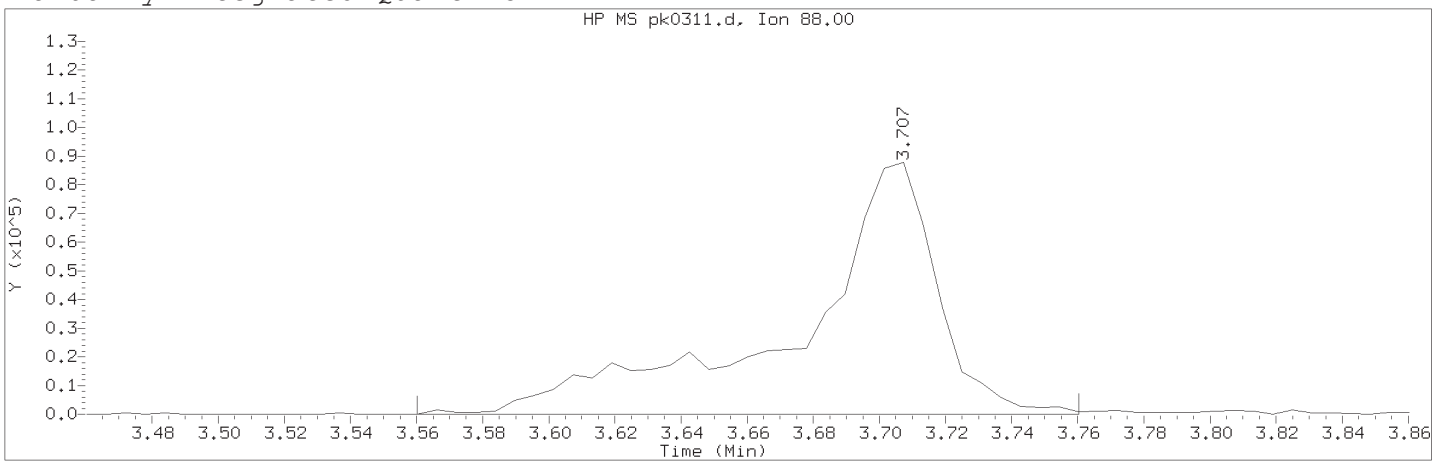
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

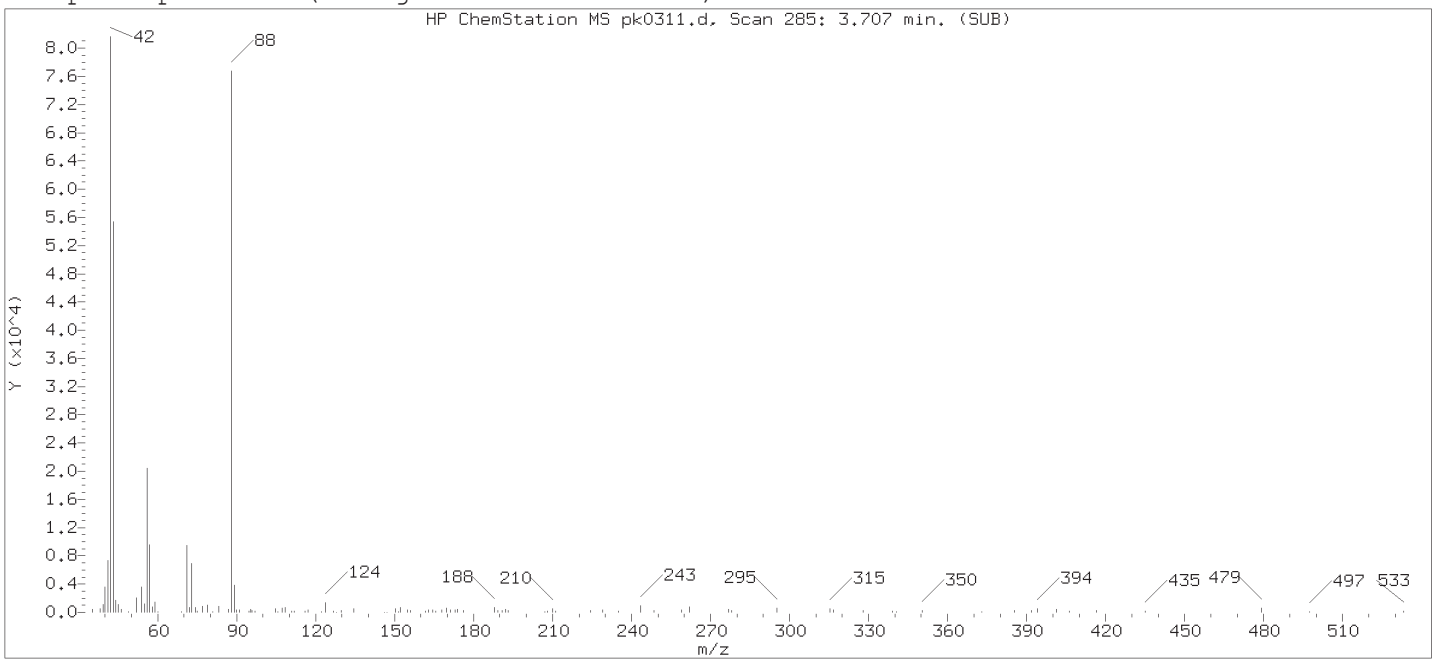
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 285		
Retention Time (minutes)	: 3.707		
Quant Ion	: 88.00		
Area (flag)	: 253835M		
On-Column Amount (ng/ul)	: 30.0000		
Integration start scan	: 259	Integration stop scan:	293
Y at integration start	: 28	Y at integration end:	28

Reason for manual integration: improper integration

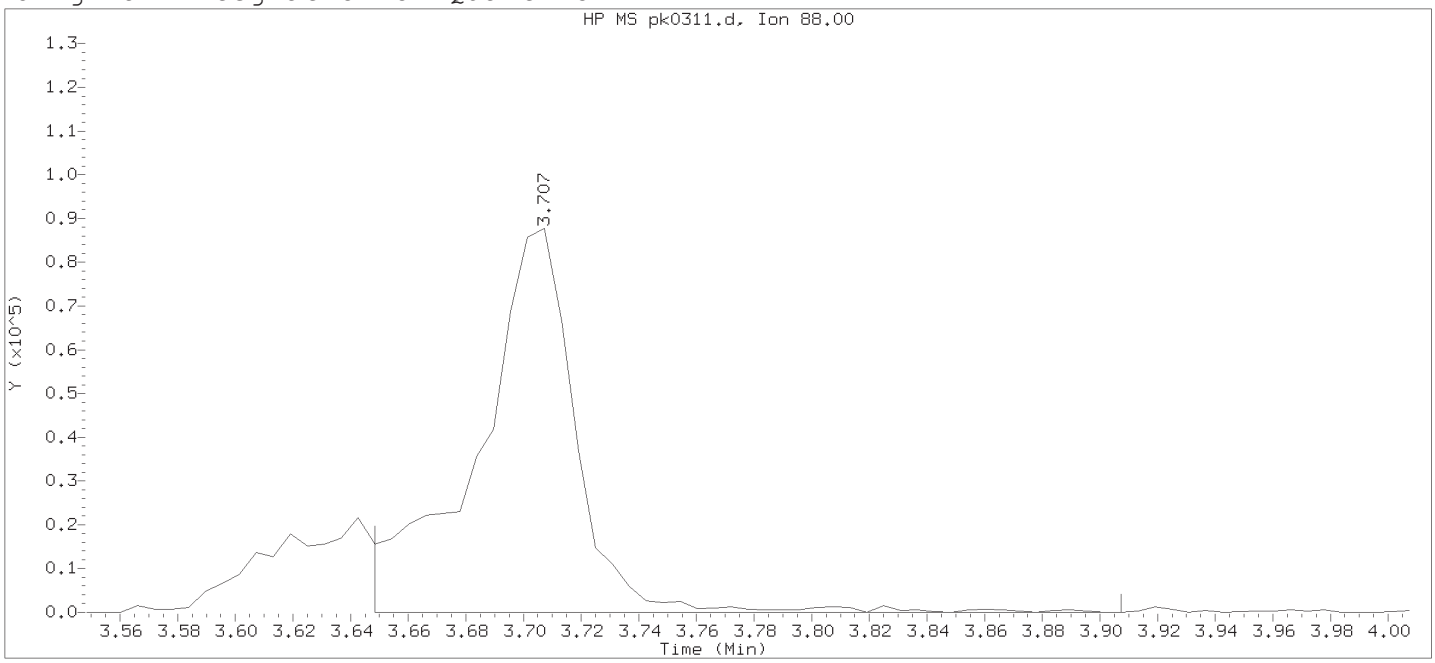
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



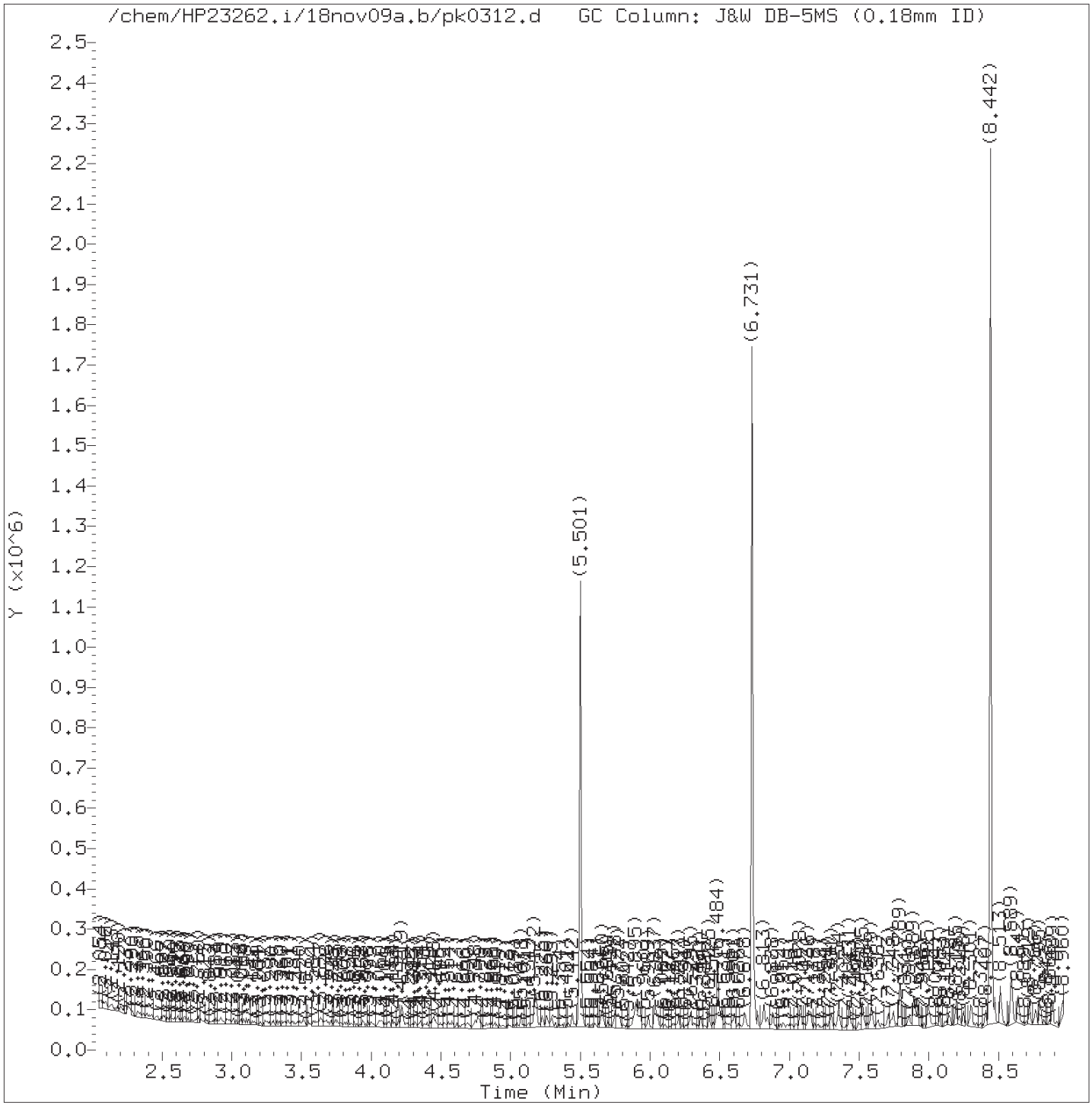
Data File: /chem/HP23262.i/18nov09a.b/pk0311.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 15:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 15:59
Date, time and analyst ID of latest file update: 09-Nov-2018 15:59 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 285		
Retention Time (minutes)	: 3.707		
Quant Ion	: 88.00		
Area	: 207957		
On-column Amount (ng/ul)	: 21.8360		
Integration start scan	: 274	Integration stop scan:	318
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

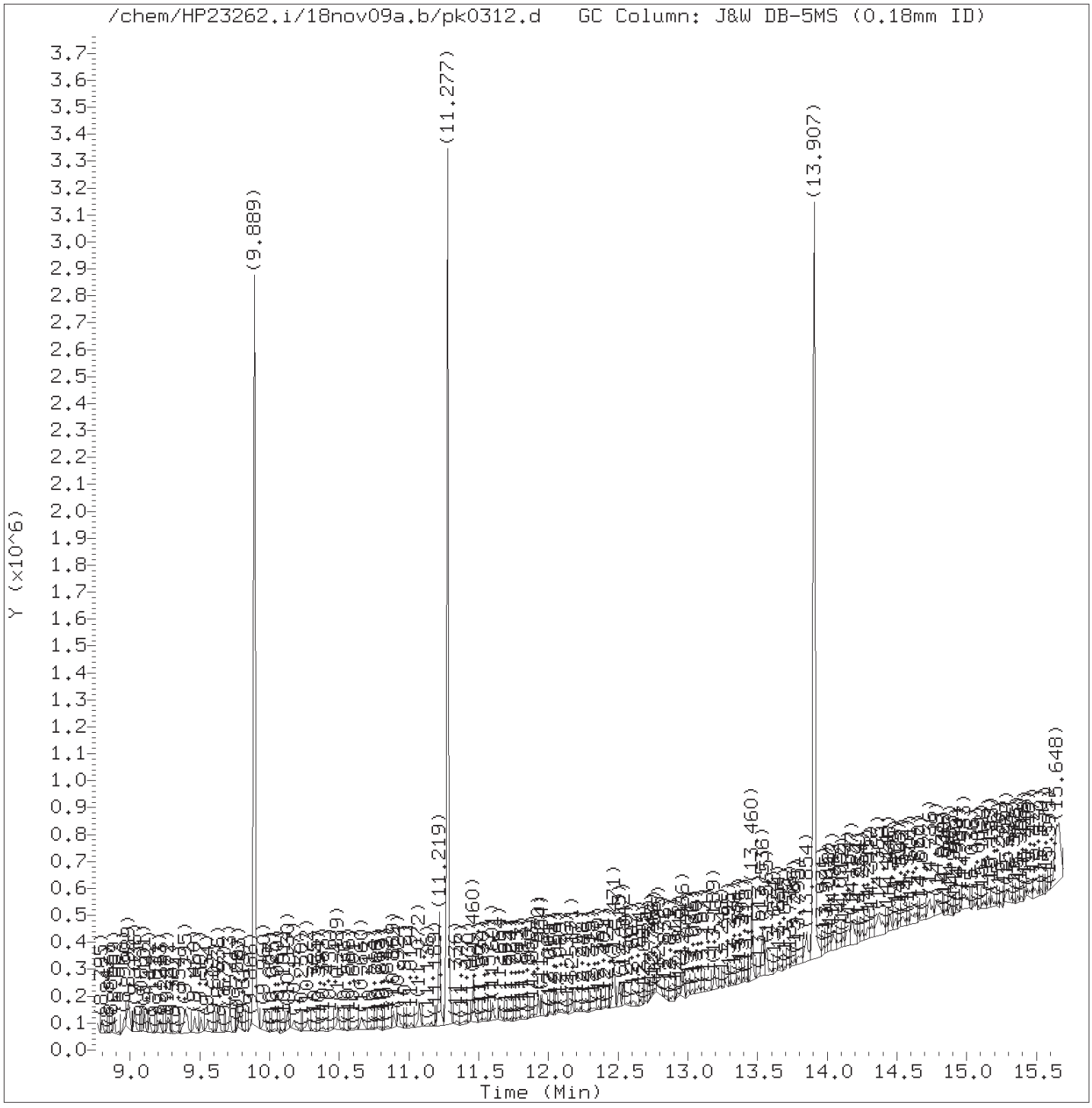
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.260	88	4856	0.883
4) N-Nitrosodimethylamine	(1)	2.590	74	1408	0.158
5) Pyridine	(1)	2.684	79	4859	0.299
7) 2-Picoline	(1)	3.578	93	1488	0.090
9) Methyl methanesulfonate	(1)	4.060	80	2266	0.310
11)$2-Fluorophenol	(1)	4.219	112	13479	1.169
13) N-Nitrosodiethylamine	(1)	4.448	102	3984	0.580
15) Ethyl methanesulfonate	(1)	4.760	109	6335	0.939
17)$Phenol-d6	(1)	5.172	99	17941	0.982
18) Phenol	(1)	5.184	94	13726	0.645
19) Aniline	(1)	5.184	93	13466	0.555
22) bis(2-Chloroethyl)ether	(1)	5.260	93	10433	0.667
23) 2-Chlorophenol	(1)	5.295	128	6061	0.518
24) 1,3-Dichlorobenzene	(1)	5.442	146	5645	0.485
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	150966	20.000
26) 1,4-Dichlorobenzene	(1)	5.513	146	6628	0.567
27) Benzyl alcohol	(1)	5.648	108	5214	0.545
42) Total Cresols	(1)			14792	1.018
28) 1,2-Dichlorobenzene	(1)	5.660	146	6636	0.558
30) Indene	(1)	5.748	115	10913	0.780
31) 2-Methylphenol	(1)	5.760	108	5460	0.406
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.778	45	13657	0.601
34) bis(2-Chloroisopropyl)ether	(1)	5.778	45	13657	0.601
35) N-Nitrosopyrrolidine	(1)	5.878	100	4476	0.525
36) Acetophenone	(1)	5.895	105	11510	0.578
38) N-Nitroso-di-n-propylamine	(1)	5.901	70	10295	0.772
39) N-Nitrosomorpholine	(1)	5.919	56	11254	1.060
37) 4-Methylphenol	(1)	5.919	108	9332	0.598
40) o-Toluidine	(1)	5.925	106	12206	0.533
43) Hexachloroethane	(1)	5.984	117	4041	0.821
44)$Nitrobenzene-d5	(2)	6.037	82	19298	1.111
45) Nitrobenzene	(2)	6.054	77	11982	0.644
48) N-Nitrosopiperidine	(2)	6.207	114	4365	0.562
50) Isophorone	(2)	6.289	82	17619	0.497
51) 2-Nitrophenol	(2)	6.366	139	3540	0.513
53) 2,4-Dimethylphenol	(2)	6.425	107	7034	0.451
56) Benzoic acid	(2)	6.484	105	40513	3.799
57) O,O,O-Triethylphosphorothioate	(2)	6.489	198	4704	0.620
55) bis(2-Chloroethoxy)methane	(2)	6.513	93	9192	0.443
60) 2,4-Dichlorophenol	(2)	6.607	162	4556	0.396

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	5502	0.475
65)*Naphthalene-d8	(2)	6.731	136	655810	20.000
66) Naphthalene	(2)	6.754	128	19118M	0.508
67) 4-Chloroaniline	(2)	6.813	127	7808	0.496
68) 2,6-Dichlorophenol	(2)	6.819	162	5386	0.504
69) Hexachloropropene	(2)	6.842	213	3658	0.524
71) Hexachlorobutadiene	(2)	6.878	225	3878	0.577
75) Quinoline	(2)	7.084	129	17299	0.653
76) Caprolactam	(2)	7.136	113	3041	0.554
77) N-Nitrosodi-n-butylamine	(2)	7.148	84	9812	0.559
80) 4-Chloro-3-methylphenol	(2)	7.301	107	7734	0.552
82) Safrole	(2)	7.354	162	5747	0.544
97) Isosafrole	(3)			6136	0.537
83) 2-Methylnaphthalene	(2)	7.431	142	12984	0.490
84) 1-Methylnaphthalene	(2)	7.525	142	12995M	0.509
85) Hexachlorocyclopentadiene	(3)	7.583	237	2325	0.303
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.589	216	7131	0.518
88) cis-Isosafrole	(3)	7.636	162	1674	0.149
90) 2,4,6-Trichlorophenol	(3)	7.713	196	3348	0.352
92) 2,4,5-Trichlorophenol	(3)	7.748	196	5416	0.531
93)$2-Fluorobiphenyl	(3)	7.795	172	31906	0.975
94) trans-Isosafrole	(3)	7.854	162	4462	0.389
95) 1,1'-Biphenyl	(3)	7.889	154	18862	0.547
98) 1-Chloronaphthalene	(3)	7.901	162	26196	0.995
96) 2-Chloronaphthalene	(3)	7.901	162	26196	0.985
99) Diphenyl ether	(3)	7.995	170	10721	0.553
100) 2-Nitroaniline	(3)	8.007	138	4799	0.509
120) 2,4_2,6-Dinitrotoluenes	(3)			10448	1.094
104) 1,4-Naphthoquinone	(3)	8.078	158	4899	0.393
105) 1,4-Dinitrobenzene	(3)	8.154	168	2883	0.554
106) Dimethylphthalate	(3)	8.195	163	16378	0.486
107) 1,3-Dinitrobenzene	(3)	8.225	168	2527	0.406
108) 2,6-Dinitrotoluene	(3)	8.248	165	4844	0.596
109) Acenaphthylene	(3)	8.301	152	20147	0.501
112) 3-Nitroaniline	(3)	8.413	138	3811	0.454
113)*Acenaphthene-d10	(3)	8.442	164	401180	20.000
114) Acenaphthene	(3)	8.472	153	12511	0.465
115) 2,4-Dinitrophenol	(3)	8.513	184	16490	3.766
116) 4-Nitrophenol	(3)	8.589	109	12724	2.135
117) Pentachlorobenzene	(3)	8.601	250	6874	0.546

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
118) 2,4-Dinitrotoluene	(3)	8.636	165	5604	0.510
119) Dibenzofuran	(3)	8.642	168	20600	0.474
121) 1-Naphthylamine	(3)	8.719	143	15308	0.488
122) 2,3,4,6-Tetrachlorophenol	(3)	8.766	232	4299	0.480
146) Diallate trans/cis	(4)			21730	0.994
123) 2-Naphthylamine	(3)	8.801	143	15837	0.502
124) Diethylphthalate	(3)	8.889	149	18164	0.520
125) Thionazin	(3)	8.966	107	4480	0.718
126) Fluorene	(3)	8.978	166	16129M	0.478
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	9138	0.485
129) 4-Nitroaniline	(3)	8.995	138	5855	0.633
128) 5-Nitro-o-toluidine	(3)	8.995	152	6645	0.653
130) 4,6-Dinitro-2-methylphenol	(4)	9.030	198	13528	2.133
132) NDPA as diphenylamine	(4)	9.101	169	16414	0.518
131) N-Nitrosodiphenylamine	(4)	9.101	169	16414	0.518
134) 1,2-Diphenylhydrazine	(4)	9.142	77	21052	0.434
135)$2,4,6-Tribromophenol	(3)	9.201	330	2716	0.636
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	5521	0.799
139) 1,3,5-Trinitrobenzene	(4)	9.383	213	3818	0.828
140) Diallate (peak 1)	(4)	9.389	86	10865	0.479
144) Diallate (peak 2)	(4)	9.389	86	10865	0.609
141) Phorate	(4)	9.395	75	16491	0.517
142) Phenacetin	(4)	9.413	108	11808	0.552
143) 4-Bromophenyl-phenylether	(4)	9.466	248	4979	0.448
145) Hexachlorobenzene	(4)	9.513	284	5072	0.493
147) Dimethoate	(4)	9.554	87	8762	0.450
150) 4-Aminobiphenyl	(4)	9.713	169	10821	0.748
149) Pentachlorophenol	(4)	9.713	266	3238	0.509
151) Pentachloronitrobenzene	(4)	9.719	237	2479	0.494
152) Pronamide	(4)	9.783	173	10503	0.613
153)*Phenanthrene-d10	(4)	9.889	188	971463	20.000
154) Dinoseb	(4)	9.901	211	3949	0.405
155) Phenanthrene	(4)	9.913	178	28909	0.506
157) Anthracene	(4)	9.960	178	27514	0.484
163) Carbazole	(4)	10.130	167	24743	0.475
164) Methyl parathion	(4)	10.272	109	6187	0.450
165) Di-n-butylphthalate	(4)	10.489	149	30400	0.465
167) Parathion	(4)	10.654	109	5031	0.579
168) 4-Nitroquinoline-1-oxide	(4)	10.677	190	2552	0.485
169) Octachlorostyrene	(4)	10.895	308	2434	0.593

M = Compound was manually integrated.
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Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

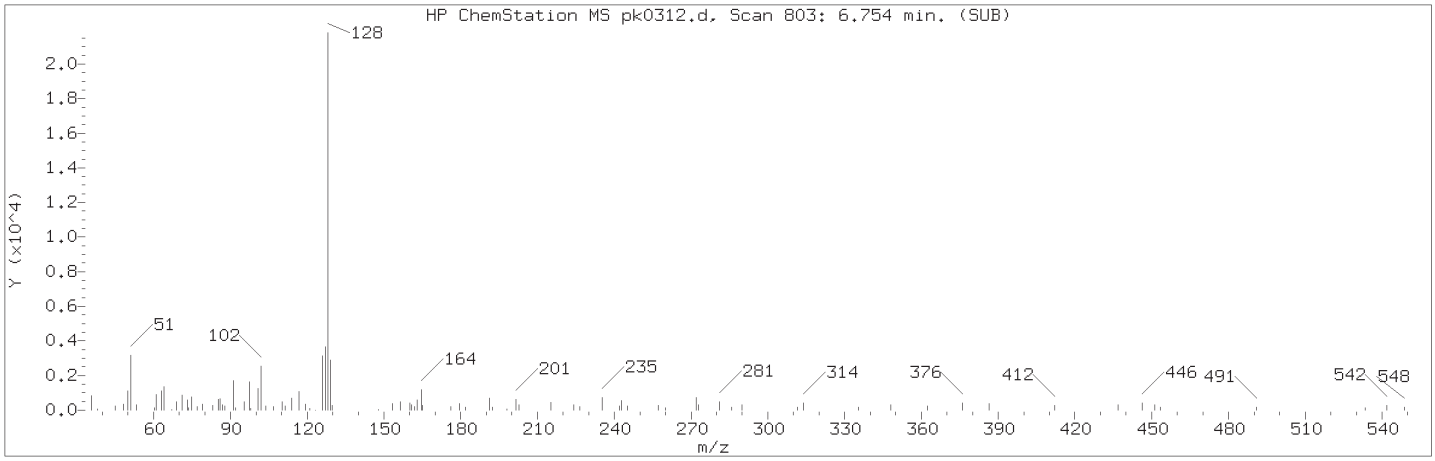
Sample Name: SSTD0.5 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
171) Isodrin	(4)	10.924	193	4112	0.588
173) Fluoranthene	(4)	11.072	202	30785M	0.477
174) Benzidine	(5)	11.219	184	158199	3.481
175)*Pyrene-d10	(5)	11.277	212	1046297	20.000
177) Pyrene	(5)	11.289	202	38563	0.514
179)$Terphenyl-d14	(5)	11.466	244	48435	1.013
182) p-Dimethylaminoazobenzene	(5)	11.601	225	5890	0.485
185) Chlorobenzilate	(5)	11.654	139	10136	0.544
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	25427	0.594
188) Butylbenzylphthalate	(5)	11.954	149	15485	0.509
191) 2-Acetylaminofluorene	(5)	12.171	181	10744	0.413
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	13138	0.539
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.471	231	7018	0.546
195) Benzo(a)anthracene	(5)	12.471	228	32290	0.484
196) Chrysene	(5)	12.513	228	28941	0.471
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	20830	0.485
203) 6-Methylchrysene	(5)	12.966	242	26602	0.614
205) Di-n-octylphthalate	(6)	13.189	149	39241	0.483
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.536	256	14925	0.445
206) Benzo(b)fluoranthene	(6)	13.542	252	36696	0.507
208) Benzo(k)fluoranthene	(6)	13.565	252	37582	0.522
211) Benzo(a)pyrene	(6)	13.854	252	34524	0.516
213)*Perylene-d12	(6)	13.907	264	1000248	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	15825	0.596
217) Dibenz(a,h)acridine	(6)	14.736	279	26019	0.521
218) Dibenz(a,j)acridine	(6)	14.783	279	23547	0.450
219) Indeno(1,2,3-cd)pyrene	(6)	14.983	276	32286M	0.486
222) Total PAHs	(6)			482857	8.555
220) Dibenz(a,h)anthracene	(6)	15.007	278	31747M	0.518
221) Benzo(g,h,i)perylene	(6)	15.289	276	29136M	0.501

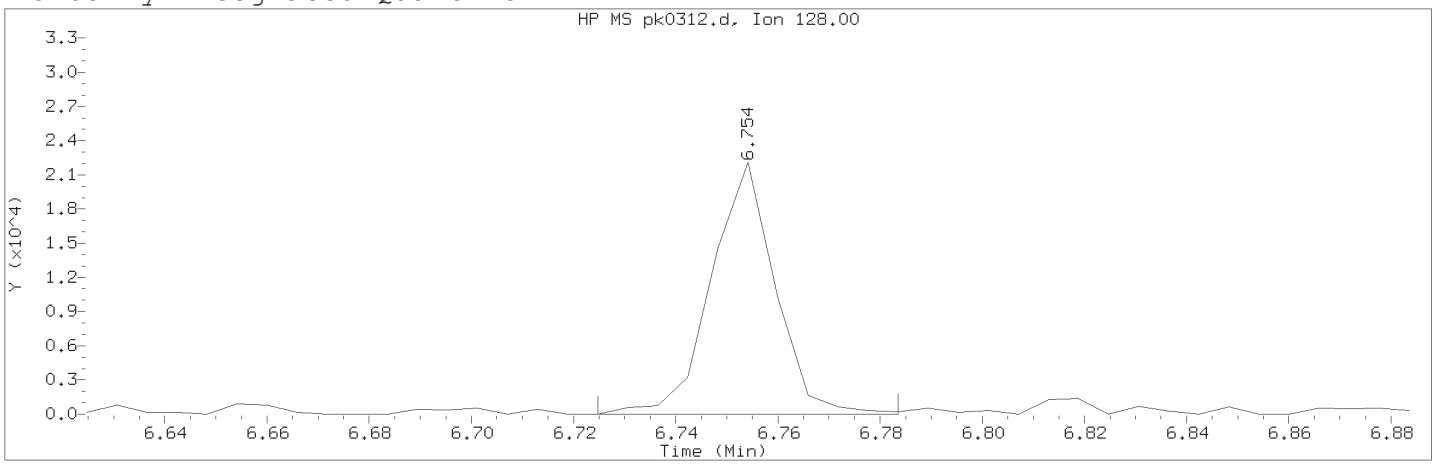
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

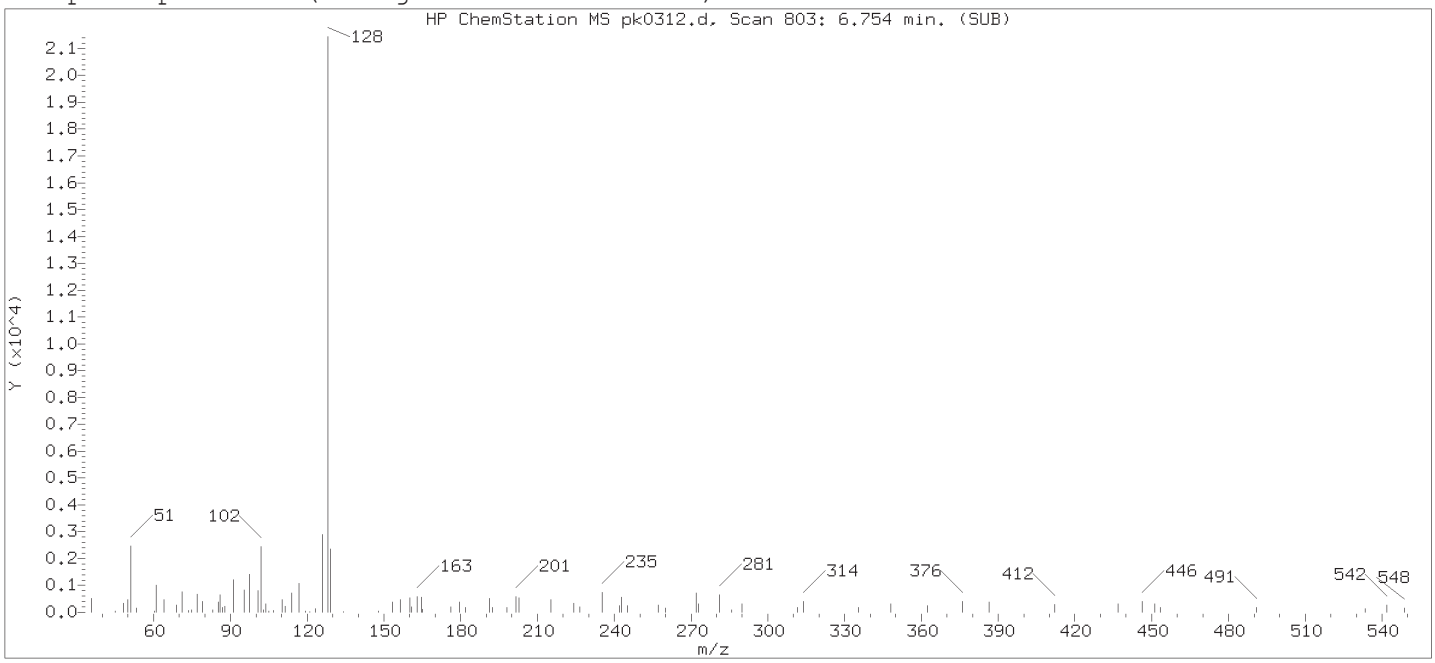
Compound Number : 66
Compound Name : Naphthalene
Scan Number : 803
Retention Time (minutes) : 6.754
Quant Ion : 128.00
Area (flag) : 19118M
On-Column Amount (ng/ul) : 0.5077
Integration start scan : 797 Integration stop scan: 807
Y at integration start : 2 Y at integration end: 2

Reason for manual integration: improper integration

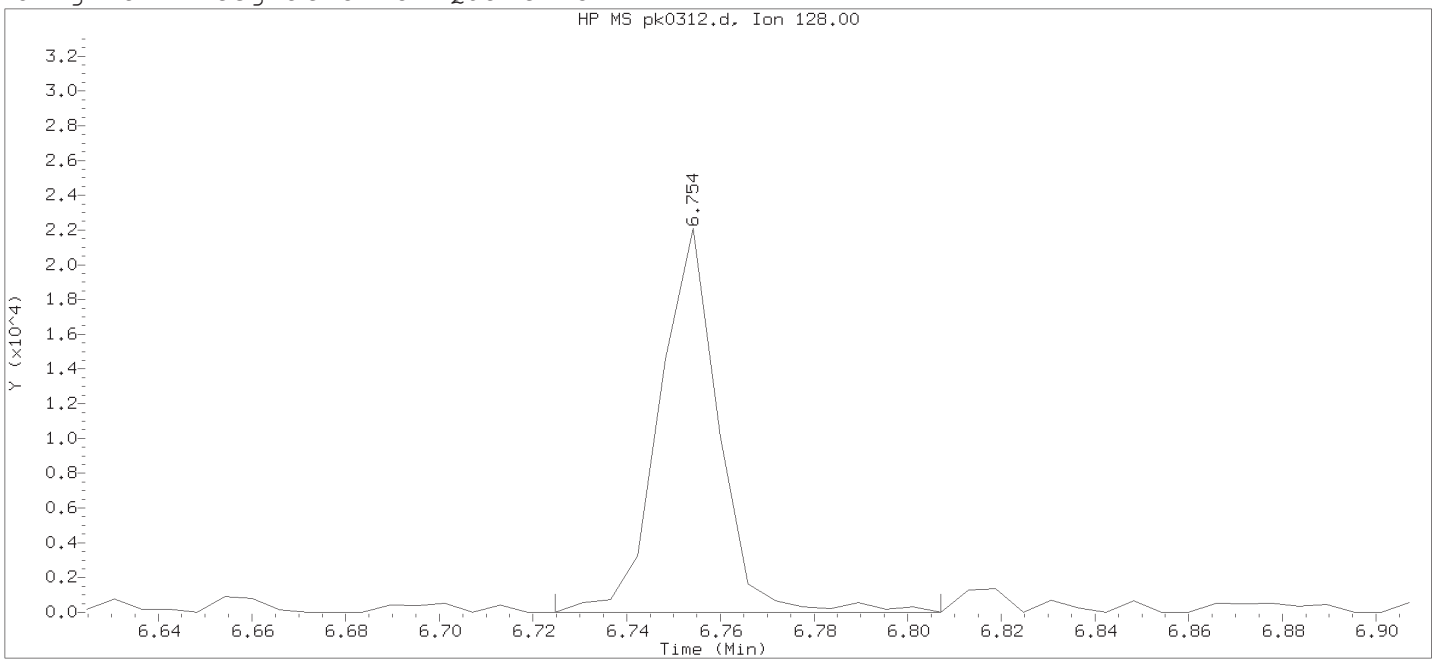
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

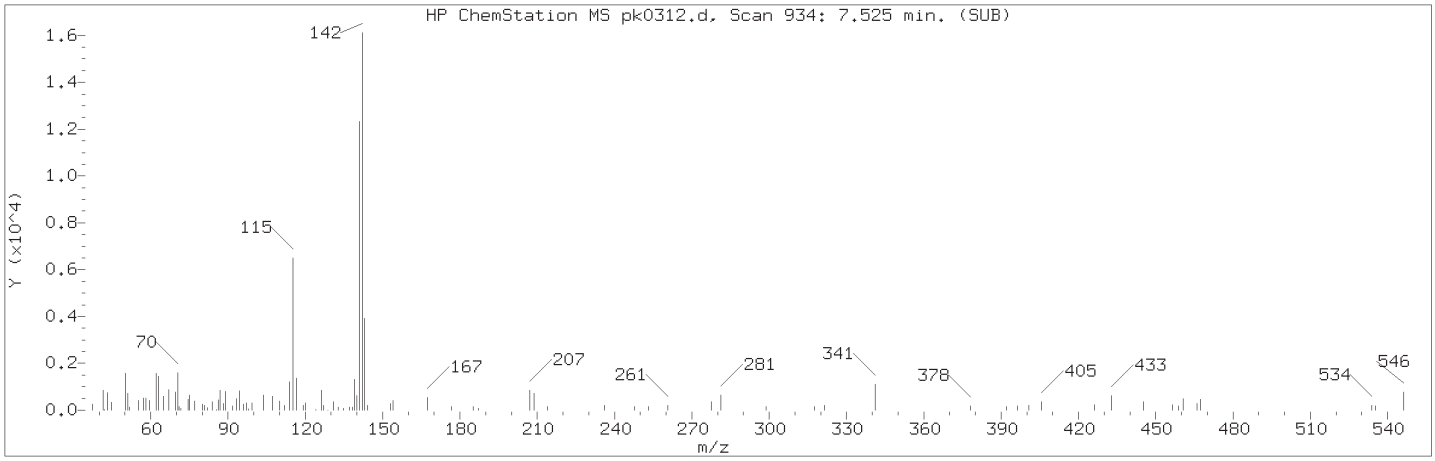
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

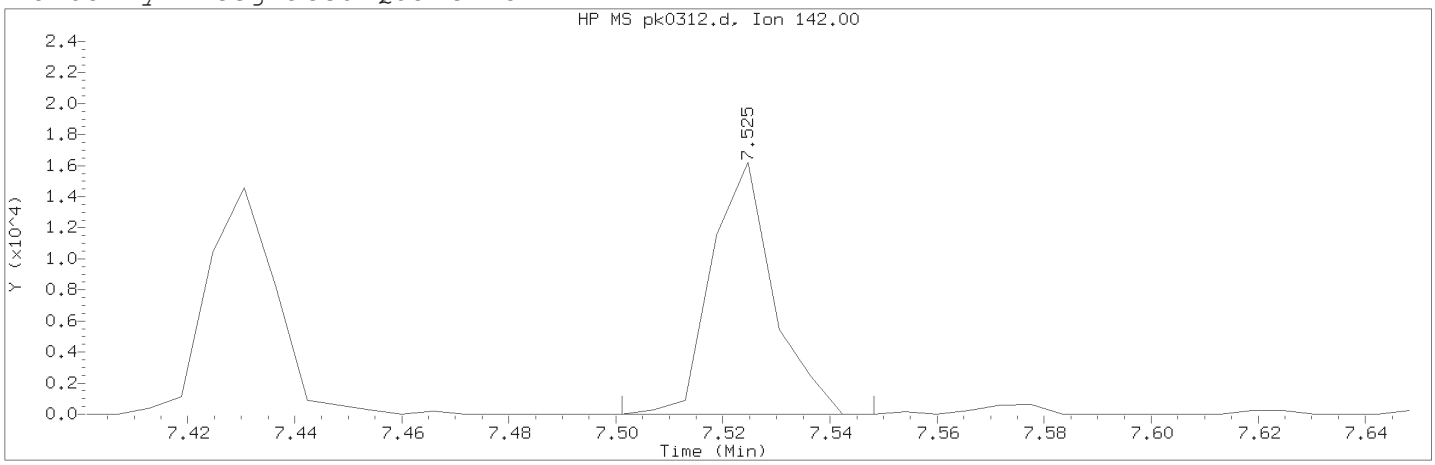
Compound Number	: 66		
Compound Name	: Naphthalene		
Scan Number	: 803		
Retention Time (minutes)	: 6.754		
Quant Ion	: 128.00		
Area	: 19488		
On-column Amount (ng/ul)	: 0.5268		
Integration start scan	: 797	Integration stop scan:	811
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

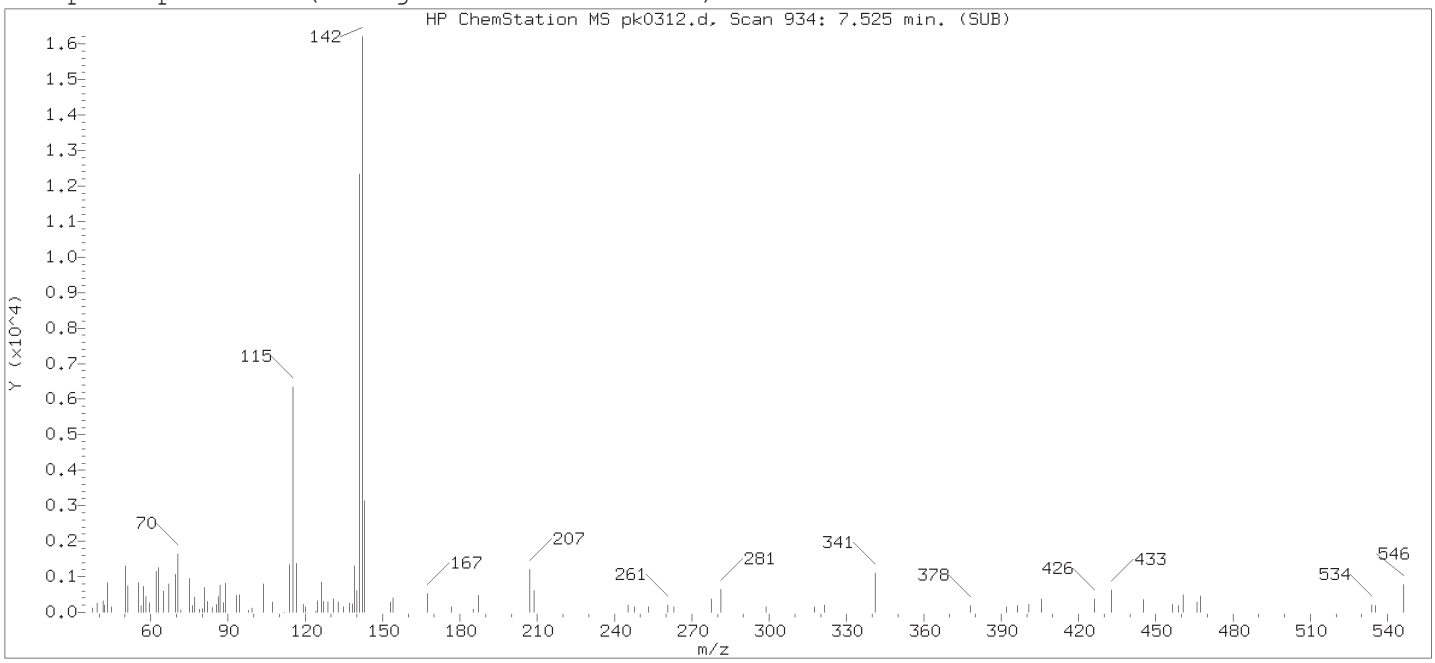
Compound Number : 84
Compound Name : 1-Methylnaphthalene
Scan Number : 934
Retention Time (minutes) : 7.525
Quant Ion : 142.00
Area (flag) : 12995M
On-Column Amount (ng/ul) : 0.5093
Integration start scan : 929 Integration stop scan: 937
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

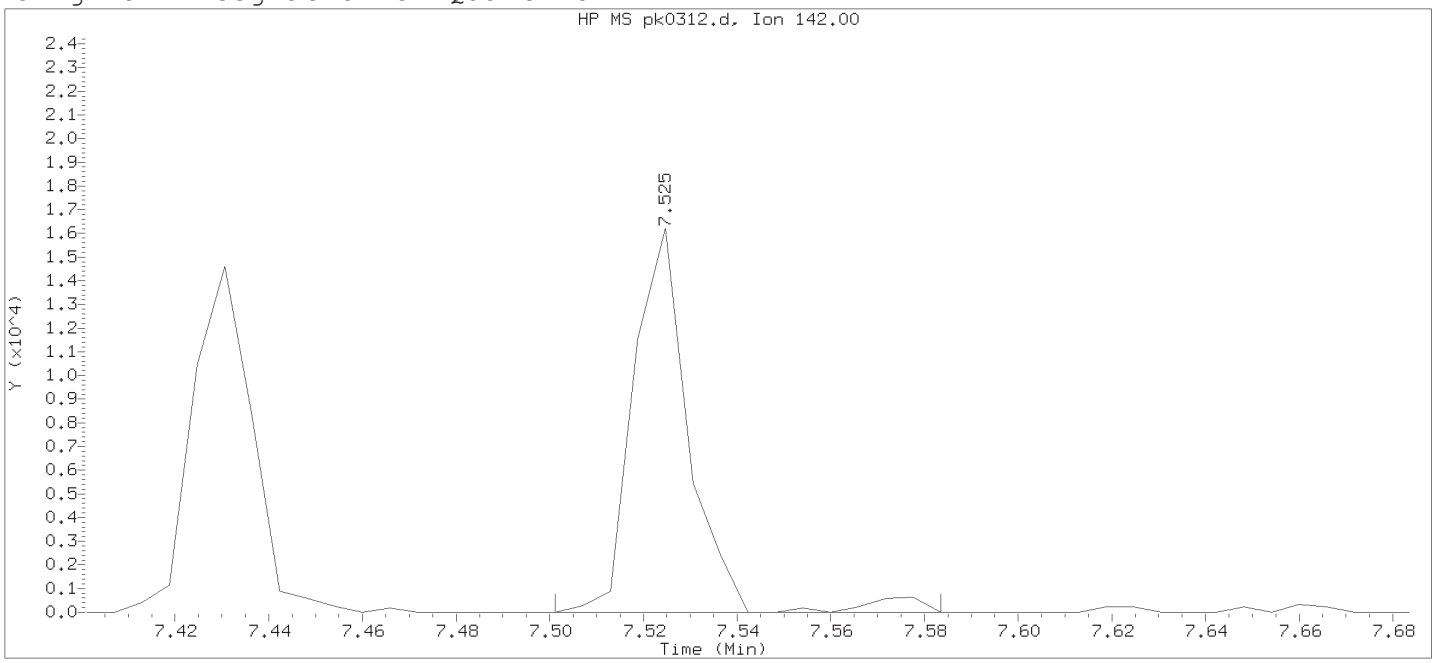
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

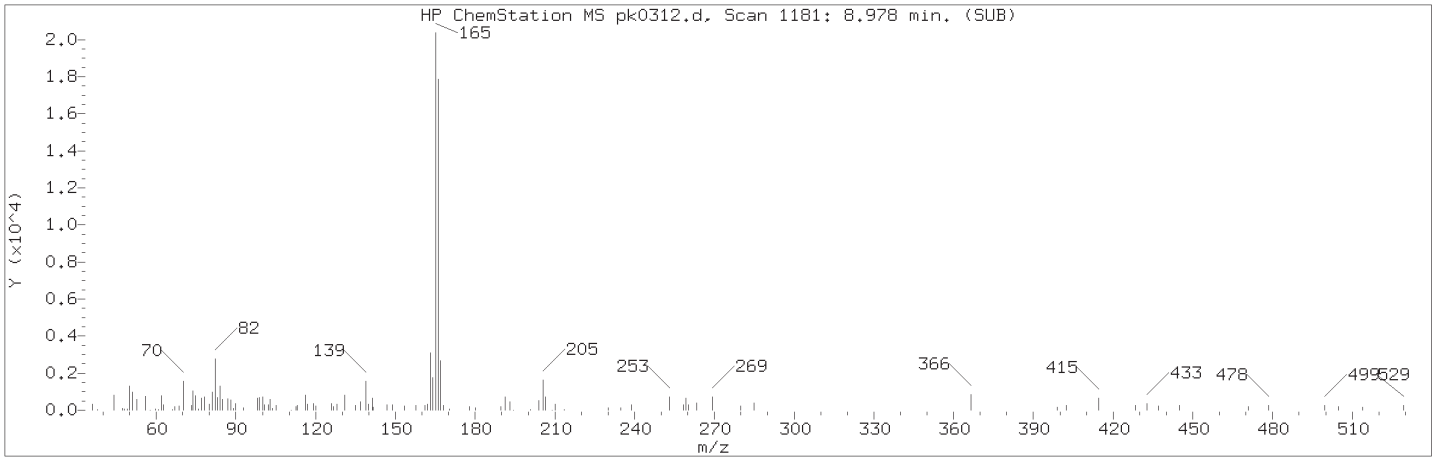
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

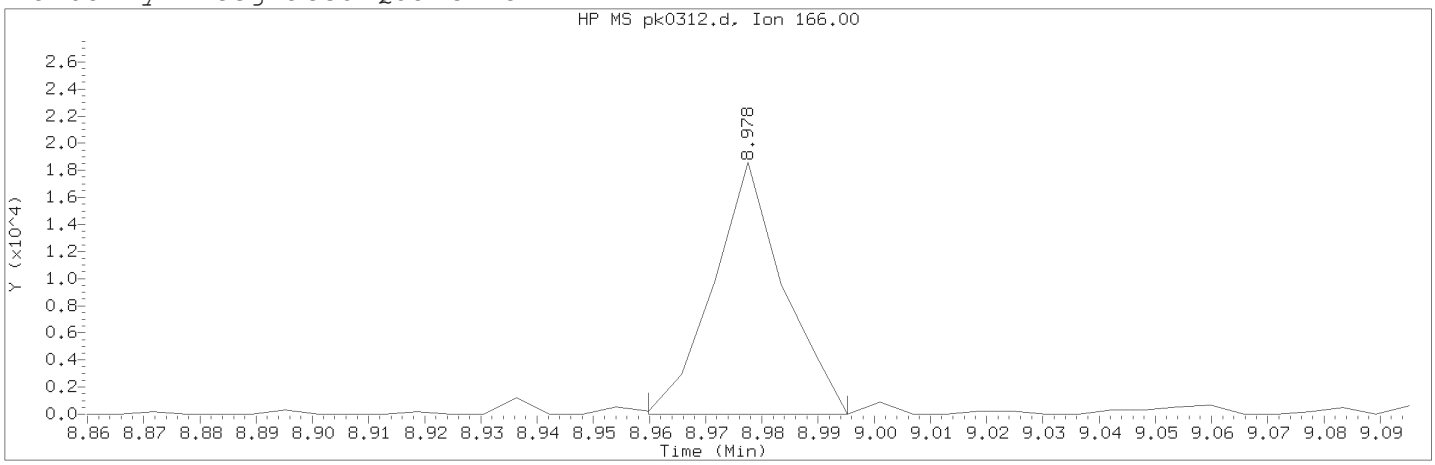
Compound Number	: 84		
Compound Name	: 1-Methylnaphthalene		
Scan Number	: 934		
Retention Time (minutes)	: 7.525		
Quant Ion	: 142.00		
Area	: 13565		
On-column Amount (ng/ul)	: 0.5451		
Integration start scan	: 929	Integration stop scan:	943
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

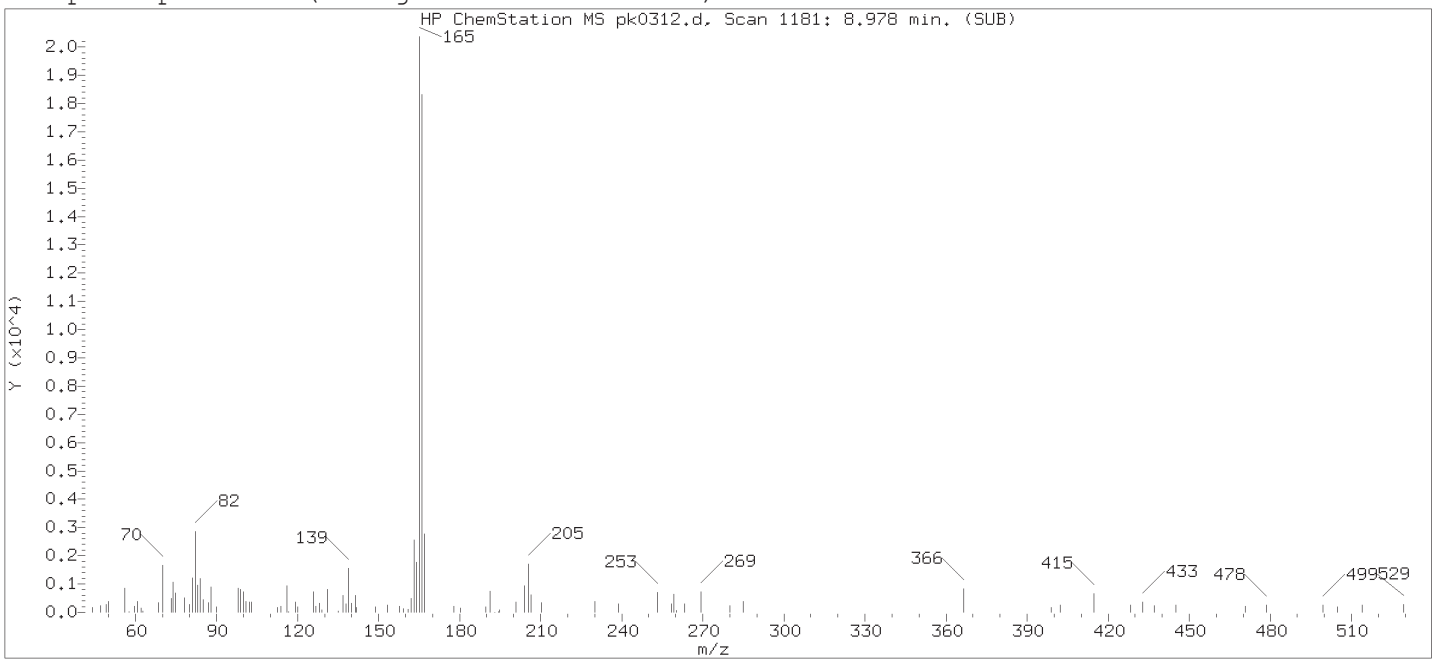
Compound Number	: 126		
Compound Name	: Fluorene		
Scan Number	: 1181		
Retention Time (minutes)	: 8.978		
Quant Ion	: 166.00		
Area (flag)	: 16129M		
On-Column Amount (ng/ul)	: 0.4778		
Integration start scan	: 1177	Integration stop scan:	1183
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

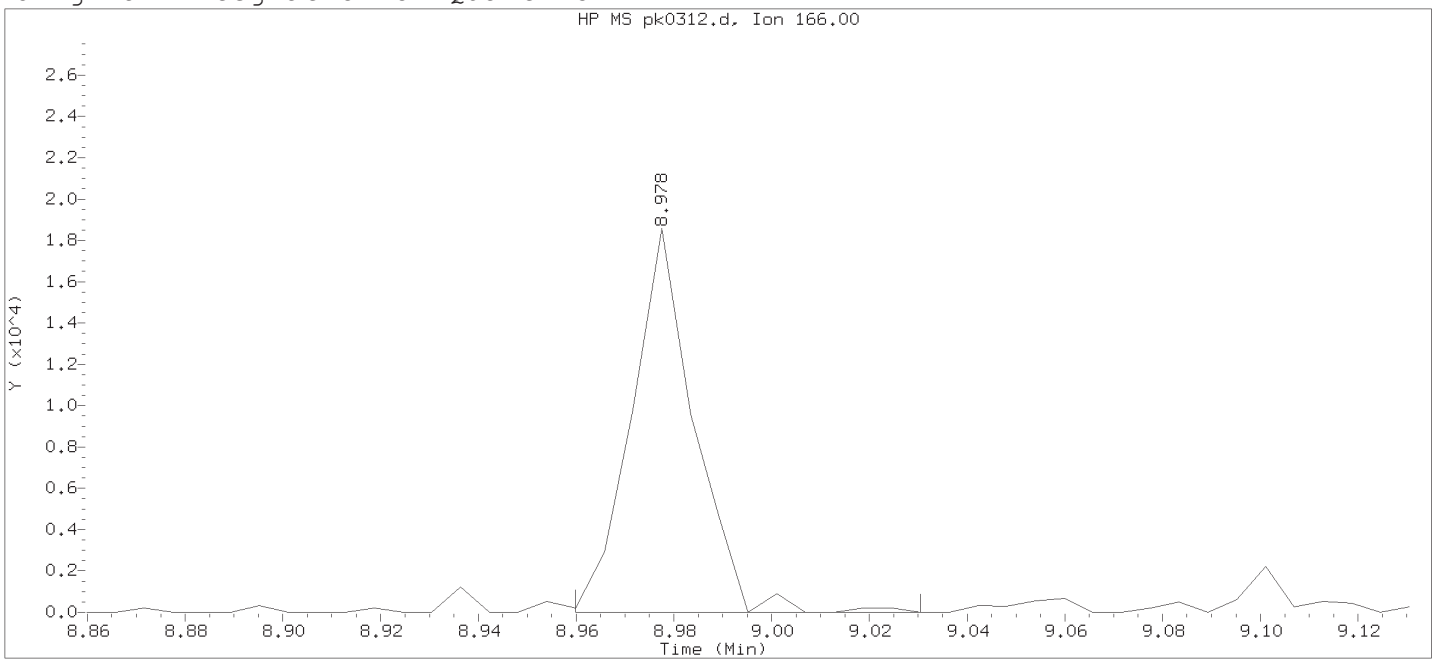
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

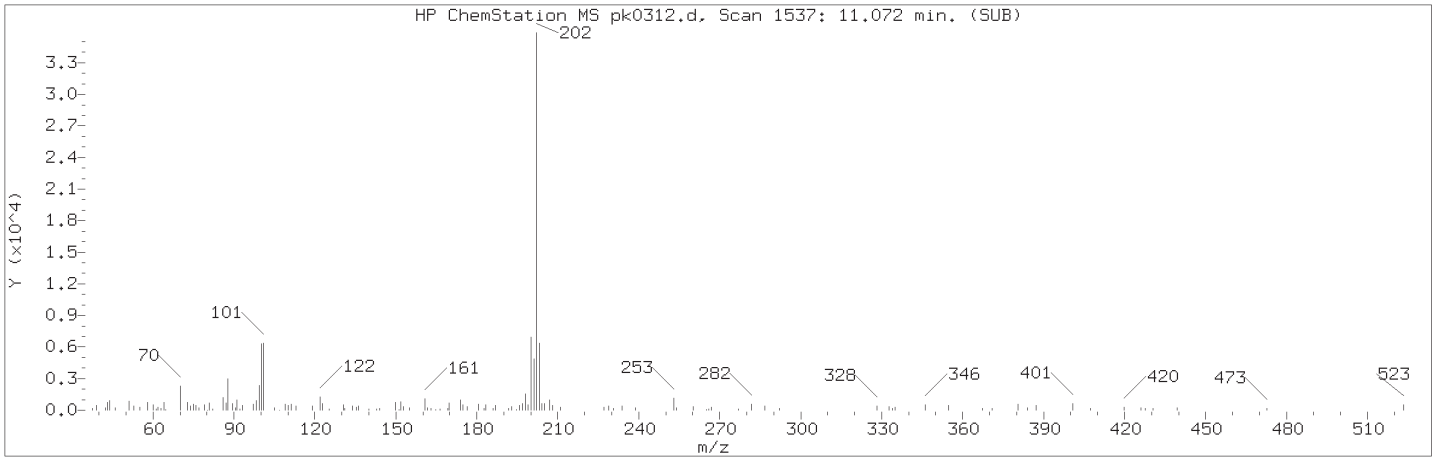
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

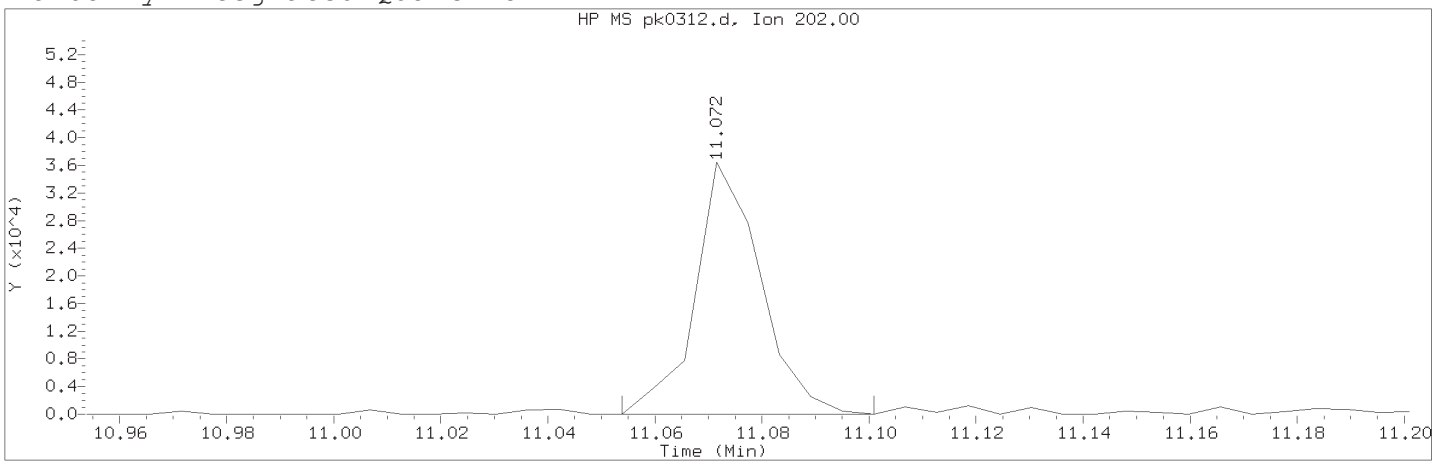
Compound Number	: 126		
Compound Name	: Fluorene		
Scan Number	: 1181		
Retention Time (minutes)	: 8.978		
Quant Ion	: 166.00		
Area	: 16567		
On-column Amount (ng/ul)	: 0.5125		
Integration start scan	: 1177	Integration stop scan:	1189
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

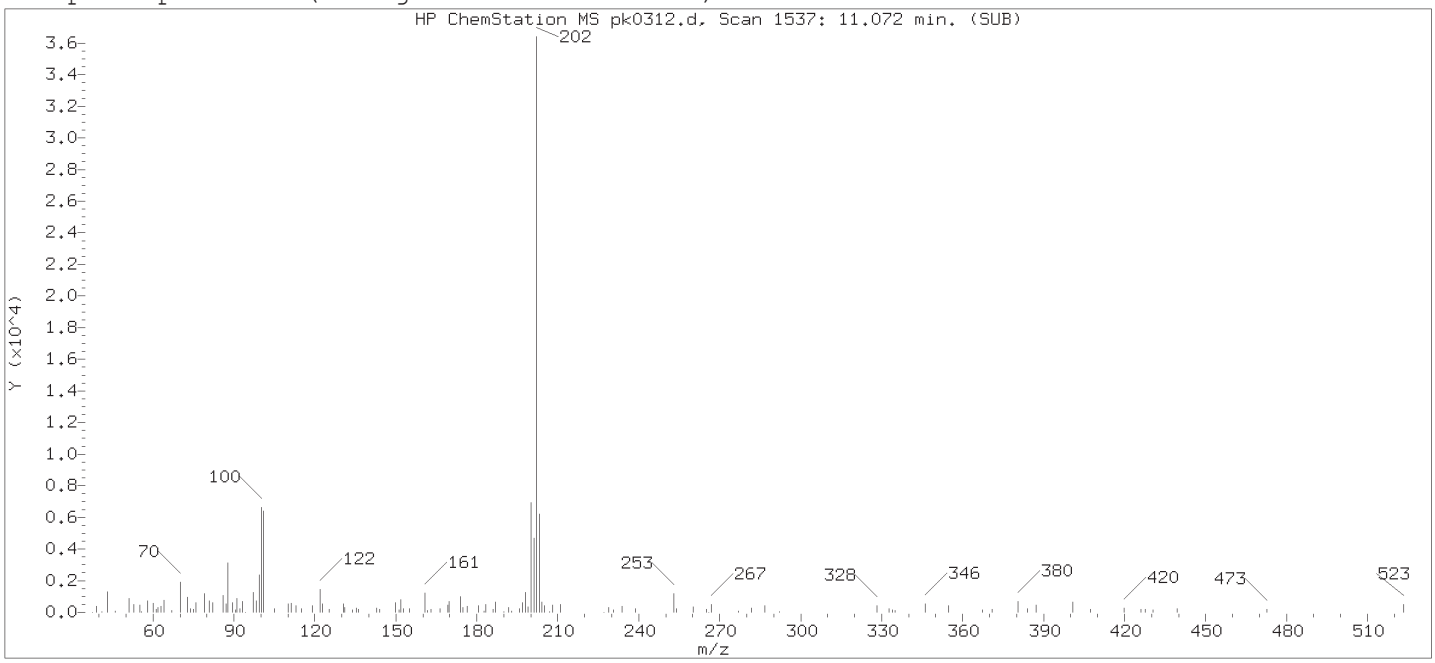
Compound Number : 173
Compound Name : Fluoranthene
Scan Number : 1537
Retention Time (minutes) : 11.072
Quant Ion : 202.00
Area (flag) : 30785M
On-Column Amount (ng/ul) : 0.4765
Integration start scan : 1533 Integration stop scan: 1541
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

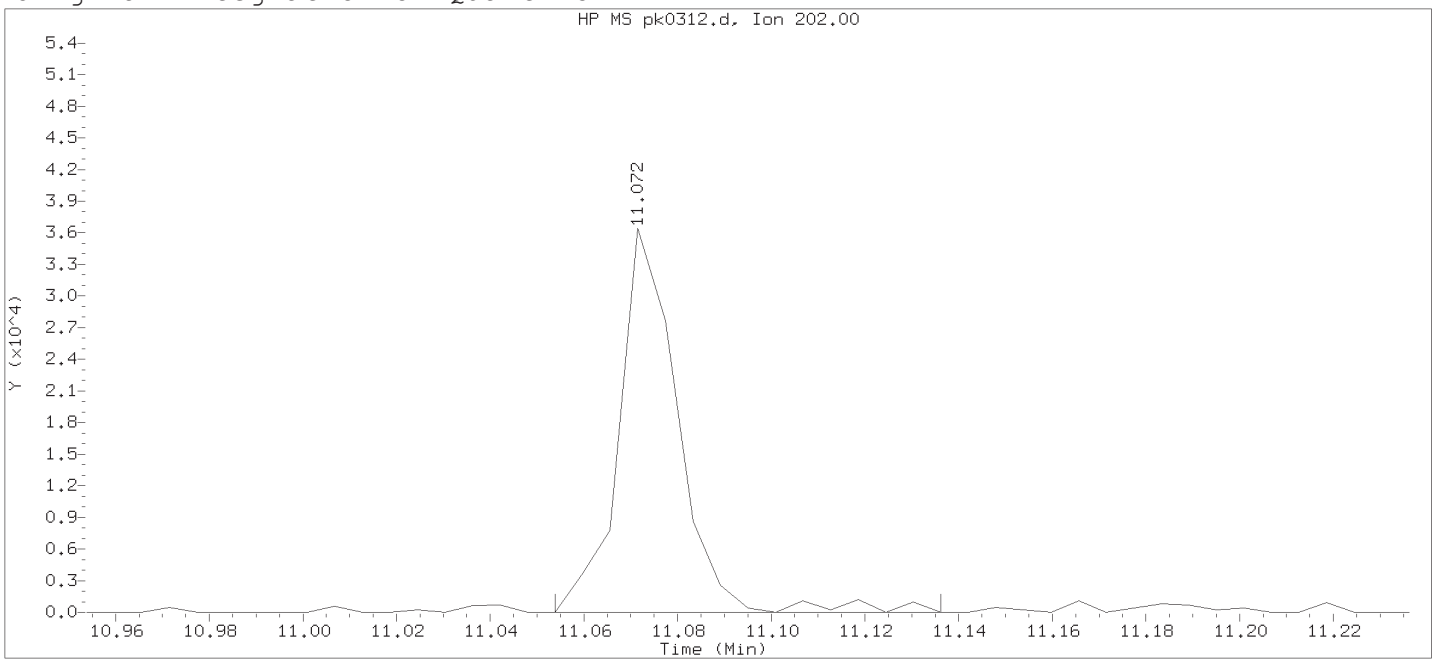
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

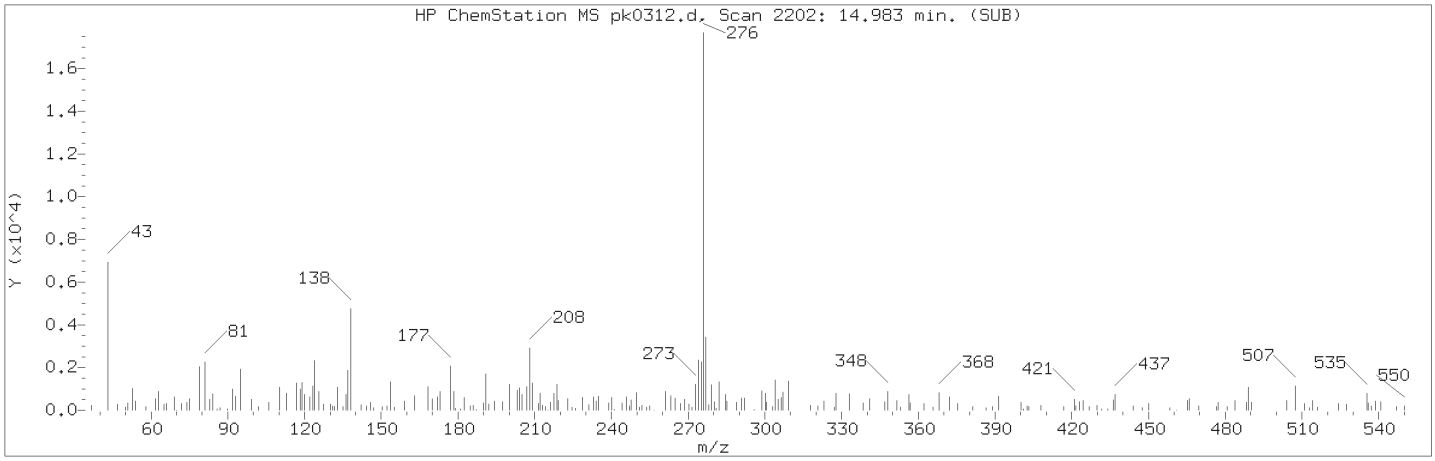
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

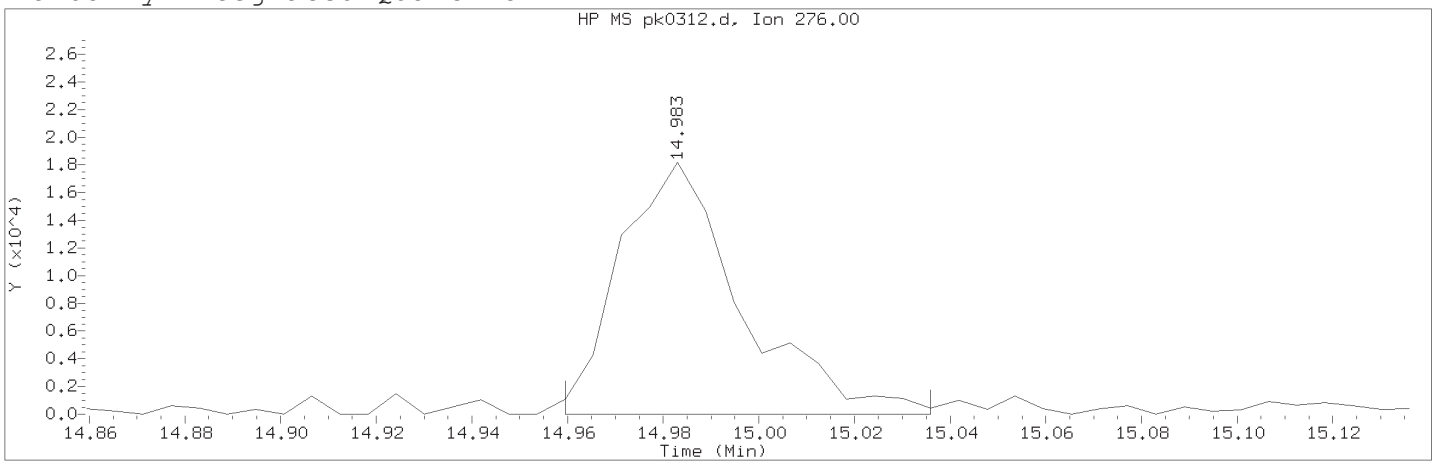
Compound Number	: 173		
Compound Name	: Fluoranthene		
Scan Number	: 1537		
Retention Time (minutes)	: 11.072		
Quant Ion	: 202.00		
Area	: 32020		
On-column Amount (ng/ul)	: 0.4873		
Integration start scan	: 1533	Integration stop scan:	1547
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used: D12 Page 2296

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

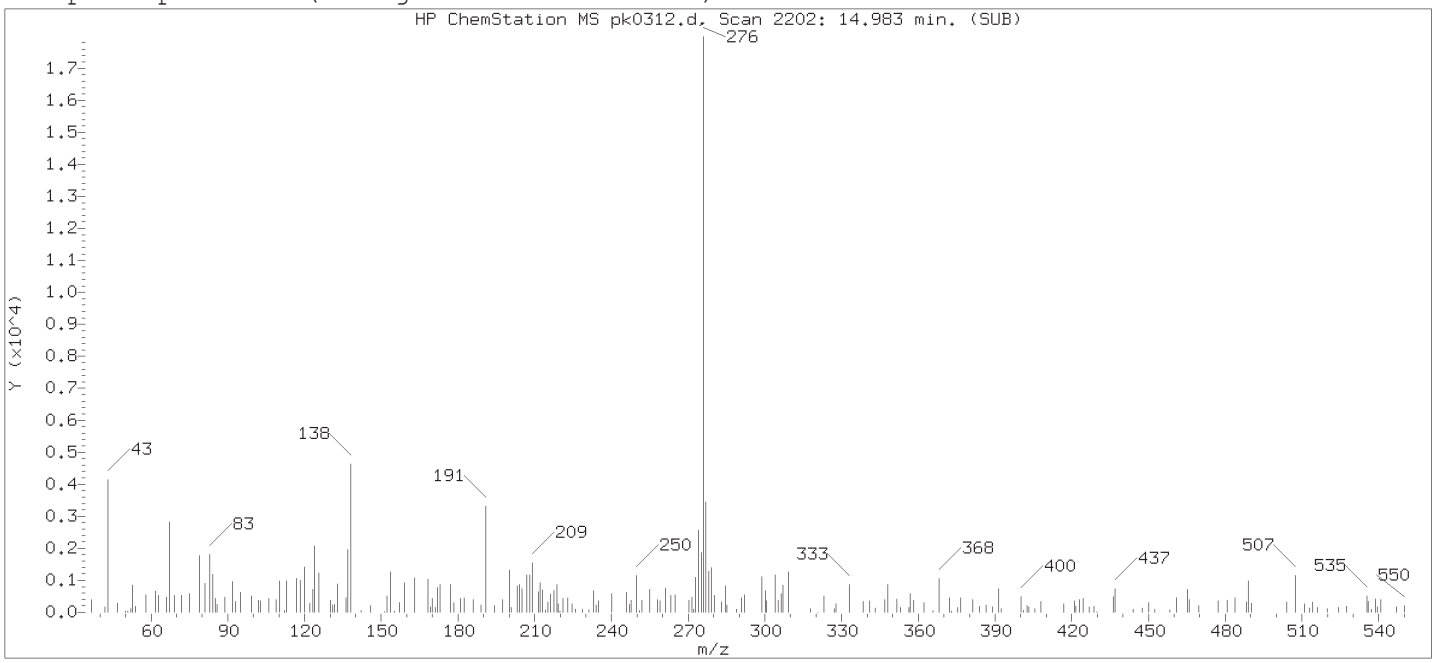
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2202		
Retention Time (minutes)	: 14.983		
Quant Ion	: 276.00		
Area (flag)	: 32286M		
On-Column Amount (ng/ul)	: 0.4860		
Integration start scan	: 2197	Integration stop scan:	2210
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

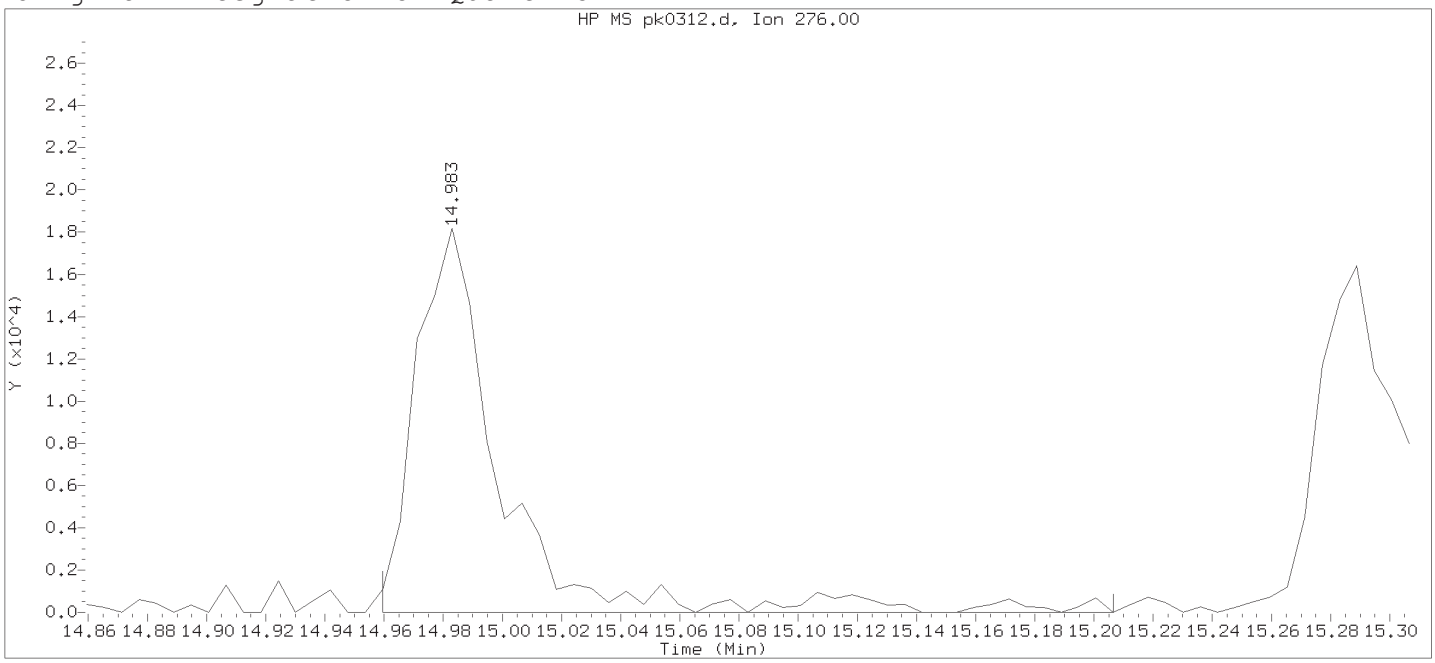
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

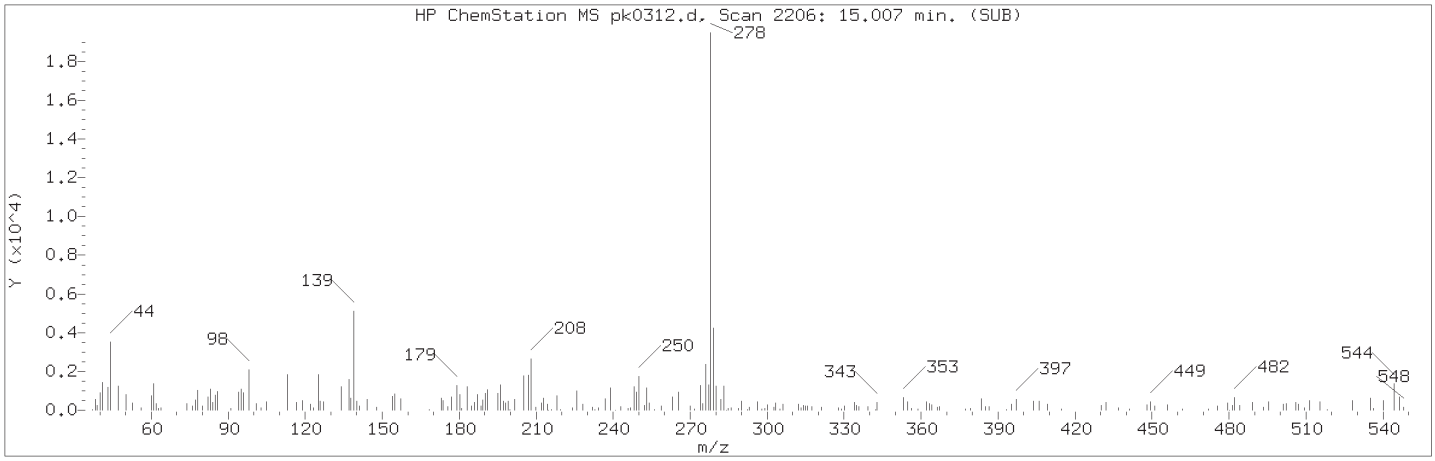
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

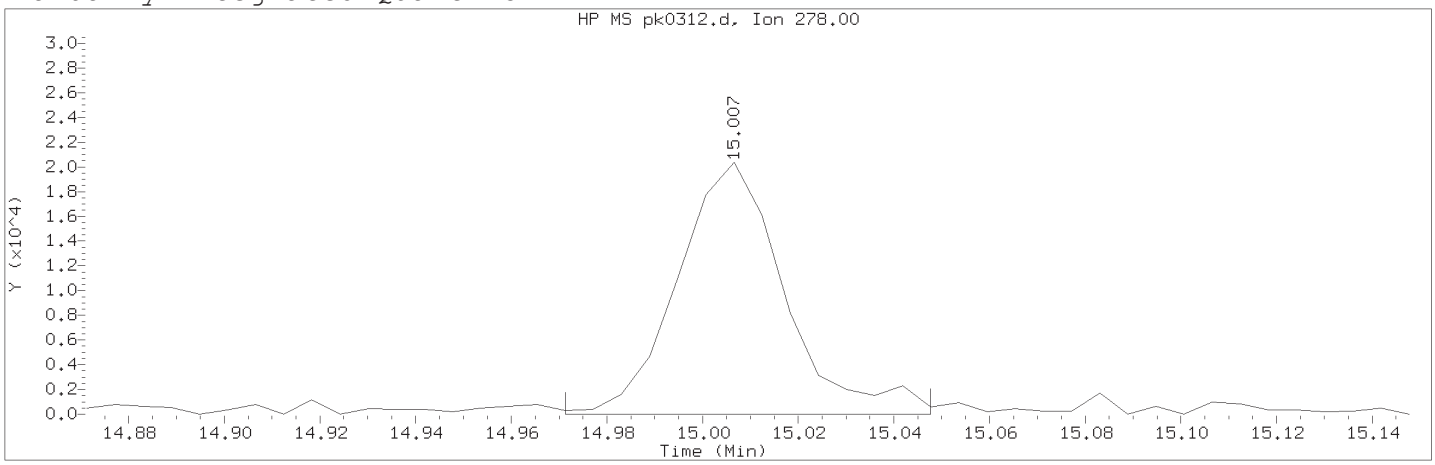
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2202		
Retention Time (minutes)	: 14.983		
Quant Ion	: 276.00		
Area	: 36152		
On-column Amount (ng/ul)	: 0.5377		
Integration start scan	: 2197	Integration stop scan:	2239
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

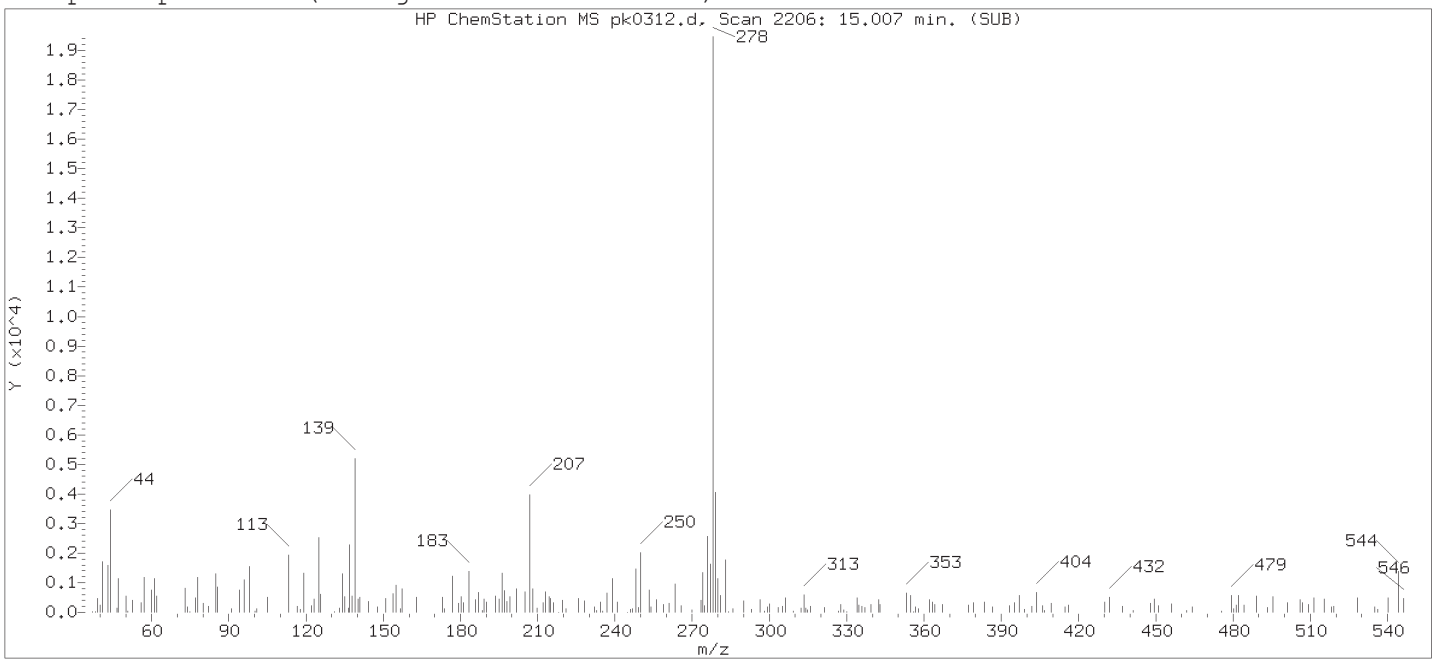
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2206		
Retention Time (minutes)	: 15.007		
Quant Ion	: 278.00		
Area (flag)	: 31747M		
On-Column Amount (ng/ul)	: 0.5184		
Integration start scan	: 2199	Integration stop scan:	2212
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

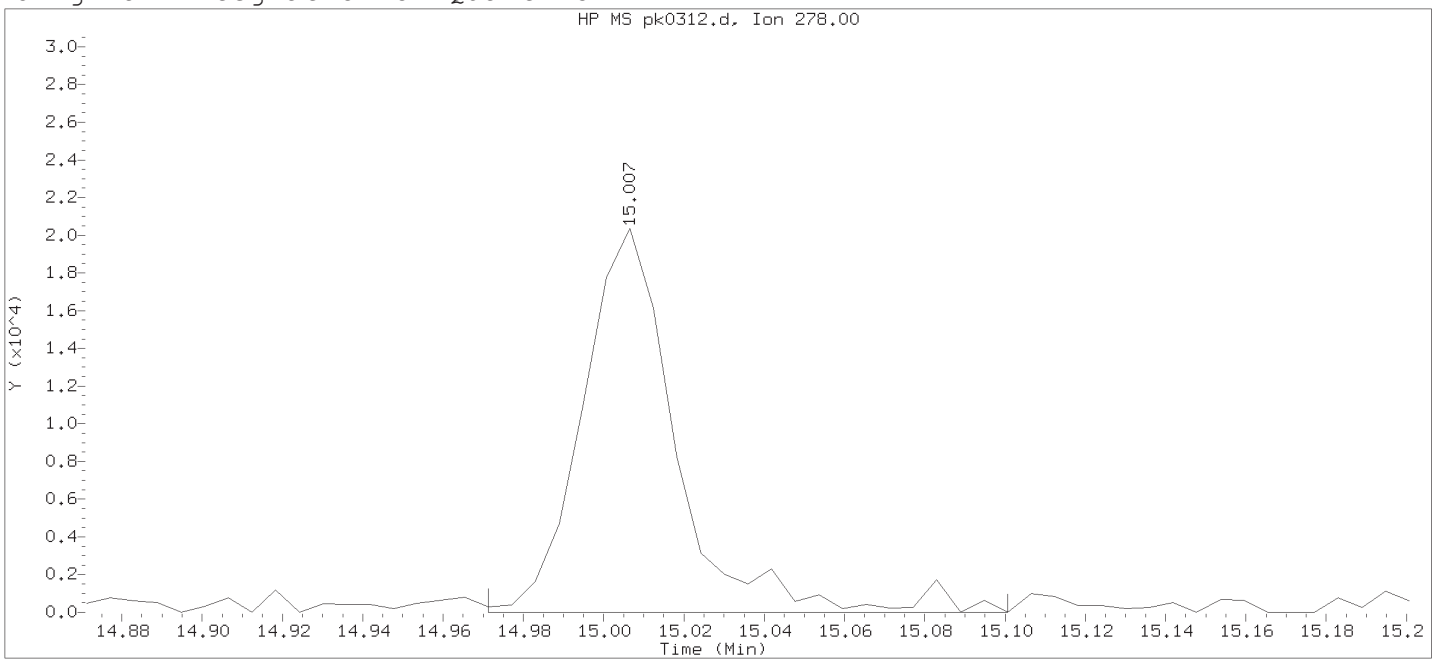
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

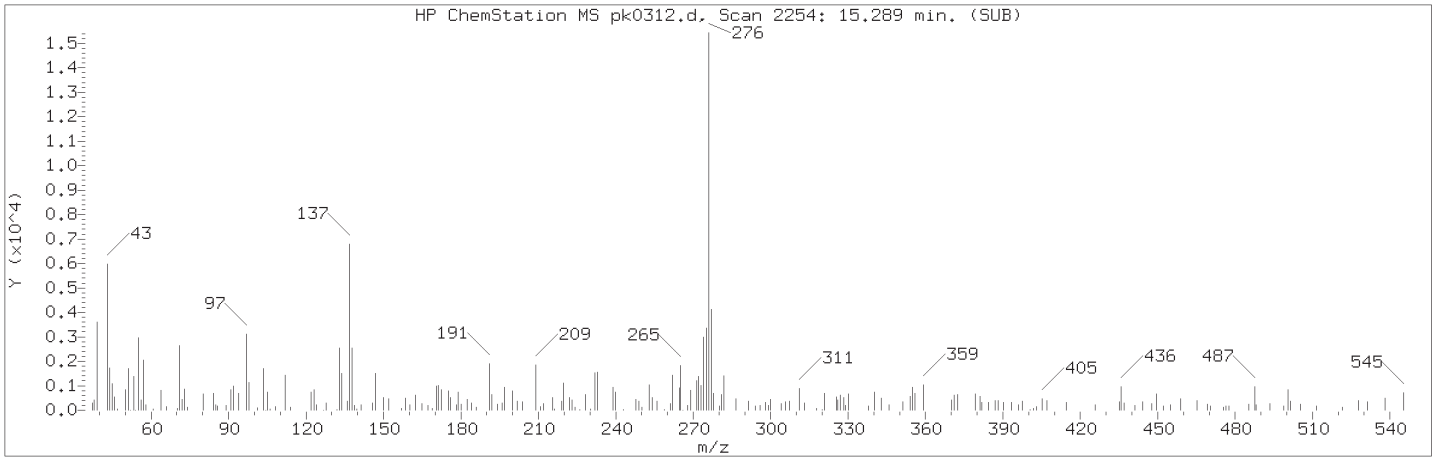
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

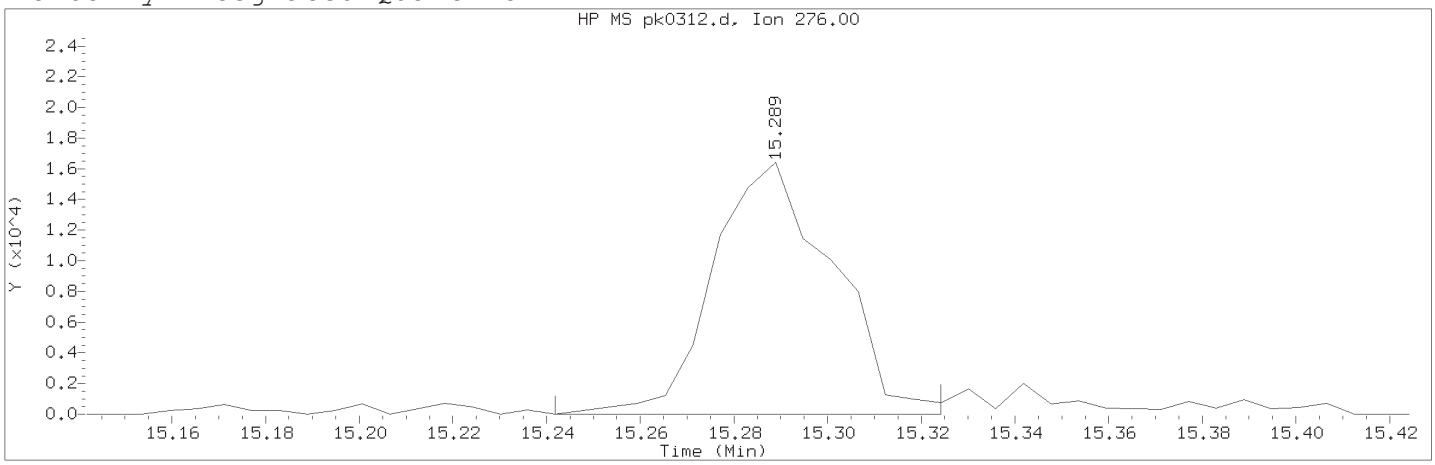
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2206		
Retention Time (minutes)	: 15.007		
Quant Ion	: 278.00		
Area	: 33253		
On-column Amount (ng/ul)	: 0.6057		
Integration start scan	: 2199	Integration stop scan:	2221
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD0.5 Lab Sample ID: STD2928

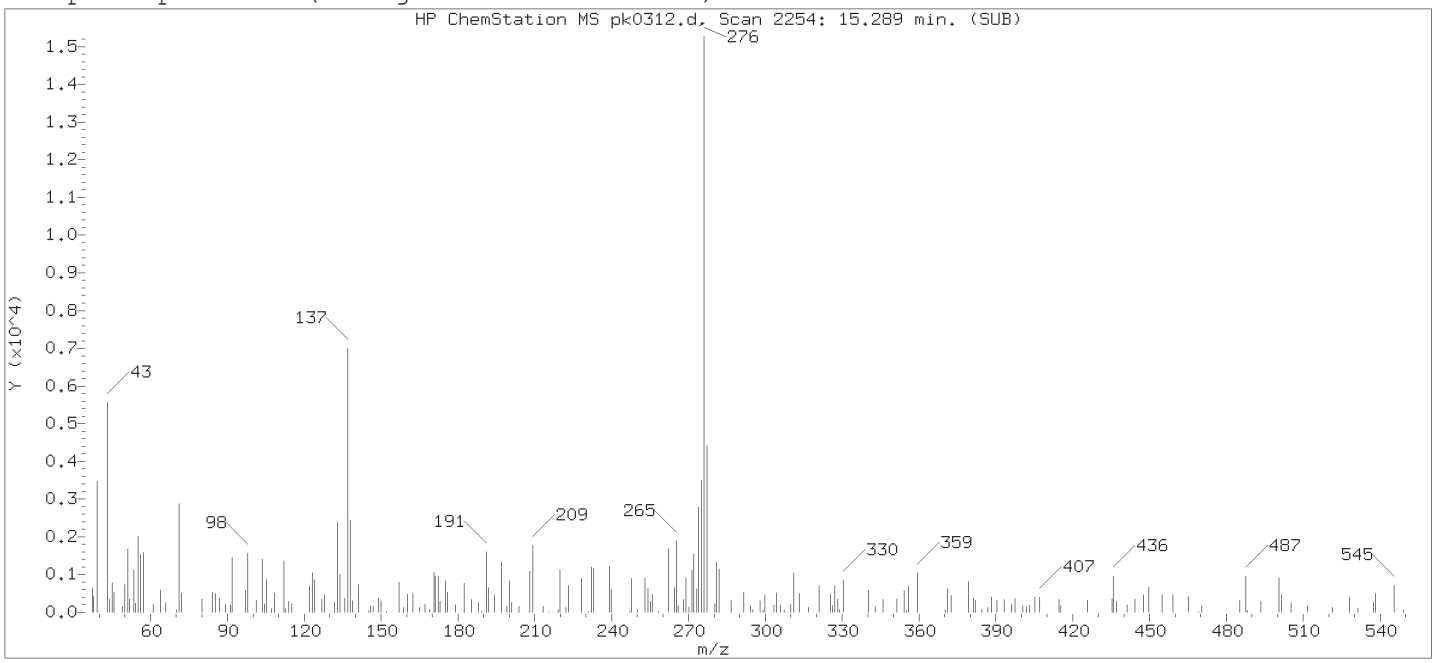
Compound Number : 221
Compound Name : Benzo(g,h,i)perylene
Scan Number : 2254
Retention Time (minutes) : 15.289
Quant Ion : 276.00
Area (flag) : 29136M
On-Column Amount (ng/ul) : 0.5009
Integration start scan : 2245 Integration stop scan: 2259
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

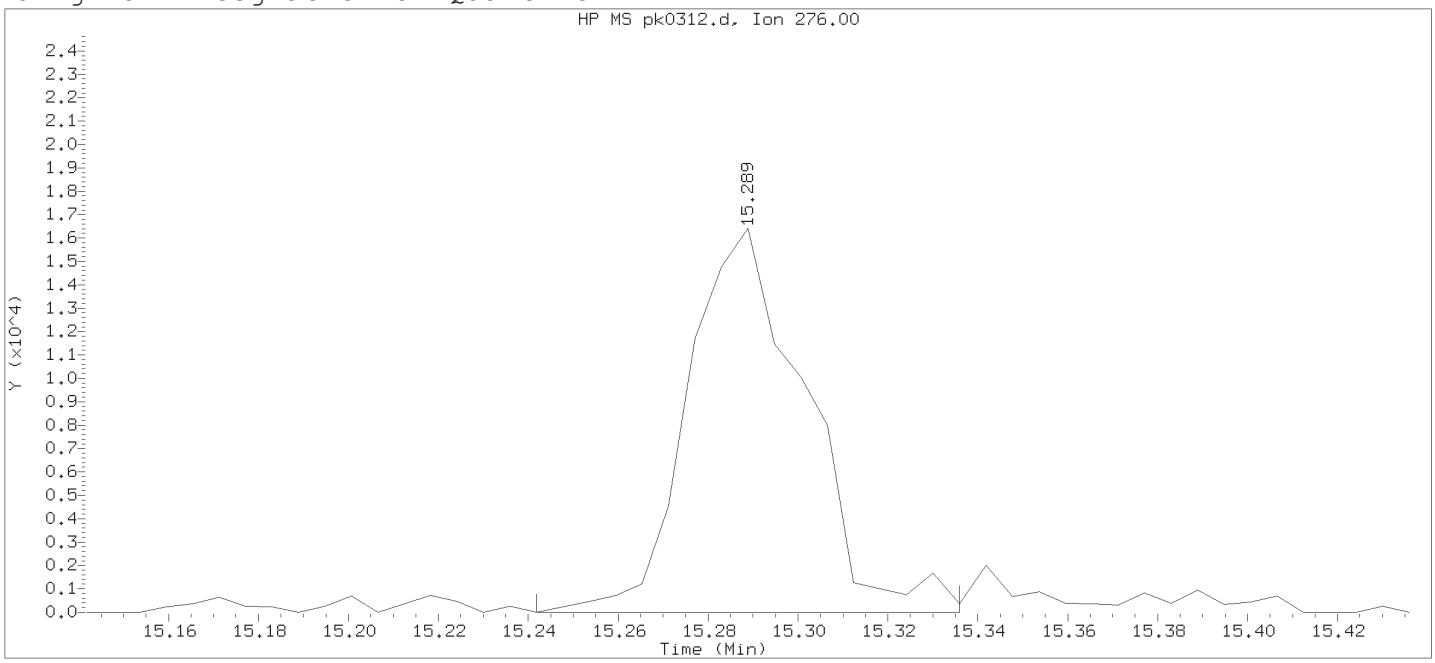
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



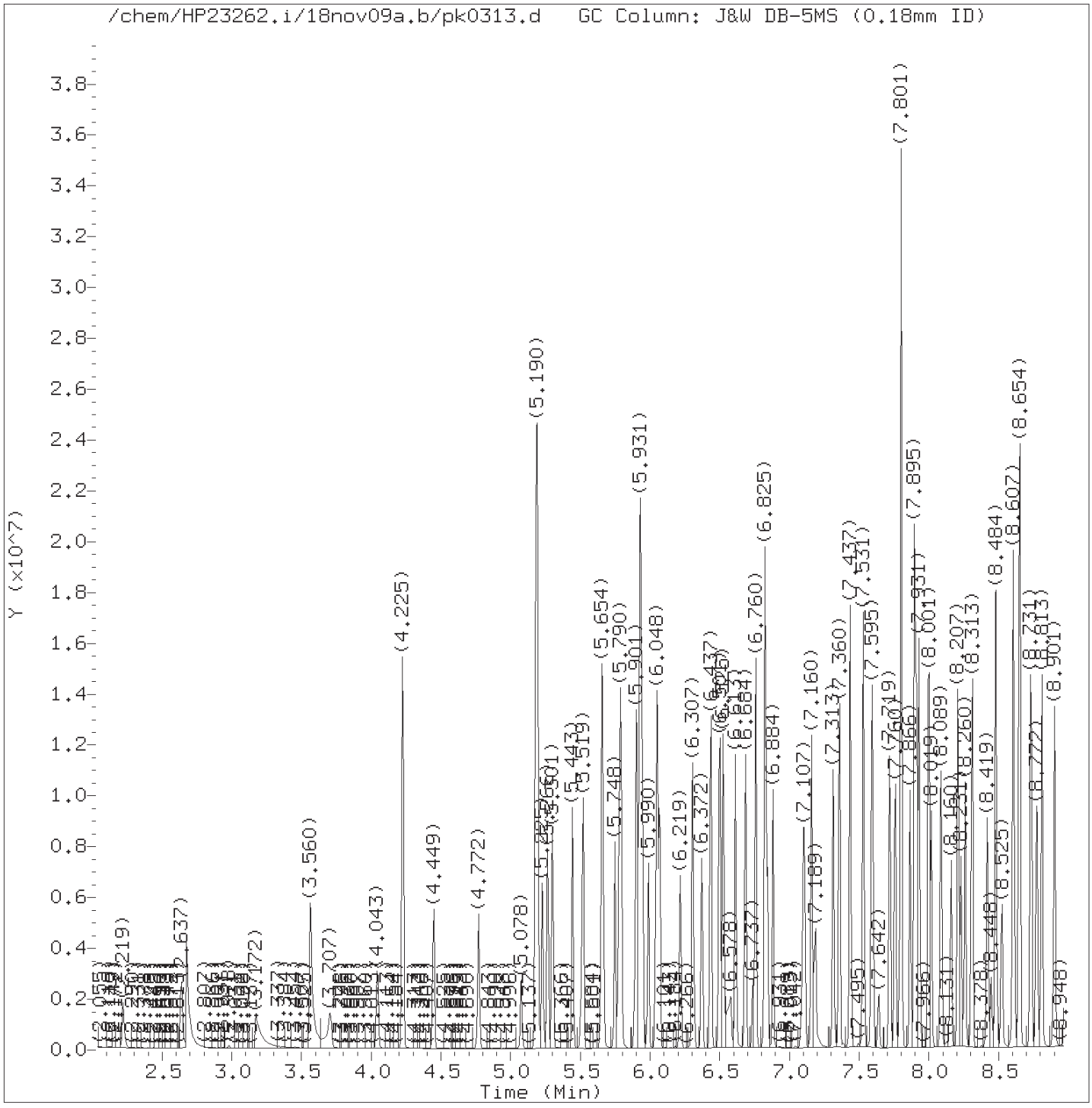
Data File: /chem/HP23262.i/18nov09a.b/pk0312.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:05 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:26
Date, time and analyst ID of latest file update: 09-Nov-2018 16:26 Automation

Sample Name: SSTD0.5 Lab Sample ID: STD2928

Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2254		
Retention Time (minutes)	: 15.289		
Quant Ion	: 276.00		
Area	: 29789		
On-column Amount (ng/ul)	: 0.5289		
Integration start scan	: 2245	Integration stop scan:	2261
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: Page 2302 of 7494



Total Ion Chromatogram (TIC)

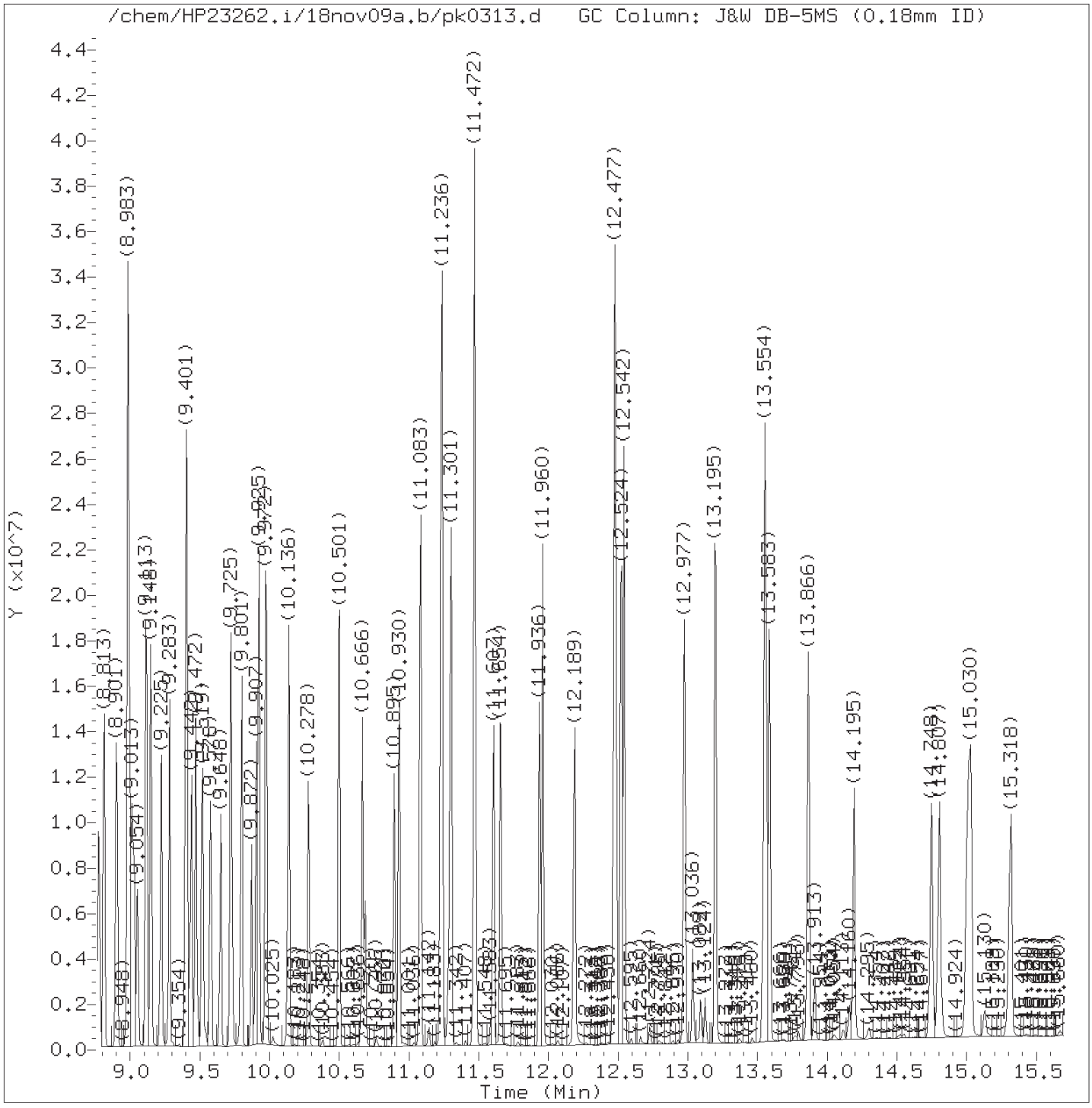
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.219	88	841563	117.436
4) N-Nitrosodimethylamine	(1)	2.637	74	1510164	123.395
5) Pyridine	(1)	2.672	79	2591290	119.909
7) 2-Picoline	(1)	3.560	93	2591928	119.171
8) N-Nitrosomethylethylamine	(1)	3.707	88	1176687	122.240
9) Methyl methanesulfonate	(1)	4.043	80	1156983	119.452
11)$2-Fluorophenol	(1)	4.225	112	3827605	244.633
13) N-Nitrosodiethylamine	(1)	4.449	102	1138123	122.220
15) Ethyl methanesulfonate	(1)	4.772	109	1098607	121.162
17)$Phenol-d6	(1)	5.184	99	6045304	244.297
19) Aniline	(1)	5.190	93	3917840	120.626
18) Phenol	(1)	5.196	94	3559233	122.812
22) bis(2-Chloroethyl)ether	(1)	5.266	93	2491260	119.808
23) 2-Chlorophenol	(1)	5.301	128	1924016	121.708
24) 1,3-Dichlorobenzene	(1)	5.443	146	1885932	120.884
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	200868	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	1897598	121.034
27) Benzyl alcohol	(1)	5.654	108	1540746	120.540
42) Total Cresols	(1)			4778964	243.559
28) 1,2-Dichlorobenzene	(1)	5.660	146	1844248	118.224
30) Indene	(1)	5.748	115	2204133	119.203
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	3657979	120.473
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	3657979	120.473
31) 2-Methylphenol	(1)	5.790	108	2221890	121.998
35) N-Nitrosopyrrolidine	(1)	5.901	100	1398223	121.611
36) Acetophenone	(1)	5.907	105	3099629	118.518
38) N-Nitroso-di-n-propylamine	(1)	5.925	70	2144779	120.456
37) 4-Methylphenol	(1)	5.931	108	2557074	121.589
39) N-Nitrosomorpholine	(1)	5.937	56	1674155	119.233
40) o-Toluidine	(1)	5.943	106	3655260	120.013
43) Hexachloroethane	(1)	5.990	117	787887	120.177
44)$Nitrobenzene-d5	(2)	6.048	82	5679129	236.067
45) Nitrobenzene	(2)	6.066	77	2982262	116.862
48) N-Nitrosopiperidine	(2)	6.219	114	1224271	115.797
50) Isophorone	(2)	6.307	82	5753137	117.547
51) 2-Nitrophenol	(2)	6.372	139	1110109	117.112
53) 2,4-Dimethylphenol	(2)	6.437	107	2447596	115.599
57) O,O,O-Triethylphosphorothioate	(2)	6.501	198	1159484	113.976
55) bis(2-Chloroethoxy)methane	(2)	6.525	93	3355014	117.340
56) Benzoic acid	(2)	6.578	105	1777206	119.172

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.613	162	1807227	115.624
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	1889763	117.953
65)*Naphthalene-d8	(2)	6.737	136	923313	20.000
66) Naphthalene	(2)	6.760	128	6044216	115.937
68) 2,6-Dichlorophenol	(2)	6.825	162	1731198	117.433
67) 4-Chloroaniline	(2)	6.825	127	2523908	116.898
69) Hexachloropropene	(2)	6.842	213	1090705	115.284
71) Hexachlorobutadiene	(2)	6.884	225	1119296	119.156
75) Quinoline	(2)	7.107	129	4127459	115.164
77) N-Nitrosodi-n-butylamine	(2)	7.160	84	2107266	99.686
76) Caprolactam	(2)	7.189	113	798135	111.016
80) 4-Chloro-3-methylphenol	(2)	7.313	107	2221692	116.188
82) Safrole	(2)	7.360	162	1721206	117.809
97) Isosafrole	(3)			1775279	116.591
83) 2-Methylnaphthalene	(2)	7.437	142	4254963	116.041
84) 1-Methylnaphthalene	(2)	7.531	142	4093844	115.901
85) Hexachlorocyclopentadiene	(3)	7.589	237	1011335	106.679
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.595	216	2145488	116.783
88) cis-Isosafrole	(3)	7.642	162	300450	19.935
90) 2,4,6-Trichlorophenol	(3)	7.719	196	1452330	115.471
92) 2,4,5-Trichlorophenol	(3)	7.760	196	1558539	115.592
93)$2-Fluorobiphenyl	(3)	7.801	172	8915606	217.472
94) trans-Isosafrole	(3)	7.866	162	1474829	96.657
95) 1,1'-Biphenyl	(3)	7.895	154	5208187	114.851
96) 2-Chloronaphthalene	(3)	7.913	162	4038582	115.188
98) 1-Chloronaphthalene	(3)	7.931	162	4314597	119.791
99) Diphenyl ether	(3)	8.001	170	3067959	117.725
100) 2-Nitroaniline	(3)	8.019	138	1473032	116.912
120) 2,4_2,6-Dinitrotoluenes	(3)			2840309	227.877
104) 1,4-Naphthoquinone	(3)	8.089	158	1874658	114.668
105) 1,4-Dinitrobenzene	(3)	8.160	168	835041	118.514
106) Dimethylphthalate	(3)	8.207	163	5191114	116.013
107) 1,3-Dinitrobenzene	(3)	8.231	168	934504	114.563
108) 2,6-Dinitrotoluene	(3)	8.260	165	1221658	114.618
109) Acenaphthylene	(3)	8.313	152	6183825	114.746
112) 3-Nitroaniline	(3)	8.419	138	1258129	114.494
113)*Acenaphthene-d10	(3)	8.448	164	549853	20.000
114) Acenaphthene	(3)	8.484	153	4455922	120.496
115) 2,4-Dinitrophenol	(3)	8.525	184	758684	123.124
117) Pentachlorobenzene	(3)	8.607	250	1939937	116.040

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
116) 4-Nitrophenol	(3)	8.607	109	836948	110.537
119) Dibenzofuran	(3)	8.648	168	6586126	115.142
118) 2,4-Dinitrotoluene	(3)	8.654	165	1618651	113.431
121) 1-Naphthylamine	(3)	8.731	143	4508972	111.945
146) Diallate trans/cis	(4)			3090958	118.998
122) 2,3,4,6-Tetrachlorophenol	(3)	8.778	232	1308252	112.930
123) 2-Naphthylamine	(3)	8.813	143	4299590	108.799
124) Diethylphthalate	(3)	8.901	149	5220664	114.313
125) Thionazin	(3)	8.978	107	924748	113.722
126) Fluorene	(3)	8.983	166	5283943	116.082
127) 4-Chlorophenyl-phenylether	(3)	8.995	204	2787113	113.624
128) 5-Nitro-o-toluidine	(3)	9.013	152	1534402	114.828
129) 4-Nitroaniline	(3)	9.025	138	1338326	112.363
130) 4,6-Dinitro-2-methylphenol	(4)	9.054	198	1005791A	125.918
132) NDPA as diphenylamine	(4)	9.113	169	4672595	121.581
131) N-Nitrosodiphenylamine	(4)	9.113	169	4672595	121.581
134) 1,2-Diphenylhydrazine	(4)	9.148	77	7104093	121.156
135)$2,4,6-Tribromophenol	(3)	9.225	330	1239050	224.955
137) Tetraethyldithiopyrophosphate	(4)	9.278	97	988664	119.742
140) Diallate (peak 1)	(4)	9.401	86	2628507	98.132
139) 1,3,5-Trinitrobenzene	(4)	9.401	213	691010	122.498
141) Phorate	(4)	9.407	75	6022821	157.746
142) Phenacetin	(4)	9.442	108	2926047	116.996
143) 4-Bromophenyl-phenylether	(4)	9.472	248	1568089	118.902
144) Diallate (peak 2)	(4)	9.478	86	462451	21.003
145) Hexachlorobenzene	(4)	9.519	284	1553755	124.015
147) Dimethoate	(4)	9.578	87	2465804	112.485
149) Pentachlorophenol	(4)	9.719	266	935579	121.368
150) 4-Aminobiphenyl	(4)	9.725	169	1743535	100.573
151) Pentachloronitrobenzene	(4)	9.725	237	699240	118.146
152) Pronamide	(4)	9.801	173	2440468	119.437
153)*Phenanthrene-d10	(4)	9.895	188	1163404	20.000
154) Dinoseb	(4)	9.907	211	1587715	127.485
155) Phenanthrene	(4)	9.925	178	7708315	114.937
157) Anthracene	(4)	9.972	178	8210067	120.417
163) Carbazole	(4)	10.136	167	7348945	118.927
164) Methyl parathion	(4)	10.278	109	1798387	114.350
165) Di-n-butylphthalate	(4)	10.501	149	7789853	108.799
167) Parathion	(4)	10.666	109	1229283	119.021
168) 4-Nitroquinoline-1-oxide	(4)	10.683	190	813553	124.346

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

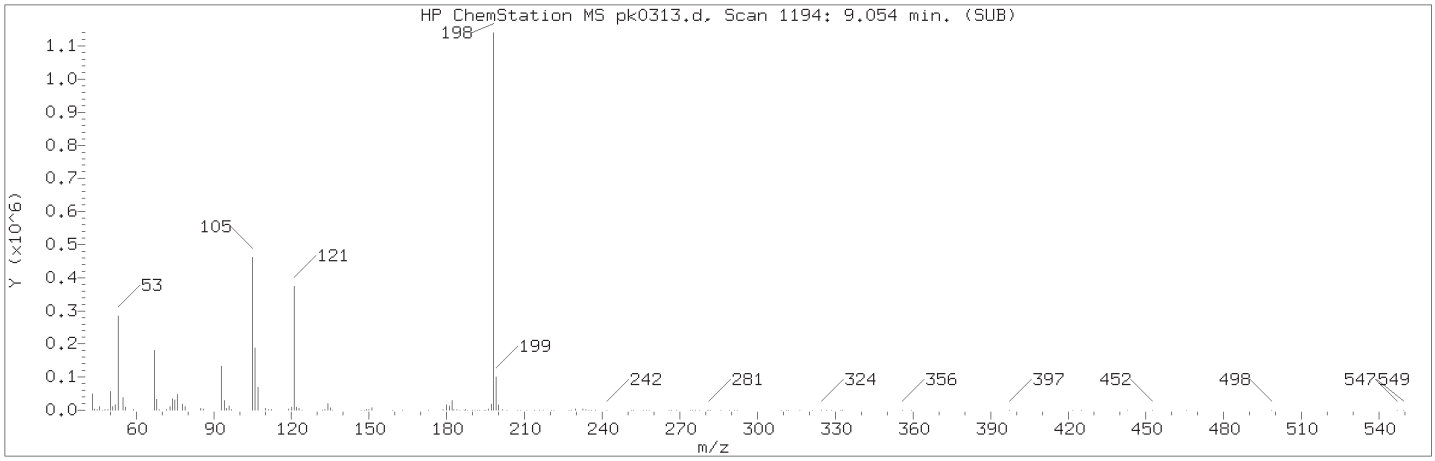
Sample Name: SSTD120 Lab Sample ID: STD292

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	564245	117.294
171) Isodrin	(4)	10.930	193	946467	116.351
173) Fluoranthene	(4)	11.083	202	8783402	115.606
174) Benzidine	(5)	11.236	184	12116699	285.915
175)*Pyrene-d10	(5)	11.283	212	1176300	20.000
177) Pyrene	(5)	11.301	202	8960206	110.411
179)$Terphenyl-d14	(5)	11.472	244	10261145	212.590
182) p-Dimethylaminoazobenzene	(5)	11.607	225	1683786	121.686
185) Chlorobenzilate	(5)	11.654	139	2427650	117.884
187) 3,3'-Dimethylbenzidine	(5)	11.936	212	5200603	113.767
188) Butylbenzylphthalate	(5)	11.960	149	4037022	119.040
191) 2-Acetylaminofluorene	(5)	12.189	181	3441980	118.806
193) 3,3'-Dichlorobenzidine	(5)	12.472	252	3147133	117.410
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.477	231	1633119	116.440
195) Benzo(a)anthracene	(5)	12.483	228	8663668	116.921
196) Chrysene	(5)	12.524	228	8428673	121.364
199) bis(2-Ethylhexyl)phthalate	(5)	12.542	149	5785972	119.975
203) 6-Methylchrysene	(5)	12.977	242	5868583	120.267
205) Di-n-octylphthalate	(6)	13.201	149	8394830	113.877
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.554	256	3807921	119.545
206) Benzo(b)fluoranthene	(6)	13.560	252	8131794	118.559
208) Benzo(k)fluoranthene	(6)	13.589	252	7750590	115.148
211) Benzo(a)pyrene	(6)	13.866	252	7497022	118.393
213)*Perylene-d12	(6)	13.913	264	953612	20.000
215) 3-Methylcholanthrene	(6)	14.195	268	2956203	118.411
217) Dibenz(a,h)acridine	(6)	14.748	279	5762500	120.486
218) Dibenz(a,j)acridine	(6)	14.807	279	5920421	119.362
222) Total PAHs	(6)			124772489	2263.255
219) Indeno(1,2,3-cd)pyrene	(6)	15.007	276	7500259M	118.952
220) Dibenz(a,h)anthracene	(6)	15.030	278	6527368	114.412
221) Benzo(g,h,i)perylene	(6)	15.318	276	6294412	115.594

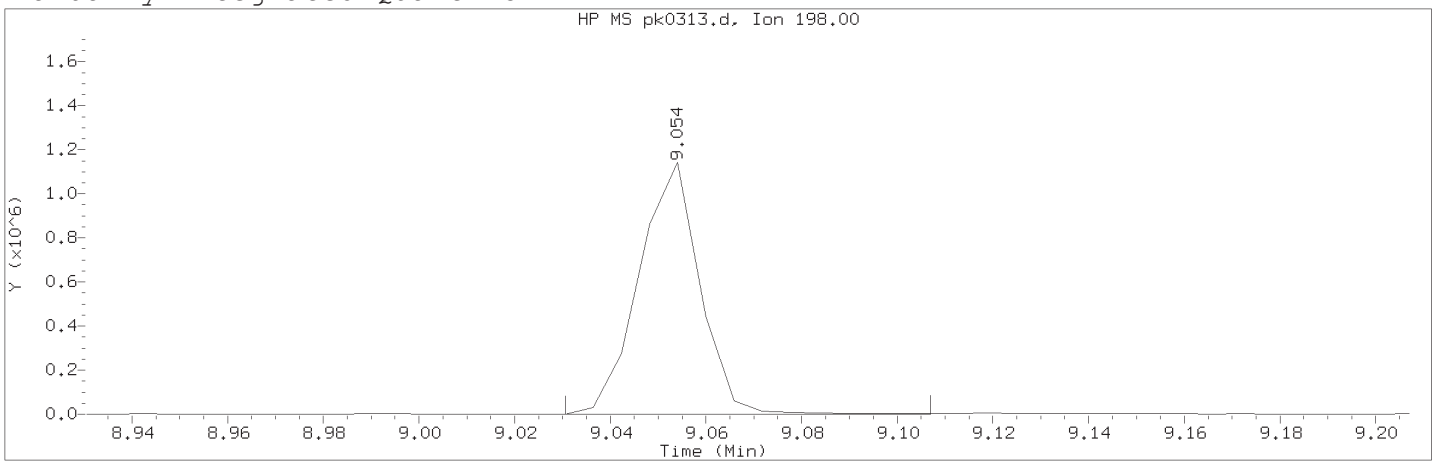
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

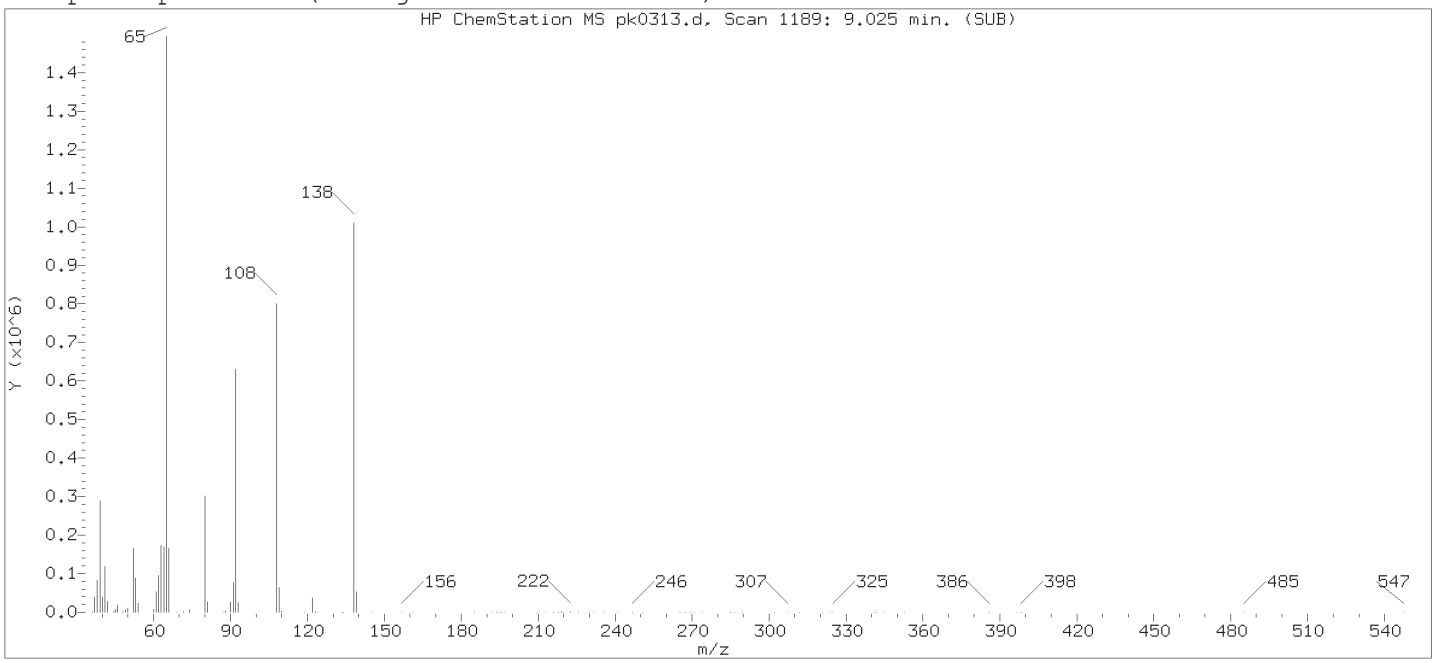
Compound Number : 130
Compound Name : 4,6-Dinitro-2-methylphenol
Scan Number : 1194
Retention Time (minutes) : 9.054
Quant Ion : 198.00
Area (flag) : 1005791A
On-Column Amount (ng/ul) : 125.9184
Integration start scan : 1189 Integration stop scan: 1202
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

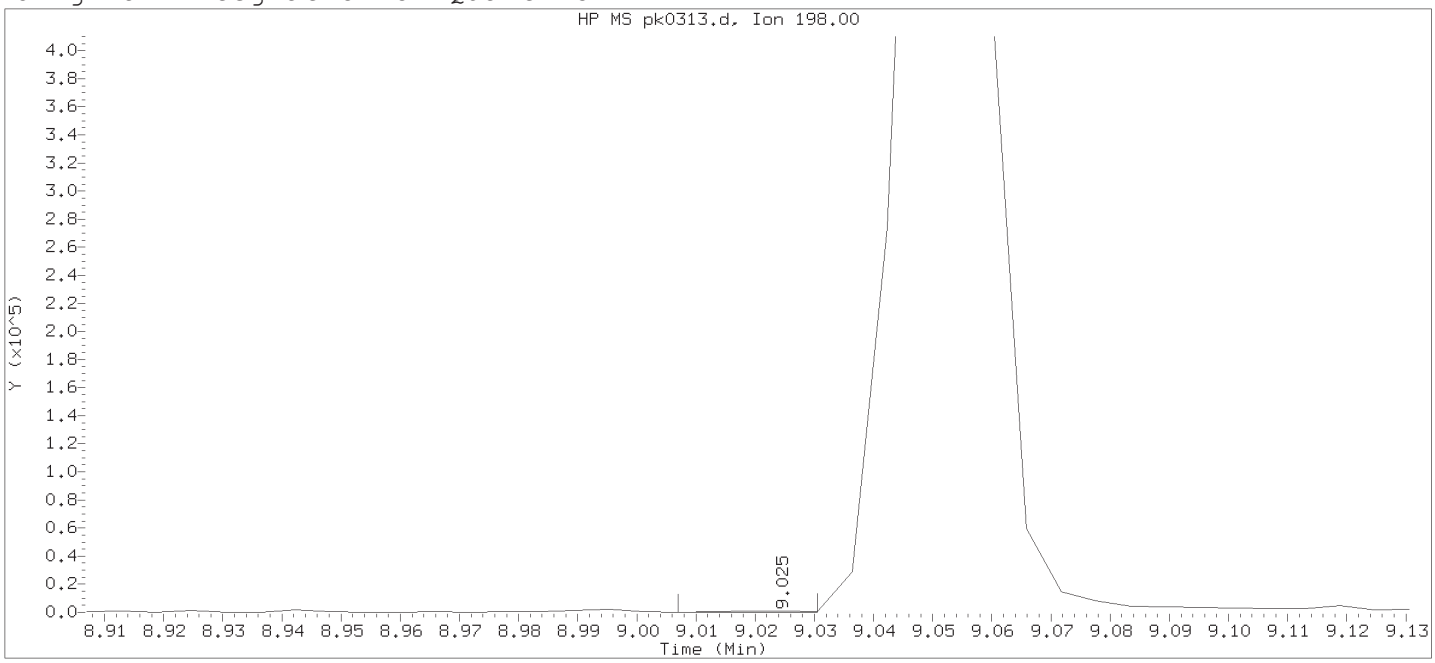
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

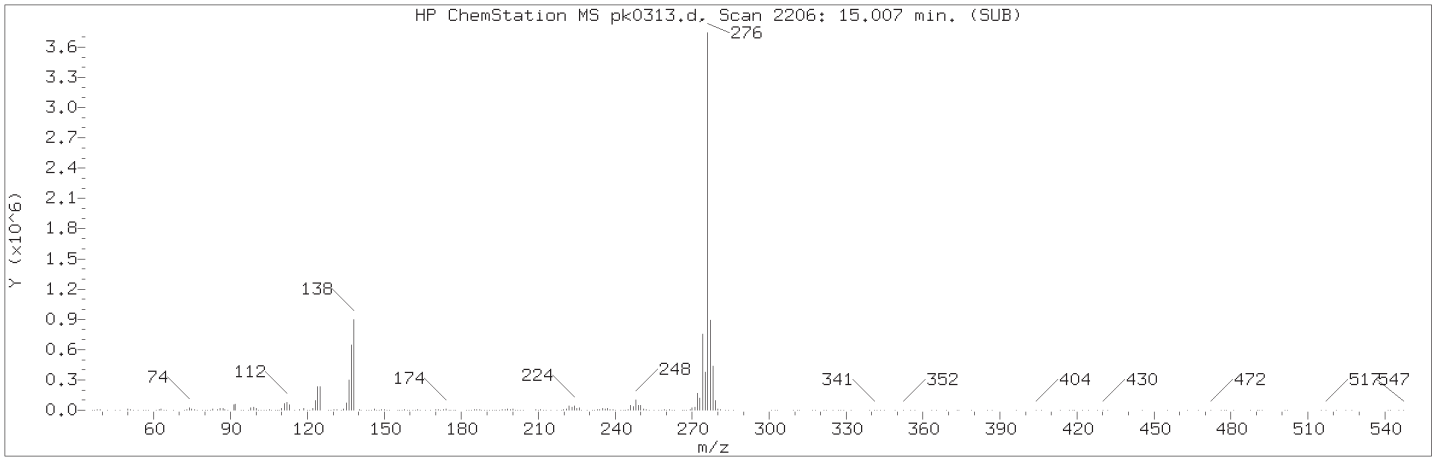
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:50
Date, time and analyst ID of latest file update: 09-Nov-2018 16:50 Automation

Sample Name: SSTD120 Lab Sample ID: STD292

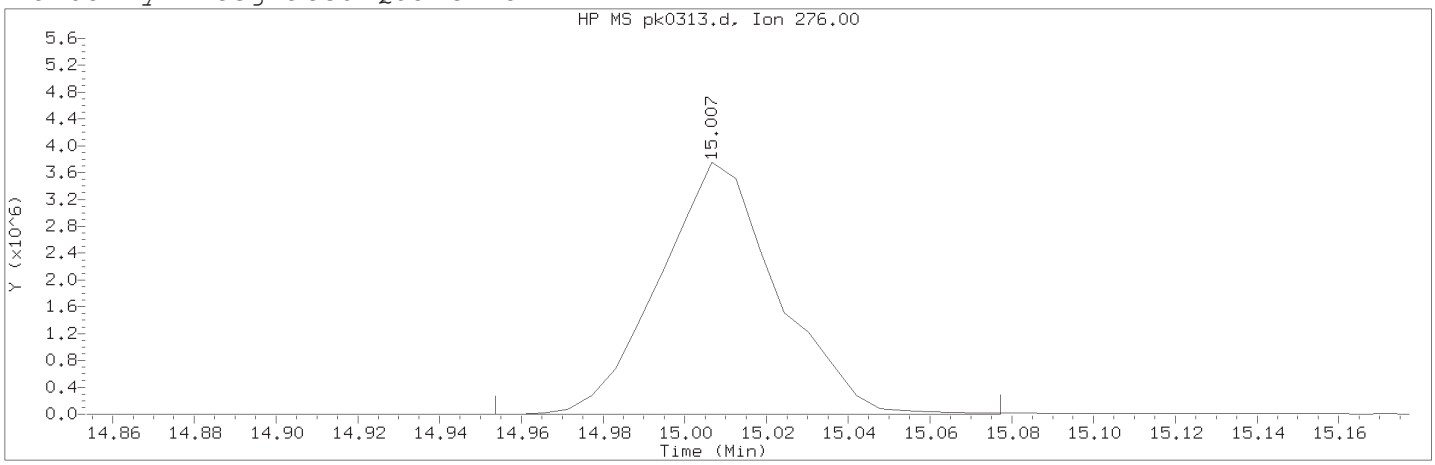
Compound Number	: 130		
Compound Name	: 4,6-Dinitro-2-methylphenol		
Scan Number	: 1189		
Retention Time (minutes)	: 9.025		
Quant Ion	: 198.00		
Area	: 883		
On-column Amount (ng/ul)	: 0.2047		
Integration start scan	: 1185	Integration stop scan:	1189
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:58
Date, time and analyst ID of latest file update: 11-Nov-2018 17:58 apb10206

Sample Name: SSTD120 Lab Sample ID: STD292

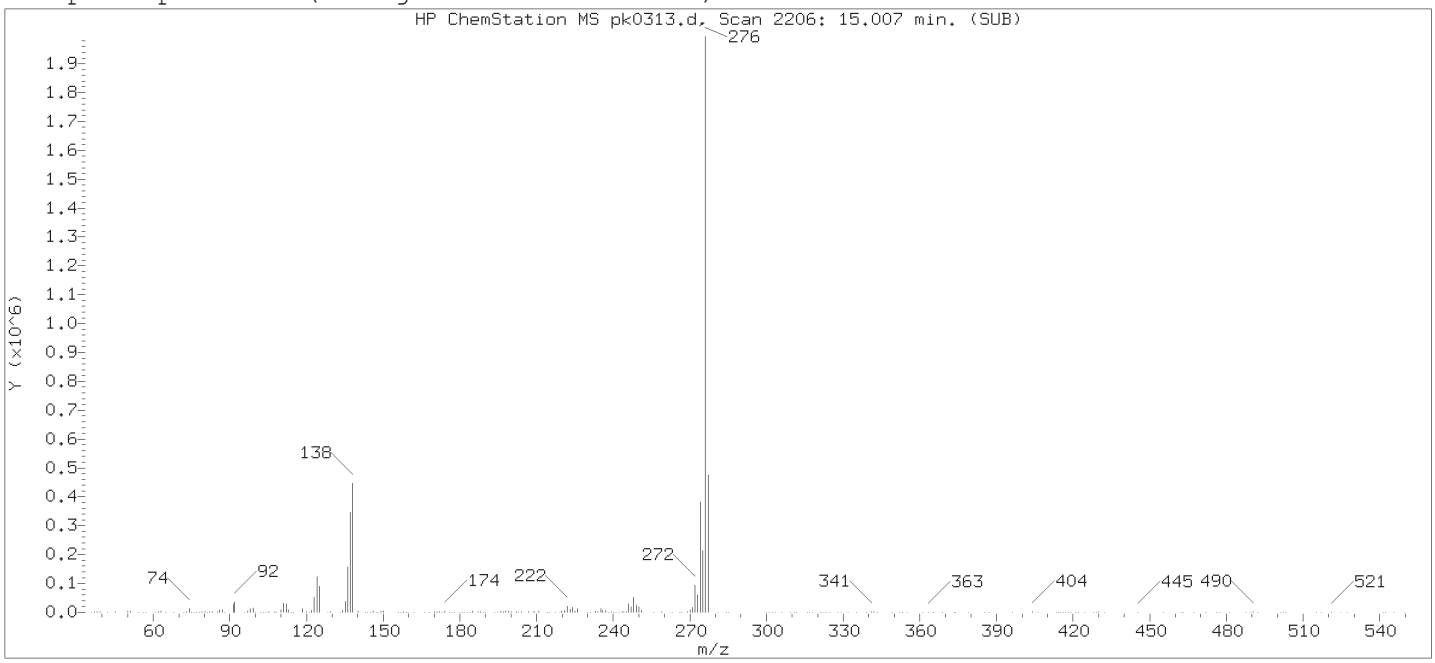
Compound Number : 219
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 2206
Retention Time (minutes) : 15.007
Quant Ion : 276.00
Area (flag) : 7500259M
On-Column Amount (ng/ul) : 118.9517
Integration start scan : 2196 Integration stop scan: 2217
Y at integration start : 478 Y at integration end: 478

Reason for manual integration: improper integration

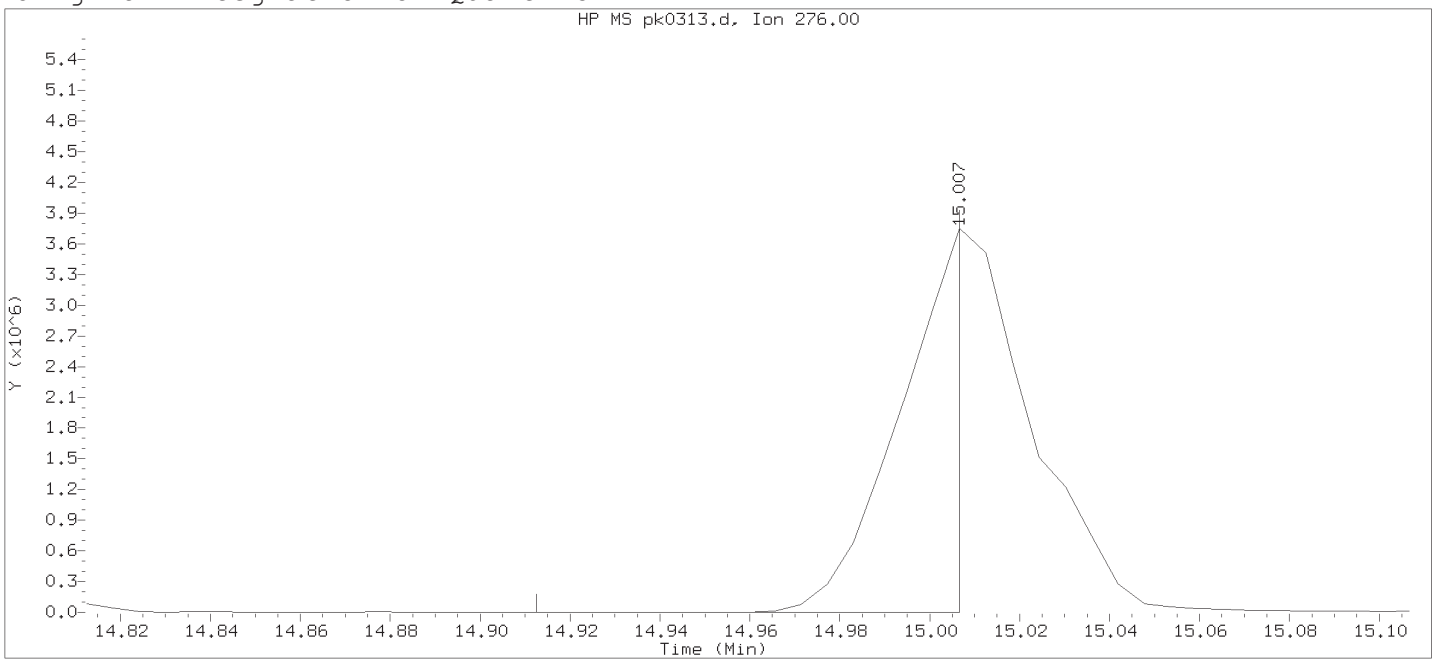
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



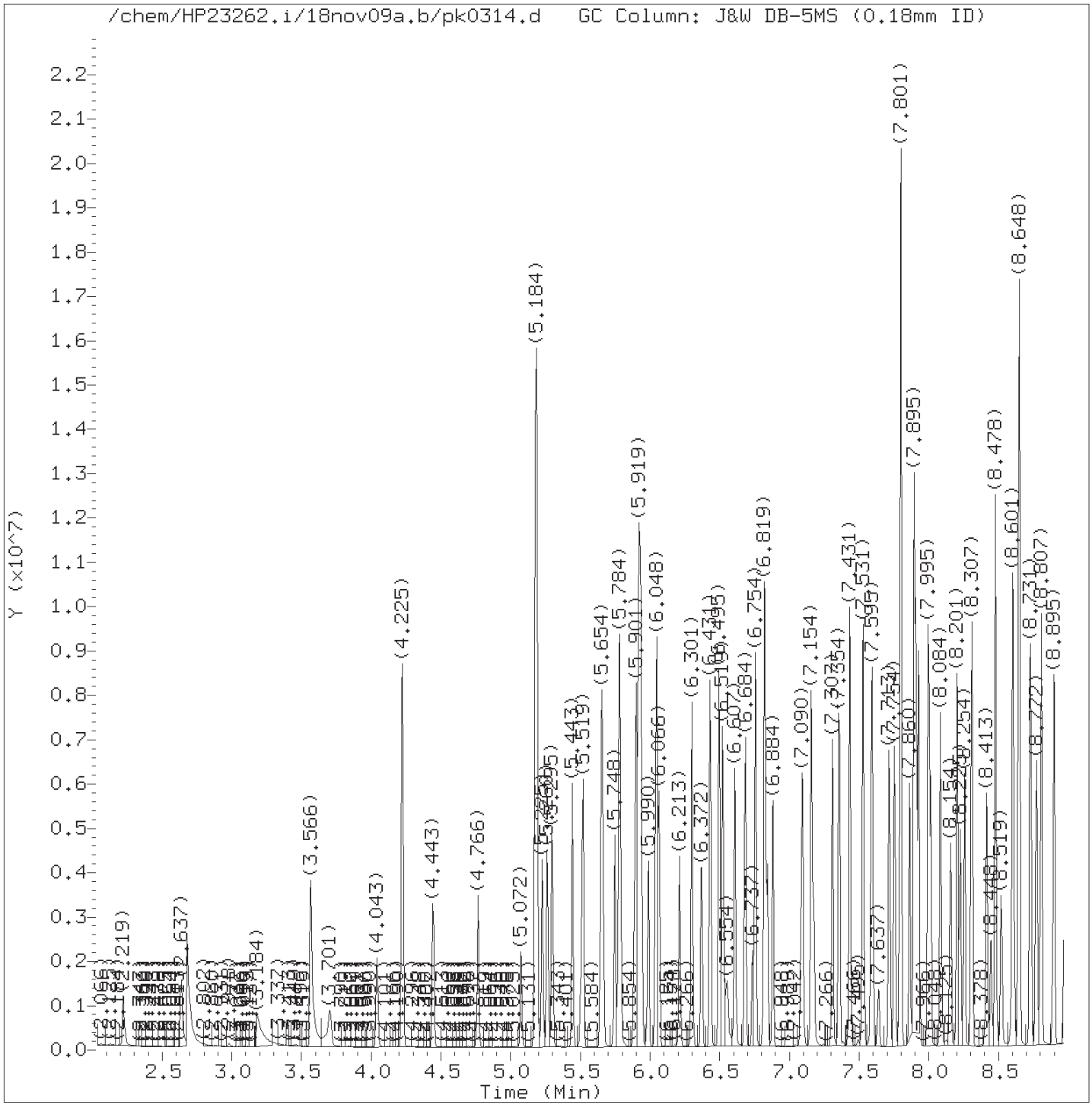
Data File: /chem/HP23262.i/18nov09a.b/pk0313.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:29 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 16:50
Date, time and analyst ID of latest file update: 09-Nov-2018 16:50 Automation

Sample Name: SSTD120 Lab Sample ID: STD292

Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2206		
Retention Time (minutes)	: 15.007		
Quant Ion	: 276.00		
Area	: 3329257		
On-column Amount (ng/ul)	: 56.0507		
Integration start scan	: 2189	Integration stop scan:	2205
Y at integration start	: 488	Y at integration end:	488

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

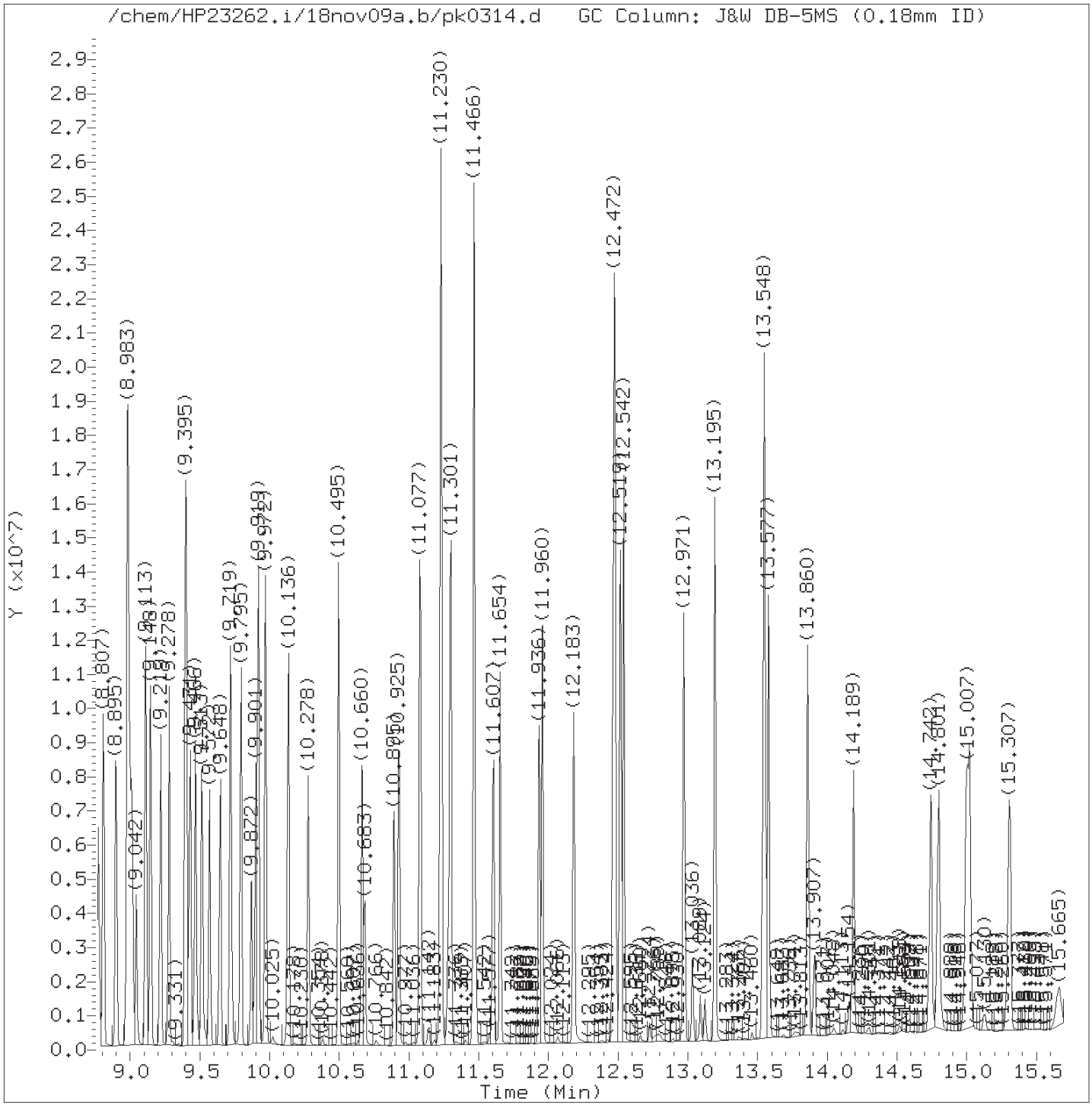
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.219	88	506851	79.212
4) N-Nitrosodimethylamine	(1)	2.637	74	919676	82.460
5) Pyridine	(1)	2.678	79	1585509	81.168
7) 2-Picoline	(1)	3.566	93	1593400	81.089
8) N-Nitrosomethylethylamine	(1)	3.701	88	719582	82.176
9) Methyl methanesulfonate	(1)	4.043	80	702592	80.558
11)$2-Fluorophenol	(1)	4.225	112	2293804	162.239
13) N-Nitrosodiethylamine	(1)	4.443	102	662204	79.499
15) Ethyl methanesulfonate	(1)	4.766	109	668652	81.442
17)$Phenol-d6	(1)	5.178	99	3612066	161.772
19) Aniline	(1)	5.184	93	2348103	80.379
18) Phenol	(1)	5.190	94	2162875	82.087
22) bis(2-Chloroethyl)ether	(1)	5.260	93	1480643	79.569
23) 2-Chlorophenol	(1)	5.295	128	1119706	79.288
24) 1,3-Dichlorobenzene	(1)	5.443	146	1139982	80.949
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	180240	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	1166007	81.899
27) Benzyl alcohol	(1)	5.648	108	909411	79.525
42) Total Cresols	(1)			2828146	160.421
28) 1,2-Dichlorobenzene	(1)	5.660	146	1124005	80.200
30) Indene	(1)	5.748	115	1340615	80.532
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	2188389	80.214
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	2188389	80.214
31) 2-Methylphenol	(1)	5.784	108	1308610	80.051
35) N-Nitrosopyrrolidine	(1)	5.890	100	865982	82.584
36) Acetophenone	(1)	5.901	105	1933961	81.591
38) N-Nitroso-di-n-propylamine	(1)	5.919	70	1284776	80.276
37) 4-Methylphenol	(1)	5.925	108	1519536	80.348
39) N-Nitrosomorpholine	(1)	5.931	56	1032584	81.294
40) o-Toluidine	(1)	5.937	106	2183297	79.925
43) Hexachloroethane	(1)	5.990	117	483110	81.403
44)$Nitrobenzene-d5	(2)	6.048	82	3420129	159.551
45) Nitrobenzene	(2)	6.066	77	1813140	79.750
48) N-Nitrosopiperidine	(2)	6.213	114	731188	78.321
50) Isophorone	(2)	6.301	82	3367765	78.054
51) 2-Nitrophenol	(2)	6.372	139	684141	80.589
53) 2,4-Dimethylphenol	(2)	6.431	107	1480971	78.918
57) O,O,O-Triethylphosphorothioate	(2)	6.495	198	693527	77.565
55) bis(2-Chloroethoxy)methane	(2)	6.519	93	1984858	78.519
56) Benzoic acid	(2)	6.554	105	1029994	78.250

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60)	2,4-Dichlorophenol	(2)	6.607	162	1082537	78.397
62)	1,2,4-Trichlorobenzene	(2)	6.684	180	1120590	78.917
65)	*Naphthalene-d8	(2)	6.737	136	823867	20.000
66)	Naphthalene	(2)	6.754	128	3608253	78.160
67)	4-Chloroaniline	(2)	6.819	127	1503085	78.669
68)	2,6-Dichlorophenol	(2)	6.825	162	1040266	79.386
69)	Hexachloropropene	(2)	6.842	213	636537	76.874
71)	Hexachlorobutadiene	(2)	6.884	225	655923	78.829
75)	Quinoline	(2)	7.090	129	2526547	79.334
77)	N-Nitrosodi-n-butylamine	(2)	7.154	84	1655249	85.008
76)	Caprolactam	(2)	7.172	113	504920	79.134
80)	4-Chloro-3-methylphenol	(2)	7.307	107	1356779	79.680
82)	Safrole	(2)	7.360	162	1020287	78.834
97)	Isosafrole	(3)			1071073	78.883
83)	2-Methylnaphthalene	(2)	7.431	142	2503806	77.366
84)	1-Methylnaphthalene	(2)	7.531	142	2438498	78.011
85)	Hexachlorocyclopentadiene	(3)	7.584	237	635939	76.389
86)	1,2,4,5-Tetrachlorobenzene	(3)	7.595	216	1300185	79.205
88)	cis-Isosafrole	(3)	7.642	162	182049	13.501
90)	2,4,6-Trichlorophenol	(3)	7.719	196	882625	78.757
92)	2,4,5-Trichlorophenol	(3)	7.754	196	961920	79.632
93)	$2-Fluorobiphenyl	(3)	7.801	172	6223364	165.923
94)	trans-Isosafrole	(3)	7.860	162	889024	65.383
95)	1,1'-Biphenyl	(3)	7.895	154	3259034	80.023
96)	2-Chloronaphthalene	(3)	7.907	162	3014326M	89.850
98)	1-Chloronaphthalene	(3)	7.925	162	2524101M	78.684
99)	Diphenyl ether	(3)	7.995	170	1856783	79.562
100)	2-Nitroaniline	(3)	8.013	138	891570	79.198
120)	2,4_2,6-Dinitrotoluenes	(3)			1746807	157.359
104)	1,4-Naphthoquinone	(3)	8.084	158	1163367	79.496
105)	1,4-Dinitrobenzene	(3)	8.154	168	498023	79.138
106)	Dimethylphthalate	(3)	8.207	163	3166146	79.195
107)	1,3-Dinitrobenzene	(3)	8.225	168	598406	81.123
108)	2,6-Dinitrotoluene	(3)	8.260	165	742476	78.367
109)	Acenaphthylene	(3)	8.307	152	3785417	78.660
112)	3-Nitroaniline	(3)	8.413	138	790116	80.049
113)	*Acenaphthene-d10	(3)	8.448	164	493748	20.000
114)	Acenaphthene	(3)	8.478	153	2700006	80.978
115)	2,4-Dinitrophenol	(3)	8.519	184	451604	81.071
116)	4-Nitrophenol	(3)	8.601	109	542099	79.821

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.607	250	1207172	80.275
119) Dibenzofuran	(3)	8.648	168	4039538	79.092
118) 2,4-Dinitrotoluene	(3)	8.648	165	1004331	78.911
121) 1-Naphthylamine	(3)	8.731	143	2838376	78.978
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	804568	78.209
146) Diallate trans/cis	(4)			1925600	77.956
123) 2-Naphthylamine	(3)	8.807	143	2736414	78.051
124) Diethylphthalate	(3)	8.895	149	3206123	78.777
125) Thionazin	(3)	8.978	107	575371	79.194
126) Fluorene	(3)	8.983	166	3258964	79.798
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	1744176	79.455
128) 5-Nitro-o-toluidine	(3)	9.007	152	937195	78.727
129) 4-Nitroaniline	(3)	9.019	138	820869	77.803
130) 4,6-Dinitro-2-methylphenol	(4)	9.042	198	617687	80.195
132) NDPA as diphenylamine	(4)	9.113	169	2835622	77.707
131) N-Nitrosodiphenylamine	(4)	9.113	169	2835622	77.707
134) 1,2-Diphenylhydrazine	(4)	9.148	77	4359993	78.115
135)$2,4,6-Tribromophenol	(3)	9.219	330	768502	156.889
137) Tetraethyldithiopyrophosphate	(4)	9.278	97	627920	79.307
140) Diallate (peak 1)	(4)	9.395	86	1639447	64.474
139) 1,3,5-Trinitrobenzene	(4)	9.395	213	444031	81.145
141) Phorate	(4)	9.401	75	3768868	89.861
142) Phenacetin	(4)	9.431	108	1848375	77.795
143) 4-Bromophenyl-phenylether	(4)	9.466	248	967515	77.408
144) Diallate (peak 2)	(4)	9.478	86	286153	13.529
145) Hexachlorobenzene	(4)	9.513	284	944108	78.674
147) Dimethoate	(4)	9.572	87	1639830	78.433
149) Pentachlorophenol	(4)	9.713	266	589583	79.608
150) 4-Aminobiphenyl	(4)	9.719	169	1173340	74.823
151) Pentachloronitrobenzene	(4)	9.725	237	455846	79.981
152) Pronamide	(4)	9.795	173	1531231	78.526
153)*Phenanthrene-d10	(4)	9.895	188	1120477	20.000
154) Dinoseb	(4)	9.901	211	961819	80.125
155) Phenanthrene	(4)	9.919	178	4975148	77.748
157) Anthracene	(4)	9.972	178	5158354	78.912
163) Carbazole	(4)	10.136	167	4673512	79.013
164) Methyl parathion	(4)	10.278	109	1205648	79.731
165) Di-n-butylphthalate	(4)	10.495	149	5739192	82.124
167) Parathion	(4)	10.660	109	799230	80.231
168) 4-Nitroquinoline-1-oxide	(4)	10.683	190	528119	82.502

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	340721	75.575
171) Isodrin	(4)	10.930	193	597058	77.432
173) Fluoranthene	(4)	11.077	202	6024488	81.736
174) Benzidine	(5)	11.230	184	9421693	234.929
175)*Pyrene-d10	(5)	11.277	212	1124935	20.000
177) Pyrene	(5)	11.301	202	5983828	77.806
179)$Terphenyl-d14	(5)	11.466	244	7875903	166.929
182) p-Dimethylaminoazobenzene	(5)	11.607	225	1060203	80.079
185) Chlorobenzilate	(5)	11.654	139	1549853	79.126
187) 3,3'-Dimethylbenzidine	(5)	11.936	212	3319252	77.237
188) Butylbenzylphthalate	(5)	11.960	149	2593551	79.979
191) 2-Acetylaminofluorene	(5)	12.183	181	2219604	80.074
193) 3,3'-Dichlorobenzidine	(5)	12.466	252	2019878	79.194
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.472	231	1078027	80.248
195) Benzo(a)anthracene	(5)	12.477	228	5651742	79.817
196) Chrysene	(5)	12.519	228	5430375	81.314
199) bis(2-Ethylhexyl)phthalate	(5)	12.542	149	3666512	79.665
203) 6-Methylchrysene	(5)	12.971	242	3744106	80.155
205) Di-n-octylphthalate	(6)	13.195	149	6305822	85.281
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.548	256	2484101	80.269
206) Benzo(b)fluoranthene	(6)	13.554	252	5339857	80.201
208) Benzo(k)fluoranthene	(6)	13.577	252	5148387	79.142
211) Benzo(a)pyrene	(6)	13.860	252	4865130	79.408
213)*Perylene-d12	(6)	13.913	264	924931	20.000
215) 3-Methylcholanthrene	(6)	14.189	268	1952845	80.430
217) Dibenz(a,h)acridine	(6)	14.742	279	3845397	81.907
218) Dibenz(a,j)acridine	(6)	14.801	279	3916220	80.930
222) Total PAHs	(6)			80635267	1490.407
219) Indeno(1,2,3-cd)pyrene	(6)	15.001	276	5166628	83.315
220) Dibenz(a,h)anthracene	(6)	15.024	278	4338519	78.797
221) Benzo(g,h,i)perylene	(6)	15.307	276	4257867	80.463

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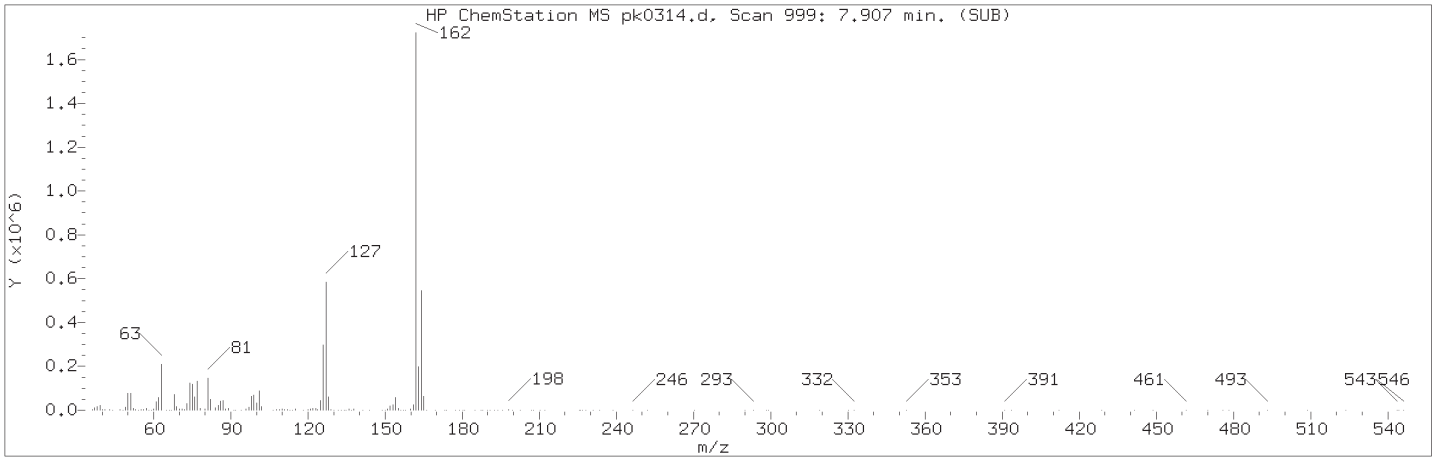
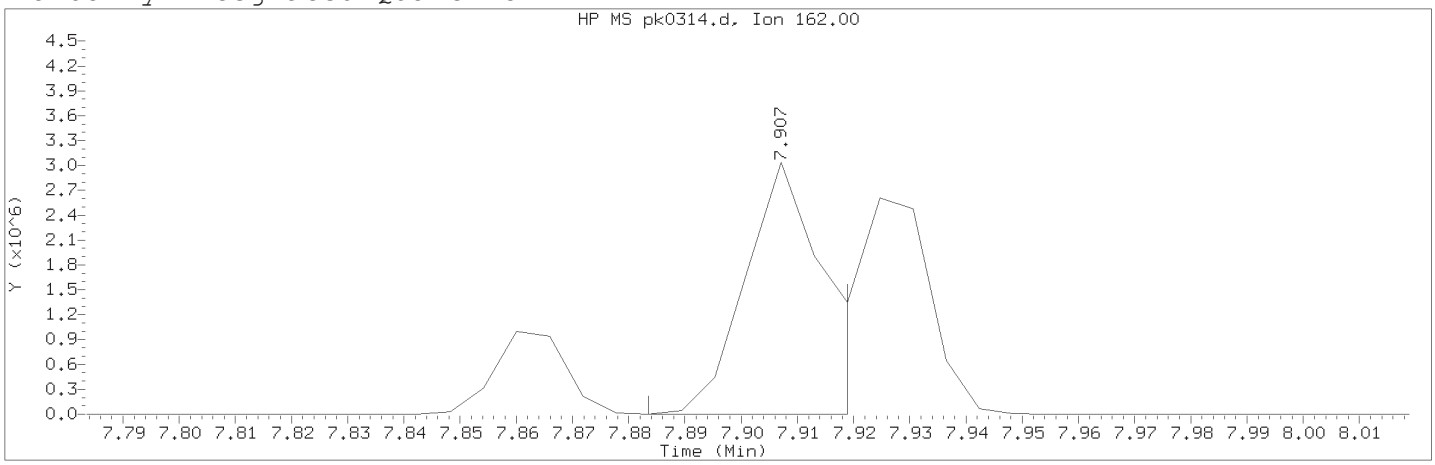
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

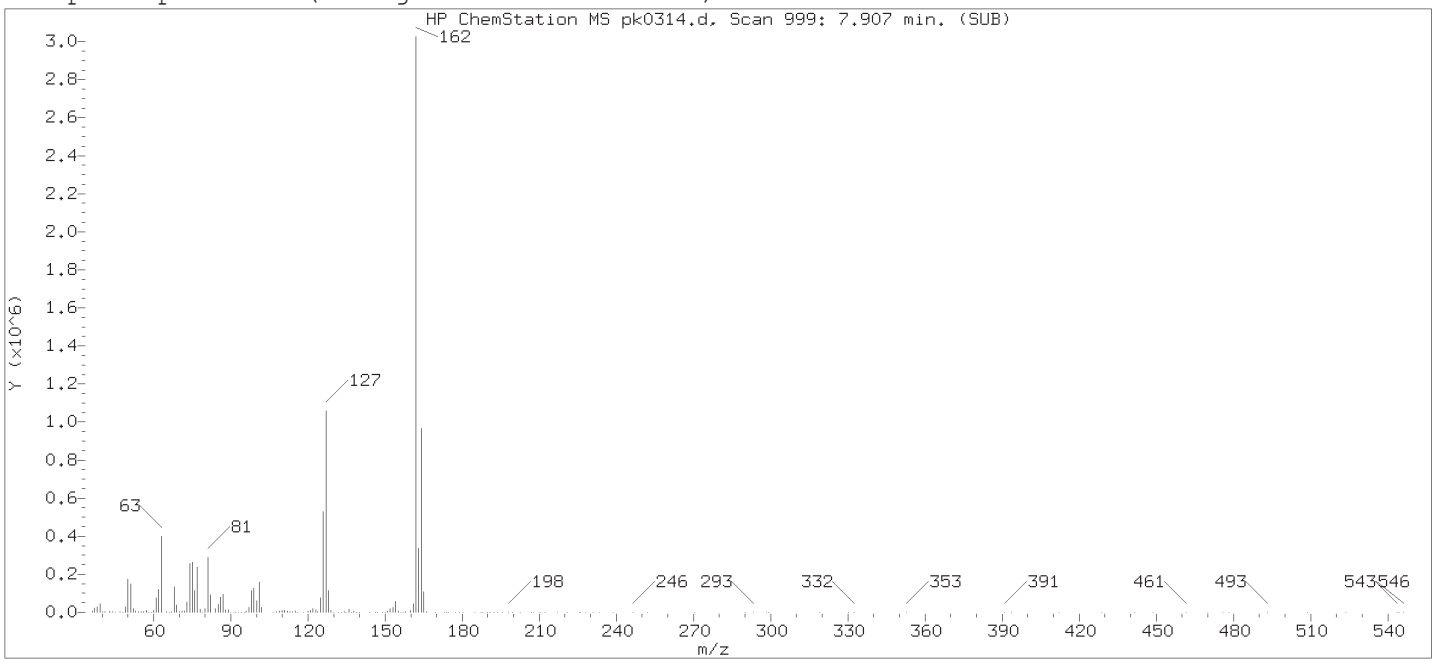
Compound Number : 96
Compound Name : 2-Chloronaphthalene
Scan Number : 999
Retention Time (minutes) : 7.907
Quant Ion : 162.00
Area (flag) : 3014326M
On-Column Amount (ng/ul) : 89.8495
Integration start scan : 994 Integration stop scan: 1000
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

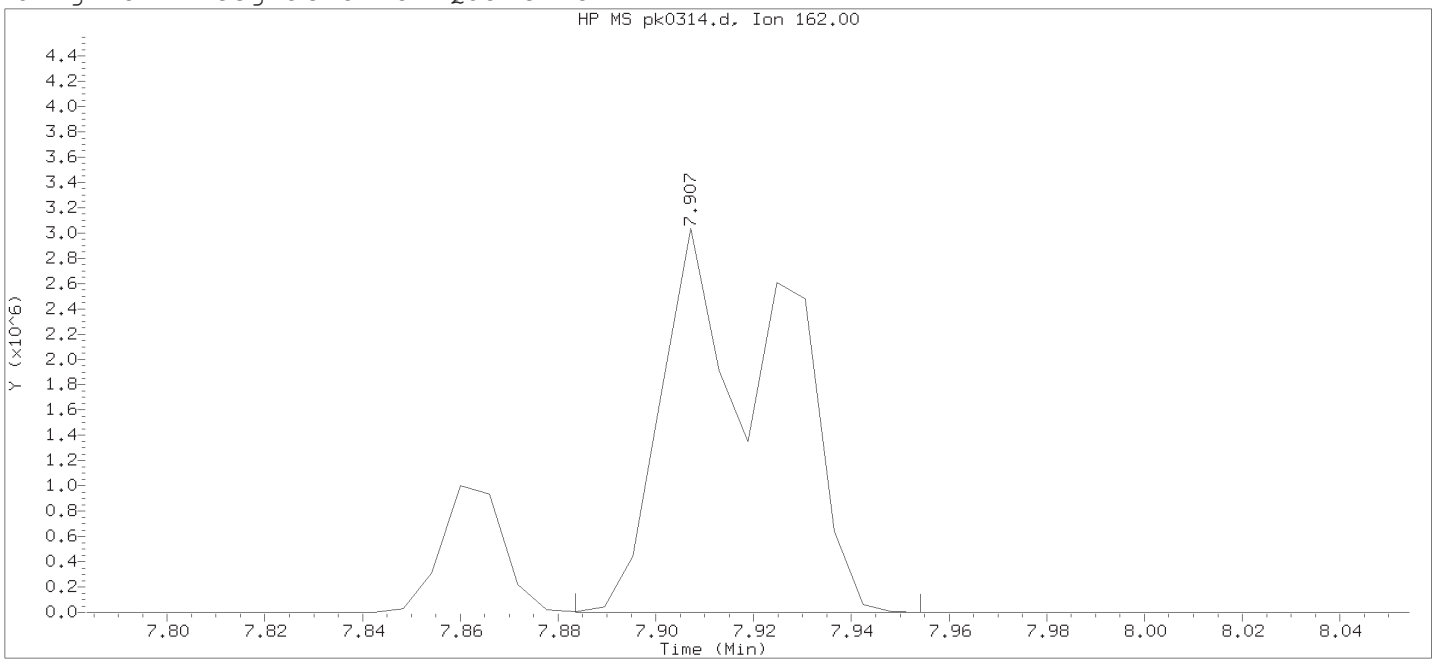
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

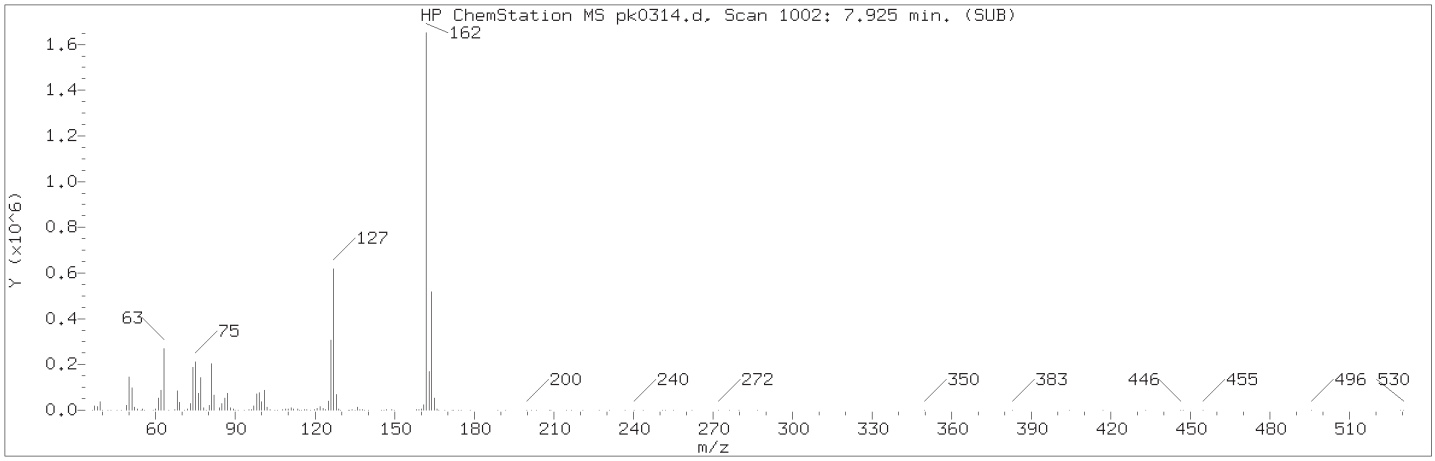
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:12
Date, time and analyst ID of latest file update: 09-Nov-2018 17:12 Automation

Sample Name: SSTD080 Lab Sample ID: STD2928

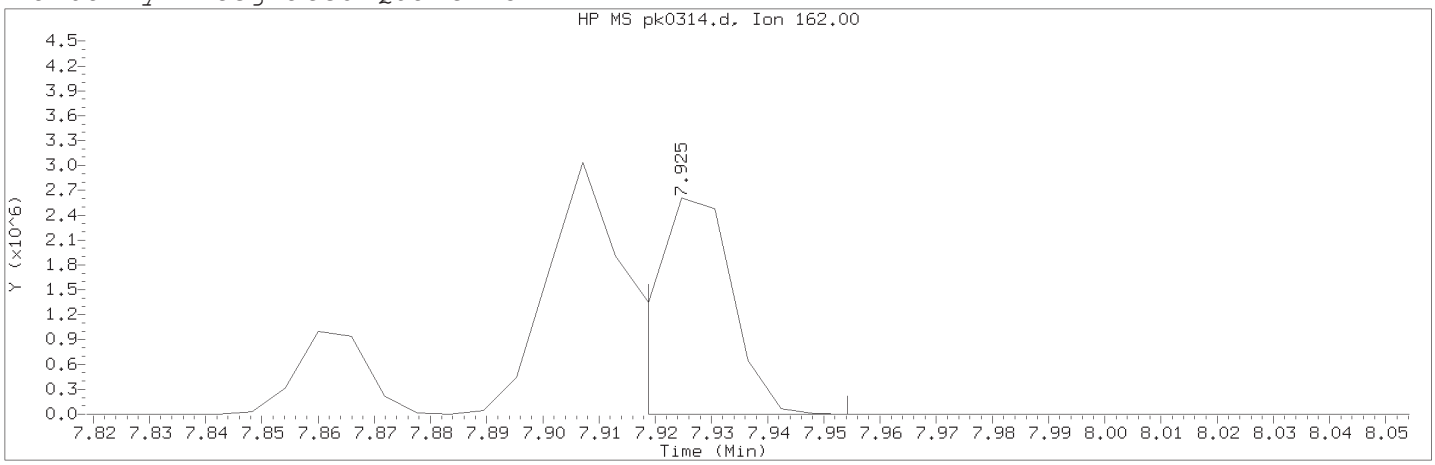
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 999		
Retention Time (minutes)	: 7.907		
Quant Ion	: 162.00		
Area	: 5061046		
On-column Amount (ng/ul)	: 137.2541		
Integration start scan	: 994	Integration stop scan:	1006
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used to create PDF

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD080 Lab Sample ID: STD2928

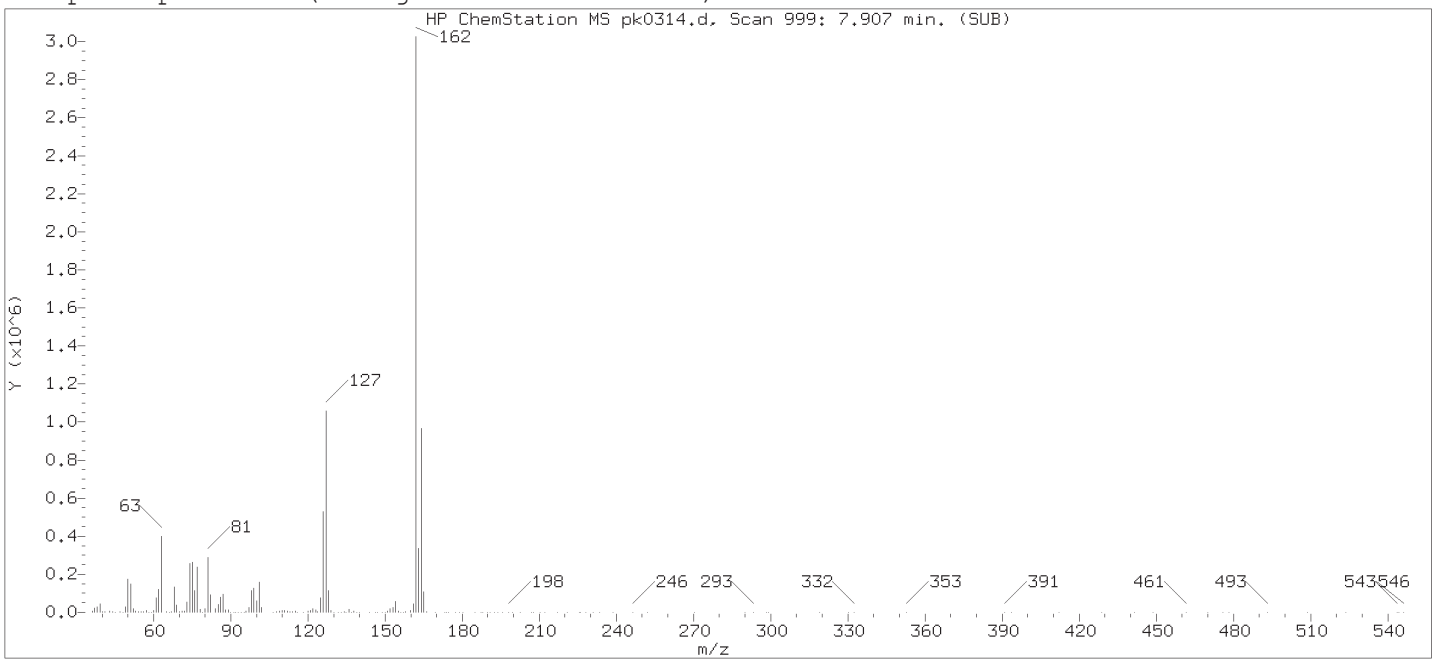
Compound Number : 98
Compound Name : 1-Chloronaphthalene
Scan Number : 1002
Retention Time (minutes) : 7.925
Quant Ion : 162.00
Area (flag) : 2524101M
On-Column Amount (ng/ul) : 78.6845
Integration start scan : 1000 Integration stop scan: 1006
Y at integration start : -203 Y at integration end: -203

Reason for manual integration: improper integration

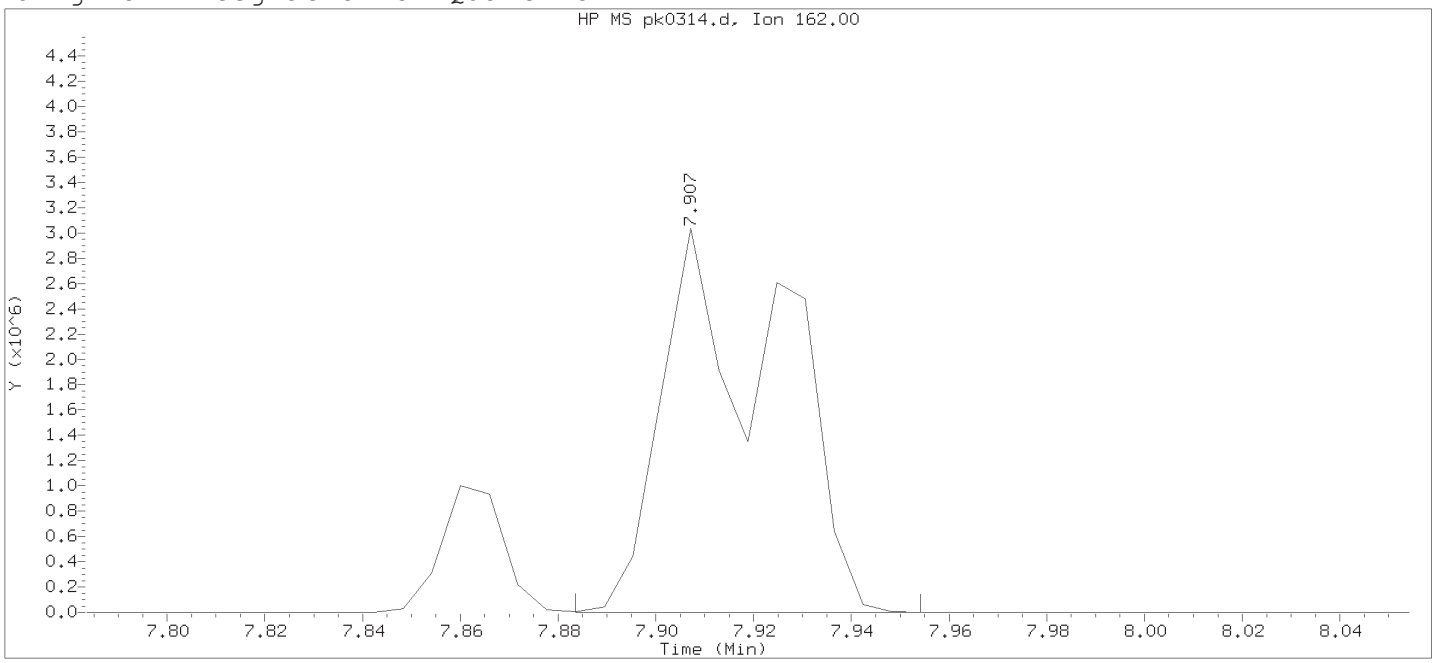
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



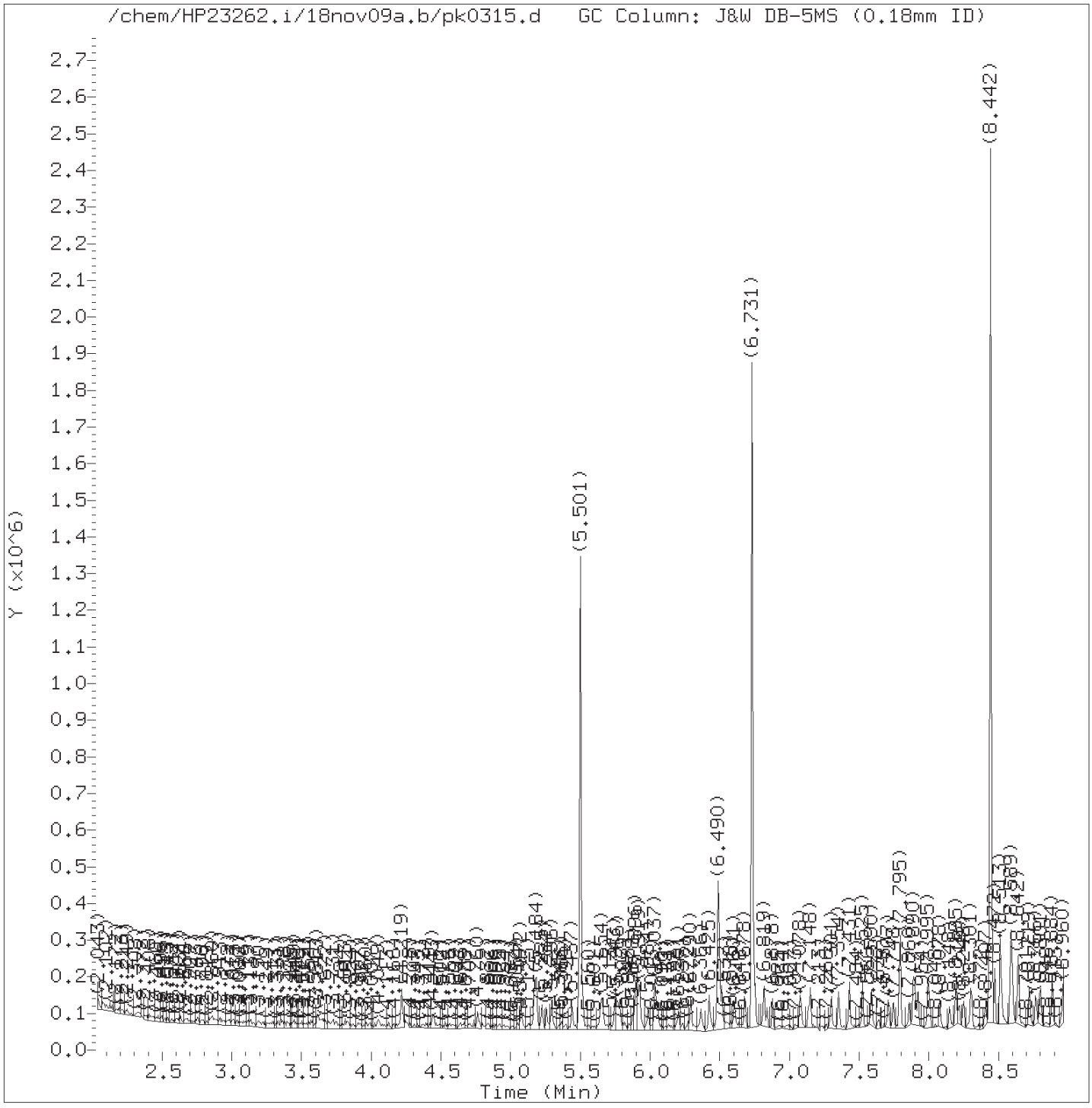
Data File: /chem/HP23262.i/18nov09a.b/pk0314.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 16:52 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:12
Date, time and analyst ID of latest file update: 09-Nov-2018 17:12 Automation

Sample Name: SSTD080 Lab Sample ID: STD2928

Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 999		
Retention Time (minutes)	: 7.907		
Quant Ion	: 162.00		
Area	: 5061046		
On-column Amount (ng/ul)	: 138.7976		
Integration start scan	: 994	Integration stop scan:	1006
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

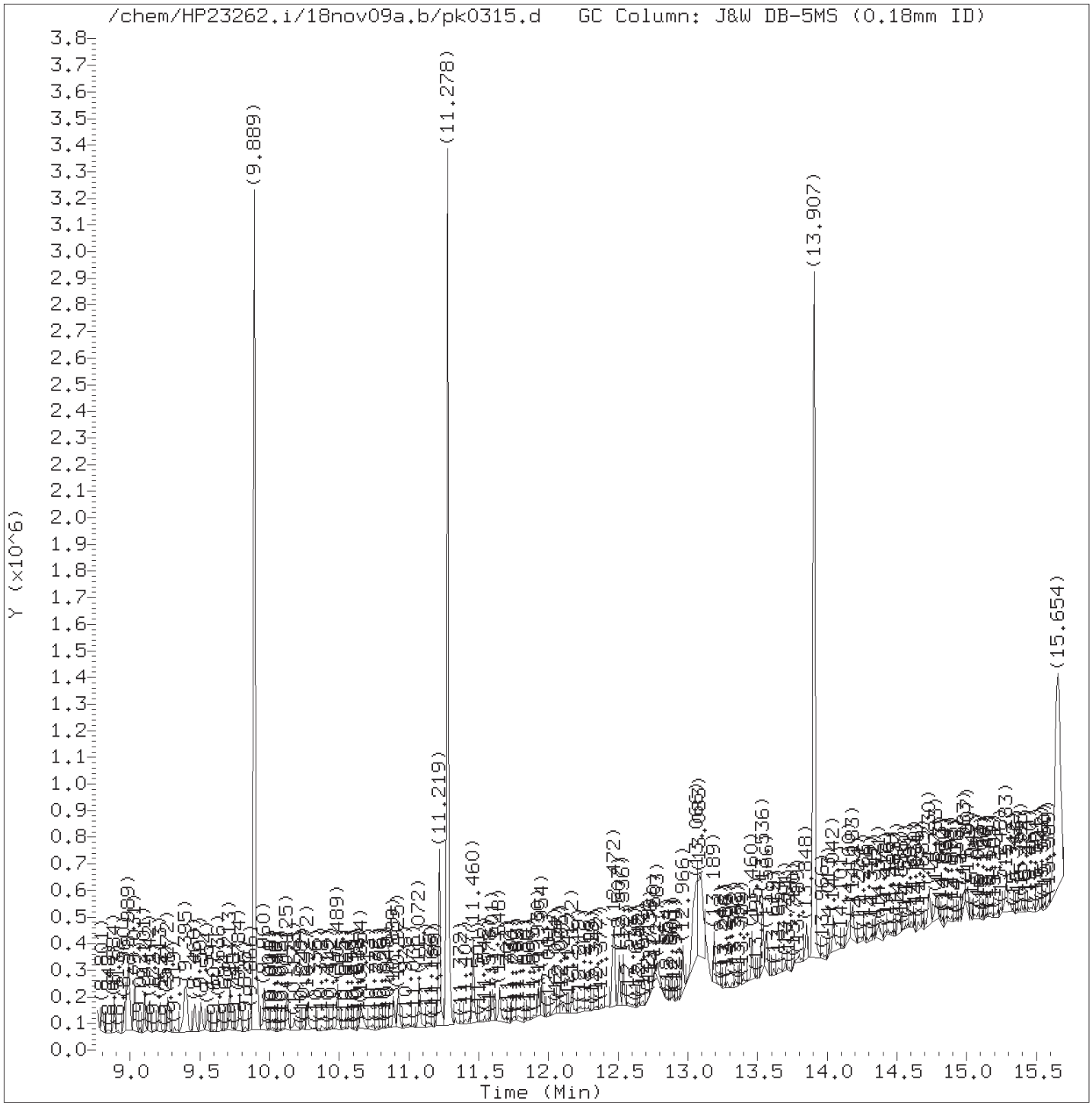
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.255	88	9024	1.502
4) N-Nitrosodimethylamine	(1)	2.749	74	3880	0.371
5) Pyridine	(1)	2.755	79	4717	0.257
7) 2-Picoline	(1)	3.554	93	458	0.025
8) N-Nitrosomethylethylamine	(1)	3.719	88	9781	1.190
9) Methyl methanesulfonate	(1)	4.049	80	7802	0.953
11)$2-Fluorophenol	(1)	4.219	112	26399	1.989
13) N-Nitrosodiethylamine	(1)	4.443	102	7571	0.976
15) Ethyl methanesulfonate	(1)	4.760	109	8921	1.114
17)$Phenol-d6	(1)	5.172	99	35178	1.678
18) Phenol	(1)	5.184	94	24306	0.987
19) Aniline	(1)	5.184	93	28366	1.026
22) bis(2-Chloroethyl)ether	(1)	5.254	93	16690	0.966
23) 2-Chlorophenol	(1)	5.296	128	14113M	1.048
24) 1,3-Dichlorobenzene	(1)	5.443	146	13160	0.997
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	169195	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	12047	0.924
27) Benzyl alcohol	(1)	5.648	108	9928M	0.925
42) Total Cresols	(1)			31629	1.933
28) 1,2-Dichlorobenzene	(1)	5.660	146	13404	1.014
30) Indene	(1)	5.748	115	15527	0.994
31) 2-Methylphenol	(1)	5.766	108	14469M	0.957
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	23673	0.942
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	23673	0.942
35) N-Nitrosopyrrolidine	(1)	5.878	100	9235	0.953
36) Acetophenone	(1)	5.896	105	24863	1.086
38) N-Nitroso-di-n-propylamine	(1)	5.901	70	14954	0.997
39) N-Nitrosomorpholine	(1)	5.919	56	14547	1.220
37) 4-Methylphenol	(1)	5.919	108	17160	0.975
40) o-Toluidine	(1)	5.925	106	24963	0.980
43) Hexachloroethane	(1)	5.990	117	7650M	1.373
44)$Nitrobenzene-d5	(2)	6.037	82	37790	2.082
45) Nitrobenzene	(2)	6.054	77	20113	1.033
48) N-Nitrosopiperidine	(2)	6.201	114	9540	1.147
50) Isophorone	(2)	6.295	82	34422	0.956
51) 2-Nitrophenol	(2)	6.366	139	6918	0.972
53) 2,4-Dimethylphenol	(2)	6.425	107	16504M	1.029
56) Benzoic acid	(2)	6.490	105	105206	9.439
57) O,O,O-Triethylphosphorothioate	(2)	6.490	198	8110	1.071
55) bis(2-Chloroethoxy)methane	(2)	6.513	93	22016	1.021

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.607	162	12458	1.048
62) 1,2,4-Trichlorobenzene	(2)	6.678	180	11770	0.979
65)*Naphthalene-d8	(2)	6.731	136	697610	20.000
66) Naphthalene	(2)	6.754	128	43668	1.092
67) 4-Chloroaniline	(2)	6.813	127	15304	0.959
68) 2,6-Dichlorophenol	(2)	6.819	162	12110	1.067
69) Hexachloropropene	(2)	6.843	213	5739	0.819
71) Hexachlorobutadiene	(2)	6.866	225	5602	0.838
75) Quinoline	(2)	7.078	129	28319	1.050
77) N-Nitrosodi-n-butylamine	(2)	7.137	84	20301	1.164
76) Caprolactam	(2)	7.137	113	6904	1.278
80) 4-Chloro-3-methylphenol	(2)	7.295	107	16106	1.085
82) Safrole	(2)	7.354	162	13519	1.234
97) Isosafrole	(3)			11746	1.032
83) 2-Methylnaphthalene	(2)	7.431	142	25924	0.956
84) 1-Methylnaphthalene	(2)	7.525	142	24870	0.951
85) Hexachlorocyclopentadiene	(3)	7.584	237	5596	0.802
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.590	216	14375	1.033
88) cis-Isosafrole	(3)	7.637	162	1999	0.177
90) 2,4,6-Trichlorophenol	(3)	7.707	196	8982	0.967
92) 2,4,5-Trichlorophenol	(3)	7.742	196	10699	1.042
93)$2-Fluorobiphenyl	(3)	7.795	172	68557	2.181
94) trans-Isosafrole	(3)	7.854	162	9747	0.855
95) 1,1'-Biphenyl	(3)	7.884	154	38838	1.100
96) 2-Chloronaphthalene	(3)	7.901	162	29913	1.047
98) 1-Chloronaphthalene	(3)	7.925	162	27630	1.021
99) Diphenyl ether	(3)	7.995	170	21964	1.090
100) 2-Nitroaniline	(3)	8.007	138	9813	1.030
120) 2,4_2,6-Dinitrotoluenes	(3)			19173	2.061
104) 1,4-Naphthoquinone	(3)	8.078	158	10139	0.827
105) 1,4-Dinitrobenzene	(3)	8.154	168	5261	0.998
106) Dimethylphthalate	(3)	8.195	163	34119	1.018
107) 1,3-Dinitrobenzene	(3)	8.219	168	6787	1.098
108) 2,6-Dinitrotoluene	(3)	8.248	165	8867	1.085
109) Acenaphthylene	(3)	8.301	152	39865	0.991
112) 3-Nitroaniline	(3)	8.413	138	8386	1.010
113)*Acenaphthene-d10	(3)	8.442	164	413747	20.000
114) Acenaphthene	(3)	8.472	153	30245	1.065
115) 2,4-Dinitrophenol	(3)	8.513	184	32597	6.983
116) 4-Nitrophenol	(3)	8.589	109	26888	4.725

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$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.601	250	14143	1.089
119) Dibenzofuran	(3)	8.642	168	45011	1.038
118) 2,4-Dinitrotoluene	(3)	8.642	165	10306	0.966
121) 1-Naphthylamine	(3)	8.719	143	31289	1.039
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	9189	1.049
146) Diallate trans/cis	(4)			21178	0.927
123) 2-Naphthylamine	(3)	8.801	143	31192	1.062
124) Diethylphthalate	(3)	8.884	149	38397	1.126
125) Thionazin	(3)	8.960	107	9167	1.506
126) Fluorene	(3)	8.978	166	37530	1.076
128) 5-Nitro-o-toluidine	(3)	8.989	152	9533	0.966
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	20447	1.081
129) 4-Nitroaniline	(3)	8.995	138	10993	1.172
130) 4,6-Dinitro-2-methylphenol	(4)	9.037	198	24182	3.393
132) NDPA as diphenylamine	(4)	9.101	169	33971	1.005
131) N-Nitrosodiphenylamine	(4)	9.101	169	33971	1.005
134) 1,2-Diphenylhydrazine	(4)	9.142	77	50220	0.979
135)$2,4,6-Tribromophenol	(3)	9.213	330	8514	2.074
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	8009	1.093
139) 1,3,5-Trinitrobenzene	(4)	9.372	213	4472	0.883
140) Diallate (peak 1)	(4)	9.389	86	16927	0.719
141) Phorate	(4)	9.395	75	32548	0.886
142) Phenacetin	(4)	9.407	108	23997	1.067
143) 4-Bromophenyl-phenylether	(4)	9.460	248	10839	0.937
144) Diallate (peak 2)	(4)	9.478	86	4251	0.217
145) Hexachlorobenzene	(4)	9.513	284	8462	0.800
147) Dimethoate	(4)	9.554	87	21463	1.109
151) Pentachloronitrobenzene	(4)	9.713	237	4060	0.770
149) Pentachlorophenol	(4)	9.713	266	6221	0.908
150) 4-Aminobiphenyl	(4)	9.719	169	21721	1.284
152) Pronamide	(4)	9.789	173	17262	0.967
153)*Phenanthrene-d10	(4)	9.889	188	1036748	20.000
154) Dinoseb	(4)	9.901	211	6482	0.584
155) Phenanthrene	(4)	9.913	178	61439	1.030
157) Anthracene	(4)	9.966	178	57685	0.963
163) Carbazole	(4)	10.125	167	55239	1.007
164) Methyl parathion	(4)	10.272	109	12896	0.922
165) Di-n-butylphthalate	(4)	10.489	149	63972	0.989
167) Parathion	(4)	10.660	109	9607	1.042
168) 4-Nitroquinoline-1-oxide	(4)	10.678	190	2950	0.498

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	4443	1.065
171) Isodrin	(4)	10.925	193	8987	1.183
173) Fluoranthene	(4)	11.072	202	63109	0.939
174) Benzidine	(5)	11.219	184	241476	6.069
175)*Pyrene-d10	(5)	11.278	212	1116077	20.000
177) Pyrene	(5)	11.295	202	74545	0.982
179)$Terphenyl-d14	(5)	11.460	244	94567	2.020
182) p-Dimethylaminoazobenzene	(5)	11.601	225	13742	1.034
185) Chlorobenzilate	(5)	11.648	139	16731	0.892
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	36763	0.862
188) Butylbenzylphthalate	(5)	11.954	149	29721	0.924
191) 2-Acetylaminofluorene	(5)	12.172	181	21241	0.772
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	24335	0.962
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.472	231	16642	1.249
195) Benzo(a)anthracene	(5)	12.472	228	64986	0.939
196) Chrysene	(5)	12.507	228	65311	0.989
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	45524	0.997
203) 6-Methylchrysene	(5)	12.966	242	45259	0.977
205) Di-n-octylphthalate	(6)	13.189	149	78452	1.012
206) Benzo(b)fluoranthene	(6)	13.536	252	69864	1.001
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.536	256	27676	0.886
208) Benzo(k)fluoranthene	(6)	13.566	252	60915	0.913
211) Benzo(a)pyrene	(6)	13.854	252	58771M	0.931
213)*Perylene-d12	(6)	13.907	264	969720	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	24393M	0.968
217) Dibenz(a,h)acridine	(6)	14.730	279	44114	0.896
218) Dibenz(a,j)acridine	(6)	14.789	279	48013	0.946
219) Indeno(1,2,3-cd)pyrene	(6)	14.983	276	61153M	0.952
222) Total PAHs	(6)			943911	16.896
220) Dibenz(a,h)anthracene	(6)	15.007	278	51626M	0.914
221) Benzo(g,h,i)perylene	(6)	15.283	276	52405M	0.955

M = Compound was manually integrated.
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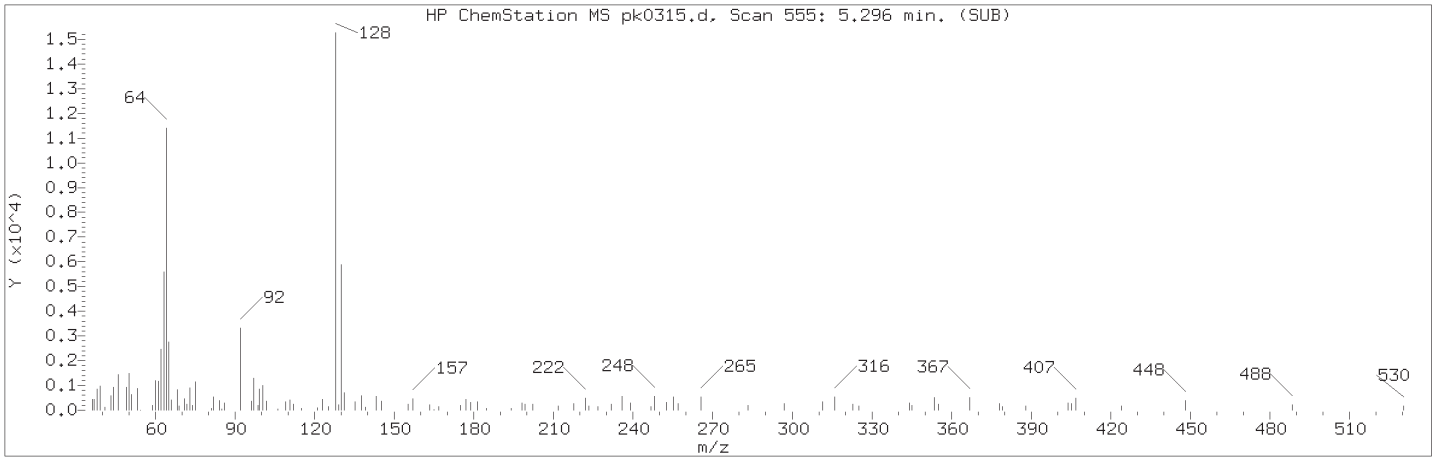
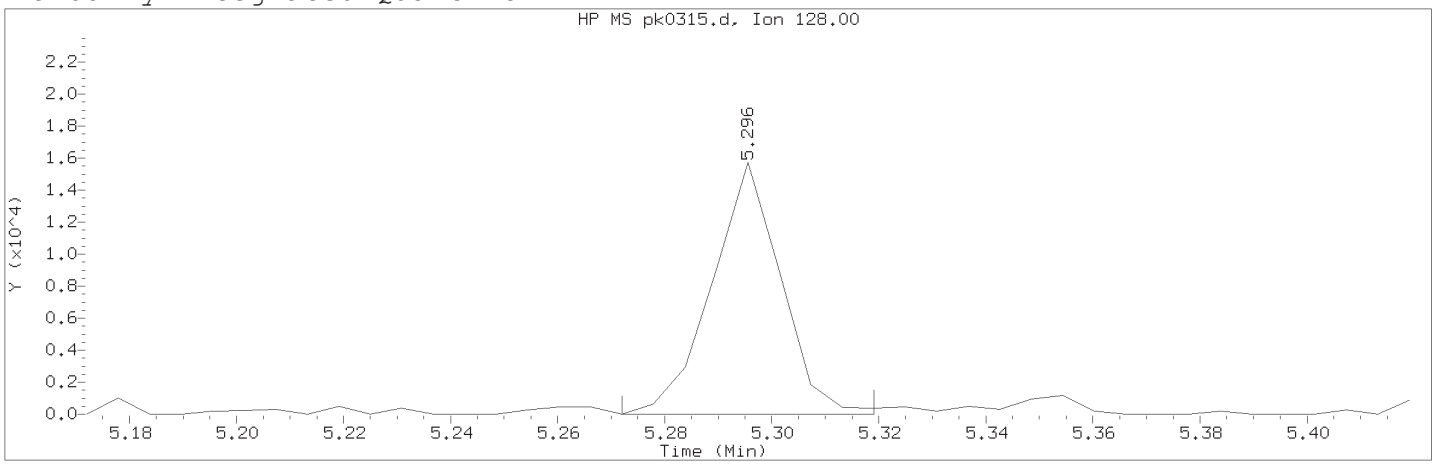
Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

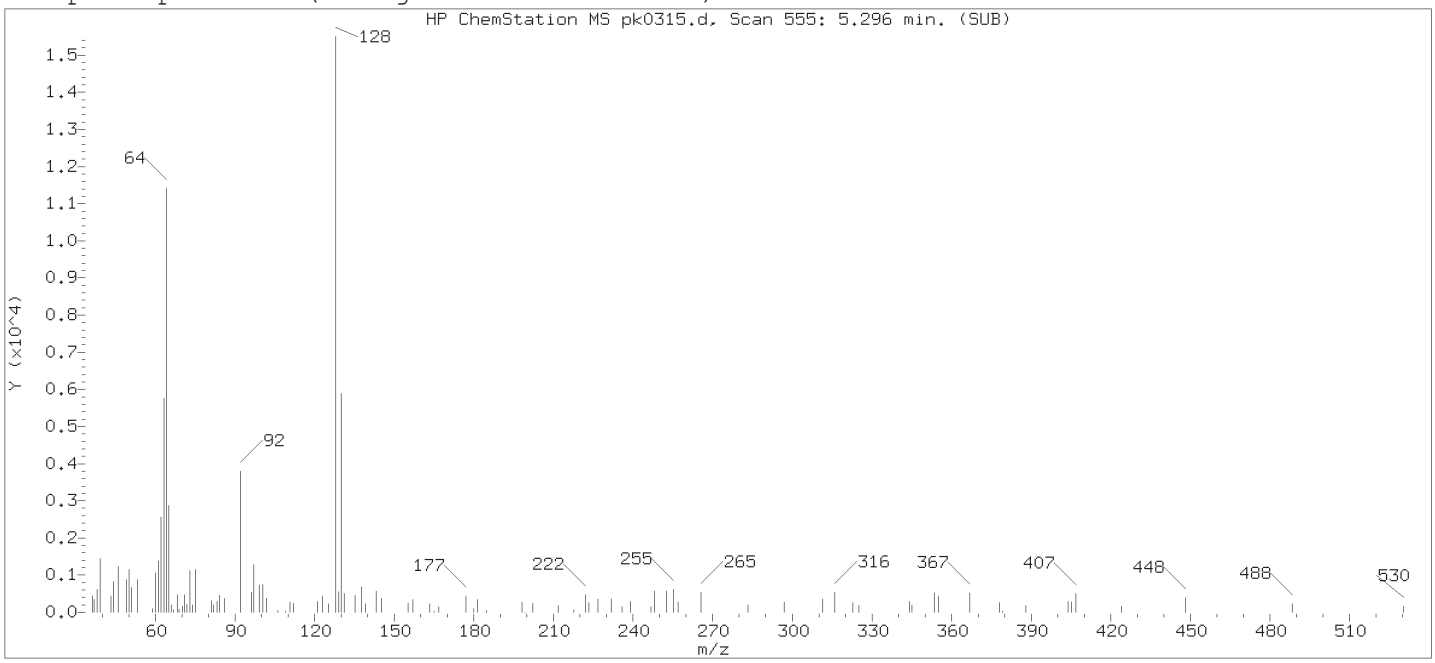
Compound Number : 23
Compound Name : 2-Chlorophenol
Scan Number : 555
Retention Time (minutes) : 5.296
Quant Ion : 128.00
Area (flag) : 14113M
On-Column Amount (ng/ul) : 1.0477
Integration start scan : 550 Integration stop scan: 558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

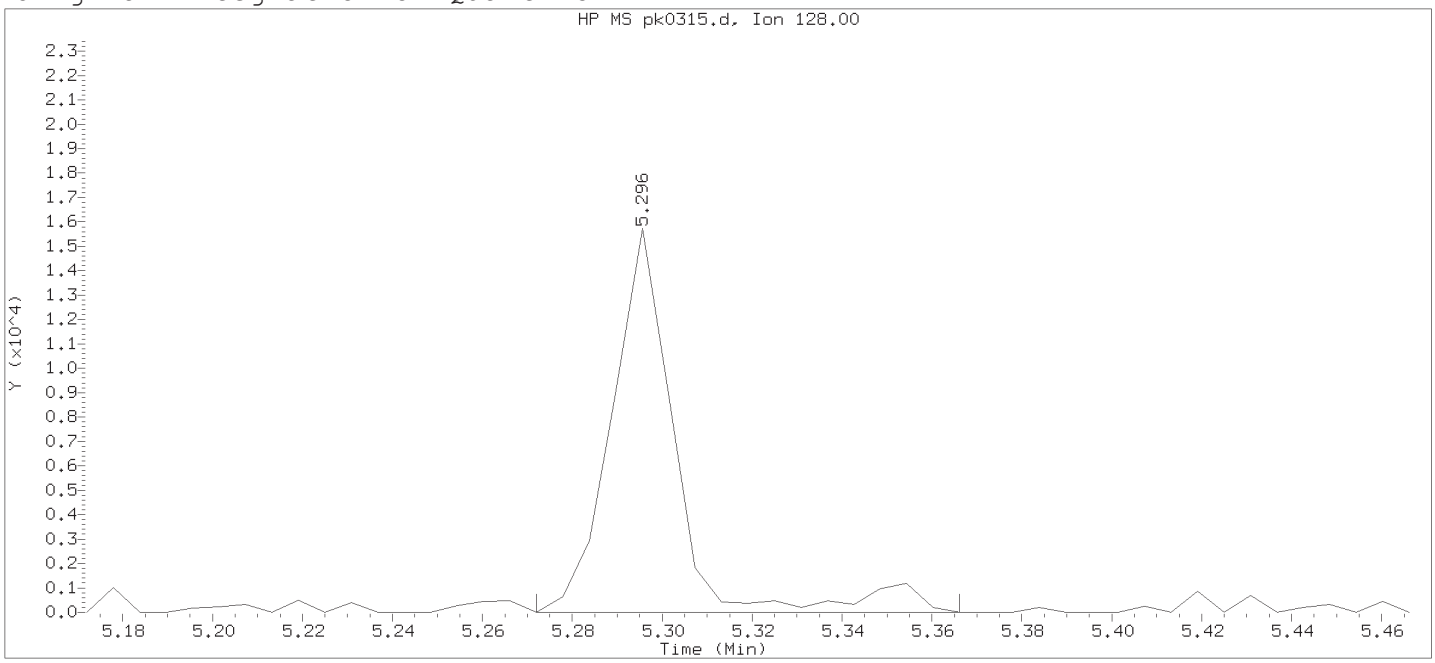
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

Compound Number	: 23		
Compound Name	: 2-Chlorophenol		
Scan Number	: 555		
Retention Time (minutes)	: 5.296		
Quant Ion	: 128.00		
Area	: 15449		
On-column Amount (ng/ul)	: 1.1481		
Integration start scan	: 550	Integration stop scan:	566
Y at integration start	: 0	Y at integration end:	0

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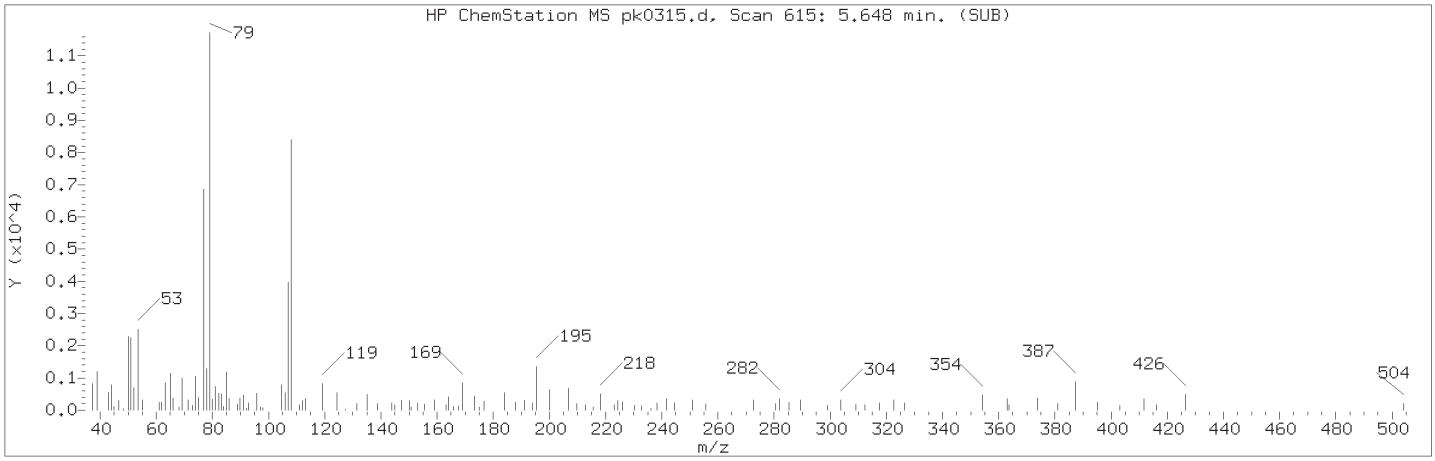
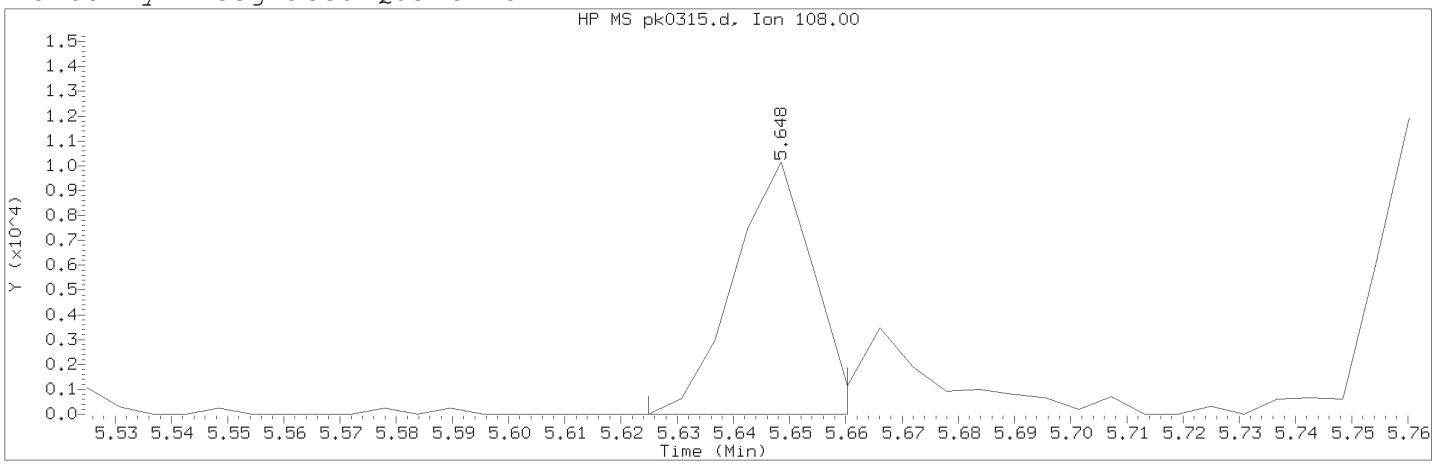
Target 3.5 esignature user ID: Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

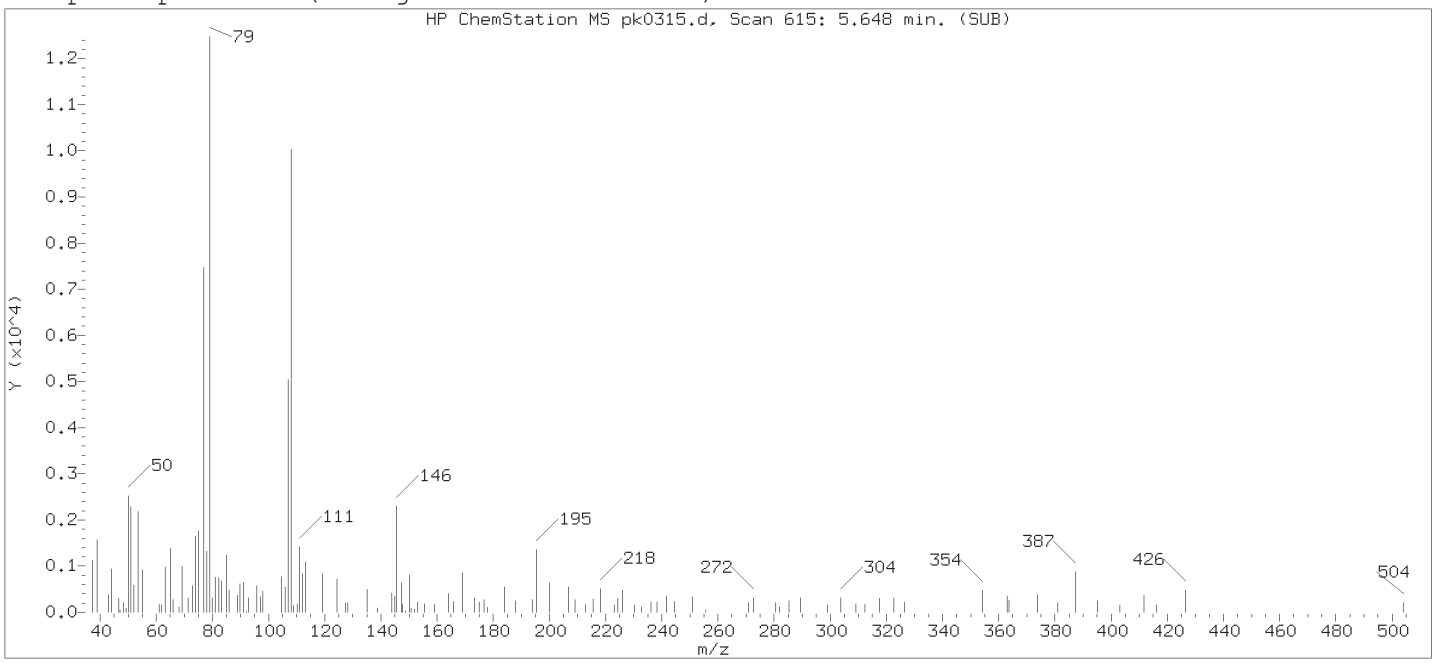
Compound Number	: 27		
Compound Name	: Benzyl alcohol		
Scan Number	: 615		
Retention Time (minutes)	: 5.648		
Quant Ion	: 108.00		
Area (flag)	: 9928M		
On-Column Amount (ng/ul)	: 0.9248		
Integration start scan	: 610	Integration stop scan:	616
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

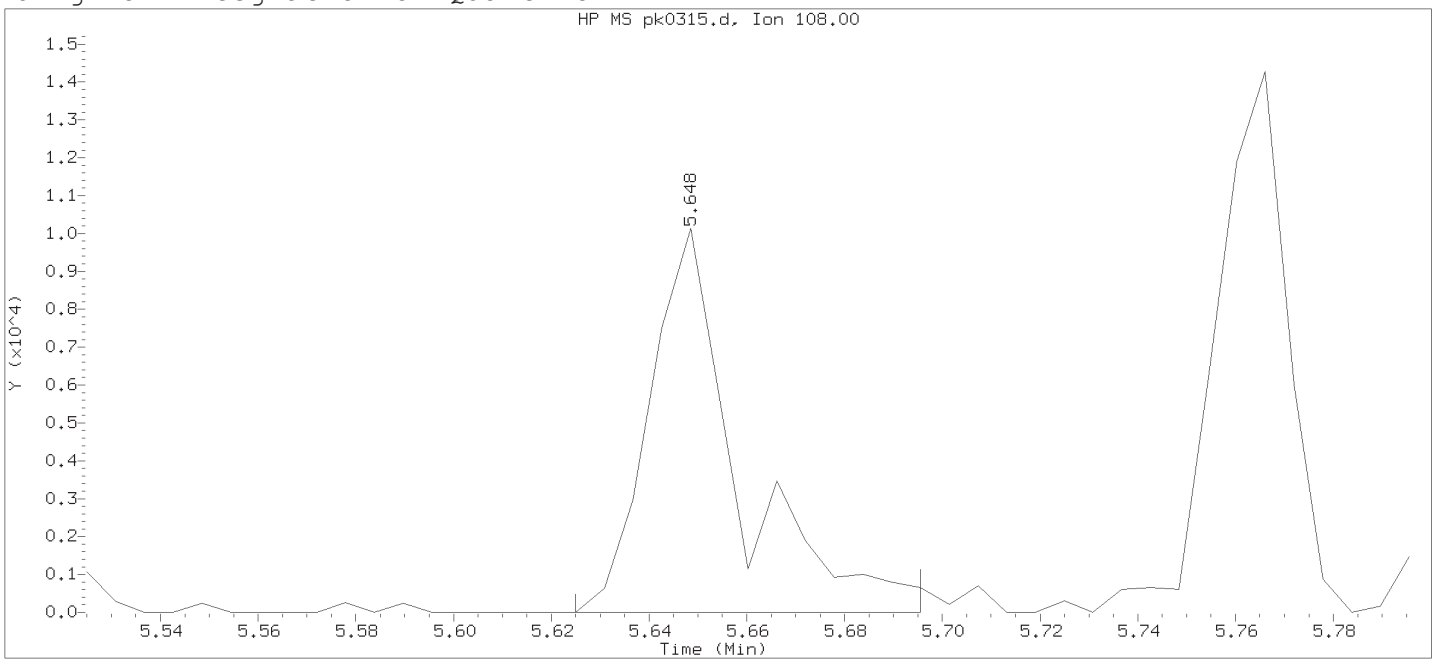
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

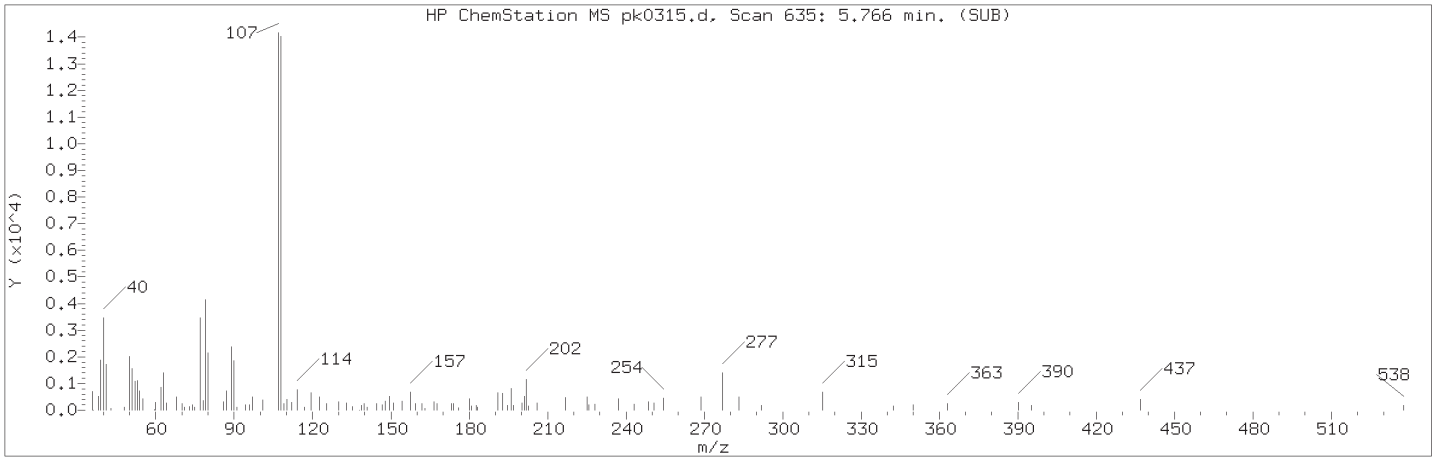
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

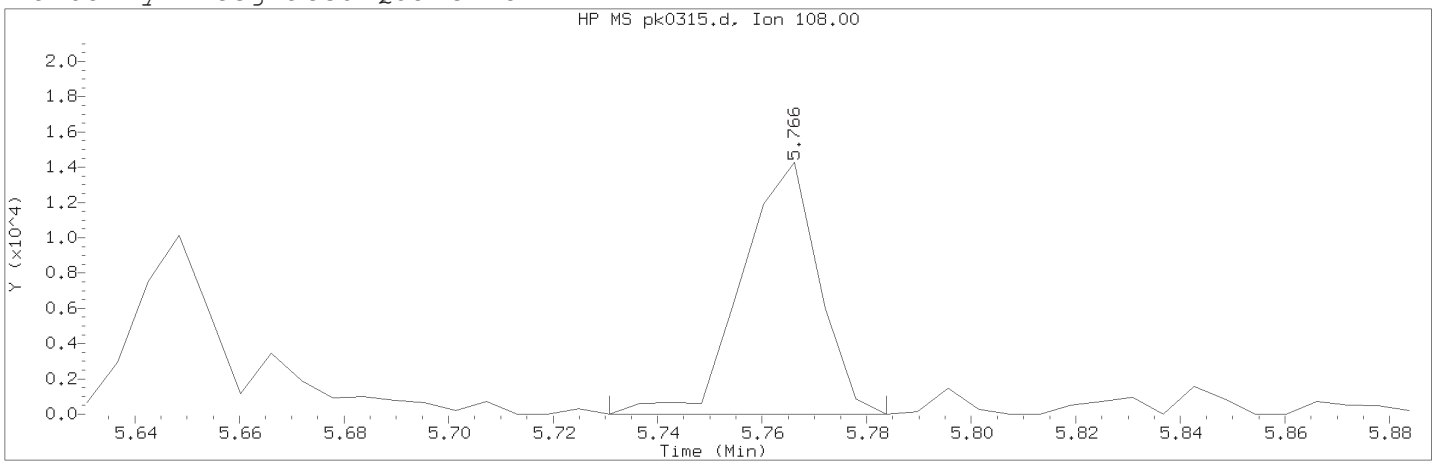
Compound Number	: 27		
Compound Name	: Benzyl alcohol		
Scan Number	: 615		
Retention Time (minutes)	: 5.648		
Quant Ion	: 108.00		
Area	: 12903		
On-column Amount (ng/ul)	: 1.1827		
Integration start scan	: 610	Integration stop scan:	622
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used: D12 Page 2332

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

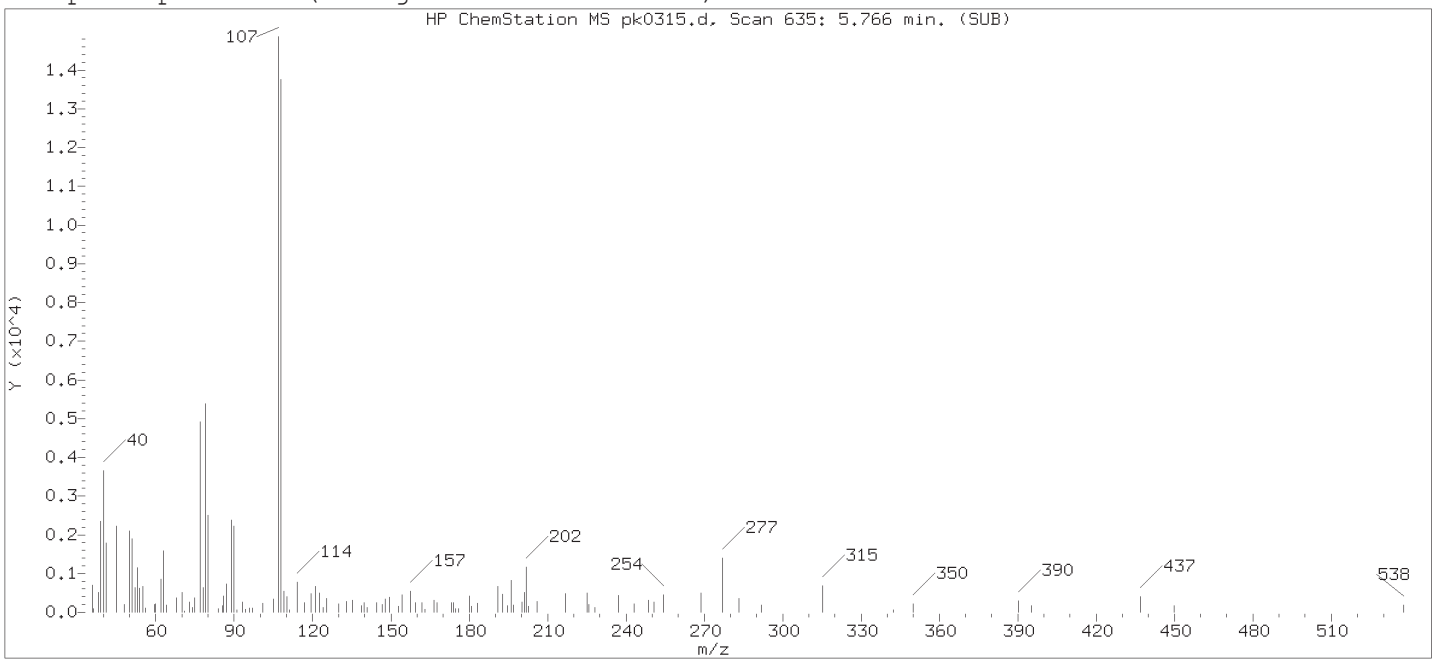
Compound Number	: 31		
Compound Name	: 2-Methylphenol		
Scan Number	: 635		
Retention Time (minutes)	: 5.766		
Quant Ion	: 108.00		
Area (flag)	: 14469M		
On-Column Amount (ng/ul)	: 0.9565		
Integration start scan	: 628	Integration stop scan:	637
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

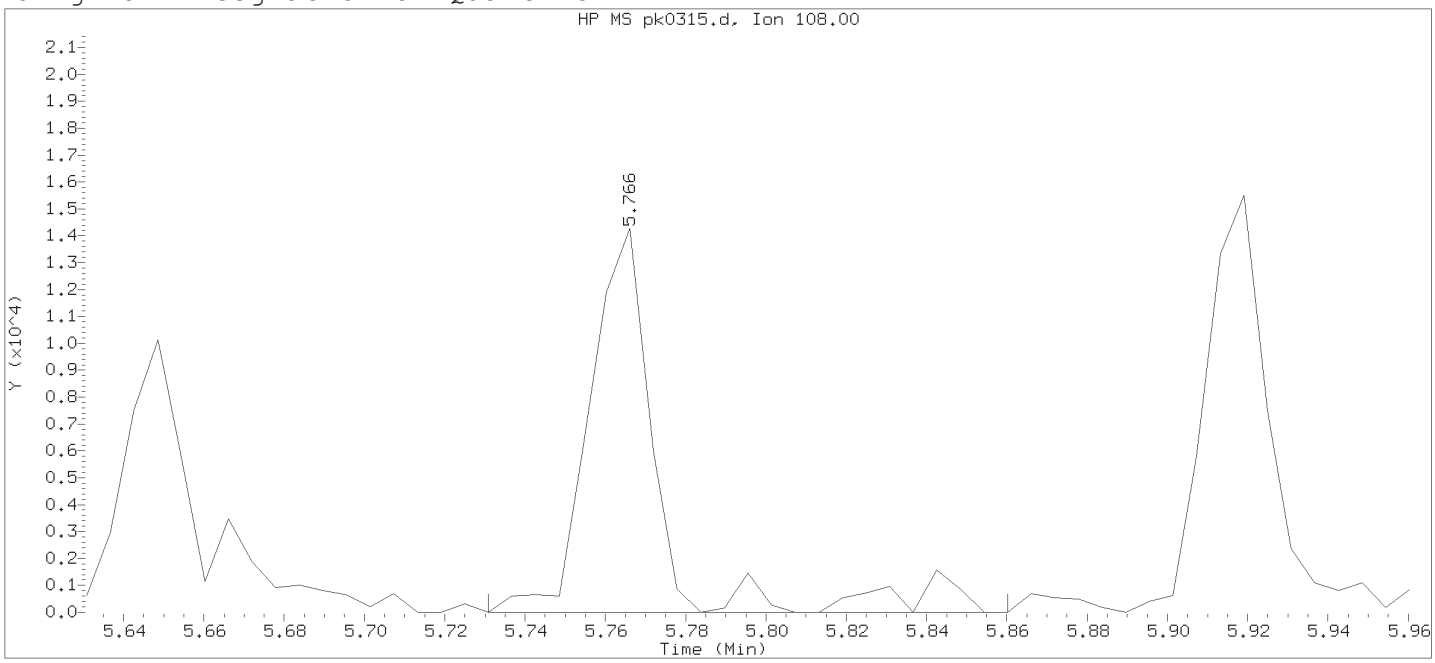
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

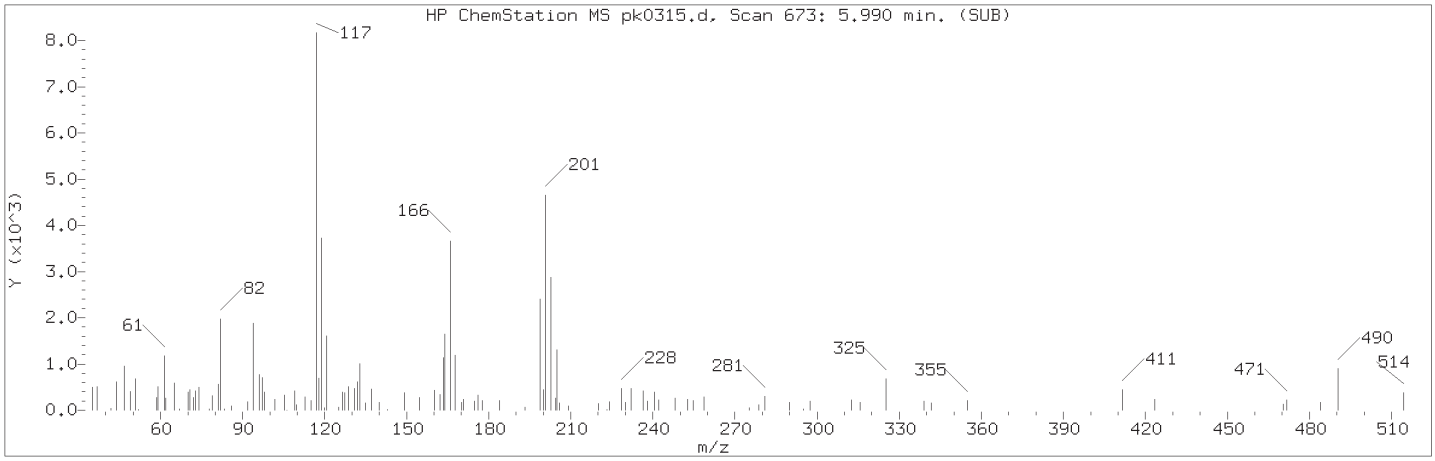
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

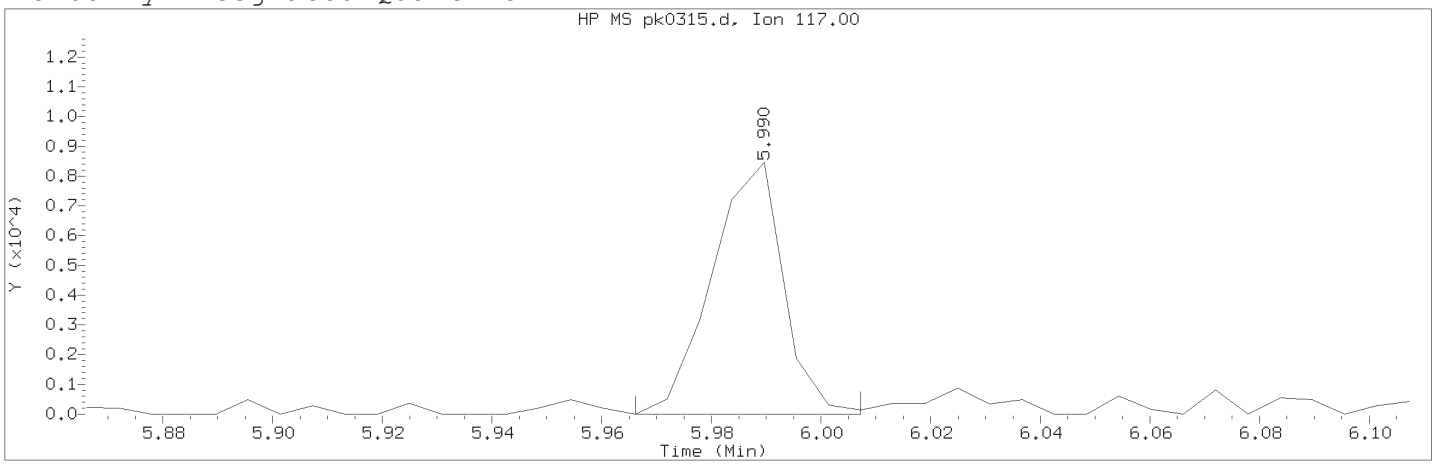
Compound Number	: 31		
Compound Name	: 2-Methylphenol		
Scan Number	: 635		
Retention Time (minutes)	: 5.766		
Quant Ion	: 108.00		
Area	: 16765		
On-column Amount (ng/ul)	: 1.0727		
Integration start scan	: 628	Integration stop scan:	650
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used: D12 Page 2334

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

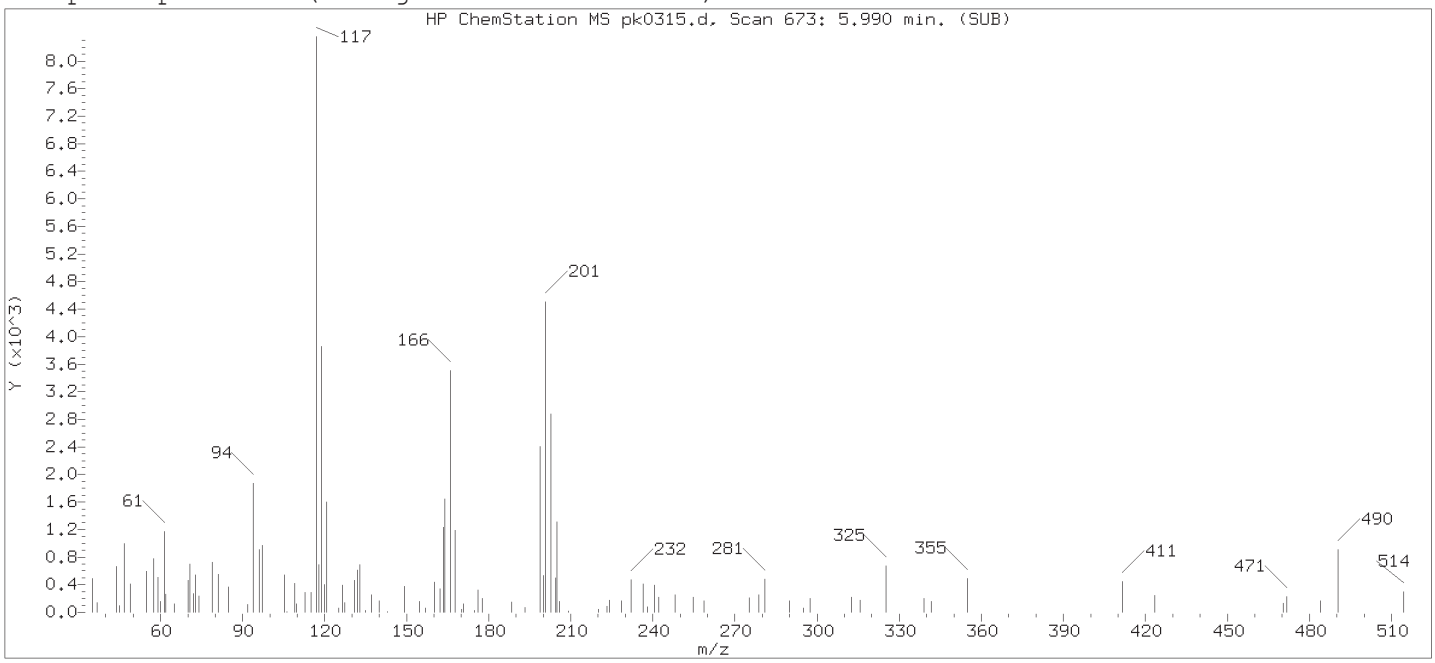
Compound Number	: 43		
Compound Name	: Hexachloroethane		
Scan Number	: 673		
Retention Time (minutes)	: 5.990		
Quant Ion	: 117.00		
Area (flag)	: 7650M		
On-Column Amount (ng/ul)	: 1.3731		
Integration start scan	: 668	Integration stop scan:	675
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

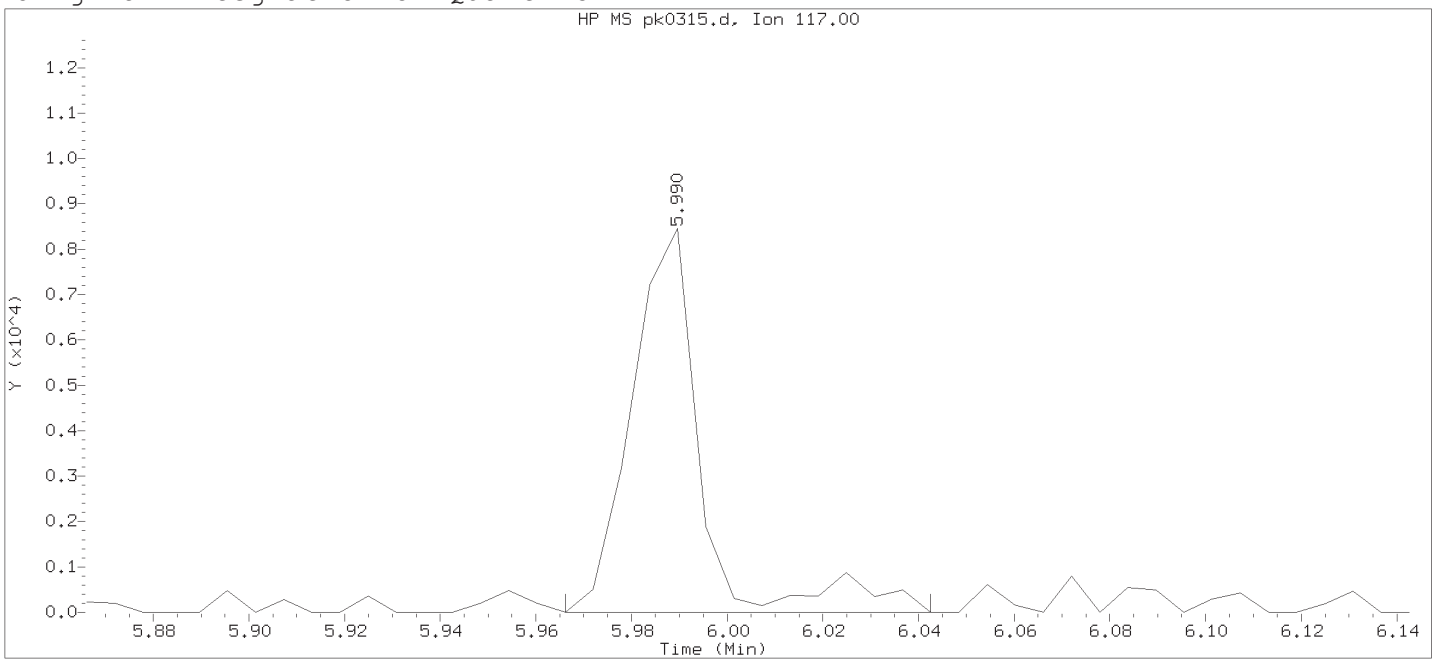
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

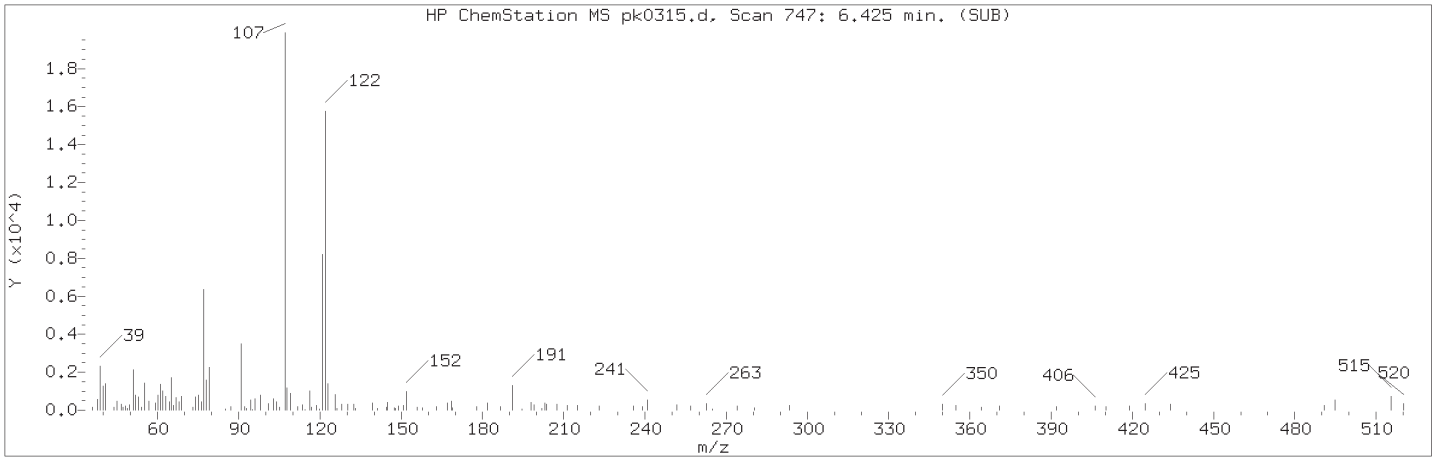
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

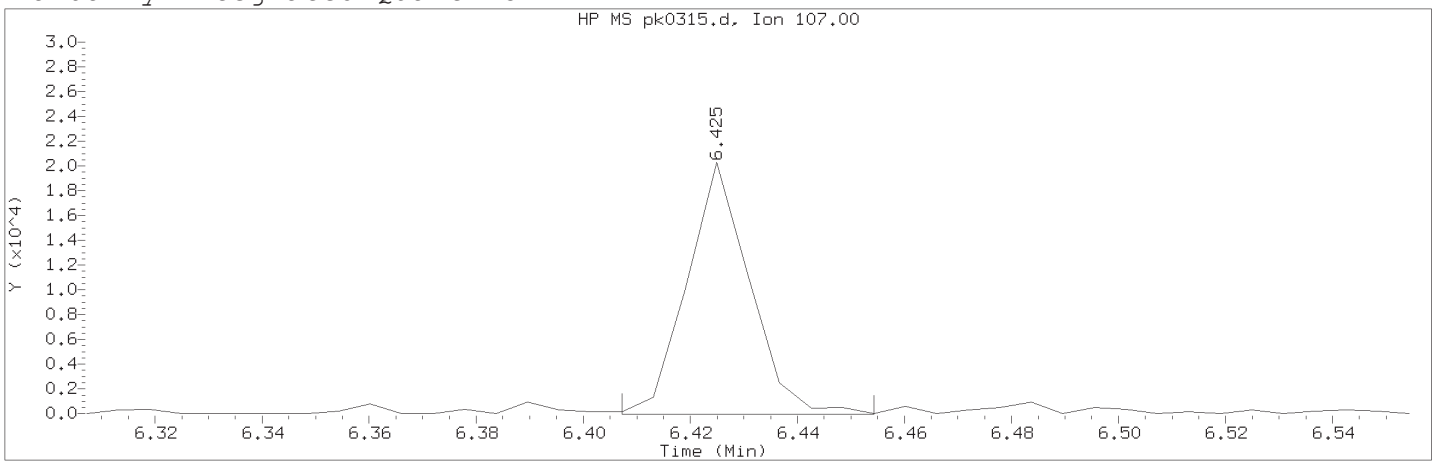
Compound Number	: 43		
Compound Name	: Hexachloroethane		
Scan Number	: 673		
Retention Time (minutes)	: 5.990		
Quant Ion	: 117.00		
Area	: 8515		
On-column Amount (ng/ul)	: 1.5114		
Integration start scan	: 668	Integration stop scan:	681
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used 11/11/2018 16:56

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

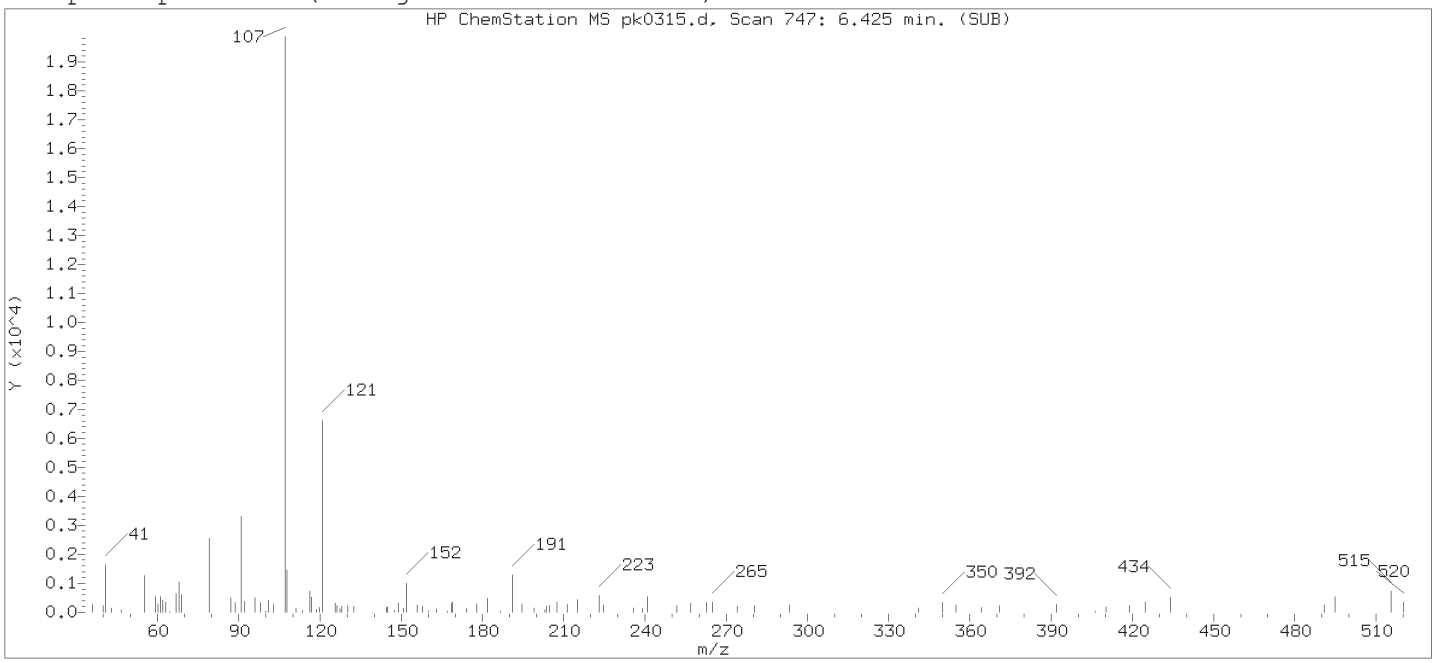
Compound Number	: 53		
Compound Name	: 2,4-Dimethylphenol		
Scan Number	: 747		
Retention Time (minutes)	: 6.425		
Quant Ion	: 107.00		
Area (flag)	: 16504M		
On-Column Amount (ng/ul)	: 1.0287		
Integration start scan	: 743	Integration stop scan:	751
Y at integration start	: -36	Y at integration end:	-36

Reason for manual integration: improper integration

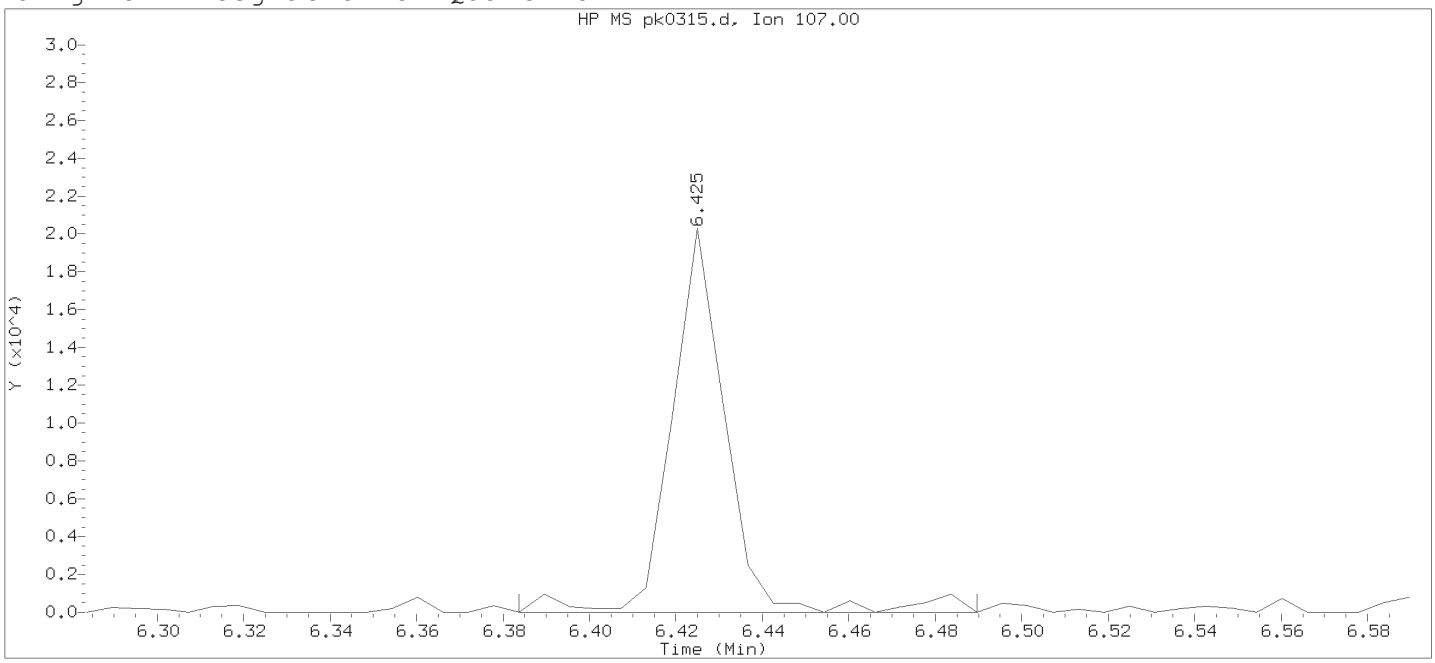
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

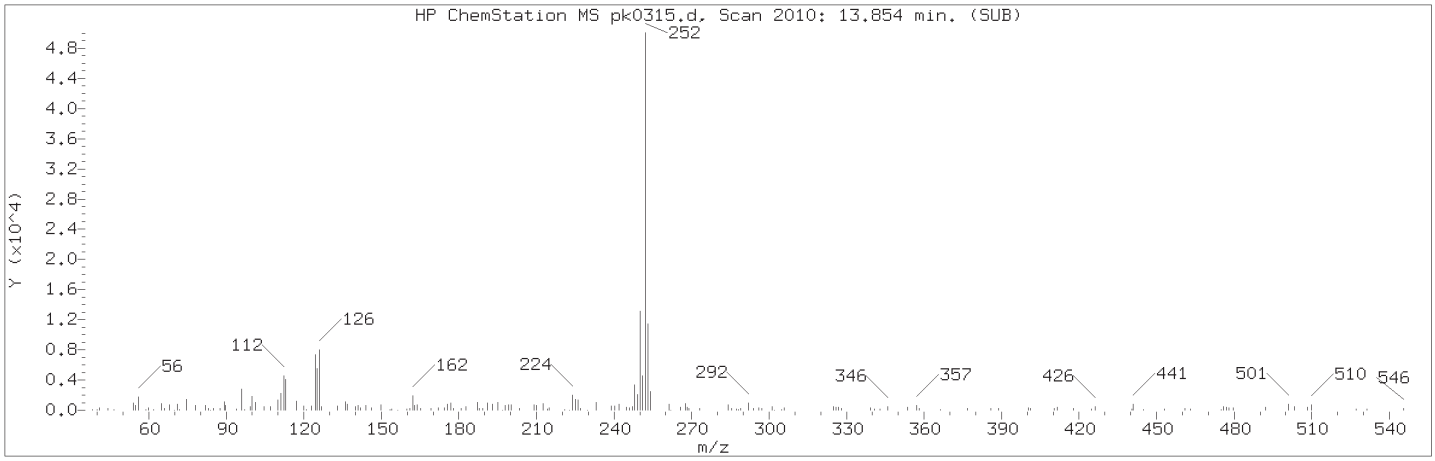
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

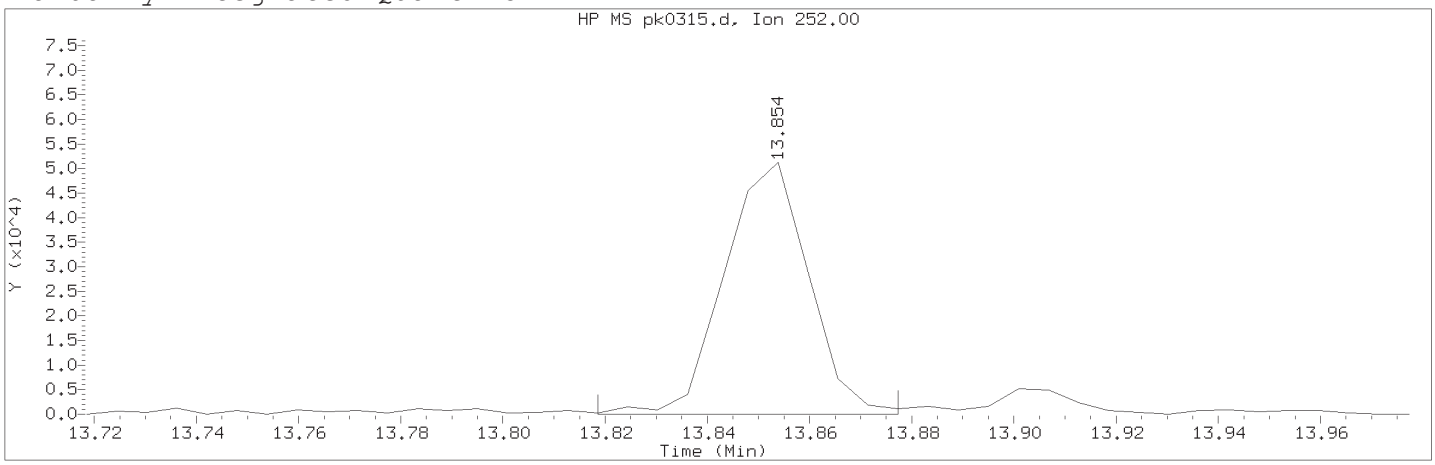
Compound Number	: 53		
Compound Name	: 2,4-Dimethylphenol		
Scan Number	: 747		
Retention Time (minutes)	: 6.425		
Quant Ion	: 107.00		
Area	: 17734		
On-column Amount (ng/ul)	: 1.0675		
Integration start scan	: 739	Integration stop scan:	757
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

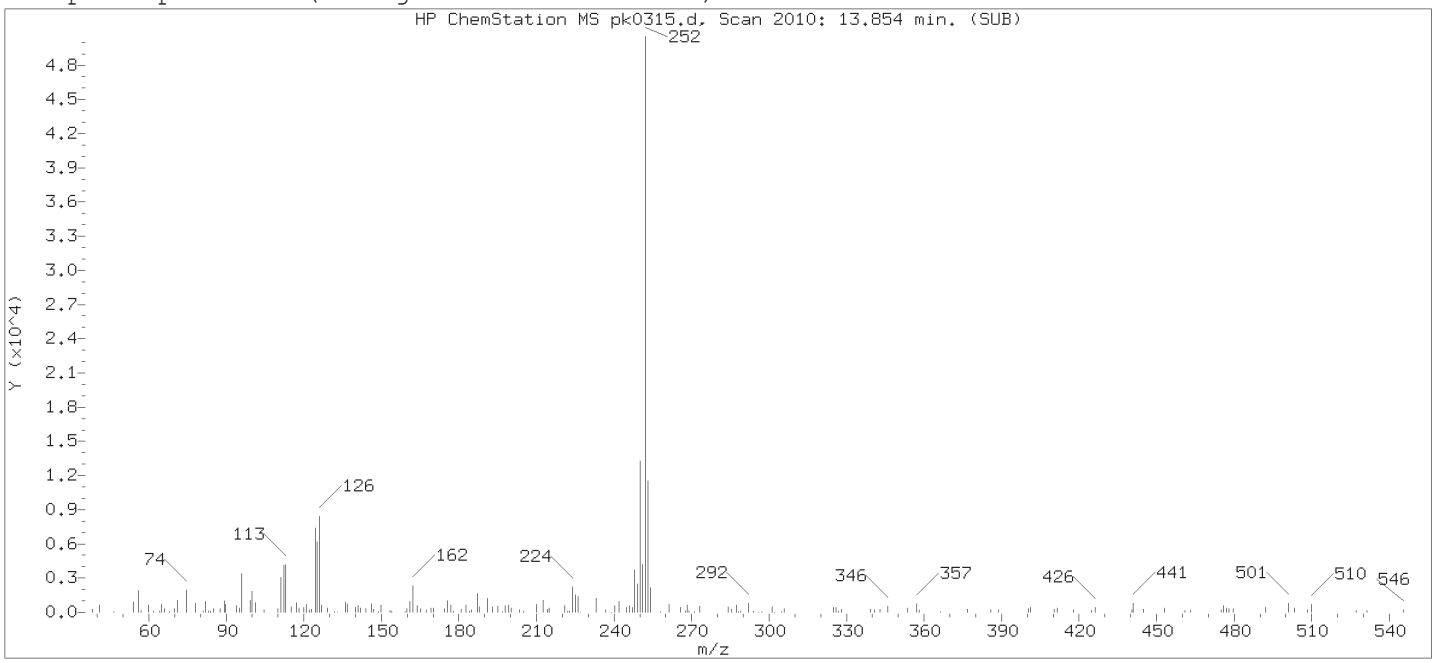
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2010		
Retention Time (minutes)	: 13.854		
Quant Ion	: 252.00		
Area (flag)	: 58771M		
On-Column Amount (ng/ul)	: 0.9308		
Integration start scan	: 2003	Integration stop scan:	2013
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

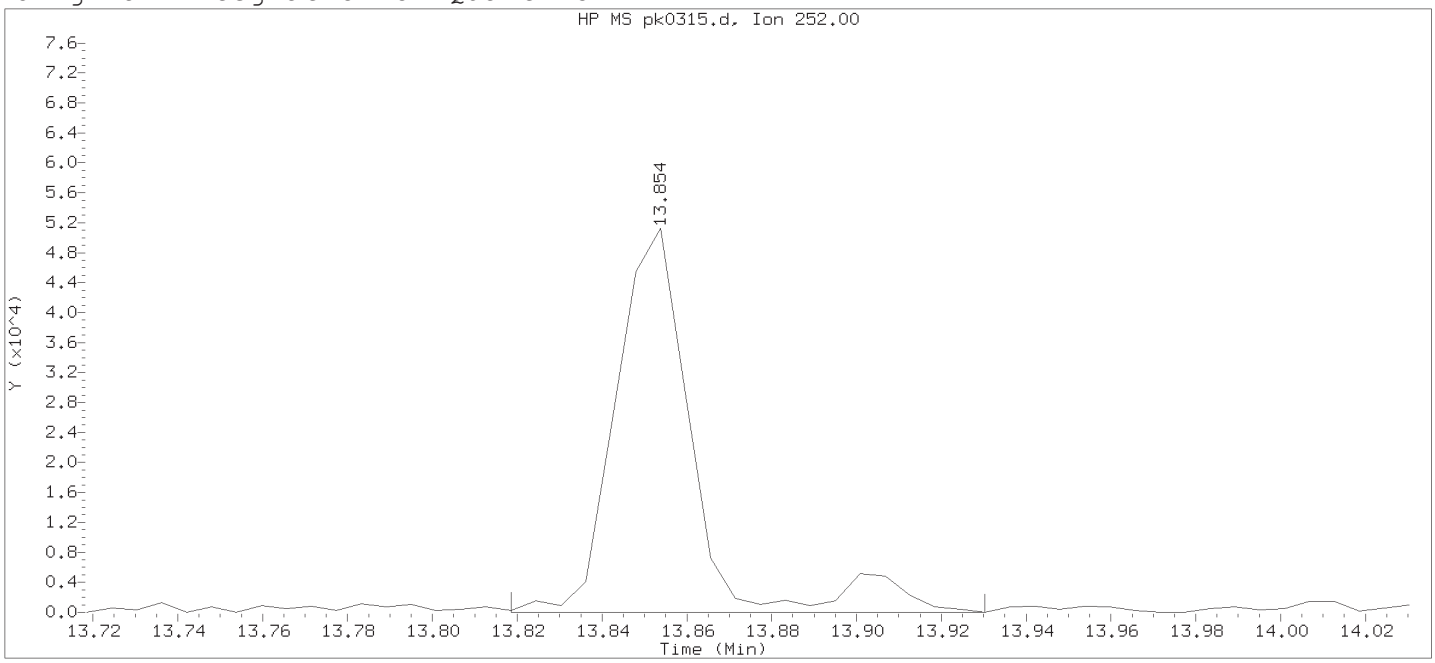
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

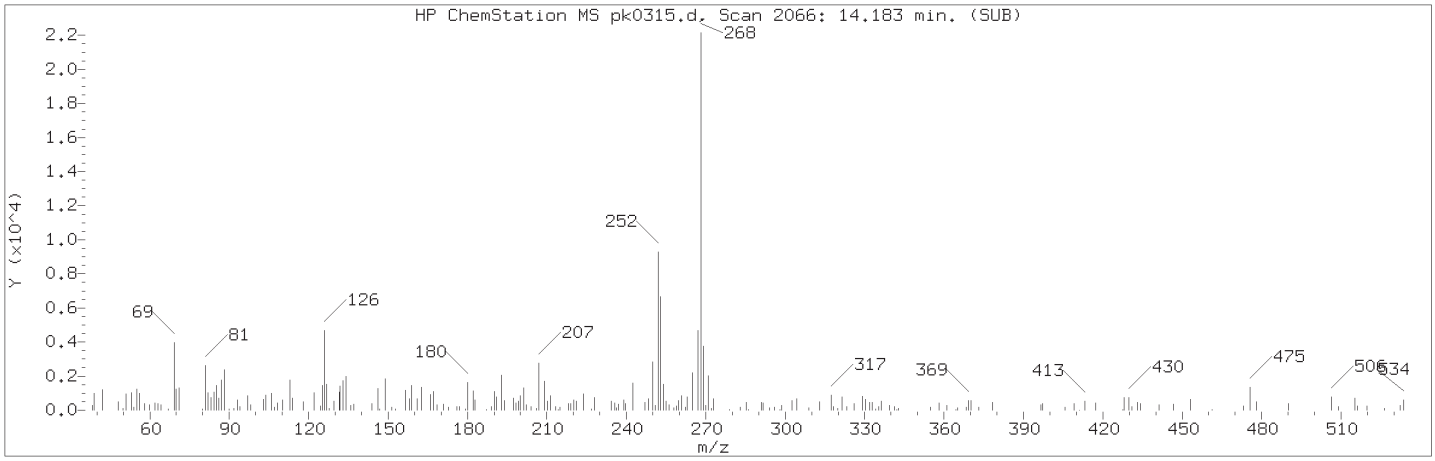
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

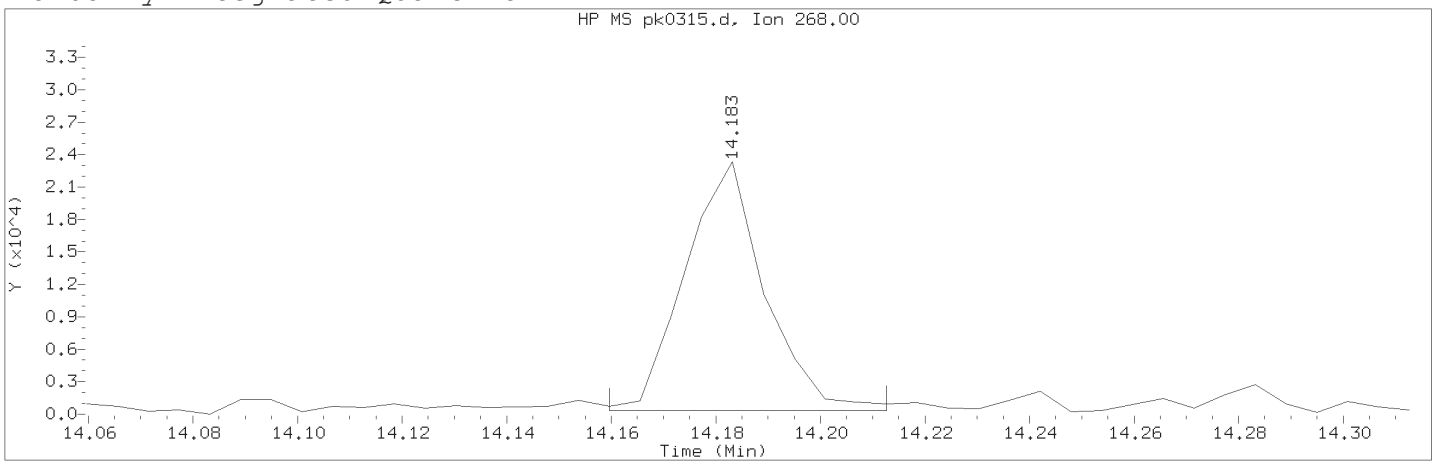
Compound Number	: 211		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 2010		
Retention Time (minutes)	: 13.854		
Quant Ion	: 252.00		
Area	: 64881		
On-column Amount (ng/ul)	: 1.0269		
Integration start scan	: 2003	Integration stop scan:	2022
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used: D12 Page 2340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

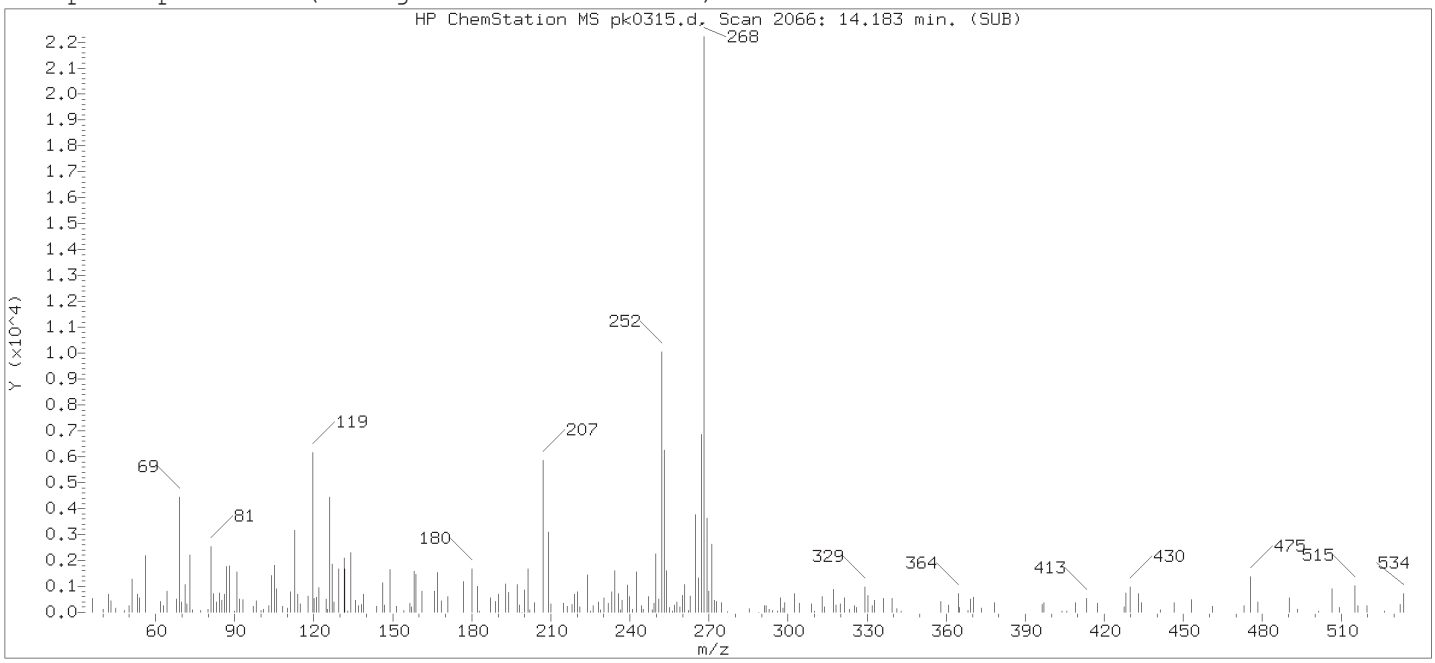
Compound Number : 215
Compound Name : 3-Methylcholanthrene
Scan Number : 2066
Retention Time (minutes) : 14.183
Quant Ion : 268.00
Area (flag) : 24393M
On-Column Amount (ng/ul) : 0.9684
Integration start scan : 2061 Integration stop scan: 2070
Y at integration start : 324 Y at integration end: 324

Reason for manual integration: improper integration

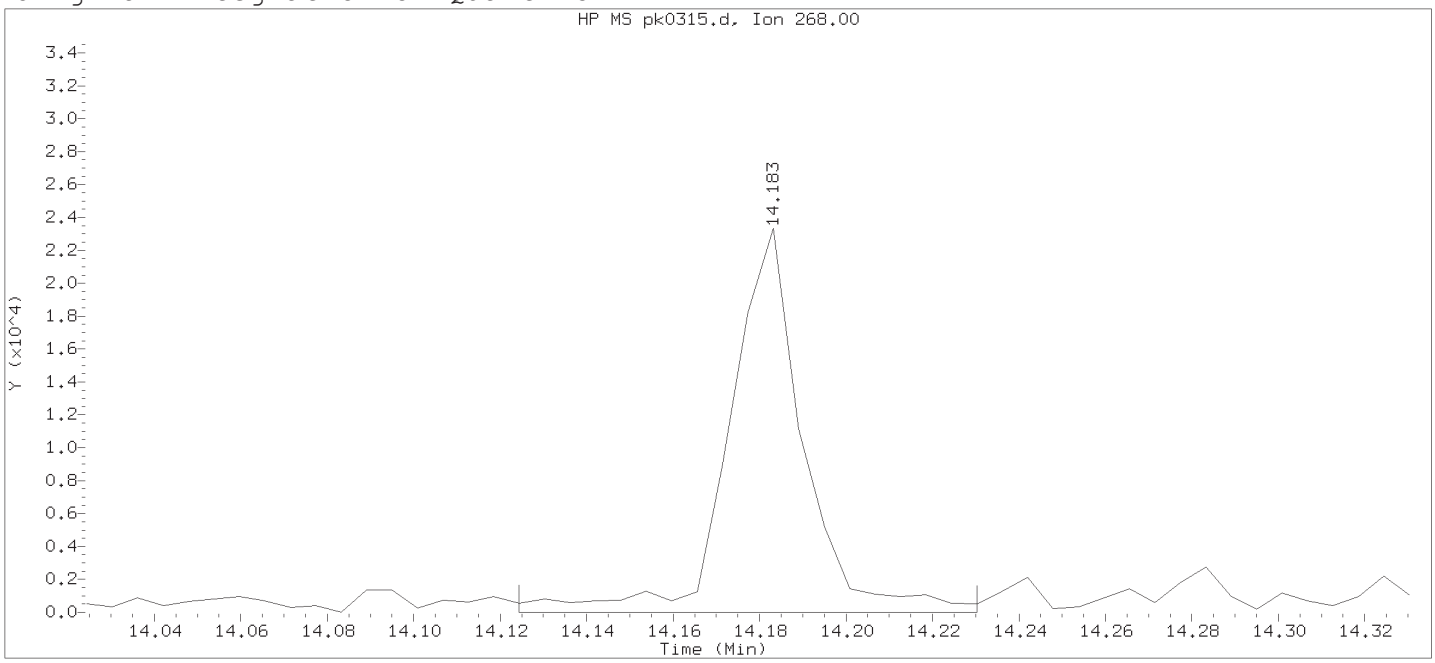
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

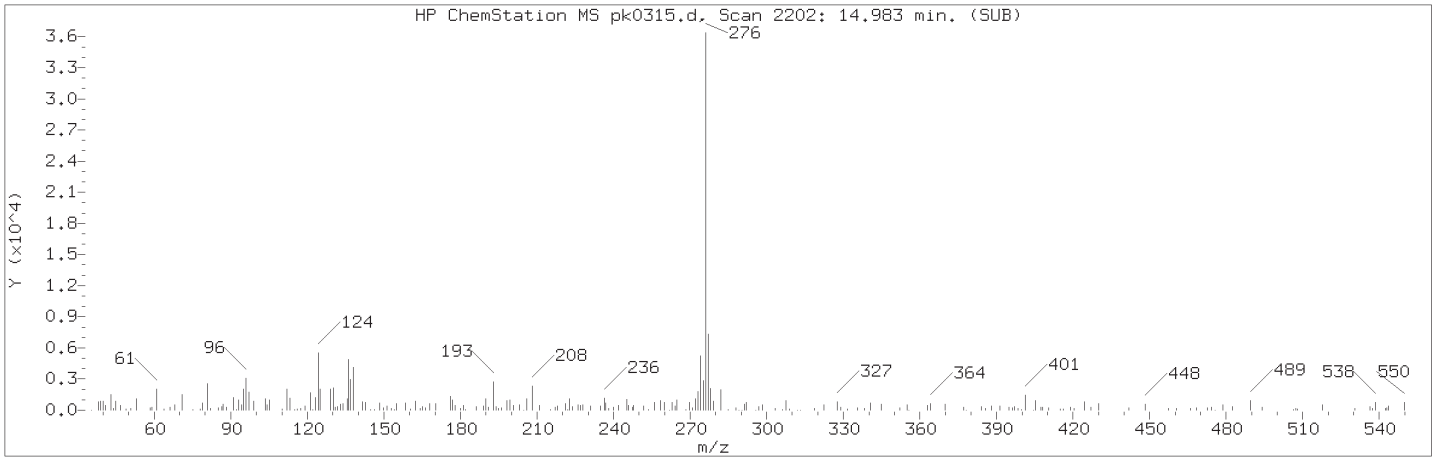
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

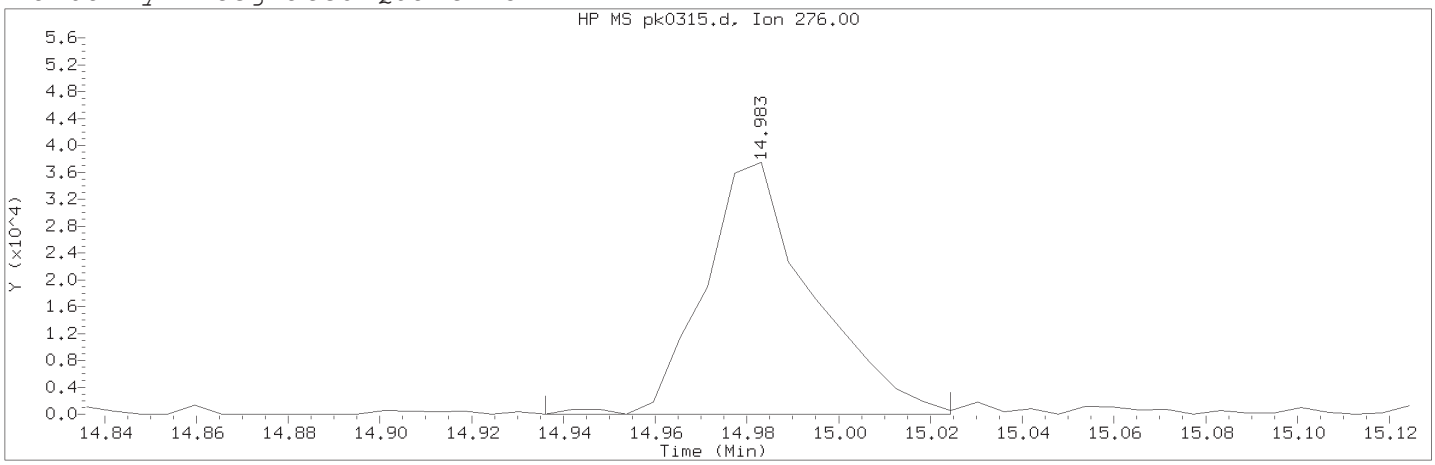
Compound Number	: 215		
Compound Name	: 3-Methylcholanthrene		
Scan Number	: 2066		
Retention Time (minutes)	: 14.183		
Quant Ion	: 268.00		
Area	: 27744		
On-column Amount (ng/ul)	: 1.1102		
Integration start scan	: 2055	Integration stop scan:	2073
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

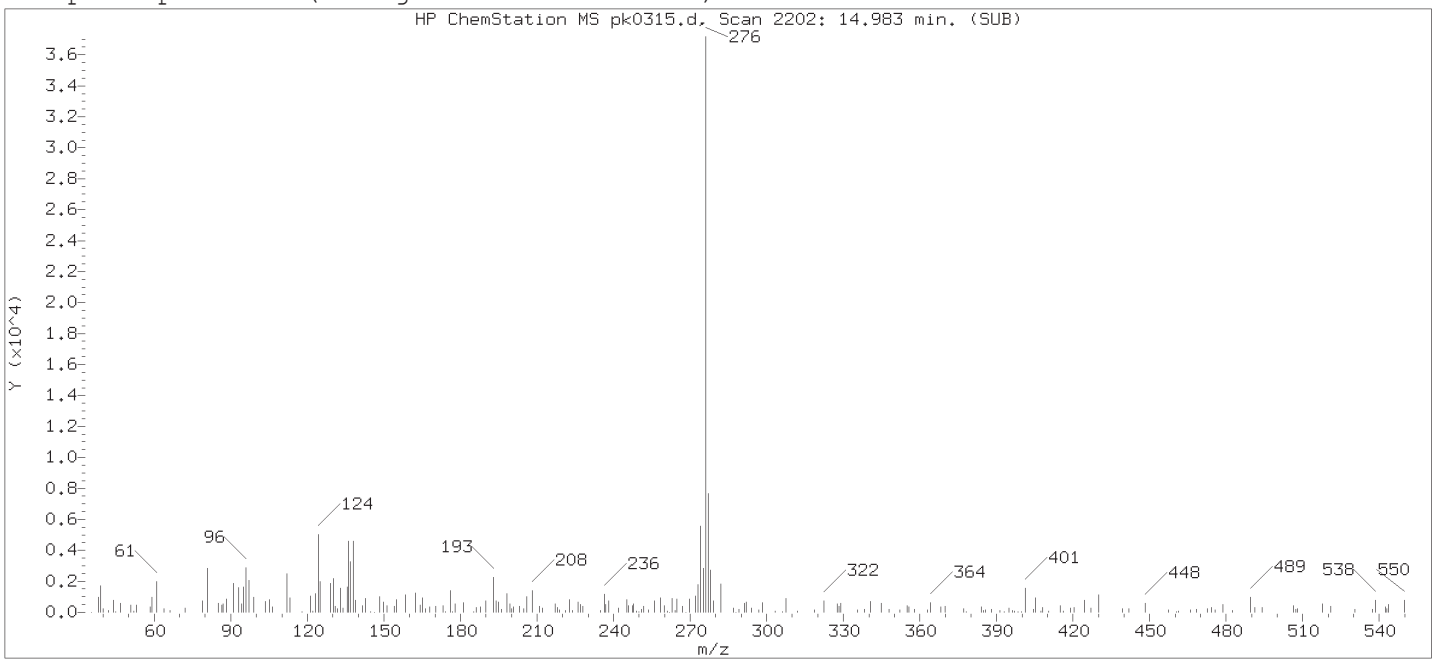
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2202		
Retention Time (minutes)	: 14.983		
Quant Ion	: 276.00		
Area (flag)	: 61153M		
On-Column Amount (ng/ul)	: 0.9519		
Integration start scan	: 2193	Integration stop scan:	2208
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

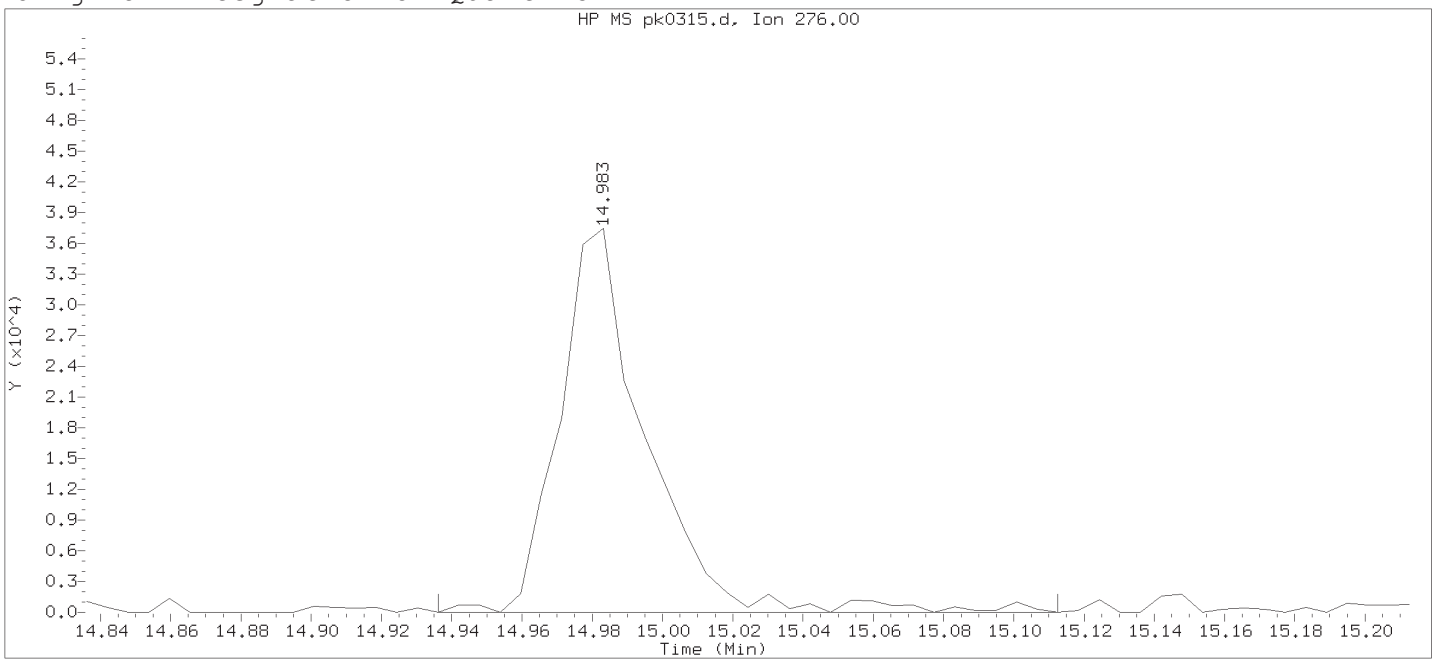
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

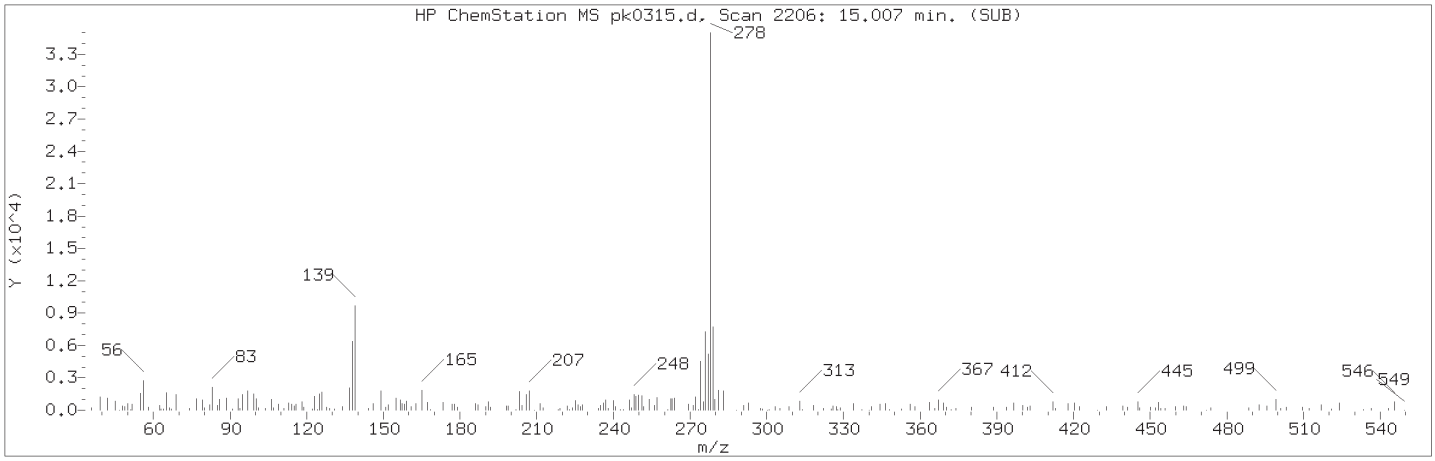
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

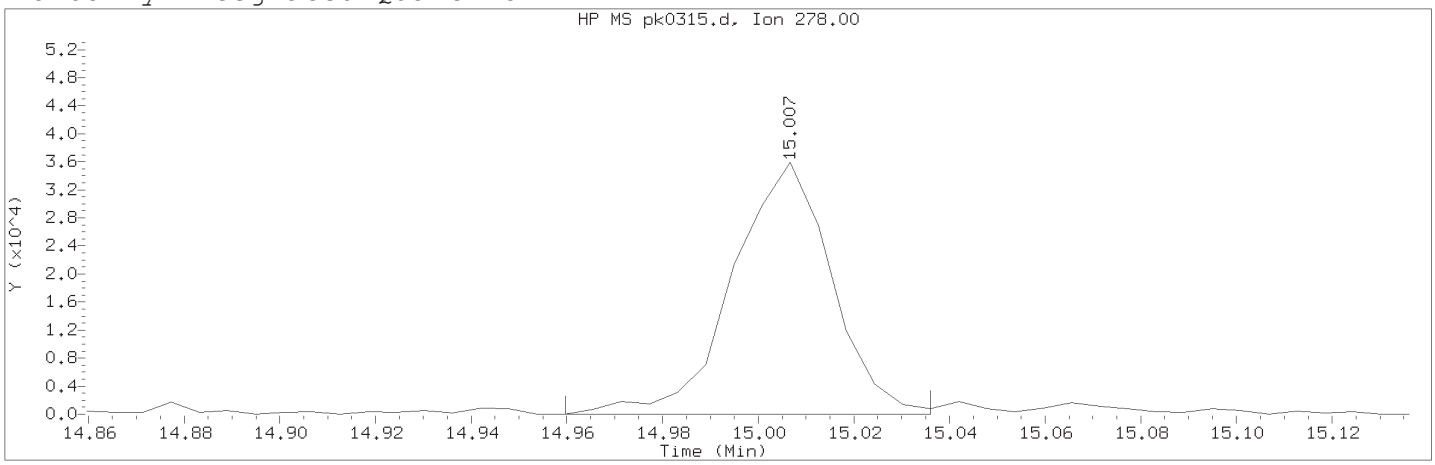
Compound Number	: 219		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 2202		
Retention Time (minutes)	: 14.983		
Quant Ion	: 276.00		
Area	: 64248		
On-column Amount (ng/ul)	: 1.0458		
Integration start scan	: 2193	Integration stop scan:	2223
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

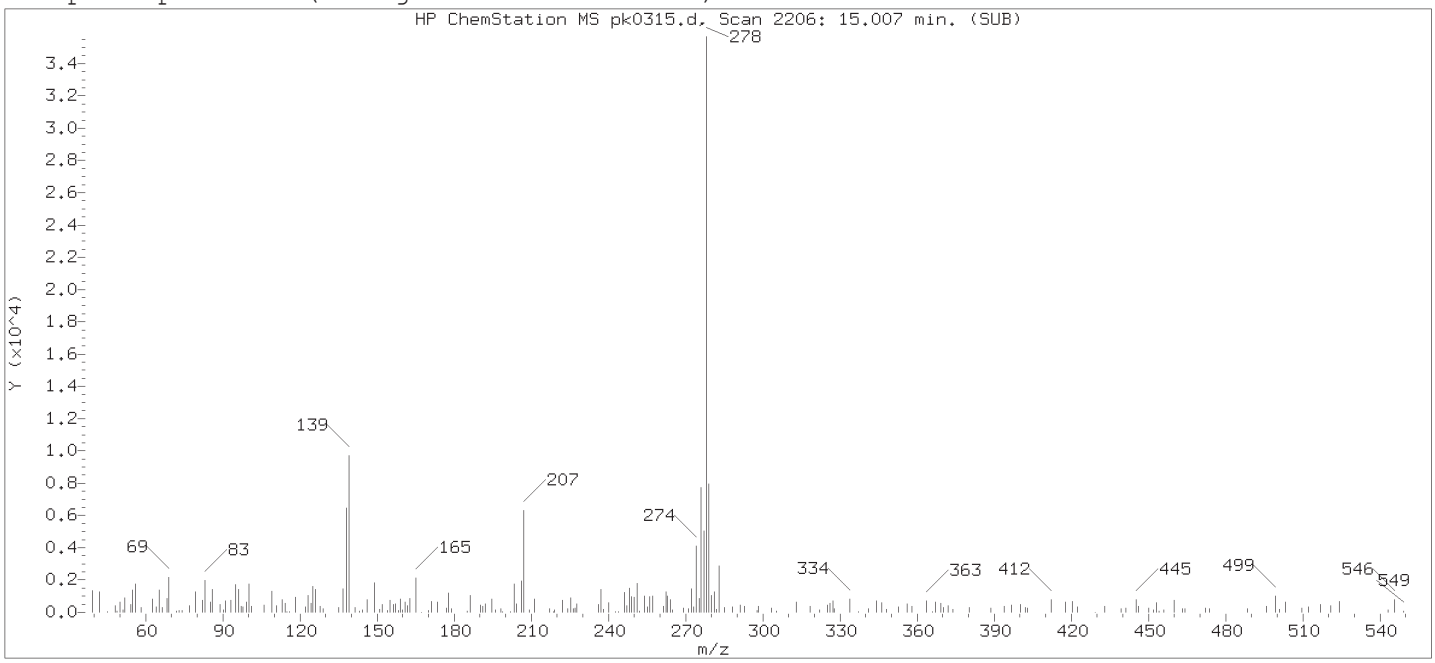
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2206		
Retention Time (minutes)	: 15.007		
Quant Ion	: 278.00		
Area (flag)	: 51626M		
On-Column Amount (ng/ul)	: 0.9136		
Integration start scan	: 2197	Integration stop scan:	2210
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

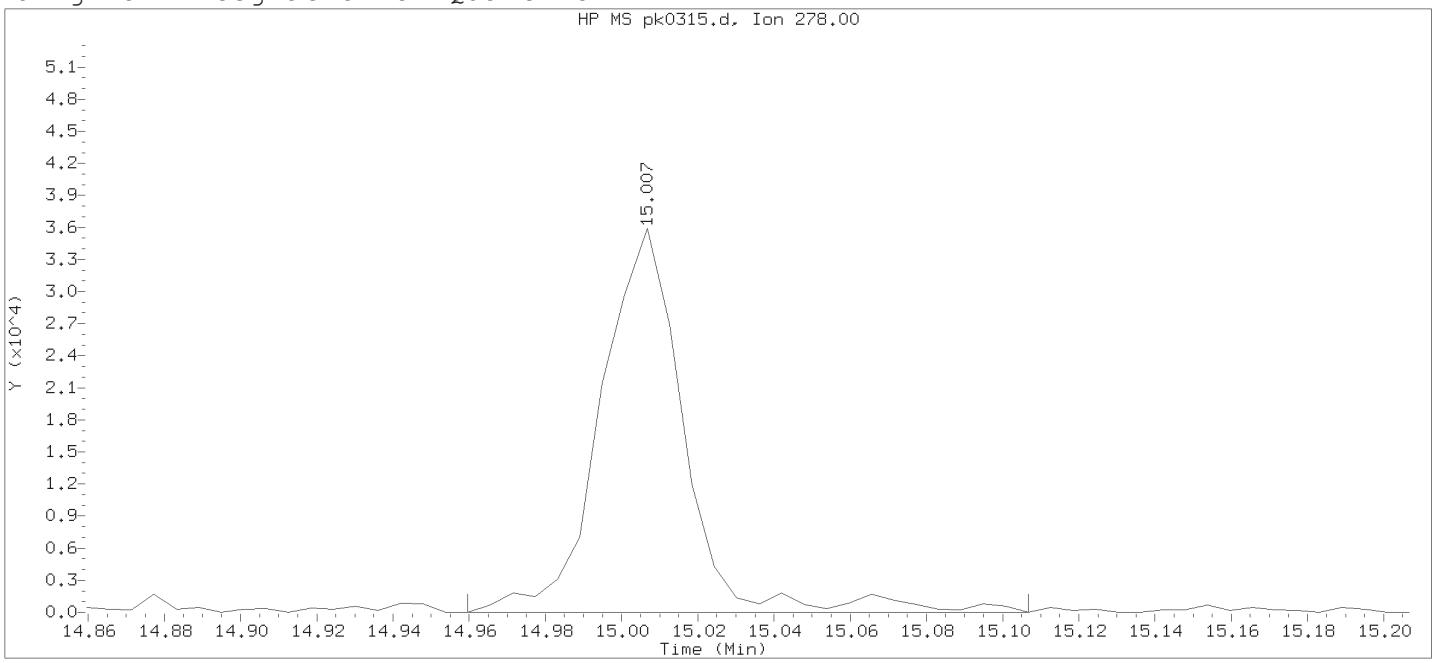
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

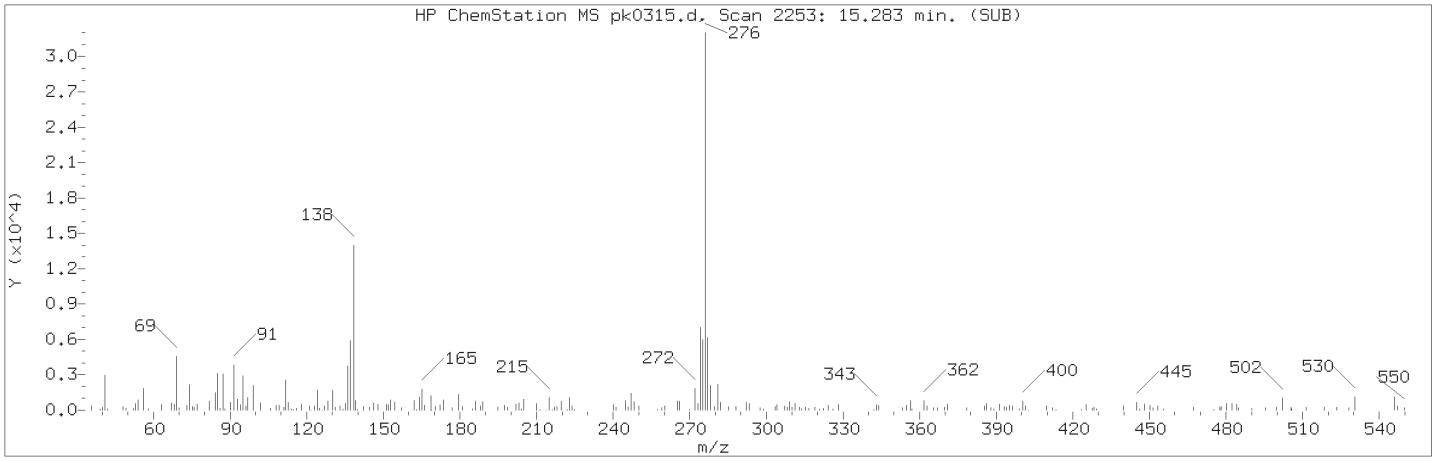
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

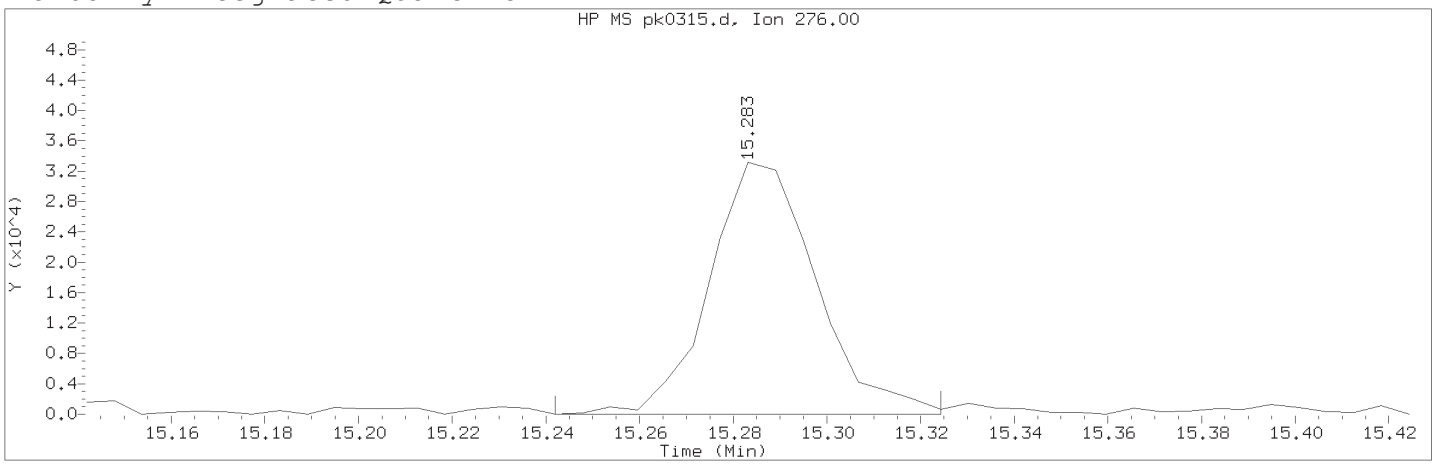
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2206		
Retention Time (minutes)	: 15.007		
Quant Ion	: 278.00		
Area	: 54888		
On-column Amount (ng/ul)	: 1.0042		
Integration start scan	: 2197	Integration stop scan:	2222
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:07.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD001 Lab Sample ID: STD2928

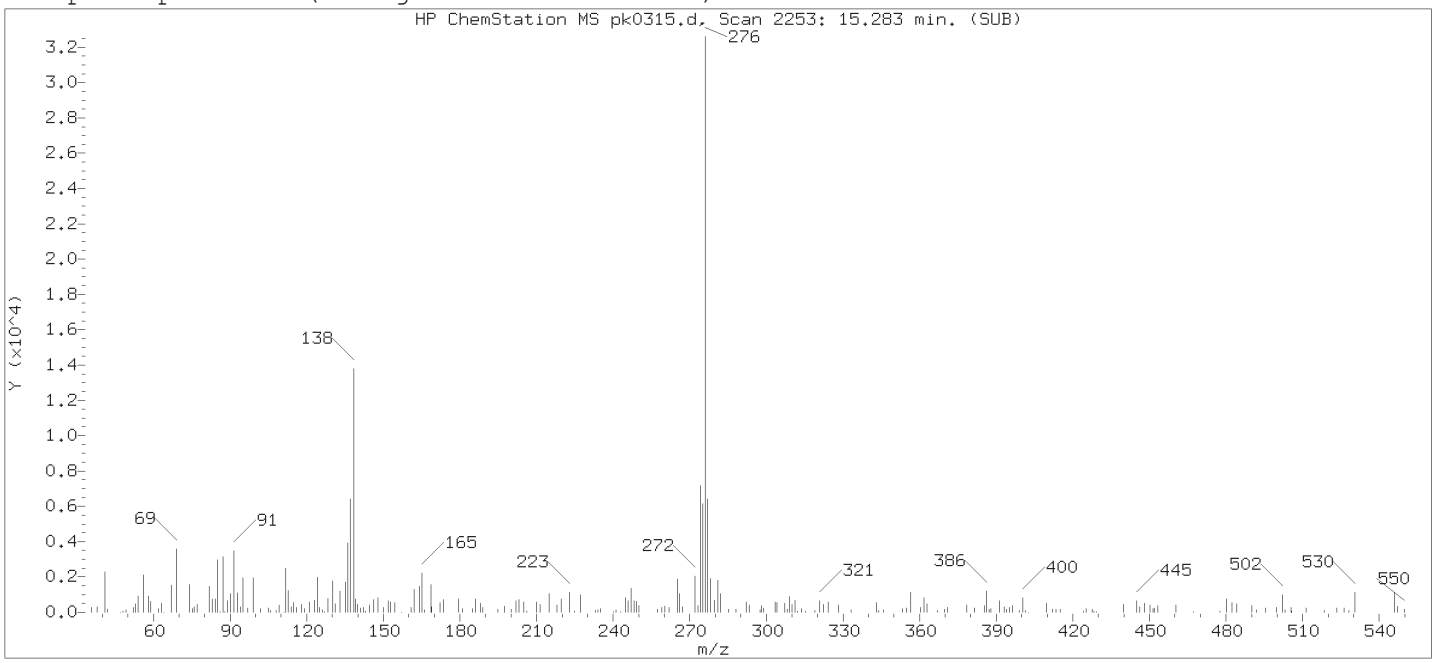
Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2253		
Retention Time (minutes)	: 15.283		
Quant Ion	: 276.00		
Area (flag)	: 52405M		
On-Column Amount (ng/ul)	: 0.9552		
Integration start scan	: 2245	Integration stop scan:	2259
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

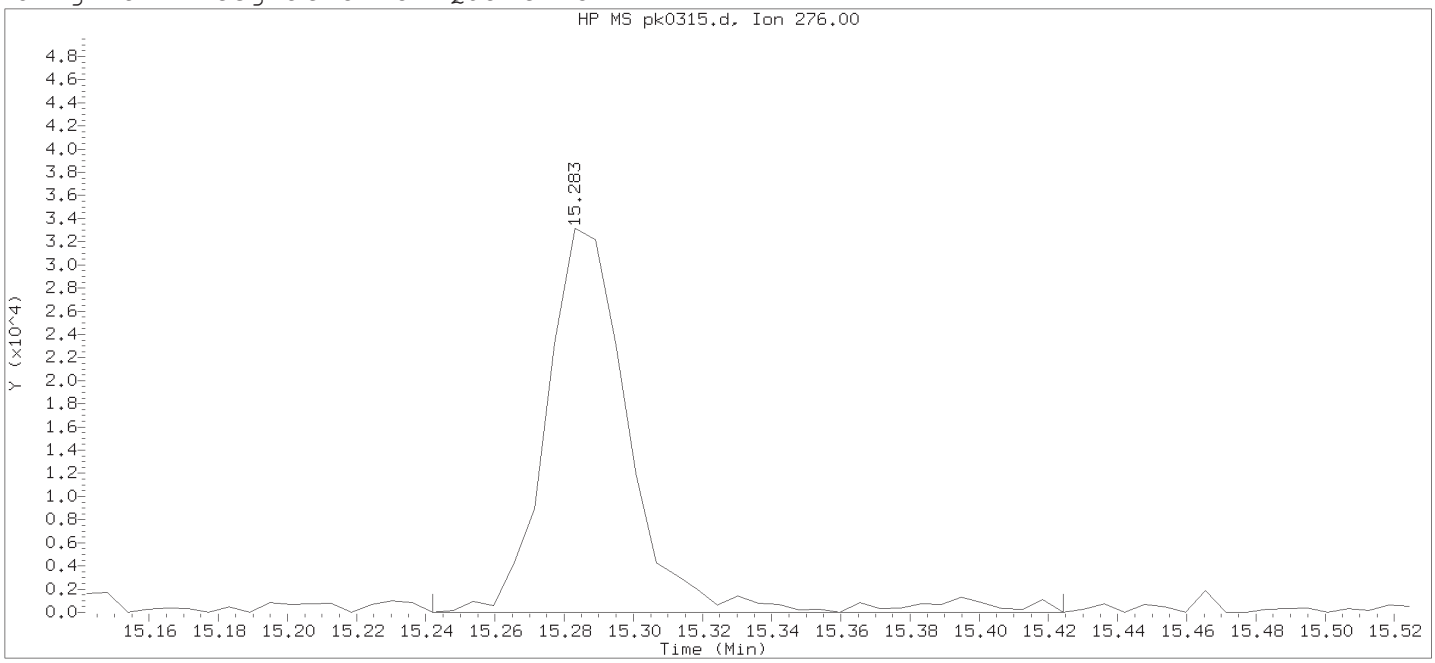
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0315.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:15 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 17:35
Date, time and analyst ID of latest file update: 09-Nov-2018 17:35 Automation

Sample Name: SSTD001 Lab Sample ID: STD2928

Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2253		
Retention Time (minutes)	: 15.283		
Quant Ion	: 276.00		
Area	: 55957		
On-column Amount (ng/ul)	: 1.0215		
Integration start scan	: 2245	Integration stop scan:	2276
Y at integration start	: 0	Y at integration end:	0

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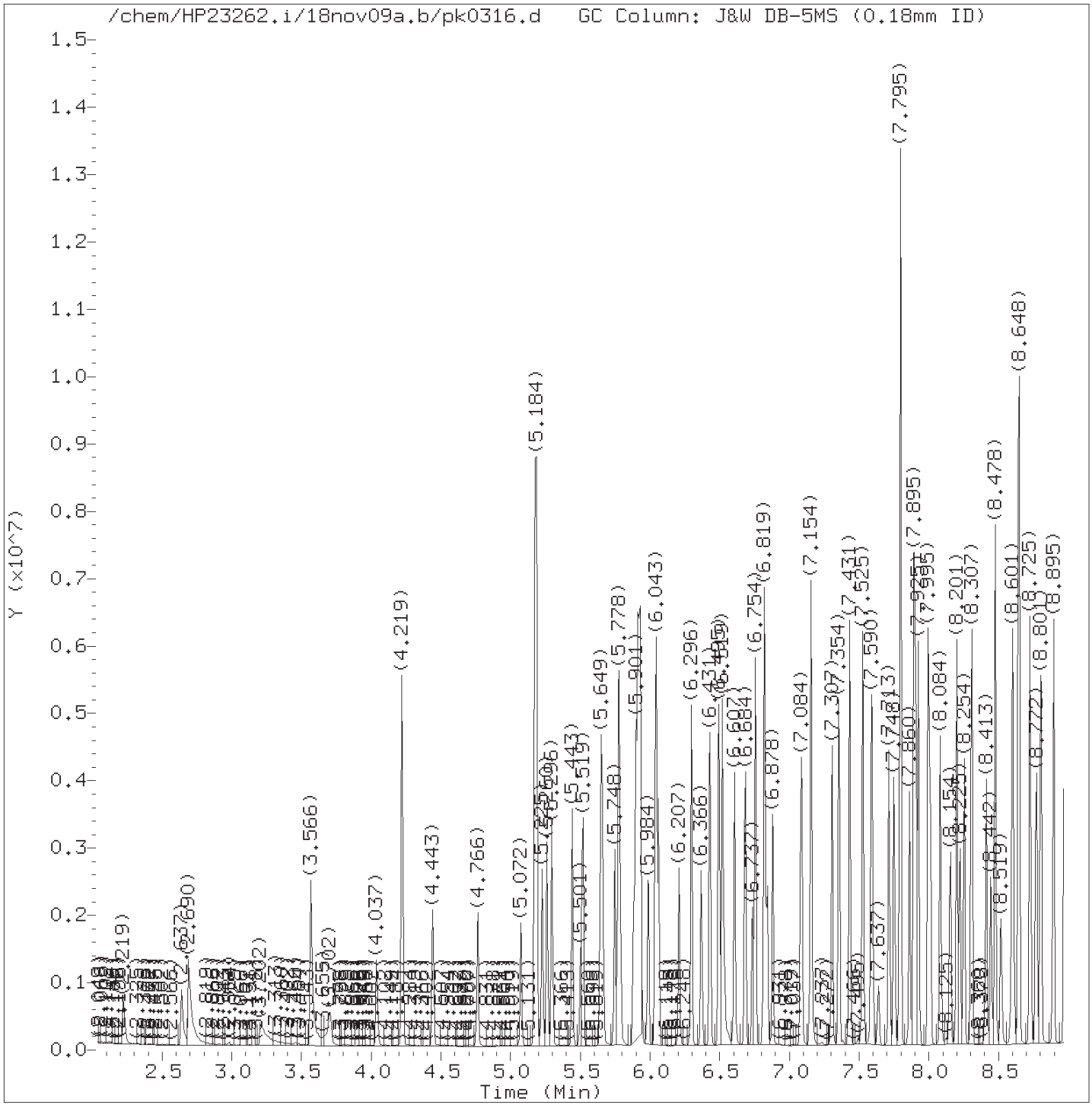
Target 3.5 esignature user ID: Page 2348



Total Ion Chromatogram (TIC)

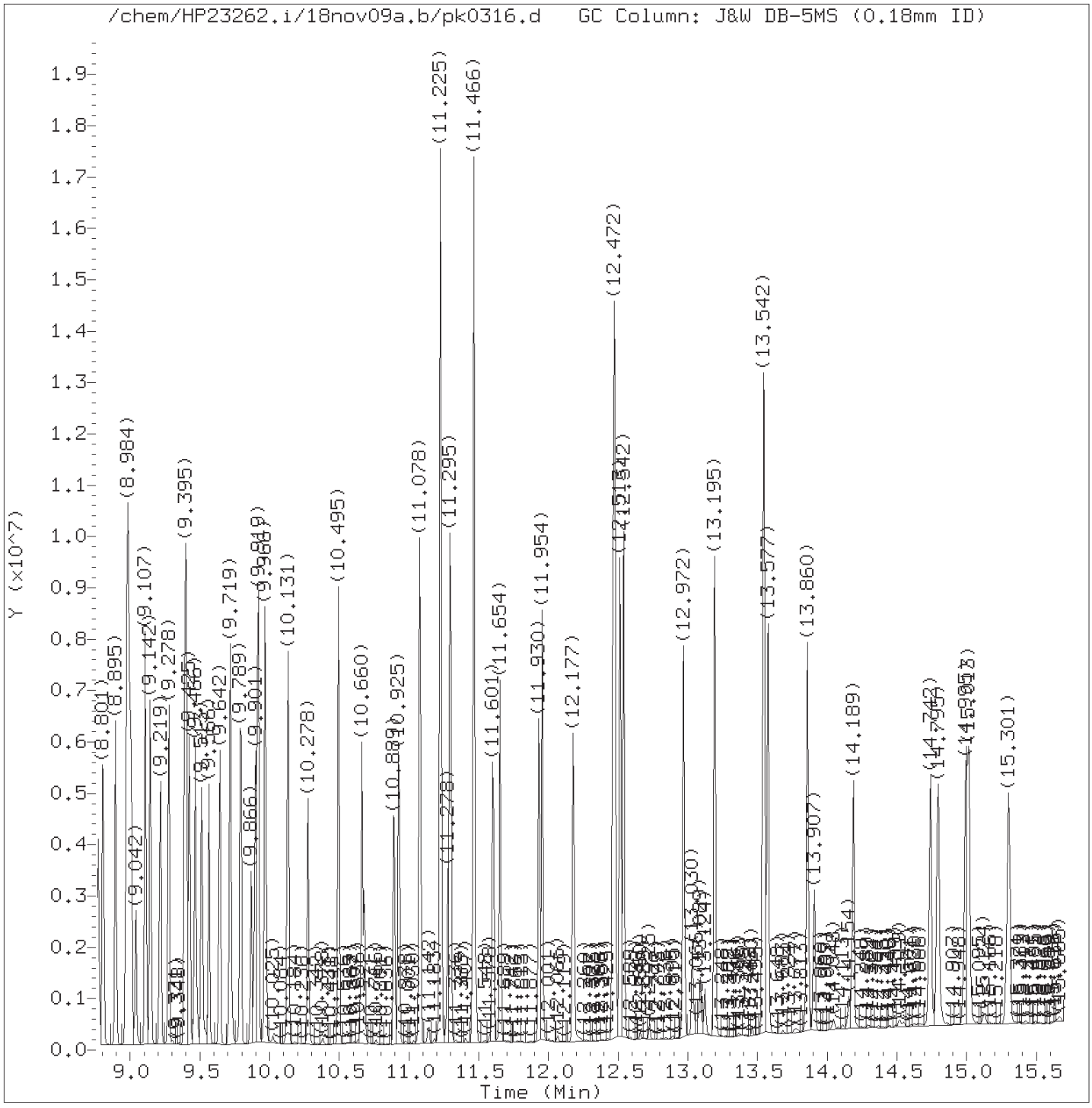
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.219	88	323901	50.364
4) N-Nitrosodimethylamine	(1)	2.637	74	505495	46.315
5) Pyridine	(1)	2.690	79	858020	45.209
7) 2-Picoline	(1)	3.566	93	955823	48.878
8) N-Nitrosomethylethylamine	(1)	3.702	88	417660	48.156
9) Methyl methanesulfonate	(1)	4.037	80	418112	48.343
11)$2-Fluorophenol	(1)	4.219	112	1362735	97.071
13) N-Nitrosodiethylamine	(1)	4.443	102	411573	49.739
15) Ethyl methanesulfonate	(1)	4.766	109	397571	47.133
17)$Phenol-d6	(1)	5.172	99	2123489	96.090
18) Phenol	(1)	5.184	94	1267692	48.545
19) Aniline	(1)	5.184	93	1413042	48.250
22) bis(2-Chloroethyl)ether	(1)	5.260	93	902886	49.147
23) 2-Chlorophenol	(1)	5.296	128	680449	47.811
24) 1,3-Dichlorobenzene	(1)	5.443	146	685663	48.886
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	180715	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	673372	48.683
27) Benzyl alcohol	(1)	5.649	108	565372	49.481
42) Total Cresols	(1)			1732085	99.271
28) 1,2-Dichlorobenzene	(1)	5.660	146	665541	47.686
30) Indene	(1)	5.748	115	843692	50.410
31) 2-Methylphenol	(1)	5.772	108	792529	49.240
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	1336562	49.843
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	1336562	49.843
35) N-Nitrosopyrrolidine	(1)	5.884	100	510455	49.449
36) Acetophenone	(1)	5.896	105	1196428	49.122
38) N-Nitroso-di-n-propylamine	(1)	5.913	70	781328	48.993
37) 4-Methylphenol	(1)	5.919	108	939556	49.974
39) N-Nitrosomorpholine	(1)	5.925	56	631873	49.711
40) o-Toluidine	(1)	5.931	106	1314434	48.640
43) Hexachloroethane	(1)	5.984	117	292062	49.309
44)$Nitrobenzene-d5	(2)	6.043	82	2031717	99.892
45) Nitrobenzene	(2)	6.060	77	1070953	49.260
48) N-Nitrosopiperidine	(2)	6.207	114	463485	49.786
50) Isophorone	(2)	6.296	82	2081946	51.258
51) 2-Nitrophenol	(2)	6.366	139	396070	49.696
53) 2,4-Dimethylphenol	(2)	6.431	107	886527	49.434
57) O,O,O-Triethylphosphorothioate	(2)	6.495	198	428630	50.378
55) bis(2-Chloroethoxy)methane	(2)	6.519	93	1238469	50.995
56) Benzoic acid	(2)	6.537	105	640383	50.936

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.607	162	652522	49.184
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	662429	49.359
65)*Naphthalene-d8	(2)	6.737	136	781992	20.000
66) Naphthalene	(2)	6.754	128	2185798	48.947
67) 4-Chloroaniline	(2)	6.819	127	919165	51.096
68) 2,6-Dichlorophenol	(2)	6.825	162	642849	50.423
69) Hexachloropropene	(2)	6.843	213	381657	48.913
71) Hexachlorobutadiene	(2)	6.884	225	394051	52.048
75) Quinoline	(2)	7.084	129	1540213	50.711
77) N-Nitrosodi-n-butylamine	(2)	7.154	84	1011612	51.385
76) Caprolactam	(2)	7.160	113	327939	53.049
80) 4-Chloro-3-methylphenol	(2)	7.307	107	828975	49.866
82) Safrole	(2)	7.354	162	618592	50.267
97) Isosafrole	(3)			640656	48.413
83) 2-Methylnaphthalene	(2)	7.431	142	1548306	50.792
84) 1-Methylnaphthalene	(2)	7.525	142	1477269	50.332
85) Hexachlorocyclopentadiene	(3)	7.584	237	403258	49.384
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.595	216	789980	48.645
88) cis-Isosafrole	(3)	7.642	162	109495	8.307
90) 2,4,6-Trichlorophenol	(3)	7.713	196	540938	49.637
92) 2,4,5-Trichlorophenol	(3)	7.748	196	585256	48.794
93)$2-Fluorobiphenyl	(3)	7.795	172	3816945	102.473
94) trans-Isosafrole	(3)	7.860	162	531161	40.107
95) 1,1'-Biphenyl	(3)	7.890	154	2042245	49.371
96) 2-Chloronaphthalene	(3)	7.907	162	1449341	44.384
98) 1-Chloronaphthalene	(3)	7.925	162	1636908	51.155
99) Diphenyl ether	(3)	7.995	170	1138490	48.430
100) 2-Nitroaniline	(3)	8.013	138	535380	48.229
120) 2,4_2,6-Dinitrotoluenes	(3)			1070328	98.414
104) 1,4-Naphthoquinone	(3)	8.084	158	705042	49.182
105) 1,4-Dinitrobenzene	(3)	8.154	168	310193	50.035
106) Dimethylphthalate	(3)	8.201	163	1938448	49.420
107) 1,3-Dinitrobenzene	(3)	8.225	168	344113	47.997
108) 2,6-Dinitrotoluene	(3)	8.254	165	456646	48.019
109) Acenaphthylene	(3)	8.307	152	2332777	49.441
112) 3-Nitroaniline	(3)	8.413	138	488774	50.083
113)*Acenaphthene-d10	(3)	8.442	164	486294	20.000
114) Acenaphthene	(3)	8.478	153	1659242	49.755
115) 2,4-Dinitrophenol	(3)	8.519	184	270628	49.494
116) 4-Nitrophenol	(3)	8.595	109	314683	47.751

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$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.607	250	753663	49.499
119) Dibenzofuran	(3)	8.648	168	2515080	49.487
118) 2,4-Dinitrotoluene	(3)	8.648	165	613682	49.213
121) 1-Naphthylamine	(3)	8.725	143	1733690	49.230
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	495744	48.496
146) Diallate trans/cis	(4)			1192481	48.768
123) 2-Naphthylamine	(3)	8.807	143	1734092	50.165
124) Diethylphthalate	(3)	8.895	149	2000949	49.939
125) Thionazin	(3)	8.972	107	376018	51.887
126) Fluorene	(3)	8.984	166	2066703	50.338
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	1089255	49.208
128) 5-Nitro-o-toluidine	(3)	9.001	152	576818	49.799
129) 4-Nitroaniline	(3)	9.013	138	513791	47.249
130) 4,6-Dinitro-2-methylphenol	(4)	9.042	198	373181	48.901
132) NDPA as diphenylamine	(4)	9.107	169	1785992	49.168
131) N-Nitrosodiphenylamine	(4)	9.107	169	1785992	49.168
134) 1,2-Diphenylhydrazine	(4)	9.142	77	2707500	49.149
135)$2,4,6-Tribromophenol	(3)	9.219	330	478784	99.430
137) Tetraethyldithiopyrophosphate	(4)	9.278	97	388968	49.415
139) 1,3,5-Trinitrobenzene	(4)	9.389	213	266247	49.057
140) Diallate (peak 1)	(4)	9.395	86	1019327	40.490
141) Phorate	(4)	9.401	75	2311162	56.011
142) Phenacetin	(4)	9.425	108	1163118	48.348
143) 4-Bromophenyl-phenylether	(4)	9.466	248	604325	48.824
144) Diallate (peak 2)	(4)	9.478	86	173154	8.275
145) Hexachlorobenzene	(4)	9.513	284	582142	50.859
147) Dimethoate	(4)	9.566	87	1049586	50.224
149) Pentachlorophenol	(4)	9.713	266	354755	48.480
150) 4-Aminobiphenyl	(4)	9.719	169	797229	45.120
151) Pentachloronitrobenzene	(4)	9.719	237	278099	49.163
152) Pronamide	(4)	9.795	173	970268	50.320
153)*Phenanthrene-d10	(4)	9.895	188	1118293	20.000
154) Dinoseb	(4)	9.901	211	569496	48.128
155) Phenanthrene	(4)	9.919	178	3058317	47.923
157) Anthracene	(4)	9.966	178	3191925	49.484
163) Carbazole	(4)	10.131	167	2885558	49.008
164) Methyl parathion	(4)	10.278	109	770513	50.787
165) Di-n-butylphthalate	(4)	10.495	149	3608478	51.291
167) Parathion	(4)	10.660	109	494863	49.830
168) 4-Nitroquinoline-1-oxide	(4)	10.678	190	305032	48.289

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Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0316.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 17:38 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD050 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	230143	50.856
171) Isodrin	(4)	10.925	193	380371	47.089
173) Fluoranthene	(4)	11.078	202	3741837	51.356
174) Benzidine	(5)	11.225	184	6869837	162.007
175)*Pyrene-d10	(5)	11.278	212	1157721	20.000
177) Pyrene	(5)	11.295	202	3787862	48.389
179)$Terphenyl-d14	(5)	11.466	244	4935256	101.225
182) p-Dimethylaminoazobenzene	(5)	11.601	225	685328	49.779
185) Chlorobenzilate	(5)	11.654	139	962013	49.553
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	2209813	49.974
188) Butylbenzylphthalate	(5)	11.954	149	1656735	49.732
191) 2-Acetylaminofluorene	(5)	12.177	181	1388361	48.994
193) 3,3'-Dichlorobenzidine	(5)	12.466	252	1281274	49.104
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.472	231	692660	50.076
195) Benzo(a)anthracene	(5)	12.477	228	3588779	49.997
196) Chrysene	(5)	12.513	228	3474676	50.583
199) bis(2-Ethylhexyl)phthalate	(5)	12.542	149	2344473	49.622
203) 6-Methylchrysene	(5)	12.972	242	2350963	49.174
205) Di-n-octylphthalate	(6)	13.195	149	4066395	51.475
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.542	256	1551029	49.346
206) Benzo(b)fluoranthene	(6)	13.548	252	3278539	47.083
208) Benzo(k)fluoranthene	(6)	13.577	252	3415802	50.599
211) Benzo(a)pyrene	(6)	13.860	252	3110086	49.010
213)*Perylene-d12	(6)	13.907	264	978450	20.000
215) 3-Methylcholanthrene	(6)	14.189	268	1258244	49.603
217) Dibenz(a,h)acridine	(6)	14.742	279	2444010	49.405
218) Dibenz(a,j)acridine	(6)	14.795	279	2499341	49.113
219) Indeno(1,2,3-cd)pyrene	(6)	14.995	276	3299174	50.744
222) Total PAHs	(6)			50791343	900.875
220) Dibenz(a,h)anthracene	(6)	15.018	278	2823424	49.600
221) Benzo(g,h,i)perylene	(6)	15.301	276	2750827	49.742

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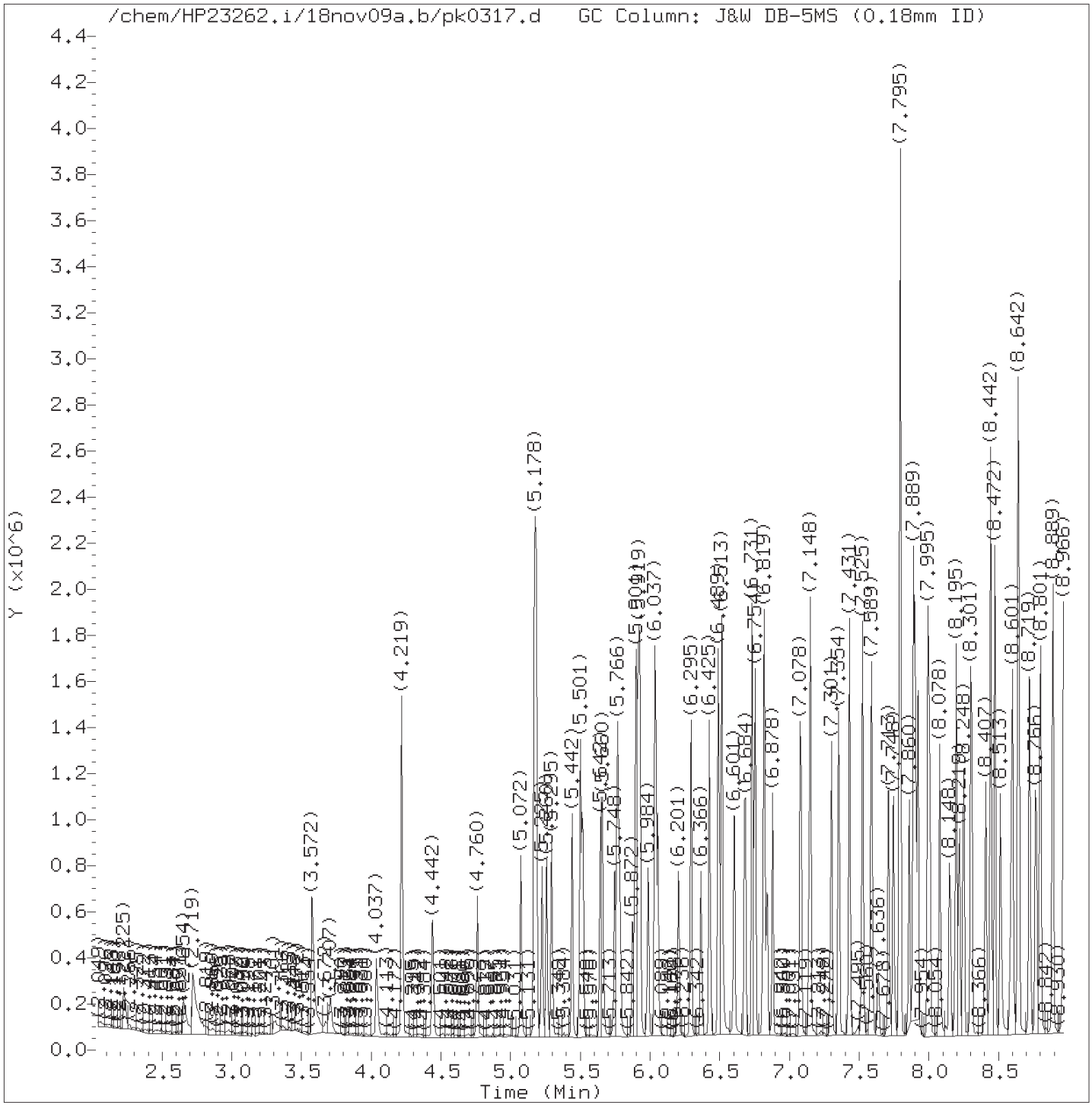
on 11/11/2018 at 18:07.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

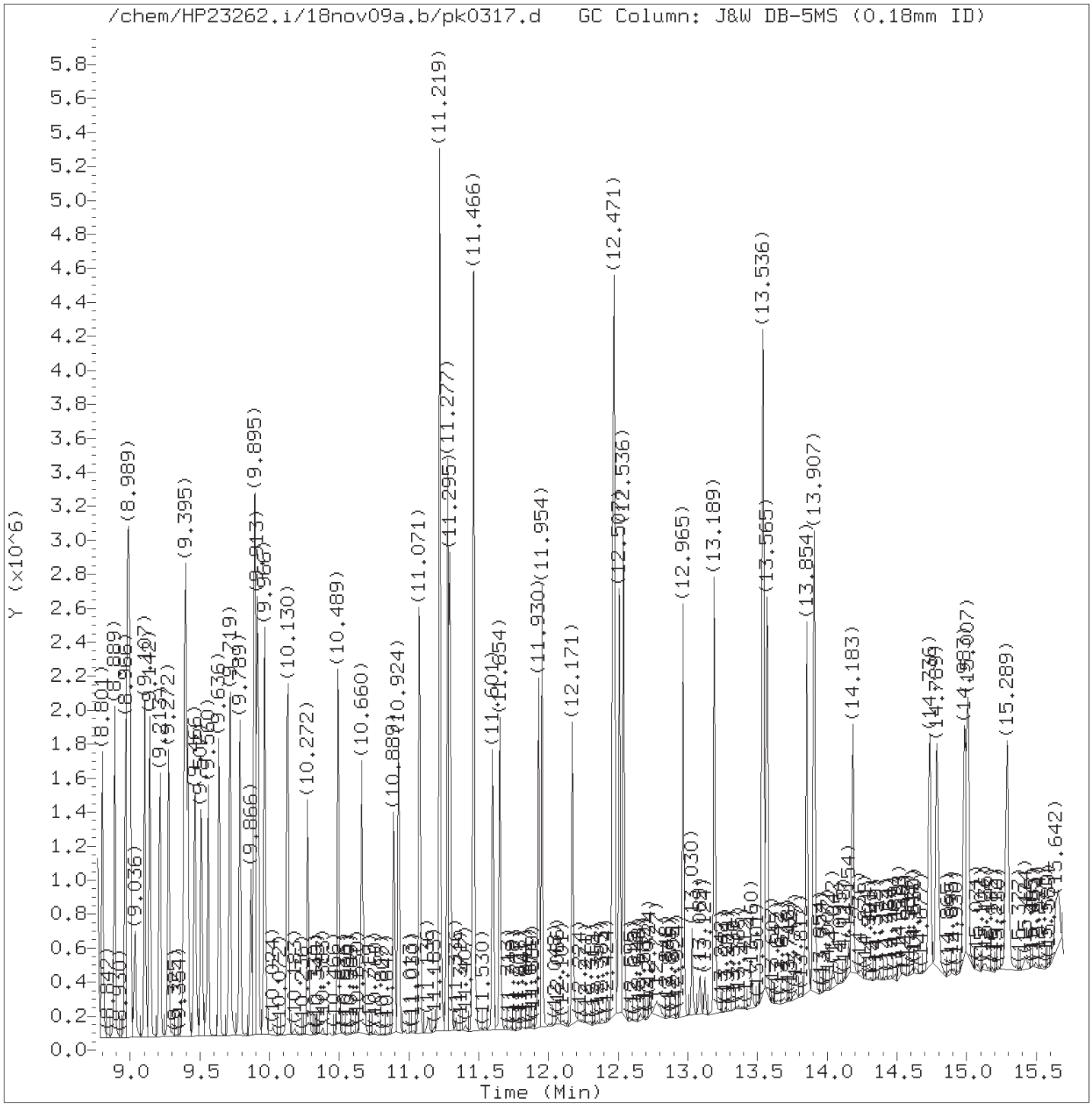
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.225	88	96203	15.715
4) N-Nitrosodimethylamine	(1)	2.654	74	144335	14.239
5) Pyridine	(1)	2.725	79	248525	14.125
7) 2-Picoline	(1)	3.572	93	267089	14.615
8) N-Nitrosomethylethylamine	(1)	3.707	88	114920M	14.261
9) Methyl methanesulfonate	(1)	4.037	80	121112	14.910
11)$2-Fluorophenol	(1)	4.219	112	369749	28.381
13) N-Nitrosodiethylamine	(1)	4.442	102	118382	15.175
15) Ethyl methanesulfonate	(1)	4.760	109	108709	13.903
17)$Phenol-d6	(1)	5.172	99	584454	28.476
18) Phenol	(1)	5.184	94	347065	14.268
19) Aniline	(1)	5.184	93	387746	14.223
22) bis(2-Chloroethyl)ether	(1)	5.260	93	239654	14.046
23) 2-Chlorophenol	(1)	5.295	128	184194	13.952
24) 1,3-Dichlorobenzene	(1)	5.442	146	195243	14.833
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	169972	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	189964	14.667
27) Benzyl alcohol	(1)	5.642	108	147472	13.960
42) Total Cresols	(1)			468695	28.790
28) 1,2-Dichlorobenzene	(1)	5.660	146	182709	14.088
30) Indene	(1)	5.742	115	215879	13.953
31) 2-Methylphenol	(1)	5.766	108	214840	14.320
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.778	45	366833	14.619
34) bis(2-Chloroisopropyl)ether	(1)	5.778	45	366833	14.619
35) N-Nitrosopyrrolidine	(1)	5.878	100	140851	14.587
36) Acetophenone	(1)	5.895	105	305955	13.604
38) N-Nitroso-di-n-propylamine	(1)	5.901	70	220986	14.777
39) N-Nitrosomorpholine	(1)	5.919	56	176380	14.802
37) 4-Methylphenol	(1)	5.919	108	253855	14.459
40) o-Toluidine	(1)	5.931	106	362455	14.379
43) Hexachloroethane	(1)	5.984	117	77891	14.174
44)$Nitrobenzene-d5	(2)	6.037	82	550888	28.889
45) Nitrobenzene	(2)	6.054	77	310398	15.073
48) N-Nitrosopiperidine	(2)	6.207	114	127442	14.553
50) Isophorone	(2)	6.295	82	575541	14.979
51) 2-Nitrophenol	(2)	6.366	139	105494	14.147
53) 2,4-Dimethylphenol	(2)	6.425	107	253238	14.936
57) O,O,O-Triethylphosphorothioate	(2)	6.489	198	120009	14.925
55) bis(2-Chloroethoxy)methane	(2)	6.513	93	335297	14.657
56) Benzoic acid	(2)	6.519	105	348852	29.457

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.601	162	175804	14.161
62) 1,2,4-Trichlorobenzene	(2)	6.684	180	186411	14.742
65)*Naphthalene-d8	(2)	6.731	136	739955	20.000
66) Naphthalene	(2)	6.754	128	603952	14.390
67) 4-Chloroaniline	(2)	6.813	127	247189	14.599
68) 2,6-Dichlorophenol	(2)	6.819	162	175061	14.591
69) Hexachloropropene	(2)	6.842	213	107482	14.644
71) Hexachlorobutadiene	(2)	6.878	225	110883	15.396
75) Quinoline	(2)	7.078	129	424049	14.803
76) Caprolactam	(2)	7.142	113	88176	15.059
77) N-Nitrosodi-n-butylamine	(2)	7.148	84	280513	15.048
80) 4-Chloro-3-methylphenol	(2)	7.301	107	228950	14.627
82) Safrole	(2)	7.354	162	171909	14.810
97) Isosafrole	(3)			185479	14.881
83) 2-Methylnaphthalene	(2)	7.431	142	433546	15.026
84) 1-Methylnaphthalene	(2)	7.525	142	422711	15.189
85) Hexachlorocyclopentadiene	(3)	7.583	237	111606	14.583
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.589	216	218462	14.374
88) cis-Isosafrole	(3)	7.636	162	32943	2.628
90) 2,4,6-Trichlorophenol	(3)	7.713	196	147818	14.474
92) 2,4,5-Trichlorophenol	(3)	7.748	196	158828	14.184
93)$2-Fluorobiphenyl	(3)	7.795	172	1054255	29.993
94) trans-Isosafrole	(3)	7.860	162	152536	12.253
95) 1,1'-Biphenyl	(3)	7.889	154	524152	13.666
96) 2-Chloronaphthalene	(3)	7.901	162	453629	14.766
98) 1-Chloronaphthalene	(3)	7.925	162	414194	13.914
99) Diphenyl ether	(3)	7.995	170	322062	14.595
100) 2-Nitroaniline	(3)	8.007	138	155909	14.902
120) 2,4_2,6-Dinitrotoluenes	(3)			291473	28.705
104) 1,4-Naphthoquinone	(3)	8.078	158	190222	14.239
105) 1,4-Dinitrobenzene	(3)	8.148	168	81346	14.110
106) Dimethylphthalate	(3)	8.195	163	551042	14.909
107) 1,3-Dinitrobenzene	(3)	8.219	168	92550	13.924
108) 2,6-Dinitrotoluene	(3)	8.248	165	122191	13.828
109) Acenaphthylene	(3)	8.301	152	649706	14.648
112) 3-Nitroaniline	(3)	8.407	138	139428	15.115
113)*Acenaphthene-d10	(3)	8.442	164	458927	20.000
114) Acenaphthene	(3)	8.472	153	458393	14.626
115) 2,4-Dinitrophenol	(3)	8.513	184	133148	26.546
116) 4-Nitrophenol	(3)	8.589	109	84652	13.868

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.601	250	206001	14.443
119) Dibenzofuran	(3)	8.642	168	694566	14.565
118) 2,4-Dinitrotoluene	(3)	8.642	165	169282	14.504
121) 1-Naphthylamine	(3)	8.725	143	478037	14.503
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	133948	14.059
146) Diallate trans/cis	(4)			351338	15.114
123) 2-Naphthylamine	(3)	8.801	143	499030	15.237
124) Diethylphthalate	(3)	8.889	149	550578	14.646
125) Thionazin	(3)	8.966	107	105180	15.302
126) Fluorene	(3)	8.977	166	565225	14.645
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	296357	14.316
128) 5-Nitro-o-toluidine	(3)	8.995	152	170403	15.487
129) 4-Nitroaniline	(3)	9.001	138	157395	15.280
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	94035	13.345
132) NDPA as diphenylamine	(4)	9.107	169	490755	14.360
131) N-Nitrosodiphenylamine	(4)	9.107	169	490755	14.360
134) 1,2-Diphenylhydrazine	(4)	9.142	77	732171	14.164
135)$2,4,6-Tribromophenol	(3)	9.213	330	133852	29.562
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	108507	14.620
139) 1,3,5-Trinitrobenzene	(4)	9.377	213	71441	14.085
140) Diallate (peak 1)	(4)	9.389	86	298314	12.481
141) Phorate	(4)	9.401	75	497270	13.103
142) Phenacetin	(4)	9.413	108	320942	14.208
143) 4-Bromophenyl-phenylether	(4)	9.466	248	160658	13.925
144) Diallate (peak 2)	(4)	9.477	86	53024	2.646
145) Hexachlorobenzene	(4)	9.513	284	171527	15.675
147) Dimethoate	(4)	9.560	87	299956	15.101
149) Pentachlorophenol	(4)	9.707	266	85526	12.775
150) 4-Aminobiphenyl	(4)	9.719	169	226536	13.786
151) Pentachloronitrobenzene	(4)	9.719	237	76472	14.392
152) Pronamide	(4)	9.789	173	262071	14.433
153)*Phenanthrene-d10	(4)	9.889	188	1061095	20.000
154) Dinoseb	(4)	9.901	211	139938	12.900
155) Phenanthrene	(4)	9.913	178	864085	14.370
157) Anthracene	(4)	9.966	178	894345	14.666
163) Carbazole	(4)	10.130	167	807183	14.537
164) Methyl parathion	(4)	10.272	109	215371	14.969
165) Di-n-butylphthalate	(4)	10.489	149	985458	14.809
167) Parathion	(4)	10.660	109	132584	14.247
168) 4-Nitroquinoline-1-oxide	(4)	10.677	190	74333	12.847

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

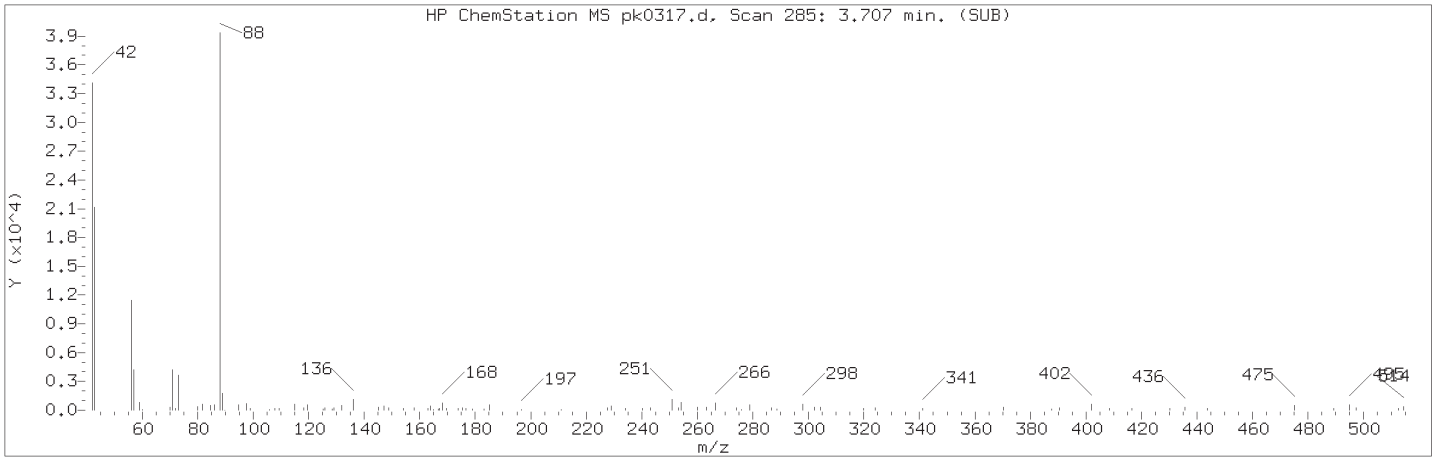
Sample Name: SSTD015 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.895	308	63641	14.857
171) Isodrin	(4)	10.924	193	100638	13.409
173) Fluoranthene	(4)	11.077	202	1025539	14.858
174) Benzidine	(5)	11.219	184	1980719	48.357
175)*Pyrene-d10	(5)	11.277	212	1097432	20.000
177) Pyrene	(5)	11.295	202	1064145	14.432
179)$Terphenyl-d14	(5)	11.466	244	1408803	30.385
182) p-Dimethylaminoazobenzene	(5)	11.601	225	184659	14.285
185) Chlorobenzilate	(5)	11.654	139	267482	14.610
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	676983	15.907
188) Butylbenzylphthalate	(5)	11.954	149	449676	14.386
191) 2-Acetylaminofluorene	(5)	12.171	181	380070	14.312
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	377416	15.206
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.471	231	204879	15.496
195) Benzo(a)anthracene	(5)	12.471	228	1013759	14.913
196) Chrysene	(5)	12.513	228	1009953	15.435
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	639289	14.414
203) 6-Methylchrysene	(5)	12.965	242	677566	14.961
205) Di-n-octylphthalate	(6)	13.189	149	1090526	14.162
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.536	256	442206	14.356
206) Benzo(b)fluoranthene	(6)	13.542	252	950418	13.968
208) Benzo(k)fluoranthene	(6)	13.565	252	969444	14.594
211) Benzo(a)pyrene	(6)	13.854	252	883121	14.204
213)*Perylene-d12	(6)	13.907	264	967102	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	362590	14.549
217) Dibenz(a,h)acridine	(6)	14.736	279	699624	14.442
218) Dibenz(a,j)acridine	(6)	14.789	279	724597	14.521
219) Indeno(1,2,3-cd)pyrene	(6)	14.983	276	972245	15.111
222) Total PAHs	(6)			14398101	259.972
220) Dibenz(a,h)anthracene	(6)	15.007	278	808055	14.450
221) Benzo(g,h,i)perylene	(6)	15.289	276	809459	14.836

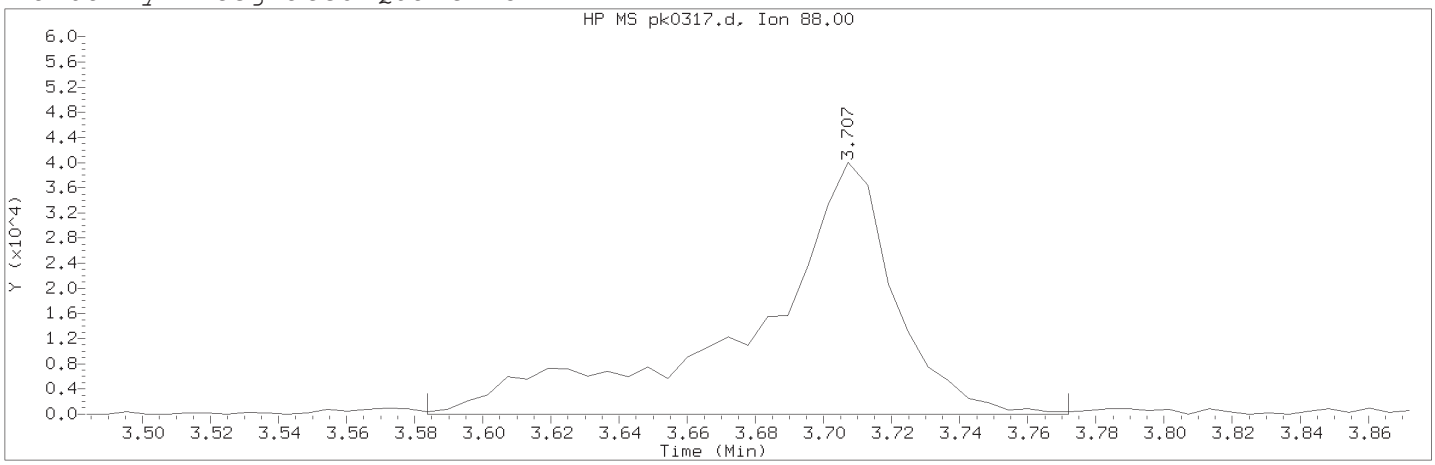
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD015 Lab Sample ID: STD2928

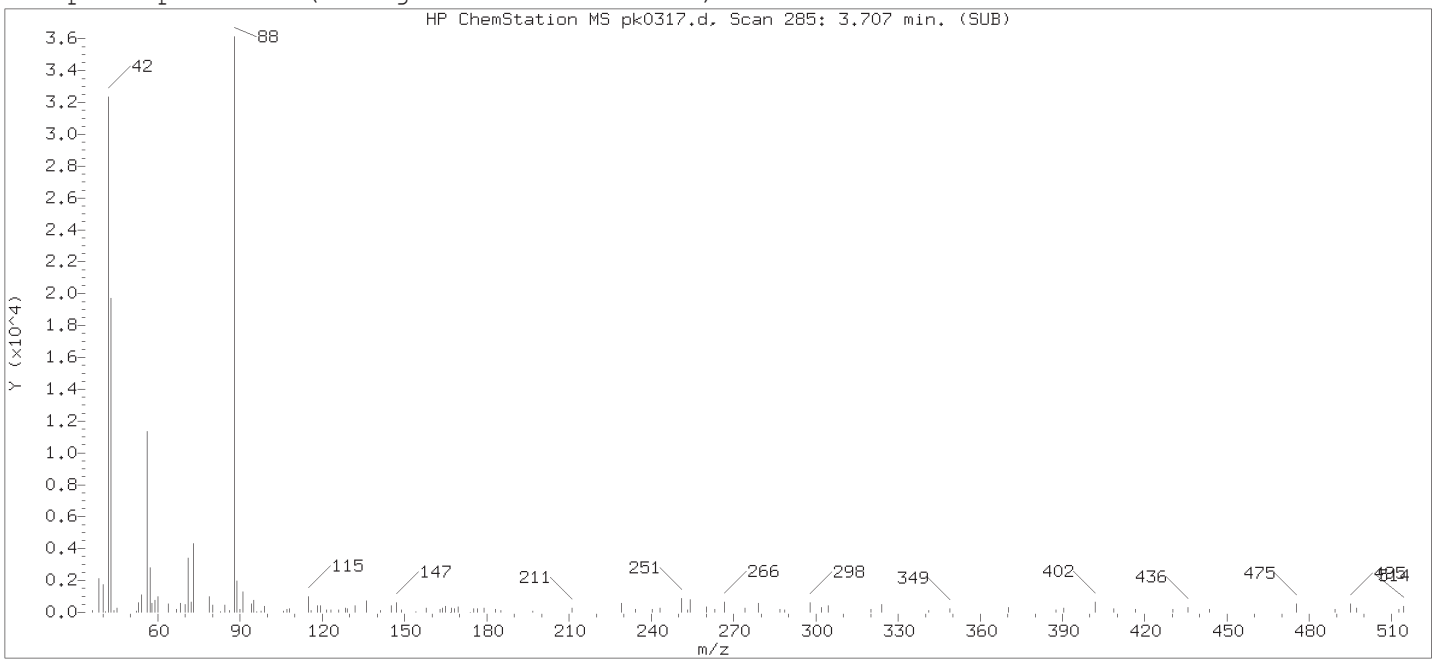
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Scan Number : 285
Retention Time (minutes) : 3.707
Quant Ion : 88.00
Area (flag) : 114920M
On-Column Amount (ng/ul) : 14.2612
Integration start scan : 263 Integration stop scan: 295
Y at integration start : -20 Y at integration end: -20

Reason for manual integration: improper integration

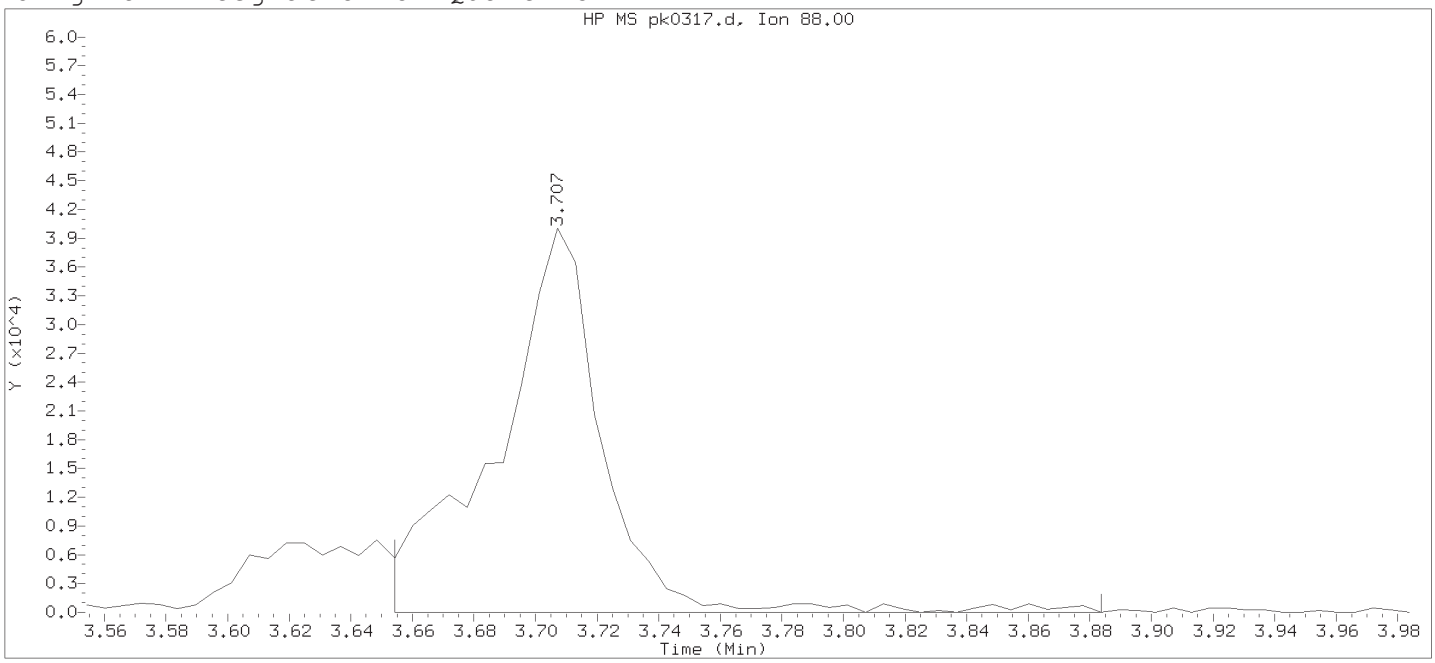
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



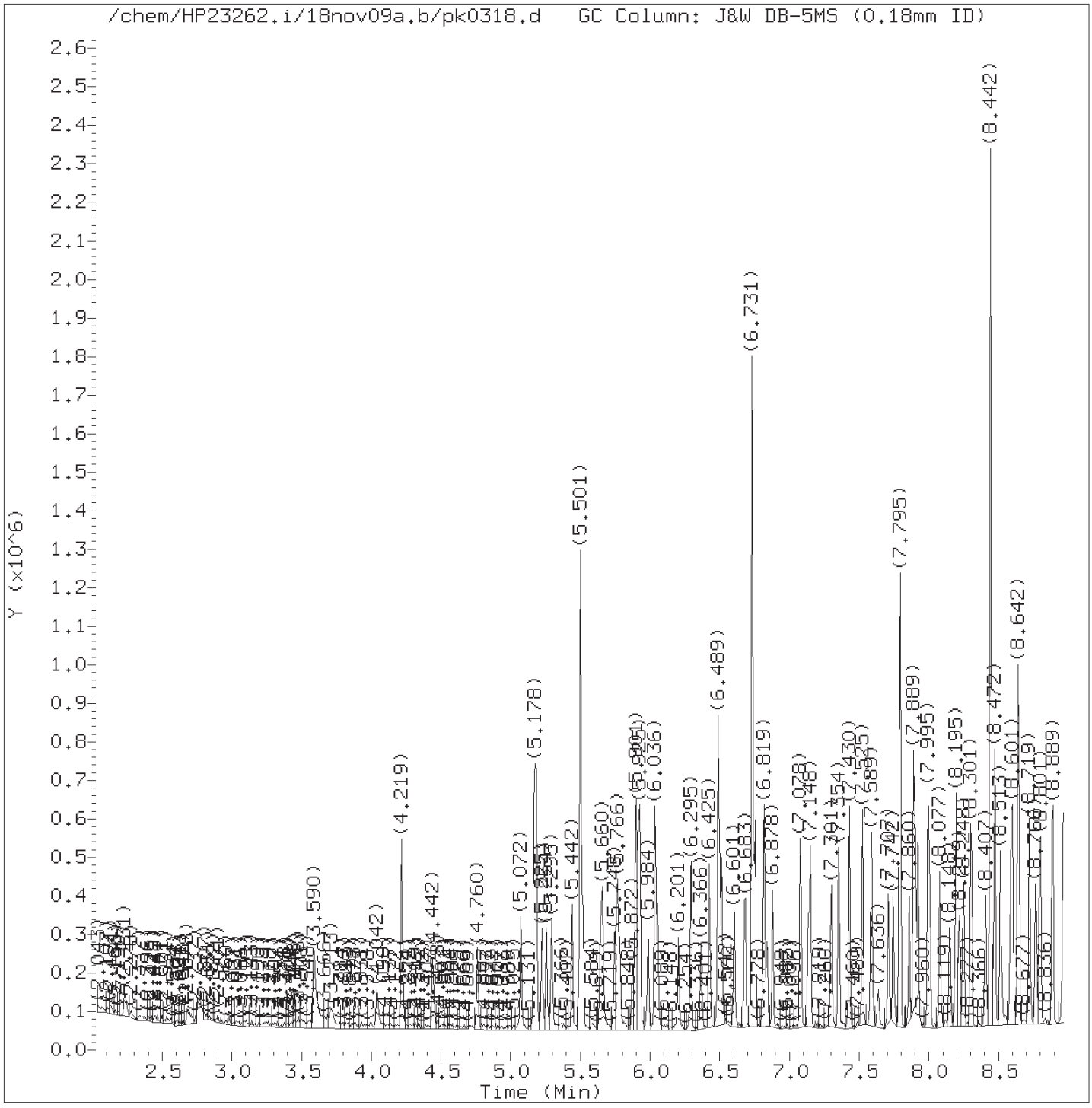
Data File: /chem/HP23262.i/18nov09a.b/pk0317.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:01 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:22
Date, time and analyst ID of latest file update: 09-Nov-2018 18:22 Automation

Sample Name: SSTD015 Lab Sample ID: STD2928

Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 285		
Retention Time (minutes)	: 3.707		
Quant Ion	: 88.00		
Area	: 96173		
On-column Amount (ng/ul)	: 11.4371		
Integration start scan	: 275	Integration stop scan:	314
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

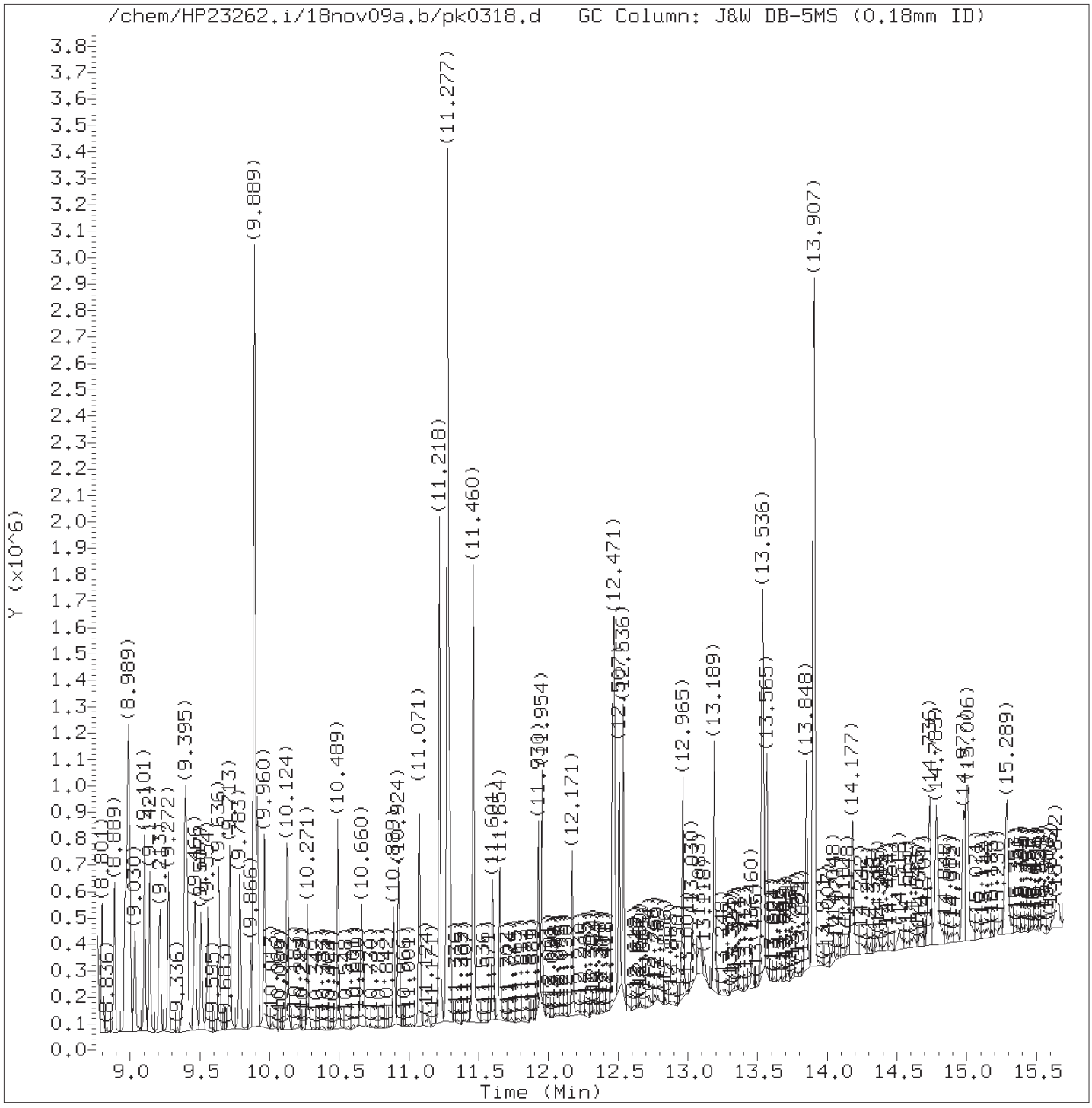
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.231	88	31904	5.410
4) N-Nitrosodimethylamine	(1)	2.684	74	41804	4.449
5) Pyridine	(1)	2.760	79	87940M	5.227
7) 2-Picoline	(1)	3.590	93	85664	4.956
8) N-Nitrosomethylethylamine	(1)	3.713	88	38450M	5.030
9) Methyl methanesulfonate	(1)	4.042	80	36173	4.748
11)$2-Fluorophenol	(1)	4.219	112	122524	9.938
13) N-Nitrosodiethylamine	(1)	4.442	102	36475	4.944
15) Ethyl methanesulfonate	(1)	4.760	109	37888	5.098
17)$Phenol-d6	(1)	5.172	99	193248	9.948
18) Phenol	(1)	5.184	94	117139	5.071
19) Aniline	(1)	5.184	93	128191	4.968
22) bis(2-Chloroethyl)ether	(1)	5.254	93	86361	5.291
23) 2-Chlorophenol	(1)	5.295	128	60090	4.831
24) 1,3-Dichlorobenzene	(1)	5.442	146	61695	4.955
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	161042	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	65179	5.265
27) Benzyl alcohol	(1)	5.642	108	51199	5.096
28) 1,2-Dichlorobenzene	(1)	5.660	146	64493	5.211
42) Total Cresols	(1)			151644	9.855
30) Indene	(1)	5.748	115	74218	5.052
31) 2-Methylphenol	(1)	5.760	108	68521	4.845
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	118932	5.002
34) bis(2-Chloroisopropyl)ether	(1)	5.784	45	118932	5.002
35) N-Nitrosopyrrolidine	(1)	5.872	100	48119	5.221
36) Acetophenone	(1)	5.895	105	103211	4.865
38) N-Nitroso-di-n-propylamine	(1)	5.901	70	70772	4.995
37) 4-Methylphenol	(1)	5.913	108	83123	4.998
39) N-Nitrosomorpholine	(1)	5.919	56	59008	5.187
40) o-Toluidine	(1)	5.931	106	118703	4.974
43) Hexachloroethane	(1)	5.984	117	28050	5.319
44)$Nitrobenzene-d5	(2)	6.036	82	185988	10.299
45) Nitrobenzene	(2)	6.054	77	101257	5.190
48) N-Nitrosopiperidine	(2)	6.201	114	40875	4.964
50) Isophorone	(2)	6.295	82	183849	5.071
51) 2-Nitrophenol	(2)	6.366	139	33392	4.790
53) 2,4-Dimethylphenol	(2)	6.425	107	79041	4.959
57) O,O,O-Triethylphosphorothioate	(2)	6.489	198	38267	5.046
56) Benzoic acid	(2)	6.495	105	153683M	13.973
55) bis(2-Chloroethoxy)methane	(2)	6.513	93	110209	5.100

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Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.607	162	55886	4.812
62) 1,2,4-Trichlorobenzene	(2)	6.683	180	63947	5.306
65)*Naphthalene-d8	(2)	6.731	136	696589	20.000
66) Naphthalene	(2)	6.754	128	209151	5.255
67) 4-Chloroaniline	(2)	6.813	127	81784	5.112
68) 2,6-Dichlorophenol	(2)	6.819	162	59639	5.238
69) Hexachloropropene	(2)	6.842	213	37474	5.348
71) Hexachlorobutadiene	(2)	6.878	225	37889	5.496
75) Quinoline	(2)	7.078	129	139980	5.158
76) Caprolactam	(2)	7.136	113	31982	5.651
77) N-Nitrosodi-n-butylamine	(2)	7.148	84	97309	5.460
80) 4-Chloro-3-methylphenol	(2)	7.301	107	77243	5.206
82) Safrole	(2)	7.354	162	53280	4.896
97) Isosafrole	(3)			60014	5.208
83) 2-Methylnaphthalene	(2)	7.430	142	136095	5.009
84) 1-Methylnaphthalene	(2)	7.525	142	136215	5.173
85) Hexachlorocyclopentadiene	(3)	7.583	237	38377	5.469
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.589	216	74007	5.264
88) cis-Isosafrole	(3)	7.636	162	10603	0.910
90) 2,4,6-Trichlorophenol	(3)	7.707	196	47031	5.020
92) 2,4,5-Trichlorophenol	(3)	7.742	196	51463	5.011
93)$2-Fluorobiphenyl	(3)	7.795	172	333853	10.298
94) trans-Isosafrole	(3)	7.860	162	49411	4.298
95) 1,1'-Biphenyl	(3)	7.889	154	178306	5.060
96) 2-Chloronaphthalene	(3)	7.901	162	155732M	5.447
98) 1-Chloronaphthalene	(3)	7.919	162	144806M	5.260
99) Diphenyl ether	(3)	7.995	170	105182	5.170
100) 2-Nitroaniline	(3)	8.007	138	47685	4.975
120) 2,4_2,6-Dinitrotoluenes	(3)			95399	10.205
104) 1,4-Naphthoquinone	(3)	8.077	158	58697	4.826
105) 1,4-Dinitrobenzene	(3)	8.148	168	24976	4.769
106) Dimethylphthalate	(3)	8.195	163	176052	5.162
107) 1,3-Dinitrobenzene	(3)	8.219	168	29880	4.919
108) 2,6-Dinitrotoluene	(3)	8.248	165	40930	5.045
109) Acenaphthylene	(3)	8.301	152	206530	5.069
112) 3-Nitroaniline	(3)	8.407	138	37727	4.531
113)*Acenaphthene-d10	(3)	8.442	164	420761	20.000
114) Acenaphthene	(3)	8.472	153	152825	5.276
115) 2,4-Dinitrophenol	(3)	8.513	184	54839	12.347
116) 4-Nitrophenol	(3)	8.589	109	53754	9.669

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on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.601	250	66789	5.092
119) Dibenzofuran	(3)	8.642	168	232777	5.275
118) 2,4-Dinitrotoluene	(3)	8.642	165	54469	5.075
121) 1-Naphthylamine	(3)	8.719	143	156545	5.149
122) 2,3,4,6-Tetrachlorophenol	(3)	8.766	232	42959	4.930
146) Diallate trans/cis	(4)			107565	4.908
123) 2-Naphthylamine	(3)	8.801	143	164574	5.394
124) Diethylphthalate	(3)	8.889	149	189632	5.412
125) Thionazin	(3)	8.960	107	32813M	5.171
126) Fluorene	(3)	8.977	166	184897	5.196
128) 5-Nitro-o-toluidine	(3)	8.989	152	55019	5.384
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	107815	5.572
129) 4-Nitroaniline	(3)	8.995	138	49707	5.224
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	52089	8.107
132) NDPA as diphenylamine	(4)	9.101	169	160795	4.976
131) N-Nitrosodiphenylamine	(4)	9.101	169	160795	4.976
134) 1,2-Diphenylhydrazine	(4)	9.142	77	241692	4.949
135)$2,4,6-Tribromophenol	(3)	9.213	330	44904	10.672
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	37552	5.286
139) 1,3,5-Trinitrobenzene	(4)	9.377	213	20945	4.458
140) Diallate (peak 1)	(4)	9.389	86	89593	3.991
141) Phorate	(4)	9.395	75	155827	4.437
142) Phenacetin	(4)	9.413	108	105093	4.928
143) 4-Bromophenyl-phenylether	(4)	9.466	248	57381	5.211
144) Diallate (peak 2)	(4)	9.472	86	17972	0.930
145) Hexachlorobenzene	(4)	9.513	284	58380	5.549
147) Dimethoate	(4)	9.554	87	98483	5.198
151) Pentachloronitrobenzene	(4)	9.701	237	24852	4.952
149) Pentachlorophenol	(4)	9.707	266	23810	3.920
150) 4-Aminobiphenyl	(4)	9.719	169	81557	5.202
152) Pronamide	(4)	9.789	173	83175	4.863
153)*Phenanthrene-d10	(4)	9.889	188	1004124	20.000
154) Dinoseb	(4)	9.901	211	37403	3.816
155) Phenanthrene	(4)	9.913	178	289122	5.071
157) Anthracene	(4)	9.966	178	289424	5.014
163) Carbazole	(4)	10.124	167	284932	5.358
164) Methyl parathion	(4)	10.271	109	70696	5.159
165) Di-n-butylphthalate	(4)	10.489	149	328965	5.185
167) Parathion	(4)	10.660	109	39449M	4.559
168) 4-Nitroquinoline-1-oxide	(4)	10.671	190	18648	3.406

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on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.889	308	22700	5.490
171) Isodrin	(4)	10.924	193	35195	4.962
173) Fluoranthene	(4)	11.071	202	338233	5.155
174) Benzidine	(5)	11.218	184	676053	16.636
175)*Pyrene-d10	(5)	11.277	212	1065028	20.000
177) Pyrene	(5)	11.295	202	386702	5.350
179)$Terphenyl-d14	(5)	11.460	244	475964	10.477
182) p-Dimethylaminoazobenzene	(5)	11.601	225	62252	4.967
185) Chlorobenzilate	(5)	11.648	139	97397	5.407
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	242534	5.706
188) Butylbenzylphthalate	(5)	11.954	149	160138	5.230
191) 2-Acetylaminofluorene	(5)	12.171	181	137969	5.291
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	132549	5.412
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.465	231	73572	5.597
195) Benzo(a)anthracene	(5)	12.471	228	351606	5.286
196) Chrysene	(5)	12.507	228	336562	5.261
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	223686	5.163
203) 6-Methylchrysene	(5)	12.965	242	229910	5.191
205) Di-n-octylphthalate	(6)	13.189	149	402911	5.027
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.536	256	155772	4.883
206) Benzo(b)fluoranthene	(6)	13.542	252	340769	4.839
208) Benzo(k)fluoranthene	(6)	13.565	252	341436	4.951
211) Benzo(a)pyrene	(6)	13.848	252	326283	5.042
213)*Perylene-d12	(6)	13.907	264	1005502	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	131877	5.076
217) Dibenz(a,h)acridine	(6)	14.736	279	254983	5.052
218) Dibenz(a,j)acridine	(6)	14.783	279	267917	5.136
219) Indeno(1,2,3-cd)pyrene	(6)	14.977	276	335417	5.012
222) Total PAHs	(6)			4943119	86.343
220) Dibenz(a,h)anthracene	(6)	15.006	278	290748	5.001
221) Benzo(g,h,i)perylene	(6)	15.289	276	291104	5.115

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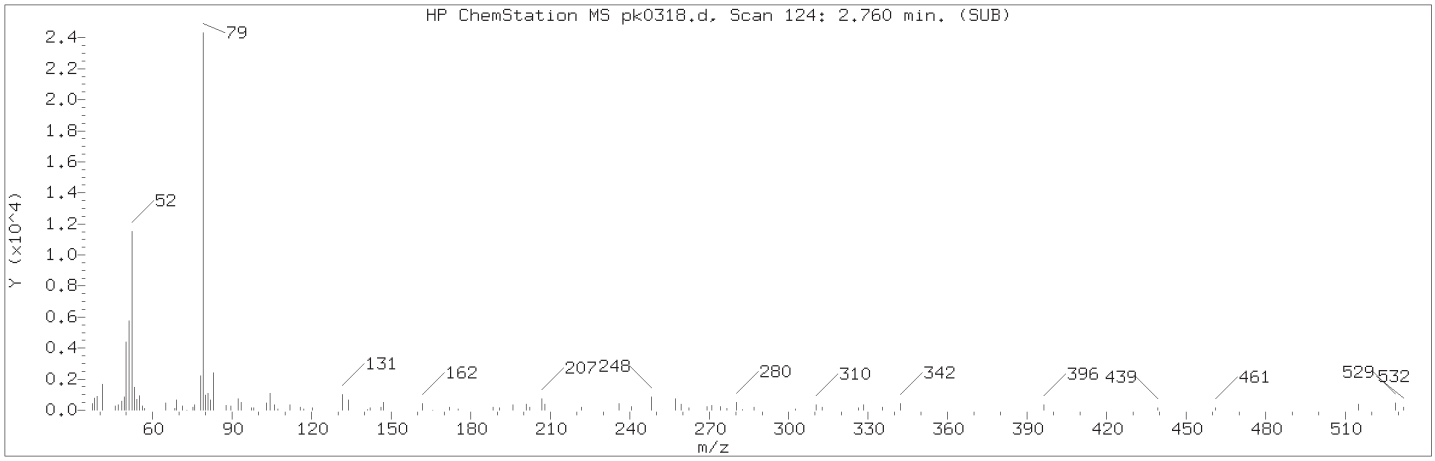
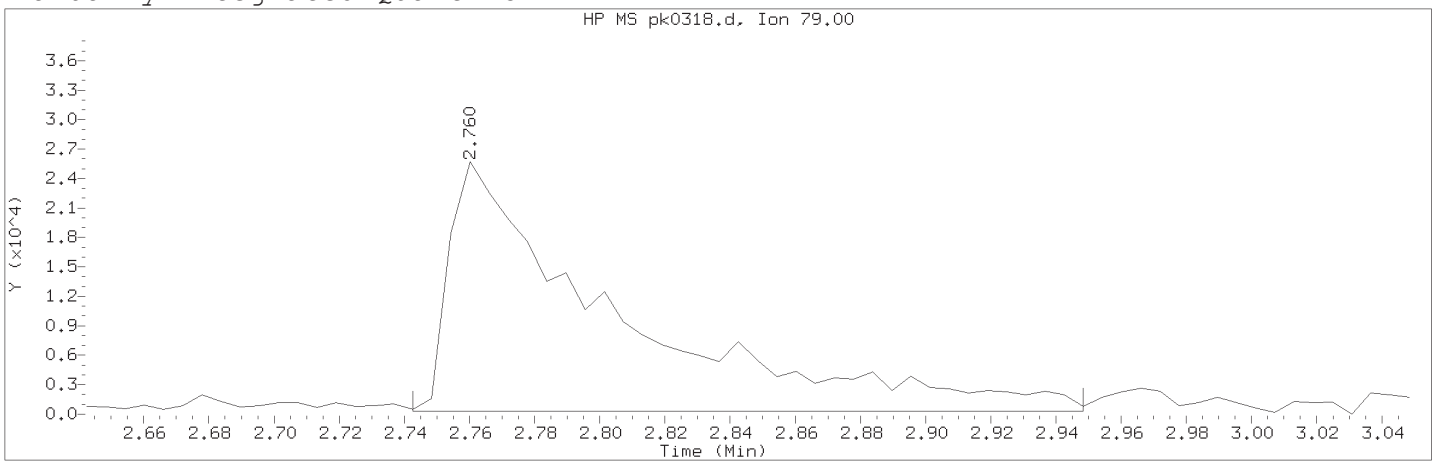
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

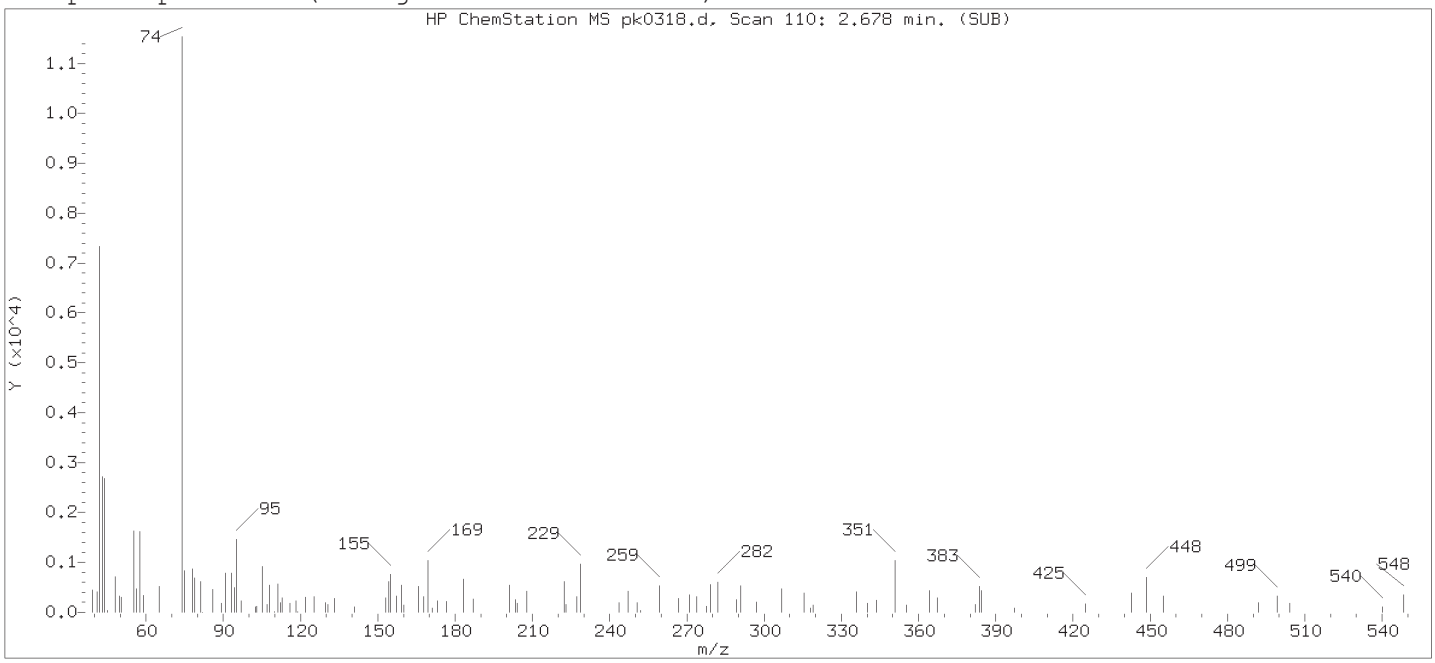
Compound Number : 5
Compound Name : Pyridine
Scan Number : 124
Retention Time (minutes) : 2.760
Quant Ion : 79.00
Area (flag) : 87940M
On-Column Amount (ng/ul) : 5.2274
Integration start scan : 120 Integration stop scan: 155
Y at integration start : 325 Y at integration end: 325

Reason for manual integration: improper integration

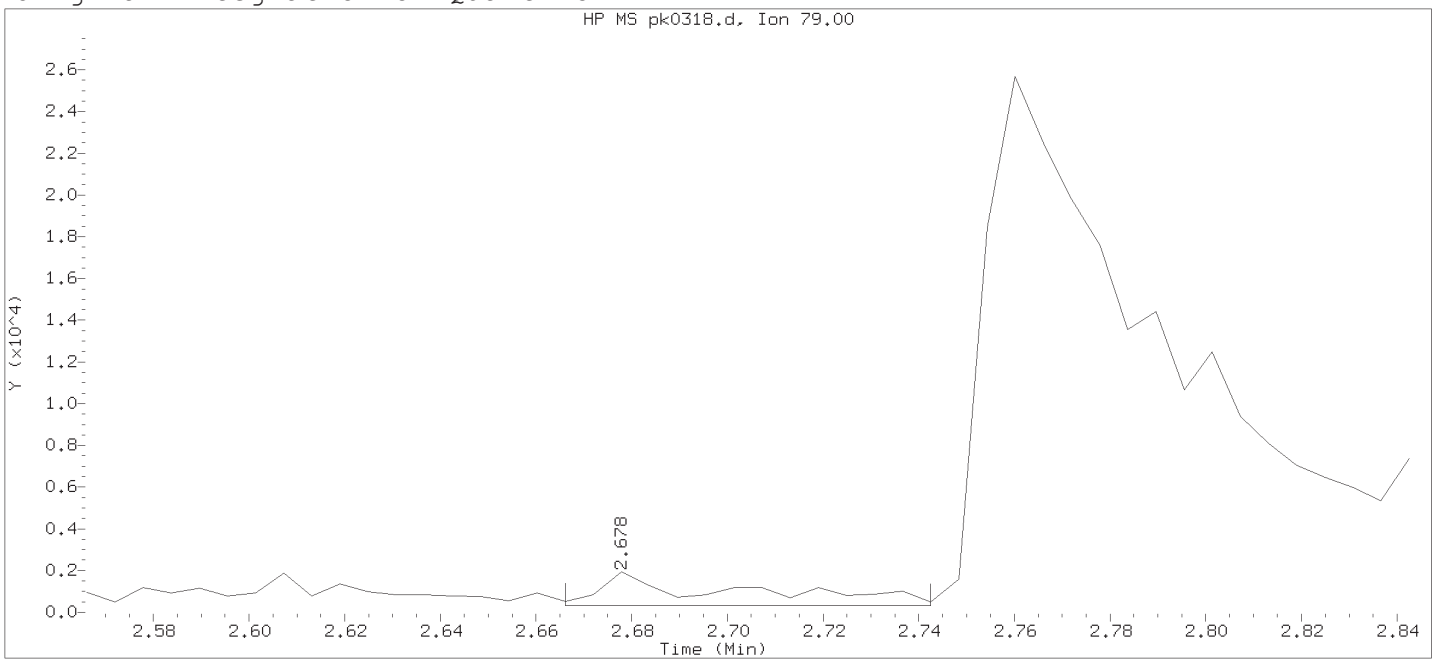
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

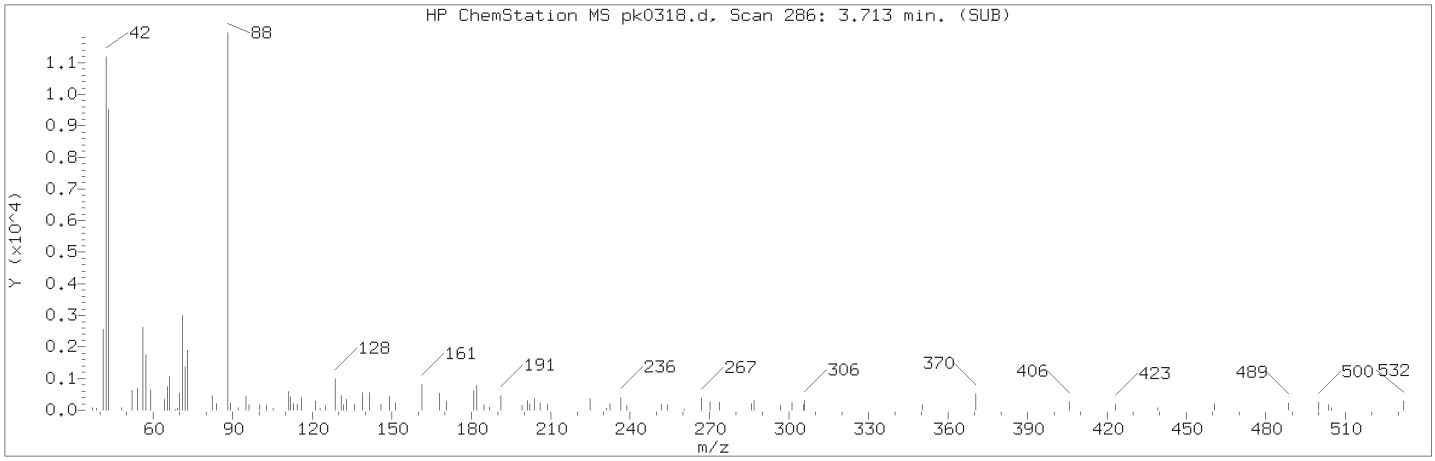
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

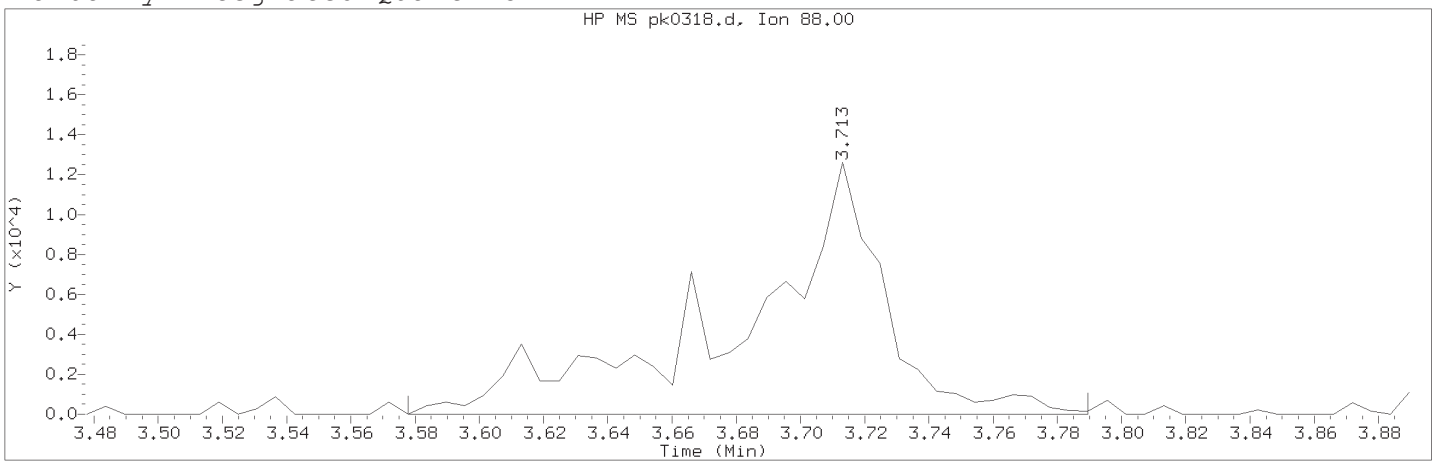
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 110		
Retention Time (minutes)	: 2.678		
Quant Ion	: 79.00		
Area	: 3150		
On-column Amount (ng/ul)	: 0.2253		
Integration start scan	: 107	Integration stop scan:	120
Y at integration start	: 316	Y at integration end:	316

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used 11/11/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

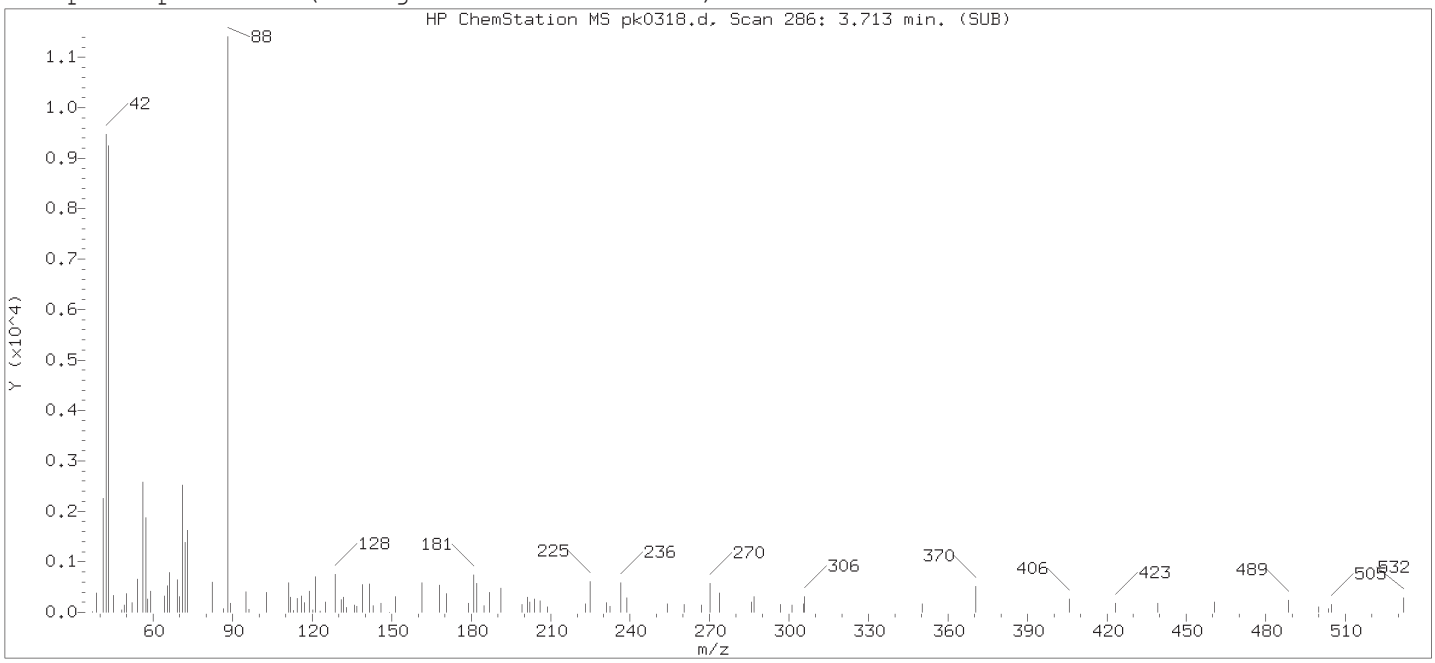
Compound Number : 8
Compound Name : N-Nitrosomethylethylamine
Scan Number : 286
Retention Time (minutes) : 3.713
Quant Ion : 88.00
Area (flag) : 38450M
On-Column Amount (ng/ul) : 5.0300
Integration start scan : 262 Integration stop scan: 298
Y at integration start : 14 Y at integration end: 14

Reason for manual integration: improper integration

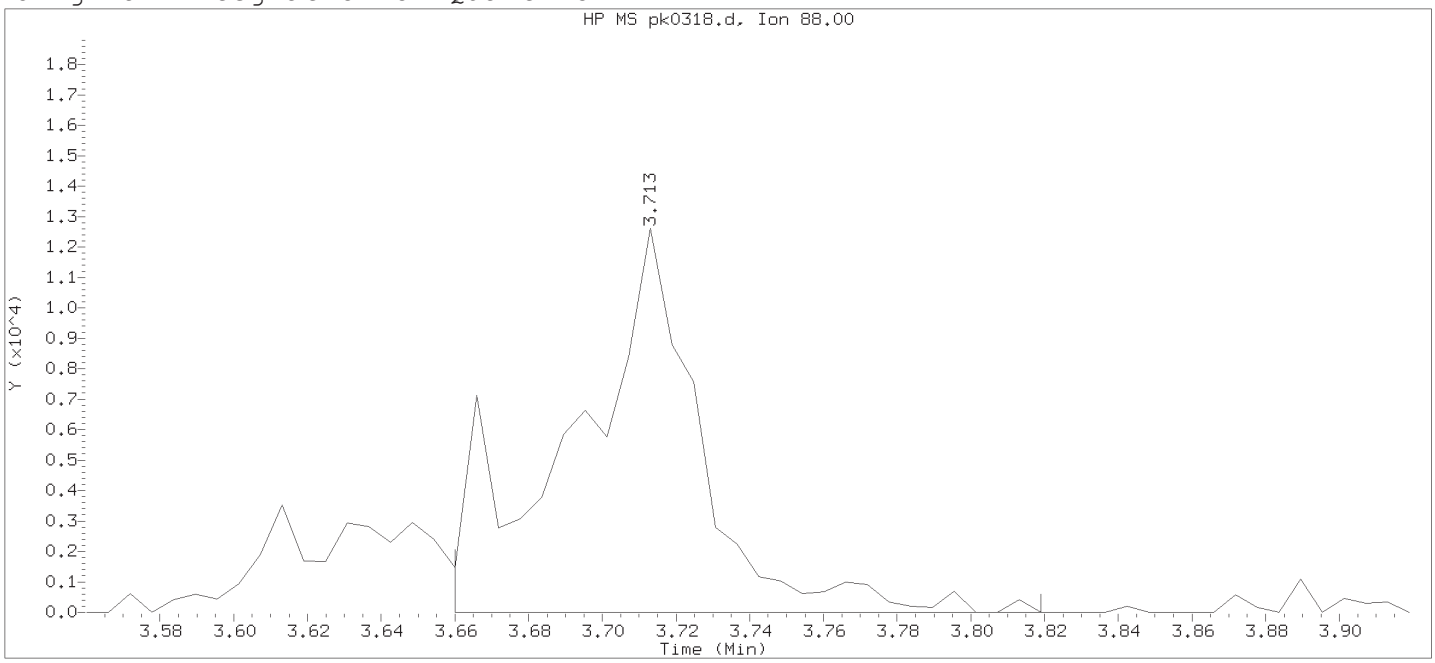
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

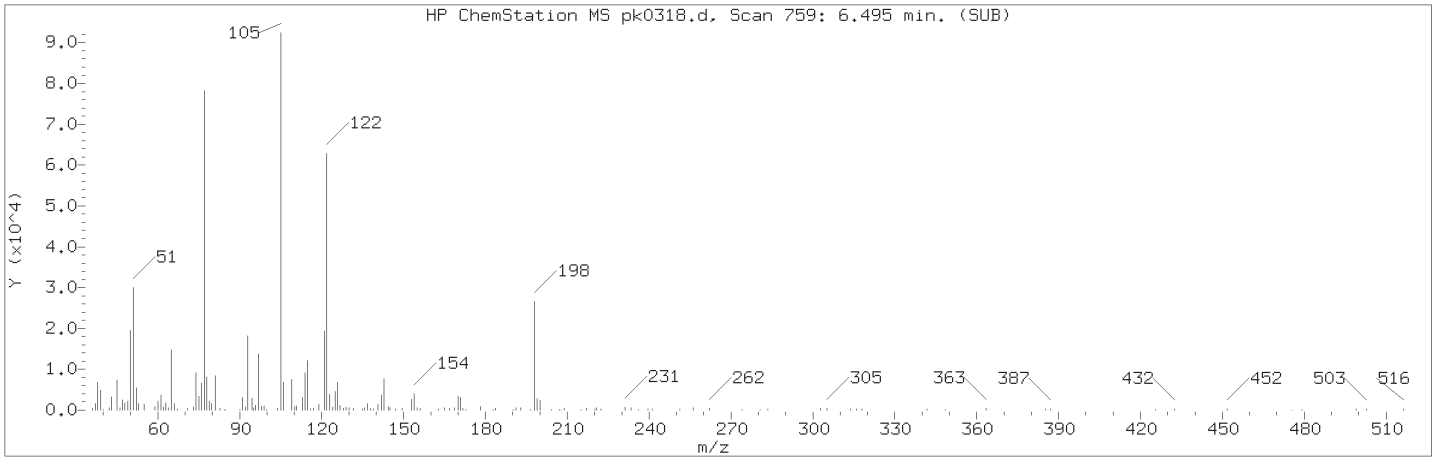
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

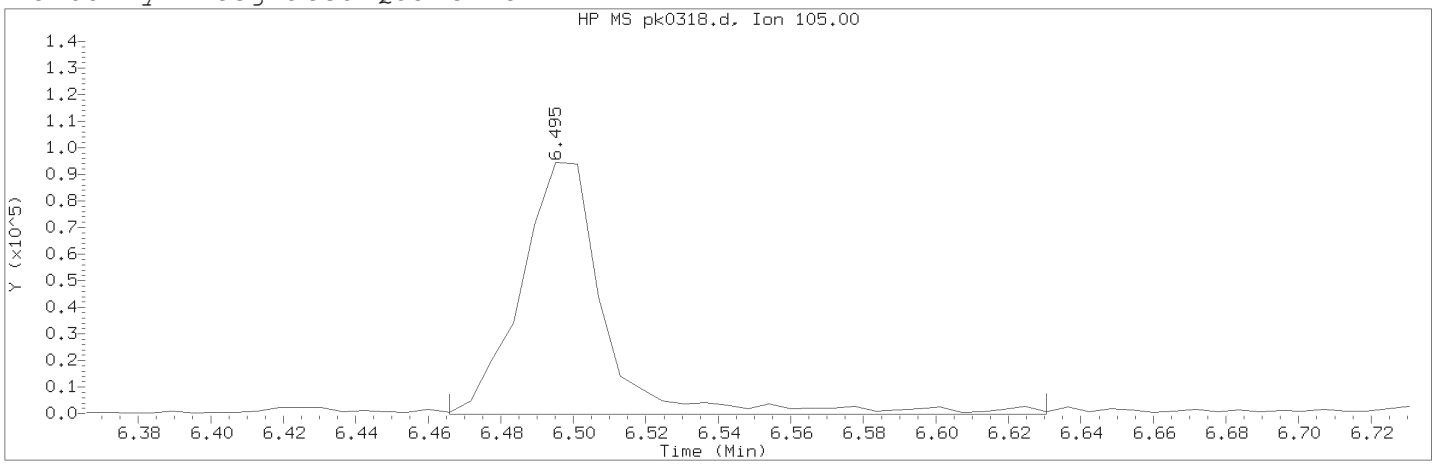
Compound Number	: 8		
Compound Name	: N-Nitrosomethylethylamine		
Scan Number	: 286		
Retention Time (minutes)	: 3.713		
Quant Ion	: 88.00		
Area	: 30116		
On-column Amount (ng/ul)	: 4.0989		
Integration start scan	: 276	Integration stop scan:	303
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

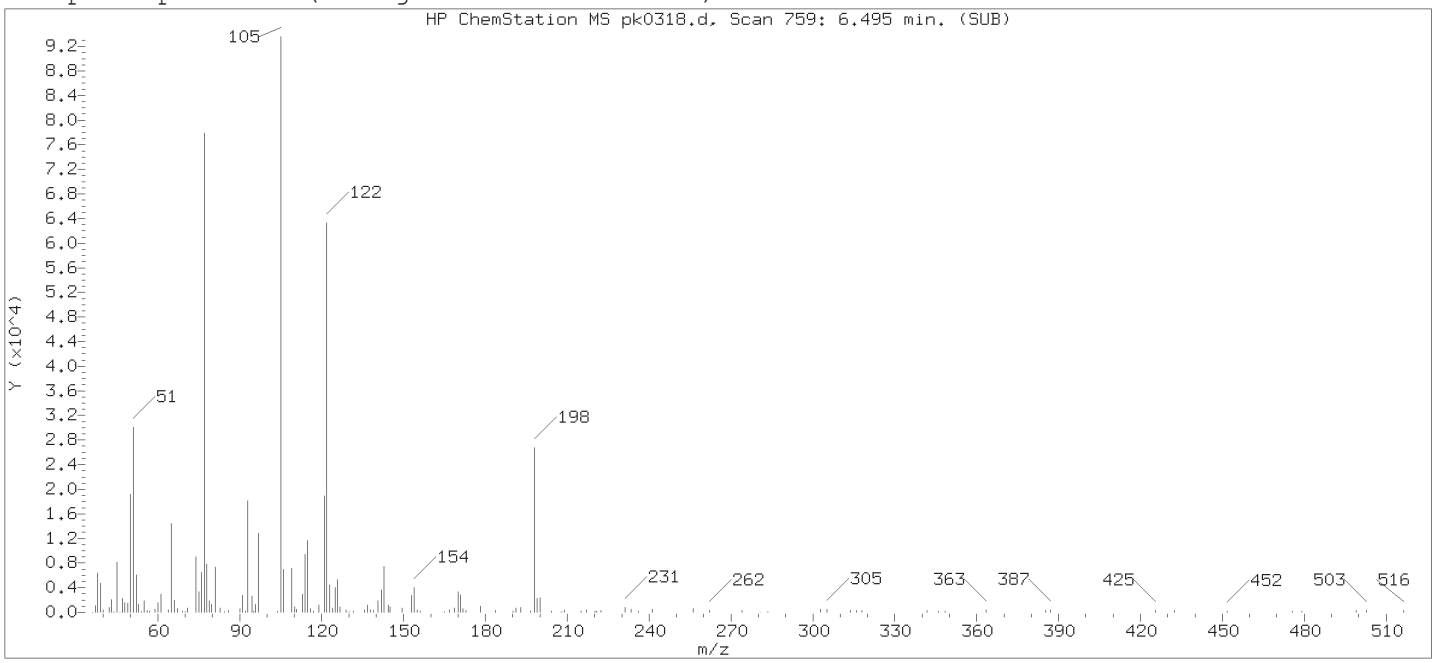
Compound Number	: 56		
Compound Name	: Benzoic acid		
Scan Number	: 759		
Retention Time (minutes)	: 6.495		
Quant Ion	: 105.00		
Area (flag)	: 153683M		
On-Column Amount (ng/ul)	: 13.9735		
Integration start scan	: 753	Integration stop scan:	781
Y at integration start	: -172	Y at integration end:	-172

Reason for manual integration: improper integration

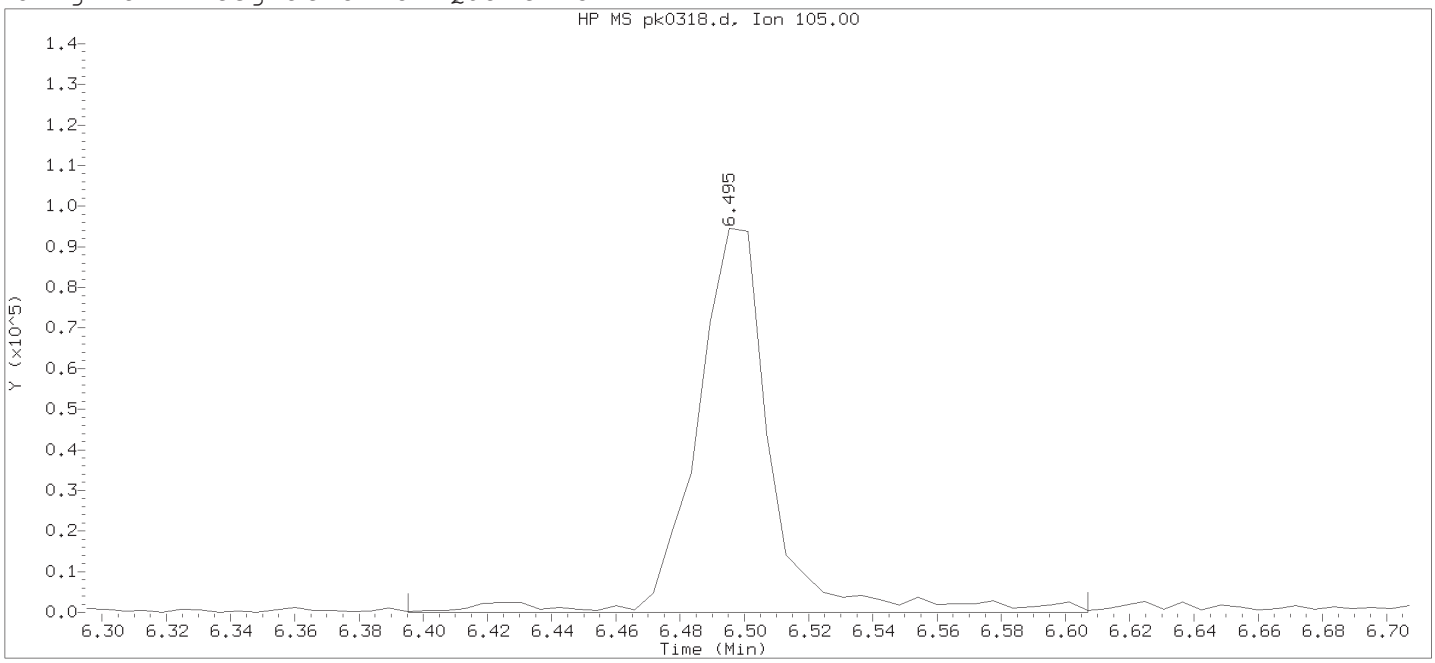
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

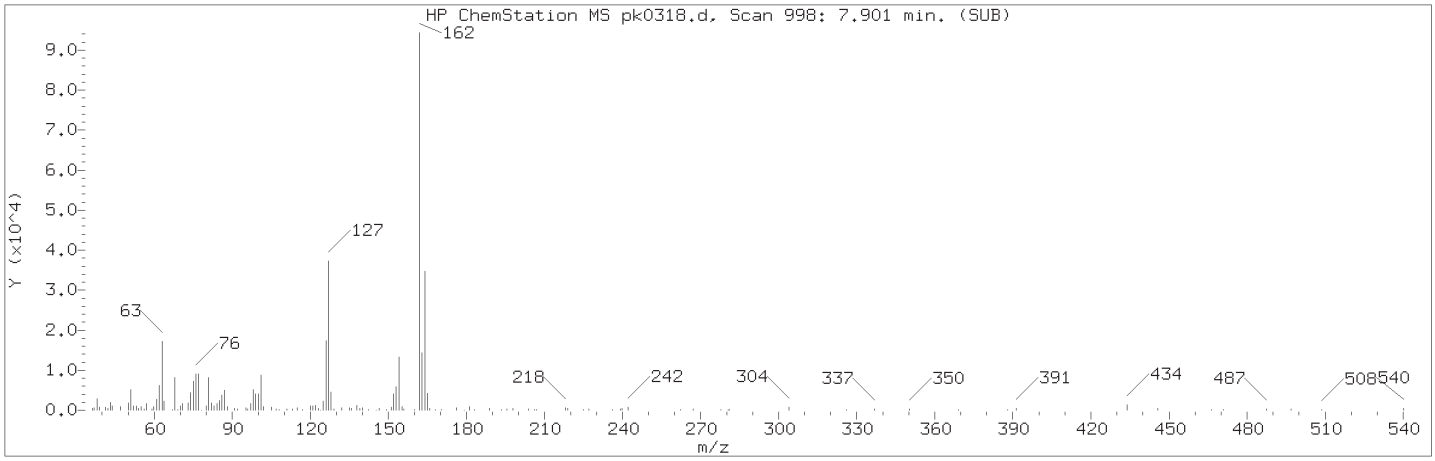
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

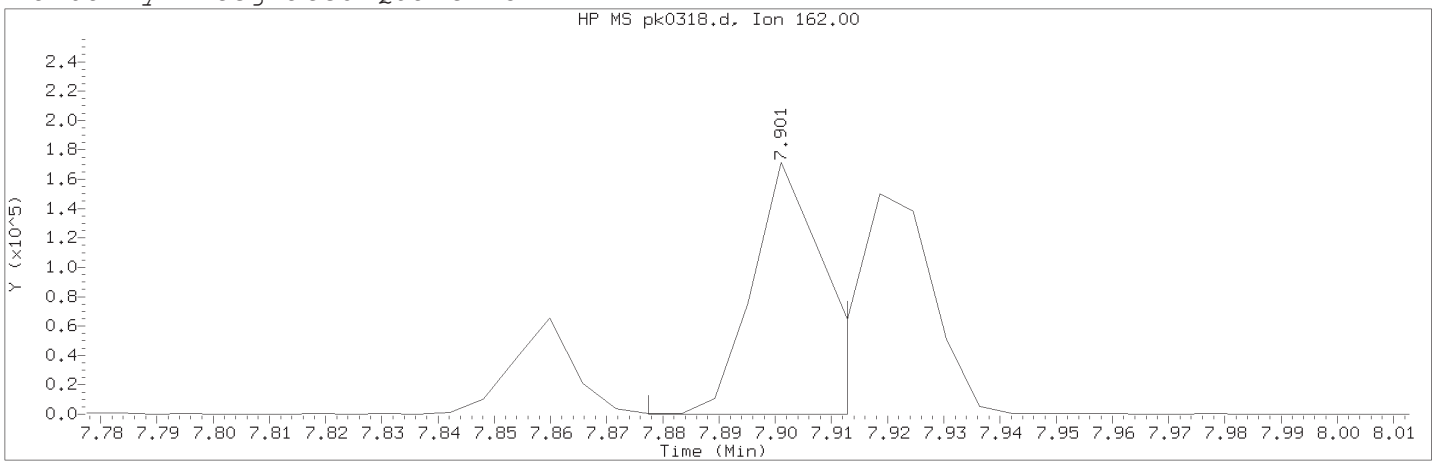
Compound Number	: 56		
Compound Name	: Benzoic acid		
Scan Number	: 759		
Retention Time (minutes)	: 6.495		
Quant Ion	: 105.00		
Area	: 154567		
On-column Amount (ng/ul)	: 14.6771		
Integration start scan	: 741	Integration stop scan:	777
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

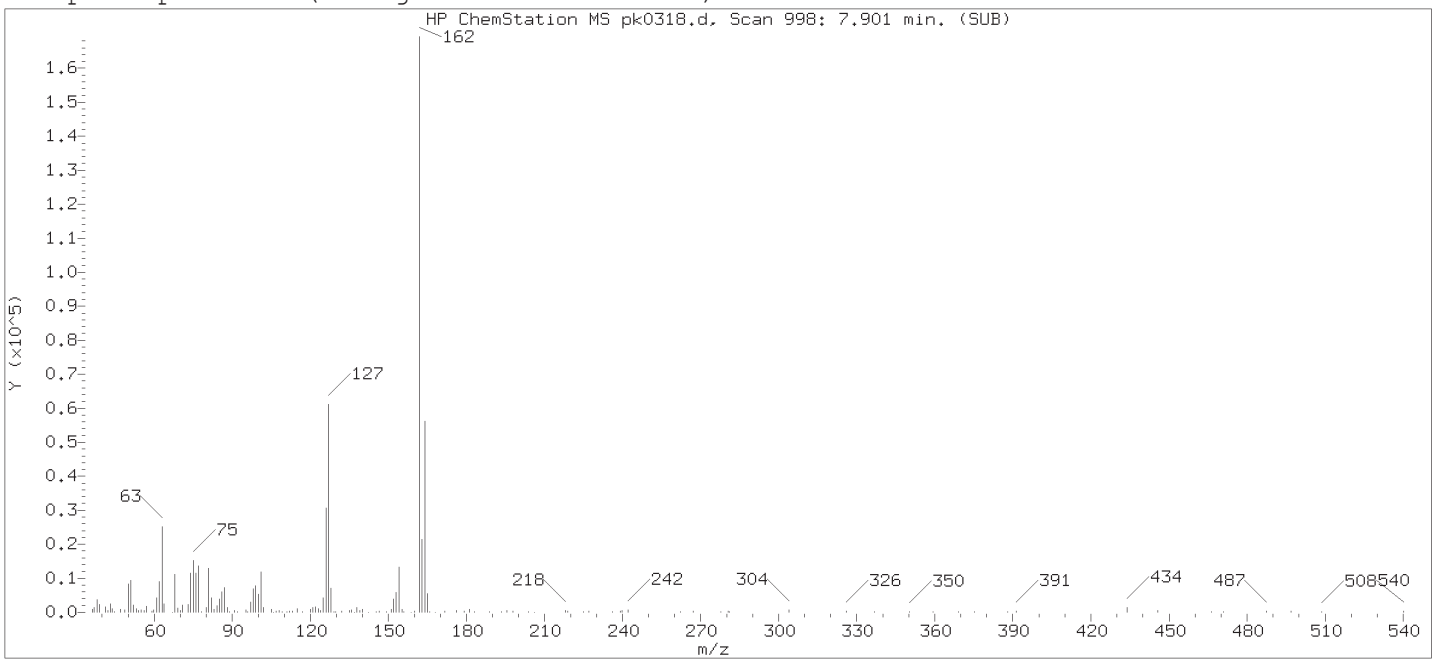
Compound Number	: 96		
Compound Name	: 2-Chloronaphthalene		
Scan Number	: 998		
Retention Time (minutes)	: 7.901		
Quant Ion	: 162.00		
Area (flag)	: 155732M		
On-Column Amount (ng/ul)	: 5.4468		
Integration start scan	: 993	Integration stop scan:	999
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

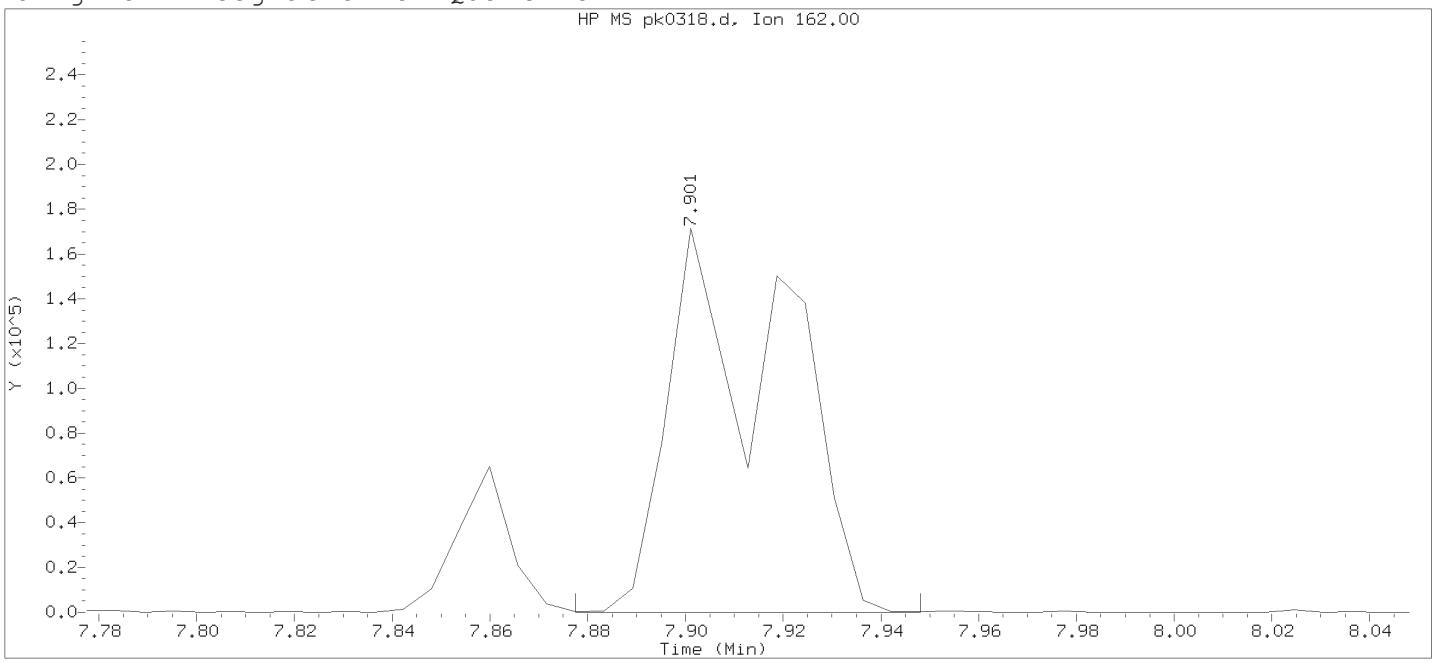
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

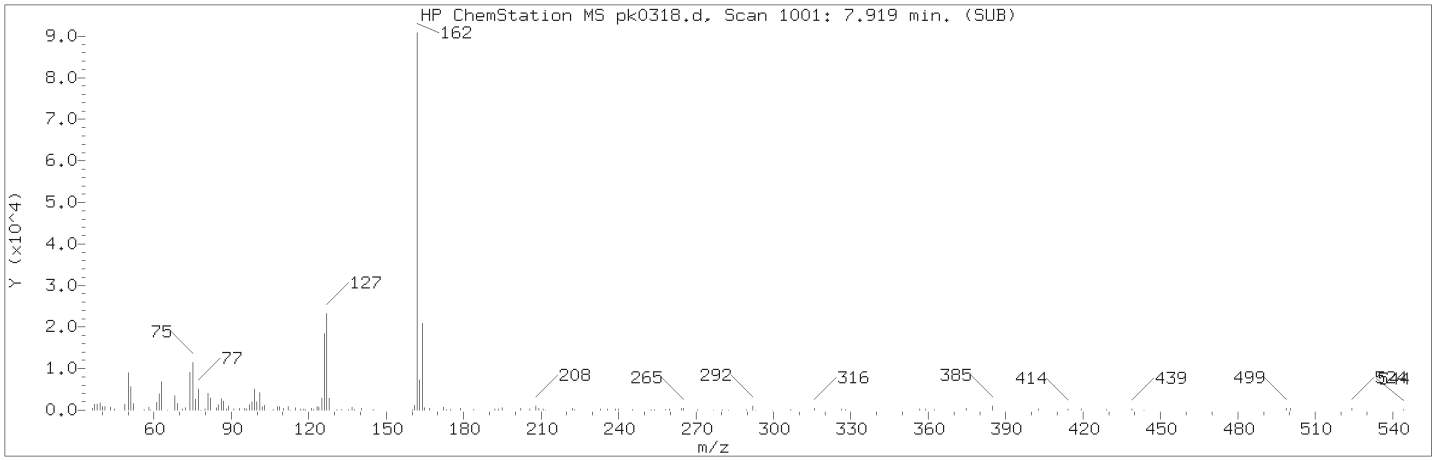
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

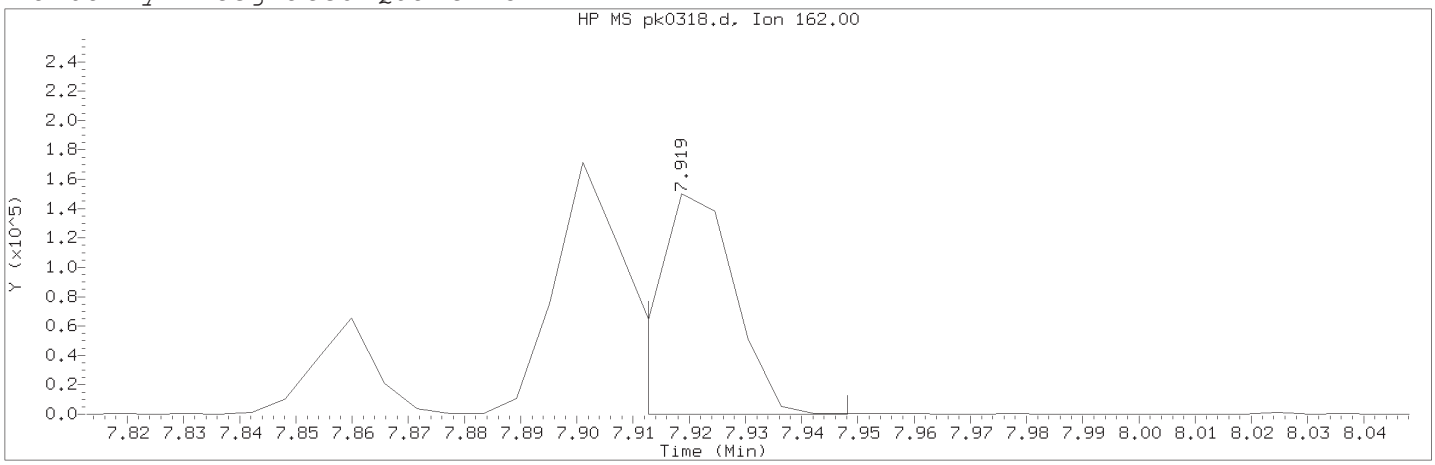
Compound Number	: 96
Compound Name	: 2-Chloronaphthalene
Scan Number	: 998
Retention Time (minutes)	: 7.901
Quant Ion	: 162.00
Area	: 277717
On-column Amount (ng/ul)	: 7.8225
Integration start scan	: 993 Integration stop scan: 1005
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

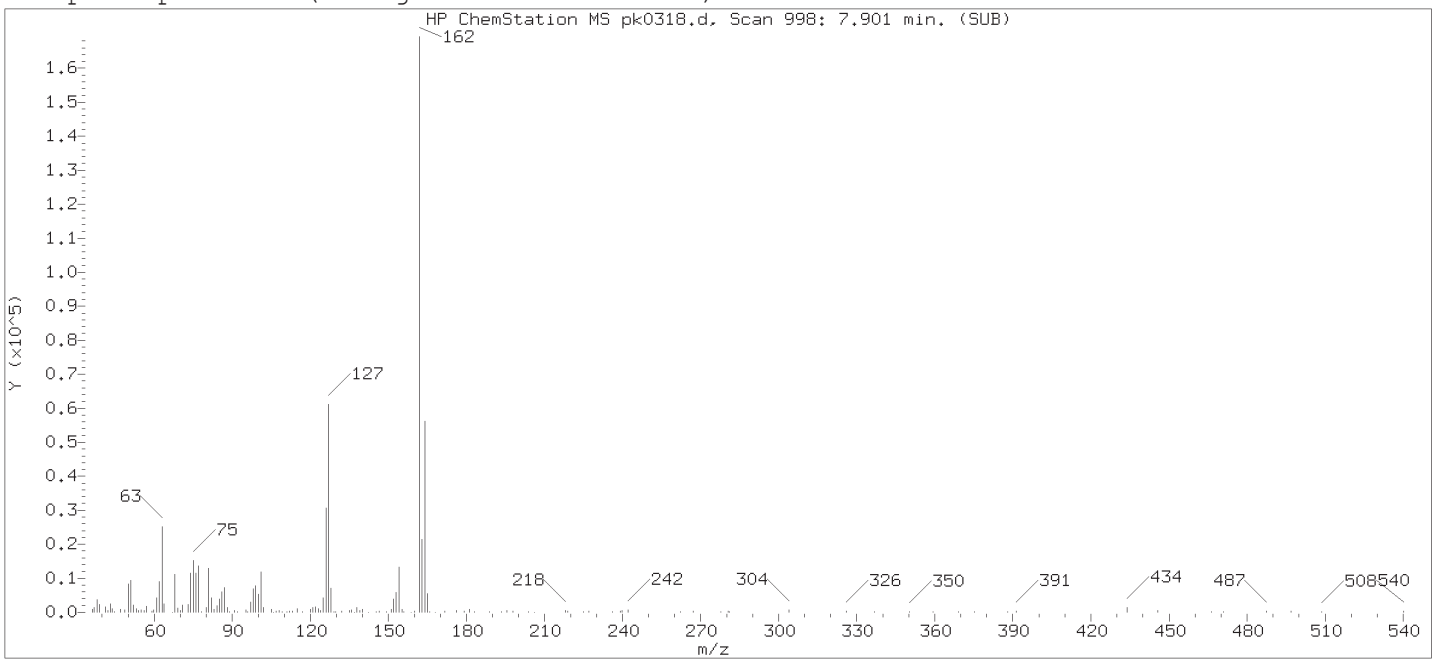
Compound Number : 98
Compound Name : 1-Chloronaphthalene
Scan Number : 1001
Retention Time (minutes) : 7.919
Quant Ion : 162.00
Area (flag) : 144806M
On-Column Amount (ng/ul) : 5.2599
Integration start scan : 999 Integration stop scan: 1005
Y at integration start : 2 Y at integration end: 2

Reason for manual integration: improper integration

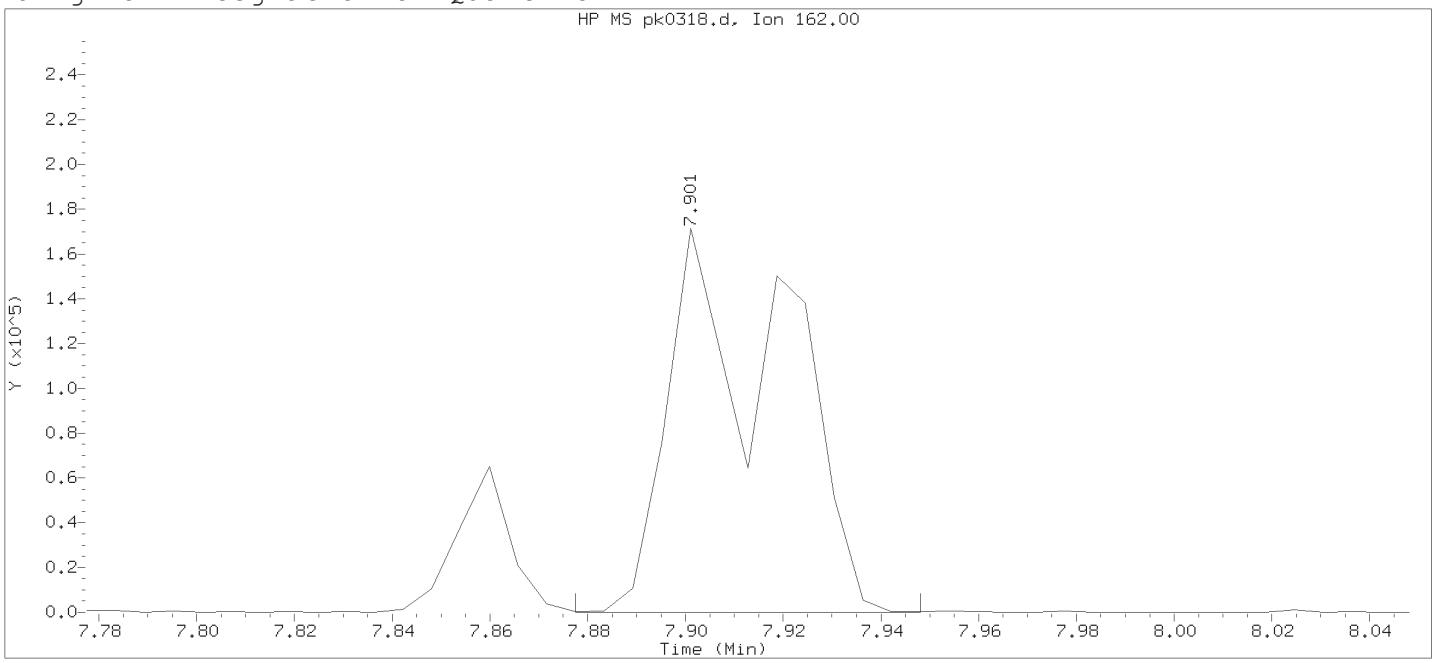
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

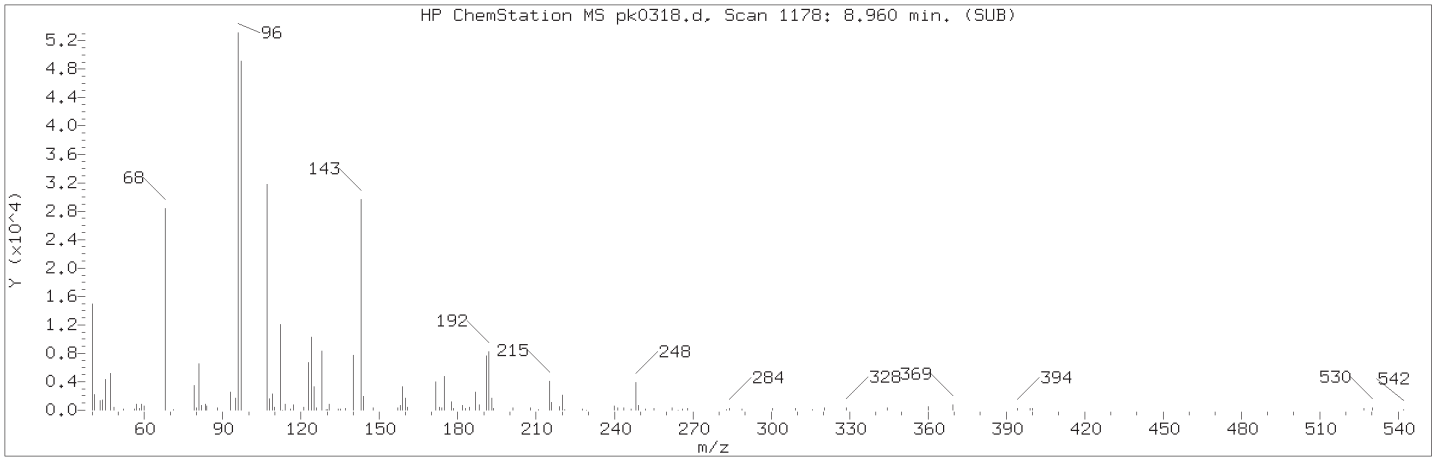
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

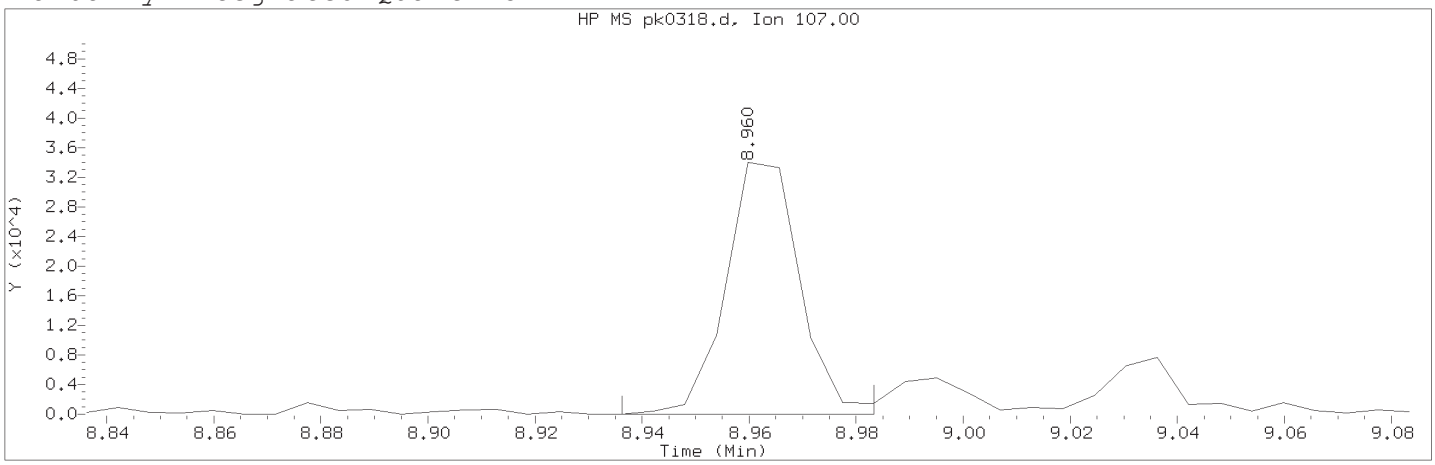
Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 998		
Retention Time (minutes)	: 7.901		
Quant Ion	: 162.00		
Area	: 277717		
On-column Amount (ng/ul)	: 7.9429		
Integration start scan	: 993	Integration stop scan:	1005
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

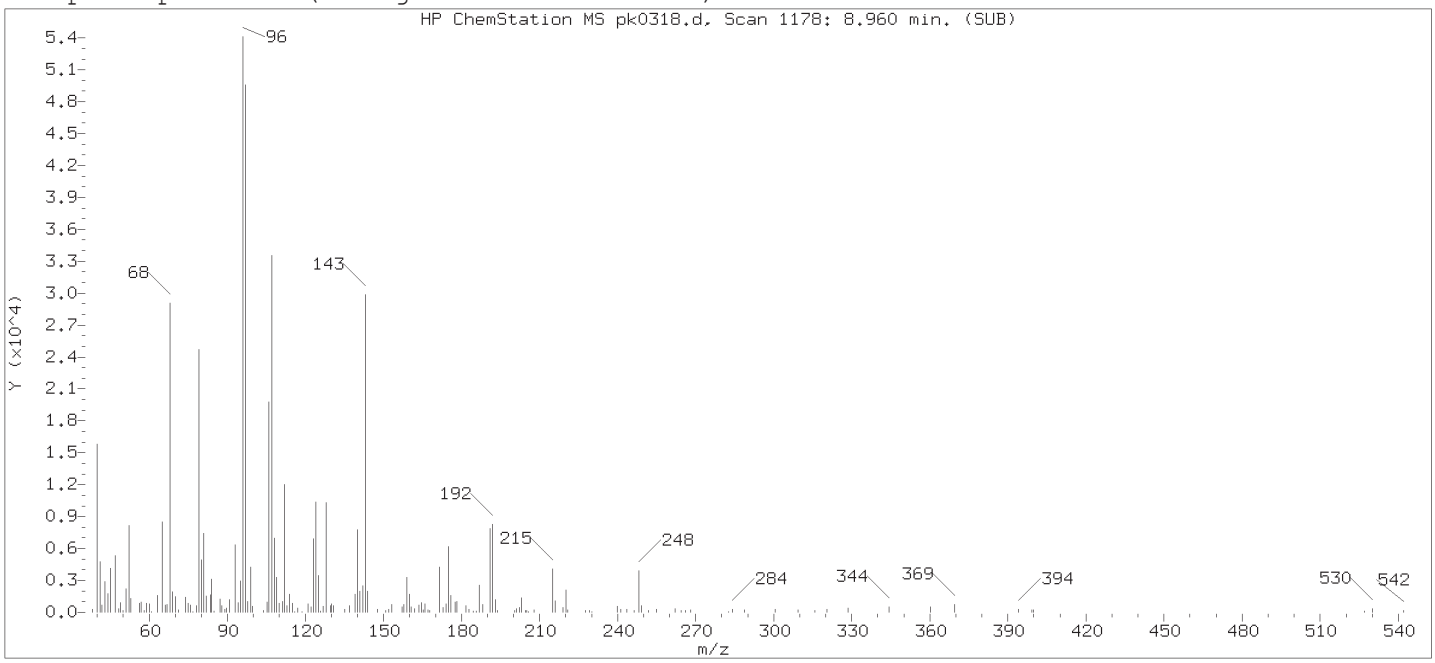
Compound Number : 125
Compound Name : Thionazin
Scan Number : 1178
Retention Time (minutes) : 8.960
Quant Ion : 107.00
Area (flag) : 32813M
On-Column Amount (ng/ul) : 5.1711
Integration start scan : 1173 Integration stop scan: 1181
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

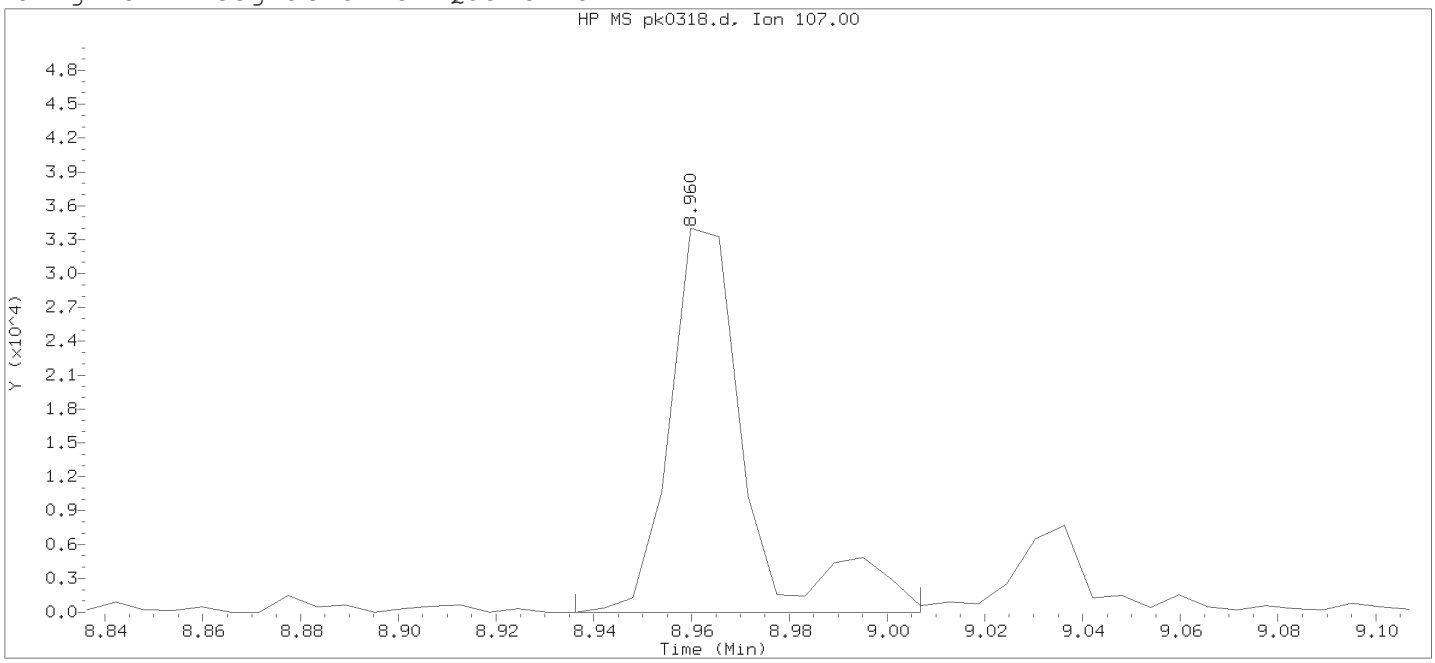
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

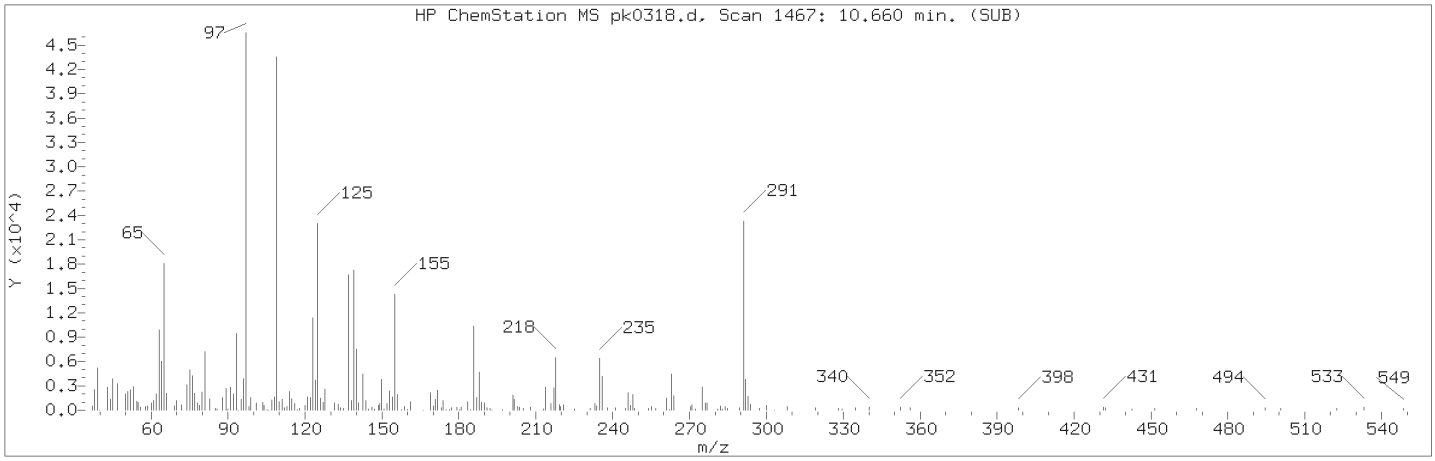
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

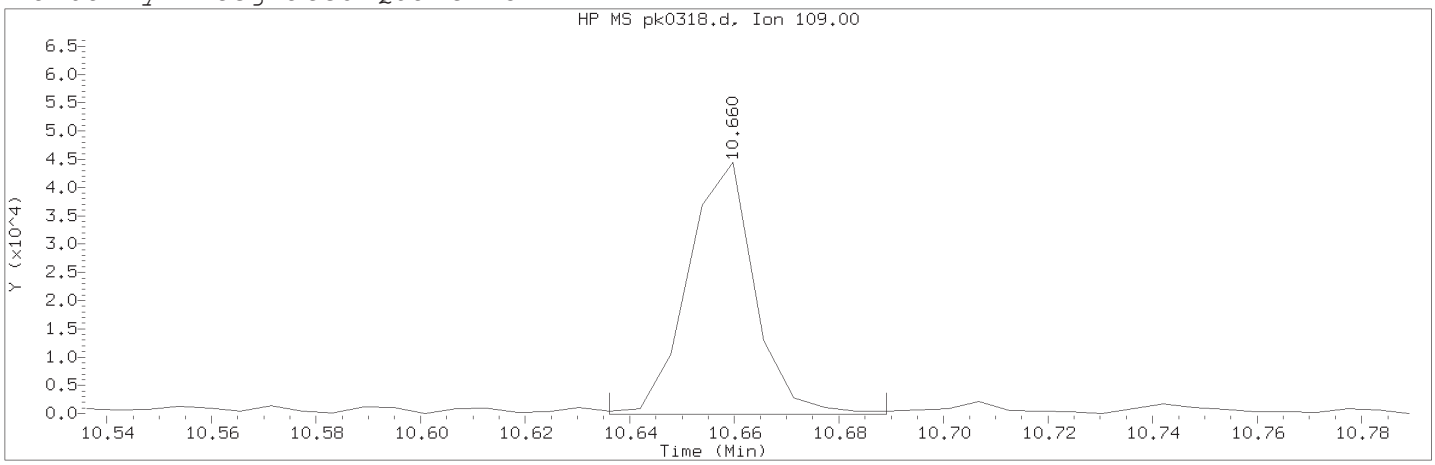
Compound Number	: 125		
Compound Name	: Thionazin		
Scan Number	: 1178		
Retention Time (minutes)	: 8.960		
Quant Ion	: 107.00		
Area	: 37187		
On-column Amount (ng/ul)	: 5.7107		
Integration start scan	: 1173	Integration stop scan:	1185
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 17:59
Date, time and analyst ID of latest file update: 11-Nov-2018 17:59 apb10206

Sample Name: SSTD005 Lab Sample ID: STD2928

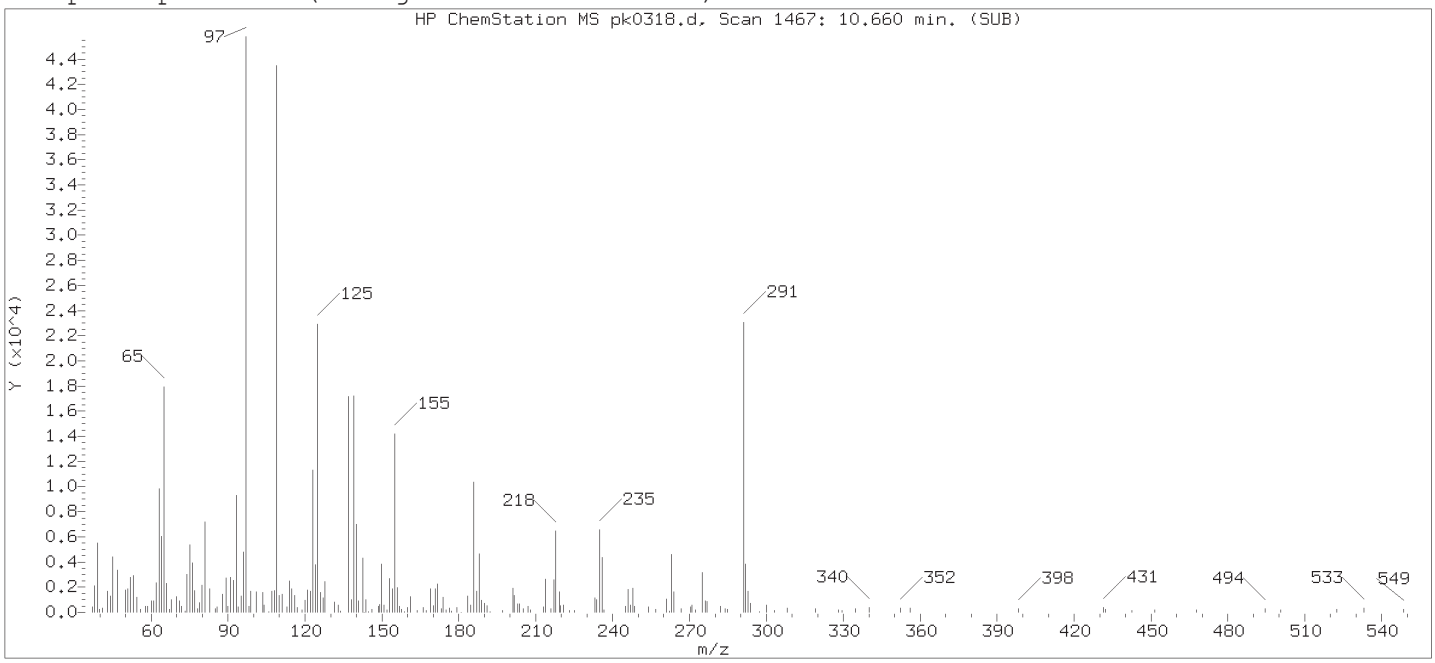
Compound Number : 167
Compound Name : Parathion
Scan Number : 1467
Retention Time (minutes) : 10.660
Quant Ion : 109.00
Area (flag) : 39449M
On-Column Amount (ng/ul) : 4.5586
Integration start scan : 1462 Integration stop scan: 1471
Y at integration start : -89 Y at integration end: -89

Reason for manual integration: improper integration

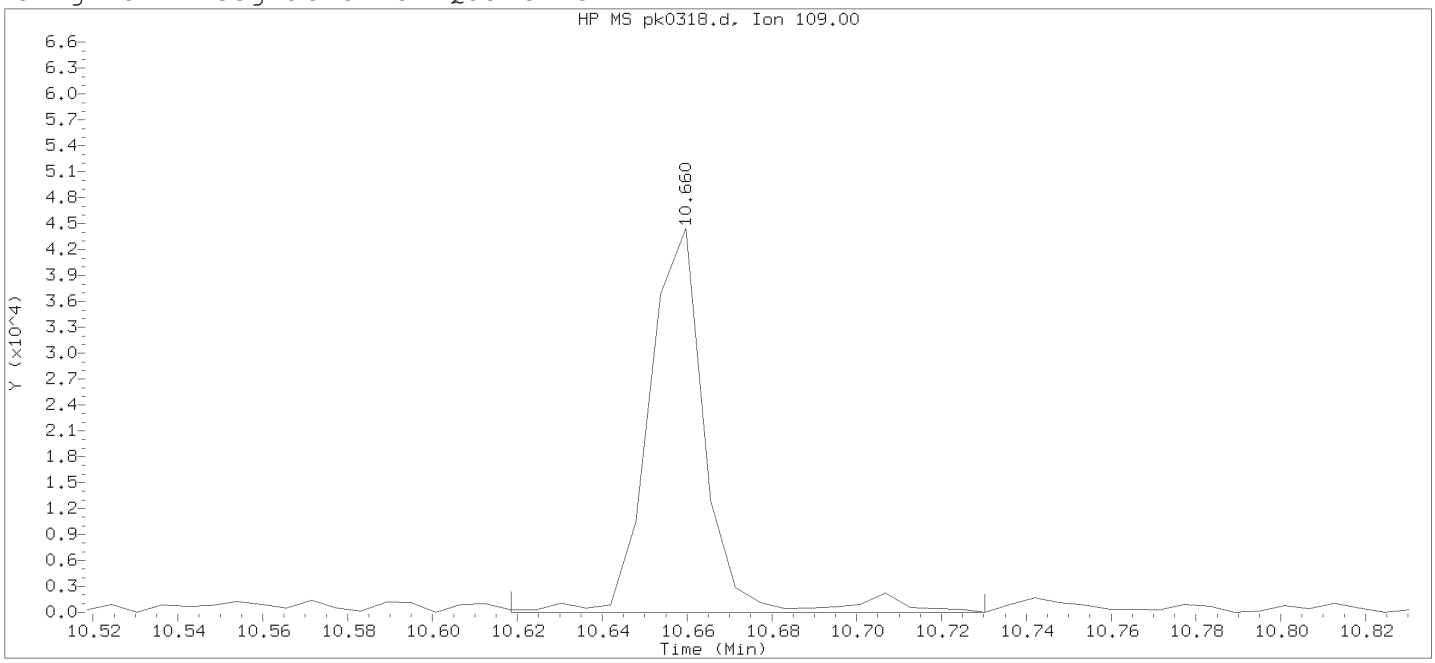
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



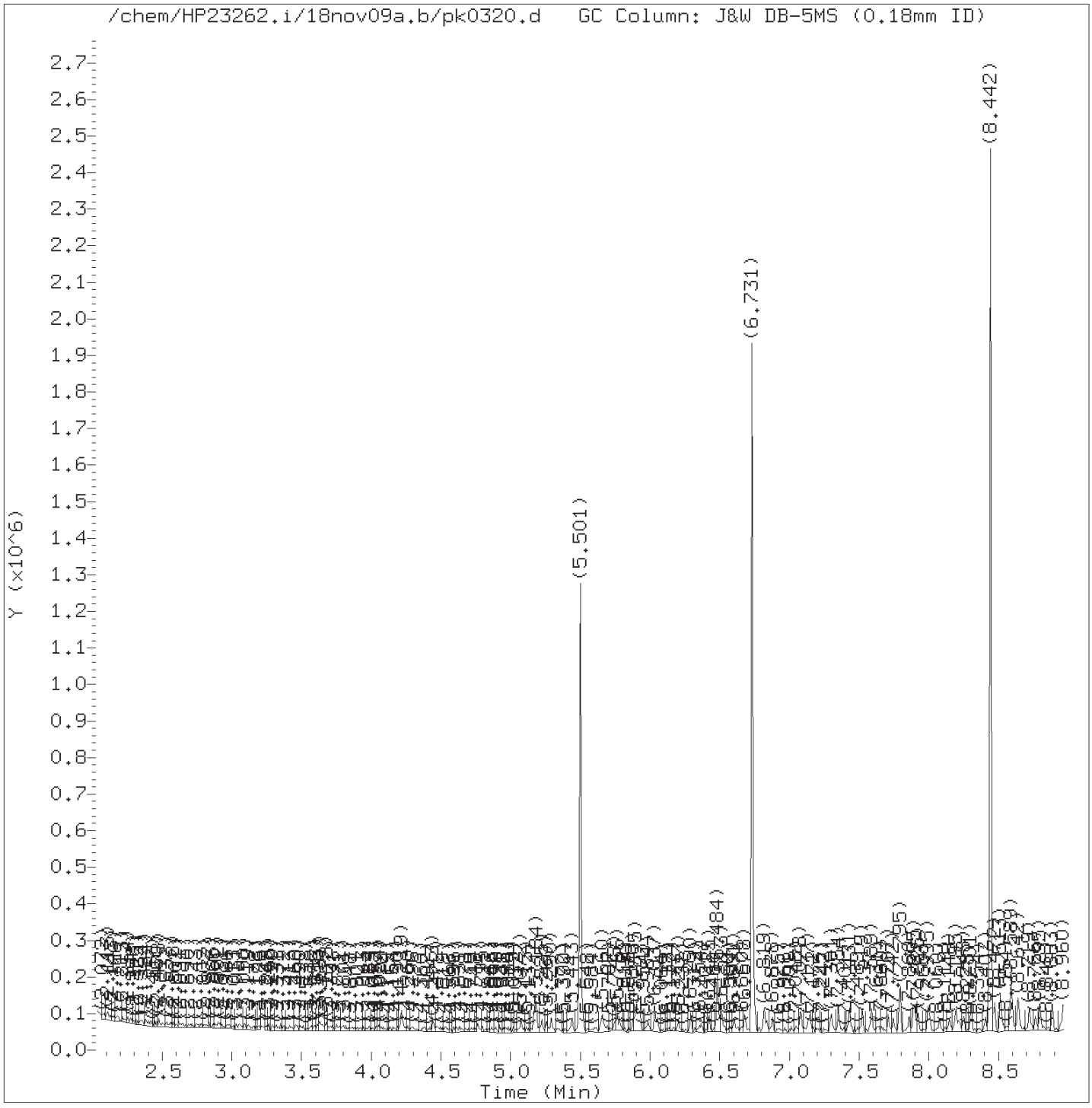
Data File: /chem/HP23262.i/18nov09a.b/pk0318.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 18:24 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: all1
Calibration date and time: 09-NOV-2018 18:45
Date, time and analyst ID of latest file update: 09-Nov-2018 18:45 Automation

Sample Name: SSTD005 Lab Sample ID: STD2928

Compound Number	: 167		
Compound Name	: Parathion		
Scan Number	: 1467		
Retention Time (minutes)	: 10.660		
Quant Ion	: 109.00		
Area	: 41463		
On-column Amount (ng/ul)	: 4.8642		
Integration start scan	: 1459	Integration stop scan:	1478
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:08.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

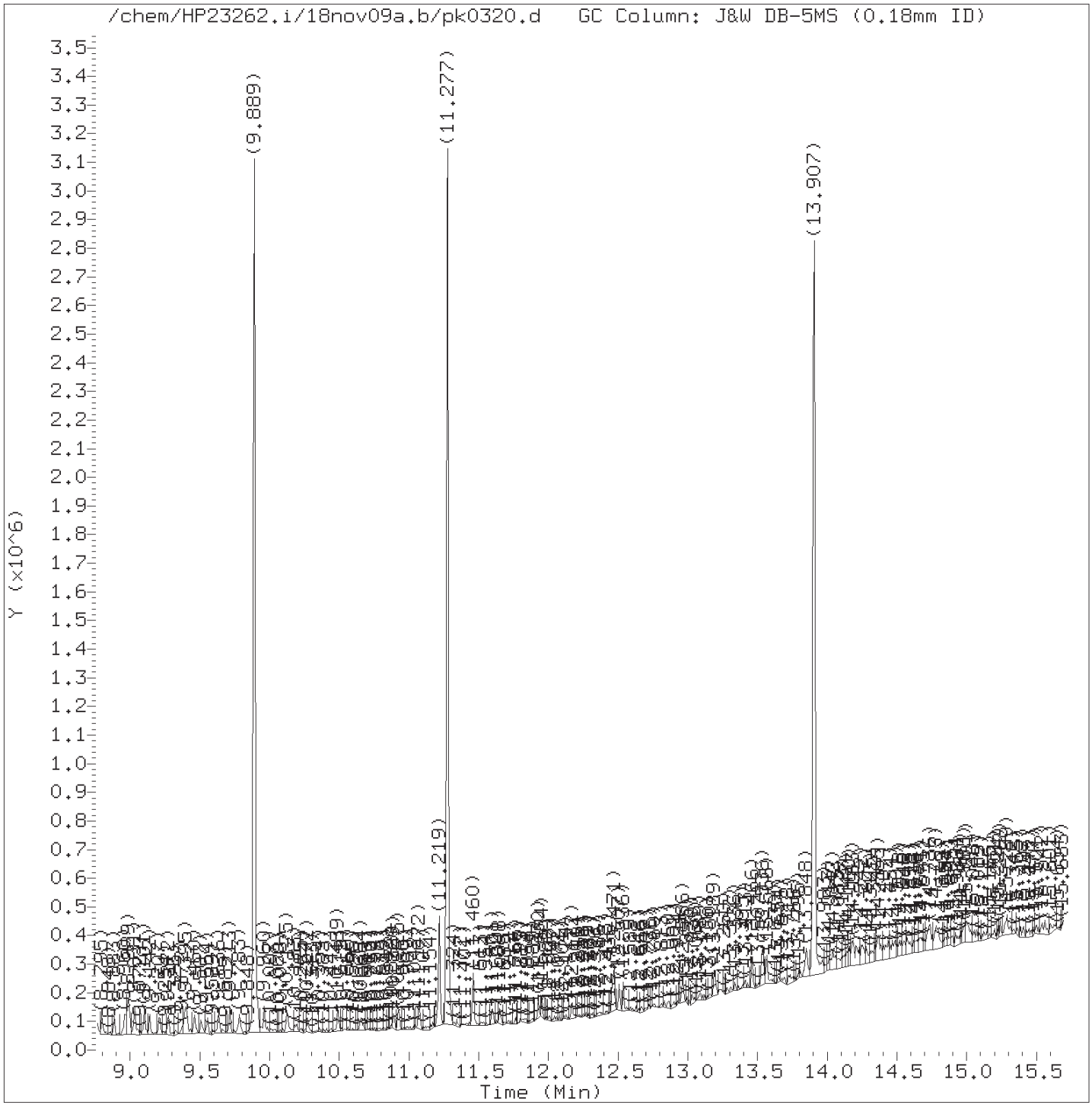
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
7) 2-Picoline	(1)	3.631	93	7204A	0.426
9) Methyl methanesulfonate	(1)	4.054	80	5637	0.756
11)$2-Fluorophenol	(1)	4.219	112	13899	1.152
13) N-Nitrosodiethylamine	(1)	4.448	102	4171M	0.578
15) Ethyl methanesulfonate	(1)	4.766	109	4813	0.662
17)$Phenol-d6	(1)	5.166	99	21346	1.123
19) Aniline	(1)	5.184	93	13872	0.549
18) Phenol	(1)	5.184	94	11806	0.522
22) bis(2-Chloroethyl)ether	(1)	5.260	93	7095	0.444
23) 2-Chlorophenol	(1)	5.295	128	6226	0.511
24) 1,3-Dichlorobenzene	(1)	5.443	146	6416	0.526
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	157606	20.000
26) 1,4-Dichlorobenzene	(1)	5.513	146	7839	0.647
27) Benzyl alcohol	(1)	5.648	108	3981	0.405
42) Total Cresols	(1)			15736	1.042
28) 1,2-Dichlorobenzene	(1)	5.660	146	6906	0.570
30) Indene	(1)	5.742	115	8428	0.586
31) 2-Methylphenol	(1)	5.766	108	6917	0.500
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.778	45	14278M	0.614
34) bis(2-Chloroisopropyl)ether	(1)	5.778	45	14278M	0.614
35) N-Nitrosopyrrolidine	(1)	5.878	100	6111	0.678
36) Acetophenone	(1)	5.895	105	11981	0.577
38) N-Nitroso-di-n-propylamine	(1)	5.901	70	7106	0.513
37) 4-Methylphenol	(1)	5.919	108	8819	0.542
39) N-Nitrosomorpholine	(1)	5.919	56	7713	0.693
40) o-Toluidine	(1)	5.925	106	15089	0.646
43) Hexachloroethane	(1)	5.984	117	5100	0.988
44)$Nitrobenzene-d5	(2)	6.037	82	19238	1.057
45) Nitrobenzene	(2)	6.054	77	10744	0.546
48) N-Nitrosopiperidine	(2)	6.201	114	3095	0.373
50) Isophorone	(2)	6.290	82	17742	0.486
51) 2-Nitrophenol	(2)	6.366	139	3632	0.517
53) 2,4-Dimethylphenol	(2)	6.419	107	8711	0.542
56) Benzoic acid	(2)	6.484	105	39586	3.571
57) O,O,O-Triethylphosphorothioate	(2)	6.484	198	3686	0.482
55) bis(2-Chloroethoxy)methane	(2)	6.513	93	12472	0.573
60) 2,4-Dichlorophenol	(2)	6.601	162	5726	0.489
62) 1,2,4-Trichlorobenzene	(2)	6.678	180	7179	0.591
65)*Naphthalene-d8	(2)	6.731	136	702030	20.000
67) 4-Chloroaniline	(2)	6.813	127	7609	0.472

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
68) 2,6-Dichlorophenol	(2)	6.819	162	6074	0.529
69) Hexachloropropene	(2)	6.837	213	3524	0.499
71) Hexachlorobutadiene	(2)	6.878	225	4927	0.709
75) Quinoline	(2)	7.078	129	14616	0.534
76) Caprolactam	(2)	7.131	113	3366	0.590
77) N-Nitrosodi-n-butylamine	(2)	7.137	84	8934	0.497
80) 4-Chloro-3-methylphenol	(2)	7.301	107	7669	0.513
82) Safrole	(2)	7.354	162	5526	0.504
97) Isosafrole	(3)			5118	0.430
85) Hexachlorocyclopentadiene	(3)	7.584	237	3082	0.426
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.589	216	7330	0.506
88) cis-Isosafrole	(3)	7.636	162	1125	0.094
90) 2,4,6-Trichlorophenol	(3)	7.707	196	4798	0.497
92) 2,4,5-Trichlorophenol	(3)	7.748	196	5554	0.524
93)$2-Fluorobiphenyl	(3)	7.789	172	32468	0.971
94) trans-Isosafrole	(3)	7.860	162	3993	0.337
95) 1,1'-Biphenyl	(3)	7.889	154	16337	0.450
98) 1-Chloronaphthalene	(3)	7.925	162	13712M	0.483
99) Diphenyl ether	(3)	7.995	170	11308	0.539
100) 2-Nitroaniline	(3)	8.007	138	4520	0.457
120) 2,4_2,6-Dinitrotoluenes	(3)			10139	1.030
104) 1,4-Naphthoquinone	(3)	8.078	158	5660	0.451
105) 1,4-Dinitrobenzene	(3)	8.148	168	2461	0.456
106) Dimethylphthalate	(3)	8.195	163	18318	0.521
107) 1,3-Dinitrobenzene	(3)	8.219	168	3794	0.606
108) 2,6-Dinitrotoluene	(3)	8.248	165	3893	0.465
112) 3-Nitroaniline	(3)	8.407	138	4662	0.543
113)*Acenaphthene-d10	(3)	8.442	164	433909	20.000
115) 2,4-Dinitrophenol	(3)	8.513	184	13488	2.945
116) 4-Nitrophenol	(3)	8.589	109	14113	2.462
117) Pentachlorobenzene	(3)	8.601	250	7955	0.588
118) 2,4-Dinitrotoluene	(3)	8.636	165	6246	0.564
119) Dibenzofuran	(3)	8.642	168	22938	0.504
121) 1-Naphthylamine	(3)	8.725	143	15955	0.509
122) 2,3,4,6-Tetrachlorophenol	(3)	8.766	232	5754	0.640
146) Diallate trans/cis	(4)			12029	0.551
123) 2-Naphthylamine	(3)	8.795	143	17038	0.542
124) Diethylphthalate	(3)	8.883	149	17760	0.491
125) Thionazin	(3)	8.960	107	5469	0.836
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	11792	0.591

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
128) 5-Nitro-o-toluidine	(3)	8.995	152	5383	0.511
129) 4-Nitroaniline	(3)	8.995	138	4636	0.472
130) 4,6-Dinitro-2-methylphenol	(4)	9.031	198	10655	1.644
131) N-Nitrosodiphenylamine	(4)	9.101	169	15964	0.490
132) NDPA as diphenylamine	(4)	9.101	169	15964	0.490
134) 1,2-Diphenylhydrazine	(4)	9.142	77	23909	0.485
135)$2,4,6-Tribromophenol	(3)	9.207	330	2911	0.671
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	4008M	0.559
139) 1,3,5-Trinitrobenzene	(4)	9.378	213	1907M	0.402
140) Diallate (peak 1)	(4)	9.389	86	9268	0.409
141) Phorate	(4)	9.395	75	16665	0.455
142) Phenacetin	(4)	9.407	108	10931	0.508
143) 4-Bromophenyl-phenylether	(4)	9.460	248	5498	0.495
144) Diallate (peak 2)	(4)	9.478	86	2761	0.142
147) Dimethoate	(4)	9.554	87	11187	0.585
149) Pentachlorophenol	(4)	9.713	266	3652	0.596
150) 4-Aminobiphenyl	(4)	9.719	169	9559	0.622
151) Pentachloronitrobenzene	(4)	9.719	237	2752	0.544
152) Pronamide	(4)	9.783	173	7580	0.439
153)*Phenanthrene-d10	(4)	9.889	188	1012827	20.000
154) Dinoseb	(4)	9.895	211	2852	0.288
163) Carbazole	(4)	10.125	167	25165	0.469
164) Methyl parathion	(4)	10.272	109	5602	0.405
165) Di-n-butylphthalate	(4)	10.489	149	33312	0.521
167) Parathion	(4)	10.654	109	4013	0.460
168) 4-Nitroquinoline-1-oxide	(4)	10.666	190	1487	0.269
169) Octachlorostyrene	(4)	10.889	308	2646	0.634
171) Isodrin	(4)	10.925	193	5410	0.756
174) Benzidine	(5)	11.219	184	147862	3.551
175)*Pyrene-d10	(5)	11.277	212	1091415	20.000
179)$Terphenyl-d14	(5)	11.460	244	45583	0.979
182) p-Dimethylaminoazobenzene	(5)	11.601	225	6537	0.509
185) Chlorobenzilate	(5)	11.648	139	10760	0.583
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	25894	0.594
188) Butylbenzylphthalate	(5)	11.954	149	13109	0.418
191) 2-Acetylaminofluorene	(5)	12.172	181	12507	0.468
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	13102	0.522
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.471	231	7961	0.591
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	21439	0.483
203) 6-Methylchrysene	(5)	12.966	242	17337	0.382

M = Compound was manually integrated.
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Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

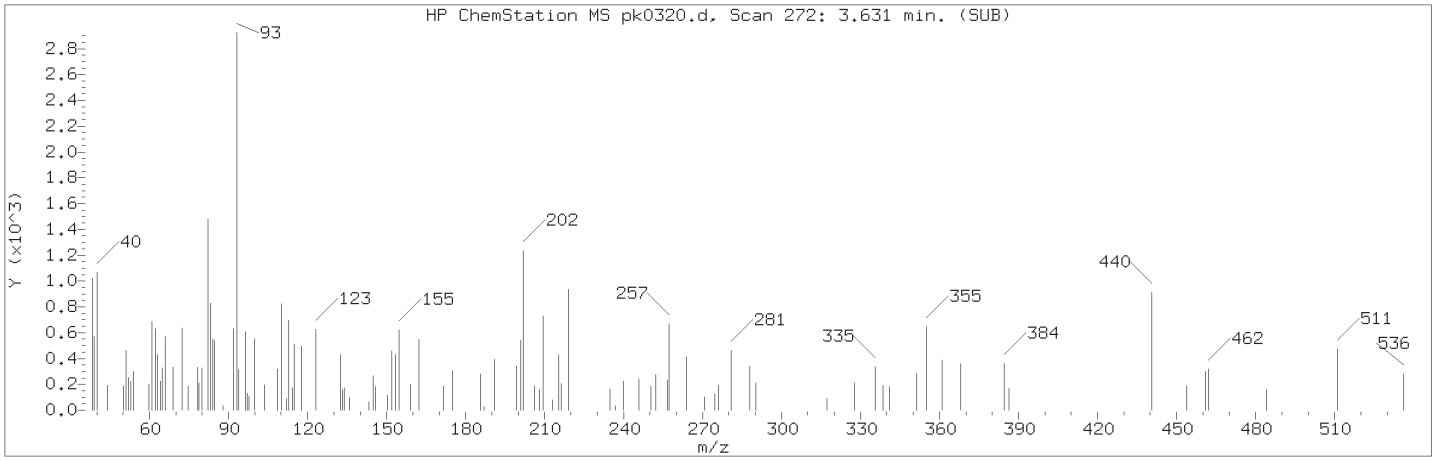
Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
205) Di-n-octylphthalate	(6)	13.189	149	38766	0.516
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.530	256	15031	0.503
213)*Perylene-d12	(6)	13.907	264	941667	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	15380	0.632
217) Dibenz(a,h)acridine	(6)	14.736	279	23076	0.488
218) Dibenz(a,j)acridine	(6)	14.783	279	19234	0.394

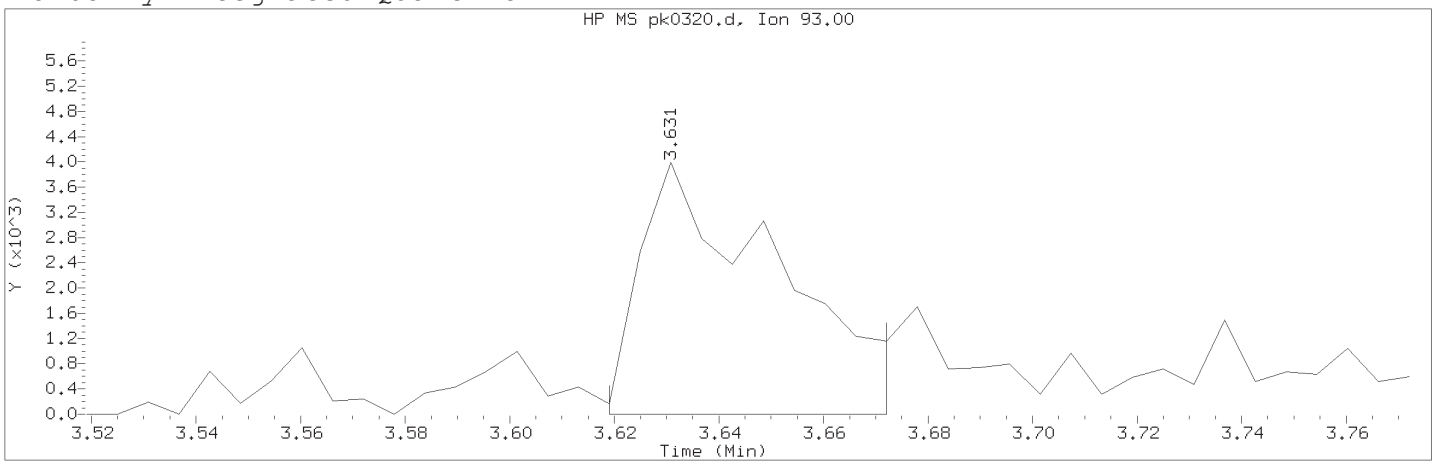
* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

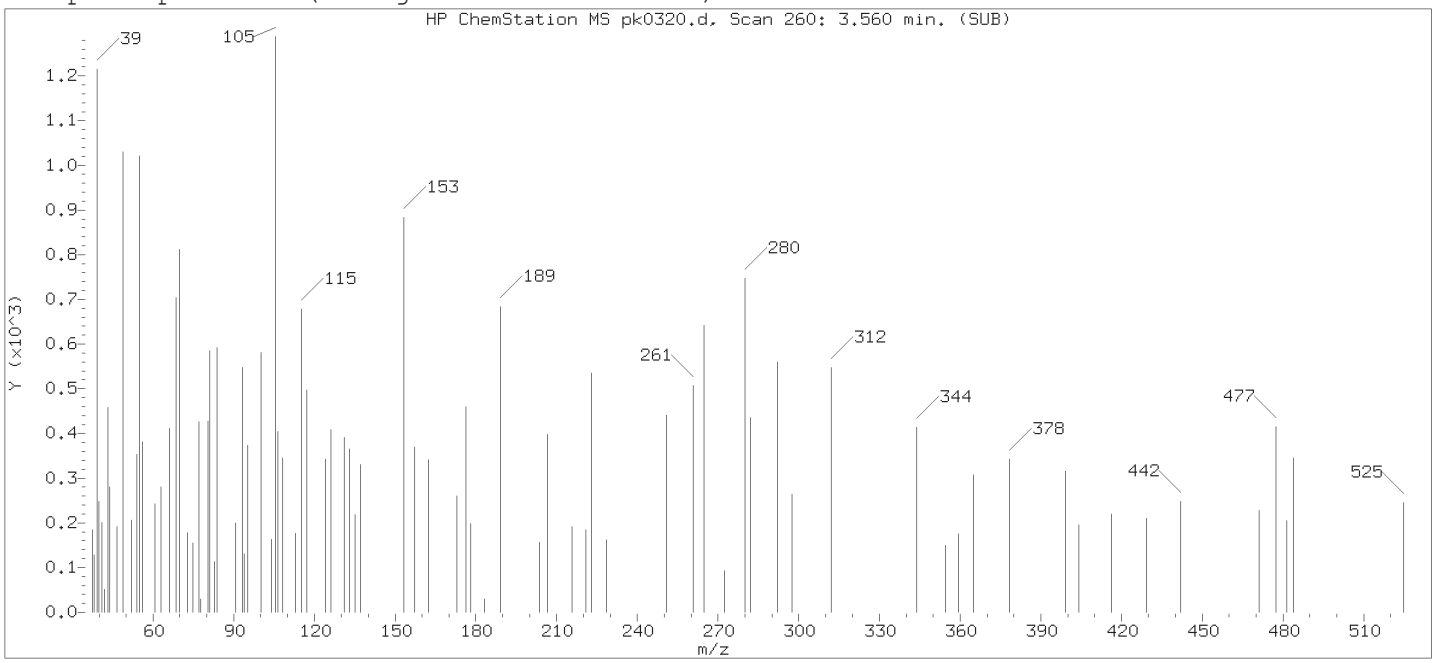
Compound Number	: 7		
Compound Name	: 2-Picoline		
Scan Number	: 272		
Retention Time (minutes)	: 3.631		
Quant Ion	: 93.00		
Area (flag)	: 7204A		
On-Column Amount (ng/ul)	: 0.4259		
Integration start scan	: 269	Integration stop scan:	278
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

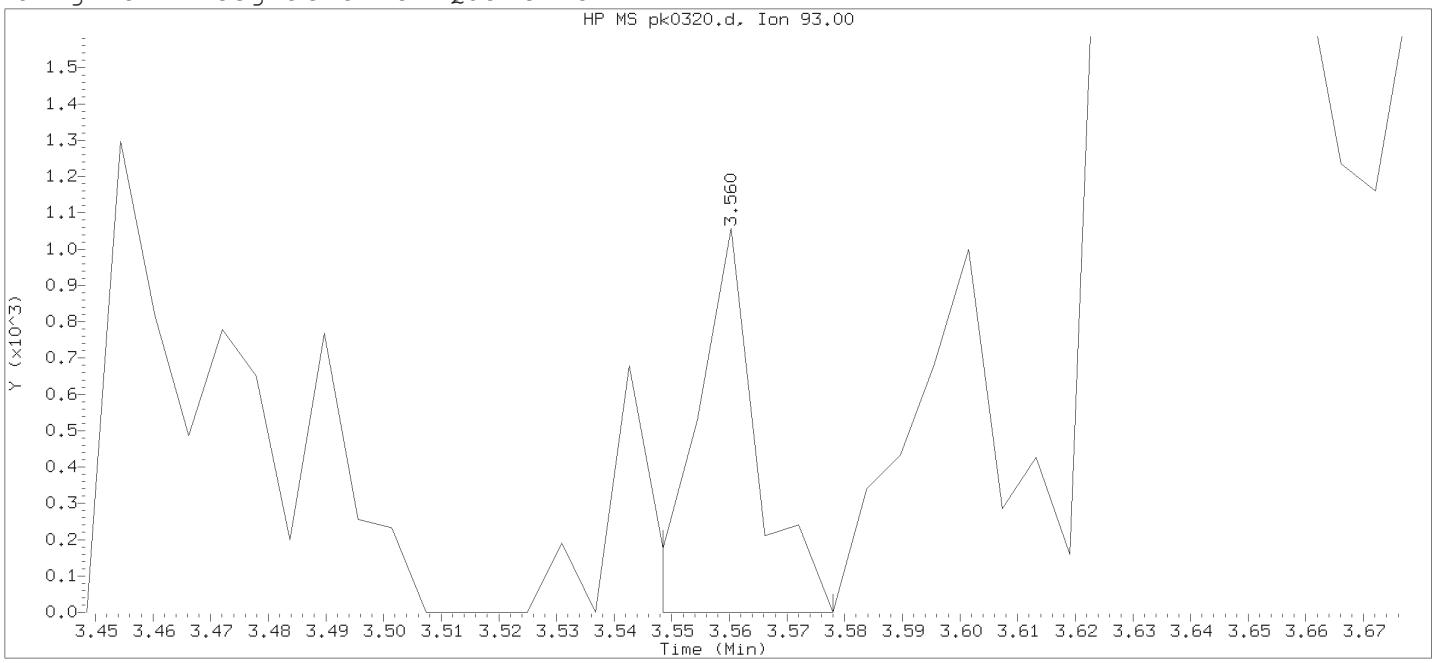
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

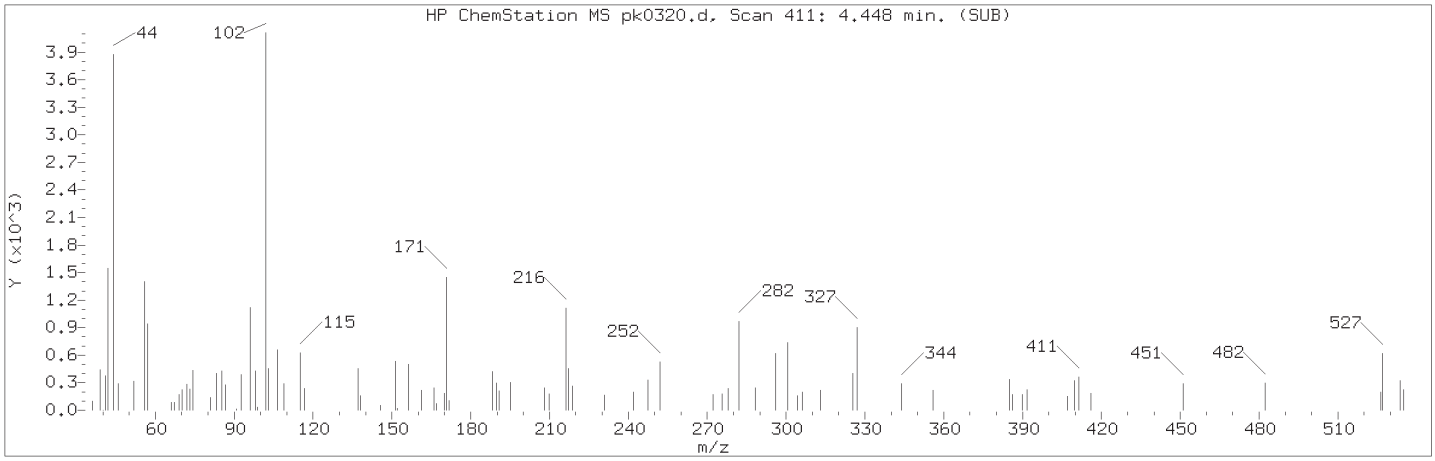
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

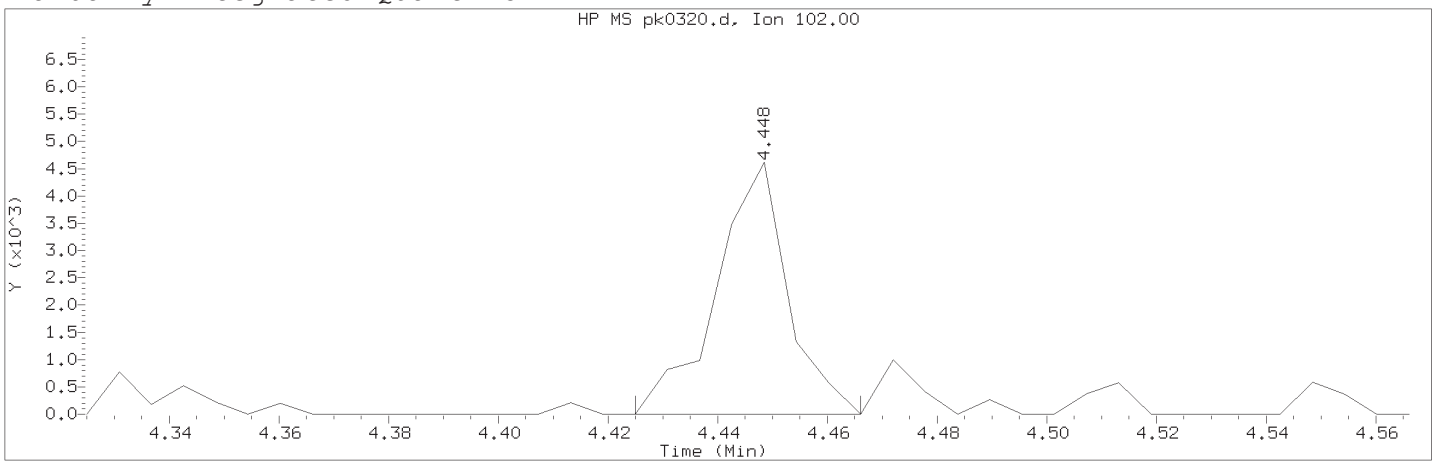
Compound Number	: 7
Compound Name	: 2-Picoline
Scan Number	: 260
Retention Time (minutes)	: 3.560
Quant Ion	: 93.00
Area	: 750
On-column Amount (ng/ul)	: 0.0437
Integration start scan	: 257 Integration stop scan: 262
Y at integration start	: 0 Y at integration end: 0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used 11/11/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

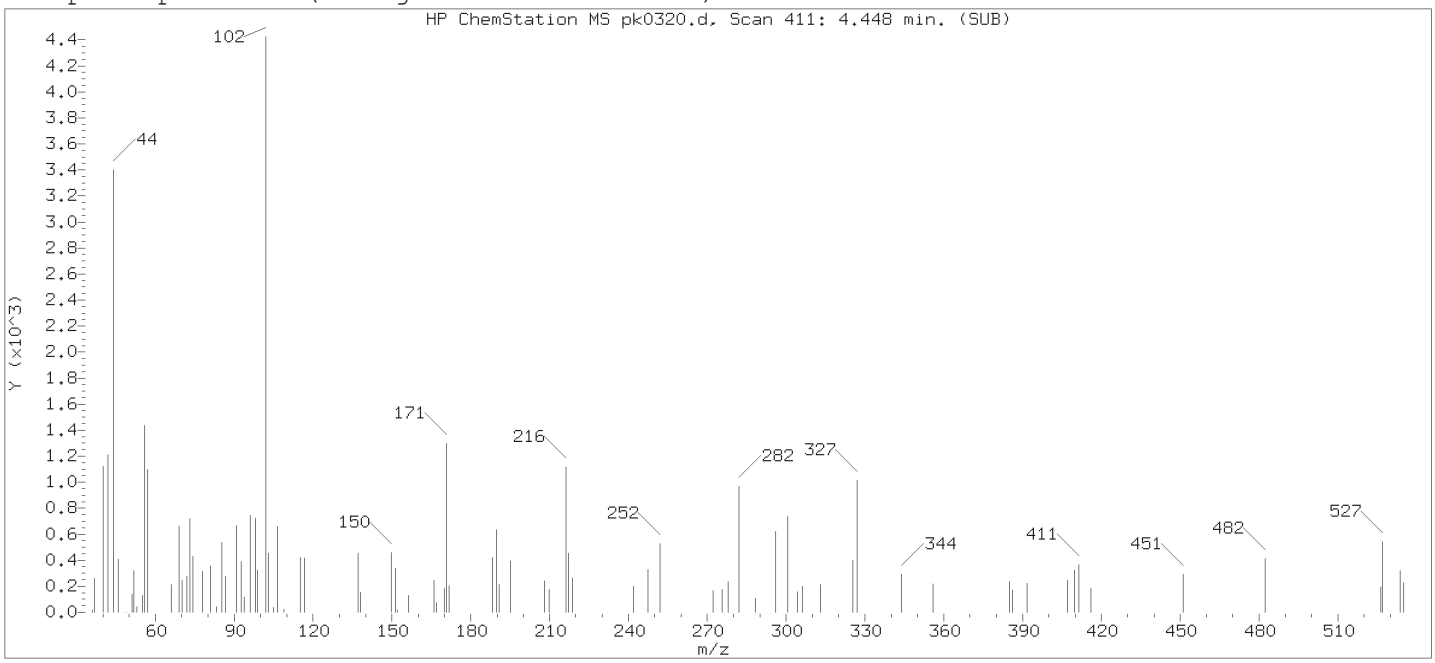
Compound Number	: 13		
Compound Name	: N-Nitrosodiethylamine		
Scan Number	: 411		
Retention Time (minutes)	: 4.448		
Quant Ion	: 102.00		
Area (flag)	: 4171M		
On-Column Amount (ng/ul)	: 0.5777		
Integration start scan	: 406	Integration stop scan:	413
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

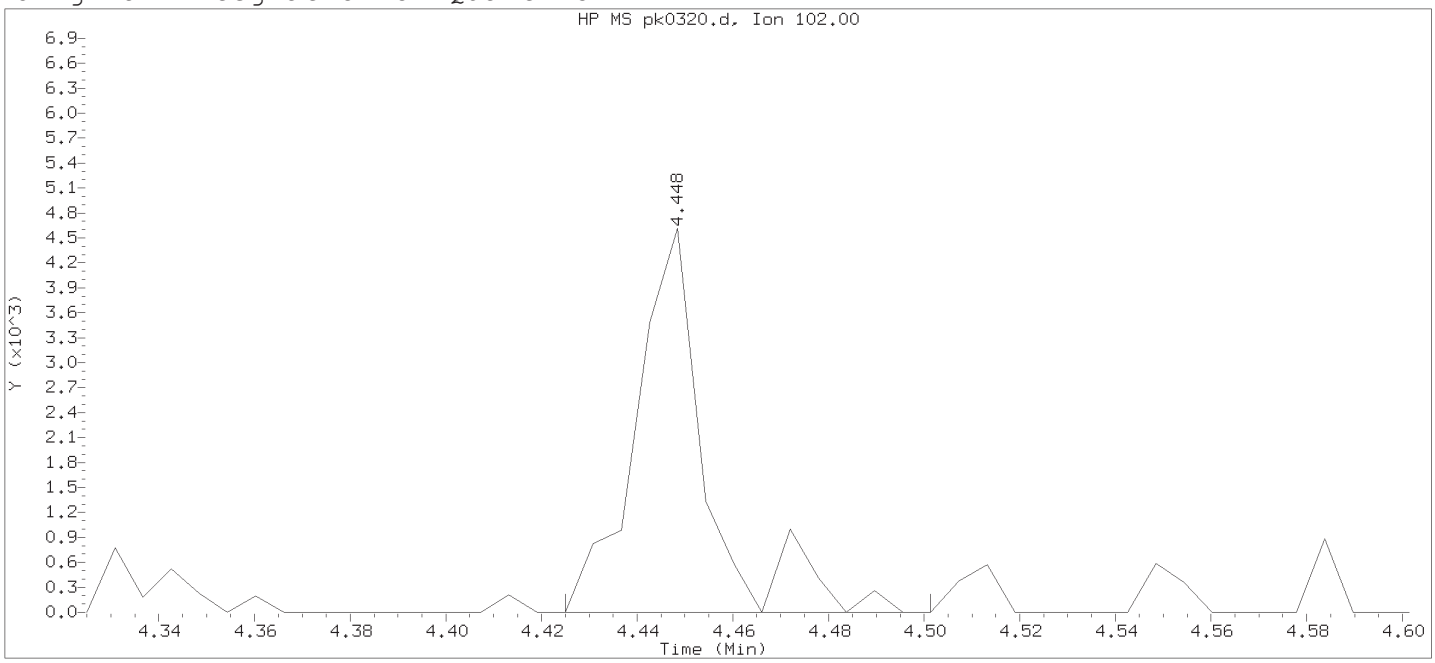
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

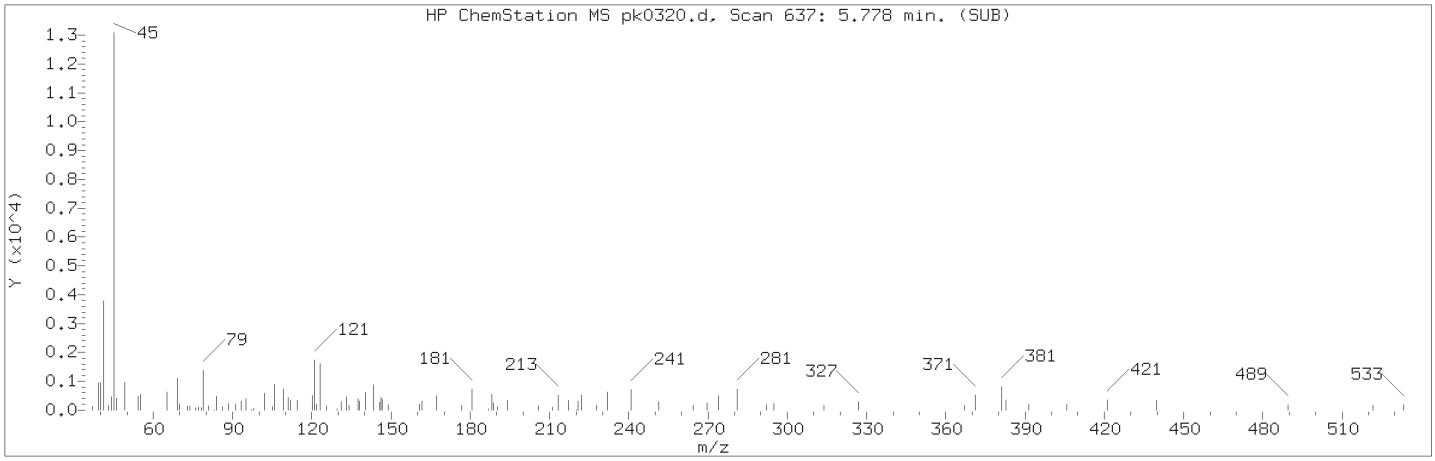
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

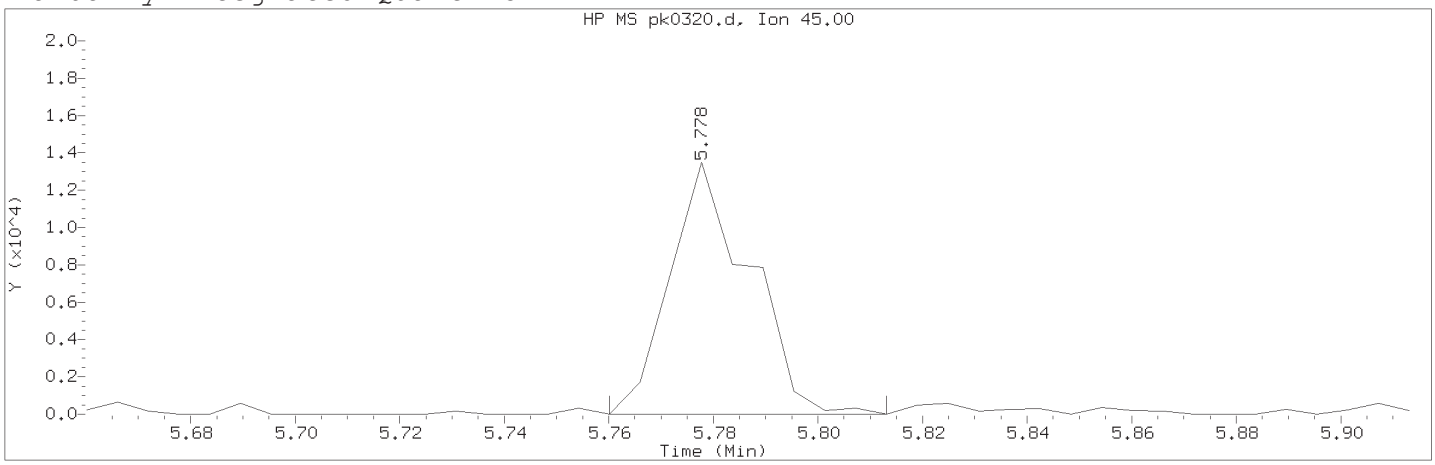
Compound Number	: 13		
Compound Name	: N-Nitrosodiethylamine		
Scan Number	: 411		
Retention Time (minutes)	: 4.448		
Quant Ion	: 102.00		
Area	: 4761		
On-column Amount (ng/ul)	: 0.6497		
Integration start scan	: 406	Integration stop scan:	419
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

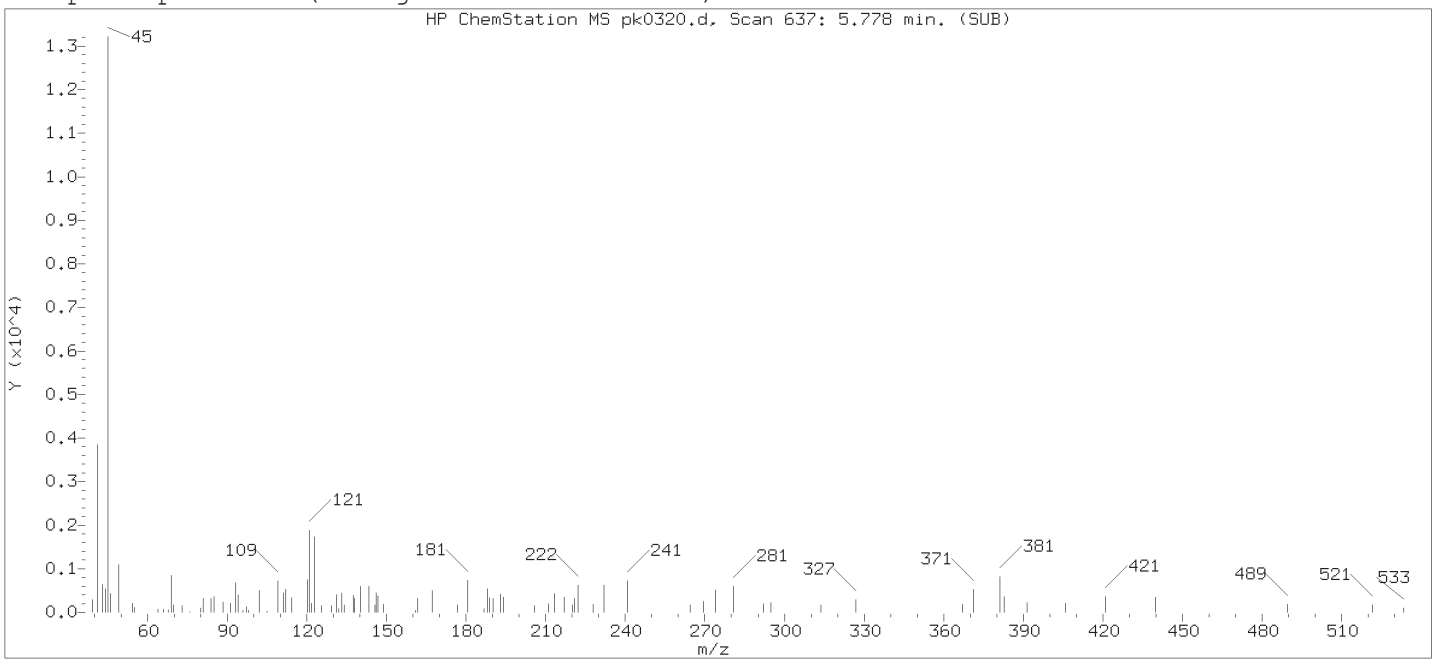
Compound Number : 33
Compound Name : 2,2'-oxybis(1-Chloropropane)
Scan Number : 637
Retention Time (minutes) : 5.778
Quant Ion : 45.00
Area (flag) : 14278M
On-Column Amount (ng/ul) : 0.6136
Integration start scan : 633 Integration stop scan: 642
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

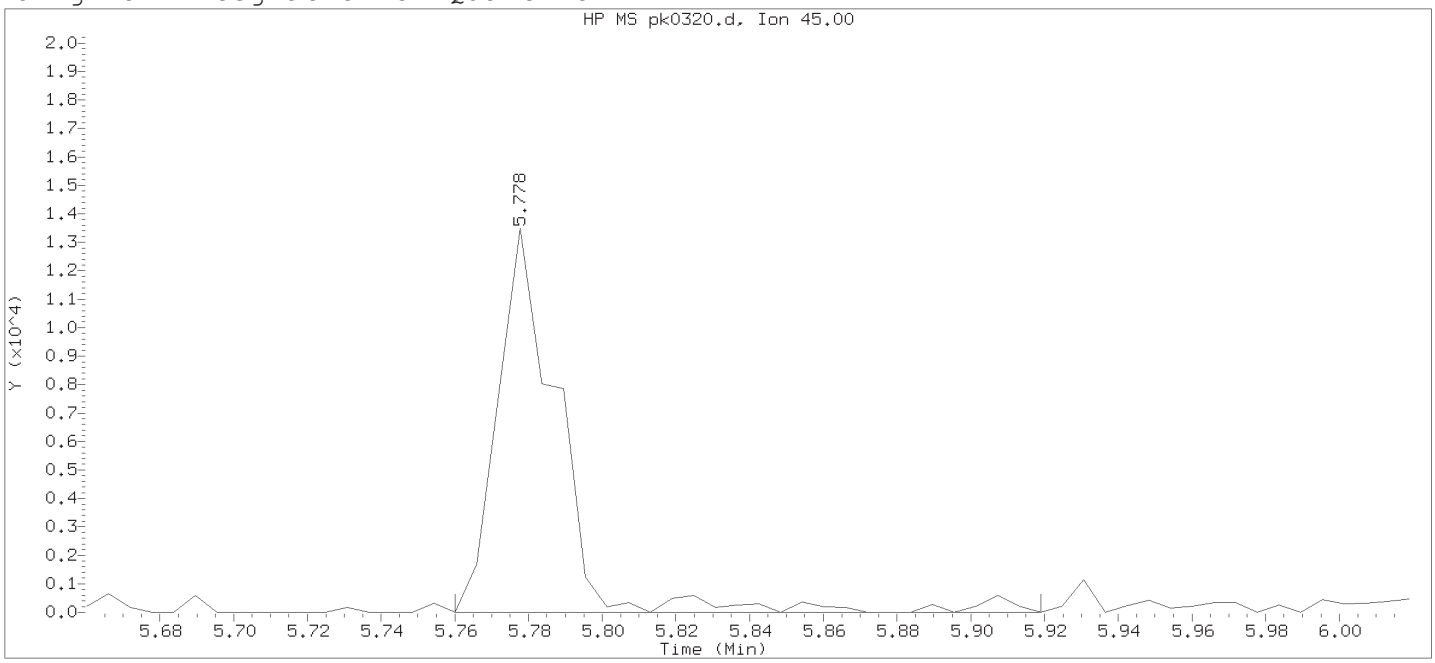
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

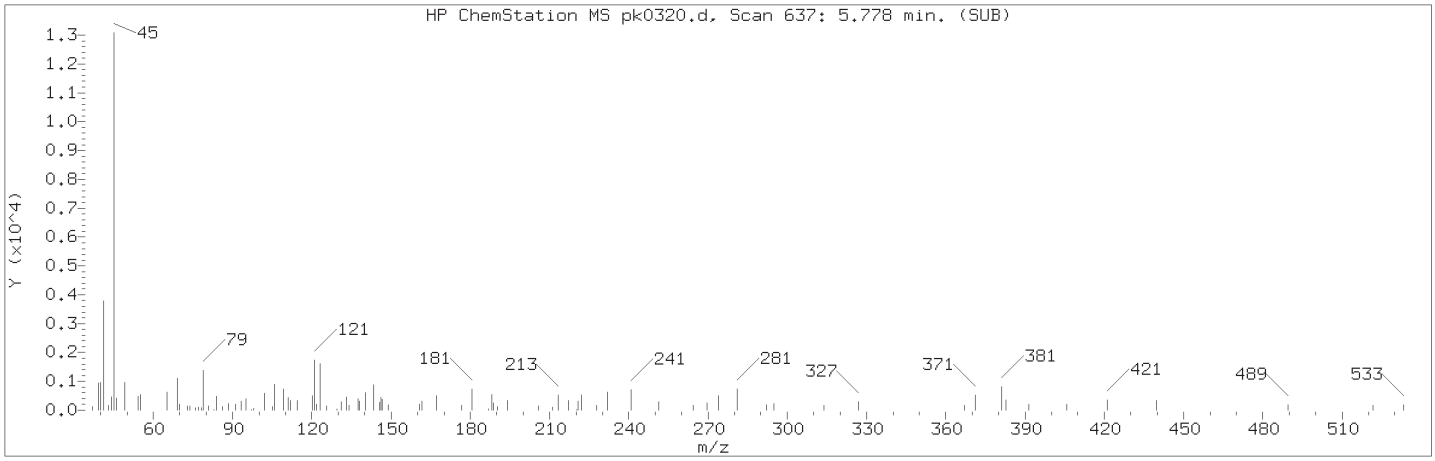
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

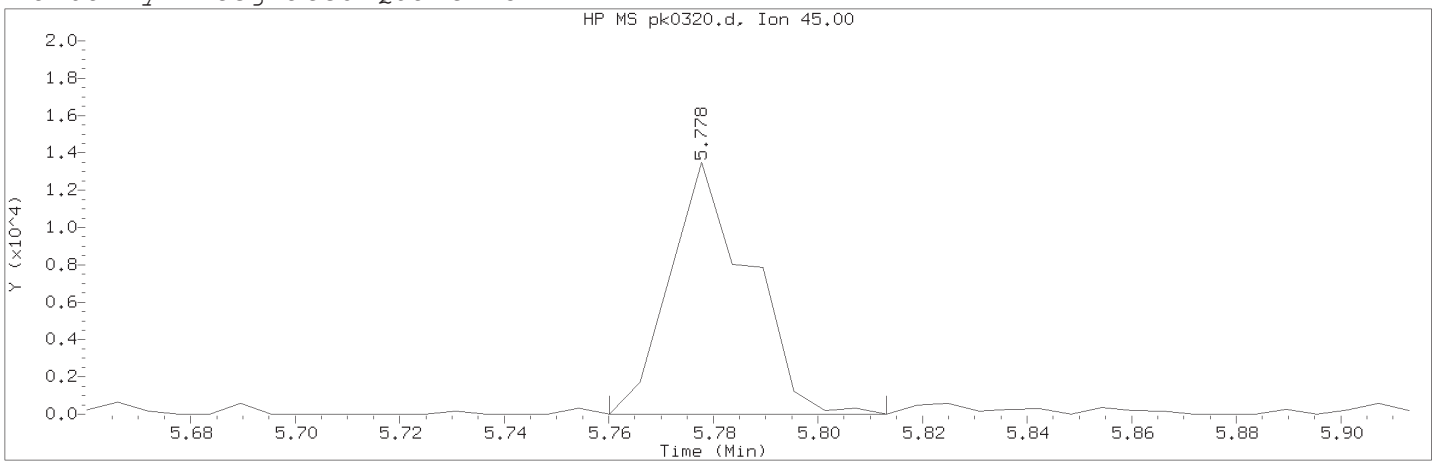
Compound Number	: 33		
Compound Name	: 2,2'-oxybis(1-Chloropropane)		
Scan Number	: 637		
Retention Time (minutes)	: 5.778		
Quant Ion	: 45.00		
Area	: 15613		
On-column Amount (ng/ul)	: 0.6790		
Integration start scan	: 633	Integration stop scan:	660
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

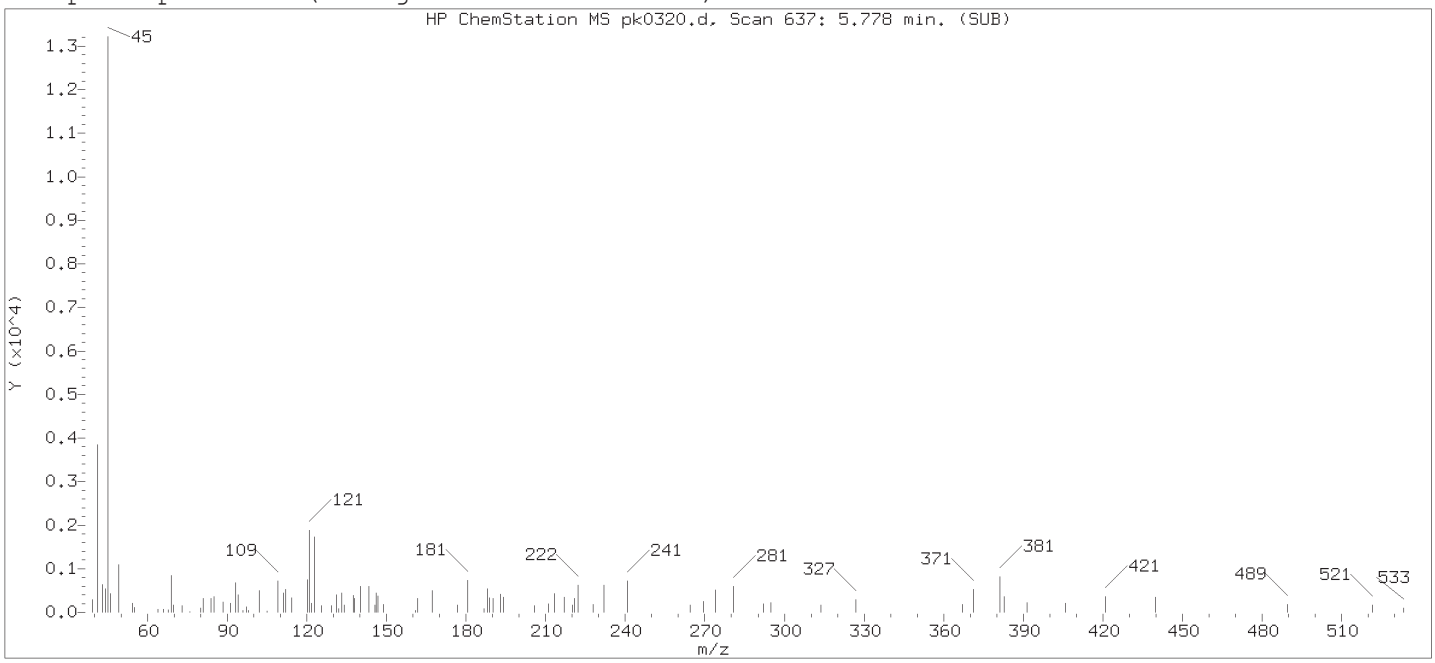
Compound Number : 34
Compound Name : bis(2-Chloroisopropyl)ether
Scan Number : 637
Retention Time (minutes) : 5.778
Quant Ion : 45.00
Area (flag) : 14278M
On-Column Amount (ng/ul) : 0.6136
Integration start scan : 633 Integration stop scan: 642
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

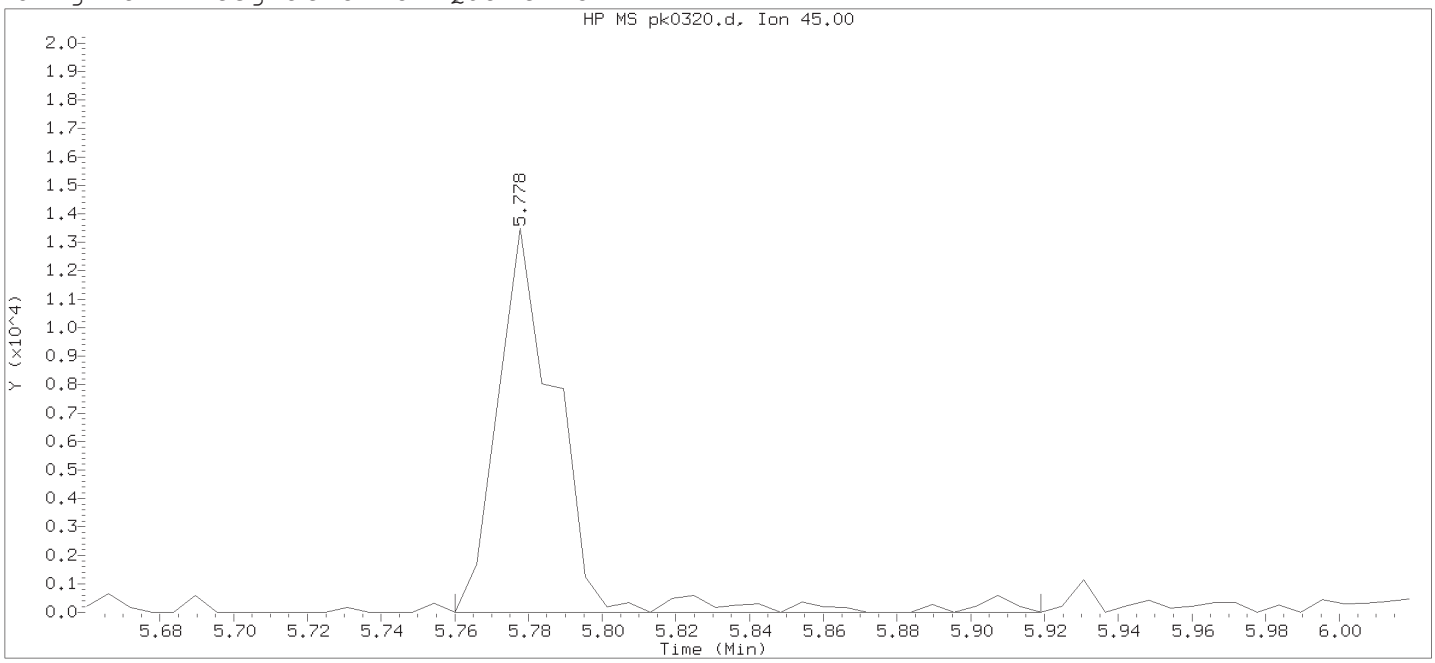
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

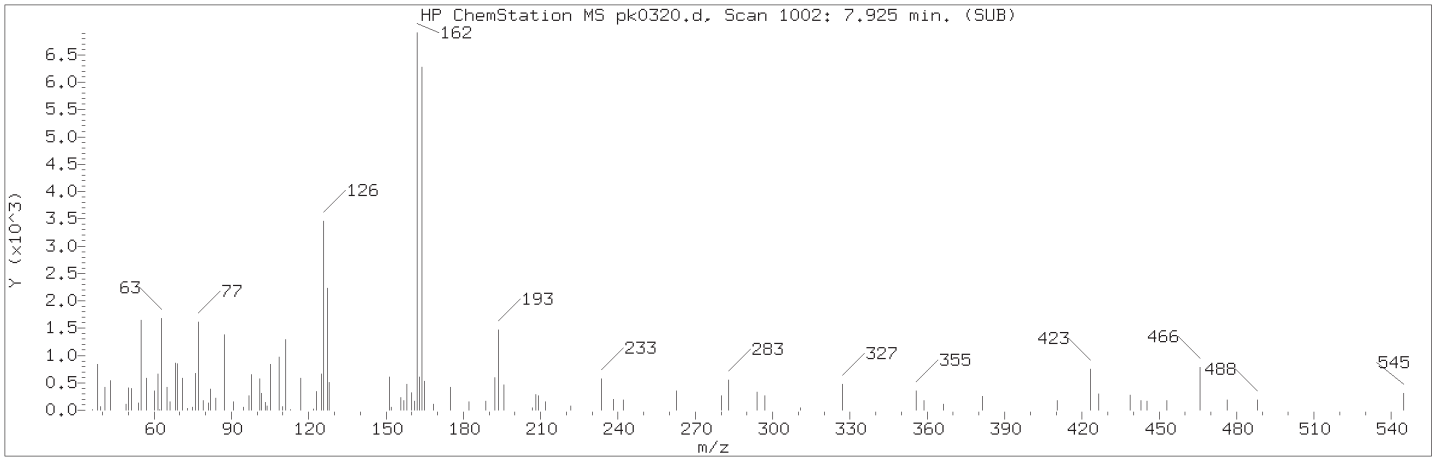
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

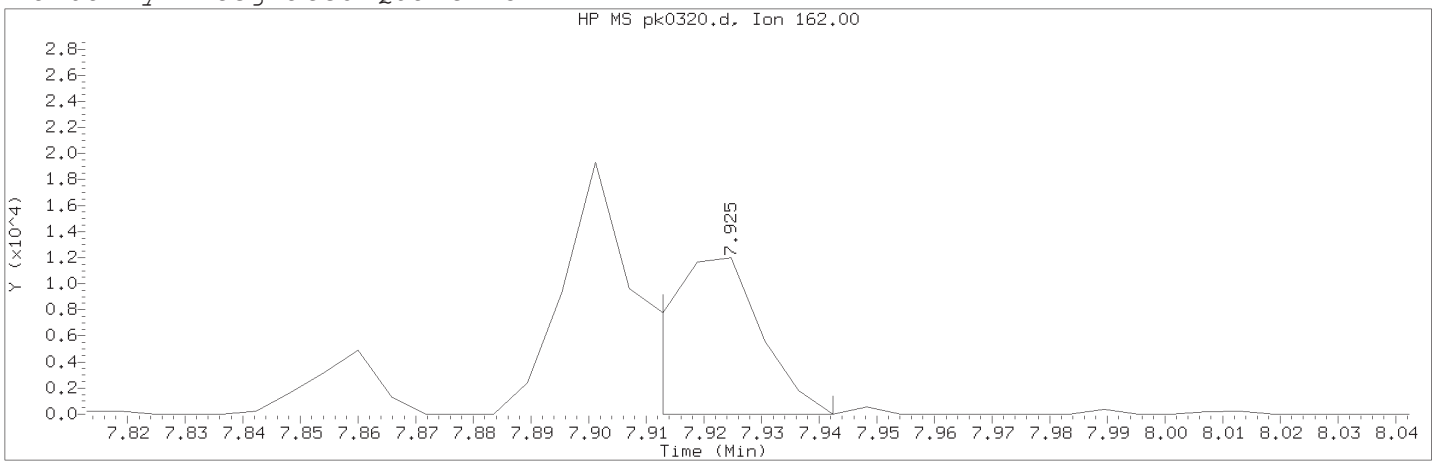
Compound Number	: 34		
Compound Name	: bis(2-Chloroisopropyl)ether		
Scan Number	: 637		
Retention Time (minutes)	: 5.778		
Quant Ion	: 45.00		
Area	: 15613		
On-column Amount (ng/ul)	: 0.6790		
Integration start scan	: 633	Integration stop scan:	660
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

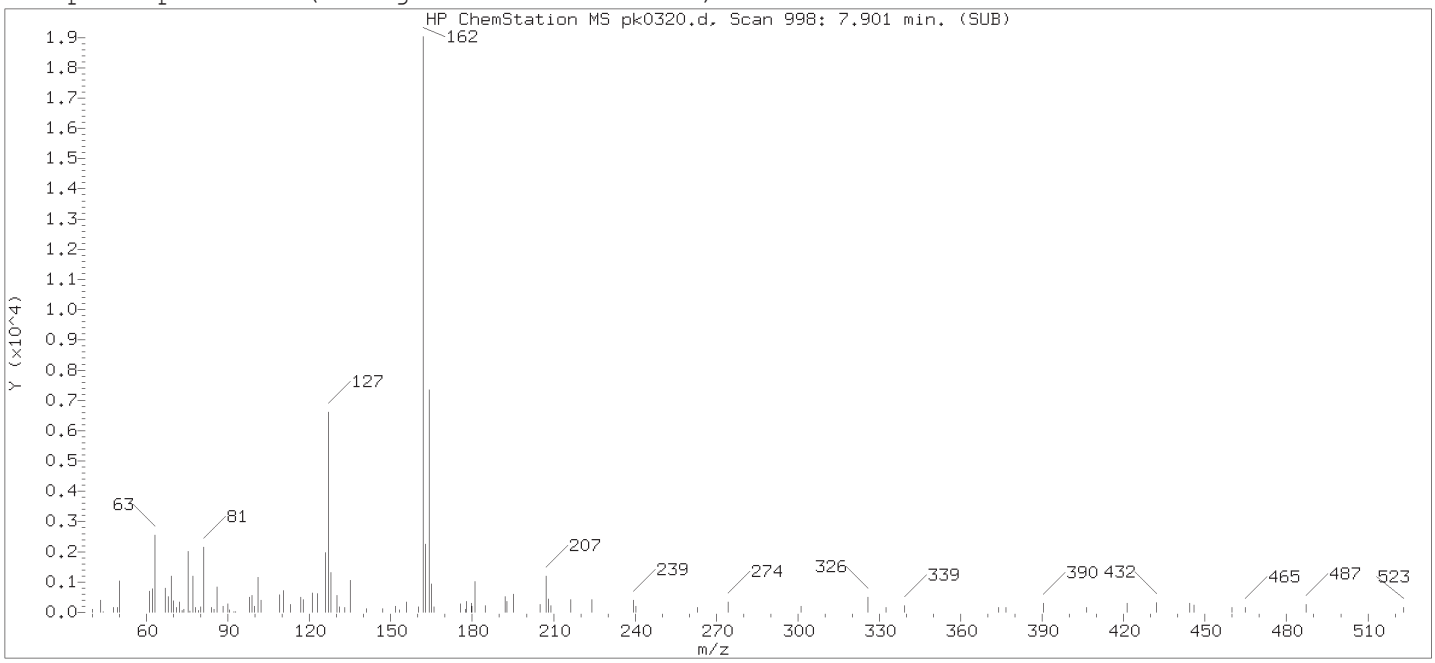
Compound Number : 98
Compound Name : 1-Chloronaphthalene
Scan Number : 1002
Retention Time (minutes) : 7.925
Quant Ion : 162.00
Area (flag) : 13712M
On-Column Amount (ng/ul) : 0.4830
Integration start scan : 999 Integration stop scan: 1004
Y at integration start : -5 Y at integration end: -5

Reason for manual integration: improper integration

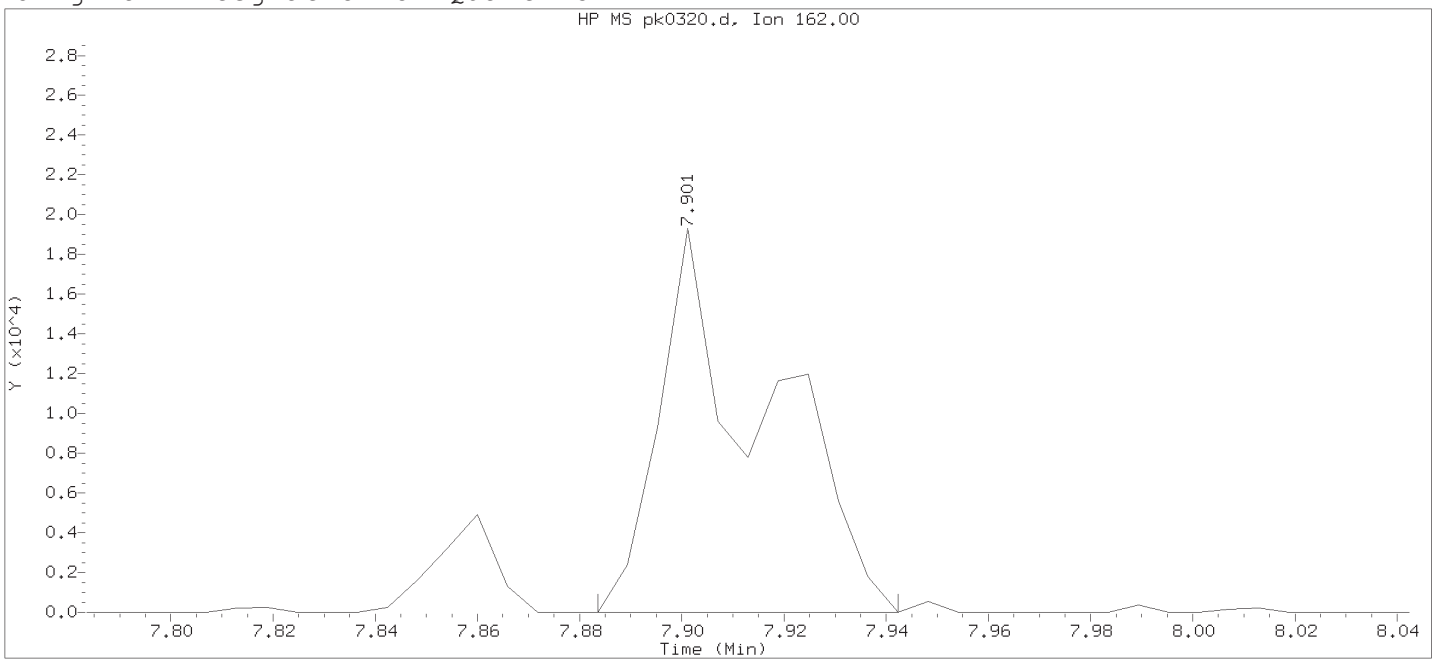
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

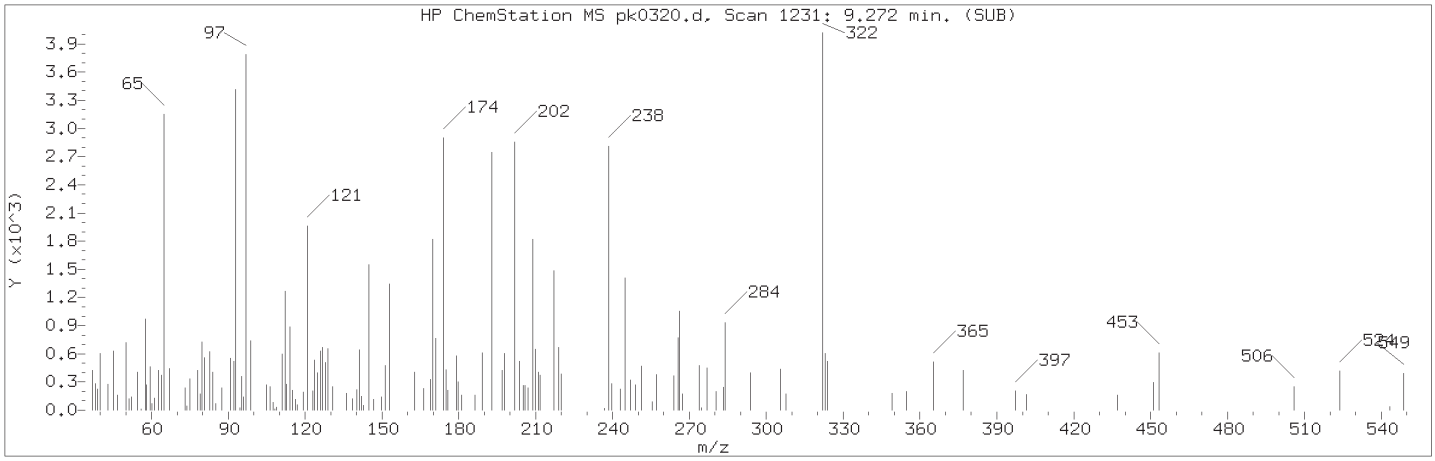
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

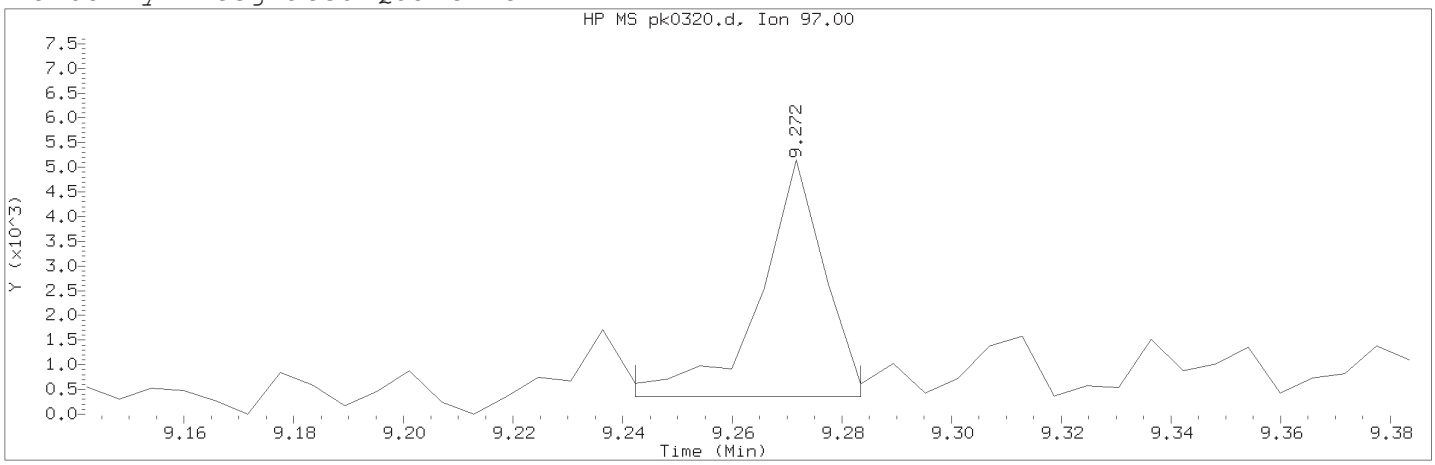
Compound Number	: 98		
Compound Name	: 1-Chloronaphthalene		
Scan Number	: 998		
Retention Time (minutes)	: 7.901		
Quant Ion	: 162.00		
Area	: 28041		
On-column Amount (ng/ul)	: 0.7777		
Integration start scan	: 994	Integration stop scan:	1004
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

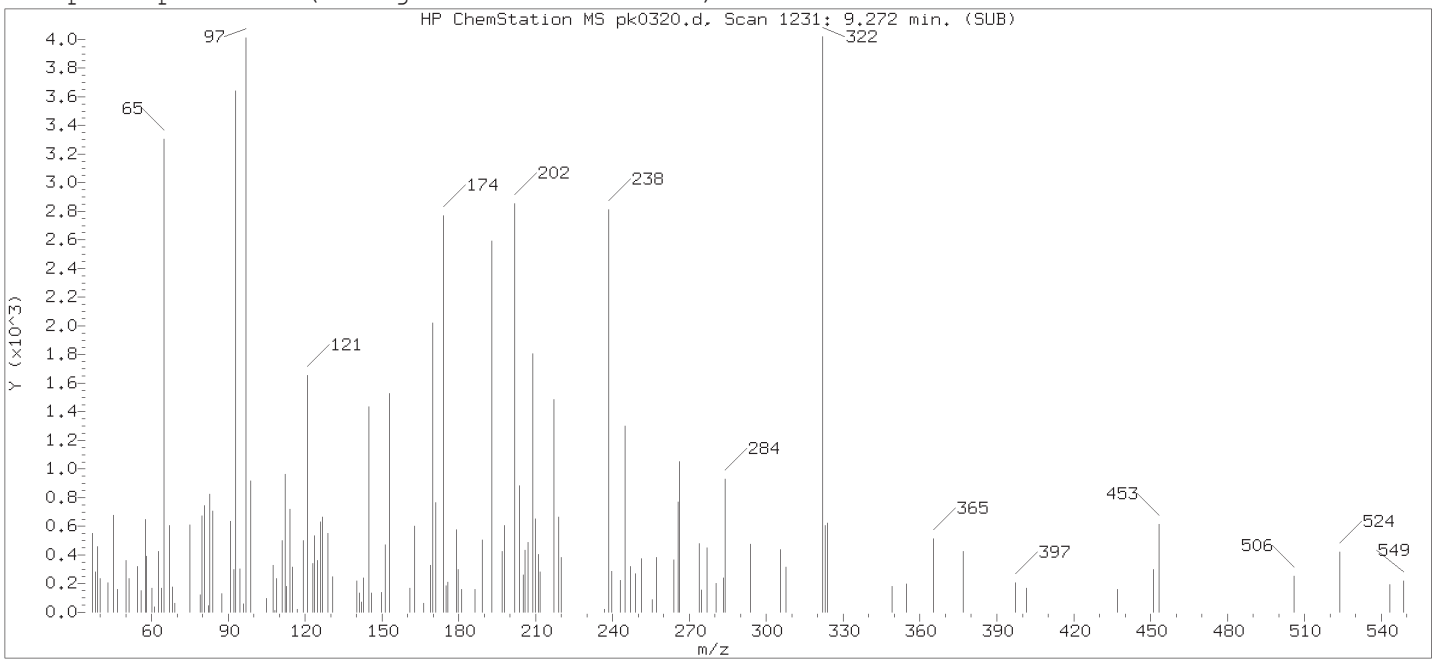
Compound Number : 137
Compound Name : Tetraethyldithiopyrophosphate
Scan Number : 1231
Retention Time (minutes) : 9.272
Quant Ion : 97.00
Area (flag) : 4008M
On-Column Amount (ng/ul) : 0.5593
Integration start scan : 1225 Integration stop scan: 1232
Y at integration start : 350 Y at integration end: 350

Reason for manual integration: improper integration

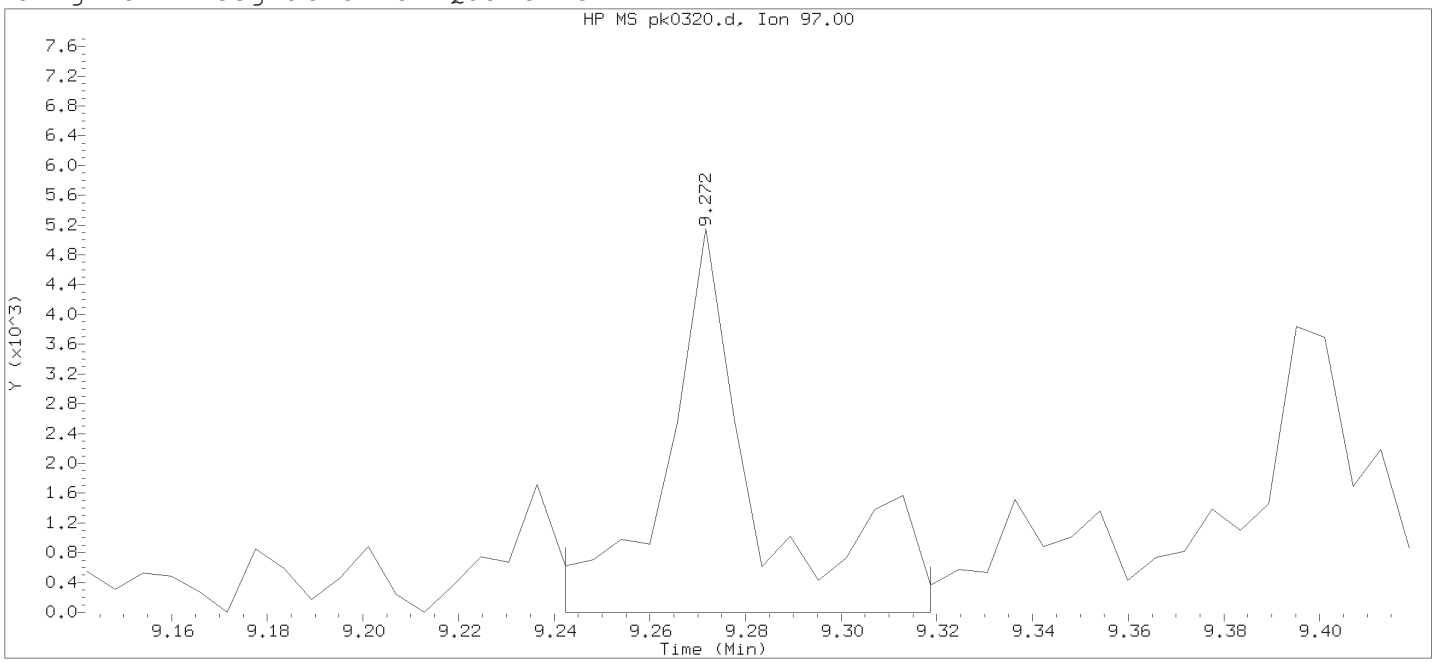
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

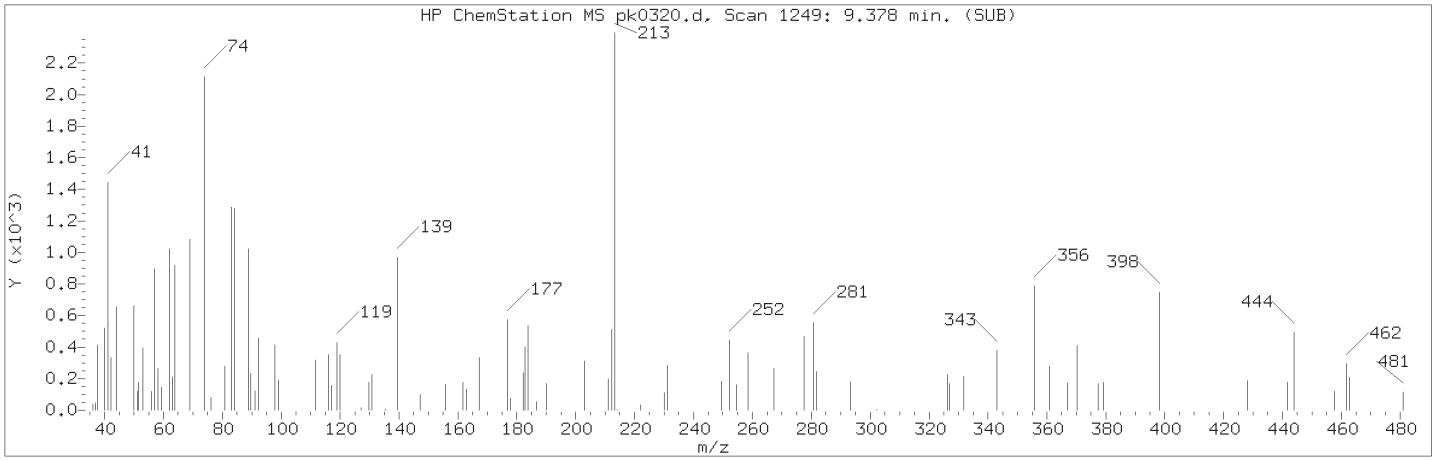
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

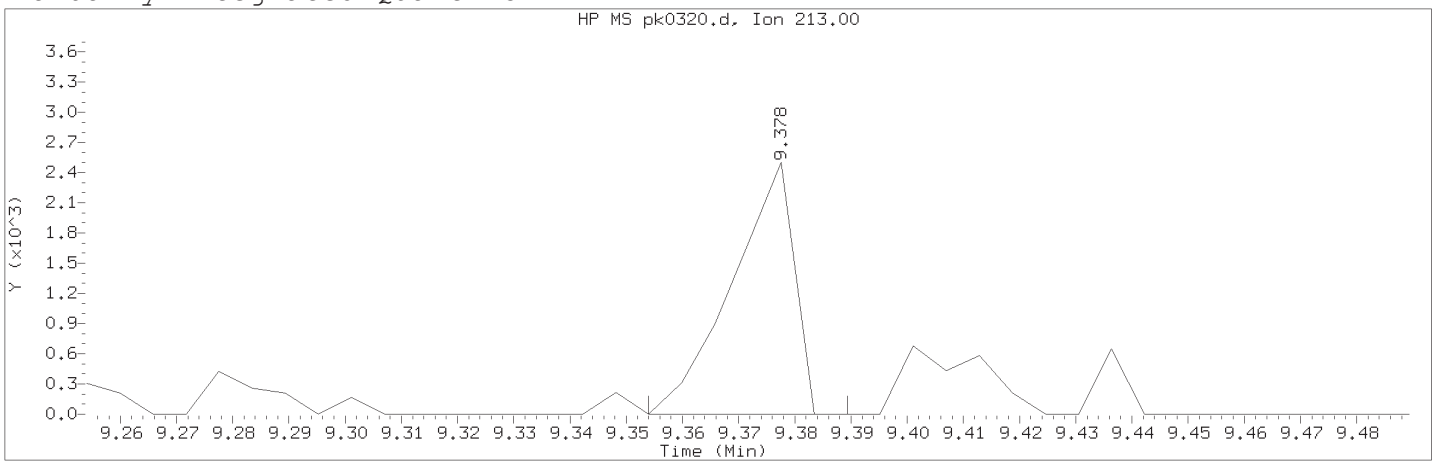
Compound Number	: 137		
Compound Name	: Tetraethyldithiopyrophosphate		
Scan Number	: 1231		
Retention Time (minutes)	: 9.272		
Quant Ion	: 97.00		
Area	: 6760		
On-column Amount (ng/ul)	: 0.9361		
Integration start scan	: 1225	Integration stop scan:	1238
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:03 apb10206

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

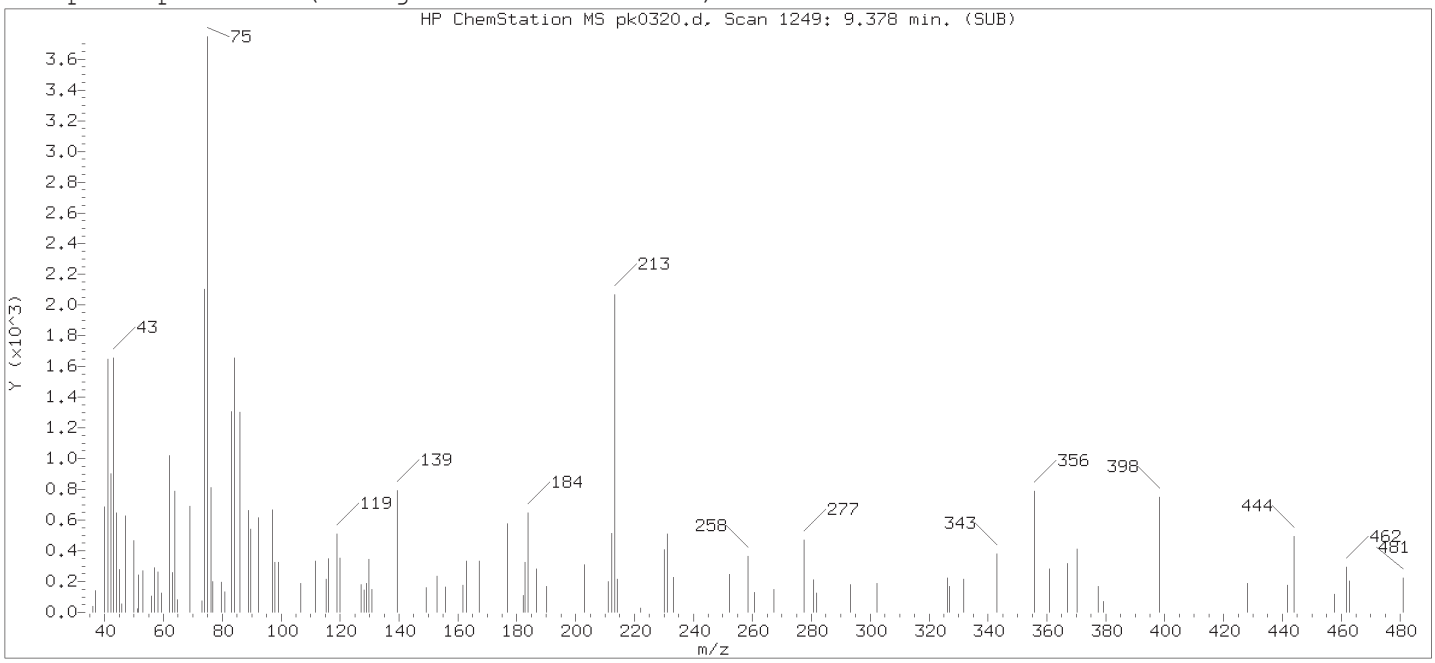
Compound Number : 139
Compound Name : 1,3,5-Trinitrobenzene
Scan Number : 1249
Retention Time (minutes) : 9.378
Quant Ion : 213.00
Area (flag) : 1907M
On-Column Amount (ng/ul) : 0.4025
Integration start scan : 1244 Integration stop scan: 1250
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

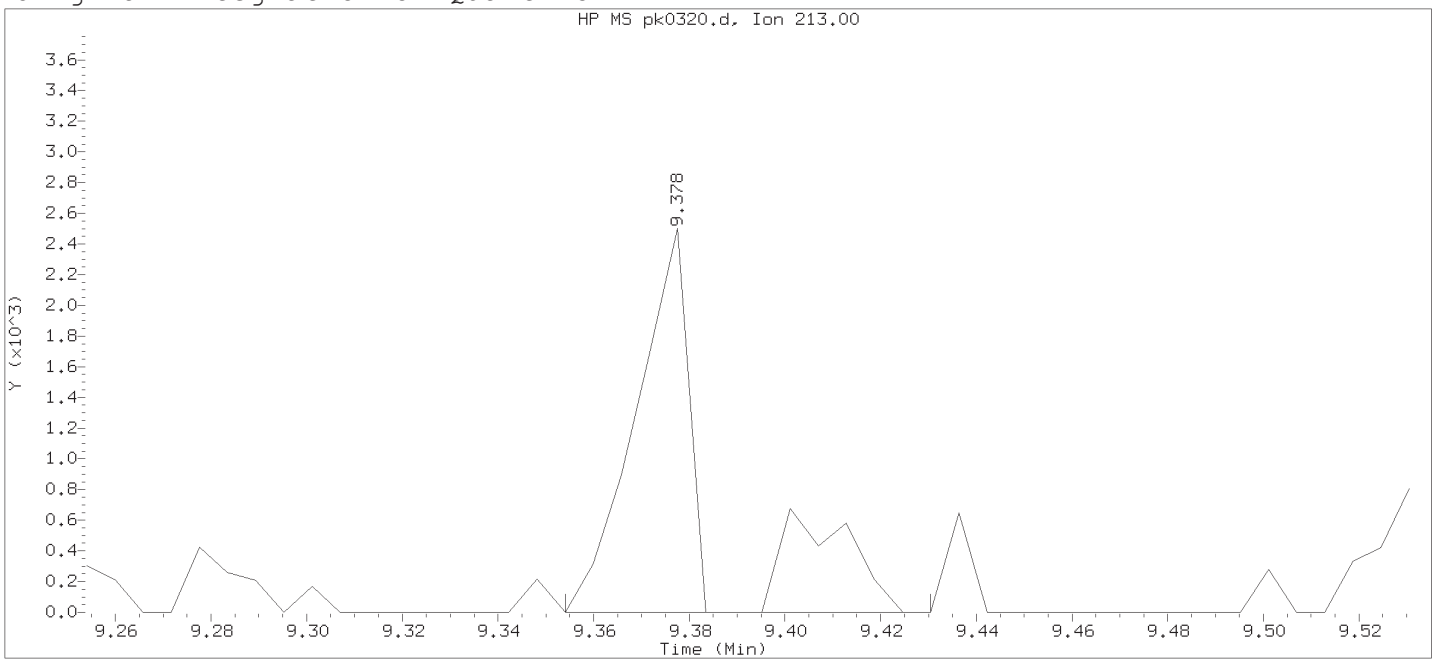
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



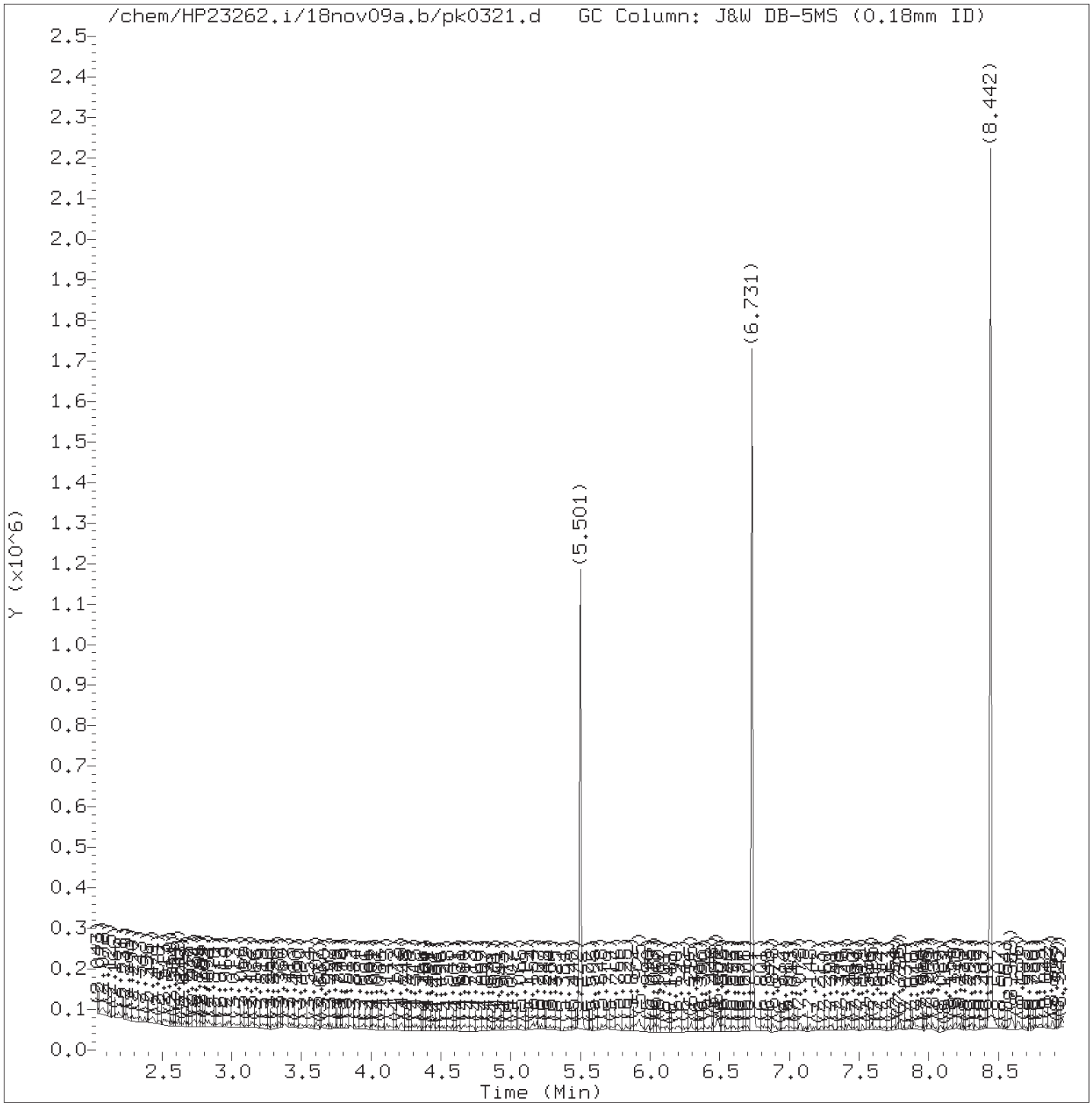
Data File: /chem/HP23262.i/18nov09a.b/pk0320.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:11 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: mdlall1-b
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:32 Automation

Sample Name: SSTD0.5 Lab Sample ID: MDL2928

Compound Number	: 139		
Compound Name	: 1,3,5-Trinitrobenzene		
Scan Number	: 1249		
Retention Time (minutes)	: 9.378		
Quant Ion	: 213.00		
Area	: 2578		
On-column Amount (ng/ul)	: 0.5743		
Integration start scan	: 1244	Integration stop scan:	1257
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

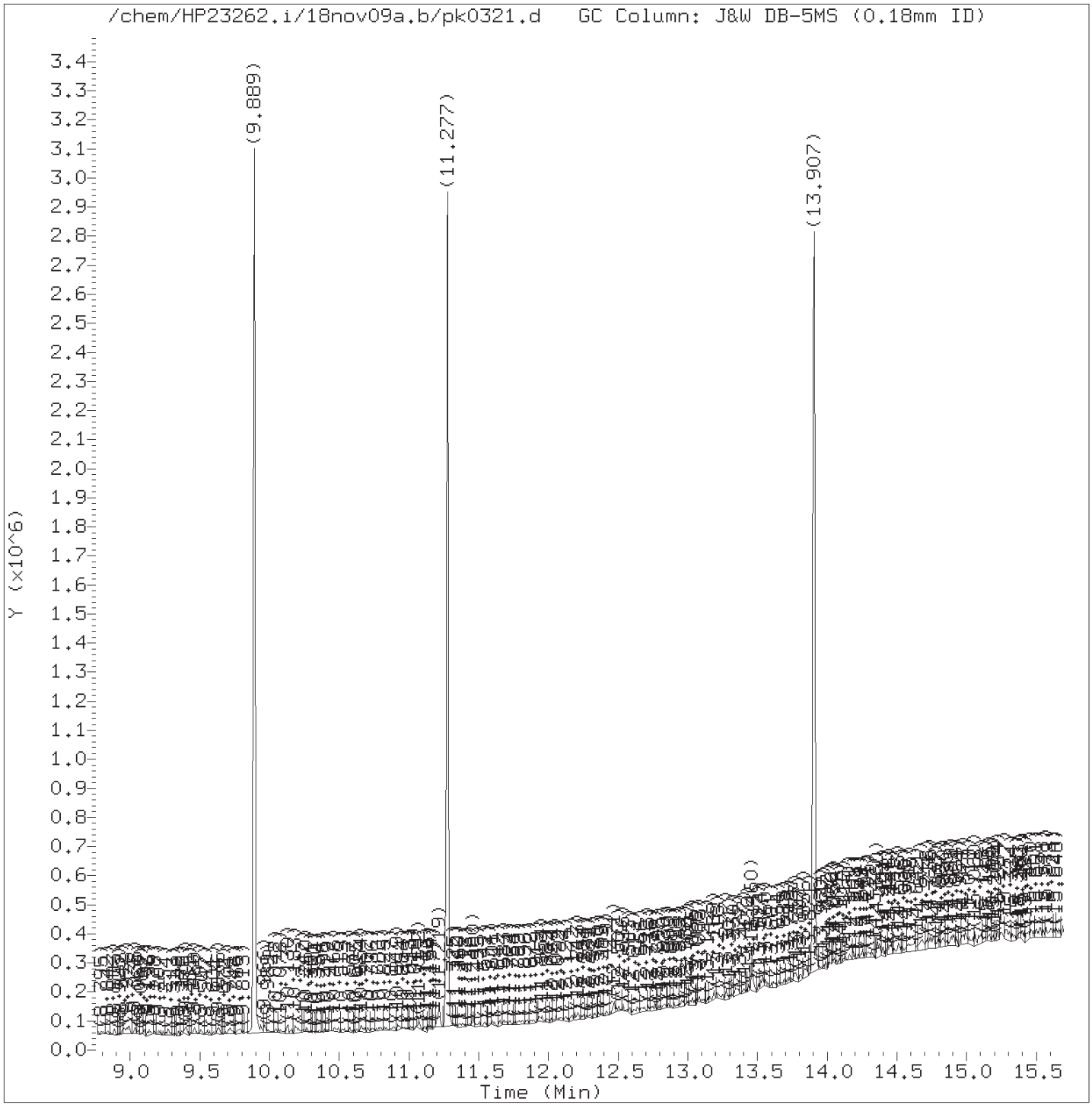
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

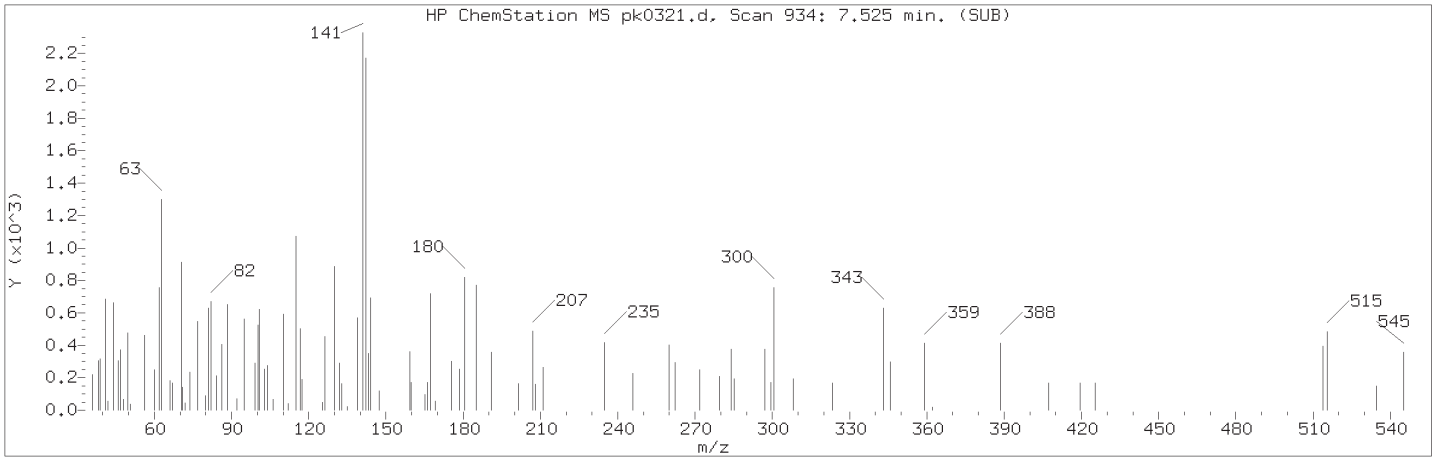
Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	154319	20.000
44)$Nitrobenzene-d5	(2)	6.031	82	4230	0.254
65)*Naphthalene-d8	(2)	6.731	136	643586	20.000
66) Naphthalene	(2)	6.754	128	5760	0.157
83) 2-Methylnaphthalene	(2)	7.431	142	2621	0.104
84) 1-Methylnaphthalene	(2)	7.525	142	2190M	0.090
93)$2-Fluorobiphenyl	(3)	7.795	172	5817	0.195
96) 2-Chloronaphthalene	(3)	7.901	162	2503	0.095
109) Acenaphthylene	(3)	8.295	152	4962	0.132
113)*Acenaphthene-d10	(3)	8.442	164	387892	20.000
114) Acenaphthene	(3)	8.478	153	2018	0.076
126) Fluorene	(3)	8.972	166	4159	0.127
145) Hexachlorobenzene	(4)	9.483	284	1121	0.109
153)*Phenanthrene-d10	(4)	9.889	188	983512	20.000
155) Phenanthrene	(4)	9.913	178	7518	0.135
157) Anthracene	(4)	9.966	178	6599	0.117
173) Fluoranthene	(4)	11.072	202	6045	0.094
175)*Pyrene-d10	(5)	11.277	212	1036631	20.000
177) Pyrene	(5)	11.289	202	7279	0.103
179)$Terphenyl-d14	(5)	11.460	244	8842	0.200
195) Benzo(a)anthracene	(5)	12.471	228	6117	0.094
196) Chrysene	(5)	12.507	228	8001	0.128
206) Benzo(b)fluoranthene	(6)	13.536	252	6532	0.099
208) Benzo(k)fluoranthene	(6)	13.566	252	6927	0.107
211) Benzo(a)pyrene	(6)	13.854	252	7951	0.131
213)*Perylene-d12	(6)	13.907	264	943051	20.000
219) Indeno(1,2,3-cd)pyrene	(6)	14.977	276	7997	0.127
222) Total PAHs	(6)			106209	2.073
220) Dibenz(a,h)anthracene	(6)	15.001	278	7089MA	0.130
221) Benzo(g,h,i)perylene	(6)	15.283	276	6444M	0.121

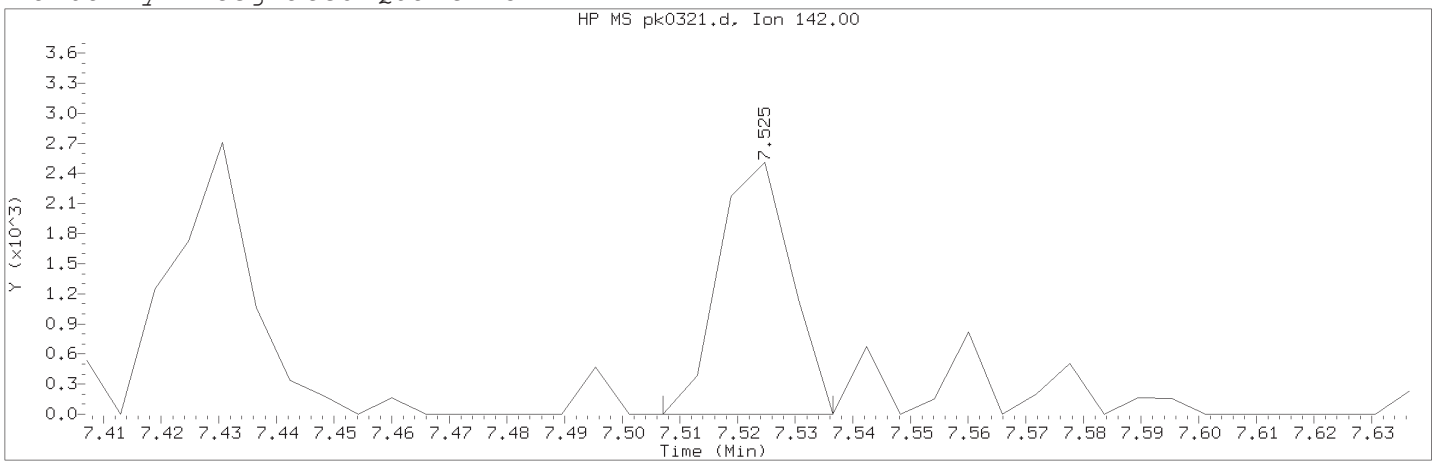
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

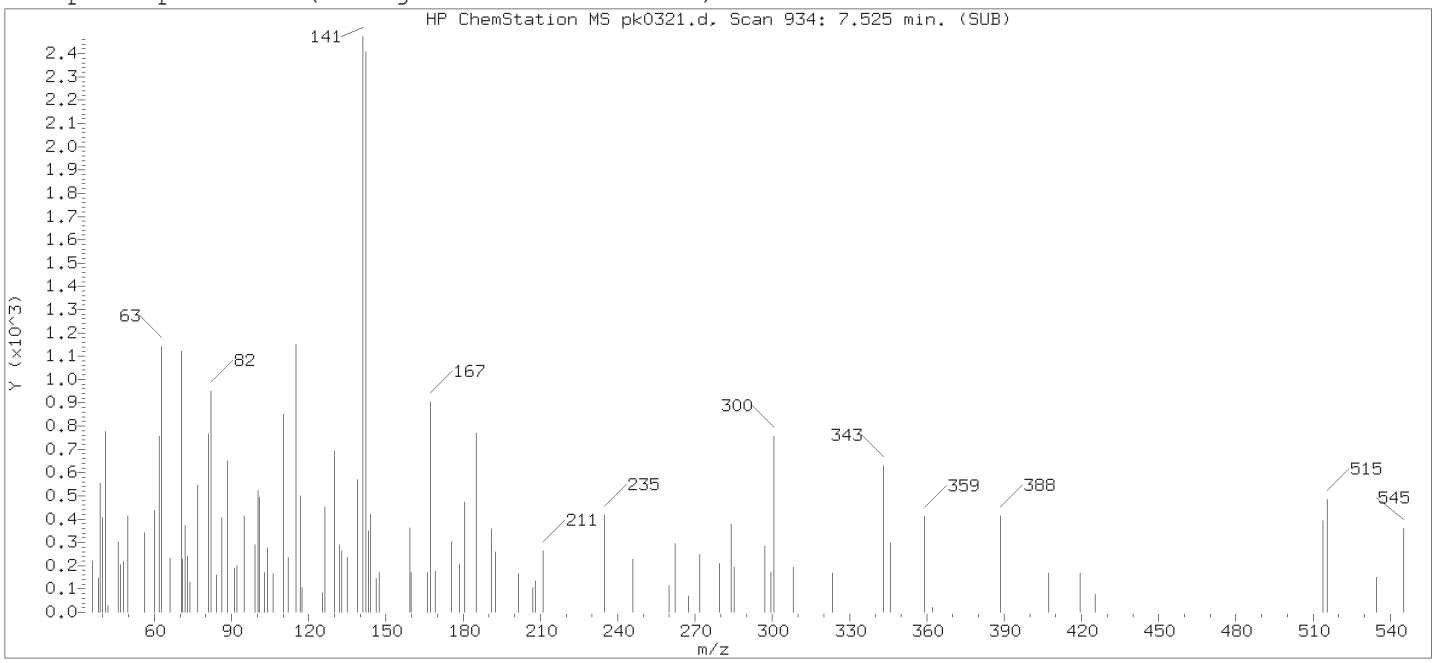
Compound Number	: 84		
Compound Name	: 1-Methylnaphthalene		
Scan Number	: 934		
Retention Time (minutes)	: 7.525		
Quant Ion	: 142.00		
Area (flag)	: 2190M		
On-Column Amount (ng/ul)	: 0.0901		
Integration start scan	: 930	Integration stop scan:	935
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

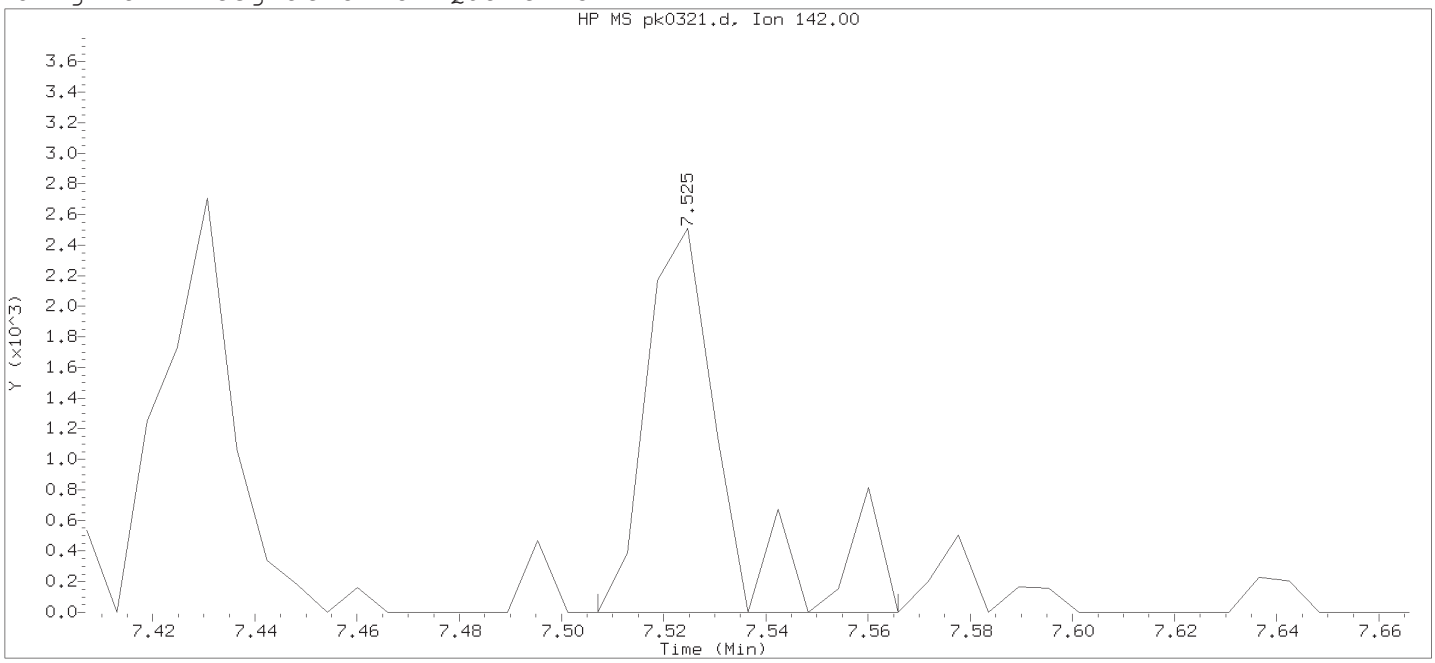
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

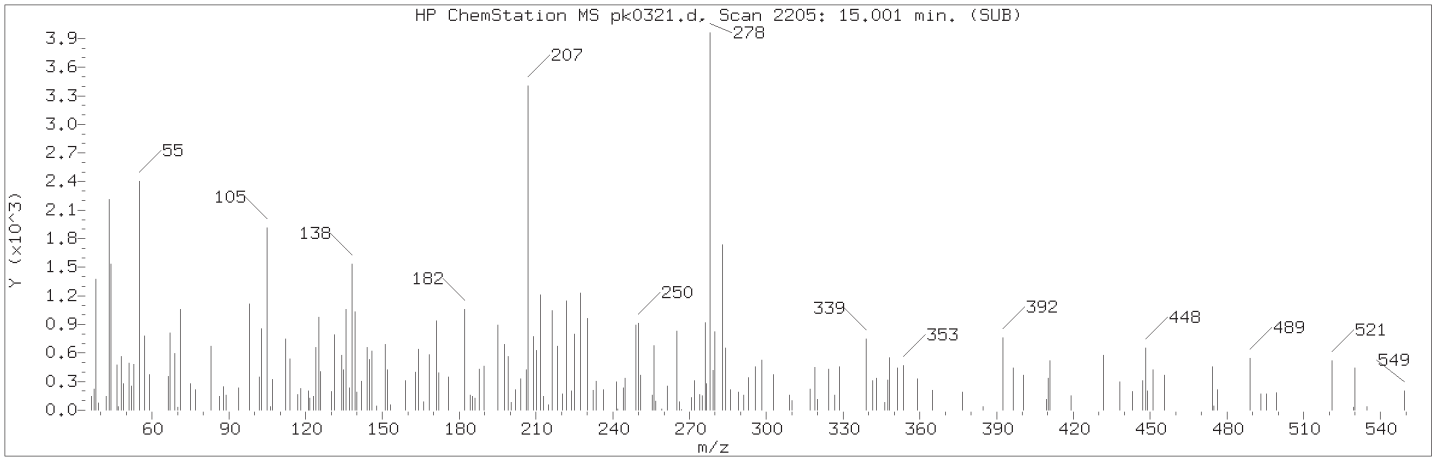
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:55 Automation

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

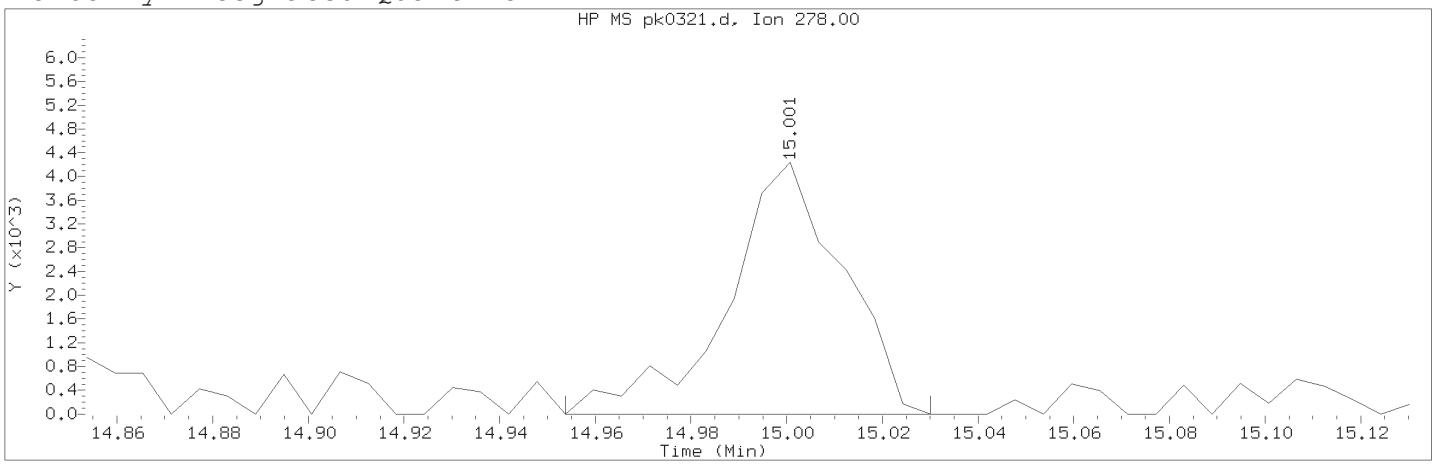
Compound Number	: 84		
Compound Name	: 1-Methylnaphthalene		
Scan Number	: 934		
Retention Time (minutes)	: 7.525		
Quant Ion	: 142.00		
Area	: 2770		
On-column Amount (ng/ul)	: 0.1147		
Integration start scan	: 930	Integration stop scan:	940
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used: D12 Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

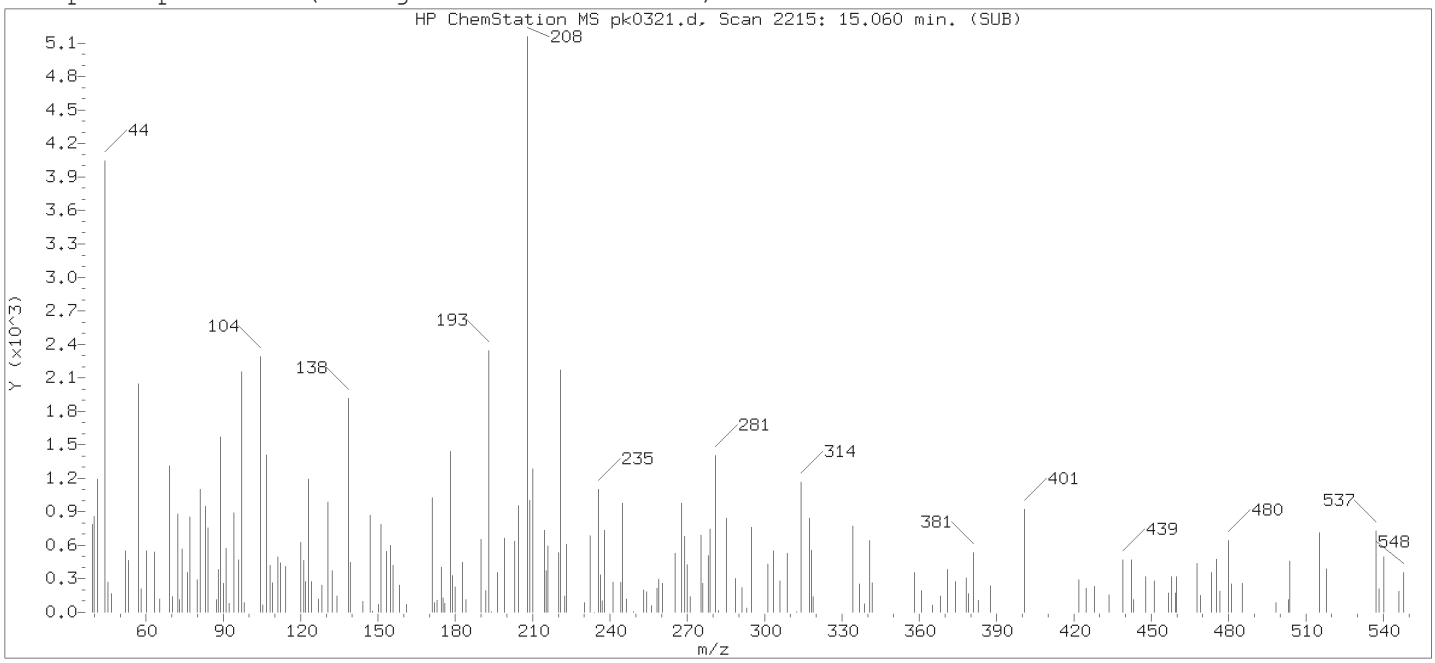
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2205		
Retention Time (minutes)	: 15.001		
Quant Ion	: 278.00		
Area (flag)	: 7089MA		
On-Column Amount (ng/ul)	: 0.1300		
Integration start scan	: 2196	Integration stop scan:	2209
Y at integration start	: -3	Y at integration end:	-3

Reason for manual integration: improper integration

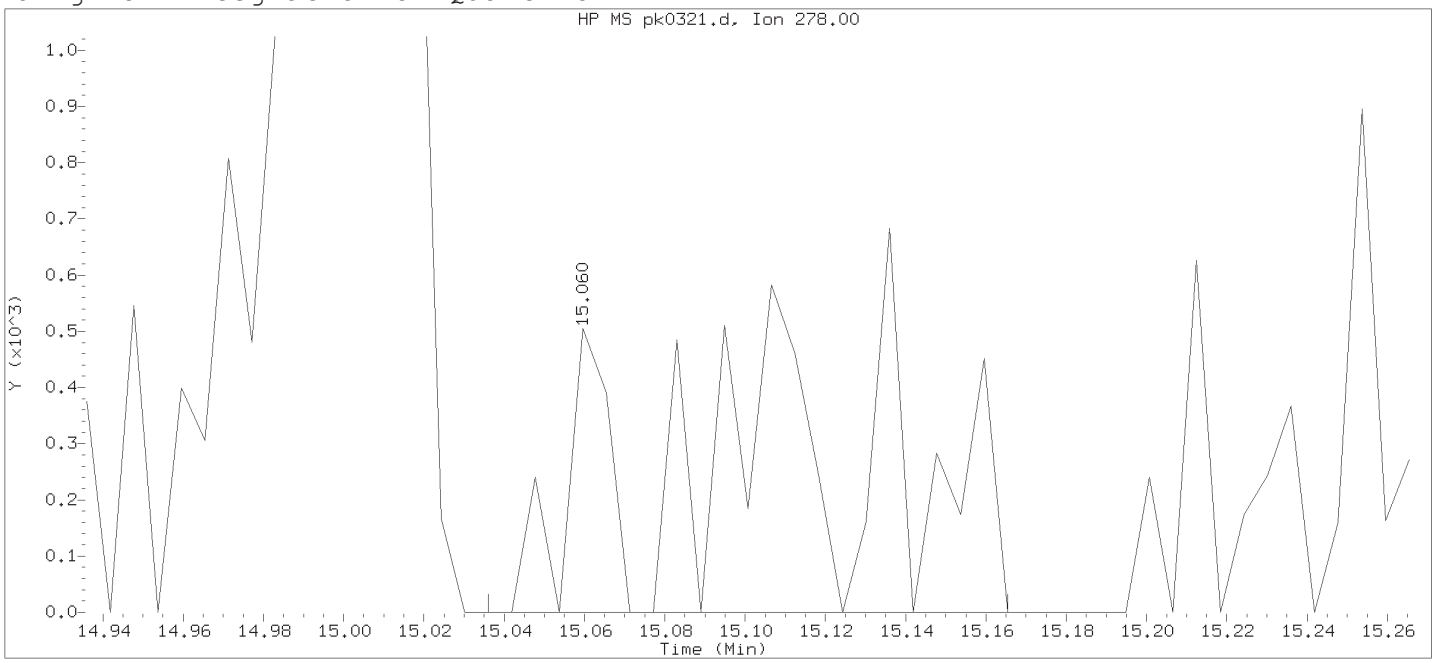
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

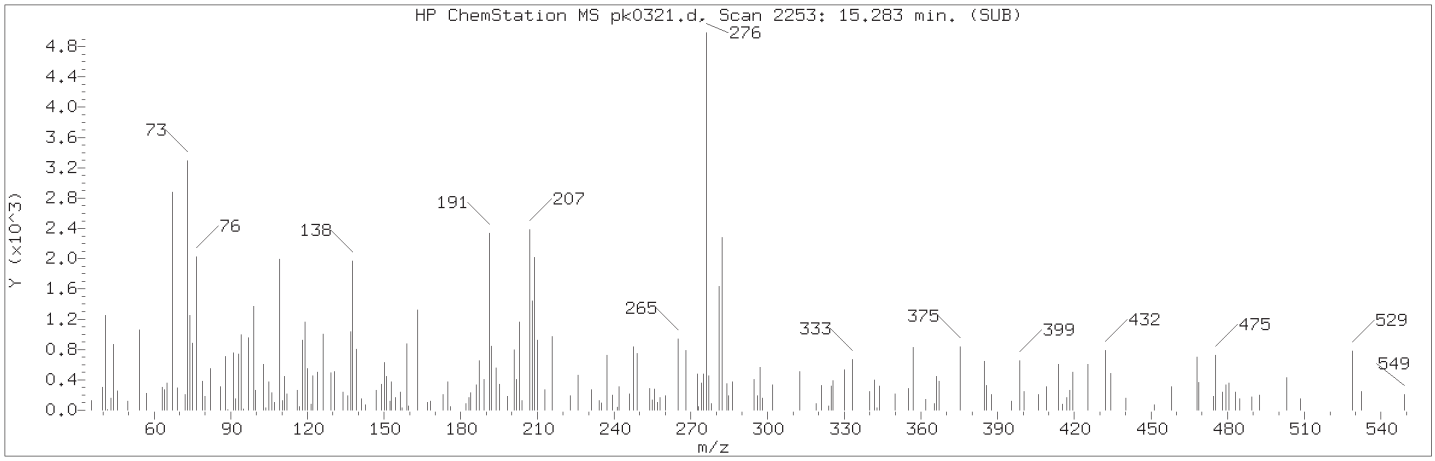
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:55 Automation

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

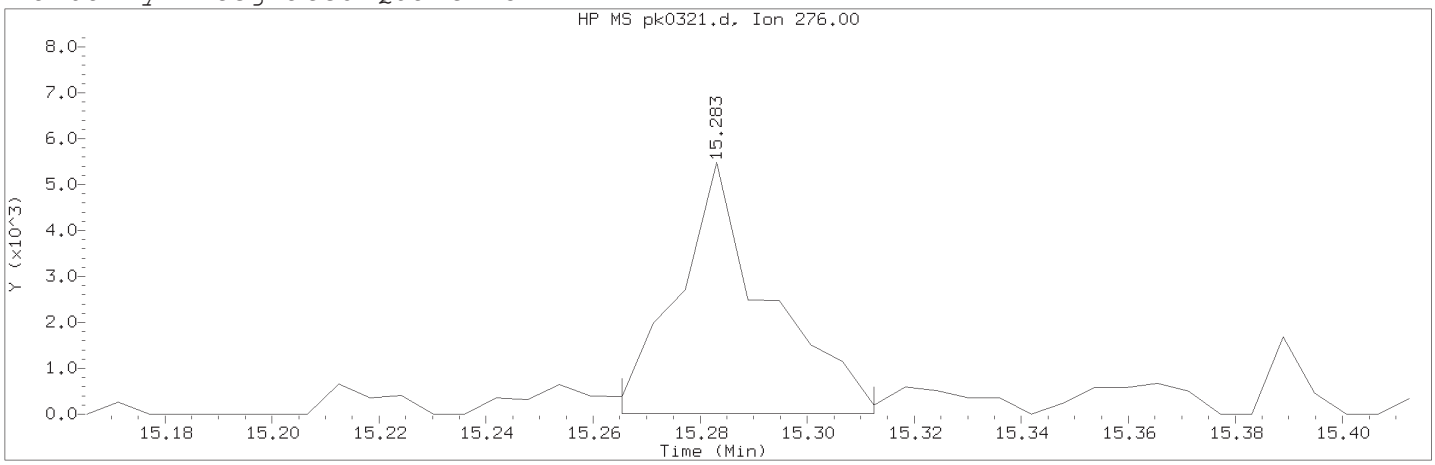
Compound Number	: 220		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 2215		
Retention Time (minutes)	: 15.060		
Quant Ion	: 278.00		
Area	: 1888		
On-column Amount (ng/ul)	: 0.0349		
Integration start scan	: 2210	Integration stop scan:	2232
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:04 apb10206

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

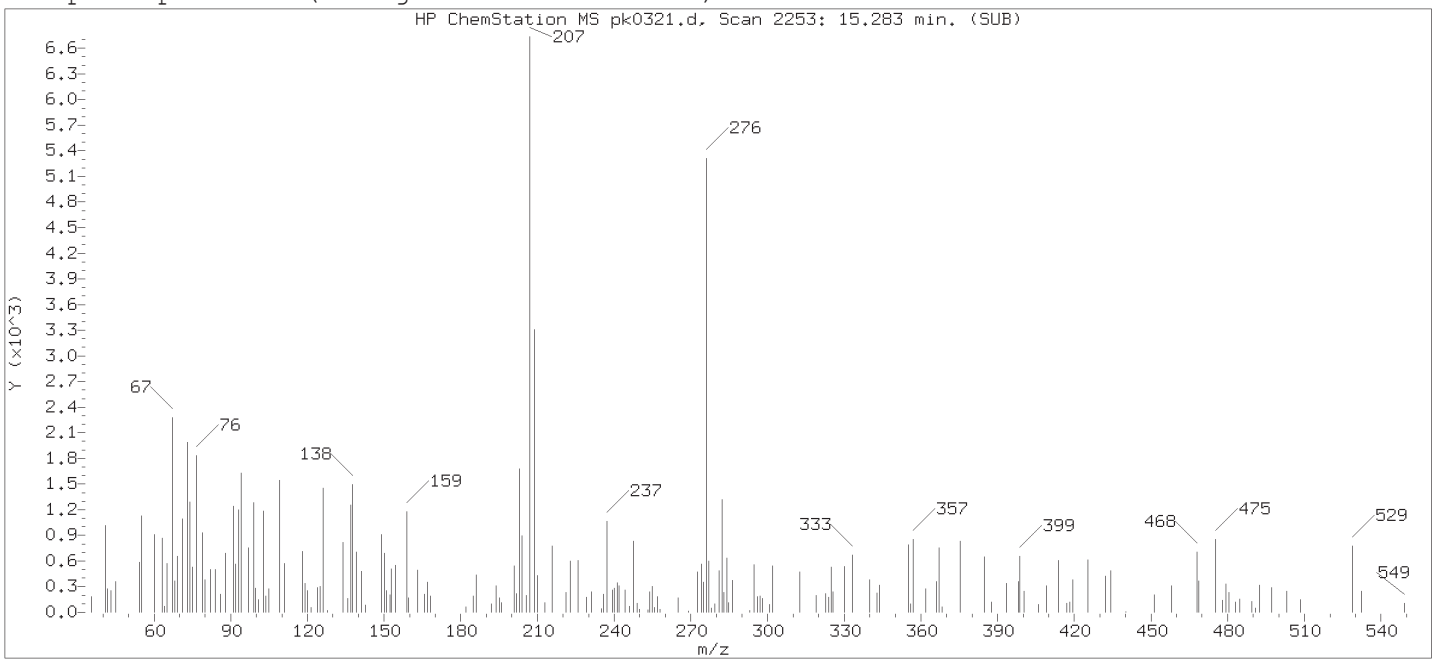
Compound Number : 221
Compound Name : Benzo(g,h,i)perylene
Scan Number : 2253
Retention Time (minutes) : 15.283
Quant Ion : 276.00
Area (flag) : 6444M
On-Column Amount (ng/ul) : 0.1207
Integration start scan : 2249 Integration stop scan: 2257
Y at integration start : 9 Y at integration end: 9

Reason for manual integration: improper integration

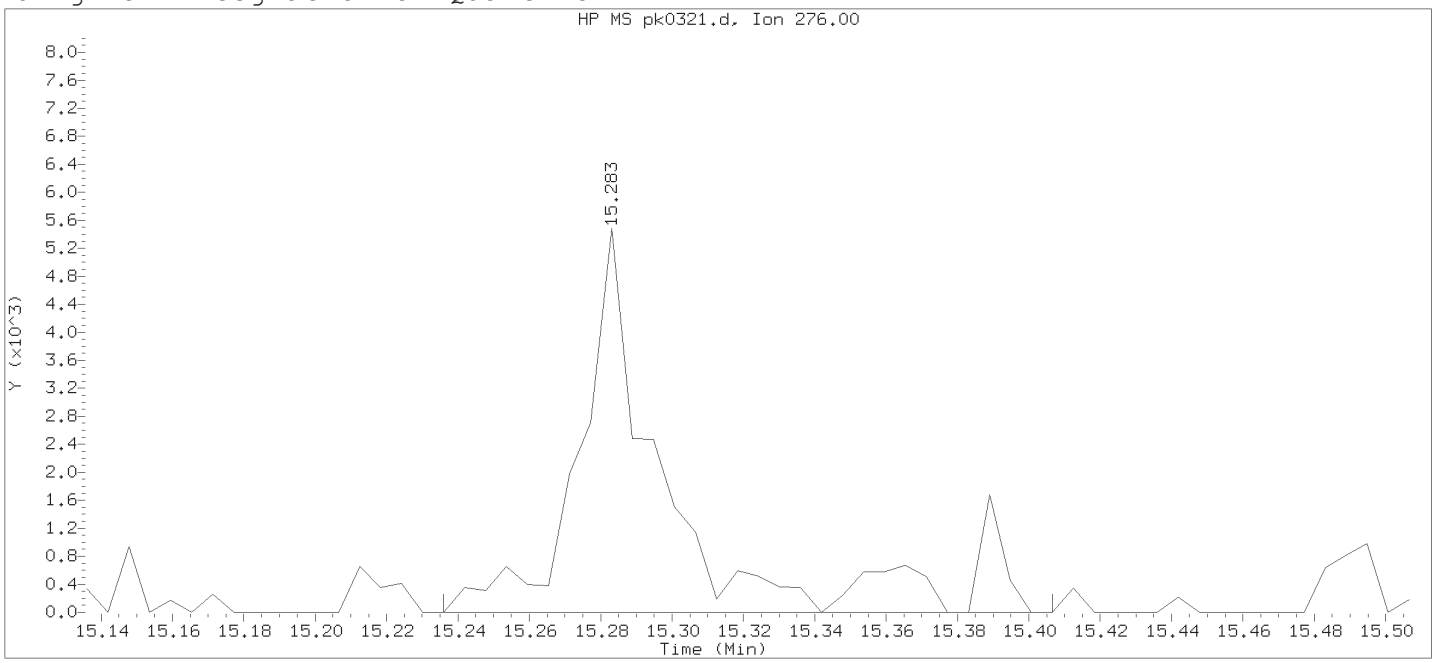
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:14.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



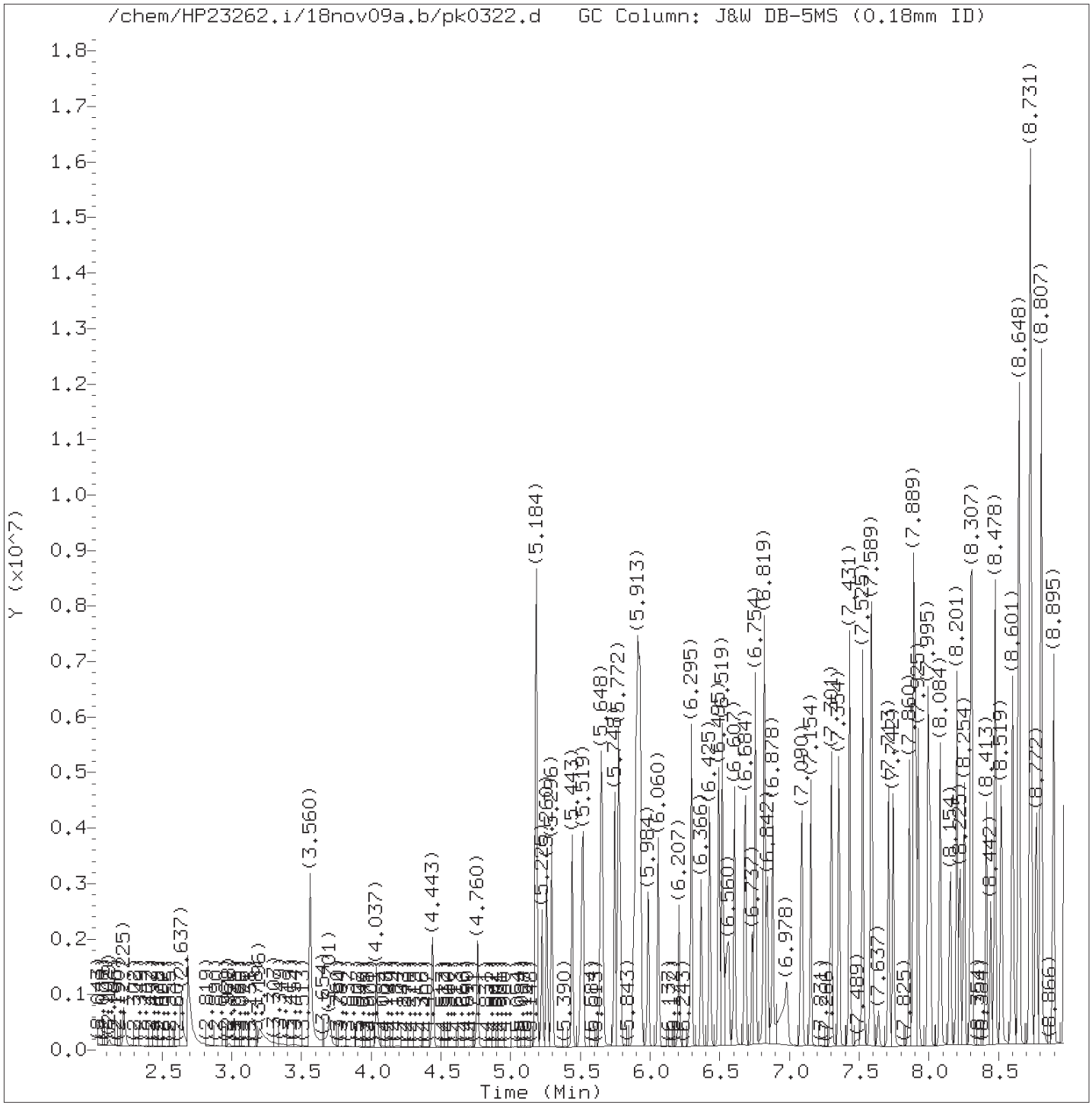
Data File: /chem/HP23262.i/18nov09a.b/pk0321.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:34 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: pahmdl
Calibration date and time: 09-NOV-2018 19:09
Date, time and analyst ID of latest file update: 09-Nov-2018 19:55 Automation

Sample Name: SSTD0.1 Lab Sample ID: PAHMDL2928

Compound Number	: 221		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 2253		
Retention Time (minutes)	: 15.283		
Quant Ion	: 276.00		
Area	: 9386		
On-column Amount (ng/ul)	: 0.1748		
Integration start scan	: 2244	Integration stop scan:	2273
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 18:12.
Target 3.5 esignature used 11/11/2018



Total Ion Chromatogram (TIC)

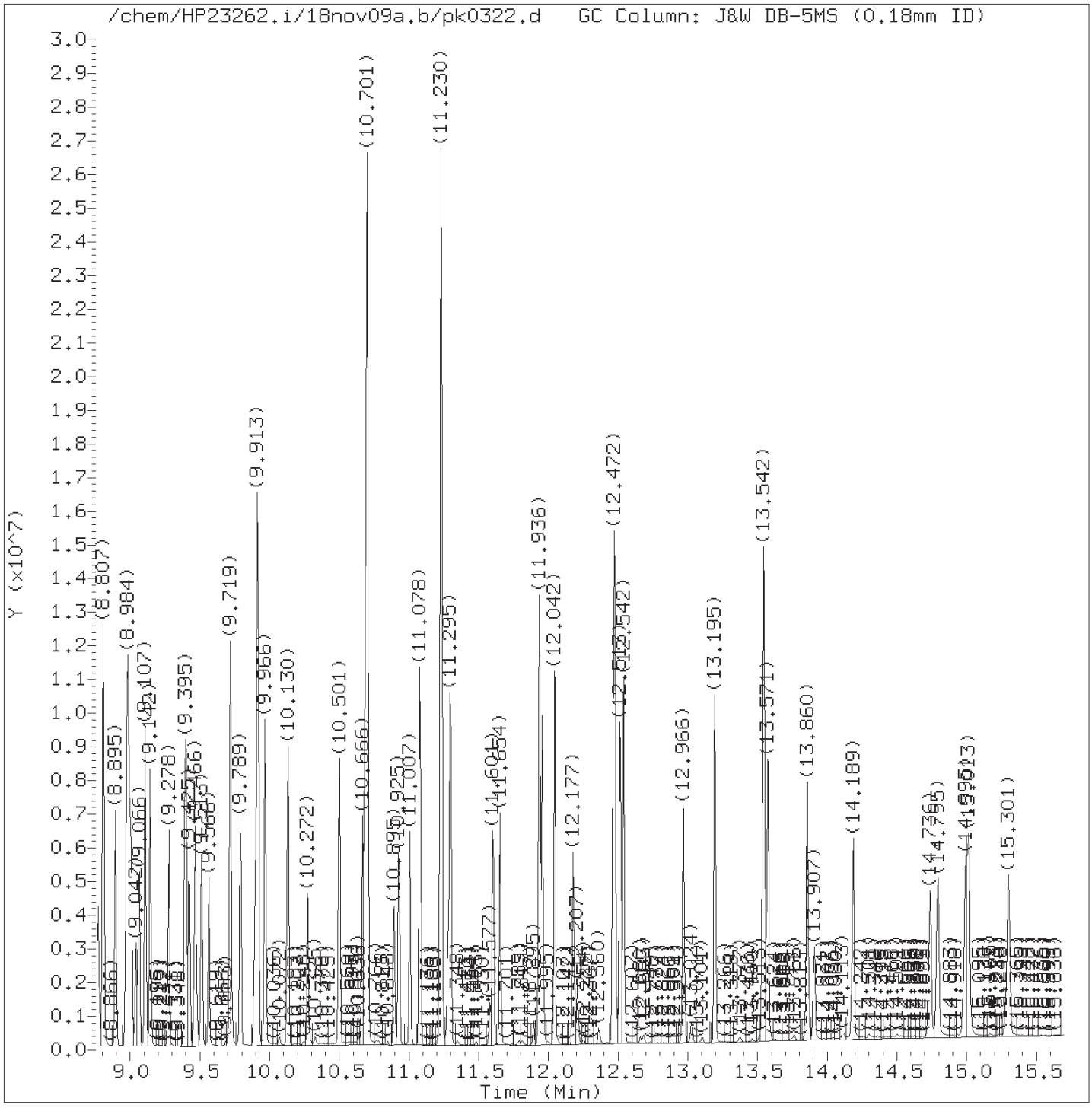
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1)	1,4-Dioxane	(1)	2.225	88	313890	46.565
4)	N-Nitrosodimethylamine	(1)	2.637	74	643351	59.892
5)	Pyridine	(1)	2.684	79	1032559	53.694
7)	2-Picoline	(1)	3.560	93	1099037	55.623
8)	N-Nitrosomethylethylamine	(1)	3.701	88	436020	49.899
9)	Methyl methanesulfonate	(1)	4.037	80	476156	54.671
13)	N-Nitrosodiethylamine	(1)	4.443	102	414430	49.143
15)	Ethyl methanesulfonate	(1)	4.760	109	396858	46.710
18)	Phenol	(1)	5.184	94	1499606	56.789
19)	Aniline	(1)	5.184	93	1521951	51.600
22)	bis(2-Chloroethyl)ether	(1)	5.260	93	1002835	53.743
23)	2-Chlorophenol	(1)	5.296	128	771777	54.281
24)	1,3-Dichlorobenzene	(1)	5.443	146	777460	54.619
25)*	1,4-Dichlorobenzene-d4	(1)	5.501	152	184090	20.000
26)	1,4-Dichlorobenzene	(1)	5.519	146	813906	57.510
27)	Benzyl alcohol	(1)	5.648	108	671303	58.449
42)	Total Cresols	(1)	5.660	100	1977588	112.431
28)	1,2-Dichlorobenzene	(1)	5.660	146	780203	55.153
30)	Indene	(1)	5.748	115	1328427	79.111
31)	2-Methylphenol	(1)	5.772	108	896471	55.457
34)	bis(2-Chloroisopropyl)ether	(1)	5.784	45	1441938	53.052
33)	2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	1441938	53.052
35)	N-Nitrosopyrrolidine	(1)	5.884	100	519847	49.342
36)	Acetophenone	(1)	5.895	105	1355883	55.915
38)	N-Nitroso-di-n-propylamine	(1)	5.907	70	905797	55.931
37)	4-Methylphenol	(1)	5.919	108	1081117	56.861
39)	N-Nitrosomorpholine	(1)	5.925	56	630468	48.486
40)	o-Toluidine	(1)	5.931	106	1500751	55.016
43)	Hexachloroethane	(1)	5.984	117	318219	52.784
45)	Nitrobenzene	(2)	6.060	77	1195680	51.714
48)	N-Nitrosopiperidine	(2)	6.207	114	434325	44.509
50)	Isophorone	(2)	6.295	82	2387364	55.560
51)	2-Nitrophenol	(2)	6.366	139	449981	54.467
53)	2,4-Dimethylphenol	(2)	6.425	107	844105	44.685
57)	O,O,O-Triethylphosphorothioate	(2)	6.495	198	423039	47.070
55)	bis(2-Chloroethoxy)methane	(2)	6.519	93	1400709	54.699
56)	Benzoic acid	(2)	6.560	105	1375918	105.562
60)	2,4-Dichlorophenol	(2)	6.607	162	764648	55.552
62)	1,2,4-Trichlorobenzene	(2)	6.684	180	762753	53.405
65)*	Naphthalene-d8	(2)	6.737	136	825546	20.000

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
66) Naphthalene	(2)	6.754	128	2474892	52.468
67) 4-Chloroaniline	(2)	6.819	127	1092146	57.601
68) 2,6-Dichlorophenol	(2)	6.825	162	643066	47.659
69) Hexachloropropene	(2)	6.842	213	481084	57.931
71) Hexachlorobutadiene	(2)	6.878	225	451959	55.319
75) Quinoline	(2)	7.090	129	1555754	48.372
77) N-Nitrosodi-n-butylamine	(2)	7.154	84	775893	36.736
80) 4-Chloro-3-methylphenol	(2)	7.301	107	976283	55.521
82) Safrole	(2)	7.354	162	637727	49.448
97) Isosafrole	(3)	7.383	162	792504	59.482
83) 2-Methylnaphthalene	(2)	7.431	142	1777915	55.217
84) 1-Methylnaphthalene	(2)	7.525	142	1670512	53.534
85) Hexachlorocyclopentadiene	(3)	7.584	237	924269	113.927
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.595	216	887551	54.602
88) cis-Isosafrole	(3)	7.637	162	90031	6.680
90) 2,4,6-Trichlorophenol	(3)	7.713	196	623513	57.555
92) 2,4,5-Trichlorophenol	(3)	7.742	196	696805	58.681
94) trans-Isosafrole	(3)	7.860	162	702473	52.850
95) 1,1'-Biphenyl	(3)	7.889	154	2308816	56.671
96) 2-Chloronaphthalene	(3)	7.907	162	1725728	52.202
98) 1-Chloronaphthalene	(3)	7.925	162	1550090	48.697
99) Diphenyl ether	(3)	7.995	170	1145741	48.704
100) 2-Nitroaniline	(3)	8.013	138	645190	58.221
120) 2,4_2,6-Dinitrotoluenes	(3)	8.050	165	1242957	114.999
104) 1,4-Naphthoquinone	(3)	8.084	158	906304	64.444
105) 1,4-Dinitrobenzene	(3)	8.154	168	347826	57.440
106) Dimethylphthalate	(3)	8.201	163	2230485	56.560
107) 1,3-Dinitrobenzene	(3)	8.225	168	406547	57.885
108) 2,6-Dinitrotoluene	(3)	8.254	165	542318	57.809
112) 3-Nitroaniline	(3)	8.413	138	567124	58.905
113)*Acenaphthene-d10	(3)	8.442	164	486495	20.000
114) Acenaphthene	(3)	8.478	153	1896715	56.638
116) 4-Nitrophenol	(3)	8.595	109	355768	55.345
117) Pentachlorobenzene	(3)	8.607	250	758951	50.042
119) Dibenzofuran	(3)	8.648	168	2884690	56.542
118) 2,4-Dinitrotoluene	(3)	8.648	165	700639	56.458
121) 1-Naphthylamine	(3)	8.731	143	3776440	107.435
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	526685	52.271
146) Diallate trans/cis	(4)	8.775	86	1186132	48.518
123) 2-Naphthylamine	(3)	8.807	143	3696603	104.792

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
124) Diethylphthalate	(3)	8.895	149	2294392	56.628
125) Thionazin	(3)	8.972	107	378027	51.525
126) Fluorene	(3)	8.984	166	2351876	57.164
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	1212466	54.197
128) 5-Nitro-o-toluidine	(3)	9.001	152	583043	49.348
129) 4-Nitroaniline	(3)	9.013	138	576652	52.416
131) N-Nitrosodiphenylamine	(4)	9.107	169	2080337	57.714
132) NDPA as diphenylamine	(4)	9.107	169	2080337	57.714
134) 1,2-Diphenylhydrazine	(4)	9.142	77	3127822	57.418
137) Tetraethyldithiopyrophosphate	(4)	9.278	97	373152	47.086
139) 1,3,5-Trinitrobenzene	(4)	9.389	213	241412	46.066
140) Diallate (peak 1)	(4)	9.395	86	897622	35.849
141) Phorate	(4)	9.401	75	2271188	56.100
142) Phenacetin	(4)	9.425	108	1117898	46.996
143) 4-Bromophenyl-phenylether	(4)	9.466	248	672846	54.780
144) Diallate (peak 2)	(4)	9.478	86	288510	13.381
145) Hexachlorobenzene	(4)	9.513	284	671985	57.262
147) Dimethoate	(4)	9.566	87	1019207	48.226
150) 4-Aminobiphenyl	(4)	9.719	169	2241507	131.950
151) Pentachloronitrobenzene	(4)	9.719	237	276782	49.442
152) Pronamide	(4)	9.789	173	951139	49.850
153)*Phenanthrene-d10	(4)	9.895	188	1120070	20.000
154) Dinoseb	(4)	9.901	211	539863	49.378
155) Phenanthrene	(4)	9.919	178	3470431	54.565
157) Anthracene	(4)	9.966	178	3593667	55.808
163) Carbazole	(4)	10.130	167	3310006	55.800
164) Methyl parathion	(4)	10.272	109	765069	50.053
165) Di-n-butylphthalate	(4)	10.501	149	4058527	57.351
167) Parathion	(4)	10.666	109	471589	48.854
168) 4-Nitroquinoline-1-oxide	(4)	10.701	190	4931246	807.387
171) Isodrin	(4)	10.925	193	383113	48.420
173) Fluoranthene	(4)	11.078	202	4141898	56.595
174) Benzidine	(5)	11.230	184	10230767	236.212
175)*Pyrene-d10	(5)	11.277	212	1135117	20.000
177) Pyrene	(5)	11.295	202	4186145	54.338
182) p-Dimethylaminoazobenzene	(5)	11.607	225	785191	58.787
185) Chlorobenzilate	(5)	11.654	139	977347	50.911
187) 3,3'-Dimethylbenzidine	(5)	11.936	212	4508573	99.525
188) Butylbenzylphthalate	(5)	11.954	149	1815445	55.633
191) 2-Acetylaminofluorene	(5)	12.177	181	1309380	47.113

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0322.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 19:57 Analyst ID: lmh00956

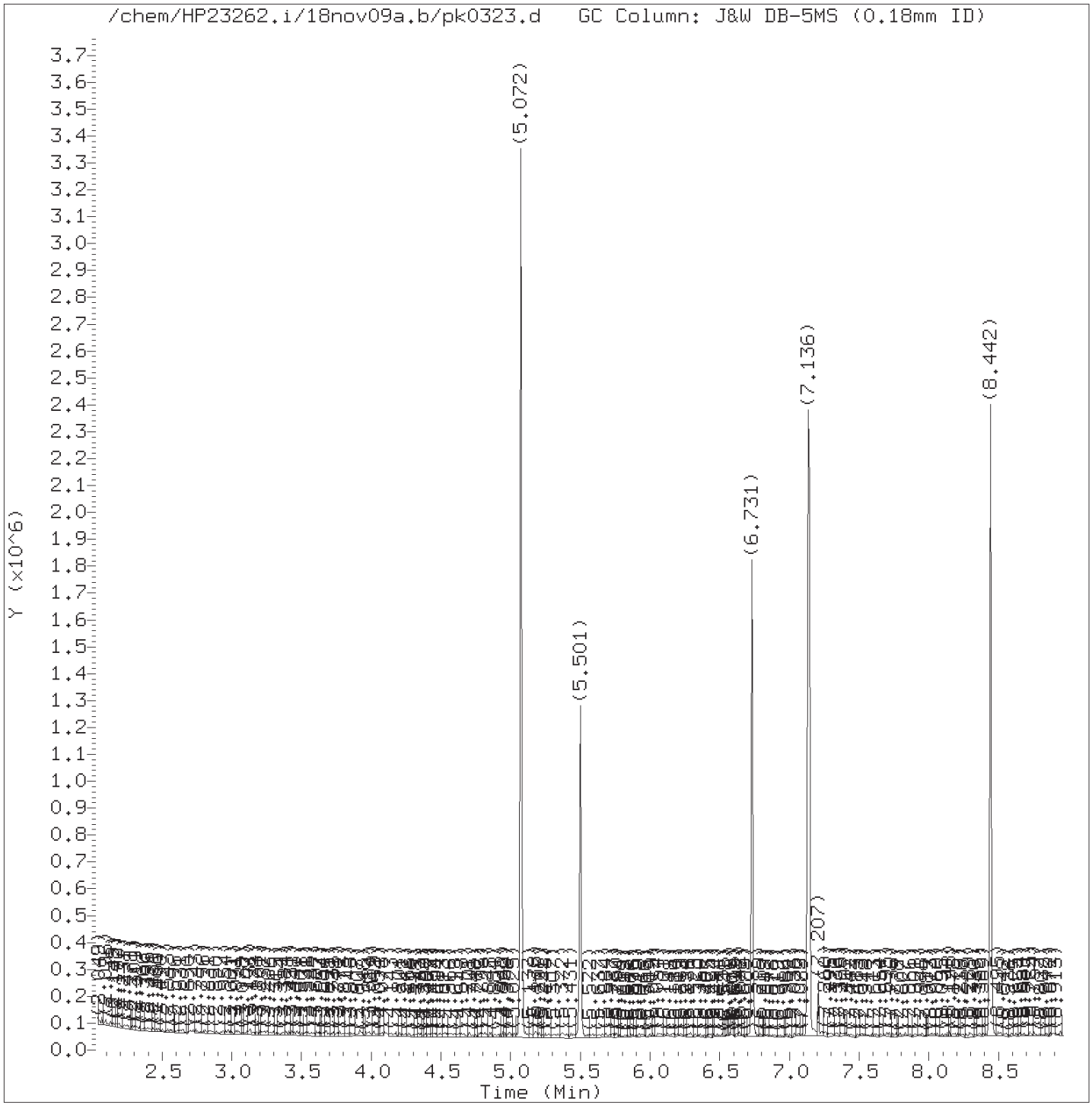
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall1-f
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:17 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2968

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
193) 3,3'-Dichlorobenzidine	(5)	12.466	252	1270499	48.674
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.472	231	691123	49.331
195) Benzo(a)anthracene	(5)	12.477	228	3825010	53.957
196) Chrysene	(5)	12.513	228	3708191	54.383
199) bis(2-Ethylhexyl)phthalate	(5)	12.542	149	2513933	54.442
203) 6-Methylchrysene	(5)	12.972	242	2225008	47.135
205) Di-n-octylphthalate	(6)	13.195	149	4263786	57.456
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.542	256	1739244	58.883
206) Benzo(b)fluoranthene	(6)	13.548	252	3611355	55.386
208) Benzo(k)fluoranthene	(6)	13.577	252	3688638	57.766
211) Benzo(a)pyrene	(6)	13.860	252	3412018	56.941
213)*Perylene-d12	(6)	13.907	264	930982	20.000
215) 3-Methylcholanthrene	(6)	14.189	268	1541836	64.102
217) Dibenz(a,h)acridine	(6)	14.742	279	2295463	49.120
218) Dibenz(a,j)acridine	(6)	14.795	279	2400620	49.703
219) Indeno(1,2,3-cd)pyrene	(6)	14.995	276	3505597	56.579
222) Total PAHs	(6)	15.000	100	53249662	1004.577
220) Dibenz(a,h)anthracene	(6)	15.013	278	3063297	56.903
221) Benzo(g,h,i)perylene	(6)	15.301	276	2871505	54.492

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

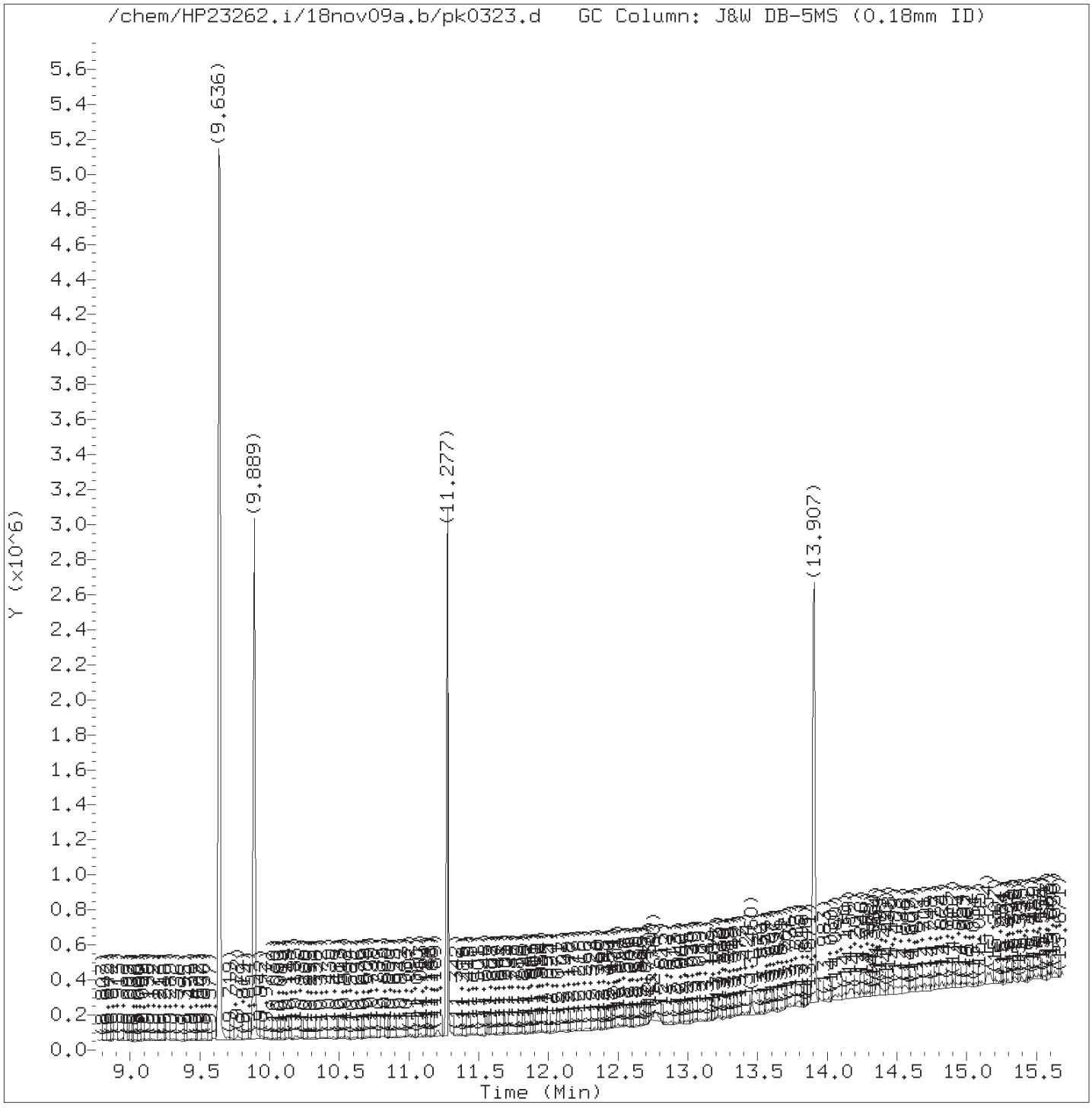
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0323.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 20:20 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: capicvall1
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:05 apb10206

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0323.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 20:20 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: capicvall1
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:05 apb10206

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0323.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 20:20 Analyst ID: lmh00956

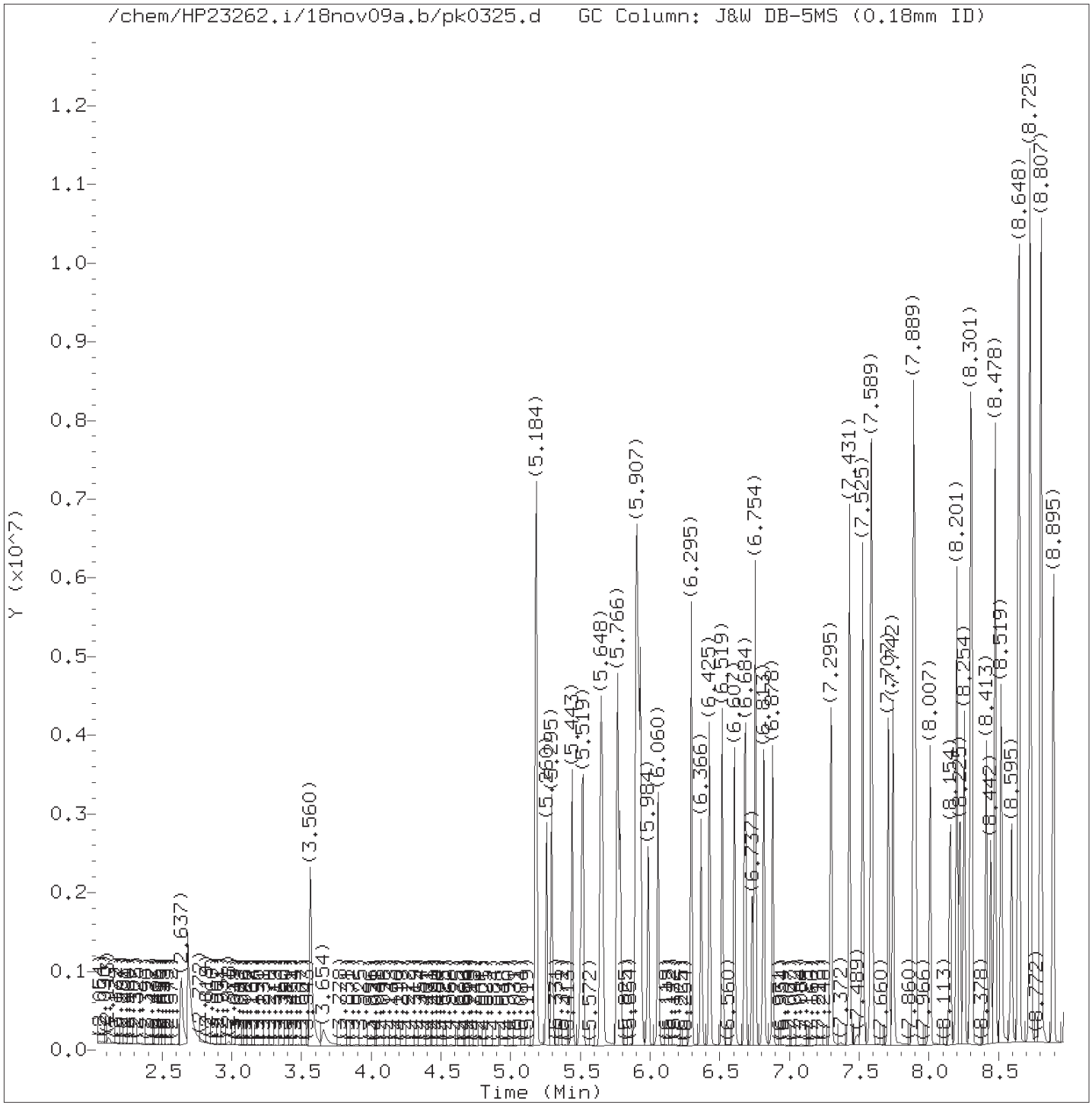
Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: capicvall1
Calibration date and time: 11-NOV-2018 18:01
Date, time and analyst ID of latest file update: 11-Nov-2018 18:05 apb10206

Sample Name: SSTD050 Lab Sample ID: BASICV2578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	158608	20.000
65)*Naphthalene-d8	(2)	6.731	136	697969	20.000
76) Caprolactam	(2)	7.136	113	290644	51.253
113)*Acenaphthene-d10	(3)	8.442	164	416821	20.000
153)*Phenanthrene-d10	(4)	9.889	188	991503	20.000
175)*Pyrene-d10	(5)	11.277	212	1035364	20.000
213)*Perylene-d12	(6)	13.907	264	920723	20.000

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:12.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

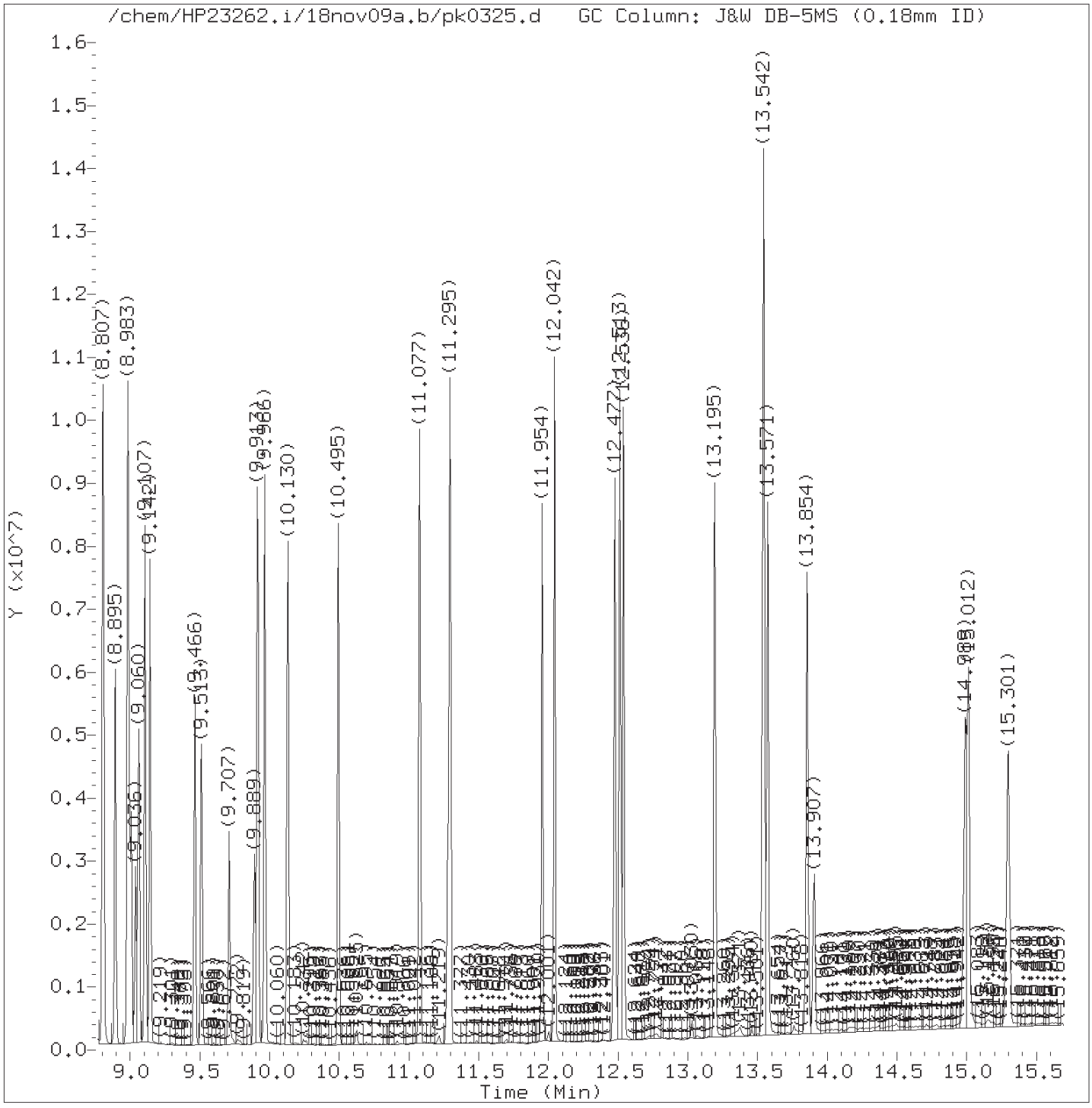
Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0325.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 21:06 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall4
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:18 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2338

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0325.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 21:06 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall4
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:18 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2338

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov09a.b/pk0325.d Instrument ID: HP23262.i
Injection date and time: 09-NOV-2018 21:06 Analyst ID: lmh00956

Method used: /chem/HP23262.i/18nov09a.b/m8270d.m Sublist used: icvall4
Calibration date and time: 11-NOV-2018 18:17
Date, time and analyst ID of latest file update: 11-Nov-2018 18:18 apb10206

Sample Name: SSTD050 Lab Sample ID: ICV2338

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	179020	20.000
65)*Naphthalene-d8	(2)	6.731	136	820182	20.000
109) Acenaphthylene	(3)	8.307	152	2716474	57.919
113)*Acenaphthene-d10	(3)	8.442	164	484327	20.000
115) 2,4-Dinitrophenol	(3)	8.519	184	607338	118.793
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	400286	57.948
149) Pentachlorophenol	(4)	9.707	266	361515	55.367
153)*Phenanthrene-d10	(4)	9.889	188	1079552	20.000
175)*Pyrene-d10	(5)	11.277	212	1109790	20.000
213)*Perylene-d12	(6)	13.907	264	962318	20.000

* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 18:19.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP23262.i/18nov11.b/pk0360d.d

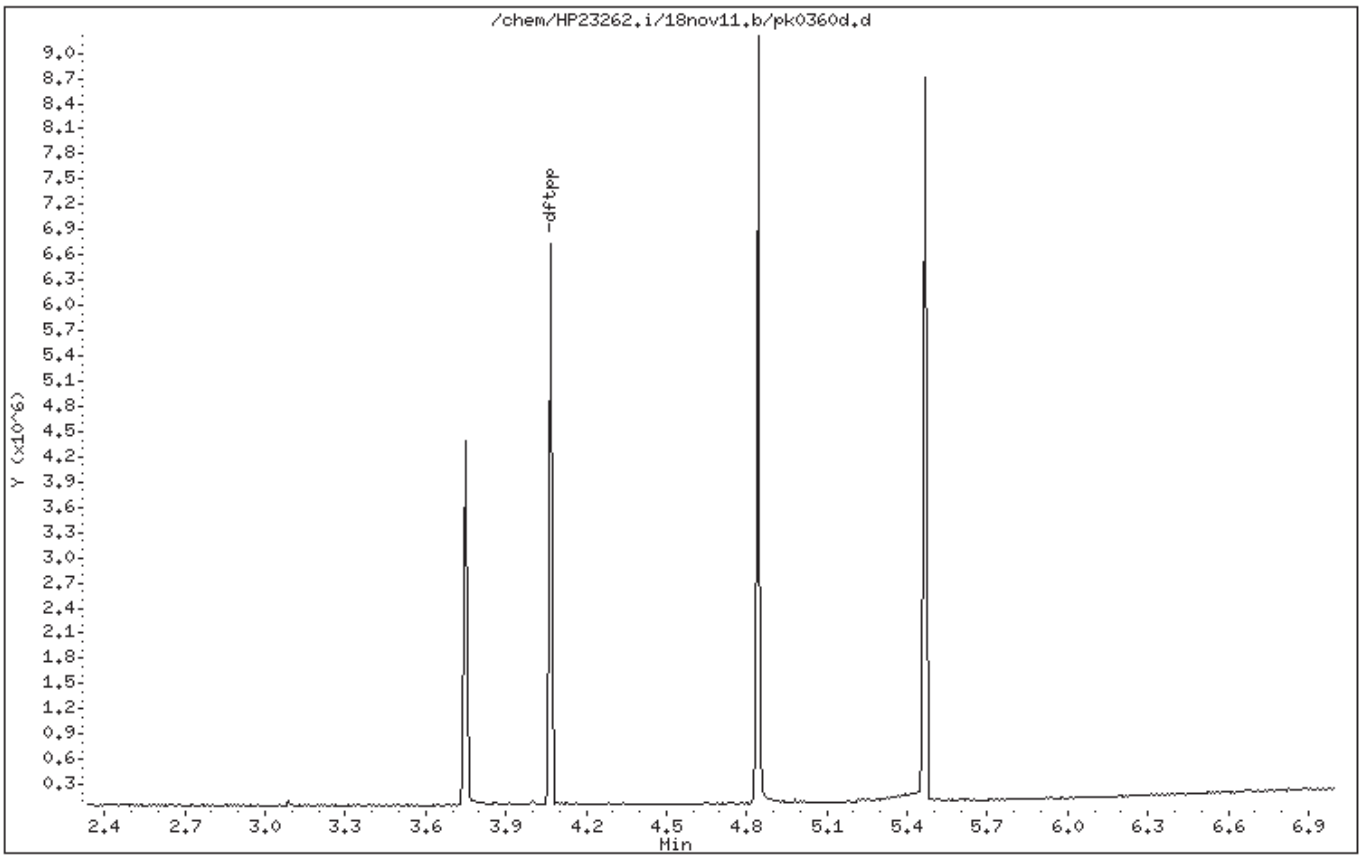
Date : 11-NOV-2018 20:44

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP23262.i/18nov11.b/pk0360d.d

Date : 11-NOV-2018 20:44

Client ID: DFTPP050

Instrument: HP23262.i

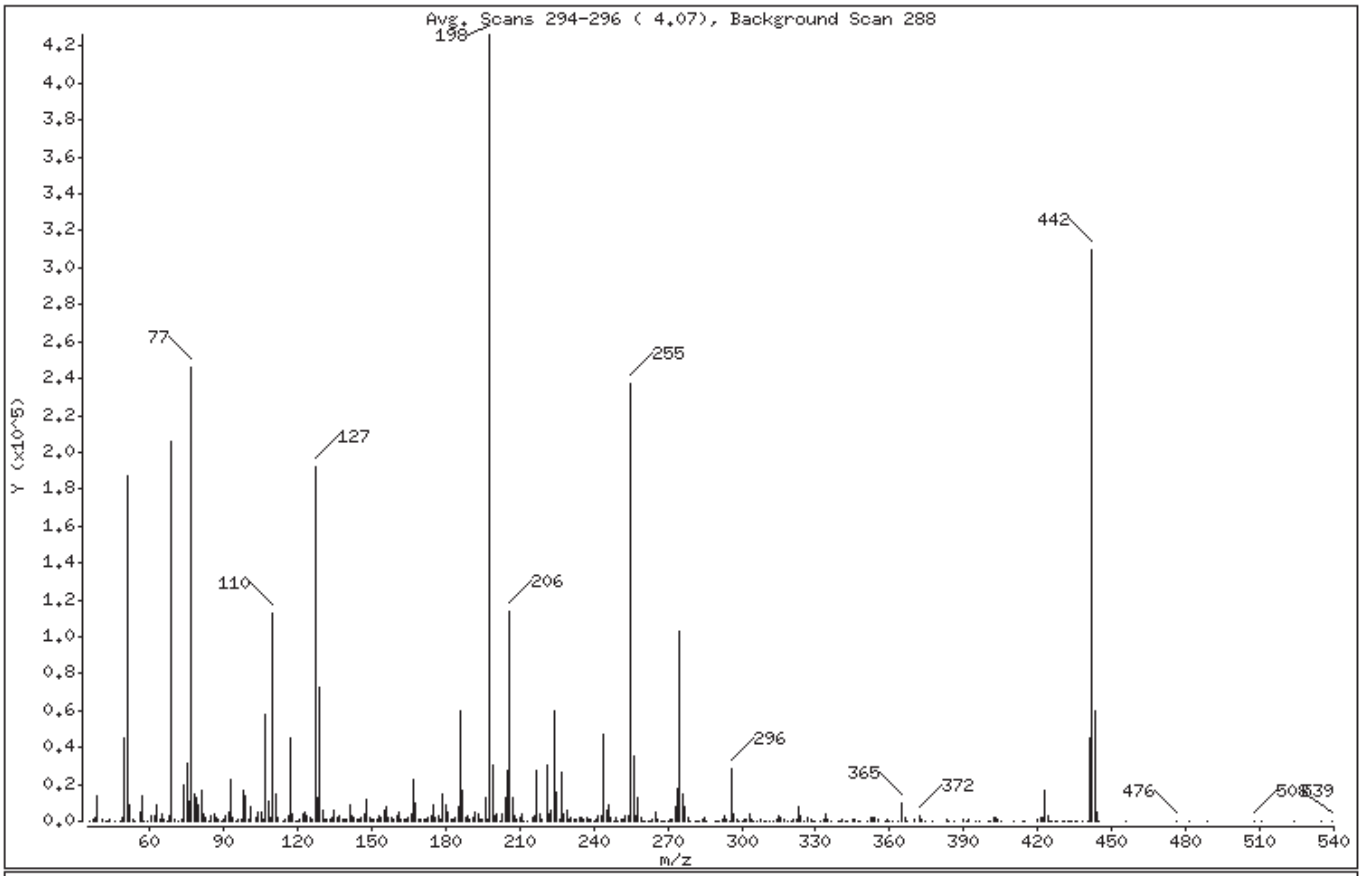
Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.81
68	Less than 2.00% of mass 69	0.78 (1.61)
69	Mass 69 relative abundance	48.29
70	Less than 2.00% of mass 69	0.32 (0.67)
127	10.00 - 80.00% of mass 198	45.05
197	Less than 2.00% of mass 198	0.27
199	5.00 - 9.00% of mass 198	7.11
275	10.00 - 60.00% of mass 198	24.15
365	Greater than 1.00% of mass 198	2.40
441	0.01 - 24.00% of mass 442	10.65 (14.67)
442	50.00 - 99.99% of mass 198	72.55
443	15.00 - 24.00% of mass 442	13.94 (19.22)

Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Date : 11-NOV-2018 20:44

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: pk0360d.d
Spectrum: Avg. Scans 294-296 (4.07), Background Scan 288
Location of Maximum: 198.00
Number of points: 359

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	231	134.00	2295	226.00	1224	322.00	574
37.00	1064	135.00	5829	227.00	26528	323.00	7660
38.00	2021	136.00	1728	228.00	3895	324.00	2496
39.00	13663	137.00	2646	229.00	5678	325.00	253
41.00	1193	138.00	1230	230.00	627	327.00	1856
42.00	125	139.00	571	231.00	1934	328.00	751
43.00	52	140.00	972	232.00	829	329.00	426
44.00	979	141.00	8921	233.00	852	330.00	198
46.00	225	142.00	2785	234.00	1741	332.00	473
48.00	245	143.00	1758	235.00	2445	333.00	683
49.00	1684	144.00	1065	236.00	1074	334.00	4066
50.00	45248	145.00	781	237.00	2180	335.00	1404
51.00	186752	146.00	1769	238.00	519	336.00	261
52.00	8597	147.00	3888	239.00	1417	339.00	169
53.00	524	148.00	11673	240.00	255	340.00	316
54.00	222	149.00	2087	241.00	1302	341.00	1211
56.00	5188	150.00	515	242.00	3324	342.00	265
57.00	13885	151.00	828	243.00	3151	343.00	149
58.00	49	152.00	937	244.00	46984	345.00	599
59.00	282	153.00	3234	245.00	5643	346.00	1111
61.00	3016	154.00	2438	246.00	8507	347.00	292
62.00	2602	155.00	6087	247.00	1957	348.00	127
63.00	8504	156.00	7937	248.00	471	351.00	55
64.00	993	157.00	1492	249.00	1818	352.00	2280
65.00	4128	158.00	1804	250.00	437	353.00	1558
66.00	627	159.00	1120	251.00	646	354.00	2176
67.00	90	160.00	2518	252.00	680	355.00	529
68.00	3317	161.00	4856	253.00	2496	358.00	139
69.00	205824	162.00	760	254.00	2870	359.00	633
70.00	1374	163.00	511	255.00	237568	360.00	225
72.00	332	164.00	661	256.00	35536	361.00	308
73.00	1351	165.00	2393	257.00	2827	363.00	97
74.00	19168	166.00	3523	258.00	12929	365.00	10215
75.00	30928	167.00	22920	259.00	1566	366.00	1583
76.00	10543	168.00	10072	260.00	463	367.00	263

Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Date : 11-NOV-2018 20:44

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: pk0360d.d
Spectrum: Avg. Scans 294-296 (4.07), Background Scan 288
Location of Maximum: 198.00
Number of points: 359

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	245568	169.00	1375	261.00	322	370.00	593
78.00	15161	170.00	719	262.00	67	372.00	3307
79.00	13222	171.00	1341	263.00	61	373.00	1154
80.00	9308	172.00	1434	264.00	814	374.00	291
81.00	16536	173.00	1771	265.00	5138	377.00	461
82.00	4126	174.00	3391	266.00	923	383.00	1419
83.00	2344	175.00	8667	267.00	416	384.00	445
84.00	468	176.00	2410	268.00	467	386.00	126
85.00	3035	177.00	3357	269.00	350	390.00	595
86.00	4311	178.00	1215	270.00	483	391.00	255
87.00	2446	179.00	15183	271.00	648	392.00	494
88.00	1031	180.00	8334	272.00	625	395.00	62
89.00	366	181.00	4762	273.00	7800	396.00	165
90.00	647	182.00	1125	274.00	17576	400.00	167
91.00	2691	183.00	1002	275.00	102936	401.00	288
92.00	4742	184.00	1680	276.00	14309	402.00	1580
93.00	22984	185.00	7966	277.00	7572	403.00	2126
94.00	1818	186.00	60024	278.00	2097	404.00	1124
95.00	307	187.00	16720	279.00	78	405.00	242
96.00	1054	188.00	1716	281.00	13	410.00	119
97.00	585	189.00	3179	282.00	393	414.00	180
98.00	16512	190.00	913	283.00	457	415.00	166
99.00	13676	191.00	1711	284.00	1011	420.00	562
100.00	787	192.00	4978	285.00	1768	421.00	2078
101.00	7494	193.00	3802	286.00	393	422.00	1645
103.00	2061	194.00	1387	289.00	462	423.00	16576
104.00	4885	195.00	1305	290.00	313	424.00	2790
105.00	4429	196.00	12513	291.00	400	425.00	470
106.00	1350	197.00	1134	292.00	534	426.00	428
107.00	57712	198.00	426304	293.00	2703	427.00	398
108.00	10903	199.00	30312	294.00	521	428.00	181
109.00	1518	200.00	2497	295.00	378	430.00	349
110.00	112960	201.00	4134	296.00	28264	431.00	258
111.00	14987	202.00	438	297.00	3628	432.00	333
112.00	1495	203.00	3873	298.00	720	433.00	482

Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Date : 11-NOV-2018 20:44

Client ID: DFTPP050 Instrument: HP23262.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

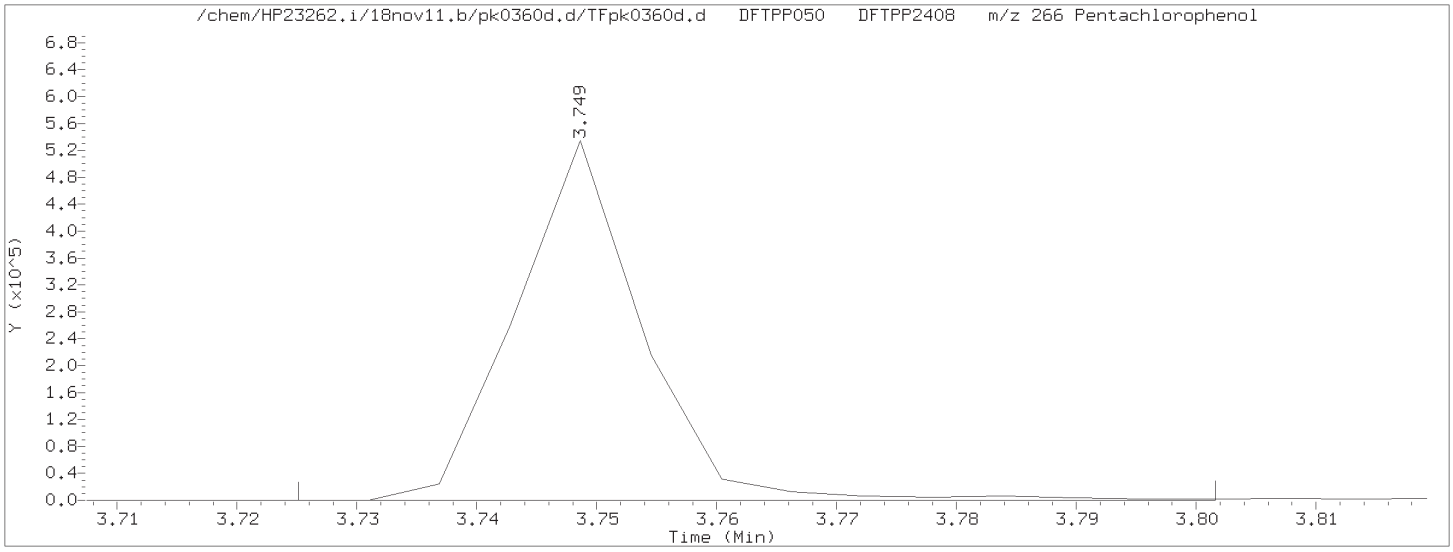
Data File: pk0360d.d
Spectrum: Avg. Scans 294-296 (4.07), Background Scan 288
Location of Maximum: 198.00
Number of points: 359

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	103	204.00	13007	299.00	69	434.00	138
115.00	669	205.00	27200	300.00	203	435.00	268
116.00	3286	206.00	113856	301.00	543	436.00	191
117.00	45440	207.00	12284	302.00	691	438.00	94
118.00	3536	208.00	3330	303.00	3513	440.00	74
119.00	193	209.00	1467	304.00	1438	441.00	45384
120.00	394	210.00	1518	305.00	244	442.00	309248
121.00	772	211.00	3749	306.00	187	443.00	59432
122.00	3505	212.00	464	308.00	492	444.00	5028
123.00	4442	213.00	394	309.00	177	445.00	249
124.00	2479	215.00	1691	310.00	122	456.00	74
125.00	2149	216.00	2811	311.00	52	476.00	93
126.00	1434	217.00	27888	313.00	422	481.00	57
127.00	192000	218.00	3580	314.00	1443	489.00	53
128.00	13222	219.00	916	315.00	2665	508.00	151
129.00	72224	221.00	30496	316.00	1795	511.00	51
130.00	5781	222.00	3458	317.00	718	524.00	95
131.00	584	223.00	5899	319.00	180	535.00	62
132.00	1141	224.00	59840	320.00	413	539.00	109
133.00	492	225.00	15575	321.00	842		

Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

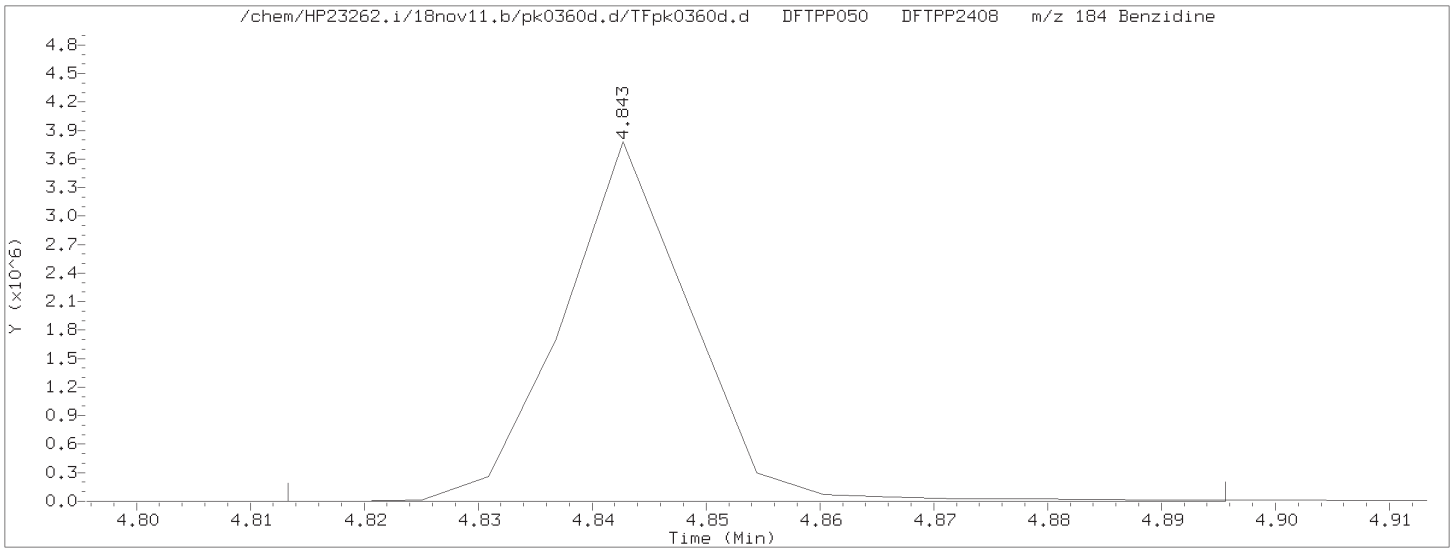
Instrument ID: HP23262.i Injection Date: 11-NOV-2018 20:44 Operator: apb10206



Pentachlorophenol EICP peak height = 534592 EICP peak height at 10% = 53459 Pentachlorophenol EICP area = 388189

Pentachlorophenol EICP peak apex (min.) = 3.749
RT at 10% of front half of EICP (min.) = 3.738 'Front' peak width (min.) = 0.0110000000
RT at 10% of back half of EICP (min.) = 3.760 'Tailing' peak width (min.) = 0.0110500000

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0110500000}{0.0110000000} = 1.005$



Benzidine EICP peak height = 3784585 EICP peak height at 10% = 378458 Benzidine EICP area = 2922893

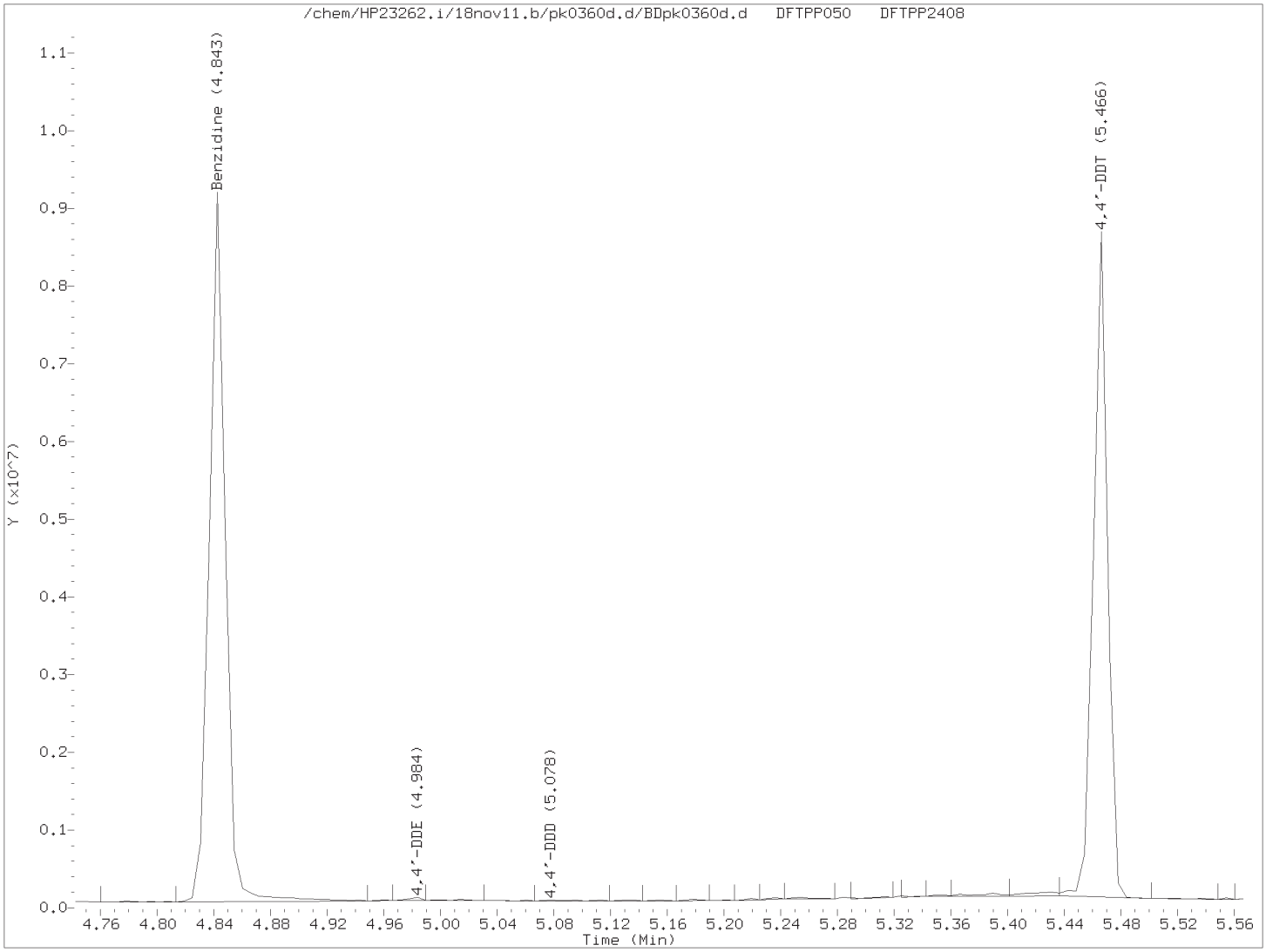
Benzidine EICP peak apex (min.) = 4.843
RT at 10% of front half of EICP (min.) = 4.831 'Front' peak width (min.) = 0.0112666667
RT at 10% of back half of EICP (min.) = 4.854 'Tailing' peak width (min.) = 0.0114666667

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0114666667}{0.0112666667} = 1.018$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:32. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

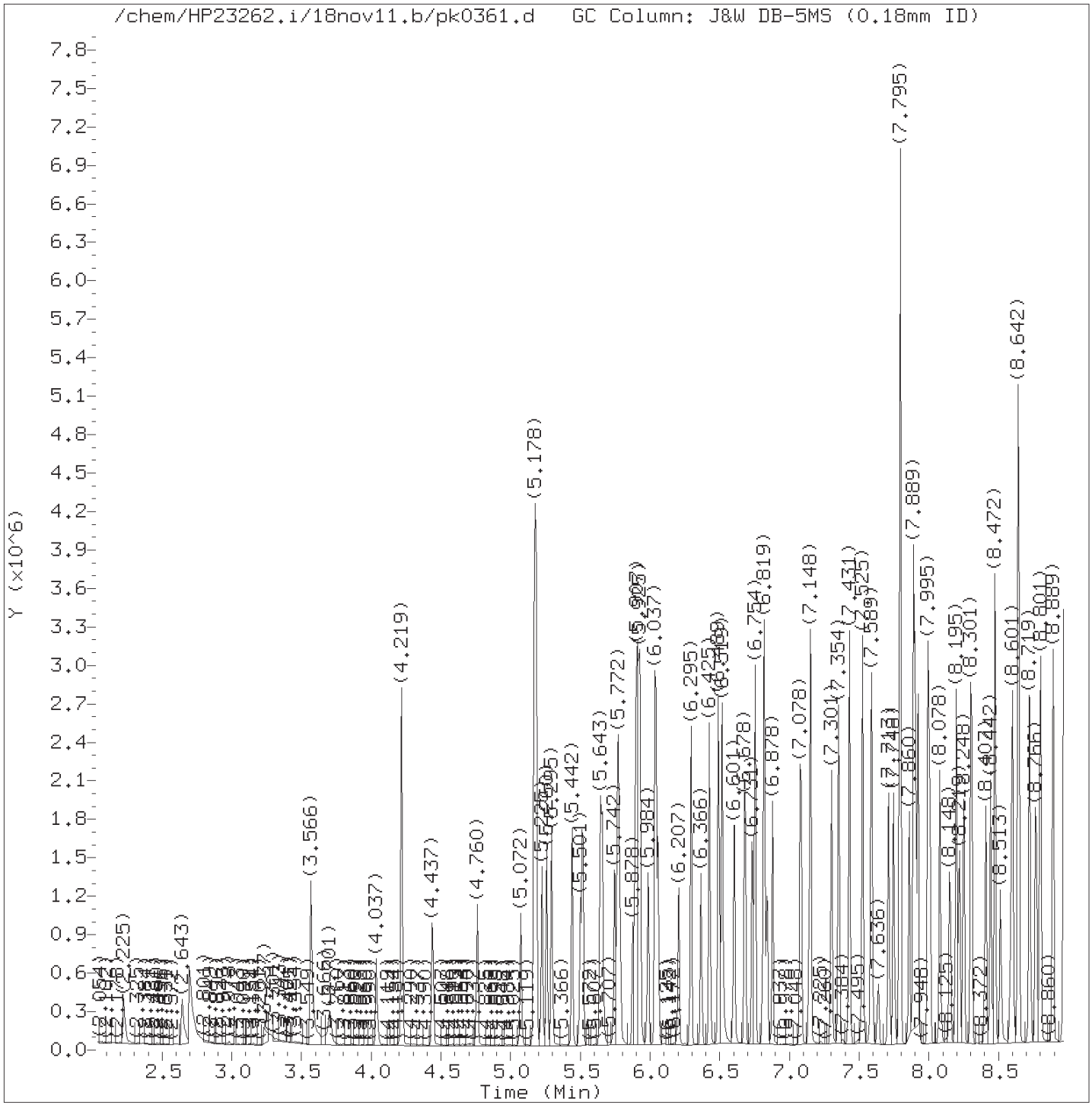
Instrument ID: HP23262.i Injection Date: 11-NOV-2018 20:44 Operator: apb10206



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{25283 + 25592}{25283 + 25592 + 5919329} \times 100 = 0.9$$

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:32. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

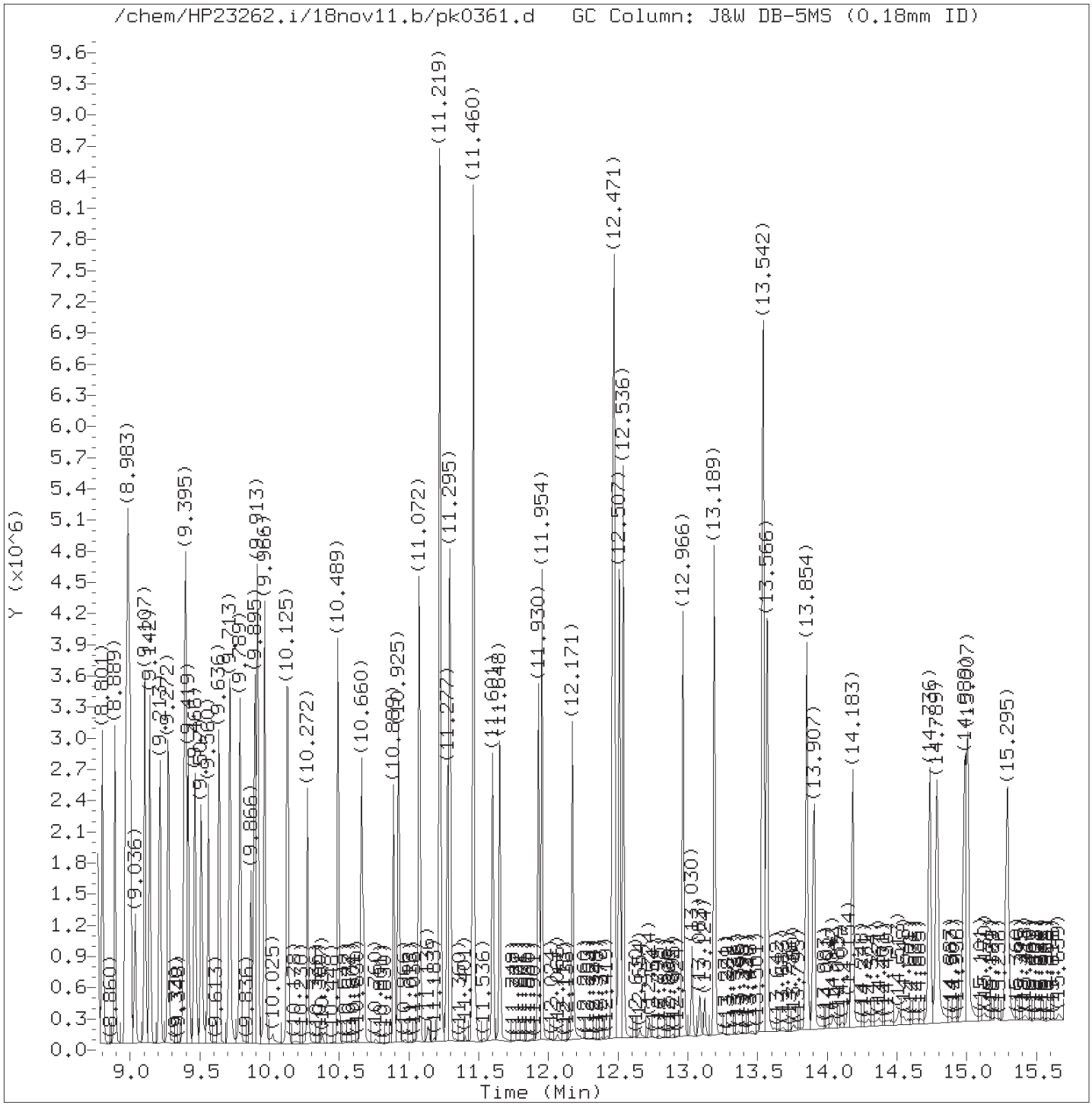
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.225	88	167549	30.743
4) N-Nitrosodimethylamine	(1)	2.643	74	278095M	32.020
5) Pyridine	(1)	2.702	79	471195	30.306
7) 2-Picoline	(1)	3.566	93	484133	30.306
8) N-Nitrosomethylethylamine	(1)	3.701	88	222242	31.458
9) Methyl methanesulfonate	(1)	4.037	80	219109	31.116
11)$2-Fluorophenol	(1)	4.219	112	705105	61.882
13) N-Nitrosodiethylamine	(1)	4.437	102	210737	30.908
15) Ethyl methanesulfonate	(1)	4.760	109	211175	30.742
17)$Phenol-d6	(1)	5.166	99	1107199	61.669
18) Phenol	(1)	5.184	94	631829	29.594
19) Aniline	(1)	5.184	93	729285	30.582
22) bis(2-Chloroethyl)ether	(1)	5.260	93	464866	30.813
23) 2-Chlorophenol	(1)	5.295	128	353010	30.709
24) 1,3-Dichlorobenzene	(1)	5.442	146	358588	31.158
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	148838	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	351305	30.702
27) Benzyl alcohol	(1)	5.643	108	281810	30.348
42) Total Cresols	(1)			863859	60.745
28) 1,2-Dichlorobenzene	(1)	5.660	146	346420	30.289
30) Indene	(1)	5.742	115	420447	30.969
31) 2-Methylphenol	(1)	5.766	108	398646	30.502
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.778	45	680949	30.987
34) bis(2-Chloroisopropyl)ether	(1)	5.778	45	680949	30.987
35) N-Nitrosopyrrolidine	(1)	5.878	100	246226	28.906
36) Acetophenone	(1)	5.895	105	602165	30.714
38) N-Nitroso-di-n-propylamine	(1)	5.907	70	386965	29.554
37) 4-Methylphenol	(1)	5.913	108	465213	30.263
39) N-Nitrosomorpholine	(1)	5.919	56	317501	30.200
40) o-Toluidine	(1)	5.931	106	662453	30.037
43) Hexachloroethane	(1)	5.984	117	148268	30.419
44)$Nitrobenzene-d5	(2)	6.037	82	1036774	61.996
45) Nitrobenzene	(2)	6.054	77	541283	29.962
48) N-Nitrosopiperidine	(2)	6.207	114	215483	28.262
50) Isophorone	(2)	6.295	82	1005527	29.950
51) 2-Nitrophenol	(2)	6.366	139	199809	30.953
53) 2,4-Dimethylphenol	(2)	6.425	107	440999	29.878
57) O,O,O-Triethylphosphorothioate	(2)	6.489	198	216930	30.891
55) bis(2-Chloroethoxy)methane	(2)	6.519	93	617104	30.842
56) Benzoic acid	(2)	6.519	105	363489	35.691

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
60) 2,4-Dichlorophenol	(2)	6.607	162	312569	29.063
62) 1,2,4-Trichlorobenzene	(2)	6.678	180	344191	30.843
65)*Naphthalene-d8	(2)	6.731	136	645044	20.000
66) Naphthalene	(2)	6.754	128	1083640	29.402
67) 4-Chloroaniline	(2)	6.813	127	460074	31.055
68) 2,6-Dichlorophenol	(2)	6.819	162	311342	29.531
69) Hexachloropropene	(2)	6.842	213	195585	30.143
71) Hexachlorobutadiene	(2)	6.878	225	207784	32.549
75) Quinoline	(2)	7.084	129	758822	30.196
76) Caprolactam	(2)	7.148	113	154957	29.568
77) N-Nitrosodi-n-butylamine	(2)	7.154	84	485277	29.406
80) 4-Chloro-3-methylphenol	(2)	7.301	107	392974	28.602
82) Safrole	(2)	7.354	162	303225	30.091
97) Isosafrole	(3)			327194	31.421
83) 2-Methylnaphthalene	(2)	7.431	142	789322	31.374
84) 1-Methylnaphthalene	(2)	7.525	142	730835	29.975
85) Hexachlorocyclopentadiene	(3)	7.584	237	207153	32.670
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.589	216	406649	32.008
88) cis-Isosafrole	(3)	7.636	162	53633	5.092
90) 2,4,6-Trichlorophenol	(3)	7.713	196	261296	30.860
92) 2,4,5-Trichlorophenol	(3)	7.748	196	284651	30.671
93)$2-Fluorobiphenyl	(3)	7.795	172	1869339	63.806
94) trans-Isosafrole	(3)	7.860	162	273561	26.333
95) 1,1'-Biphenyl	(3)	7.889	154	966932	30.366
96) 2-Chloronaphthalene	(3)	7.901	162	798620	30.909
98) 1-Chloronaphthalene	(3)	7.925	162	733573	29.486
99) Diphenyl ether	(3)	7.995	170	561608	30.545
100) 2-Nitroaniline	(3)	8.007	138	265295	30.630
120) 2,4_2,6-Dinitrotoluenes	(3)			526592	62.336
104) 1,4-Naphthoquinone	(3)	8.078	158	348749	31.728
105) 1,4-Dinitrobenzene	(3)	8.154	168	150138	31.723
106) Dimethylphthalate	(3)	8.195	163	956597	31.036
107) 1,3-Dinitrobenzene	(3)	8.219	168	162244	29.557
108) 2,6-Dinitrotoluene	(3)	8.254	165	223337	30.460
109) Acenaphthylene	(3)	8.301	152	1128879	30.658
112) 3-Nitroaniline	(3)	8.407	138	236414	31.418
113)*Acenaphthene-d10	(3)	8.442	164	380233	20.000
114) Acenaphthene	(3)	8.472	153	812421	31.040
115) 2,4-Dinitrophenol	(3)	8.513	184	158089	39.387
116) 4-Nitrophenol	(3)	8.589	109	151035	30.062

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
117) Pentachlorobenzene	(3)	8.601	250	356530	30.078
119) Dibenzofuran	(3)	8.642	168	1234030	30.947
118) 2,4-Dinitrotoluene	(3)	8.642	165	303255	31.266
121) 1-Naphthylamine	(3)	8.725	143	862240	31.385
122) 2,3,4,6-Tetrachlorophenol	(3)	8.772	232	242389	30.779
146) Diallate trans/cis	(4)			583581	30.803
123) 2-Naphthylamine	(3)	8.801	143	868391	31.497
124) Diethylphthalate	(3)	8.889	149	966937	30.535
125) Thionazin	(3)	8.966	107	180675	31.508
126) Fluorene	(3)	8.978	166	989297	30.765
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	523313	29.929
128) 5-Nitro-o-toluidine	(3)	8.995	152	302536	32.762
129) 4-Nitroaniline	(3)	9.001	138	264783	30.794
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	174725	31.459
132) NDPA as diphenylamine	(4)	9.107	169	866539	31.021
131) N-Nitrosodiphenylamine	(4)	9.107	169	866539	31.021
134) 1,2-Diphenylhydrazine	(4)	9.142	77	1270414	30.094
135)$2,4,6-Tribromophenol	(3)	9.213	330	232201	61.066
137) Tetraethyldithiopyrophosphate	(4)	9.272	97	191434	31.171
139) 1,3,5-Trinitrobenzene	(4)	9.378	213	122517	30.167
140) Diallate (peak 1)	(4)	9.389	86	499436	25.739
141) Phorate	(4)	9.401	75	776627	24.754
142) Phenacetin	(4)	9.419	108	554223	30.065
143) 4-Bromophenyl-phenylether	(4)	9.466	248	304828	32.025
144) Diallate (peak 2)	(4)	9.478	86	84145	5.036
145) Hexachlorobenzene	(4)	9.513	284	288336	31.705
147) Dimethoate	(4)	9.560	87	500026	30.530
149) Pentachlorophenol	(4)	9.707	266	160651	30.601
150) 4-Aminobiphenyl	(4)	9.719	169	398892	30.300
151) Pentachloronitrobenzene	(4)	9.719	237	140435	32.371
152) Pronamide	(4)	9.789	173	461018	31.179
153)*Phenanthrene-d10	(4)	9.889	188	868007	20.000
154) Dinoseb	(4)	9.901	211	250362	29.549
155) Phenanthrene	(4)	9.913	178	1504124	30.516
157) Anthracene	(4)	9.966	178	1566126	31.384
163) Carbazole	(4)	10.130	167	1412266	30.722
164) Methyl parathion	(4)	10.272	109	382124	32.260
165) Di-n-butylphthalate	(4)	10.489	149	1724036	31.437
167) Parathion	(4)	10.660	109	224236	29.975
168) 4-Nitroquinoline-1-oxide	(4)	10.677	190	137347	29.018

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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
169) Octachlorostyrene	(4)	10.889	308	103741	29.025
171) Isodrin	(4)	10.925	193	184702	30.122
173) Fluoranthene	(4)	11.072	202	1830080	32.268
174) Benzidine	(5)	11.224	184	3539145	103.266
175)*Pyrene-d10	(5)	11.277	212	898203	20.000
177) Pyrene	(5)	11.295	202	1856668	30.457
179)$Terphenyl-d14	(5)	11.460	244	2489712	64.983
182) p-Dimethylaminoazobenzene	(5)	11.601	225	316639	29.959
185) Chlorobenzilate	(5)	11.648	139	463408	30.506
187) 3,3'-Dimethylbenzidine	(5)	11.930	212	1152115	32.141
188) Butylbenzylphthalate	(5)	11.954	149	812238	31.456
191) 2-Acetylaminofluorene	(5)	12.171	181	660346	30.027
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	647000	31.325
198) 4,4'-Methylenebis(2-chloroanil	(5)	12.466	231	345971	31.208
195) Benzo(a)anthracene	(5)	12.471	228	1780557	31.742
196) Chrysene	(5)	12.513	228	1747011	32.379
199) bis(2-Ethylhexyl)phthalate	(5)	12.536	149	1121279	30.687
203) 6-Methylchrysene	(5)	12.966	242	1168174	31.274
205) Di-n-octylphthalate	(6)	13.189	149	1941319	30.871
207) 7,12-Dimethylbenz[a]anthracene	(6)	13.536	256	783558	31.305
206) Benzo(b)fluoranthene	(6)	13.542	252	1626560	29.438
208) Benzo(k)fluoranthene	(6)	13.571	252	1755248	32.438
211) Benzo(a)pyrene	(6)	13.854	252	1562537	30.772
213)*Perylene-d12	(6)	13.907	264	788919	20.000
215) 3-Methylcholanthrene	(6)	14.183	268	626057	30.715
217) Dibenz(a,h)acridine	(6)	14.736	279	1194155	30.155
218) Dibenz(a,j)acridine	(6)	14.789	279	1247352	30.476
219) Indeno(1,2,3-cd)pyrene	(6)	14.983	276	1637172	31.181
222) Total PAHs	(6)			25201546	561.051
220) Dibenz(a,h)anthracene	(6)	15.007	278	1406649	30.835
221) Benzo(g,h,i)perylene	(6)	15.295	276	1394420	31.227

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$ = Compound is a surrogate standard.

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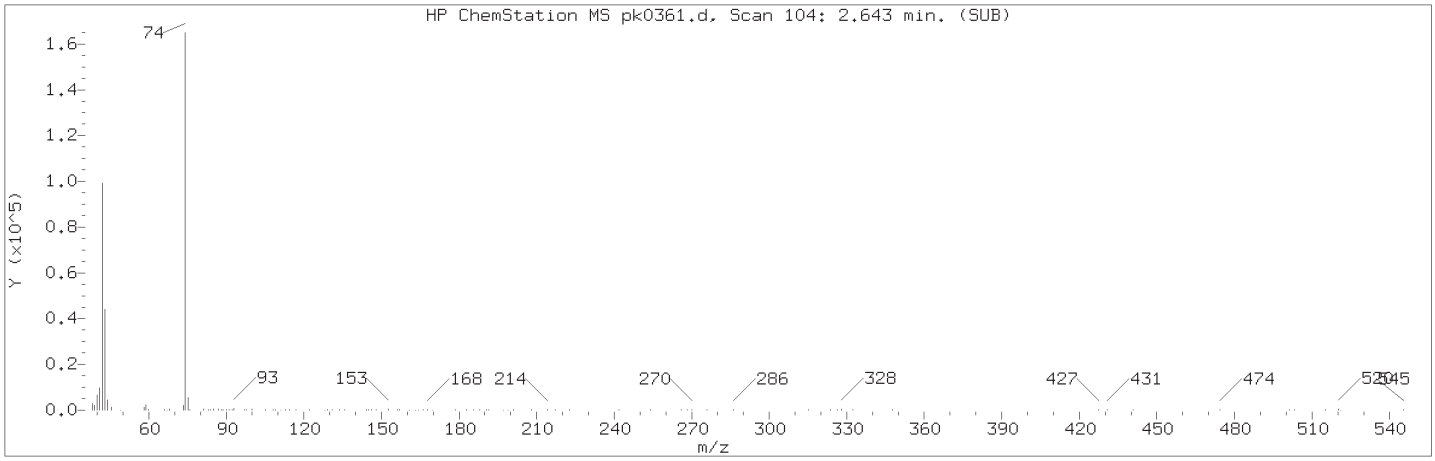
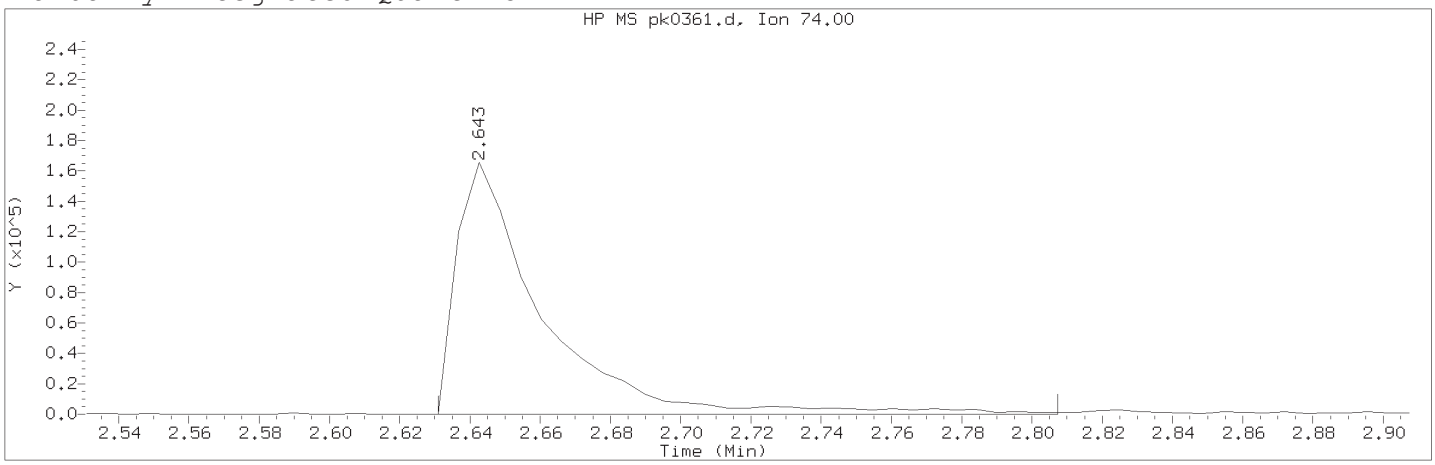
on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:46
Date, time and analyst ID of latest file update: 11-Nov-2018 21:46 apb10206

Sample Name: SSTD030 Lab Sample ID: STD2928

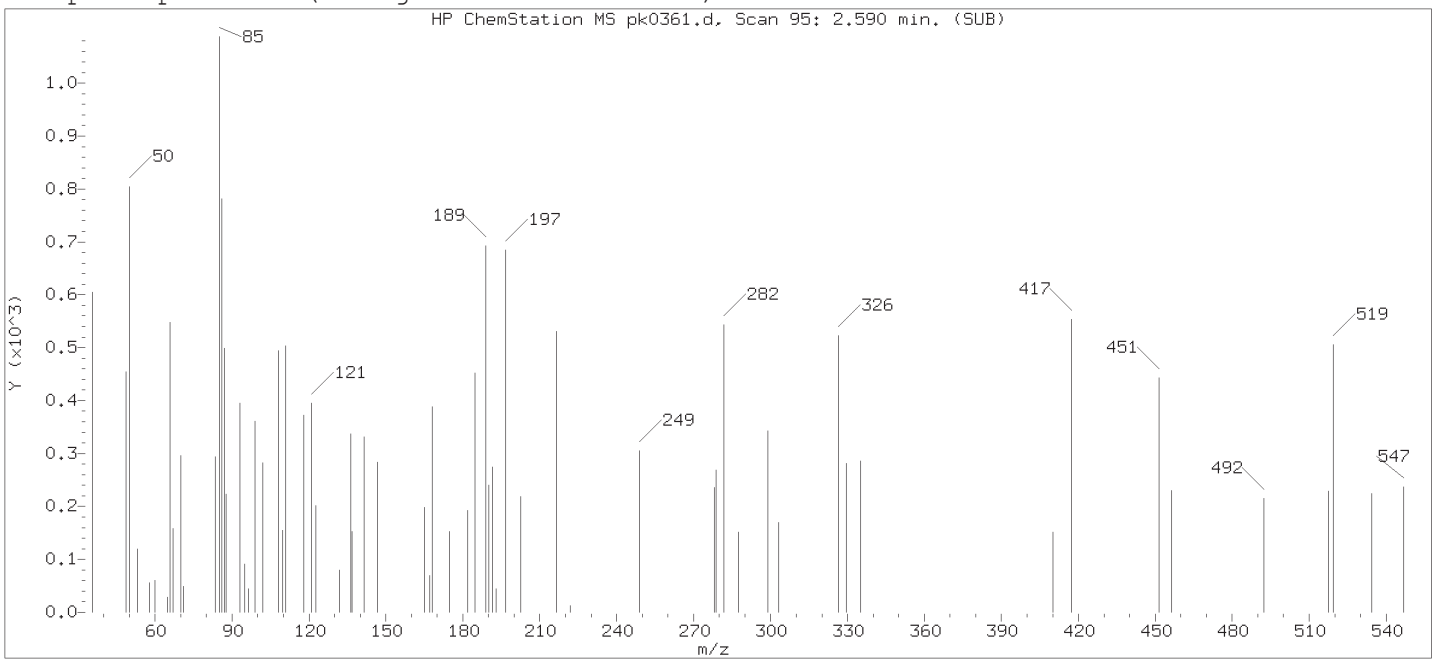
Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 104		
Retention Time (minutes)	: 2.643		
Quant Ion	: 74.00		
Area (flag)	: 278095M		
On-Column Amount (ng/ul)	: 32.0205		
Integration start scan	: 101	Integration stop scan:	131
Y at integration start	: 172	Y at integration end:	172

Reason for manual integration: improper integration

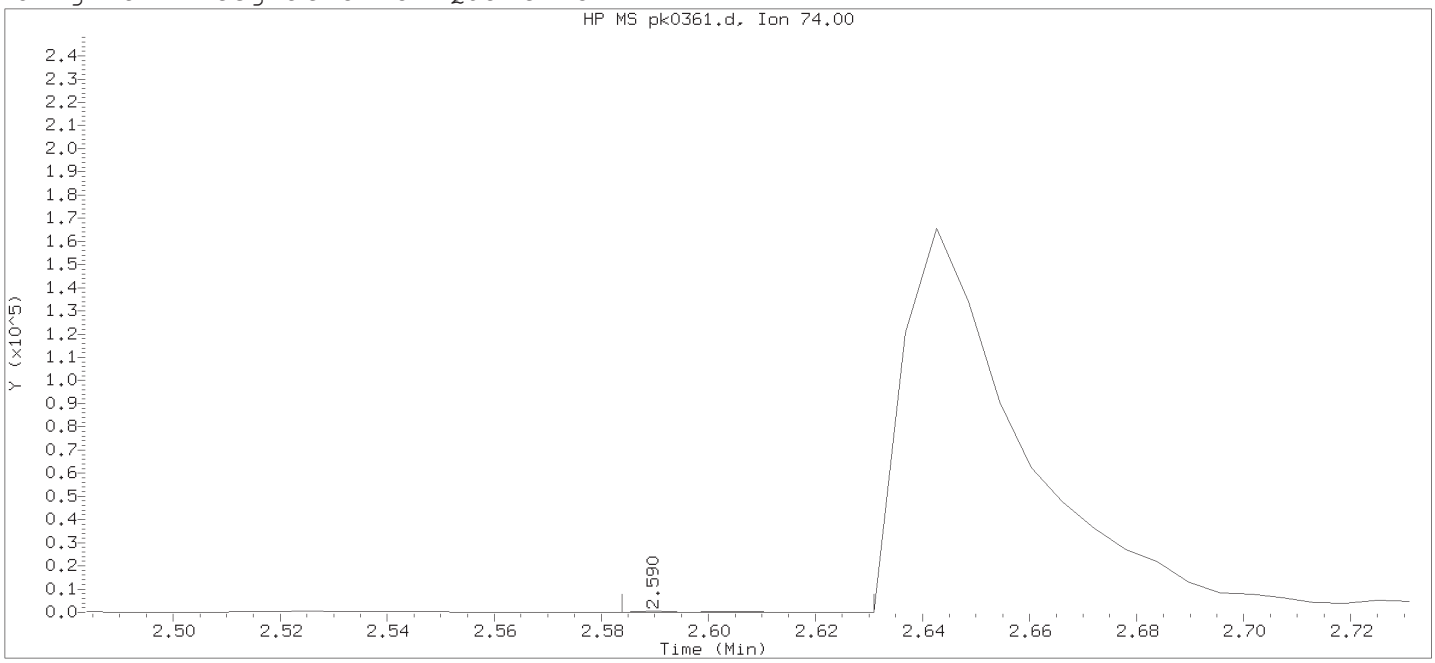
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/11/2018 at 22:09.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 11/13/2018 at 09:32.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



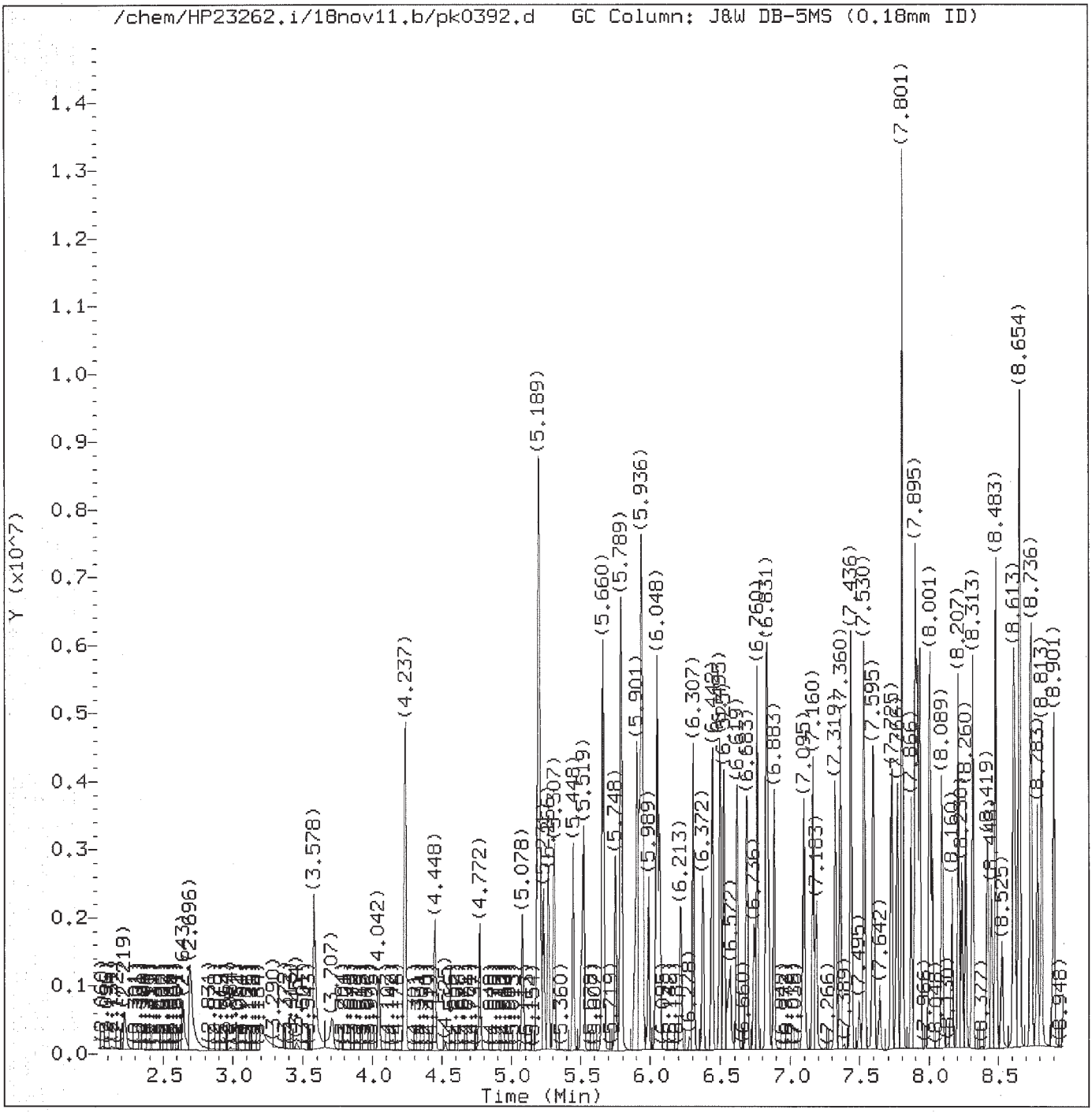
Data File: /chem/HP23262.i/18nov11.b/pk0361.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 20:58 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: all1
Calibration date and time: 11-NOV-2018 21:19
Date, time and analyst ID of latest file update: 11-Nov-2018 21:19 Automation

Sample Name: SSTD030 Lab Sample ID: STD2928

Compound Number	: 4		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 95		
Retention Time (minutes)	: 2.590		
Quant Ion	: 74.00		
Area	: 353		
On-column Amount (ng/ul)	: 0.0407		
Integration start scan	: 93	Integration stop scan:	101
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 11/11/2018 at 22:09.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

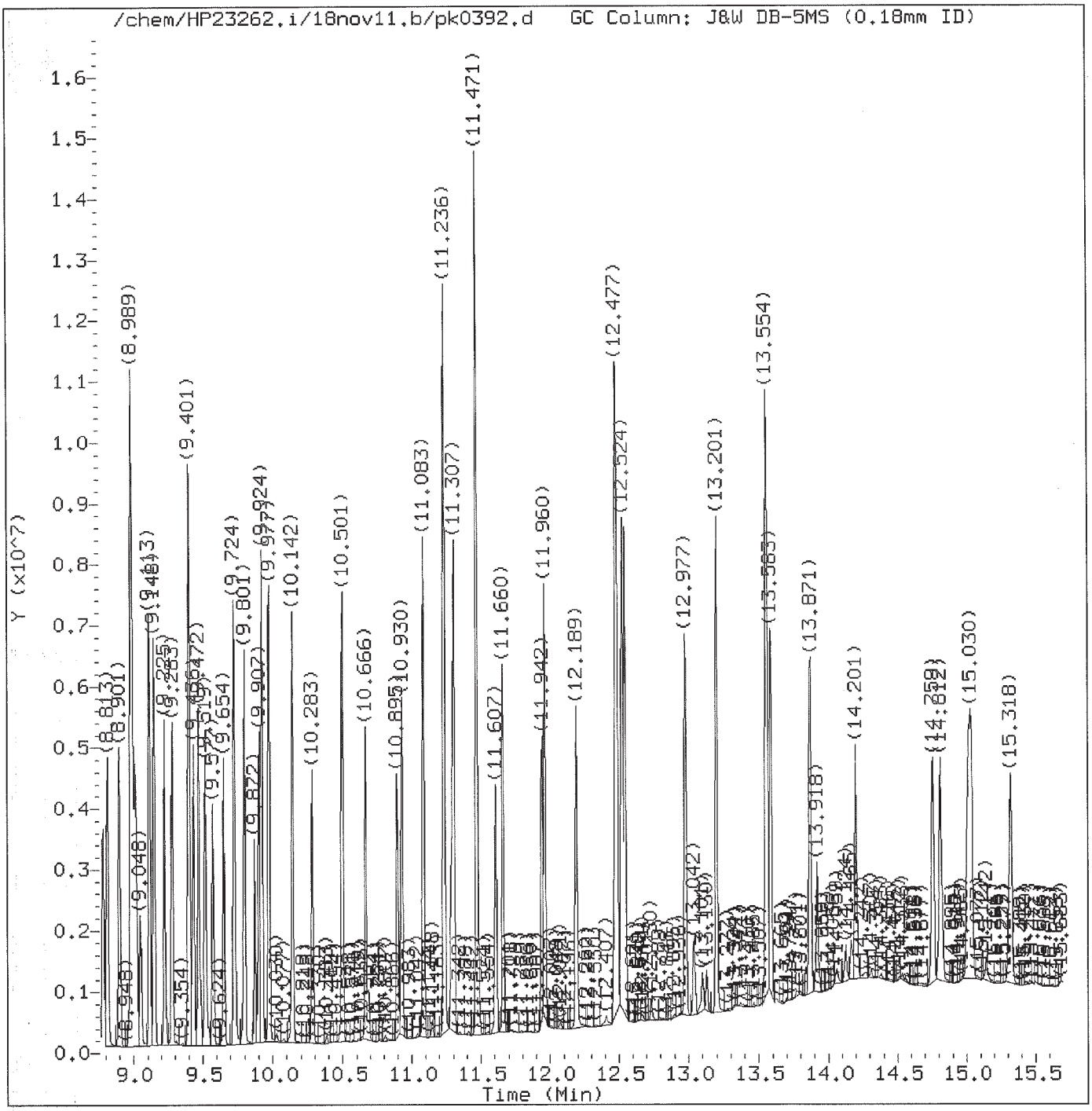
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0392.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 08:03 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 311SLA
Calibration date and time: 12-NOV-2018 21:19
Date, time and analyst ID of latest file update: 12-Nov-2018 23:27 apb10206

Sample Name: SECC50 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/13/2018 at 00:51.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0392.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 08:03 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 311SLA
Calibration date and time: 12-NOV-2018 21:19
Date, time and analyst ID of latest file update: 12-Nov-2018 23:27 apb10206

Sample Name: SECC50 Lab Sample ID: STD2928

Digitally signed by Anthony P. Bauer
on 11/13/2018 at 00:51.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0392.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 08:03 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 311SLA
Calibration date and time: 12-NOV-2018 21:19
Date, time and analyst ID of latest file update: 12-Nov-2018 23:27 apb10206

Sample Name: SECC50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	2.225	88	263035	40.373
11)$2-Fluorophenol	(1)	4.237	112	1295173	95.086
16) Benzaldehyde	(1)	5.078	77	423660	26.130
17)$Phenol-d6	(1)	5.189	99	2111881	98.399
18) Phenol	(1)	5.201	94	1259361	49.343
22) bis(2-Chloroethyl)ether	(1)	5.266	93	856422	47.487
23) 2-Chlorophenol	(1)	5.307	128	683905	49.767
25)*1,4-Dichlorobenzene-d4	(1)	5.507	152	177925	20.000
31) 2-Methylphenol	(1)	5.789	108	778430	49.823
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.789	45	1249360	47.559
36) Acetophenone	(1)	5.901	105	1095887	46.759
38) N-Nitroso-di-n-propylamine	(1)	5.919	70	727509	46.479
37) 4-Methylphenol	(1)	5.936	108	862074	46.911
43) Hexachloroethane	(1)	5.989	117	263455	45.215
44)$Nitrobenzene-d5	(2)	6.048	82	1983318	97.783
45) Nitrobenzene	(2)	6.066	77	1048236	47.840
50) Isophorone	(2)	6.307	82	1934403	47.504
51) 2-Nitrophenol	(2)	6.372	139	387486	49.492
53) 2,4-Dimethylphenol	(2)	6.442	107	859492	48.012
55) bis(2-Chloroethoxy)methane	(2)	6.525	93	1156732	47.665
60) 2,4-Dichlorophenol	(2)	6.619	162	626138	48.001
65)*Naphthalene-d8	(2)	6.736	136	782350	20.000
66) Naphthalene	(2)	6.760	128	2101084	47.002
67) 4-Chloroaniline	(2)	6.825	127	841683	46.842
71) Hexachlorobutadiene	(2)	6.883	225	402837	52.029
76) Caprolactam	(2)	7.183	113	290758	45.743
80) 4-Chloro-3-methylphenol	(2)	7.319	107	789710	47.390
83) 2-Methylnaphthalene	(2)	7.436	142	1514154	49.622
84) 1-Methylnaphthalene	(2)	7.530	142	1440594	48.715
85) Hexachlorocyclopentadiene	(3)	7.589	237	172004	22.600
86) 1,2,4,5-Tetrachlorobenzene	(3)	7.601	216	781607	51.255
90) 2,4,6-Trichlorophenol	(3)	7.725	196	544477	53.574
92) 2,4,5-Trichlorophenol	(3)	7.766	196	561064	50.365
93)$2-Fluorobiphenyl	(3)	7.801	172	3667346	104.288
95) 1,1'-Biphenyl	(3)	7.895	154	1958270	51.236
96) 2-Chloronaphthalene	(3)	7.913	162	1396964	45.044
100) 2-Nitroaniline	(3)	8.019	138	517378	49.767
106) Dimethylphthalate	(3)	8.207	163	1805435	48.801
108) 2,6-Dinitrotoluene	(3)	8.260	165	417695	47.461
109) Acenaphthylene	(3)	8.313	152	2179013	49.303

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$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/13/2018 at 00:51.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0392.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 08:03 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 311SLA
Calibration date and time: 12-NOV-2018 21:19
Date, time and analyst ID of latest file update: 12-Nov-2018 23:27 apb10206

Sample Name: SECC50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
112) 3-Nitroaniline	(3)	8.425	138	445941	49.373
113)*Acenaphthene-d10	(3)	8.448	164	456396	20.000
114) Acenaphthene	(3)	8.483	153	1595733	50.793
115) 2,4-Dinitrophenol	(3)	8.525	184	215409	44.712
116) 4-Nitrophenol	(3)	8.619	109	308787	51.205
118) 2,4-Dinitrotoluene	(3)	8.654	165	577479	49.603
119) Dibenzofuran	(3)	8.654	168	2350310	49.105
122) 2,3,4,6-Tetrachlorophenol	(3)	8.783	232	476262	50.384
124) Diethylphthalate	(3)	8.901	149	1844094	48.516
126) Fluorene	(3)	8.989	166	1936497	50.172
127) 4-Chlorophenyl-phenylether	(3)	8.995	204	1043571	49.724
129) 4-Nitroaniline	(3)	9.025	138	470830	45.619
130) 4,6-Dinitro-2-methylphenol	(4)	9.054	198	310977	46.997
131) N-Nitrosodiphenylamine	(4)	9.113	169	1689341	50.762
135)$2,4,6-Tribromophenol	(3)	9.225	330	463441	101.540
143) 4-Bromophenyl-phenylether	(4)	9.472	248	582409	51.358
145) Hexachlorobenzene	(4)	9.519	284	570357	52.642
148) Atrazine	(4)	9.654	200	471845	40.413
149) Pentachlorophenol	(4)	9.724	266	310858	49.700
153)*Phenanthrene-d10	(4)	9.901	188	1034118	20.000
155) Phenanthrene	(4)	9.924	178	2848548	48.509
157) Anthracene	(4)	9.977	178	2930276	49.288
163) Carbazole	(4)	10.142	167	2647309	48.338
165) Di-n-butylphthalate	(4)	10.501	149	3294125	50.418
173) Fluoranthene	(4)	11.083	202	3339133	49.418
175)*Pyrene-d10	(5)	11.283	212	994218	20.000
177) Pyrene	(5)	11.307	202	3291794	48.784
179)$Terphenyl-d14	(5)	11.471	244	4410448	103.998
188) Butylbenzylphthalate	(5)	11.960	149	1405464	49.173
193) 3,3'-Dichlorobenzidine	(5)	12.471	252	1053481	46.079
195) Benzo(a)anthracene	(5)	12.489	228	2928493	47.165
196) Chrysene	(5)	12.524	228	2810120	47.053
199) bis(2-Ethylhexyl)phthalate	(5)	12.548	149	1978695	48.923
205) Di-n-octylphthalate	(6)	13.201	149	3320118	53.865
206) Benzo(b)fluoranthene	(6)	13.560	252	2643376	48.809
208) Benzo(k)fluoranthene	(6)	13.589	252	2704137	50.985
211) Benzo(a)pyrene	(6)	13.871	252	2507067	50.372
213)*Perylene-d12	(6)	13.918	264	773269	20.000
219) Indeno(1,2,3-cd)pyrene	(6)	15.012	276	2663175	51.749
220) Dibenz(a,h)anthracene	(6)	15.030	278	2205887	49.333

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/13/2018 at 00:51.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0392.d Instrument ID: HP23262.i
Injection date and time: 12-NOV-2018 08:03 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 311SLA
Calibration date and time: 12-NOV-2018 21:19
Date, time and analyst ID of latest file update: 12-Nov-2018 23:27 apb10206

Sample Name: SECC50 Lab Sample ID: STD2928

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
221) Benzo(g,h,i)perylene	(6)	15.318	276	2199919	50.262

Digitally signed by Anthony P. Bauer
on 11/13/2018 at 00:51.
Target 3.5 esignature user ID: apb10206

Raw QC Data

Semivolatiles by GC/MS

Data file: /chem/HP11165.i/18nov07.b/gk0313.d Injection date and time: **07-NOV-2018 12:00**
Data file Sample Info. Line: SBLKLC302;SBLKLC302;2;3;BLANK;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 11:57 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 11:54
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov07.b/gk0311.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.107	(0.000)	590	152	111520	(-5)	21.00	
65) Naphthalene-d8	6.336	(0.000)	799	136	461753	(-10)	21.00	
113) Acenaphthene-d10	8.036	(0.000)	1088	164	256787	(-13)	21.00	
153) Phenanthrene-d10	9.472	(0.006)	1332	188	528842	(-11)	21.00	
175) Pyrene-d10	10.848	(0.000)	1566	212	482847	(-13)	20.00	
213) Perylene-d12	13.418	(0.006)	2003	264	473422	(-13)	21.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	3.854	(0.001)	112	1621043	204.011	102%
17) Phenol-d6	(1)	4.848	(0.000)	99	2148926	187.940	94%
44) Nitrobenzene-d5	(2)	5.660	(0.001)	82	889335	90.306	90%
93) 2-Fluorobiphenyl	(3)	7.401	(0.000)	172	1735521	88.923	89%
135) 2,4,6-Tribromophenol	(3)	8.813	(0.000)	330	490495	175.755	88%
179) Terphenyl-d14	(5)	11.048	(0.000)	244	2270025	88.693	89%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)				Not Detected					0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)				Not Detected					0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)				Not Detected					0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)				Not Detected					0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov07.b/gk0313.d Injection date and time: **07-NOV-2018 12:00**
Data file Sample Info. Line: SBLKLC302;SBLKLC302;2;3;BLANK;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 11:57 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 11:54
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov07.b/gk0311.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

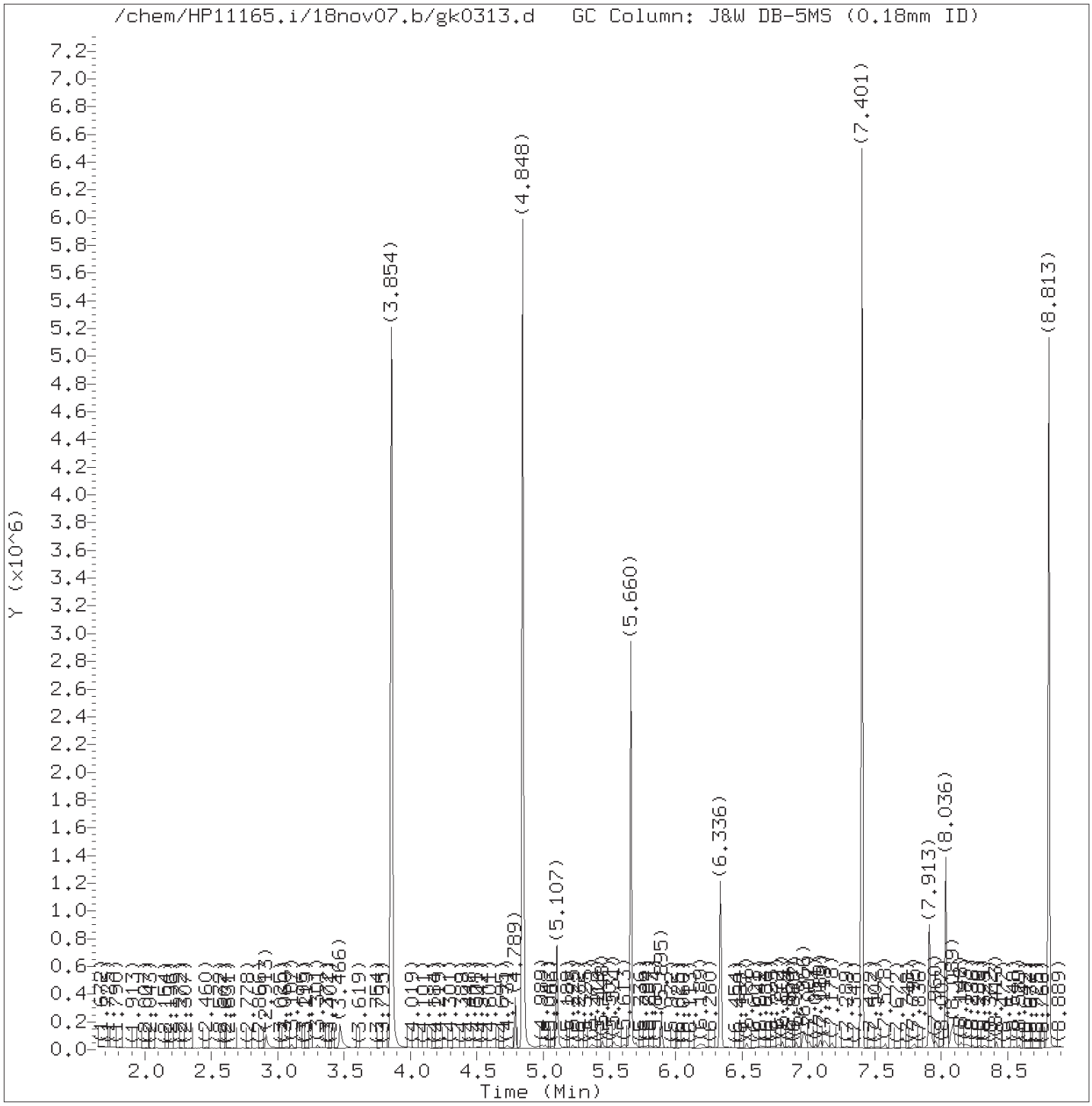
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)				Not Detected					0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)				Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 14:11. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Holly B. Ziegler on 11/14/2018 at 14:29. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

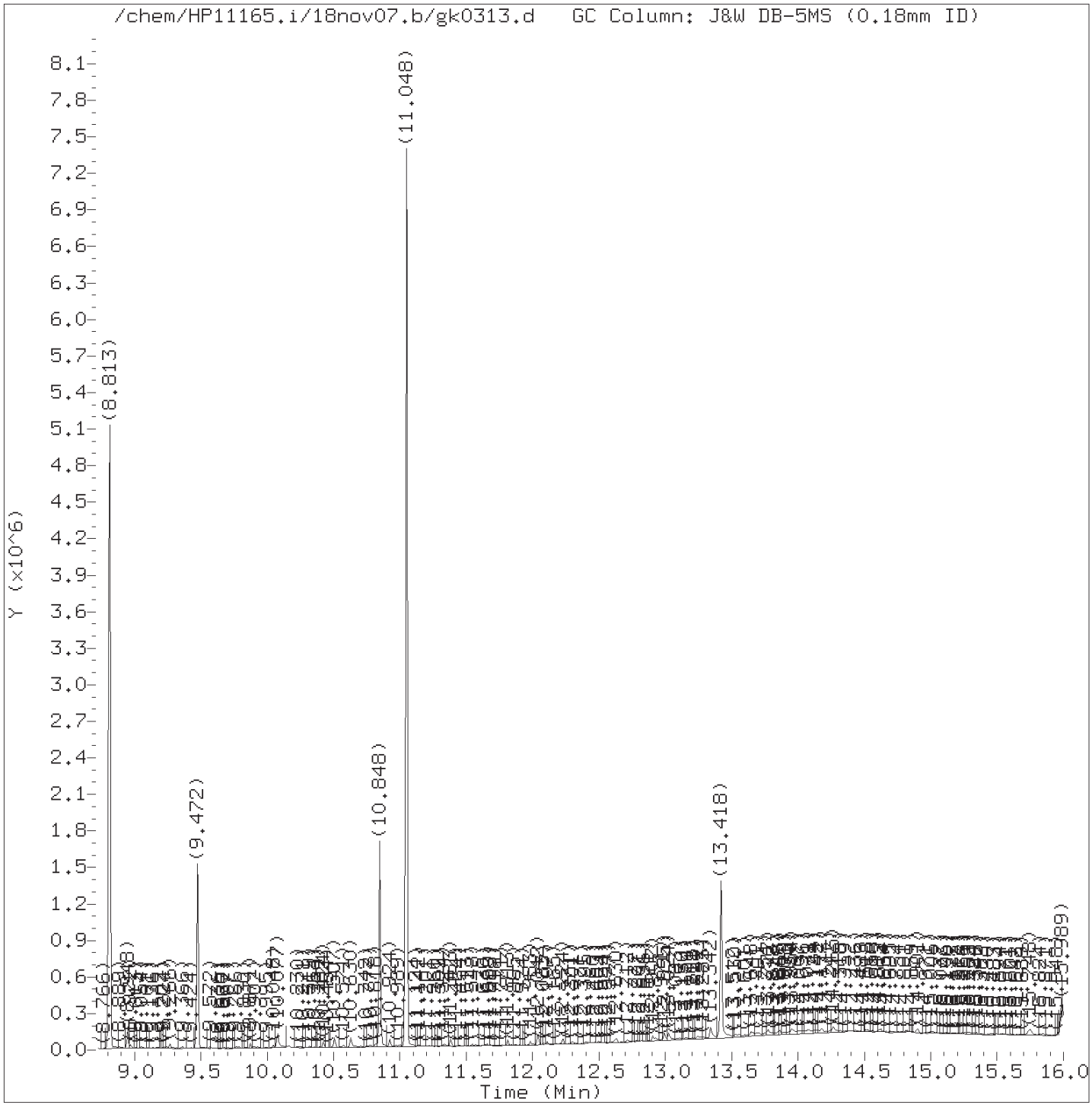
Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0313.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:00 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:54
Date, time and analyst ID of latest file update: 14-Nov-2018 11:57 em10340

Sample Name: SBLKLC302 Lab Sample ID: SBLKLC302

Digitally signed by Edward Monborne
on 11/14/2018 at 14:11.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0313.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:00 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:54
Date, time and analyst ID of latest file update: 14-Nov-2018 11:57 em10340

Sample Name: SBLKLC302 Lab Sample ID: SBLKLC302

Digitally signed by Edward Monborne
on 11/14/2018 at 14:11.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0313.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:00 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:54
Date, time and analyst ID of latest file update: 14-Nov-2018 11:57 em10340

Sample Name: SBLKLC302 Lab Sample ID: SBLKLC302

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	3.854	112	1621043	204.011
17)$Phenol-d6	(1)	4.848	99	2148926	187.940
25)*1,4-Dichlorobenzene-d4	(1)	5.107	152	111520	21.000
44)$Nitrobenzene-d5	(2)	5.660	82	889335	90.306
65)*Naphthalene-d8	(2)	6.336	136	461753	21.000
93)$2-Fluorobiphenyl	(3)	7.401	172	1735521	88.923
113)*Acenaphthene-d10	(3)	8.036	164	256787	21.000
135)$2,4,6-Tribromophenol	(3)	8.813	330	490495	175.755
153)*Phenanthrene-d10	(4)	9.472	188	528842	21.000
175)*Pyrene-d10	(5)	10.848	212	482847	20.000
179)$Terphenyl-d14	(5)	11.048	244	2270025	88.693
213)*Perylene-d12	(6)	13.418	264	473422	21.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 14:11.
Target 3.5 esignature user ID: em10340

Data file: /chem/HP23262.i/18nov11.b/pk0363.d Injection date and time: **11-NOV-2018 21:57**
Data file Sample Info. Line: SBLKLI302;SBLKLI302;2;3;BLANK;;DOD26; Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 12-NOV-2018 00:31
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 0 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.495	(0.006)	589	152	156552	(5)	21.00	
65) Naphthalene-d8	6.731	(0.000)	799	136	640809	(-1)	21.00	
113) Acenaphthene-d10	8.442	(0.000)	1090	164	384147	(1)	21.00	
153) Phenanthrene-d10	9.889	(0.000)	1336	188	898742	(4)	21.00	
175) Pyrene-d10	11.272	(0.006)	1571	212	879313	(-2)	20.00	
213) Perylene-d12	13.901	(0.006)	2018	264	799889	(1)	21.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	4.219	(-0.001)	112	2095935	183.627	92%
17) Phenol-d6	(1)	5.172	(-0.002)	99	3052274	169.711	85%
44) Nitrobenzene-d5	(2)	6.037	(0.000)	82	1388188	87.736	88%
93) 2-Fluorobiphenyl	(3)	7.795	(0.000)	172	2535488	89.945	90%
135) 2,4,6-Tribromophenol	(3)	9.213	(0.000)	330	671431	183.518	92%
179) Terphenyl-d14	(5)	11.466	(-0.001)	244	3756290	100.147	100%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)				Not Detected					0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)				Not Detected					0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)				Not Detected					0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)	7.431	(0.000)	142	9145	0.384	12.81		J	0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6

Digitally signed by Anthony P. Bauer on 11/12/2018 at 00:32. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP23262.i/18nov11.b/pk0363.d Injection date and time: **11-NOV-2018 21:57**
Data file Sample Info. Line: SBLKLI302;SBLKLI302;2;3;BLANK;;DOD26; Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 12-NOV-2018 00:31
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

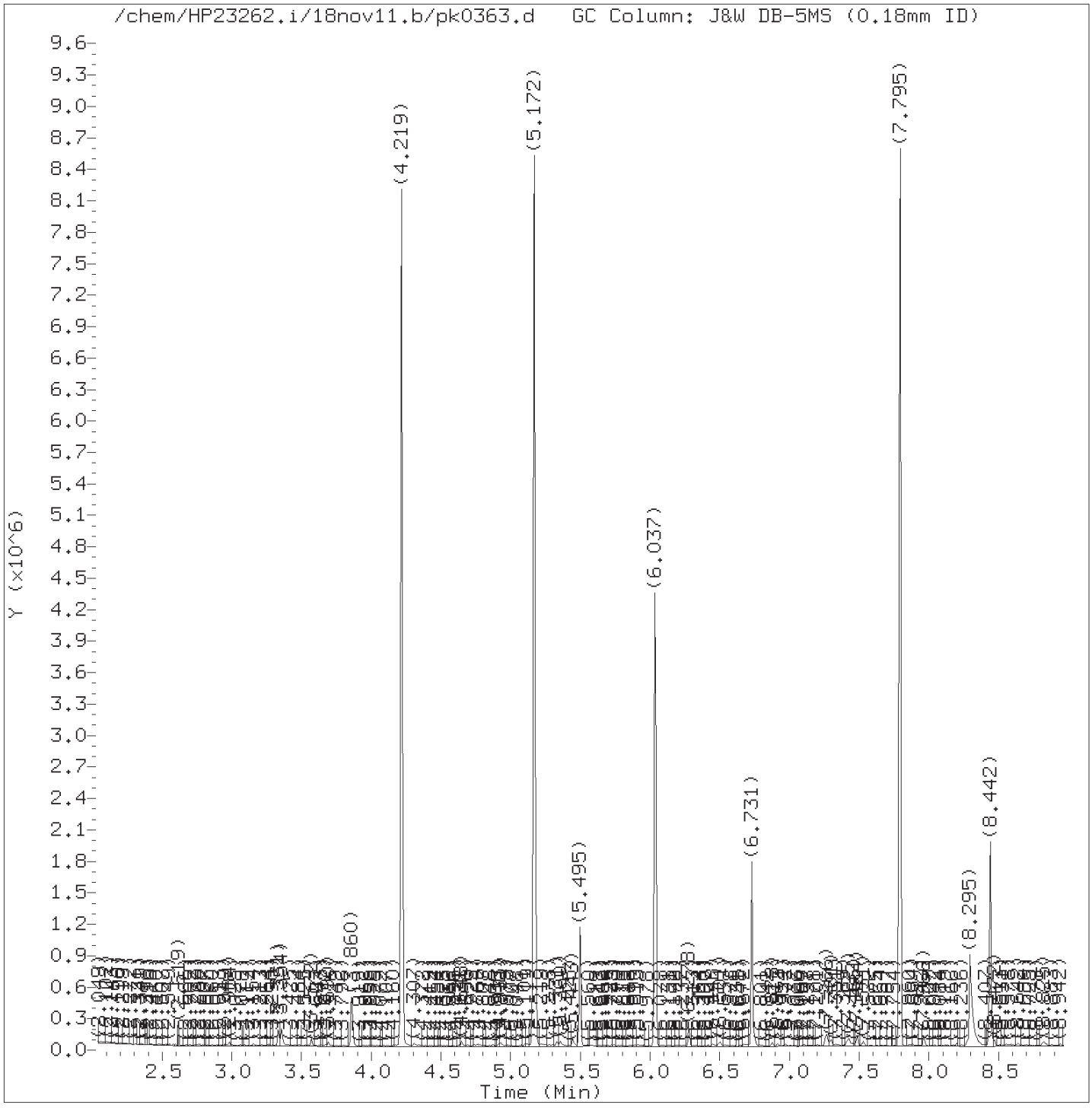
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 0 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)				Not Detected					0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)				Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

Total number of targets = 48

Digitally signed by Anthony P. Bauer on 11/12/2018 at 00:32. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 11:07. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

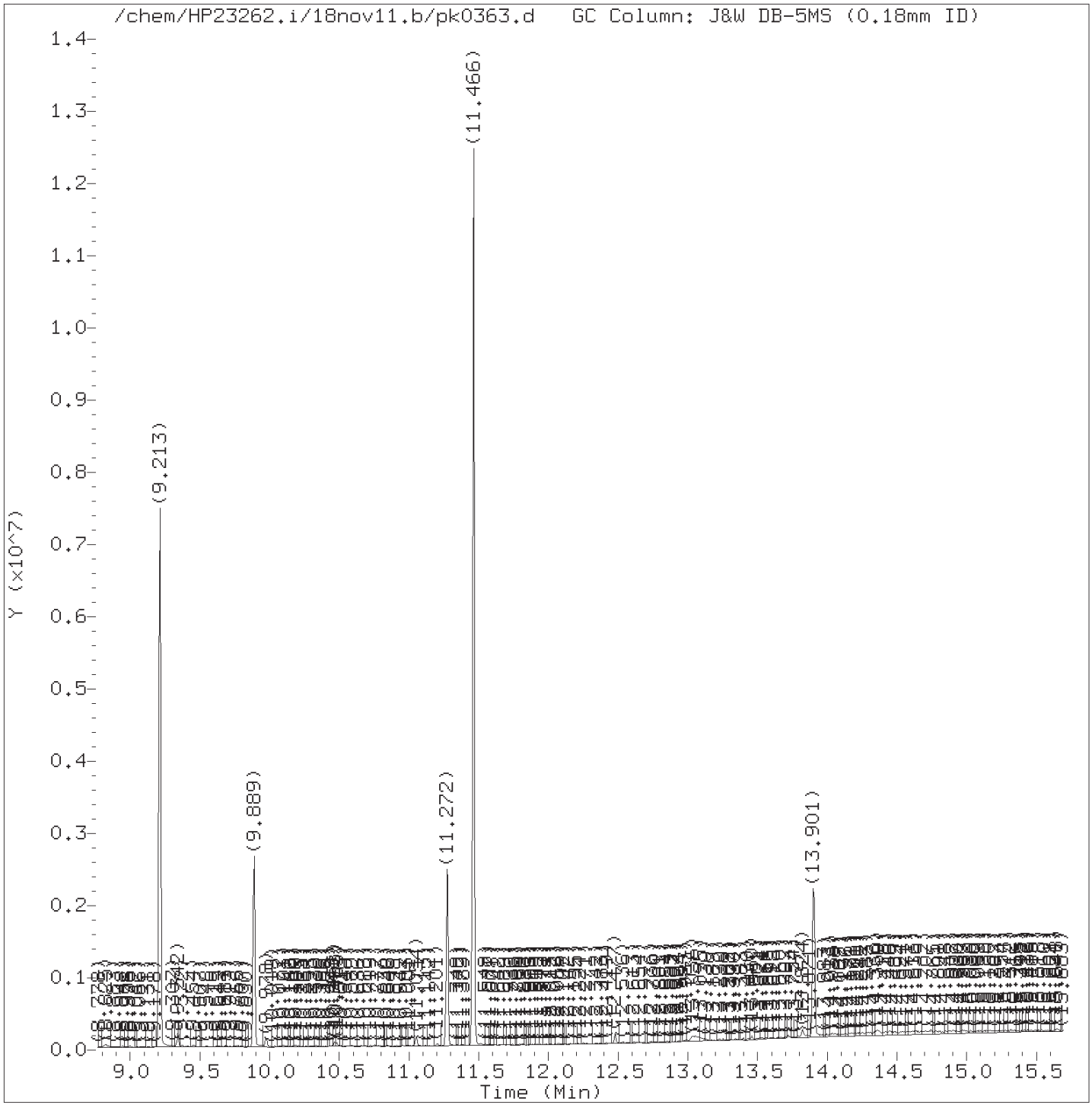
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0363.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 21:57 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:31
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Sample Name: SBLKLI302 Lab Sample ID: SBLKLI302

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:32.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0363.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 21:57 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:31
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Sample Name: SBLKLI302 Lab Sample ID: SBLKLI302

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:32.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0363.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 21:57 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:31
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Sample Name: SBLKLI302 Lab Sample ID: SBLKLI302

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.219	112	2095935	183.627
17)$Phenol-d6	(1)	5.172	99	3052274	169.711
25)*1,4-Dichlorobenzene-d4	(1)	5.495	152	156552	21.000
44)$Nitrobenzene-d5	(2)	6.037	82	1388188	87.736
65)*Naphthalene-d8	(2)	6.731	136	640809	21.000
83) 2-Methylnaphthalene	(2)	7.431	142	9145	0.384
93)$2-Fluorobiphenyl	(3)	7.795	172	2535488	89.945
113)*Acenaphthene-d10	(3)	8.442	164	384147	21.000
135)$2,4,6-Tribromophenol	(3)	9.213	330	671431	183.518
153)*Phenanthrene-d10	(4)	9.889	188	898742	21.000
175)*Pyrene-d10	(5)	11.272	212	879313	20.000
179)$Terphenyl-d14	(5)	11.466	244	3756290	100.147
213)*Perylene-d12	(6)	13.901	264	799889	21.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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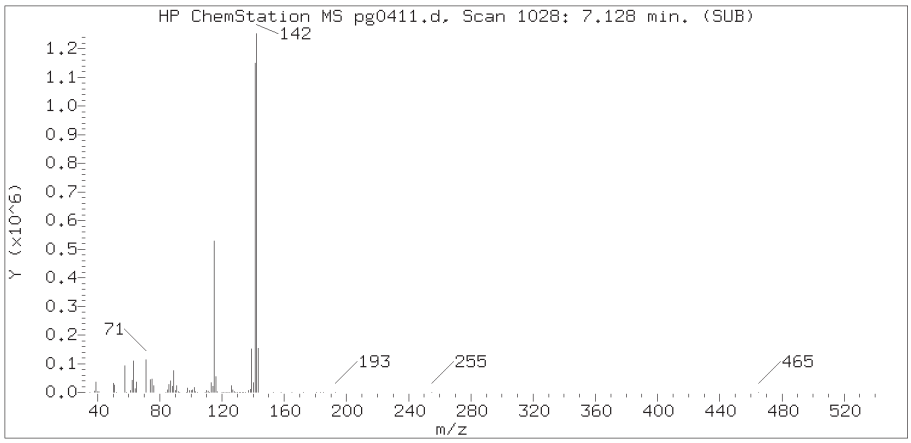
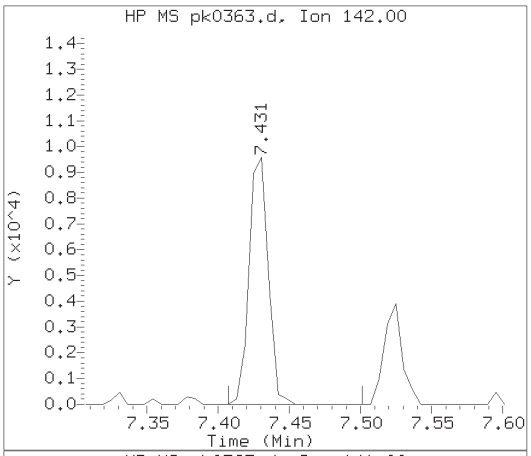
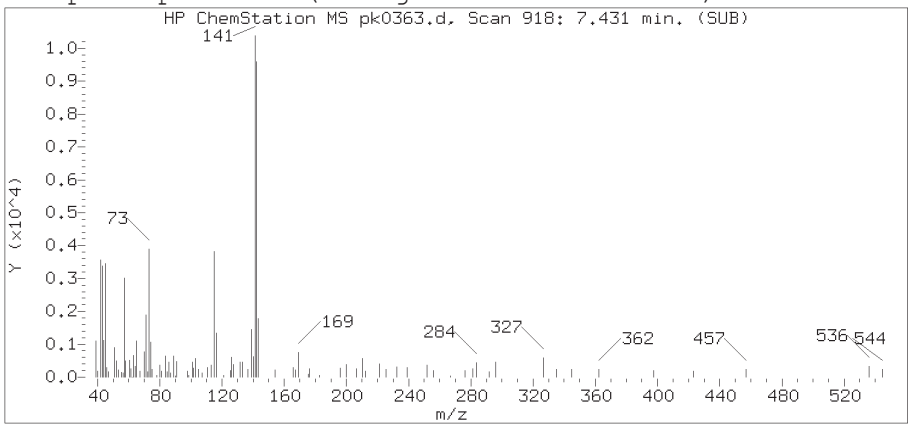
on 11/12/2018 at 00:32.
Target 3.5 esignature user ID: apb10206

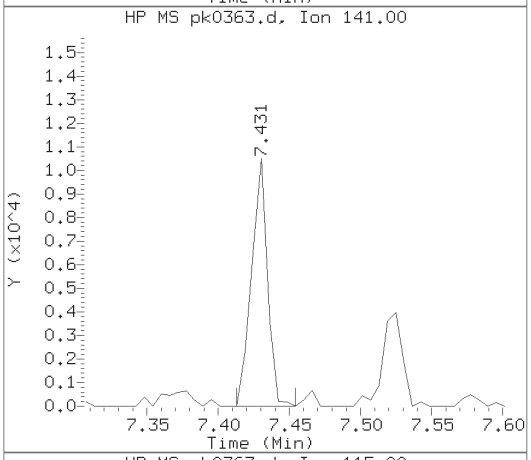
Reference Standard Spectrum for 2-Methylnaphthalene



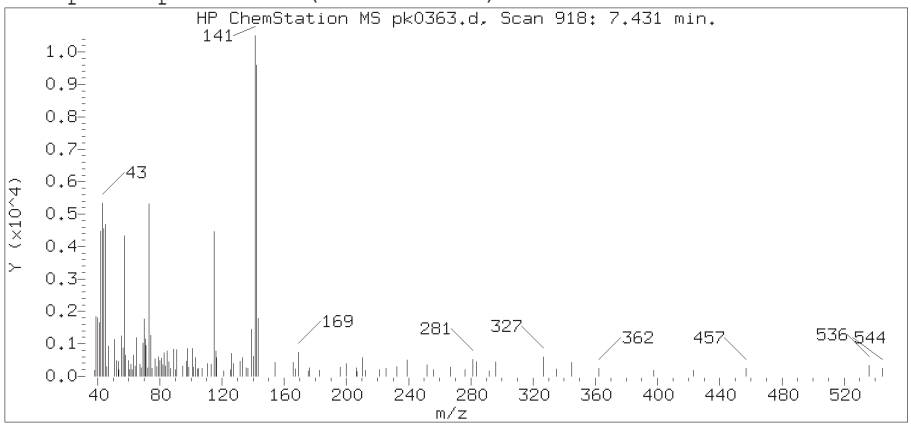


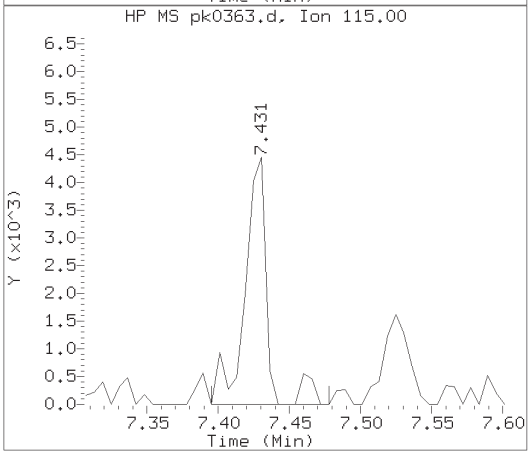
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP23262.i/18nov11.b/pk0363.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 21:57 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:31
Date, time and analyst ID of latest file update: 12-Nov-2018 00:32 apb10206

Sample Name: SBLKLI302 Lab Sample ID: SBLKLI302

Compound Number	: 83
Compound Name	: 2-Methylnaphthalene
Scan Number	: 918
Retention Time (minutes)	: 7.431
Relative Retention Time	: 0.00000
Quant Ion	: 142.00
Area (flag)	: 9145
On-column Amount (ng/ul)	: 0.3842

Digitally signed by Anthony P. Bauer on 11/12/2018 at 00:32.
Target 3.5 esignature user ID: apb10206

Data file: /chem/HP11165.i/18nov16.b/gk0854.d Injection date and time: **16-NOV-2018 14:51**
Data file Sample Info. Line: SBLKLB317;SBLKLB317;2;3;BLANK;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.451	(0.000)	606	152	181226	(20)	20.00	
65) Naphthalene-d8	6.687	(0.000)	816	136	739497	(11)	20.00	
113) Acenaphthene-d10	8.398	(0.000)	1107	164	421612	(4)	20.00	
153) Phenanthrene-d10	9.851	(0.000)	1354	188	905534	(10)	20.00	
175) Pyrene-d10	11.239	(0.000)	1590	212	894746	(15)	20.00	
213) Perylene-d12	13.874	(0.000)	2038	264	829920	(27)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	4.198	(0.000)	112	2155894	156.847	78%
17) Phenol-d6	(1)	5.163	(0.000)	99	3106679	145.960	73%
44) Nitrobenzene-d5	(2)	5.992	(0.000)	82	1451314	74.491	74%
93) 2-Fluorobiphenyl	(3)	7.751	(0.000)	172	2554449	74.856	75%
135) 2,4,6-Tribromophenol	(3)	9.181	(0.000)	330	649864	192.450	96%
179) Terphenyl-d14	(5)	11.433	(0.000)	244	3533389	81.665	82%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)				Not Detected					2
18) Phenol	(1)				Not Detected					0.7
19) Aniline	(1)				Not Detected					5
22) bis(2-Chloroethyl)ether	(1)				Not Detected					0.7
23) 2-Chlorophenol	(1)				Not Detected					0.5
24) 1,3-Dichlorobenzene	(1)				Not Detected					0.5
26) 1,4-Dichlorobenzene	(1)				Not Detected					0.5
27) Benzyl alcohol	(1)				Not Detected					5
28) 1,2-Dichlorobenzene	(1)				Not Detected					0.6
31) 2-Methylphenol	(1)				Not Detected					0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)				Not Detected					0.5
37) 4-Methylphenol	(1)				Not Detected					0.6
38) N-Nitroso-di-n-propylamine	(1)				Not Detected					0.6
43) Hexachloroethane	(1)				Not Detected					1
45) Nitrobenzene	(2)				Not Detected					0.8
50) Isophorone	(2)				Not Detected					0.5
51) 2-Nitrophenol	(2)				Not Detected					0.5
53) 2,4-Dimethylphenol	(2)				Not Detected					0.5
55) bis(2-Chloroethoxy)methane	(2)				Not Detected					0.5
60) 2,4-Dichlorophenol	(2)				Not Detected					0.5
62) 1,2,4-Trichlorobenzene	(2)				Not Detected					0.5
67) 4-Chloroaniline	(2)				Not Detected					1
71) Hexachlorobutadiene	(2)				Not Detected					0.6
80) 4-Chloro-3-methylphenol	(2)				Not Detected					0.5
83) 2-Methylnaphthalene	(2)				Not Detected					0.3
85) Hexachlorocyclopentadiene	(3)				Not Detected					5
90) 2,4,6-Trichlorophenol	(3)				Not Detected					0.6

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

Data file: /chem/HP11165.i/18nov16.b/gk0854.d Injection date and time: **16-NOV-2018 14:51**
Data file Sample Info. Line: SBLKLB317;SBLKLB317;2;3;BLANK;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

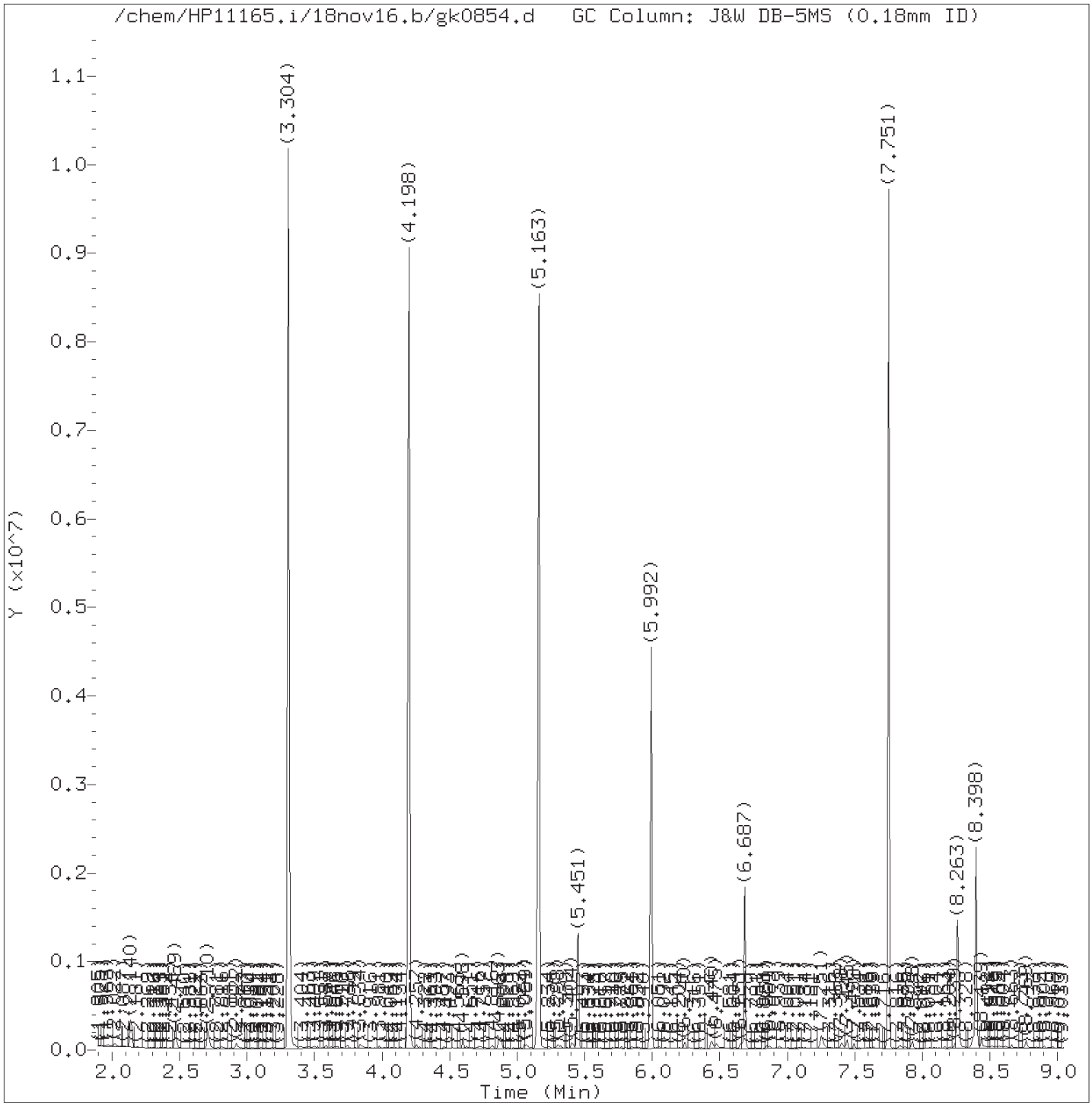
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)				Not Detected					0.6
96) 2-Chloronaphthalene	(3)				Not Detected					0.2
100) 2-Nitroaniline	(3)				Not Detected					0.6
106) Dimethylphthalate	(3)				Not Detected					2
108) 2,6-Dinitrotoluene	(3)				Not Detected					0.6
112) 3-Nitroaniline	(3)				Not Detected					2
115) 2,4-Dinitrophenol	(3)				Not Detected					11
116) 4-Nitrophenol	(3)				Not Detected					5
118) 2,4-Dinitrotoluene	(3)				Not Detected					2
119) Dibenzofuran	(3)				Not Detected					0.5
124) Diethylphthalate	(3)				Not Detected					2
127) 4-Chlorophenyl-phenylether	(3)				Not Detected					0.5
129) 4-Nitroaniline	(3)				Not Detected					2
130) 4,6-Dinitro-2-methylphenol	(4)				Not Detected					5
131) N-Nitrosodiphenylamine	(4)				Not Detected					0.5
143) 4-Bromophenyl-phenylether	(4)				Not Detected					0.6
145) Hexachlorobenzene	(4)				Not Detected					0.1
149) Pentachlorophenol	(4)				Not Detected					1
163) Carbazole	(4)				Not Detected					0.5
193) 3,3'-Dichlorobenzidine	(5)				Not Detected					3
205) Di-n-octylphthalate	(6)				Not Detected					2

Total number of targets = 48

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 12:59. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

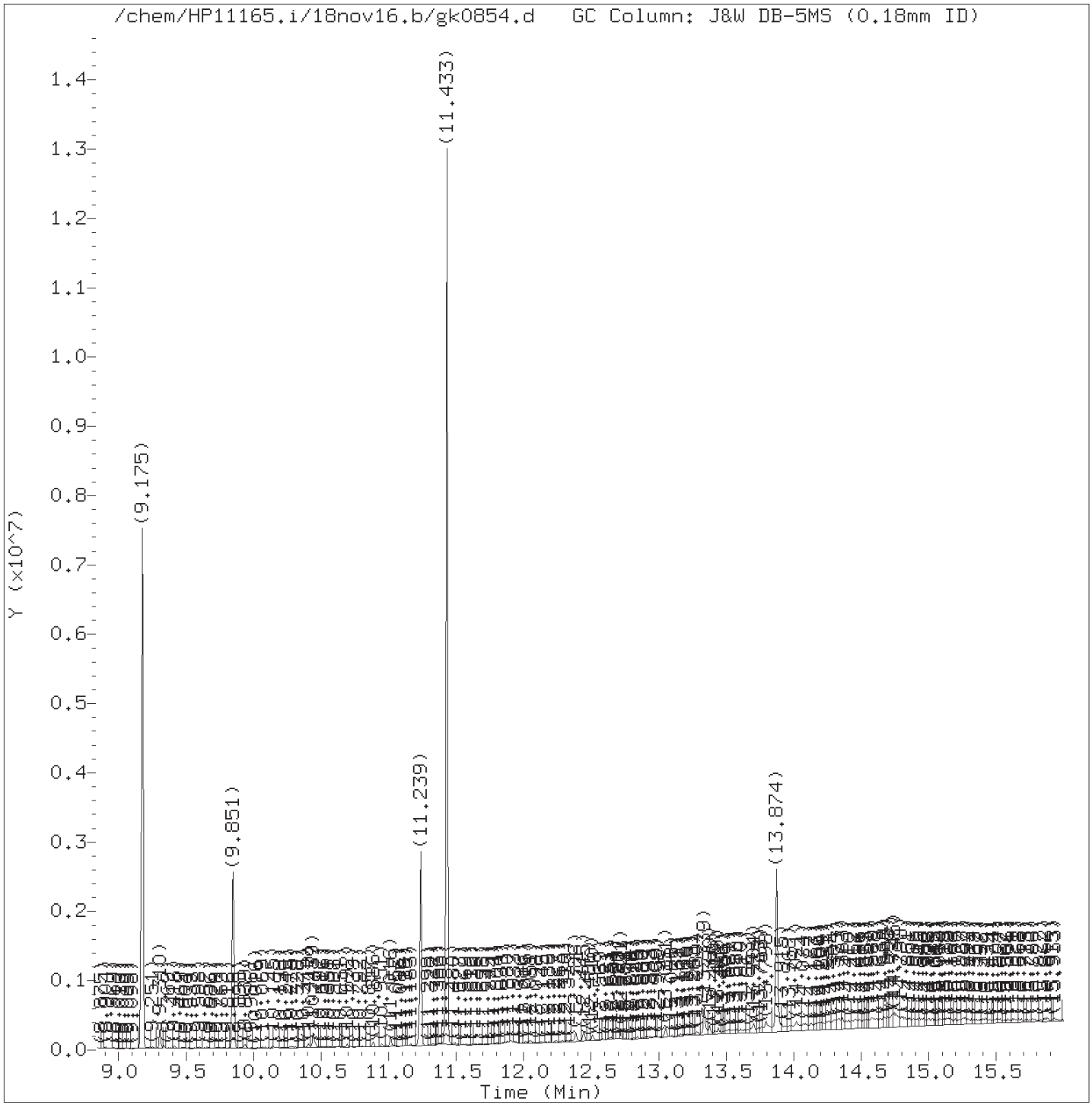
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0854.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 14:51 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: SBLKLB317 Lab Sample ID: SBLKLB317

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0854.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 14:51 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: SBLKLB317 Lab Sample ID: SBLKLB317

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0854.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 14:51 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: SBLKLB317 Lab Sample ID: SBLKLB317

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
11)$2-Fluorophenol	(1)	4.198	112	2155894	156.847
17)$Phenol-d6	(1)	5.163	99	3106679	145.960
25)*1,4-Dichlorobenzene-d4	(1)	5.451	152	181226	20.000
44)$Nitrobenzene-d5	(2)	5.992	82	1451314	74.491
65)*Naphthalene-d8	(2)	6.687	136	739497	20.000
93)$2-Fluorobiphenyl	(3)	7.751	172	2554449	74.856
113)*Acenaphthene-d10	(3)	8.398	164	421612	20.000
135)$2,4,6-Tribromophenol	(3)	9.181	330	649864	192.450
153)*Phenanthrene-d10	(4)	9.851	188	905534	20.000
175)*Pyrene-d10	(5)	11.239	212	894746	20.000
179)$Terphenyl-d14	(5)	11.433	244	3533389	81.665
213)*Perylene-d12	(6)	13.874	264	829920	20.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

302LCLCS

Data file: /chem/HP11165.i/18nov07.b/gk0314.d Injection date and time: **07-NOV-2018 12:24**
Data file Sample Info. Line: 302LCLCS;302LCLCS;2;3;LCS;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 11:51
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov07.b/gk0311.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.107	(0.000)	590	152	119801	(2)	20.00	
65) Naphthalene-d8	6.336	(0.000)	799	136	508626	(-1)	20.00	
113) Acenaphthene-d10	8.036	(0.000)	1088	164	302799	(3)	20.00	
153) Phenanthrene-d10	9.477	(0.000)	1333	188	583384	(-1)	20.00	
175) Pyrene-d10	10.848	(0.000)	1566	212	525861	(-5)	20.00	
213) Perylene-d12	13.424	(0.000)	2004	264	433267	(-20)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	3.860	(0.000)	112	1604797	179.053	90%
17) Phenol-d6	(1)	4.848	(0.000)	99	2231451	173.017	87%
44) Nitrobenzene-d5	(2)	5.666	(0.000)	82	929706	81.625	82%
93) 2-Fluorobiphenyl	(3)	7.407	(-0.001)	172	1855950	76.804	77%
135) 2,4,6-Tribromophenol	(3)	8.813	(0.000)	330	512647	148.362	74%
179) Terphenyl-d14	(5)	11.048	(0.000)	244	2173472	77.974	78%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)	2.237	(-0.001)	79	296480	27.807	926.89			2
18) Phenol	(1)	4.860	(0.000)	94	658446	47.824	1594.12			0.7
19) Aniline	(1)	4.813	(0.000)	93	570503	34.598	1153.27			5
22) bis(2-Chloroethyl)ether	(1)	4.884	(0.000)	93	464047	44.650	1488.33			0.7
23) 2-Chlorophenol	(1)	4.925	(0.000)	128	403847	41.769	1392.30			0.5
24) 1,3-Dichlorobenzene	(1)	5.042	(0.000)	146	399079	41.161	1372.05			0.5
26) 1,4-Dichlorobenzene	(1)	5.125	(0.000)	146	422035	43.348	1444.94			0.5
27) Benzyl alcohol	(1)	5.289	(0.000)	108	310941	42.644	1421.46			5
28) 1,2-Dichlorobenzene	(1)	5.266	(0.000)	146	400638	42.848	1428.26			0.6
31) 2-Methylphenol	(1)	5.431	(0.000)	108	448632	47.425	1580.84			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.407	(-0.001)	45	456488	32.668	1088.93			0.5
37) 4-Methylphenol	(1)	5.584	(-0.000)	108	493302	46.938	1564.62			0.6
38) N-Nitroso-di-n-propylamine	(1)	5.536	(-0.000)	70	360434	38.043	1268.11			0.6
43) Hexachloroethane	(1)	5.584	(-0.000)	117	145861	38.572	1285.73			1
45) Nitrobenzene	(2)	5.684	(0.000)	77	486977	40.519	1350.64			0.8
50) Isophorone	(2)	5.919	(0.000)	82	956363	43.156	1438.52			0.5
51) 2-Nitrophenol	(2)	5.989	(0.000)	139	231307	48.293	1609.77			0.5
53) 2,4-Dimethylphenol	(2)	6.072	(0.000)	107	367621	36.149	1204.97			0.5
55) bis(2-Chloroethoxy)methane	(2)	6.148	(0.000)	93	572810	44.811	1493.69			0.5
60) 2,4-Dichlorophenol	(2)	6.236	(-0.000)	162	363448	48.108	1603.59			0.5
62) 1,2,4-Trichlorobenzene	(2)	6.289	(0.000)	180	331301	44.374	1479.15			0.5
67) 4-Chloroaniline	(2)	6.448	(-0.000)	127	365178	30.432	1014.39			1
71) Hexachlorobutadiene	(2)	6.478	(0.000)	225	156228	45.522	1517.40			0.6
80) 4-Chloro-3-methylphenol	(2)	6.960	(-0.000)	107	433467	47.465	1582.15			0.5
83) 2-Methylnaphthalene	(2)	7.030	(-0.000)	142	868879	43.530	1451.01			0.3
85) Hexachlorocyclopentadiene	(3)	7.178	(0.000)	237	273366	63.722	2124.07			5
90) 2,4,6-Trichlorophenol	(3)	7.330	(0.000)	196	262647	45.996	1533.21			0.6

Digitally signed by Edward Monborne on 11/14/2018 at 11:53. Target 3.5 esignature user ID: em10340

Data file: /chem/HP11165.i/18nov07.b/gk0314.d Injection date and time: **07-NOV-2018 12:24**
Data file Sample Info. Line: 302LCLCS;302LCLCS;2;3;LCS;;DOD26; Instrument ID: **HP11165.i** Batch: **18302SLC**
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Blank Data file reference: **/chem/HP11165.i/18nov07.b/gk0313.d**

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 14-NOV-2018 11:51
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov07.b/gk0311.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

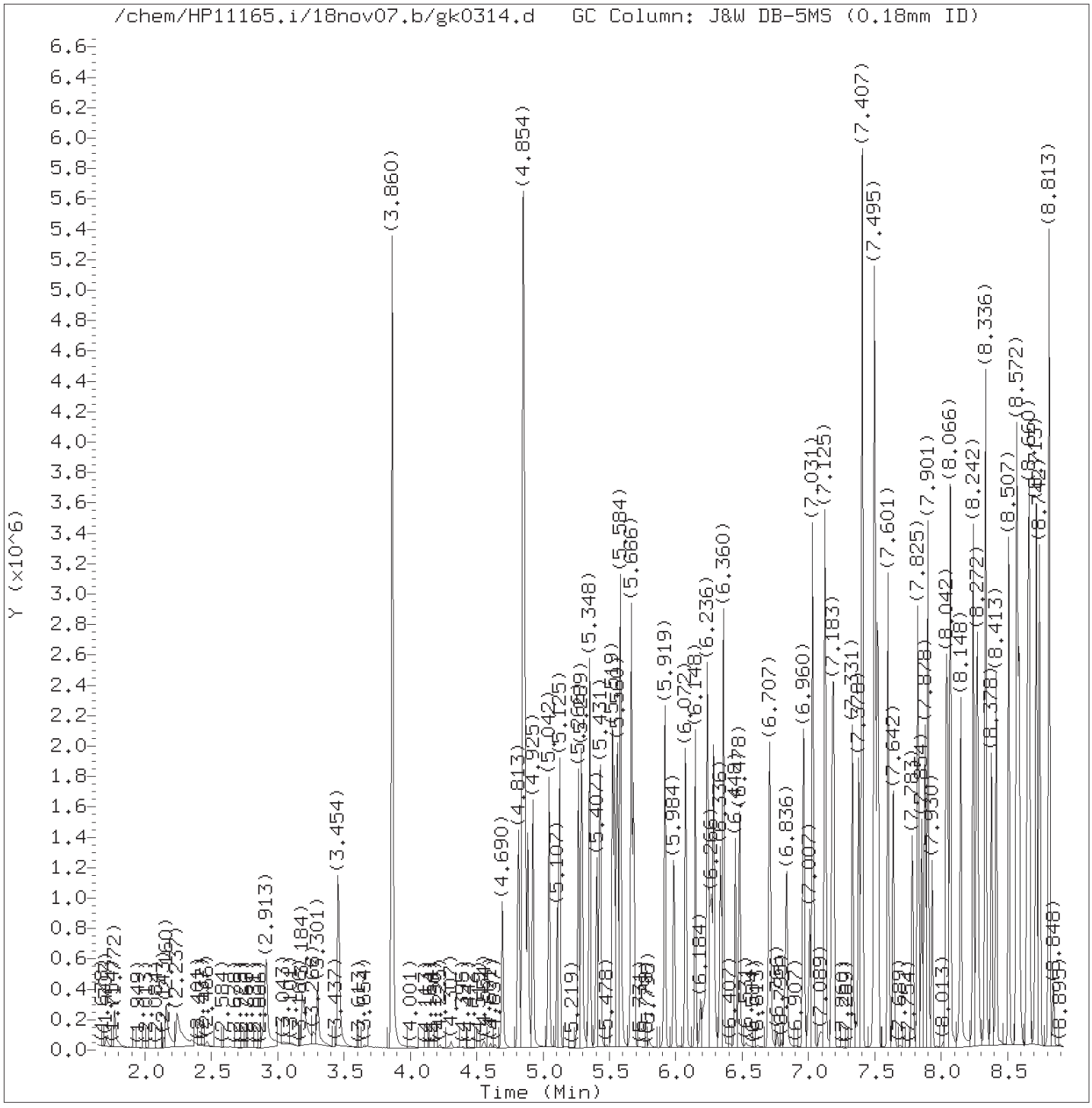
Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)	7.378	(0.000)	196	283133	43.887	1462.88			0.6
96) 2-Chloronaphthalene	(3)	7.507	(-0.000)	162	917719M	44.381	1479.36			0.2
100) 2-Nitroaniline	(3)	7.642	(0.000)	138	314931	45.838	1527.92			0.6
106) Dimethylphthalate	(3)	7.825	(0.000)	163	1001408	40.459	1348.62			2
108) 2,6-Dinitrotoluene	(3)	7.878	(0.000)	165	245006	45.678	1522.59			0.6
112) 3-Nitroaniline	(3)	8.048	(-0.000)	138	275514	43.415	1447.17			2
115) 2,4-Dinitrophenol	(3)	8.148	(-0.000)	184	318660	97.490	3249.67			11
116) 4-Nitrophenol	(3)	8.278	(0.000)	109	132012	32.278	1075.93			5
118) 2,4-Dinitrotoluene	(3)	8.272	(-0.000)	165	327210	43.983	1466.09			2
119) Dibenzofuran	(3)	8.242	(0.000)	168	1253386	42.208	1406.94			0.5
124) Diethylphthalate	(3)	8.507	(0.000)	149	970368	39.069	1302.29			2
127) 4-Chlorophenyl-phenylether	(3)	8.589	(0.000)	204	444404	40.248	1341.62			0.5
129) 4-Nitroaniline	(3)	8.648	(0.000)	138	234781	33.193	1106.42			2
130) 4,6-Dinitro-2-methylphenol	(4)	8.660	(-0.000)	198	200216	50.716	1690.53			5
131) N-Nitrosodiphenylamine	(4)	8.719	(-0.000)	169	925191	42.049	1401.65			0.5
143) 4-Bromophenyl-phenylether	(4)	9.060	(0.000)	248	263102	39.377	1312.58			0.6
145) Hexachlorobenzene	(4)	9.089	(0.000)	284	268720	38.356	1278.54			0.1
149) Pentachlorophenol	(4)	9.313	(0.000)	266	170248	36.092	1203.06			1
163) Carbazole	(4)	9.736	(0.000)	167	1513942	42.646	1421.52			0.5
193) 3,3'-Dichlorobenzidine	(5)	12.042	(-0.000)	252	456137	33.957	1131.88			3
205) Di-n-octylphthalate	(6)	12.742	(0.000)	149	1671101	44.107	1470.23			2

M = Compound was manually integrated.

Total number of targets = 48

Digitally signed by Edward Monborne on 11/14/2018 at 11:53. Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 12:04. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

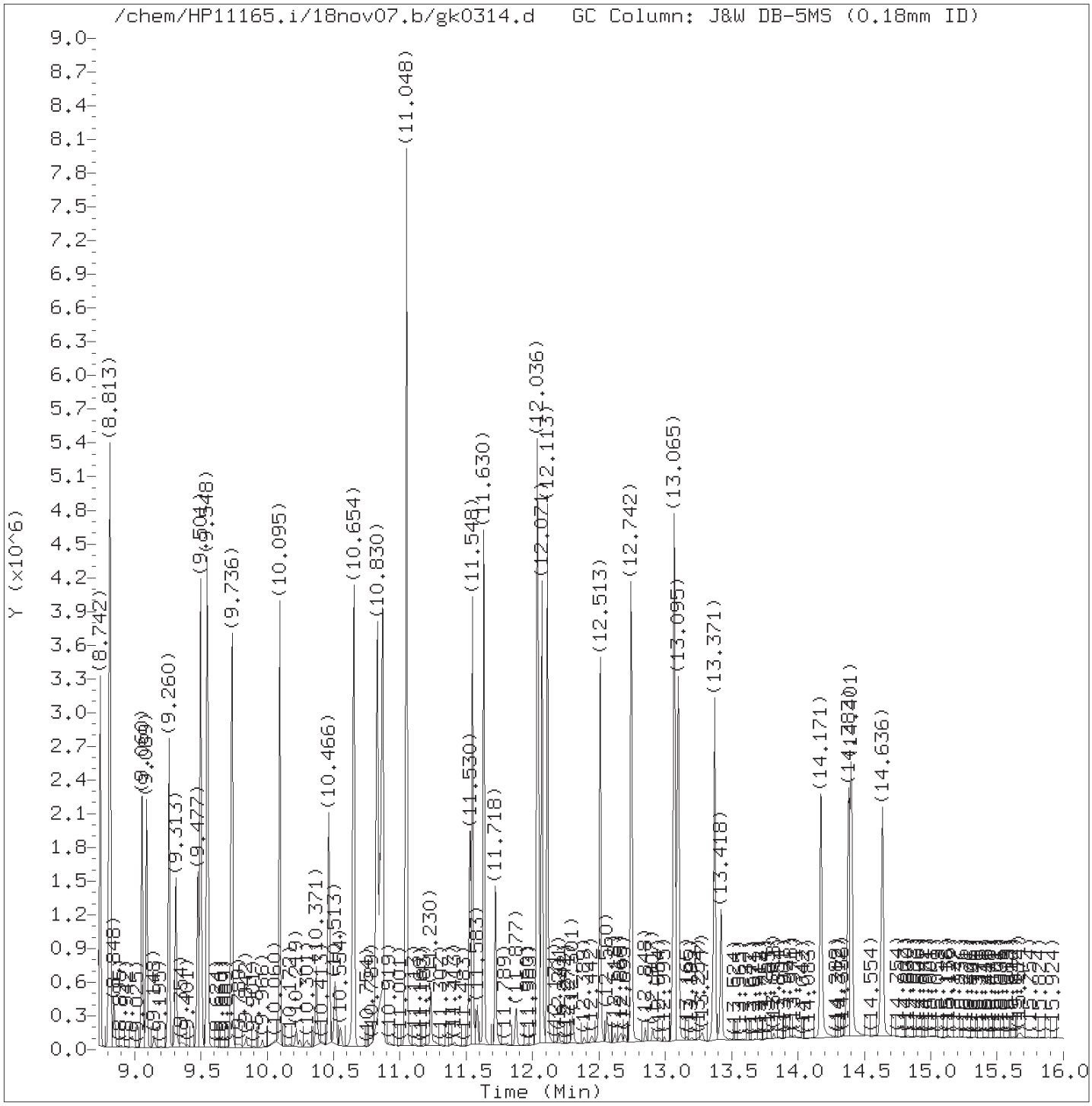
Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:51
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

Digitally signed by Edward Monborne
on 11/14/2018 at 11:53.
Target 3.5 esignature user ID: em10340



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:51
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

Digitally signed by Edward Monborne
on 11/14/2018 at 11:53.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:51
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.237	79	296480	27.807
11)$2-Fluorophenol	(1)	3.860	112	1604797	179.053
19) Aniline	(1)	4.813	93	570503	34.598
17)$Phenol-d6	(1)	4.848	99	2231451	173.017
18) Phenol	(1)	4.860	94	658446	47.824
22) bis(2-Chloroethyl)ether	(1)	4.884	93	464047	44.650
23) 2-Chlorophenol	(1)	4.925	128	403847	41.769
24) 1,3-Dichlorobenzene	(1)	5.042	146	399079	41.161
25)*1,4-Dichlorobenzene-d4	(1)	5.107	152	119801	20.000
26) 1,4-Dichlorobenzene	(1)	5.125	146	422035	43.348
28) 1,2-Dichlorobenzene	(1)	5.266	146	400638	42.848
27) Benzyl alcohol	(1)	5.289	108	310941	42.644
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.407	45	456488	32.668
31) 2-Methylphenol	(1)	5.431	108	448632	47.425
38) N-Nitroso-di-n-propylamine	(1)	5.537	70	360434	38.043
43) Hexachloroethane	(1)	5.584	117	145861	38.572
37) 4-Methylphenol	(1)	5.584	108	493302	46.938
44)$Nitrobenzene-d5	(2)	5.666	82	929706	81.625
45) Nitrobenzene	(2)	5.684	77	486977	40.519
50) Isophorone	(2)	5.919	82	956363	43.156
51) 2-Nitrophenol	(2)	5.989	139	231307	48.293
53) 2,4-Dimethylphenol	(2)	6.072	107	367621	36.149
55) bis(2-Chloroethoxy)methane	(2)	6.148	93	572810	44.811
60) 2,4-Dichlorophenol	(2)	6.236	162	363448	48.108
62) 1,2,4-Trichlorobenzene	(2)	6.289	180	331301	44.374
65)*Naphthalene-d8	(2)	6.336	136	508626	20.000
67) 4-Chloroaniline	(2)	6.448	127	365178	30.432
71) Hexachlorobutadiene	(2)	6.478	225	156228	45.522
80) 4-Chloro-3-methylphenol	(2)	6.960	107	433467	47.465
83) 2-Methylnaphthalene	(2)	7.031	142	868879	43.530
85) Hexachlorocyclopentadiene	(3)	7.178	237	273366	63.722
90) 2,4,6-Trichlorophenol	(3)	7.331	196	262647	45.996
92) 2,4,5-Trichlorophenol	(3)	7.378	196	283133	43.887
93)$2-Fluorobiphenyl	(3)	7.407	172	1855950	76.804
96) 2-Chloronaphthalene	(3)	7.507	162	917719M	44.381
100) 2-Nitroaniline	(3)	7.642	138	314931	45.838
106) Dimethylphthalate	(3)	7.825	163	1001408	40.459
108) 2,6-Dinitrotoluene	(3)	7.878	165	245006	45.678
113)*Acenaphthene-d10	(3)	8.036	164	302799	20.000
112) 3-Nitroaniline	(3)	8.048	138	275514	43.415

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:53.
Target 3.5 esignature user ID: em10340

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:51
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

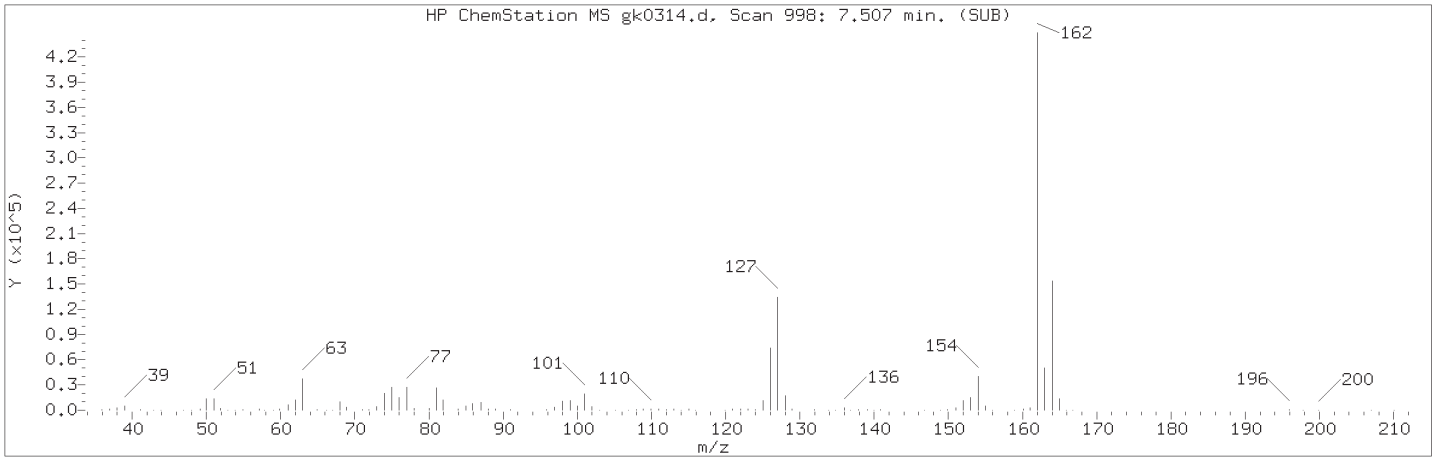
Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.148	184	318660	97.490
119) Dibenzofuran	(3)	8.242	168	1253386	42.208
118) 2,4-Dinitrotoluene	(3)	8.272	165	327210	43.983
116) 4-Nitrophenol	(3)	8.278	109	132012	32.278
124) Diethylphthalate	(3)	8.507	149	970368	39.069
127) 4-Chlorophenyl-phenylether	(3)	8.589	204	444404	40.248
129) 4-Nitroaniline	(3)	8.648	138	234781	33.193
130) 4,6-Dinitro-2-methylphenol	(4)	8.660	198	200216	50.716
131) N-Nitrosodiphenylamine	(4)	8.719	169	925191	42.049
135)$2,4,6-Tribromophenol	(3)	8.813	330	512647	148.362
143) 4-Bromophenyl-phenylether	(4)	9.060	248	263102	39.377
145) Hexachlorobenzene	(4)	9.089	284	268720	38.356
149) Pentachlorophenol	(4)	9.313	266	170248	36.092
153)*Phenanthrene-d10	(4)	9.477	188	583384	20.000
163) Carbazole	(4)	9.736	167	1513942	42.646
175)*Pyrene-d10	(5)	10.848	212	525861	20.000
179)$Terphenyl-d14	(5)	11.048	244	2173472	77.974
193) 3,3'-Dichlorobenzidine	(5)	12.042	252	456137	33.957
205) Di-n-octylphthalate	(6)	12.742	149	1671101	44.107
213)*Perylene-d12	(6)	13.424	264	433267	20.000

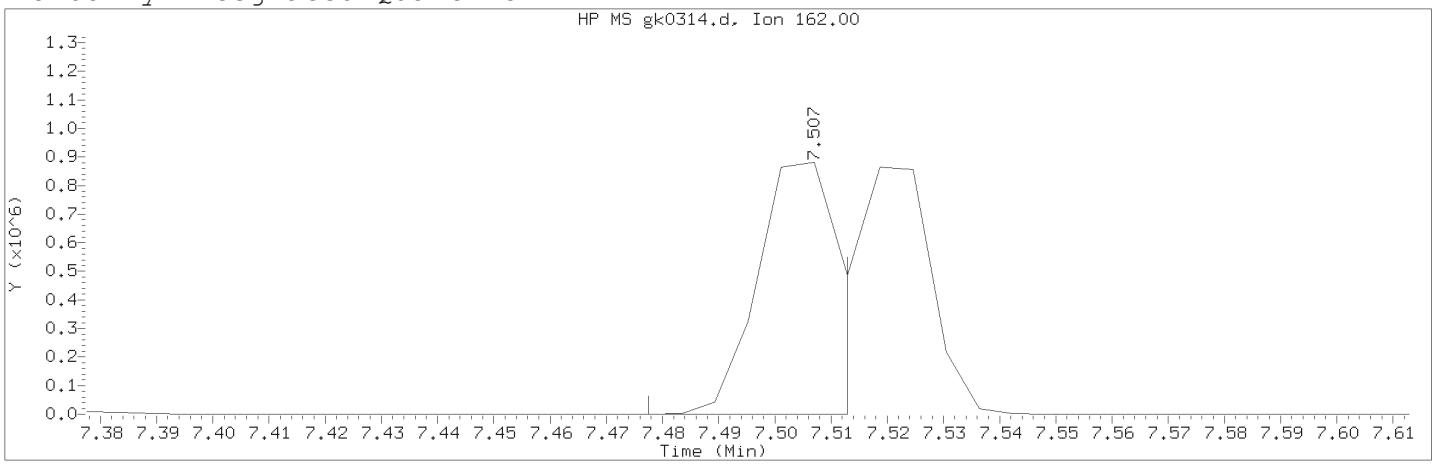
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Edward Monborne
on 11/14/2018 at 11:53.
Target 3.5 esignature user ID: em10340

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 14-NOV-2018 11:51
Date, time and analyst ID of latest file update: 14-Nov-2018 11:52 em10340

Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

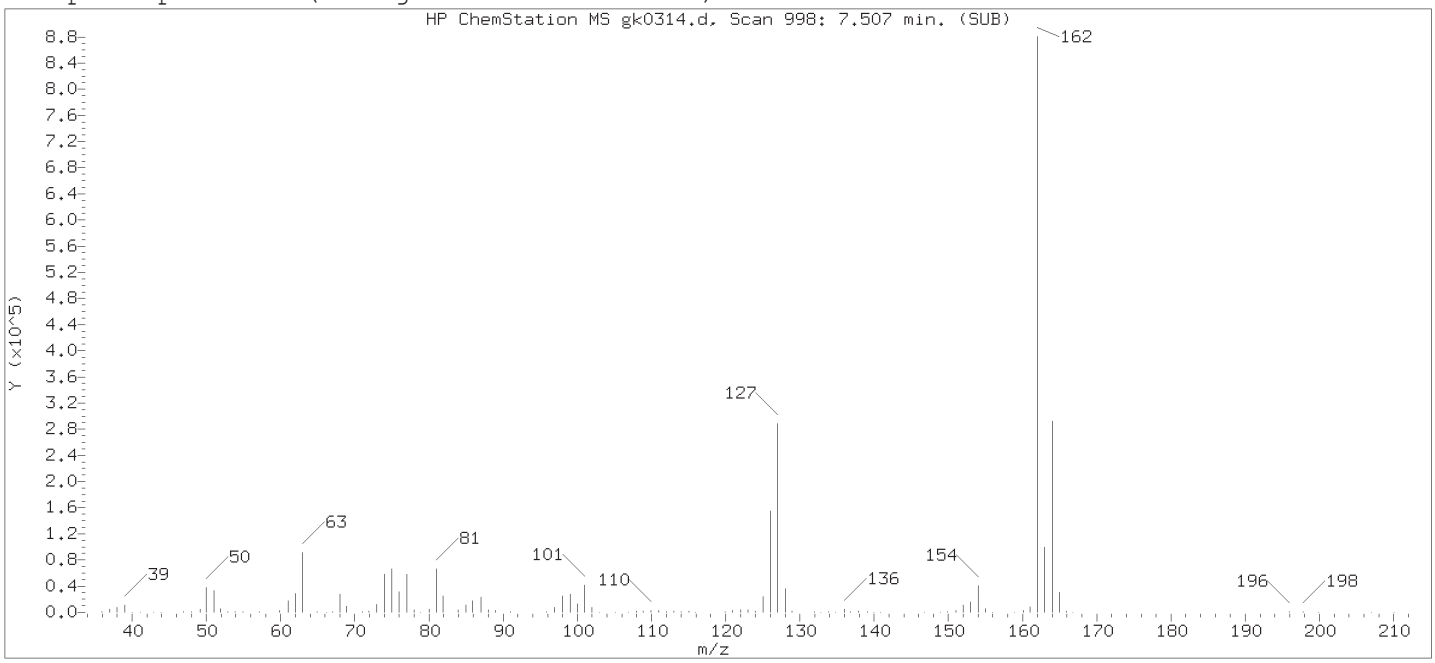
Compound Number : 96
Compound Name : 2-Chloronaphthalene
Scan Number : 998
Retention Time (minutes) : 7.507
Quant Ion : 162.00
Area (flag) : 917719M
On-Column Amount (ng/ul) : 44.3809
Integration start scan : 992 Integration stop scan: 998
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

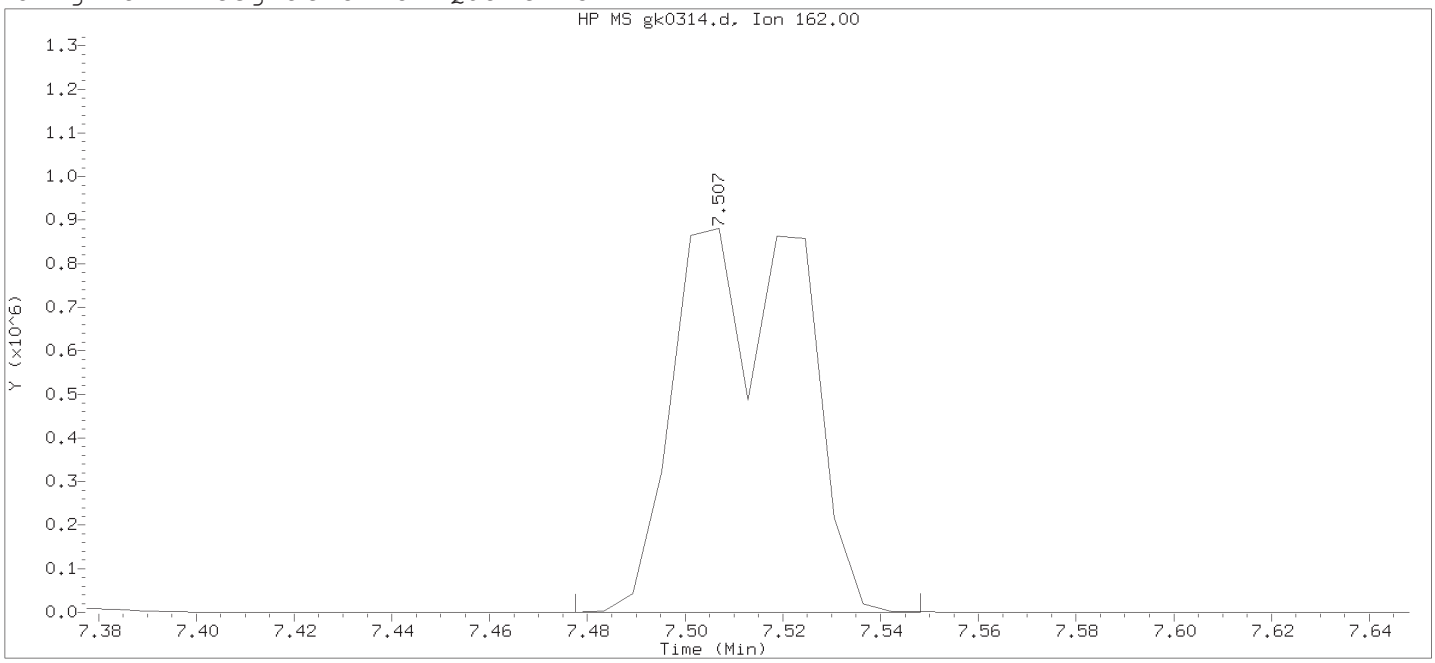
Analyst responsible for change: Digitally signed by Edward Monborne
on 11/14/2018 at 11:53.
Target 3.5 esignature user ID: em10340

Secondary review performed and digitally signed by Matthew E. Barton on 11/14/2018 at 12:04.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov07.b/gk0314.d Instrument ID: HP11165.i
Injection date and time: 07-NOV-2018 12:24 Analyst ID: em10340

Method used: /chem/HP11165.i/18nov07.b/m8270d.m Sublist used: 25806
Calibration date and time: 07-NOV-2018 12:30
Date, time and analyst ID of latest file update: 07-Nov-2018 12:46 Automation

Sample Name: 302LCLCS Lab Sample ID: 302LCLCS

Compound Number	:	96
Compound Name	:	2-Chloronaphthalene
Scan Number	:	998
Retention Time (minutes)	:	7.507
Quant Ion	:	162.00
Area	:	1609036
On-column Amount (ng/ul)	:	77.8128
Integration start scan	:	992 Integration stop scan: 1004
Y at integration start	:	0 Y at integration end: 0

Digitally signed by Edward Monborne on 11/14/2018 at 11:53.
Target 3.5 esignature used: 1.0.2.0

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP23262.i/18nov11.b/pk0364.d Injection date and time: **11-NOV-2018 22:44**
Data file Sample Info. Line: 302LILCS;302LILCS;2;3;LCS;;DOD26; Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 12-NOV-2018 00:33
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 0 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.501	(0.000)	590	152	156824	(5)	20.00	
65) Naphthalene-d8	6.731	(0.000)	799	136	633783	(-2)	20.00	
113) Acenaphthene-d10	8.442	(0.000)	1090	164	359776	(-5)	20.00	
153) Phenanthrene-d10	9.889	(0.000)	1336	188	842516	(-3)	20.00	
175) Pyrene-d10	11.277	(0.000)	1572	212	846551	(-6)	20.00	
213) Perylene-d12	13.907	(0.000)	2019	264	700027	(-11)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	4.219	(0.000)	112	2083373	173.533	87%
17) Phenol-d6	(1)	5.172	(-0.001)	99	3051949	161.332	81%
44) Nitrobenzene-d5	(2)	6.037	(0.000)	82	1414752	86.101	86%
93) 2-Fluorobiphenyl	(3)	7.795	(0.000)	172	2618940	94.475	94%
135) 2,4,6-Tribromophenol	(3)	9.219	(-0.001)	330	680842	189.234	95%
179) Terphenyl-d14	(5)	11.466	(-0.001)	244	3539899	98.030	98%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)	2.696	(0.001)	79	488163	29.798	993.27			2
18) Phenol	(1)	5.184	(-0.000)	94	958664	42.616	1420.52			0.7
19) Aniline	(1)	5.184	(-0.000)	93	635804	25.304	843.47			5
22) bis(2-Chloroethyl)ether	(1)	5.260	(-0.000)	93	631589	39.732	1324.40			0.7
23) 2-Chlorophenol	(1)	5.295	(0.000)	128	511593	42.237	1407.92			0.5
24) 1,3-Dichlorobenzene	(1)	5.442	(-0.000)	146	491155	40.504	1350.13			0.5
26) 1,4-Dichlorobenzene	(1)	5.519	(-0.000)	146	494832	41.043	1368.11			0.5
27) Benzyl alcohol	(1)	5.642	(-0.000)	108	417851	42.707	1423.57			5
28) 1,2-Dichlorobenzene	(1)	5.660	(-0.000)	146	479424	39.783	1326.10			0.6
31) 2-Methylphenol	(1)	5.766	(-0.000)	108	577561	41.940	1398.02			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	(-0.001)	45	906443	39.148	1304.94			0.5
37) 4-Methylphenol	(1)	5.919	(-0.001)	108	674454	41.640	1388.00			0.6
38) N-Nitroso-di-n-propylamine	(1)	5.907	(-0.000)	70	560265	40.610	1353.67			0.6
43) Hexachloroethane	(1)	5.984	(-0.000)	117	208542	40.606	1353.53			1
45) Nitrobenzene	(2)	6.060	(-0.000)	77	760105	42.822	1427.41			0.8
50) Isophorone	(2)	6.295	(0.000)	82	1447519	43.881	1462.68			0.5
51) 2-Nitrophenol	(2)	6.366	(0.000)	139	280993	44.304	1476.79			0.5
53) 2,4-Dimethylphenol	(2)	6.425	(0.000)	107	506839	34.949	1164.97			0.5
55) bis(2-Chloroethoxy)methane	(2)	6.519	(0.000)	93	873799	44.447	1481.56			0.5
60) 2,4-Dichlorophenol	(2)	6.607	(-0.000)	162	478568	45.288	1509.60			0.5
62) 1,2,4-Trichlorobenzene	(2)	6.678	(-0.000)	180	487263	44.439	1481.30			0.5
67) 4-Chloroaniline	(2)	6.813	(-0.000)	127	408633	28.073	935.75			1
71) Hexachlorobutadiene	(2)	6.878	(-0.000)	225	290474	46.311	1543.69			0.6
80) 4-Chloro-3-methylphenol	(2)	7.301	(-0.000)	107	619253	45.872	1529.08			0.5
83) 2-Methylnaphthalene	(2)	7.430	(-0.000)	142	1101594	44.564	1485.46	12.806	B	0.3
85) Hexachlorocyclopentadiene	(3)	7.583	(0.000)	237	451313	75.224	2507.45			5
90) 2,4,6-Trichlorophenol	(3)	7.713	(-0.000)	196	396429	49.482	1649.40			0.6

B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/12/2018 at 00:33. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP23262.i/18nov11.b/pk0364.d Injection date and time: **11-NOV-2018 22:44**
Data file Sample Info. Line: 302LILCS;302LILCS;2;3;LCS;;DOD26; Instrument ID: **HP23262.i** Batch: **18302SLI**
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Blank Data file reference: **/chem/HP23262.i/18nov11.b/pk0363.d**

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 12-NOV-2018 00:33
Mid Level Daily Calibration Standard Reference: **/chem/HP23262.i/18nov11.b/pk0361.d**

Matrix: SOIL Level: Low GPC clean-up: No On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

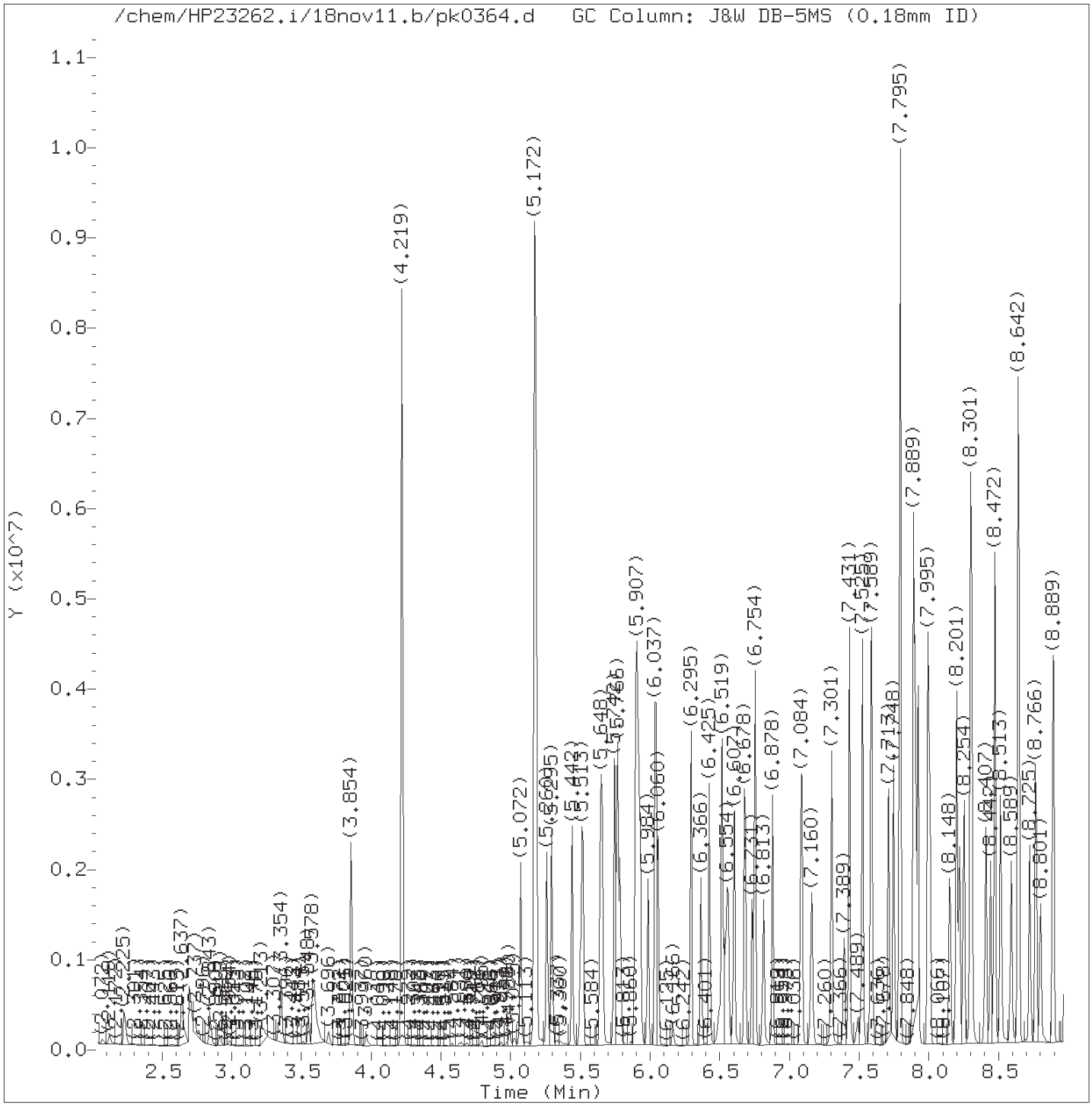
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 0 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)	7.748	(-0.000)	196	436371	49.692	1656.40			0.6
96) 2-Chloronaphthalene	(3)	7.901	(-0.000)	162	1128474	46.159	1538.63			0.2
100) 2-Nitroaniline	(3)	8.007	(0.000)	138	394132	48.093	1603.10			0.6
106) Dimethylphthalate	(3)	8.201	(-0.000)	163	1402220	48.081	1602.69			2
108) 2,6-Dinitrotoluene	(3)	8.254	(-0.000)	165	324432	46.764	1558.80			0.6
112) 3-Nitroaniline	(3)	8.407	(-0.000)	138	320651	45.036	1501.19			2
115) 2,4-Dinitrophenol	(3)	8.519	(-0.000)	184	386306	101.718	3390.60			11
116) 4-Nitrophenol	(3)	8.589	(-0.000)	109	209823	44.138	1471.27			5
118) 2,4-Dinitrotoluene	(3)	8.642	(-0.000)	165	434916	47.390	1579.67			2
119) Dibenzofuran	(3)	8.642	(-0.000)	168	1785992	47.336	1577.88			0.5
124) Diethylphthalate	(3)	8.889	(-0.000)	149	1441745	48.117	1603.91			2
127) 4-Chlorophenyl-phenylether	(3)	8.989	(-0.000)	204	762512	46.089	1536.31			0.5
129) 4-Nitroaniline	(3)	9.007	(-0.000)	138	316759	38.933	1297.78			2
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	(0.000)	198	252813	46.895	1563.18			5
131) N-Nitrosodiphenylamine	(4)	9.107	(0.000)	169	1268801	46.796	1559.87			0.5
143) 4-Bromophenyl-phenylether	(4)	9.466	(0.000)	248	437558	47.360	1578.66			0.6
145) Hexachlorobenzene	(4)	9.507	(0.000)	284	415260	47.043	1568.10			0.1
149) Pentachlorophenol	(4)	9.707	(-0.000)	266	250985	49.254	1641.79			1
163) Carbazole	(4)	10.130	(-0.000)	167	2112496	47.344	1578.15			0.5
193) 3,3'-Dichlorobenzidine	(5)	12.460	(-0.000)	252	721025	37.039	1234.63			3
205) Di-n-octylphthalate	(6)	13.189	(0.000)	149	2754446	49.363	1645.44			2

Total number of targets = 48

Digitally signed by Anthony P. Bauer on 11/12/2018 at 00:33. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/13/2018 at 11:07. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

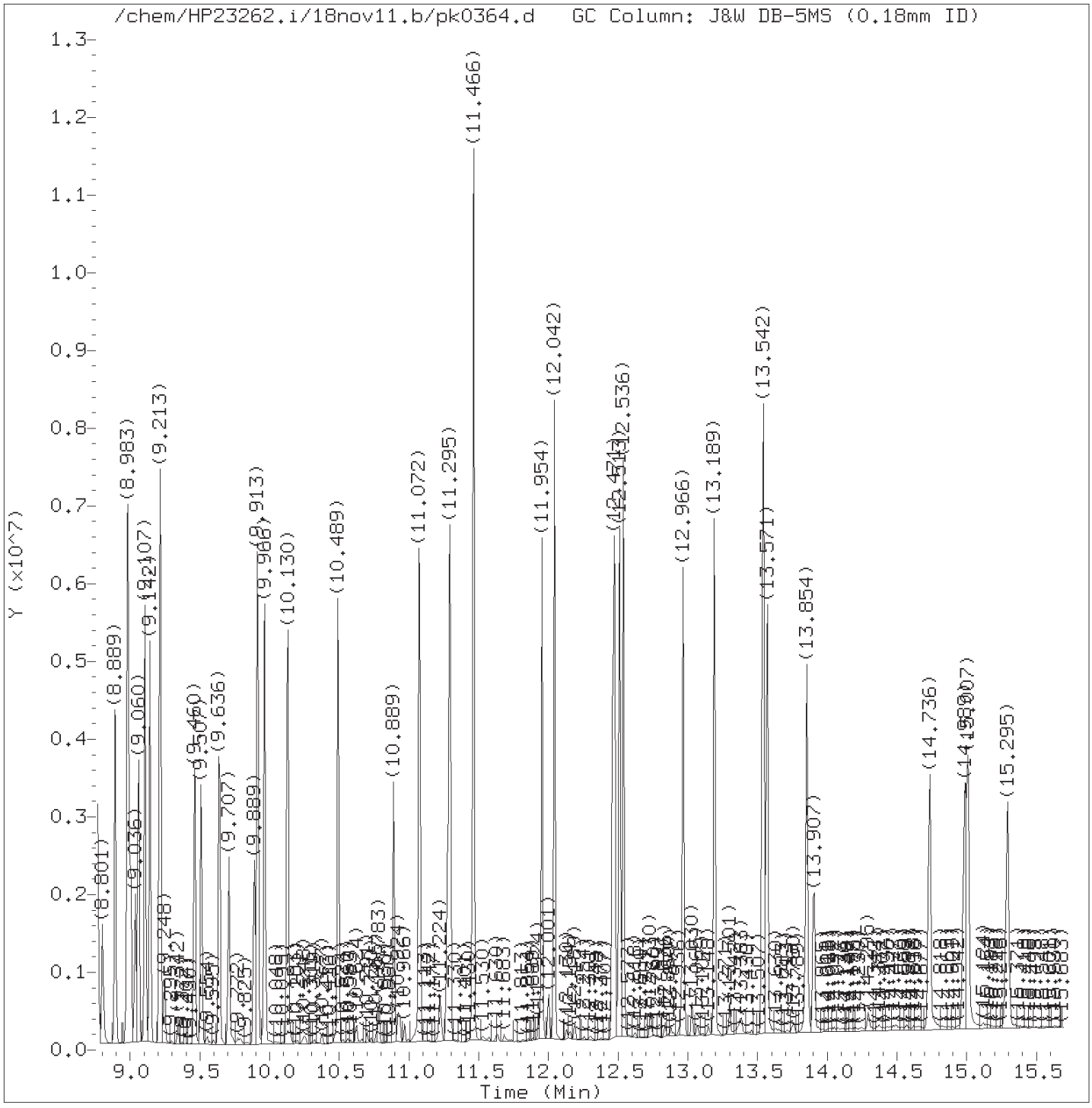
Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0364.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:33
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Sample Name: 302LILCS Lab Sample ID: 302LILCS

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:33.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0364.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:33
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Sample Name: 302LILCS Lab Sample ID: 302LILCS

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:33.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0364.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:33
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Sample Name: 302LILCS Lab Sample ID: 302LILCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.696	79	488163	29.798
11)$2-Fluorophenol	(1)	4.219	112	2083373	173.533
17)$Phenol-d6	(1)	5.172	99	3051949	161.332
18) Phenol	(1)	5.184	94	958664	42.616
19) Aniline	(1)	5.184	93	635804	25.304
22) bis(2-Chloroethyl)ether	(1)	5.260	93	631589	39.732
23) 2-Chlorophenol	(1)	5.295	128	511593	42.237
24) 1,3-Dichlorobenzene	(1)	5.442	146	491155	40.504
25)*1,4-Dichlorobenzene-d4	(1)	5.501	152	156824	20.000
26) 1,4-Dichlorobenzene	(1)	5.519	146	494832	41.043
27) Benzyl alcohol	(1)	5.642	108	417851	42.707
28) 1,2-Dichlorobenzene	(1)	5.660	146	479424	39.783
31) 2-Methylphenol	(1)	5.766	108	577561	41.940
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.784	45	906443	39.148
38) N-Nitroso-di-n-propylamine	(1)	5.907	70	560265	40.610
37) 4-Methylphenol	(1)	5.919	108	674454	41.640
43) Hexachloroethane	(1)	5.984	117	208542	40.606
44)$Nitrobenzene-d5	(2)	6.037	82	1414752	86.101
45) Nitrobenzene	(2)	6.060	77	760105	42.822
50) Isophorone	(2)	6.295	82	1447519	43.881
51) 2-Nitrophenol	(2)	6.366	139	280993	44.304
53) 2,4-Dimethylphenol	(2)	6.425	107	506839	34.949
55) bis(2-Chloroethoxy)methane	(2)	6.519	93	873799	44.447
60) 2,4-Dichlorophenol	(2)	6.607	162	478568	45.288
62) 1,2,4-Trichlorobenzene	(2)	6.678	180	487263	44.439
65)*Naphthalene-d8	(2)	6.731	136	633783	20.000
67) 4-Chloroaniline	(2)	6.813	127	408633	28.073
71) Hexachlorobutadiene	(2)	6.878	225	290474	46.311
80) 4-Chloro-3-methylphenol	(2)	7.301	107	619253	45.872
83) 2-Methylnaphthalene	(2)	7.431	142	1101594	44.564
85) Hexachlorocyclopentadiene	(3)	7.583	237	451313	75.224
90) 2,4,6-Trichlorophenol	(3)	7.713	196	396429	49.482
92) 2,4,5-Trichlorophenol	(3)	7.748	196	436371	49.692
93)$2-Fluorobiphenyl	(3)	7.795	172	2618940	94.475
96) 2-Chloronaphthalene	(3)	7.901	162	1128474	46.159
100) 2-Nitroaniline	(3)	8.007	138	394132	48.093
106) Dimethylphthalate	(3)	8.201	163	1402220	48.081
108) 2,6-Dinitrotoluene	(3)	8.254	165	324432	46.764
112) 3-Nitroaniline	(3)	8.407	138	320651	45.036
113)*Acenaphthene-d10	(3)	8.442	164	359776	20.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:33.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP23262.i/18nov11.b/pk0364.d Instrument ID: HP23262.i
Injection date and time: 11-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP23262.i/18nov11.b/m8270d.m Sublist used: 25806
Calibration date and time: 12-NOV-2018 00:33
Date, time and analyst ID of latest file update: 12-Nov-2018 00:33 apb10206

Sample Name: 302LILCS Lab Sample ID: 302LILCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.519	184	386306	101.718
116) 4-Nitrophenol	(3)	8.589	109	209823	44.138
118) 2,4-Dinitrotoluene	(3)	8.642	165	434916	47.390
119) Dibenzofuran	(3)	8.642	168	1785992	47.336
124) Diethylphthalate	(3)	8.889	149	1441745	48.117
127) 4-Chlorophenyl-phenylether	(3)	8.989	204	762512	46.089
129) 4-Nitroaniline	(3)	9.007	138	316759	38.933
130) 4,6-Dinitro-2-methylphenol	(4)	9.036	198	252813	46.895
131) N-Nitrosodiphenylamine	(4)	9.107	169	1268801	46.796
135)$2,4,6-Tribromophenol	(3)	9.219	330	680842	189.234
143) 4-Bromophenyl-phenylether	(4)	9.466	248	437558	47.360
145) Hexachlorobenzene	(4)	9.507	284	415260	47.043
149) Pentachlorophenol	(4)	9.707	266	250985	49.254
153)*Phenanthrene-d10	(4)	9.889	188	842516	20.000
163) Carbazole	(4)	10.130	167	2112496	47.344
175)*Pyrene-d10	(5)	11.277	212	846551	20.000
179)$Terphenyl-d14	(5)	11.466	244	3539899	98.030
193) 3,3'-Dichlorobenzidine	(5)	12.460	252	721025	37.039
205) Di-n-octylphthalate	(6)	13.189	149	2754446	49.363
213)*Perylene-d12	(6)	13.907	264	700027	20.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 00:33.
Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

317LBLCS

Data file: /chem/HP11165.i/18nov16.b/gk0855.d Injection date and time: **16-NOV-2018 15:39**
Data file Sample Info. Line: 317LBLCS;317LBLCS;2;3;LCS;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.451	(0.000)	606	152	159924	(6)	20.00	
65) Naphthalene-d8	6.687	(0.000)	816	136	689812	(3)	20.00	
113) Acenaphthene-d10	8.398	(0.000)	1107	164	409783	(1)	20.00	
153) Phenanthrene-d10	9.851	(0.000)	1354	188	847381	(3)	20.00	
175) Pyrene-d10	11.239	(0.000)	1590	212	800819	(3)	20.00	
213) Perylene-d12	13.874	(0.000)	2038	264	655680	(0)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	4.199	(0.000)	112	2050319	169.036	85%
17) Phenol-d6	(1)	5.163	(0.000)	99	2991406	159.265	80%
44) Nitrobenzene-d5	(2)	5.992	(0.000)	82	1402066	77.146	77%
93) 2-Fluorobiphenyl	(3)	7.751	(0.000)	172	2490202	75.080	75%
135) 2,4,6-Tribromophenol	(3)	9.181	(0.000)	330	644319	196.316	98%
179) Terphenyl-d14	(5)	11.433	(0.000)	244	3171668	81.903	82%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)	2.704	(-0.001)	79	398416M	27.639	921.30			2
18) Phenol	(1)	5.175	(-0.000)	94	818423	38.272	1275.72			0.7
19) Aniline	(1)	5.140	(0.000)	93	657128	26.188	872.93			5
22) bis(2-Chloroethyl)ether	(1)	5.210	(0.000)	93	565931	36.848	1228.26			0.7
23) 2-Chlorophenol	(1)	5.257	(-0.000)	128	531393	45.081	1502.70			0.5
24) 1,3-Dichlorobenzene	(1)	5.392	(-0.000)	146	499232	38.448	1281.61			0.5
26) 1,4-Dichlorobenzene	(1)	5.469	(0.000)	146	530443	39.139	1304.65			0.5
27) Benzyl alcohol	(1)	5.610	(0.000)	108	388627	41.385	1379.50			5
28) 1,2-Dichlorobenzene	(1)	5.610	(0.000)	146	484502	36.937	1231.22			0.6
31) 2-Methylphenol	(1)	5.745	(0.001)	108	567139	39.336	1311.21			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.740	(-0.001)	45	566674	36.354	1211.81			0.5
37) 4-Methylphenol	(1)	5.892	(0.002)	108	645497	44.208	1473.60			0.6
38) N-Nitroso-di-n-propylamine	(1)	5.869	(0.000)	70	526442	38.307	1276.89			0.6
43) Hexachloroethane	(1)	5.934	(0.000)	117	205785	40.341	1344.69			1
45) Nitrobenzene	(2)	6.010	(0.000)	77	721443	38.056	1268.53			0.8
50) Isophorone	(2)	6.251	(-0.000)	82	1326584	38.720	1290.65			0.5
51) 2-Nitrophenol	(2)	6.322	(-0.000)	139	288876	42.296	1409.86			0.5
53) 2,4-Dimethylphenol	(2)	6.398	(-0.000)	107	516186	34.203	1140.09			0.5
55) bis(2-Chloroethoxy)methane	(2)	6.475	(-0.000)	93	763046	40.066	1335.54			0.5
60) 2,4-Dichlorophenol	(2)	6.575	(0.000)	162	463094	43.976	1465.87			0.5
62) 1,2,4-Trichlorobenzene	(2)	6.634	(0.000)	180	451022	40.613	1353.76			0.5
67) 4-Chloroaniline	(2)	6.775	(0.000)	127	188080	11.725	390.84			1
71) Hexachlorobutadiene	(2)	6.834	(0.000)	225	236880	39.751	1325.03			0.6
80) 4-Chloro-3-methylphenol	(2)	7.286	(0.000)	107	609515	46.373	1545.78			0.5
83) 2-Methylnaphthalene	(2)	7.386	(0.000)	142	1128415	40.838	1361.28			0.3
85) Hexachlorocyclopentadiene	(3)	7.539	(-0.000)	237	387189	64.103	2136.78			5
90) 2,4,6-Trichlorophenol	(3)	7.681	(-0.000)	196	356819	43.715	1457.18			0.6

M = Compound was manually integrated.

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

Data file: /chem/HP11165.i/18nov16.b/gk0855.d Injection date and time: **16-NOV-2018 15:39**
Data file Sample Info. Line: 317LBLCS;317LBLCS;2;3;LCS;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

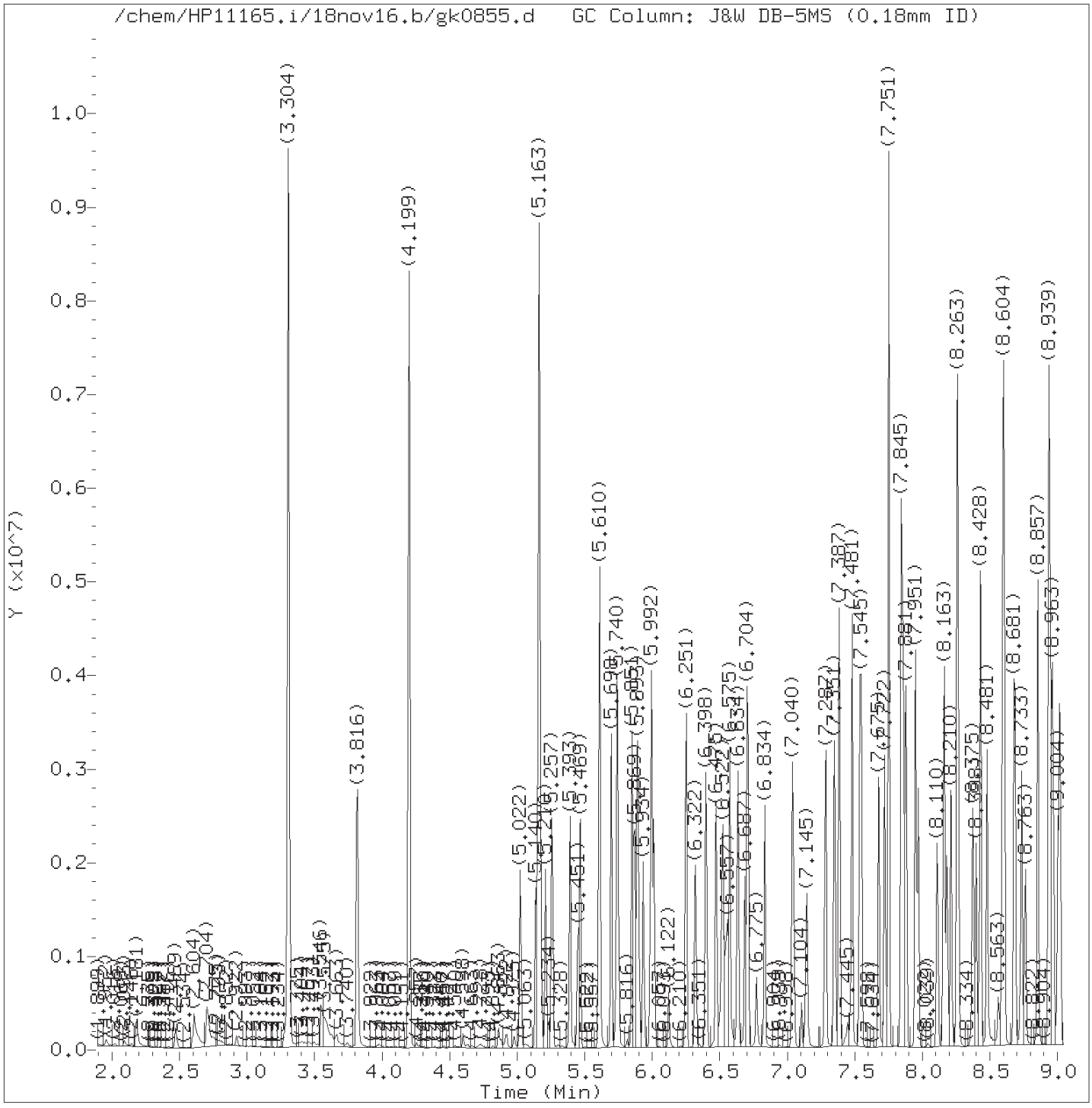
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)	7.722	(0.000)	196	396516	44.600	1486.66			0.6
96) 2-Chloronaphthalene	(3)	7.857	(0.000)	162	1101294	38.842	1294.74			0.2
100) 2-Nitroaniline	(3)	7.969	(-0.000)	138	399335	45.079	1502.63			0.6
106) Dimethylphthalate	(3)	8.163	(-0.000)	163	1408574	42.412	1413.73			2
108) 2,6-Dinitrotoluene	(3)	8.216	(-0.000)	165	322068	43.185	1439.49			0.6
112) 3-Nitroaniline	(3)	8.375	(0.000)	138	319089	38.161	1272.05			2
115) 2,4-Dinitrophenol	(3)	8.480	(0.000)	184	374435	74.451	2481.69			11
116) 4-Nitrophenol	(3)	8.592	(0.000)	109	254487	43.839	1461.31			5
118) 2,4-Dinitrotoluene	(3)	8.604	(0.000)	165	443259	42.773	1425.77			2
119) Dibenzofuran	(3)	8.604	(0.000)	168	1699968	42.243	1408.11			0.5
124) Diethylphthalate	(3)	8.857	(0.000)	149	1405126	42.148	1404.94			2
127) 4-Chlorophenyl-phenylether	(3)	8.945	(0.000)	204	643081	41.126	1370.88			0.5
129) 4-Nitroaniline	(3)	8.975	(0.000)	138	301019	33.048	1101.59			2
130) 4,6-Dinitro-2-methylphenol	(4)	9.004	(0.000)	198	256179	40.795	1359.82			5
131) N-Nitrosodiphenylamine	(4)	9.069	(-0.000)	169	1281841	42.881	1429.35			0.5
143) 4-Bromophenyl-phenylether	(4)	9.422	(-0.000)	248	364683	39.161	1305.37			0.6
145) Hexachlorobenzene	(4)	9.469	(-0.000)	284	355509	40.930	1364.32			0.1
149) Pentachlorophenol	(4)	9.675	(0.000)	266	199472	34.391	1146.36			1
163) Carbazole	(4)	10.092	(0.000)	167	2082652	43.912	1463.72			0.5
193) 3,3'-Dichlorobenzidine	(5)	12.427	(0.000)	252	546036	29.832	994.42			3
205) Di-n-octylphthalate	(6)	13.168	(-0.000)	149	2590365	43.867	1462.22			2

Total number of targets = 48

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 12:59. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

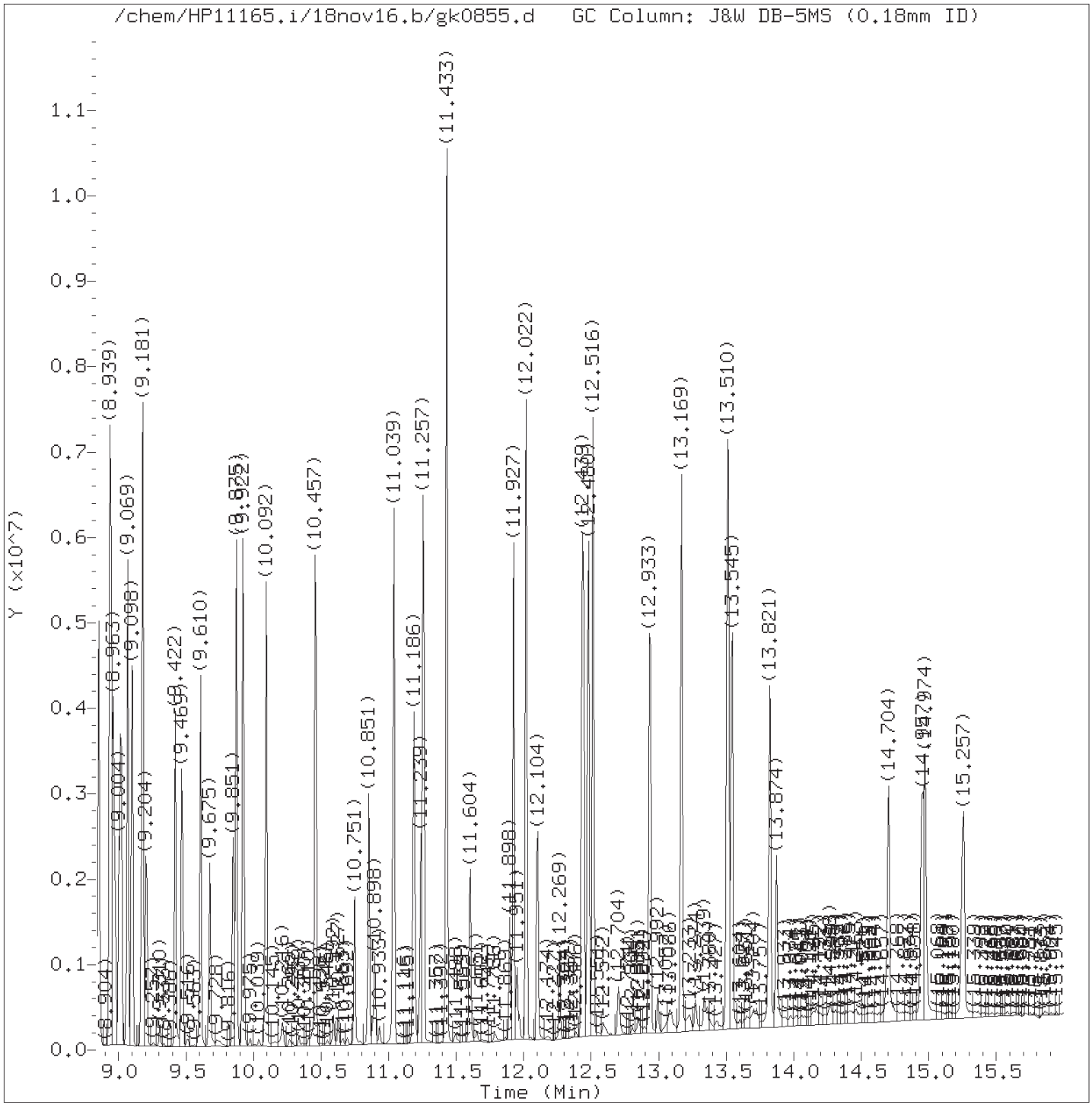
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.704	79	398416M	27.639
11)$2-Fluorophenol	(1)	4.199	112	2050319	169.036
19) Aniline	(1)	5.140	93	657128	26.188
17)$Phenol-d6	(1)	5.163	99	2991406	159.265
18) Phenol	(1)	5.175	94	818423	38.272
22) bis(2-Chloroethyl)ether	(1)	5.210	93	565931	36.848
23) 2-Chlorophenol	(1)	5.257	128	531393	45.081
24) 1,3-Dichlorobenzene	(1)	5.393	146	499232	38.448
25)*1,4-Dichlorobenzene-d4	(1)	5.451	152	159924	20.000
26) 1,4-Dichlorobenzene	(1)	5.469	146	530443	39.139
27) Benzyl alcohol	(1)	5.610	108	388627	41.385
28) 1,2-Dichlorobenzene	(1)	5.610	146	484502	36.937
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.740	45	566674	36.354
31) 2-Methylphenol	(1)	5.745	108	567139	39.336
38) N-Nitroso-di-n-propylamine	(1)	5.869	70	526442	38.307
37) 4-Methylphenol	(1)	5.893	108	645497	44.208
43) Hexachloroethane	(1)	5.934	117	205785	40.341
44)$Nitrobenzene-d5	(2)	5.992	82	1402066	77.146
45) Nitrobenzene	(2)	6.010	77	721443	38.056
50) Isophorone	(2)	6.251	82	1326584	38.720
51) 2-Nitrophenol	(2)	6.322	139	288876	42.296
53) 2,4-Dimethylphenol	(2)	6.398	107	516186	34.203
55) bis(2-Chloroethoxy)methane	(2)	6.475	93	763046	40.066
60) 2,4-Dichlorophenol	(2)	6.575	162	463094	43.976
62) 1,2,4-Trichlorobenzene	(2)	6.634	180	451022	40.613
65)*Naphthalene-d8	(2)	6.687	136	689812	20.000
67) 4-Chloroaniline	(2)	6.775	127	188080	11.725
71) Hexachlorobutadiene	(2)	6.834	225	236880	39.751
80) 4-Chloro-3-methylphenol	(2)	7.287	107	609515	46.373
83) 2-Methylnaphthalene	(2)	7.387	142	1128415	40.838
85) Hexachlorocyclopentadiene	(3)	7.539	237	387189	64.103
90) 2,4,6-Trichlorophenol	(3)	7.681	196	356819	43.715
92) 2,4,5-Trichlorophenol	(3)	7.722	196	396516	44.600
93)$2-Fluorobiphenyl	(3)	7.751	172	2490202	75.080
96) 2-Chloronaphthalene	(3)	7.857	162	1101294	38.842
100) 2-Nitroaniline	(3)	7.969	138	399335	45.079
106) Dimethylphthalate	(3)	8.163	163	1408574	42.412
108) 2,6-Dinitrotoluene	(3)	8.216	165	322068	43.185
112) 3-Nitroaniline	(3)	8.375	138	319089	38.161
113)*Acenaphthene-d10	(3)	8.398	164	409783	20.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

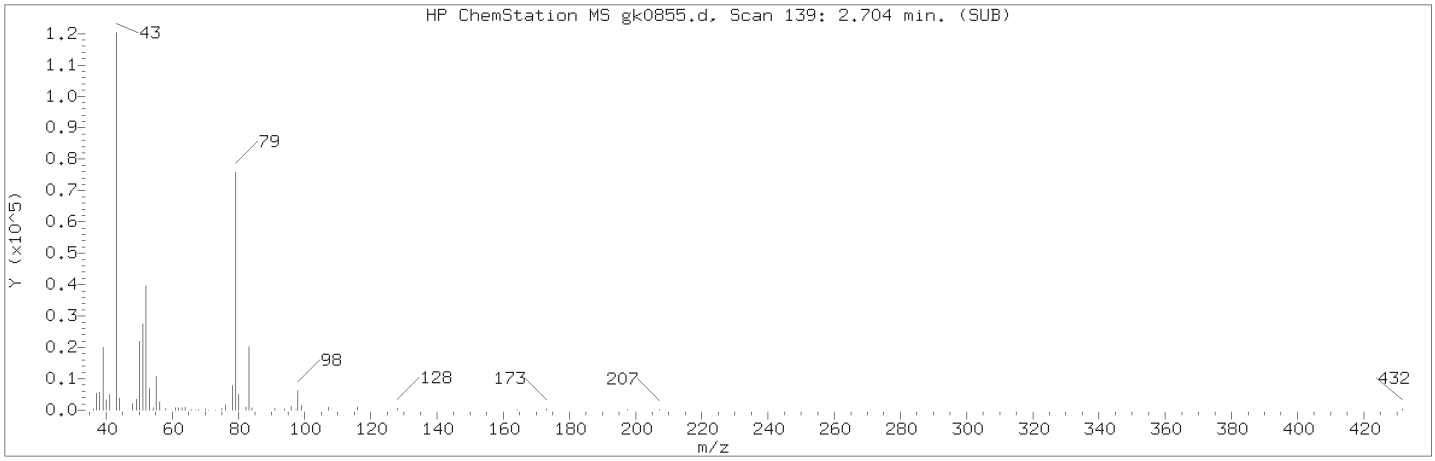
Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.481	184	374435	74.451
116) 4-Nitrophenol	(3)	8.592	109	254487	43.839
118) 2,4-Dinitrotoluene	(3)	8.604	165	443259	42.773
119) Dibenzofuran	(3)	8.604	168	1699968	42.243
124) Diethylphthalate	(3)	8.857	149	1405126	42.148
127) 4-Chlorophenyl-phenylether	(3)	8.945	204	643081	41.126
129) 4-Nitroaniline	(3)	8.975	138	301019	33.048
130) 4,6-Dinitro-2-methylphenol	(4)	9.004	198	256179	40.795
131) N-Nitrosodiphenylamine	(4)	9.069	169	1281841	42.881
135)$2,4,6-Tribromophenol	(3)	9.181	330	644319	196.316
143) 4-Bromophenyl-phenylether	(4)	9.422	248	364683	39.161
145) Hexachlorobenzene	(4)	9.469	284	355509	40.930
149) Pentachlorophenol	(4)	9.675	266	199472	34.391
153)*Phenanthrene-d10	(4)	9.851	188	847381	20.000
163) Carbazole	(4)	10.092	167	2082652	43.912
175)*Pyrene-d10	(5)	11.239	212	800819	20.000
179)$Terphenyl-d14	(5)	11.433	244	3171668	81.903
193) 3,3'-Dichlorobenzidine	(5)	12.427	252	546036	29.832
205) Di-n-octylphthalate	(6)	13.169	149	2590365	43.867
213)*Perylene-d12	(6)	13.874	264	655680	20.000

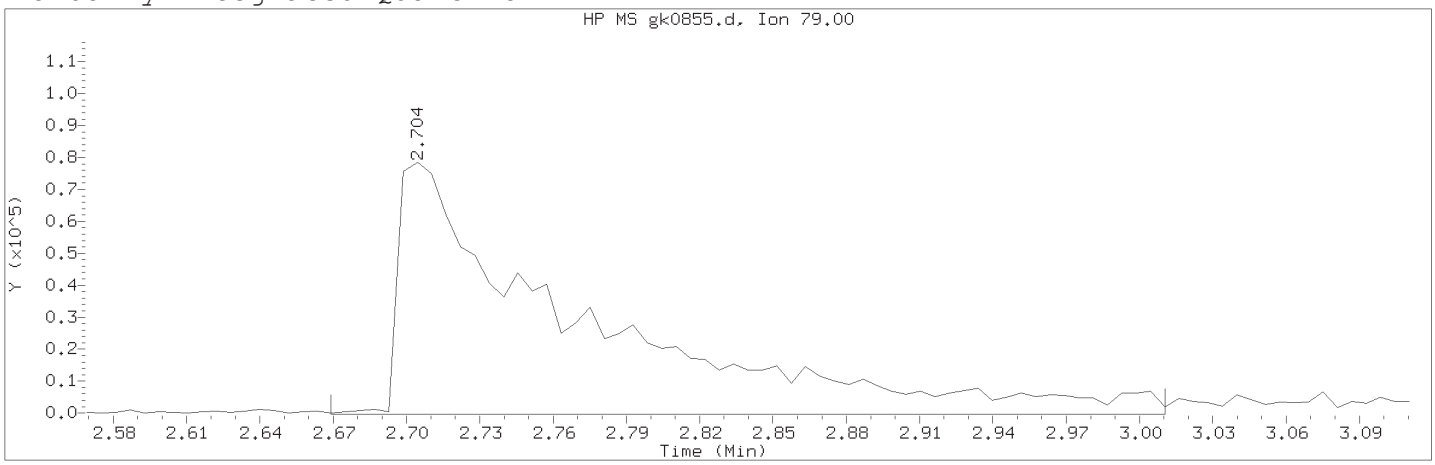
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

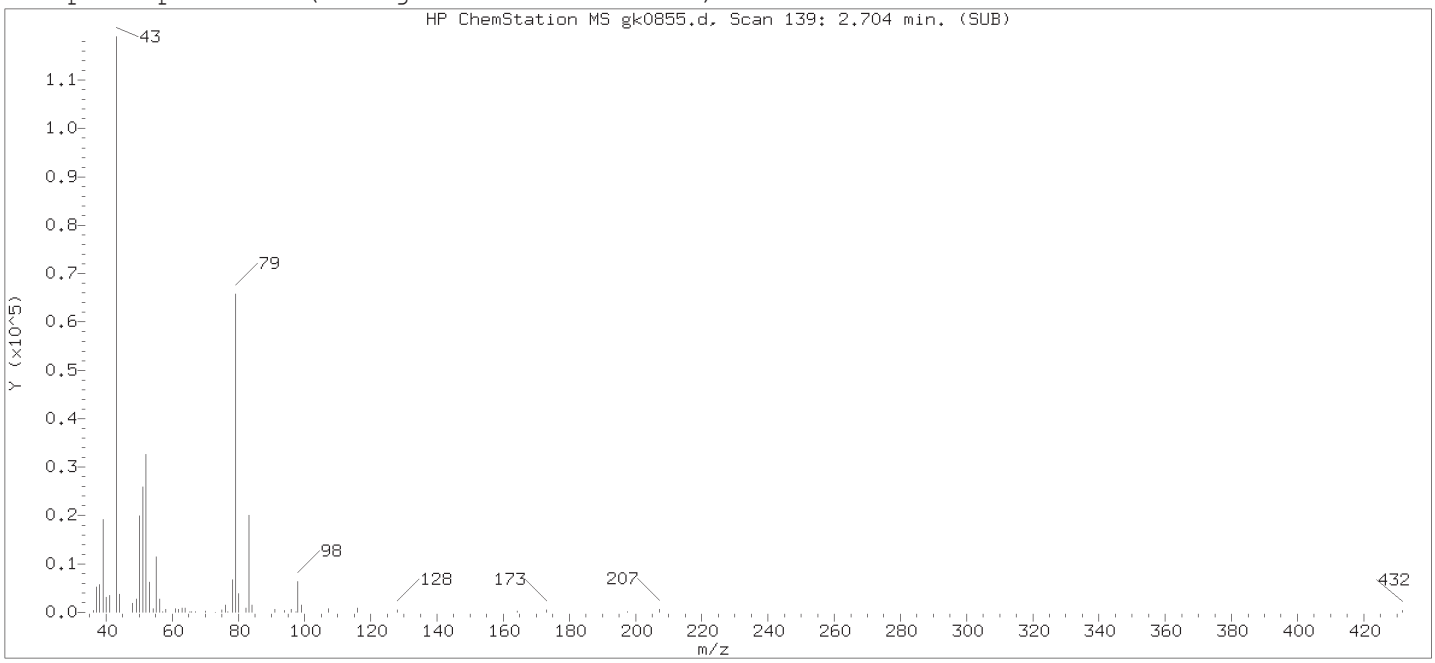
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 139		
Retention Time (minutes)	: 2.704		
Quant Ion	: 79.00		
Area (flag)	: 398416M		
On-Column Amount (ng/ul)	: 27.6390		
Integration start scan	: 132	Integration stop scan:	190
Y at integration start	: -336	Y at integration end:	-336

Reason for manual integration: improper integration

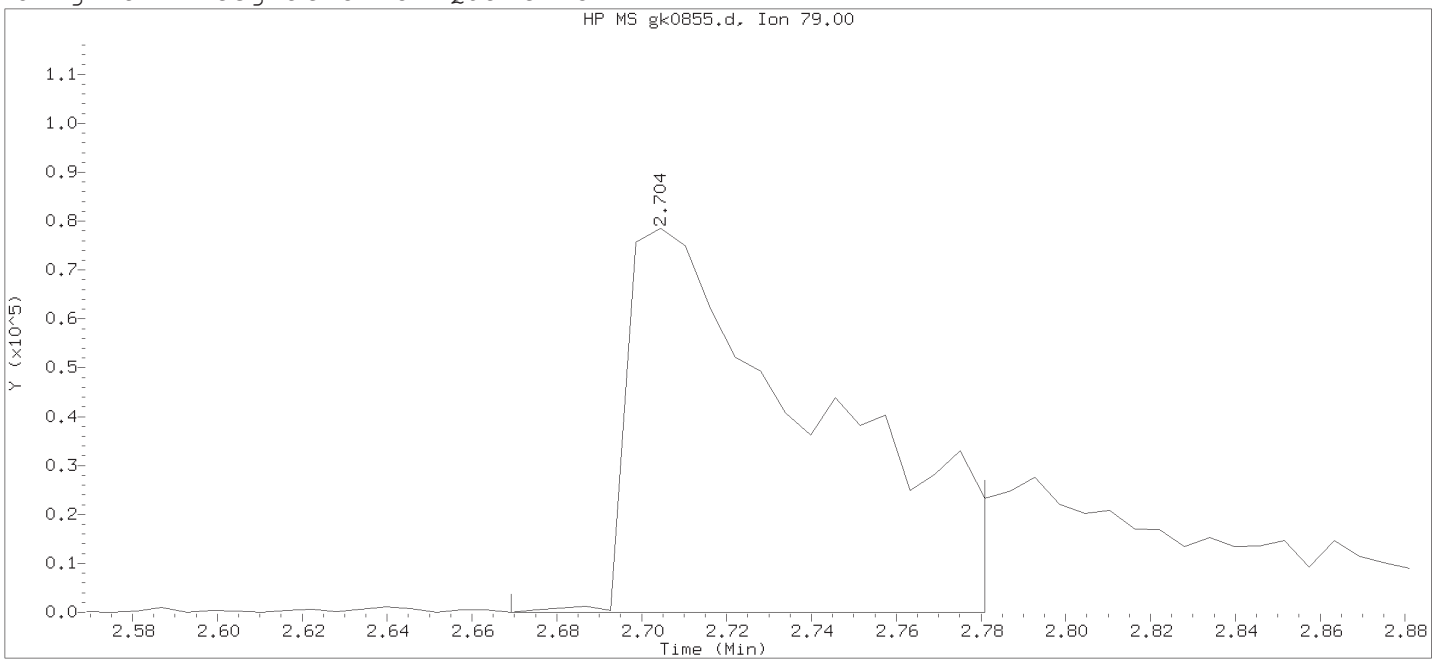
Analyst responsible for change: Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 12:59.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0855.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 15:39 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 16-NOV-2018 14:59
Date, time and analyst ID of latest file update: 16-Nov-2018 16:00 Automation

Sample Name: 317LBLCS Lab Sample ID: 317LBLCS

Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 139		
Retention Time (minutes)	: 2.704		
Quant Ion	: 79.00		
Area	: 244509		
On-column Amount (ng/ul)	: 16.9620		
Integration start scan	: 132	Integration stop scan:	151
Y at integration start	: 0	Y at integration end:	0

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Target 3.5 esignature used: D12 Page 2482

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP11165.i/18nov16.b/gk0856.d Injection date and time: **16-NOV-2018 16:03**
Data file Sample Info. Line: 317LBLCSD;317LBLCSD;2;3;LCSD;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
25) 1,4-Dichlorobenzene-d4	5.451	(0.000)	606	152	146941	(-2)	20.00	
65) Naphthalene-d8	6.687	(0.000)	816	136	625614	(-6)	20.00	
113) Acenaphthene-d10	8.398	(0.000)	1107	164	391458	(-3)	20.00	
153) Phenanthrene-d10	9.851	(0.000)	1354	188	849945	(3)	20.00	
175) Pyrene-d10	11.239	(0.000)	1590	212	770844	(-1)	20.00	
213) Perylene-d12	13.874	(0.000)	2038	264	616840	(-6)	20.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
11) 2-Fluorophenol	(1)	4.199	(0.000)	112	1849237	165.928	83%
17) Phenol-d6	(1)	5.157	(0.001)	99	2716401	157.402	79%
44) Nitrobenzene-d5	(2)	5.993	(0.000)	82	1262657	76.605	77%
93) 2-Fluorobiphenyl	(3)	7.751	(0.000)	172	2383138	75.216	75%
135) 2,4,6-Tribromophenol	(3)	9.181	(0.000)	330	617377	196.913	98%
179) Terphenyl-d14	(5)	11.428	(0.001)	244	3034484	81.407	81%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
5) Pyridine	(1)	2.704	(-0.001)	79	331228M	25.008	833.61			2
18) Phenol	(1)	5.169	(0.001)	94	740837	37.704	1256.81			0.7
19) Aniline	(1)	5.140	(0.000)	93	588825	25.539	851.31			5
22) bis(2-Chloroethyl)ether	(1)	5.210	(0.000)	93	523695	37.111	1237.02			0.7
23) 2-Chlorophenol	(1)	5.257	(0.000)	128	470472	43.439	1447.98			0.5
24) 1,3-Dichlorobenzene	(1)	5.393	(0.000)	146	432534	36.255	1208.49			0.5
26) 1,4-Dichlorobenzene	(1)	5.469	(0.000)	146	443155	35.588	1186.26			0.5
27) Benzyl alcohol	(1)	5.610	(0.000)	108	366623	42.491	1416.37			5
28) 1,2-Dichlorobenzene	(1)	5.610	(0.000)	146	436901	36.251	1208.35			0.6
31) 2-Methylphenol	(1)	5.746	(0.001)	108	527543	39.823	1327.43			0.8
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.740	(-0.001)	45	520158	36.319	1210.62			0.5
37) 4-Methylphenol	(1)	5.892	(0.002)	108	597518	44.538	1484.59			0.6
38) N-Nitroso-di-n-propylamine	(1)	5.863	(0.001)	70	484345	38.358	1278.59			0.6
43) Hexachloroethane	(1)	5.934	(0.000)	117	177863	37.948	1264.93			1
45) Nitrobenzene	(2)	6.010	(-0.000)	77	662335	38.523	1284.10			0.8
50) Isophorone	(2)	6.251	(-0.000)	82	1233935	39.711	1323.70			0.5
51) 2-Nitrophenol	(2)	6.322	(-0.000)	139	261355	42.193	1406.43			0.5
53) 2,4-Dimethylphenol	(2)	6.398	(-0.000)	107	489193	35.740	1191.35			0.5
55) bis(2-Chloroethoxy)methane	(2)	6.475	(-0.000)	93	702934	40.697	1356.58			0.5
60) 2,4-Dichlorophenol	(2)	6.575	(-0.000)	162	435462	45.596	1519.85			0.5
62) 1,2,4-Trichlorobenzene	(2)	6.634	(-0.000)	180	412012	40.907	1363.57			0.5
67) 4-Chloroaniline	(2)	6.775	(0.000)	127	203538	13.991	466.37			1
71) Hexachlorobutadiene	(2)	6.834	(0.000)	225	223445	41.344	1378.13			0.6
80) 4-Chloro-3-methylphenol	(2)	7.281	(0.000)	107	580782	48.722	1624.06			0.5
83) 2-Methylnaphthalene	(2)	7.387	(0.000)	142	1064587	42.482	1416.07			0.3
85) Hexachlorocyclopentadiene	(3)	7.540	(-0.000)	237	344943	59.782	1992.75			5
90) 2,4,6-Trichlorophenol	(3)	7.675	(0.000)	196	345503	44.311	1477.02			0.6

M = Compound was manually integrated.

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Data file: /chem/HP11165.i/18nov16.b/gk0856.d Injection date and time: **16-NOV-2018 16:03**
Data file Sample Info. Line: 317LBLCSD;317LBLCSD;2;3;LCSD;;DOD26; Instrument ID: **HP11165.i** Batch: **18317SLB**
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Blank Data file reference: **/chem/HP11165.i/18nov16.b/gk0854.d**

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: **25806**
Calibration date and time (Last Method Edit): 19-NOV-2018 19:11
Mid Level Daily Calibration Standard Reference: **/chem/HP11165.i/18nov16.b/gk0851.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf*Vt/(Vi*Ws)

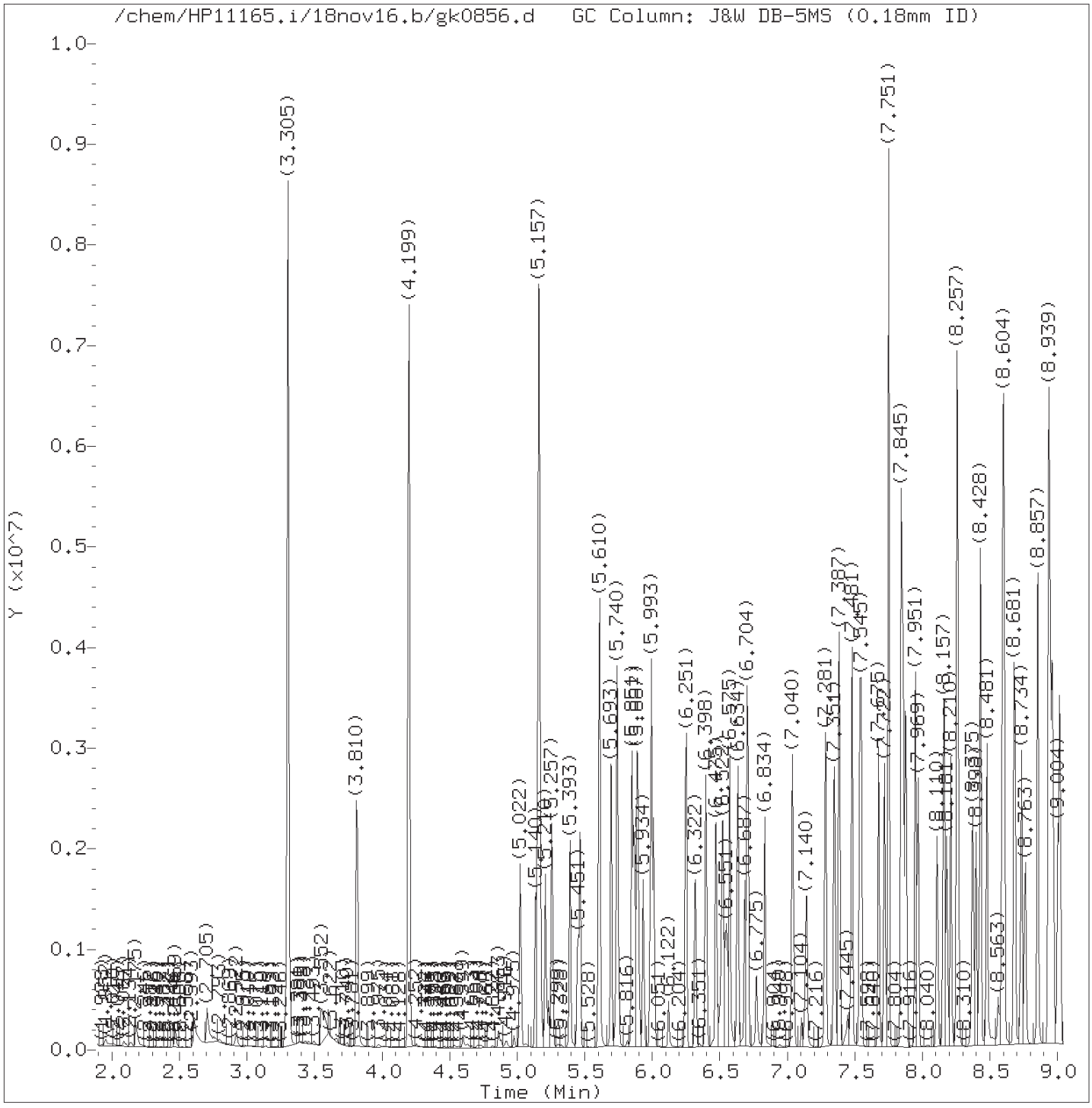
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
92) 2,4,5-Trichlorophenol	(3)	7.722(-0.000)	196	359838	42.369	1412.29			0.6
96) 2-Chloronaphthalene	(3)	7.857(0.000)	162	1039554	38.381	1279.37			0.2
100) 2-Nitroaniline	(3)	7.969(-0.000)	138	385834	45.594	1519.79			0.6
106) Dimethylphthalate	(3)	8.163(-0.000)	163	1276438	40.232	1341.08			2
108) 2,6-Dinitrotoluene	(3)	8.210(0.000)	165	313878	44.057	1468.56			0.6
112) 3-Nitroaniline	(3)	8.375(0.000)	138	312455	39.117	1303.91			2
115) 2,4-Dinitrophenol	(3)	8.481(0.000)	184	367833	76.562	2552.05			11
116) 4-Nitrophenol	(3)	8.592(0.000)	109	225764	40.712	1357.07			5
118) 2,4-Dinitrotoluene	(3)	8.604(0.000)	165	433628	43.803	1460.09			2
119) Dibenzofuran	(3)	8.598(0.000)	168	1554007	40.424	1347.46			0.5
124) Diethylphthalate	(3)	8.857(0.000)	149	1344551	42.219	1407.31			2
127) 4-Chlorophenyl-phenylether	(3)	8.945(0.000)	204	603954	40.432	1347.74			0.5
129) 4-Nitroaniline	(3)	8.975(0.000)	138	278918	32.055	1068.49			2
130) 4,6-Dinitro-2-methylphenol	(4)	9.004(-0.000)	198	250696	39.801	1326.70			5
131) N-Nitrosodiphenylamine	(4)	9.069(-0.000)	169	1219725	40.680	1355.99			0.5
143) 4-Bromophenyl-phenylether	(4)	9.422(-0.000)	248	348618	37.323	1244.10			0.6
145) Hexachlorobenzene	(4)	9.469(-0.000)	284	326856	37.517	1250.58			0.1
149) Pentachlorophenol	(4)	9.675(0.000)	266	192894	33.156	1105.21			1
163) Carbazole	(4)	10.092(0.000)	167	1992219	41.878	1395.94			0.5
193) 3,3'-Dichlorobenzidine	(5)	12.427(0.000)	252	522770	29.672	989.07			3
205) Di-n-octylphthalate	(6)	13.168(-0.000)	149	2460948	44.299	1476.63			2

Total number of targets = 48

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13. Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 12:59. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

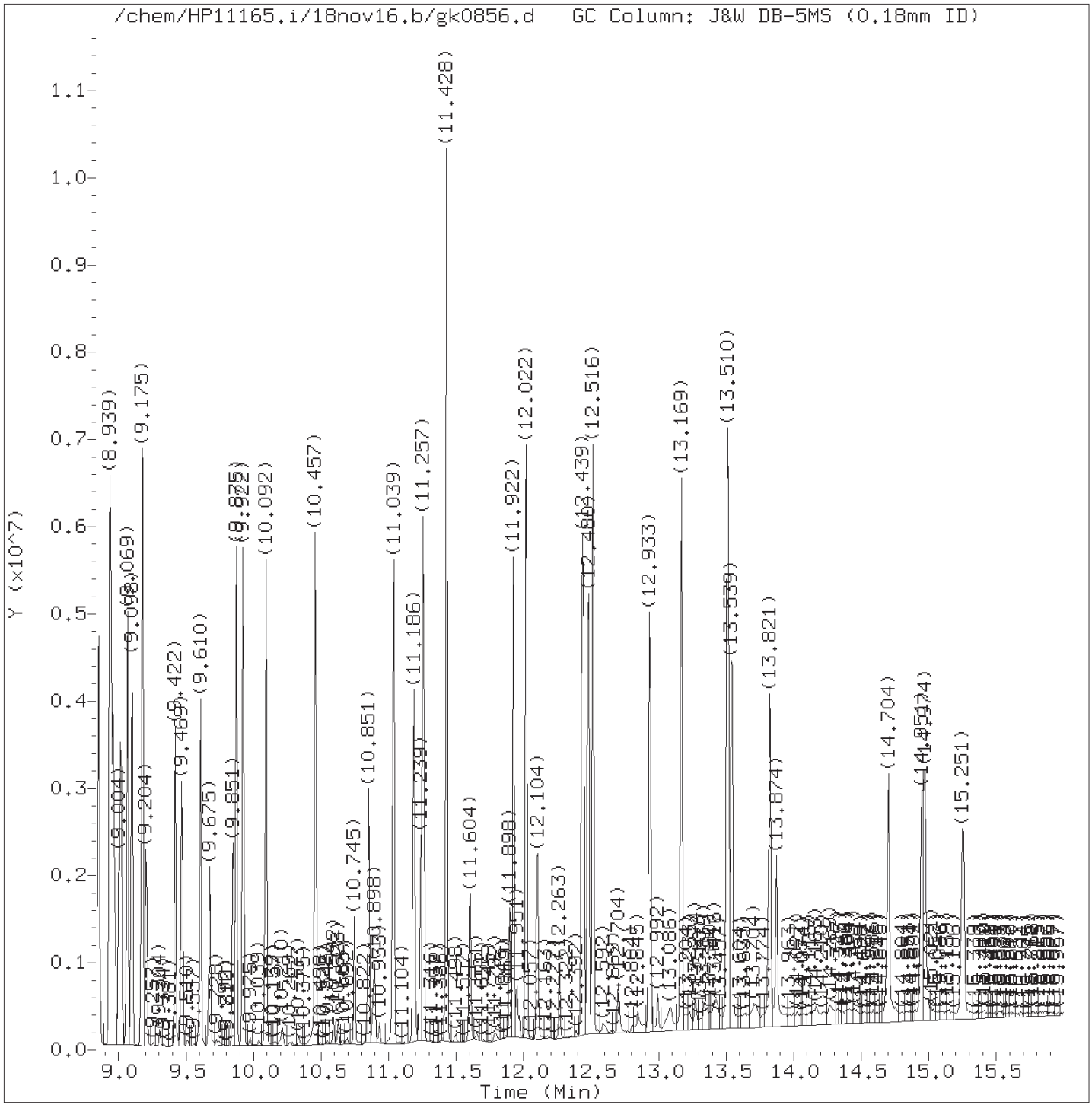
Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
5) Pyridine	(1)	2.705	79	331228M	25.008
11)$2-Fluorophenol	(1)	4.199	112	1849237	165.928
19) Aniline	(1)	5.140	93	588825	25.539
17)$Phenol-d6	(1)	5.157	99	2716401	157.402
18) Phenol	(1)	5.169	94	740837	37.704
22) bis(2-Chloroethyl)ether	(1)	5.210	93	523695	37.111
23) 2-Chlorophenol	(1)	5.257	128	470472	43.439
24) 1,3-Dichlorobenzene	(1)	5.393	146	432534	36.255
25)*1,4-Dichlorobenzene-d4	(1)	5.451	152	146941	20.000
26) 1,4-Dichlorobenzene	(1)	5.469	146	443155	35.588
27) Benzyl alcohol	(1)	5.610	108	366623	42.491
28) 1,2-Dichlorobenzene	(1)	5.610	146	436901	36.251
33) 2,2'-oxybis(1-Chloropropane)	(1)	5.740	45	520158	36.319
31) 2-Methylphenol	(1)	5.746	108	527543	39.823
38) N-Nitroso-di-n-propylamine	(1)	5.863	70	484345	38.358
37) 4-Methylphenol	(1)	5.893	108	597518	44.538
43) Hexachloroethane	(1)	5.934	117	177863	37.948
44)$Nitrobenzene-d5	(2)	5.993	82	1262657	76.605
45) Nitrobenzene	(2)	6.010	77	662335	38.523
50) Isophorone	(2)	6.251	82	1233935	39.711
51) 2-Nitrophenol	(2)	6.322	139	261355	42.193
53) 2,4-Dimethylphenol	(2)	6.398	107	489193	35.740
55) bis(2-Chloroethoxy)methane	(2)	6.475	93	702934	40.697
60) 2,4-Dichlorophenol	(2)	6.575	162	435462	45.596
62) 1,2,4-Trichlorobenzene	(2)	6.634	180	412012	40.907
65)*Naphthalene-d8	(2)	6.687	136	625614	20.000
67) 4-Chloroaniline	(2)	6.775	127	203538	13.991
71) Hexachlorobutadiene	(2)	6.834	225	223445	41.344
80) 4-Chloro-3-methylphenol	(2)	7.281	107	580782	48.722
83) 2-Methylnaphthalene	(2)	7.387	142	1064587	42.482
85) Hexachlorocyclopentadiene	(3)	7.540	237	344943	59.782
90) 2,4,6-Trichlorophenol	(3)	7.675	196	345503	44.311
92) 2,4,5-Trichlorophenol	(3)	7.722	196	359838	42.369
93)$2-Fluorobiphenyl	(3)	7.751	172	2383138	75.216
96) 2-Chloronaphthalene	(3)	7.857	162	1039554	38.381
100) 2-Nitroaniline	(3)	7.969	138	385834	45.594
106) Dimethylphthalate	(3)	8.163	163	1276438	40.232
108) 2,6-Dinitrotoluene	(3)	8.210	165	313878	44.057
112) 3-Nitroaniline	(3)	8.375	138	312455	39.117
113)*Acenaphthene-d10	(3)	8.398	164	391458	20.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Quant Report

Target Revision 3.5

Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

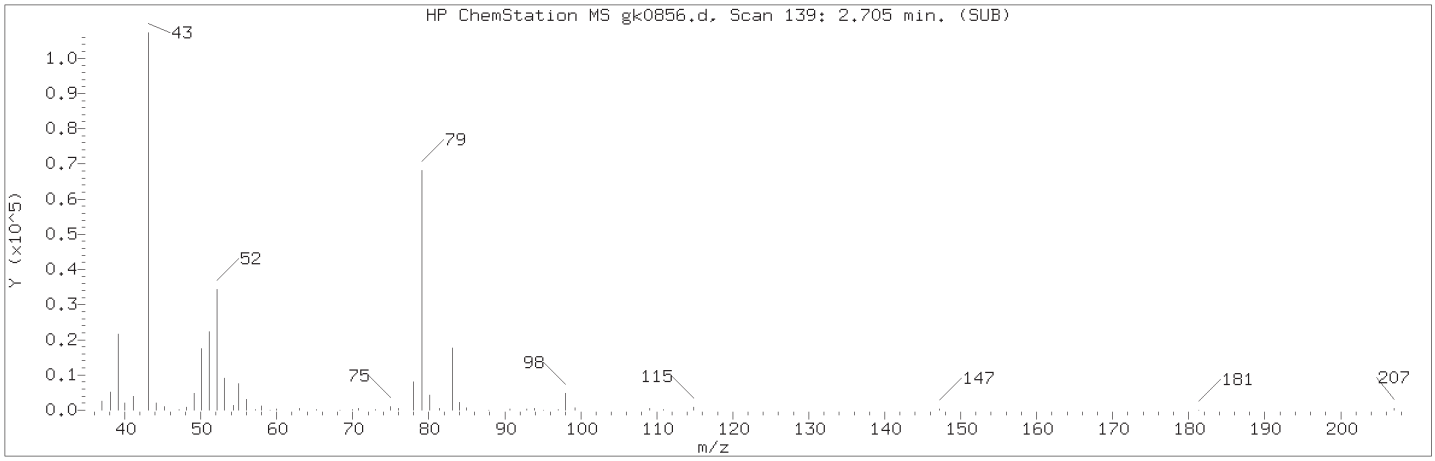
Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
115) 2,4-Dinitrophenol	(3)	8.481	184	367833	76.562
116) 4-Nitrophenol	(3)	8.592	109	225764	40.712
119) Dibenzofuran	(3)	8.598	168	1554007	40.424
118) 2,4-Dinitrotoluene	(3)	8.604	165	433628	43.803
124) Diethylphthalate	(3)	8.857	149	1344551	42.219
127) 4-Chlorophenyl-phenylether	(3)	8.945	204	603954	40.432
129) 4-Nitroaniline	(3)	8.975	138	278918	32.055
130) 4,6-Dinitro-2-methylphenol	(4)	9.004	198	250696	39.801
131) N-Nitrosodiphenylamine	(4)	9.069	169	1219725	40.680
135)$2,4,6-Tribromophenol	(3)	9.181	330	617377	196.913
143) 4-Bromophenyl-phenylether	(4)	9.422	248	348618	37.323
145) Hexachlorobenzene	(4)	9.469	284	326856	37.517
149) Pentachlorophenol	(4)	9.675	266	192894	33.156
153)*Phenanthrene-d10	(4)	9.851	188	849945	20.000
163) Carbazole	(4)	10.092	167	1992219	41.878
175)*Pyrene-d10	(5)	11.239	212	770844	20.000
179)$Terphenyl-d14	(5)	11.428	244	3034484	81.407
193) 3,3'-Dichlorobenzidine	(5)	12.427	252	522770	29.672
205) Di-n-octylphthalate	(6)	13.169	149	2460948	44.299
213)*Perylene-d12	(6)	13.874	264	616840	20.000

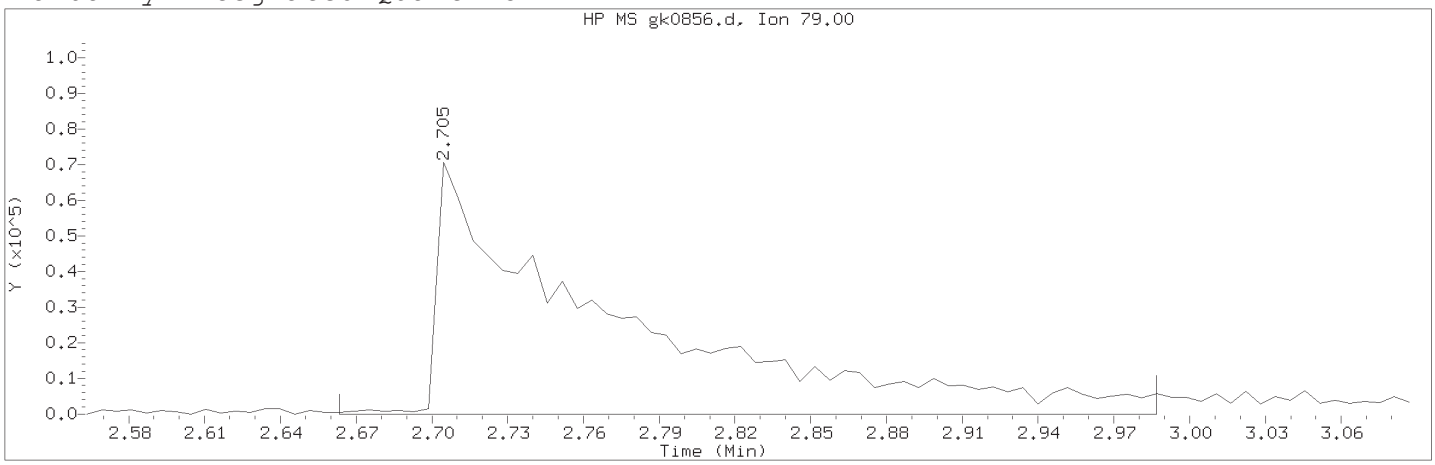
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 19-NOV-2018 19:11
Date, time and analyst ID of latest file update: 19-Nov-2018 19:11 bkc25363

Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

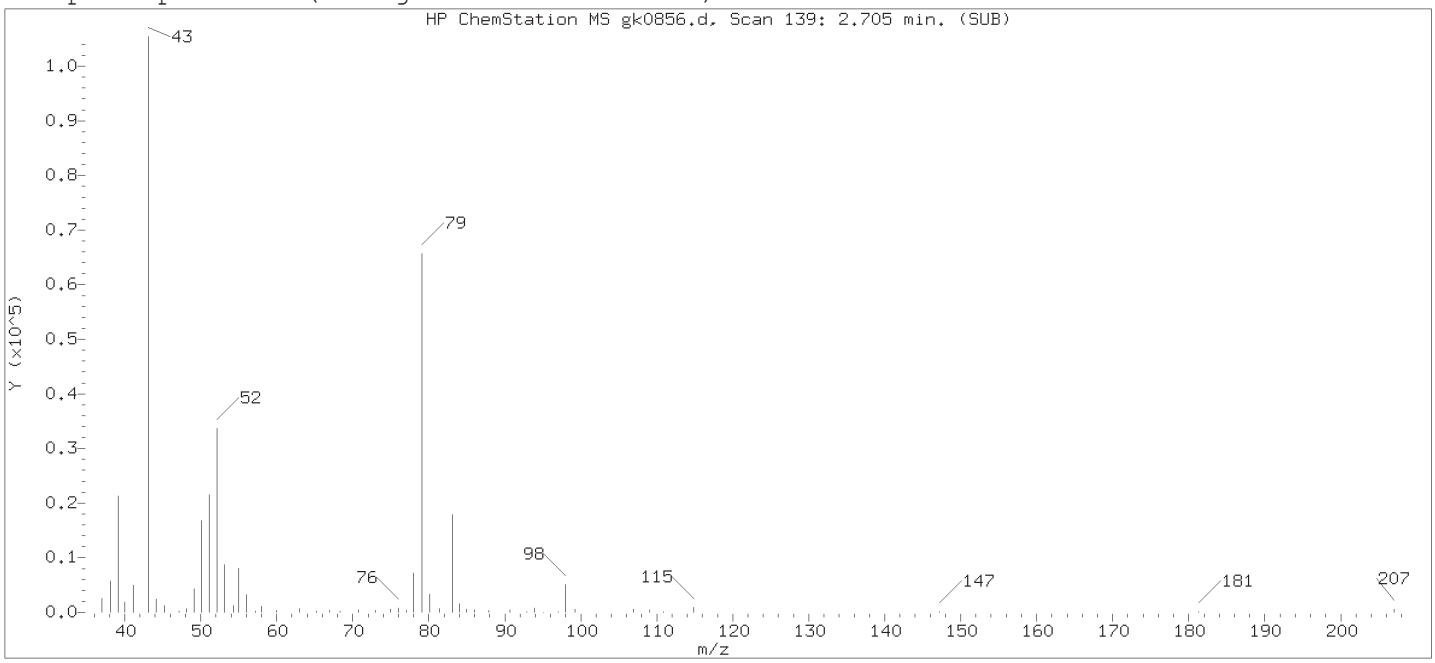
Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 139		
Retention Time (minutes)	: 2.705		
Quant Ion	: 79.00		
Area (flag)	: 331228M		
On-Column Amount (ng/ul)	: 25.0082		
Integration start scan	: 131	Integration stop scan:	186
Y at integration start	: -71	Y at integration end:	-71

Reason for manual integration: improper integration

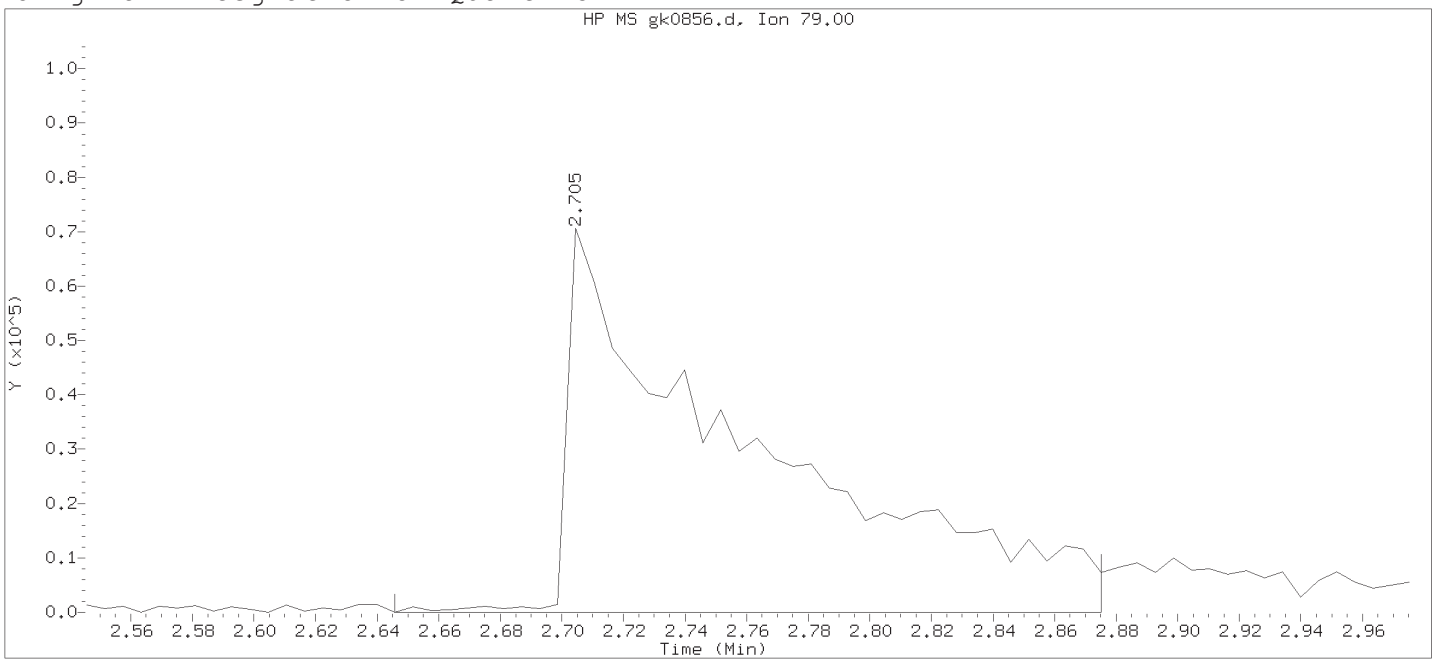
Analyst responsible for change: Digitally signed by Brandon K. Cordova
on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: bkc25363

Secondary review performed and digitally signed by Chad A. Moline on 11/20/2018 at 12:59.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP11165.i/18nov16.b/gk0856.d Instrument ID: HP11165.i
Injection date and time: 16-NOV-2018 16:03 Analyst ID: whs02991

Method used: /chem/HP11165.i/18nov16.b/m8270d.m Sublist used: 25806
Calibration date and time: 16-NOV-2018 14:59
Date, time and analyst ID of latest file update: 16-Nov-2018 16:25 Automation

Sample Name: 317LBLCSD Lab Sample ID: 317LBLCSD

Compound Number	: 5		
Compound Name	: Pyridine		
Scan Number	: 139		
Retention Time (minutes)	: 2.705		
Quant Ion	: 79.00		
Area	: 284691		
On-column Amount (ng/ul)	: 21.4945		
Integration start scan	: 128	Integration stop scan:	167
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Brandon K. Cordova on 11/19/2018 at 19:13.
Target 3.5 esignature user ID: 2993

Extraction/Distillation/Digestion Logs

Semivolatiles by GC/MS

Organic Extraction Batchlog Assigned to: 9121 Bradley VanLeuven Reviewed by: EC40778 ⑥ HC 11/7/18 EC410340 11/17/18 Start Date: 10/29/18 Start time: 22:00

18302SLC026

Tech 1: SV 9121 Tech 2: MD300

Dept: 26 Prep Analysis: 10813 BNA Soil Microwave APP IX SVOA 8270D (microwave)

QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
9863854MS	GKP-4	30.11	SS1829826C	1.0	MS1828526A MS1829726A	1.0	10	Z	Z	~~301A~~	wet brown gritty soil
9863855MSD	GKP-4	30.41	SS1829826C		MS1828526A MS1829726A		10	Z	Z	⑤ ~~301A~~	wet brown gritty soil
BLANKA	SBLKLC302	30.0	SS1829826C				10	Z	Z		Na2SO4
LCSA	302LCLCS	30.0	SS1829826C		MS1828526A MS1829726A	1.0	10	Z	Z		
LCSAP1	302LCLCS	30.0	SS1829826C		MS1829526C		10	Z	Z		
LCSDAP1	302LCLCSD	30.0	SS1829826C		MS1829526C		10	Z	Z		

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	1785102918A
Methylene Chloride	187356
Sodium Sulfate	18299A

③ 36A SV 9121 10/29/18

Spike Solutions: Witness: N/A

MS1829526C	APPIX MIX #1
MS1828526A	LCS SPIKE MIX #1
MS1829726A	LCS SPIKE MIX #2
SS1829826C	BNA SURROGATE STANDARD

N/A

*split w/ 18302SLE026

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
1 9863851	GKP-1	30.38	SS1829826C	1.0	10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	10726	25806	11/01/2018	N
2 9863852	GKP-2	30.49	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	10726	25806	11/01/2018	N
3 9863853BKG	GKP-4	30.43	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	10726	25806	11/01/2018	N
4 9863857	GKP-D	30.02	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	10726	25806	11/01/2018	N
5 9863858	GKP-3	30.20	SS1829826C		10	Z	Z	301a	Soil;Wet;Black	10726	25806	11/01/2018	N
6 9866461	T0902	30.14	SS1829826C		10	Z	Z	301A	Sludge;Sandy;Rocks;Brown	10726	25806	11/02/2018	N
7 9866462	T0903	30.35	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Wet;Black	10726	25806	11/02/2018	N
8 9866463	T0904	30.1	SS1829826C		10	Z	Z	036a	brown gritty soil	10726	25806	11/02/2018	N
9 9866464	T0905	30.21	SS1829826C		10	Z	Z	301a	Organic Matter;Soil;Brown	10726	25806	11/02/2018	N
10 9866465	T0906	30.14	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Gritty;Rocks;Grey	10726	25806	11/02/2018	N
⑧ 11 9866466	T0907	30.48	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Brown	10726	25806	11/02/2018	N
12 9866467	T0908	30.18	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Rocks;Brown	10726	25806	11/02/2018	N
13 9870251	T1102	30.39	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Red	10726	25806	11/06/2018	N
14 9870252	T1103	30.30	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Black	10726	25806	11/06/2018	N

TID12 Page 2492 of 7494

⑧ double SIM internalized. HC 10/30 11-05-18

Bench# —	Bench# —	Bench# —	
Rack ID: —	Work Station	Microwave	Micro Temp 100? ✓
Internal Standard AQ34886	Balance #	17609	

~~R-VAP ID~~	~~C~~	~~R-VAP ID~~	~~C~~	~~R-VAP ID~~	~~C~~		
S-bath ID 5	90 C	~~S-bath ID~~	~~C~~	N-Evap	~~C~~	~~M-vap~~	~~C~~

18302SLC026

DF = Dilution Factor FV = Final Volume Page 1 of 2 Documented temps are NIST corrected.

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
15 9870253 *	T1104	30.25	SS1829826C	1.0	10	Z	Z	301A	Soil;Gritty;Rocks;Black	10726	25806	11/06/2018	N
16 9870254 *	T1105	30.36	SS1829826C	"	10	Z	Z	301A	Soil;Gritty;Rocks;Black	10726	25806	11/06/2018	N
17 9872060 *	12T02	30.32	SS1829826C	"	10	Z	Z	301A	Soil;Rocks;Black	10726	25806	11/07/2018	N
18 9872061 *	12T03	30.06	SS1829826C	"	10	Z	Z	301A	Soil;Rocks;Black	10726	25806	11/07/2018	N
19 9872062 *	12T04	30.30	SS1829826C	"	10	Z	Z	301A	Soil;Gritty;Rocks;Black	10726	25806	11/07/2018	N
20 9872063 *	12T05	30.04	SS1829826C	"	10	Z	Z	301A	Soil;Rocks;Brown	10726	25806	11/07/2018	N

* split w/ 18302SLE026

TID12 Page 2493 of 7494

Bench#	Bench#	Bench#		
Rack ID:		Work Station	MV Toluene	Micro Temp 100? ✓
Internal Standard		Balance #	176009	

DF = Dilution Factor FV = Final Volume

~~R-VAP ID~~	~~C~~	~~R-VAP ID~~	~~C~~	~~R-VAP ID~~	~~C~~			
S-bath ID S	90 C	S-bath ID	C	N-Evap	C	M-vap	C	18302SLC026

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10813 BNA Soil Microwave APP IX
Batch: 18302SLC026

Verified: [illegible] 13766 11/16/18
Start Date: 10-31-18
Start Time: 1407
Tech 1: [illegible]
Tech 2:

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
9863854MS	5	0.5	1			
9863855MSD	5	0.5	1			

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9863851 S	5	0.5	1	2				10726
2	9863852 S			1	2				10726
3	9863853 S			1	2				10726
4	9863857 S			1	2				10726
5	9863858 S			1	2				10726
6	9866461 S			1	2				10726
7	9866462 S			1	2				10726
8	9866463 S			1	2				10726
9	9866464 S			1	2				10726
10	9866465 S			1	2				10726
11	9866466 S			1	2				10726
12	9866467 S			1	2				10726
13	9870251 S			1	2				10726
14	9870252 S			1	2				10726
15	9870253 S			1	2				10726
16	9870254 S			1	2				10726
17	9872060 S			1	2				10726
18	9872061 S			1	2				10726
19	9872062 S			1	2				10726
20	9872063 S			1	2				10726

Blank
LCS

Additional Comment: LCSAP1, LCSDAP1 loaded and Finished as above samples DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		MeCl	187356

S-Evap/bath ~~C~~ S-Evap/bath 85° C ~~N-Evap~~ ~~C~~
#16982

Instrument #: GC-4
Column ID #1: 112
Column ID #2:

The documented temperatures are NIST corrected.

Organic Extraction Batchlog Assigned to: 12366 Joshua Ruth Reviewed by: 10206 11-11-18 Start Date: 10/30/18 Start time: 7:00

18302SLI026

Tech 1: JSR 12366 Tech 2: N/A

Dept: 26 Prep Analysis: 10813 BNA Soil Microwave APP IX SVOA 8270D (microwave)

QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
9867763MS	T1003	30.32	SS1829826C	1.0	MS1828526A MS1829726A	1.0 1.0	10	Z	Z	301A	brown soil
9867764MSD	T1003	30.34	SS1829826C	↓	MS1828526A MS1829726A	1.0 1.0	10	Z	Z	301A	↓
BLANKA ✱	SBLKLI302	30.0	SS1829826C	↓	—	—	10	Z	Z	↓	Na_2SO_4
LCSA	302LILCS	30.0	SS1829826C	↓	MS1828526A MS1829726A	1.0 1.0	10	Z	Z	↓	↓
LCSAP1	302LILCS	30.0	SS1829826C	↓	MS1829526C	1.0	10	Z	Z	↓	↓
LCSDAP1	302LILCSD	30.0	SS1829826C	↓	MS1829526C	1.0	10	Z	Z	↓	↓

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	178S102918A
Methylene Chloride	187356
Sodium Sulfate	182994
Syringe filter	16837045

N/A

Spike Solutions: Witness: N/A

MS1829526C APPIX MIX #1
MS1828526A LCS SPIKE MIX #1
MS1829726A LCS SPIKE MIX #2
SS1829826C BNA SURROGATE STANDARD

TID12 ✱ split w/ 18302SLH026

	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
1	9867761 ✱	T1002	30.16	SS1829826C	1.0	10	Z	Z	301A	Soil;Sandy;Brown	10726	25806	11/05/2018	N
2	9867762BKG ✱	T1003	30.43	SS1829826C	↓	10	Z	Z	301A	Soil;Sandy;Brown	10726	25806	11/05/2018	N
3	9867766 ✱	T1004	30.16	SS1829826C	↓	10	Z	Z	301A	Soil;Sandy;Rocks;Brown	10726	25806	11/05/2018	N
4	9867767 ✱	T1005	30.39	SS1829826C	↓	10	Z	Z	301A	Soil;Wet;Brown	10726	25806	11/05/2018	N
5	9872064 ✱	12T06	30.23	SS1829826C	↓	10	Z	Z	301A	Organic Matter;Soil;Rocks;Black	10726	25806	11/07/2018	N
6	9872065 ✱	12T07	30.15	SS1829826C	↓	10	Z	Z	301A	Soil;Brown	10726	25806	11/07/2018	N

N/A

Bench# /	Bench# /	Bench# /		17424	
Rack ID:	/	Work Station	Hood 900	Micro Temp 100?	✓
Internal Standard	A0134880	Balance #	17609		

R-VAP ID	/ C	R-VAP ID	/ C	R-VAP ID	/ C				
S-bath ID 5	98 C	S-bath ID	/ C	N-Evap	/ C	M-vap	/ C	18302SLI026	

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10813 BNA Soil Microwave APP IX
Batch: 18302SLI026

Verified: 1506 HLB 11-11-18
Start Date: 11-1-18
Start Time: 18:00
Tech 1: EVS JTZ
Tech 2: _____

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
9867763MS	5	0.5	1			
9867764MSD	5	0.5	1			

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9867761 S	5	0.5	1	2				10726
2	9867762 S			1	2				10726
3	9867766 S			1	2				10726
4	9867767 S			1	2				10726
5	9872064 S			1	2				10726
6	9872065 S			1	2				10726

Blank
LCS
LCSD1
LCSD1

NA EVS JTZ 11-1-18

Additional Comment: _____ DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		MeCl2	187356
		MeCl2	186618

S-Evap/~~bath~~ ~~C~~ S-Evap/bath 85° C N-~~Evap~~ ~~C~~
#16982

Instrument #: GC-4
Column ID #1: 112
Column ID #2: _____

The documented temperatures are NIST corrected.

Organic Extraction Batchlog Assigned to: 504 Sally Appleyard

Reviewed by: WS2991 11/14/18 Start Date: 11/13/18 Start time: 19:20

18317SLB026

Tech 1: SLA-504 Tech 2: —

Dept: 26 Prep Analysis: 10813 BNA Soil Microwave APP IX SVOA 8270D (microwave)

QC	Sample Code	Amt (G)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA	SBLKLB317	30.0	SS1829826C	1.0	—	—	10	Z	Z		
LCSA	317LBLCS	30.0	SS1829826C	1.0	MS1829726A MS1830926A	1.0 1.0	10	Z	Z		
LCSAP	317LBLCS	30.0	SS1829826C	1.0	~~MS1829526C~~	1.0	10	Z	Z		
(8) LCSDA	317LBLCSD	30.0	SS1829826C	1.0	MS1829726A MS1830926A	1.0 1.0	10	Z	Z		
LCSDAP	317LBLCSD	30.0	SS1829826C	1.0	~~MS1829526C~~	1.0	10	Z	Z		

(8) Not enough sample for MS/MSD. SM7964 11/13/18

MS1830926A

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	247011131B
Methylene Chloride	182901
Sodium Sulfate	183164
—	—

Spike Solutions: Witness: —

~~MS1829526C~~	APPIX MIX #1
MS1830926A	LCS SPIKE MIX #1
MS1829726A	LCS SPIKE MIX #2
SS1829826C	BNA SURROGATE STANDARD

TID12 Page 2497 of 2494

*Split with 18317SLC026

	Sample #		Sample Code	Amt (G)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
1	9867761	R	T1002	30.3	SS1829826C	1.0	10	Z	Z	36A	Gritty STONES	10726	25806	11/05/2018	N
2	9867762BKG	R	T1003	30.0	SS1829826C	1.0	10	Z	Z	36A	Moist STONES	10726	25806	11/05/2018	N
3	9867766	R	T1004	30.2	SS1829826C	1.0	10	Z	Z	36A	Moist, STONES	10726	25806	11/05/2018	N
4	9867767	R	T1005	30.0	SS1829826C	1.0	10	Z	Z	36A	Clumps	10726	25806	11/05/2018	N
(8a) 5	~~9870252~~	~~R~~	~~T1103~~	~~30.2~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Gritty STONES	10726	~~25806~~	~~11/06/2018~~	~~N~~
(8a) 6	~~9870254~~	~~R~~	~~T1105~~	~~30.2~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Moist, Clumps, STONES	10726	~~25806~~	~~11/06/2018~~	~~N~~
(8a) 7	~~9872060~~	~~R~~	~~12T02~~	~~30.2~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Moist, Gritty STONES	10726	~~25806~~	~~11/07/2018~~	~~N~~
(8a) 8	~~9872061~~	~~R~~	~~12T03~~	~~30.0~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Moist, Clumps	10726	~~25806~~	~~11/07/2018~~	~~N~~
(8a) 9	~~9872062~~	~~R~~	~~12T04~~	~~30.3~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Moist, Clumps STONES	10726	~~25806~~	~~11/07/2018~~	~~N~~
(8a) 10	~~9872063~~	~~R~~	~~12T05~~	~~30.1~~	~~SS1829826C~~	~~1.0~~	~~10~~	~~Z~~	~~Z~~	~~36A~~	Clumps STONES	10726	~~25806~~	~~11/07/2018~~	~~N~~
11	9872065	R	12T07	30.0	SS1829826C	1.0	10	Z	Z	36A	CLAY	10726	25806	11/07/2018	N

(3) Lm 11/13/18

(8a) Re-extract not needed WS 2991 11/14/18

SLA 11/13/18 N/A

Bench#	~~Bench#~~	Bench#
Rack ID:	—	Work Station: Micro
Internal Standard	A0134880	Balance #: 25996

Micro Temp 100? ✓

R-VAP ID	— C	R-VAP ID	— C	R-VAP ID	— C
S-bath ID	5 97 C	S-bath ID	— C	N-Evap	— C

M-vap — C

18317SLB026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10813 BNA Soil Microwave APP IX
Batch: 18317SLB026

Verified: HB2 11/20/18
Start Date: 11-14-18
Start Time: 12:47
Tech 1: YS72
Tech 2: CG12385

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
~~9867763MS~~ WS	5	0.5	(1)			(1) YS72 11-14-18
~~9867764MSD~~ WSD	5	0.5	(1)			(1) YS72 11-14-18

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9867761 S	5	0.5	(1)	2				10726
2	9867762 S	5	0.5	(1)	2				10726
3	9867766 S	5	0.5	(1)	2				10726
4	9867767 S	5	0.5	(1)	2				10726
5	~~9870252 S~~			(8)	1 2				10726
6	~~9870254 S~~			(8)	1 2				10726
7	~~9872060 S~~			(8)	1 2				10726
8	~~9872061 S~~			(8)	1 2				10726
9	~~9872062 S~~			(8)	1 2				10726
10	~~9872063 S~~			(8)	1 2				10726
11	9872065 S	5	0.5	(1)	2				10726
	Blank	5	0.5	(8)	(1) extraction not needed WS 2951 11/14/18				

NA YS72 11-14-18

Additional Comment: NA

DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		MeCl	187001

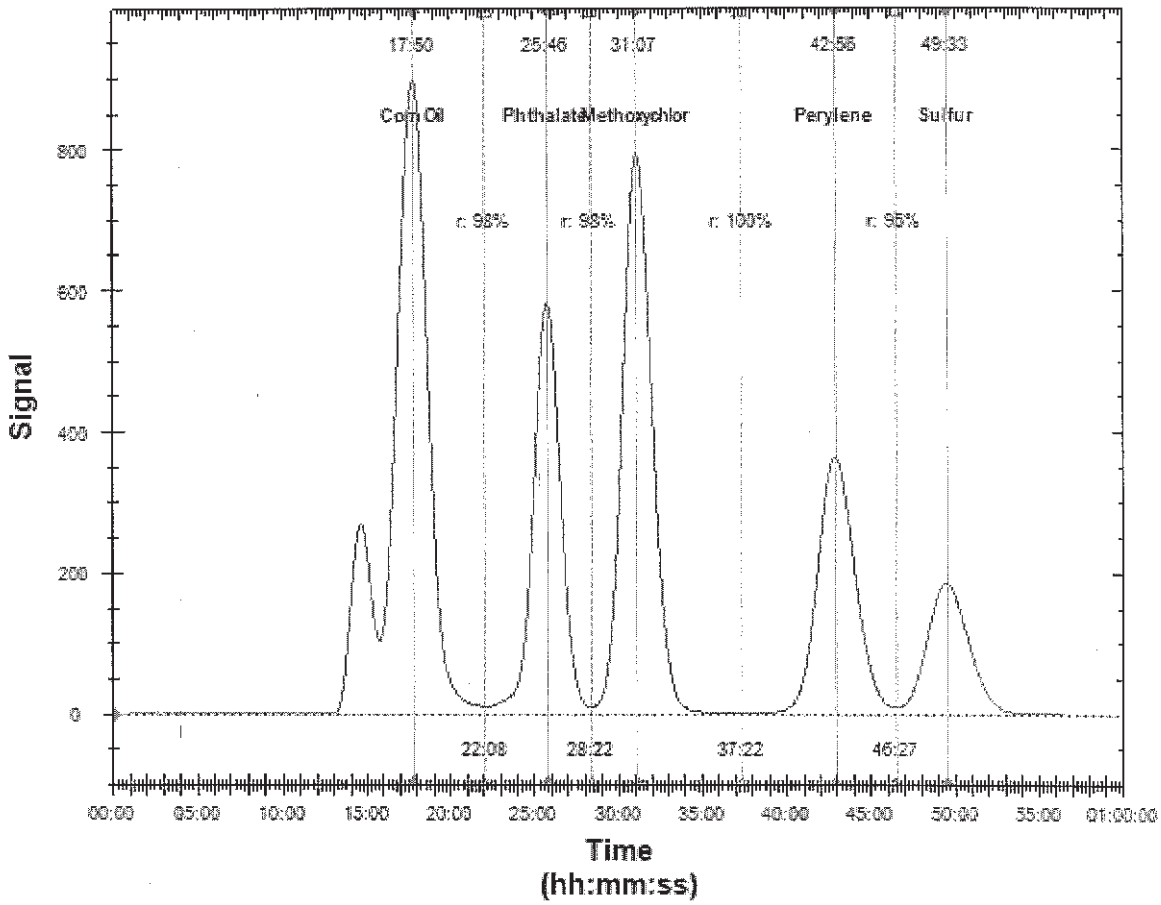
S-Evap/bath	90°C	S-Evap/bath	C	N-Evap	C

Instrument #: GZ-4
Column ID #1: 112
Column ID #2: NA

The documented temperatures are NIST corrected.

CALIBRATION REPORT

Sequence: CCV111318AJ2-4.seq, Sample: [1] CCV111318AJ2-4 - [DT1]



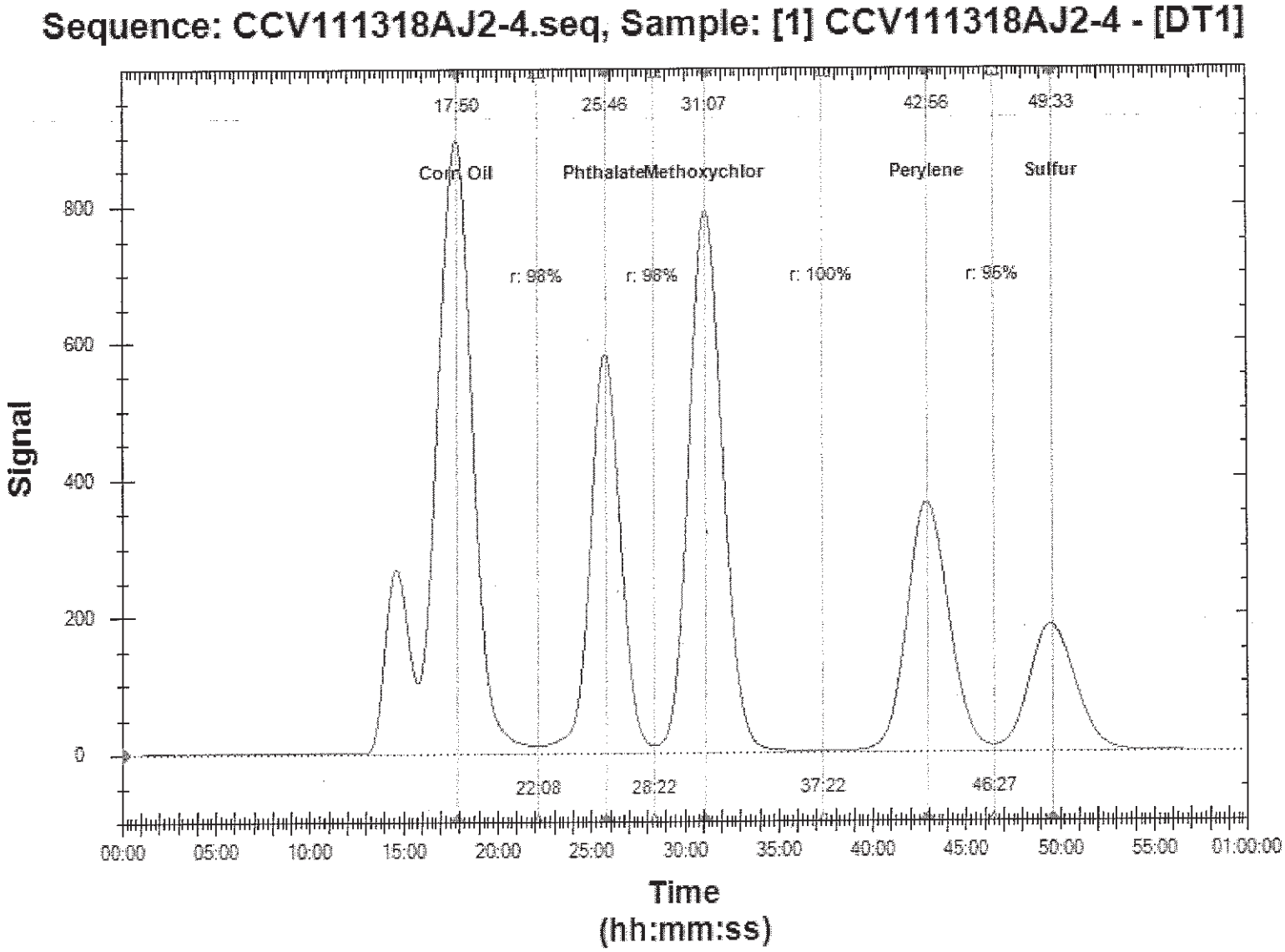
TEMPLATE NAME : CO100

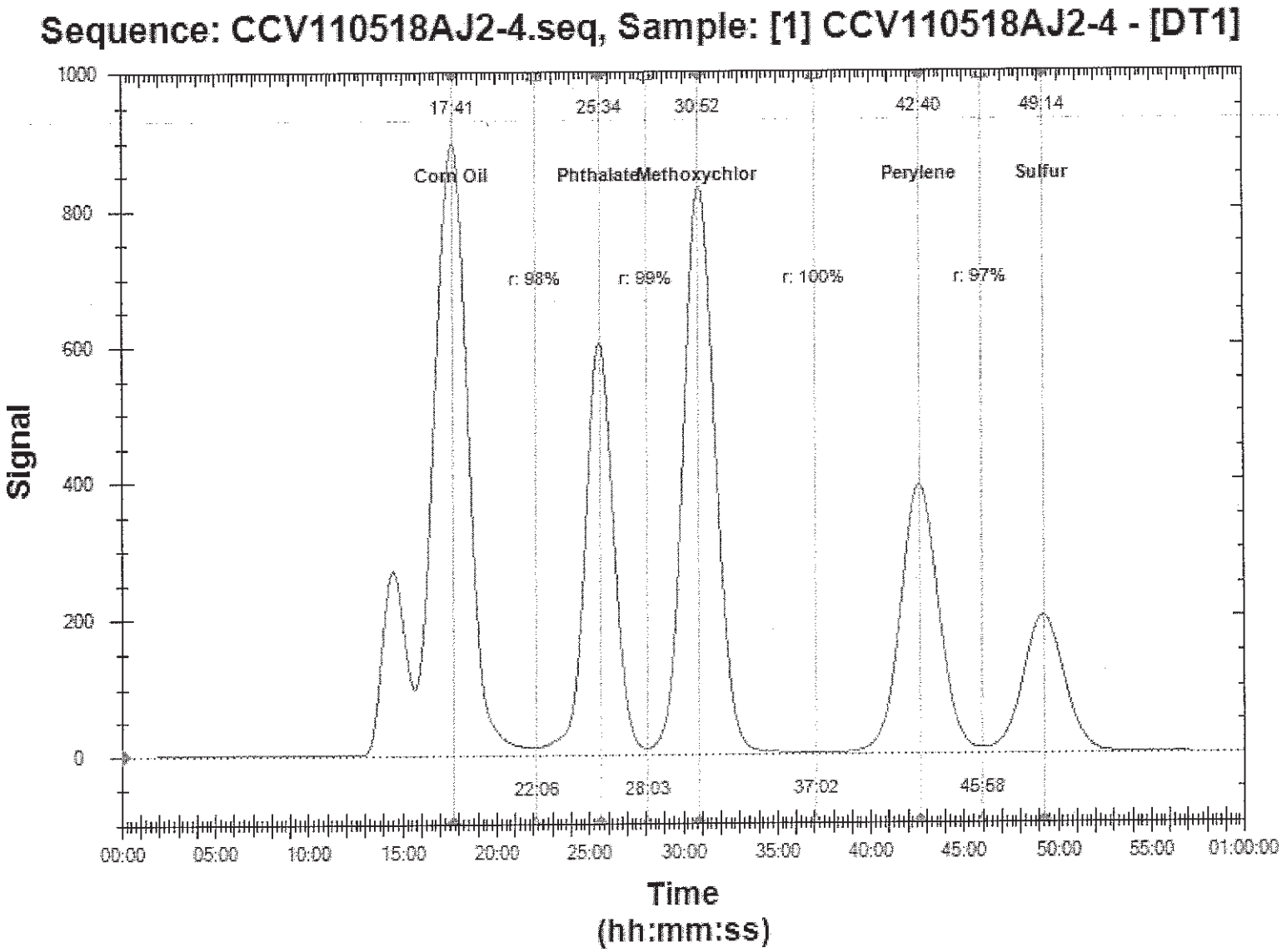
PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:50	898
2	Phthalate	25:46	584
3	Methoxychlor	31:07	795
4	Perylene	42:56	365
5	Sulfur	49:33	186

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	95	0	P

PREPARED BY: System 12/6/2018 1:41:22 PM

SAMPLE	: 1 - 1
TYPE	:
ID	: CCV111318AJ2-4
BATCH	:
START TIME	: 11/13/2018 1:44:52 PM
END TIME	: 11/13/2018 2:48:55 PM
METHOD	: Calibration.gmf
REVISION	: 3
VOLUME (uL)	: 5000
STATUS	: PROCESSED


Sequence: CCV111318AJ2-4.seq, Sample: [1] CCV111318AJ2-4 - [DT1]
17:50
25:46
31:07
42:56
49:33
Corn Oil
PhthalateMethoxychlor
Perylene
Sulfur
r: 98%
r: 98%
r: 100%
r: 95%
800
600
400
200
0
Signal
22:08
28:22
37:22
46:27
00:00
05:00
10:00
15:00
20:00
25:00
30:00
35:00
40:00
45:00
50:00
55:00
01:00:00
Time
(hh:mm:ss)



COLUMN : Inline
SEQUENCE: CCV111318AJ2-4.SEQ, SAMPLE: [1] CCV111318AJ2-4 - [DT1]
PREPARED BY: System 12/6/2018 3:30:29 PM

METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:50	898
2	Phthalate	25:46	584
3	Methoxychlor	31:07	795
4	Perylene	42:56	365
5	Sulfur	49:33	186

COLUMN : Inline
SEQUENCE: CCV110518AJ2-4.SEQ, SAMPLE: [1] CCV110518AJ2-4 - [DT1]
METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	899
2	Phthalate	25:34	608
3	Methoxychlor	30:52	836
4	Perylene	42:40	393
5	Sulfur	49:14	203

RESULTS

RESOLUTION RESULTS FOR SEQUENCE: CCV111318AJ2-4.SEQ, SAMPLE: [1] CCV111318AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	95	0	P

RESOLUTION RESULTS FOR SEQUENCE: CCV110518AJ2-4.SEQ, SAMPLE: [1] CCV110518AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F

PREPARED BY: System 12/6/2018 3:30:29 PM

1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	97	0	P

RETENTION TIME COMPARISON

COMPOUND	RT DRIFT	RT DRIFT +/-	P/F
Corn Oil	1%	85%	P
Phthalate	1%	85%	P
Methoxychlor	1%	85%	P
Perylene	1%	85%	P
Sulfur	1%	85%	P

OVERALL RESULT: PASS

SEQUENCE REPORT V.2

SEQUENCE NAME : 111418AJ2-4.seq

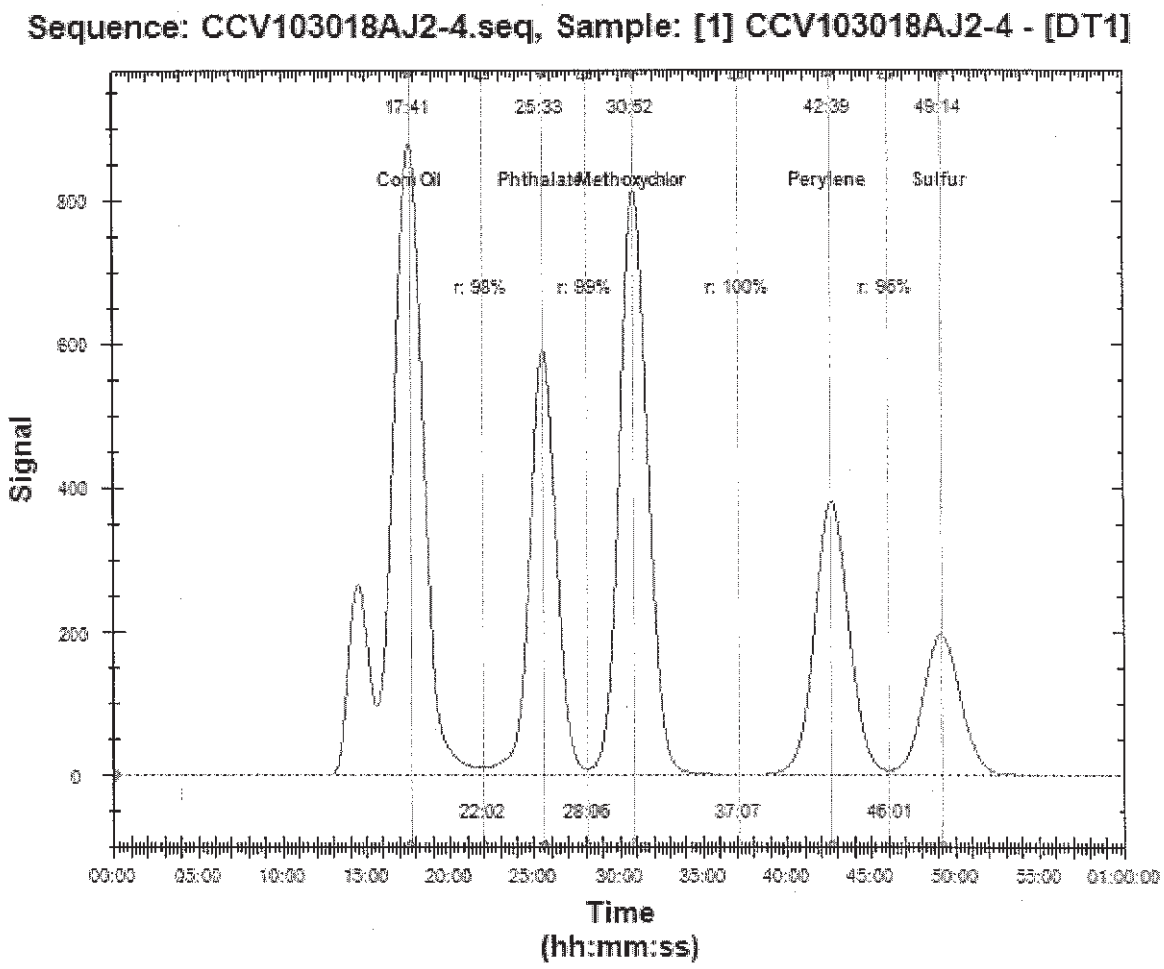
PROCESSED BY : System

MAT NAME : ELLE.m3k

SAMPLE	STATUS	TYPE	METHOD	REV.	VOLUME (uL)	TYPE	ID
1	PROCESSED	GPC	SEMI.gmf	114	5000		BLANKA
2	PROCESSED	GPC	SEMI.gmf	114	5000		LCSA
3	PROCESSED	GPC	SEMI.gmf	114	5000		LCSA
4	PROCESSED	GPC	SEMI.gmf	114	5000		LCSDA
5	PROCESSED	GPC	SEMI.gmf	114	5000		LCSAP1
6	PROCESSED	GPC	SEMI.gmf	114	5000		LCSDAP1
7	PROCESSED	GPC	SEMI.gmf	114	5000		9867763 MS
8	PROCESSED	GPC	SEMI.gmf	114	5000		9867764 MSD
9	PROCESSED	GPC	SEMI.gmf	114	5000		9867761
10	PROCESSED	GPC	SEMI.gmf	114	5000		9867762
11	PROCESSED	GPC	SEMI.gmf	114	5000		9867766
12	PROCESSED	GPC	SEMI.gmf	114	5000		9867767
13	PROCESSED	GPC	SEMI.gmf	114	5000		9872065
14	PROCESSED	GPC	SEMI.gmf	114	5000		SYSTEM BLANK
15	PROCESSED	GPC	SEMI.gmf	114	5000		SYSTEM BLANK

START TIME : 11/14/2018 12:46:47 PM
END TIME : 11/15/2018 6:06:41 AM

CALIBRATION REPORT



TEMPLATE NAME : CO100

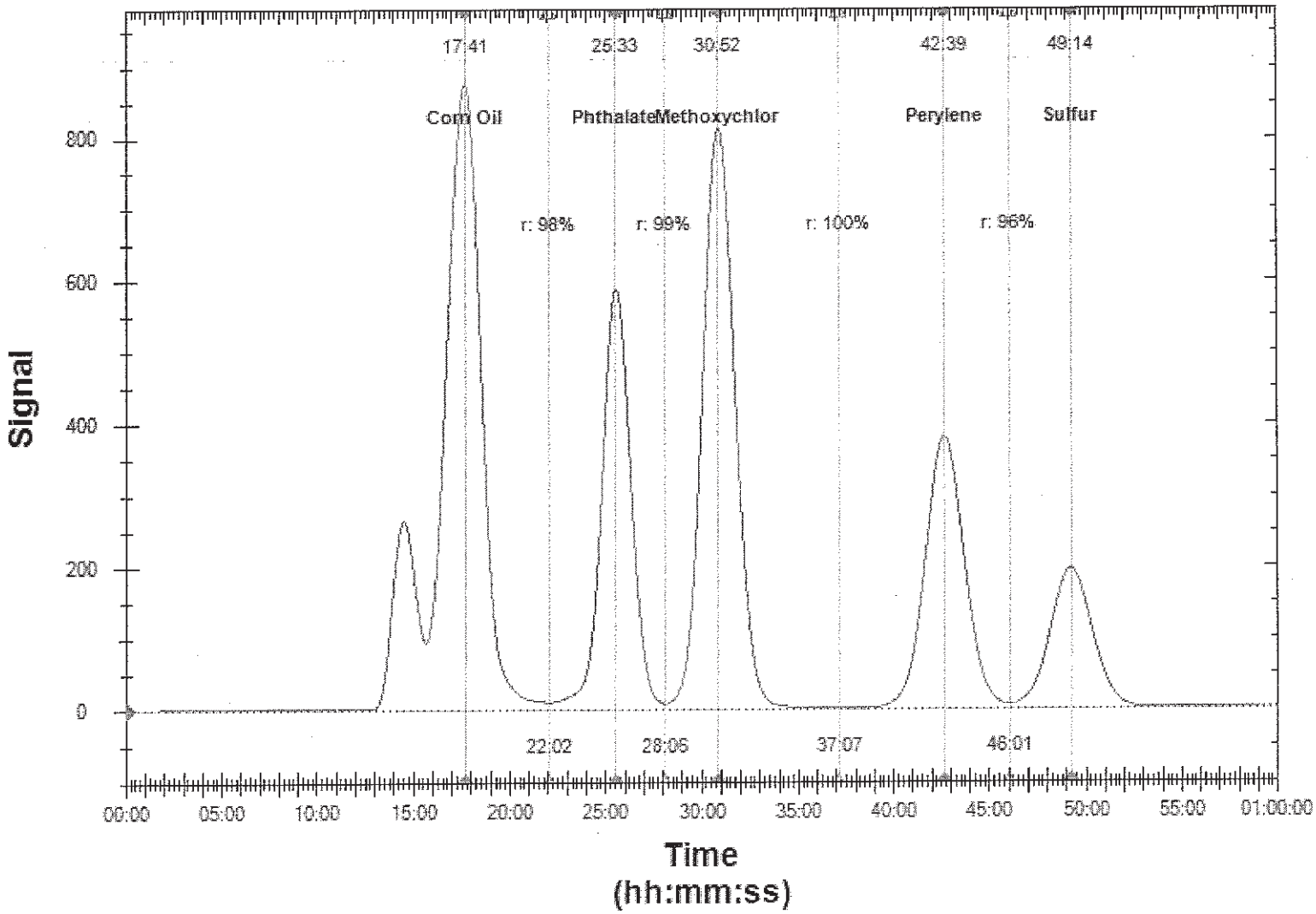
PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	879
2	Phthalate	25:33	592
3	Methoxychlor	30:52	815
4	Perylene	42:39	382
5	Sulfur	49:14	197

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

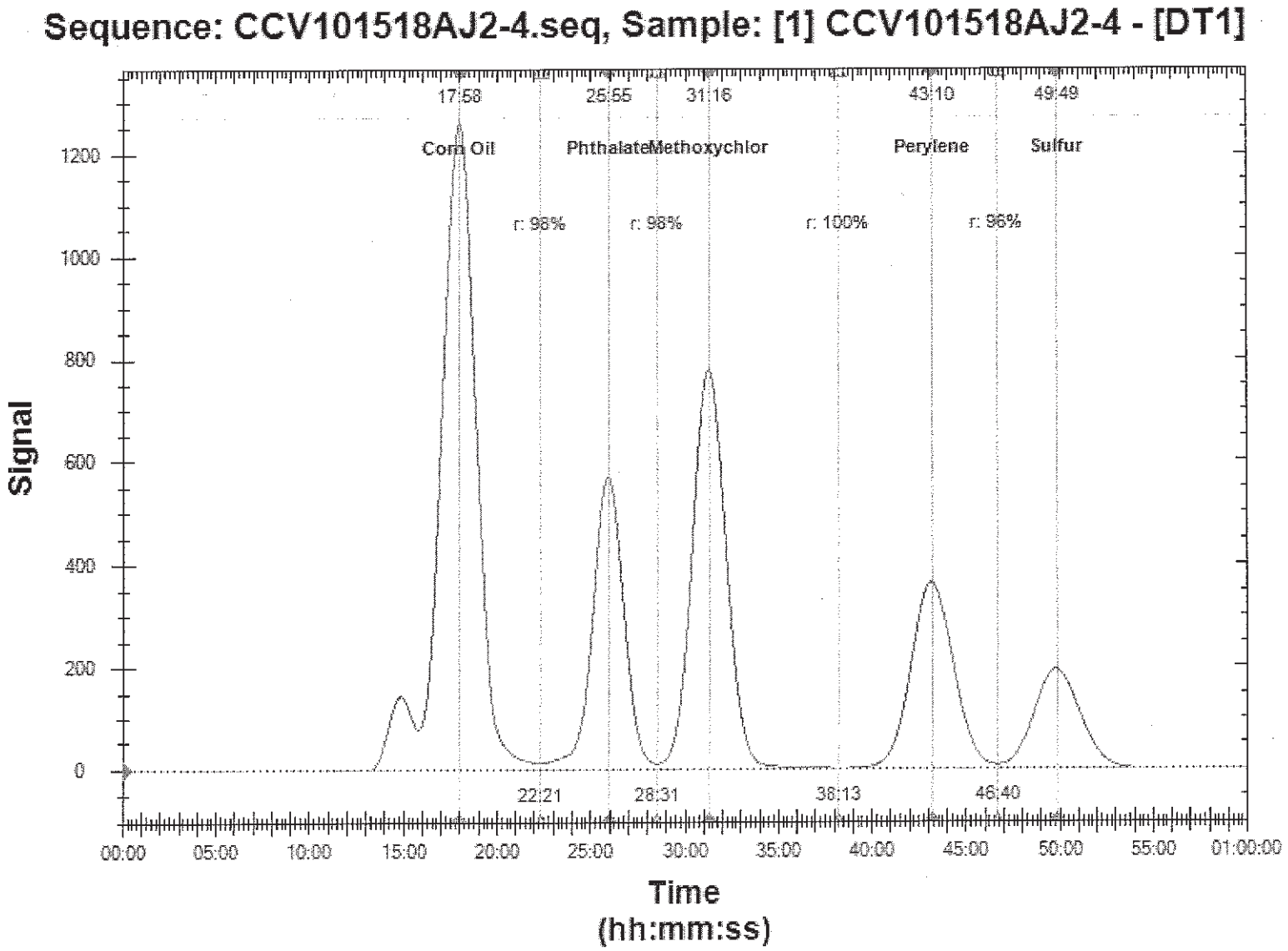
PREPARED BY: System 12/6/2018 1:33:56 PM

SAMPLE	: 1 - 1
TYPE	:
ID	: CCV103018AJ2-4
BATCH	:
START TIME	: 10/30/2018 4:45:56 PM
END TIME	: 10/30/2018 5:50:01 PM
METHOD	: Calibration.gmf
REVISION	: 3
VOLUME (uL)	: 5000
STATUS	: PROCESSED

Sequence: CCV103018AJ2-4.seq, Sample: [1] CCV103018AJ2-4 - [DT1]



PREPARED BY: System 12/6/2018 3:28:04 PM



COLUMN : Inline
SEQUENCE: CCV103018AJ2-4.SEQ, SAMPLE: [1] CCV103018AJ2-4 - [DT1]
PREPARED BY: System 12/6/2018 3:28:04 PM

METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	879
2	Phthalate	25:33	592
3	Methoxychlor	30:52	815
4	Perylene	42:39	382
5	Sulfur	49:14	197

COLUMN : Inline
SEQUENCE: CCV101518AJ2-4.SEQ, SAMPLE: [1] CCV101518AJ2-4 - [DT1]
METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:58	1263
2	Phthalate	25:55	572
3	Methoxychlor	31:16	779
4	Perylene	43:10	364
5	Sulfur	49:49	193

RESULTS

RESOLUTION RESULTS FOR SEQUENCE: CCV103018AJ2-4.SEQ, SAMPLE: [1] CCV103018AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

RESOLUTION RESULTS FOR SEQUENCE: CCV101518AJ2-4.SEQ, SAMPLE: [1] CCV101518AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F

PREPARED BY: System 12/6/2018 3:28:04 PM

1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

RETENTION TIME COMPARISON

COMPOUND	RT DRIFT	RT DRIFT +/-	P/F
Corn Oil	2%	85%	P
Phthalate	1%	85%	P
Methoxychlor	1%	85%	P
Perylene	1%	85%	P
Sulfur	1%	85%	P

OVERALL RESULT: PASS

PREPARED BY: System 12/6/2018 3:28:04 PM

SEQUENCE REPORT V.2

SEQUENCE NAME : 103118AJ2-4.seq

PROCESSED BY : System

MAT NAME : ELLE.m3k

SAMPLE	STATUS	TYPE	METHOD	REV.	VOLUME (uL)	TYPE	ID
1	PROCESSED	GPC	SEMI.gmf	112	5000		BLANKA
2	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
3	PROCESSED	GPC	SEMI.gmf	112	5000		9863854 MS
4	PROCESSED	GPC	SEMI.gmf	112	5000		9863855 MSD
5	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
6	PROCESSED	GPC	SEMI.gmf	112	5000		LCSAP1
7	PROCESSED	GPC	SEMI.gmf	112	5000		LCSDAP1
8	PROCESSED	GPC	SEMI.gmf	112	5000		9863854 MS
9	PROCESSED	GPC	SEMI.gmf	112	5000		9863855 MSD
10	PROCESSED	GPC	SEMI.gmf	112	5000		9863851
11	PROCESSED	GPC	SEMI.gmf	112	5000		9863852
12	PROCESSED	GPC	SEMI.gmf	112	5000		9863853 BKG
13	PROCESSED	GPC	SEMI.gmf	112	5000		9863857
14	PROCESSED	GPC	SEMI.gmf	112	5000		9863858
15	PROCESSED	GPC	SEMI.gmf	112	5000		9866461
16	PROCESSED	GPC	SEMI.gmf	112	5000		9866462
17	PROCESSED	GPC	SEMI.gmf	112	5000		9866463
18	PROCESSED	GPC	SEMI.gmf	112	5000		9866464
19	PROCESSED	GPC	SEMI.gmf	112	5000		9866465
20	PROCESSED	GPC	SEMI.gmf	112	5000		9866466
21	PROCESSED	GPC	SEMI.gmf	112	5000		9866467
22	PROCESSED	GPC	SEMI.gmf	112	5000		9870251
23	PROCESSED	GPC	SEMI.gmf	112	5000		9870252
24	PROCESSED	GPC	SEMI.gmf	112	5000		9870253
25	PROCESSED	GPC	SEMI.gmf	112	5000		9870254
26	PROCESSED	GPC	SEMI.gmf	112	5000		9872060
27	PROCESSED	GPC	SEMI.gmf	112	5000		9872061
28	PROCESSED	GPC	SEMI.gmf	112	5000		9872062
29	PROCESSED	GPC	SEMI.gmf	112	5000		9872063
30	PROCESSED	GPC	SEMI.gmf	112	5000		SYSTEM BLANK
31	PROCESSED	GPC	SEMI.gmf	112	5000		SYSTEM BLANK
32	PROCESSED	GPC	SEMI.gmf	112	5000		BLANKA
33	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
34	PROCESSED	GPC	SEMI.gmf	112	5000		9867763 MS
35	PROCESSED	GPC	SEMI.gmf	112	5000		9867764 MSD
36	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
37	PROCESSED	GPC	SEMI.gmf	112	5000		LCSAP1
38	PROCESSED	GPC	SEMI.gmf	112	5000		LCSDAP1
39	PROCESSED	GPC	SEMI.gmf	112	5000		9867763 MS
40	PROCESSED	GPC	SEMI.gmf	112	5000		9867764 MSD
41	PROCESSED	GPC	SEMI.gmf	112	5000		9867761
42	PROCESSED	GPC	SEMI.gmf	112	5000		9867762 BKG
43	PROCESSED	GPC	SEMI.gmf	112	5000		9867766
44	PROCESSED	GPC	SEMI.gmf	112	5000		9867767

45	PROCESSED	GPC	SEMI.gmf	112	5000	9872064
46	PROCESSED	GPC	SEMI.gmf	112	5000	9872065
47	PROCESSED	GPC	SEMI.gmf	112	5000	SYSTEM BLANK
48	PROCESSED	GPC	SEMI.gmf	112	5000	SYSTEM BLANK

START TIME : 10/31/2018 2:07:10 PM
END TIME : 11/2/2018 9:29:06 PM

Semivolatiles by GC/MS-SIM Data

Case Narrative/Conformance Summary

Semivolatiles by GC/MS-SIM

eurofins | Lancaster Laboratories Environmental

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
9872060	OU2-1-SU005-06		X	10; 50	
9872061	OU2-1-SU005-06-DUP		X	10; 50	Field Duplicate Sample
9872062	OU2-1-SU005-16		X	10; 50	
9872063	OU2-1-SU006-05		X	1	
9872064	OU2-1-SU006-14		X	10; 100	
9872065	OU2-1-SU008-02		X	10; 1	

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.
See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

(Sample number(s): 9872064, 9872065: Analysis: 12969)
The SECC exceeded the +/- 50% of the expected value from
the ICAL. Sample and the SECC were reanalyzed and the SECC was once again
outside client requirements which indicates a matrix effect.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method Blank

For noncompliant preparation/method blanks, corrective action is not required if the sample is ND or > 10 times the blank concentration, unless otherwise specified in the method or by the client.

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

(Sample number(s): 9872063, 9872065: Analysis: 12969)
Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from both trials.

LCS/LCSD

Batch#: 18302SLE026 (Sample number(s): 9872060-9872063)
The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

Batch#: 18302SLH026 (Sample number(s): 9872064-9872065)
The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

Batch#: 18317SLC026 (Sample number(s): 9872065)
The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: 1,4-Dioxane

(Sample number(s): 9872060-9872065: Analysis: 12969)
The stated QC limits for 1,4-dioxane are advisory only until sufficient data points can be obtained to calculate statistical limits.

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

(Sample number(s): 9872065: Analysis: 12969)
Benzo(b)fluoranthene and benzo(k)fluoranthene were not resolved under the sample analysis conditions. The result reported for benzo(b)fluoranthene represents the combined total of both isomers.

No other problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

Semivolatiles by GC/MS-SIM

eurofins | Lancaster Laboratories Environmental

Quality Control Reference List
GC/MS Semivolatiles

CLIENT: Tidewater, Inc.
SDG: TID12

Fraction: Semivolatiles by GC/MS-SIM

Analysis	Batch Number	Sample Number	Analysis Date
SIM SVOAs 8270D (microwave)	18302SLE026	SBLKLE302	11/05/2018 19:15
		302LELCS	11/05/2018 19:46
		9872060	11/06/2018 17:30
		9872060	11/06/2018 22:44
		9872061	11/06/2018 18:01
		9872061	11/06/2018 23:15
		9872062	11/06/2018 18:33
		9872062	11/06/2018 23:46
		9872063	11/07/2018 00:51
SIM SVOAs 8270D (microwave)	18302SLH026	SBLKLH302	11/07/2018 18:15
		302LHLCS	11/07/2018 19:46
		9872064	11/07/2018 23:14
		9872064	11/08/2018 13:34
		9872065	11/07/2018 23:43
		9872065DL	11/08/2018 14:34
SIM SVOAs 8270D (microwave)	18317SLC026	SBLKLC317	11/16/2018 07:21
		317LCLCS	11/16/2018 07:51
		9872065RE	11/16/2018 09:55

Fraction: Semivolatiles by GC/MS-SIM

18302SLE026 / SBLKLE302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,4-Dioxane	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Acenaphthene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Acenaphthylene	11/05/18	N.D.	mg/kg	0.0003	0.001	0.002
Anthracene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(a)anthracene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(a)pyrene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(b)fluoranthene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(g,h,i)perylene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(k)fluoranthene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Di-n-butylphthalate	11/05/18	N.D.	mg/kg	0.007	0.013	0.020
Chrysene	11/05/18	N.D.	mg/kg	0.0003	0.001	0.002
Dibenz(a,h)anthracene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
bis(2-Ethylhexyl)phthalate	11/05/18	0.010 J	mg/kg	0.010	0.020	0.023
Fluoranthene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Fluorene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Indeno(1,2,3-cd)pyrene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Naphthalene	11/05/18	N.D.	mg/kg	0.001	0.003	0.003
Phenanthrene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002
Pyrene	11/05/18	N.D.	mg/kg	0.0007	0.001	0.002

18302SLH026 / SBLKLH302 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,4-Dioxane	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Acenaphthene	11/07/18	0.002	mg/kg	0.0007	0.001	0.002
Acenaphthylene	11/07/18	N.D.	mg/kg	0.0003	0.001	0.002
Anthracene	11/07/18	0.0007 J	mg/kg	0.0007	0.001	0.002
Benzo(a)anthracene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(a)pyrene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(b)fluoranthene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(g,h,i)perylene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(k)fluoranthene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Di-n-butylphthalate	11/07/18	N.D.	mg/kg	0.007	0.013	0.020
Chrysene	11/07/18	N.D.	mg/kg	0.0003	0.001	0.002
Dibenz(a,h)anthracene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
bis(2-Ethylhexyl)phthalate	11/07/18	N.D.	mg/kg	0.010	0.020	0.023
Fluoranthene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Fluorene	11/07/18	0.002	mg/kg	0.0007	0.001	0.002
Indeno(1,2,3-cd)pyrene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002
Naphthalene	11/07/18	0.031	mg/kg	0.001	0.003	0.003
Phenanthrene	11/07/18	0.003	mg/kg	0.0007	0.001	0.002
Pyrene	11/07/18	N.D.	mg/kg	0.0007	0.001	0.002

18317SLC026 / SBLKLC317 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
1,4-Dioxane	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002

Fraction: Semivolatiles by GC/MS-SIM

18317SLC026 / SBLKLC317 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Acenaphthene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Acenaphthylene	11/16/18	0.0003 J	mg/kg	0.0003	0.001	0.002
Anthracene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(a)anthracene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(a)pyrene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(b)fluoranthene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(g,h,i)perylene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Benzo(k)fluoranthene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Di-n-butylphthalate	11/16/18	N.D.	mg/kg	0.007	0.013	0.020
Chrysene	11/16/18	N.D.	mg/kg	0.0003	0.001	0.002
Dibenz(a,h)anthracene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
bis(2-Ethylhexyl)phthalate	11/16/18	0.018 J	mg/kg	0.010	0.020	0.023
Fluoranthene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Fluorene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Indeno(1,2,3-cd)pyrene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Naphthalene	11/16/18	N.D.	mg/kg	0.001	0.003	0.003
Phenanthrene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002
Pyrene	11/16/18	N.D.	mg/kg	0.0007	0.001	0.002

Quality Control Summary
Surrogates
GC/MS Semivolatiles
SDG: TID12
Matrix: SOLID

Fraction: Semivolatiles by GC/MS-SIM

18302SLE026	1-Methylnaphthalene-d10		Benzo(a)pyrene-d12		Fluoranthene-d10	
	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLE302	93	61 - 111	88	54 - 122	97	54 - 122
302LELCS	94	61 - 111	90	54 - 122	98	54 - 122
9872060	103	61 - 111	86	54 - 122	104	54 - 122
9872061	98	61 - 111	86	54 - 122	99	54 - 122
9872062	88	61 - 111	78	54 - 122	107	54 - 122
9872063	83	61 - 111	61	54 - 122	86	54 - 122

18302SLH026	1-Methylnaphthalene-d10		Benzo(a)pyrene-d12		Fluoranthene-d10	
	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLH302	88	61 - 111	84	54 - 122	88	54 - 122
302LHLCS	85	61 - 111	82	54 - 122	86	54 - 122
9872064	84	61 - 111	80	54 - 122	122	54 - 122
9872065	78	61 - 111	73	54 - 122	85	54 - 122
9872065DL	79	61 - 111	61	54 - 122	85	54 - 122

18317SLC026	1-Methylnaphthalene-d10		Benzo(a)pyrene-d12		Fluoranthene-d10	
	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg	Spike Added	0.033333 mg/kg
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLC317	107	61 - 111	96	54 - 122	107	54 - 122
317LCLCS	94	61 - 111	82	54 - 122	90	54 - 122
9872065RE	74	61 - 111	61	54 - 122	81	54 - 122

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: TID12
Matrix: SOLID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

LCS: 302LELCS	Batch: **18302SLE026** (Sample number(s): 9872060-9872063)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	0.0333	0.0196	NA	59 *	NA	70-130	NA	NA
Acenaphthene	0.0333	0.0352	NA	106	NA	44-111	NA	NA
Acenaphthylene	0.0333	0.0318	NA	95	NA	39-116	NA	NA
Anthracene	0.0333	0.0336	NA	101	NA	50-114	NA	NA
Benzo(a)anthracene	0.0333	0.0349	NA	105	NA	54-122	NA	NA
Benzo(a)pyrene	0.0333	0.0353	NA	106	NA	50-125	NA	NA
Benzo(b)fluoranthene	0.0333	0.0351	NA	105	NA	53-128	NA	NA
Benzo(g,h,i)perylene	0.0333	0.0330	NA	99	NA	49-127	NA	NA
Benzo(k)fluoranthene	0.0333	0.0347	NA	104	NA	56-123	NA	NA
bis(2-Ethylhexyl)phthalate	0.0333	0.0438	NA	131	NA	67-150	NA	NA
Chrysene	0.0333	0.0332	NA	100	NA	57-118	NA	NA
Dibenz(a,h)anthracene	0.0333	0.0370	NA	111	NA	50-129	NA	NA
Di-n-butylphthalate	0.0333	0.0389	NA	117	NA	68-145	NA	NA
Fluoranthene	0.0333	0.0337	NA	101	NA	55-119	NA	NA
Fluorene	0.0333	0.0335	NA	101	NA	47-114	NA	NA
Indeno(1,2,3-cd)pyrene	0.0333	0.0360	NA	108	NA	49-130	NA	NA
Naphthalene	0.0333	0.0318	NA	95	NA	38-111	NA	NA
Phenanthrene	0.0333	0.0327	NA	98	NA	49-113	NA	NA
Pyrene	0.0333	0.0332	NA	99	NA	55-117	NA	NA

LCS: 302LHLCS	Batch: **18302SLH026** (Sample number(s): 9872064-9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	0.0333	0.0228	NA	69 *	NA	70-130	NA	NA
Acenaphthene	0.0333	0.0342	NA	103	NA	44-111	NA	NA
Acenaphthylene	0.0333	0.0277	NA	83	NA	39-116	NA	NA
Anthracene	0.0333	0.0307	NA	92	NA	50-114	NA	NA
Benzo(a)anthracene	0.0333	0.0301	NA	90	NA	54-122	NA	NA
Benzo(a)pyrene	0.0333	0.0327	NA	98	NA	50-125	NA	NA
Benzo(b)fluoranthene	0.0333	0.0339	NA	102	NA	53-128	NA	NA
Benzo(g,h,i)perylene	0.0333	0.0324	NA	97	NA	49-127	NA	NA
Benzo(k)fluoranthene	0.0333	0.0326	NA	98	NA	56-123	NA	NA
bis(2-Ethylhexyl)phthalate	0.0333	0.0392	NA	118	NA	67-150	NA	NA
Chrysene	0.0333	0.0315	NA	94	NA	57-118	NA	NA
Dibenz(a,h)anthracene	0.0333	0.0320	NA	96	NA	50-129	NA	NA
Di-n-butylphthalate	0.0333	0.0371	NA	111	NA	68-145	NA	NA
Fluoranthene	0.0333	0.0311	NA	93	NA	55-119	NA	NA
Fluorene	0.0333	0.0302	NA	91	NA	47-114	NA	NA
Indeno(1,2,3-cd)pyrene	0.0333	0.0319	NA	96	NA	49-130	NA	NA
Naphthalene	0.0333	0.0367	NA	110	NA	38-111	NA	NA
Phenanthrene	0.0333	0.0312	NA	94	NA	49-113	NA	NA

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

LCS: 302LHLCS	Batch: **18302SLH026** (Sample number(s): 9872064-9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Pyrene	0.0333	0.0301	NA	90	NA	55-117	NA	NA

LCS: 317LCLCS	Batch: **18317SLC026** (Sample number(s): 9872065)							
Analyte	**Spike Added mg/kg**	**LCS Conc mg/kg**	**LCSD Conc mg/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	0.0333	0.0224	NA	67 *	NA	70-130	NA	NA
Acenaphthene	0.0333	0.0300	NA	90	NA	44-111	NA	NA
Acenaphthylene	0.0333	0.0284	NA	85	NA	39-116	NA	NA
Anthracene	0.0333	0.0295	NA	88	NA	50-114	NA	NA
Benzo(a)anthracene	0.0333	0.0308	NA	92	NA	54-122	NA	NA
Benzo(a)pyrene	0.0333	0.0315	NA	95	NA	50-125	NA	NA
Benzo(b)fluoranthene	0.0333	0.0305	NA	92	NA	53-128	NA	NA
Benzo(g,h,i)perylene	0.0333	0.0296	NA	89	NA	49-127	NA	NA
Benzo(k)fluoranthene	0.0333	0.0308	NA	92	NA	56-123	NA	NA
bis(2-Ethylhexyl)phthalate	0.0333	0.0437	NA	131	NA	67-150	NA	NA
Chrysene	0.0333	0.0291	NA	87	NA	57-118	NA	NA
Dibenz(a,h)anthracene	0.0333	0.0331	NA	99	NA	50-129	NA	NA
Di-n-butylphthalate	0.0333	0.0396	NA	119	NA	68-145	NA	NA
Fluoranthene	0.0333	0.0287	NA	86	NA	55-119	NA	NA
Fluorene	0.0333	0.0294	NA	88	NA	47-114	NA	NA
Indeno(1,2,3-cd)pyrene	0.0333	0.0325	NA	98	NA	49-130	NA	NA
Naphthalene	0.0333	0.0287	NA	86	NA	38-111	NA	NA
Phenanthrene	0.0333	0.0288	NA	87	NA	49-113	NA	NA
Pyrene	0.0333	0.0293	NA	88	NA	55-117	NA	NA

Fraction: Semivolatiles by GC/MS-SIM

12969: SIM SVOAs 8270D (microwave) Analyte Name	Default DL	Default LOD	Default LOQ	Units
1,4-Dioxane	0.0007	0.001	0.002	mg/kg
Naphthalene	0.001	0.003	0.003	mg/kg
Acenaphthylene	0.0003	0.001	0.002	mg/kg
Acenaphthene	0.0007	0.001	0.002	mg/kg
Fluorene	0.0007	0.001	0.002	mg/kg
Phenanthrene	0.0007	0.001	0.002	mg/kg
Anthracene	0.0007	0.001	0.002	mg/kg
Di-n-butylphthalate	0.007	0.013	0.020	mg/kg
Fluoranthene	0.0007	0.001	0.002	mg/kg
Pyrene	0.0007	0.001	0.002	mg/kg
Benzo(a)anthracene	0.0007	0.001	0.002	mg/kg
Chrysene	0.0003	0.001	0.002	mg/kg
bis(2-Ethylhexyl)phthalate	0.010	0.020	0.023	mg/kg
Benzo(b)fluoranthene	0.0007	0.001	0.002	mg/kg
Benzo(k)fluoranthene	0.0007	0.001	0.002	mg/kg
Benzo(a)pyrene	0.0007	0.001	0.002	mg/kg
Indeno(1,2,3-cd)pyrene	0.0007	0.001	0.002	mg/kg
Dibenz(a,h)anthracene	0.0007	0.001	0.002	mg/kg
Benzo(g,h,i)perylene	0.0007	0.001	0.002	mg/kg

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: cj0280d.d DFTPP Injection Date: 10/06/18

Instrument ID: HP10623 DFTPP Injection Time: 23:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	43.5
68	Less than 2.0% of mass 69	0.76 (1.76)1
69	Mass 69 relative abundance	43.2
70	Less than 2.0% of mass 69	0.21 (0.49)1
127	10.0 - 80.00% of mass 198	55.9
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.86
275	10.0 - 60.0% of mass 198	18.5
365	Greater than 1.00% of mass 198	1.74
441	Present, and less than mass 443	8.0
442	Greater than 50.00% of mass 198	55.3
443	15.00 - 24.00% of mass 442	11.3 (20.4)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM2598 - SSTD.5	cj0281d.d	10/06/18	23:27
02	SIM2598 - SSTD10	cj0282d.d	10/07/18	00:04
03	SIM2598 - SSTD5	cj0283d.d	10/07/18	00:35
04	SIM2598 - SSTD1	cj0284d.d	10/07/18	01:07
05	SIM2598 - SSTD.2	cj0285d.d	10/07/18	01:39
06	SIM2598 - SSTD.05	cj0286d.d	10/07/18	02:10
07	SIM2598 - SSTD.01	cj0287d.d	10/07/18	02:42
08	SIM2598 - SSTD0.005	cj0289d.d	10/07/18	03:45
09	SICV1908 - SSTD001	cj0290d.d	10/07/18	04:16

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ck0200.d DFTPP Injection Date: 11/05/18

Instrument ID: HP10623 DFTPP Injection Time: 18:21

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	36.0
68	Less than 2.0% of mass 69	0.68 (1.82)1
69	Mass 69 relative abundance	37.2
70	Less than 2.0% of mass 69	0.18 (0.48)1
127	10.0 - 80.00% of mass 198	49.3
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.59
275	10.0 - 60.0% of mass 198	21.6
365	Greater than 1.00% of mass 198	1.98
441	Present, and less than mass 443	11.9
442	Greater than 50.00% of mass 198	81.3
443	15.00 - 24.00% of mass 442	15.6 (19.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM2598 - SSTD1	ck0201.d	11/05/18	18:38
02	SBLKLE302	ck0202.d	11/05/18	19:15
03	302LELCS	ck0203.d	11/05/18	19:46
04	9863851	ck0204.d	11/05/18	20:17
05	9863852	ck0205.d	11/05/18	20:48
06	9863853	ck0206.d	11/05/18	21:20
07	9863854MS	ck0207.d	11/05/18	21:51
08	9863855MSD	ck0208.d	11/05/18	22:22
09	9863857	ck0209.d	11/05/18	22:54
10	9863858	ck0210.d	11/05/18	23:25
11	9866461	ck0211.d	11/05/18	23:56
12	9866462	ck0212.d	11/06/18	00:27
13	9866463	ck0213.d	11/06/18	00:58
14	9866464	ck0214.d	11/06/18	01:30
15	9866465	ck0215.d	11/06/18	02:01
16	9866466	ck0216.d	11/06/18	02:32
17	9866467	ck0217.d	11/06/18	03:03
18	9870251	ck0218.d	11/06/18	03:35

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ck0200.d DFTPP Injection Date: 11/05/18

Instrument ID: HP10623 DFTPP Injection Time: 18:21

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	36.0
68	Less than 2.0% of mass 69	0.68 (1.82)1
69	Mass 69 relative abundance	37.2
70	Less than 2.0% of mass 69	0.18 (0.48)1
127	10.0 - 80.00% of mass 198	49.3
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.59
275	10.0 - 60.0% of mass 198	21.6
365	Greater than 1.00% of mass 198	1.98
441	Present, and less than mass 443	11.9
442	Greater than 50.00% of mass 198	81.3
443	15.00 - 24.00% of mass 442	15.6 (19.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	9870252	ck0219.d	11/06/18	04:06
20	9870253	ck0220.d	11/06/18	04:37
21	9870254	ck0221.d	11/06/18	05:09
22	SIM2598	ck0222.d	11/06/18	05:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ck0300.d DFTPP Injection Date: 11/06/18

Instrument ID: HP10623 DFTPP Injection Time: 16:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	42.6
68	Less than 2.0% of mass 69	0.78 (1.75)1
69	Mass 69 relative abundance	44.3
70	Less than 2.0% of mass 69	0.2 (0.46)1
127	10.0 - 80.00% of mass 198	54.3
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.71
275	10.0 - 60.0% of mass 198	19.9
365	Greater than 1.00% of mass 198	1.7
441	Present, and less than mass 443	9.24
442	Greater than 50.00% of mass 198	62.6
443	15.00 - 24.00% of mass 442	12.3 (19.6)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM2598 - SSTD1	ck0301.d	11/06/18	16:36
02	9872060	ck0302.d	11/06/18	17:30
03	9872061	ck0303.d	11/06/18	18:01
04	9872062	ck0304.d	11/06/18	18:33
05	9863852DL	ck0306.d	11/06/18	19:35
06	9863852RE	ck0307.d	11/06/18	20:07
07	9866467DL	ck0308.d	11/06/18	20:38
08	9870252DL	ck0309.d	11/06/18	21:09
09	9870253DL	ck0310.d	11/06/18	21:41
10	9870254DL	ck0311.d	11/06/18	22:12
11	9872060DL	ck0302a.d	11/06/18	22:44
12	9872061DL	ck0303a.d	11/06/18	23:15
13	9872062DL	ck0304a.d	11/06/18	23:46
14	9872063	ck0305a.d	11/07/18	00:51
15	SIM2598	ck0312a.d	11/07/18	01:22

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ii0100f.d DFTPP Injection Date: 09/04/18

Instrument ID: HP10976 DFTPP Injection Time: 19:19

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	53.6
68	Less than 2.0% of mass 69	0.66 (0.95)1
69	Mass 69 relative abundance	69.5
70	Less than 2.0% of mass 69	0.99 (1.43)1
127	10.0 - 80.00% of mass 198	51.1
197	Less than 2.0% of mass 198	0.57
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	6.74
275	10.0 - 60.0% of mass 198	29.4
365	Greater than 1.00% of mass 198	4.58
441	Present, and less than mass 443	4.71
442	Greater than 50.00% of mass 198	66.7
443	15.00 - 24.00% of mass 442	13.0 (19.5)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM1288 - SSTD1	ii0101.d	09/04/18	19:41
02	SIM1288 - SSTD10	ii0102.d	09/04/18	20:12
03	SIM1288 - SSTD5	ii0103.d	09/04/18	20:43
04	SIM1288 - SSTD.5	ii0104.d	09/04/18	21:14
05	SIM1288 - SSTD.2	ii0105.d	09/04/18	21:45
06	SIM1288 - SSTD.05	ii0106.d	09/04/18	22:16
07	SIM1288 - SSTD.01	ii0107.d	09/04/18	22:47
08	SIM1288 - SSTD0.005	ii0109.d	09/04/18	23:49
09	SICV1908 - SSTD001	ii0110.d	09/05/18	00:19

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ik0300.d DFTPP Injection Date: 11/07/18

Instrument ID: HP10976 DFTPP Injection Time: 17:14

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	37.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	47.4
70	Less than 2.0% of mass 69	0.35 (0.74)1
127	10.0 - 80.00% of mass 198	50.1
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	5.73
275	10.0 - 60.0% of mass 198	25.4
365	Greater than 1.00% of mass 198	3.9
441	Present, and less than mass 443	8.58
442	Greater than 50.00% of mass 198	72.0
443	15.00 - 24.00% of mass 442	12.3 (17.1)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM2598 - SSTD.50	ik0301.d	11/07/18	17:32
02	SBLKLH302	ik0302.d	11/07/18	18:15
03	302LHLCS	ik0303.d	11/07/18	19:46
04	9867761	ik0304.d	11/07/18	20:15
05	9867762	ik0305.d	11/07/18	20:45
06	9867763MS	ik0306.d	11/07/18	21:15
07	9867764MSD	ik0307.d	11/07/18	21:45
08	9867767	ik0309.d	11/07/18	22:44
09	9872064	ik0310.d	11/07/18	23:14
10	9872065	ik0311.d	11/07/18	23:43
11	9878781	ik0313.d	11/08/18	00:43
12	9878782	ik0314.d	11/08/18	01:13

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ik0350.d DFTPP Injection Date: 11/08/18

Instrument ID: HP10976 DFTPP Injection Time: 06:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.00% of mass 198	37.8
68	Less than 2.0% of mass 69	0.4 (0.81)1
69	Mass 69 relative abundance	49.8
70	Less than 2.0% of mass 69	0.24 (0.47)1
127	10.0 - 80.00% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.00 to 9.00% of mass 198	7.04
275	10.0 - 60.0% of mass 198	26.6
365	Greater than 1.00% of mass 198	3.26
441	Present, and less than mass 443	12.6
442	Greater than 50.00% of mass 198	72.8
443	15.00 - 24.00% of mass 442	12.3 (16.9)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SIM2598 - SSTD.50	ik0351.d	11/08/18	07:03
02	9867762DL	ik0356.d	11/08/18	10:03
03	9867766	ik0359.d	11/08/18	11:34
04	9867767RE	ik0360.d	11/08/18	12:05
05	9867767DL	ik0361.d	11/08/18	12:35
06	9872064DL	ik0363.d	11/08/18	13:34
07	9872065DL	ik0365.d	11/08/18	14:34
08	9867762DL2	ik0356a.d	11/08/18	17:03
09	SIM2598	ik0366a.d	11/08/18	17:32

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10623 Calibration Date: 11/05/18 Time: 18:38

Lab File ID: ck0201.d Init. Calib. Date(s): 10/06/18 10/07/18

Init. Calib. Times(s): 23:27 02:42

COMPOUND	RRF	RRF1	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.643	0.522	0.810	1.0	-19
N-Nitrosodimethylamine	0.830	0.655	0.790	1.0	-21
bis(2-Chloroethyl)ether	1.302	1.432	1.100	1.0	10
Naphthalene	1.062	1.157	1.090	1.0	9
Quinoline	0.615	0.735	1.200	1.0	20
2-Methylnaphthalene	0.662	0.769	1.160	1.0	16
1-Methylnaphthalene	0.666	0.753	1.130	1.0	13
Dimethylphthalate	1.416	1.631	1.150	1.0	15
Acenaphthylene	1.985	2.312	1.160	1.0	16
Acenaphthene	1.359	1.465	1.080	1.0	8
Dibenzofuran	1.850	2.022	1.090	1.0	9
Diethylphthalate	1.383	2.010	1.450	1.0	45
Fluorene	1.453	1.657	1.140	1.0	14
N-Nitrosodiphenylamine (1)	0.472	0.540	1.150	1.0	15
NDPA as diphenylamine	0.472	0.540	1.150	1.0	15
Hexachlorobenzene	0.176	0.196	1.110	1.0	11
Phenanthrene	1.193	1.275	1.070	1.0	7
Anthracene	1.147	1.295	1.130	1.0	13
Di-n-butylphthalate	1.278	1.513	1.180	1.0	18
Fluoranthene	1.172	1.298	1.110	1.0	11
Pyrene	1.610	1.756	1.090	1.0	9
Butylbenzylphthalate	0.726	0.970	1.340	1.0	34
bis(2-Ethylhexyl)phthalate	0.983	1.240	1.170	1.0	17
Benzo(a)anthracene	1.296	1.446	1.120	1.0	12
Chrysene	1.328	1.431	1.080	1.0	8
Di-n-octylphthalate	1.909	2.299	1.200	1.0	20
Benzo(b)fluoranthene	1.282	1.362	1.060	1.0	6
Benzo(k)fluoranthene	1.376	1.526	1.110	1.0	11
Benzo(e)pyrene	1.314	1.376	1.050	1.0	5
Benzo(a)pyrene	1.169	1.310	1.120	1.0	12
Perylene	1.273	1.334	1.050	1.0	5
Indeno(1,2,3-cd)pyrene	1.160	1.275	1.100	1.0	10
Dibenz(a,h)anthracene	0.962	1.118	1.160	1.0	16
Benzo(g,h,i)perylene	1.082	1.177	1.090	1.0	9
1-Methylnaphthalene-d10	0.505	0.526	1.040	1.0	4

(1) Cannot be Separated from Diphenylamine

FORM VII SV-1

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10623 Calibration Date: 11/05/18 Time: 18:38

Lab File ID: ck0201.d Init. Calib. Date(s): 10/06/18 10/07/18

Init. Calib. Times(s): 23:27 02:42

COMPOUND	RRF	RRF1	ACTUAL CONC.	TRUE CONC.	% DRIFT
Fluoranthene-d10	0.907	1.008	1.110	1.0	11
Benzo(a)pyrene-d12	0.919	0.997	1.090	1.0	9
			Average %Drift:		14

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10623.i/18oct06d.b/cj0281d.d
/chem/HP10623.i/18oct06d.b/cj0282d.d
/chem/HP10623.i/18oct06d.b/cj0283d.d
/chem/HP10623.i/18oct06d.b/cj0284d.d **
/chem/HP10623.i/18oct06d.b/cj0285d.d
/chem/HP10623.i/18oct06d.b/cj0286d.d
/chem/HP10623.i/18oct06d.b/cj0287d.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP10623.i/18nov05a.b/ck0201.d

Area Summary

Internal Standard Name	File ID: ck0201.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	79848	70798	35399	141596	Yes
Naphthalene-d8	370998	288589	144294	577178	Yes
Acenaphthene-d10	176869	132299	66150	264598	Yes
Phenanthrene-d10	335518	244232	122116	488464	Yes
Chrysene-d12	258664	186483	93242	372966	Yes
Perylene-d12	232299	151438	75719	302876	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

Internal Standard Name	File ID: ck0201.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.845	7.127	No
Naphthalene-d8	8.370	8.652	No
Acenaphthene-d10	10.547	10.827	No
Phenanthrene-d10	12.396	12.688	No
Chrysene-d12	15.707	16.020	No
Perylene-d12	17.858	18.326	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10623 Calibration Date(s): 10/06/18 10/07/18

Calibration Times: 23:27 02:10

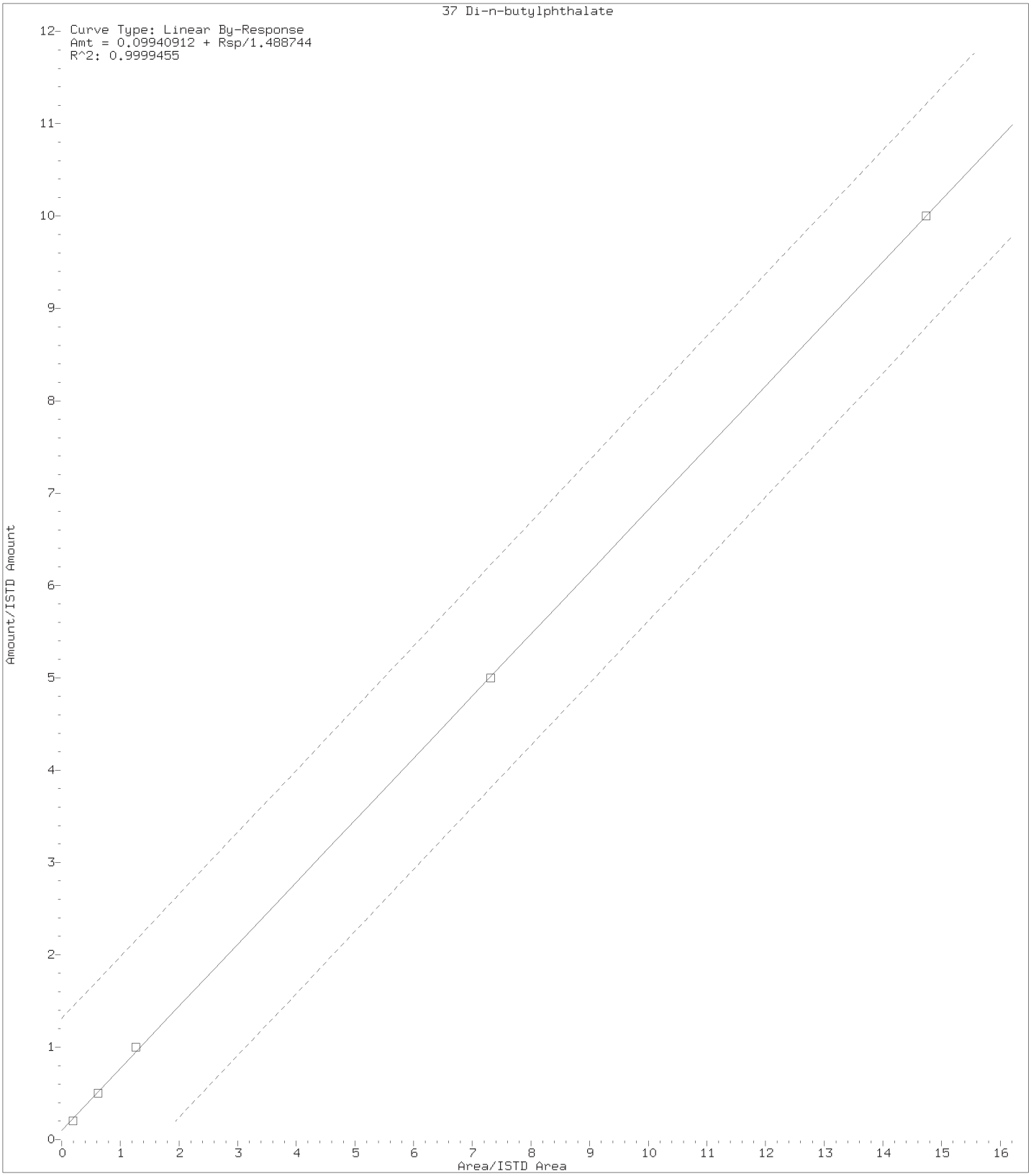
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF0.05 = cj0286.d RRF0.2 = cj0285.d RRF0.5 = cj0281.d
RRF1 = cj0284.d RRF5 = cj0283.d RRF10 = cj0282.d

COMPOUND	RRF0.05	RRF0.2	RRF0.5	RRF1	RRF5	RRF10	RRF	$\overline{RRF}$	% RSD	CAL. METHOD
1,4-Dioxane		0.650	0.638	0.642	0.668	0.647		0.649	2	AVG
N-Nitrosodimethylamine	0.702	0.790	0.819	0.840	0.920	0.907		0.830	10	AVG
Quinoline	0.497	0.583	0.630	0.644	0.685	0.633		0.612	11	AVG
Naphthalene	0.997	1.066	1.074	1.085	1.120	1.028		1.062	4	AVG
2-Methylnaphthalene	0.590	0.640	0.673	0.685	0.725	0.669		0.664	7	AVG
1-Methylnaphthalene	0.609	0.652	0.677	0.685	0.721	0.654		0.666	6	AVG
Acenaphthylene	1.533	1.775	2.033	2.074	2.302	2.194		1.985	14	AVG
Dimethylphthalate	1.147	1.317	1.458	1.467	1.573	1.533		1.416	11	AVG
Acenaphthene *	1.210	1.332	1.378	1.388	1.430	1.383		1.353	6	AVG *
Diethylphthalate	1.088	1.238	1.428	1.432	1.583	1.533		1.384	13	AVG
Fluorene	1.232	1.392	1.498	1.516	1.589	1.493		1.453	9	AVG
N-Nitrosodiphenylamine (1) *	0.409	0.475	0.514	0.520	0.486	0.426		0.472	10	AVG *
NDPA as diphenylamine	0.409	0.475	0.514	0.520	0.486	0.426		0.472	10	AVG
Hexachlorobenzene	0.161	0.173	0.175	0.180	0.185	0.182		0.176	5	AVG
Phenanthrene	1.077	1.178	1.203	1.227	1.271	1.202		1.193	5	AVG
Anthracene	0.897	1.064	1.177	1.201	1.293	1.246		1.146	13	AVG
Di-n-butylphthalate		0.954	1.237	1.263	1.463	1.474		1.278	17	1STDEG
Fluoranthene *	0.966	1.132	1.210	1.237	1.261	1.228		1.172	9	AVG *
Pyrene	1.354	1.547	1.676	1.674	1.735	1.675		1.610	9	AVG
Butylbenzylphthalate		0.535	0.715	0.694	0.842	0.844		0.726	18	1STDEG
bis(2-Ethylhexyl)phthalate		0.686	0.967	0.935	1.160	1.169		0.983	20	1STDEG
Benzo(a)anthracene	1.104	1.230	1.355	1.359	1.424	1.378		1.308	9	AVG
Chrysene	1.253	1.356	1.405	1.404	1.434	1.343		1.366	5	AVG
Di-n-octylphthalate *		1.295	1.955	1.847	2.209	2.241		1.909	20	1STDEG *
Benzo(b)fluoranthene	1.122	1.271	1.389	1.392	1.407	1.369		1.325	8	AVG
Benzo(k)fluoranthene	1.265	1.436	1.559	1.567	1.435	1.293		1.426	9	AVG
Benzo(e)pyrene	1.185	1.299	1.406	1.374	1.321	1.270		1.309	6	AVG
Benzo(a)pyrene *	0.998	1.191	1.294	1.329	1.282	1.244		1.223	10	AVG *
Perylene	1.106	1.239	1.331	1.339	1.322	1.265		1.267	7	AVG
Indeno(1,2,3-cd)pyrene	0.948	1.106	1.213	1.210	1.258	1.222		1.160	10	AVG
Dibenz(a,h)anthracene	0.815	0.956	1.054	1.048	1.089	1.056		1.003	10	AVG
Benzo(g,h,i)perylene	0.902	1.068	1.126	1.064	1.175	1.159		1.082	9	AVG
Dibenzofuran	1.669	1.809	1.893	1.910	1.950	1.873		1.850	5	AVG
bis(2-Chloroethyl)ether	0.304	0.312	0.315	0.328	0.344	0.319		0.320	4	AVG
1-Methylnaphthalene-d10	0.462	0.500	0.514	0.525	0.545	0.486		0.505	6	AVG
Fluoranthene-d10	0.756	0.855	0.943	0.962	0.979	0.948		0.907	9	AVG
Benzo(a)pyrene-d12	0.737	0.867	0.978	0.994	0.988	0.948		0.919	11	AVG

Average %RSD 9

(1) Cannot be separated from Diphenylamine
4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.



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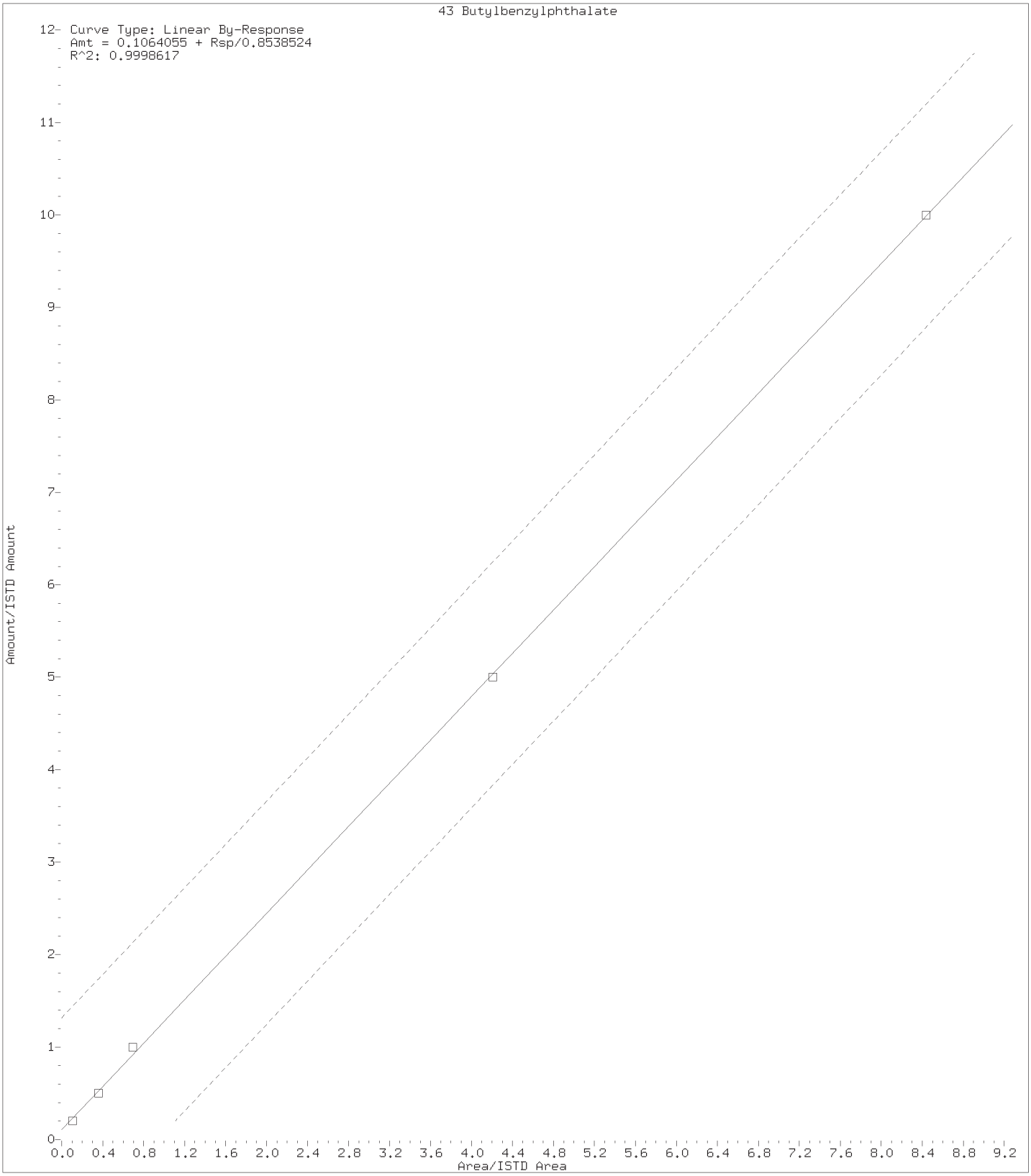
Target 3.5 esignature user ID: apb10206



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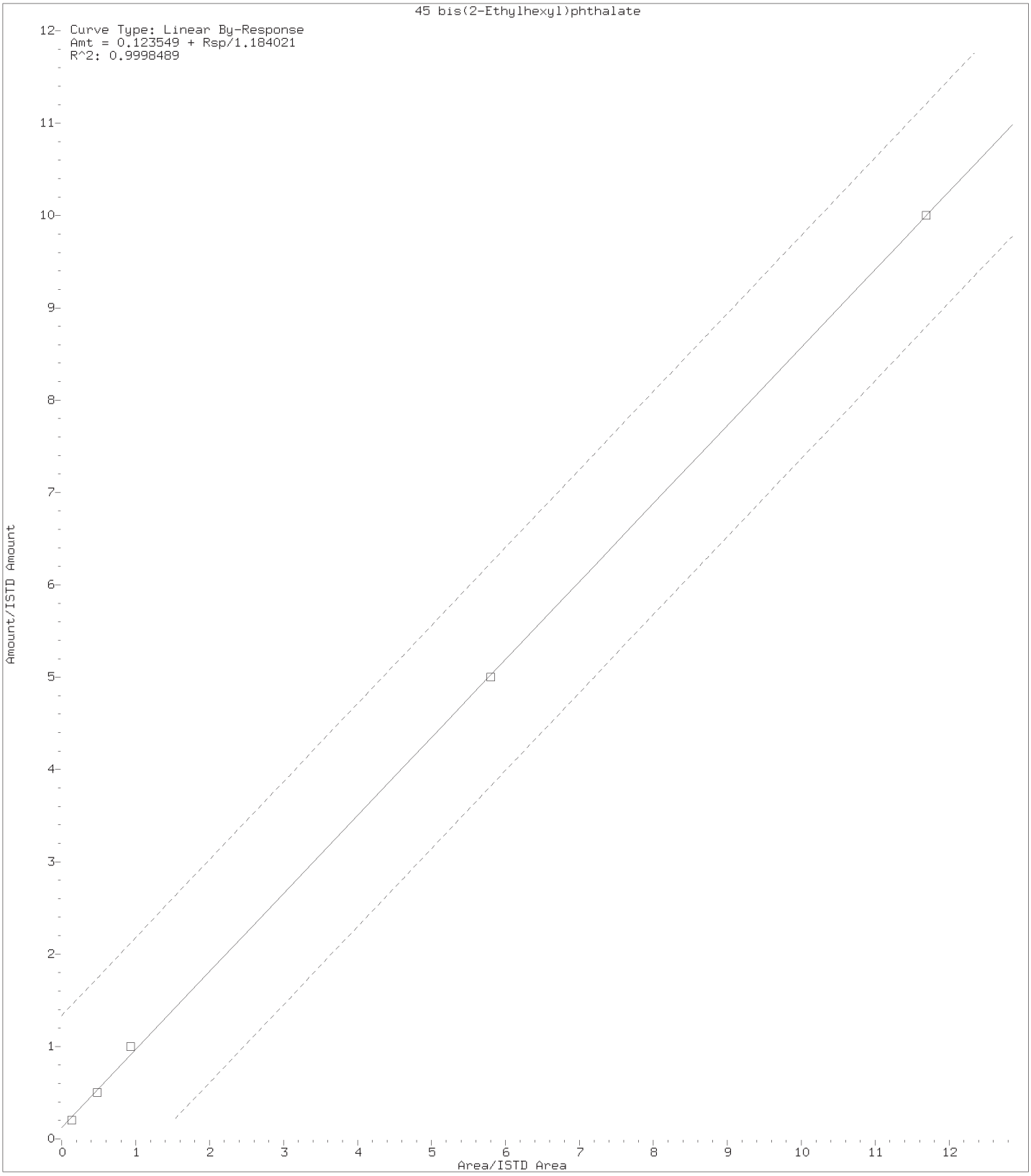
Target 3.5 esignature user ID: apb10206



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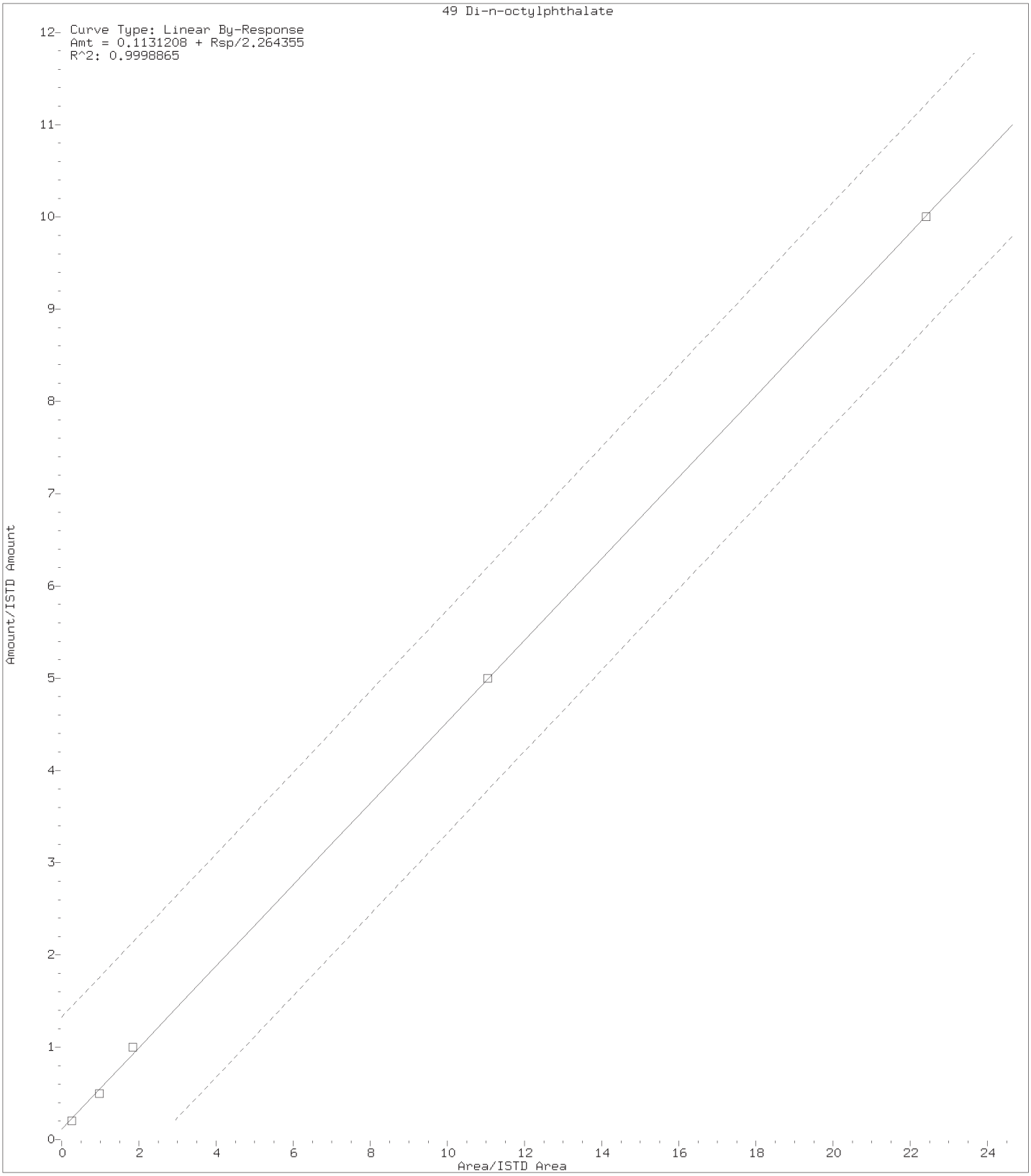
Target 3.5 esignature user ID: apb10206



Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10623.i/18oct06a.b/ci0281.d SSTD0.5
/chem/HP10623.i/18oct06a.b/ci0282.d SSTD010
/chem/HP10623.i/18oct06a.b/ci0283.d SSTD005
/chem/HP10623.i/18oct06a.b/ci0284.d SSTD001
/chem/HP10623.i/18oct06a.b/ci0285.d SSTD0.20
/chem/HP10623.i/18oct06a.b/ci0286.d SSTD0.05

Area Summary

	File ID:								
Internal Standard Name	ci0281.d	ci0282.d	ci0283.d	ci0284.d	ci0285.d	ci0286.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	73266	71753	71753	70798	71447	72122	71856	1	Yes
Naphthalene-d8	298915	308079	293967	288589	291607	288195	294892	3	Yes
Acenaphthene-d10	137445	134145	134194	132299	134148	133032	134210	1	Yes
Phenanthrene-d10	254193	246146	248906	244232	247979	246827	248047	1	Yes
Chrysene-d12	189582	186307	188840	186483	184440	181988	186273	2	Yes
Perylene-d12	150589	164798	165846	151438	147266	145437	154229	6	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:						
Internal Standard Name	ci0281.d	ci0282.d	ci0283.d	ci0284.d	ci0285.d	ci0286.d	Avg. RT
1,4-Dichlorobenzene-d4	7.127	7.127	7.127	7.127	7.127	7.127	7.127
Naphthalene-d8	8.653	8.652	8.652	8.652	8.652	8.652	8.652
Acenaphthene-d10	10.827	10.827	10.827	10.827	10.827	10.827	10.827
Phenanthrene-d10	12.688	12.687	12.687	12.688	12.688	12.687	12.687
Chrysene-d12	16.020	16.027	16.019	16.020	16.020	16.019	16.021
Perylene-d12	18.326	18.334	18.326	18.326	18.326	18.326	18.328

Comments:_____

_____

Report generated on 10/07/2018 at 18:36

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP10623

Method: SW-846 8270C (SIM) File ID: cj0290.d

ICV SAMPLE ID: SICV1908 BATCH: 18OCT06A026 Sample Name: SSTD001

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	1.00	1.01	1	30	YES
N-Nitrosodimethylamine	1.00	1.08	8	30	YES
bis(2-Chloroethyl)ether	1.00	1.23	23	30	YES
Quinoline	1.00	1.09	9	30	YES
Naphthalene	1.00	1.03	3	30	YES
2-Methylnaphthalene	1.00	1.07	7	30	YES
1-Methylnaphthalene	1.00	1.01	1	30	YES
Dimethylphthalate	1.00	1.09	9	30	YES
Acenaphthylene	1.00	1.08	8	30	YES
Acenaphthene	1.00	1.02	2	30	YES
Dibenzofuran	1.00	1.09	9	30	YES
Diethylphthalate	1.00	1.08	8	30	YES
Fluorene	1.00	1.10	10	30	YES
N-Nitrosodiphenylamine	1.00	1.00	0	30	YES
NDPA as diphenylamine	1.00	1.00	0	30	YES
Hexachlorobenzene	1.00	1.15	15	30	YES
Phenanthrene	1.00	1.02	2	30	YES
Anthracene	1.00	1.03	3	30	YES
Di-n-butylphthalate	1.00	.91	-9	30	YES
Fluoranthene	1.00	1.04	4	30	YES
Pyrene	1.00	1.02	2	30	YES
Butylbenzylphthalate	1.00	.85	-15	30	YES
bis(2-Ethylhexyl)phthalate	1.00	.84	-16	30	YES
Benzo(a)anthracene	1.00	1.05	5	30	YES
Chrysene	1.00	1.00	0	30	YES
Di-n-octylphthalate	1.00	.90	-10	30	YES
Benzo(b)fluoranthene	1.00	1.09	9	30	YES
Benzo(k)fluoranthene	1.00	1.16	16	30	YES
Benzo(a)pyrene	1.00	1.11	11	30	YES
Benzo(e)pyrene	1.00	1.23	23	30	YES
Perylene	1.00	1.20	20	30	YES
Indeno(1,2,3-cd)pyrene	1.00	1.17	17	30	YES
Dibenz(a,h)anthracene	1.00	1.09	9	30	YES
Benzo(g,h,i)perylene	1.00	1.11	11	30	YES

NC = Could not calculate

Comments: _____

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10976 Calibration Date(s): 09/04/18 09/04/18

Calibration Times: 19:41 22:47

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF0.01 = ii0107.d RRF0.05 = ii0106.d RRF0.2 = ii0105.d
RRF0.5 = ii0104.d RRF1 = ii0101.d RRF5 = ii0103.d RRF10 = ii0102.d

COMPOUND	RRF0.01	RRF0.05	RRF0.2	RRF0.5	RRF1	RRF5	RRF10	$\overline{RRF}$	% RSD	CAL. METHOD
1,4-Dioxane		0.555	0.590	0.610	0.624	0.581	0.633	0.599	5	AVG
N-Nitrosodimethylamine		0.864	0.882	0.912	0.963	0.897	0.963	0.913	5	AVG
bis(2-Chloroethyl)ether		1.210	1.232	1.267	1.311	1.218	1.291	1.255	3	AVG
Naphthalene		1.018	1.019	1.053	1.057	0.994	1.037	1.030	2	AVG
Quinoline		0.617	0.622	0.652	0.668	0.613	0.649	0.637	4	AVG
2-Methylnaphthalene		0.719	0.734	0.751	0.772	0.720	0.752	0.741	3	AVG
1-Methylnaphthalene		0.720	0.716	0.739	0.748	0.711	0.730	0.727	2	AVG
Dimethylphthalate		1.443	1.450	1.475	1.506	1.444	1.534	1.475	3	AVG
Acenaphthylene		1.842	1.866	1.939	1.956	1.896	1.993	1.915	3	AVG
Acenaphthene		1.244	1.261	1.293	1.277	1.209	1.272	1.259	2	AVG
Dibenzofuran		1.890	1.945	1.983	1.999	1.890	1.993	1.950	3	AVG
Diethylphthalate		1.391	1.398	1.480	1.495	1.406	1.465	1.439	3	AVG
Fluorene		1.461	1.522	1.569	1.609	1.535	1.603	1.550	4	AVG
N-Nitrosodiphenylamine (1)		0.447	0.445	0.464	0.457	0.356	0.330	0.417	14	AVG
NDPA as diphenylamine		0.447	0.445	0.464	0.457	0.356	0.330	0.417	14	AVG
Hexachlorobenzene		0.307	0.298	0.298	0.293	0.277	0.285	0.293	4	AVG
Phenanthrene		1.084	1.078	1.093	1.089	1.040	1.099	1.080	2	AVG
Anthracene		1.049	1.061	1.087	1.119	1.063	1.113	1.082	3	AVG
Di-n-butylphthalate				0.962	1.025	1.075	1.026	1.081	1.034	5	AVG
Fluoranthene		1.265	1.296	1.359	1.384	1.335	1.432	1.345	4	AVG
Pyrene		1.443	1.383	1.428	1.411	1.315	1.325	1.384	4	AVG
Butylbenzylphthalate				0.404	0.442	0.464	0.433	0.445	0.438	5	AVG
bis(2-Ethylhexyl)phthalate				0.601	0.667	0.699	0.645	0.676	0.658	6	AVG
Benzo(a)anthracene	1.423	1.262	1.243	1.280	1.294	1.235	1.266	1.287	5	AVG
Chrysene	1.210	1.249	1.224	1.255	1.250	1.185	1.230	1.229	2	AVG
Di-n-octylphthalate				0.984	1.091	1.167	1.091	1.137	1.094	6	AVG
Benzo(b)fluoranthene	1.249	1.220	1.240	1.272	1.287	1.180	1.258	1.244	3	AVG
Benzo(k)fluoranthene	1.151	1.141	1.121	1.169	1.170	1.201	1.208	1.166	3	AVG
Benzo(e)pyrene		1.211	1.192	1.245	1.248	1.189	1.219	1.217	2	AVG
Benzo(a)pyrene	1.059	1.024	1.033	1.084	1.101	1.067	1.093	1.066	3	AVG
Perylene		1.204	1.178	1.205	1.210	1.154	1.176	1.188	2	AVG
Indeno(1,2,3-cd)pyrene	1.193	1.227	1.237	1.280	1.294	1.261	1.306	1.257	3	AVG
Dibenz(a,h)anthracene	0.981	1.002	1.018	1.043	1.053	1.023	1.064	1.026	3	AVG
Benzo(g,h,i)perylene		1.085	1.086	1.123	1.136	1.089	1.112	1.105	2	AVG
1-Methylnaphthalene-d10		0.623	0.600	0.607	0.629	0.587	0.613	0.610	3	AVG
Fluoranthene-d10		1.182	1.195	1.257	1.262	1.243	1.301	1.240	4	AVG
Benzo(a)pyrene-d12		0.904	0.919	0.963	0.988	0.965	0.993	0.955	4	AVG

Average %RSD 4

(1) Cannot be separated from Diphenylamine
4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
Benzoic acid and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10976.i/18sep04a.b/ii0101.d SSTD001
/chem/HP10976.i/18sep04a.b/ii0102.d SSTD010
/chem/HP10976.i/18sep04a.b/ii0103.d SSTD005
/chem/HP10976.i/18sep04a.b/ii0104.d SSTD0.5
/chem/HP10976.i/18sep04a.b/ii0105.d SSTD0.2
/chem/HP10976.i/18sep04a.b/ii0106.d SSTD0.05
/chem/HP10976.i/18sep04a.b/ii0107.d SSTD0.01

Area Summary

	File ID:									
Internal Standard Name	ii0101.d	ii0102.d	ii0103.d	ii0104.d	ii0105.d	ii0106.d	ii0107.d	Avg. Area	%RSD	In Spec
1,4-Dichlorobenzene-d4	62135	57215	65069	61558	56238	57036	55324	59225	6	Yes
Naphthalene-d8	234679	223185	241875	232516	211328	215309	207127	223717	6	Yes
Acenaphthene-d10	144286	133230	145290	141121	127752	130523	126750	135565	6	Yes
Phenanthrene-d10	331893	313169	335792	320188	289036	293041	285967	309869	7	Yes
Chrysene-d12	331592	339647	352329	309373	276026	273917	266943	307118	11	Yes
Perylene-d12	333223	346603	356058	312109	276848	270990	263732	308509	12	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

	File ID:							
Internal Standard Name	ii0101.d	ii0102.d	ii0103.d	ii0104.d	ii0105.d	ii0106.d	ii0107.d	Avg. RT
1,4-Dichlorobenzene-d4	7.387	7.387	7.387	7.387	7.387	7.387	7.387	7.387
Naphthalene-d8	8.912	8.913	8.913	8.912	8.912	8.912	8.913	8.912
Acenaphthene-d10	11.095	11.095	11.095	11.095	11.095	11.095	11.095	11.095
Phenanthrene-d10	12.956	12.956	12.956	12.956	12.956	12.956	12.956	12.956
Chrysene-d12	16.292	16.292	16.292	16.292	16.292	16.292	16.292	16.292
Perylene-d12	18.614	18.614	18.615	18.614	18.614	18.614	18.614	18.614

Comments:_____

_____

Report generated on 09/04/2018 at 23:57

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS LAB CODE: LANCAS INSTRUMENT: HP10976

Method: SW-846 8270D (SIM) File ID: ii0110.d

ICV SAMPLE ID: SICV1908 BATCH: 18SEP04A026 Sample Name: SSTD001

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	1.00	1.07	7	30	YES
N-Nitrosodimethylamine	1.00	1.11	11	30	YES
bis(2-Chloroethyl)ether	1.00	1.24	24	30	YES
Naphthalene	1.00	1.05	5	30	YES
Quinoline	1.00	1.11	11	30	YES
2-Methylnaphthalene	1.00	1.07	7	30	YES
1-Methylnaphthalene	1.00	1.04	4	30	YES
Dimethylphthalate	1.00	1.16	16	30	YES
Acenaphthylene	1.00	1.08	8	30	YES
Acenaphthene	1.00	1.02	2	30	YES
Dibenzofuran	1.00	1.08	8	30	YES
Diethylphthalate	1.00	1.13	13	30	YES
Fluorene	1.00	1.09	9	30	YES
N-Nitrosodiphenylamine	1.00	1.03	3	30	YES
NDPA as diphenylamine	1.00	1.03	3	30	YES
Hexachlorobenzene	1.00	1.19	19	30	YES
Phenanthrene	1.00	1.05	5	30	YES
Anthracene	1.00	1.06	6	30	YES
Di-n-butylphthalate	1.00	1.11	11	30	YES
Fluoranthene	1.00	1.05	5	30	YES
Pyrene	1.00	1.04	4	30	YES
Butylbenzylphthalate	1.00	1.08	8	30	YES
bis(2-Ethylhexyl)phthalate	1.00	1.06	6	30	YES
Benzo(a)anthracene	1.00	1.04	4	30	YES
Chrysene	1.00	1.00	0	30	YES
Di-n-octylphthalate	1.00	1.07	7	30	YES
Benzo(b)fluoranthene	1.00	1.04	4	30	YES
Benzo(k)fluoranthene	1.00	1.07	7	30	YES
Benzo(e)pyrene	1.00	1.15	15	30	YES
Benzo(a)pyrene	1.00	1.08	8	30	YES
Perylene	1.00	1.15	15	30	YES
Indeno(1,2,3-cd)pyrene	1.00	1.09	9	30	YES
Dibenz(a,h)anthracene	1.00	1.06	6	30	YES
Benzo(g,h,i)perylene	1.00	1.13	13	30	YES

NC = Could not calculate

Comments: _____

Data File: /chem/HP10623.i/18nov05a.b/ck0222.d
Report Date: 11/06/2018 08:14

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP10623.i
Client ID: SECC001
Lab Sample ID: SIM2598
Sublist used: 25804.sub

Injection Date and Time: 06-NOV-2018 05:40
Initial Calibration Date(s): 06-OCT-2018 07-OCT-2018
Initial Calibration Time(s): 23:27 02:42
Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,4-Dioxane	0.64270	0.46352	0.010	27.9	20.0
Naphthalene	1.06181	1.14991	0.010	-8.3	20.0
Acenaphthylene	1.98516	2.36516	0.010	-19.1	20.0
Acenaphthene	1.35887	1.46467	0.010	-7.8	20.0
Fluorene	1.45319	1.61600	0.010	-11.2	20.0
Phenanthrene	1.19319	1.27433	0.010	-6.8	20.0
Anthracene	1.14738	1.34073	0.010	-16.9	20.0
Di-n-butylphthalate	1.27807	1.59697	0.010	-25.0	20.0
Fluoranthene	1.17242	1.31750	0.010	-12.4	20.0
Pyrene	1.60949	1.75904	0.010	-9.3	20.0
bis(2-Ethylhexyl)phthalate	1.000	1.256	0.010	-25.6	20.0
Benzo(a)anthracene	1.29603	1.44389	0.010	-11.4	20.0
Chrysene	1.32783	1.44233	0.010	-8.6	20.0
Benzo(b)fluoranthene	1.28167	1.52515	0.010	-19.0	20.0
Benzo(k)fluoranthene	1.37635	1.55641	0.010	-13.1	20.0
Benzo(a)pyrene	1.16931	1.31770	0.010	-12.7	20.0
Indeno(1,2,3-cd)pyrene	1.15990	0.92266	0.010	20.5	20.0
Dibenz(a,h)anthracene	0.96159	0.86513	0.010	10.0	20.0
Benzo(g,h,i)perylene	1.08250	0.72241	0.010	33.3	20.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1-Methylnaphthalene-d10	0.50524	0.53659	0.010	-6.2	20.0
Fluoranthene-d10	0.90728	1.02851	0.010	-13.4	20.0
Benzo(a)pyrene-d12	0.91904	1.02361	0.010	-11.4	20.0

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10623 Calibration Date: 11/06/18 Time: 16:36

Lab File ID: ck0301.d Init. Calib. Date(s): 10/06/18 10/07/18

Init. Calib. Times(s): 23:27 02:42

COMPOUND	RRF	RRF1	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.643	0.613	0.950	1.0	-5
N-Nitrosodimethylamine	0.830	0.812	0.980	1.0	-2
bis(2-Chloroethyl)ether	1.302	1.321	1.010	1.0	1
Naphthalene	1.062	1.104	1.040	1.0	4
Quinoline	0.615	0.701	1.140	1.0	14
2-Methylnaphthalene	0.662	0.751	1.130	1.0	13
1-Methylnaphthalene	0.666	0.730	1.100	1.0	10
Dimethylphthalate	1.416	1.561	1.100	1.0	10
Acenaphthylene	1.985	2.234	1.130	1.0	13
Acenaphthene	1.359	1.429	1.050	1.0	5
Dibenzofuran	1.850	1.986	1.070	1.0	7
Diethylphthalate	1.383	1.712	1.240	1.0	24
Fluorene	1.453	1.613	1.110	1.0	11
N-Nitrosodiphenylamine (1)	0.472	0.552	1.170	1.0	17
NDPA as diphenylamine	0.472	0.552	1.170	1.0	17
Hexachlorobenzene	0.176	0.195	1.110	1.0	11
Phenanthrene	1.193	1.253	1.050	1.0	5
Anthracene	1.147	1.276	1.110	1.0	11
Di-n-butylphthalate	1.278	1.411	1.100	1.0	10
Fluoranthene	1.172	1.270	1.080	1.0	8
Pyrene	1.610	1.784	1.110	1.0	11
Butylbenzylphthalate	0.726	0.955	1.320	1.0	32
bis(2-Ethylhexyl)phthalate	0.983	1.221	1.160	1.0	16
Benzo(a)anthracene	1.296	1.444	1.110	1.0	11
Chrysene	1.328	1.420	1.070	1.0	7
Di-n-octylphthalate	1.909	2.291	1.200	1.0	20
Benzo(b)fluoranthene	1.282	1.476	1.150	1.0	15
Benzo(k)fluoranthene	1.376	1.391	1.010	1.0	1
Benzo(e)pyrene	1.314	1.350	1.030	1.0	3
Benzo(a)pyrene	1.169	1.310	1.120	1.0	12
Perylene	1.273	1.331	1.050	1.0	5
Indeno(1,2,3-cd)pyrene	1.160	1.262	1.090	1.0	9
Dibenz(a,h)anthracene	0.962	1.106	1.150	1.0	15
Benzo(g,h,i)perylene	1.082	1.155	1.070	1.0	7
1-Methylnaphthalene-d10	0.505	0.526	1.040	1.0	4

(1) Cannot be Separated from Diphenylamine

FORM VII SV-1

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10623 Calibration Date: 11/06/18 Time: 16:36

Lab File ID: ck0301.d Init. Calib. Date(s): 10/06/18 10/07/18

Init. Calib. Times(s): 23:27 02:42

COMPOUND	RRF	RRF1	ACTUAL CONC.	TRUE CONC.	% DRIFT
Fluoranthene-d10	0.907	1.005	1.110	1.0	11
Benzo(a)pyrene-d12	0.919	1.004	1.090	1.0	9
			Average %Drift:		10

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10623.i/18oct06d.b/cj0281d.d
/chem/HP10623.i/18oct06d.b/cj0282d.d
/chem/HP10623.i/18oct06d.b/cj0283d.d
/chem/HP10623.i/18oct06d.b/cj0284d.d **
/chem/HP10623.i/18oct06d.b/cj0285d.d
/chem/HP10623.i/18oct06d.b/cj0286d.d
/chem/HP10623.i/18oct06d.b/cj0287d.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP10623.i/18nov06a.b/ck0301.d

Area Summary

File ID:

Internal Standard Name	ck0301.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	94256	70798	35399	141596	Yes
Naphthalene-d8	403036	288589	144294	577178	Yes
Acenaphthene-d10	186397	132299	66150	264598	Yes
Phenanthrene-d10	344537	244232	122116	488464	Yes
Chrysene-d12	251887	186483	93242	372966	Yes
Perylene-d12	225953	151438	75719	302876	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	ck0301.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.832	7.127	No
Naphthalene-d8	8.357	8.652	No
Acenaphthene-d10	10.525	10.827	No
Phenanthrene-d10	12.385	12.688	No
Chrysene-d12	15.685	16.020	No
Perylene-d12	17.835	18.326	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

Data File: /chem/HP10623.i/18nov06a.b/ck0312a.d
Report Date: 11/07/2018 02:06

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP10623.i
Client ID: SECC1
Lab Sample ID: SIM2598
Sublist used: 25804.sub

Injection Date and Time: 07-NOV-2018 01:22
Initial Calibration Date(s): 06-OCT-2018 07-OCT-2018
Initial Calibration Time(s): 23:27 02:42
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,4-Dioxane	0.64270	0.55577	0.010	13.5	20.0
Naphthalene	1.06181	1.12886	0.010	-6.3	20.0
Acenaphthylene	1.98516	2.23704	0.010	-12.7	20.0
Acenaphthene	1.35887	1.40782	0.010	-3.6	20.0
Fluorene	1.45319	1.54608	0.010	-6.4	20.0
Phenanthrene	1.19319	1.22156	0.010	-2.4	20.0
Anthracene	1.14738	1.32995	0.010	-15.9	20.0
Di-n-butylphthalate	1.27807	1.51991	0.010	-18.9	20.0
Fluoranthene	1.17242	1.28826	0.010	-9.9	20.0
Pyrene	1.60949	1.74639	0.010	-8.5	20.0
bis(2-Ethylhexyl)phthalate	1.000	1.199	0.010	-19.9	20.0
Benzo(a)anthracene	1.29603	1.43299	0.010	-10.6	20.0
Chrysene	1.32783	1.43021	0.010	-7.7	20.0
Benzo(b)fluoranthene	1.28167	1.42804	0.010	-11.4	20.0
Benzo(k)fluoranthene	1.37635	1.53402	0.010	-11.5	20.0
Benzo(a)pyrene	1.16931	1.30910	0.010	-12.0	20.0
Indeno(1,2,3-cd)pyrene	1.15990	0.97959	0.010	15.5	20.0
Dibenz(a,h)anthracene	0.96159	0.91317	0.010	5.0	20.0
Benzo(g,h,i)perylene	1.08250	0.77864	0.010	28.1	20.0
Surrogate Standards	**ICAL Avg. RRF**	**SECC RRF**	**Min. RRF**	**% Diff.**	**Max. %Diff.**
1-Methylnaphthalene-d10	0.50524	0.53260	0.010	-5.4	20.0
Fluoranthene-d10	0.90728	1.02794	0.010	-13.3	20.0
Benzo(a)pyrene-d12	0.91904	1.02394	0.010	-11.4	20.0

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10976 Calibration Date: 11/07/18 Time: 17:32

Lab File ID: ik0301.d Init. Calib. Date(s): 09/04/18 09/04/18

Init. Calib. Times(s): 19:41 22:47

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.599	0.517	0.430	.5	-14
N-Nitrosodimethylamine	0.913	0.827	0.450	.5	-9
bis(2-Chloroethyl)ether	1.255	1.162	0.460	.5	-7
Naphthalene	1.030	1.086	0.530	.5	5
Quinoline	0.637	0.673	0.530	.5	6
2-Methylnaphthalene	0.741	0.774	0.520	.5	4
1-Methylnaphthalene	0.727	0.775	0.530	.5	7
Dimethylphthalate	1.475	1.538	0.520	.5	4
Acenaphthylene	1.915	1.908	0.500	.5	0
Acenaphthene	1.259	1.263	0.500	.5	0
Dibenzofuran	1.950	0.094	0.020	.5	-95
Diethylphthalate	1.439	1.533	0.530	.5	7
Fluorene	1.550	1.562	0.500	.5	1
N-Nitrosodiphenylamine (1)	0.417	0.460	0.550	.5	10
NDPA as diphenylamine	0.417	0.460	0.550	.5	10
Hexachlorobenzene	0.293	0.300	0.510	.5	2
Phenanthrene	1.080	1.115	0.520	.5	3
Anthracene	1.082	1.122	0.520	.5	4
Di-n-butylphthalate	1.034	1.185	0.570	.5	15
Fluoranthene	1.345	1.392	0.520	.5	3
Pyrene	1.384	1.384	0.500	.5	0
Butylbenzylphthalate	0.438	0.447	0.510	.5	2
bis(2-Ethylhexyl)phthalate	0.658	0.748	0.570	.5	14
Benzo(a)anthracene	1.286	1.269	0.490	.5	-1
Chrysene	1.229	1.283	0.520	.5	4
Di-n-octylphthalate	1.094	1.218	0.560	.5	11
Benzo(b)fluoranthene	1.244	1.268	0.510	.5	2
Benzo(k)fluoranthene	1.166	1.215	0.520	.5	4
Benzo(e)pyrene	1.217	1.211	0.500	.5	-1
Benzo(a)pyrene	1.066	1.095	0.510	.5	3
Perylene	1.188	1.172	0.490	.5	-1
Indeno(1,2,3-cd)pyrene	1.257	1.248	0.500	.5	-1
Dibenz(a,h)anthracene	1.026	1.059	0.520	.5	3
Benzo(g,h,i)perylene	1.105	1.210	0.550	.5	10
1-Methylnaphthalene-d10	0.610	0.591	0.480	.5	-3

(1) Cannot be Separated from Diphenylamine

FORM VII SV-1

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10976 Calibration Date: 11/07/18 Time: 17:32

Lab File ID: ik0301.d Init. Calib. Date(s): 09/04/18 09/04/18

Init. Calib. Times(s): 19:41 22:47

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Fluoranthene-d10	1.240	1.222	0.490	.5	-1
Benzo(a)pyrene-d12	0.955	0.956	0.500	.5	0
			Average %Drift:		7

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10976.i/18sep04a.b/ii0101.d **
/chem/HP10976.i/18sep04a.b/ii0102.d
/chem/HP10976.i/18sep04a.b/ii0103.d
/chem/HP10976.i/18sep04a.b/ii0104.d
/chem/HP10976.i/18sep04a.b/ii0105.d
/chem/HP10976.i/18sep04a.b/ii0106.d
/chem/HP10976.i/18sep04a.b/ii0107.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP10976.i/18nov07.b/ik0301.d

Area Summary

File ID:

Internal Standard Name	ik0301.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	43881	62135	31068	124270	Yes
Naphthalene-d8	160275	234679	117340	469358	Yes
Acenaphthene-d10	101156	144286	72143	288572	Yes
Phenanthrene-d10	222571	331893	165946	663786	Yes
Chrysene-d12	229303	331592	165796	663184	Yes
Perylene-d12	230626	333223	166612	666446	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	ik0301.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.808	7.387	No
Naphthalene-d8	8.320	8.912	No
Acenaphthene-d10	10.487	11.095	No
Phenanthrene-d10	12.332	12.956	No
Chrysene-d12	15.614	16.292	No
Perylene-d12	17.569	18.614	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

Report generated on 11/07/2018 at 18:03

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0201.d Date Analyzed: 11/05/18

Instrument ID: HP10623 Time Analyzed: 18:38

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	79848	6.845	370998	8.370	176869	10.547
UPPER LIMIT	159696	7.345	741996	8.870	353738	11.047
LOWER LIMIT	39924	6.345	185499	7.870	88435	10.047
LLI SAMPLE NO.						
01 SBLKLE302	71653	6.858	320623	8.370	154171	10.547
02 302LELCS	68162	6.858	317737	8.370	152017	10.536
03 9863851	68427	6.858	315898	8.370	151720	10.536
04 9863852	65653	6.858	307509	8.370	143747	10.547
05 9863853	70550	6.858	323058	8.370	155225	10.547
06 9863854MS	66912	6.858	314110	8.370	152011	10.547
07 9863855MSD	65975	6.858	309786	8.370	150337	10.547
08 9863857	65770	6.858	307523	8.370	147455	10.547
09 9863858	72969	6.858	328165	8.370	165738	10.547
10 9866461	69581	6.858	319434	8.370	147548	10.547
11 9866462	63855	6.858	296362	8.370	143968	10.547
12 9866463	69723	6.858	316941	8.370	146197	10.547
13 9866464	70391	6.858	319276	8.370	149080	10.547
14 9866465	68071	6.858	311913	8.370	143690	10.547
15 9866466	137584	6.858	624413	8.370	288286	10.547
16 9866467	69397	6.858	319394	8.370	150031	10.547
17 9870251	72012	6.858	322931	8.370	155201	10.547

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0201.d Date Analyzed: 11/05/18

Instrument ID: HP10623 Time Analyzed: 18:38

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	335518	12.396	258664	15.707	232299	17.858
UPPER LIMIT	671036	12.896	517328	16.207	464598	18.358
LOWER LIMIT	167759	11.896	129332	15.207	116150	17.358
LLI SAMPLE NO.						
01 SBLKLE302	285740	12.396	217921	15.707	188883	17.858
02 302LELCS	276898	12.396	207087	15.707	184784	17.858
03 9863851	274431	12.396	203569	15.708	167852	17.859
04 9863852	244704	12.407	155442	15.724	112055*	17.906
05 9863853	273334	12.407	199134	15.708	169163	17.866
06 9863854MS	255960	12.407	187198	15.715	152856	17.873
07 9863855MSD	249171	12.407	187807	15.708	151142	17.874
08 9863857	256880	12.407	194710	15.708	169013	17.867
09 9863858	261915	12.407	185095	15.715	159129	17.889
10 9866461	268472	12.407	190975	15.716	167763	17.874
11 9866462	249155	12.407	171846	15.716	156052	17.882
12 9866463	269267	12.407	195743	15.716	167057	17.874
13 9866464	267301	12.407	199719	15.715	174557	17.873
14 9866465	262597	12.407	197295	15.715	175380	17.873
15 9866466	511047	12.407	366901	15.723	294244	17.889
16 9866467	261769	12.407	188800	15.724	153860	17.890
17 9870251	274244	12.407	192089	15.724	141312	17.898

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0201.d Date Analyzed: 11/05/18

Instrument ID: HP10623 Time Analyzed: 18:38

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	79848	6.845	370998	8.370	176869	10.547
UPPER LIMIT	159696	7.345	741996	8.870	353738	11.047
LOWER LIMIT	39924	6.345	185499	7.870	88435	10.047
LLI SAMPLE NO.						
18 9870252	65721	6.858	309536	8.383	131578	10.547
19 9870253	63512	6.858	355072	8.383	160426	10.547
20 9870254	63874	6.858	314890	8.383	141098	10.547
21 SIM2598	75476	6.858	342710	8.370	165888	10.547

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0201.d Date Analyzed: 11/05/18

Instrument ID: HP10623 Time Analyzed: 18:38

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	335518	12.396	258664	15.707	232299	17.858
UPPER LIMIT	671036	12.896	517328	16.207	464598	18.358
LOWER LIMIT	167759	11.896	129332	15.207	116150	17.358
LLI SAMPLE NO.						
18 9870252	201951	12.407	156418	15.731	127992	17.897
19 9870253	209789	12.407	148236	15.732	138928	17.898
20 9870254	208899	12.407	148231	15.732	134734	17.898
21 SIM2598	293202	12.407	230494	15.716	182678	17.874

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

Data File: /chem/HP10976.i/18nov07.b/ik0312.d
Report Date: 11/08/2018 07:42

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP10976.i
Client ID: SECC1
Lab Sample ID: SIM2598
Sublist used: 25804.sub
Injection Date and Time: 08-NOV-2018 00:13
Initial Calibration Date(s): 04-SEP-2018 04-SEP-2018
Initial Calibration Time(s): 19:41 22:47
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,4-Dioxane	0.59863	0.55232	0.010	7.7	20.0
Naphthalene	1.02976	1.09921	0.010	-6.7	20.0
Acenaphthylene	1.91529	1.97690	0.010	-3.2	20.0
Acenaphthene	1.25940	1.26986	0.010	-0.8	20.0
Fluorene	1.54997	1.57070	0.010	-1.3	20.0
Phenanthrene	1.08038	1.10660	0.010	-2.4	20.0
Anthracene	1.08199	1.18526	0.010	-9.5	20.0
Di-n-butylphthalate	1.03374	1.21347	0.010	-17.4	20.0
Fluoranthene	1.34513	1.41464	0.010	-5.2	20.0
Pyrene	1.38417	1.43667	0.010	-3.8	20.0
bis(2-Ethylhexyl)phthalate	0.65780	0.79095	0.010	-20.2	20.0
Benzo(a)anthracene	1.28652	1.28601	0.010	0.0	20.0
Chrysene	1.22894	1.29197	0.010	-5.1	20.0
Benzo(b)fluoranthene	1.24371	1.44000	0.010	-15.8	20.0
Benzo(k)fluoranthene	1.16589	1.61276	0.010	-38.3	20.0
Benzo(a)pyrene	1.06588	1.18750	0.010	-11.4	20.0
Indeno(1,2,3-cd)pyrene	1.25699	0.72900	0.010	42.0	20.0
Dibenz(a,h)anthracene	1.02632	0.68142	0.010	33.6	20.0
Benzo(g,h,i)perylene	1.10519	0.53187	0.010	51.9	20.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1-Methylnaphthalene-d10	0.60978	0.58973	0.010	3.3	20.0
Fluoranthene-d10	1.23990	1.26096	0.010	-1.7	20.0
Benzo(a)pyrene-d12	0.95526	1.03932	0.010	-8.8	20.0

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10976 Calibration Date: 11/08/18 Time: 07:03

Lab File ID: ik0351.d Init. Calib. Date(s): 09/04/18 09/04/18

Init. Calib. Times(s): 19:41 22:47

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,4-Dioxane	0.599	0.579	0.480	.5	-3
N-Nitrosodimethylamine	0.913	0.846	0.460	.5	-7
bis(2-Chloroethyl)ether	1.255	1.194	0.480	.5	-5
Naphthalene	1.030	1.099	0.530	.5	7
Quinoline	0.637	0.644	0.510	.5	1
2-Methylnaphthalene	0.741	0.772	0.520	.5	4
1-Methylnaphthalene	0.727	0.771	0.530	.5	6
Dimethylphthalate	1.475	1.571	0.530	.5	7
Acenaphthylene	1.915	1.945	0.510	.5	2
Acenaphthene	1.259	1.284	0.510	.5	2
Dibenzofuran	1.950	0.054	0.010	.5	-97
Diethylphthalate	1.439	1.669	0.580	.5	16
Fluorene	1.550	1.563	0.500	.5	1
N-Nitrosodiphenylamine (1)	0.417	0.464	0.560	.5	11
NDPA as diphenylamine	0.417	0.464	0.560	.5	11
Hexachlorobenzene	0.293	0.299	0.510	.5	2
Phenanthrene	1.080	1.110	0.510	.5	3
Anthracene	1.082	1.130	0.520	.5	4
Di-n-butylphthalate	1.034	1.179	0.570	.5	14
Fluoranthene	1.345	1.392	0.520	.5	4
Pyrene	1.384	1.401	0.510	.5	1
Butylbenzylphthalate	0.438	0.450	0.510	.5	3
bis(2-Ethylhexyl)phthalate	0.658	0.740	0.560	.5	12
Benzo(a)anthracene	1.286	1.267	0.490	.5	-1
Chrysene	1.229	1.269	0.520	.5	3
Di-n-octylphthalate	1.094	1.223	0.560	.5	12
Benzo(b)fluoranthene	1.244	1.263	0.510	.5	2
Benzo(k)fluoranthene	1.166	1.192	0.510	.5	2
Benzo(e)pyrene	1.217	1.213	0.500	.5	0
Benzo(a)pyrene	1.066	1.121	0.530	.5	5
Perylene	1.188	1.185	0.500	.5	0
Indeno(1,2,3-cd)pyrene	1.257	1.278	0.510	.5	2
Dibenz(a,h)anthracene	1.026	1.079	0.530	.5	5
Benzo(g,h,i)perylene	1.105	1.229	0.560	.5	11
1-Methylnaphthalene-d10	0.610	0.584	0.480	.5	-4

(1) Cannot be Separated from Diphenylamine

FORM VII SV-1

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP10976 Calibration Date: 11/08/18 Time: 07:03

Lab File ID: ik0351.d Init. Calib. Date(s): 09/04/18 09/04/18

Init. Calib. Times(s): 19:41 22:47

Min RRF for SPCC(#) = 0.050 Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF.5	ACTUAL CONC.	TRUE CONC.	% DRIFT
Fluoranthene-d10	1.240	1.221	0.490	.5	-2
Benzo(a)pyrene-d12	0.955	0.963	0.500	.5	1
			Average %Drift:		7

FORM VII SV-1

Continuing Calibration
Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP10976.i/18sep04a.b/ii0101.d **
/chem/HP10976.i/18sep04a.b/ii0102.d
/chem/HP10976.i/18sep04a.b/ii0103.d
/chem/HP10976.i/18sep04a.b/ii0104.d
/chem/HP10976.i/18sep04a.b/ii0105.d
/chem/HP10976.i/18sep04a.b/ii0106.d
/chem/HP10976.i/18sep04a.b/ii0107.d

** indicates the Mid Level Calibration Standard.

Mid Level Calibration Standard is used for comparison.

Current Continuing Calibration Standard:

/chem/HP10976.i/18nov08.b/ik0351.d

Area Summary

File ID:

Internal Standard Name	ik0351.d	ICAL Area	Low Limit	High Limit	In Spec
1,4-Dichlorobenzene-d4	70563	62135	31068	124270	Yes
Naphthalene-d8	261021	234679	117340	469358	Yes
Acenaphthene-d10	160070	144286	72143	288572	Yes
Phenanthrene-d10	349633	331893	165946	663786	Yes
Chrysene-d12	363603	331592	165796	663184	Yes
Perylene-d12	363146	333223	166612	666446	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

RT Summary

File ID:

Internal Standard Name	ik0351.d	ICAL RT	In Spec
1,4-Dichlorobenzene-d4	6.794	7.387	No
Naphthalene-d8	8.306	8.912	No
Acenaphthene-d10	10.467	11.095	No
Phenanthrene-d10	12.312	12.956	No
Chrysene-d12	15.597	16.292	No
Perylene-d12	17.537	18.614	No

A "No" indicates the retention time is greater than 10 seconds from the RT of the referenced standard.

Comments: Unless otherwise documented, the shift in retention time is due to routine injection port maintenance, which involves the removal of a length of the analytical column.

Report generated on 11/08/2018 at 08:10

Data File: /chem/HP10976.i/18nov08.b/ik0366a.d
Report Date: 11/08/2018 18:08

Lancaster Laboratories, Inc.
Shift Ending Continuing Calibration Check Report

Instrument ID: HP10976.i
Client ID: SECC1
Lab Sample ID: SIM2598
Sublist used: 25804.sub

Injection Date and Time: 08-NOV-2018 17:32
Initial Calibration Date(s): 04-SEP-2018 04-SEP-2018
Initial Calibration Time(s): 19:41 22:47
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m

Target Compounds	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1,4-Dioxane	0.59863	0.54849	0.010	8.4	20.0
Naphthalene	1.02976	1.09606	0.010	-6.4	20.0
Acenaphthylene	1.91529	1.97490	0.010	-3.1	20.0
Acenaphthene	1.25940	1.29227	0.010	-2.6	20.0
Fluorene	1.54997	1.59613	0.010	-3.0	20.0
Phenanthrene	1.08038	1.08693	0.010	-0.6	20.0
Anthracene	1.08199	1.15414	0.010	-6.7	20.0
Di-n-butylphthalate	1.03374	1.19207	0.010	-15.3	20.0
Fluoranthene	1.34513	1.40487	0.010	-4.4	20.0
Pyrene	1.38417	1.40388	0.010	-1.4	20.0
bis(2-Ethylhexyl)phthalate	0.65780	0.75699	0.010	-15.1	20.0
Benzo(a)anthracene	1.28652	1.26560	0.010	1.6	20.0
Chrysene	1.22894	1.31374	0.010	-6.9	20.0
Benzo(b)fluoranthene	1.24371	1.57442	0.010	-26.6	20.0
Benzo(k)fluoranthene	1.16589	1.48857	0.010	-27.7	20.0
Benzo(a)pyrene	1.06588	1.19827	0.010	-12.4	20.0
Indeno(1,2,3-cd)pyrene	1.25699	0.69992	0.010	44.3	20.0
Dibenz(a,h)anthracene	1.02632	0.66210	0.010	35.5	20.0
Benzo(g,h,i)perylene	1.10519	0.50437	0.010	54.4	20.0

Surrogate Standards	ICAL Avg. RRF	SECC RRF	Min. RRF	% Diff.	Max. %Diff.
1-Methylnaphthalene-d10	0.60978	0.60618	0.010	0.6	20.0
Fluoranthene-d10	1.23990	1.28170	0.010	-3.4	20.0
Benzo(a)pyrene-d12	0.95526	1.04258	0.010	-9.1	20.0

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0301.d Date Analyzed: 11/06/18

Instrument ID: HP10623 Time Analyzed: 16:36

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	94256	6.832	403036	8.357	186397	10.525
UPPER LIMIT	188512	7.332	806072	8.857	372794	11.025
LOWER LIMIT	47128	6.332	201518	7.857	93199	10.025
LLI SAMPLE NO.						
01 9872060	84110	6.845	353896	8.357	126478	10.536
02 9872061	76352	6.845	319676	8.357	114115	10.536
03 9872062	74782	6.845	343380	8.357	97965	10.536
04 9863852DL	72073	6.845	316944	8.357	147026	10.525
05 9863852RE	77515	6.845	337307	8.357	147085	10.525
06 9866467DL	77807	6.845	334521	8.357	152450	10.525
07 9870252DL	81628	6.845	348498	8.357	156493	10.525
08 9870253DL	84847	6.845	370001	8.357	167682	10.525
09 9870254DL	81753	6.845	356802	8.357	158477	10.525
10 9872060DL	80444	6.845	357281	8.357	155931	10.525
11 9872061DL	80811	6.845	347691	8.357	161764	10.525
12 9872062DL	79003	6.845	344529	8.357	151153	10.525
13 9872063	81259	6.845	379821	8.357	154012	10.525
14 SIM2598	80754	6.844	336235	8.357	156163	10.525

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ck0301.d Date Analyzed: 11/06/18

Instrument ID: HP10623 Time Analyzed: 16:36

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	344537	12.385	251887	15.685	225953	17.835
UPPER LIMIT	689074	12.885	503774	16.185	451906	18.335
LOWER LIMIT	172269	11.885	125944	15.185	112977	17.335
LLI SAMPLE NO.						
01 9872060	233099	12.396	160391	15.708	156245	17.874
02 9872061	211031	12.396	152157	15.707	152915	17.866
03 9872062	185924	12.396	150922	15.715	146681	17.881
04 9863852DL	250599	12.384	177205	15.692	157876	17.851
05 9863852RE	230794	12.384	166947	15.707	103615*	17.889
06 9866467DL	271283	12.385	202261	15.692	179989	17.850
07 9870252DL	265944	12.384	197141	15.691	181982	17.850
08 9870253DL	287864	12.385	216700	15.693	202925	17.843
09 9870254DL	281408	12.384	210611	15.691	194601	17.842
10 9872060DL	267611	12.385	188664	15.693	178871	17.843
11 9872061DL	268884	12.384	192326	15.692	181115	17.842
12 9872062DL	234073	12.385	180441	15.693	175579	17.843
13 9872063	233359	12.385	176643	15.715	134450	17.889
14 SIM2598	277689	12.384	215915	15.691	183431	17.842

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ik0301.d Date Analyzed: 11/07/18

Instrument ID: HP10976 Time Analyzed: 17:32

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	43881	6.808	160275	8.320	101156	10.487
UPPER LIMIT	87762	7.308	320550	8.820	202312	10.987
LOWER LIMIT	21941	6.308	80138	7.820	50578	9.987
LLI SAMPLE NO.						
01 SBLKLH302	38204	6.808	140365	8.320	85870	10.489
02 302LHLCS	41340	6.808	148938	8.320	90471	10.489
03 9867761	41076	6.808	151112	8.320	92886	10.487
04 9867762	43400	6.808	164370	8.333	103991	10.489
05 9867763MS	44472	6.808	163084	8.333	110201	10.489
06 9867764MSD	41300	6.821	177848	8.333	113809	10.500
07 9867767	45748	6.808	171805	8.333	113934	10.498
08 9872064	48357	6.808	198454	8.333	131871	10.498
09 9872065	55309	6.808	206765	8.333	132504	10.500
10 9878781	70612	6.808	261913	8.333	162021	10.498
11 9878782	60973	6.808	224823	8.333	138412	10.498

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ik0301.d Date Analyzed: 11/07/18

Instrument ID: HP10976 Time Analyzed: 17:32

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	222571	12.332	229303	15.614	230626	17.569
UPPER LIMIT	445142	12.832	458606	16.114	461252	18.069
LOWER LIMIT	111286	11.832	114652	15.114	115313	17.069
LLI SAMPLE NO.						
01 SBLKLH302	190240	12.334	189233	15.621	179720	17.568
02 302LHLCS	197716	12.334	201020	15.621	190917	17.576
03 9867761	209546	12.343	227525	15.630	146882	17.593
04 9867762	238746	12.346	246584	15.637	133648	17.607
05 9867763MS	246471	12.346	244755	15.636	119337	17.607
06 9867764MSD	221093	12.301	224327	15.644	111608*	17.615
07 9867767	298981	12.253	247122	15.677	94968*	17.686
08 9872064	238316	12.354	289540	15.653	159954	17.624
09 9872065	305871	12.256	309927	15.691	130173	17.693
10 9878781	358463	12.343	373139	15.638	230984	17.593
11 9878782	305152	12.343	316022	15.630	182409	17.593

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ik0351.d Date Analyzed: 11/08/18

Instrument ID: HP10976 Time Analyzed: 07:03

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	70563	6.794	261021	8.306	160070	10.467
UPPER LIMIT	141126	7.294	522042	8.806	320140	10.967
LOWER LIMIT	35282	6.294	130511	7.806	80035	9.967
LLI SAMPLE NO.						
01 9867762DL	66649	6.794	240296	8.306	150079	10.476
02 9867766	72138	6.794	257089	8.306	167004	10.478
03 9867767RE	76149	6.794	276127	8.320	168741	10.478
04 9867767DL	72641	6.794	262701	8.320	170283	10.478
05 9872064DL	81871	6.794	297227	8.320	179757	10.476
06 9872065DL	85377	6.794	309479	8.320	191196	10.478
07 9867762DL2	89415	6.794	320893	8.306	200297	10.478
08 SIM2598	96987	6.794	341532	8.320	216290	10.478

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: LANCASTER LABS Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ik0351.d Date Analyzed: 11/08/18

Instrument ID: HP10976 Time Analyzed: 07:03

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	349633	12.312	363603	15.597	363146	17.537
UPPER LIMIT	699266	12.812	727206	16.097	726292	18.037
LOWER LIMIT	174817	11.812	181802	15.097	181573	17.037
LLI SAMPLE NO.						
01 9867762DL	332318	12.320	375127	15.598	340753	17.553
02 9867766	357397	12.323	382174	15.613	224329	17.584
03 9867767RE	373441	12.334	444222	15.660	158058*	17.662
04 9867767DL	377331	12.323	415172	15.613	274561	17.584
05 9872064DL	407297	12.321	457376	15.606	304795	17.561
06 9872065DL	417953	12.323	480761	15.613	291492	17.584
07 9867762DL2	455504	12.323	491651	15.605	305627	17.560
08 SIM2598	492570	12.323	516639	15.605	313542	17.552

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard are and RT values with an asterisk
* Values outside of QC limits.

Sample Data

Semivolatiles by GC/MS-SIM

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov06a.b/ck0302.d
Injection date and time: **06-NOV-2018 17:30**
Data file Sample Info. Line: 12T02;9872060;2;0;SAMPLE;;DOD26;
Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845	(-0.013)	448	152	84110	(-11)	1.00	
10) Naphthalene-d8	8.357	(0.000)	562	136	353896	(-12)	1.00	
20) Acenaphthene-d10	10.536	(-0.011)	750	164	126478M	(-32)	1.00	
31) Phenanthrene-d10	12.396	(-0.011)	916	188	233099	(-32)	1.00	
43) Chrysene-d12	15.708	(-0.023)	1233	240	160391	(-36)	1.00	
51) Perylene-d12	17.874	(-0.039)	1510	264	156245	(-31)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308	(-0.001)	152	18477M	0.103	103%		61 - 111
36) Fluoranthene-d10	(4)	13.894	(0.000)	212	22065M	0.104	104%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.734	(0.000)	264	12290	0.086	86%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.357	(-0.003)	88	1446	0.027	8.82			0.02
11) Naphthalene	(2)	8.383	(-0.000)	128	9046986	24.076	7940.59		E	0.04
19) Acenaphthylene	(3)	10.351	(0.001)	152	99528MA	0.396	130.74			0.01
21) Acenaphthene	(3)	10.568	(0.001)	154	2360614	13.735	4530.05		E	0.02
26) Fluorene	(3)	11.215	(0.000)	166	1952247A	10.622	3503.22		E	0.02
32) Phenanthrene	(4)	12.418	(0.000)	178	2652254	9.536	3145.11			0.02
33) Anthracene	(4)	12.486	(0.000)	178	840623M	3.143	1036.63			0.02
35) Di-n-butylphthalate	(4)	13.039	(0.000)	149	431498M	1.448	477.70			0.2
37) Fluoranthene	(4)	13.918	(0.000)	202	1793002	6.561	2163.85			0.02
39) Pyrene	(5)	14.211	(0.000)	202	1532123	5.935	1957.48			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	(0.000)	149	265924	1.524	502.56	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.692	(-0.000)	228	566569	2.726	898.94			0.02
44) Chrysene	(5)	15.739	(0.000)	228	620536	2.914	960.98			0.01
46) Benzo(b)fluoranthene	(6)	17.233	(0.000)	252	573822M	2.865	945.07			0.02
47) Benzo(k)fluoranthene	(6)	17.272	(0.000)	252	205396M	0.955	315.01			0.02
50) Benzo(a)pyrene	(6)	17.780	(-0.000)	252	359611	1.968	649.19			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.841	(0.000)	276	198930	1.098	362.03			0.02
54) Dibenz(a,h)anthracene	(6)	19.841	(0.000)	278	54971	0.366	120.67			0.02
55) Benzo(g,h,i)perylene	(6)	20.420	(-0.000)	276	194037	1.147	378.37			0.02

E = Compound concentration above calibration range. M = Compound was manually integrated. A = User selected an alternate peak.
B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0302.d Injection date and time: **06-NOV-2018 17:30**
Data file Sample Info. Line: 12T02;9872060;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

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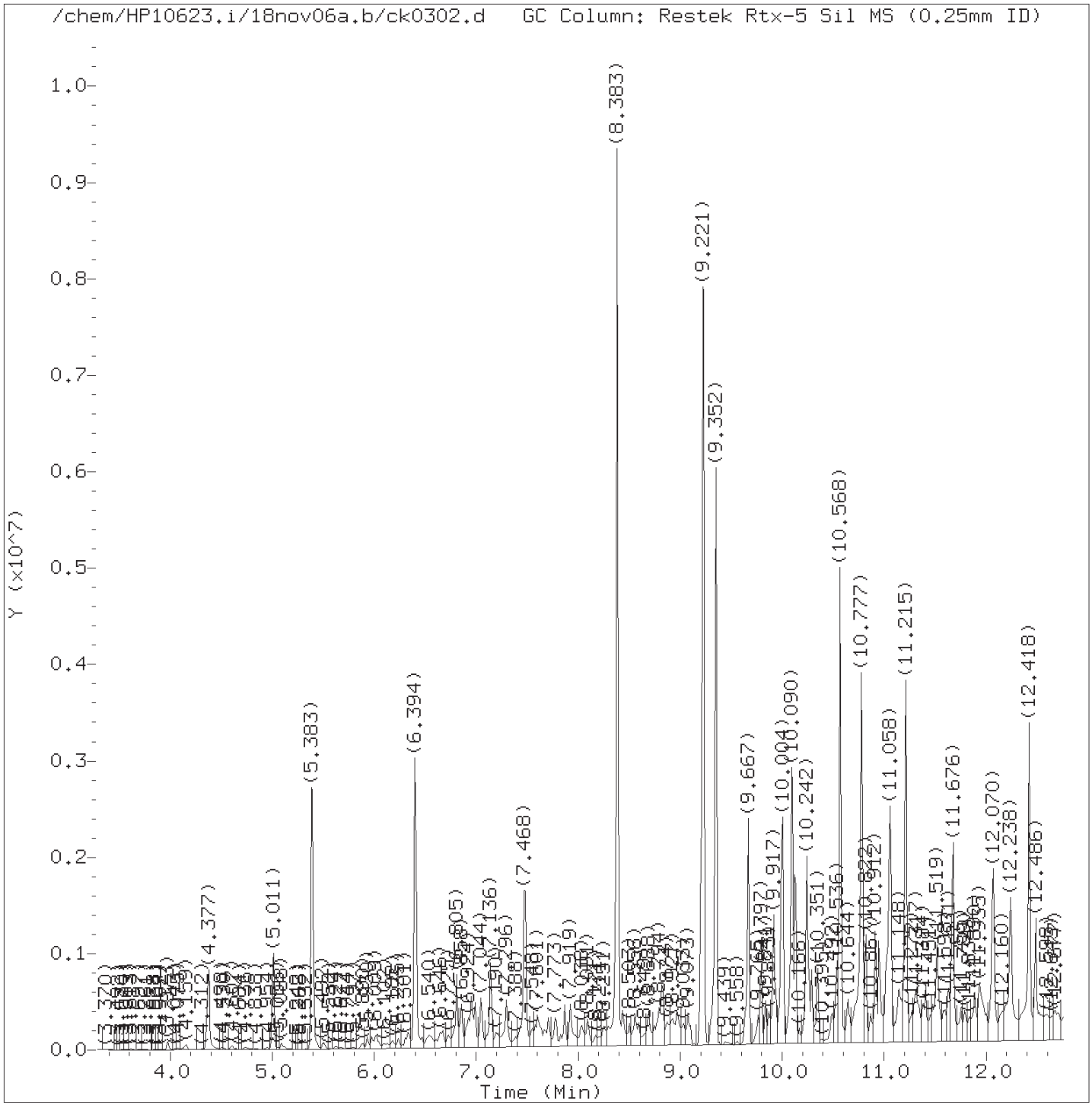
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

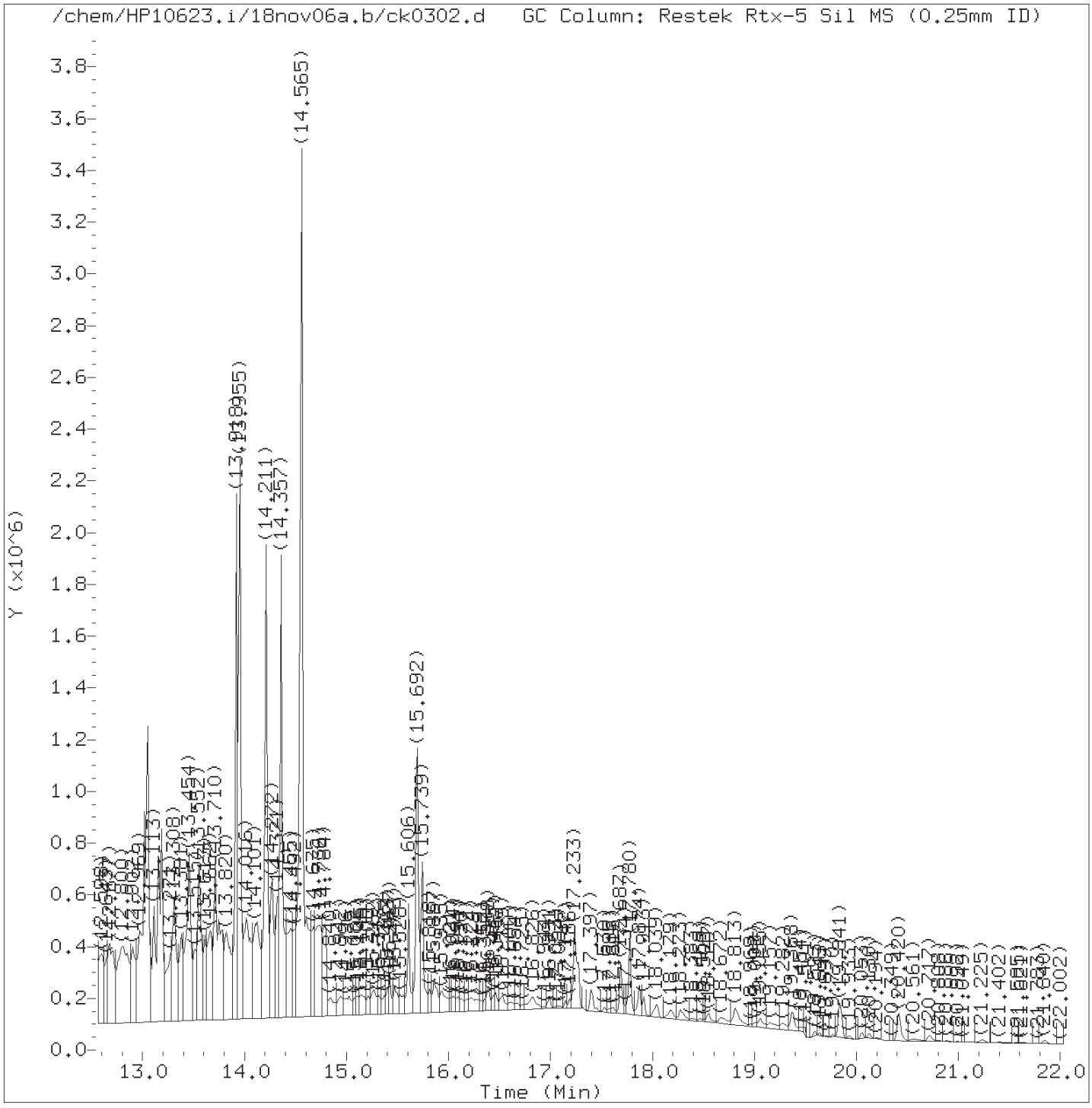
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

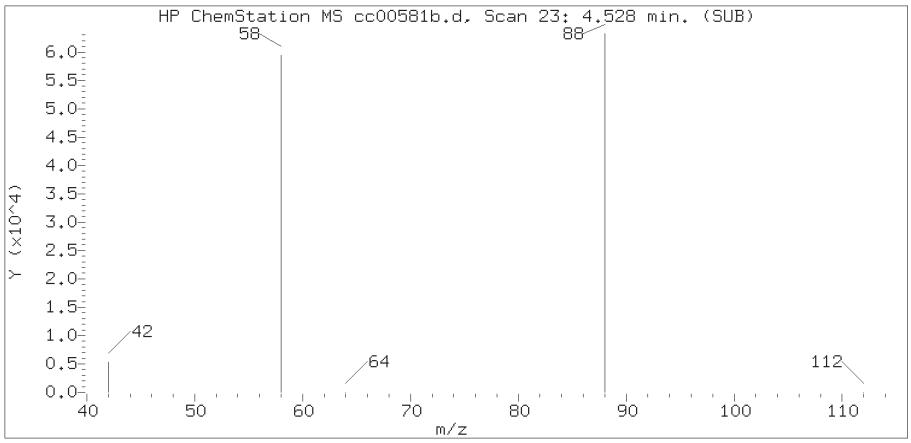
Sample Name: 12T02 Lab Sample ID: 9872060

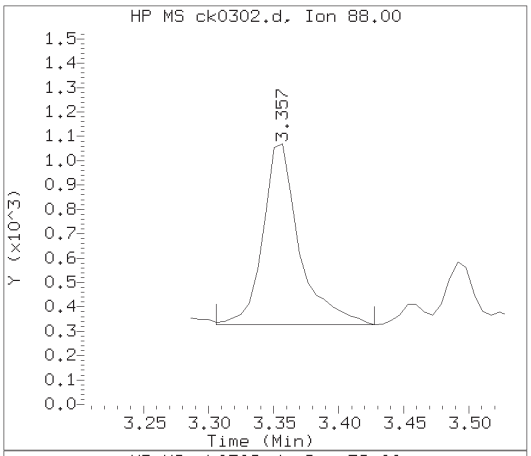
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.357	88	1446	0.027
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	84110	1.000
10)*Naphthalene-d8	(2)	8.357	136	353896	1.000
11) Naphthalene	(2)	8.383	128	9046986	24.076
14)$1-Methylnaphthalene-d10	(2)	9.308	152	18477M	0.103
19) Acenaphthylene	(3)	10.351	152	99528MA	0.396
20)*Acenaphthene-d10	(3)	10.536	164	126478M	1.000
21) Acenaphthene	(3)	10.568	154	2360614	13.735
26) Fluorene	(3)	11.215	166	1952247A	10.622
31)*Phenanthrene-d10	(4)	12.396	188	233099	1.000
32) Phenanthrene	(4)	12.418	178	2652254	9.536
33) Anthracene	(4)	12.486	178	840623M	3.143
35) Di-n-butylphthalate	(4)	13.039	149	431498M	1.448
36)$Fluoranthene-d10	(4)	13.894	212	22065M	0.104
37) Fluoranthene	(4)	13.918	202	1793002	6.561
39) Pyrene	(5)	14.211	202	1532123	5.935
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	149	265924	1.524
42) Benzo(a)anthracene	(5)	15.692	228	566569	2.726
43)*Chrysene-d12	(5)	15.708	240	160391	1.000
44) Chrysene	(5)	15.739	228	620536	2.914
46) Benzo(b)fluoranthene	(6)	17.233	252	573822M	2.865
47) Benzo(k)fluoranthene	(6)	17.272	252	205396M	0.955
49)$Benzo(a)pyrene-d12	(6)	17.734	264	12290	0.086
50) Benzo(a)pyrene	(6)	17.780	252	359611	1.968
51)*Perylene-d12	(6)	17.874	264	156245	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.841	276	198930	1.098
54) Dibenz(a,h)anthracene	(6)	19.841	278	54971	0.366
55) Benzo(g,h,i)perylene	(6)	20.420	276	194037	1.147

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

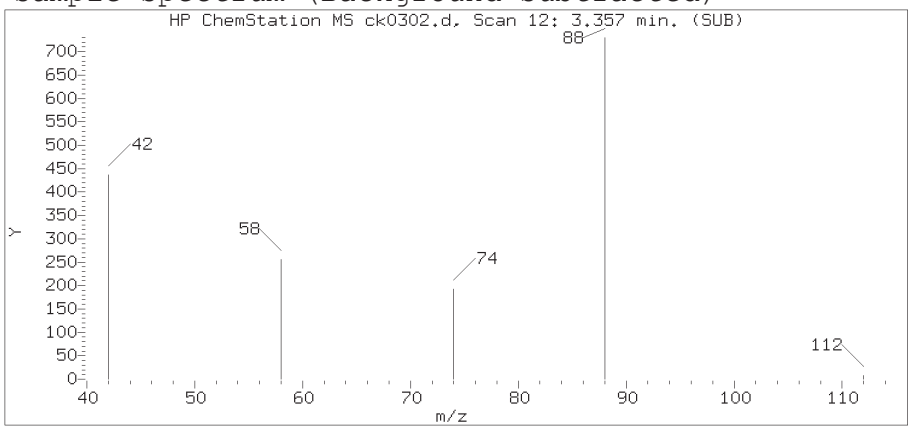
Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

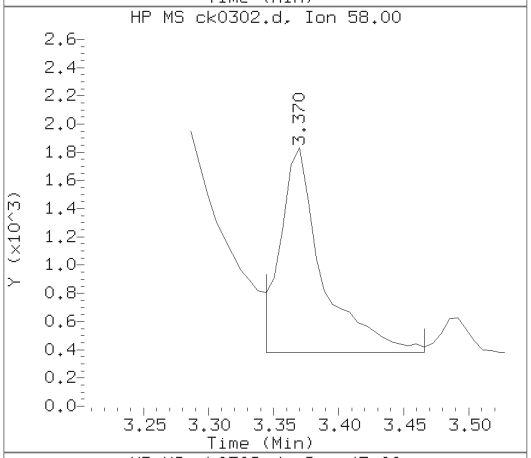
Reference Standard Spectrum for 1,4-Dioxane



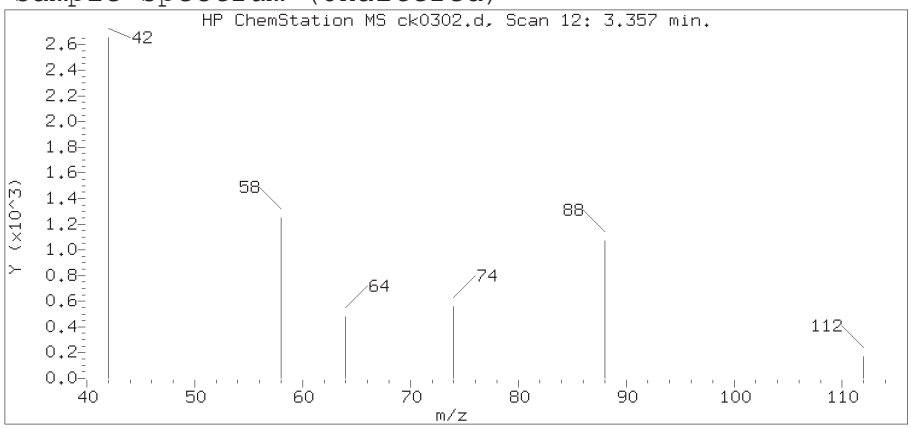


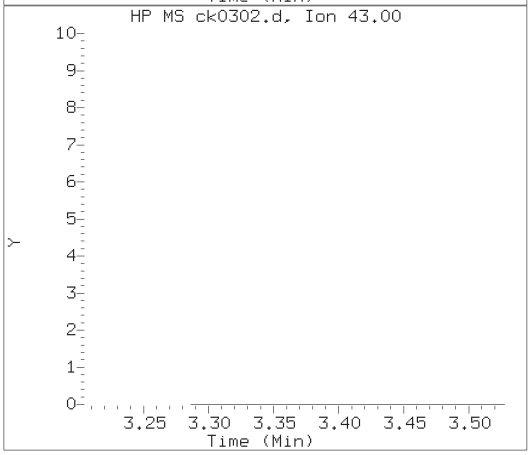
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 12
Retention Time (minutes)	: 3.357
Relative Retention Time	:-0.00374
Quant Ion	: 88.00
Area (flag)	: 1446
On-column Amount (ng/ul)	: 0.0267

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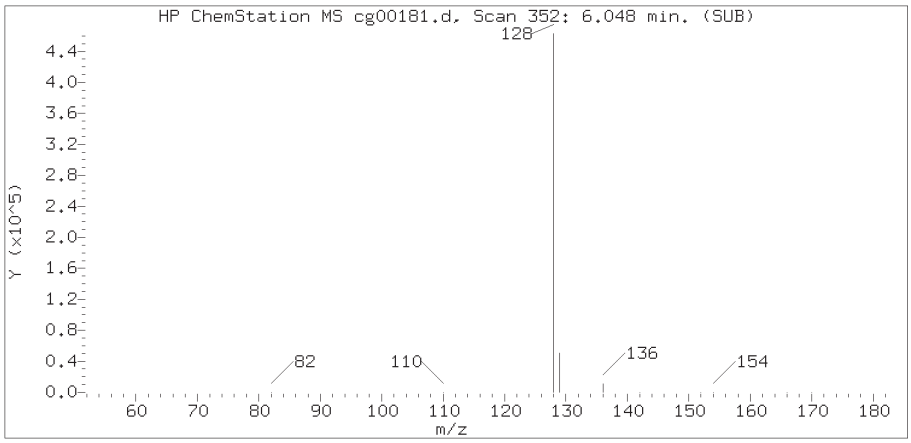
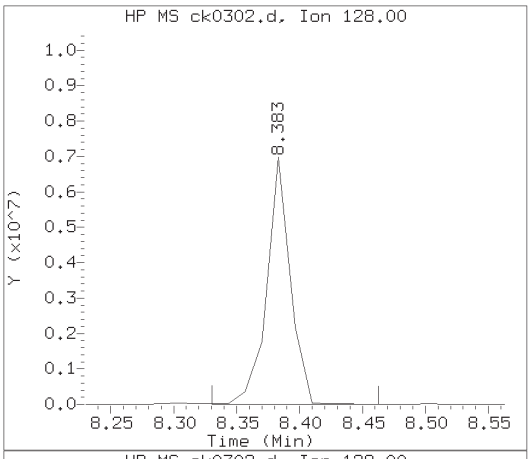
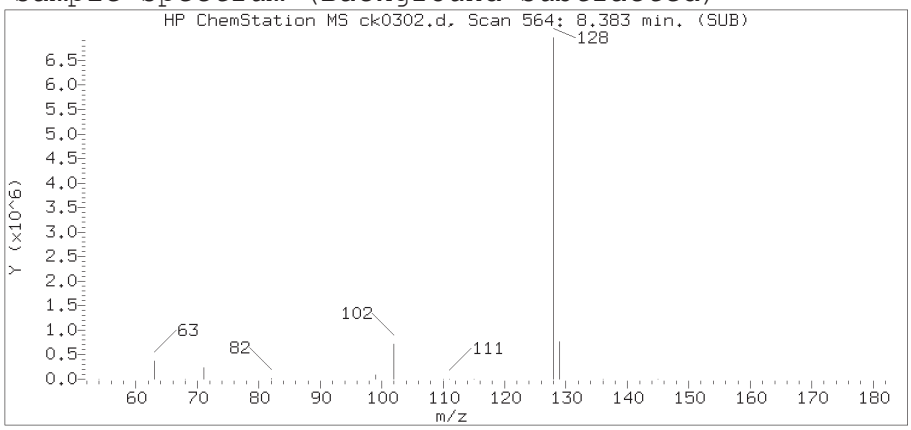
Target 3.5 esignature user ID: apb10206

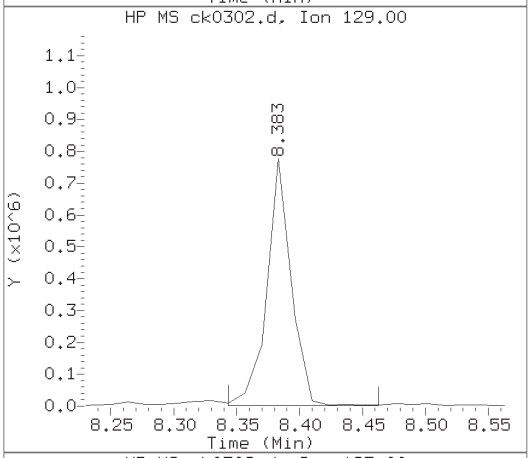
Reference Standard Spectrum for Naphthalene



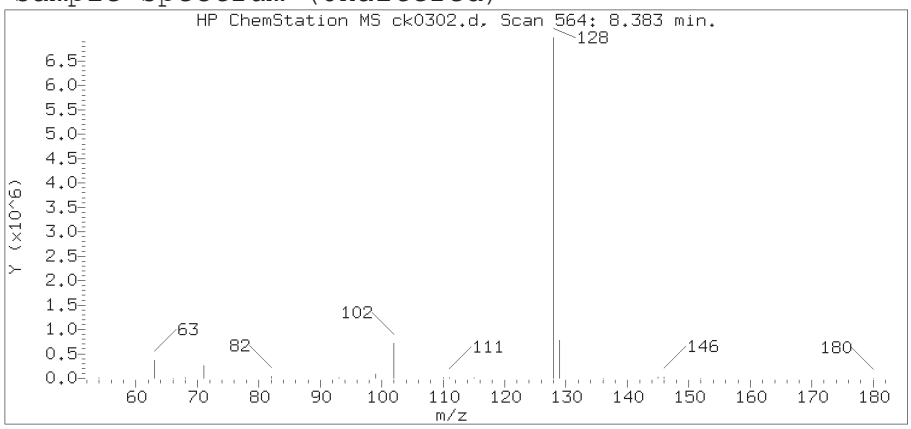


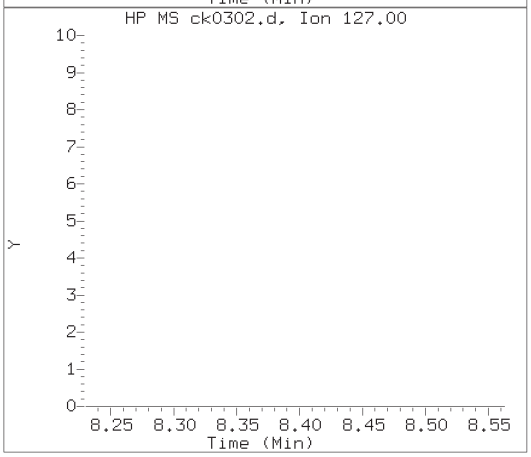
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 564
Retention Time (minutes)	: 8.383
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 9046986
On-column Amount (ng/ul)	: 24.0759

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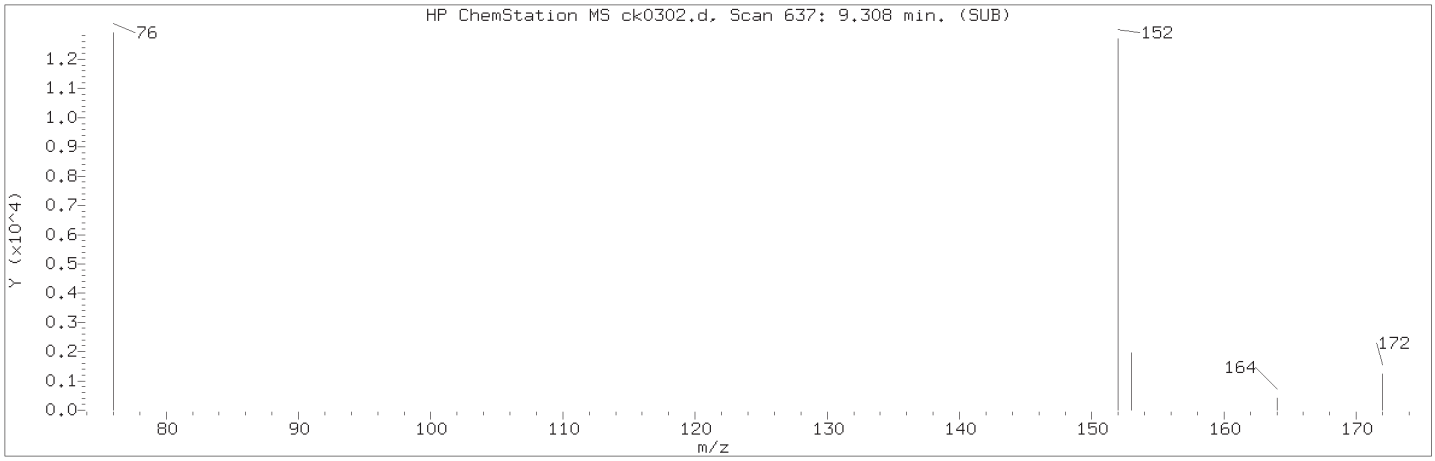
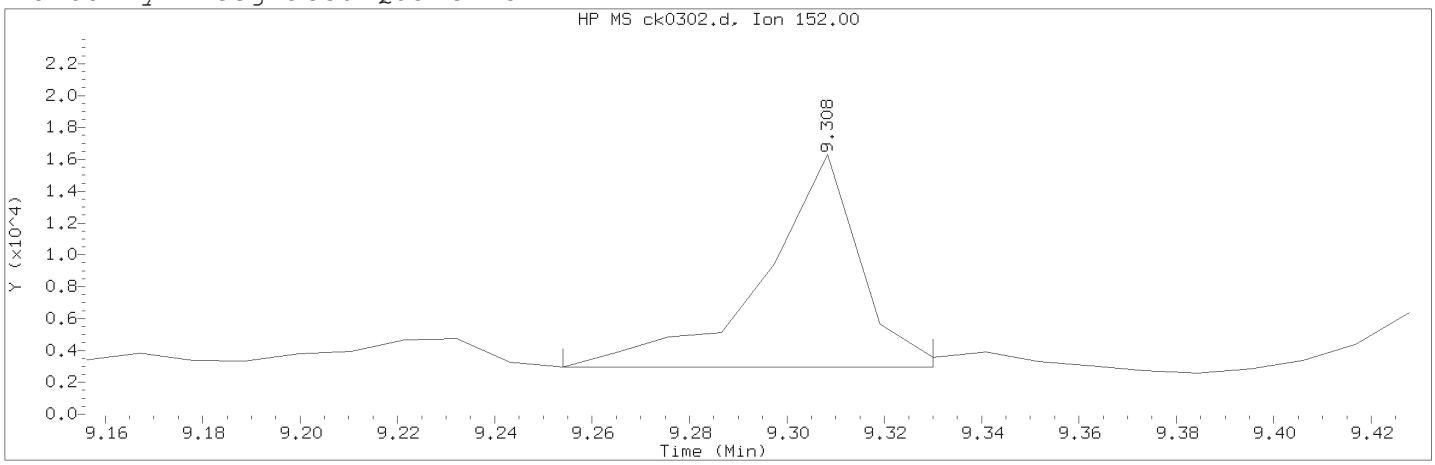
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

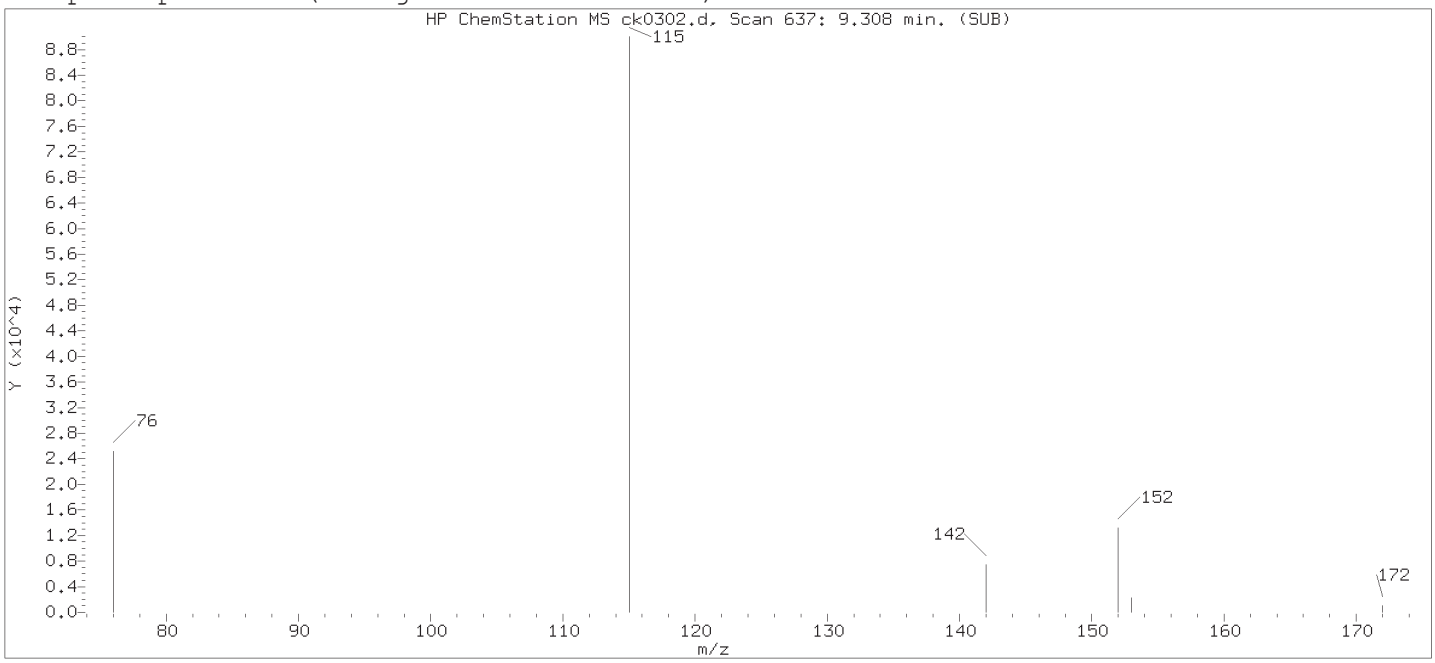
Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 637
Retention Time (minutes) : 9.308
Quant Ion : 152.00
Area (flag) : 18477M
On-column Amount (ng/ul) : 0.1033
Integration start scan : 631 Integration stop scan: 638
Y at integration start : 2948 Y at integration end: 2948

Reason for manual integration: improper integration

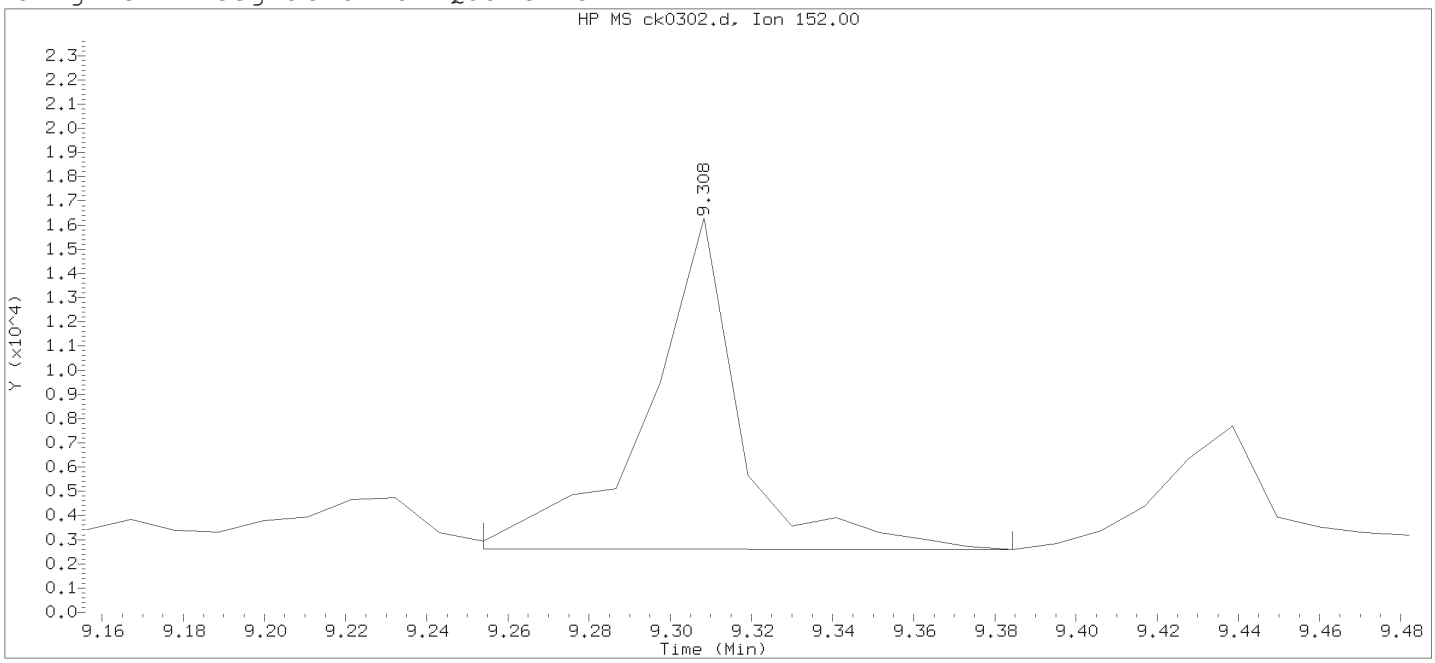
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

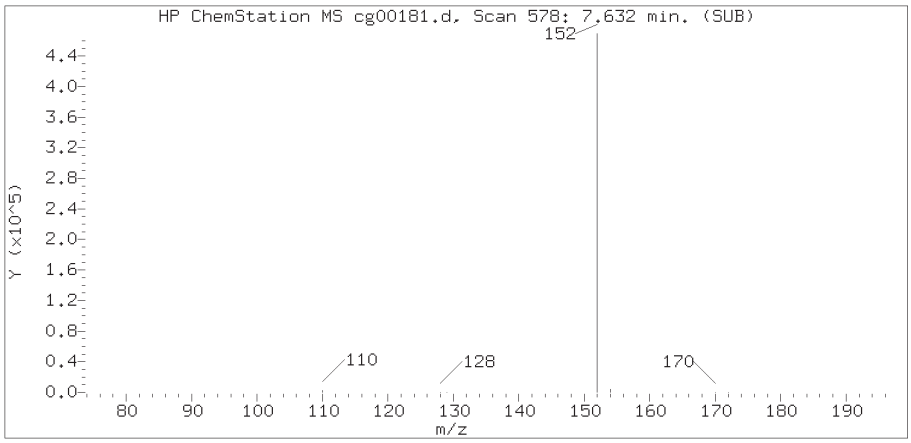
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

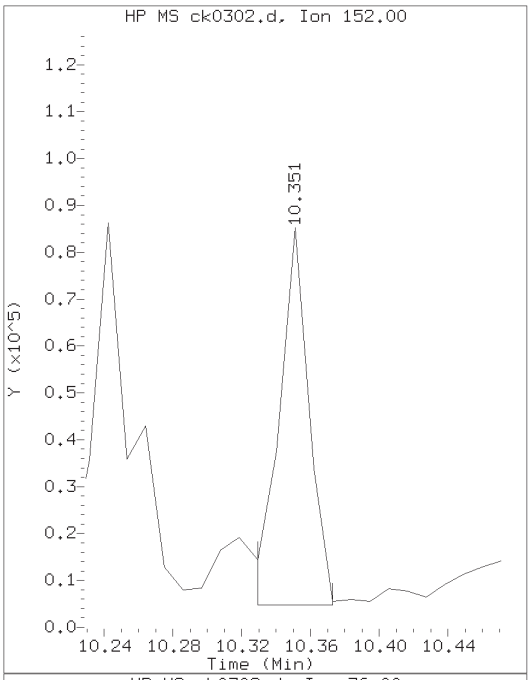
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area	: 22223		
On-column Amount (ng/ul)	: 0.1243		
Integration start scan	: 631	Integration stop scan:	643
Y at integration start	: 2615	Y at integration end:	2592

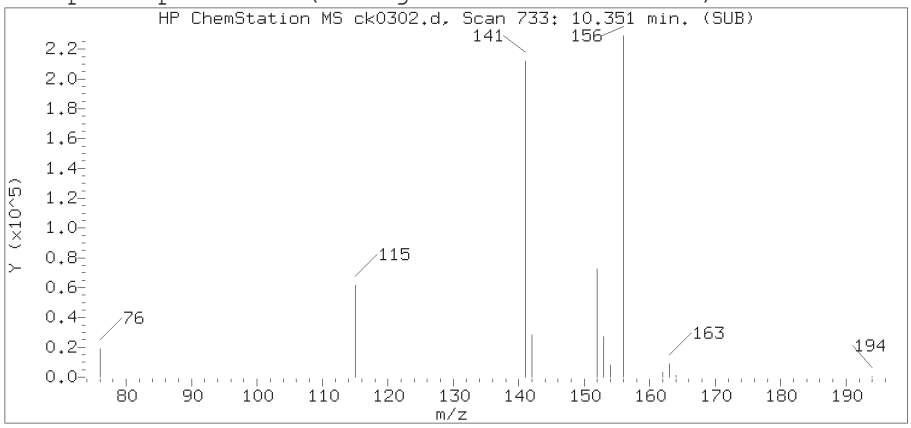
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used: D12 Page 2581

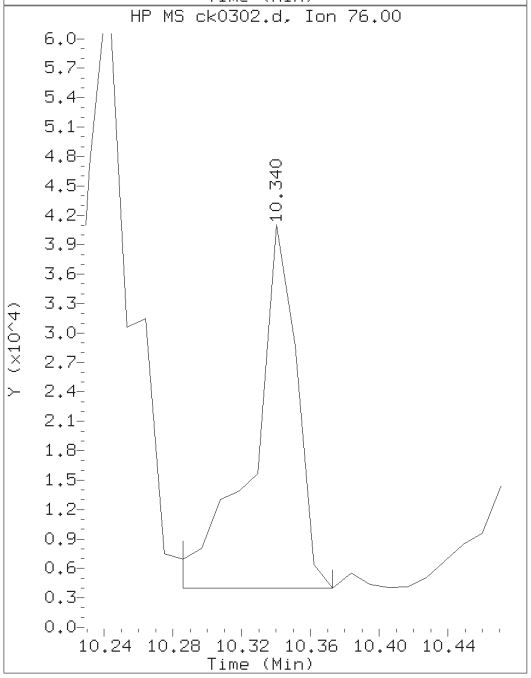
Reference Standard Spectrum for Acenaphthylene



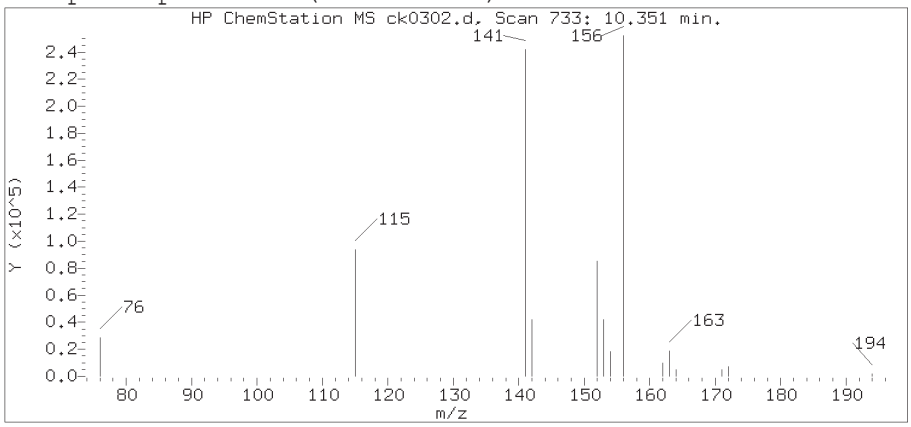


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

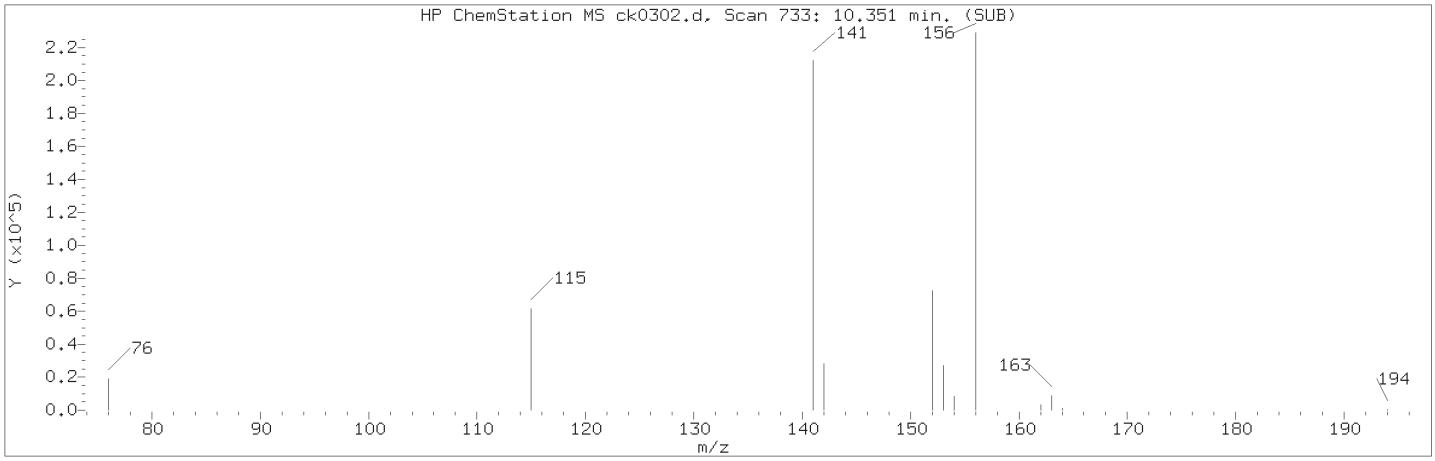
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

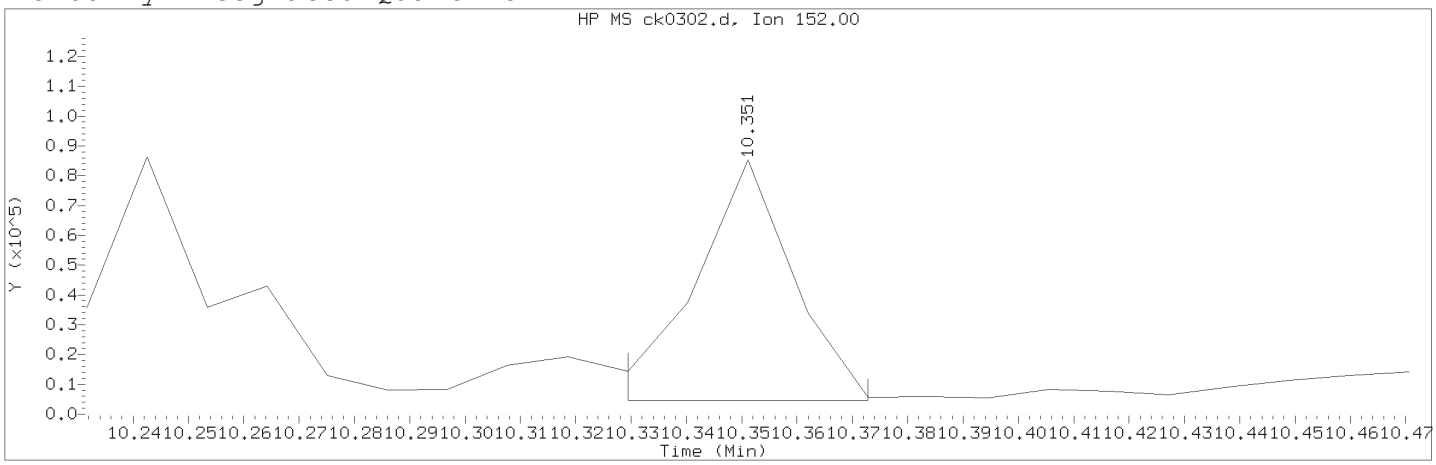
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00101
Quant Ion	: 152.00
Area (flag)	: 99528AM
On-column Amount (ng/ul)	: 0.3964

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

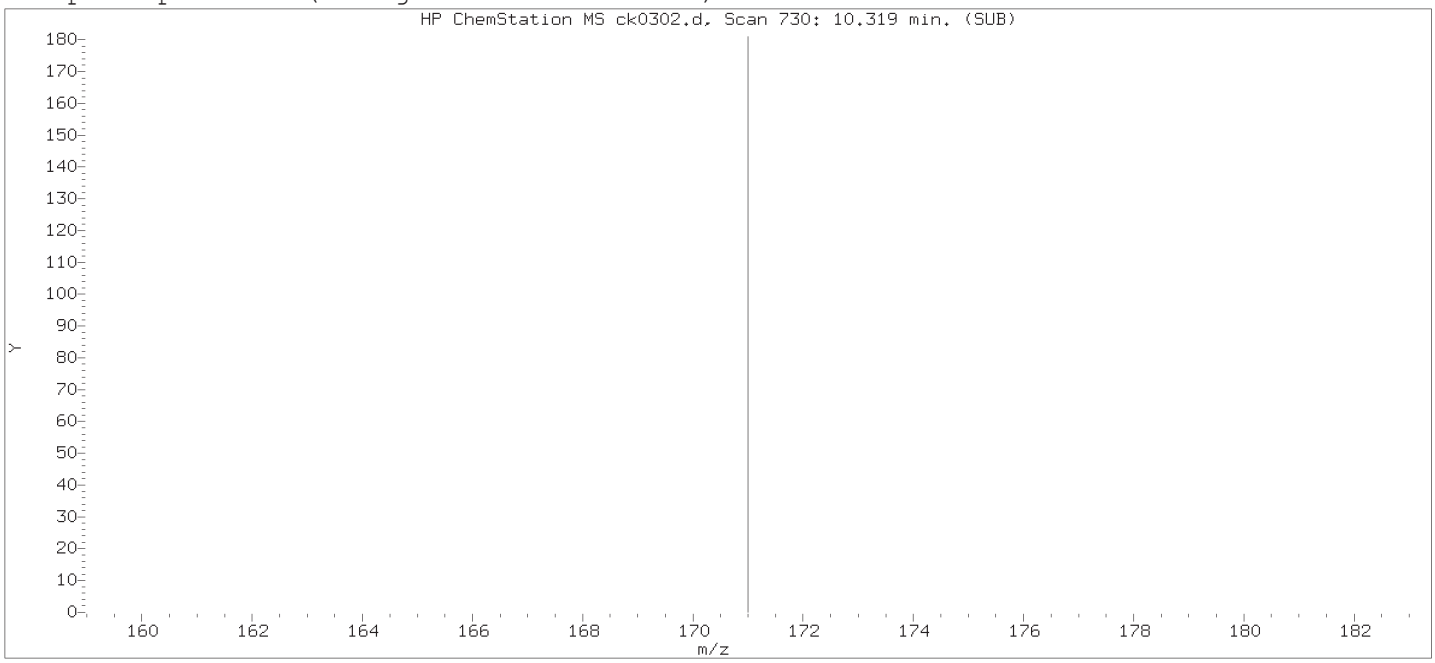
Compound Number : 19
Compound Name : Acenaphthylene
Scan Number : 733
Retention Time (minutes) : 10.351
Quant Ion : 152.00
Area (flag) : 99528AM
On-column Amount (ng/ul) : 0.3964
Integration start scan : 730 Integration stop scan: 734
Y at integration start : 4756 Y at integration end: 4756

Reason for manual integration: improper integration

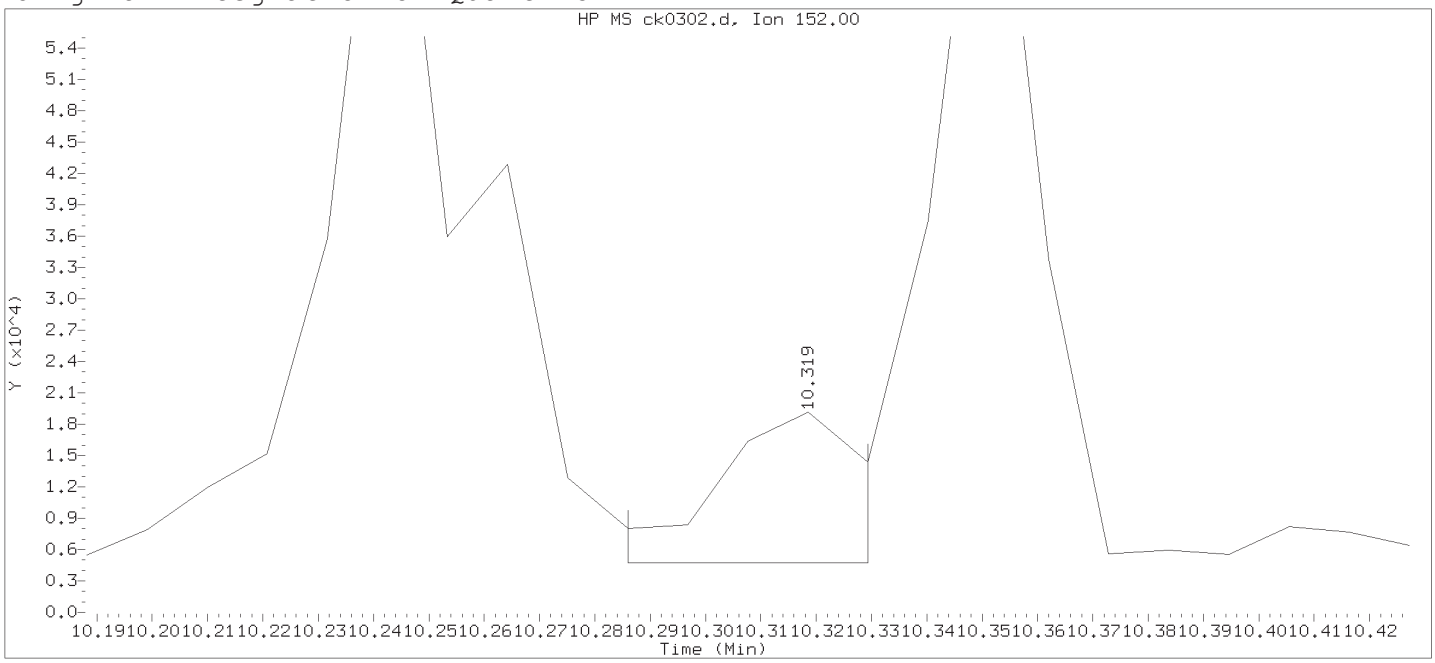
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

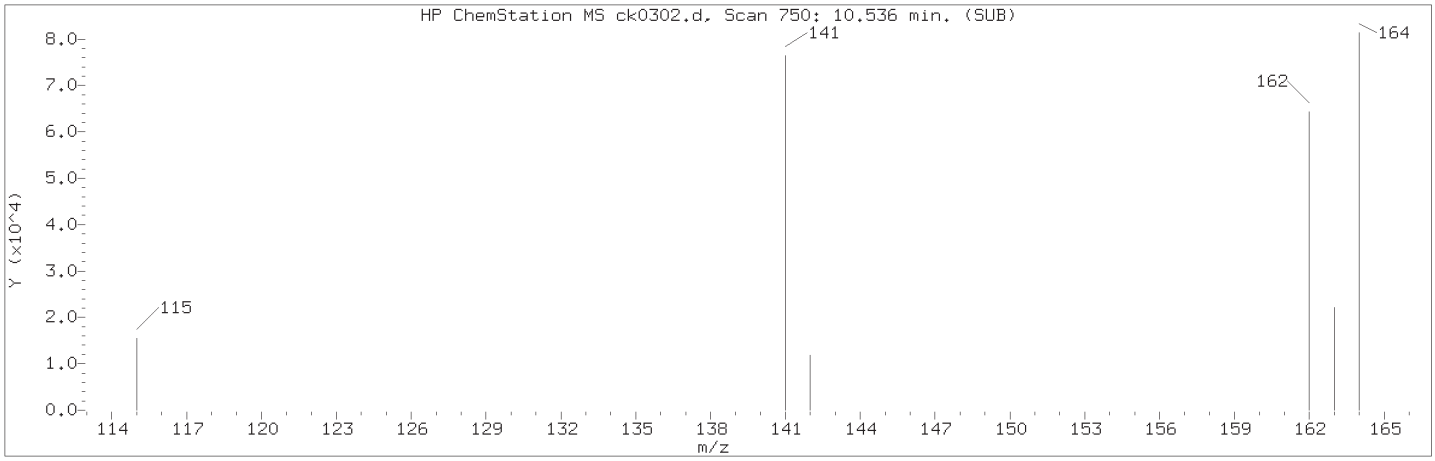
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

Sample Name: 12T02 Lab Sample ID: 9872060

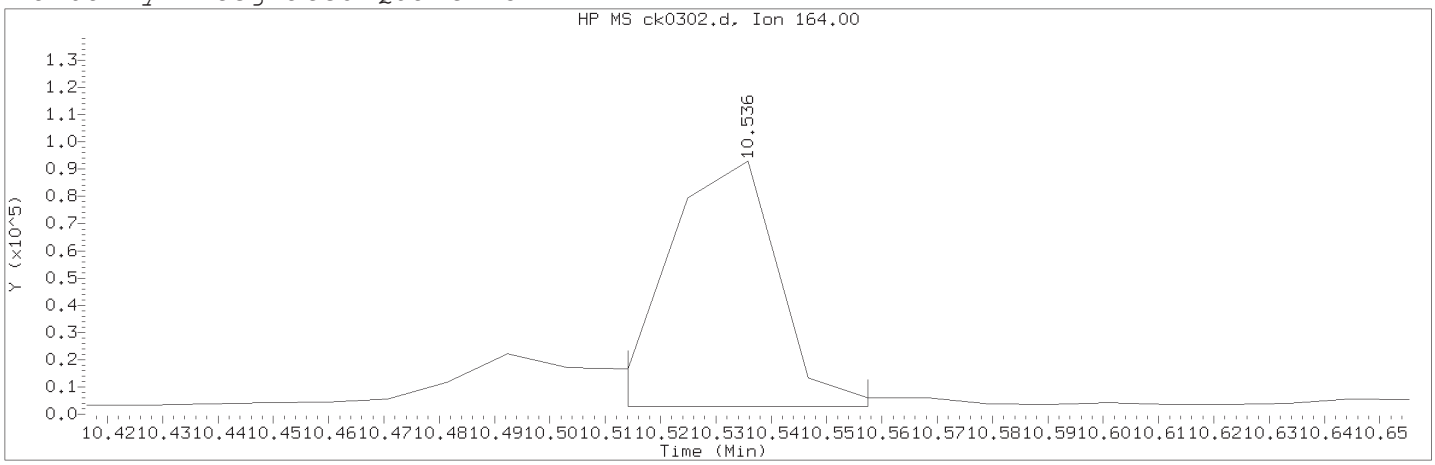
Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 730		
Retention Time (minutes)	: 10.319		
Quant Ion	: 152.00		
Area	: 23526		
On-column Amount (ng/ul)	: 0.0676		
Integration start scan	: 726	Integration stop scan:	730
Y at integration start	: 4756	Y at integration end:	4756

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

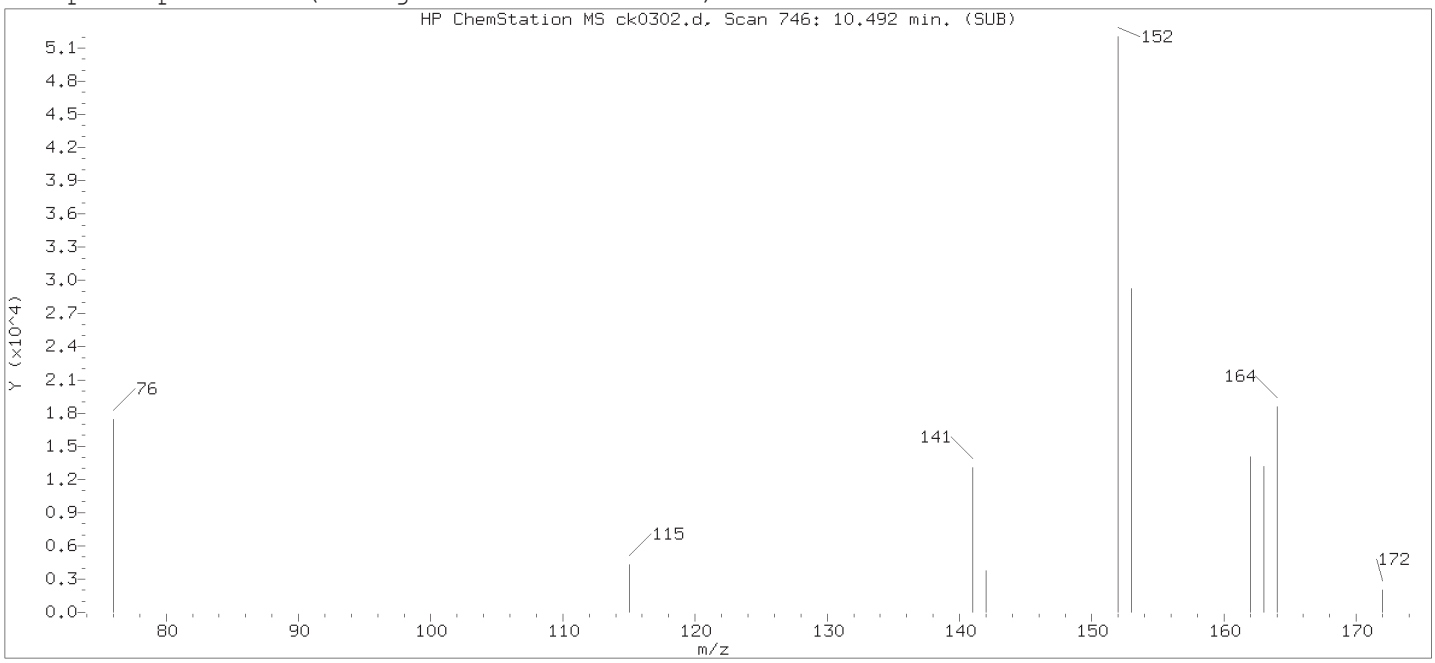
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 750
Retention Time (minutes) : 10.536
Quant Ion : 164.00
Area (flag) : 126478M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 747 Integration stop scan: 751
Y at integration start : 2870 Y at integration end: 2870

Reason for manual integration: improper integration

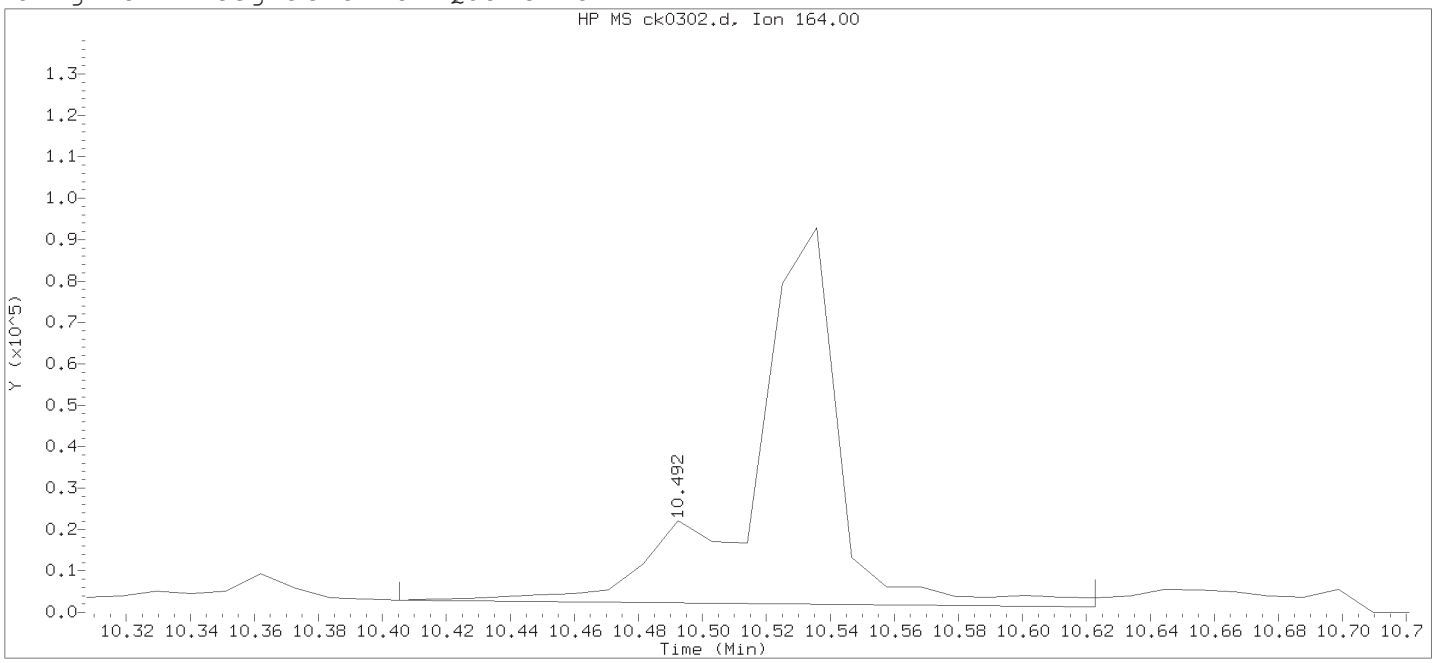
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

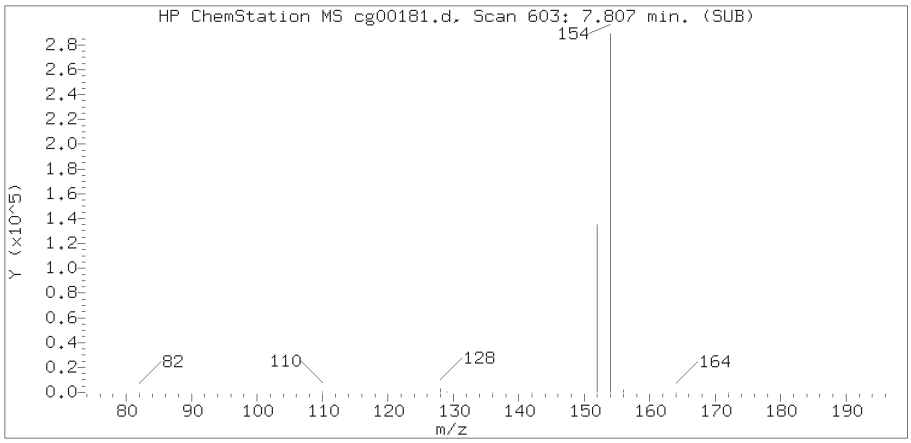
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

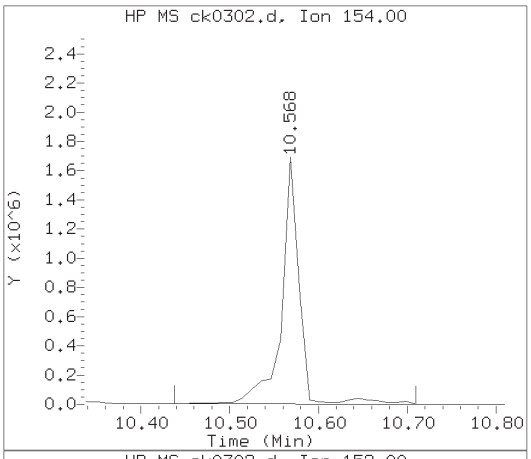
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 746		
Retention Time (minutes)	: 10.492		
Quant Ion	: 164.00		
Area	: 175297		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 737	Integration stop scan:	757
Y at integration start	: 2874	Y at integration end:	1356

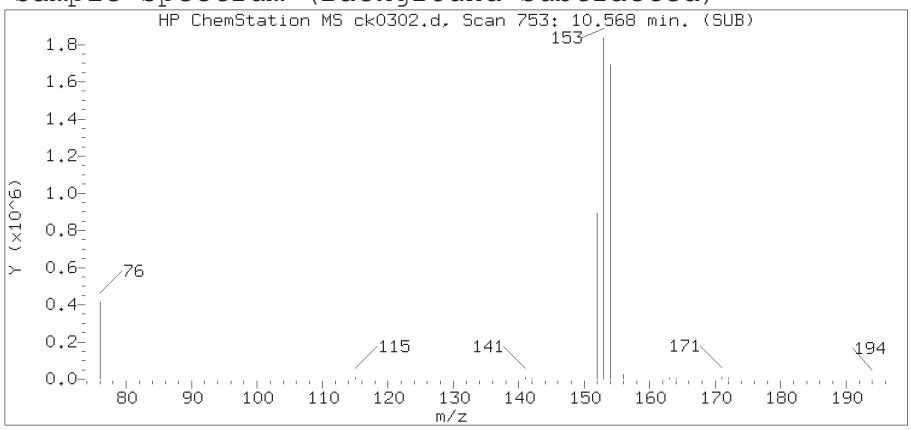
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

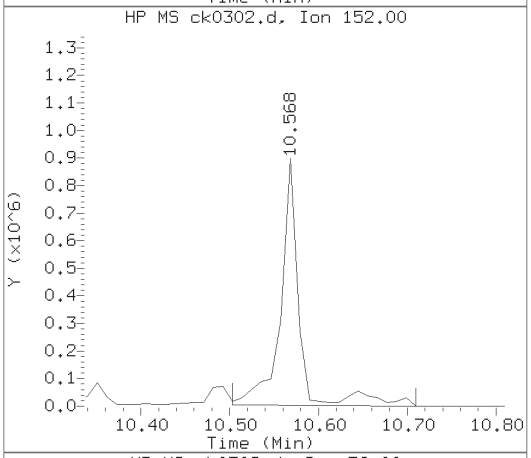
Reference Standard Spectrum for Acenaphthene



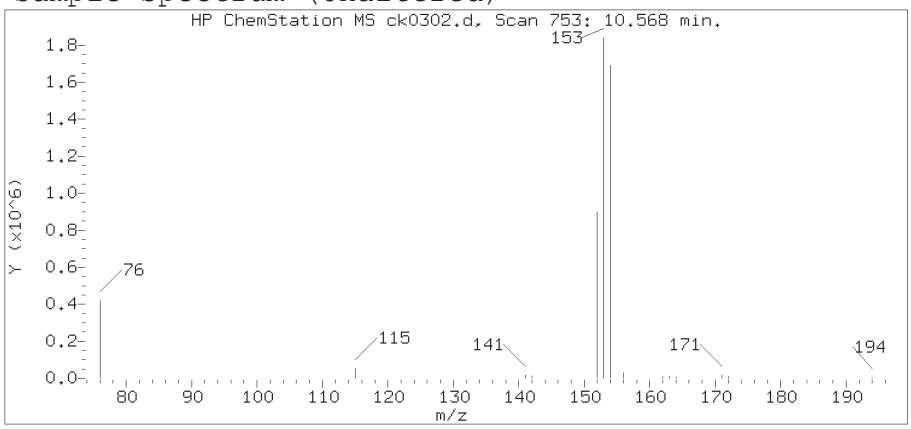


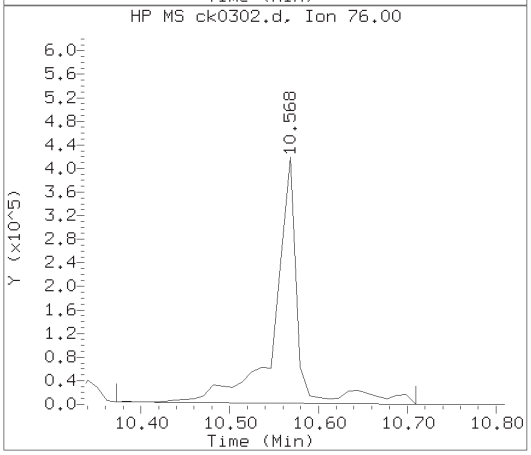
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

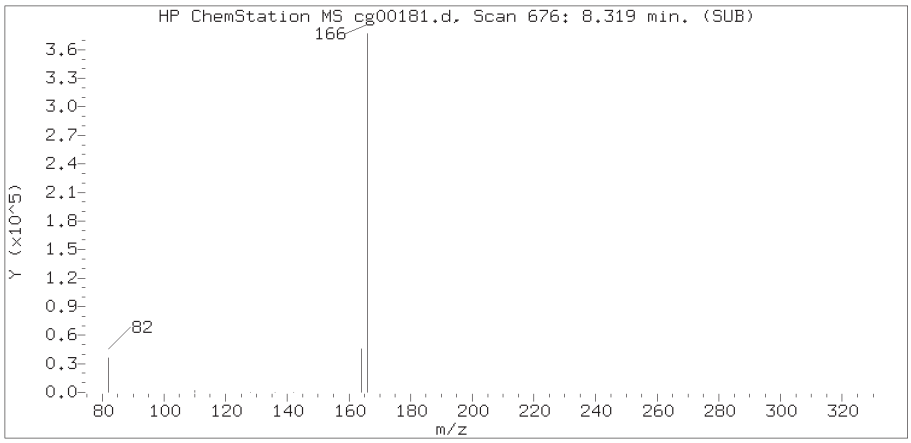
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

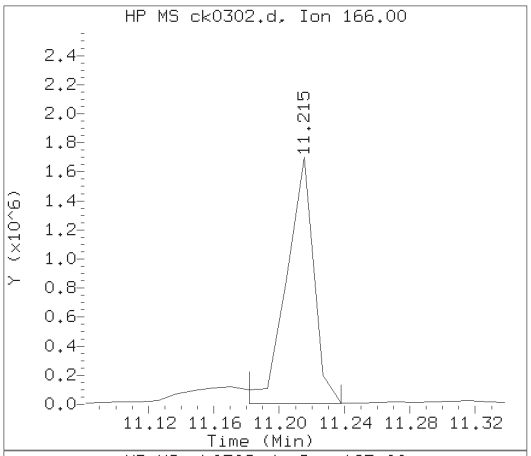
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	: 0.00104
Quant Ion	: 154.00
Area (flag)	: 2360614
On-column Amount (ng/ul)	: 13.7351

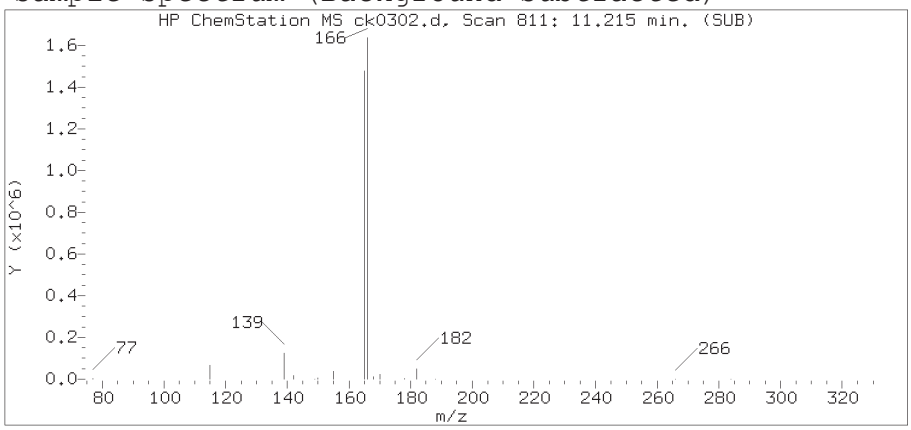
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

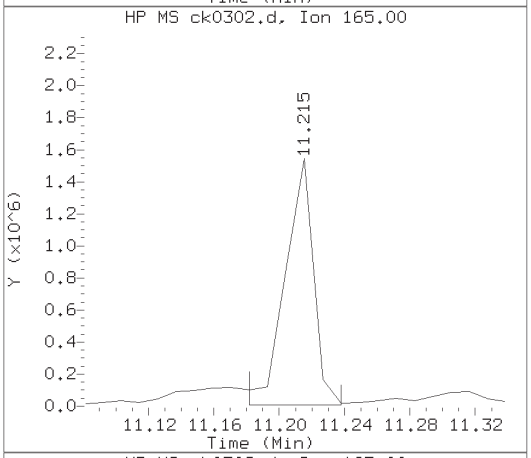
Reference Standard Spectrum for Fluorene



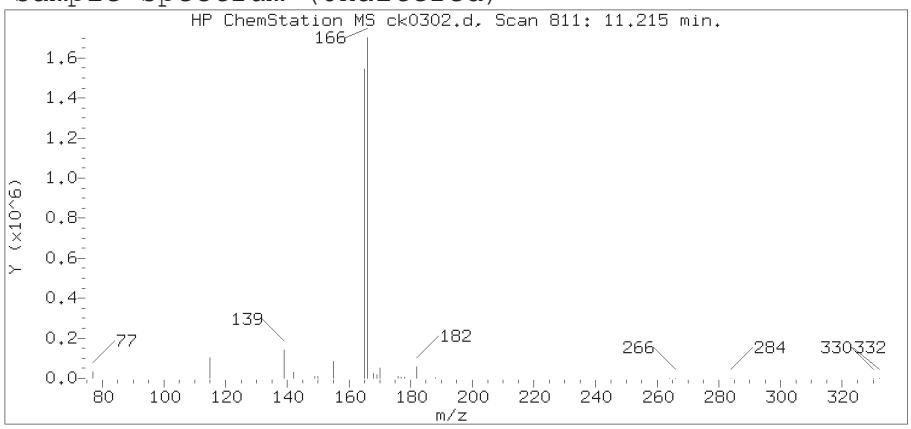


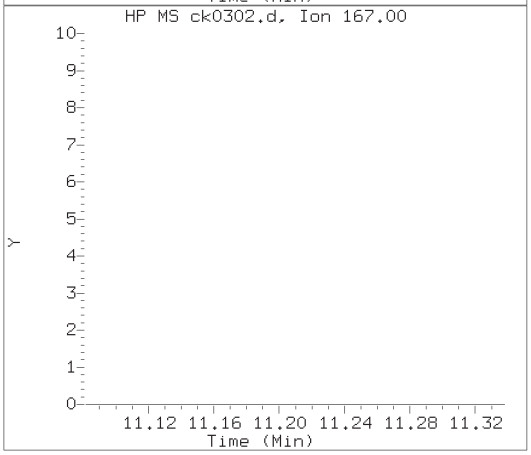
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

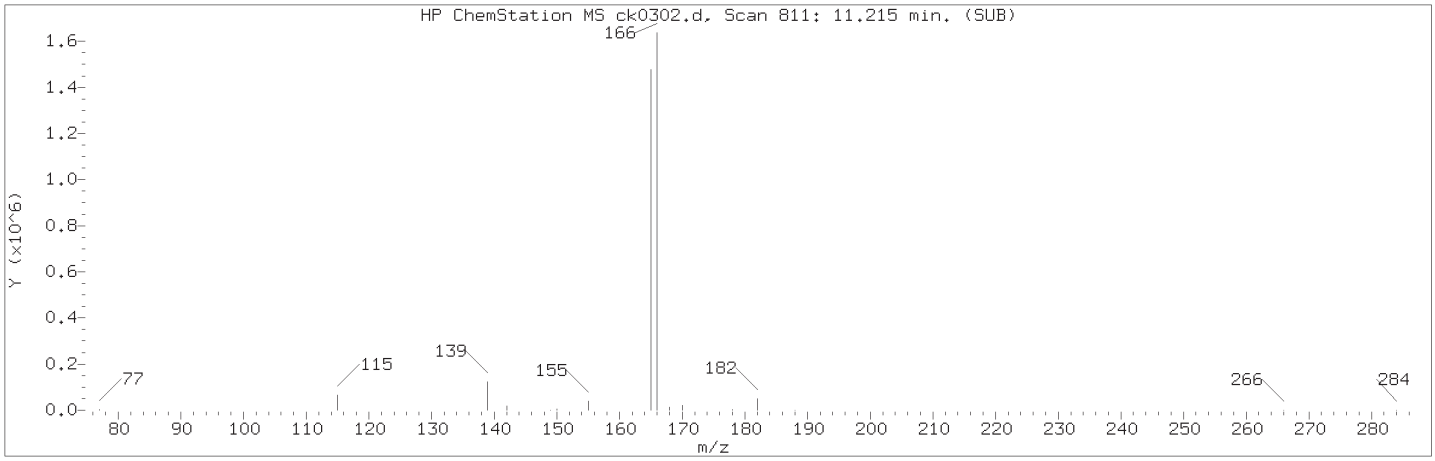
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

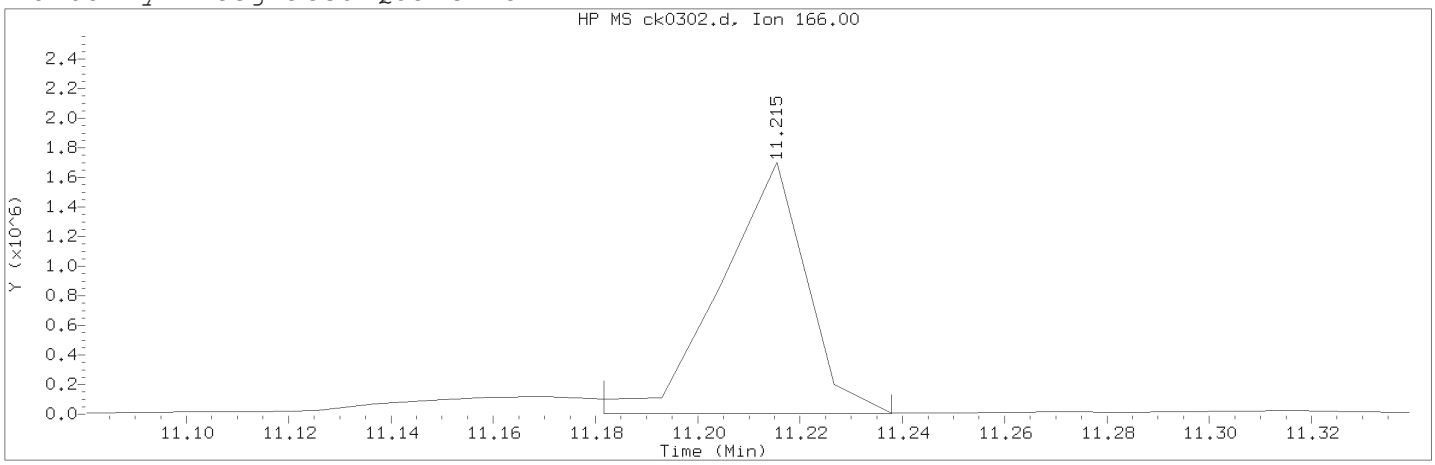
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 811
Retention Time (minutes)	: 11.215
Relative Retention Time	: 0.00003
Quant Ion	: 166.00
Area (flag)	: 1952247A
On-column Amount (ng/ul)	: 10.6218

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

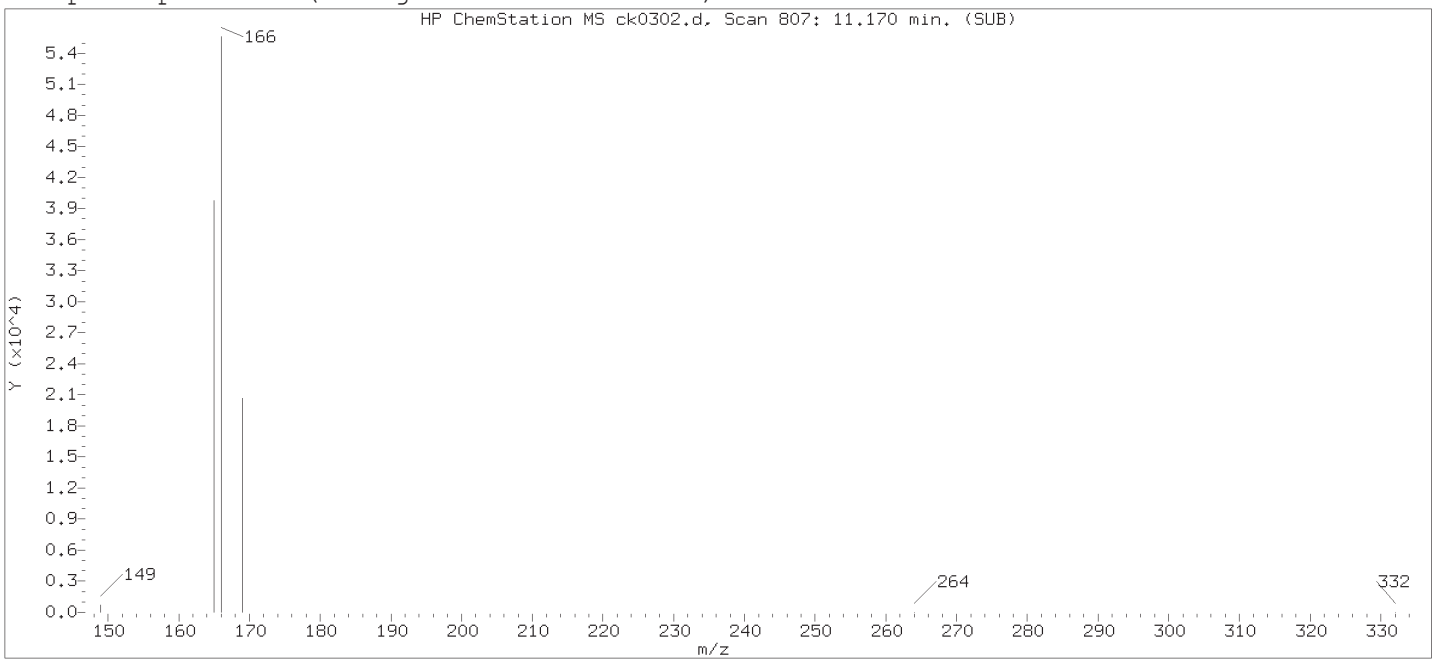
Compound Number : 26
Compound Name : Fluorene
Scan Number : 811
Retention Time (minutes) : 11.215
Quant Ion : 166.00
Area (flag) : 1952247A
On-column Amount (ng/ul) : 10.6218
Integration start scan : 807 Integration stop scan: 812
Y at integration start : 3933 Y at integration end: 3933

Reason for manual integration: improper integration

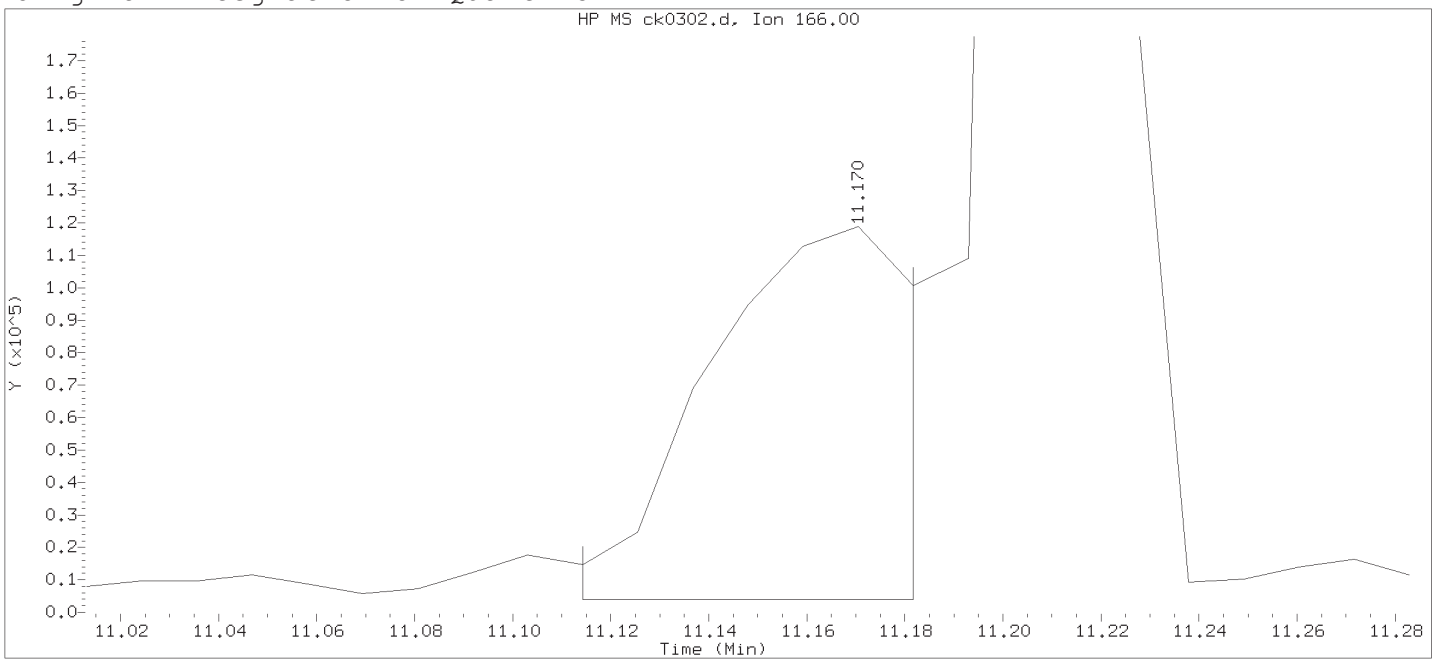
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

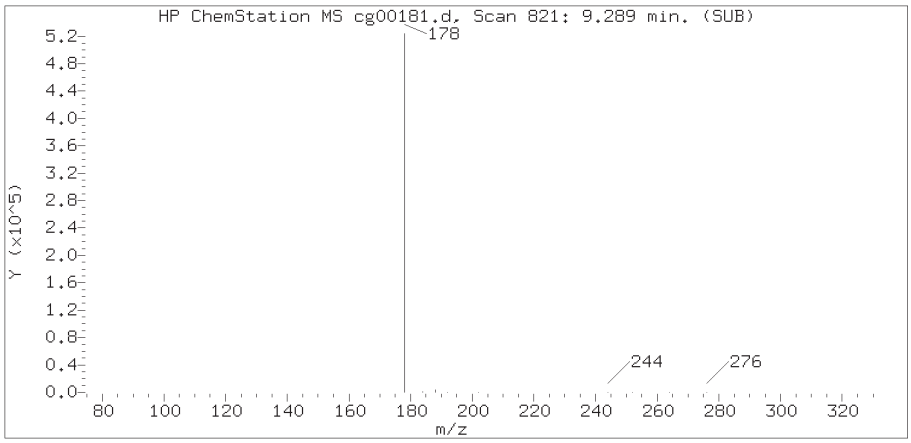
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

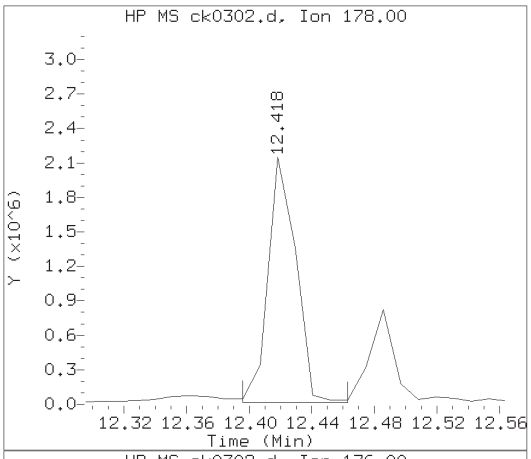
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 807		
Retention Time (minutes)	: 11.170		
Quant Ion	: 166.00		
Area	: 306440		
On-column Amount (ng/ul)	: 1.2030		
Integration start scan	: 801	Integration stop scan:	807
Y at integration start	: 3933	Y at integration end:	3933

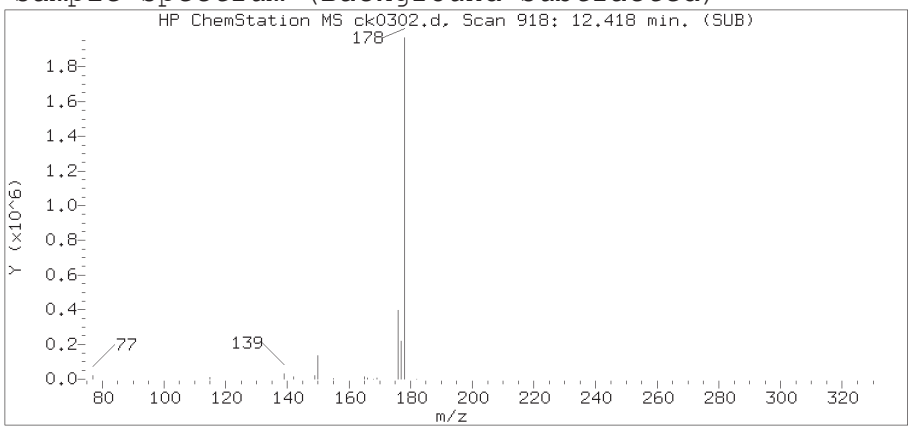
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

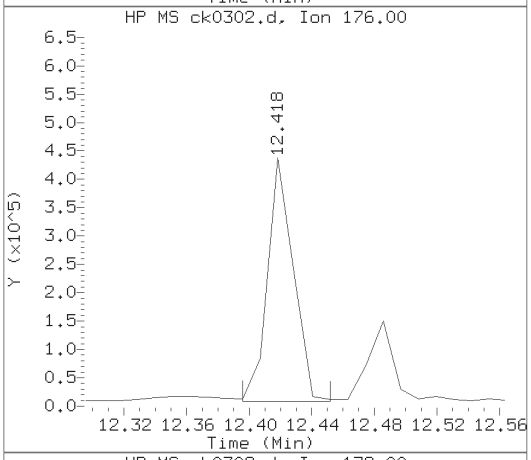
Reference Standard Spectrum for Phenanthrene



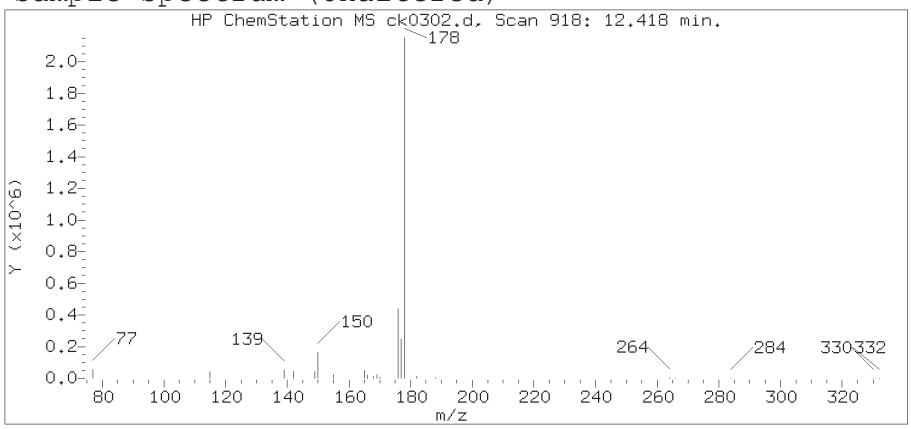


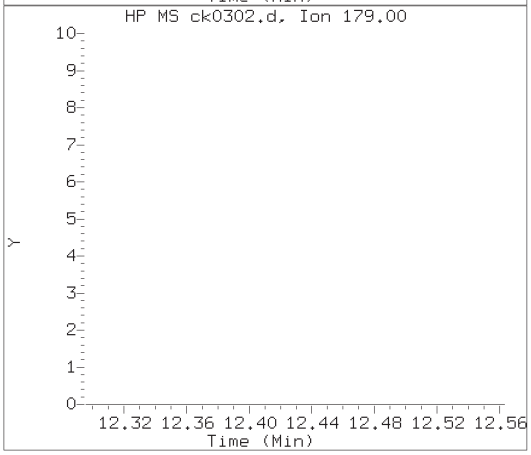
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

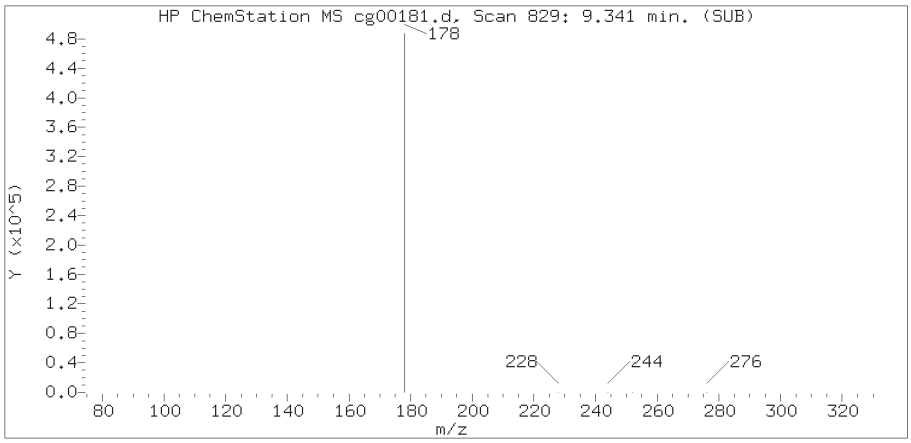
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

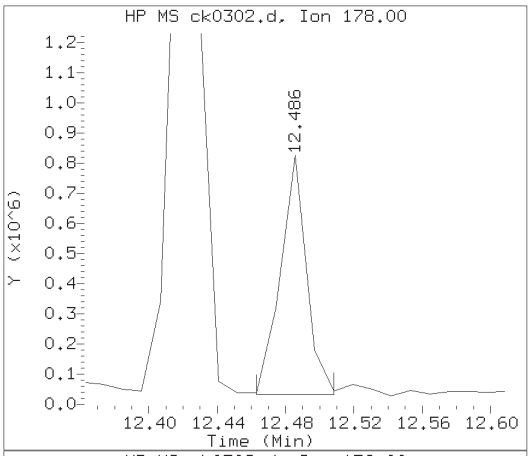
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00091
Quant Ion	: 178.00
Area (flag)	: 2652254
On-column Amount (ng/ul)	: 9.5360

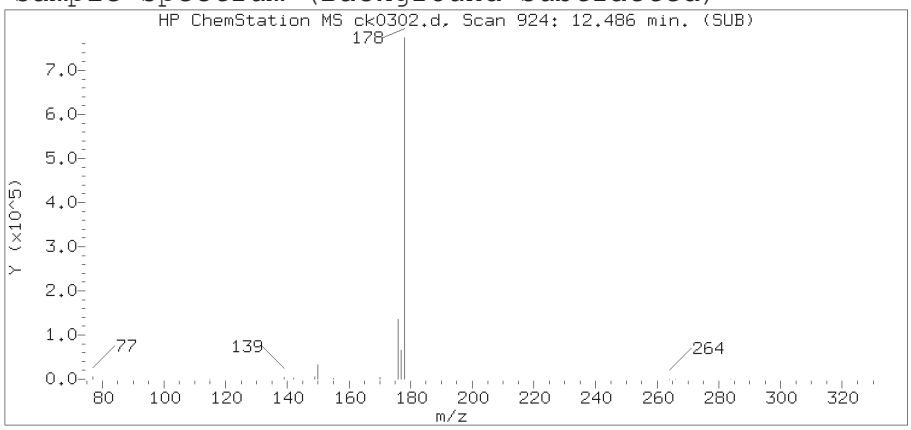
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

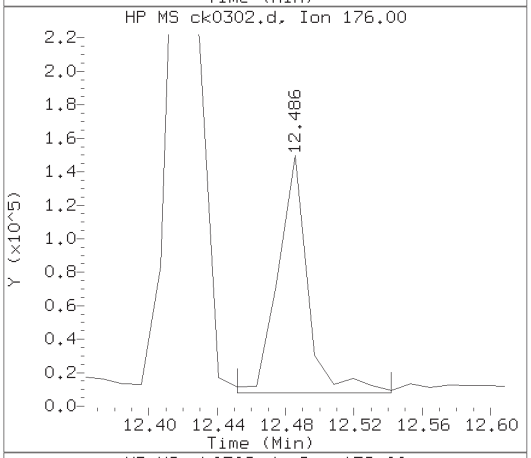
Reference Standard Spectrum for Anthracene



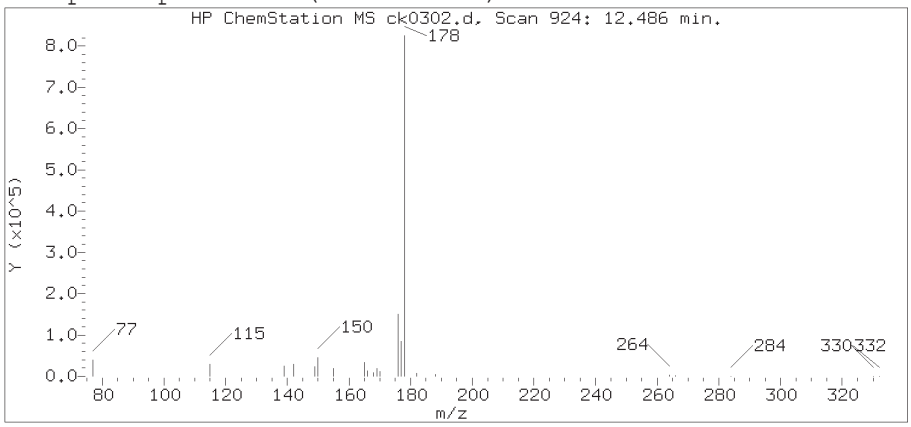


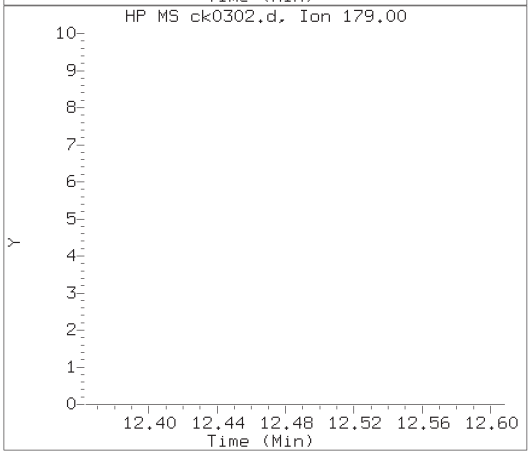
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

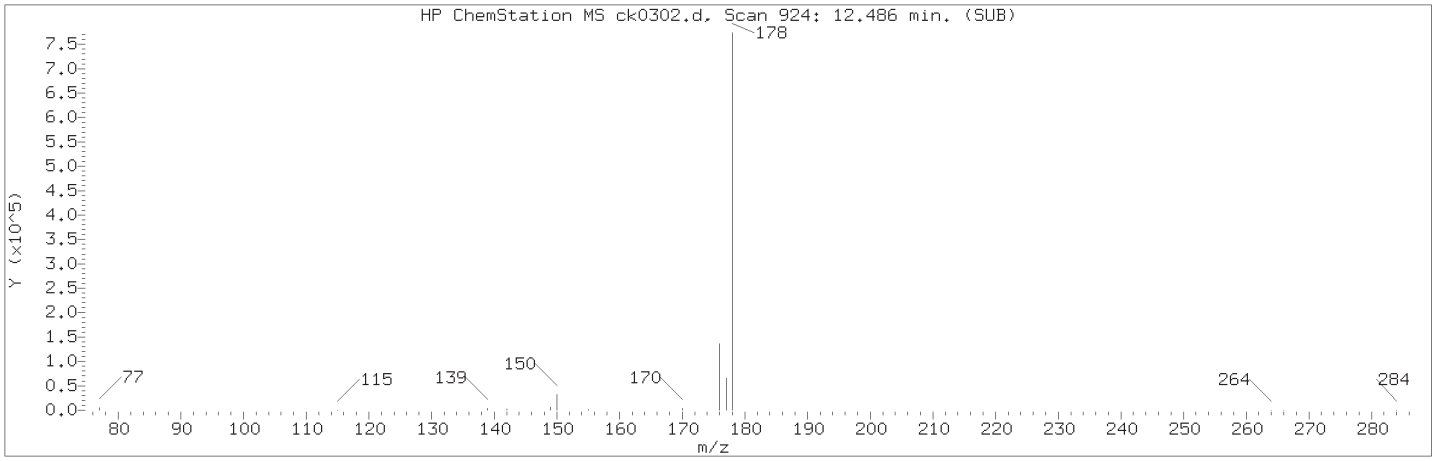
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

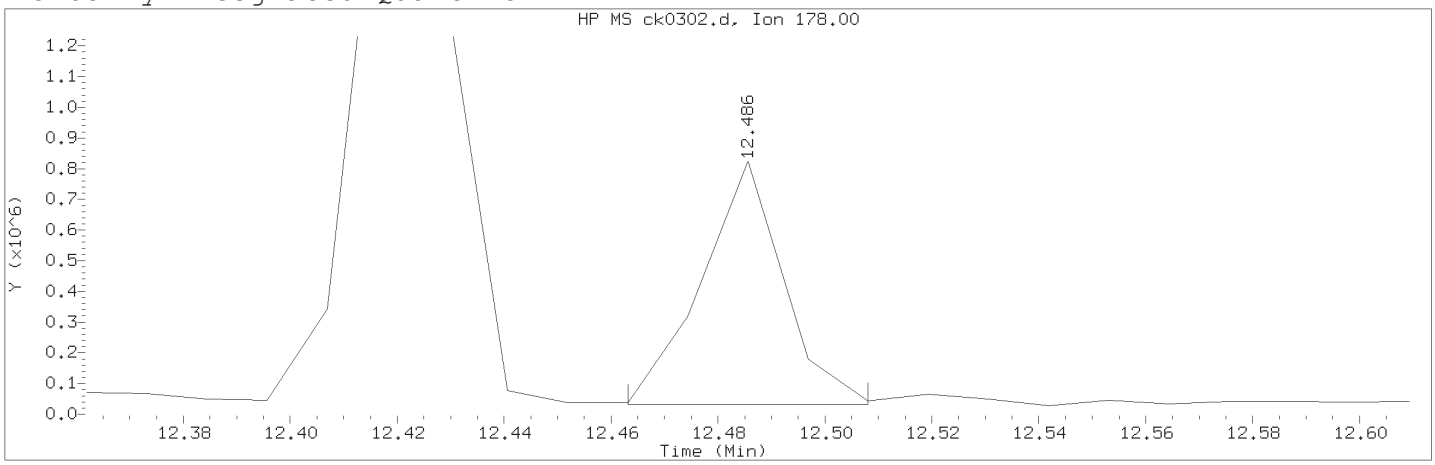
Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 840623M
On-column Amount (ng/ul)	: 3.1431

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

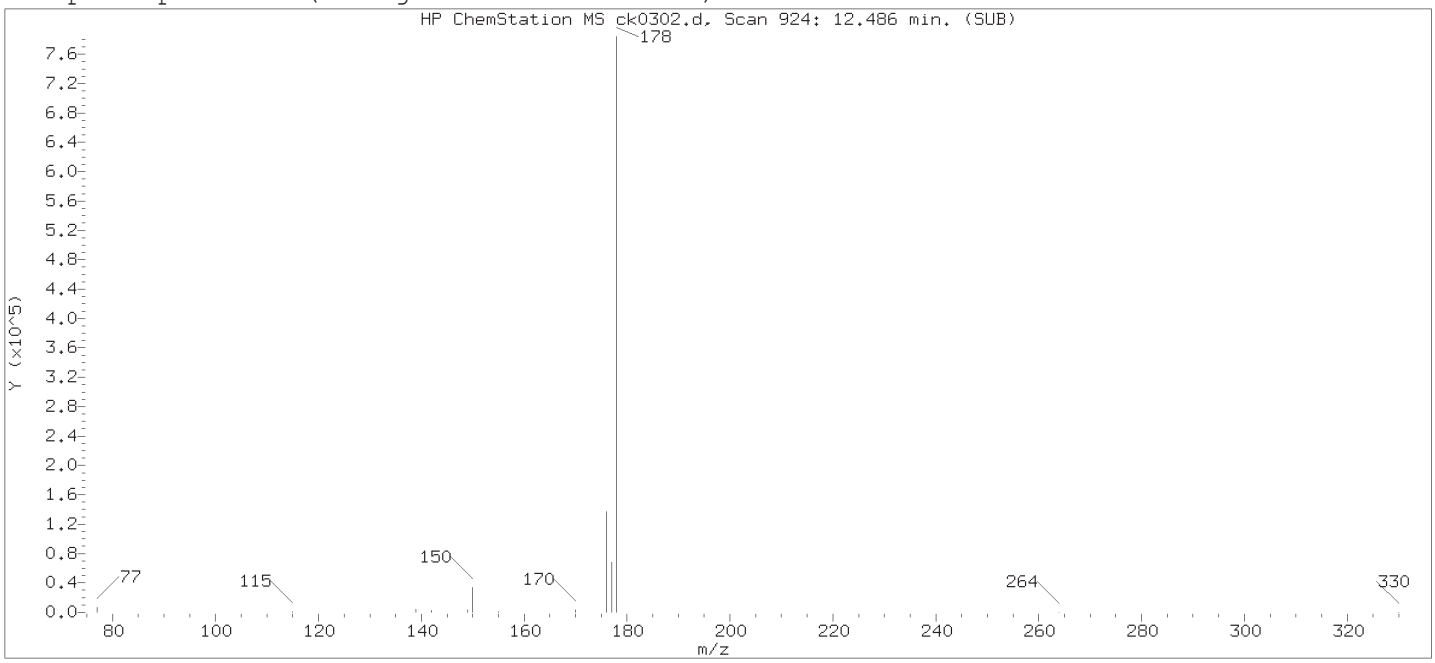
Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 924		
Retention Time (minutes)	: 12.486		
Quant Ion	: 178.00		
Area (flag)	: 840623M		
On-column Amount (ng/ul)	: 3.1431		
Integration start scan	: 921	Integration stop scan:	925
Y at integration start	: 31640	Y at integration end:	31640

Reason for manual integration: improper integration

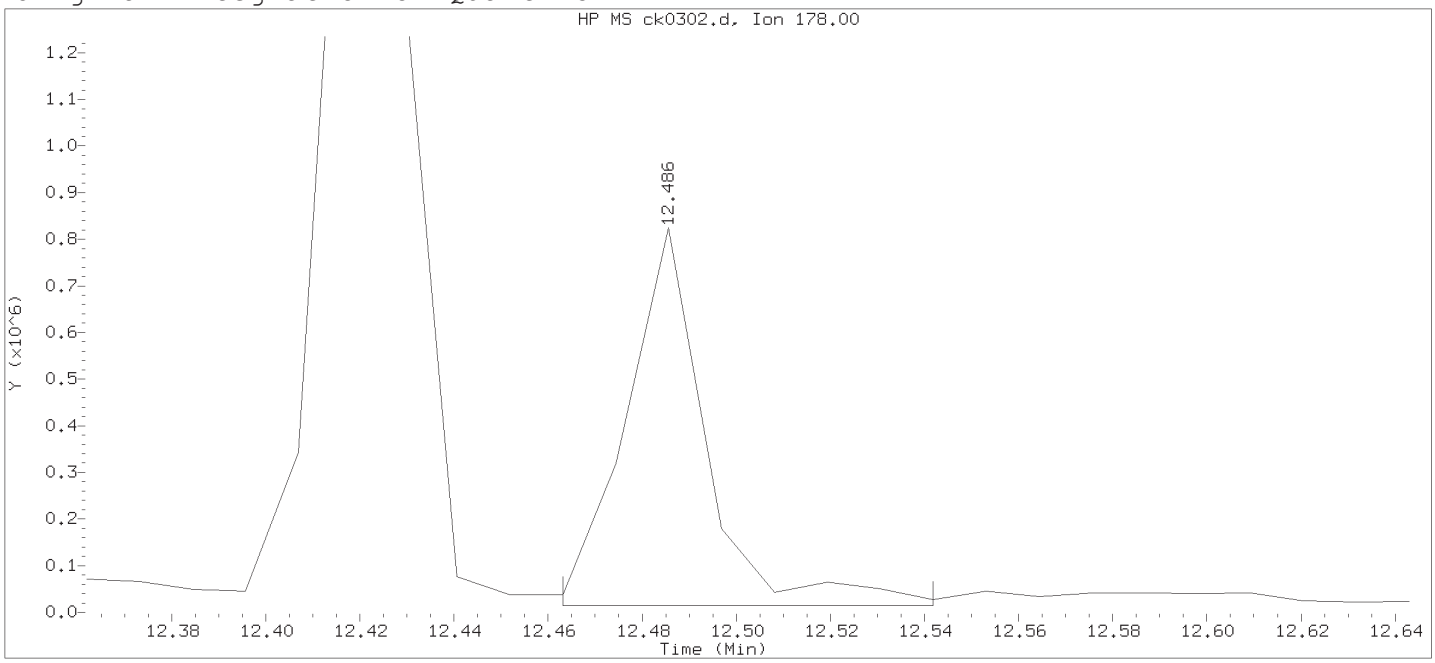
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

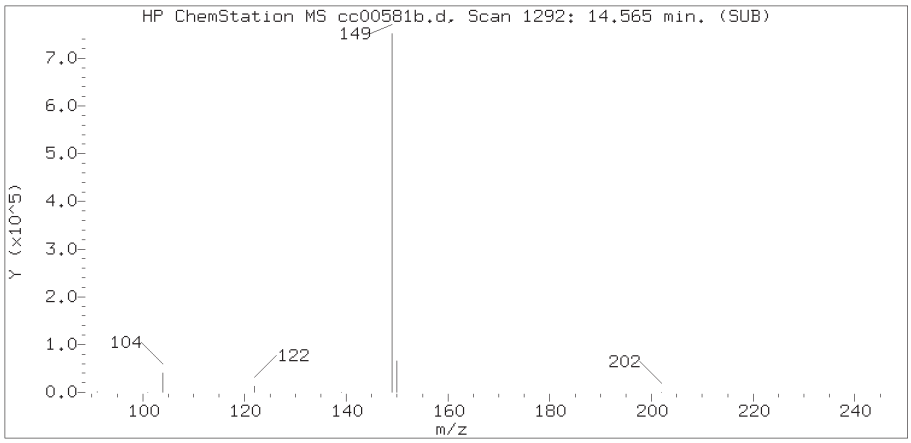
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

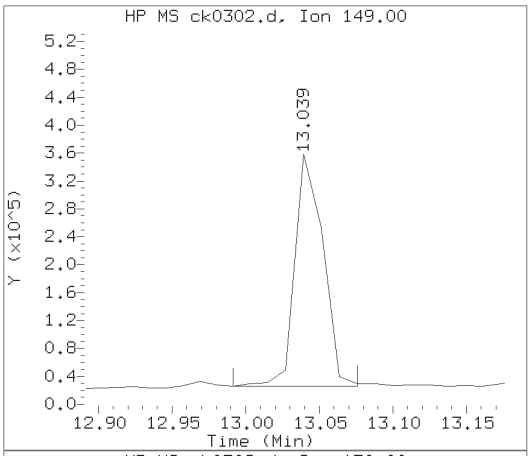
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Quant Ion	: 178.00
Area	: 956361
On-column Amount (ng/ul)	: 3.5758
Integration start scan	: 921 Integration stop scan: 928
Y at integration start	: 13833 Y at integration end: 13833

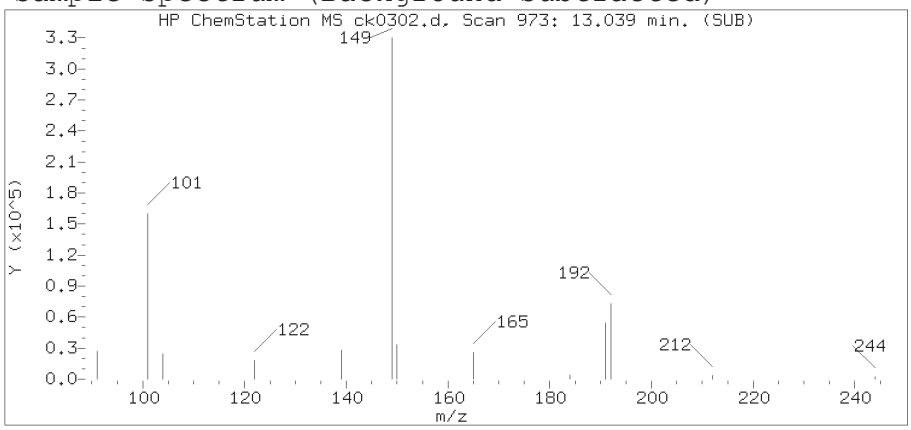
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

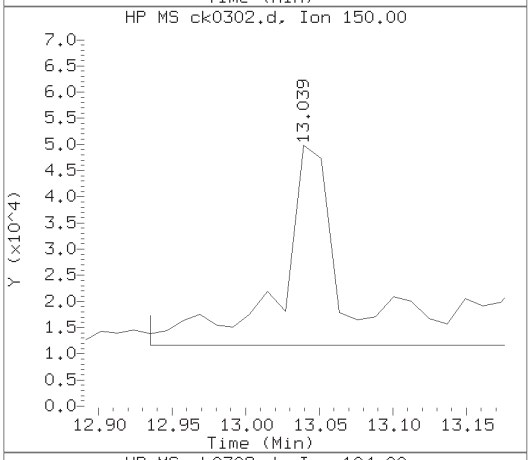
Reference Standard Spectrum for Di-n-butylphthalate



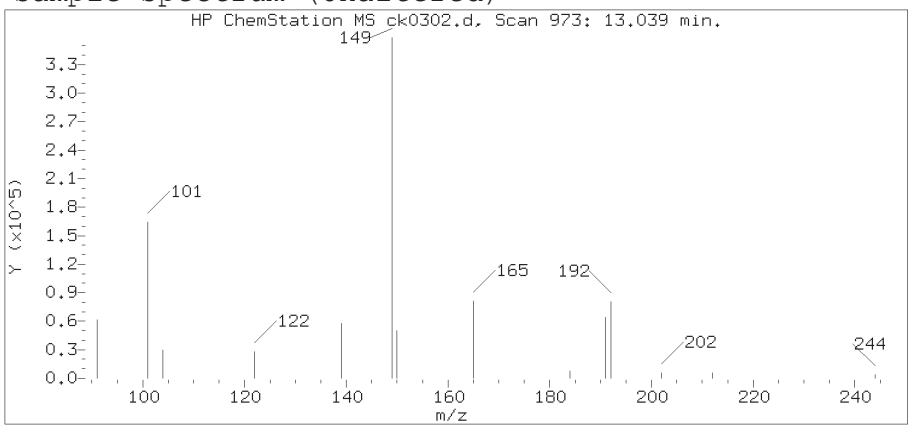


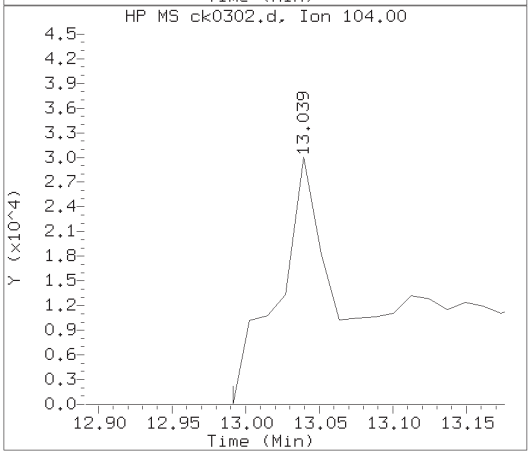
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

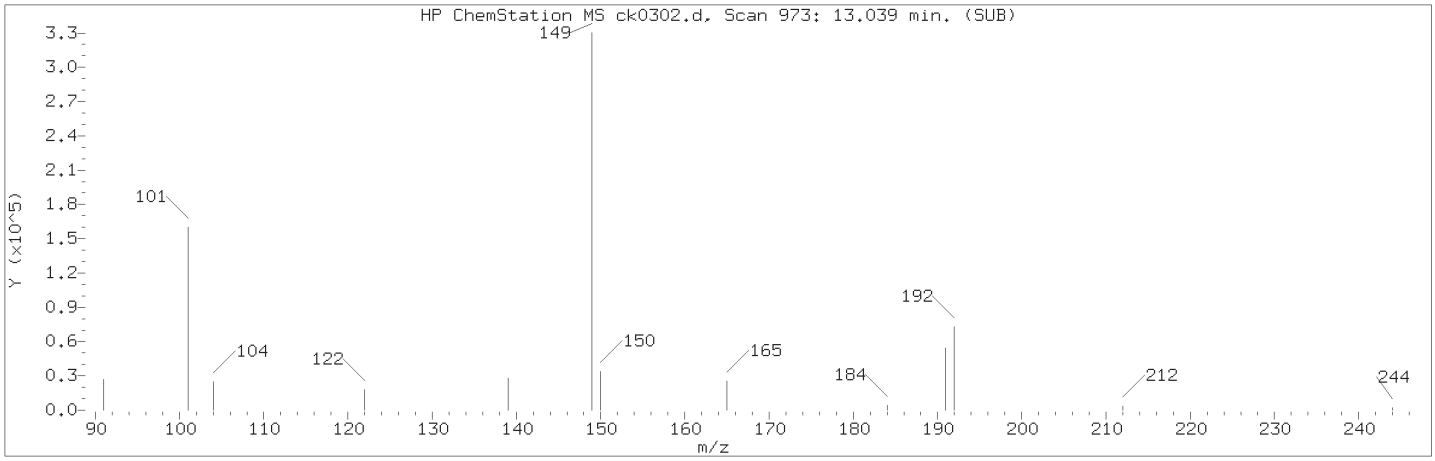
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

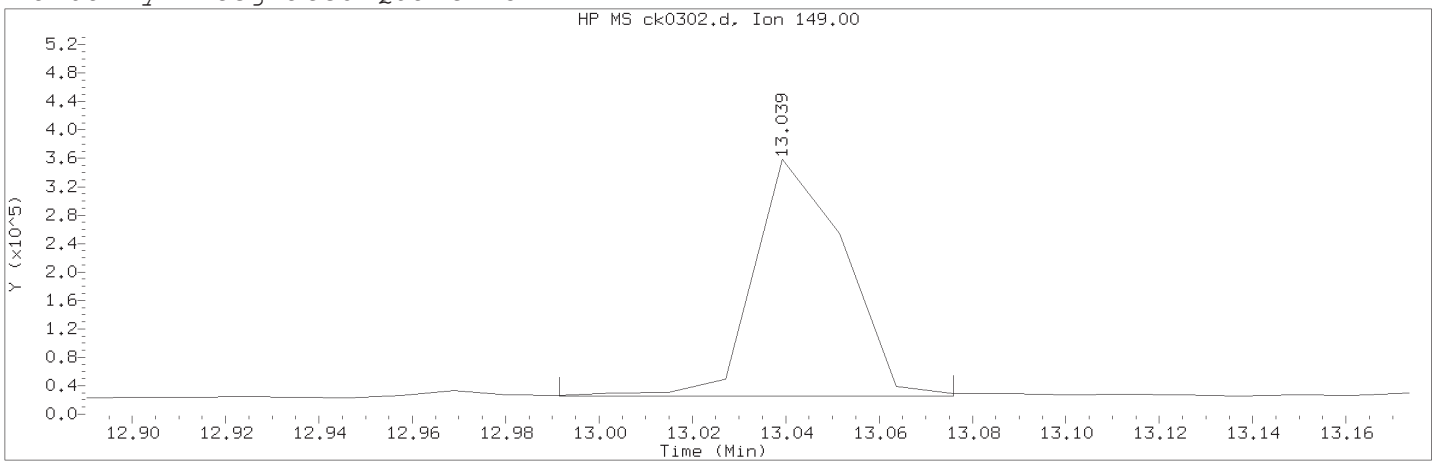
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.039
Relative Retention Time	: 0.00096
Quant Ion	: 149.00
Area (flag)	: 431498M
On-column Amount (ng/ul)	: 1.4484

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

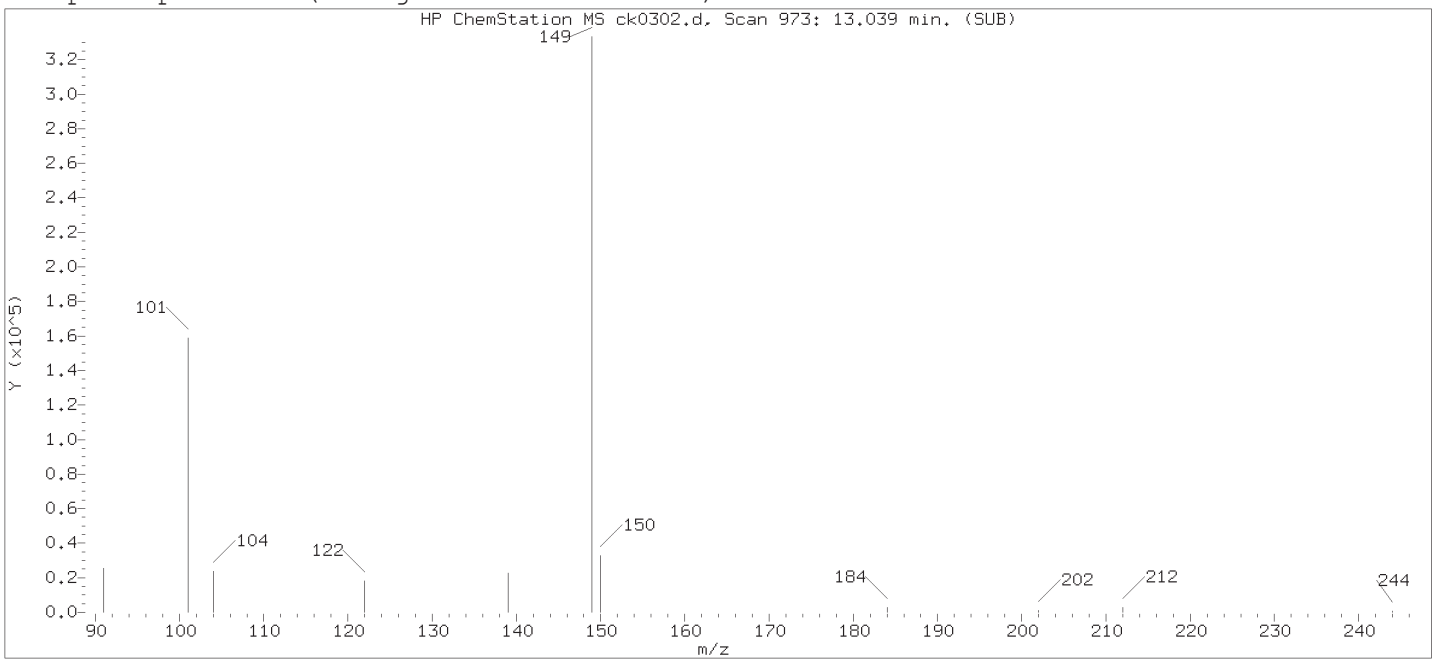
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 973
Retention Time (minutes) : 13.039
Quant Ion : 149.00
Area (flag) : 431498M
On-column Amount (ng/ul) : 1.4484
Integration start scan : 968 Integration stop scan: 975
Y at integration start : 25718 Y at integration end: 25718

Reason for manual integration: improper integration

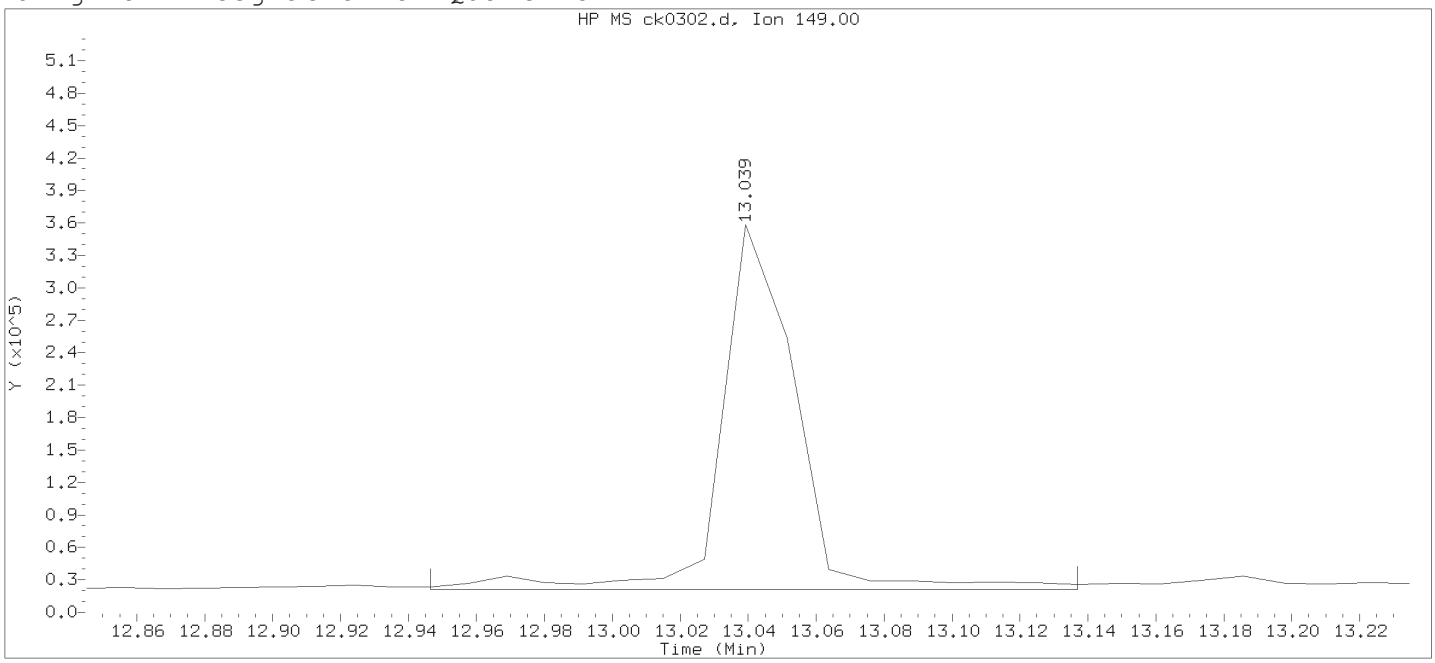
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

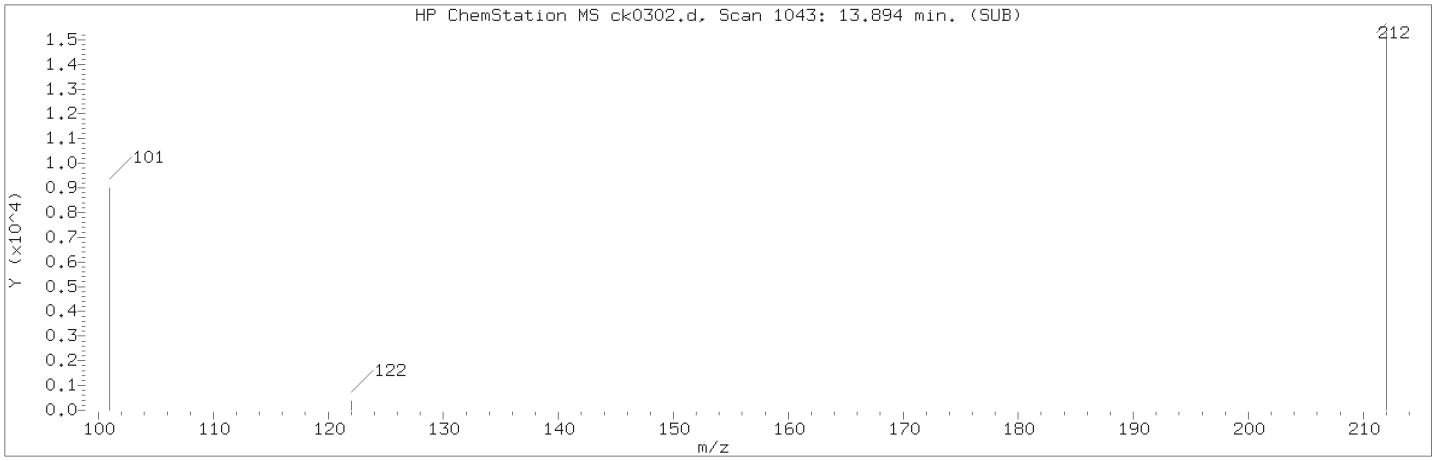
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

Sample Name: 12T02 Lab Sample ID: 9872060

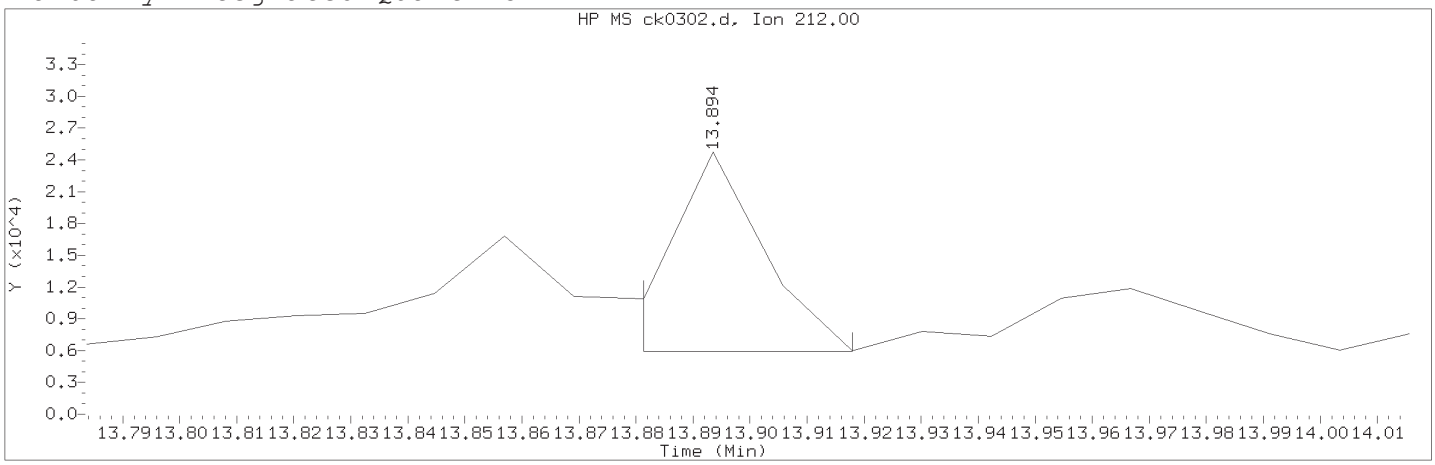
Compound Number	: 35		
Compound Name	: Di-n-butylphthalate		
Scan Number	: 973		
Retention Time (minutes)	: 13.039		
Quant Ion	: 149.00		
Area	: 493501		
On-column Amount (ng/ul)	: 1.6565		
Integration start scan	: 964	Integration stop scan:	980
Y at integration start	: 21400	Y at integration end:	21400

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used 11/07/2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

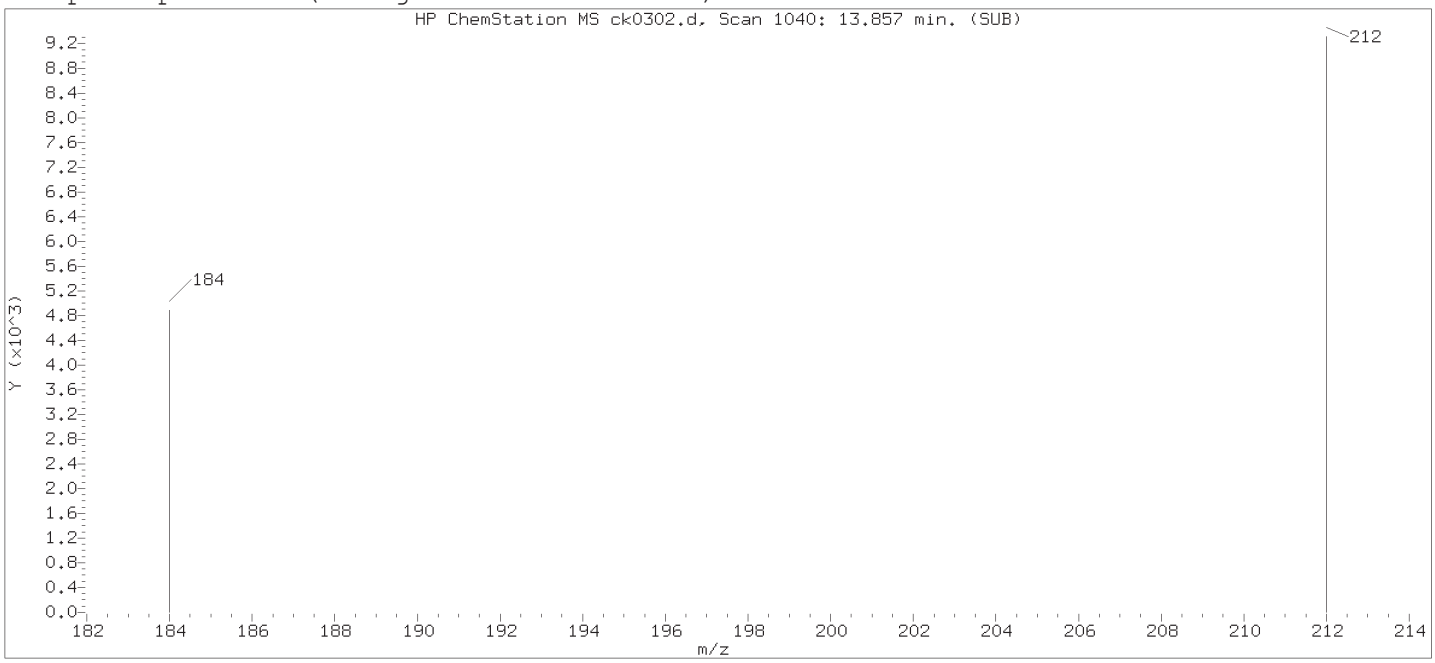
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1043
Retention Time (minutes) : 13.894
Quant Ion : 212.00
Area (flag) : 22065M
On-column Amount (ng/ul) : 0.1043
Integration start scan : 1041 Integration stop scan: 1044
Y at integration start : 5919 Y at integration end: 5919

Reason for manual integration: improper integration

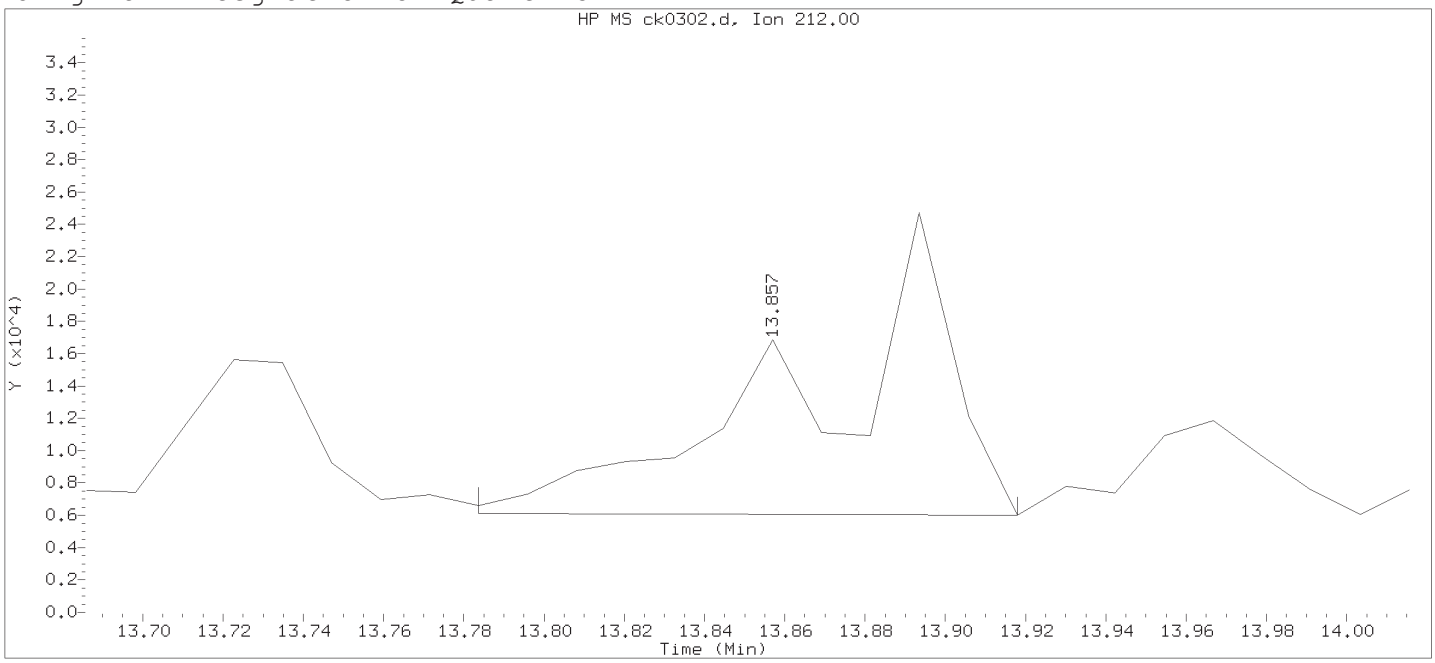
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

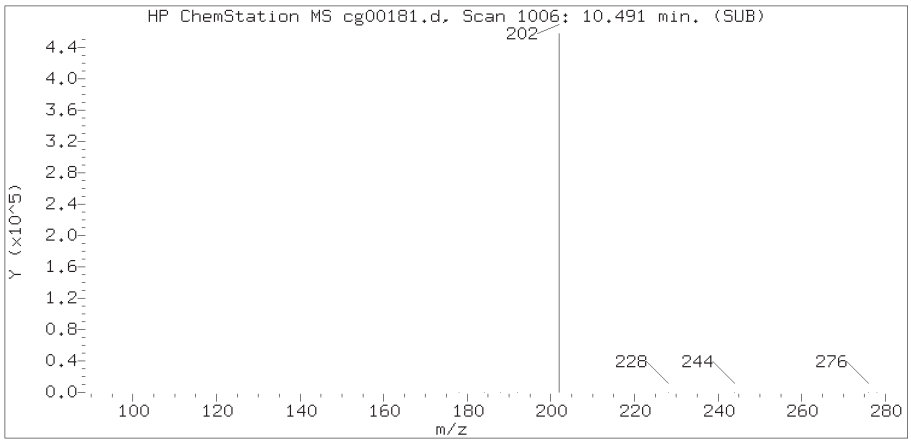
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

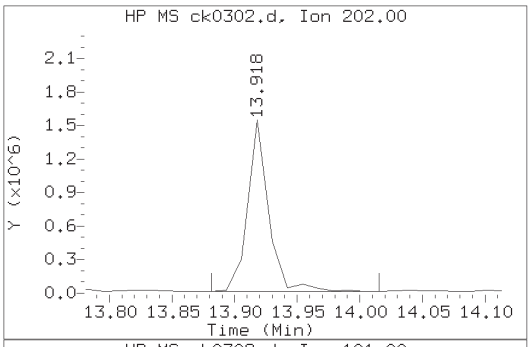
Sample Name: 12T02 Lab Sample ID: 9872060

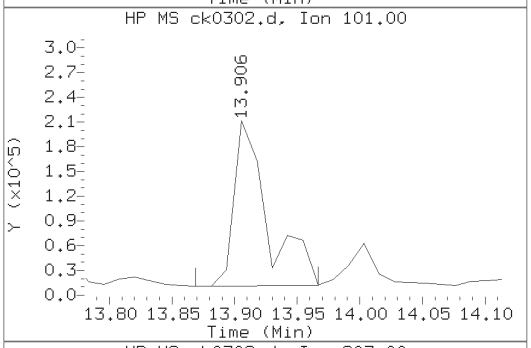
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1040		
Retention Time (minutes)	: 13.857		
Quant Ion	: 212.00		
Area	: 45232		
On-column Amount (ng/ul)	: 0.2139		
Integration start scan	: 1033	Integration stop scan:	1044
Y at integration start	: 6104	Y at integration end:	6002

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

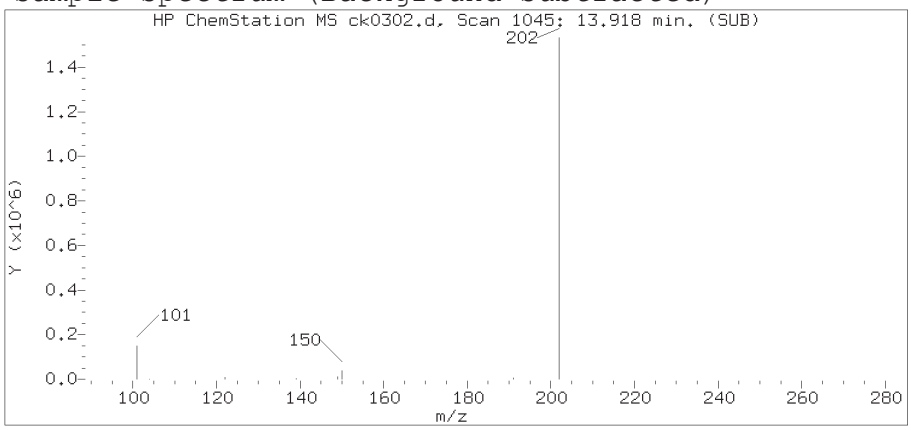
Reference Standard Spectrum for Fluoranthene

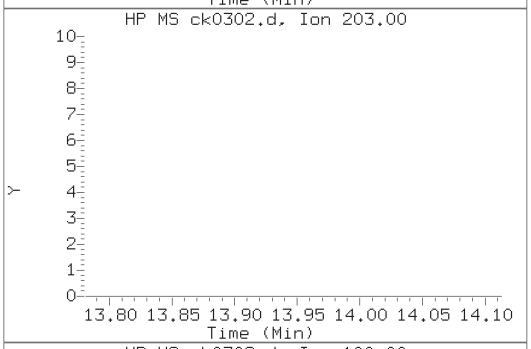




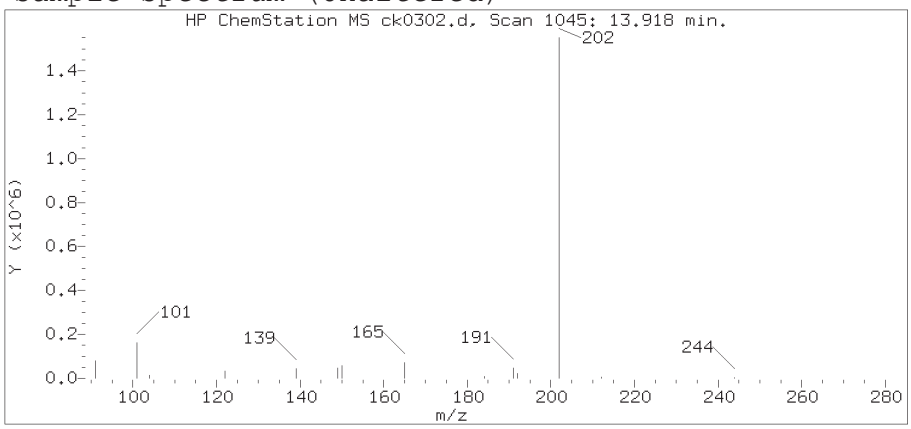


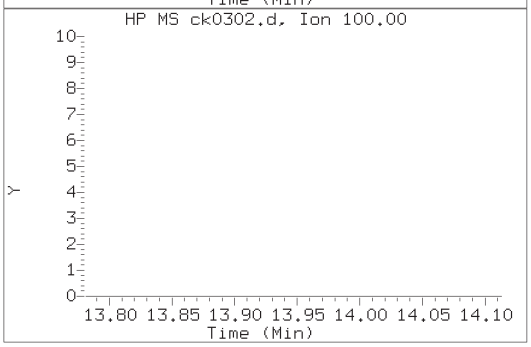
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

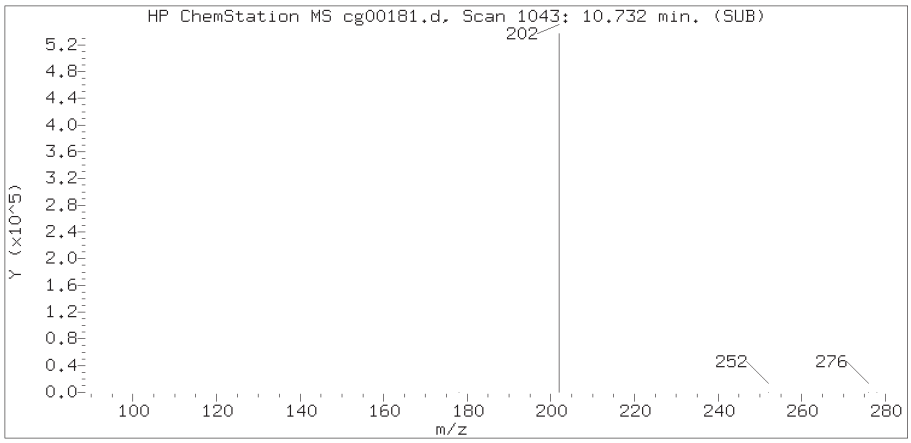
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

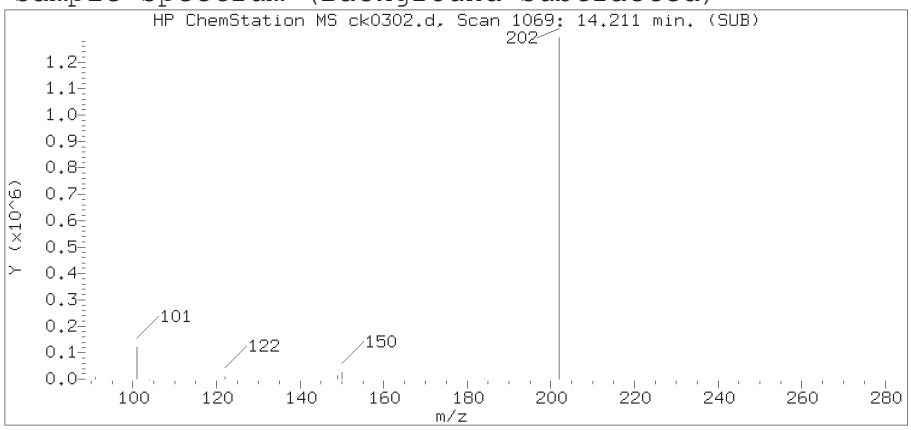
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1045
Retention Time (minutes)	: 13.918
Relative Retention Time	: 0.00003
Quant Ion	: 202.00
Area (flag)	: 1793002
On-column Amount (ng/ul)	: 6.5608

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

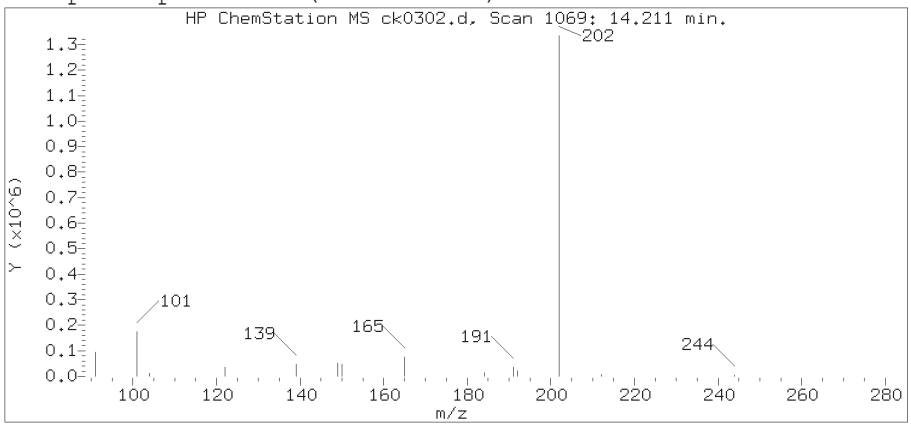
Reference Standard Spectrum for Pyrene

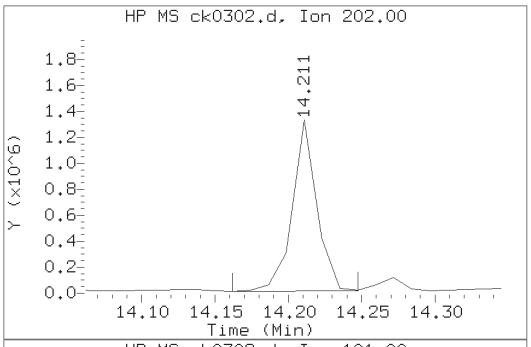


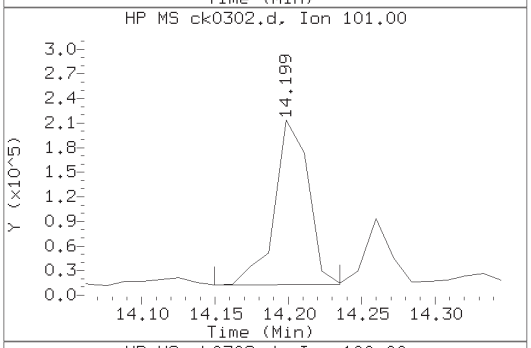
Sample Spectrum (Background Subtracted)

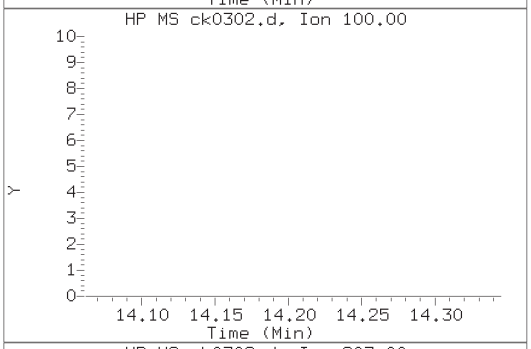


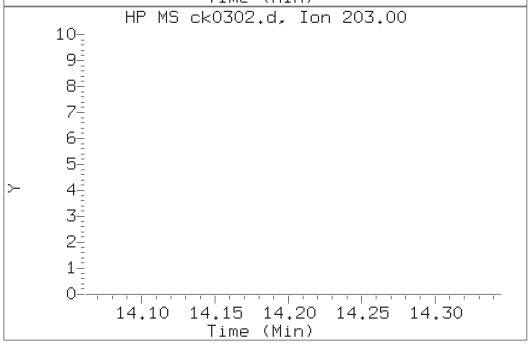
Sample Spectrum (Unaltered)











Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

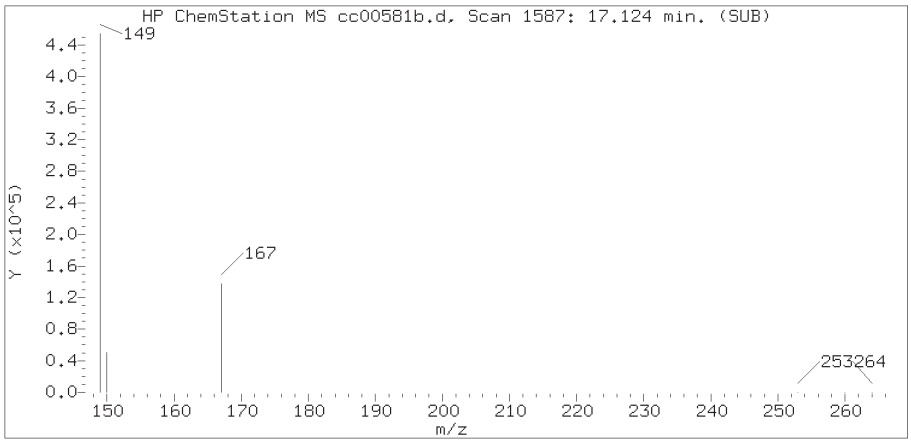
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

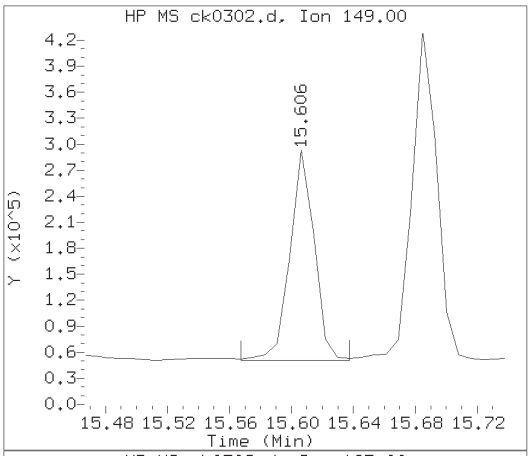
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1069
Retention Time (minutes)	: 14.211
Relative Retention Time	: 0.00058
Quant Ion	: 202.00
Area (flag)	: 1532123
On-column Amount (ng/ul)	: 5.9351

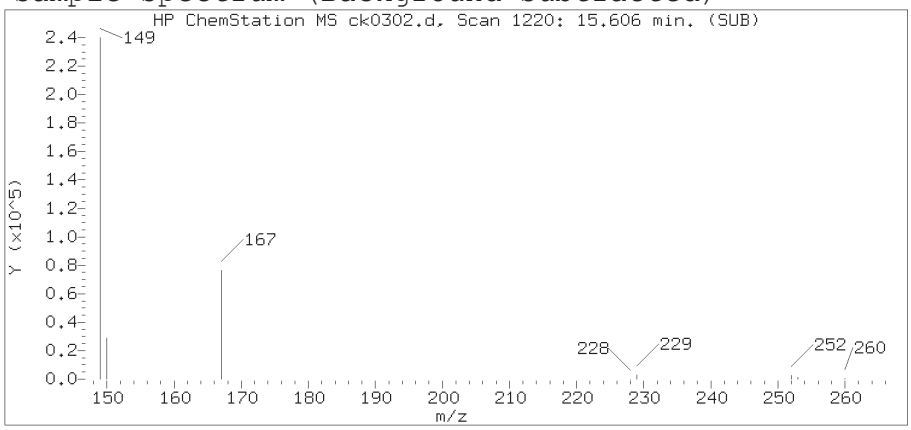
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

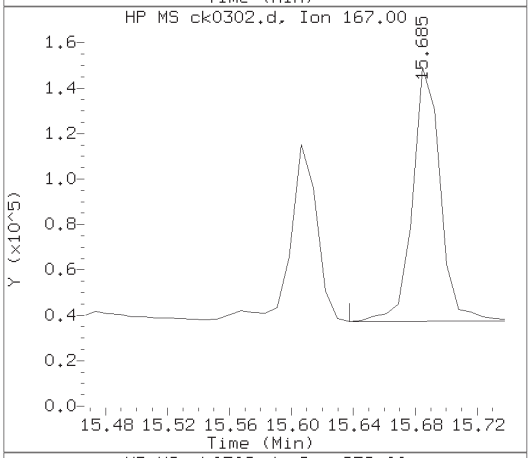
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



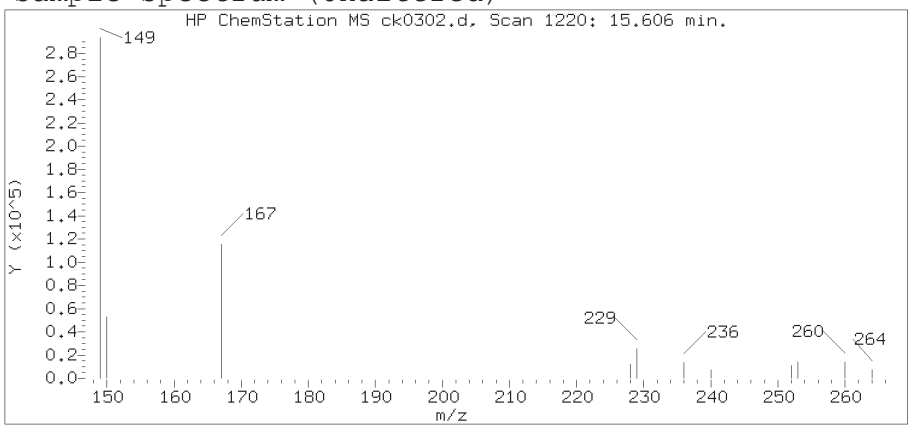


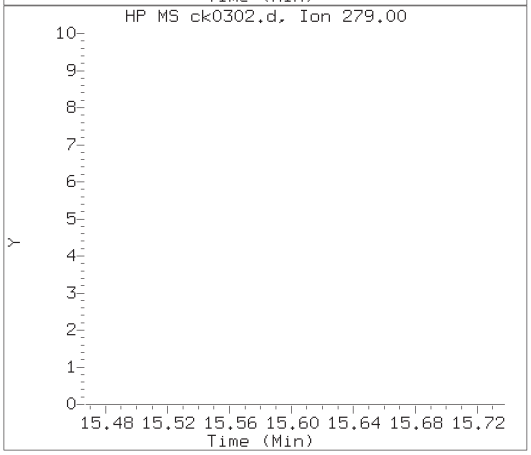
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

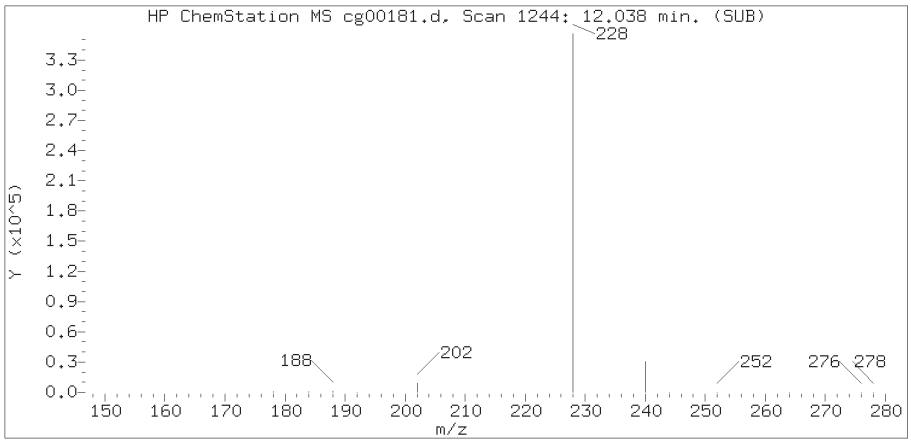
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

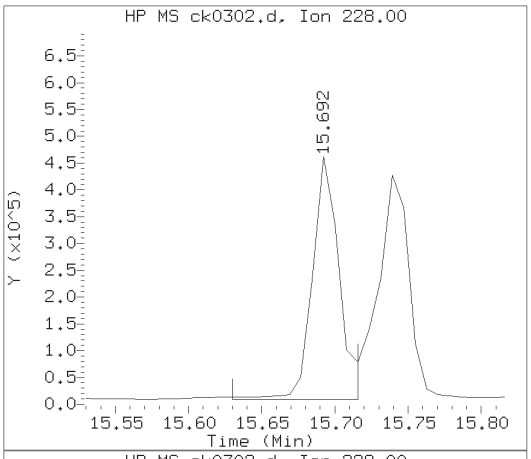
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1220
Retention Time (minutes)	: 15.606
Relative Retention Time	: 0.00049
Quant Ion	: 149.00
Area (flag)	: 265924
On-column Amount (ng/ul)	: 1.5238

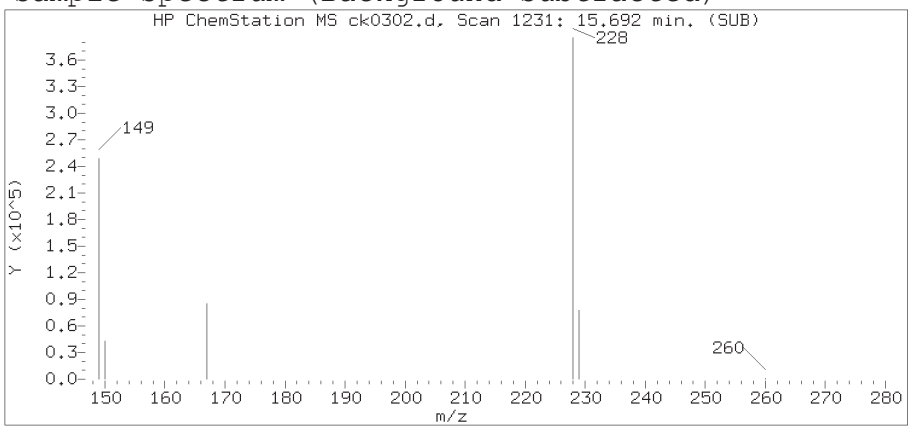
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

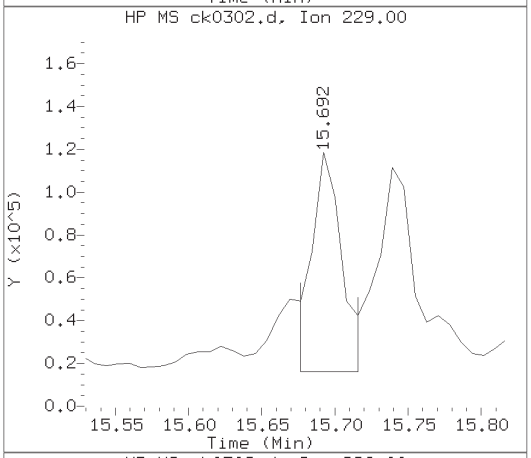
Reference Standard Spectrum for Benzo(a)anthracene



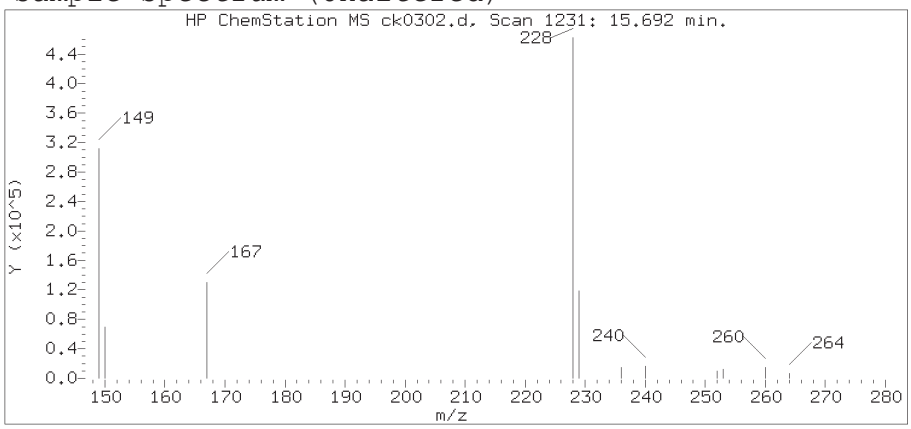


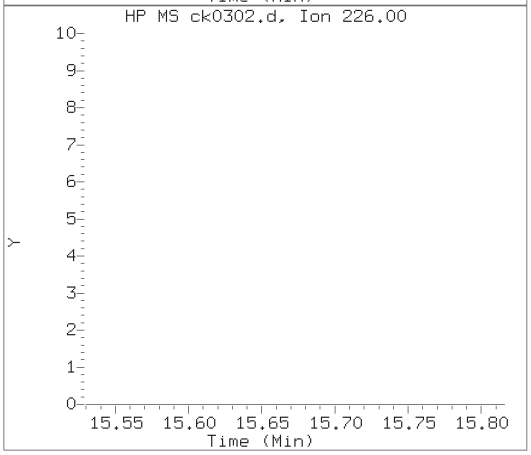
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

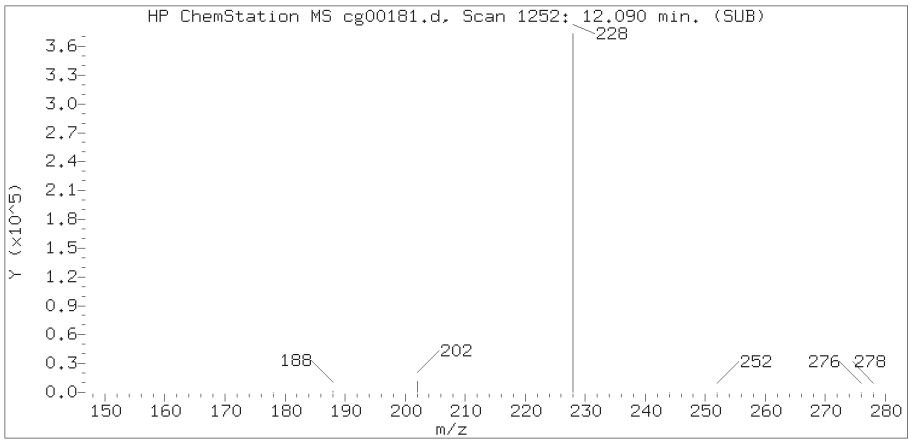
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

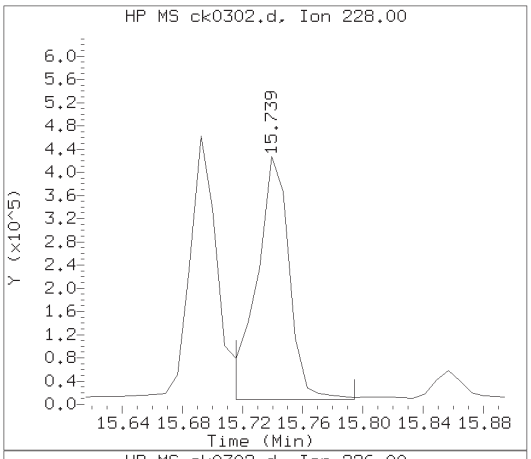
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1231
Retention Time (minutes)	: 15.692
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 566569
On-column Amount (ng/ul)	: 2.7256

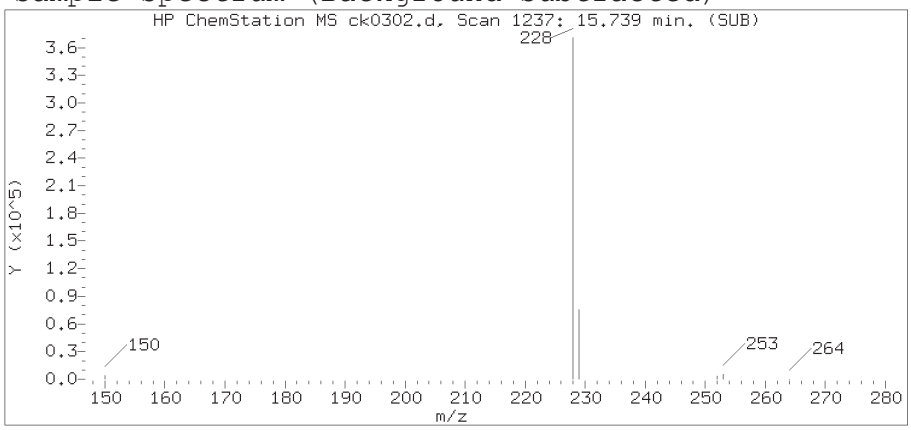
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

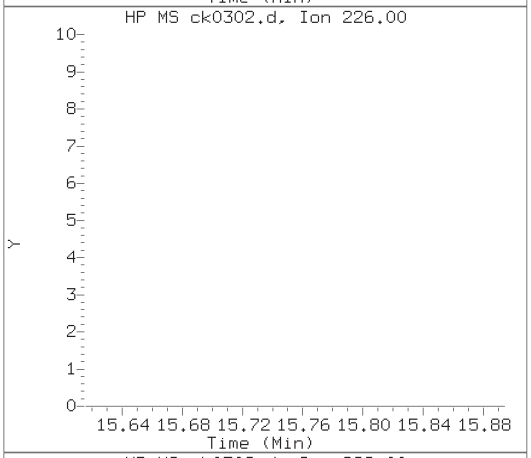
Reference Standard Spectrum for Chrysene



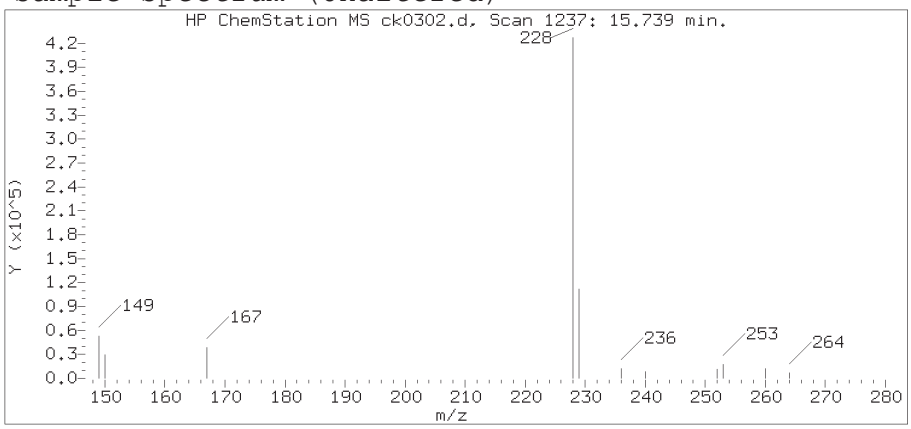


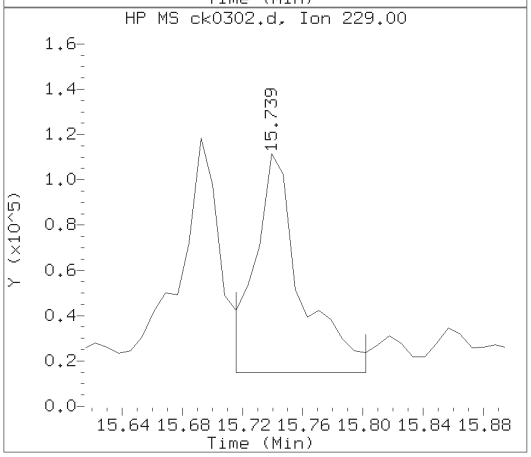
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

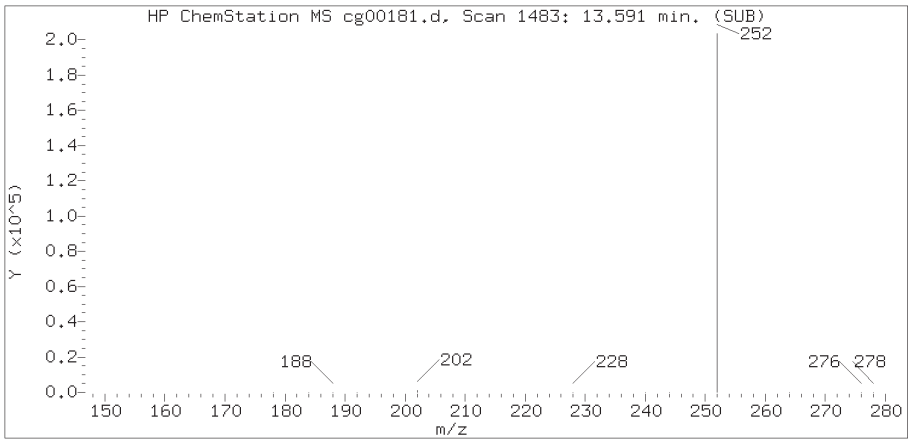
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

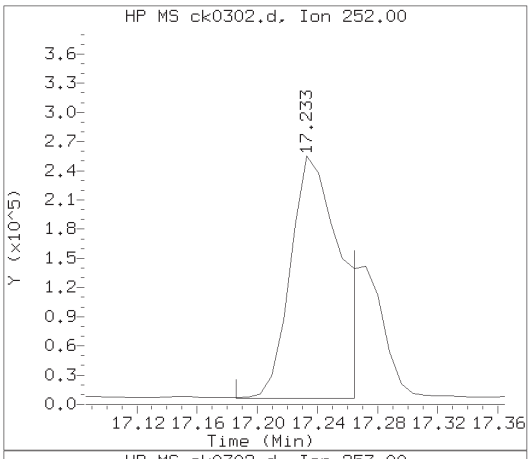
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1237
Retention Time (minutes)	: 15.739
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 620536
On-column Amount (ng/ul)	: 2.9137

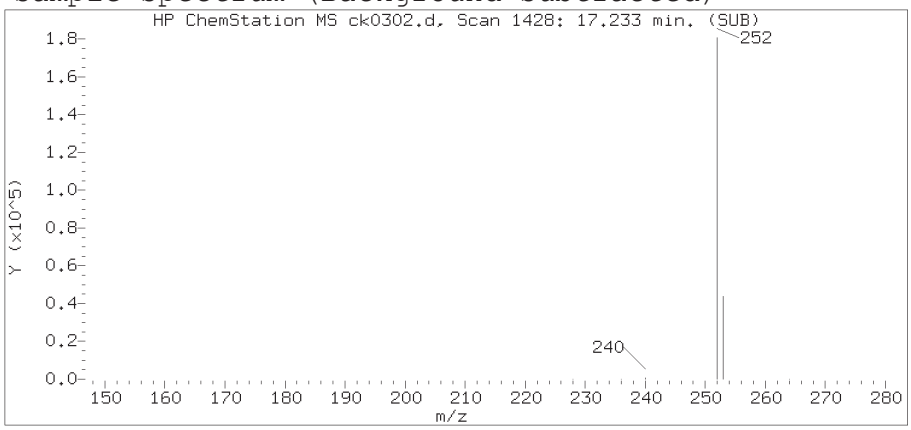
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

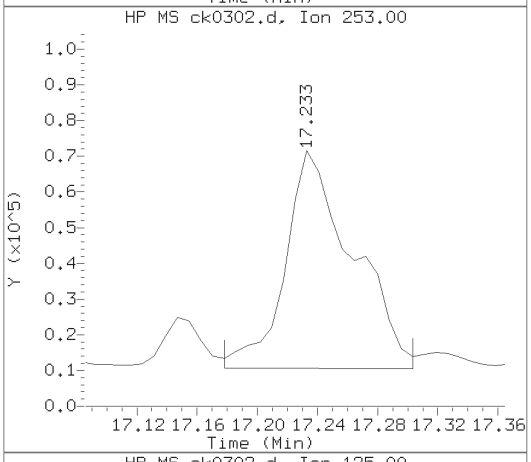
Reference Standard Spectrum for Benzo(b)fluoranthene



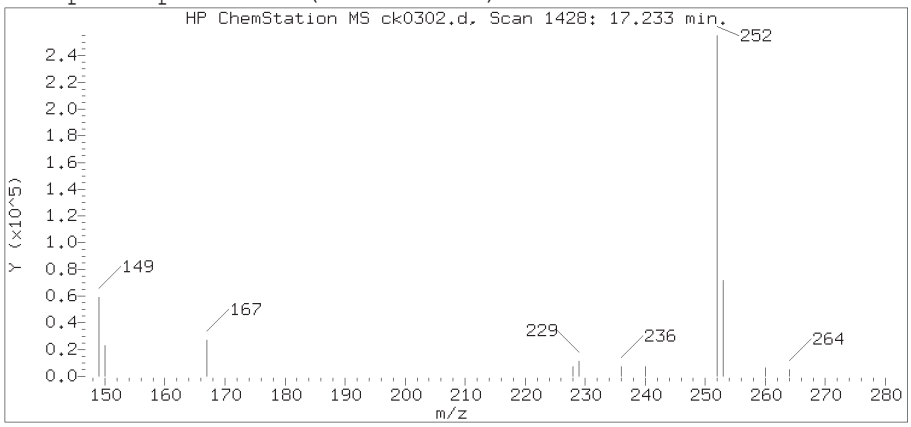


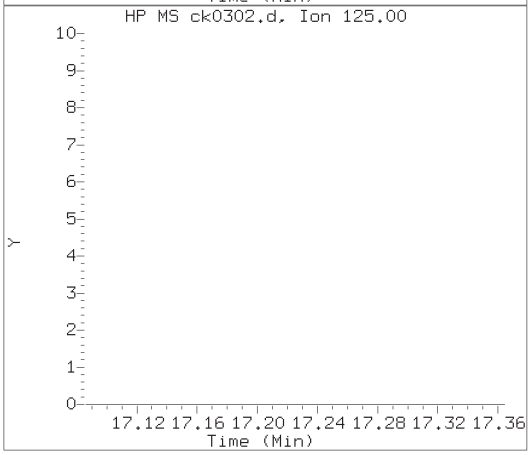
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

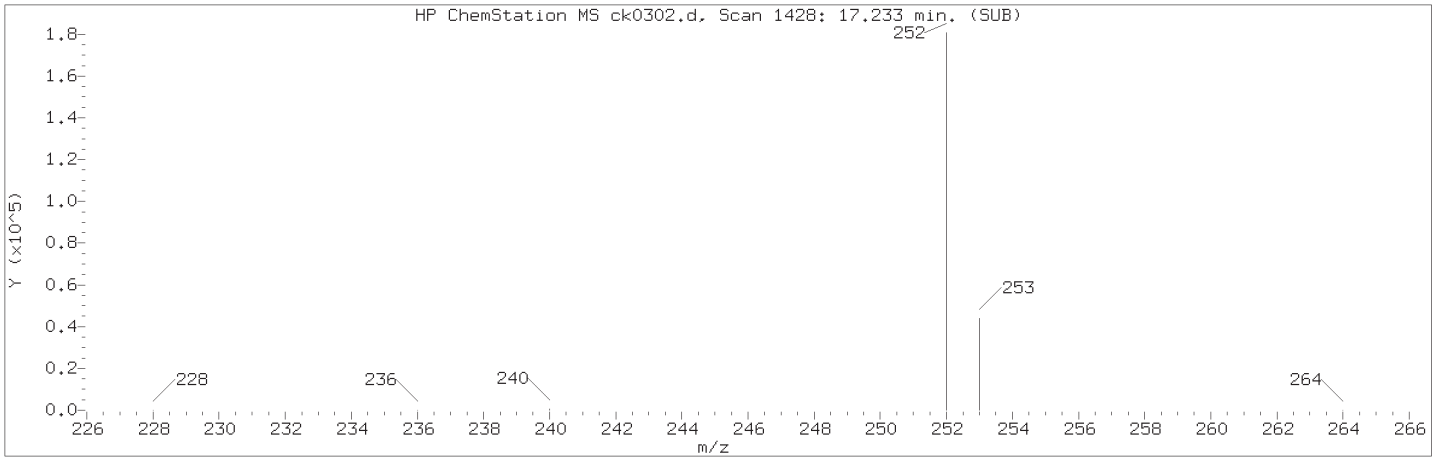
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

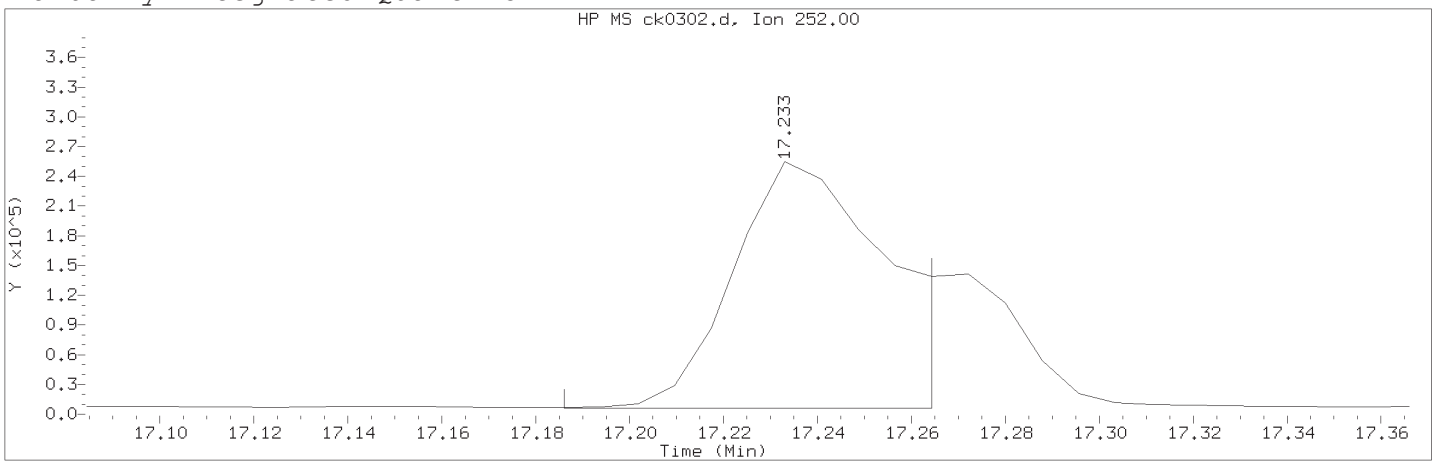
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1428
Retention Time (minutes)	: 17.233
Relative Retention Time	: 0.00036
Quant Ion	: 252.00
Area (flag)	: 573822M
On-column Amount (ng/ul)	: 2.8655

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

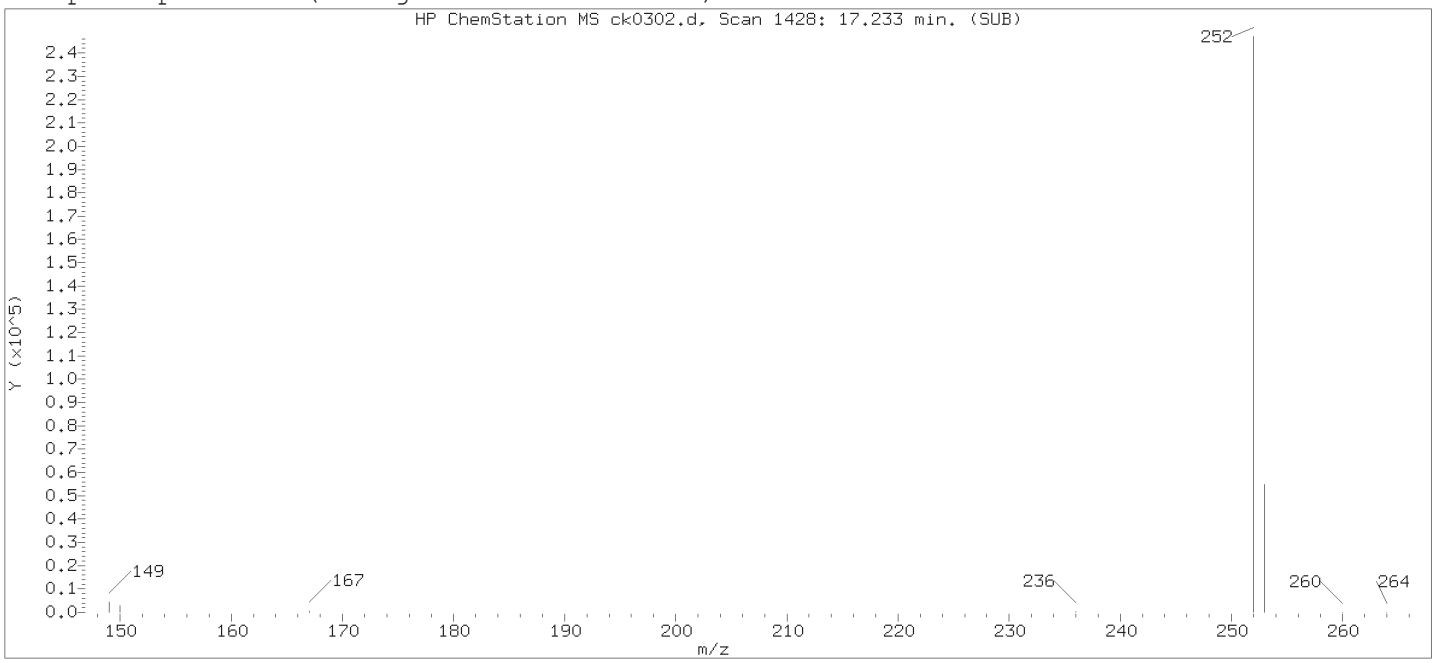
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1428
Retention Time (minutes) : 17.233
Quant Ion : 252.00
Area (flag) : 573822M
On-column Amount (ng/ul) : 2.8655
Integration start scan : 1421 Integration stop scan: 1431
Y at integration start : 6299 Y at integration end: 6299

Reason for manual integration: improper integration

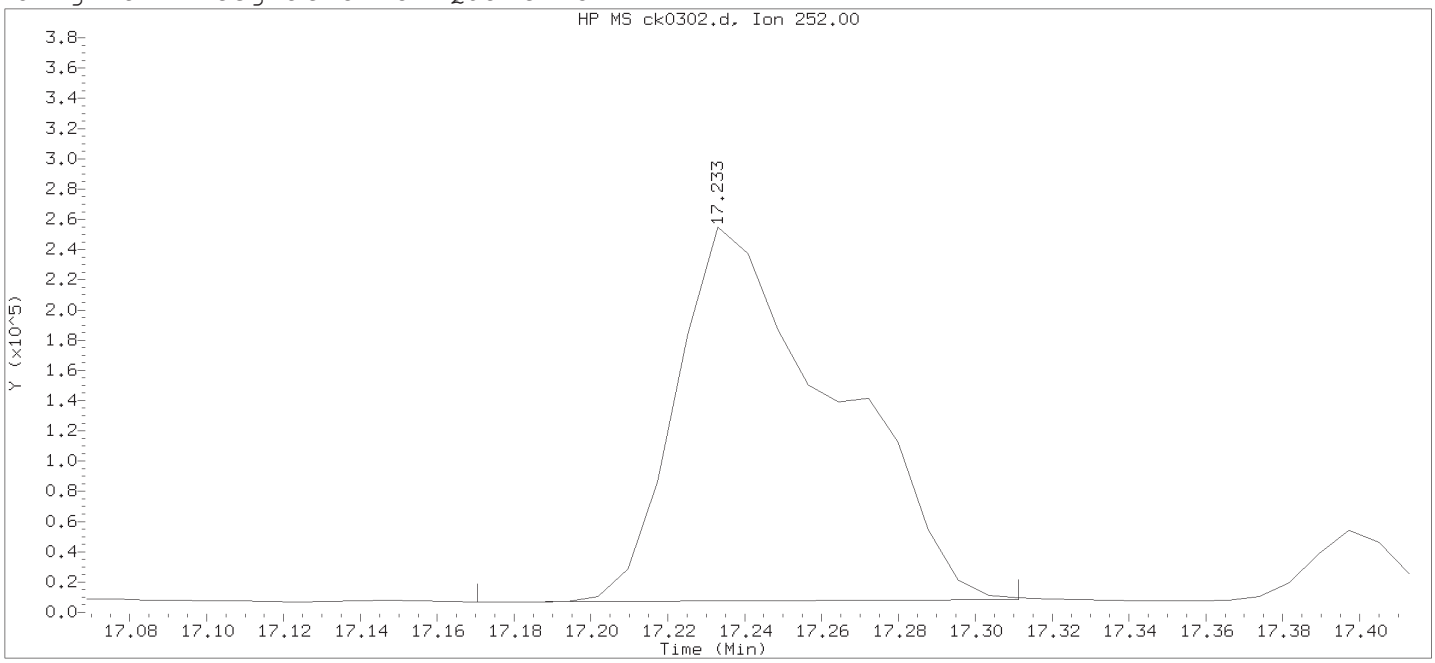
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

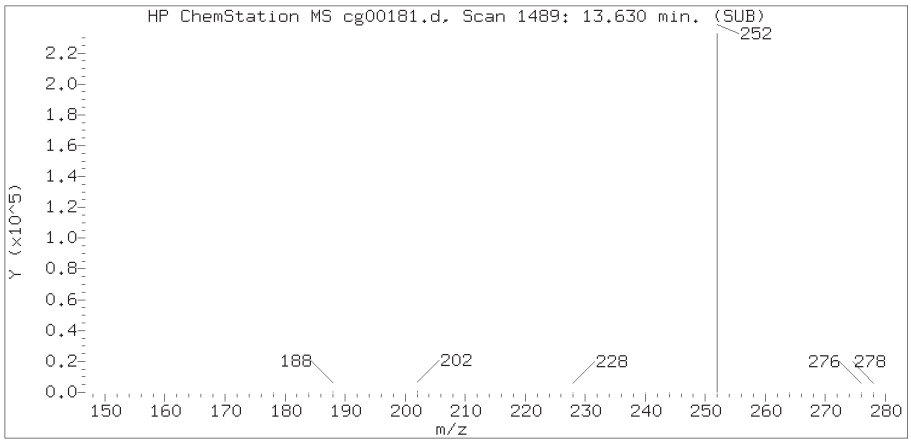
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

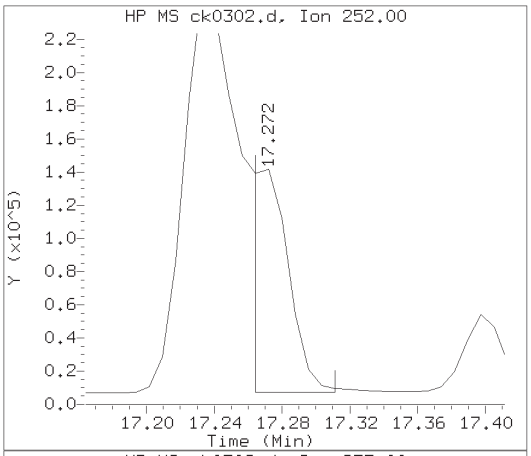
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1428		
Retention Time (minutes)	: 17.233		
Quant Ion	: 252.00		
Area	: 708689		
On-column Amount (ng/ul)	: 3.5389		
Integration start scan	: 1419	Integration stop scan:	1437
Y at integration start	: 6761	Y at integration end:	8526

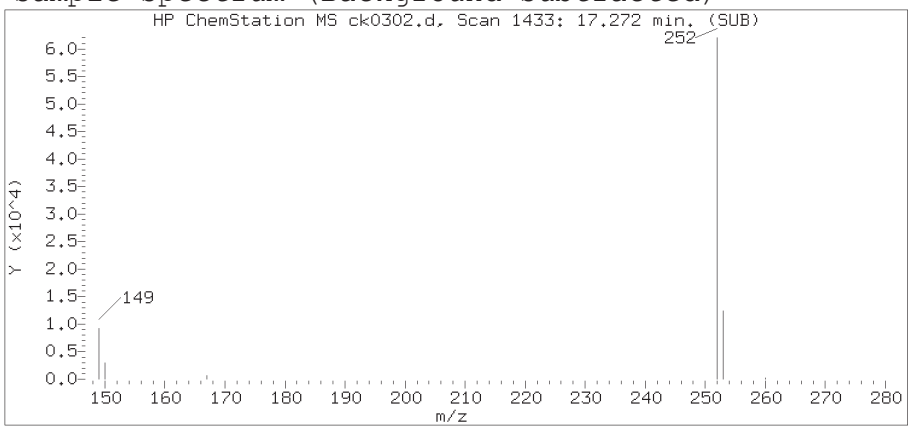
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used 11/07/2018

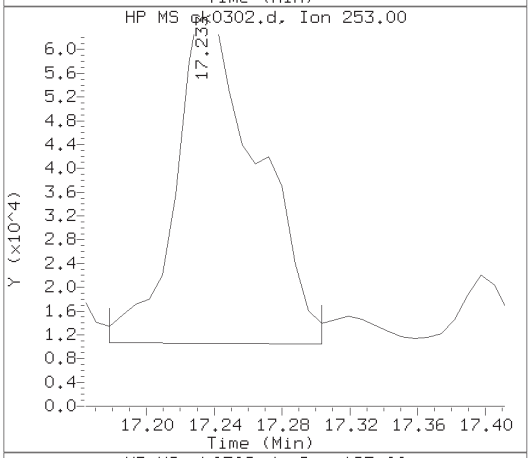
Reference Standard Spectrum for Benzo(k)fluoranthene



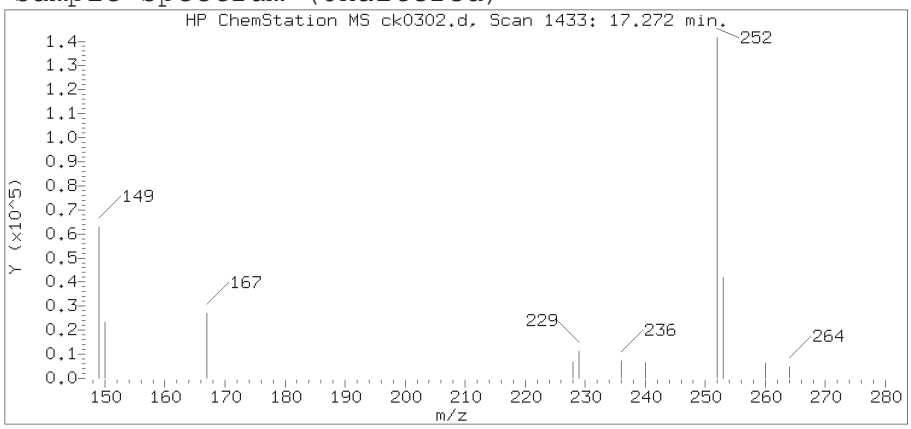


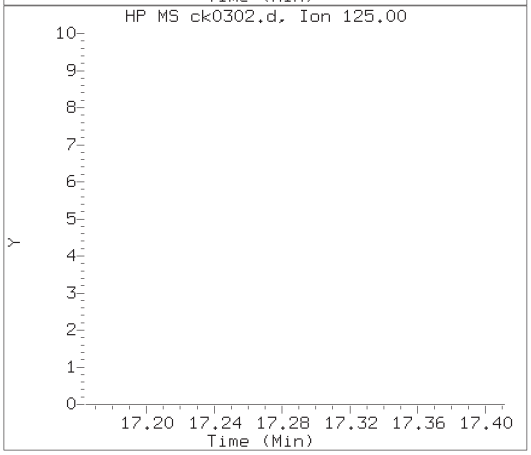
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

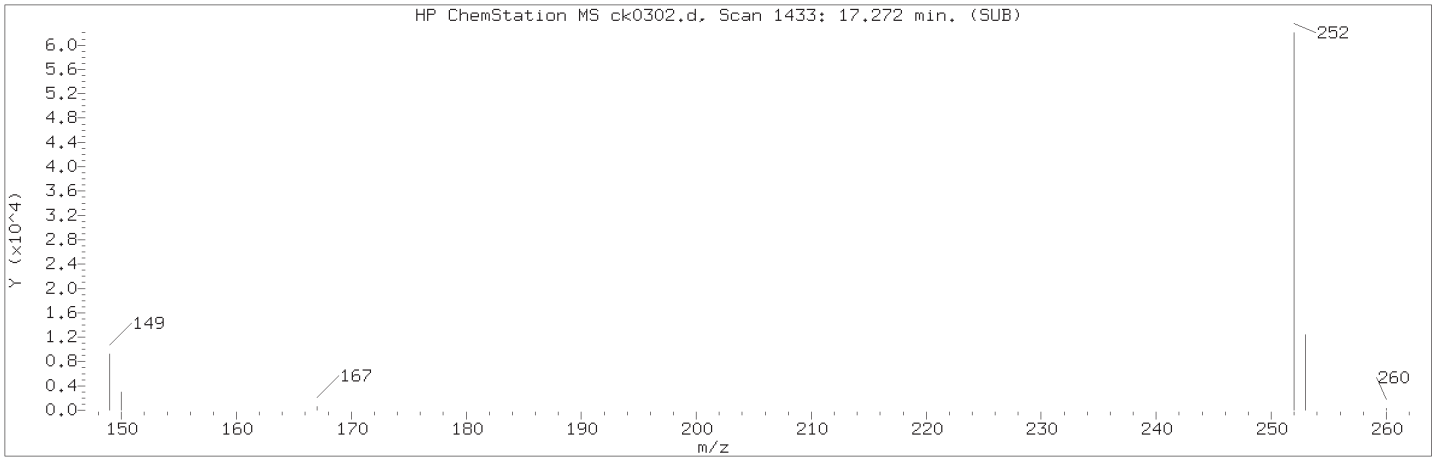
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

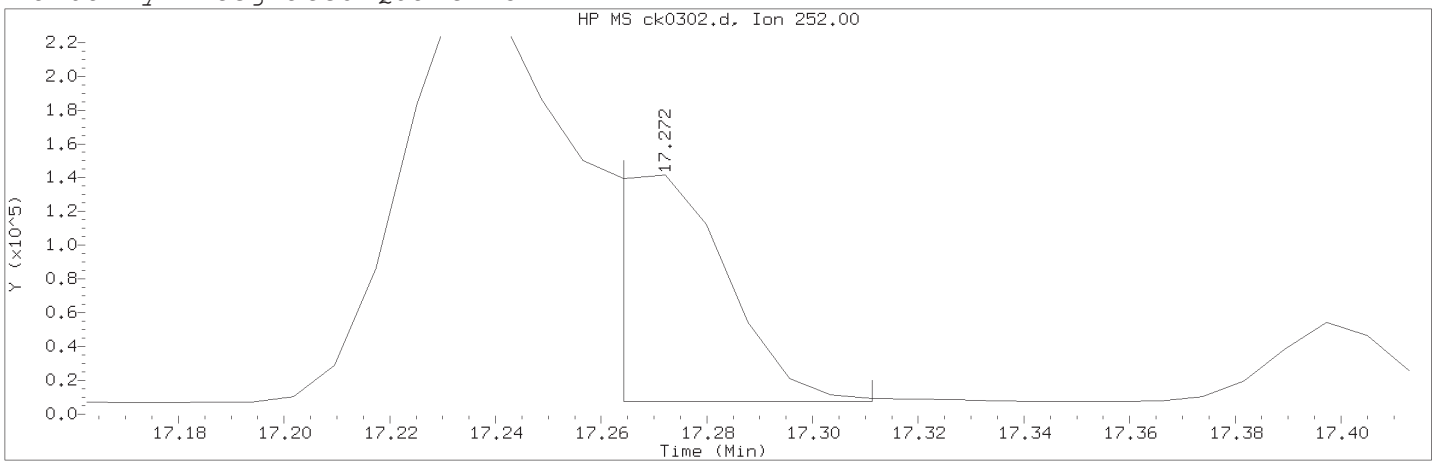
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1433
Retention Time (minutes)	: 17.272
Relative Retention Time	: 0.00036
Quant Ion	: 252.00
Area (flag)	: 205396M
On-column Amount (ng/ul)	: 0.9551

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

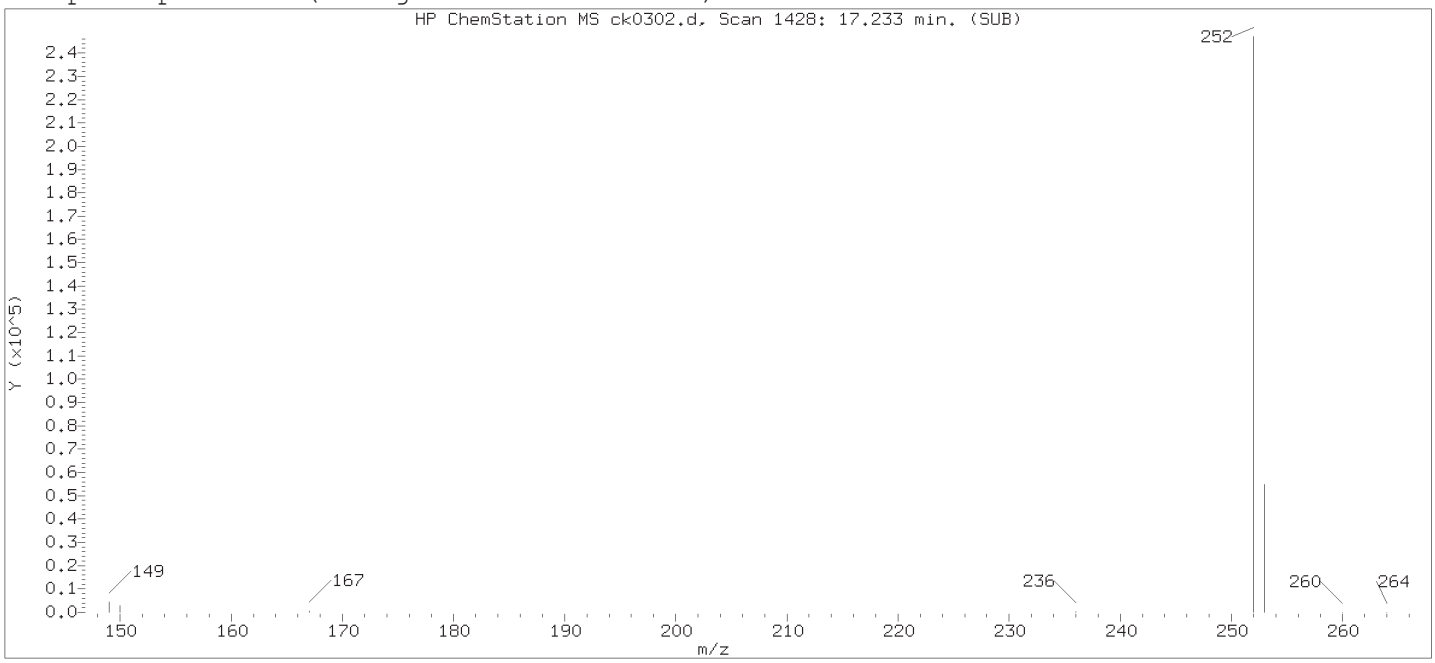
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1433
Retention Time (minutes) : 17.272
Quant Ion : 252.00
Area (flag) : 205396M
On-column Amount (ng/ul) : 0.9551
Integration start scan : 1431 Integration stop scan: 1437
Y at integration start : 7389 Y at integration end: 7389

Reason for manual integration: improper integration

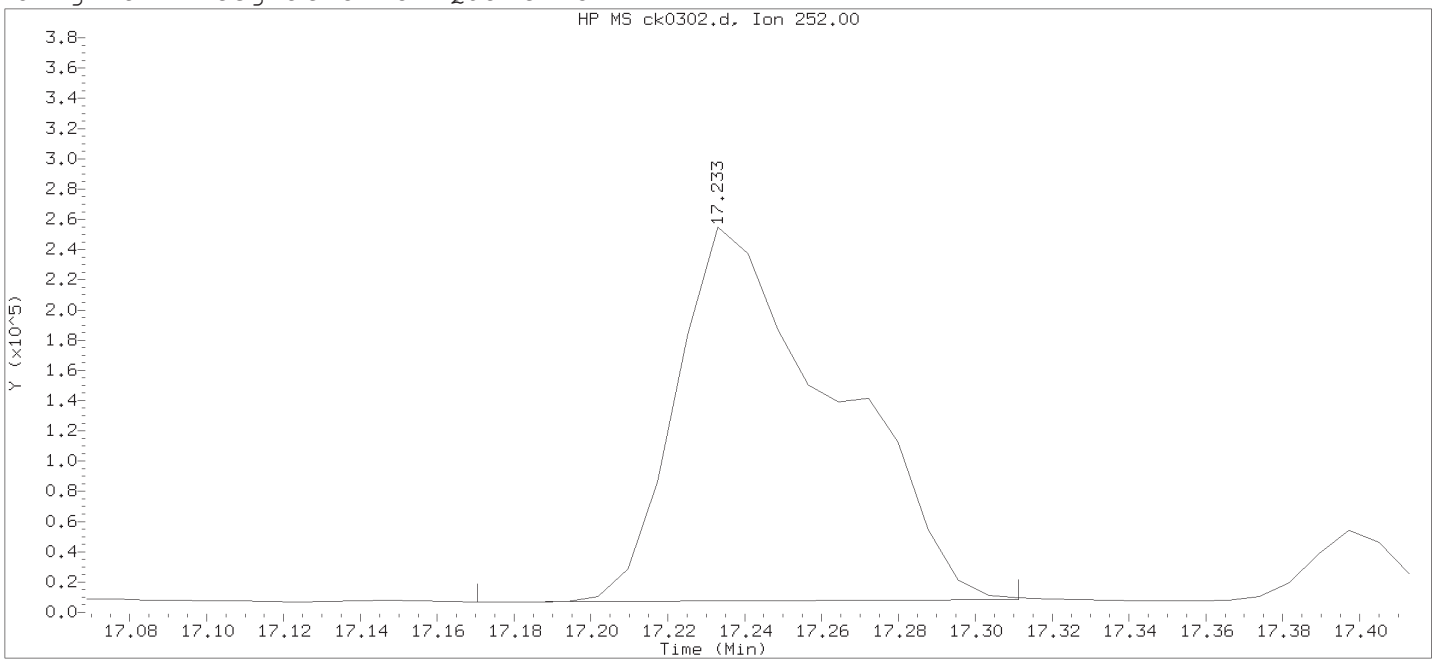
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

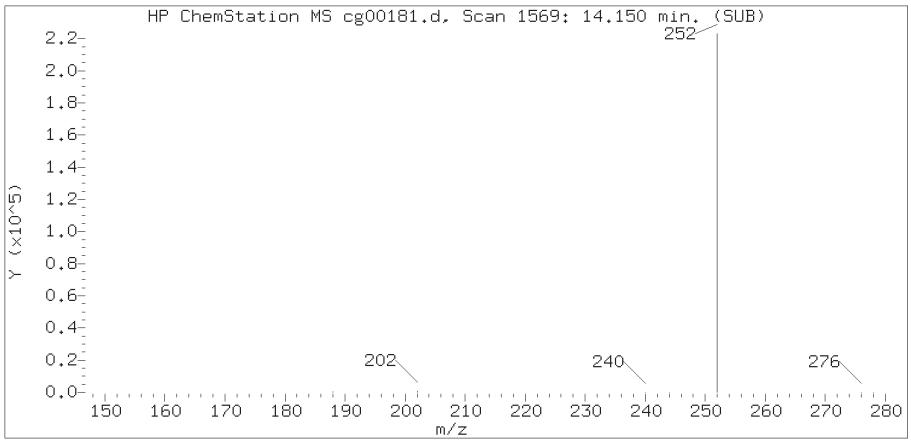
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:57 Automation

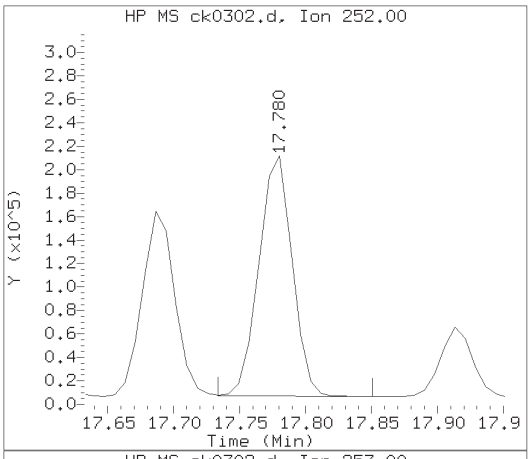
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1428		
Retention Time (minutes)	: 17.233		
Quant Ion	: 252.00		
Area	: 708685		
On-column Amount (ng/ul)	: 3.2955		
Integration start scan	: 1419	Integration stop scan:	1437
Y at integration start	: 6761	Y at integration end:	8527

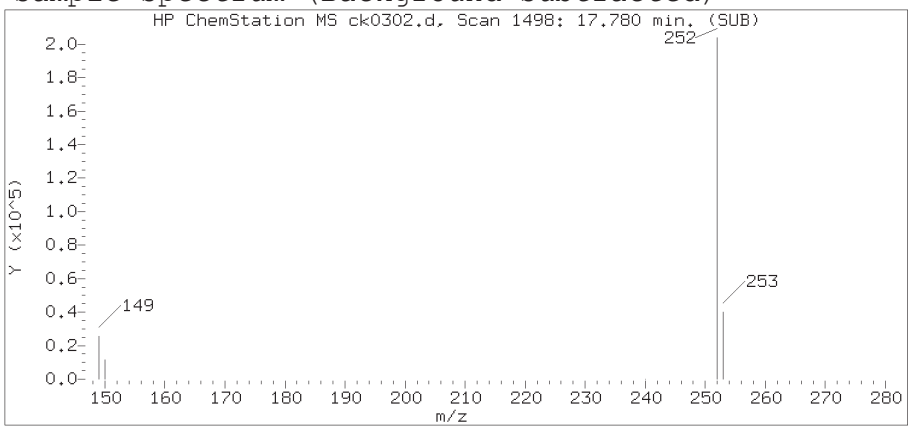
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

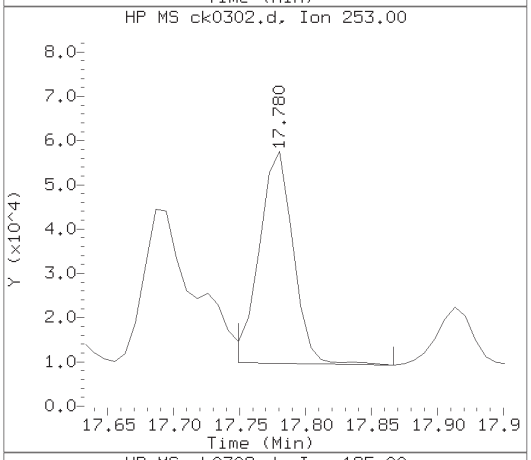
Reference Standard Spectrum for Benzo(a)pyrene



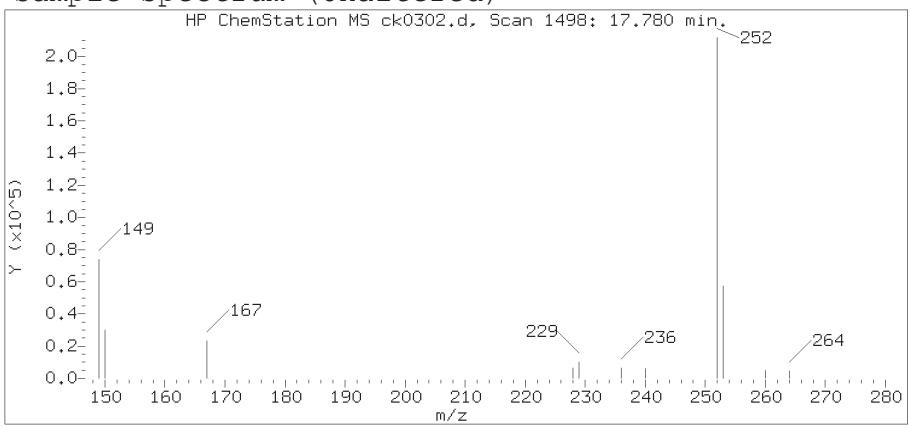


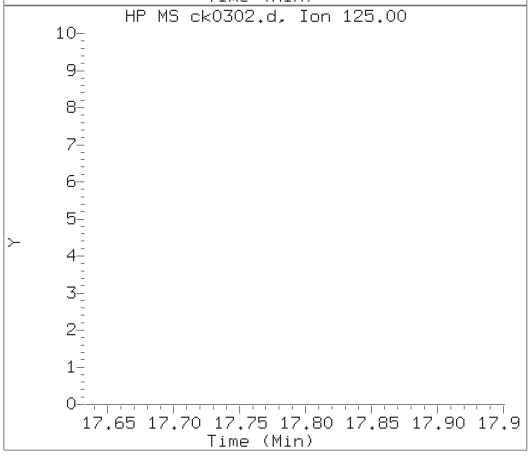
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

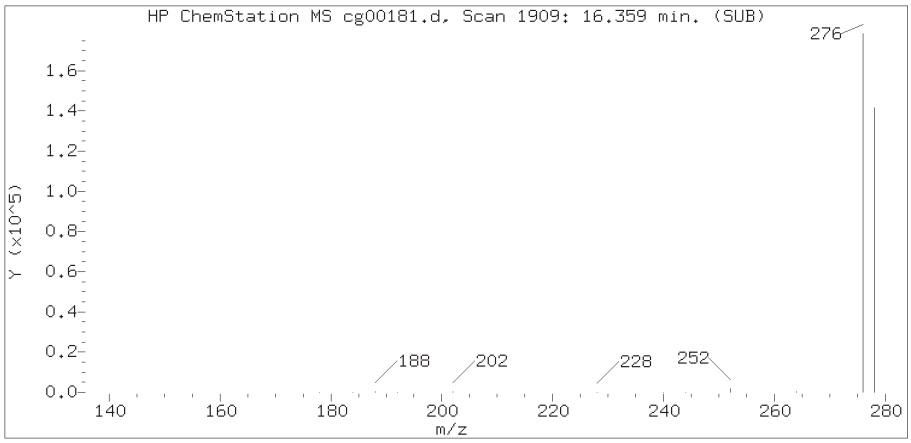
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

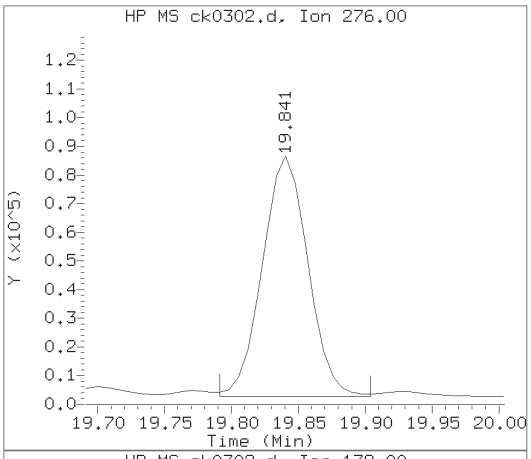
Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1498
Retention Time (minutes)	: 17.780
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 359611
On-column Amount (ng/ul)	: 1.9683

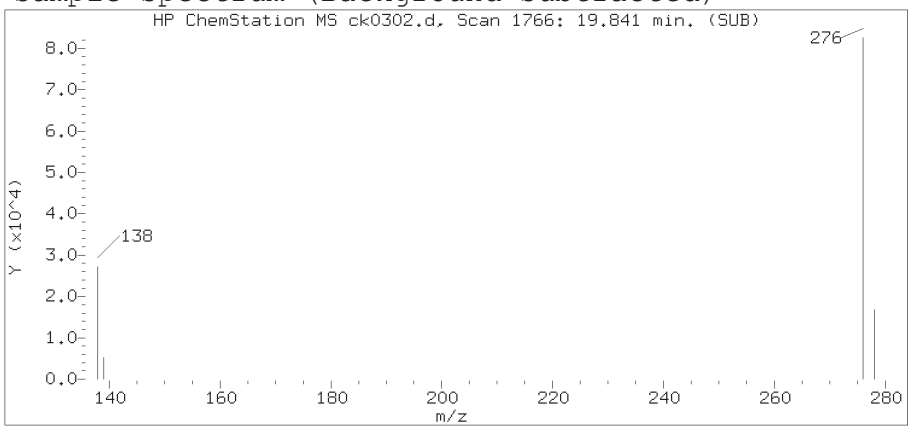
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

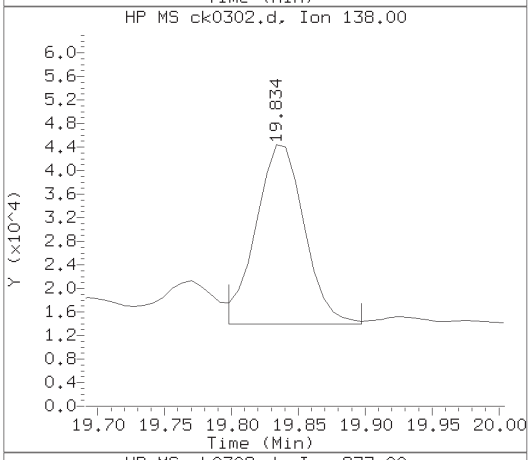
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



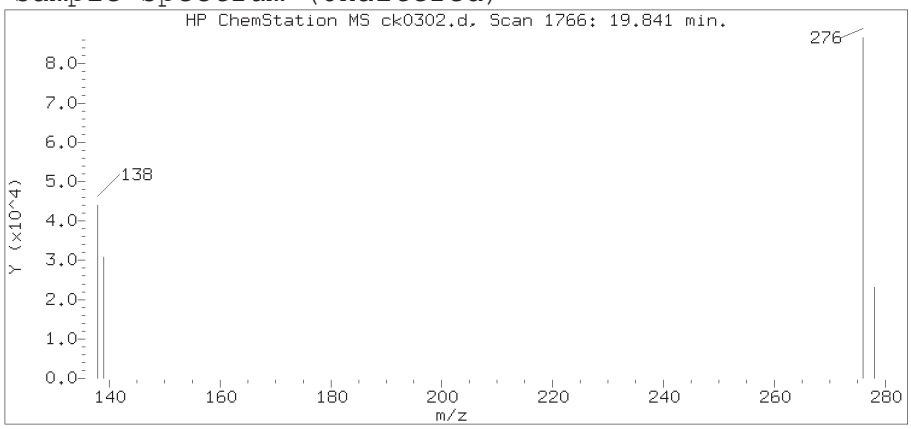


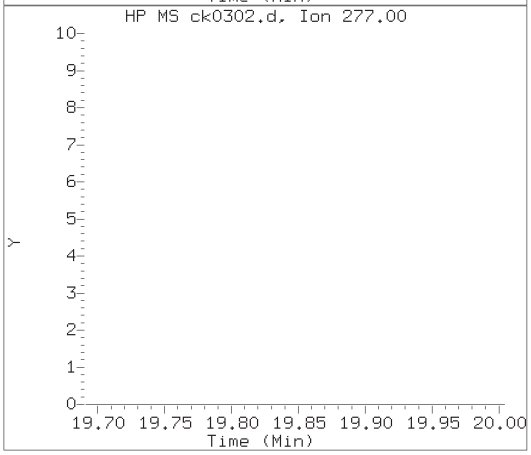
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1766
Retention Time (minutes)	: 19.841
Relative Retention Time	: 0.00006
Quant Ion	: 276.00
Area (flag)	: 198930
On-column Amount (ng/ul)	: 1.0977

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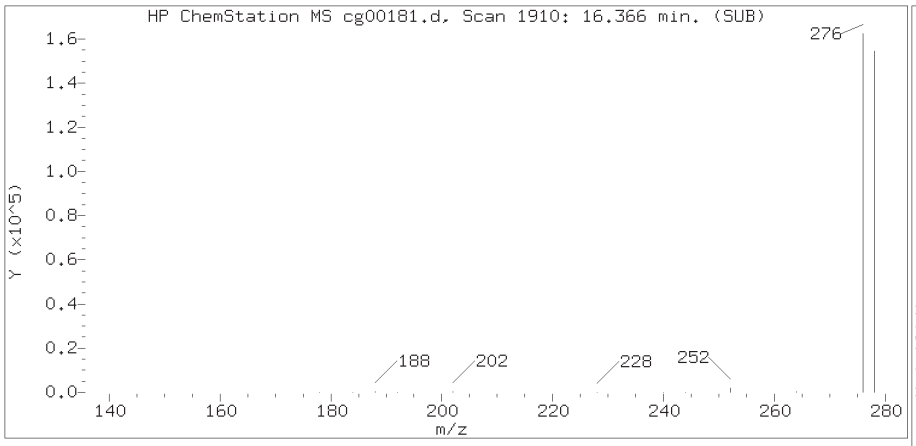
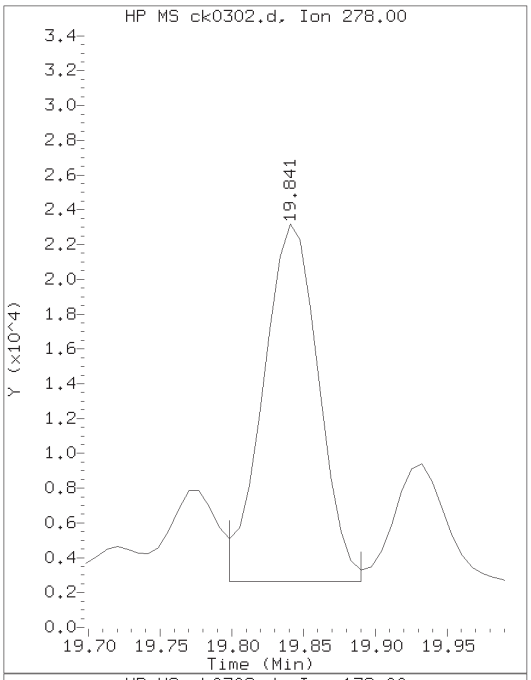
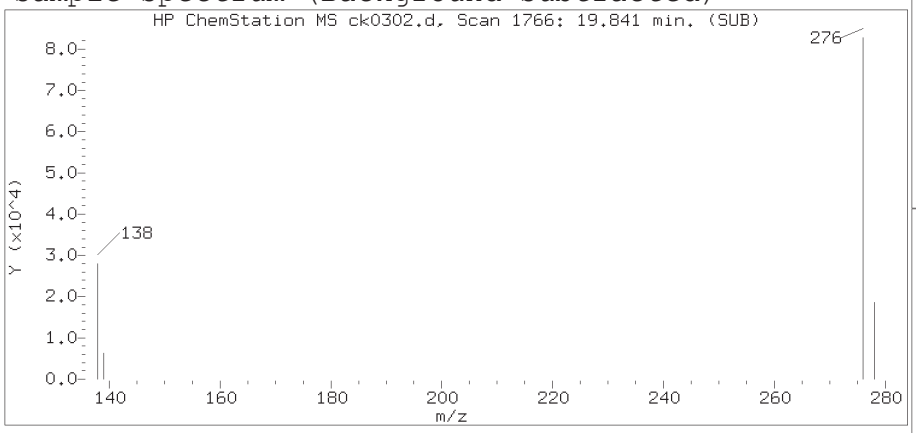
Target 3.5 esignature user ID: apb10206

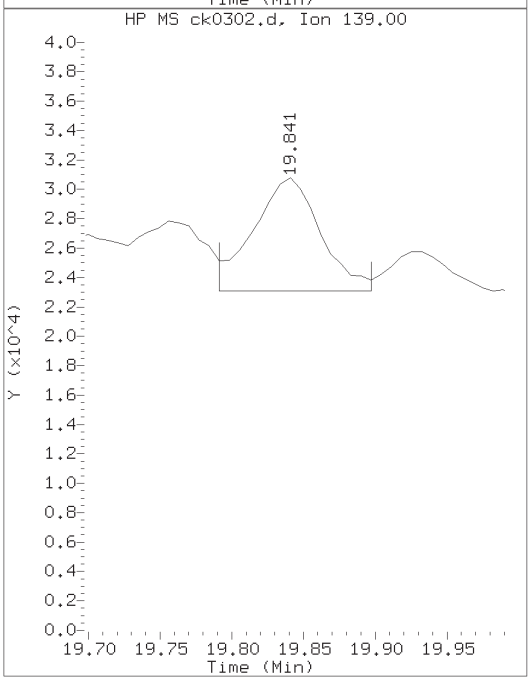
Reference Standard Spectrum for Dibenz(a,h)anthracene



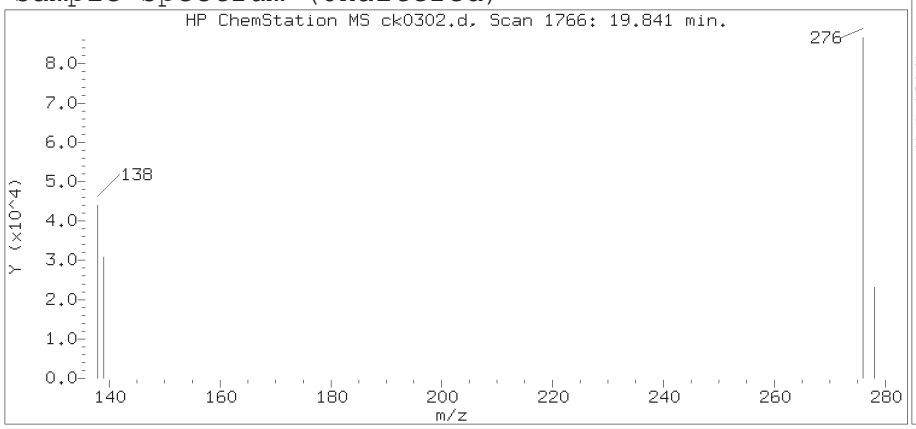


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1766
Retention Time (minutes)	: 19.841
Relative Retention Time	: 0.00045
Quant Ion	: 278.00
Area (flag)	: 54971
On-column Amount (ng/ul)	: 0.3659

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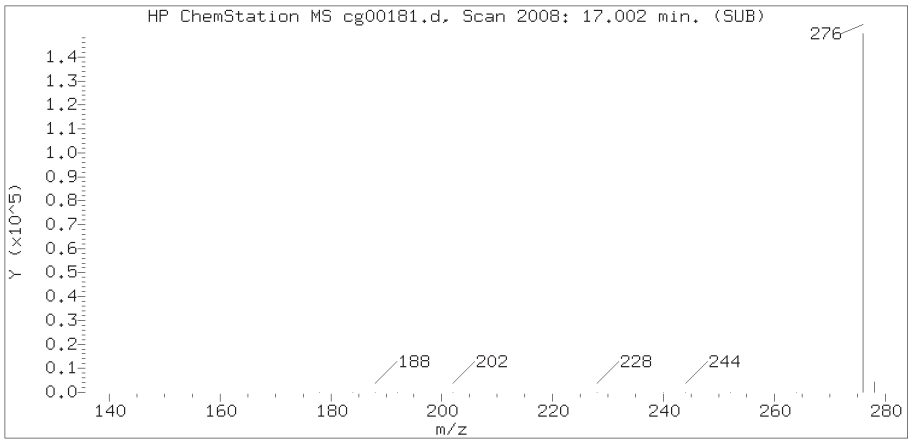
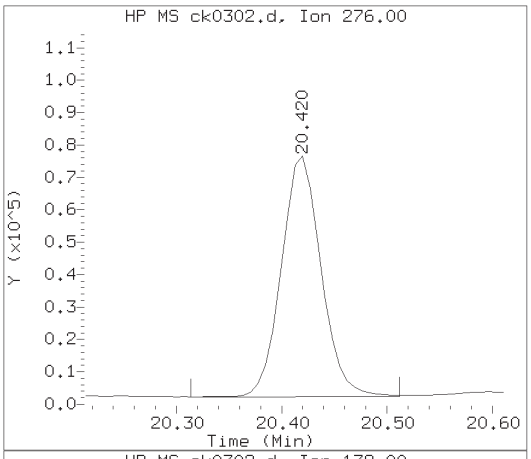
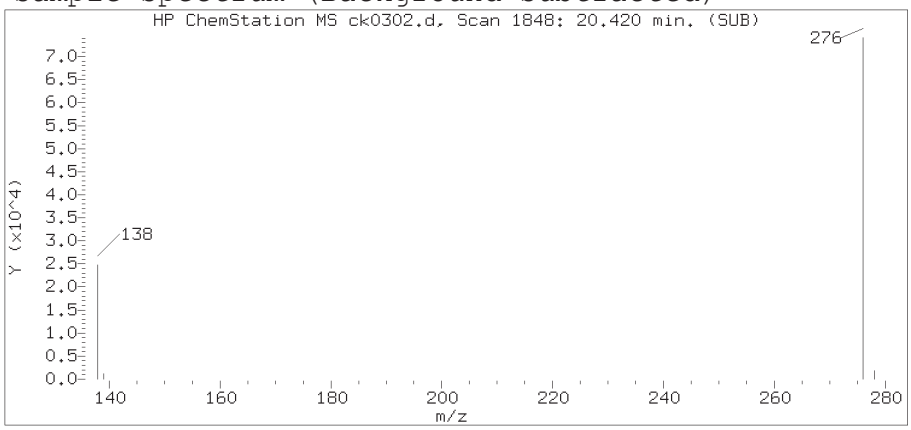
Target 3.5 esignature user ID: apb10206

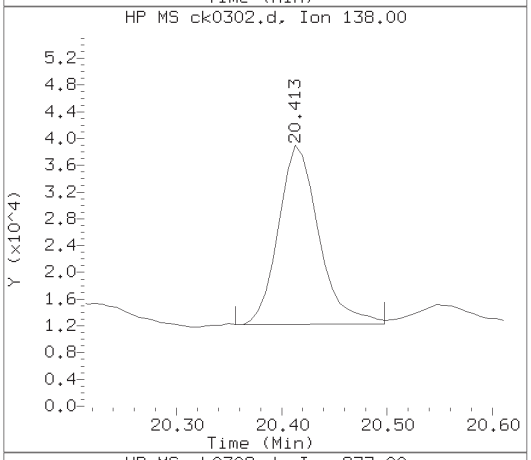
Reference Standard Spectrum for Benzo(g,h,i)perylene



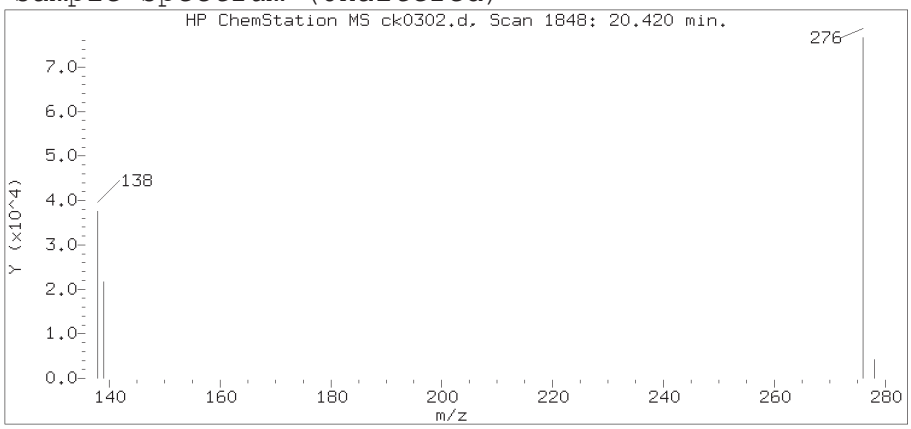


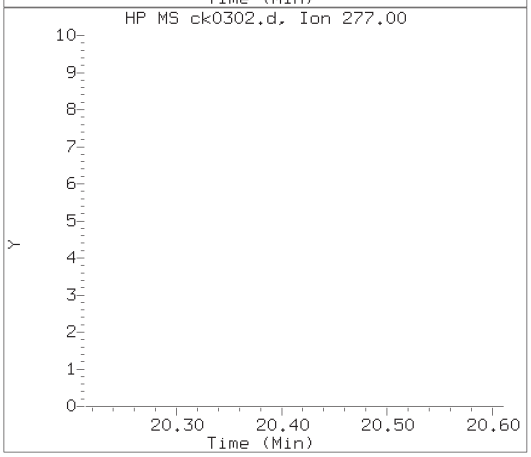
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 17:30 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T02 Lab Sample ID: 9872060

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1848
Retention Time (minutes)	: 20.420
Relative Retention Time	:-0.00027
Quant Ion	: 276.00
Area (flag)	: 194037
On-column Amount (ng/ul)	: 1.1472

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Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0302a.d Injection date and time: **06-NOV-2018 22:44**
Data file Sample Info. Line: 12T02DL;9872060DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845(-0.013)	448	152	80444 (-15)	1.00	
10) Naphthalene-d8	8.357(0.000)	562	136	357281 (-11)	1.00	
20) Acenaphthene-d10	10.525(0.000)	749	164	155931M (-16)	1.00	
31) Phenanthrene-d10	12.384(0.000)	915	188	267611 (-22)	1.00	
43) Chrysene-d12	15.693(-0.008)	1231	240	188664 (-25)	1.00	
51) Perylene-d12	17.843(-0.008)	1506	264	178871 (-21)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308(-0.001)	152	3529M	0.020	98%		61 - 111
36) Fluoranthene-d10	(4)	13.881(0.000)	212	5009M	0.021	103%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.710(0.000)	264	2924	0.018	89%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)			Not Detected					0.02
11) Naphthalene	(2)	8.383(-0.000)	128	1966529	5.184	8548.41			0.04
19) Acenaphthylene	(3)	10.351(0.000)	152	25153M	0.081	134.00			0.01
21) Acenaphthene	(3)	10.568(-0.000)	154	507937	2.397	3953.12			0.02
26) Fluorene	(3)	11.204(-0.000)	166	505507	2.231	3678.85			0.02
32) Phenanthrene	(4)	12.418(0.000)	178	631854	1.979	3263.21			0.02
33) Anthracene	(4)	12.474(-0.000)	178	228574	0.744	1227.60			0.02
35) Di-n-butylphthalate	(4)	13.039(-0.000)	149	111822M	0.327	539.15			0.2
37) Fluoranthene	(4)	13.906(-0.000)	202	457616	1.459	2405.21			0.02
39) Pyrene	(5)	14.199(0.000)	202	386209	1.272	2097.43			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.591(0.000)	149	71071	0.442	728.29	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.677(-0.000)	228	142204	0.582	959.07			0.02
44) Chrysene	(5)	15.724(0.000)	228	155433	0.620	1023.18			0.01
46) Benzo(b)fluoranthene	(6)	17.210(-0.000)	252	139090M	0.607	1000.51			0.02
47) Benzo(k)fluoranthene	(6)	17.249(-0.000)	252	48181M	0.196	322.74			0.02
50) Benzo(a)pyrene	(6)	17.749(-0.000)	252	84869	0.406	669.15			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.805(0.000)	276	39860	0.192	316.82			0.02
54) Dibenz(a,h)anthracene	(6)	19.812(0.000)	278	11532	0.067	110.56			0.02
55) Benzo(g,h,i)perylene	(6)	20.378(0.000)	276	36905	0.191	314.31			0.02

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0302a.d Injection date and time: **06-NOV-2018 22:44**
Data file Sample Info. Line: 12T02DL;9872060DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.32 g

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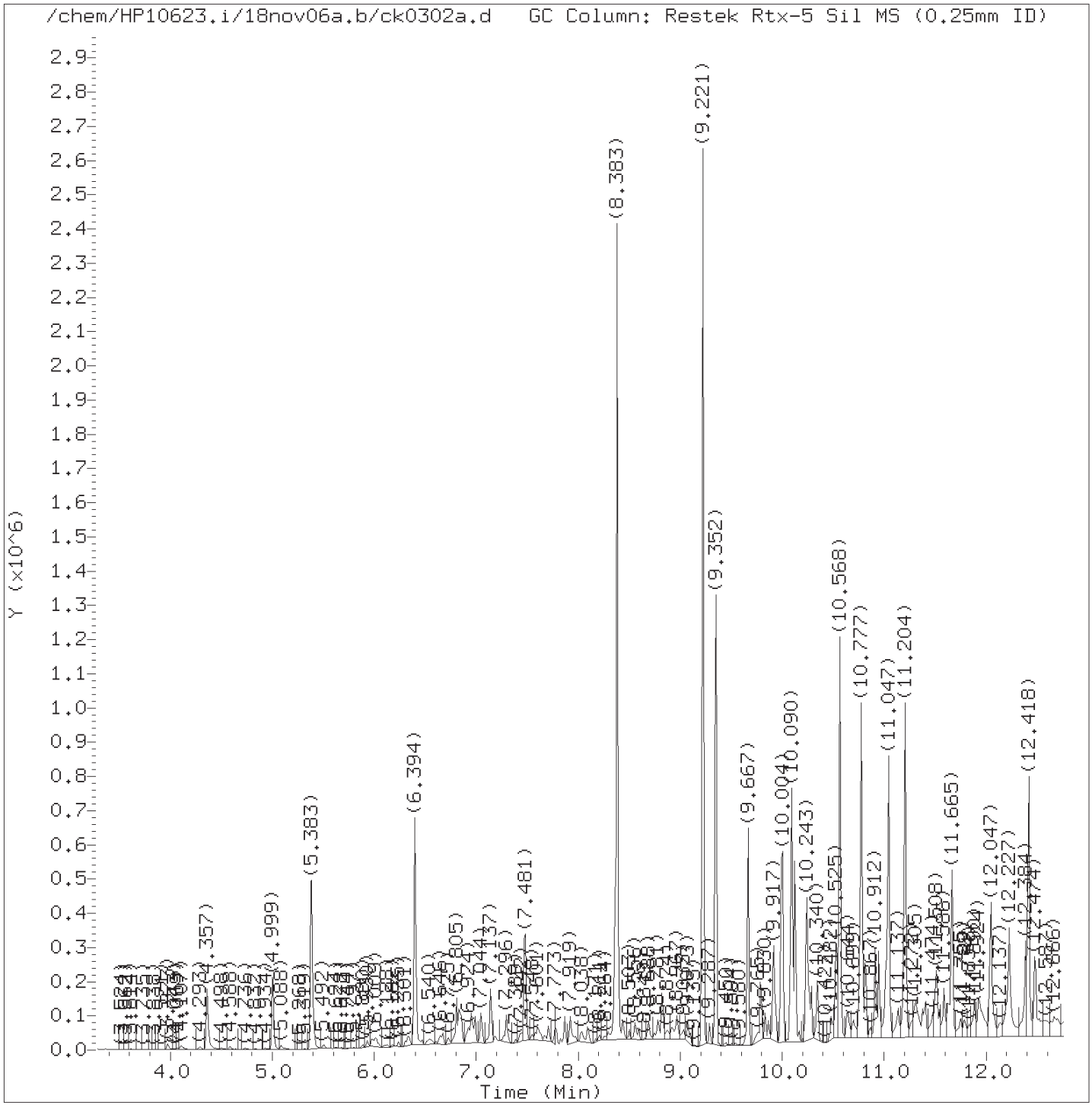
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

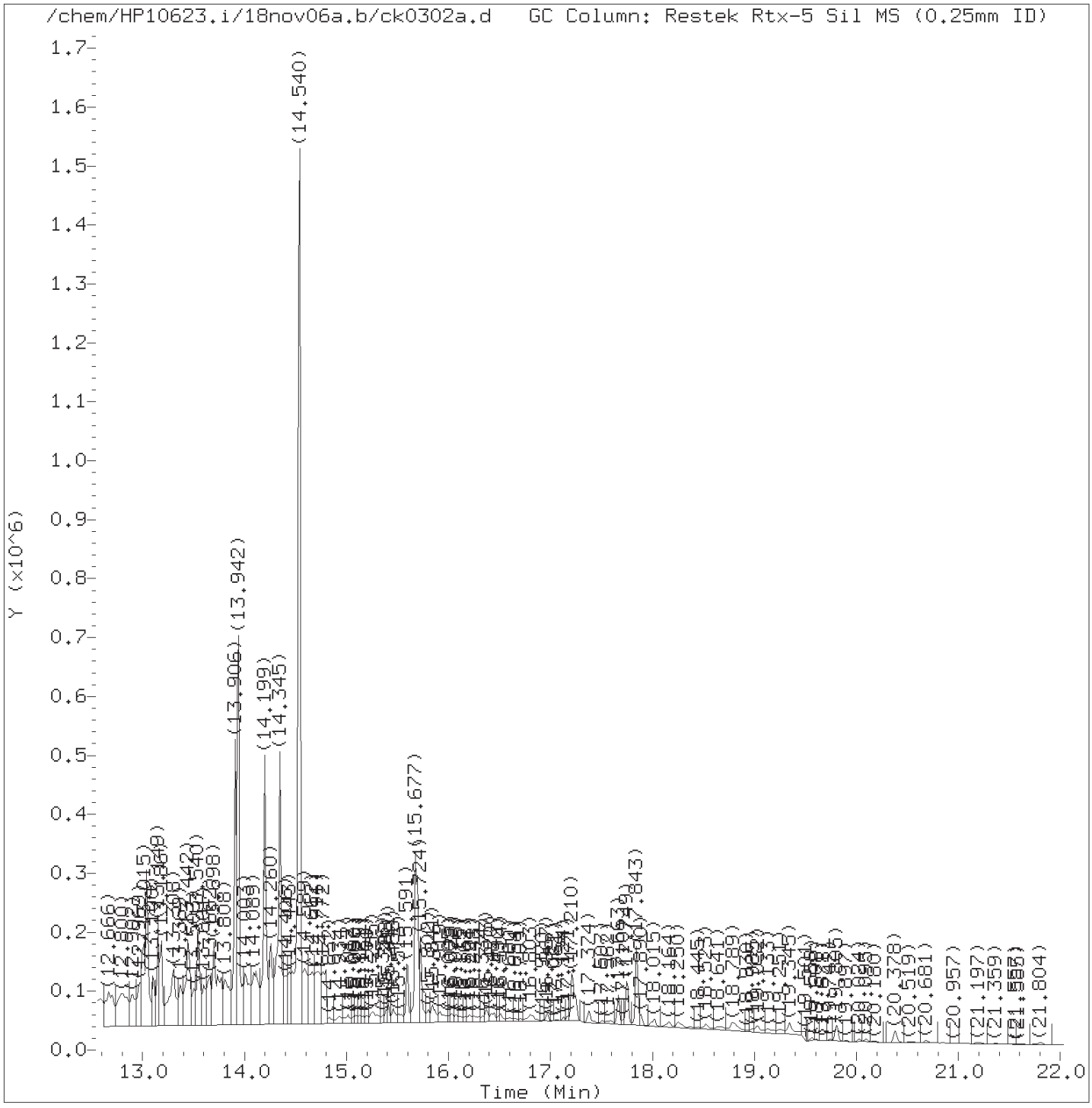
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

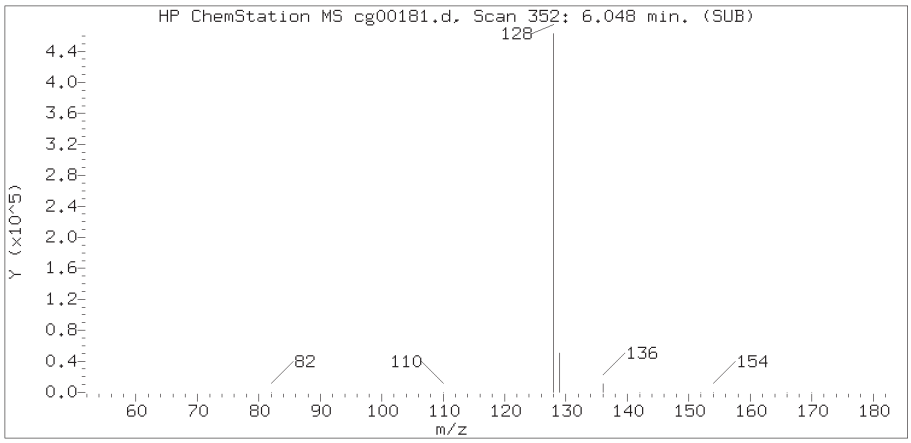
Sample Name: 12T02DL Lab Sample ID: 9872060DL

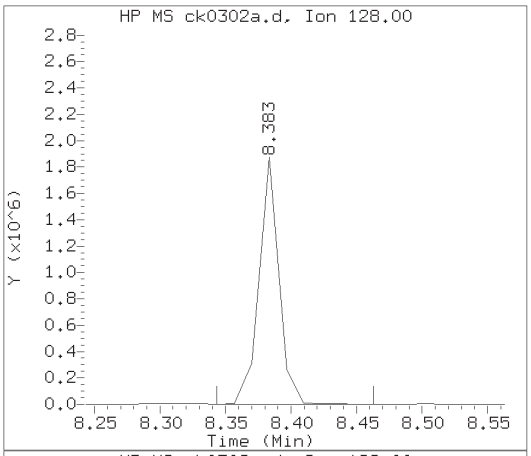
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	80444	1.000
10)*Naphthalene-d8	(2)	8.357	136	357281	1.000
11) Naphthalene	(2)	8.383	128	1966529	5.184
14)$1-Methylnaphthalene-d10	(2)	9.308	152	3529M	0.020
19) Acenaphthylene	(3)	10.351	152	25153M	0.081
20)*Acenaphthene-d10	(3)	10.525	164	155931M	1.000
21) Acenaphthene	(3)	10.568	154	507937	2.397
26) Fluorene	(3)	11.204	166	505507	2.231
31)*Phenanthrene-d10	(4)	12.384	188	267611	1.000
32) Phenanthrene	(4)	12.418	178	631854	1.979
33) Anthracene	(4)	12.474	178	228574	0.744
35) Di-n-butylphthalate	(4)	13.039	149	111822M	0.327
36)$Fluoranthene-d10	(4)	13.881	212	5009M	0.021
37) Fluoranthene	(4)	13.906	202	457616	1.459
39) Pyrene	(5)	14.199	202	386209	1.272
41) bis(2-Ethylhexyl)phthalate	(5)	15.591	149	71071	0.442
42) Benzo(a)anthracene	(5)	15.677	228	142204	0.582
43)*Chrysene-d12	(5)	15.693	240	188664	1.000
44) Chrysene	(5)	15.724	228	155433	0.620
46) Benzo(b)fluoranthene	(6)	17.210	252	139090M	0.607
47) Benzo(k)fluoranthene	(6)	17.249	252	48181M	0.196
49)$Benzo(a)pyrene-d12	(6)	17.710	264	2924	0.018
50) Benzo(a)pyrene	(6)	17.749	252	84869	0.406
51)*Perylene-d12	(6)	17.843	264	178871	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.805	276	39860	0.192
54) Dibenz(a,h)anthracene	(6)	19.812	278	11532	0.067
55) Benzo(g,h,i)perylene	(6)	20.378	276	36905	0.191

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

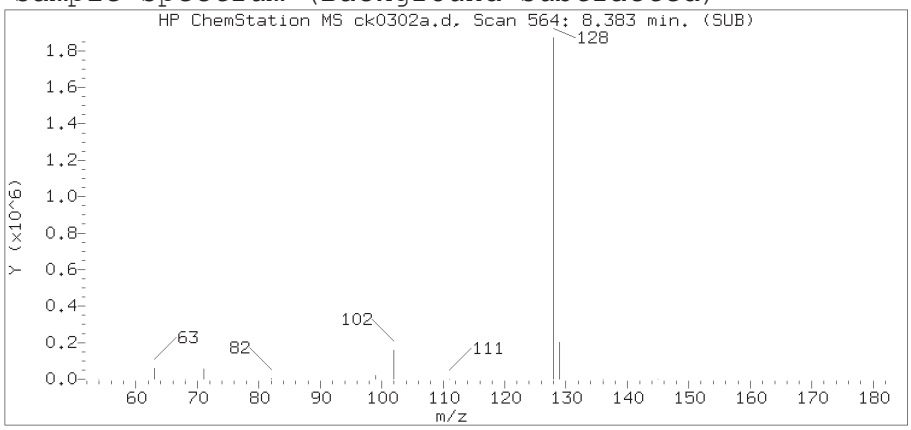
Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

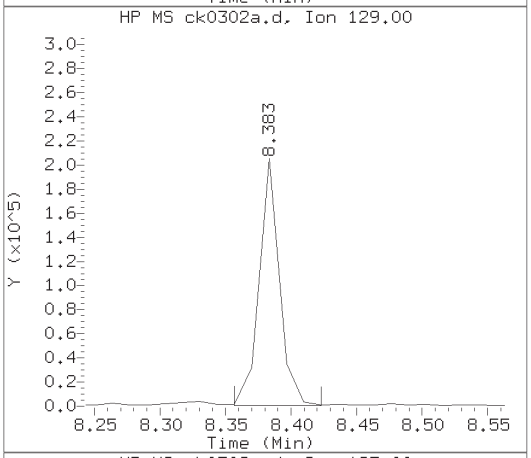
Reference Standard Spectrum for Naphthalene



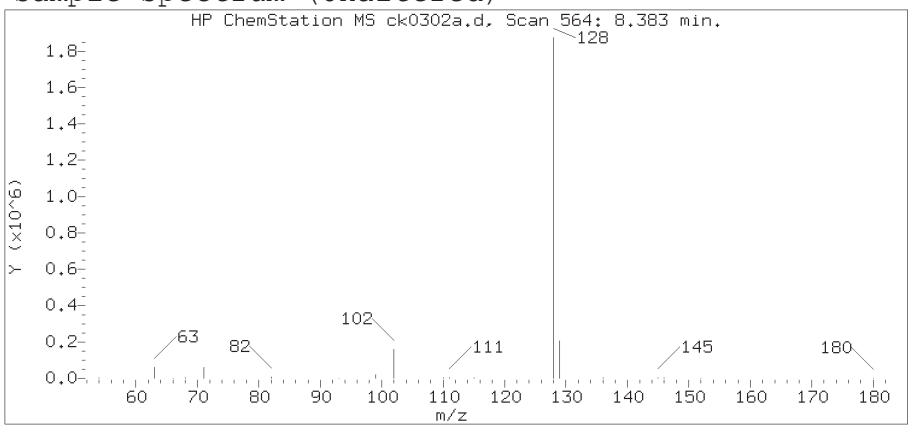


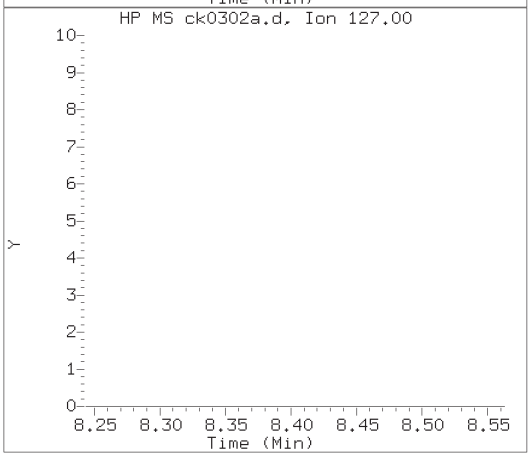
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

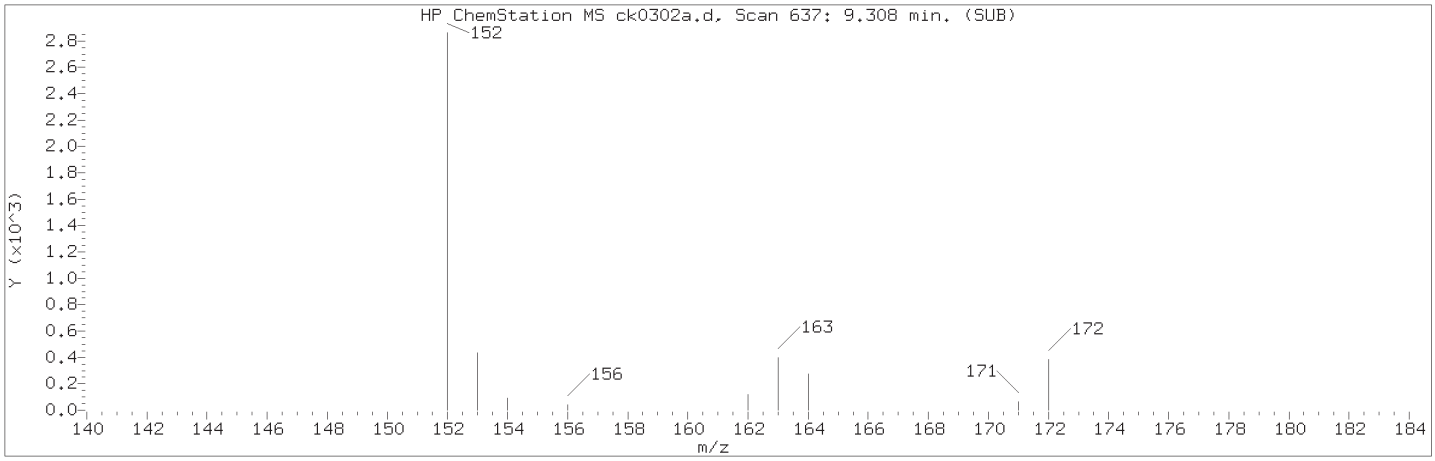
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

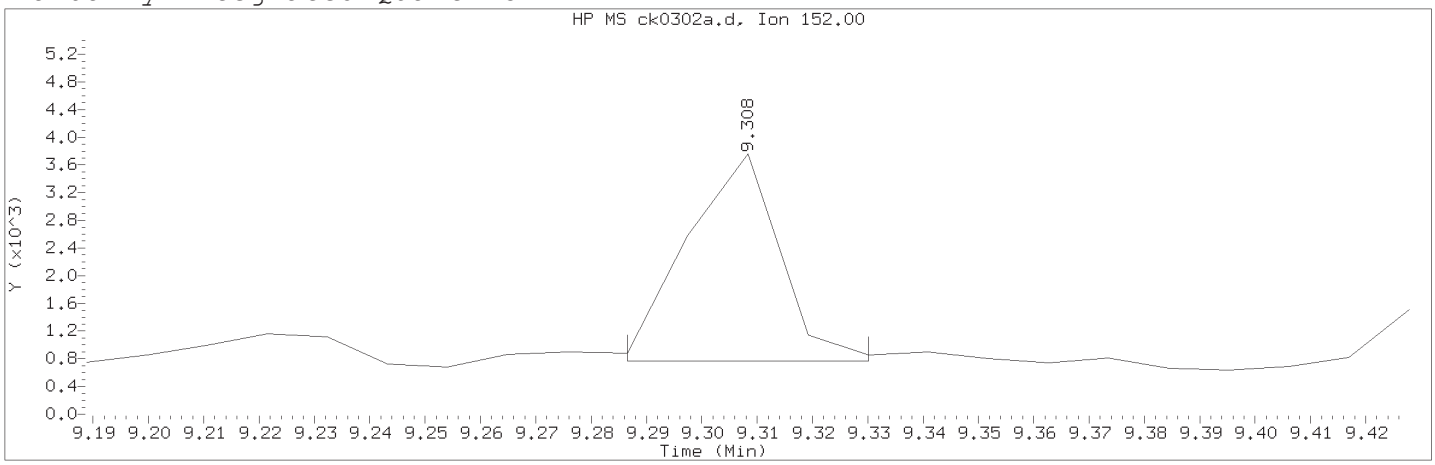
Compound Number : 11
Compound Name : Naphthalene
Scan Number : 564
Retention Time (minutes) : 8.383
Relative Retention Time :-0.00000
Quant Ion : 128.00
Area (flag) : 1966529
On-column Amount (ng/ul) : 5.1838

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

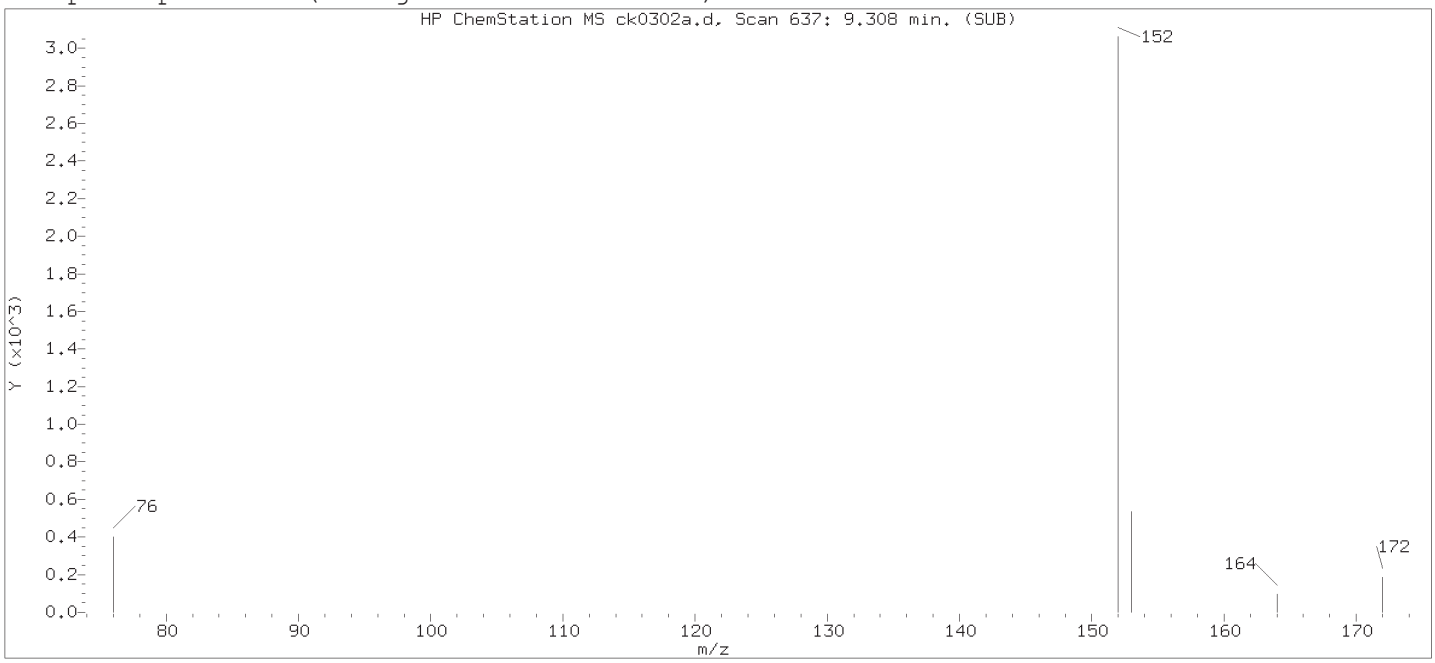
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area (flag)	: 3529M		
On-column Amount (ng/ul)	: 0.0196		
Integration start scan	: 634	Integration stop scan:	638
Y at integration start	: 769	Y at integration end:	769

Reason for manual integration: improper integration

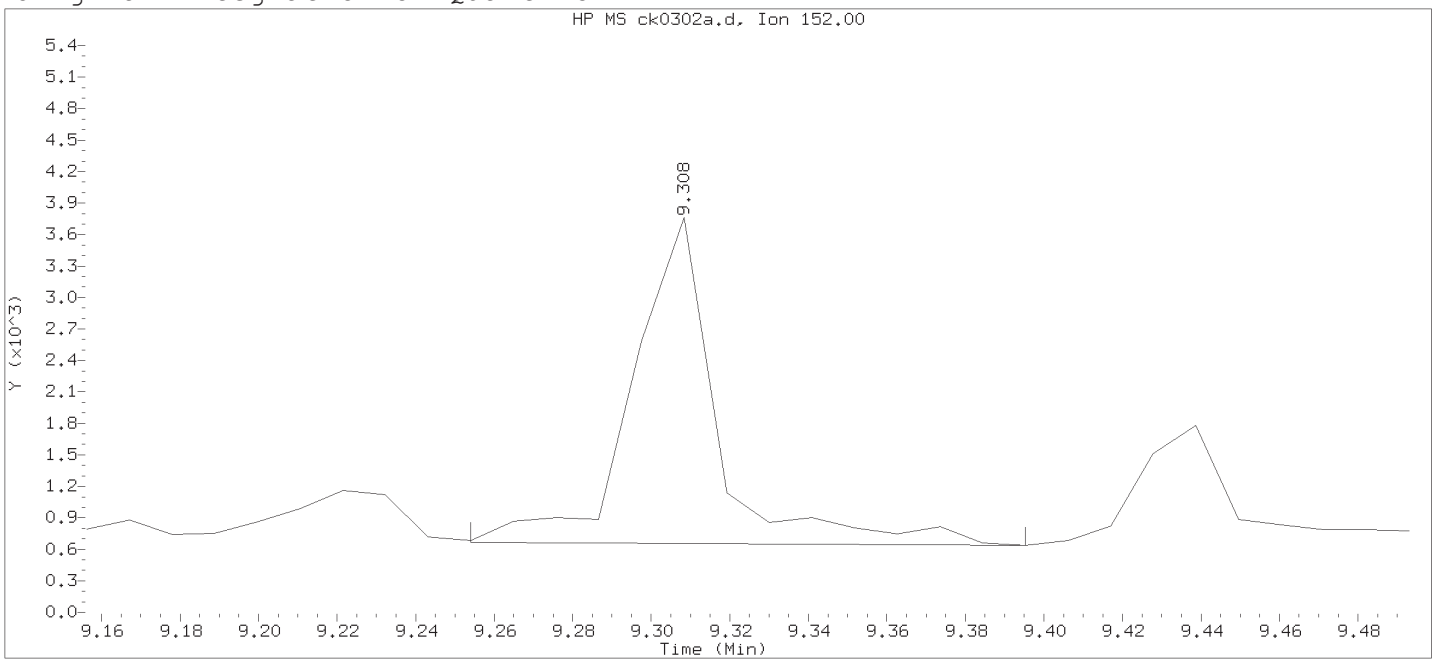
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

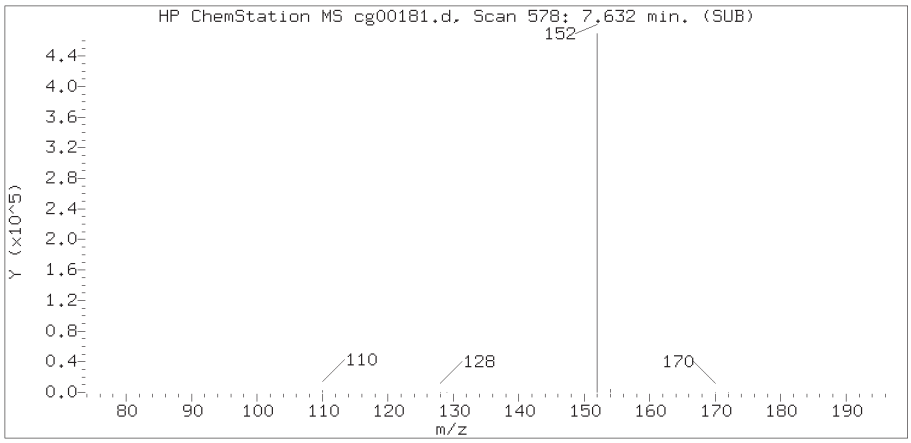
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

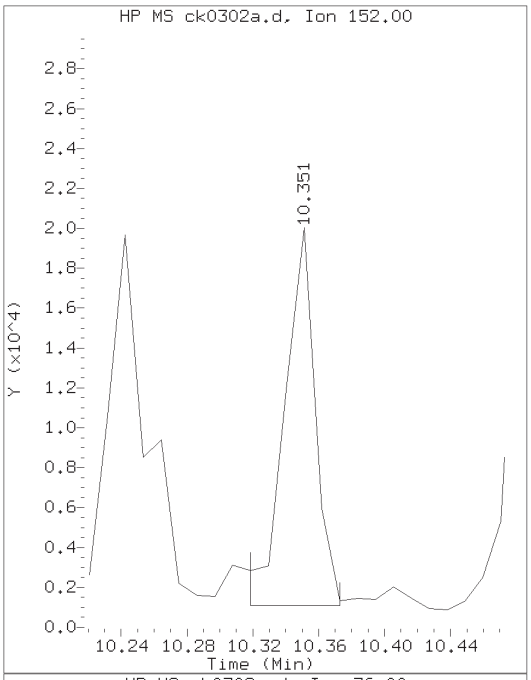
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area	: 4748		
On-column Amount (ng/ul)	: 0.0263		
Integration start scan	: 631	Integration stop scan:	644
Y at integration start	: 665	Y at integration end:	638

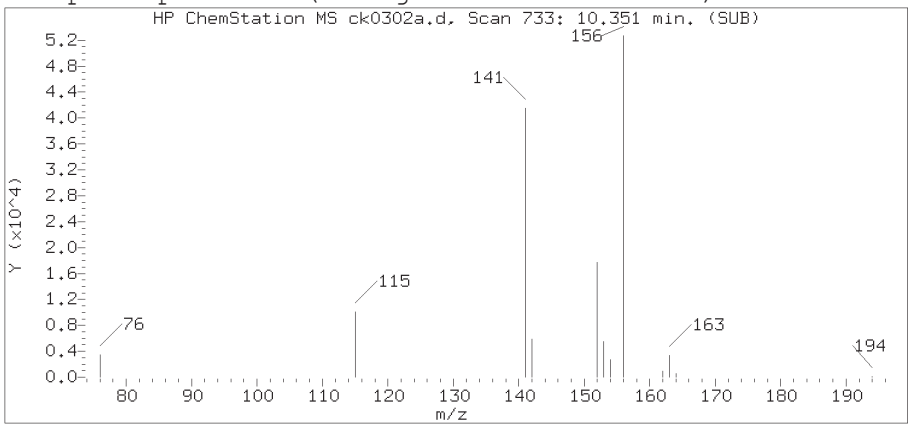
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

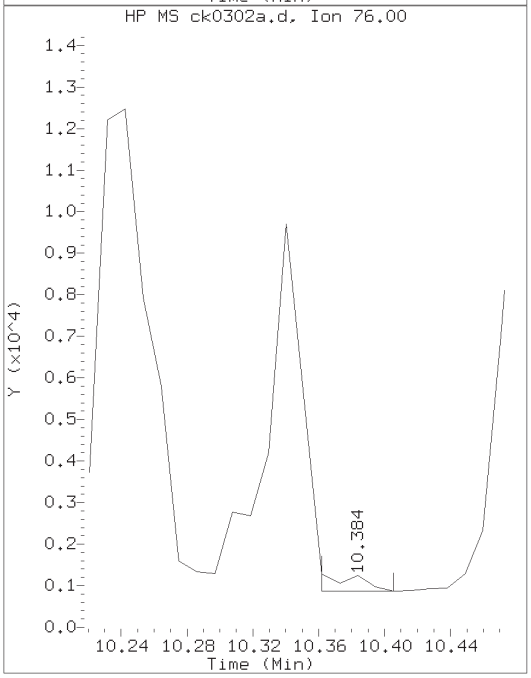
Reference Standard Spectrum for Acenaphthylene



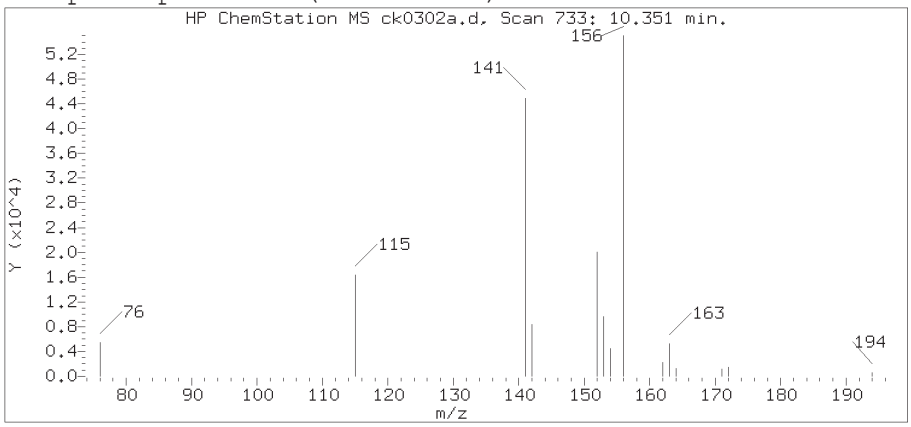


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

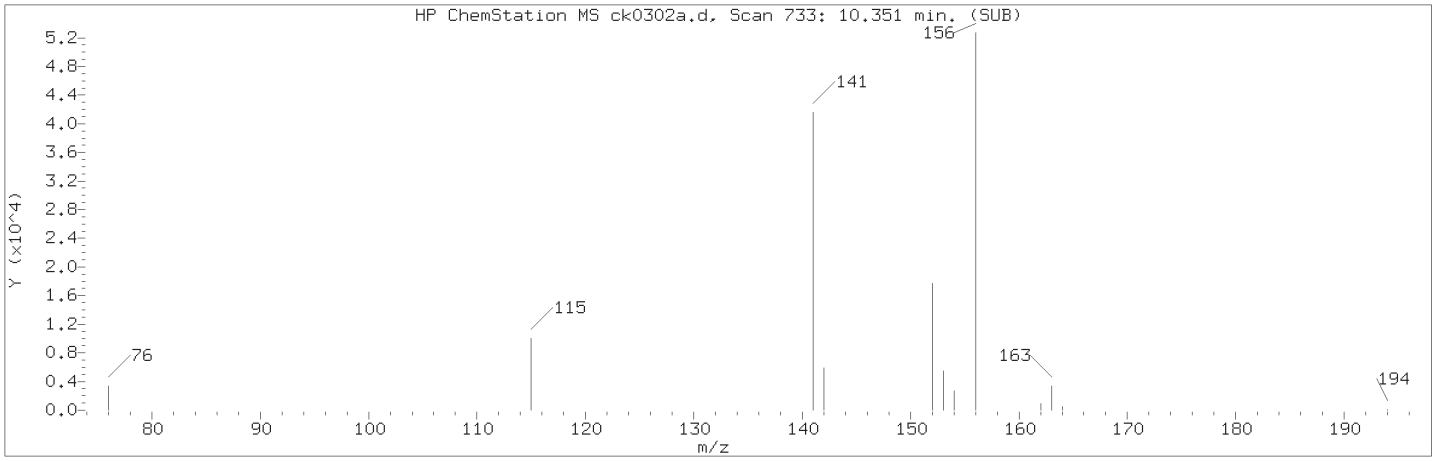
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

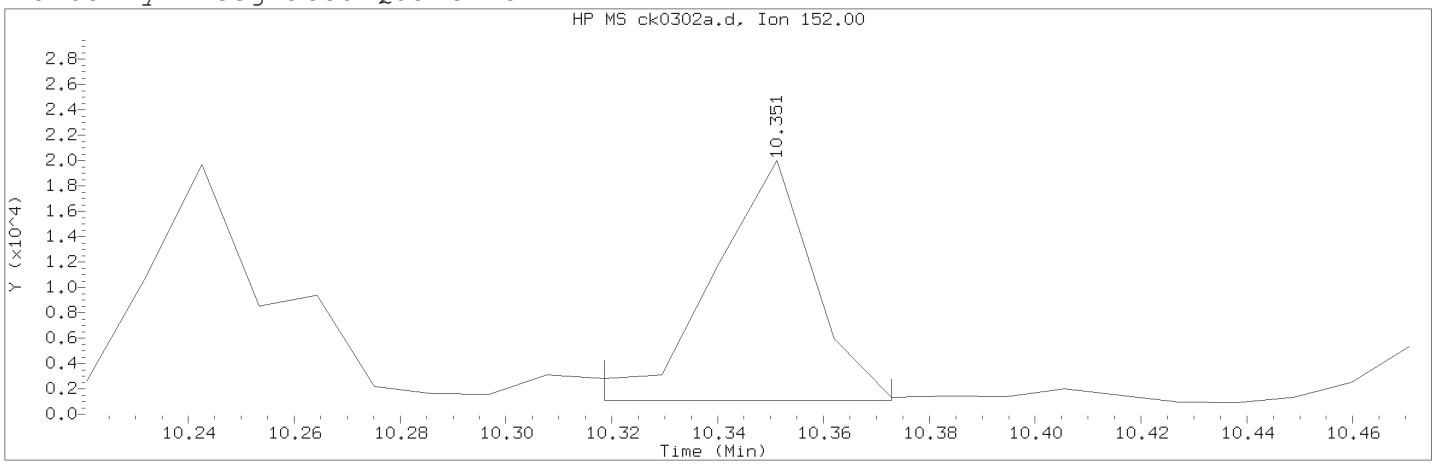
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00000
Quant Ion	: 152.00
Area (flag)	: 25153M
On-column Amount (ng/ul)	: 0.0813

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

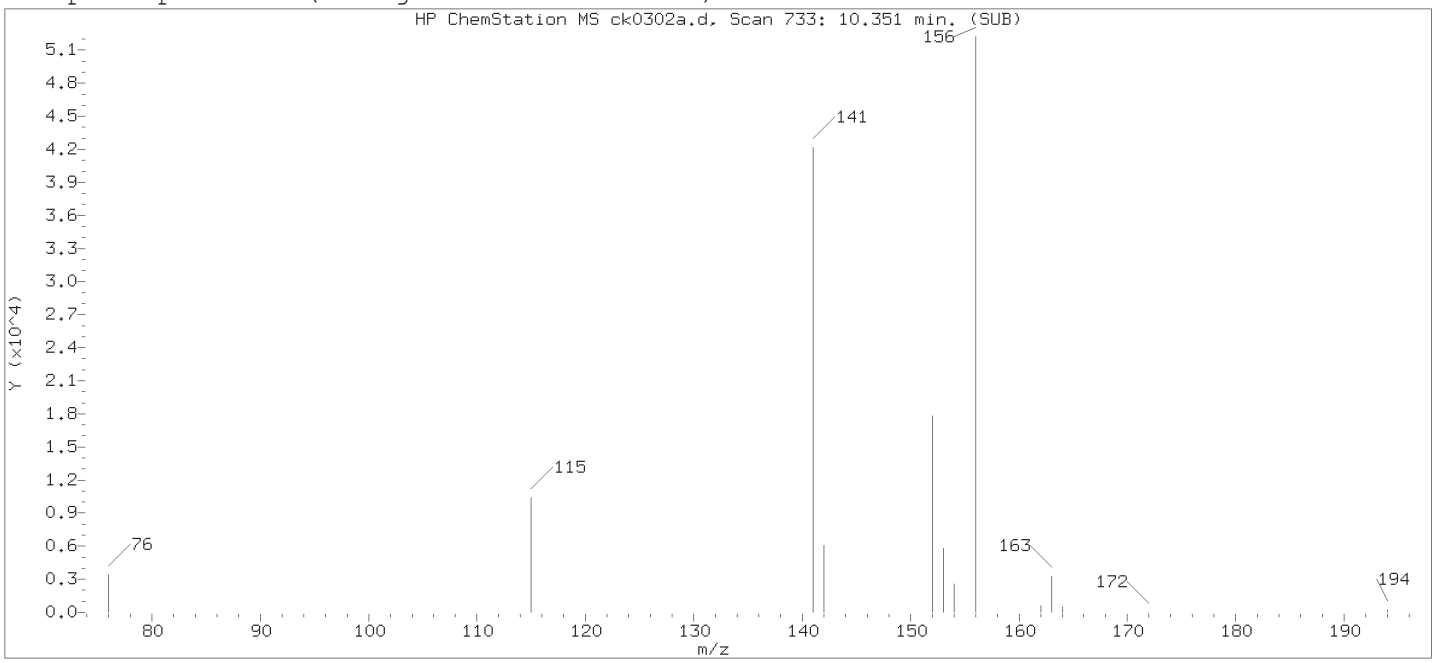
Compound Number : 19
Compound Name : Acenaphthylene
Scan Number : 733
Retention Time (minutes) : 10.351
Quant Ion : 152.00
Area (flag) : 25153M
On-column Amount (ng/ul) : 0.0813
Integration start scan : 729 Integration stop scan: 734
Y at integration start : 1090 Y at integration end: 1090

Reason for manual integration: improper integration

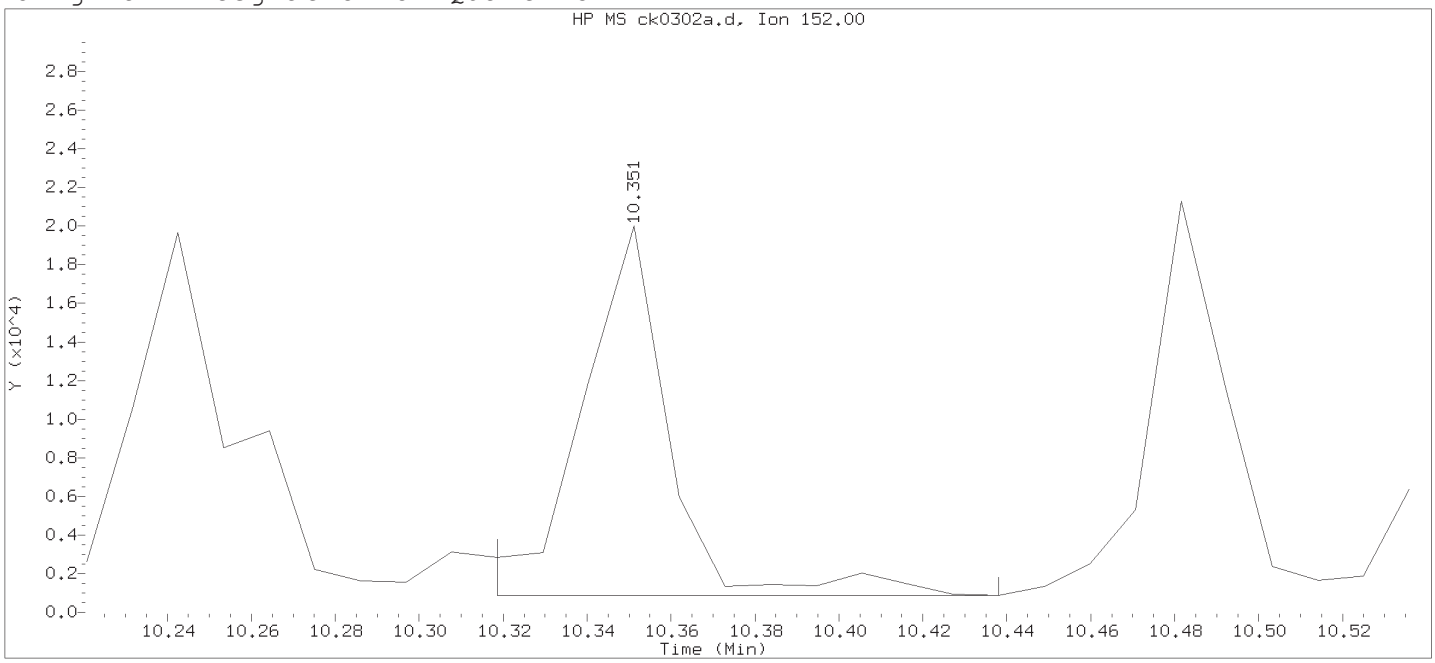
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

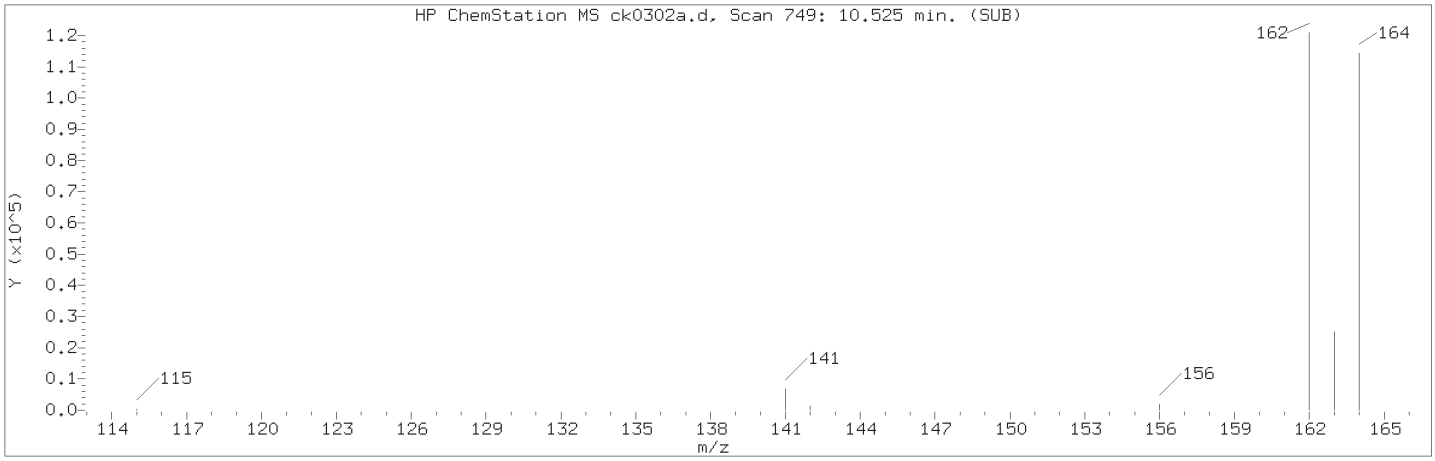
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

Sample Name: 12T02DL Lab Sample ID: 9872060DL

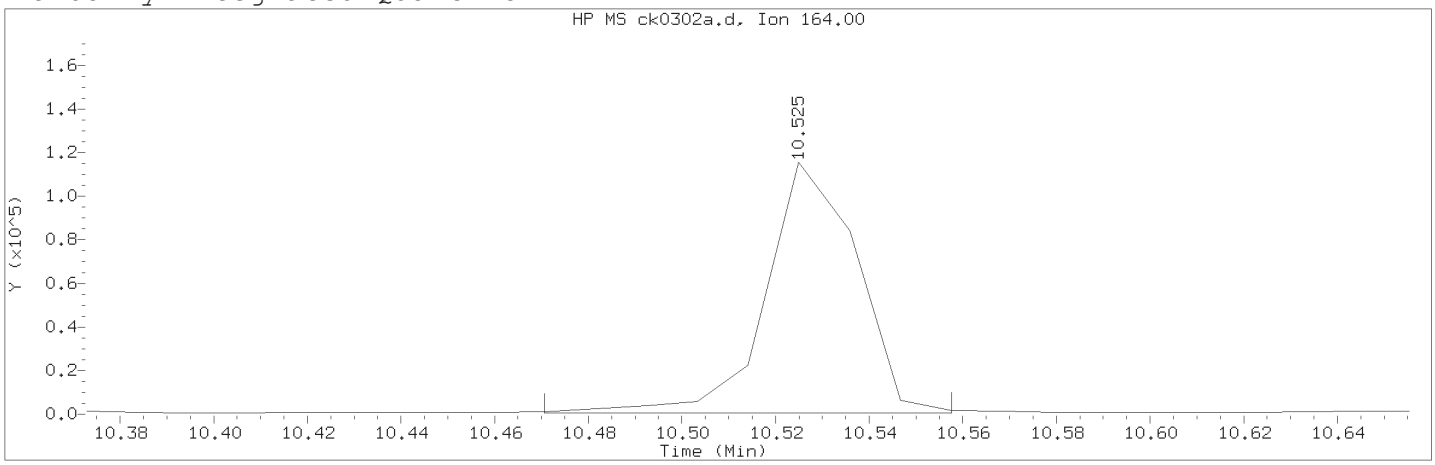
Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 733		
Retention Time (minutes)	: 10.351		
Quant Ion	: 152.00		
Area	: 27134		
On-column Amount (ng/ul)	: 0.0820		
Integration start scan	: 729	Integration stop scan:	740
Y at integration start	: 887	Y at integration end:	887

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

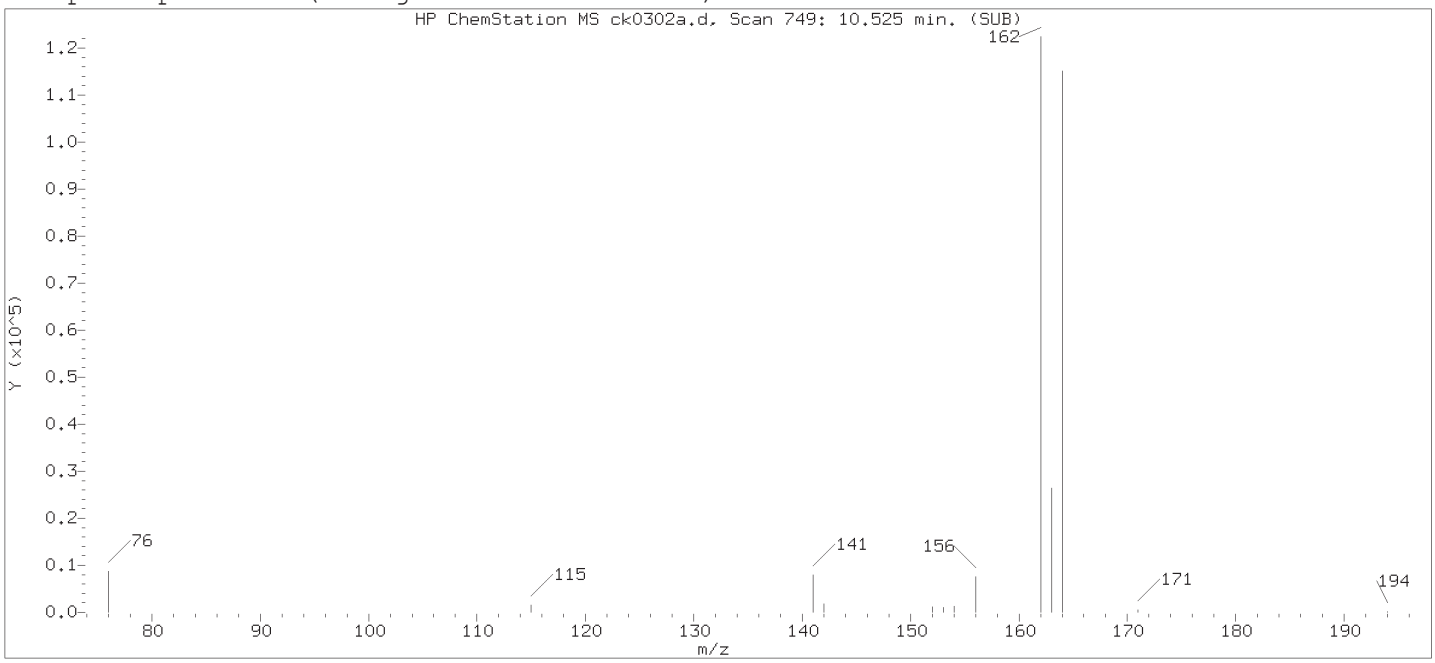
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 749
Retention Time (minutes) : 10.525
Quant Ion : 164.00
Area (flag) : 155931M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 743 Integration stop scan: 751
Y at integration start : 481 Y at integration end: 481

Reason for manual integration: improper integration

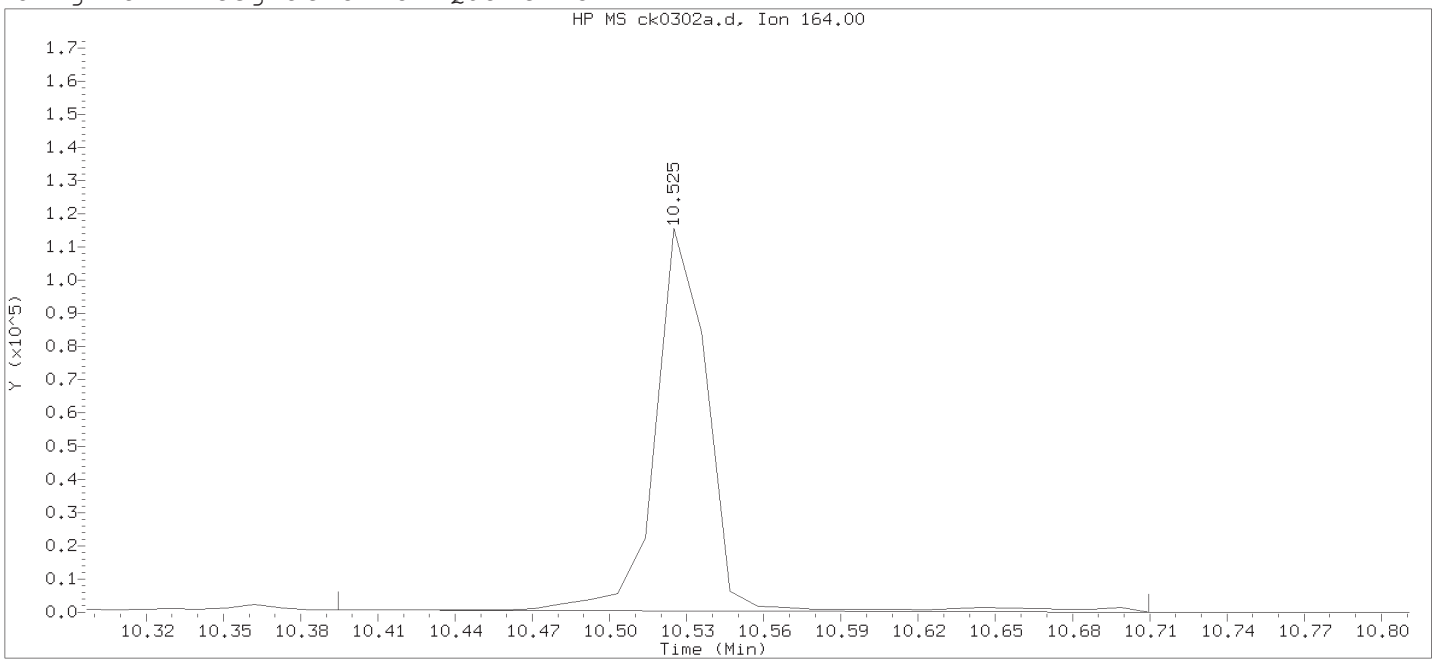
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

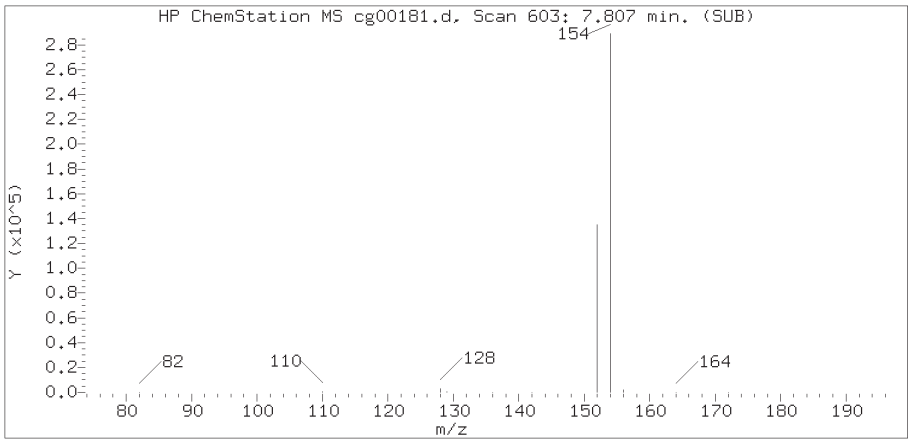
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

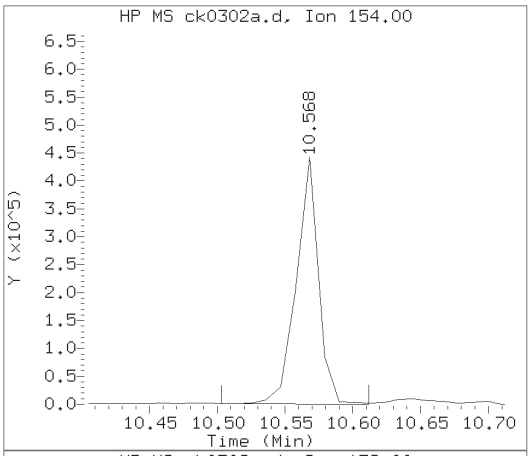
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 749		
Retention Time (minutes)	: 10.525		
Quant Ion	: 164.00		
Area	: 166670		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 736	Integration stop scan:	765
Y at integration start	: 645	Y at integration end:	0

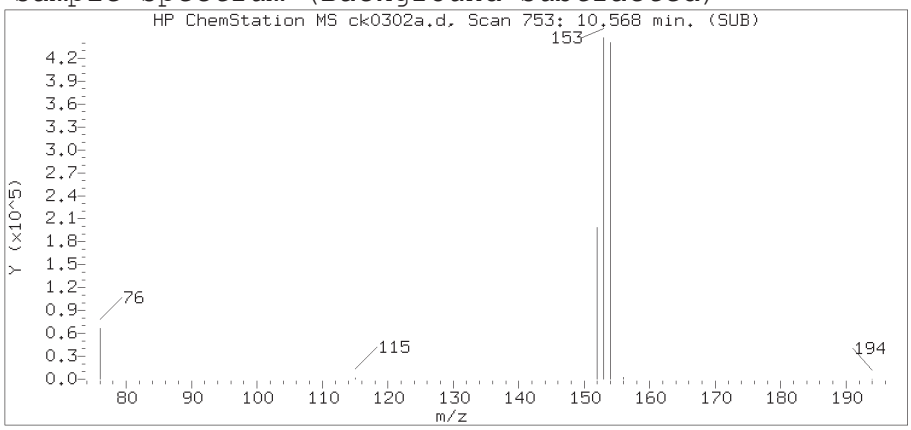
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

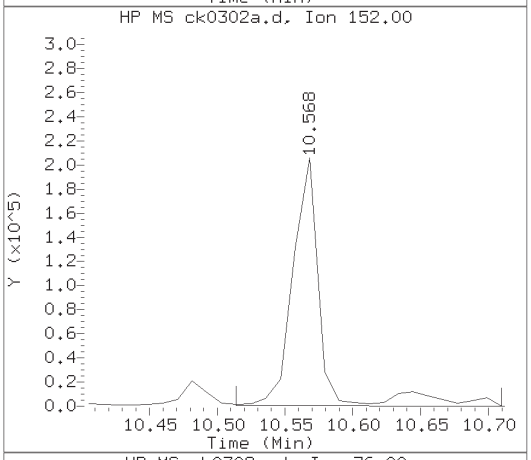
Reference Standard Spectrum for Acenaphthene



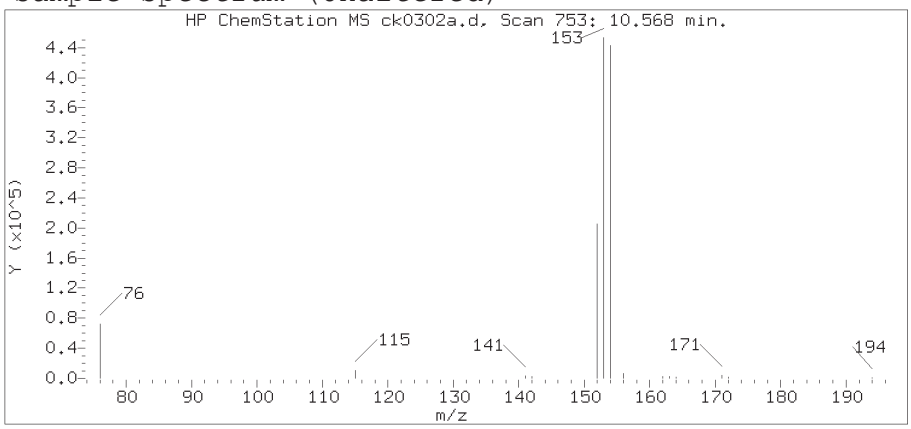


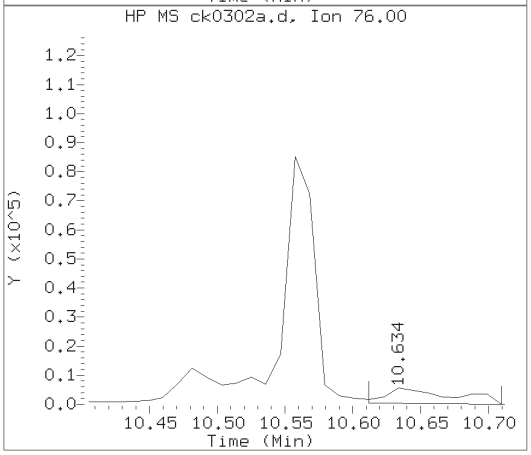
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

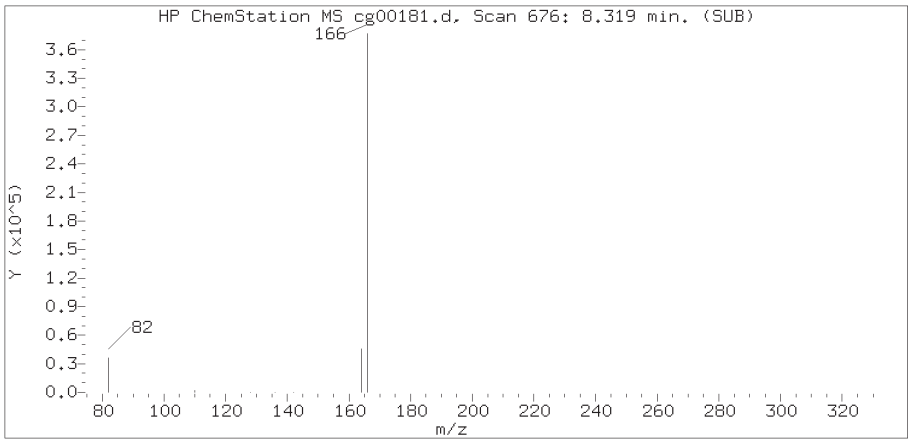
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

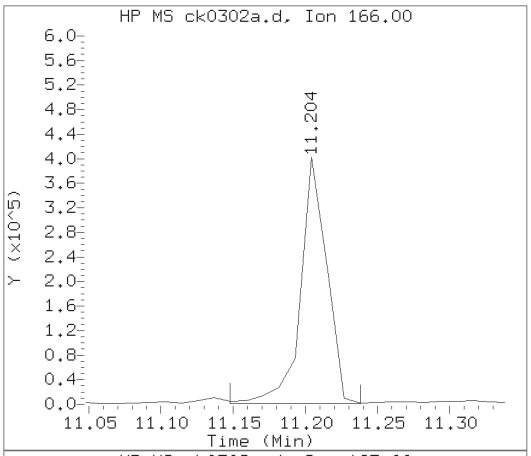
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	:-0.00000
Quant Ion	: 154.00
Area (flag)	: 507937
On-column Amount (ng/ul)	: 2.3972

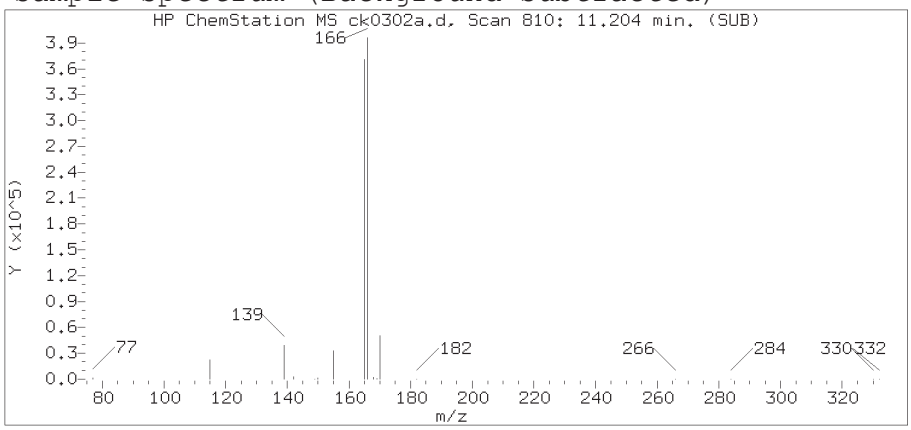
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

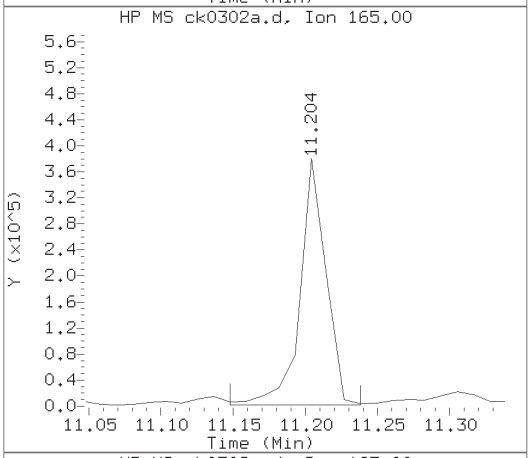
Reference Standard Spectrum for Fluorene



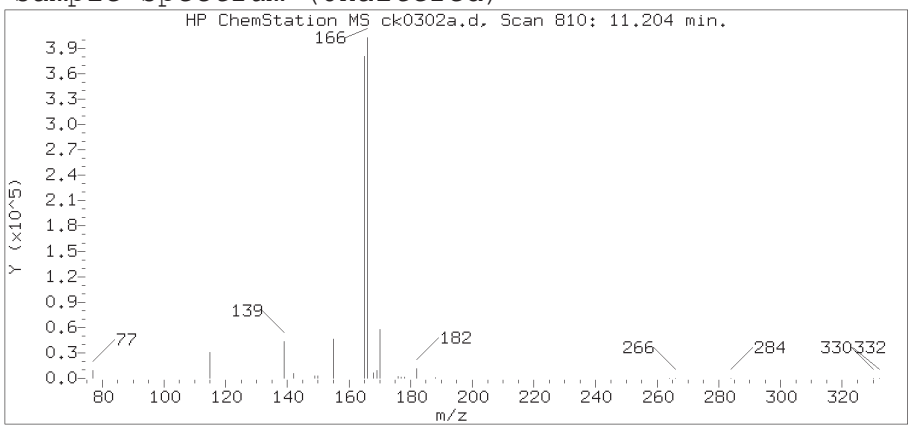


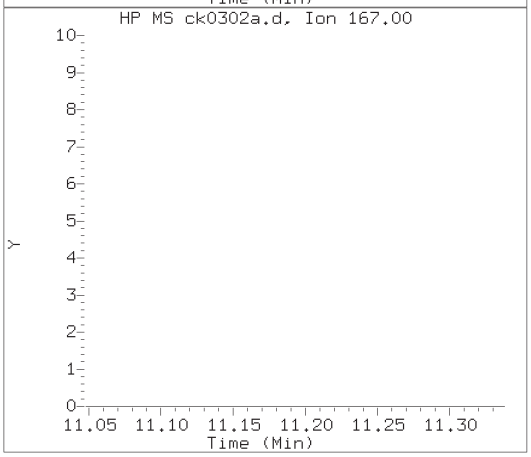
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

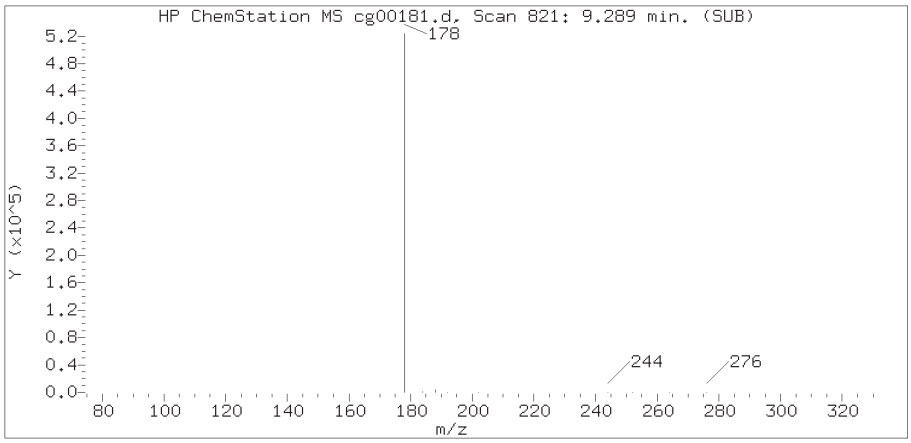
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

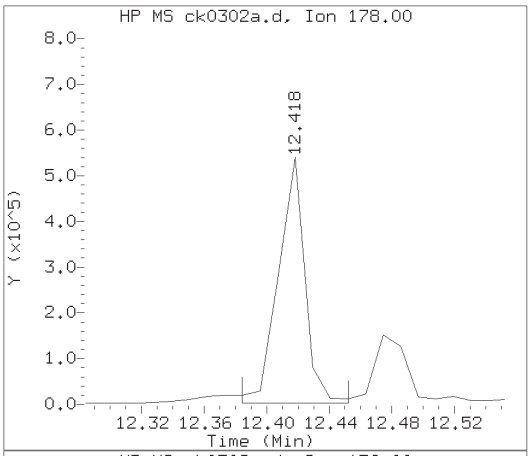
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 810
Retention Time (minutes)	: 11.204
Relative Retention Time	:-0.00000
Quant Ion	: 166.00
Area (flag)	: 505507
On-column Amount (ng/ul)	: 2.2309

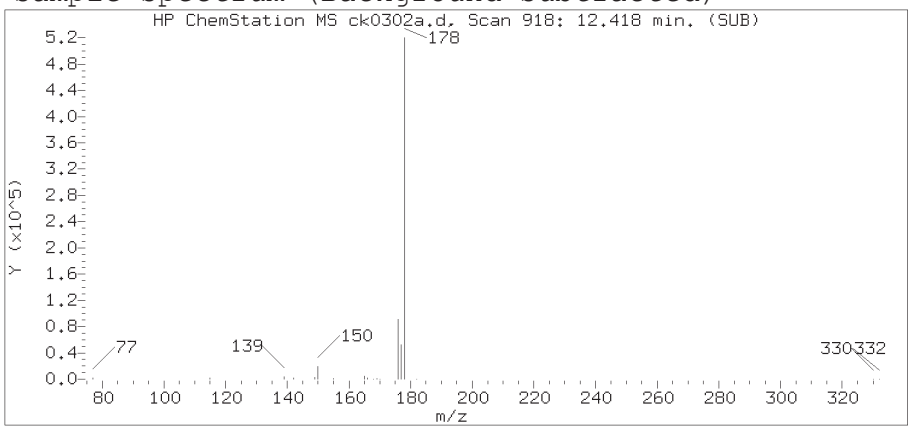
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

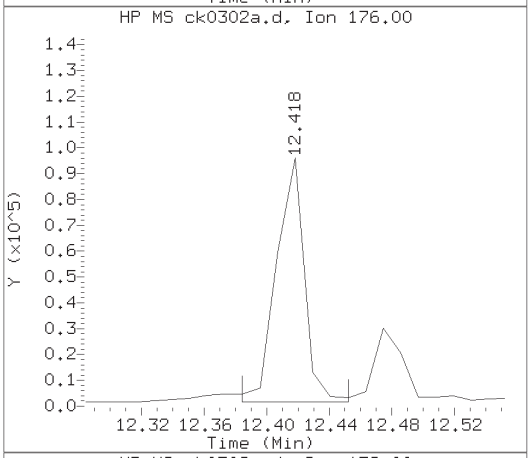
Reference Standard Spectrum for Phenanthrene



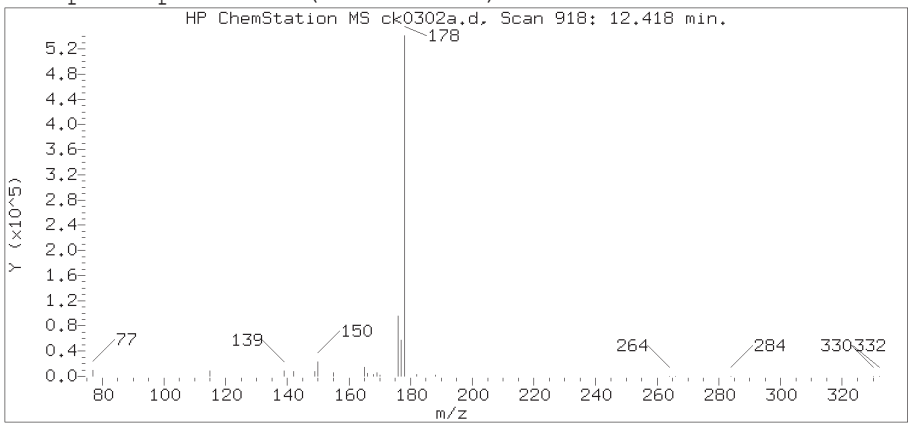


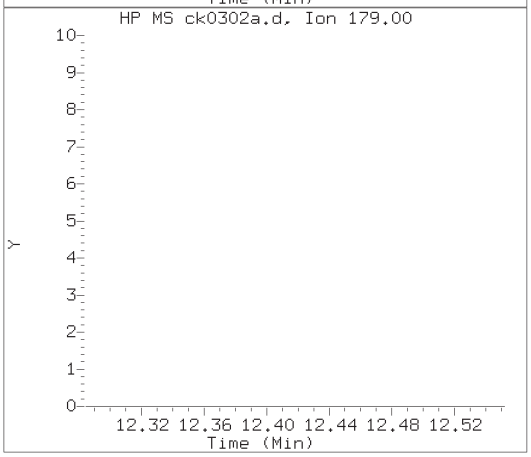
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

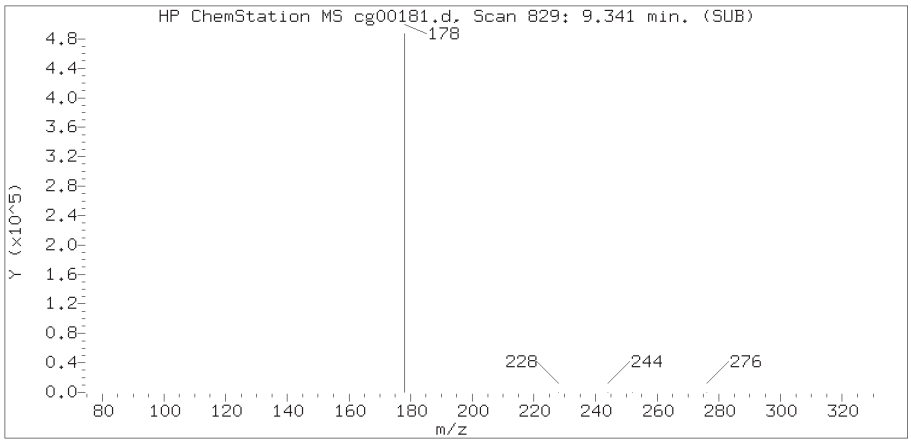
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

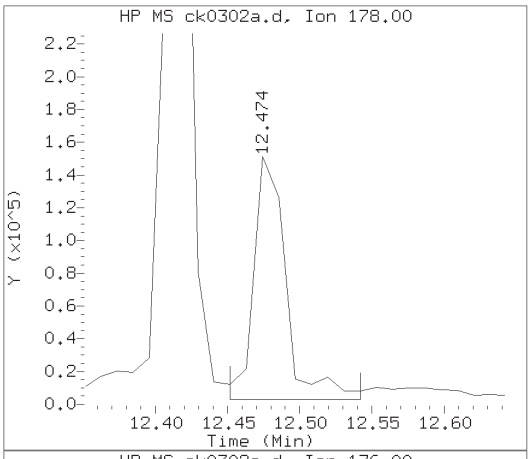
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 631854
On-column Amount (ng/ul)	: 1.9788

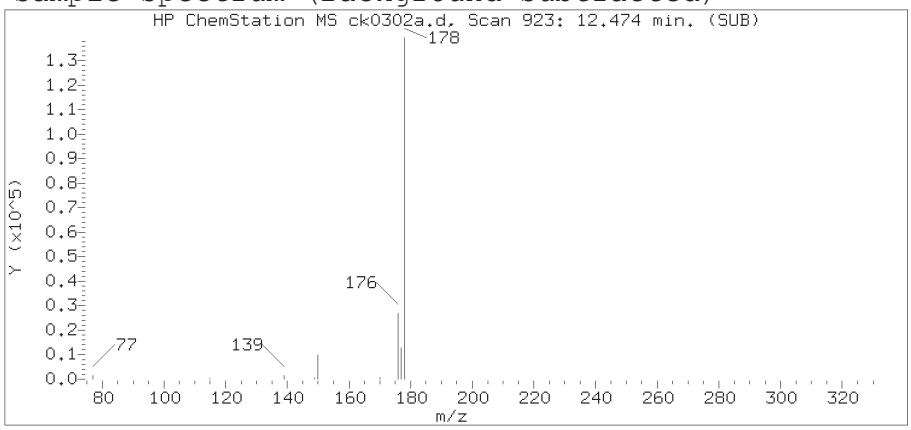
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

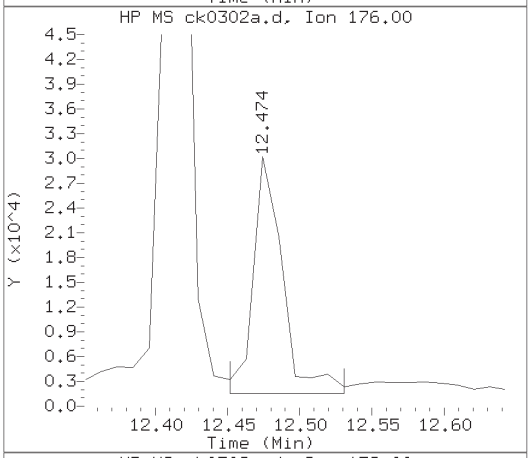
Reference Standard Spectrum for Anthracene



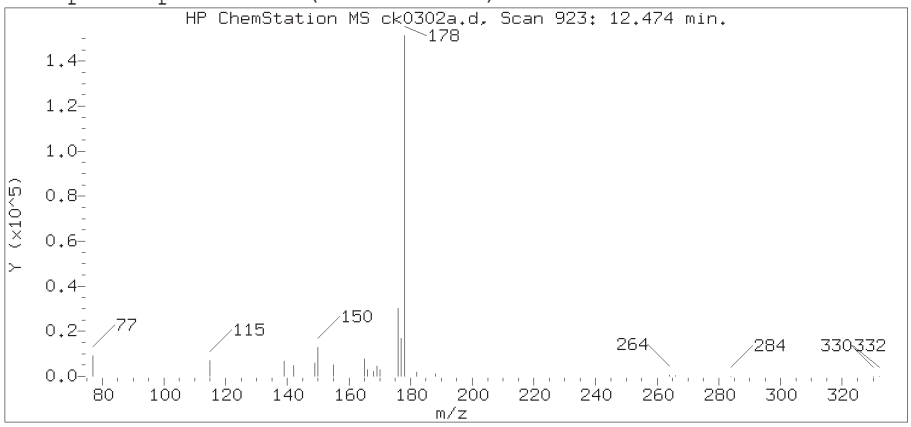


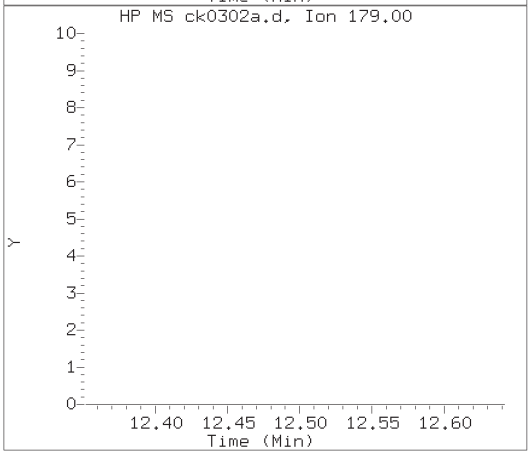
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

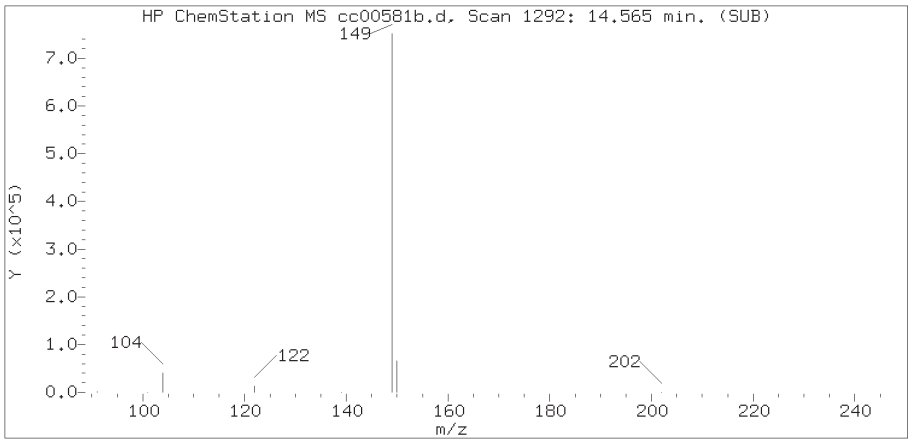
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

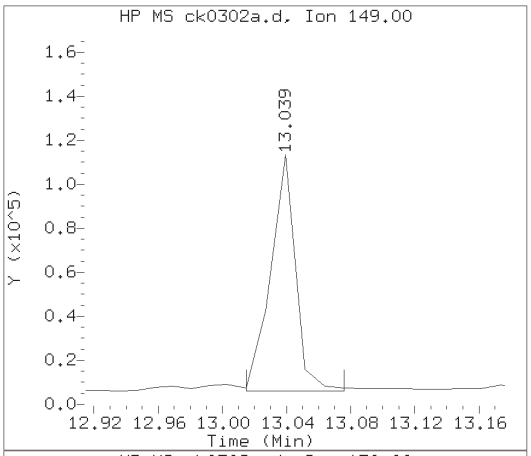
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 923
Retention Time (minutes)	: 12.474
Relative Retention Time	:-0.00000
Quant Ion	: 178.00
Area (flag)	: 228574
On-column Amount (ng/ul)	: 0.7444

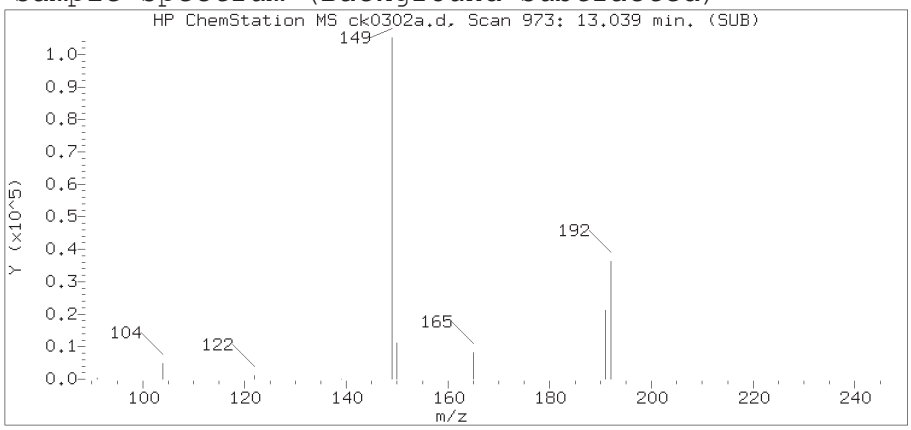
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

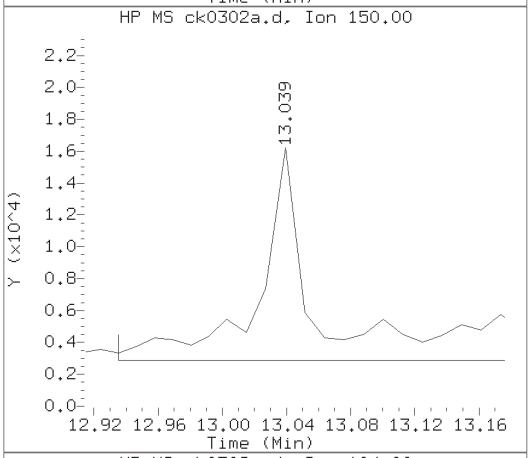
Reference Standard Spectrum for Di-n-butylphthalate



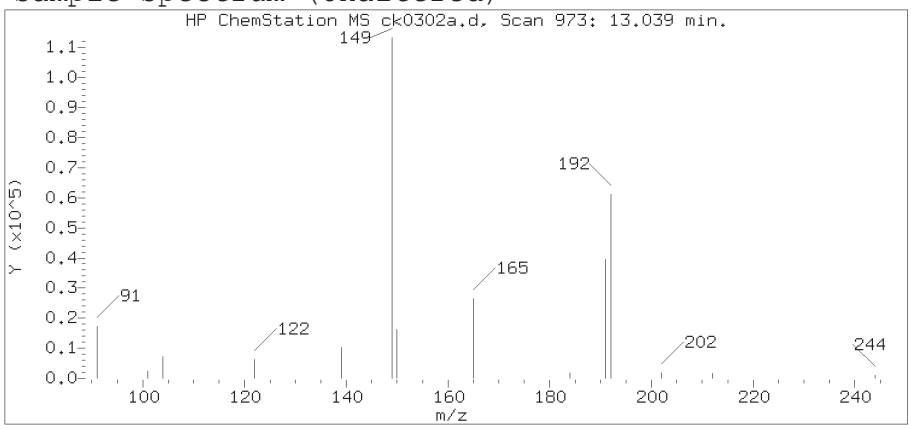


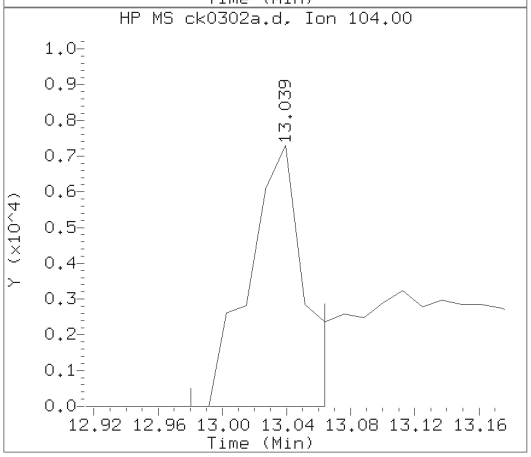
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.039
Relative Retention Time	:-0.00000
Quant Ion	: 149.00
Area (flag)	: 111822M
On-column Amount (ng/ul)	: 0.3269

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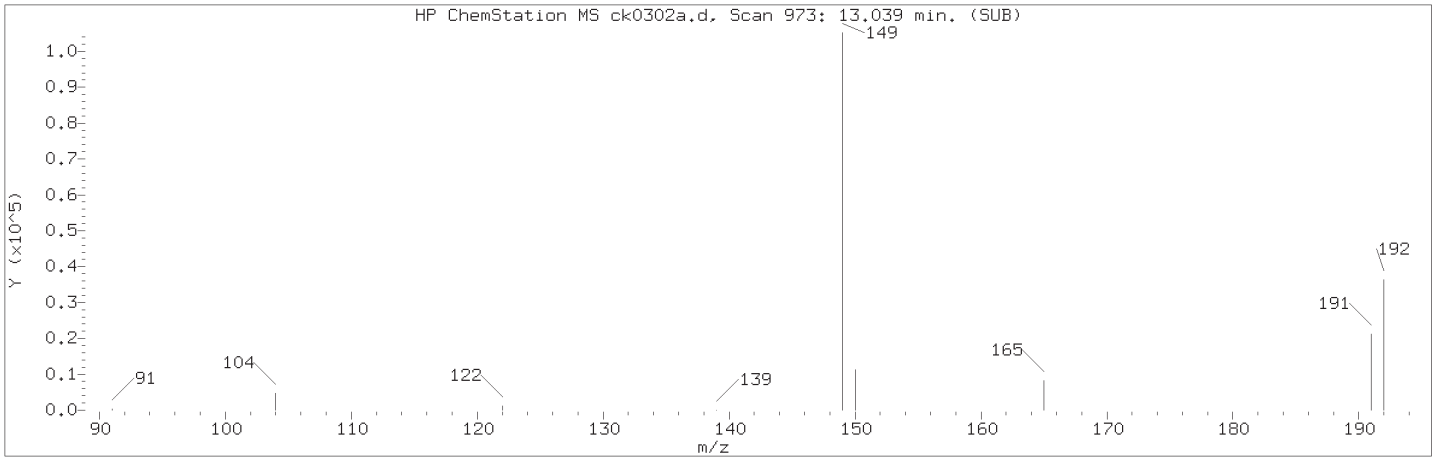
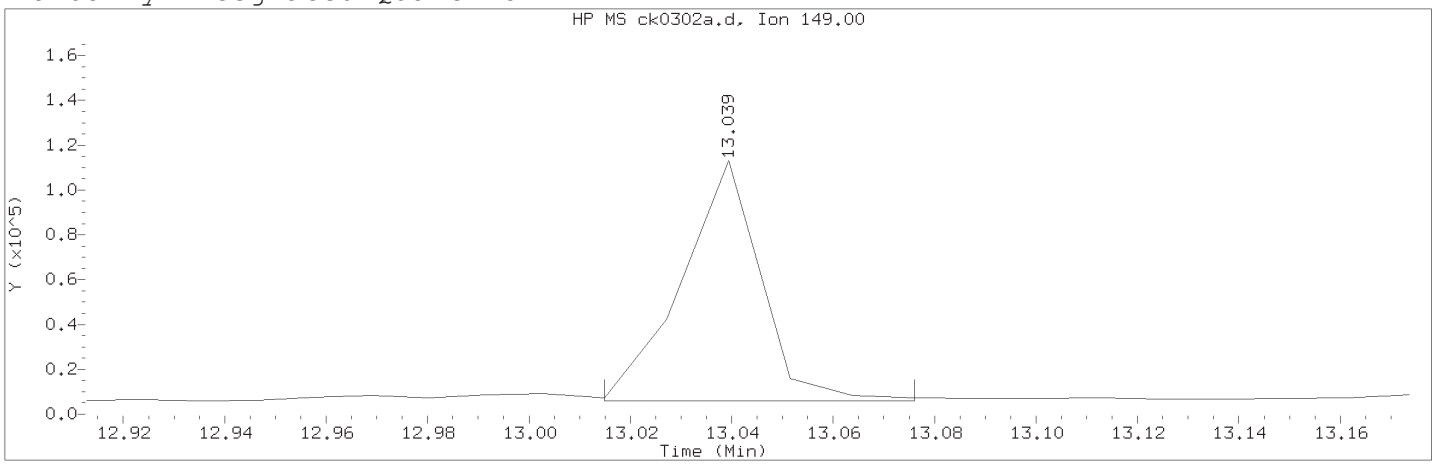
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

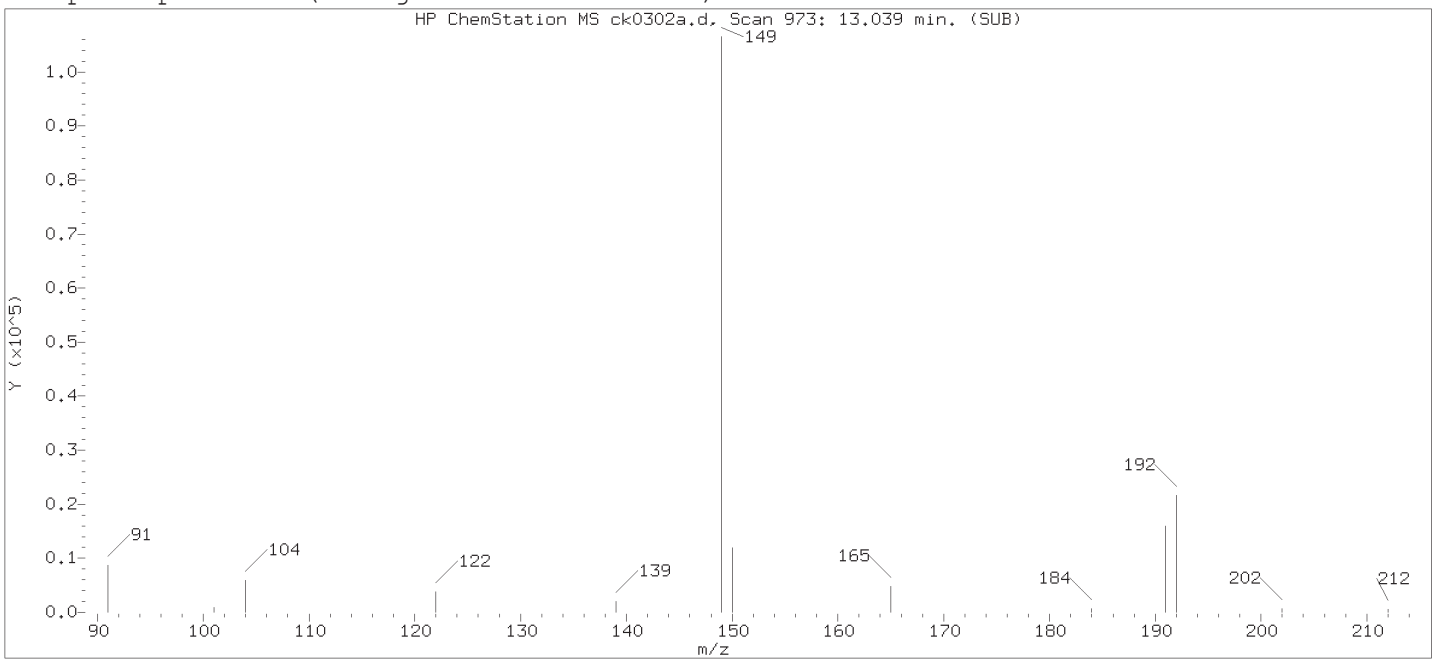
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 973
Retention Time (minutes) : 13.039
Quant Ion : 149.00
Area (flag) : 111822M
On-column Amount (ng/ul) : 0.3269
Integration start scan : 970 Integration stop scan: 975
Y at integration start : 6014 Y at integration end: 6014

Reason for manual integration: improper integration

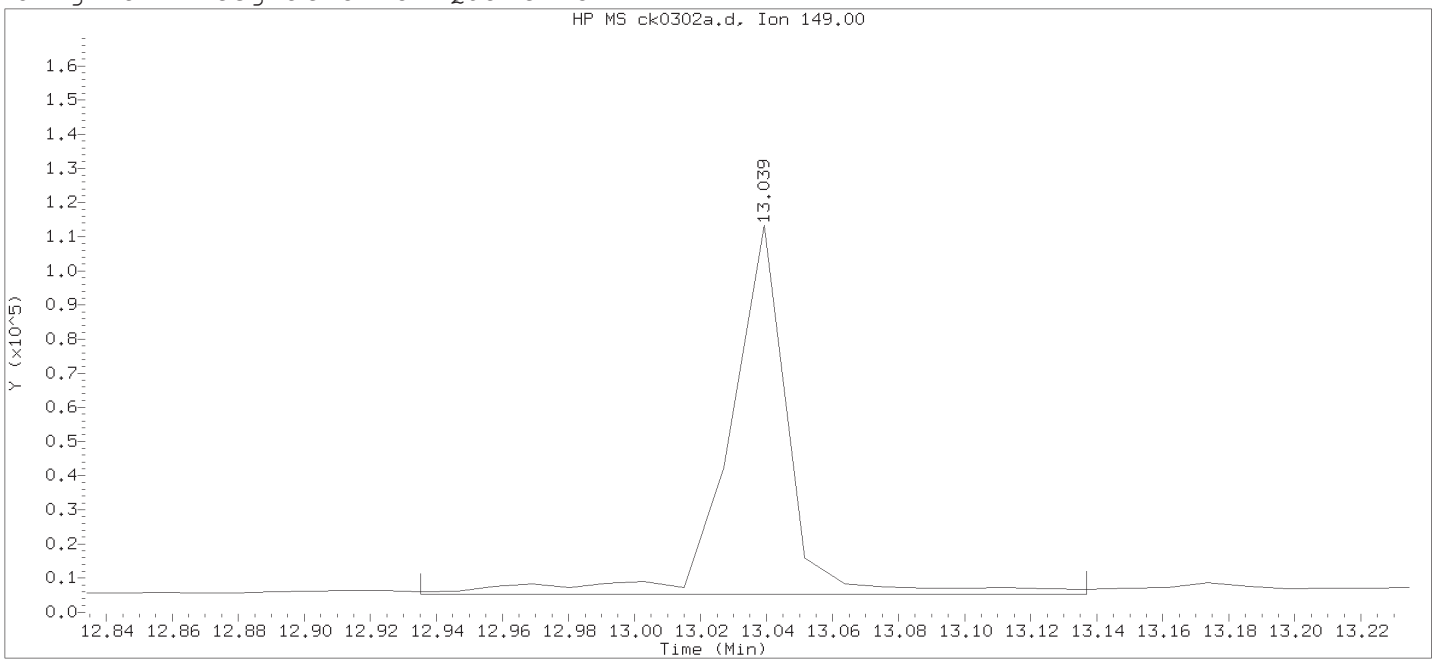
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

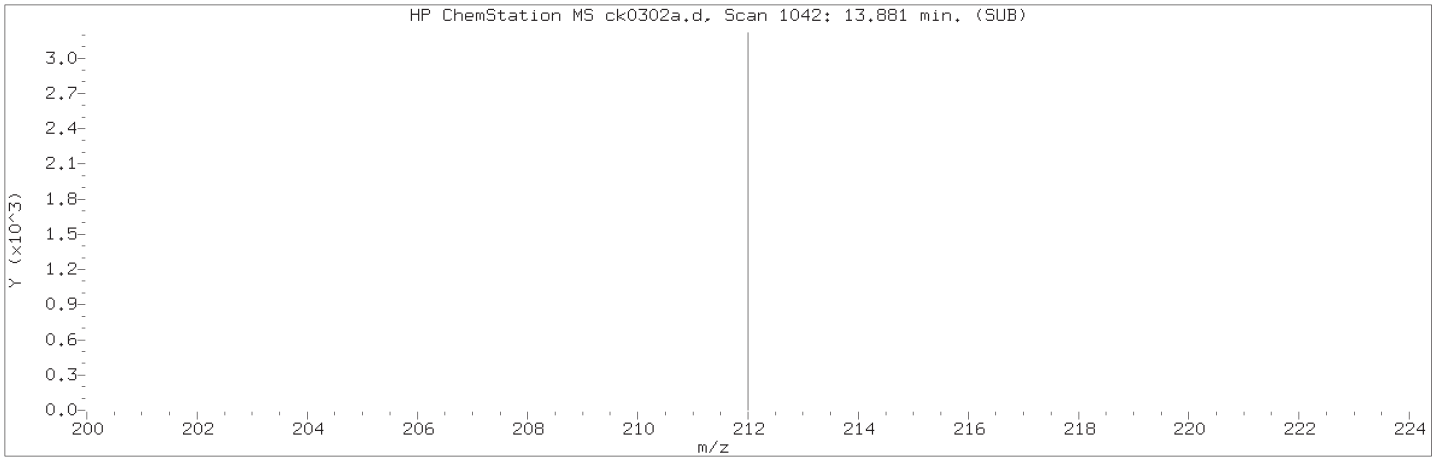
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

Sample Name: 12T02DL Lab Sample ID: 9872060DL

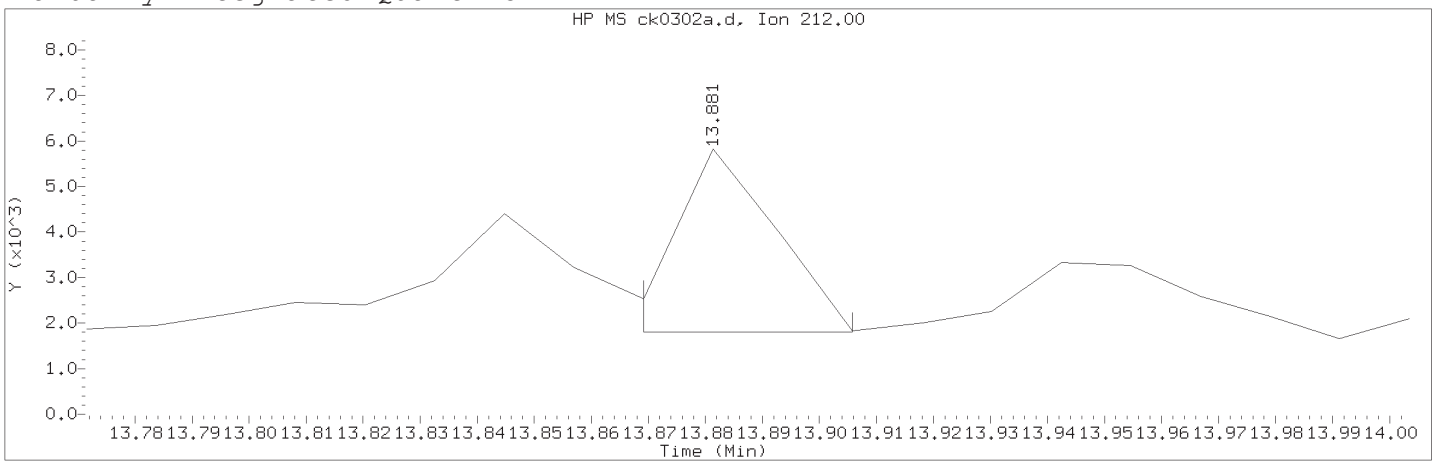
Compound Number	: 35		
Compound Name	: Di-n-butylphthalate		
Scan Number	: 973		
Retention Time (minutes)	: 13.039		
Quant Ion	: 149.00		
Area	: 131169		
On-column Amount (ng/ul)	: 0.3835		
Integration start scan	: 963	Integration stop scan:	980
Y at integration start	: 5312	Y at integration end:	5312

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used: D12 Page 2634 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

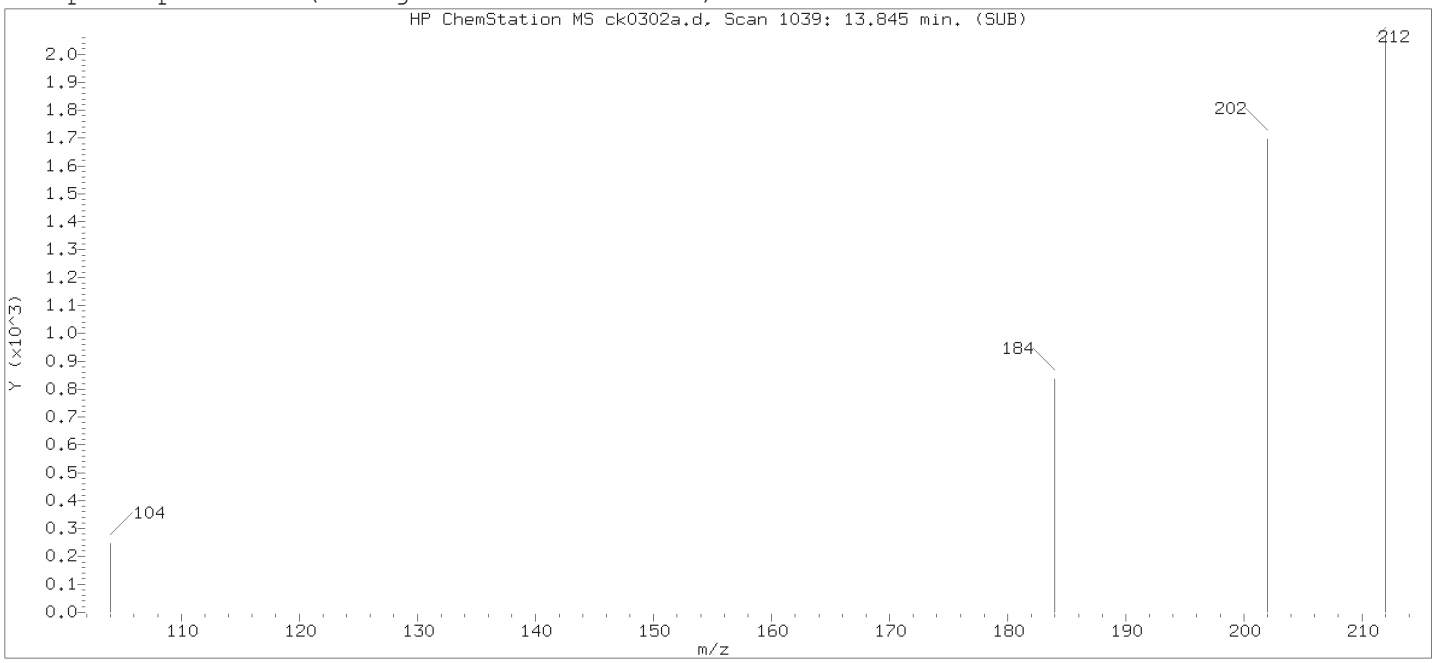
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1042
Retention Time (minutes) : 13.881
Quant Ion : 212.00
Area (flag) : 5009M
On-column Amount (ng/ul) : 0.0206
Integration start scan : 1040 Integration stop scan: 1043
Y at integration start : 1809 Y at integration end: 1809

Reason for manual integration: improper integration

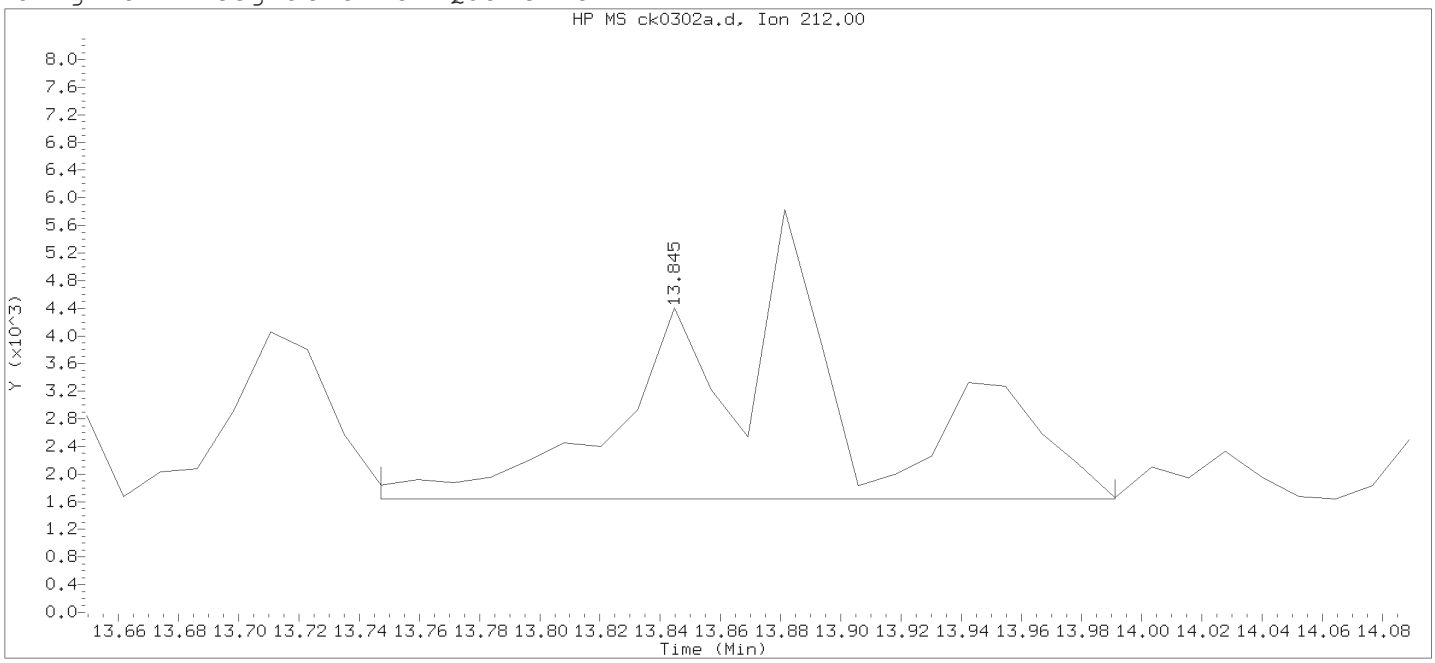
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

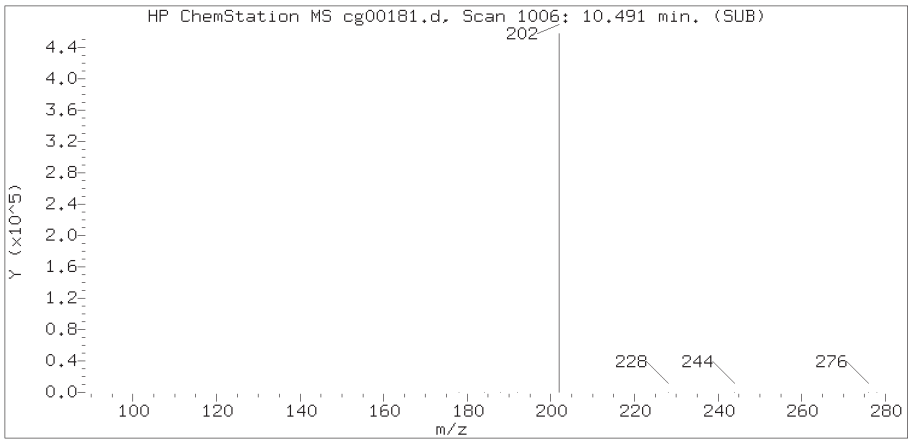
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

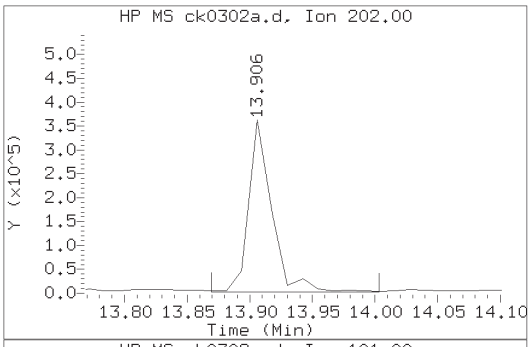
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1039		
Retention Time (minutes)	: 13.845		
Quant Ion	: 212.00		
Area	: 16053		
On-column Amount (ng/ul)	: 0.0661		
Integration start scan	: 1030	Integration stop scan:	1050
Y at integration start	: 1641	Y at integration end:	1641

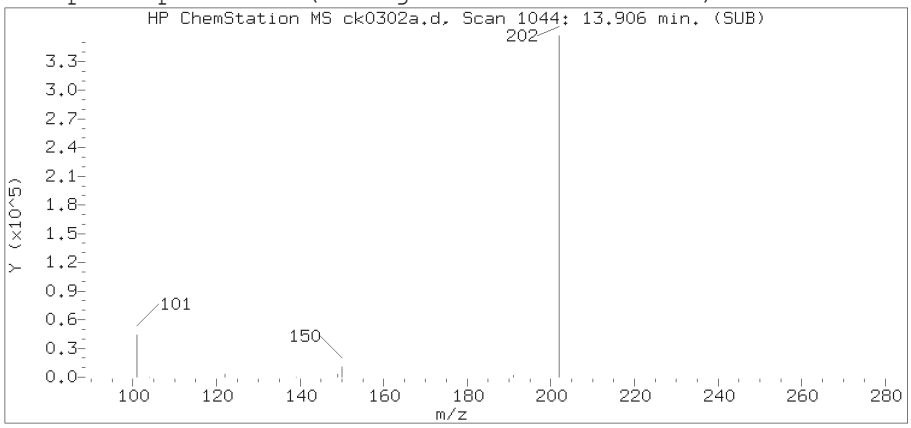
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

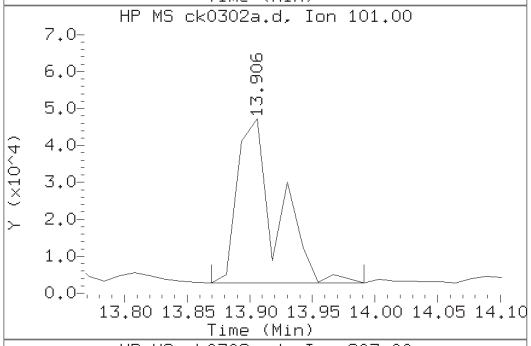
Reference Standard Spectrum for Fluoranthene

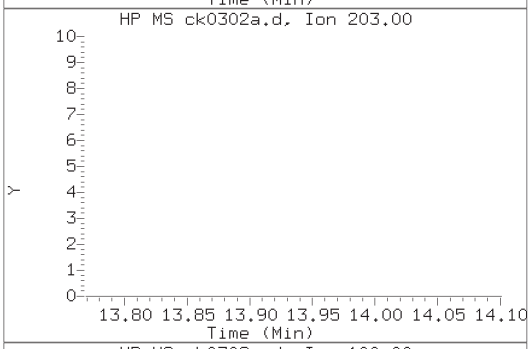




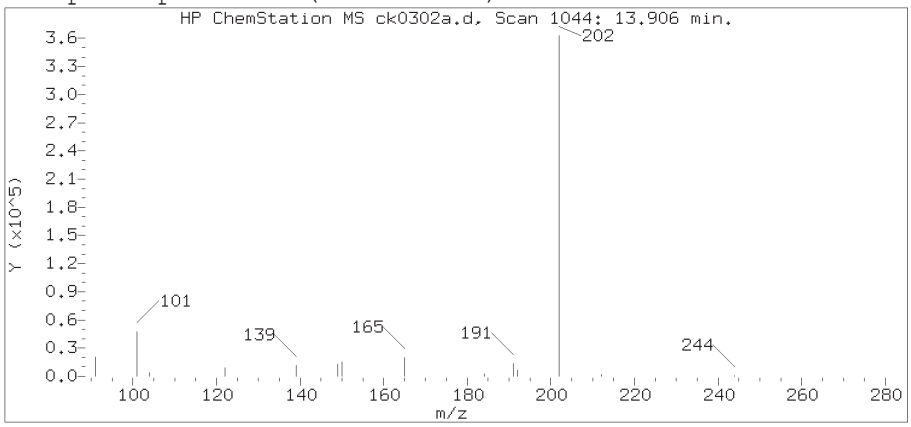
Sample Spectrum (Background Subtracted)

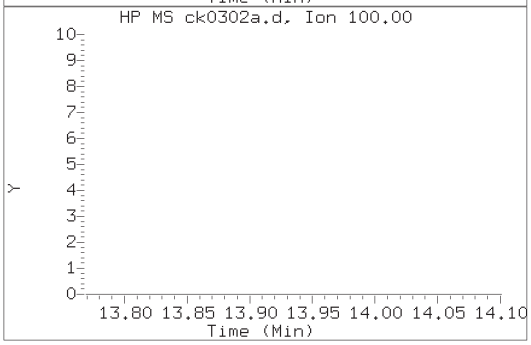






Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

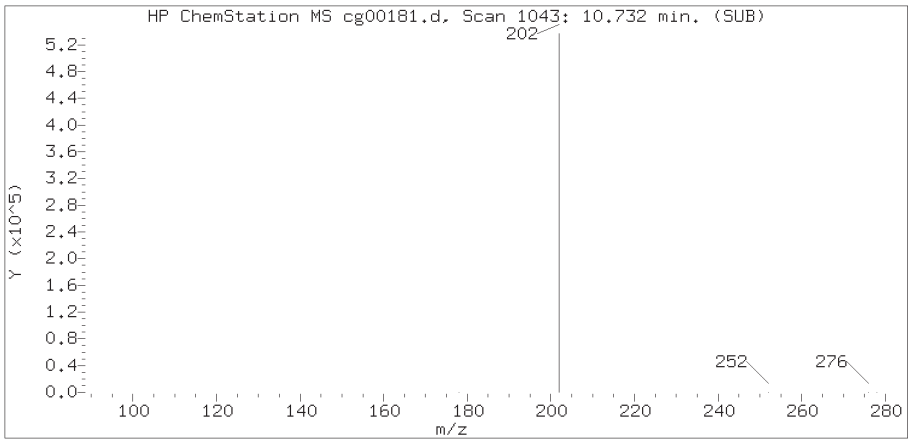
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

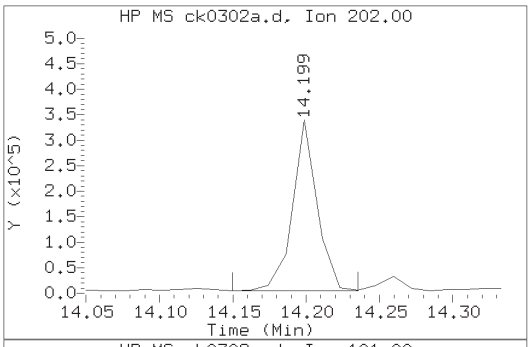
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1044
Retention Time (minutes)	: 13.906
Relative Retention Time	:-0.00000
Quant Ion	: 202.00
Area (flag)	: 457616
On-column Amount (ng/ul)	: 1.4585

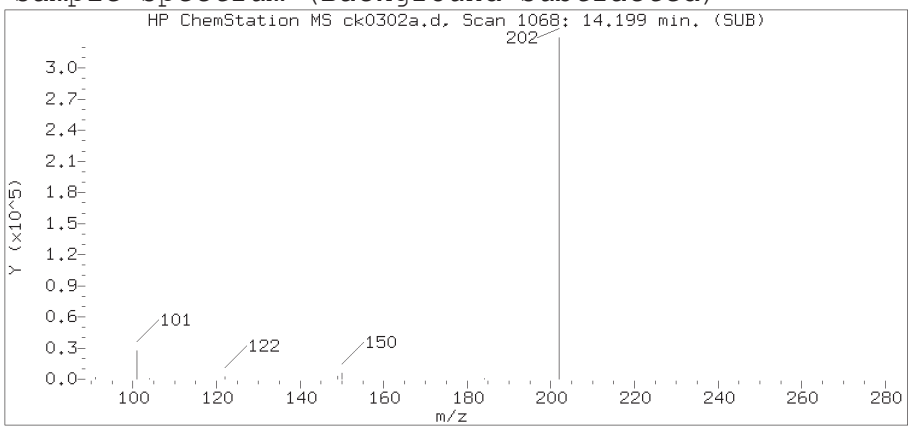
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

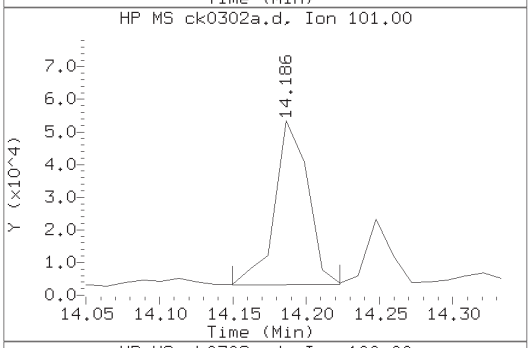
Reference Standard Spectrum for Pyrene

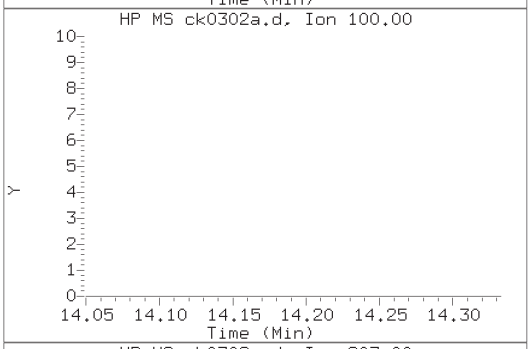




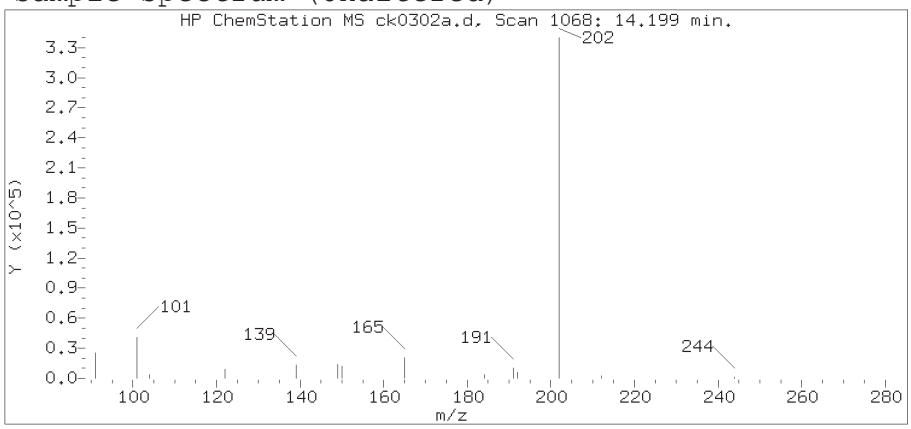
Sample Spectrum (Background Subtracted)

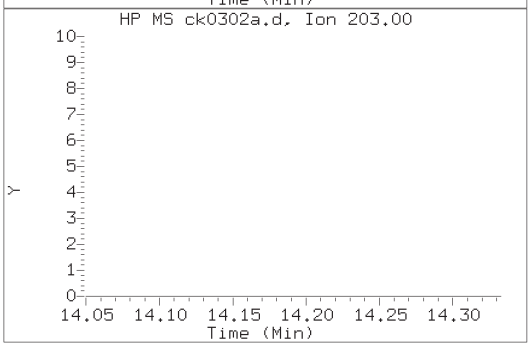






Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1068
Retention Time (minutes)	: 14.199
Relative Retention Time	: 0.00045
Quant Ion	: 202.00
Area (flag)	: 386209
On-column Amount (ng/ul)	: 1.2719

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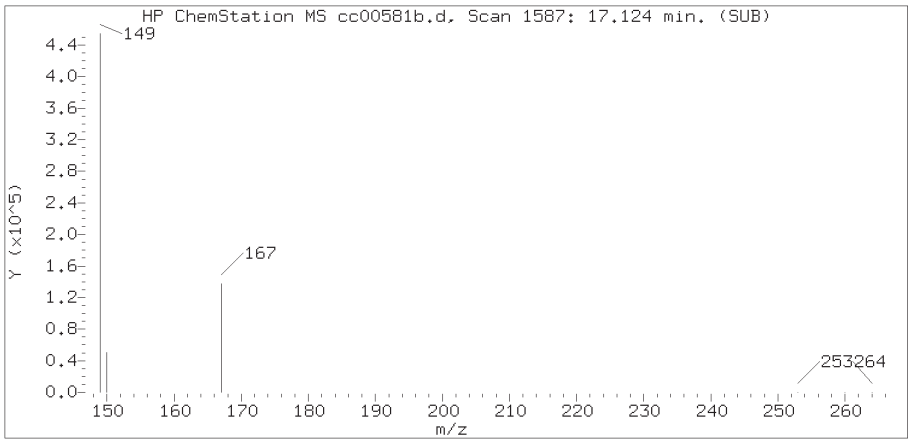
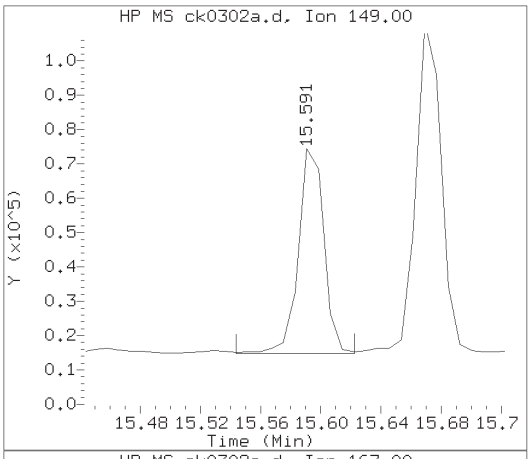
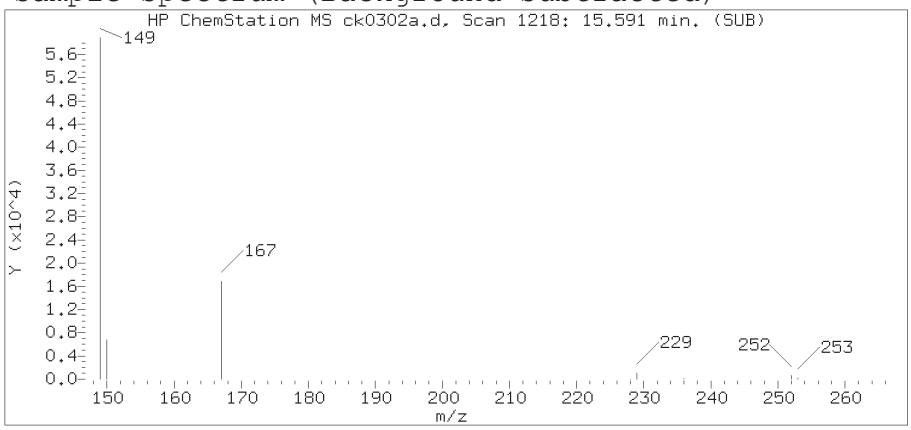
Target 3.5 esignature user ID: apb10206

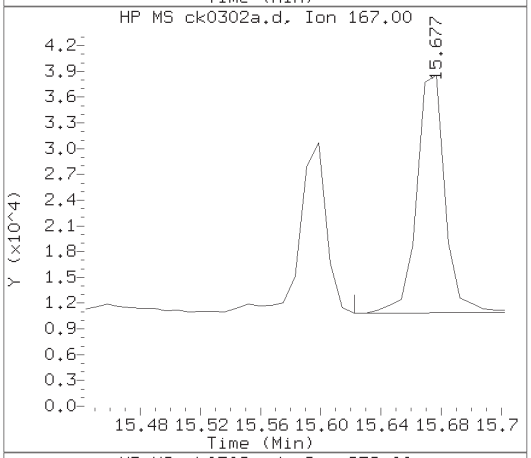
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



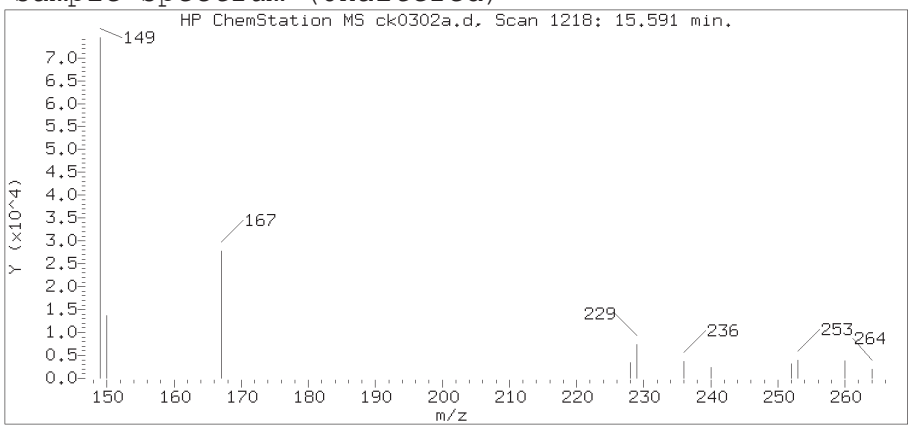


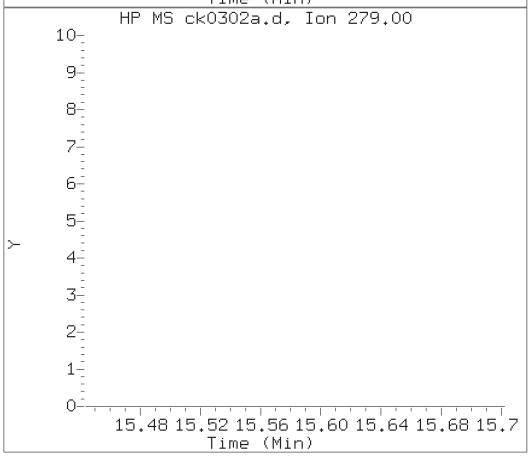
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

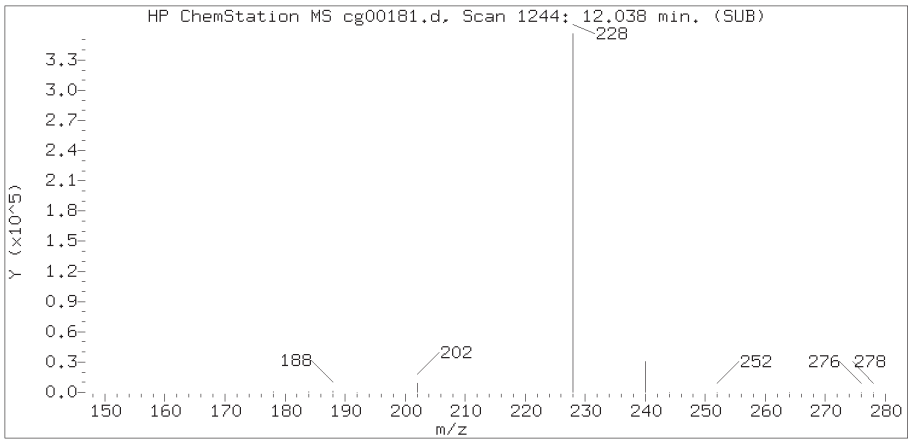
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

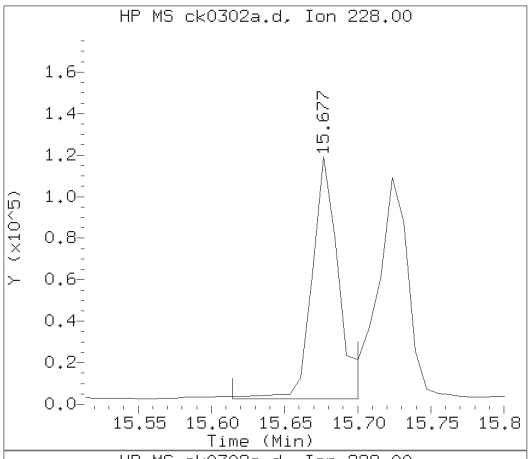
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1218
Retention Time (minutes)	: 15.591
Relative Retention Time	: 0.00050
Quant Ion	: 149.00
Area (flag)	: 71071
On-column Amount (ng/ul)	: 0.4416

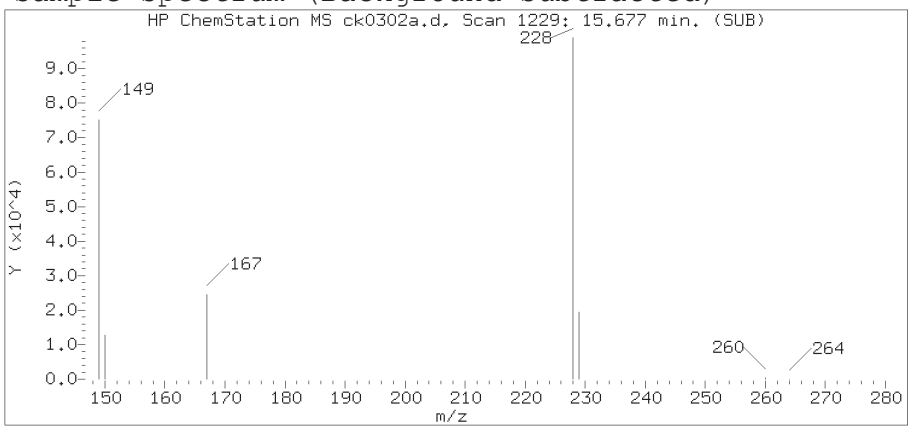
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

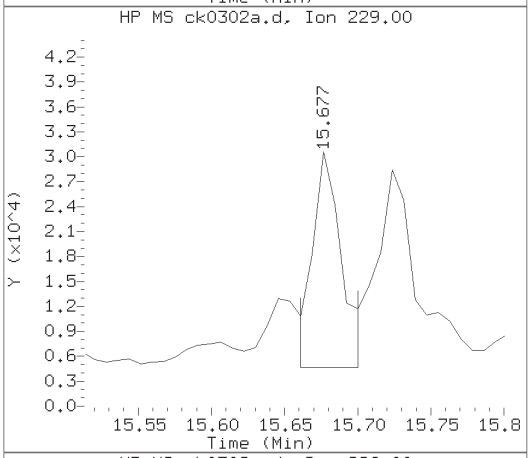
Reference Standard Spectrum for Benzo(a)anthracene



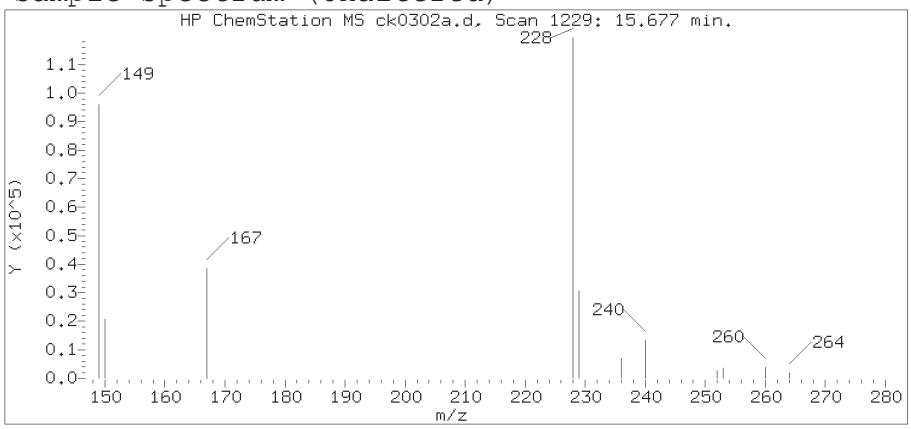


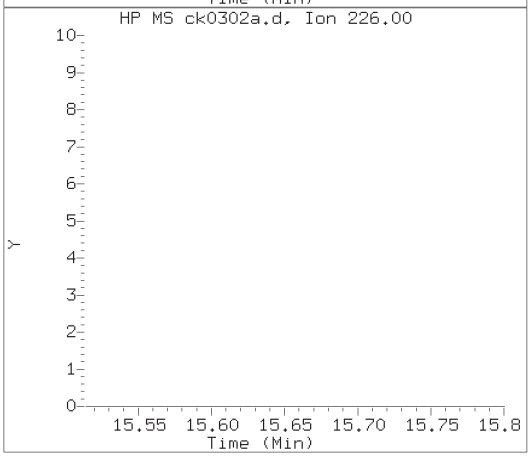
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

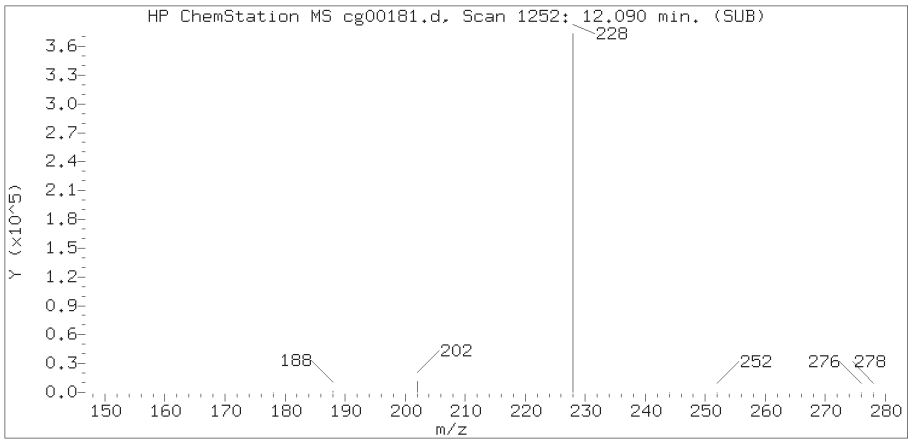
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

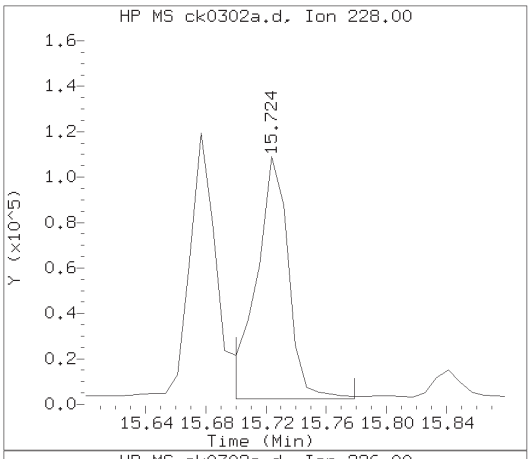
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1229
Retention Time (minutes)	: 15.677
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 142204
On-column Amount (ng/ul)	: 0.5816

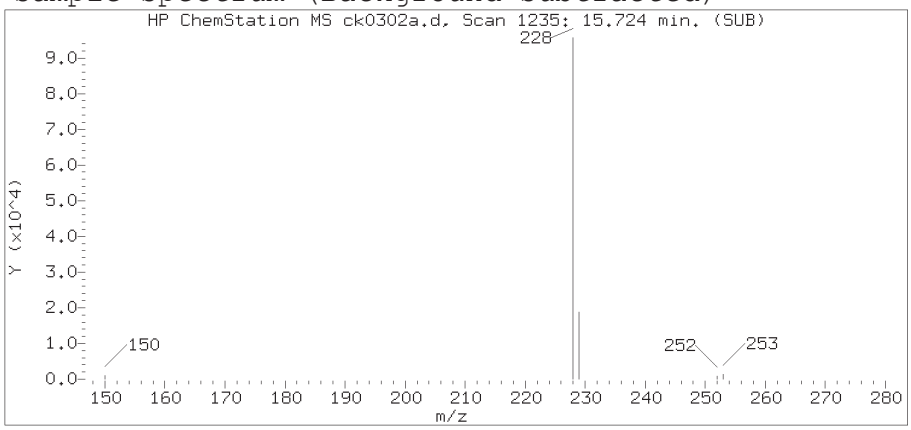
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

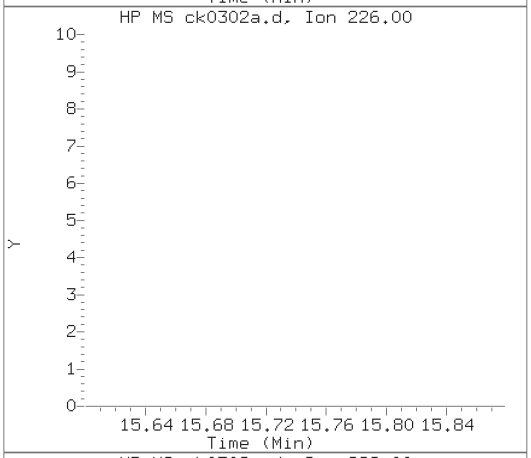
Reference Standard Spectrum for Chrysene



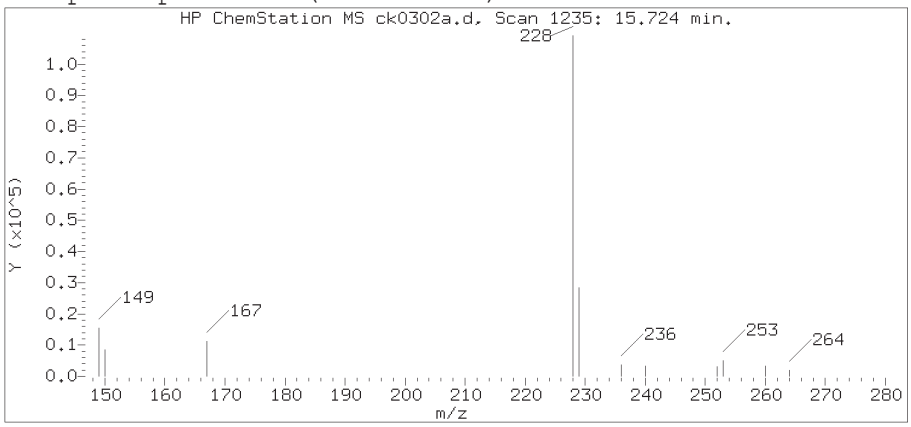


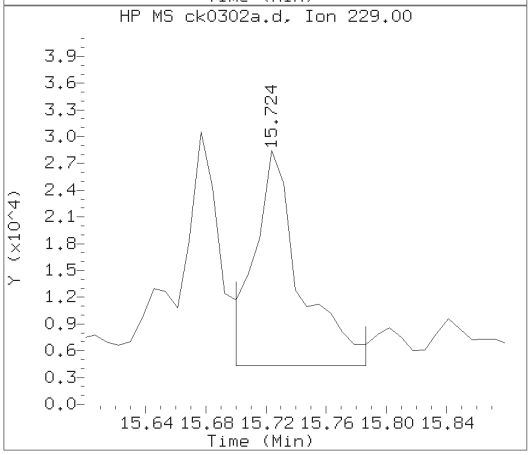
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

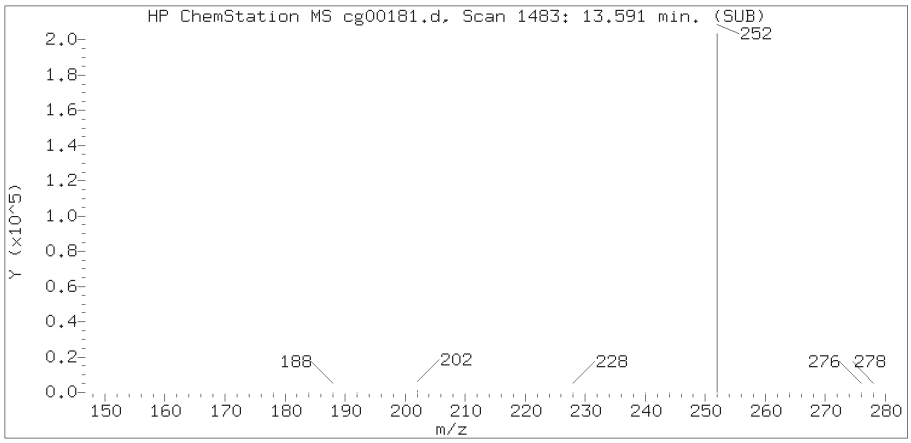
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

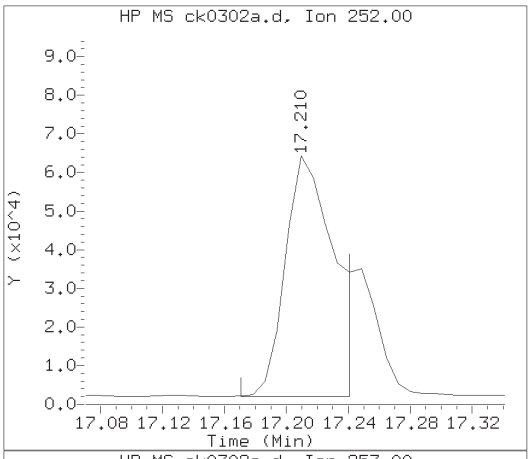
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1235
Retention Time (minutes)	: 15.724
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 155433
On-column Amount (ng/ul)	: 0.6205

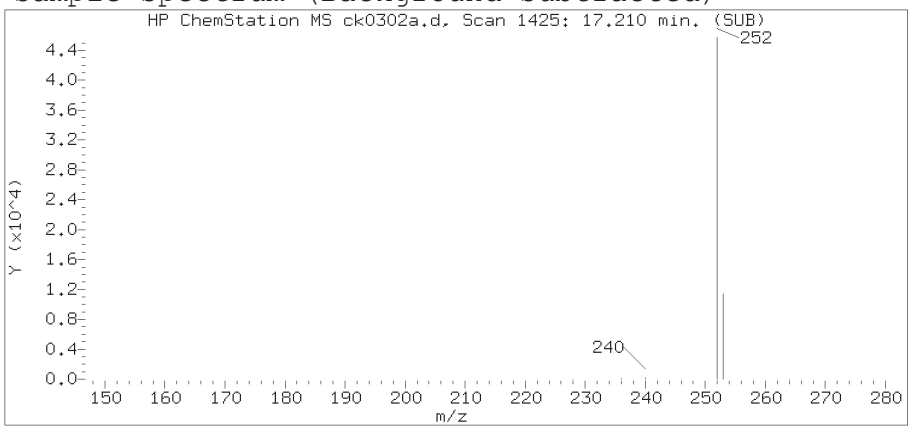
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

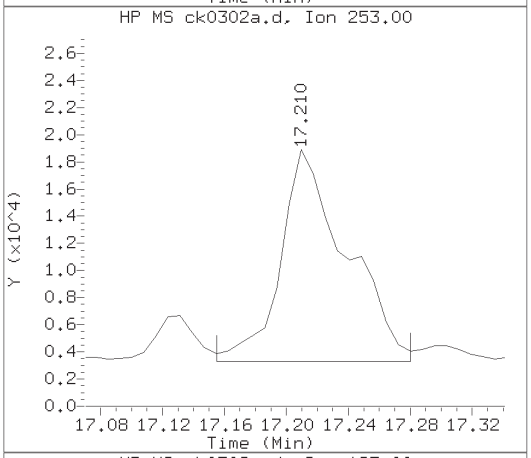
Reference Standard Spectrum for Benzo(b)fluoranthene



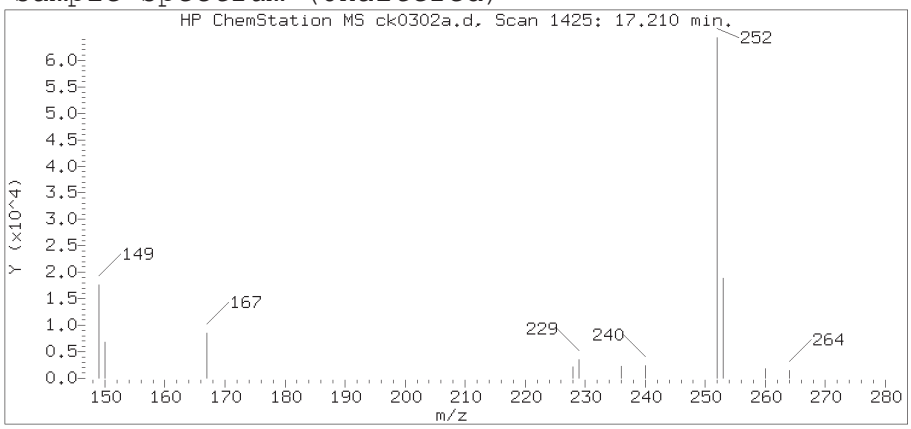


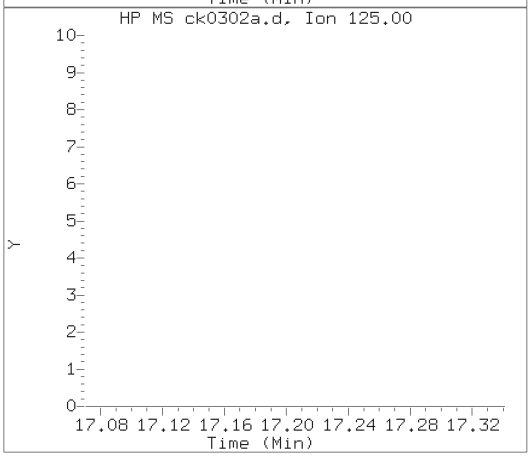
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

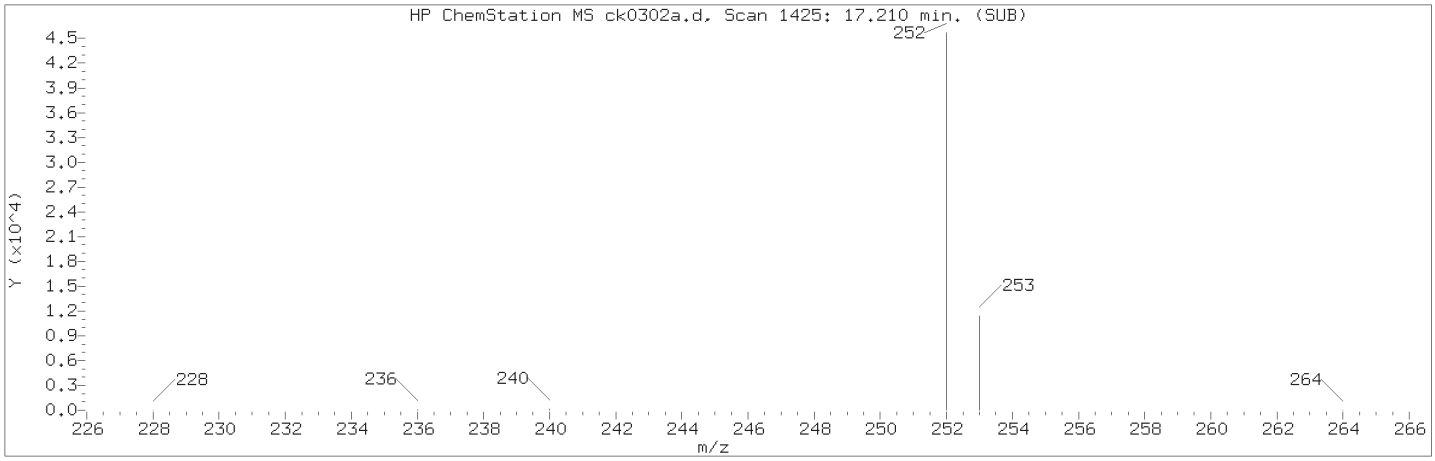
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

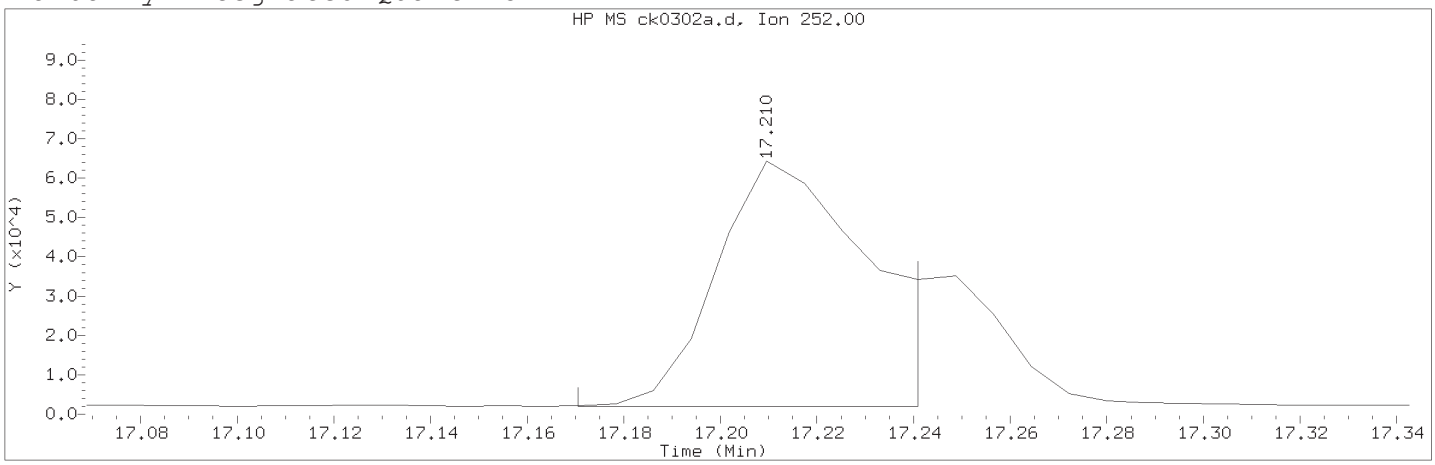
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1425
Retention Time (minutes)	: 17.210
Relative Retention Time	:-0.00002
Quant Ion	: 252.00
Area (flag)	: 139090M
On-column Amount (ng/ul)	: 0.6067

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

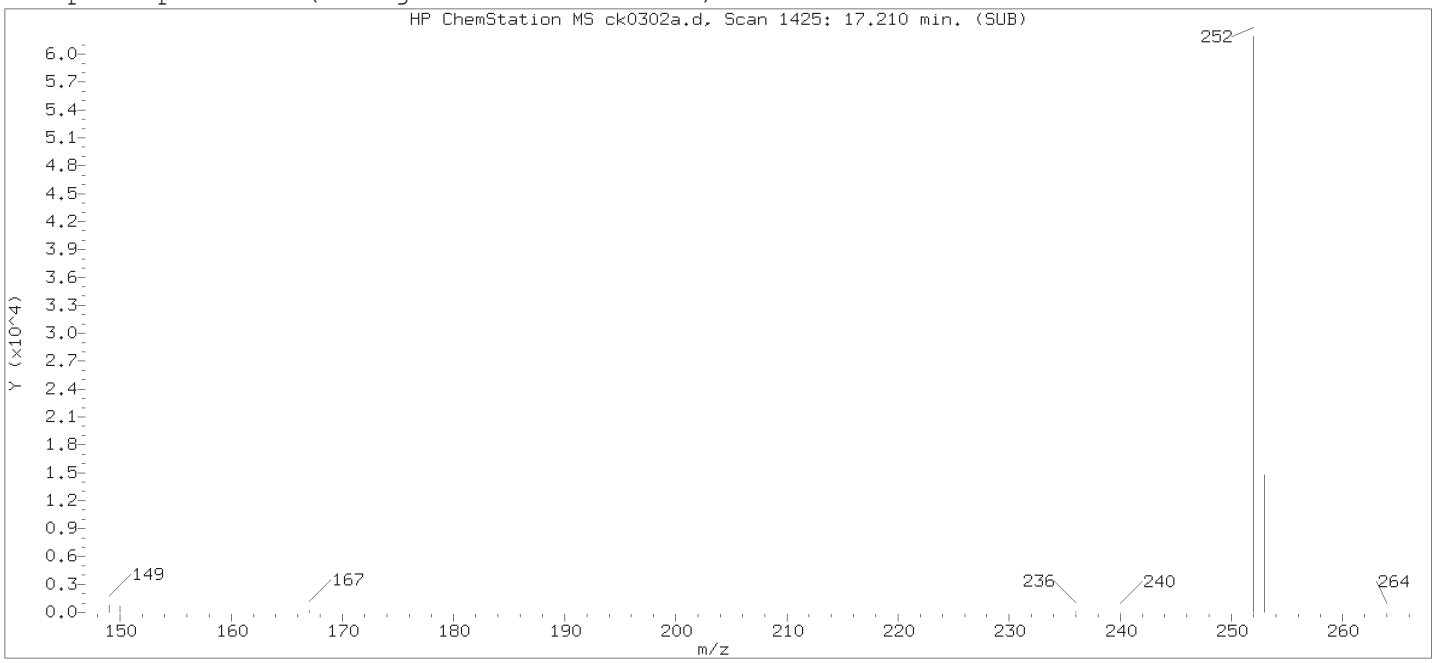
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1425
Retention Time (minutes) : 17.210
Quant Ion : 252.00
Area (flag) : 139090M
On-column Amount (ng/ul) : 0.6067
Integration start scan : 1419 Integration stop scan: 1428
Y at integration start : 1989 Y at integration end: 1989

Reason for manual integration: improper integration

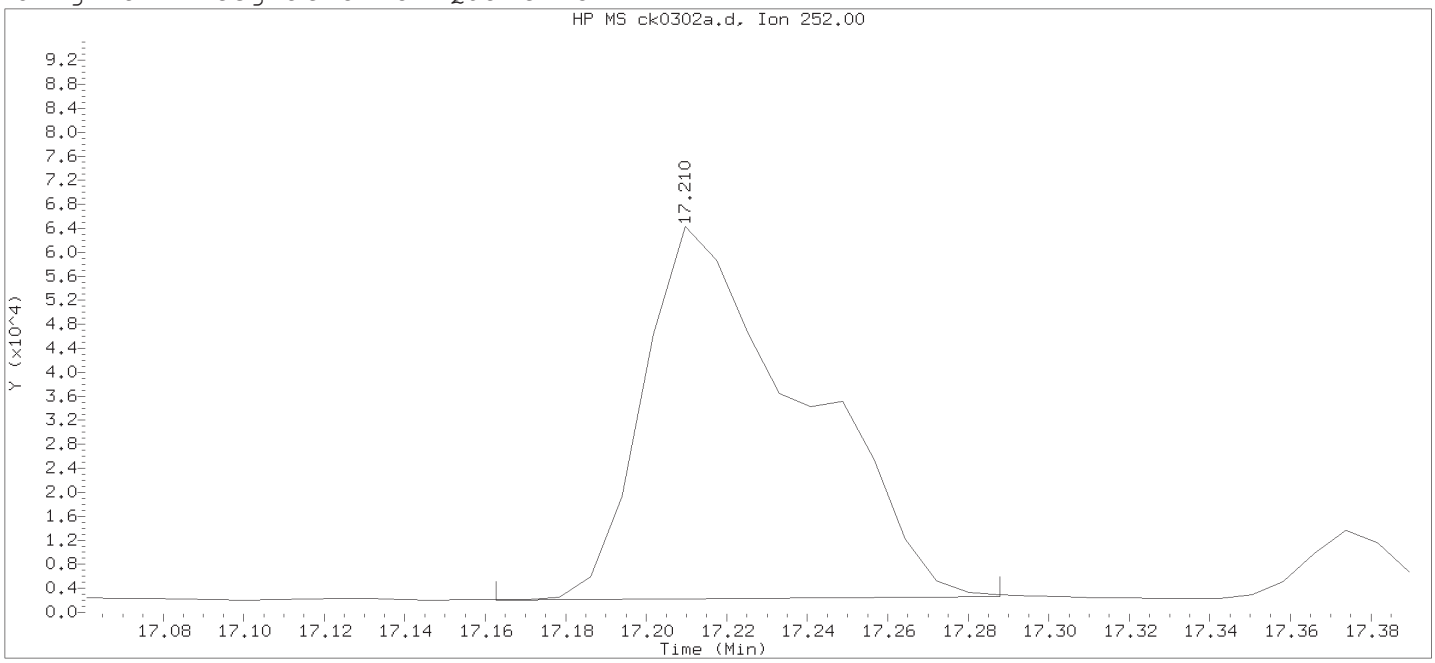
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

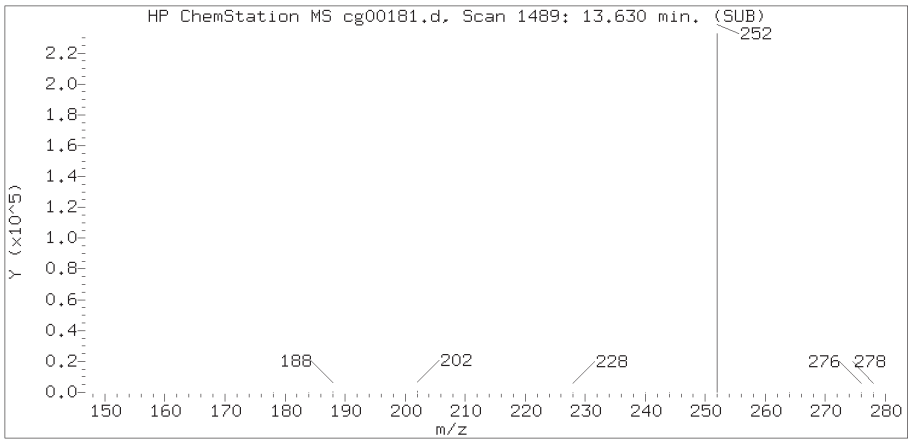
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

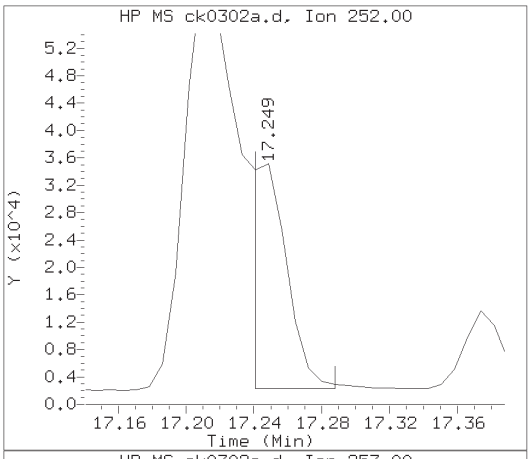
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1425		
Retention Time (minutes)	: 17.210		
Quant Ion	: 252.00		
Area	: 170428		
On-column Amount (ng/ul)	: 0.7434		
Integration start scan	: 1418	Integration stop scan:	1434
Y at integration start	: 2055	Y at integration end:	2567

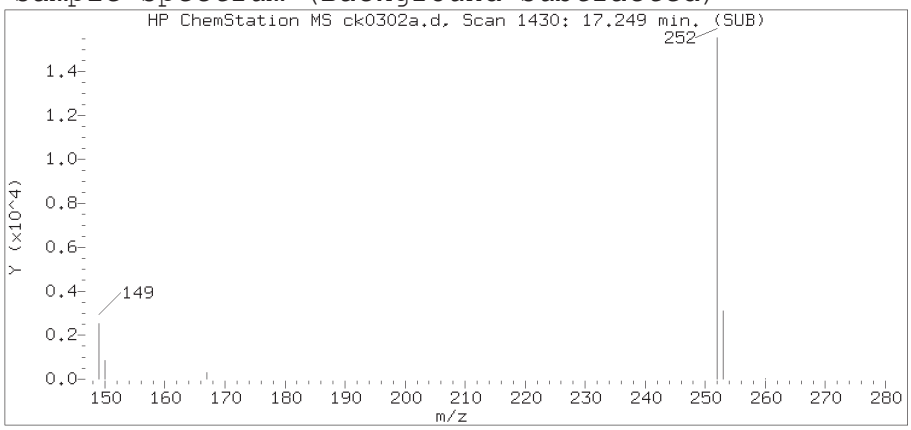
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used.

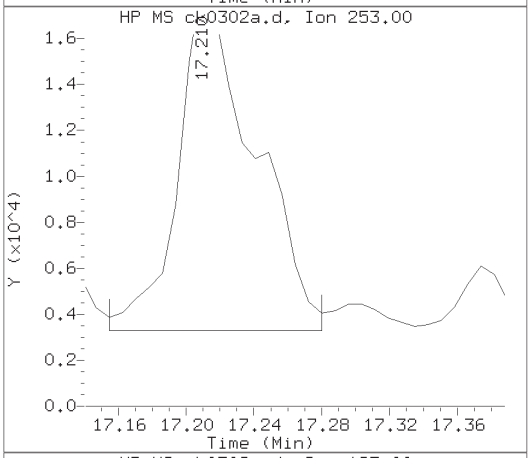
Reference Standard Spectrum for Benzo(k)fluoranthene



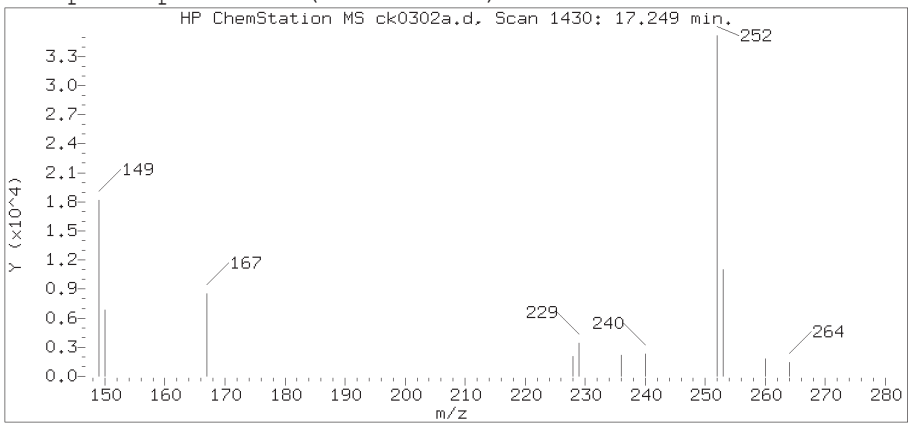


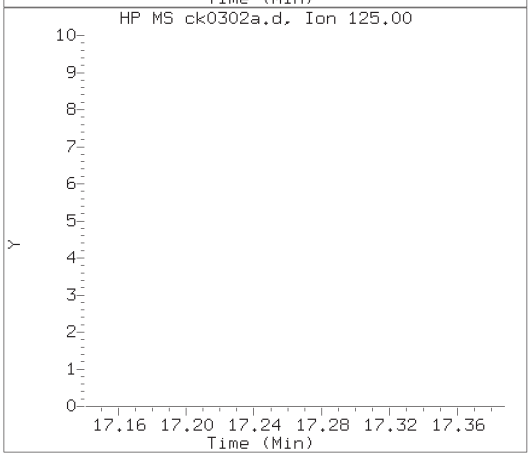
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

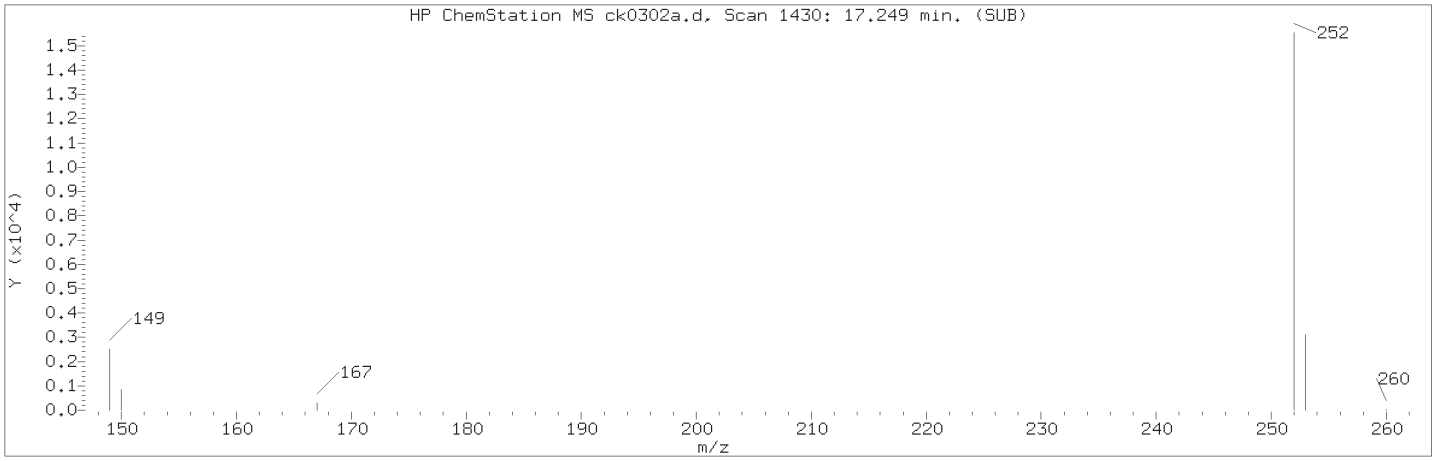
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

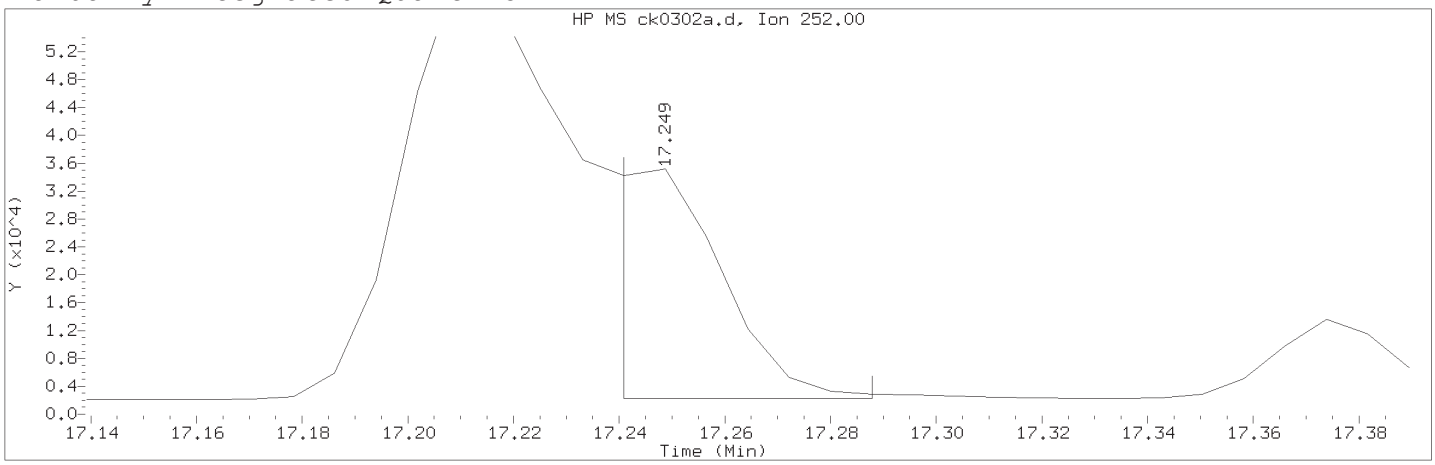
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1430
Retention Time (minutes)	: 17.249
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 48181M
On-column Amount (ng/ul)	: 0.1957

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

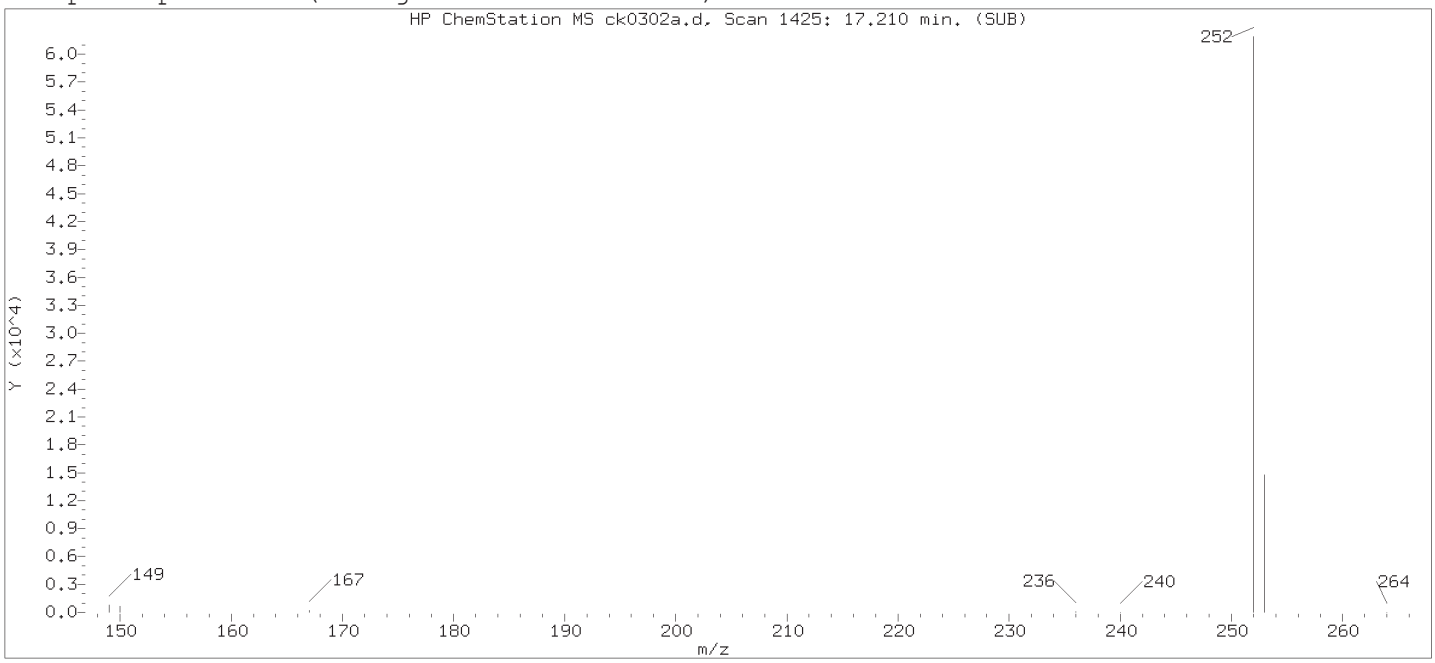
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1430
Retention Time (minutes) : 17.249
Quant Ion : 252.00
Area (flag) : 48181M
On-column Amount (ng/ul) : 0.1957
Integration start scan : 1428 Integration stop scan: 1434
Y at integration start : 2259 Y at integration end: 2259

Reason for manual integration: improper integration

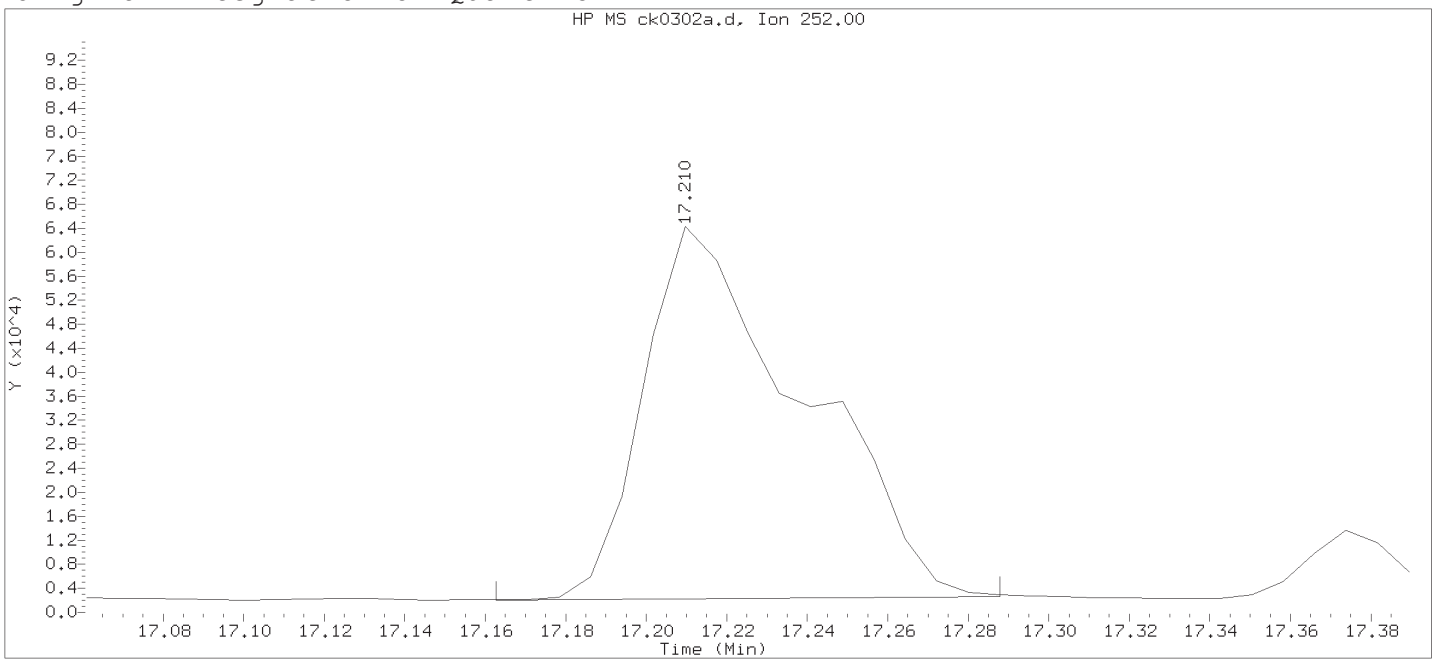
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:38.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

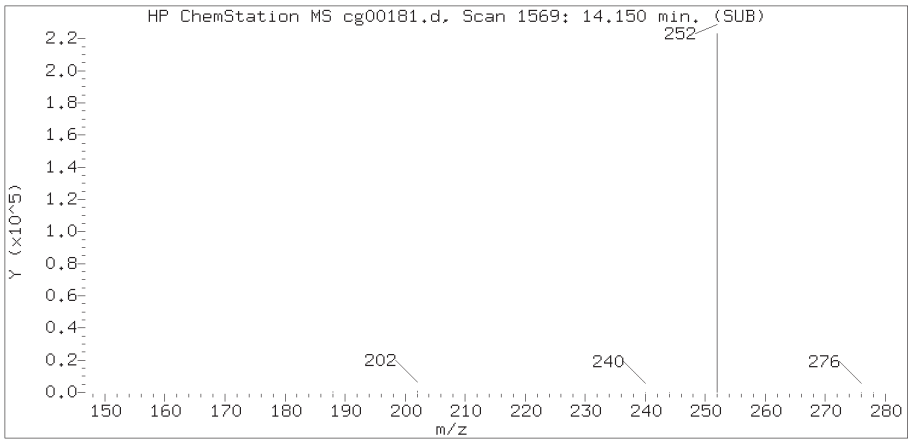
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:10 Automation

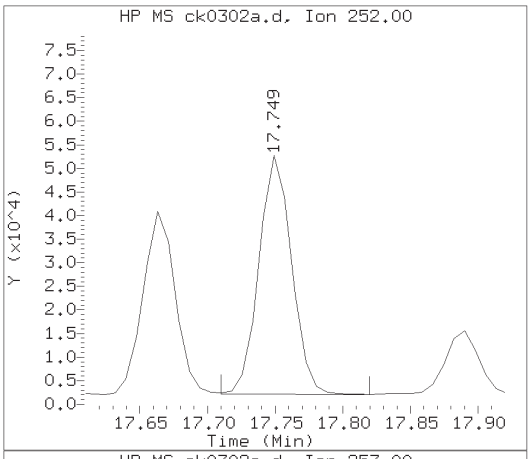
Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1425		
Retention Time (minutes)	: 17.210		
Quant Ion	: 252.00		
Area	: 170428		
On-column Amount (ng/ul)	: 0.6923		
Integration start scan	: 1418	Integration stop scan:	1434
Y at integration start	: 2055	Y at integration end:	2567

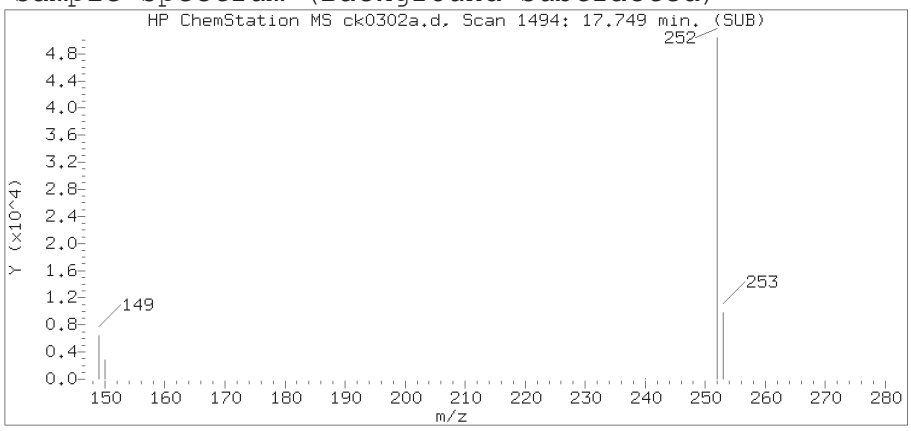
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:38.
Target 3.5 esignature used [illegible]

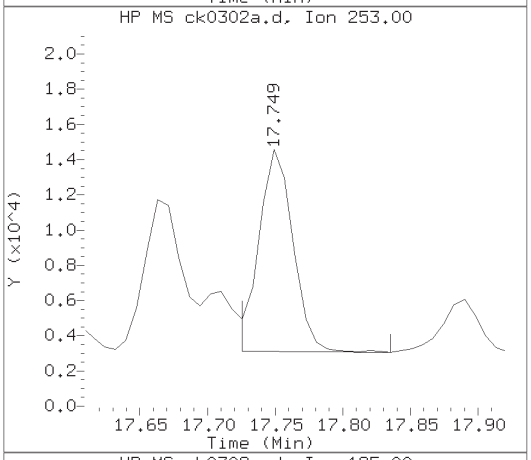
Reference Standard Spectrum for Benzo(a)pyrene



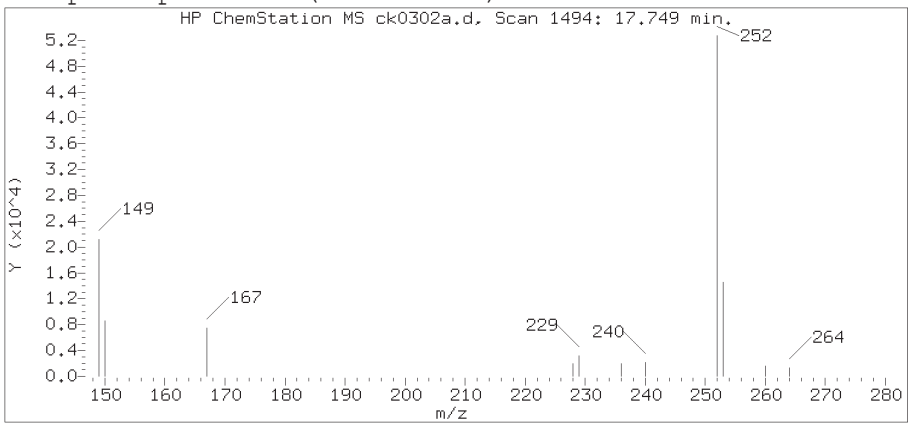


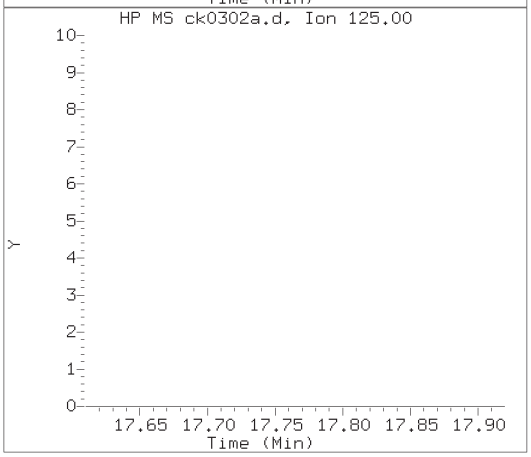
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1494
Retention Time (minutes)	: 17.749
Relative Retention Time	:-0.00000
Quant Ion	: 252.00
Area (flag)	: 84869
On-column Amount (ng/ul)	: 0.4058

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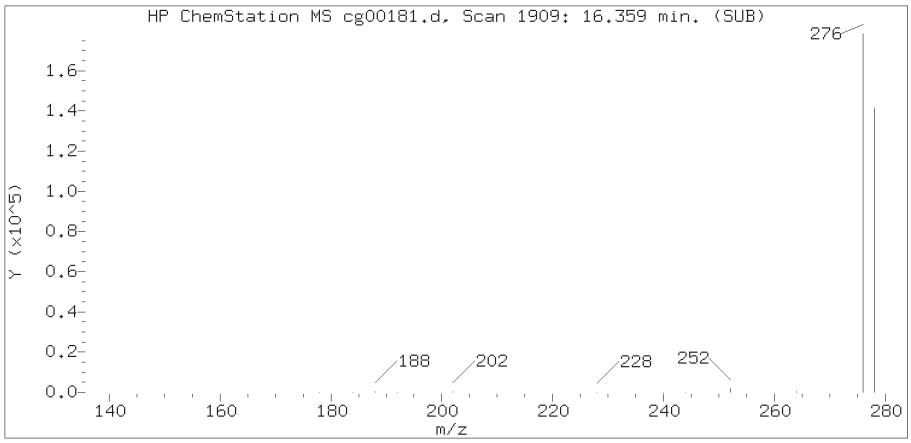
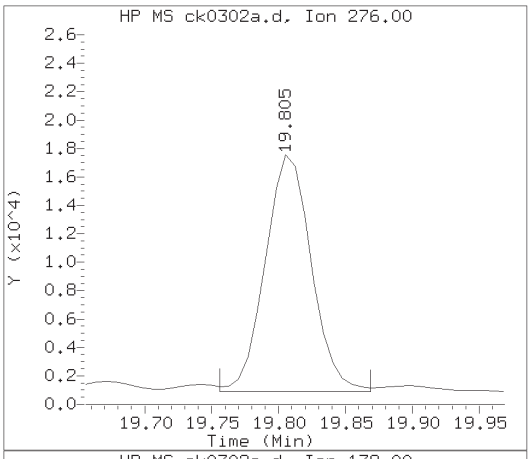
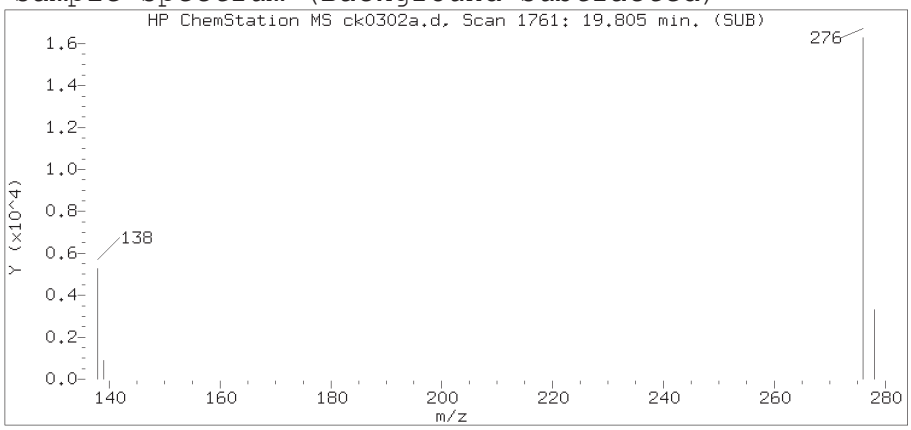
Target 3.5 esignature user ID: apb10206

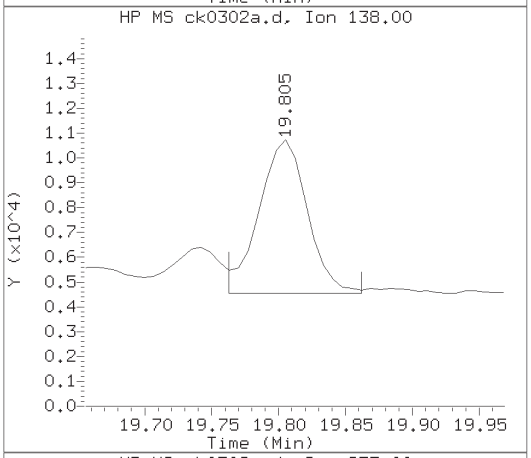
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



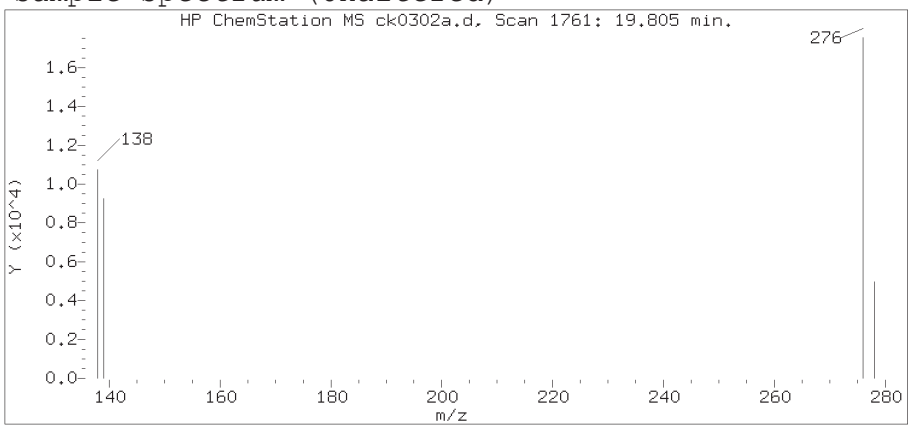


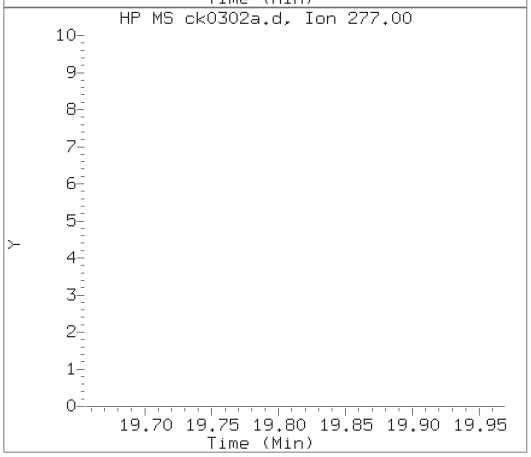
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1761
Retention Time (minutes)	: 19.805
Relative Retention Time	: 0.00009
Quant Ion	: 276.00
Area (flag)	: 39860
On-column Amount (ng/ul)	: 0.1921

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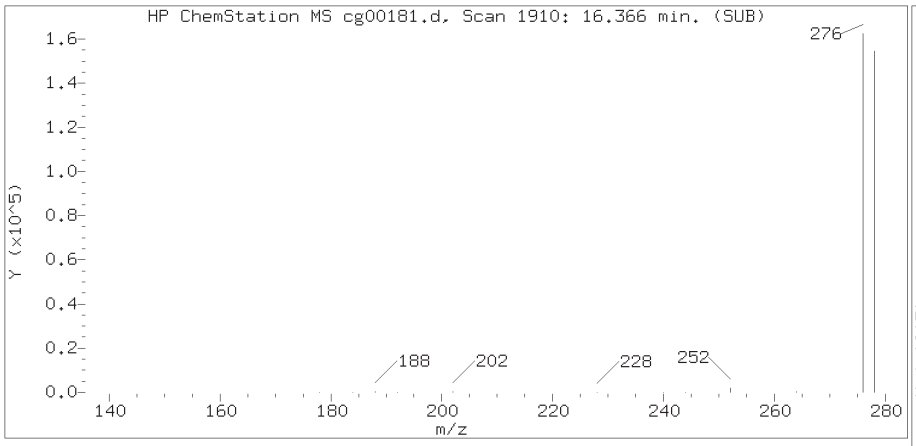
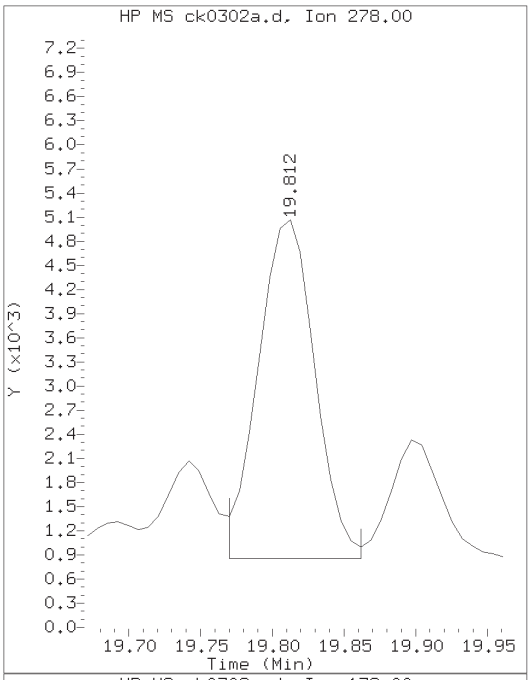
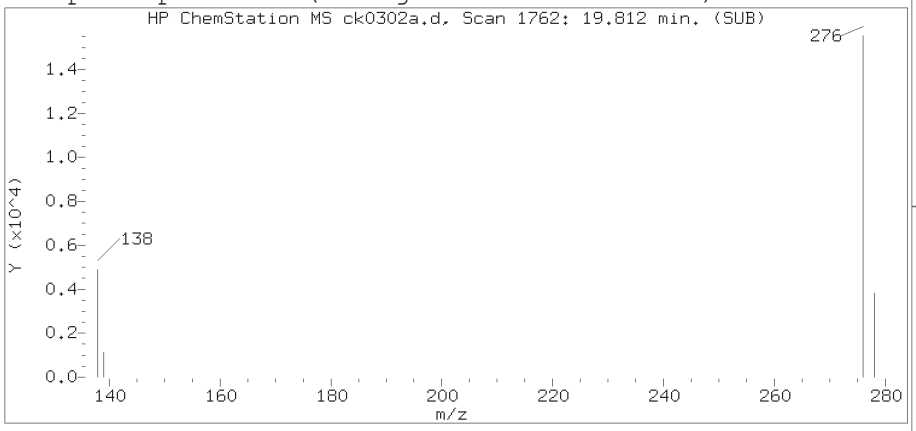
Target 3.5 esignature user ID: apb10206

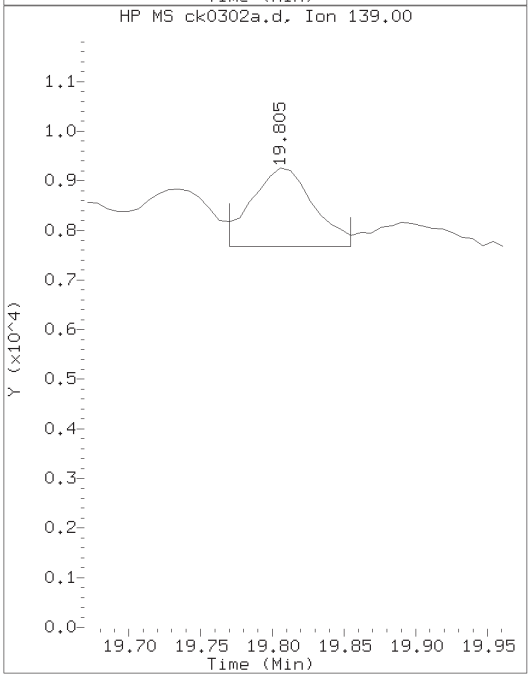
Reference Standard Spectrum for Dibenz(a,h)anthracene



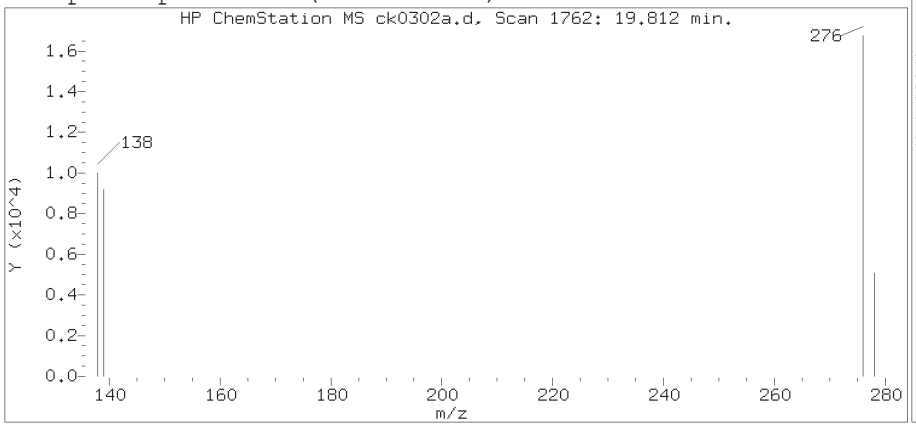


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1762
Retention Time (minutes)	: 19.812
Relative Retention Time	: 0.00009
Quant Ion	: 278.00
Area (flag)	: 11532
On-column Amount (ng/ul)	: 0.0670

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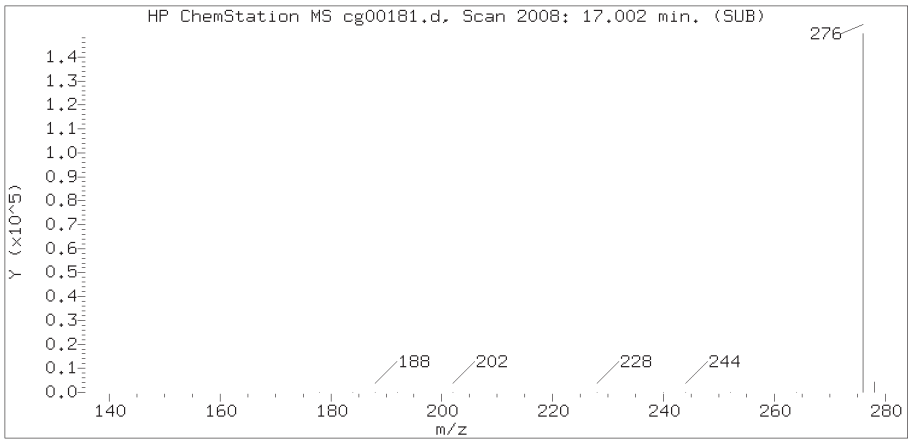
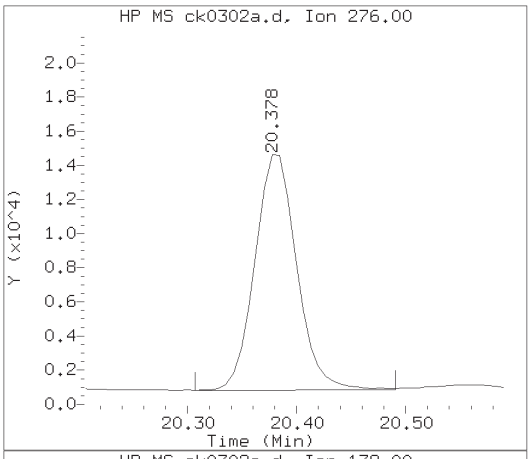
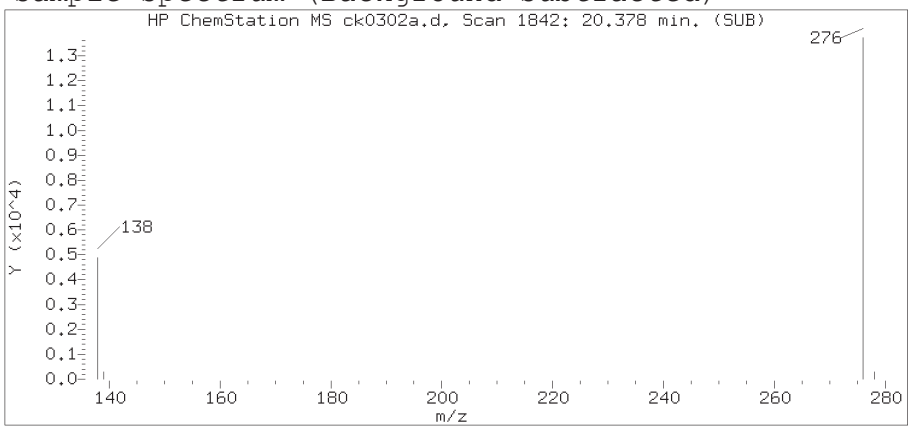
Target 3.5 esignature user ID: apb10206

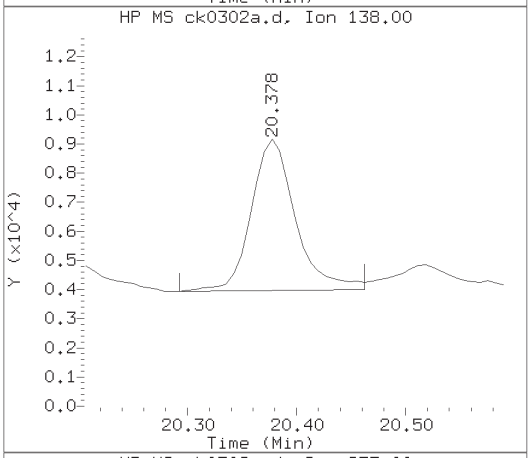
Reference Standard Spectrum for Benzo(g,h,i)perylene



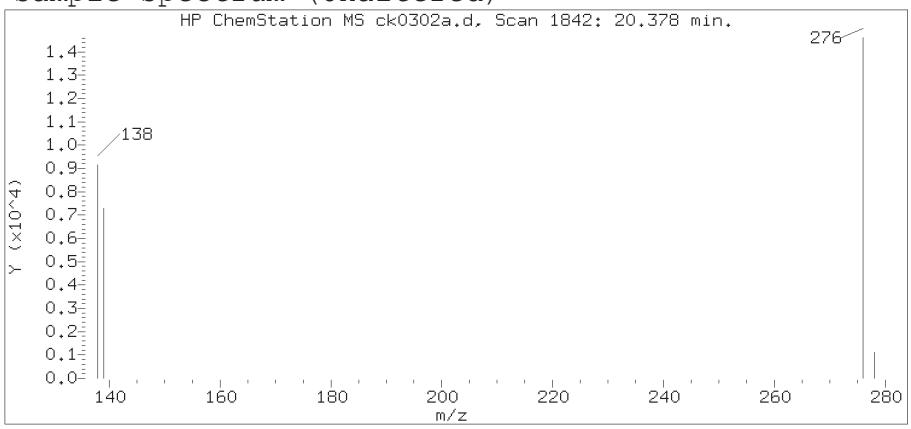


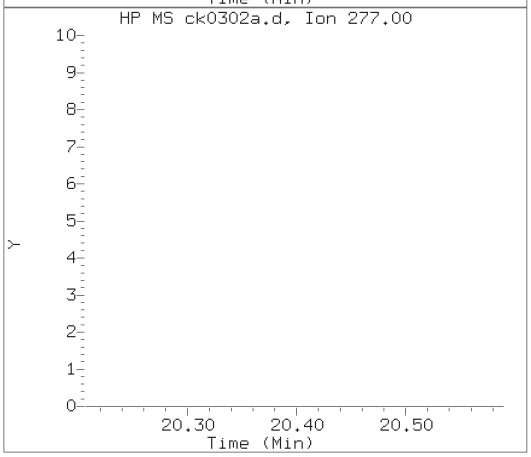
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0302a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 22:44 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:17 apb10206

Sample Name: 12T02DL Lab Sample ID: 9872060DL

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1842
Retention Time (minutes)	: 20.378
Relative Retention Time	: 0.00010
Quant Ion	: 276.00
Area (flag)	: 36905
On-column Amount (ng/ul)	: 0.1906

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Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.

Analysis Summary for GC/MS Semivolatiles 9872061

Data file: /chem/HP10623.i/18nov06a.b/ck0303.d Injection date and time: **06-NOV-2018 18:01**
Data file Sample Info. Line: 12T03;9872061;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845	(-0.013)	448	152	76352	(-19)	1.00	
10) Naphthalene-d8	8.357	(0.000)	562	136	319676	(-21)	1.00	
20) Acenaphthene-d10	10.536	(-0.011)	750	164	114115M	(-39)	1.00	
31) Phenanthrene-d10	12.396	(-0.011)	916	188	211031	(-39)	1.00	
43) Chrysene-d12	15.707	(-0.022)	1233	240	152157M	(-40)	1.00	
51) Perylene-d12	17.866	(-0.030)	1509	264	152915	(-32)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308	(-0.001)	152	15809M	0.098	98%		61 - 111
36) Fluoranthene-d10	(4)	13.893	(0.000)	212	19044M	0.099	99%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.733	(0.000)	264	12093	0.086	86%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.357	(-0.003)	88	1430	0.029	9.69			0.02
11) Naphthalene	(2)	8.383	(-0.000)	128	7166689	21.114	7023.82		E	0.04
19) Acenaphthylene	(3)	10.351	(0.001)	152	92818	0.410	136.30			0.01
21) Acenaphthene	(3)	10.568	(0.001)	154	2034103M	13.118	4363.78		E	0.02
26) Fluorene	(3)	11.215	(0.000)	166	1735908	10.468	3482.35		E	0.02
32) Phenanthrene	(4)	12.418	(0.000)	178	2315221	9.195	3058.78			0.02
33) Anthracene	(4)	12.486	(0.000)	178	928862	3.836	1276.17			0.02
35) Di-n-butylphthalate	(4)	13.038	(0.001)	149	260854M	0.967	321.74			0.2
37) Fluoranthene	(4)	13.917	(0.000)	202	1611836	6.515	2167.21			0.02
39) Pyrene	(5)	14.210	(0.000)	202	1465597	5.985	1990.89			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	(0.000)	149	180425	1.125	374.24	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.692	(-0.000)	228	534945	2.713	902.43			0.02
44) Chrysene	(5)	15.738	(0.000)	228	632267	3.129	1041.06			0.01
46) Benzo(b)fluoranthene	(6)	17.232	(-0.000)	252	546120M	2.787	926.99			0.02
47) Benzo(k)fluoranthene	(6)	17.256	(0.000)	252	268792M	1.277	424.86			0.02
50) Benzo(a)pyrene	(6)	17.772	(-0.000)	252	386604	2.162	719.28			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.840	(-0.000)	276	215181	1.213	403.59			0.02
54) Dibenz(a,h)anthracene	(6)	19.840	(-0.000)	278	58214	0.396	131.70			0.02
55) Benzo(g,h,i)perylene	(6)	20.412	(-0.000)	276	206420	1.247	414.84			0.02

E = Compound concentration above calibration range. M = Compound was manually integrated. B = Compound detected in referenced method blank.

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Data file: /chem/HP10623.i/18nov06a.b/ck0303.d Injection date and time: **06-NOV-2018 18:01**
Data file Sample Info. Line: 12T03;9872061;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

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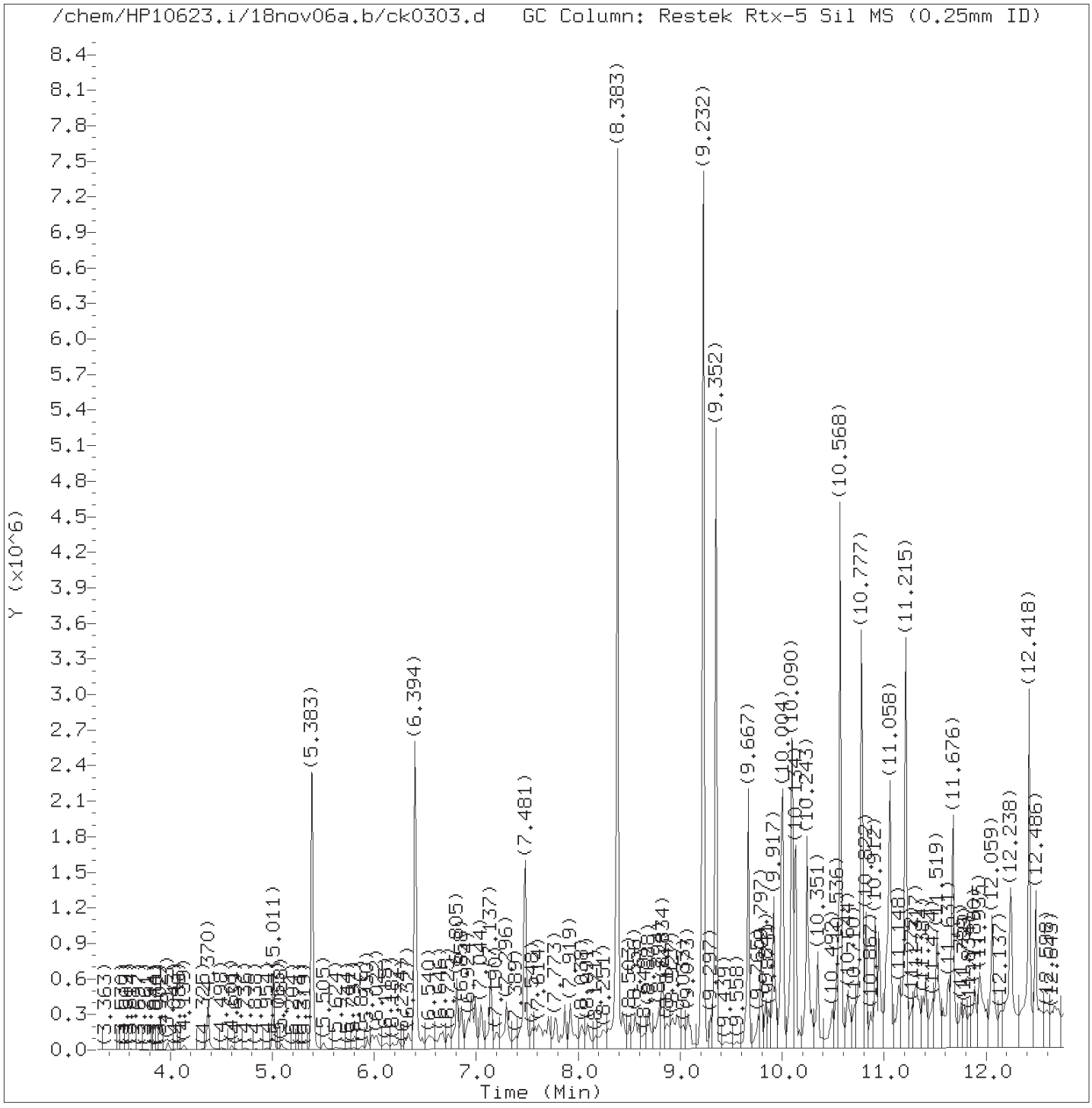
Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

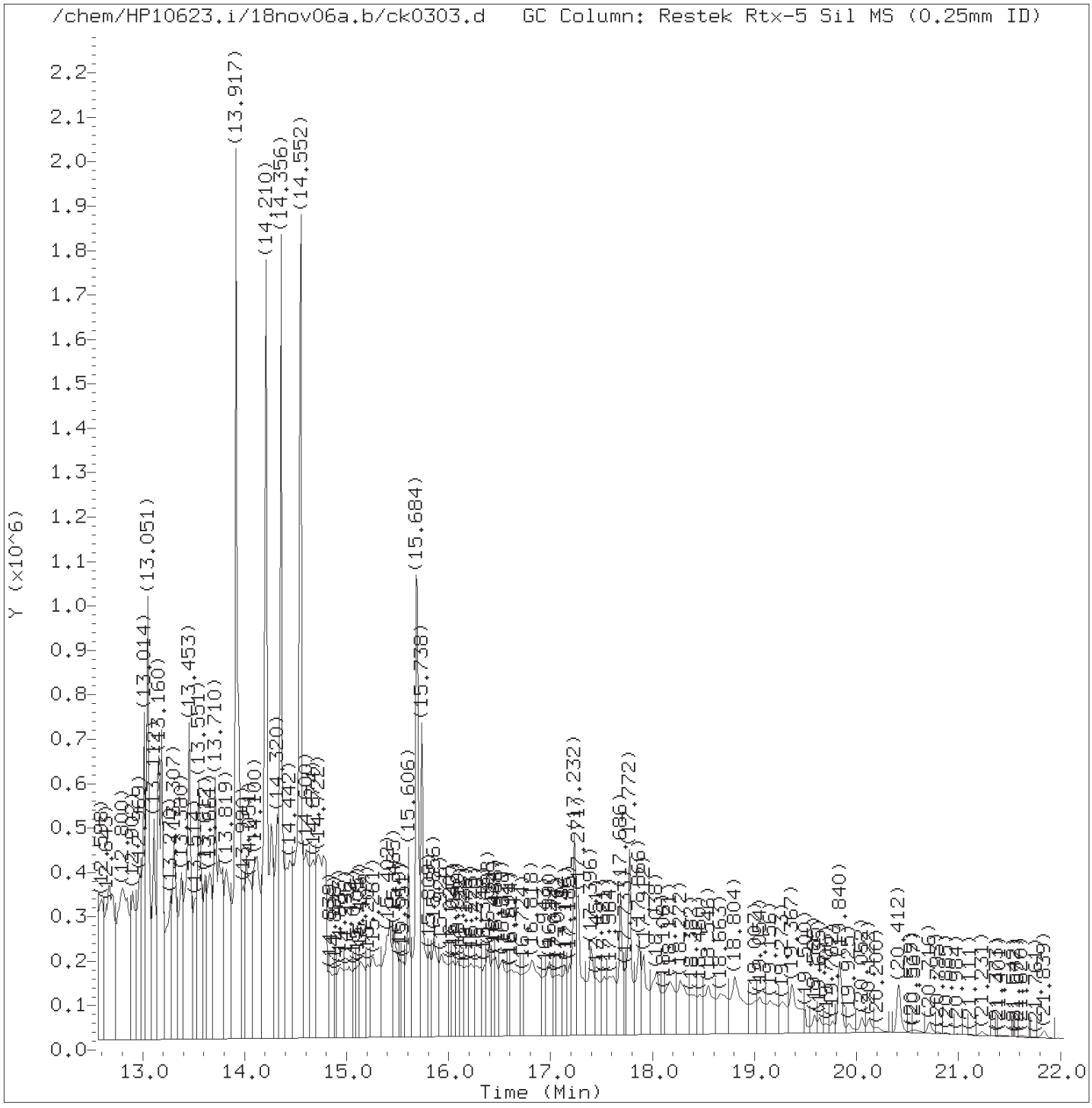
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.357	88	1430	0.029
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	76352	1.000
10)*Naphthalene-d8	(2)	8.357	136	319676	1.000
11) Naphthalene	(2)	8.383	128	7166689	21.114
14)$1-Methylnaphthalene-d10	(2)	9.308	152	15809M	0.098
19) Acenaphthylene	(3)	10.351	152	92818	0.410
20)*Acenaphthene-d10	(3)	10.536	164	114115M	1.000
21) Acenaphthene	(3)	10.568	154	2034103M	13.118
26) Fluorene	(3)	11.215	166	1735908	10.468
31)*Phenanthrene-d10	(4)	12.396	188	211031	1.000
32) Phenanthrene	(4)	12.418	178	2315221	9.195
33) Anthracene	(4)	12.486	178	928862	3.836
35) Di-n-butylphthalate	(4)	13.038	149	260854M	0.967
36)$Fluoranthene-d10	(4)	13.893	212	19044M	0.099
37) Fluoranthene	(4)	13.917	202	1611836	6.515
39) Pyrene	(5)	14.210	202	1465597	5.985
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	149	180425	1.125
42) Benzo(a)anthracene	(5)	15.692	228	534945	2.713
43)*Chrysene-d12	(5)	15.707	240	152157M	1.000
44) Chrysene	(5)	15.738	228	632267	3.129
46) Benzo(b)fluoranthene	(6)	17.232	252	546120M	2.787
47) Benzo(k)fluoranthene	(6)	17.256	252	268792M	1.277
49)$Benzo(a)pyrene-d12	(6)	17.733	264	12093	0.086
50) Benzo(a)pyrene	(6)	17.772	252	386604	2.162
51)*Perylene-d12	(6)	17.866	264	152915	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.840	276	215181	1.213
54) Dibenz(a,h)anthracene	(6)	19.840	278	58214	0.396
55) Benzo(g,h,i)perylene	(6)	20.412	276	206420	1.247

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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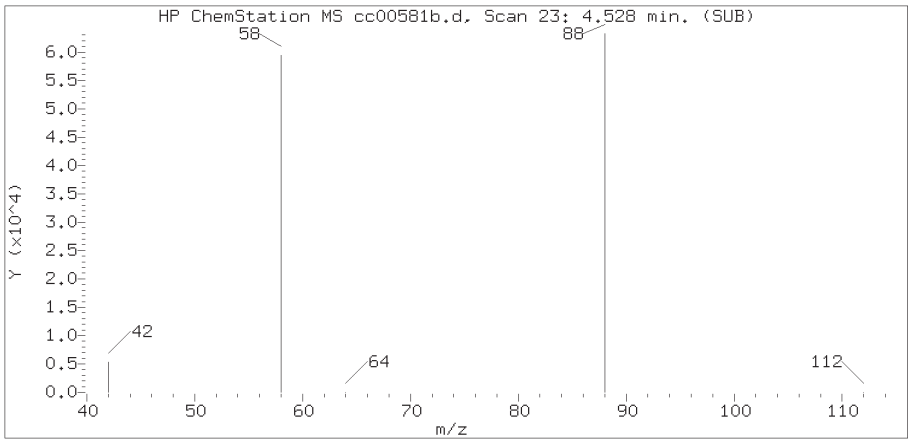
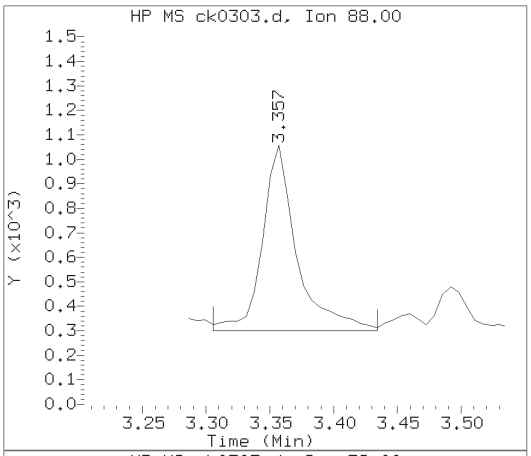
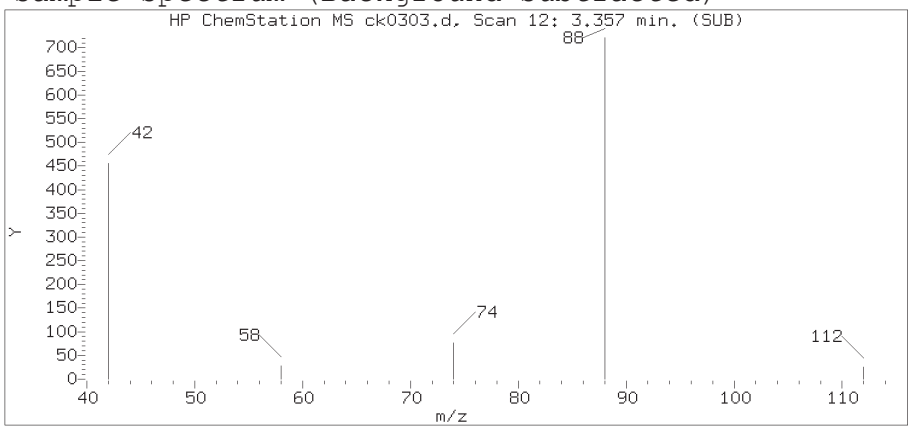
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

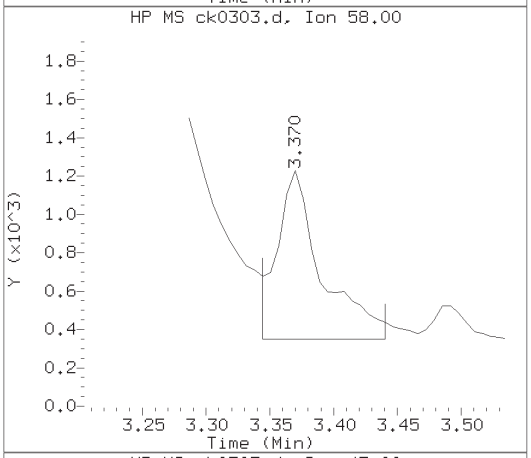
Reference Standard Spectrum for 1,4-Dioxane



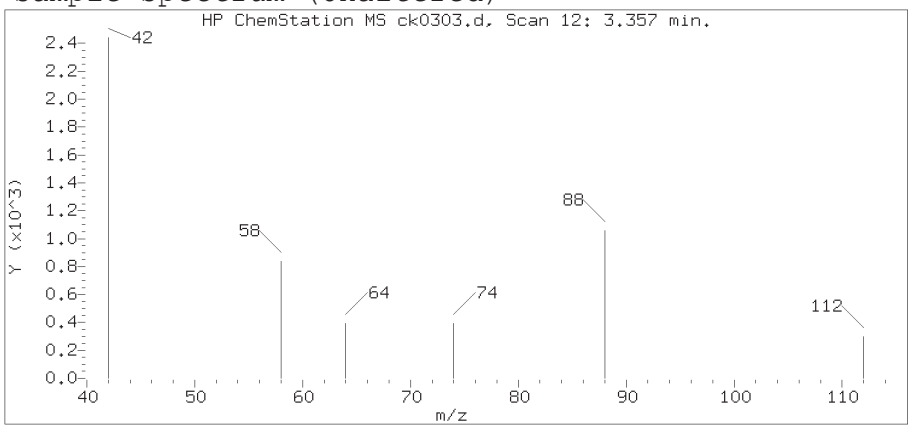


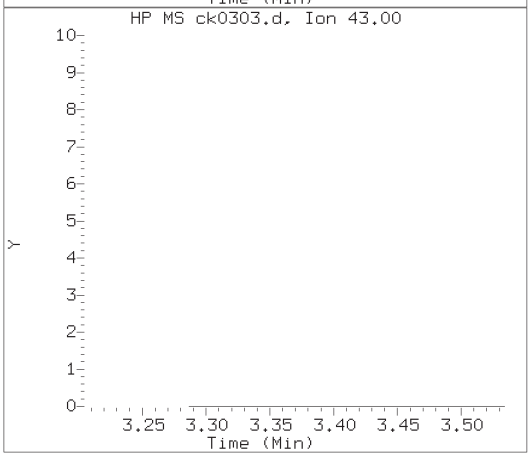
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

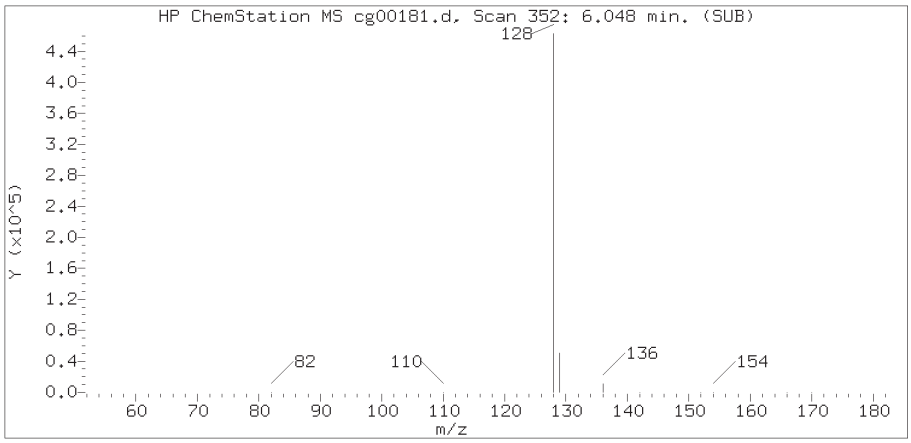
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

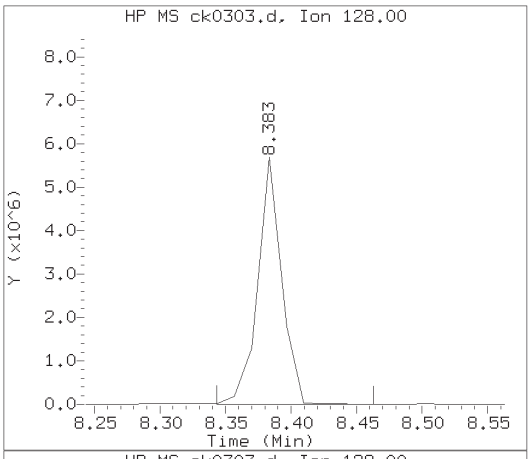
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 12
Retention Time (minutes)	: 3.357
Relative Retention Time	:-0.00374
Quant Ion	: 88.00
Area (flag)	: 1430
On-column Amount (ng/ul)	: 0.0291

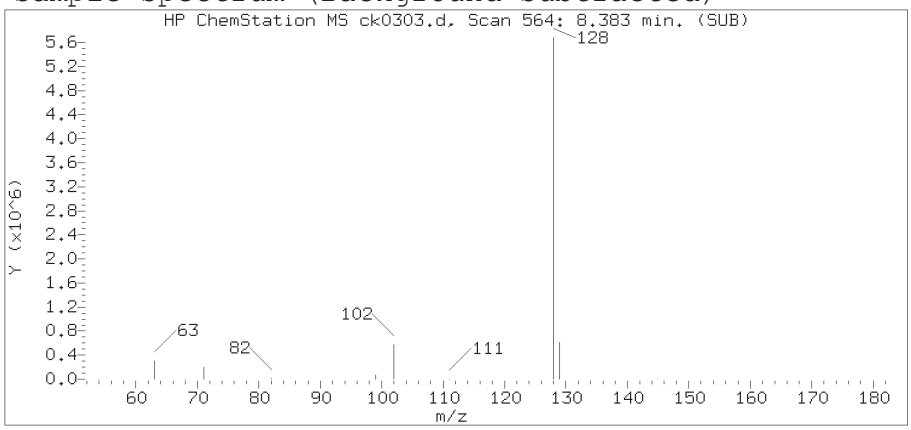
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

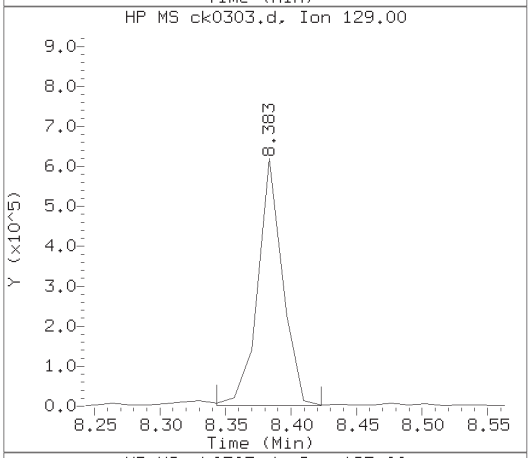
Reference Standard Spectrum for Naphthalene



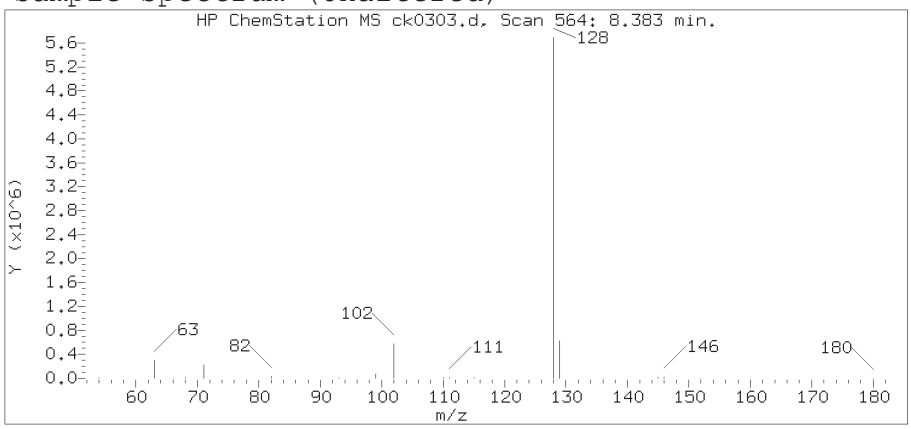


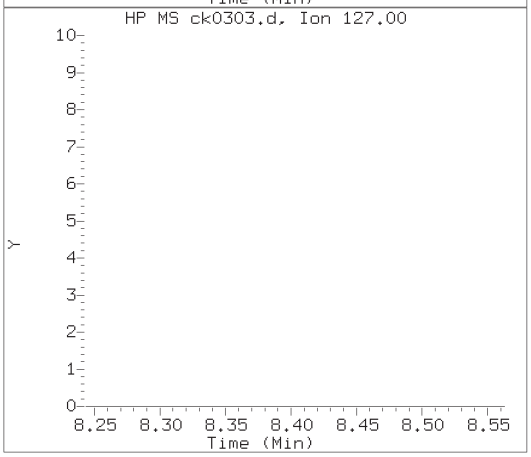
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

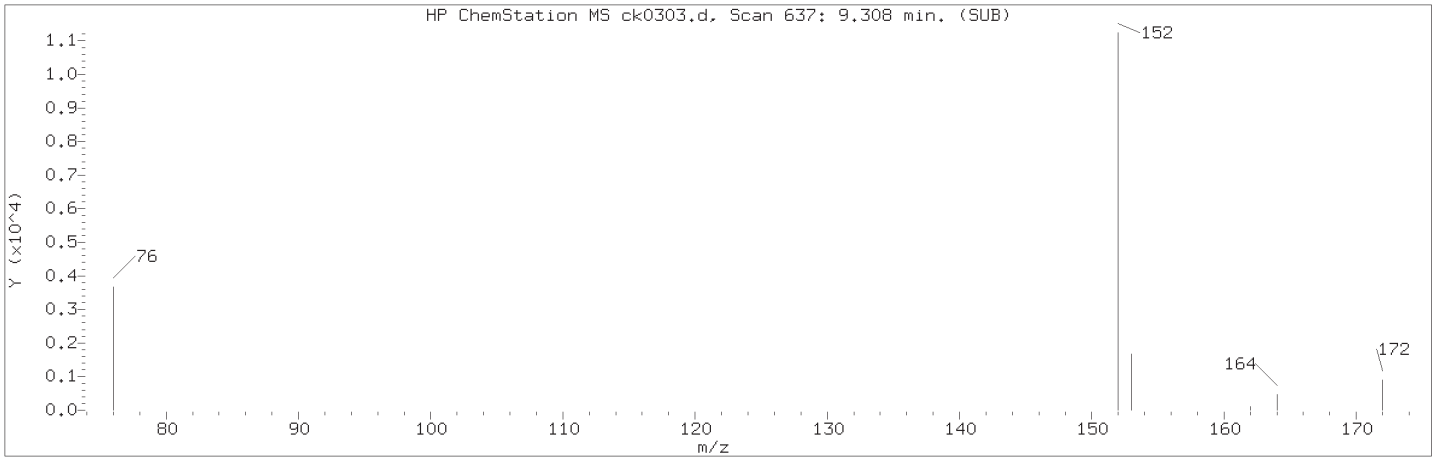
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

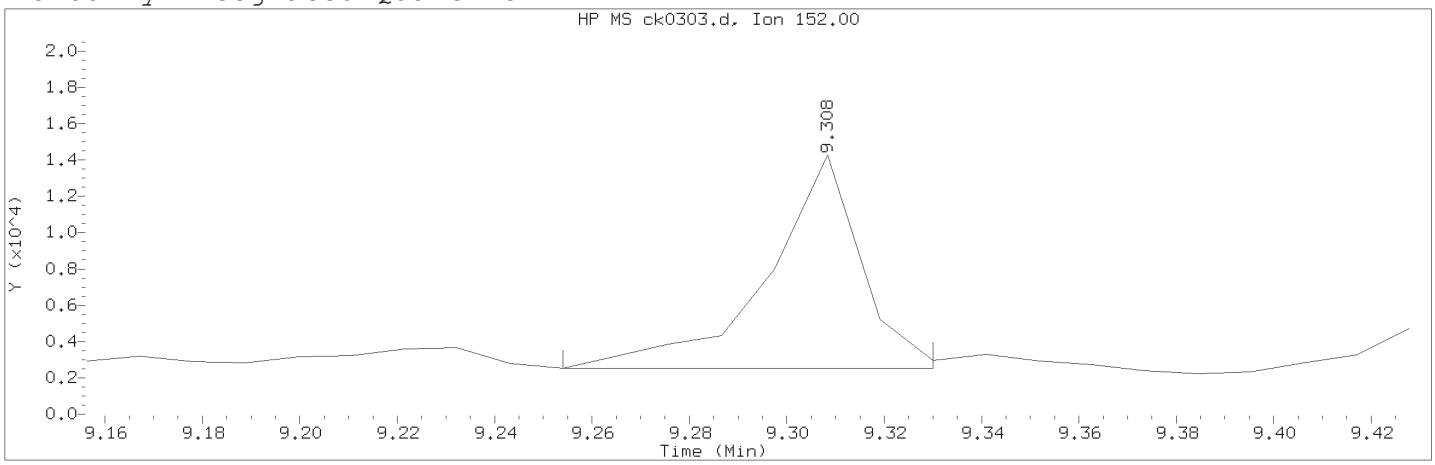
Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 564
Retention Time (minutes)	: 8.383
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 7166689
On-column Amount (ng/ul)	: 21.1136

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

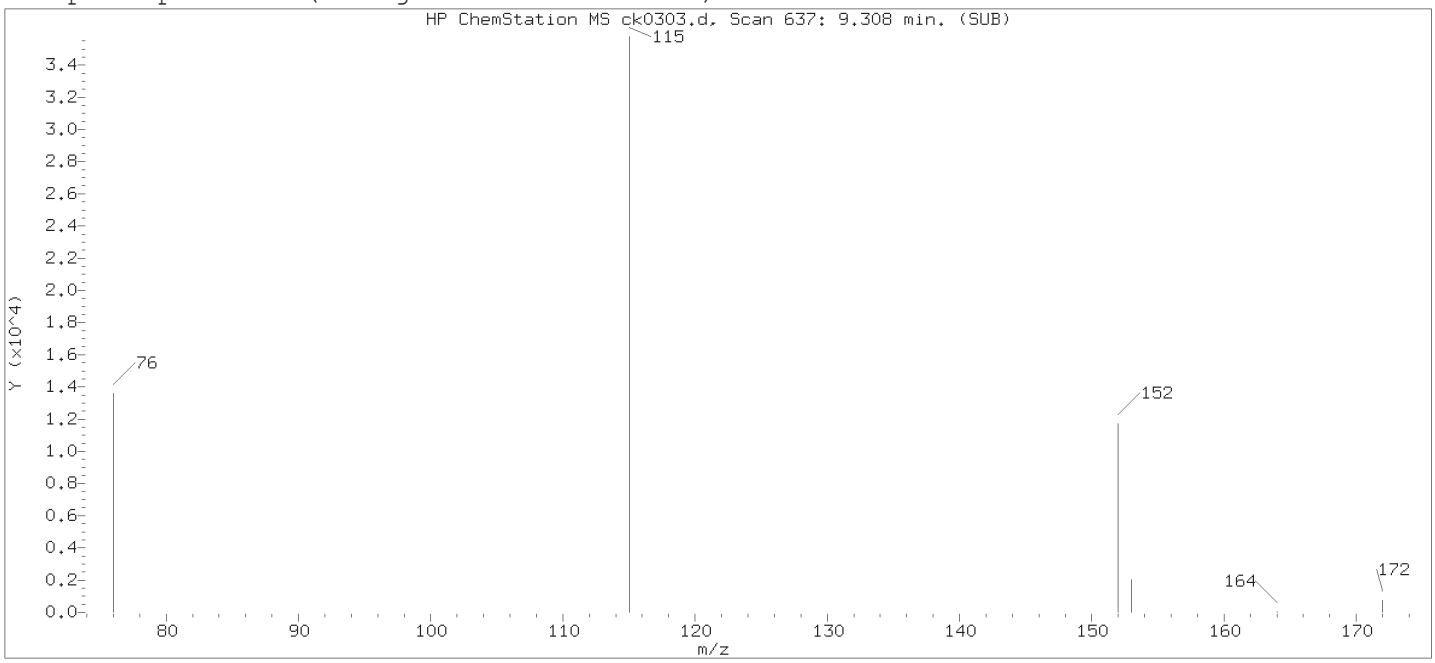
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area (flag)	: 15809M		
On-column Amount (ng/ul)	: 0.0979		
Integration start scan	: 631	Integration stop scan:	638
Y at integration start	: 2529	Y at integration end:	2529

Reason for manual integration: improper integration

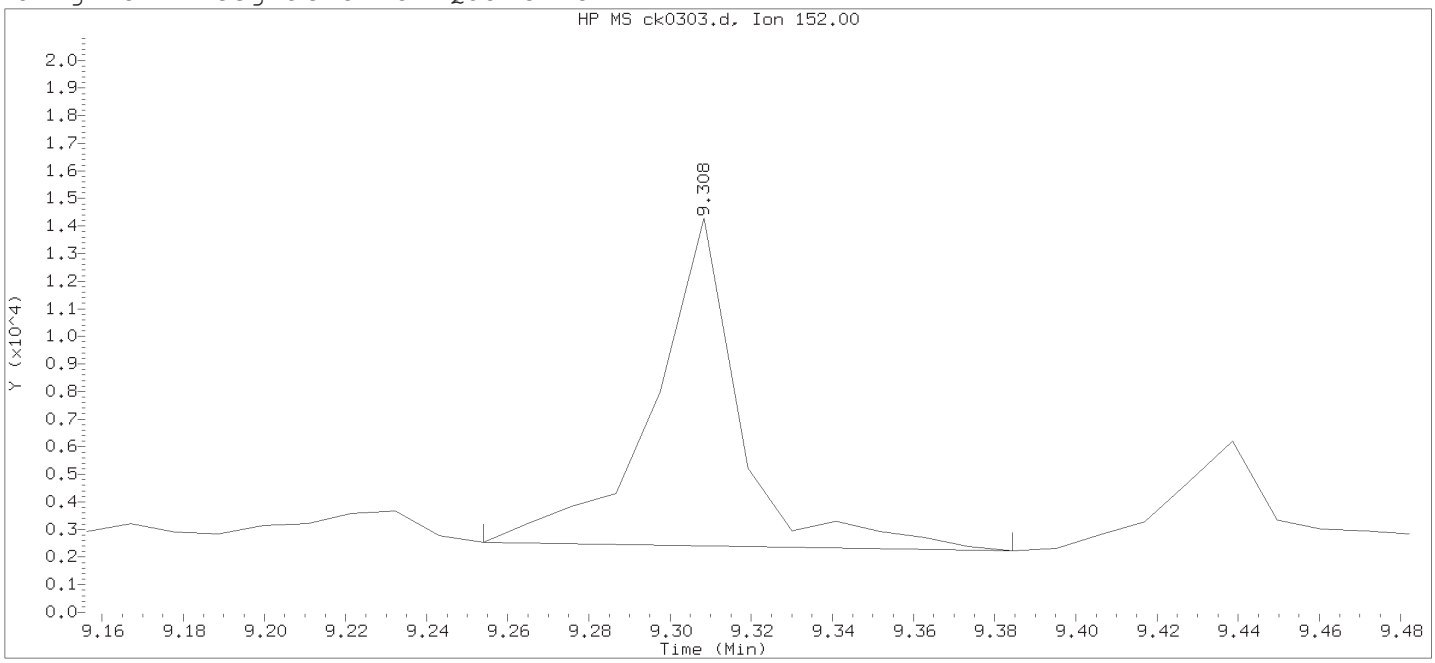
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

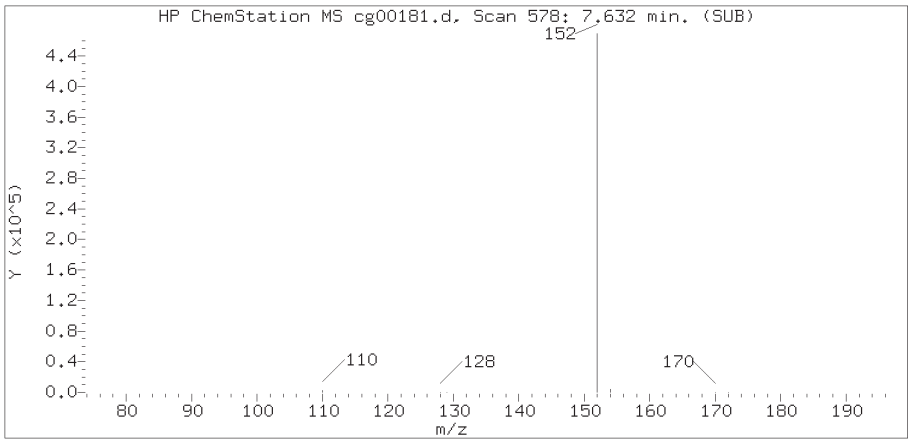
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

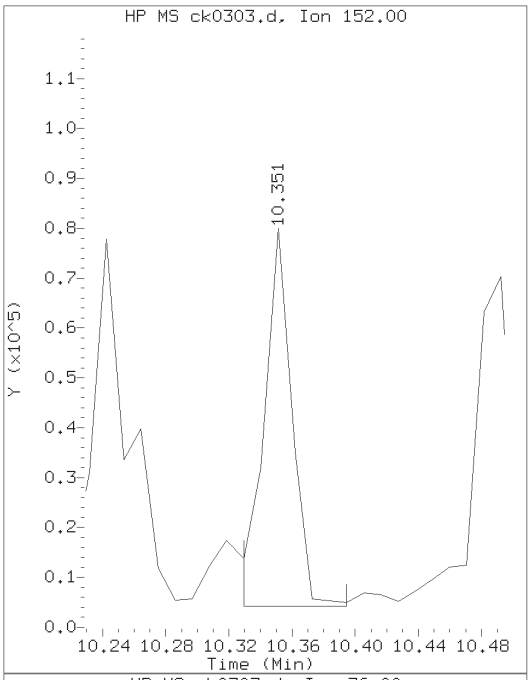
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 14
Compound Name	: 1-Methylnaphthalene-d10
Scan Number	: 637
Retention Time (minutes)	: 9.308
Quant Ion	: 152.00
Area	: 17934
On-column Amount (ng/ul)	: 0.1110
Integration start scan	: 631 Integration stop scan: 643
Y at integration start	: 2540 Y at integration end: 2235

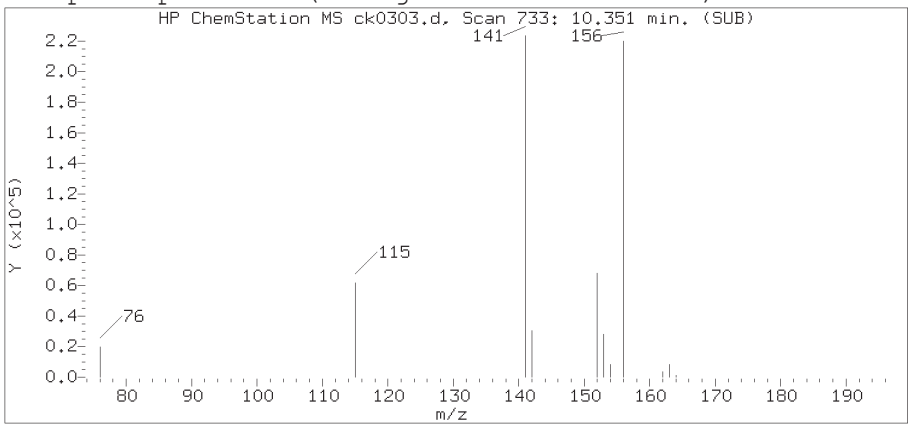
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2660

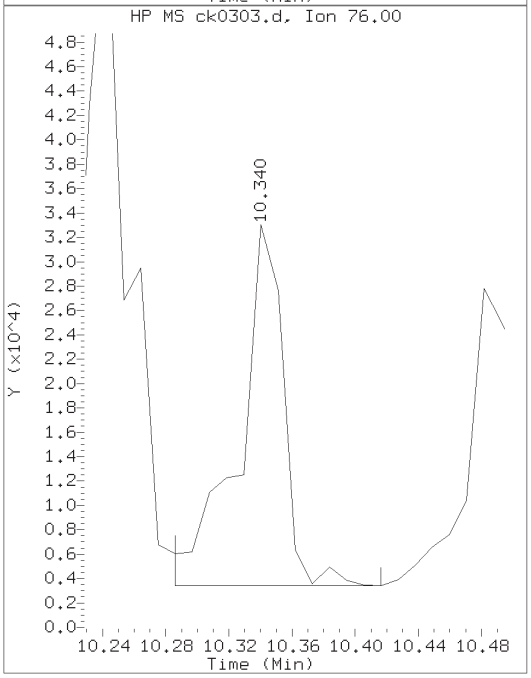
Reference Standard Spectrum for Acenaphthylene



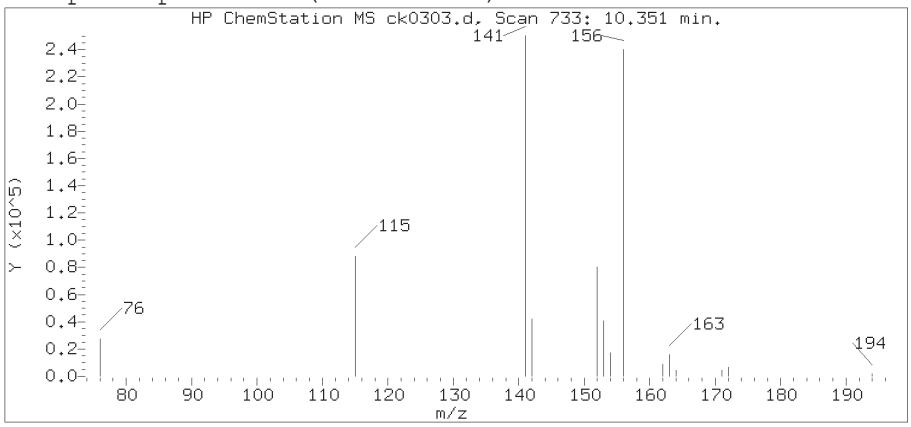


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

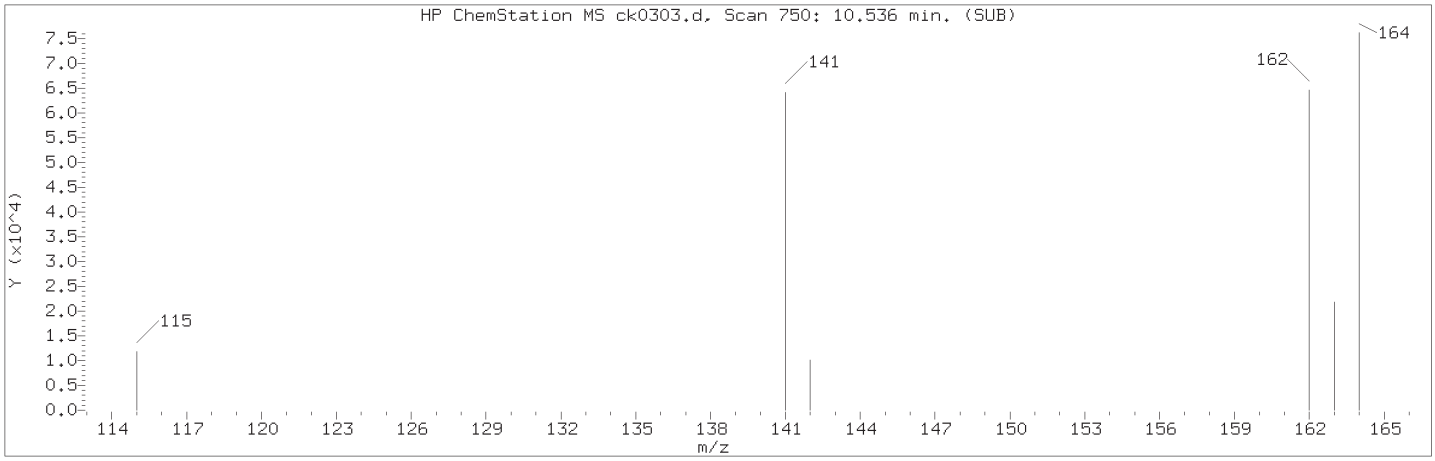
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

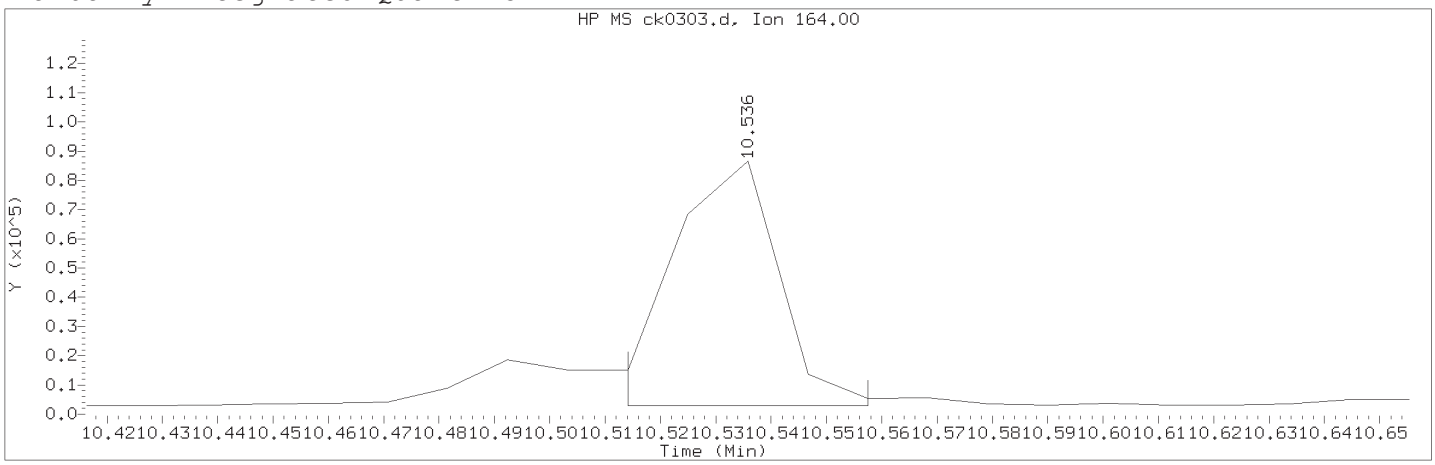
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00101
Quant Ion	: 152.00
Area (flag)	: 92818
On-column Amount (ng/ul)	: 0.4097

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

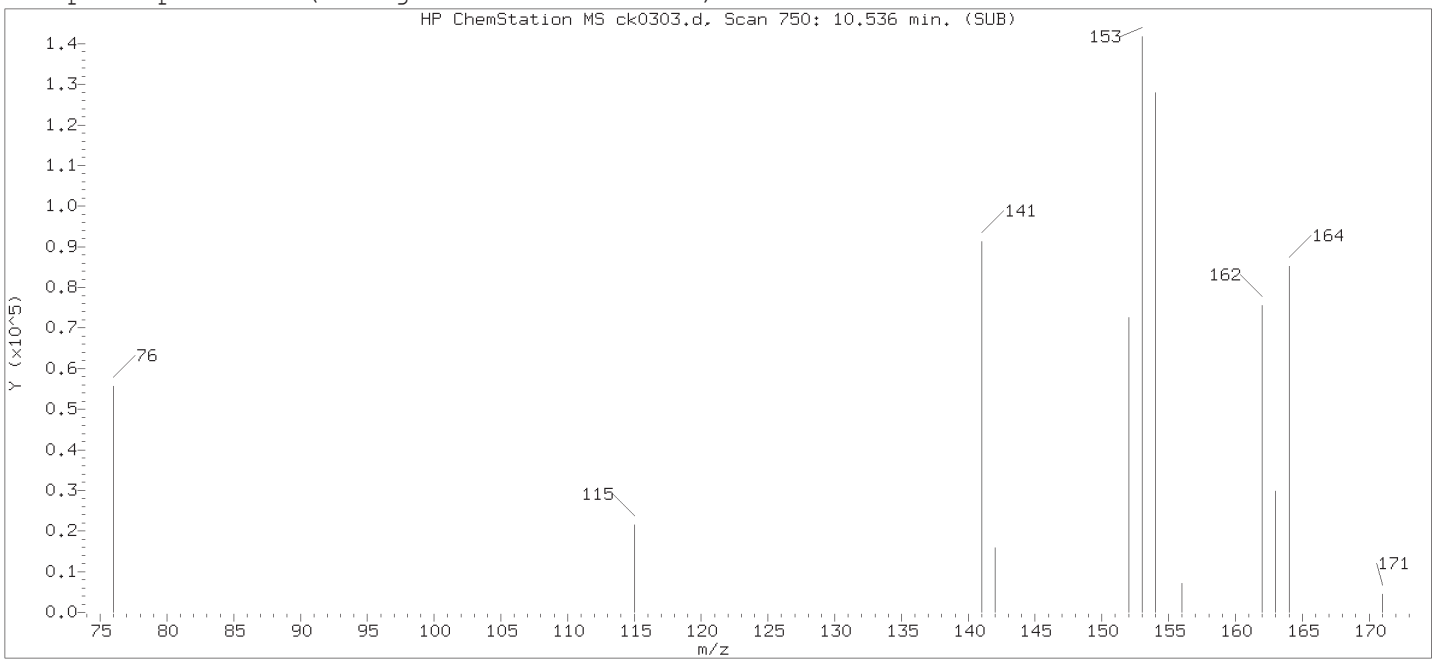
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 750
Retention Time (minutes) : 10.536
Quant Ion : 164.00
Area (flag) : 114115M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 747 Integration stop scan: 751
Y at integration start : 2815 Y at integration end: 2815

Reason for manual integration: improper integration

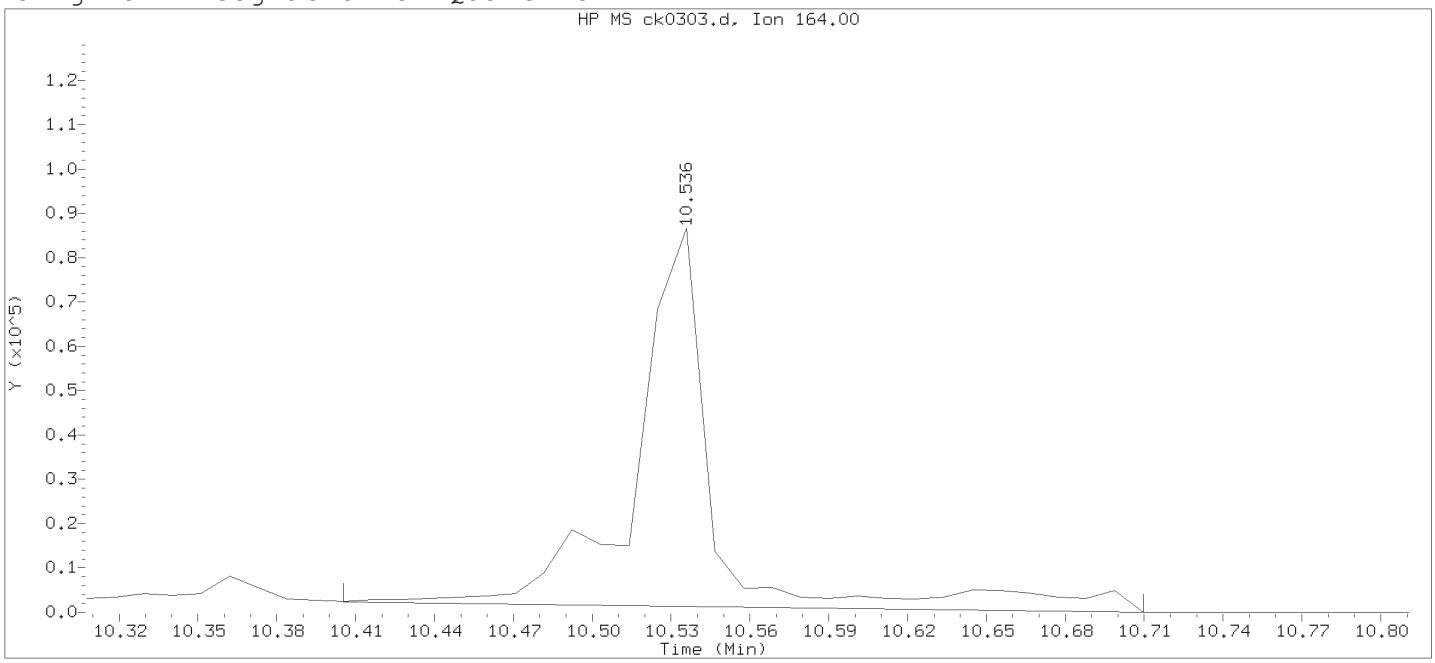
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

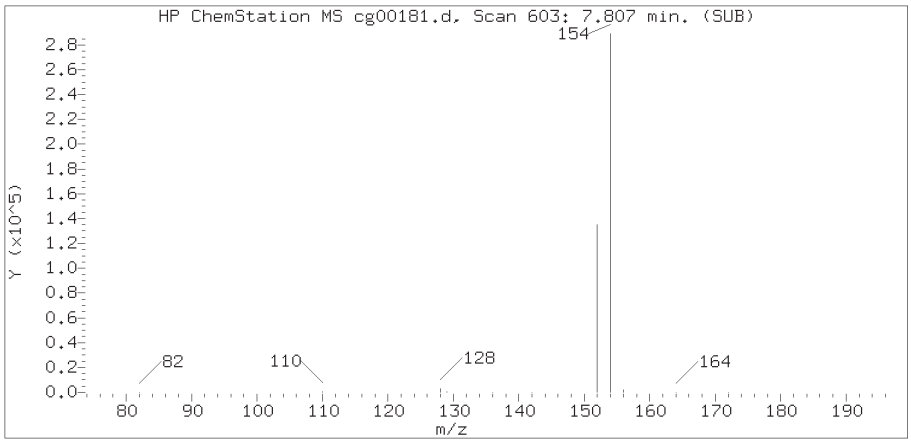
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

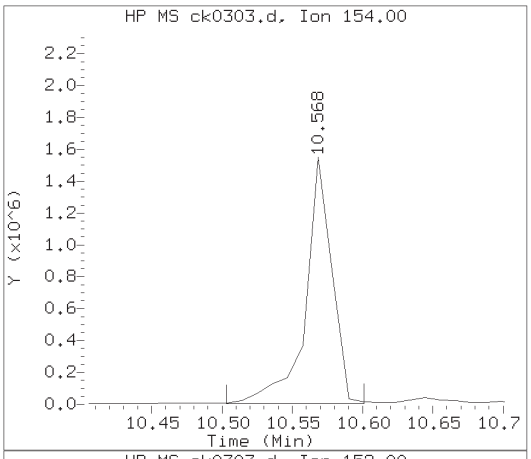
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 750		
Retention Time (minutes)	: 10.536		
Quant Ion	: 164.00		
Area	: 178826		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 737	Integration stop scan:	765
Y at integration start	: 2325	Y at integration end:	0

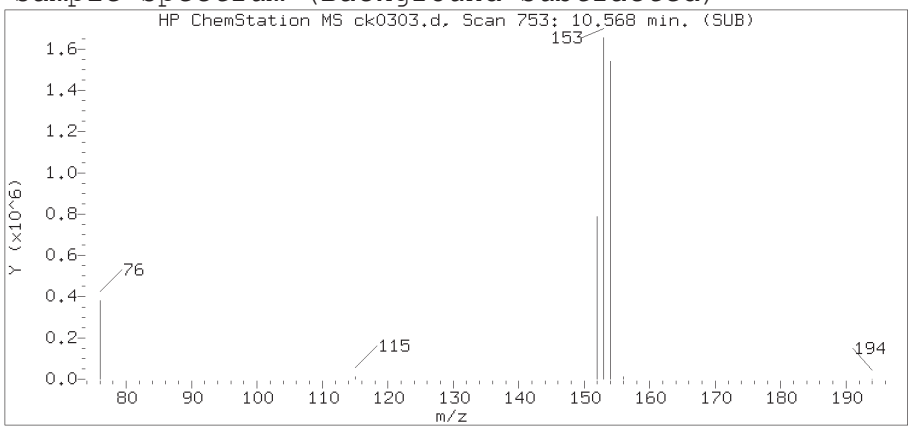
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

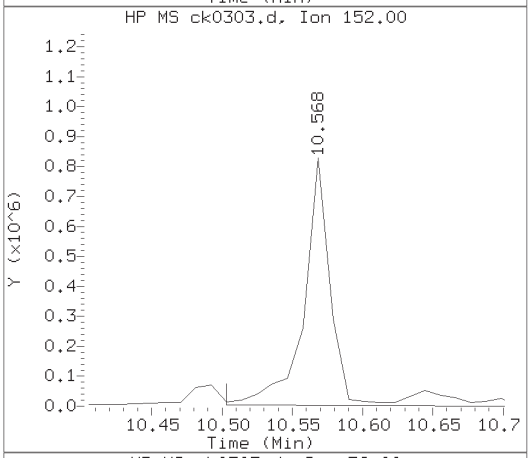
Reference Standard Spectrum for Acenaphthene



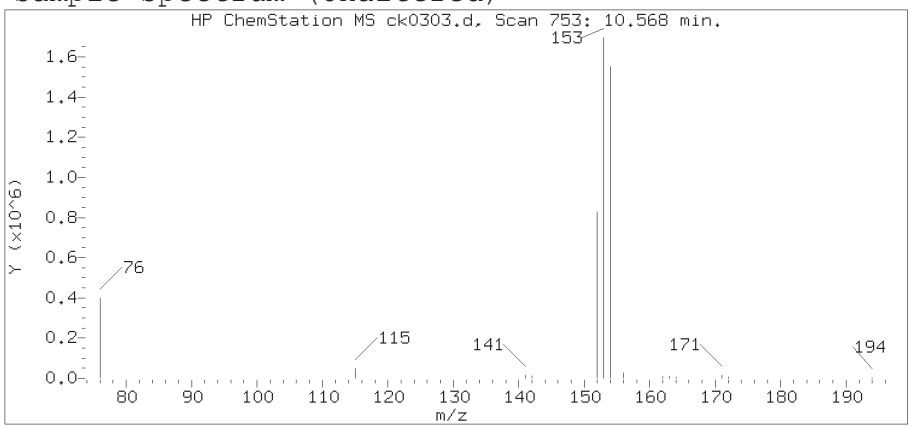


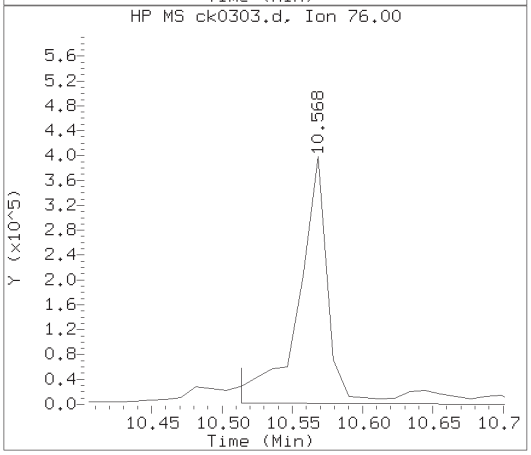
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

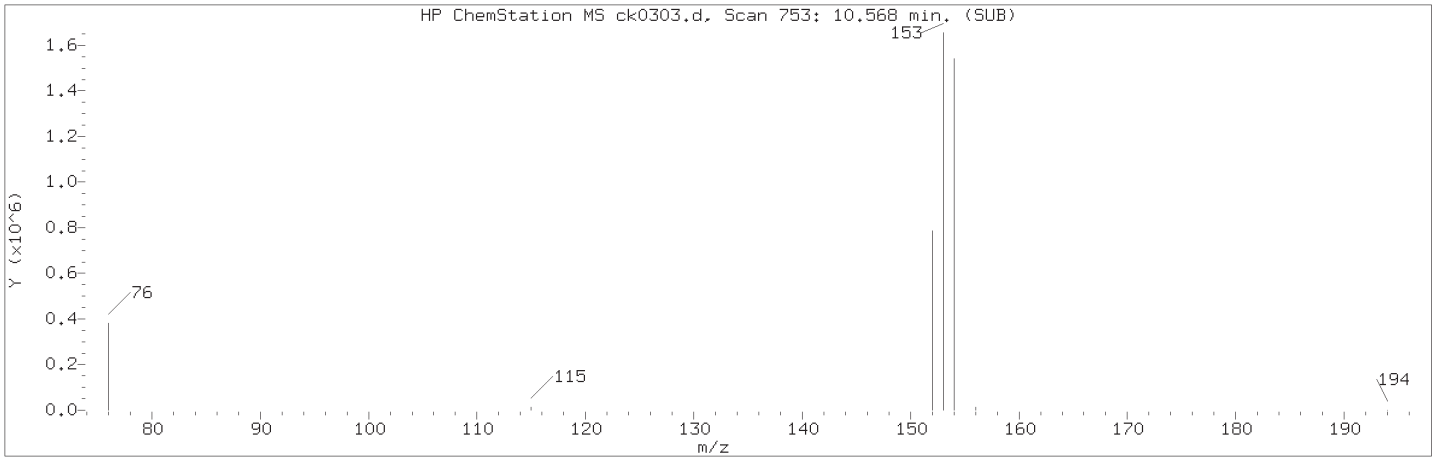
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

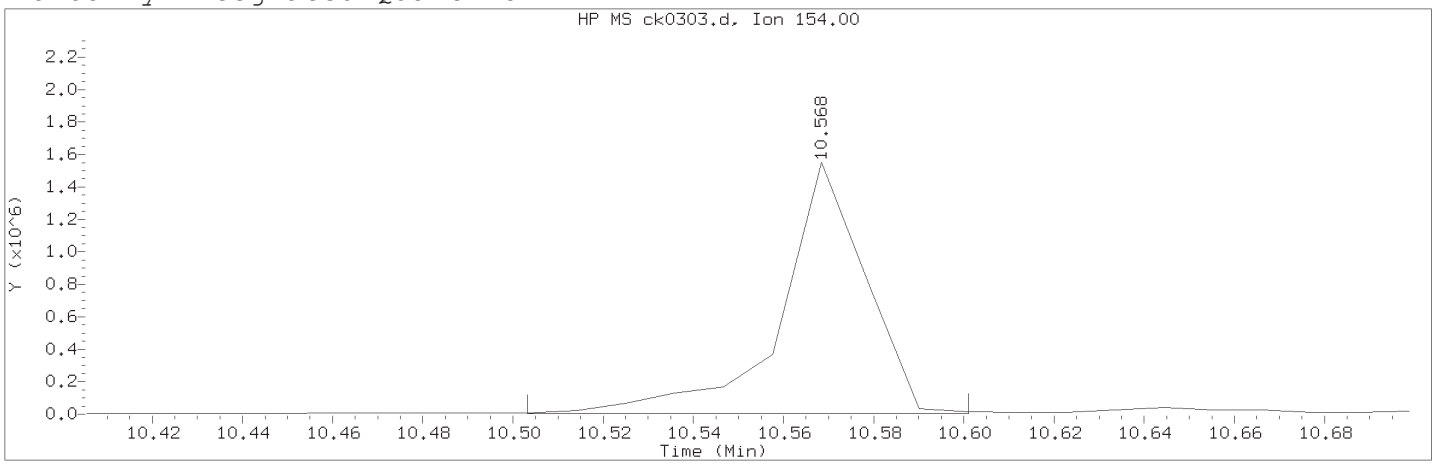
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	: 0.00104
Quant Ion	: 154.00
Area (flag)	: 2034103M
On-column Amount (ng/ul)	: 13.1175

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

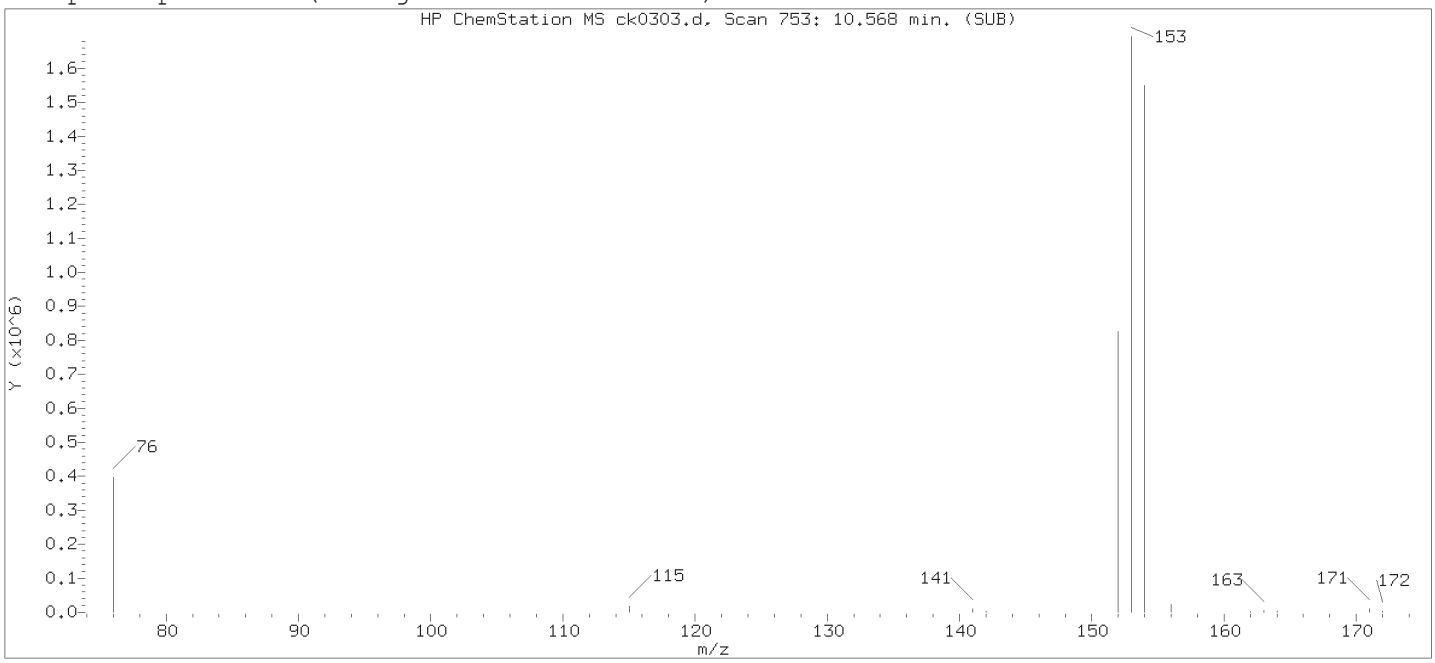
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 753
Retention Time (minutes) : 10.568
Quant Ion : 154.00
Area (flag) : 2034103M
On-column Amount (ng/ul) : 13.1175
Integration start scan : 746 Integration stop scan: 755
Y at integration start : 3228 Y at integration end: 3228

Reason for manual integration: improper integration

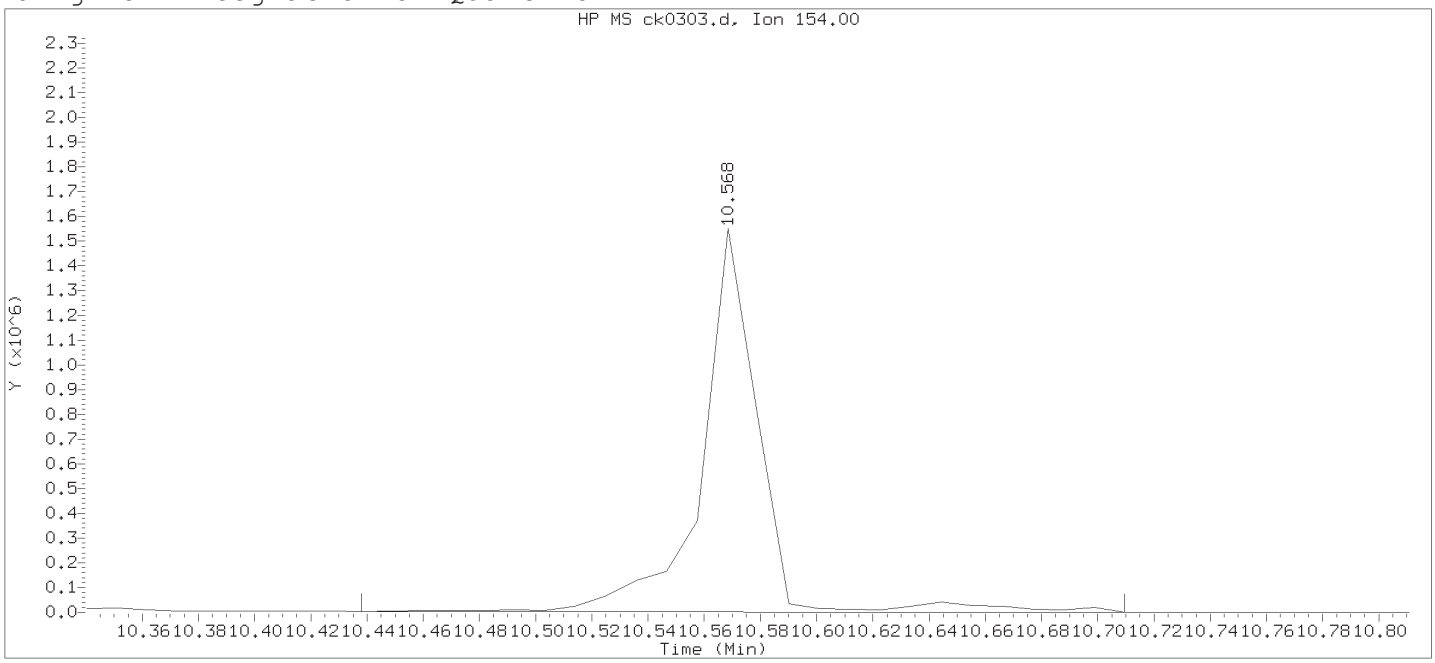
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

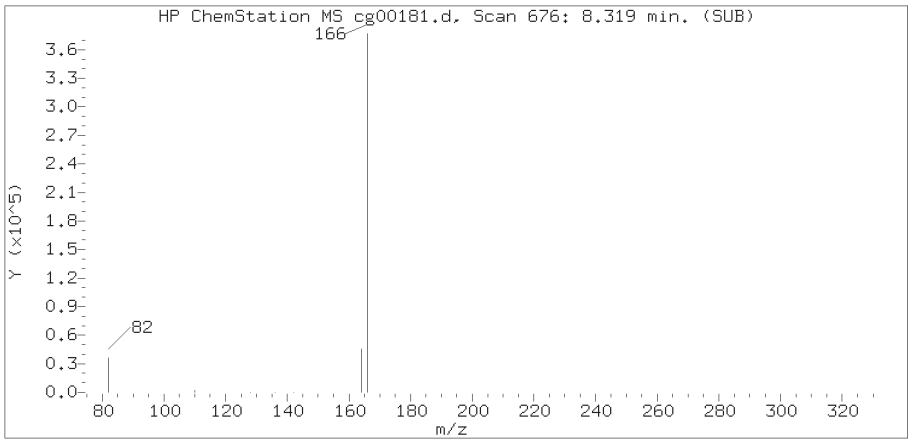
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

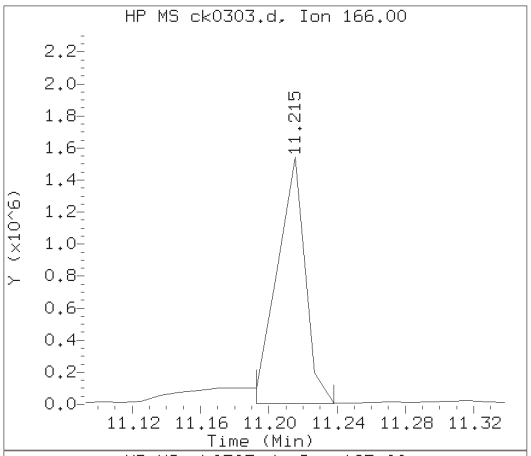
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.568		
Quant Ion	: 154.00		
Area	: 2178405		
On-column Amount (ng/ul)	: 8.9646		
Integration start scan	: 740	Integration stop scan:	765
Y at integration start	: 3273	Y at integration end:	0

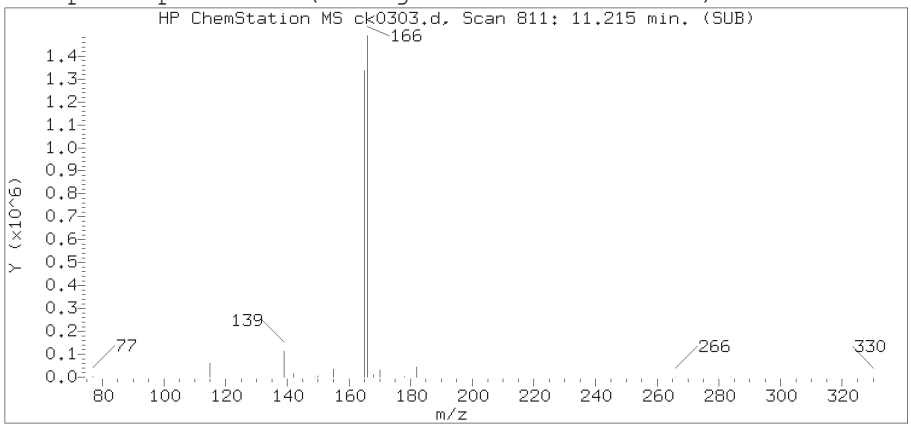
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018

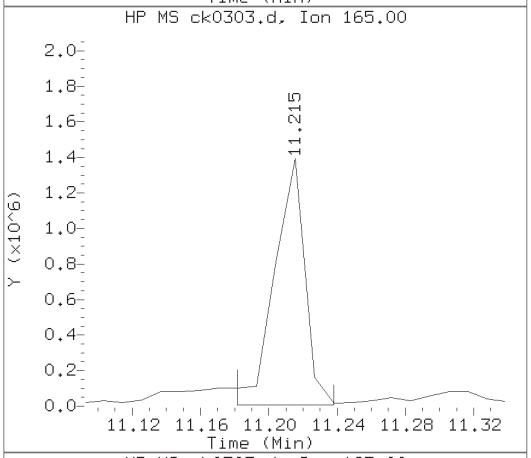
Reference Standard Spectrum for Fluorene



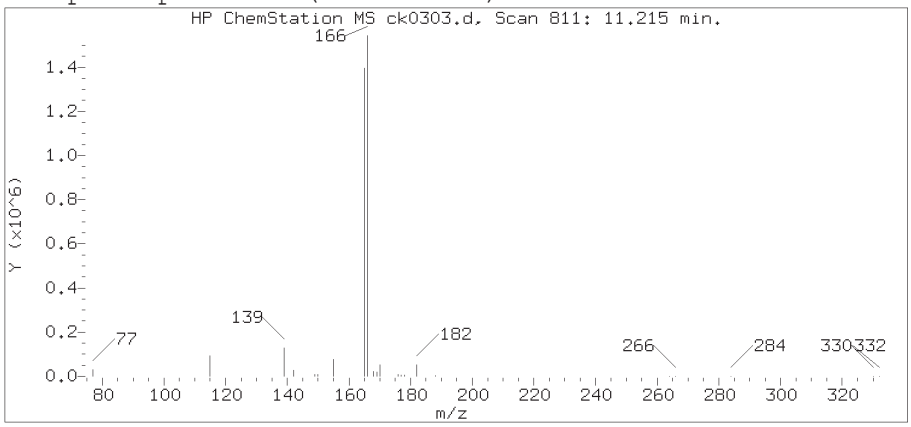


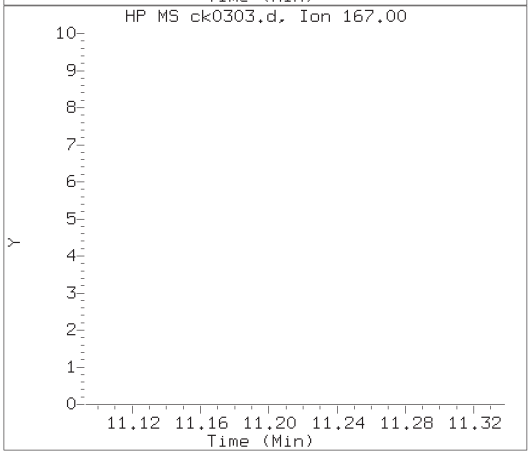
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

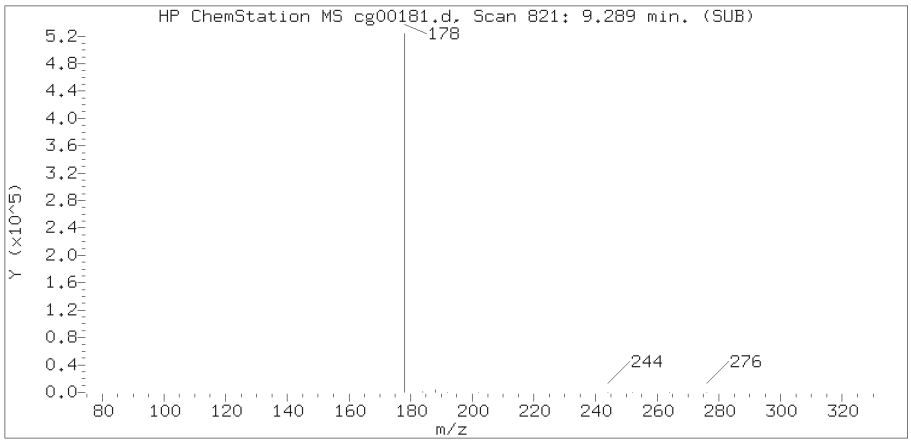
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

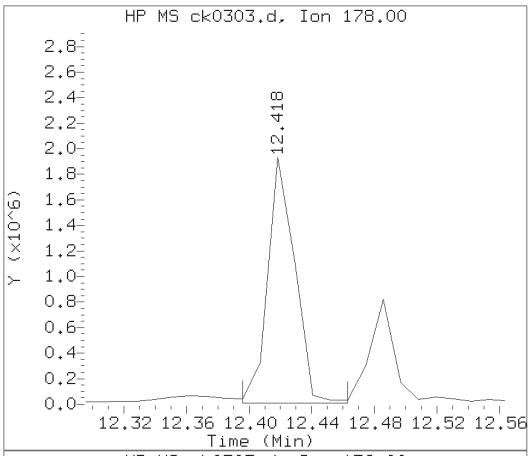
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 811
Retention Time (minutes)	: 11.215
Relative Retention Time	: 0.00003
Quant Ion	: 166.00
Area (flag)	: 1735908
On-column Amount (ng/ul)	: 10.4679

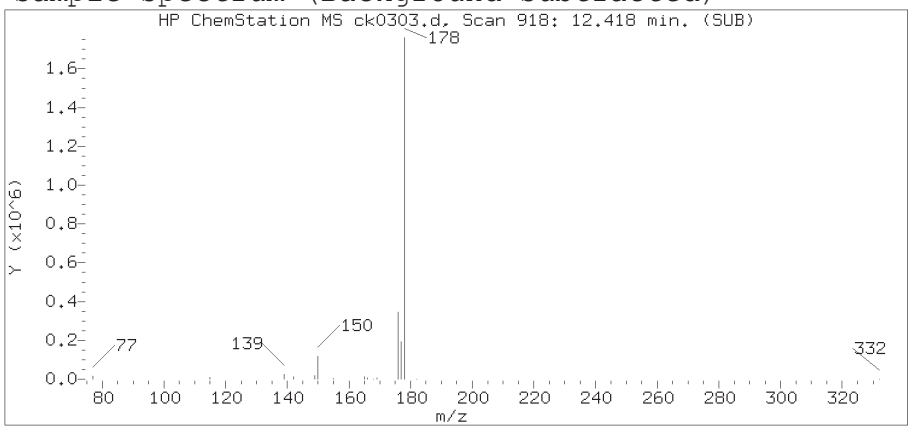
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

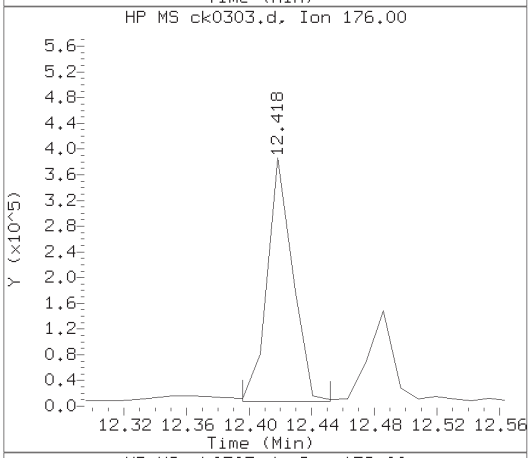
Reference Standard Spectrum for Phenanthrene



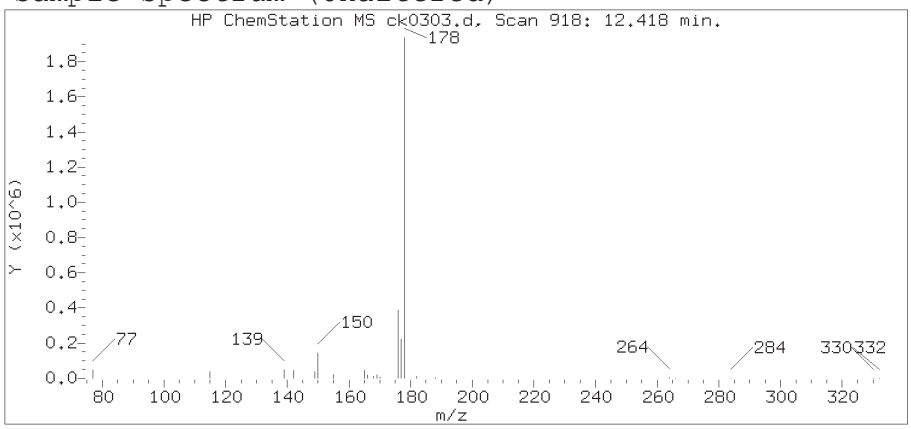


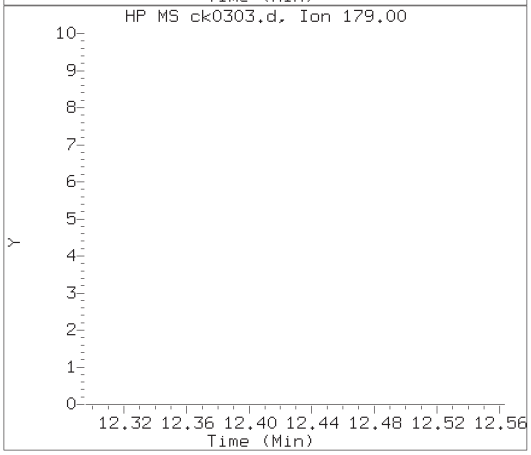
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

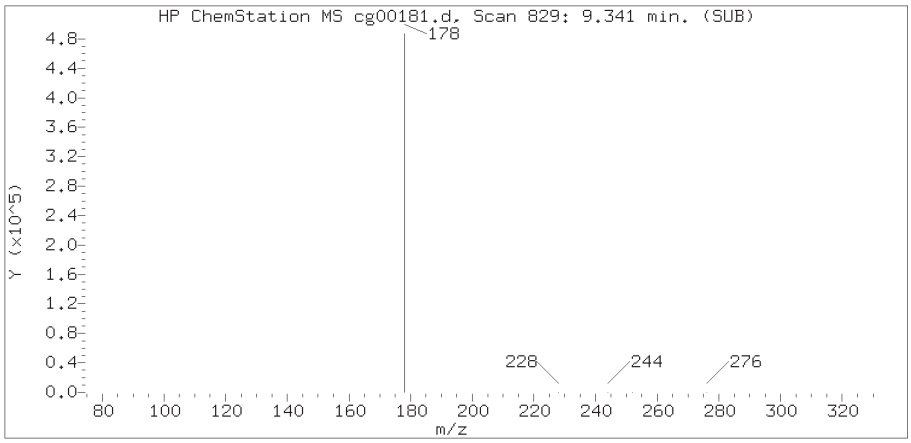
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

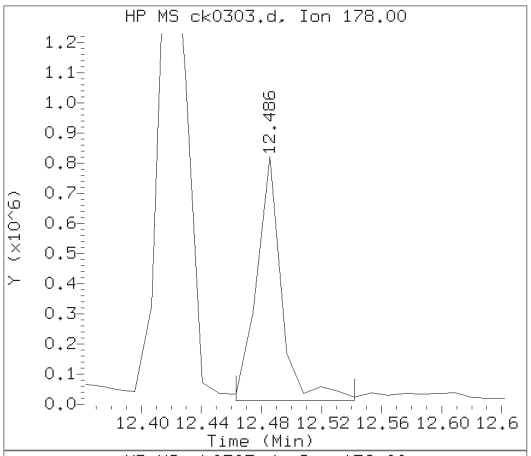
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00091
Quant Ion	: 178.00
Area (flag)	: 2315221
On-column Amount (ng/ul)	: 9.1947

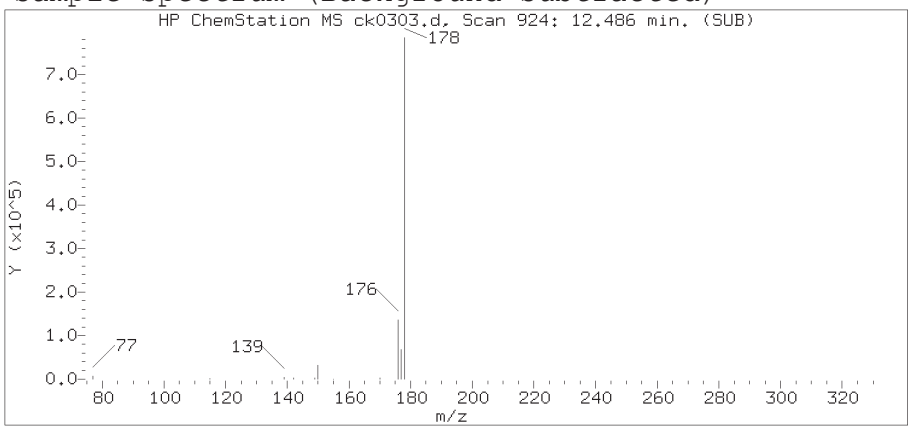
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

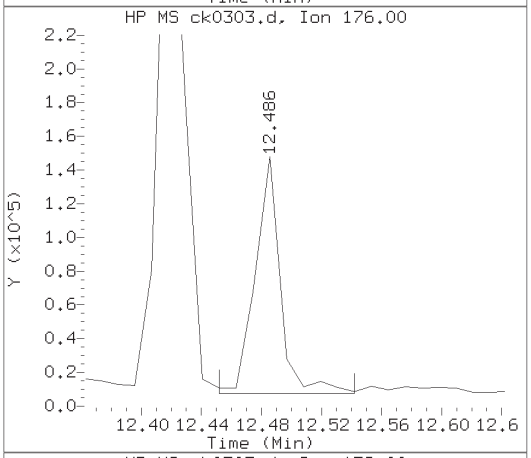
Reference Standard Spectrum for Anthracene



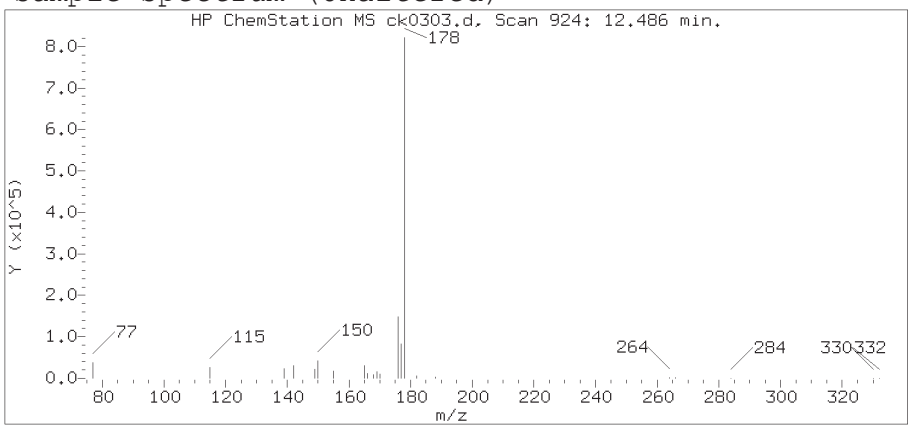


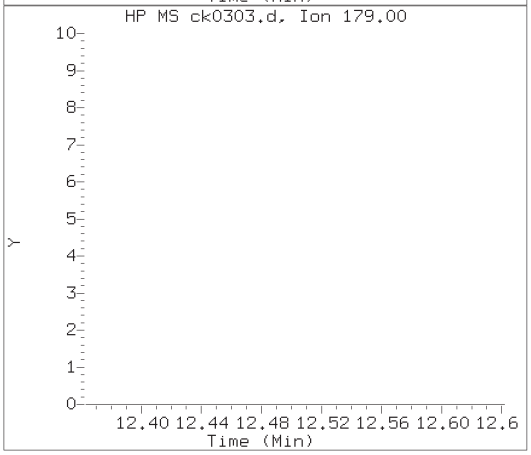
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 928862
On-column Amount (ng/ul)	: 3.8362

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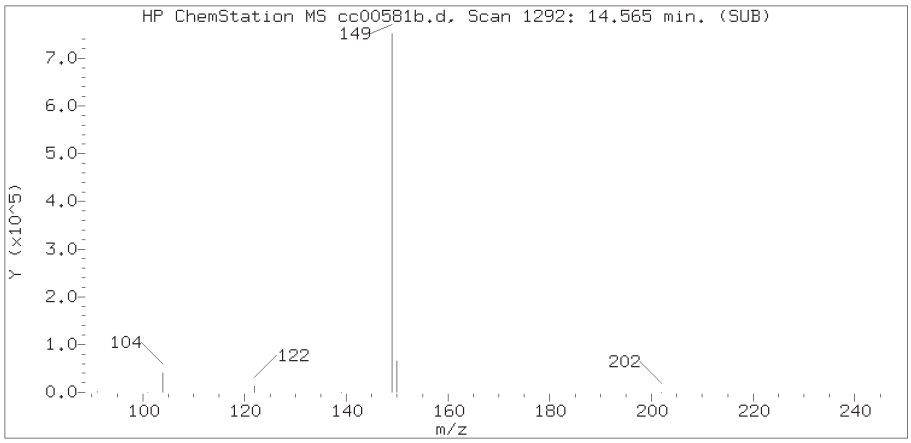
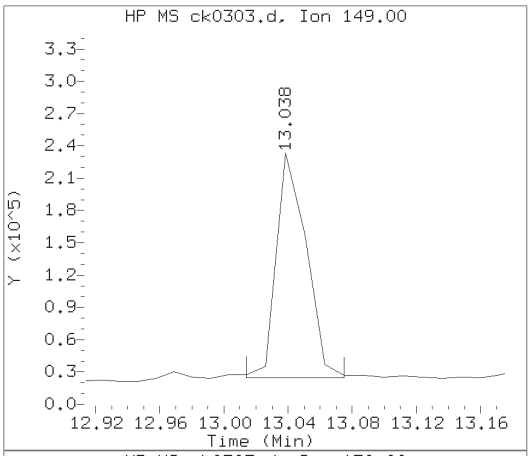
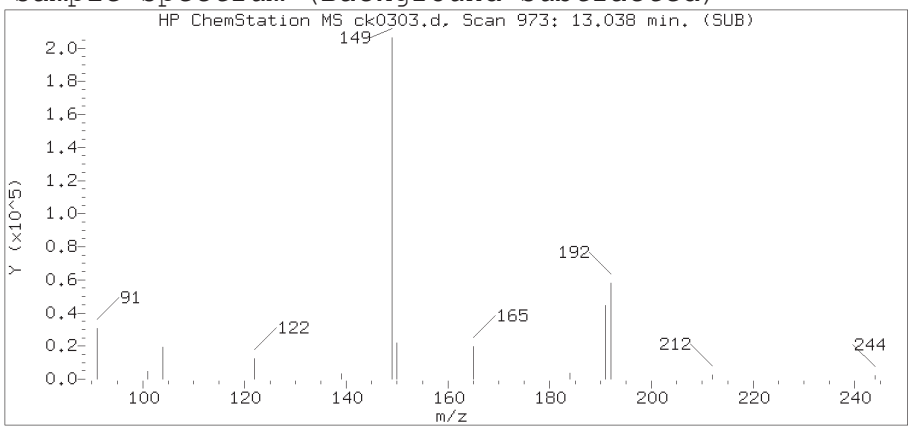
Target 3.5 esignature user ID: apb10206

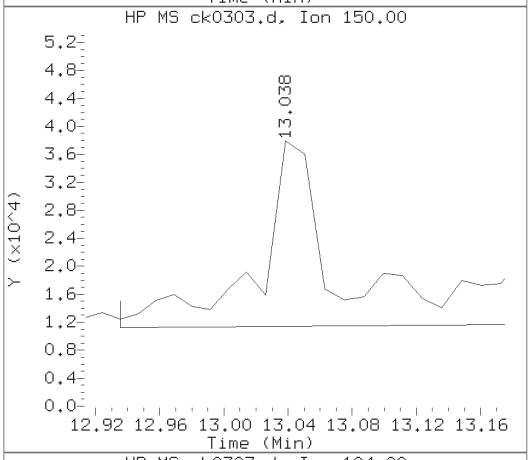
Reference Standard Spectrum for Di-n-butylphthalate



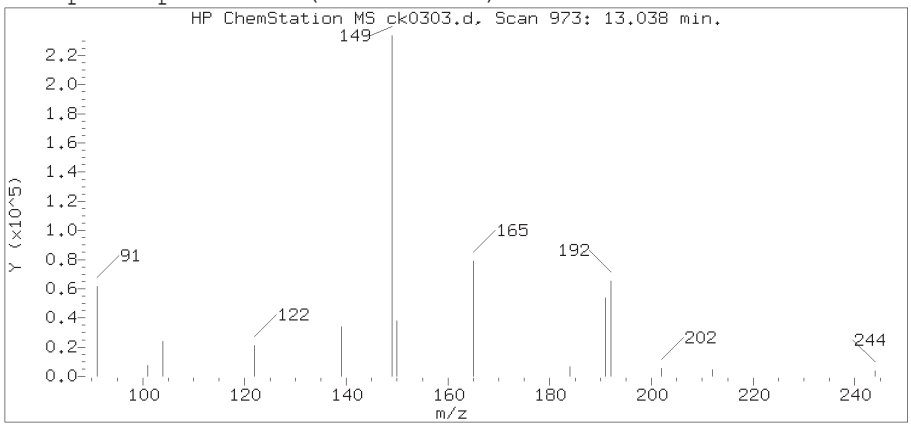


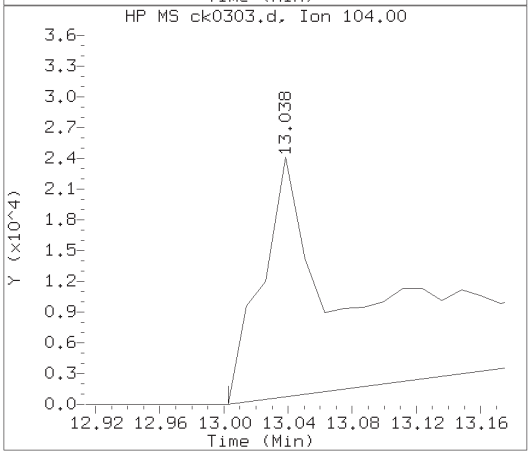
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

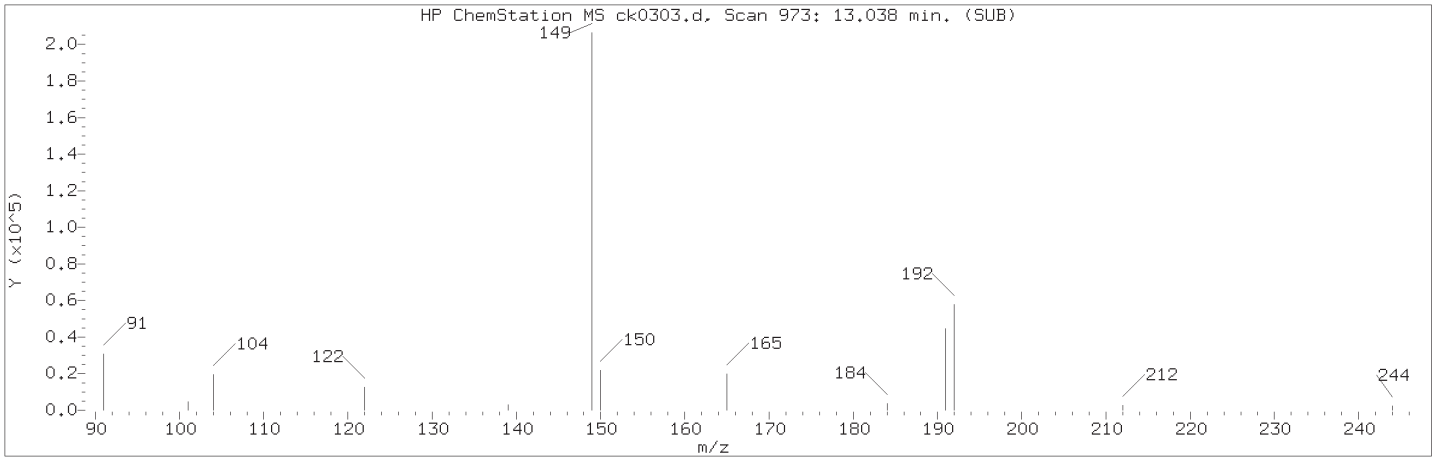
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

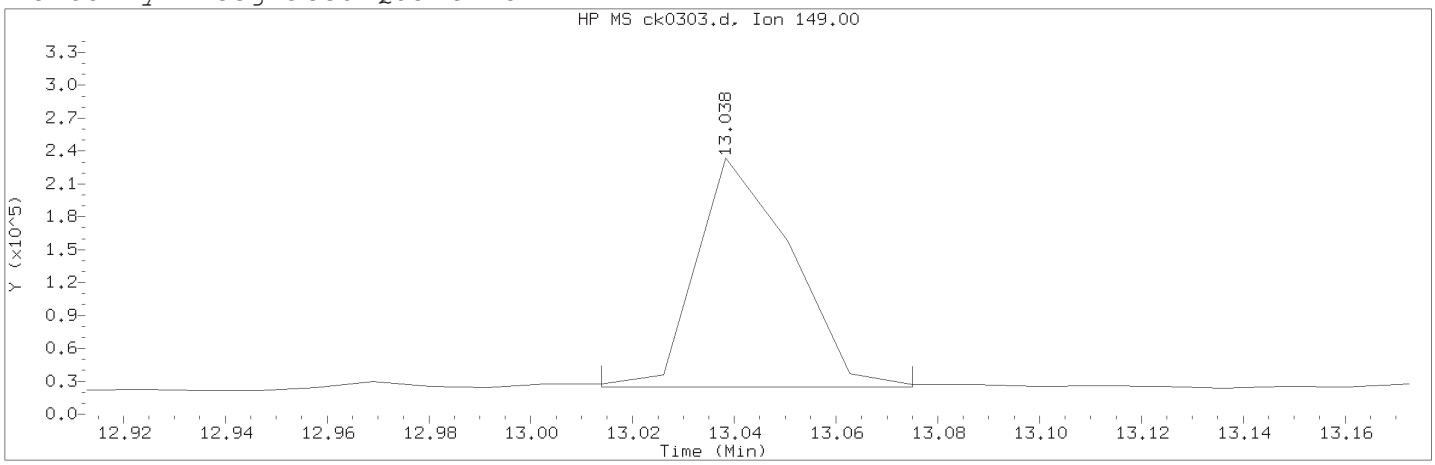
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.038
Relative Retention Time	: 0.00103
Quant Ion	: 149.00
Area (flag)	: 260854M
On-column Amount (ng/ul)	: 0.9672

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

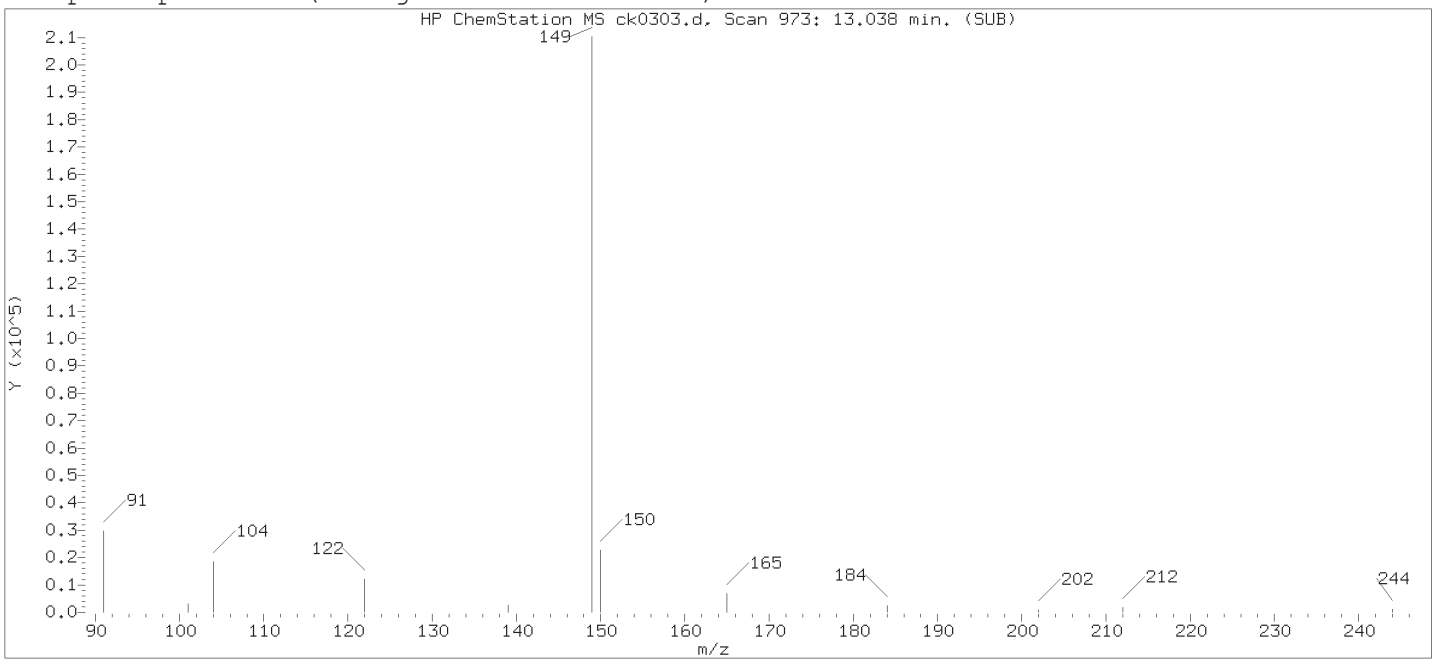
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 973
Retention Time (minutes) : 13.038
Quant Ion : 149.00
Area (flag) : 260854M
On-column Amount (ng/ul) : 0.9672
Integration start scan : 970 Integration stop scan: 975
Y at integration start : 24714 Y at integration end: 24714

Reason for manual integration: improper integration

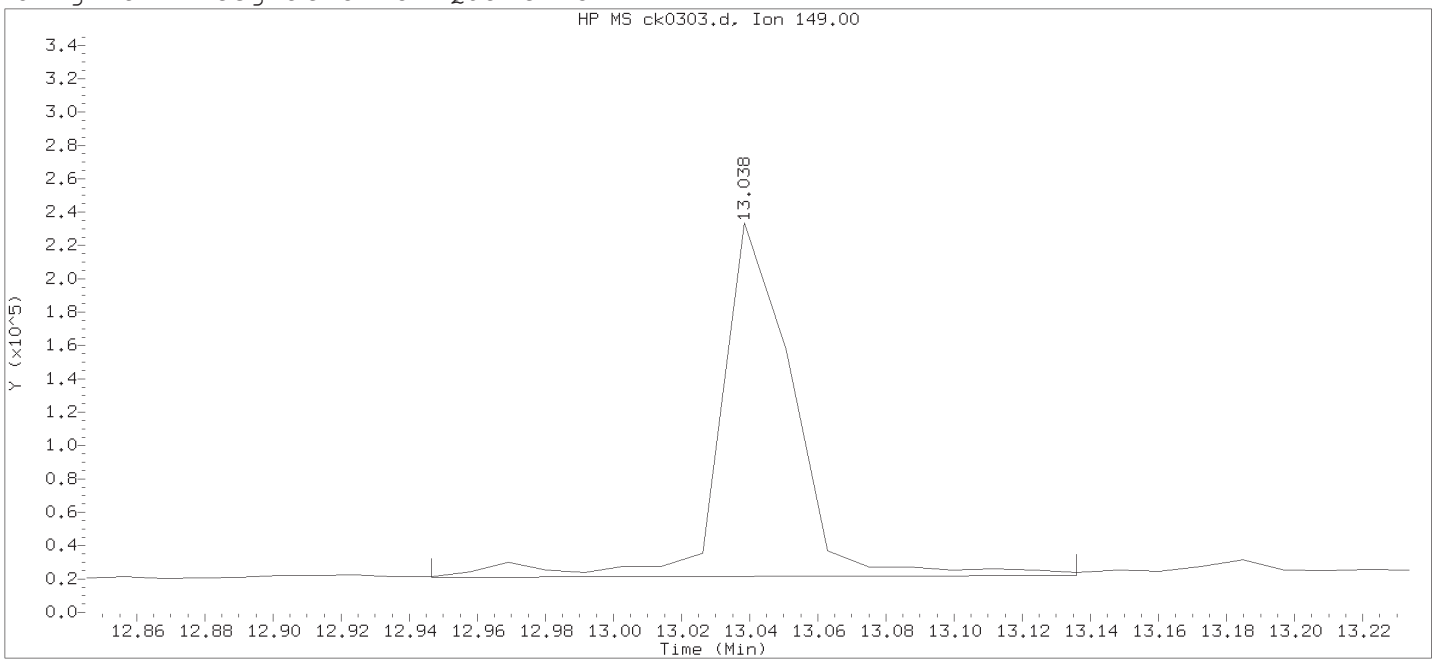
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

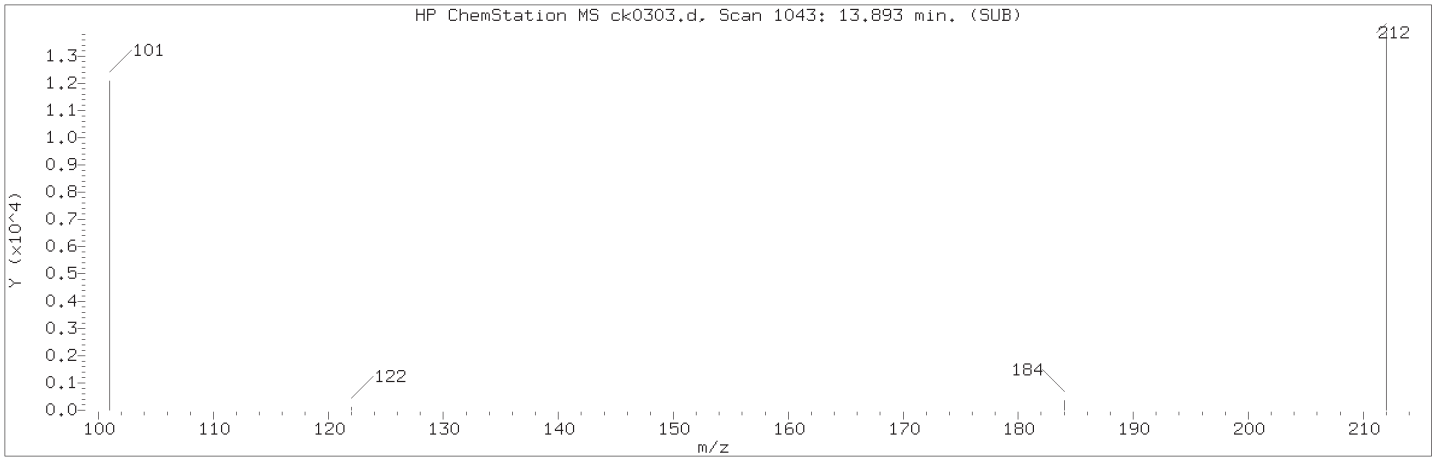
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

Sample Name: 12T03 Lab Sample ID: 9872061

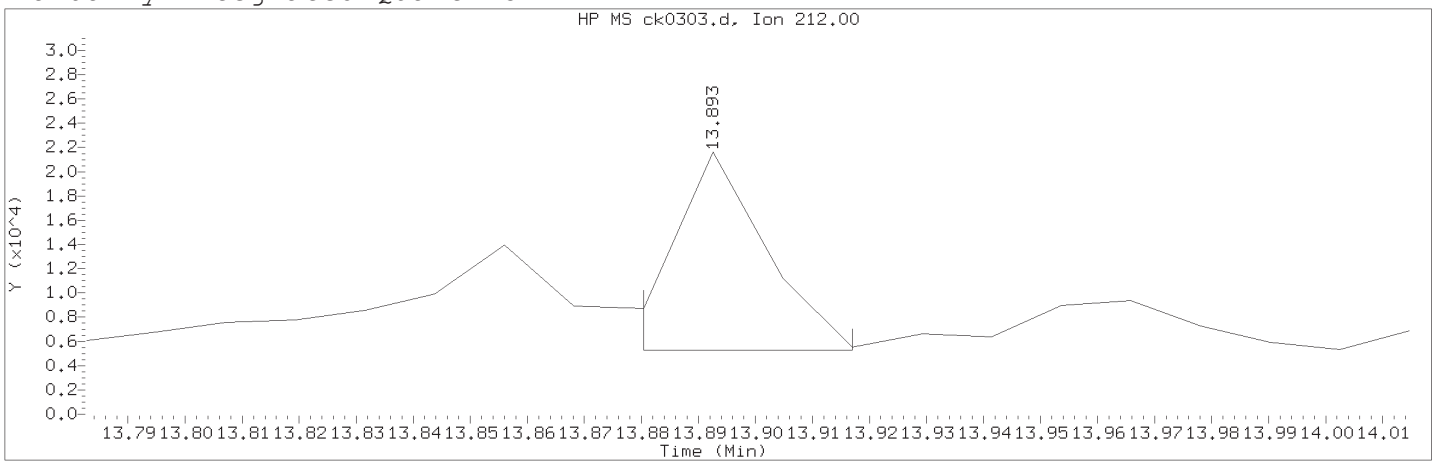
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.038
Quant Ion	: 149.00
Area	: 305305
On-column Amount (ng/ul)	: 1.1320
Integration start scan	: 964 Integration stop scan: 980
Y at integration start	: 20931 Y at integration end: 22082

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

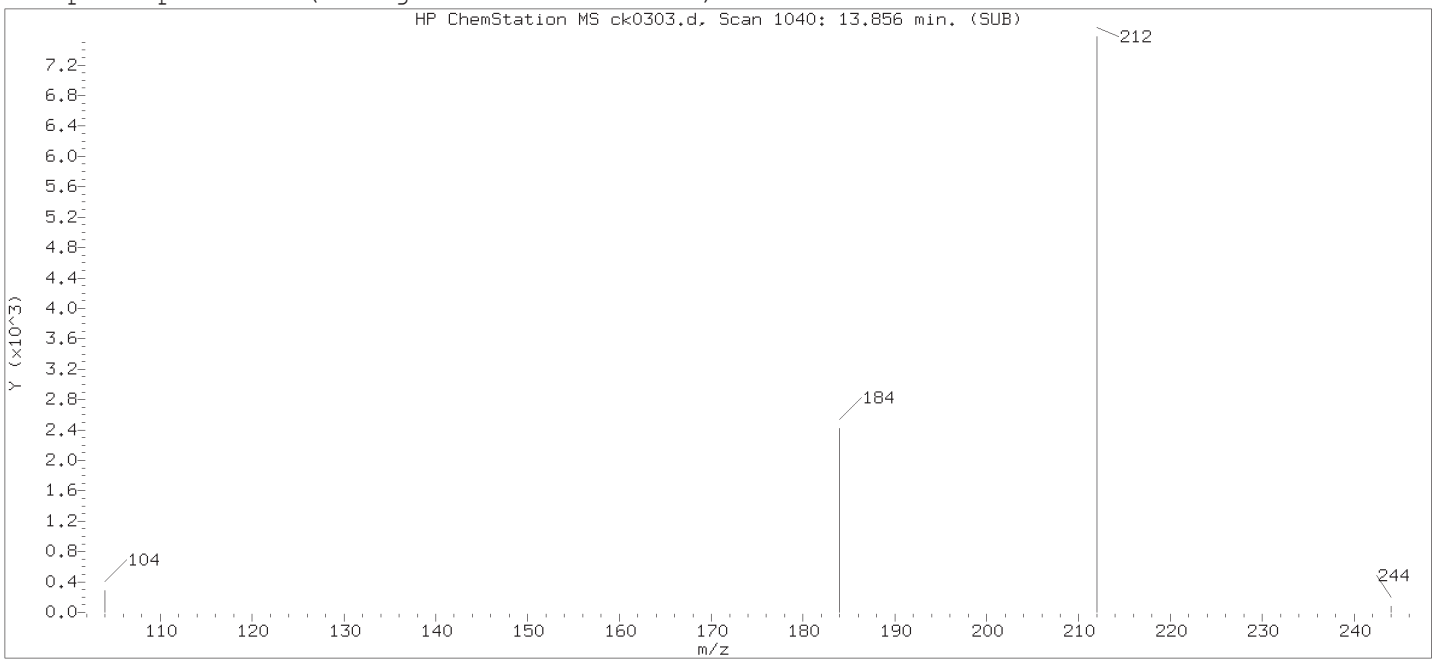
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1043
Retention Time (minutes) : 13.893
Quant Ion : 212.00
Area (flag) : 19044M
On-column Amount (ng/ul) : 0.0995
Integration start scan : 1041 Integration stop scan: 1044
Y at integration start : 5268 Y at integration end: 5268

Reason for manual integration: improper integration

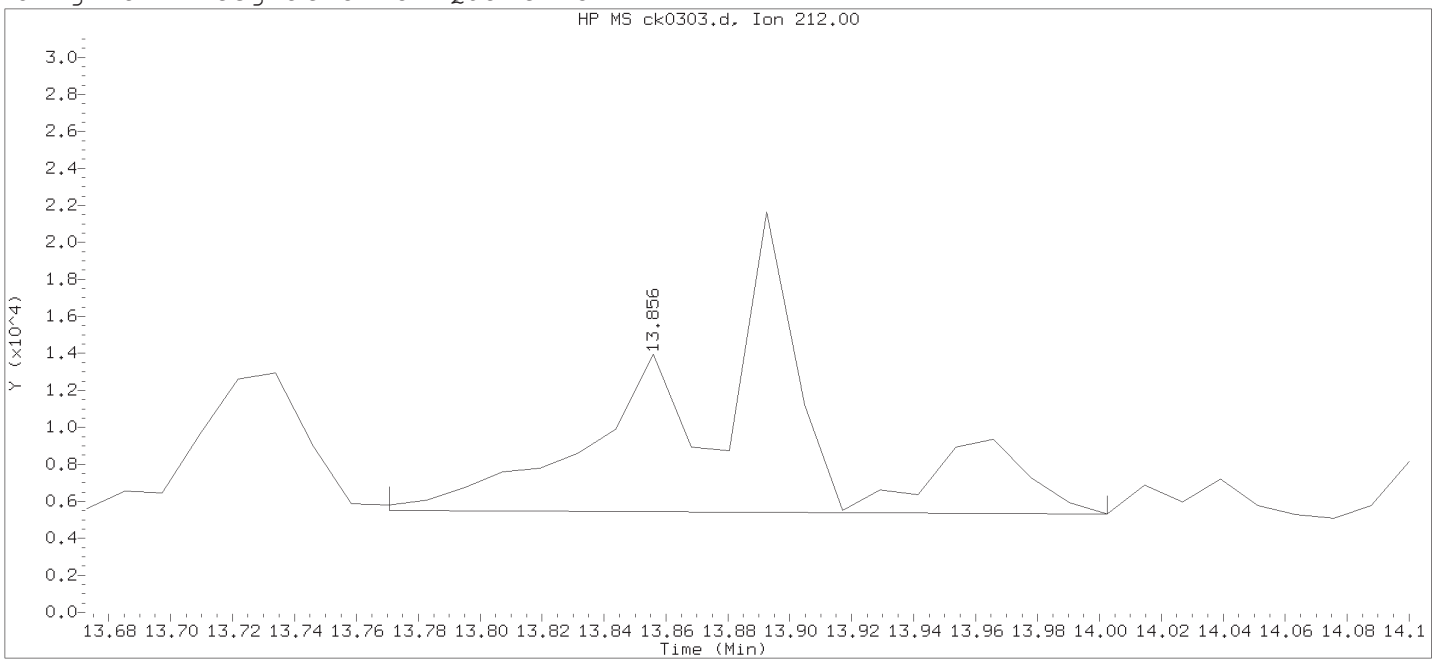
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

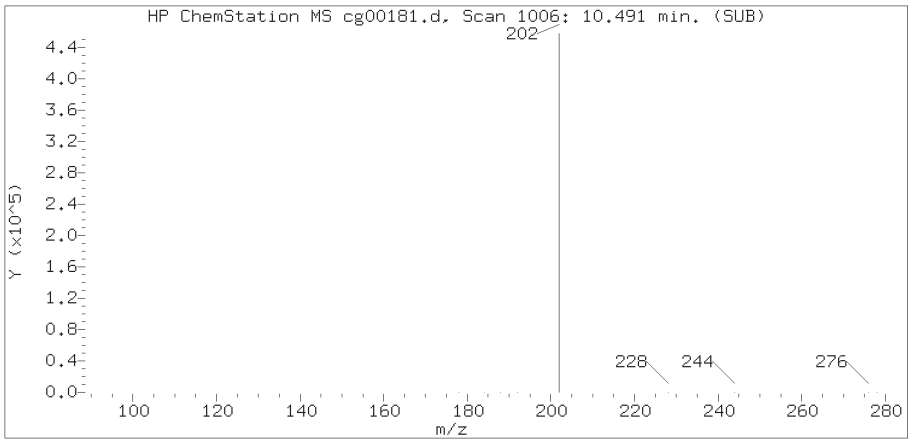
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

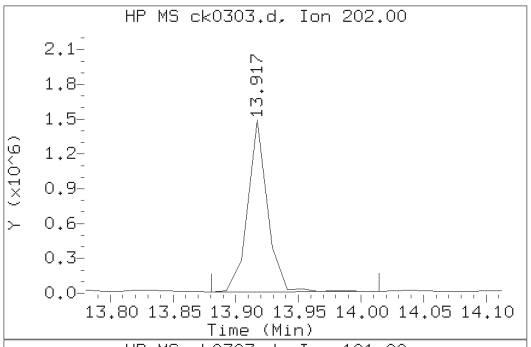
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1040		
Retention Time (minutes)	: 13.856		
Quant Ion	: 212.00		
Area	: 46703		
On-column Amount (ng/ul)	: 0.2439		
Integration start scan	: 1032	Integration stop scan:	1051
Y at integration start	: 5507	Y at integration end:	5328

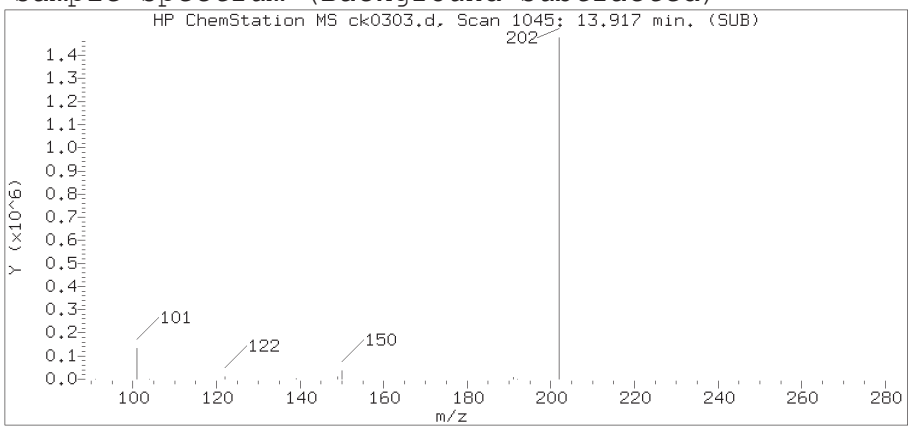
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

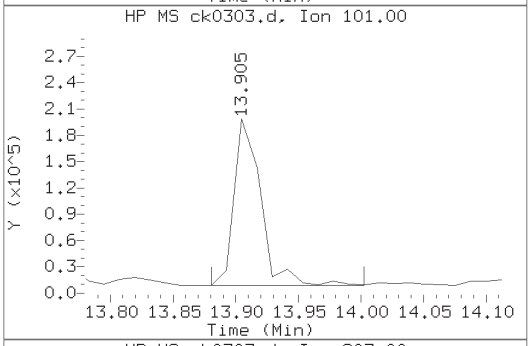
Reference Standard Spectrum for Fluoranthene

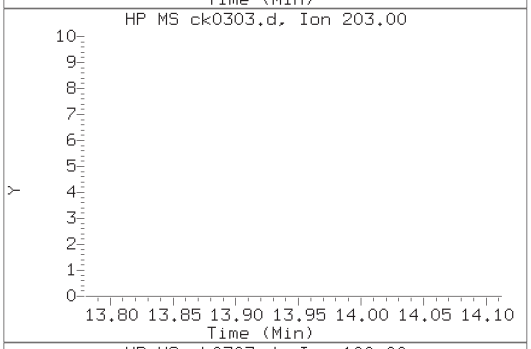




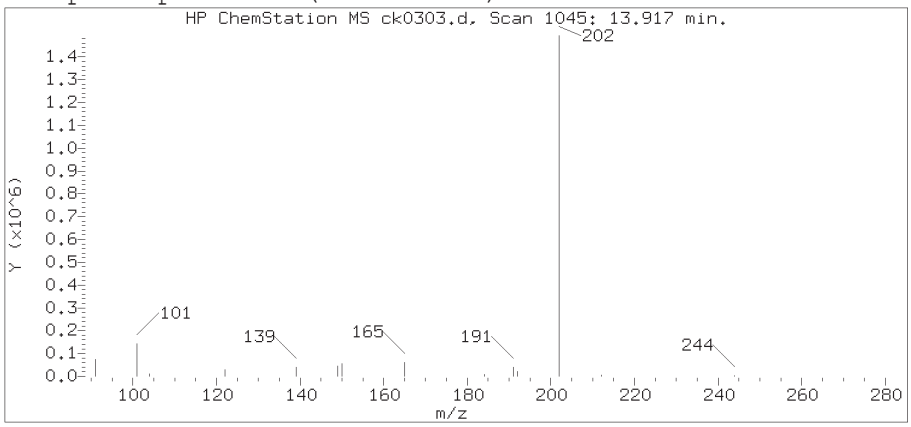
Sample Spectrum (Background Subtracted)

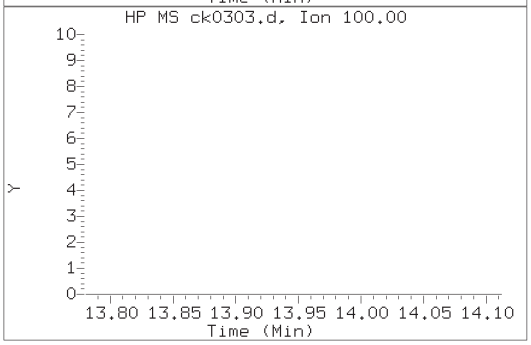






Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

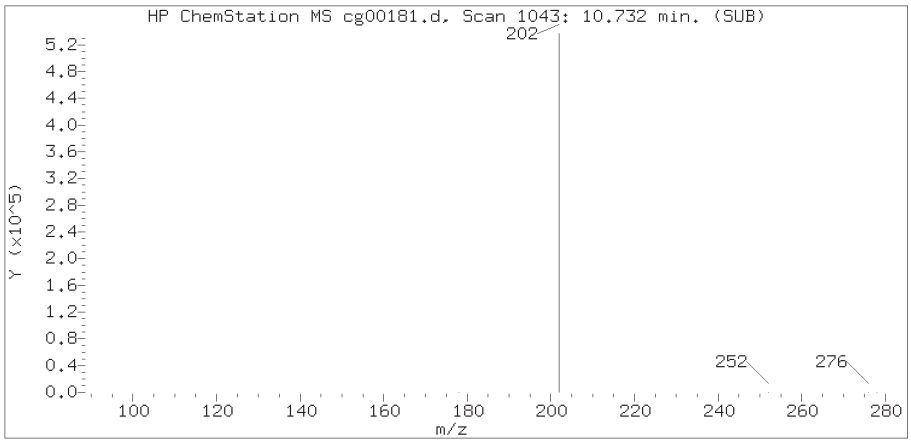
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

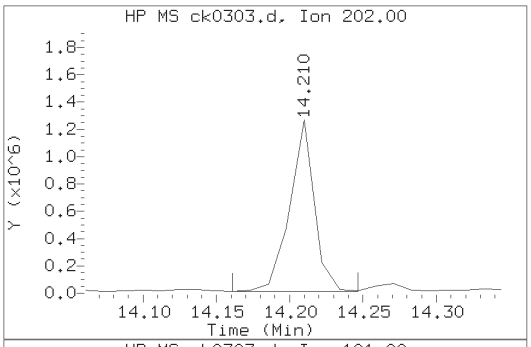
Sample Name: 12T03 Lab Sample ID: 9872061

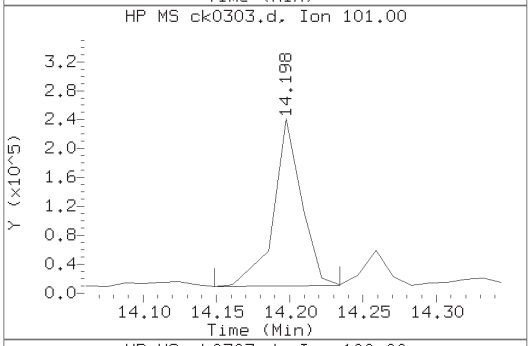
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1045
Retention Time (minutes)	: 13.917
Relative Retention Time	: 0.00011
Quant Ion	: 202.00
Area (flag)	: 1611836
On-column Amount (ng/ul)	: 6.5146

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

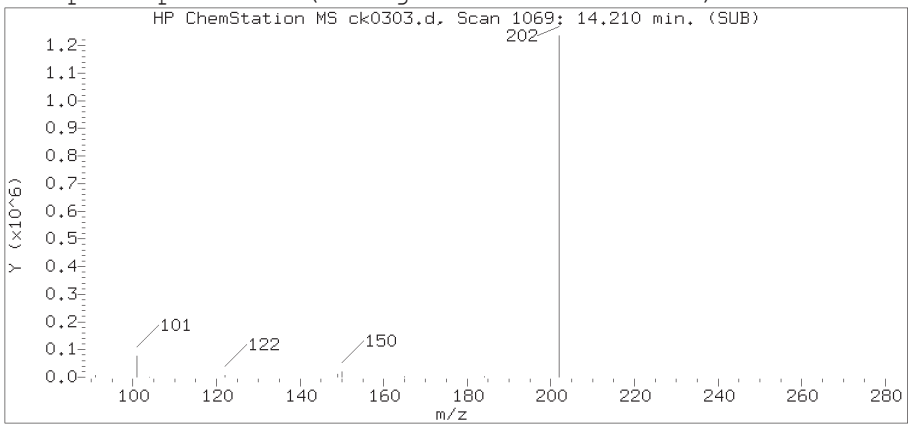
Reference Standard Spectrum for Pyrene

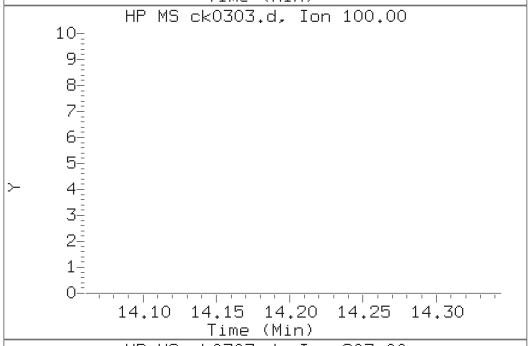




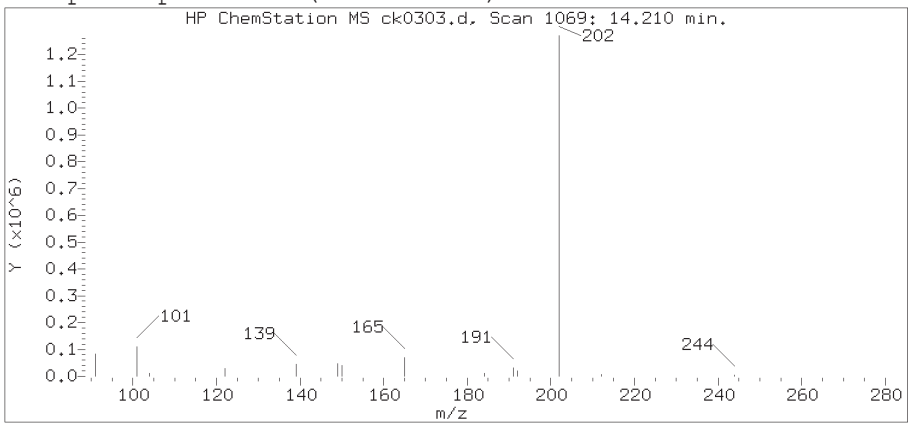


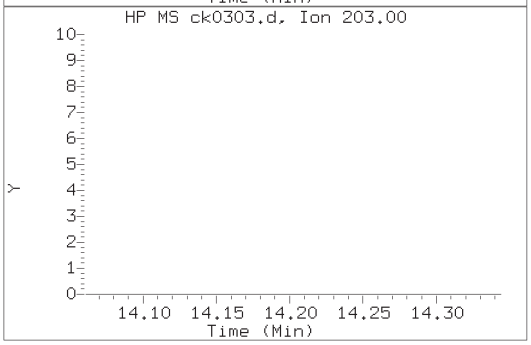
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

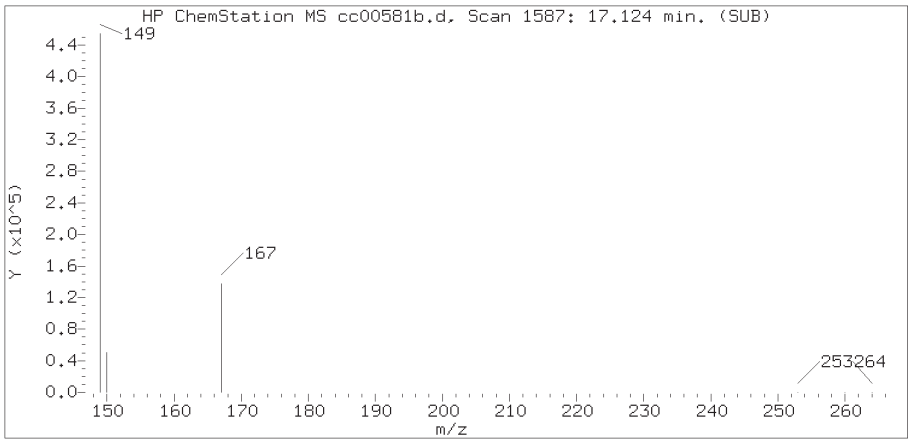
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

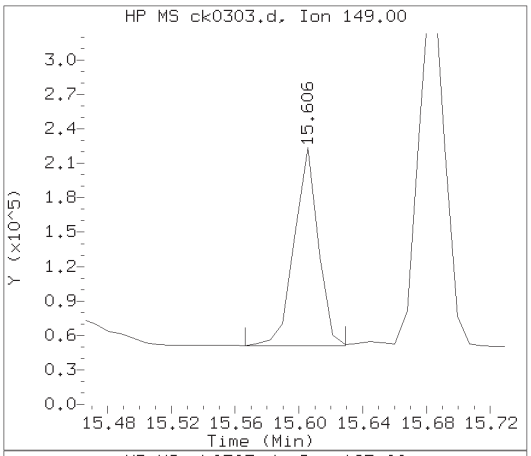
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1069
Retention Time (minutes)	: 14.210
Relative Retention Time	: 0.00058
Quant Ion	: 202.00
Area (flag)	: 1465597
On-column Amount (ng/ul)	: 5.9846

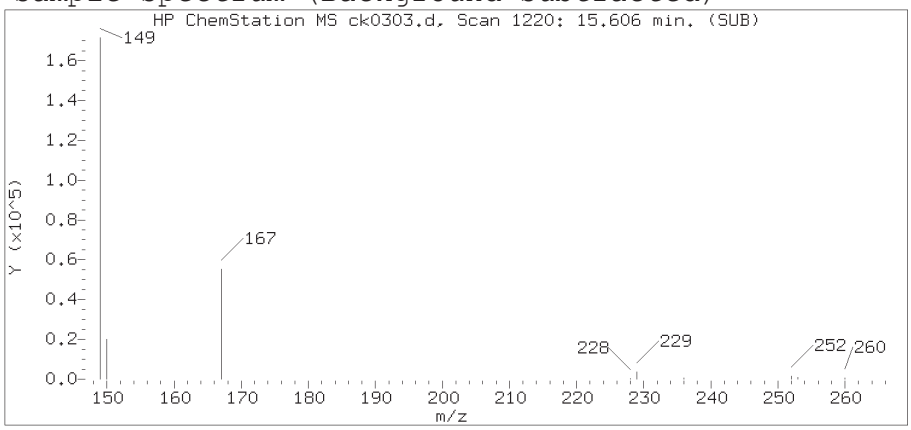
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

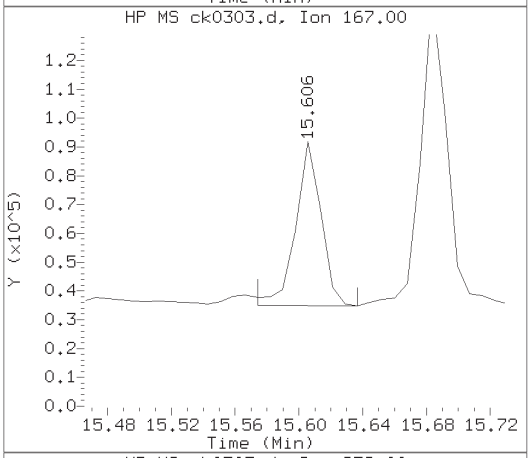
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



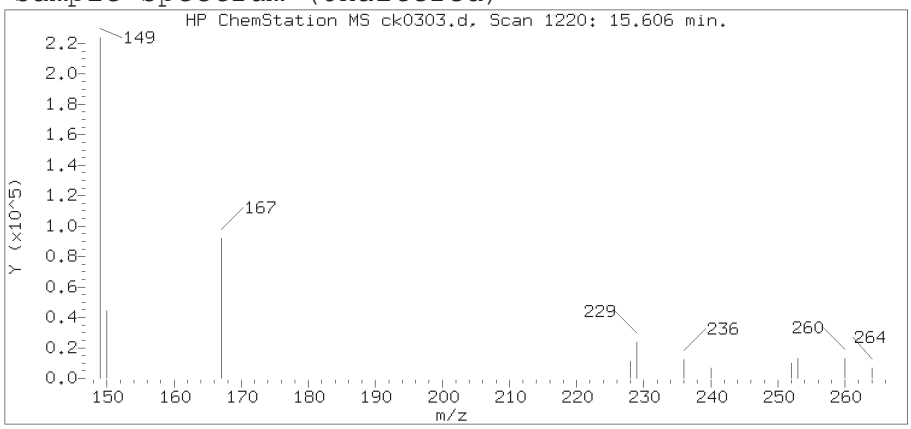


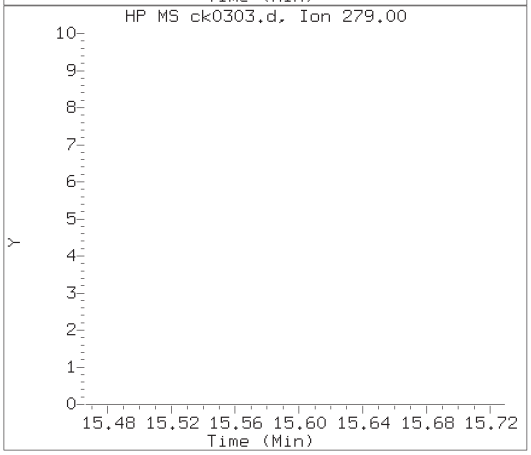
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

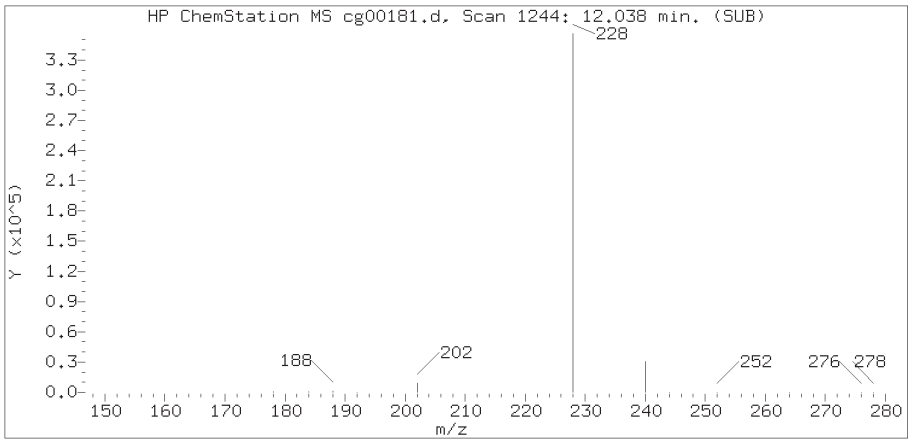
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

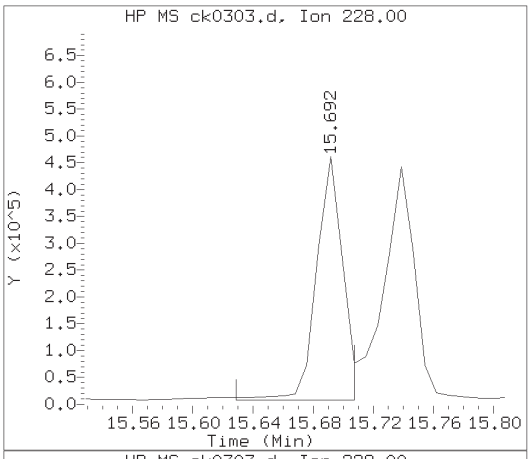
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1220
Retention Time (minutes)	: 15.606
Relative Retention Time	: 0.00049
Quant Ion	: 149.00
Area (flag)	: 180425
On-column Amount (ng/ul)	: 1.1250

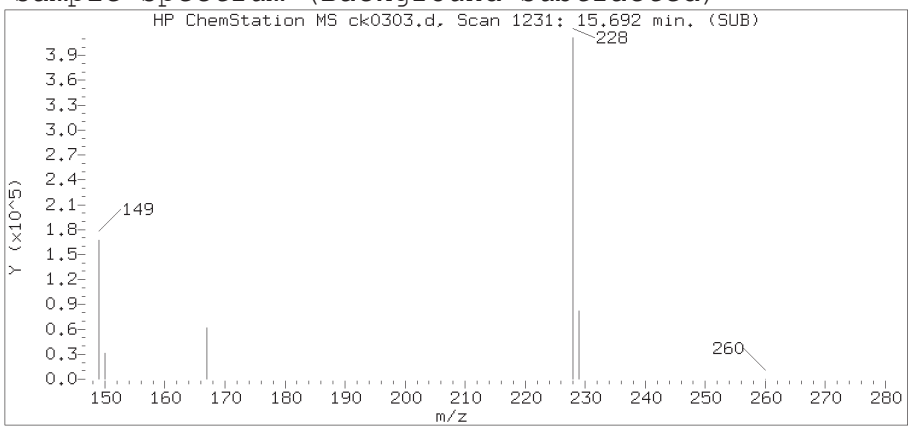
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

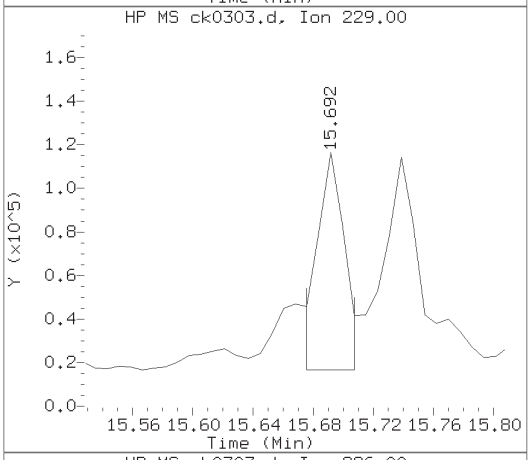
Reference Standard Spectrum for Benzo(a)anthracene



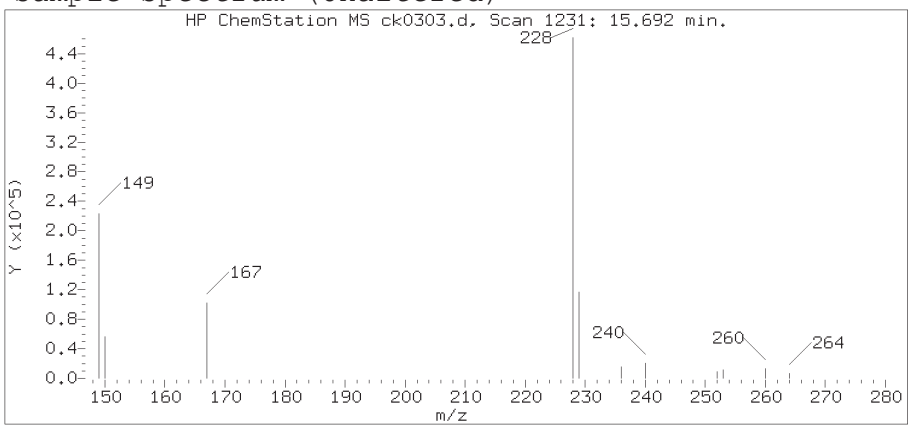


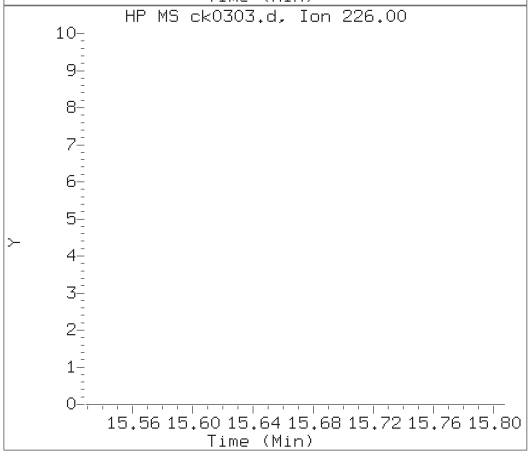
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

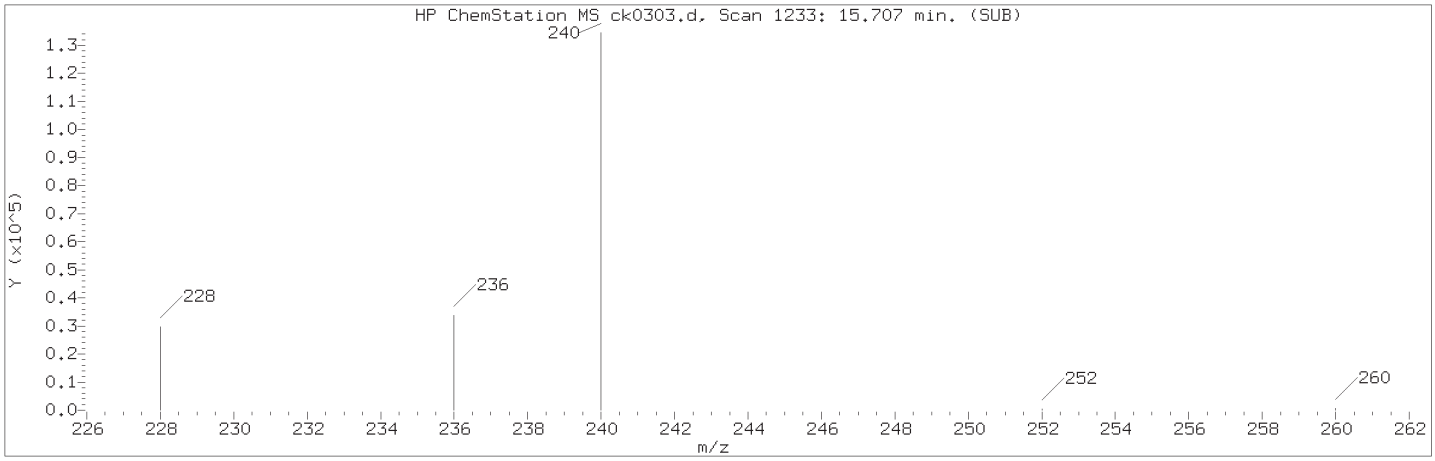
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

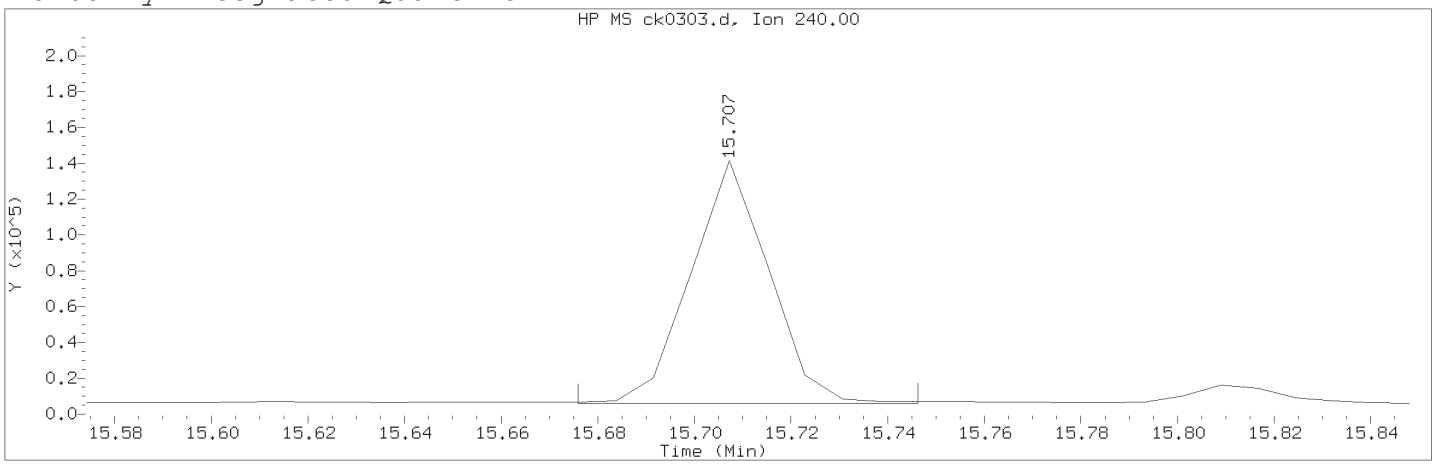
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1231
Retention Time (minutes)	: 15.692
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 534945
On-column Amount (ng/ul)	: 2.7127

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

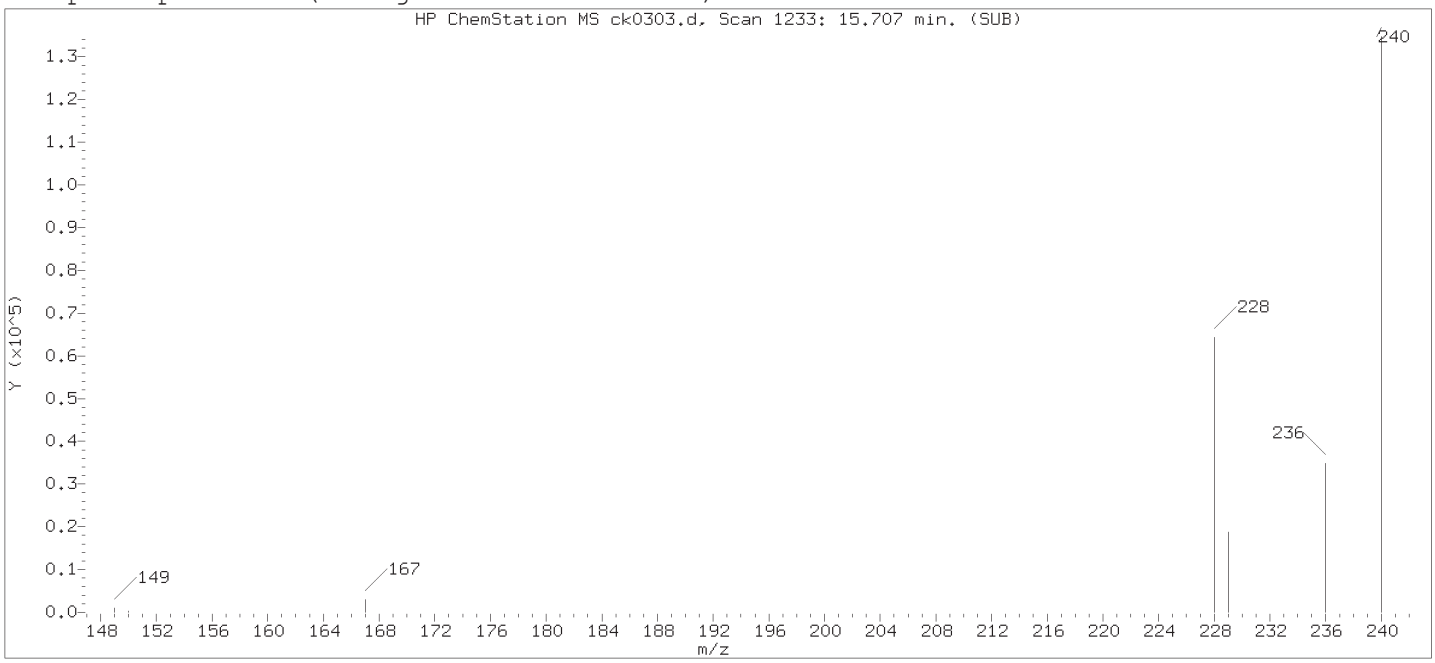
Compound Number : 43
Compound Name : Chrysene-d12
Scan Number : 1233
Retention Time (minutes) : 15.707
Quant Ion : 240.00
Area (flag) : 152157M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1228 Integration stop scan: 1237
Y at integration start : 6024 Y at integration end: 6024

Reason for manual integration: improper integration

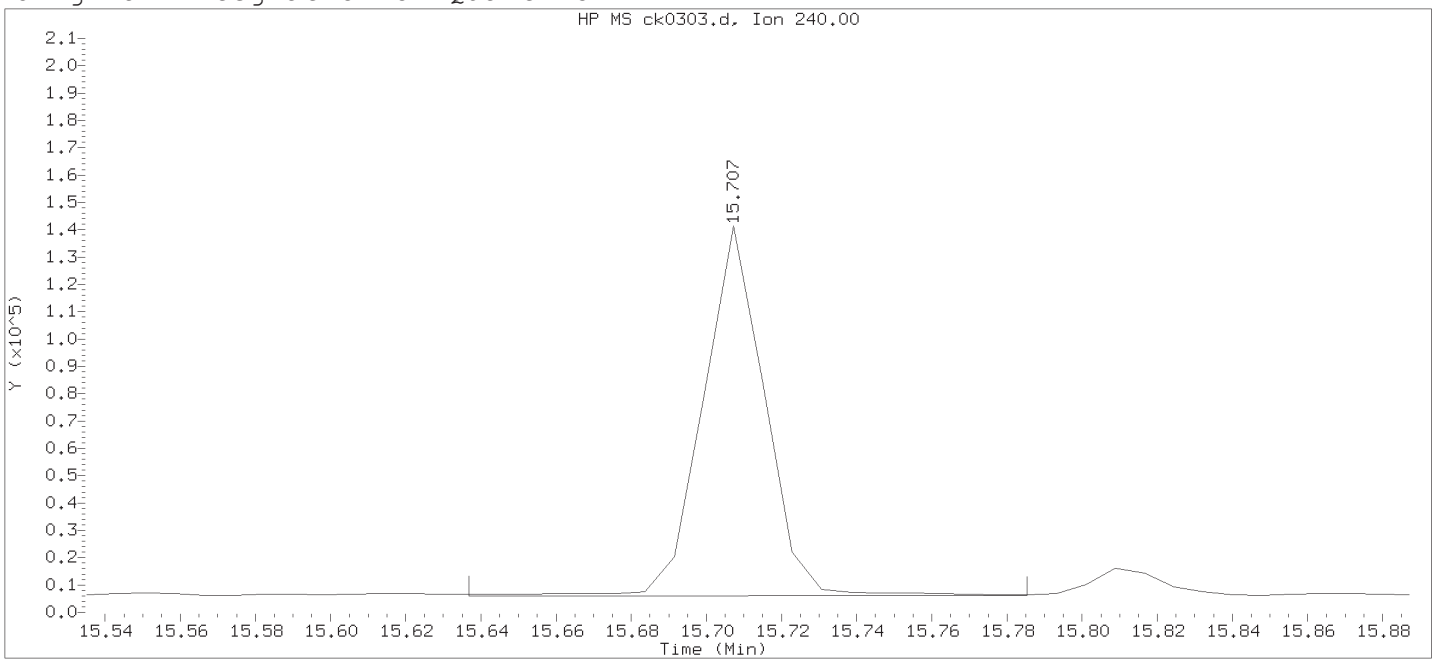
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

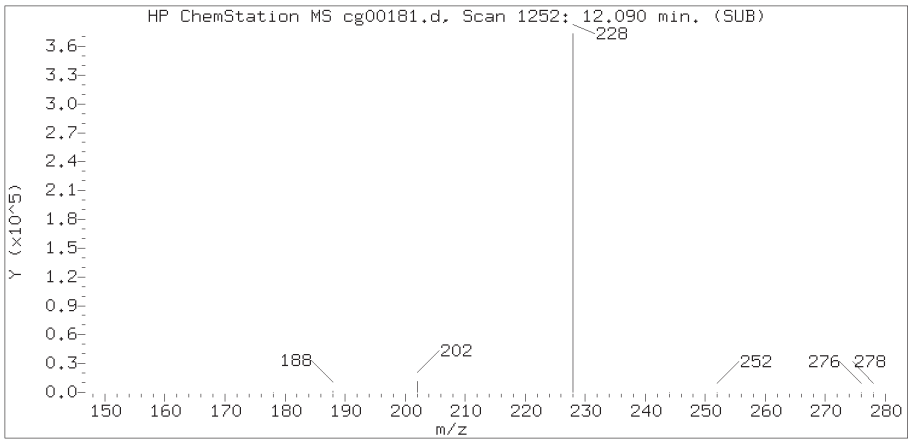
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

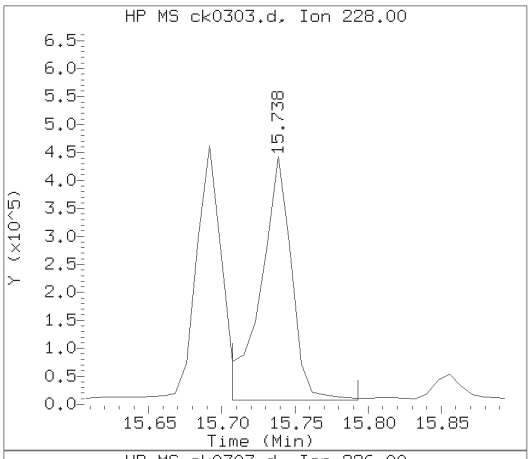
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 43		
Compound Name	: Chrysene-d12		
Scan Number	: 1233		
Retention Time (minutes)	: 15.707		
Quant Ion	: 240.00		
Area	: 154463		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1223	Integration stop scan:	1242
Y at integration start	: 6034	Y at integration end:	6149

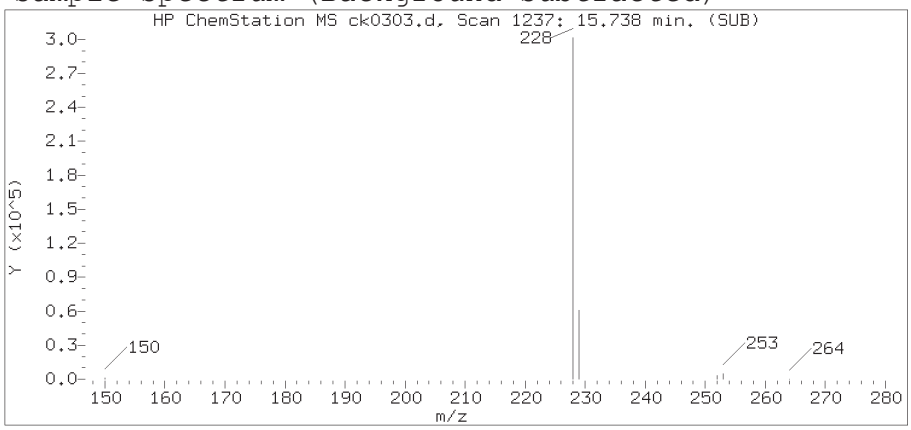
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

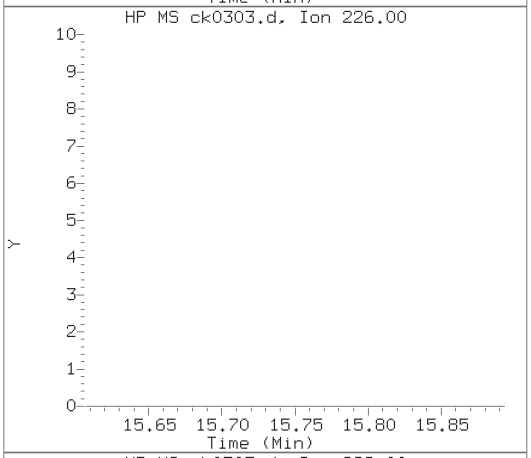
Reference Standard Spectrum for Chrysene



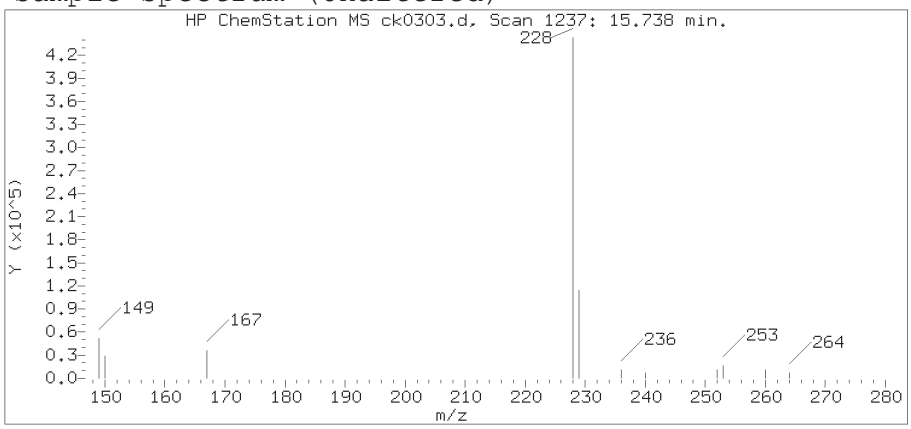


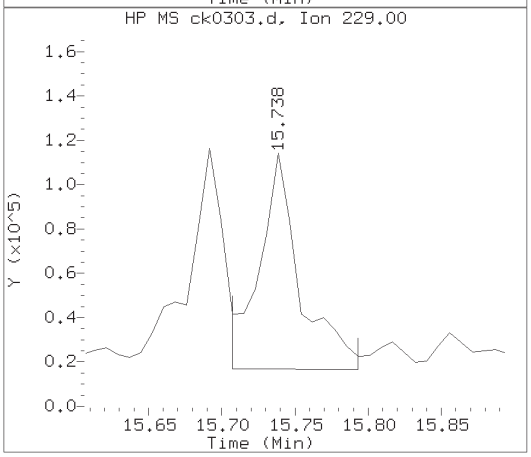
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

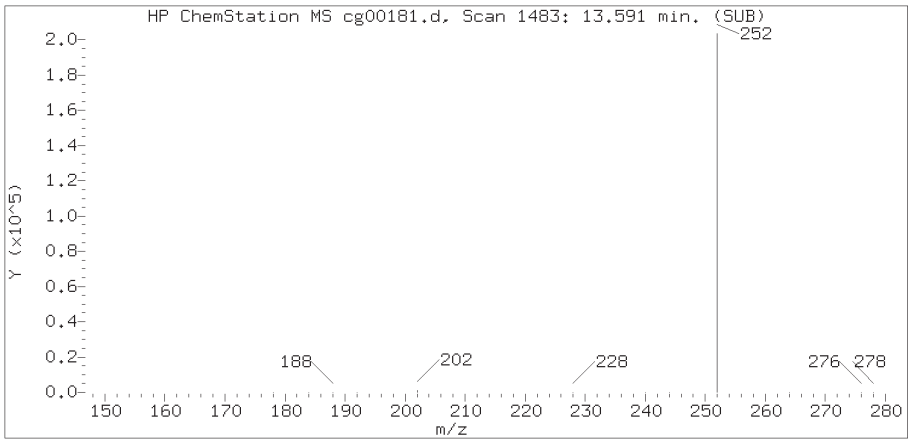
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

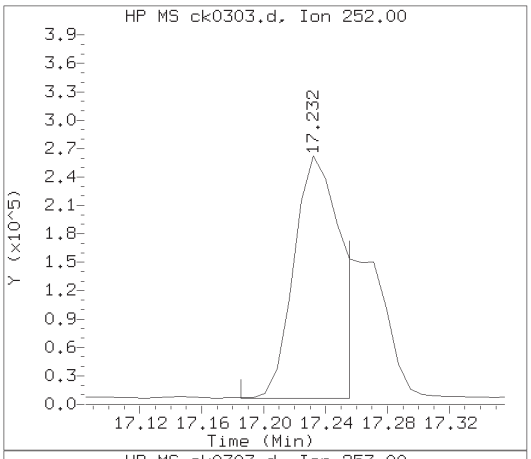
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1237
Retention Time (minutes)	: 15.738
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 632267
On-column Amount (ng/ul)	: 3.1294

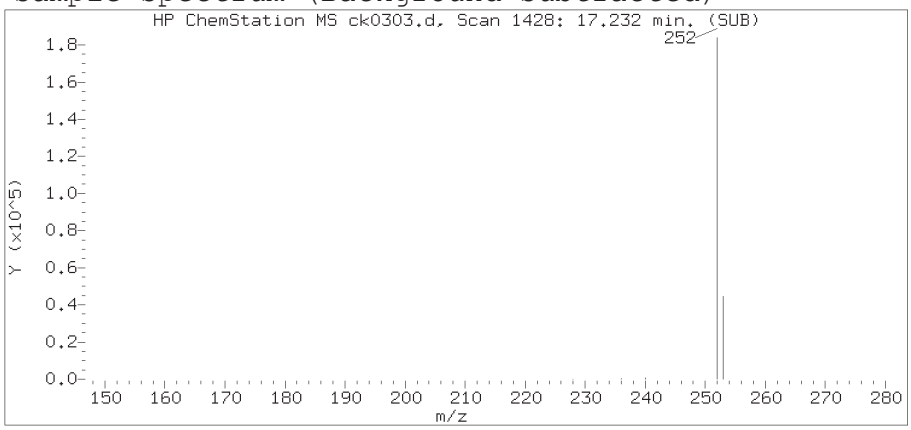
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

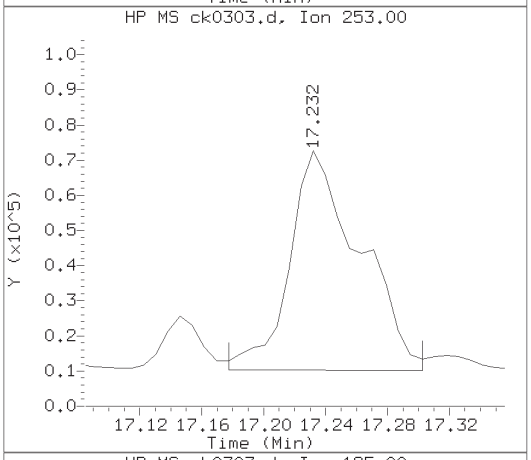
Reference Standard Spectrum for Benzo(b)fluoranthene



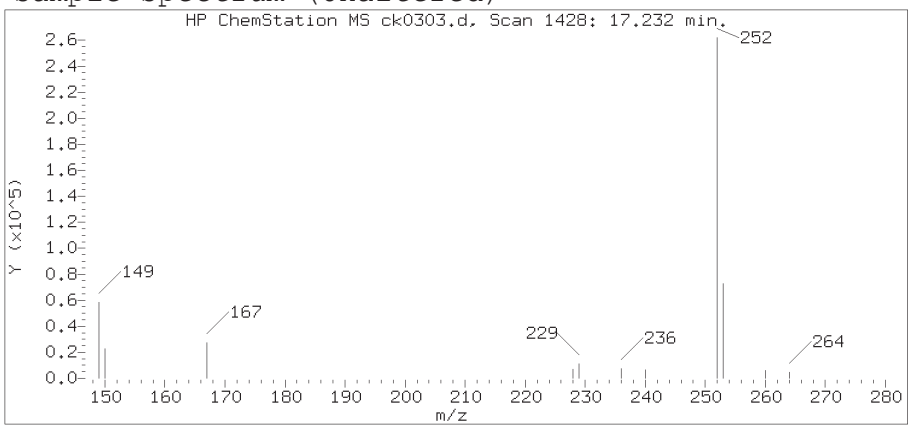


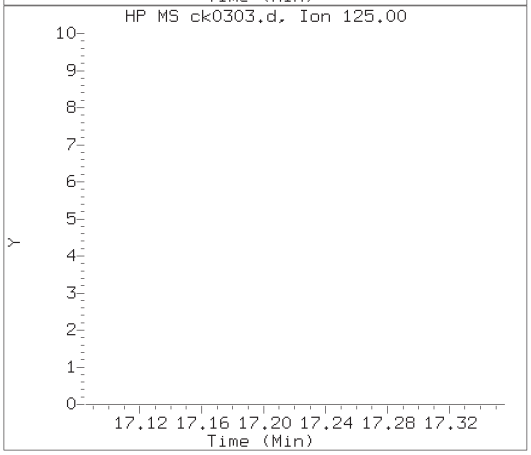
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

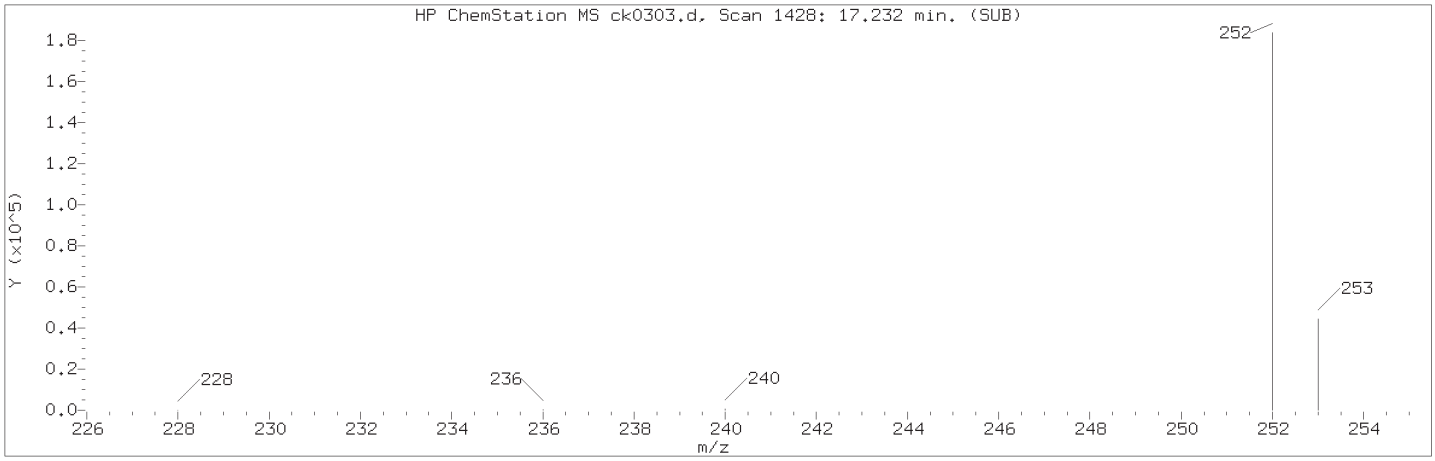
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

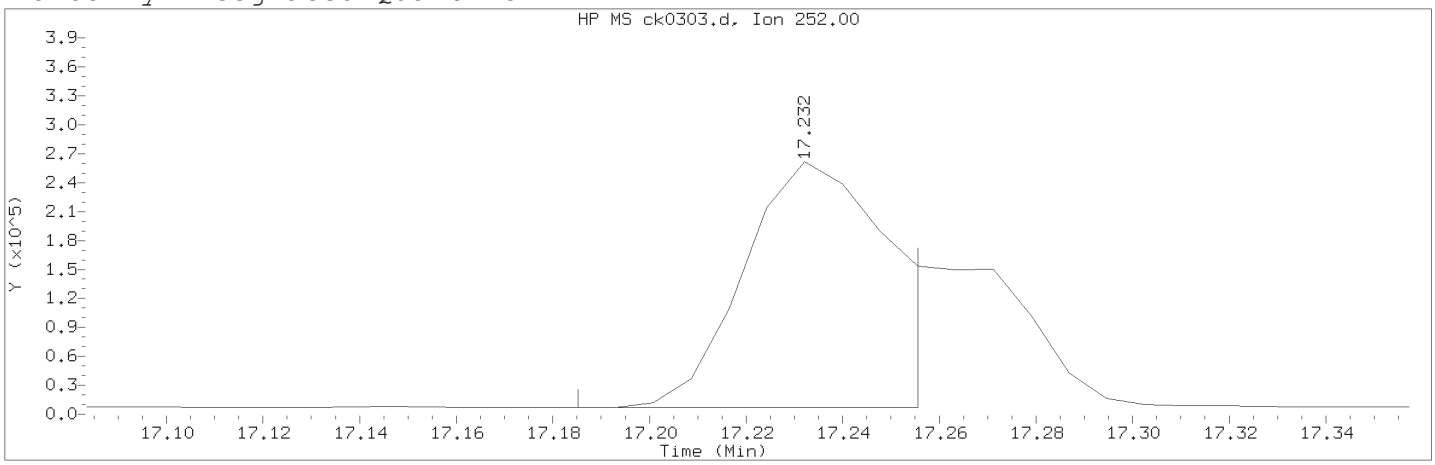
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1428
Retention Time (minutes)	: 17.232
Relative Retention Time	:-0.00006
Quant Ion	: 252.00
Area (flag)	: 546120M
On-column Amount (ng/ul)	: 2.7865

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

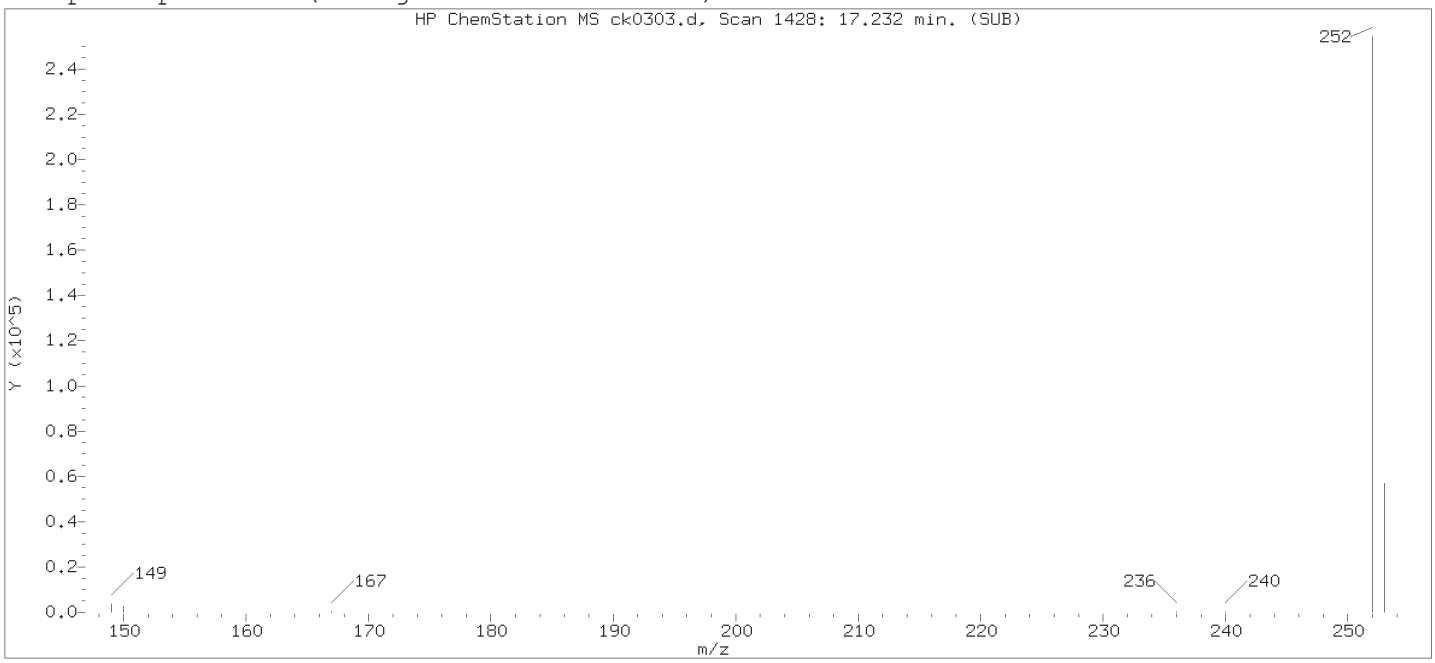
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1428
Retention Time (minutes) : 17.232
Quant Ion : 252.00
Area (flag) : 546120M
On-column Amount (ng/ul) : 2.7865
Integration start scan : 1421 Integration stop scan: 1430
Y at integration start : 6667 Y at integration end: 6667

Reason for manual integration: improper integration

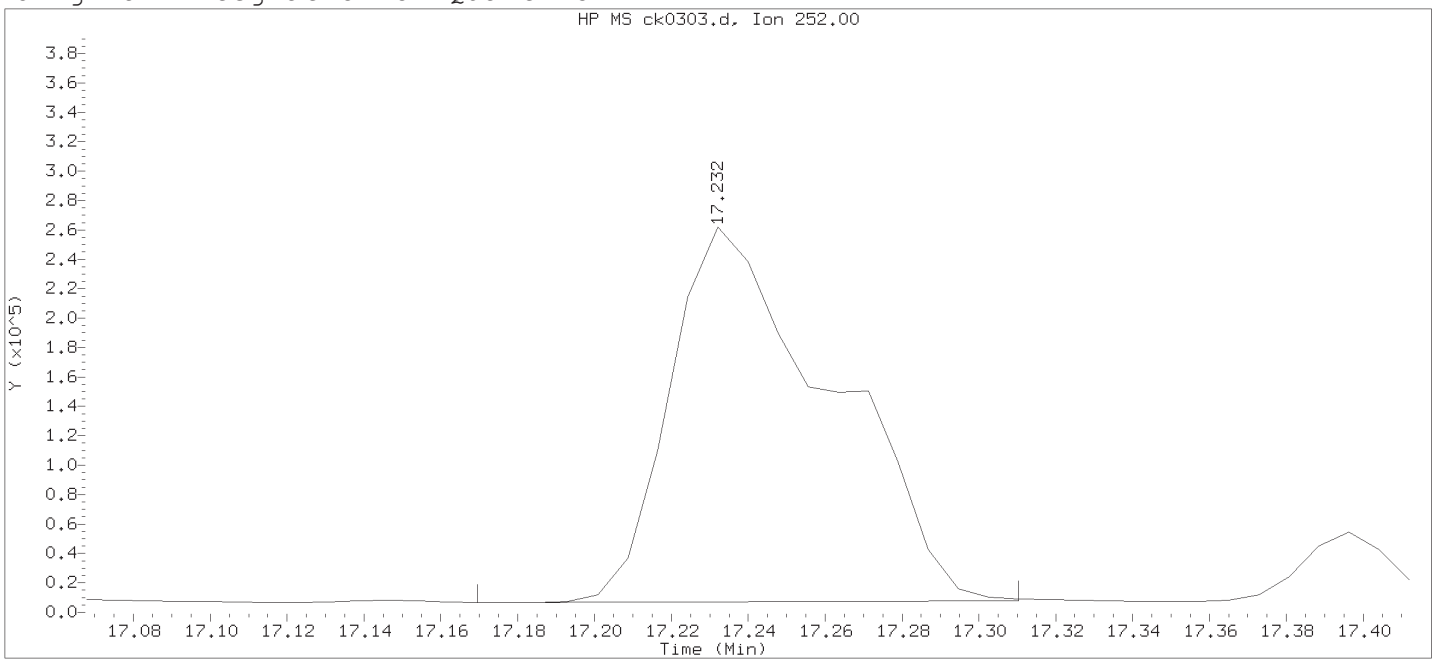
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

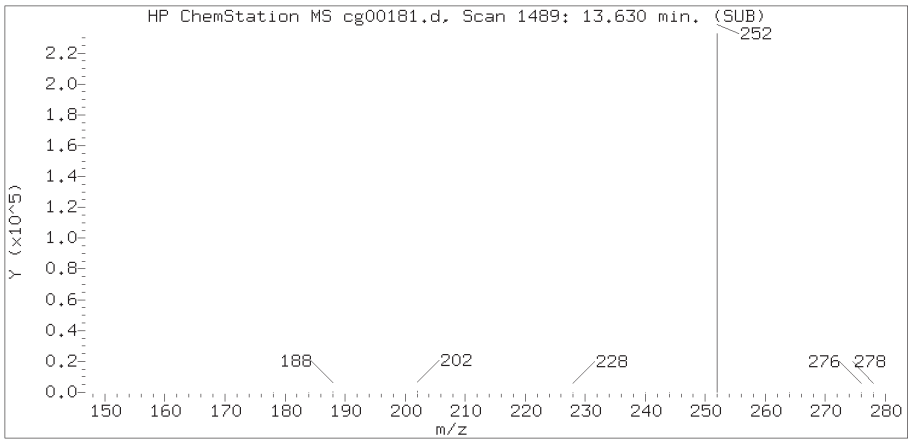
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

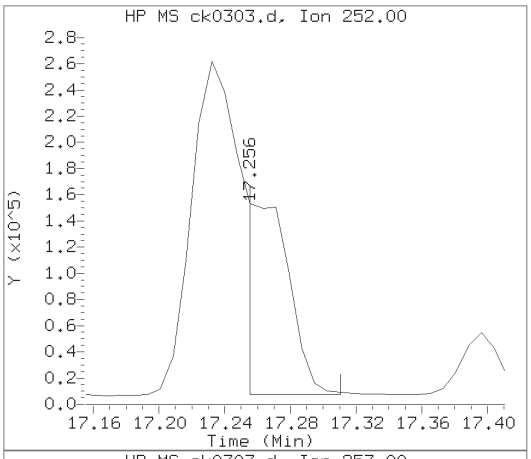
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 46	
Compound Name	: Benzo(b)fluoranthene	
Scan Number	: 1428	
Retention Time (minutes)	: 17.232	
Quant Ion	: 252.00	
Area	: 744032	
On-column Amount (ng/ul)	: 3.7963	
Integration start scan	: 1419	Integration stop scan: 1437
Y at integration start	: 6601	Y at integration end: 7892

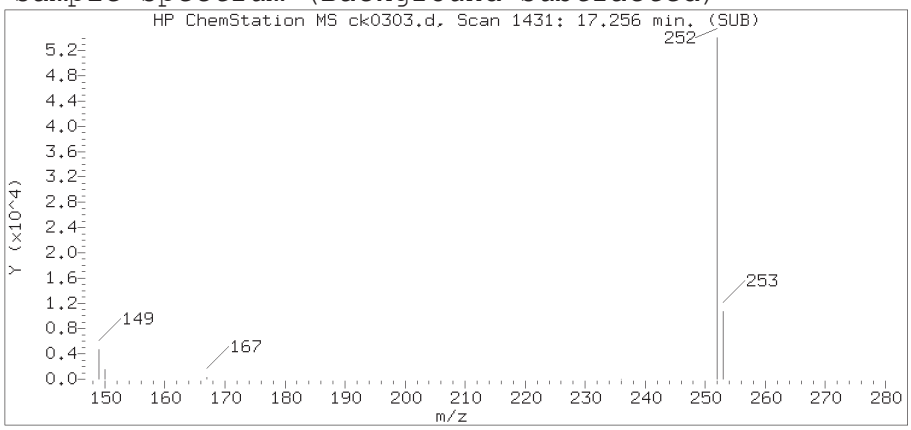
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 1 of 5

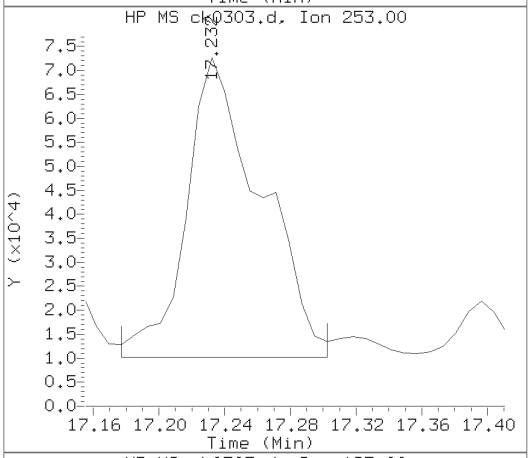
Reference Standard Spectrum for Benzo(k)fluoranthene



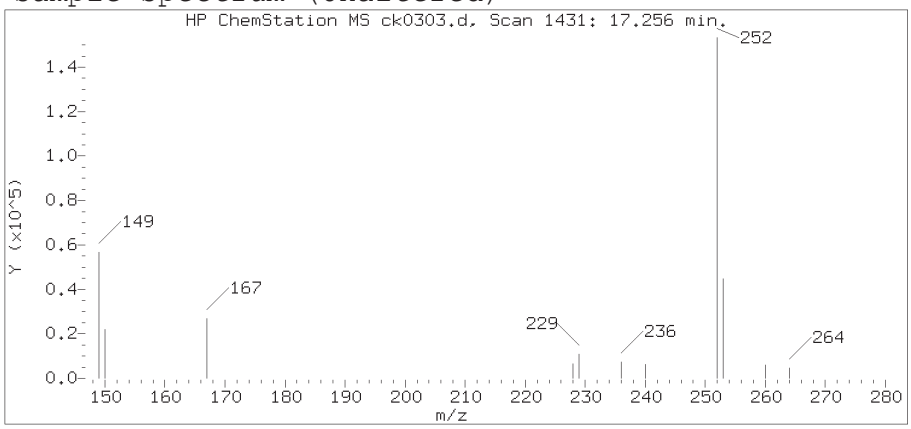


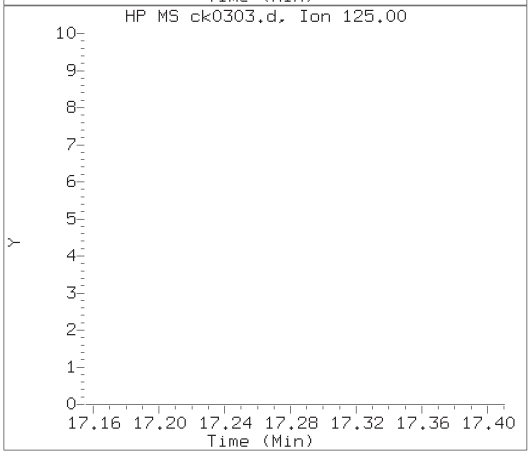
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

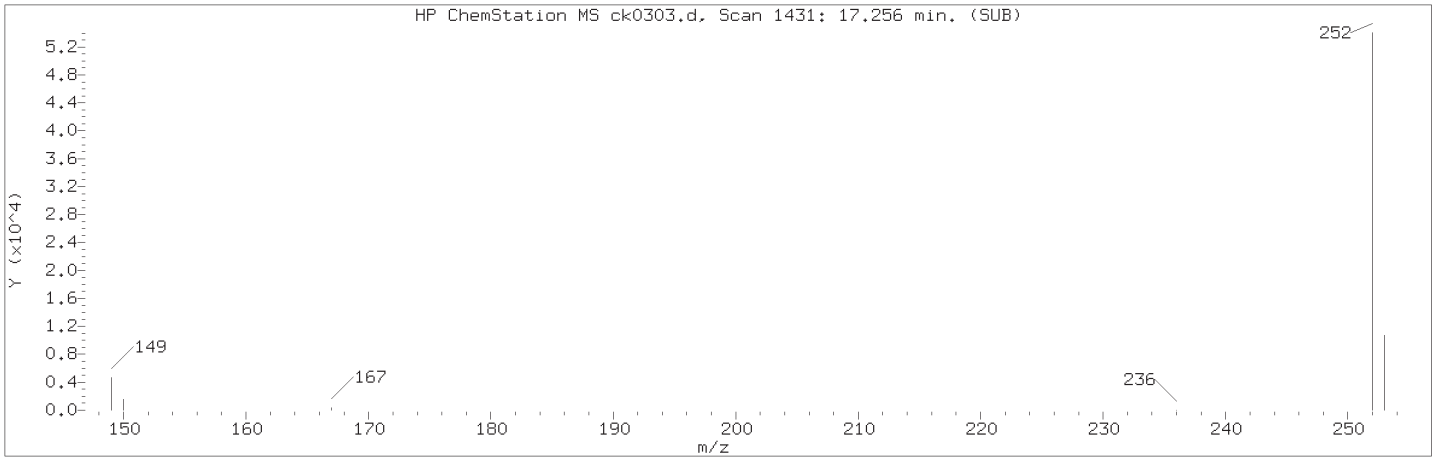
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

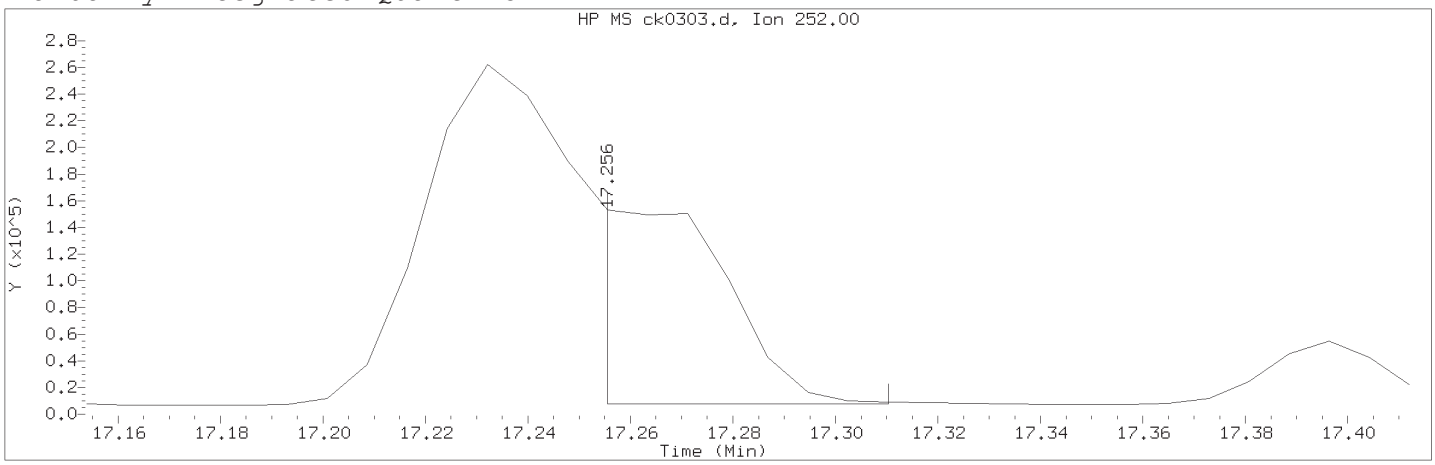
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1431
Retention Time (minutes)	: 17.256
Relative Retention Time	: 0.00082
Quant Ion	: 252.00
Area (flag)	: 268792M
On-column Amount (ng/ul)	: 1.2771

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

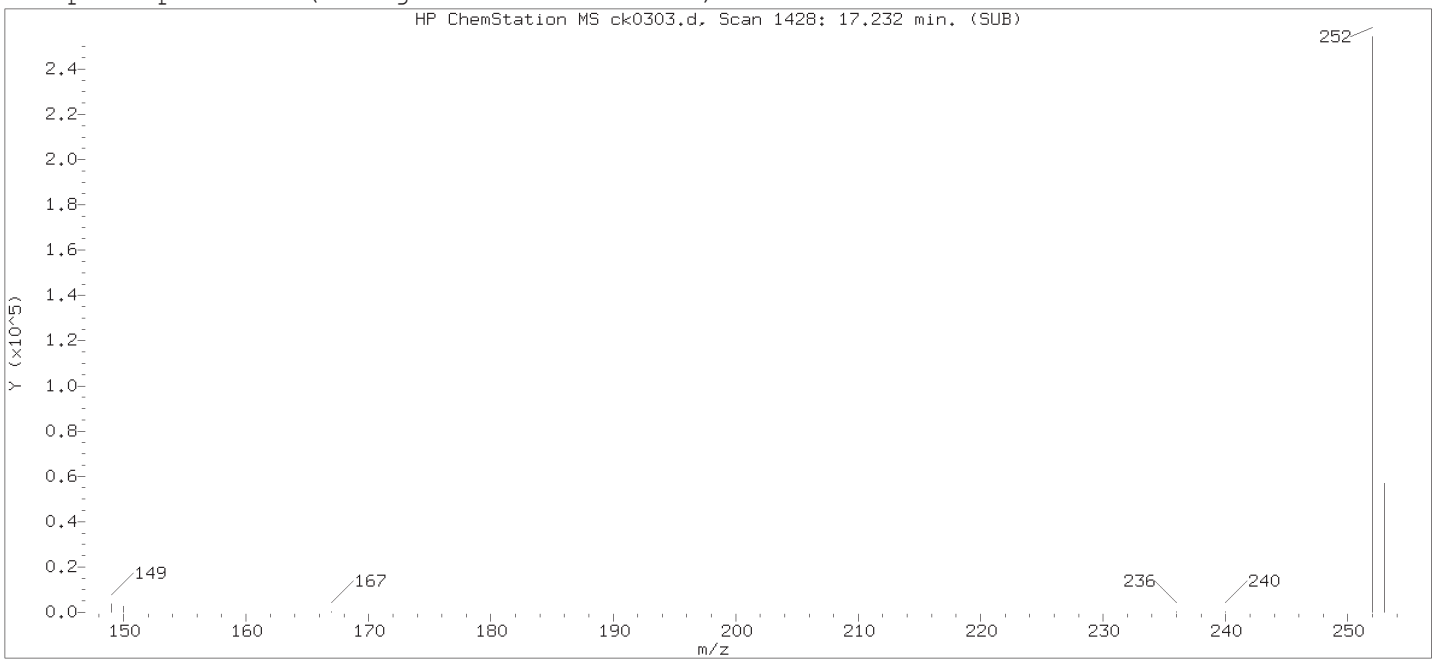
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1431
Retention Time (minutes) : 17.256
Quant Ion : 252.00
Area (flag) : 268792M
On-column Amount (ng/ul) : 1.2771
Integration start scan : 1430 Integration stop scan: 1437
Y at integration start : 7560 Y at integration end: 7560

Reason for manual integration: improper integration

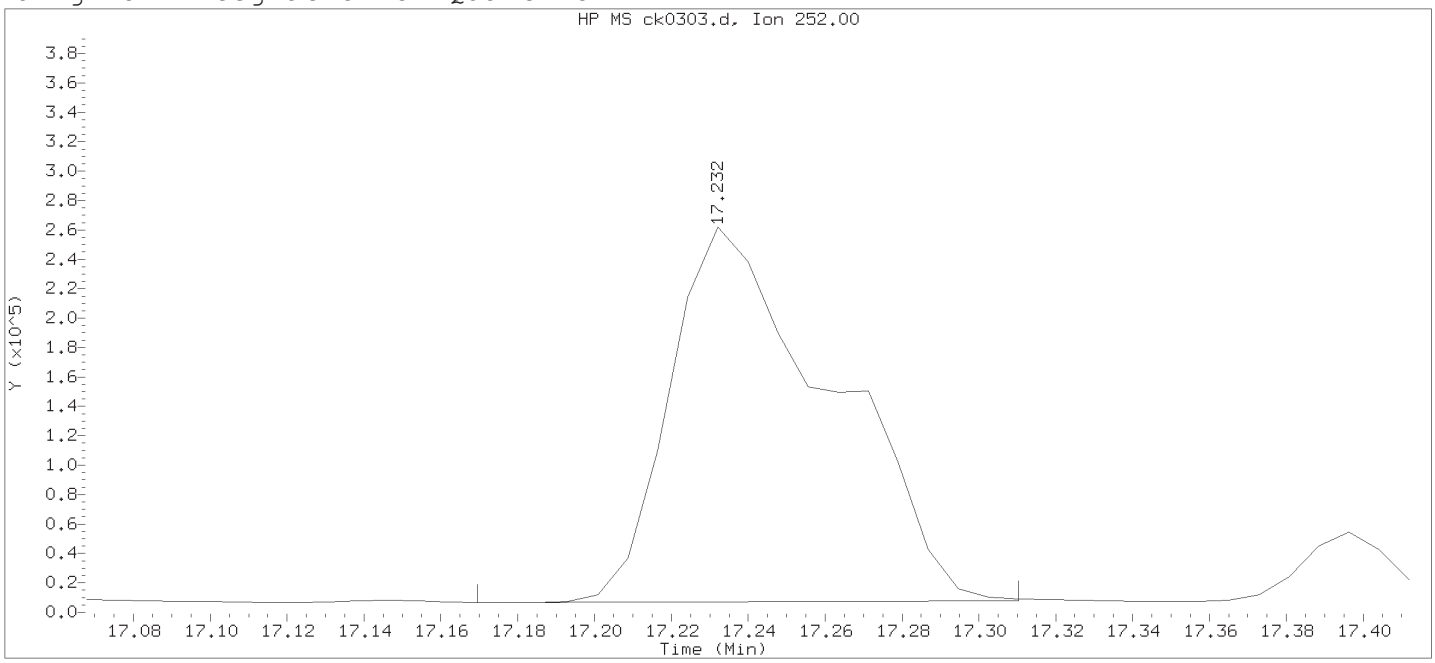
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

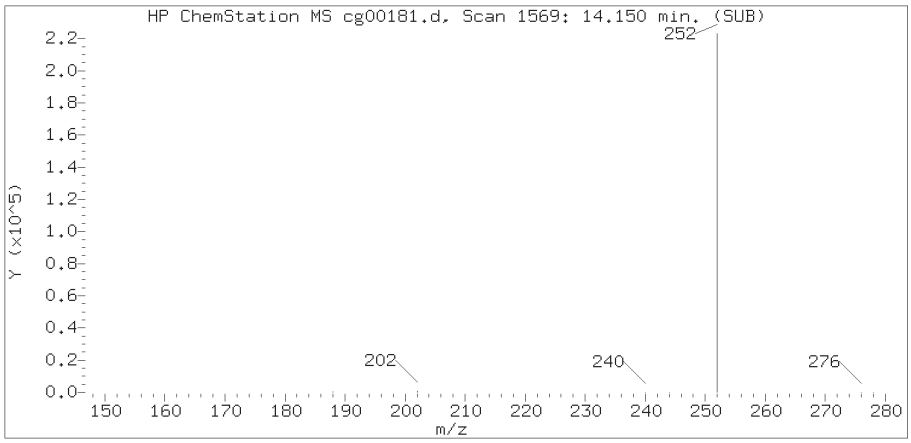
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 18:28 Automation

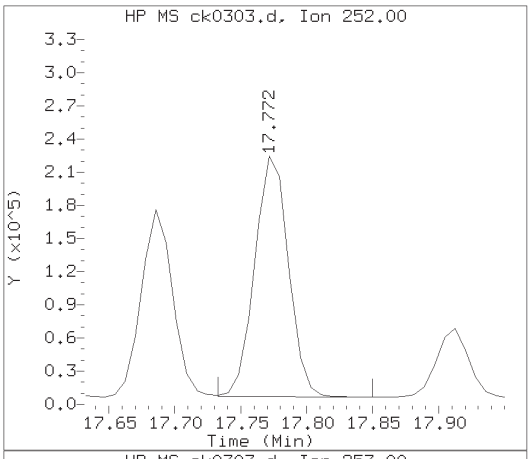
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 47	
Compound Name	: Benzo(k)fluoranthene	
Scan Number	: 1428	
Retention Time (minutes)	: 17.232	
Quant Ion	: 252.00	
Area	: 744032	
On-column Amount (ng/ul)	: 3.5352	
Integration start scan	: 1419	Integration stop scan: 1437
Y at integration start	: 6601	Y at integration end: 7892

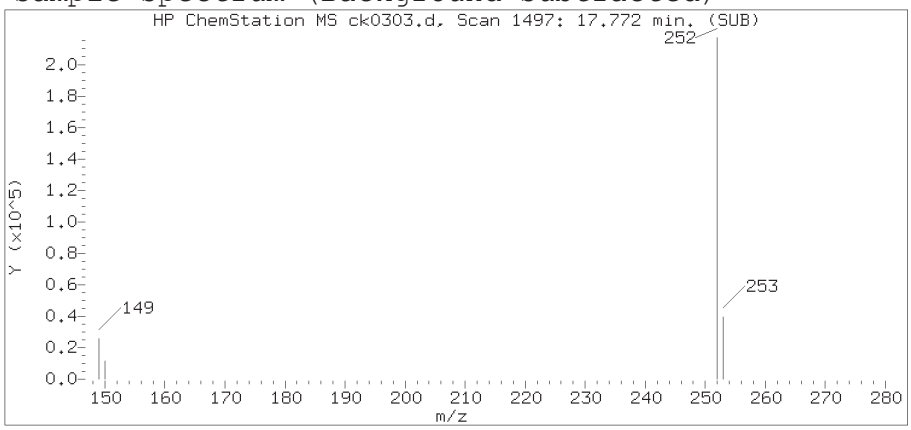
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018.

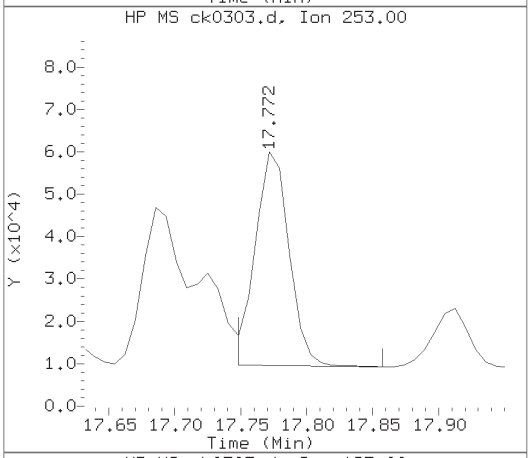
Reference Standard Spectrum for Benzo(a)pyrene



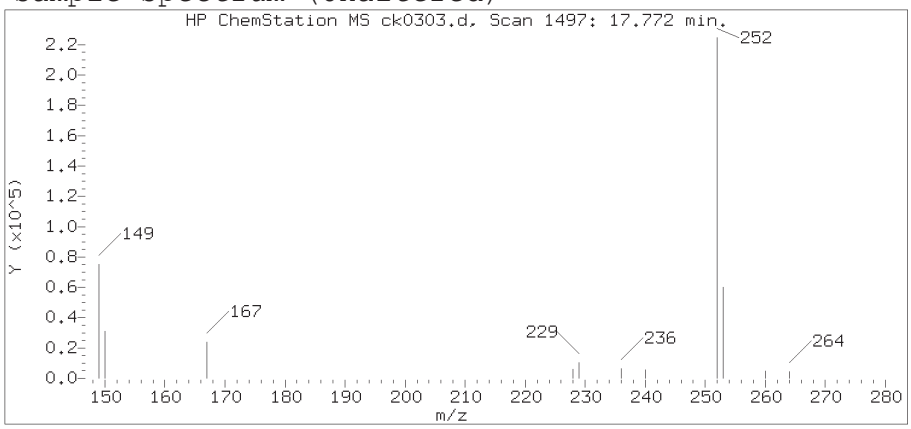


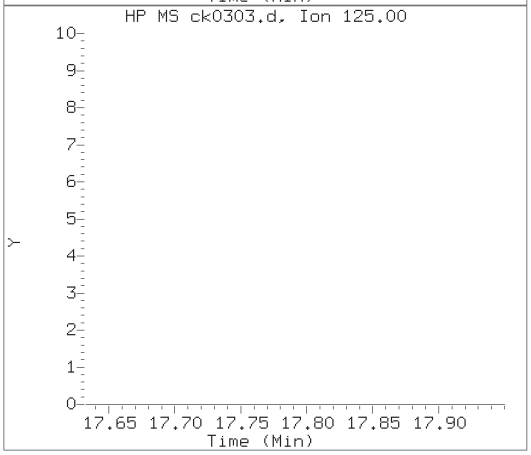
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

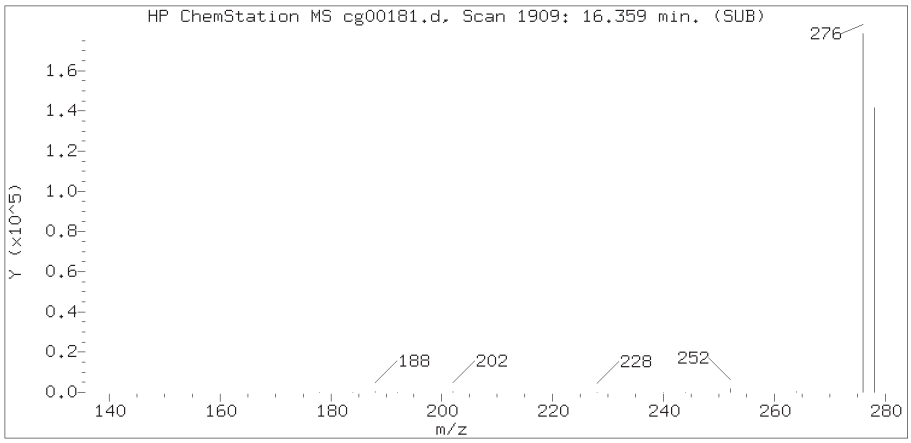
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

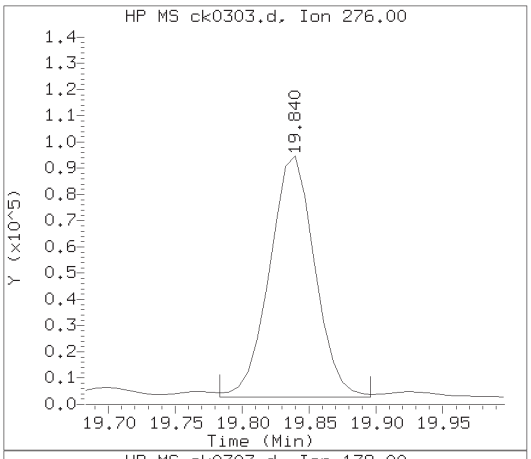
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1497
Retention Time (minutes)	: 17.772
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 386604
On-column Amount (ng/ul)	: 2.1622

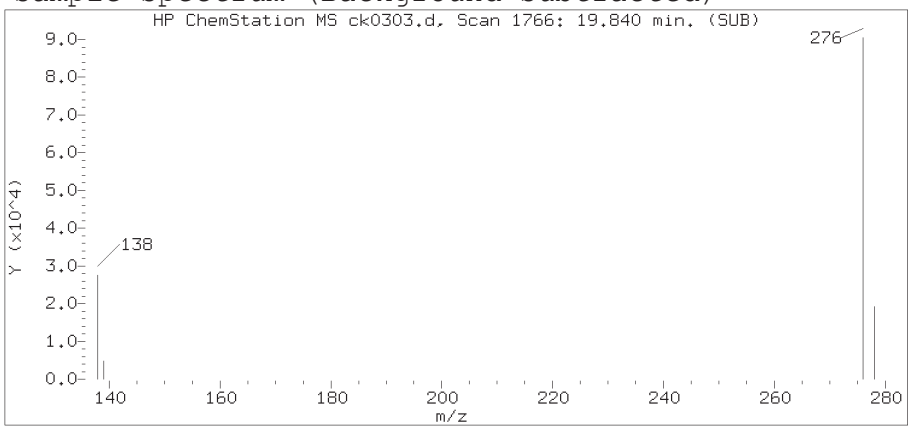
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

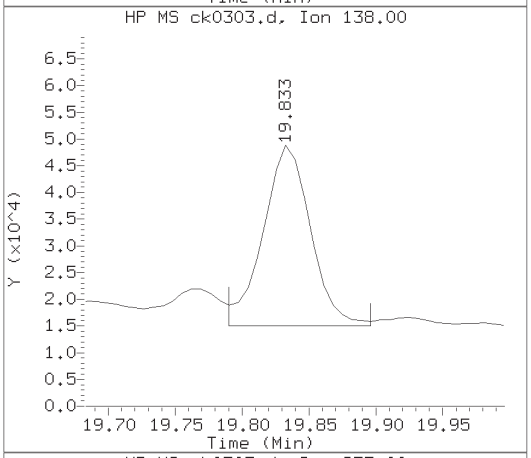
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



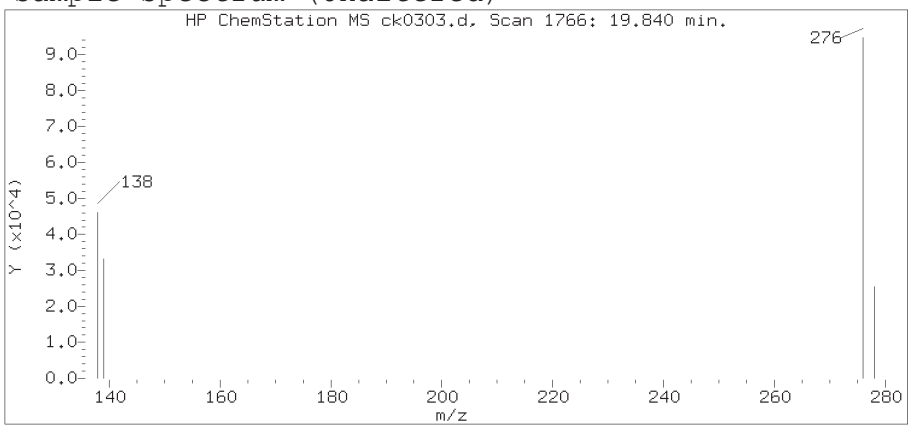


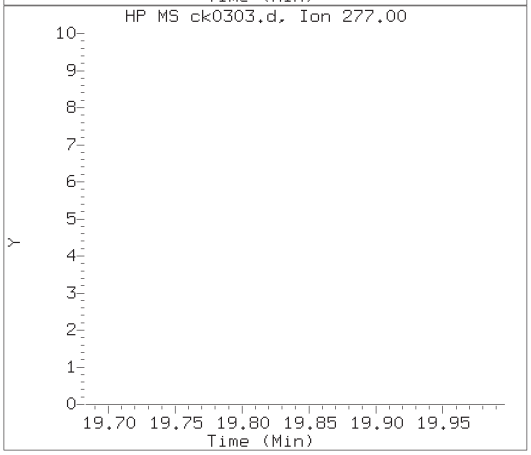
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

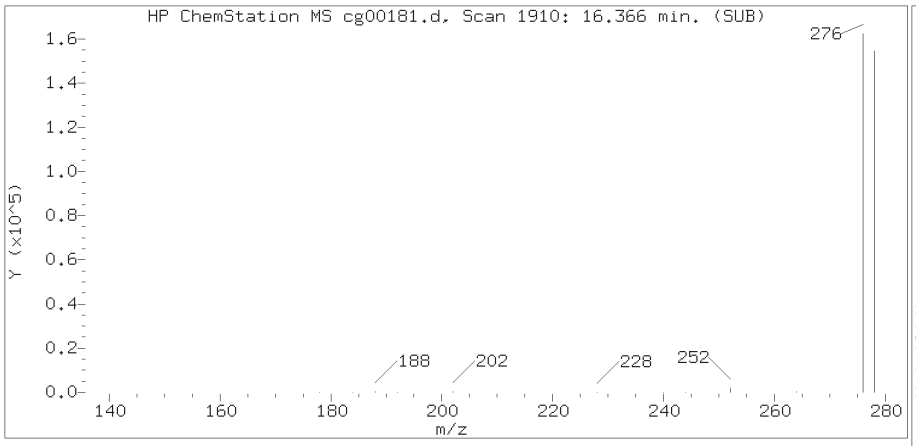
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

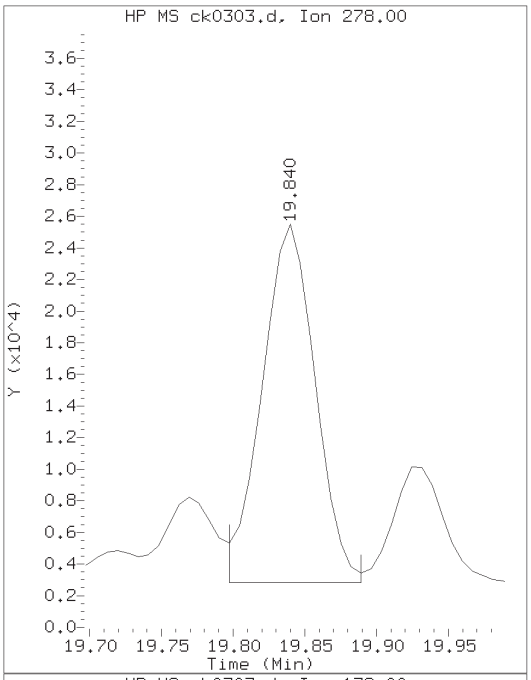
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1766
Retention Time (minutes)	: 19.840
Relative Retention Time	:-0.00043
Quant Ion	: 276.00
Area (flag)	: 215181
On-column Amount (ng/ul)	: 1.2132

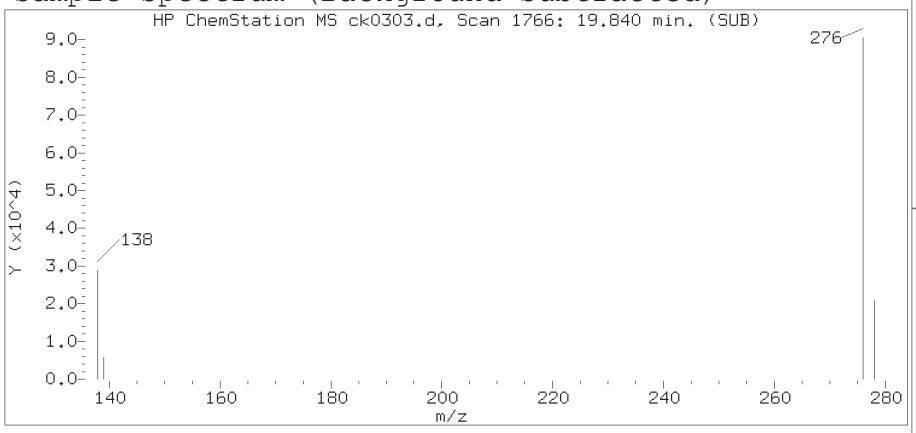
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

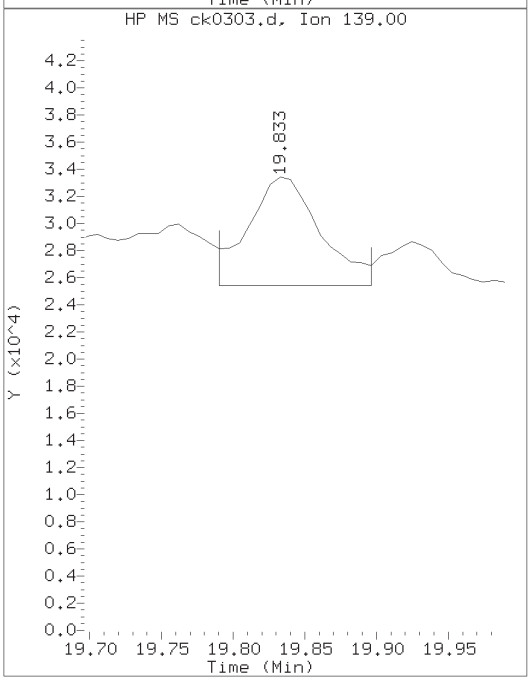
Reference Standard Spectrum for Dibenz(a,h)anthracene



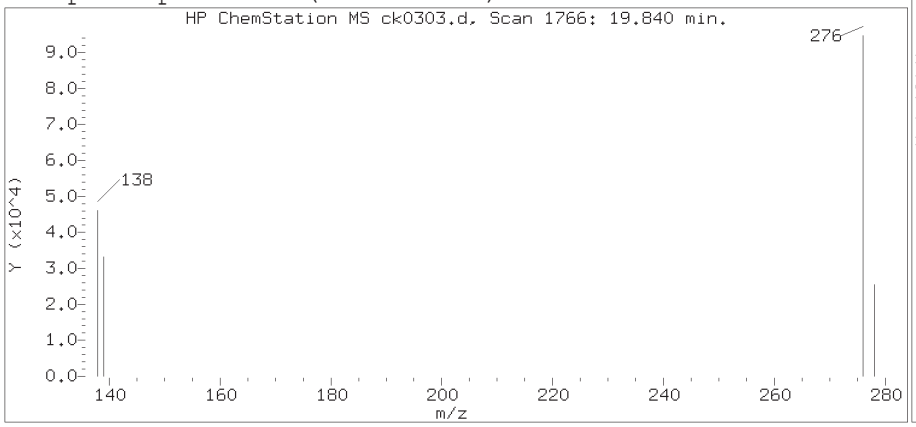


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

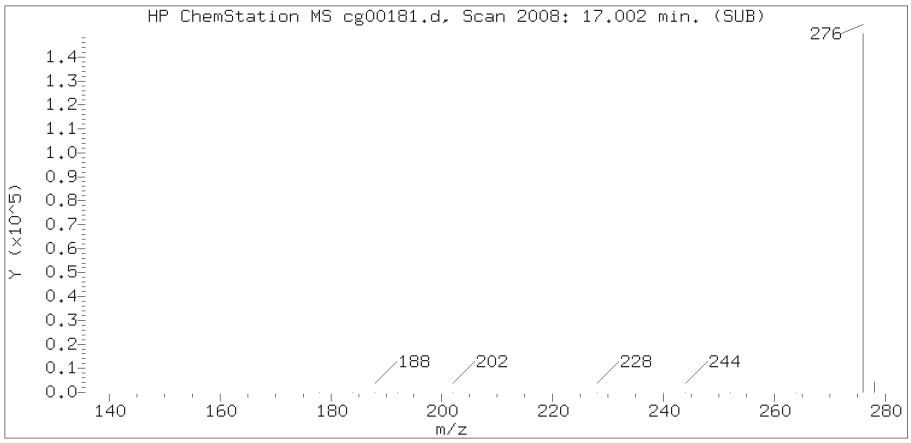
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

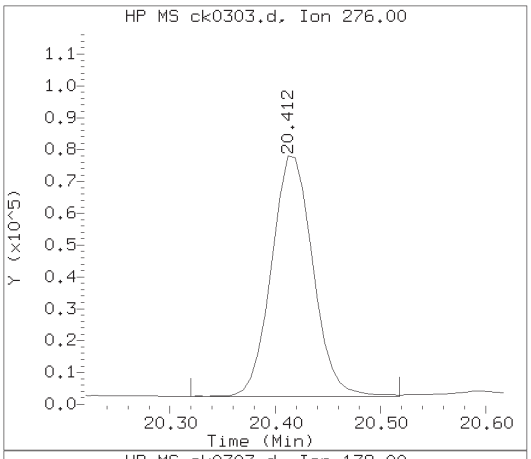
Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1766
Retention Time (minutes)	: 19.840
Relative Retention Time	:-0.00004
Quant Ion	: 278.00
Area (flag)	: 58214
On-column Amount (ng/ul)	: 0.3959

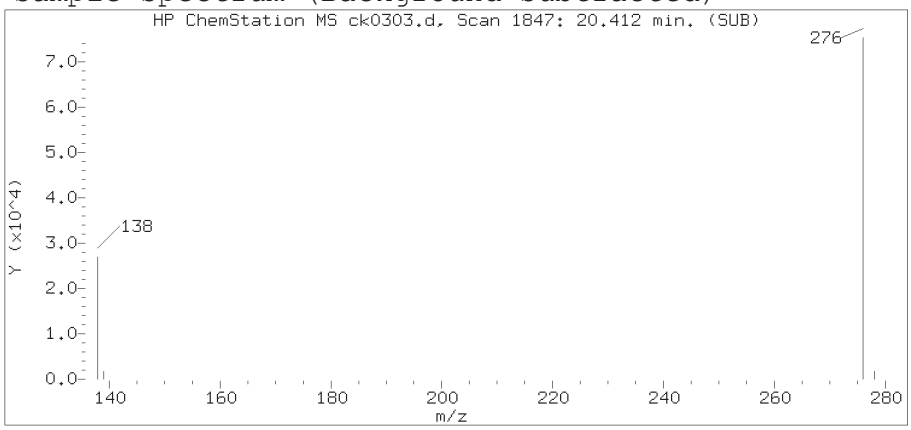
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

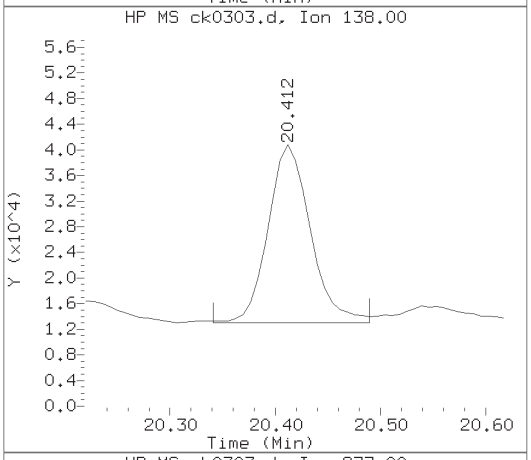
Reference Standard Spectrum for Benzo(g,h,i)perylene



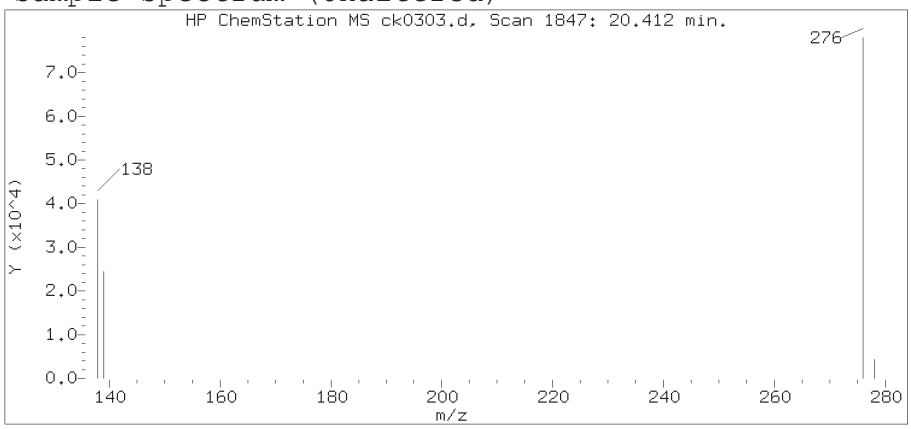


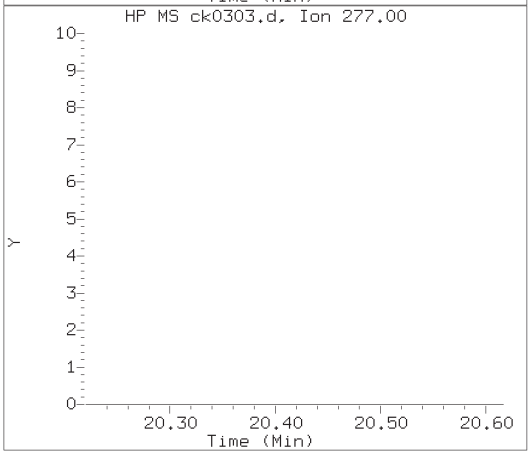
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:01 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T03 Lab Sample ID: 9872061

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1847
Retention Time (minutes)	: 20.412
Relative Retention Time	:-0.00038
Quant Ion	: 276.00
Area (flag)	: 206420
On-column Amount (ng/ul)	: 1.2470

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov06a.b/ck0303a.d Injection date and time: **06-NOV-2018 23:15**
Data file Sample Info. Line: 12T03DL;9872061DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845(-0.013)	448	152	80811 (-14)	1.00	
10) Naphthalene-d8	8.357(0.000)	562	136	347691M (-14)	1.00	
20) Acenaphthene-d10	10.525(0.000)	749	164	161764M (-13)	1.00	
31) Phenanthrene-d10	12.384(0.000)	915	188	268884 (-22)	1.00	
43) Chrysene-d12	15.692(-0.007)	1231	240	192326 (-24)	1.00	
51) Perylene-d12	17.842(-0.007)	1506	264	181115 (-20)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308(-0.001)	152	3370M	0.019	96%		61 - 111
36) Fluoranthene-d10	(4)	13.880(0.000)	212	4741M	0.019	97%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.709(0.000)	264	2924	0.018	88%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)			Not Detected					0.02
11) Naphthalene	(2)	8.383(-0.000)	128	1728104	4.681	7785.93			0.04
19) Acenaphthylene	(3)	10.351(0.000)	152	25884M	0.081	134.07			0.01
21) Acenaphthene	(3)	10.568(-0.000)	154	516666	2.350	3909.58			0.02
26) Fluorene	(3)	11.204(-0.000)	166	502031	2.136	3552.27			0.02
32) Phenanthrene	(4)	12.418(0.000)	178	630454	1.965	3268.59			0.02
33) Anthracene	(4)	12.474(-0.000)	178	241340	0.782	1301.19			0.02
35) Di-n-butylphthalate	(4)			Not Detected					0.2
37) Fluoranthene	(4)	13.905(0.000)	202	434343	1.378	2291.74			0.02
39) Pyrene	(5)	14.198(0.000)	202	389960	1.260	2095.44			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.598(-0.000)	149	50842	0.347	576.75	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.676(-0.000)	228	145449	0.584	970.60			0.02
44) Chrysene	(5)	15.723(0.000)	228	159094	0.623	1036.22			0.01
46) Benzo(b)fluoranthene	(6)	17.209(-0.000)	252	150248M	0.647	1076.62			0.02
47) Benzo(k)fluoranthene	(6)	17.248(-0.000)	252	54384M	0.218	362.89			0.02
50) Benzo(a)pyrene	(6)	17.748(-0.000)	252	94940	0.448	745.67			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.804(0.000)	276	44514	0.212	352.45			0.02
54) Dibenz(a,h)anthracene	(6)	19.812(0.000)	278	12640	0.073	120.72			0.02
55) Benzo(g,h,i)perylene	(6)	20.384(-0.000)	276	40424	0.206	342.95			0.02

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0303a.d Injection date and time: **06-NOV-2018 23:15**
Data file Sample Info. Line: 12T03DL;9872061DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

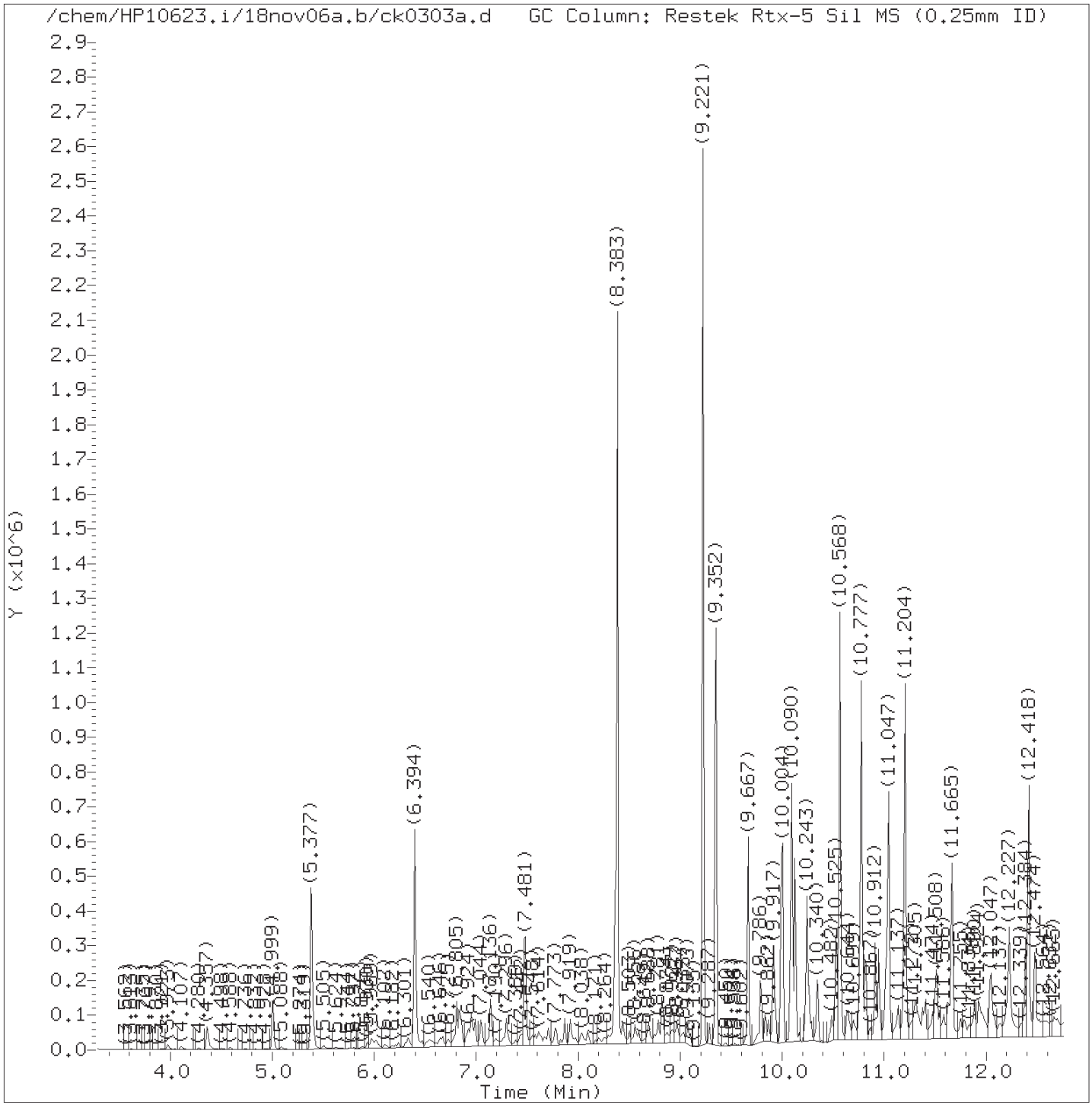
Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.06 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

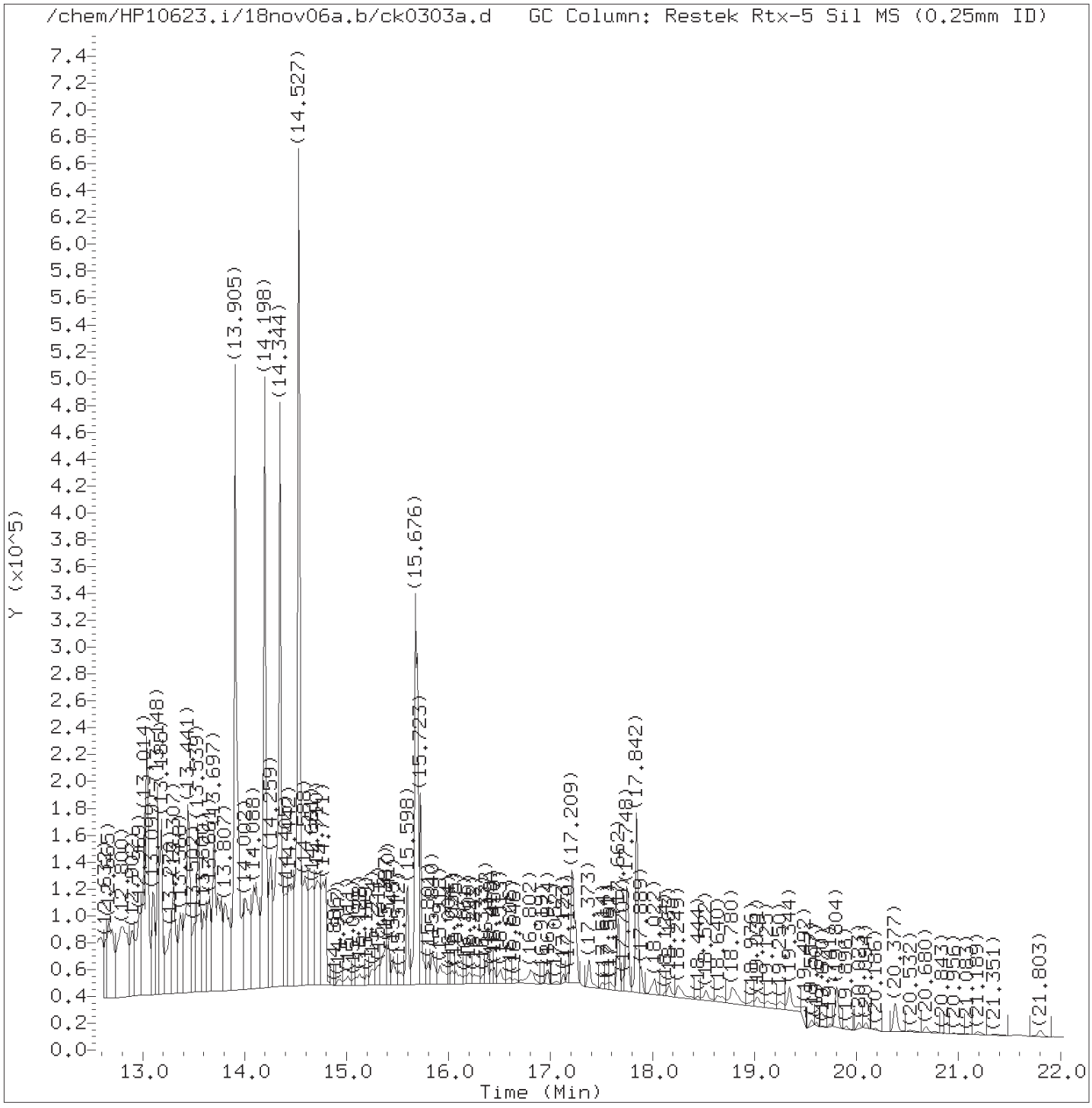
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

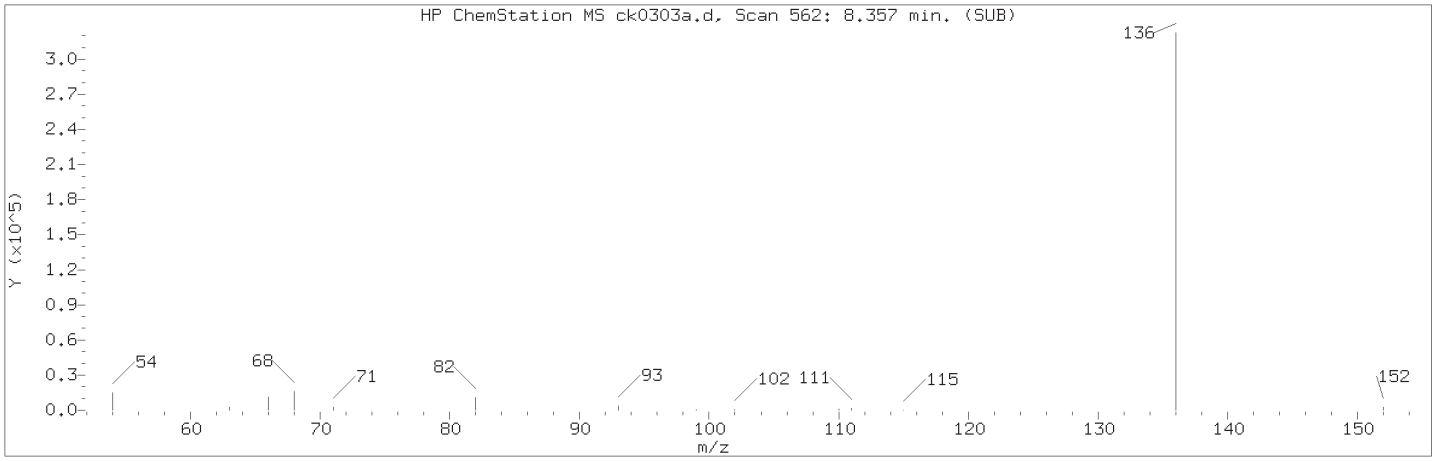
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	80811	1.000
10)*Naphthalene-d8	(2)	8.357	136	347691M	1.000
11) Naphthalene	(2)	8.383	128	1728104	4.681
14)$1-Methylnaphthalene-d10	(2)	9.308	152	3370M	0.019
19) Acenaphthylene	(3)	10.351	152	25884M	0.081
20)*Acenaphthene-d10	(3)	10.525	164	161764M	1.000
21) Acenaphthene	(3)	10.568	154	516666	2.350
26) Fluorene	(3)	11.204	166	502031	2.136
31)*Phenanthrene-d10	(4)	12.384	188	268884	1.000
32) Phenanthrene	(4)	12.418	178	630454	1.965
33) Anthracene	(4)	12.474	178	241340	0.782
36)$Fluoranthene-d10	(4)	13.880	212	4741M	0.019
37) Fluoranthene	(4)	13.905	202	434343	1.378
39) Pyrene	(5)	14.198	202	389960	1.260
41) bis(2-Ethylhexyl)phthalate	(5)	15.598	149	50842	0.347
42) Benzo(a)anthracene	(5)	15.676	228	145449	0.584
43)*Chrysene-d12	(5)	15.692	240	192326	1.000
44) Chrysene	(5)	15.723	228	159094	0.623
46) Benzo(b)fluoranthene	(6)	17.209	252	150248M	0.647
47) Benzo(k)fluoranthene	(6)	17.248	252	54384M	0.218
49)$Benzo(a)pyrene-d12	(6)	17.709	264	2924	0.018
50) Benzo(a)pyrene	(6)	17.748	252	94940	0.448
51)*Perylene-d12	(6)	17.842	264	181115	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.804	276	44514	0.212
54) Dibenz(a,h)anthracene	(6)	19.811	278	12640	0.073
55) Benzo(g,h,i)perylene	(6)	20.384	276	40424	0.206

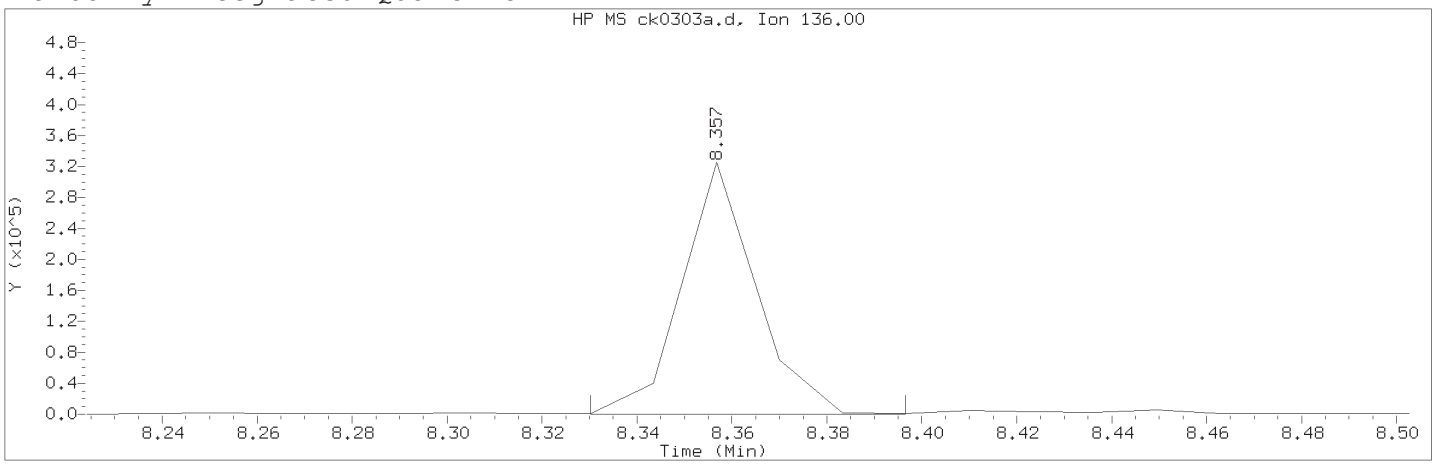
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

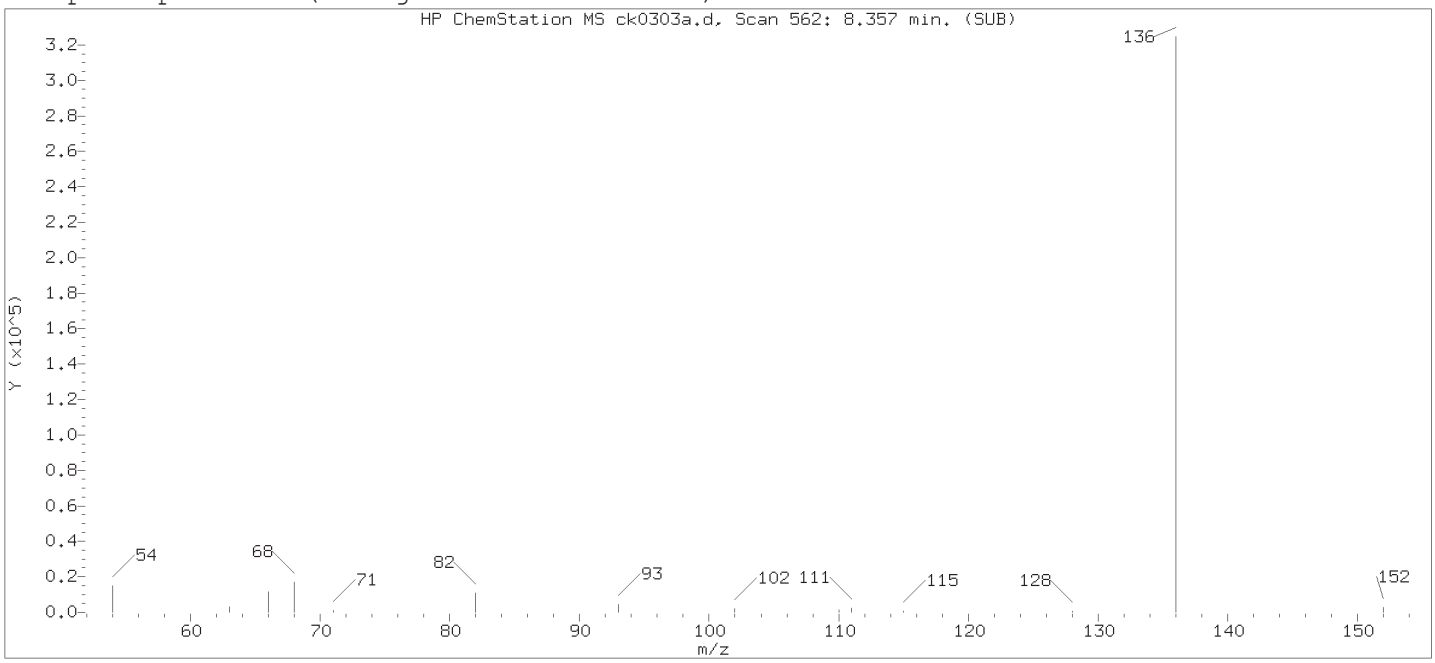
Compound Number	: 10		
Compound Name	: Naphthalene-d8		
Scan Number	: 562		
Retention Time (minutes)	: 8.357		
Quant Ion	: 136.00		
Area (flag)	: 347691M		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 559	Integration stop scan:	564
Y at integration start	: 341	Y at integration end:	355

Reason for manual integration: improper integration

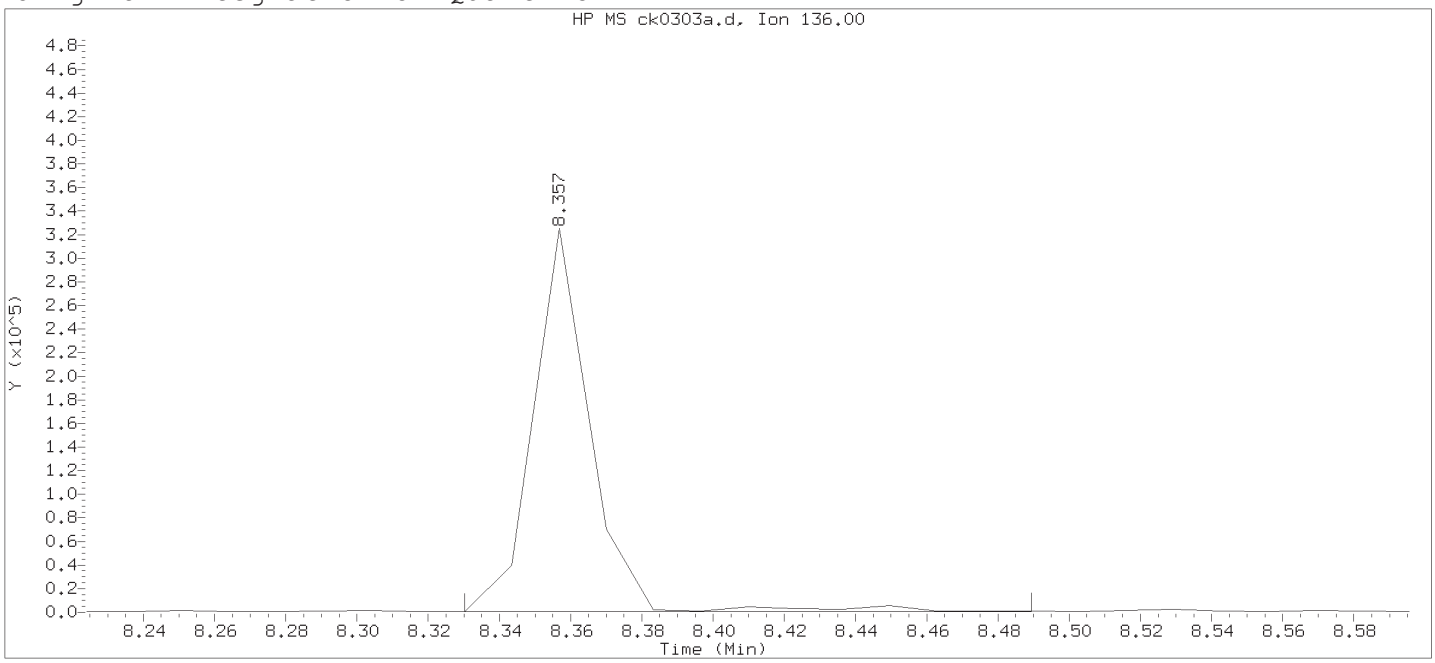
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

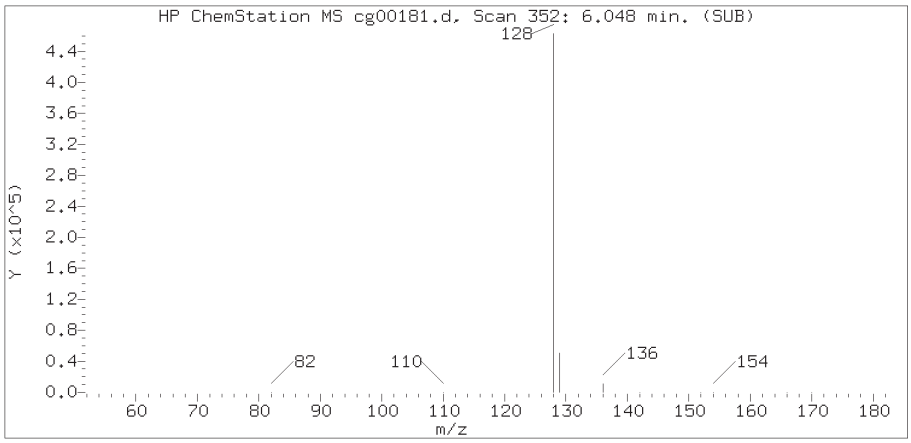
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

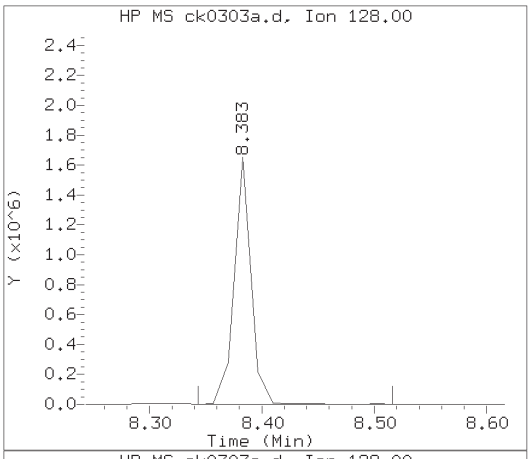
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 10		
Compound Name	: Naphthalene-d8		
Scan Number	: 562		
Retention Time (minutes)	: 8.357		
Quant Ion	: 136.00		
Area	: 360408		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 559	Integration stop scan:	571
Y at integration start	: 341	Y at integration end:	375

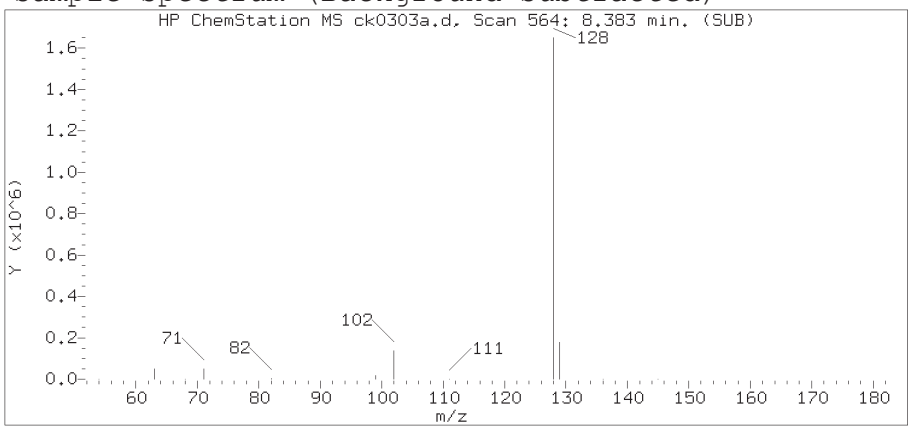
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

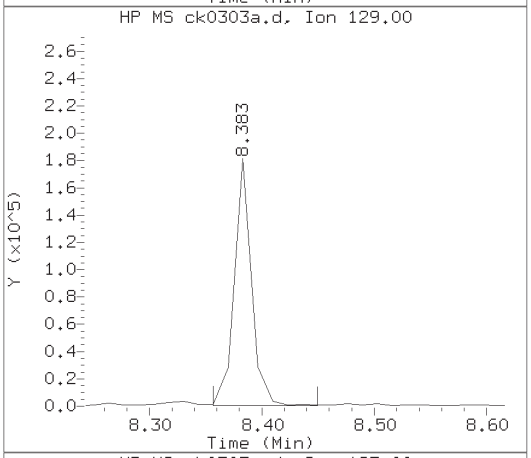
Reference Standard Spectrum for Naphthalene



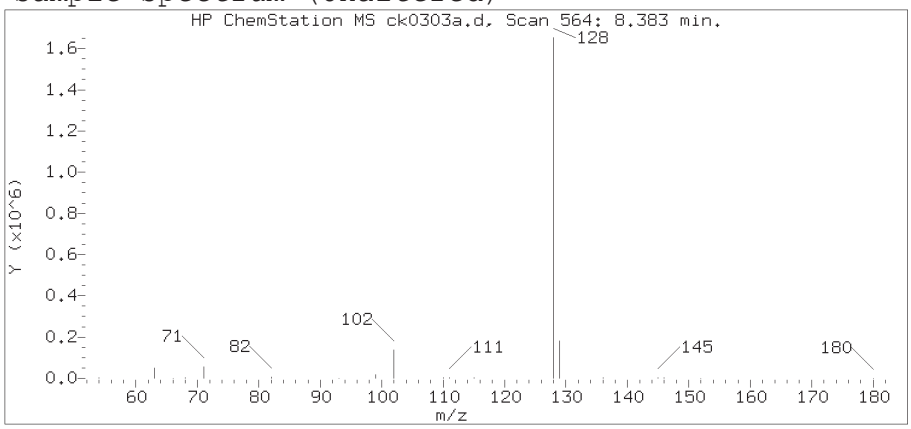


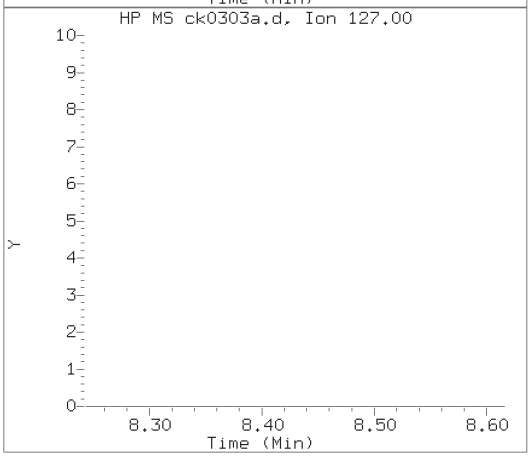
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

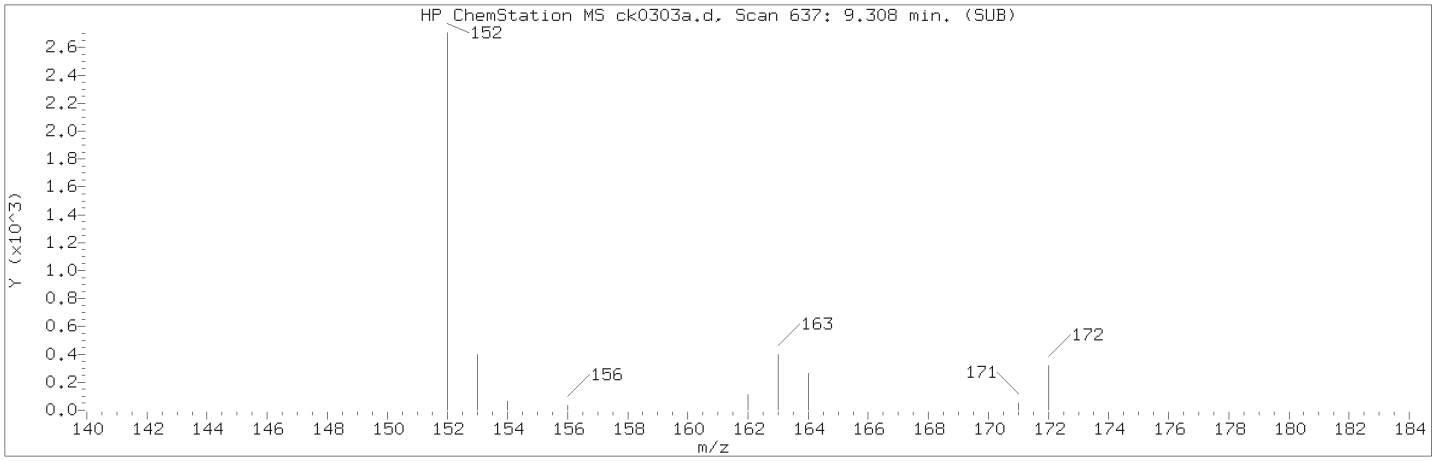
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

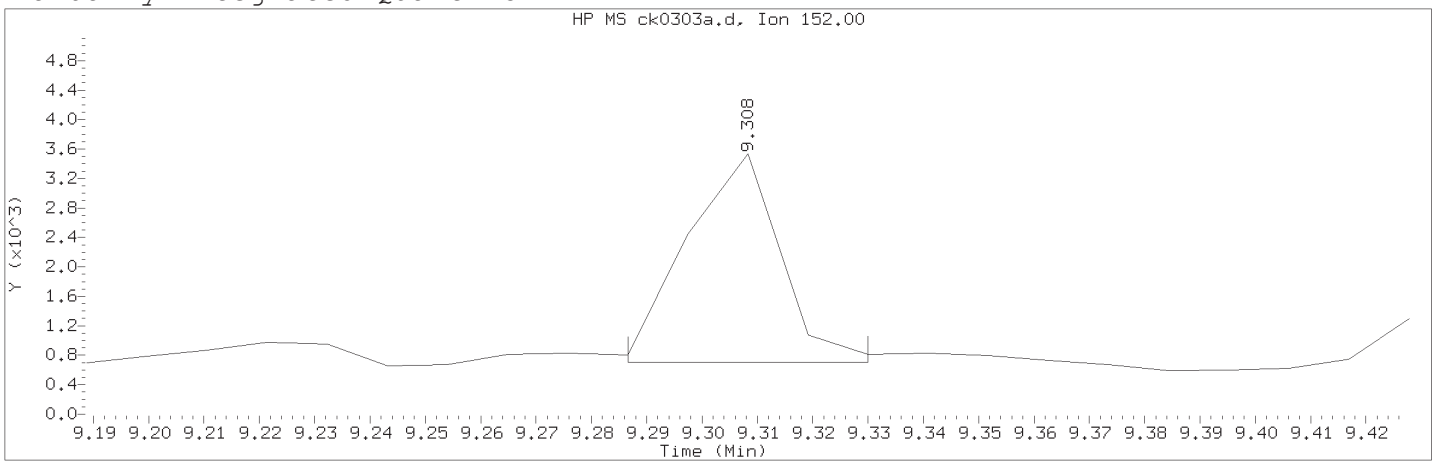
Compound Number : 11
Compound Name : Naphthalene
Scan Number : 564
Retention Time (minutes) : 8.383
Relative Retention Time :-0.00000
Quant Ion : 128.00
Area (flag) : 1728104
On-column Amount (ng/ul) : 4.6809

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

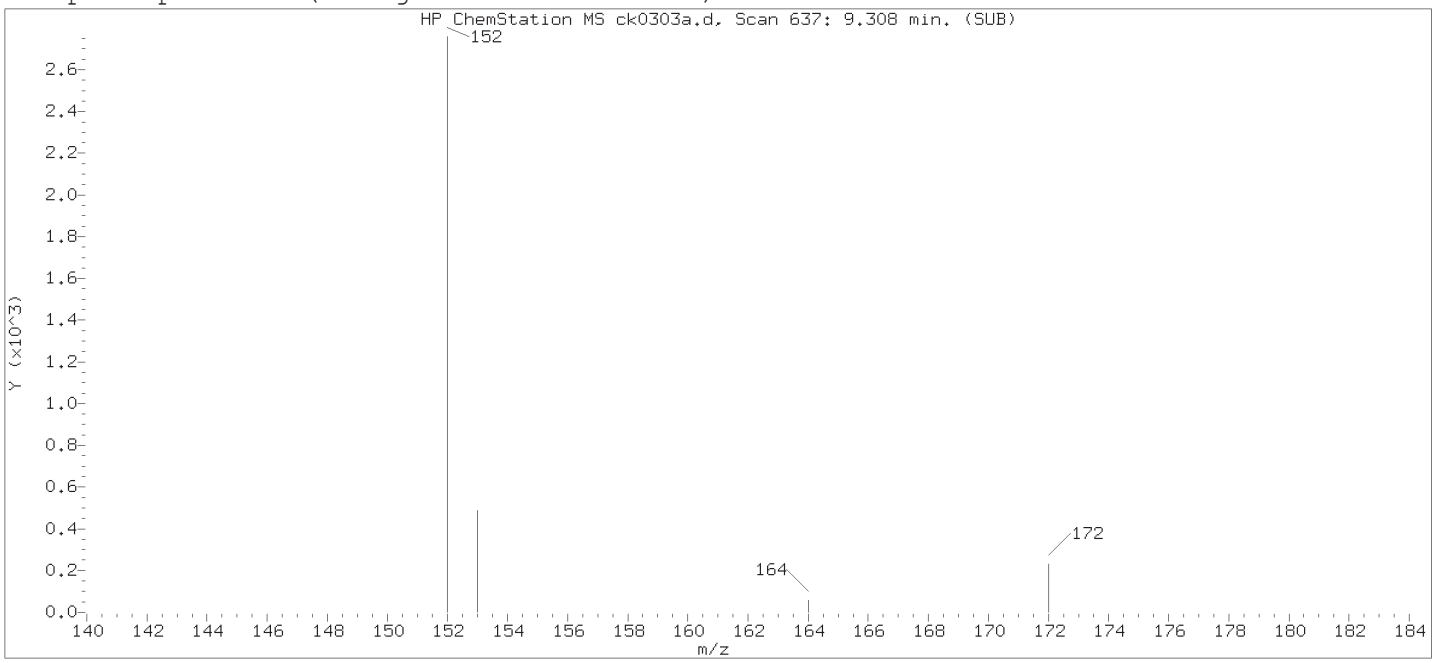
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area (flag)	: 3370M		
On-column Amount (ng/ul)	: 0.0192		
Integration start scan	: 634	Integration stop scan:	638
Y at integration start	: 706	Y at integration end:	706

Reason for manual integration: improper integration

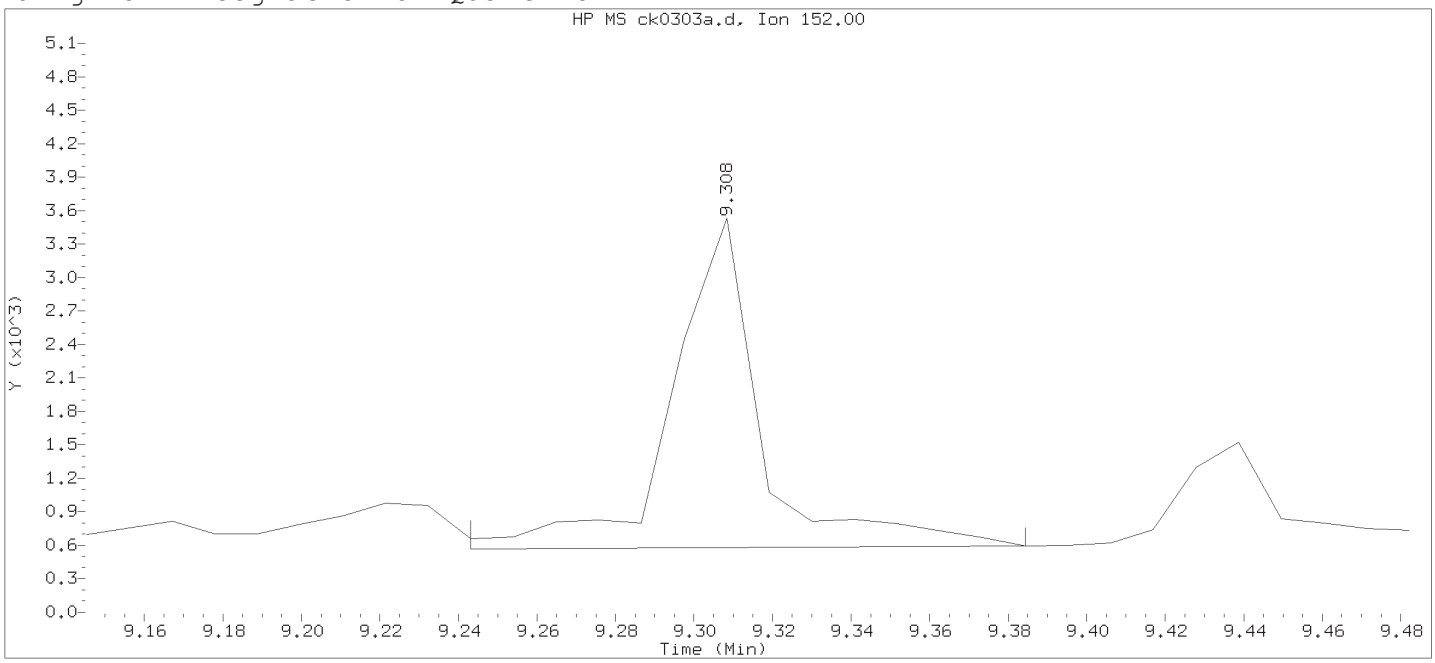
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

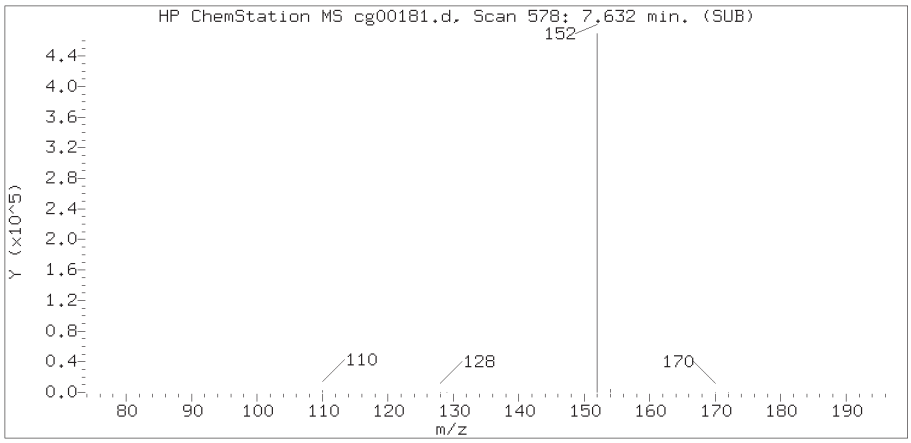
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

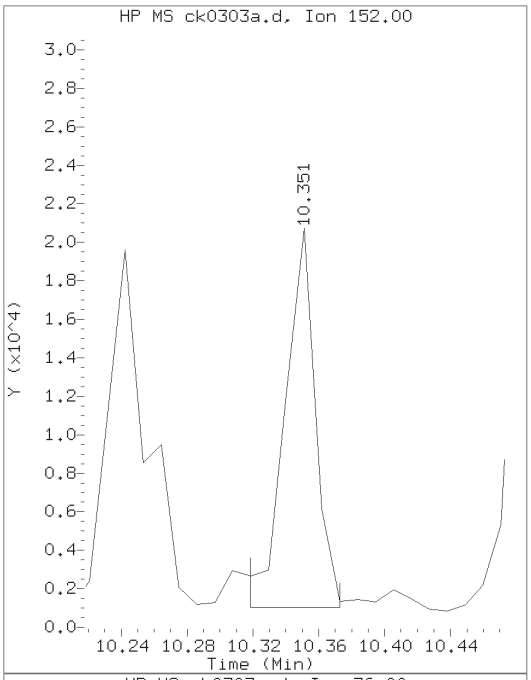
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area	: 4742		
On-column Amount (ng/ul)	: 0.0260		
Integration start scan	: 630	Integration stop scan:	643
Y at integration start	: 567	Y at integration end:	592

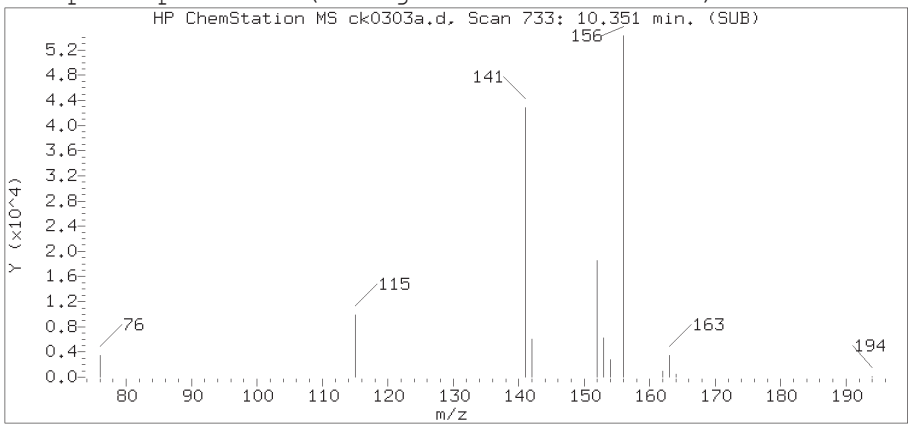
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2701

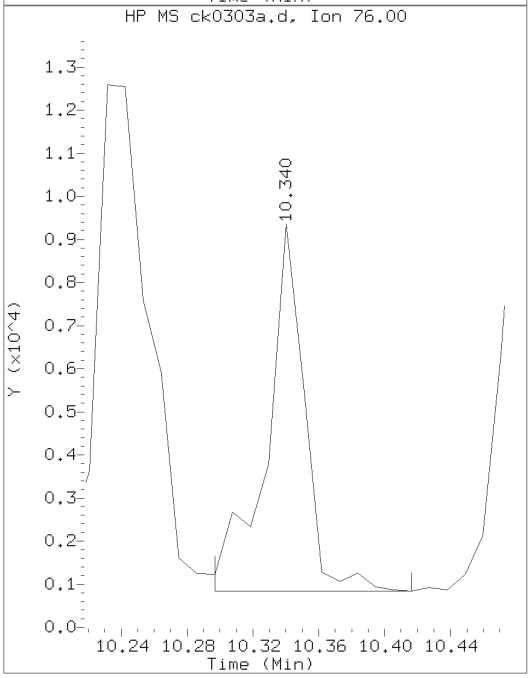
Reference Standard Spectrum for Acenaphthylene



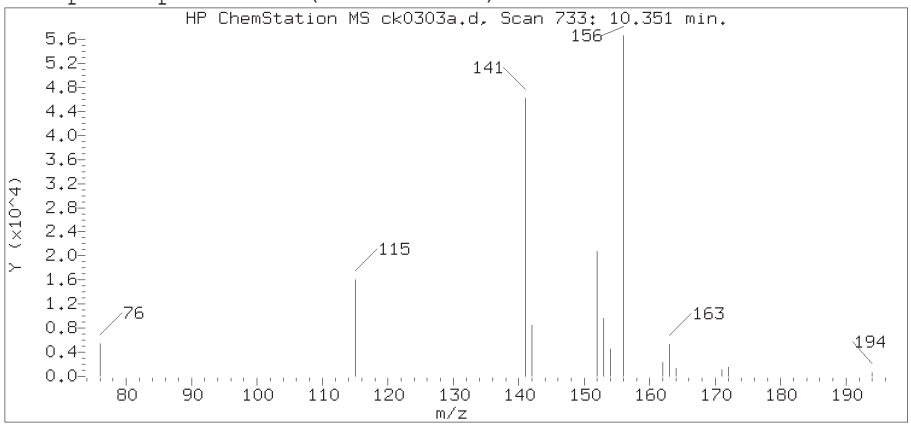


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

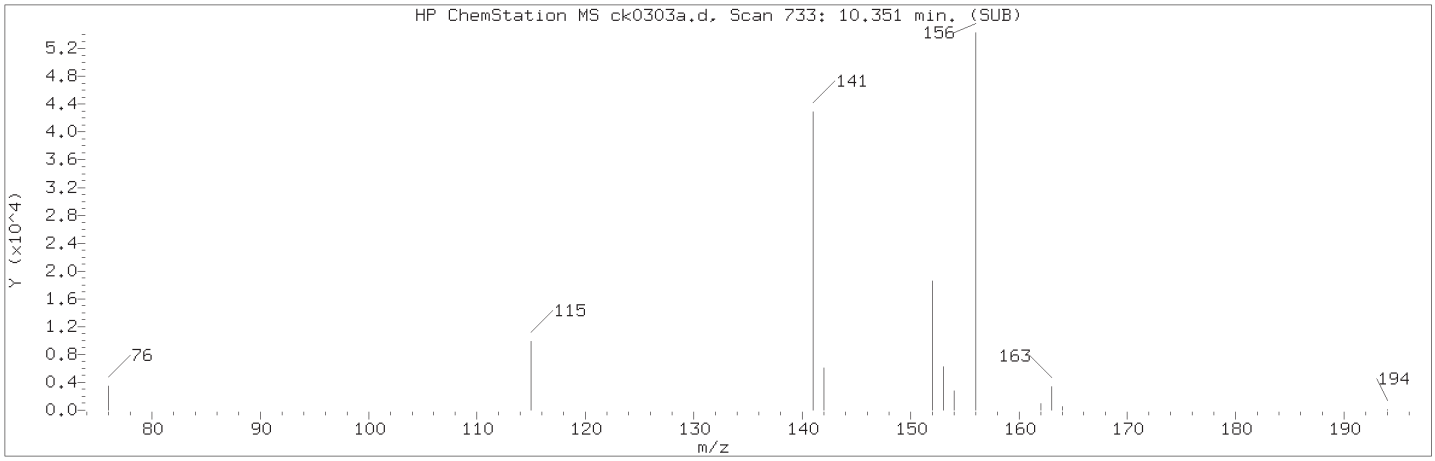
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

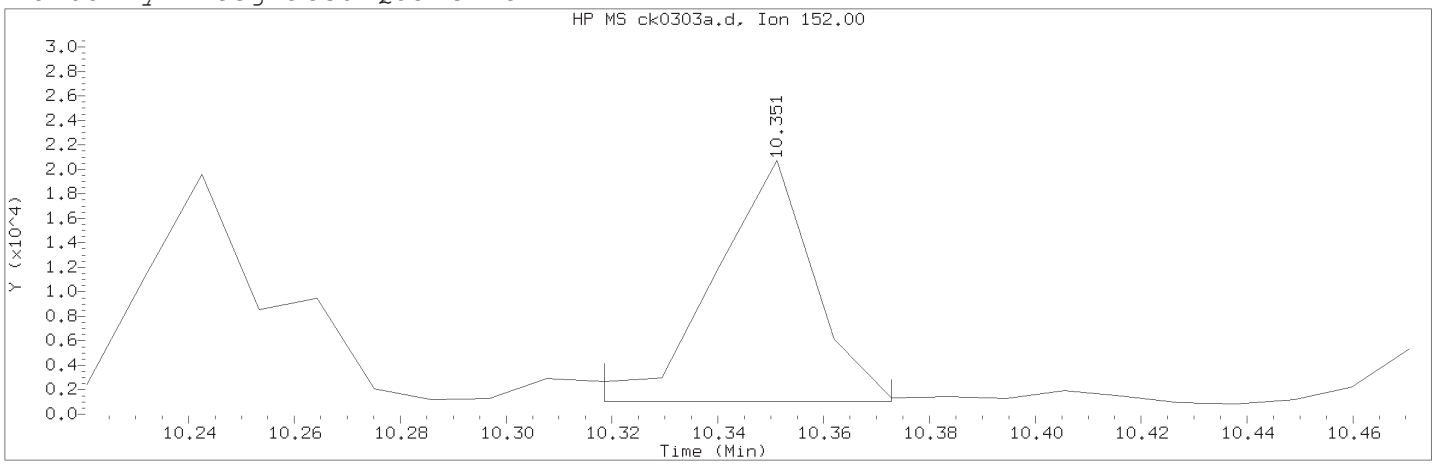
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00000
Quant Ion	: 152.00
Area (flag)	: 25884M
On-column Amount (ng/ul)	: 0.0806

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

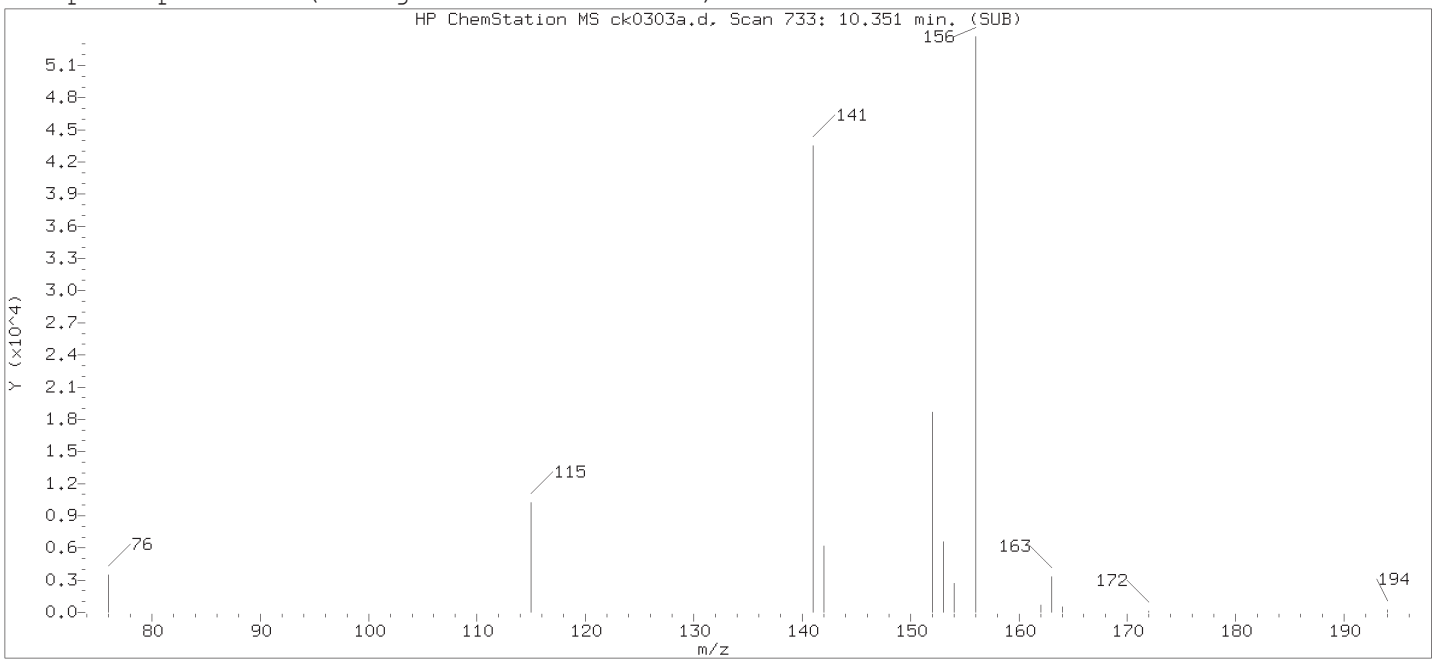
Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 733		
Retention Time (minutes)	: 10.351		
Quant Ion	: 152.00		
Area (flag)	: 25884M		
On-column Amount (ng/ul)	: 0.0806		
Integration start scan	: 729	Integration stop scan:	734
Y at integration start	: 1031	Y at integration end:	1031

Reason for manual integration: improper integration

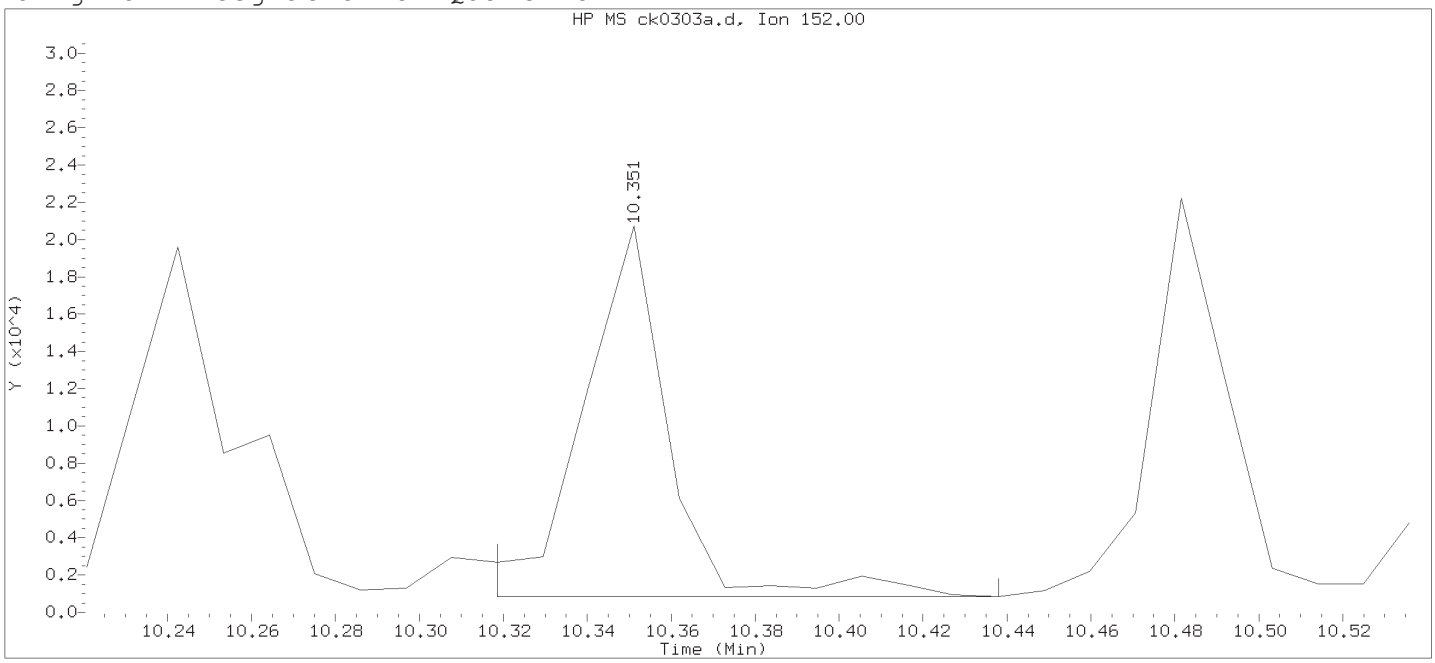
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

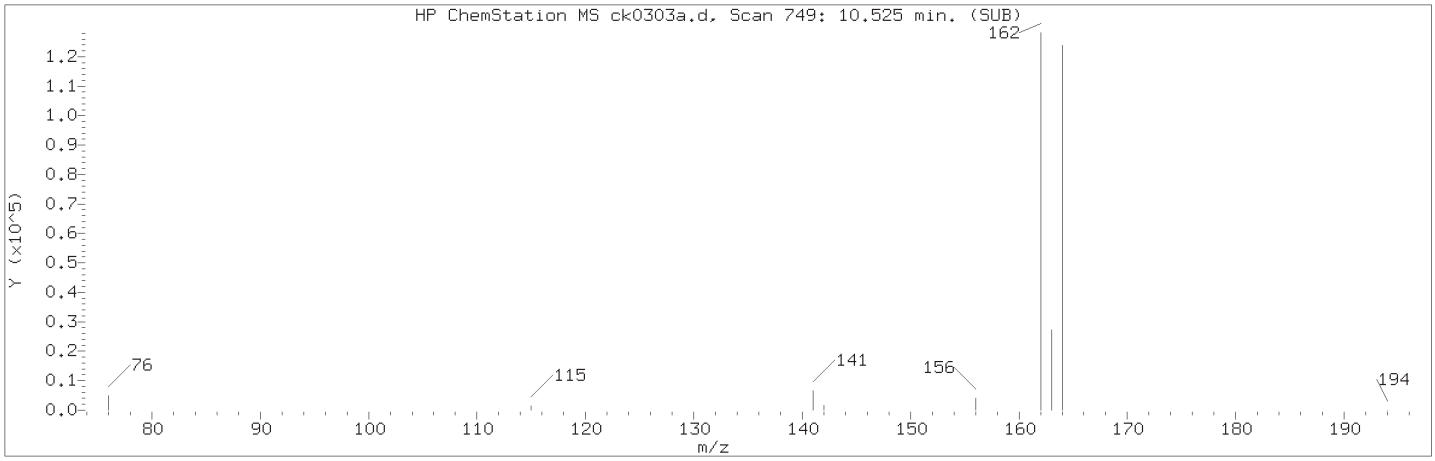
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

Sample Name: 12T03DL Lab Sample ID: 9872061DL

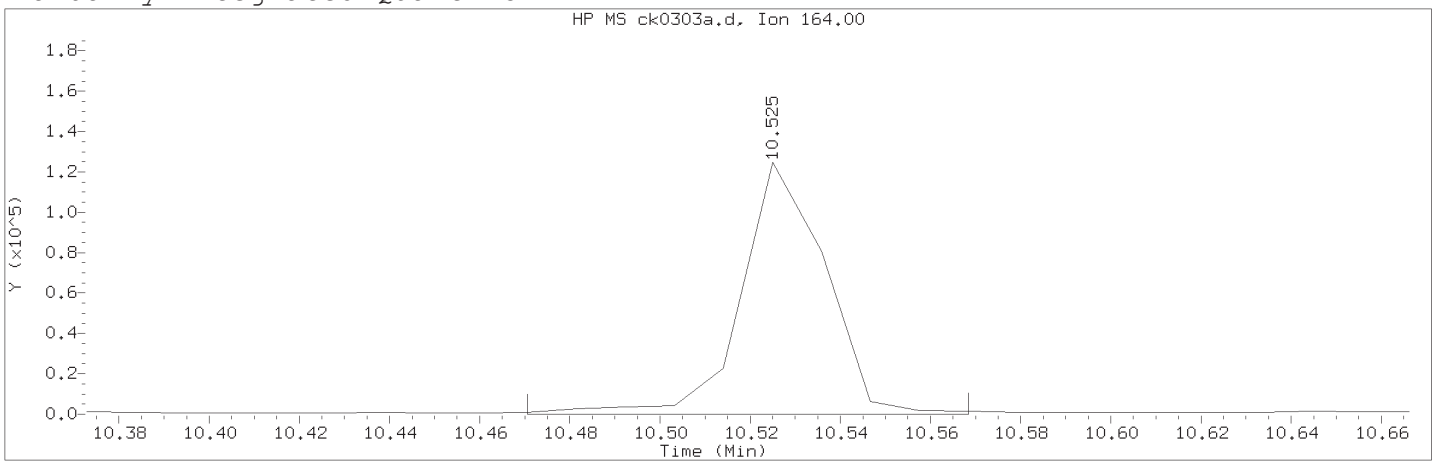
Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 733		
Retention Time (minutes)	: 10.351		
Quant Ion	: 152.00		
Area	: 27851		
On-column Amount (ng/ul)	: 0.0829		
Integration start scan	: 729	Integration stop scan:	740
Y at integration start	: 848	Y at integration end:	848

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

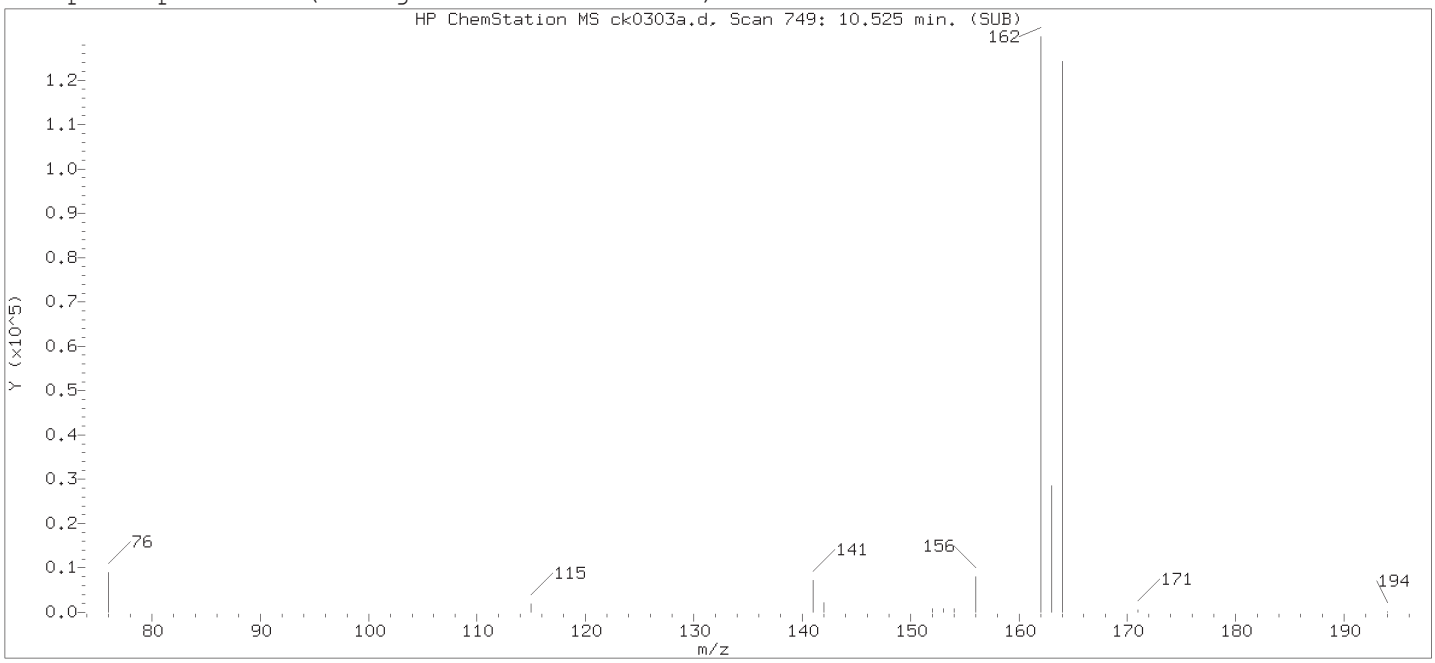
Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 749		
Retention Time (minutes)	: 10.525		
Quant Ion	: 164.00		
Area (flag)	: 161764M		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 743	Integration stop scan:	752
Y at integration start	: 121	Y at integration end:	121

Reason for manual integration: improper integration

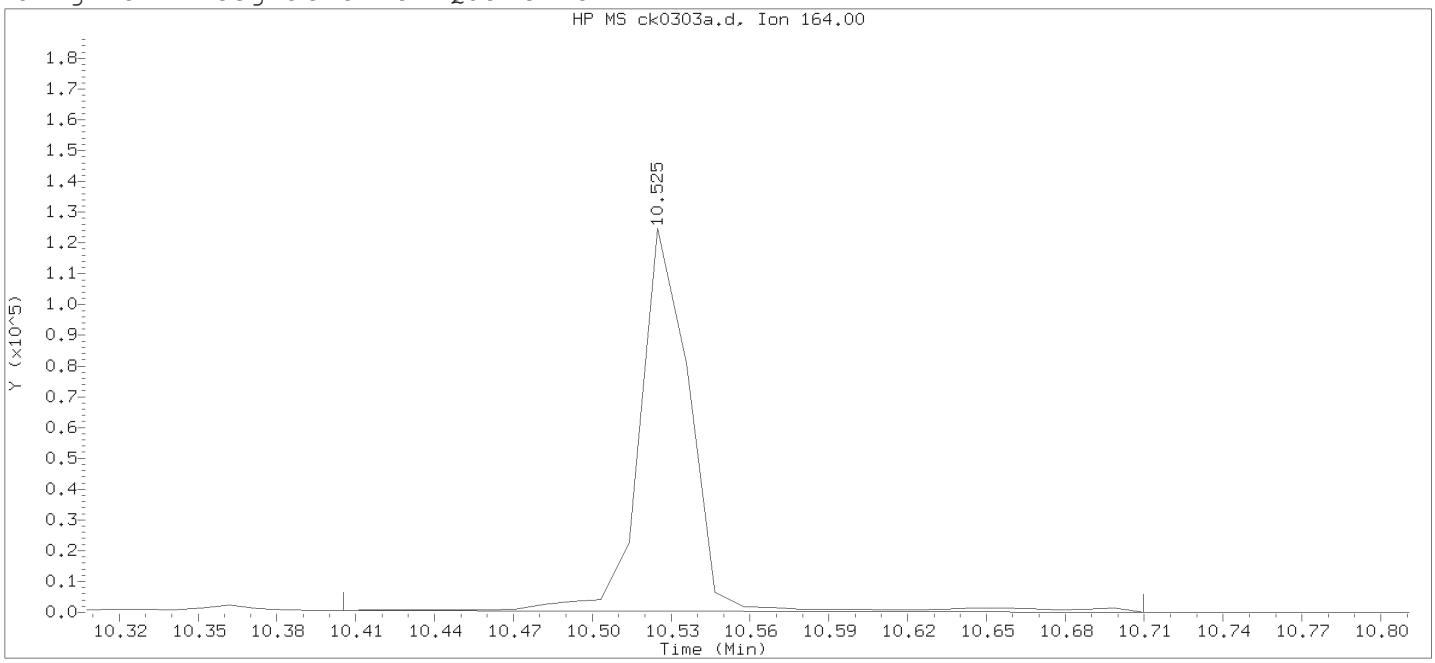
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

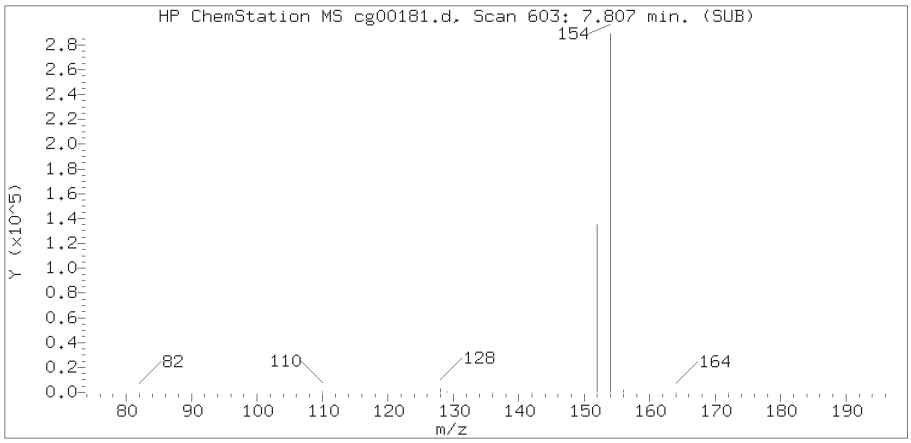
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

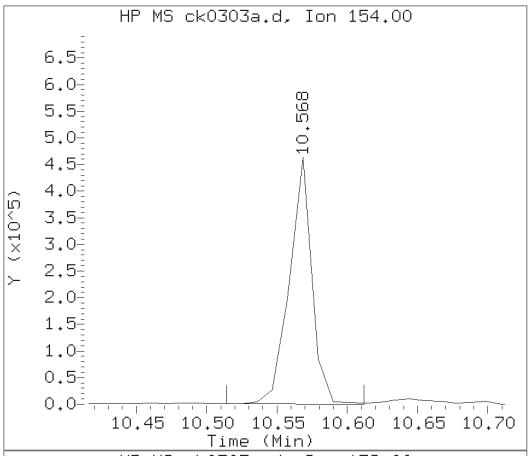
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 749		
Retention Time (minutes)	: 10.525		
Quant Ion	: 164.00		
Area	: 169224		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 737	Integration stop scan:	765
Y at integration start	: 630	Y at integration end:	0

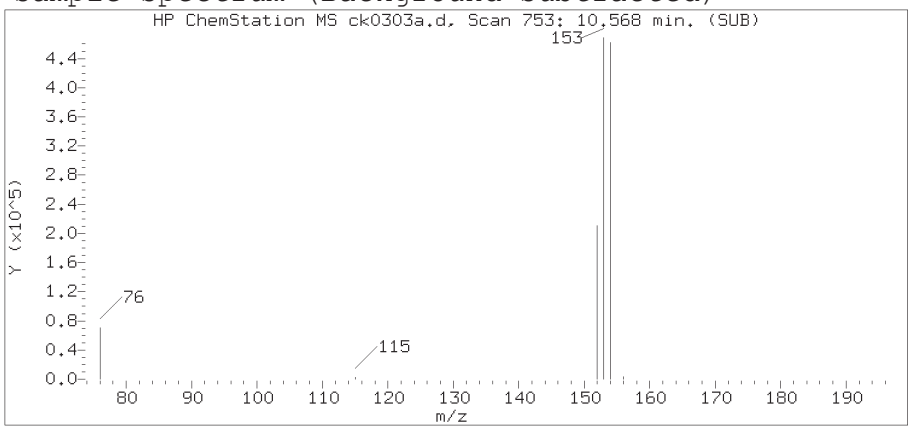
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018

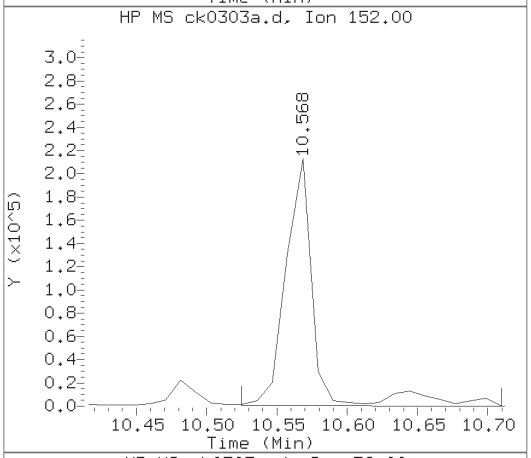
Reference Standard Spectrum for Acenaphthene



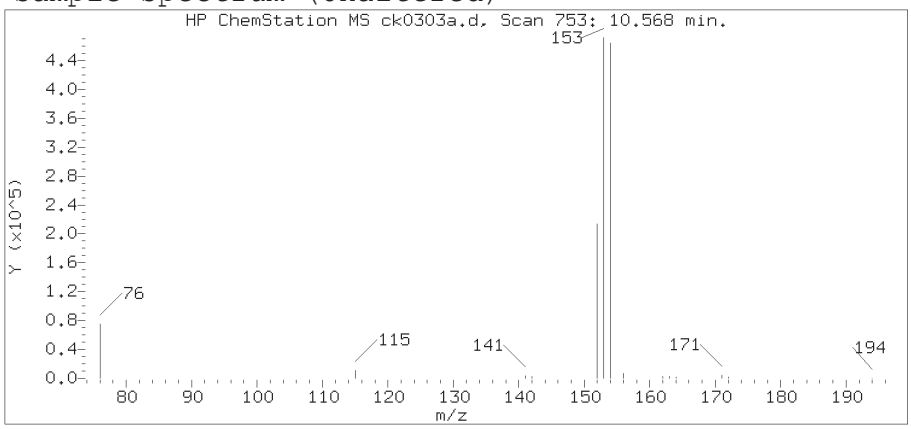


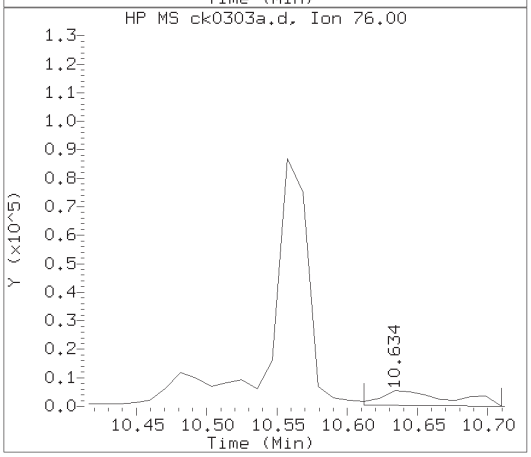
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

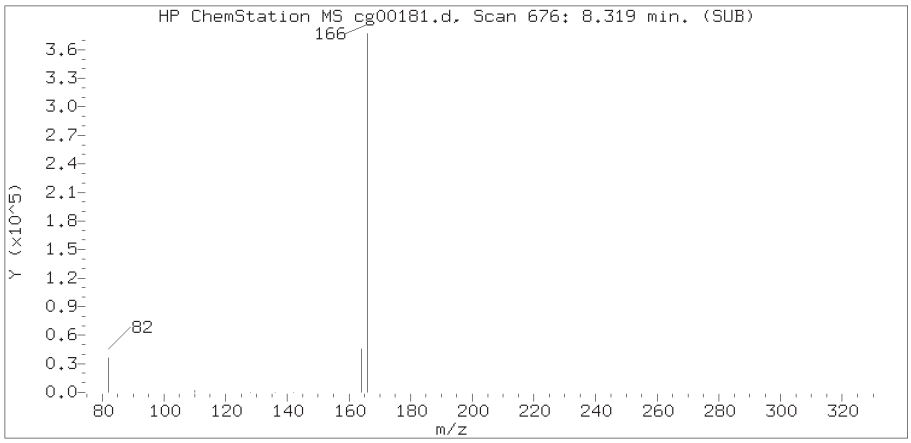
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

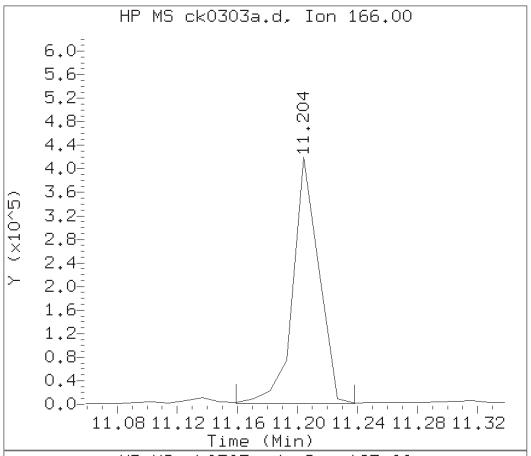
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	:-0.00000
Quant Ion	: 154.00
Area (flag)	: 516666
On-column Amount (ng/ul)	: 2.3504

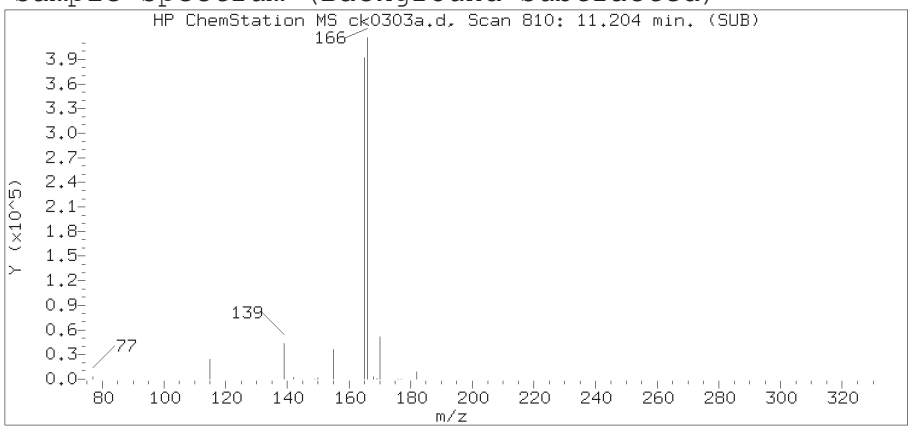
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

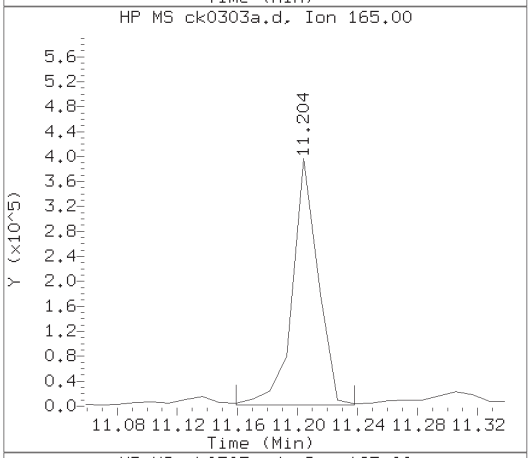
Reference Standard Spectrum for Fluorene



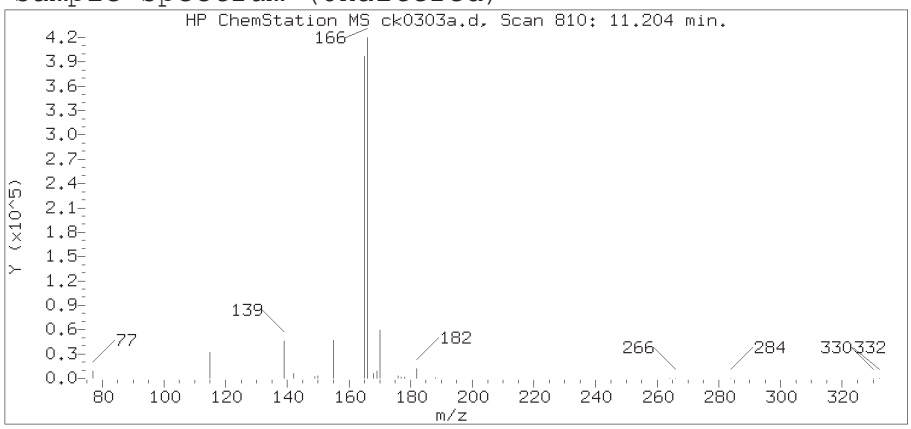


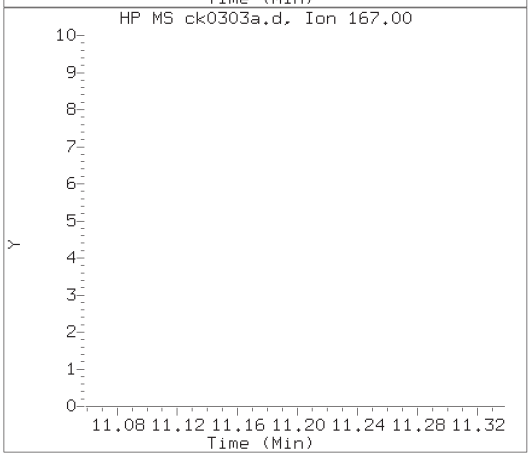
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

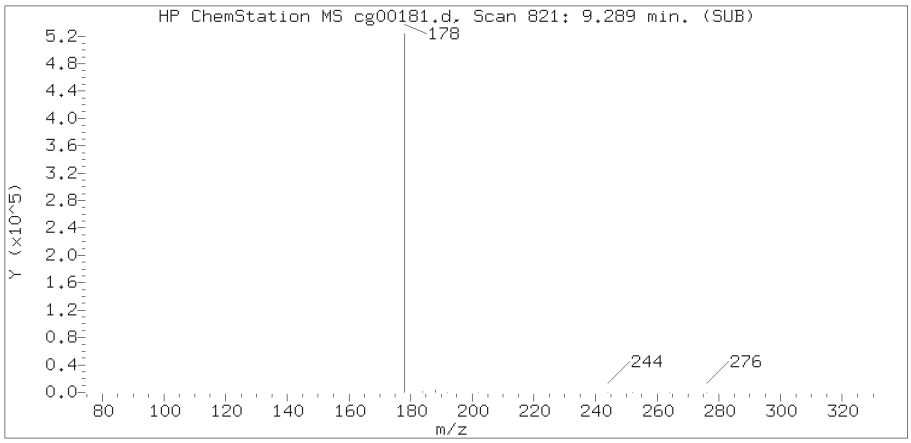
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

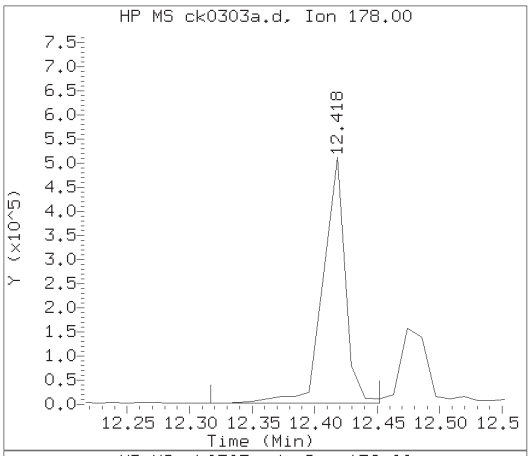
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 810
Retention Time (minutes)	: 11.204
Relative Retention Time	:-0.00000
Quant Ion	: 166.00
Area (flag)	: 502031
On-column Amount (ng/ul)	: 2.1356

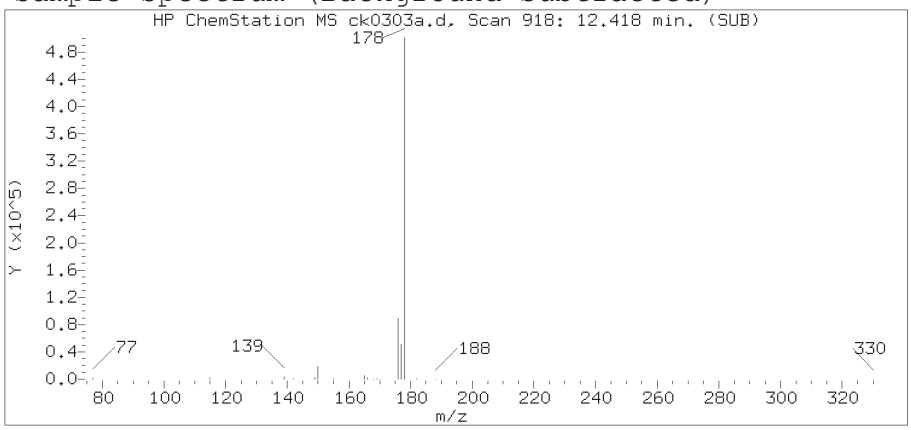
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

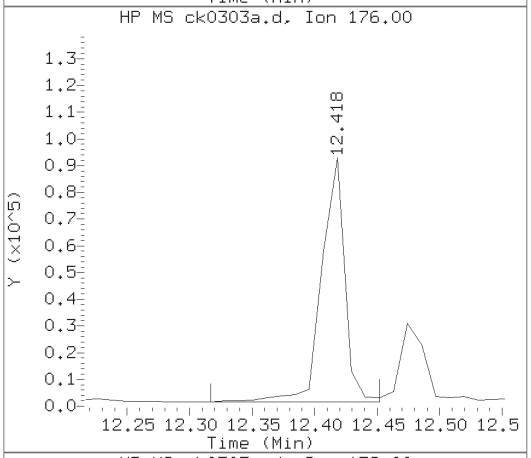
Reference Standard Spectrum for Phenanthrene



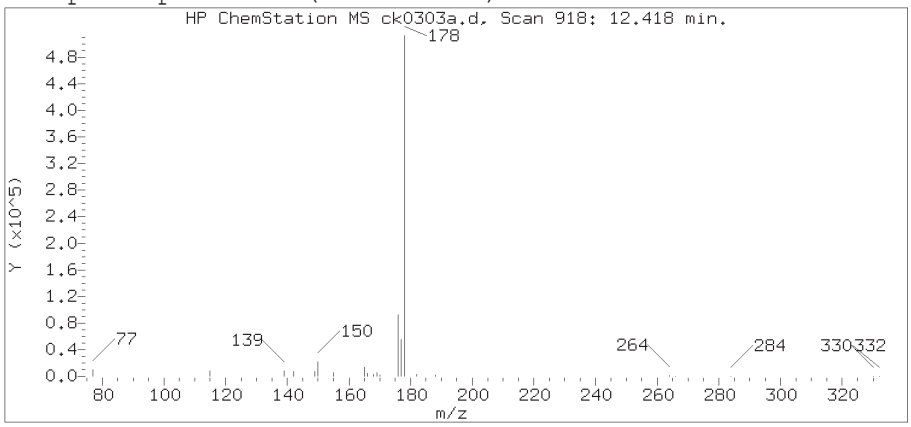


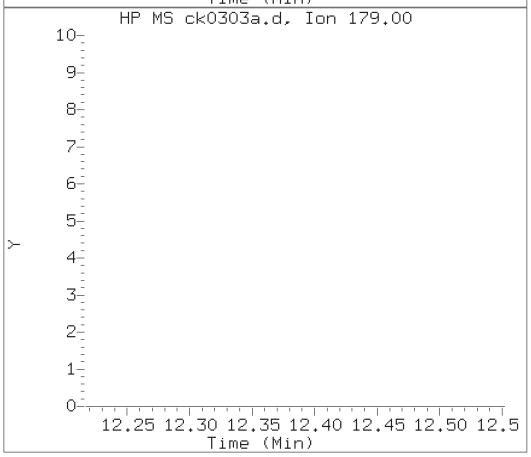
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

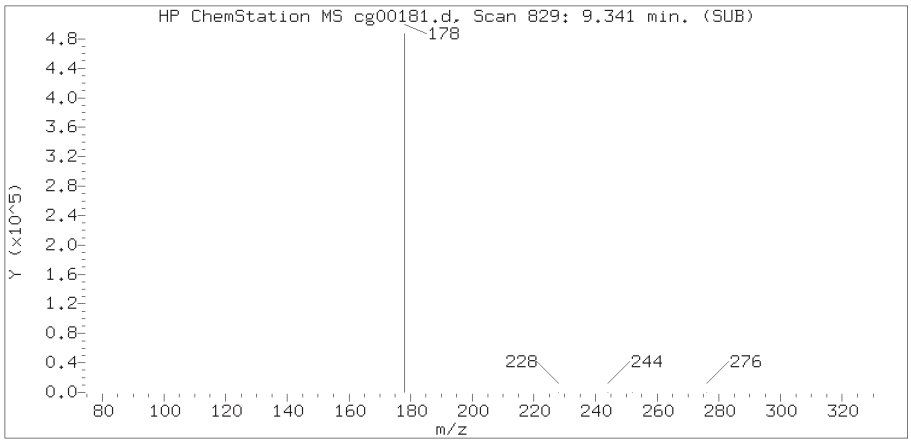
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

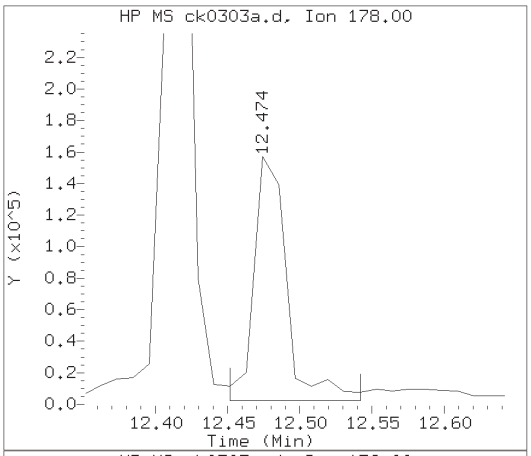
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 630454
On-column Amount (ng/ul)	: 1.9651

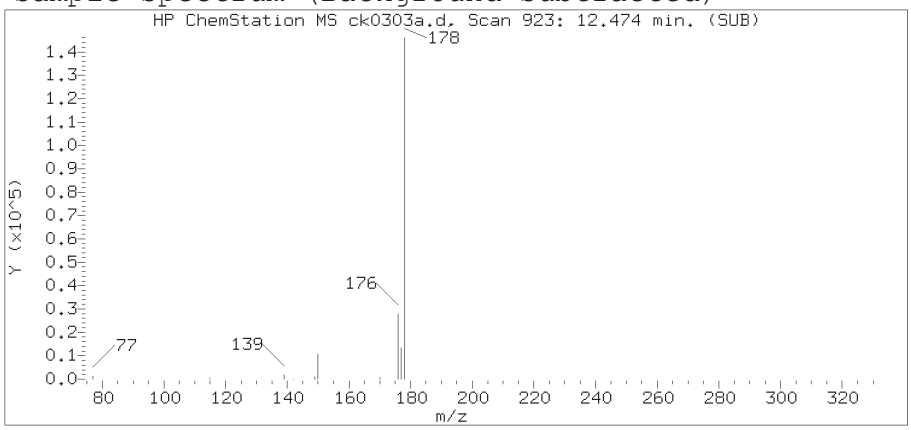
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

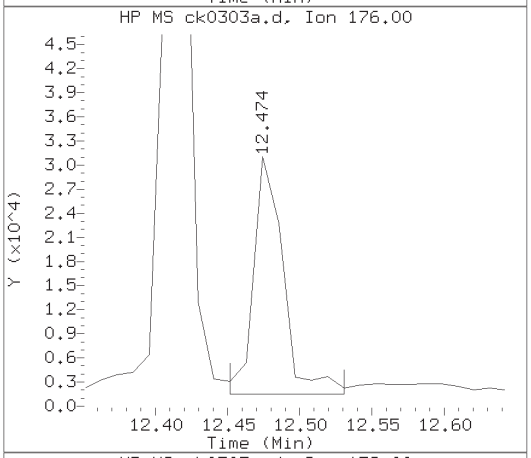
Reference Standard Spectrum for Anthracene



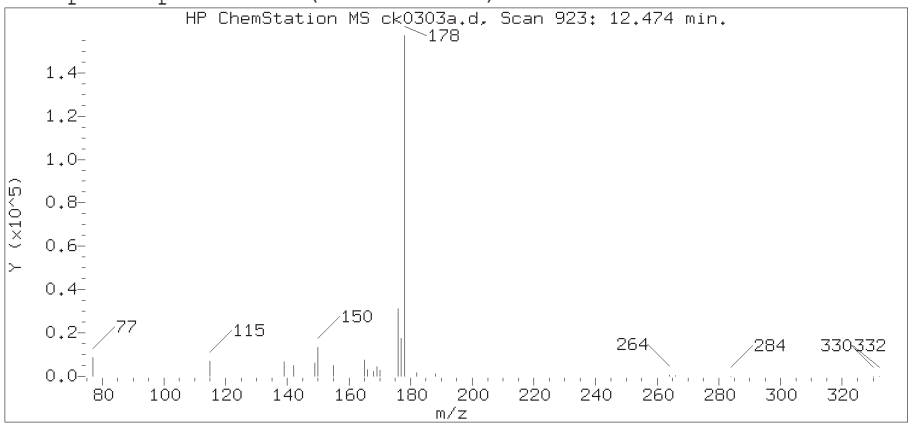


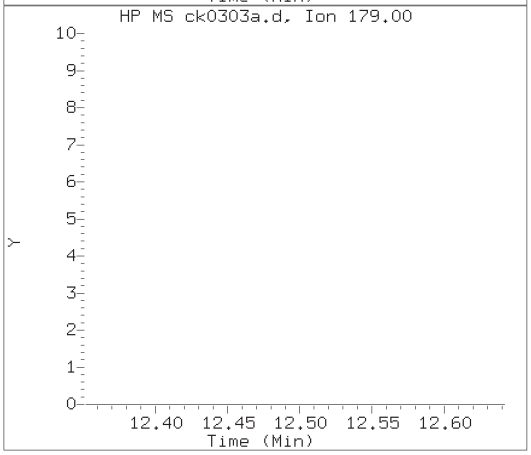
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

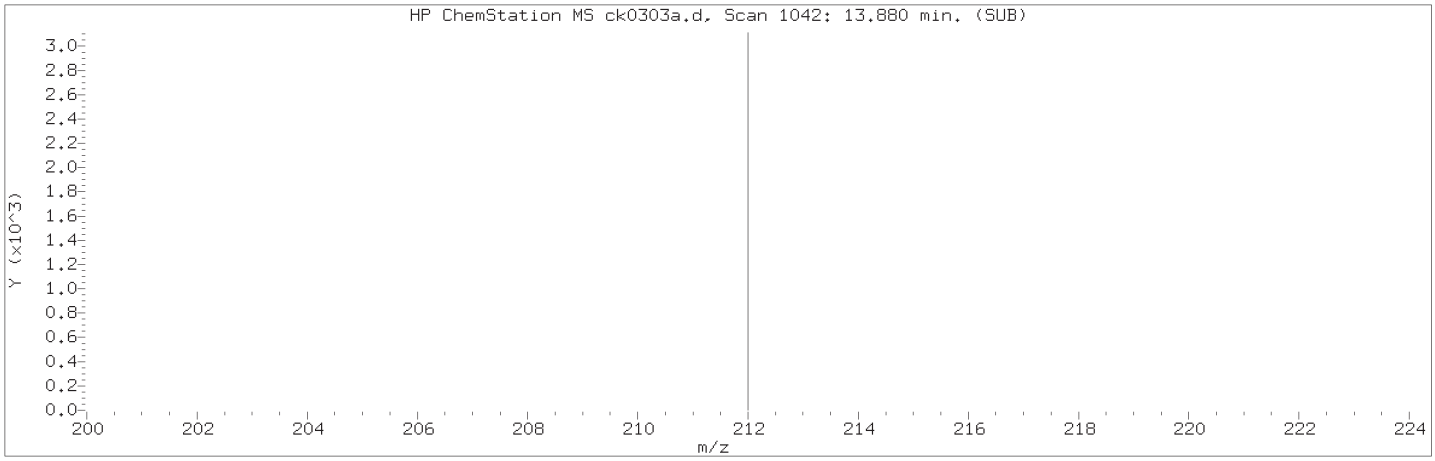
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

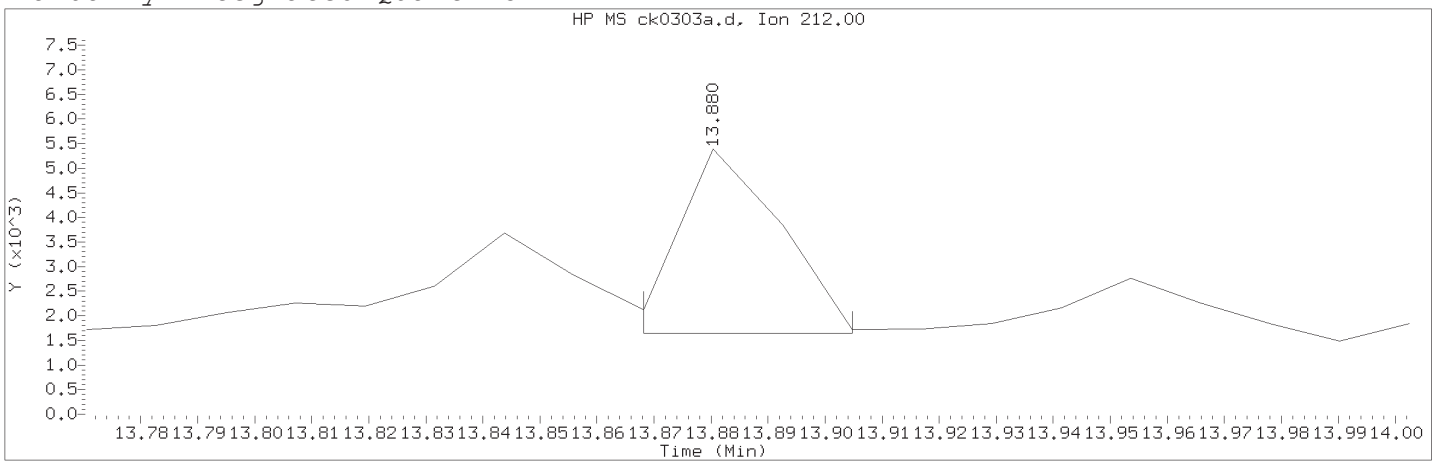
Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 923
Retention Time (minutes)	: 12.474
Relative Retention Time	:-0.00000
Quant Ion	: 178.00
Area (flag)	: 241340
On-column Amount (ng/ul)	: 0.7823

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

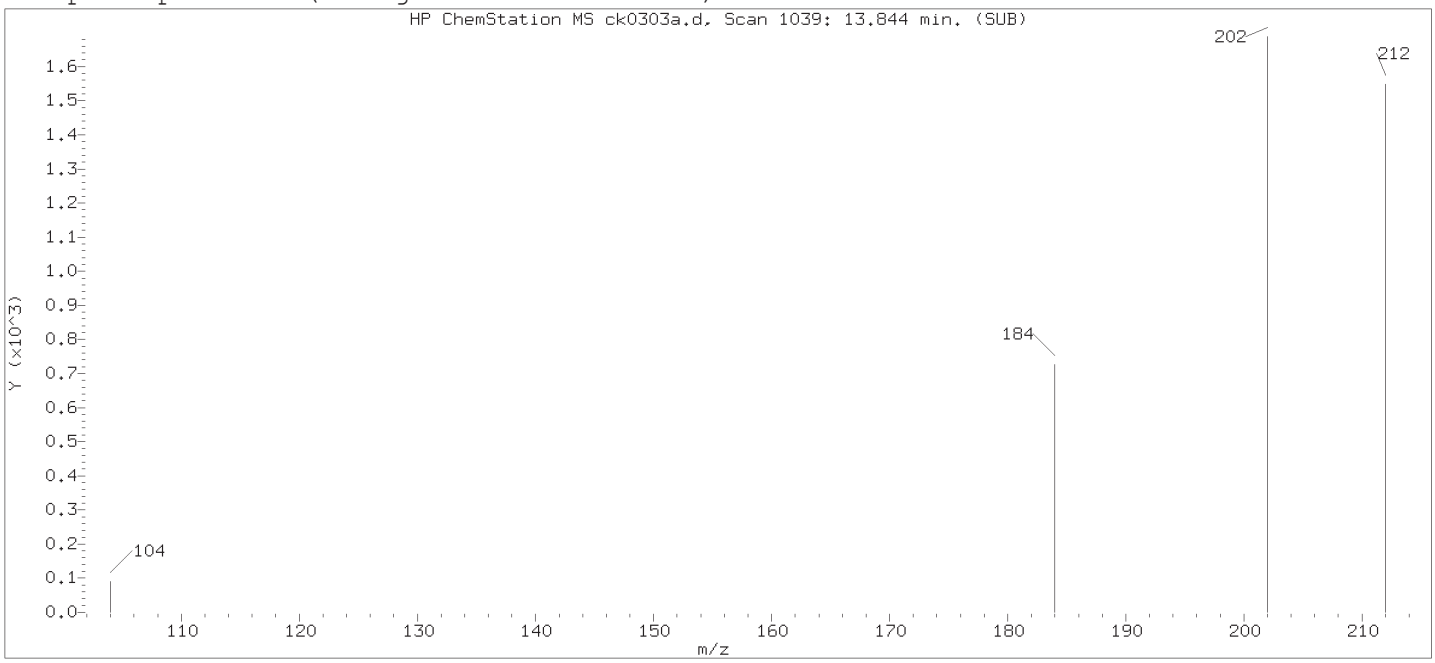
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1042
Retention Time (minutes) : 13.880
Quant Ion : 212.00
Area (flag) : 4741M
On-column Amount (ng/ul) : 0.0194
Integration start scan : 1040 Integration stop scan: 1043
Y at integration start : 1650 Y at integration end: 1650

Reason for manual integration: improper integration

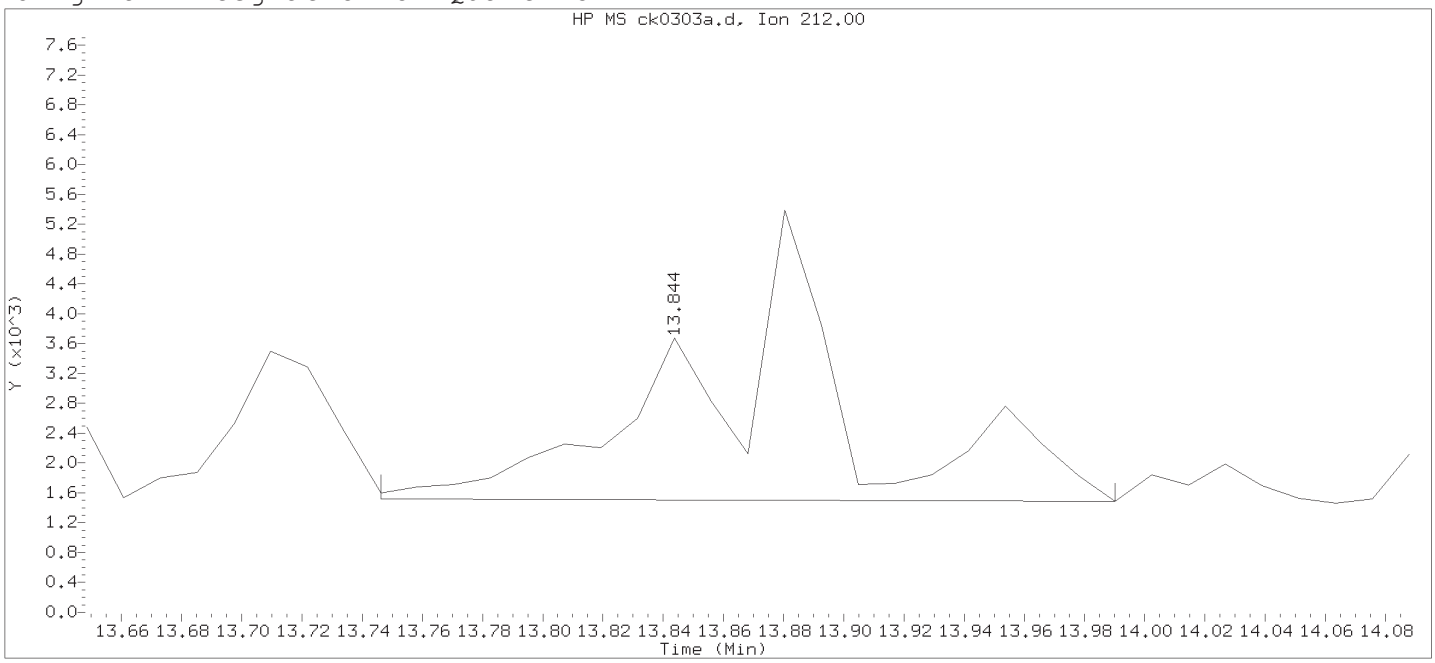
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

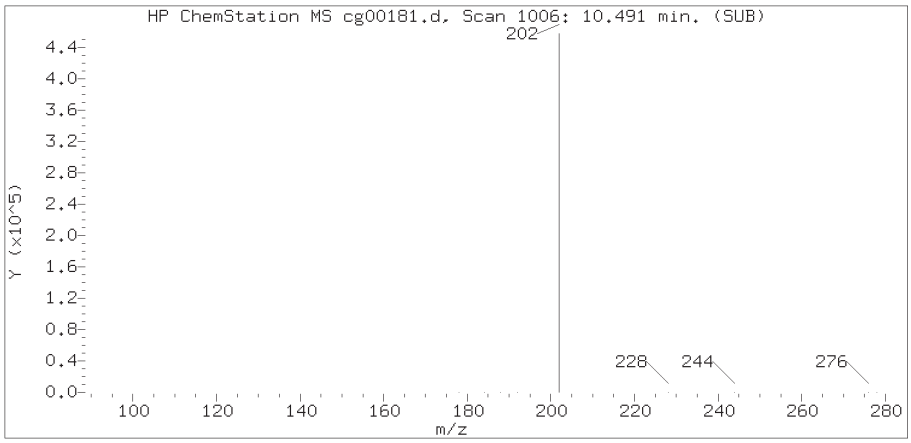
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

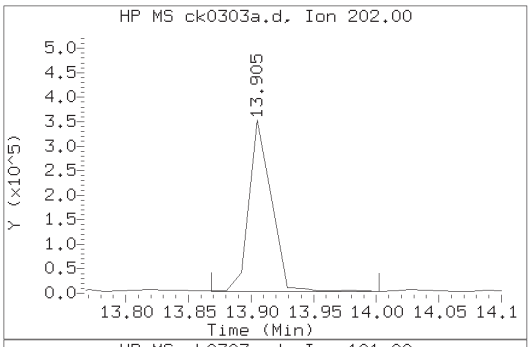
Sample Name: 12T03DL Lab Sample ID: 9872061DL

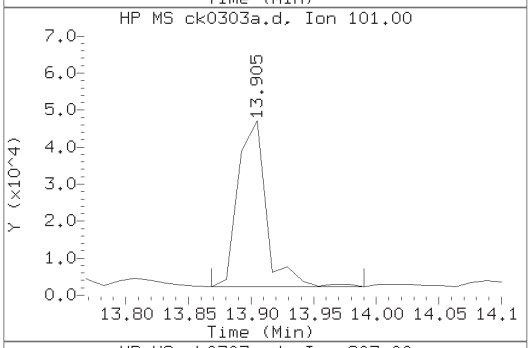
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1039		
Retention Time (minutes)	: 13.844		
Quant Ion	: 212.00		
Area	: 13138		
On-column Amount (ng/ul)	: 0.0539		
Integration start scan	: 1030	Integration stop scan:	1050
Y at integration start	: 1522	Y at integration end:	1489

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

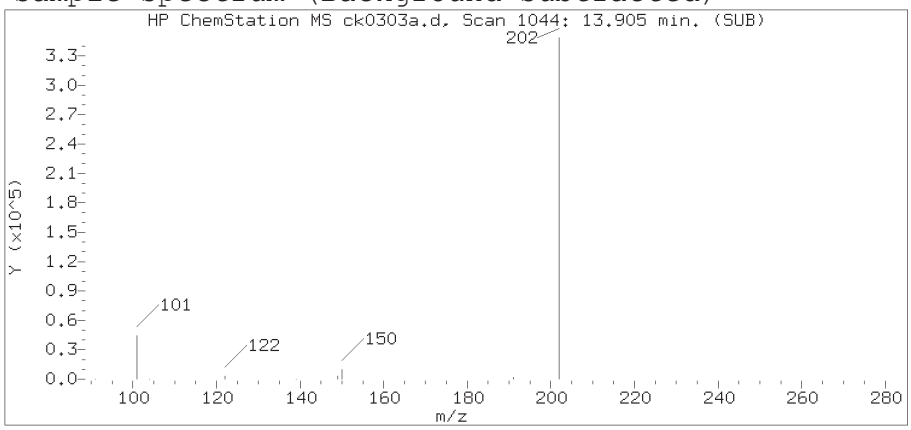
Reference Standard Spectrum for Fluoranthene

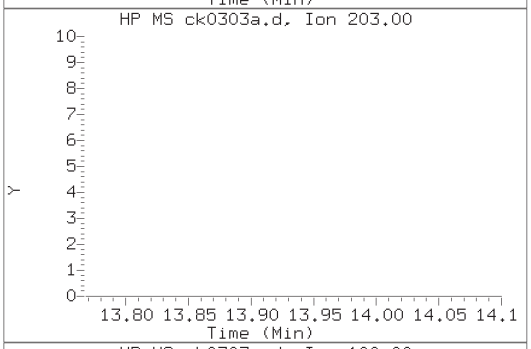




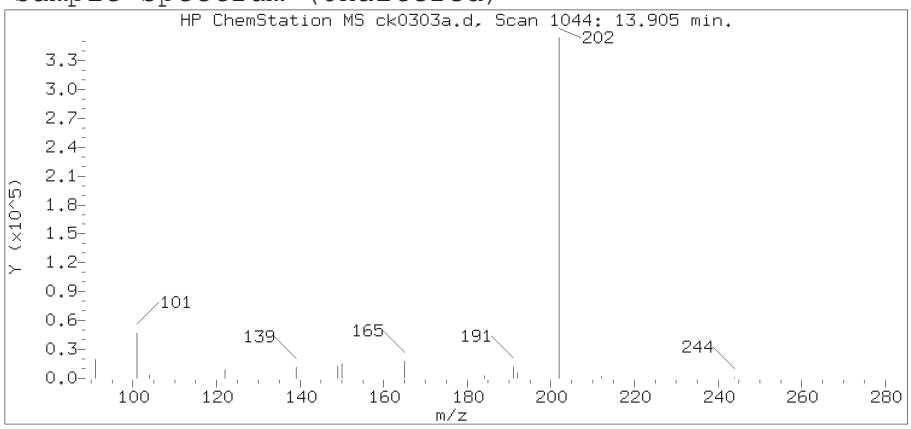


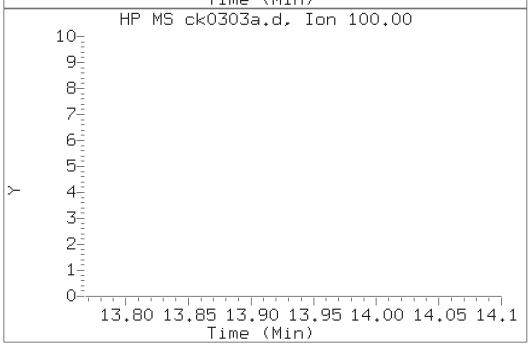
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

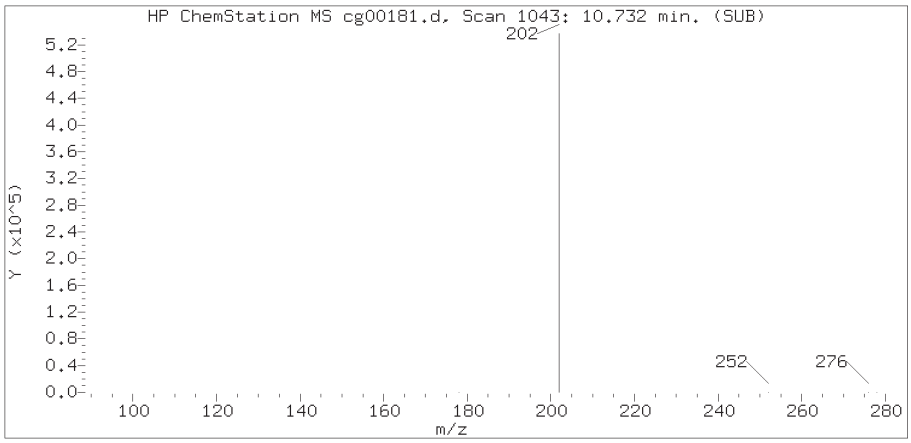
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

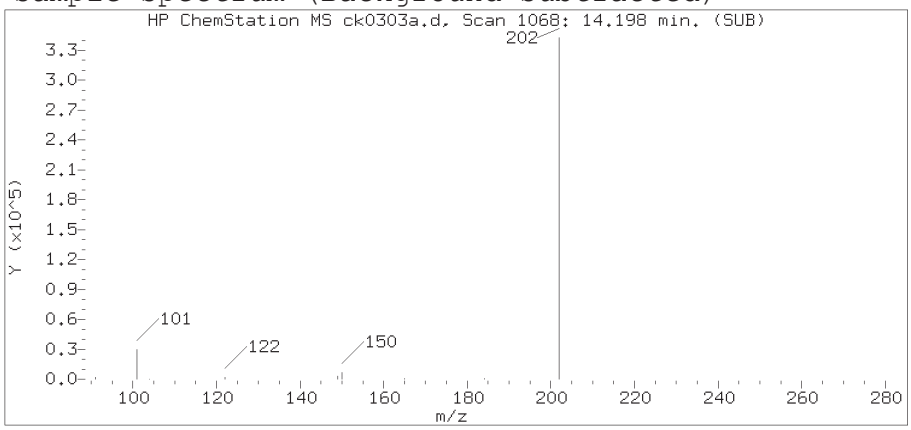
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1044
Retention Time (minutes)	: 13.905
Relative Retention Time	: 0.00008
Quant Ion	: 202.00
Area (flag)	: 434343
On-column Amount (ng/ul)	: 1.3778

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

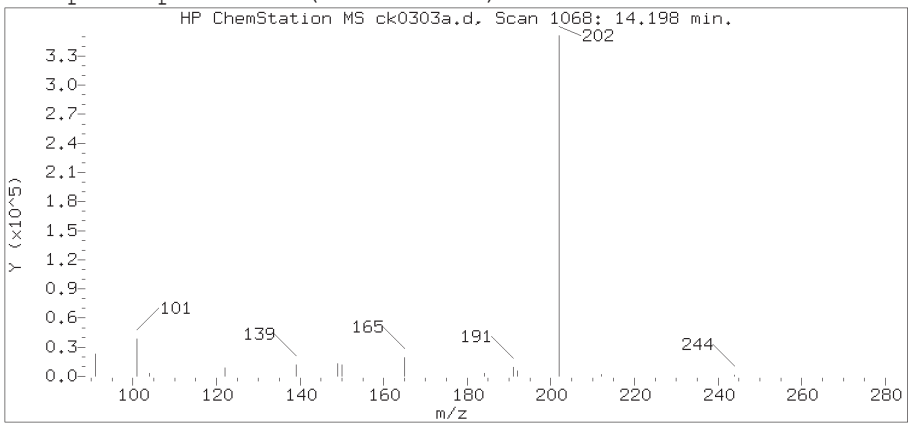
Reference Standard Spectrum for Pyrene

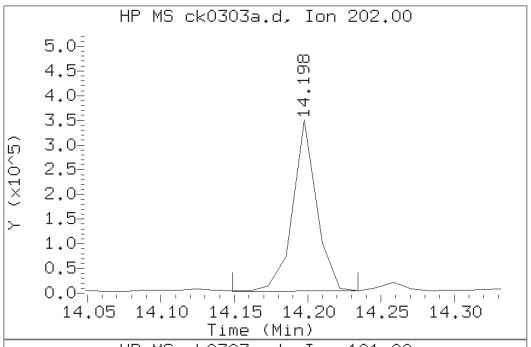


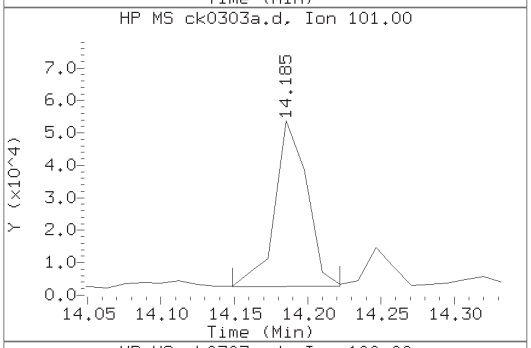
Sample Spectrum (Background Subtracted)

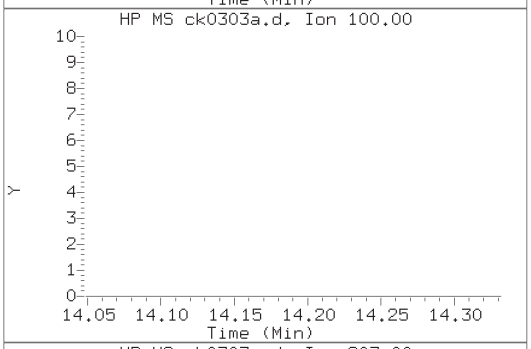


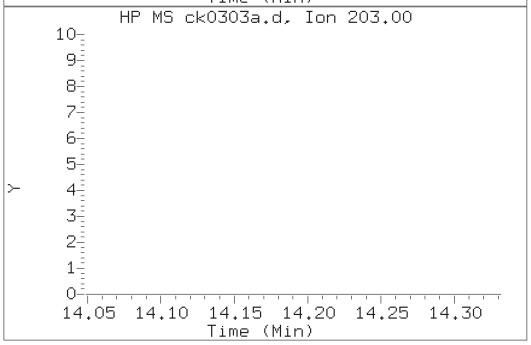
Sample Spectrum (Unaltered)











Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1068
Retention Time (minutes)	: 14.198
Relative Retention Time	: 0.00046
Quant Ion	: 202.00
Area (flag)	: 389960
On-column Amount (ng/ul)	: 1.2598

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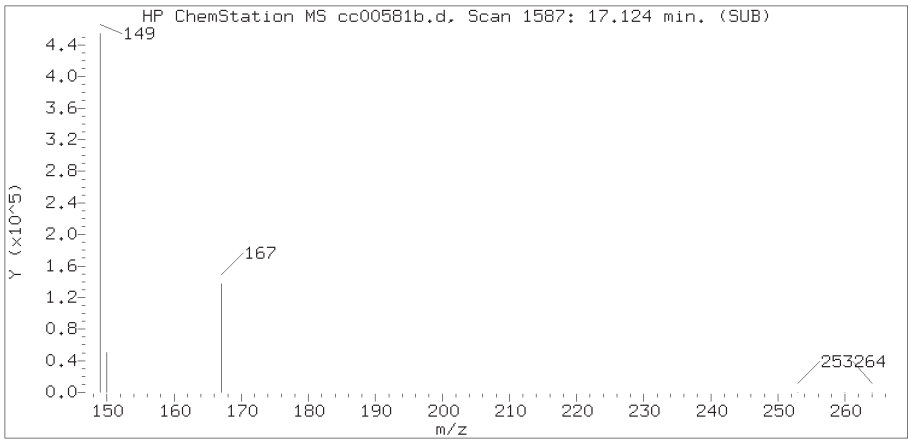
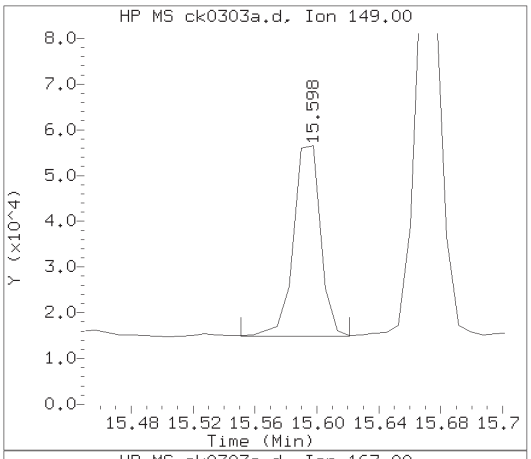
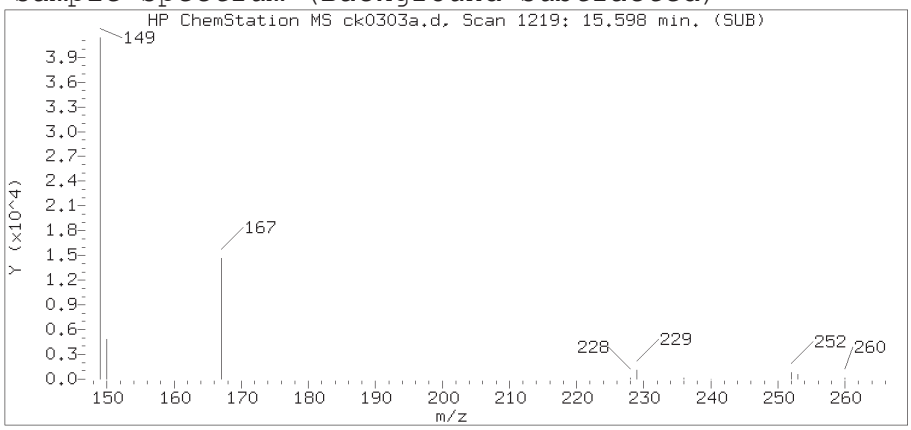
Target 3.5 esignature user ID: apb10206

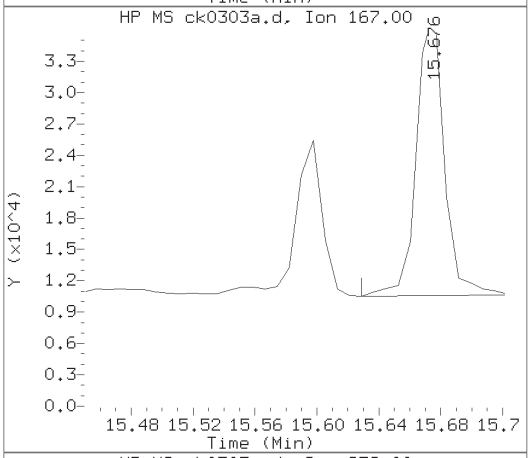
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



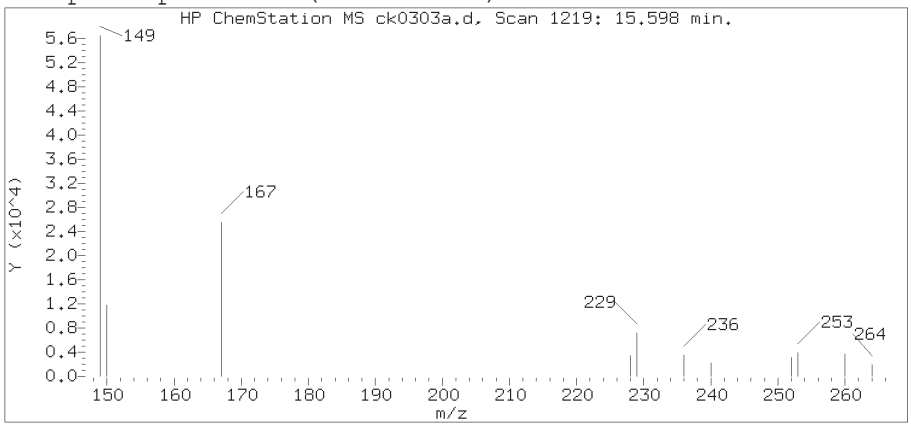


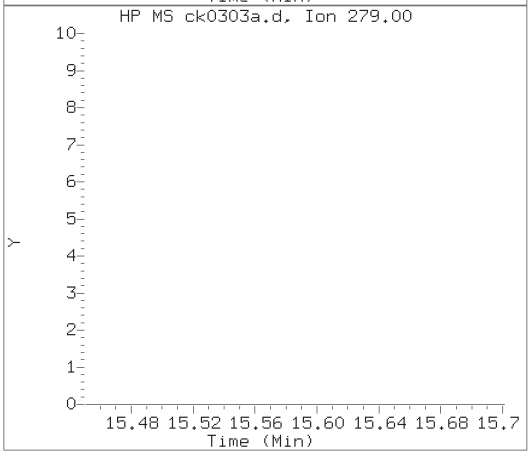
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1219
Retention Time (minutes)	: 15.598
Relative Retention Time	:-0.00000
Quant Ion	: 149.00
Area (flag)	: 50842
On-column Amount (ng/ul)	: 0.3467

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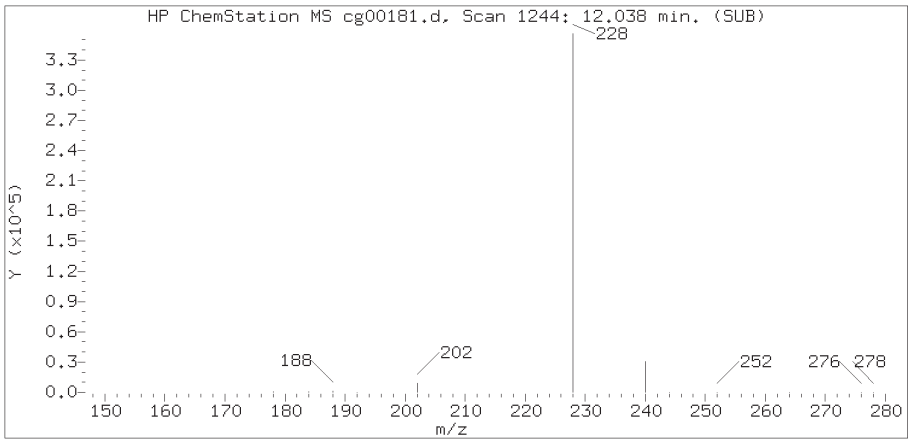
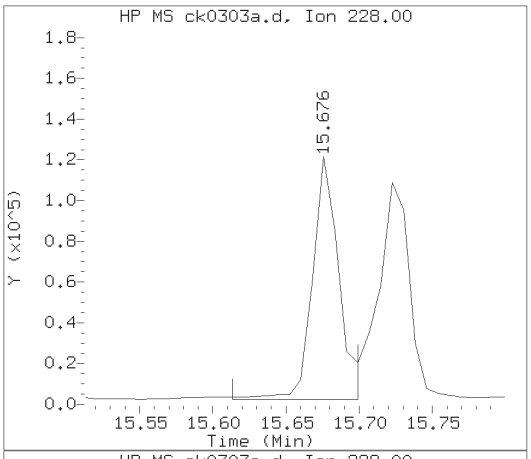
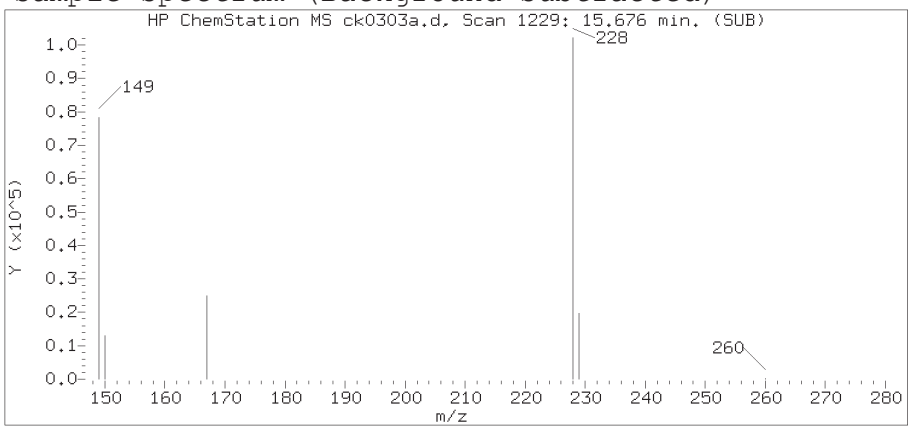
Target 3.5 esignature user ID: apb10206

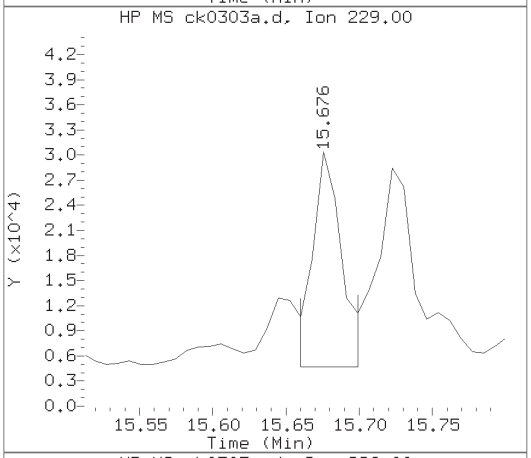
Reference Standard Spectrum for Benzo(a)anthracene



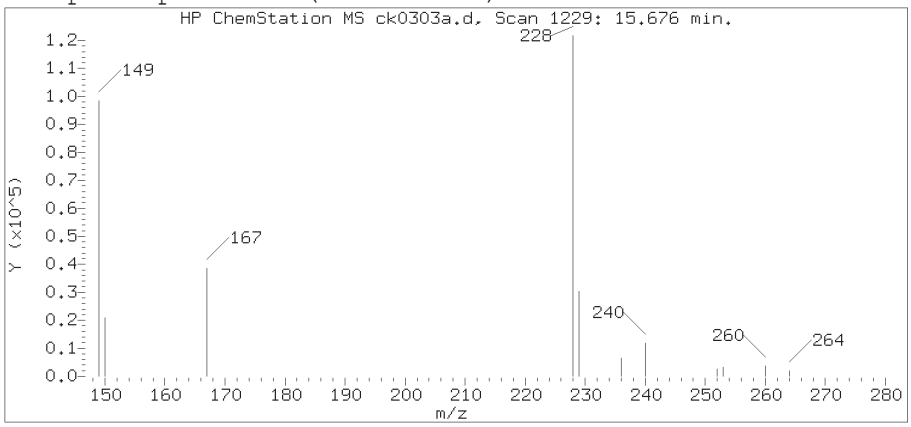


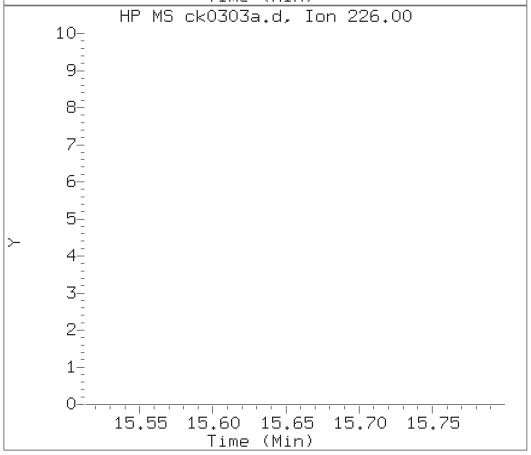
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

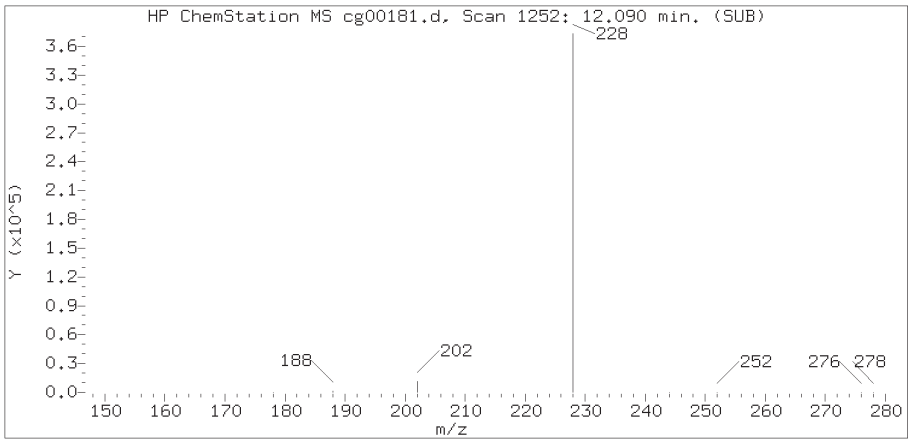
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

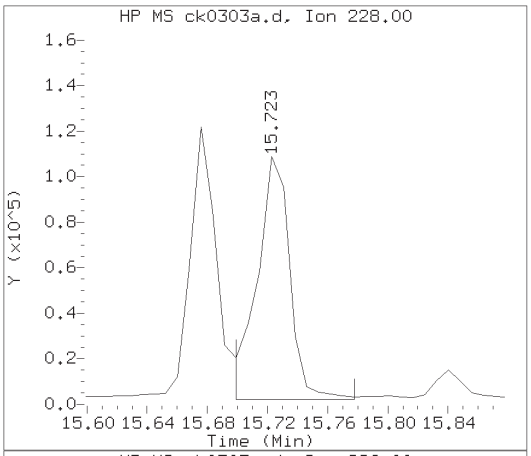
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1229
Retention Time (minutes)	: 15.676
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 145449
On-column Amount (ng/ul)	: 0.5835

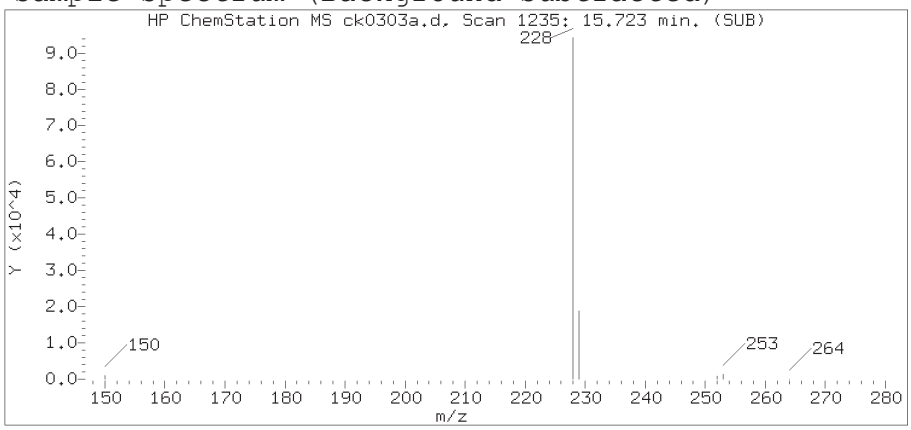
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

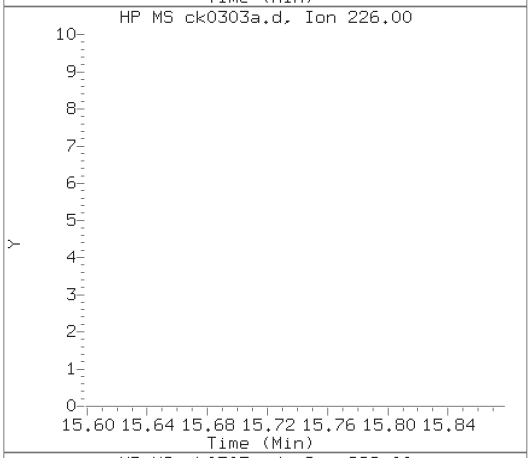
Reference Standard Spectrum for Chrysene



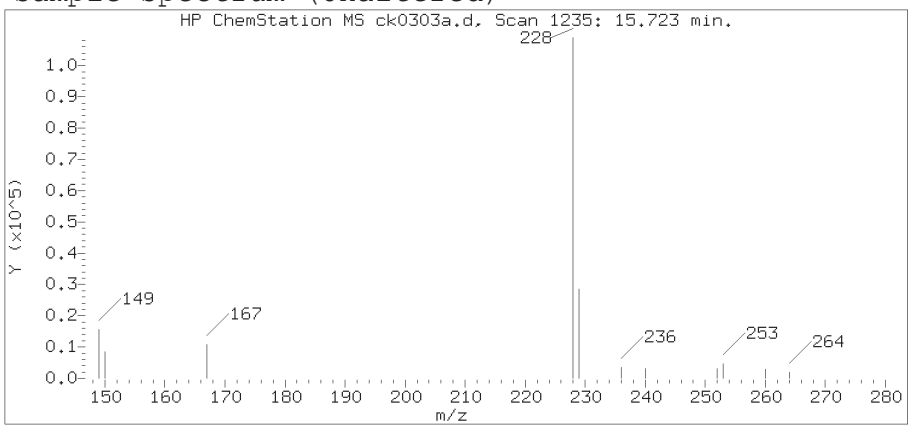


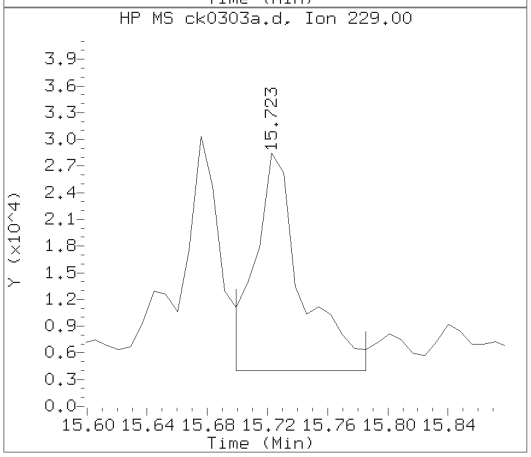
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

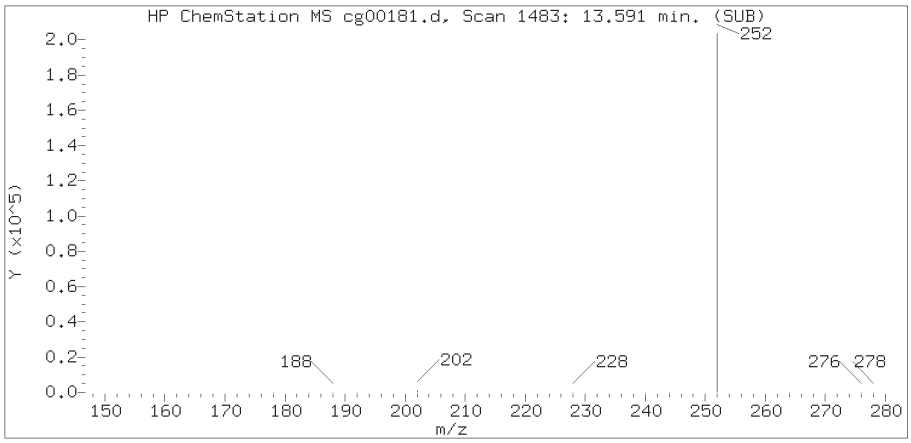
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

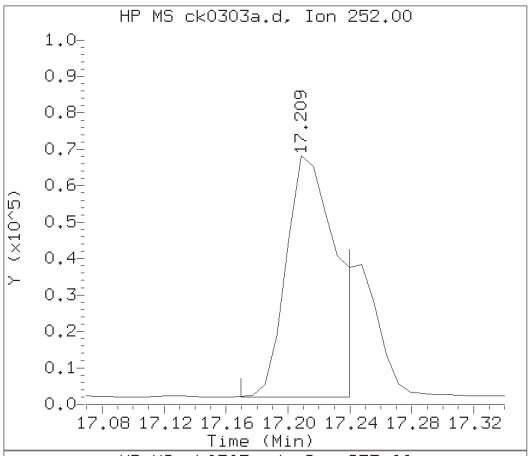
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1235
Retention Time (minutes)	: 15.723
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 159094
On-column Amount (ng/ul)	: 0.6230

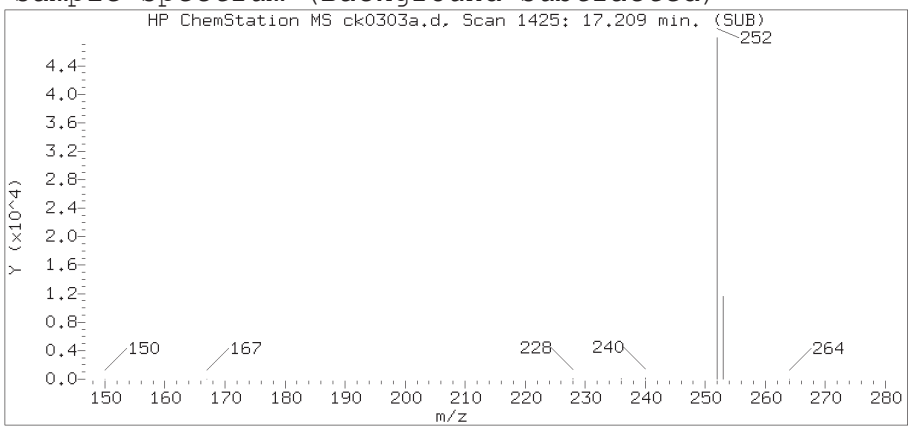
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

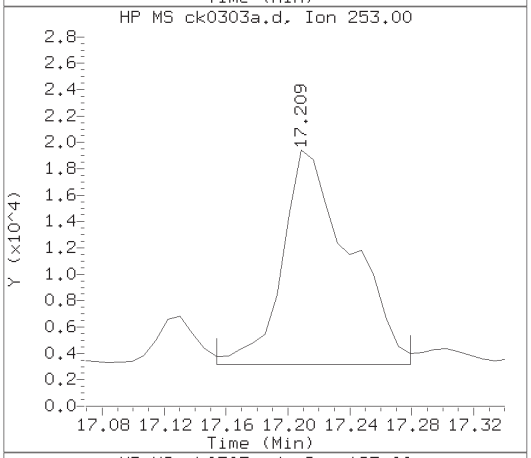
Reference Standard Spectrum for Benzo(b)fluoranthene



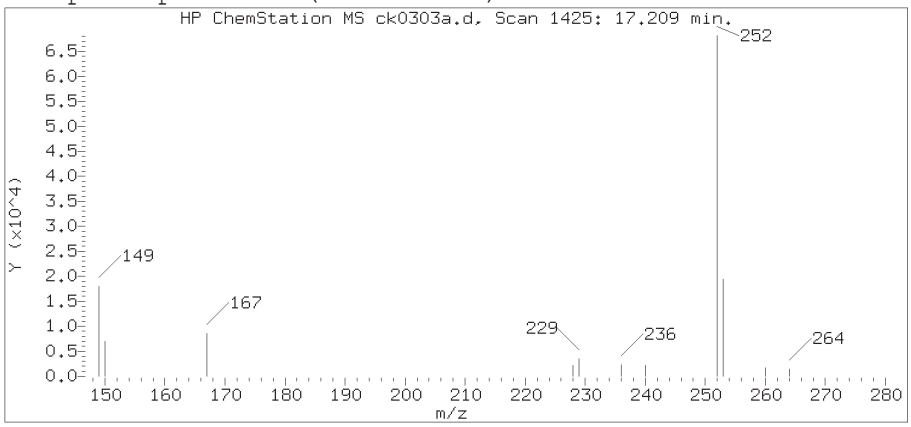


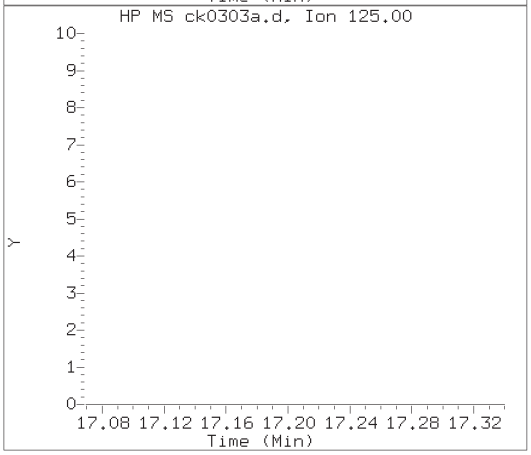
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

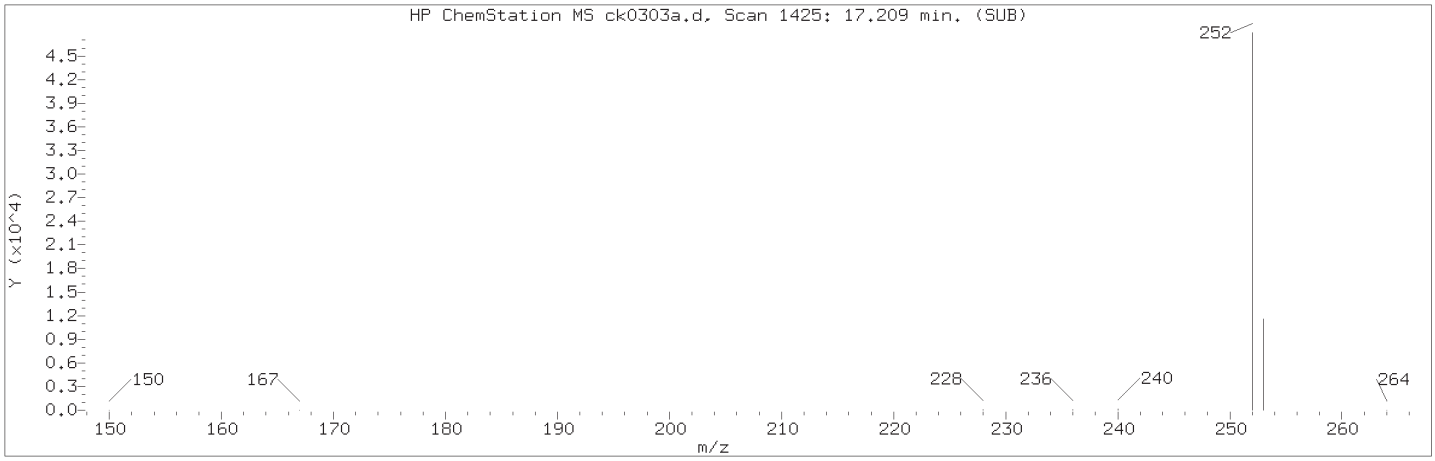
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

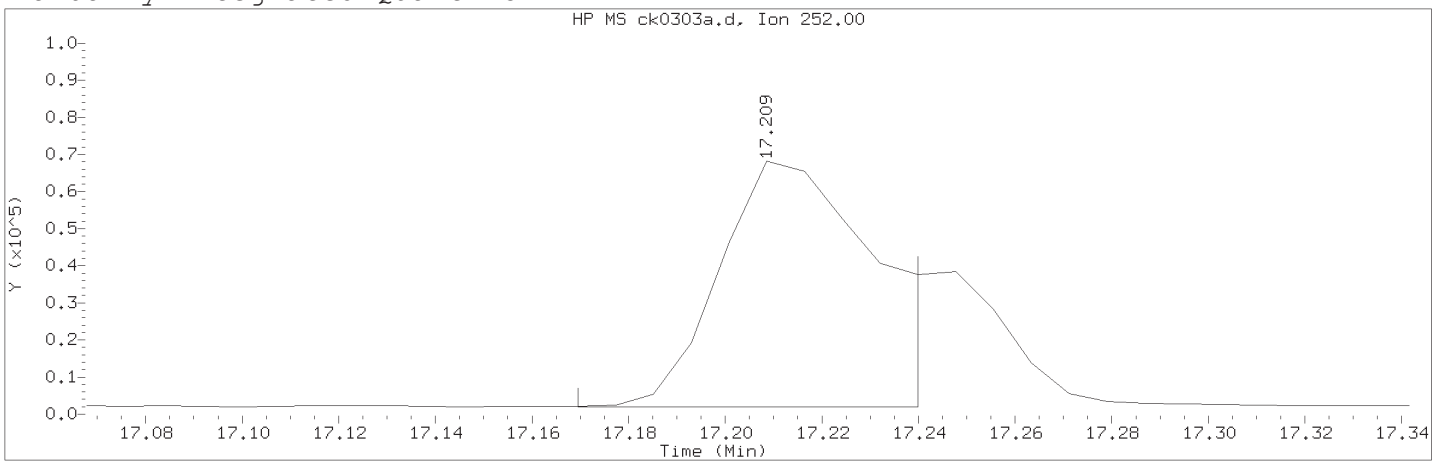
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1425
Retention Time (minutes) : 17.209
Relative Retention Time :-0.00001
Quant Ion : 252.00
Area (flag) : 150248M
On-column Amount (ng/ul) : 0.6473

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

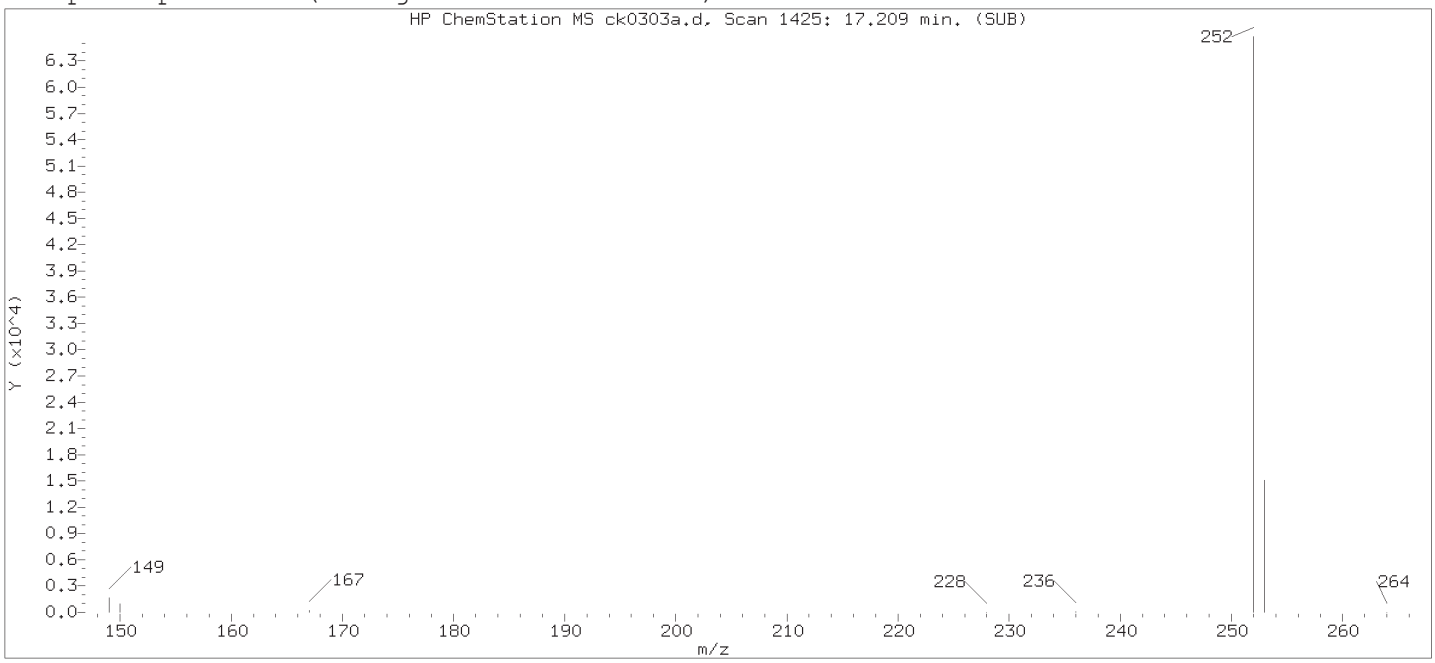
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1425
Retention Time (minutes) : 17.209
Quant Ion : 252.00
Area (flag) : 150248M
On-column Amount (ng/ul) : 0.6473
Integration start scan : 1419 Integration stop scan: 1428
Y at integration start : 1980 Y at integration end: 1980

Reason for manual integration: improper integration

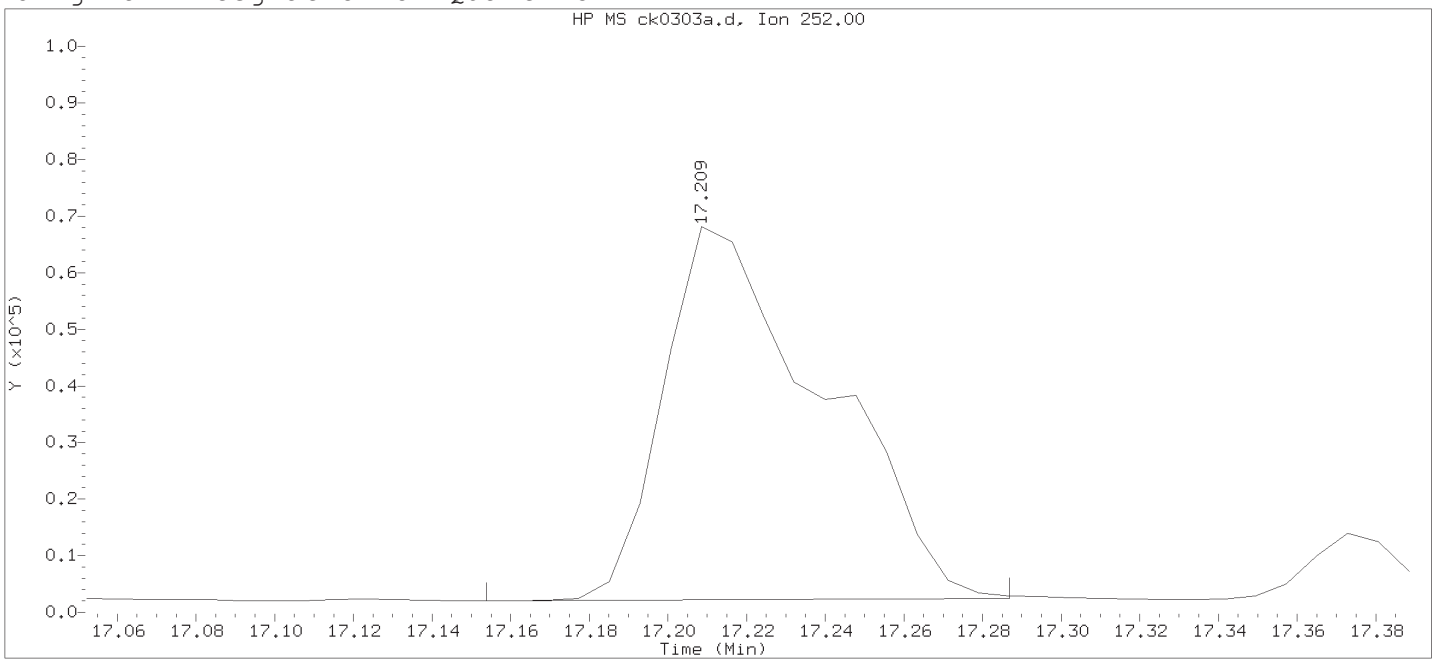
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

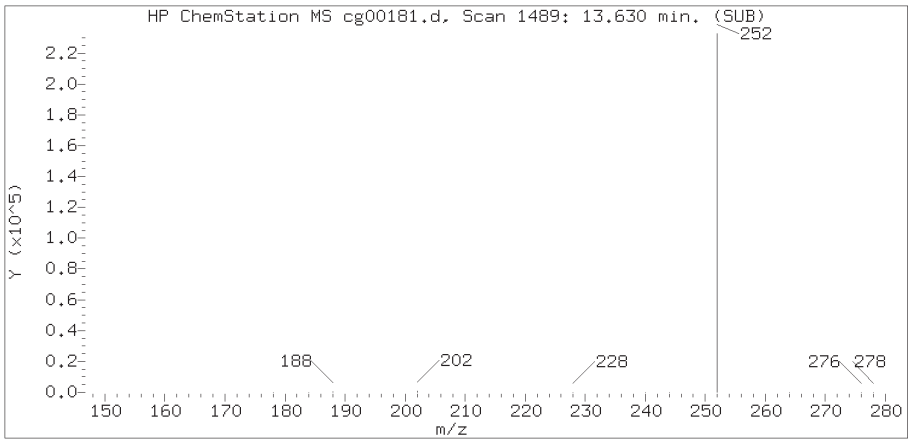
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

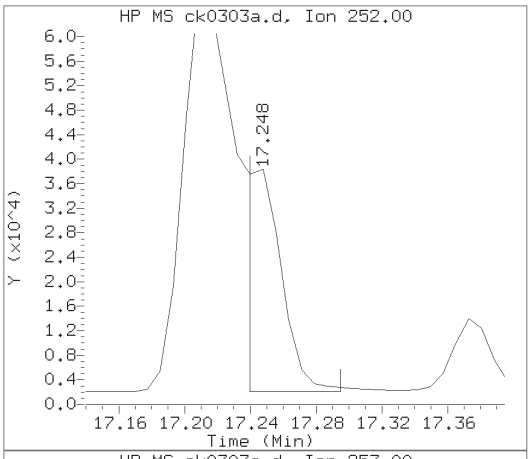
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1425
Retention Time (minutes)	: 17.209
Quant Ion	: 252.00
Area	: 185675
On-column Amount (ng/ul)	: 0.7999
Integration start scan	: 1417 Integration stop scan: 1434
Y at integration start	: 2027 Y at integration end: 2478

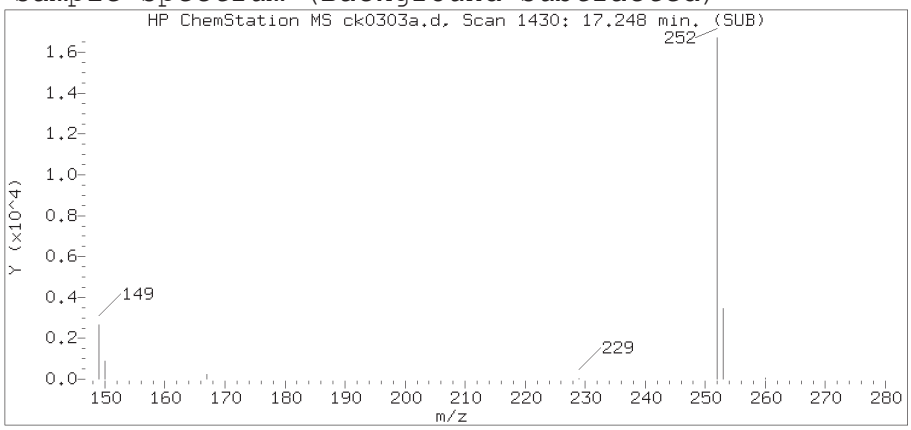
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

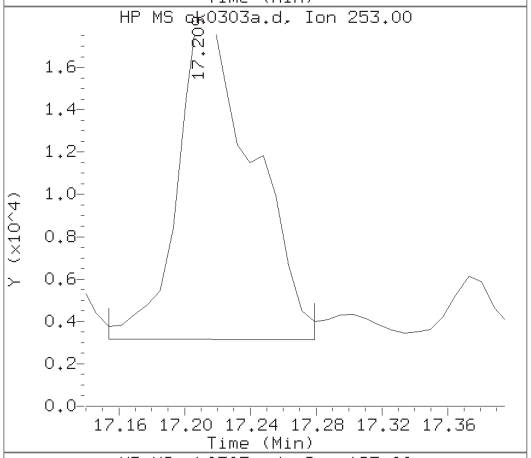
Reference Standard Spectrum for Benzo(k)fluoranthene



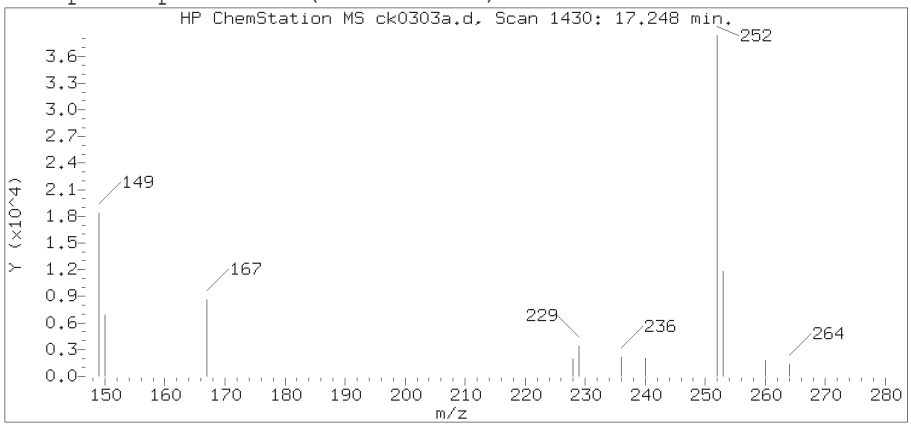


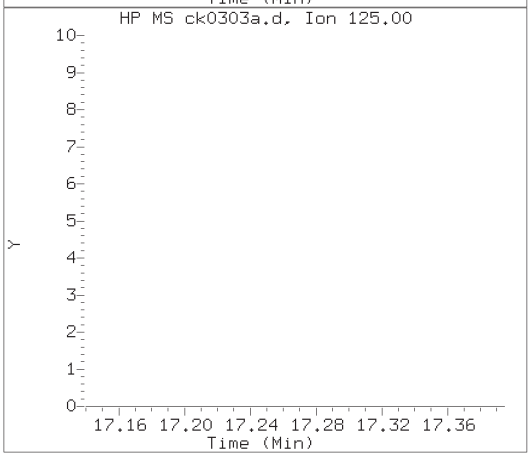
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

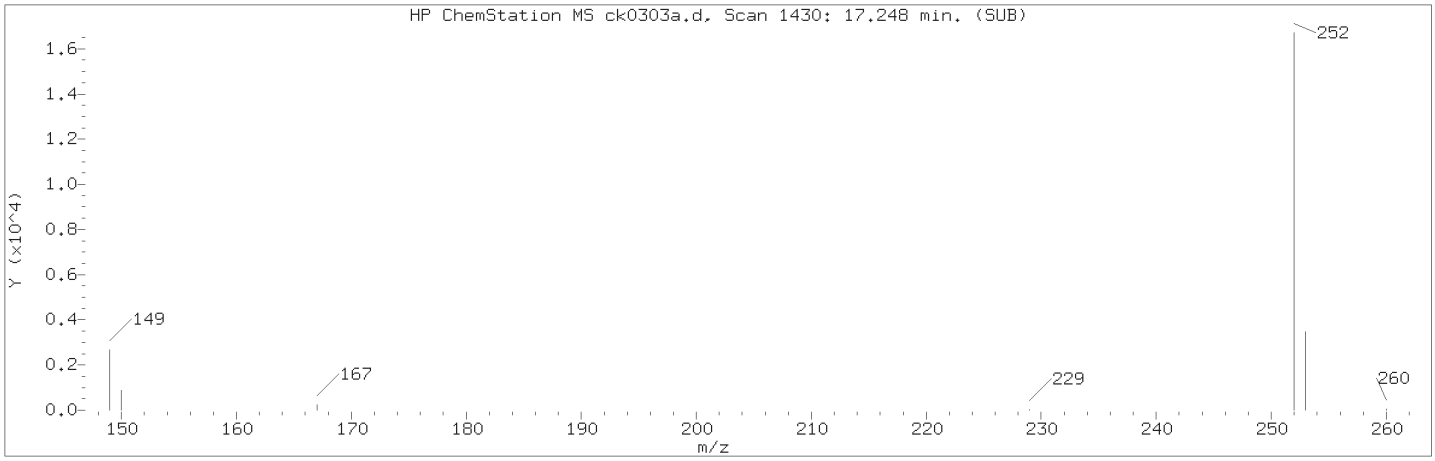
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

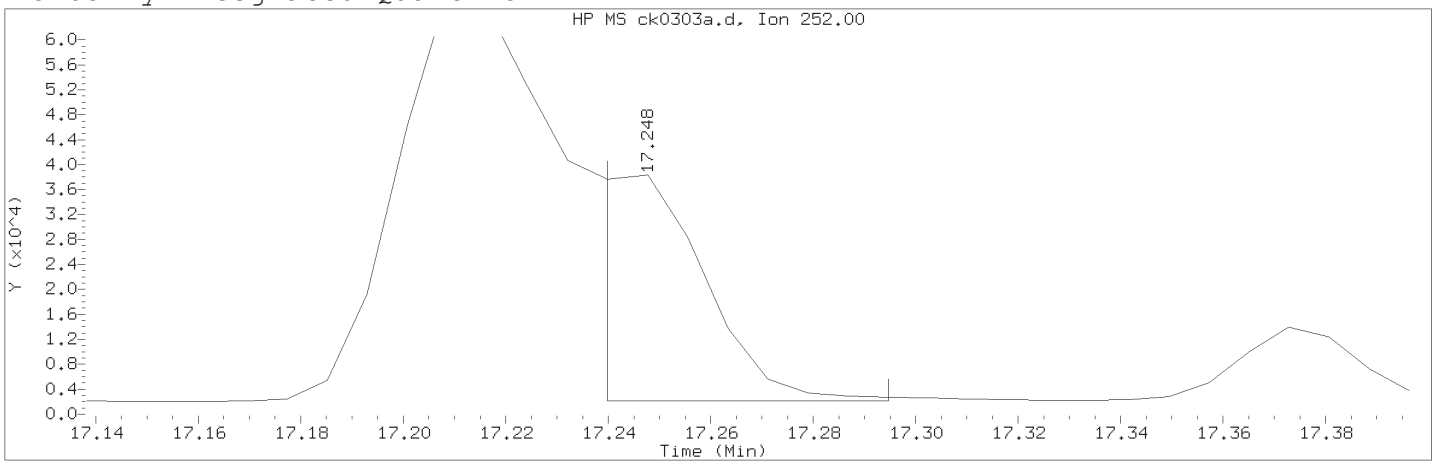
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1430
Retention Time (minutes)	: 17.248
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 54384M
On-column Amount (ng/ul)	: 0.2182

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

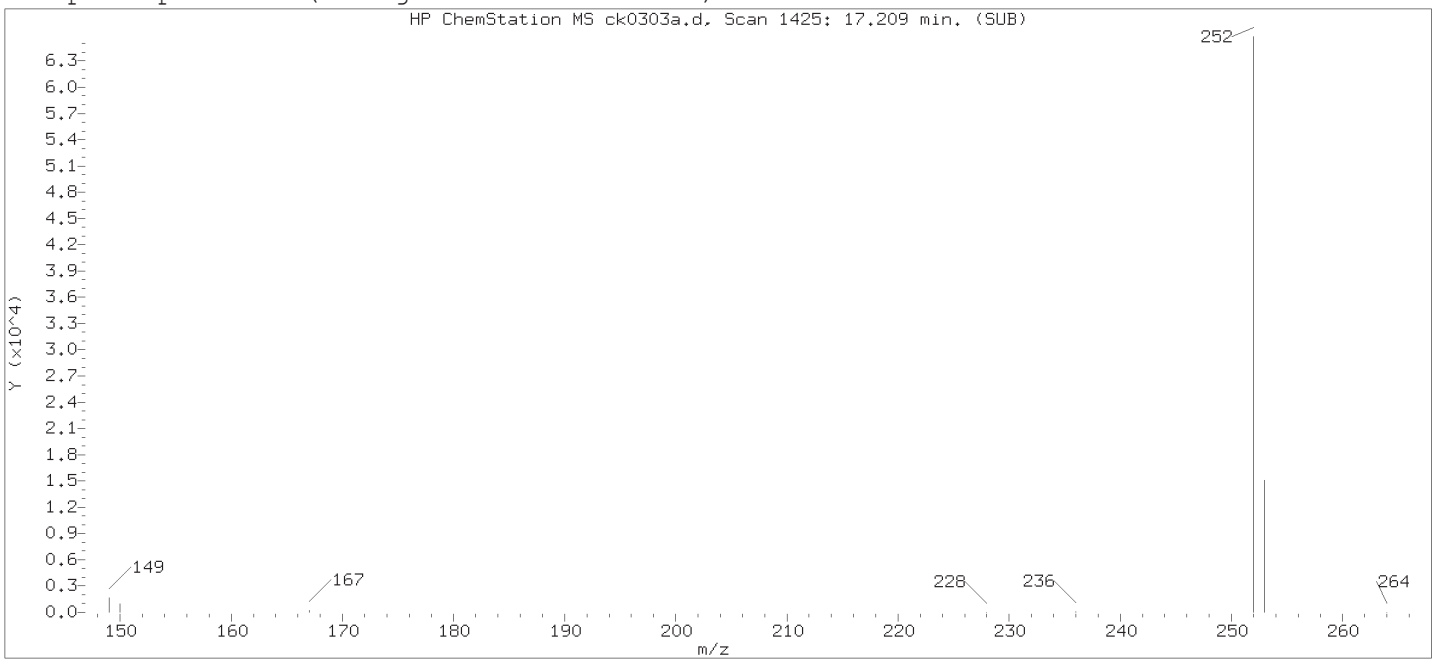
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1430
Retention Time (minutes) : 17.248
Quant Ion : 252.00
Area (flag) : 54384M
On-column Amount (ng/ul) : 0.2182
Integration start scan : 1428 Integration stop scan: 1435
Y at integration start : 2102 Y at integration end: 2102

Reason for manual integration: improper integration

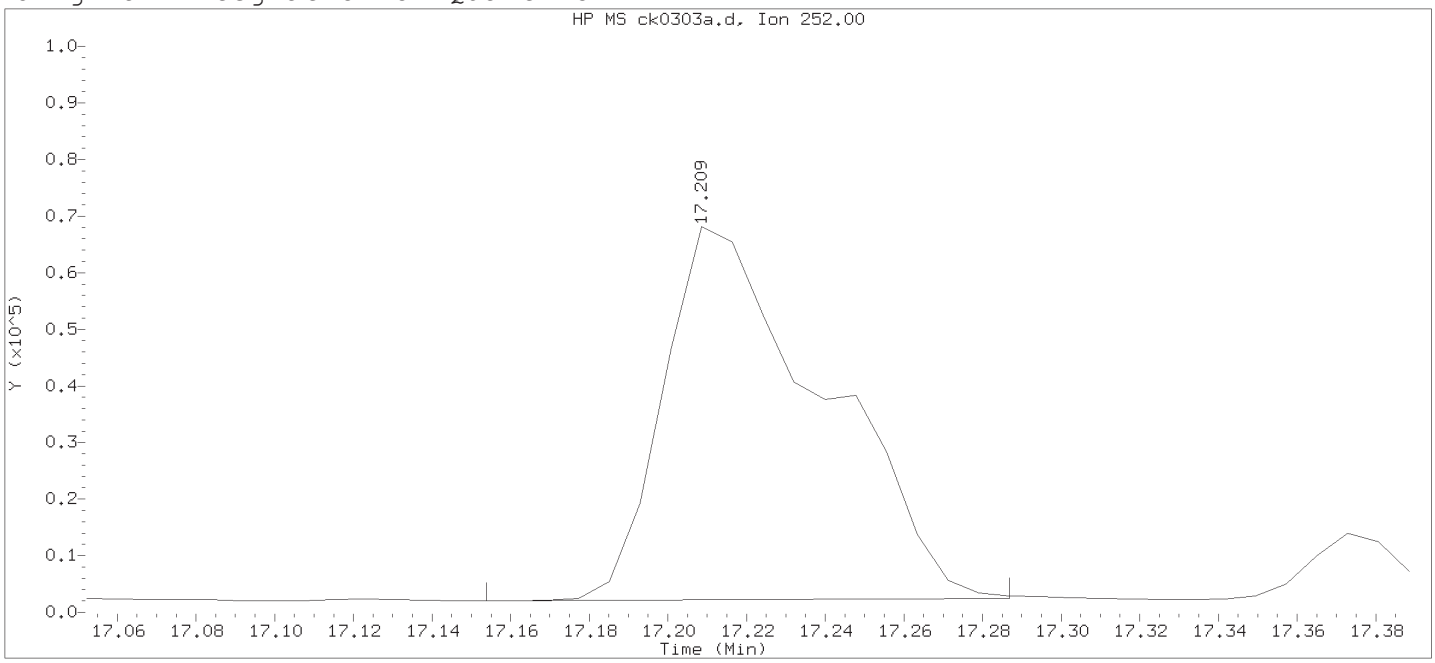
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 06-Nov-2018 23:42 Automation

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1425
Retention Time (minutes)	: 17.209
Quant Ion	: 252.00
Area	: 185675
On-column Amount (ng/ul)	: 0.7449
Integration start scan	: 1417 Integration stop scan: 1434
Y at integration start	: 2027 Y at integration end: 2478

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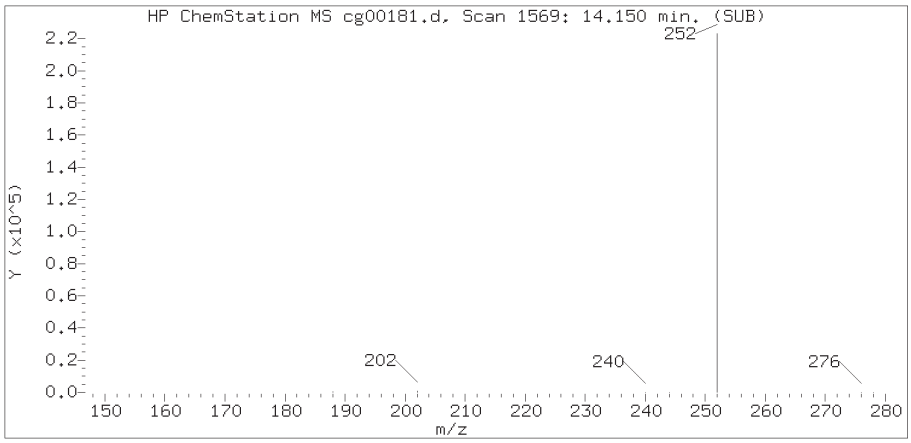
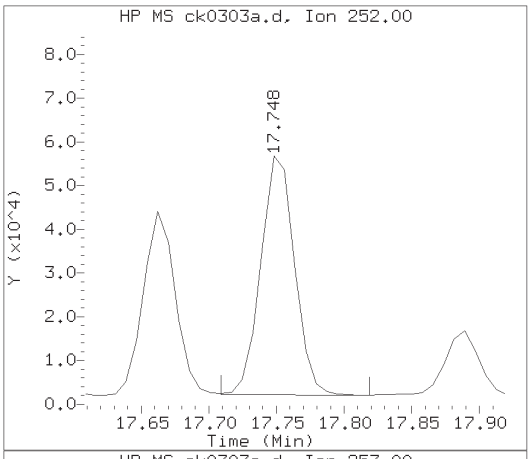
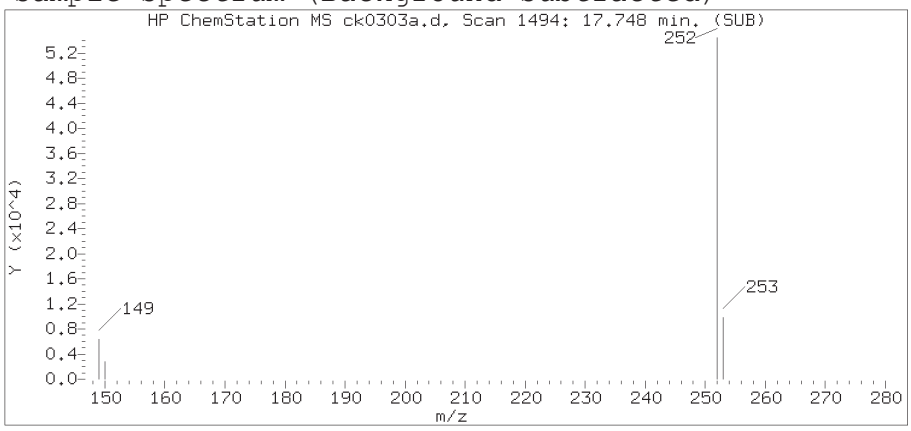
Target 3.5 esignature used: D12 Page 2723 of 7494

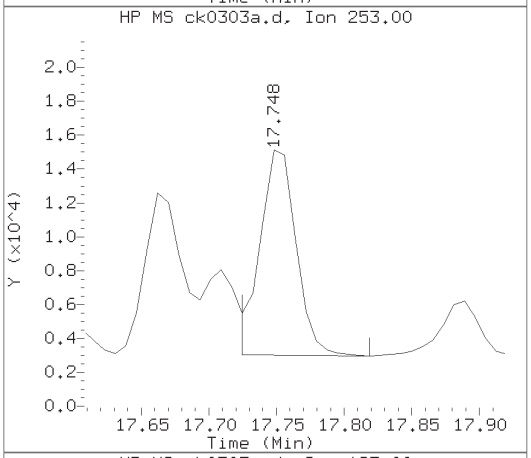
Reference Standard Spectrum for Benzo(a)pyrene



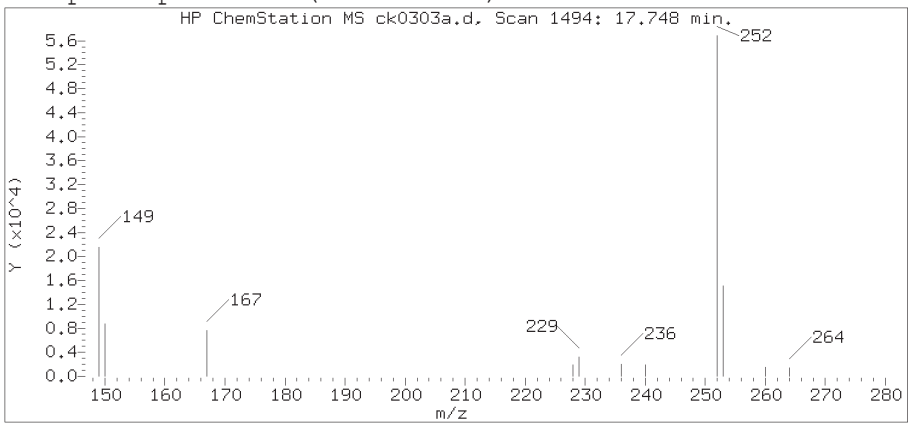


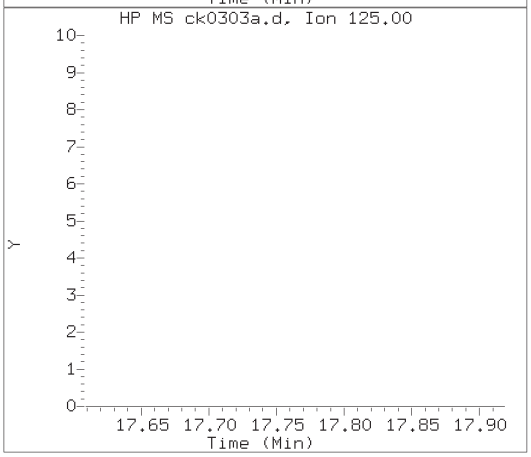
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1494
Retention Time (minutes)	: 17.748
Relative Retention Time	:-0.00000
Quant Ion	: 252.00
Area (flag)	: 94940
On-column Amount (ng/ul)	: 0.4483

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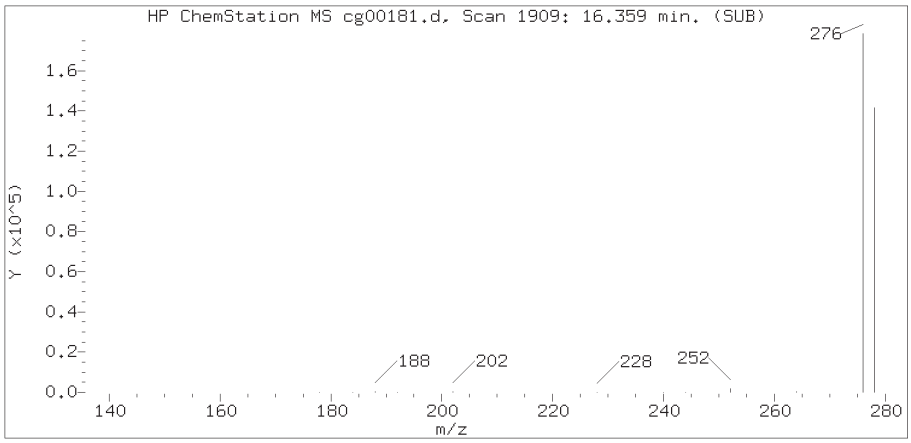
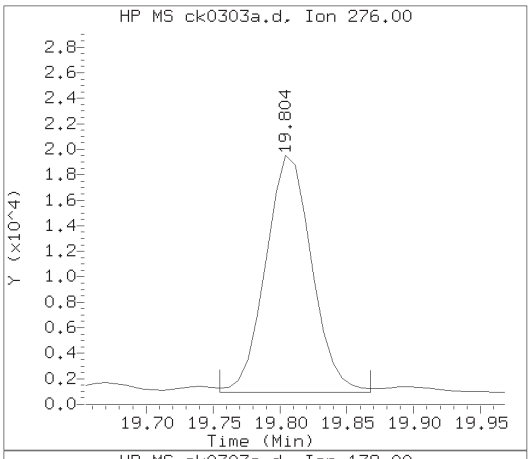
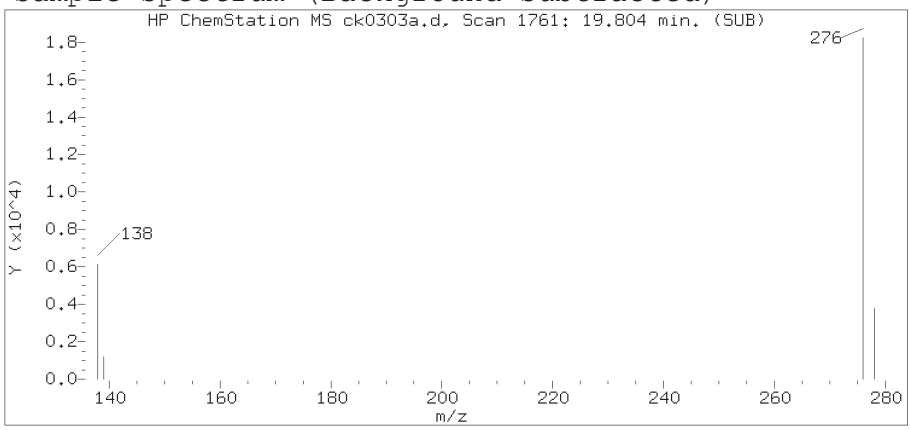
Target 3.5 esignature user ID: apb10206

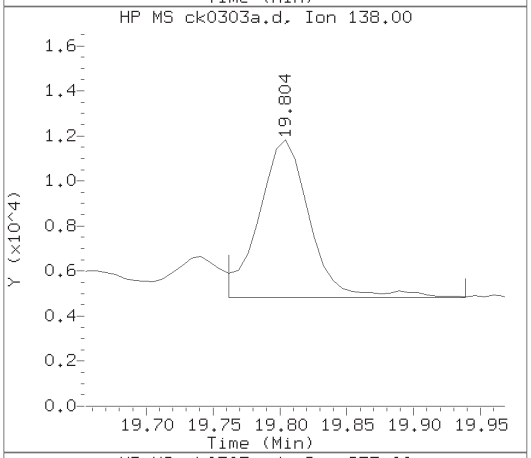
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



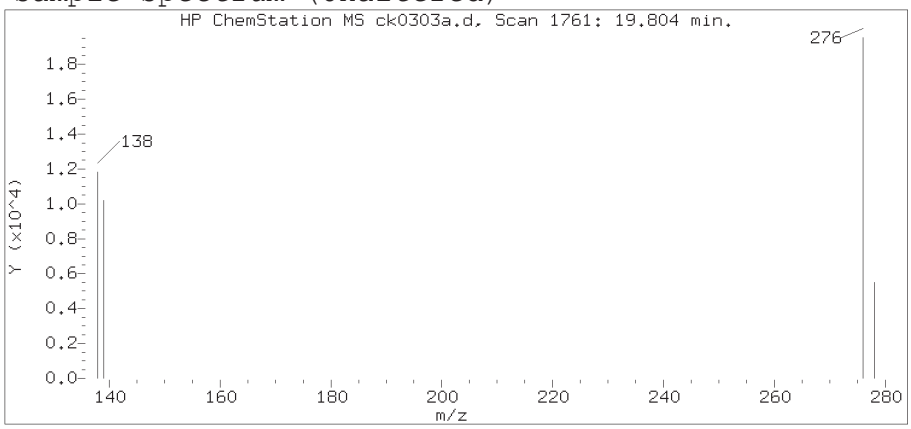


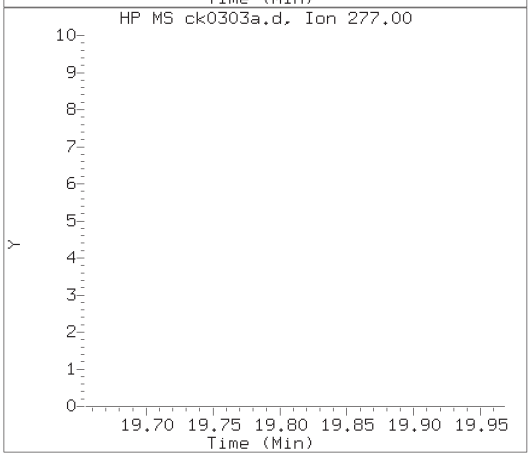
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

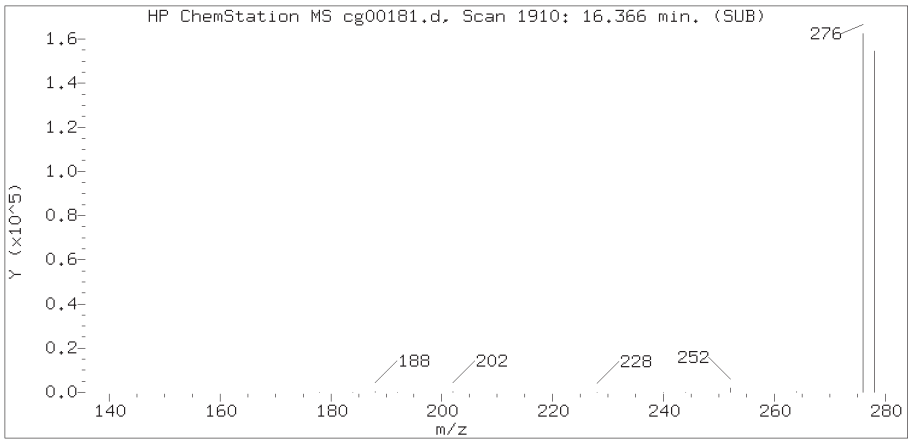
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

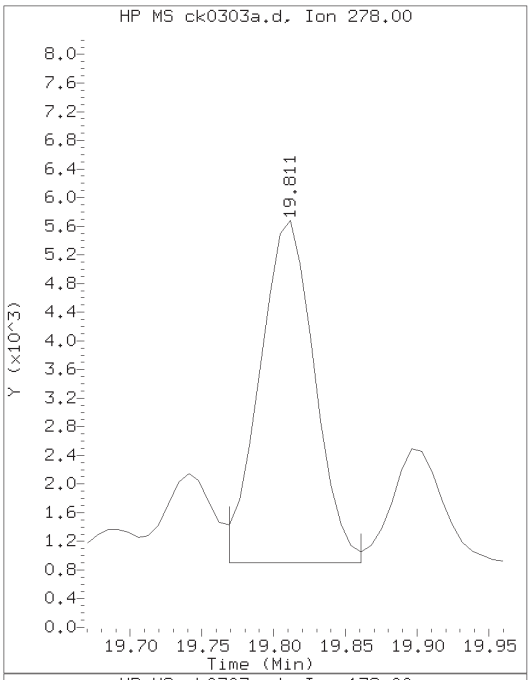
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1761
Retention Time (minutes)	: 19.804
Relative Retention Time	: 0.00008
Quant Ion	: 276.00
Area (flag)	: 44514
On-column Amount (ng/ul)	: 0.2119

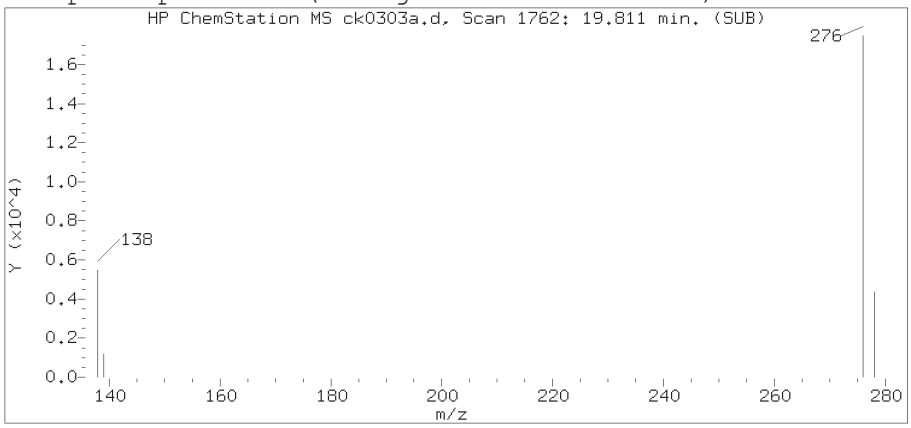
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

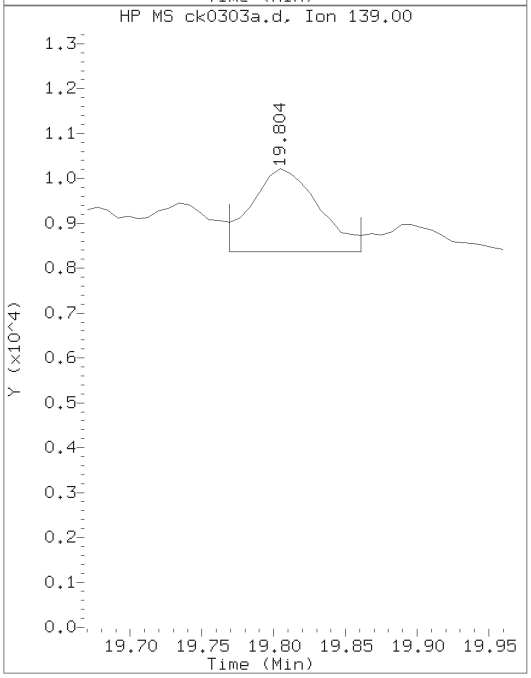
Reference Standard Spectrum for Dibenz(a,h)anthracene



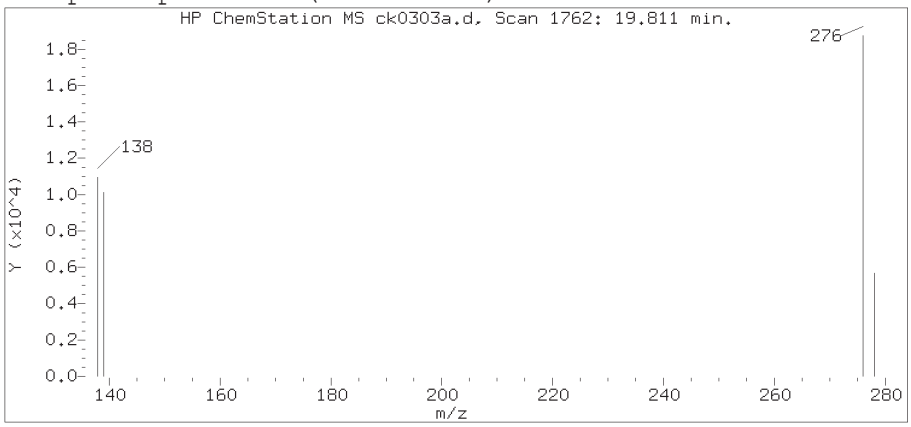


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

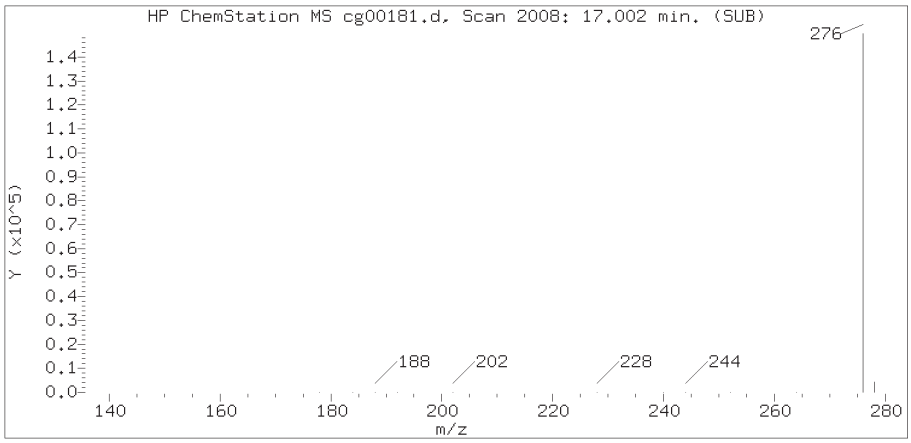
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

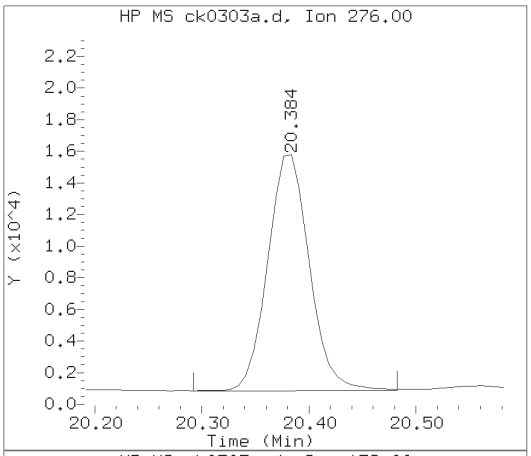
Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1762
Retention Time (minutes)	: 19.811
Relative Retention Time	: 0.00008
Quant Ion	: 278.00
Area (flag)	: 12640
On-column Amount (ng/ul)	: 0.0726

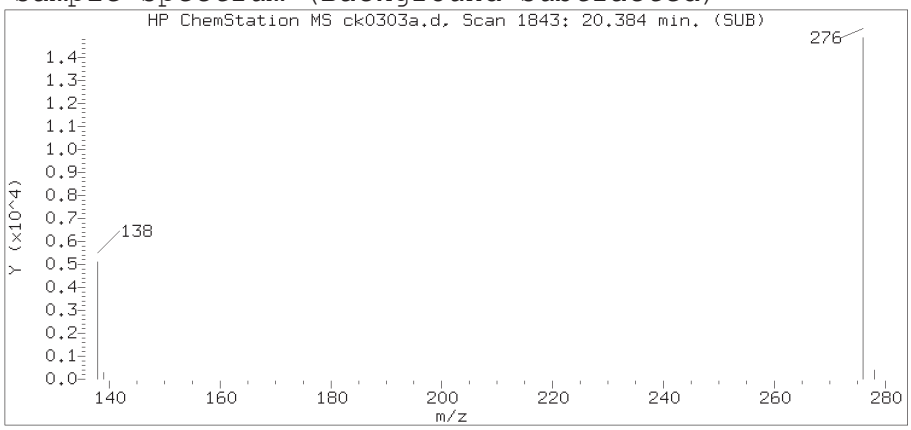
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

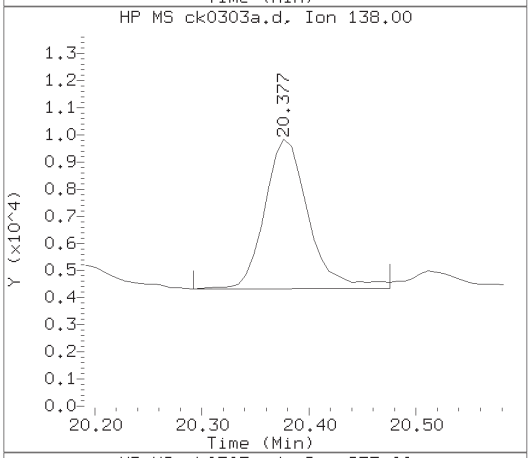
Reference Standard Spectrum for Benzo(g,h,i)perylene



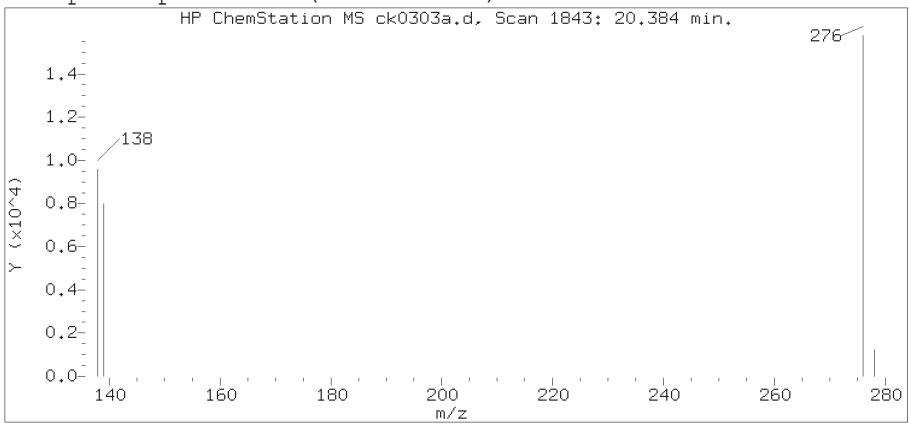


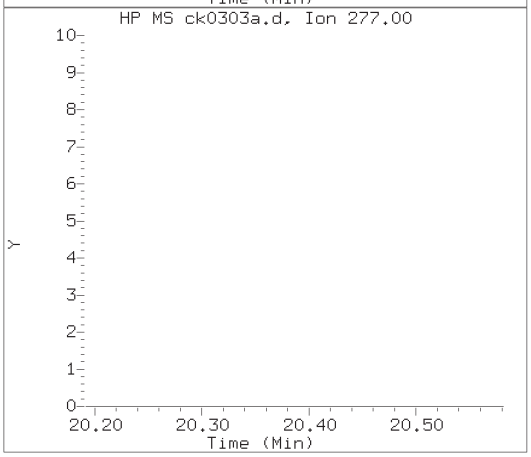
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0303a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:32 apb10206

Sample Name: 12T03DL Lab Sample ID: 9872061DL

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1843
Retention Time (minutes)	: 20.384
Relative Retention Time	:-0.00030
Quant Ion	: 276.00
Area (flag)	: 40424
On-column Amount (ng/ul)	: 0.2062

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

12T04 Lancaster Laboratories, Inc. 9872062
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov06a.b/ck0304.d Injection date and time: **06-NOV-2018 18:33**
Data file Sample Info. Line: 12T04;9872062;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845(-0.013)	448	152	74782M (-21)	1.00	
10) Naphthalene-d8	8.357(0.000)	562	136	343380 (-15)	1.00	
20) Acenaphthene-d10	10.536(-0.011)	750	164	97965M (-47)	1.00	
31) Phenanthrene-d10	12.396(-0.011)	916	188	185924 (-46)	1.00	
43) Chrysene-d12	15.715(-0.030)	1234	240	150922M (-40)	1.00	
51) Perylene-d12	17.881(-0.046)	1511	264	146681M (-35)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308(-0.001)	152	15328M	0.088	88%		61 - 111
36) Fluoranthene-d10	(4)	13.905(-0.001)	212	17978M	0.107	107%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.741(0.000)	264	10557	0.078	78%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.351(-0.002)	88	1835	0.038	12.60			0.02
11) Naphthalene	(2)	8.383(-0.000)	128	8685857	23.823	7862.29		E	0.04
19) Acenaphthylene	(3)	10.351(0.001)	152	97202	0.500	164.96			0.01
21) Acenaphthene	(3)	10.568(0.001)	154	285591M	2.145	708.03			0.02
26) Fluorene	(3)	11.216(0.000)	166	352545	2.476	817.29			0.02
32) Phenanthrene	(4)	12.430(0.000)	178	2132226	9.611	3172.09			0.02
33) Anthracene	(4)	12.486(0.000)	178	499805	2.343	773.24			0.02
35) Di-n-butylphthalate	(4)	13.051(0.000)	149	1013441	4.265	1407.56			0.2
37) Fluoranthene	(4)	13.929(-0.000)	202	1846156	8.469	2795.16			0.02
39) Pyrene	(5)	14.222(0.000)	202	1742205	7.172	2367.10			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.606(0.000)	149	69940	0.515	169.92	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.699(-0.000)	228	669216	3.421	1129.16			0.02
44) Chrysene	(5)	15.746(0.000)	228	797835	3.981	1313.94			0.01
46) Benzo(b)fluoranthene	(6)	17.240(0.000)	252	738921M	3.931	1297.20			0.02
47) Benzo(k)fluoranthene	(6)	17.279(0.000)	252	271252M	1.344	443.43			0.02
50) Benzo(a)pyrene	(6)	17.787(-0.000)	252	488858	2.850	940.67			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.847(0.000)	276	252200	1.482	489.22			0.02
54) Dibenz(a,h)anthracene	(6)	19.847(0.000)	278	76444	0.542	178.87			0.02
55) Benzo(g,h,i)perylene	(6)	20.426(-0.000)	276	261193	1.645	542.89			0.02

E = Compound concentration above calibration range. M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0304.d Injection date and time: **06-NOV-2018 18:33**
Data file Sample Info. Line: 12T04;9872062;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

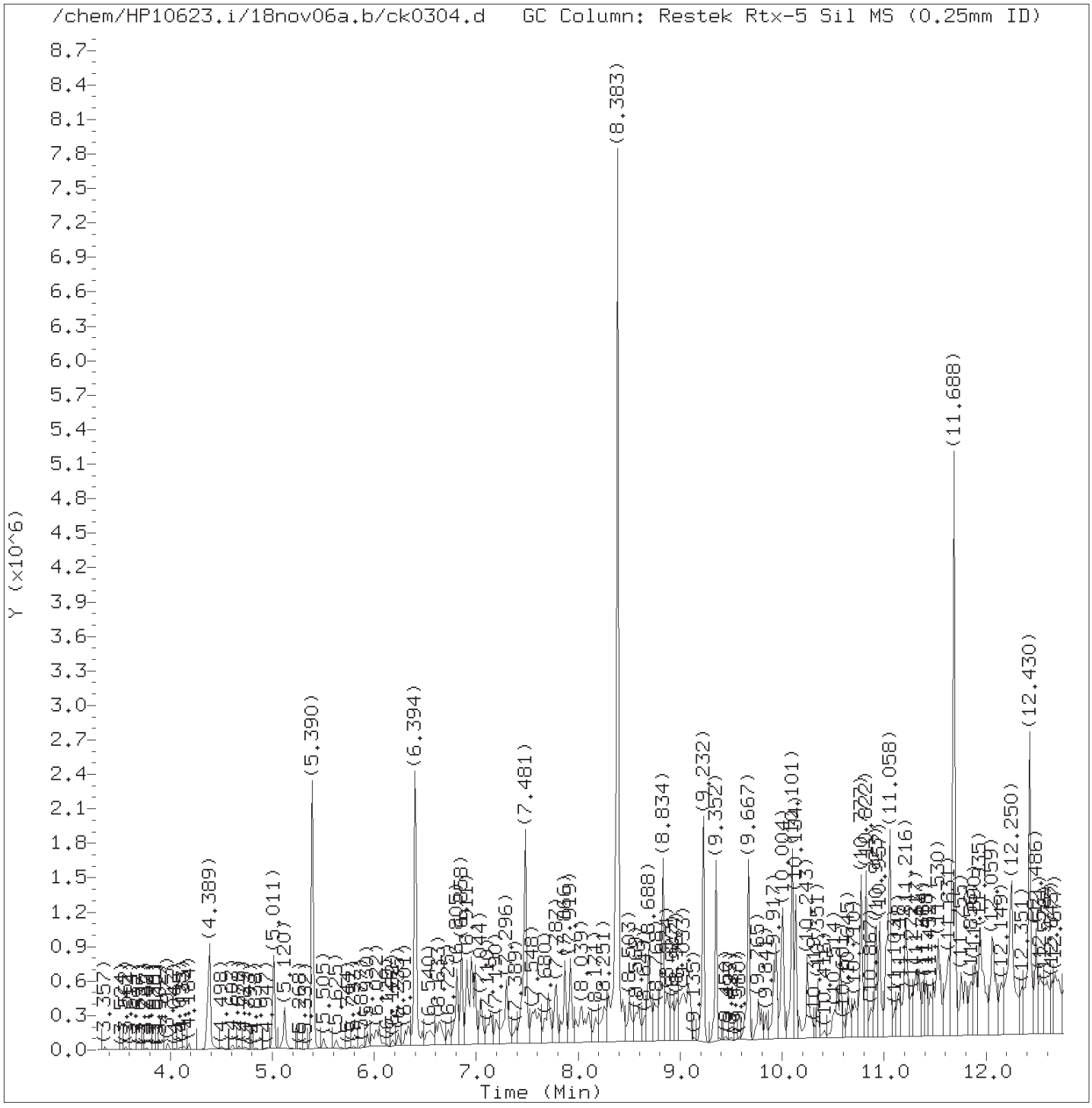
Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

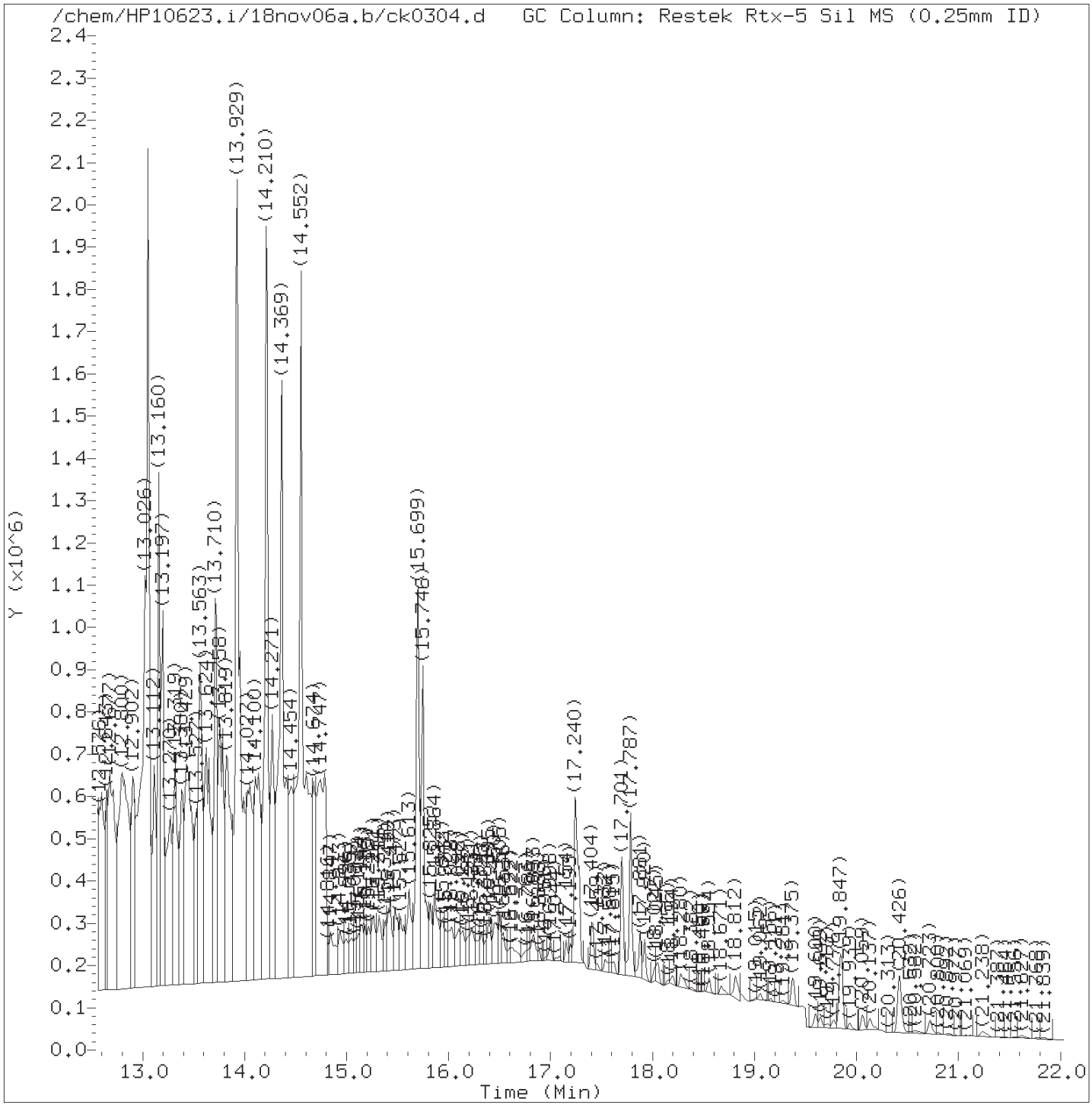
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

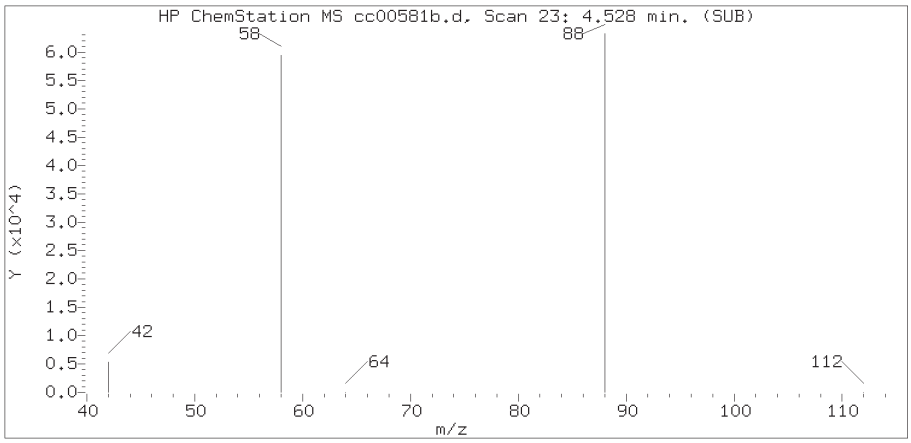
Sample Name: 12T04 Lab Sample ID: 9872062

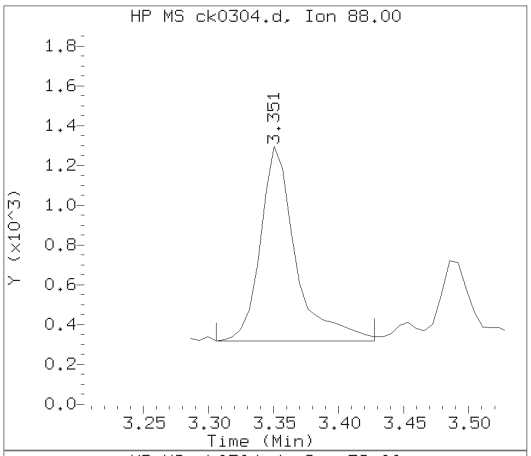
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.351	88	1835	0.038
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	74782M	1.000
10)*Naphthalene-d8	(2)	8.357	136	343380	1.000
11) Naphthalene	(2)	8.383	128	8685857	23.823
14)$1-Methylnaphthalene-d10	(2)	9.308	152	15328M	0.088
19) Acenaphthylene	(3)	10.351	152	97202	0.500
20)*Acenaphthene-d10	(3)	10.536	164	97965M	1.000
21) Acenaphthene	(3)	10.568	154	285591M	2.145
26) Fluorene	(3)	11.216	166	352545	2.476
31)*Phenanthrene-d10	(4)	12.396	188	185924	1.000
32) Phenanthrene	(4)	12.430	178	2132226	9.611
33) Anthracene	(4)	12.486	178	499805	2.343
35) Di-n-butylphthalate	(4)	13.051	149	1013441	4.265
36)$Fluoranthene-d10	(4)	13.905	212	17978M	0.107
37) Fluoranthene	(4)	13.929	202	1846156	8.469
39) Pyrene	(5)	14.222	202	1742205	7.172
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	149	69940	0.515
42) Benzo(a)anthracene	(5)	15.699	228	669216	3.421
43)*Chrysene-d12	(5)	15.715	240	150922M	1.000
44) Chrysene	(5)	15.746	228	797835	3.981
46) Benzo(b)fluoranthene	(6)	17.240	252	738921M	3.931
47) Benzo(k)fluoranthene	(6)	17.279	252	271252M	1.344
49)$Benzo(a)pyrene-d12	(6)	17.741	264	10557	0.078
50) Benzo(a)pyrene	(6)	17.787	252	488858	2.850
51)*Perylene-d12	(6)	17.881	264	146681M	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.847	276	252200	1.482
54) Dibenz(a,h)anthracene	(6)	19.847	278	76444	0.542
55) Benzo(g,h,i)perylene	(6)	20.426	276	261193	1.645

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

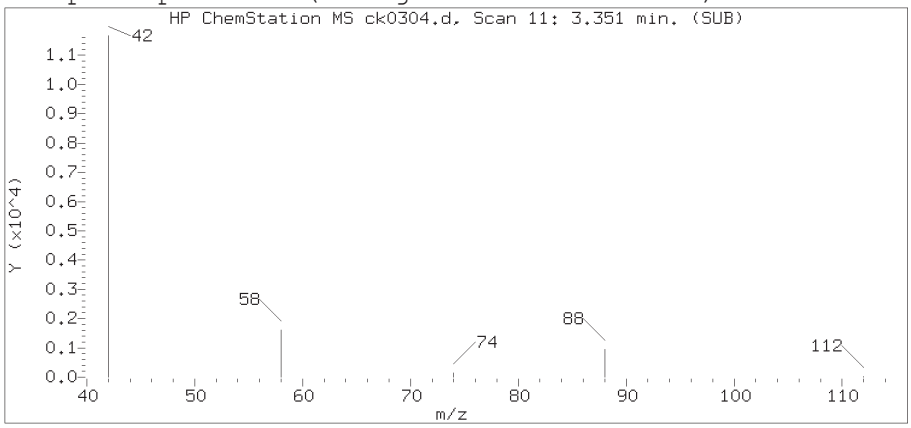
Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

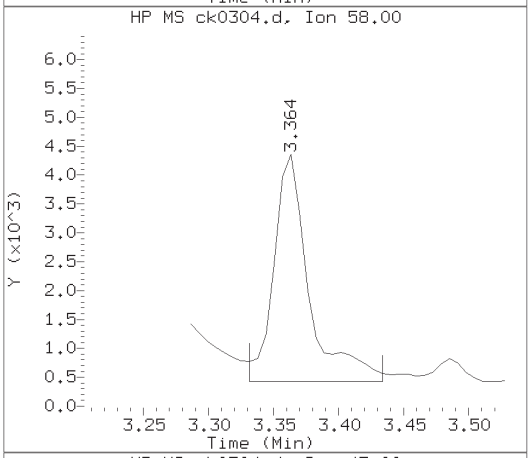
Reference Standard Spectrum for 1,4-Dioxane



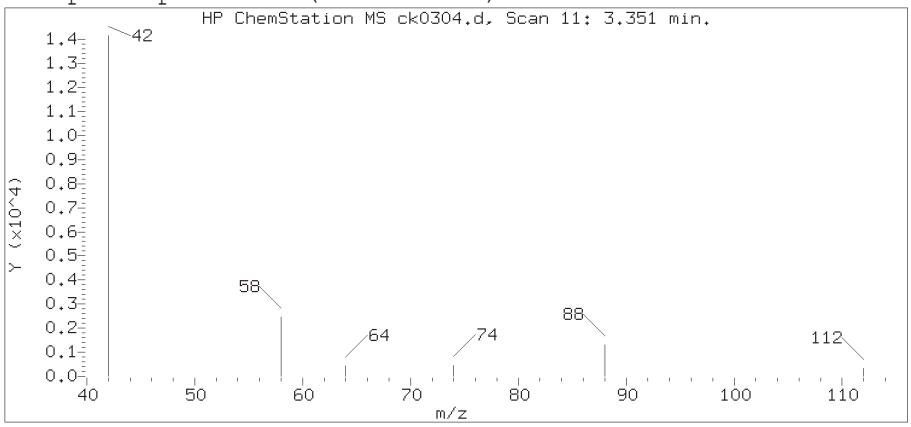


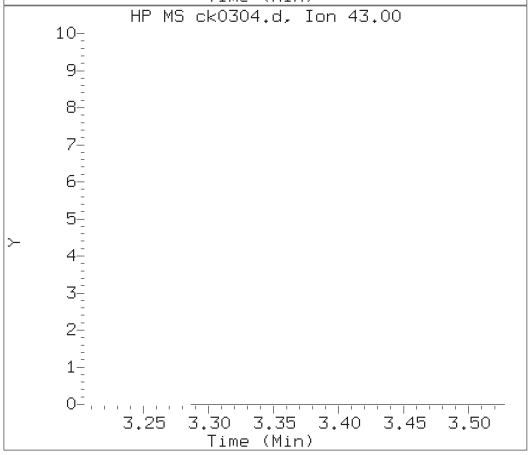
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

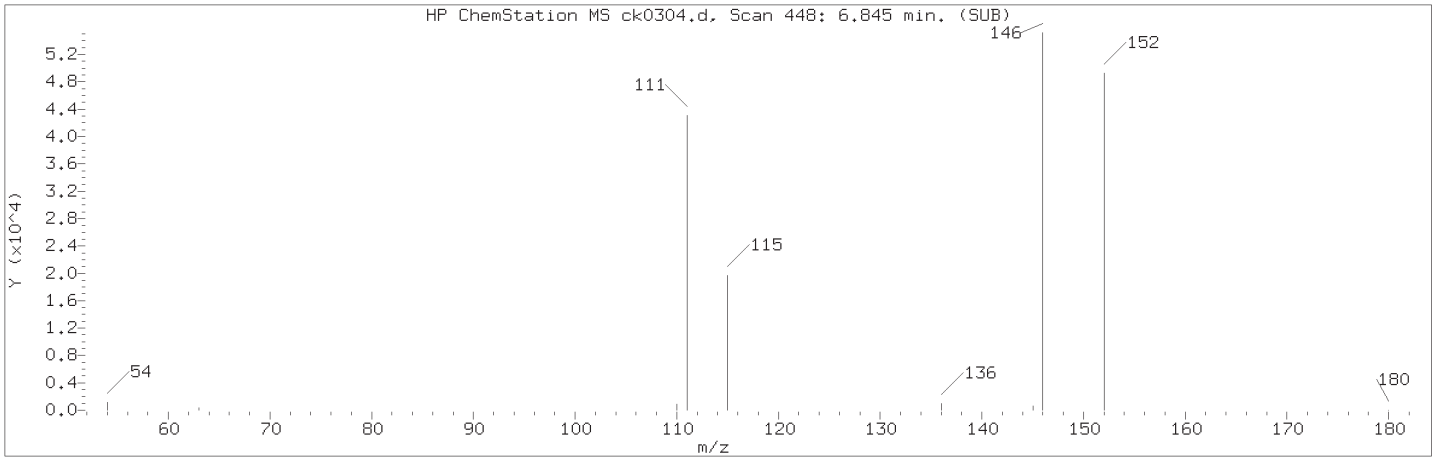
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

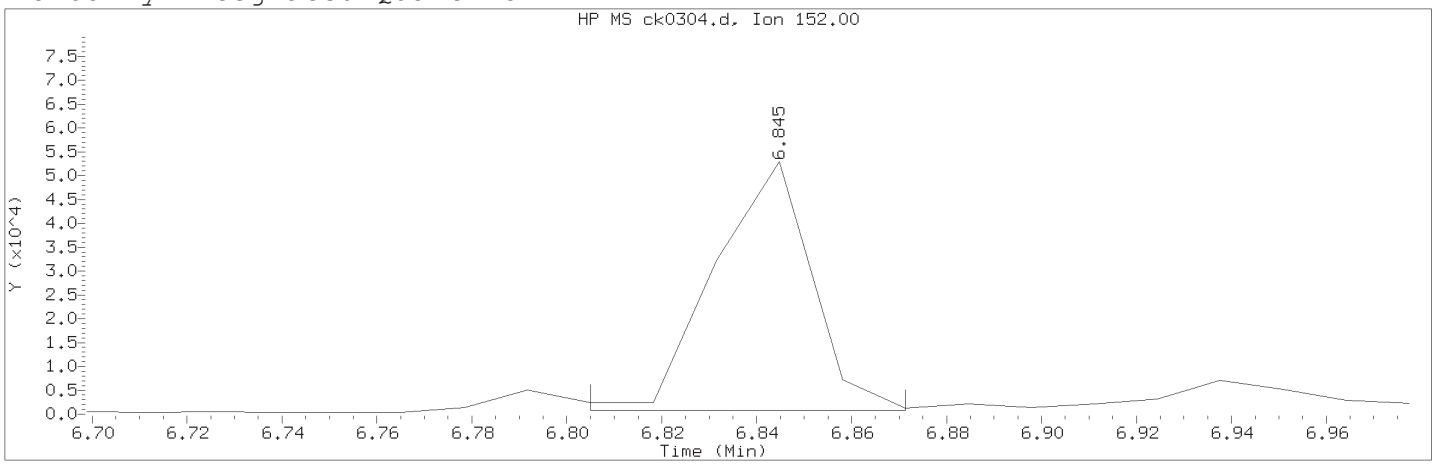
Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 11
Retention Time (minutes)	: 3.351
Relative Retention Time	:-0.00280
Quant Ion	: 88.00
Area (flag)	: 1835
On-column Amount (ng/ul)	: 0.0382

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

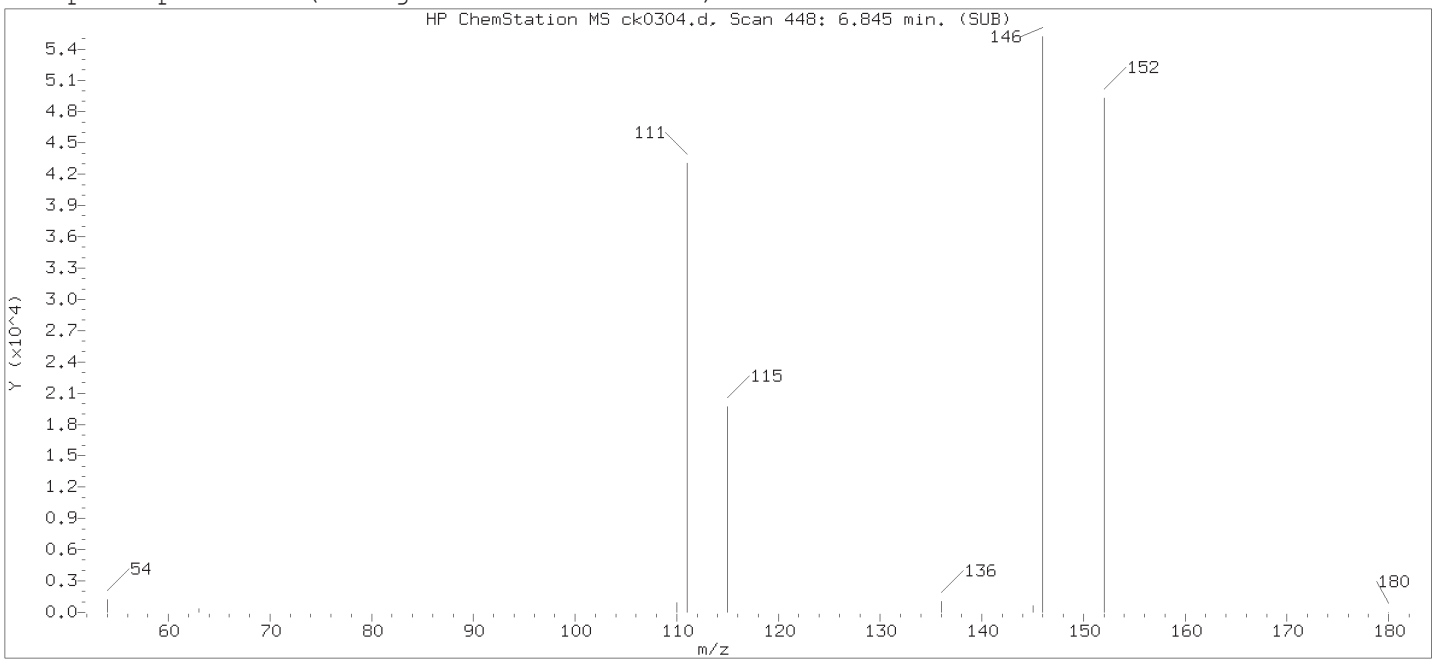
Compound Number : 6
Compound Name : 1,4-Dichlorobenzene-d4
Scan Number : 448
Retention Time (minutes) : 6.845
Quant Ion : 152.00
Area (flag) : 74782M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 444 Integration stop scan: 449
Y at integration start : 776 Y at integration end: 776

Reason for manual integration: improper integration

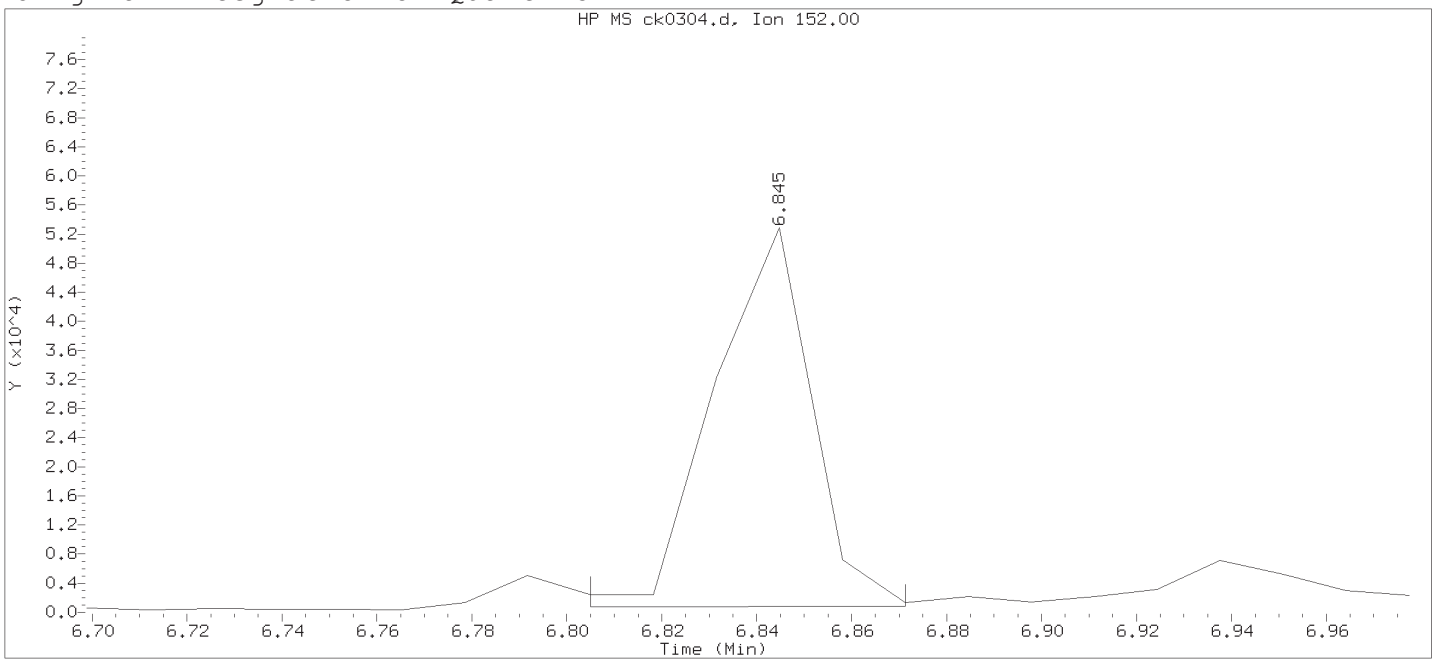
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

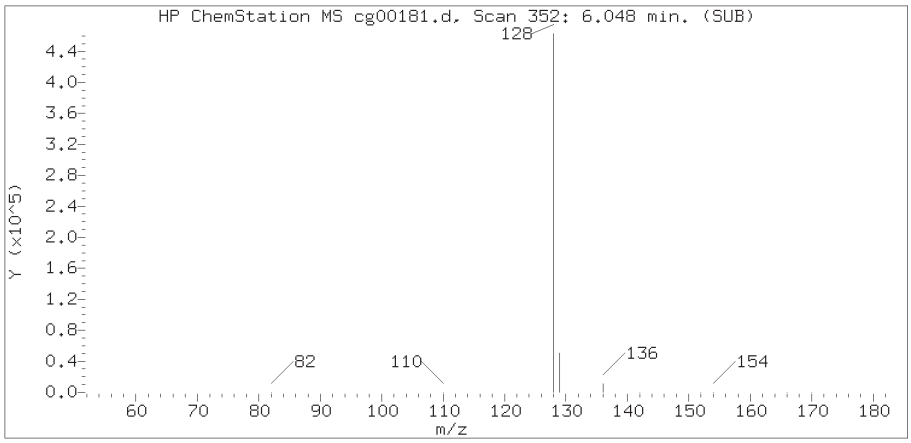
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

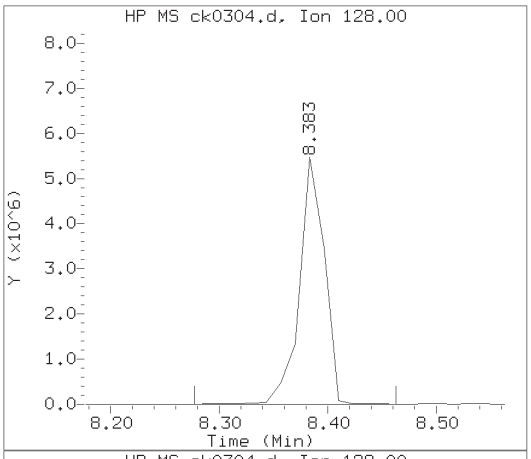
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 6		
Compound Name	: 1,4-Dichlorobenzene-d4		
Scan Number	: 448		
Retention Time (minutes)	: 6.845		
Quant Ion	: 152.00		
Area	: 73776		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 444	Integration stop scan:	449
Y at integration start	: 765	Y at integration end:	861

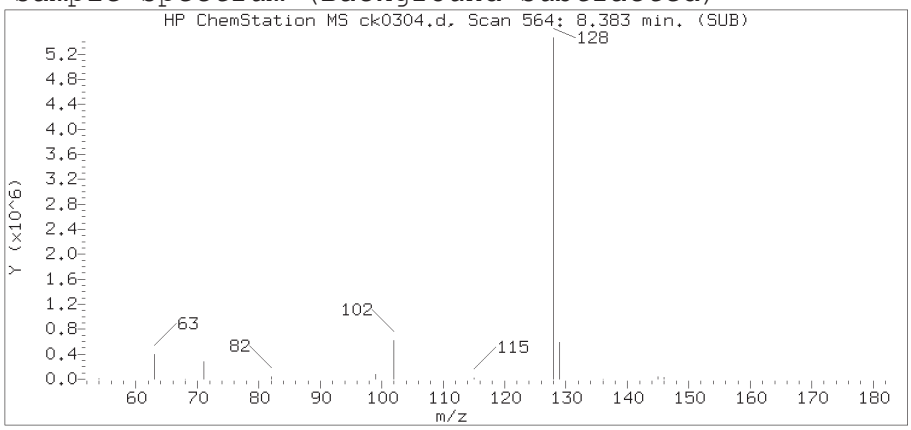
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

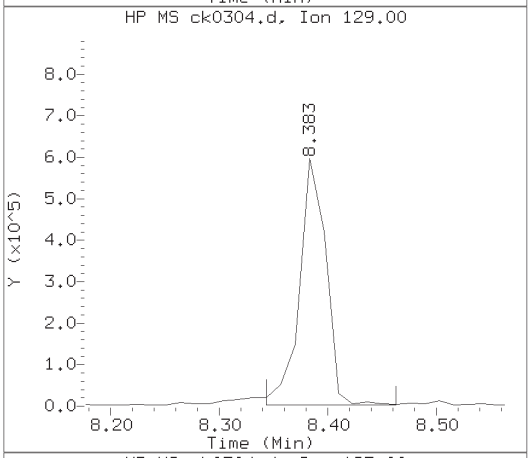
Reference Standard Spectrum for Naphthalene



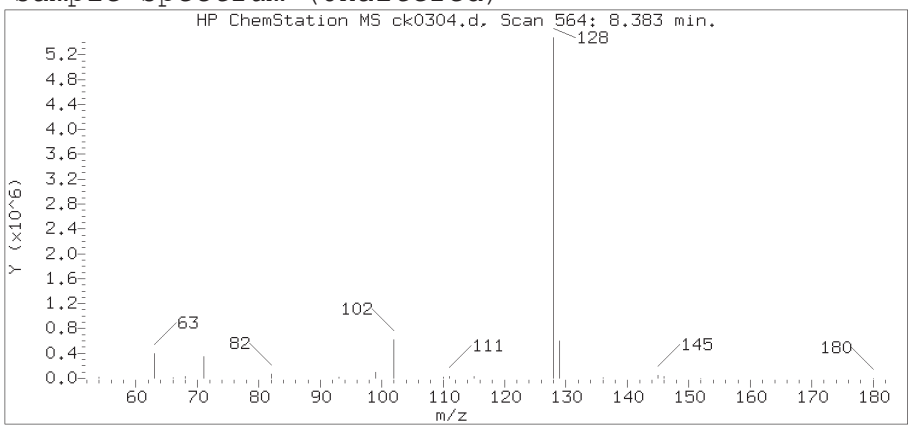


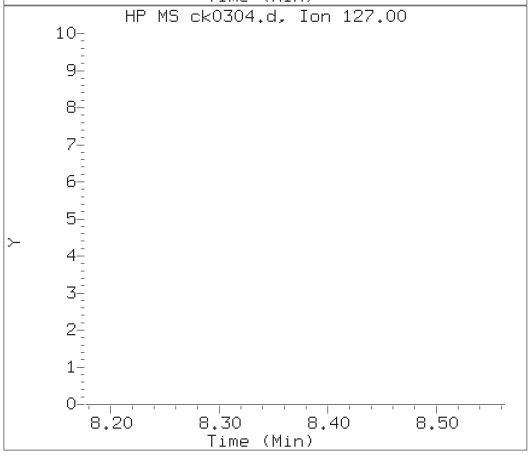
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

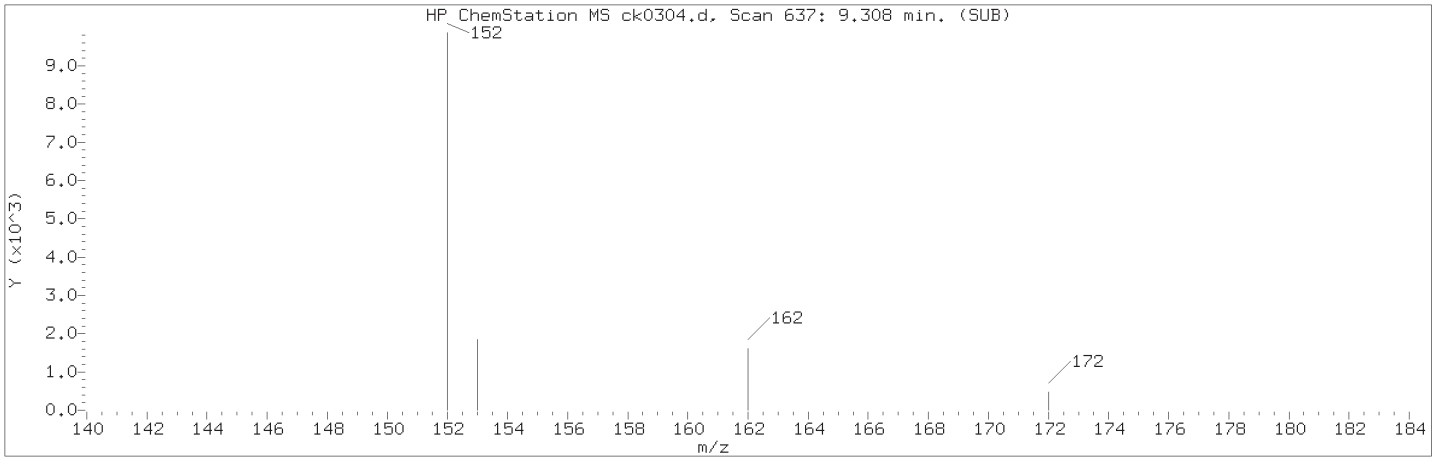
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

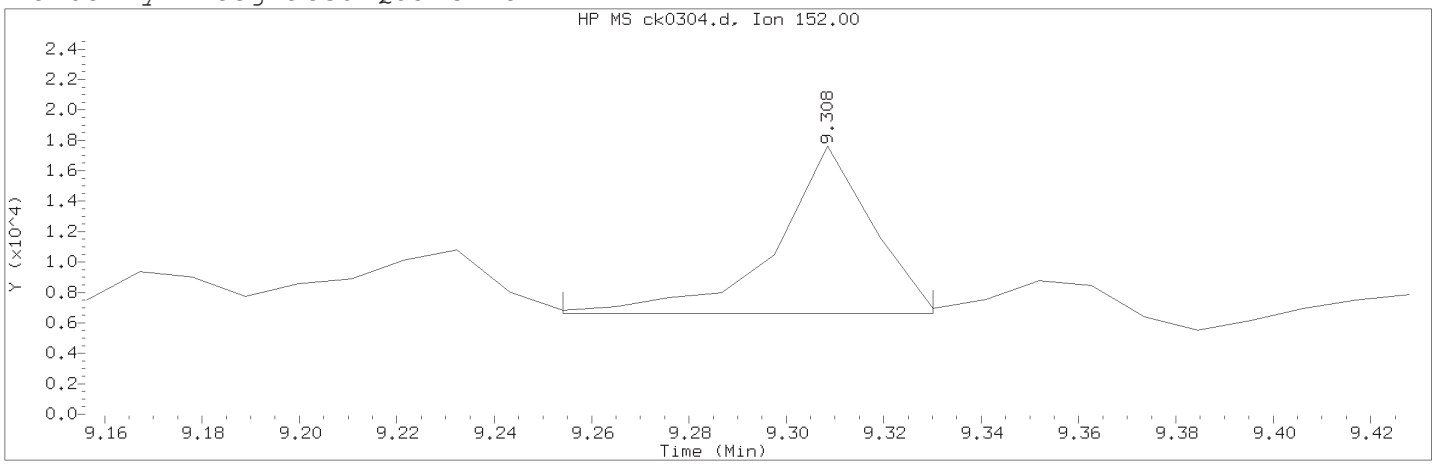
Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 564
Retention Time (minutes)	: 8.383
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 8685857
On-column Amount (ng/ul)	: 23.8227

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

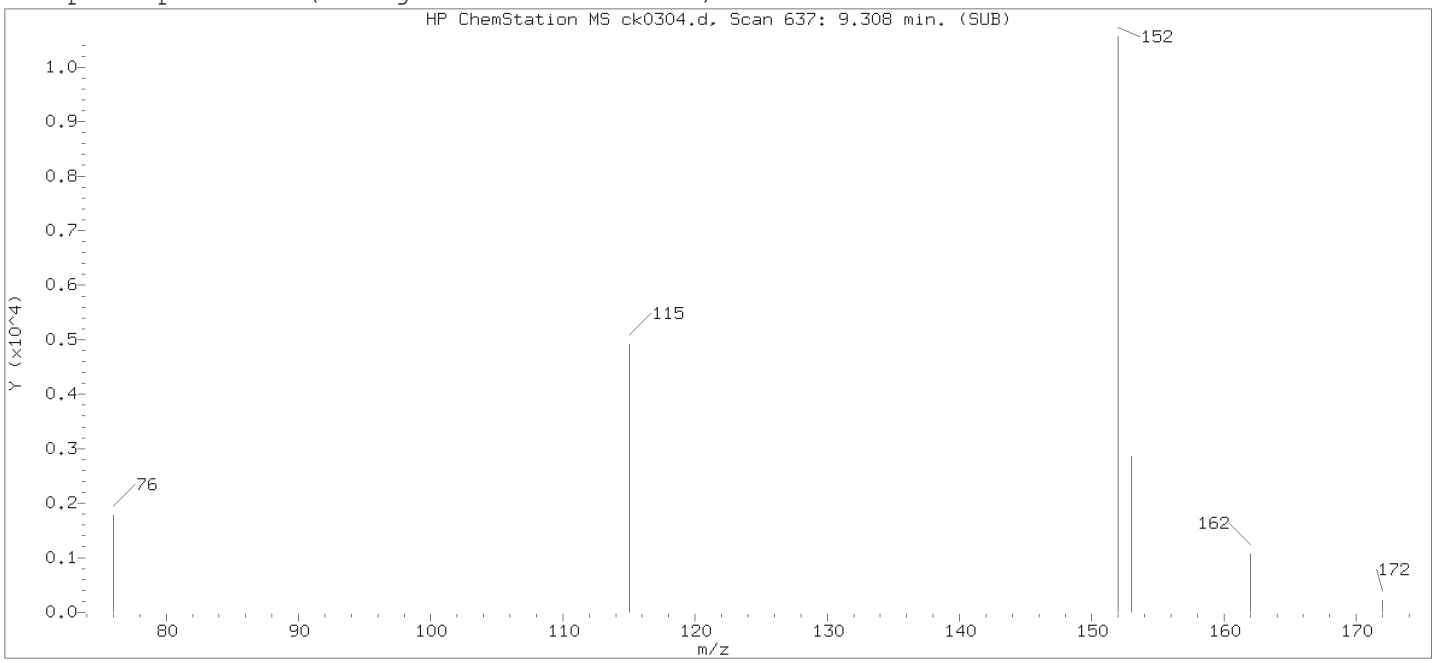
Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 637
Retention Time (minutes) : 9.308
Quant Ion : 152.00
Area (flag) : 15328M
On-column Amount (ng/ul) : 0.0884
Integration start scan : 631 Integration stop scan: 638
Y at integration start : 6613 Y at integration end: 6613

Reason for manual integration: improper integration

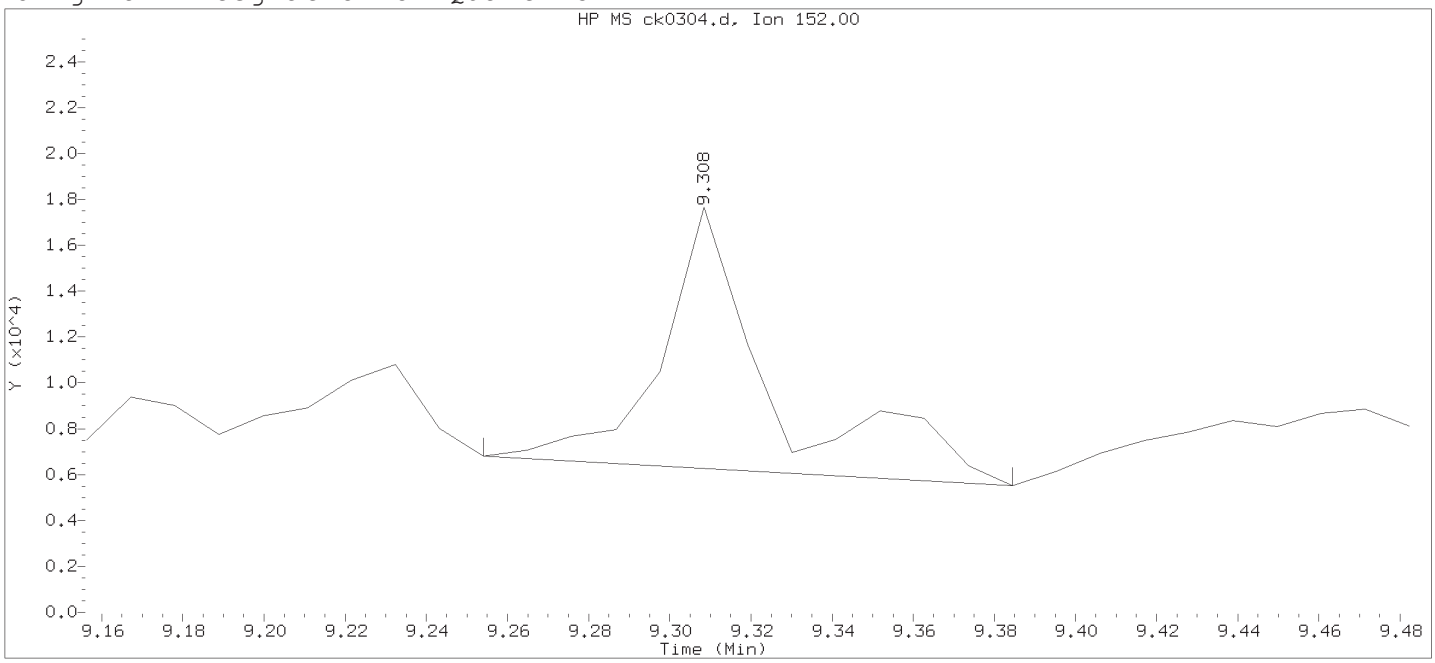
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

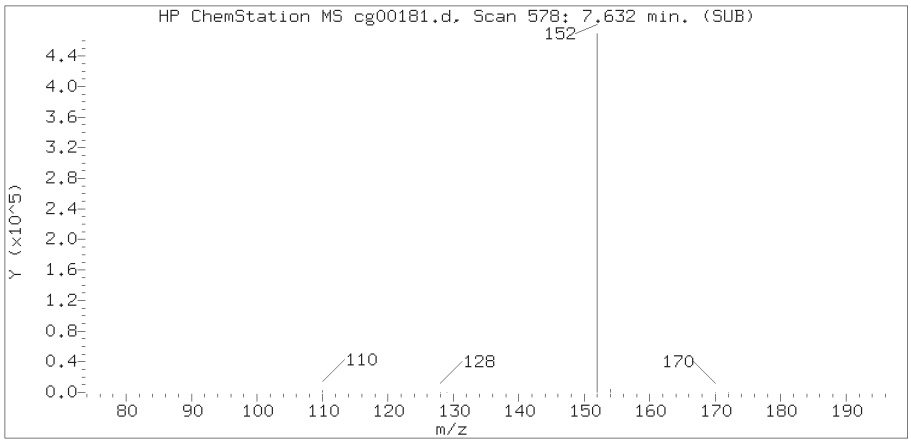
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

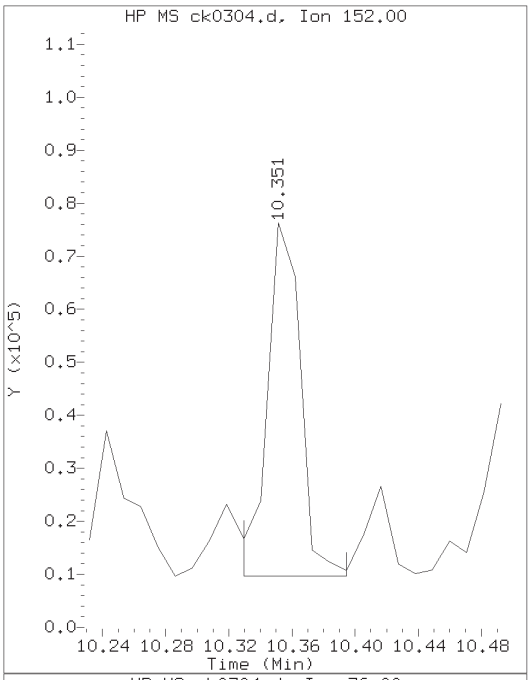
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 637		
Retention Time (minutes)	: 9.308		
Quant Ion	: 152.00		
Area	: 21976		
On-column Amount (ng/ul)	: 0.1267		
Integration start scan	: 631	Integration stop scan:	643
Y at integration start	: 6803	Y at integration end:	5511

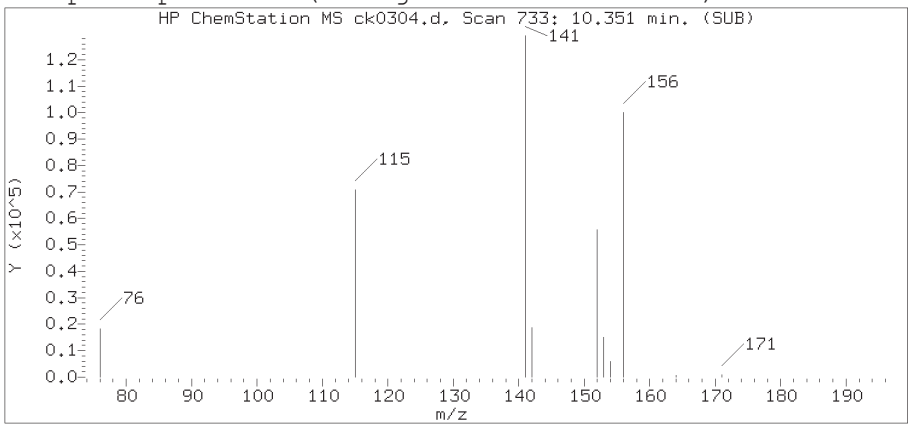
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

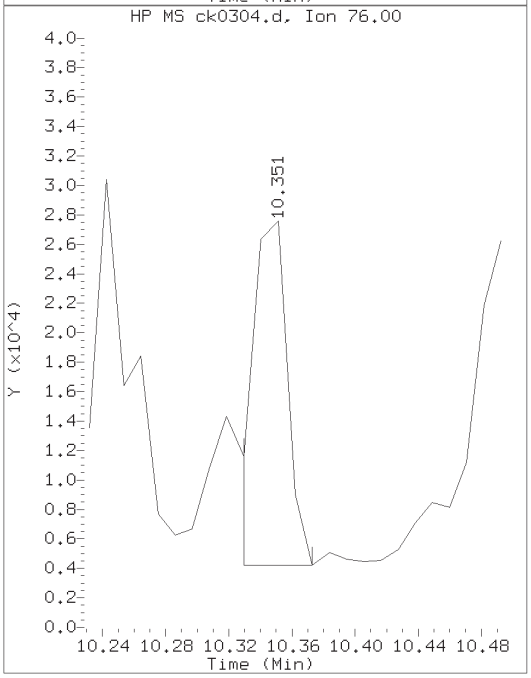
Reference Standard Spectrum for Acenaphthylene



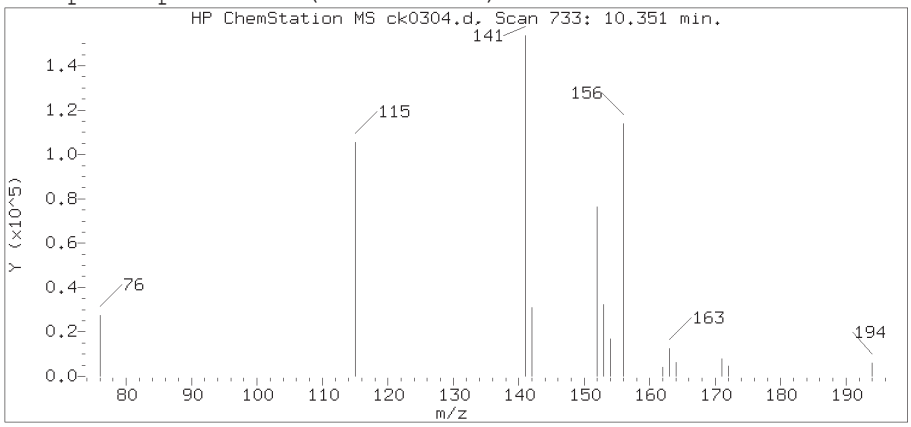


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

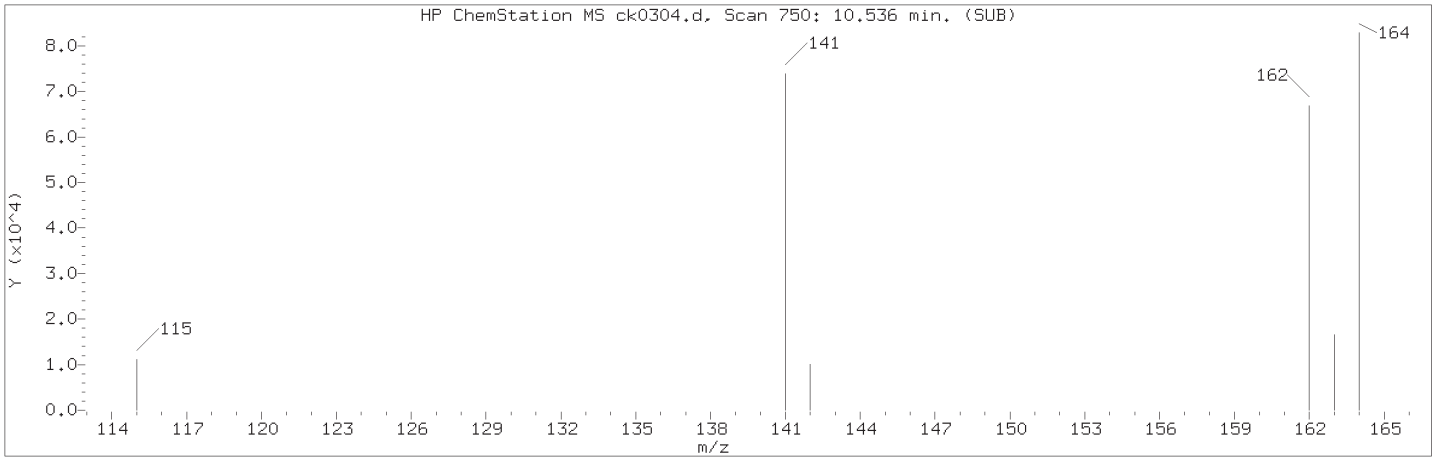
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

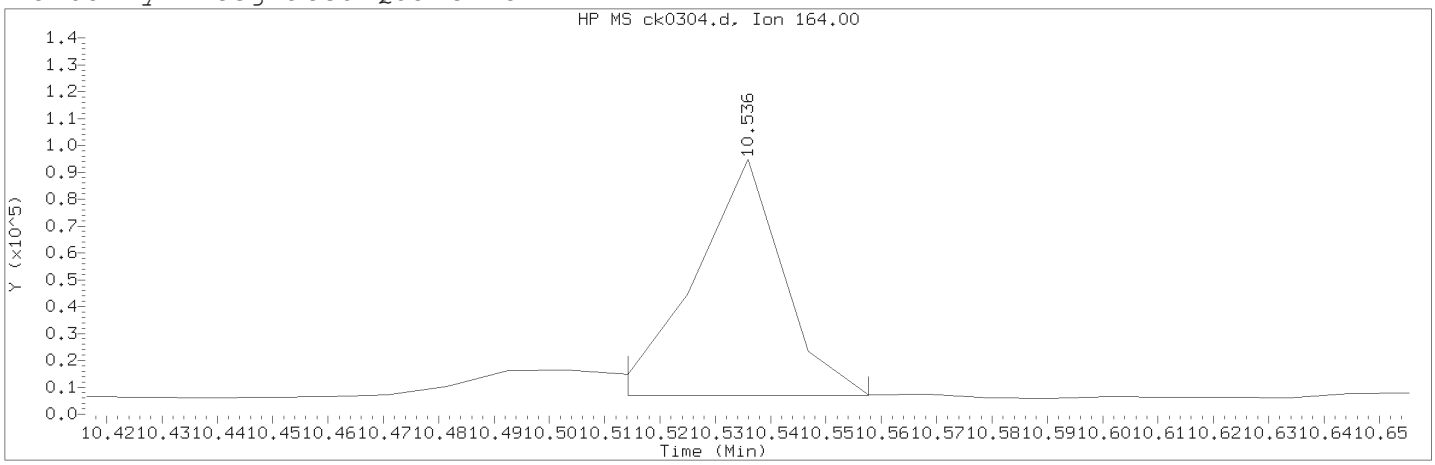
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00101
Quant Ion	: 152.00
Area (flag)	: 97202
On-column Amount (ng/ul)	: 0.4998

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

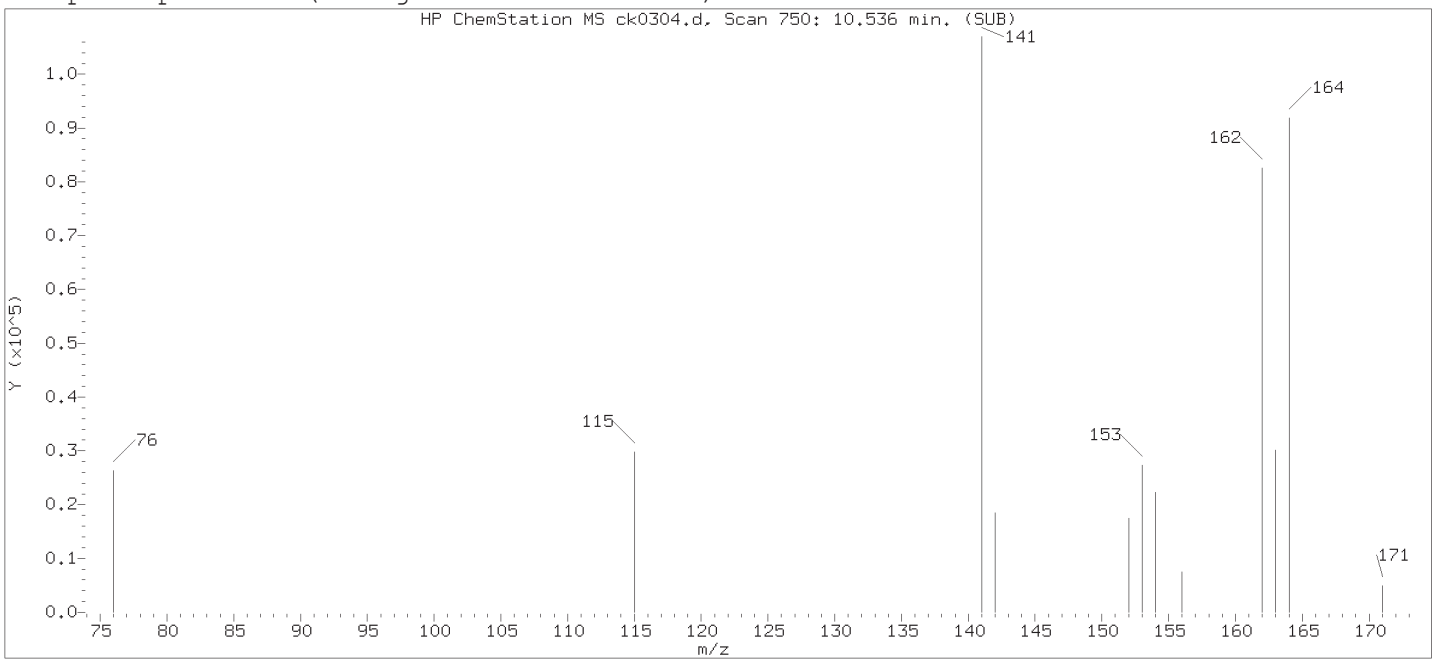
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 750
Retention Time (minutes) : 10.536
Quant Ion : 164.00
Area (flag) : 97965M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 747 Integration stop scan: 751
Y at integration start : 6930 Y at integration end: 6930

Reason for manual integration: improper integration

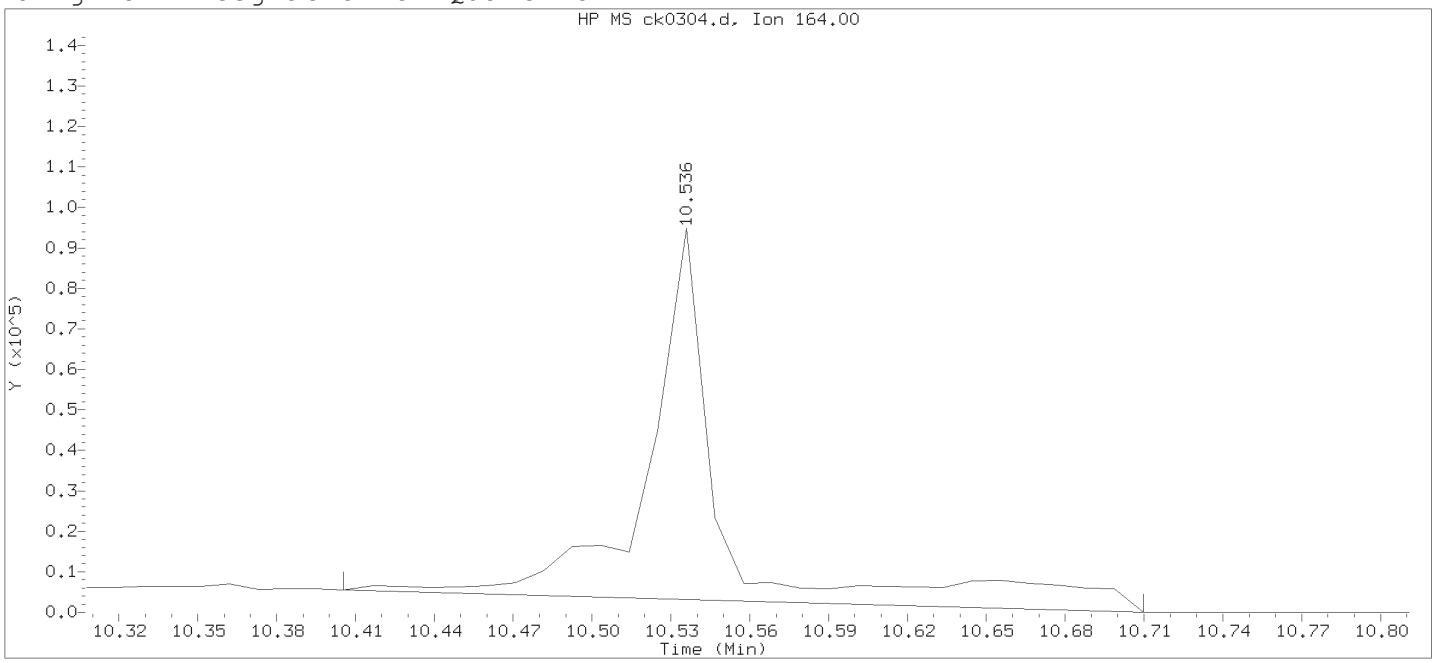
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

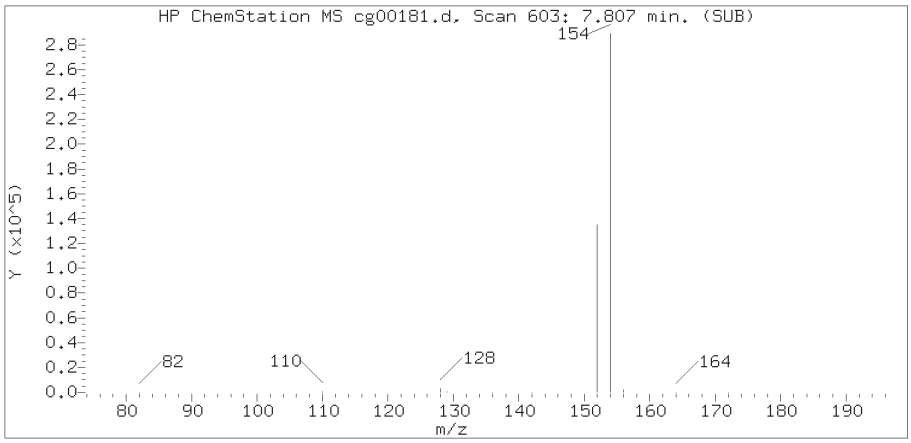
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

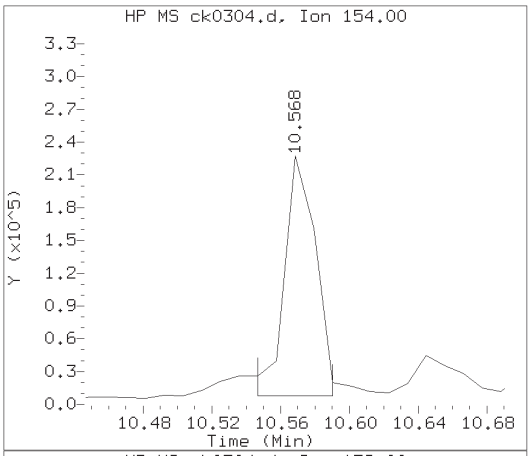
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 750		
Retention Time (minutes)	: 10.536		
Quant Ion	: 164.00		
Area	: 183549		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 737	Integration stop scan:	765
Y at integration start	: 5480	Y at integration end:	0

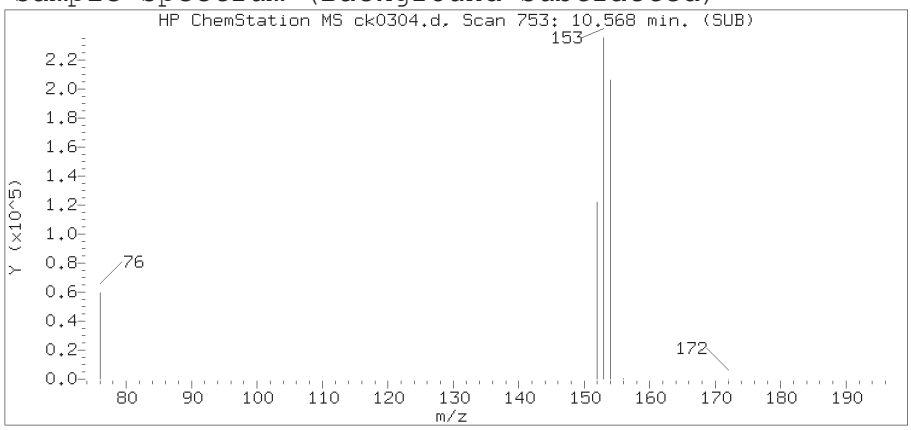
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018 at 01:39.

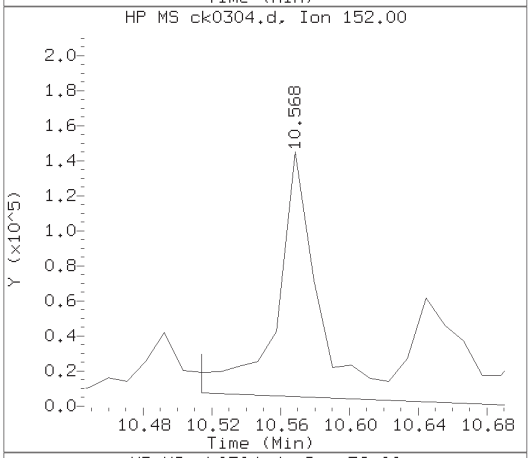
Reference Standard Spectrum for Acenaphthene



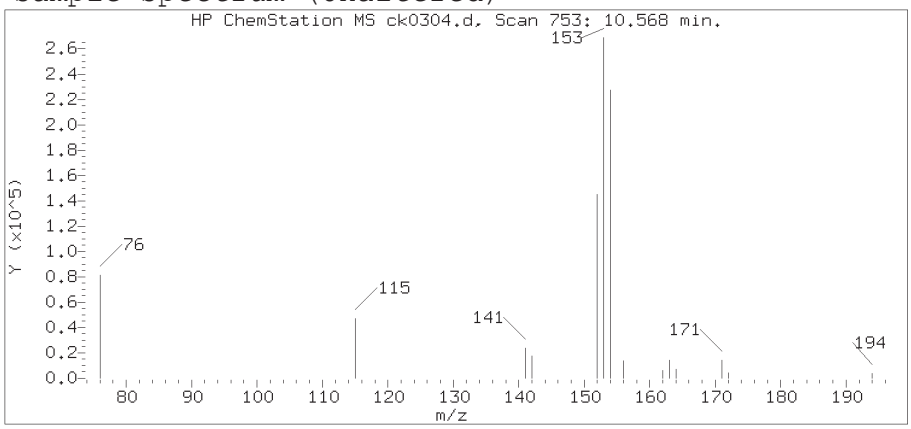


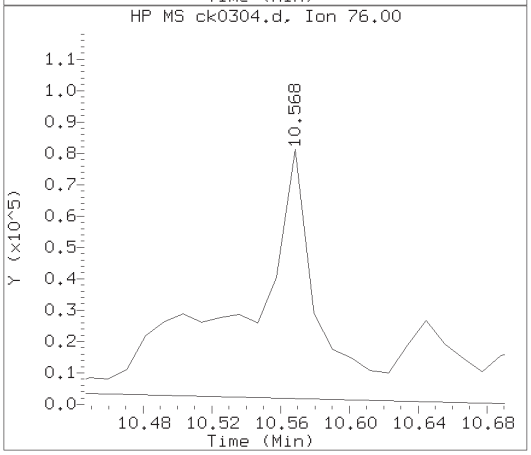
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

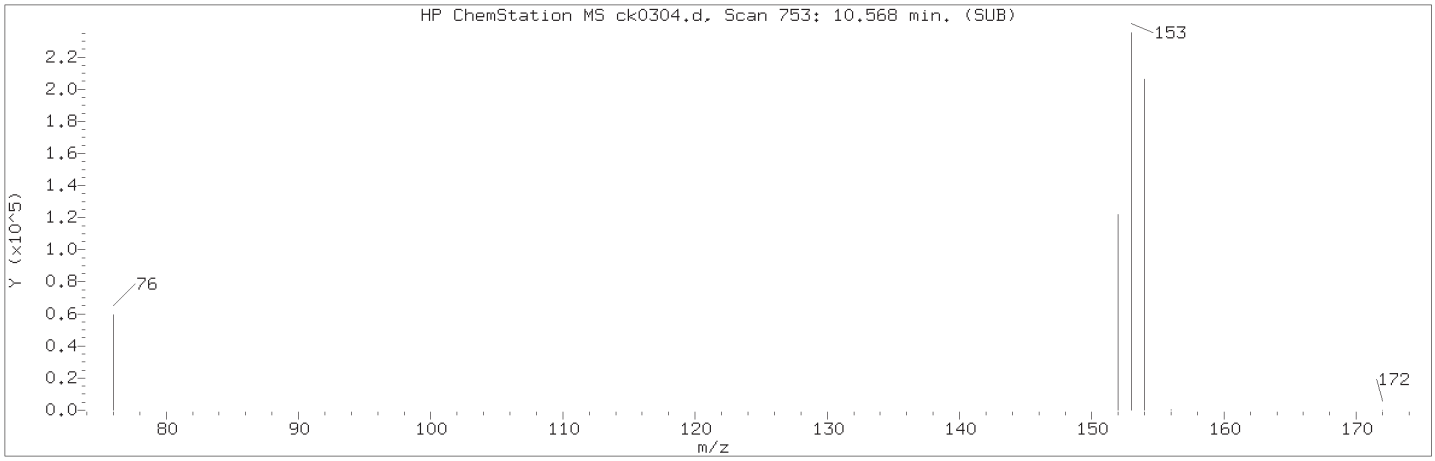
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

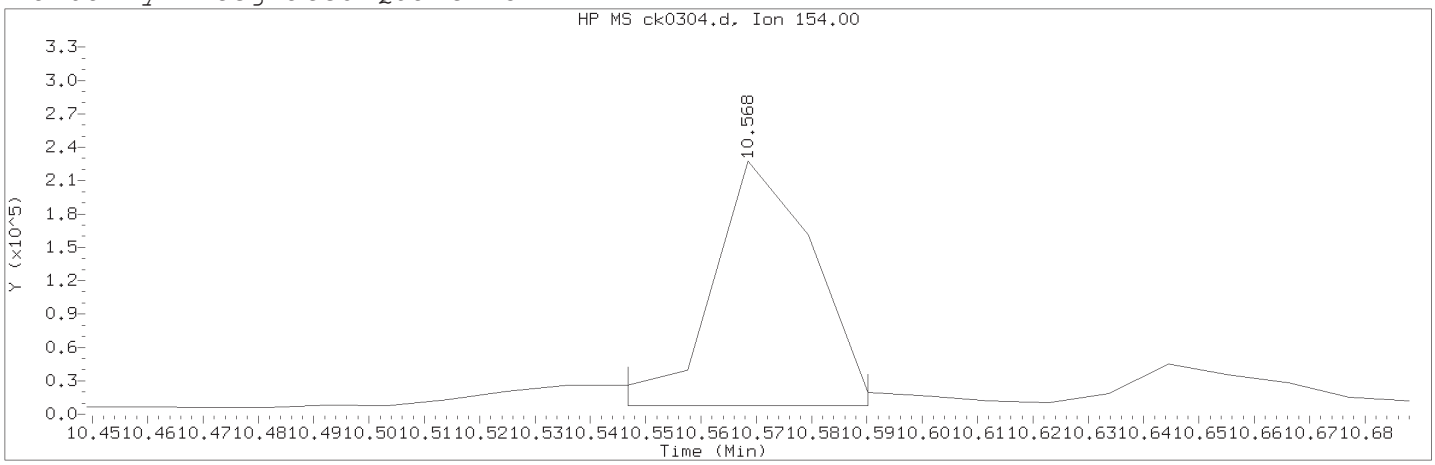
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	: 0.00104
Quant Ion	: 154.00
Area (flag)	: 285591M
On-column Amount (ng/ul)	: 2.1453

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

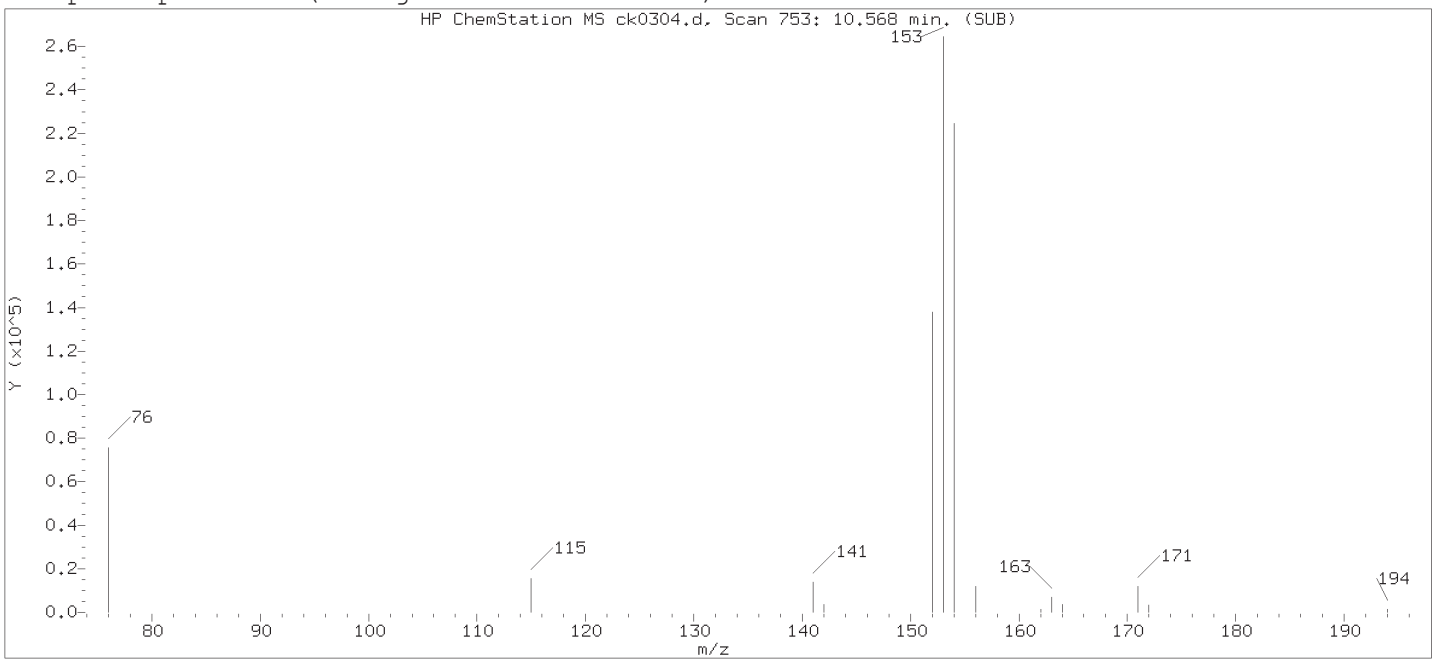
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.568		
Quant Ion	: 154.00		
Area (flag)	: 285591M		
On-column Amount (ng/ul)	: 2.1453		
Integration start scan	: 750	Integration stop scan:	754
Y at integration start	: 7576	Y at integration end:	7576

Reason for manual integration: improper integration

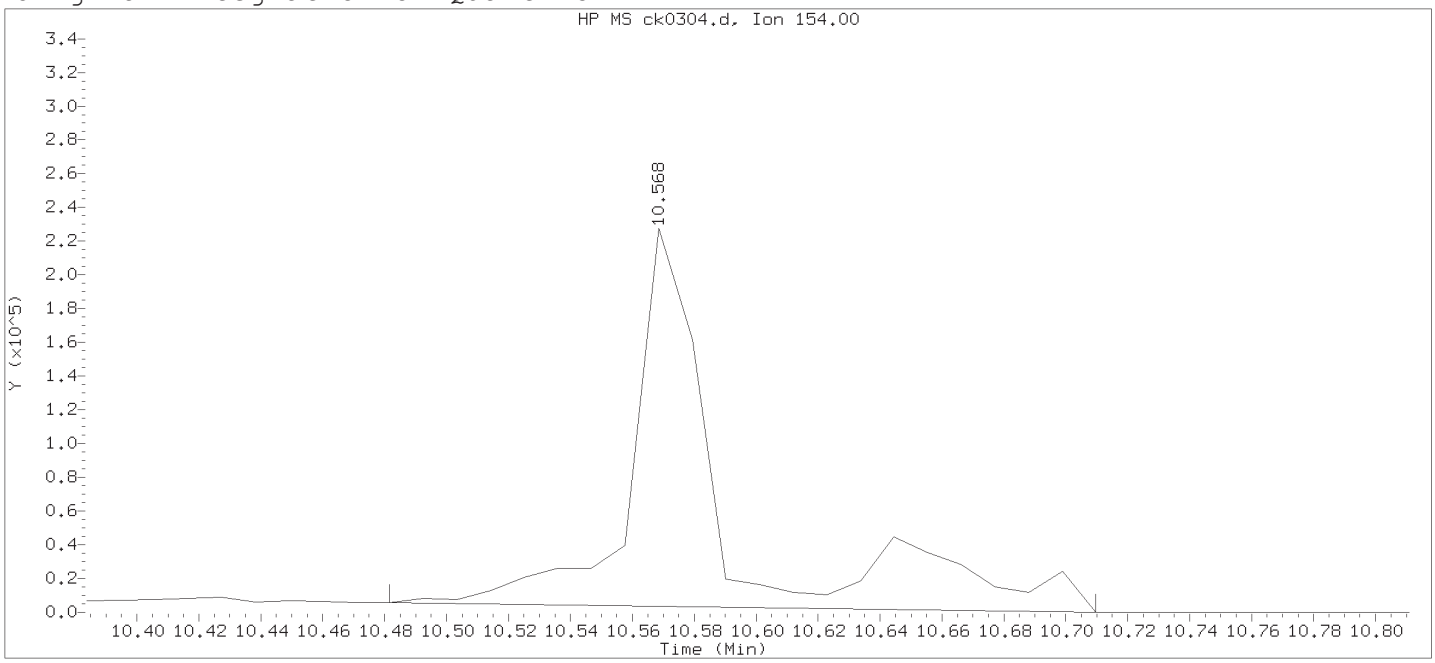
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

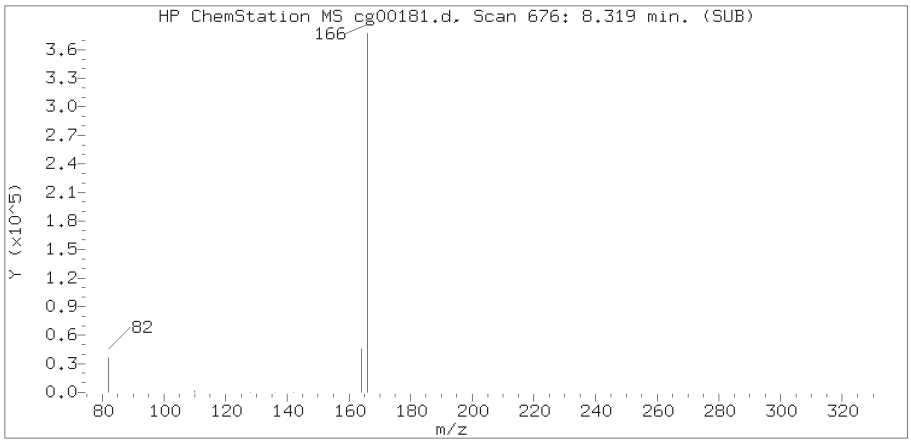
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

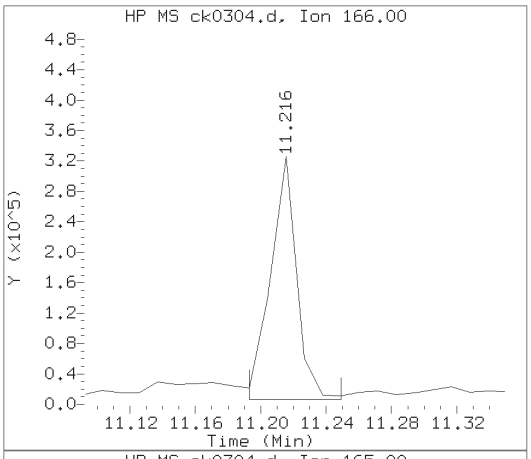
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.568		
Quant Ion	: 154.00		
Area	: 465982		
On-column Amount (ng/ul)	: 1.8683		
Integration start scan	: 744	Integration stop scan:	765
Y at integration start	: 5752	Y at integration end:	0

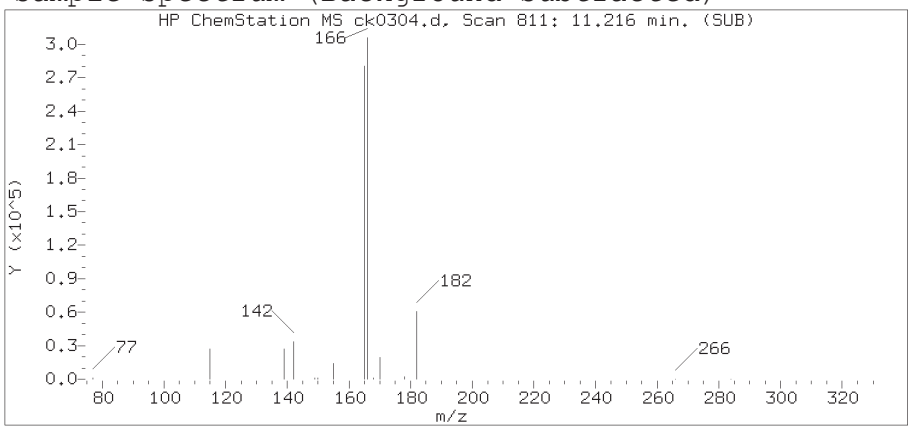
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

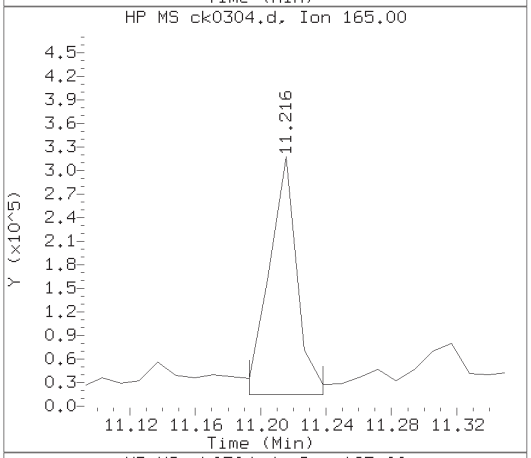
Reference Standard Spectrum for Fluorene



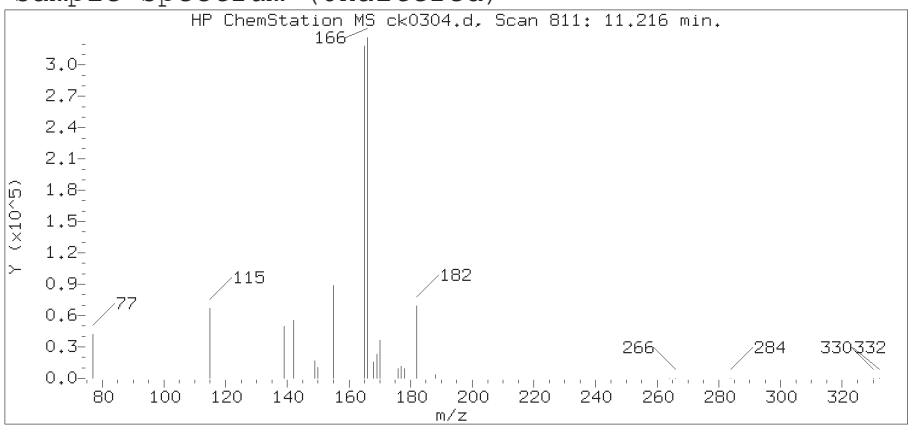


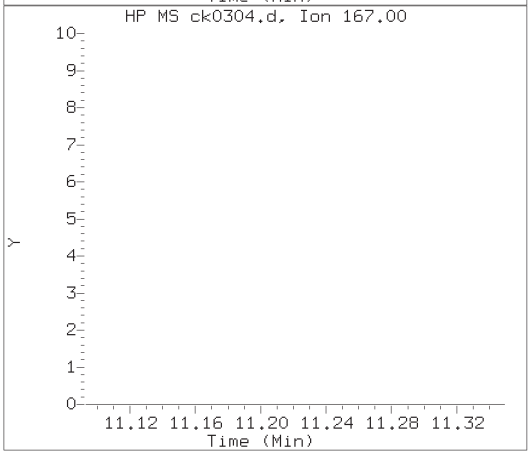
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

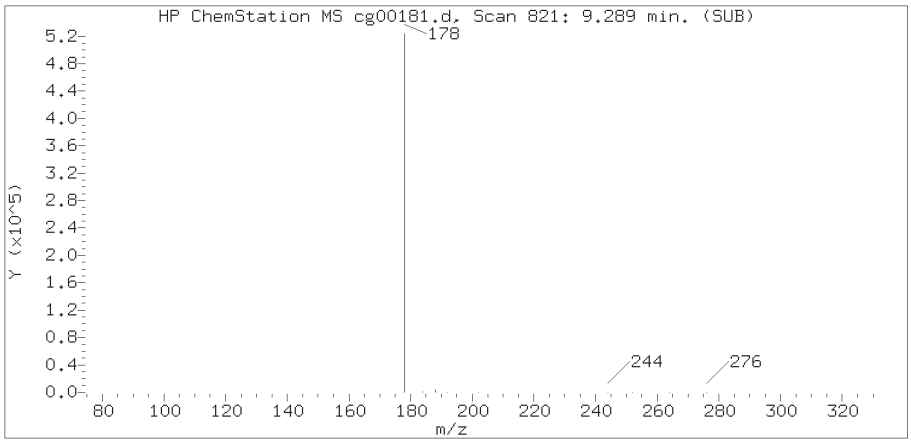
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

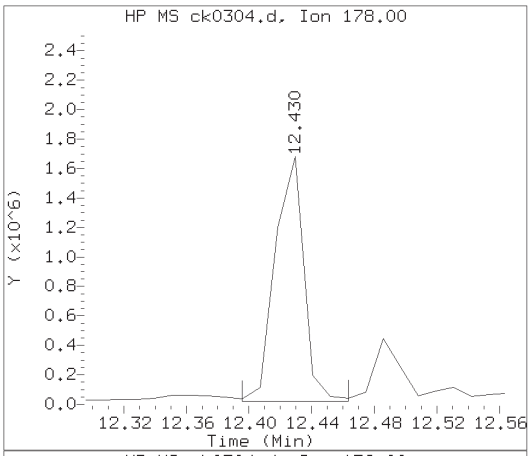
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 811
Retention Time (minutes)	: 11.216
Relative Retention Time	: 0.00003
Quant Ion	: 166.00
Area (flag)	: 352545
On-column Amount (ng/ul)	: 2.4764

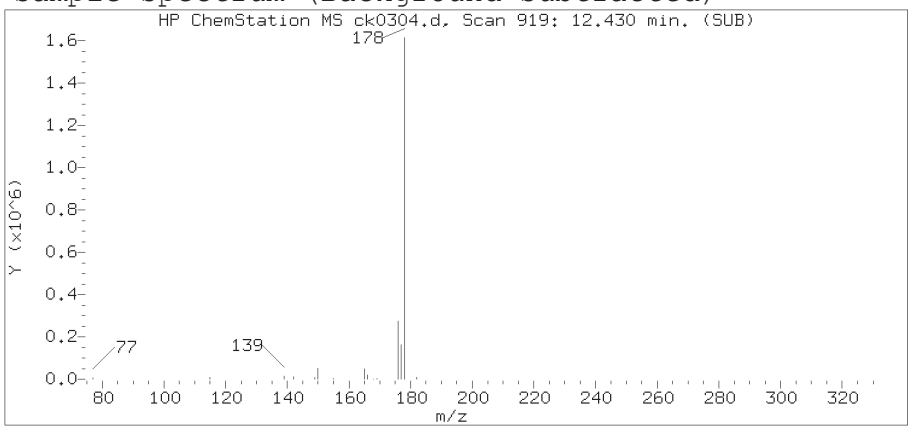
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

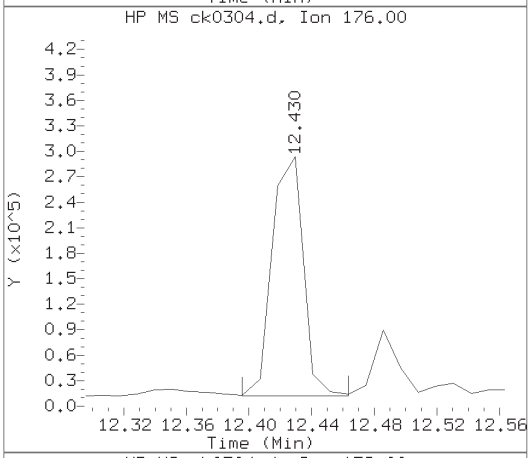
Reference Standard Spectrum for Phenanthrene



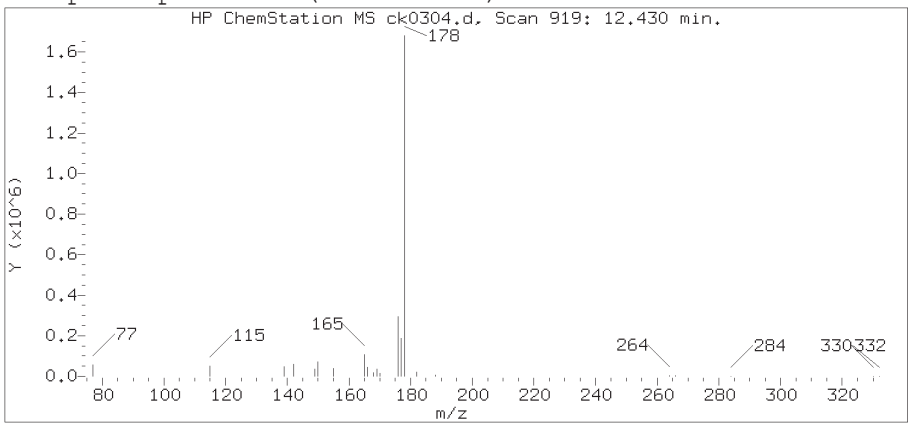


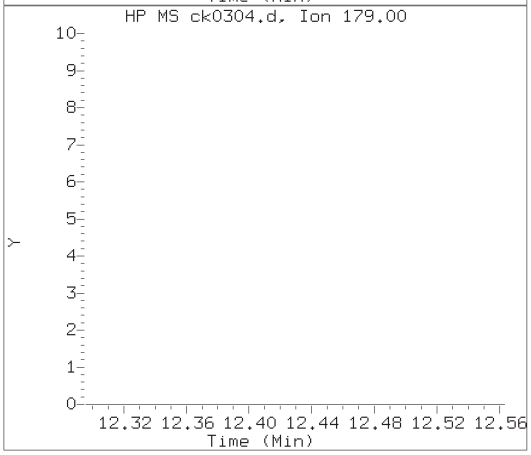
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

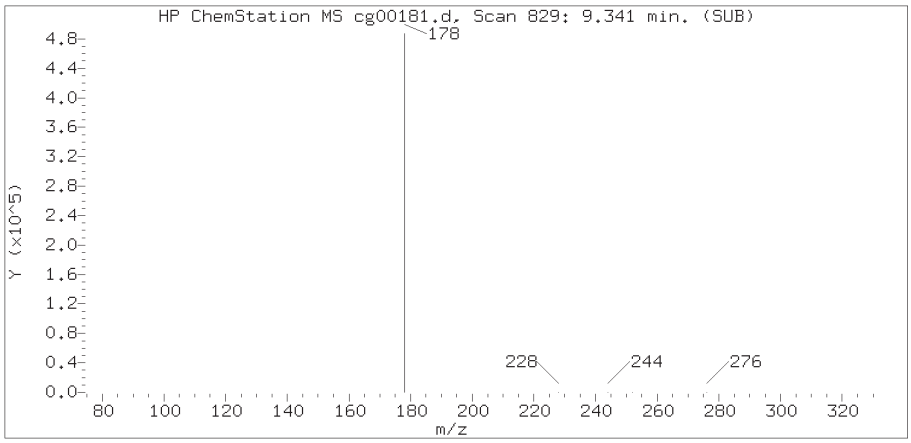
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

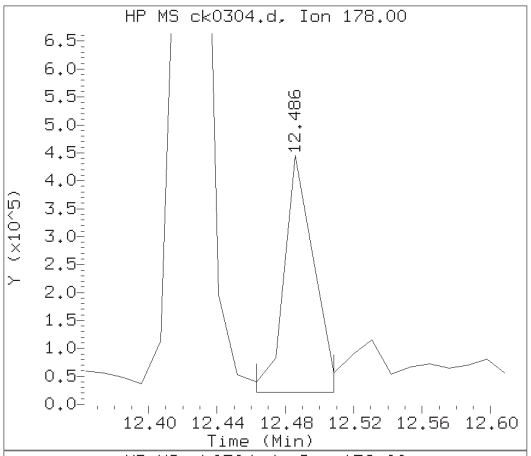
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 919
Retention Time (minutes)	: 12.430
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 2132226
On-column Amount (ng/ul)	: 9.6114

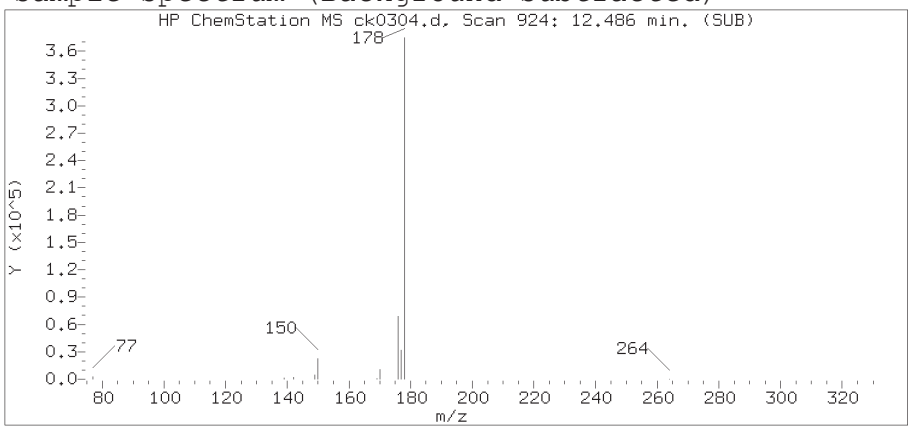
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

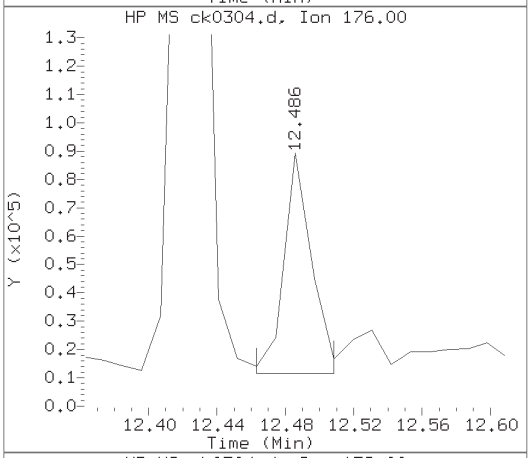
Reference Standard Spectrum for Anthracene



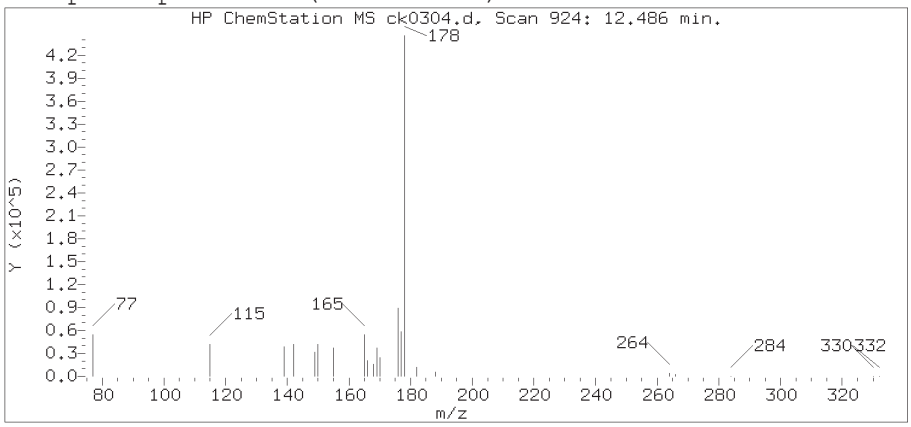


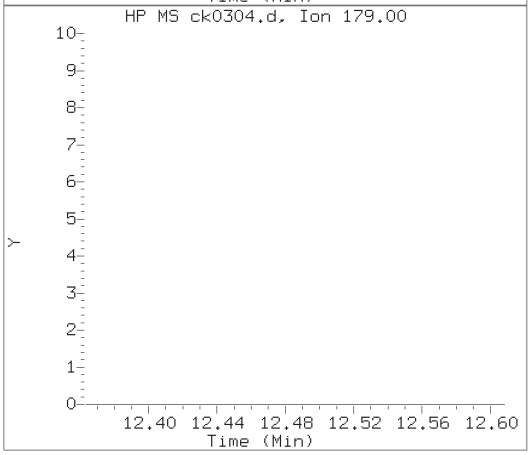
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

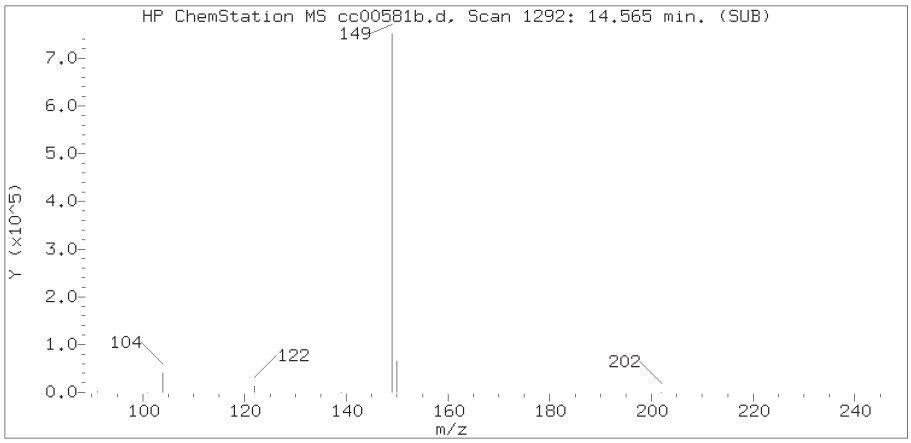
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

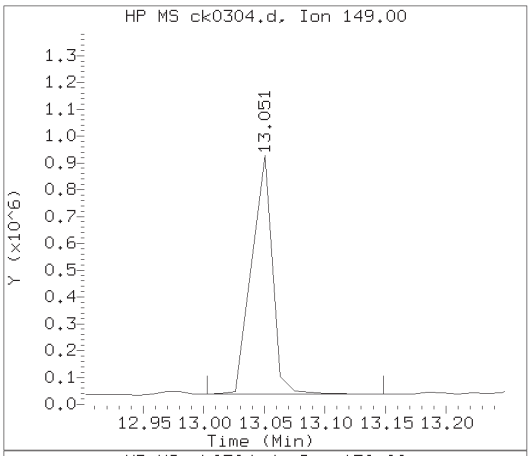
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 499805
On-column Amount (ng/ul)	: 2.3429

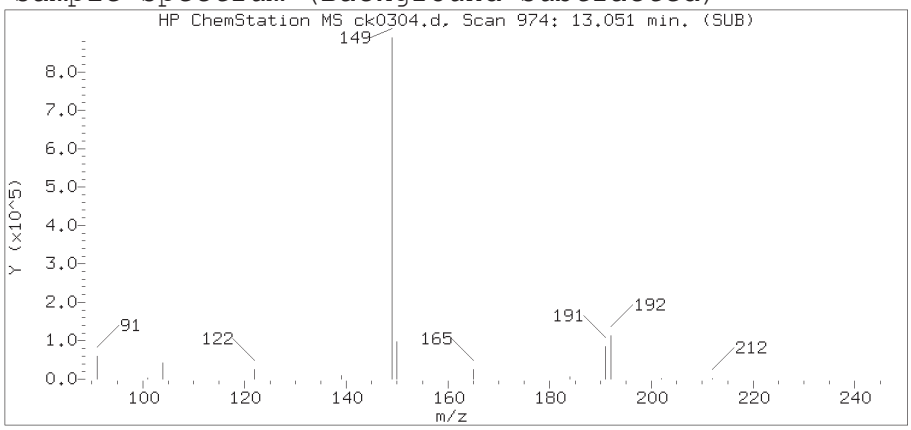
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

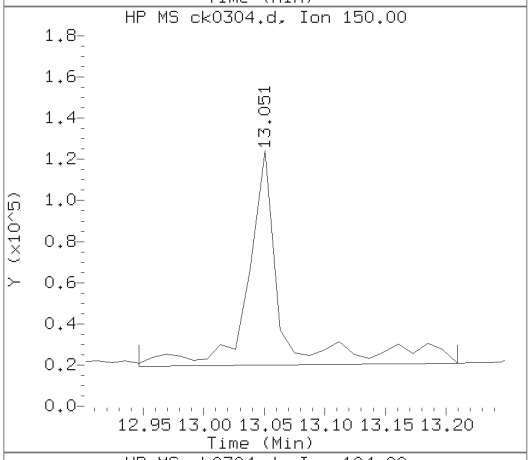
Reference Standard Spectrum for Di-n-butylphthalate



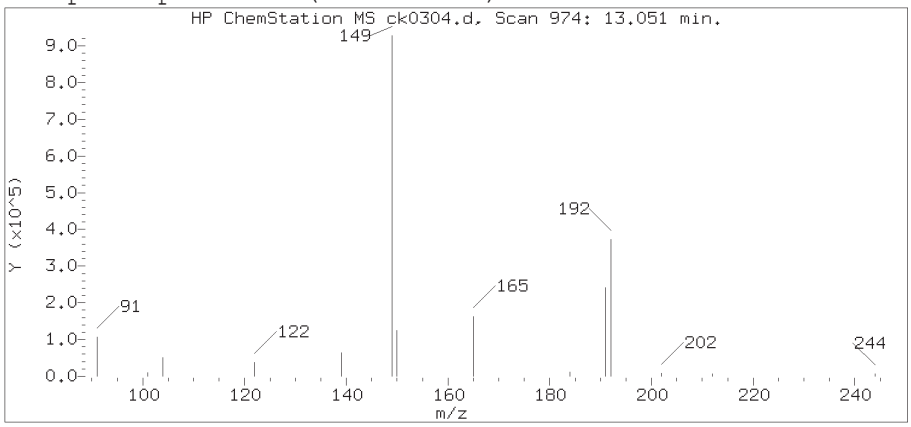


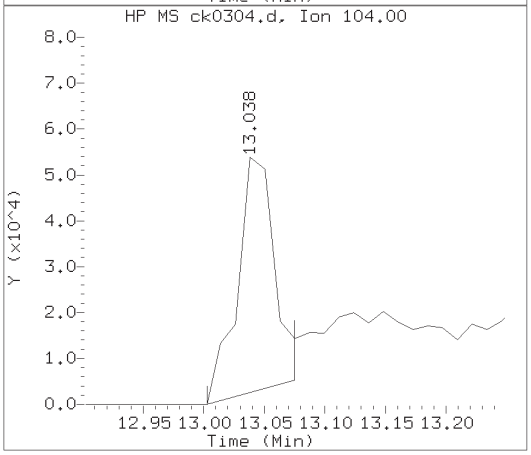
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

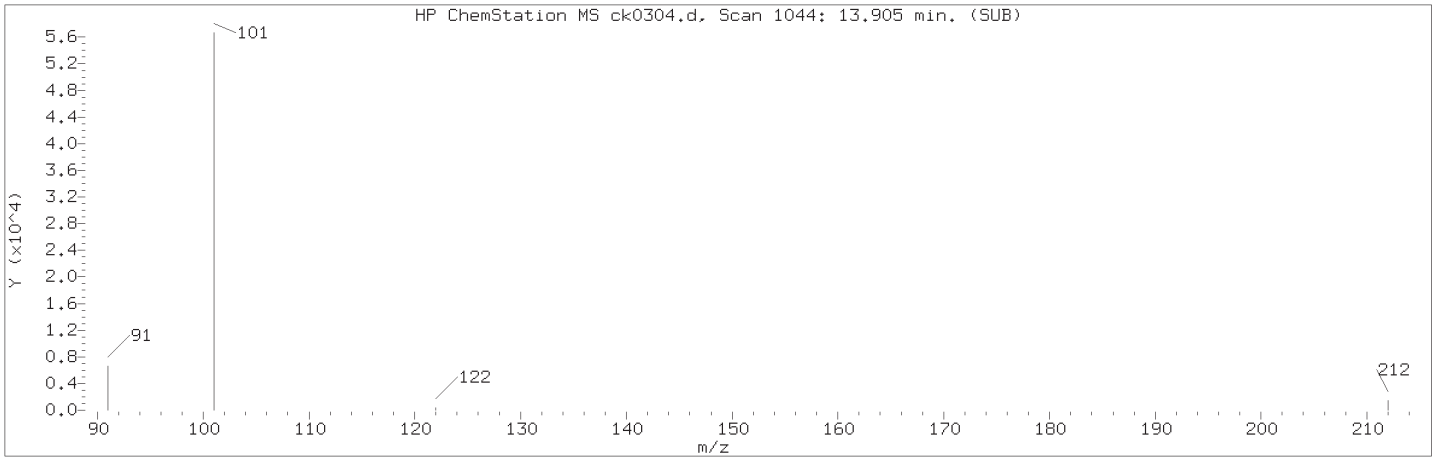
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

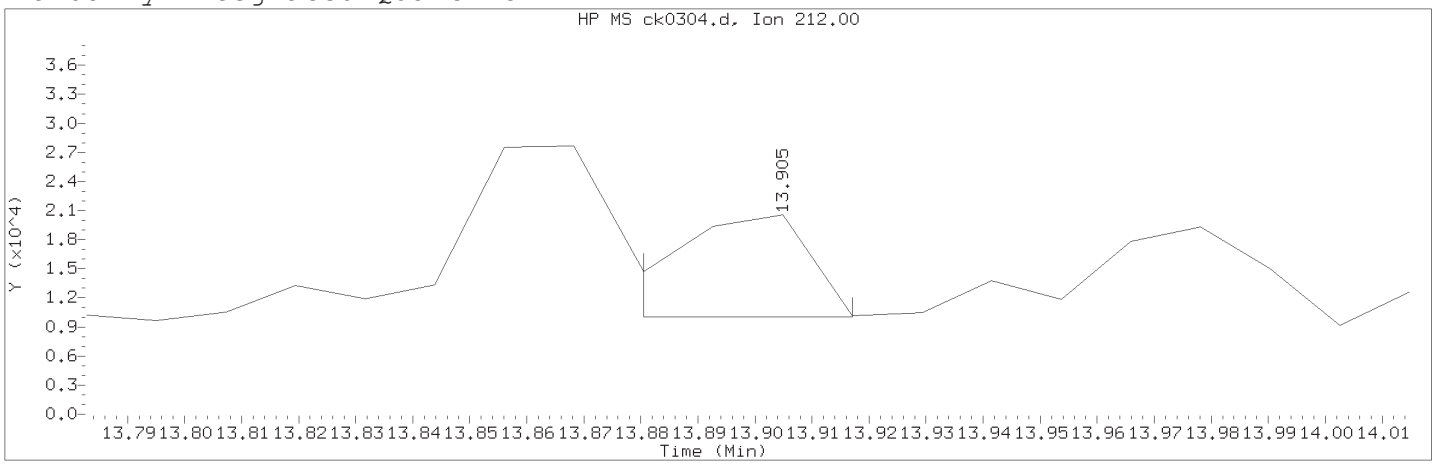
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 974
Retention Time (minutes)	: 13.051
Relative Retention Time	: 0.00005
Quant Ion	: 149.00
Area (flag)	: 1013441
On-column Amount (ng/ul)	: 4.2649

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

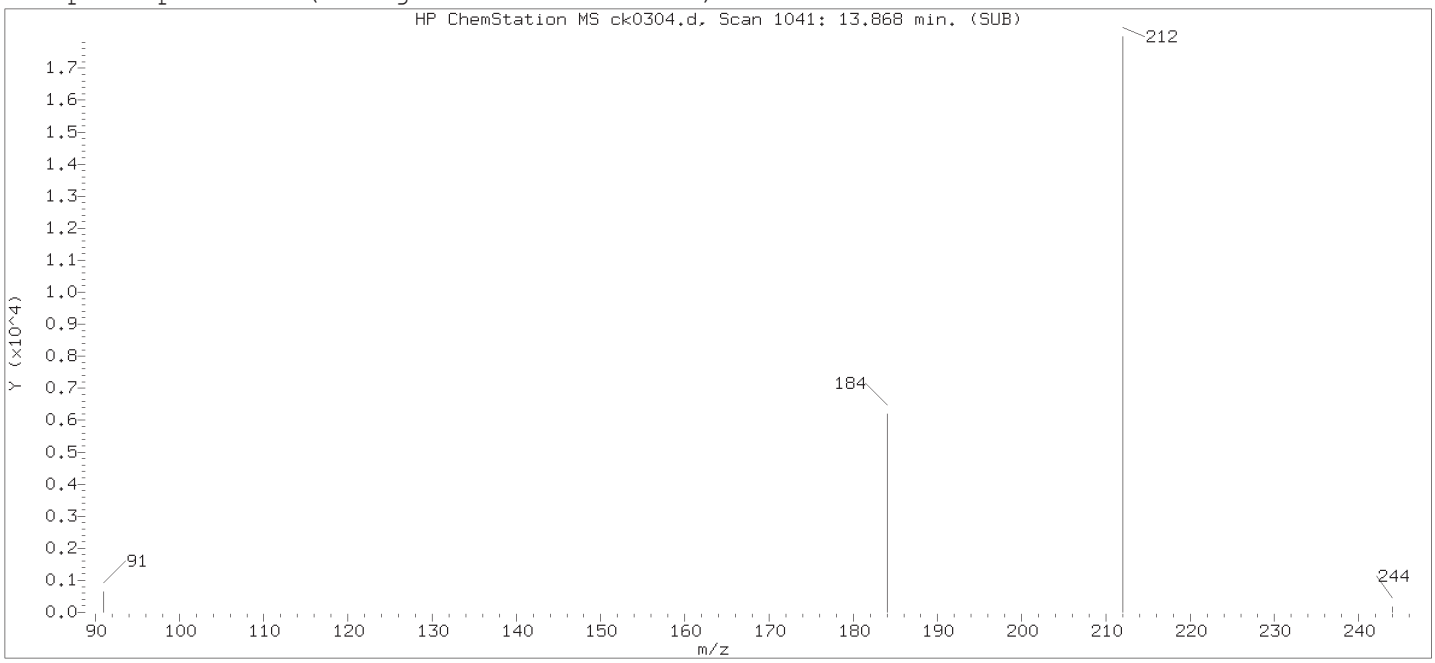
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1044
Retention Time (minutes) : 13.905
Quant Ion : 212.00
Area (flag) : 17978M
On-column Amount (ng/ul) : 0.1066
Integration start scan : 1041 Integration stop scan: 1044
Y at integration start : 10058 Y at integration end: 10058

Reason for manual integration: improper integration

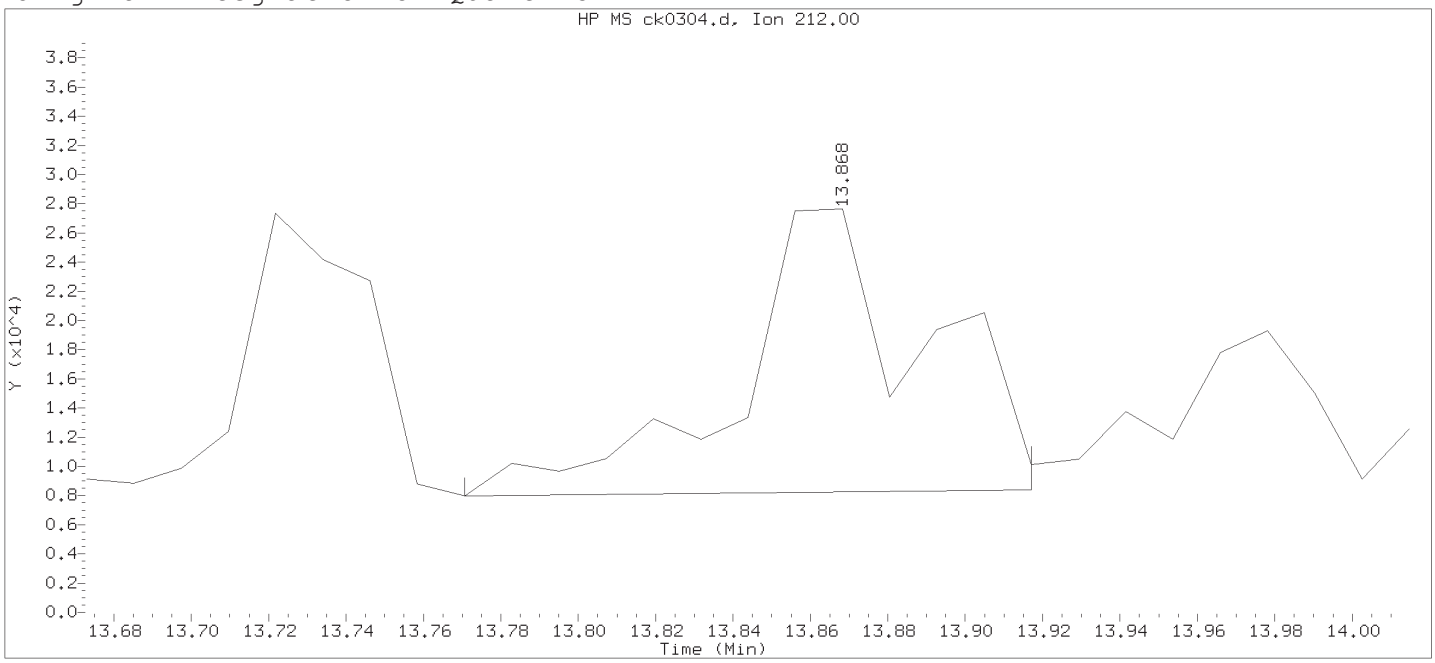
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

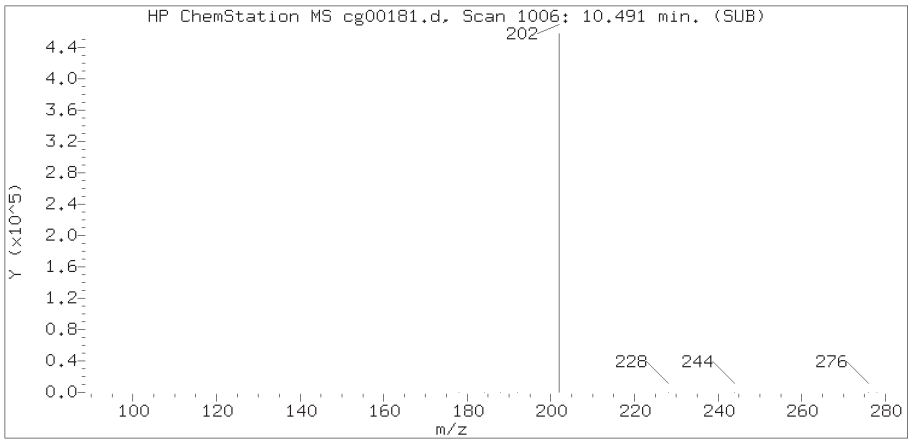
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

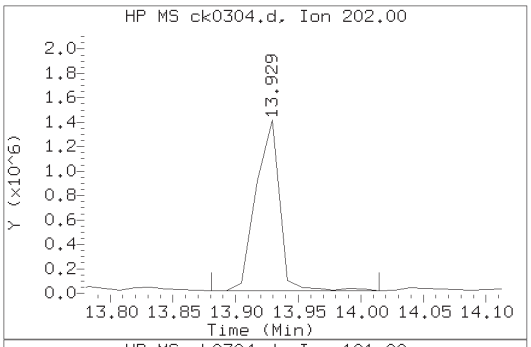
Sample Name: 12T04 Lab Sample ID: 9872062

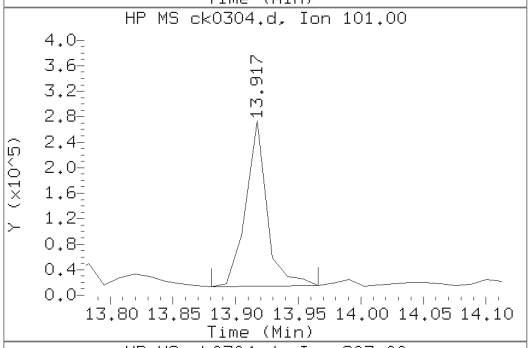
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1041		
Retention Time (minutes)	: 13.868		
Quant Ion	: 212.00		
Area	: 65539		
On-column Amount (ng/ul)	: 0.3885		
Integration start scan	: 1032	Integration stop scan:	1044
Y at integration start	: 7994	Y at integration end:	8389

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

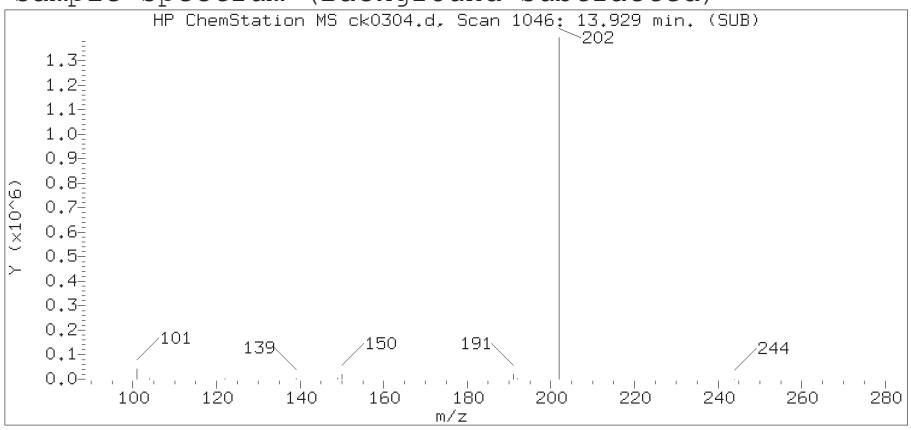
Reference Standard Spectrum for Fluoranthene

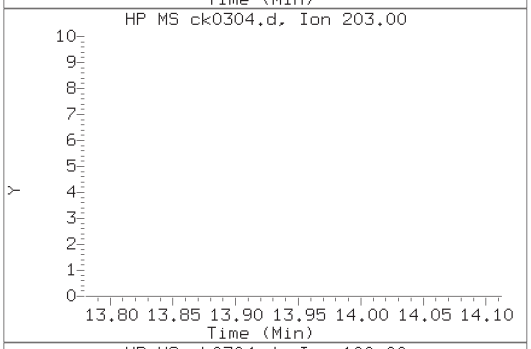




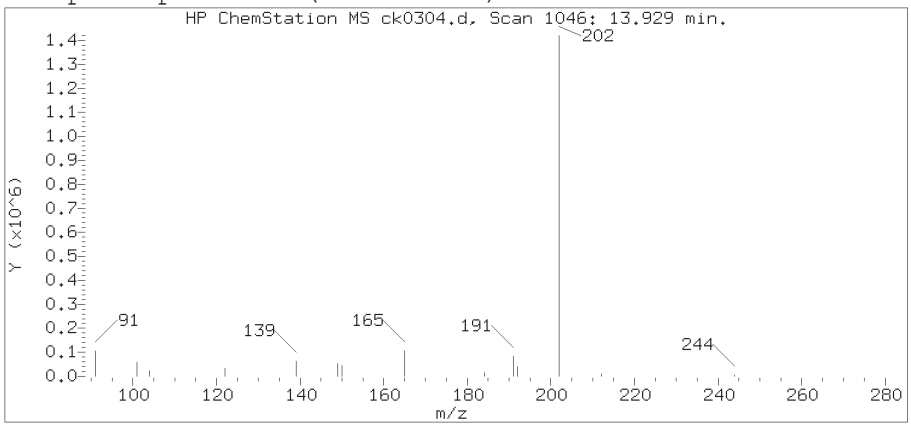


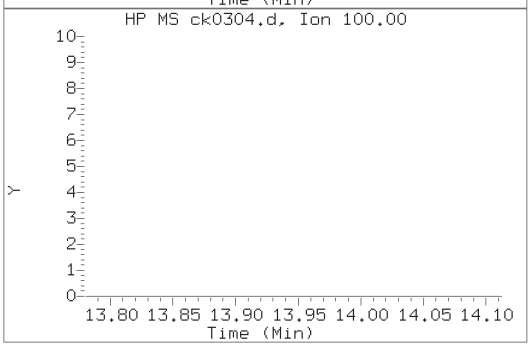
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

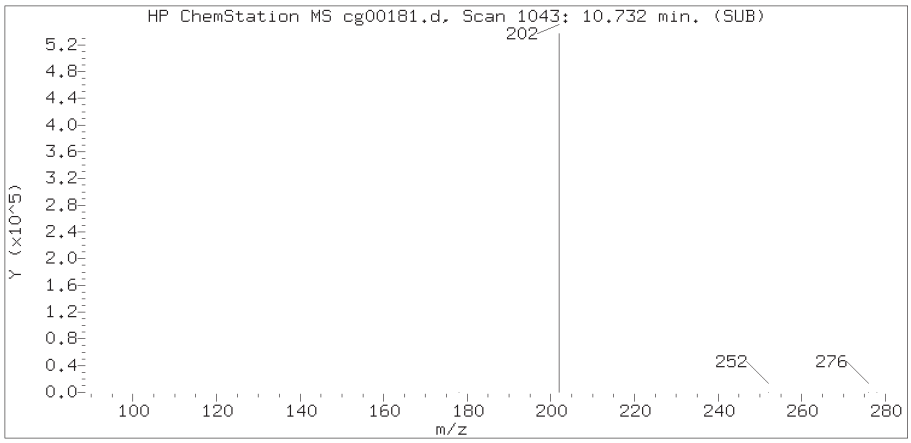
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

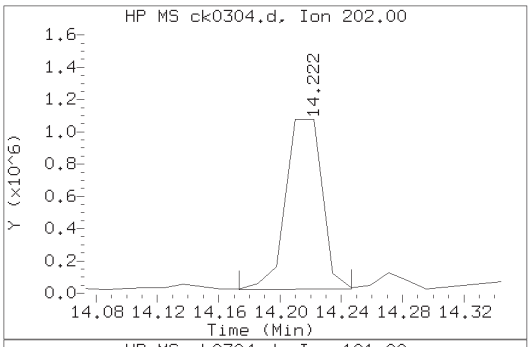
Sample Name: 12T04 Lab Sample ID: 9872062

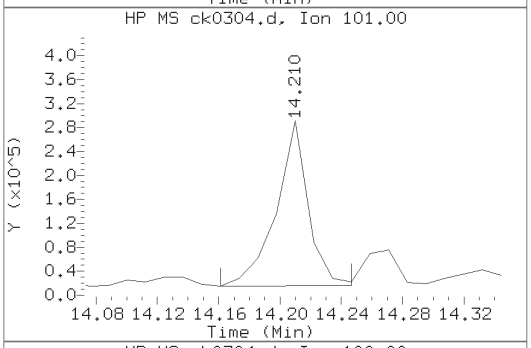
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1046
Retention Time (minutes)	: 13.929
Relative Retention Time	:-0.00087
Quant Ion	: 202.00
Area (flag)	: 1846156
On-column Amount (ng/ul)	: 8.4693

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

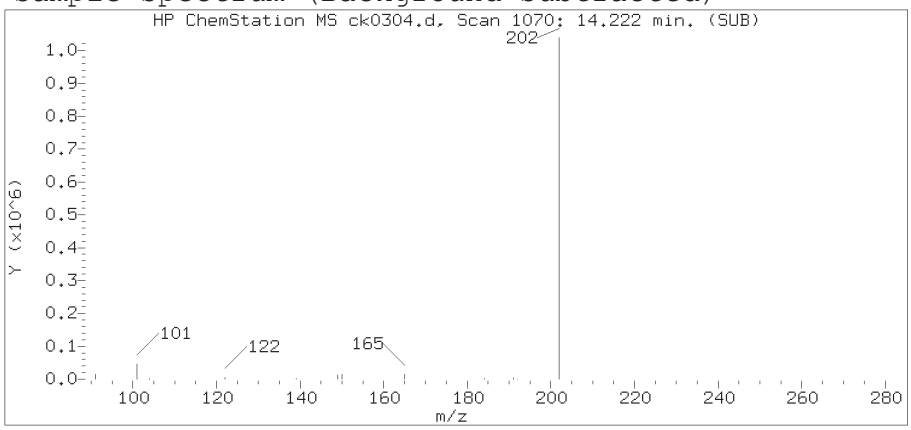
Reference Standard Spectrum for Pyrene

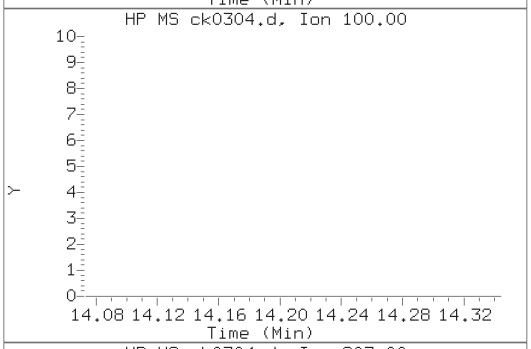




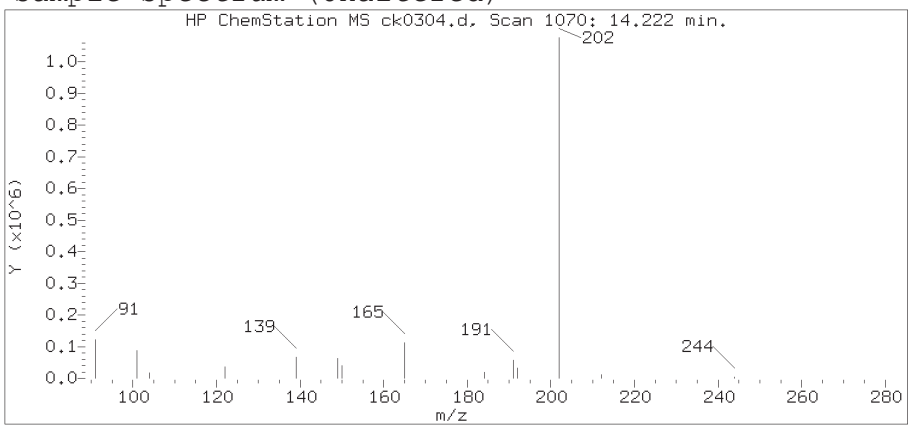


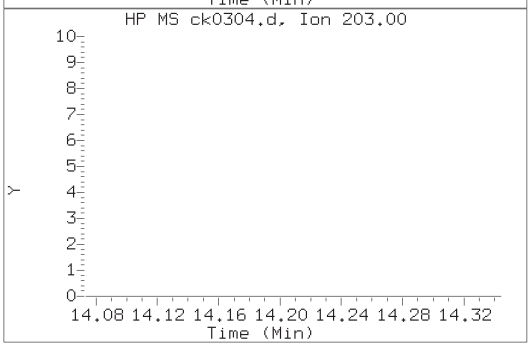
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

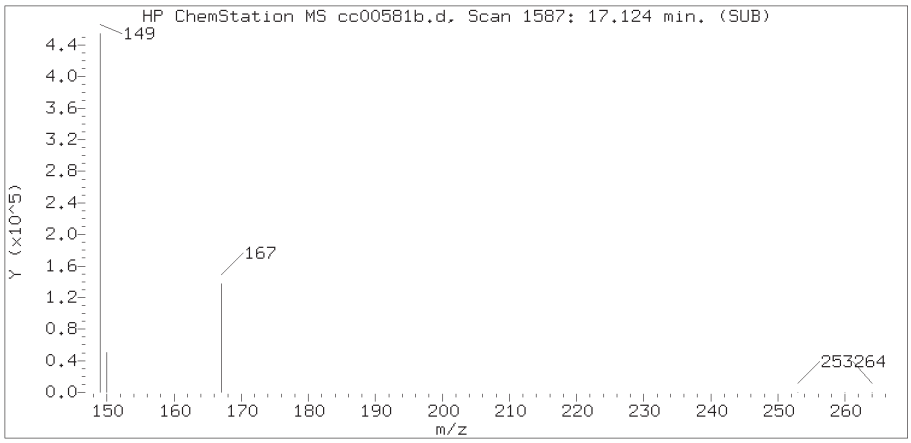
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

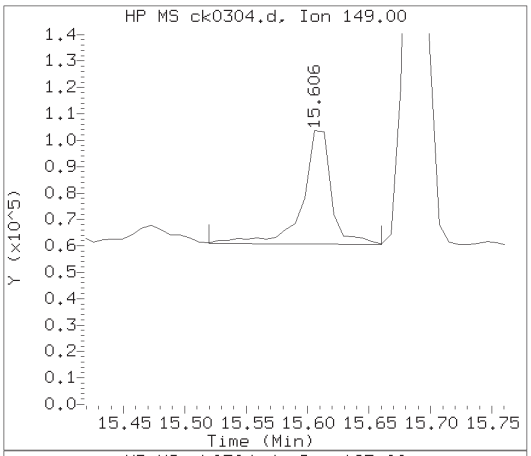
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1070
Retention Time (minutes)	: 14.222
Relative Retention Time	: 0.00025
Quant Ion	: 202.00
Area (flag)	: 1742205
On-column Amount (ng/ul)	: 7.1723

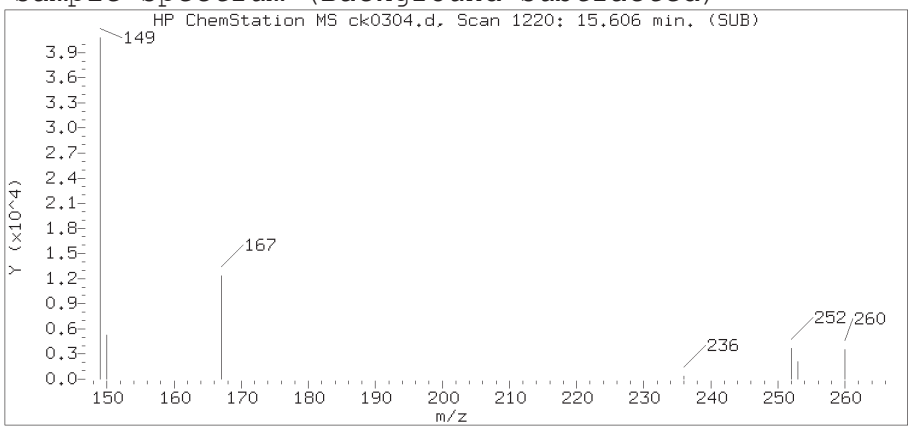
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

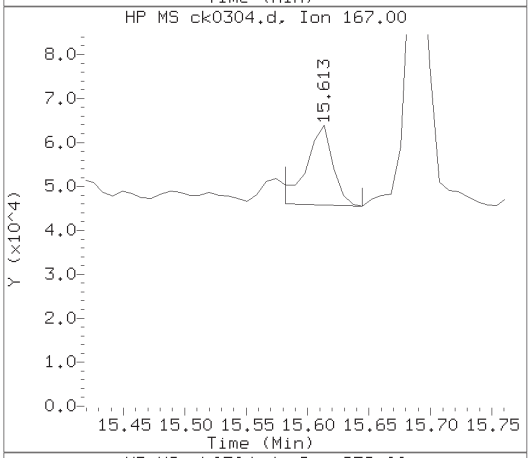
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



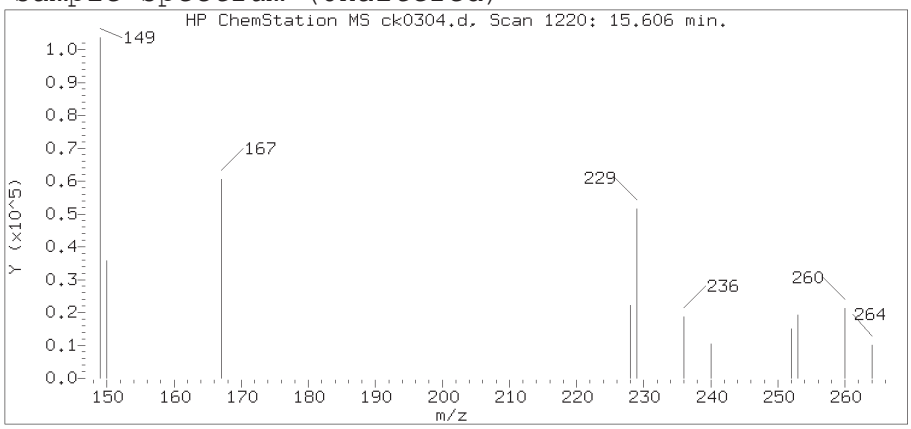


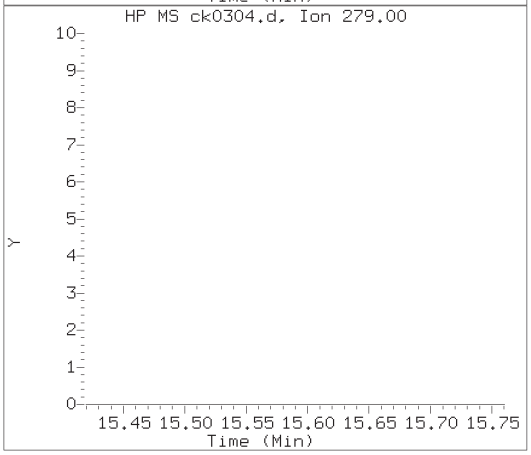
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

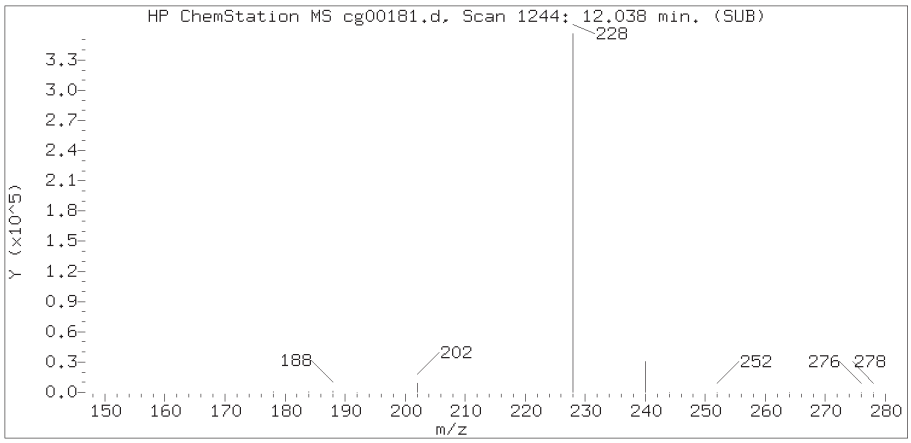
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

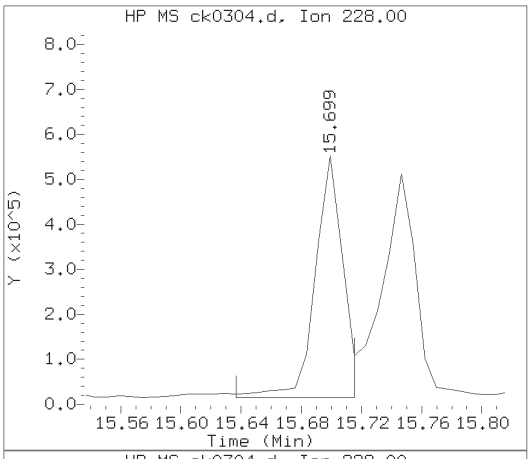
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1220
Retention Time (minutes)	: 15.606
Relative Retention Time	: 0.00098
Quant Ion	: 149.00
Area (flag)	: 69940
On-column Amount (ng/ul)	: 0.5149

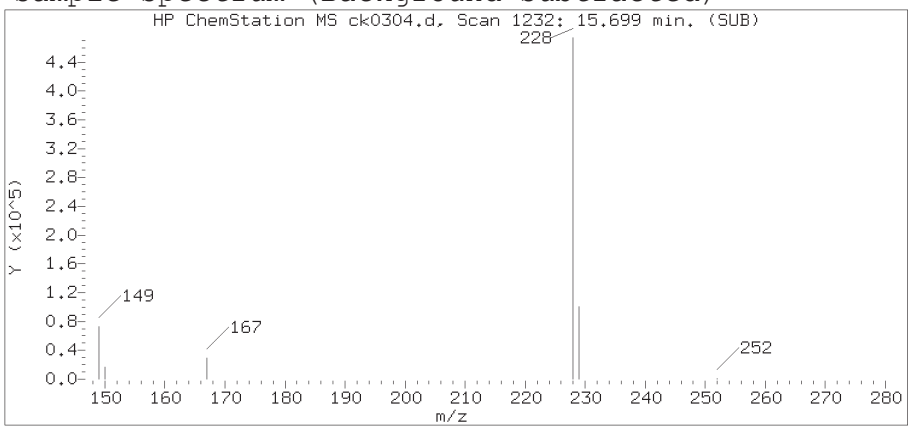
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

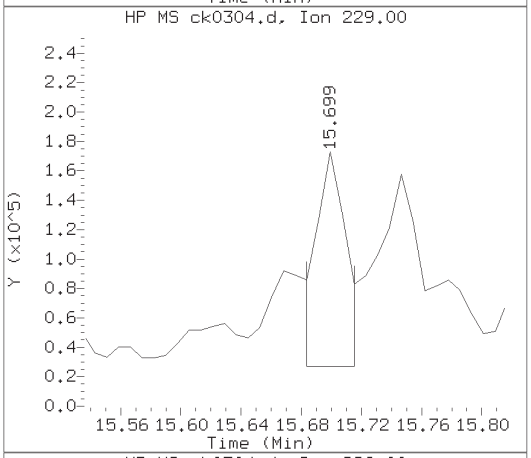
Reference Standard Spectrum for Benzo(a)anthracene



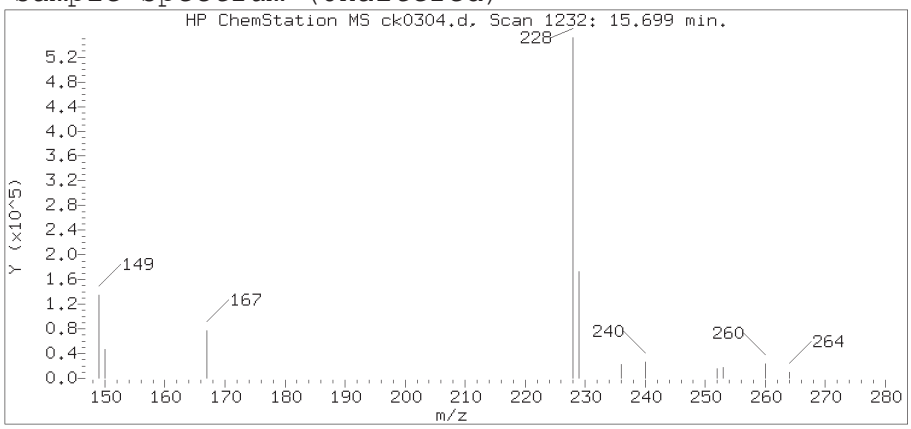


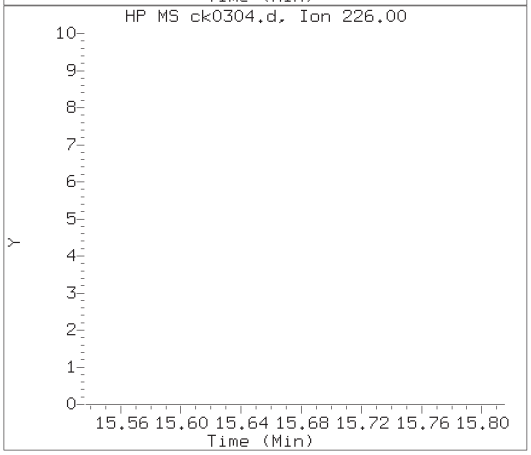
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

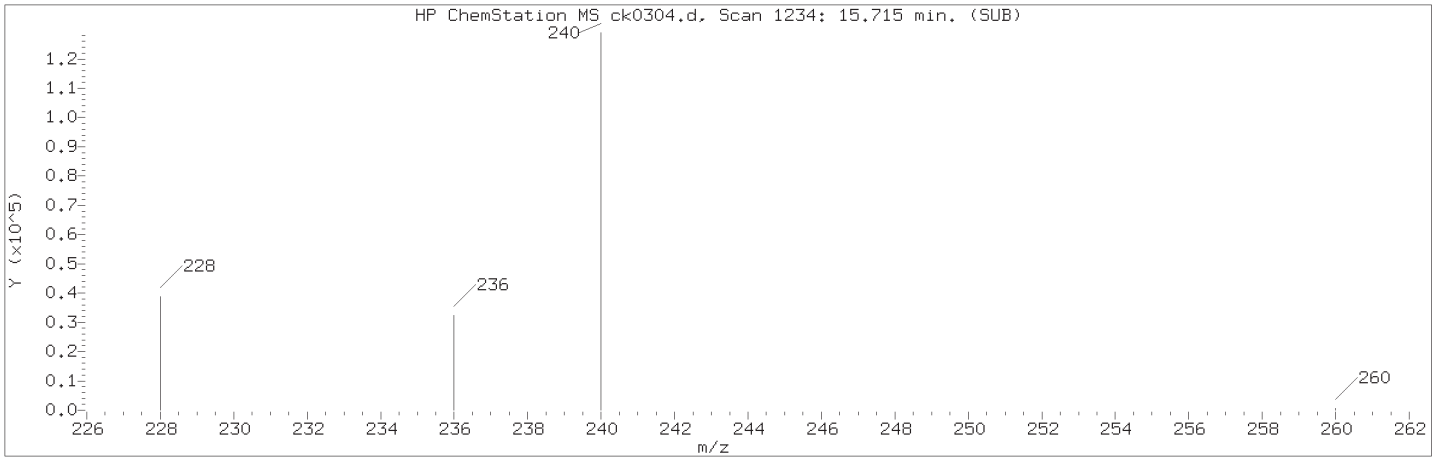
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

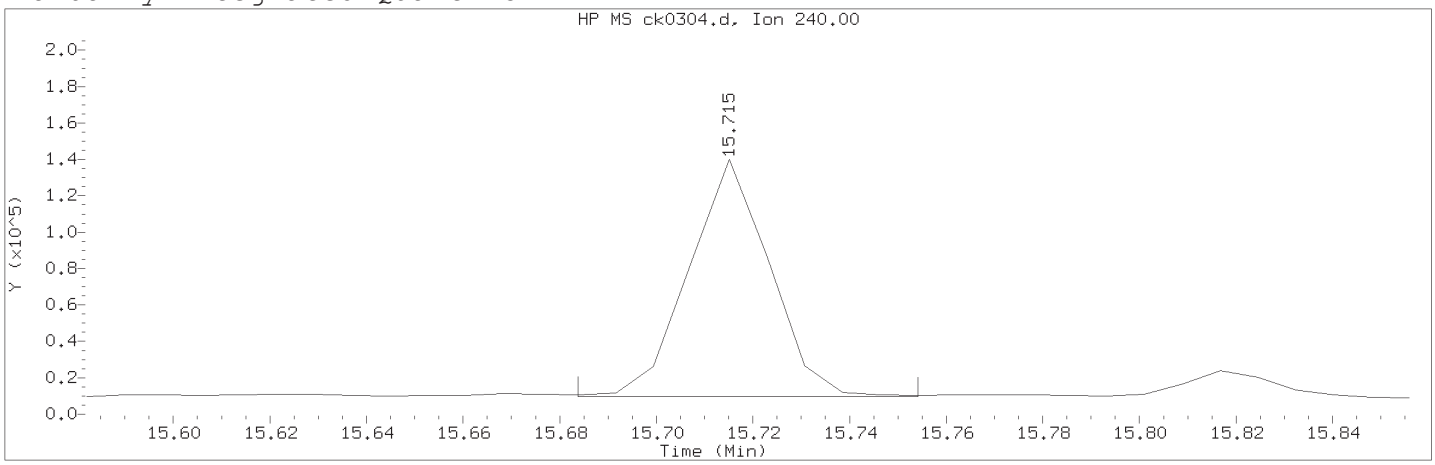
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1232
Retention Time (minutes)	: 15.699
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 669216
On-column Amount (ng/ul)	: 3.4214

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

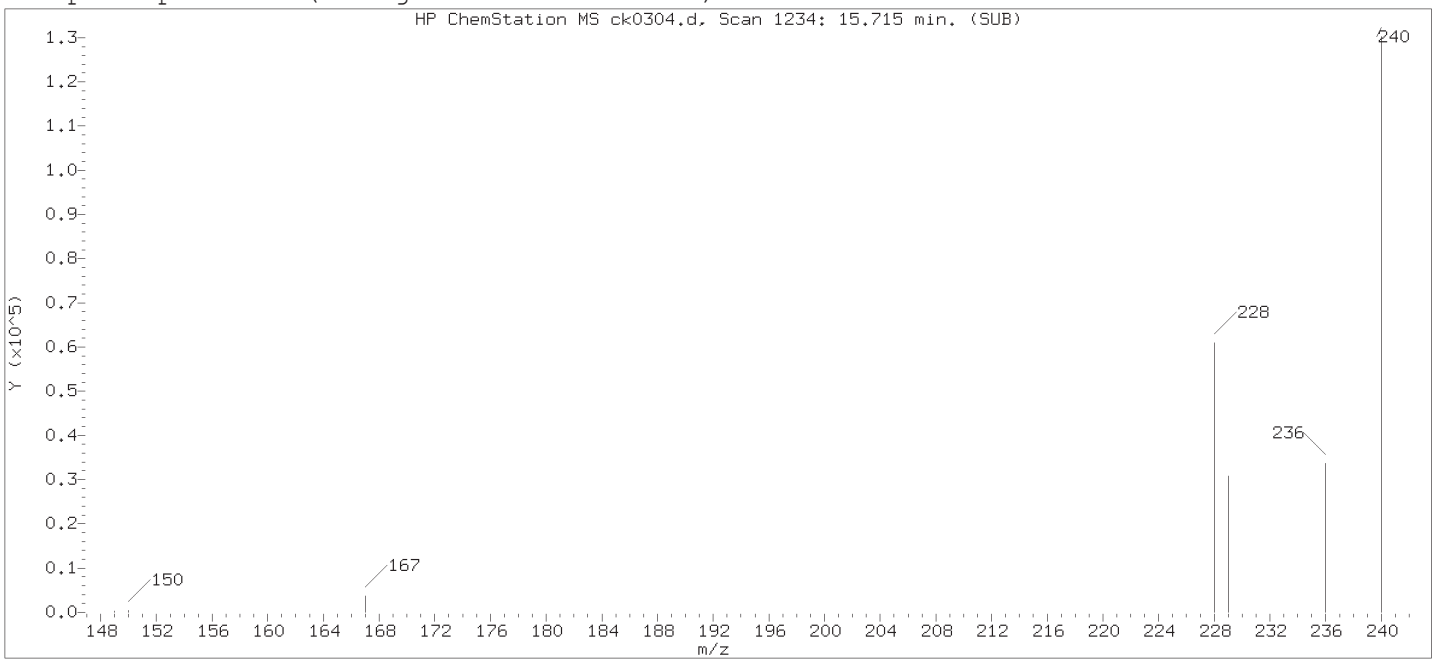
Compound Number : 43
Compound Name : Chrysene-d12
Scan Number : 1234
Retention Time (minutes) : 15.715
Quant Ion : 240.00
Area (flag) : 150922M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1229 Integration stop scan: 1238
Y at integration start : 9708 Y at integration end: 9708

Reason for manual integration: improper integration

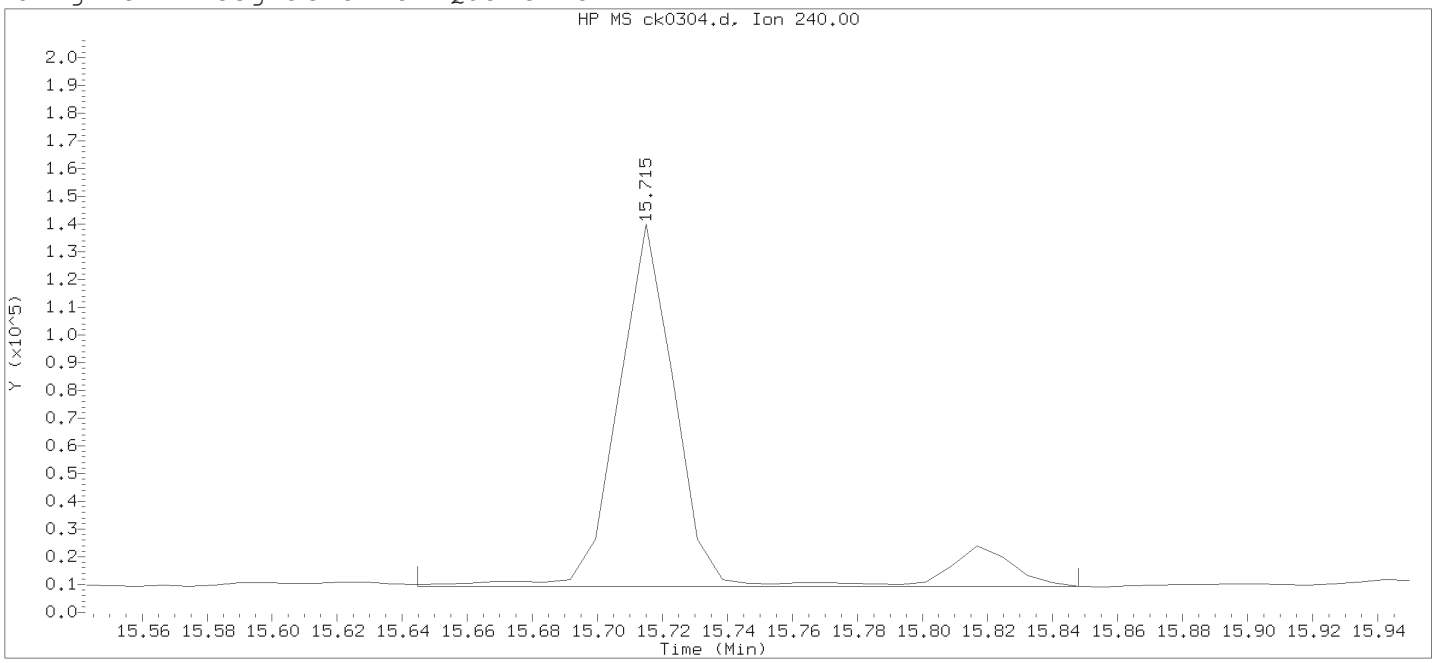
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

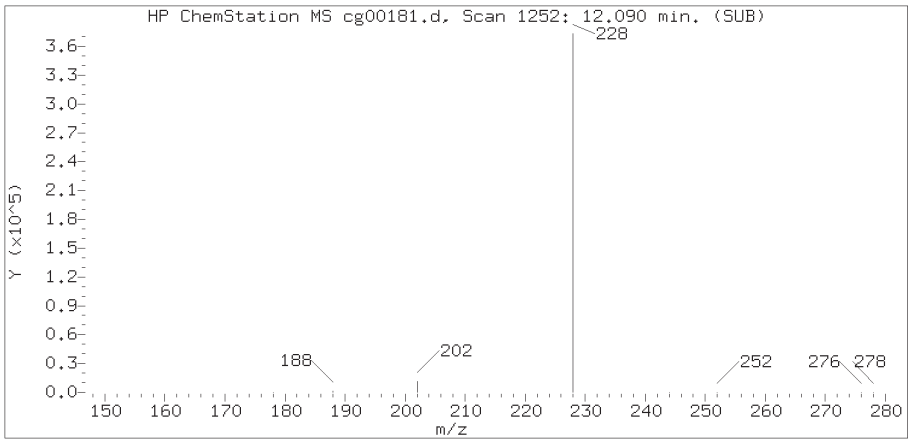
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

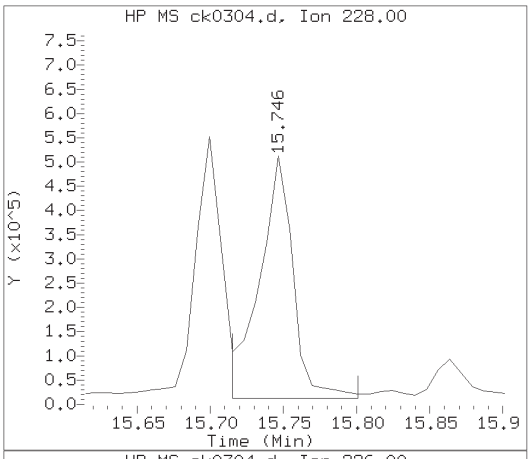
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 43		
Compound Name	: Chrysene-d12		
Scan Number	: 1234		
Retention Time (minutes)	: 15.715		
Quant Ion	: 240.00		
Area	: 175439		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1224	Integration stop scan:	1250
Y at integration start	: 9414	Y at integration end:	9427

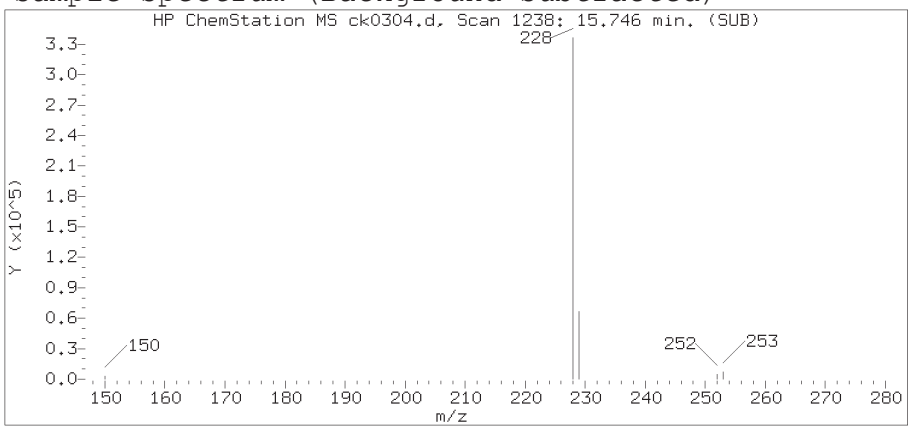
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018

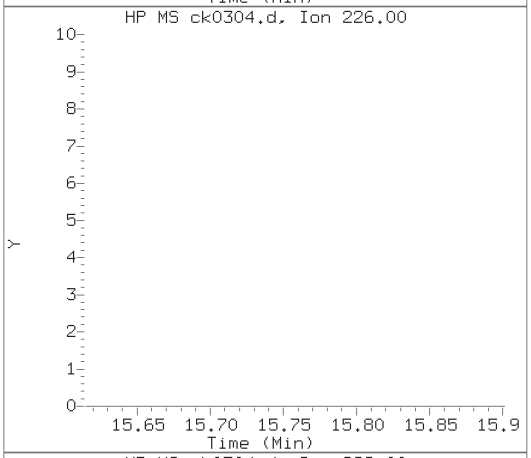
Reference Standard Spectrum for Chrysene



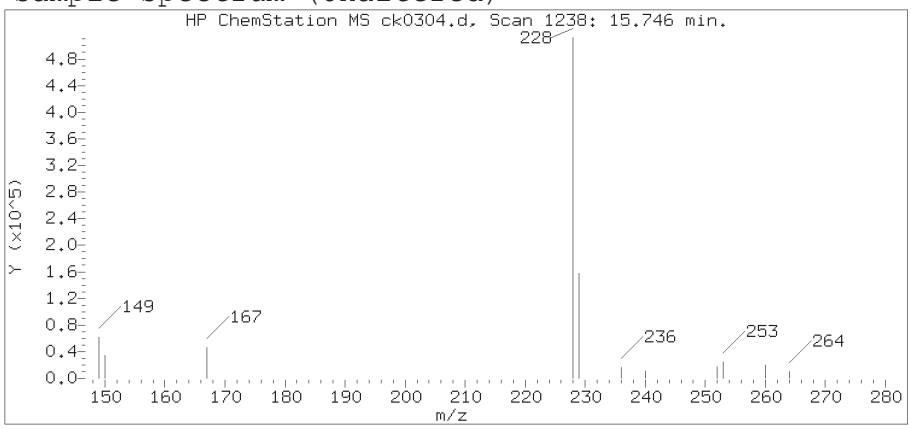


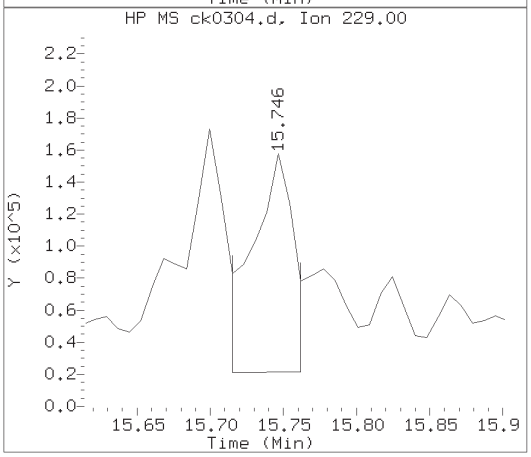
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

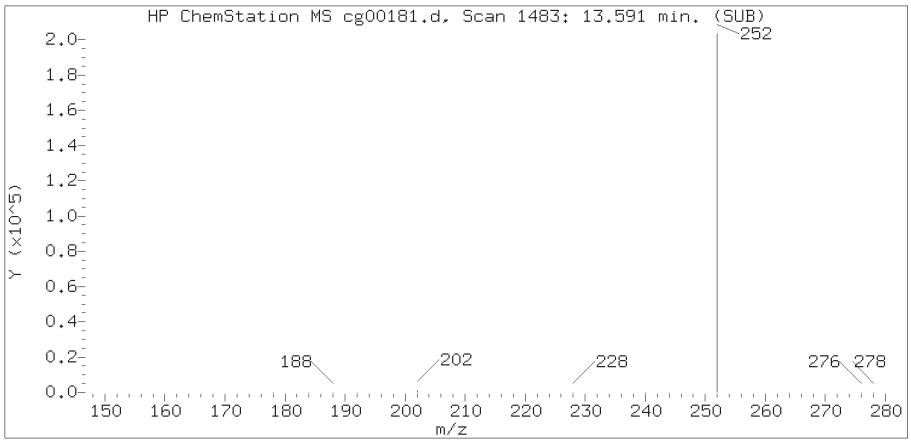
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

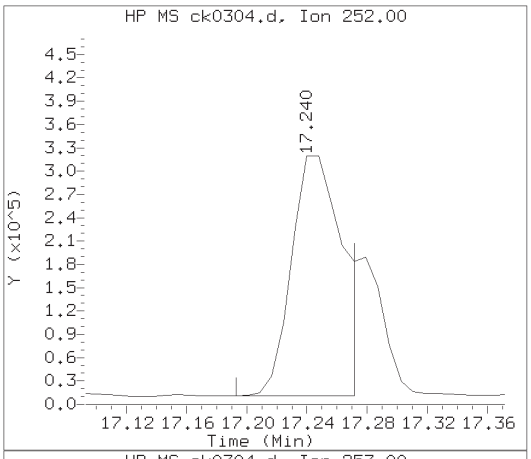
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1238
Retention Time (minutes)	: 15.746
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 797835
On-column Amount (ng/ul)	: 3.9812

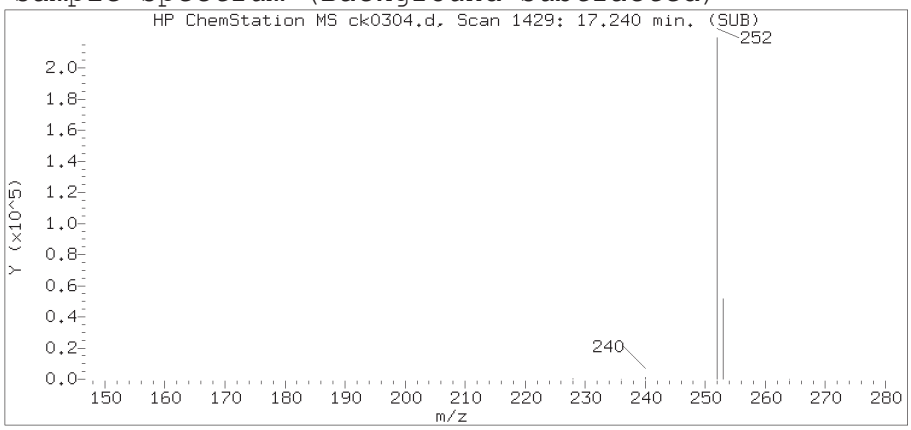
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

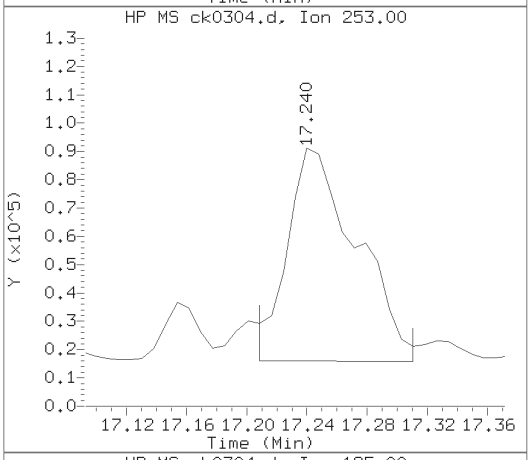
Reference Standard Spectrum for Benzo(b)fluoranthene



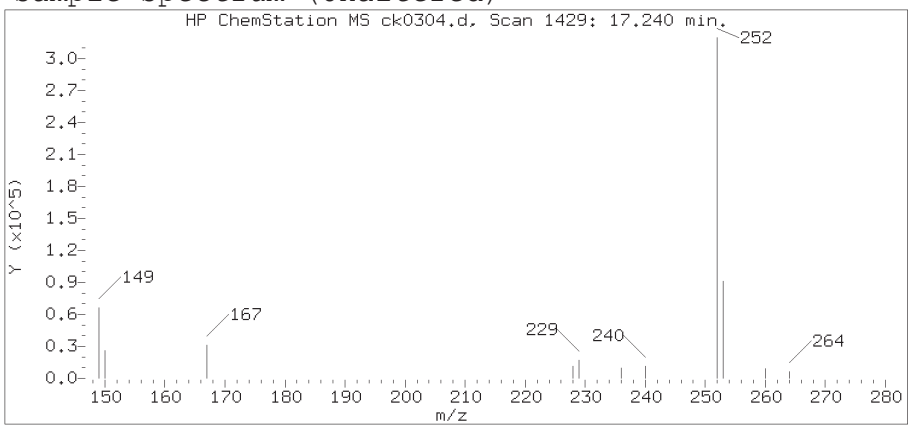


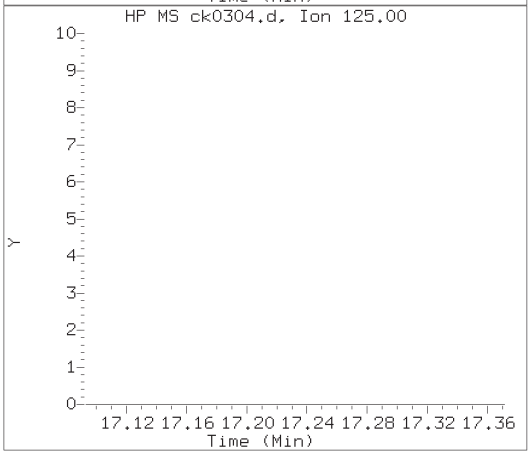
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

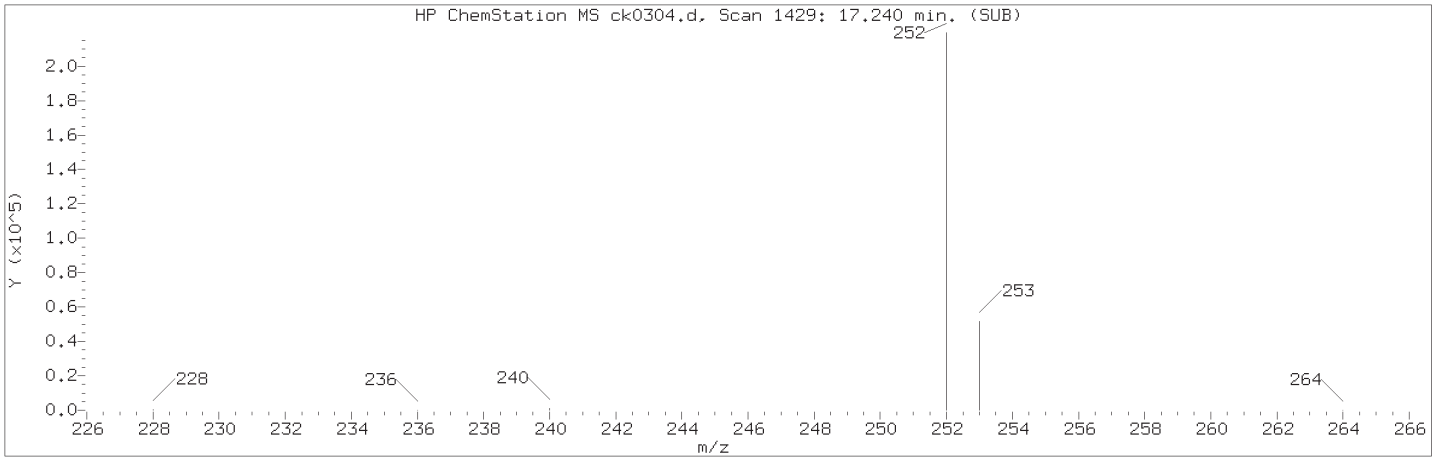
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

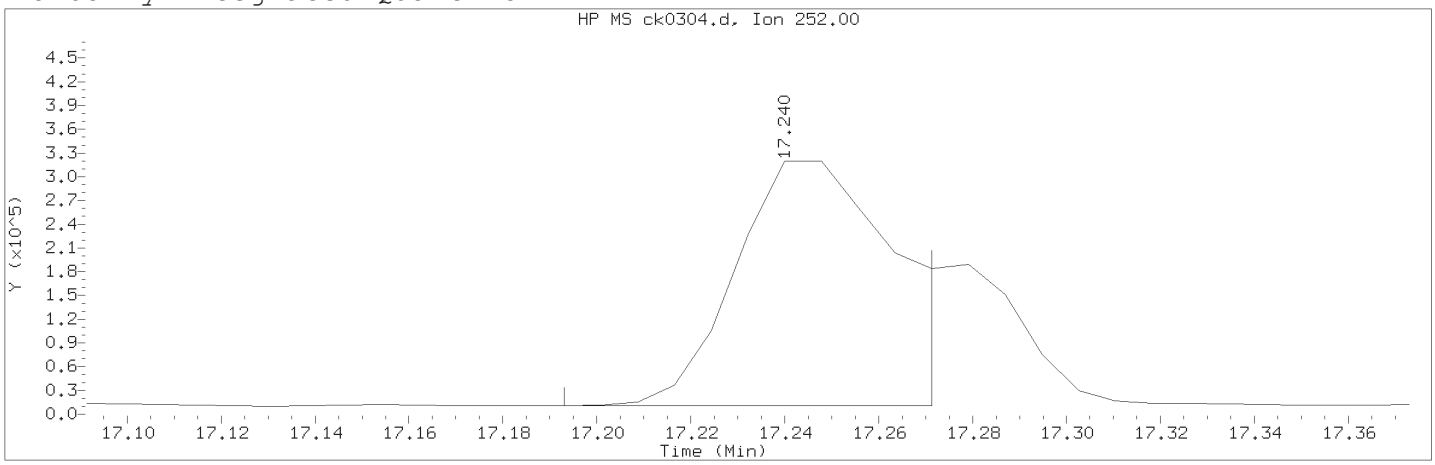
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1429
Retention Time (minutes)	: 17.240
Relative Retention Time	: 0.00035
Quant Ion	: 252.00
Area (flag)	: 738921M
On-column Amount (ng/ul)	: 3.9305

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

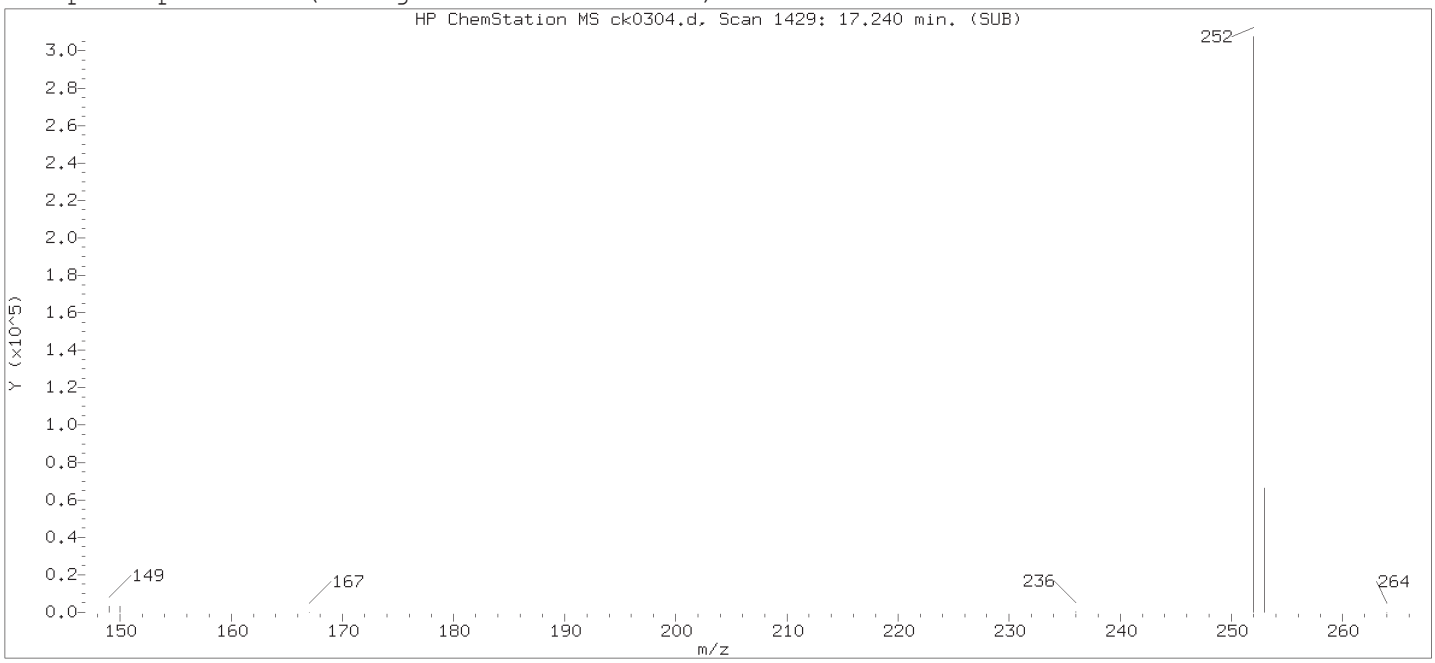
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1429
Retention Time (minutes) : 17.240
Quant Ion : 252.00
Area (flag) : 738921M
On-column Amount (ng/ul) : 3.9305
Integration start scan : 1422 Integration stop scan: 1432
Y at integration start : 10898 Y at integration end: 10898

Reason for manual integration: improper integration

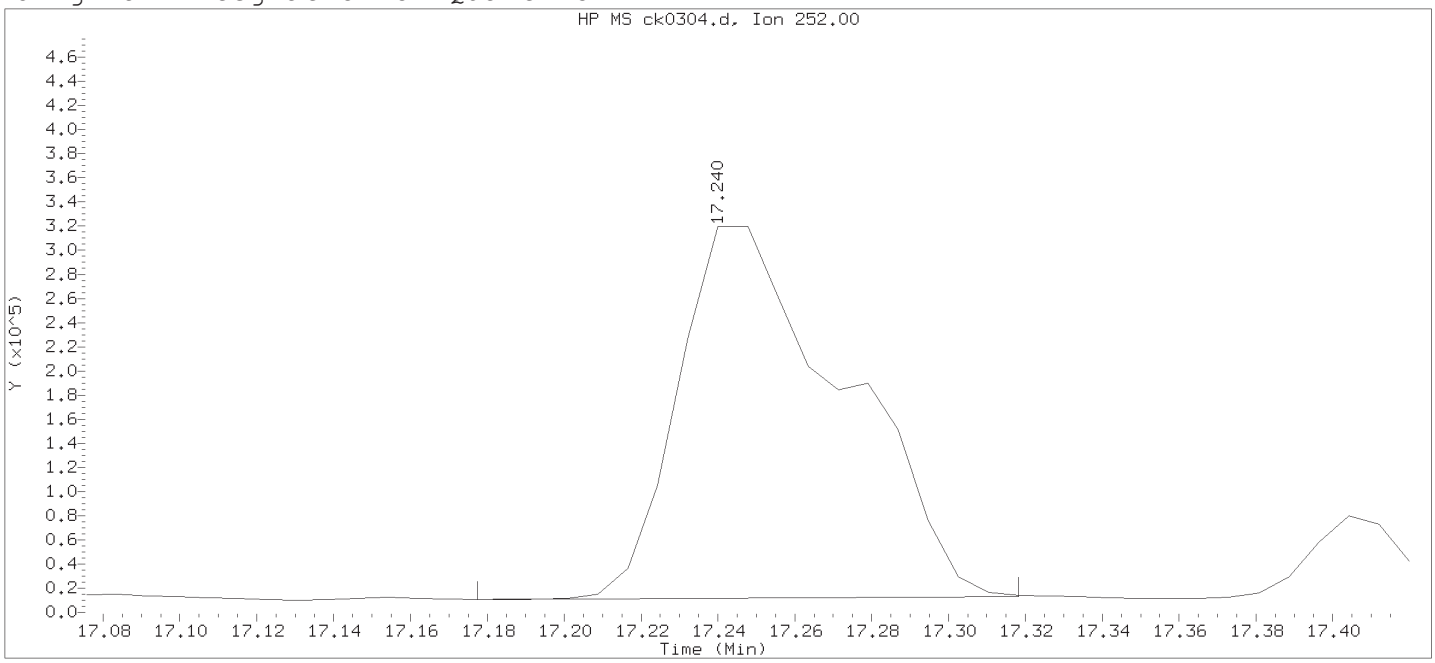
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

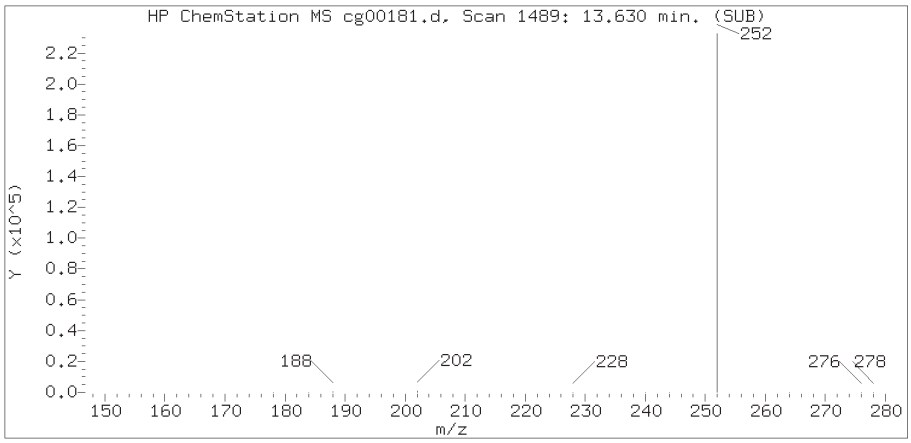
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

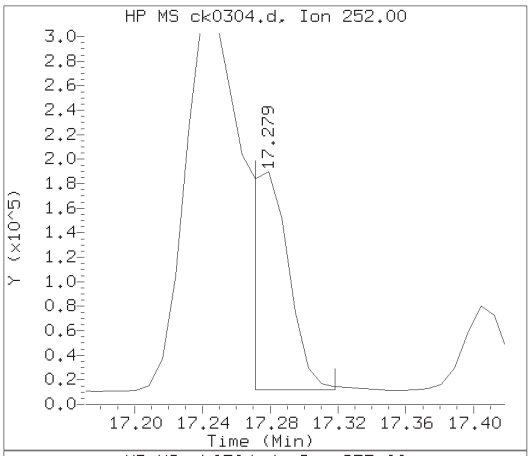
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1429
Retention Time (minutes)	: 17.240
Quant Ion	: 252.00
Area	: 924697
On-column Amount (ng/ul)	: 4.6969
Integration start scan	: 1420 Integration stop scan: 1438
Y at integration start	: 10550 Y at integration end: 12801

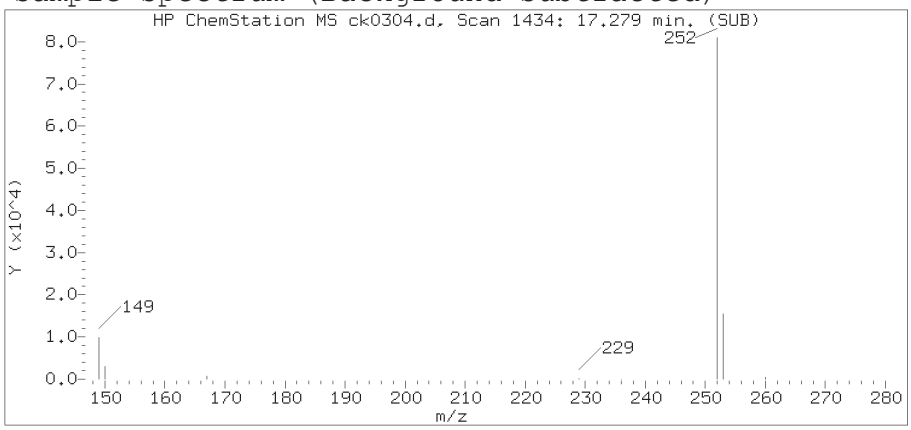
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2760

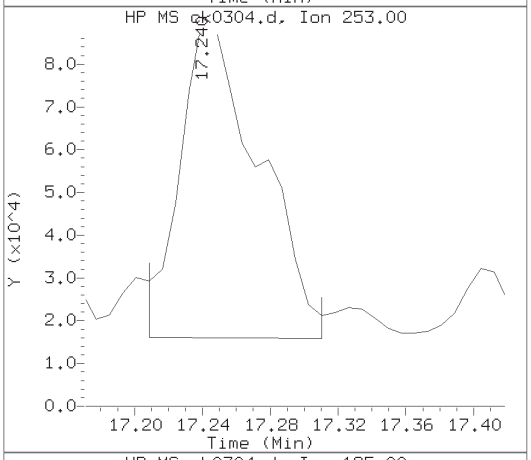
Reference Standard Spectrum for Benzo(k)fluoranthene



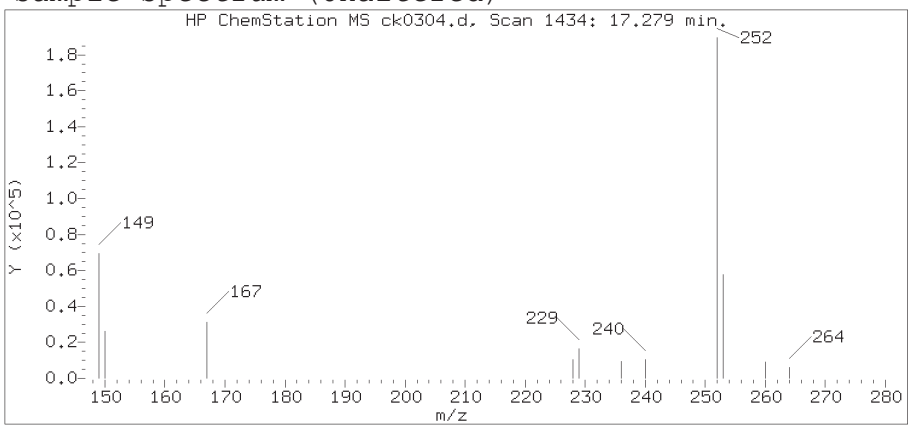


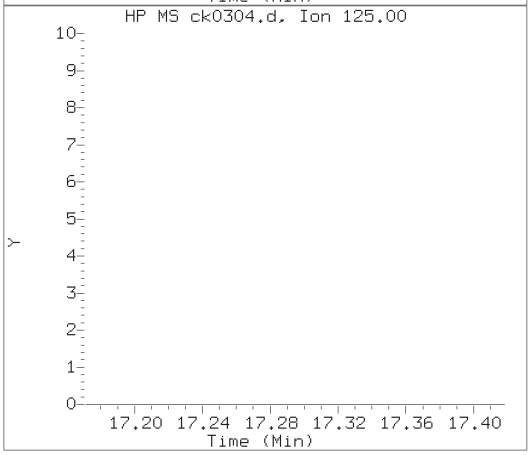
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

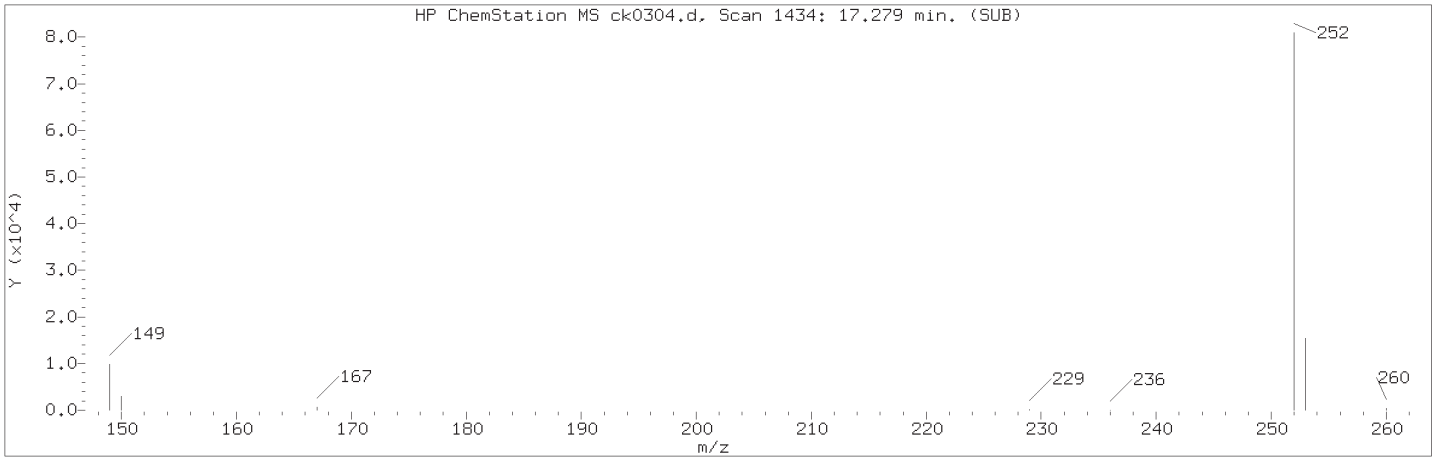
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

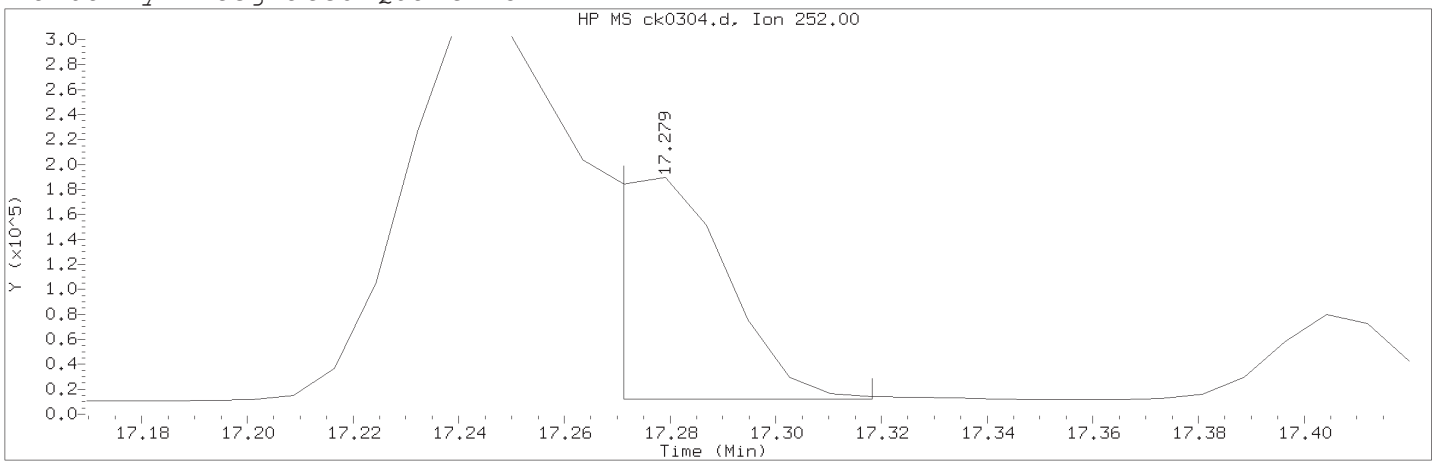
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1434
Retention Time (minutes)	: 17.279
Relative Retention Time	: 0.00035
Quant Ion	: 252.00
Area (flag)	: 271252M
On-column Amount (ng/ul)	: 1.3436

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

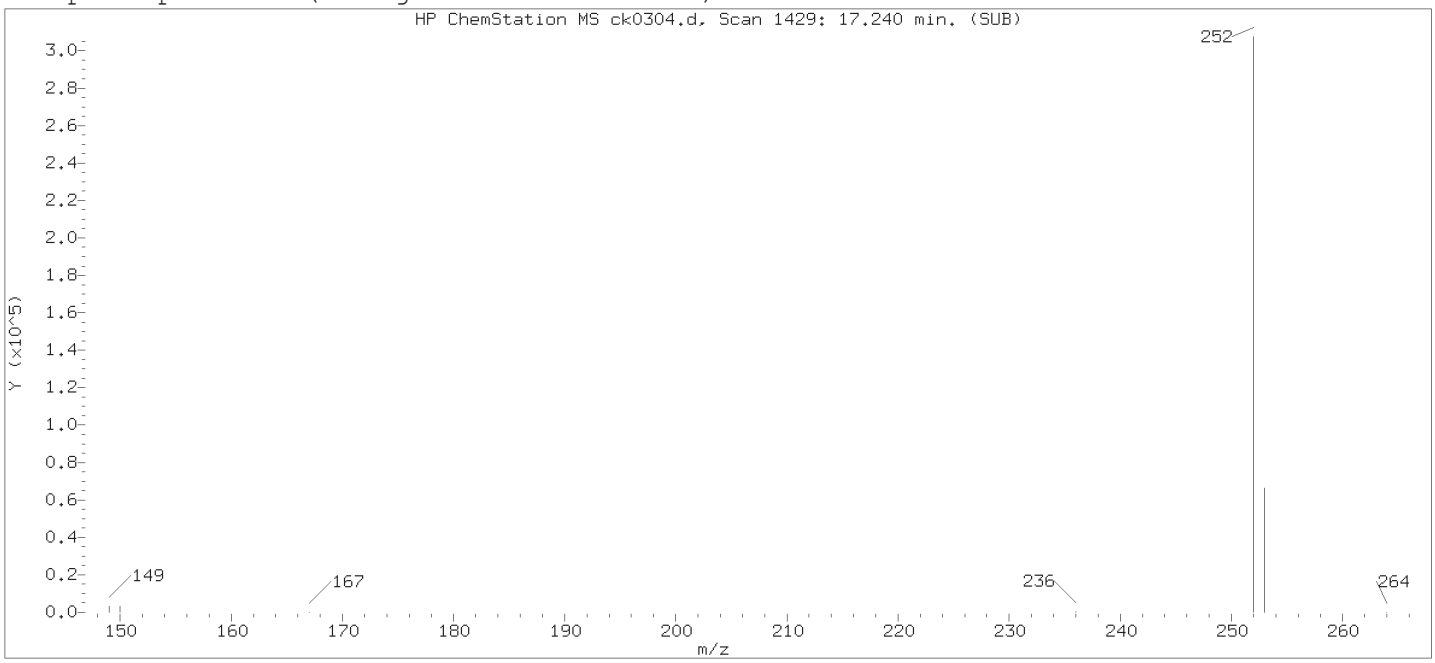
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1434
Retention Time (minutes) : 17.279
Quant Ion : 252.00
Area (flag) : 271252M
On-column Amount (ng/ul) : 1.3436
Integration start scan : 1432 Integration stop scan: 1438
Y at integration start : 11879 Y at integration end: 11879

Reason for manual integration: improper integration

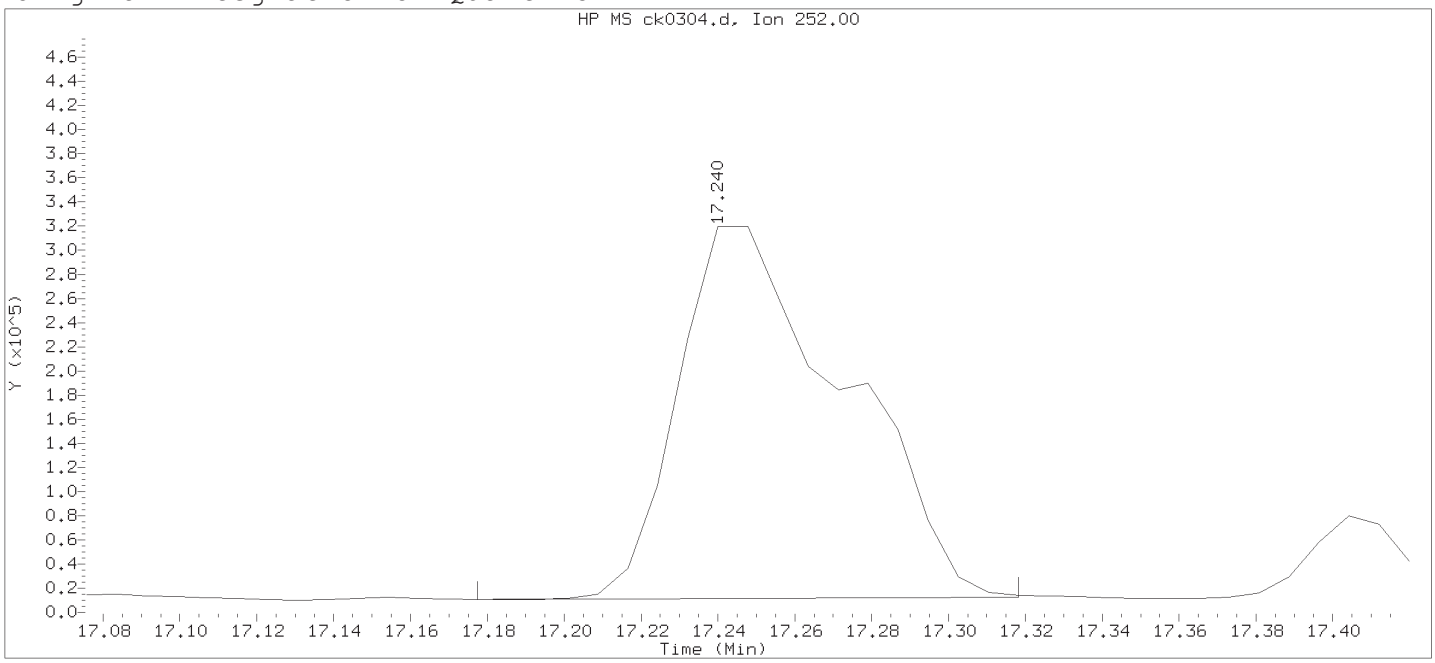
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

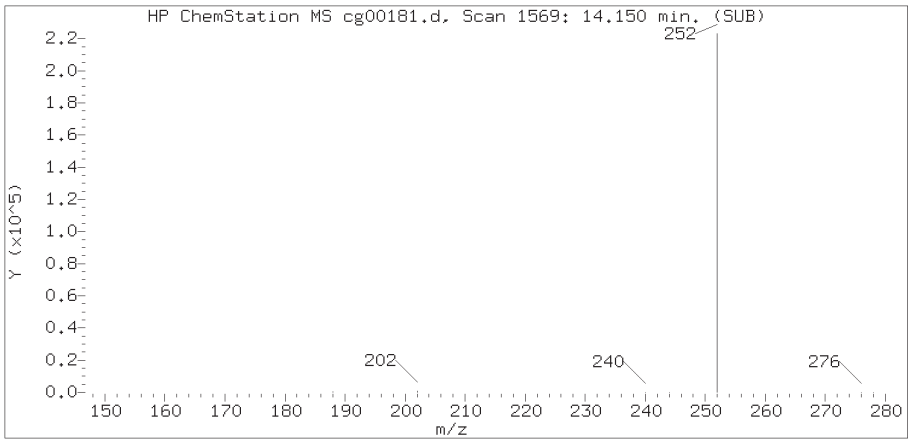
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

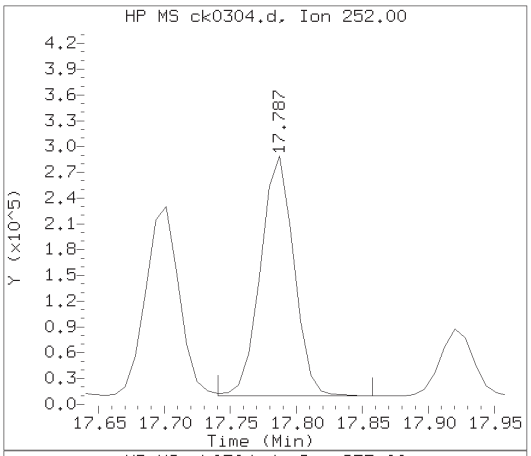
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1429
Retention Time (minutes)	: 17.240
Quant Ion	: 252.00
Area	: 925111
On-column Amount (ng/ul)	: 4.3757
Integration start scan	: 1420 Integration stop scan: 1438
Y at integration start	: 10550 Y at integration end: 12703

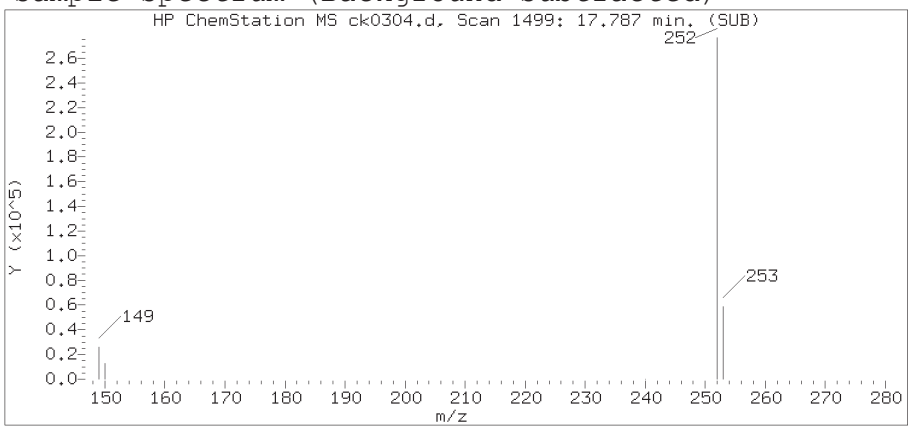
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2763 of 7494

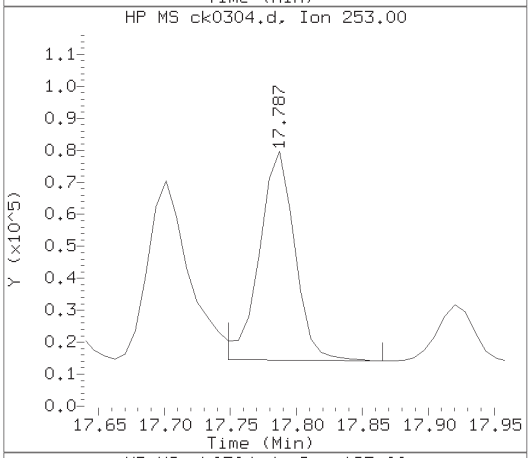
Reference Standard Spectrum for Benzo(a)pyrene



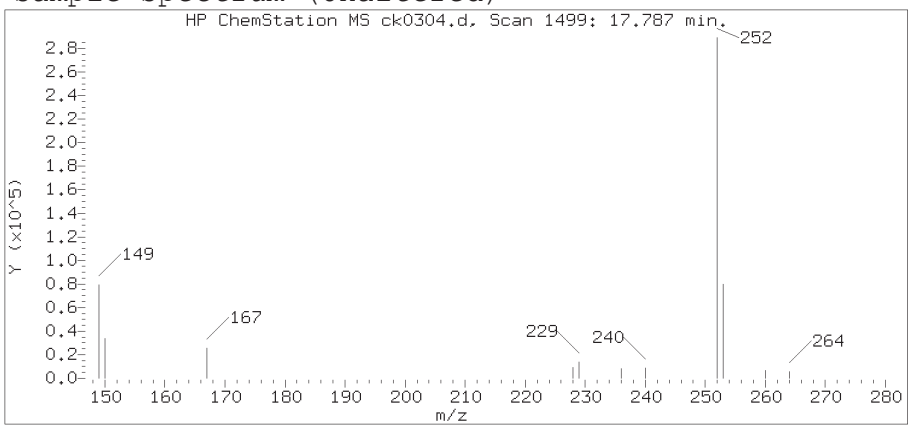


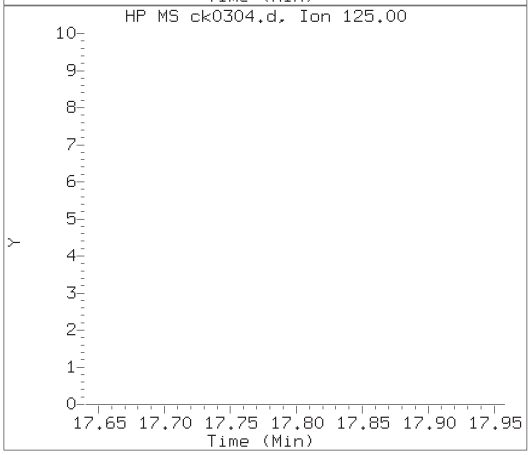
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

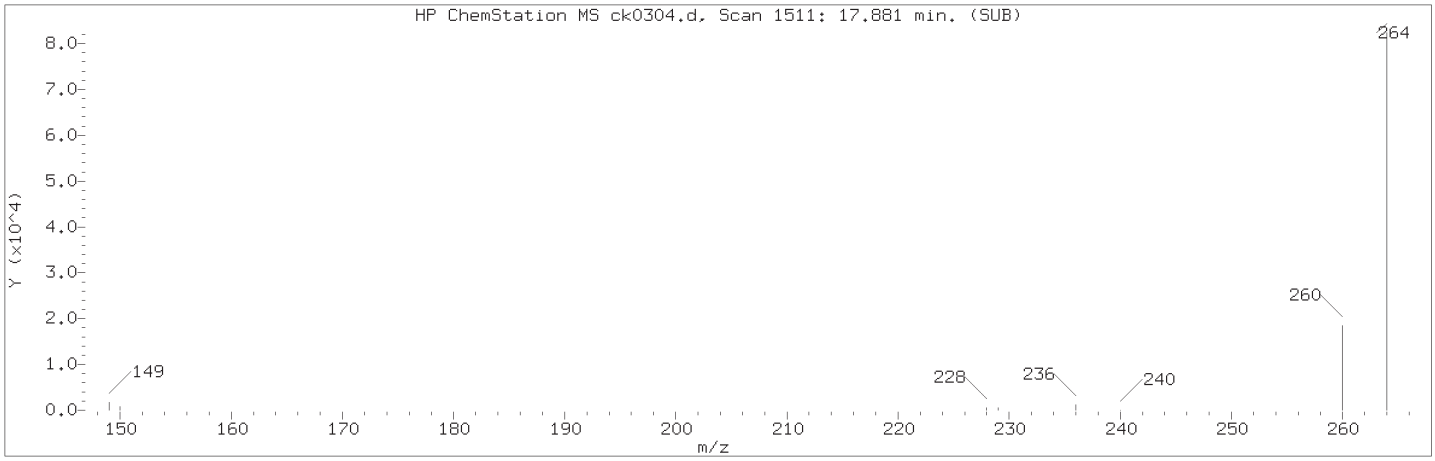
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

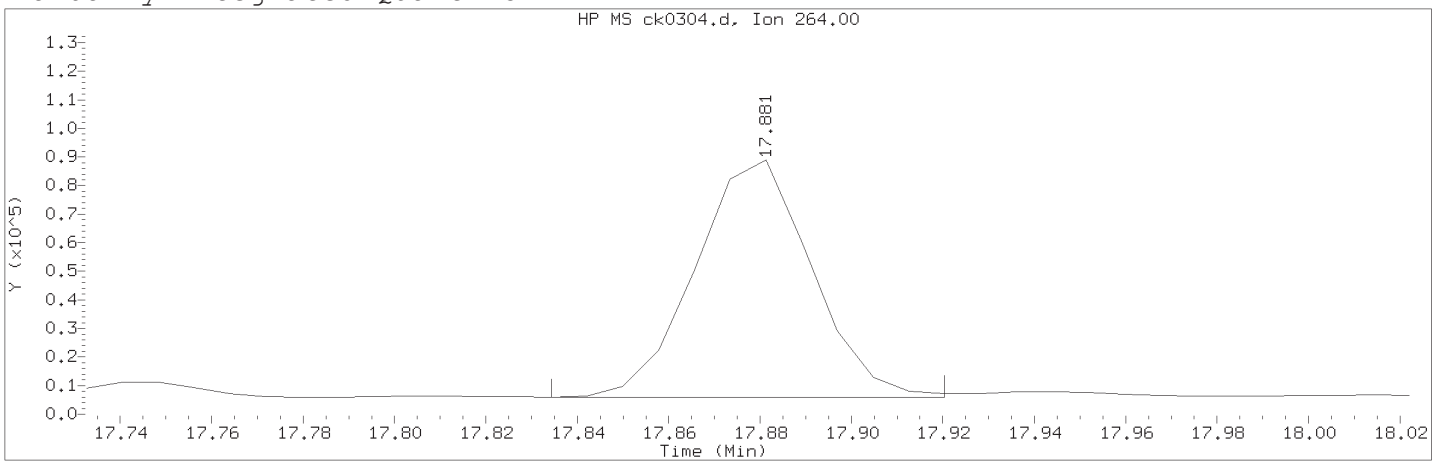
Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1499
Retention Time (minutes)	: 17.787
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 488858
On-column Amount (ng/ul)	: 2.8502

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

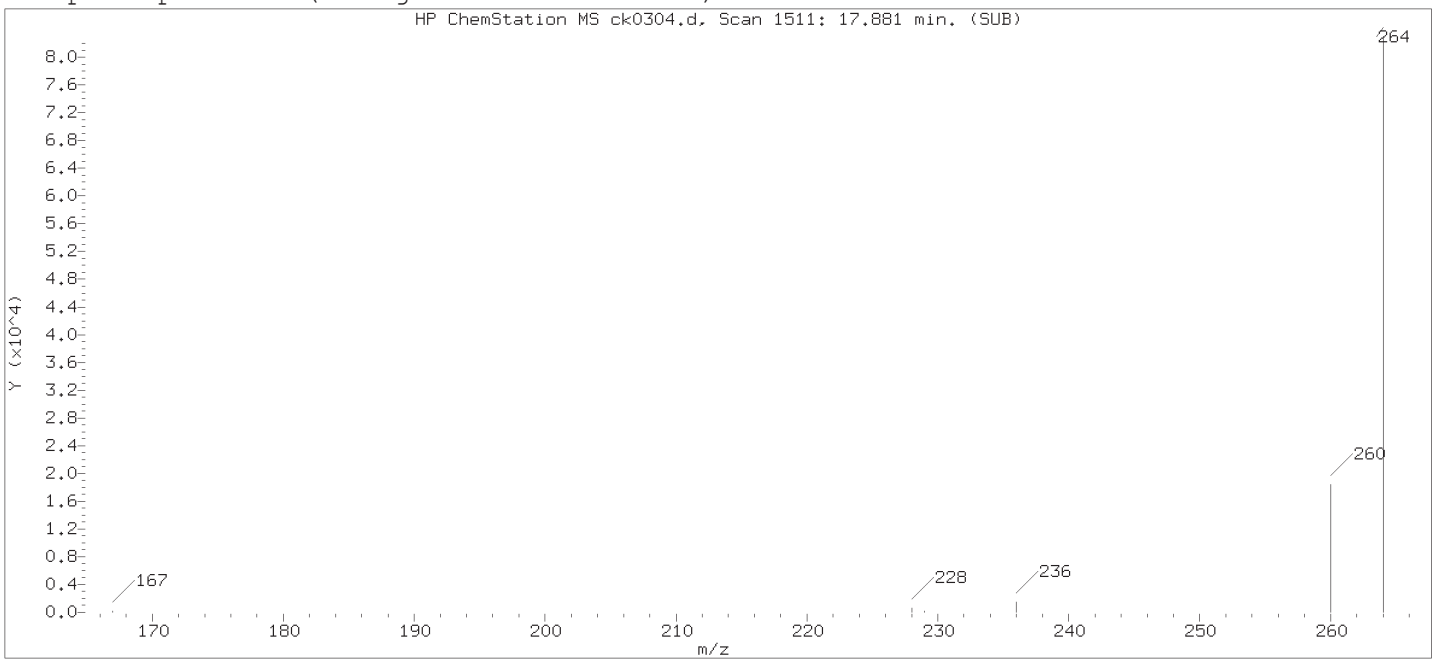
Compound Number : 51
Compound Name : Perylene-d12
Scan Number : 1511
Retention Time (minutes) : 17.881
Quant Ion : 264.00
Area (flag) : 146681M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1504 Integration stop scan: 1515
Y at integration start : 5937 Y at integration end: 5937

Reason for manual integration: improper integration

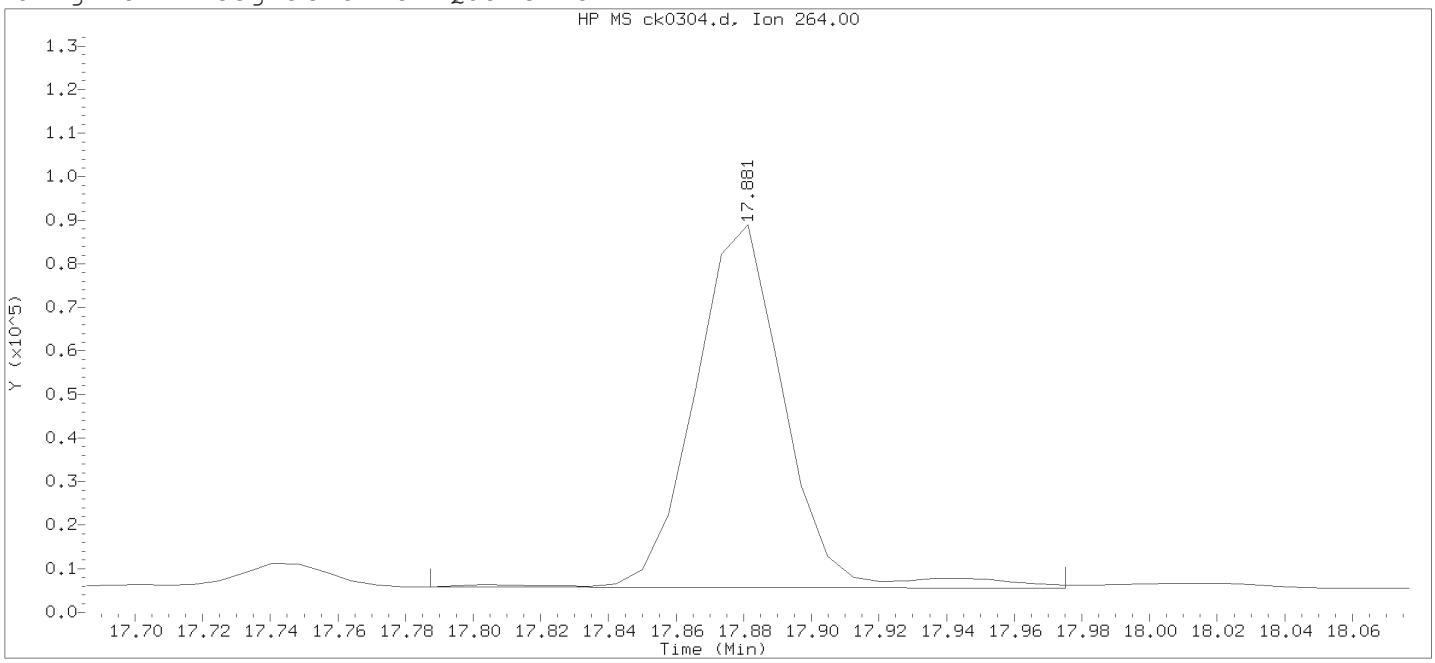
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

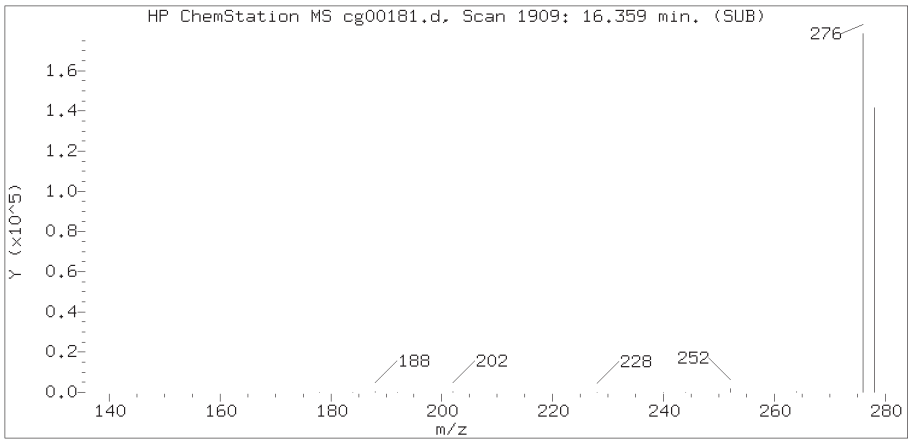
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 19:00 Automation

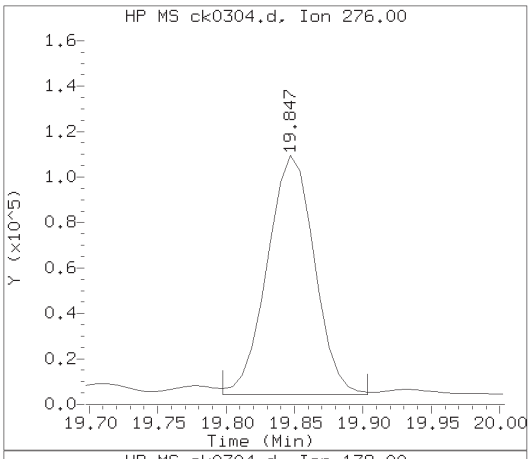
Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 51		
Compound Name	: Perylene-d12		
Scan Number	: 1511		
Retention Time (minutes)	: 17.881		
Quant Ion	: 264.00		
Area	: 153607		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1498	Integration stop scan:	1522
Y at integration start	: 5838	Y at integration end:	5599

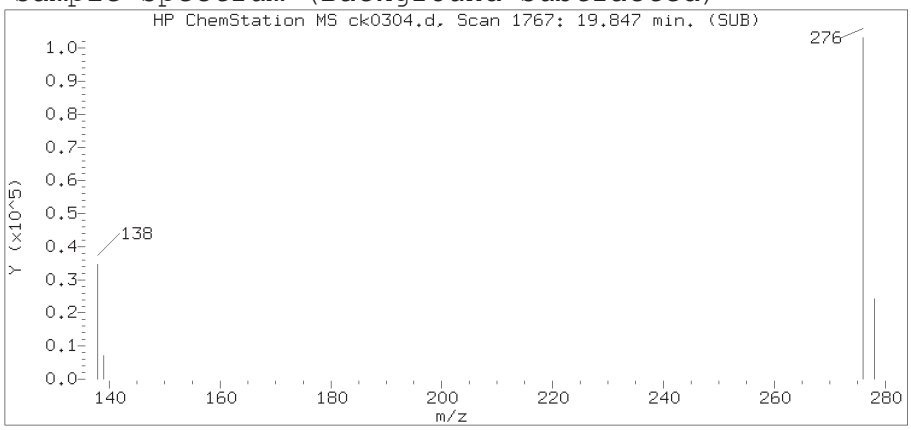
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

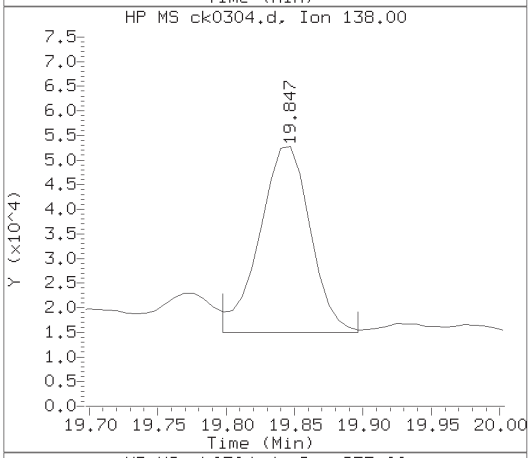
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



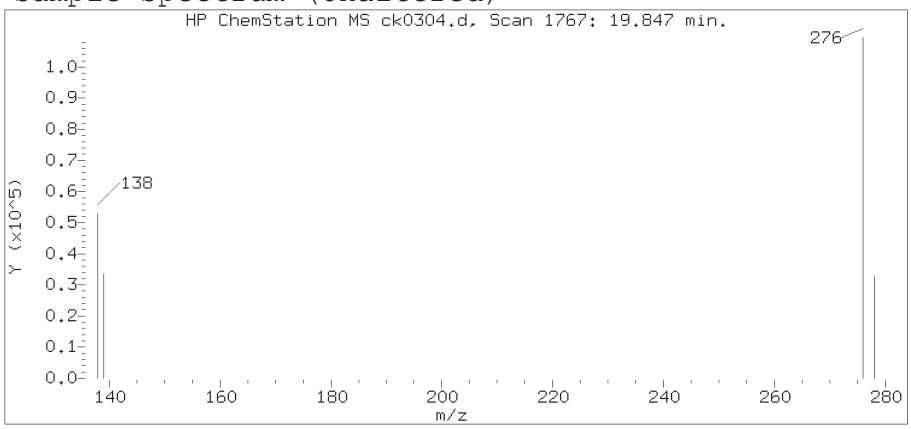


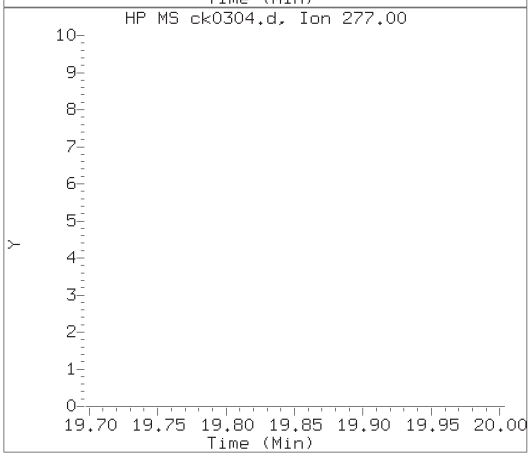
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1767
Retention Time (minutes)	: 19.847
Relative Retention Time	: 0.00014
Quant Ion	: 276.00
Area (flag)	: 252200
On-column Amount (ng/ul)	: 1.4823

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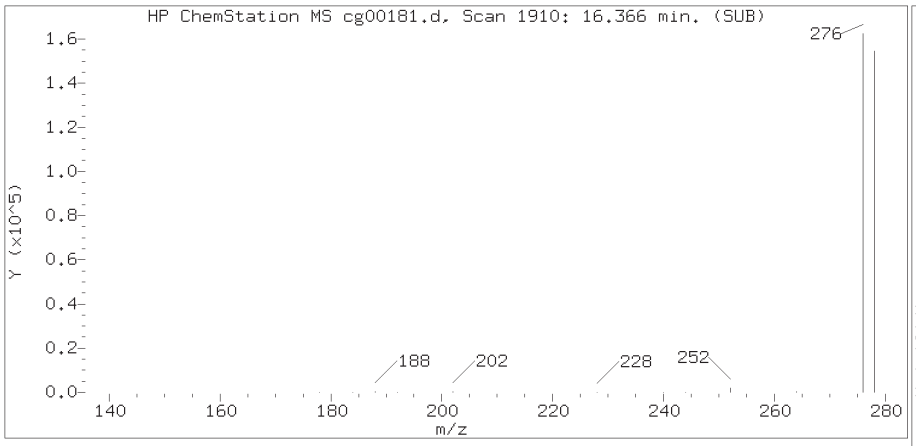
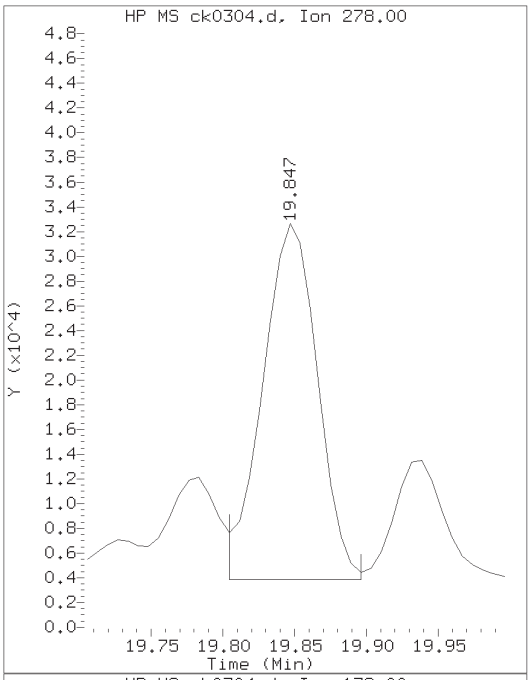
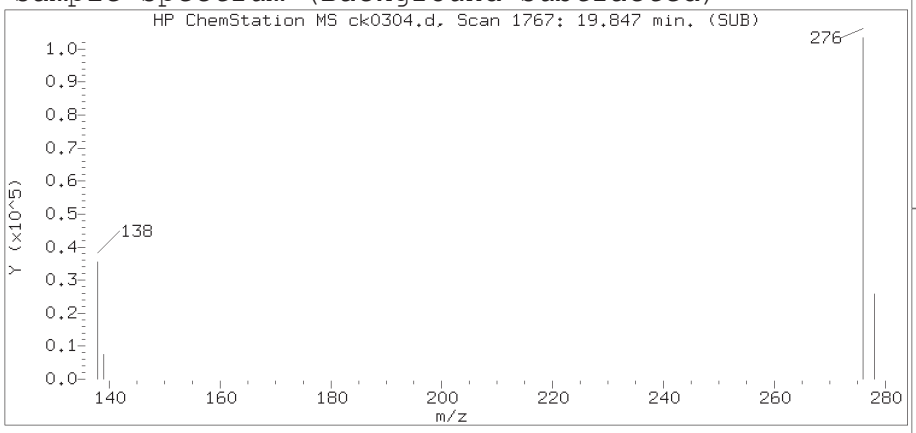
Target 3.5 esignature user ID: apb10206

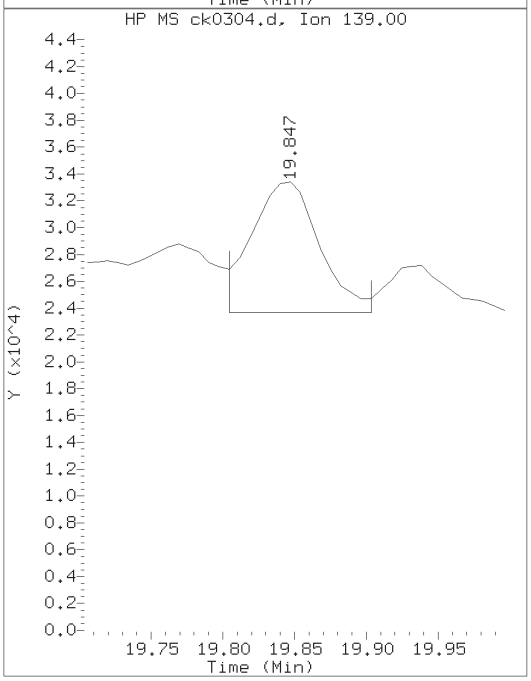
Reference Standard Spectrum for Dibenz(a,h)anthracene



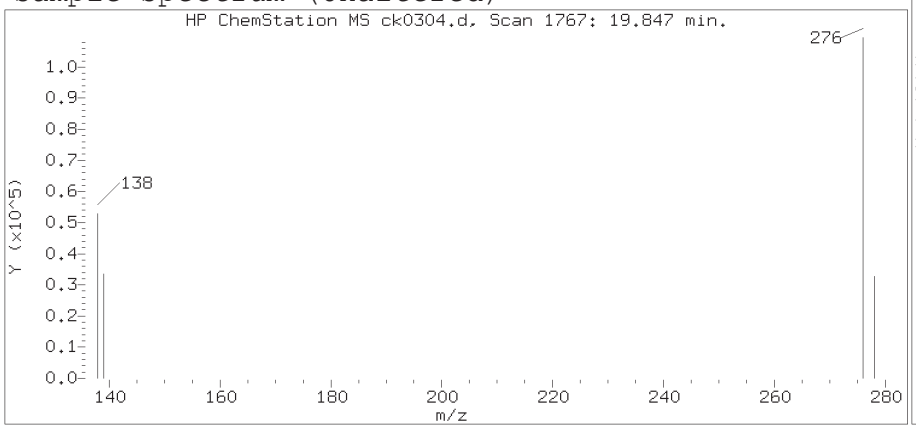


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1767
Retention Time (minutes)	: 19.847
Relative Retention Time	: 0.00054
Quant Ion	: 278.00
Area (flag)	: 76444
On-column Amount (ng/ul)	: 0.5420

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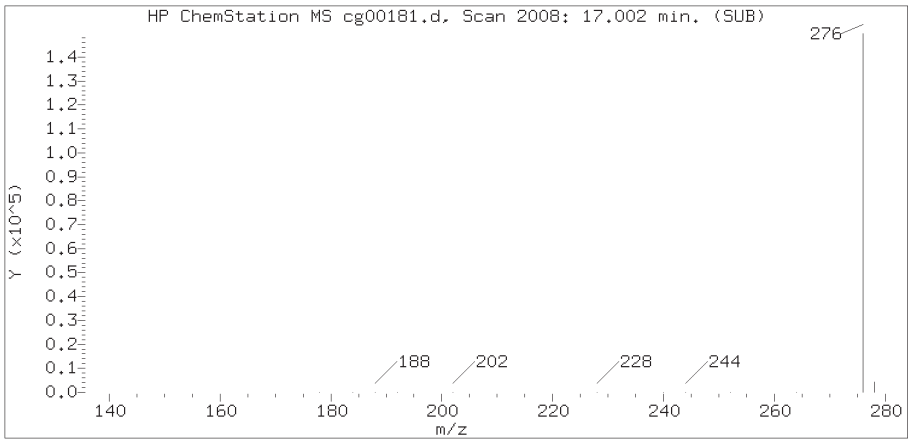
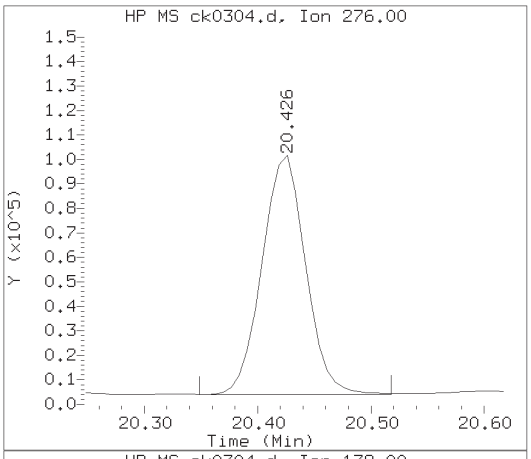
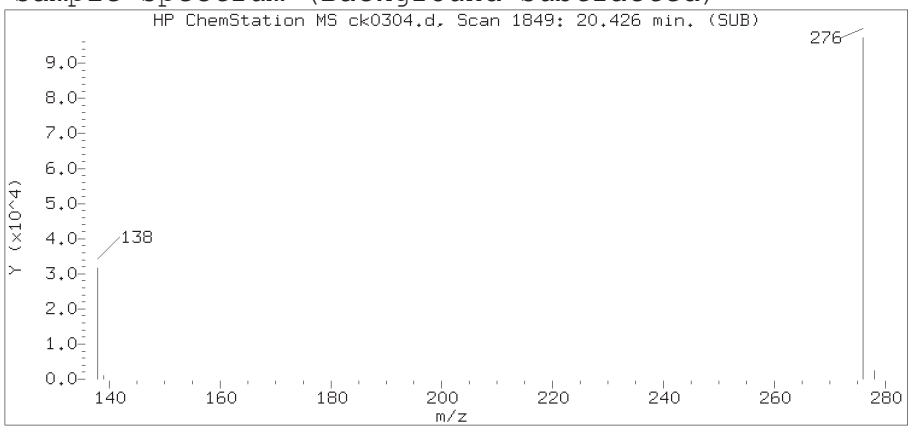
Target 3.5 esignature user ID: apb10206

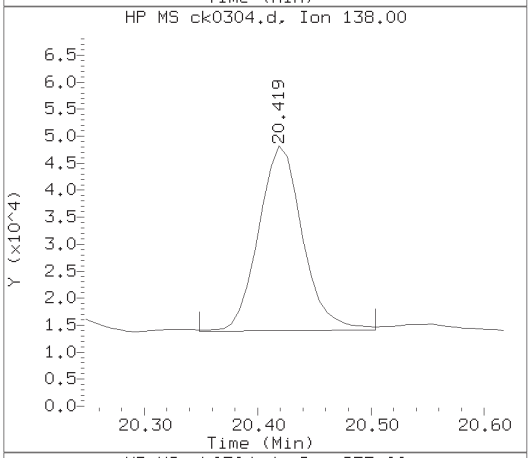
Reference Standard Spectrum for Benzo(g,h,i)perylene



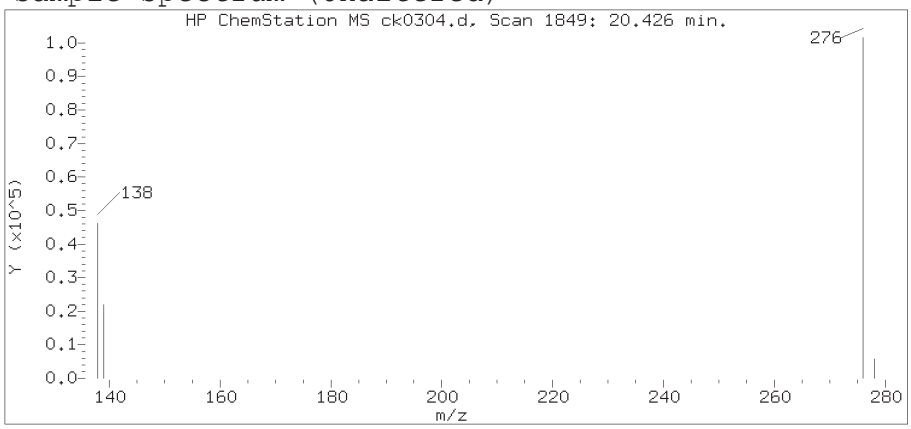


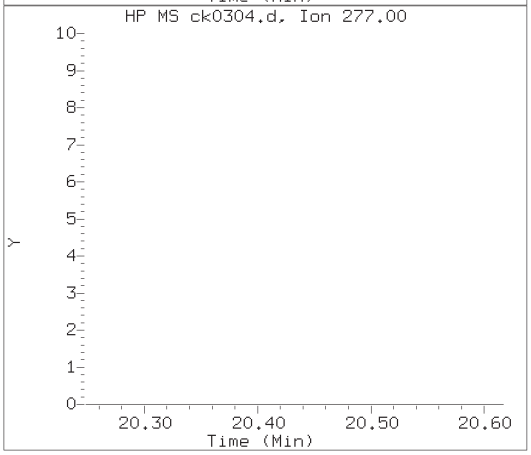
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 18:33 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:22 apb10206

Sample Name: 12T04 Lab Sample ID: 9872062

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1849
Retention Time (minutes)	: 20.426
Relative Retention Time	:-0.00017
Quant Ion	: 276.00
Area (flag)	: 261193
On-column Amount (ng/ul)	: 1.6450

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Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov06a.b/ck0304a.d Injection date and time: **06-NOV-2018 23:46**
Data file Sample Info. Line: 12T04DL;9872062DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845(-0.013)	448	152	79003 (-16)	1.00	
10) Naphthalene-d8	8.357(0.000)	562	136	344529 (-15)	1.00	
20) Acenaphthene-d10	10.525(0.000)	749	164	151153 (-19)	1.00	
31) Phenanthrene-d10	12.385(0.000)	915	188	234073M (-32)	1.00	
43) Chrysene-d12	15.693(-0.008)	1231	240	180441 (-28)	1.00	
51) Perylene-d12	17.843(-0.008)	1506	264	175579 (-22)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308(-0.001)	152	4109M	0.024	118%	*	61 - 111
36) Fluoranthene-d10	(4)	13.881(0.000)	212	5777M	0.027	136%	*	54 - 122
49) Benzo(a)pyrene-d12	(6)	17.710(0.000)	264	2336	0.014	72%		54 - 122

M = Surrogate Standard was manually integrated. * = Surrogate Standard % recovery outside QC limits.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)			Not Detected					0.02
11) Naphthalene	(2)	8.383(-0.000)	128	2242674	6.130	10116.30			0.04
19) Acenaphthylene	(3)	10.351(0.000)	152	30018	0.100	165.08			0.01
21) Acenaphthene	(3)	10.568(0.000)	154	88884M	0.433	714.10			0.02
26) Fluorene	(3)	11.204(0.000)	166	107036	0.487	804.11			0.02
32) Phenanthrene	(4)	12.418(0.000)	178	581095	2.081	3433.31			0.02
33) Anthracene	(4)	12.486(-0.000)	178	131934	0.491	810.64			0.02
35) Di-n-butylphthalate	(4)	13.039(0.000)	149	290424	0.971	1601.97			0.2
37) Fluoranthene	(4)	13.906(0.000)	202	523397	1.907	3147.19			0.02
39) Pyrene	(5)	14.199(0.000)	202	490084M	1.688	2784.69			0.02
41) bis(2-Ethylhexyl)phthalate	(5)			Not Detected					0.3
42) Benzo(a)anthracene	(5)	15.677(-0.000)	228	179029	0.766	1263.28			0.02
44) Chrysene	(5)	15.724(0.000)	228	206935	0.864	1425.22			0.01
46) Benzo(b)fluoranthene	(6)	17.210(-0.000)	252	187745M	0.834	1376.72			0.02
47) Benzo(k)fluoranthene	(6)	17.249(-0.000)	252	70011M	0.290	478.08			0.02
50) Benzo(a)pyrene	(6)	17.749(-0.000)	252	122231	0.595	982.44			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.806(0.000)	276	53952	0.265	437.16			0.02
54) Dibenz(a,h)anthracene	(6)	19.813(0.000)	278	16995	0.101	166.11			0.02
55) Benzo(g,h,i)perylene	(6)	20.378(0.000)	276	53045	0.279	460.54			0.02

M = Compound was manually integrated.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0304a.d Injection date and time: **06-NOV-2018 23:46**
Data file Sample Info. Line: 12T04DL;9872062DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 50 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.3 g

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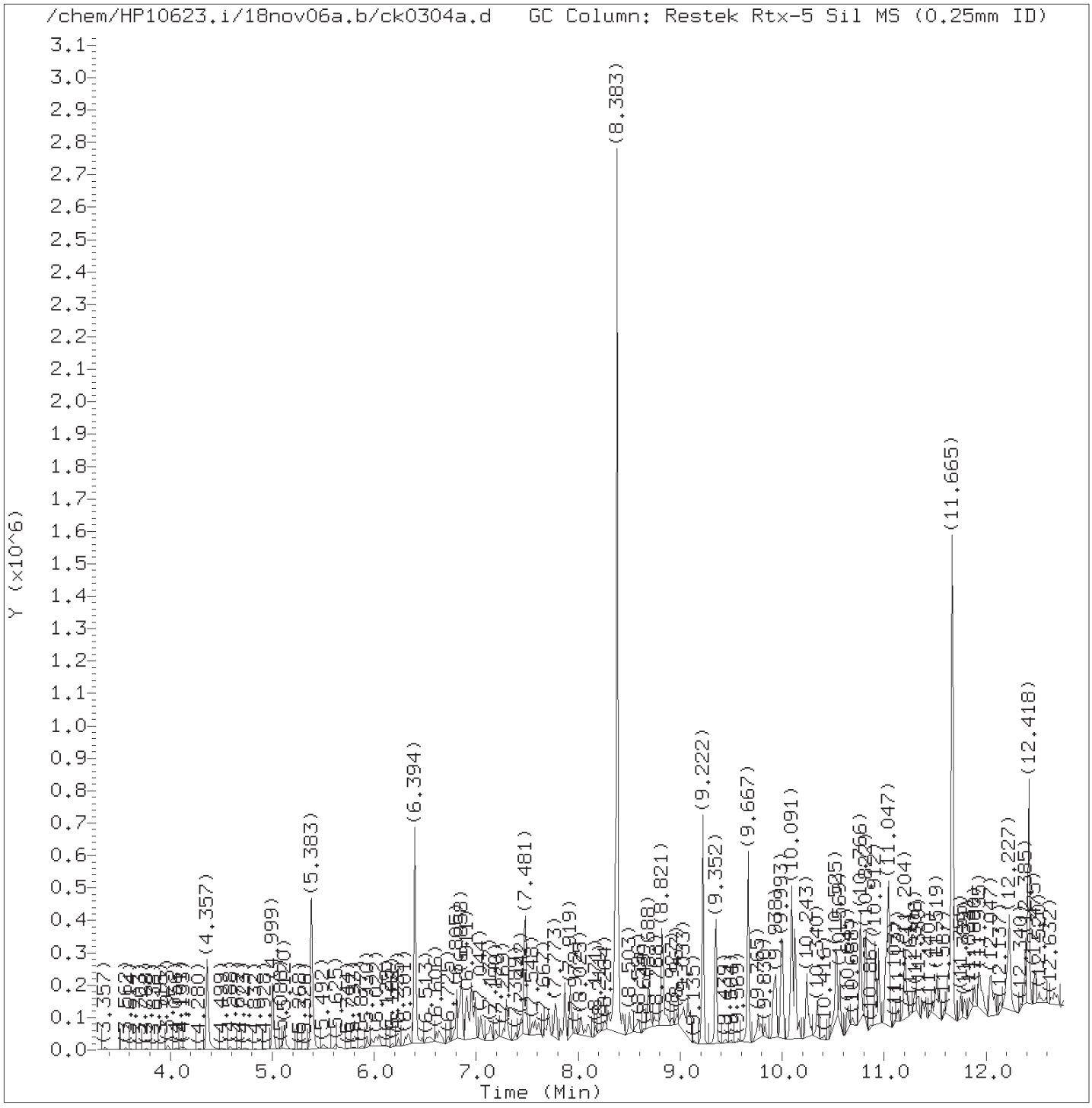
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

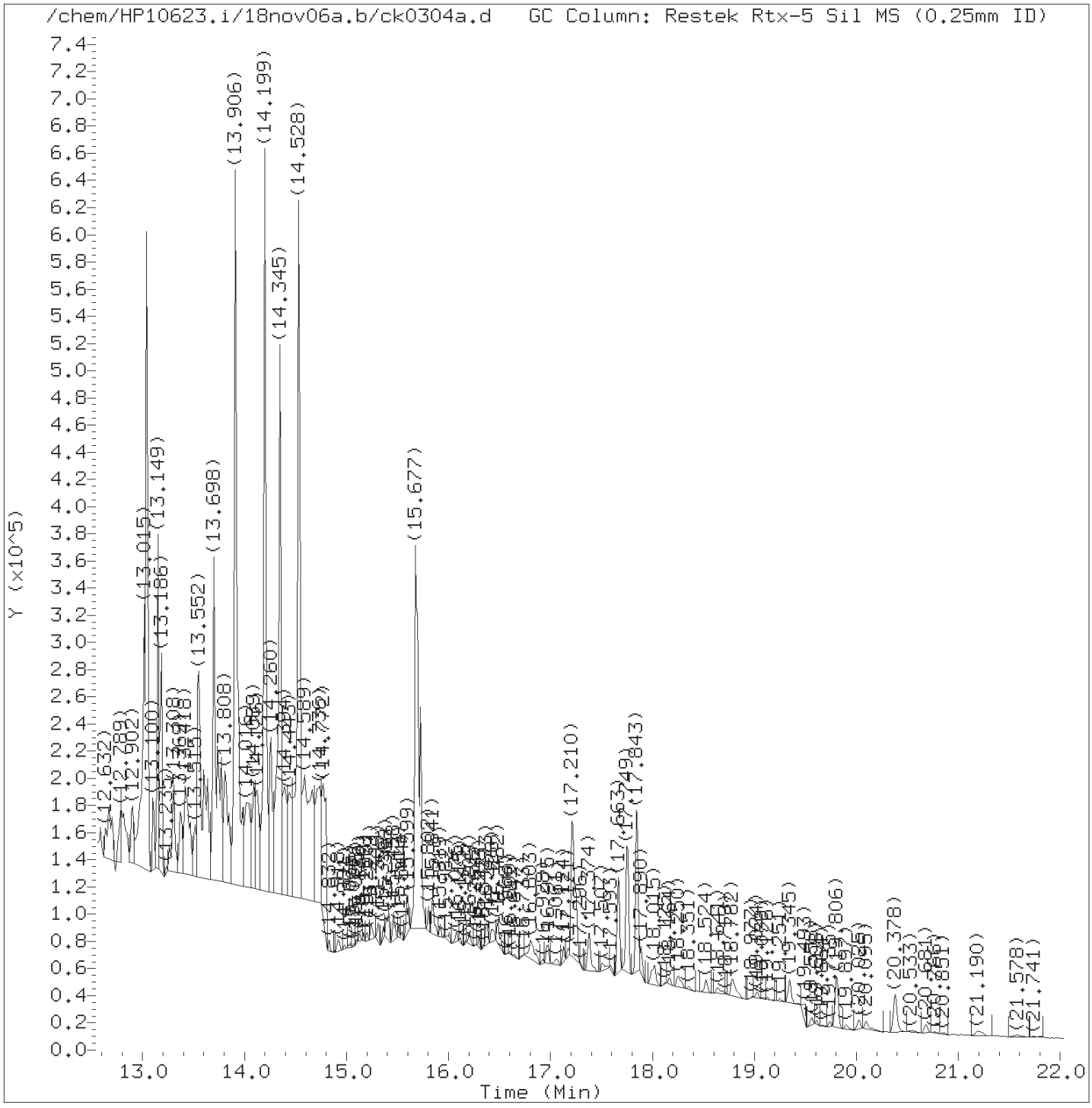
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

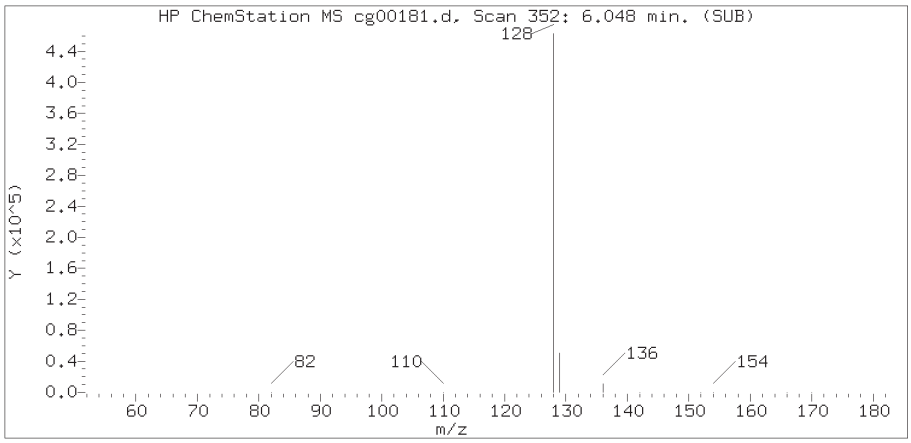
Sample Name: 12T04DL Lab Sample ID: 9872062DL

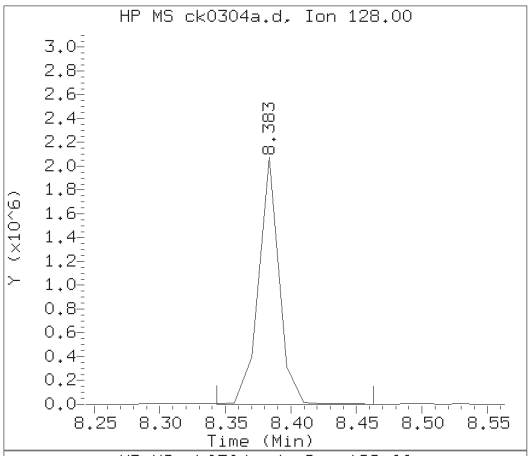
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	79003	1.000
10)*Naphthalene-d8	(2)	8.357	136	344529	1.000
11) Naphthalene	(2)	8.383	128	2242674	6.130
14)$1-Methylnaphthalene-d10	(2)	9.308	152	4109M	0.024
19) Acenaphthylene	(3)	10.351	152	30018	0.100
20)*Acenaphthene-d10	(3)	10.525	164	151153	1.000
21) Acenaphthene	(3)	10.569	154	88884M	0.433
26) Fluorene	(3)	11.204	166	107036	0.487
31)*Phenanthrene-d10	(4)	12.385	188	234073M	1.000
32) Phenanthrene	(4)	12.418	178	581095	2.081
33) Anthracene	(4)	12.486	178	131934	0.491
35) Di-n-butylphthalate	(4)	13.039	149	290424	0.971
36)$Fluoranthene-d10	(4)	13.881	212	5777M	0.027
37) Fluoranthene	(4)	13.906	202	523397	1.907
39) Pyrene	(5)	14.199	202	490084M	1.688
42) Benzo(a)anthracene	(5)	15.677	228	179029	0.766
43)*Chrysene-d12	(5)	15.693	240	180441	1.000
44) Chrysene	(5)	15.724	228	206935	0.864
46) Benzo(b)fluoranthene	(6)	17.210	252	187745M	0.834
47) Benzo(k)fluoranthene	(6)	17.249	252	70011M	0.290
49)$Benzo(a)pyrene-d12	(6)	17.710	264	2336	0.014
50) Benzo(a)pyrene	(6)	17.749	252	122231	0.595
51)*Perylene-d12	(6)	17.843	264	175579	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.806	276	53952	0.265
54) Dibenz(a,h)anthracene	(6)	19.813	278	16995	0.101
55) Benzo(g,h,i)perylene	(6)	20.378	276	53045	0.279

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

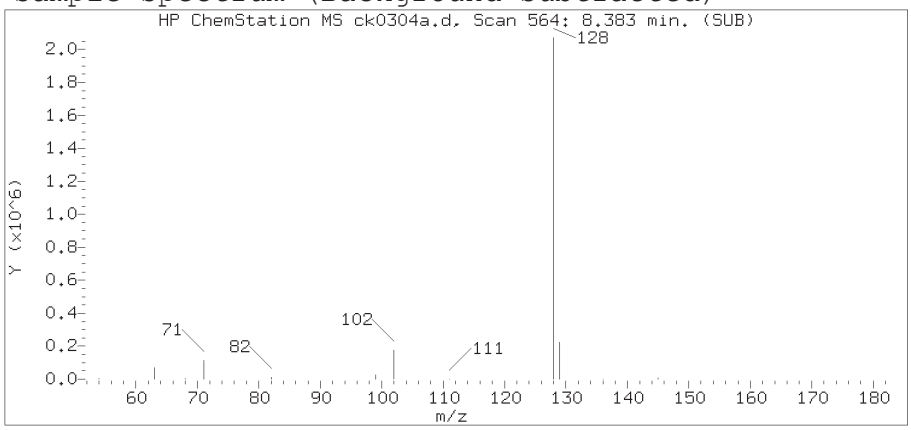
Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

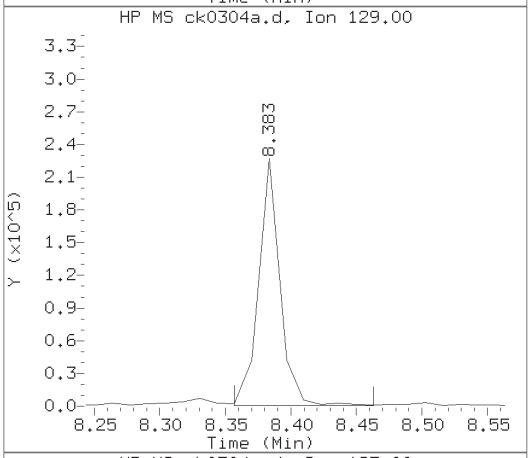
Reference Standard Spectrum for Naphthalene



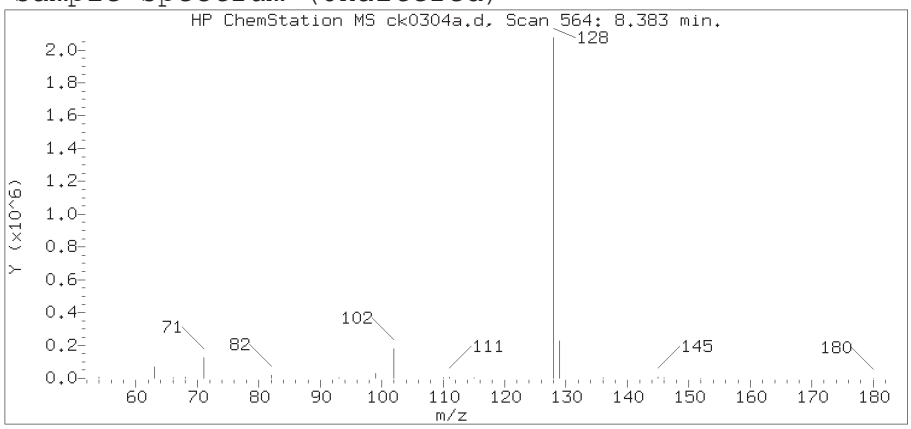


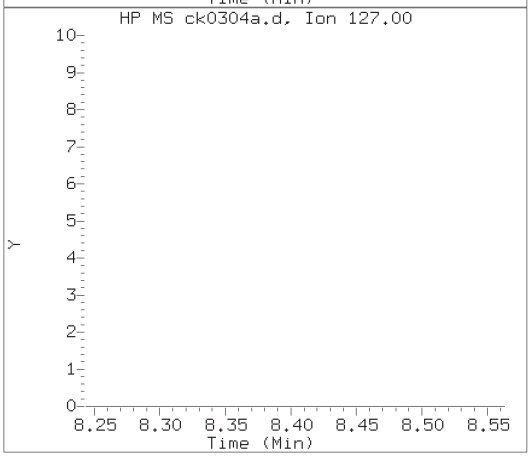
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

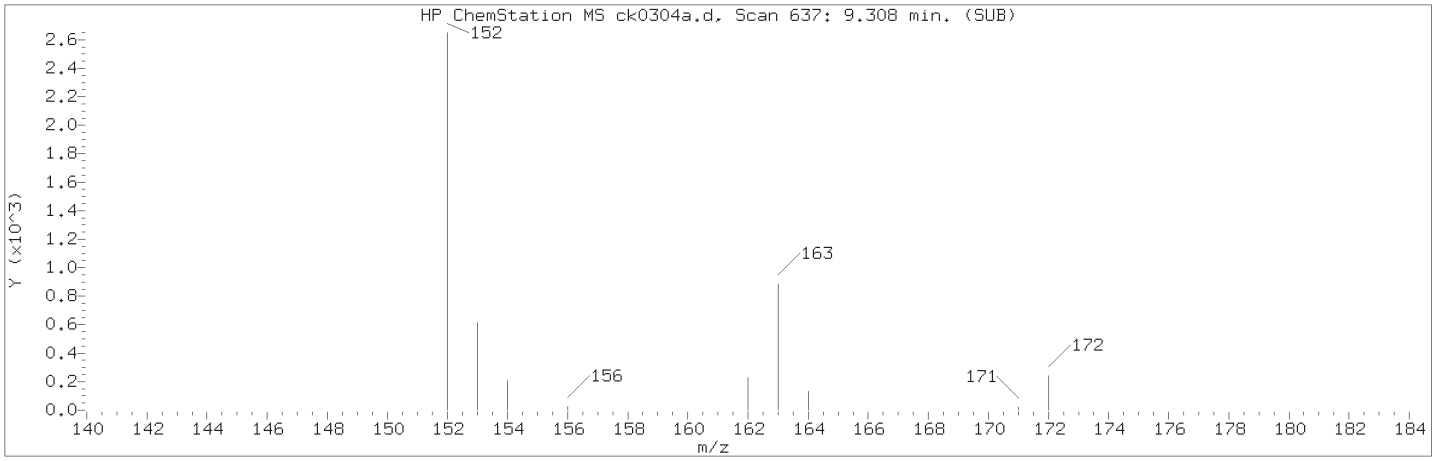
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

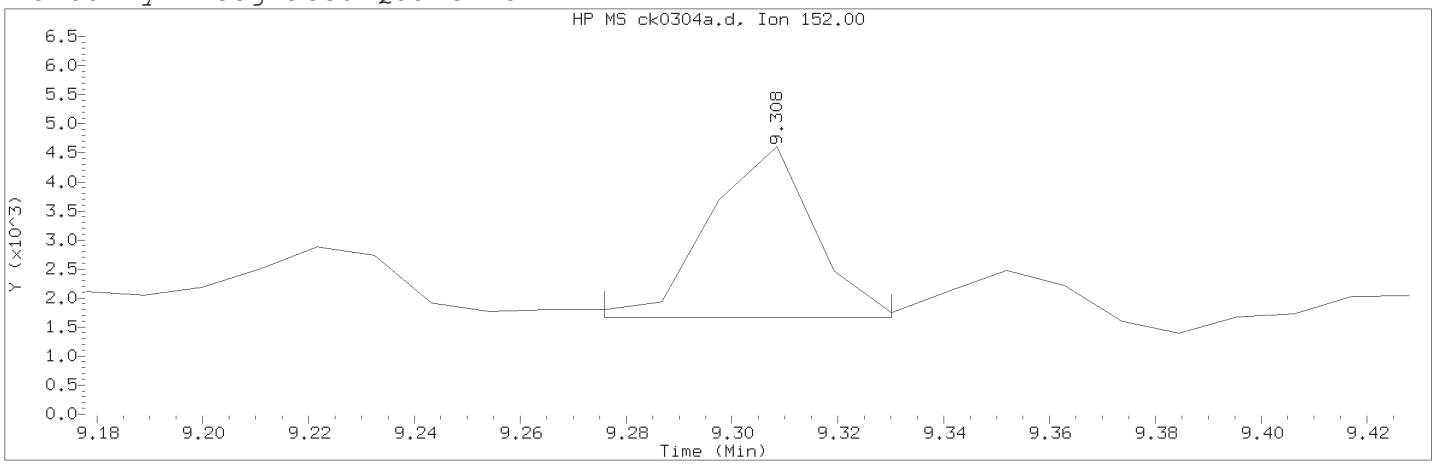
Compound Number : 11
Compound Name : Naphthalene
Scan Number : 564
Retention Time (minutes) : 8.383
Relative Retention Time :-0.00000
Quant Ion : 128.00
Area (flag) : 2242674
On-column Amount (ng/ul) : 6.1305

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

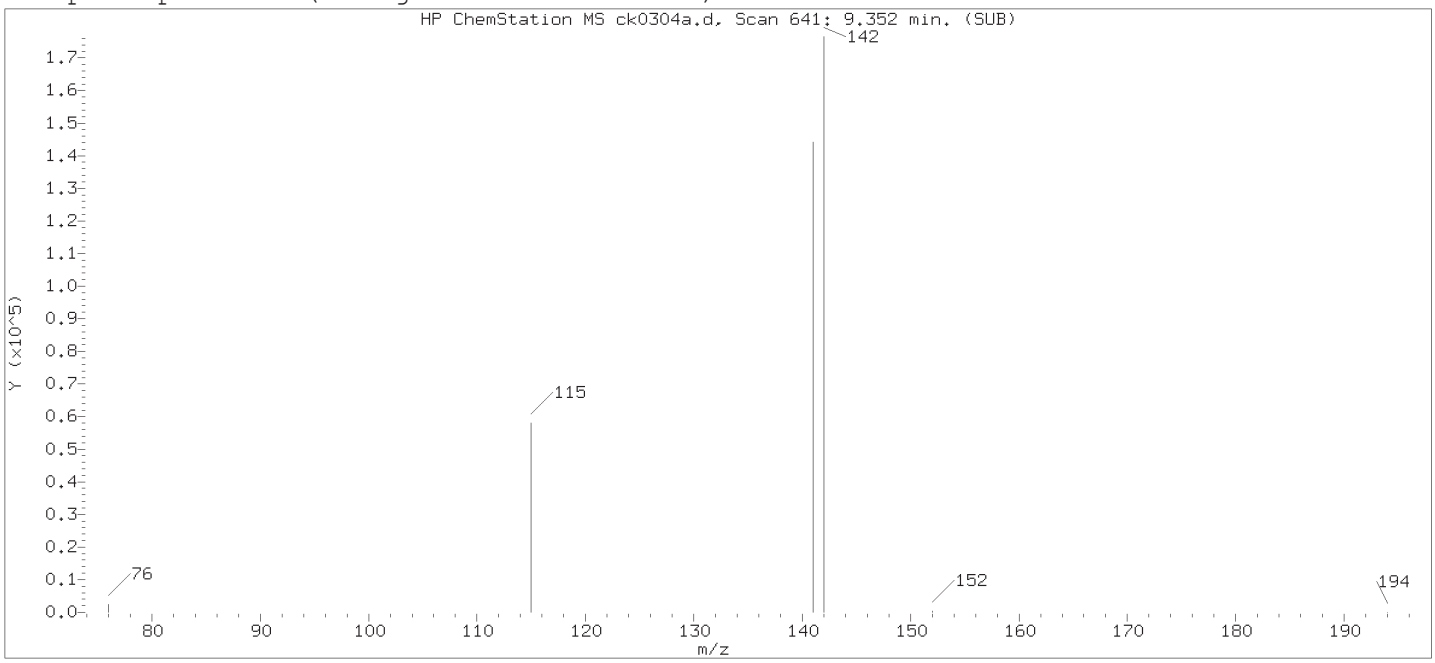
Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 637
Retention Time (minutes) : 9.308
Quant Ion : 152.00
Area (flag) : 4109M
On-column Amount (ng/ul) : 0.0236
Integration start scan : 633 Integration stop scan: 638
Y at integration start : 1664 Y at integration end: 1664

Reason for manual integration: improper integration

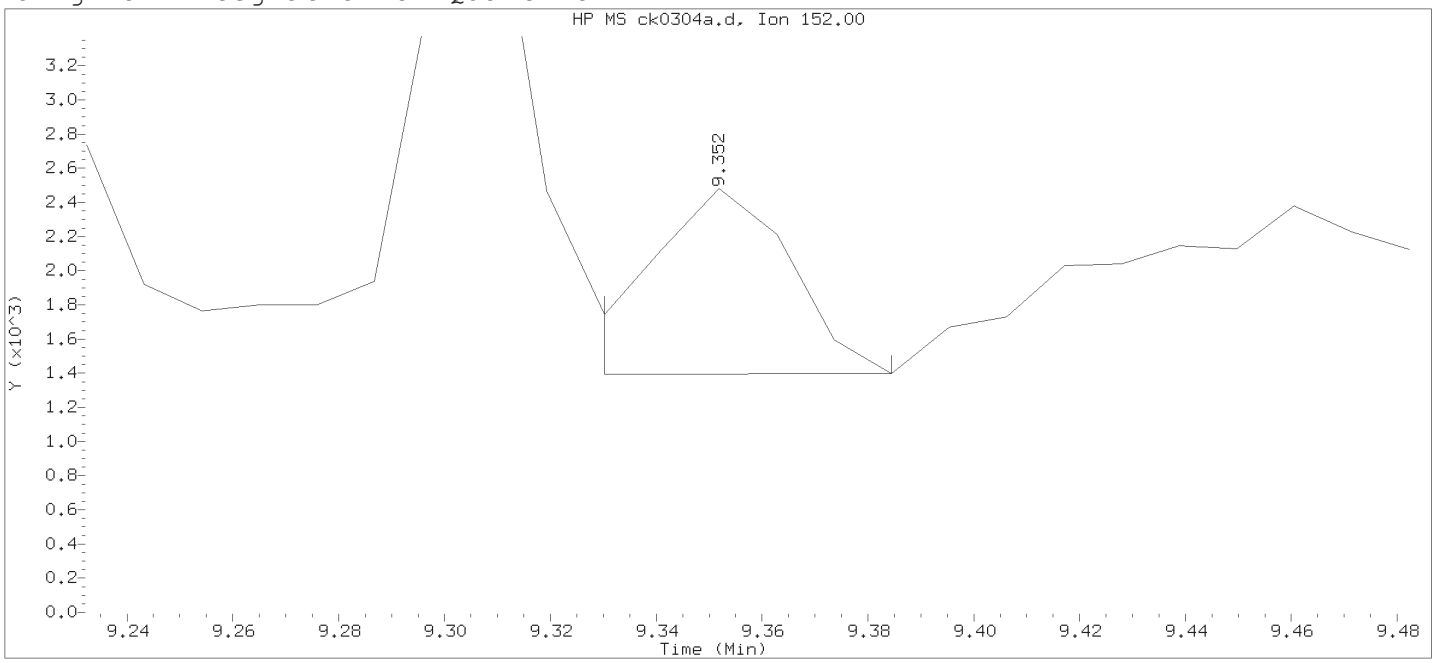
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

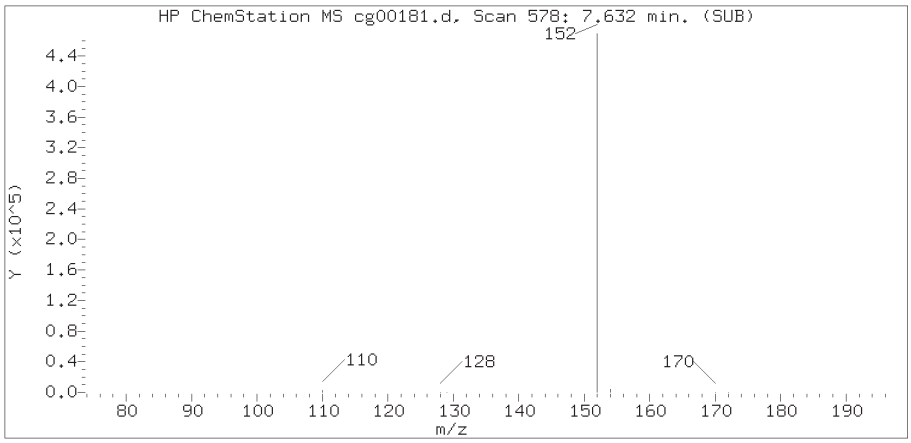
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

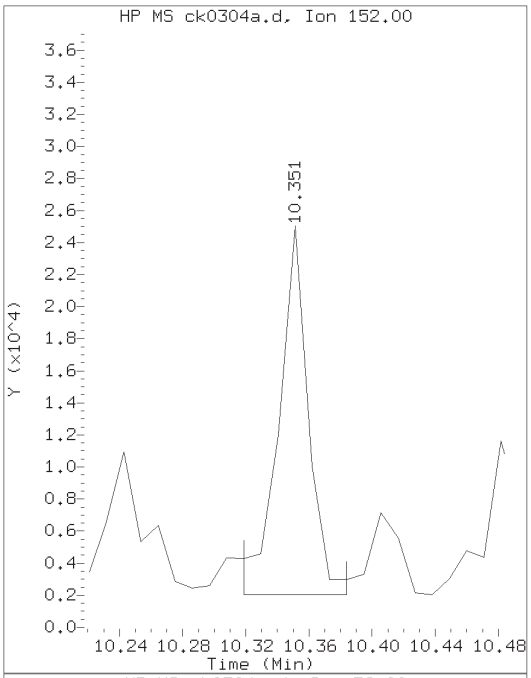
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 641		
Retention Time (minutes)	: 9.352		
Quant Ion	: 152.00		
Area	: 2004		
On-column Amount (ng/ul)	: 0.0115		
Integration start scan	: 638	Integration stop scan:	643
Y at integration start	: 1396	Y at integration end:	1398

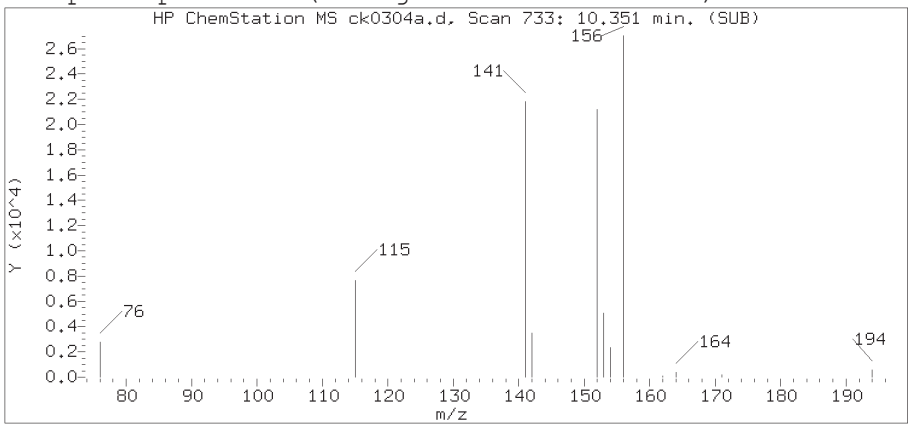
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2777

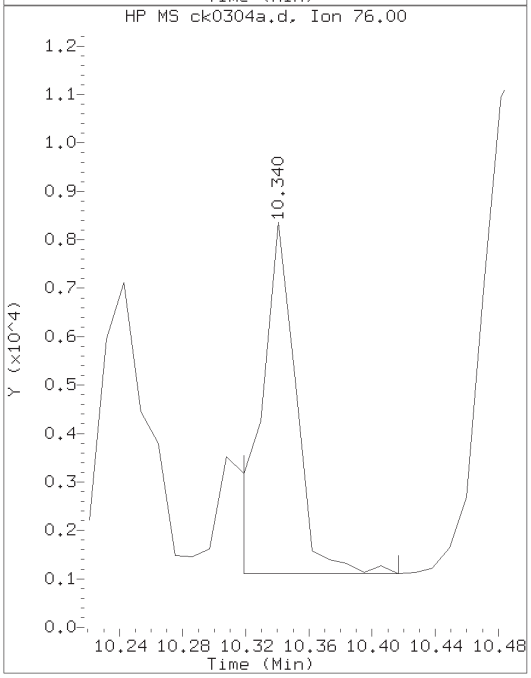
Reference Standard Spectrum for Acenaphthylene



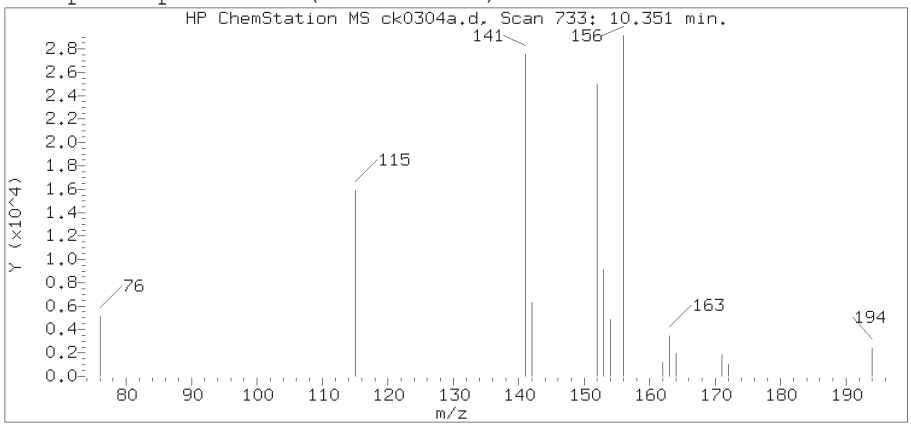


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

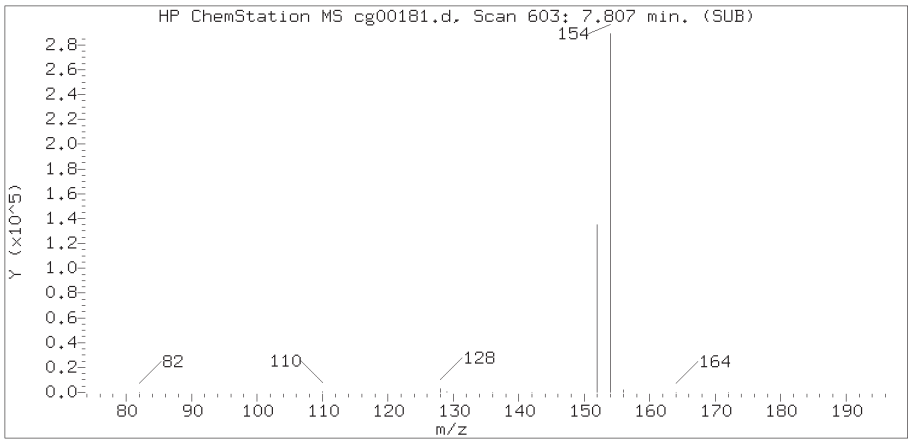
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

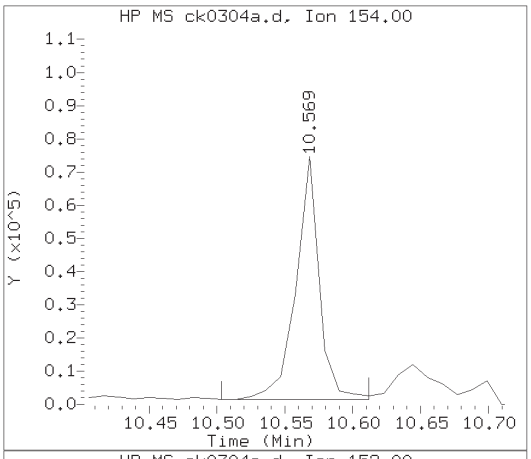
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00000
Quant Ion	: 152.00
Area (flag)	: 30018
On-column Amount (ng/ul)	: 0.1000

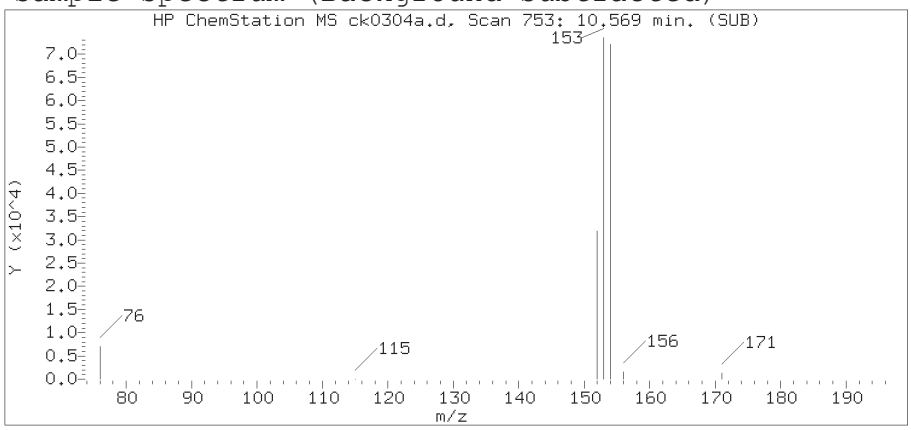
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

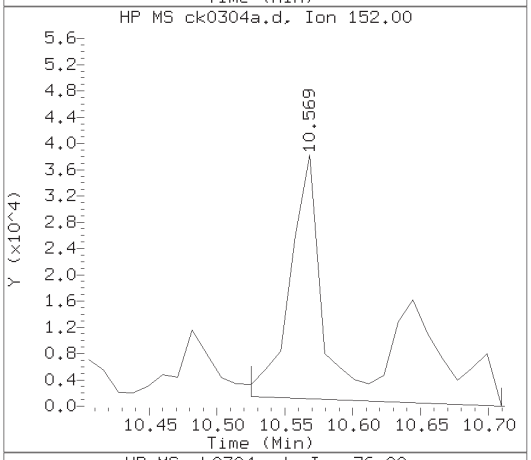
Reference Standard Spectrum for Acenaphthene



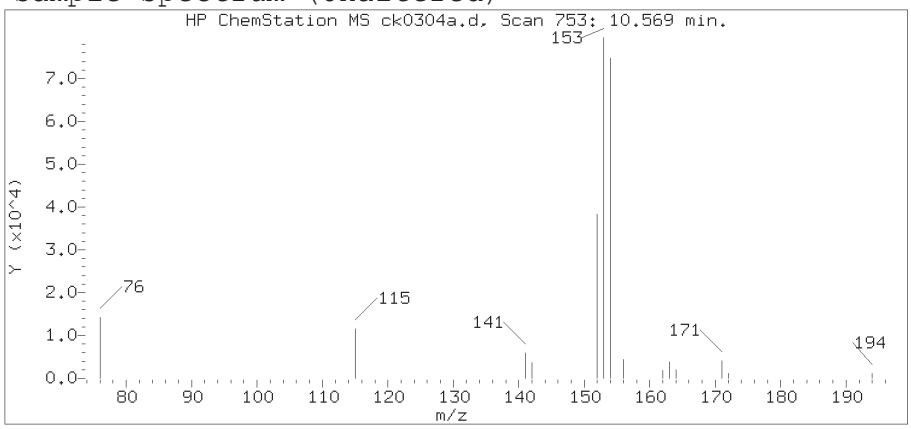


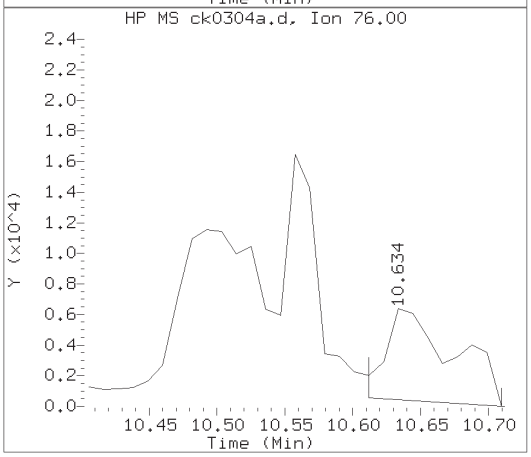
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

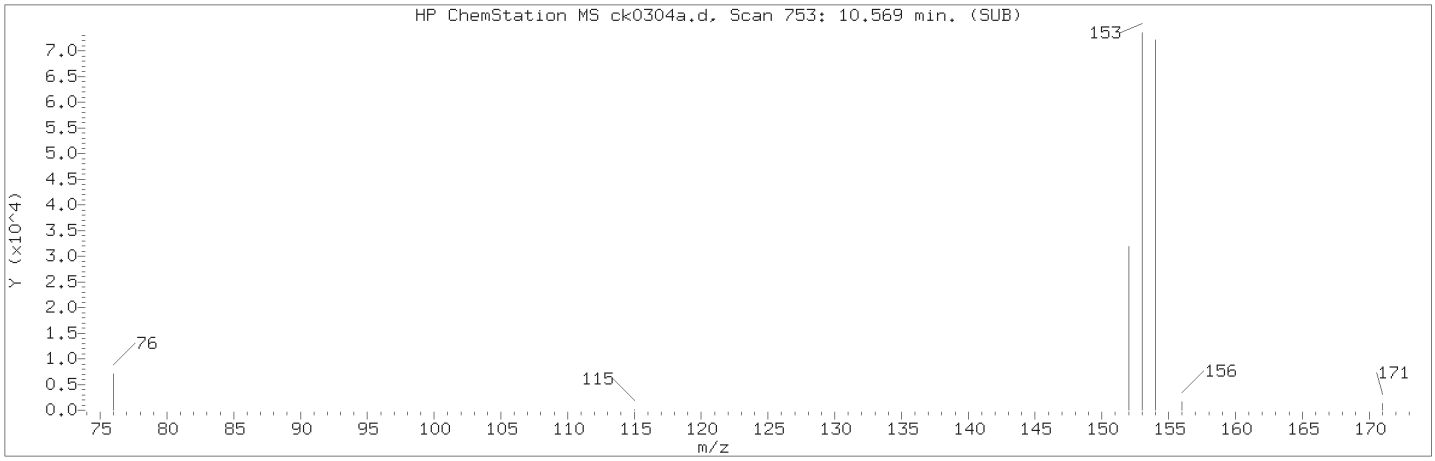
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

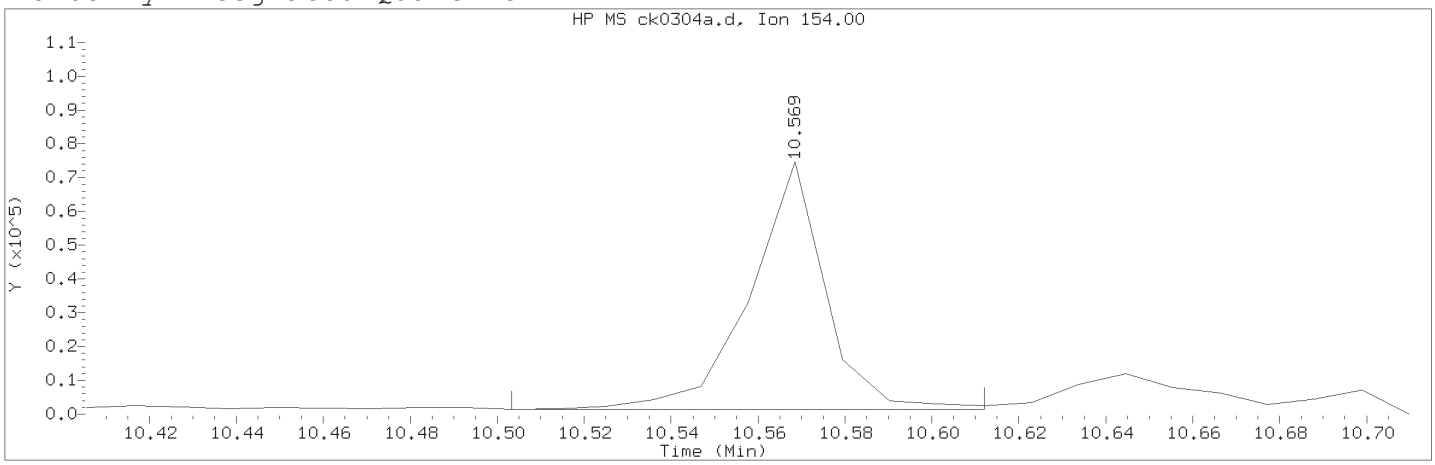
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.569
Relative Retention Time	: 0.00000
Quant Ion	: 154.00
Area (flag)	: 88884M
On-column Amount (ng/ul)	: 0.4327

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

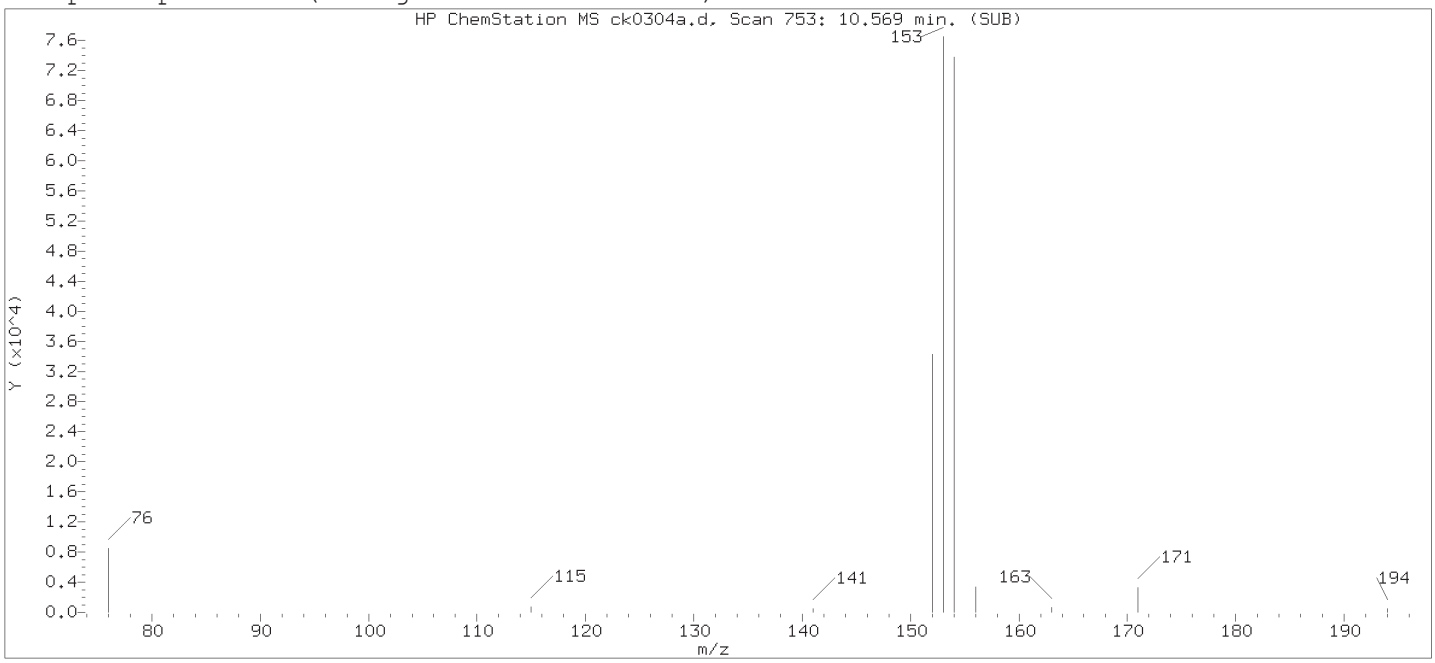
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 753
Retention Time (minutes) : 10.569
Quant Ion : 154.00
Area (flag) : 88884M
On-column Amount (ng/ul) : 0.4327
Integration start scan : 746 Integration stop scan: 756
Y at integration start : 1392 Y at integration end: 1392

Reason for manual integration: improper integration

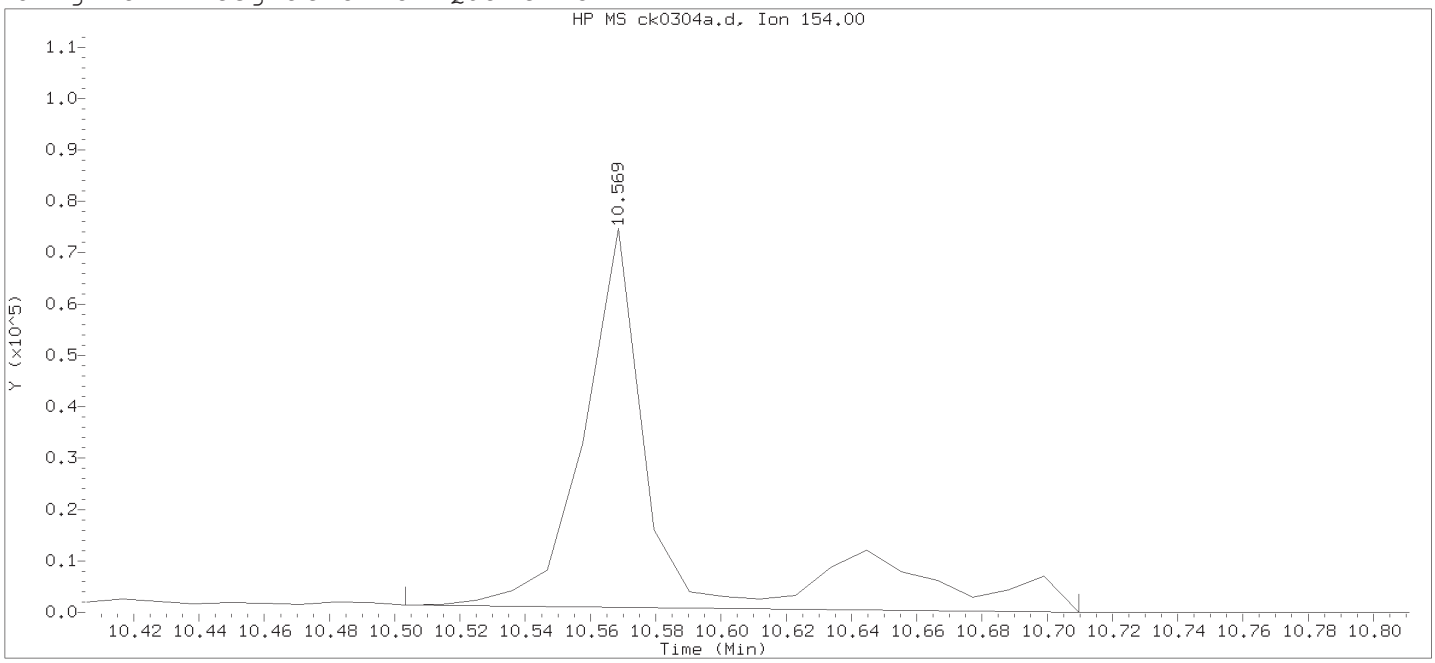
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

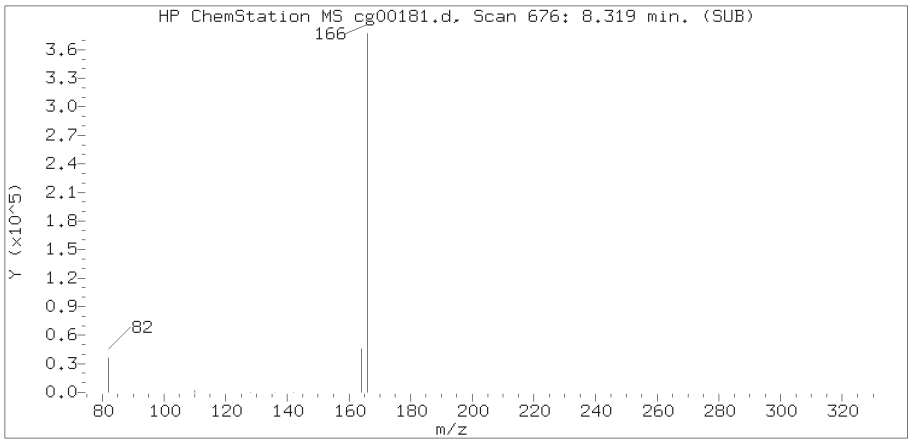
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

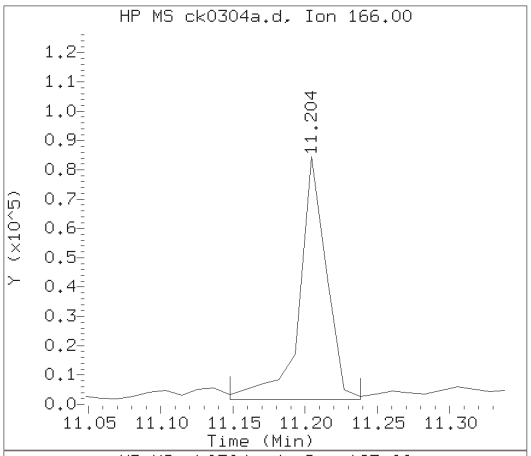
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.569		
Quant Ion	: 154.00		
Area	: 124585		
On-column Amount (ng/ul)	: 0.6066		
Integration start scan	: 746	Integration stop scan:	765
Y at integration start	: 1413	Y at integration end:	0

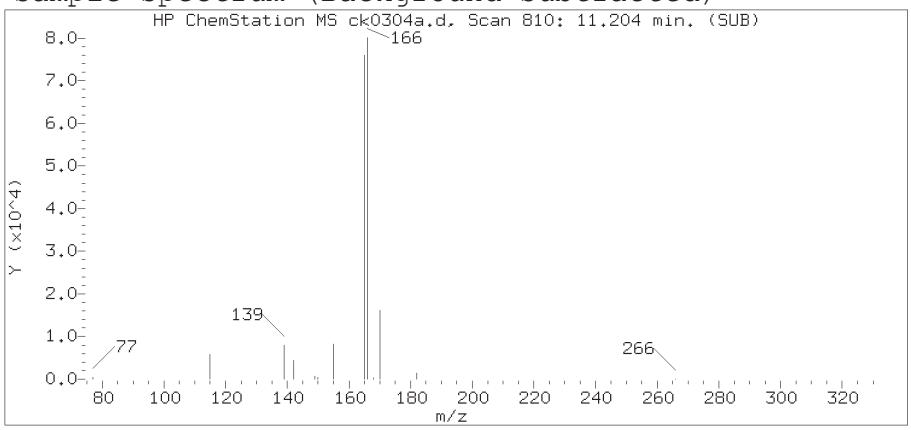
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2781

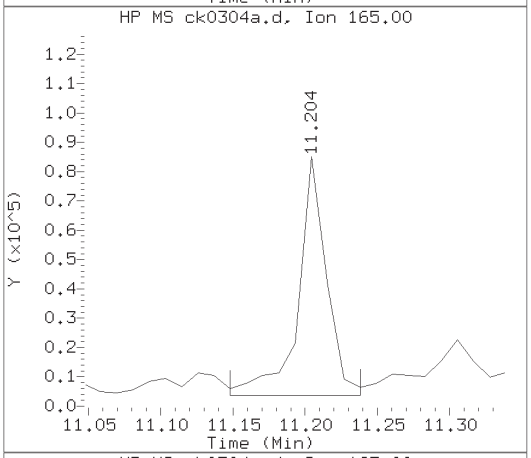
Reference Standard Spectrum for Fluorene



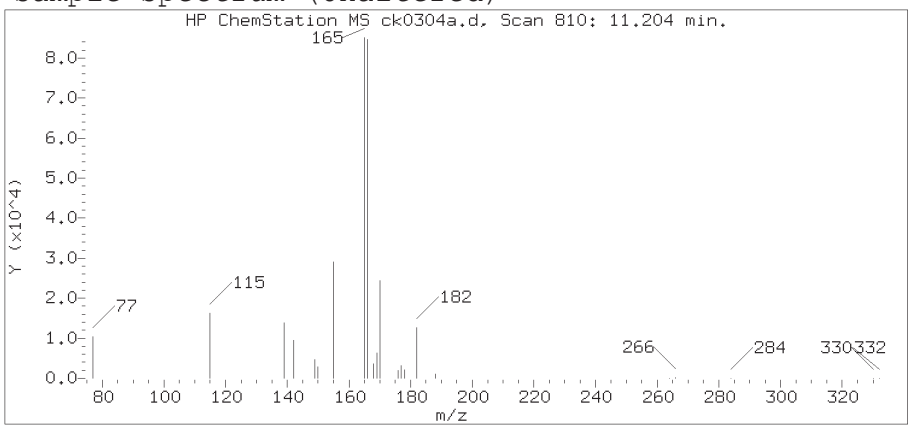


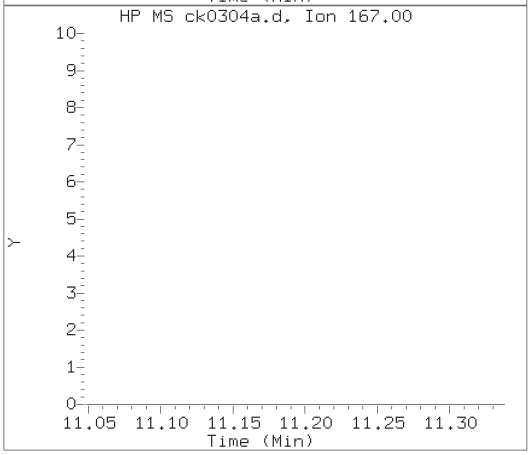
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

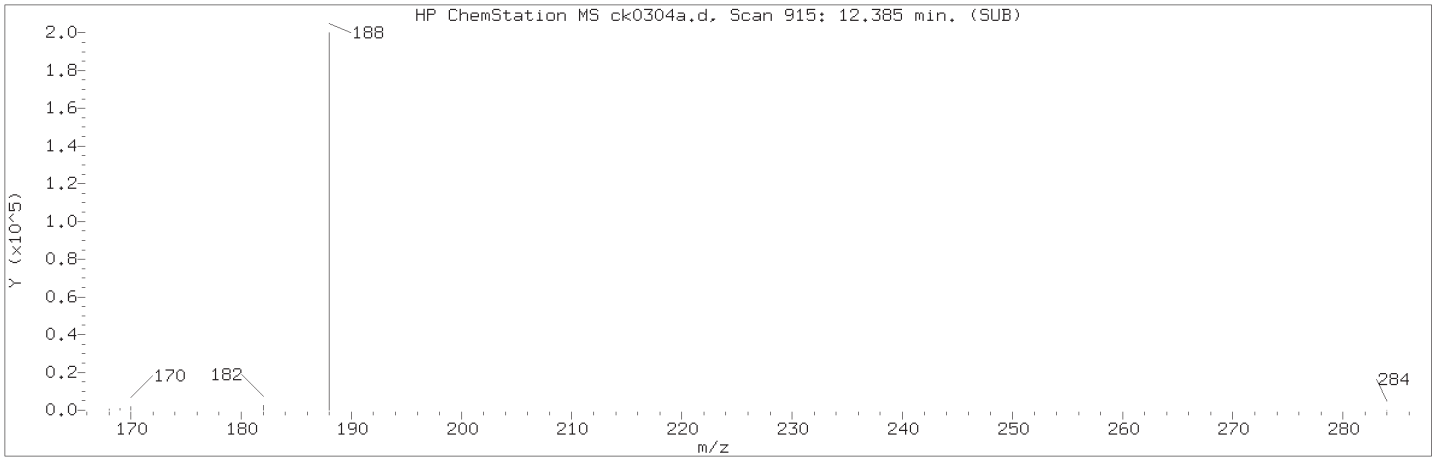
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

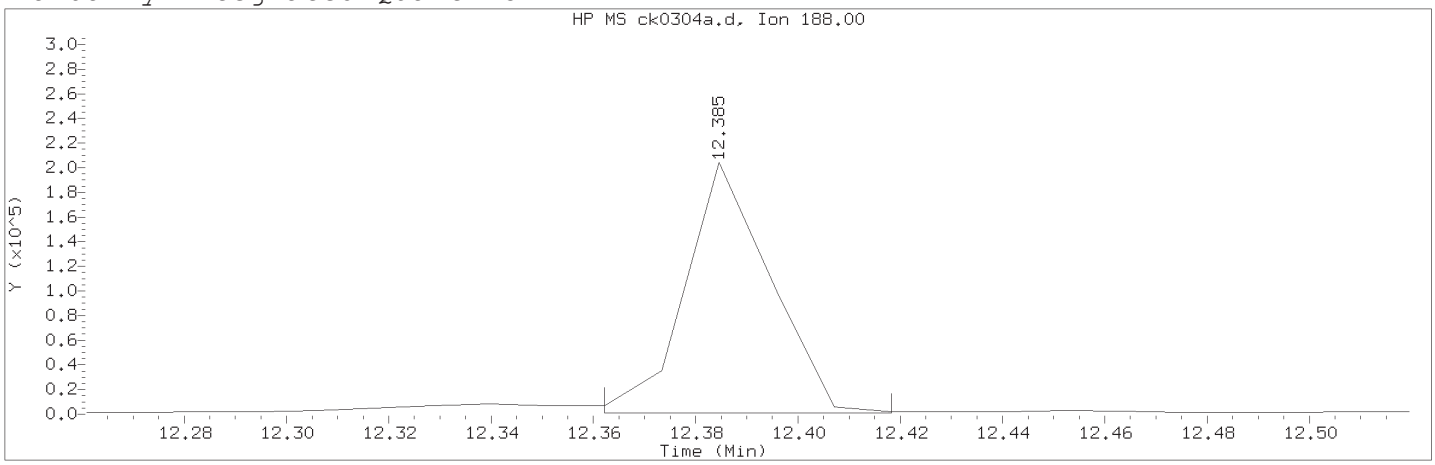
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 810
Retention Time (minutes)	: 11.204
Relative Retention Time	: 0.00000
Quant Ion	: 166.00
Area (flag)	: 107036
On-column Amount (ng/ul)	: 0.4873

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

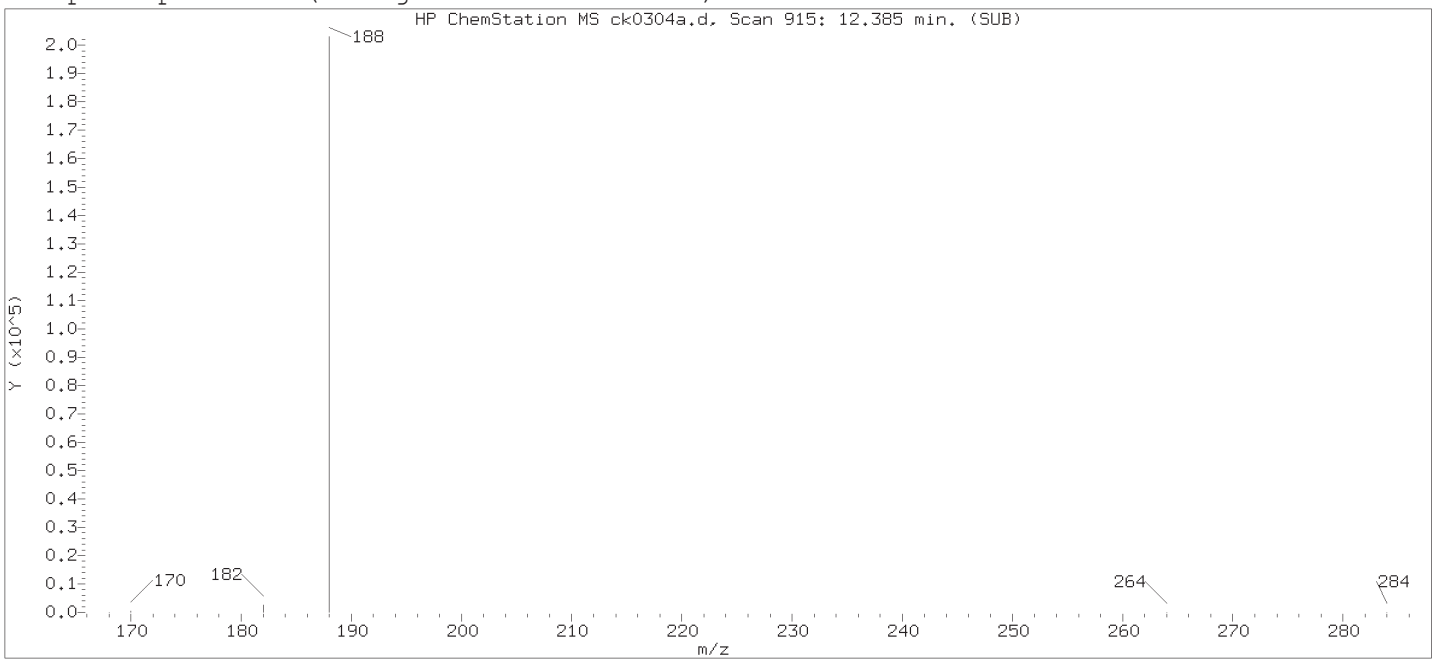
Compound Number : 31
Compound Name : Phenanthrene-d10
Scan Number : 915
Retention Time (minutes) : 12.385
Quant Ion : 188.00
Area (flag) : 234073M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 912 Integration stop scan: 917
Y at integration start : 1165 Y at integration end: 1165

Reason for manual integration: improper integration

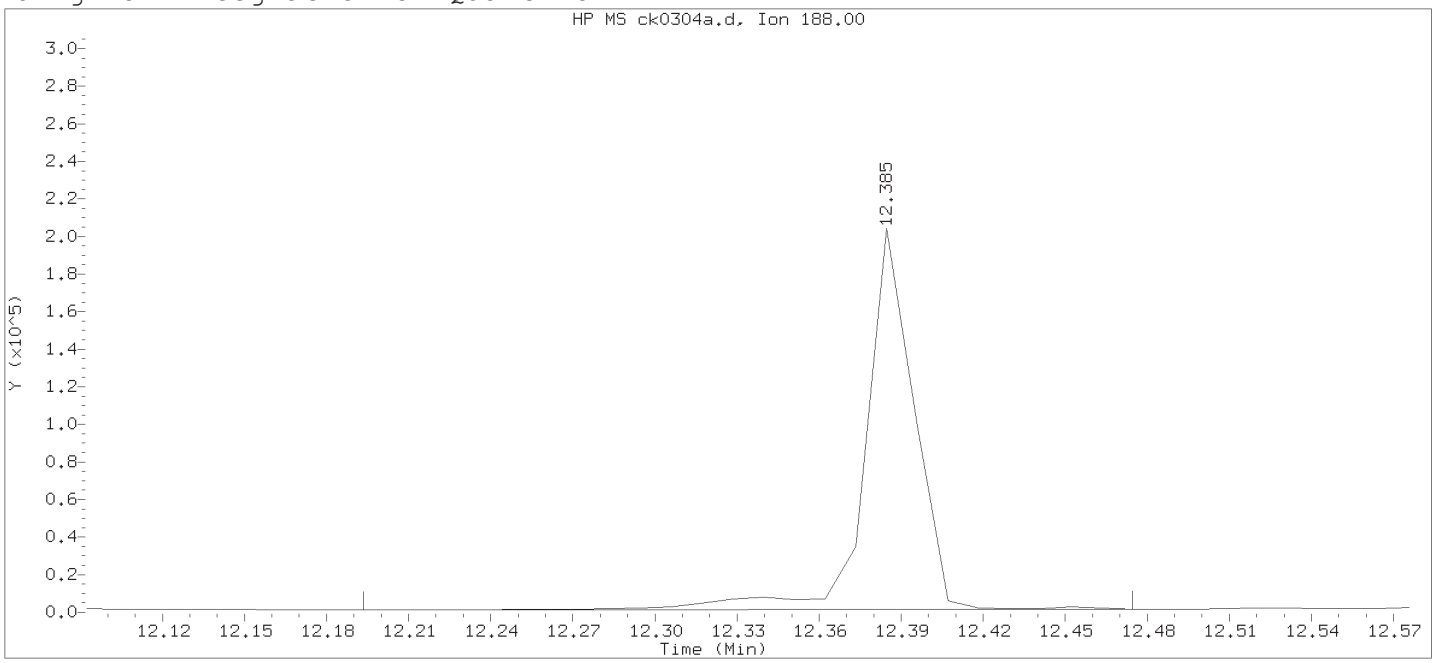
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

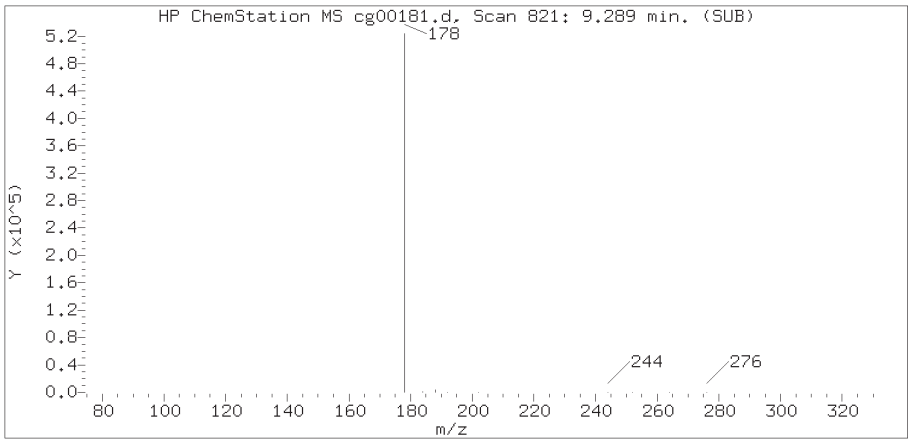
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

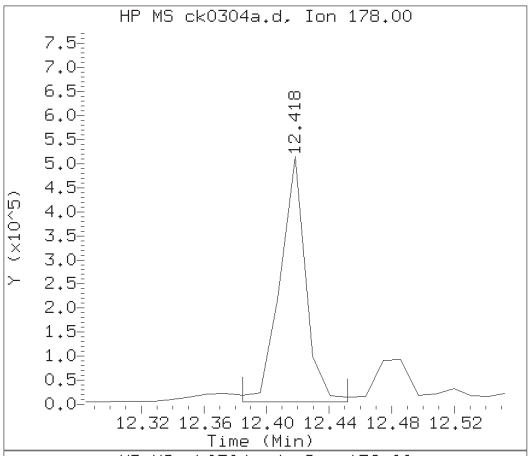
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 31		
Compound Name	: Phenanthrene-d10		
Scan Number	: 915		
Retention Time (minutes)	: 12.385		
Quant Ion	: 188.00		
Area	: 251461		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 897	Integration stop scan:	922
Y at integration start	: 1245	Y at integration end:	1582

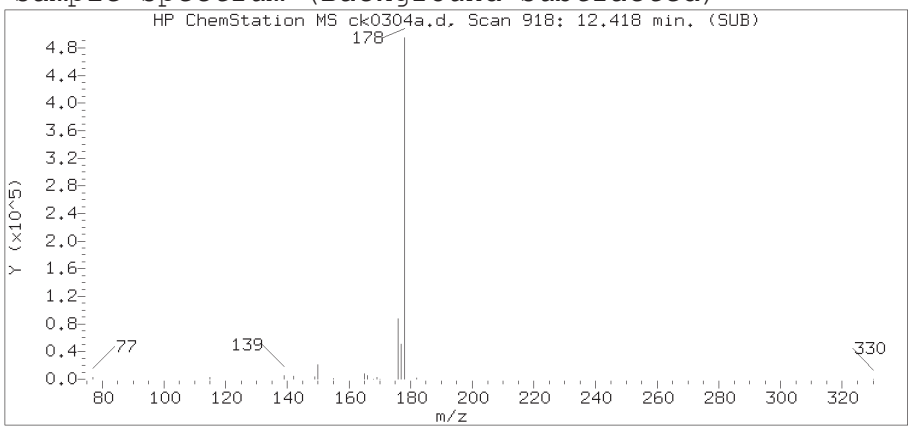
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

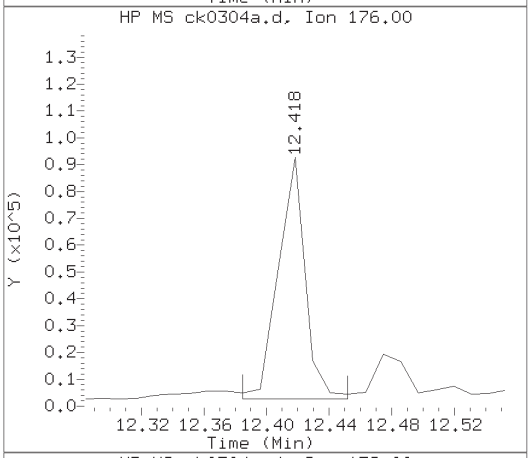
Reference Standard Spectrum for Phenanthrene



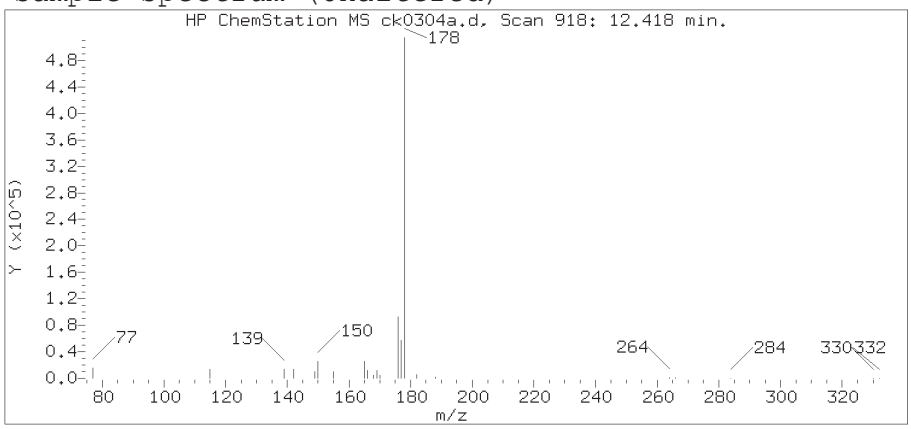


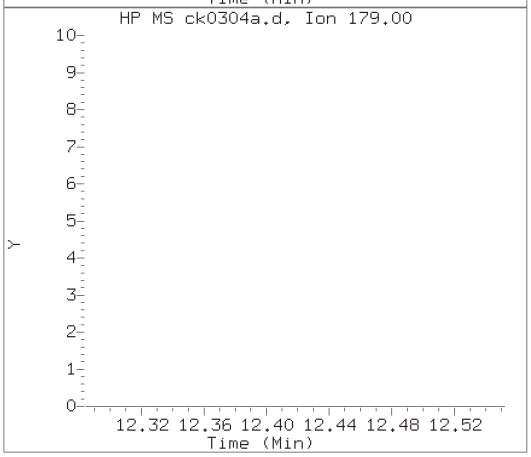
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

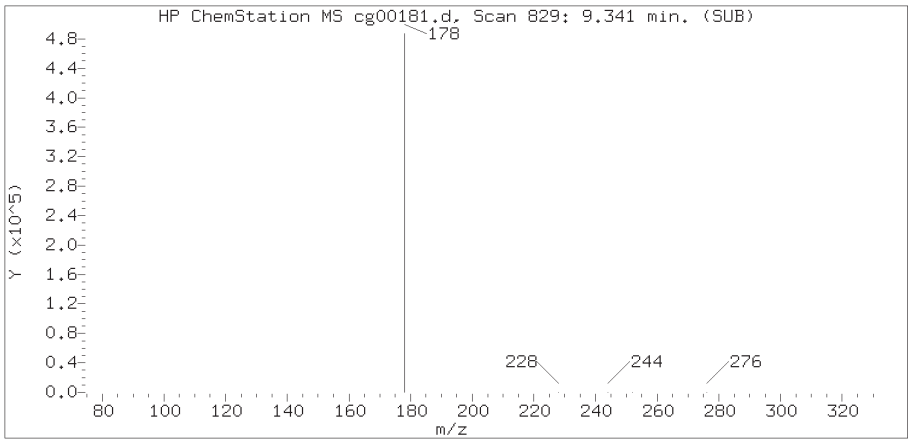
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

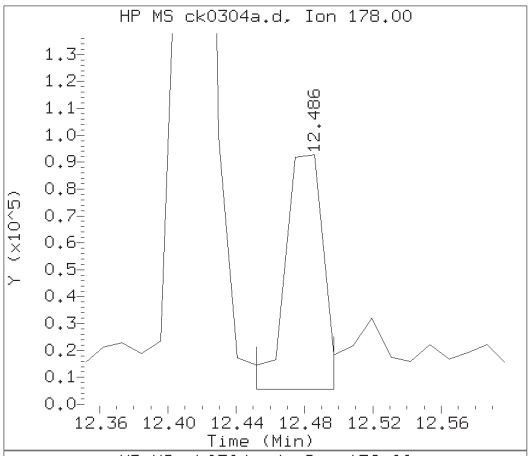
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 581095
On-column Amount (ng/ul)	: 2.0806

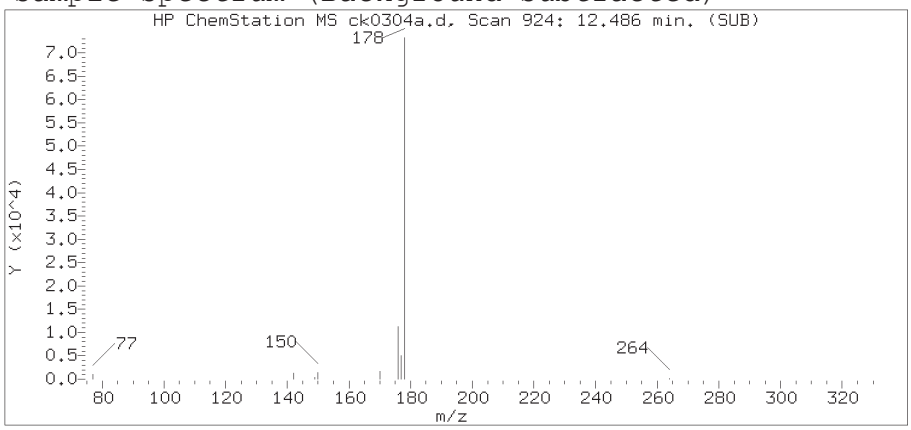
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

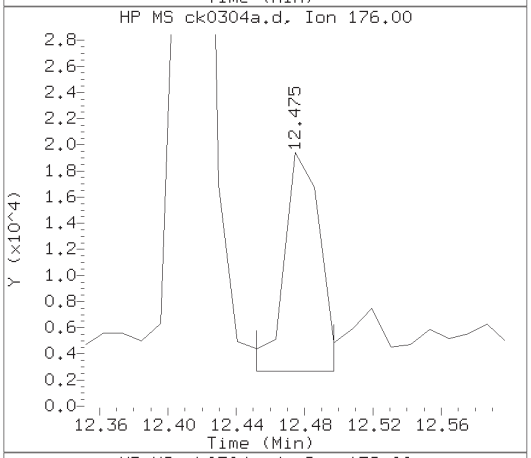
Reference Standard Spectrum for Anthracene



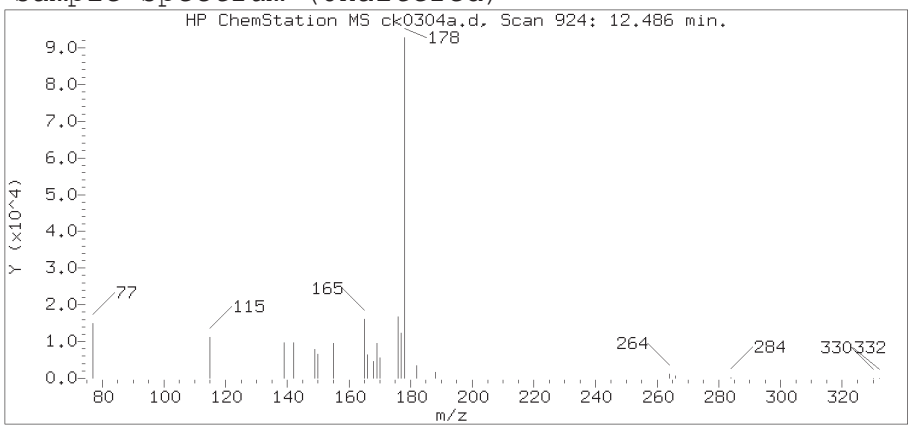


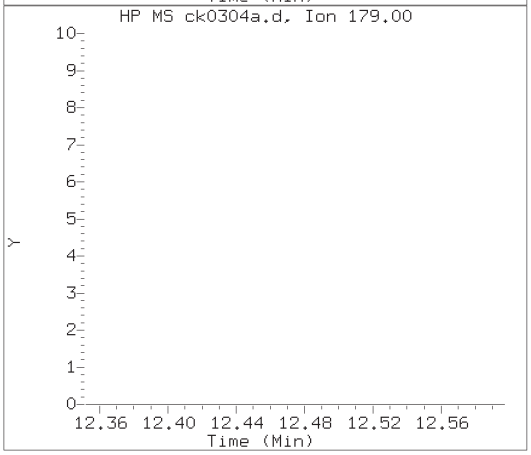
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

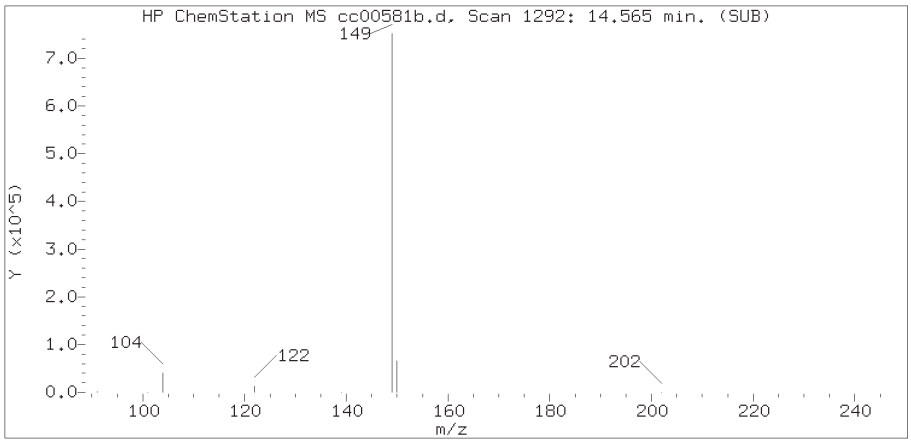
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

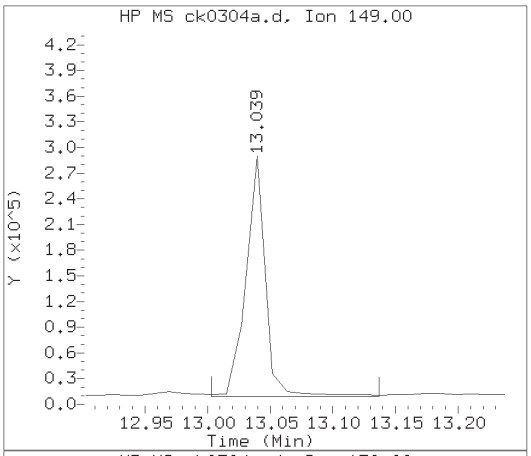
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Relative Retention Time	:-0.00091
Quant Ion	: 178.00
Area (flag)	: 131934
On-column Amount (ng/ul)	: 0.4912

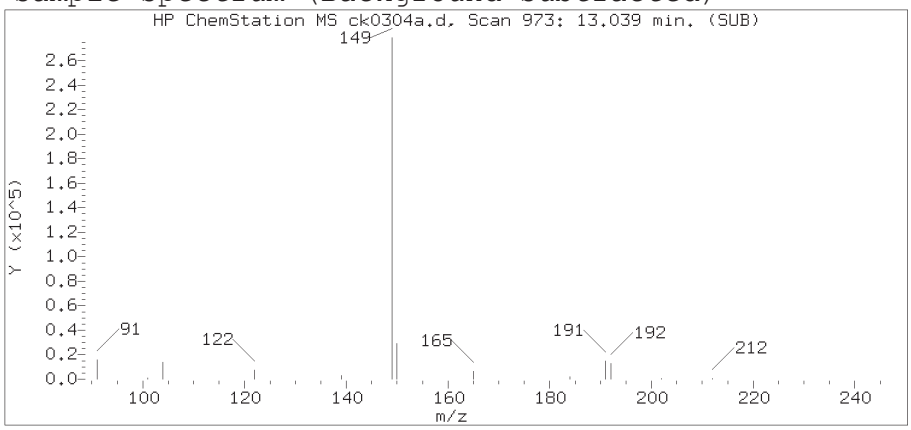
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

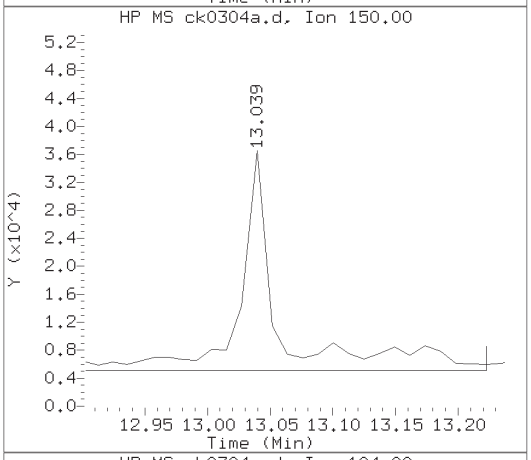
Reference Standard Spectrum for Di-n-butylphthalate



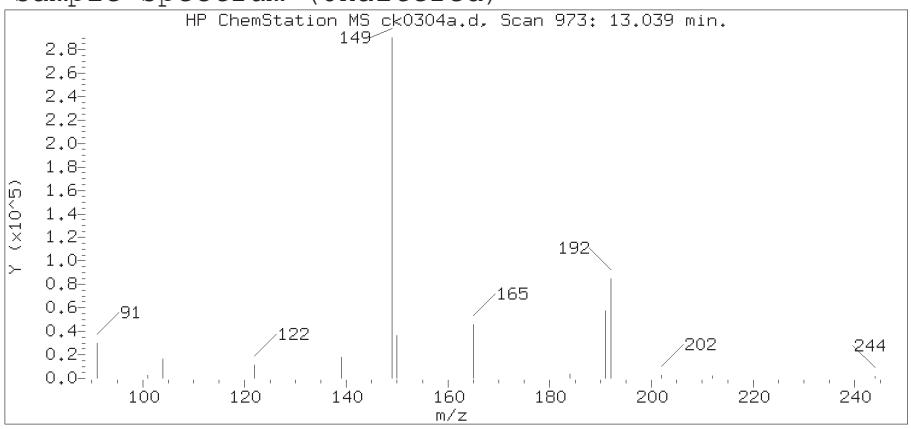


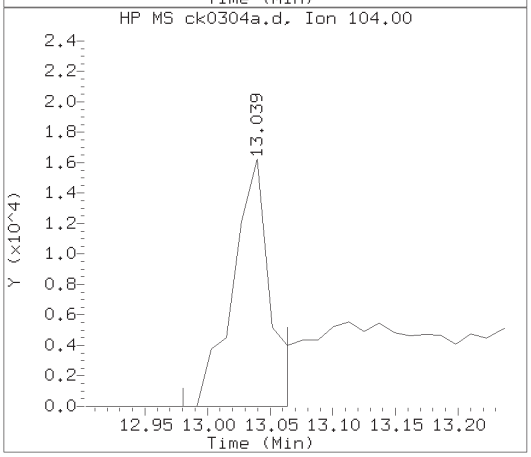
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.039
Relative Retention Time	: 0.00000
Quant Ion	: 149.00
Area (flag)	: 290424
On-column Amount (ng/ul)	: 0.9708

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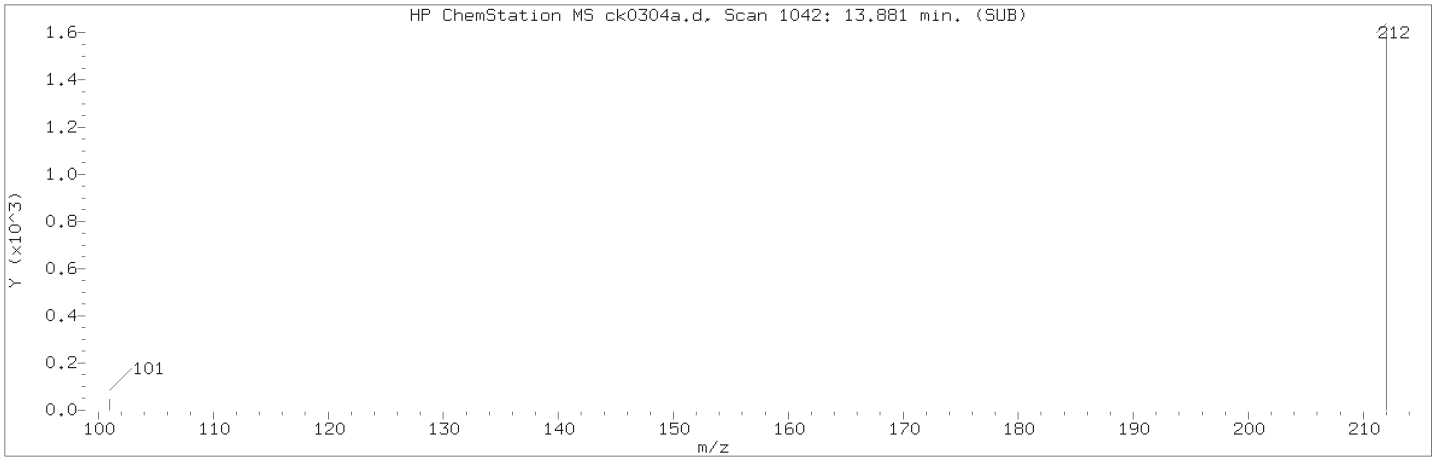
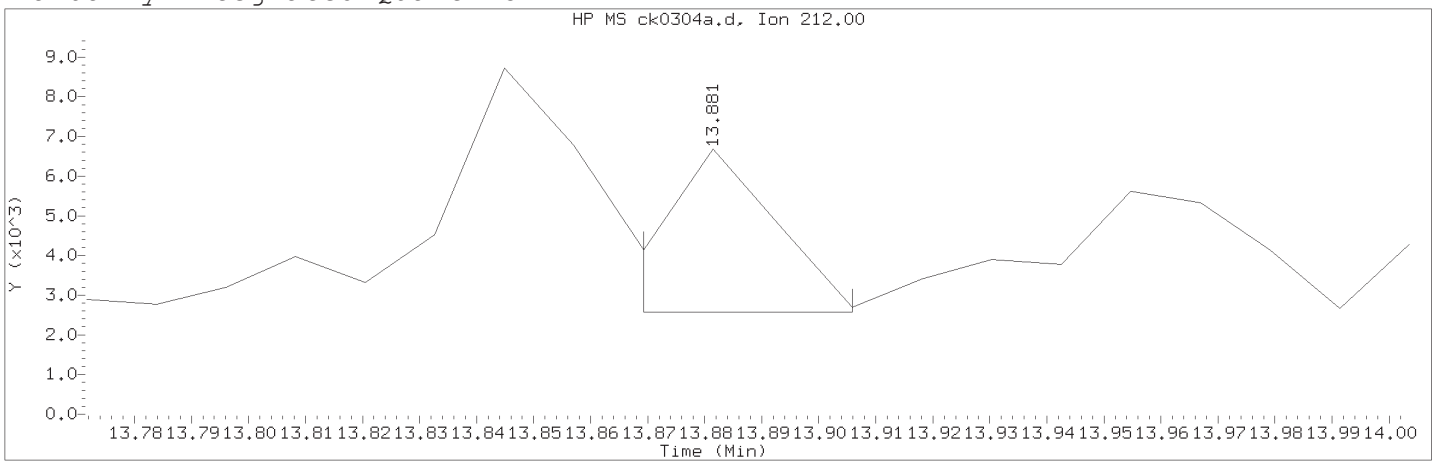
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

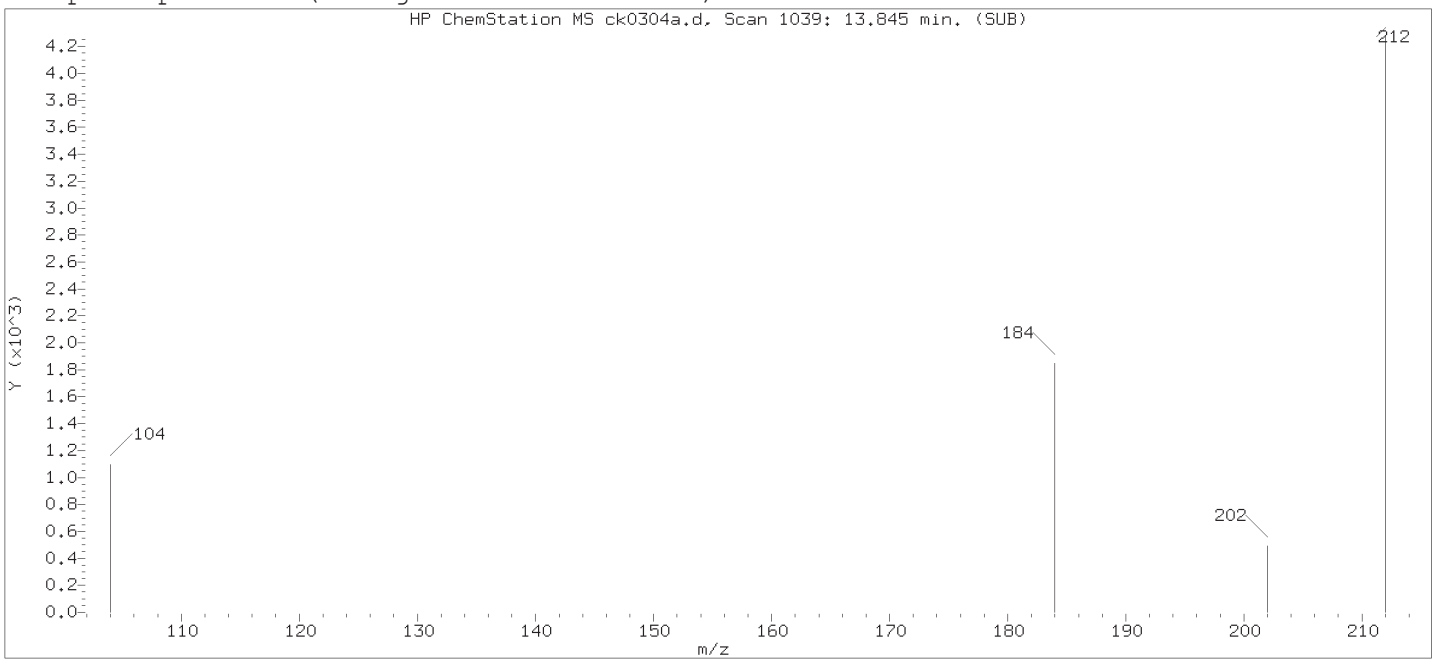
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1042
Retention Time (minutes) : 13.881
Quant Ion : 212.00
Area (flag) : 5777M
On-column Amount (ng/ul) : 0.0272
Integration start scan : 1040 Integration stop scan: 1043
Y at integration start : 2571 Y at integration end: 2571

Reason for manual integration: improper integration

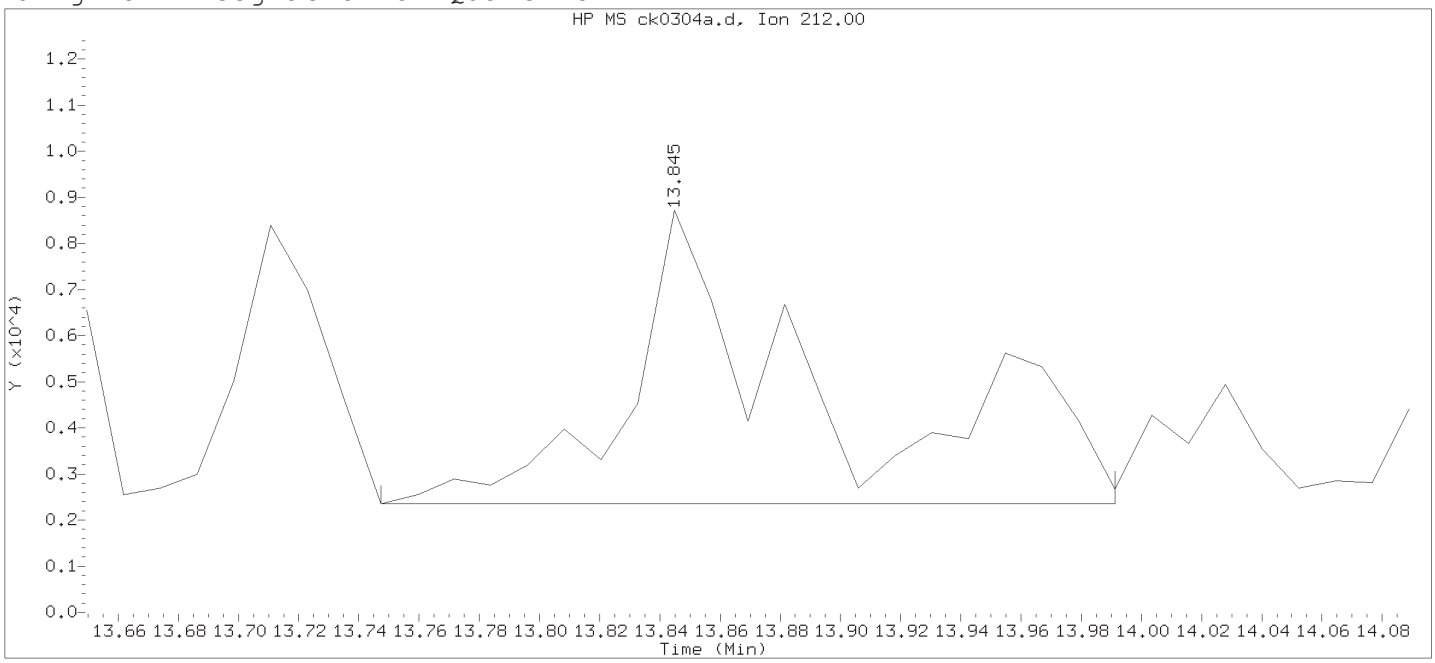
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

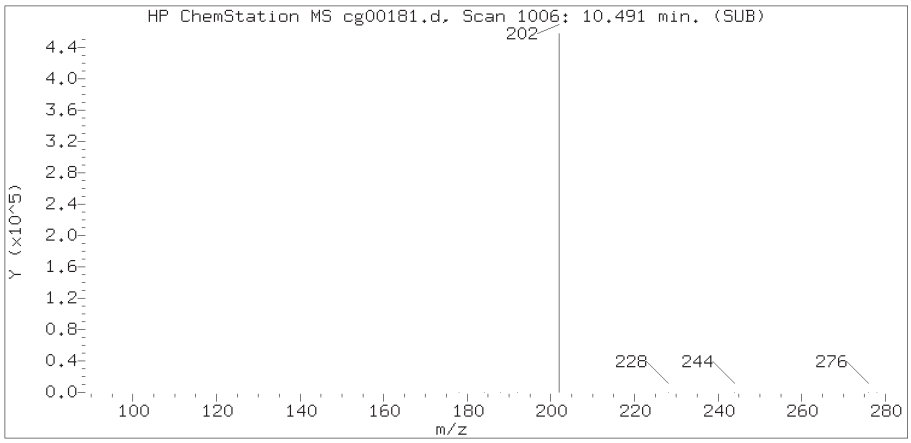
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

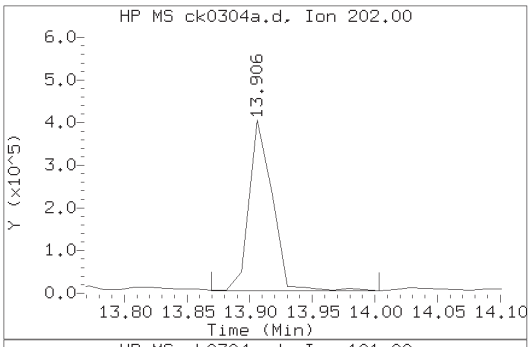
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1039		
Retention Time (minutes)	: 13.845		
Quant Ion	: 212.00		
Area	: 28173		
On-column Amount (ng/ul)	: 0.1235		
Integration start scan	: 1030	Integration stop scan:	1050
Y at integration start	: 2353	Y at integration end:	2353

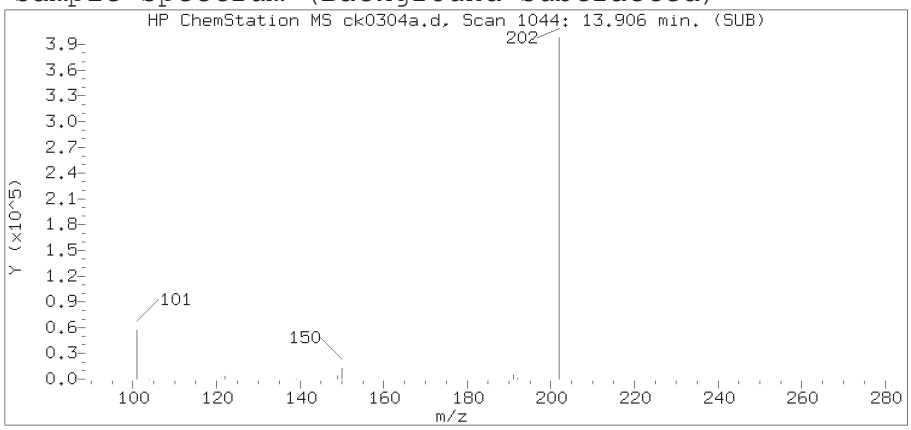
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

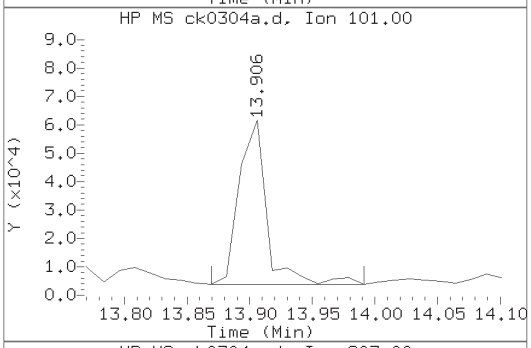
Reference Standard Spectrum for Fluoranthene

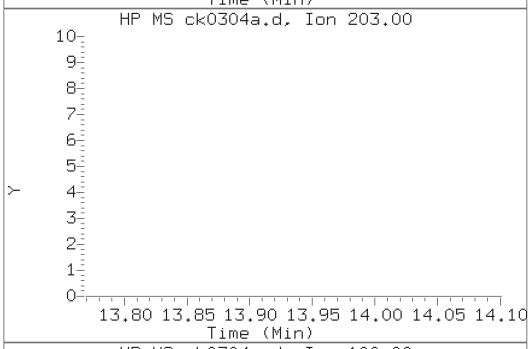




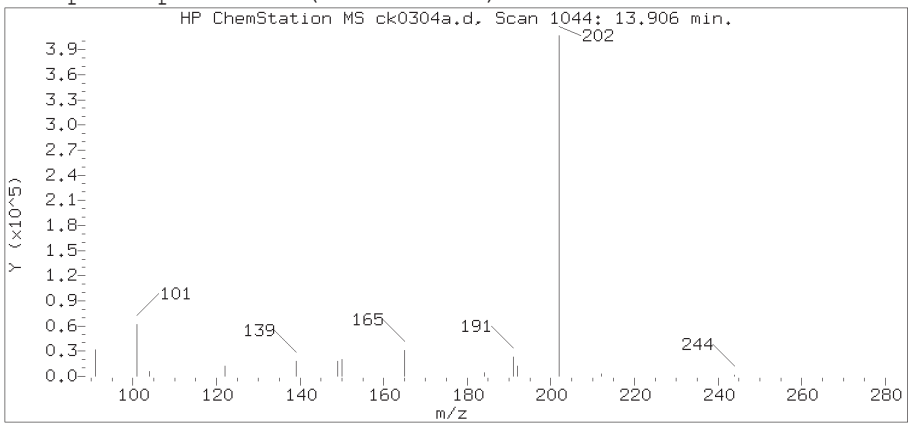
Sample Spectrum (Background Subtracted)

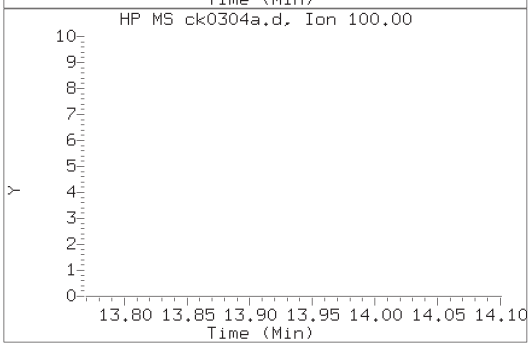






Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

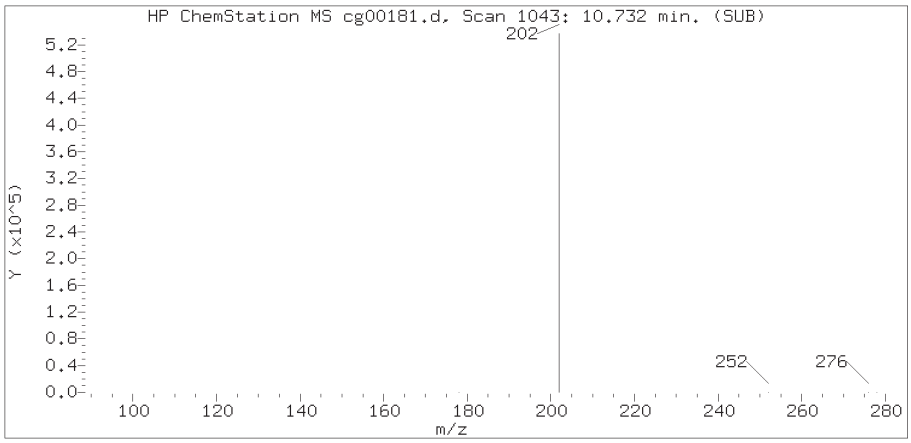
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

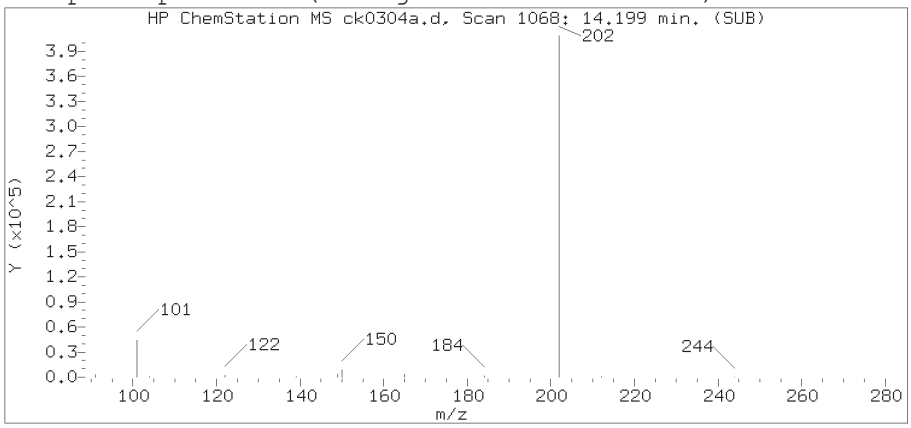
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1044
Retention Time (minutes)	: 13.906
Relative Retention Time	: 0.00000
Quant Ion	: 202.00
Area (flag)	: 523397
On-column Amount (ng/ul)	: 1.9072

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

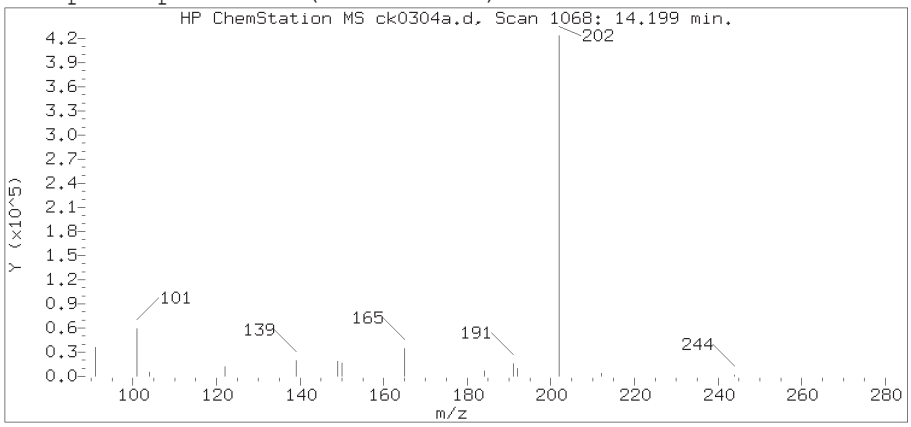
Reference Standard Spectrum for Pyrene

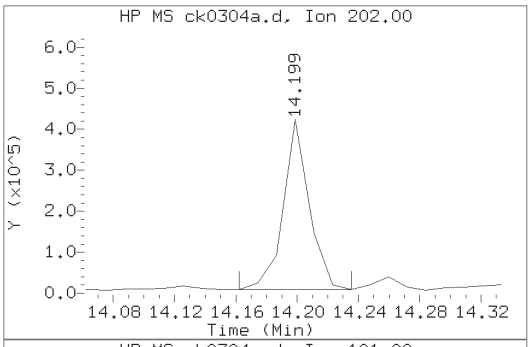


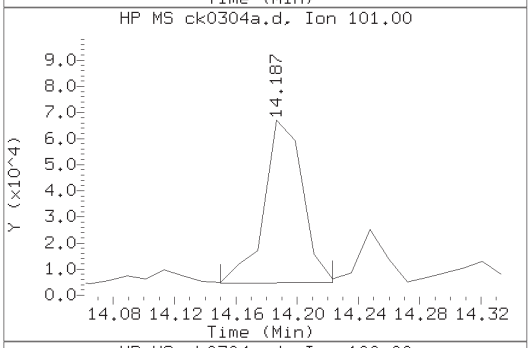
Sample Spectrum (Background Subtracted)

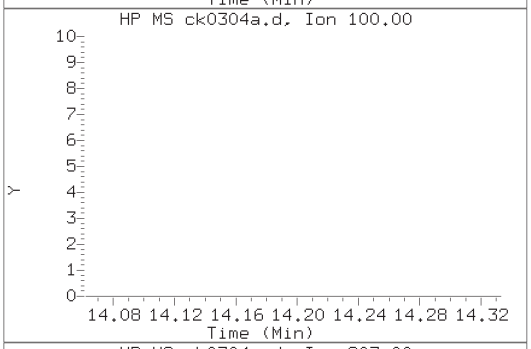


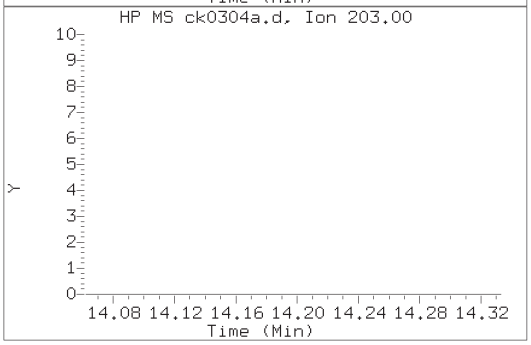
Sample Spectrum (Unaltered)











Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

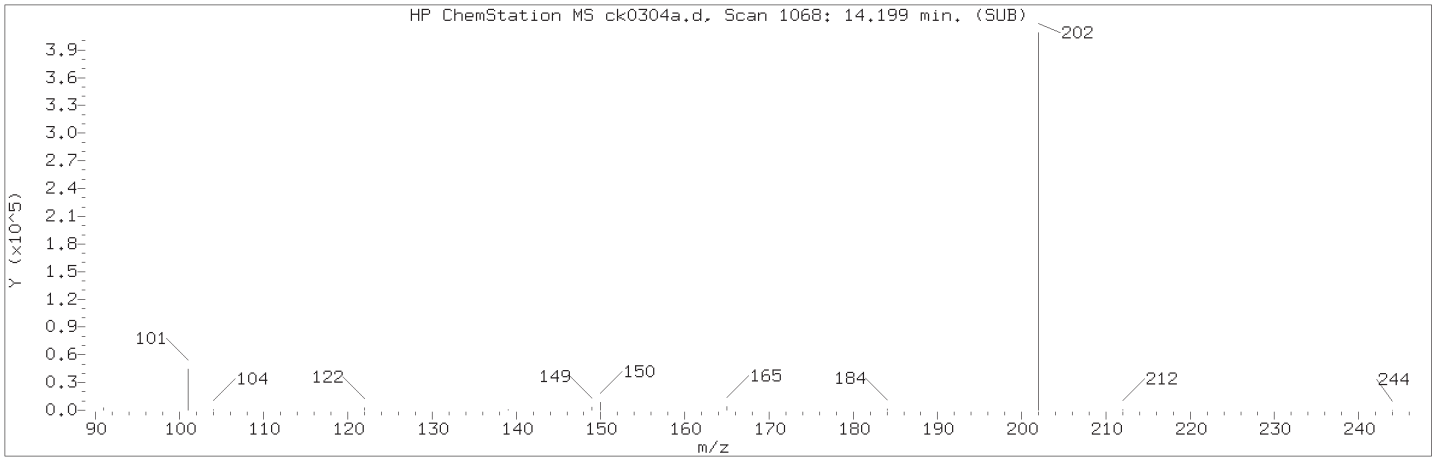
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

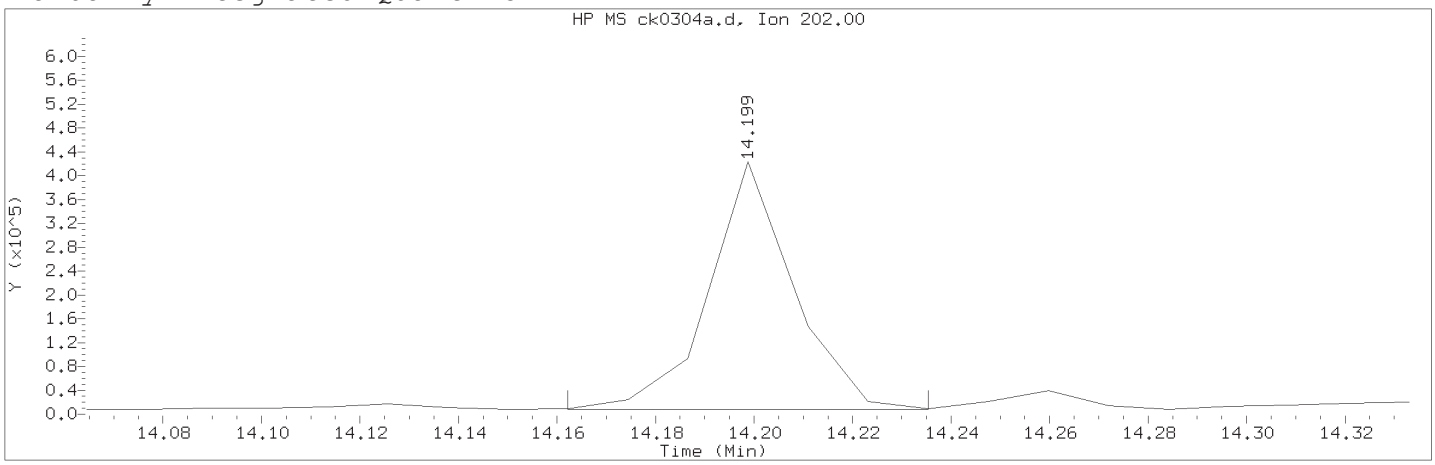
Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1068
Retention Time (minutes)	: 14.199
Relative Retention Time	: 0.00045
Quant Ion	: 202.00
Area (flag)	: 490084M
On-column Amount (ng/ul)	: 1.6875

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

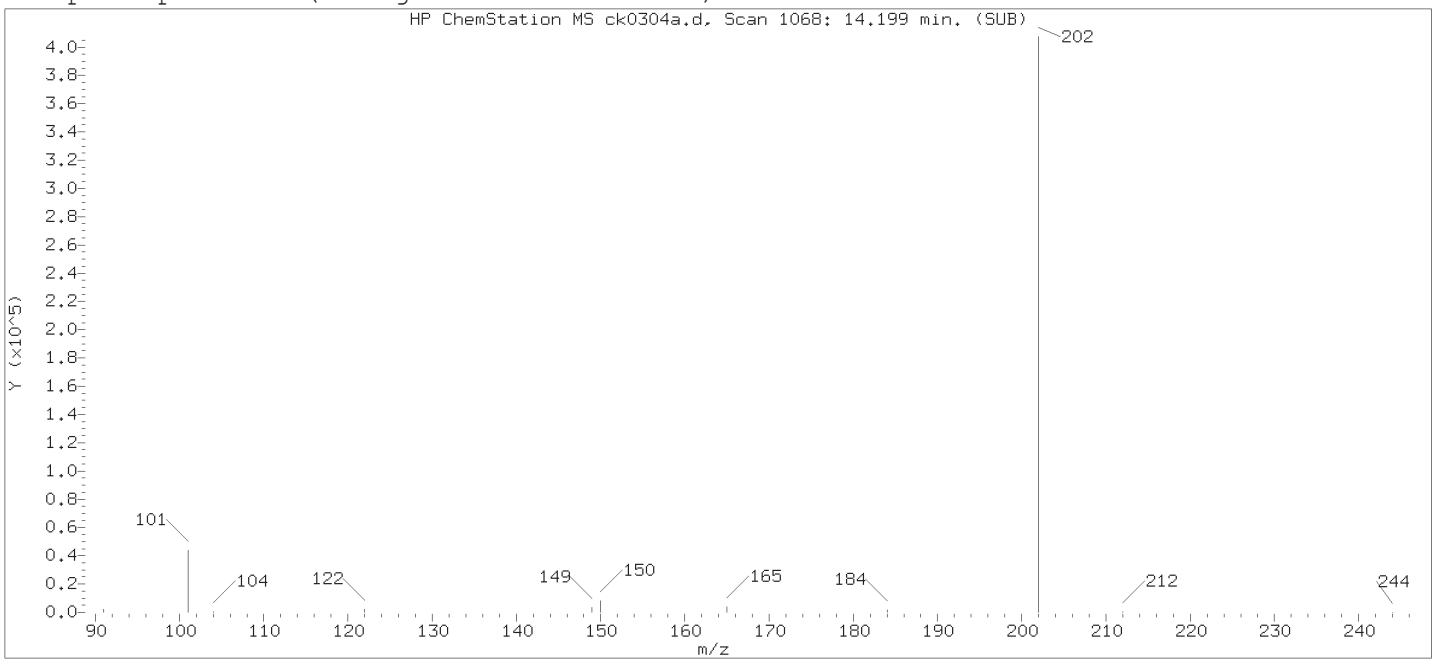
Compound Number : 39
Compound Name : Pyrene
Scan Number : 1068
Retention Time (minutes) : 14.199
Quant Ion : 202.00
Area (flag) : 490084M
On-column Amount (ng/ul) : 1.6875
Integration start scan : 1064 Integration stop scan: 1070
Y at integration start : 8269 Y at integration end: 8269

Reason for manual integration: improper integration

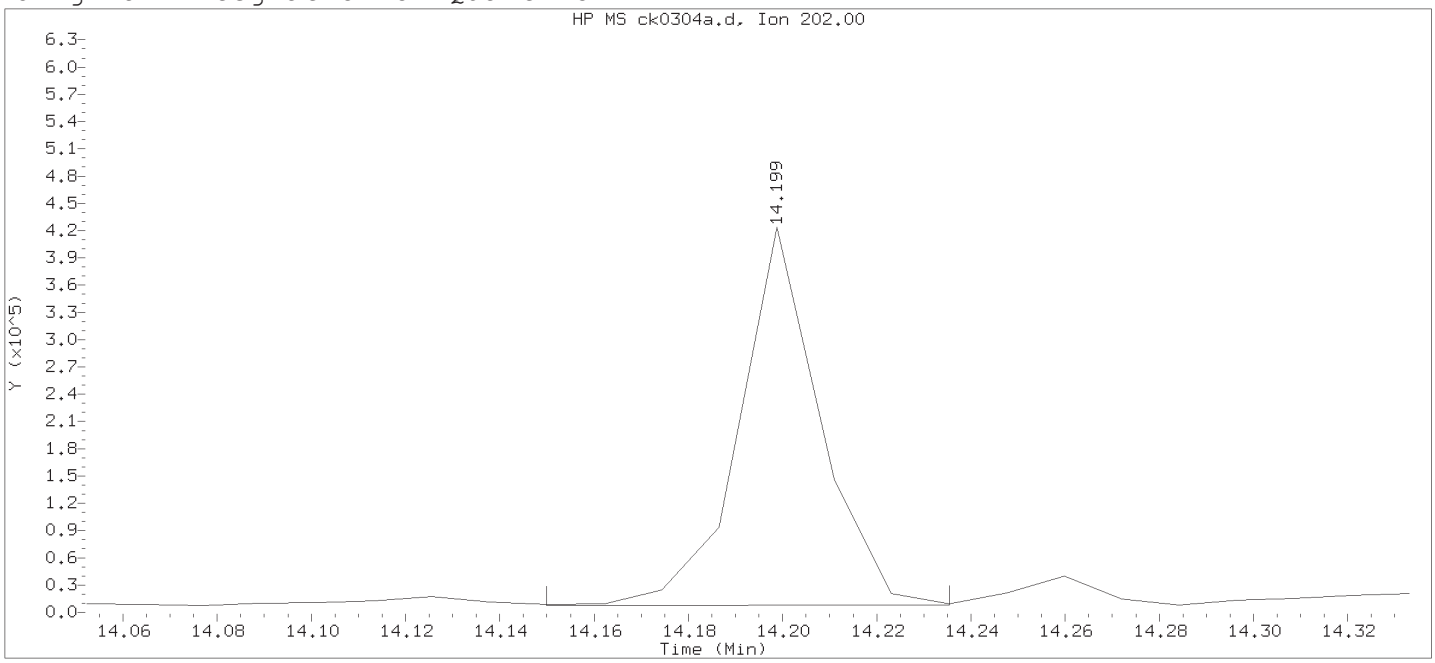
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

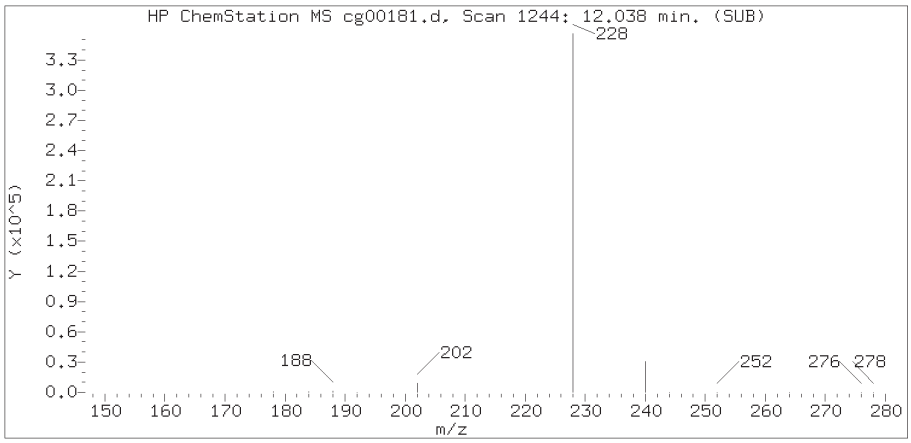
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

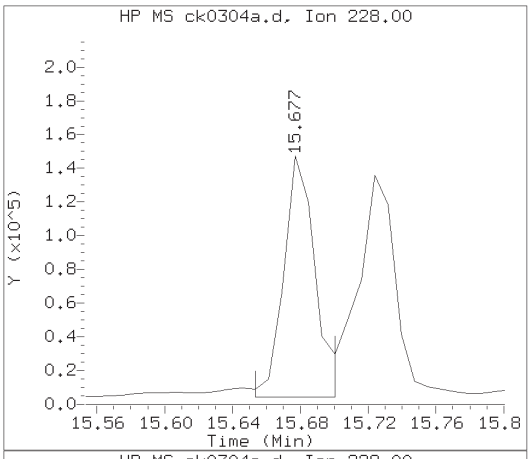
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1068		
Retention Time (minutes)	: 14.199		
Quant Ion	: 202.00		
Area	: 493437		
On-column Amount (ng/ul)	: 1.6991		
Integration start scan	: 1063	Integration stop scan:	1070
Y at integration start	: 7330	Y at integration end:	7797

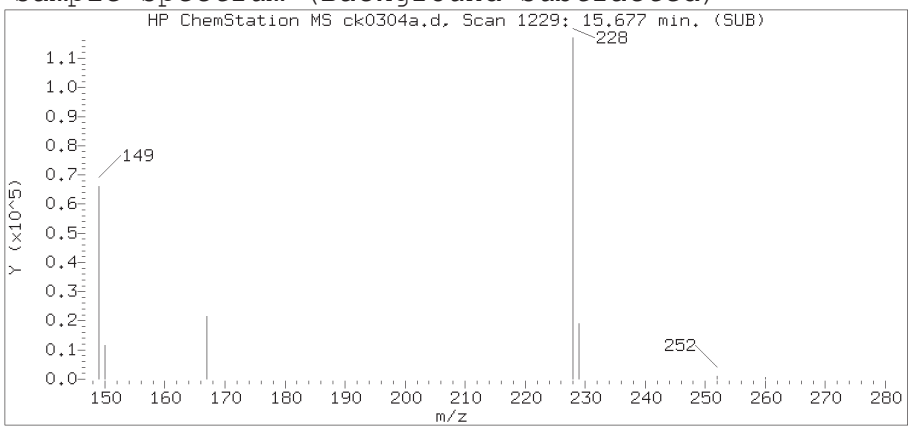
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018

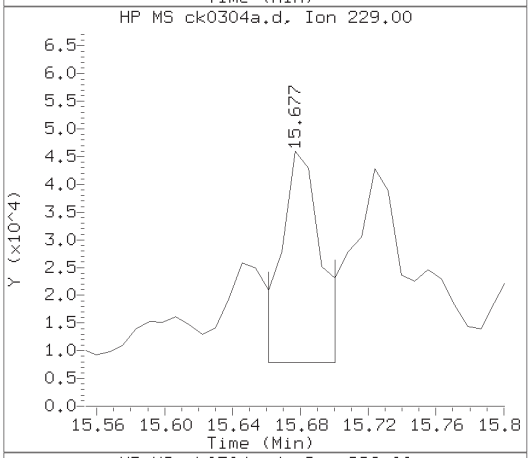
Reference Standard Spectrum for Benzo(a)anthracene



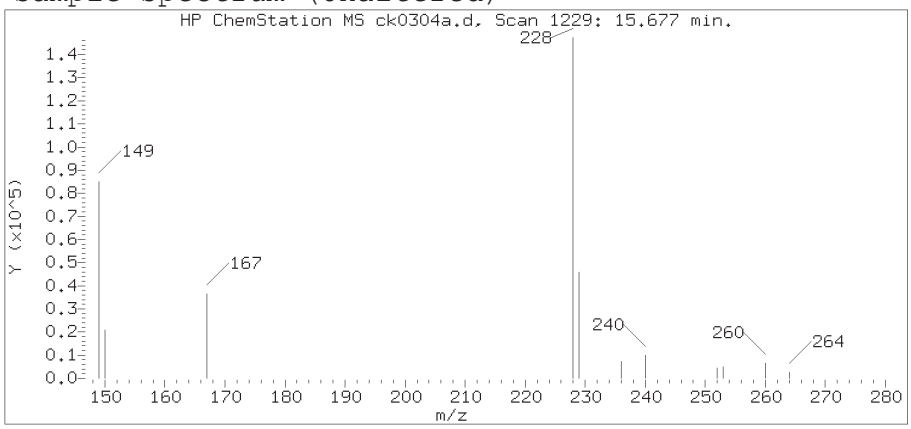


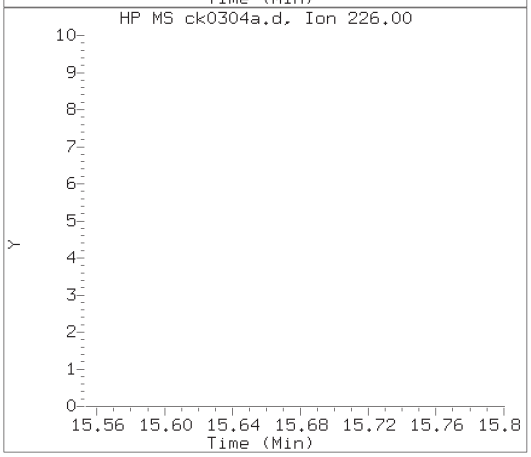
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

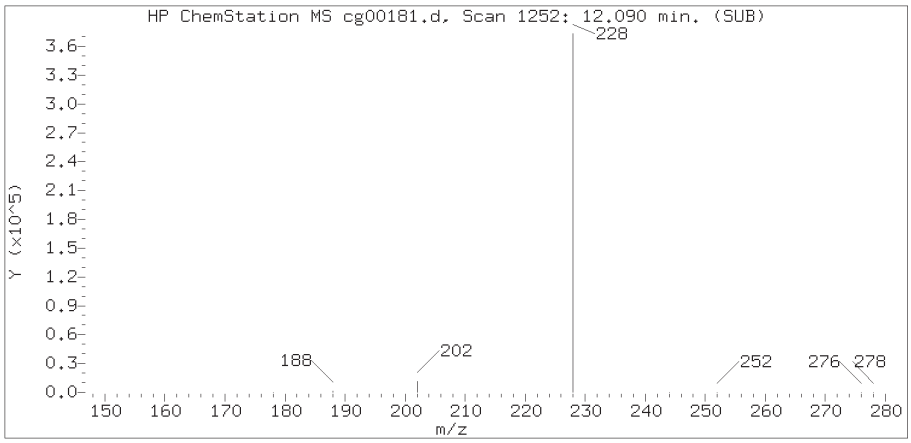
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

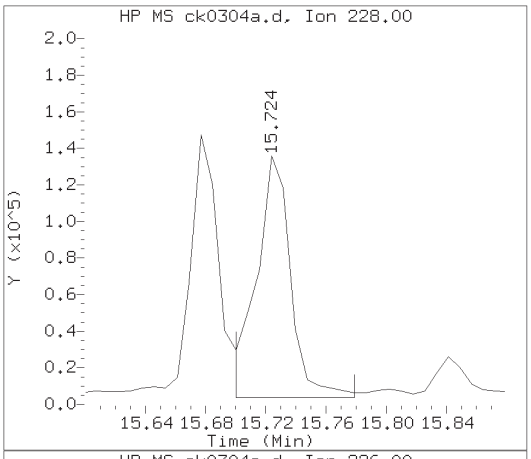
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1229
Retention Time (minutes)	: 15.677
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 179029
On-column Amount (ng/ul)	: 0.7656

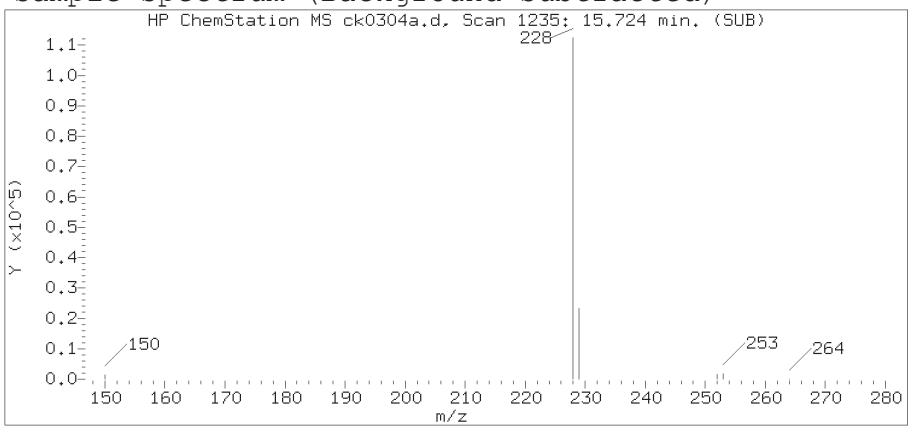
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

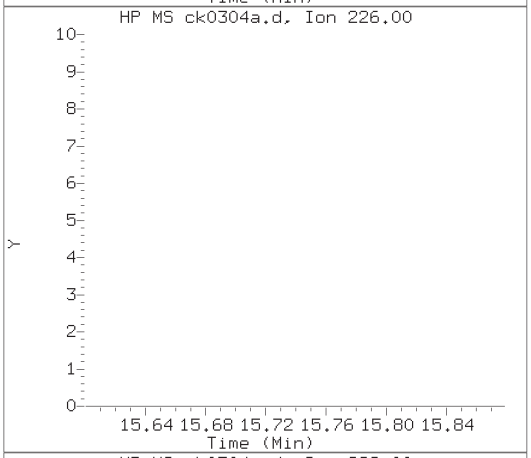
Reference Standard Spectrum for Chrysene



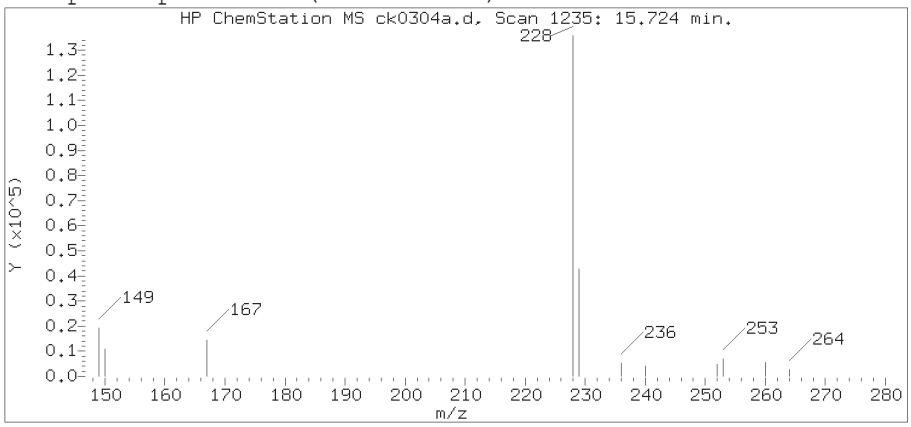


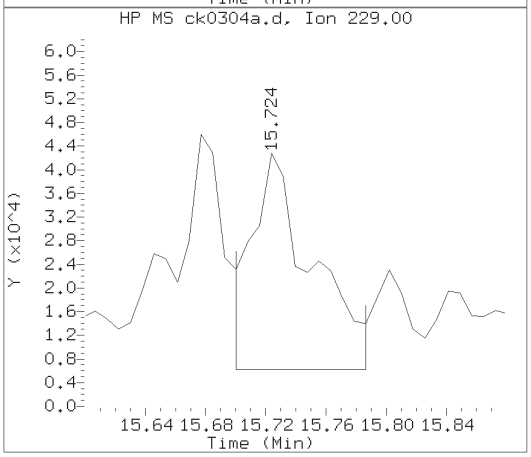
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

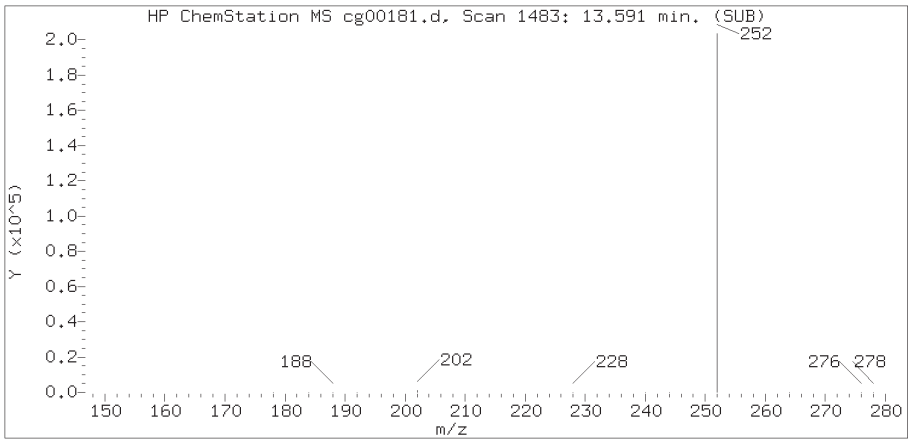
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

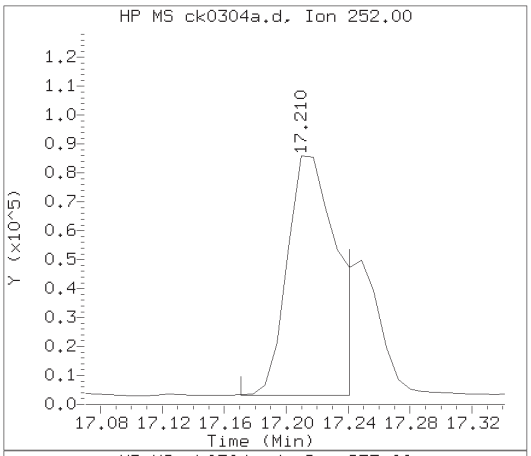
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1235
Retention Time (minutes)	: 15.724
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 206935
On-column Amount (ng/ul)	: 0.8637

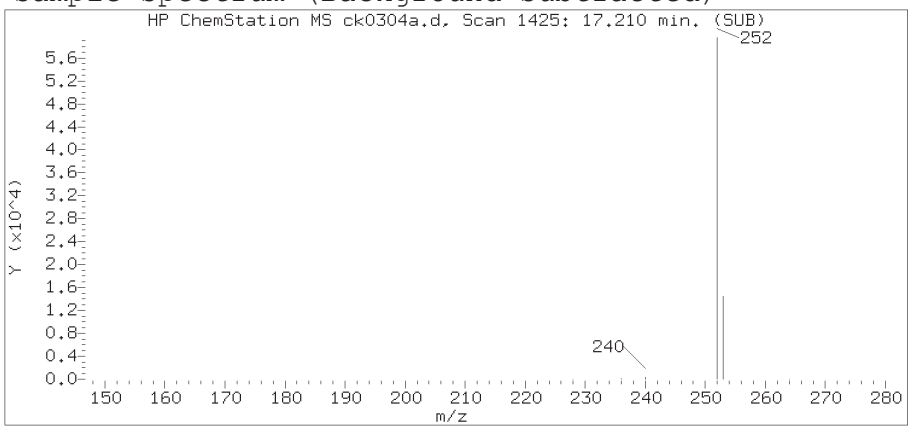
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

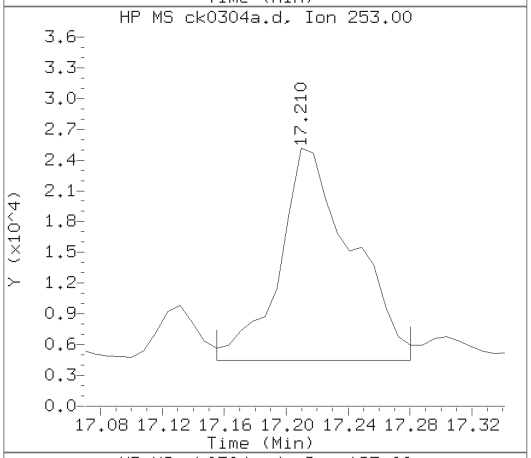
Reference Standard Spectrum for Benzo(b)fluoranthene



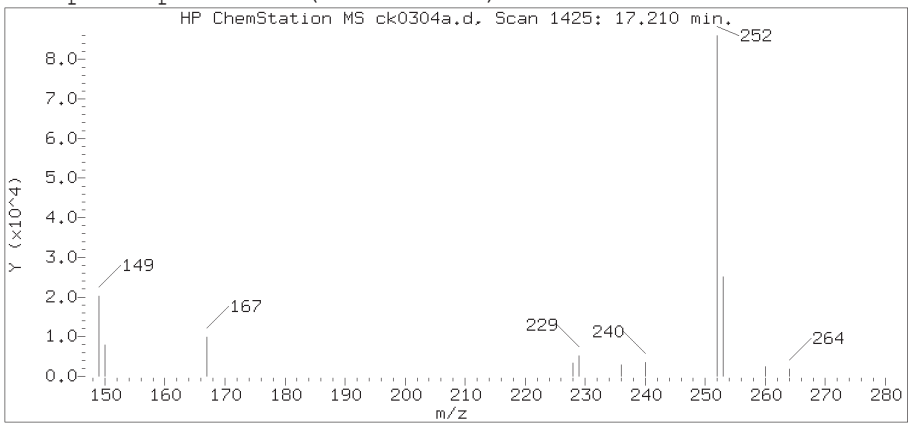


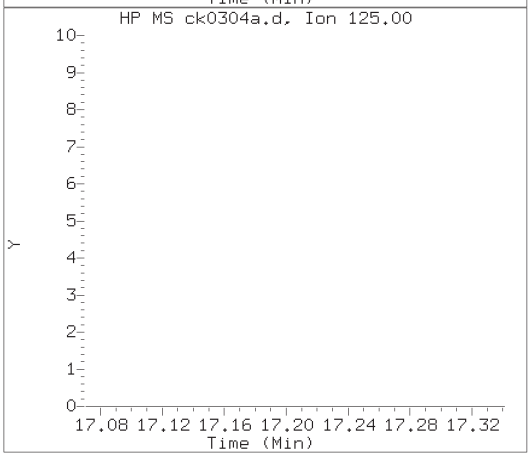
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

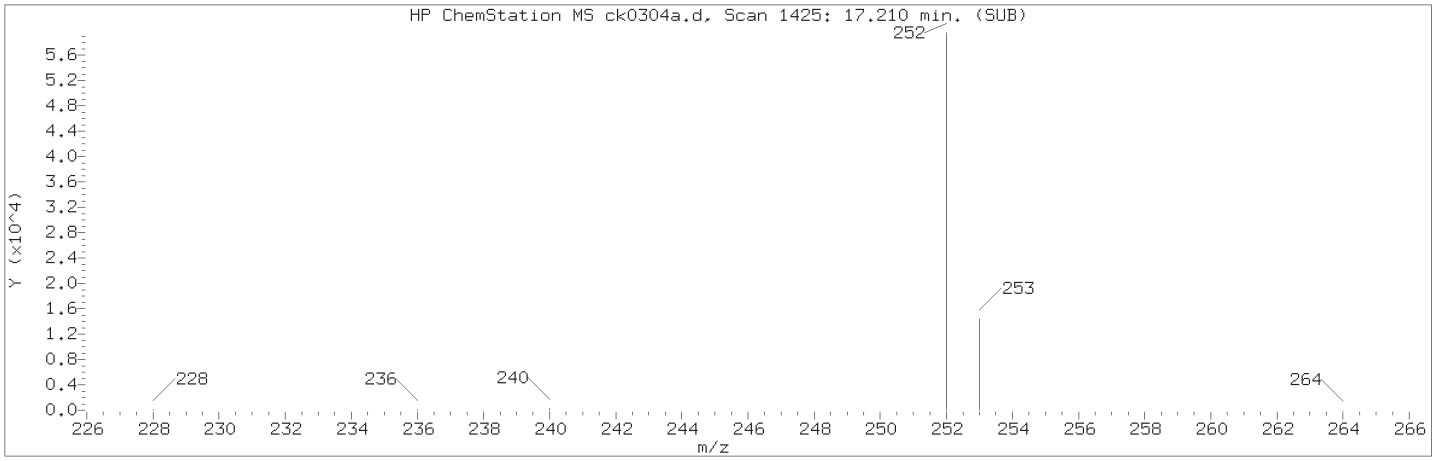
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

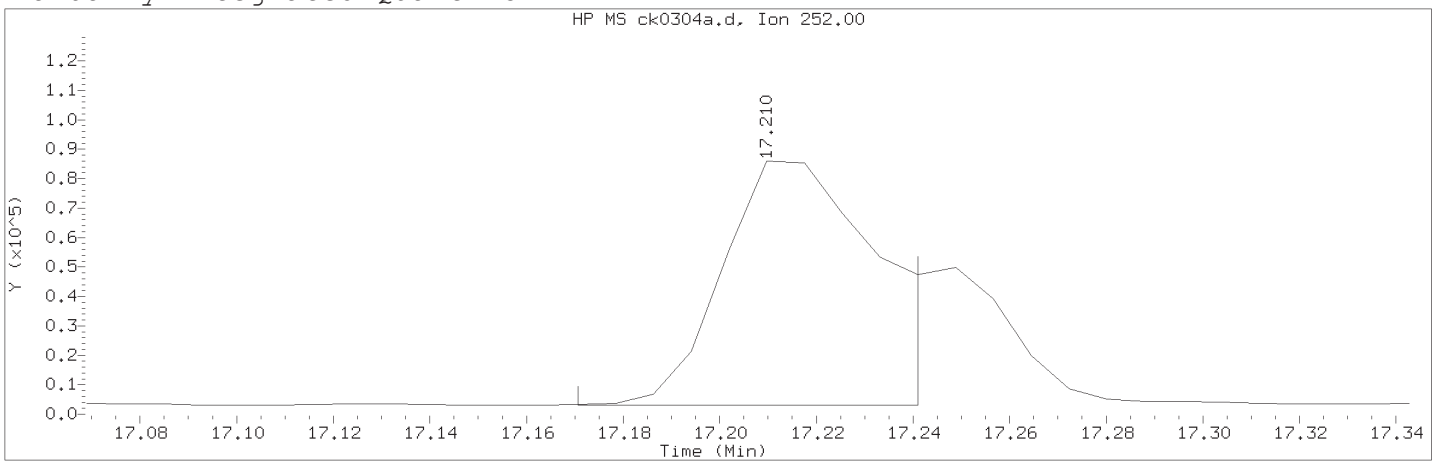
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1425
Retention Time (minutes)	: 17.210
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 187745M
On-column Amount (ng/ul)	: 0.8343

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

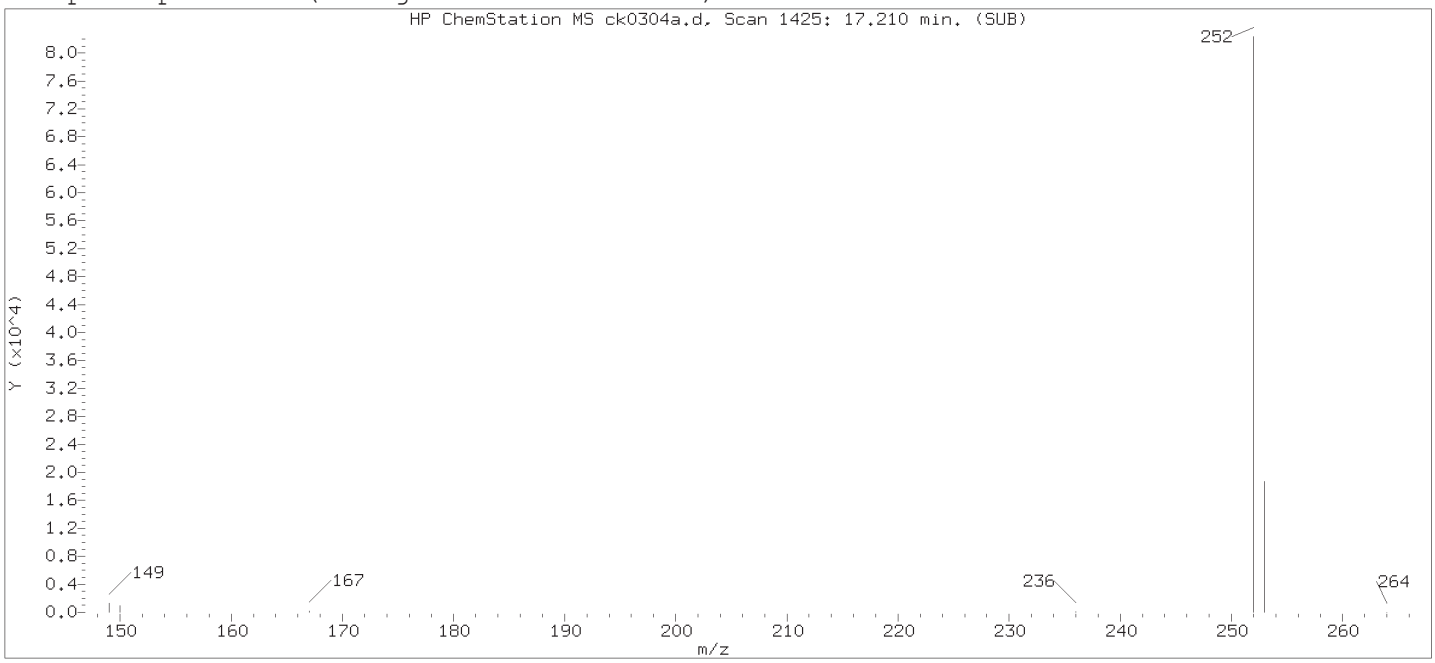
Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1425		
Retention Time (minutes)	: 17.210		
Quant Ion	: 252.00		
Area (flag)	: 187745M		
On-column Amount (ng/ul)	: 0.8343		
Integration start scan	: 1419	Integration stop scan:	1428
Y at integration start	: 3085	Y at integration end:	3085

Reason for manual integration: improper integration

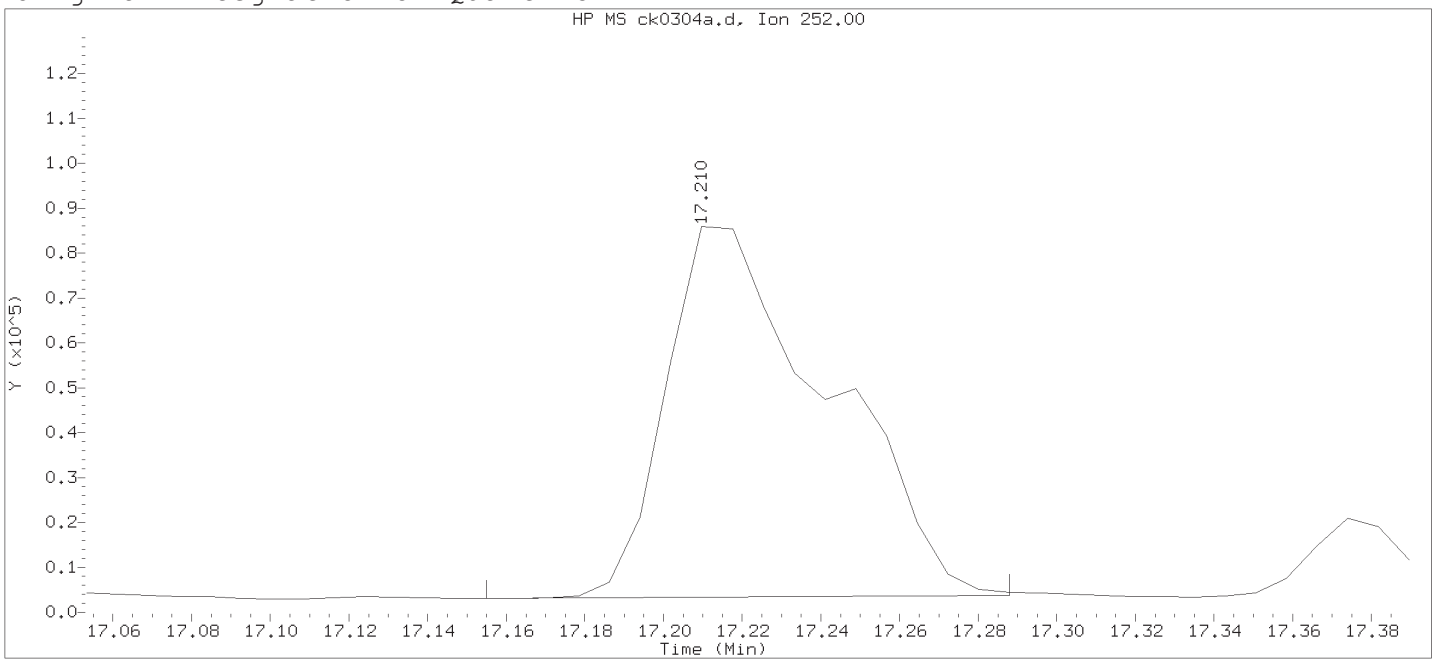
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

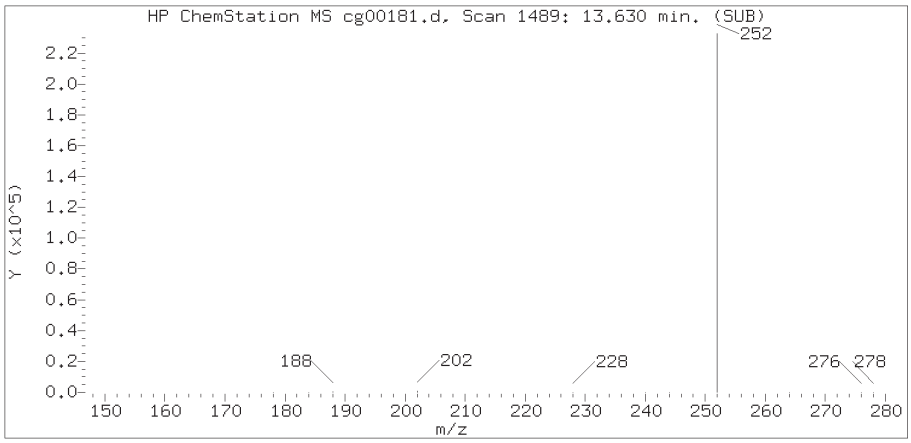
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

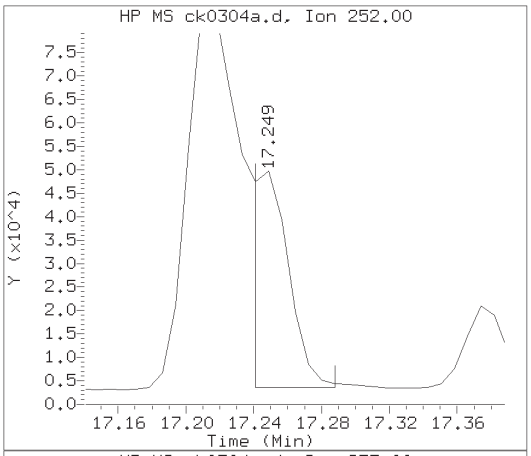
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1425		
Retention Time (minutes)	: 17.210		
Quant Ion	: 252.00		
Area	: 235906		
On-column Amount (ng/ul)	: 1.0483		
Integration start scan	: 1417	Integration stop scan:	1434
Y at integration start	: 3071	Y at integration end:	3717

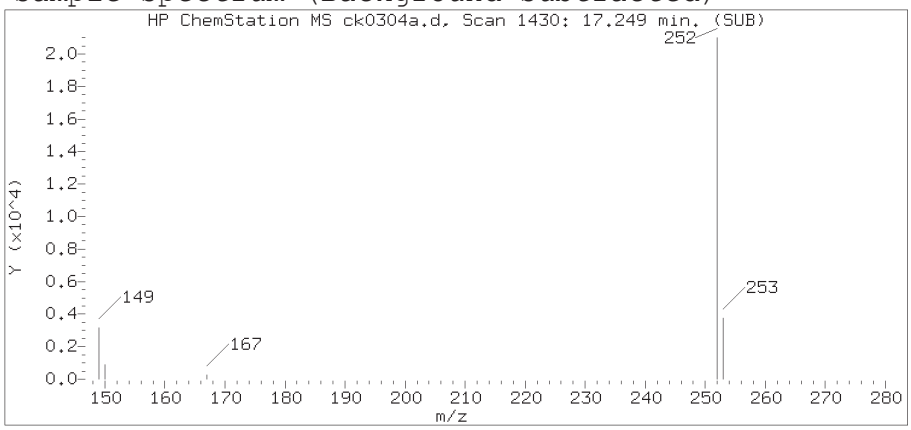
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

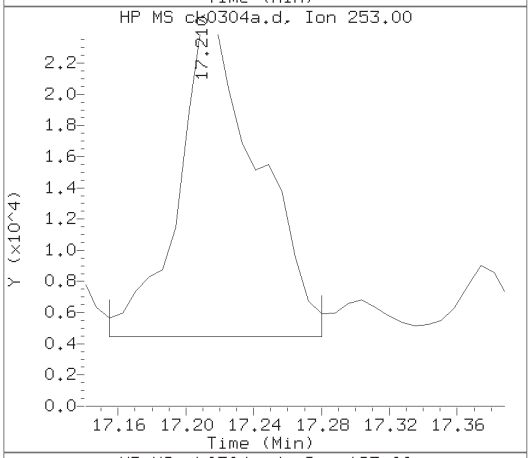
Reference Standard Spectrum for Benzo(k)fluoranthene



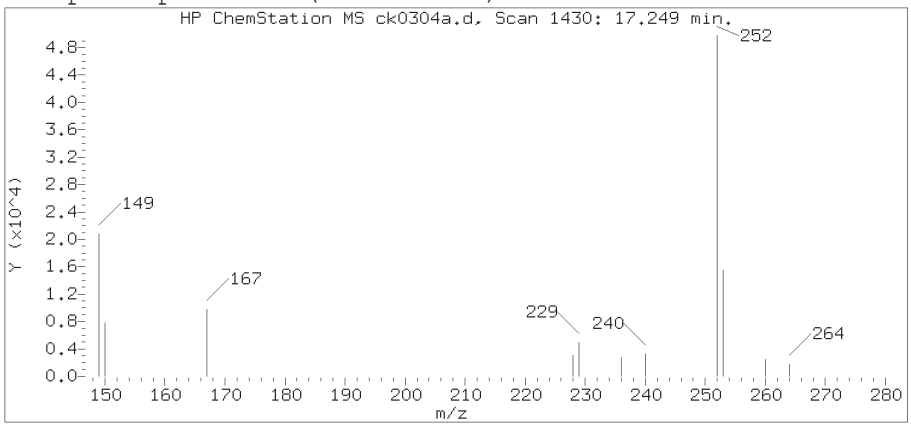


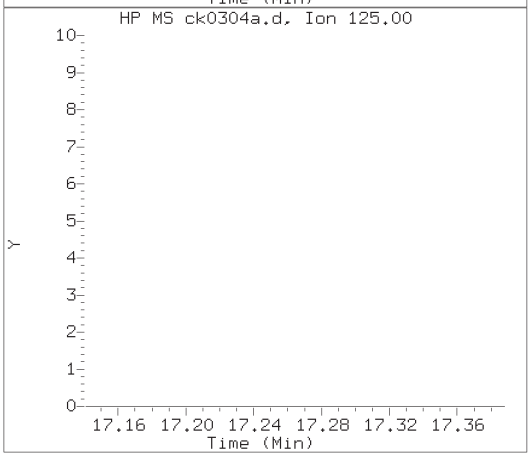
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

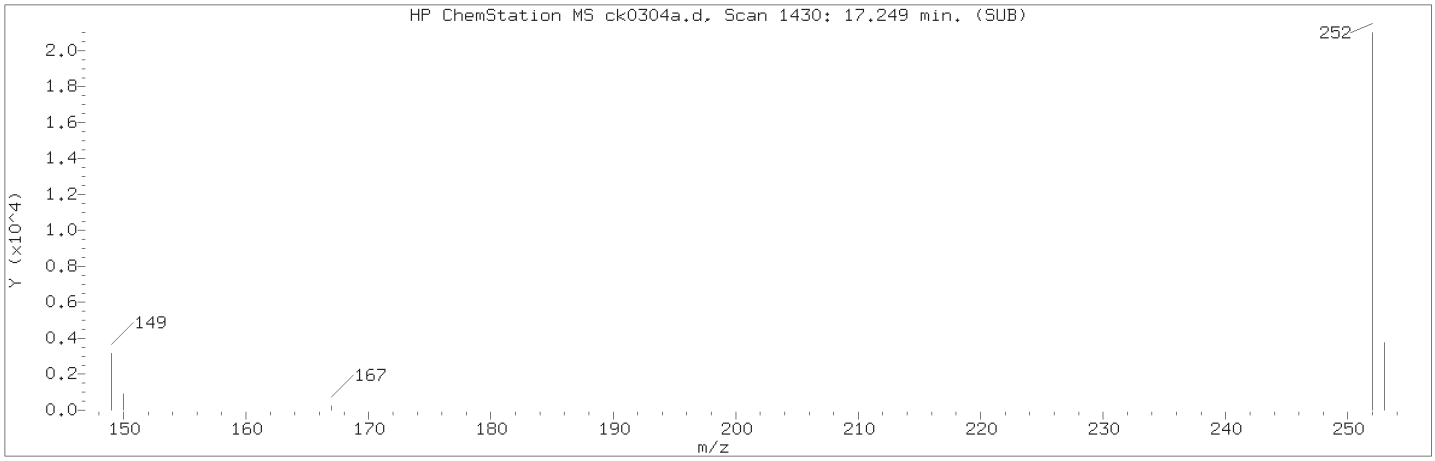
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

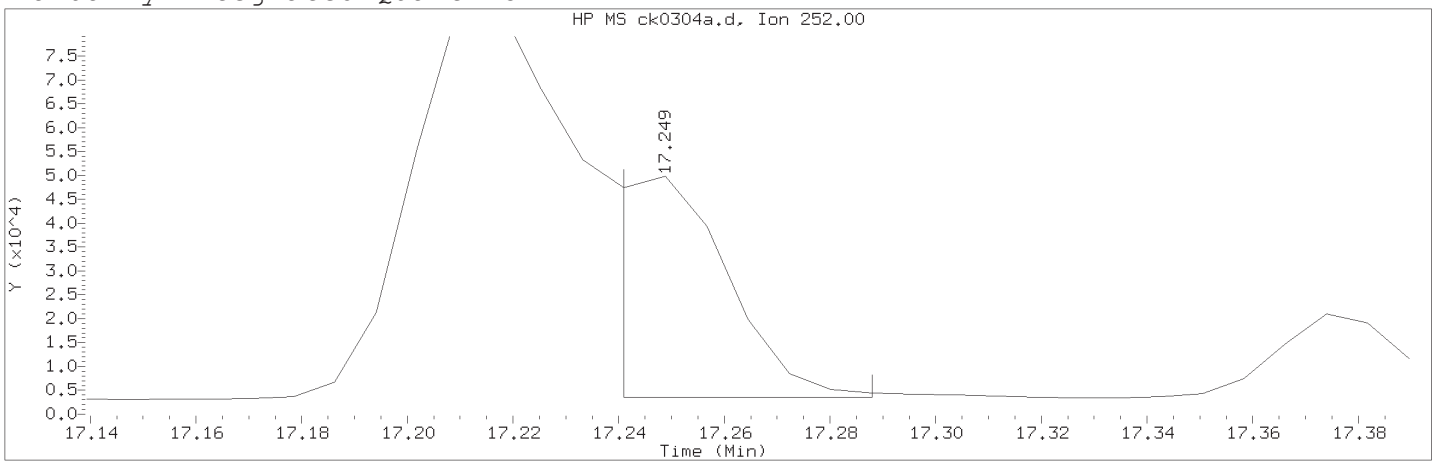
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1430
Retention Time (minutes) : 17.249
Relative Retention Time :-0.00001
Quant Ion : 252.00
Area (flag) : 70011M
On-column Amount (ng/ul) : 0.2897

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

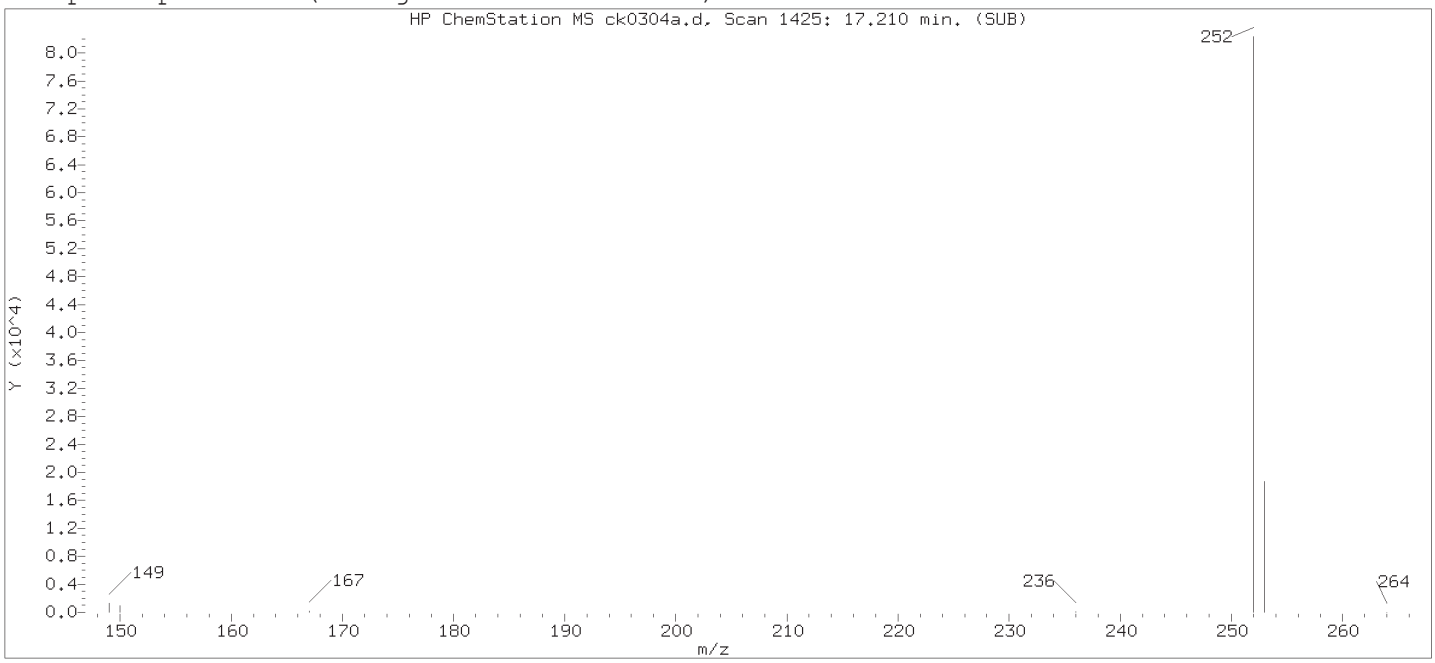
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1430
Retention Time (minutes) : 17.249
Quant Ion : 252.00
Area (flag) : 70011M
On-column Amount (ng/ul) : 0.2897
Integration start scan : 1428 Integration stop scan: 1434
Y at integration start : 3595 Y at integration end: 3595

Reason for manual integration: improper integration

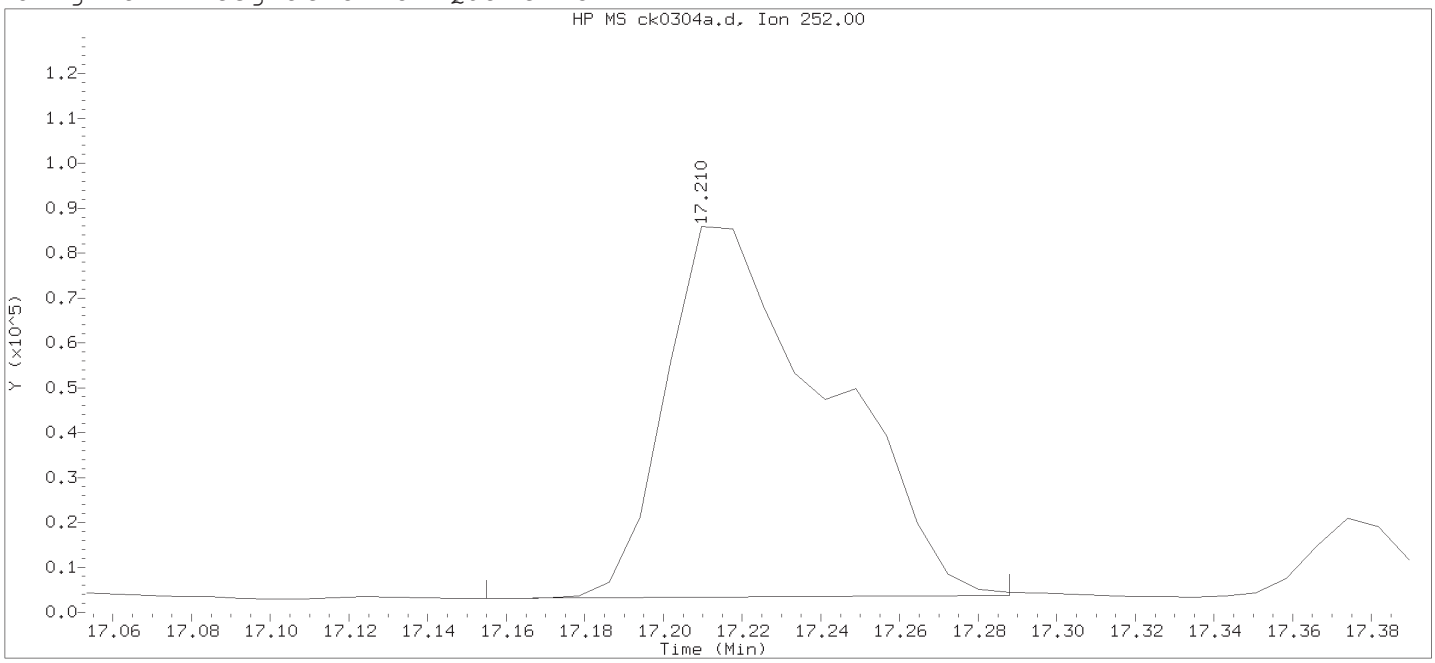
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

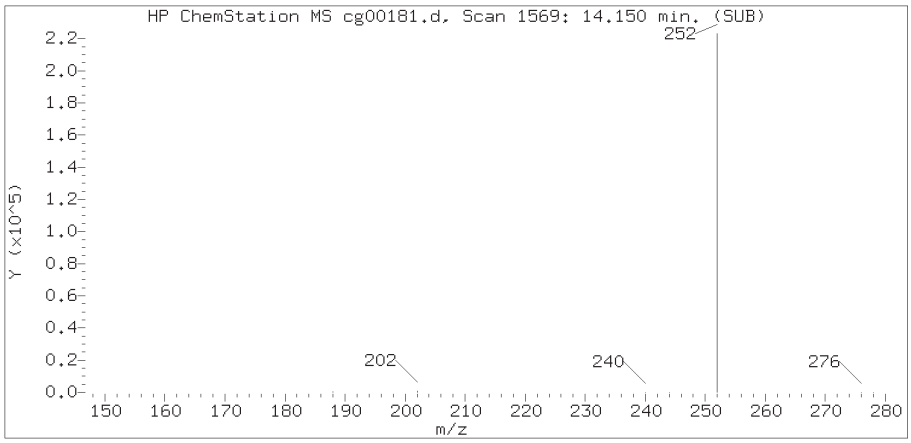
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 00:13 Automation

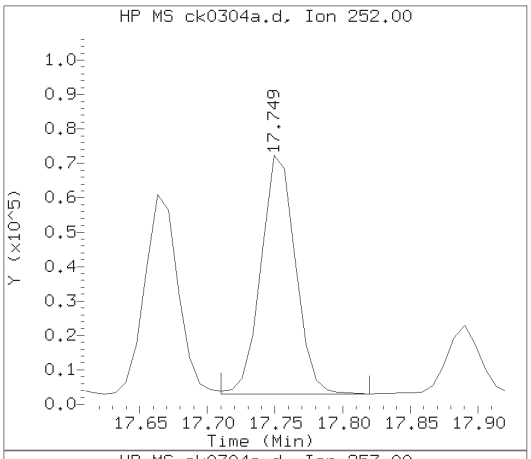
Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	:	47
Compound Name	:	Benzo(k)fluoranthene
Scan Number	:	1425
Retention Time (minutes)	:	17.210
Quant Ion	:	252.00
Area	:	235909
On-column Amount (ng/ul)	:	0.9762
Integration start scan	:	1417 Integration stop scan: 1434
Y at integration start	:	3071 Y at integration end: 3717

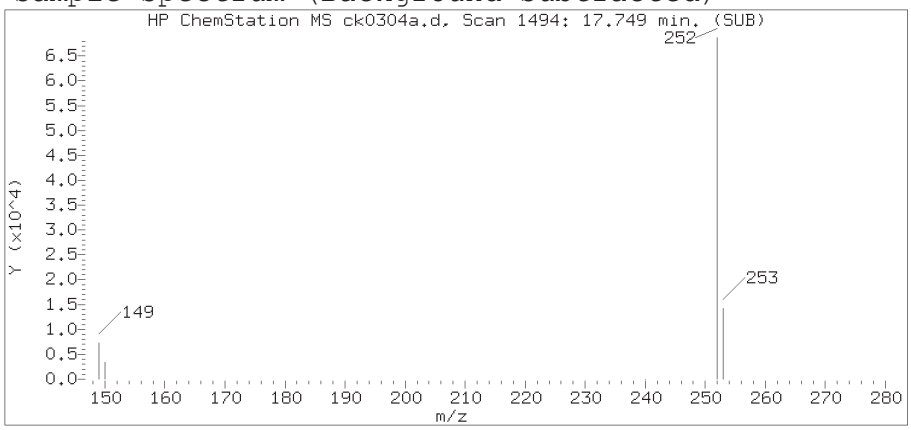
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

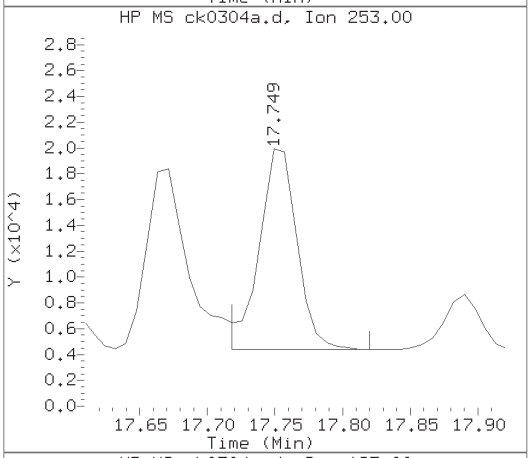
Reference Standard Spectrum for Benzo(a)pyrene



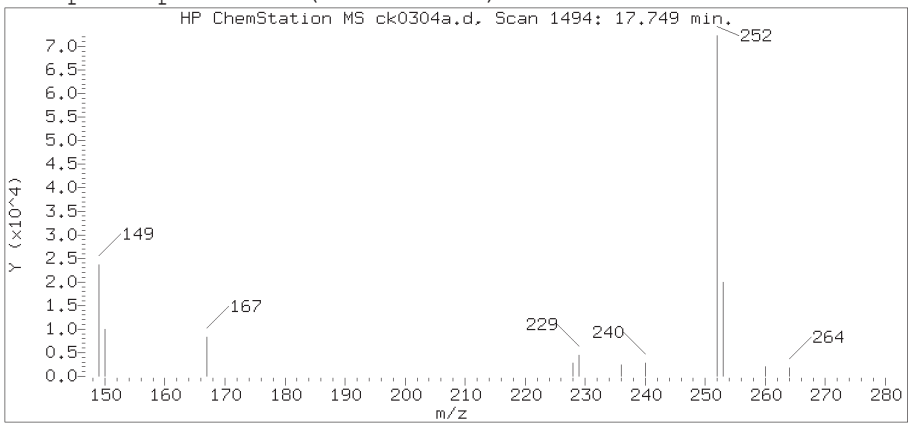


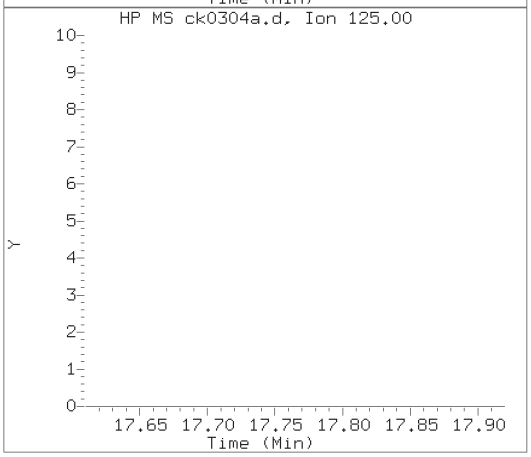
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1494
Retention Time (minutes)	: 17.749
Relative Retention Time	:-0.00000
Quant Ion	: 252.00
Area (flag)	: 122231
On-column Amount (ng/ul)	: 0.5954

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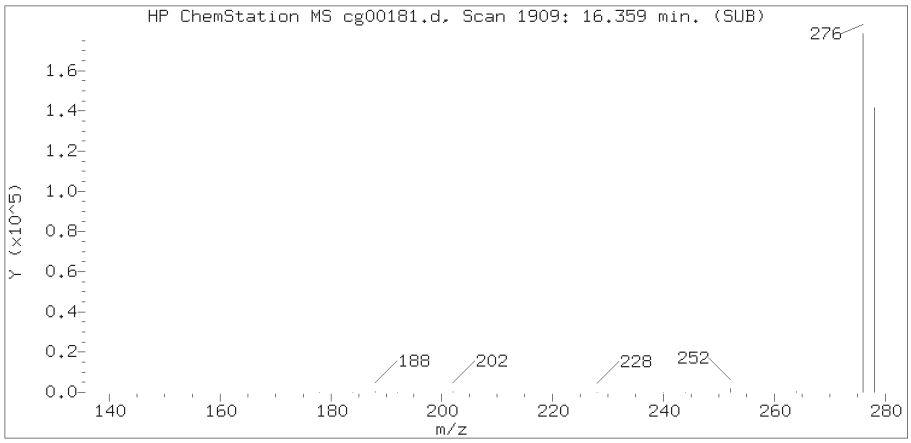
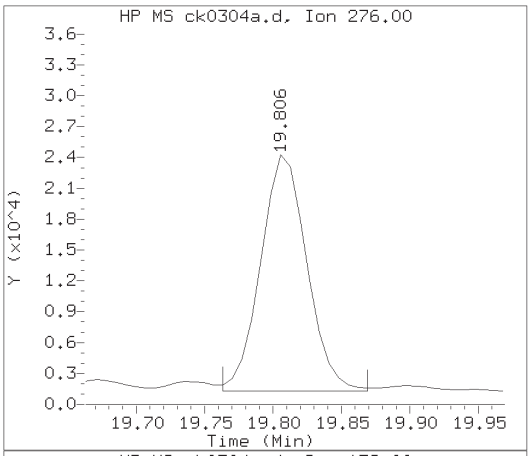
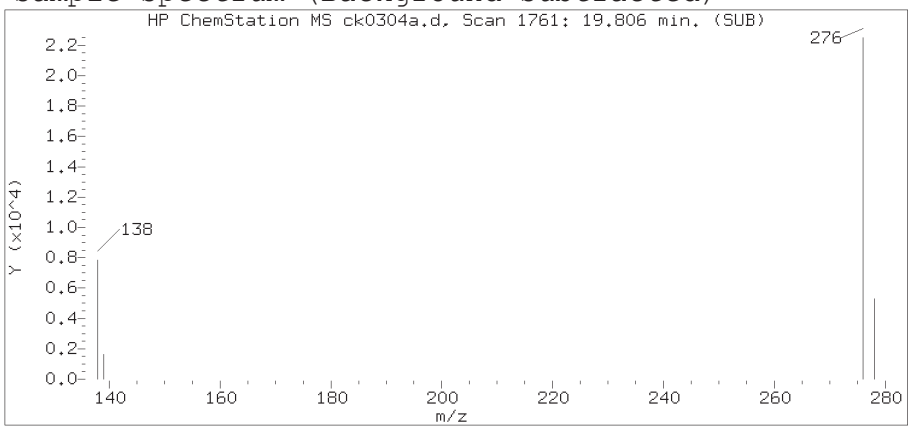
Target 3.5 esignature user ID: apb10206

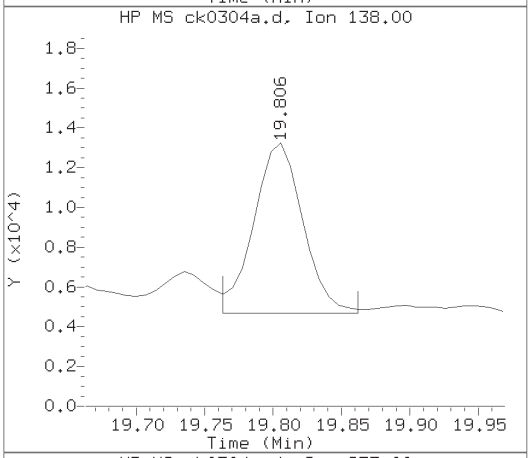
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



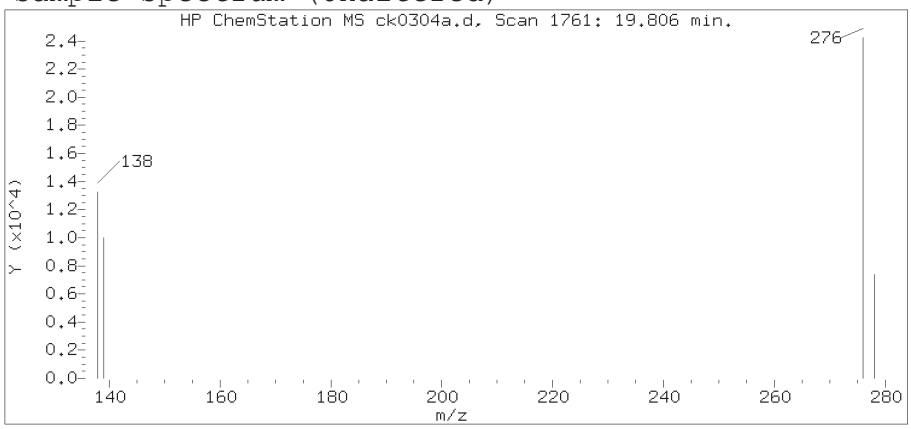


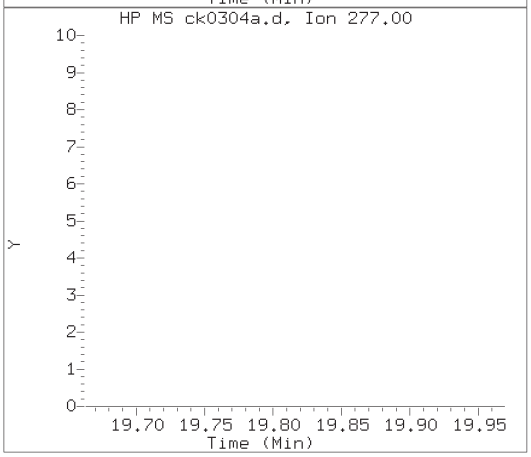
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1761
Retention Time (minutes)	: 19.806
Relative Retention Time	: 0.00009
Quant Ion	: 276.00
Area (flag)	: 53952
On-column Amount (ng/ul)	: 0.2649

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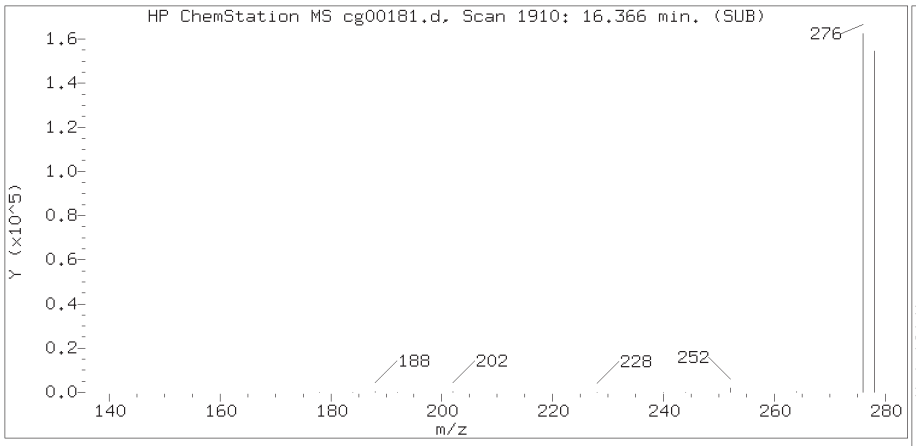
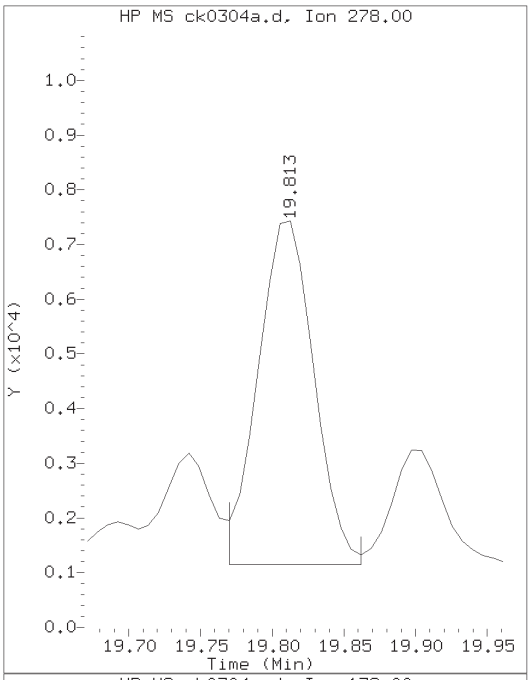
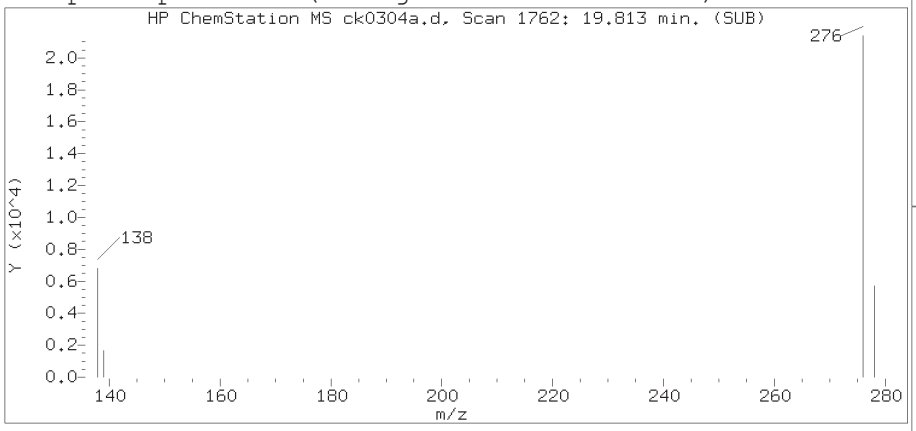
Target 3.5 esignature user ID: apb10206

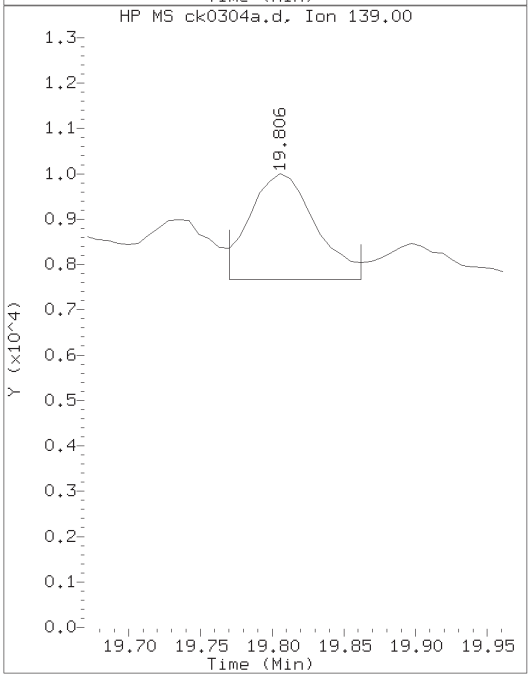
Reference Standard Spectrum for Dibenz(a,h)anthracene



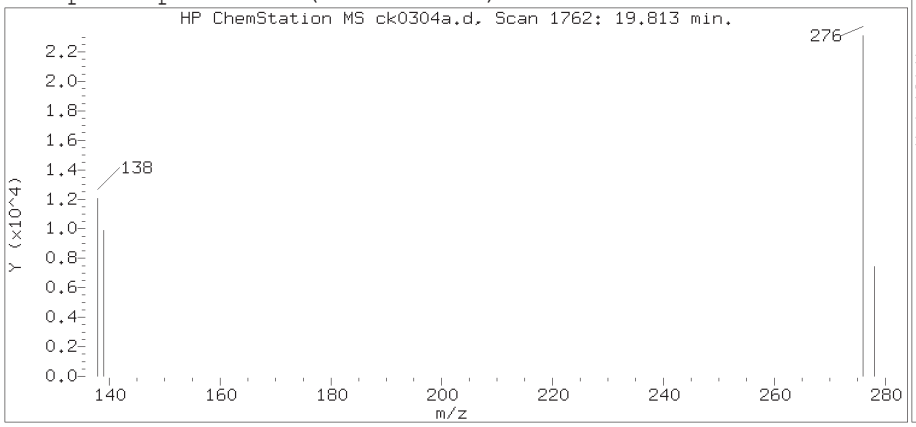


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1762
Retention Time (minutes)	: 19.813
Relative Retention Time	: 0.00009
Quant Ion	: 278.00
Area (flag)	: 16995
On-column Amount (ng/ul)	: 0.1007

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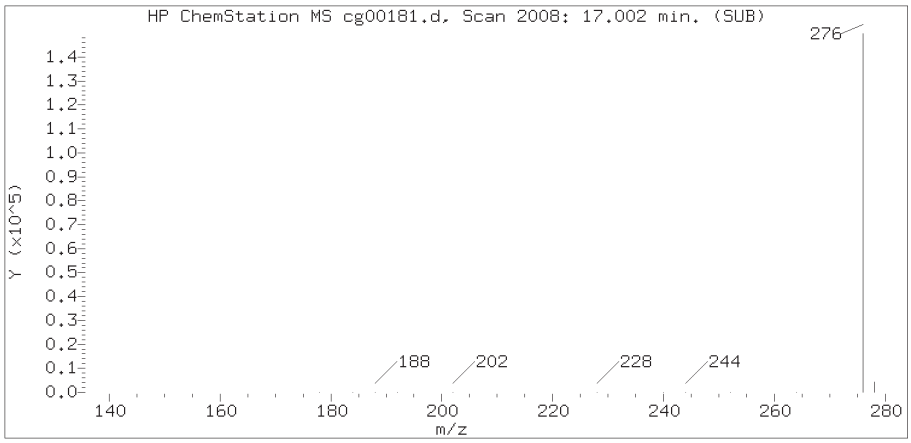
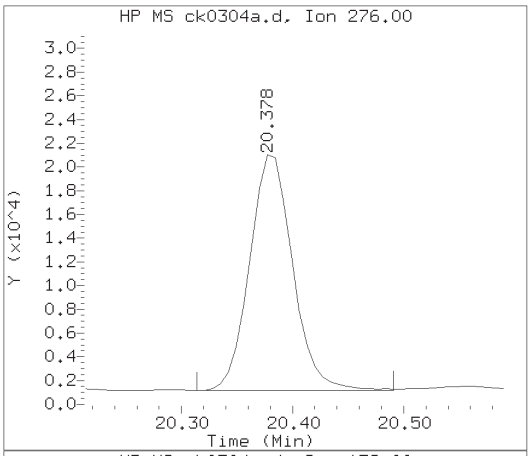
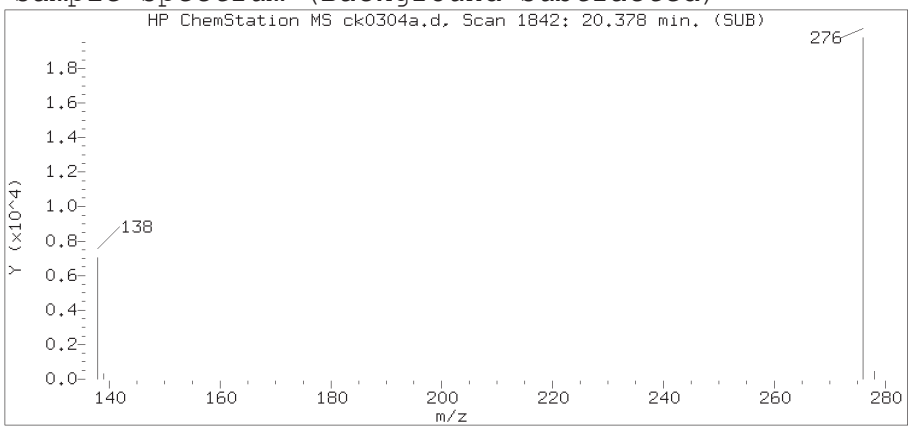
Target 3.5 esignature user ID: apb10206

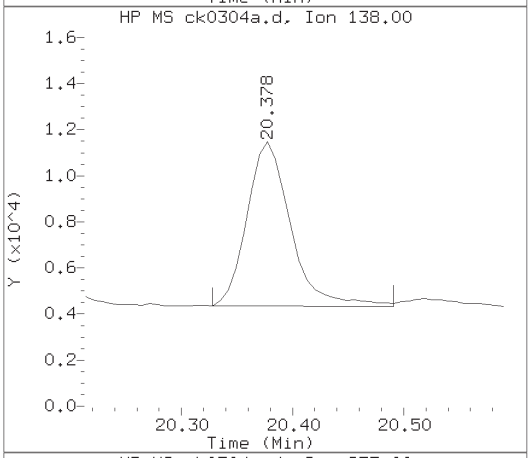
Reference Standard Spectrum for Benzo(g,h,i)perylene



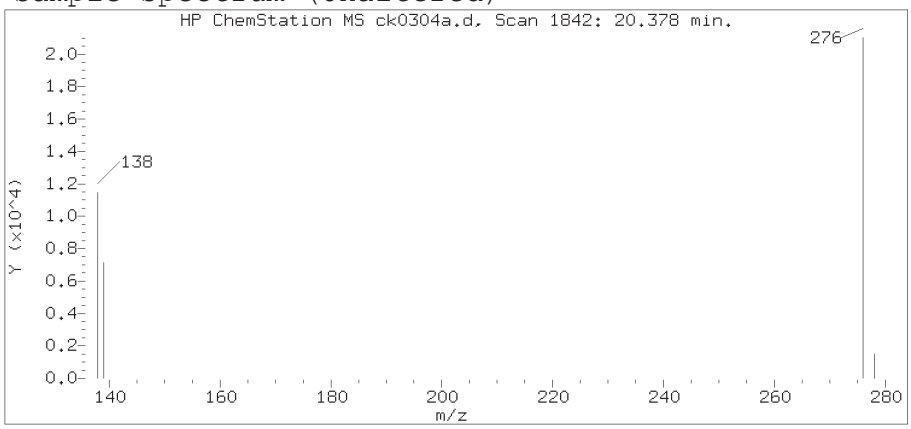


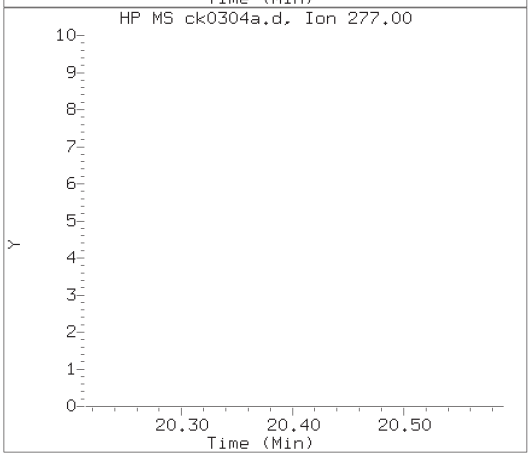
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0304a.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 23:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:36 apb10206

Sample Name: 12T04DL Lab Sample ID: 9872062DL

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1842
Retention Time (minutes)	: 20.378
Relative Retention Time	: 0.00011
Quant Ion	: 276.00
Area (flag)	: 53045
On-column Amount (ng/ul)	: 0.2791

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Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov06a.b/ck0305a.d
Data file Sample Info. Line: 12T05;9872063;2;0;SAMPLE;;DOD26;
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Injection date and time: **07-NOV-2018 00:51**
Instrument ID: **HP10623.i** Batch: **18302SLE**

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1
Final Extract Volume (Vt): 500 ul
GpcCleanup (No = 0, Yes = 1): 1
Volume Injected (Vi): 1 ul
Unit Correction Factor (Uf): 1
Sample Weight (Ws): 30.04 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.845(-0.013)	448	152	81259 (-14)	1.00	
10) Naphthalene-d8	8.357(0.000)	562	136	379821M (-6)	1.00	
20) Acenaphthene-d10	10.525(0.000)	749	164	154012M (-17)	1.00	
31) Phenanthrene-d10	12.384(0.000)	915	188	233359M (-32)	1.00	
43) Chrysene-d12	15.715(-0.030)	1234	240	176643M (-30)	1.00	
51) Perylene-d12	17.889(-0.054)	1512	264	134450 (-40)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.308(-0.001)	152	158908	0.828	83%		61 - 111
36) Fluoranthene-d10	(4)	13.893(-0.001)	212	182116M	0.860	86%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.756(0.000)	264	75129	0.608	61%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.440(-0.015)	88	8894A	0.170	5.67			0.02
11) Naphthalene	(2)	8.383(-0.000)	128	2986403	7.405	246.50			0.04
19) Acenaphthylene	(3)	10.351(0.000)	152	136239	0.446	14.83			0.01
21) Acenaphthene	(3)	10.568(-0.000)	154	72772M	0.348	11.58			0.02
26) Fluorene	(3)	11.204(-0.000)	166	132171M	0.591	19.66			0.02
32) Phenanthrene	(4)	12.418(0.000)	178	1313312	4.717	157.01			0.02
33) Anthracene	(4)	12.486(-0.000)	178	159552M	0.596	19.84			0.02
35) Di-n-butylphthalate	(4)	13.038(0.000)	149	525995	1.764	58.71			0.2
37) Fluoranthene	(4)	13.917(-0.000)	202	841621M	3.076	102.40			0.02
39) Pyrene	(5)	14.210(0.001)	202	616578M	2.169	72.19			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.613(0.000)	149	73569M	0.475	15.82	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.699(-0.000)	228	352498	1.540	51.26			0.02
44) Chrysene	(5)	15.746(0.000)	228	633397	2.700	89.90			0.01
46) Benzo(b)fluoranthene	(6)	17.248(0.000)	252	602755M	3.498	116.44			0.02
47) Benzo(k)fluoranthene	(6)	17.279(0.000)	252	189674M	1.025	34.12			0.02
50) Benzo(a)pyrene	(6)	17.795(-0.000)	252	238512	1.517	50.50			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.861(-0.000)	276	205036	1.315	43.77			0.02
54) Dibenz(a,h)anthracene	(6)	19.861(0.000)	278	62046	0.480	15.98			0.02
55) Benzo(g,h,i)perylene	(6)	20.433(-0.000)	276	201946	1.388	46.19			0.02

A = User selected an alternate peak. M = Compound was manually integrated. B = Compound detected in referenced method blank.

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov06a.b/ck0305a.d Injection date and time: **07-NOV-2018 00:51**
Data file Sample Info. Line: 12T05;9872063;2;0;SAMPLE;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 20:01
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov06a.b/ck0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.04 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

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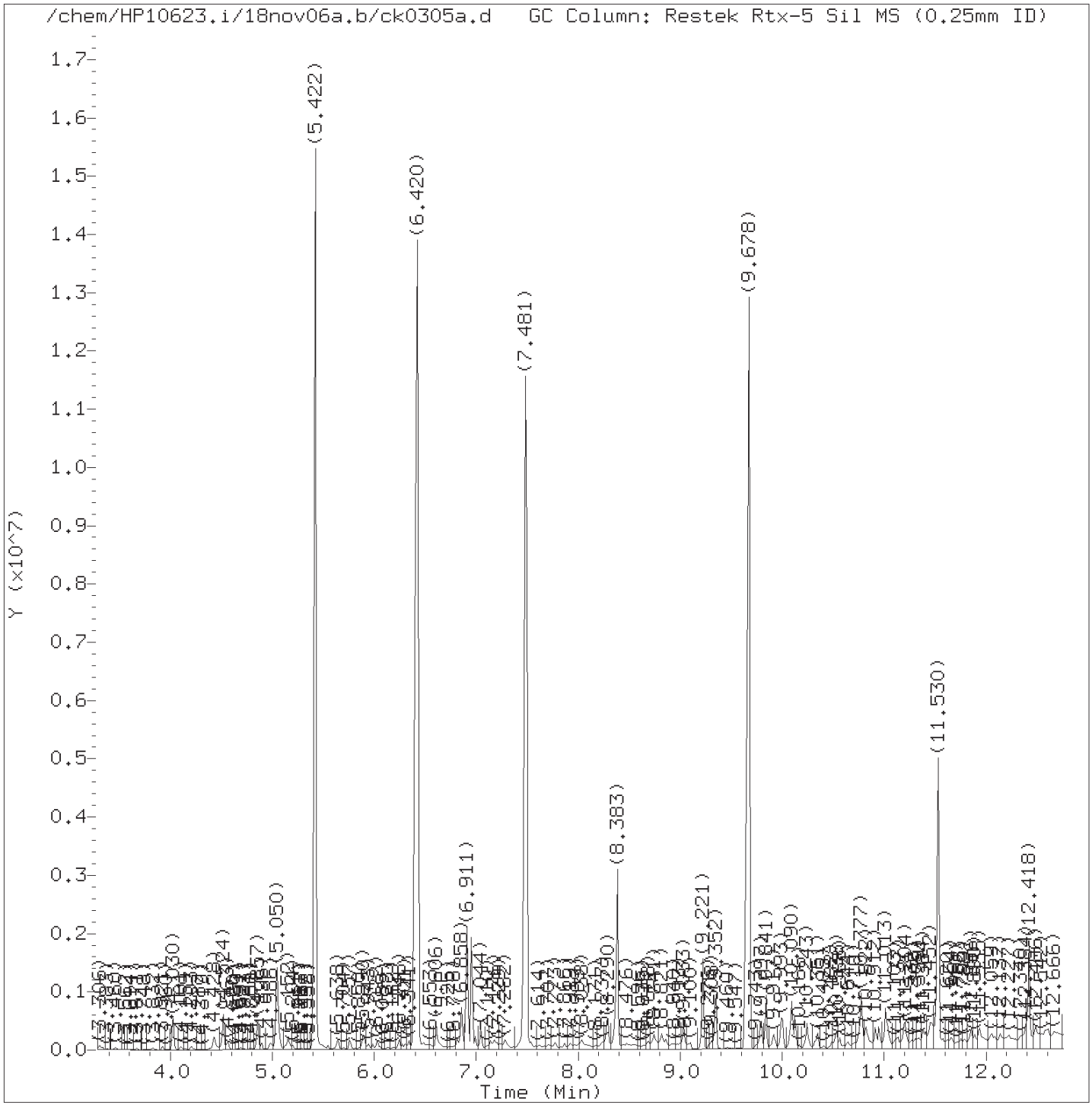
Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

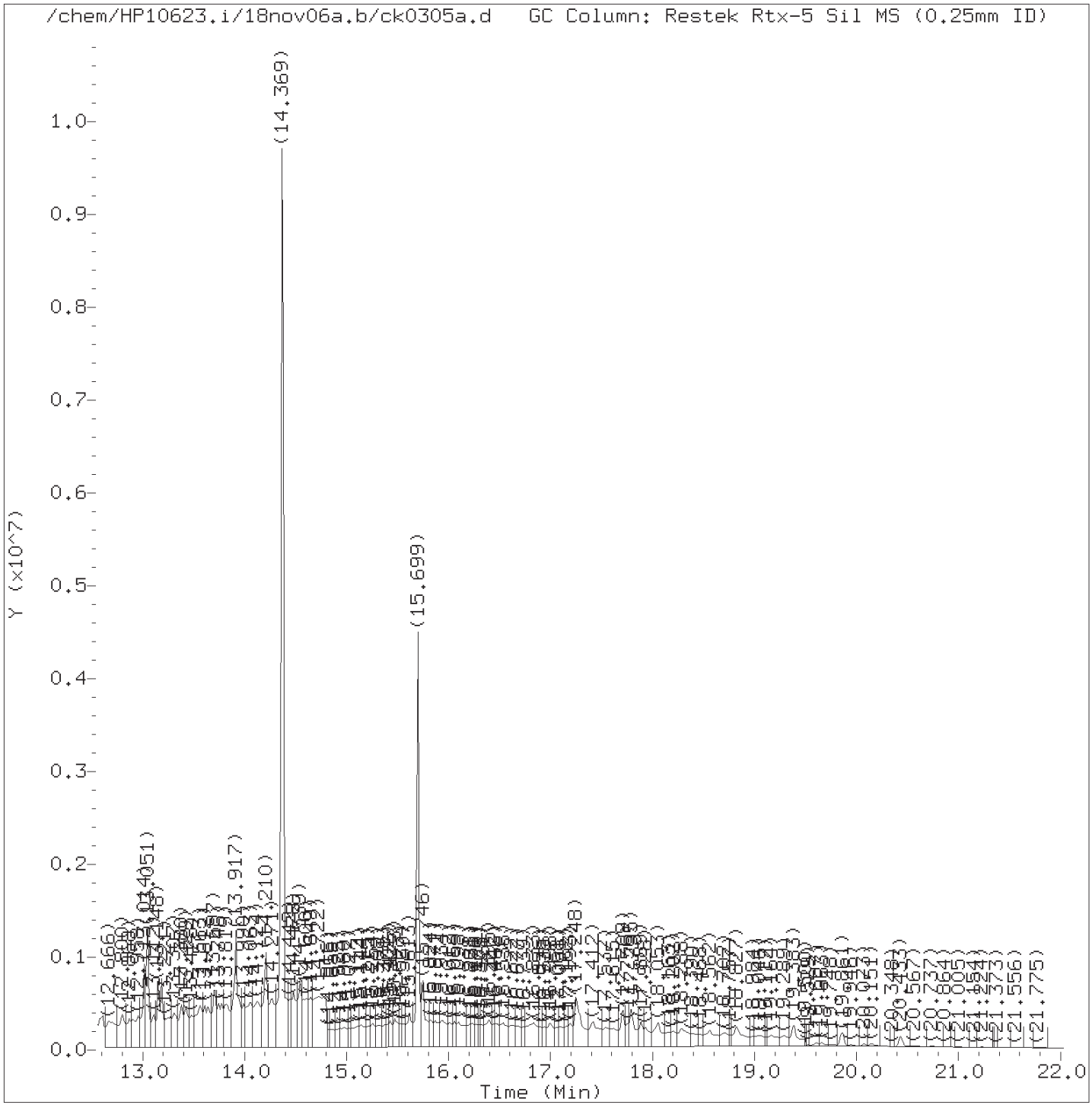
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

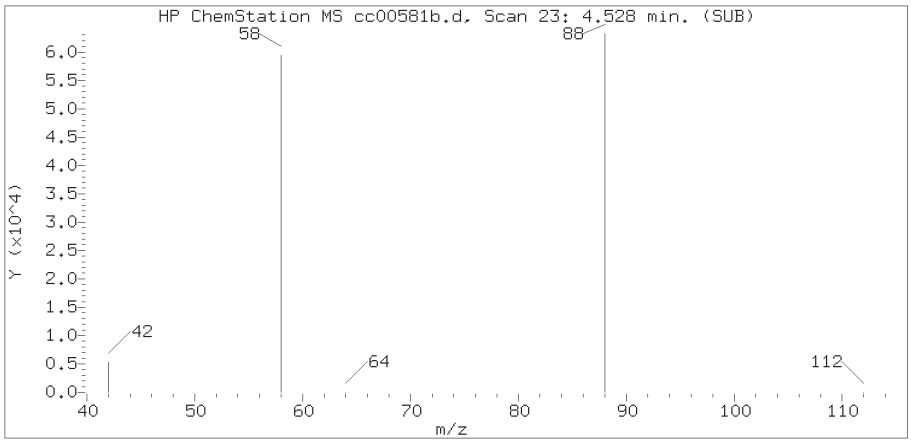
Sample Name: 12T05 Lab Sample ID: 9872063

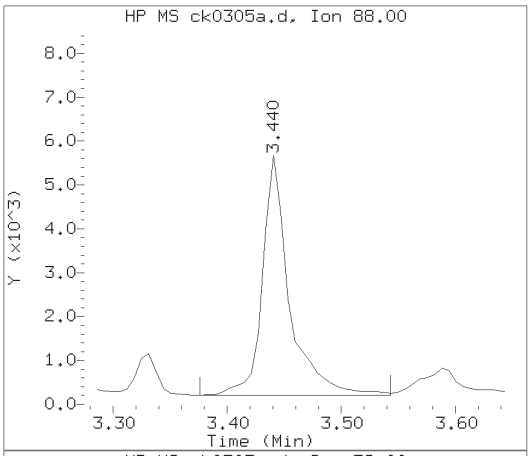
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.440	88	8894A	0.170
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	81259	1.000
10)*Naphthalene-d8	(2)	8.357	136	379821M	1.000
11) Naphthalene	(2)	8.383	128	2986403	7.405
14)$1-Methylnaphthalene-d10	(2)	9.308	152	158908	0.828
19) Acenaphthylene	(3)	10.351	152	136239	0.446
20)*Acenaphthene-d10	(3)	10.525	164	154012M	1.000
21) Acenaphthene	(3)	10.568	154	72772M	0.348
26) Fluorene	(3)	11.204	166	132171M	0.591
31)*Phenanthrene-d10	(4)	12.384	188	233359M	1.000
32) Phenanthrene	(4)	12.418	178	1313312	4.717
33) Anthracene	(4)	12.486	178	159552M	0.596
35) Di-n-butylphthalate	(4)	13.038	149	525995	1.764
36)$Fluoranthene-d10	(4)	13.893	212	182116M	0.860
37) Fluoranthene	(4)	13.917	202	841621M	3.076
39) Pyrene	(5)	14.210	202	616578M	2.169
41) bis(2-Ethylhexyl)phthalate	(5)	15.613	149	73569M	0.475
42) Benzo(a)anthracene	(5)	15.699	228	352498	1.540
43)*Chrysene-d12	(5)	15.715	240	176643M	1.000
44) Chrysene	(5)	15.746	228	633397	2.700
46) Benzo(b)fluoranthene	(6)	17.248	252	602755M	3.498
47) Benzo(k)fluoranthene	(6)	17.279	252	189674M	1.025
49)$Benzo(a)pyrene-d12	(6)	17.756	264	75129	0.608
50) Benzo(a)pyrene	(6)	17.795	252	238512	1.517
51)*Perylene-d12	(6)	17.889	264	134450	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.861	276	205036	1.315
54) Dibenz(a,h)anthracene	(6)	19.861	278	62046	0.480
55) Benzo(g,h,i)perylene	(6)	20.433	276	201946	1.388

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

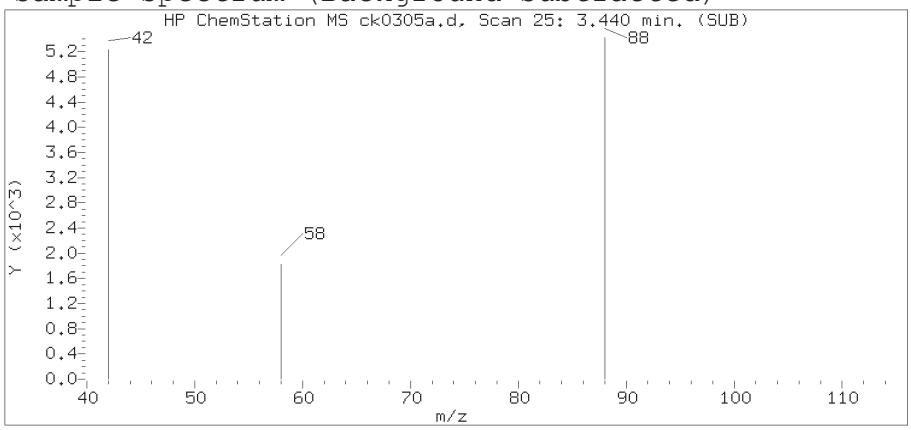
Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

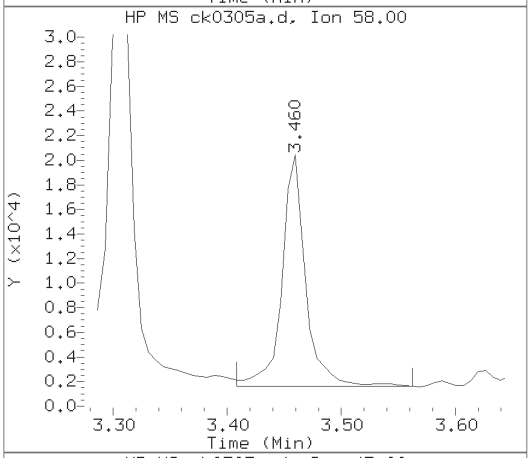
Reference Standard Spectrum for 1,4-Dioxane



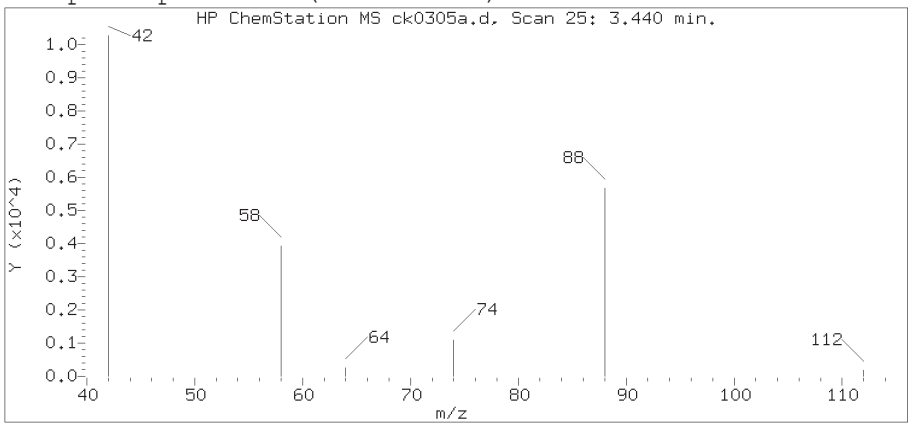


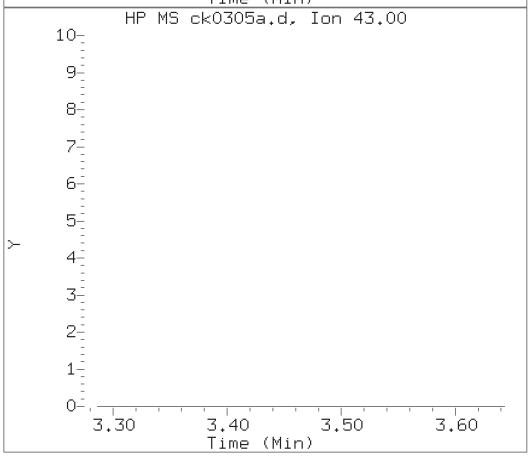
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

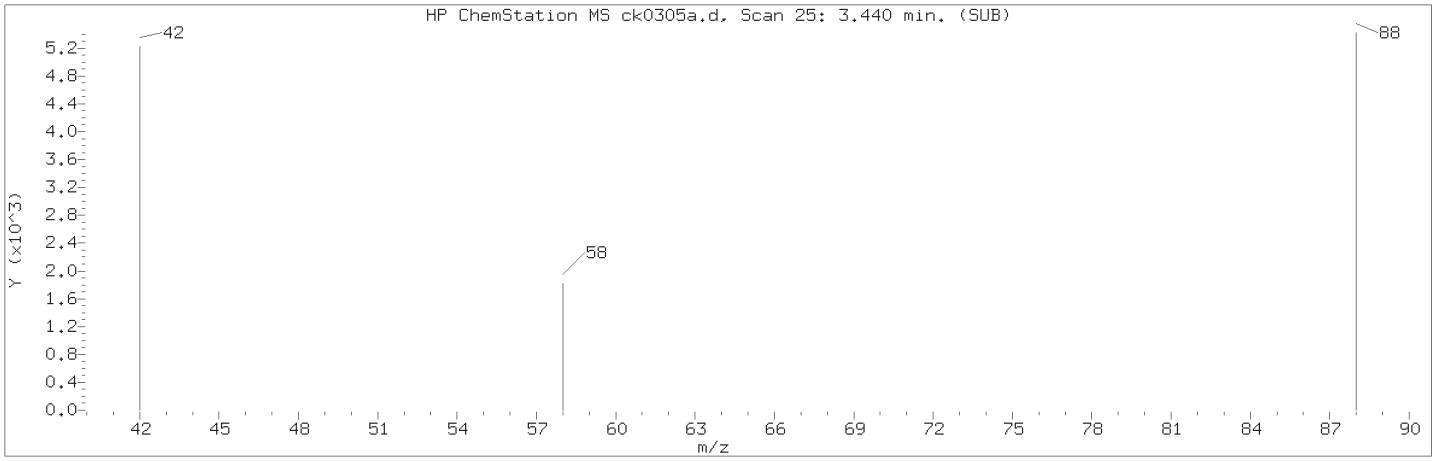
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

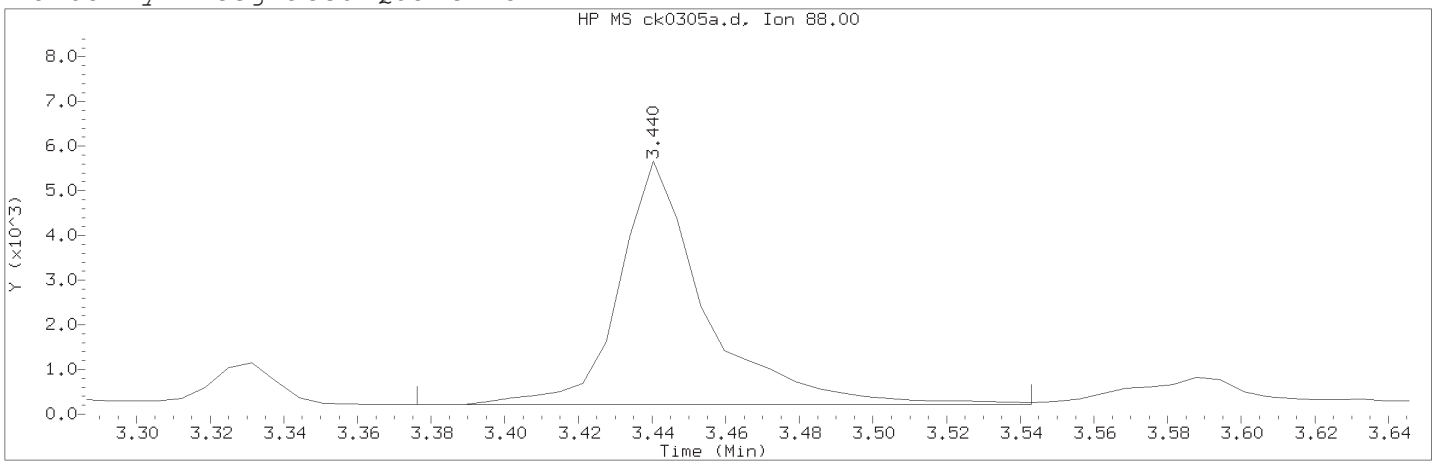
Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 25
Retention Time (minutes)	: 3.440
Relative Retention Time	:-0.01592
Quant Ion	: 88.00
Area (flag)	: 8894A
On-column Amount (ng/ul)	: 0.1703

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

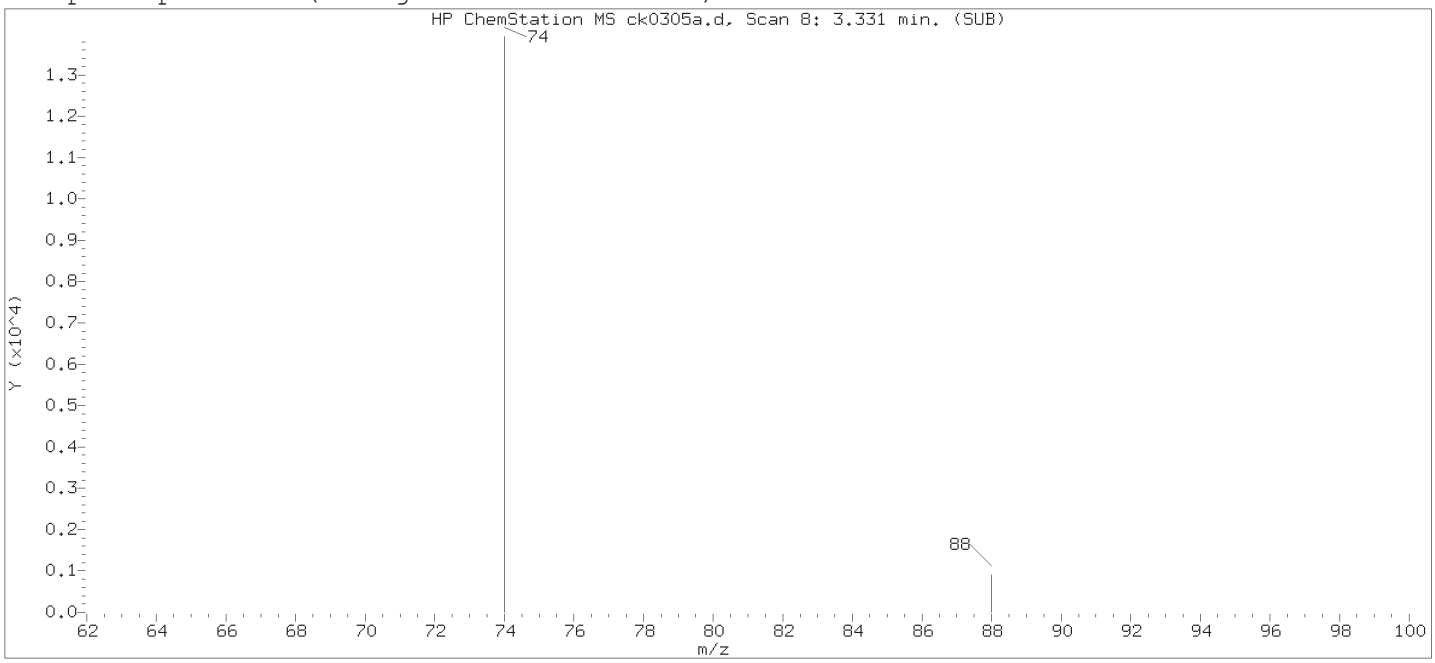
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 25		
Retention Time (minutes)	: 3.440		
Quant Ion	: 88.00		
Area (flag)	: 8894A		
On-column Amount (ng/ul)	: 0.1703		
Integration start scan	: 14	Integration stop scan:	40
Y at integration start	: 210	Y at integration end:	210

Reason for manual integration: improper integration

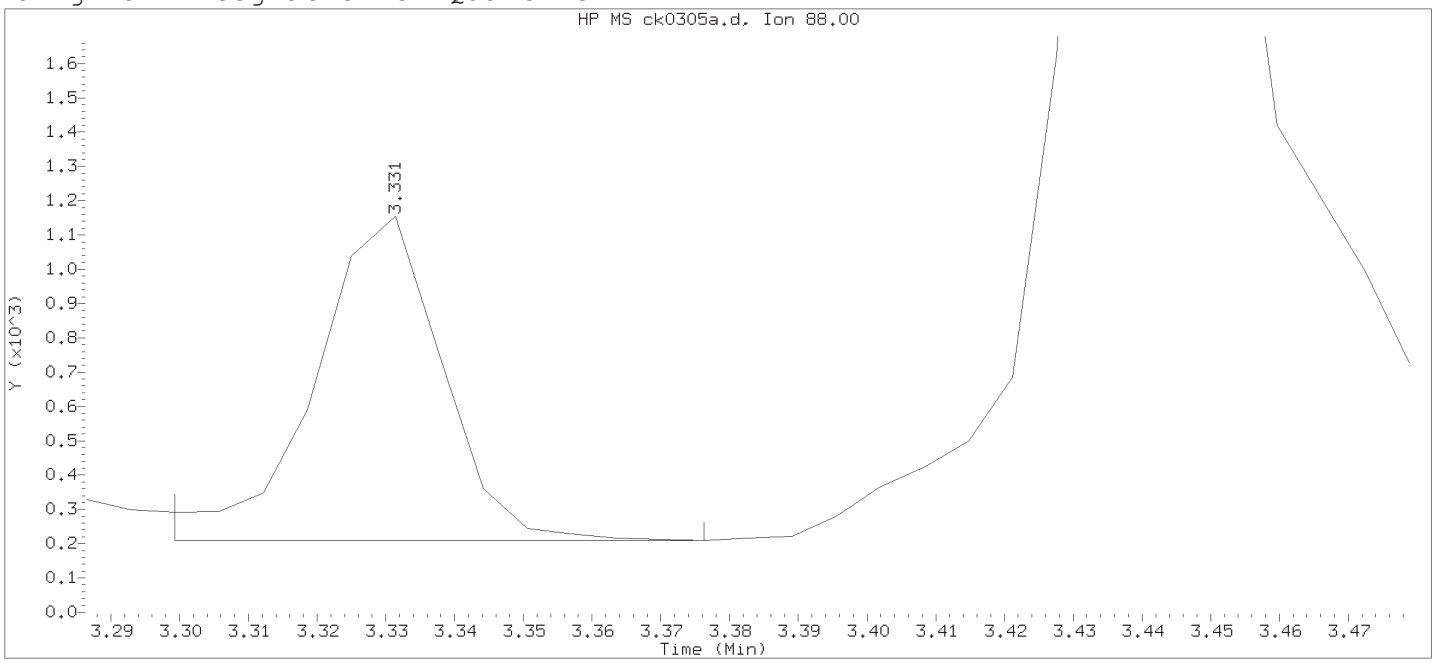
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

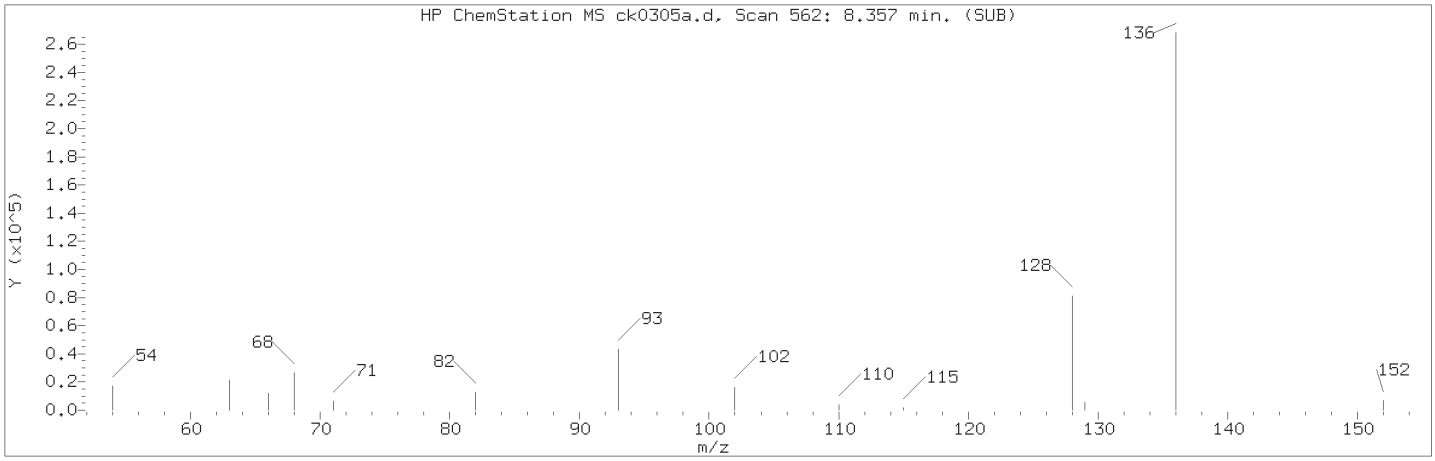
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

Sample Name: 12T05 Lab Sample ID: 9872063

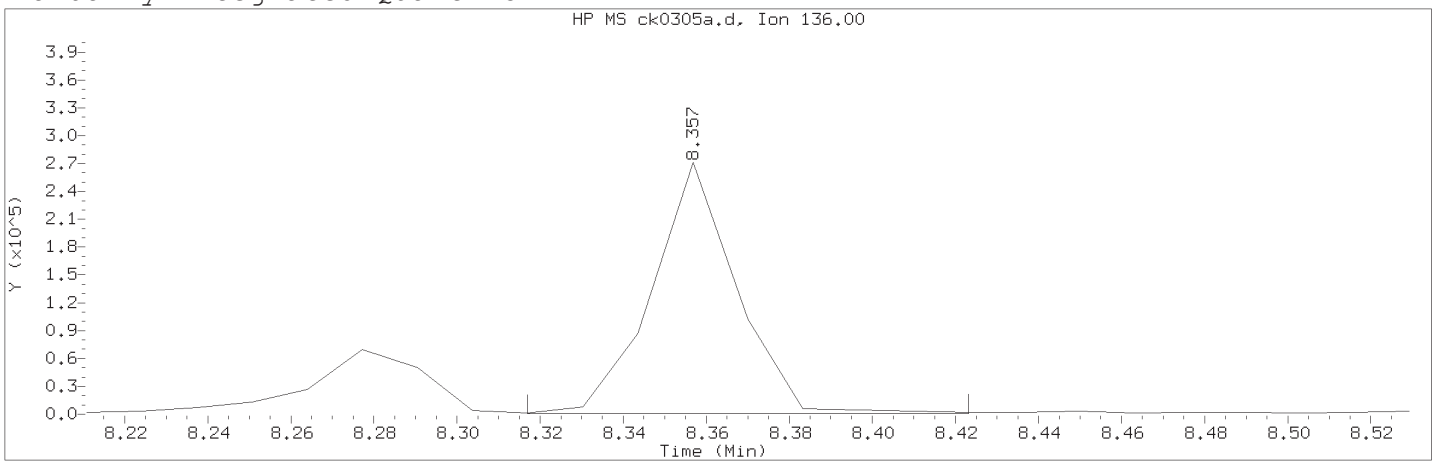
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 8		
Retention Time (minutes)	: 3.331		
Quant Ion	: 88.00		
Area	: 1218		
On-column Amount (ng/ul)	: 0.0233		
Integration start scan	: 2	Integration stop scan:	14
Y at integration start	: 210	Y at integration end:	210

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

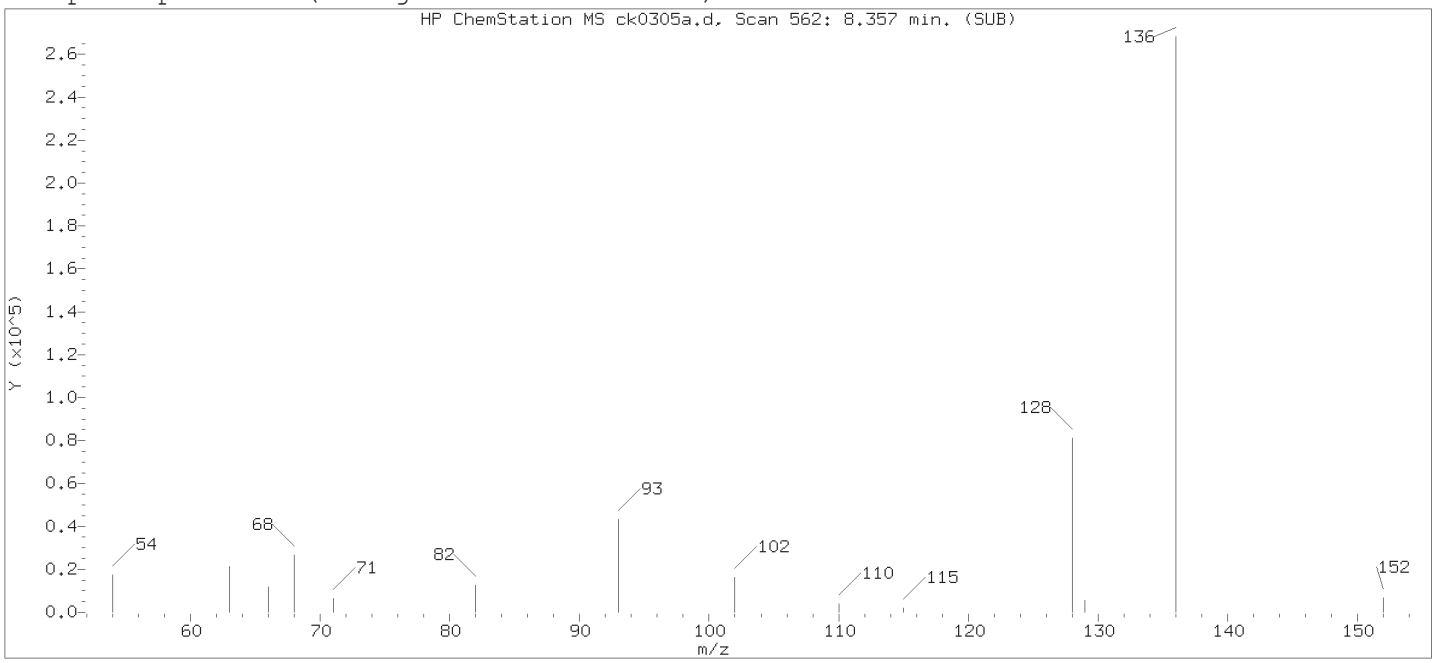
Compound Number	: 10		
Compound Name	: Naphthalene-d8		
Scan Number	: 562		
Retention Time (minutes)	: 8.357		
Quant Ion	: 136.00		
Area (flag)	: 379821M		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 558	Integration stop scan:	566
Y at integration start	: 775	Y at integration end:	775

Reason for manual integration: improper integration

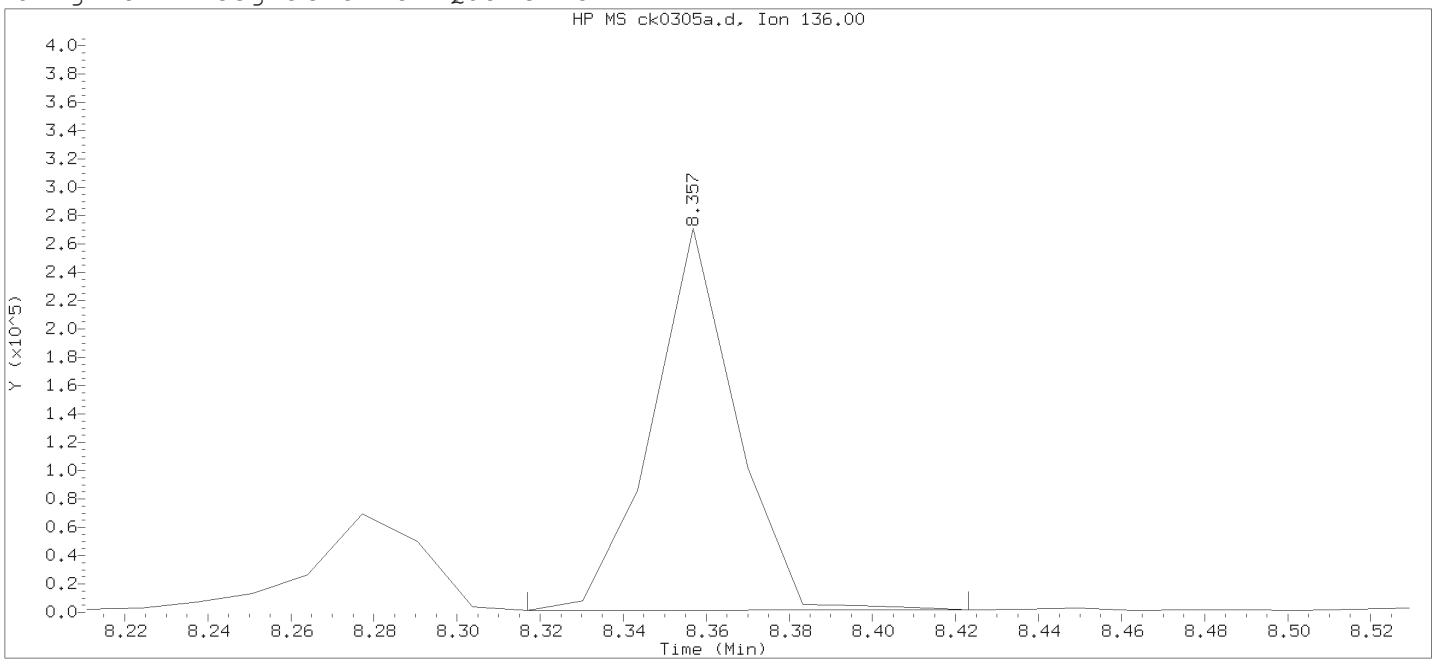
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

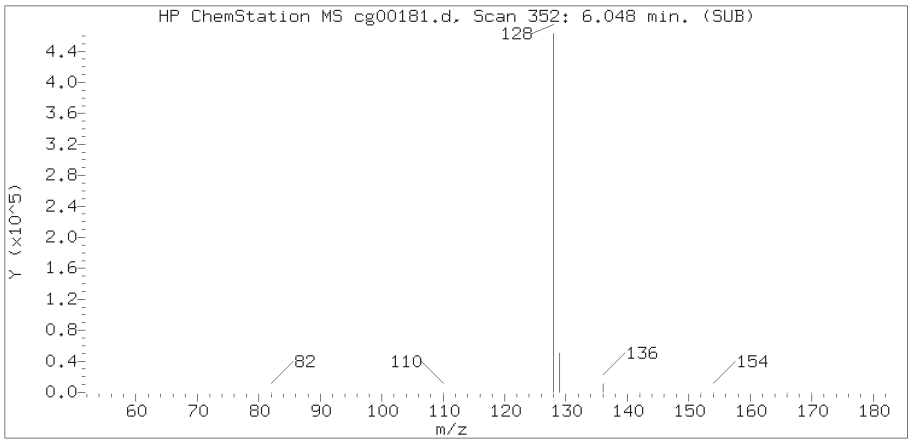
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

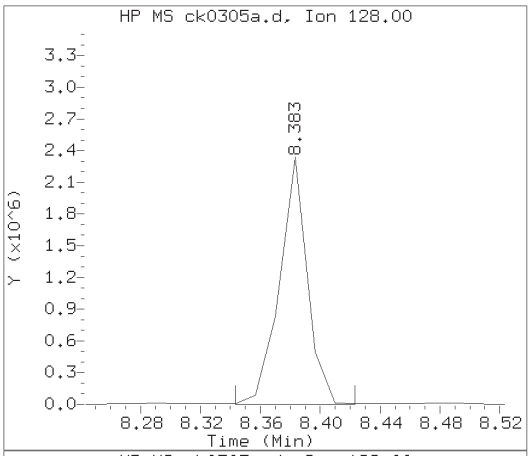
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 10		
Compound Name	: Naphthalene-d8		
Scan Number	: 562		
Retention Time (minutes)	: 8.357		
Quant Ion	: 136.00		
Area	: 374952		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 558	Integration stop scan:	566
Y at integration start	: 1277	Y at integration end:	1631

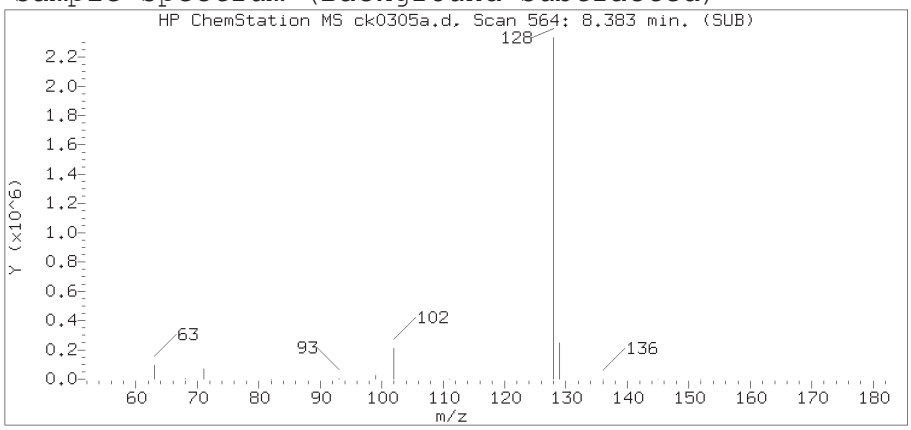
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

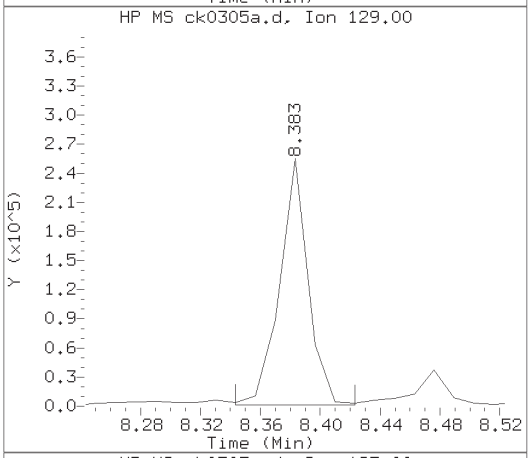
Reference Standard Spectrum for Naphthalene



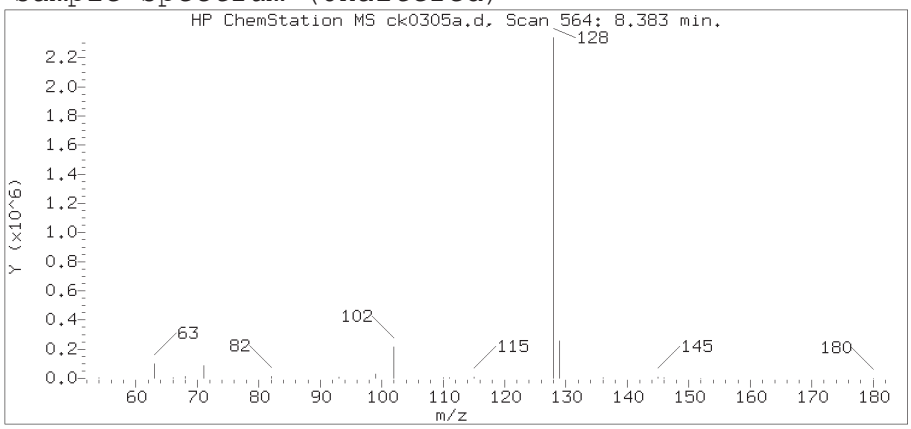


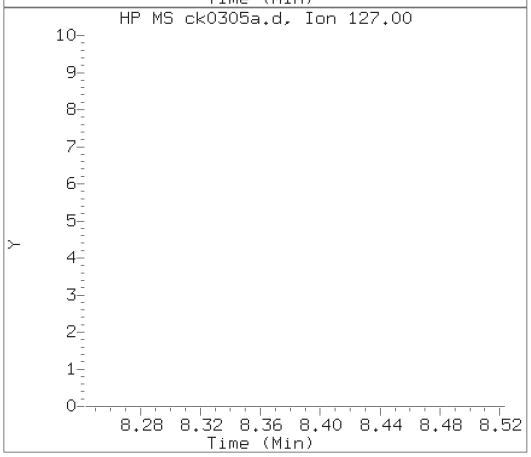
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

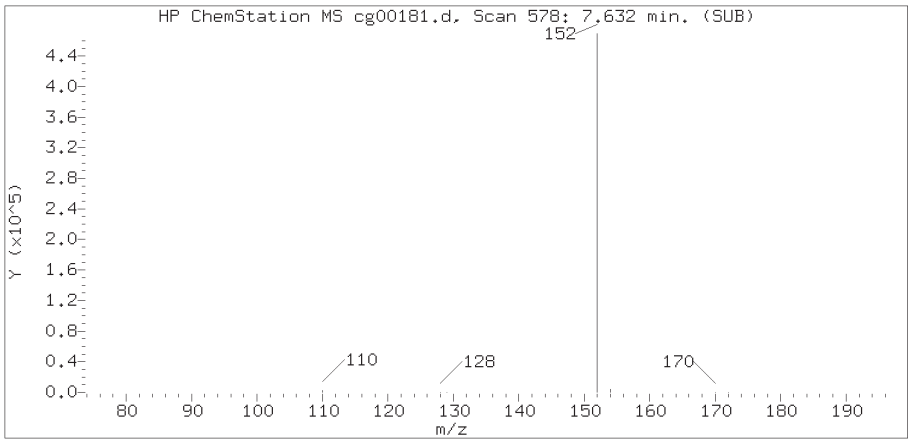
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

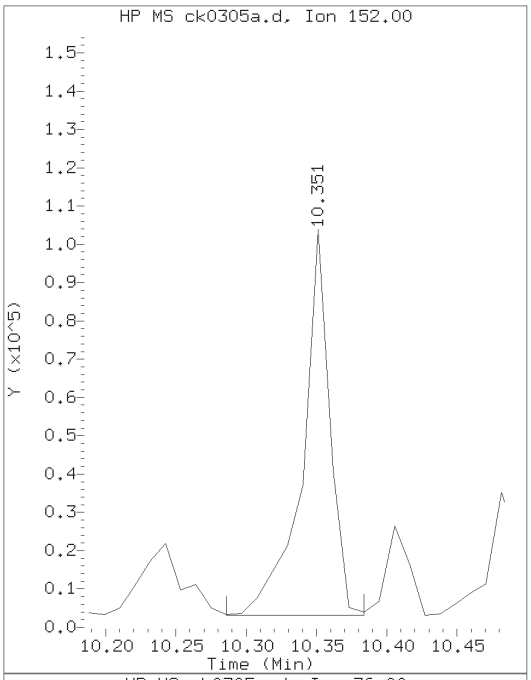
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 564
Retention Time (minutes)	: 8.383
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 2986403
On-column Amount (ng/ul)	: 7.4050

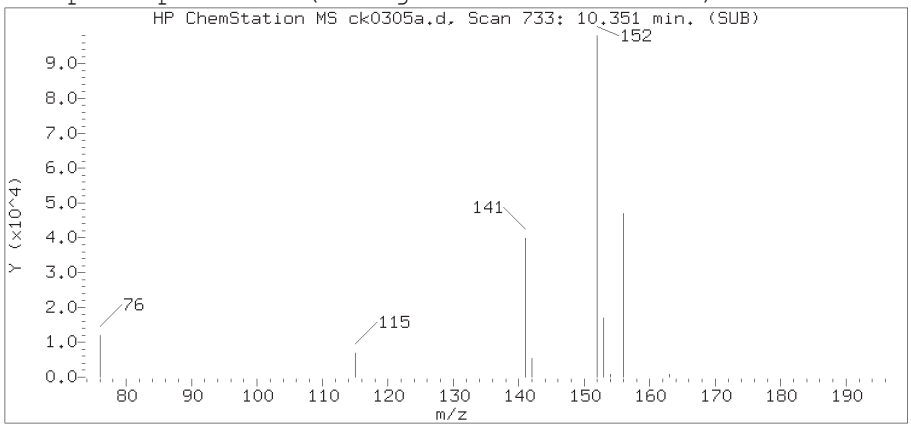
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

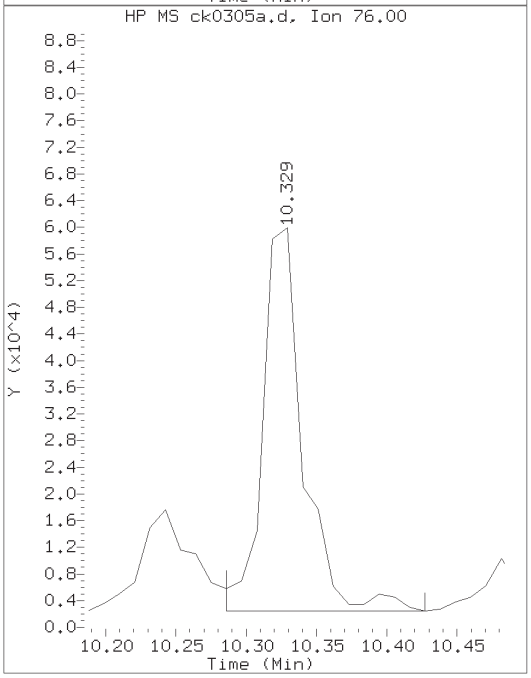
Reference Standard Spectrum for Acenaphthylene



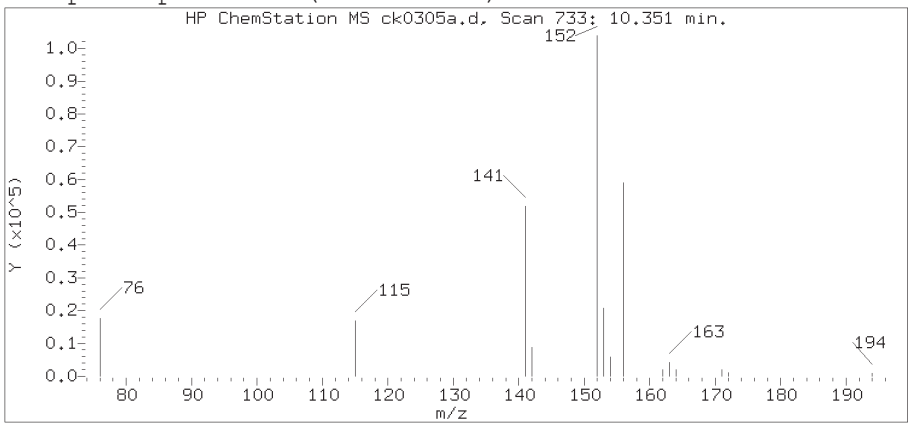


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

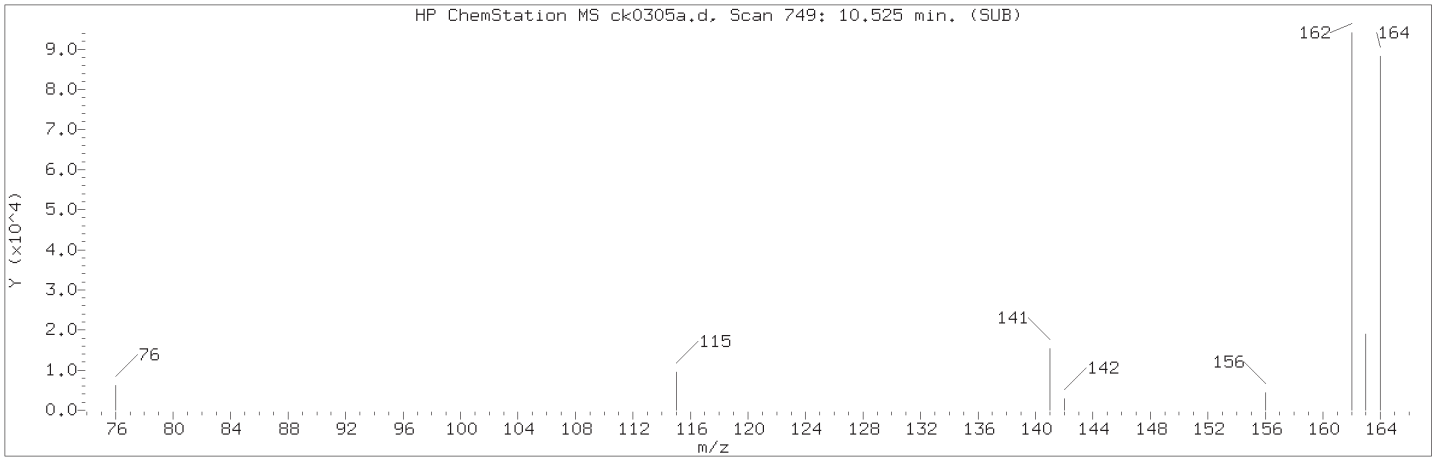
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

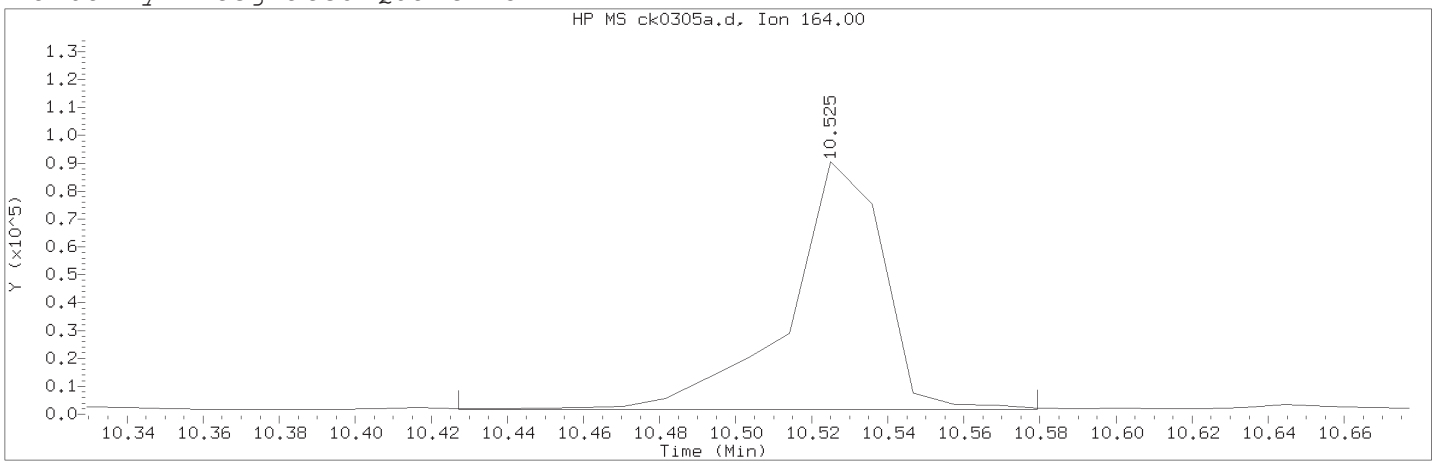
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 733
Retention Time (minutes)	: 10.351
Relative Retention Time	: 0.00000
Quant Ion	: 152.00
Area (flag)	: 136239
On-column Amount (ng/ul)	: 0.4456

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

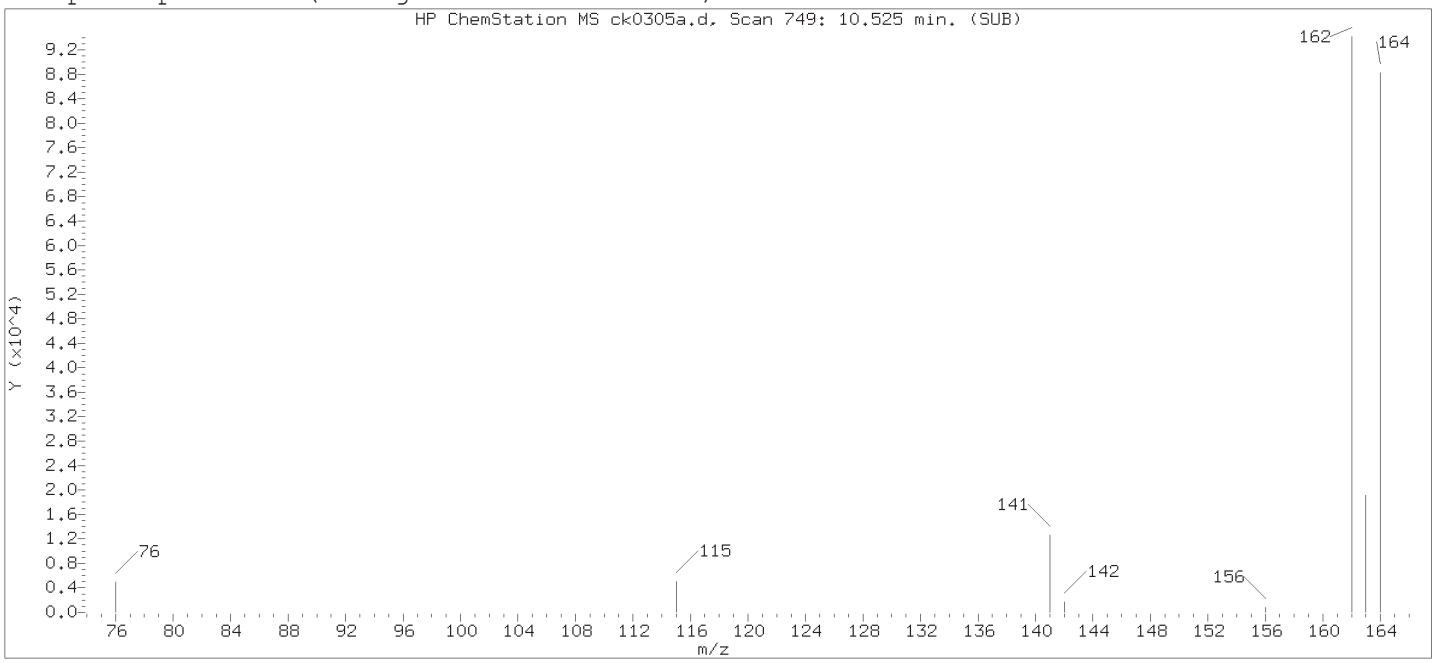
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 749
Retention Time (minutes) : 10.525
Quant Ion : 164.00
Area (flag) : 154012M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 739 Integration stop scan: 753
Y at integration start : 1660 Y at integration end: 1660

Reason for manual integration: improper integration

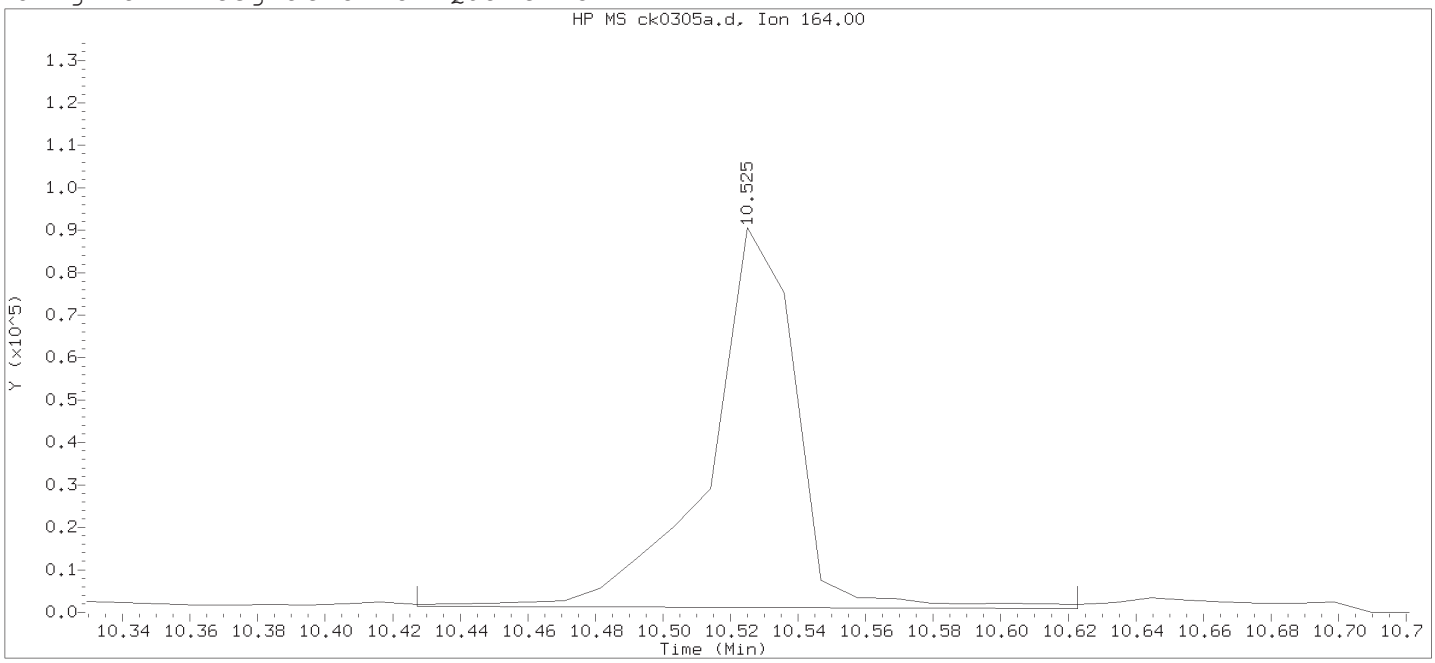
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

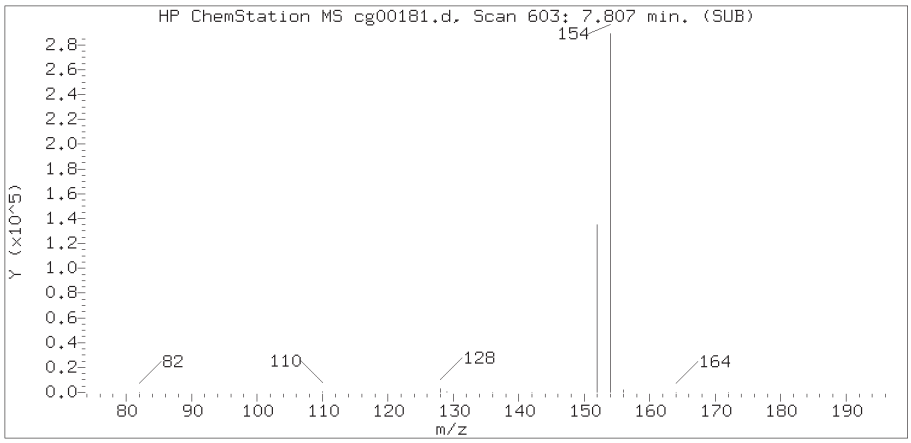
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

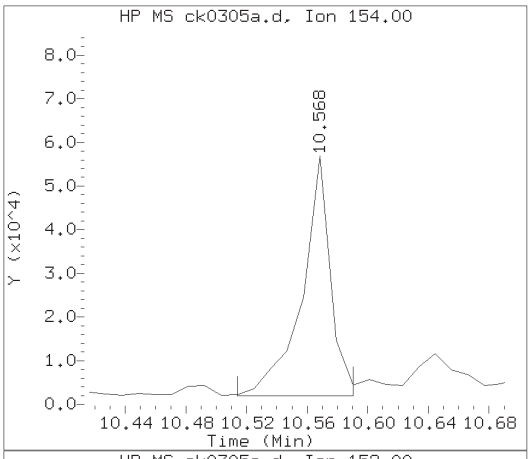
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 749		
Retention Time (minutes)	: 10.525		
Quant Ion	: 164.00		
Area	: 162529		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 739	Integration stop scan:	757
Y at integration start	: 1432	Y at integration end:	851

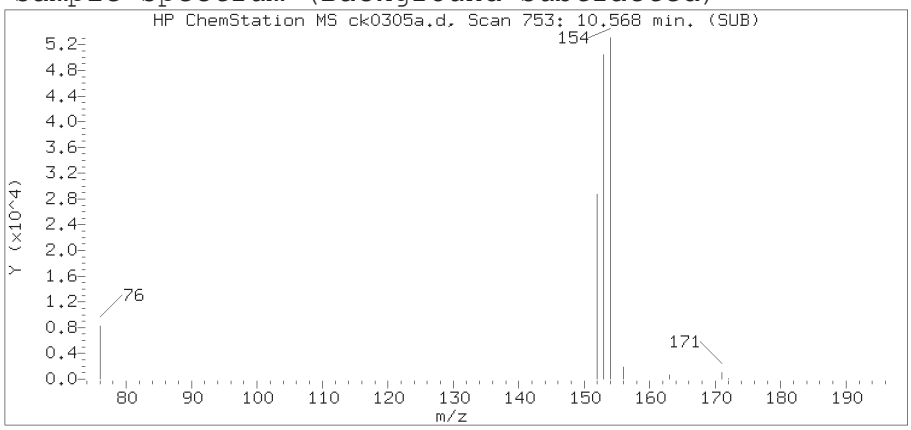
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

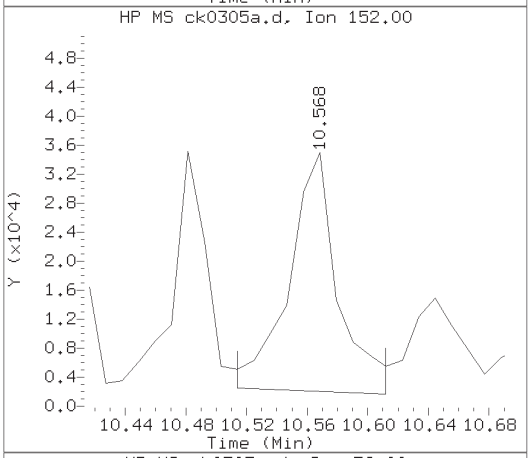
Reference Standard Spectrum for Acenaphthene



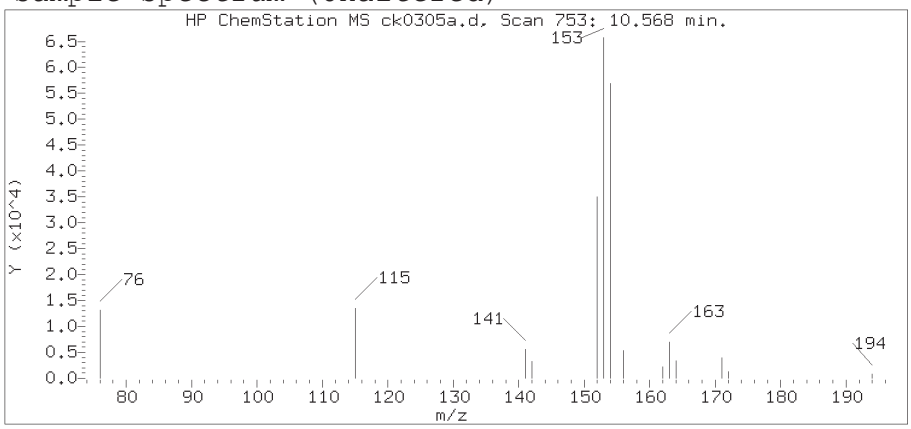


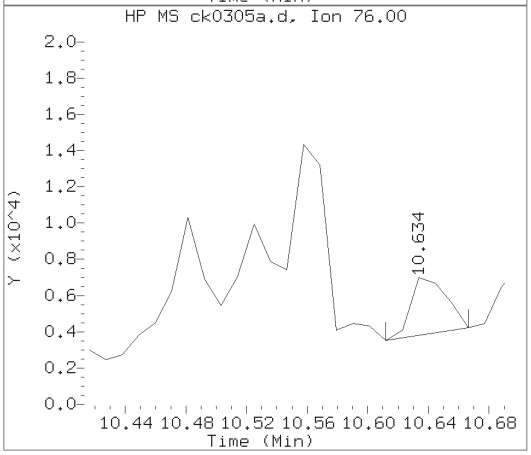
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

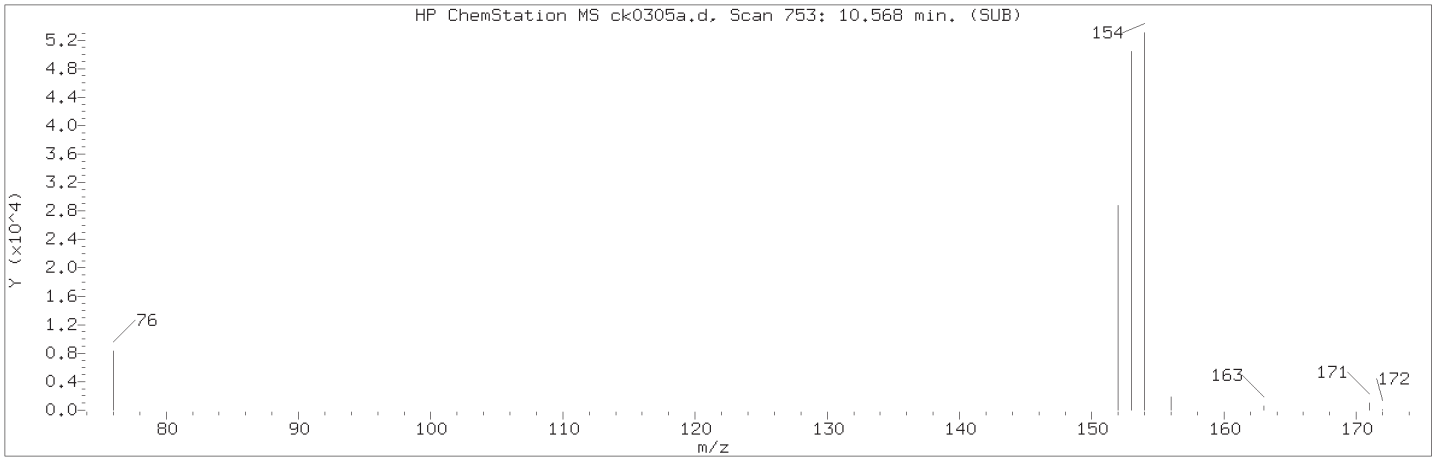
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

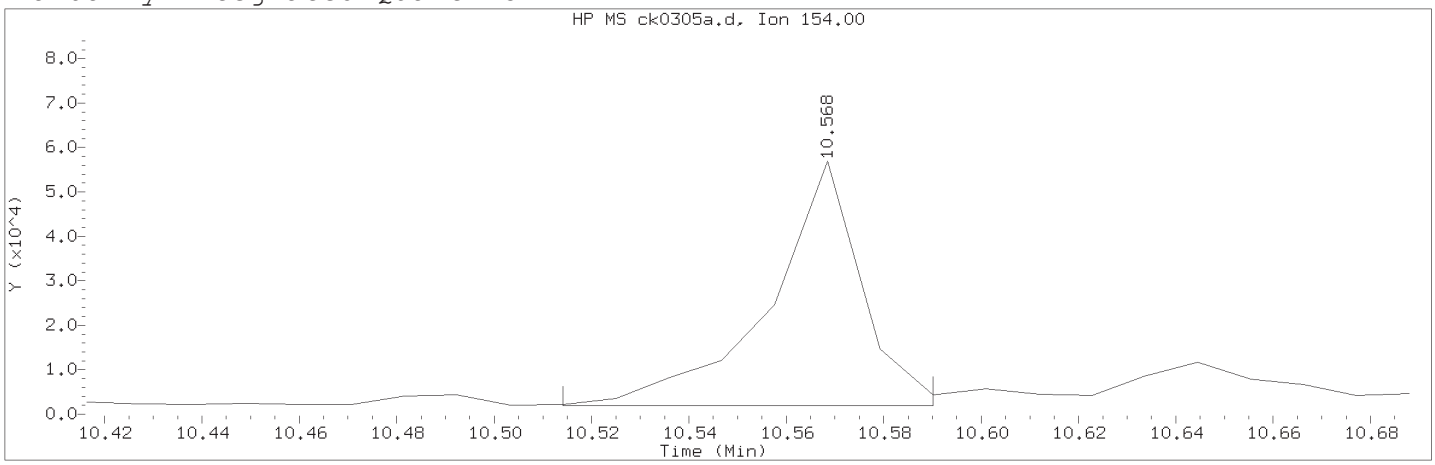
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 753
Retention Time (minutes)	: 10.568
Relative Retention Time	:-0.00000
Quant Ion	: 154.00
Area (flag)	: 72772M
On-column Amount (ng/ul)	: 0.3477

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

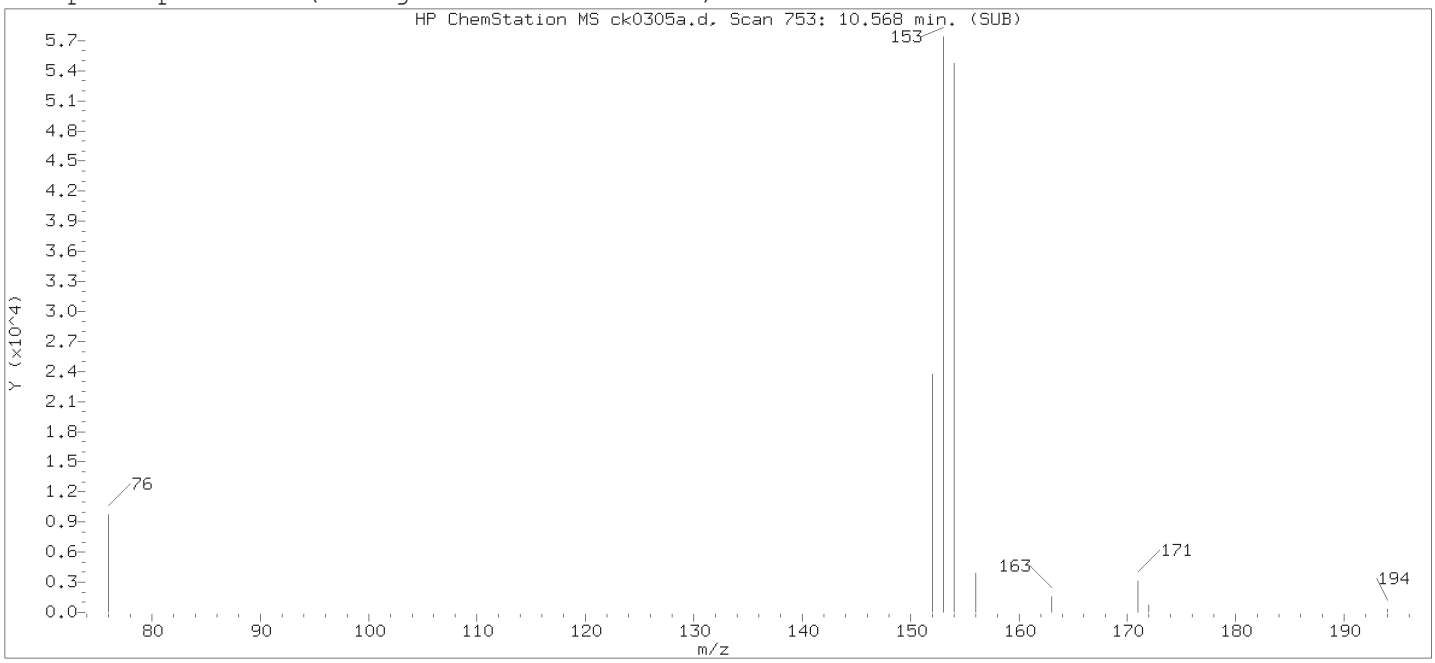
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.568		
Quant Ion	: 154.00		
Area (flag)	: 72772M		
On-column Amount (ng/ul)	: 0.3477		
Integration start scan	: 747	Integration stop scan:	754
Y at integration start	: 1925	Y at integration end:	1925

Reason for manual integration: improper integration

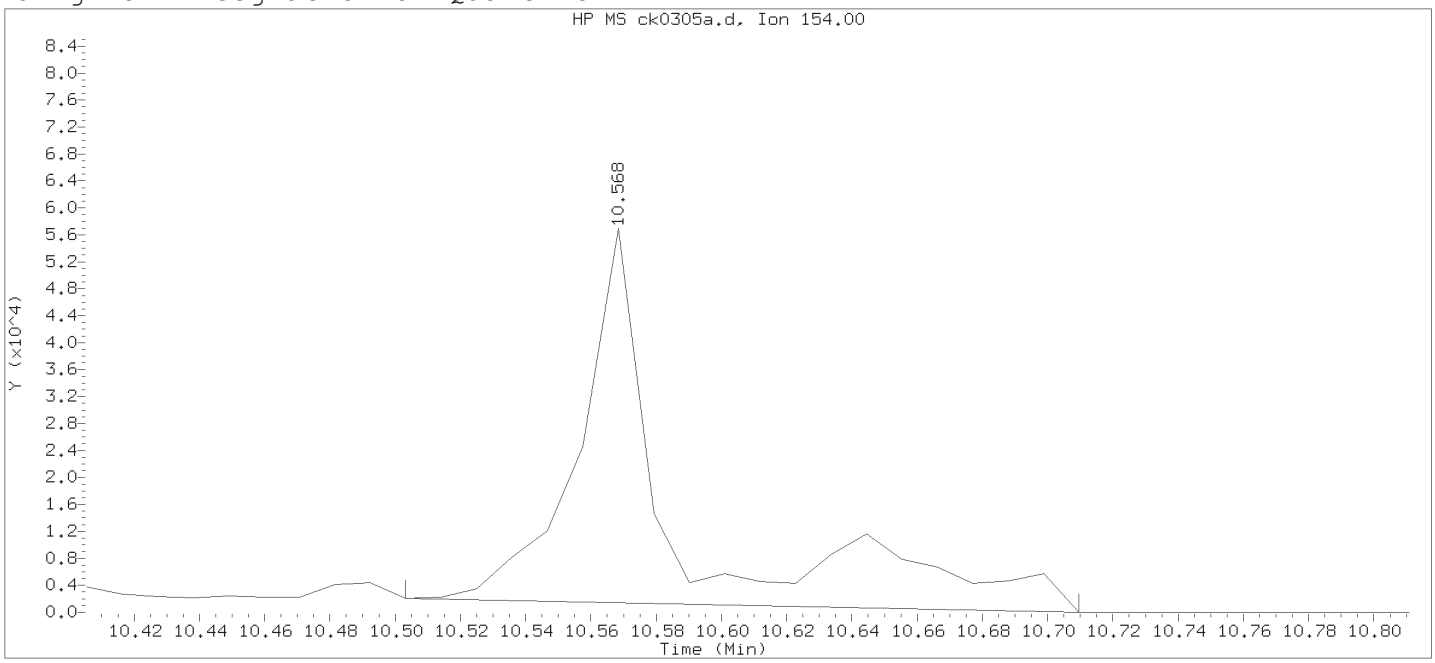
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

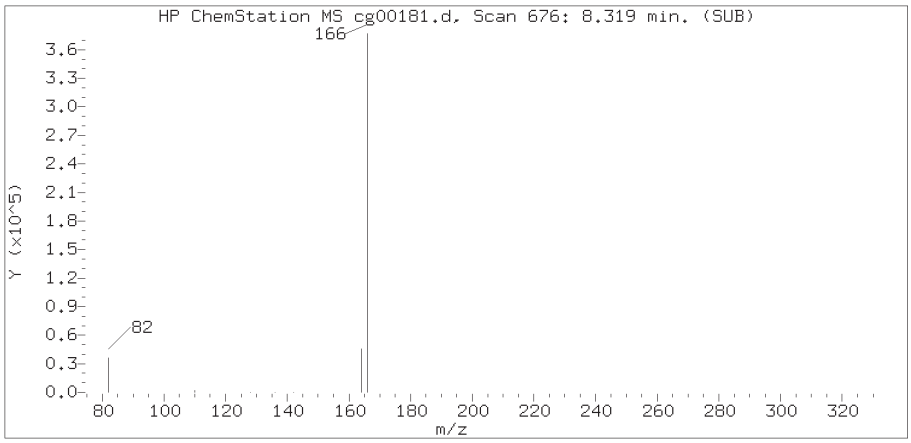
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

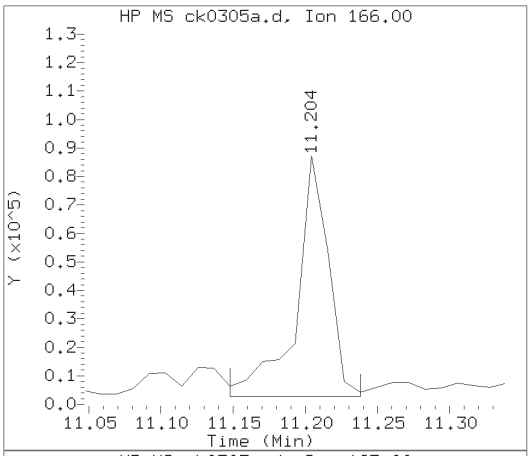
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 753		
Retention Time (minutes)	: 10.568		
Quant Ion	: 154.00		
Area	: 113217		
On-column Amount (ng/ul)	: 0.5126		
Integration start scan	: 746	Integration stop scan:	765
Y at integration start	: 2036	Y at integration end:	0

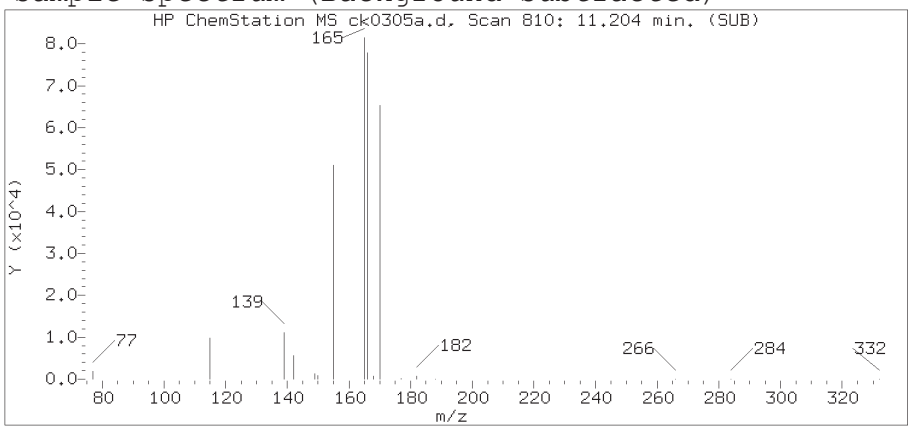
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used 11/07/2018

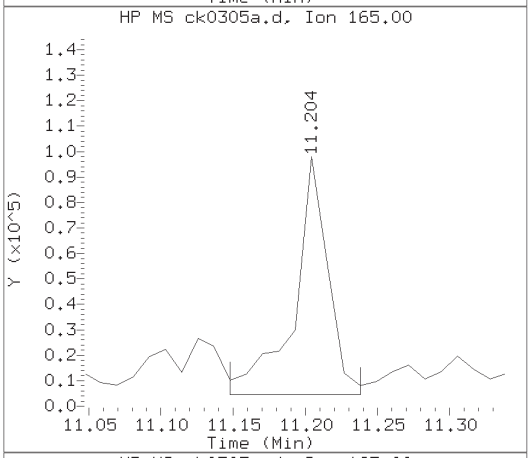
Reference Standard Spectrum for Fluorene



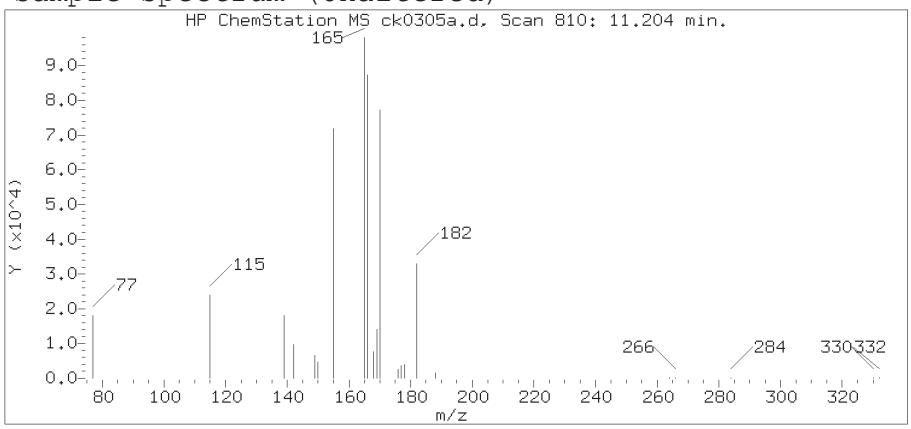


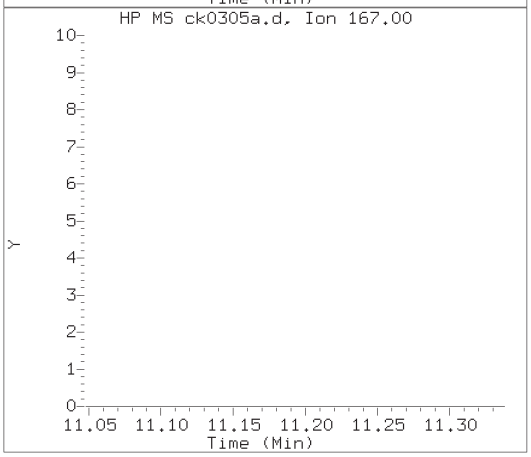
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

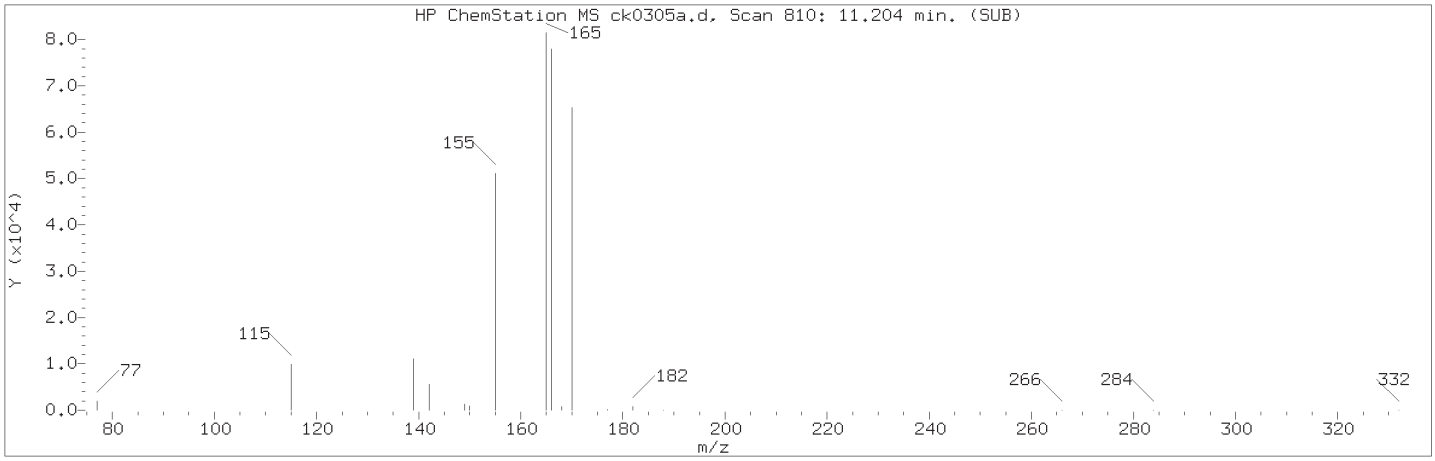
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

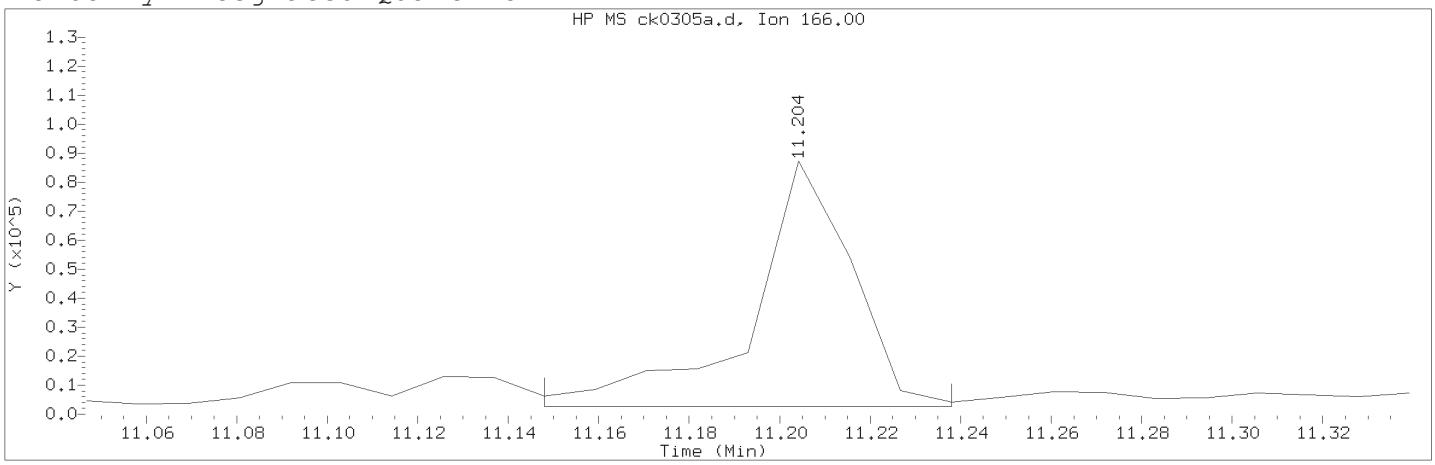
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 810
Retention Time (minutes)	: 11.204
Relative Retention Time	:-0.00000
Quant Ion	: 166.00
Area (flag)	: 132171M
On-column Amount (ng/ul)	: 0.5905

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

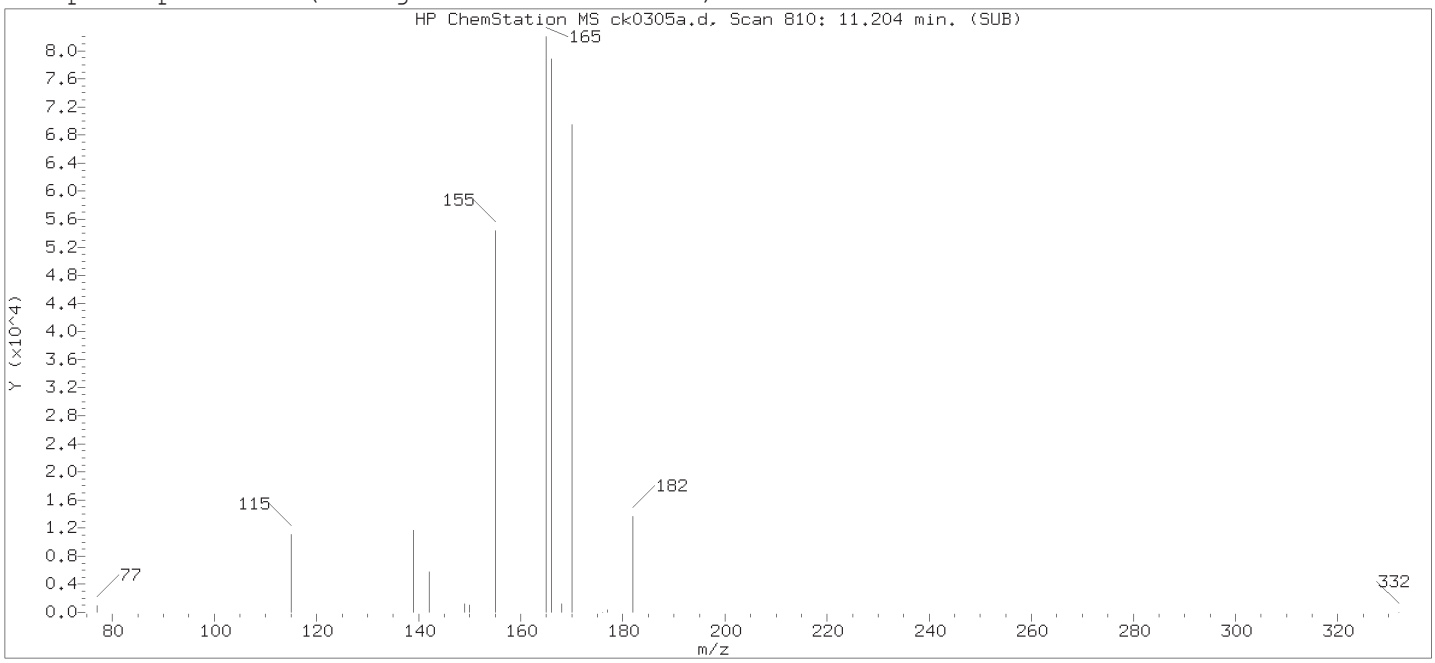
Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 810		
Retention Time (minutes)	: 11.204		
Quant Ion	: 166.00		
Area (flag)	: 132171M		
On-column Amount (ng/ul)	: 0.5905		
Integration start scan	: 804	Integration stop scan:	812
Y at integration start	: 2697	Y at integration end:	2697

Reason for manual integration: improper integration

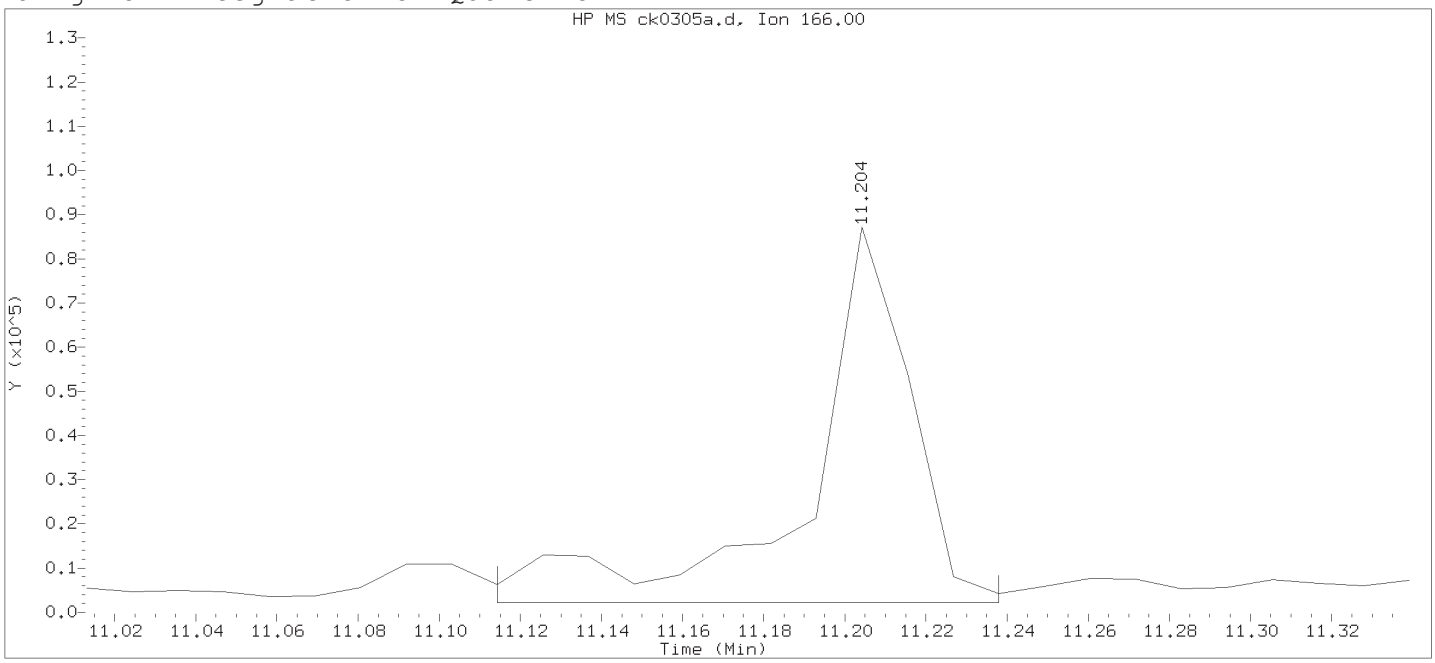
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

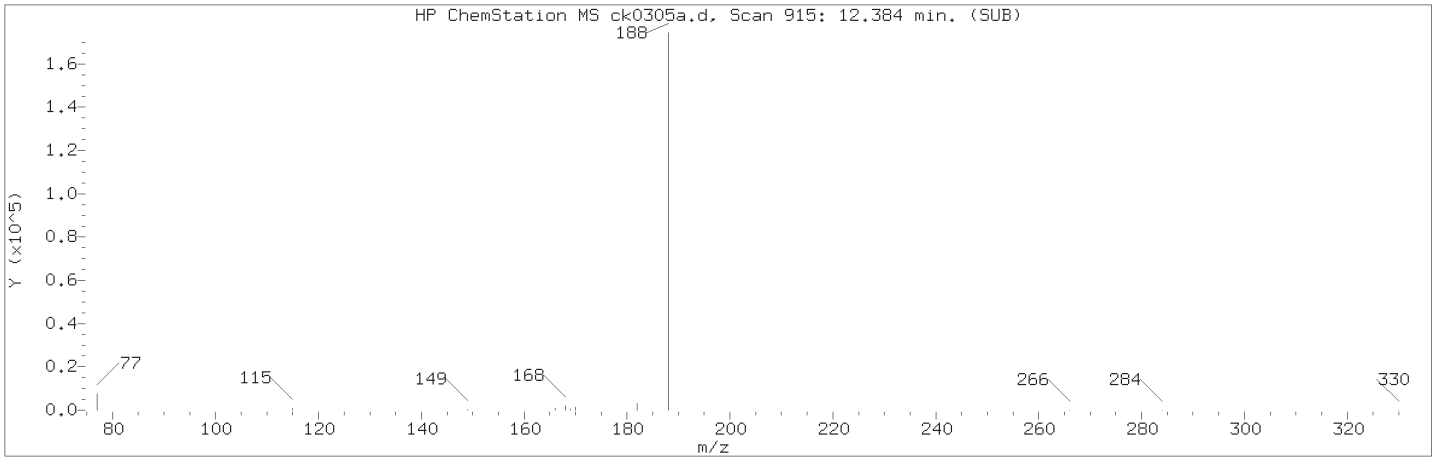
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

Sample Name: 12T05 Lab Sample ID: 9872063

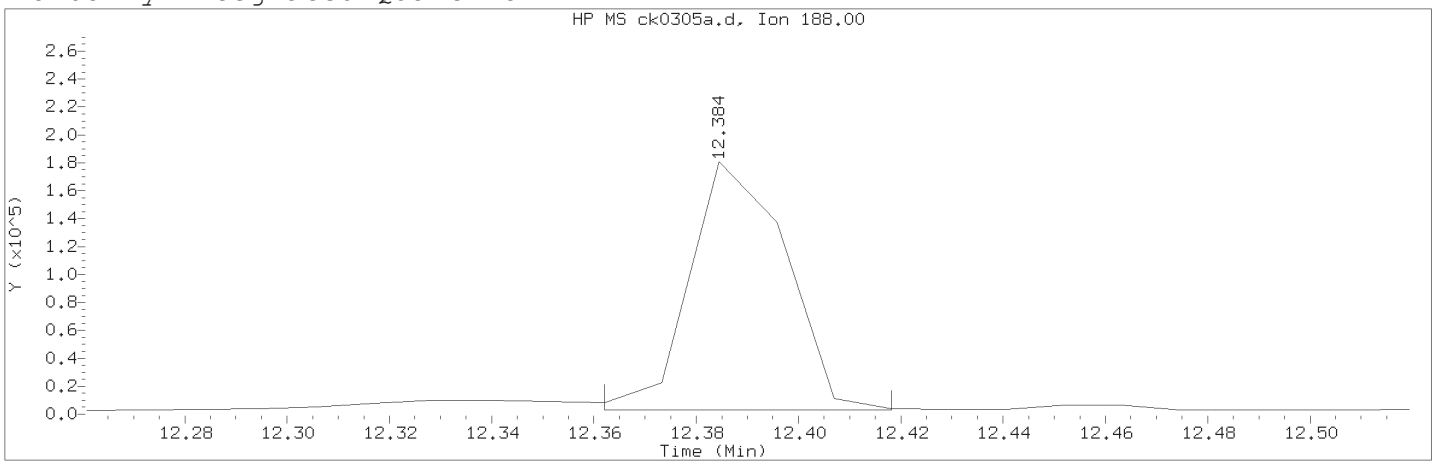
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 810
Retention Time (minutes)	: 11.204
Quant Ion	: 166.00
Area	: 150483
On-column Amount (ng/ul)	: 0.6371
Integration start scan	: 801 Integration stop scan: 812
Y at integration start	: 2166 Y at integration end: 2166

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

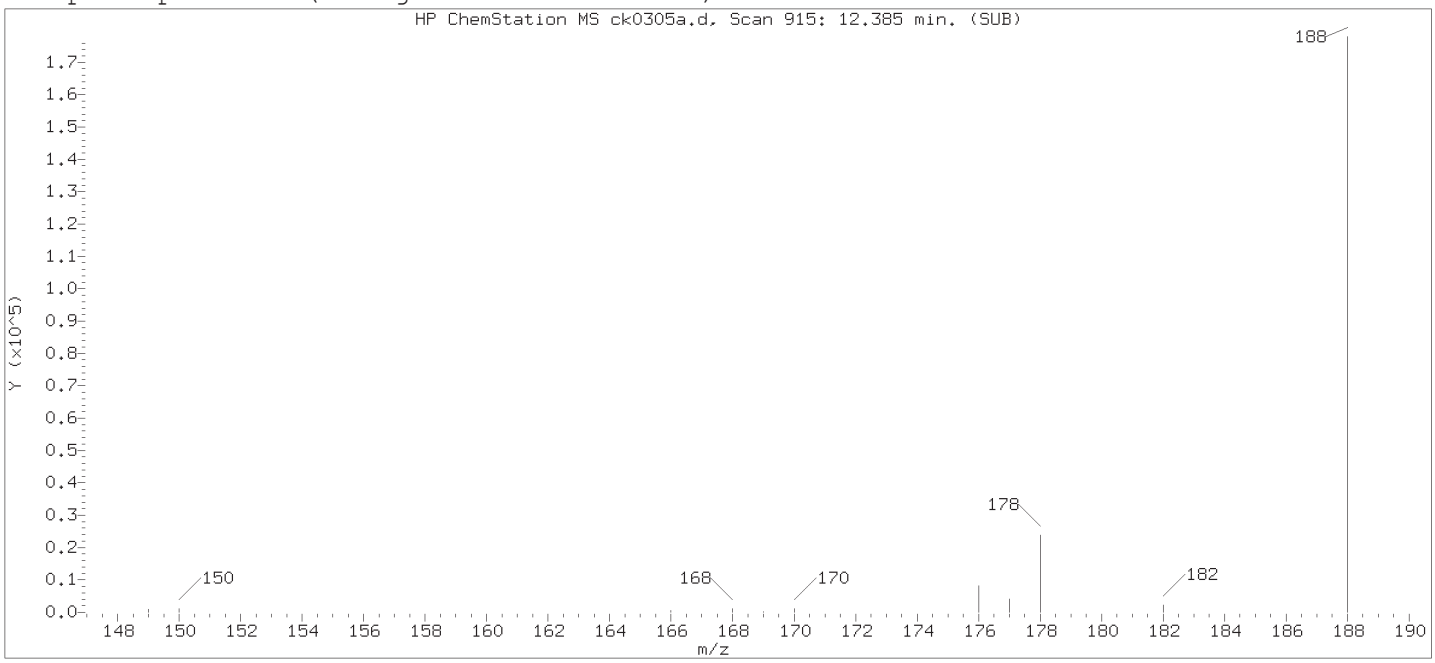
Compound Number : 31
Compound Name : Phenanthrene-d10
Scan Number : 915
Retention Time (minutes) : 12.384
Quant Ion : 188.00
Area (flag) : 233359M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 912 Integration stop scan: 917
Y at integration start : 2986 Y at integration end: 2986

Reason for manual integration: improper integration

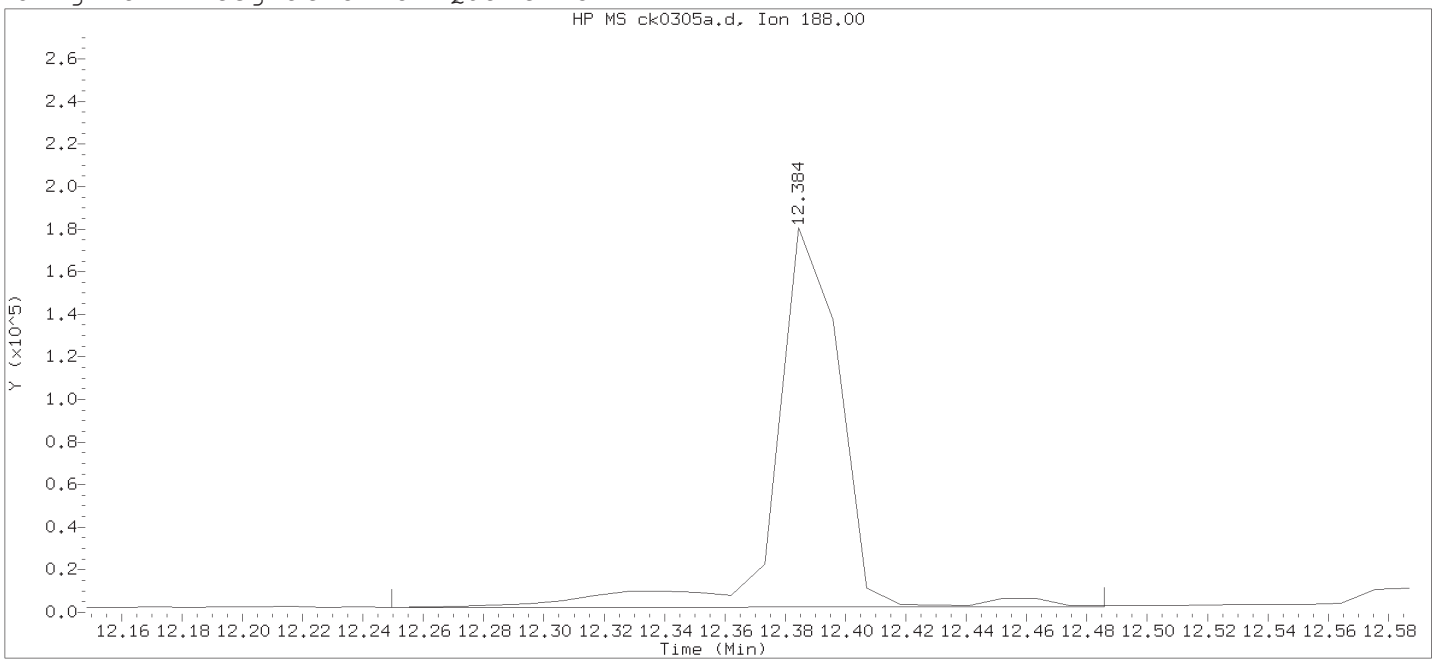
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

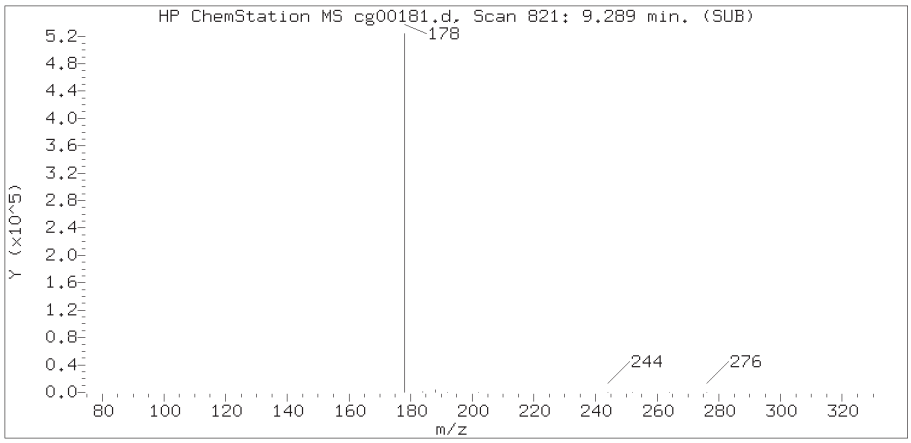
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

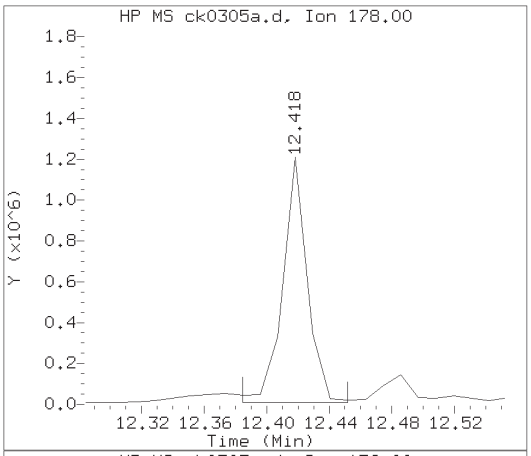
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 31		
Compound Name	: Phenanthrene-d10		
Scan Number	: 915		
Retention Time (minutes)	: 12.384		
Quant Ion	: 188.00		
Area	: 264398		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 902	Integration stop scan:	923
Y at integration start	: 2322	Y at integration end:	2656

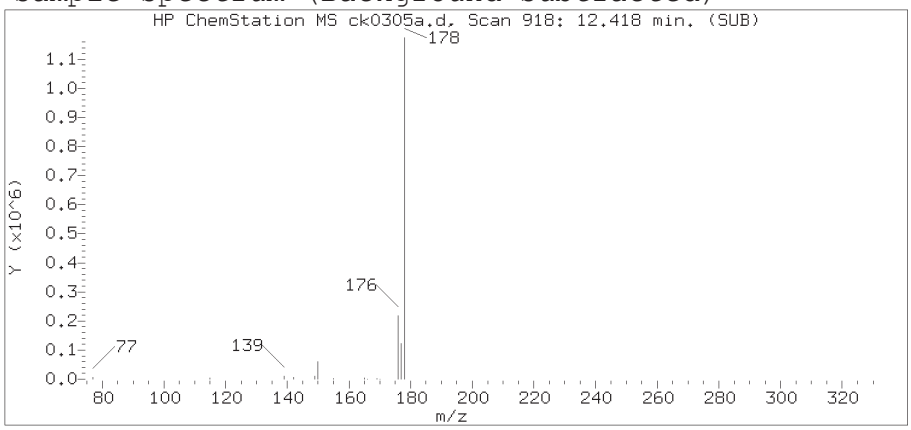
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

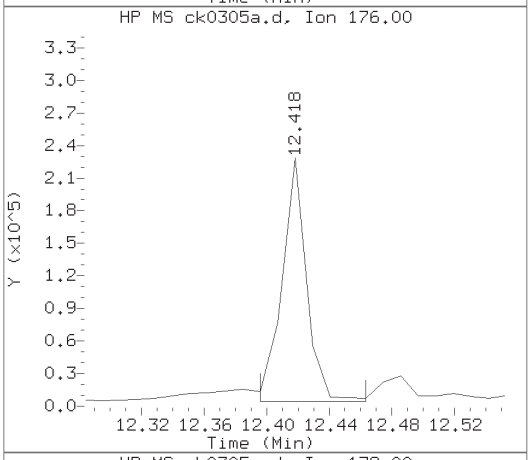
Reference Standard Spectrum for Phenanthrene



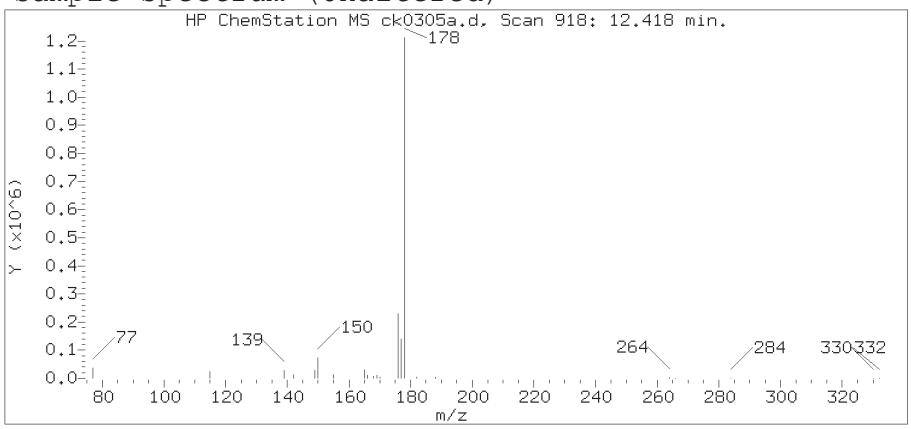


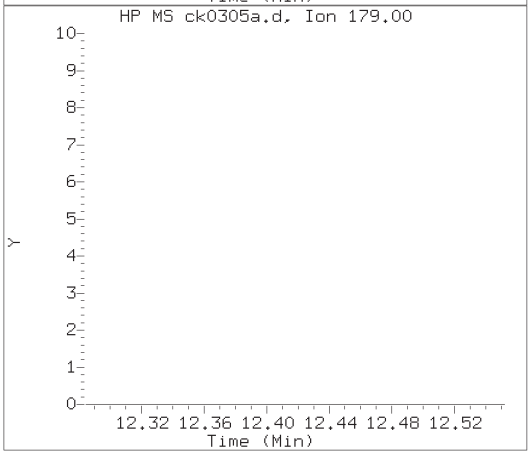
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

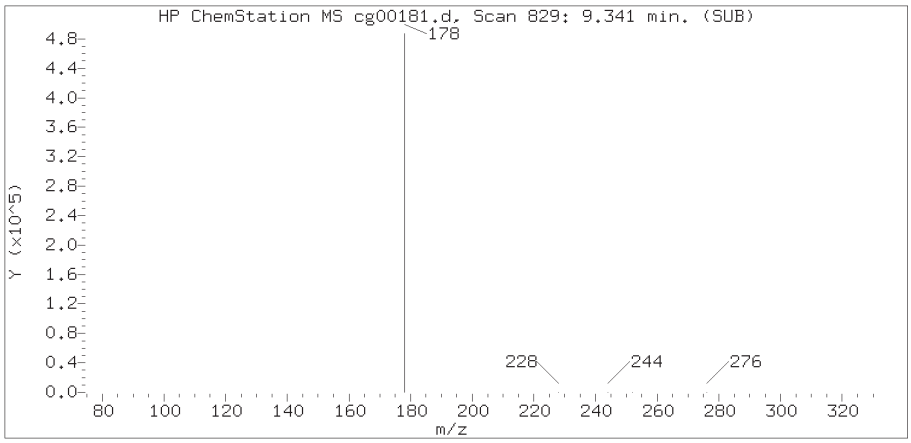
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

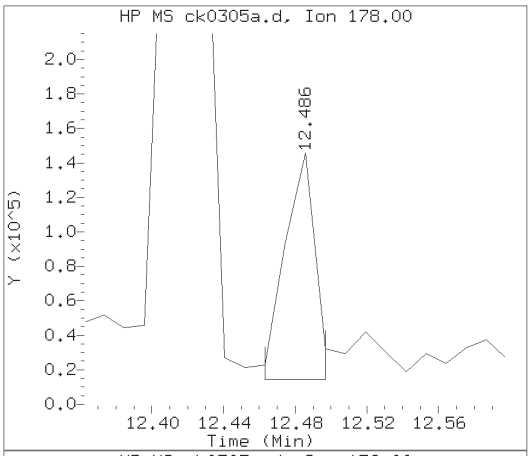
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 918
Retention Time (minutes)	: 12.418
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 1313312
On-column Amount (ng/ul)	: 4.7167

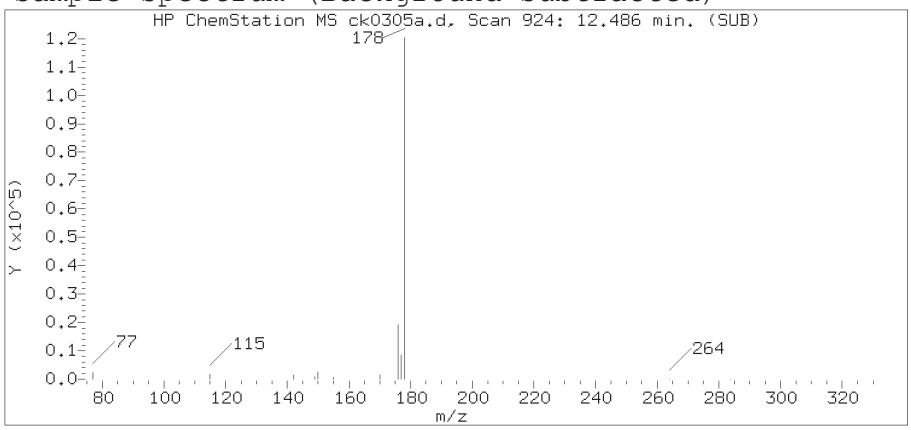
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

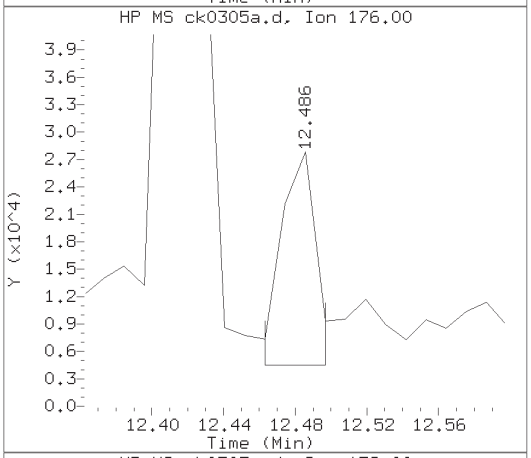
Reference Standard Spectrum for Anthracene



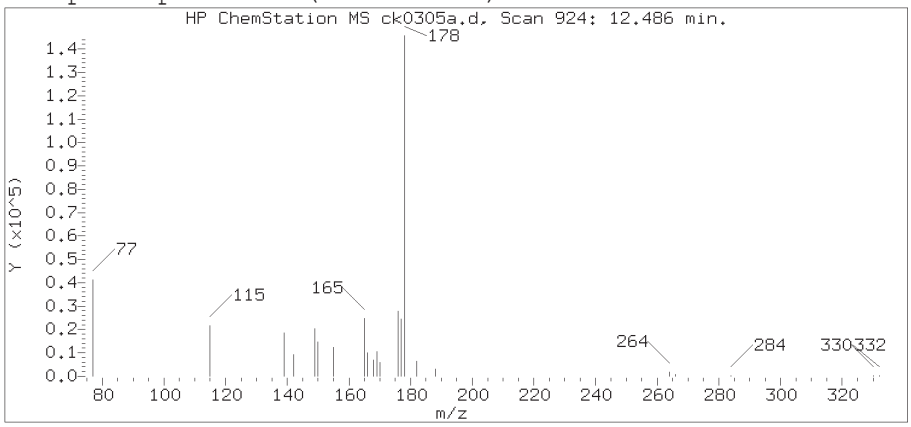


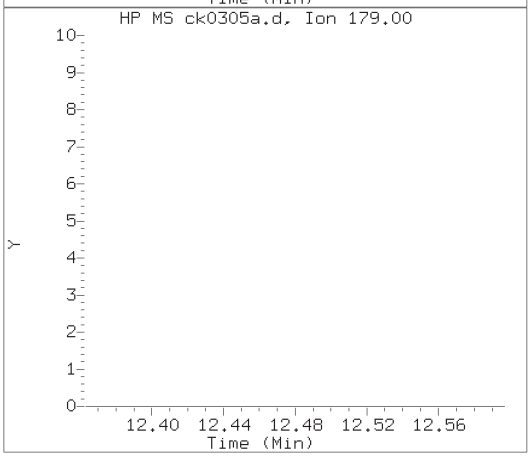
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

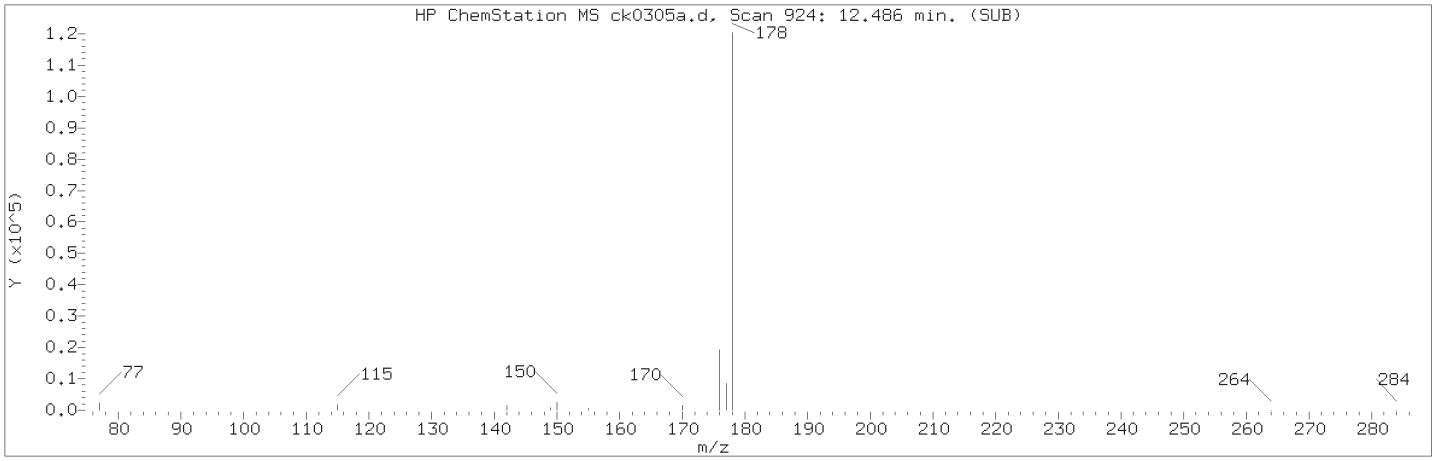
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

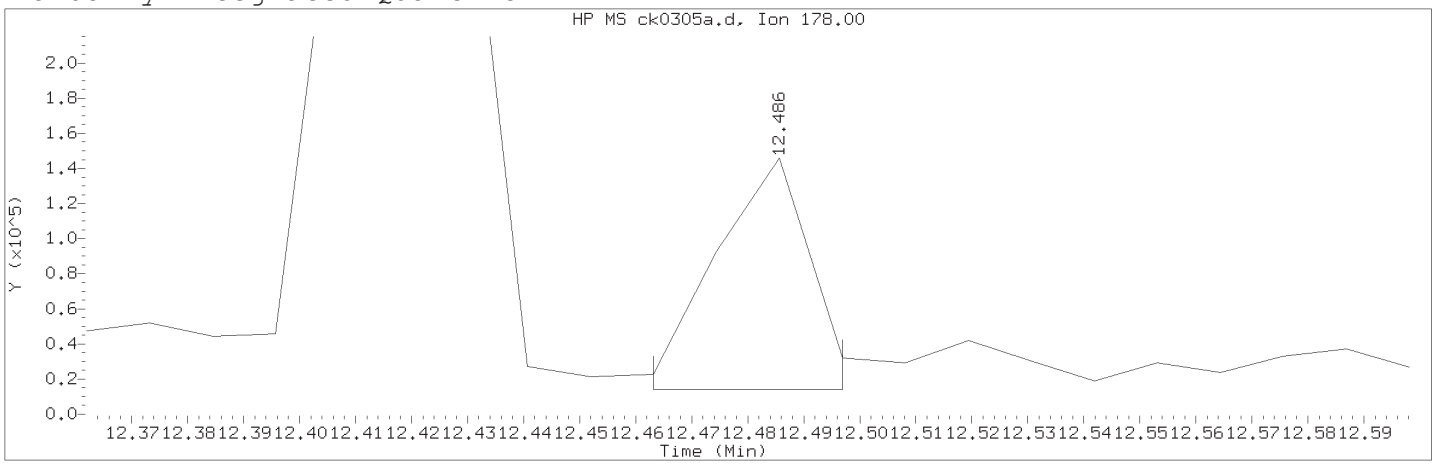
Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 924
Retention Time (minutes)	: 12.486
Relative Retention Time	:-0.00091
Quant Ion	: 178.00
Area (flag)	: 159552M
On-column Amount (ng/ul)	: 0.5959

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

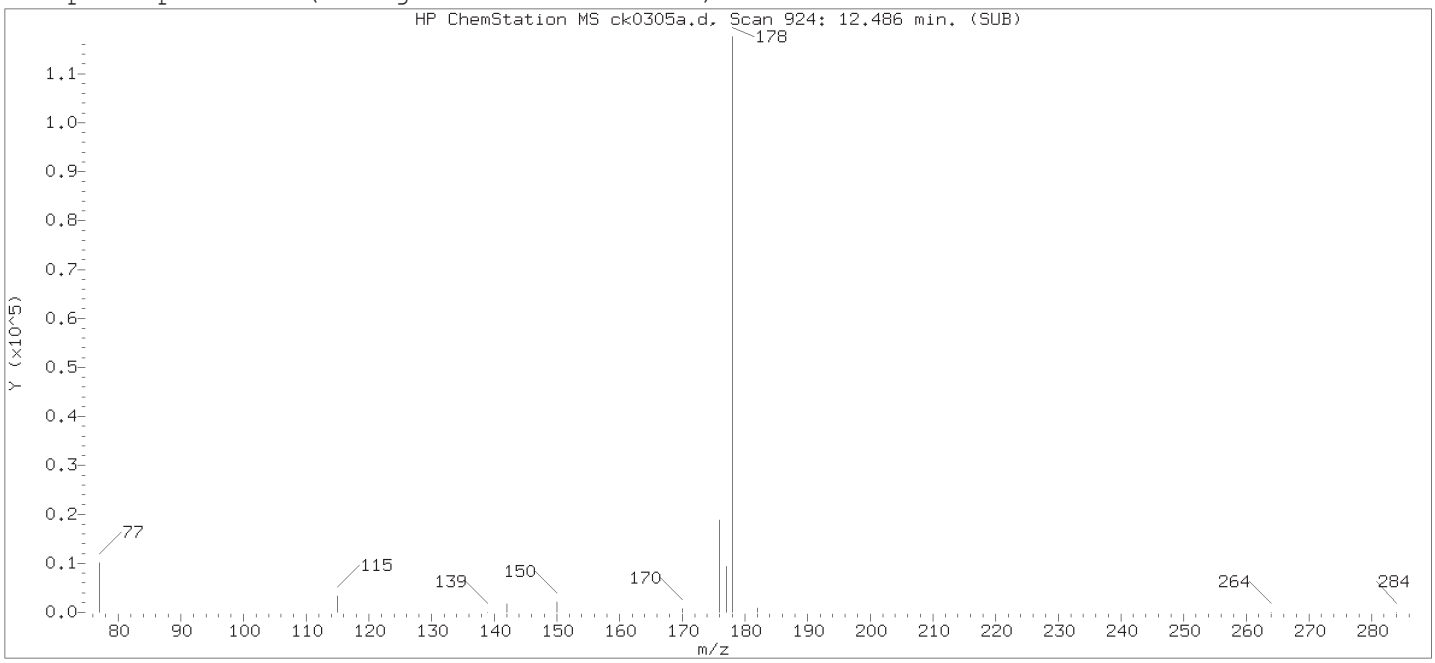
Compound Number : 33
Compound Name : Anthracene
Scan Number : 924
Retention Time (minutes) : 12.486
Quant Ion : 178.00
Area (flag) : 159552M
On-column Amount (ng/ul) : 0.5959
Integration start scan : 921 Integration stop scan: 924
Y at integration start : 14267 Y at integration end: 14267

Reason for manual integration: improper integration

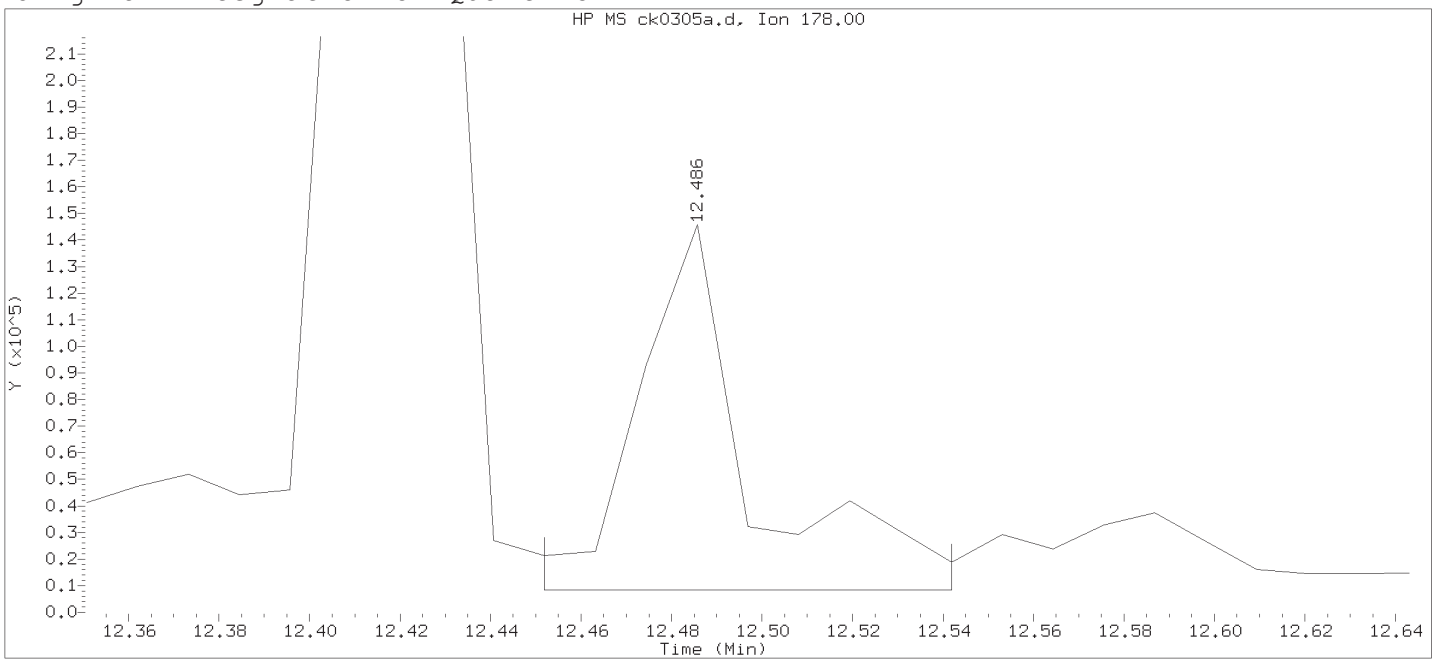
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

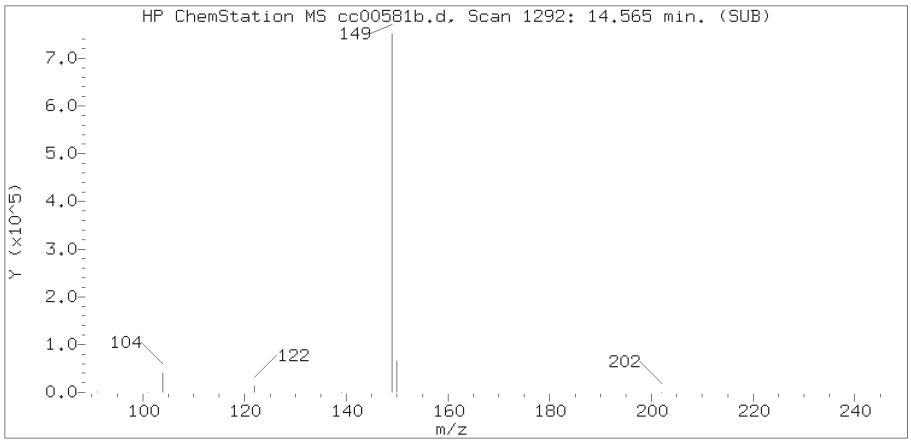
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

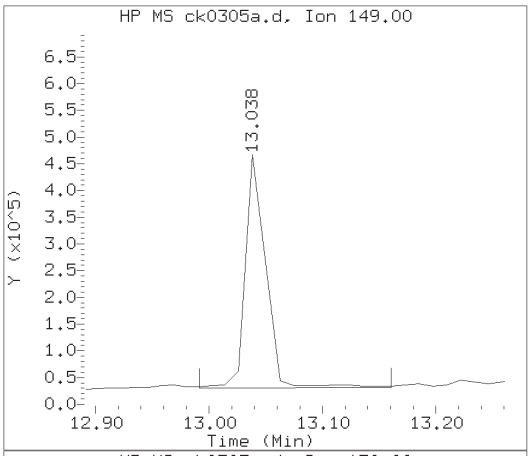
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 924		
Retention Time (minutes)	: 12.486		
Quant Ion	: 178.00		
Area	: 235338		
On-column Amount (ng/ul)	: 0.7758		
Integration start scan	: 920	Integration stop scan:	928
Y at integration start	: 8318	Y at integration end:	8318

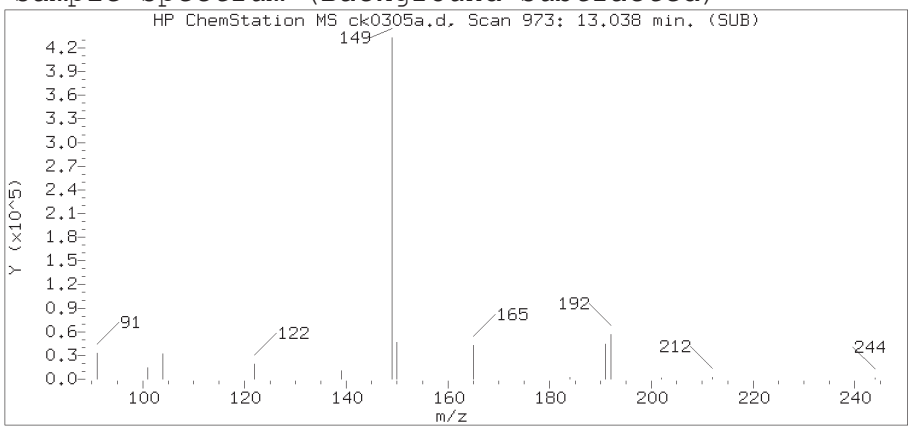
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used: D12 Page 2831

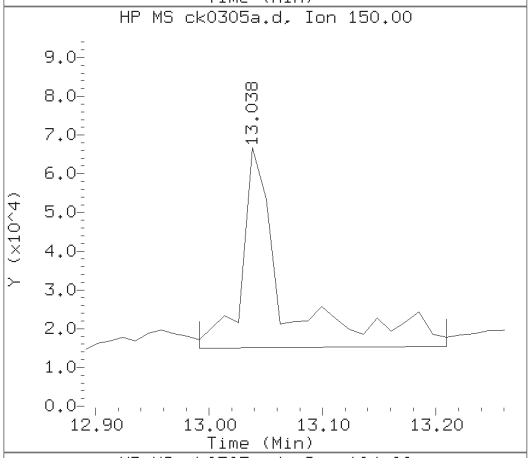
Reference Standard Spectrum for Di-n-butylphthalate



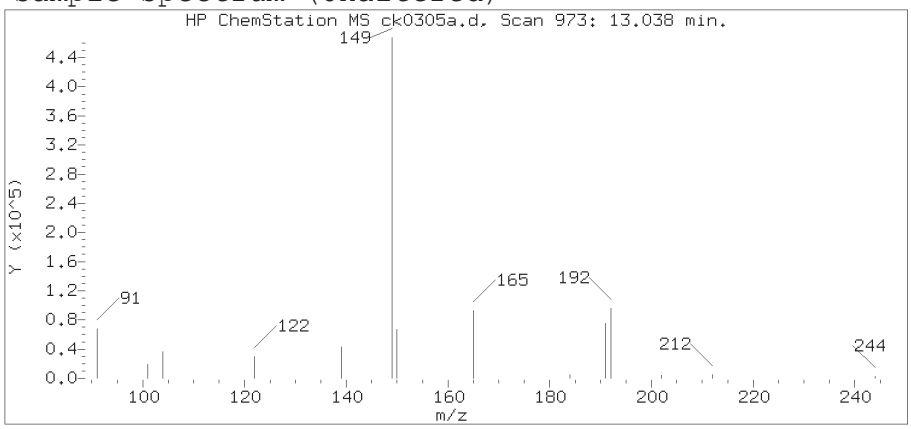


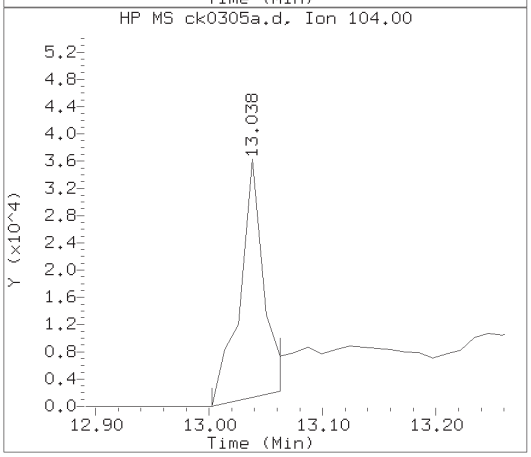
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

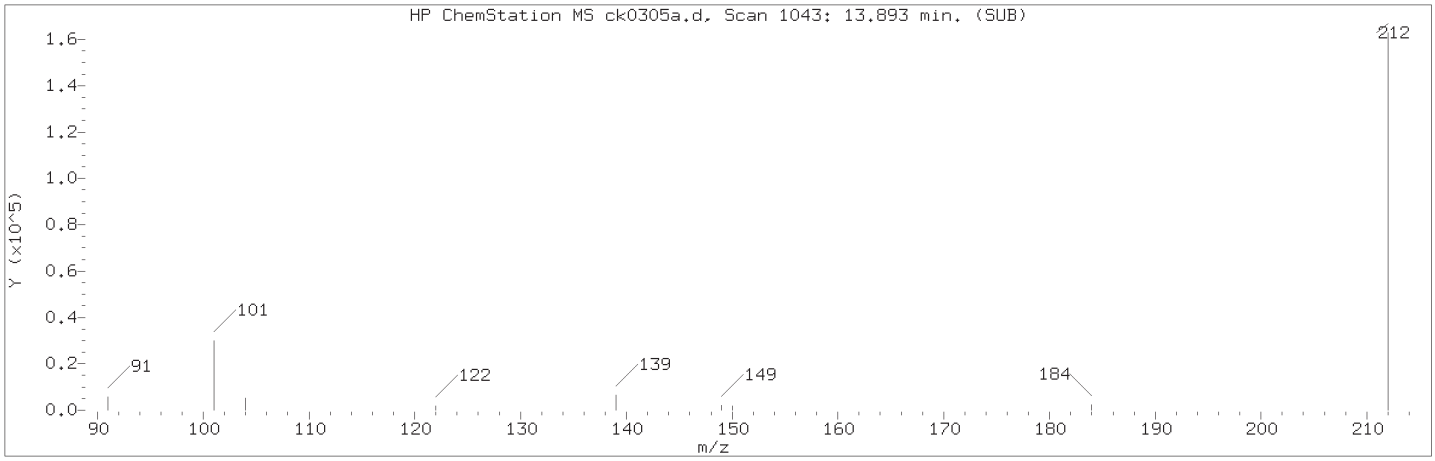
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

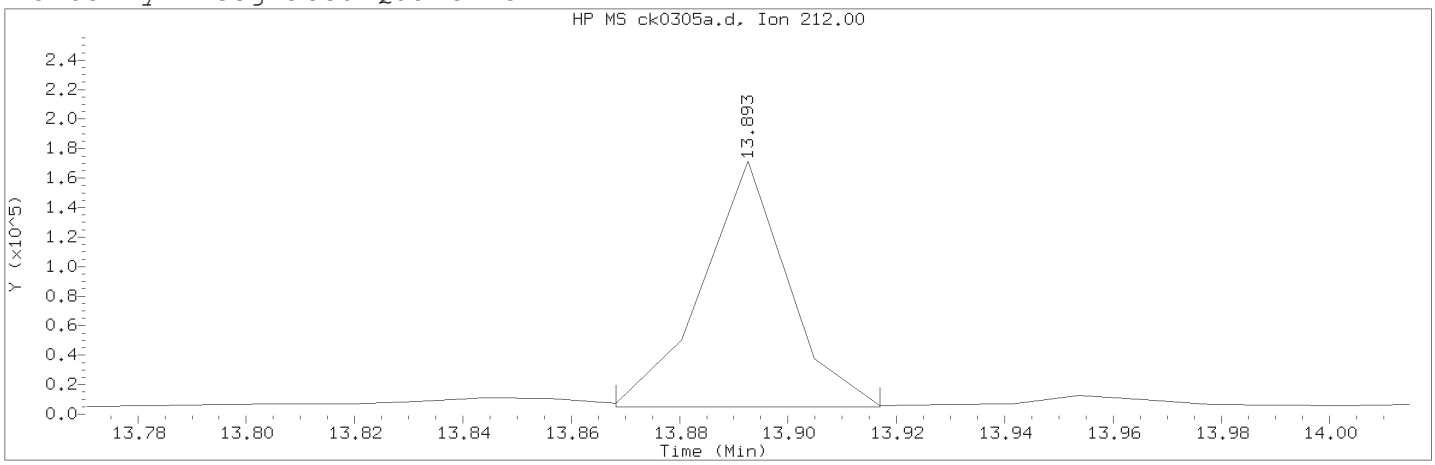
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 973
Retention Time (minutes)	: 13.038
Relative Retention Time	: 0.00008
Quant Ion	: 149.00
Area (flag)	: 525995
On-column Amount (ng/ul)	: 1.7636

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

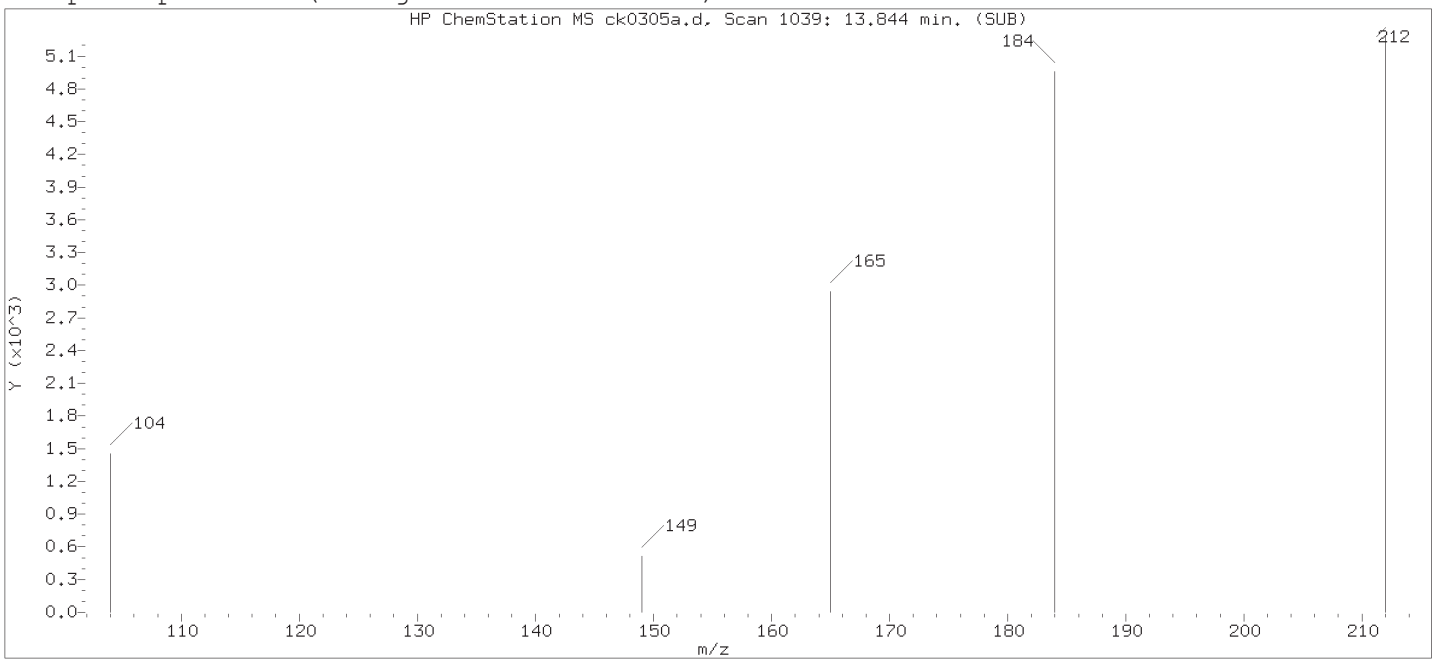
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1043
Retention Time (minutes) : 13.893
Quant Ion : 212.00
Area (flag) : 182116M
On-column Amount (ng/ul) : 0.8602
Integration start scan : 1040 Integration stop scan: 1044
Y at integration start : 4845 Y at integration end: 4845

Reason for manual integration: improper integration

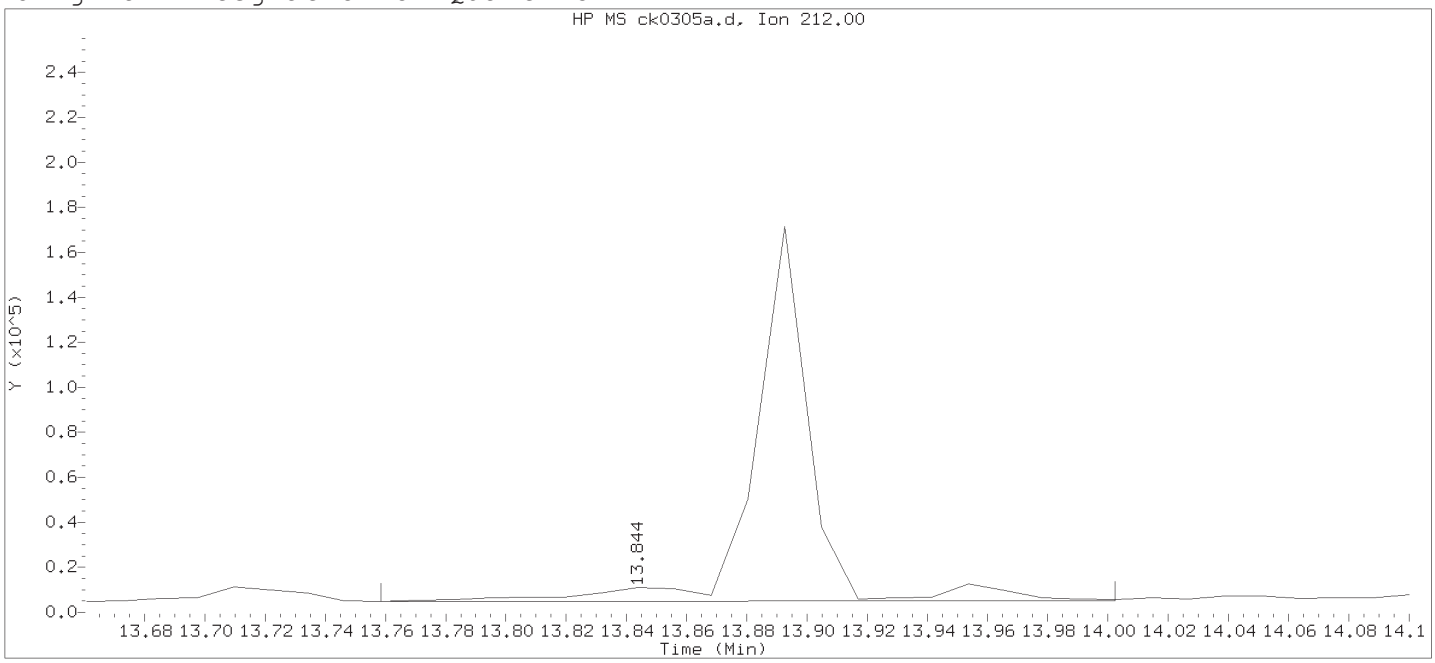
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

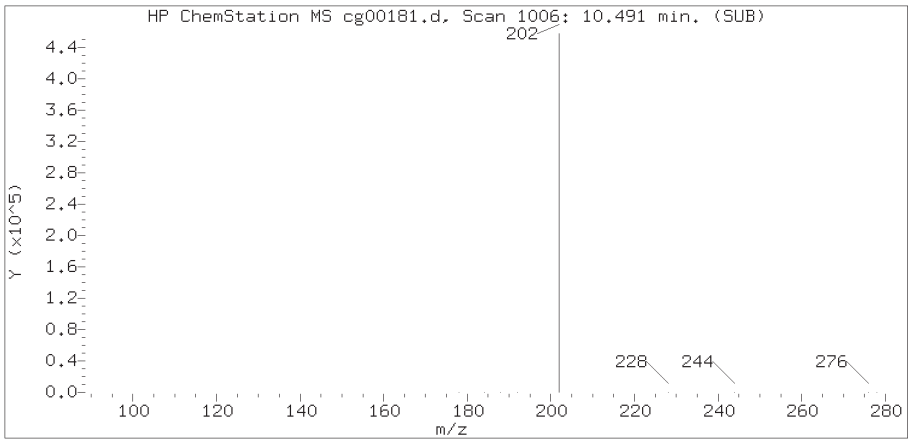
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

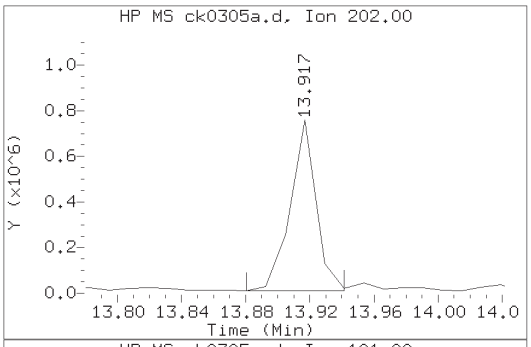
Sample Name: 12T05 Lab Sample ID: 9872063

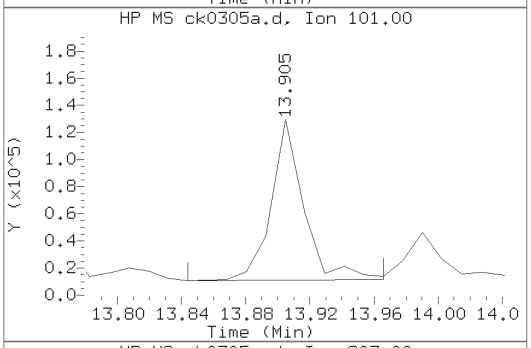
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1039		
Retention Time (minutes)	: 13.844		
Quant Ion	: 212.00		
Area	: 210911		
On-column Amount (ng/ul)	: 0.8792		
Integration start scan	: 1031	Integration stop scan:	1051
Y at integration start	: 4759	Y at integration end:	5221

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

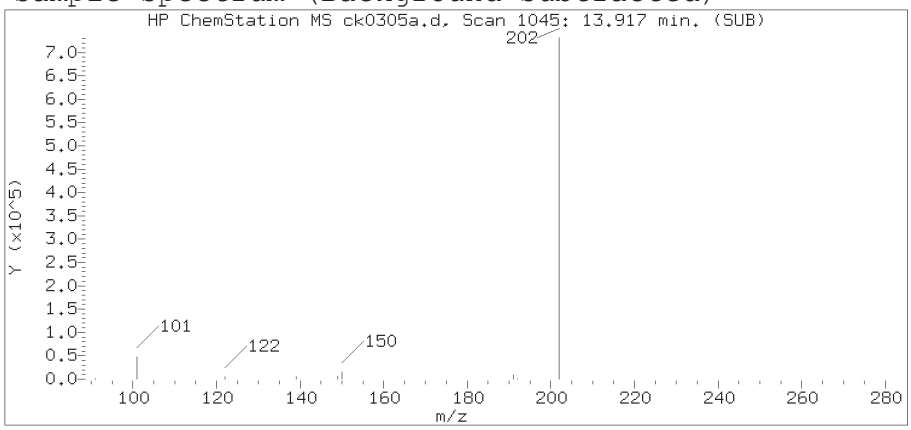
Reference Standard Spectrum for Fluoranthene

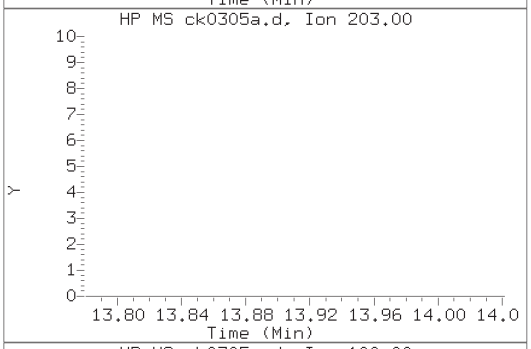




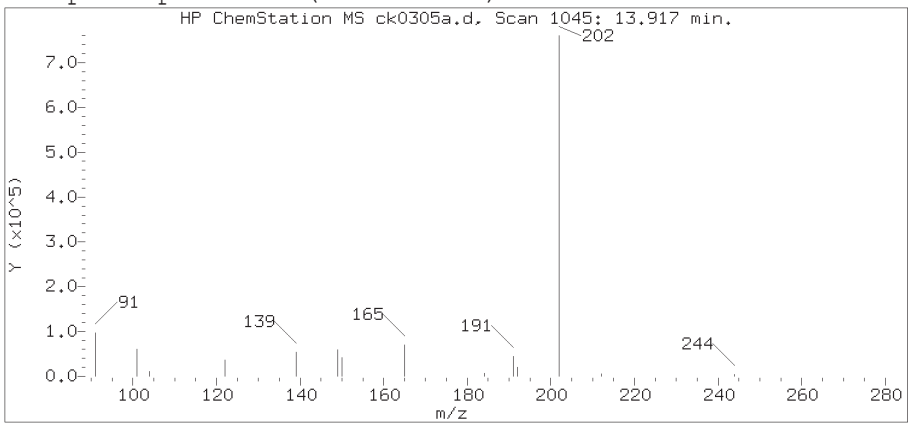


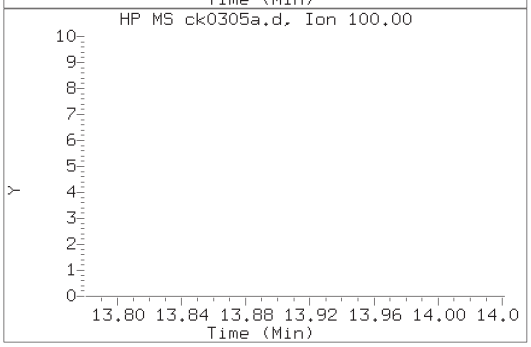
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

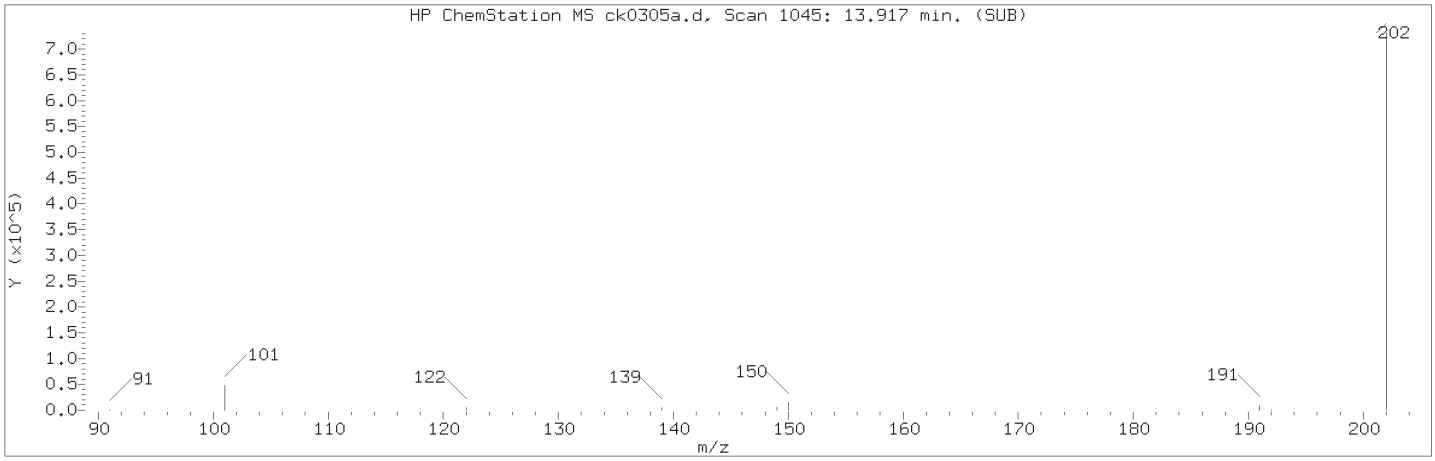
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

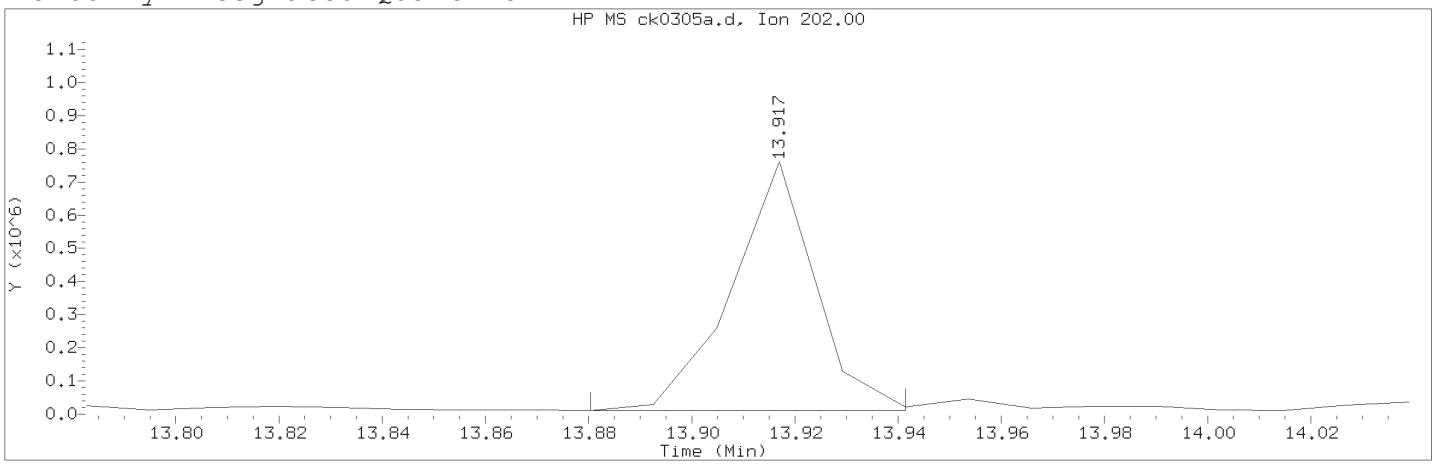
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1045
Retention Time (minutes)	: 13.917
Relative Retention Time	:-0.00091
Quant Ion	: 202.00
Area (flag)	: 841621M
On-column Amount (ng/ul)	: 3.0762

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

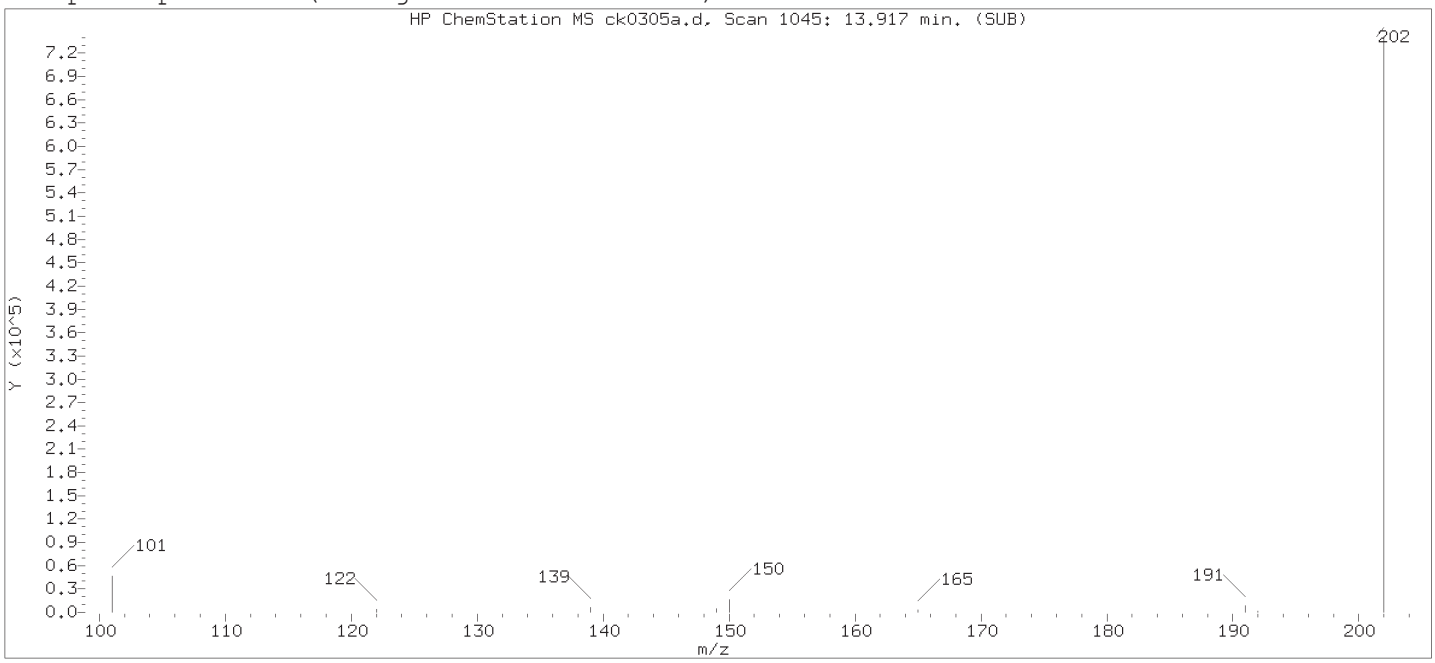
Compound Number : 37
Compound Name : Fluoranthene
Scan Number : 1045
Retention Time (minutes) : 13.917
Quant Ion : 202.00
Area (flag) : 841621M
On-column Amount (ng/ul) : 3.0762
Integration start scan : 1041 Integration stop scan: 1046
Y at integration start : 10107 Y at integration end: 10400

Reason for manual integration: improper integration

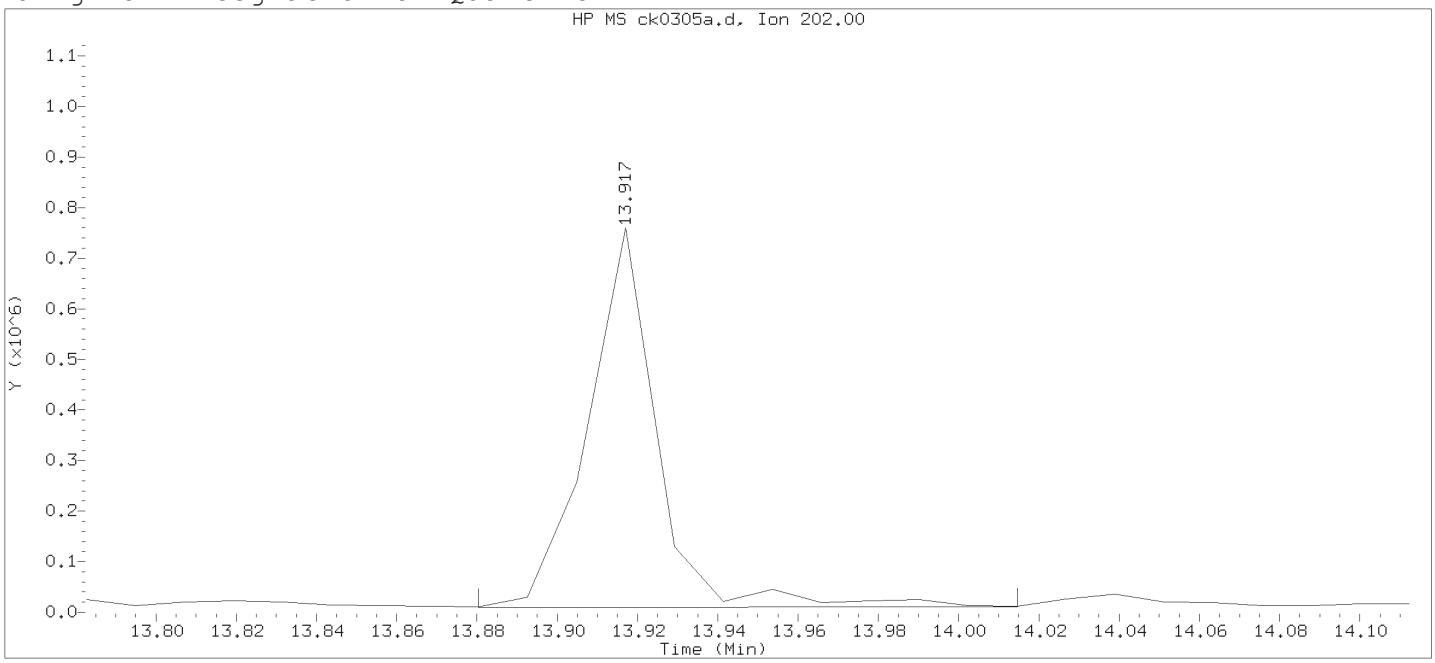
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

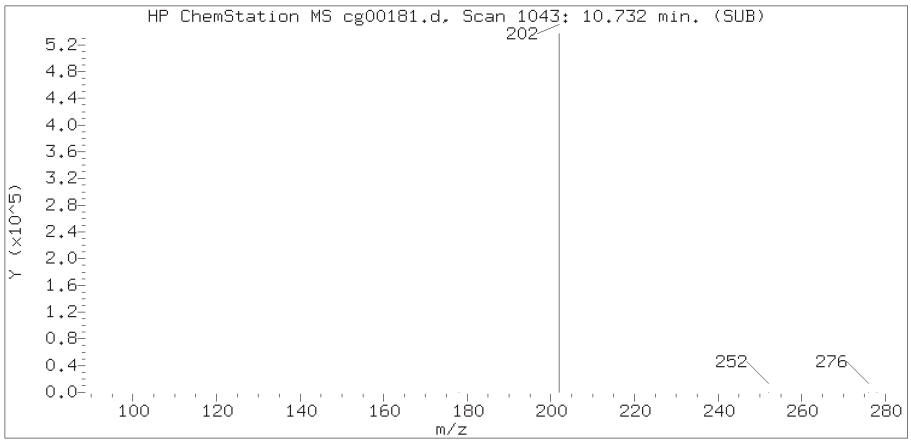
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

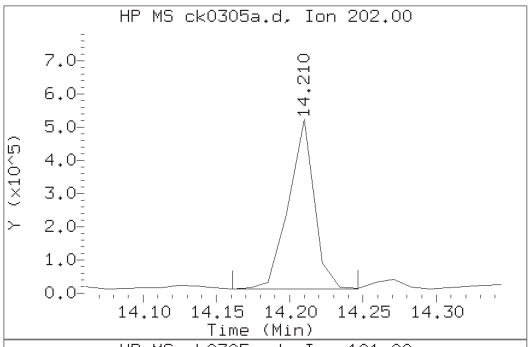
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1045
Retention Time (minutes)	: 13.917
Quant Ion	: 202.00
Area	: 894446
On-column Amount (ng/ul)	: 2.8854
Integration start scan	: 1041 Integration stop scan: 1052
Y at integration start	: 10107 Y at integration end: 10752

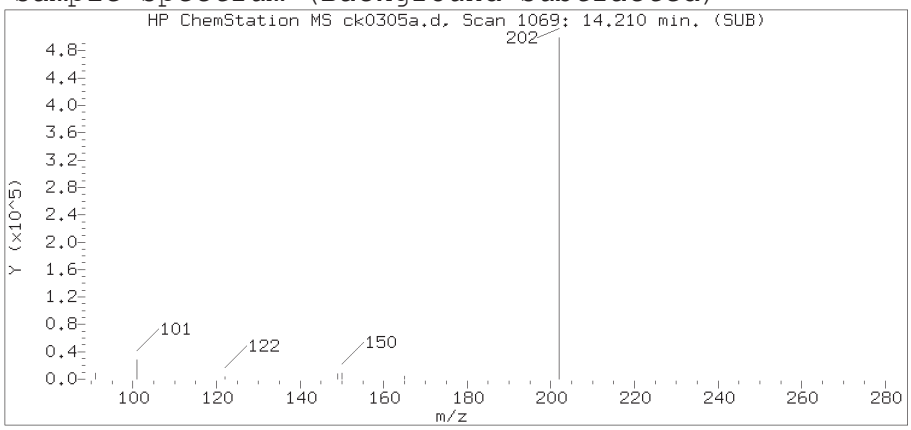
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

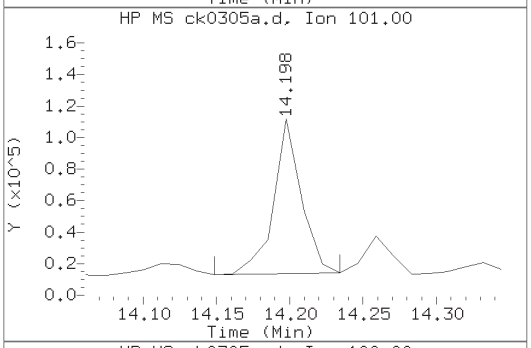
Reference Standard Spectrum for Pyrene

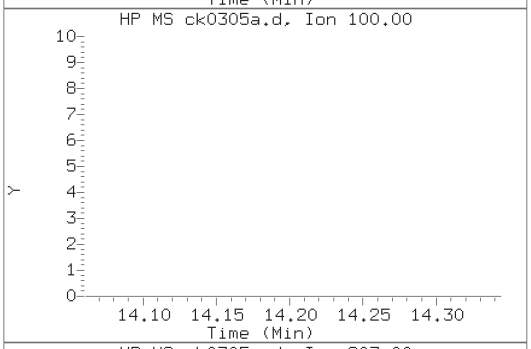




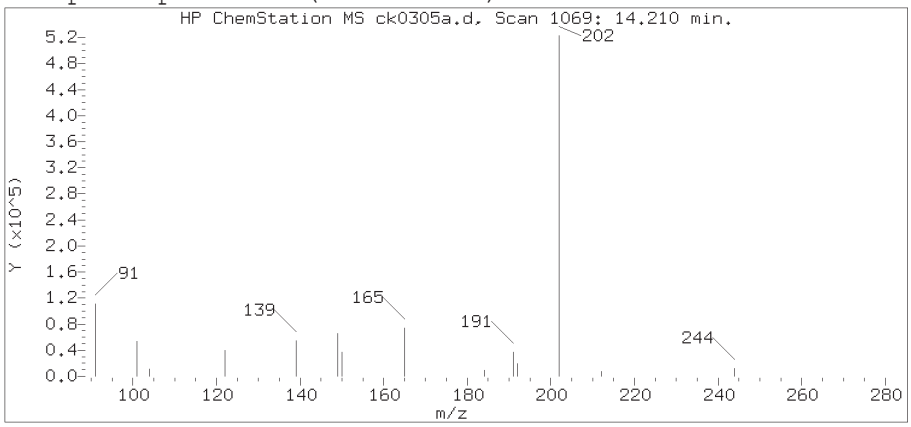
Sample Spectrum (Background Subtracted)

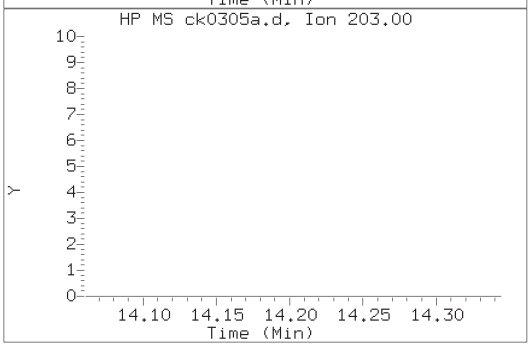






Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

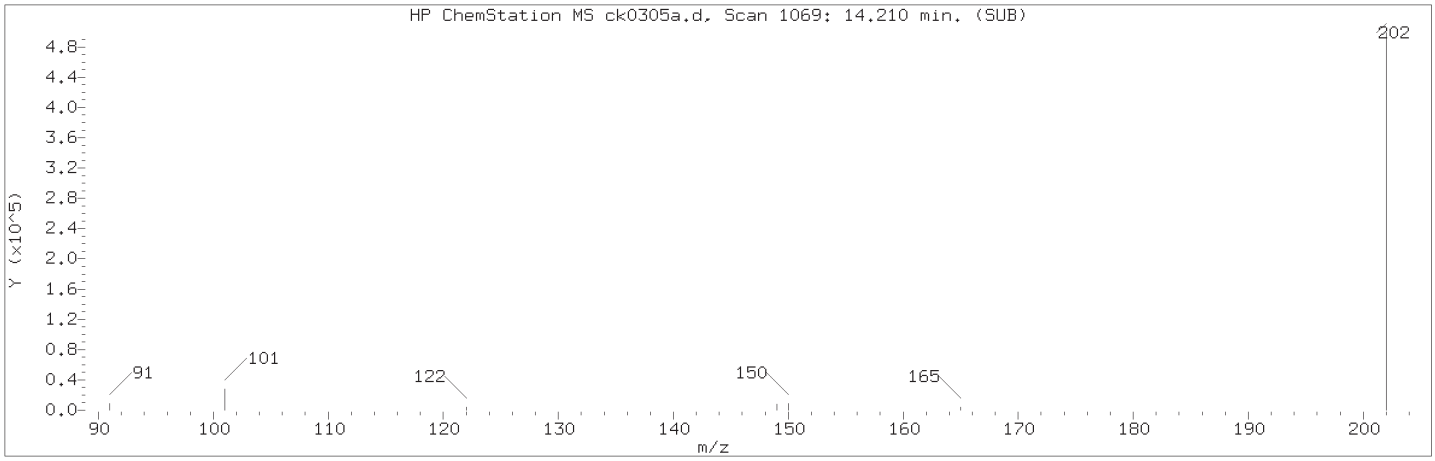
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

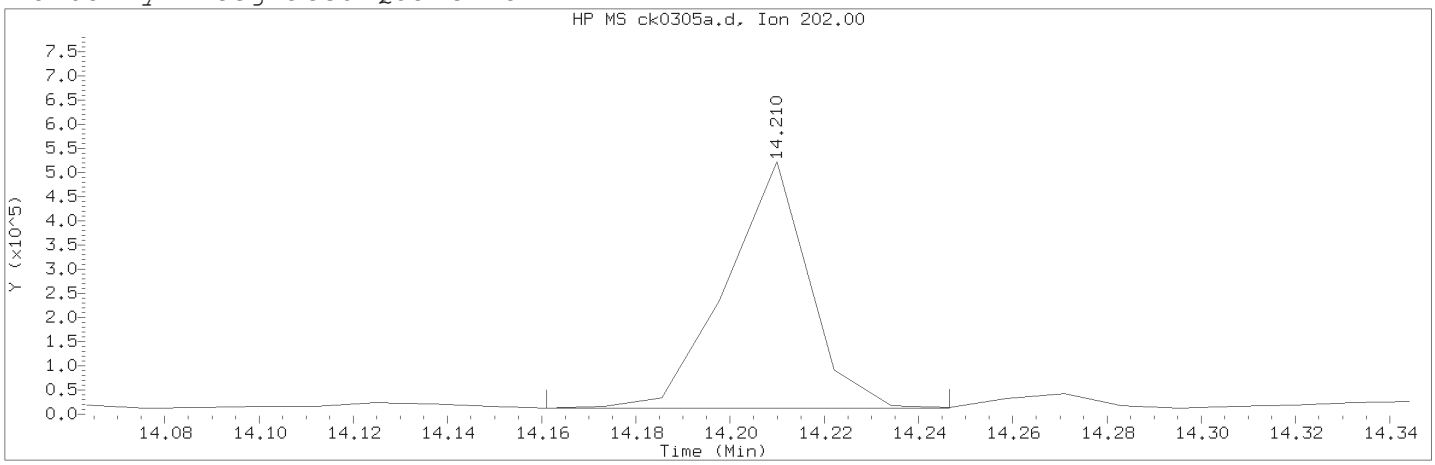
Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1069
Retention Time (minutes)	: 14.210
Relative Retention Time	: 0.00103
Quant Ion	: 202.00
Area (flag)	: 616578M
On-column Amount (ng/ul)	: 2.1687

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

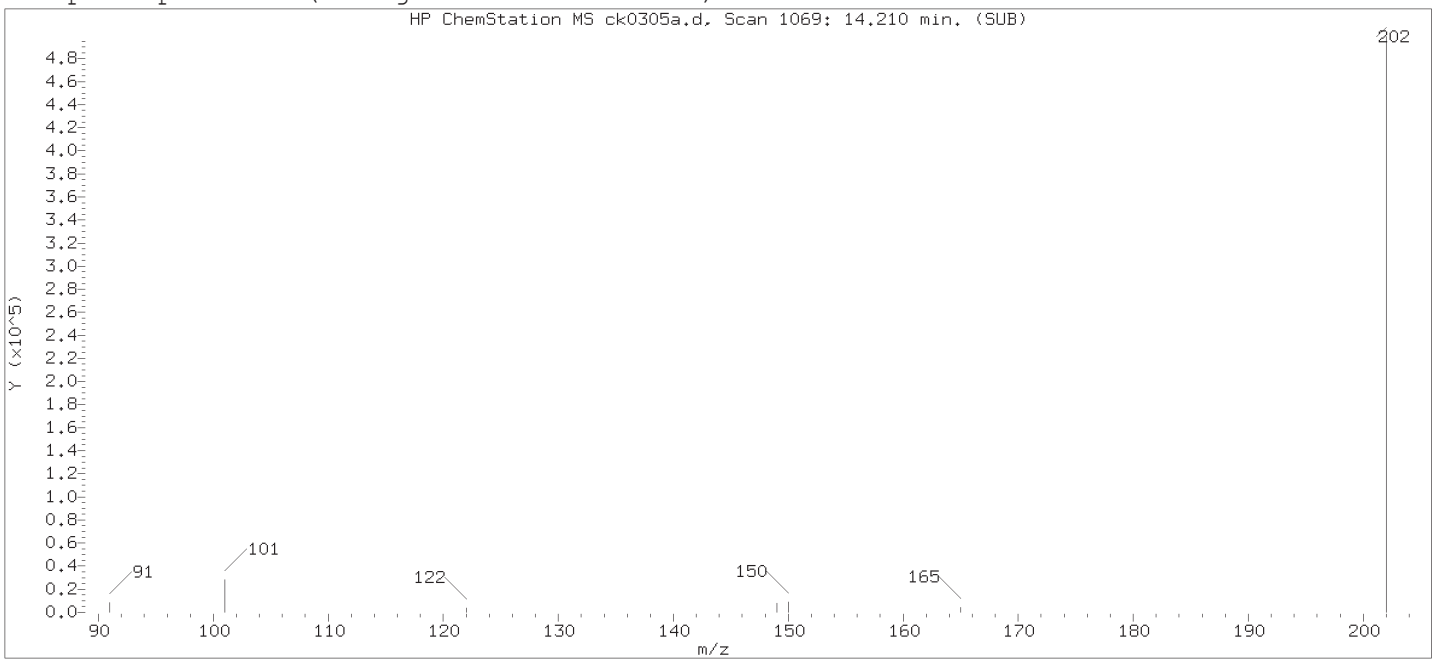
Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1069		
Retention Time (minutes)	: 14.210		
Quant Ion	: 202.00		
Area (flag)	: 616578M		
On-column Amount (ng/ul)	: 2.1687		
Integration start scan	: 1064	Integration stop scan:	1071
Y at integration start	: 12497	Y at integration end:	12497

Reason for manual integration: improper integration

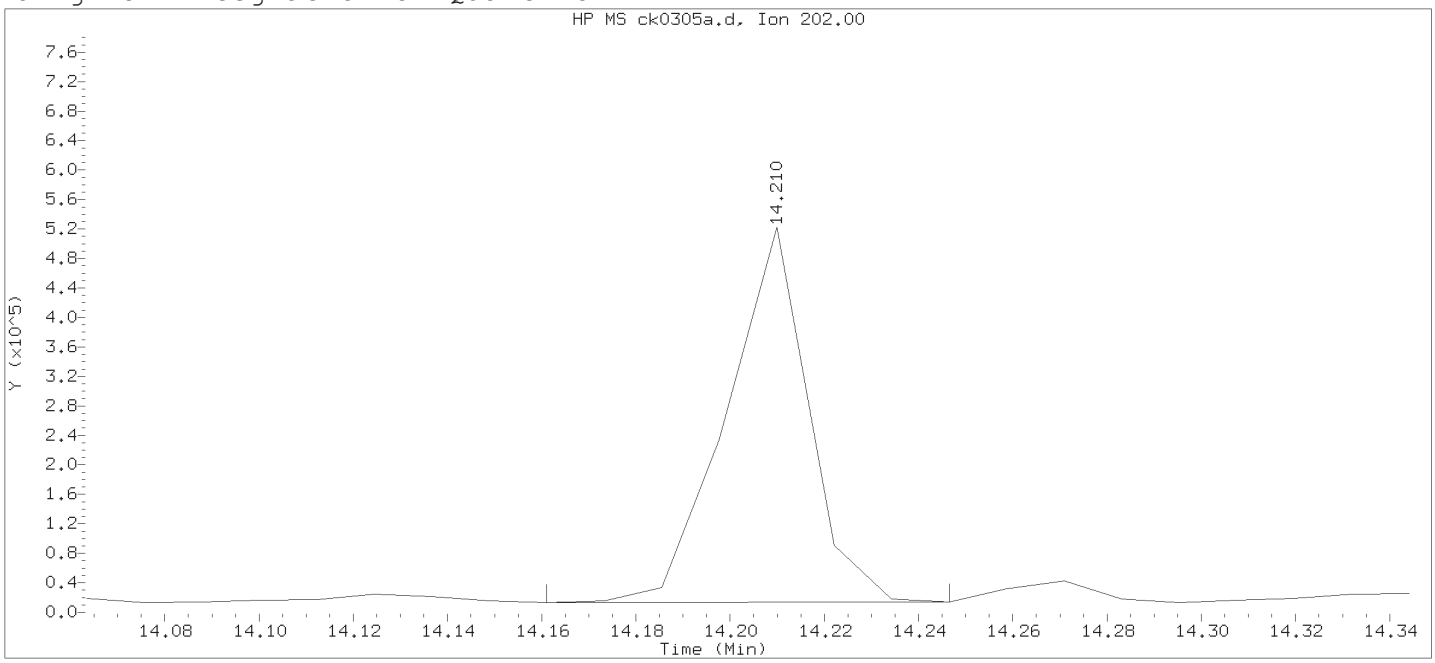
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

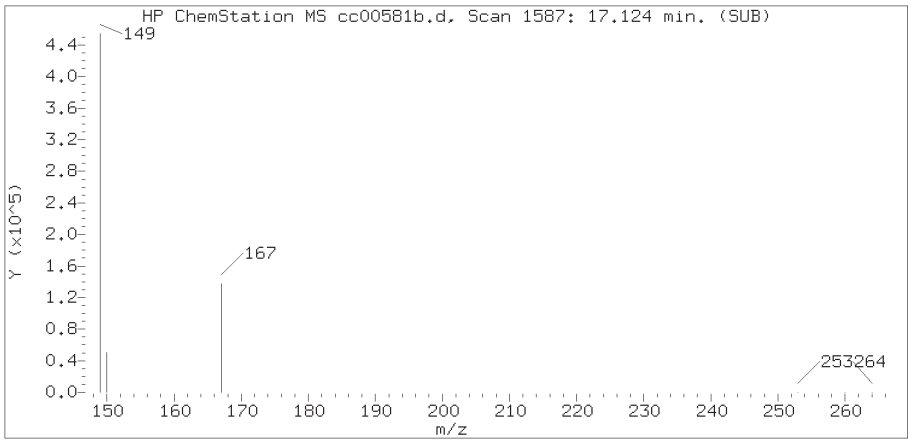
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

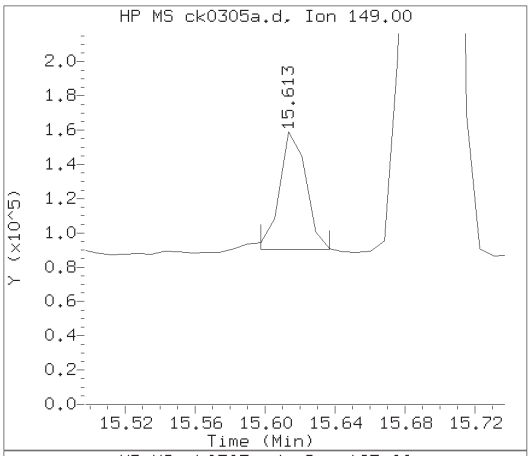
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1069		
Retention Time (minutes)	: 14.210		
Quant Ion	: 202.00		
Area	: 609722		
On-column Amount (ng/ul)	: 1.7519		
Integration start scan	: 1064	Integration stop scan:	1071
Y at integration start	: 13065	Y at integration end:	14261

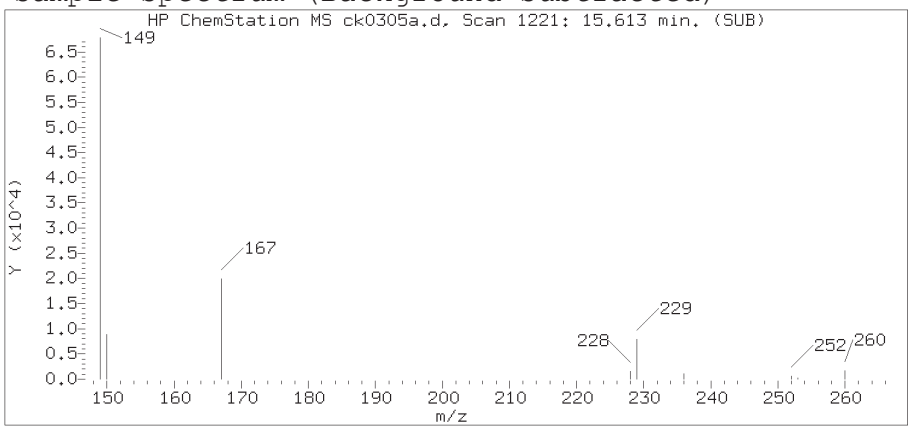
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

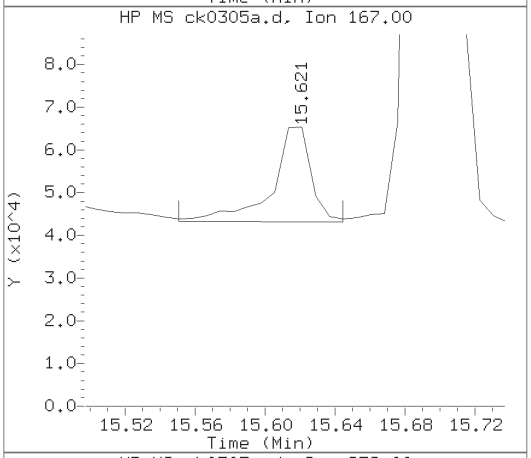
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



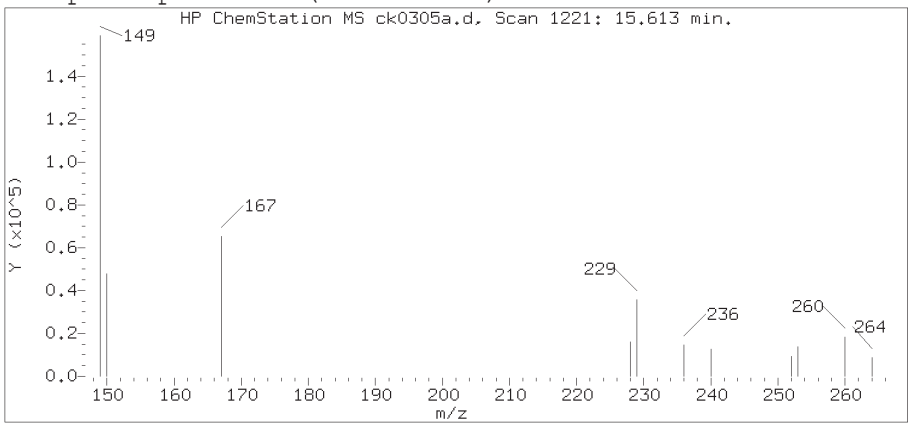


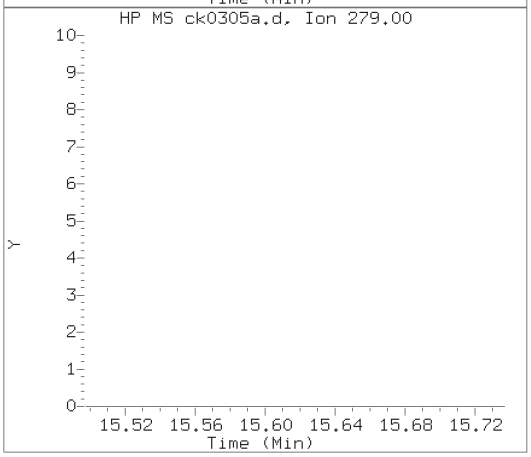
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

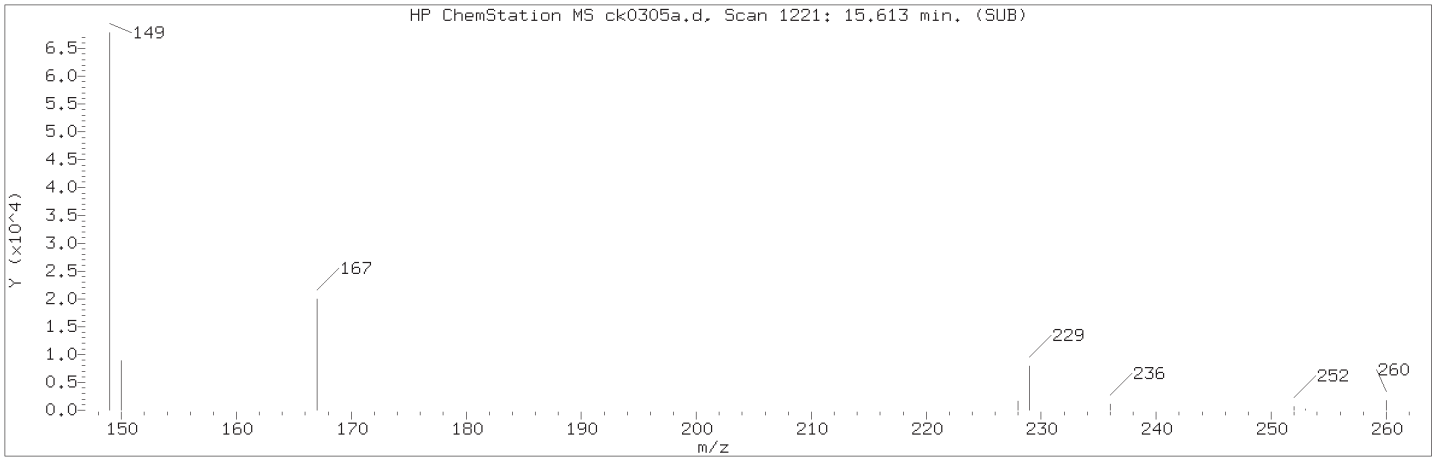
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

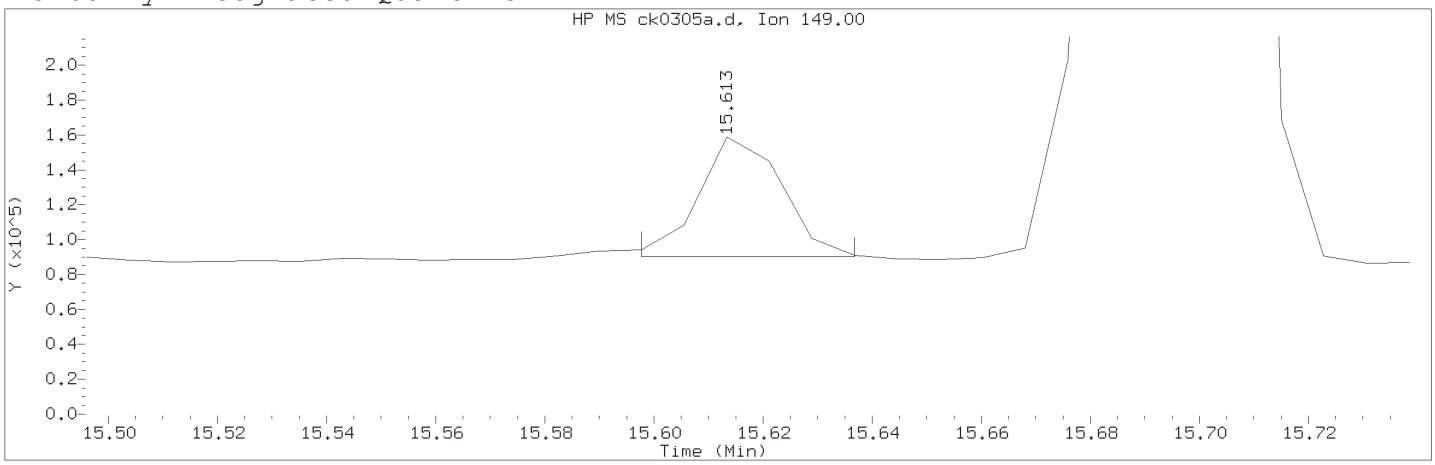
Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1221
Retention Time (minutes)	: 15.613
Relative Retention Time	: 0.00049
Quant Ion	: 149.00
Area (flag)	: 73569M
On-column Amount (ng/ul)	: 0.4752

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

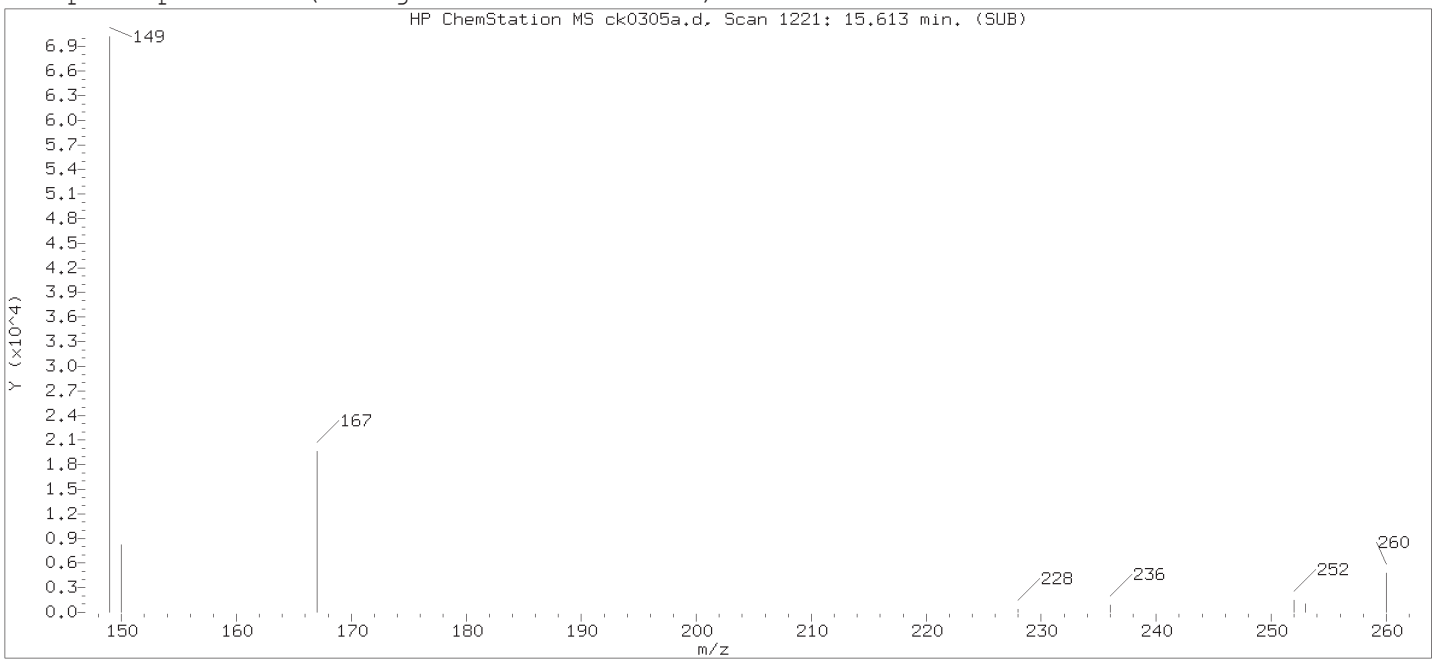
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1221
Retention Time (minutes) : 15.613
Quant Ion : 149.00
Area (flag) : 73569M
On-column Amount (ng/ul) : 0.4752
Integration start scan : 1218 Integration stop scan: 1223
Y at integration start : 90263 Y at integration end: 90263

Reason for manual integration: improper integration

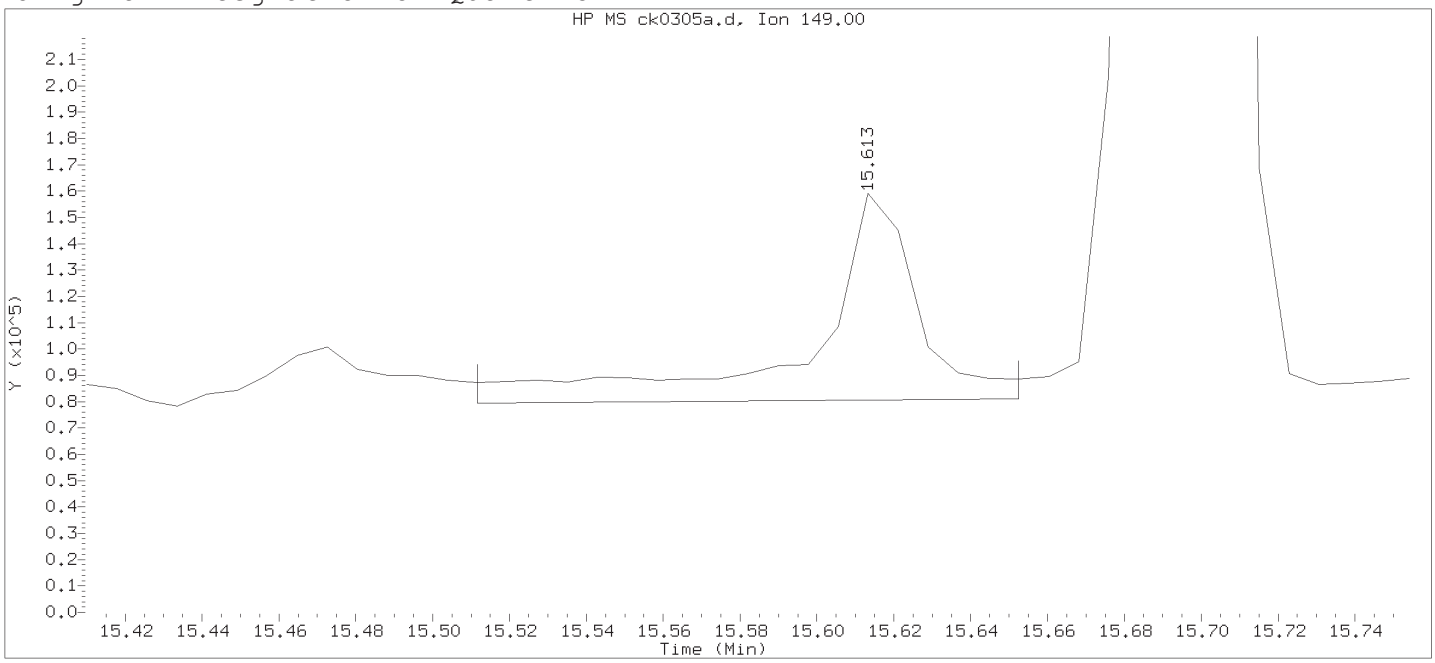
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

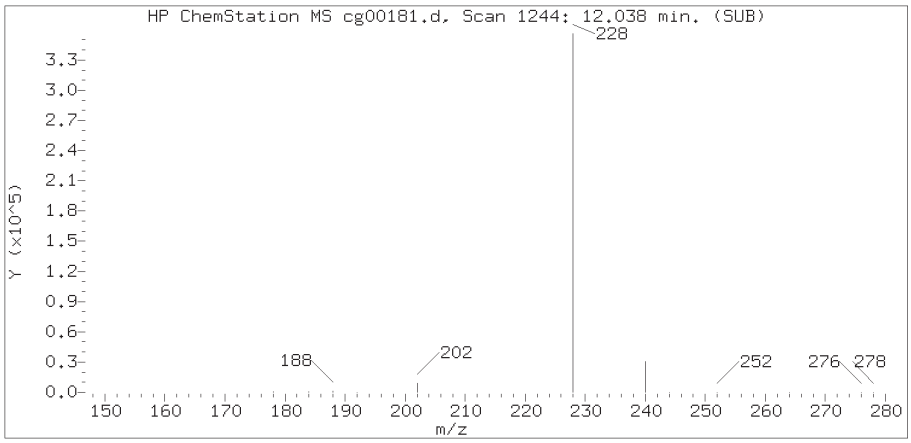
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

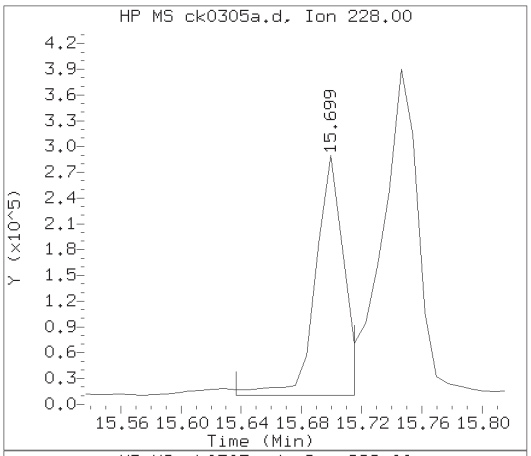
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1221
Retention Time (minutes)	: 15.613
Quant Ion	: 149.00
Area	: 150526
On-column Amount (ng/ul)	: 0.7114
Integration start scan	: 1207 Integration stop scan: 1225
Y at integration start	: 79549 Y at integration end: 81106

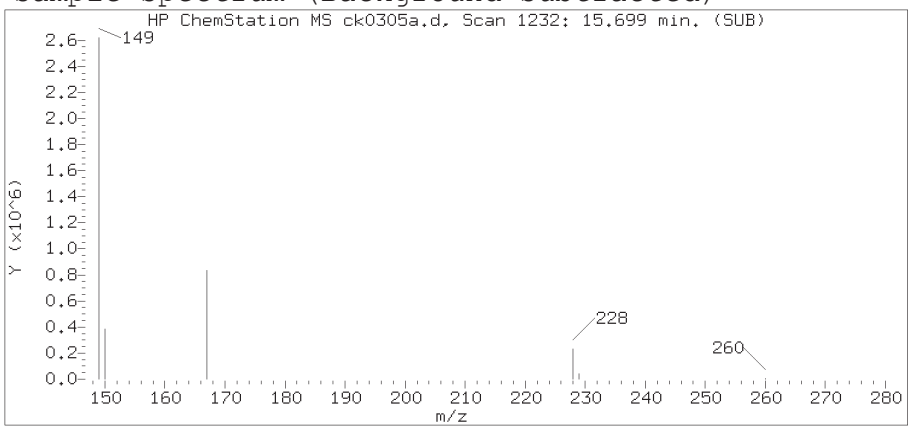
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

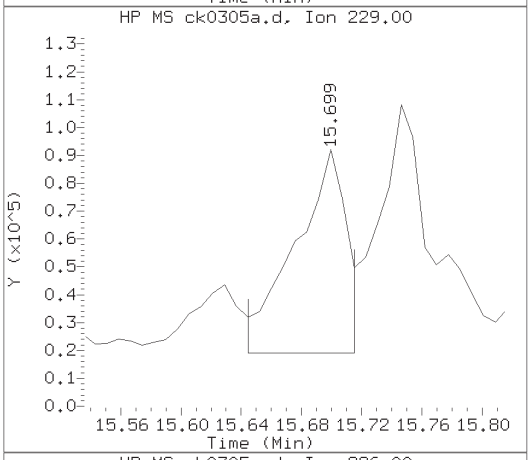
Reference Standard Spectrum for Benzo(a)anthracene



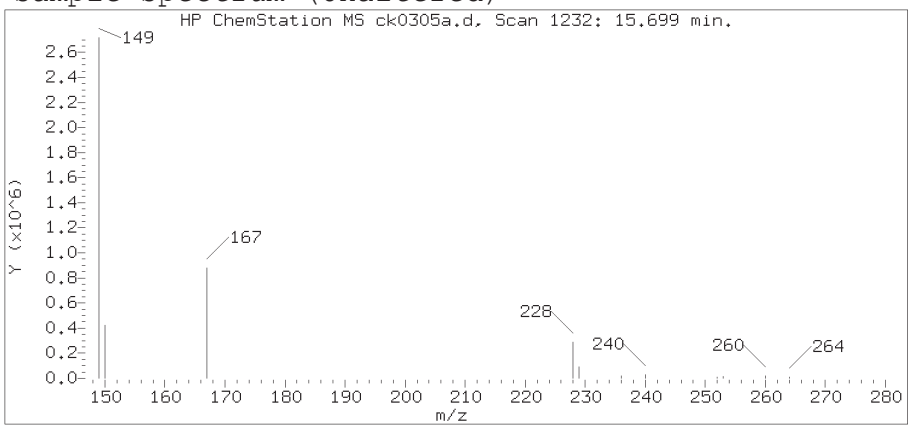


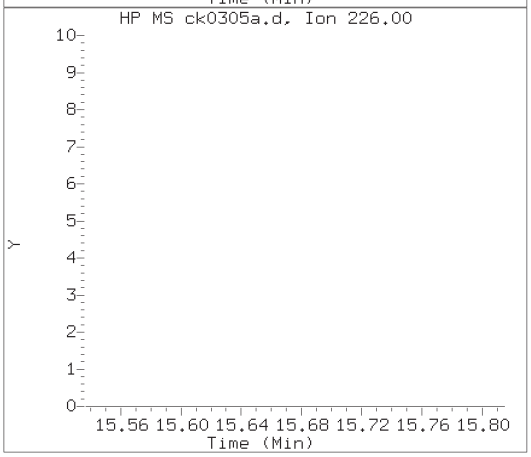
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

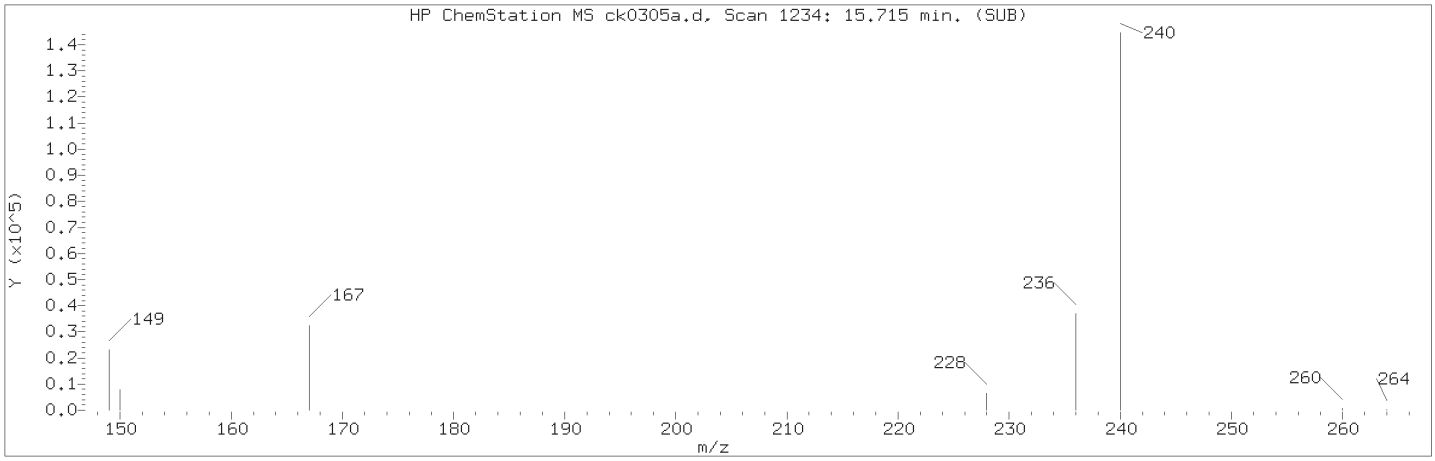
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

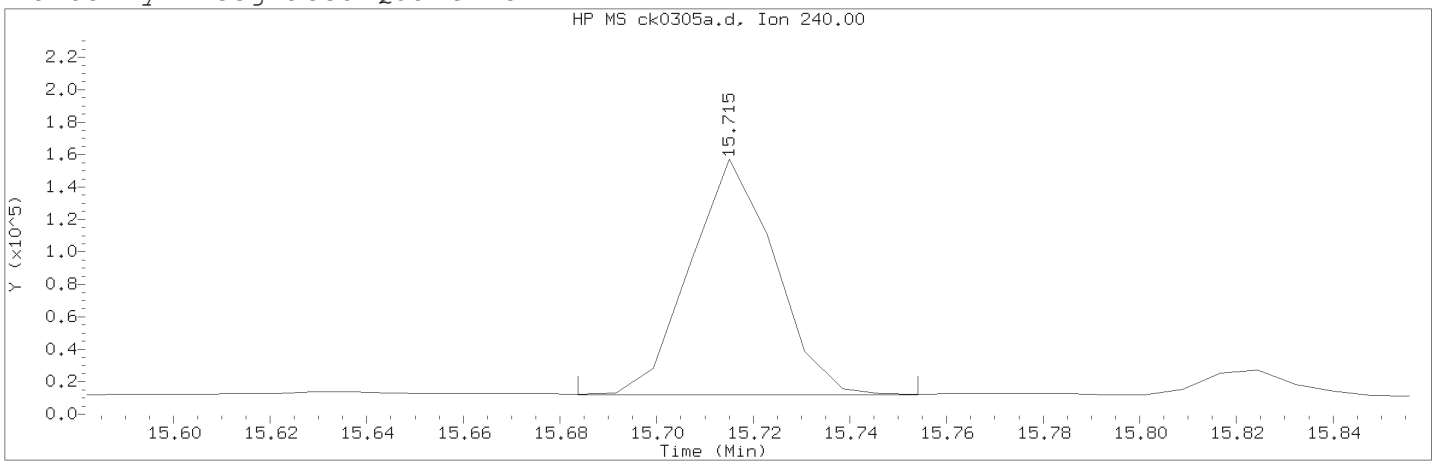
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1232
Retention Time (minutes)	: 15.699
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 352498
On-column Amount (ng/ul)	: 1.5397

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

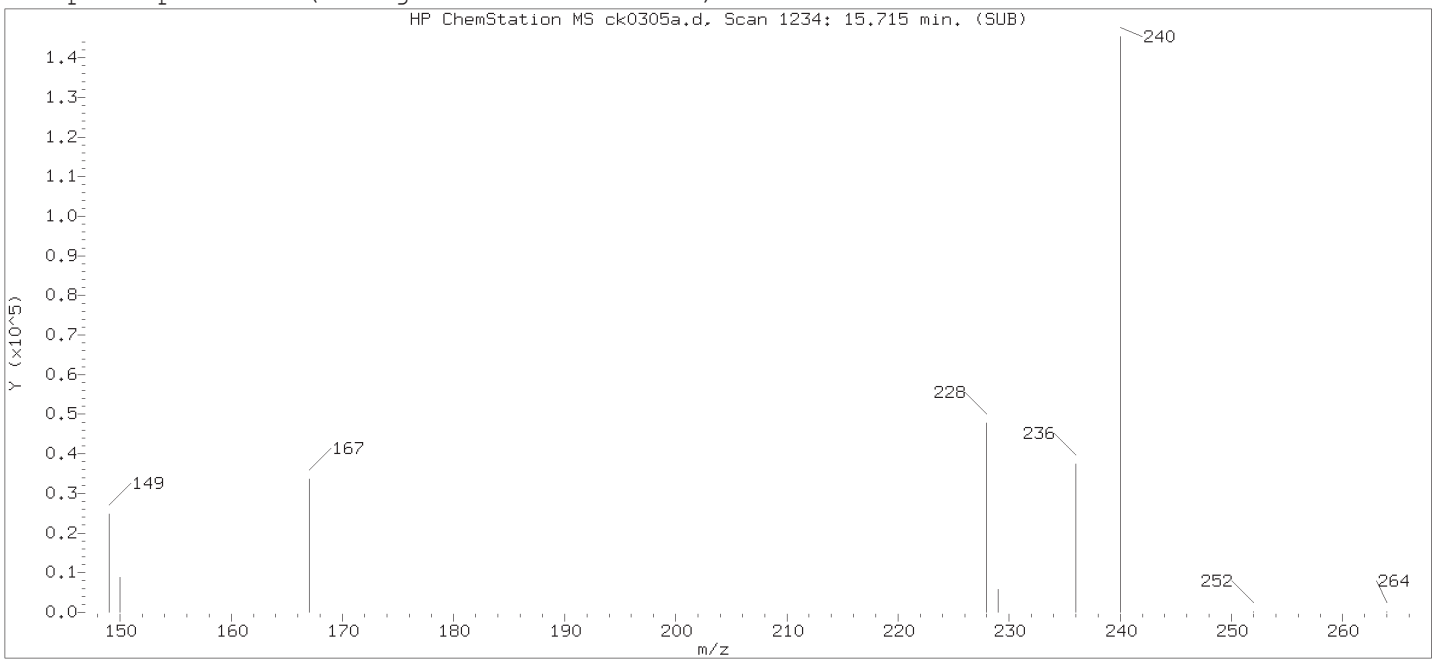
Compound Number : 43
Compound Name : Chrysene-d12
Scan Number : 1234
Retention Time (minutes) : 15.715
Quant Ion : 240.00
Area (flag) : 176643M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1229 Integration stop scan: 1238
Y at integration start : 11941 Y at integration end: 11941

Reason for manual integration: improper integration

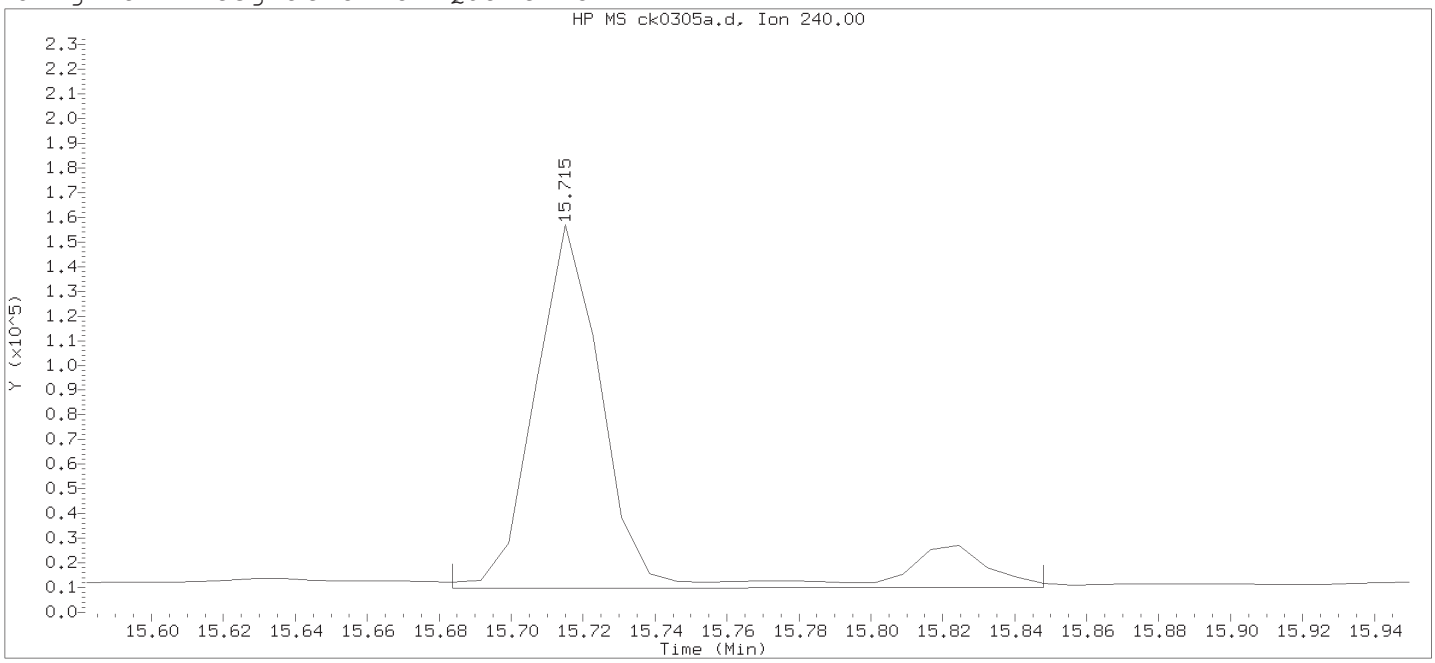
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

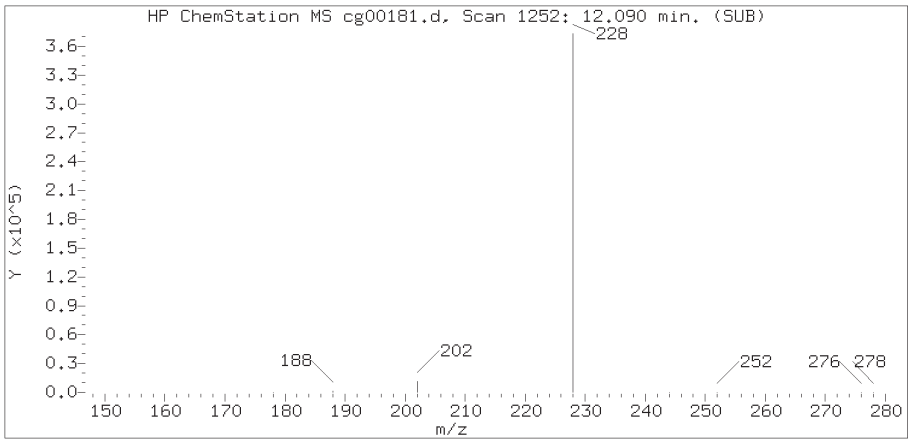
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

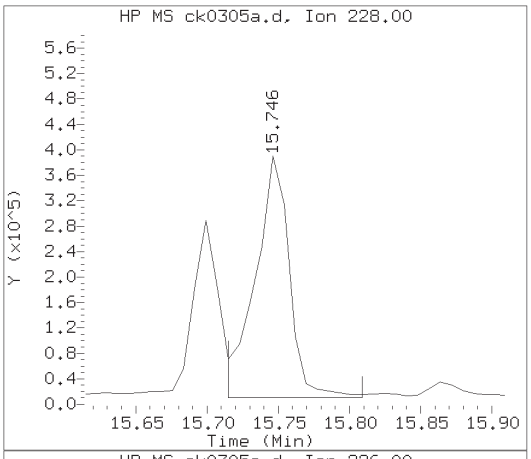
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 43		
Compound Name	: Chrysene-d12		
Scan Number	: 1234		
Retention Time (minutes)	: 15.715		
Quant Ion	: 240.00		
Area	: 216240		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1229	Integration stop scan:	1250
Y at integration start	: 9845	Y at integration end:	10123

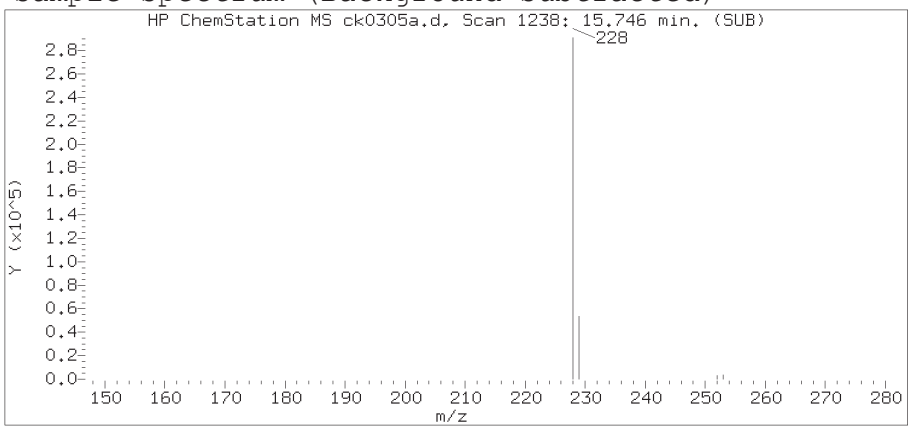
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

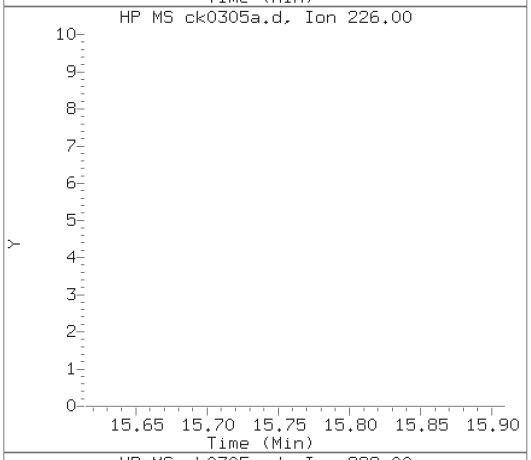
Reference Standard Spectrum for Chrysene



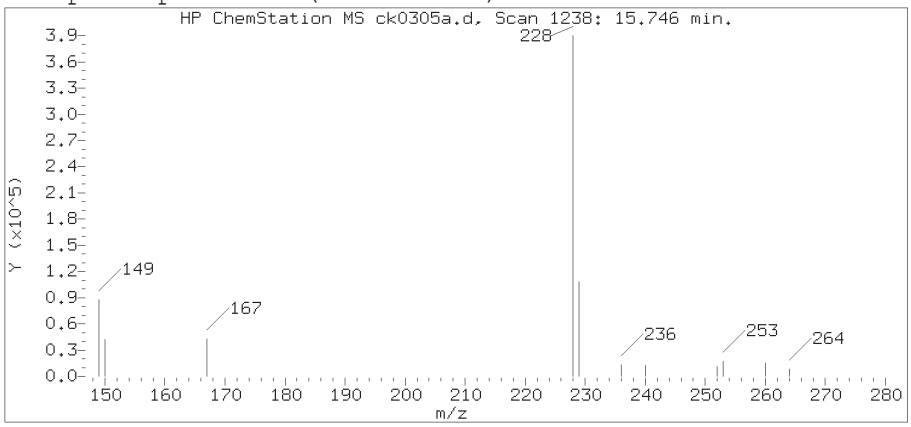


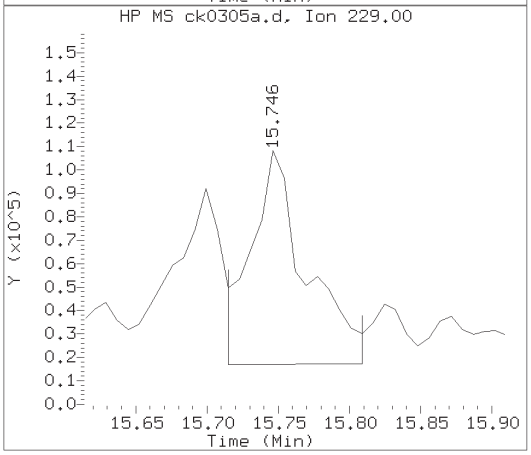
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

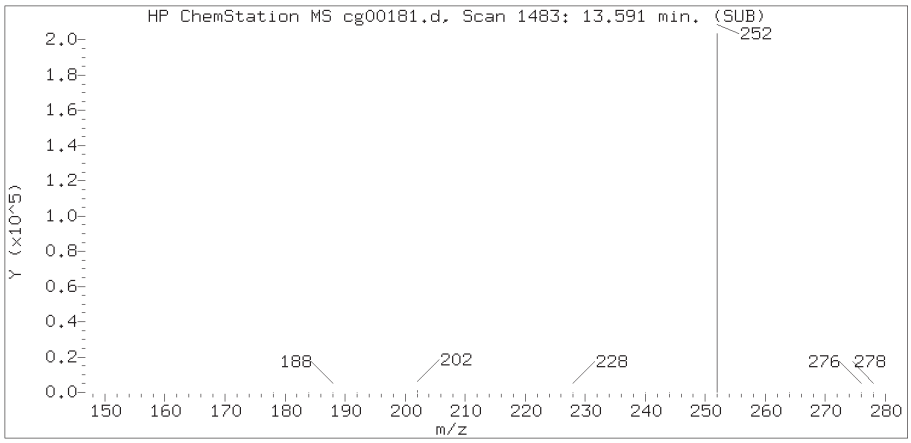
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

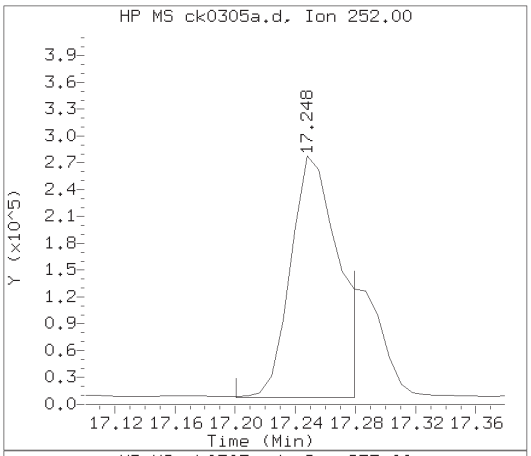
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1238
Retention Time (minutes)	: 15.746
Relative Retention Time	: 0.00050
Quant Ion	: 228.00
Area (flag)	: 633397
On-column Amount (ng/ul)	: 2.7004

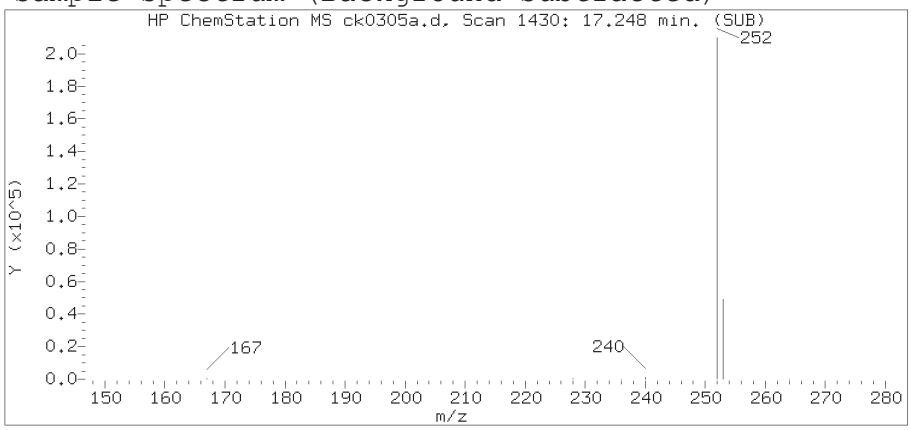
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

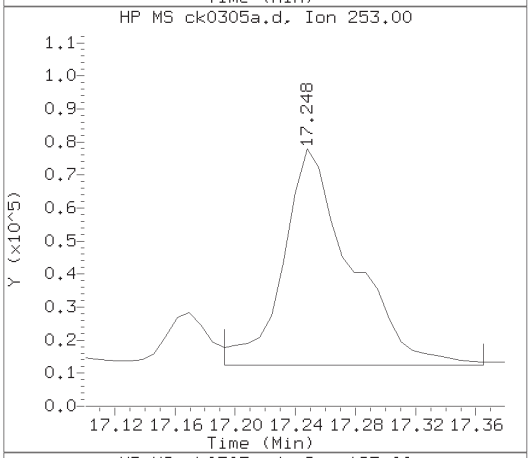
Reference Standard Spectrum for Benzo(b)fluoranthene



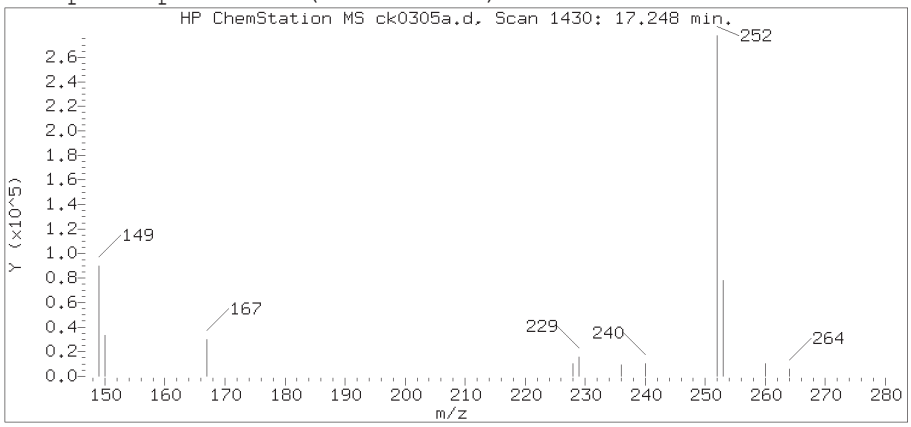


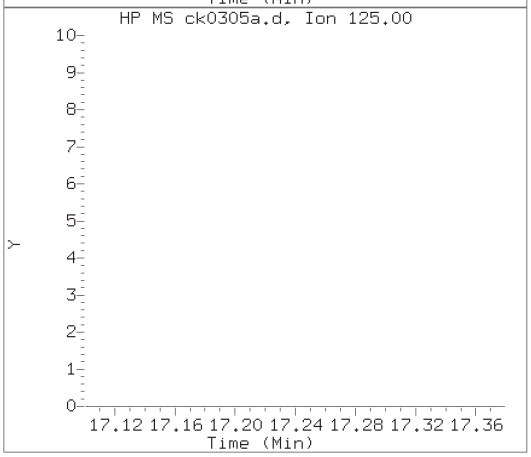
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

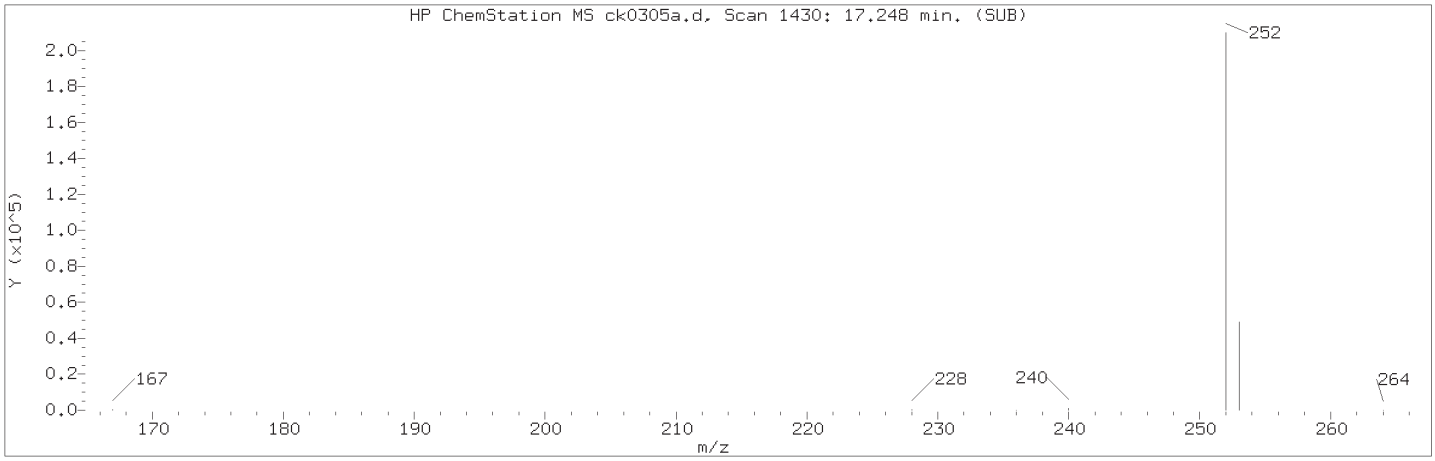
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

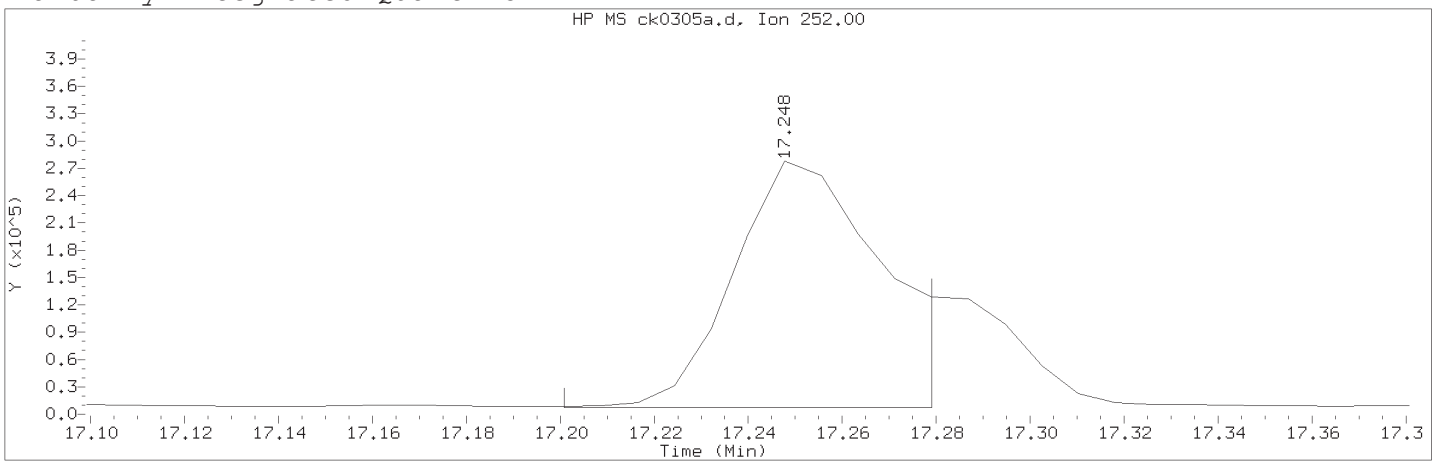
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1430
Retention Time (minutes)	: 17.248
Relative Retention Time	: 0.00033
Quant Ion	: 252.00
Area (flag)	: 602755M
On-column Amount (ng/ul)	: 3.4979

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

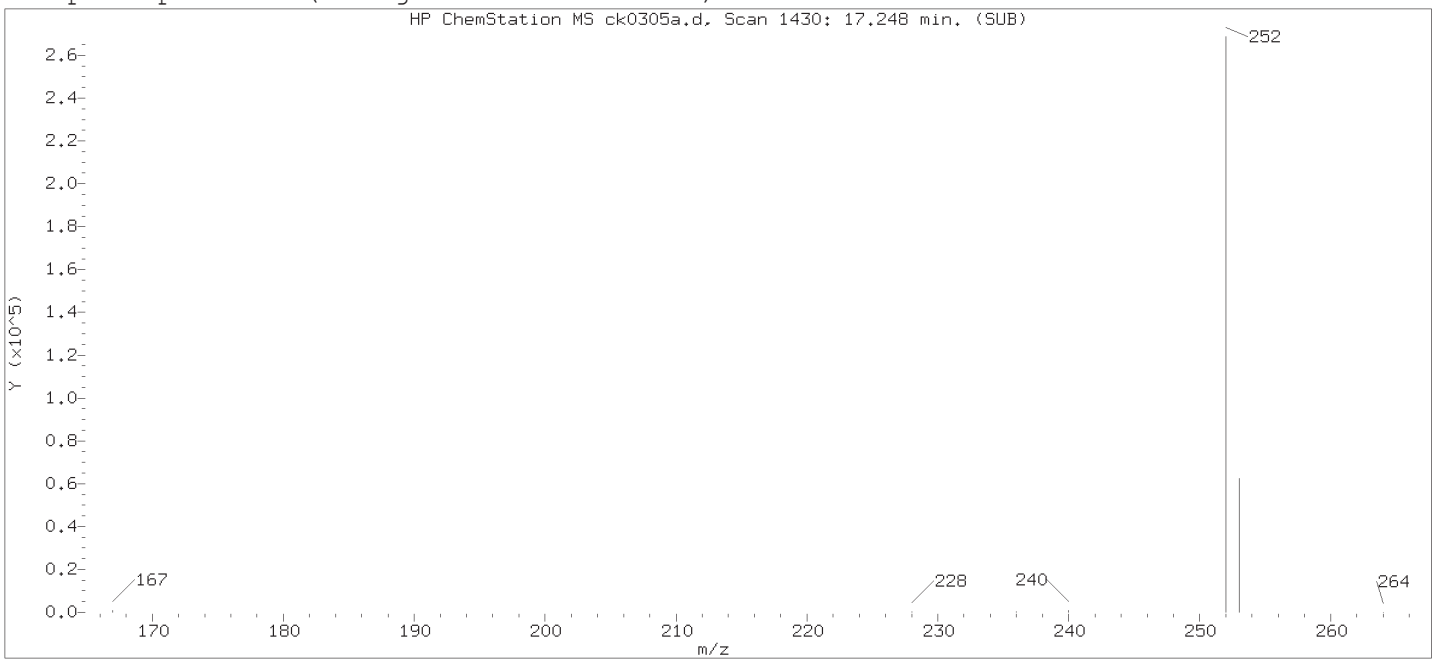
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1430
Retention Time (minutes) : 17.248
Quant Ion : 252.00
Area (flag) : 602755M
On-column Amount (ng/ul) : 3.4979
Integration start scan : 1423 Integration stop scan: 1433
Y at integration start : 7569 Y at integration end: 7570

Reason for manual integration: improper integration

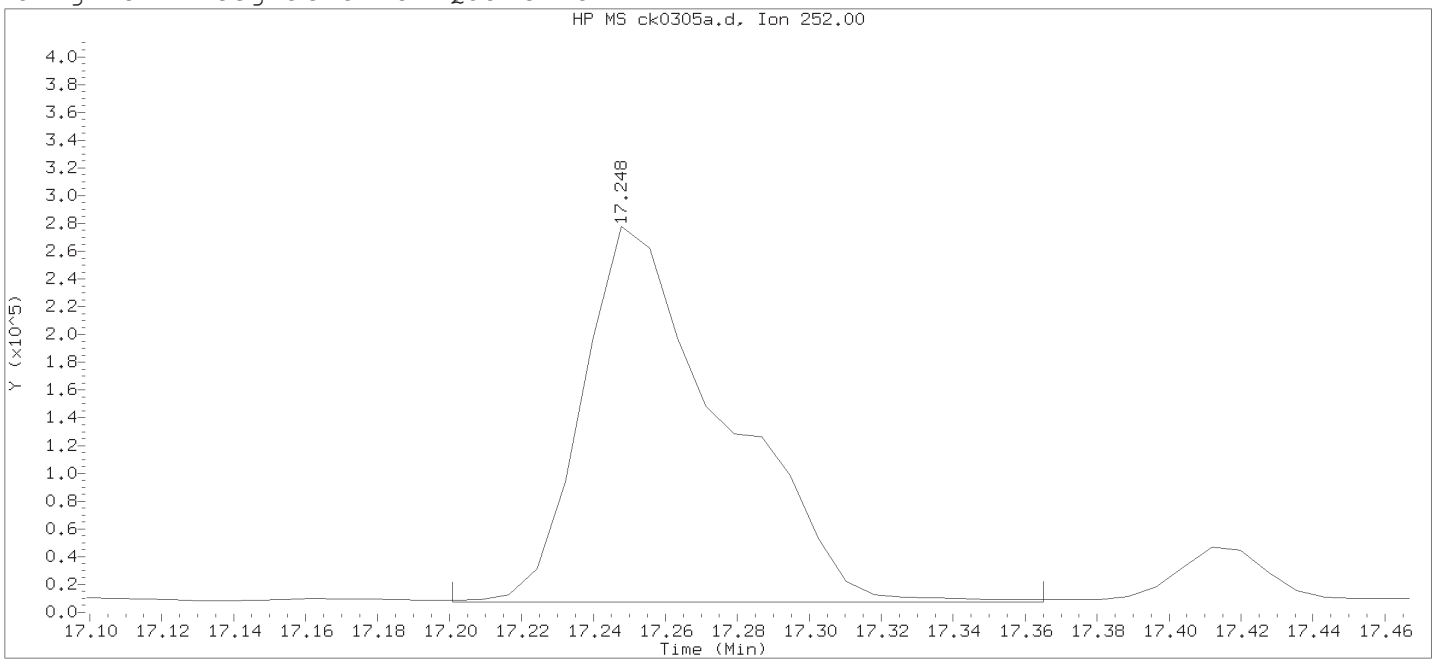
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

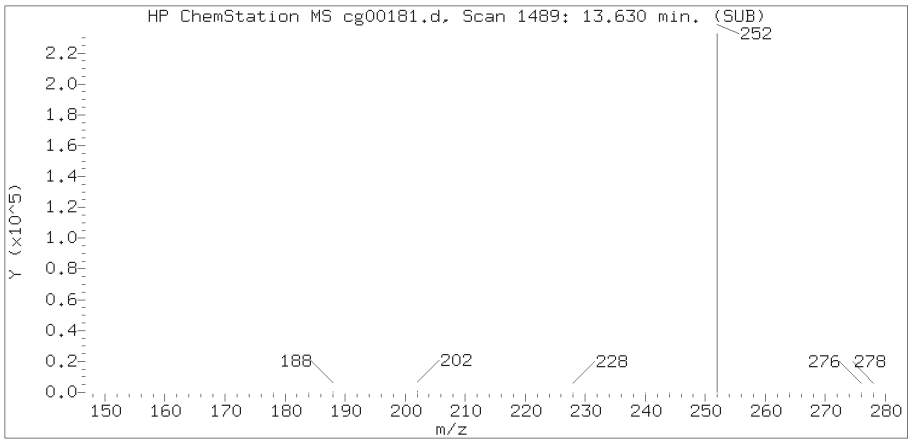
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

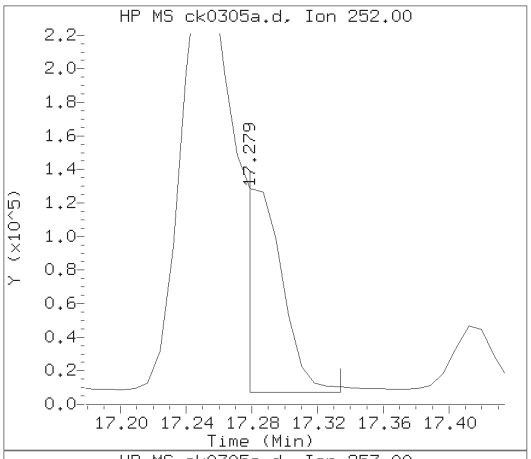
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1430		
Retention Time (minutes)	: 17.248		
Quant Ion	: 252.00		
Area	: 737278		
On-column Amount (ng/ul)	: 4.2785		
Integration start scan	: 1423	Integration stop scan:	1444
Y at integration start	: 7569	Y at integration end:	7572

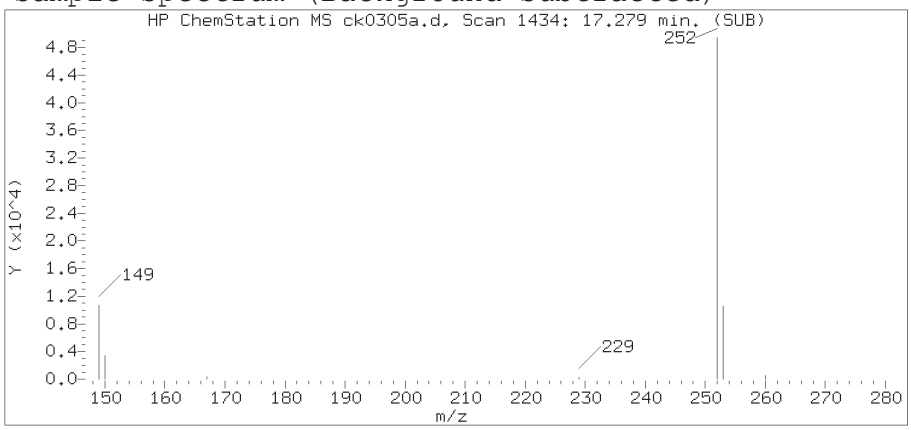
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

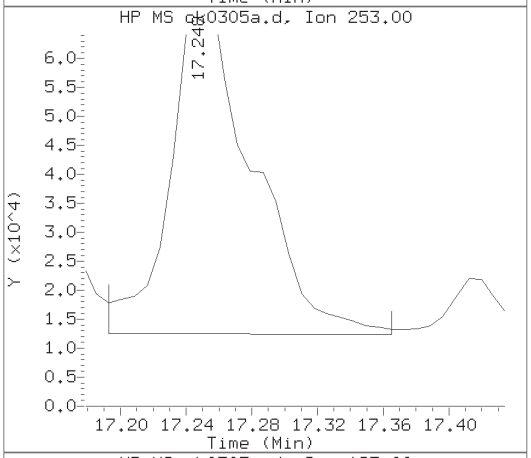
Reference Standard Spectrum for Benzo(k)fluoranthene



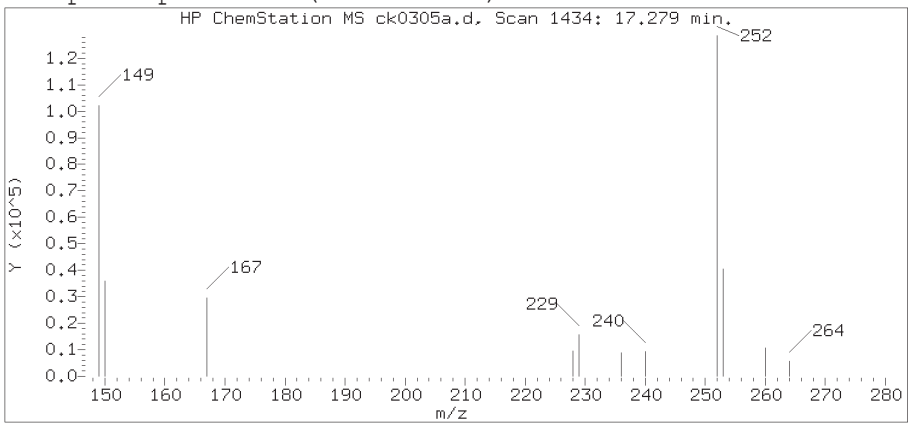


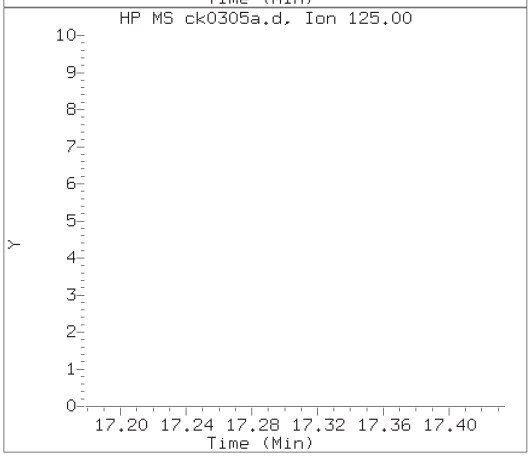
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

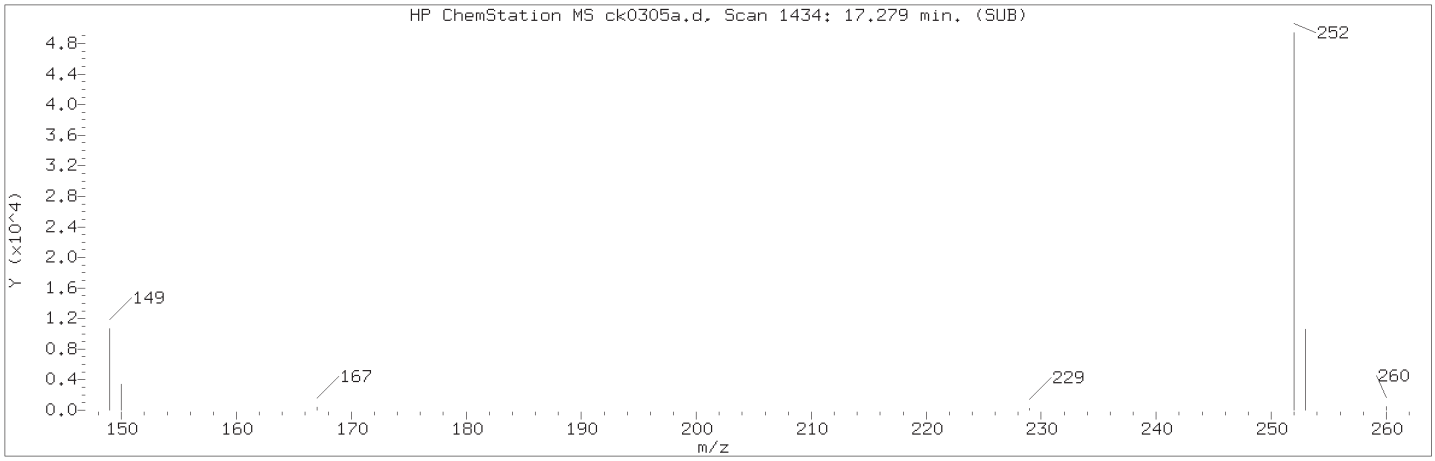
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

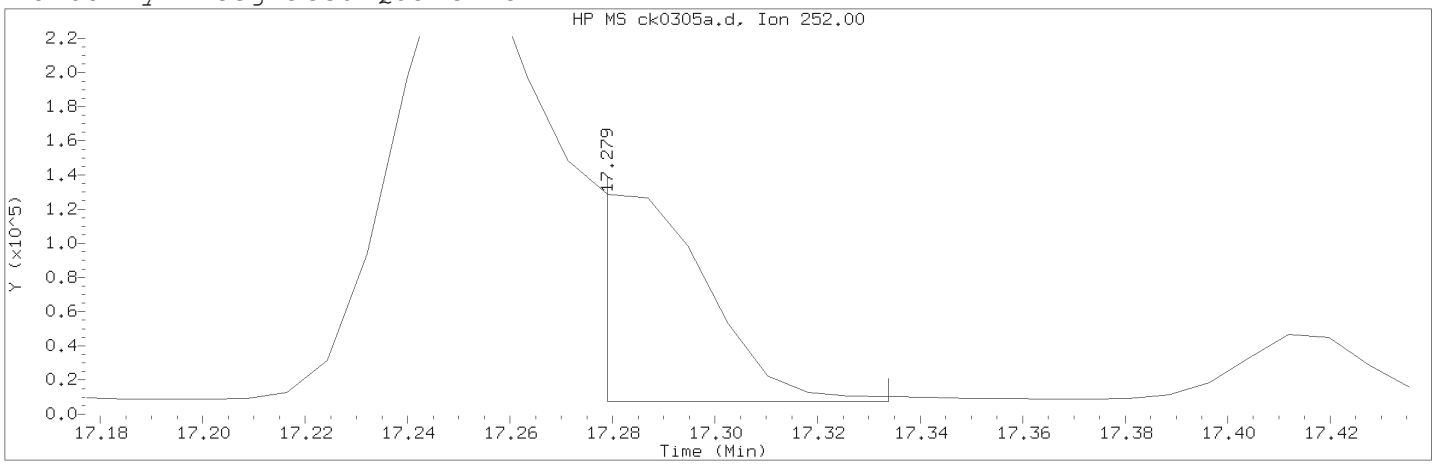
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1434
Retention Time (minutes)	: 17.279
Relative Retention Time	: 0.00077
Quant Ion	: 252.00
Area (flag)	: 189674M
On-column Amount (ng/ul)	: 1.0250

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

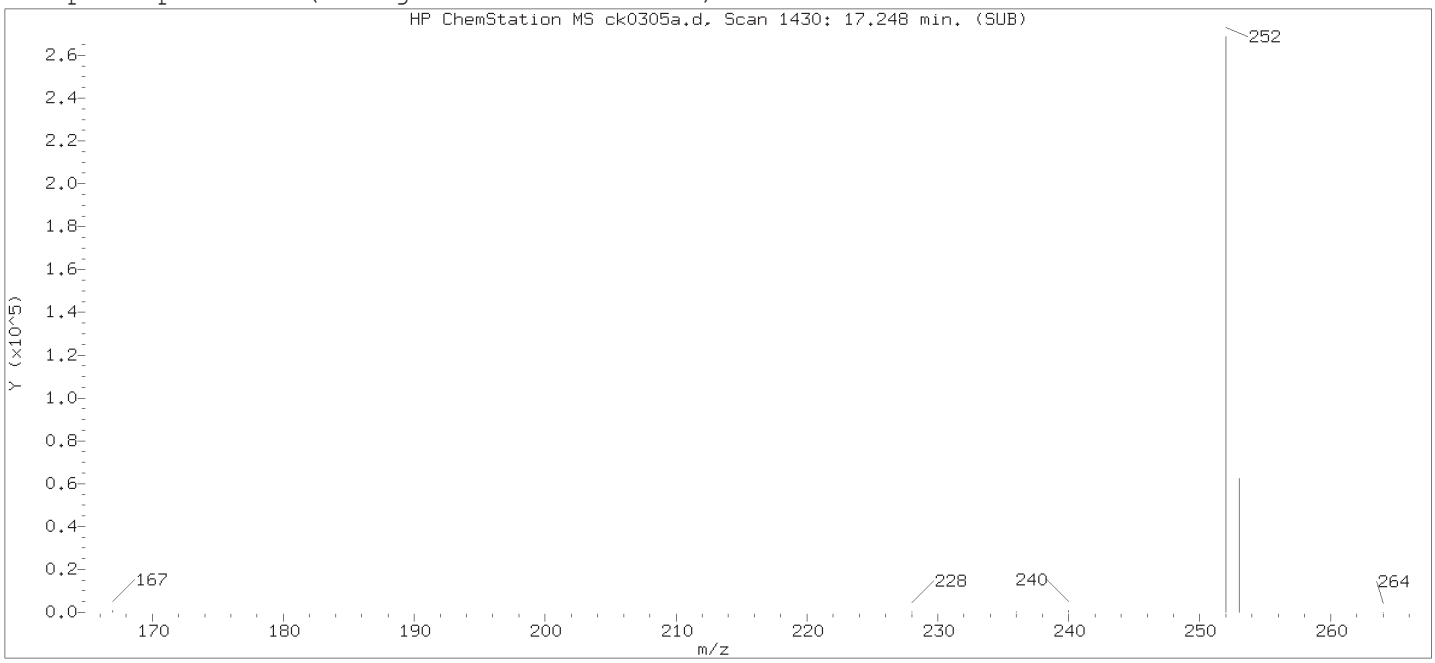
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1434
Retention Time (minutes) : 17.279
Quant Ion : 252.00
Area (flag) : 189674M
On-column Amount (ng/ul) : 1.0250
Integration start scan : 1433 Integration stop scan: 1440
Y at integration start : 7306 Y at integration end: 7306

Reason for manual integration: improper integration

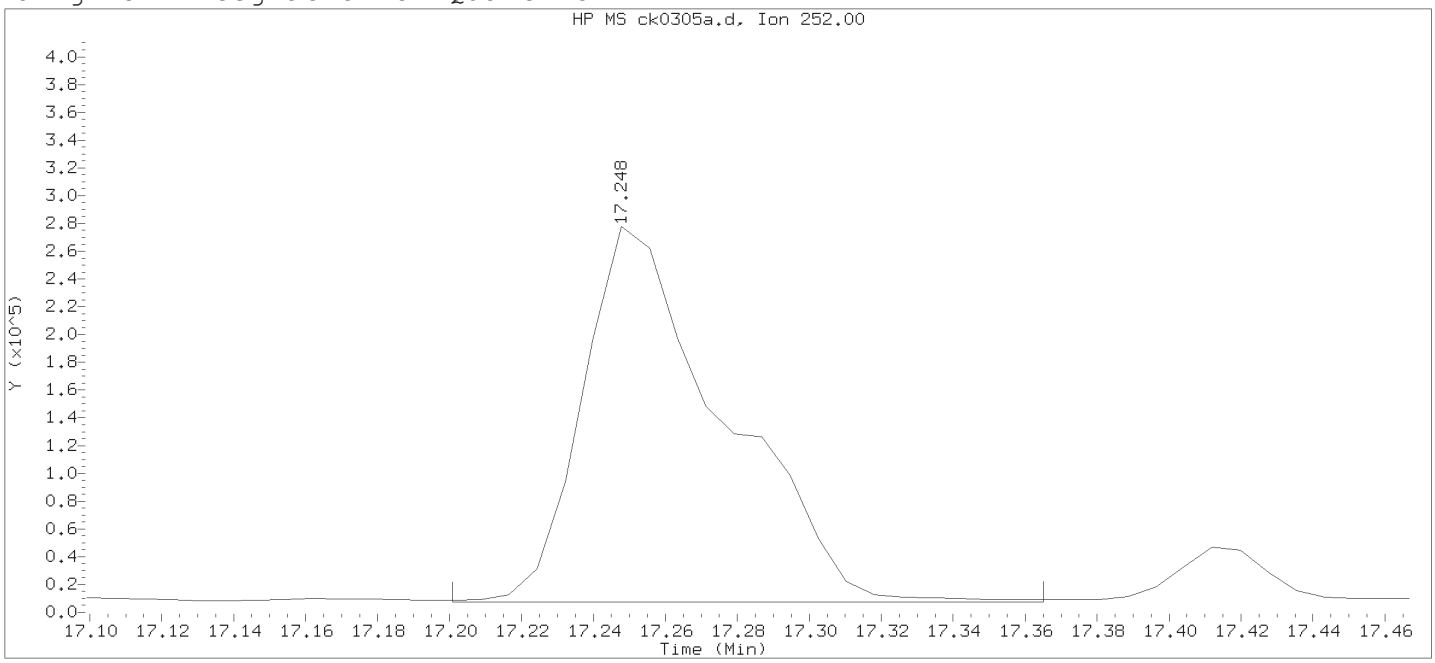
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

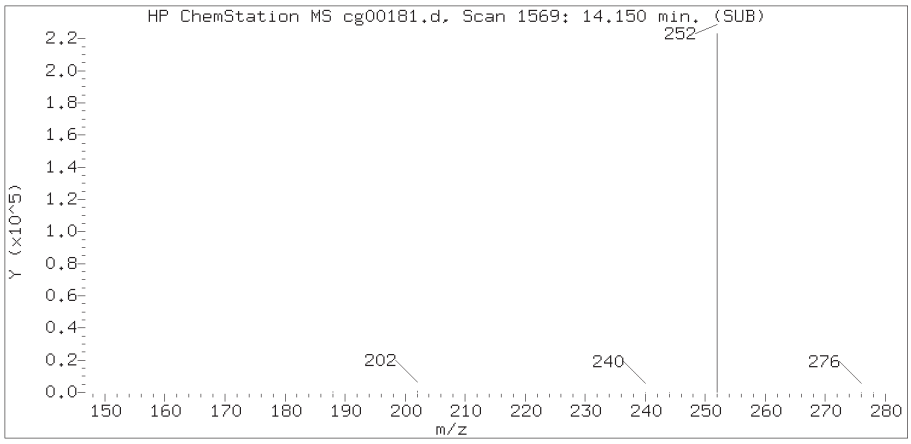
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:18 Automation

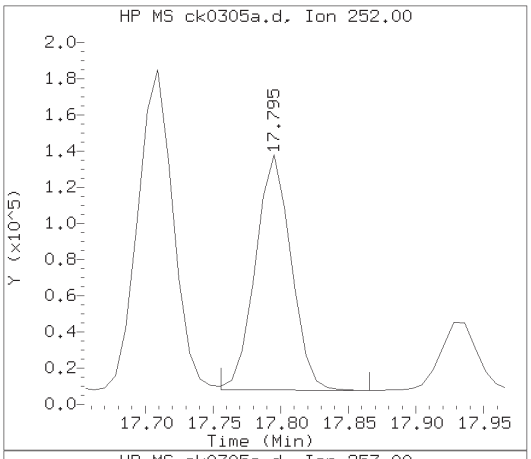
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1430		
Retention Time (minutes)	: 17.248		
Quant Ion	: 252.00		
Area	: 737278		
On-column Amount (ng/ul)	: 3.9842		
Integration start scan	: 1423	Integration stop scan:	1444
Y at integration start	: 7569	Y at integration end:	7572

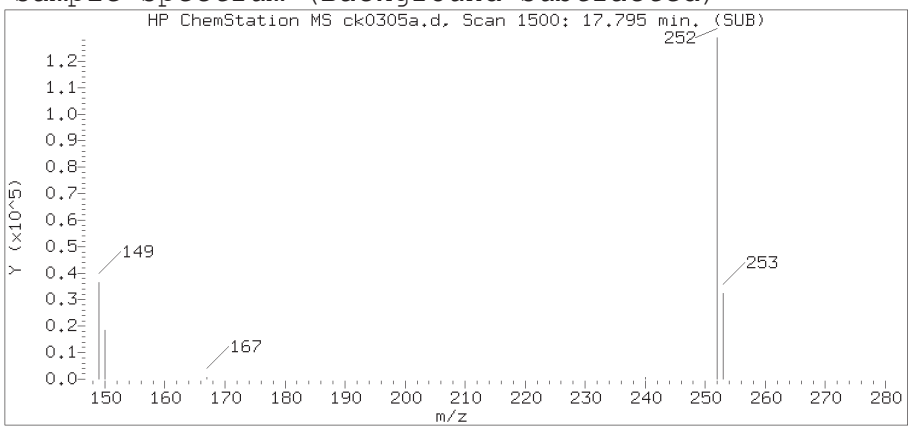
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature used [illegible]

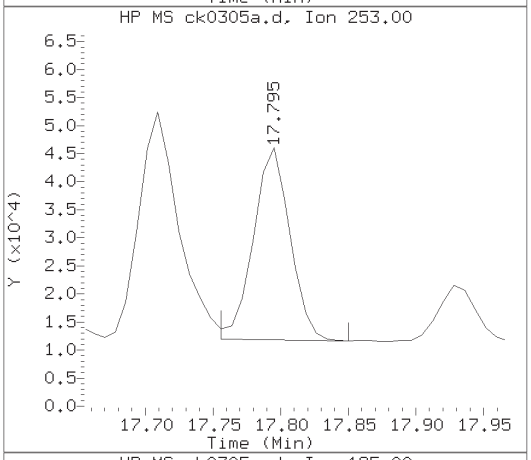
Reference Standard Spectrum for Benzo(a)pyrene



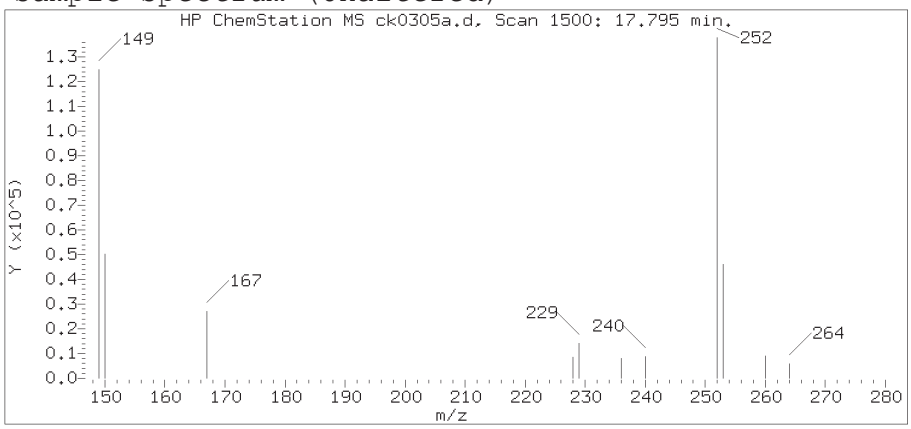


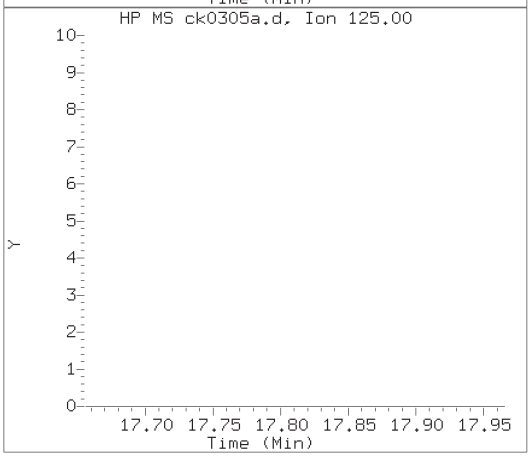
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

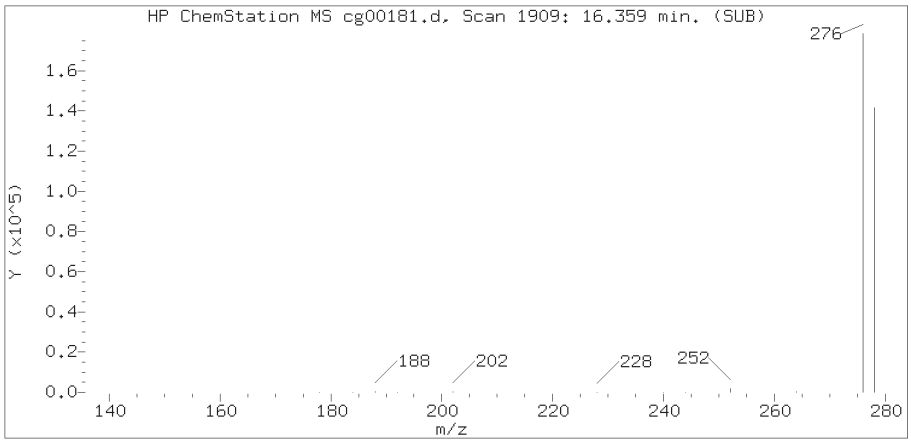
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

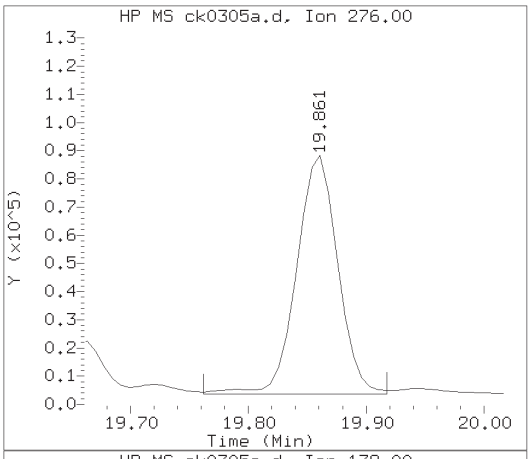
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1500
Retention Time (minutes)	: 17.795
Relative Retention Time	:-0.00002
Quant Ion	: 252.00
Area (flag)	: 238512
On-column Amount (ng/ul)	: 1.5171

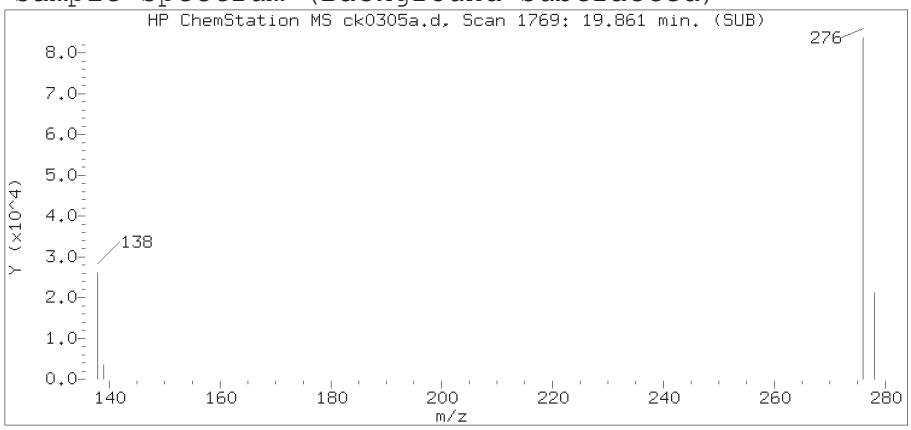
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

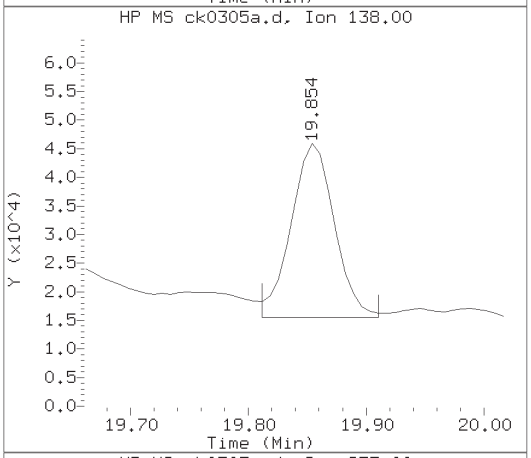
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



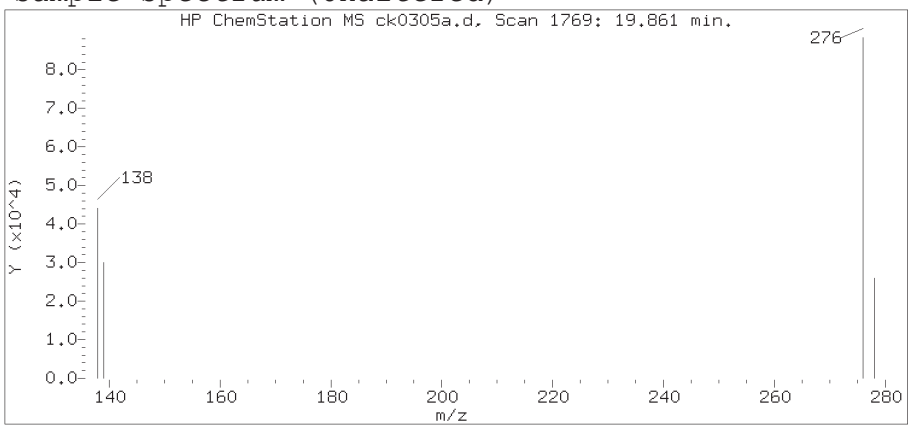


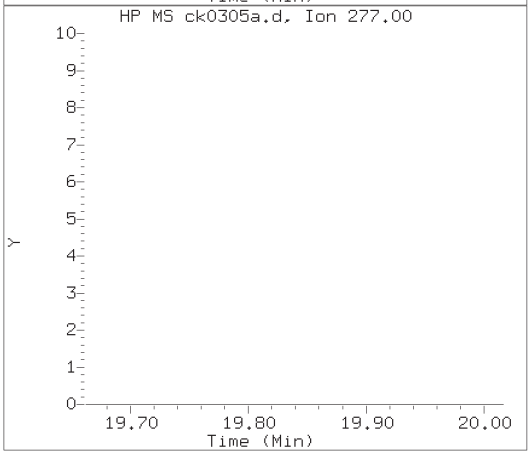
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

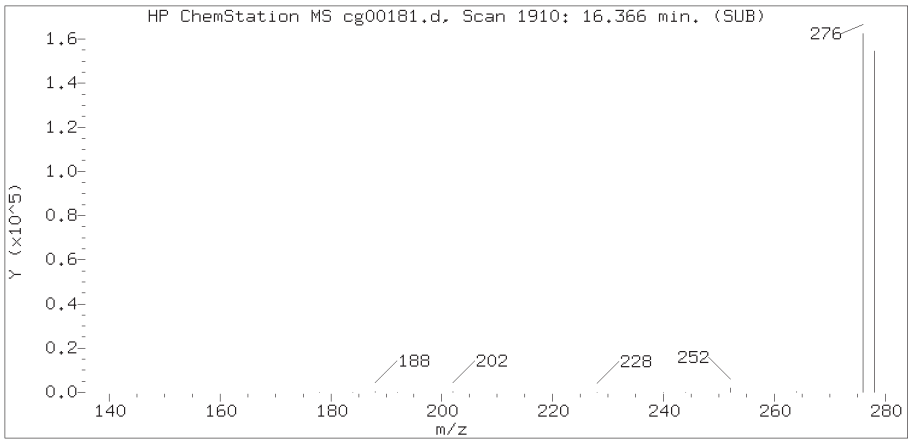
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

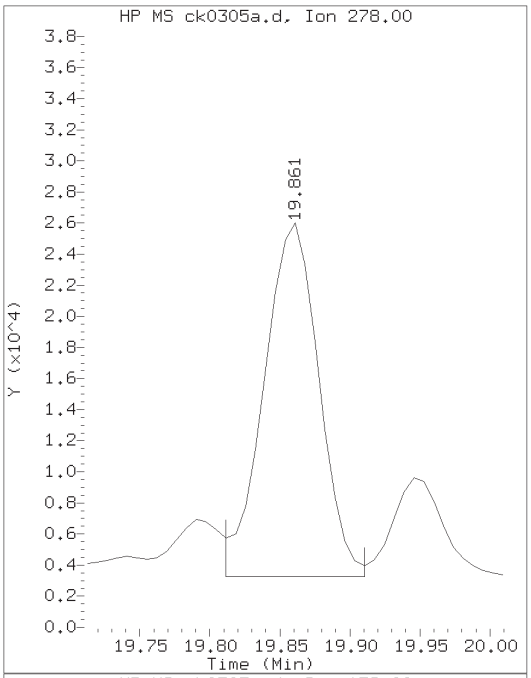
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1769
Retention Time (minutes)	: 19.861
Relative Retention Time	:-0.00016
Quant Ion	: 276.00
Area (flag)	: 205036
On-column Amount (ng/ul)	: 1.3148

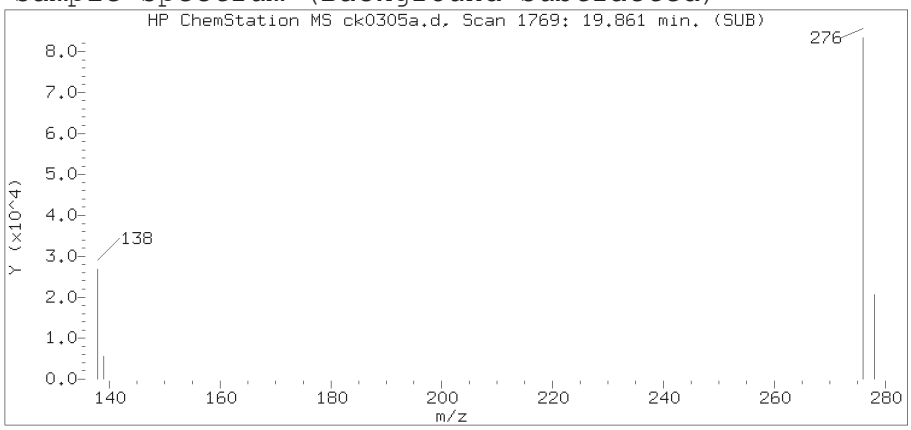
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

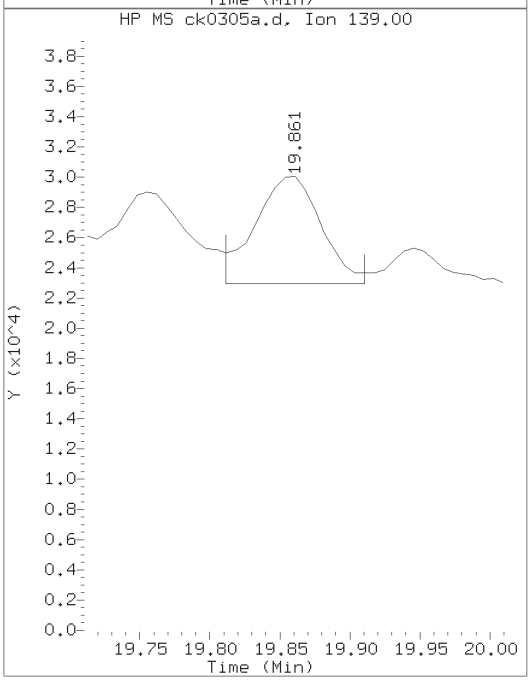
Reference Standard Spectrum for Dibenz(a,h)anthracene



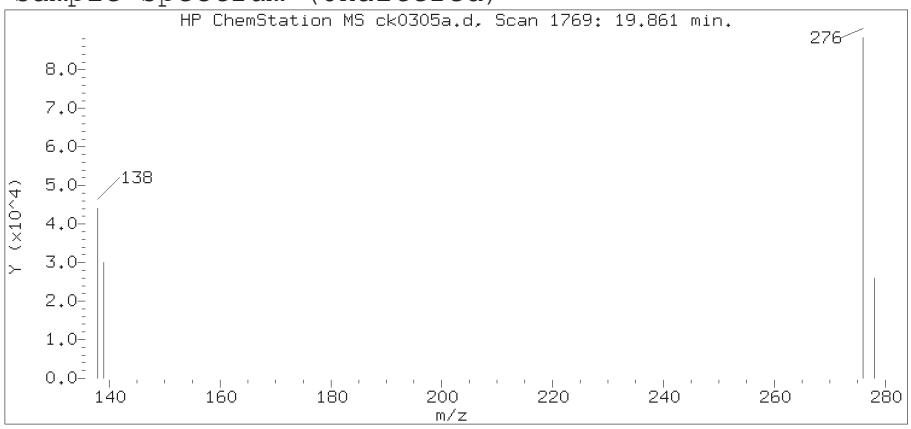


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

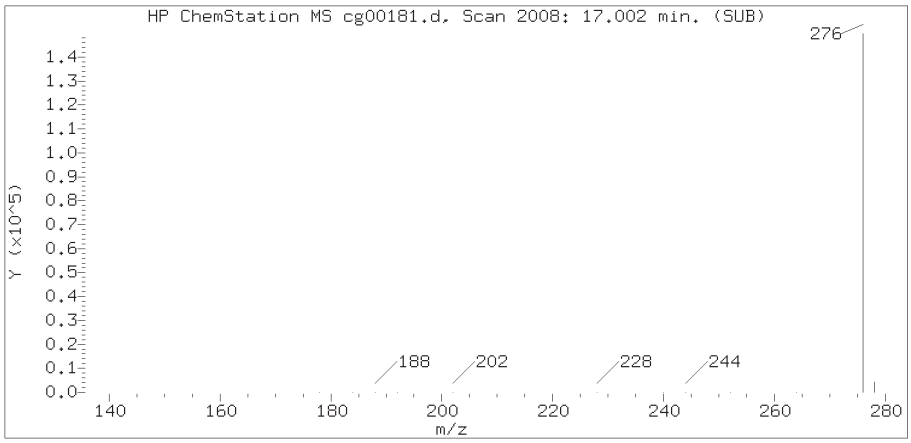
Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

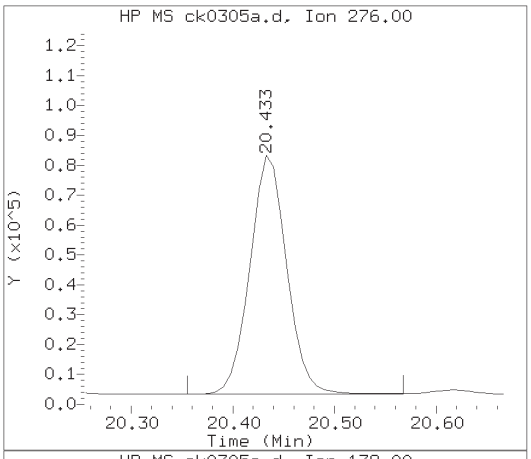
Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1769
Retention Time (minutes)	: 19.861
Relative Retention Time	: 0.00023
Quant Ion	: 278.00
Area (flag)	: 62046
On-column Amount (ng/ul)	: 0.4799

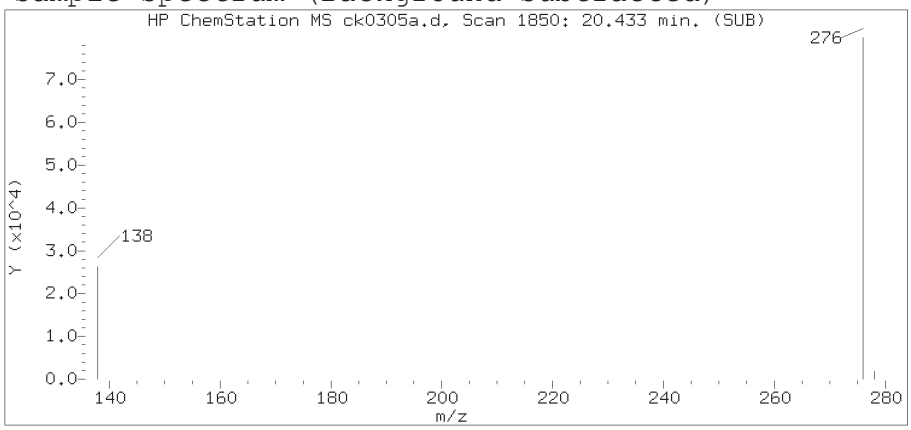
Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

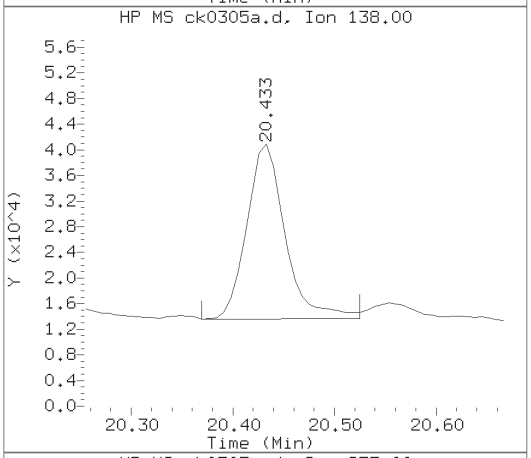
Reference Standard Spectrum for Benzo(g,h,i)perylene



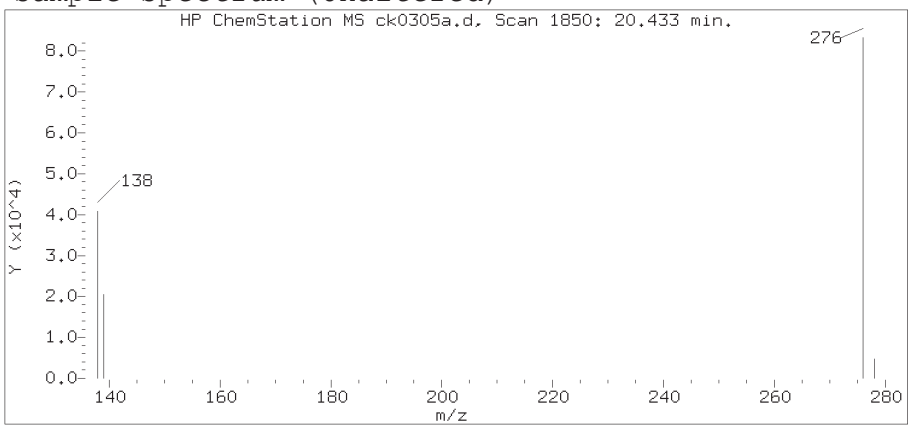


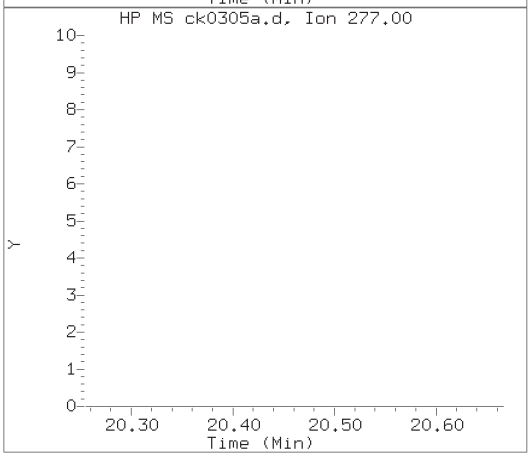
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov06a.b/ck0305a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 00:51 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 01:37 apb10206

Sample Name: 12T05 Lab Sample ID: 9872063

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1850
Retention Time (minutes)	: 20.433
Relative Retention Time	:-0.00007
Quant Ion	: 276.00
Area (flag)	: 201946
On-column Amount (ng/ul)	: 1.3875

Digitally signed by Anthony P. Bauer on 11/07/2018 at 01:39.
Target 3.5 esignature user ID: apb10206

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10976.i/18nov07.b/ik0310.d
Data file Sample Info. Line: 12T06;9872064;2;0;SAMPLE;;DOD26;
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Injection date and time: **07-NOV-2018 23:14**
Instrument ID: **HP10976.i** Batch: **18302SLH**

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10
Final Extract Volume (Vt): 500 ul
GpcCleanup (No = 0, Yes = 1): 1
Volume Injected (Vi): 1 ul
Unit Correction Factor (Uf): 1
Sample Weight (Ws): 30.23 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.808 (0.000)	500	152	48357 (10)	1.00	
10) Naphthalene-d8	8.333 (-0.013)	615	136	198454 (24)	1.00	
20) Acenaphthene-d10	10.498 (-0.011)	803	164	131871 (30)	1.00	
31) Phenanthrene-d10	12.354 (-0.023)	969	188	238316 (7)	1.00	
43) Chrysene-d12	15.653 (-0.039)	1272	240	289540 (26)	1.00	
51) Perylene-d12	17.624 (-0.055)	1524	264	159954 (-31)	1.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.281 (0.000)	152	10114M	0.084	84%		61 - 111
36) Fluoranthene-d10	(4)	13.853 (-0.001)	212	36036M	0.122	122%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.499 (0.000)	264	12212	0.080	80%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)			Not Detected					0.02
11) Naphthalene	(2)	8.359 (0.000)	128	1289377	6.309	2087.12	31.312	B	0.04
19) Acenaphthylene	(3)	10.324 (-0.000)	152	20266	0.080	26.54			0.01
21) Acenaphthene	(3)	10.541 (-0.001)	154	219696	1.323	437.59	1.723	B	0.02
26) Fluorene	(3)	11.174 (0.000)	166	239321	1.171	387.32	1.949	B	0.02
32) Phenanthrene	(4)	12.377 (0.000)	178	511169	1.985	656.74	2.56	B	0.02
33) Anthracene	(4)	12.444 (0.000)	178	203580	0.790	261.17	0.732	B	0.02
35) Di-n-butylphthalate	(4)	13.035 (-0.000)	149	652062	2.647	875.56			0.2
37) Fluoranthene	(4)	13.877 (-0.000)	202	1224447M	3.820	1263.53			0.02
39) Pyrene	(5)	14.158 (0.000)	202	1108627	2.766	915.06			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.583 (0.000)	149	5642541	29.626	9800.18		E	0.3
42) Benzo(a)anthracene	(5)	15.638 (-0.000)	228	427398	1.147	379.55			0.02
44) Chrysene	(5)	15.684 (0.000)	228	602250	1.693	559.88			0.01
46) Benzo(b)fluoranthene	(6)	17.045 (-0.000)	252	320635M	1.612	533.16			0.02
47) Benzo(k)fluoranthene	(6)	17.069 (0.000)	252	164333M	0.881	291.50			0.02
50) Benzo(a)pyrene	(6)	17.538 (-0.000)	252	173412	1.017	336.46			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.418 (-0.000)	276	54048	0.269	88.92			0.02
54) Dibenz(a,h)anthracene	(6)	19.418 (-0.000)	278	17223	0.105	34.71			0.02
55) Benzo(g,h,i)perylene	(6)	19.919 (-0.000)	276	45765	0.259	85.64			0.02

B = Compound detected in referenced method blank. M = Compound was manually integrated. E = Compound concentration above calibration range.

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10976.i/18nov07.b/ik0310.d Injection date and time: **07-NOV-2018 23:14**
Data file Sample Info. Line: 12T06;9872064;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.23 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

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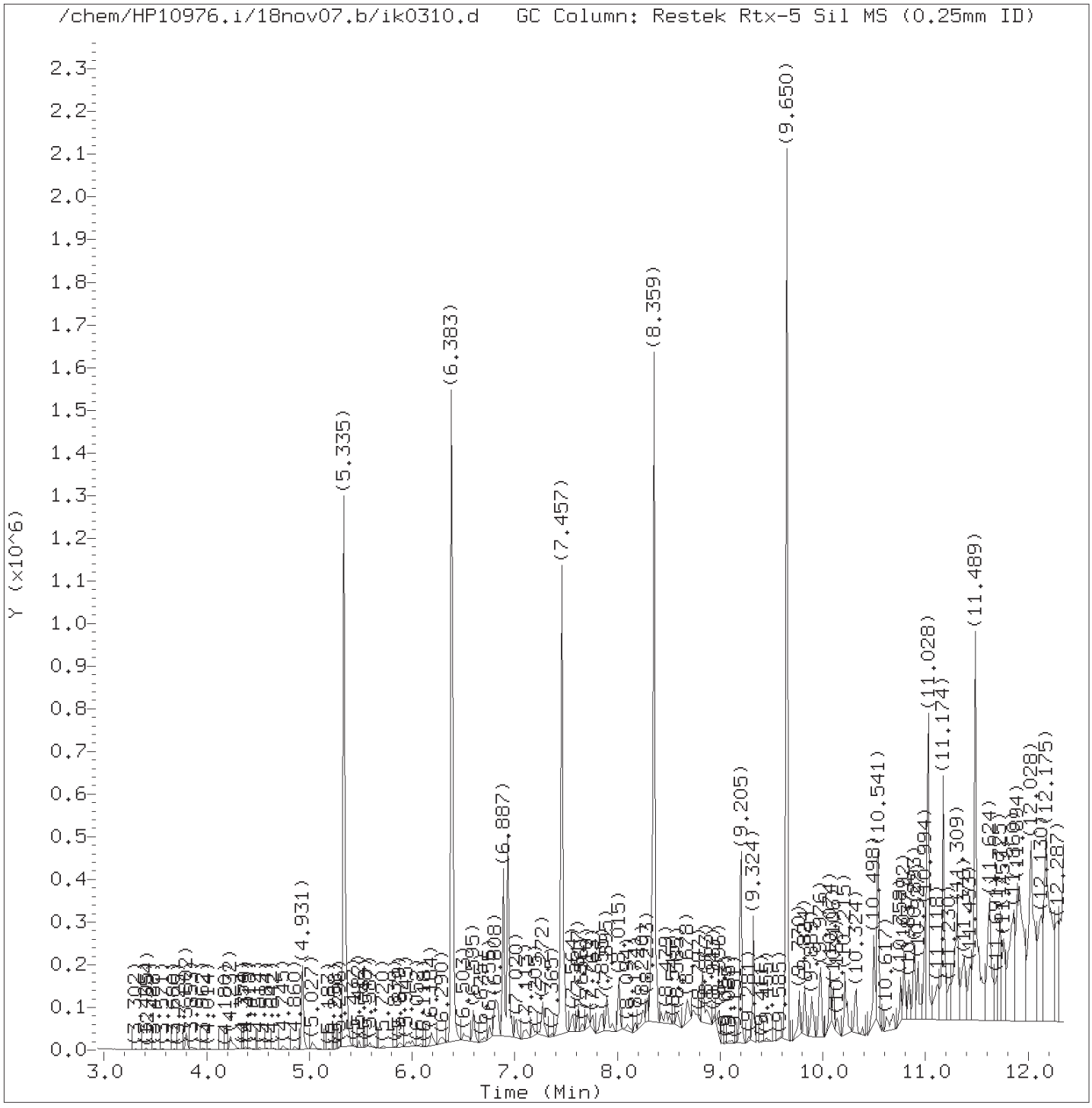
Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

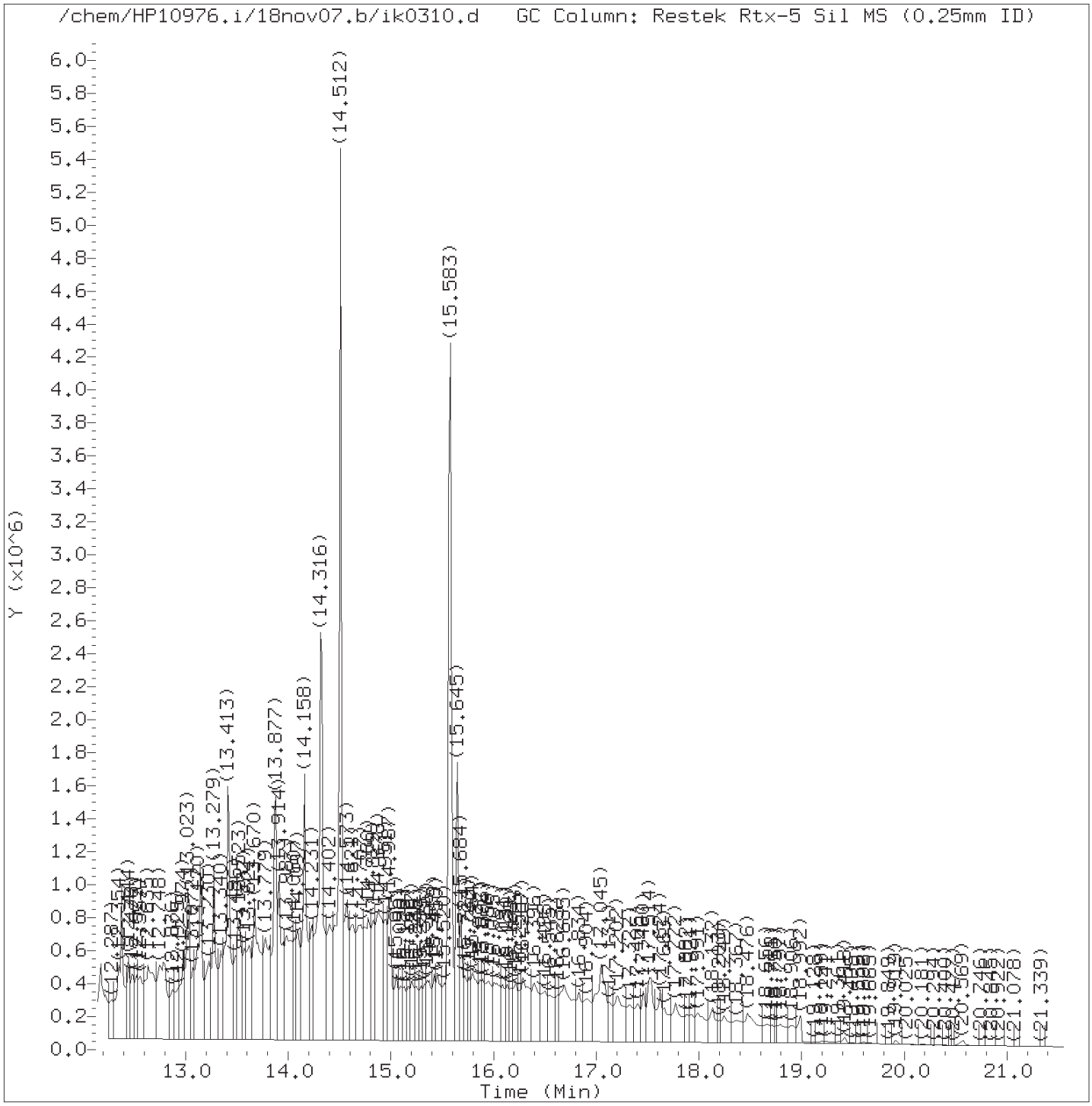
Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	48357	1.000
10)*Naphthalene-d8	(2)	8.333	136	198454	1.000
11) Naphthalene	(2)	8.359	128	1289377	6.309
14)$1-Methylnaphthalene-d10	(2)	9.281	152	10114M	0.084
19) Acenaphthylene	(3)	10.324	152	20266	0.080
20)*Acenaphthene-d10	(3)	10.498	164	131871	1.000
21) Acenaphthene	(3)	10.541	154	219696	1.323
26) Fluorene	(3)	11.174	166	239321	1.171
31)*Phenanthrene-d10	(4)	12.354	188	238316	1.000
32) Phenanthrene	(4)	12.377	178	511169	1.985
33) Anthracene	(4)	12.444	178	203580	0.790
35) Di-n-butylphthalate	(4)	13.035	149	652062	2.647
36)$Fluoranthene-d10	(4)	13.853	212	36036M	0.122
37) Fluoranthene	(4)	13.877	202	1224447M	3.820
39) Pyrene	(5)	14.158	202	1108627	2.766
41) bis(2-Ethylhexyl)phthalate	(5)	15.583	149	5642541	29.626
42) Benzo(a)anthracene	(5)	15.637	228	427398	1.147
43)*Chrysene-d12	(5)	15.653	240	289540	1.000
44) Chrysene	(5)	15.684	228	602250	1.693
46) Benzo(b)fluoranthene	(6)	17.045	252	320635M	1.612
47) Benzo(k)fluoranthene	(6)	17.069	252	164333M	0.881
49)$Benzo(a)pyrene-d12	(6)	17.499	264	12212	0.080
50) Benzo(a)pyrene	(6)	17.538	252	173412	1.017
51)*Perylene-d12	(6)	17.624	264	159954	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.418	276	54048	0.269
54) Dibenz(a,h)anthracene	(6)	19.418	278	17223	0.105
55) Benzo(g,h,i)perylene	(6)	19.919	276	45765	0.259

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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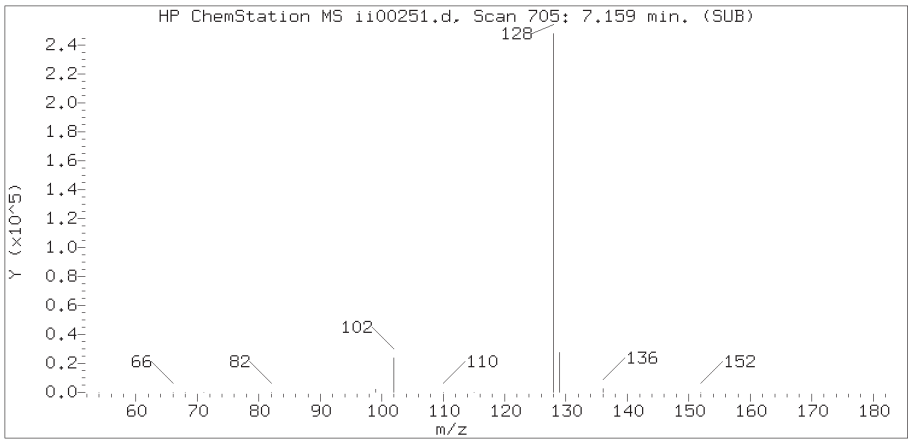
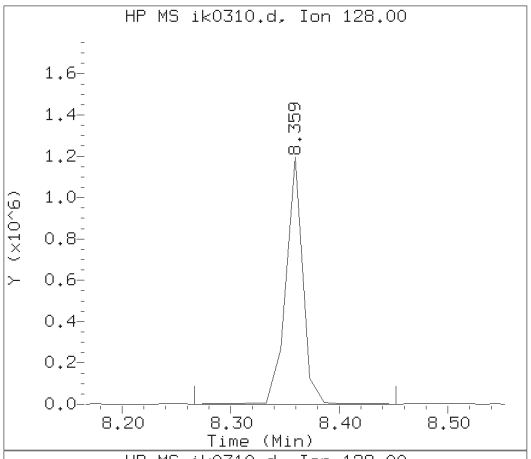
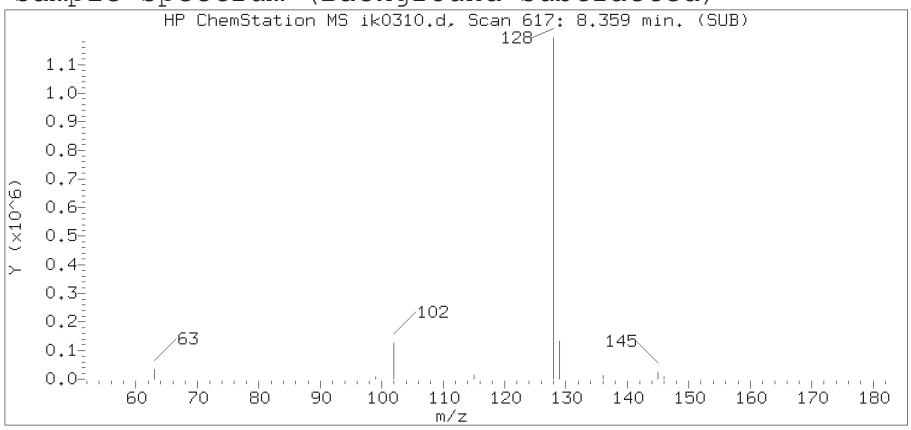
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

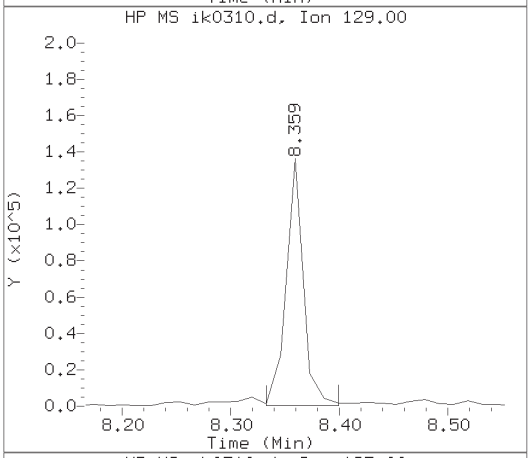
Reference Standard Spectrum for Naphthalene



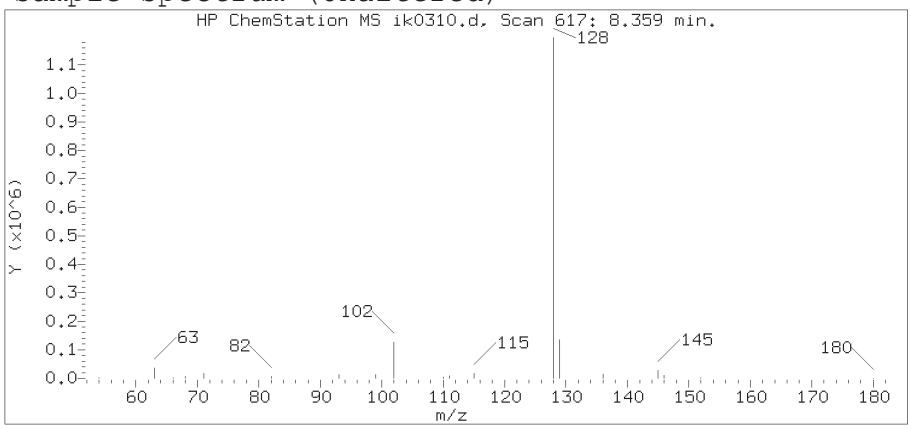


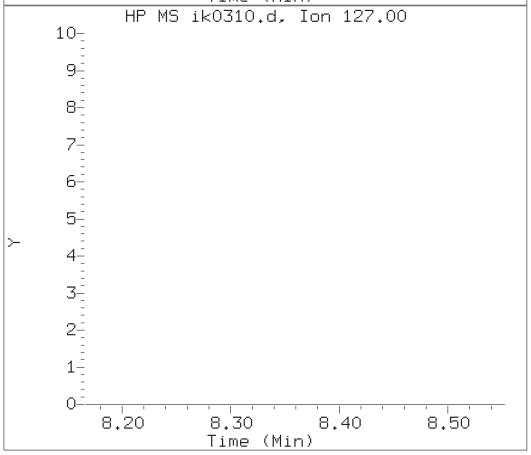
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 617
Retention Time (minutes)	: 8.359
Relative Retention Time	: 0.00000
Quant Ion	: 128.00
Area (flag)	: 1289377
On-column Amount (ng/ul)	: 6.3094

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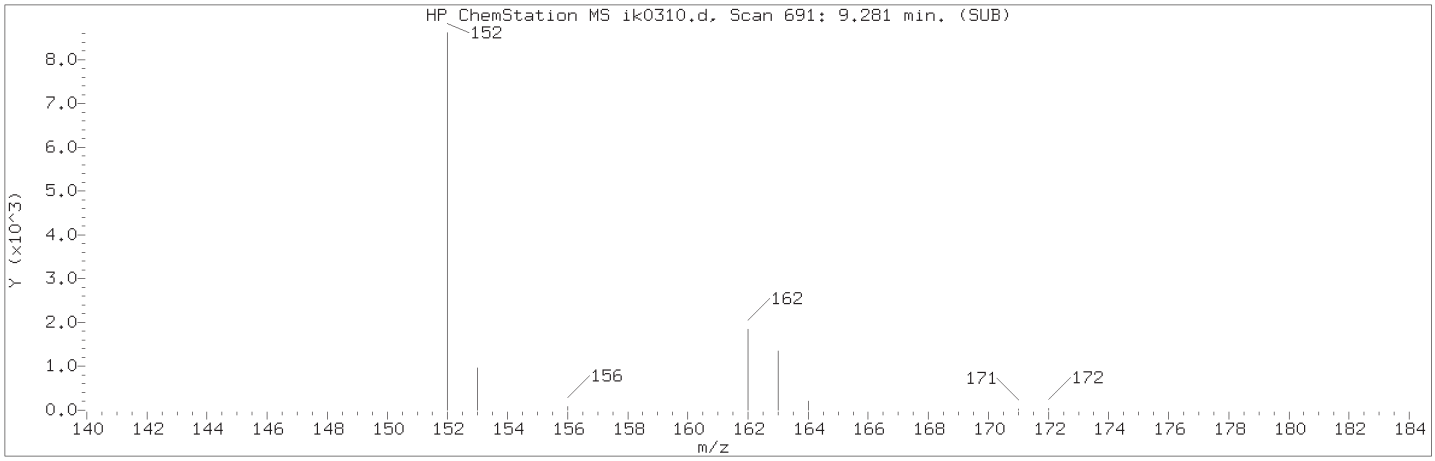
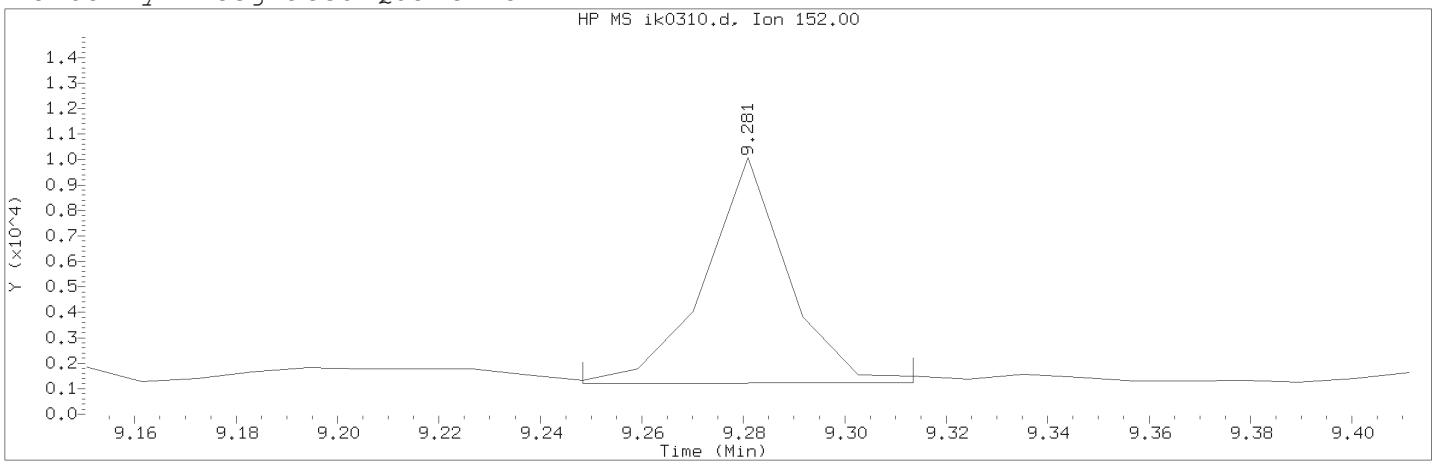
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

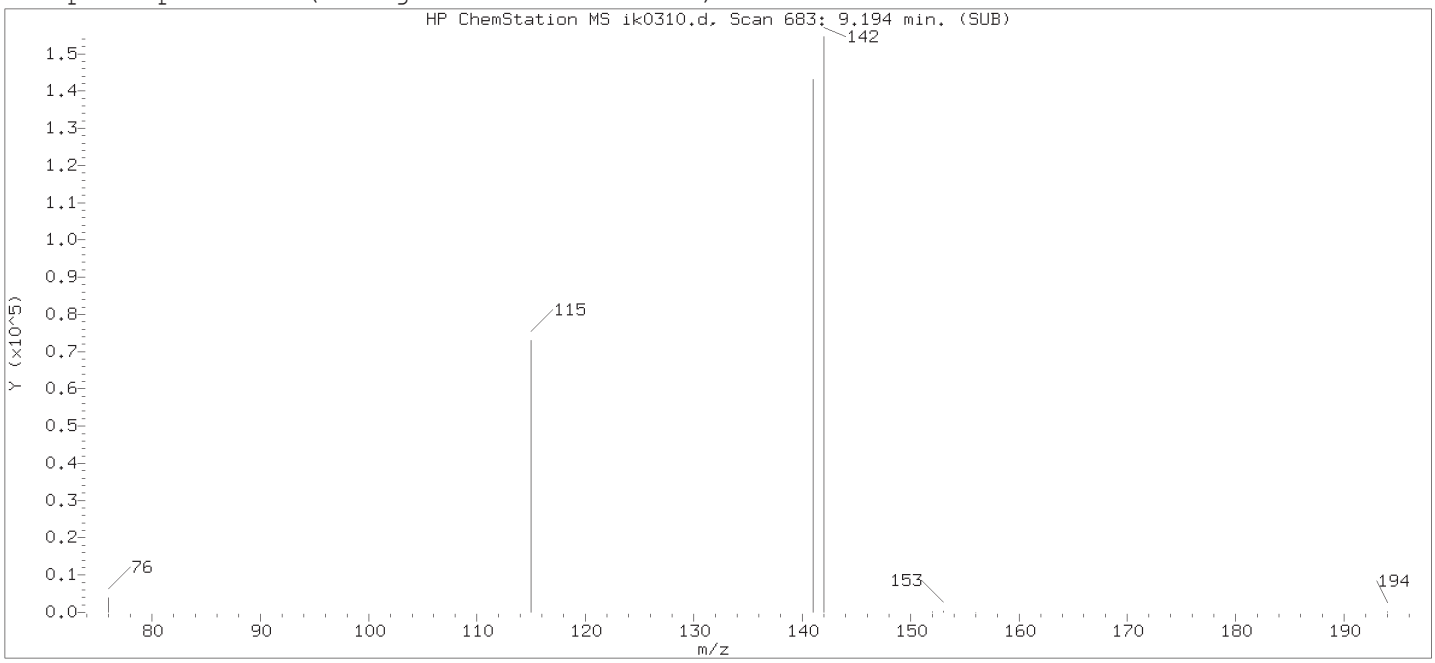
Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 691
Retention Time (minutes) : 9.281
Quant Ion : 152.00
Area (flag) : 10114M
On-column Amount (ng/ul) : 0.0836
Integration start scan : 687 Integration stop scan: 693
Y at integration start : 1211 Y at integration end: 1234

Reason for manual integration: improper integration

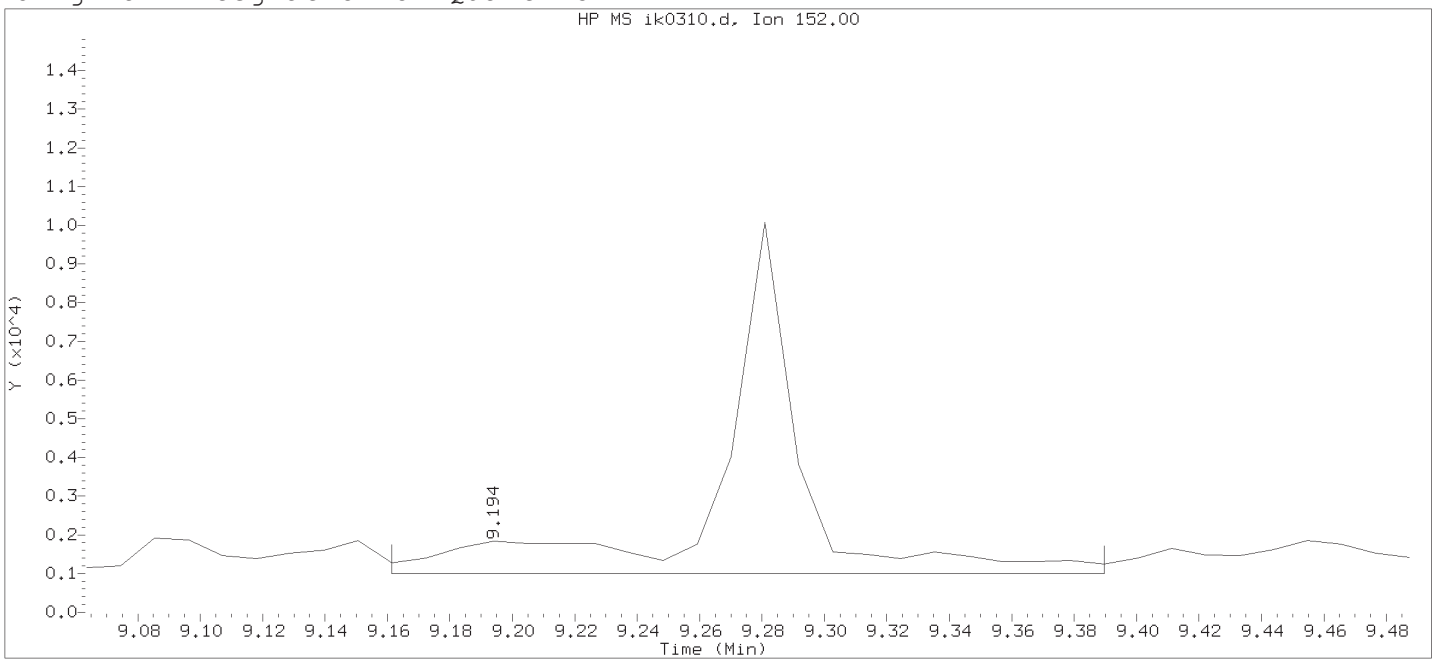
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:25 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 683
Retention Time (minutes) : 9.194
Quant Ion : 152.00
Area : 15899
On-column Amount (ng/ul) : 0.1314
Integration start scan : 679 Integration stop scan: 700
Y at integration start : 1003 Y at integration end: 1003

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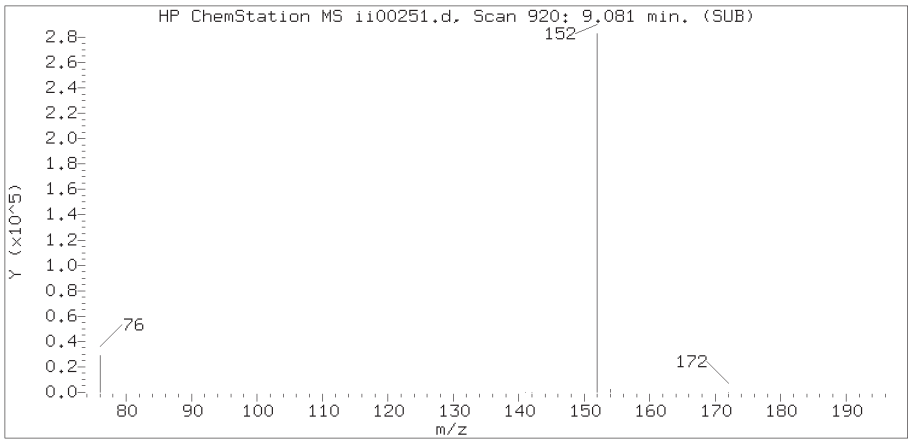
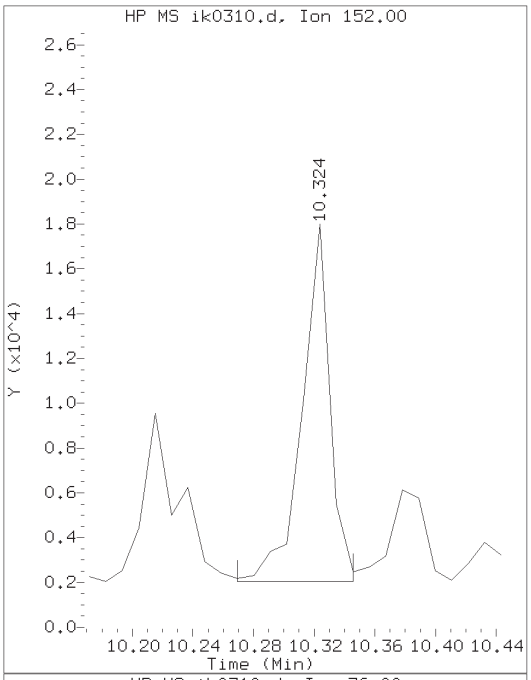
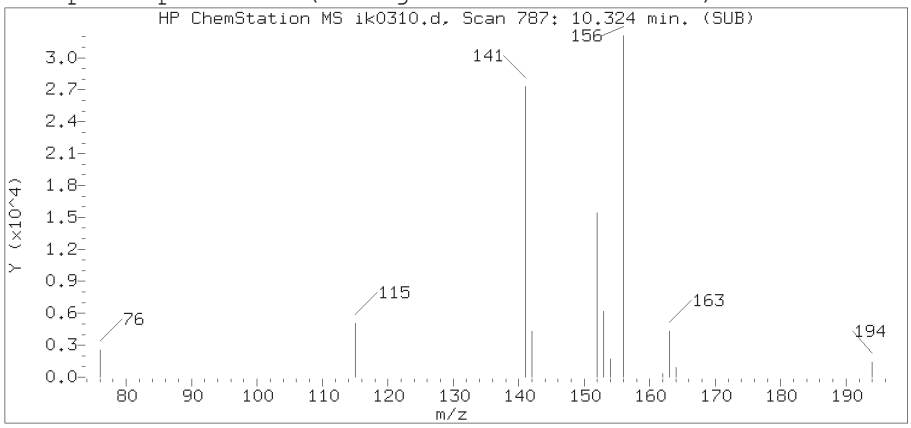
Target 3.5 esignature used. Page 2865

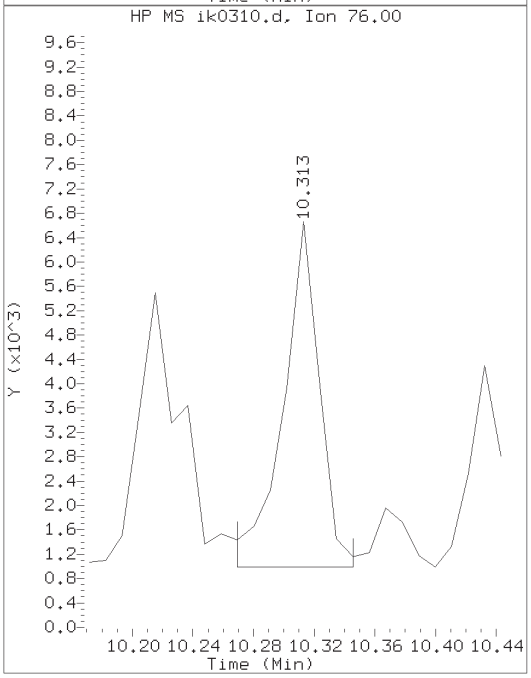
Reference Standard Spectrum for Acenaphthylene



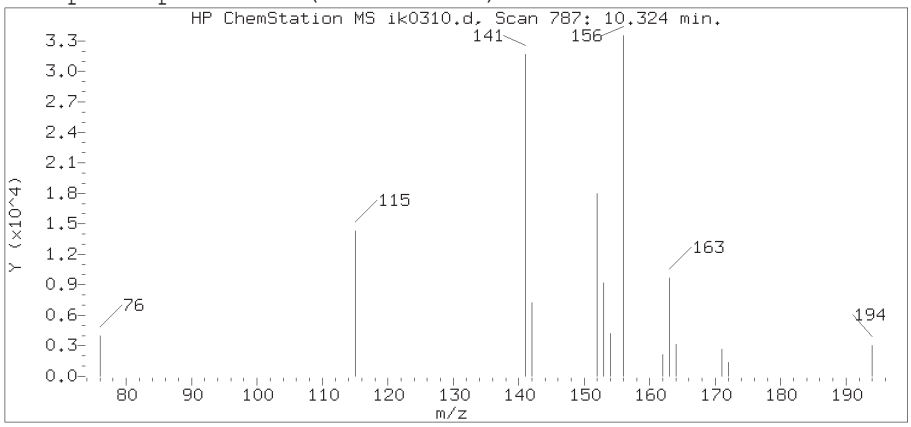


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 787
Retention Time (minutes)	: 10.324
Relative Retention Time	:-0.00002
Quant Ion	: 152.00
Area (flag)	: 20266
On-column Amount (ng/ul)	: 0.0802

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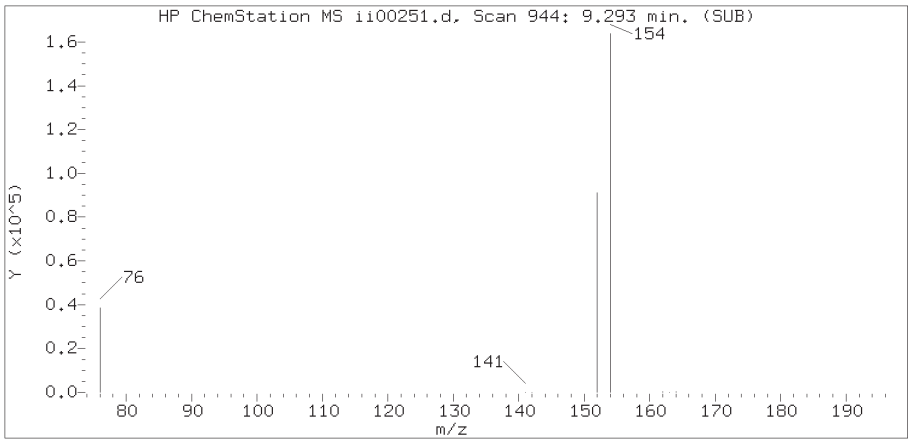
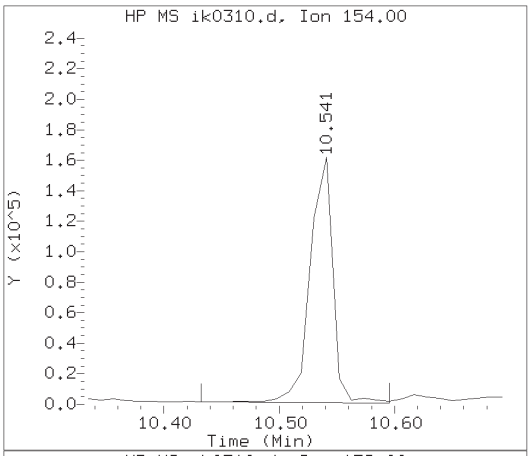
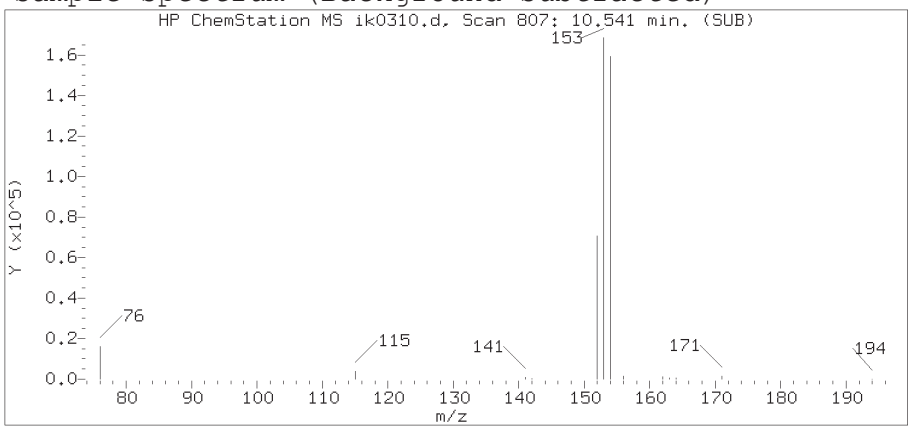
Target 3.5 esignature user ID: jmg00346

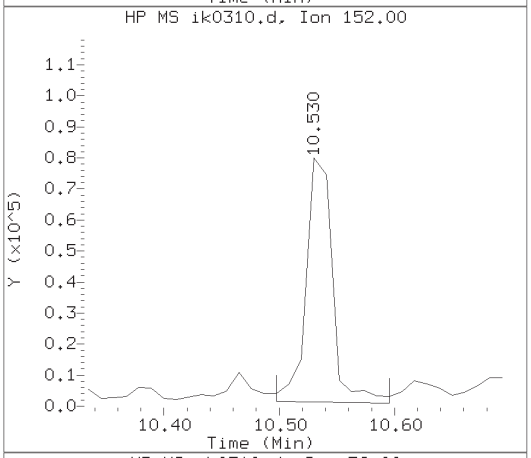
Reference Standard Spectrum for Acenaphthene



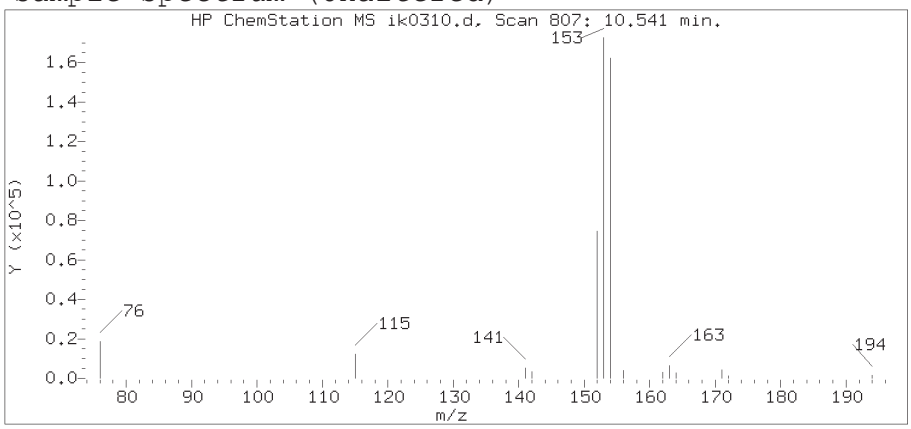


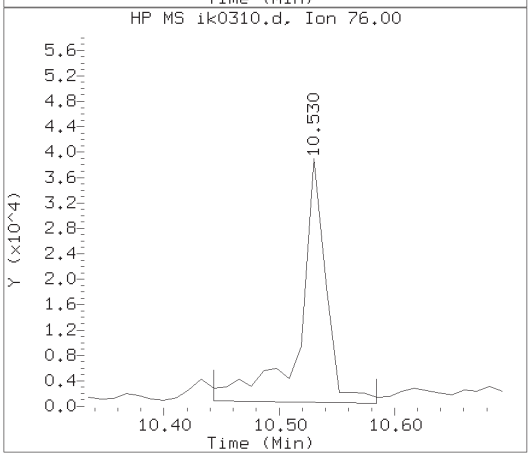
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

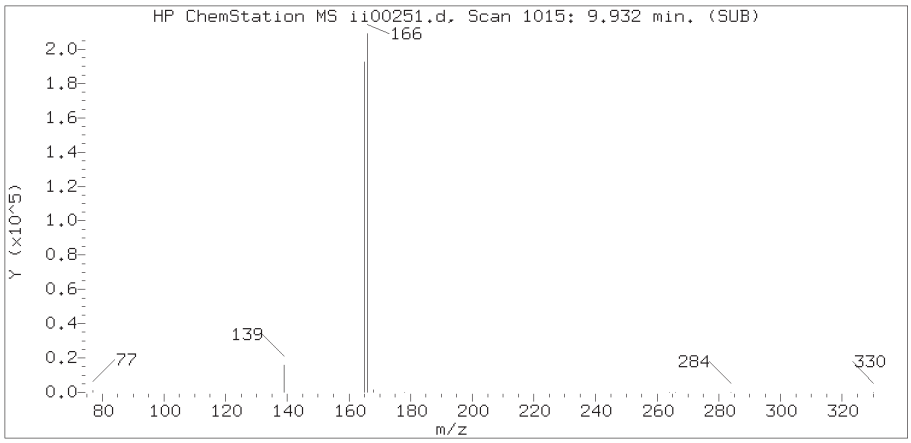
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

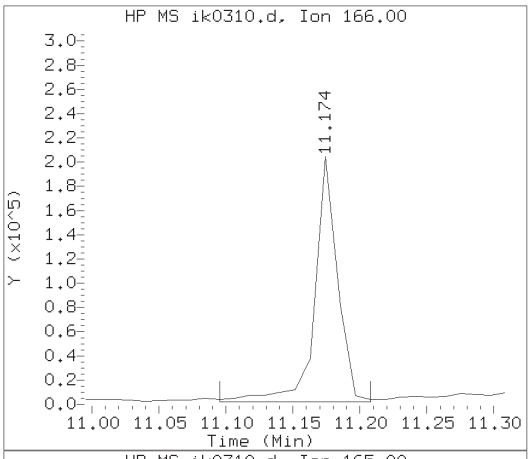
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 807
Retention Time (minutes)	: 10.541
Relative Retention Time	:-0.00103
Quant Ion	: 154.00
Area (flag)	: 219696
On-column Amount (ng/ul)	: 1.3228

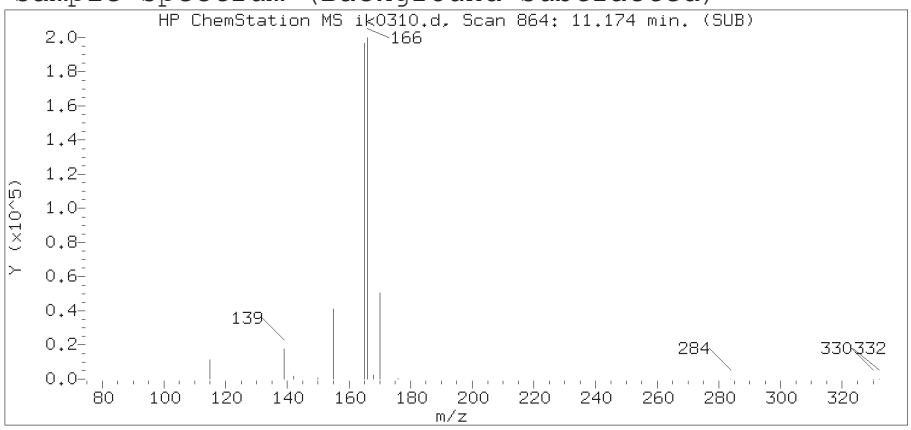
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

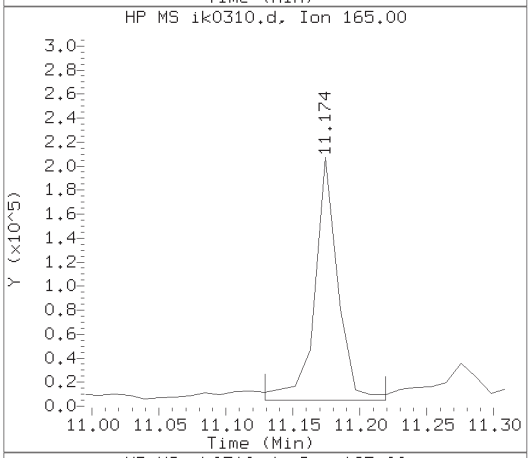
Reference Standard Spectrum for Fluorene



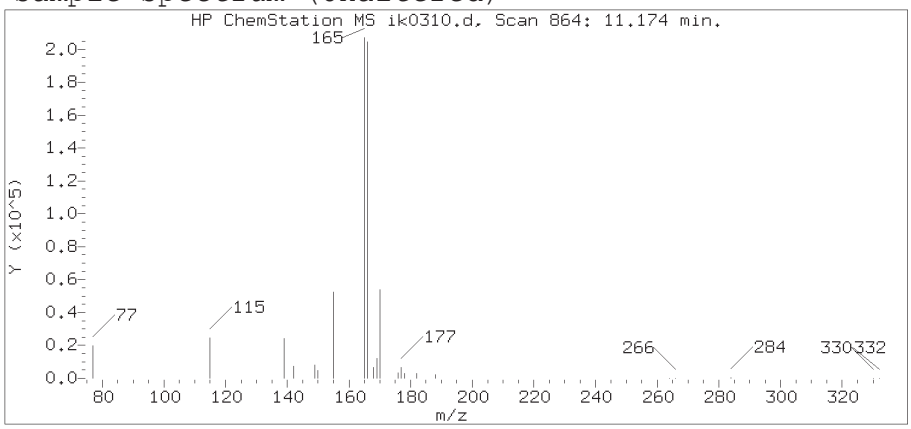


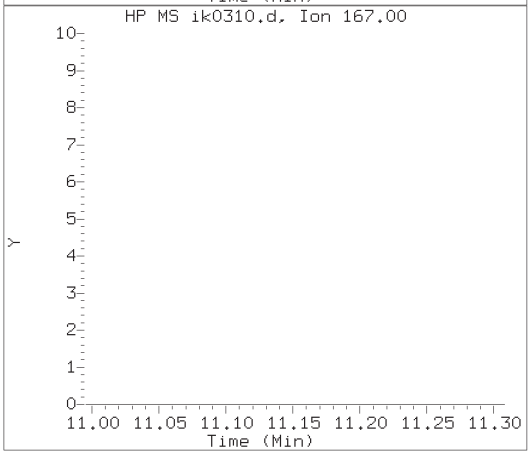
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

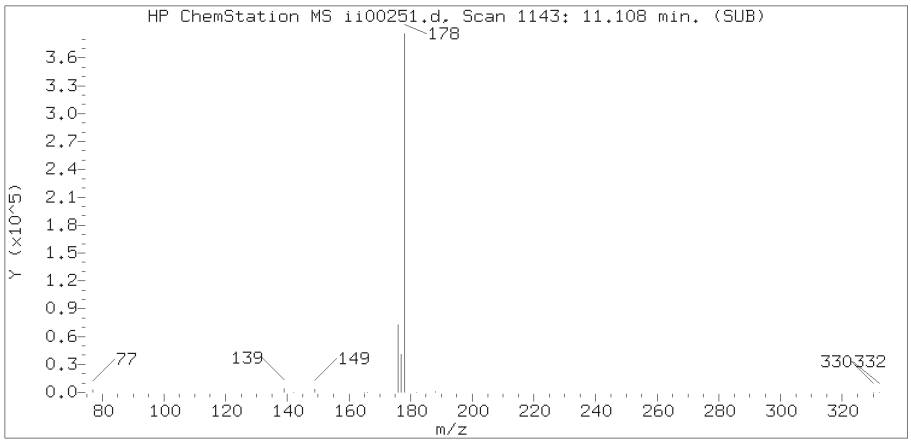
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

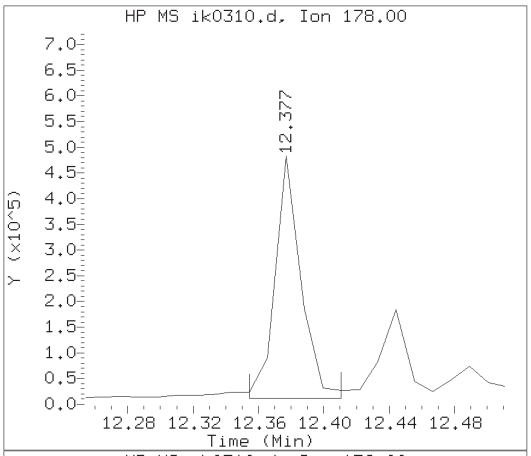
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 864
Retention Time (minutes)	: 11.174
Relative Retention Time	: 0.00003
Quant Ion	: 166.00
Area (flag)	: 239321
On-column Amount (ng/ul)	: 1.1709

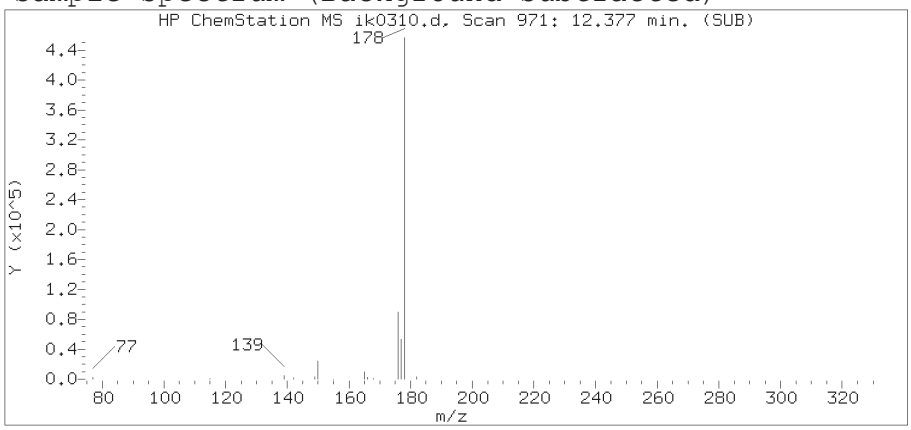
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

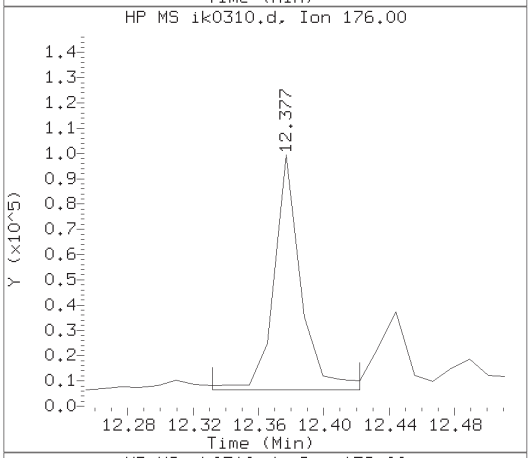
Reference Standard Spectrum for Phenanthrene



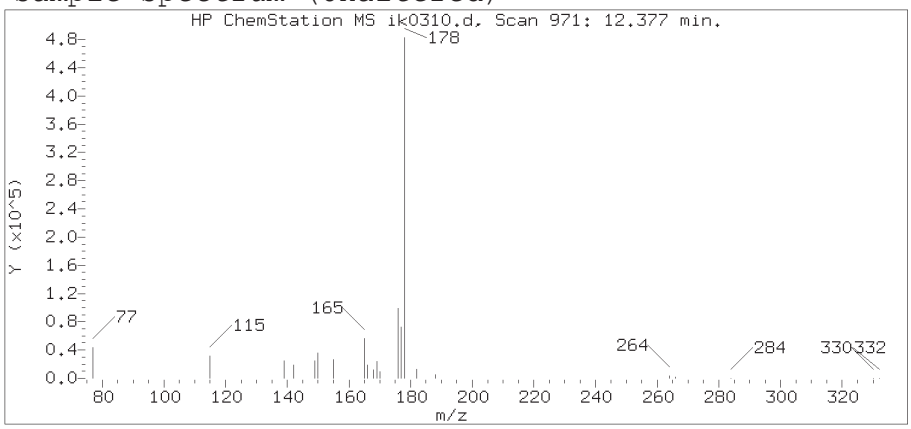


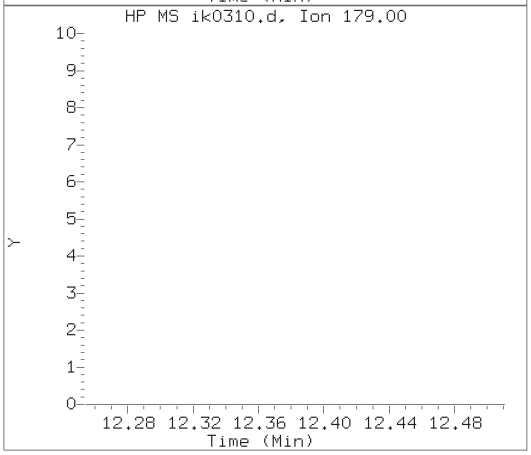
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

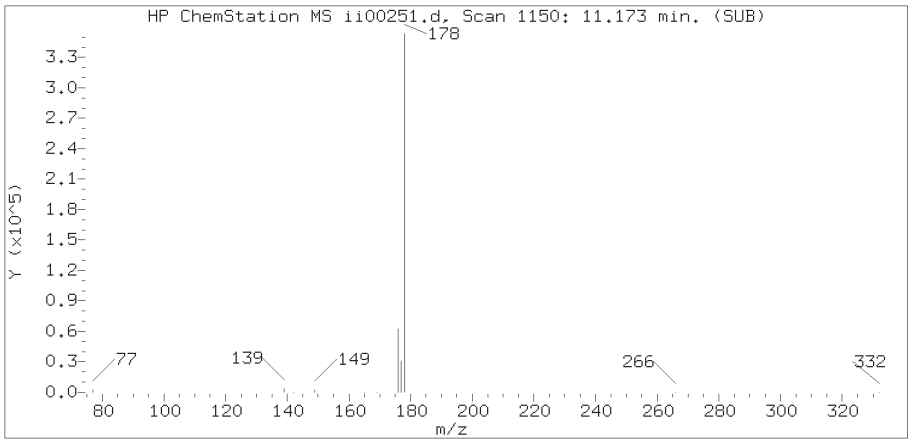
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

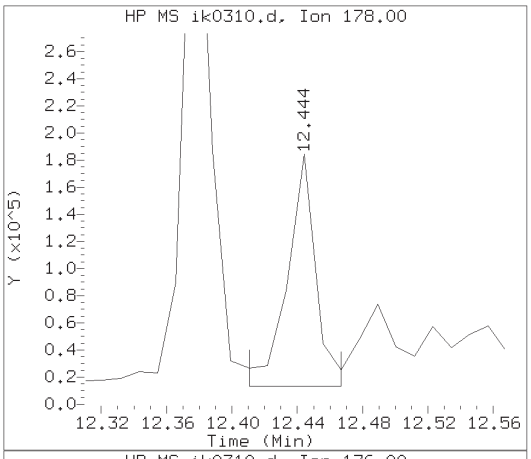
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 971
Retention Time (minutes)	: 12.377
Relative Retention Time	: 0.00091
Quant Ion	: 178.00
Area (flag)	: 511169
On-column Amount (ng/ul)	: 1.9853

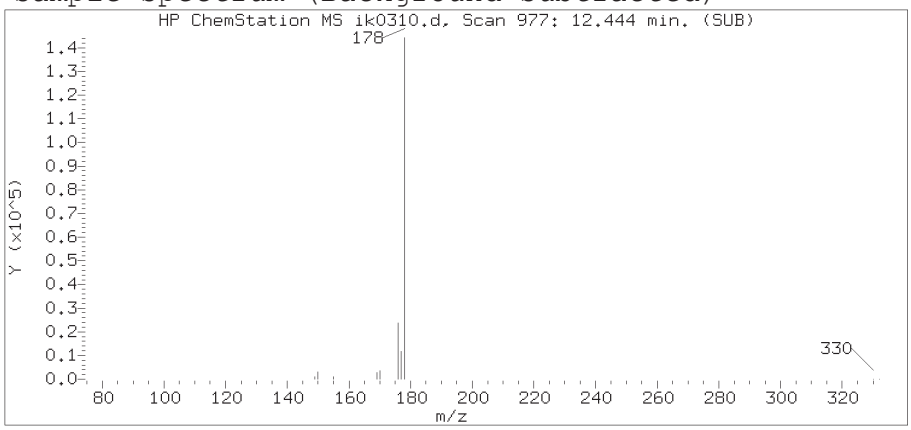
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

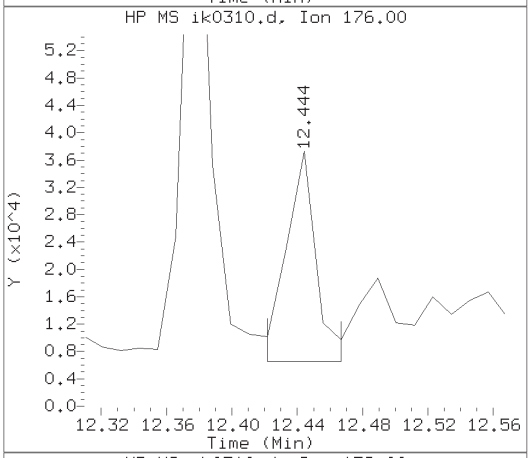
Reference Standard Spectrum for Anthracene



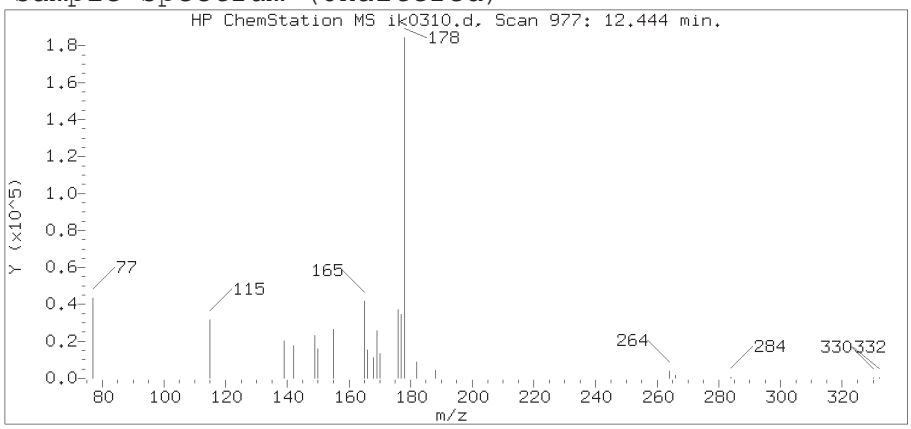


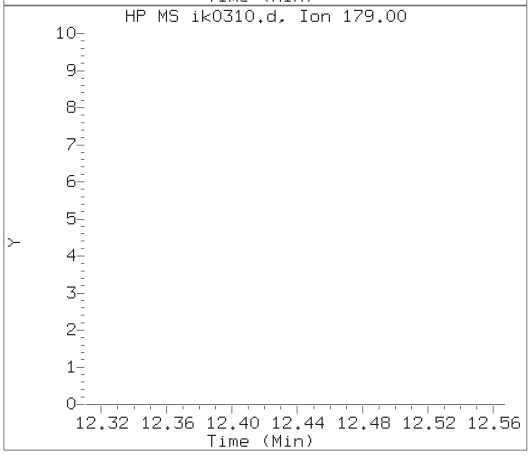
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

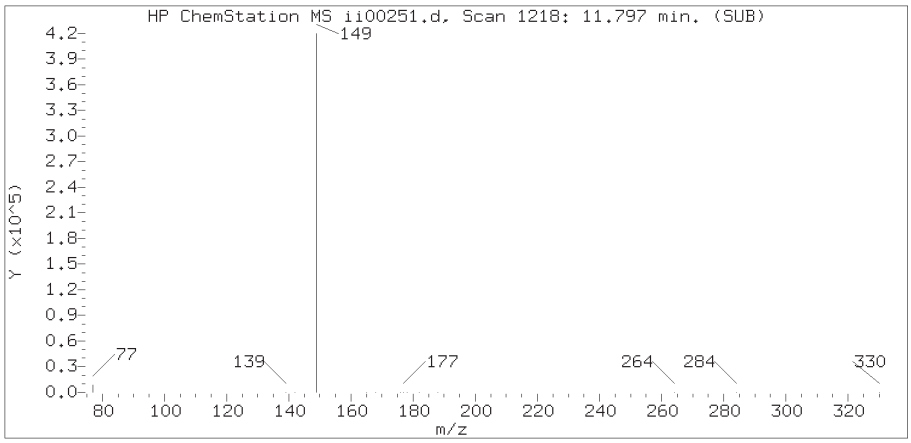
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

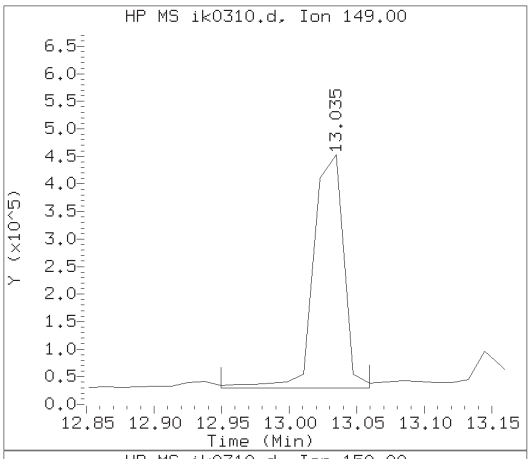
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 977
Retention Time (minutes)	: 12.444
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 203580
On-column Amount (ng/ul)	: 0.7895

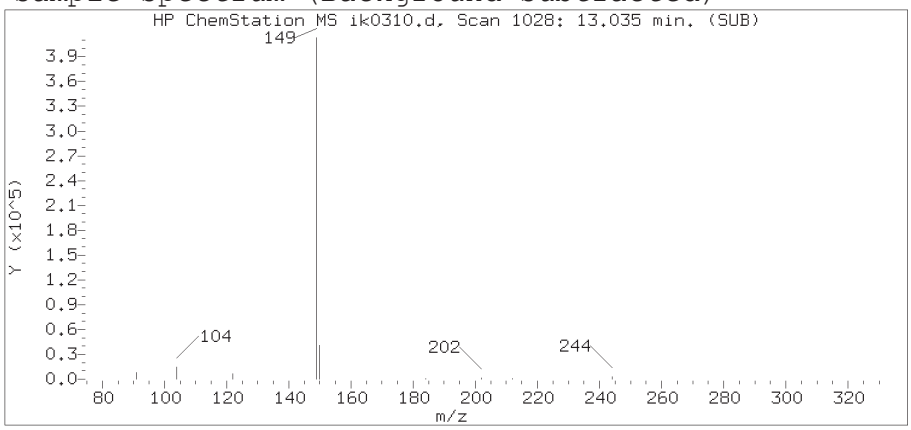
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

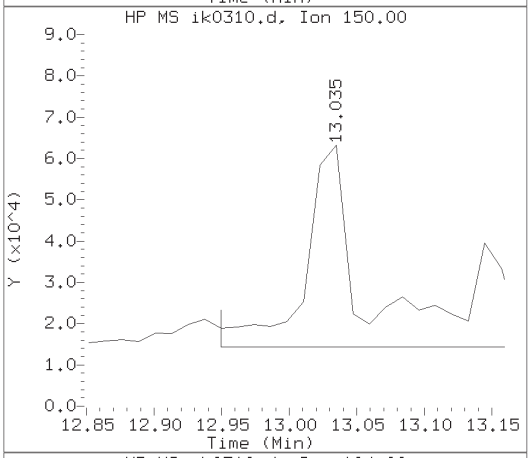
Reference Standard Spectrum for Di-n-butylphthalate



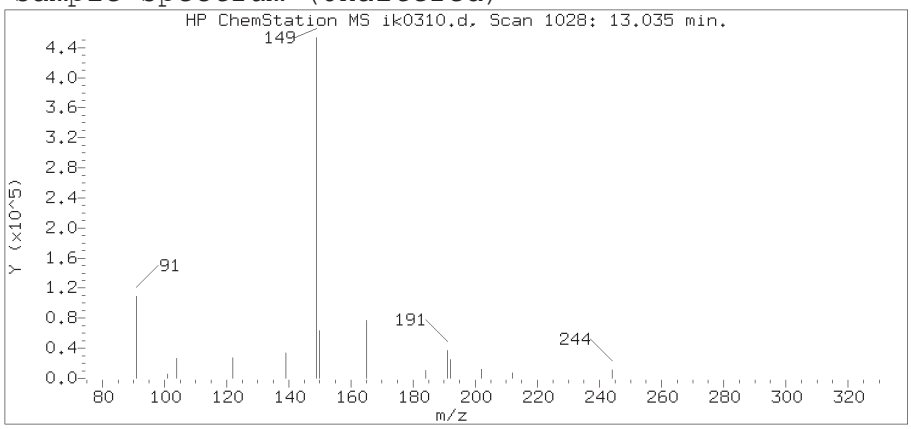


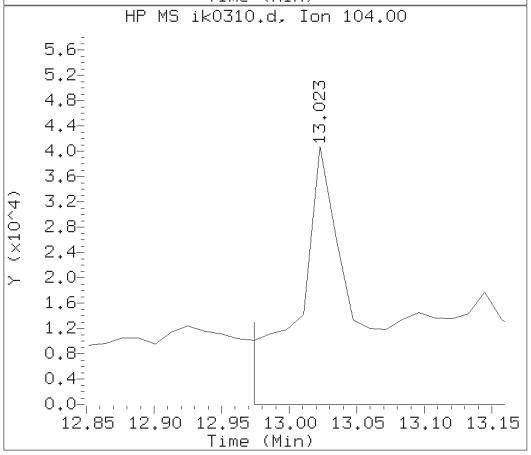
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

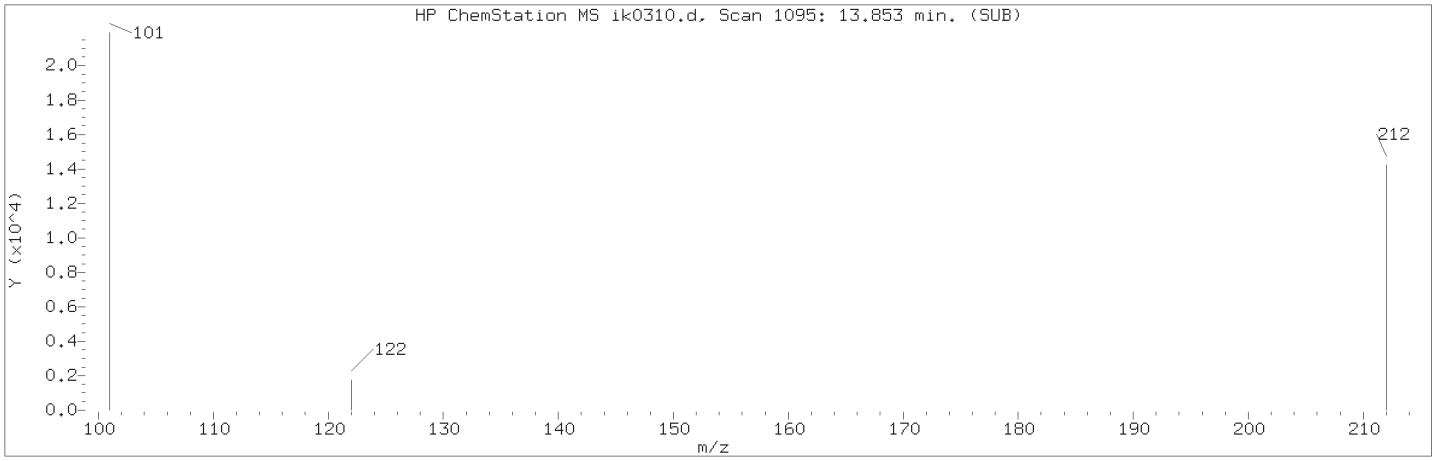
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

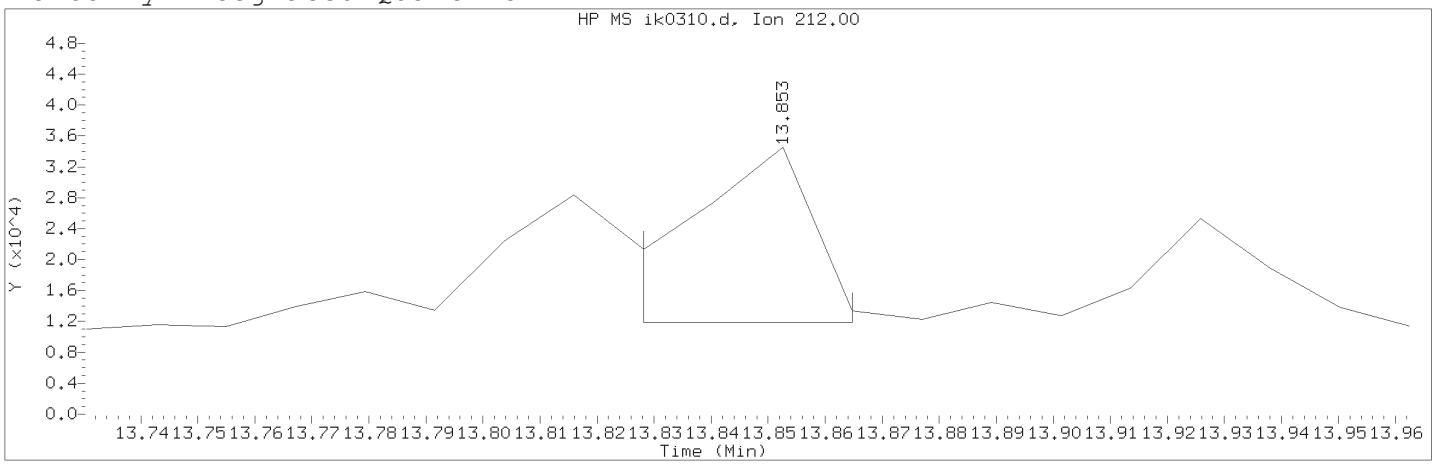
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1028
Retention Time (minutes)	: 13.035
Relative Retention Time	:-0.00006
Quant Ion	: 149.00
Area (flag)	: 652062
On-column Amount (ng/ul)	: 2.6468

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

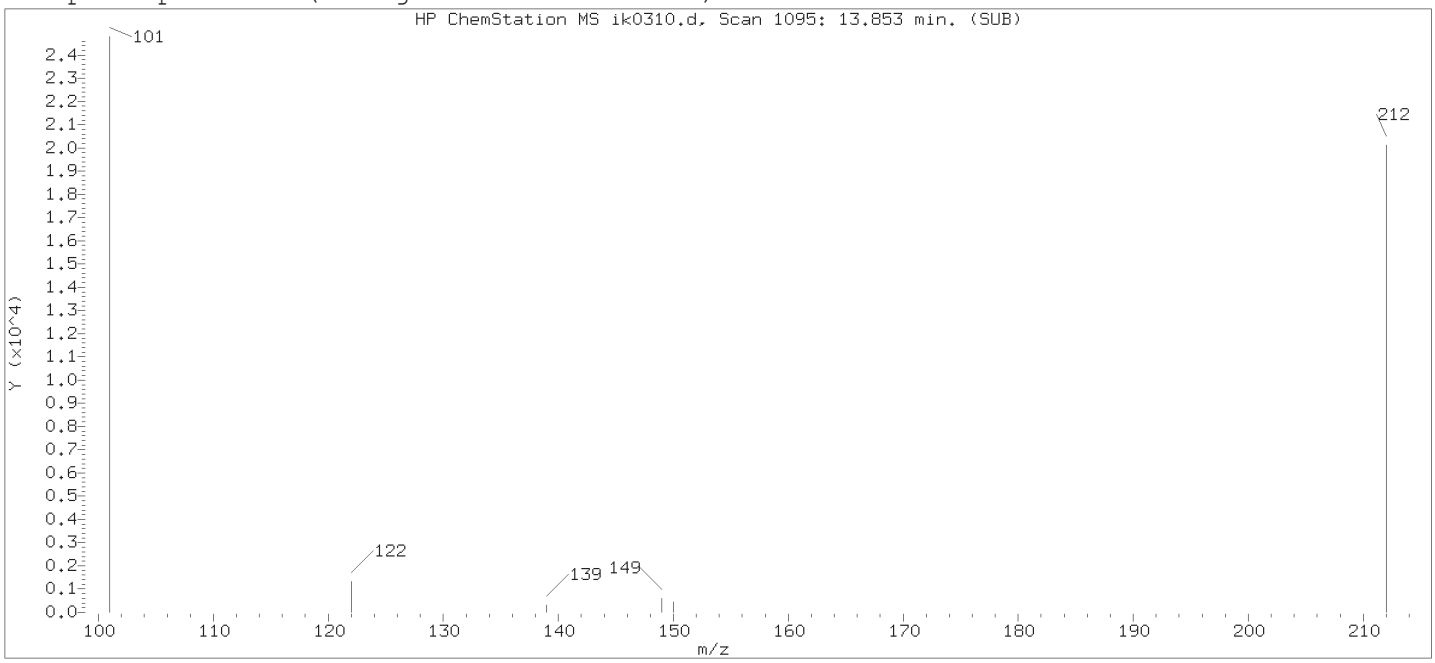
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1095		
Retention Time (minutes)	: 13.853		
Quant Ion	: 212.00		
Area (flag)	: 36036M		
On-column Amount (ng/ul)	: 0.1220		
Integration start scan	: 1092	Integration stop scan:	1095
Y at integration start	: 11844	Y at integration end:	11844

Reason for manual integration: improper integration

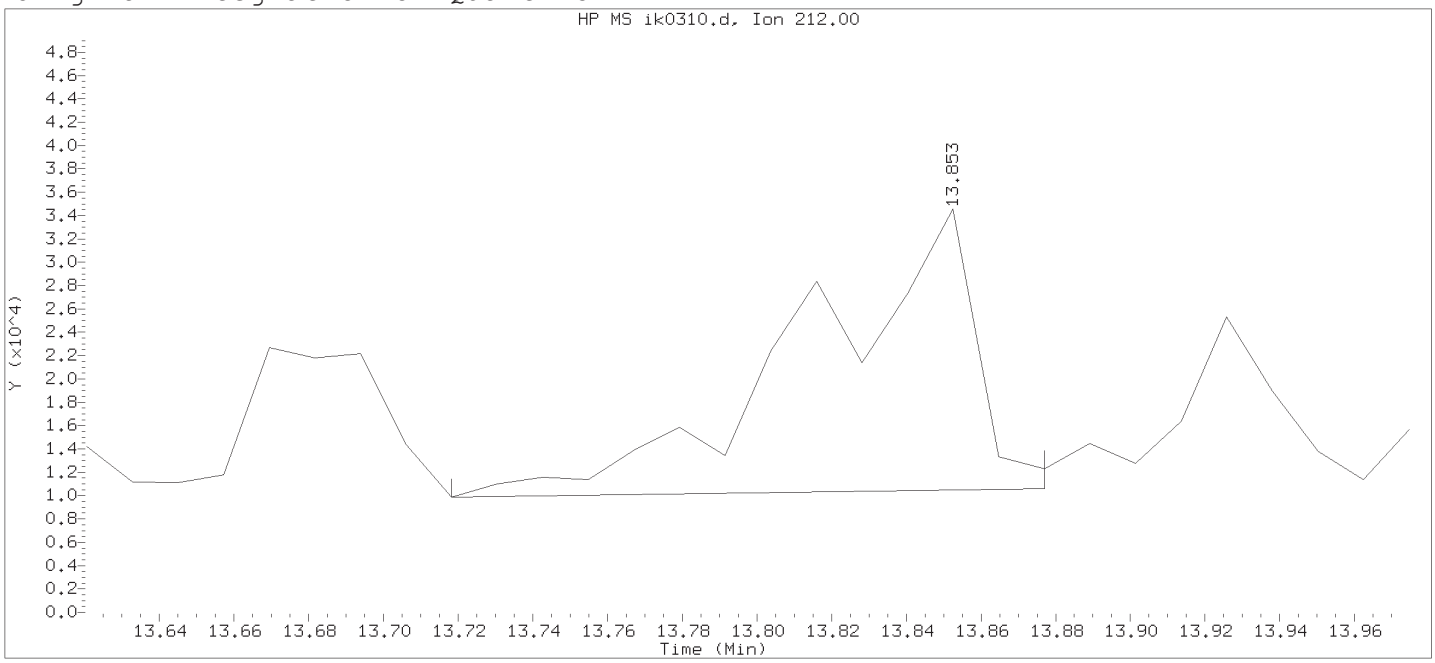
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

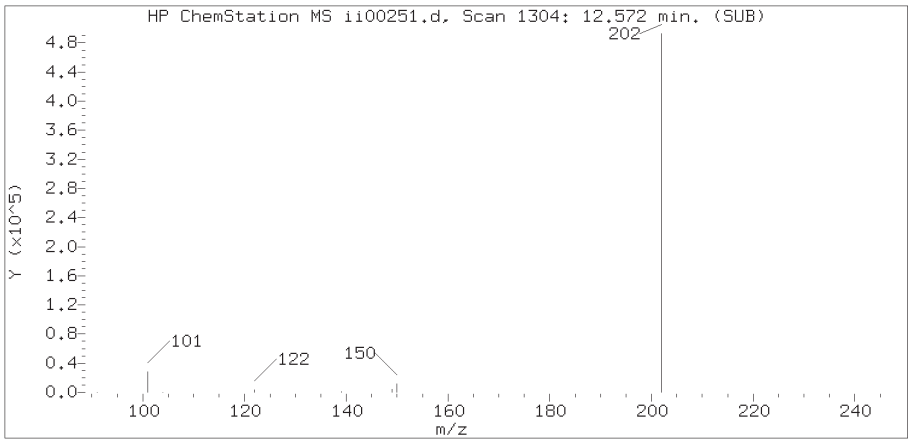
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:25 jmg00346

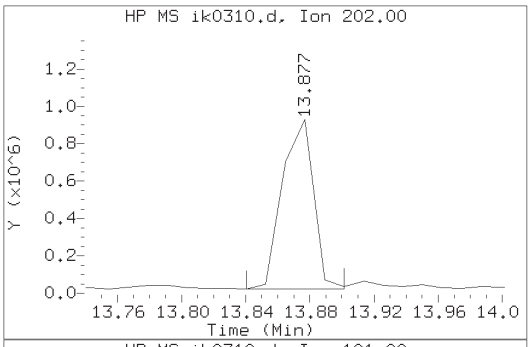
Sample Name: 12T06 Lab Sample ID: 9872064

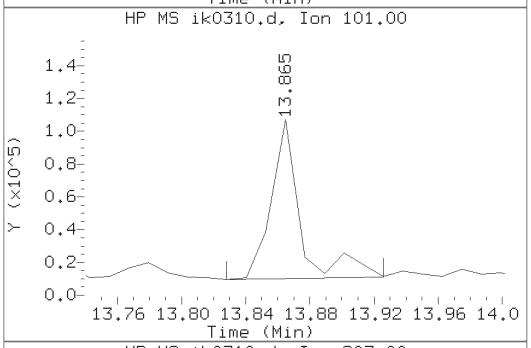
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1095		
Retention Time (minutes)	: 13.853		
Quant Ion	: 212.00		
Area	: 75045		
On-column Amount (ng/ul)	: 0.2540		
Integration start scan	: 1083	Integration stop scan:	1096
Y at integration start	: 9870	Y at integration end:	10609

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature used.

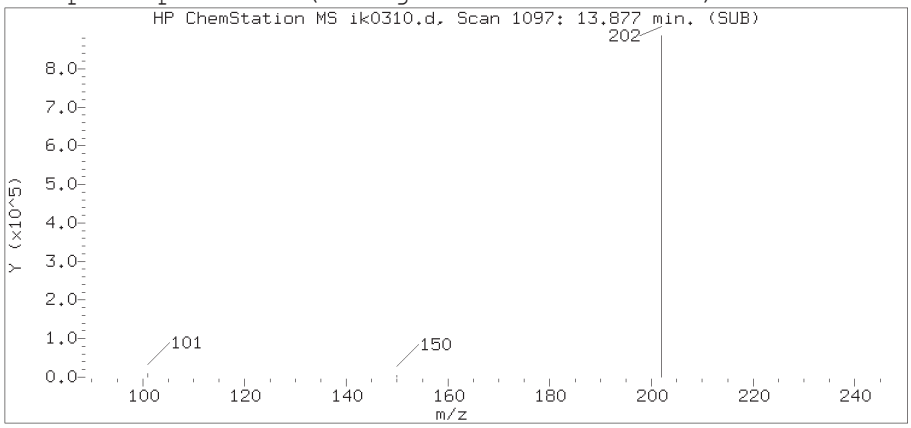
Reference Standard Spectrum for Fluoranthene

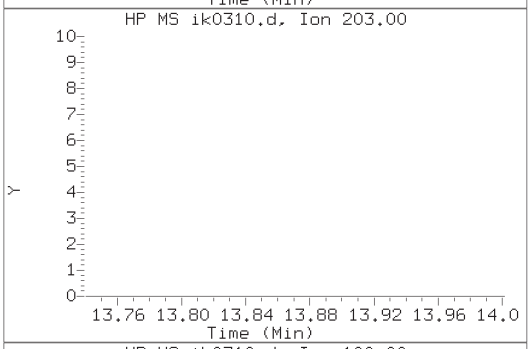




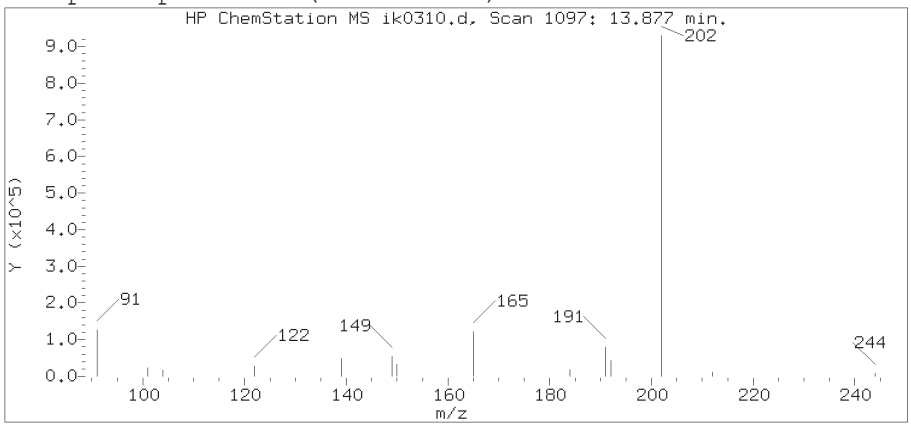


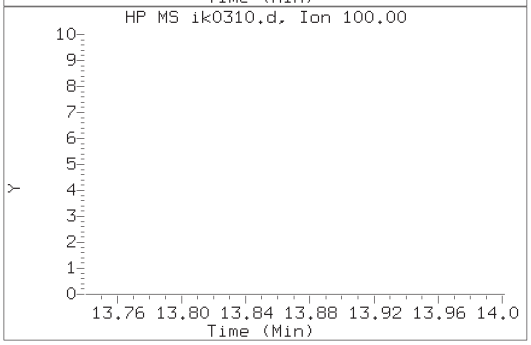
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

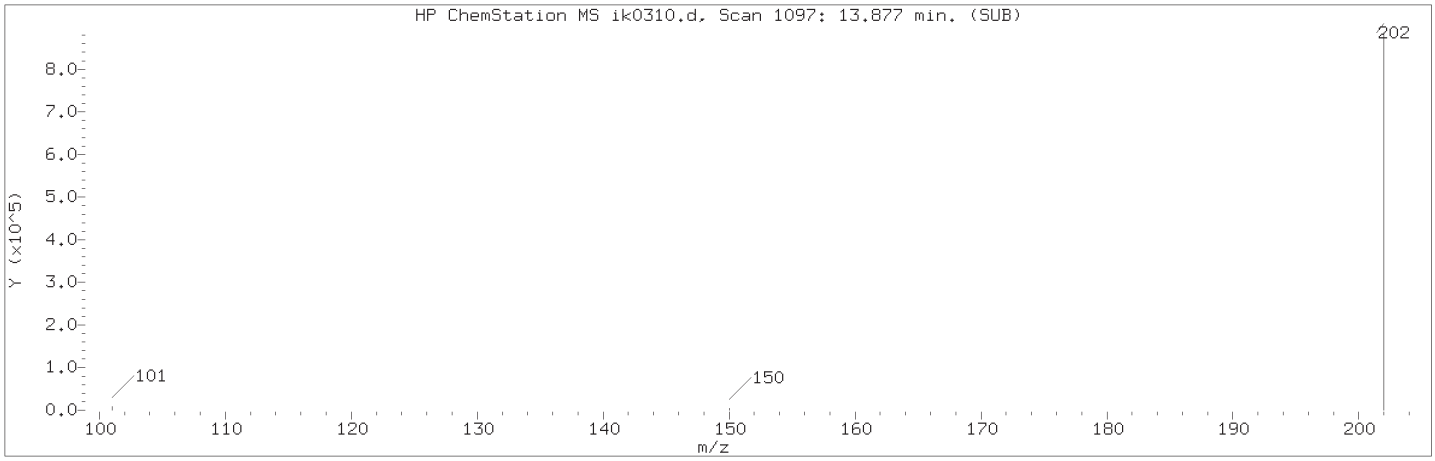
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

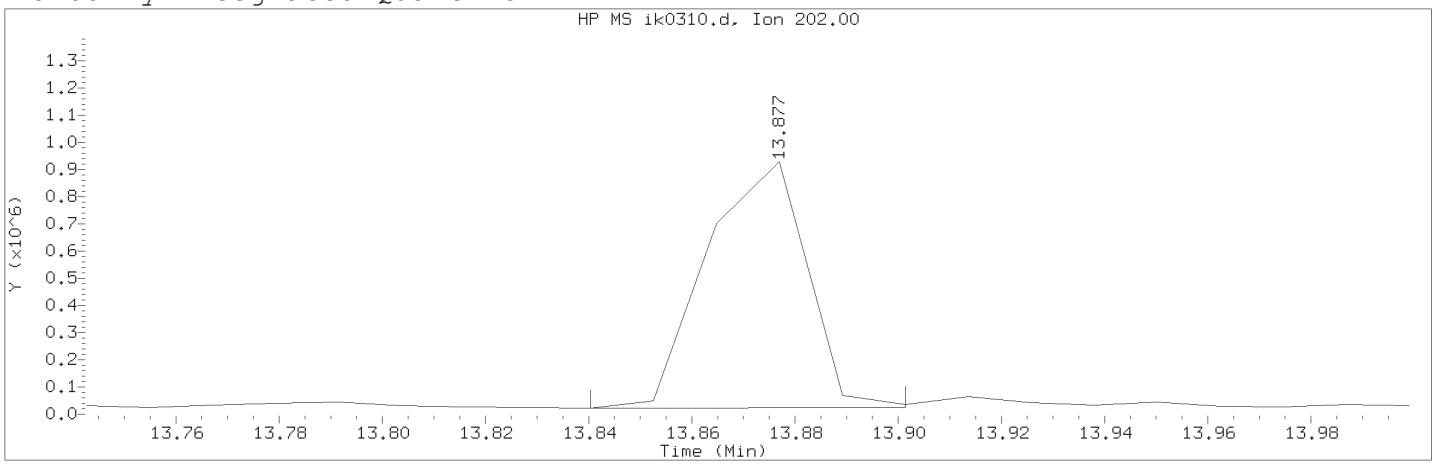
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1097
Retention Time (minutes)	: 13.877
Relative Retention Time	:-0.00092
Quant Ion	: 202.00
Area (flag)	: 1224447M
On-column Amount (ng/ul)	: 3.8196

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

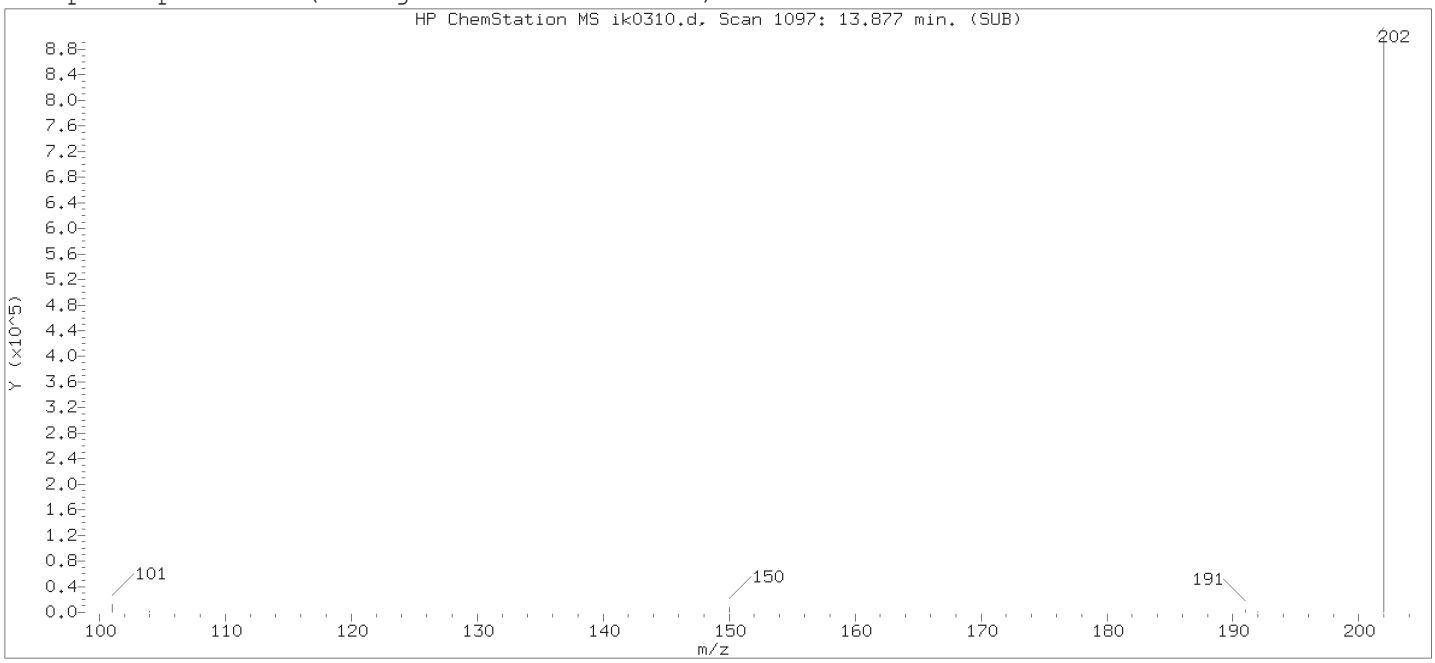
Compound Number : 37
Compound Name : Fluoranthene
Scan Number : 1097
Retention Time (minutes) : 13.877
Quant Ion : 202.00
Area (flag) : 1224447M
On-column Amount (ng/ul) : 3.8196
Integration start scan : 1093 Integration stop scan: 1098
Y at integration start : 22080 Y at integration end: 23730

Reason for manual integration: improper integration

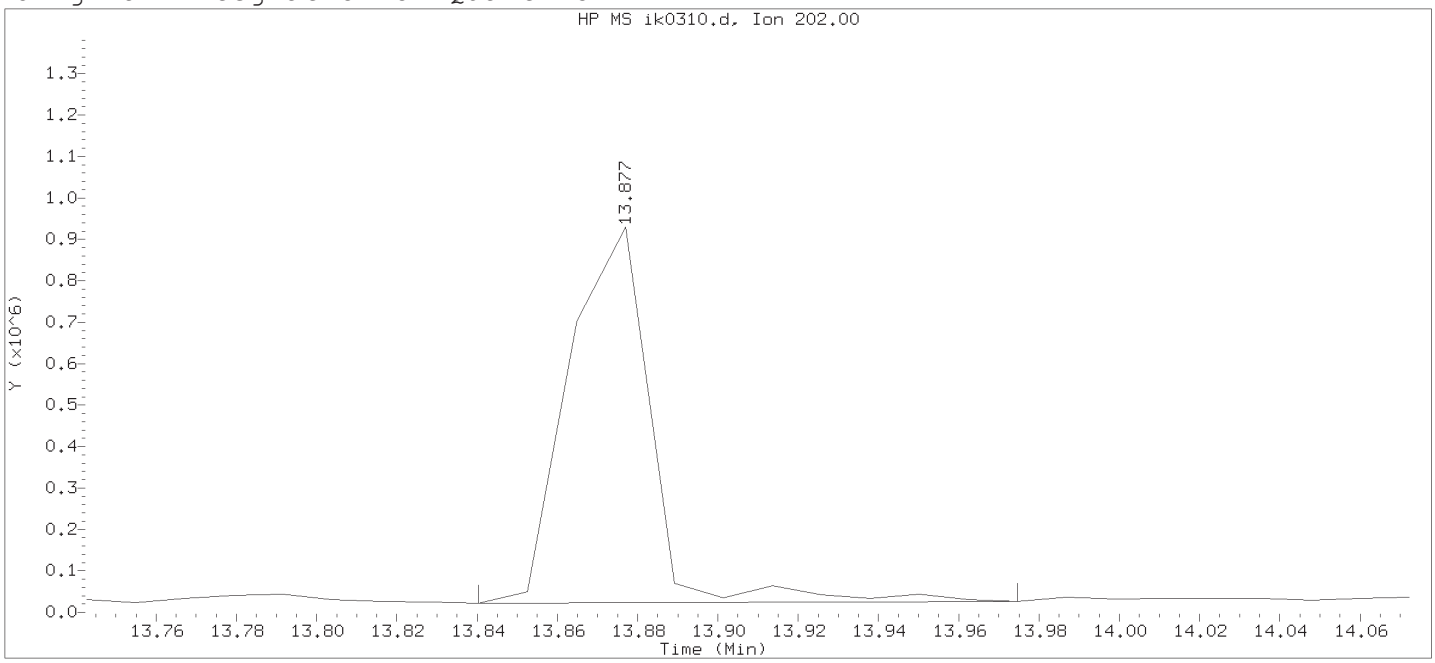
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

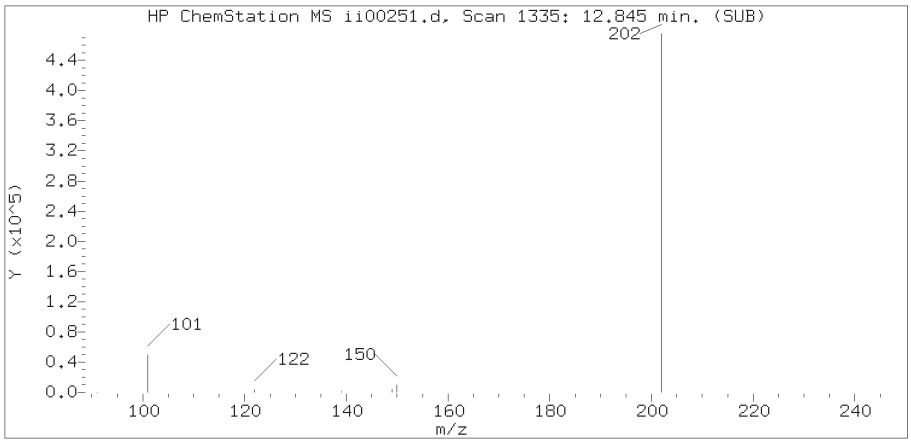
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:25 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

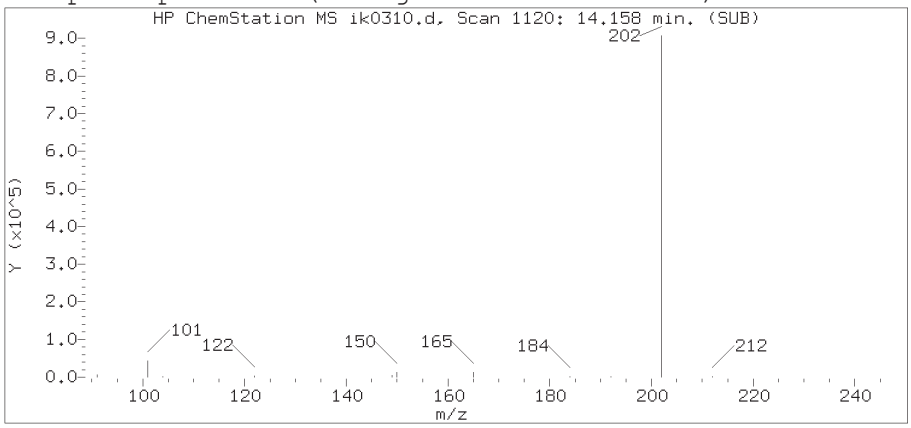
Compound Number	:	37
Compound Name	:	Fluoranthene
Scan Number	:	1097
Retention Time (minutes)	:	13.877
Quant Ion	:	202.00
Area	:	1289962
On-column Amount (ng/ul)	:	4.0240
Integration start scan	:	1093 Integration stop scan: 1104
Y at integration start	:	22080 Y at integration end: 25712

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature used. D12 Page 2876 of 7494

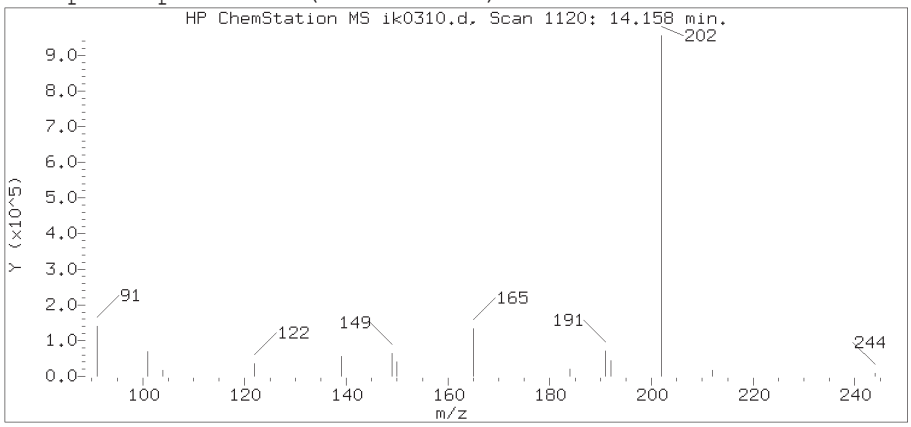
Reference Standard Spectrum for Pyrene

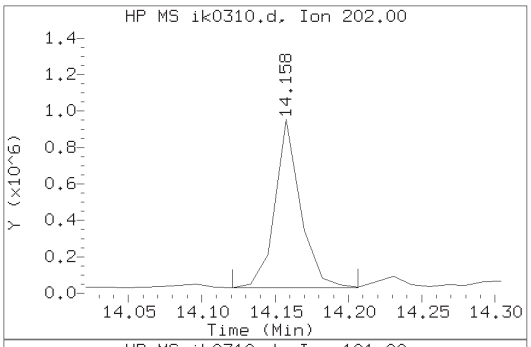


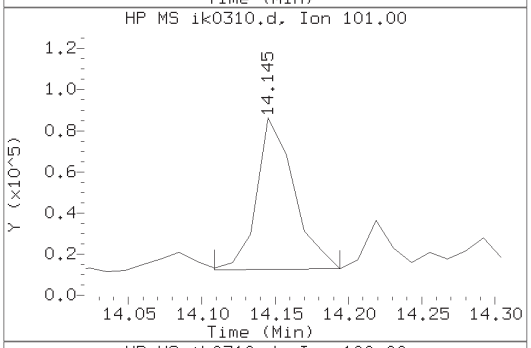
Sample Spectrum (Background Subtracted)

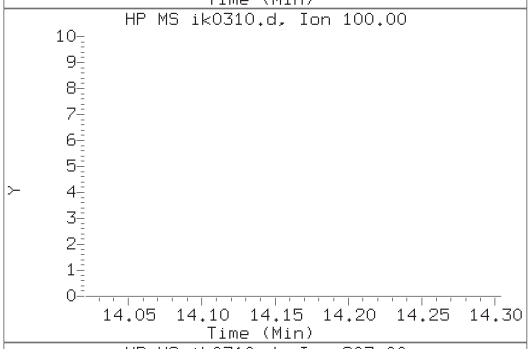


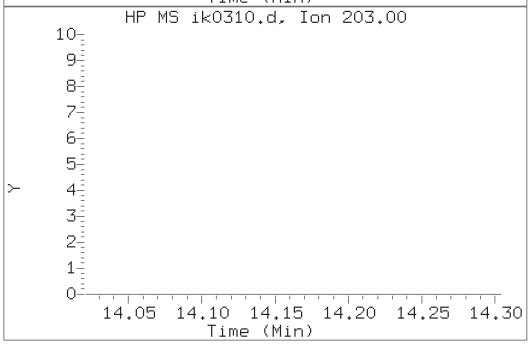
Sample Spectrum (Unaltered)











Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

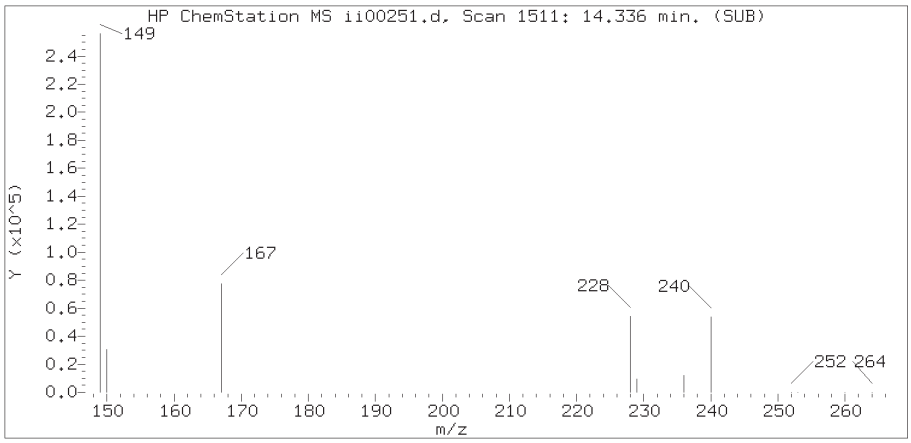
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

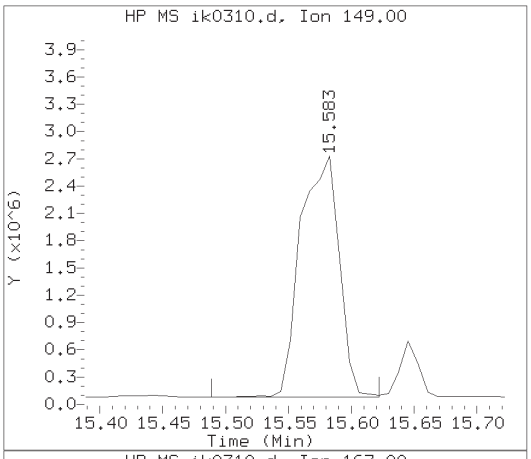
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1120
Retention Time (minutes)	: 14.158
Relative Retention Time	: 0.00070
Quant Ion	: 202.00
Area (flag)	: 1108627
On-column Amount (ng/ul)	: 2.7662

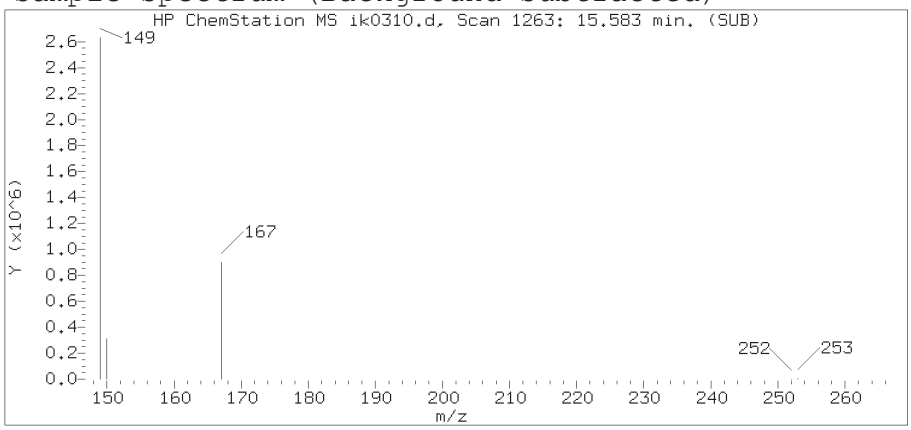
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

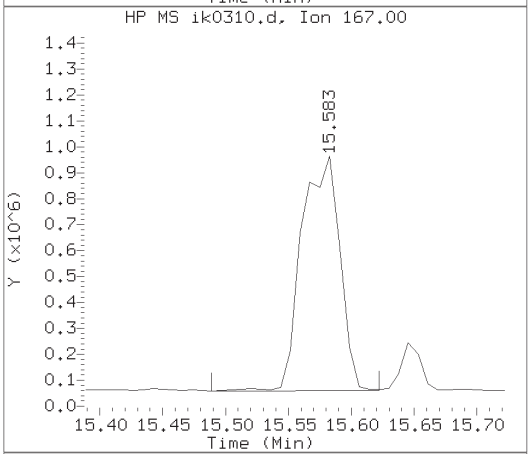
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



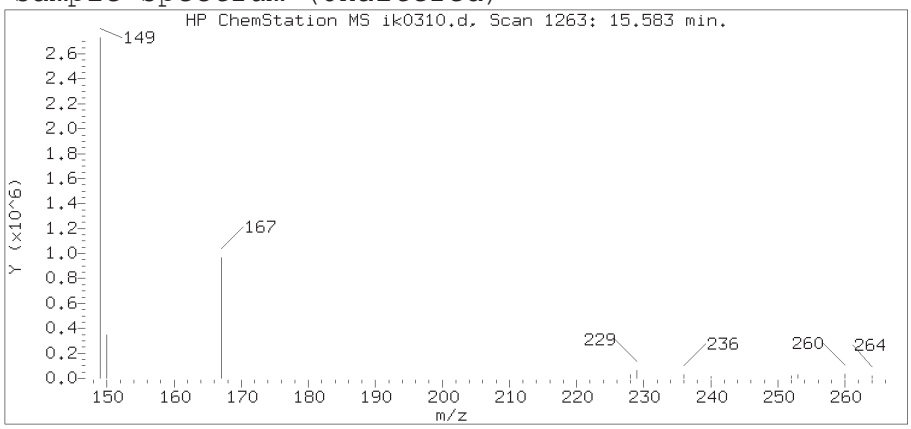


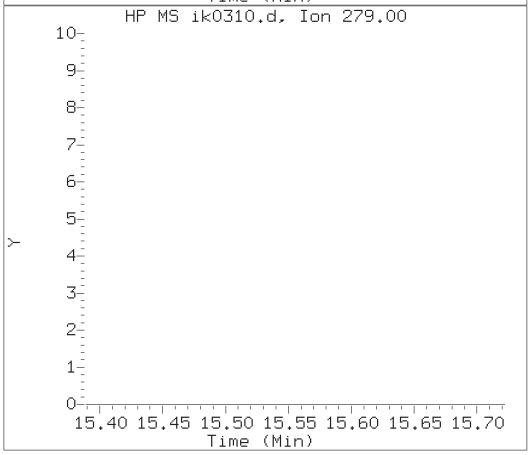
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

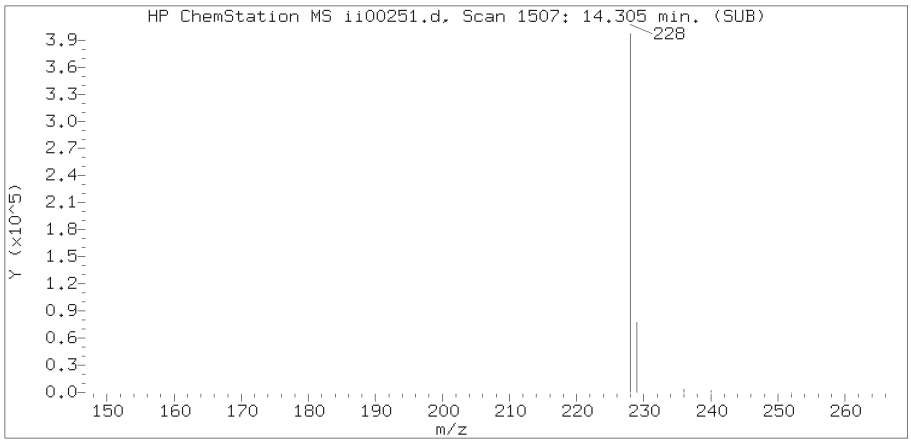
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

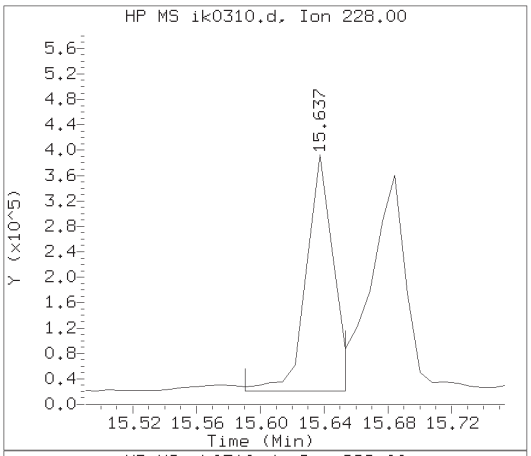
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1263
Retention Time (minutes)	: 15.583
Relative Retention Time	: 0.00099
Quant Ion	: 149.00
Area (flag)	: 5642541
On-column Amount (ng/ul)	: 29.6259

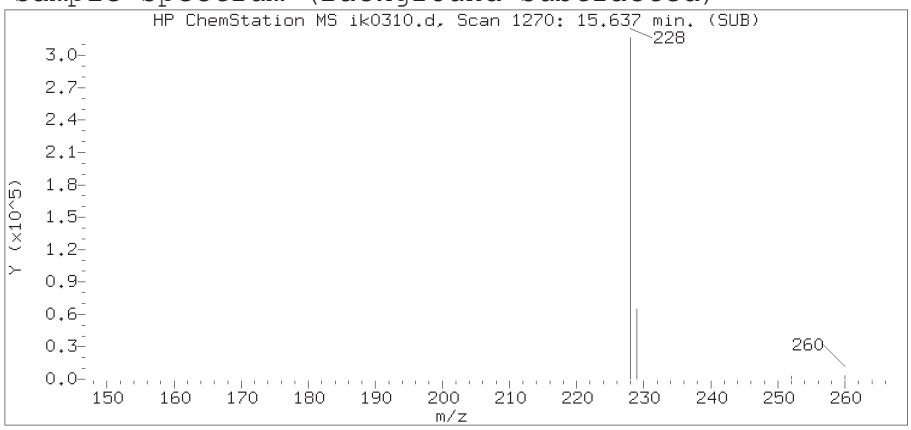
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

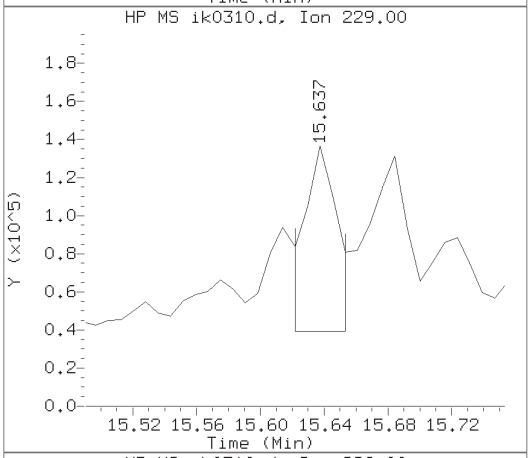
Reference Standard Spectrum for Benzo(a)anthracene



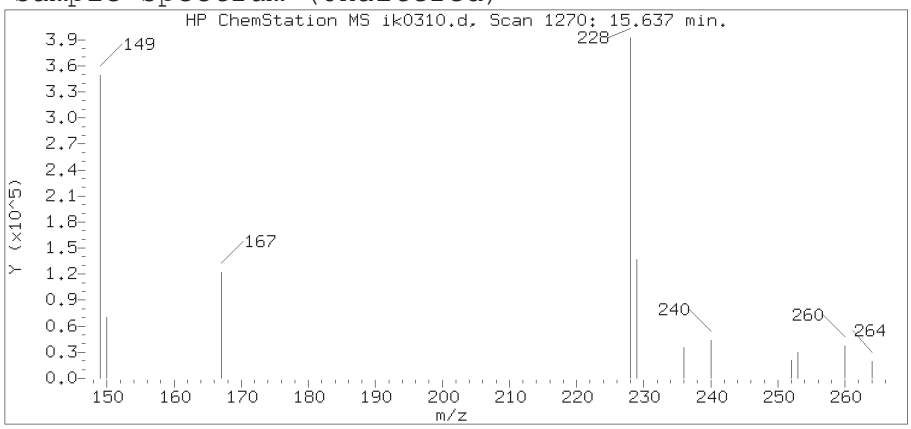


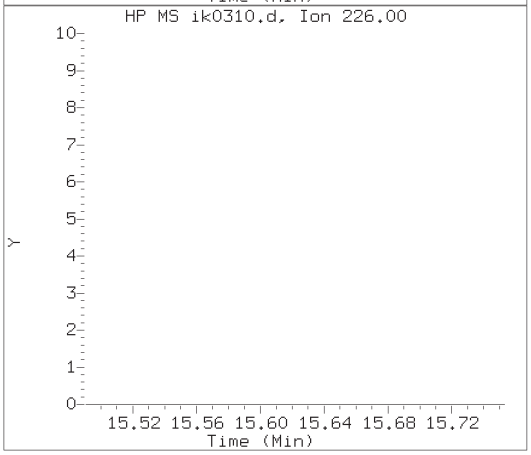
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1270
Retention Time (minutes)	: 15.637
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 427398
On-column Amount (ng/ul)	: 1.1474

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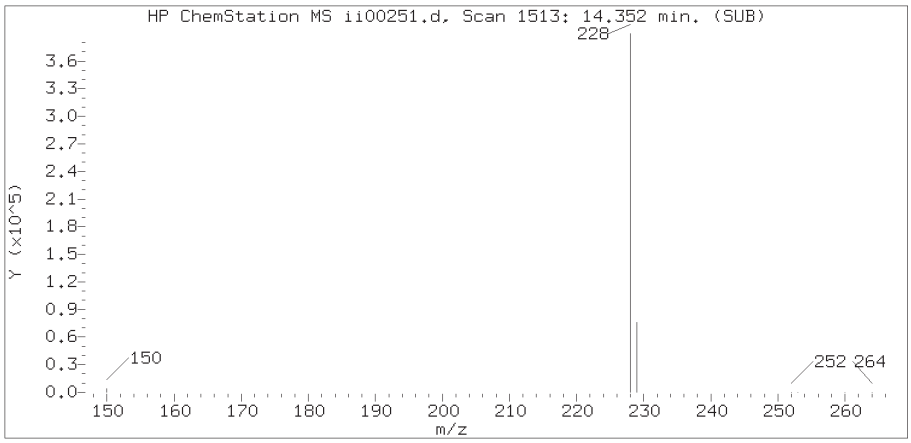
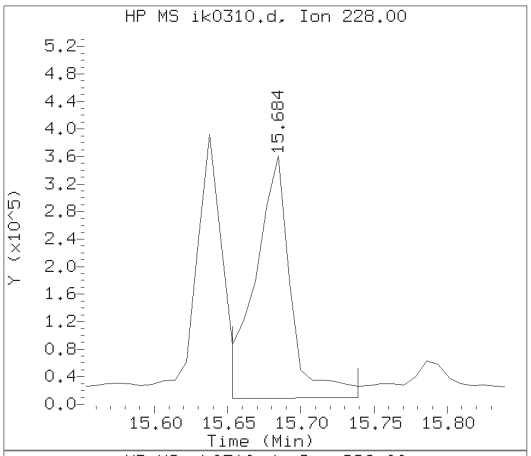
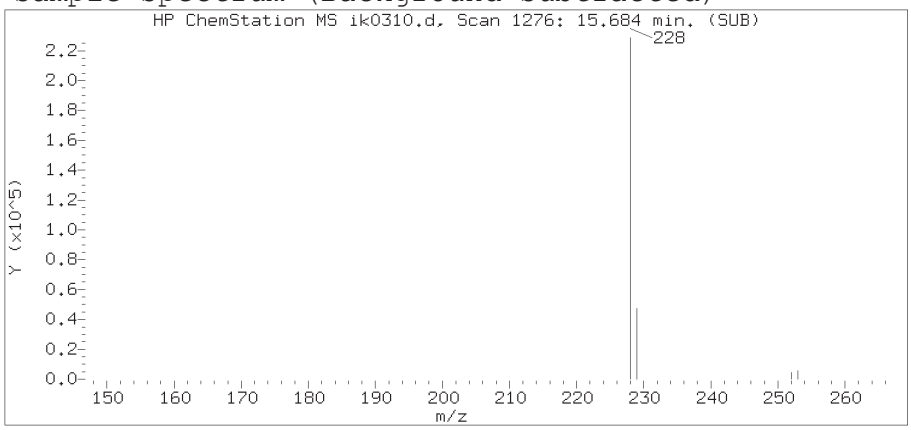
Target 3.5 esignature user ID: jmg00346

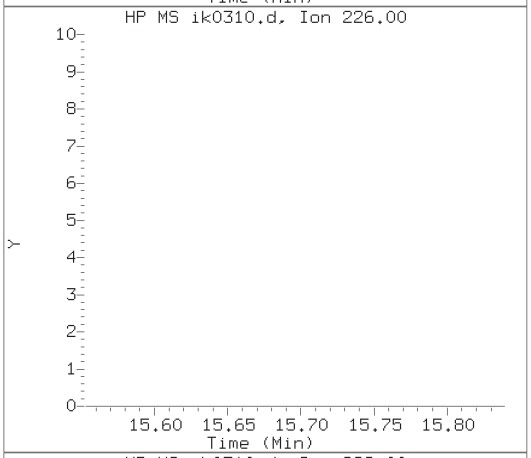
Reference Standard Spectrum for Chrysene



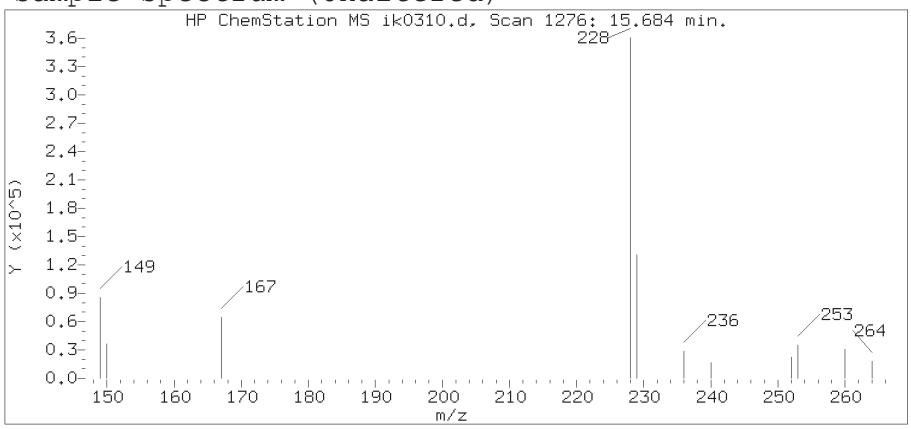


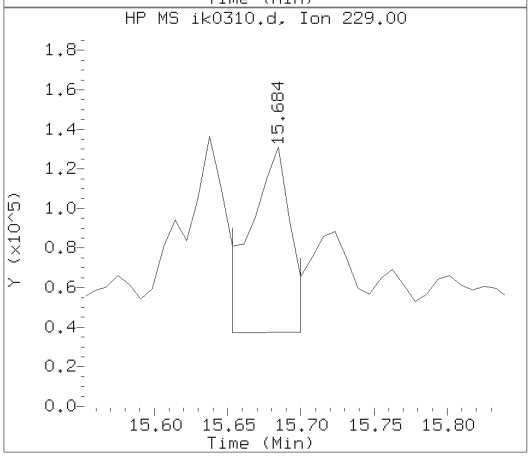
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1276
Retention Time (minutes)	: 15.684
Relative Retention Time	: 0.00001
Quant Ion	: 228.00
Area (flag)	: 602250
On-column Amount (ng/ul)	: 1.6925

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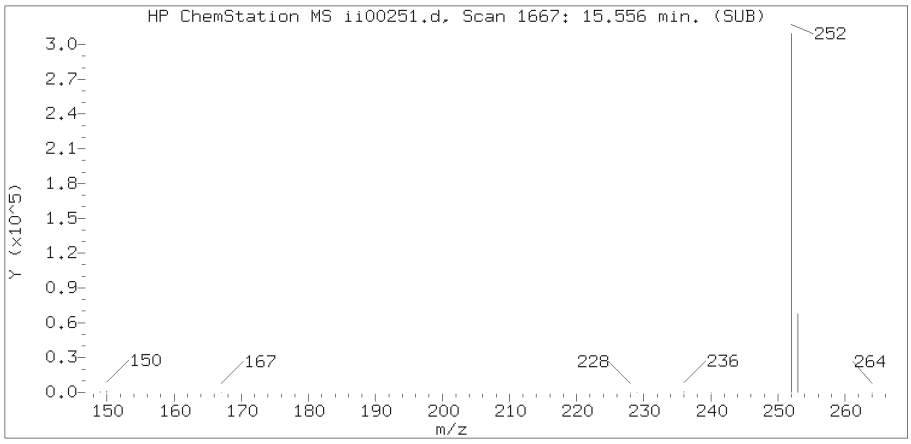
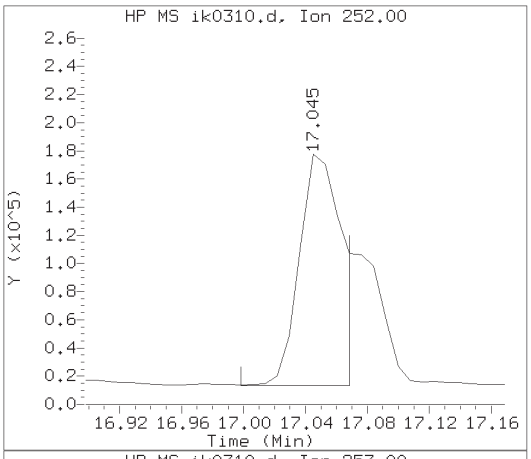
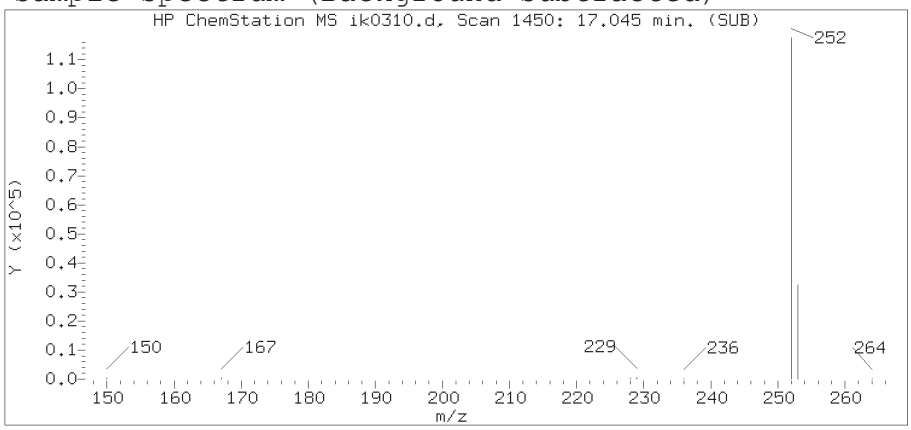
Target 3.5 esignature user ID: jmg00346

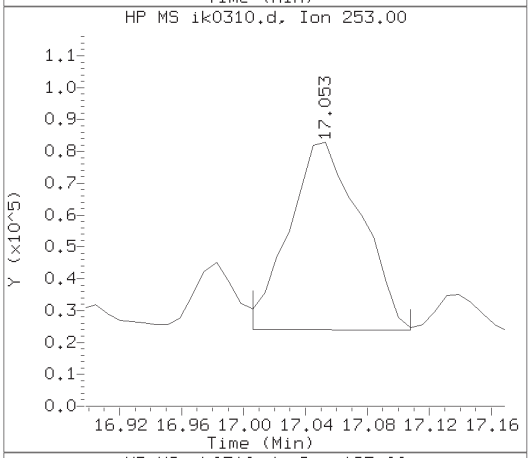
Reference Standard Spectrum for Benzo(b)fluoranthene



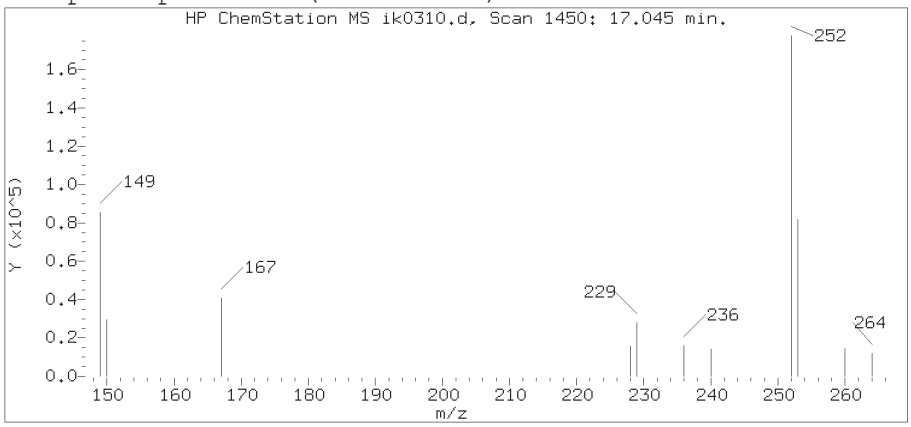


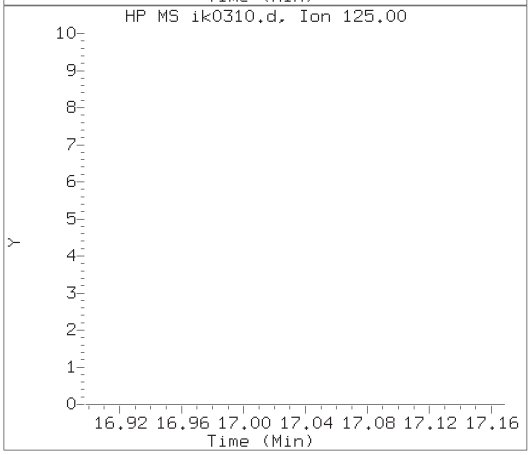
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

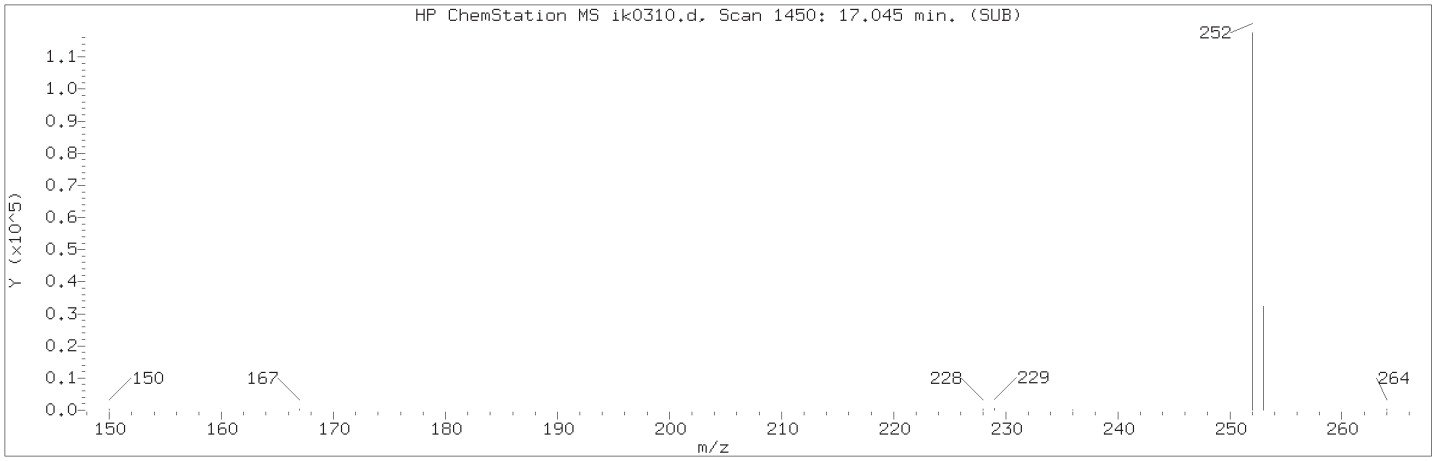
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

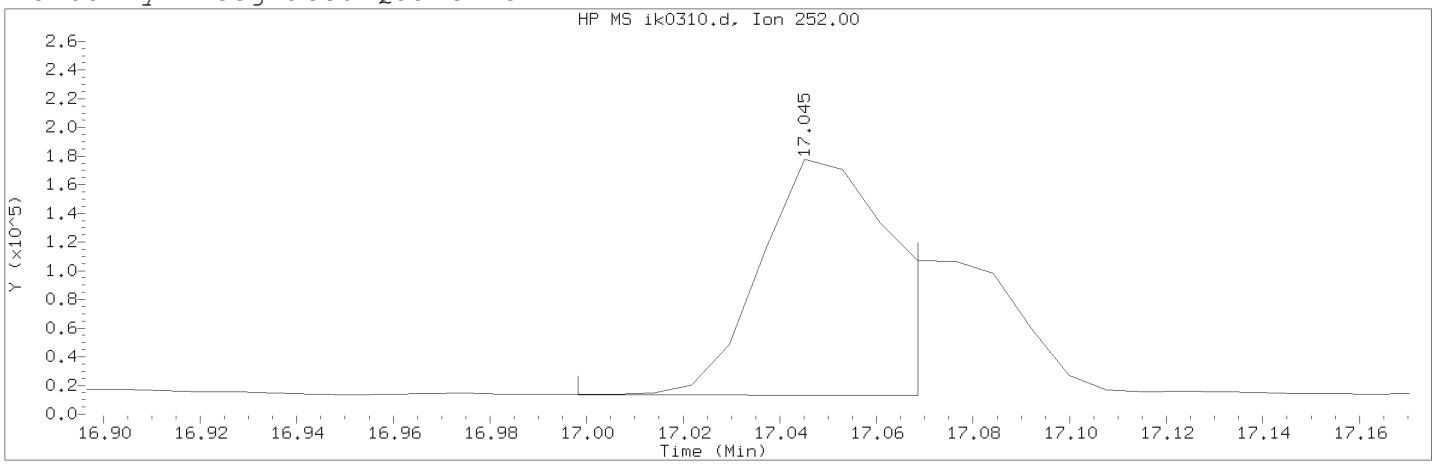
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1450
Retention Time (minutes)	: 17.045
Relative Retention Time	:-0.00010
Quant Ion	: 252.00
Area (flag)	: 320635M
On-column Amount (ng/ul)	: 1.6118

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

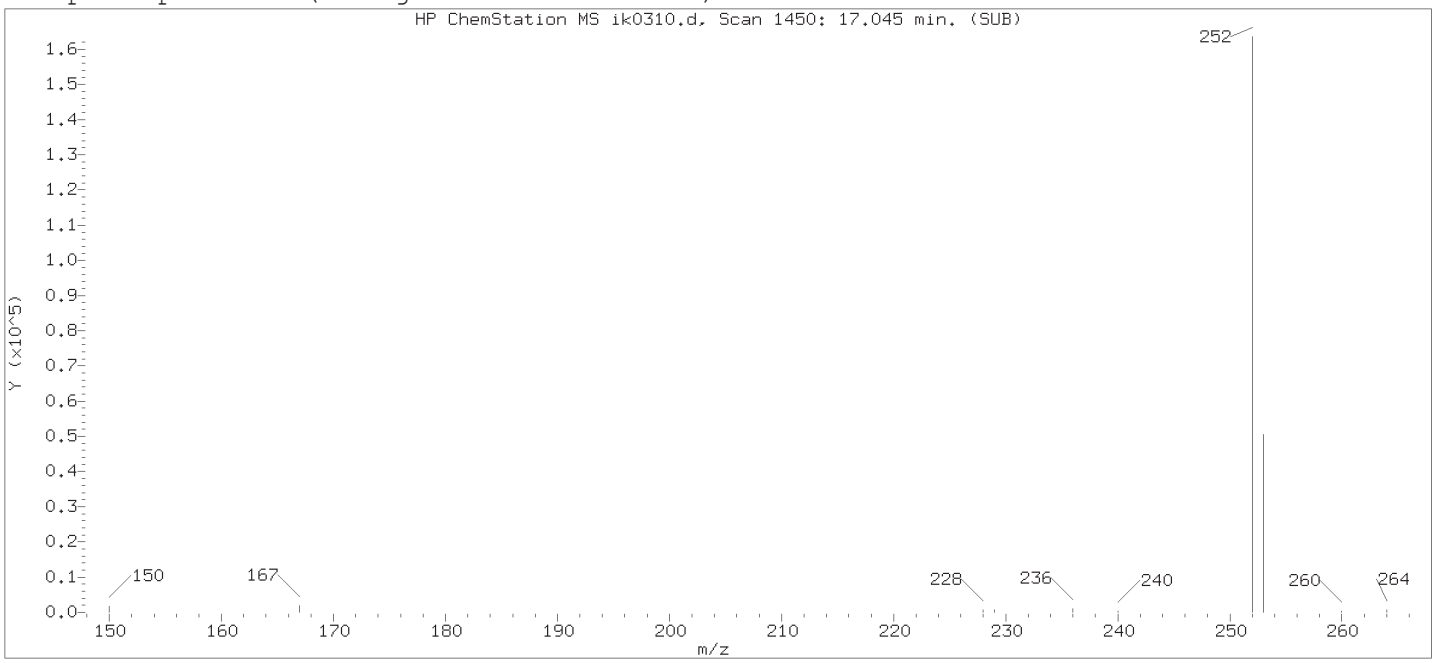
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1450
Retention Time (minutes) : 17.045
Quant Ion : 252.00
Area (flag) : 320635M
On-column Amount (ng/ul) : 1.6118
Integration start scan : 1443 Integration stop scan: 1452
Y at integration start : 13440 Y at integration end: 13186

Reason for manual integration: improper integration

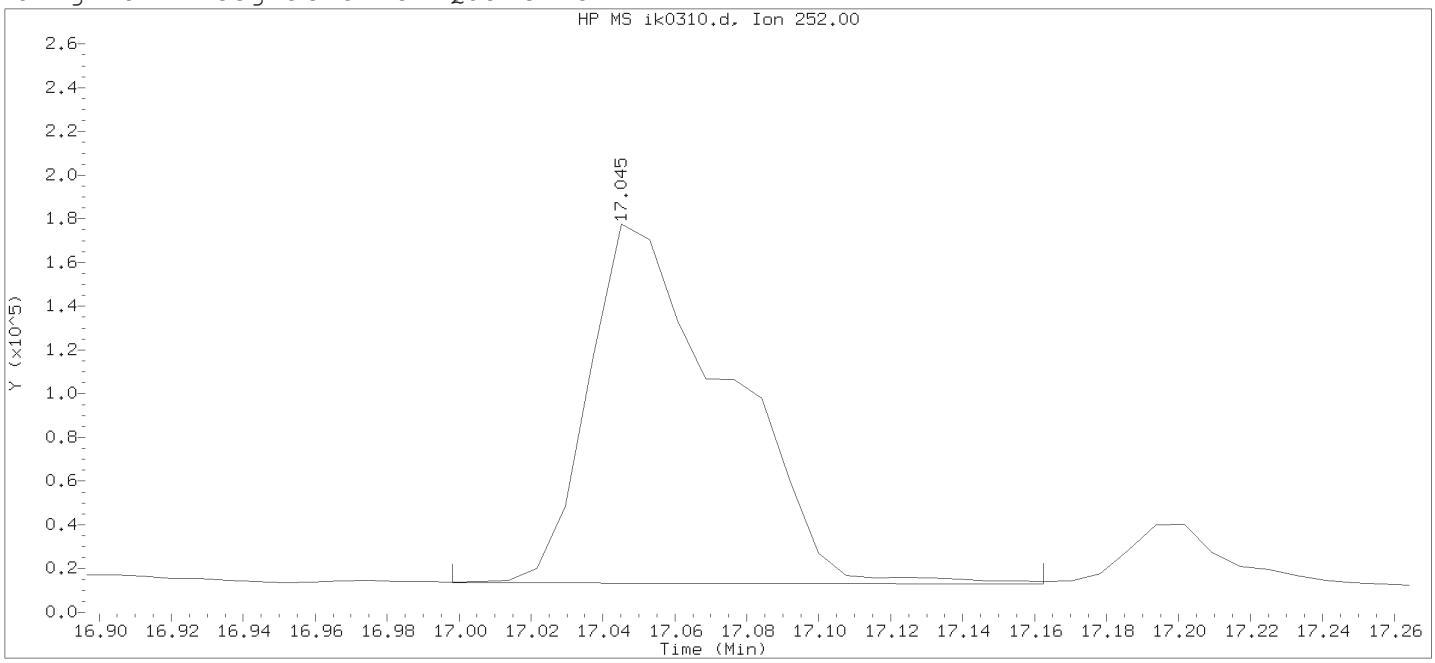
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

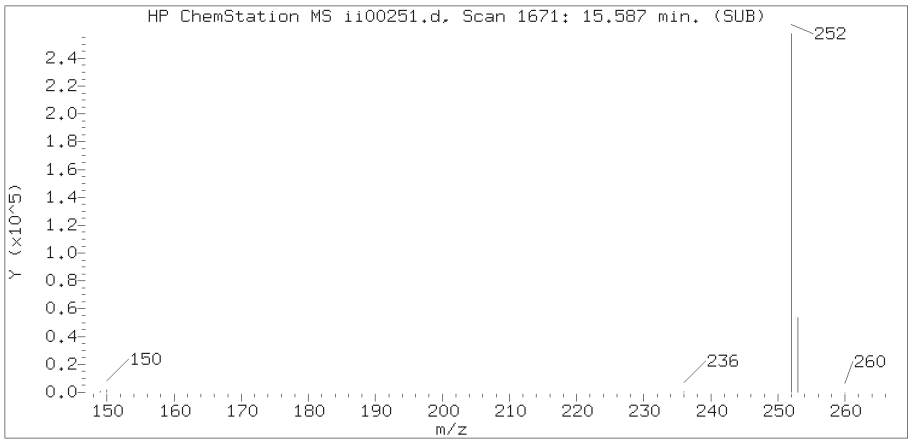
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:25 jmg00346

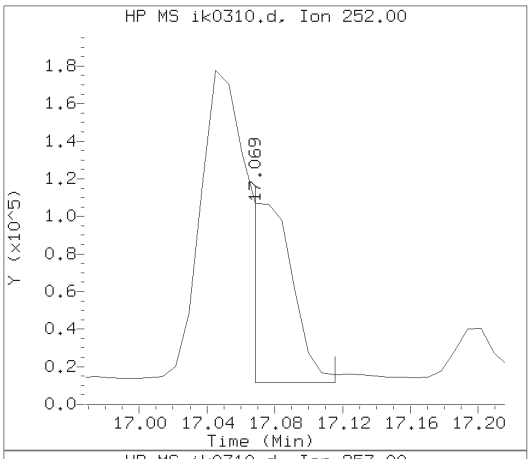
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1450
Retention Time (minutes)	: 17.045
Quant Ion	: 252.00
Area	: 440968
On-column Amount (ng/ul)	: 2.2166
Integration start scan	: 1443 Integration stop scan: 1464
Y at integration start	: 13440 Y at integration end: 12845

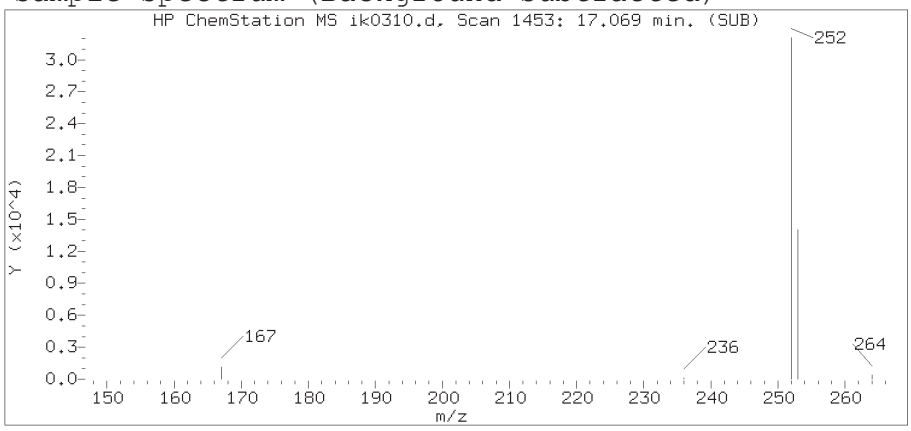
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature used: D12 Page 2883

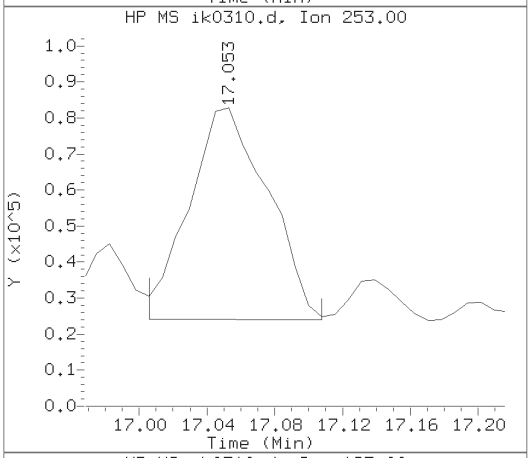
Reference Standard Spectrum for Benzo(k)fluoranthene



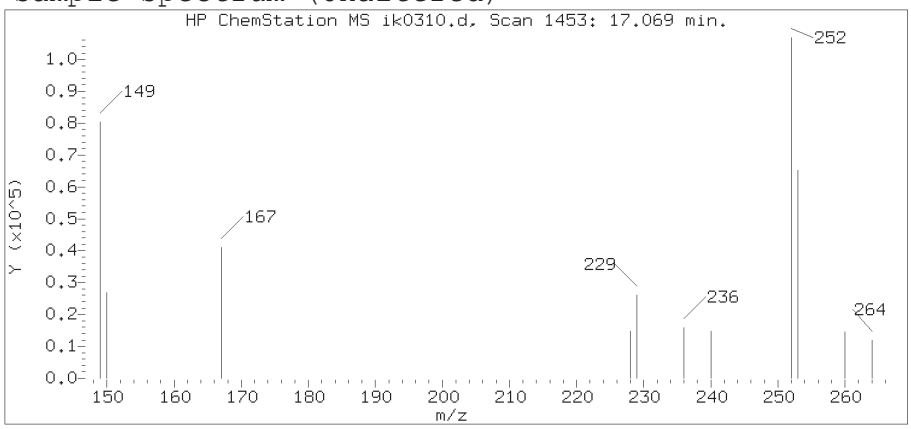


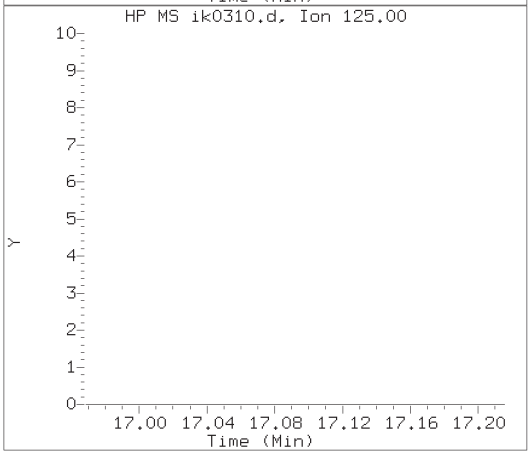
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

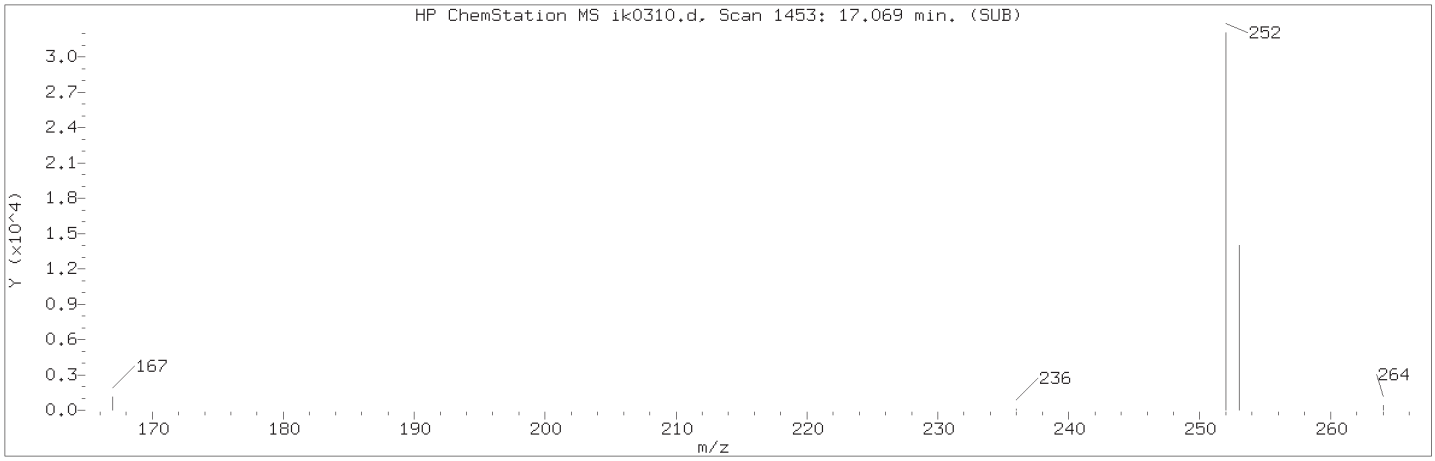
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

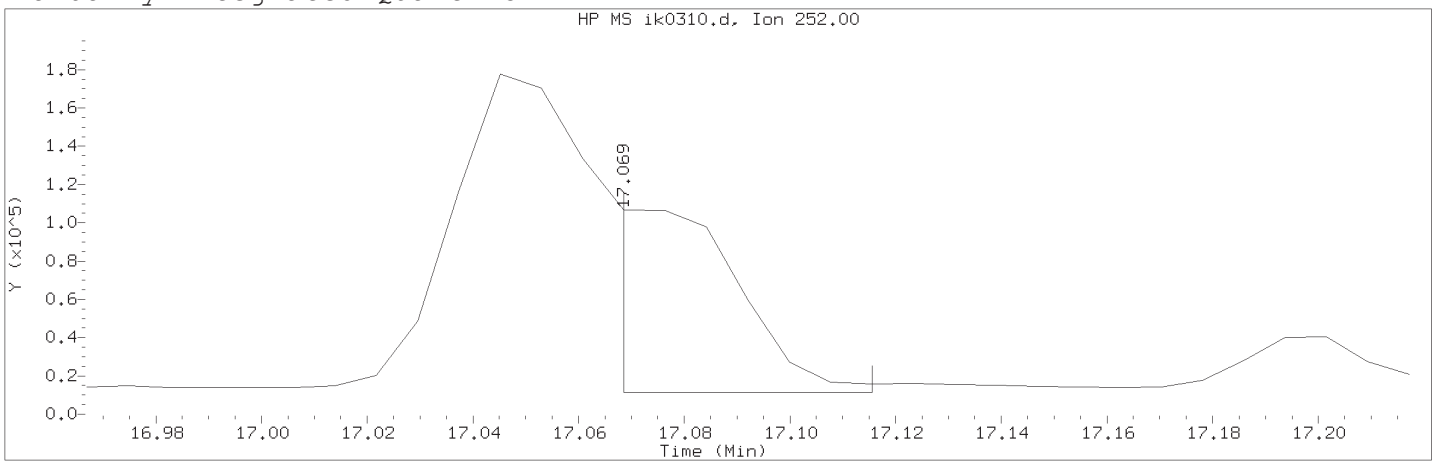
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1453
Retention Time (minutes)	: 17.069
Relative Retention Time	: 0.00079
Quant Ion	: 252.00
Area (flag)	: 164333M
On-column Amount (ng/ul)	: 0.8812

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

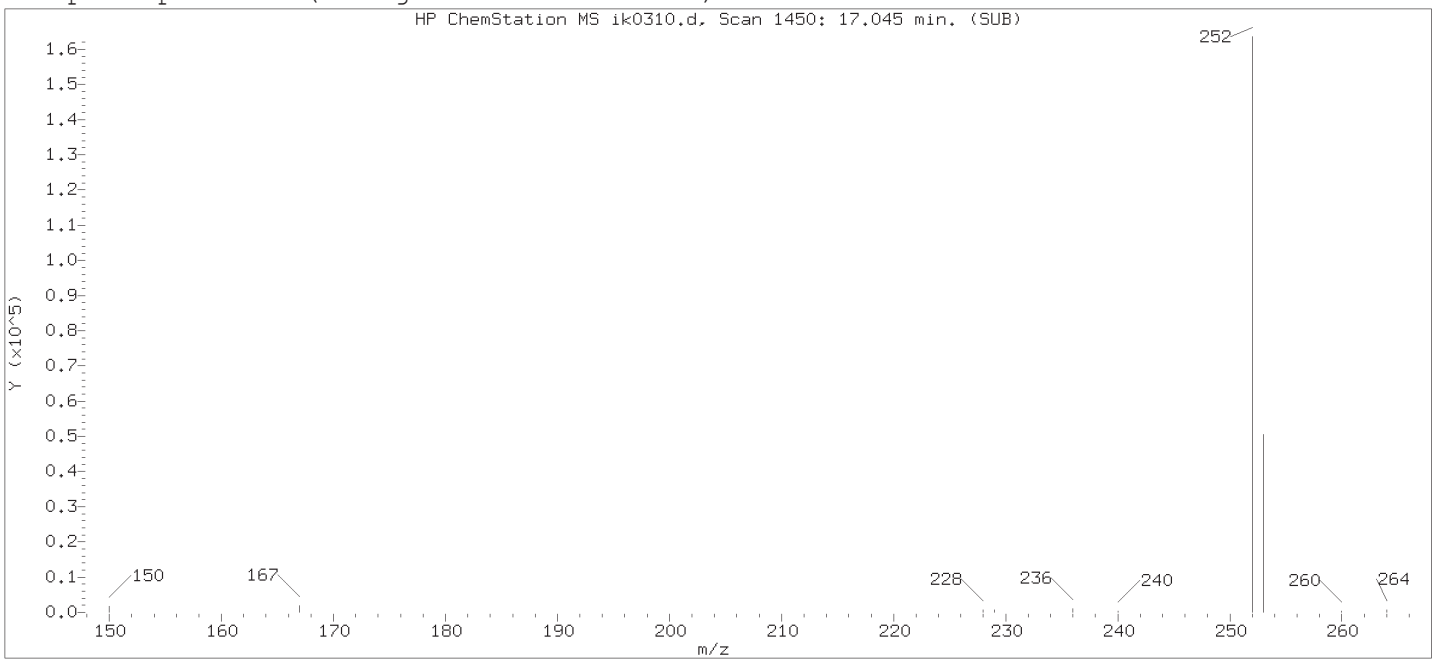
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1453
Retention Time (minutes) : 17.069
Quant Ion : 252.00
Area (flag) : 164333M
On-column Amount (ng/ul) : 0.8812
Integration start scan : 1452 Integration stop scan: 1458
Y at integration start : 11469 Y at integration end: 11469

Reason for manual integration: improper integration

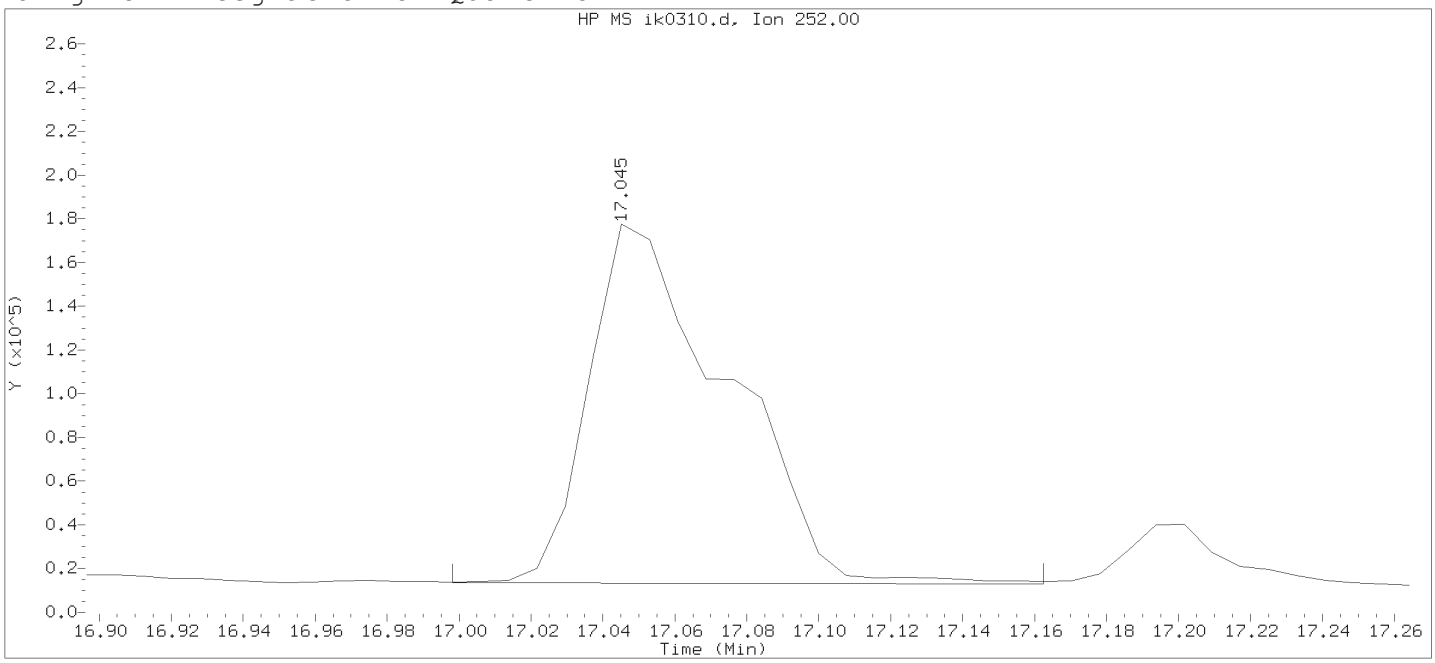
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

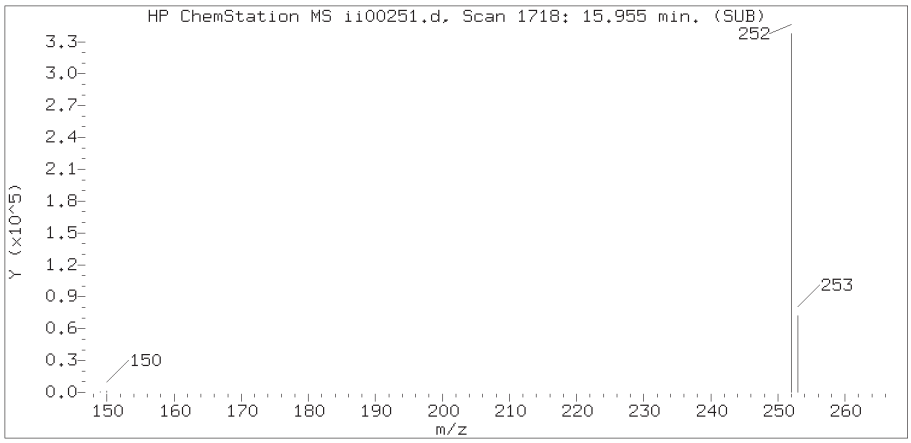
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:25 jmg00346

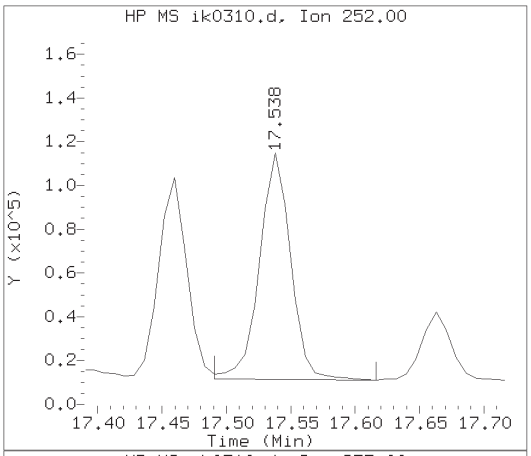
Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1450
Retention Time (minutes)	: 17.045
Quant Ion	: 252.00
Area	: 440968
On-column Amount (ng/ul)	: 2.3646
Integration start scan	: 1443 Integration stop scan: 1464
Y at integration start	: 13440 Y at integration end: 12845

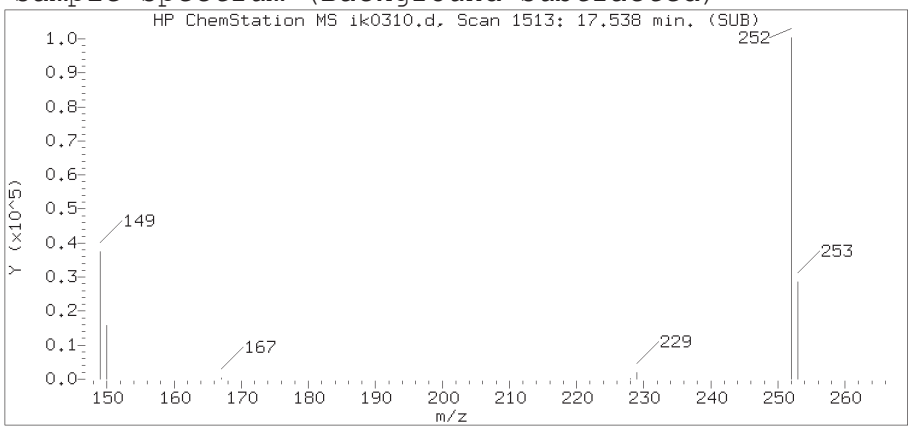
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature used: 0.0 Page 2886

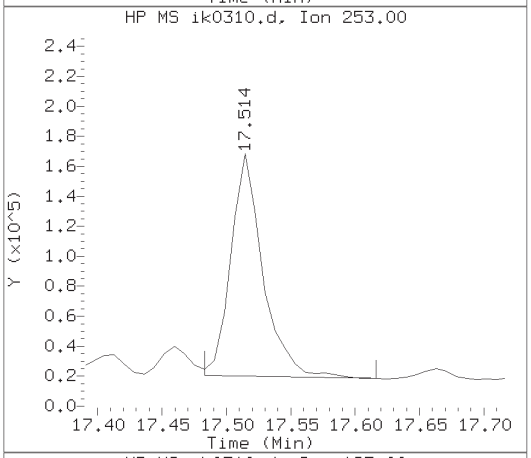
Reference Standard Spectrum for Benzo(a)pyrene



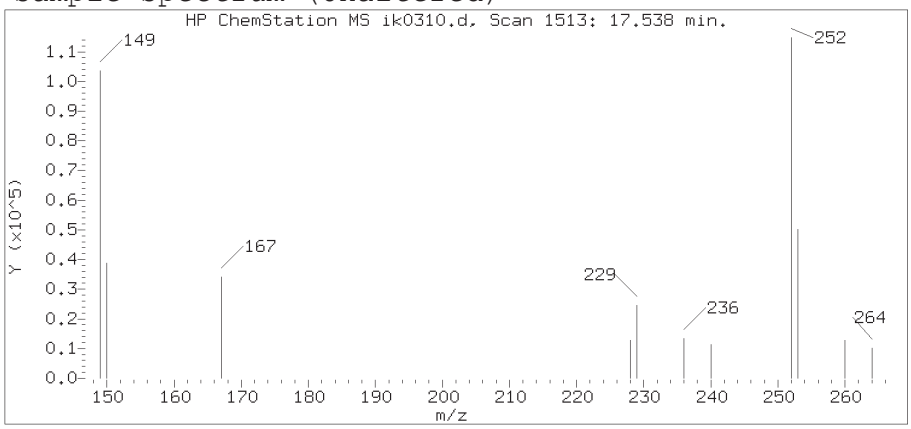


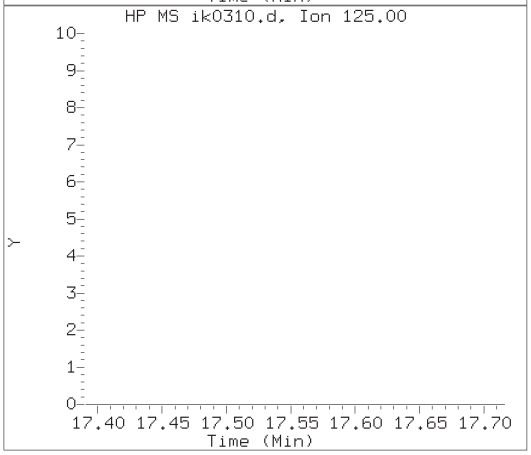
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1513
Retention Time (minutes)	: 17.538
Relative Retention Time	:-0.00002
Quant Ion	: 252.00
Area (flag)	: 173412
On-column Amount (ng/ul)	: 1.0171

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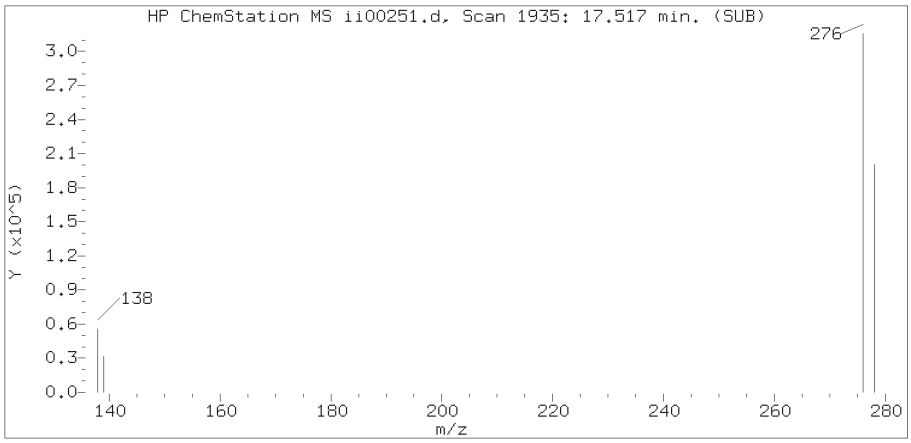
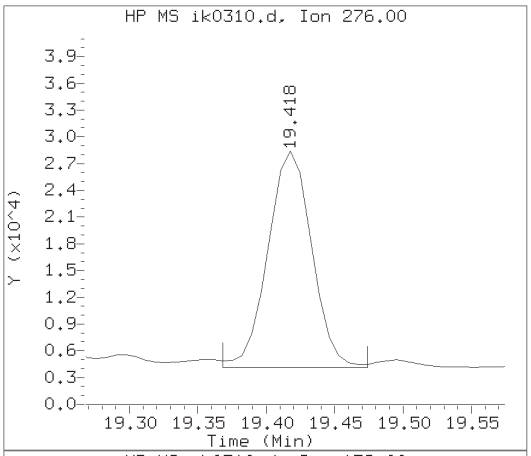
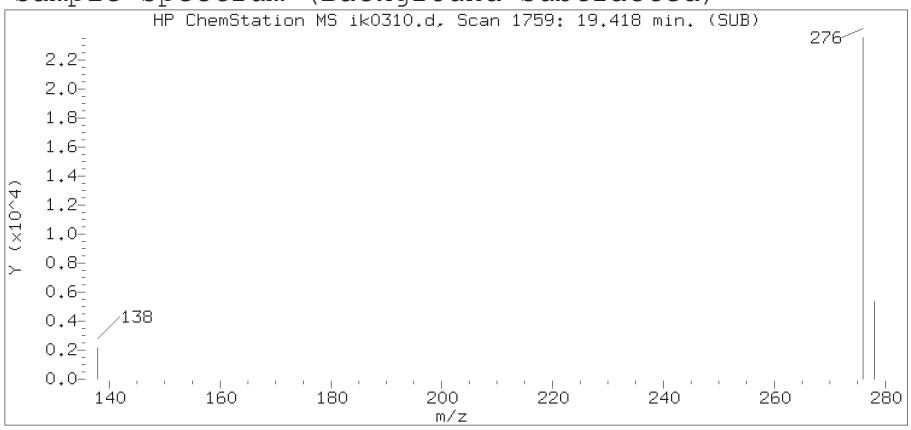
Target 3.5 esignature user ID: jmg00346

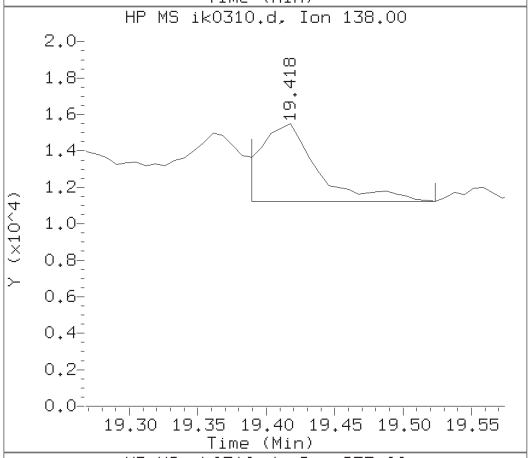
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



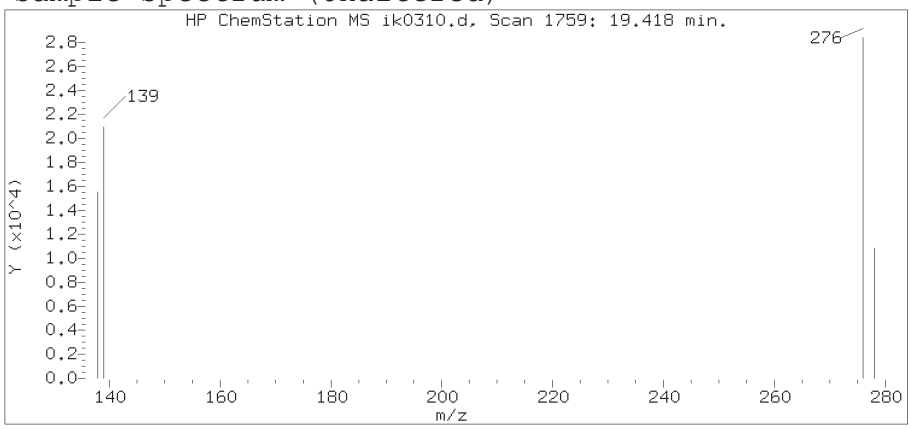


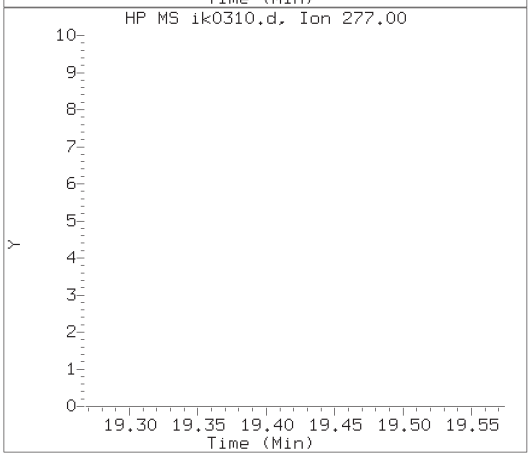
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1759
Retention Time (minutes)	: 19.418
Relative Retention Time	:-0.00059
Quant Ion	: 276.00
Area (flag)	: 54048
On-column Amount (ng/ul)	: 0.2688

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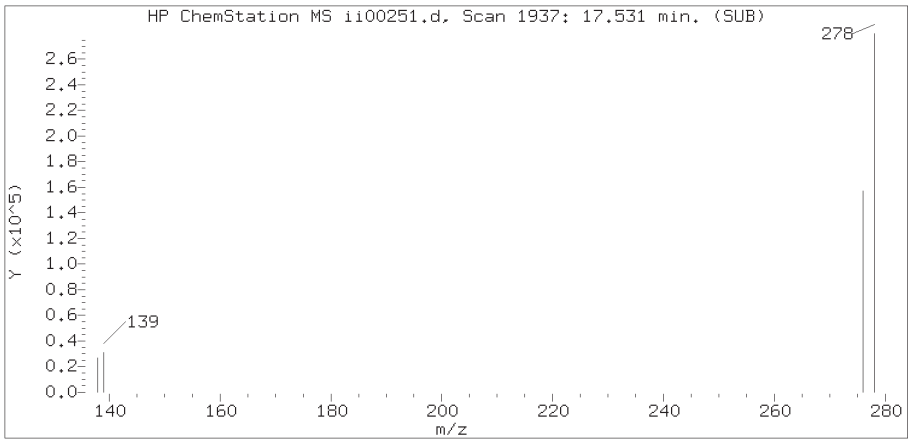
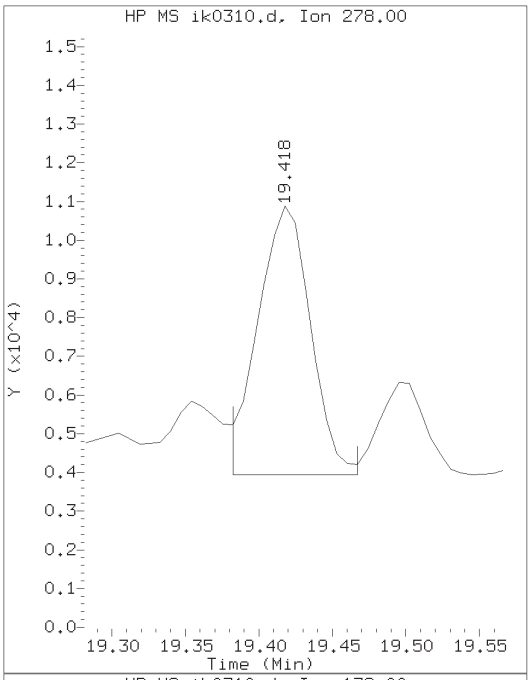
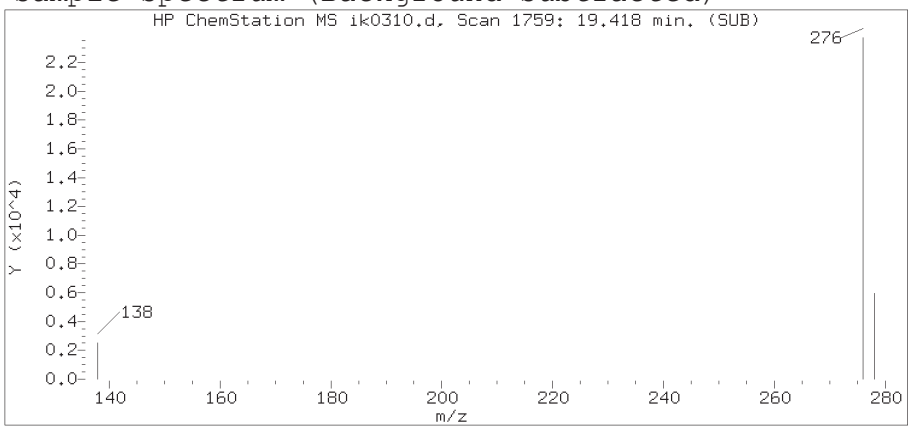
Target 3.5 esignature user ID: jmg00346

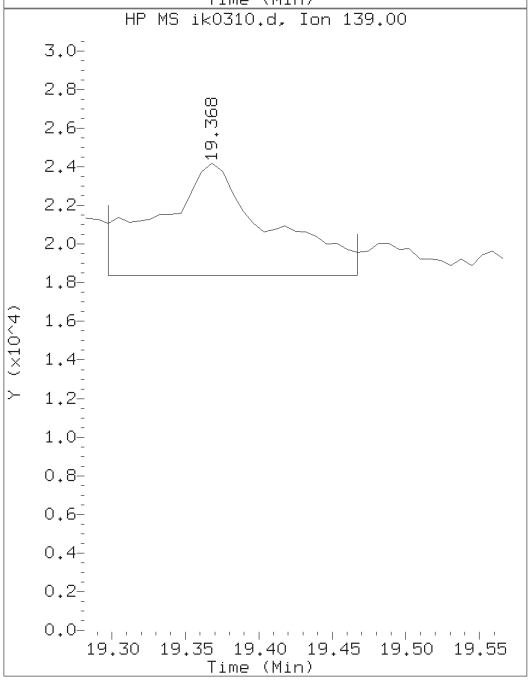
Reference Standard Spectrum for Dibenz(a,h)anthracene



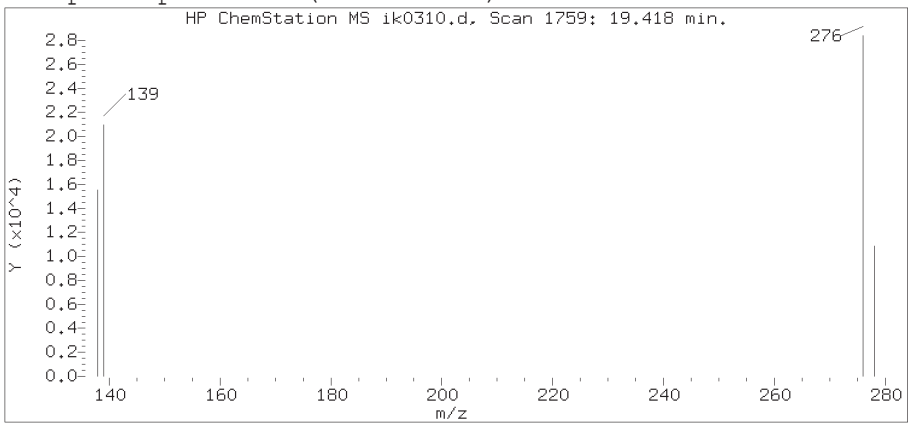


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1759
Retention Time (minutes)	: 19.418
Relative Retention Time	:-0.00018
Quant Ion	: 278.00
Area (flag)	: 17223
On-column Amount (ng/ul)	: 0.1049

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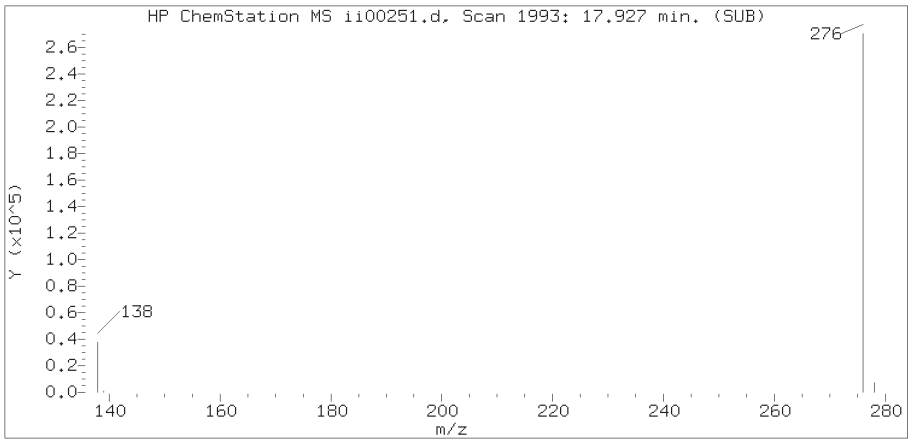
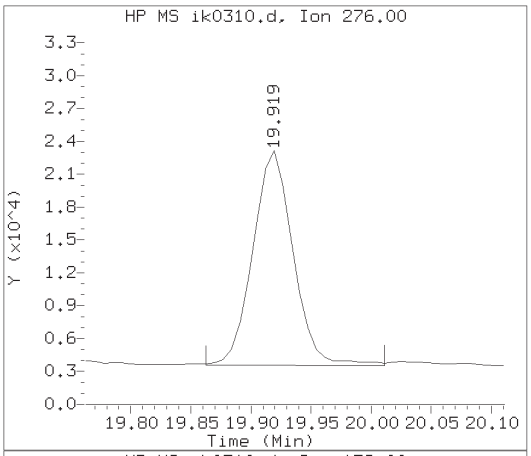
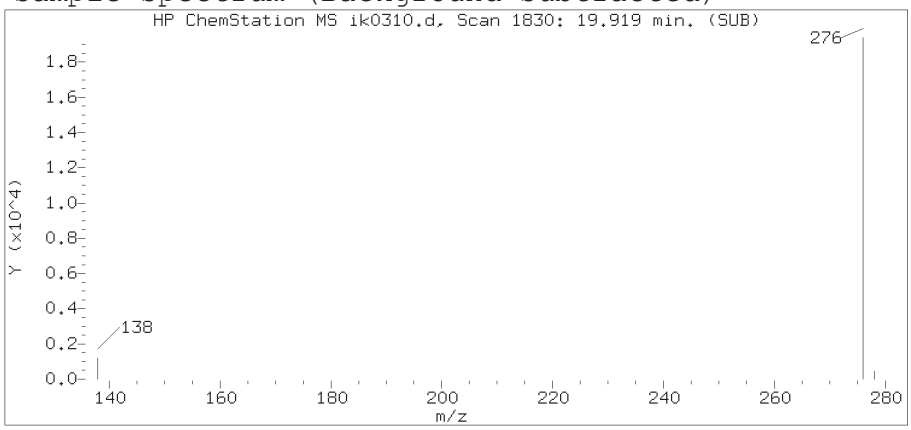
Target 3.5 esignature user ID: jmg00346

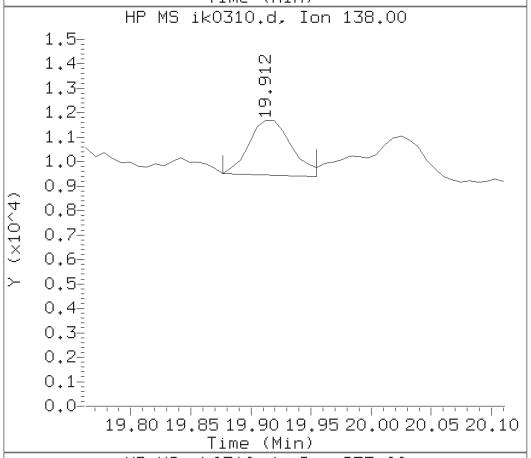
Reference Standard Spectrum for Benzo(g,h,i)perylene



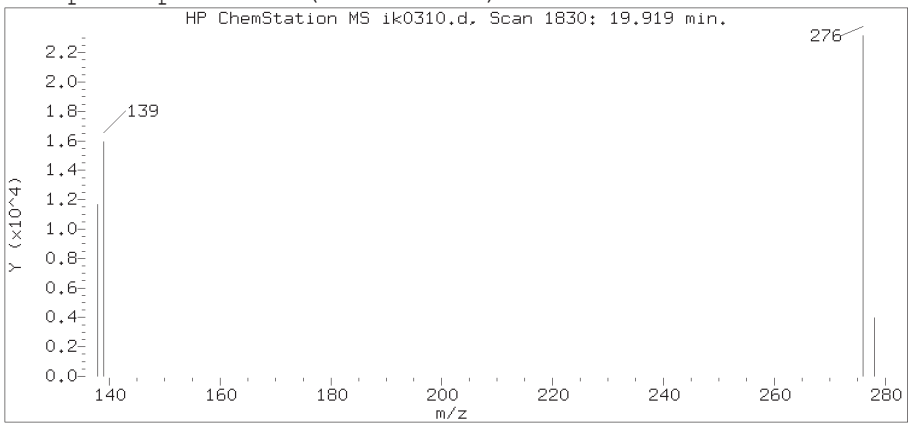


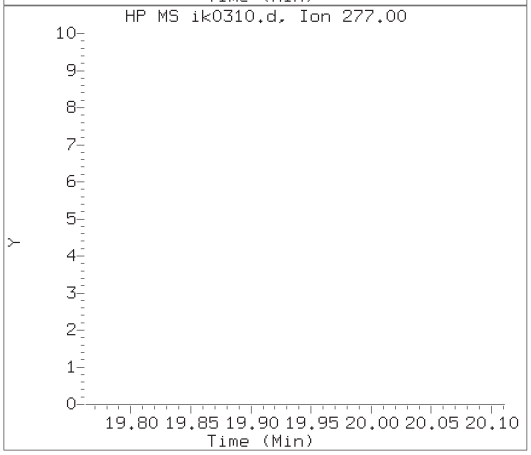
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0310.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:26 jmg00346

Sample Name: 12T06 Lab Sample ID: 9872064

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1830
Retention Time (minutes)	: 19.919
Relative Retention Time	:-0.00090
Quant Ion	: 276.00
Area (flag)	: 45765
On-column Amount (ng/ul)	: 0.2589

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:31.
Target 3.5 esignature user ID: jmg00346

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10976.i/18nov08.b/ik0363.d Injection date and time: **08-NOV-2018 13:34**
Data file Sample Info. Line: 12T06DL;9872064DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 08-NOV-2018 11:10
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov08.b/ik0351.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 100 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.23 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.794	(0.000)	499	152	81871	(16)	1.00	
10) Naphthalene-d8	8.320	(-0.013)	614	136	297227	(14)	1.00	
20) Acenaphthene-d10	10.476	(-0.008)	801	164	179757M	(12)	1.00	
31) Phenanthrene-d10	12.321	(-0.009)	966	188	407297	(16)	1.00	
43) Chrysene-d12	15.606	(-0.009)	1266	240	457376	(26)	1.00	
51) Perylene-d12	17.561	(-0.025)	1516	264	304795	(-16)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.259	(0.001)	152	1775M	0.010	98%		61 - 111
36) Fluoranthene-d10	(4)	13.816	(0.000)	212	6094M	0.012	121%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.444	(0.000)	264	2204	0.008	76%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)				Not Detected					0.02
11) Naphthalene	(2)	8.346	(0.000)	128	215074	0.703	2324.49	31.312	B	0.04
19) Acenaphthylene	(3)	10.302	(-0.000)	152	3668	0.011	35.24			0.01
21) Acenaphthene	(3)	10.519	(0.000)	154	37134M	0.164	542.60	1.723	B	0.02
26) Fluorene	(3)	11.152	(0.000)	166	39984	0.144	474.72	1.949	B	0.02
32) Phenanthrene	(4)	12.354	(0.000)	178	89905	0.204	675.86	2.56	B	0.02
33) Anthracene	(4)	12.422	(0.000)	178	34048	0.077	255.57	0.732	B	0.02
35) Di-n-butylphthalate	(4)	12.998	(0.000)	149	111878	0.266	878.99			0.2
37) Fluoranthene	(4)	13.840	(0.000)	202	203693M	0.372	1229.88			0.02
39) Pyrene	(5)	14.121	(-0.000)	202	188769M	0.298	986.35			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.536	(0.000)	149	616303M	2.048	6776.24			0.3
42) Benzo(a)anthracene	(5)	15.591	(-0.000)	228	75329M	0.128	423.48			0.02
44) Chrysene	(5)	15.638	(0.000)	228	89093M	0.159	524.32			0.01
46) Benzo(b)fluoranthene	(6)	16.990	(-0.000)	252	62947M	0.166	549.30			0.02
47) Benzo(k)fluoranthene	(6)	17.022	(0.000)	252	27559M	0.078	256.54			0.02
50) Benzo(a)pyrene	(6)	17.475	(-0.000)	252	34041	0.105	346.61			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.347	(-0.000)	276	11123M	0.029	96.04			0.02
54) Dibenz(a,h)anthracene	(6)				Not Detected					0.02
55) Benzo(g,h,i)perylene	(6)	19.842	(-0.000)	276	9757M	0.029	95.82			0.02

B = Compound detected in referenced method blank. M = Compound was manually integrated.

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10976.i/18nov08.b/ik0363.d Injection date and time: **08-NOV-2018 13:34**
Data file Sample Info. Line: 12T06DL;9872064DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 08-NOV-2018 11:10
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov08.b/ik0351.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 100 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.23 g

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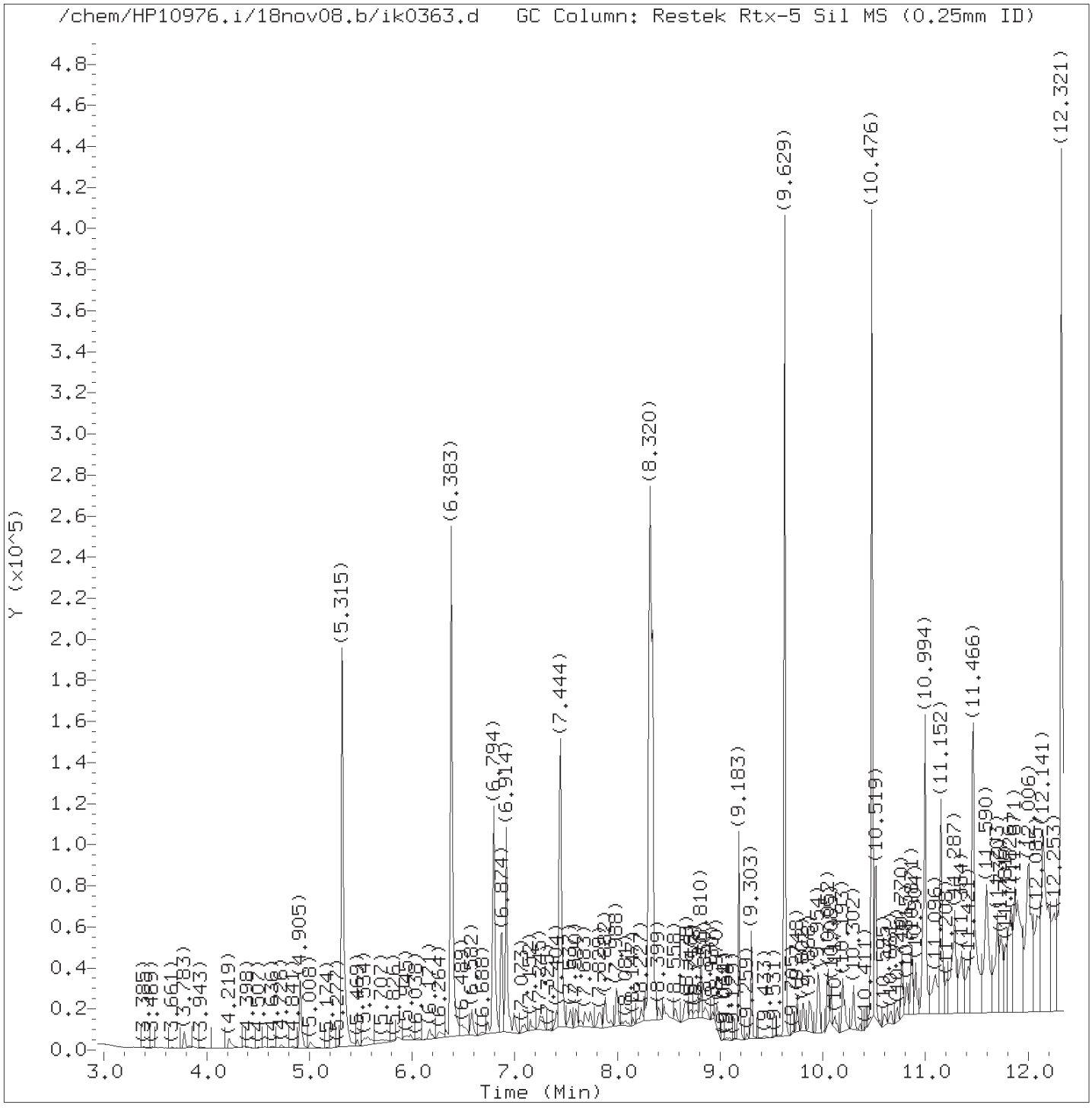
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

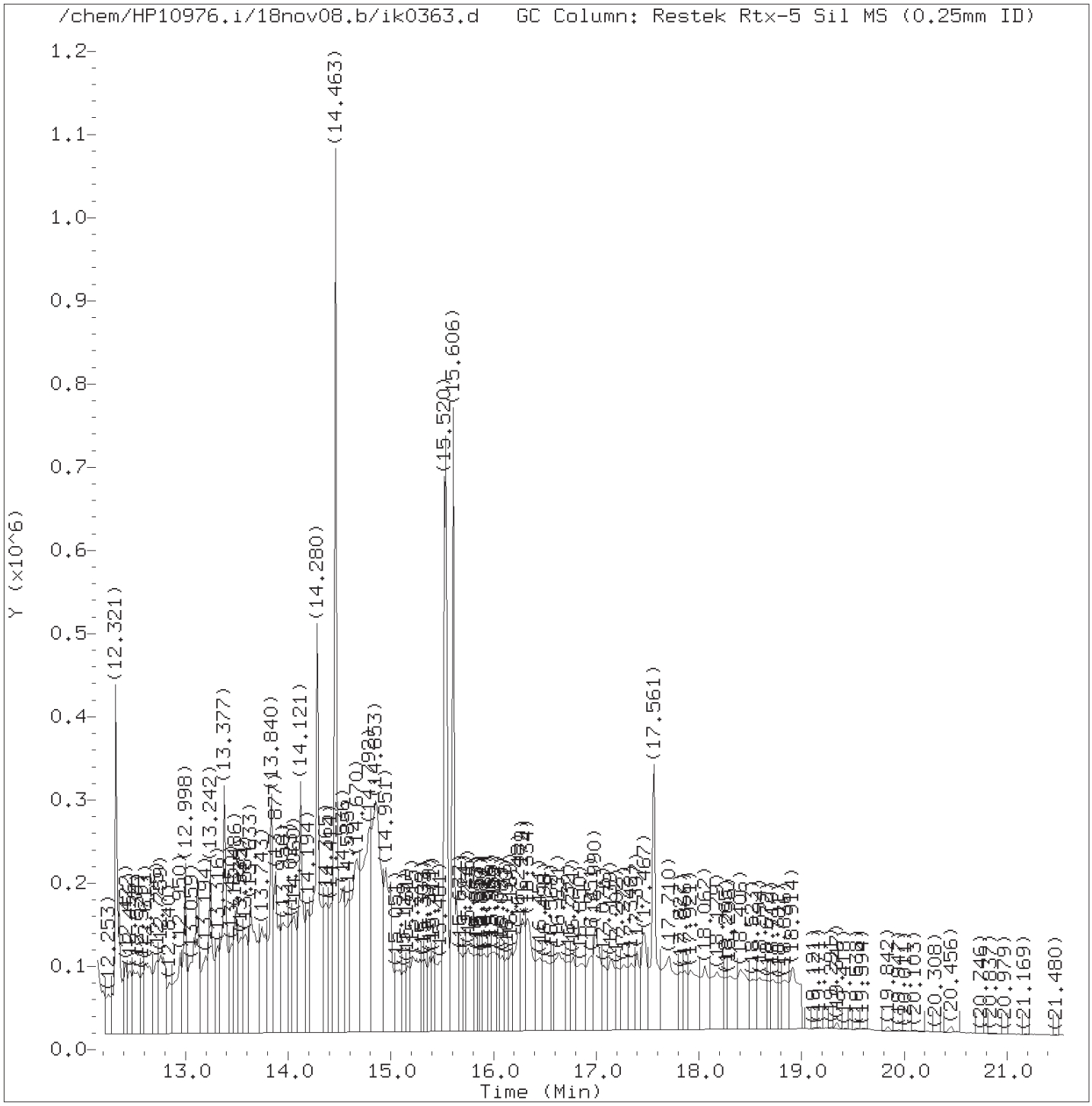
Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

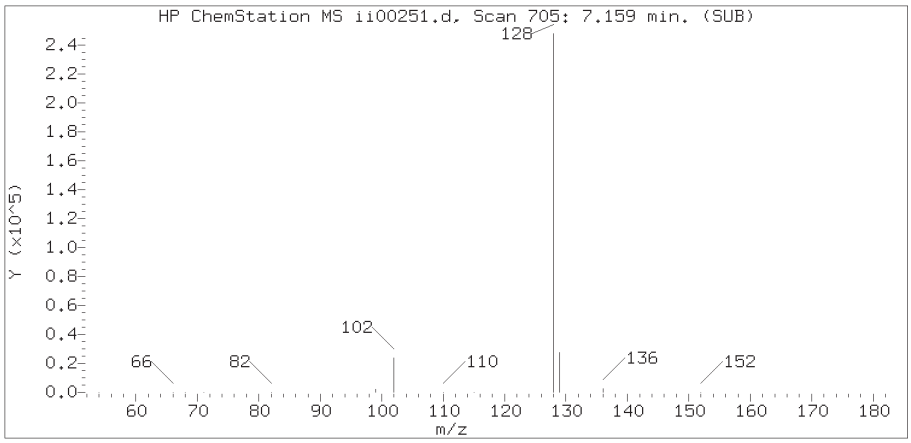
Sample Name: 12T06DL Lab Sample ID: 9872064DL

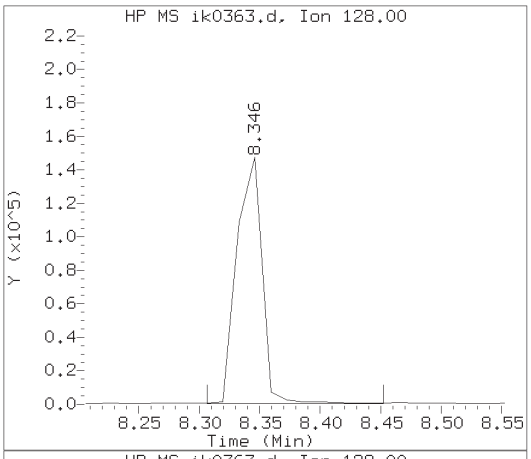
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.794	152	81871	1.000
10)*Naphthalene-d8	(2)	8.320	136	297227	1.000
11) Naphthalene	(2)	8.346	128	215074	0.703
14)$1-Methylnaphthalene-d10	(2)	9.259	152	1775M	0.010
19) Acenaphthylene	(3)	10.302	152	3668	0.011
20)*Acenaphthene-d10	(3)	10.476	164	179757M	1.000
21) Acenaphthene	(3)	10.519	154	37134M	0.164
26) Fluorene	(3)	11.152	166	39984	0.144
31)*Phenanthrene-d10	(4)	12.321	188	407297	1.000
32) Phenanthrene	(4)	12.354	178	89905	0.204
33) Anthracene	(4)	12.422	178	34048	0.077
35) Di-n-butylphthalate	(4)	12.998	149	111878	0.266
36)$Fluoranthene-d10	(4)	13.816	212	6094M	0.012
37) Fluoranthene	(4)	13.840	202	203693M	0.372
39) Pyrene	(5)	14.121	202	188769M	0.298
41) bis(2-Ethylhexyl)phthalate	(5)	15.536	149	616303M	2.048
42) Benzo(a)anthracene	(5)	15.591	228	75329M	0.128
43)*Chrysene-d12	(5)	15.606	240	457376	1.000
44) Chrysene	(5)	15.638	228	89093M	0.159
46) Benzo(b)fluoranthene	(6)	16.990	252	62947M	0.166
47) Benzo(k)fluoranthene	(6)	17.022	252	27559M	0.078
49)$Benzo(a)pyrene-d12	(6)	17.444	264	2204	0.008
50) Benzo(a)pyrene	(6)	17.475	252	34041	0.105
51)*Perylene-d12	(6)	17.561	264	304795	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.347	276	11123M	0.029
55) Benzo(g,h,i)perylene	(6)	19.842	276	9757M	0.029

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

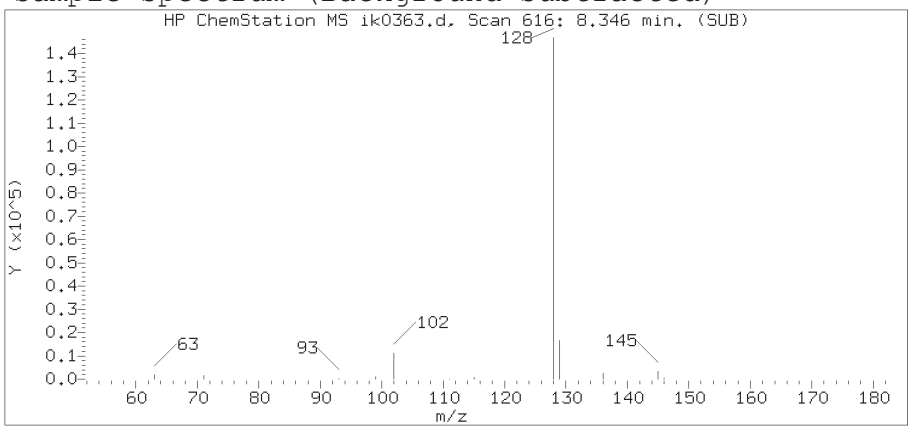
Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

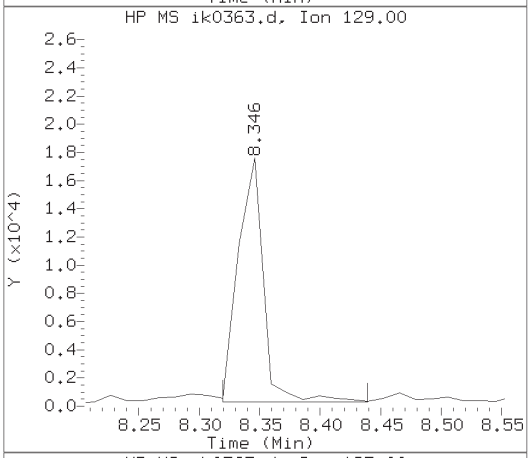
Reference Standard Spectrum for Naphthalene



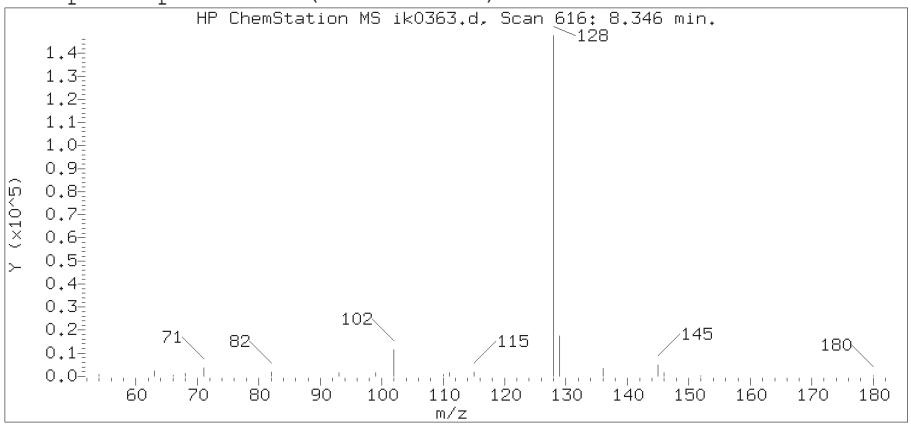


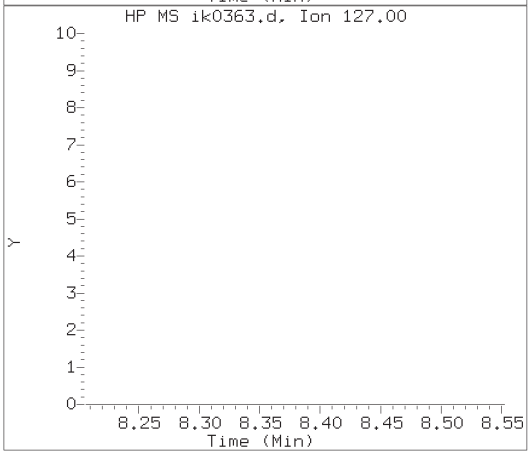
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

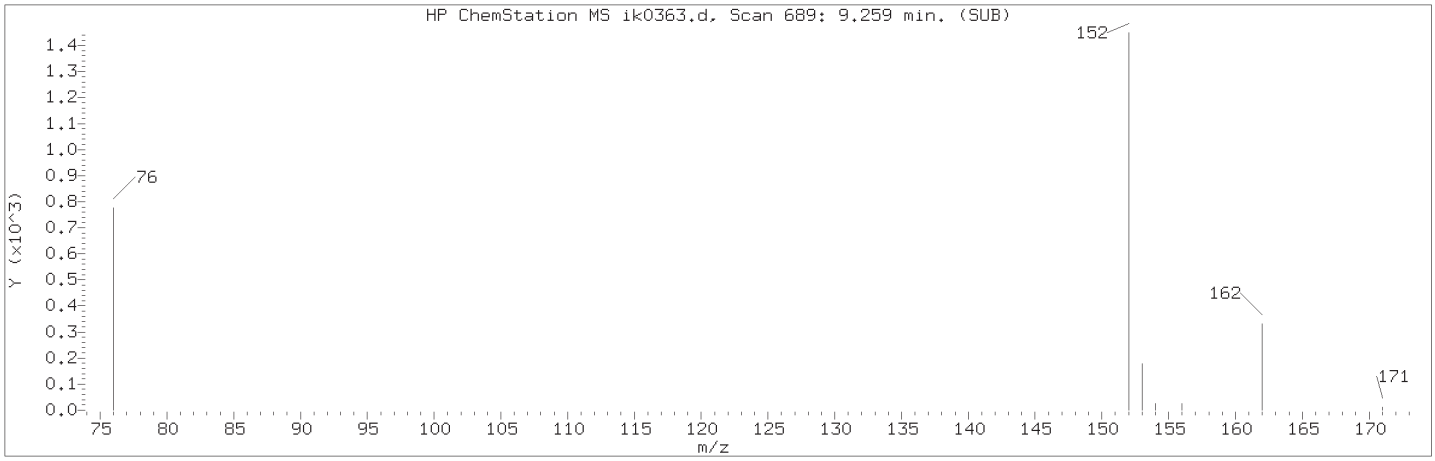
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

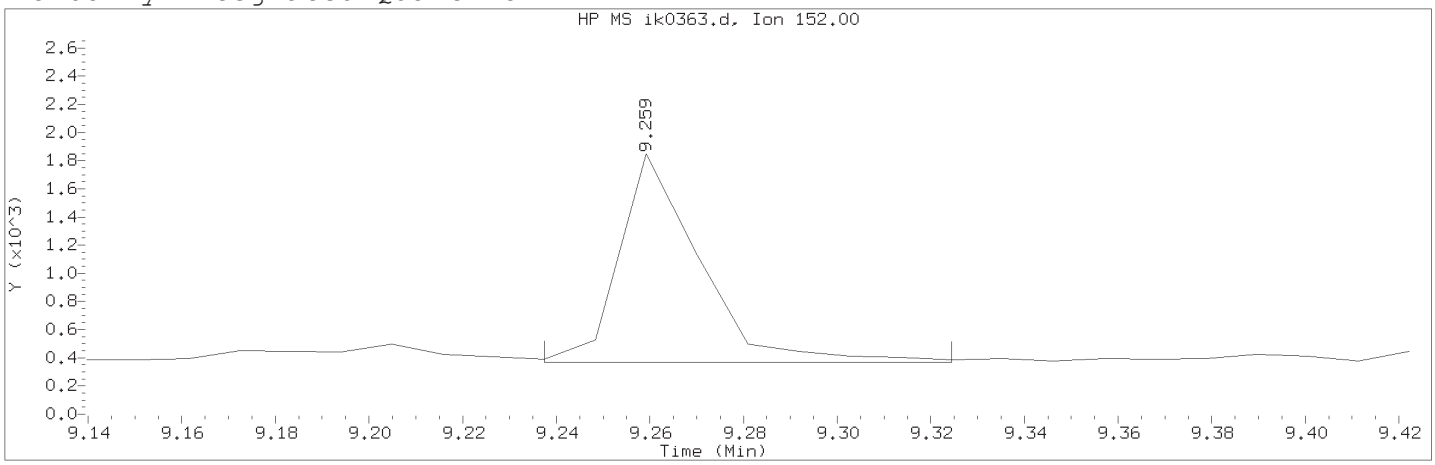
Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 616
Retention Time (minutes)	: 8.346
Relative Retention Time	: 0.00001
Quant Ion	: 128.00
Area (flag)	: 215074
On-column Amount (ng/ul)	: 0.7027

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

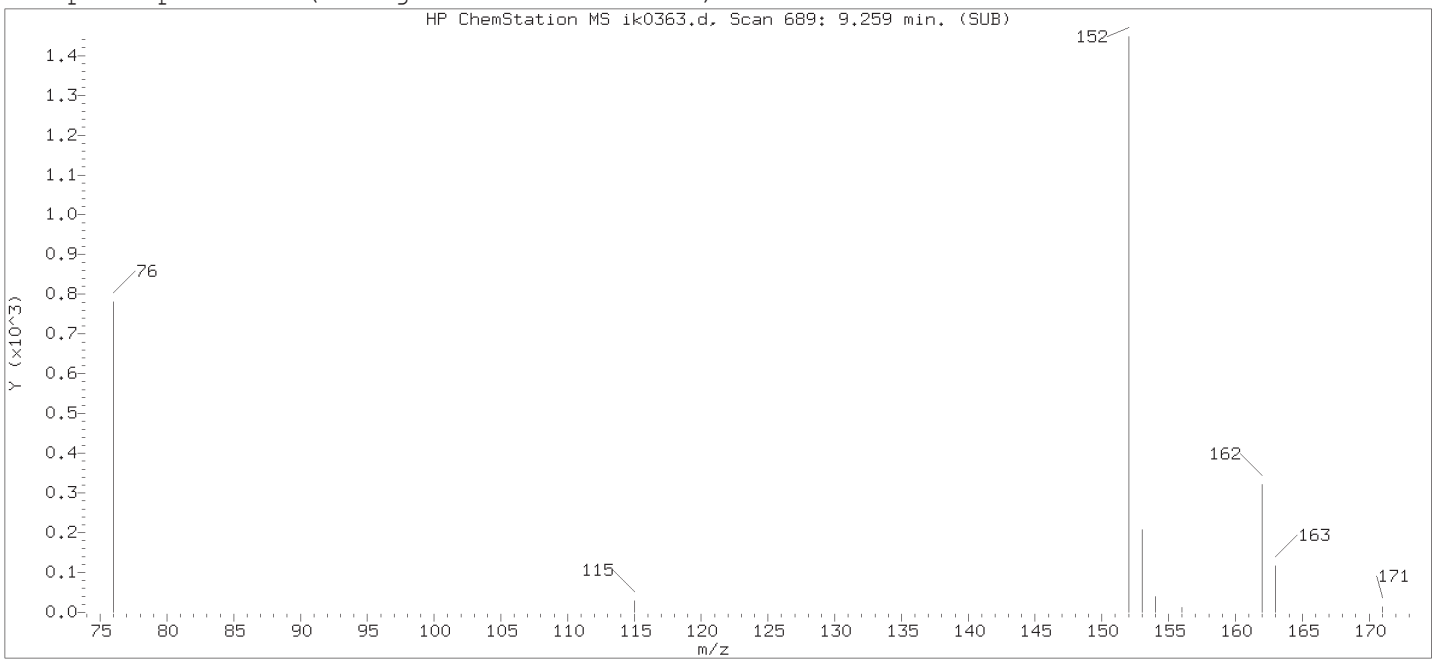
Compound Number : 14
Compound Name : 1-Methylnaphthalene-d10
Scan Number : 689
Retention Time (minutes) : 9.259
Quant Ion : 152.00
Area (flag) : 1775M
On-column Amount (ng/ul) : 0.0098
Integration start scan : 686 Integration stop scan: 694
Y at integration start : 368 Y at integration end: 368

Reason for manual integration: improper integration

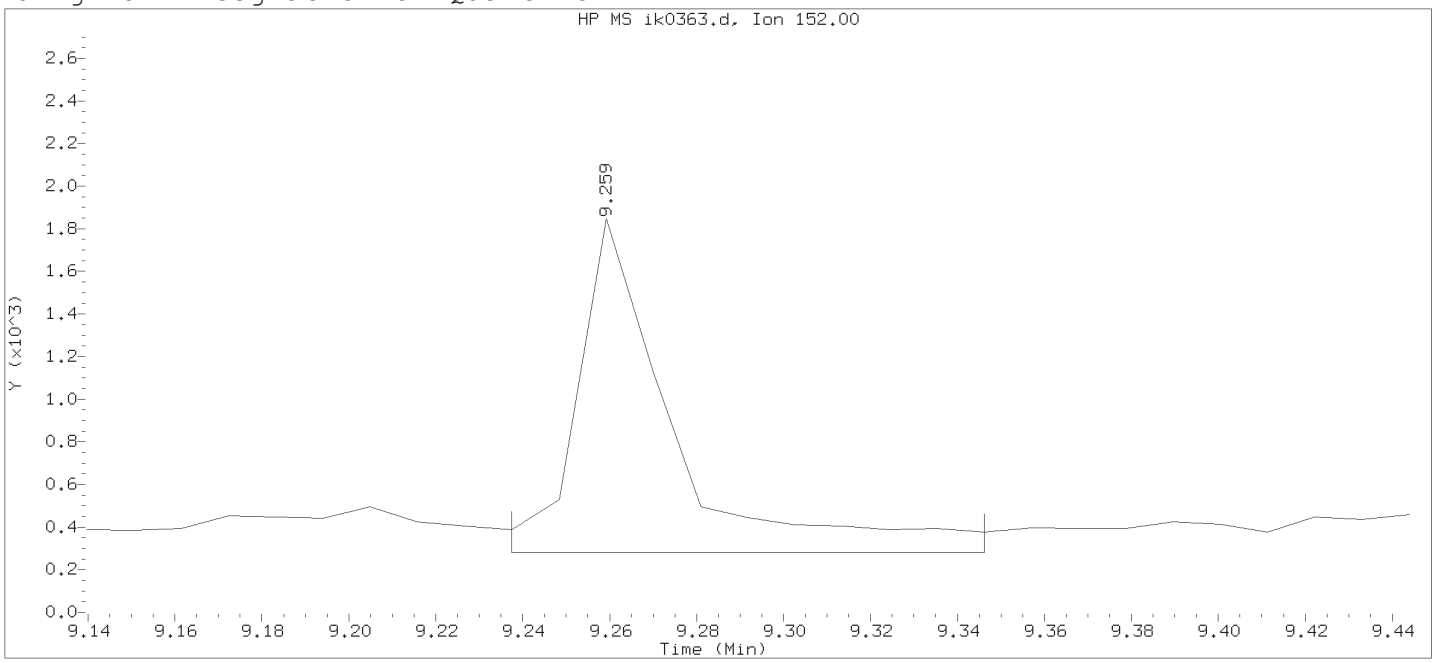
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

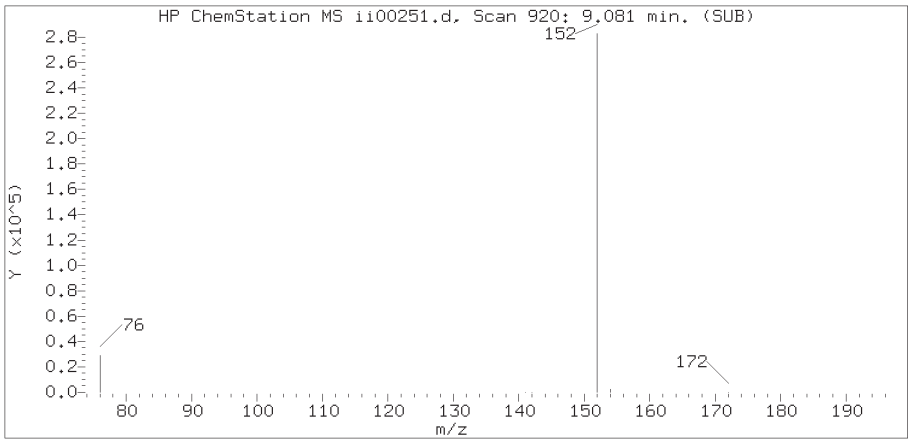
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

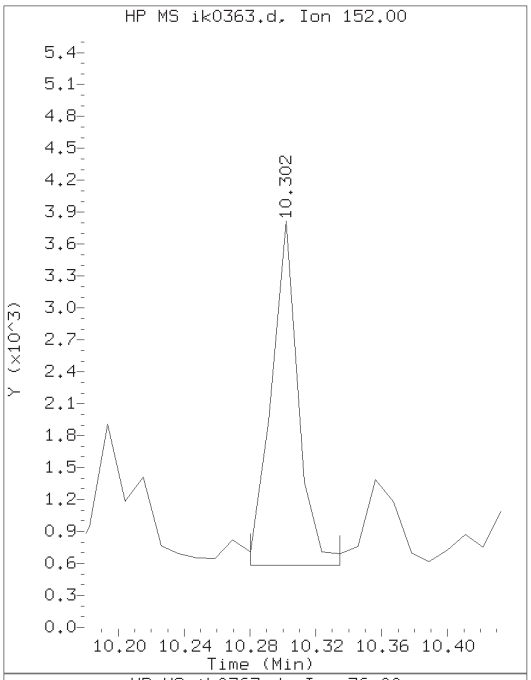
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 689		
Retention Time (minutes)	: 9.259		
Quant Ion	: 152.00		
Area	: 2361		
On-column Amount (ng/ul)	: 0.0130		
Integration start scan	: 686	Integration stop scan:	696
Y at integration start	: 280	Y at integration end:	280

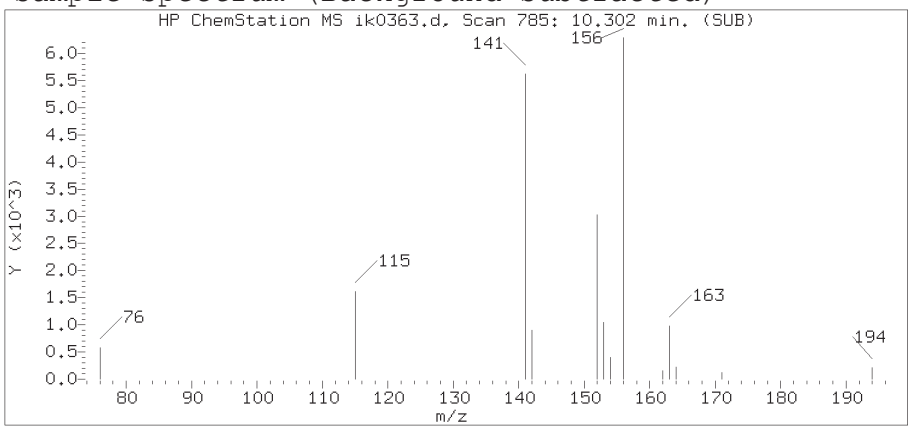
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

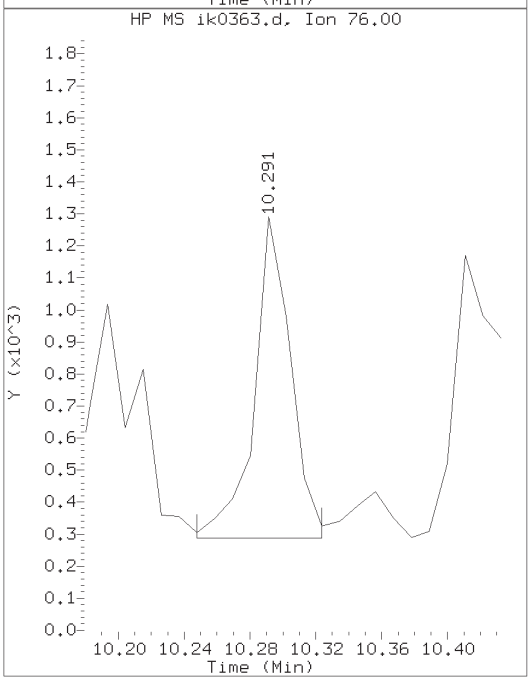
Reference Standard Spectrum for Acenaphthylene



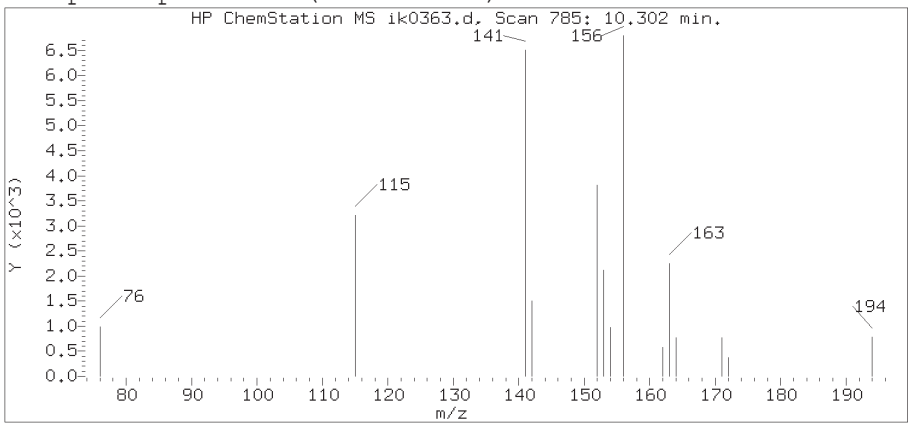


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

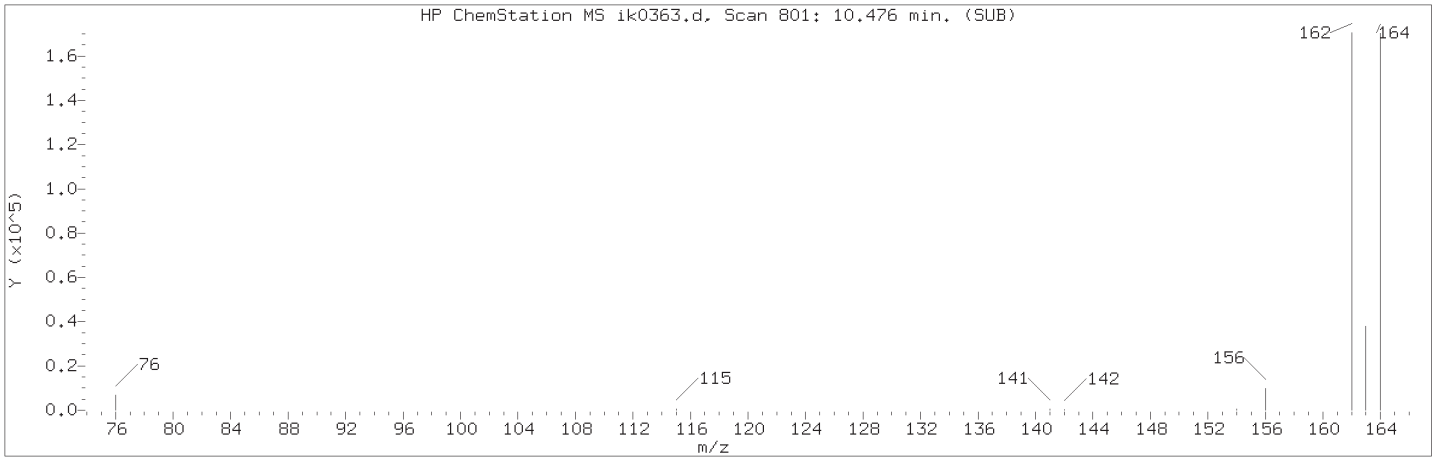
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

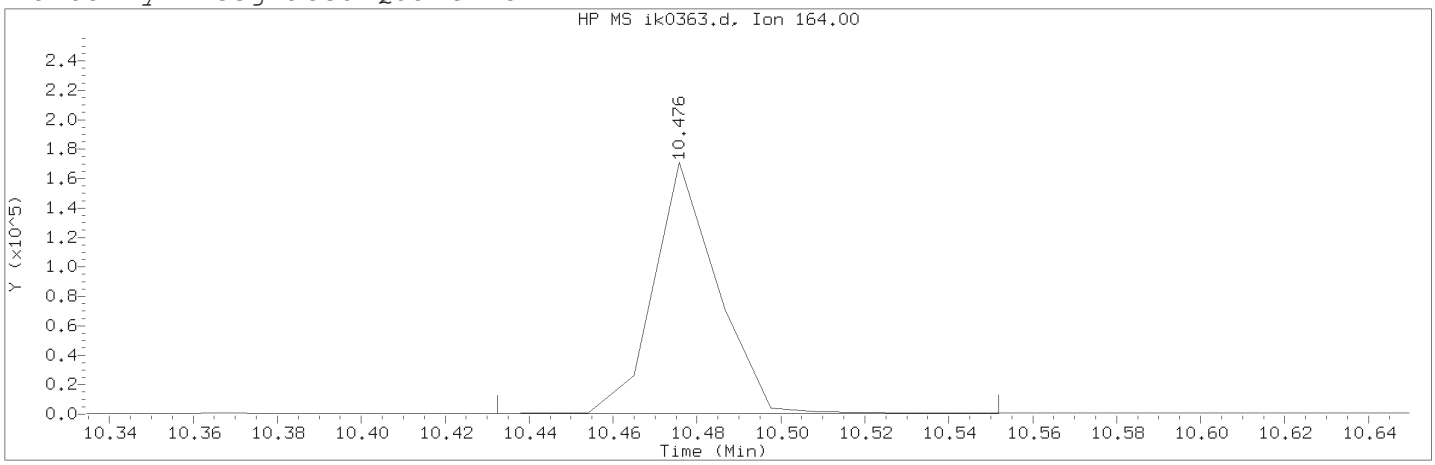
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 785
Retention Time (minutes)	: 10.302
Relative Retention Time	:-0.00002
Quant Ion	: 152.00
Area (flag)	: 3668
On-column Amount (ng/ul)	: 0.0107

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

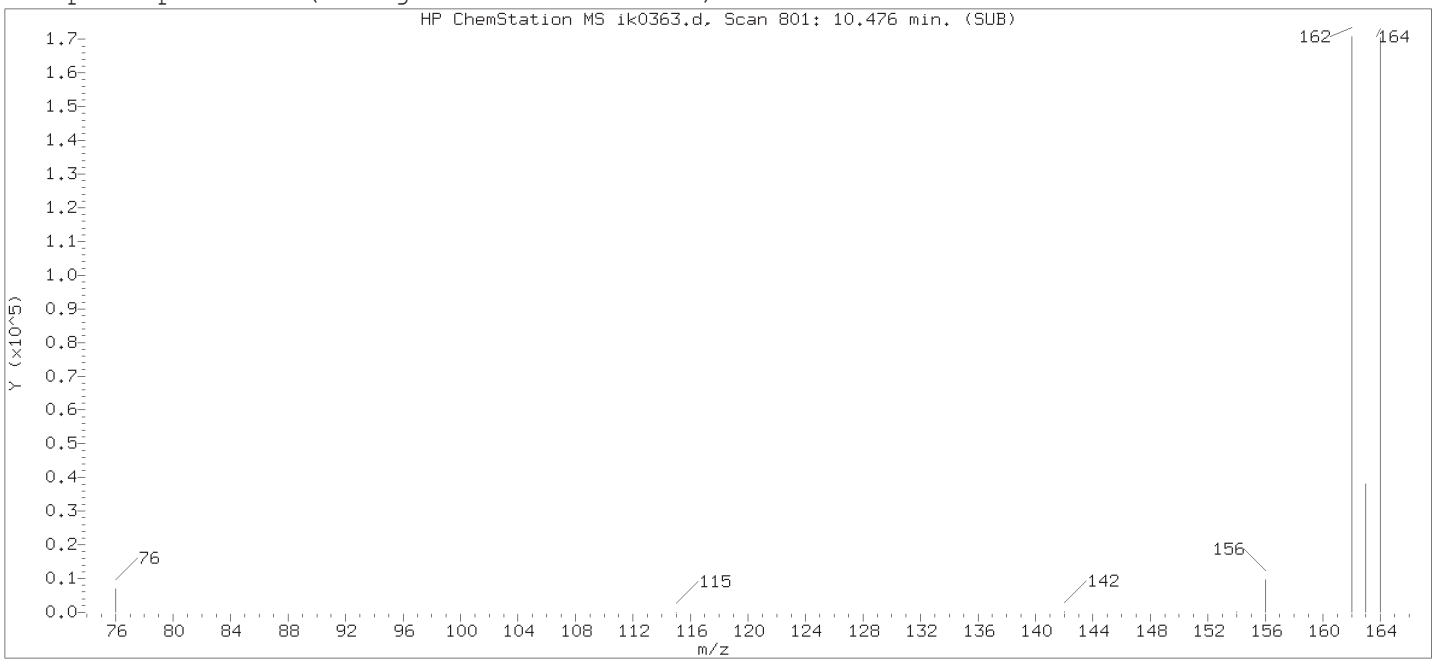
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 801
Retention Time (minutes) : 10.476
Quant Ion : 164.00
Area (flag) : 179757M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 796 Integration stop scan: 807
Y at integration start : 321 Y at integration end: 321

Reason for manual integration: improper integration

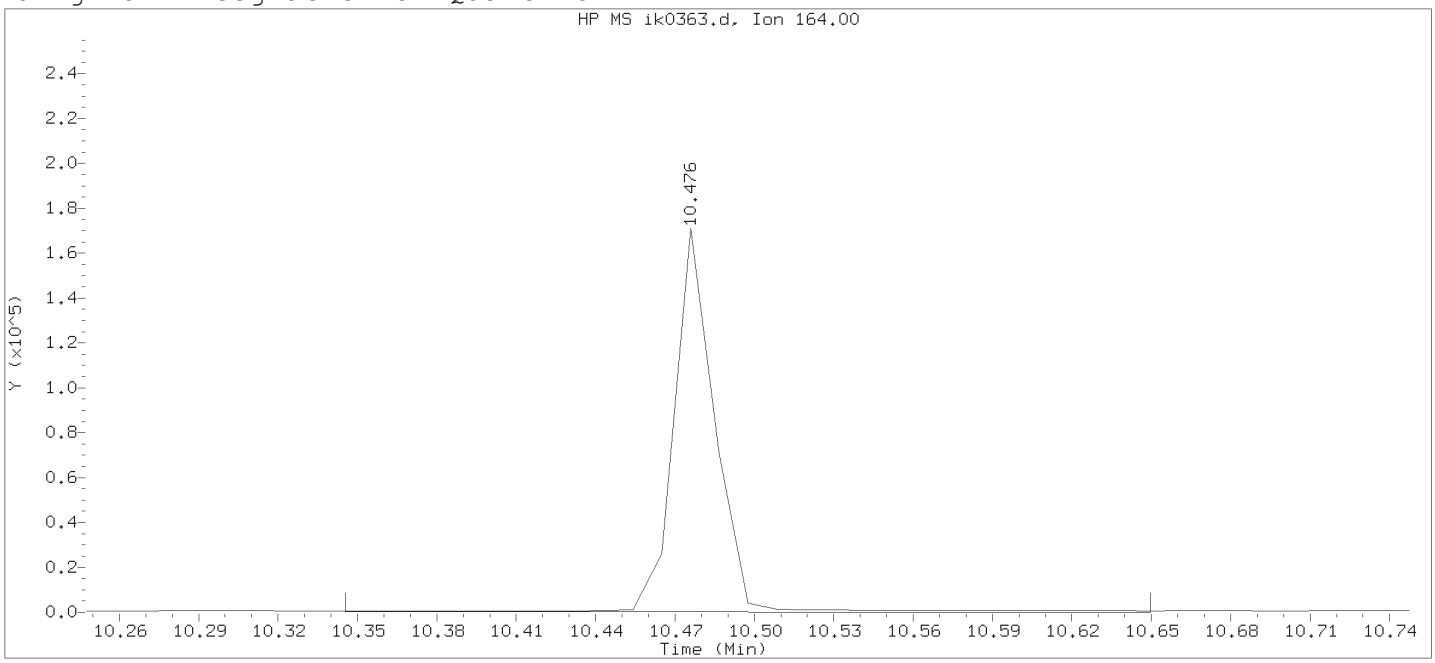
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 801		
Retention Time (minutes)	: 10.476		
Quant Ion	: 164.00		
Area	: 186856		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 788	Integration stop scan:	816
Y at integration start	: 294	Y at integration end:	112

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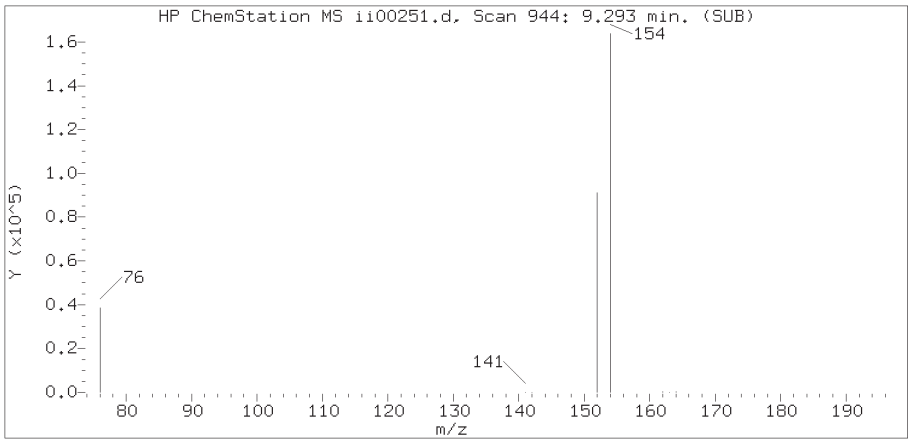
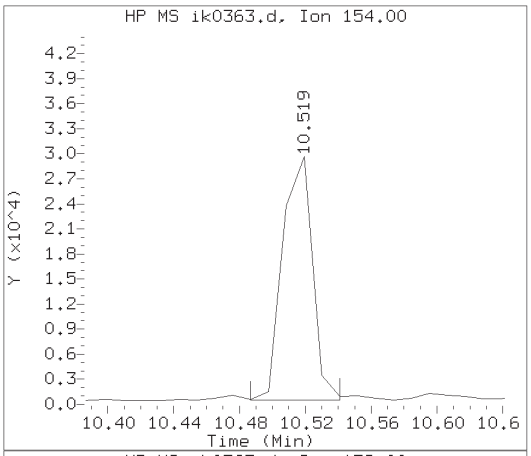
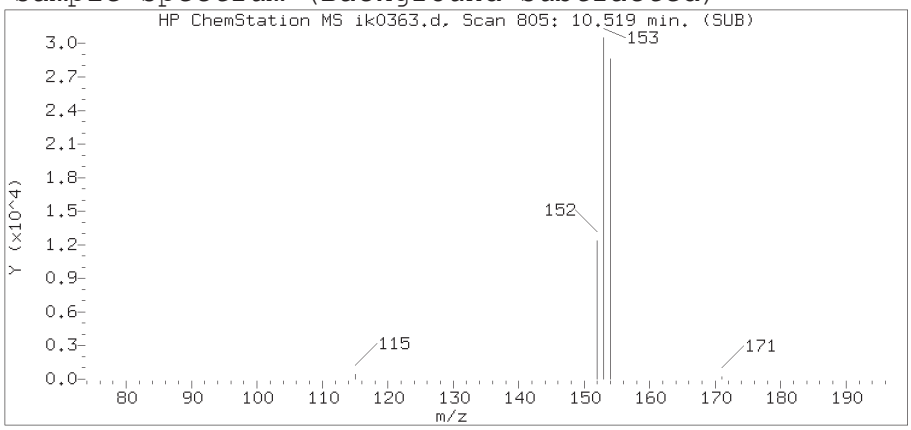
Target 3.5 esignature used [illegible]

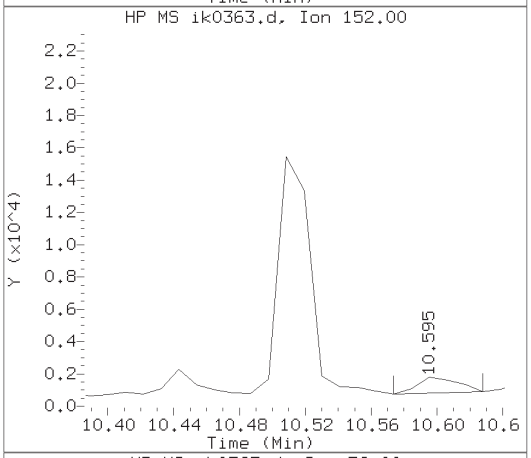
Reference Standard Spectrum for Acenaphthene



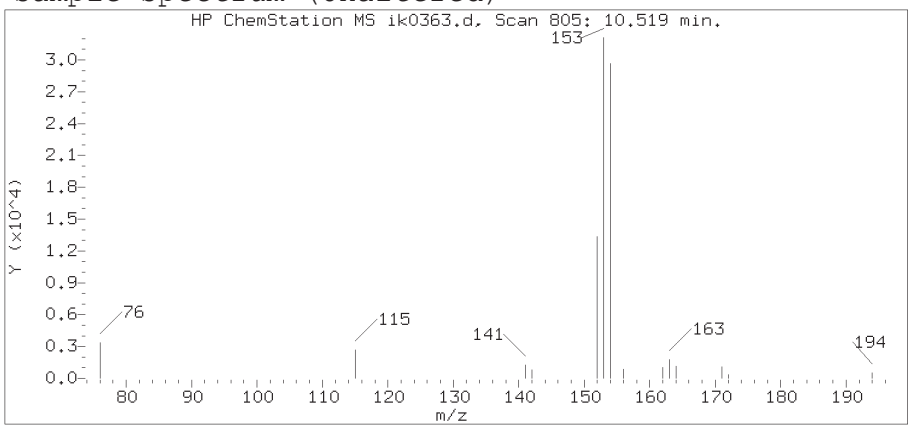


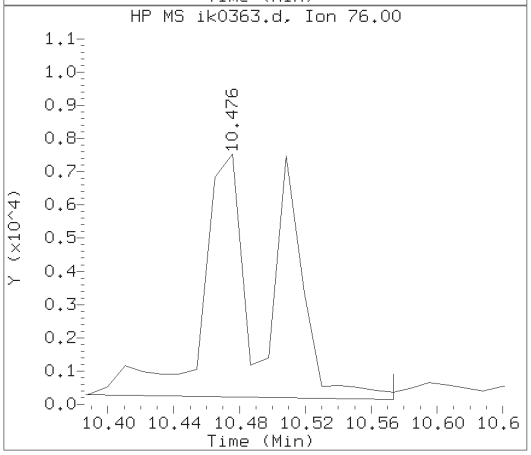
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

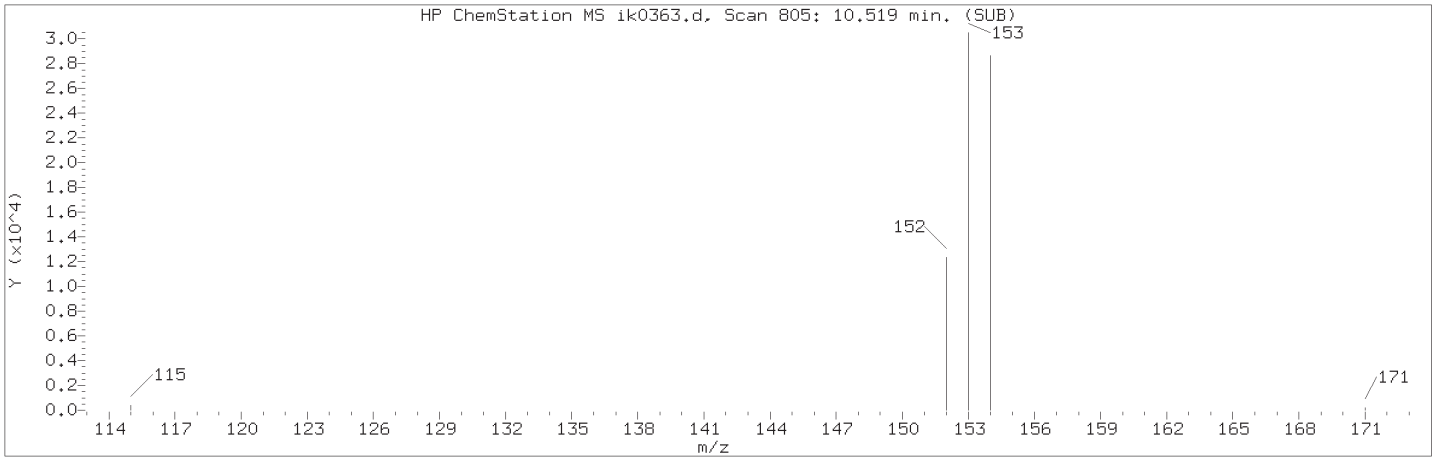
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

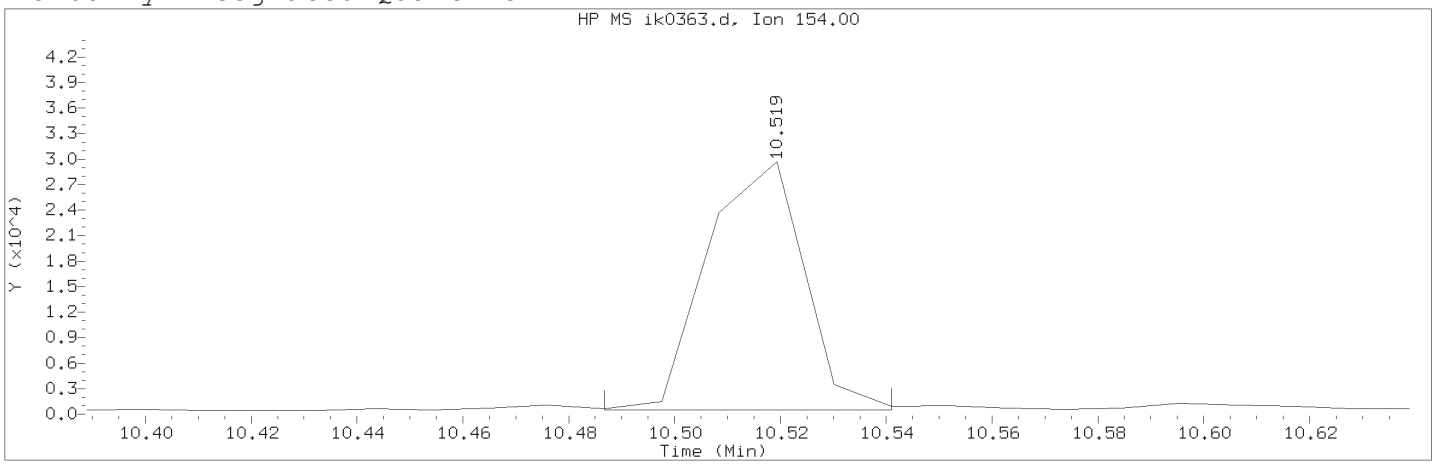
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 805
Retention Time (minutes)	: 10.519
Relative Retention Time	: 0.00000
Quant Ion	: 154.00
Area (flag)	: 37134M
On-column Amount (ng/ul)	: 0.1640

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

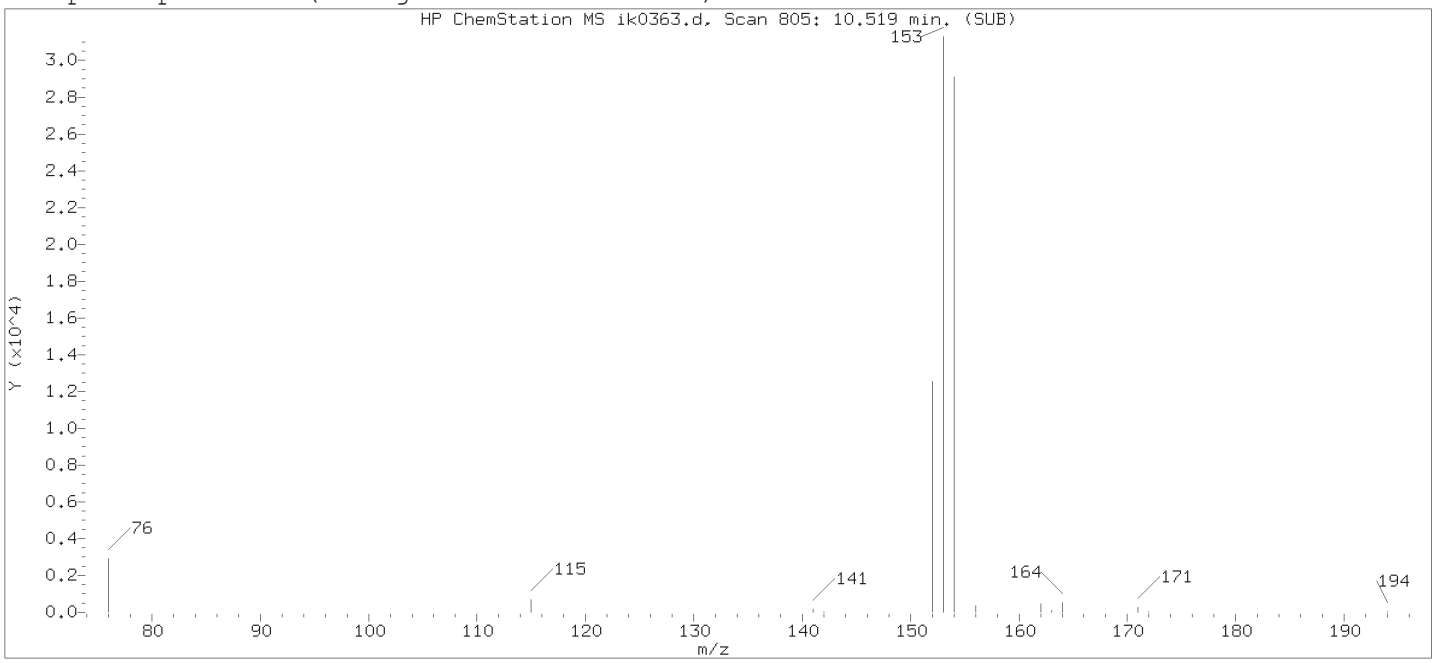
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 805
Retention Time (minutes) : 10.519
Quant Ion : 154.00
Area (flag) : 37134M
On-column Amount (ng/ul) : 0.1640
Integration start scan : 801 Integration stop scan: 806
Y at integration start : 491 Y at integration end: 491

Reason for manual integration: improper integration

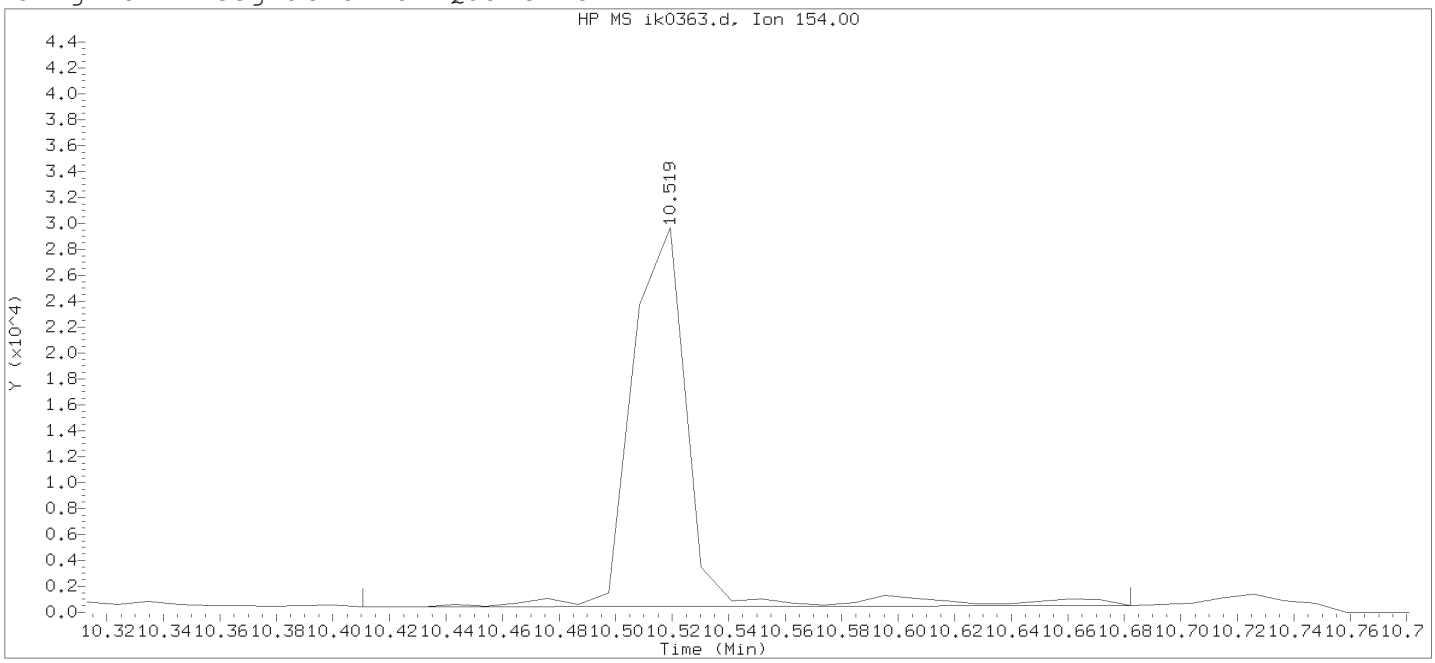
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

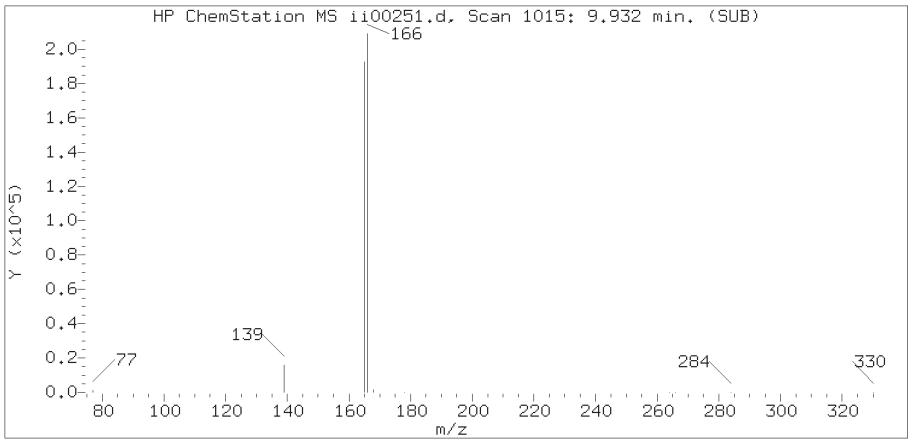
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

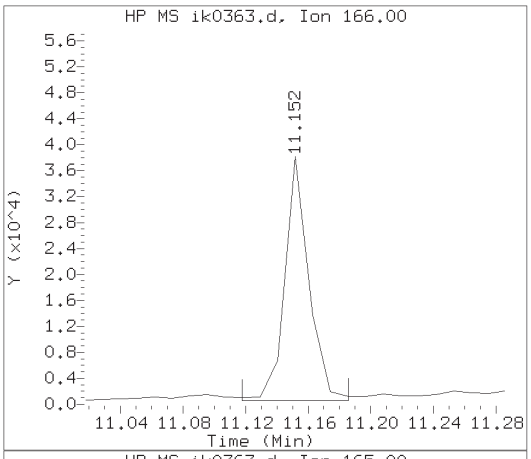
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 805		
Retention Time (minutes)	: 10.519		
Quant Ion	: 154.00		
Area	: 41106		
On-column Amount (ng/ul)	: 0.1747		
Integration start scan	: 794	Integration stop scan:	819
Y at integration start	: 415	Y at integration end:	503

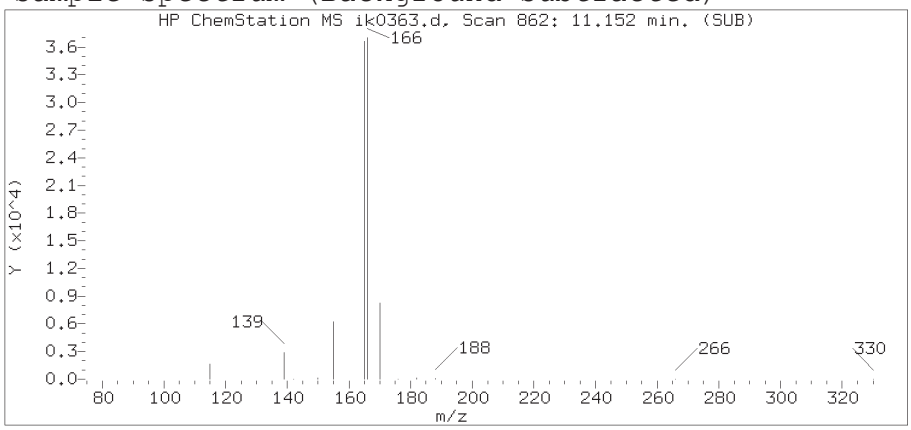
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

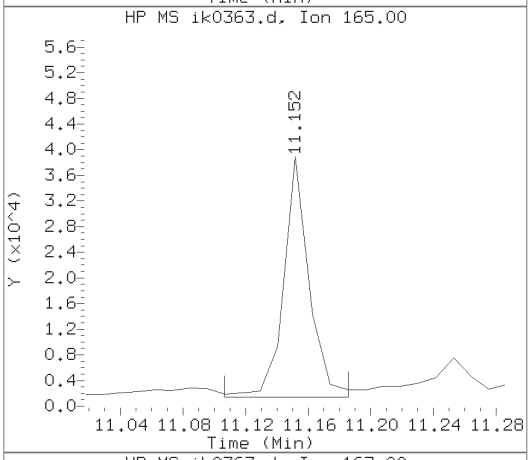
Reference Standard Spectrum for Fluorene



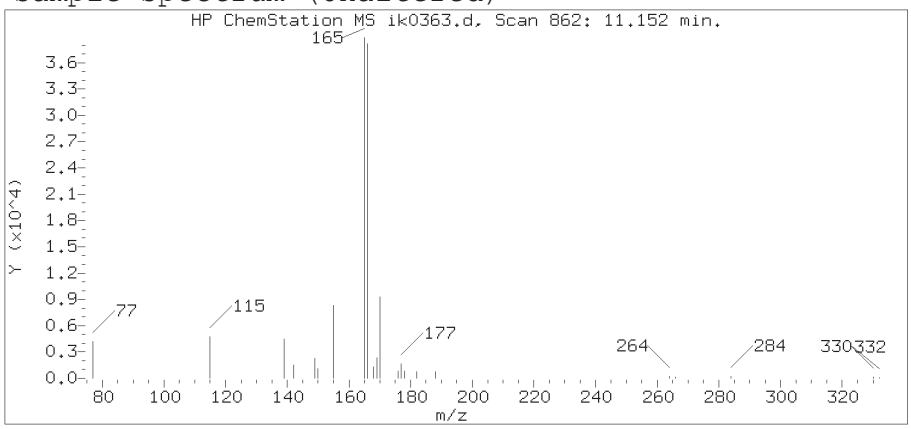


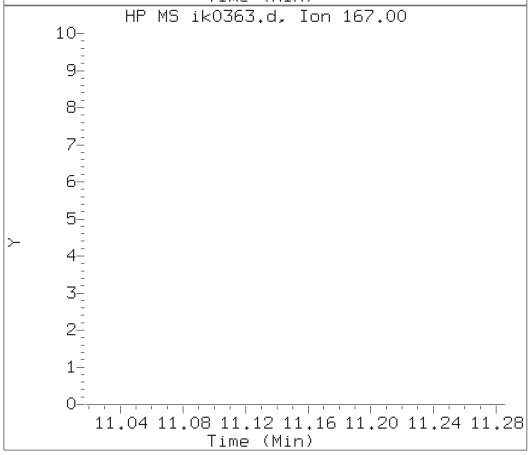
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

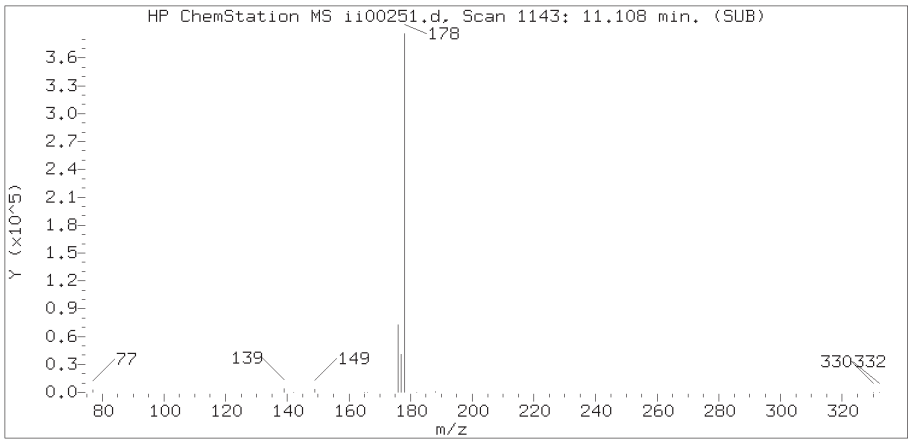
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

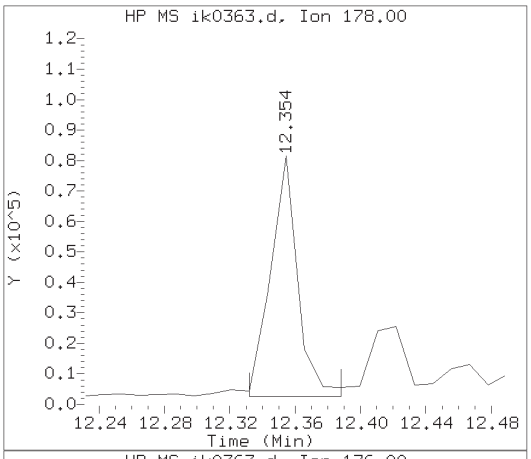
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 862
Retention Time (minutes)	: 11.152
Relative Retention Time	: 0.00001
Quant Ion	: 166.00
Area (flag)	: 39984
On-column Amount (ng/ul)	: 0.1435

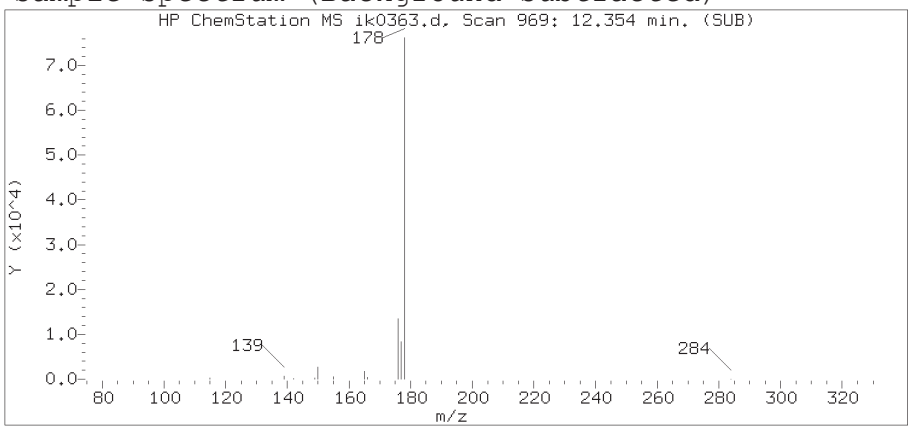
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

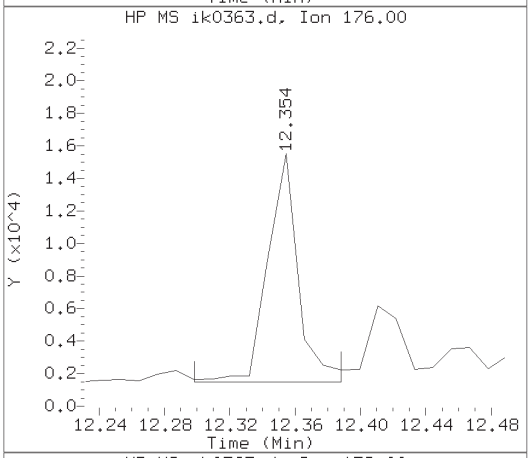
Reference Standard Spectrum for Phenanthrene



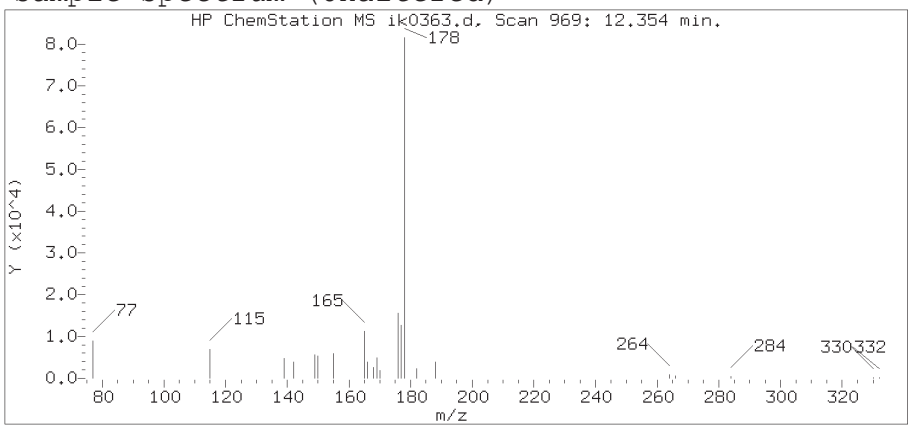


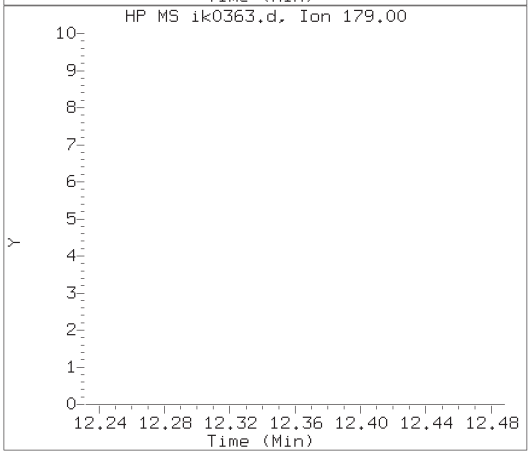
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

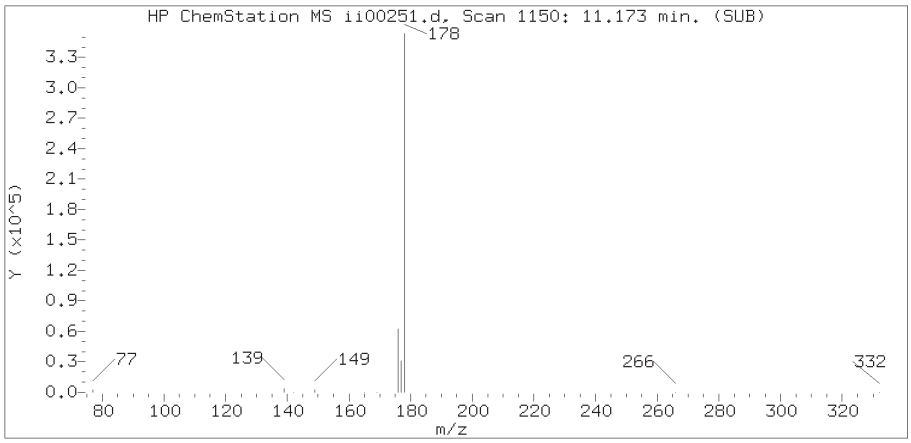
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

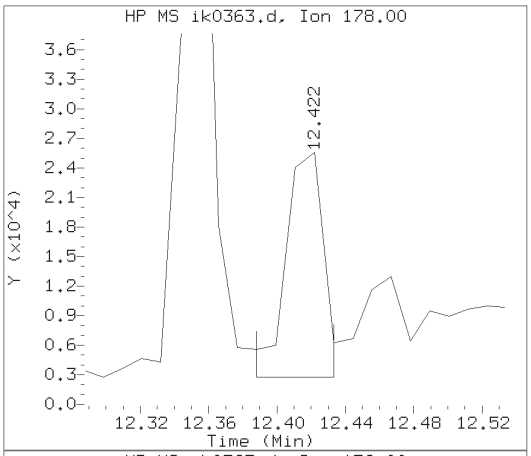
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 969
Retention Time (minutes)	: 12.354
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 89905
On-column Amount (ng/ul)	: 0.2043

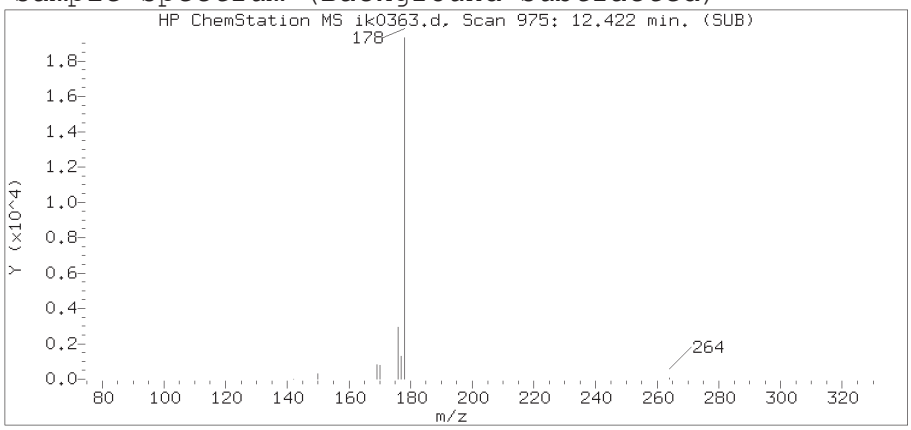
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

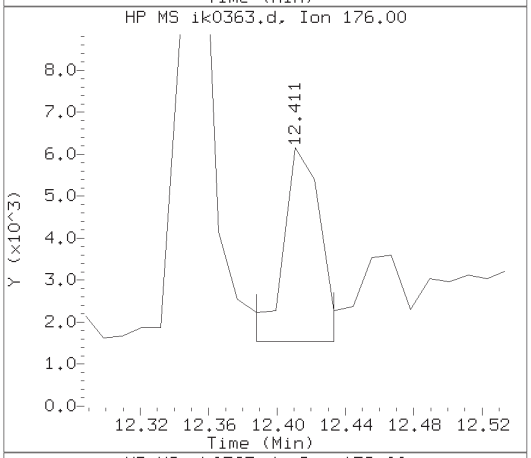
Reference Standard Spectrum for Anthracene



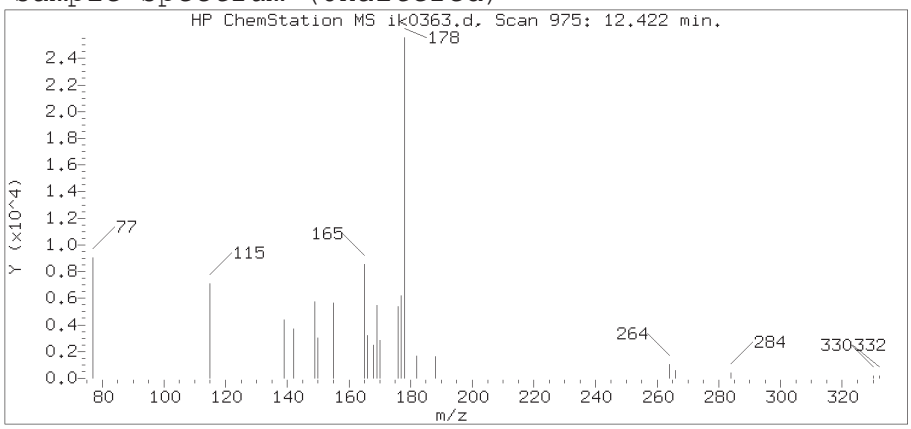


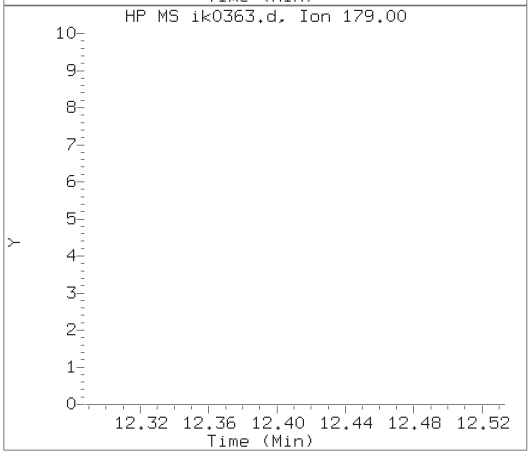
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

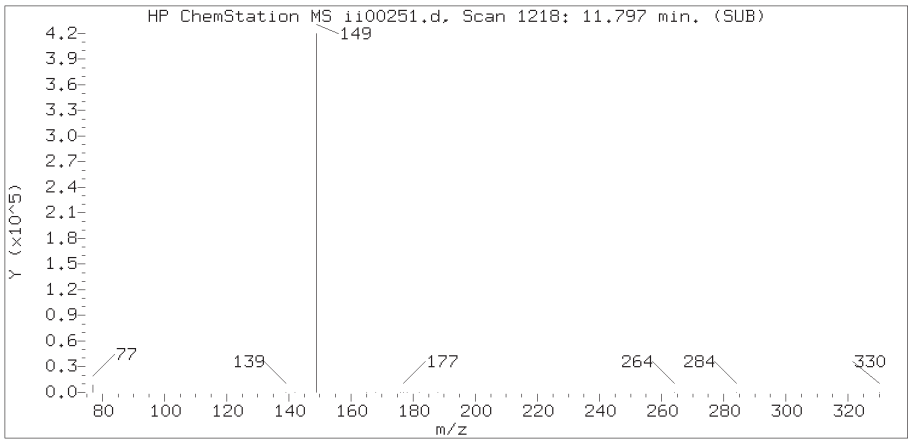
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

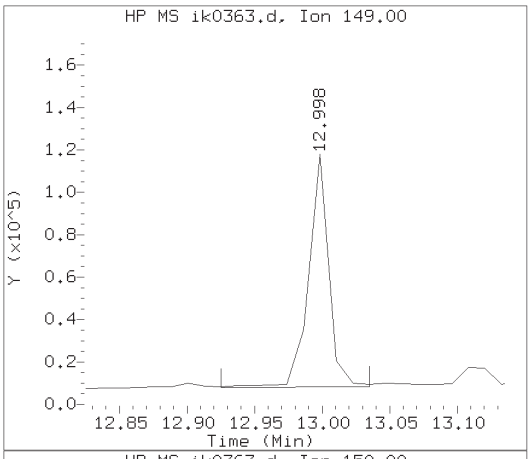
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 975
Retention Time (minutes)	: 12.422
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 34048
On-column Amount (ng/ul)	: 0.0773

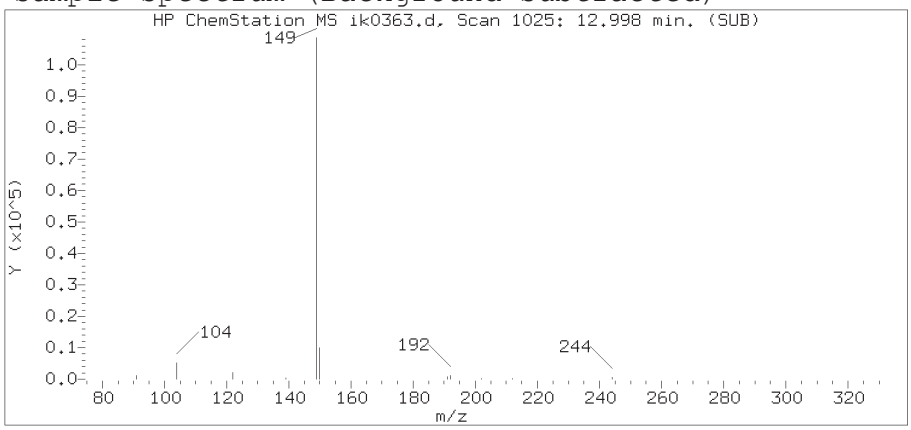
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

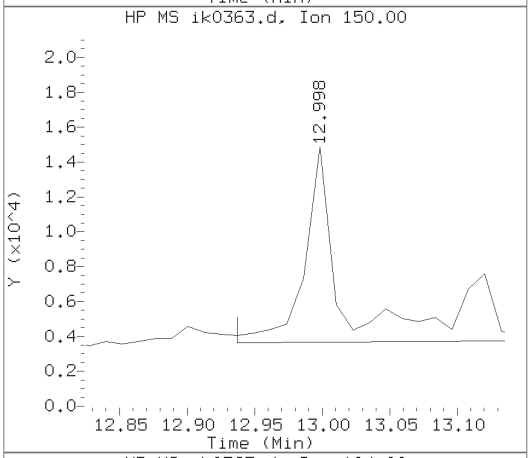
Reference Standard Spectrum for Di-n-butylphthalate



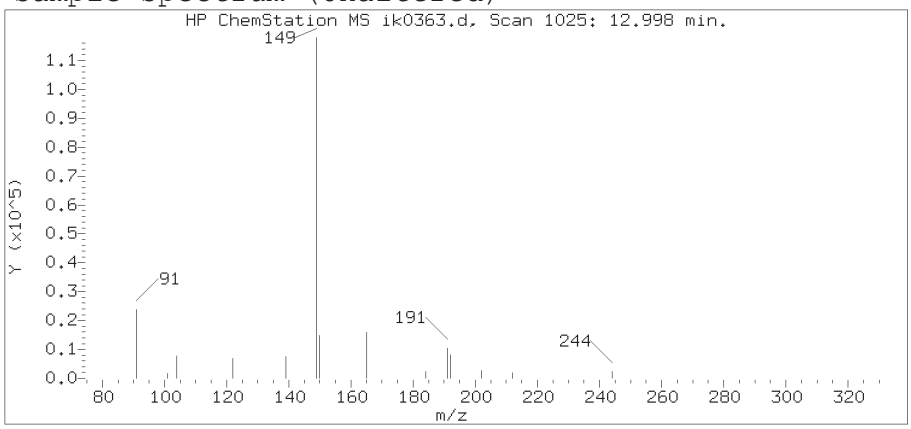


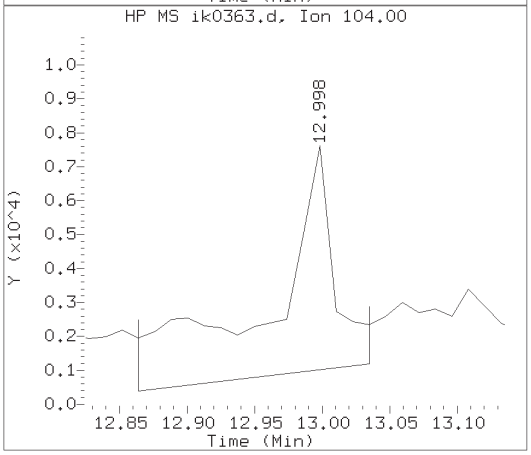
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

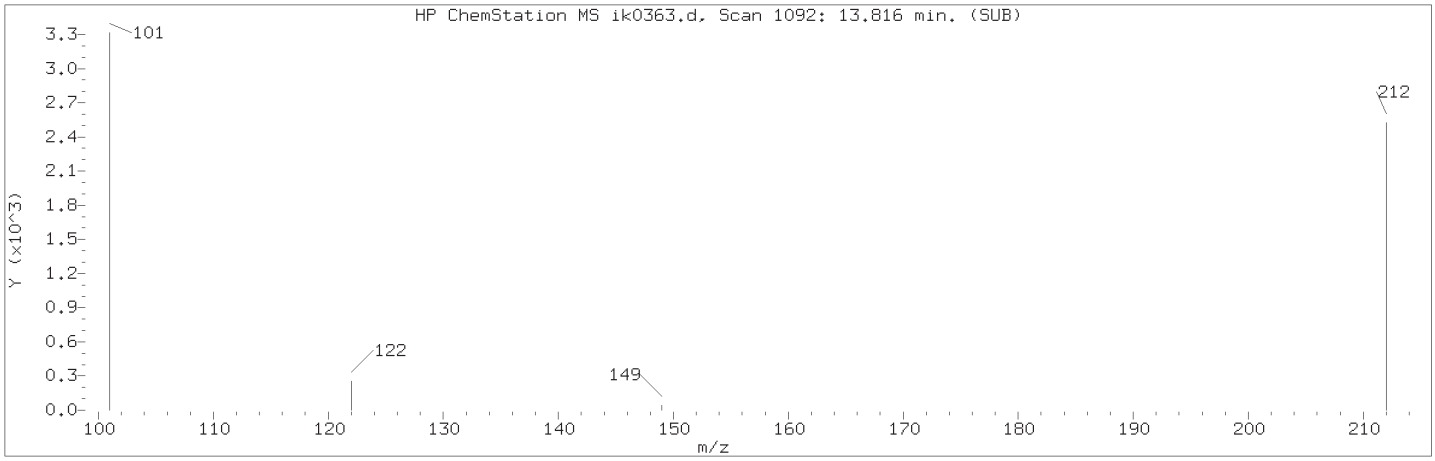
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

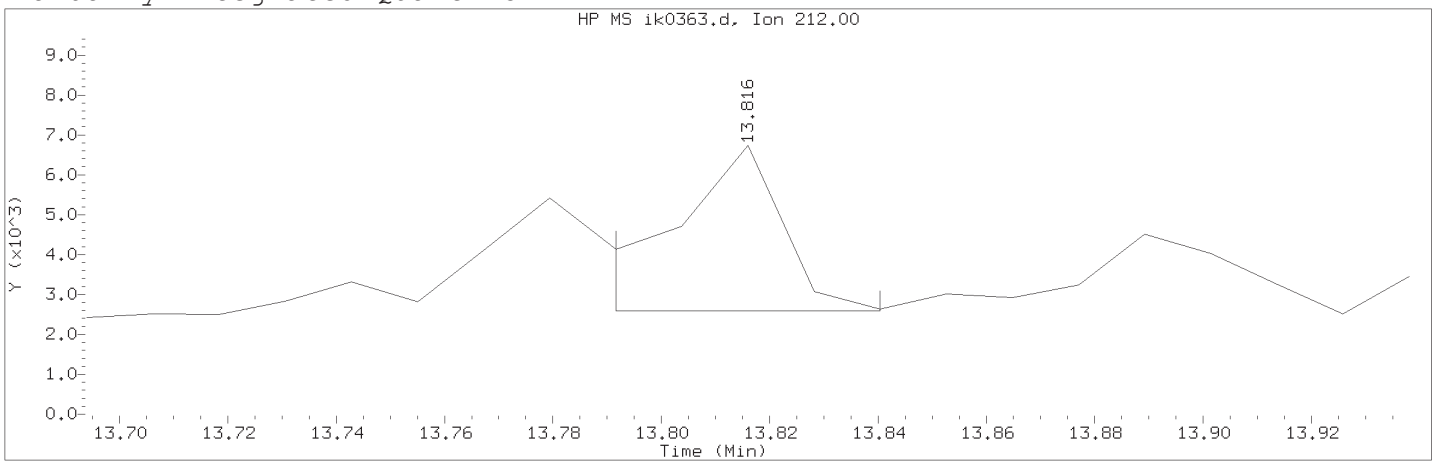
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1025
Retention Time (minutes)	: 12.998
Relative Retention Time	: 0.00004
Quant Ion	: 149.00
Area (flag)	: 111878
On-column Amount (ng/ul)	: 0.2657

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

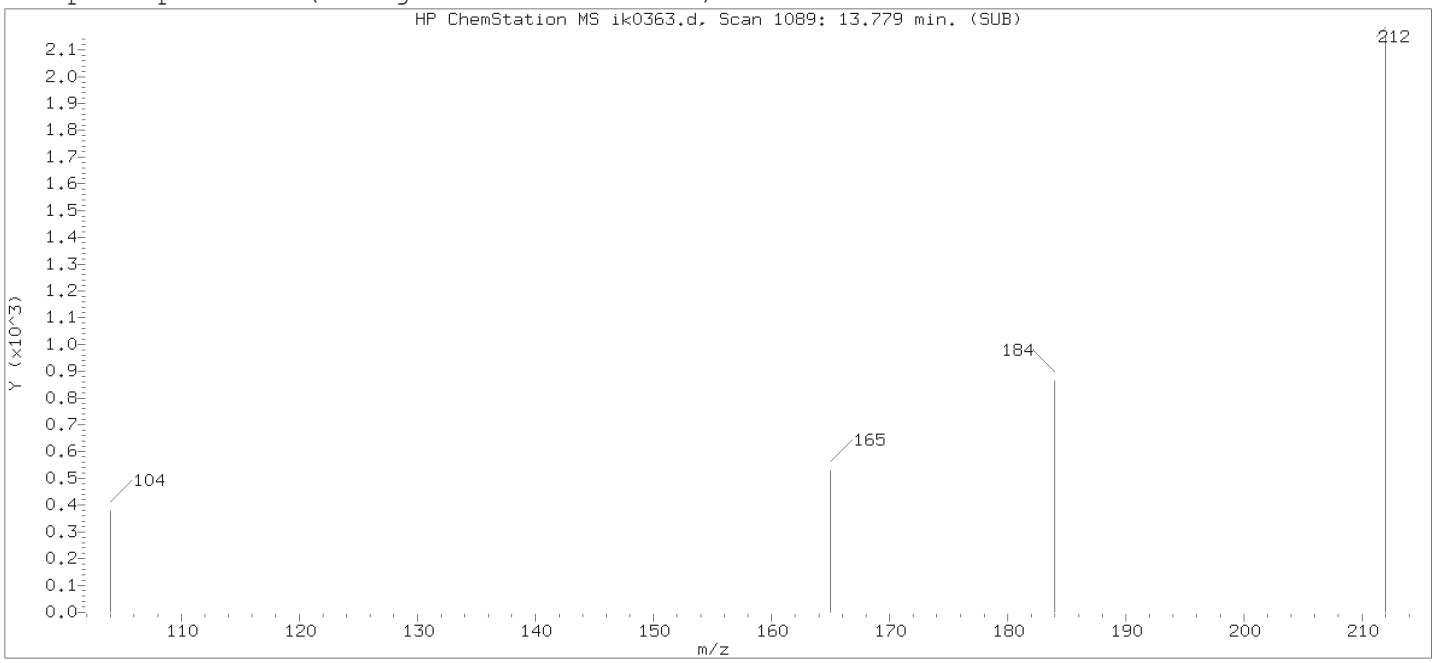
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1092
Retention Time (minutes) : 13.816
Quant Ion : 212.00
Area (flag) : 6094M
On-column Amount (ng/ul) : 0.0121
Integration start scan : 1089 Integration stop scan: 1093
Y at integration start : 2593 Y at integration end: 2593

Reason for manual integration: improper integration

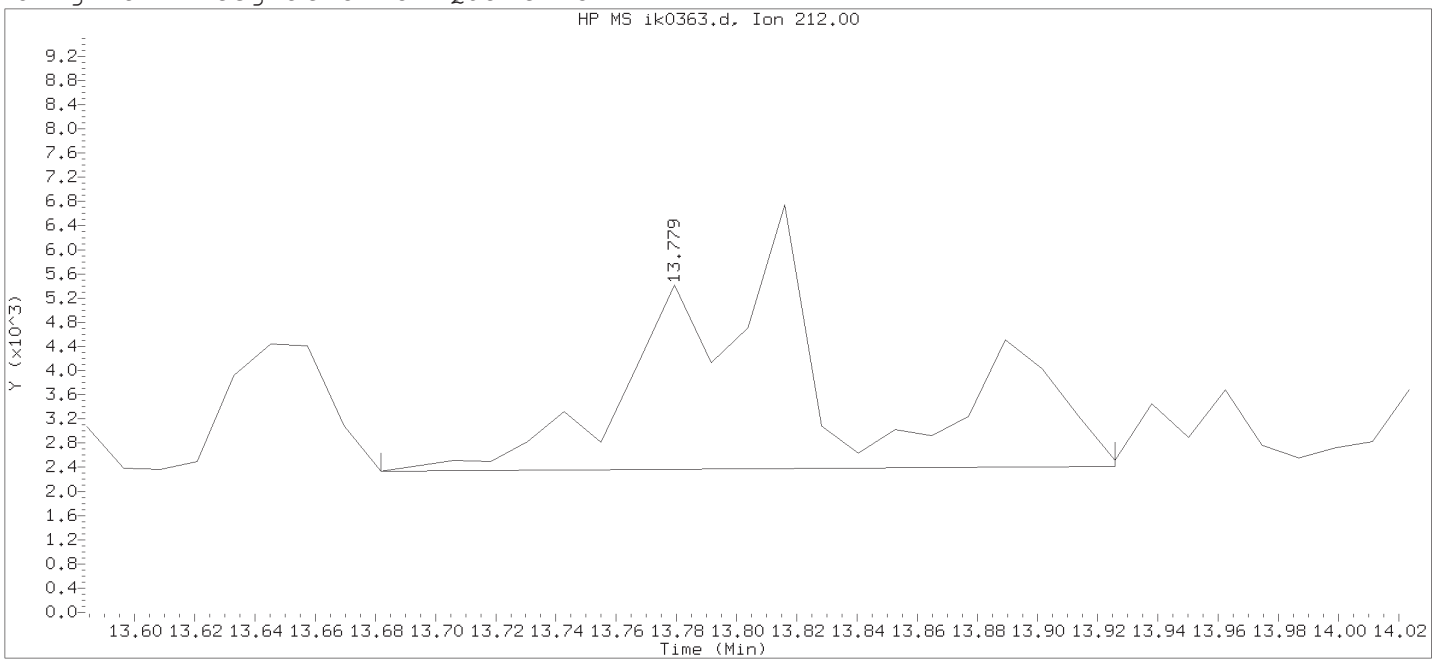
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

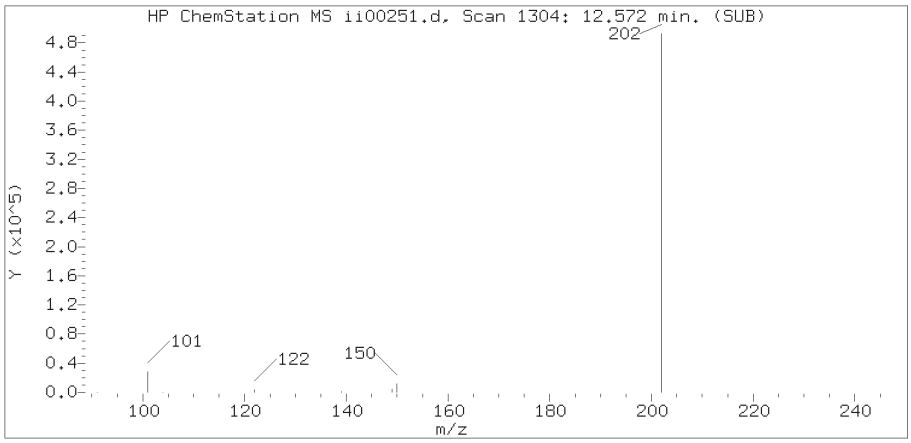
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

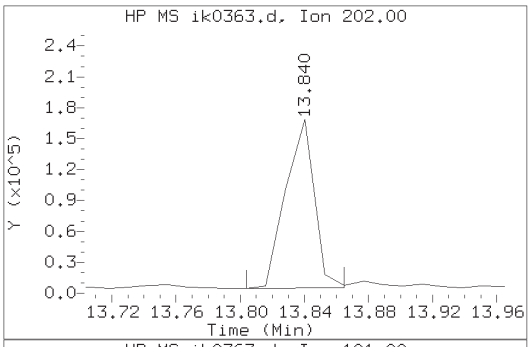
Sample Name: 12T06DL Lab Sample ID: 9872064DL

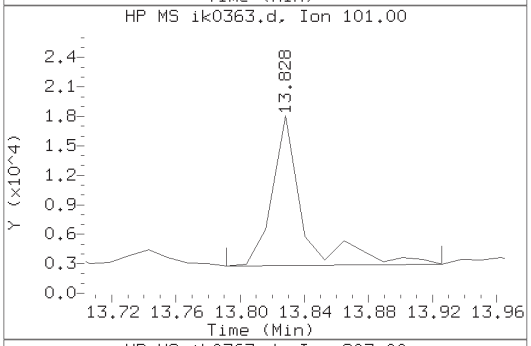
Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1089		
Retention Time (minutes)	: 13.779		
Quant Ion	: 212.00		
Area	: 16929		
On-column Amount (ng/ul)	: 0.0335		
Integration start scan	: 1080	Integration stop scan:	1100
Y at integration start	: 2331	Y at integration end:	2417

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

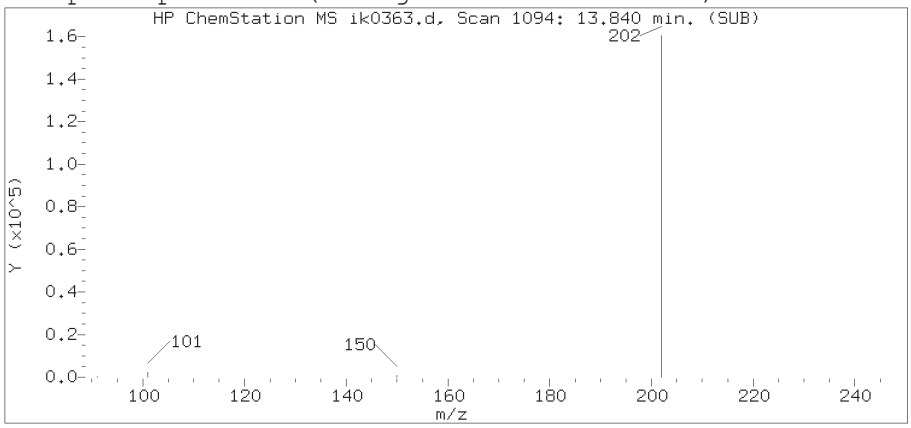
Reference Standard Spectrum for Fluoranthene

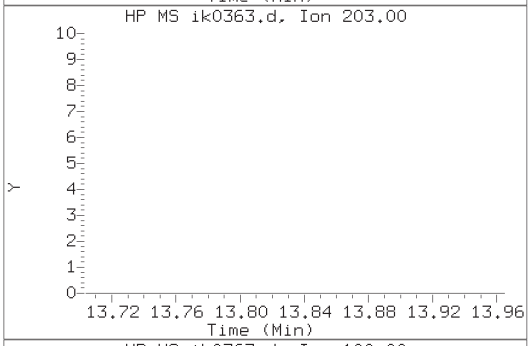




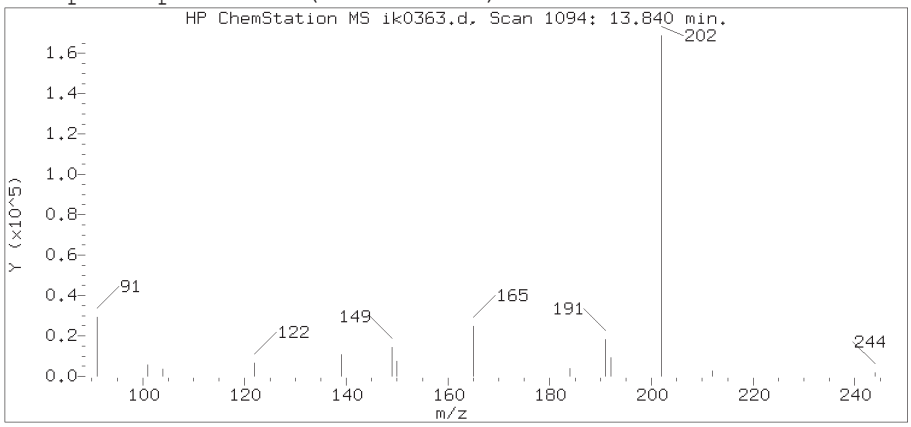


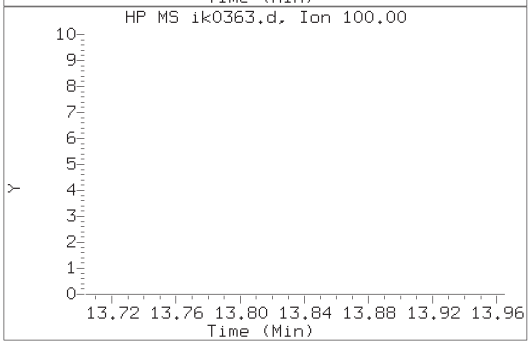
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

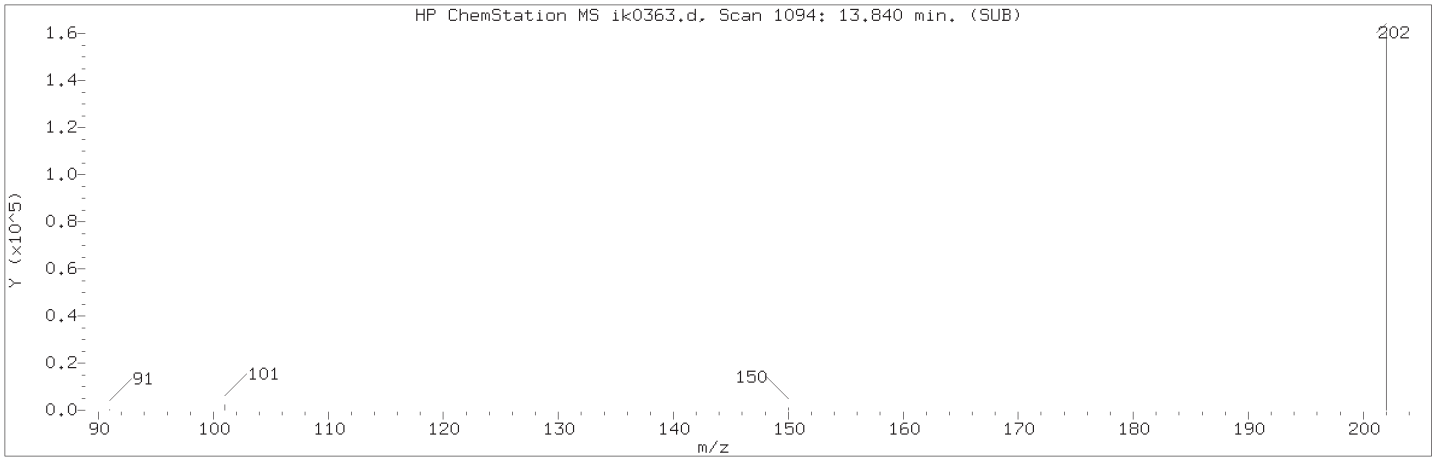
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

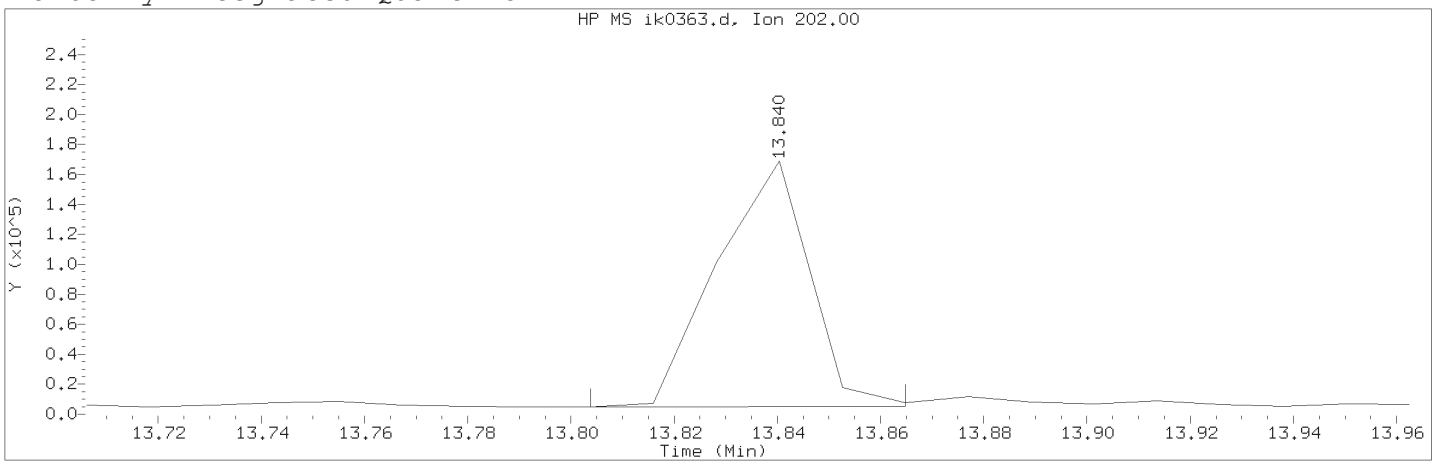
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1094
Retention Time (minutes)	: 13.840
Relative Retention Time	: 0.00009
Quant Ion	: 202.00
Area (flag)	: 203693M
On-column Amount (ng/ul)	: 0.3718

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

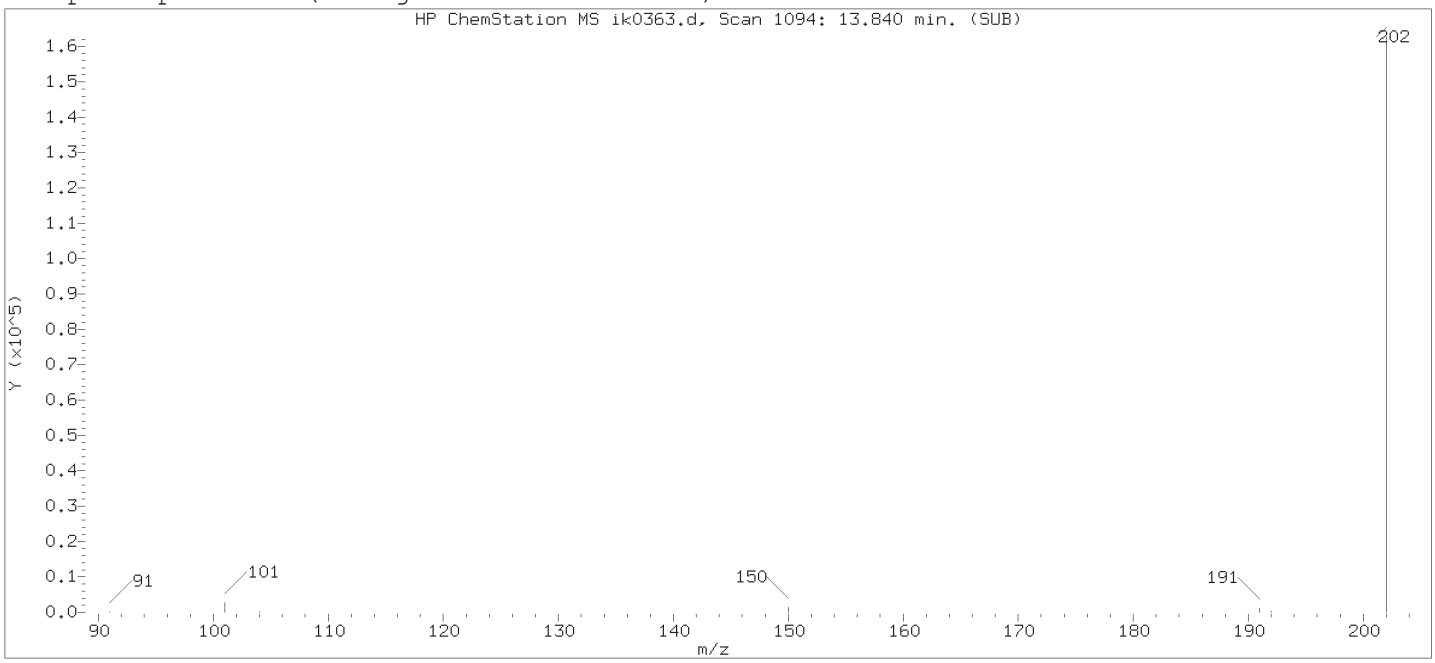
Compound Number : 37
Compound Name : Fluoranthene
Scan Number : 1094
Retention Time (minutes) : 13.840
Quant Ion : 202.00
Area (flag) : 203693M
On-column Amount (ng/ul) : 0.3718
Integration start scan : 1090 Integration stop scan: 1095
Y at integration start : 4770 Y at integration end: 5040

Reason for manual integration: improper integration

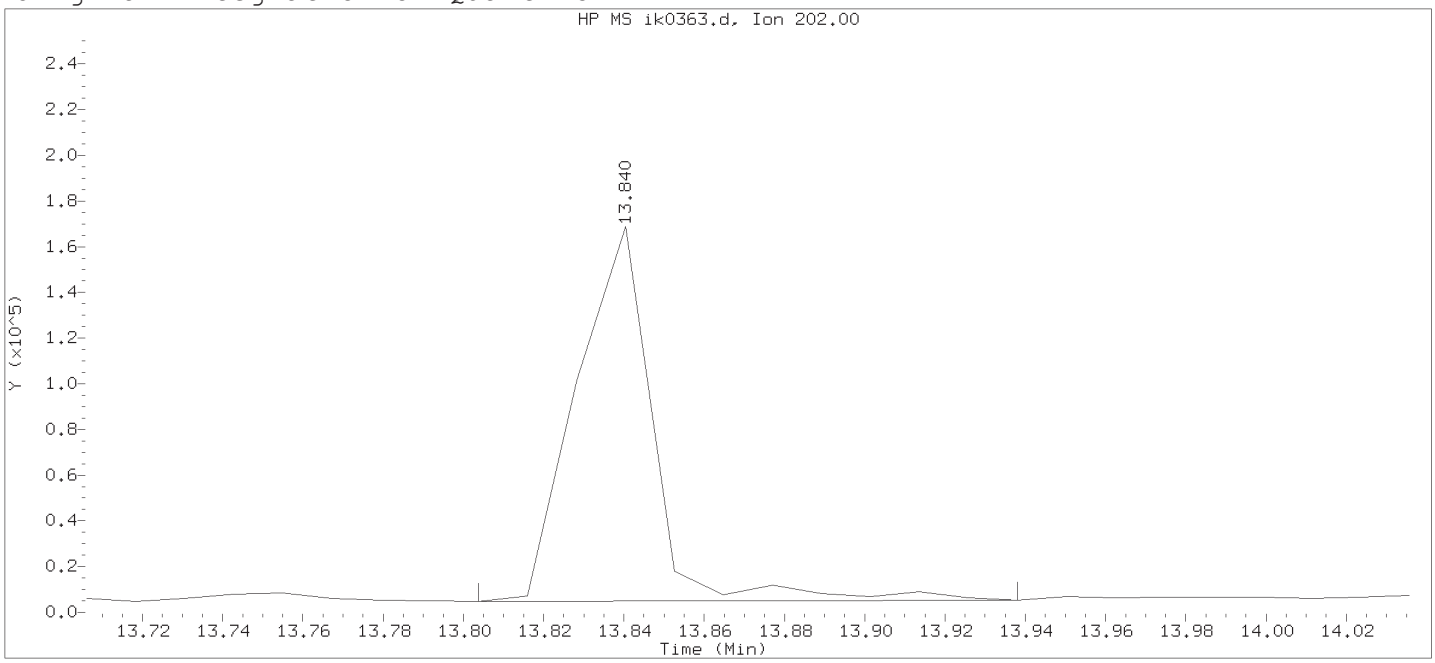
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

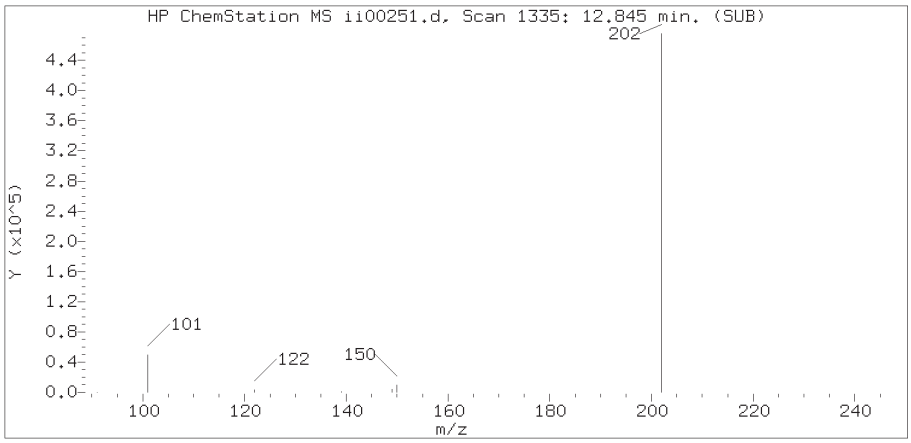
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

Sample Name: 12T06DL Lab Sample ID: 9872064DL

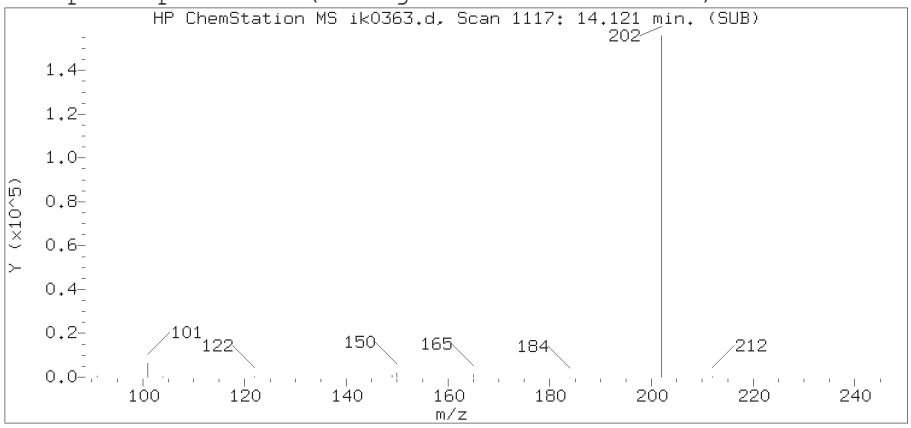
Compound Number	: 37		
Compound Name	: Fluoranthene		
Scan Number	: 1094		
Retention Time (minutes)	: 13.840		
Quant Ion	: 202.00		
Area	: 215503		
On-column Amount (ng/ul)	: 0.3933		
Integration start scan	: 1090	Integration stop scan:	1101
Y at integration start	: 4770	Y at integration end:	5366

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used 11/12/2018 15:16

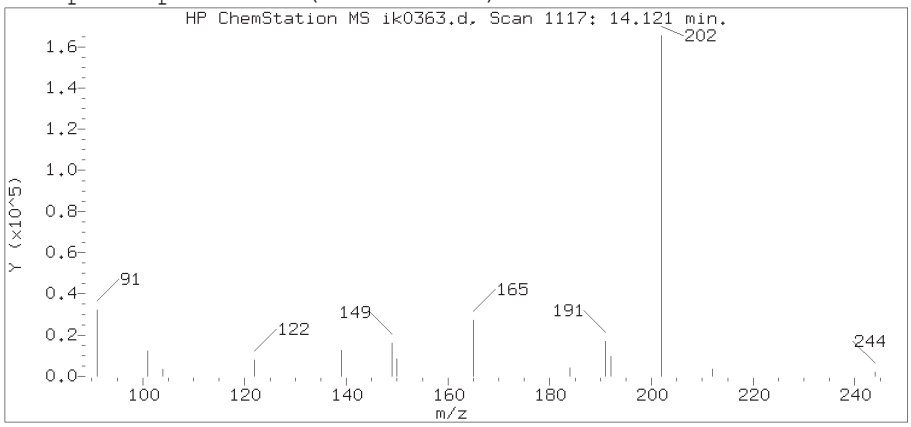
Reference Standard Spectrum for Pyrene

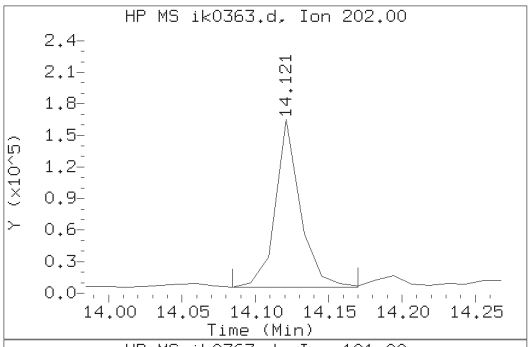


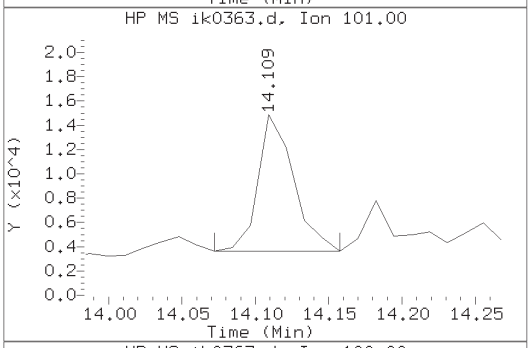
Sample Spectrum (Background Subtracted)

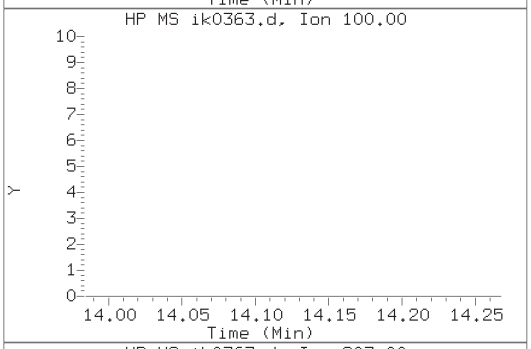


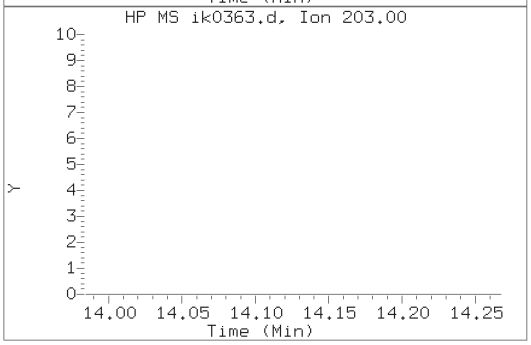
Sample Spectrum (Unaltered)











Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

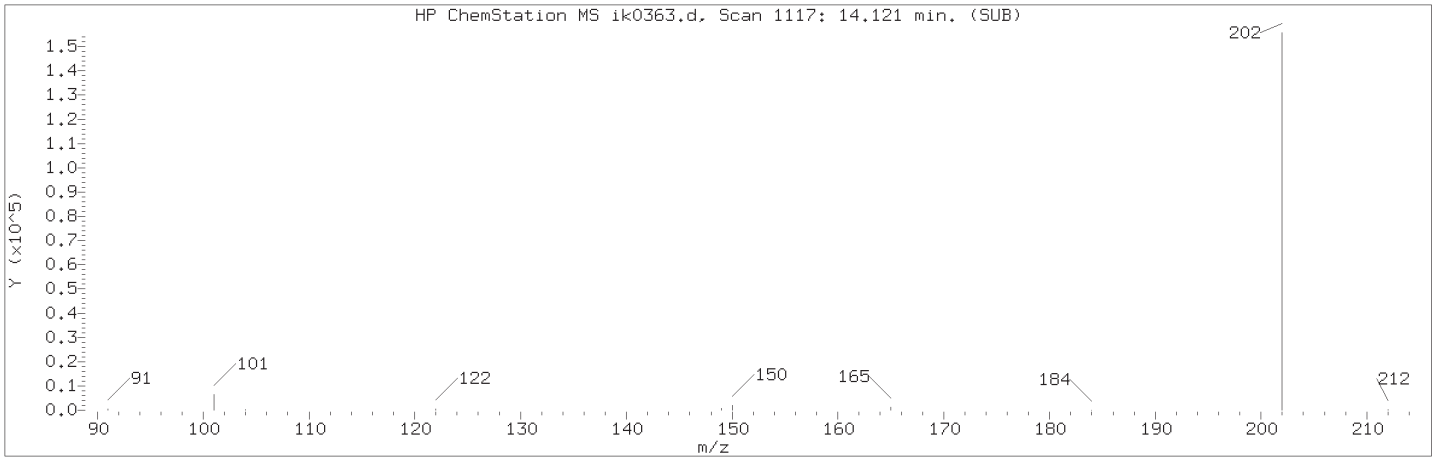
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

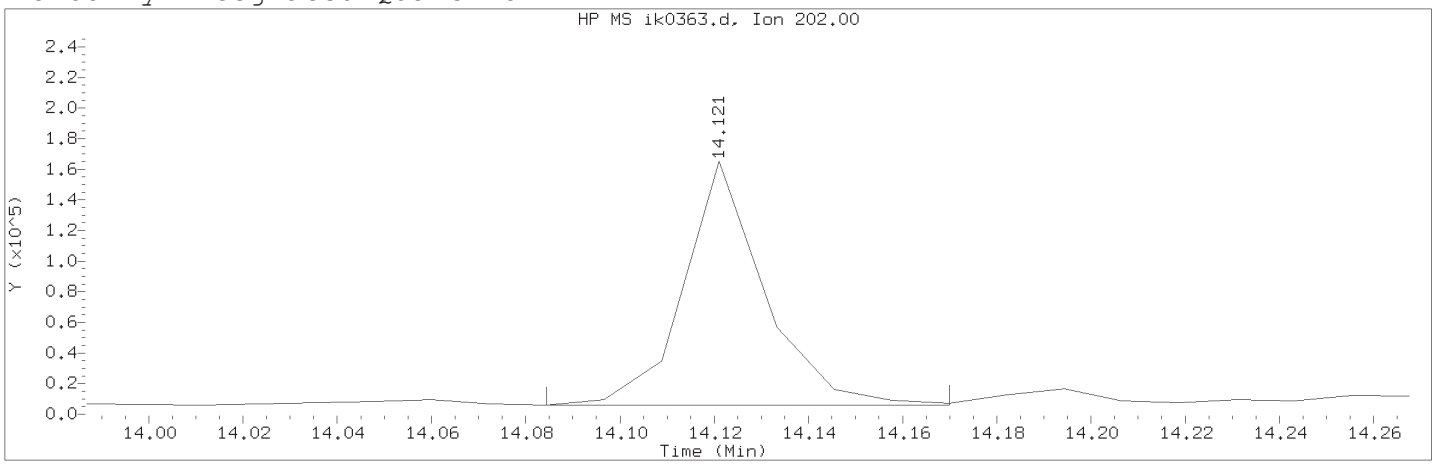
Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1117
Retention Time (minutes)	: 14.121
Relative Retention Time	:-0.00006
Quant Ion	: 202.00
Area (flag)	: 188769M
On-column Amount (ng/ul)	: 0.2982

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

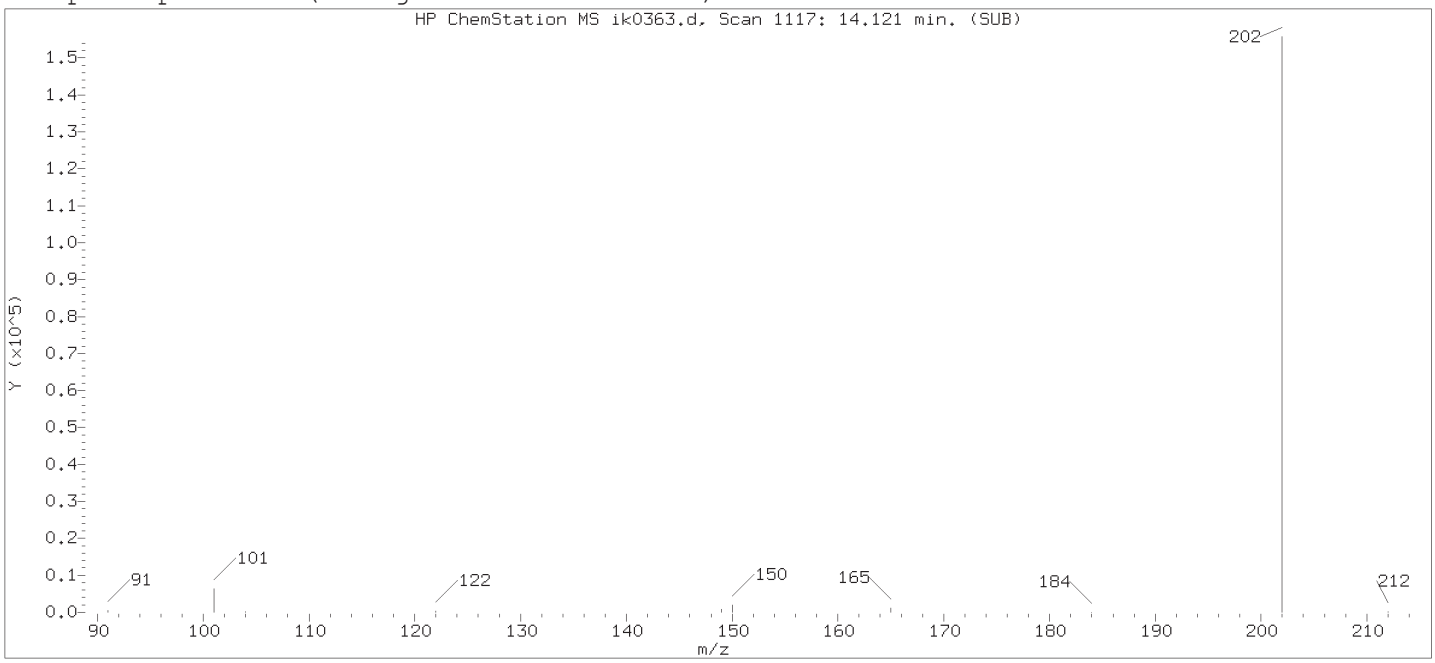
Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1117		
Retention Time (minutes)	: 14.121		
Quant Ion	: 202.00		
Area (flag)	: 188769M		
On-column Amount (ng/ul)	: 0.2982		
Integration start scan	: 1113	Integration stop scan:	1120
Y at integration start	: 5886	Y at integration end:	5886

Reason for manual integration: improper integration

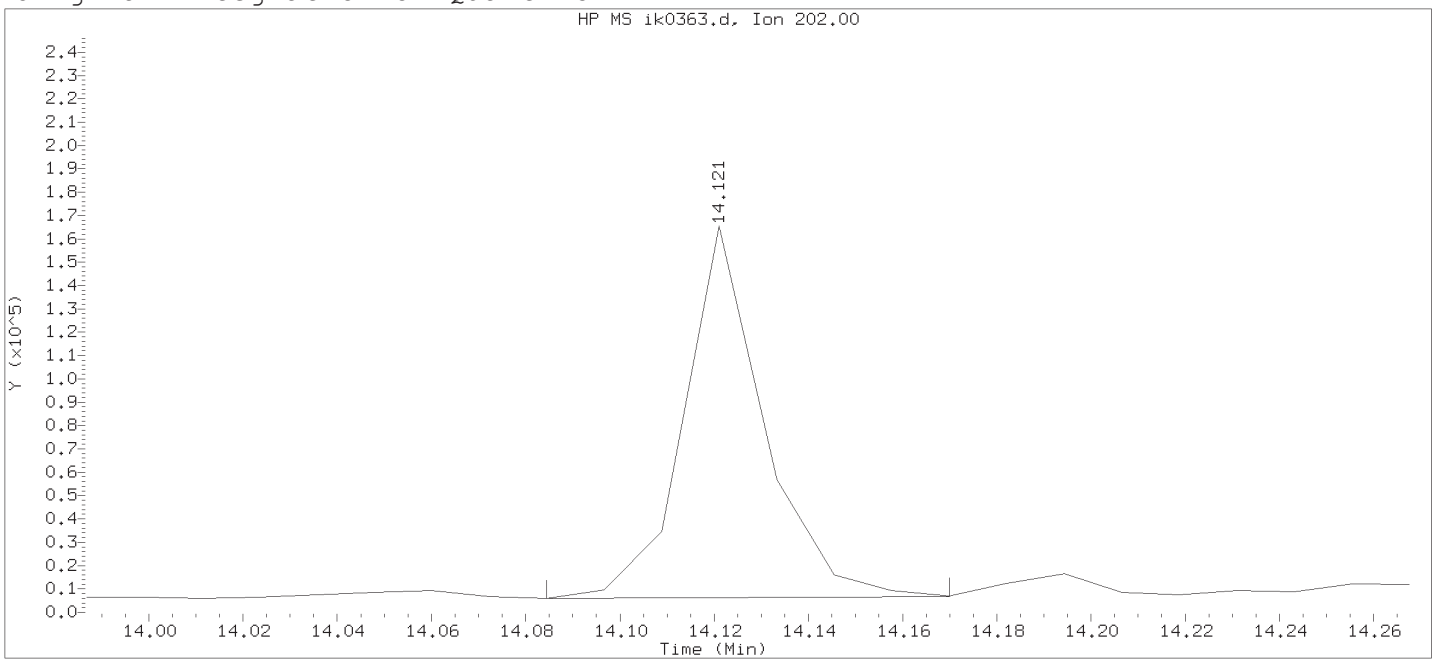
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

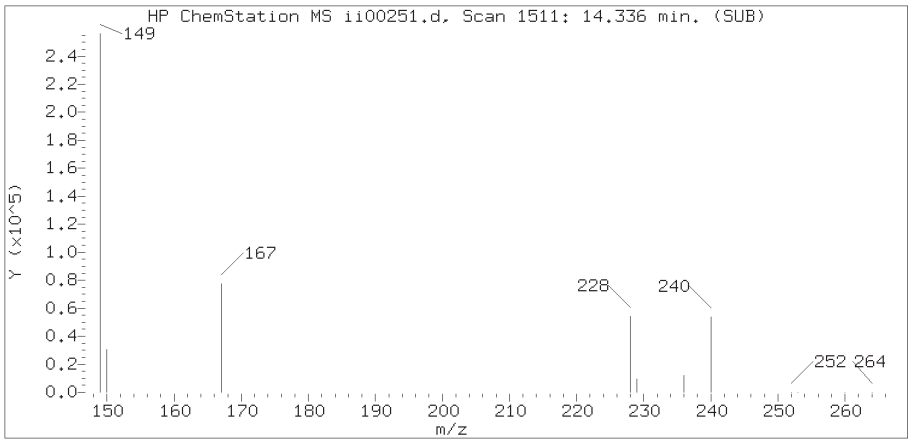
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

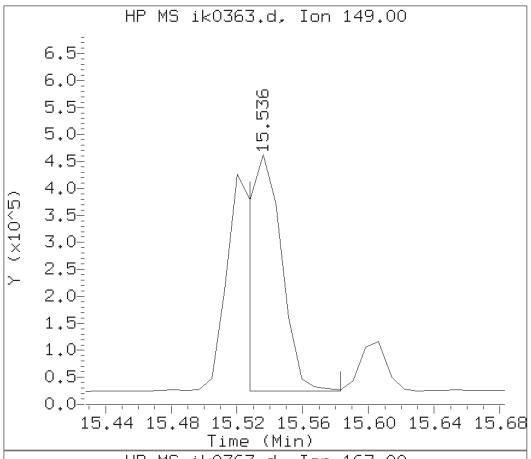
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1117		
Retention Time (minutes)	: 14.121		
Quant Ion	: 202.00		
Area	: 185831		
On-column Amount (ng/ul)	: 0.2935		
Integration start scan	: 1113	Integration stop scan:	1120
Y at integration start	: 5995	Y at integration end:	6740

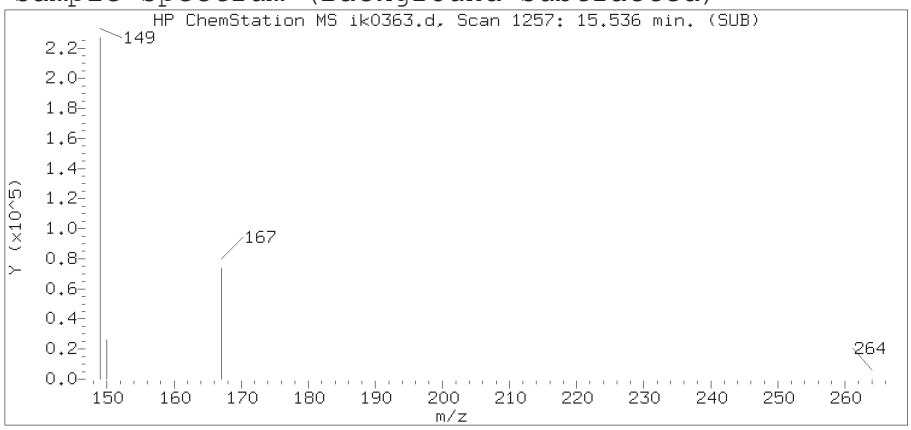
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

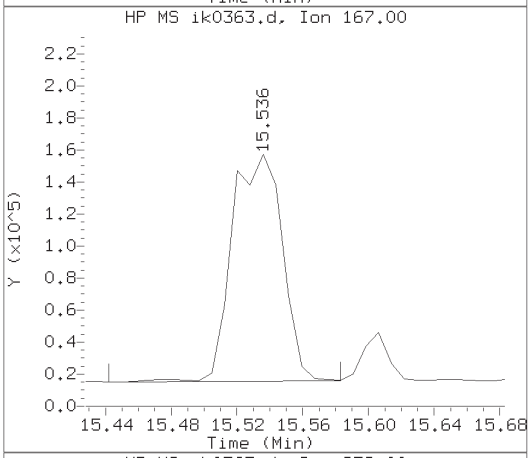
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



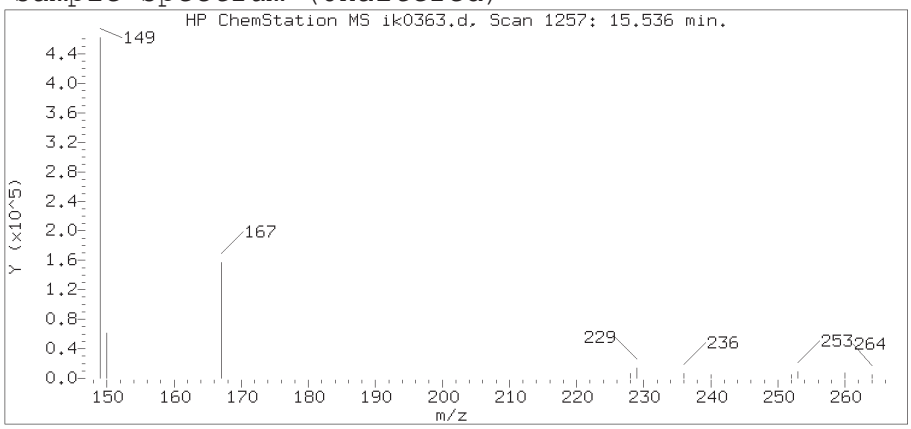


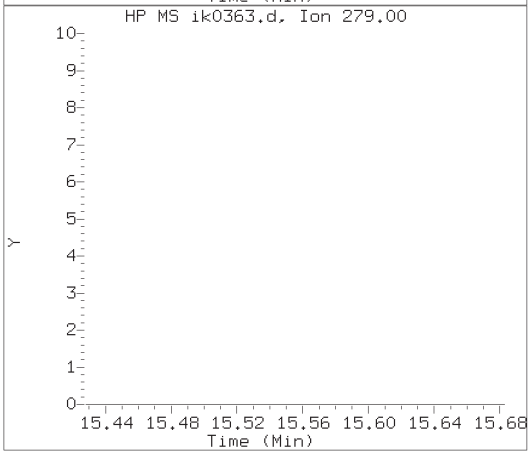
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

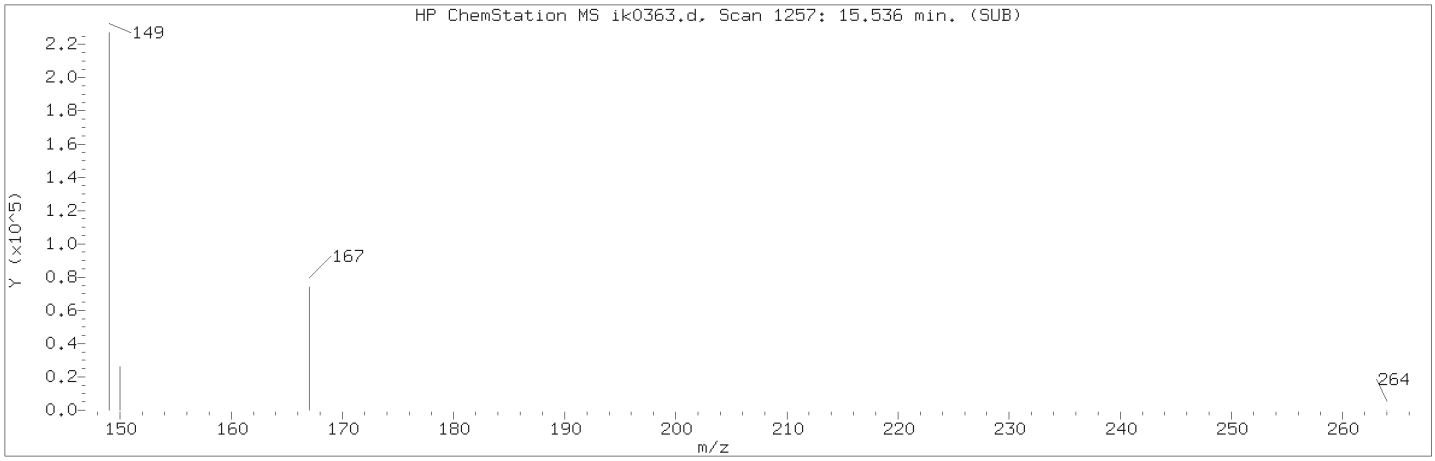
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

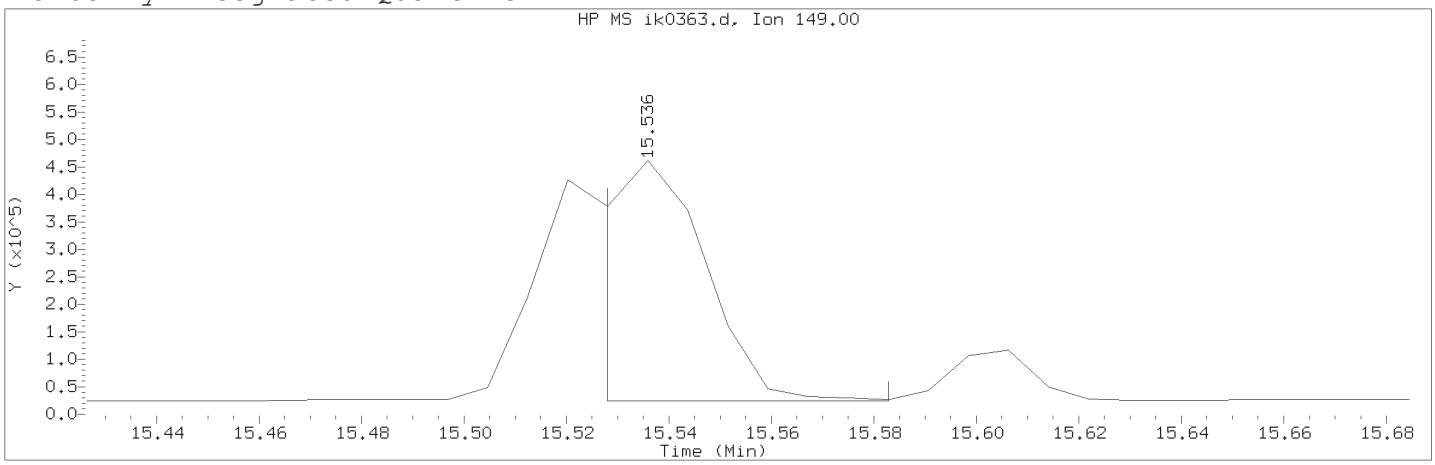
Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1257
Retention Time (minutes)	: 15.536
Relative Retention Time	: 0.00050
Quant Ion	: 149.00
Area (flag)	: 616303M
On-column Amount (ng/ul)	: 2.0485

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

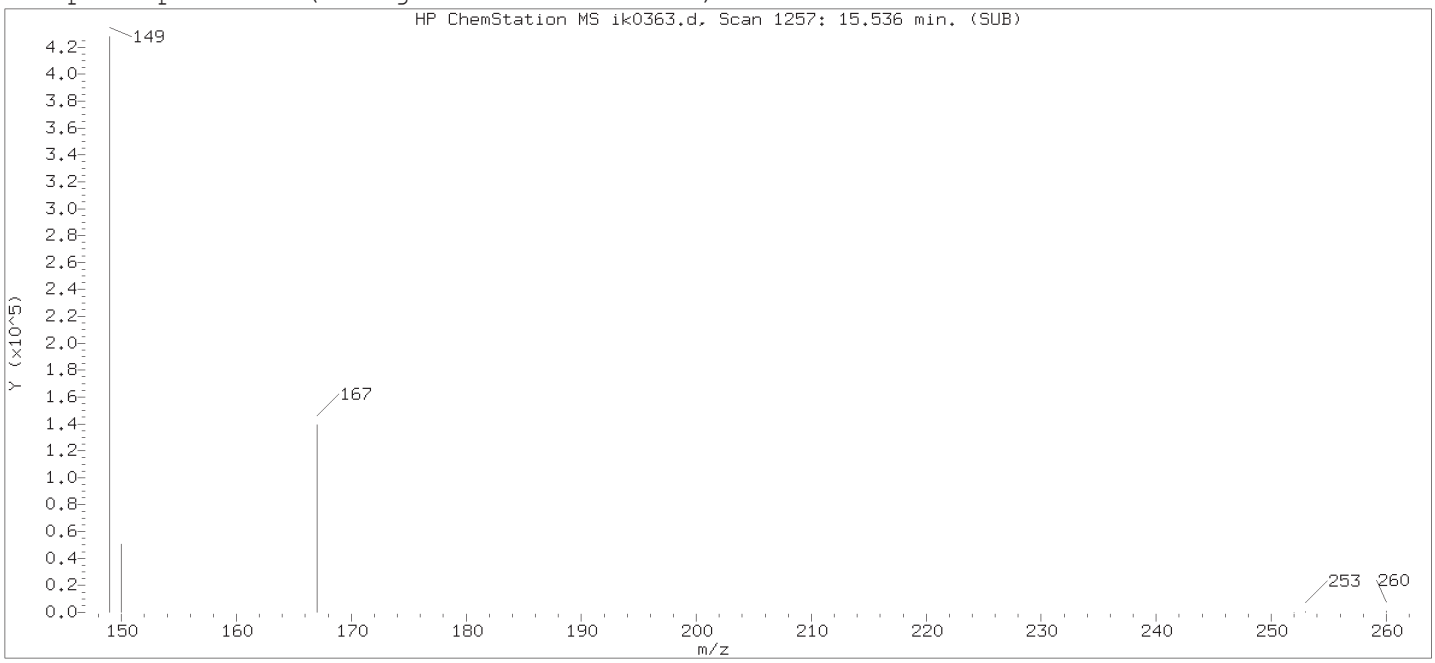
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1257
Retention Time (minutes) : 15.536
Quant Ion : 149.00
Area (flag) : 616303M
On-column Amount (ng/ul) : 2.0485
Integration start scan : 1255 Integration stop scan: 1262
Y at integration start : 24176 Y at integration end: 24176

Reason for manual integration: improper integration

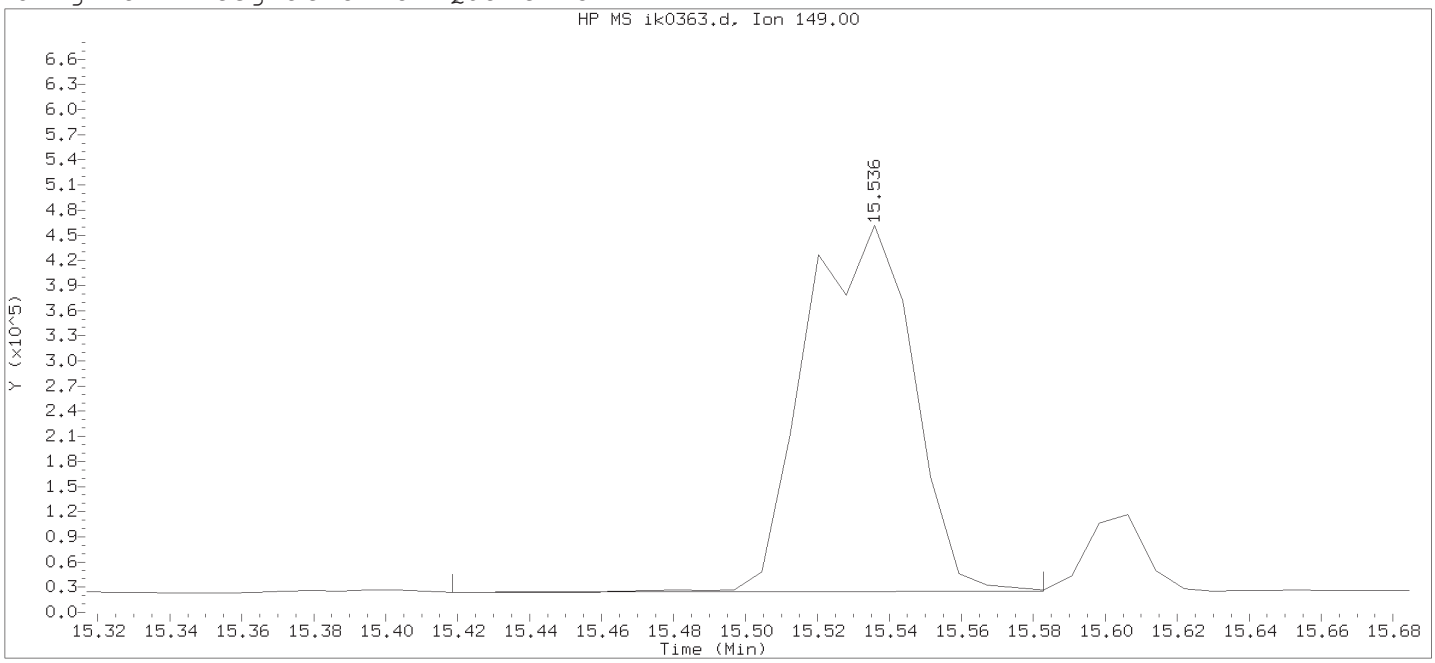
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

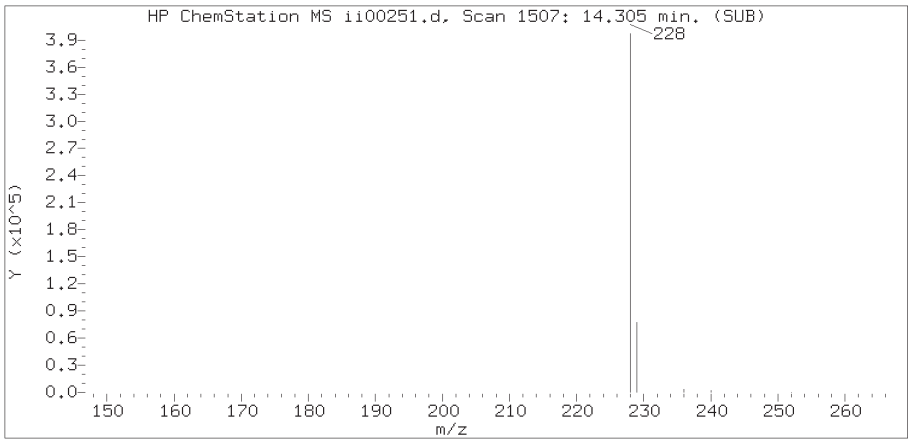
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

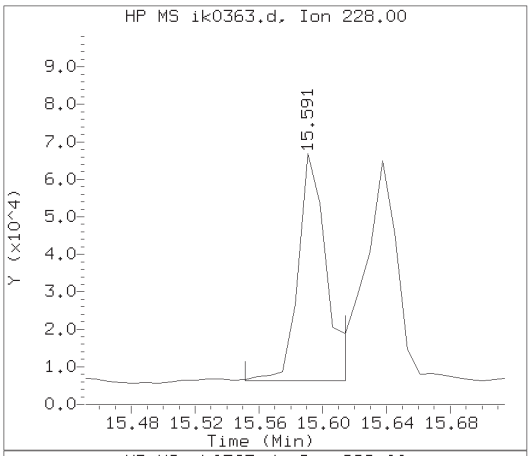
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1257
Retention Time (minutes) : 15.536
Quant Ion : 149.00
Area : 908453
On-column Amount (ng/ul) : 3.0195
Integration start scan : 1241 Integration stop scan: 1262
Y at integration start : 23575 Y at integration end: 24843

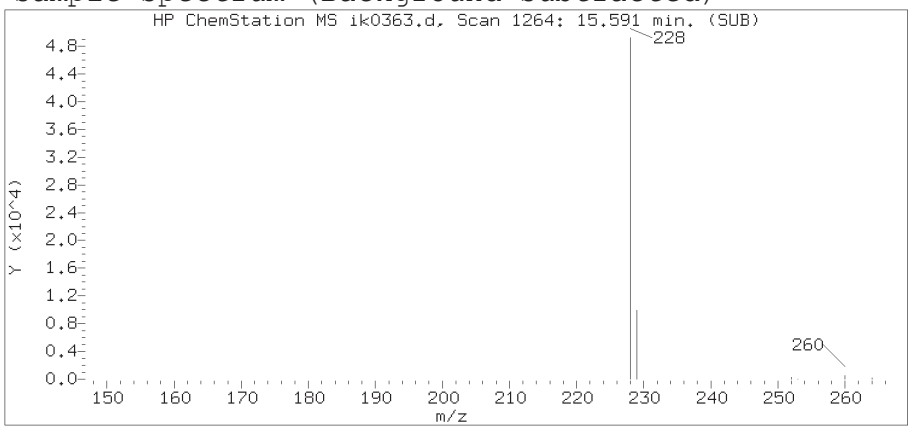
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used 11/12/2018 15:16

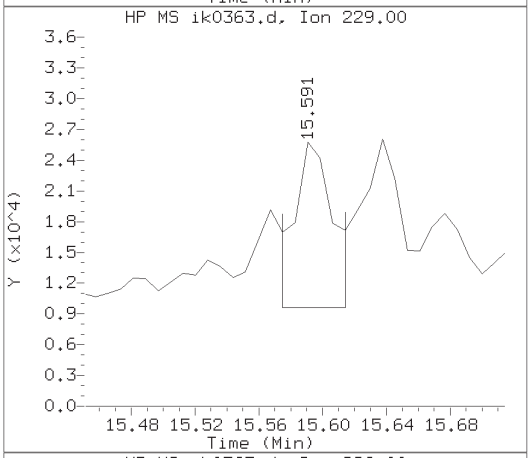
Reference Standard Spectrum for Benzo(a)anthracene



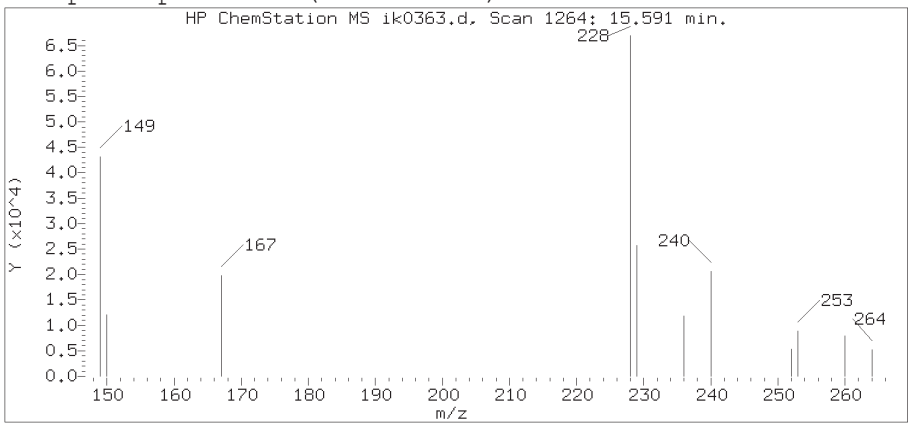


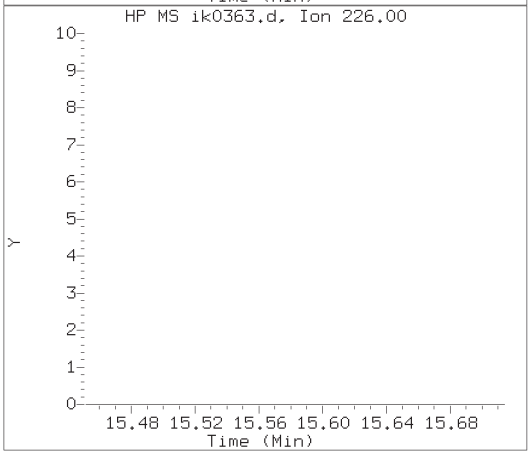
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

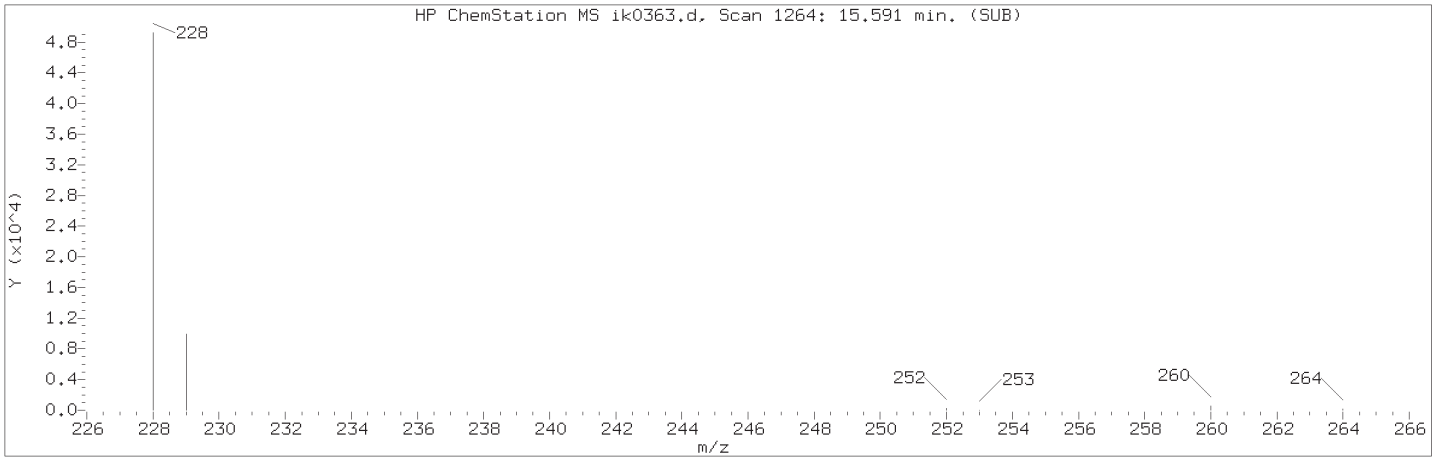
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

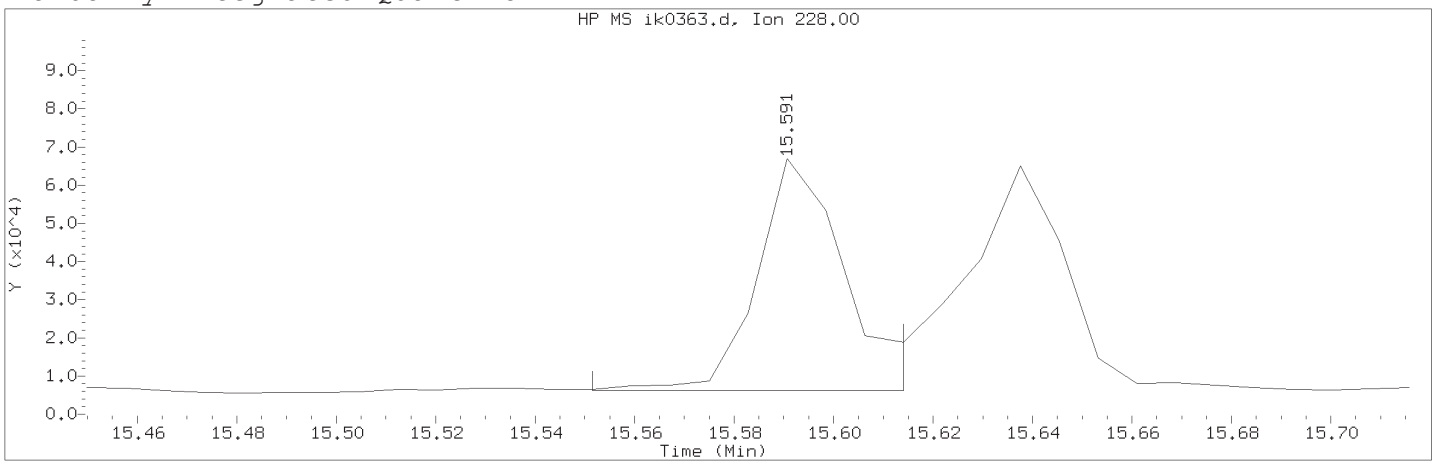
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1264
Retention Time (minutes)	: 15.591
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 75329M
On-column Amount (ng/ul)	: 0.1280

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

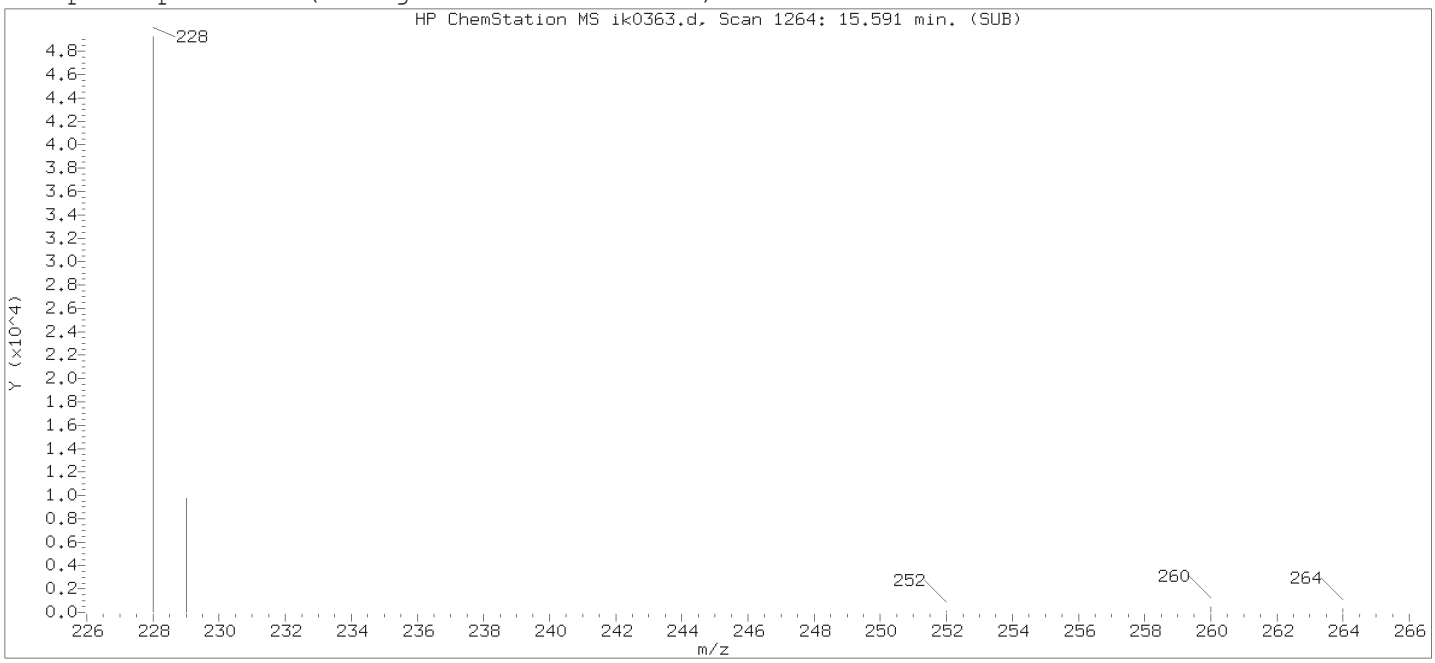
Compound Number : 42
Compound Name : Benzo(a)anthracene
Scan Number : 1264
Retention Time (minutes) : 15.591
Quant Ion : 228.00
Area (flag) : 75329M
On-column Amount (ng/ul) : 0.1280
Integration start scan : 1258 Integration stop scan: 1266
Y at integration start : 6224 Y at integration end: 6224

Reason for manual integration: improper integration

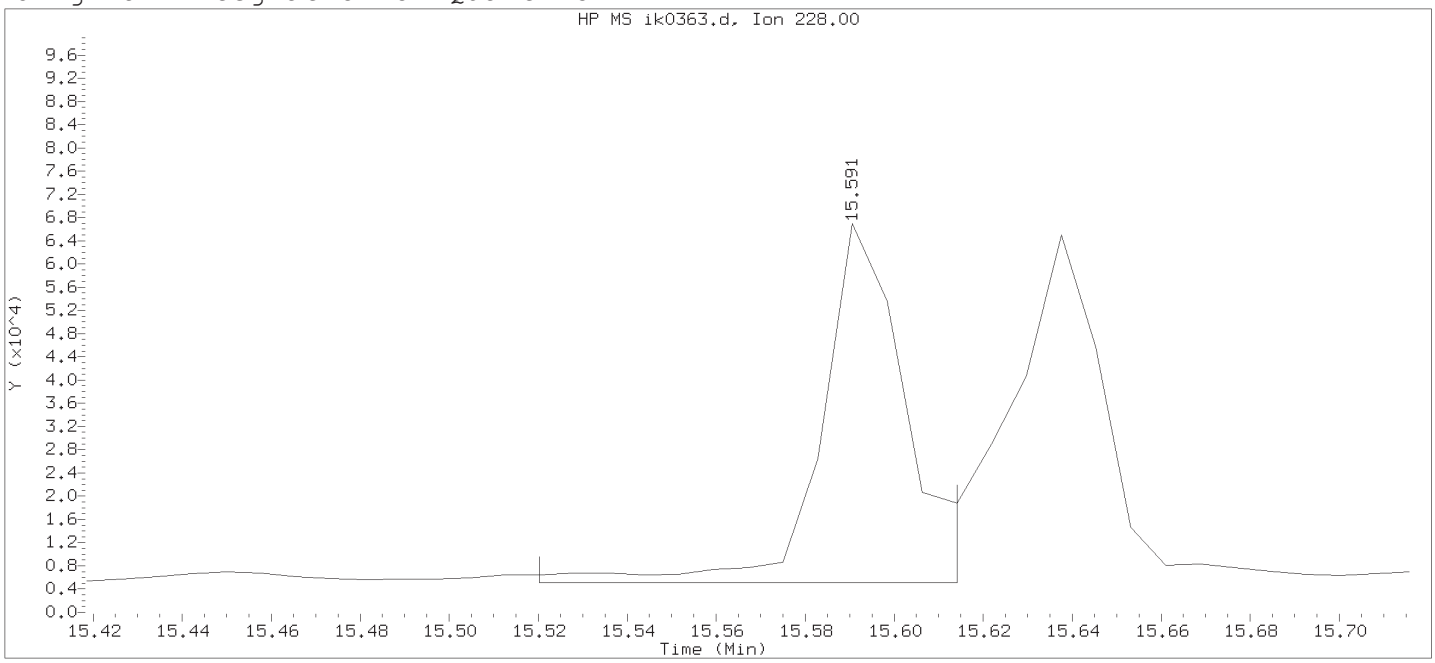
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

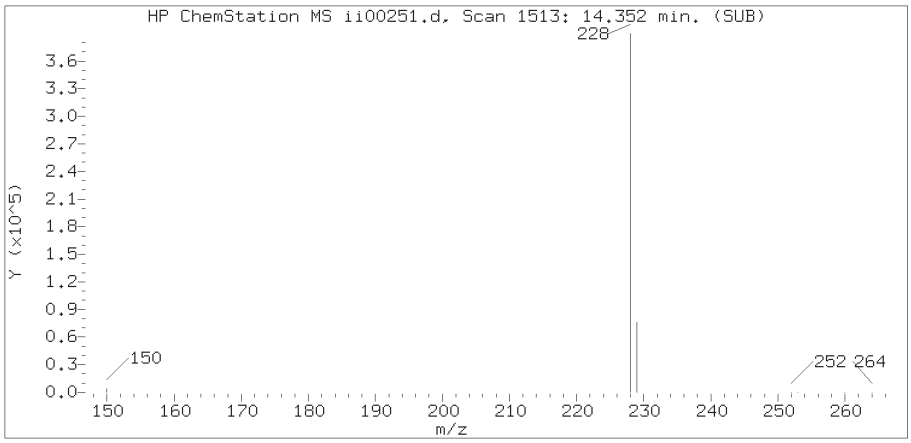
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

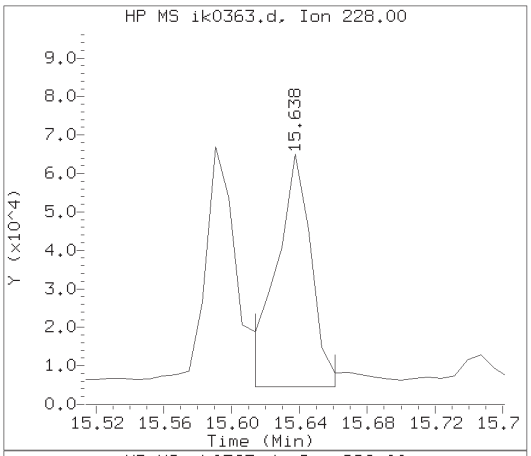
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 42		
Compound Name	: Benzo(a)anthracene		
Scan Number	: 1264		
Retention Time (minutes)	: 15.591		
Quant Ion	: 228.00		
Area	: 79462		
On-column Amount (ng/ul)	: 0.1350		
Integration start scan	: 1254	Integration stop scan:	1266
Y at integration start	: 5086	Y at integration end:	5086

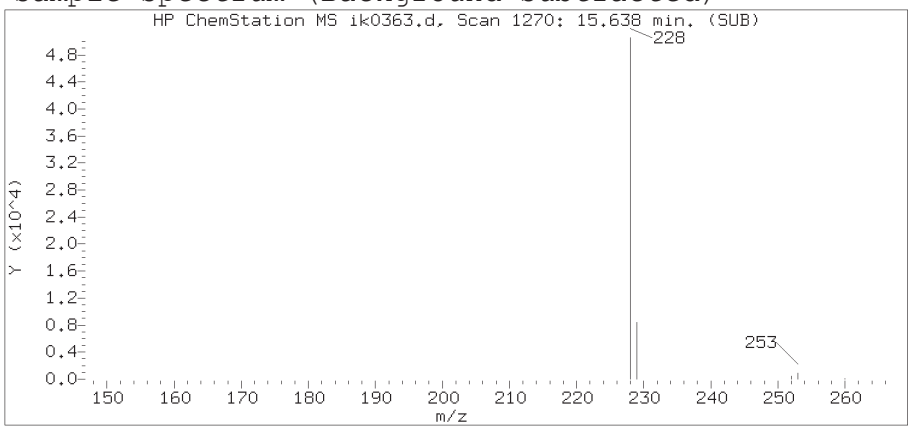
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

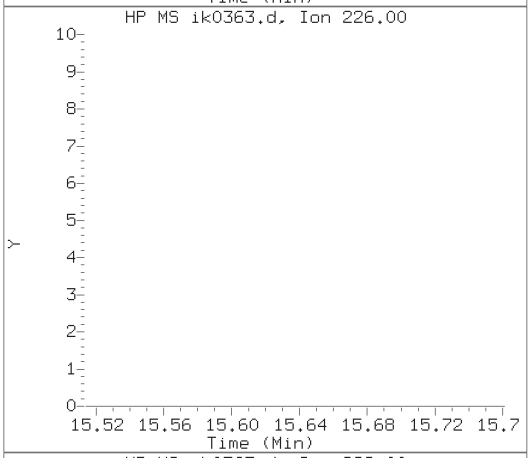
Reference Standard Spectrum for Chrysene



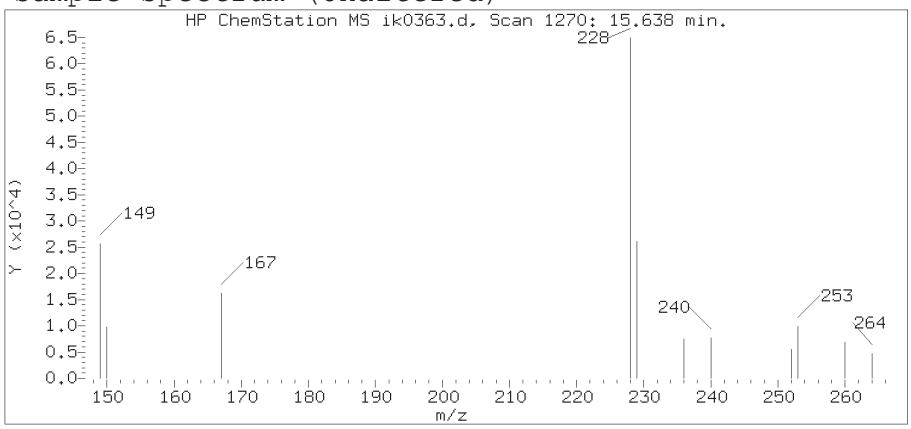


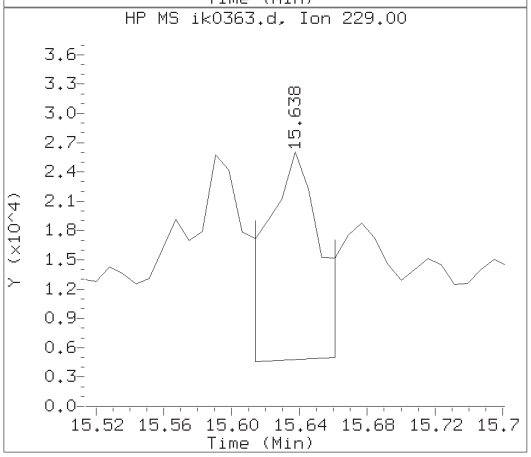
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

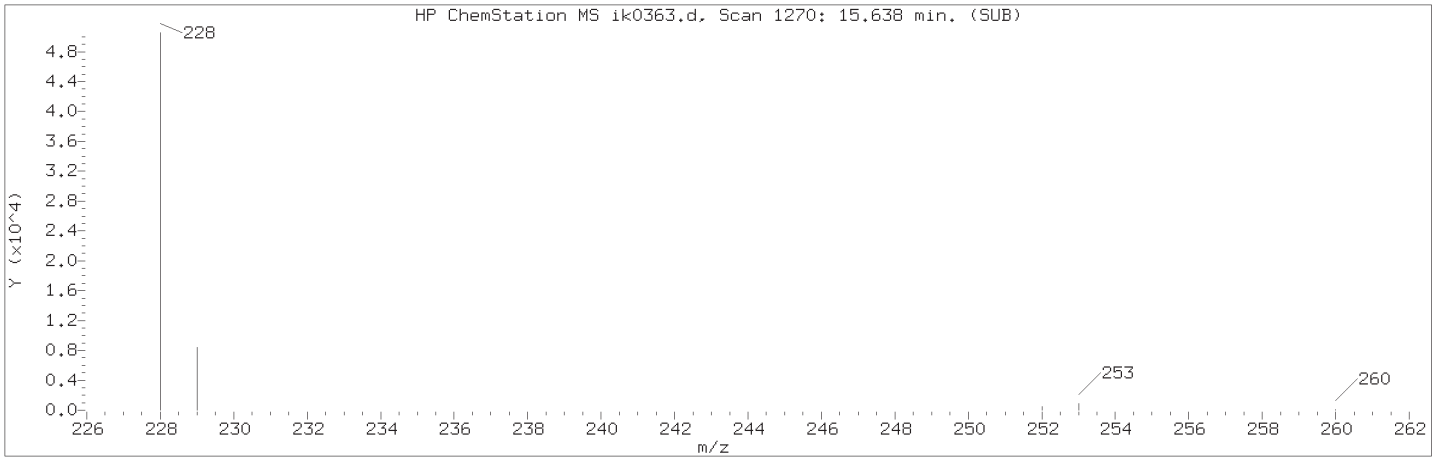
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

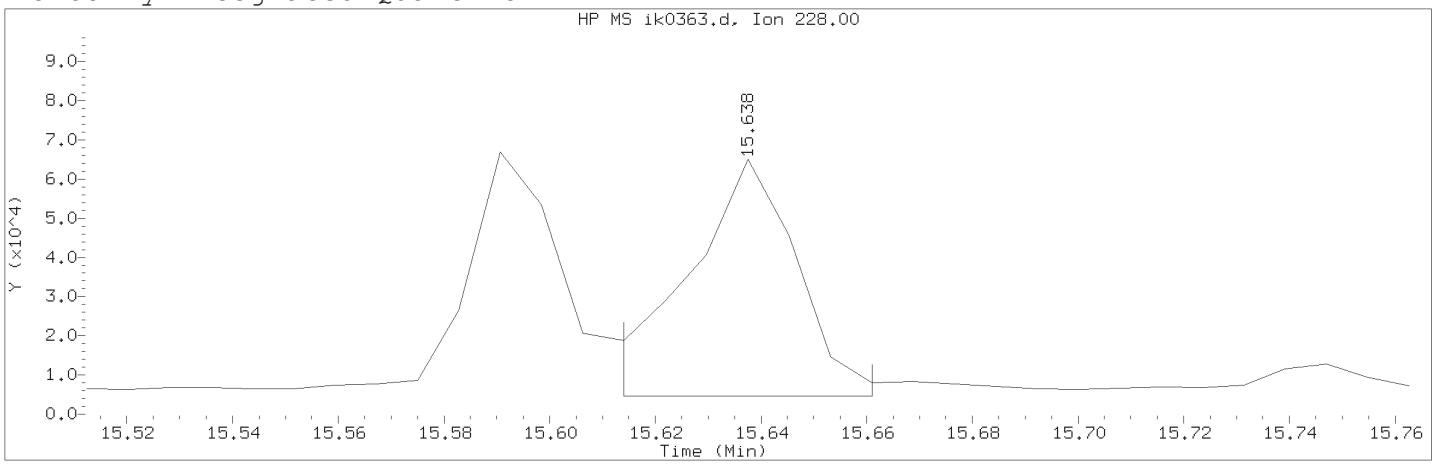
Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1270
Retention Time (minutes)	: 15.638
Relative Retention Time	: 0.00000
Quant Ion	: 228.00
Area (flag)	: 89093M
On-column Amount (ng/ul)	: 0.1585

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

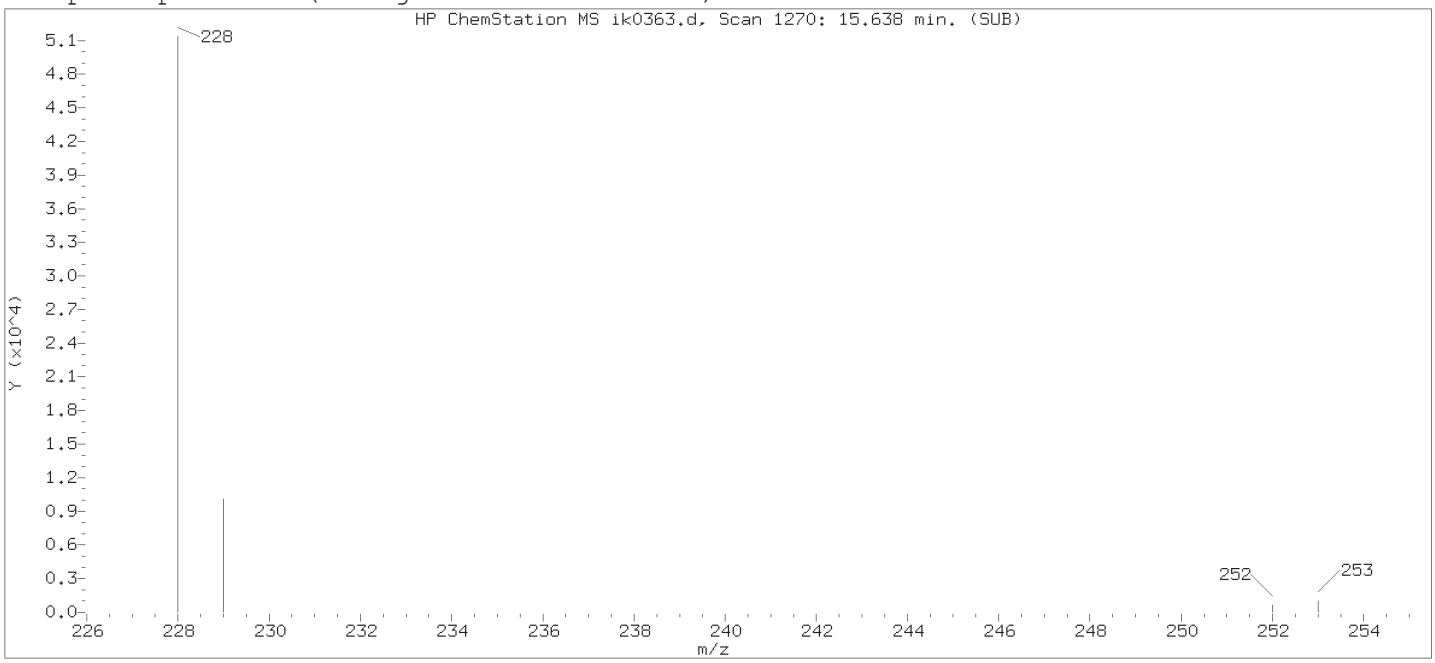
Compound Number	: 44		
Compound Name	: Chrysene		
Scan Number	: 1270		
Retention Time (minutes)	: 15.638		
Quant Ion	: 228.00		
Area (flag)	: 89093M		
On-column Amount (ng/ul)	: 0.1585		
Integration start scan	: 1266	Integration stop scan:	1272
Y at integration start	: 4563	Y at integration end:	4563

Reason for manual integration: improper integration

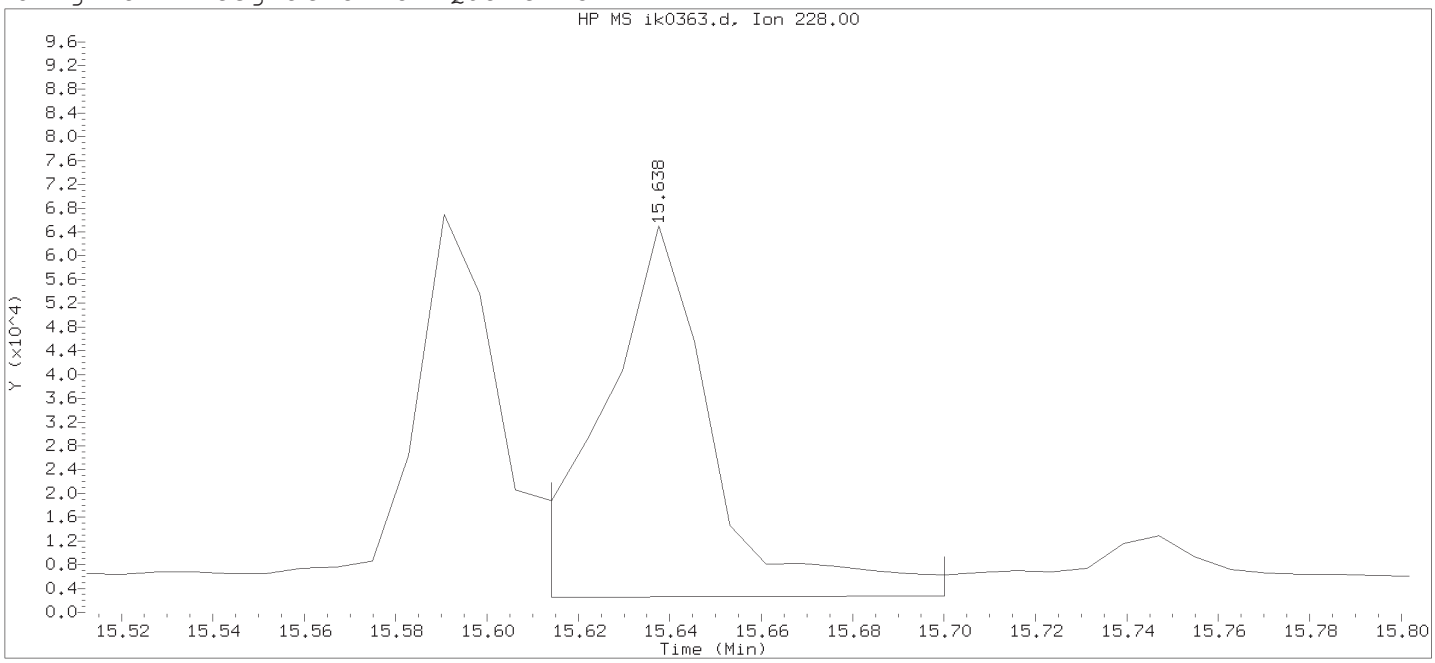
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

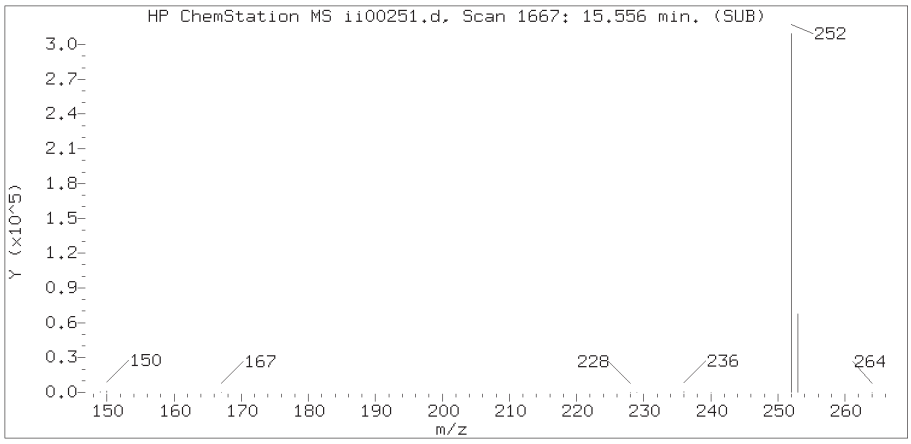
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

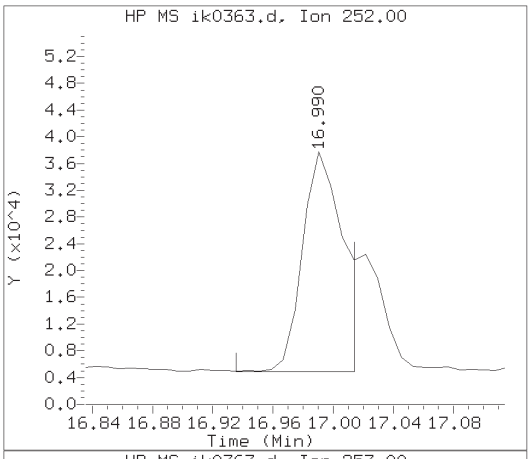
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 44		
Compound Name	: Chrysene		
Scan Number	: 1270		
Retention Time (minutes)	: 15.638		
Quant Ion	: 228.00		
Area	: 104377		
On-column Amount (ng/ul)	: 0.1857		
Integration start scan	: 1266	Integration stop scan:	1277
Y at integration start	: 2522	Y at integration end:	2775

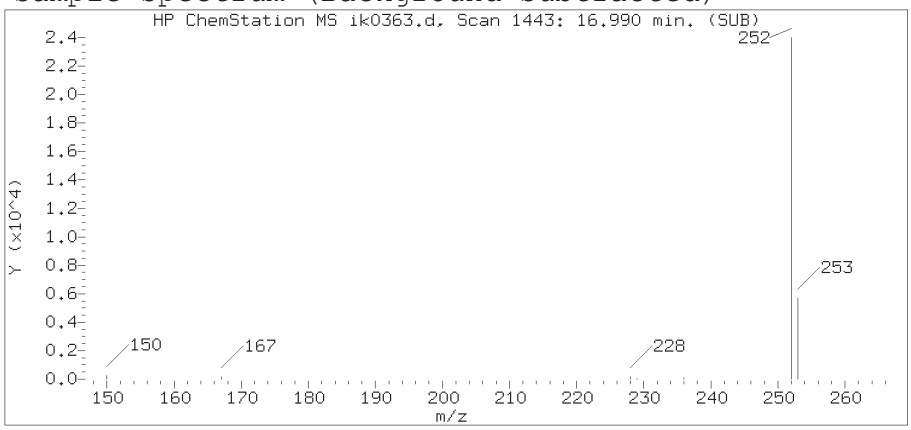
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

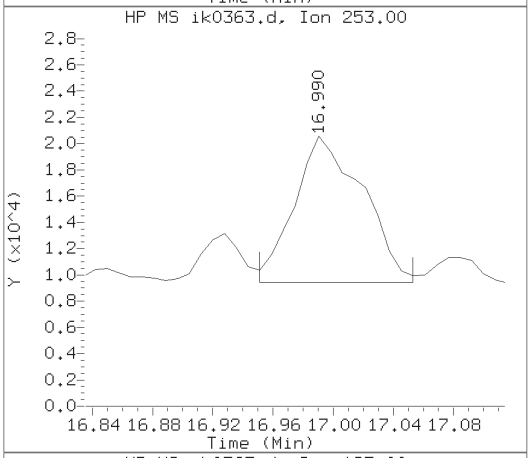
Reference Standard Spectrum for Benzo(b)fluoranthene



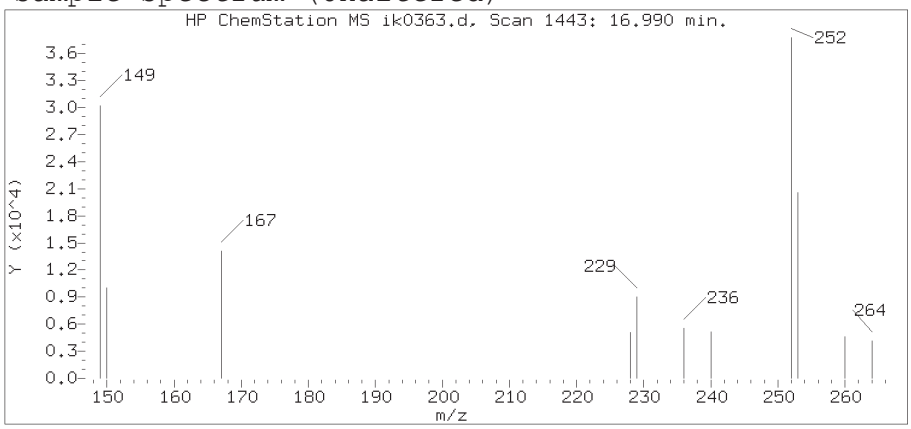


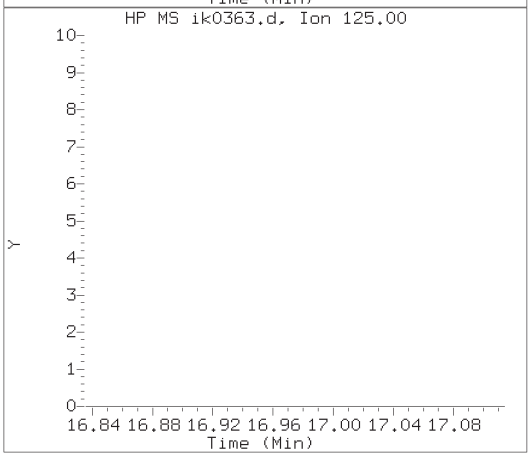
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

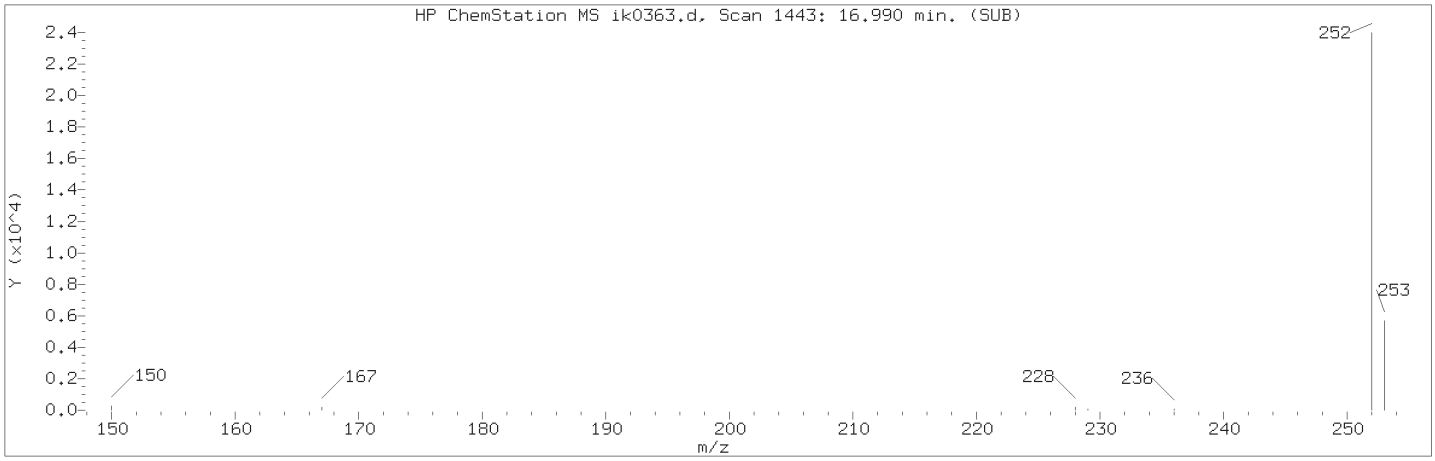
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

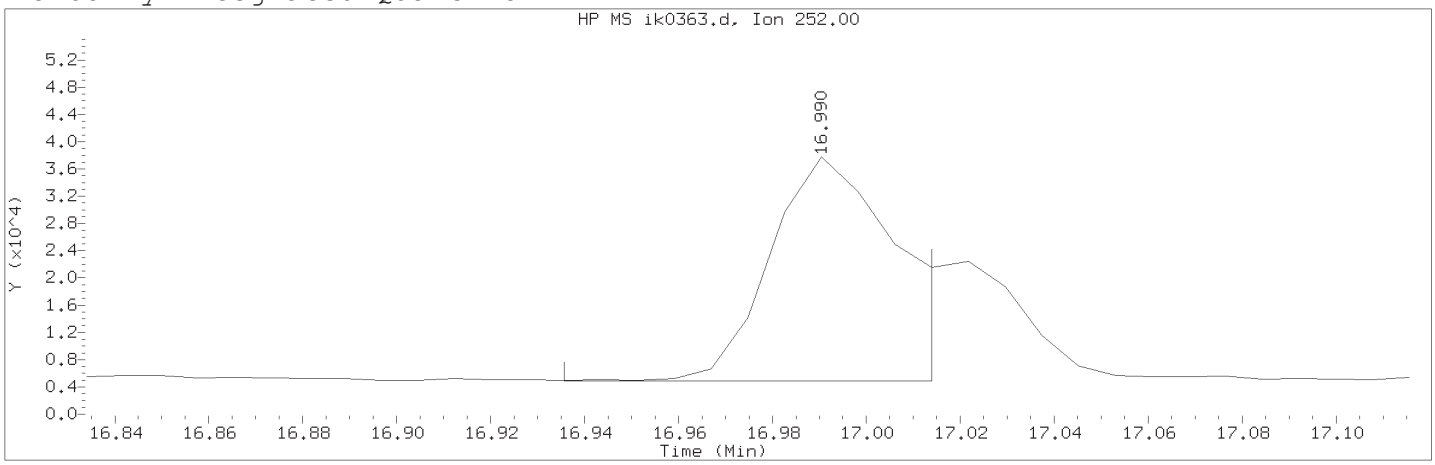
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1443
Retention Time (minutes)	: 16.990
Relative Retention Time	:-0.00005
Quant Ion	: 252.00
Area (flag)	: 62947M
On-column Amount (ng/ul)	: 0.1661

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

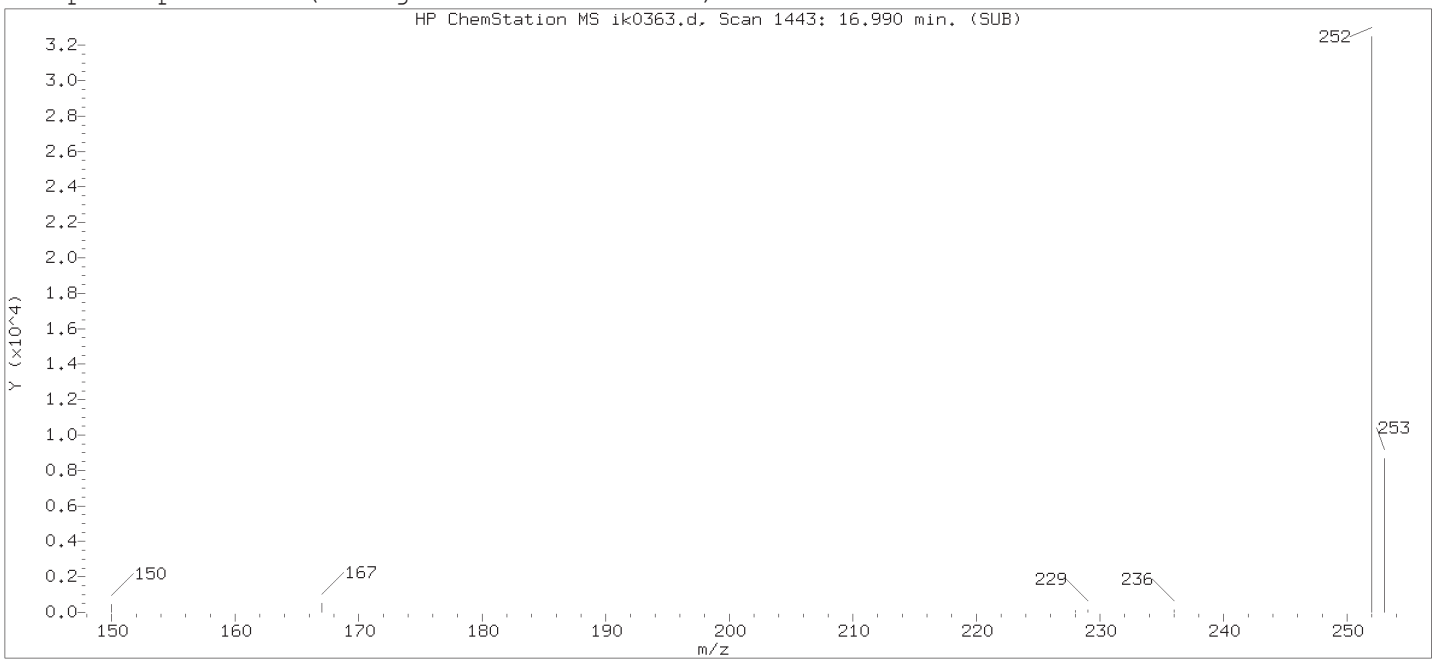
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1443
Retention Time (minutes) : 16.990
Quant Ion : 252.00
Area (flag) : 62947M
On-column Amount (ng/ul) : 0.1661
Integration start scan : 1435 Integration stop scan: 1445
Y at integration start : 4856 Y at integration end: 4853

Reason for manual integration: improper integration

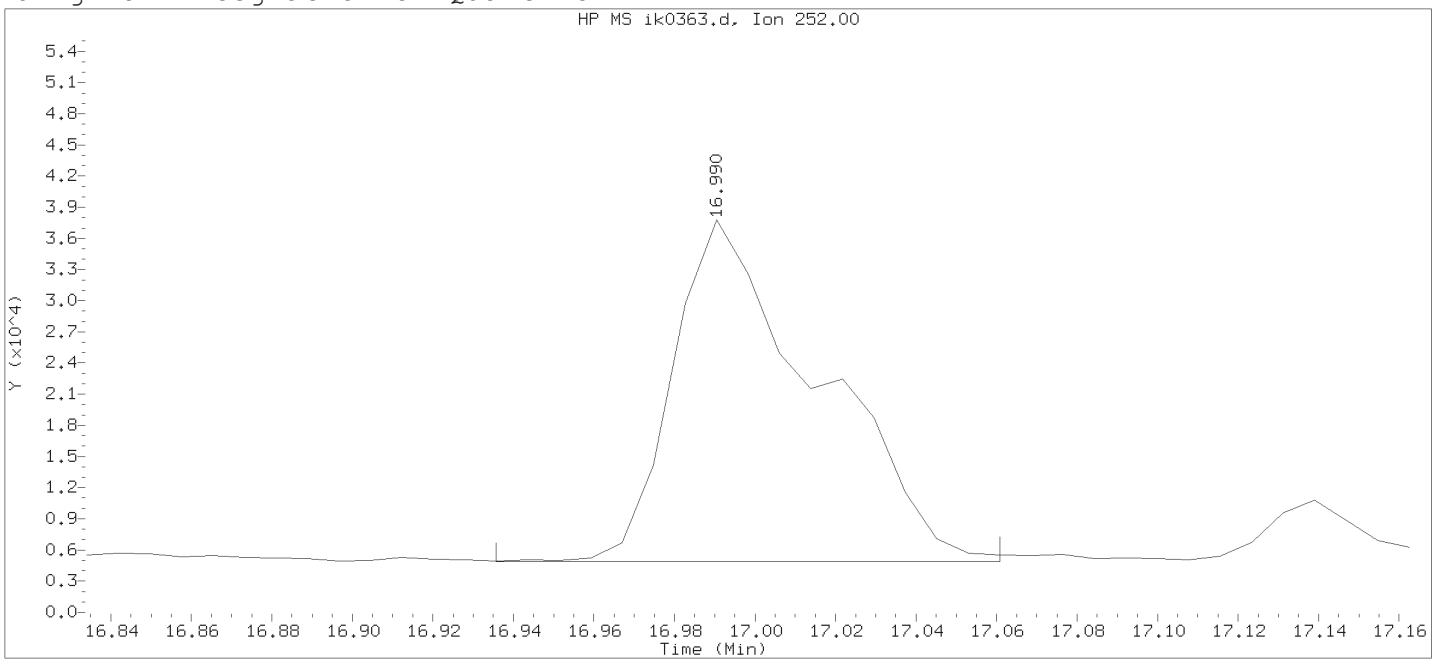
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

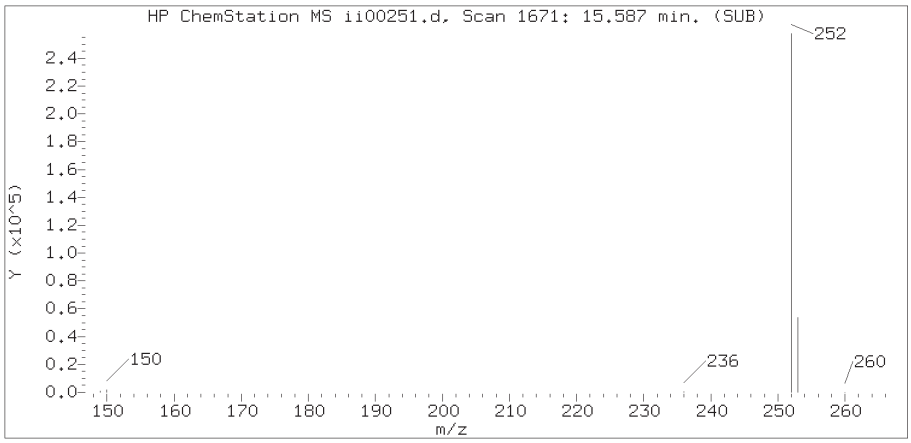
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

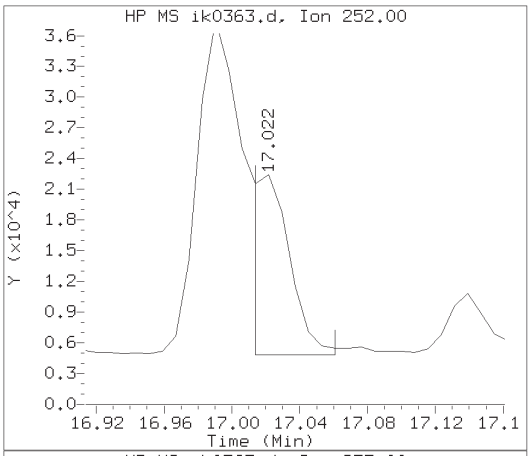
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1443		
Retention Time (minutes)	: 16.990		
Quant Ion	: 252.00		
Area	: 82440		
On-column Amount (ng/ul)	: 0.2175		
Integration start scan	: 1435	Integration stop scan:	1451
Y at integration start	: 4856	Y at integration end:	4850

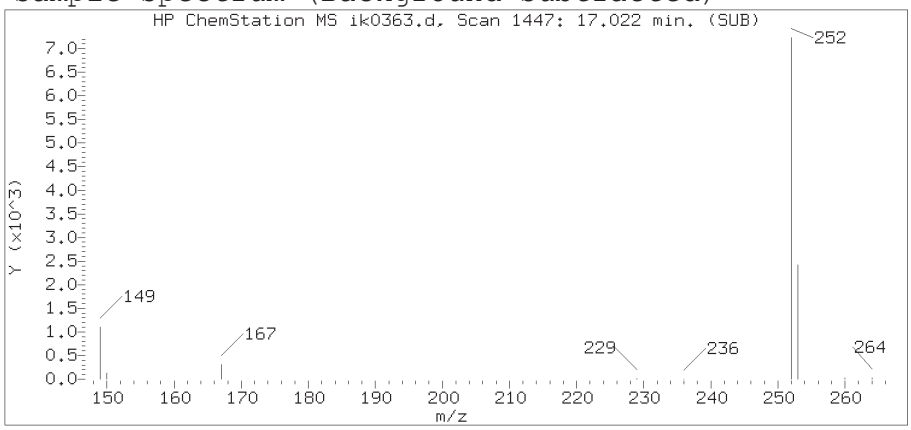
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

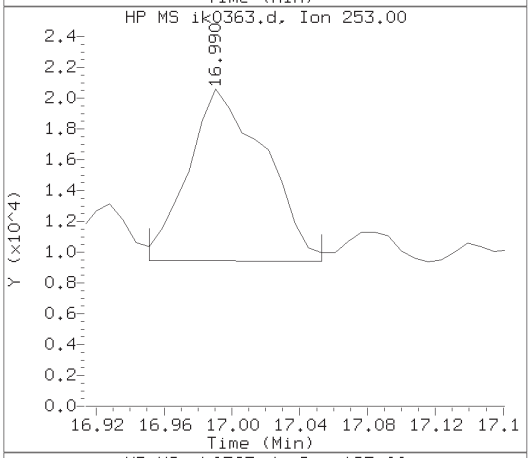
Reference Standard Spectrum for Benzo(k)fluoranthene



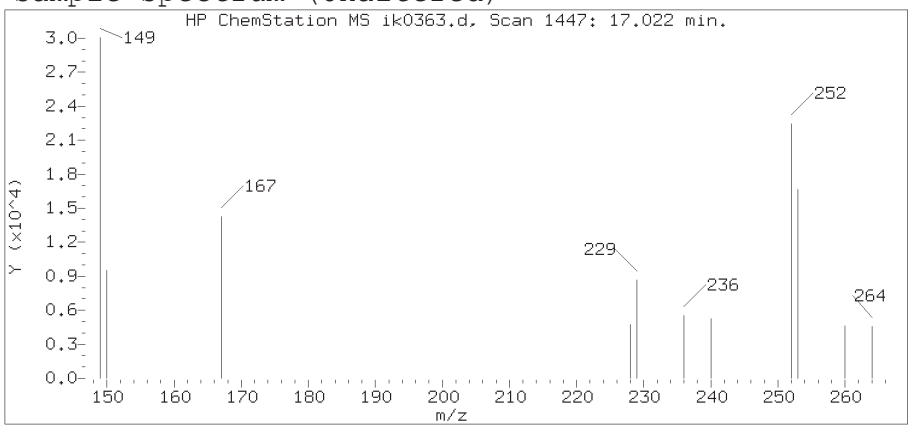


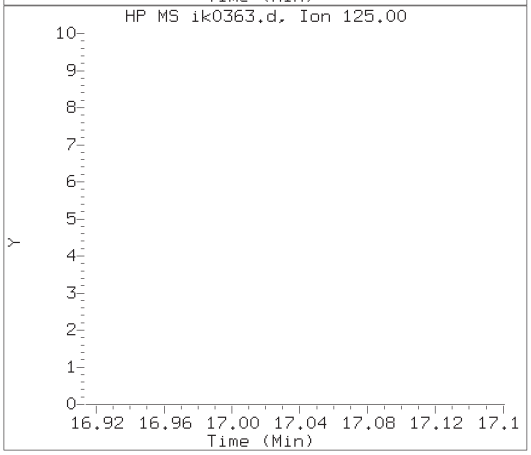
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

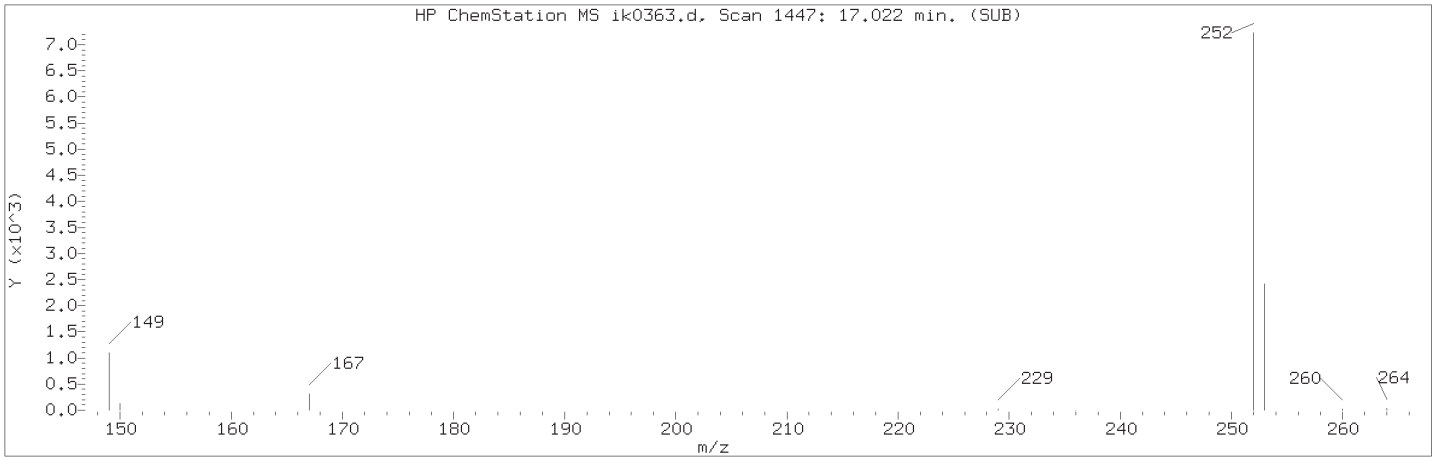
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

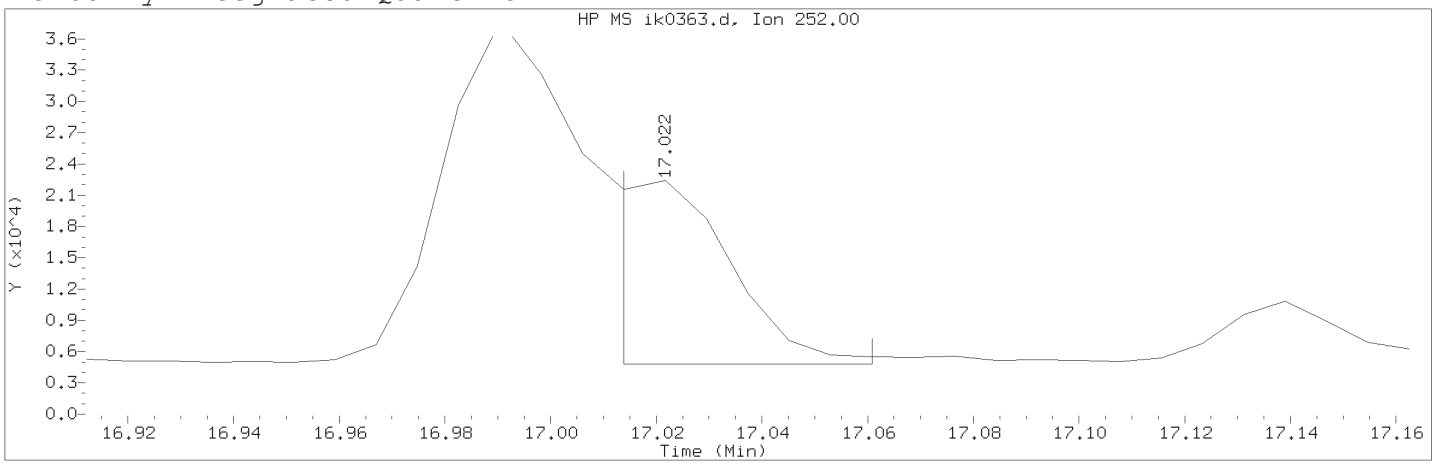
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1447
Retention Time (minutes)	: 17.022
Relative Retention Time	: 0.00040
Quant Ion	: 252.00
Area (flag)	: 27559M
On-column Amount (ng/ul)	: 0.0776

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

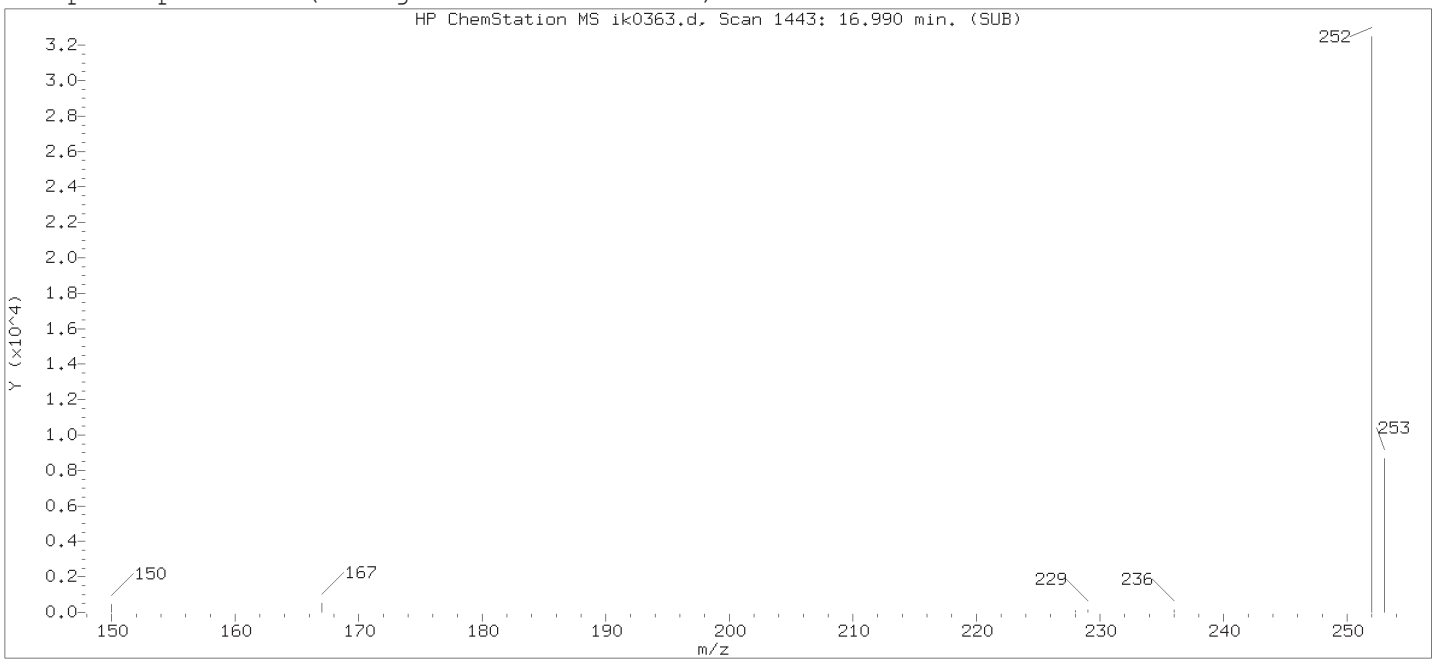
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1447
Retention Time (minutes) : 17.022
Quant Ion : 252.00
Area (flag) : 27559M
On-column Amount (ng/ul) : 0.0776
Integration start scan : 1445 Integration stop scan: 1451
Y at integration start : 4830 Y at integration end: 4830

Reason for manual integration: improper integration

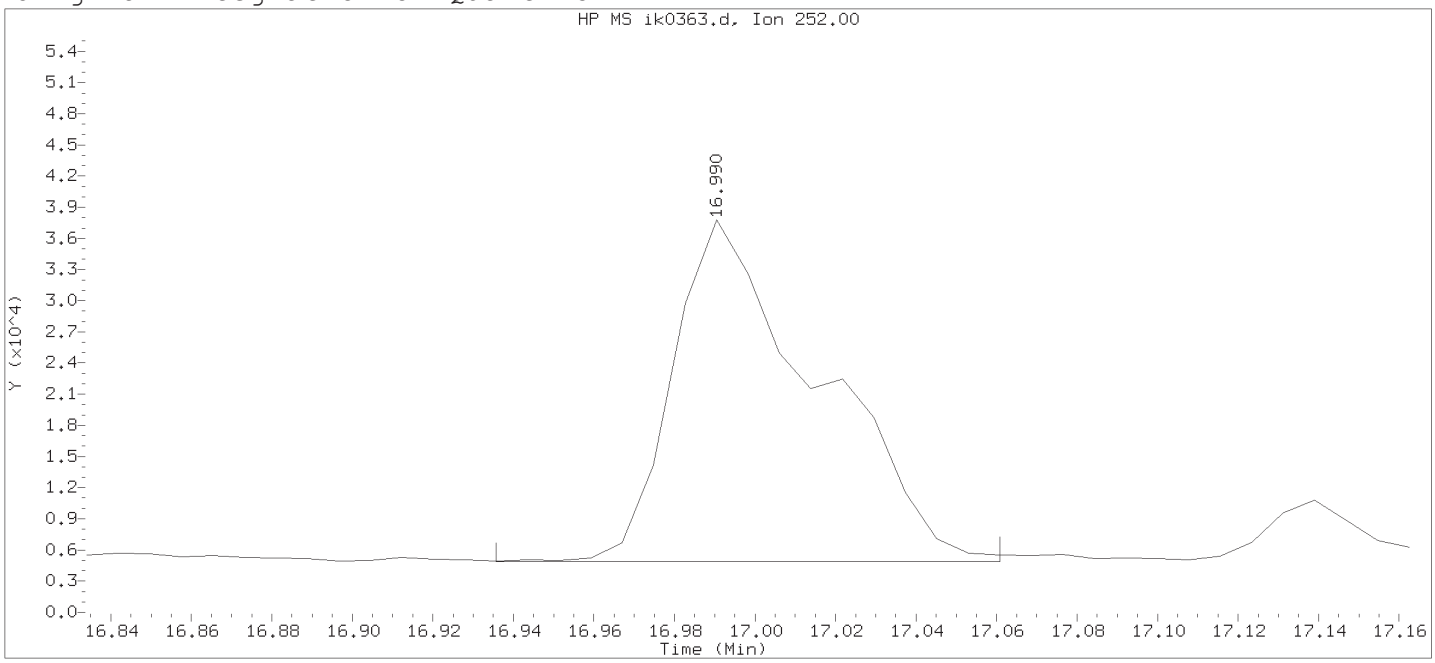
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

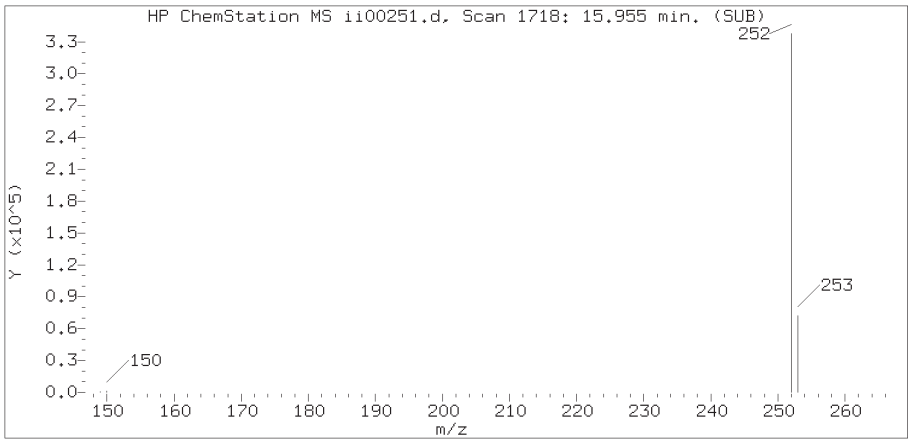
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

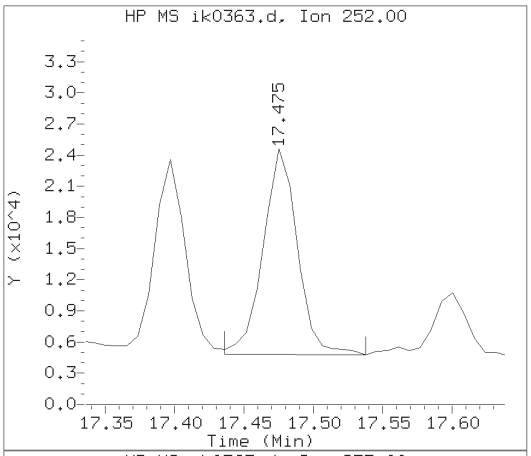
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1443		
Retention Time (minutes)	: 16.990		
Quant Ion	: 252.00		
Area	: 82440		
On-column Amount (ng/ul)	: 0.2320		
Integration start scan	: 1435	Integration stop scan:	1451
Y at integration start	: 4856	Y at integration end:	4850

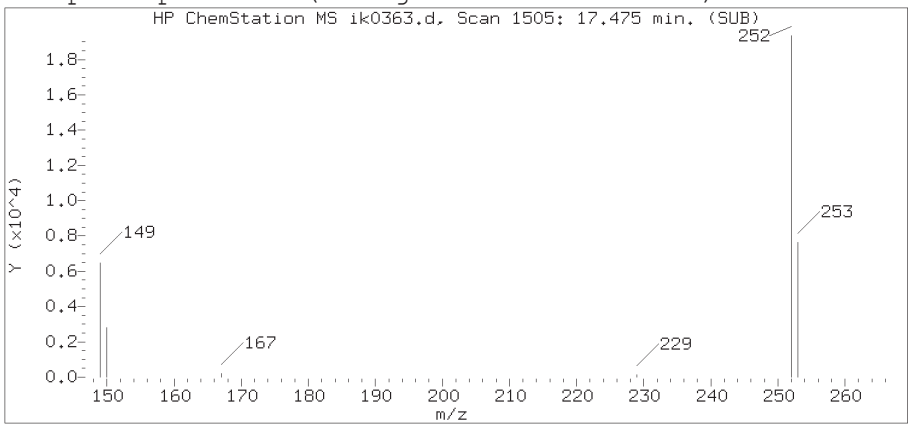
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used 11/12/2018 16:56

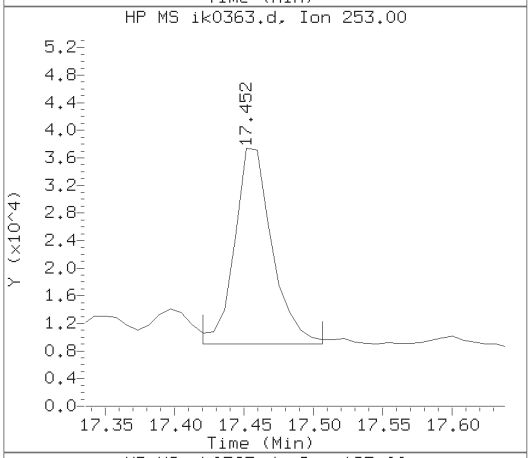
Reference Standard Spectrum for Benzo(a)pyrene



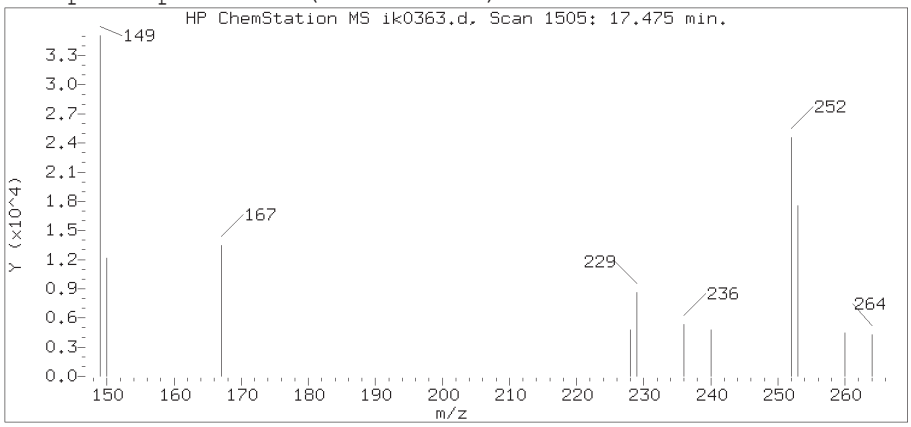


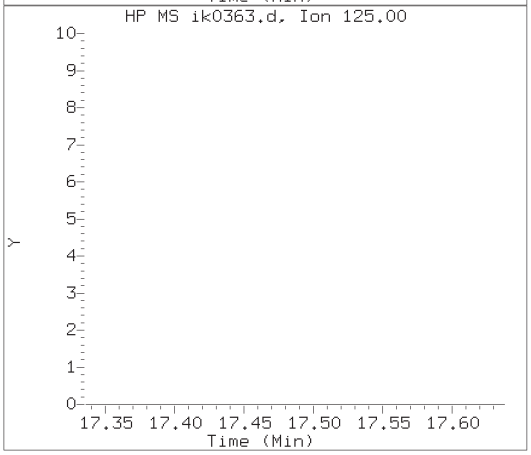
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

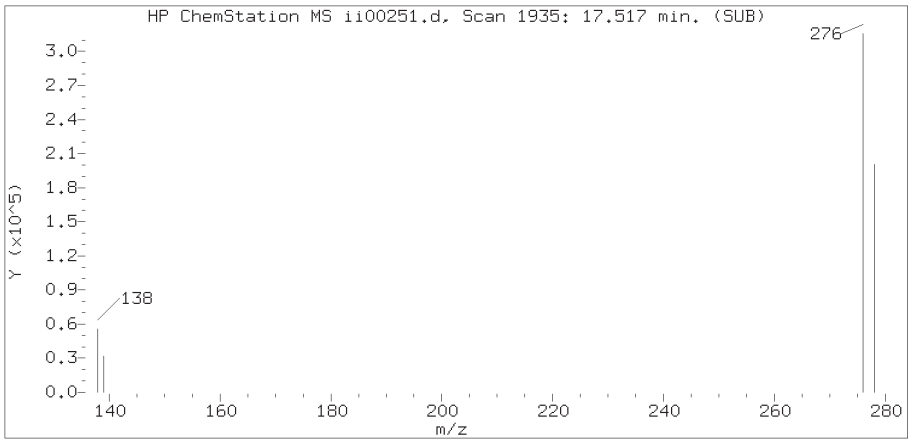
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

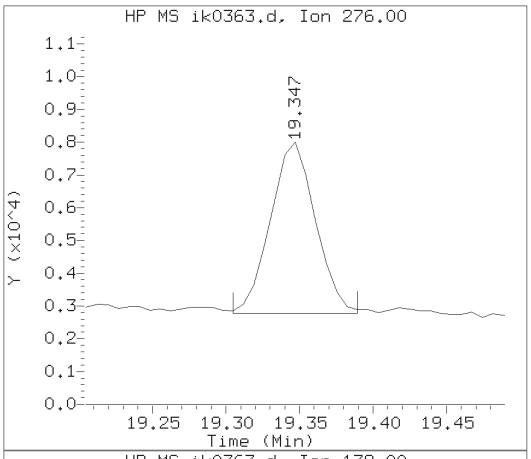
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1505
Retention Time (minutes)	: 17.475
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 34041
On-column Amount (ng/ul)	: 0.1048

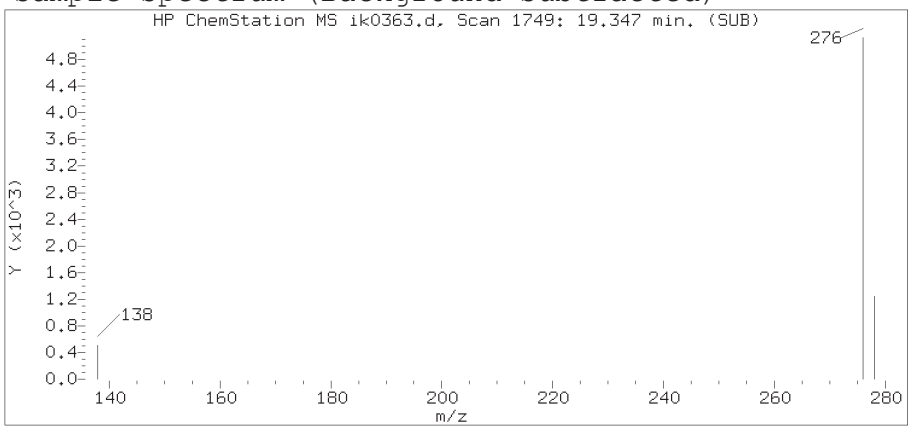
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

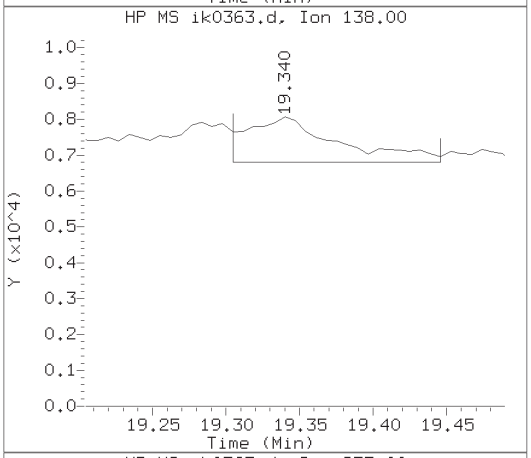
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



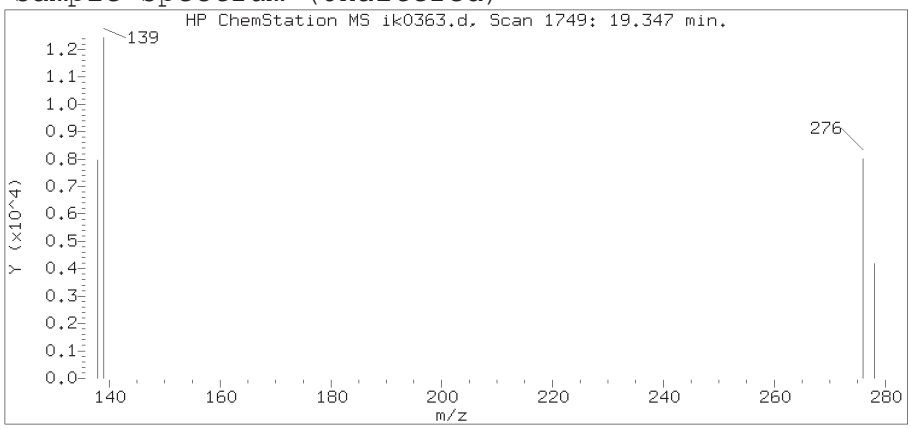


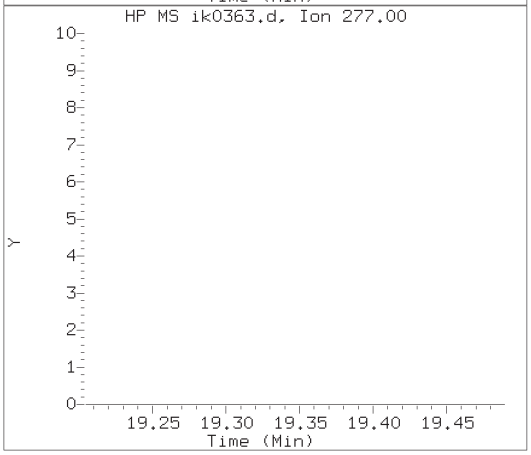
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

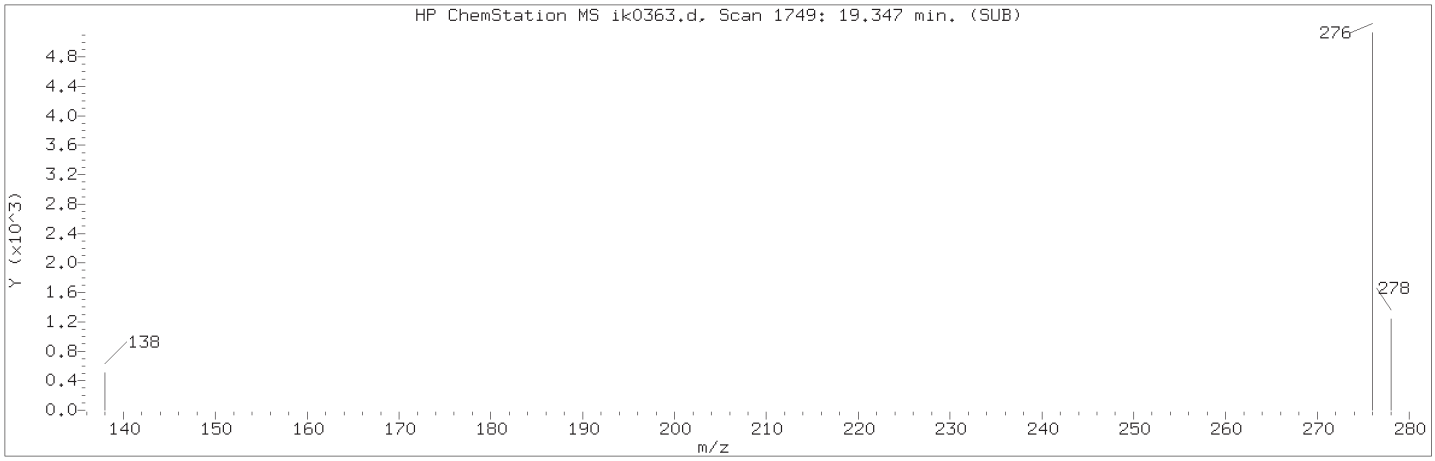
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

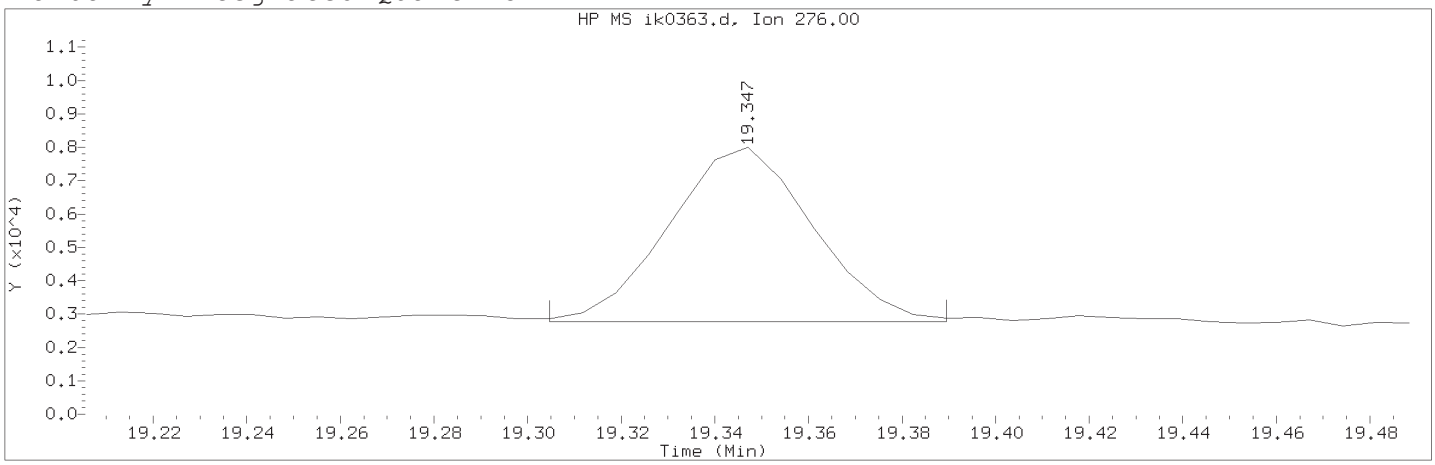
Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1749
Retention Time (minutes)	: 19.347
Relative Retention Time	:-0.00053
Quant Ion	: 276.00
Area (flag)	: 11123M
On-column Amount (ng/ul)	: 0.0290

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

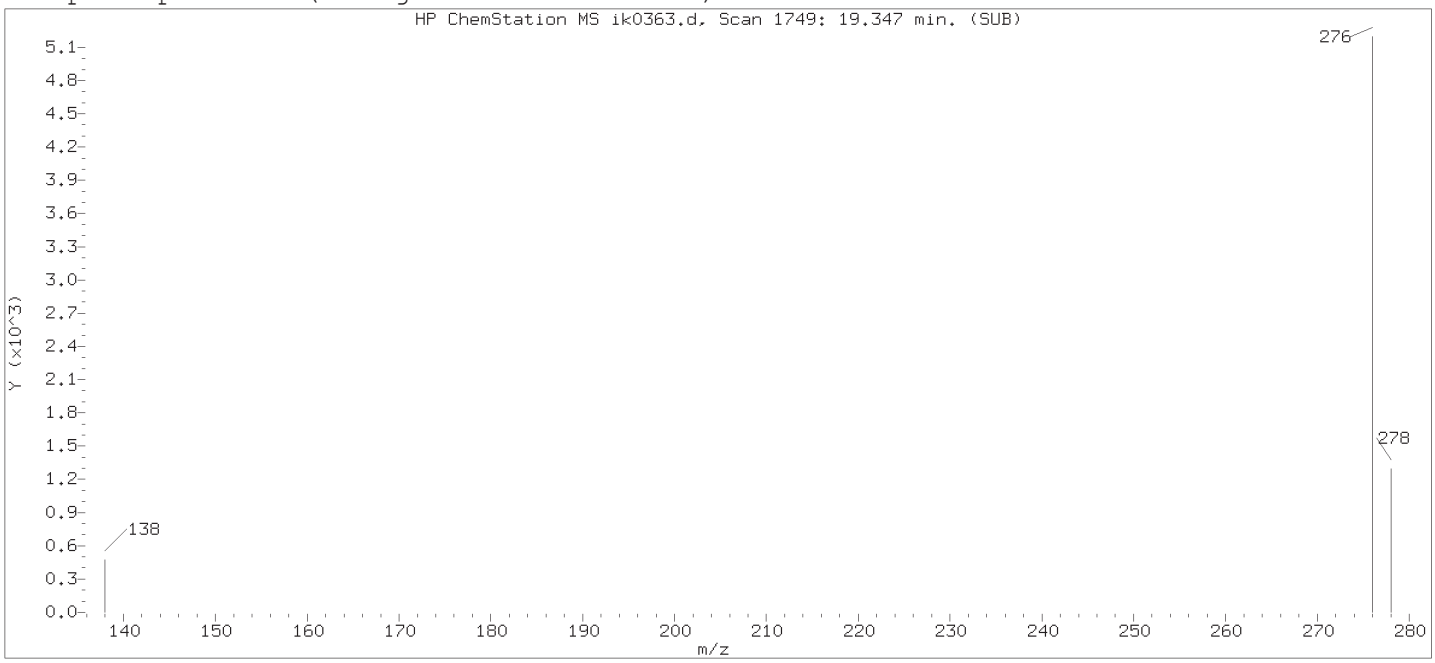
Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1749		
Retention Time (minutes)	: 19.347		
Quant Ion	: 276.00		
Area (flag)	: 11123M		
On-column Amount (ng/ul)	: 0.0290		
Integration start scan	: 1742	Integration stop scan:	1754
Y at integration start	: 2777	Y at integration end:	2777

Reason for manual integration: improper integration

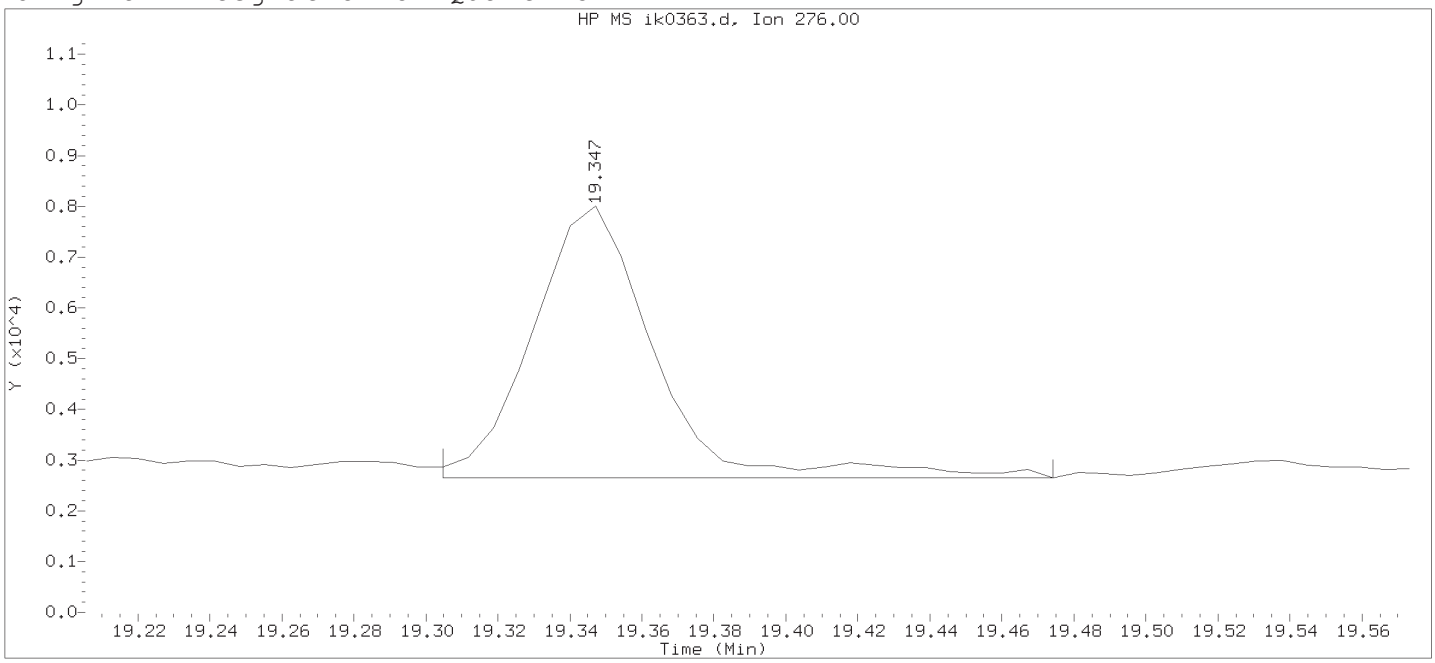
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

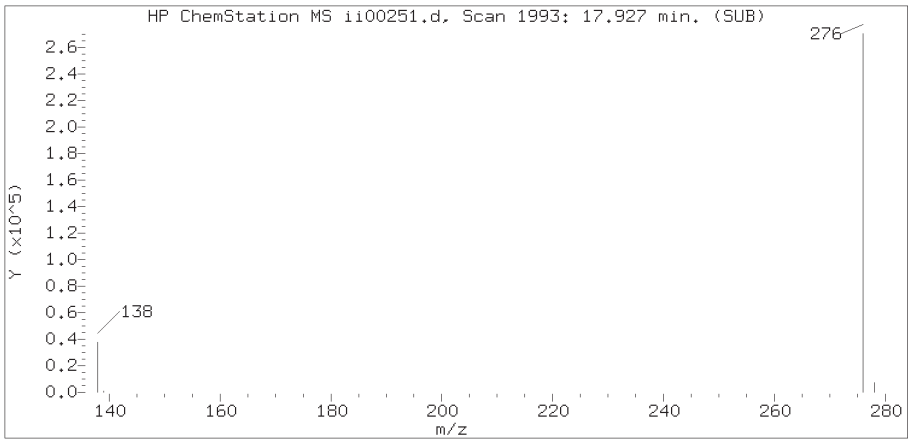
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

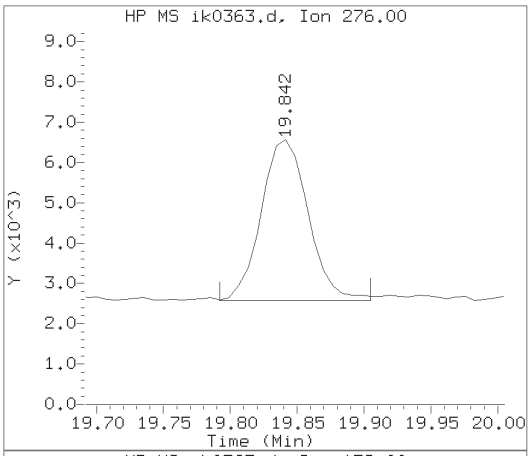
Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1749		
Retention Time (minutes)	: 19.347		
Quant Ion	: 276.00		
Area	: 12683		
On-column Amount (ng/ul)	: 0.0331		
Integration start scan	: 1742	Integration stop scan:	1766
Y at integration start	: 2646	Y at integration end:	2646

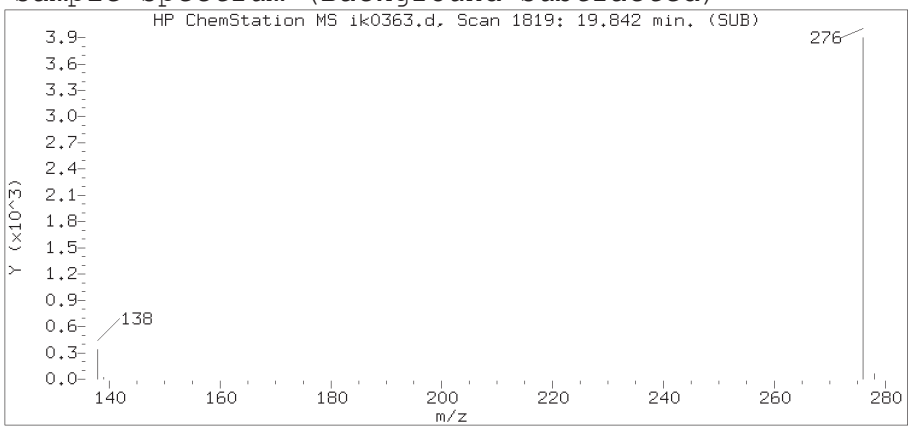
Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used 11/12/2018 at 02:36

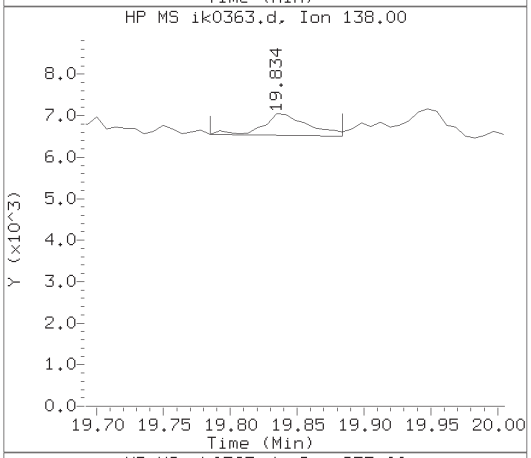
Reference Standard Spectrum for Benzo(g,h,i)perylene



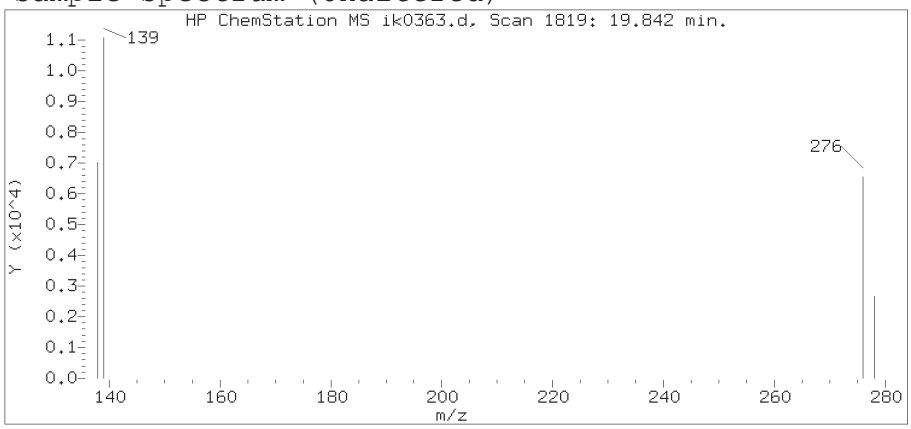


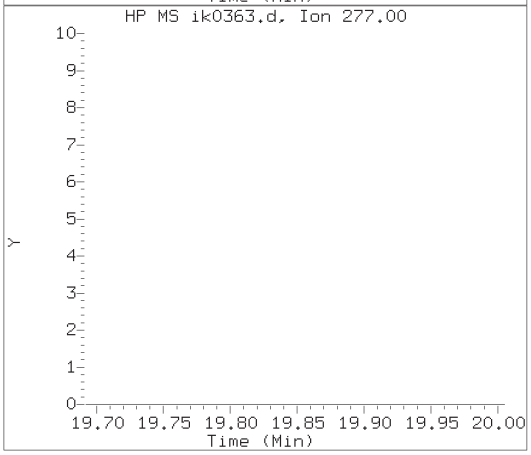
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

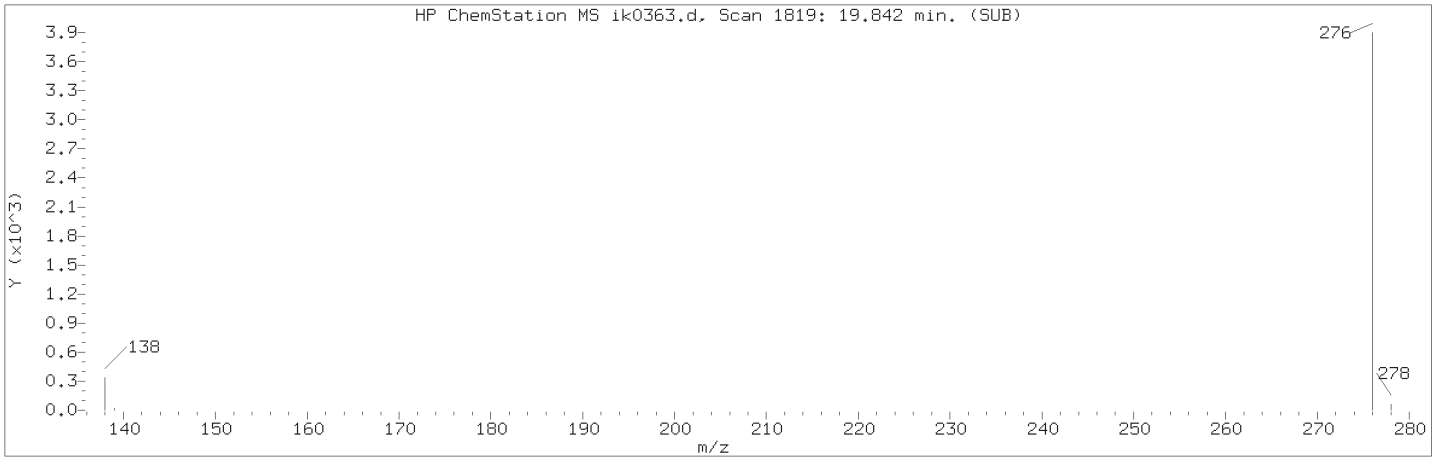
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

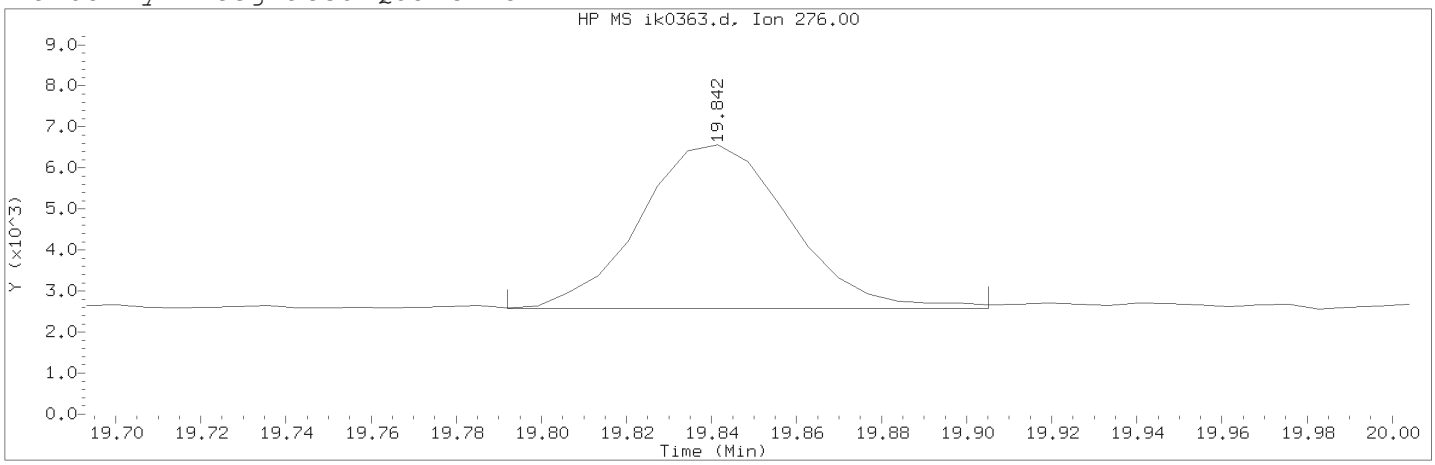
Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1819
Retention Time (minutes)	: 19.842
Relative Retention Time	:-0.00049
Quant Ion	: 276.00
Area (flag)	: 9757M
On-column Amount (ng/ul)	: 0.0290

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 12-Nov-2018 02:36 apb10206

Sample Name: 12T06DL Lab Sample ID: 9872064DL

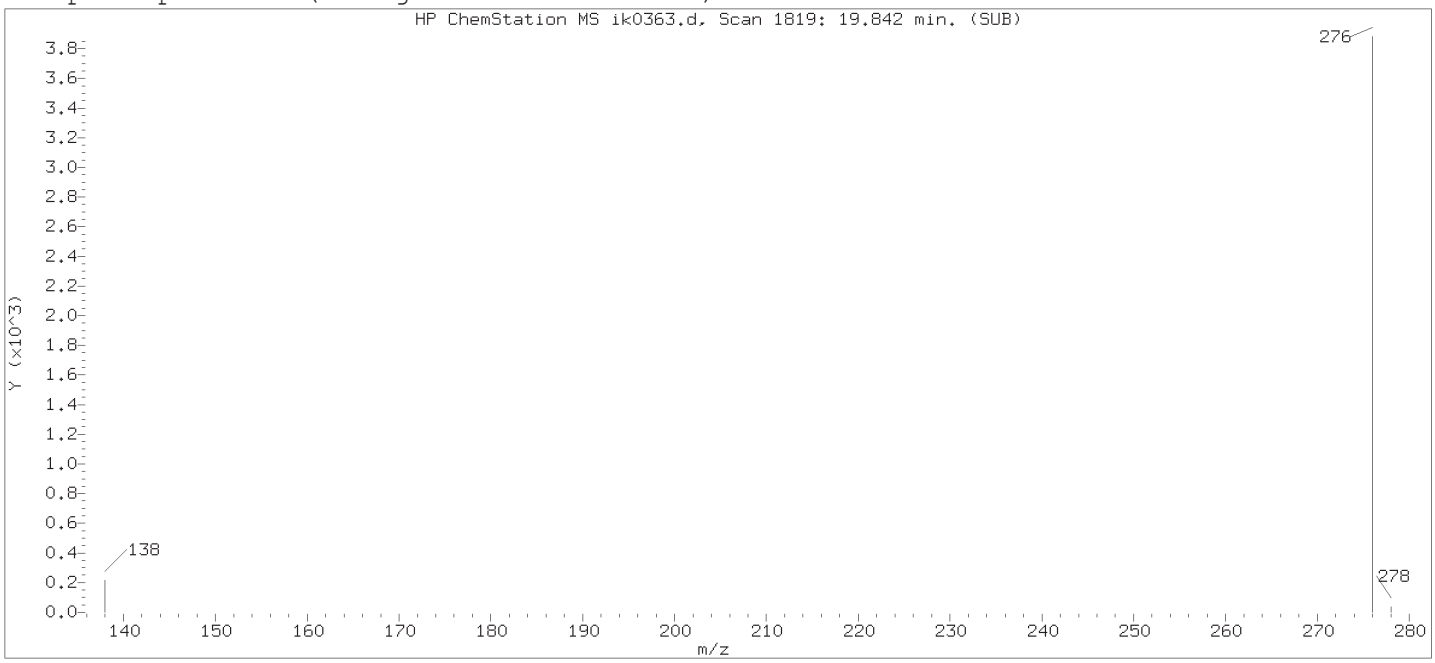
Compound Number : 55
Compound Name : Benzo(g,h,i)perylene
Scan Number : 1819
Retention Time (minutes) : 19.842
Quant Ion : 276.00
Area (flag) : 9757M
On-column Amount (ng/ul) : 0.0290
Integration start scan : 1811 Integration stop scan: 1827
Y at integration start : 2575 Y at integration end: 2575

Reason for manual integration: improper integration

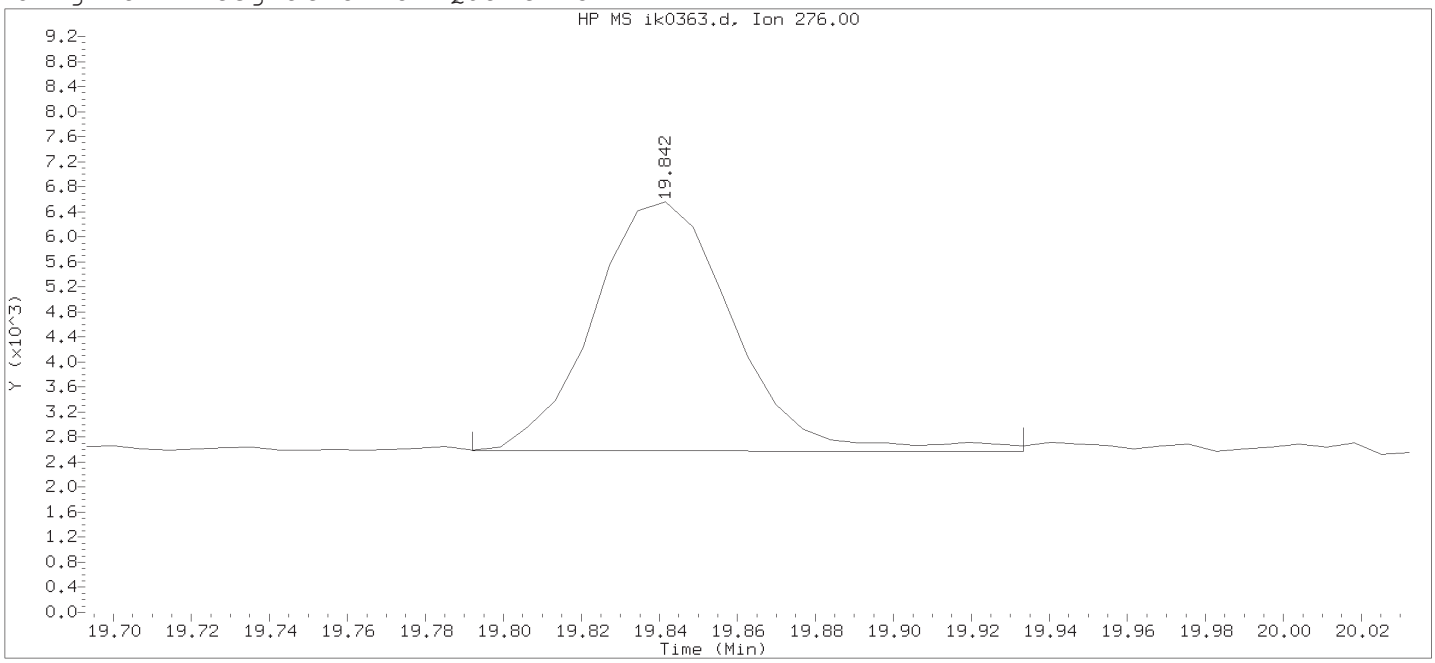
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/12/2018 at 02:36.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:10.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0363.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 13:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 14:01 Automation

Sample Name: 12T06DL Lab Sample ID: 9872064DL

Compound Number	: 55		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 1819		
Retention Time (minutes)	: 19.842		
Quant Ion	: 276.00		
Area	: 9896		
On-column Amount (ng/ul)	: 0.0294		
Integration start scan	: 1811	Integration stop scan:	1831
Y at integration start	: 2583	Y at integration end:	2572

Digitally signed by Anthony P. Bauer on 11/12/2018 at 02:36.
Target 3.5 esignature used [illegible]

12T07 Lancaster Laboratories, Inc. Analysis Summary for GC/MS Semivolatiles 9872065

Data file: /chem/HP10976.i/18nov07.b/ik0311.d Injection date and time: **07-NOV-2018 23:43**
Data file Sample Info. Line: 12T07;9872065;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.808(0.000)	500	152	55309 (26)	1.00	
10) Naphthalene-d8	8.333(-0.013)	615	136	206765 (29)	1.00	
20) Acenaphthene-d10	10.500(-0.013)	803	164	132504M (31)	1.00	
31) Phenanthrene-d10	12.256(0.076)	960	188	305871 (37)	1.00	
43) Chrysene-d12	15.691(-0.077)	1277	240	309927M (35)	1.00	
51) Perylene-d12	17.693(-0.124)	1533	264	130173M (-44)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.283(0.000)	152	98655M	0.782	78%		61 - 111
36) Fluoranthene-d10	(4)	13.868(-0.011)	212	322452M	0.850	85%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.568(0.000)	264	90872M	0.731	73%		54 - 122

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.161(-0.016)	88	5494A	0.166	5.50			0.02
11) Naphthalene	(2)	8.359(0.000)	128	281579	1.322	43.86	31.312	B	0.04
19) Acenaphthylene	(3)	10.326(-0.000)	152	69402M	0.273	9.07			0.01
21) Acenaphthene	(3)	10.543(-0.001)	154	10869M	0.065	2.16	1.723	B	0.02
26) Fluorene	(3)	11.176(0.000)	166	25628M	0.125	4.14	1.949	B	0.02
32) Phenanthrene	(4)	12.379(-0.007)	178	478191M	1.447	48.00	2.56	B	0.02
33) Anthracene	(4)	12.447(-0.008)	178	139145M	0.420	13.95	0.732	B	0.02
35) Di-n-butylphthalate	(4)	13.038(-0.008)	149	4593505M	14.528	481.85		E	0.2
37) Fluoranthene	(4)	13.880(-0.010)	202	1038097M	2.523	83.69			0.02
39) Pyrene	(5)	14.173(0.001)	202	1294286M	3.017	100.07			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.621(0.000)	149	9340201	45.814	1519.55		E	0.3
42) Benzo(a)anthracene	(5)	15.676(-0.000)	228	634640M	1.592	52.79			0.02
44) Chrysene	(5)	15.715(0.000)	228	960125M	2.521	83.61			0.01
46) Benzo(b)fluoranthene	(6)	17.114(-0.000)	252	1384141M	8.549	283.57			0.02
47) Benzo(k)fluoranthene	(6)			Not Detected					0.02
50) Benzo(a)pyrene	(6)	17.607(-0.000)	252	313972M	2.263	75.05			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.473(0.000)	276	211818M	1.295	42.94			0.02
54) Dibenz(a,h)anthracene	(6)	19.473(0.000)	278	52533M	0.393	13.04			0.02
55) Benzo(g,h,i)perylene	(6)	19.968(0.000)	276	185474M	1.289	42.76			0.02

A = User selected an alternate peak. B = Compound detected in referenced method blank. M = Compound was manually integrated.
E = Compound concentration above calibration range.

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10976.i/18nov07.b/ik0311.d Injection date and time: **07-NOV-2018 23:43**
Data file Sample Info. Line: 12T07;9872065;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

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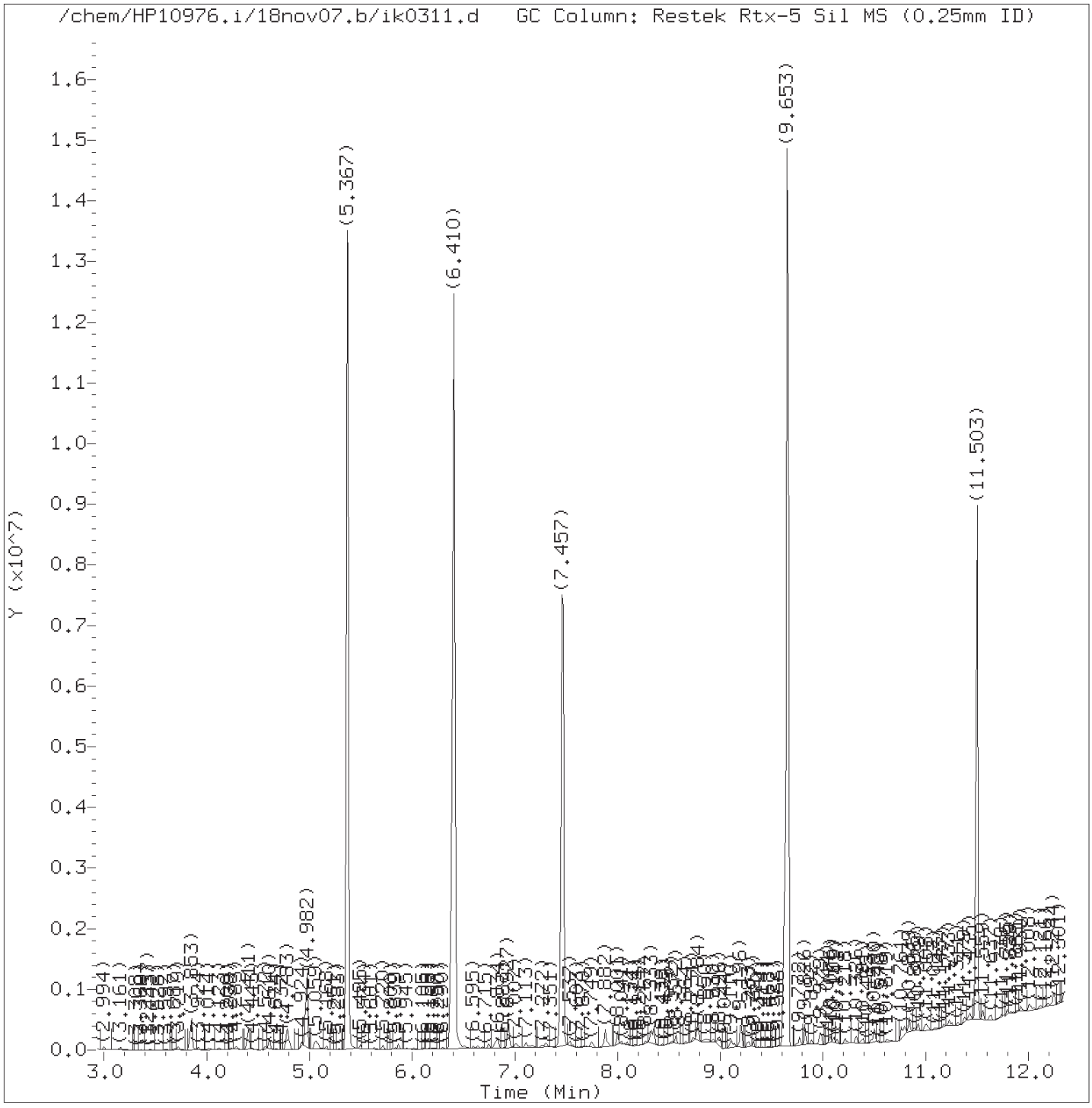
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

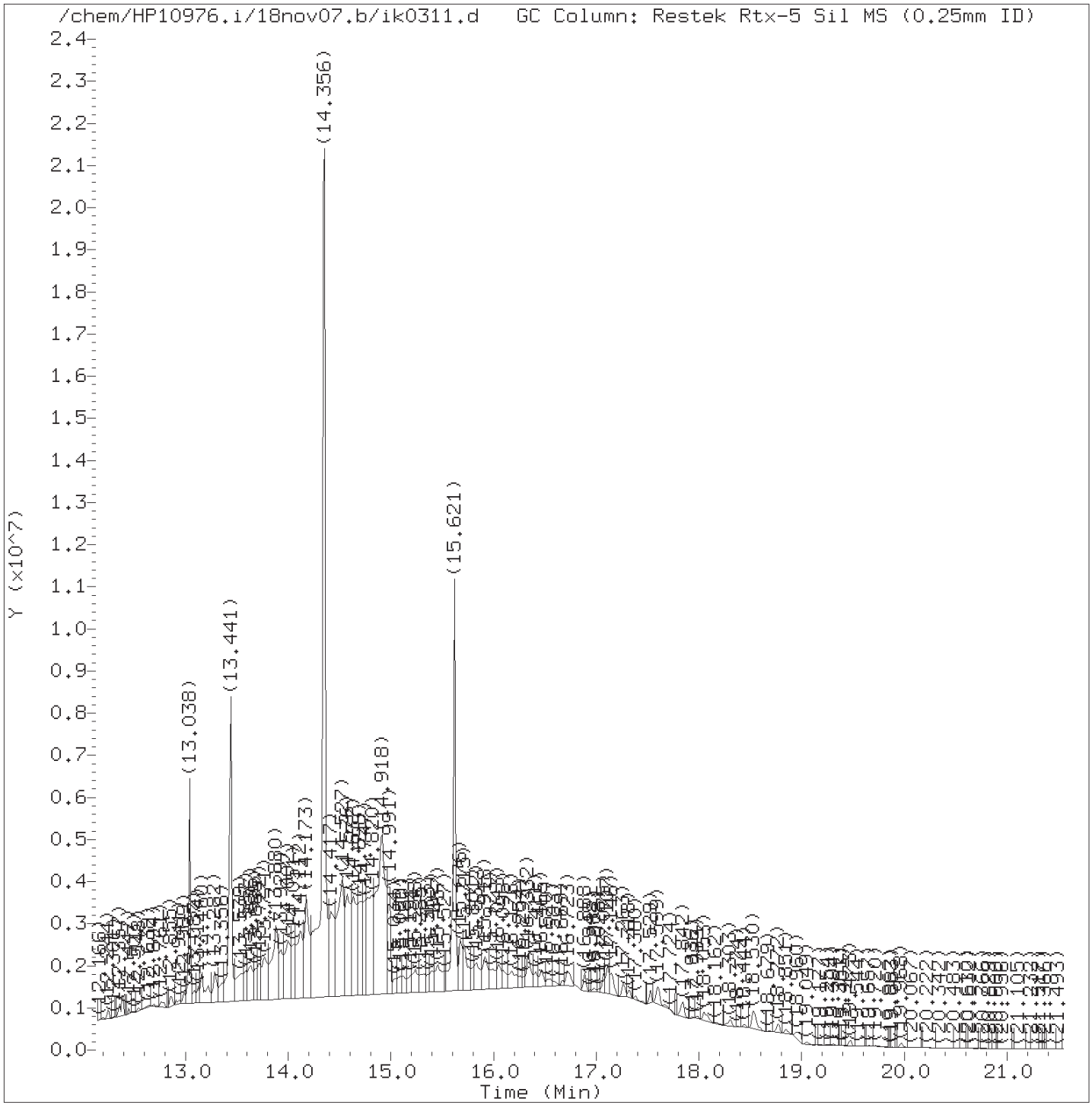
Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

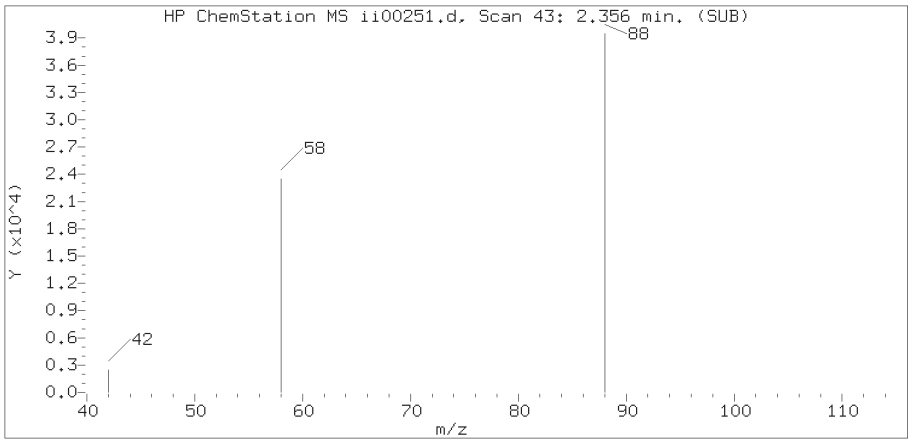
Sample Name: 12T07 Lab Sample ID: 9872065

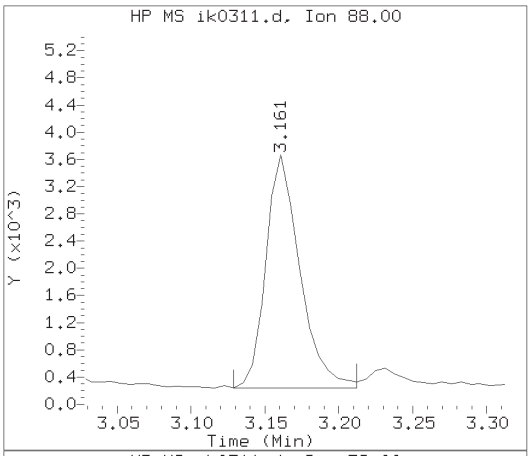
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.161	88	5494A	0.166
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	55309	1.000
10)*Naphthalene-d8	(2)	8.333	136	206765	1.000
11) Naphthalene	(2)	8.359	128	281579	1.322
14)$1-Methylnaphthalene-d10	(2)	9.283	152	98655M	0.782
19) Acenaphthylene	(3)	10.326	152	69402M	0.273
20)*Acenaphthene-d10	(3)	10.500	164	132504M	1.000
21) Acenaphthene	(3)	10.543	154	10869M	0.065
26) Fluorene	(3)	11.177	166	25628M	0.125
31)*Phenanthrene-d10	(4)	12.256	188	305871	1.000
32) Phenanthrene	(4)	12.379	178	478191M	1.447
33) Anthracene	(4)	12.447	178	139145M	0.420
35) Di-n-butylphthalate	(4)	13.038	149	4593505M	14.528
36)$Fluoranthene-d10	(4)	13.868	212	322452M	0.850
37) Fluoranthene	(4)	13.880	202	1038097M	2.523
39) Pyrene	(5)	14.173	202	1294286M	3.017
41) bis(2-Ethylhexyl)phthalate	(5)	15.621	149	9340201	45.814
42) Benzo(a)anthracene	(5)	15.676	228	634640M	1.592
43)*Chrysene-d12	(5)	15.691	240	309927M	1.000
44) Chrysene	(5)	15.715	228	960125M	2.521
46) Benzo(b)fluoranthene	(6)	17.114	252	1384141M	8.549
49)$Benzo(a)pyrene-d12	(6)	17.568	264	90872M	0.731
50) Benzo(a)pyrene	(6)	17.607	252	313972M	2.263
51)*Perylene-d12	(6)	17.693	264	130173M	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.473	276	211818M	1.295
54) Dibenz(a,h)anthracene	(6)	19.473	278	52533M	0.393
55) Benzo(g,h,i)perylene	(6)	19.968	276	185474M	1.289

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

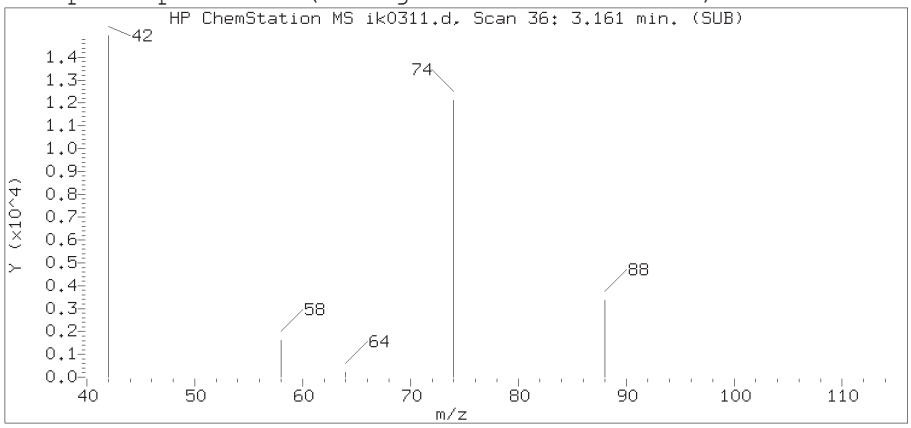
Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

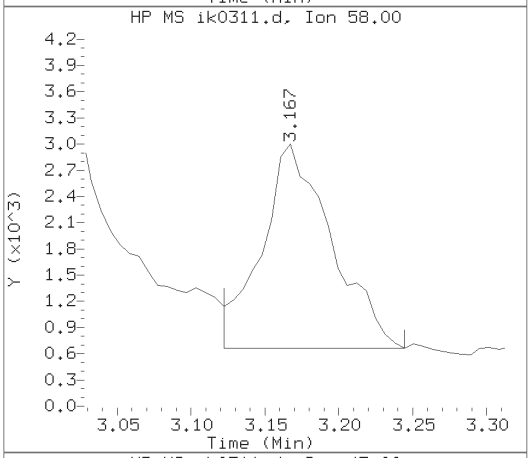
Reference Standard Spectrum for 1,4-Dioxane



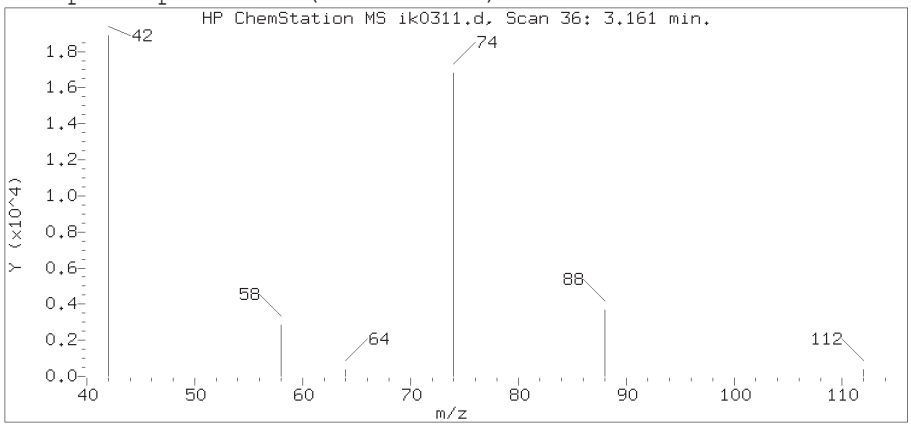


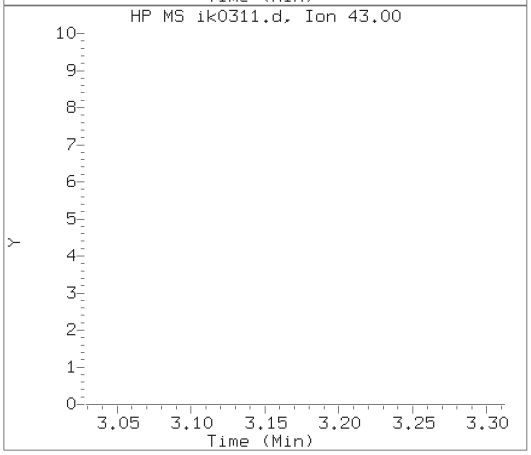
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

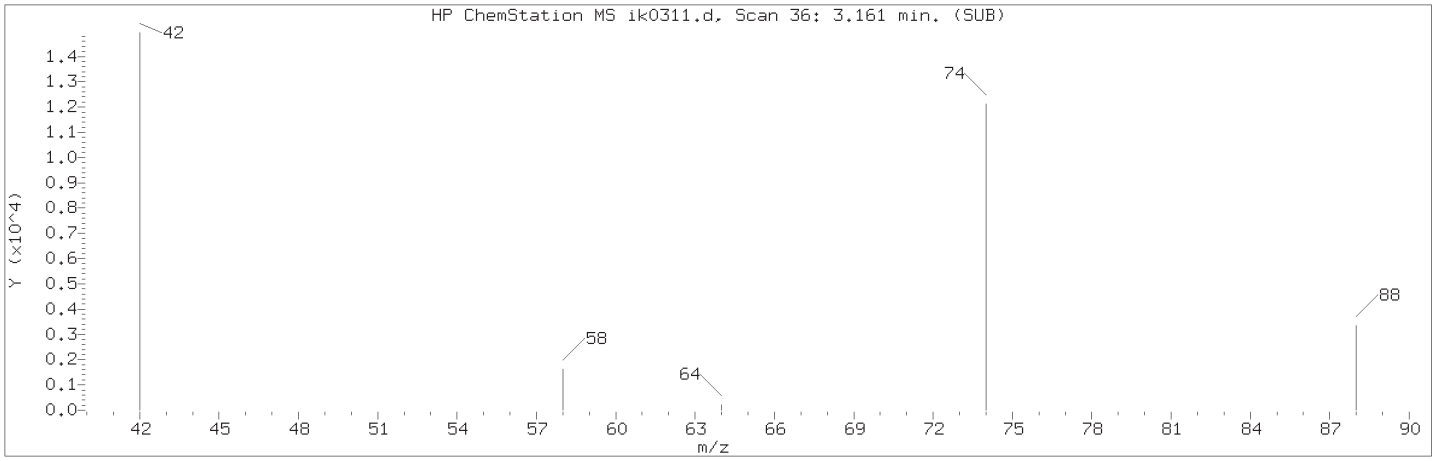
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

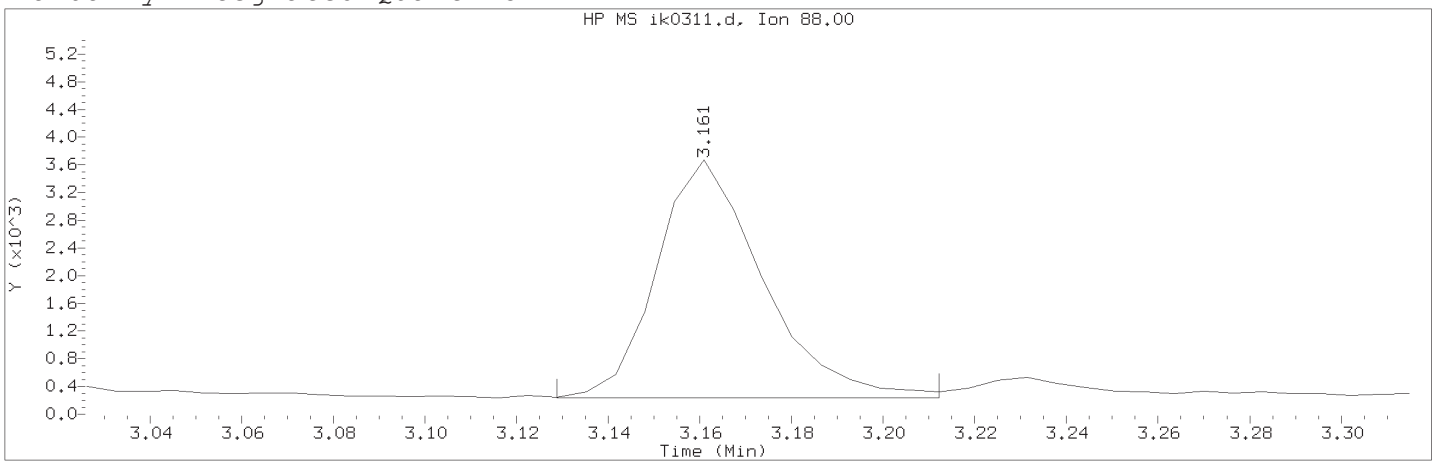
Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 36
Retention Time (minutes)	: 3.161
Relative Retention Time	:-0.01696
Quant Ion	: 88.00
Area (flag)	: 5494A
On-column Amount (ng/ul)	: 0.1659

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

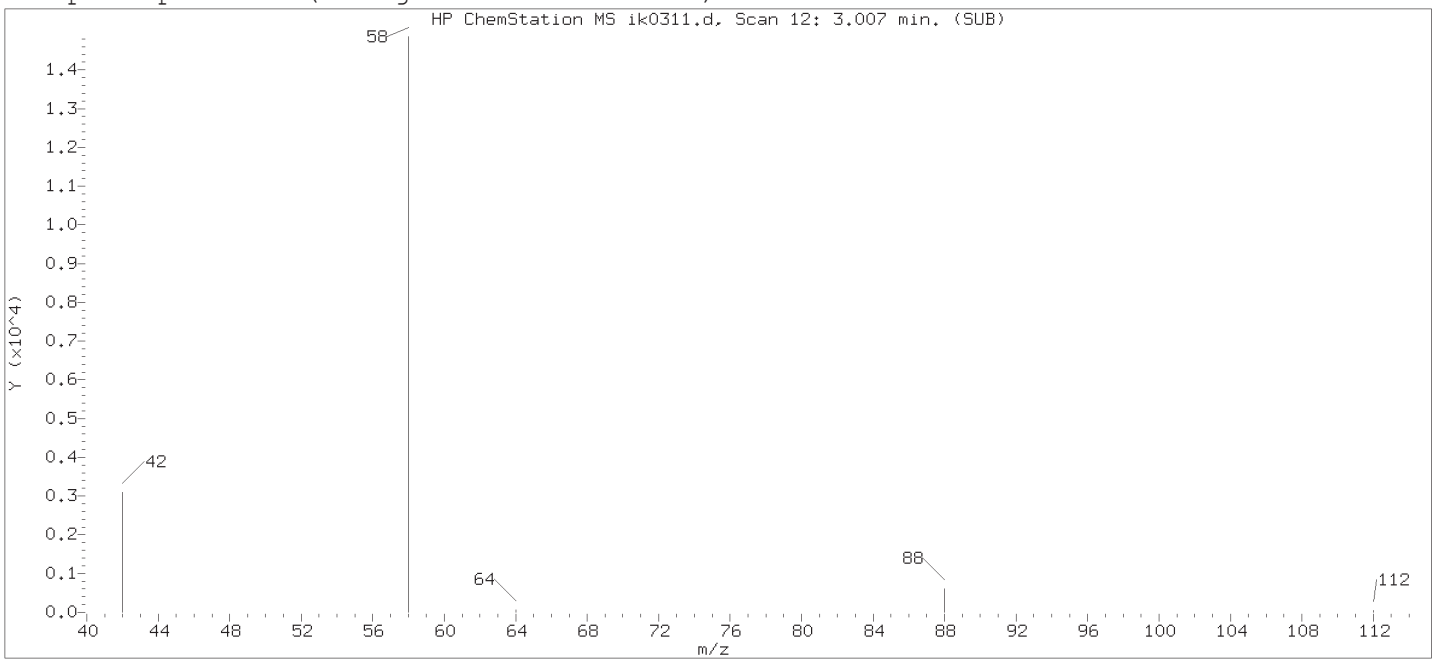
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 36		
Retention Time (minutes)	: 3.161		
Quant Ion	: 88.00		
Area (flag)	: 5494A		
On-column Amount (ng/ul)	: 0.1659		
Integration start scan	: 30	Integration stop scan:	43
Y at integration start	: 238	Y at integration end:	238

Reason for manual integration: improper integration

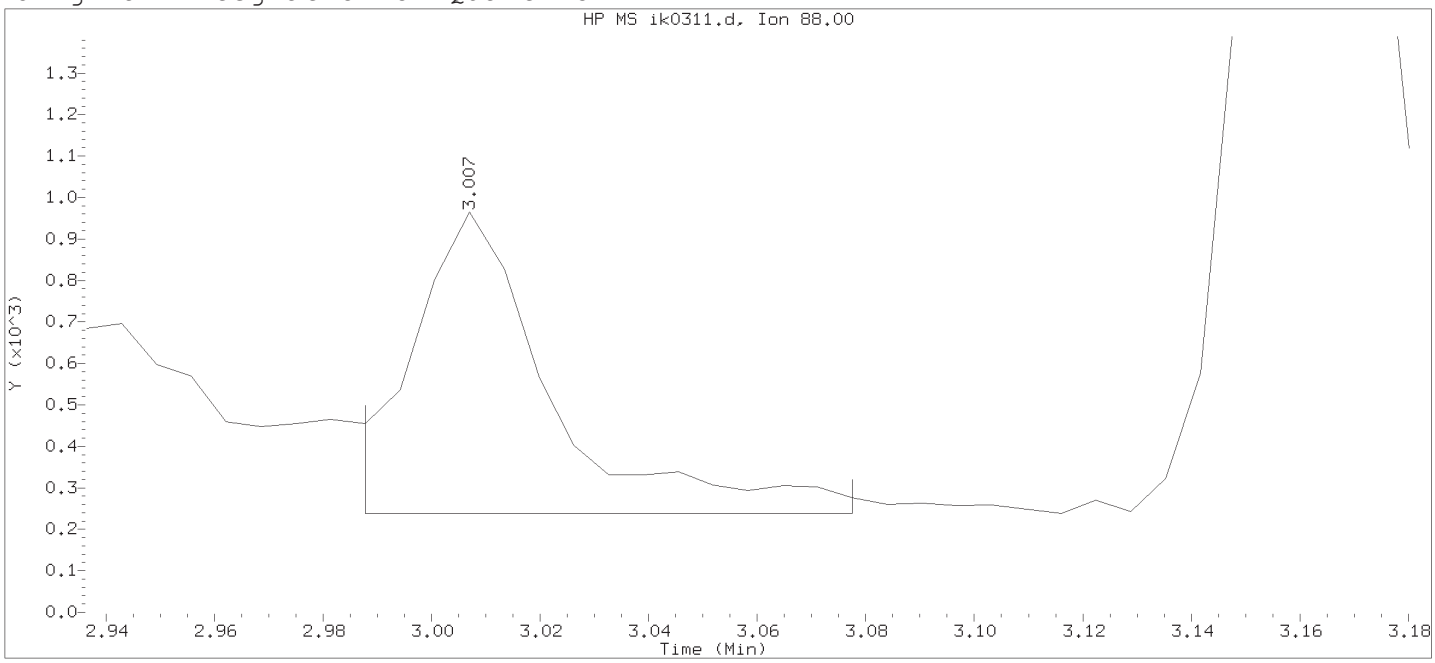
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

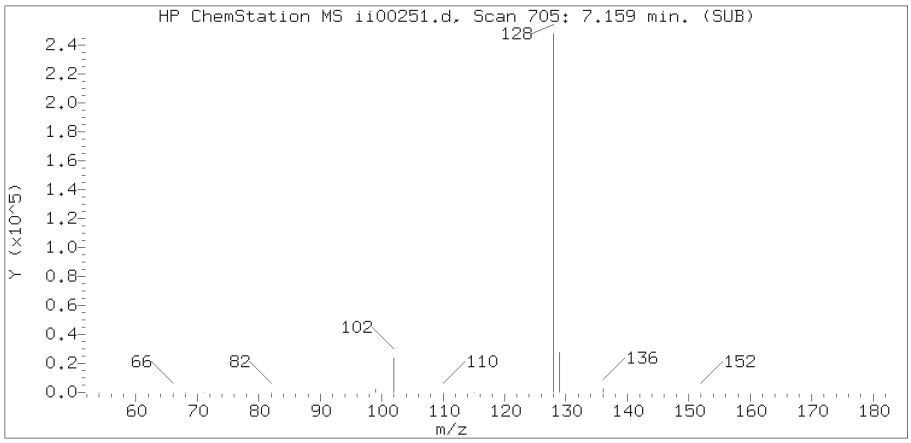
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

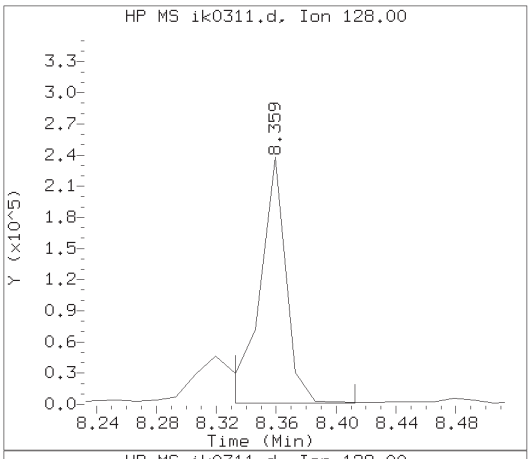
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number : 1
Compound Name : 1,4-Dioxane
Scan Number : 12
Retention Time (minutes) : 3.007
Quant Ion : 88.00
Area : 1285
On-column Amount (ng/ul) : 0.0388
Integration start scan : 8 Integration stop scan: 22
Y at integration start : 238 Y at integration end: 238

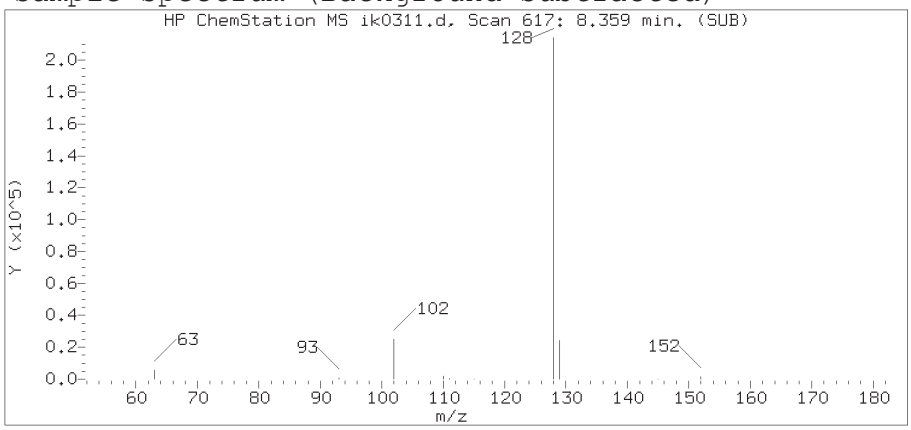
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018.

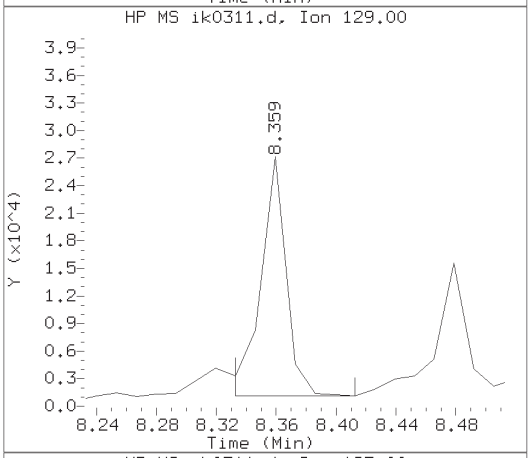
Reference Standard Spectrum for Naphthalene



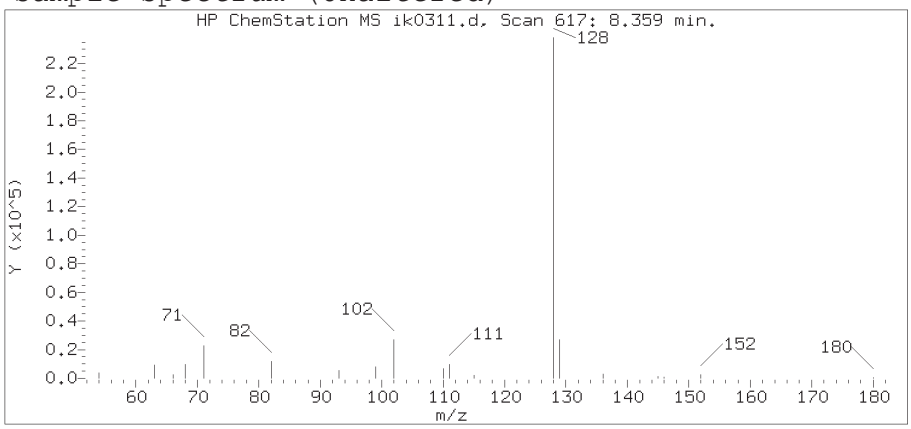


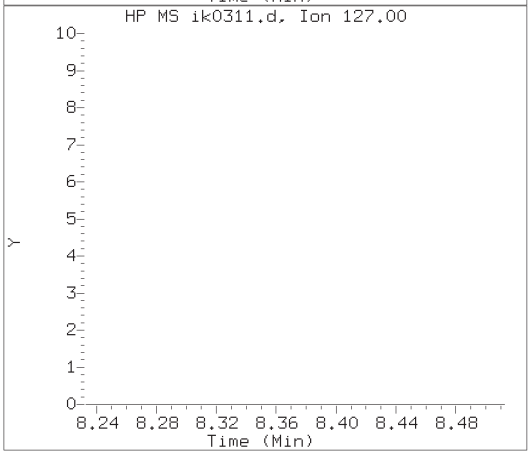
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

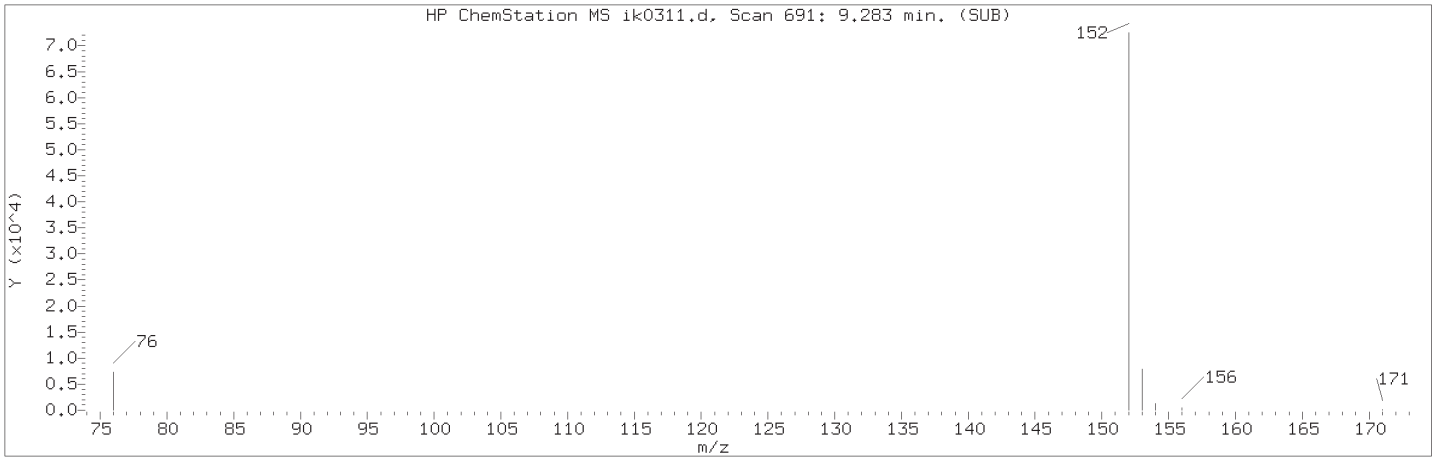
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

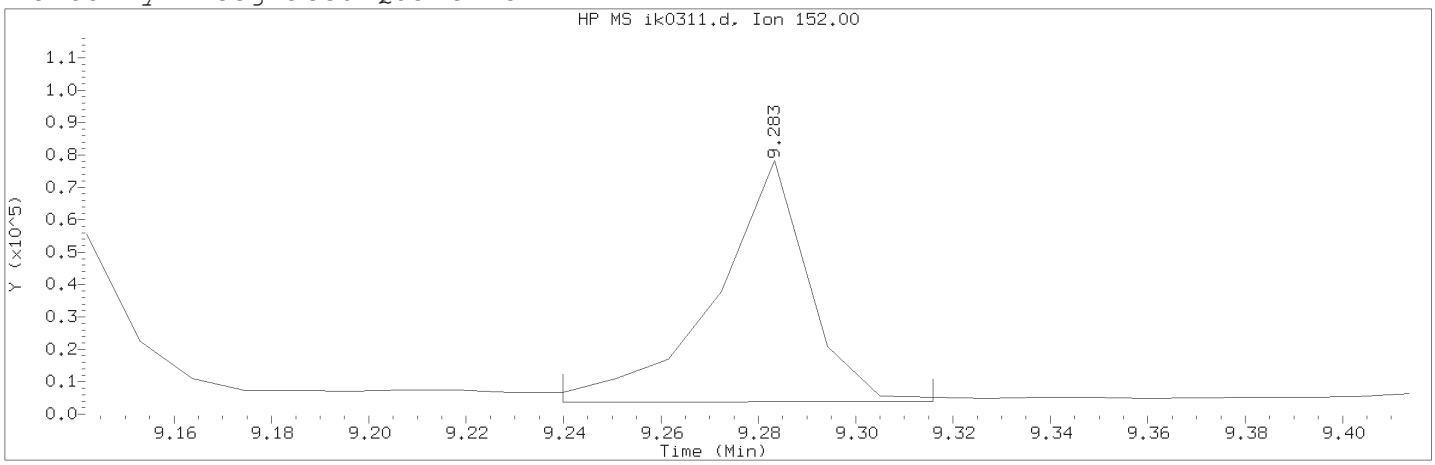
Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 617
Retention Time (minutes)	: 8.359
Relative Retention Time	: 0.00001
Quant Ion	: 128.00
Area (flag)	: 281579
On-column Amount (ng/ul)	: 1.3225

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

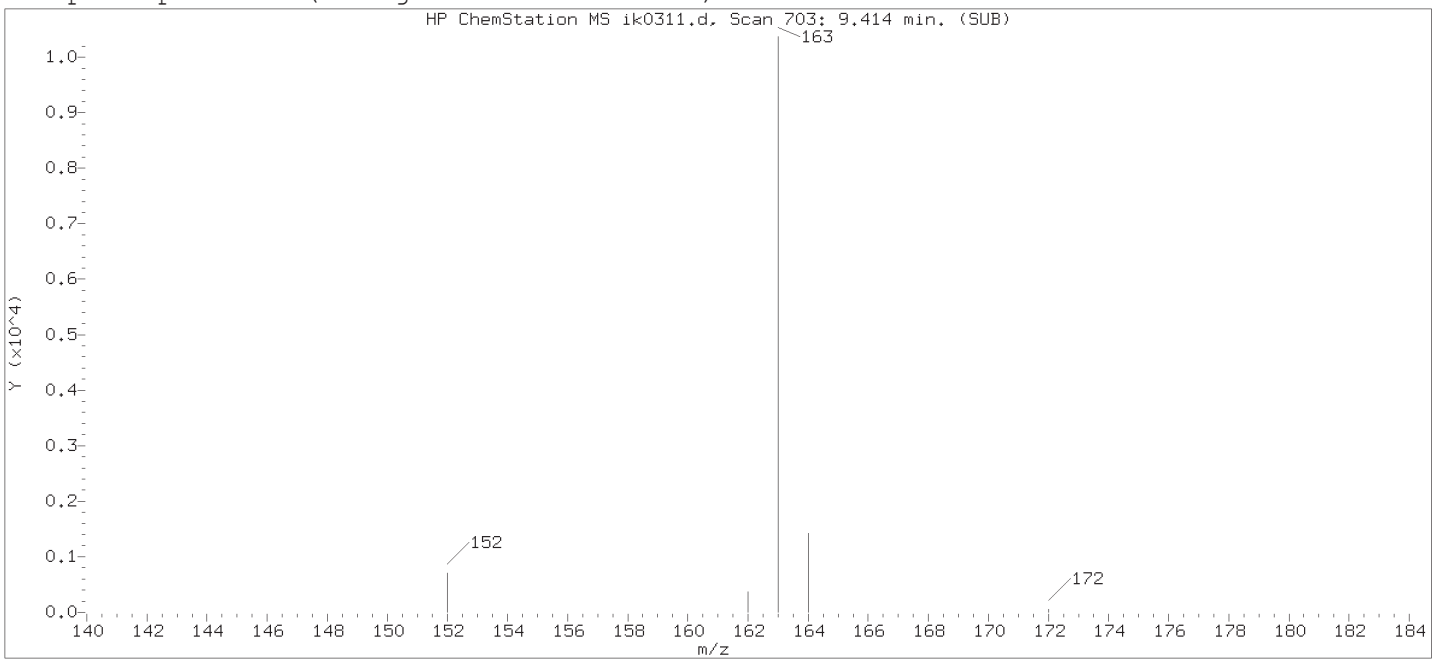
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 691		
Retention Time (minutes)	: 9.283		
Quant Ion	: 152.00		
Area (flag)	: 98655M		
On-column Amount (ng/ul)	: 0.7825		
Integration start scan	: 686	Integration stop scan:	693
Y at integration start	: 3789	Y at integration end:	3990

Reason for manual integration: improper integration

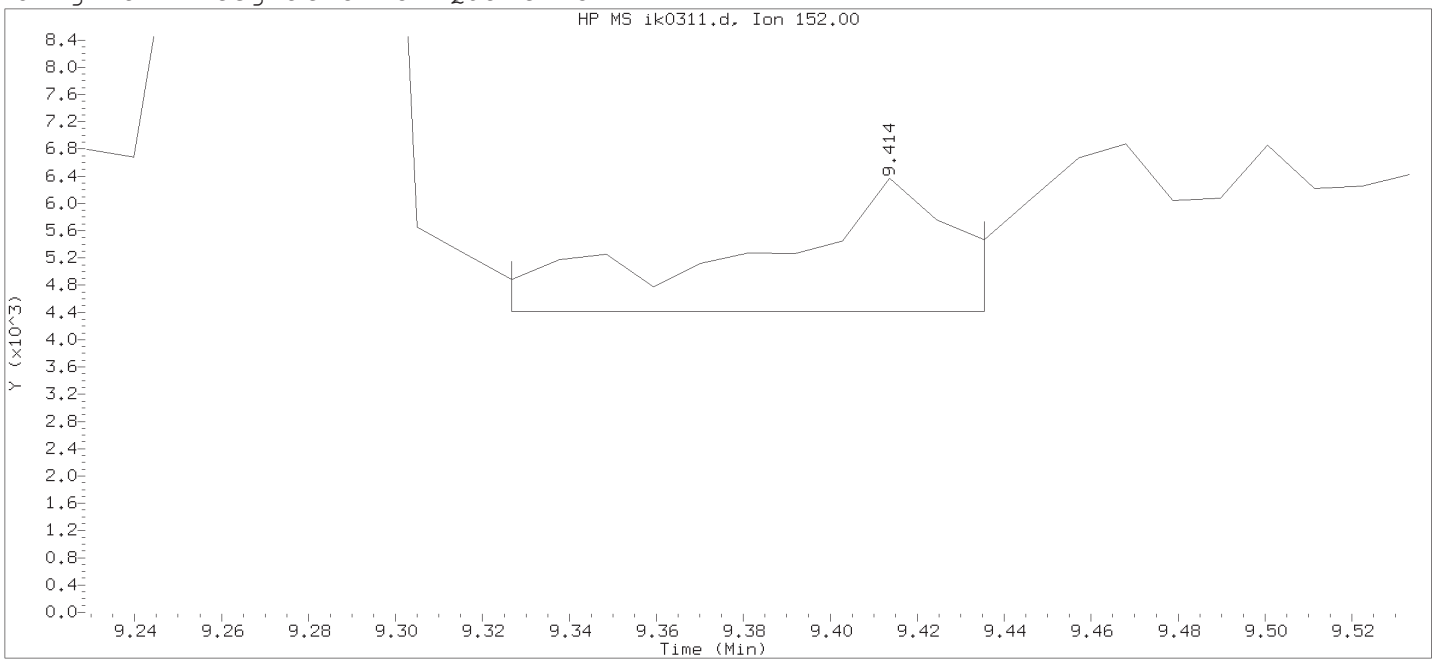
Analyst responsible for change: Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

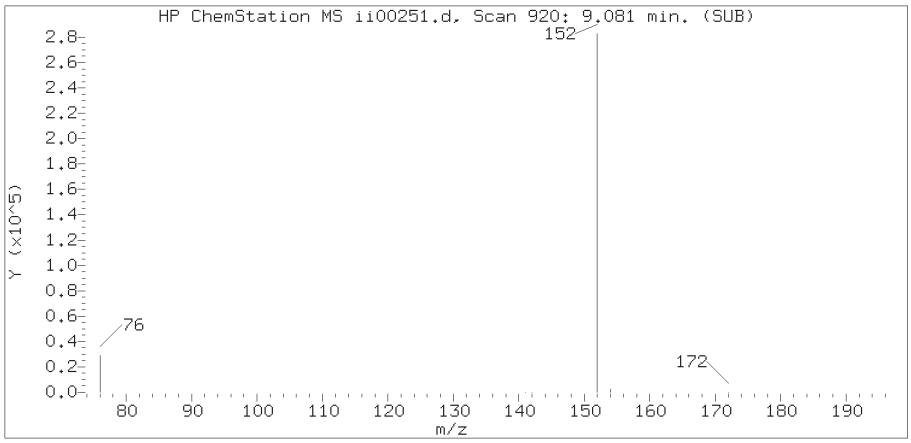
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

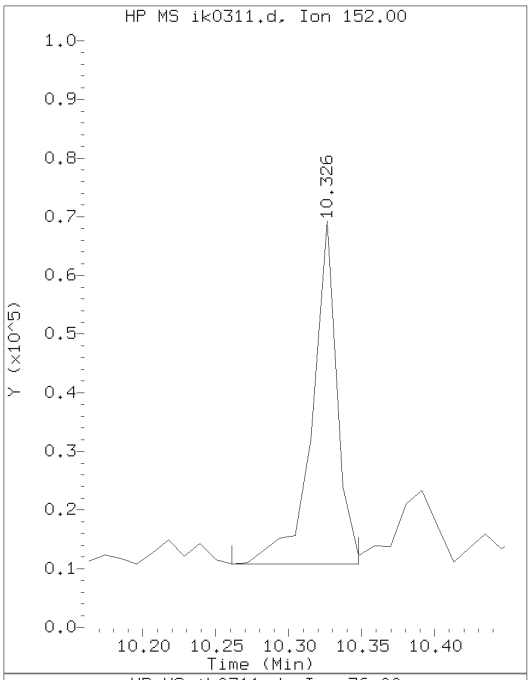
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 703		
Retention Time (minutes)	: 9.414		
Quant Ion	: 152.00		
Area	: 6201		
On-column Amount (ng/ul)	: 0.0492		
Integration start scan	: 694	Integration stop scan:	704
Y at integration start	: 4412	Y at integration end:	4412

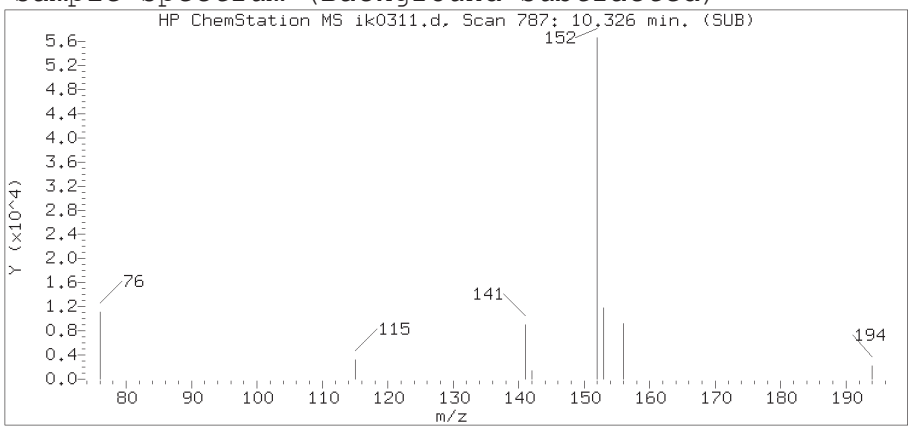
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used: D12 Page 2949

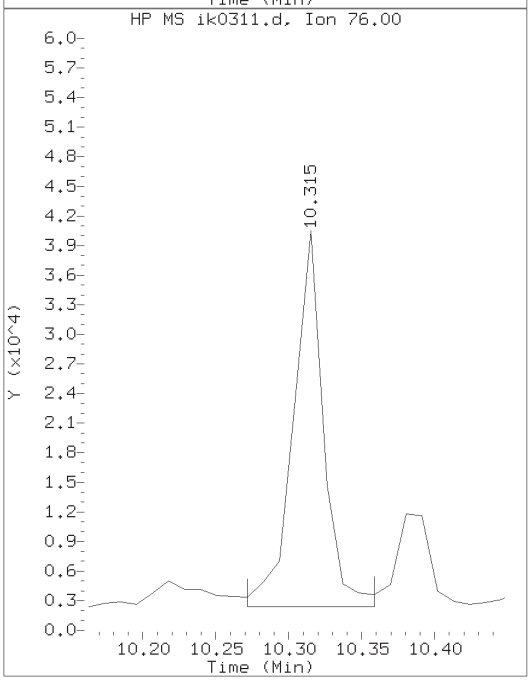
Reference Standard Spectrum for Acenaphthylene



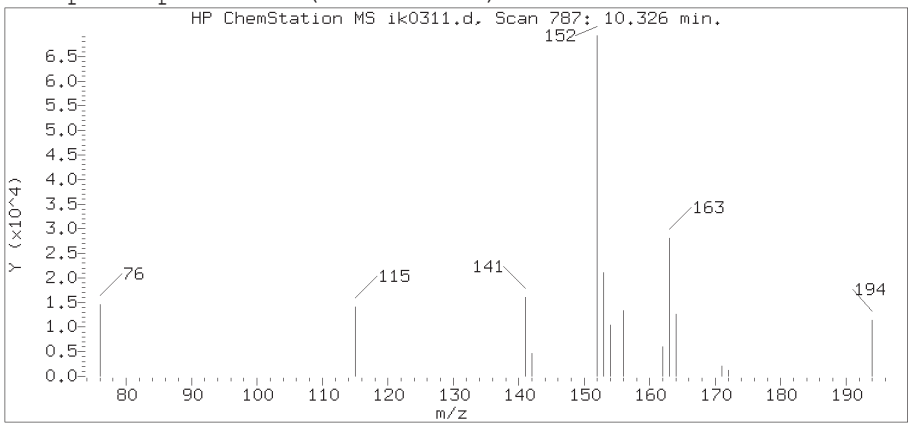


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

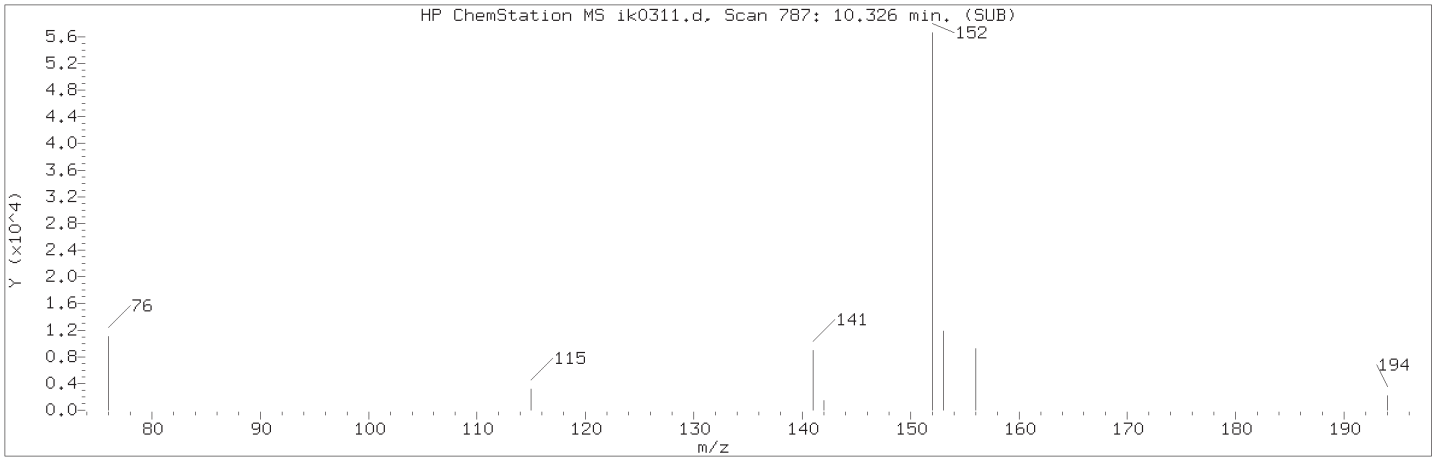
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

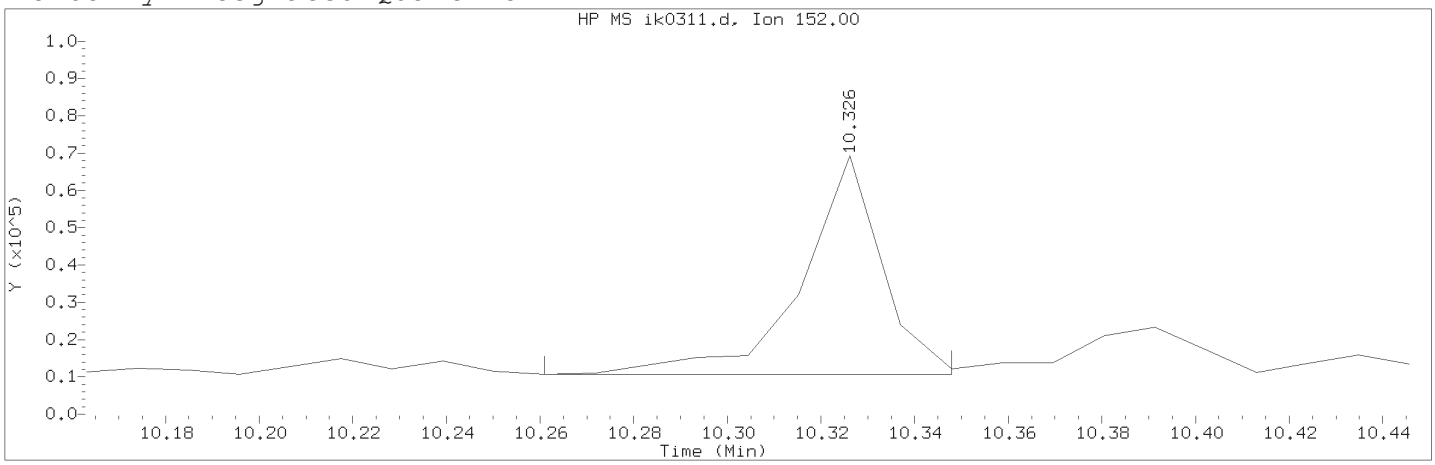
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 787
Retention Time (minutes)	: 10.326
Relative Retention Time	:-0.00002
Quant Ion	: 152.00
Area (flag)	: 69402M
On-column Amount (ng/ul)	: 0.2735

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

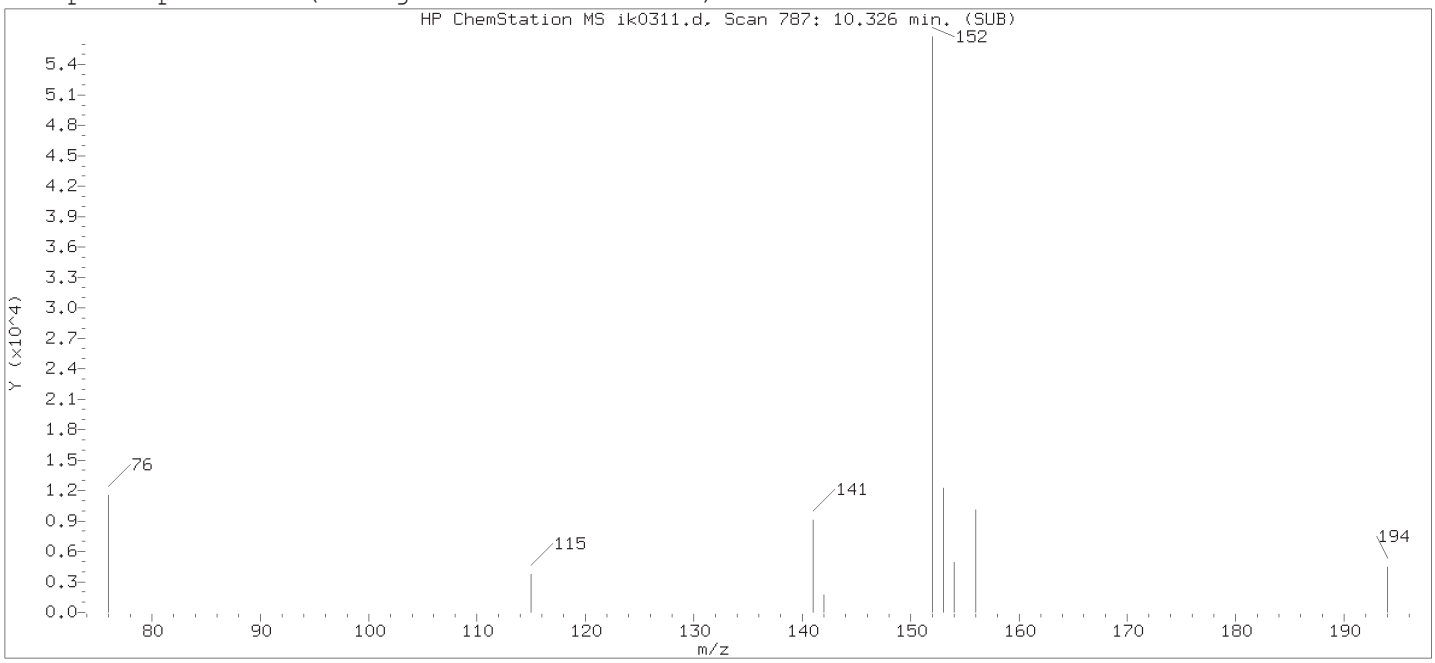
Compound Number : 19
Compound Name : Acenaphthylene
Scan Number : 787
Retention Time (minutes) : 10.326
Quant Ion : 152.00
Area (flag) : 69402M
On-column Amount (ng/ul) : 0.2735
Integration start scan : 780 Integration stop scan: 788
Y at integration start : 10744 Y at integration end: 10744

Reason for manual integration: improper integration

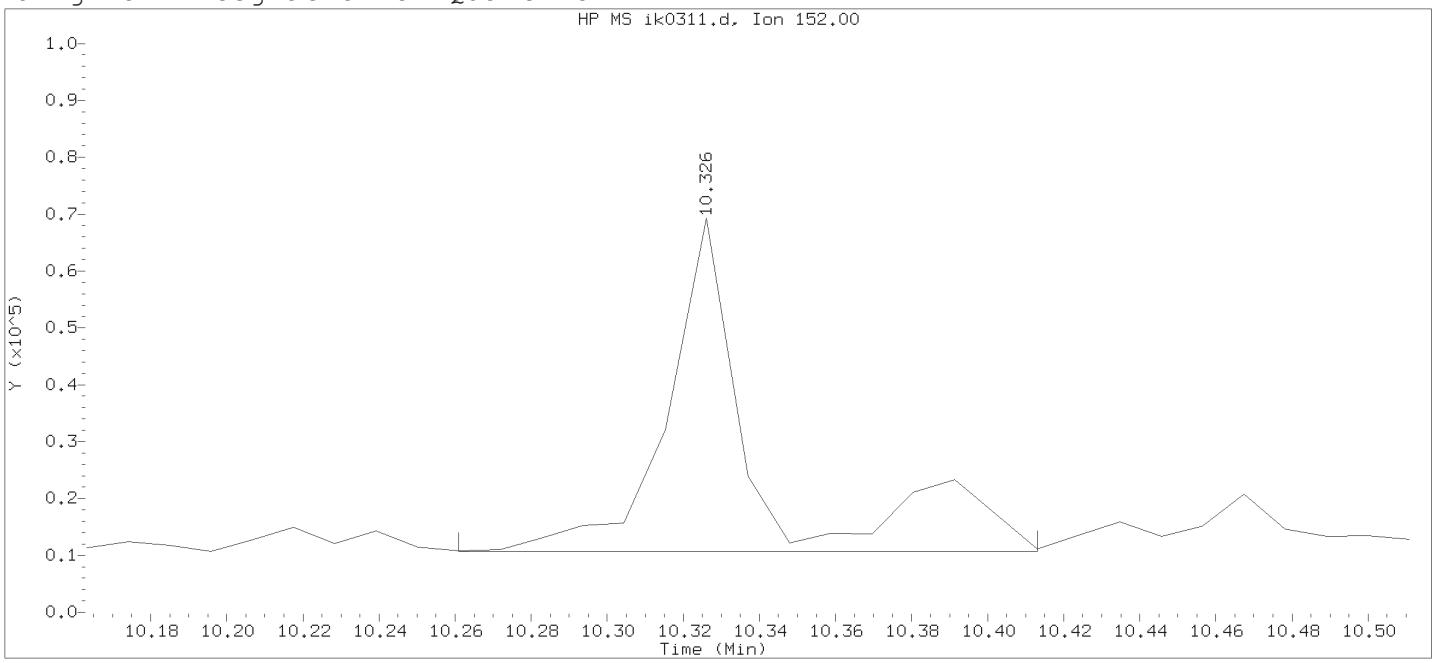
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

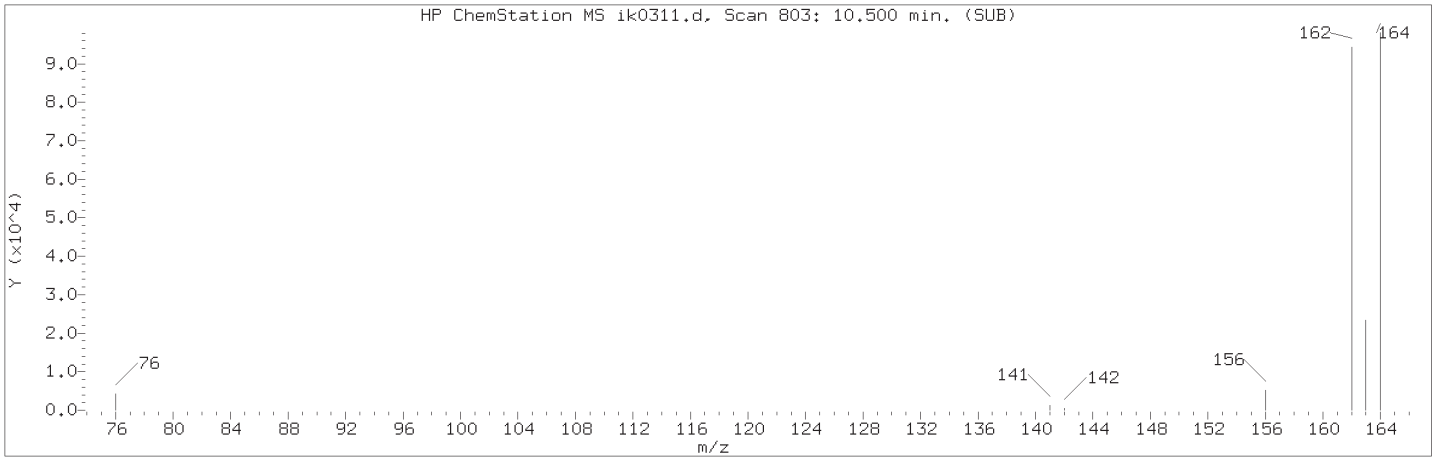
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

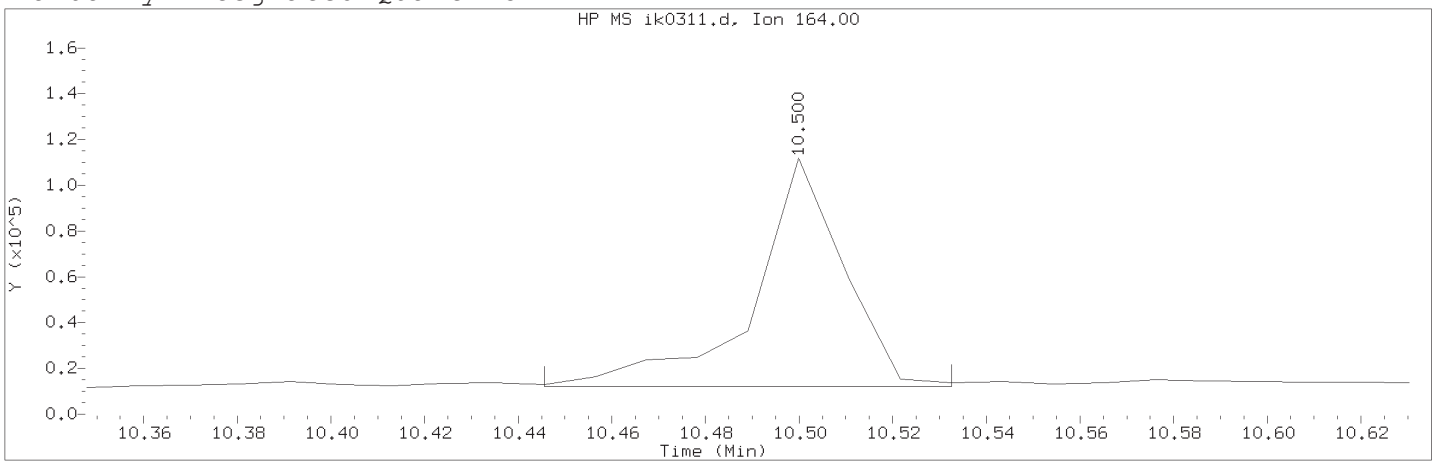
Compound Number : 19
Compound Name : Acenaphthylene
Scan Number : 787
Retention Time (minutes) : 10.326
Quant Ion : 152.00
Area : 92756
On-column Amount (ng/ul) : 0.2333
Integration start scan : 780 Integration stop scan: 794
Y at integration start : 10744 Y at integration end: 10744

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used for this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

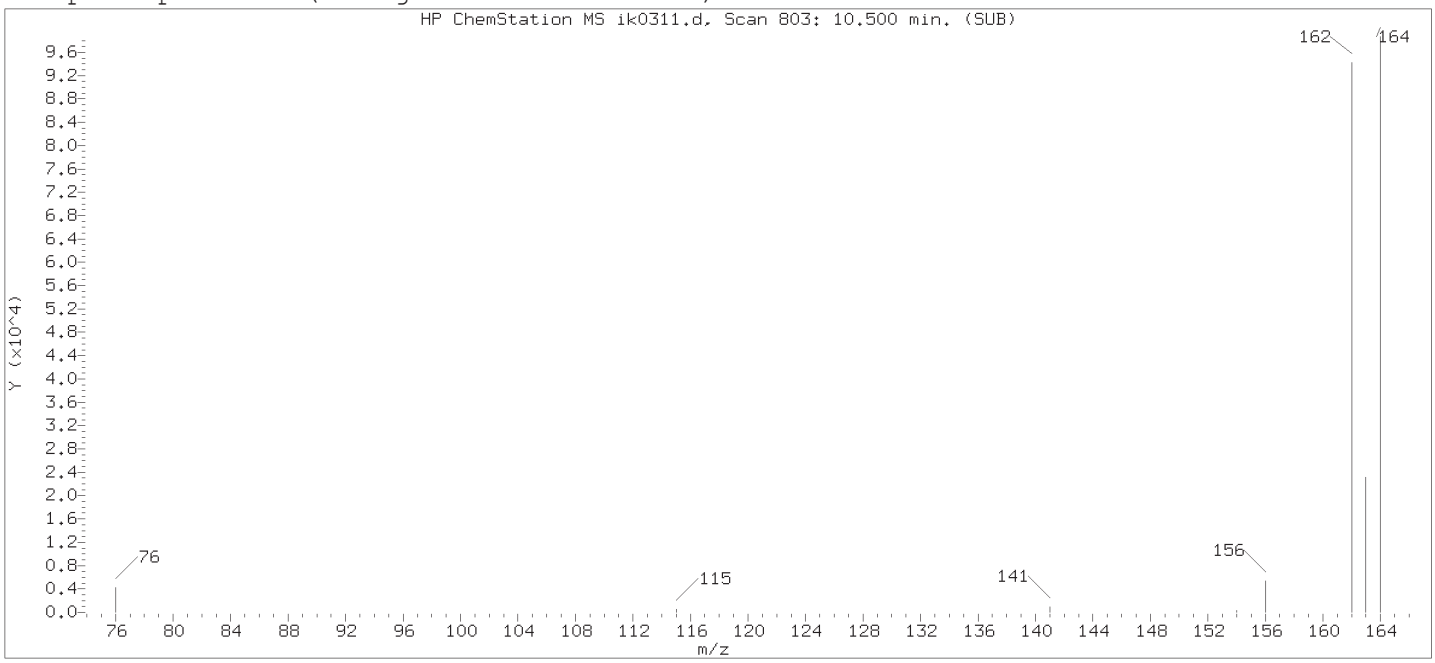
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 803
Retention Time (minutes) : 10.500
Quant Ion : 164.00
Area (flag) : 132504M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 797 Integration stop scan: 805
Y at integration start : 12234 Y at integration end: 12234

Reason for manual integration: improper integration

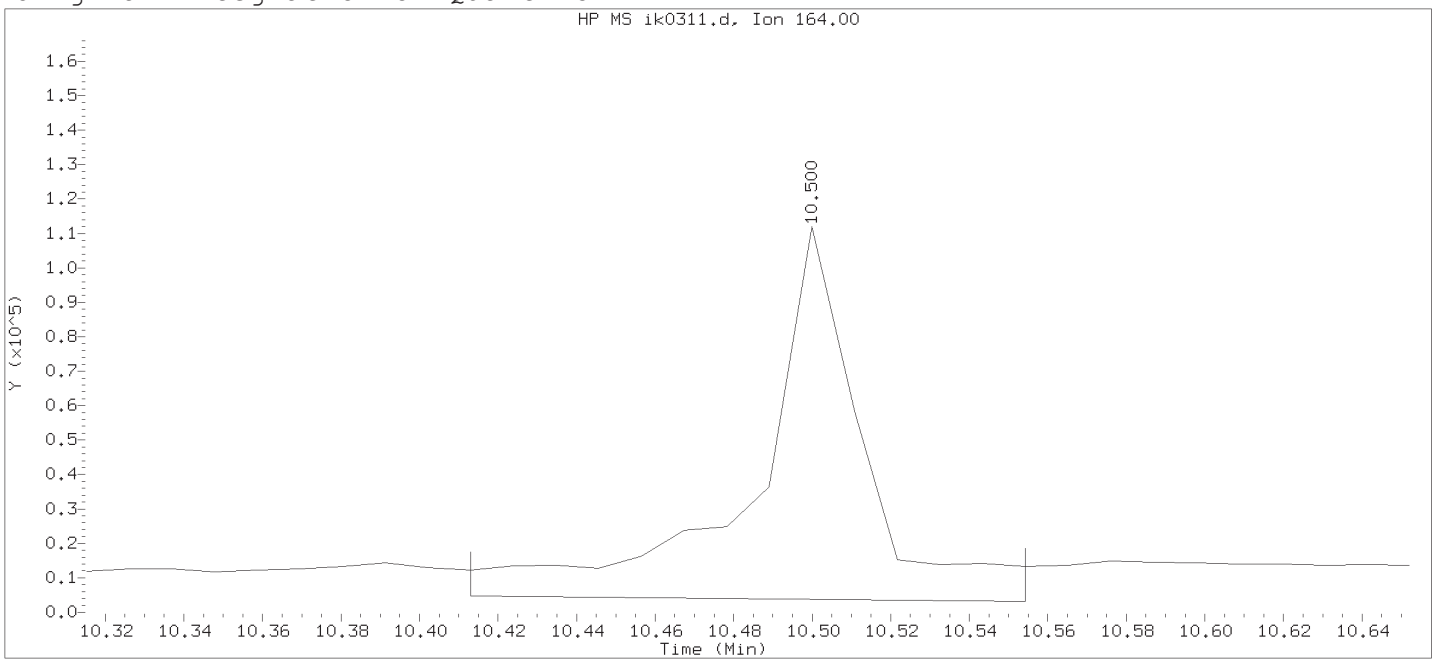
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

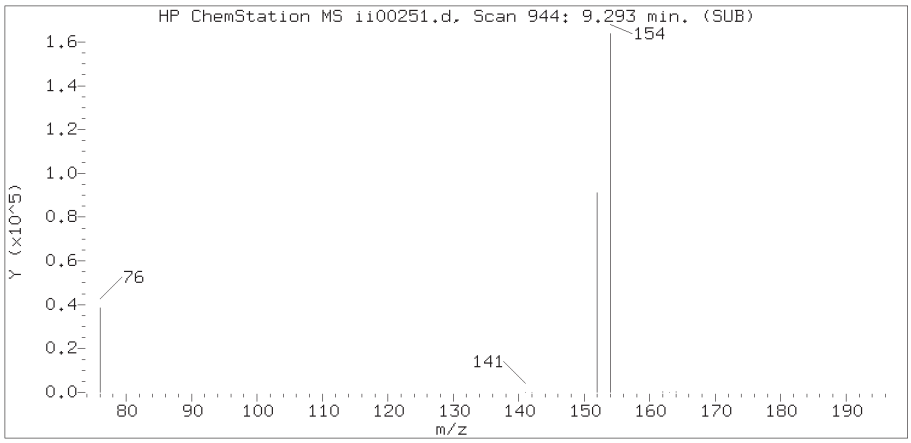
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

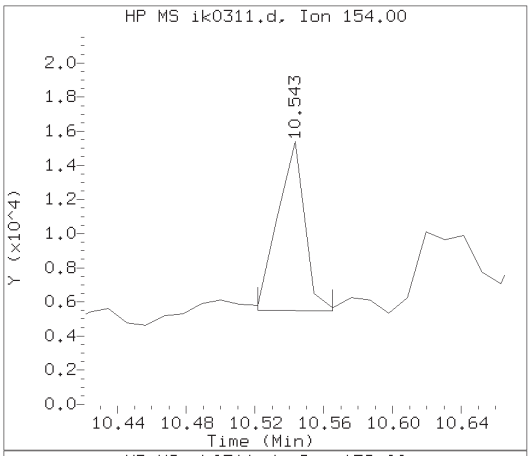
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 803		
Retention Time (minutes)	: 10.500		
Quant Ion	: 164.00		
Area	: 207591		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 794	Integration stop scan:	807
Y at integration start	: 4687	Y at integration end:	3212

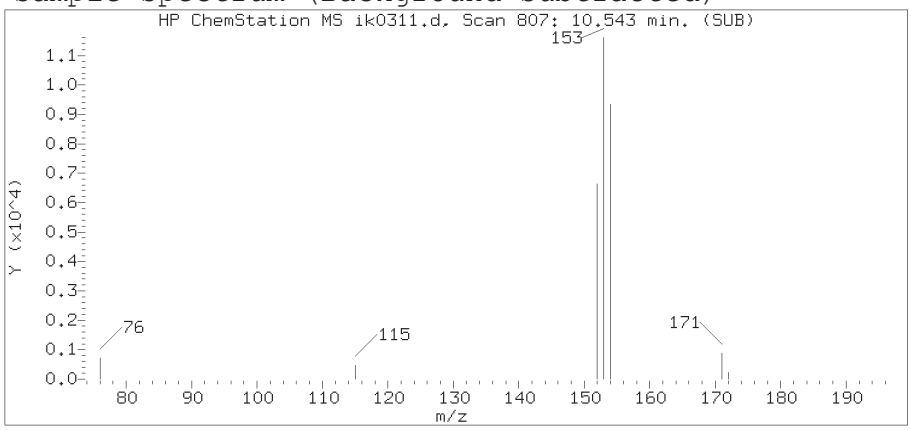
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018 15:56

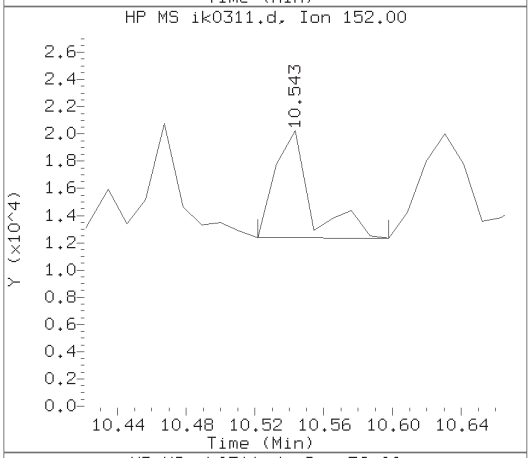
Reference Standard Spectrum for Acenaphthene



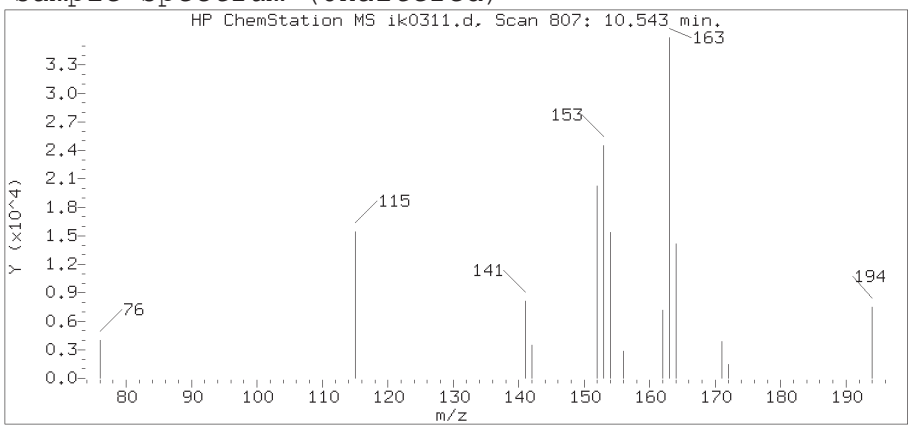


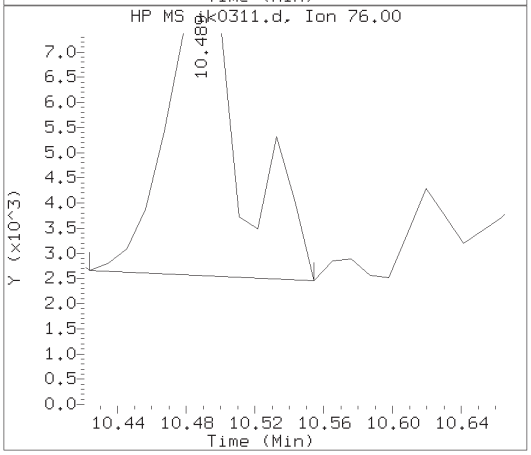
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

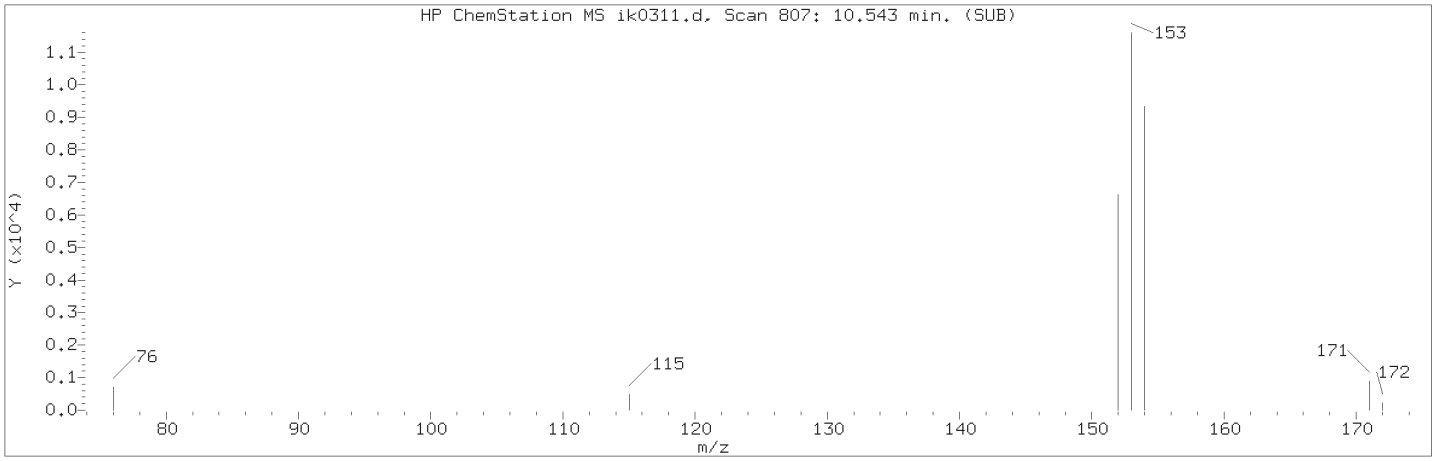
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

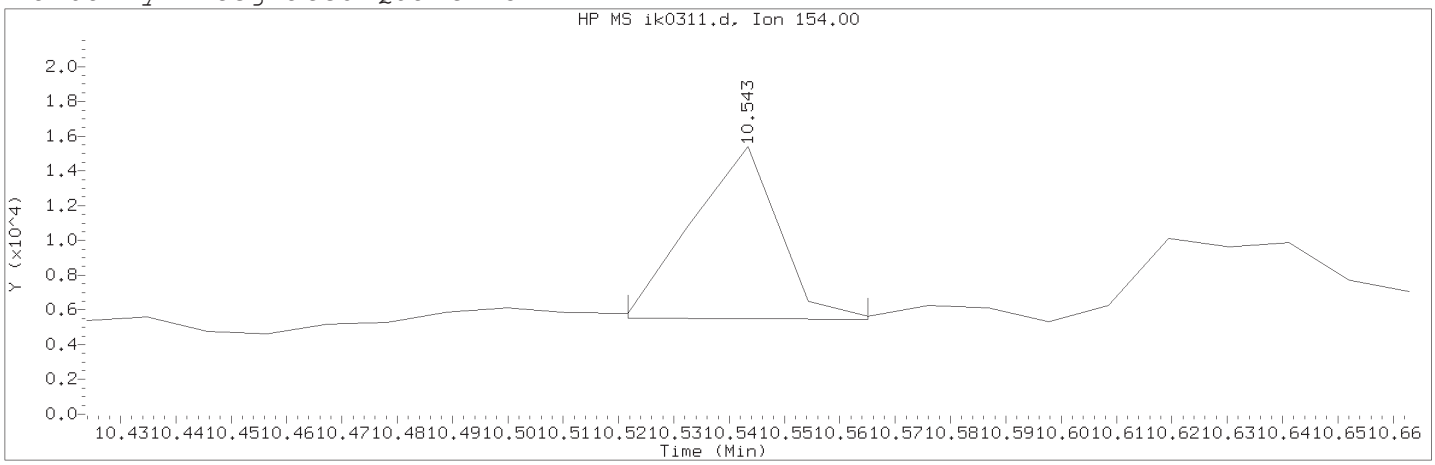
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 807
Retention Time (minutes)	: 10.543
Relative Retention Time	:-0.00103
Quant Ion	: 154.00
Area (flag)	: 10869M
On-column Amount (ng/ul)	: 0.0651

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

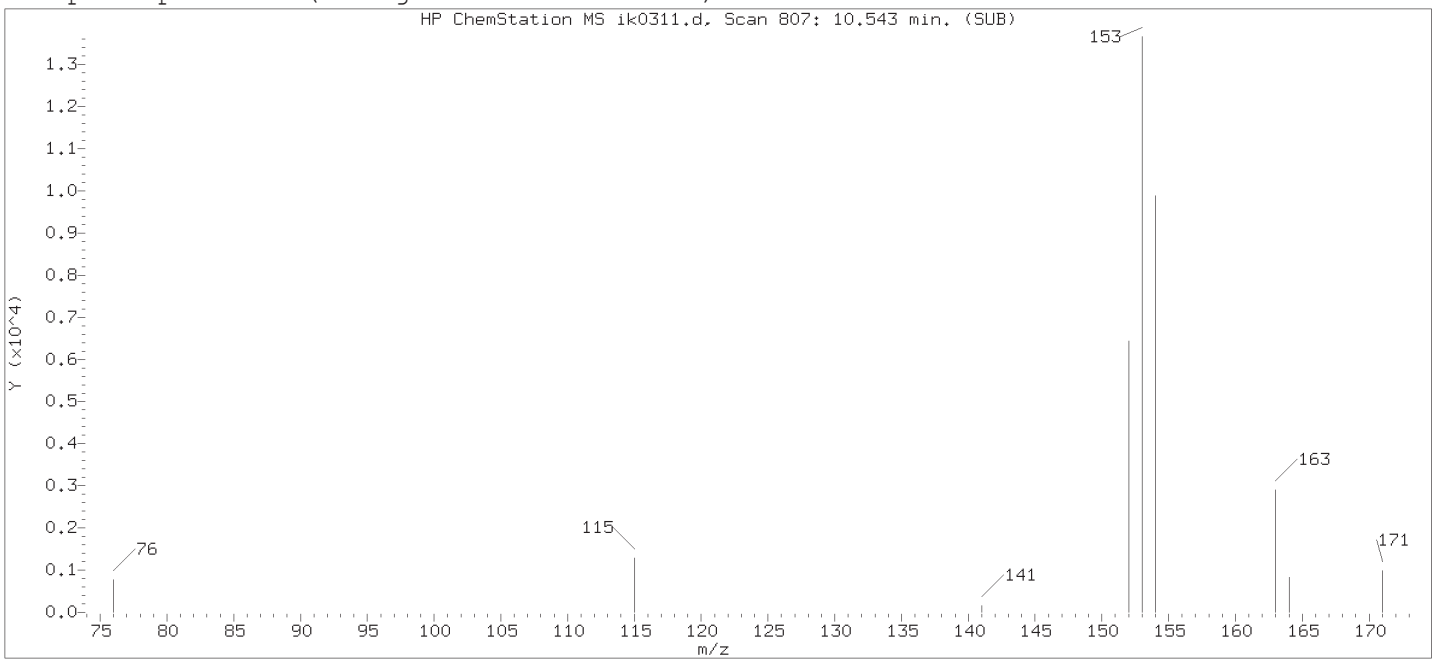
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 807
Retention Time (minutes) : 10.543
Quant Ion : 154.00
Area (flag) : 10869M
On-column Amount (ng/ul) : 0.0651
Integration start scan : 804 Integration stop scan: 808
Y at integration start : 5525 Y at integration end: 5464

Reason for manual integration: improper integration

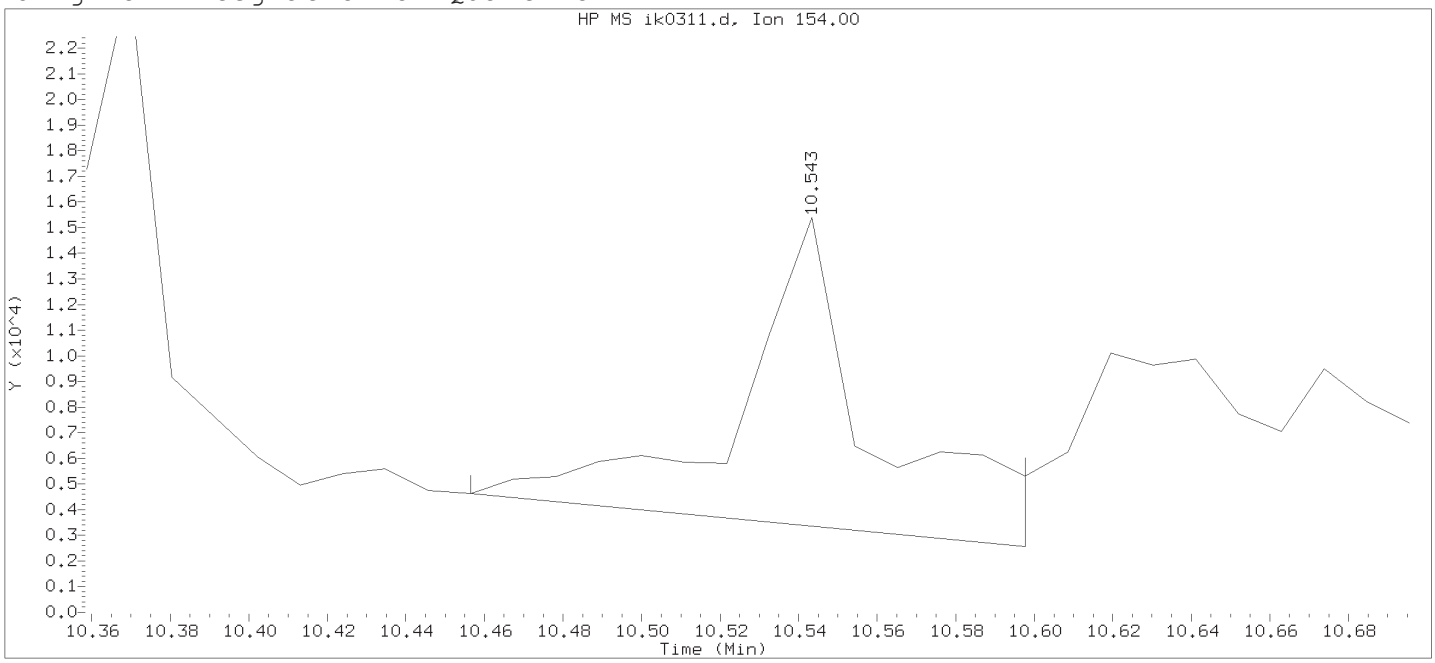
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

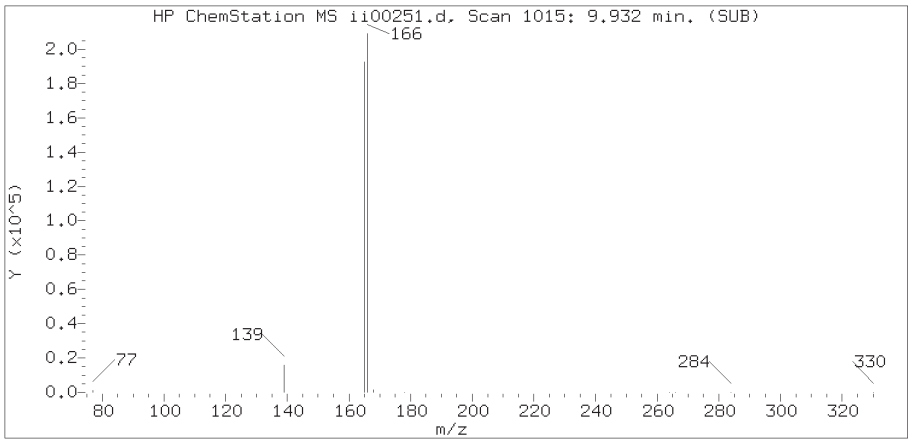
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

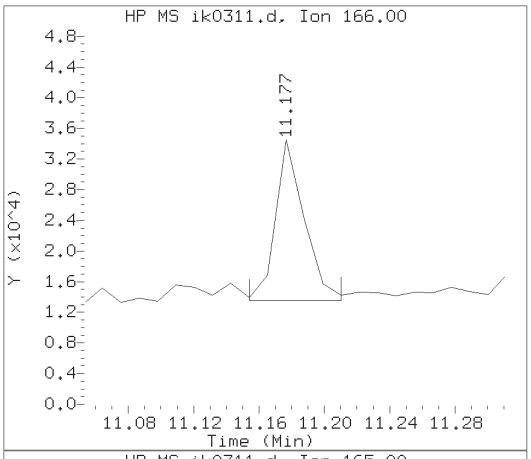
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 807		
Retention Time (minutes)	: 10.543		
Quant Ion	: 154.00		
Area	: 28201		
On-column Amount (ng/ul)	: 0.1079		
Integration start scan	: 798	Integration stop scan:	811
Y at integration start	: 4622	Y at integration end:	2552

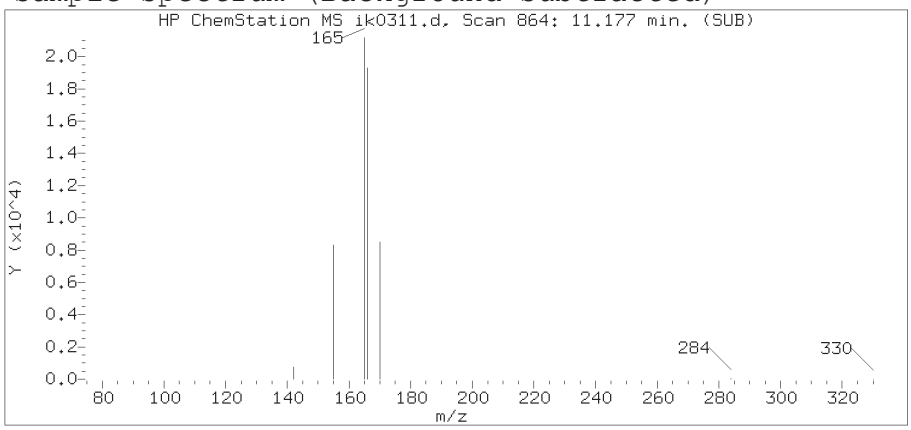
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018.

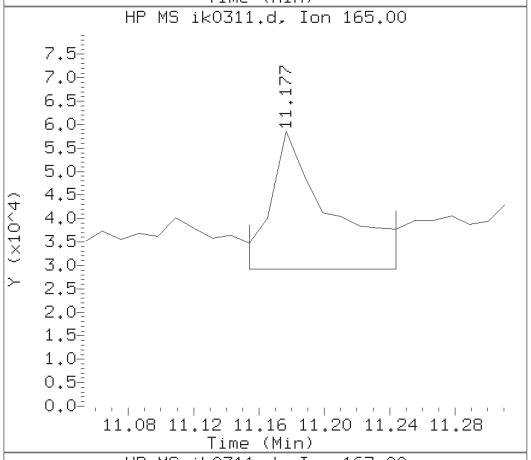
Reference Standard Spectrum for Fluorene



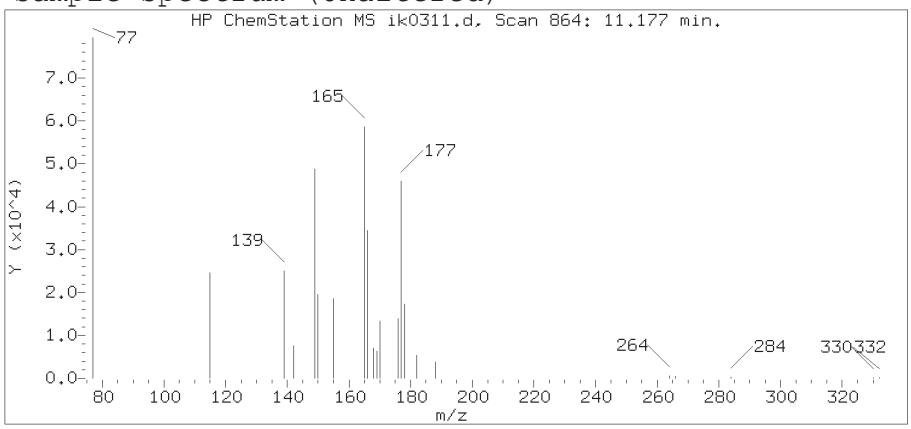


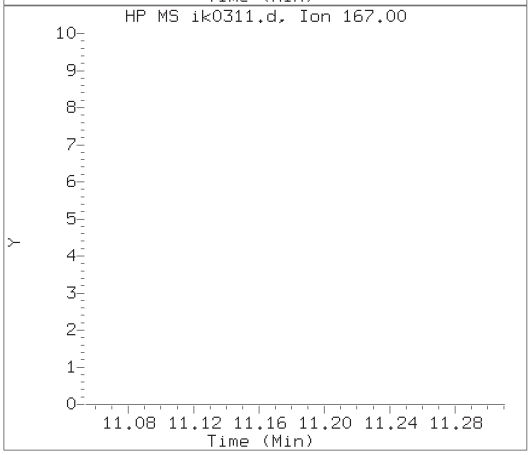
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

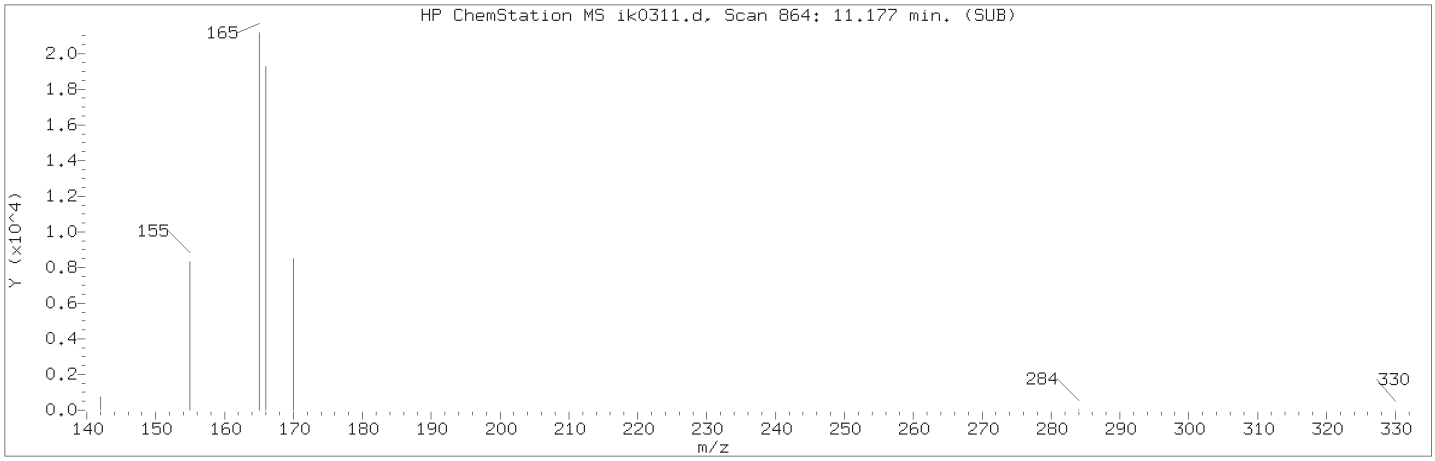
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

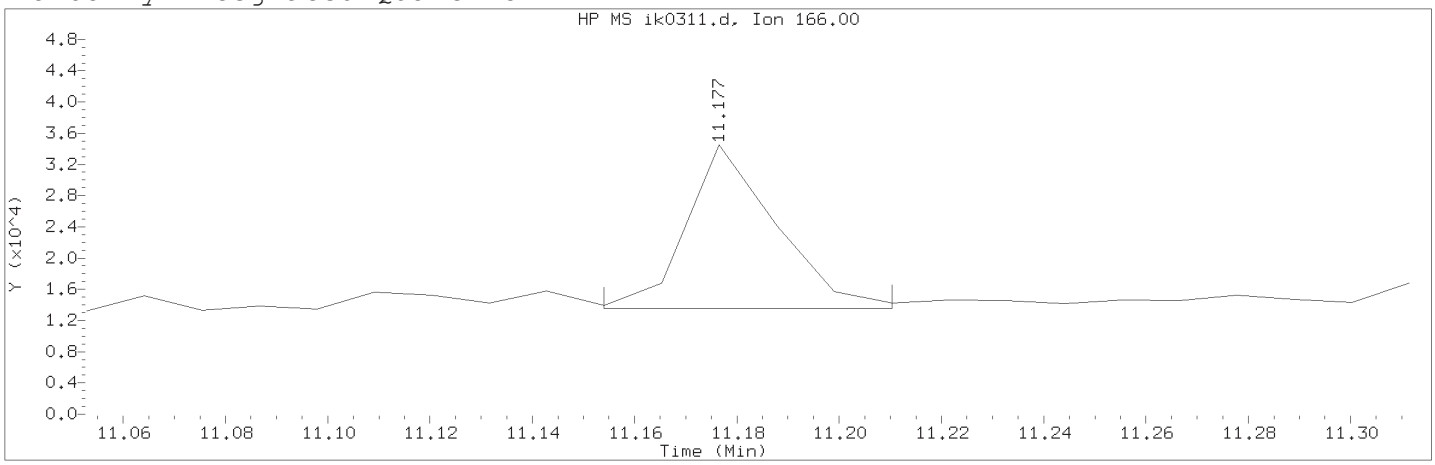
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 864
Retention Time (minutes)	: 11.177
Relative Retention Time	: 0.00005
Quant Ion	: 166.00
Area (flag)	: 25628M
On-column Amount (ng/ul)	: 0.1248

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

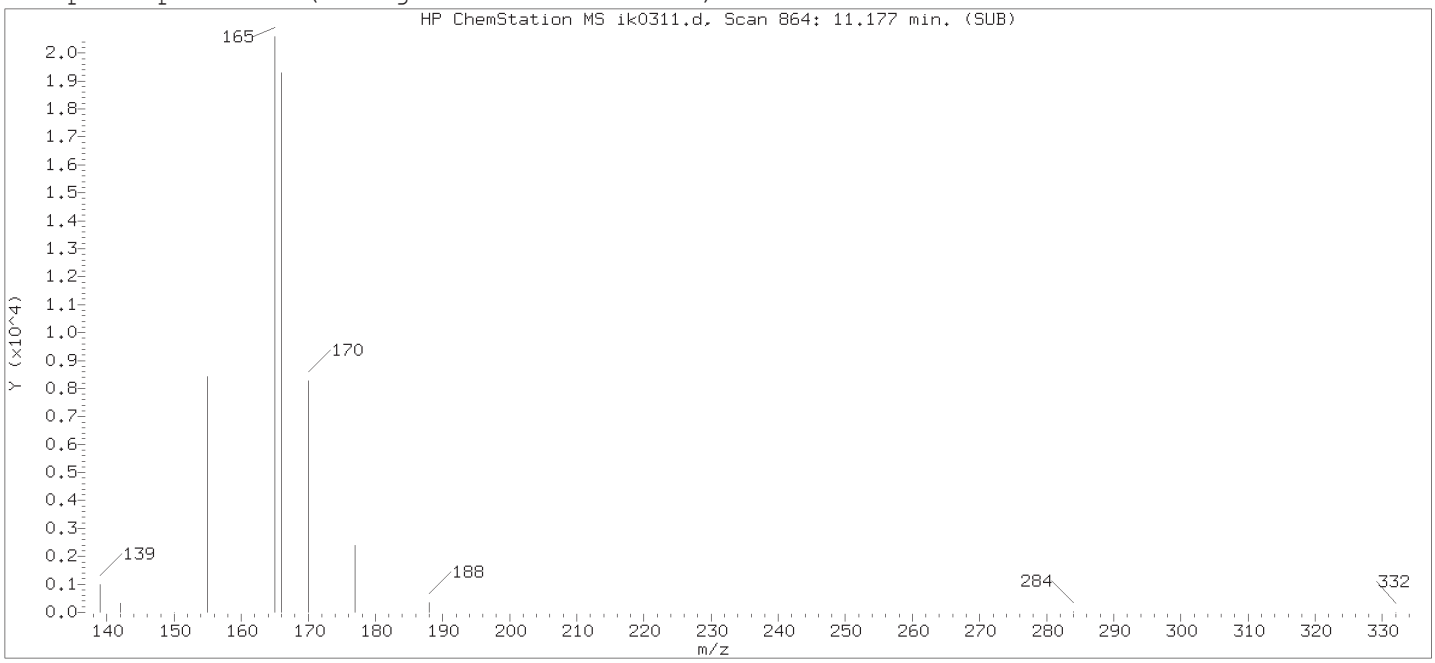
Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 864		
Retention Time (minutes)	: 11.177		
Quant Ion	: 166.00		
Area (flag)	: 25628M		
On-column Amount (ng/ul)	: 0.1248		
Integration start scan	: 861	Integration stop scan:	866
Y at integration start	: 13549	Y at integration end:	13549

Reason for manual integration: improper integration

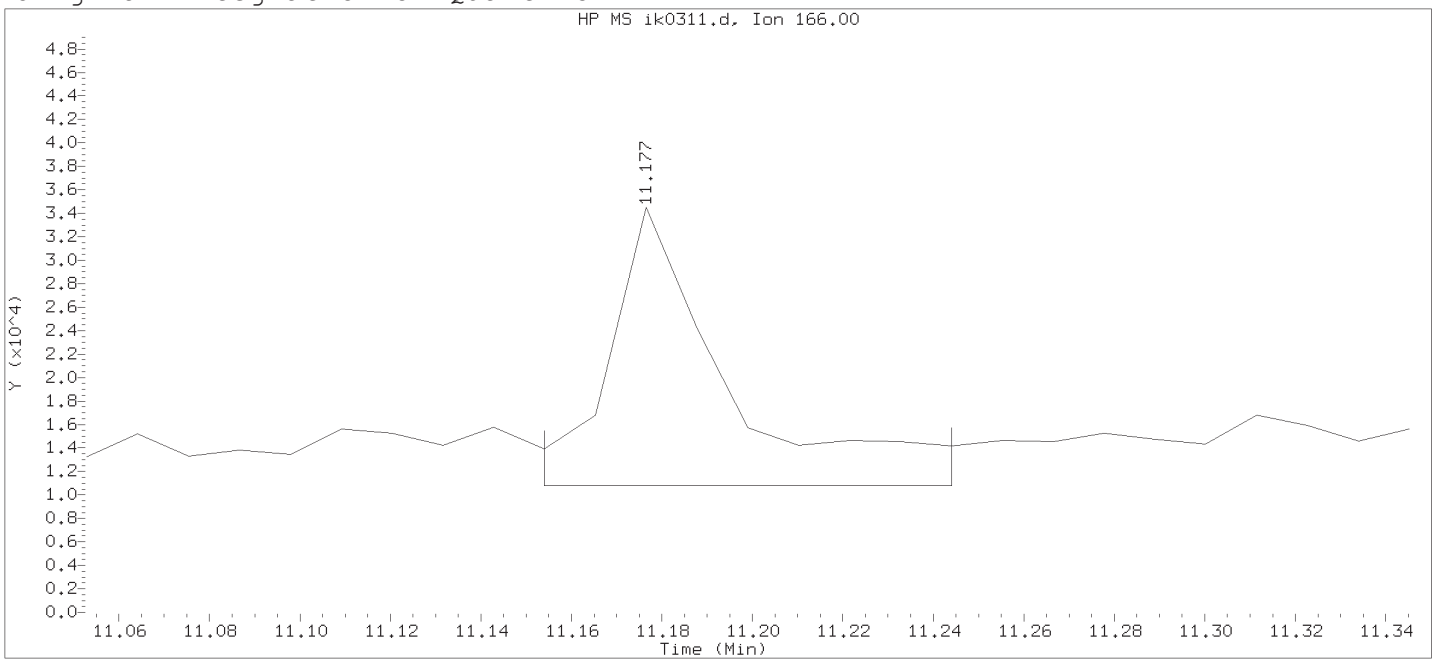
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

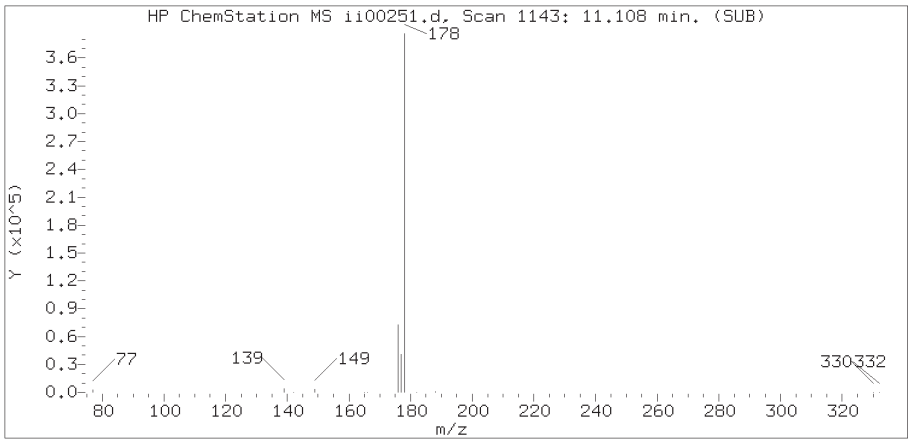
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

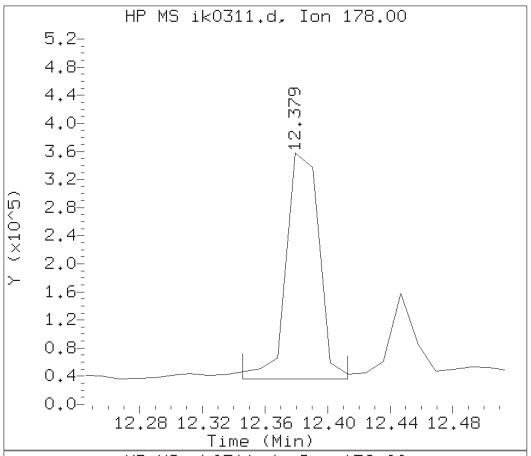
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 864		
Retention Time (minutes)	: 11.177		
Quant Ion	: 166.00		
Area	: 42029		
On-column Amount (ng/ul)	: 0.1306		
Integration start scan	: 861	Integration stop scan:	869
Y at integration start	: 10784	Y at integration end:	10784

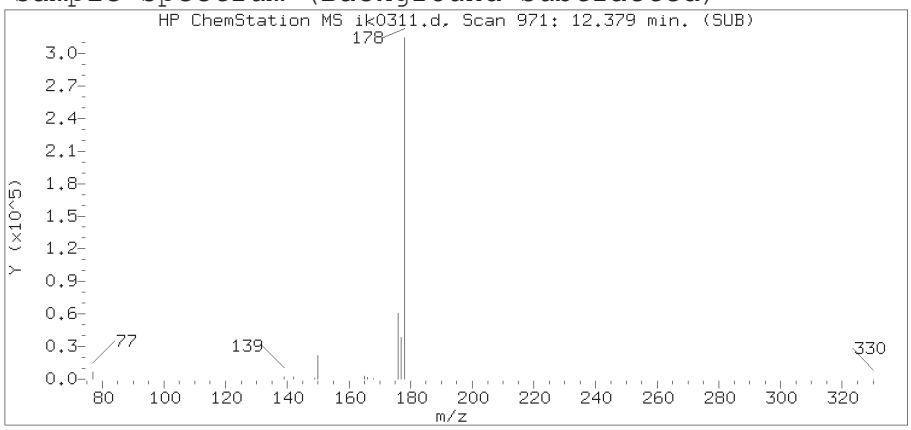
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018 16:46

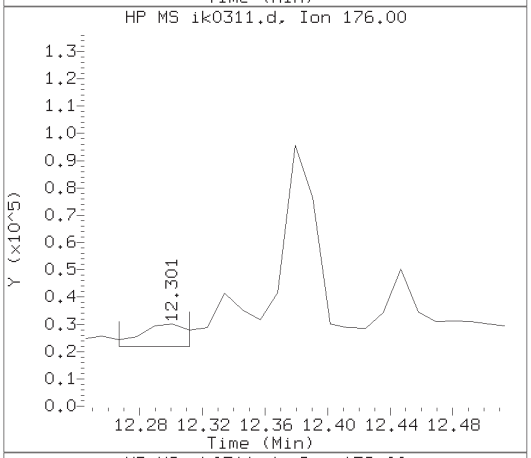
Reference Standard Spectrum for Phenanthrene



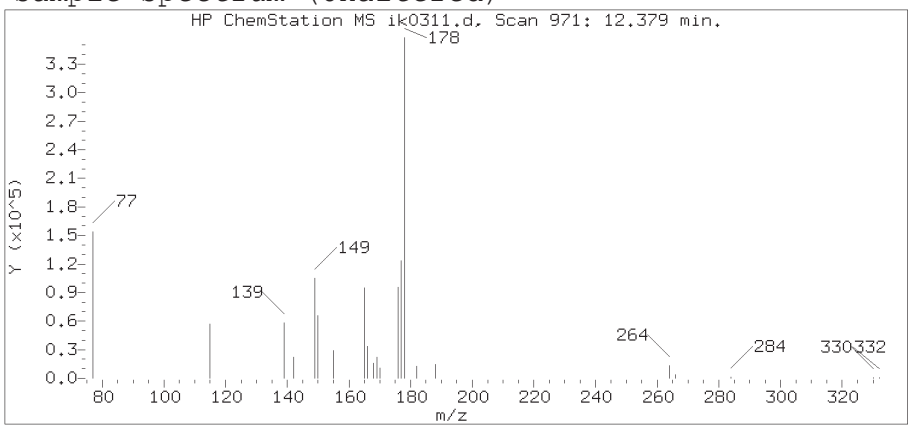


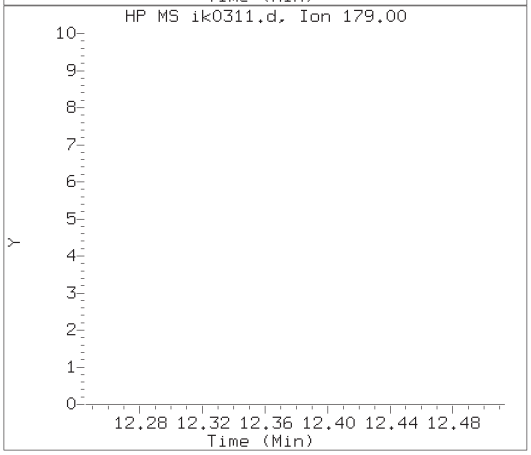
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

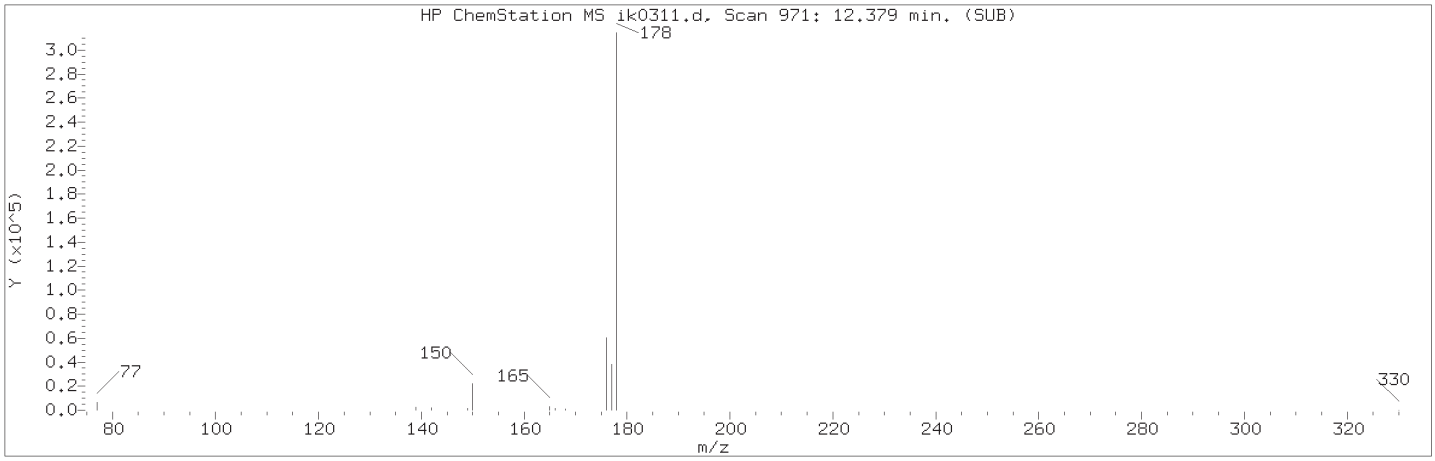
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

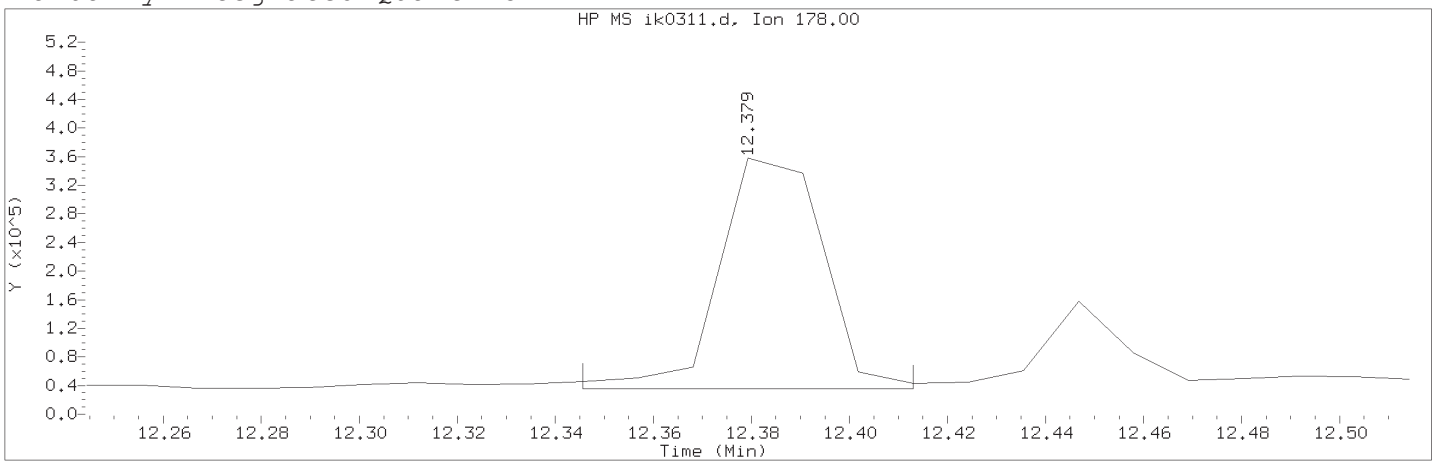
Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 971
Retention Time (minutes)	: 12.379
Relative Retention Time	:-0.00736
Quant Ion	: 178.00
Area (flag)	: 478191M
On-column Amount (ng/ul)	: 1.4471

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

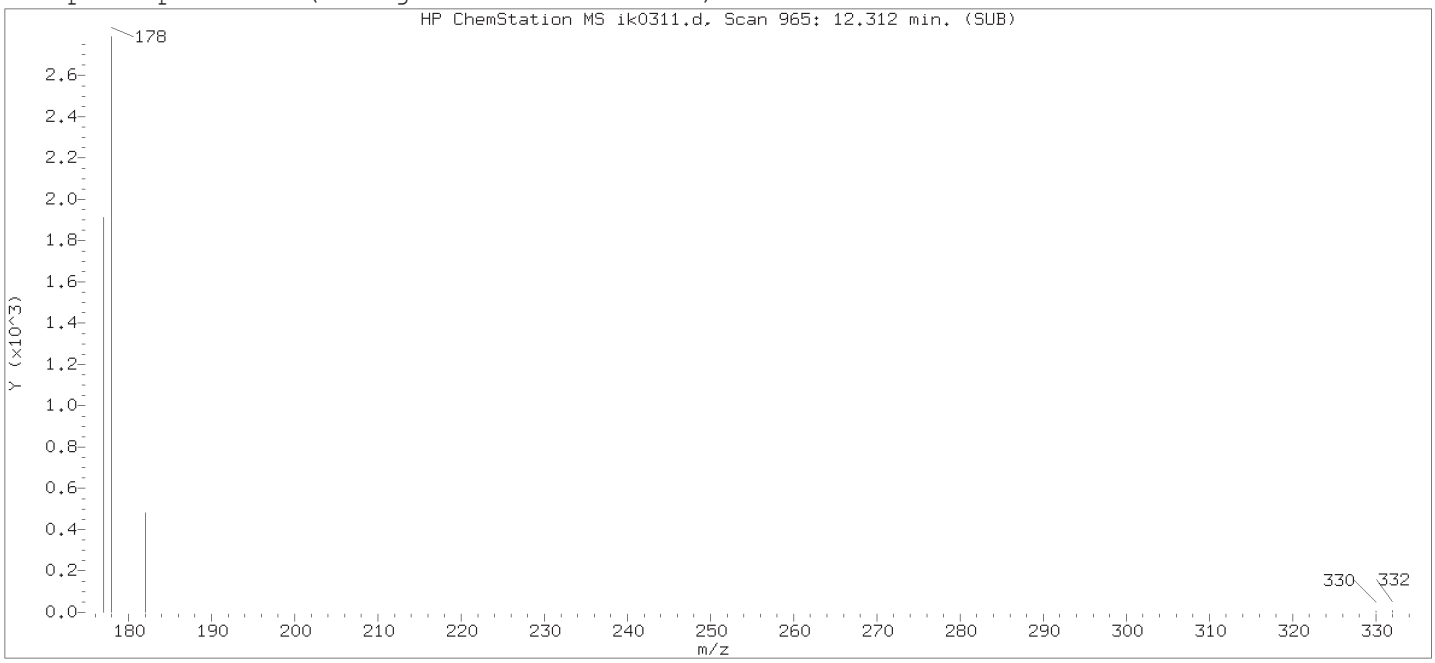
Compound Number	: 32		
Compound Name	: Phenanthrene		
Scan Number	: 971		
Retention Time (minutes)	: 12.379		
Quant Ion	: 178.00		
Area (flag)	: 478191M		
On-column Amount (ng/ul)	: 1.4471		
Integration start scan	: 967	Integration stop scan:	973
Y at integration start	: 35890	Y at integration end:	35890

Reason for manual integration: improper integration

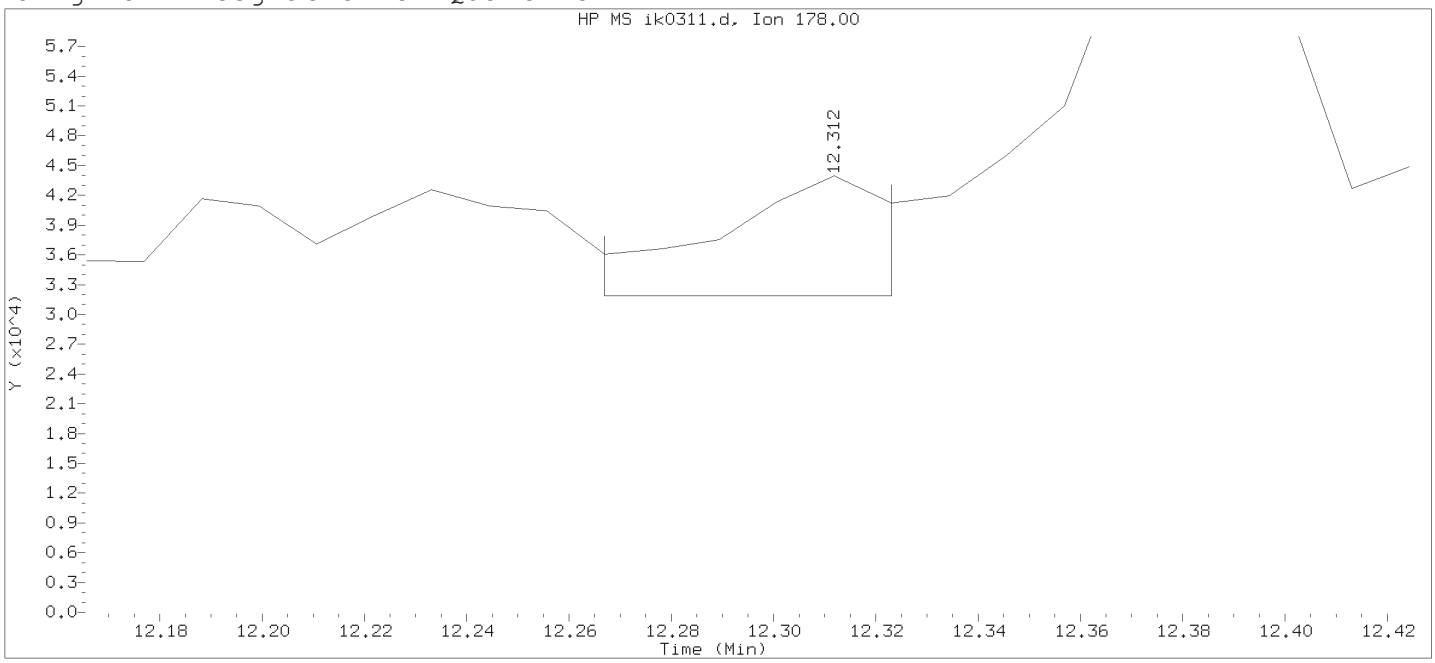
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

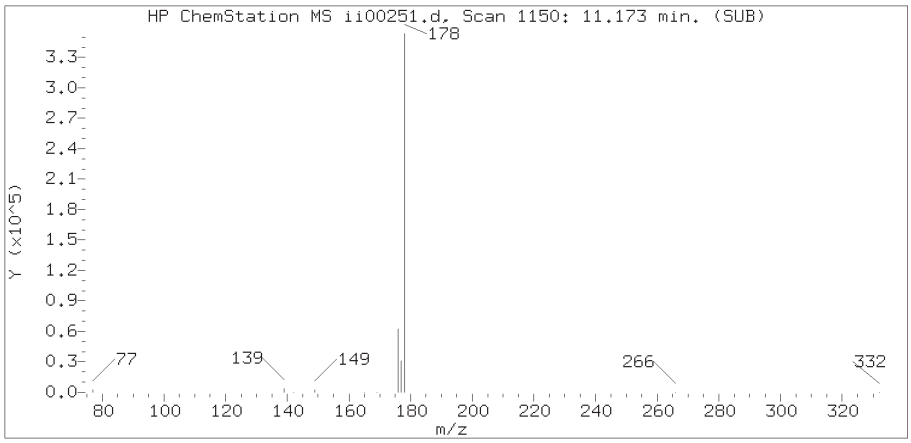
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

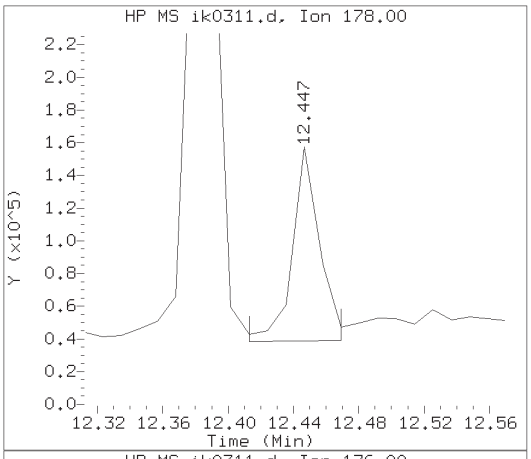
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number : 32
Compound Name : Phenanthrene
Scan Number : 965
Retention Time (minutes) : 12.312
Quant Ion : 178.00
Area : 26065
On-column Amount (ng/ul) : 0.0789
Integration start scan : 960 Integration stop scan: 965
Y at integration start : 31904 Y at integration end: 31904

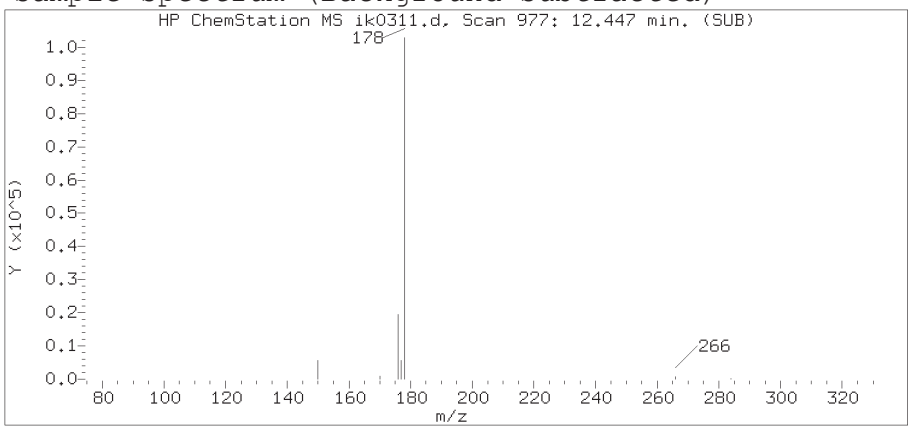
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used. [illegible]

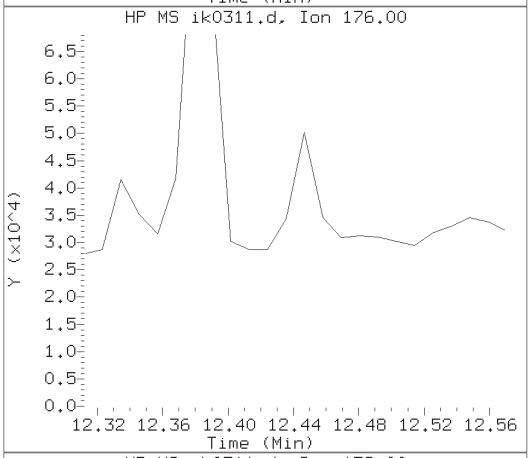
Reference Standard Spectrum for Anthracene



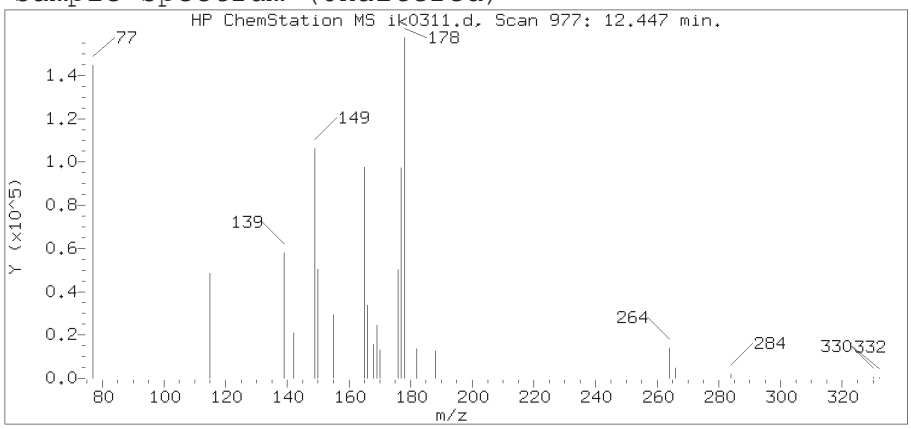


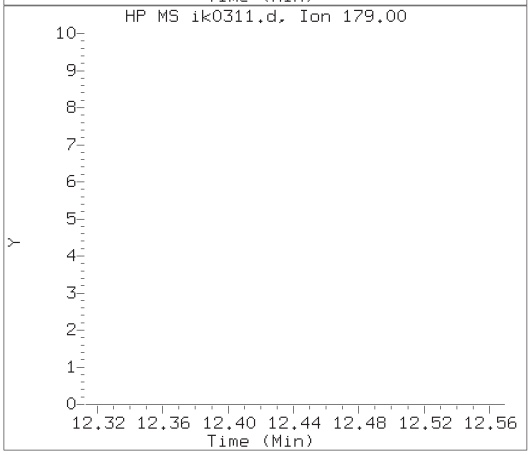
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

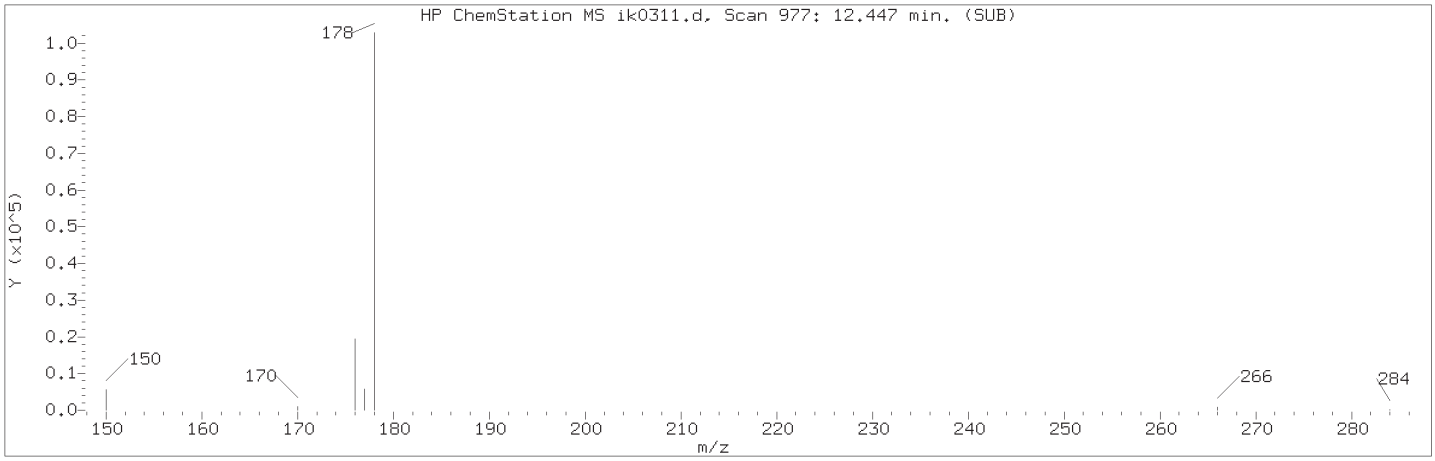
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

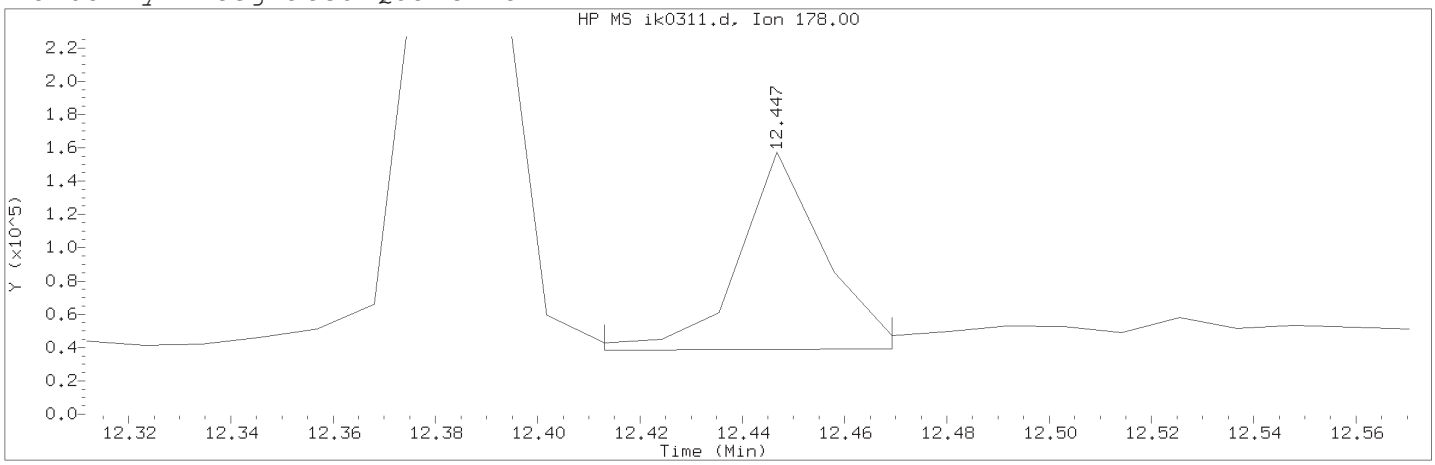
Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 977
Retention Time (minutes)	: 12.447
Relative Retention Time	:-0.00830
Quant Ion	: 178.00
Area (flag)	: 139145M
On-column Amount (ng/ul)	: 0.4204

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

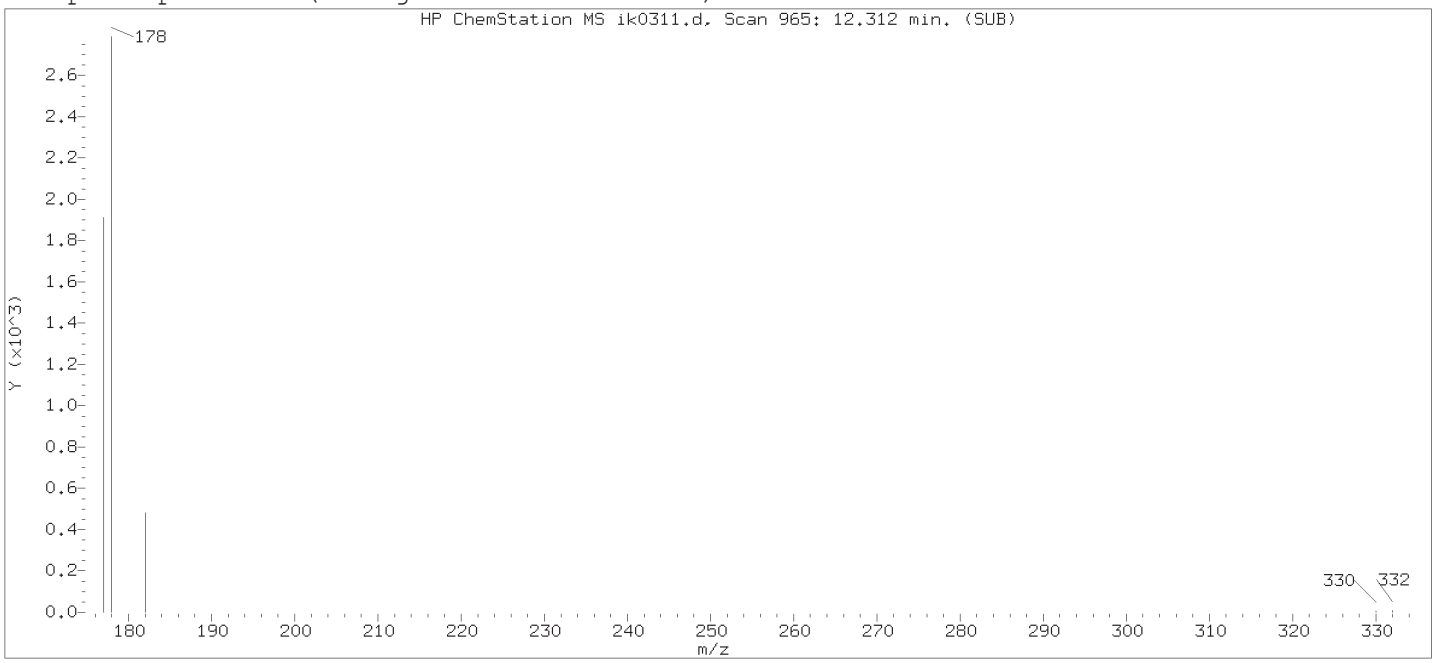
Compound Number : 33
Compound Name : Anthracene
Scan Number : 977
Retention Time (minutes) : 12.447
Quant Ion : 178.00
Area (flag) : 139145M
On-column Amount (ng/ul) : 0.4204
Integration start scan : 973 Integration stop scan: 978
Y at integration start : 38354 Y at integration end: 39022

Reason for manual integration: improper integration

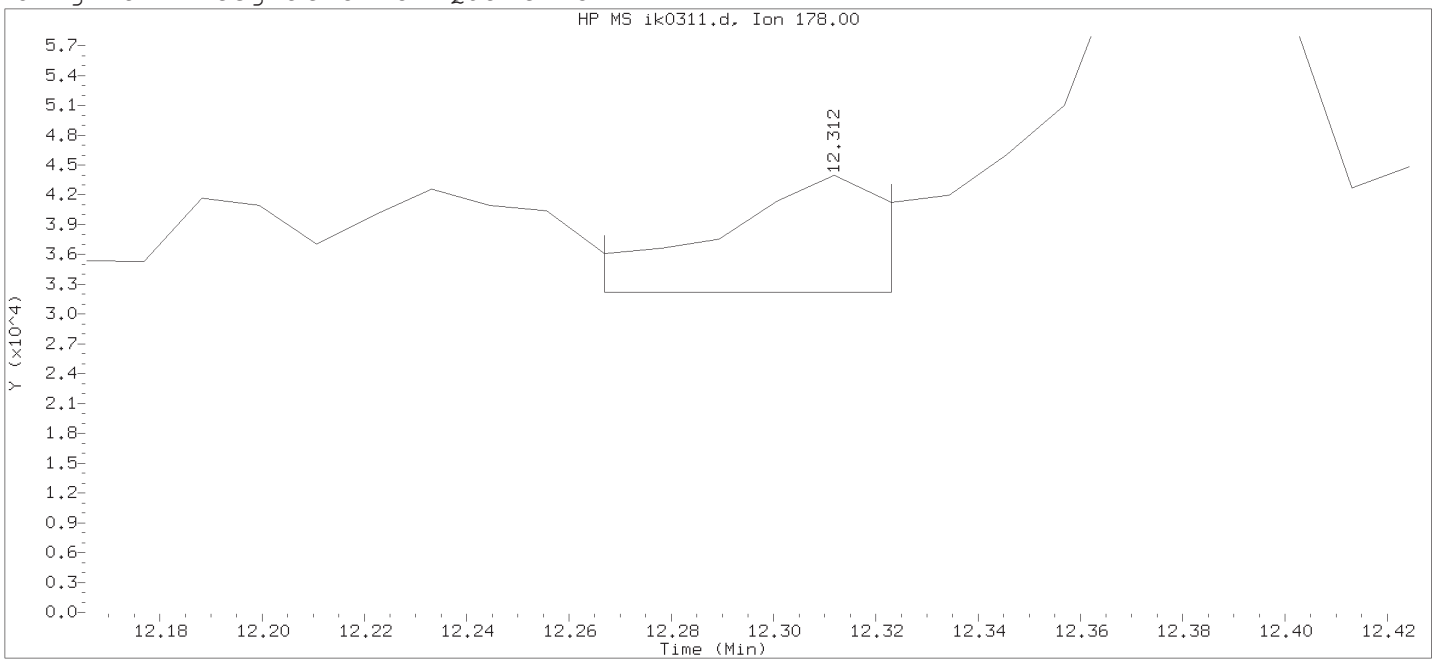
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

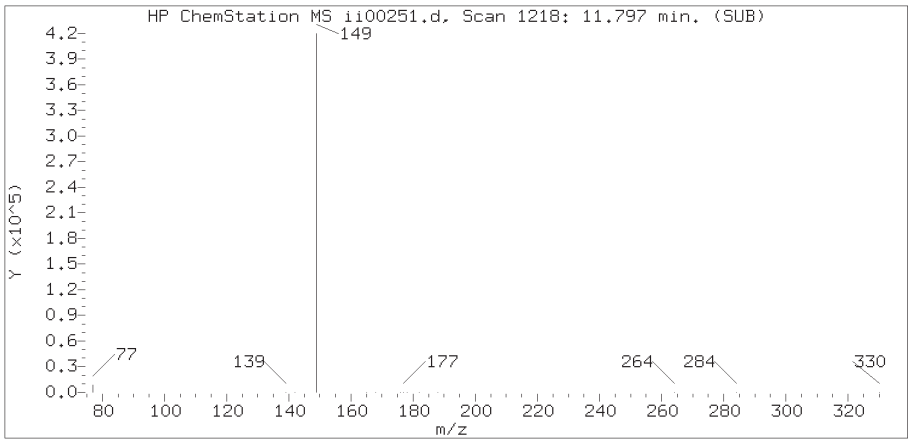
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

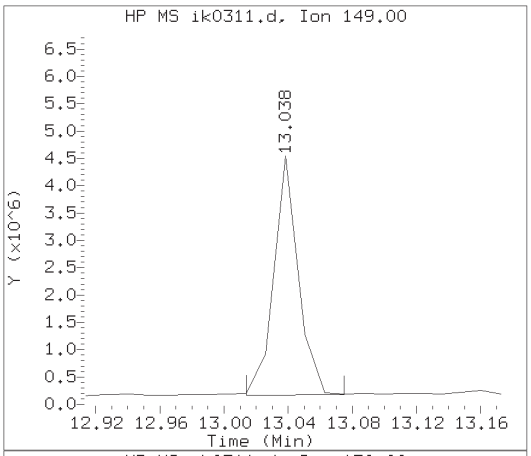
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 965		
Retention Time (minutes)	: 12.312		
Quant Ion	: 178.00		
Area	: 25148		
On-column Amount (ng/ul)	: 0.0760		
Integration start scan	: 960	Integration stop scan:	965
Y at integration start	: 32176	Y at integration end:	32176

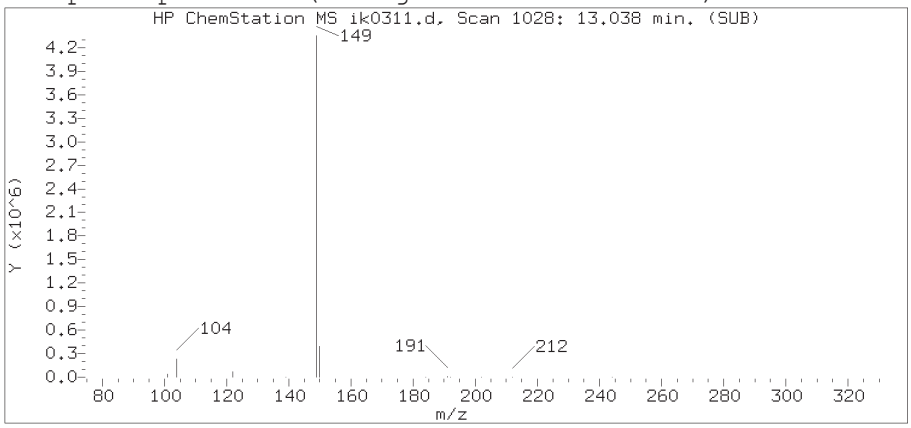
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used. D12 Page 0046

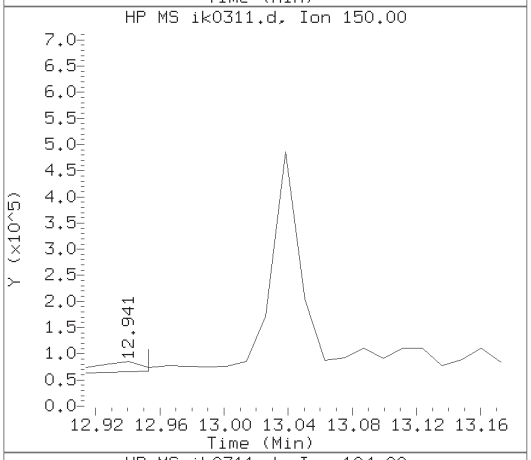
Reference Standard Spectrum for Di-n-butylphthalate



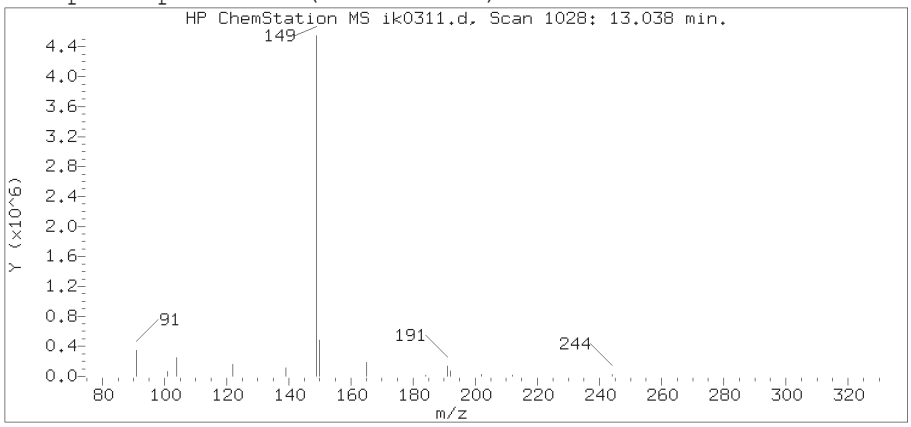


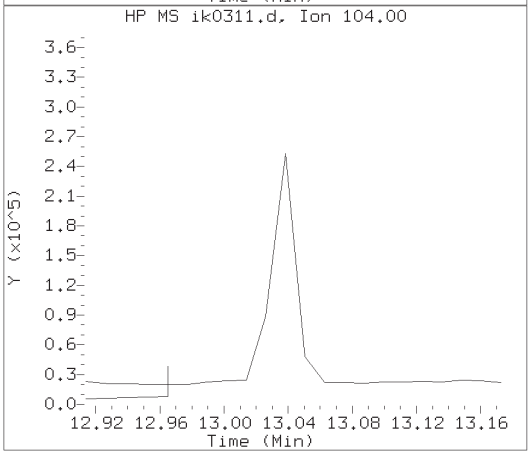
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

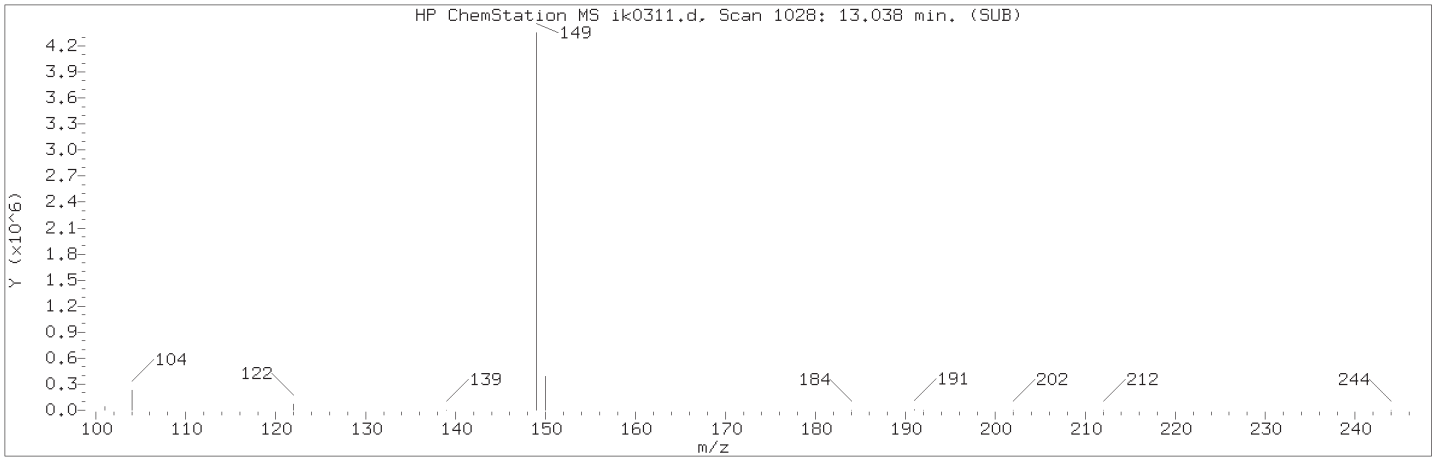
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

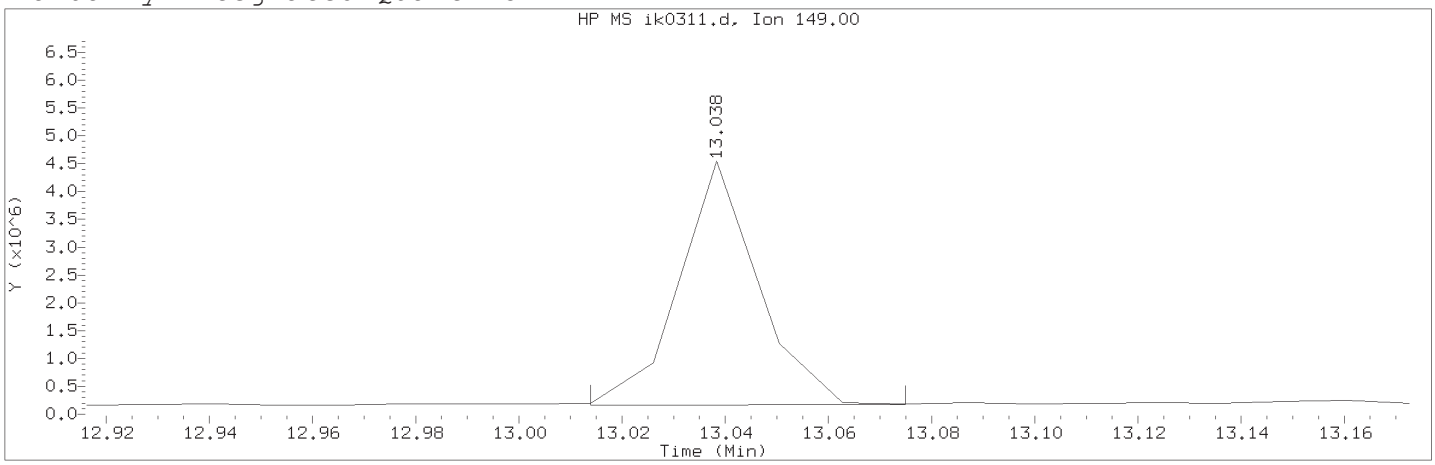
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1028
Retention Time (minutes)	: 13.038
Relative Retention Time	:-0.00883
Quant Ion	: 149.00
Area (flag)	: 4593505M
On-column Amount (ng/ul)	: 14.5276

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

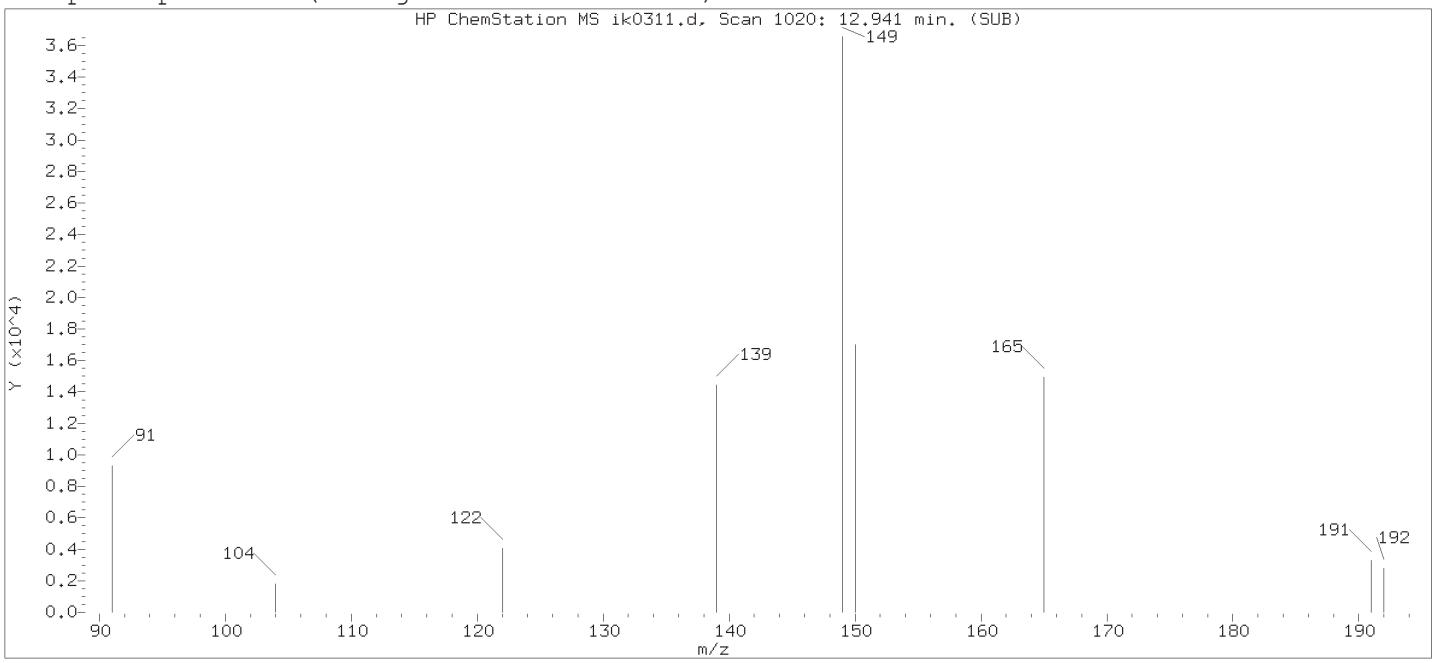
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 1028
Retention Time (minutes) : 13.038
Quant Ion : 149.00
Area (flag) : 4593505M
On-column Amount (ng/ul) : 14.5276
Integration start scan : 1025 Integration stop scan: 1030
Y at integration start : 162969 Y at integration end: 173484

Reason for manual integration: improper integration

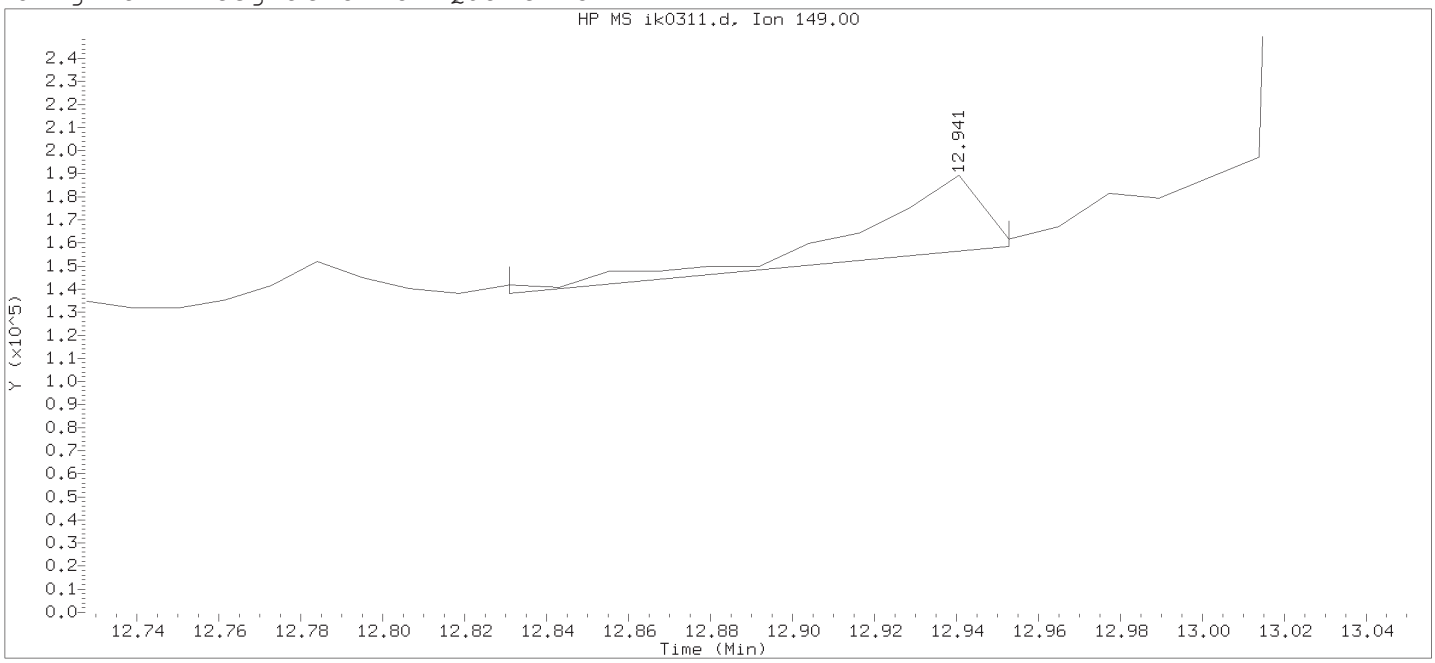
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

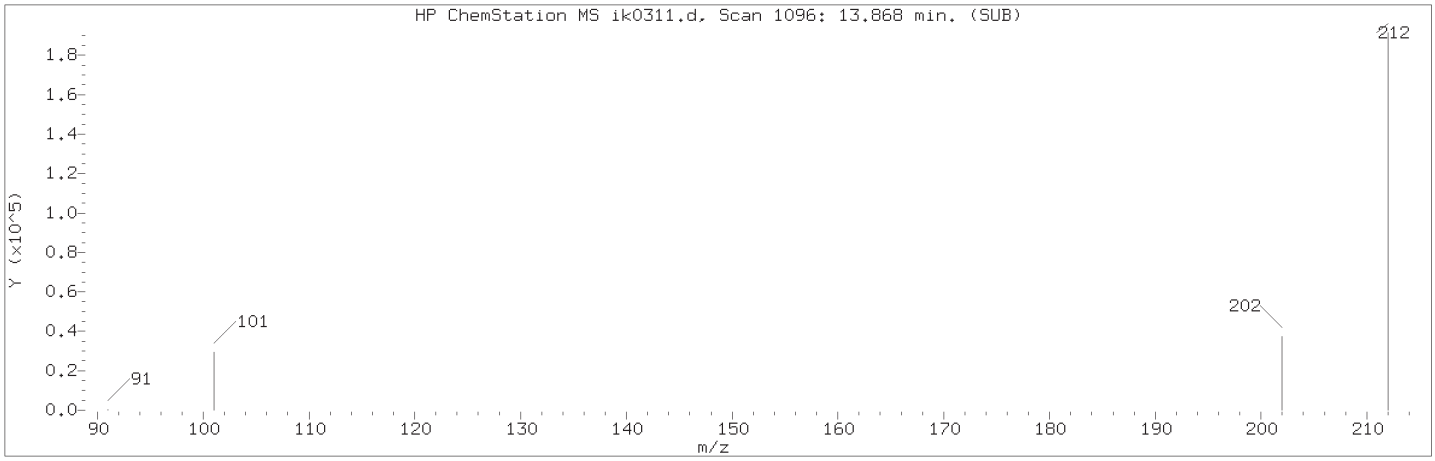
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

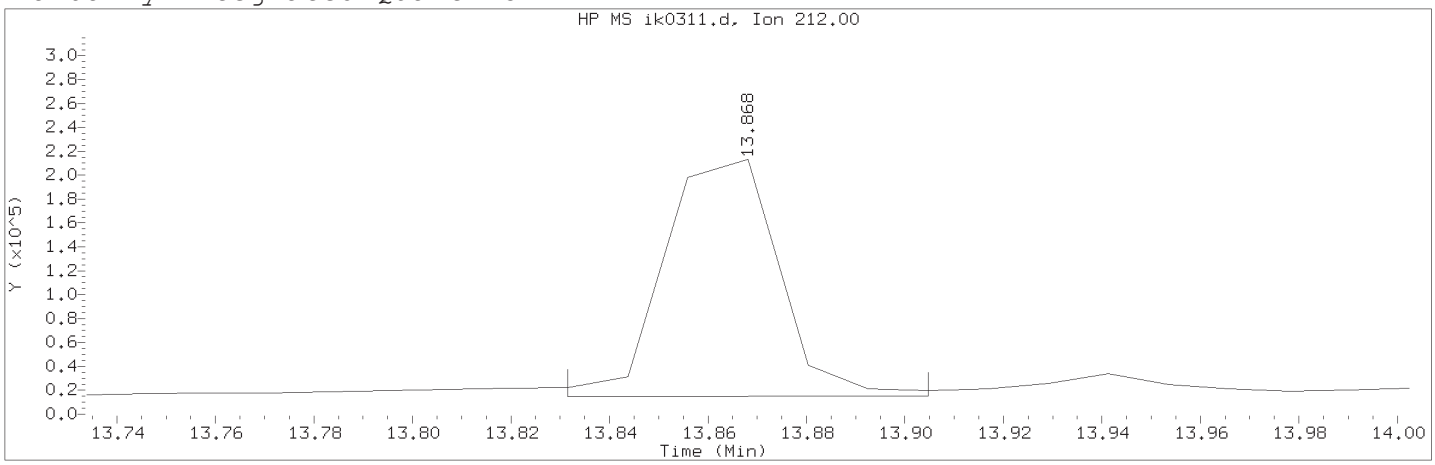
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 1020
Retention Time (minutes) : 12.941
Quant Ion : 149.00
Area : 66048
On-column Amount (ng/ul) : 0.2089
Integration start scan : 1010 Integration stop scan: 1020
Y at integration start : 138240 Y at integration end: 158647

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used. Java 1.6.0_45

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

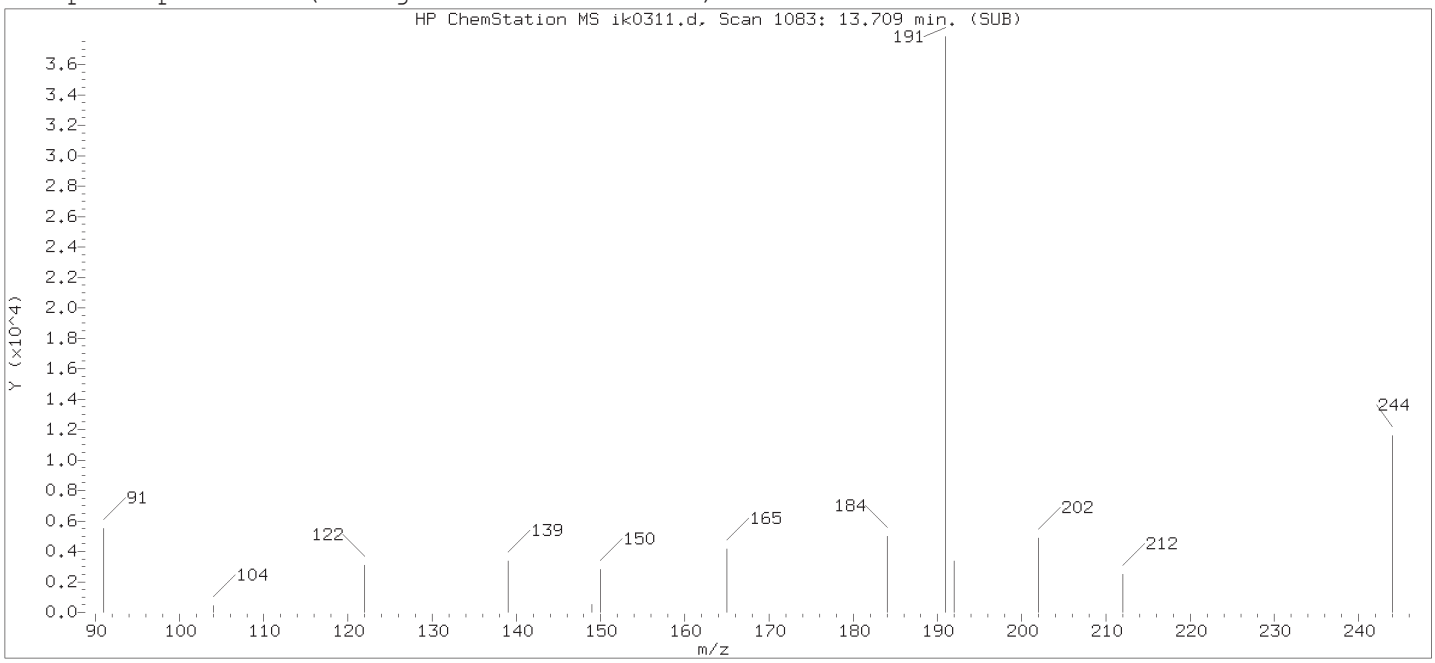
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1096
Retention Time (minutes) : 13.868
Quant Ion : 212.00
Area (flag) : 322452M
On-column Amount (ng/ul) : 0.8502
Integration start scan : 1092 Integration stop scan: 1098
Y at integration start : 14845 Y at integration end: 15275

Reason for manual integration: improper integration

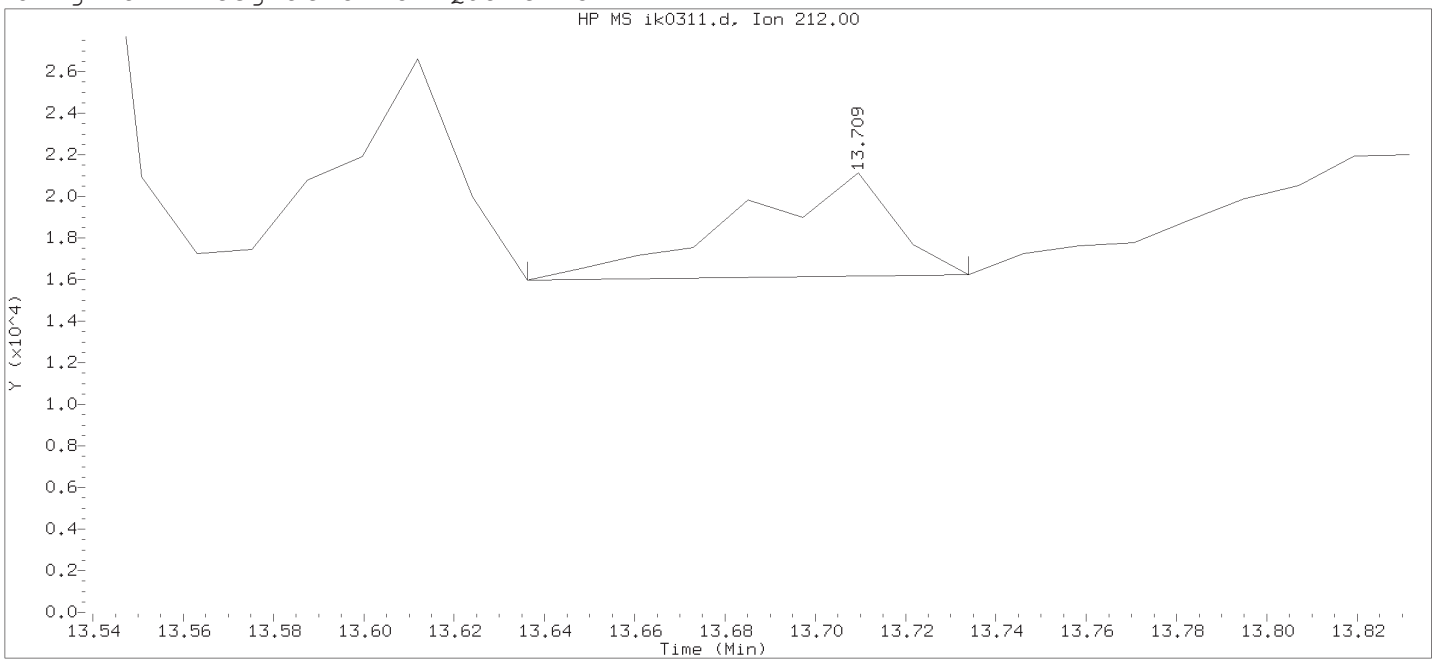
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

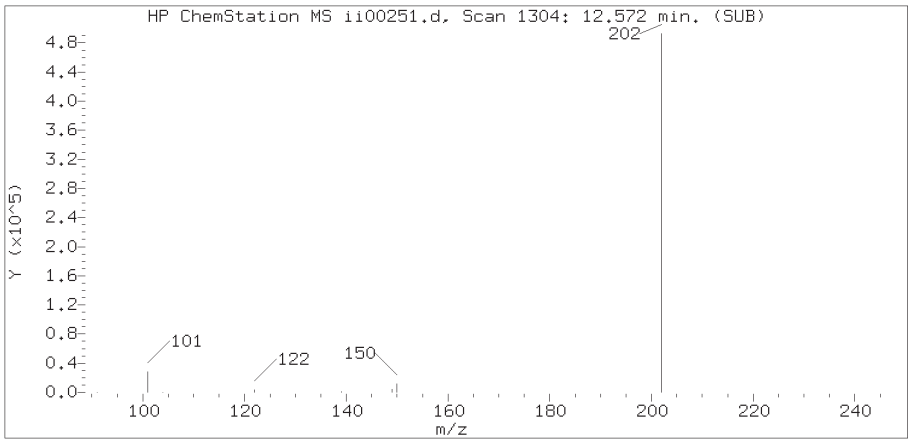
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

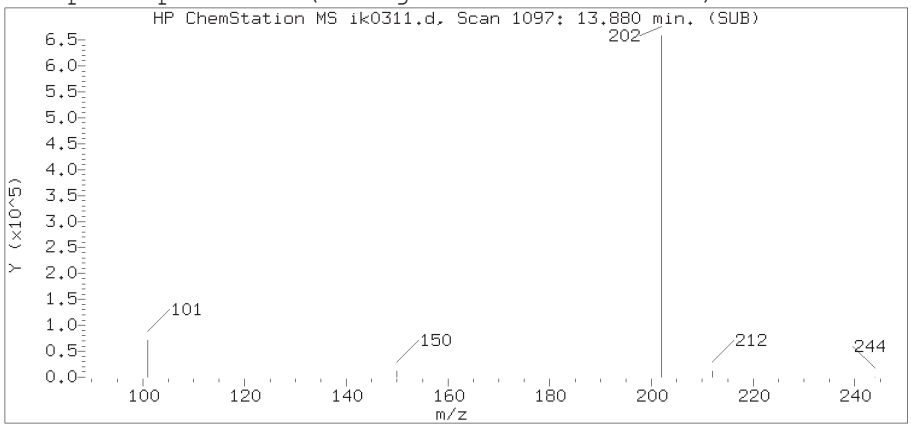
Compound Number	: 36
Compound Name	: Fluoranthene-d10
Scan Number	: 1083
Retention Time (minutes)	: 13.709
Quant Ion	: 212.00
Area	: 11827
On-column Amount (ng/ul)	: 0.0312
Integration start scan	: 1076 Integration stop scan: 1084
Y at integration start	: 15979 Y at integration end: 16231

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used. Version: 3.5.0.16

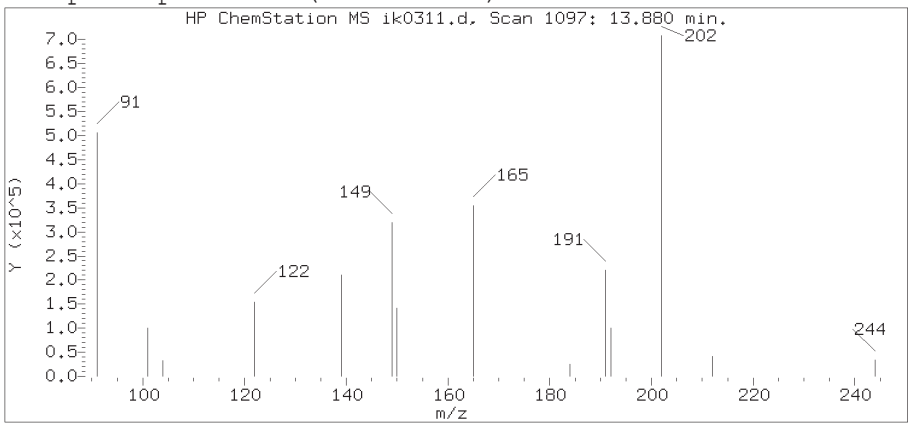
Reference Standard Spectrum for Fluoranthene

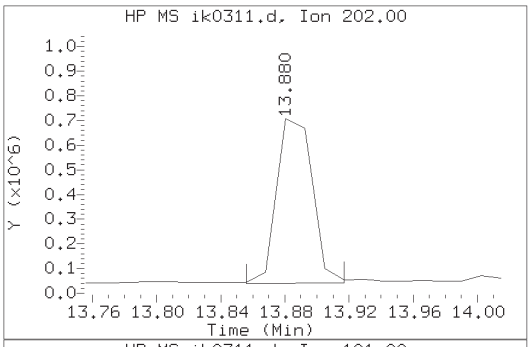


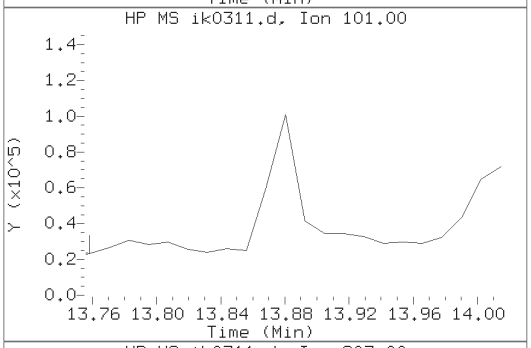
Sample Spectrum (Background Subtracted)

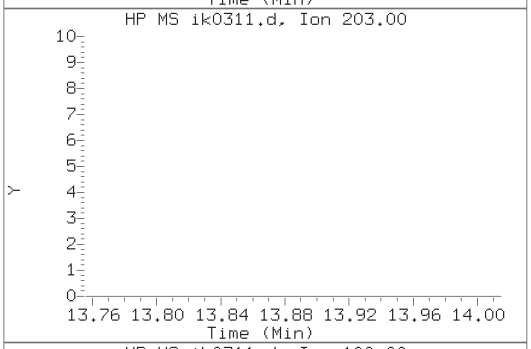


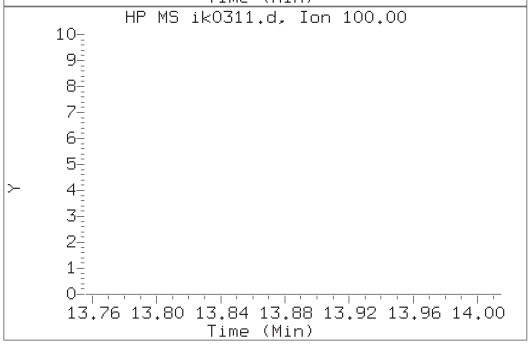
Sample Spectrum (Unaltered)











Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

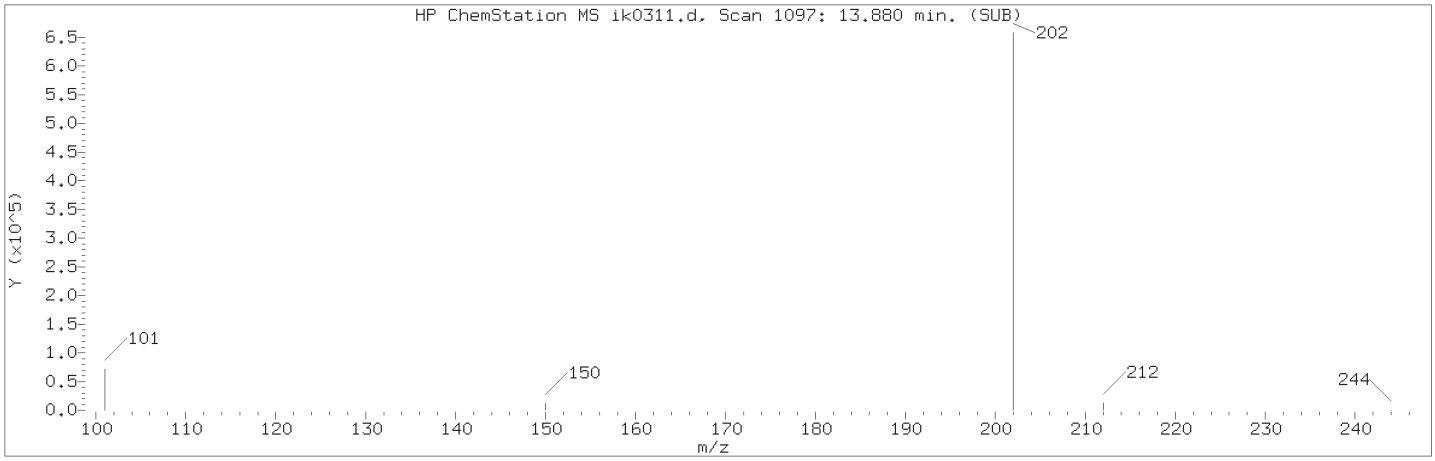
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

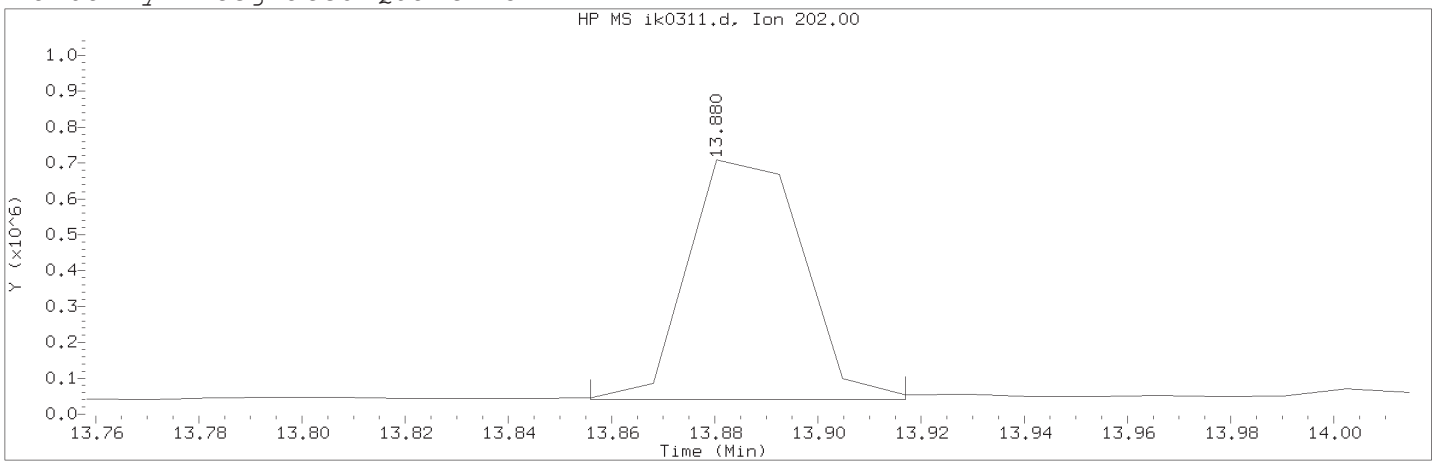
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1097
Retention Time (minutes)	: 13.880
Relative Retention Time	:-0.01025
Quant Ion	: 202.00
Area (flag)	: 1038097M
On-column Amount (ng/ul)	: 2.5231

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

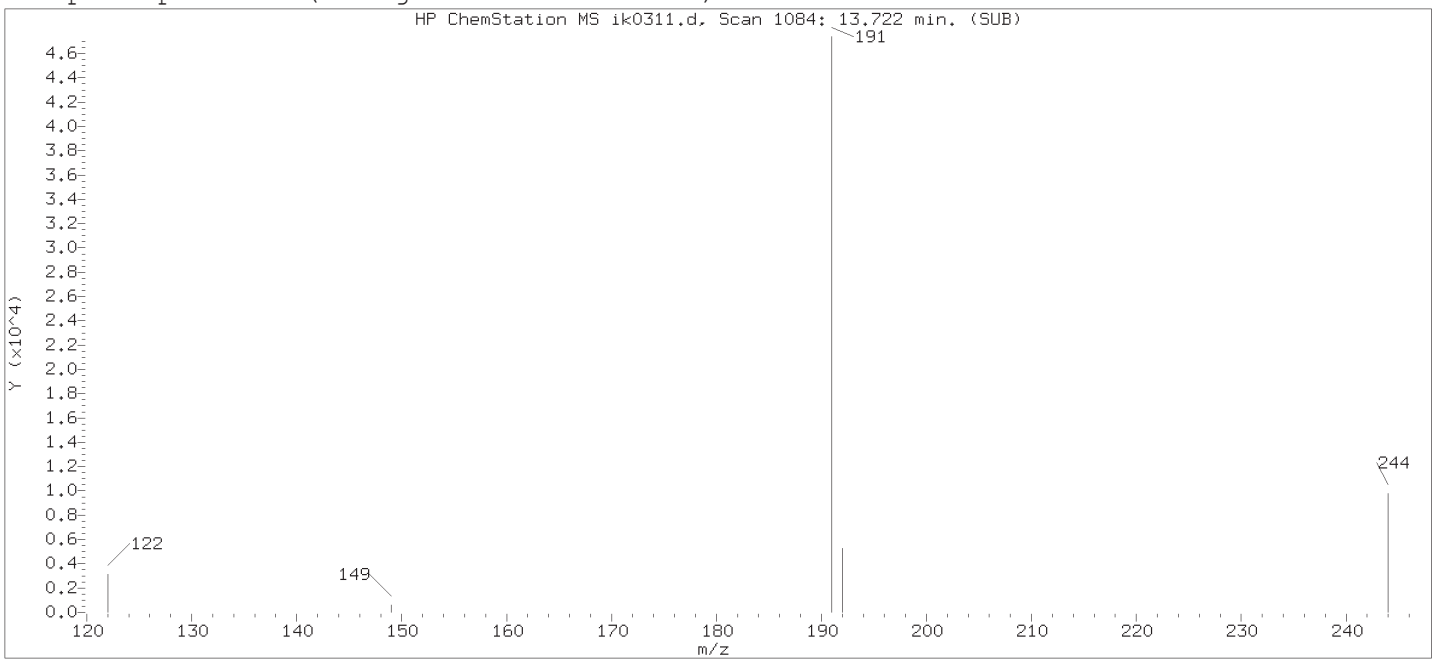
Compound Number : 37
Compound Name : Fluoranthene
Scan Number : 1097
Retention Time (minutes) : 13.880
Quant Ion : 202.00
Area (flag) : 1038097M
On-column Amount (ng/ul) : 2.5231
Integration start scan : 1094 Integration stop scan: 1099
Y at integration start : 39893 Y at integration end: 41141

Reason for manual integration: improper integration

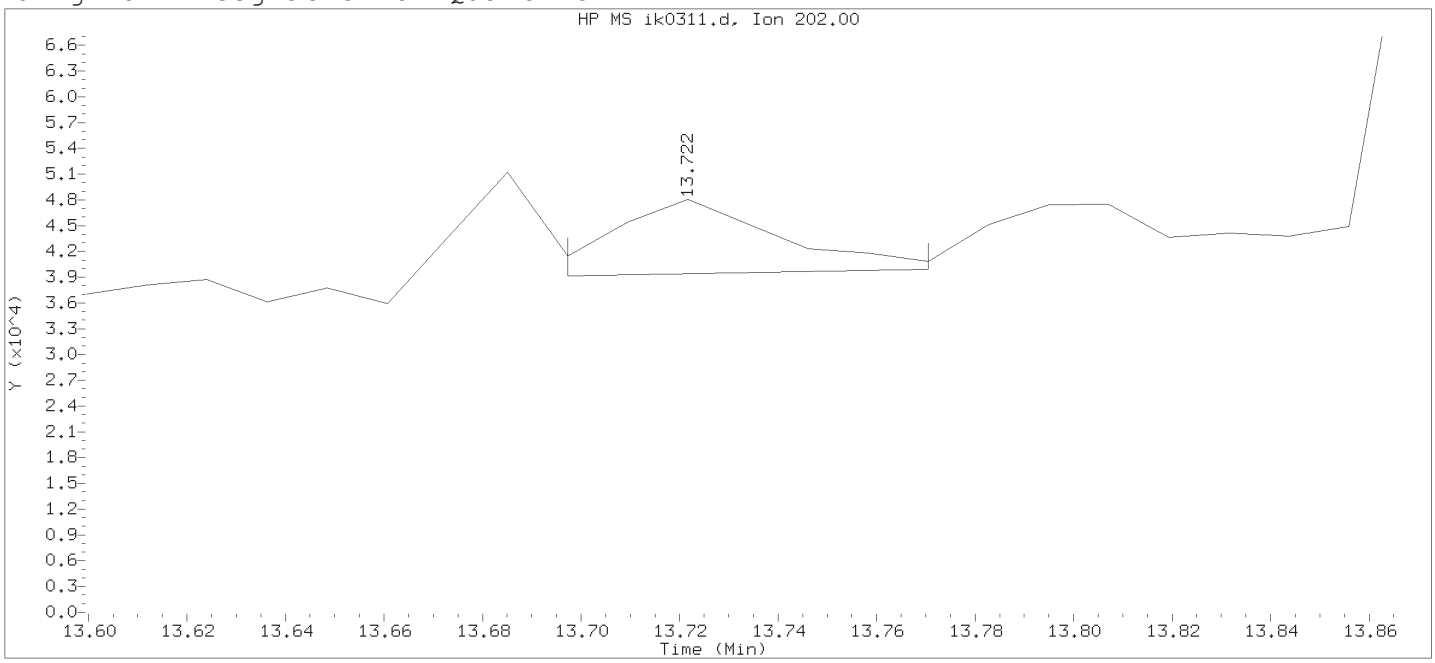
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

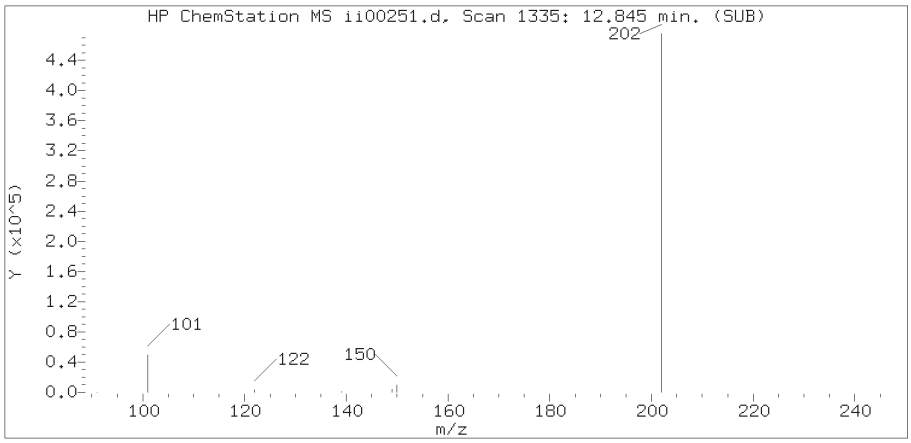
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

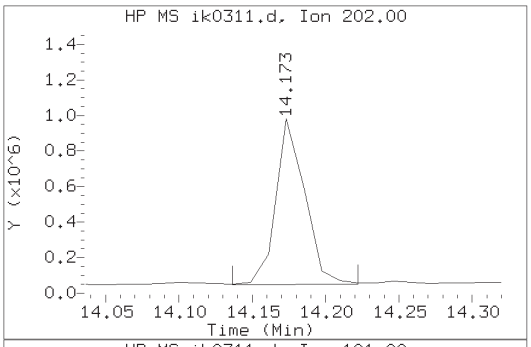
Sample Name: 12T07 Lab Sample ID: 9872065

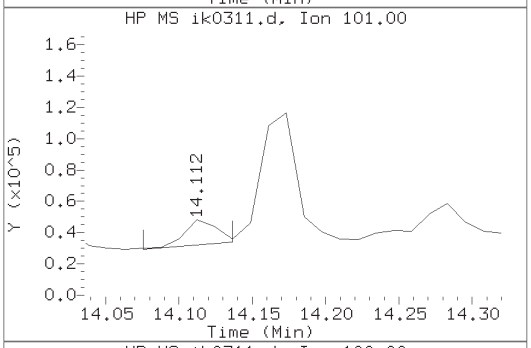
Compound Number	: 37		
Compound Name	: Fluoranthene		
Scan Number	: 1084		
Retention Time (minutes)	: 13.722		
Quant Ion	: 202.00		
Area	: 19659		
On-column Amount (ng/ul)	: 0.0478		
Integration start scan	: 1081	Integration stop scan:	1087
Y at integration start	: 39137	Y at integration end:	39890

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used.

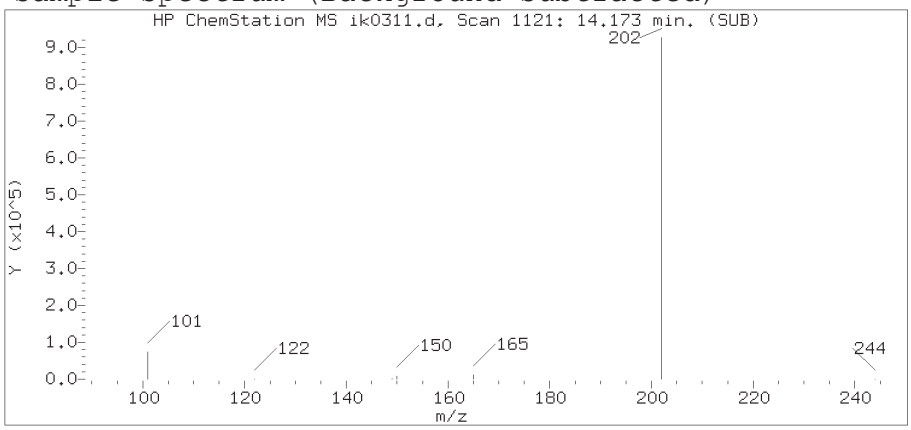
Reference Standard Spectrum for Pyrene

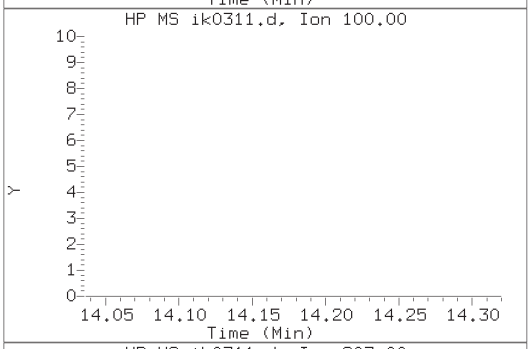




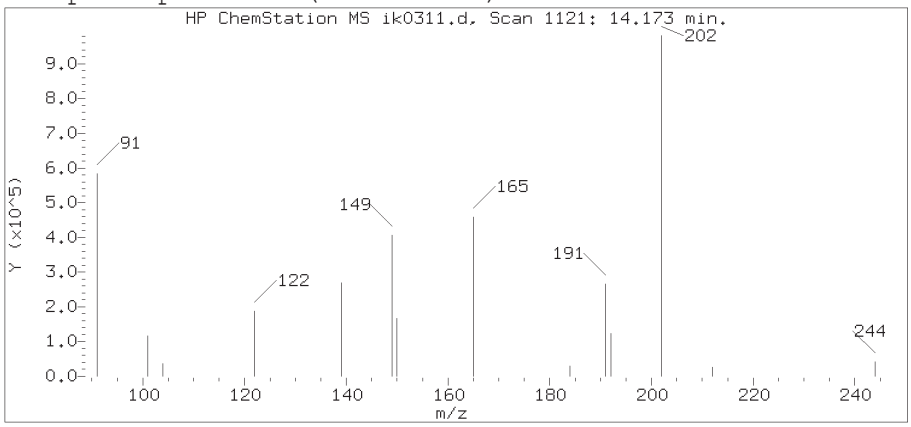


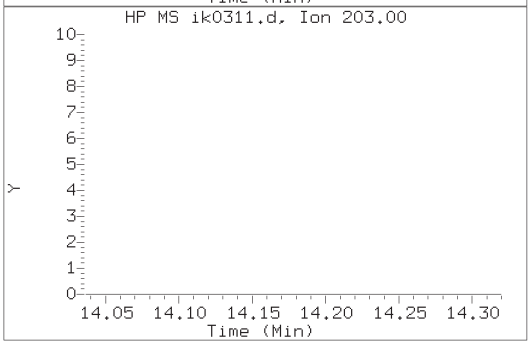
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

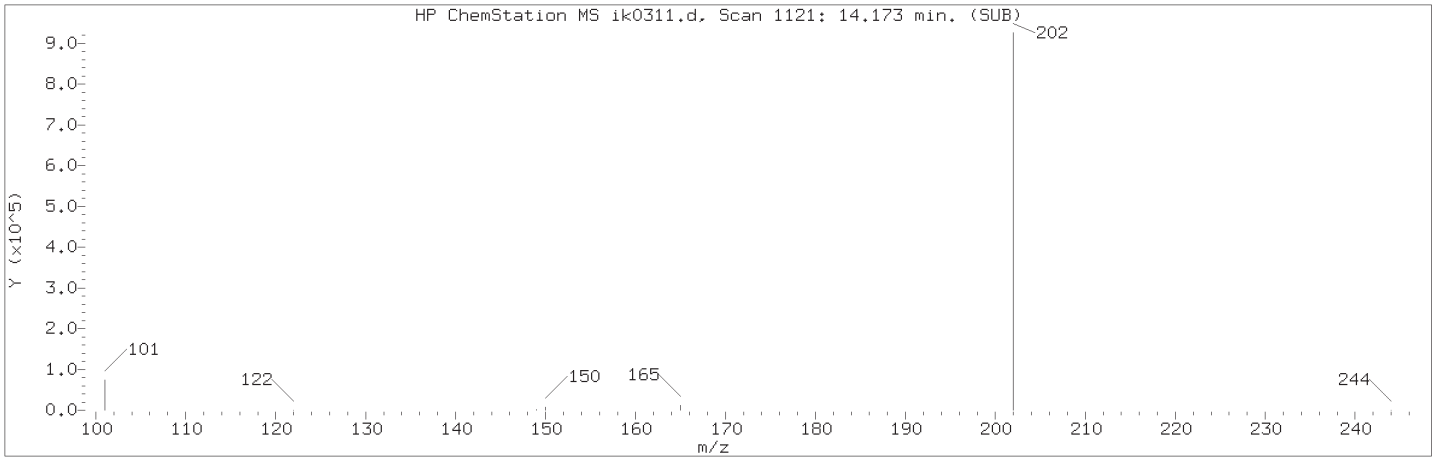
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

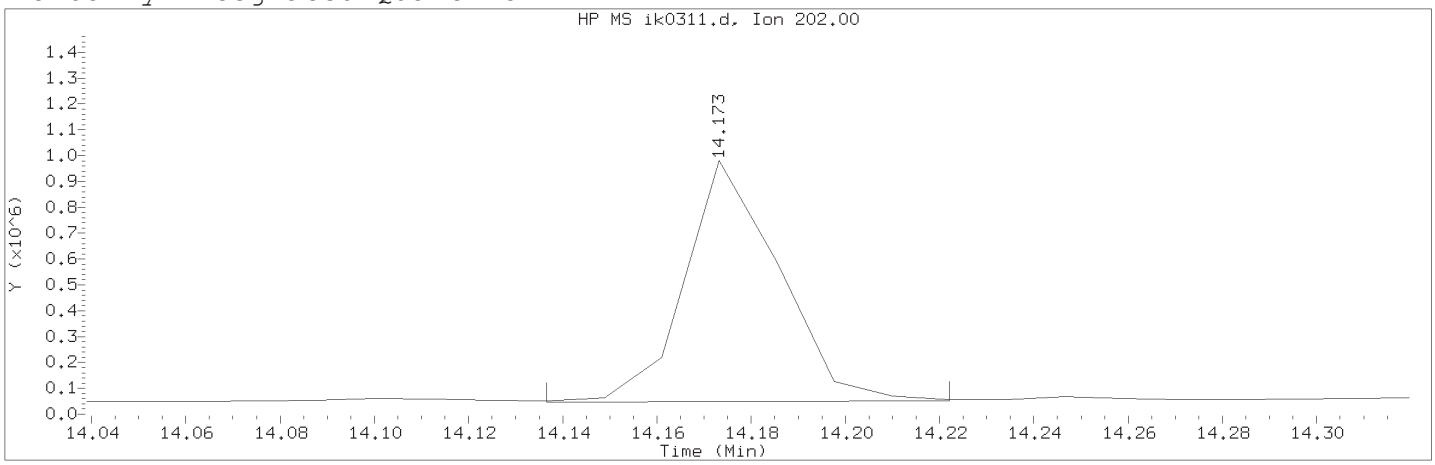
Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1121
Retention Time (minutes)	: 14.173
Relative Retention Time	: 0.00190
Quant Ion	: 202.00
Area (flag)	: 1294286M
On-column Amount (ng/ul)	: 3.0170

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

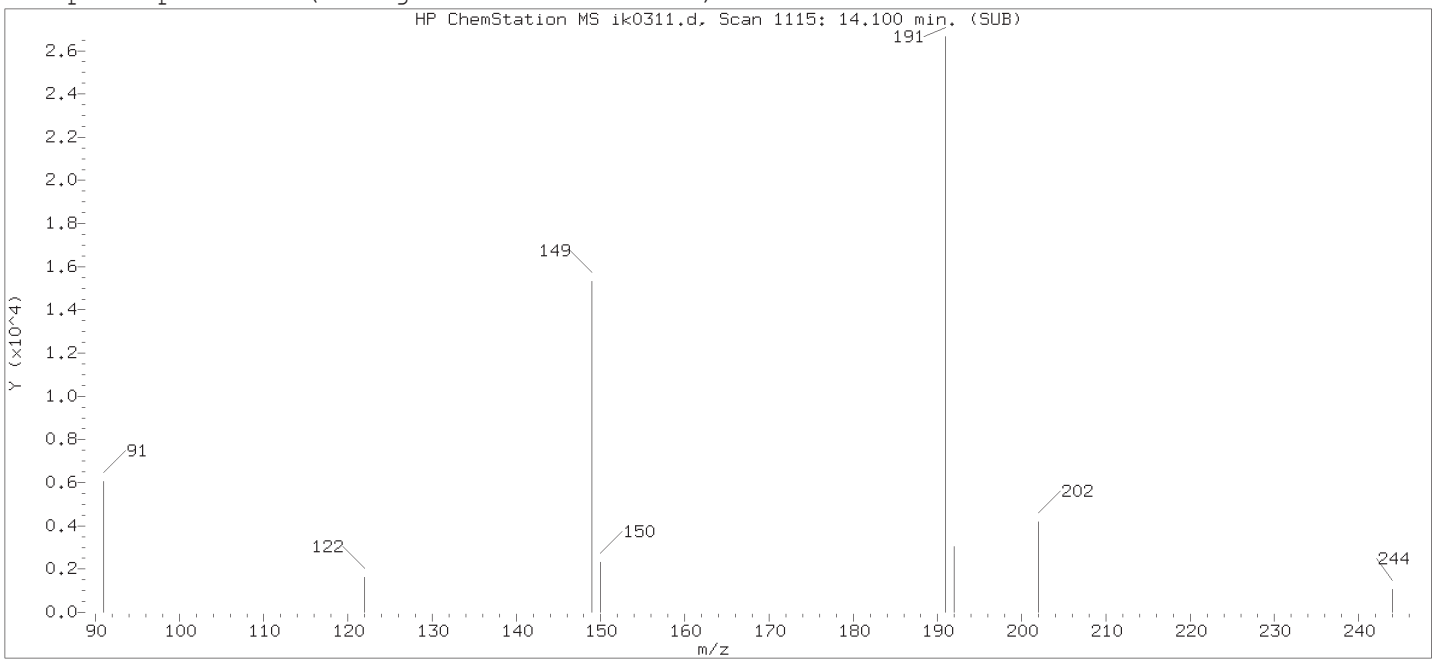
Compound Number : 39
Compound Name : Pyrene
Scan Number : 1121
Retention Time (minutes) : 14.173
Quant Ion : 202.00
Area (flag) : 1294286M
On-column Amount (ng/ul) : 3.0170
Integration start scan : 1117 Integration stop scan: 1124
Y at integration start : 46607 Y at integration end: 51064

Reason for manual integration: improper integration

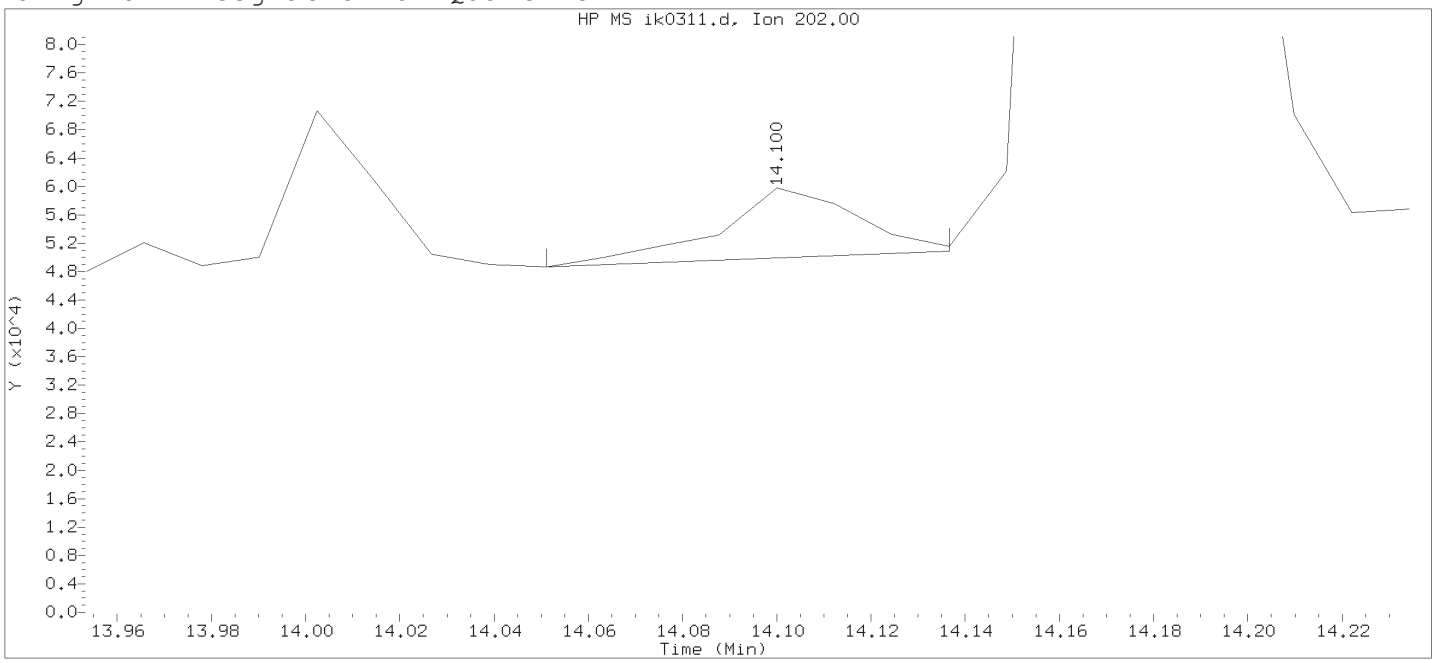
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

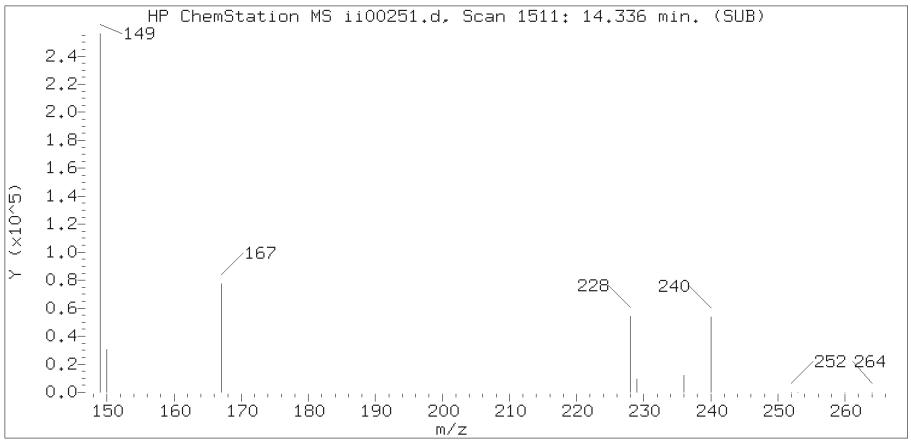
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

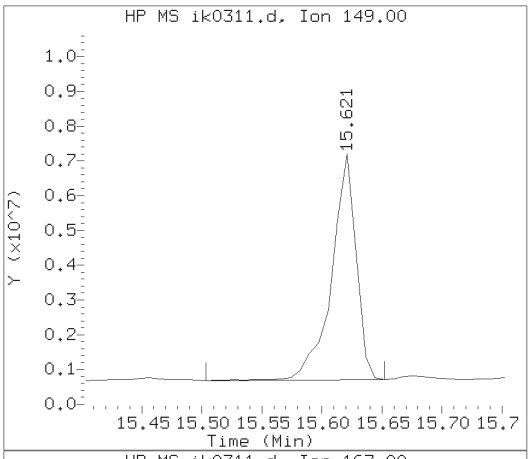
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 39		
Compound Name	: Pyrene		
Scan Number	: 1115		
Retention Time (minutes)	: 14.100		
Quant Ion	: 202.00		
Area	: 19844		
On-column Amount (ng/ul)	: 0.6067		
Integration start scan	: 1110	Integration stop scan:	1117
Y at integration start	: 48672	Y at integration end:	50871

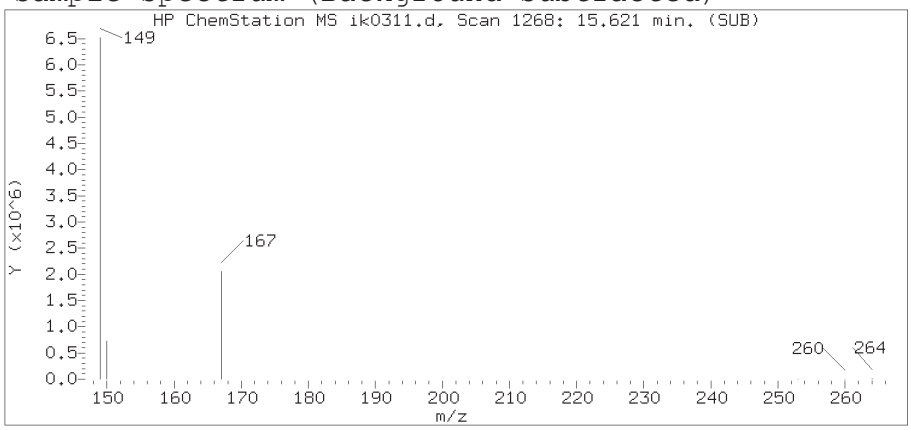
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018.

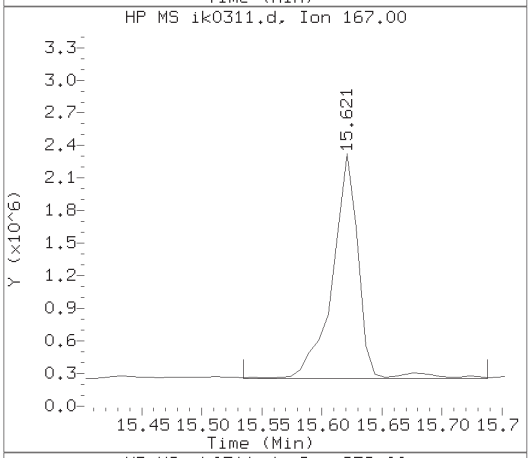
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



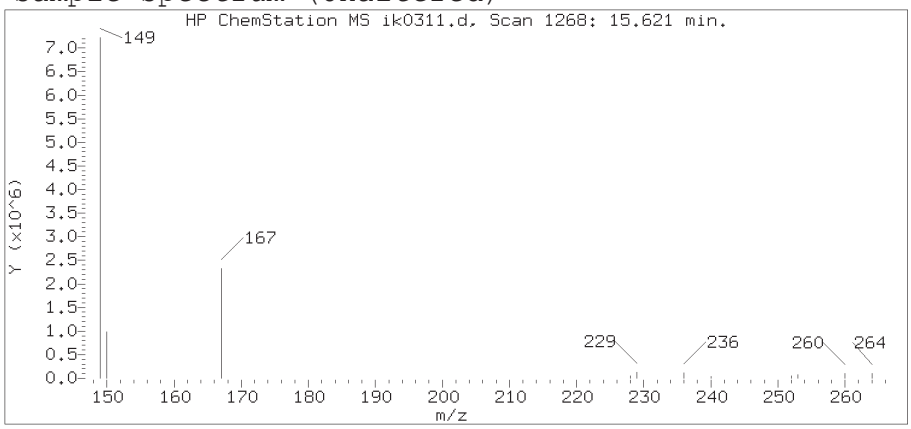


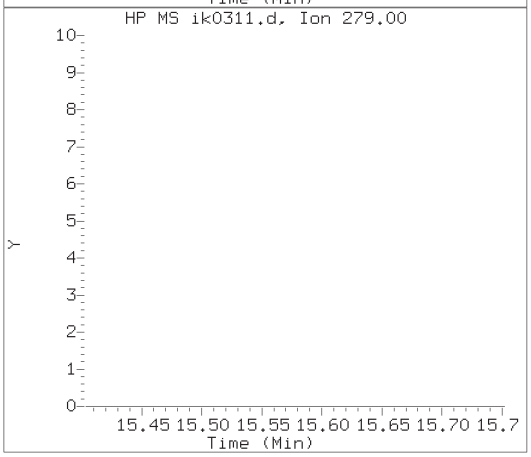
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

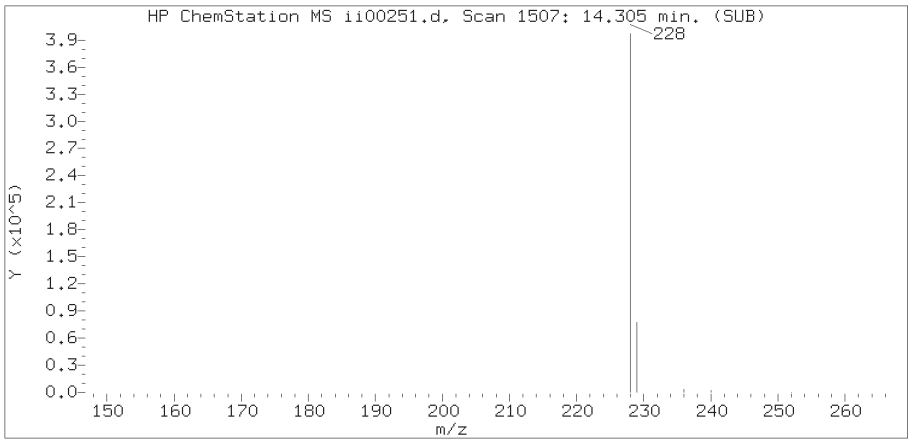
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

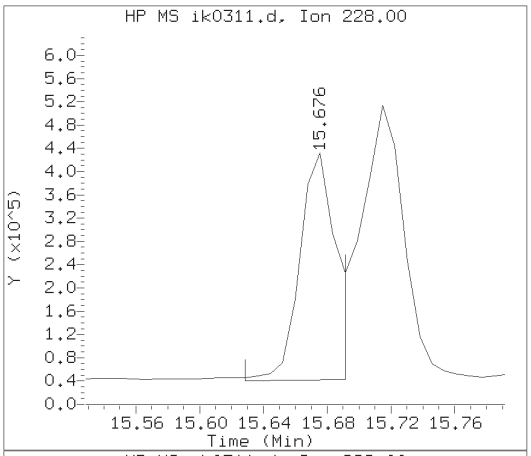
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1268
Retention Time (minutes)	: 15.621
Relative Retention Time	: 0.00098
Quant Ion	: 149.00
Area (flag)	: 9340201
On-column Amount (ng/ul)	: 45.8144

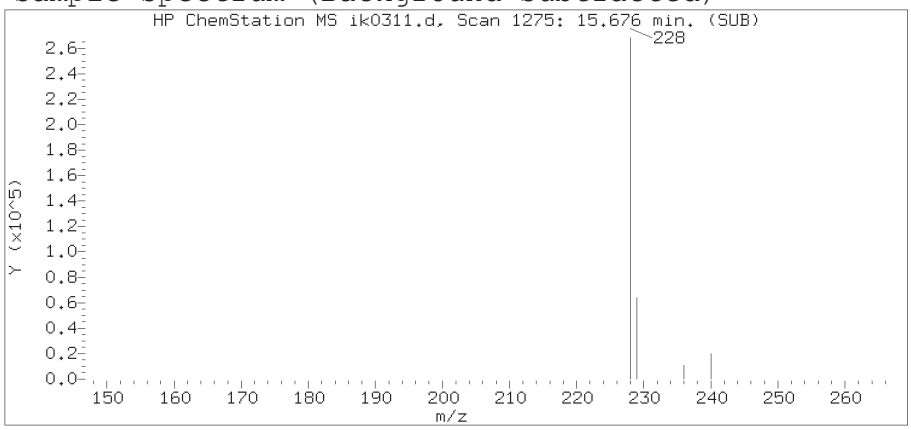
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

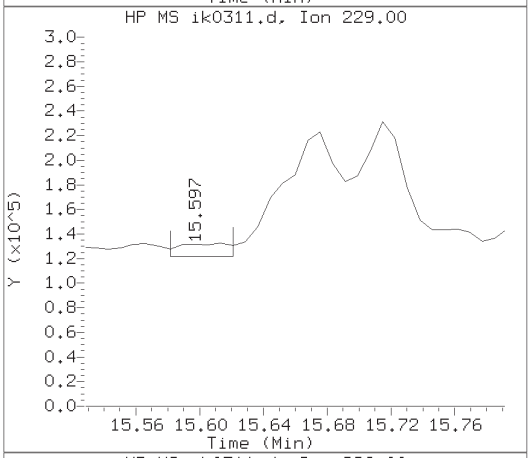
Reference Standard Spectrum for Benzo(a)anthracene



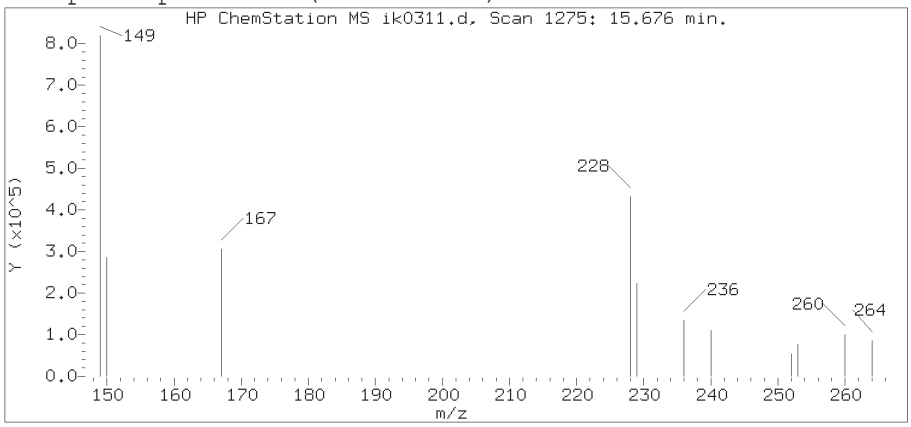


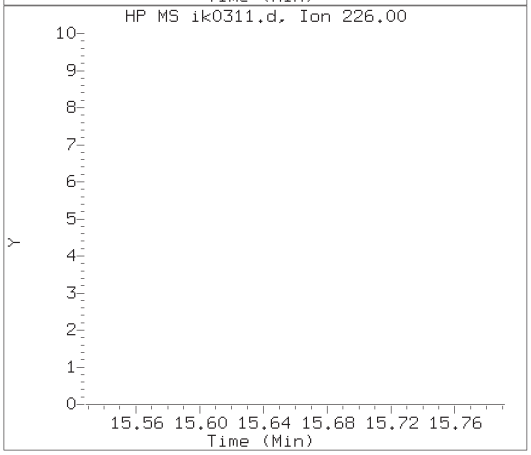
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

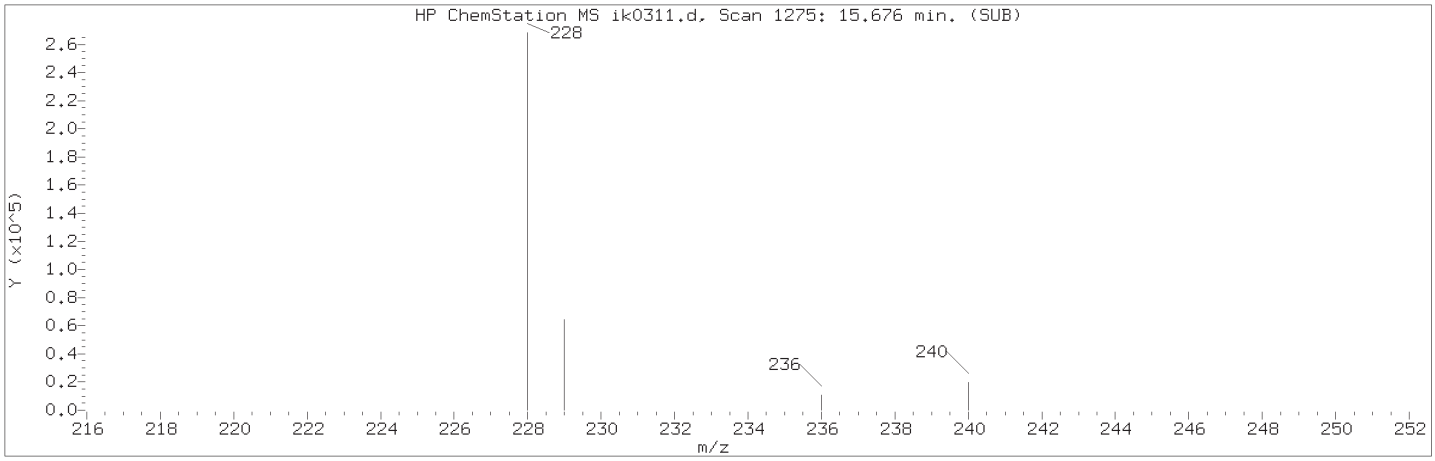
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

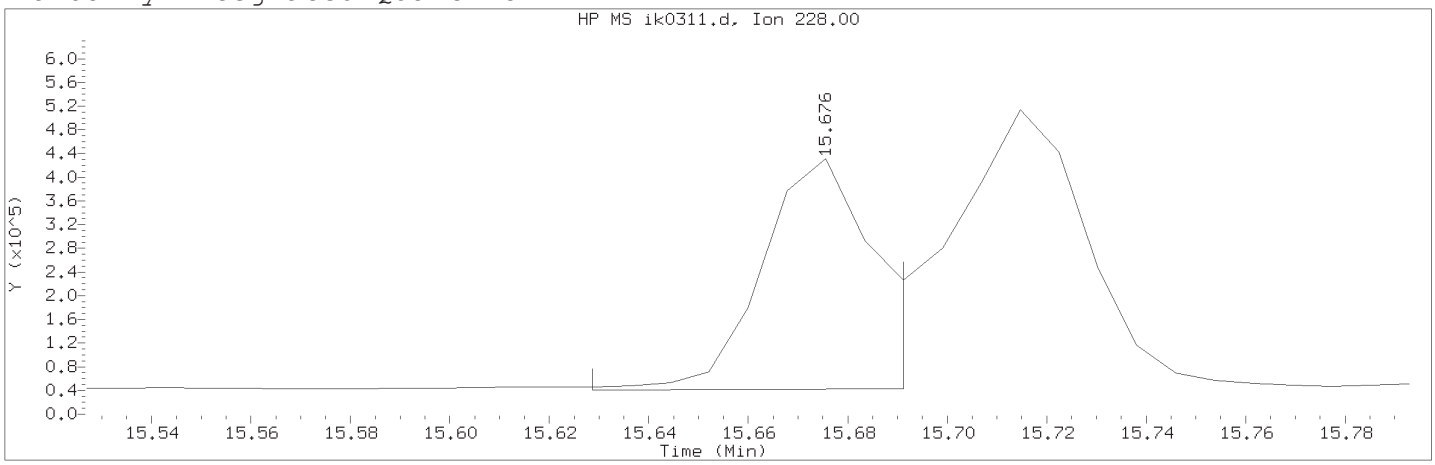
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1275
Retention Time (minutes)	: 15.676
Relative Retention Time	:-0.00001
Quant Ion	: 228.00
Area (flag)	: 634640M
On-column Amount (ng/ul)	: 1.5917

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

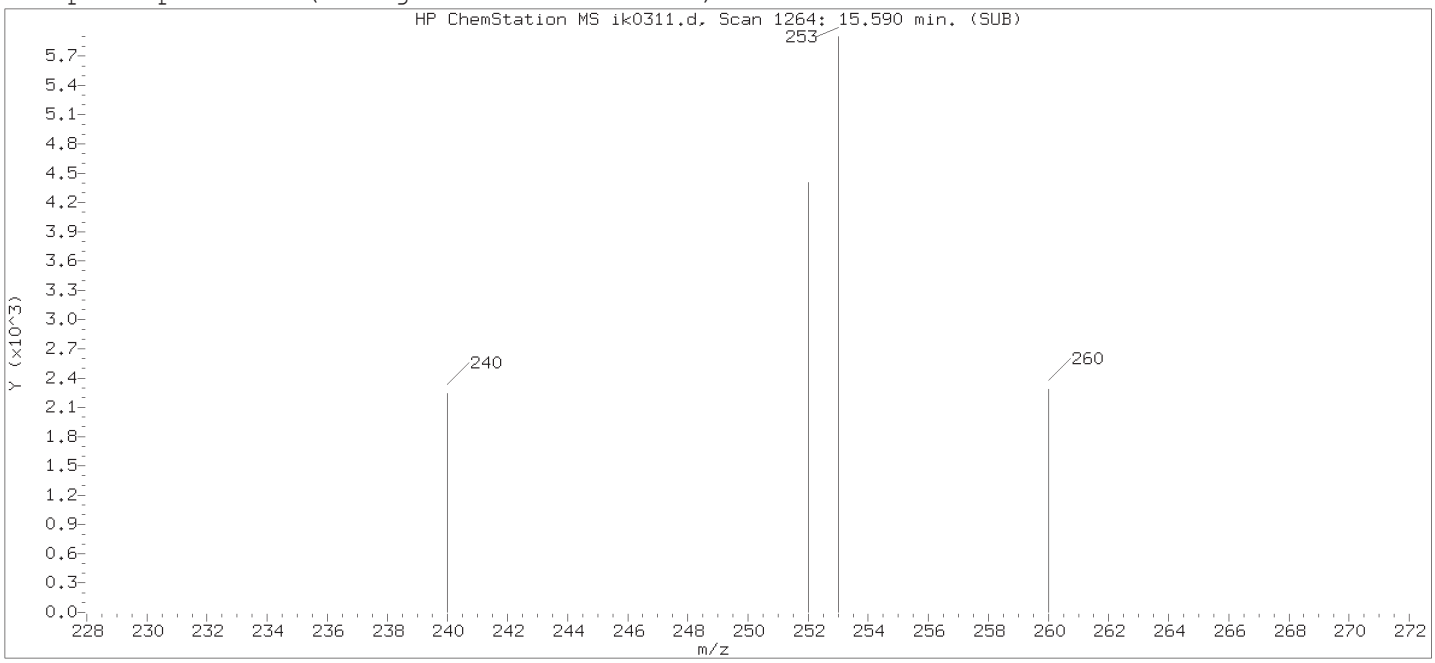
Compound Number : 42
Compound Name : Benzo(a)anthracene
Scan Number : 1275
Retention Time (minutes) : 15.676
Quant Ion : 228.00
Area (flag) : 634640M
On-column Amount (ng/ul) : 1.5917
Integration start scan : 1268 Integration stop scan: 1276
Y at integration start : 40687 Y at integration end: 42437

Reason for manual integration: improper integration

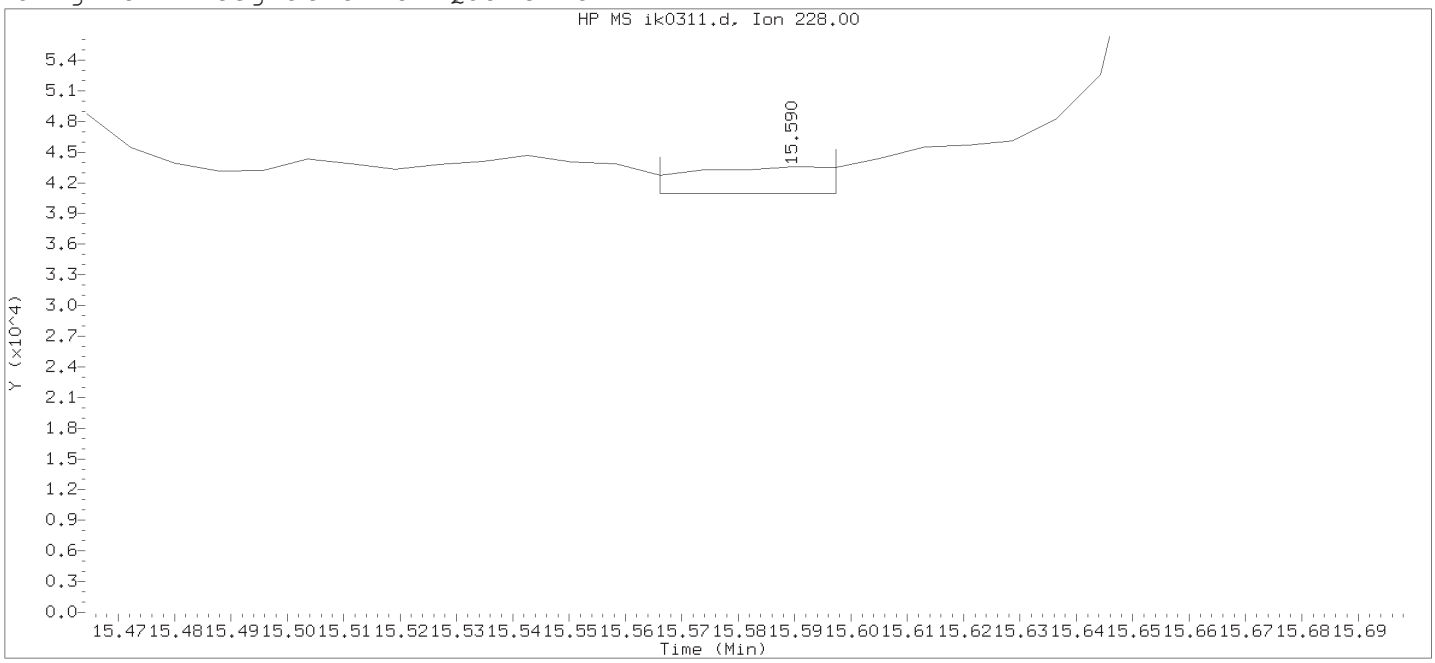
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

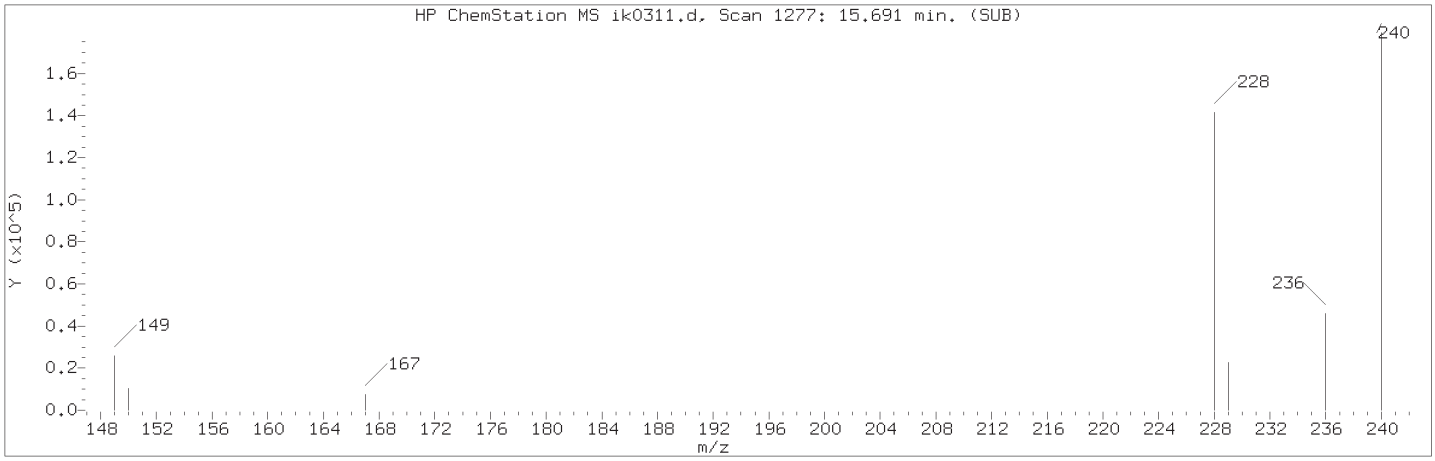
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

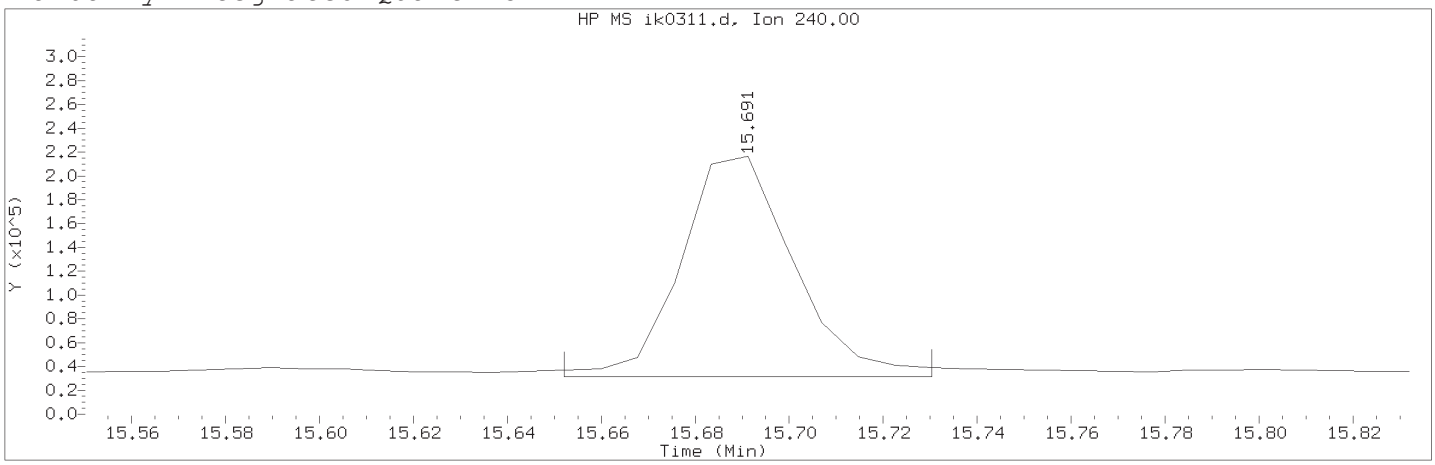
Compound Number : 42
Compound Name : Benzo(a)anthracene
Scan Number : 1264
Retention Time (minutes) : 15.590
Quant Ion : 228.00
Area : 4361
On-column Amount (ng/ul) : 0.1435
Integration start scan : 1260 Integration stop scan: 1264
Y at integration start : 41000 Y at integration end: 41000

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used to create this file.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

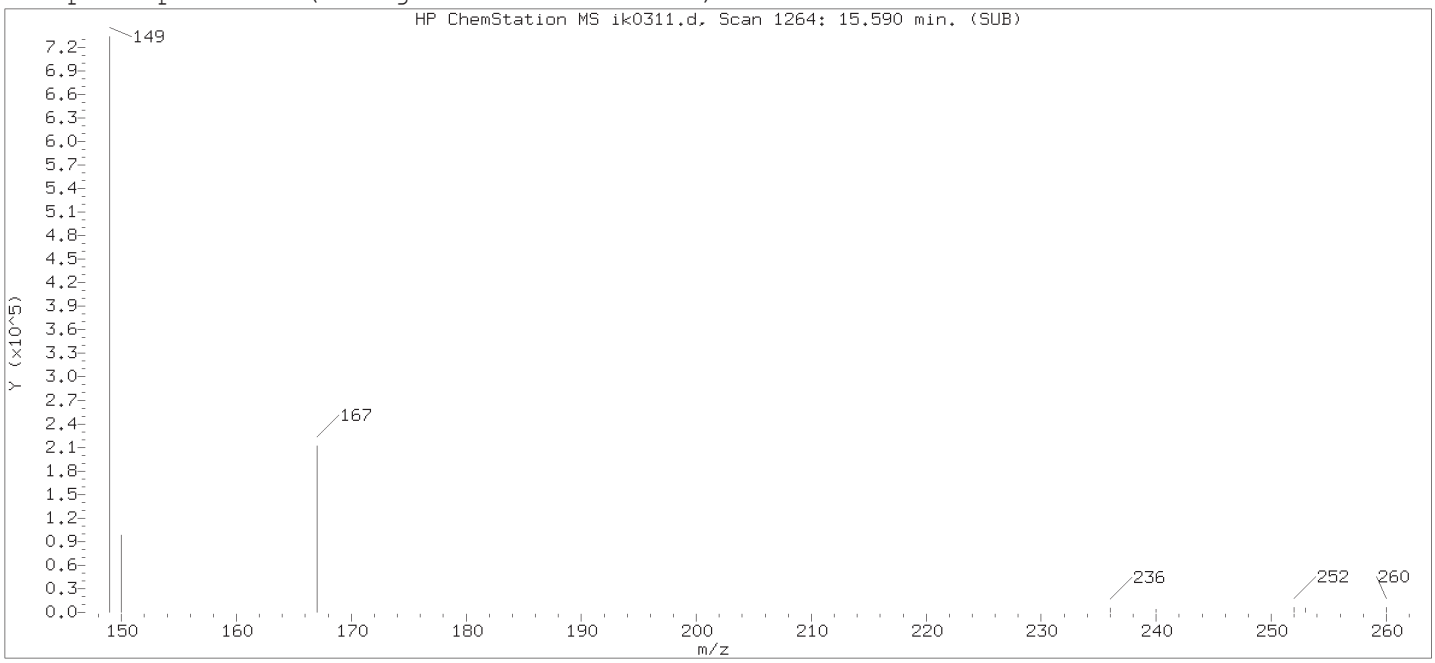
Compound Number : 43
Compound Name : Chrysene-d12
Scan Number : 1277
Retention Time (minutes) : 15.691
Quant Ion : 240.00
Area (flag) : 309927M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1271 Integration stop scan: 1281
Y at integration start : 31610 Y at integration end: 31610

Reason for manual integration: improper integration

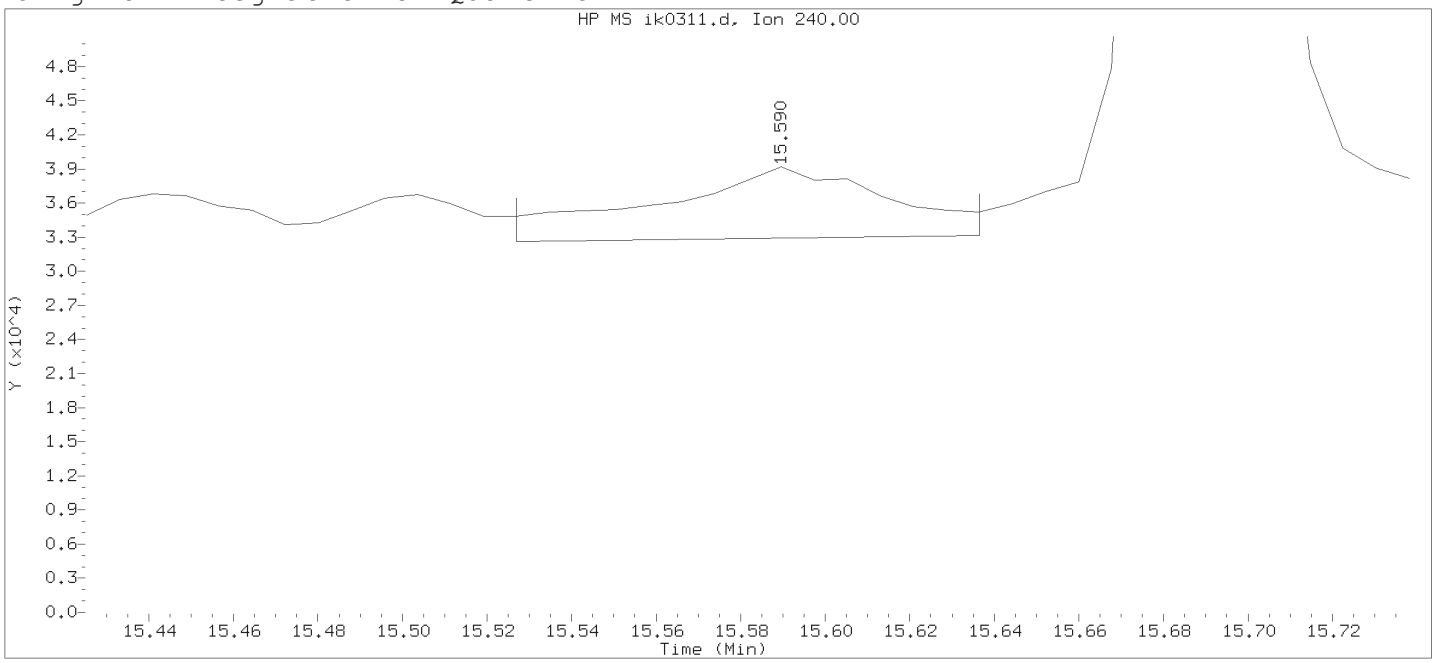
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

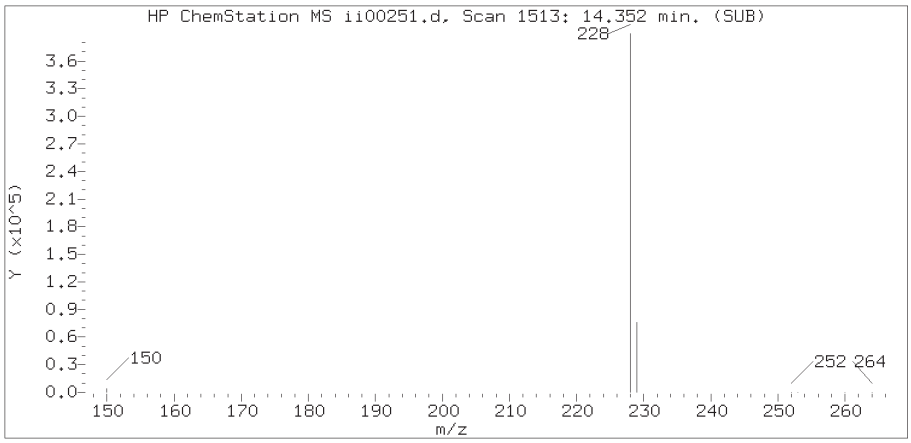
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

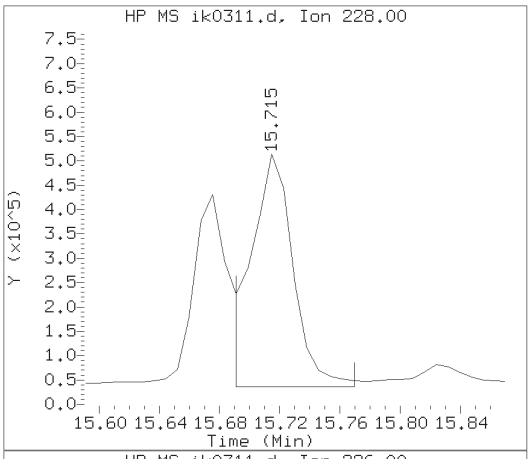
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 43
Compound Name	: Chrysene-d12
Scan Number	: 1264
Retention Time (minutes)	: 15.590
Quant Ion	: 240.00
Area	: 23631
On-column Amount (ng/ul)	: 1.0000
Integration start scan	: 1255 Integration stop scan: 1269
Y at integration start	: 32635 Y at integration end: 33138

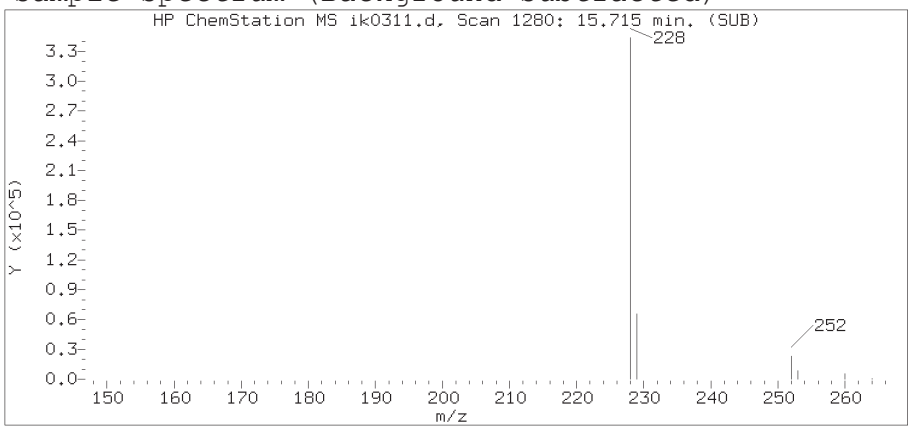
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used: D12 Page 2983

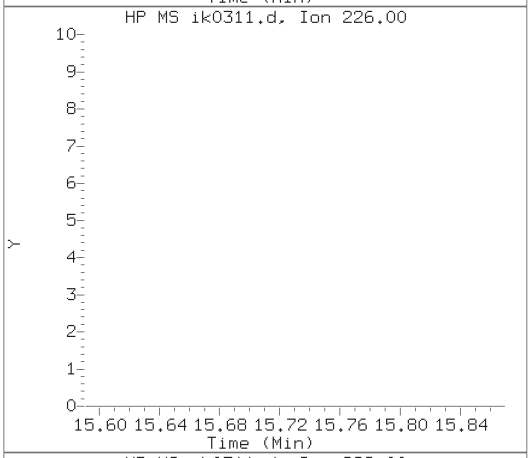
Reference Standard Spectrum for Chrysene



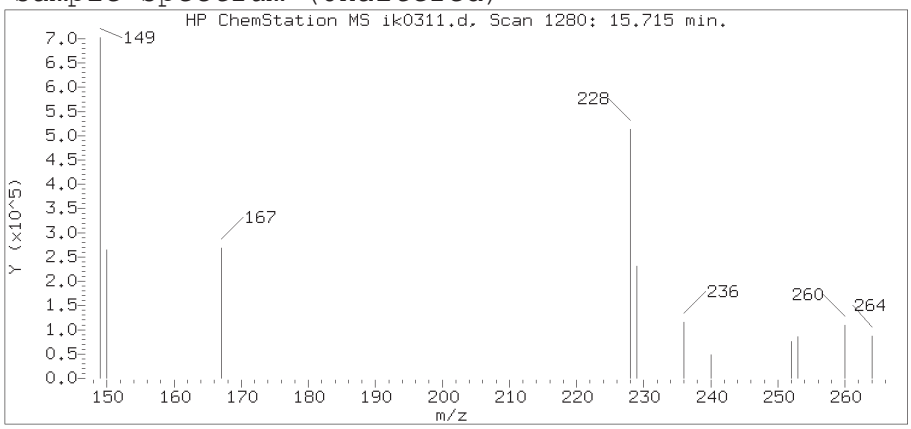


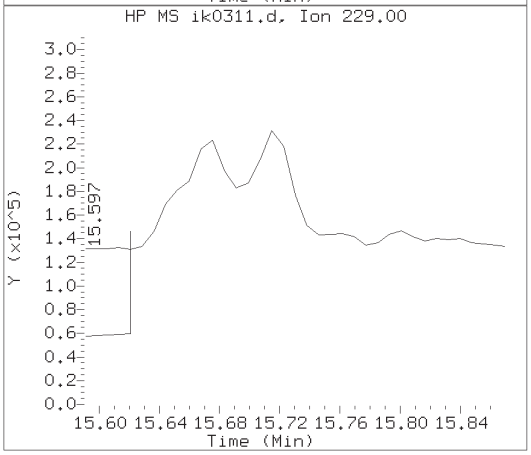
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

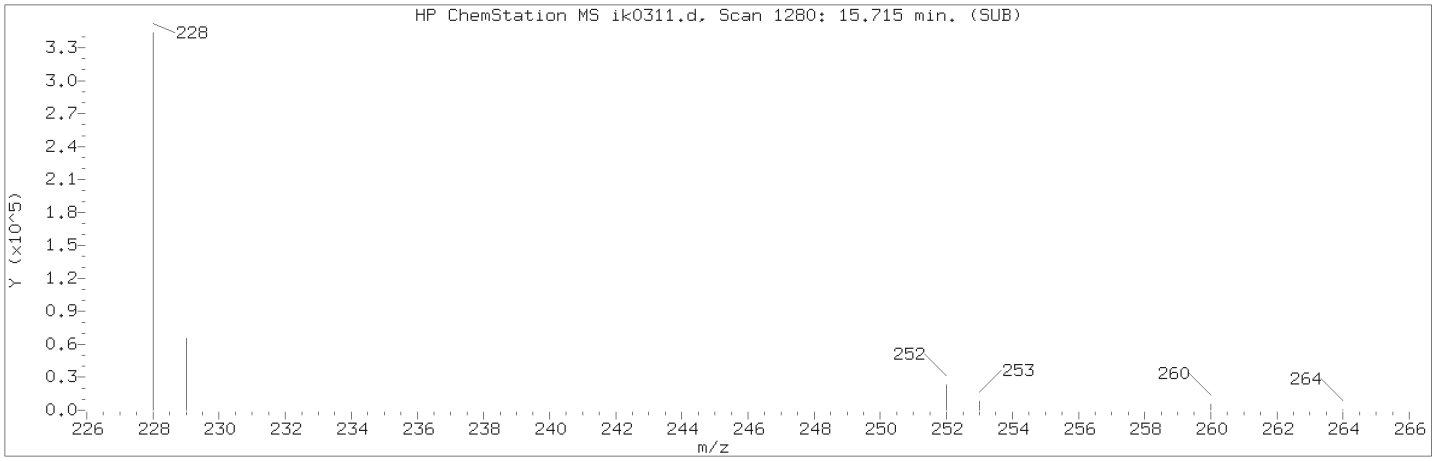
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

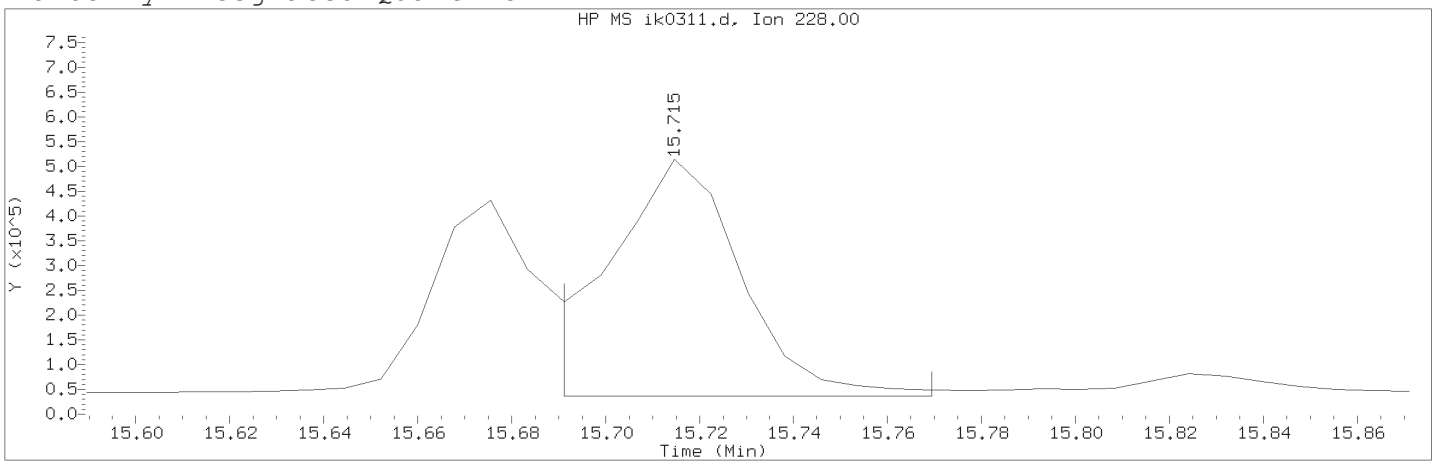
Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1280
Retention Time (minutes)	: 15.715
Relative Retention Time	: 0.00051
Quant Ion	: 228.00
Area (flag)	: 960125M
On-column Amount (ng/ul)	: 2.5208

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

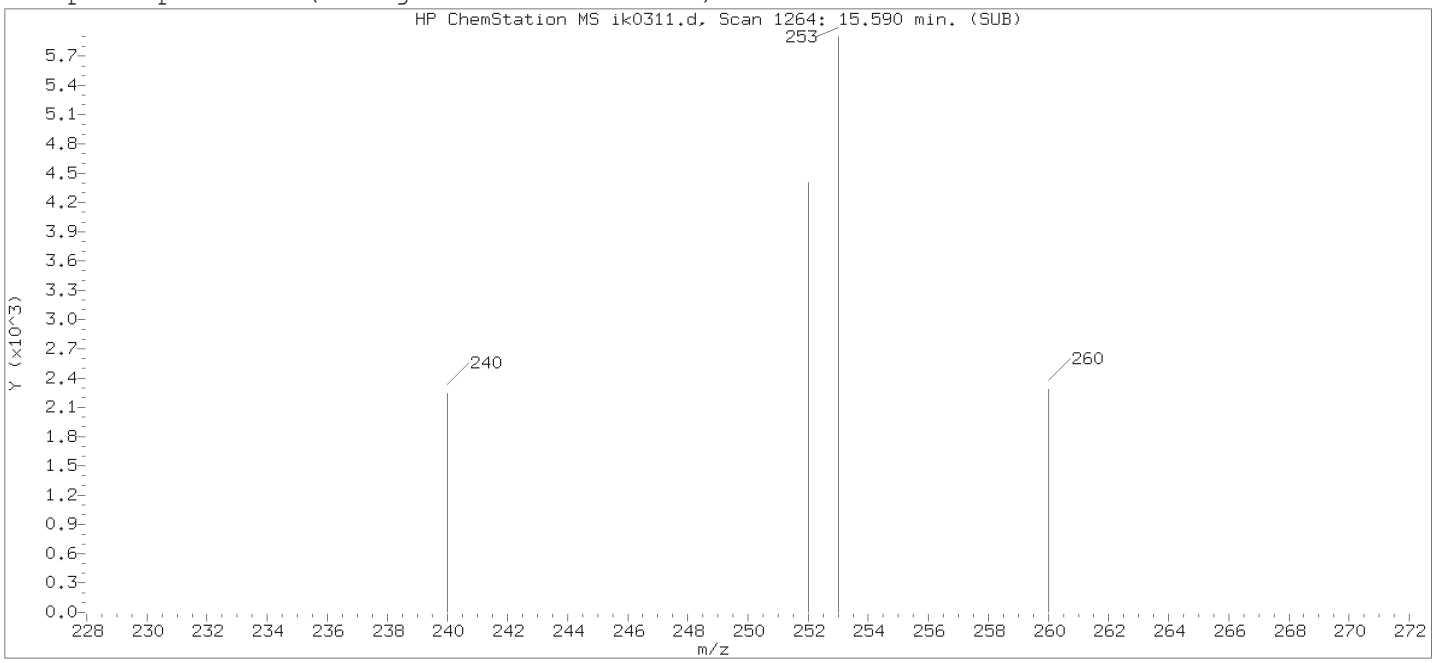
Compound Number : 44
Compound Name : Chrysene
Scan Number : 1280
Retention Time (minutes) : 15.715
Quant Ion : 228.00
Area (flag) : 960125M
On-column Amount (ng/ul) : 2.5208
Integration start scan : 1276 Integration stop scan: 1286
Y at integration start : 35964 Y at integration end: 35964

Reason for manual integration: improper integration

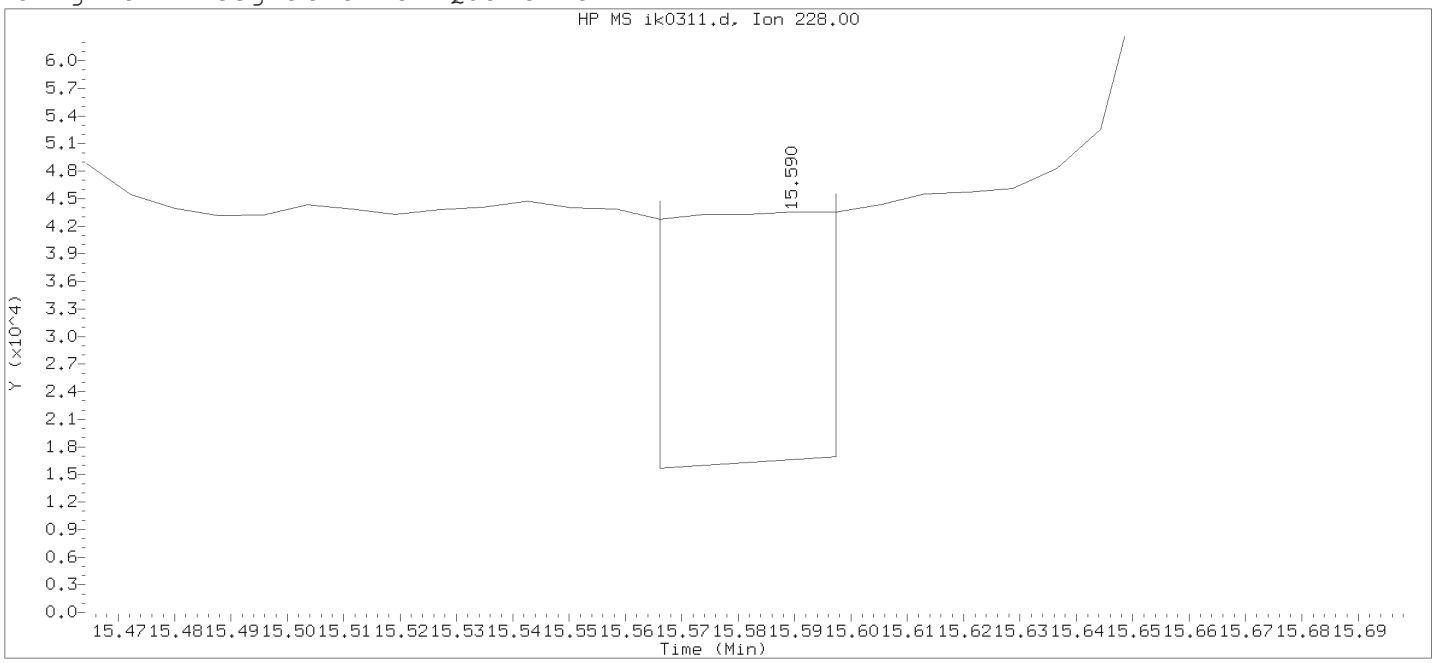
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

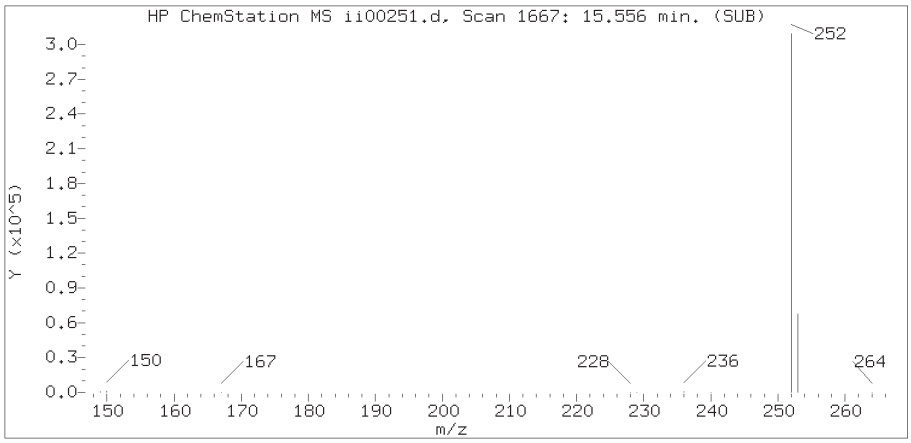
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

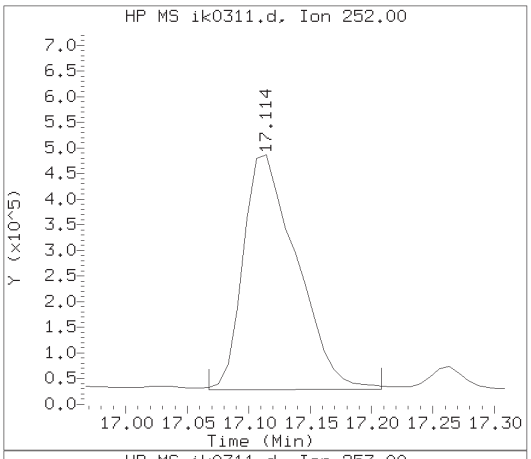
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 44		
Compound Name	: Chrysene		
Scan Number	: 1264		
Retention Time (minutes)	: 15.590		
Quant Ion	: 228.00		
Area	: 52407		
On-column Amount (ng/ul)	: 1.8045		
Integration start scan	: 1260	Integration stop scan:	1264
Y at integration start	: 15652	Y at integration end:	16942

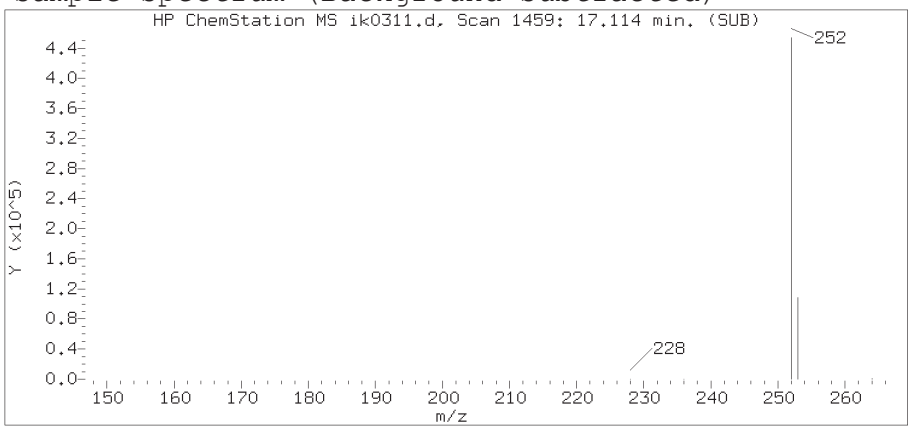
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used: D12 Page 2986

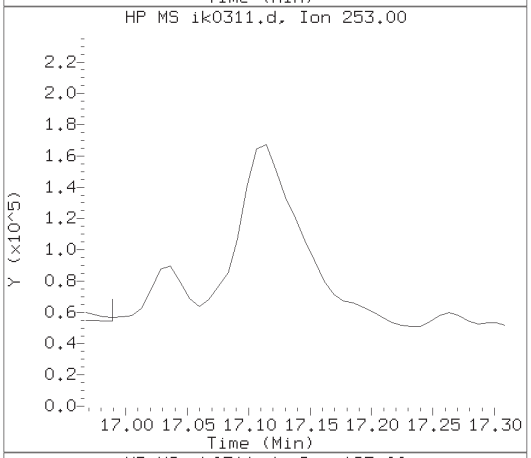
Reference Standard Spectrum for Benzo(b)fluoranthene



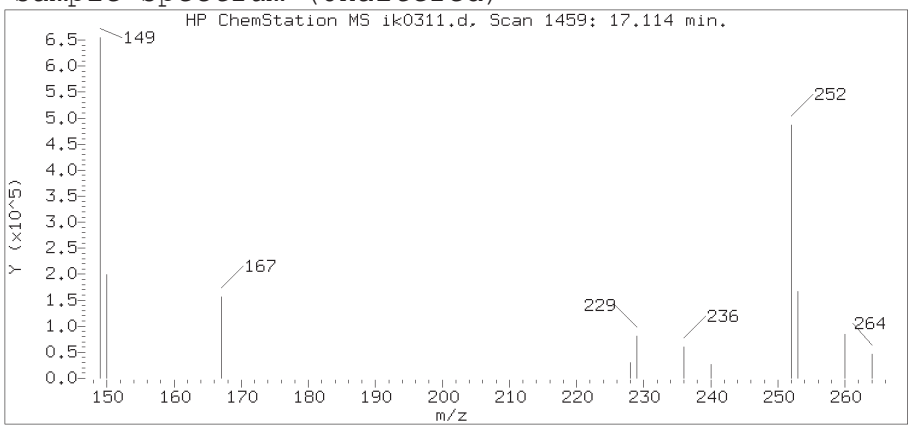


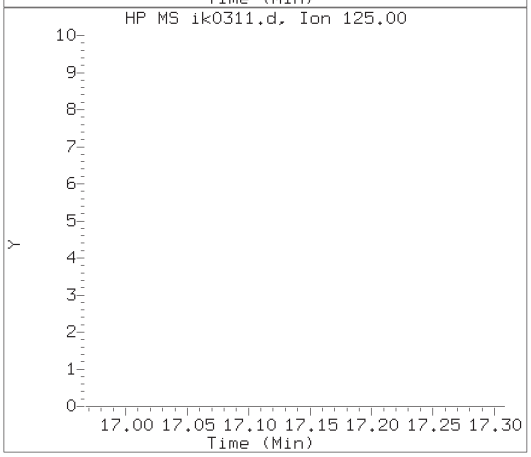
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

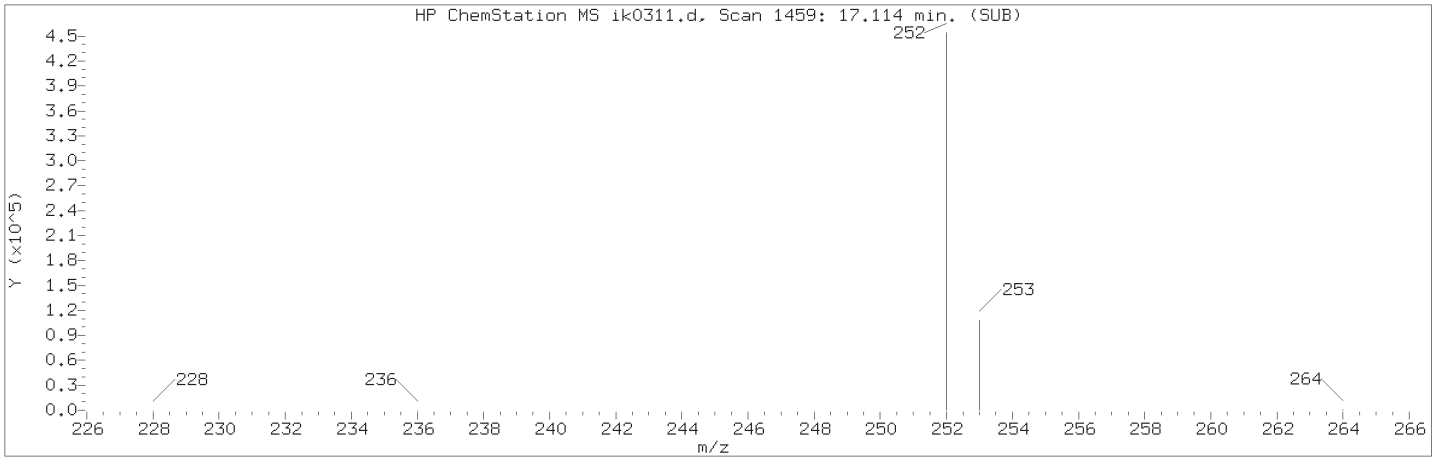
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

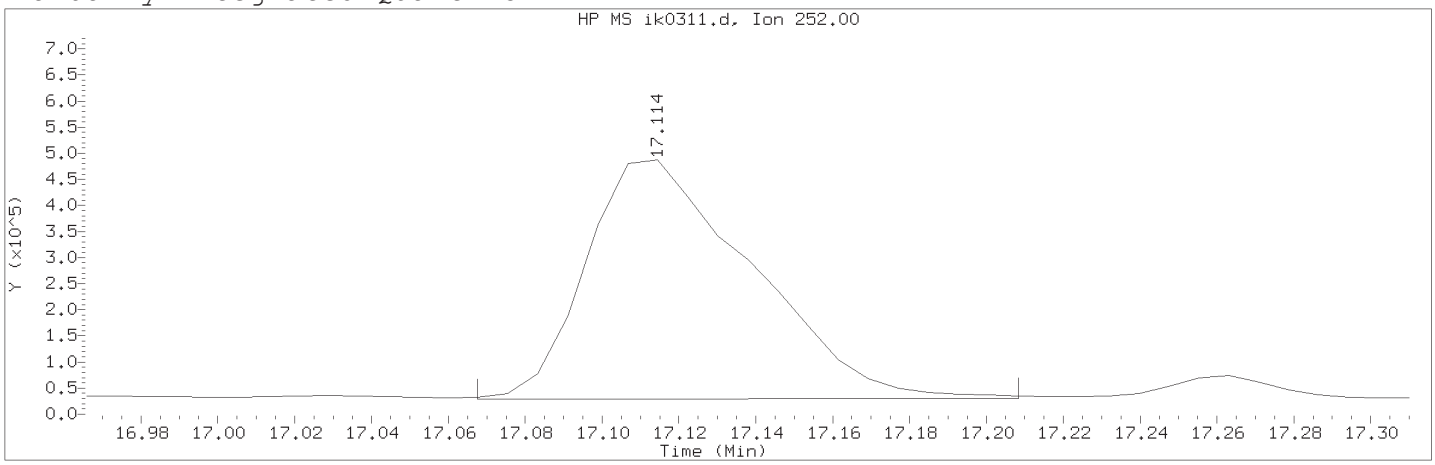
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1459
Retention Time (minutes)	: 17.114
Relative Retention Time	:-0.00023
Quant Ion	: 252.00
Area (flag)	: 1384141M
On-column Amount (ng/ul)	: 8.5495

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

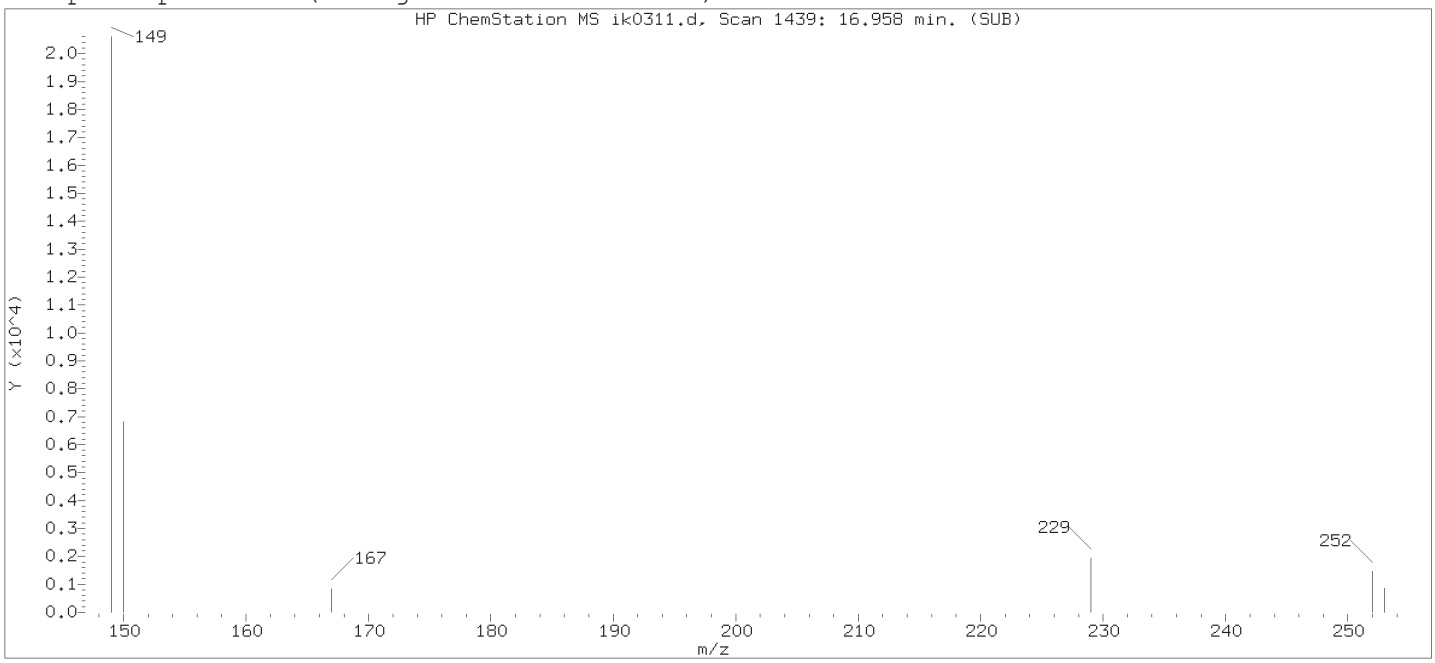
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1459
Retention Time (minutes) : 17.114
Quant Ion : 252.00
Area (flag) : 1384141M
On-column Amount (ng/ul) : 8.5495
Integration start scan : 1452 Integration stop scan: 1470
Y at integration start : 28364 Y at integration end: 29527

Reason for manual integration: improper integration

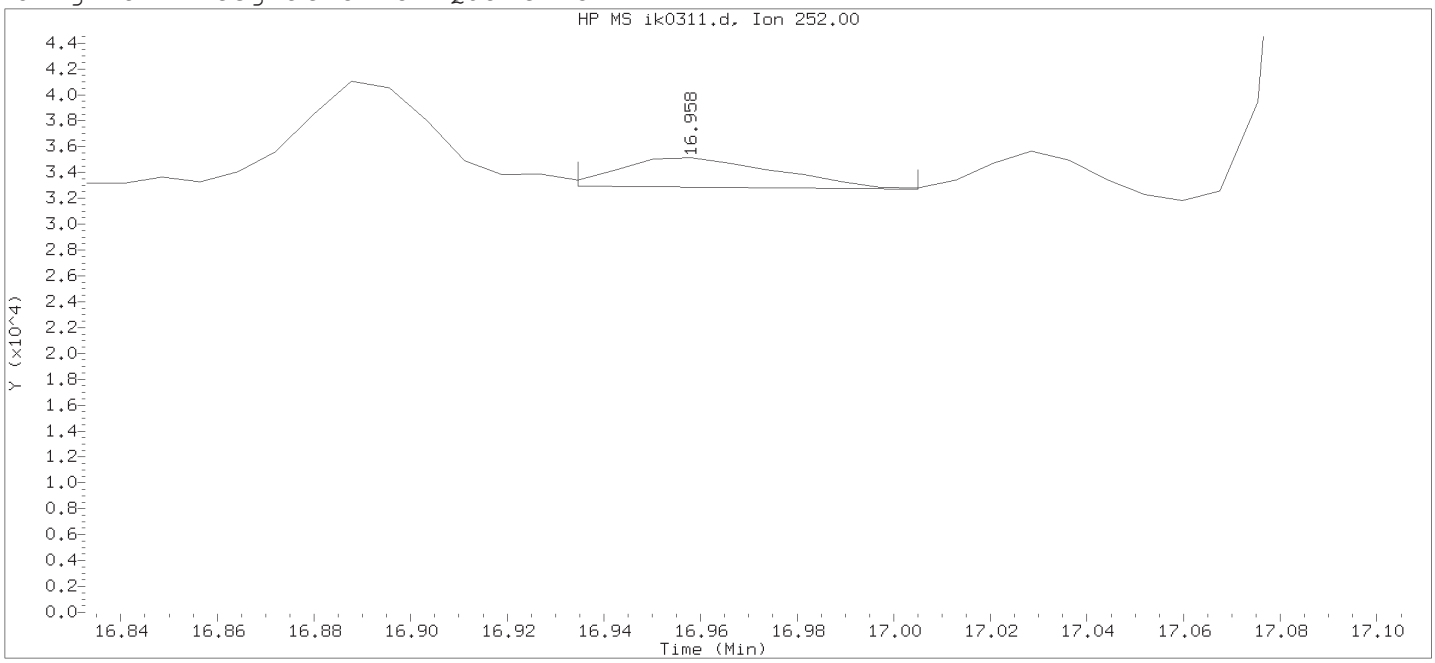
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

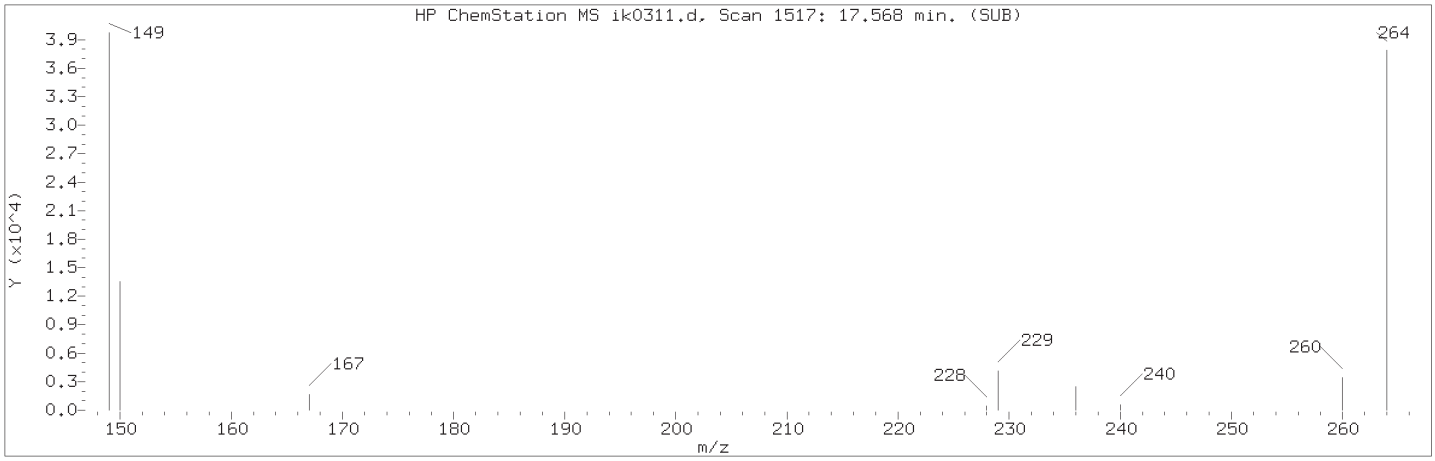
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

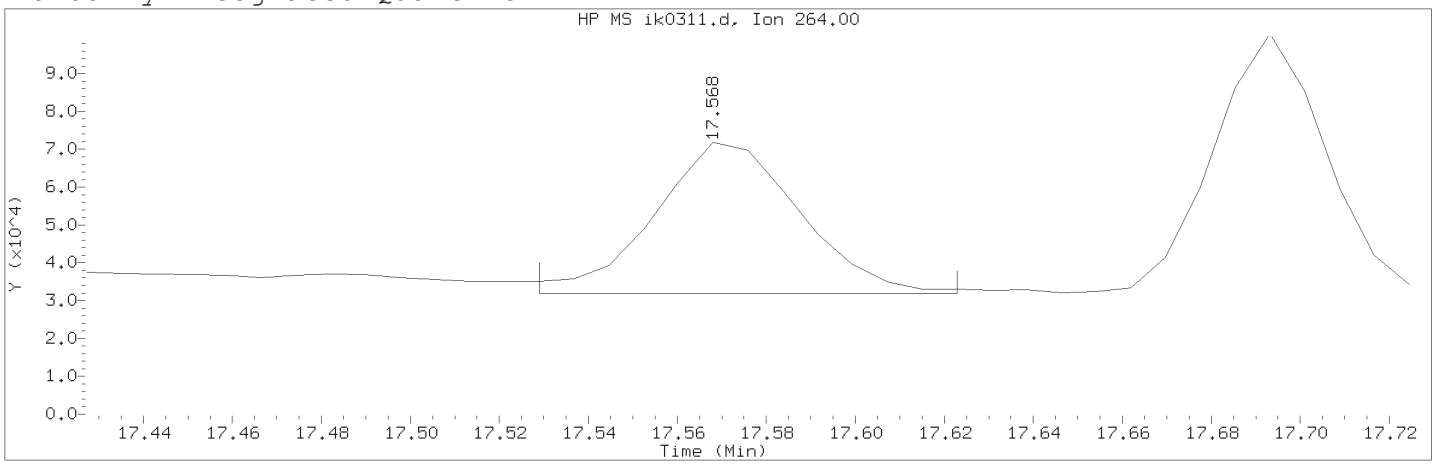
Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1439		
Retention Time (minutes)	: 16.958		
Quant Ion	: 252.00		
Area	: 5105		
On-column Amount (ng/ul)	: 0.0503		
Integration start scan	: 1435	Integration stop scan:	1444
Y at integration start	: 32953	Y at integration end:	32687

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used to sign on 11/08/2018.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

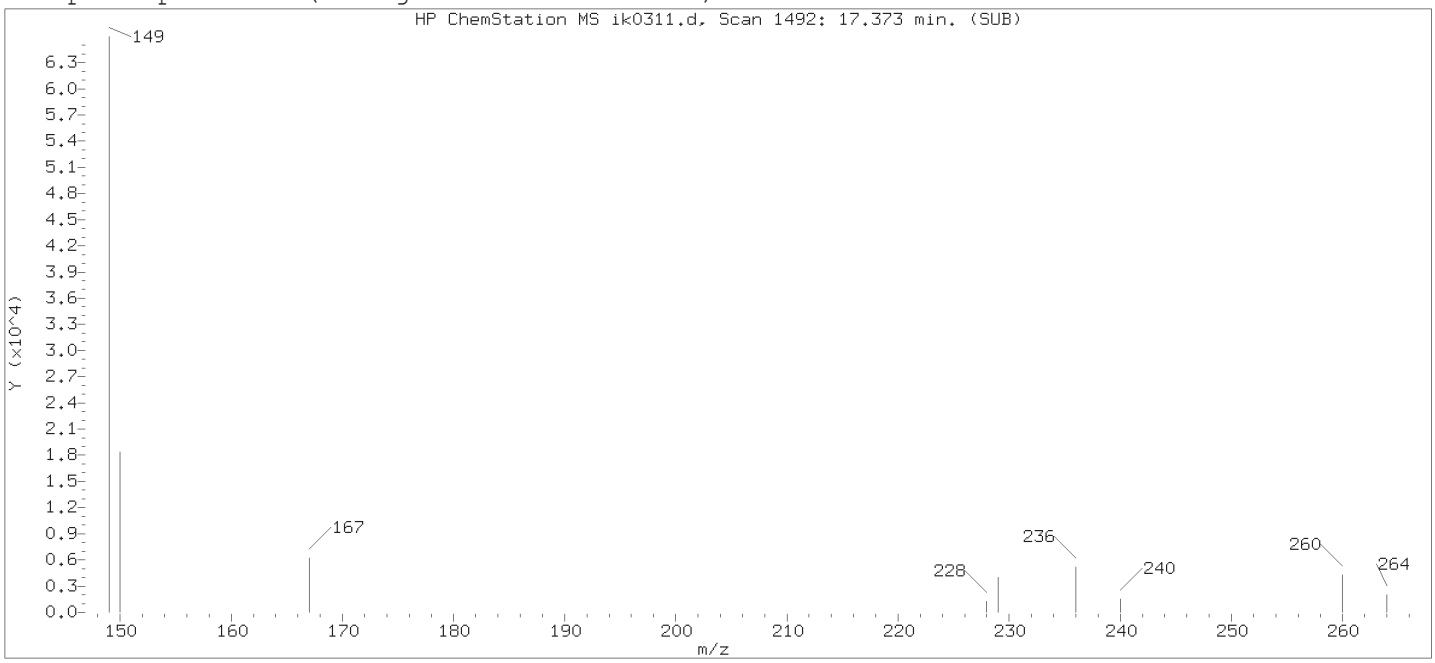
Compound Number : 49
Compound Name : Benzo(a)pyrene-d12
Scan Number : 1517
Retention Time (minutes) : 17.568
Quant Ion : 264.00
Area (flag) : 90872M
On-column Amount (ng/ul) : 0.7308
Integration start scan : 1511 Integration stop scan: 1523
Y at integration start : 31987 Y at integration end: 31987

Reason for manual integration: improper integration

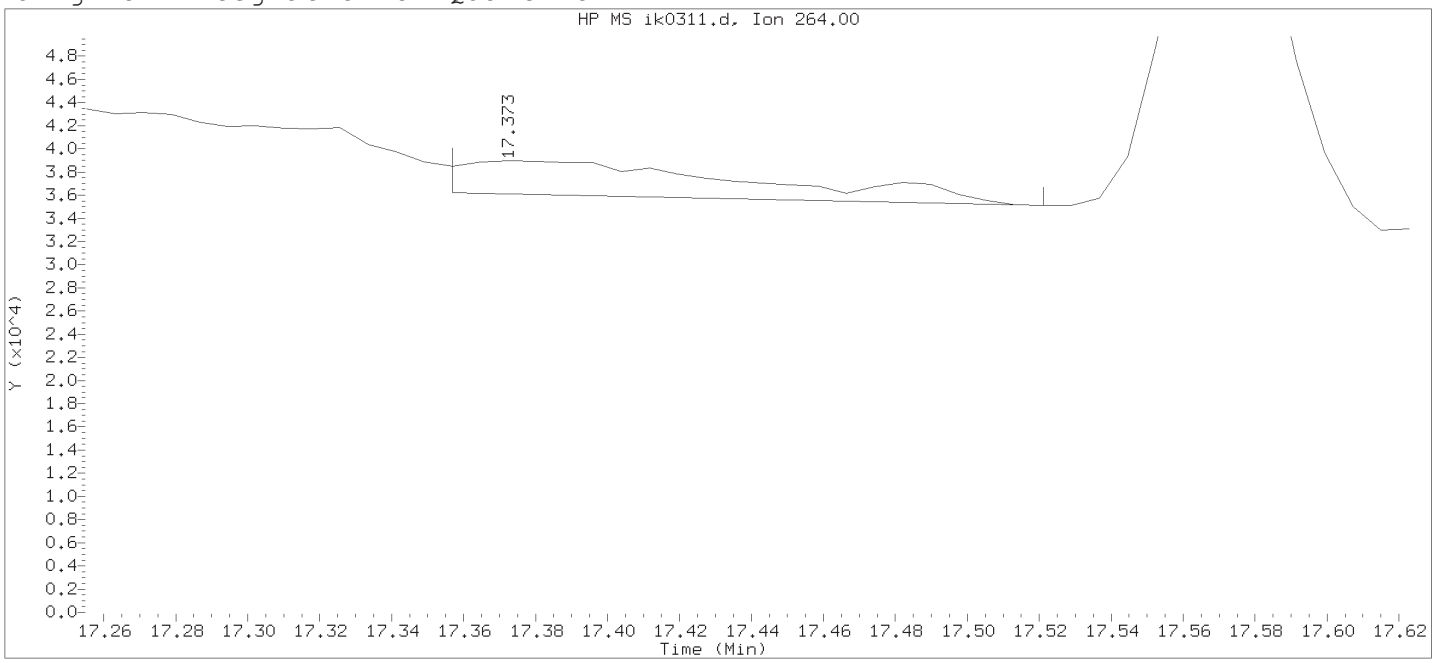
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

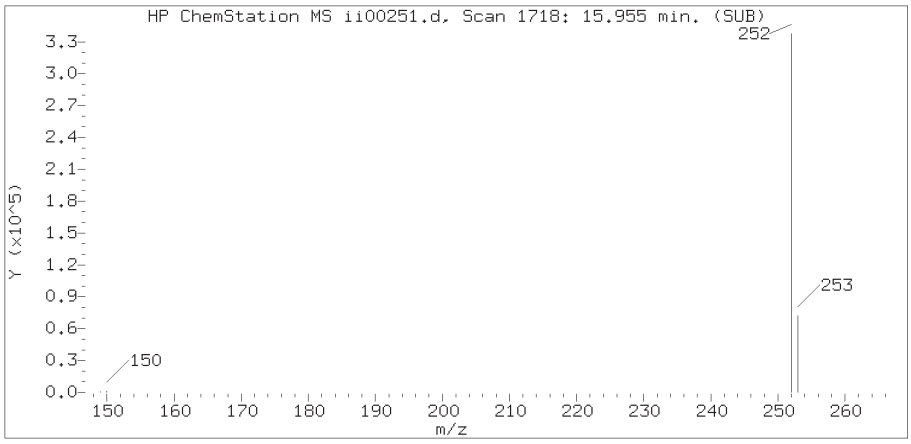
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

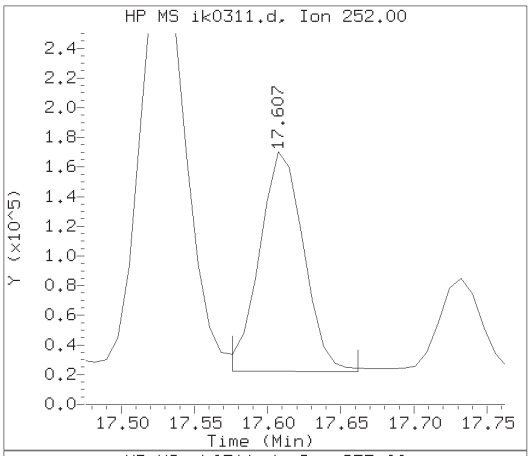
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	:	49
Compound Name	:	Benzo(a)pyrene-d12
Scan Number	:	1492
Retention Time (minutes)	:	17.373
Quant Ion	:	264.00
Area	:	16747
On-column Amount (ng/ul)	:	0.2149
Integration start scan	:	1489 Integration stop scan: 1510
Y at integration start	:	36222 Y at integration end: 35096

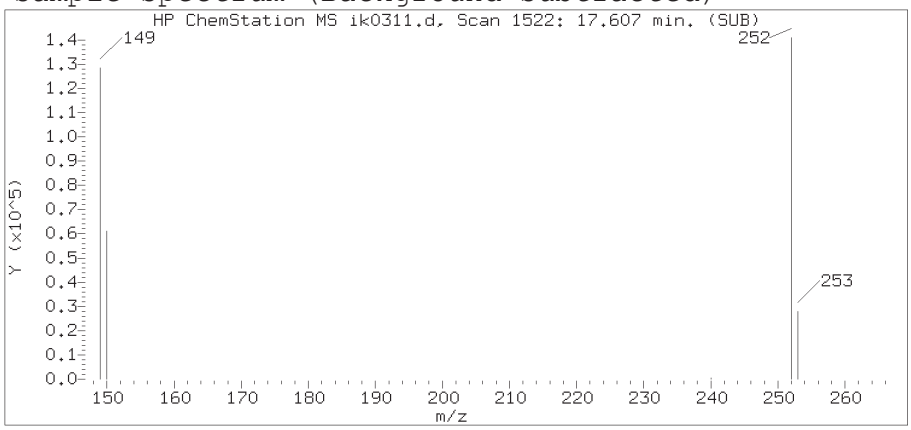
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018 16:15

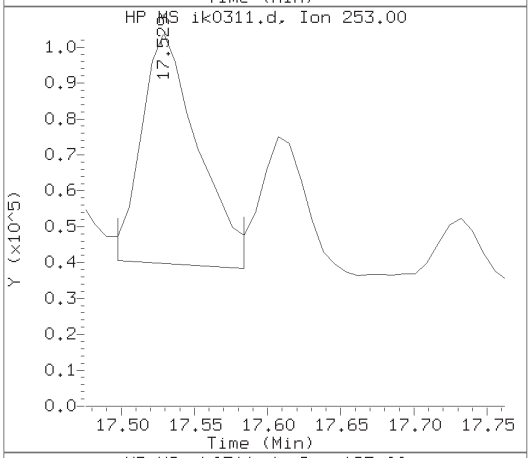
Reference Standard Spectrum for Benzo(a)pyrene



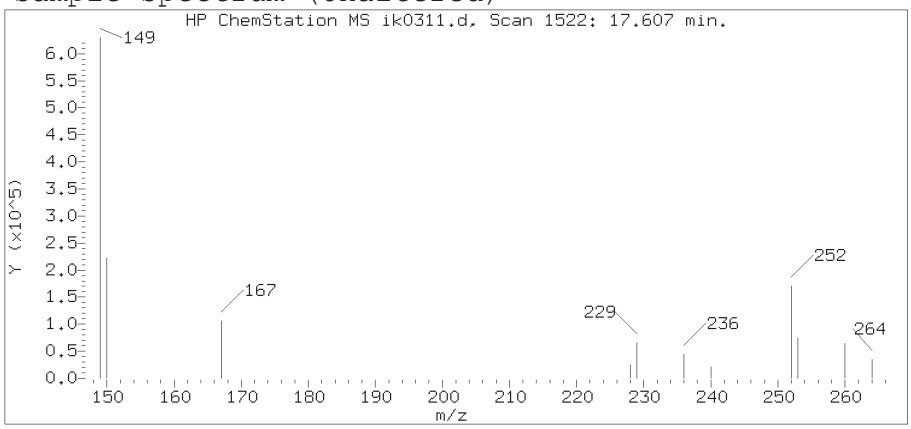


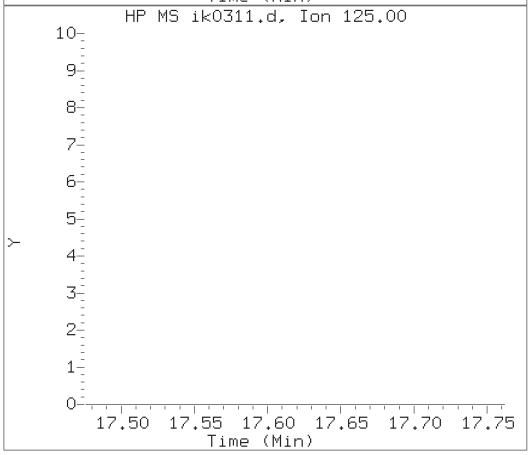
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

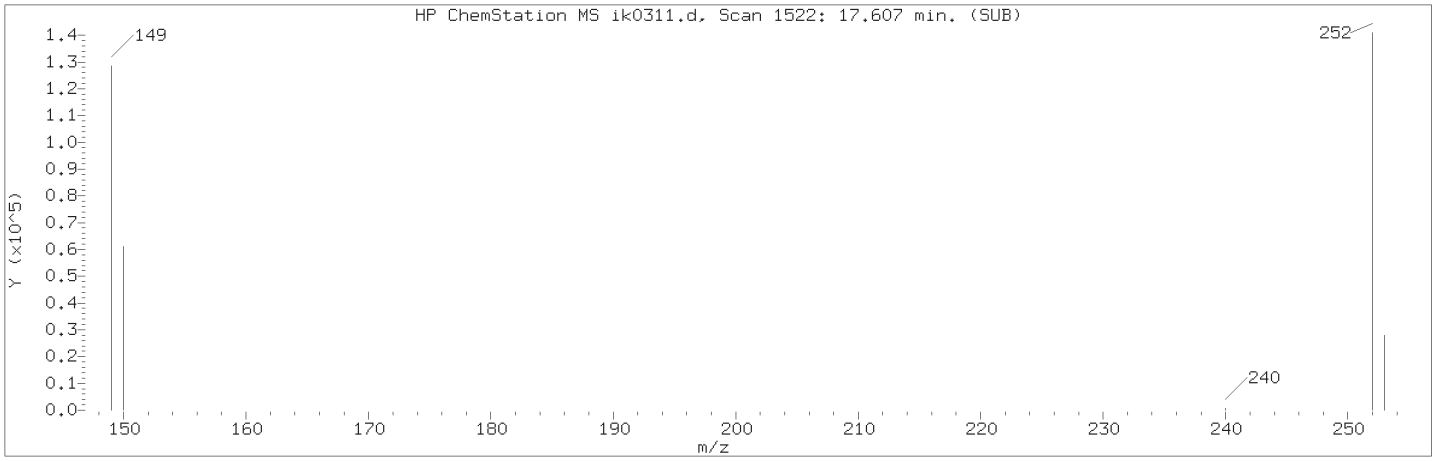
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

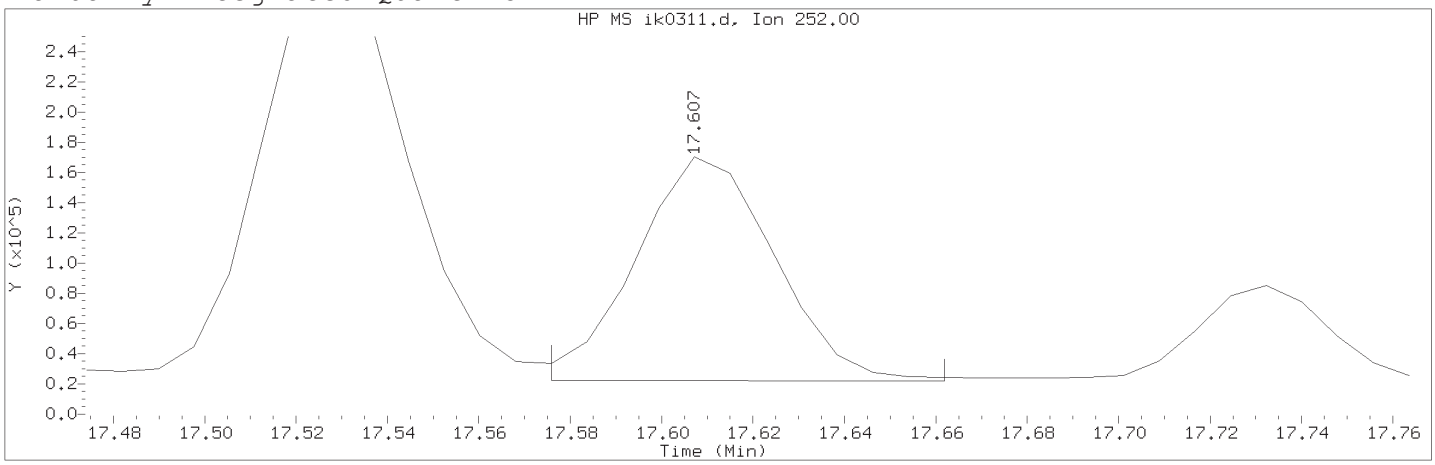
Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1522
Retention Time (minutes)	: 17.607
Relative Retention Time	:-0.00003
Quant Ion	: 252.00
Area (flag)	: 313972M
On-column Amount (ng/ul)	: 2.2629

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

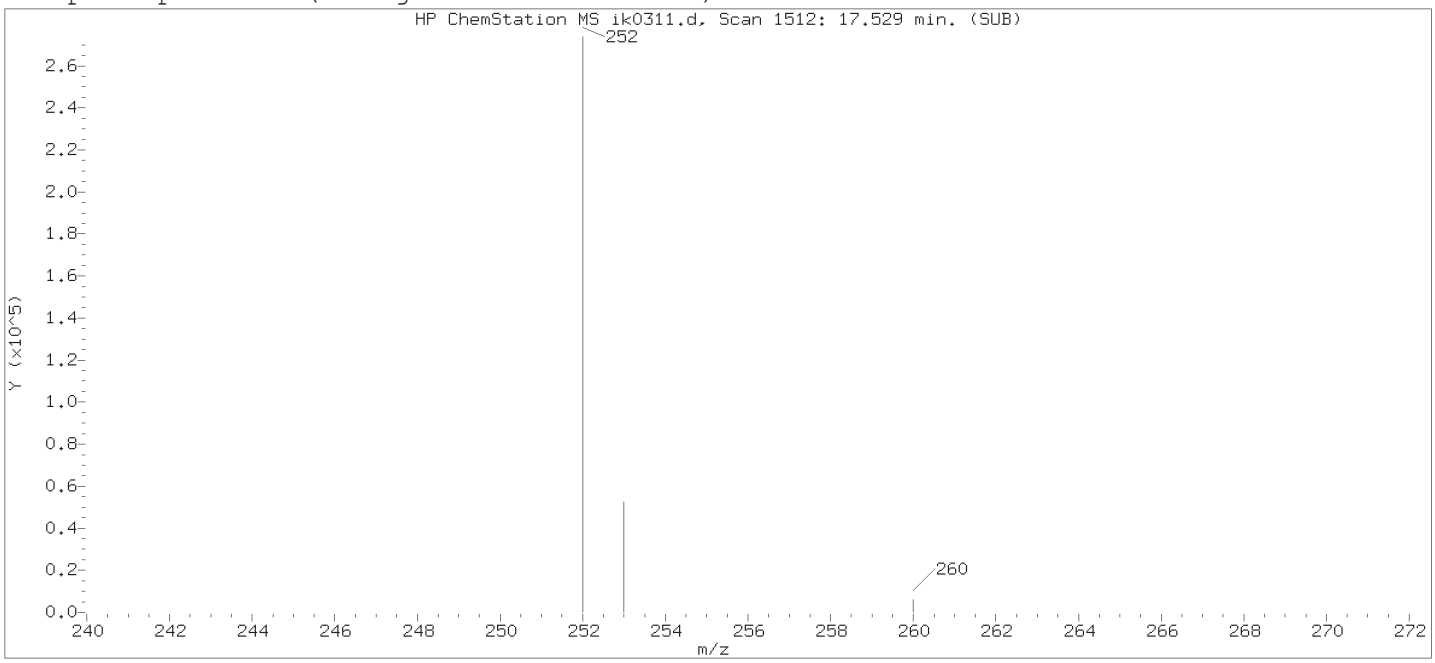
Compound Number : 50
Compound Name : Benzo(a)pyrene
Scan Number : 1522
Retention Time (minutes) : 17.607
Quant Ion : 252.00
Area (flag) : 313972M
On-column Amount (ng/ul) : 2.2629
Integration start scan : 1517 Integration stop scan: 1528
Y at integration start : 22357 Y at integration end: 21861

Reason for manual integration: improper integration

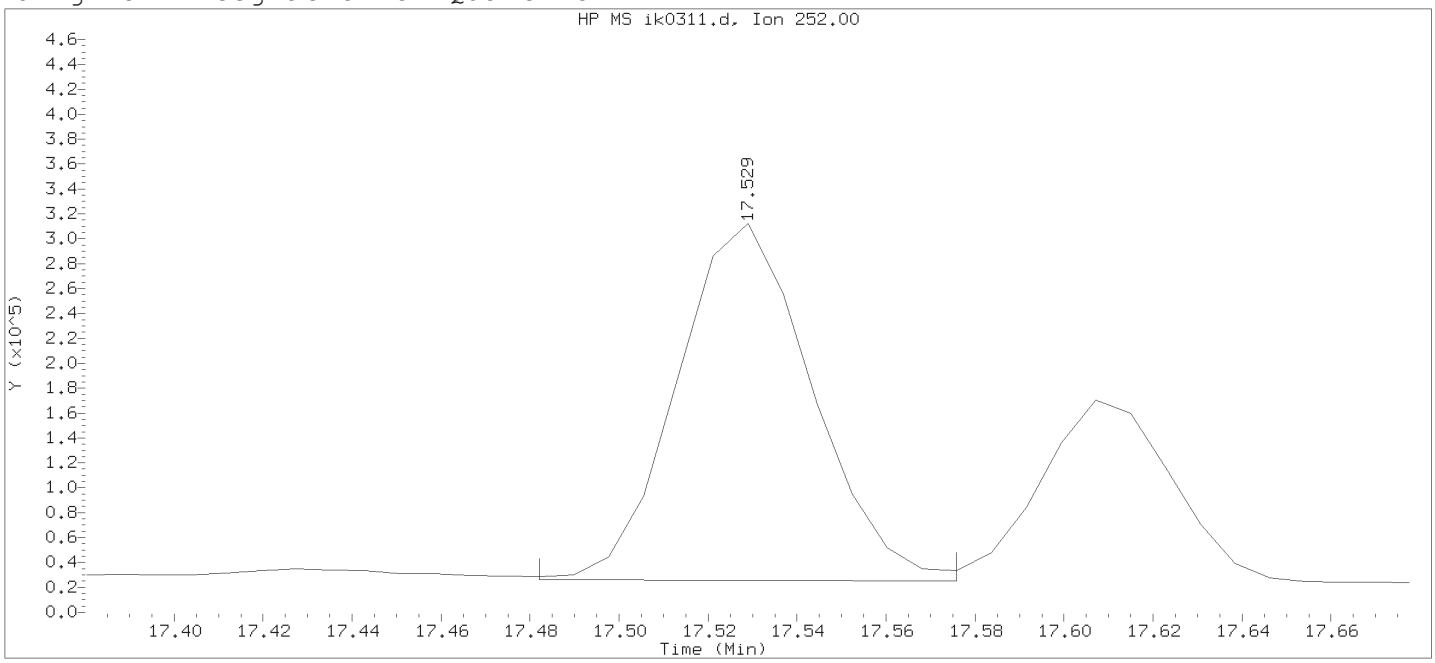
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

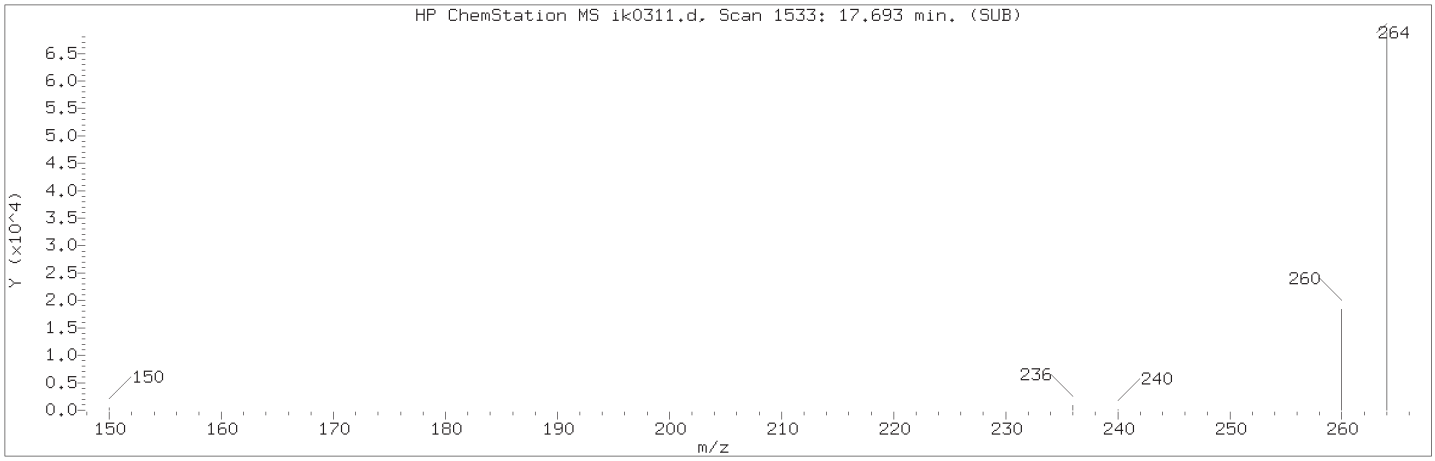
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

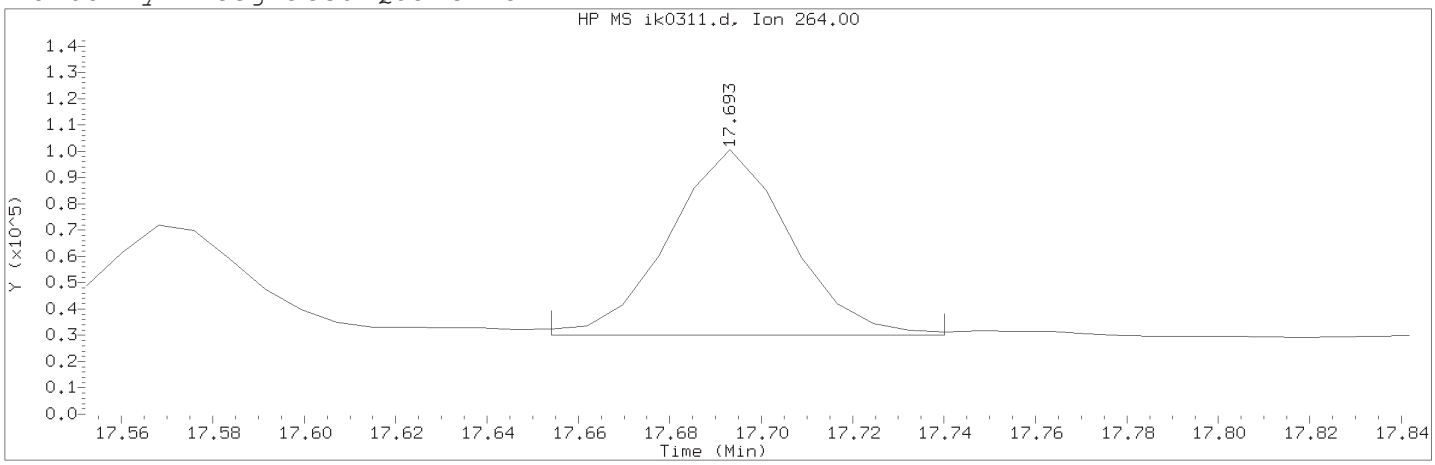
Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1512
Retention Time (minutes)	: 17.529
Quant Ion	: 252.00
Area	: 603388
On-column Amount (ng/ul)	: 6.9388
Integration start scan	: 1505 Integration stop scan: 1517
Y at integration start	: 26287 Y at integration end: 25124

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used: D12 Page 2994

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

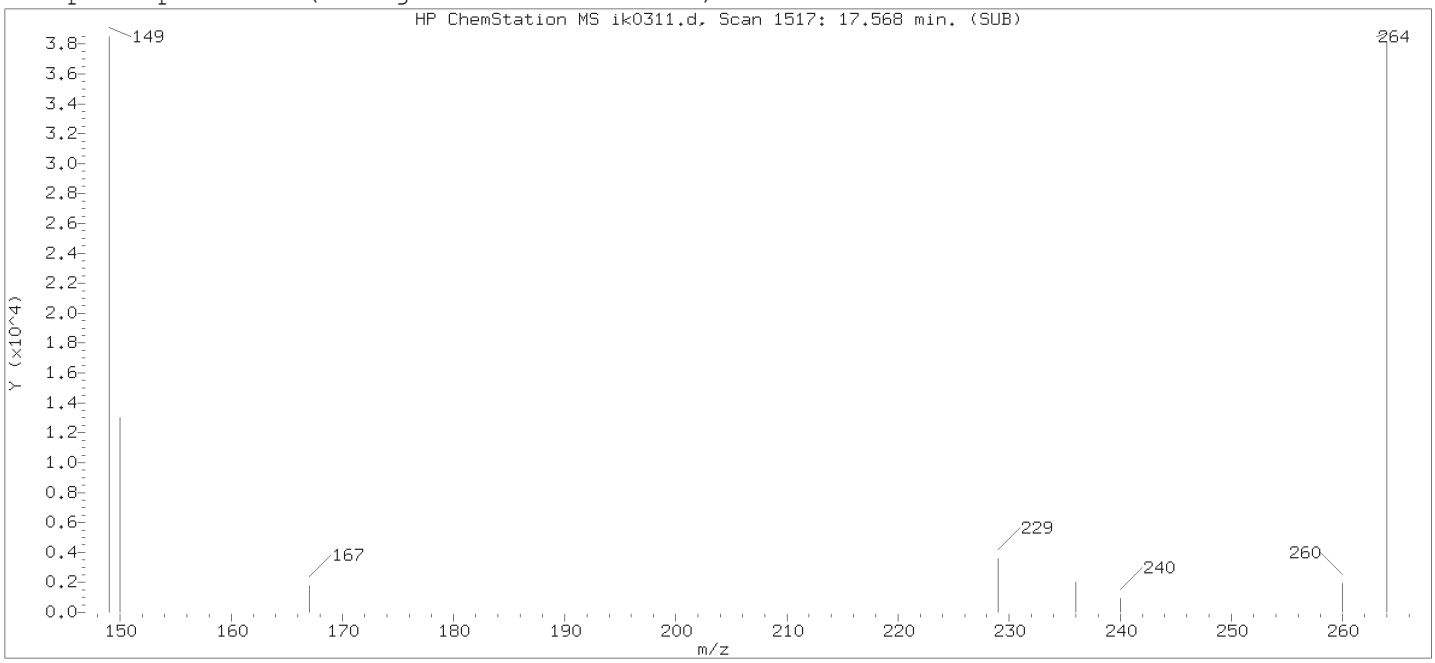
Compound Number : 51
Compound Name : Perylene-d12
Scan Number : 1533
Retention Time (minutes) : 17.693
Quant Ion : 264.00
Area (flag) : 130173M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1527 Integration stop scan: 1538
Y at integration start : 30179 Y at integration end: 30029

Reason for manual integration: improper integration

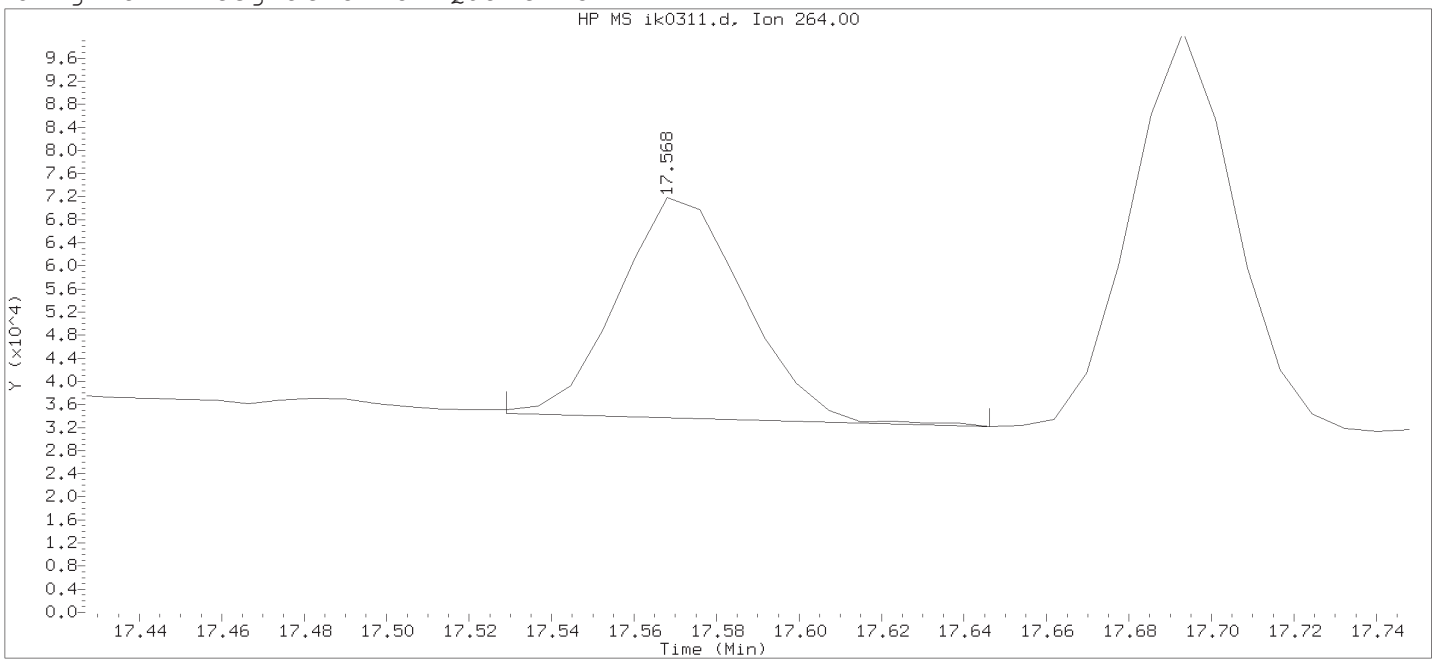
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

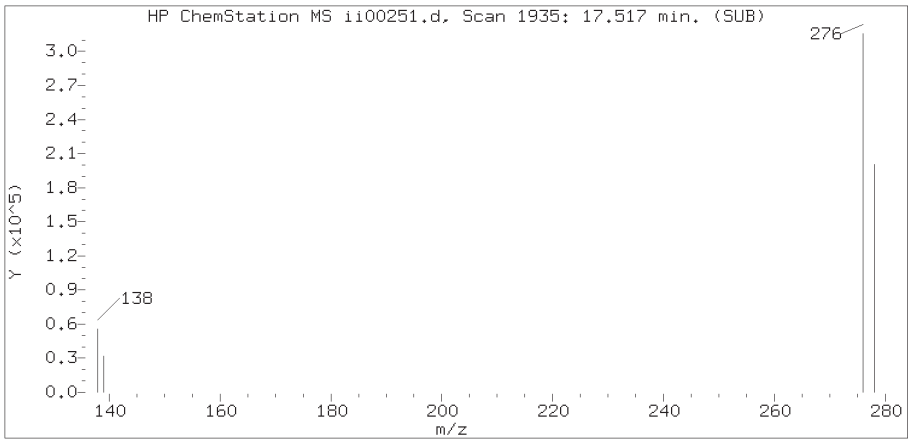
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

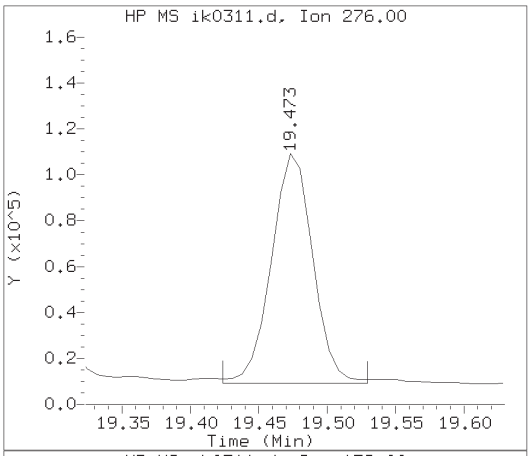
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 51		
Compound Name	: Perylene-d12		
Scan Number	: 1517		
Retention Time (minutes)	: 17.568		
Quant Ion	: 264.00		
Area	: 81583		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1511	Integration stop scan:	1526
Y at integration start	: 34470	Y at integration end:	32160

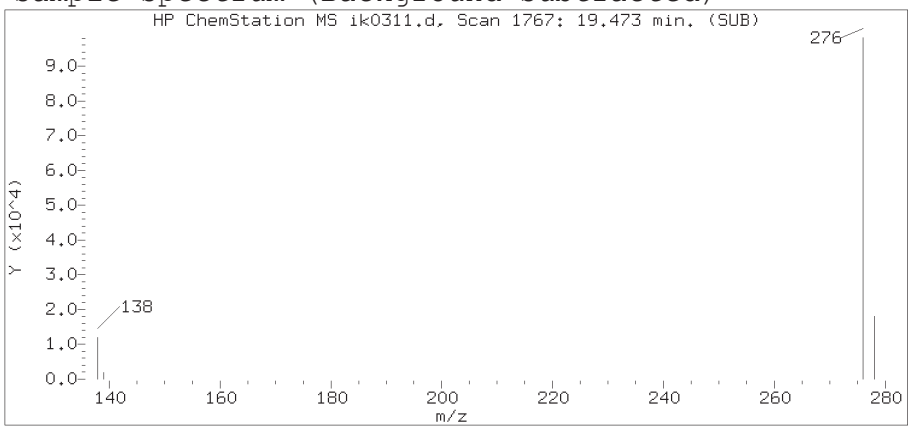
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used: D12 Page 2996

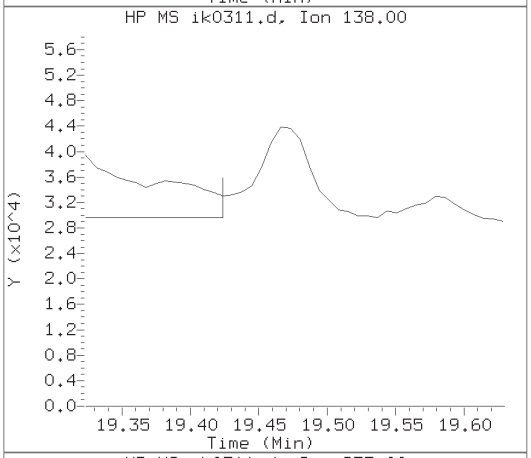
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



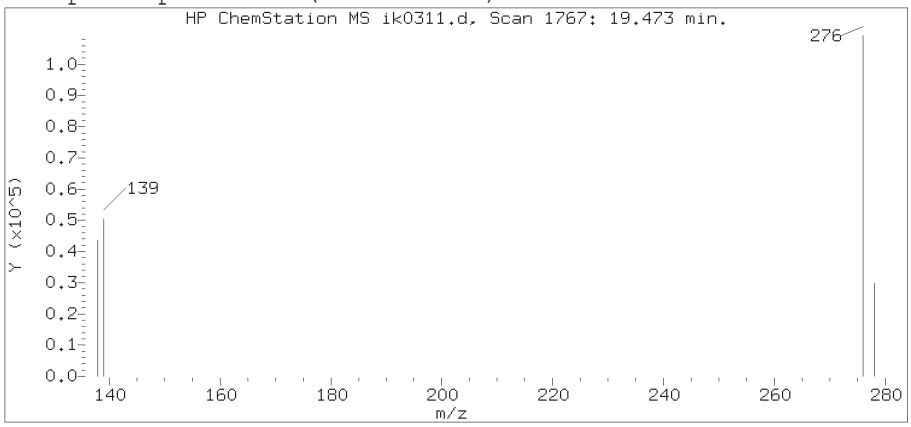


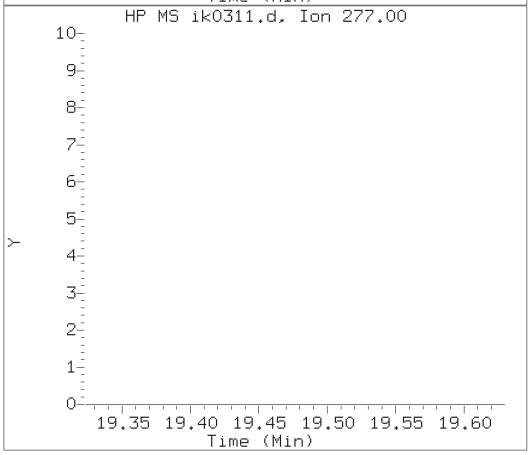
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

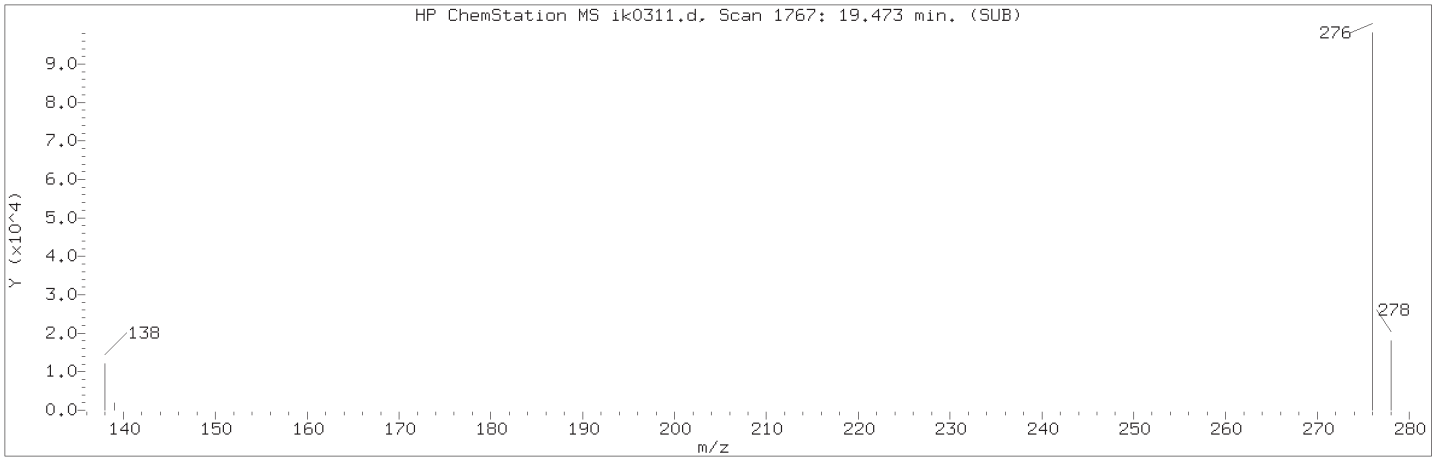
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

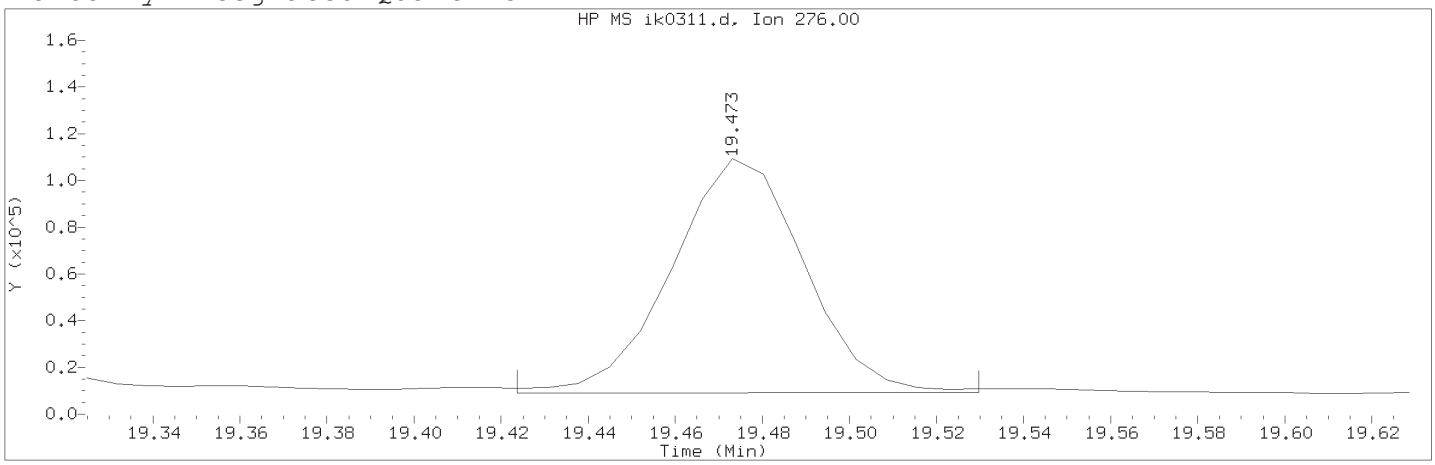
Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1767
Retention Time (minutes)	: 19.473
Relative Retention Time	: 0.00060
Quant Ion	: 276.00
Area (flag)	: 211818M
On-column Amount (ng/ul)	: 1.2945

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

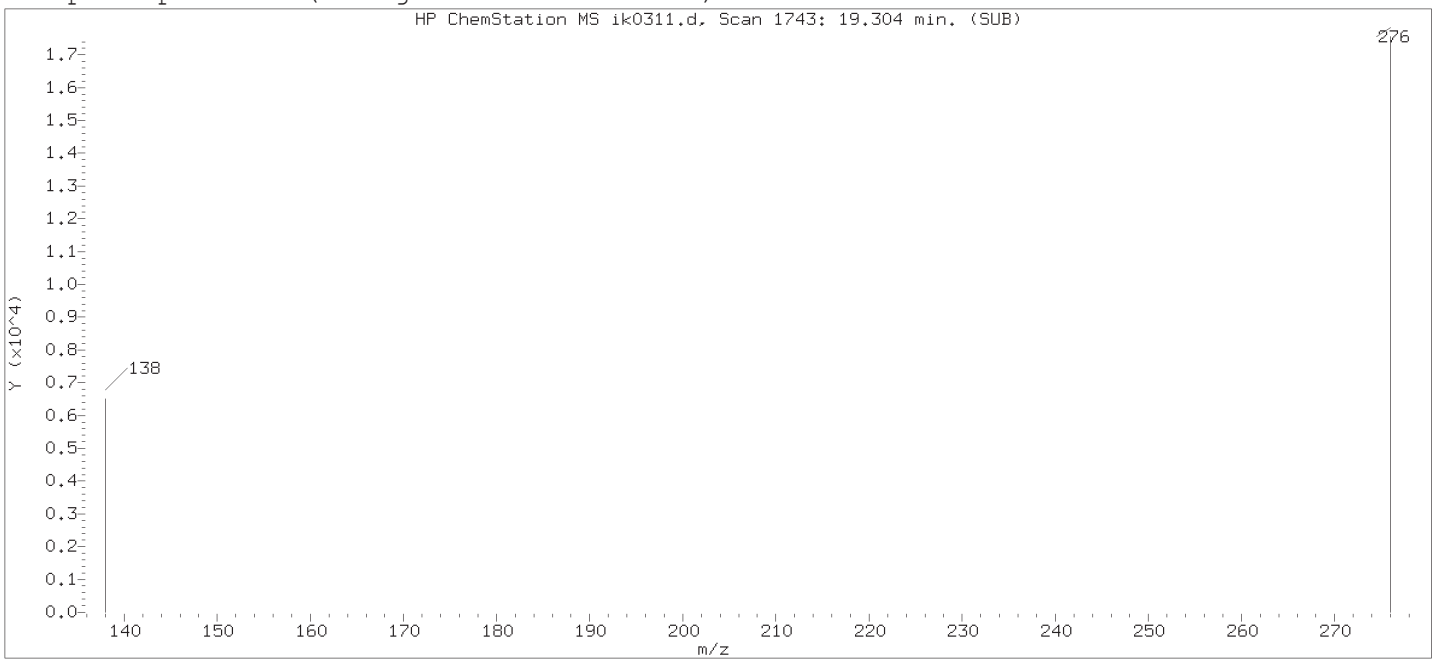
Compound Number : 53
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 1767
Retention Time (minutes) : 19.473
Quant Ion : 276.00
Area (flag) : 211818M
On-column Amount (ng/ul) : 1.2945
Integration start scan : 1759 Integration stop scan: 1774
Y at integration start : 9092 Y at integration end: 9184

Reason for manual integration: improper integration

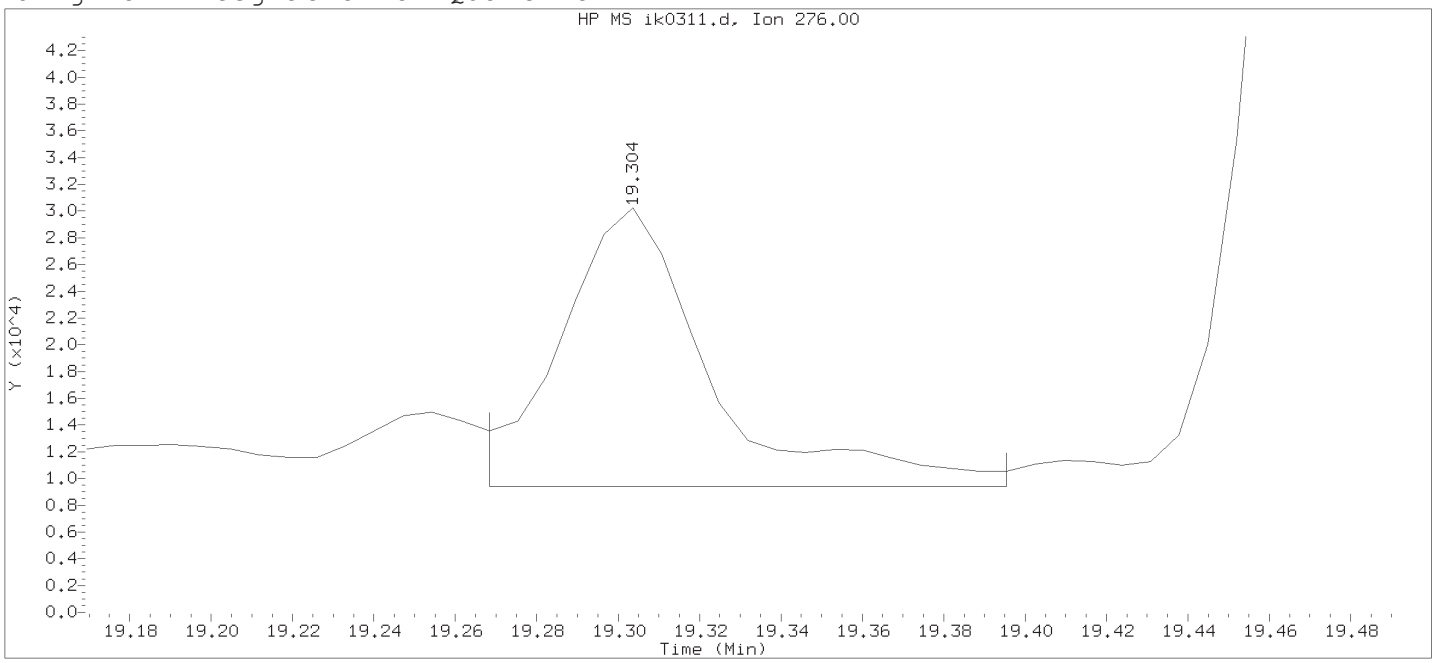
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

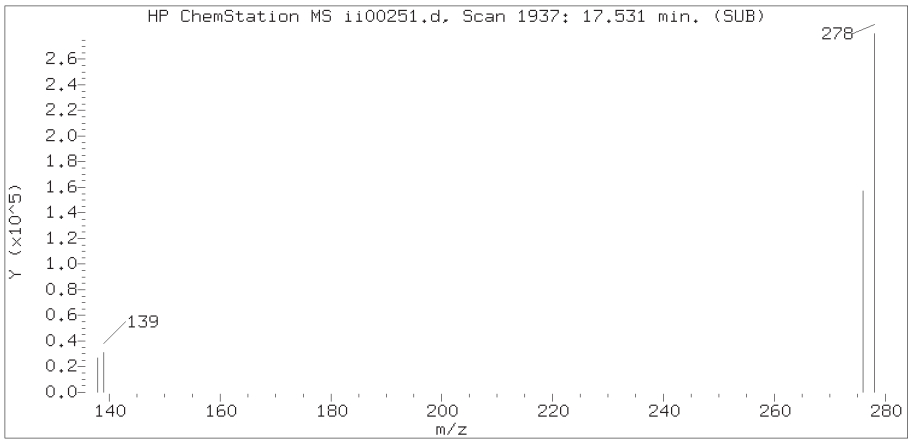
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

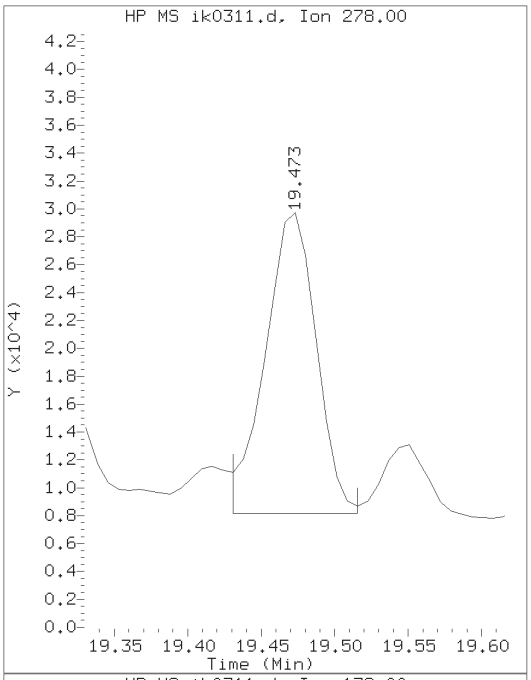
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1743		
Retention Time (minutes)	: 19.304		
Quant Ion	: 276.00		
Area	: 52962		
On-column Amount (ng/ul)	: 0.5165		
Integration start scan	: 1737	Integration stop scan:	1755
Y at integration start	: 9407	Y at integration end:	9407

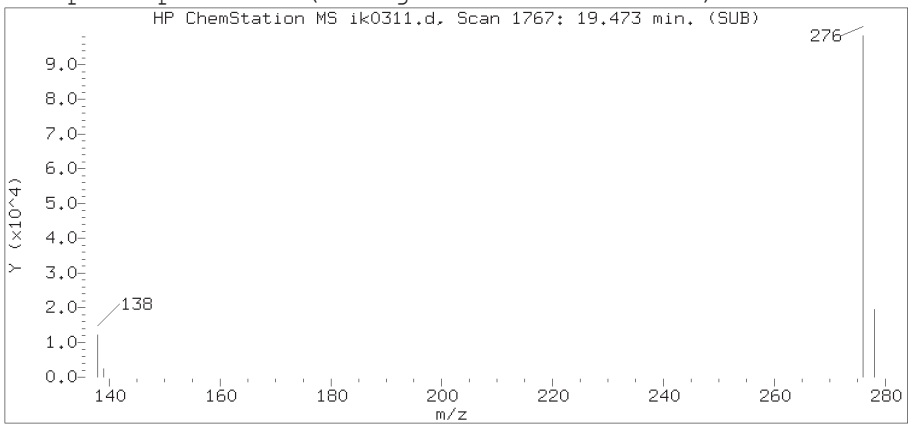
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/12/2018

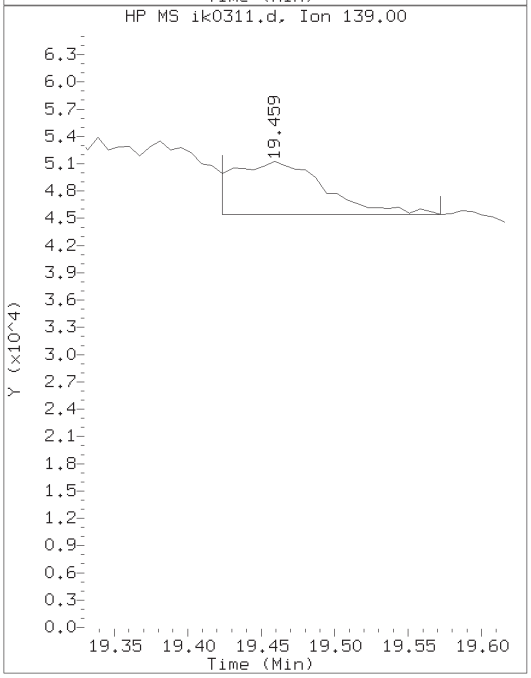
Reference Standard Spectrum for Dibenz(a,h)anthracene



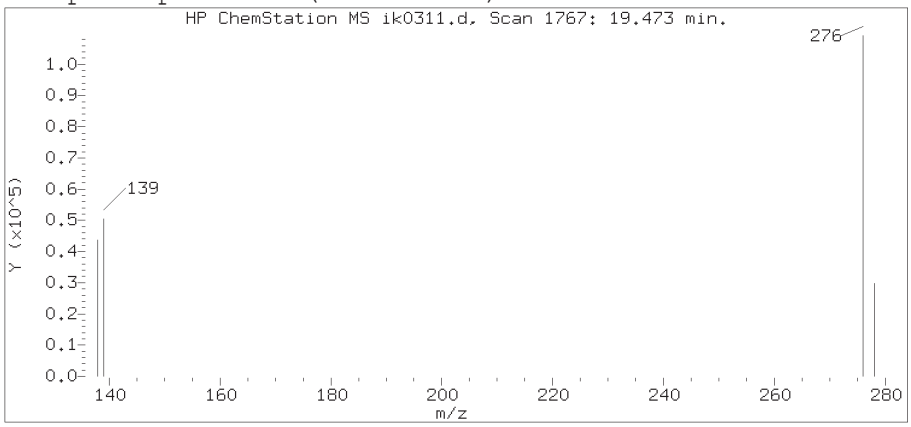


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

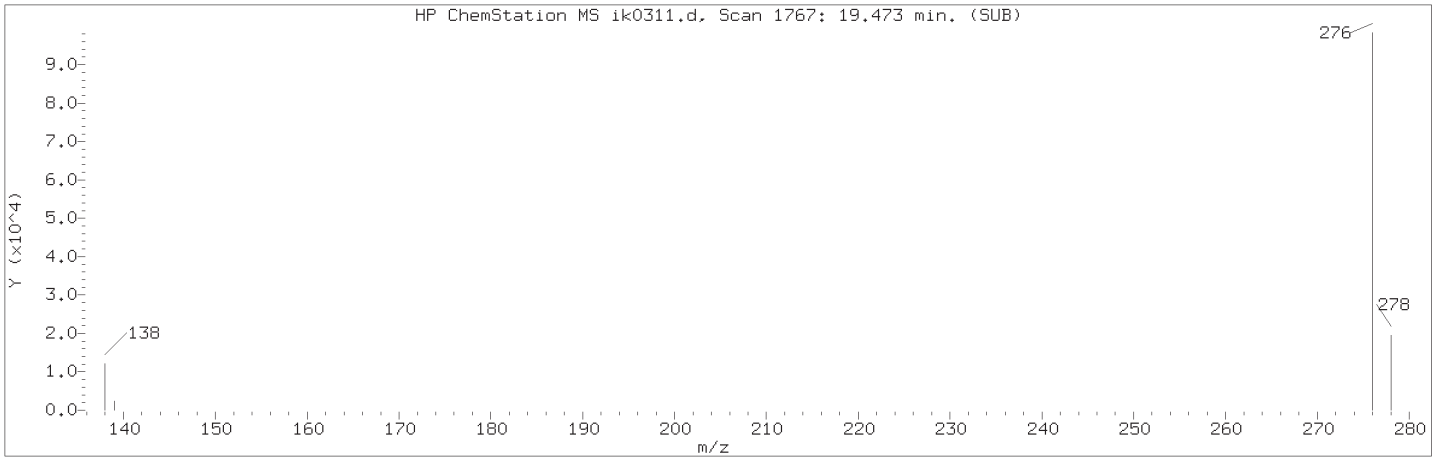
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

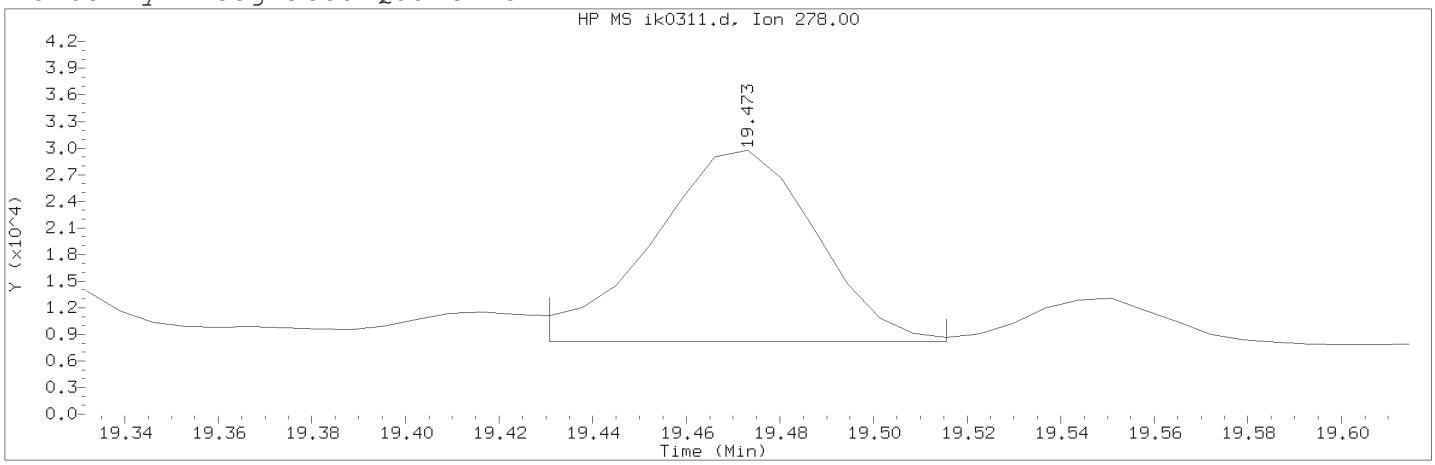
Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1767
Retention Time (minutes)	: 19.473
Relative Retention Time	: 0.00100
Quant Ion	: 278.00
Area (flag)	: 52533M
On-column Amount (ng/ul)	: 0.3932

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

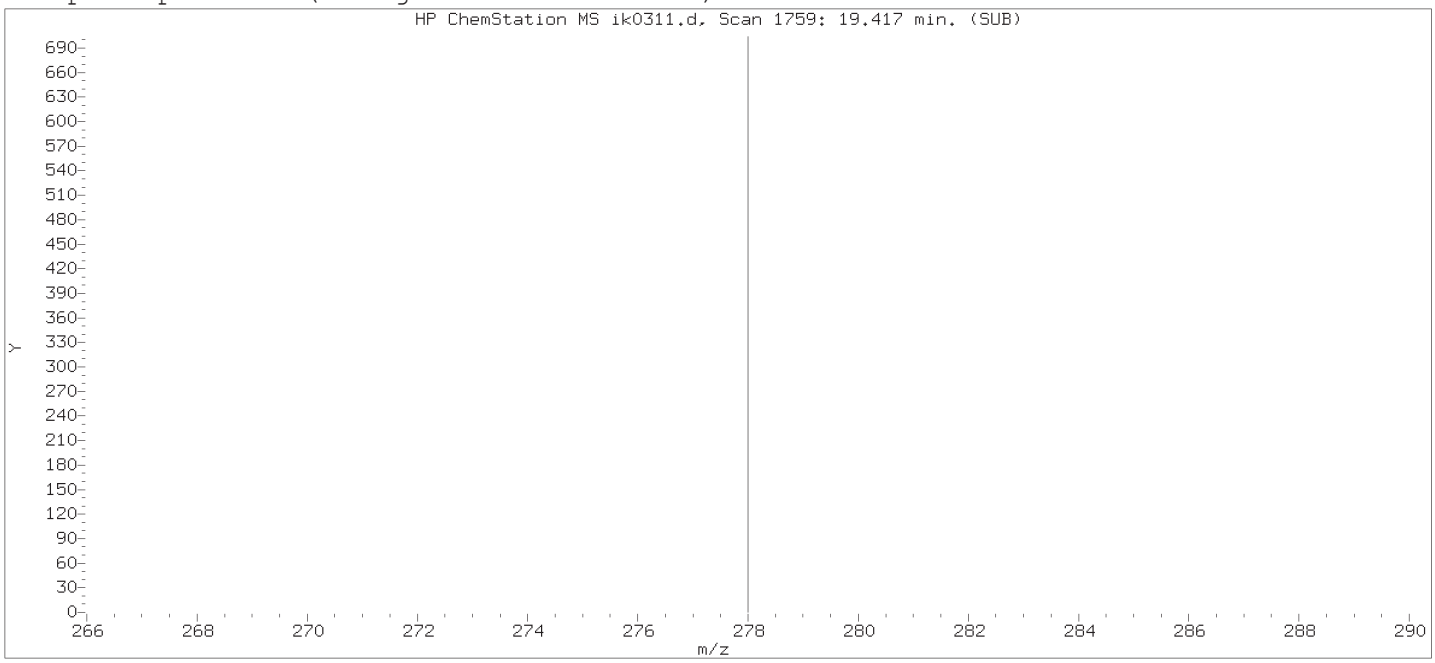
Compound Number : 54
Compound Name : Dibenz(a,h)anthracene
Scan Number : 1767
Retention Time (minutes) : 19.473
Quant Ion : 278.00
Area (flag) : 52533M
On-column Amount (ng/ul) : 0.3932
Integration start scan : 1760 Integration stop scan: 1772
Y at integration start : 8183 Y at integration end: 8183

Reason for manual integration: improper integration

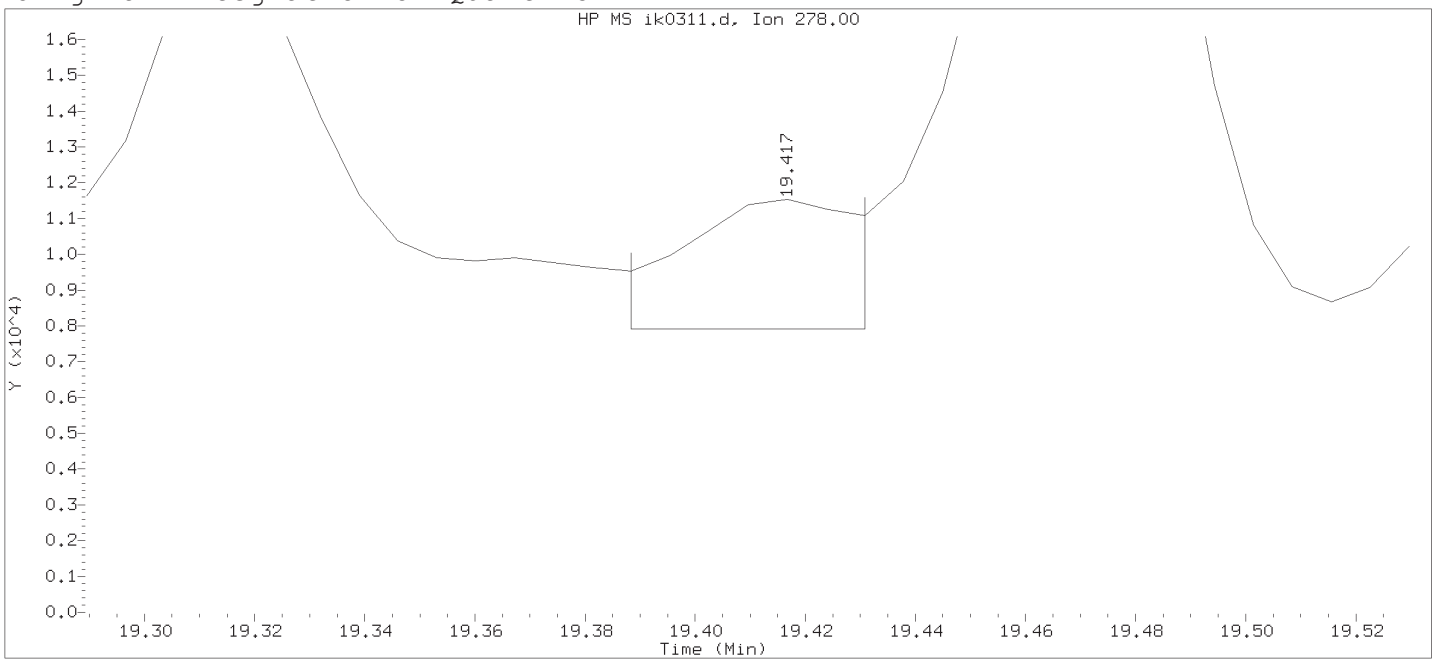
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

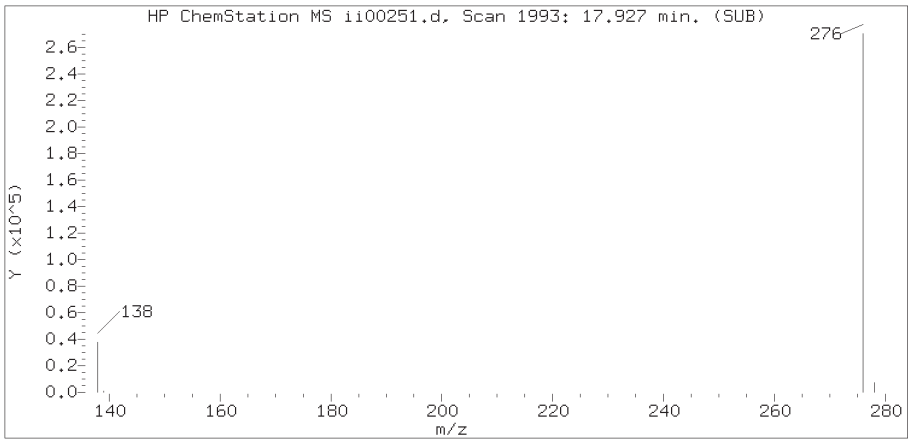
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

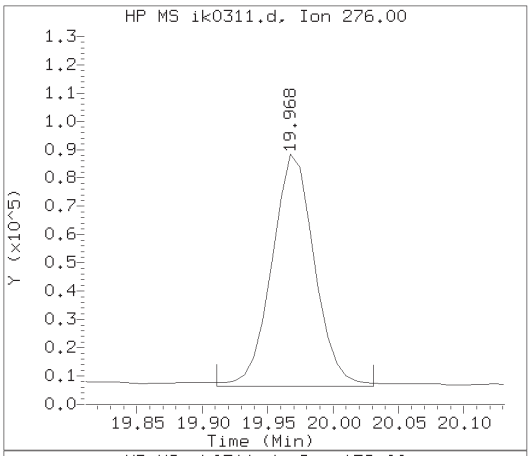
Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 54		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 1759		
Retention Time (minutes)	: 19.417		
Quant Ion	: 278.00		
Area	: 7467		
On-column Amount (ng/ul)	: 0.0892		
Integration start scan	: 1754	Integration stop scan:	1760
Y at integration start	: 7921	Y at integration end:	7921

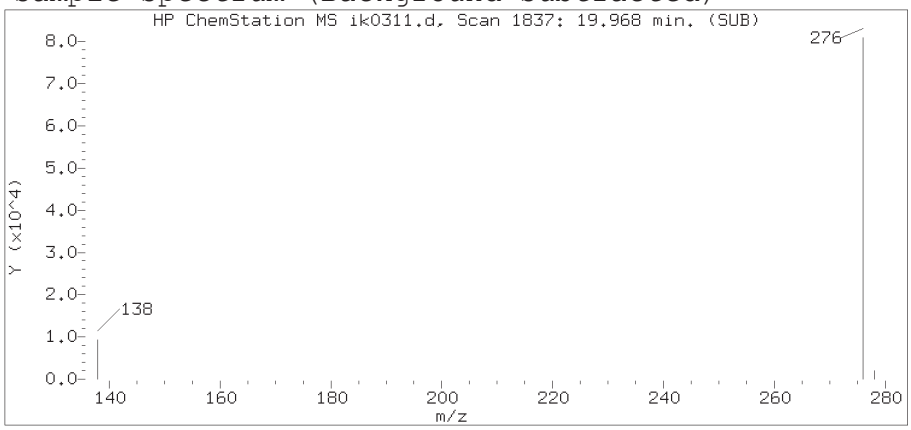
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/12/2018

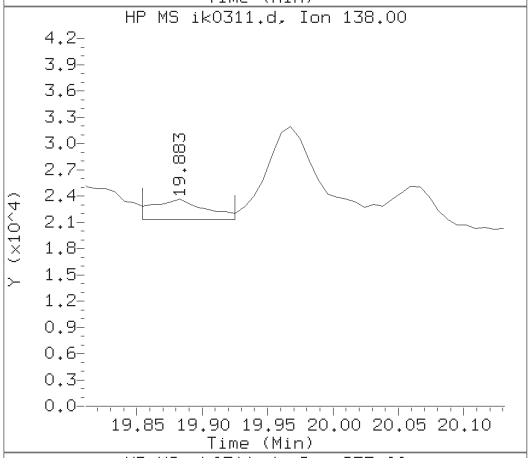
Reference Standard Spectrum for Benzo(g,h,i)perylene



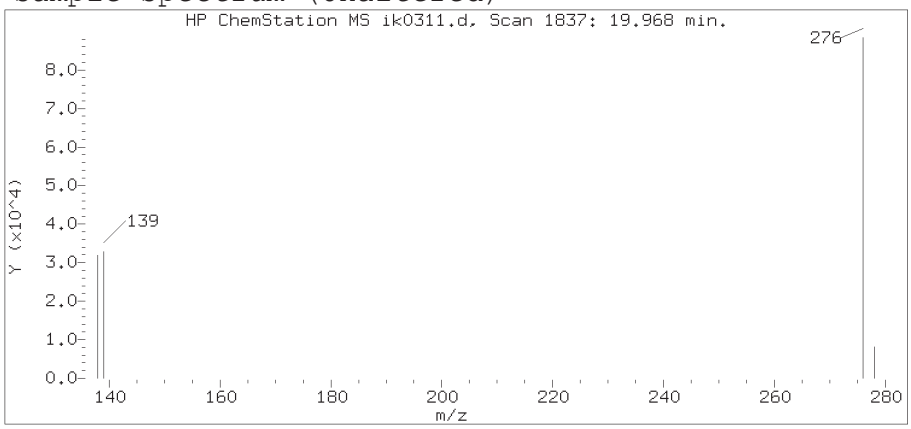


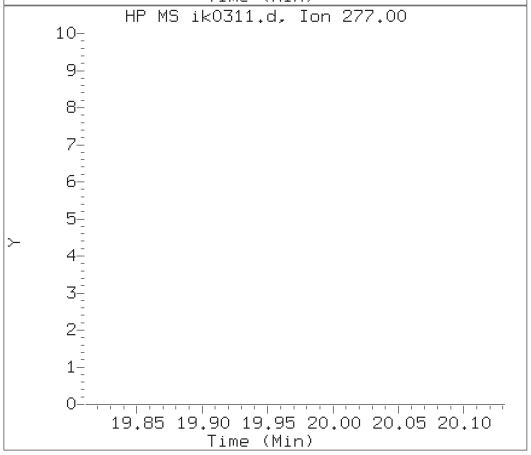
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

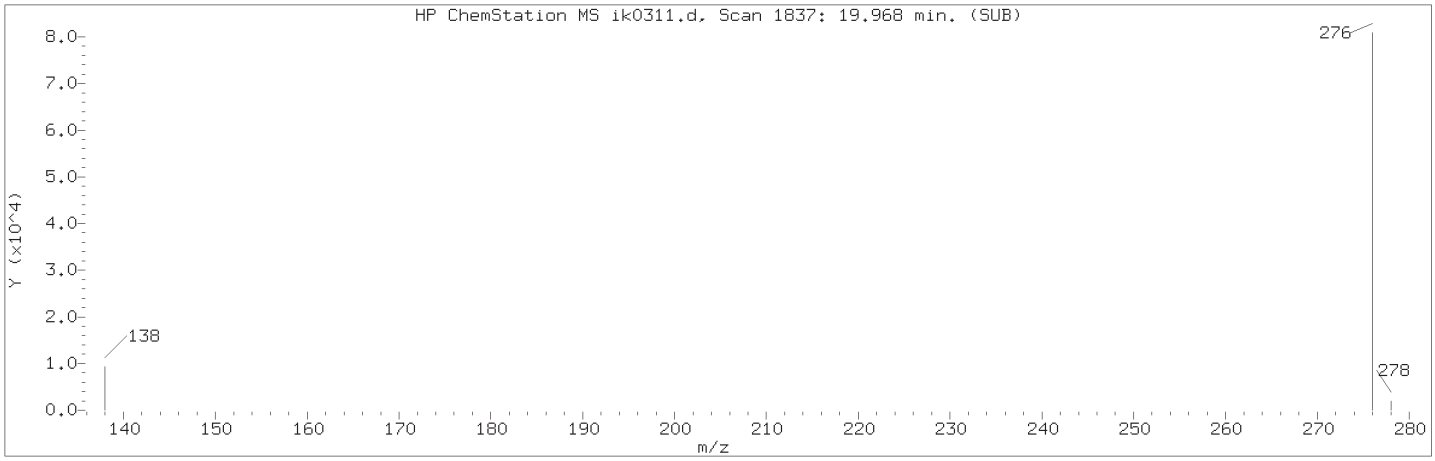
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

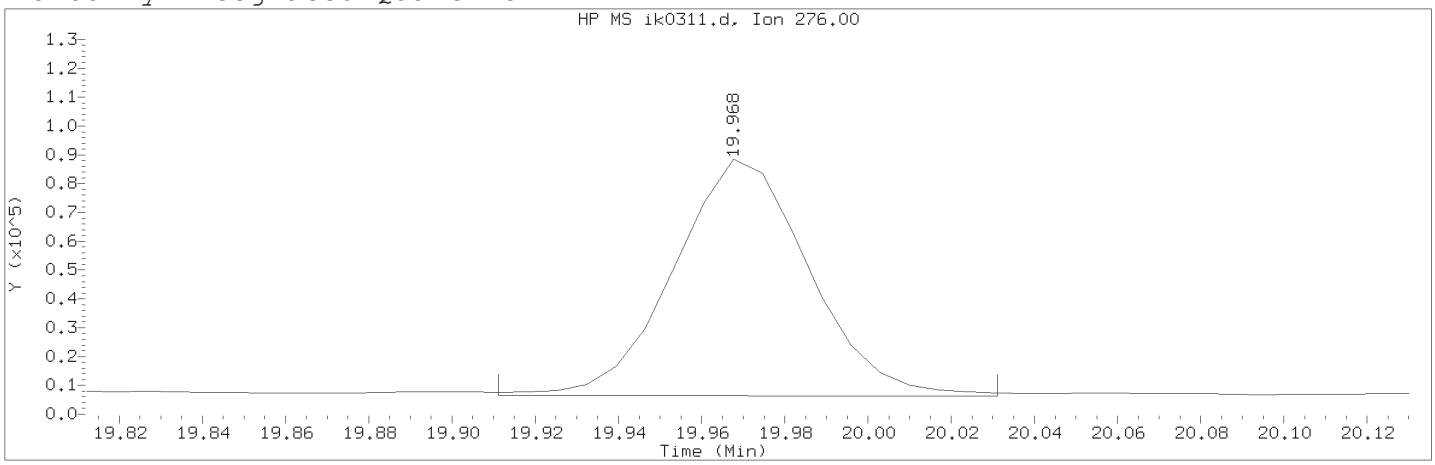
Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1837
Retention Time (minutes)	: 19.968
Relative Retention Time	: 0.00079
Quant Ion	: 276.00
Area (flag)	: 185474M
On-column Amount (ng/ul)	: 1.2892

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:28 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

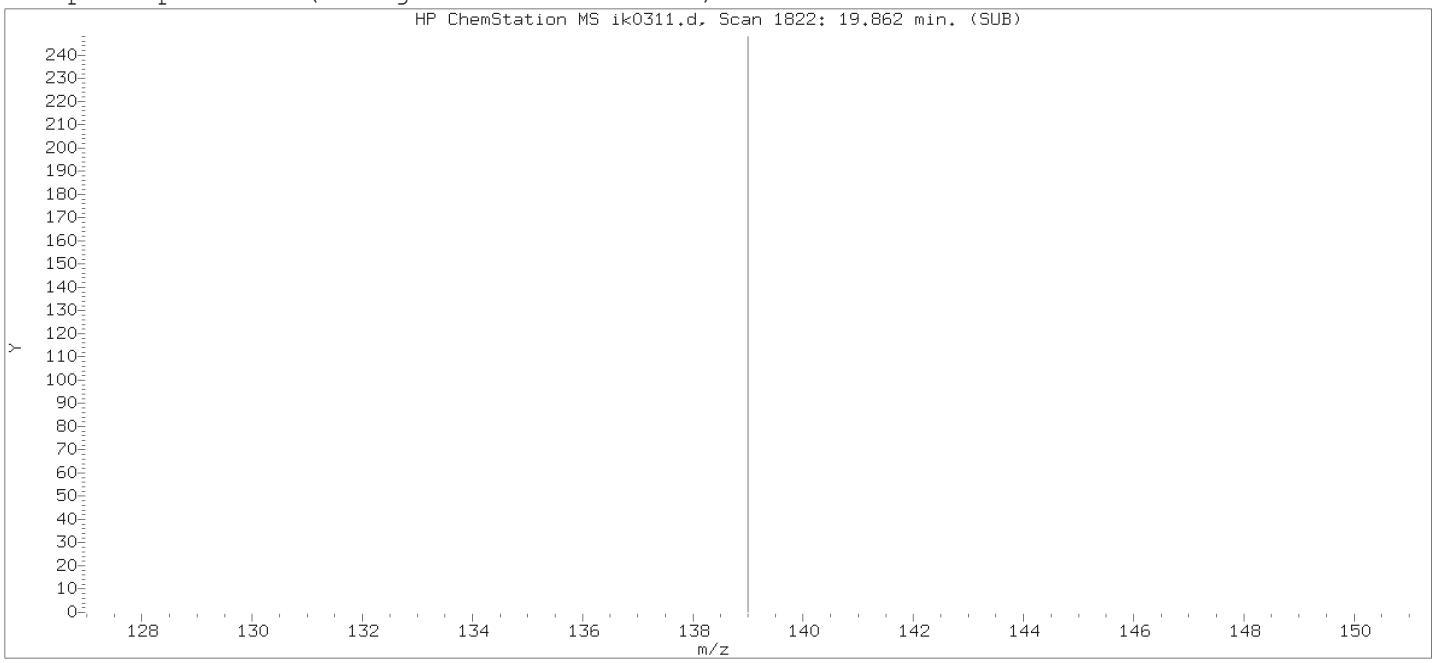
Compound Number : 55
Compound Name : Benzo(g,h,i)perylene
Scan Number : 1837
Retention Time (minutes) : 19.968
Quant Ion : 276.00
Area (flag) : 185474M
On-column Amount (ng/ul) : 1.2892
Integration start scan : 1828 Integration stop scan: 1845
Y at integration start : 6478 Y at integration end: 6322

Reason for manual integration: improper integration

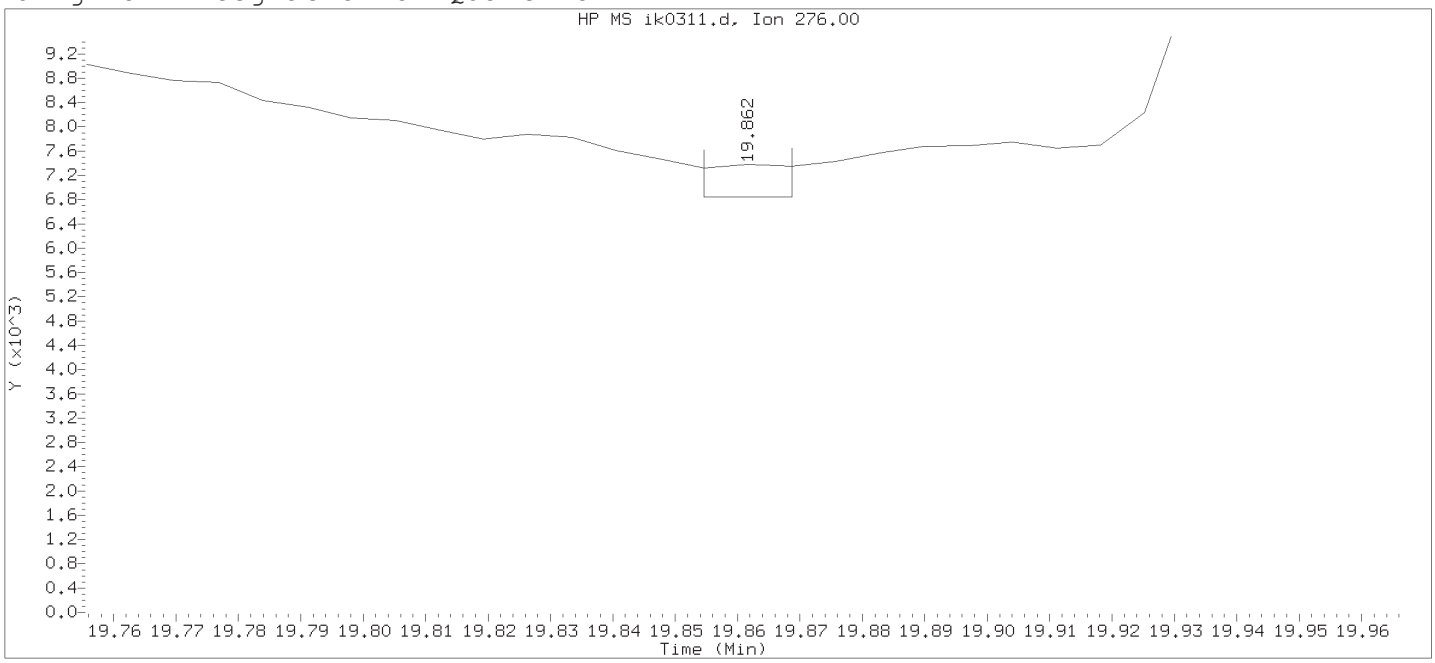
Analyst responsible for change: Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/12/2018 at 08:09.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0311.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 23:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 12T07 Lab Sample ID: 9872065

Compound Number	: 55		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 1822		
Retention Time (minutes)	: 19.862		
Quant Ion	: 276.00		
Area	: 433		
On-column Amount (ng/ul)	: 0.0048		
Integration start scan	: 1820	Integration stop scan:	1822
Y at integration start	: 6845	Y at integration end:	6845

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:42.
Target 3.5 esignature used 11/07/2018

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10976.i/18nov08.b/ik0365.d Injection date and time: **08-NOV-2018 14:34**
Data file Sample Info. Line: 12T07DL;9872065DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 08-NOV-2018 11:10
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov08.b/ik0351.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.794	(0.000)	499	152	85377	(21)	1.00	
10) Naphthalene-d8	8.320	(-0.013)	614	136	309479	(19)	1.00	
20) Acenaphthene-d10	10.478	(-0.011)	801	164	191196M	(19)	1.00	
31) Phenanthrene-d10	12.323	(-0.011)	966	188	417953	(20)	1.00	
43) Chrysene-d12	15.613	(-0.016)	1267	240	480761	(32)	1.00	
51) Perylene-d12	17.584	(-0.047)	1519	264	291492	(-20)	1.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.262	(0.000)	152	14999MA	0.079	79%		61 - 111
36) Fluoranthene-d10	(4)	13.819	(0.000)	212	43809	0.085	85%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.459	(0.000)	264	16851	0.061	61%		54 - 122

M = Surrogate Standard was manually integrated. A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)				Not Detected					0.02
11) Naphthalene	(2)	8.346	(0.000)	128	59579	0.187	62.01	31.312	B	0.04
19) Acenaphthylene	(3)	10.304	(-0.000)	152	11269	0.031	10.21			0.01
21) Acenaphthene	(3)				Not Detected					0.02
26) Fluorene	(3)				Not Detected					0.02
32) Phenanthrene	(4)	12.357	(0.000)	178	74561	0.165	54.77	2.56	B	0.02
33) Anthracene	(4)	12.413	(0.000)	178	22526	0.050	16.52	0.732	B	0.02
35) Di-n-butylphthalate	(4)	13.002	(-0.000)	149	665268	1.540	510.71			0.2
37) Fluoranthene	(4)	13.844	(0.000)	202	139544	0.248	82.33			0.02
39) Pyrene	(5)	14.124	(0.000)	202	173534	0.261	86.49			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.550	(-0.000)	149	1569237	4.962	1645.80			0.3
42) Benzo(a)anthracene	(5)	15.597	(-0.000)	228	112052	0.181	60.09			0.02
44) Chrysene	(5)	15.644	(0.000)	228	145484M	0.246	81.67			0.01
46) Benzo(b)fluoranthene	(6)	17.005	(0.000)	252	225646M	0.622	206.44			0.02
47) Benzo(k)fluoranthene	(6)	17.028	(0.001)	252	107596M	0.317	105.01			0.02
50) Benzo(a)pyrene	(6)	17.498	(-0.000)	252	60795	0.196	64.90			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.367	(-0.000)	276	56590M	0.154	51.23			0.02
54) Dibenz(a,h)anthracene	(6)	19.367	(0.000)	278	15042	0.050	16.68			0.02
55) Benzo(g,h,i)perylene	(6)	19.862	(-0.000)	276	48576	0.151	50.01			0.02

B = Compound detected in referenced method blank. M = Compound was manually integrated.

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55. Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10976.i/18nov08.b/ik0365.d Injection date and time: **08-NOV-2018 14:34**
Data file Sample Info. Line: 12T07DL;9872065DL;2;0;SAMPLE;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 08-NOV-2018 11:10
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov08.b/ik0351.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

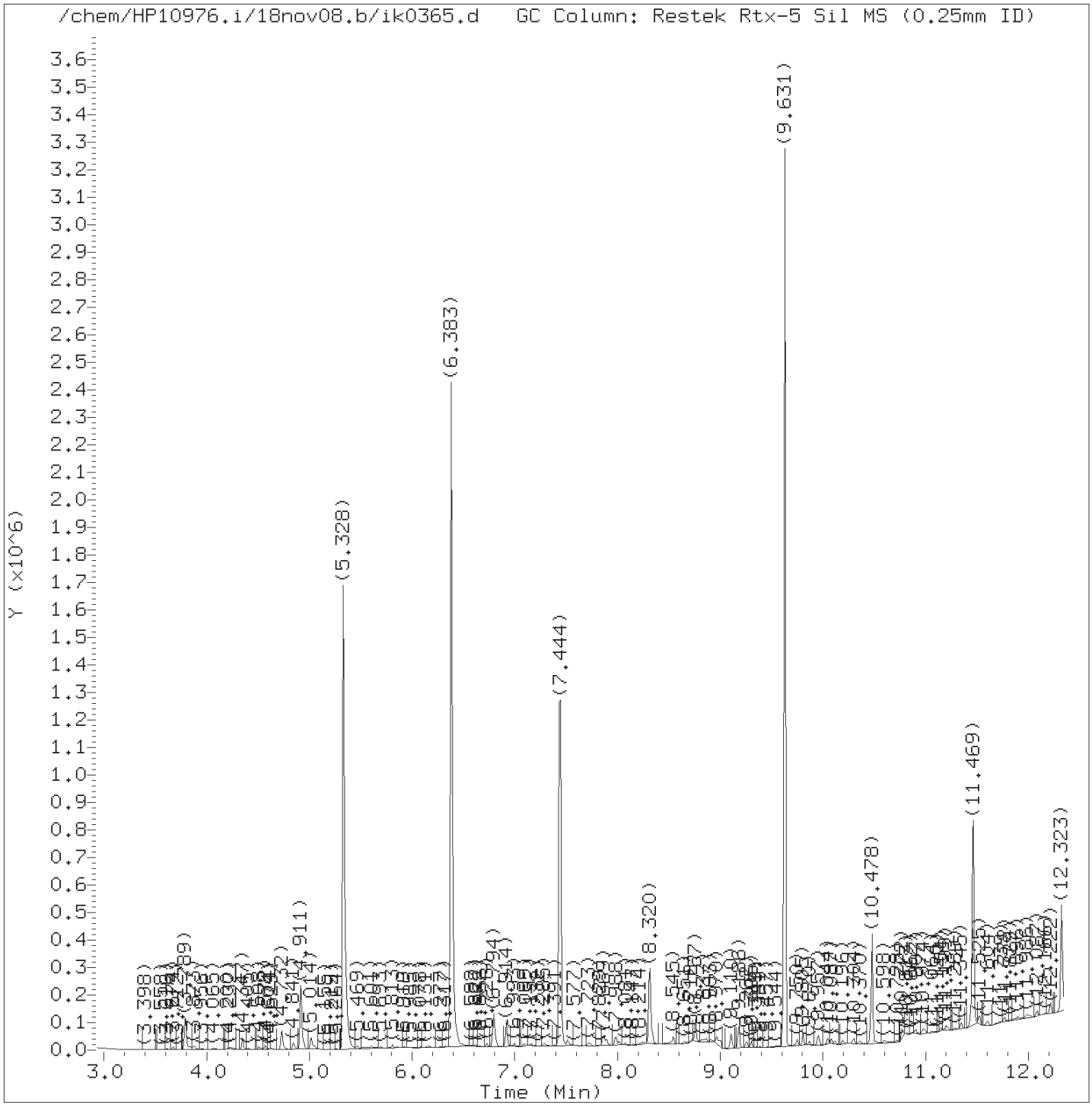
Dilution Factor (DF): 10 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30.15 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

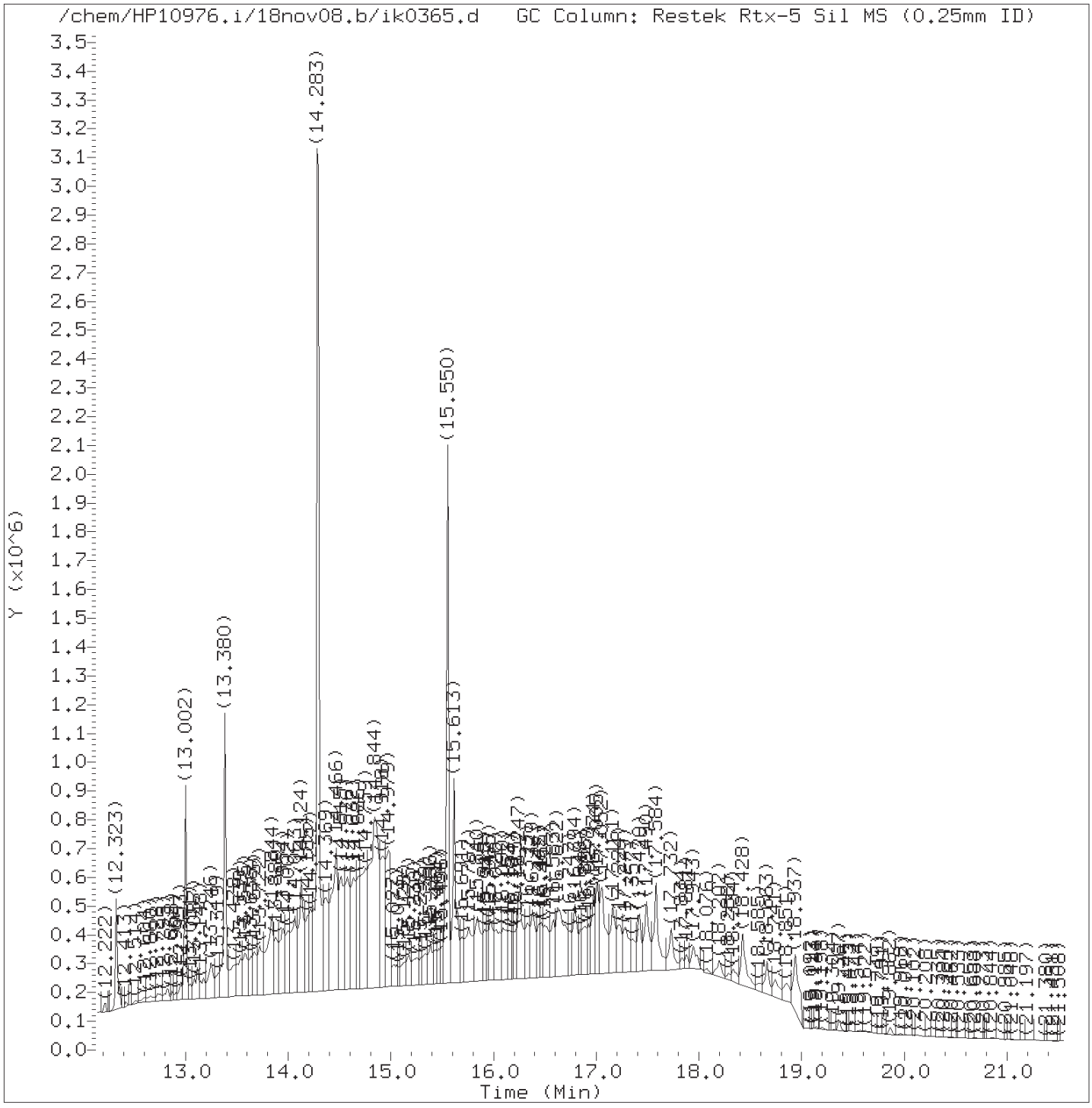
Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

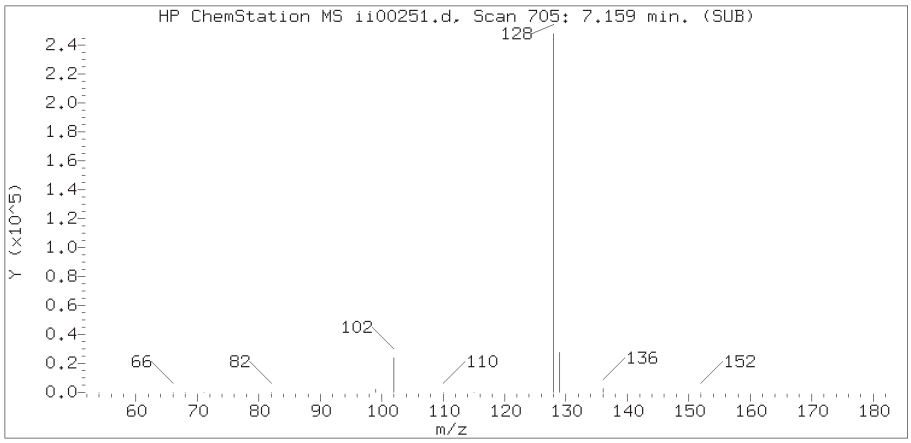
Sample Name: 12T07DL Lab Sample ID: 9872065DL

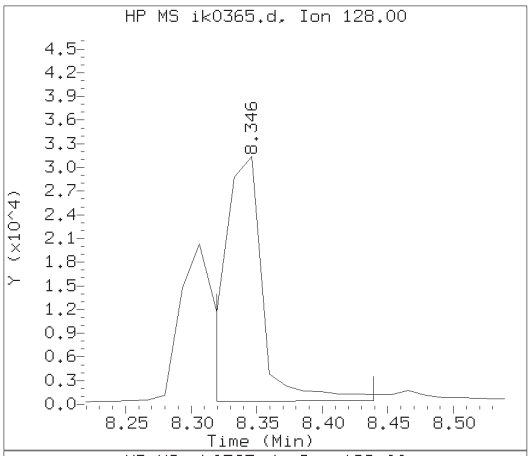
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.794	152	85377	1.000
10)*Naphthalene-d8	(2)	8.320	136	309479	1.000
11) Naphthalene	(2)	8.346	128	59579	0.187
14)$1-Methylnaphthalene-d10	(2)	9.262	152	14999MA	0.079
19) Acenaphthylene	(3)	10.304	152	11269	0.031
20)*Acenaphthene-d10	(3)	10.478	164	191196M	1.000
31)*Phenanthrene-d10	(4)	12.323	188	417953	1.000
32) Phenanthrene	(4)	12.357	178	74561	0.165
33) Anthracene	(4)	12.413	178	22526	0.050
35) Di-n-butylphthalate	(4)	13.002	149	665268	1.540
36)$Fluoranthene-d10	(4)	13.819	212	43809	0.085
37) Fluoranthene	(4)	13.844	202	139544	0.248
39) Pyrene	(5)	14.124	202	173534	0.261
41) bis(2-Ethylhexyl)phthalate	(5)	15.550	149	1569237	4.962
42) Benzo(a)anthracene	(5)	15.597	228	112052	0.181
43)*Chrysene-d12	(5)	15.613	240	480761	1.000
44) Chrysene	(5)	15.644	228	145484M	0.246
46) Benzo(b)fluoranthene	(6)	17.005	252	225646M	0.622
47) Benzo(k)fluoranthene	(6)	17.029	252	107596M	0.317
49)$Benzo(a)pyrene-d12	(6)	17.459	264	16851	0.061
50) Benzo(a)pyrene	(6)	17.498	252	60795	0.196
51)*Perylene-d12	(6)	17.584	264	291492	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.367	276	56590M	0.154
54) Dibenz(a,h)anthracene	(6)	19.367	278	15042	0.050
55) Benzo(g,h,i)perylene	(6)	19.862	276	48576	0.151

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

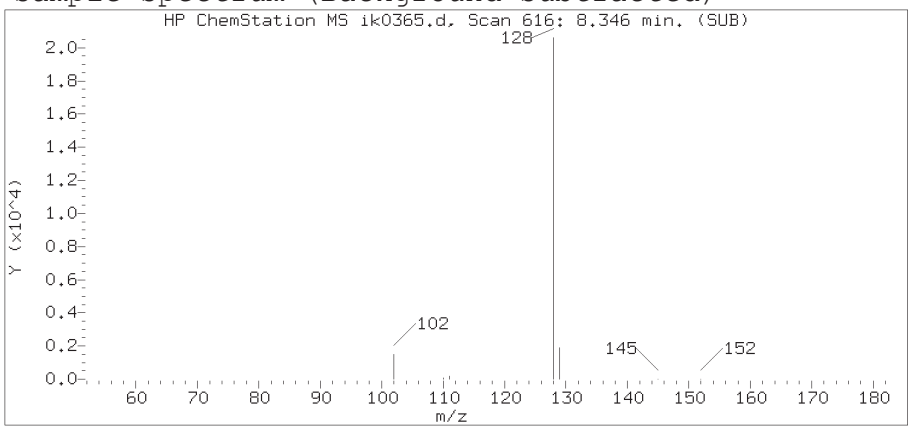
Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

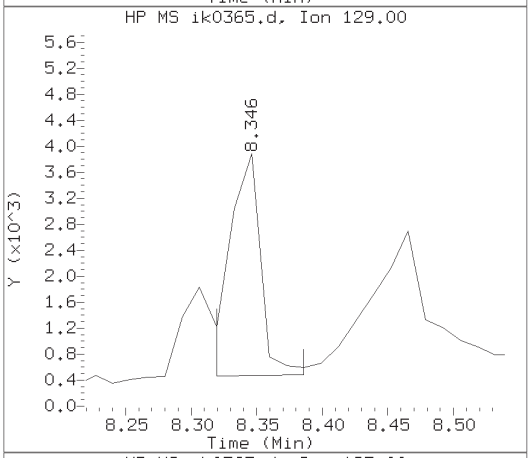
Reference Standard Spectrum for Naphthalene



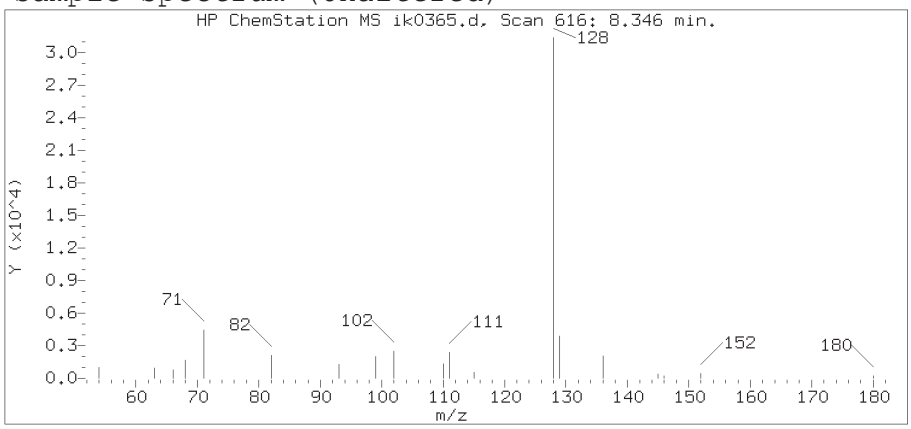


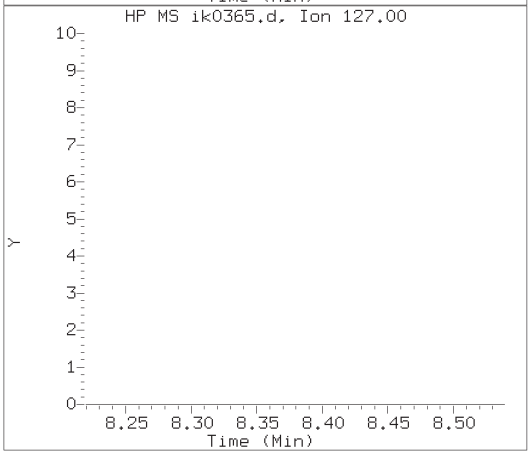
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

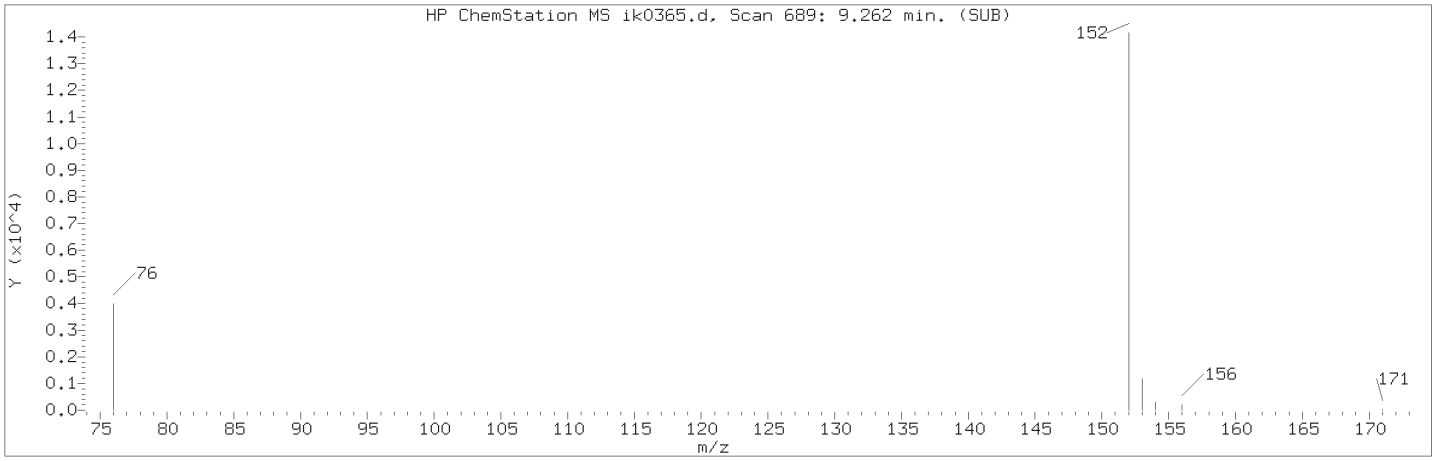
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

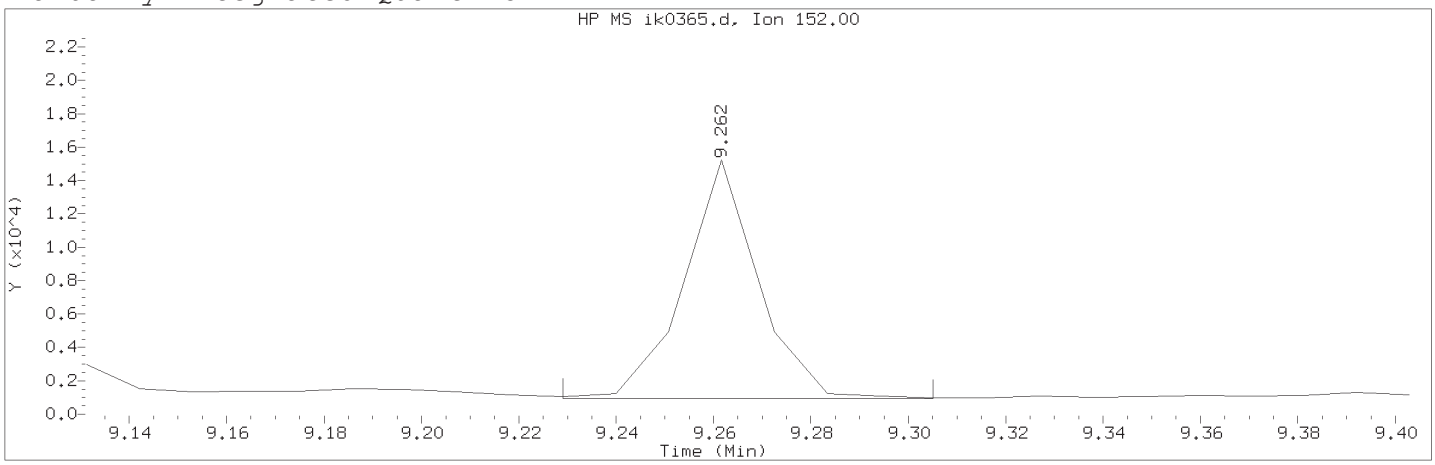
Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 616
Retention Time (minutes)	: 8.346
Relative Retention Time	: 0.00001
Quant Ion	: 128.00
Area (flag)	: 59579
On-column Amount (ng/ul)	: 0.1870

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

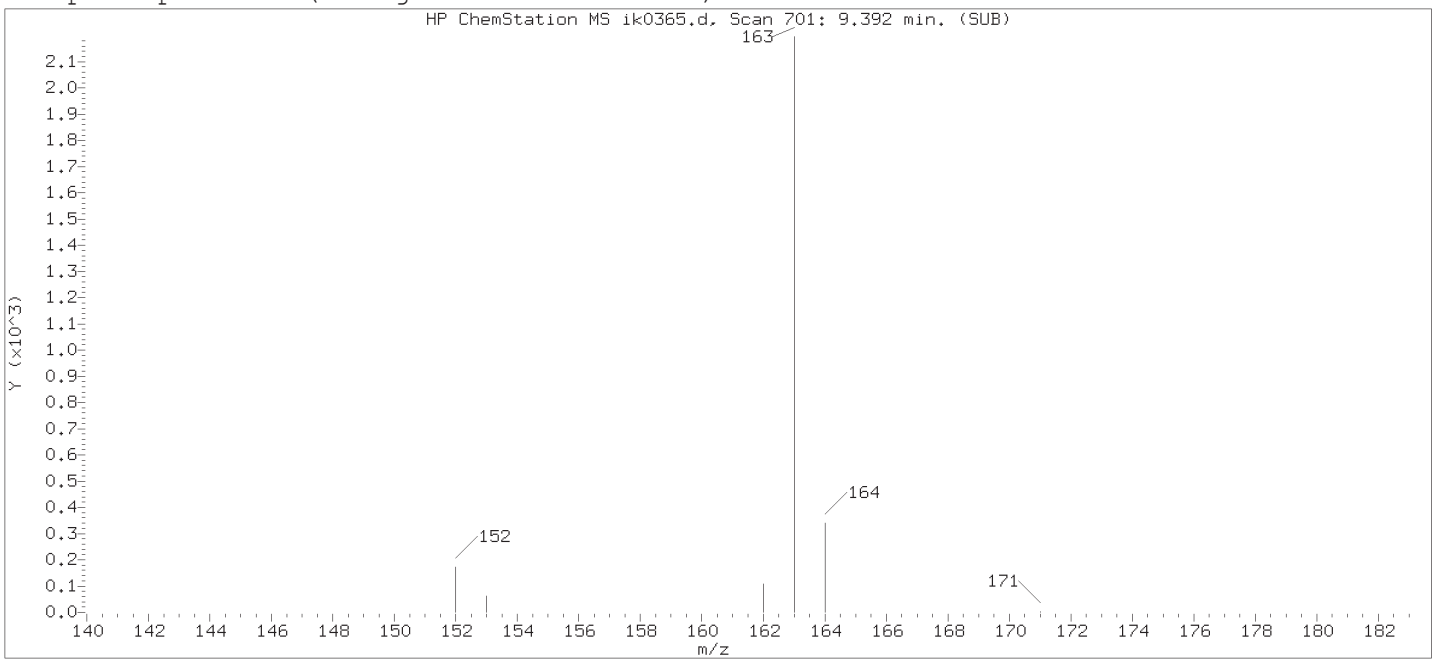
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 689		
Retention Time (minutes)	: 9.262		
Quant Ion	: 152.00		
Area (flag)	: 14999AM		
On-column Amount (ng/ul)	: 0.0795		
Integration start scan	: 685	Integration stop scan:	692
Y at integration start	: 955	Y at integration end:	955

Reason for manual integration: improper integration

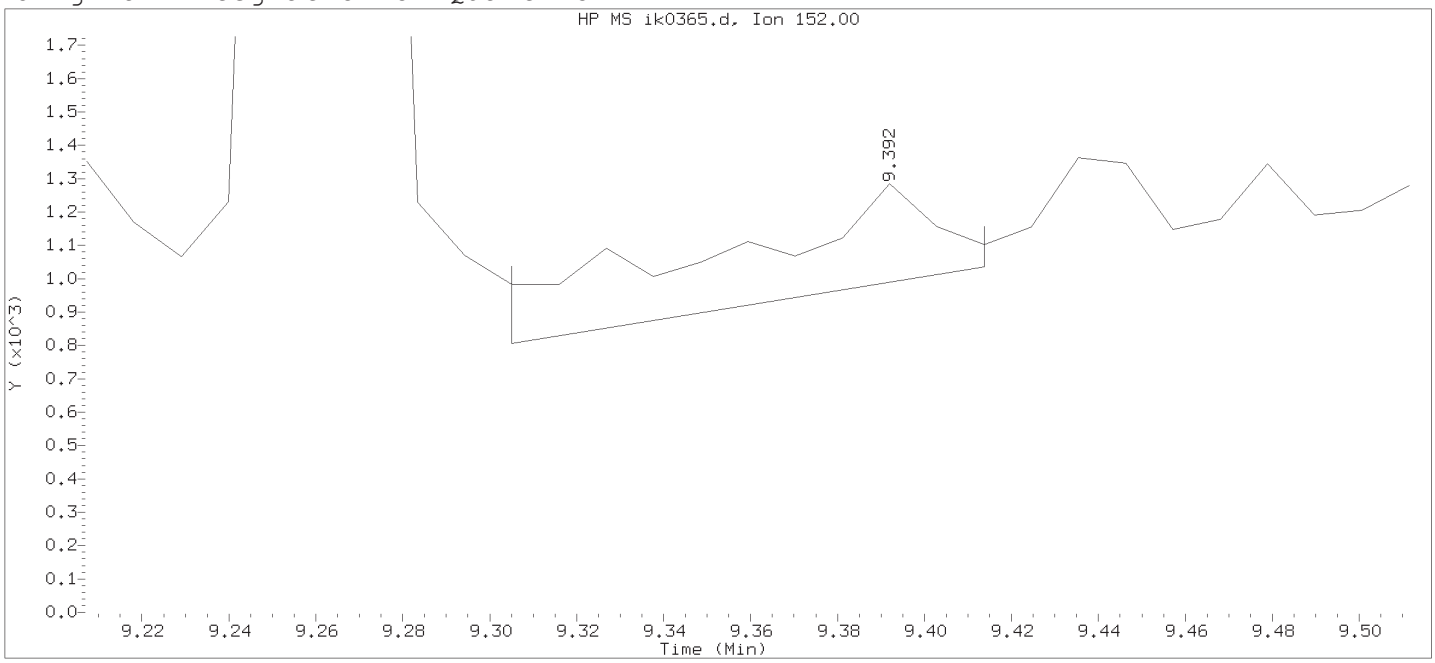
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

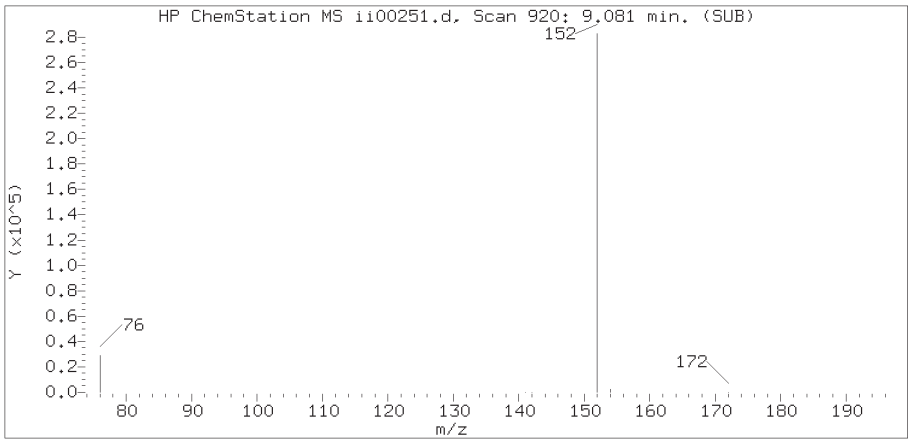
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

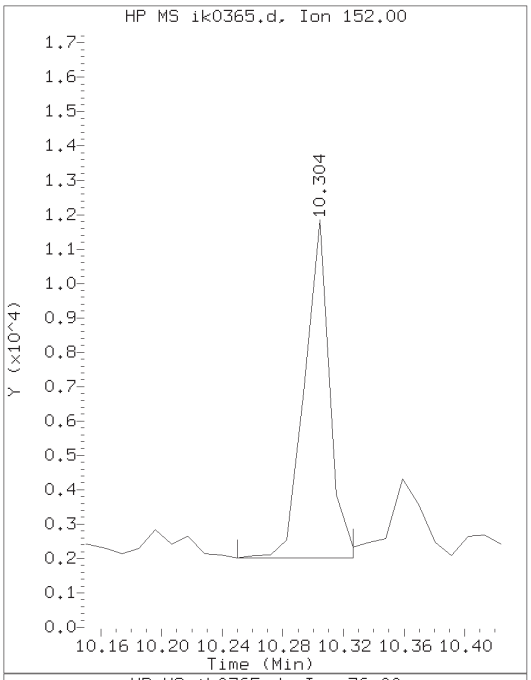
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 701		
Retention Time (minutes)	: 9.392		
Quant Ion	: 152.00		
Area	: 1118		
On-column Amount (ng/ul)	: 0.0059		
Integration start scan	: 692	Integration stop scan:	702
Y at integration start	: 806	Y at integration end:	1036

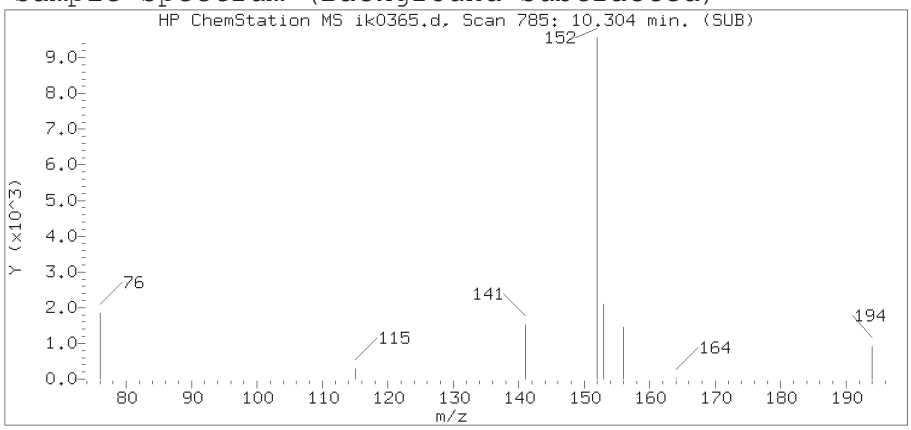
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature used: D12 Page 1 of 6

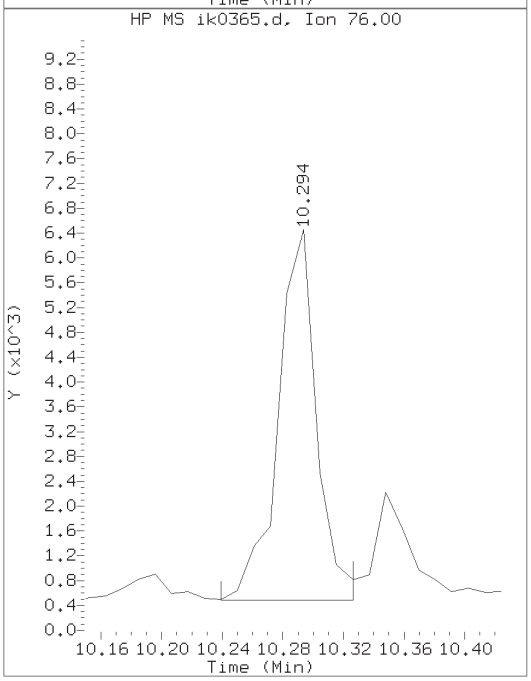
Reference Standard Spectrum for Acenaphthylene



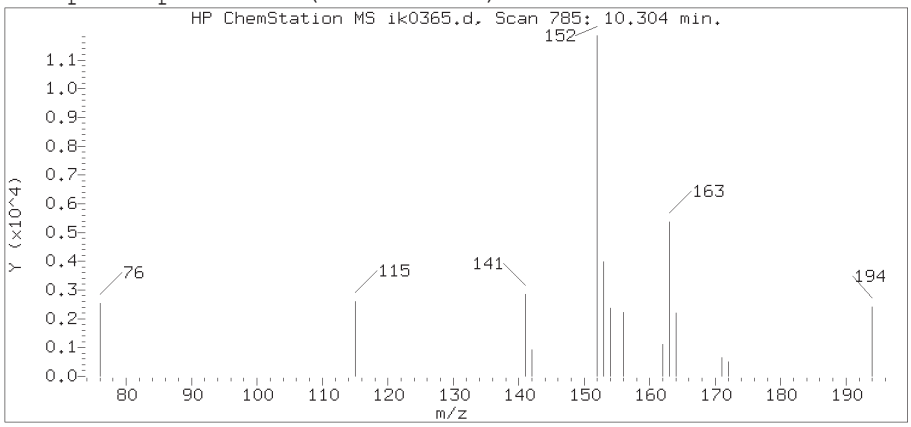


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

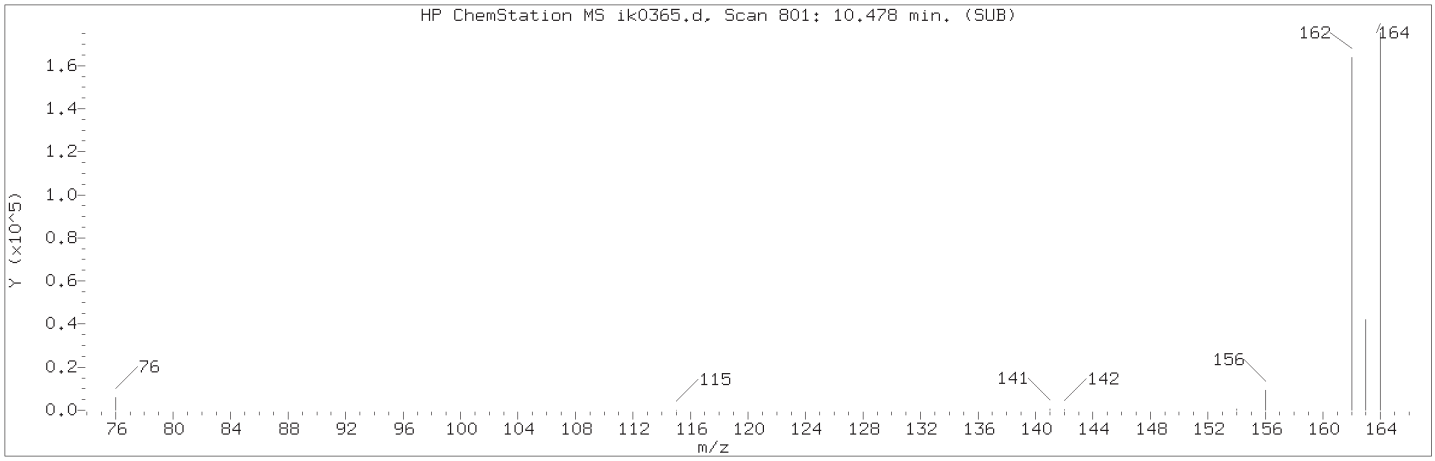
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

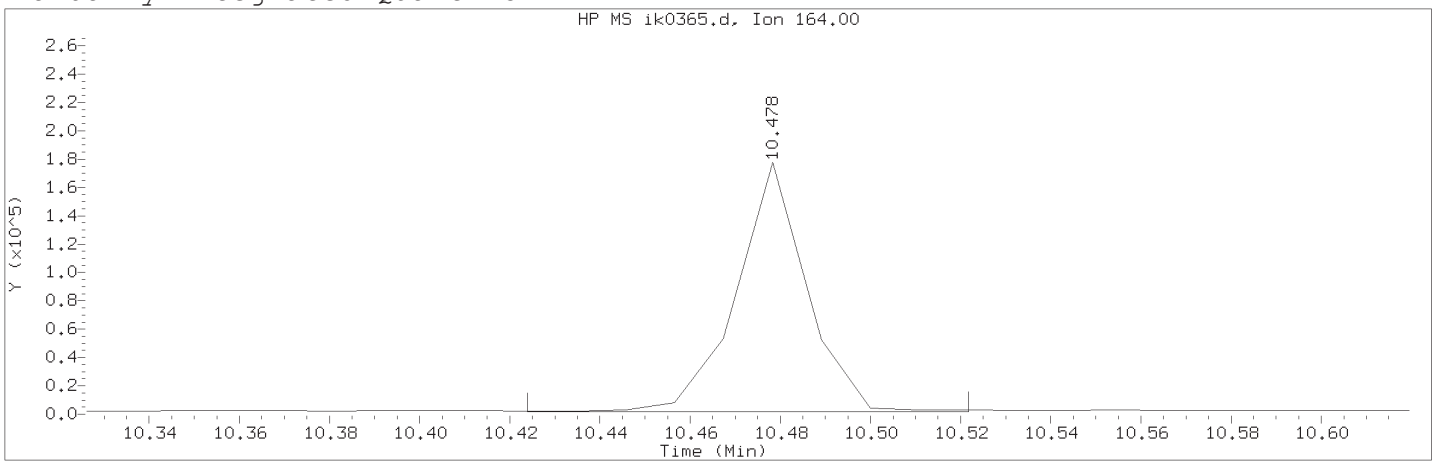
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 785
Retention Time (minutes)	: 10.304
Relative Retention Time	:-0.00002
Quant Ion	: 152.00
Area (flag)	: 11269
On-column Amount (ng/ul)	: 0.0308

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

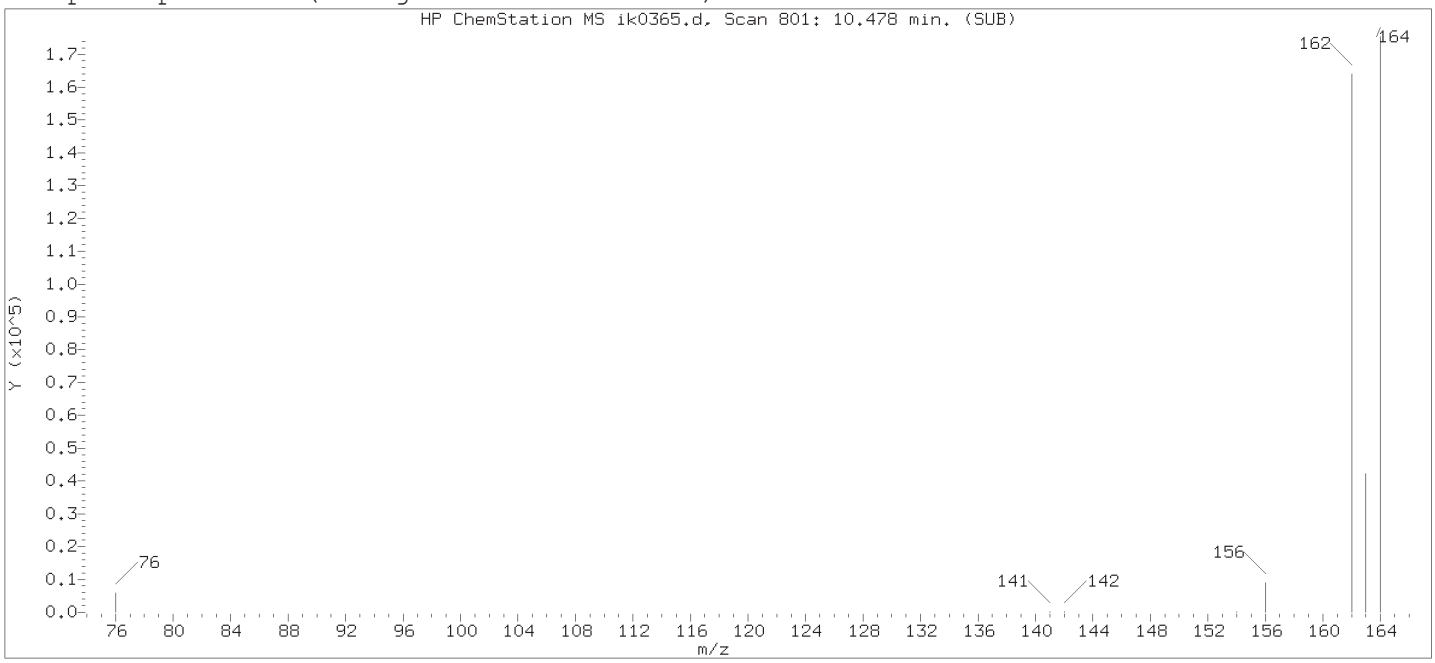
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 801
Retention Time (minutes) : 10.478
Quant Ion : 164.00
Area (flag) : 191196M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 795 Integration stop scan: 804
Y at integration start : 1606 Y at integration end: 1606

Reason for manual integration: improper integration

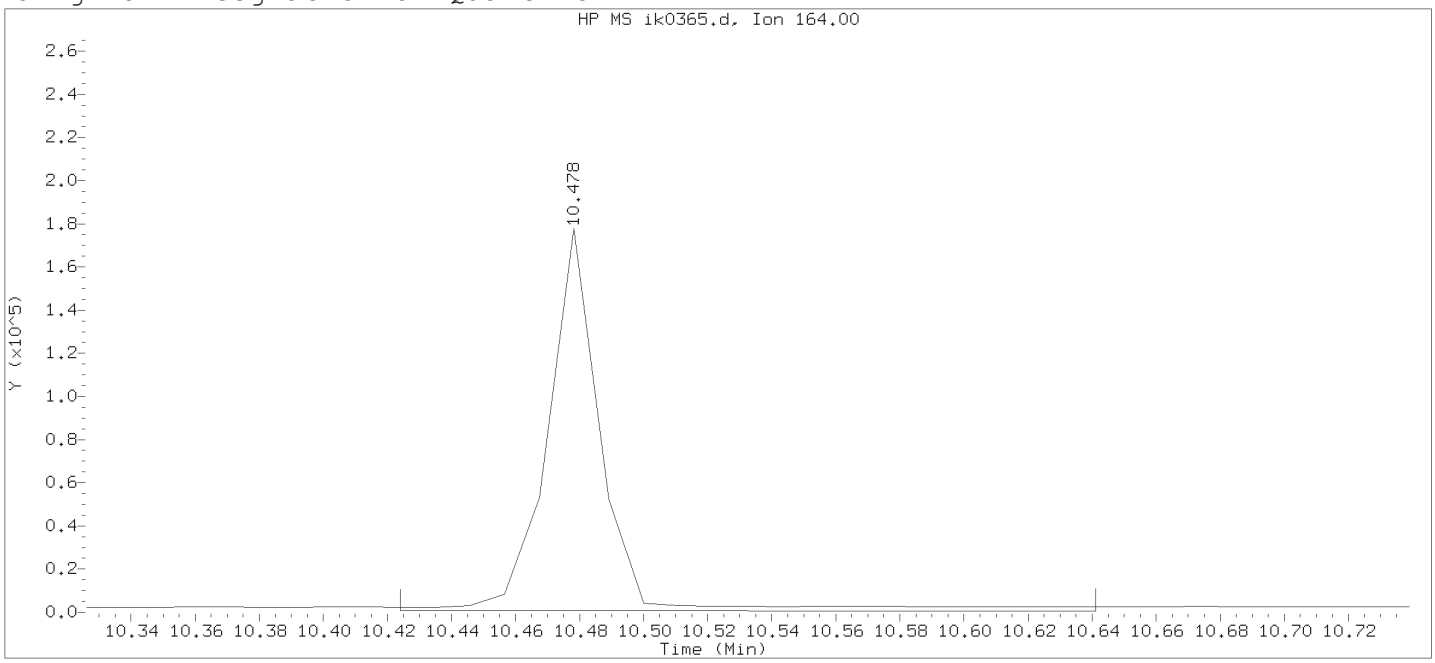
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 801		
Retention Time (minutes)	: 10.478		
Quant Ion	: 164.00		
Area	: 210756		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 795	Integration stop scan:	815
Y at integration start	: 927	Y at integration end:	546

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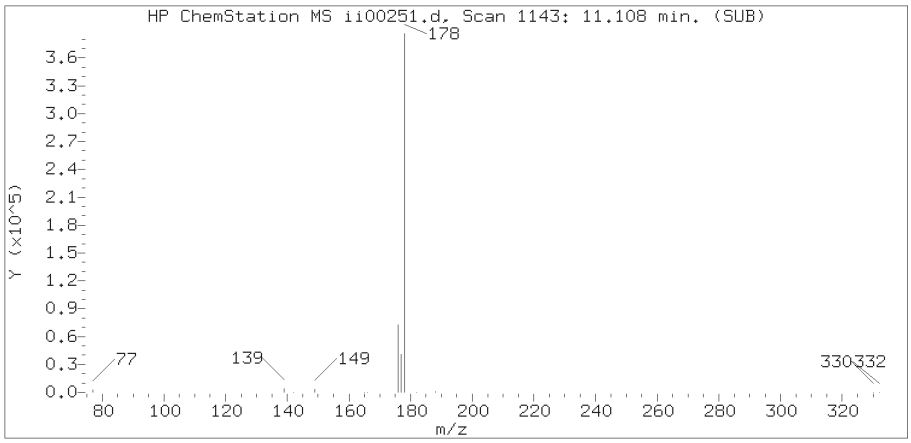
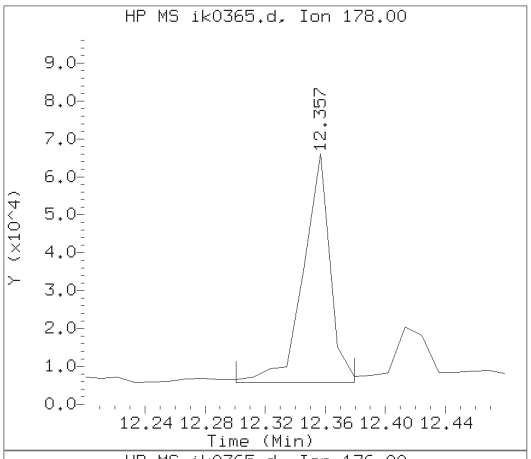
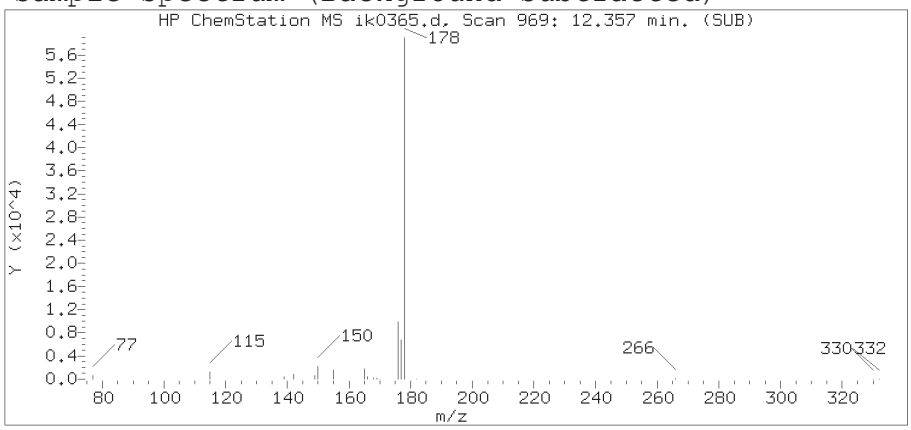
Target 3.5 esignature used 11/08/2018 16:56

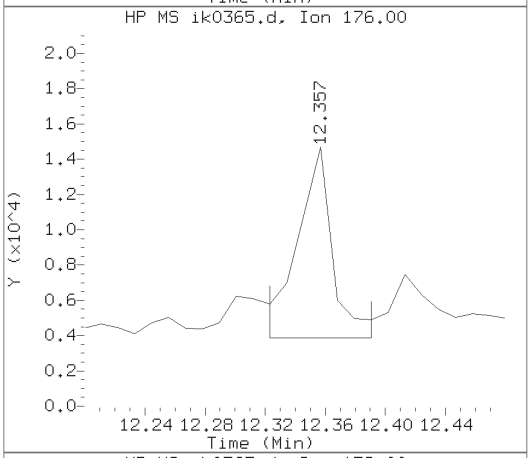
Reference Standard Spectrum for Phenanthrene



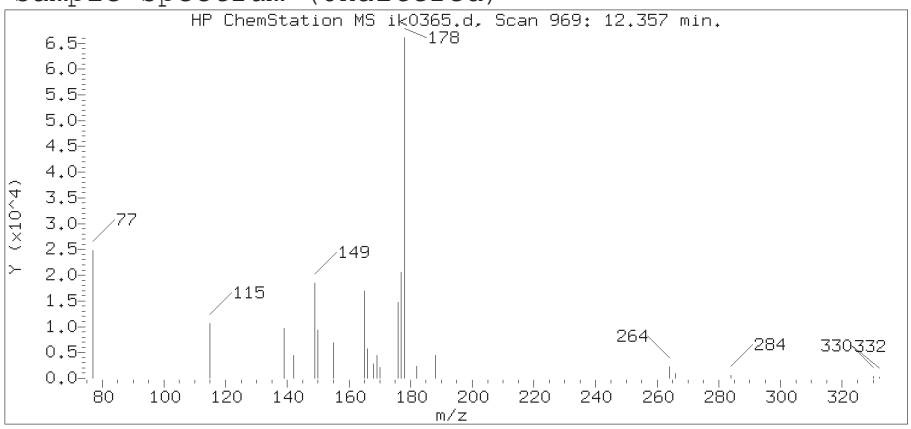


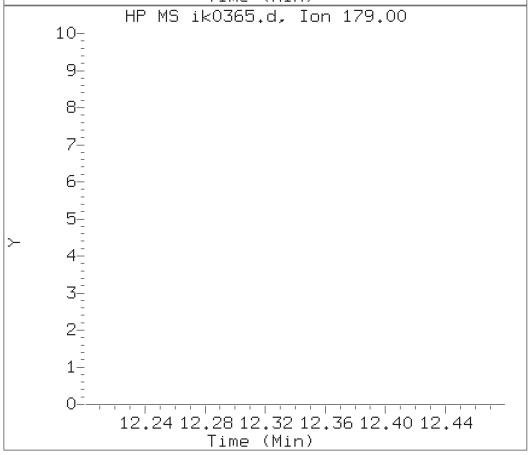
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 969
Retention Time (minutes)	: 12.357
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 74561
On-column Amount (ng/ul)	: 0.1651

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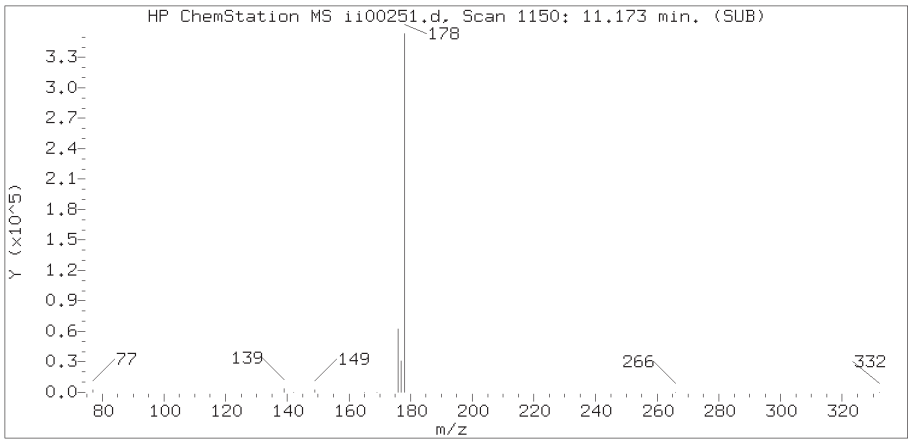
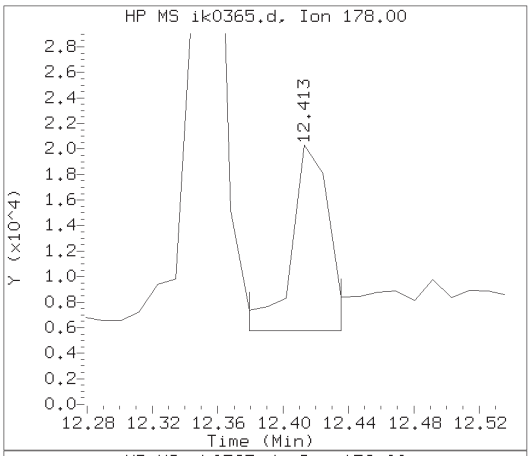
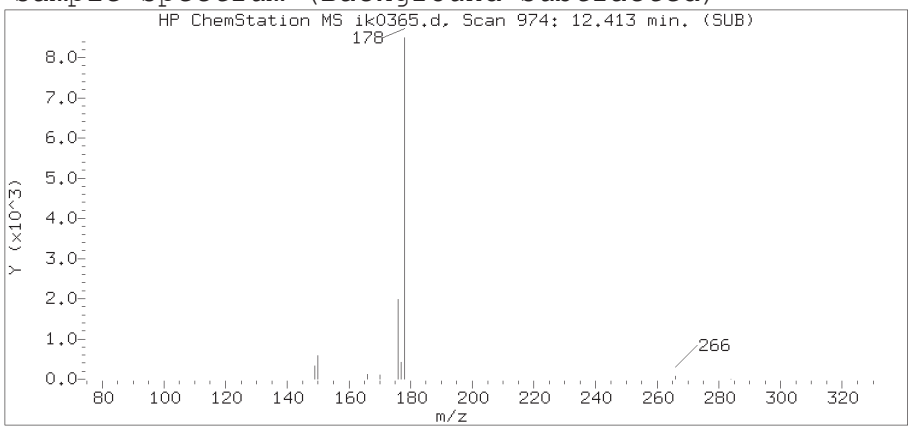
Target 3.5 esignature user ID: apb10206

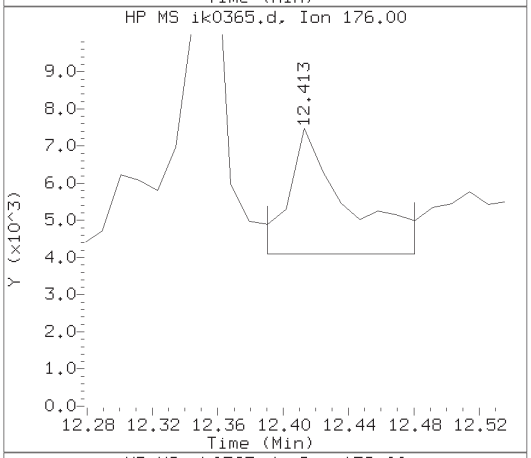
Reference Standard Spectrum for Anthracene



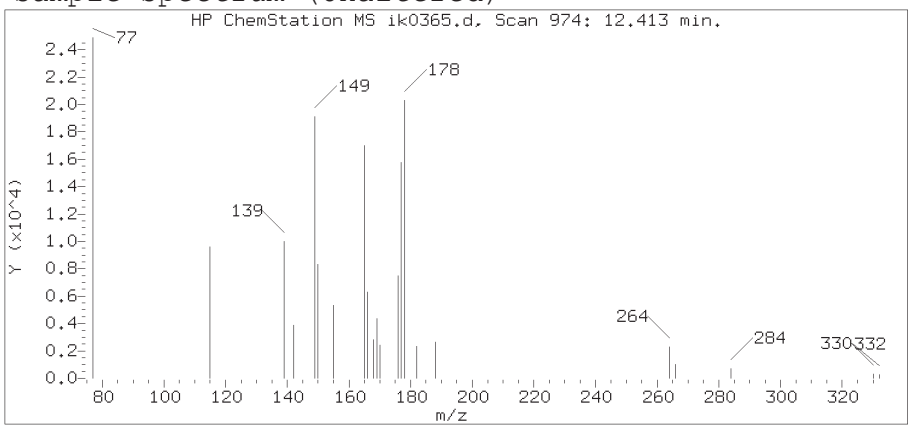


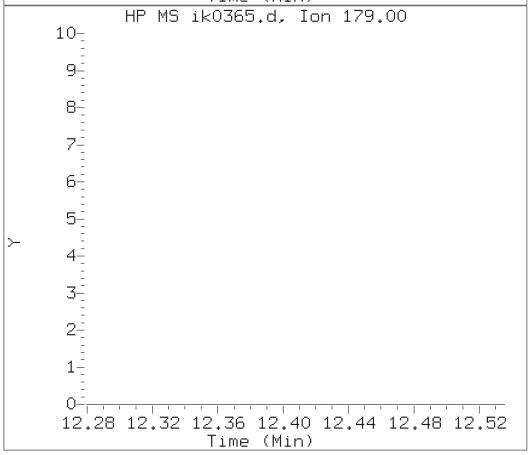
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 974
Retention Time (minutes)	: 12.413
Relative Retention Time	: 0.00092
Quant Ion	: 178.00
Area (flag)	: 22526
On-column Amount (ng/ul)	: 0.0498

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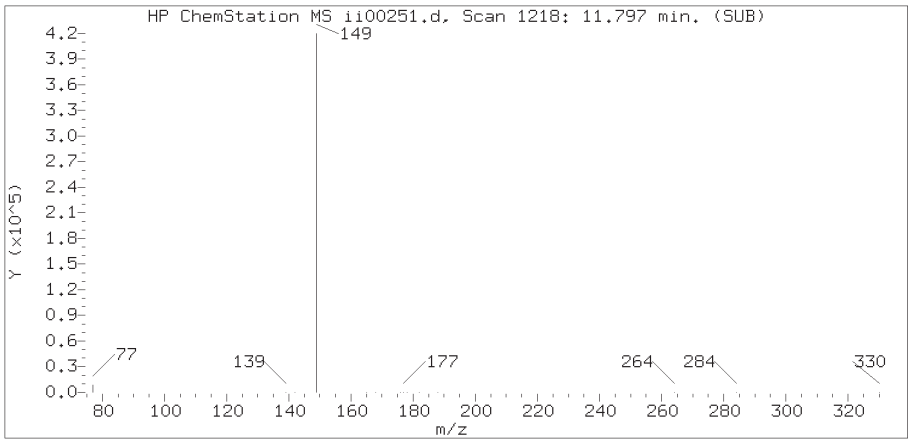
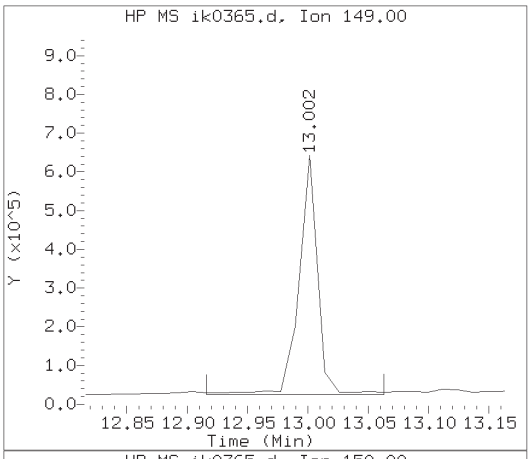
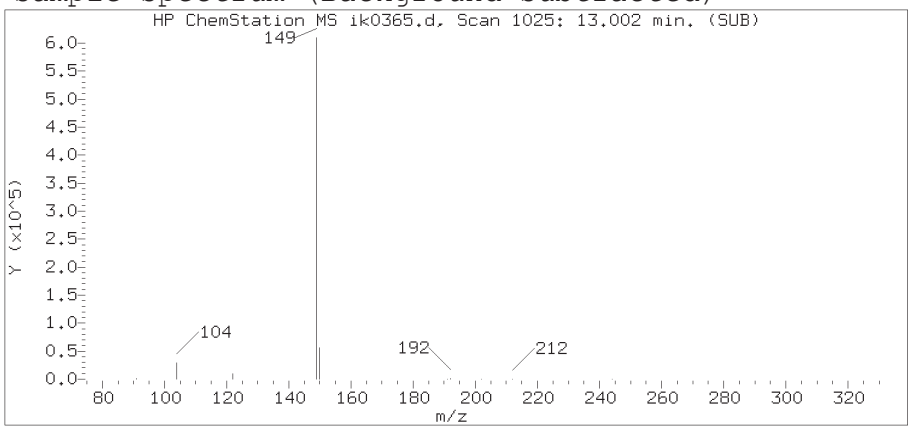
Target 3.5 esignature user ID: apb10206

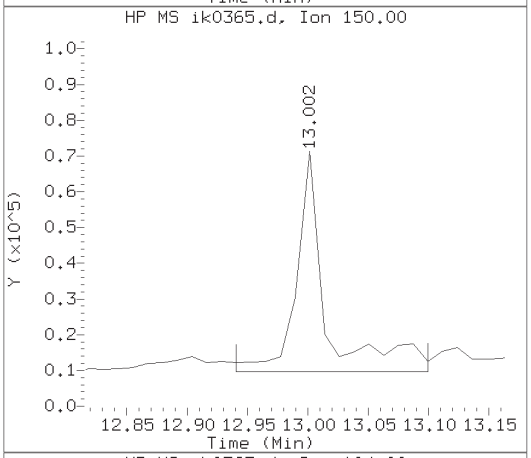
Reference Standard Spectrum for Di-n-butylphthalate



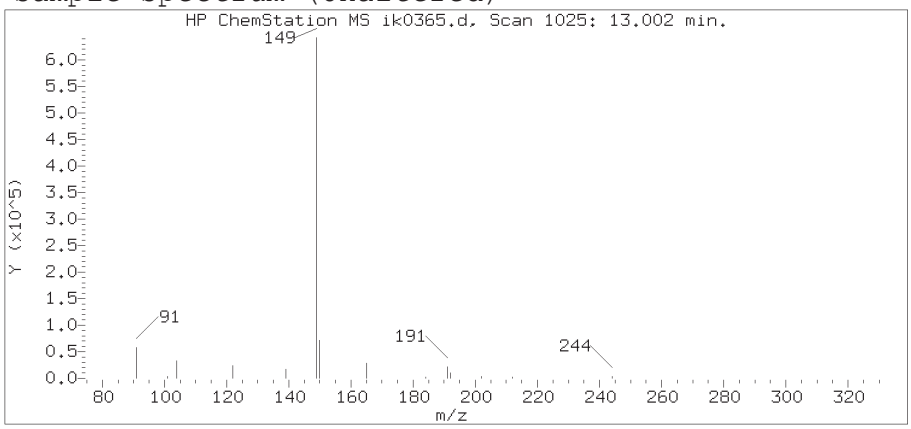


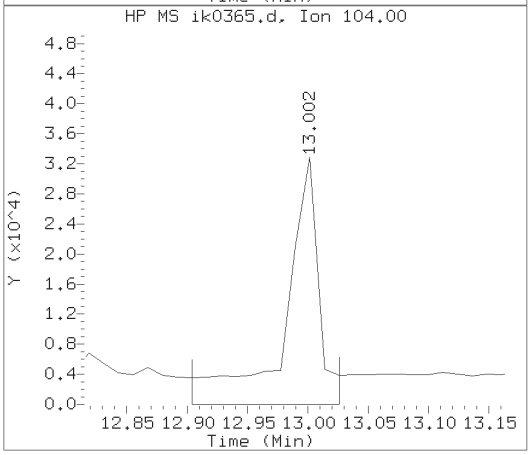
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1025
Retention Time (minutes)	: 13.002
Relative Retention Time	:-0.00003
Quant Ion	: 149.00
Area (flag)	: 665268
On-column Amount (ng/ul)	: 1.5398

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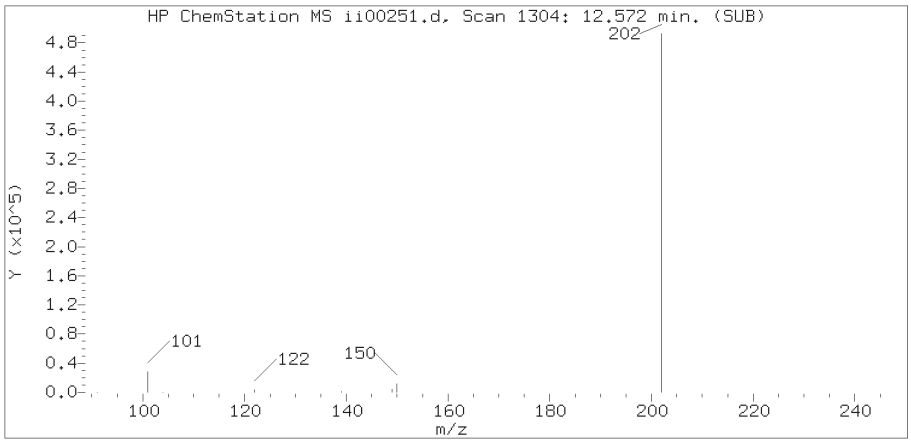
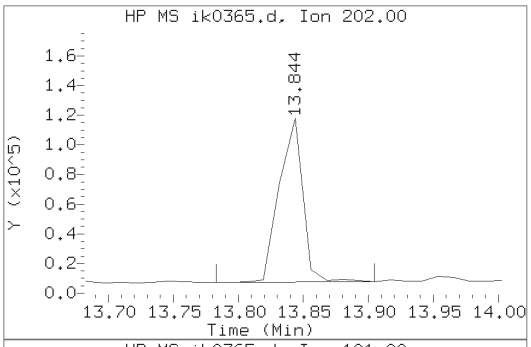
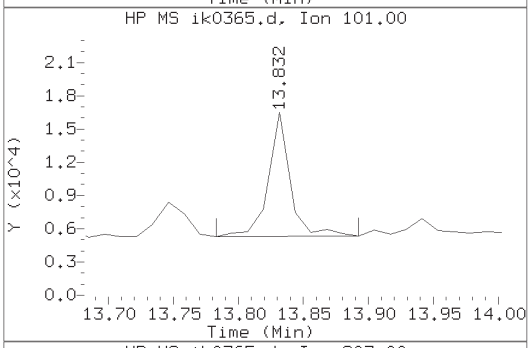
Target 3.5 esignature user ID: apb10206

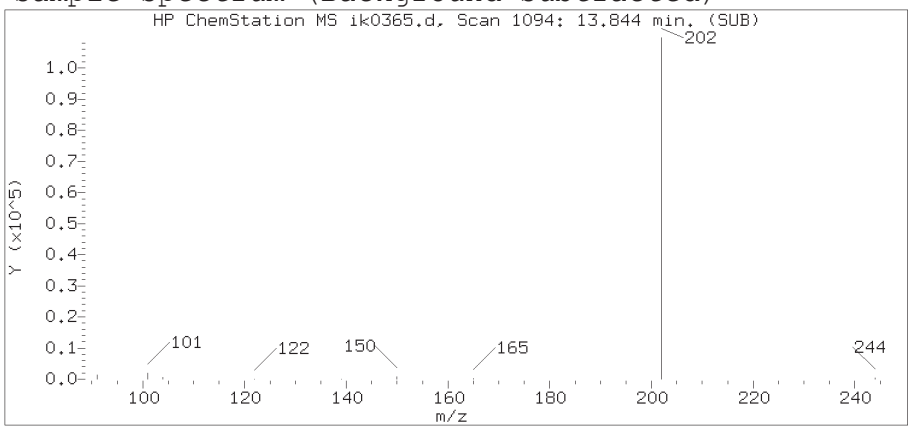
Reference Standard Spectrum for Fluoranthene

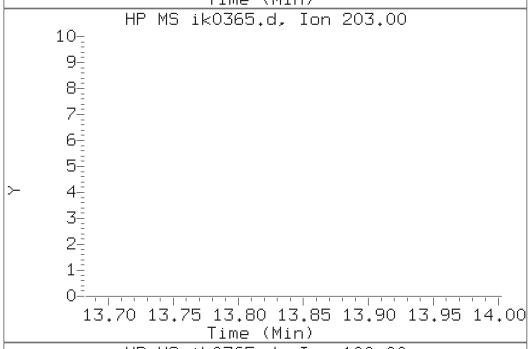




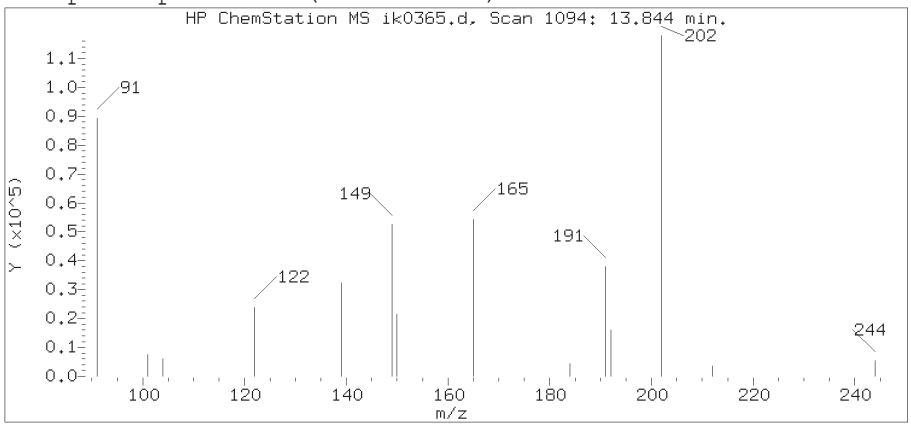


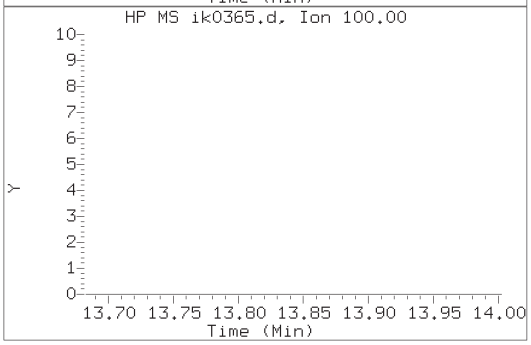
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1094
Retention Time (minutes)	: 13.844
Relative Retention Time	: 0.00004
Quant Ion	: 202.00
Area (flag)	: 139544
On-column Amount (ng/ul)	: 0.2482

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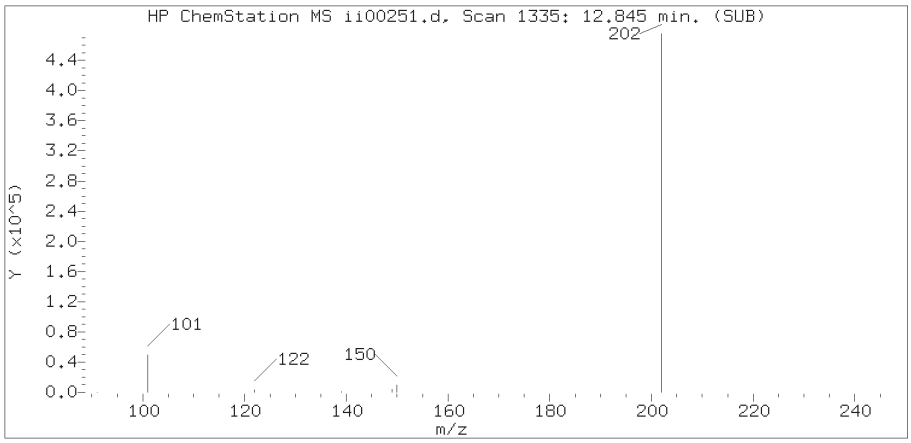
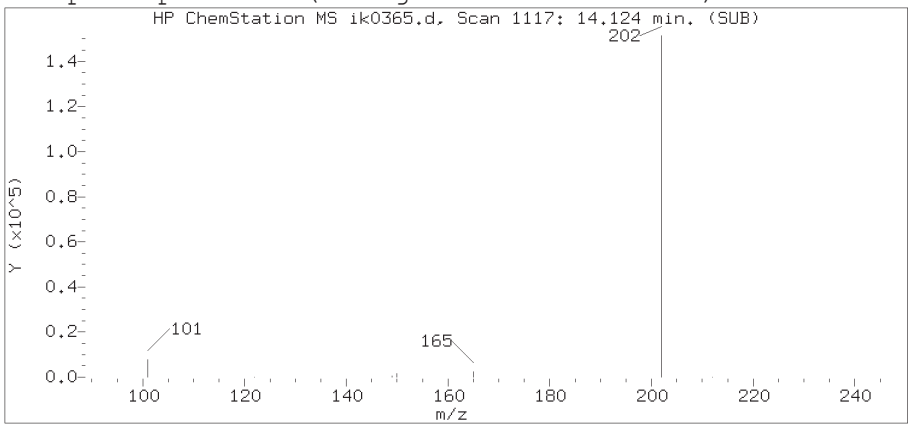
Target 3.5 esignature user ID: apb10206

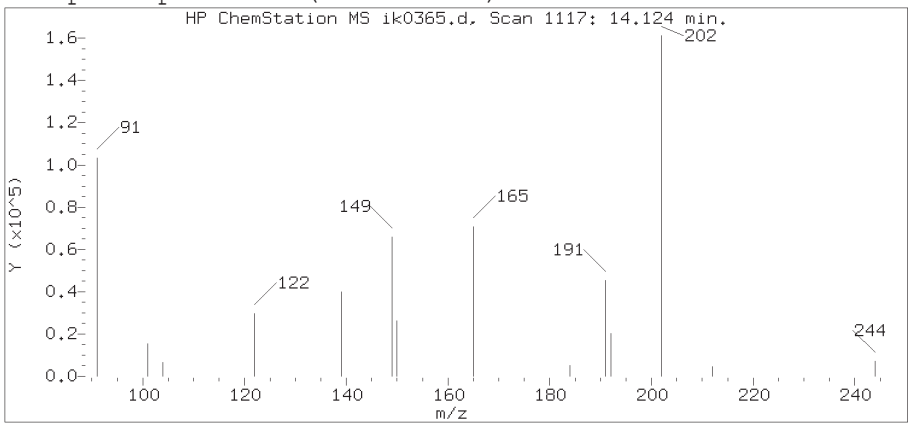
Reference Standard Spectrum for Pyrene

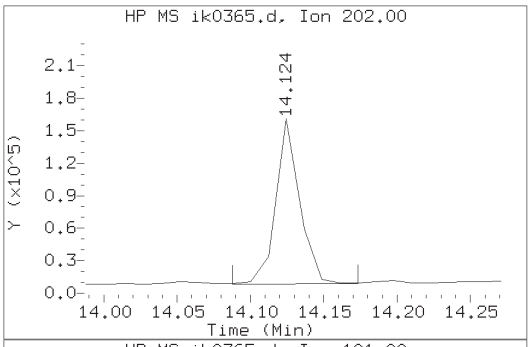


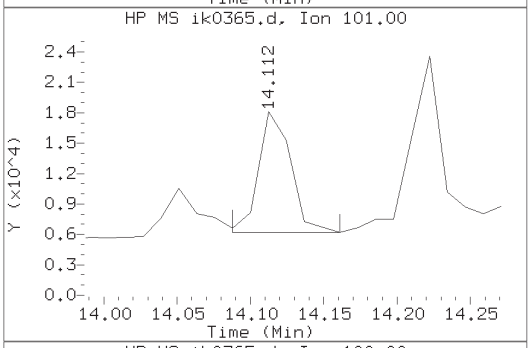
Sample Spectrum (Background Subtracted)

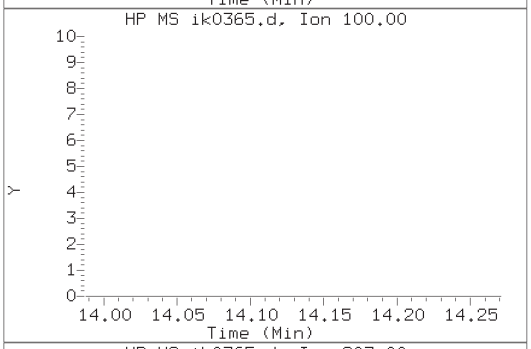


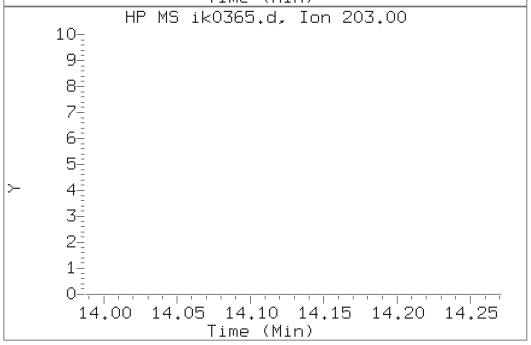
Sample Spectrum (Unaltered)











Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1117
Retention Time (minutes)	: 14.124
Relative Retention Time	: 0.00012
Quant Ion	: 202.00
Area (flag)	: 173534
On-column Amount (ng/ul)	: 0.2608

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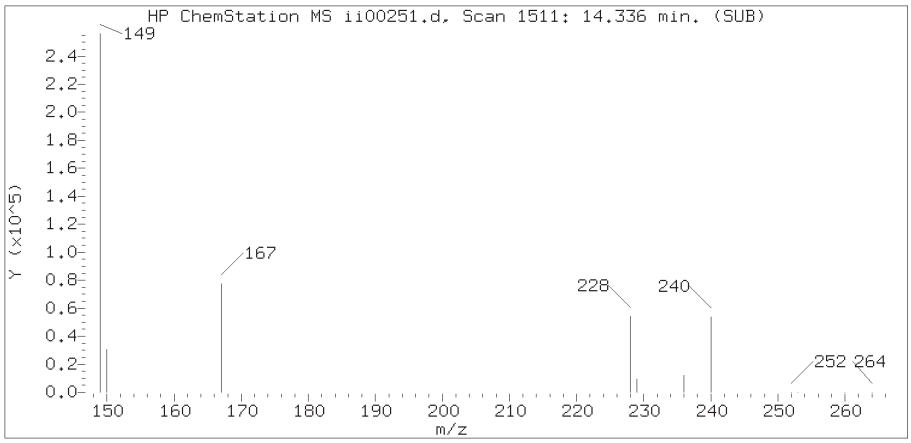
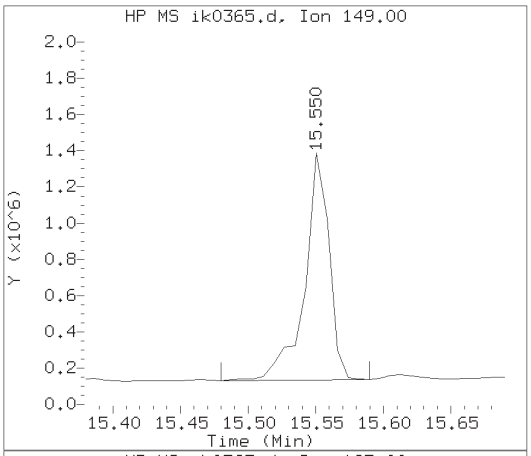
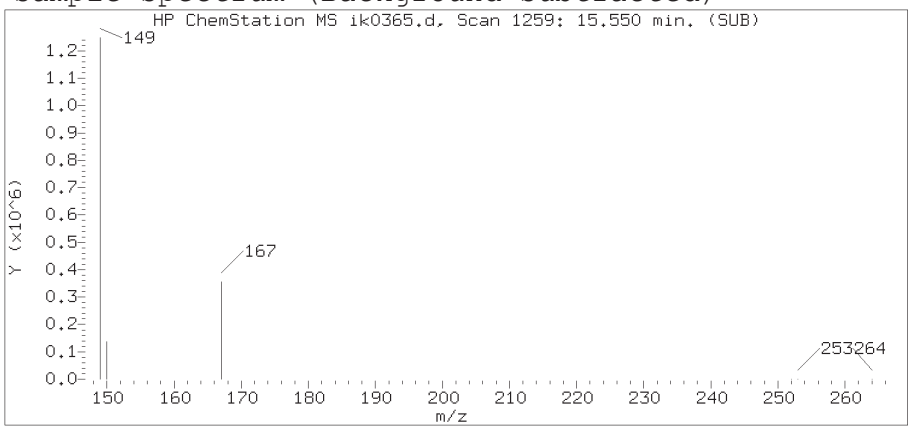
Target 3.5 esignature user ID: apb10206

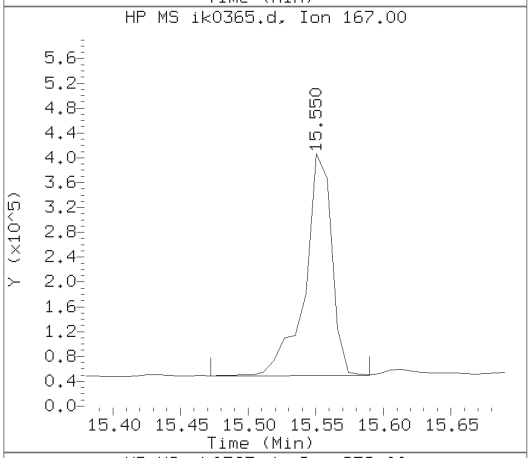
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



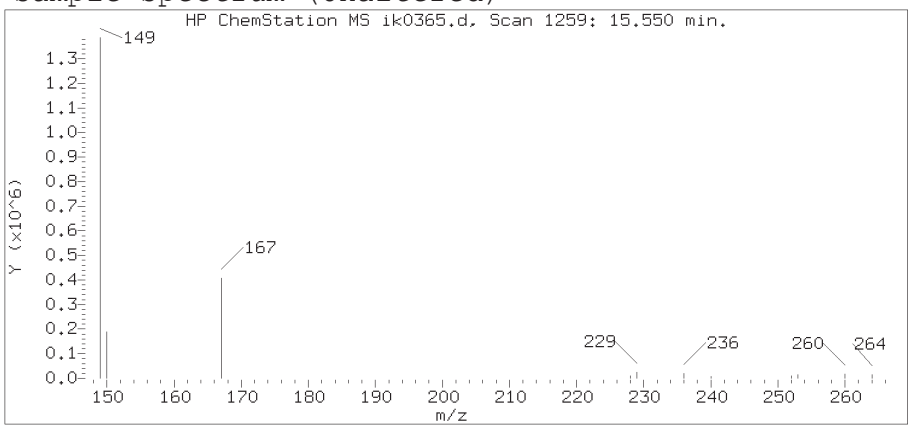


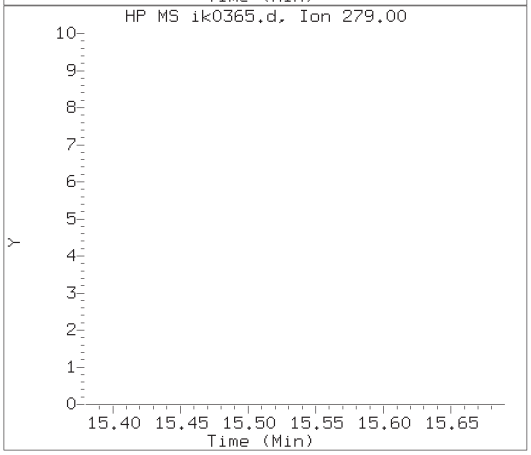
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1259
Retention Time (minutes)	: 15.550
Relative Retention Time	:-0.00000
Quant Ion	: 149.00
Area (flag)	: 1569237
On-column Amount (ng/ul)	: 4.9621

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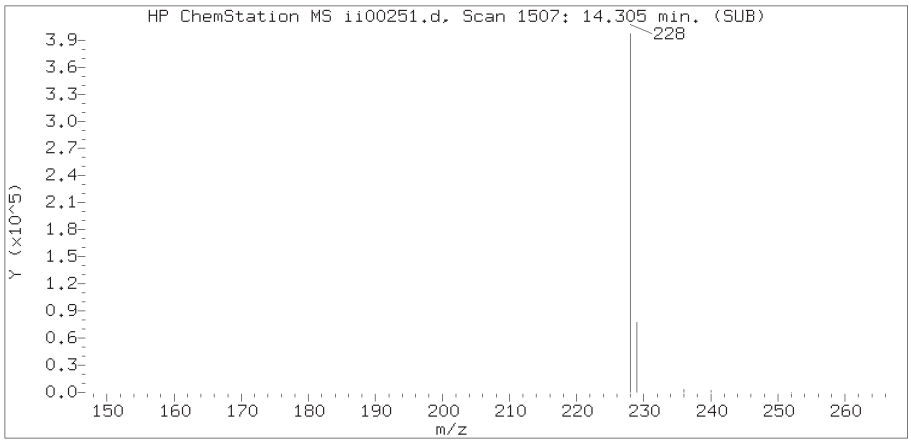
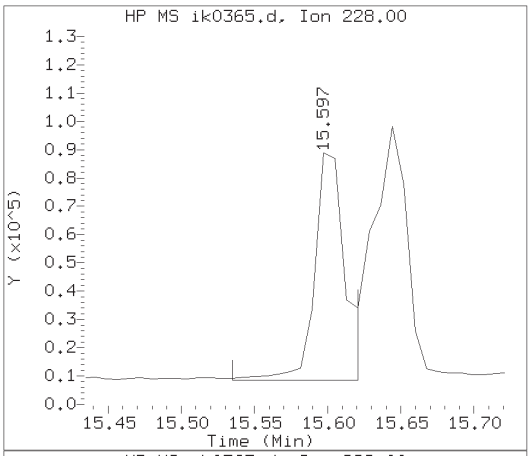
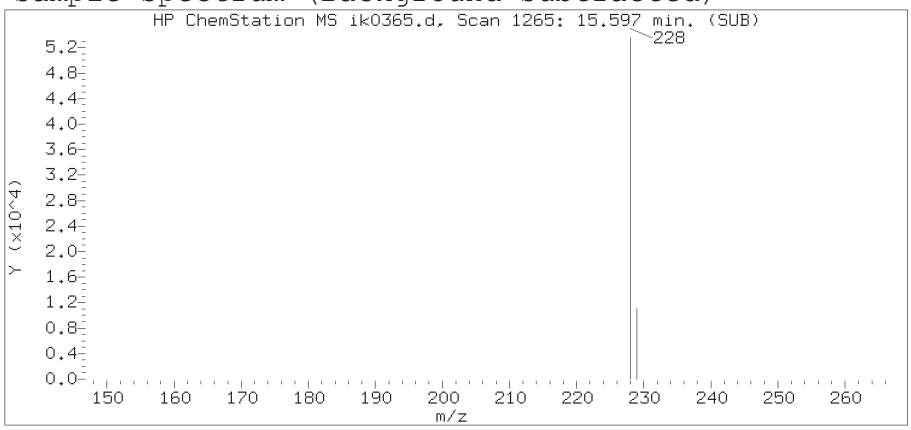
Target 3.5 esignature user ID: apb10206

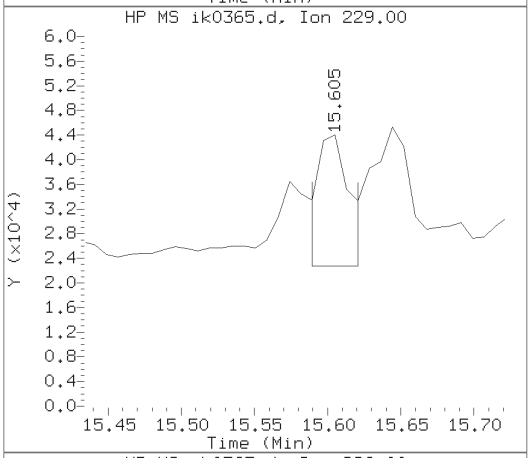
Reference Standard Spectrum for Benzo(a)anthracene



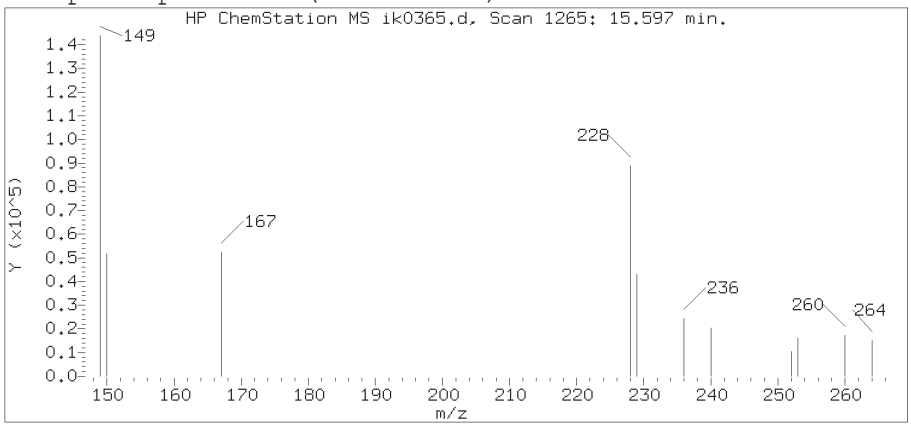


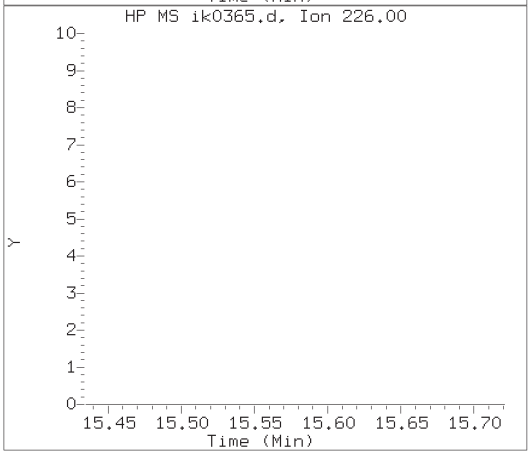
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

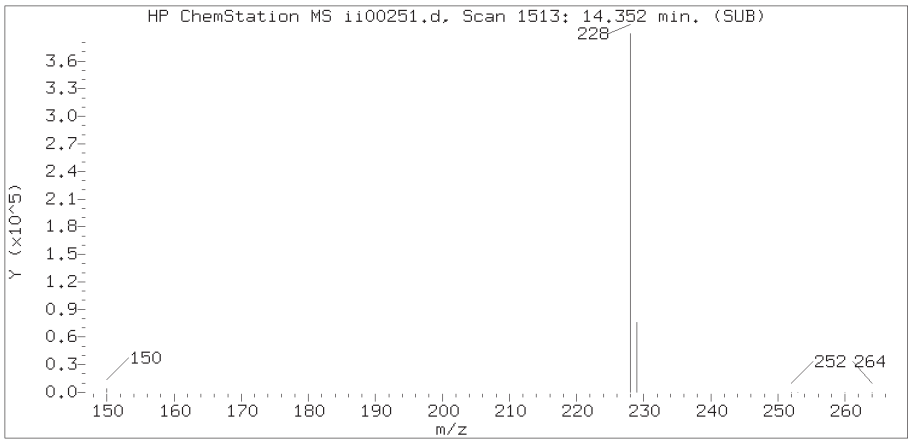
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

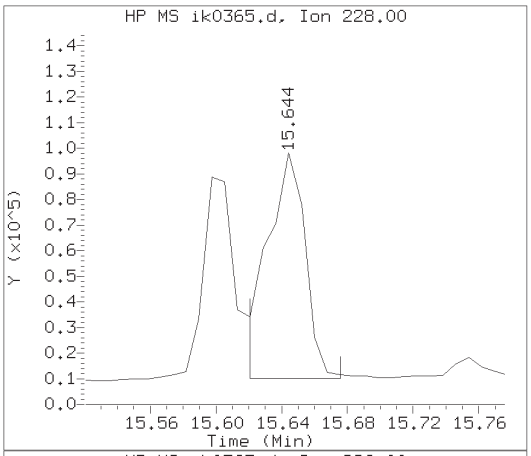
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1265
Retention Time (minutes)	: 15.597
Relative Retention Time	:-0.00000
Quant Ion	: 228.00
Area (flag)	: 112052
On-column Amount (ng/ul)	: 0.1812

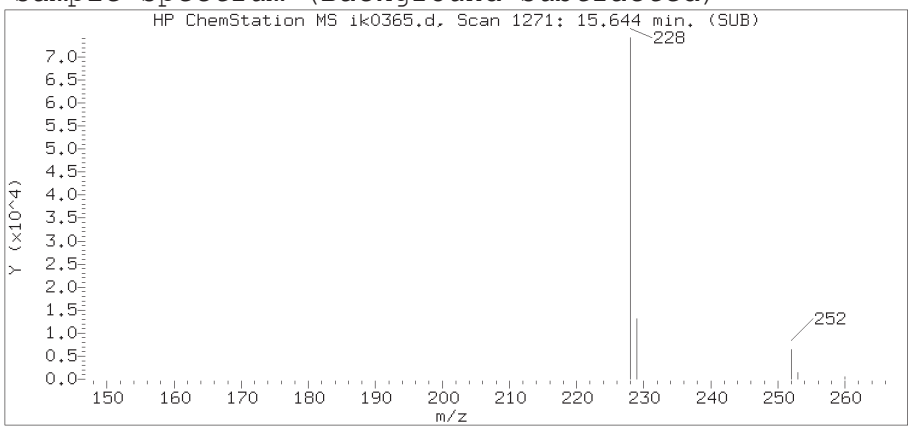
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

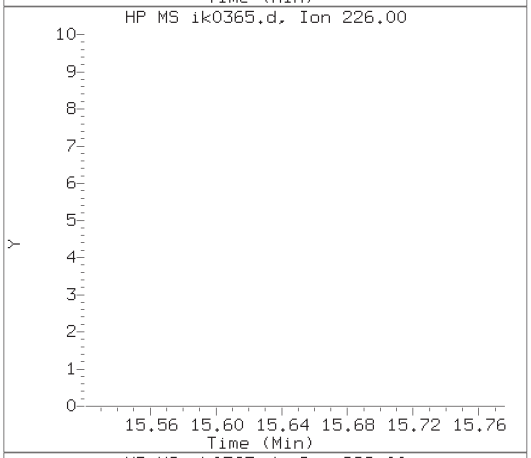
Reference Standard Spectrum for Chrysene



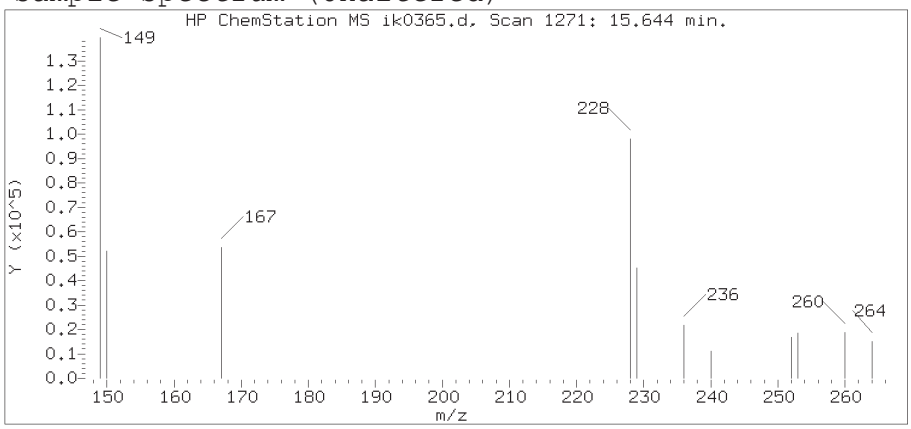


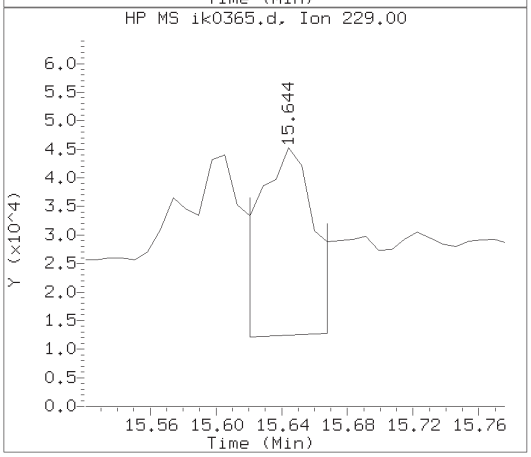
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

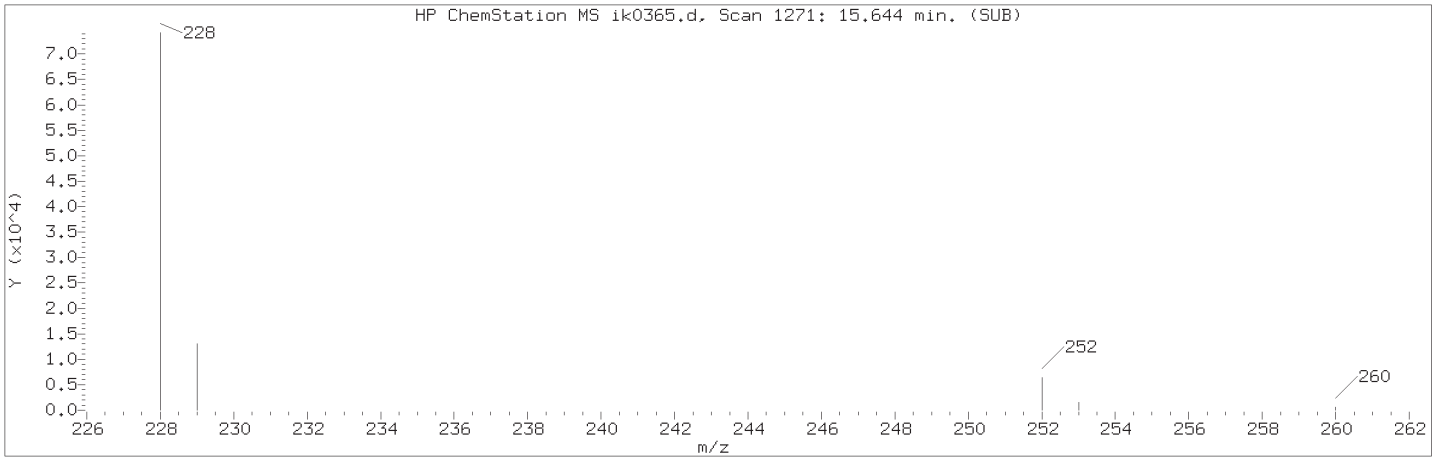
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

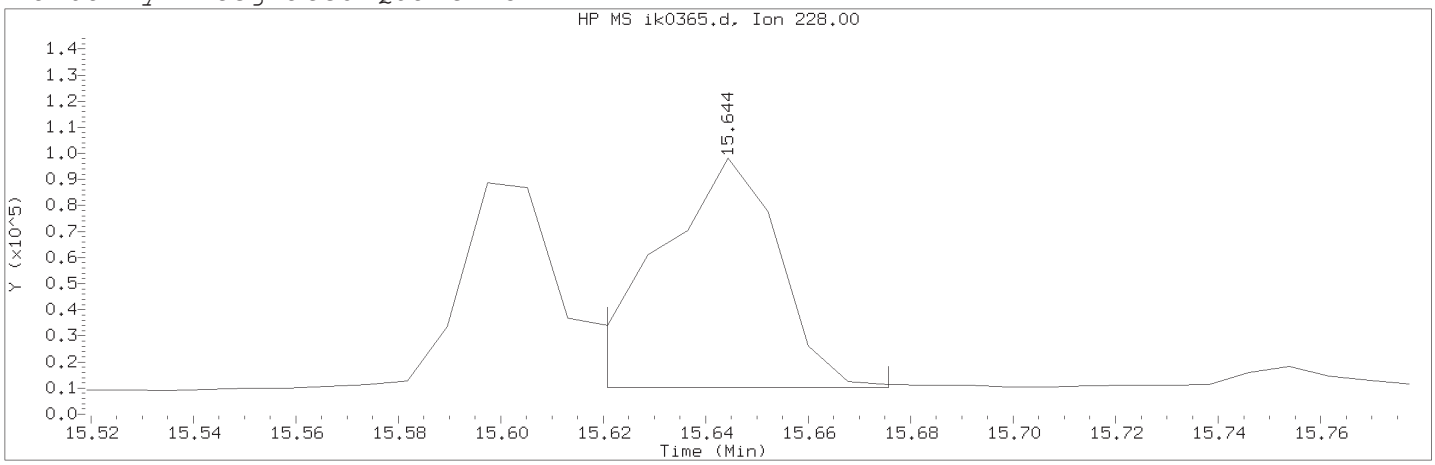
Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1271
Retention Time (minutes)	: 15.644
Relative Retention Time	: 0.00000
Quant Ion	: 228.00
Area (flag)	: 145484M
On-column Amount (ng/ul)	: 0.2462

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

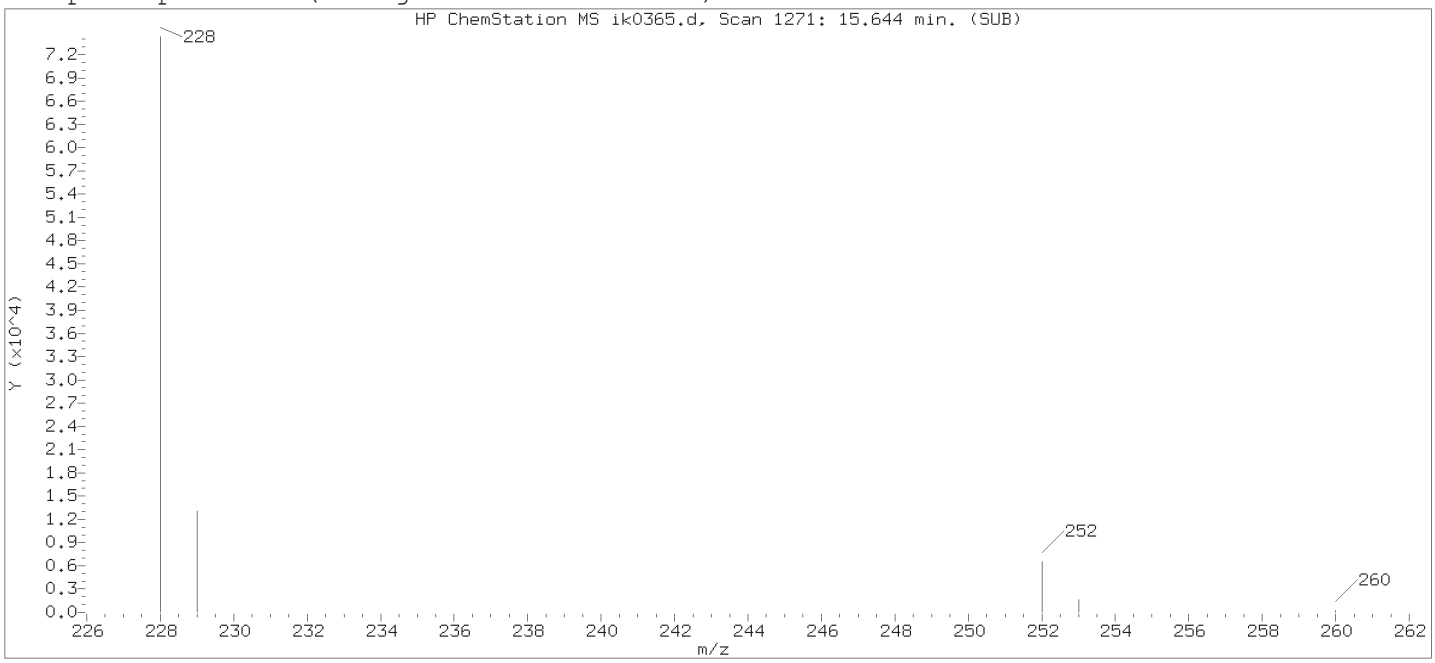
Compound Number : 44
Compound Name : Chrysene
Scan Number : 1271
Retention Time (minutes) : 15.644
Quant Ion : 228.00
Area (flag) : 145484M
On-column Amount (ng/ul) : 0.2462
Integration start scan : 1267 Integration stop scan: 1274
Y at integration start : 10216 Y at integration end: 10216

Reason for manual integration: improper integration

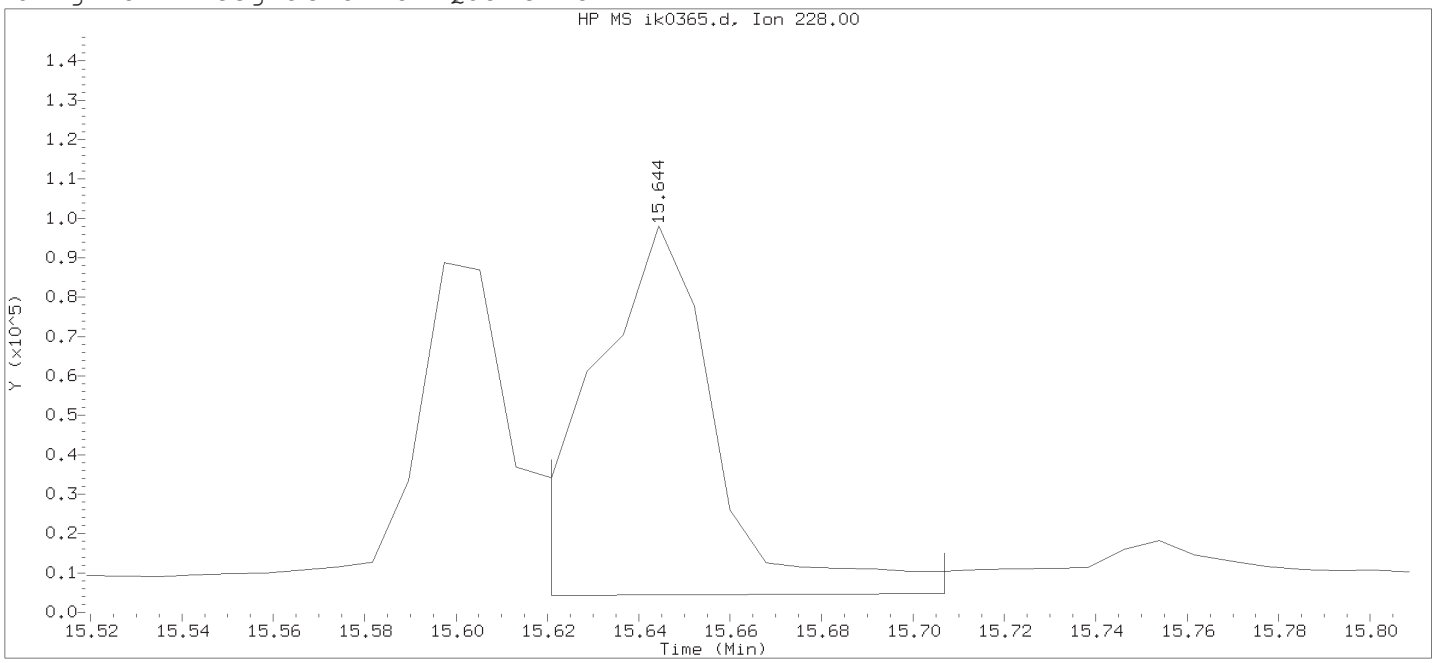
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

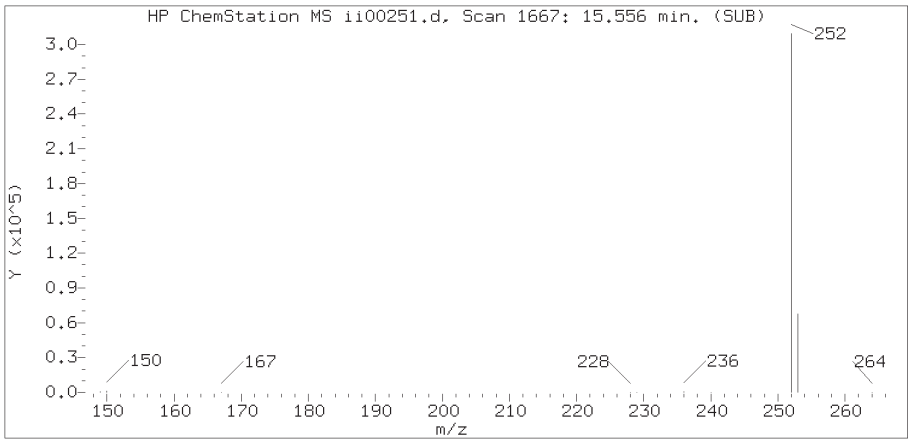
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

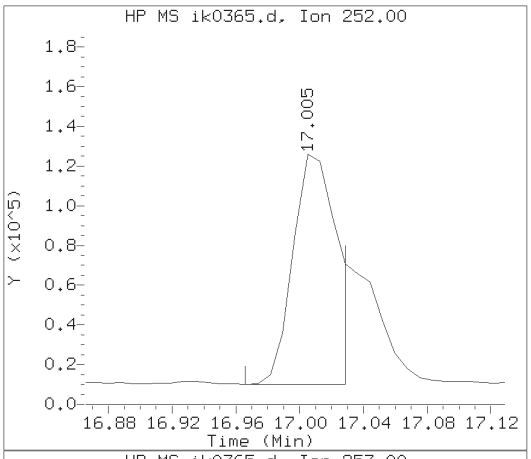
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 44		
Compound Name	: Chrysene		
Scan Number	: 1271		
Retention Time (minutes)	: 15.644		
Quant Ion	: 228.00		
Area	: 175133		
On-column Amount (ng/ul)	: 0.2964		
Integration start scan	: 1267	Integration stop scan:	1278
Y at integration start	: 4270	Y at integration end:	4670

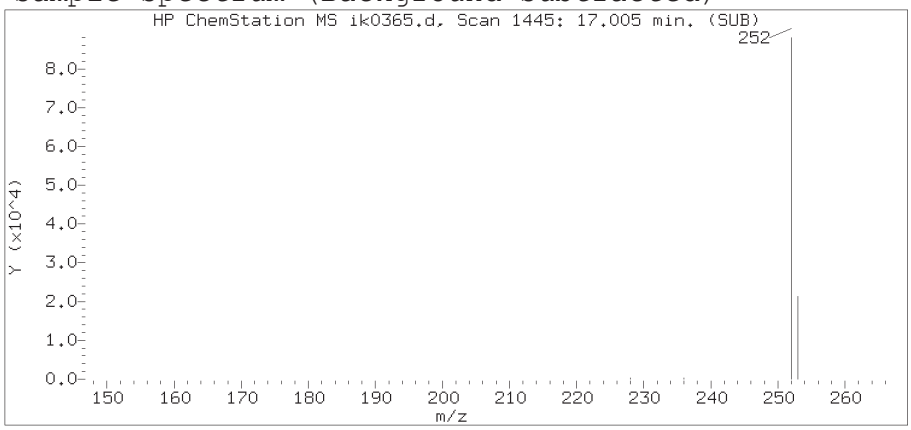
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature used [illegible]

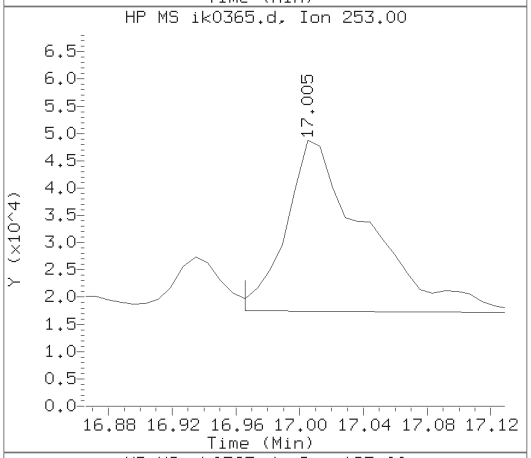
Reference Standard Spectrum for Benzo(b)fluoranthene



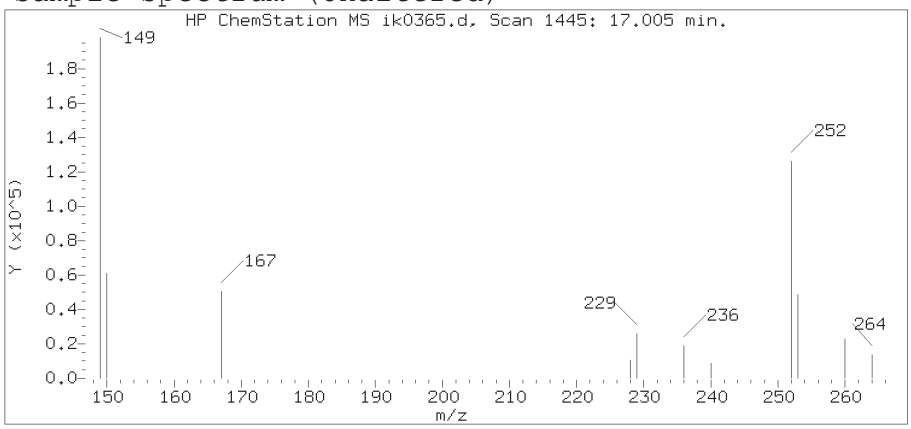


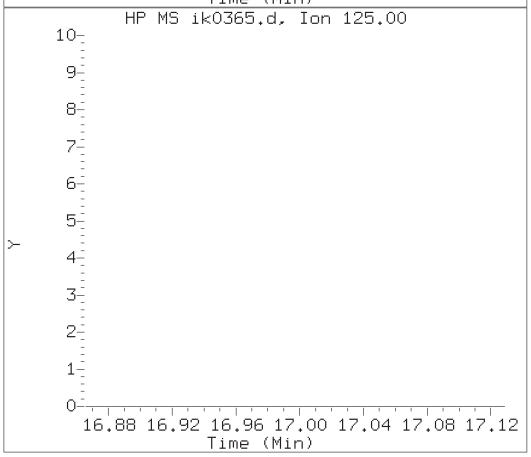
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

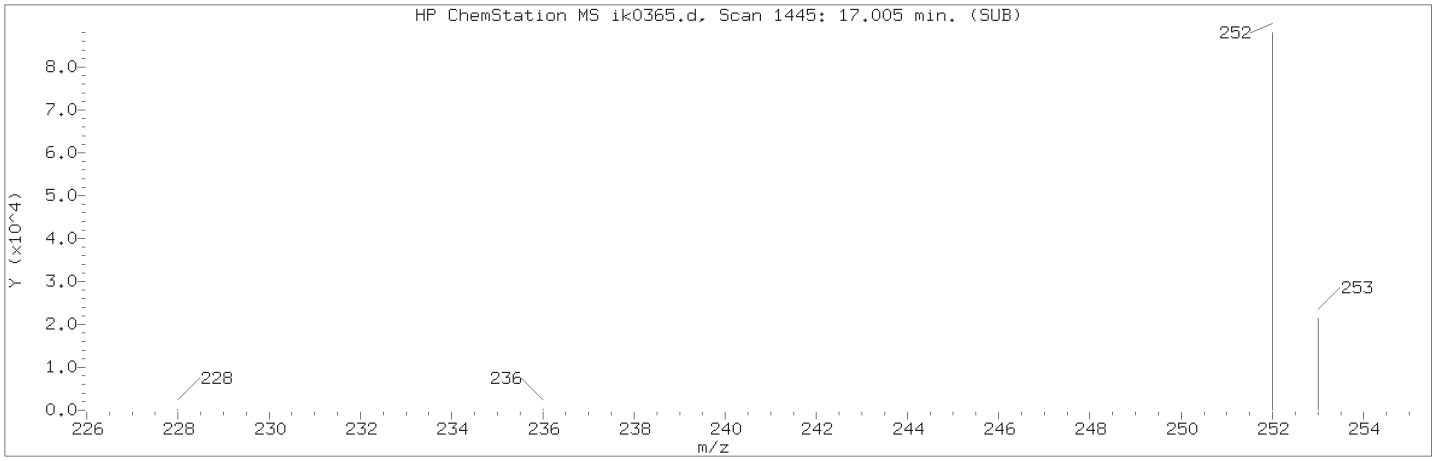
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

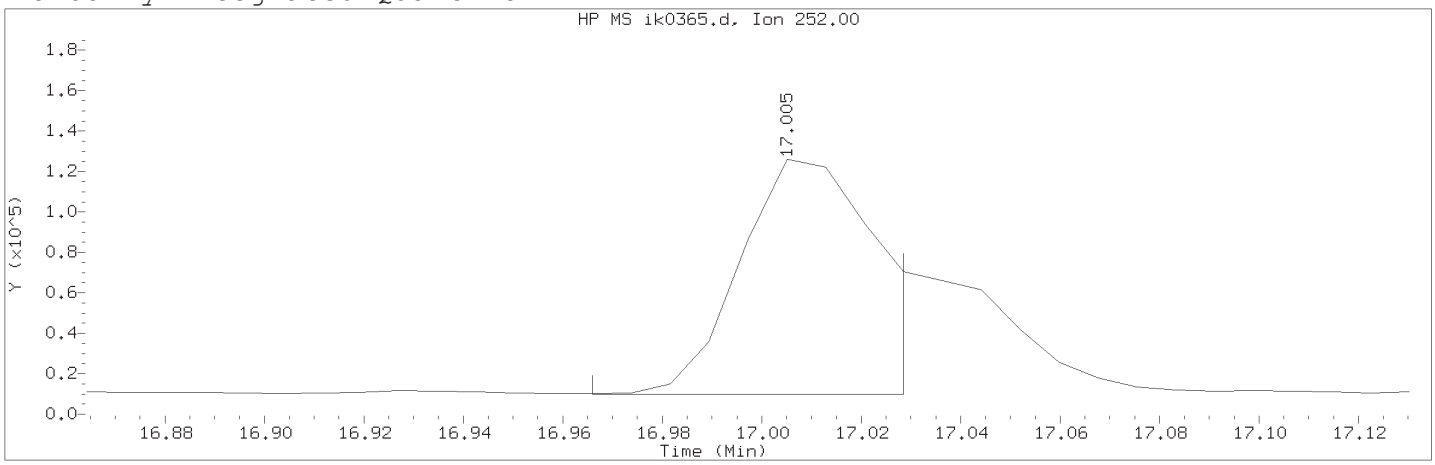
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1445
Retention Time (minutes)	: 17.005
Relative Retention Time	: 0.00036
Quant Ion	: 252.00
Area (flag)	: 225646M
On-column Amount (ng/ul)	: 0.6224

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

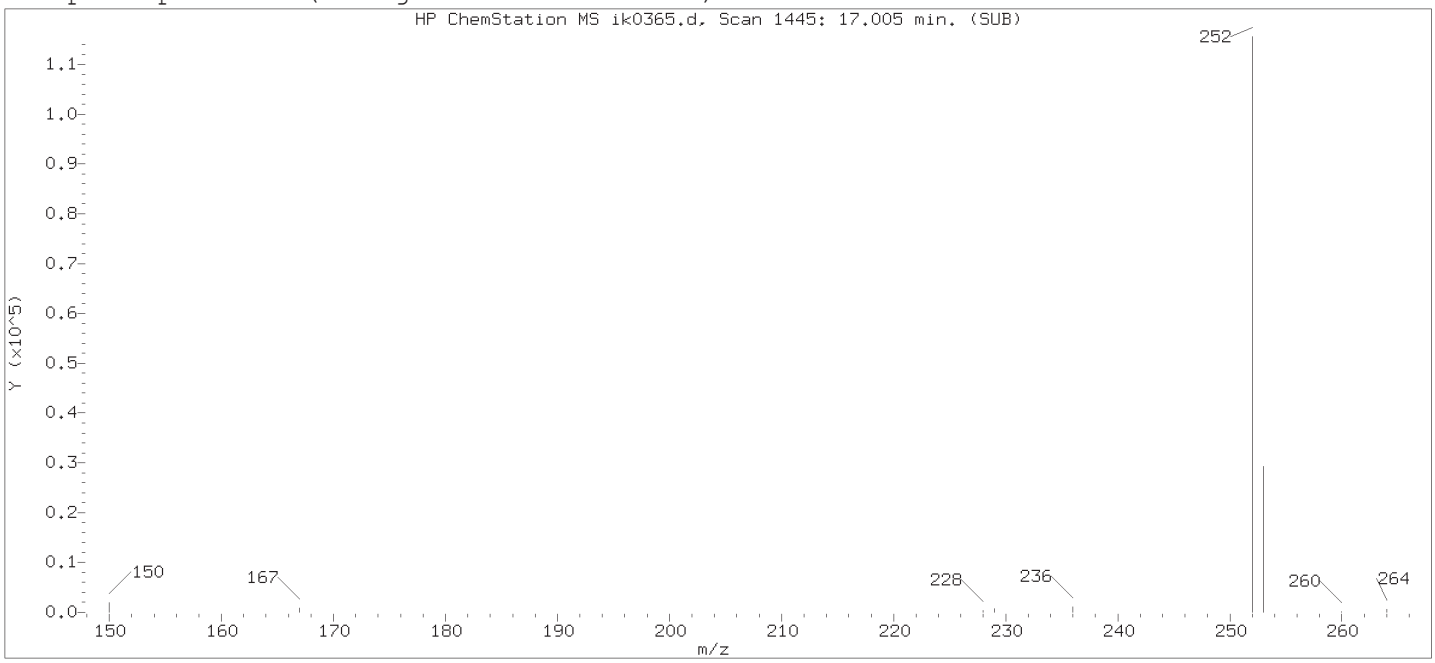
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1445
Retention Time (minutes) : 17.005
Quant Ion : 252.00
Area (flag) : 225646M
On-column Amount (ng/ul) : 0.6224
Integration start scan : 1439 Integration stop scan: 1447
Y at integration start : 9986 Y at integration end: 9978

Reason for manual integration: improper integration

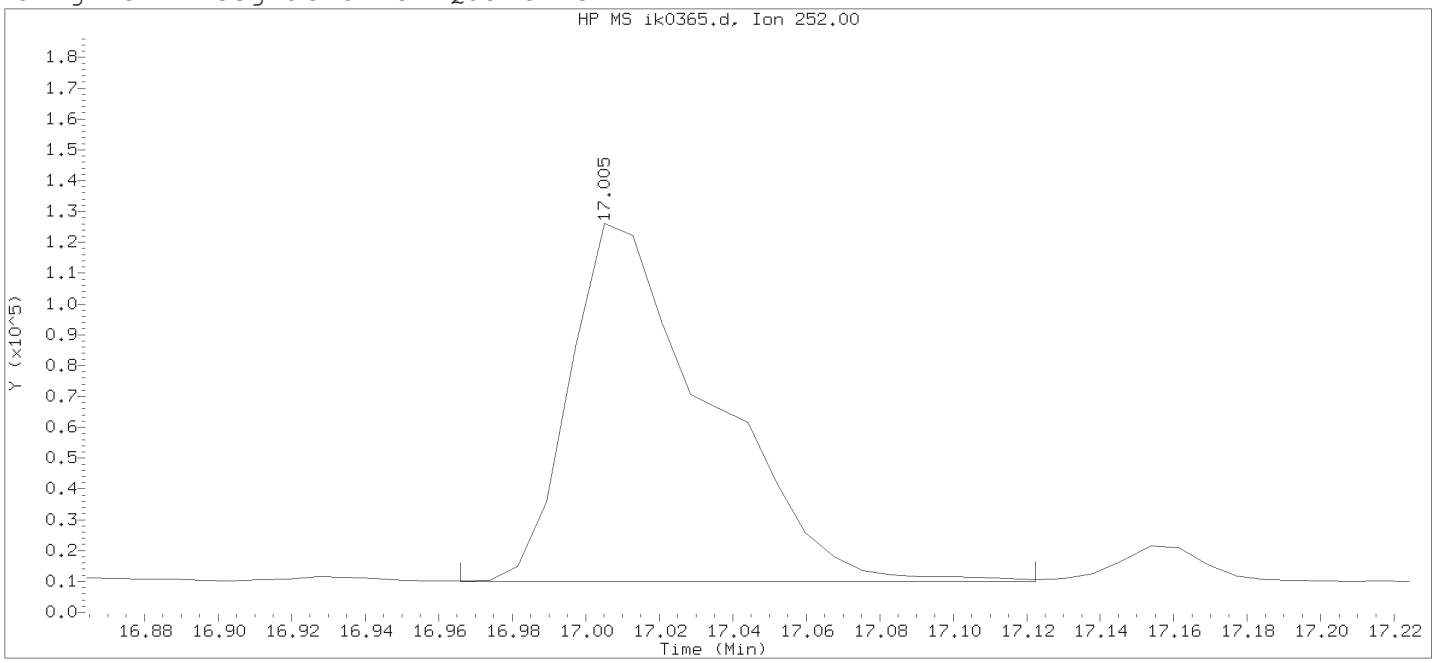
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

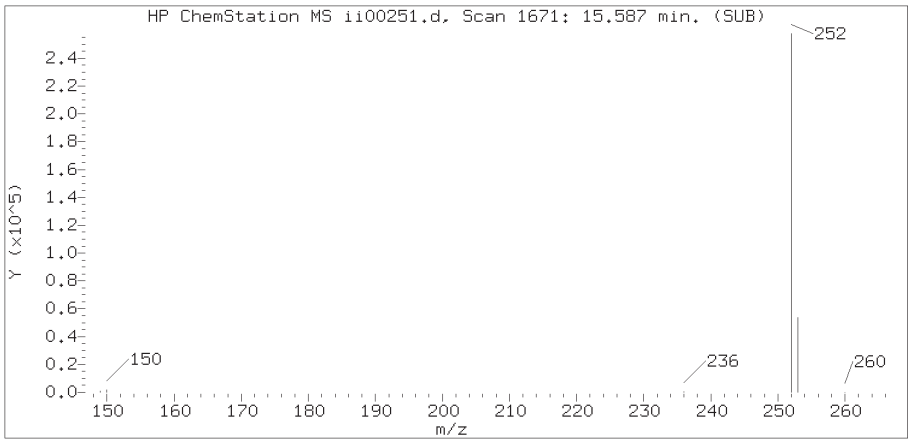
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

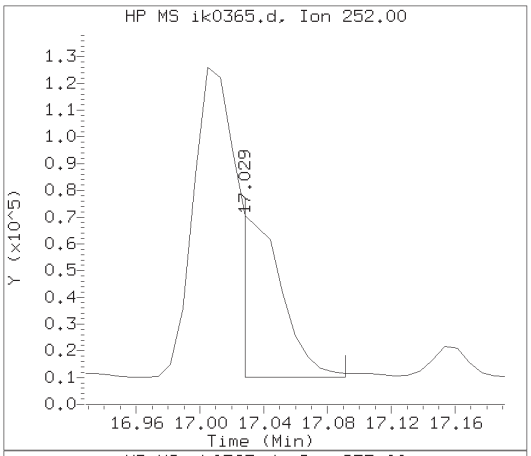
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1445		
Retention Time (minutes)	: 17.005		
Quant Ion	: 252.00		
Area	: 307547		
On-column Amount (ng/ul)	: 0.8483		
Integration start scan	: 1439	Integration stop scan:	1459
Y at integration start	: 9986	Y at integration end:	9963

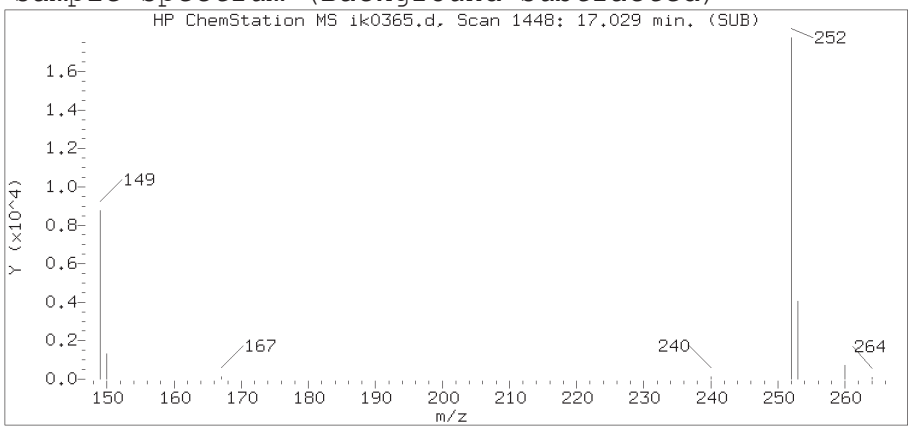
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature used 11/08/2018 17:55

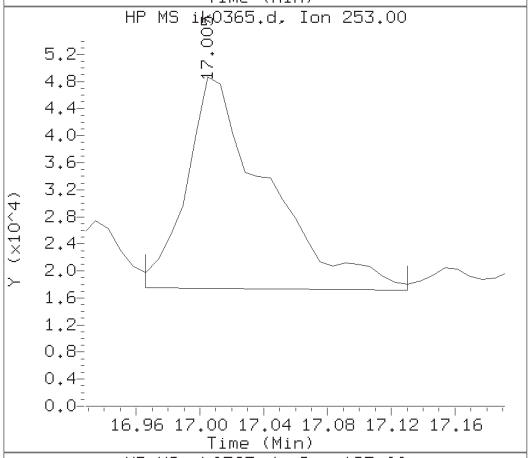
Reference Standard Spectrum for Benzo(k)fluoranthene



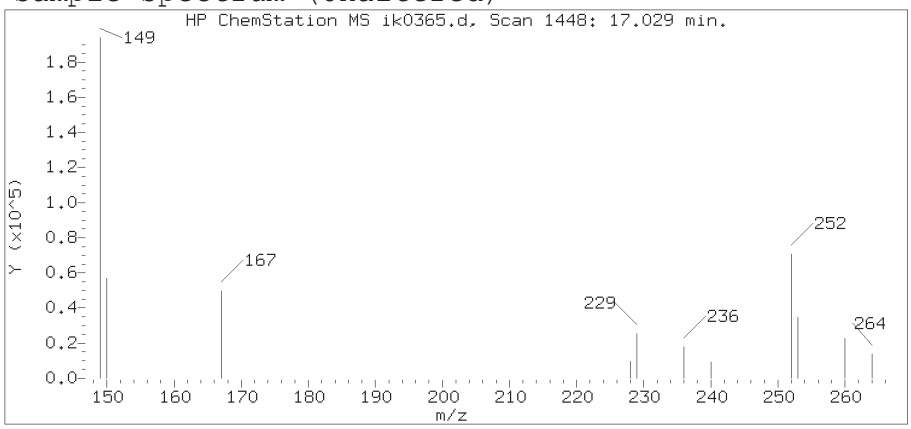


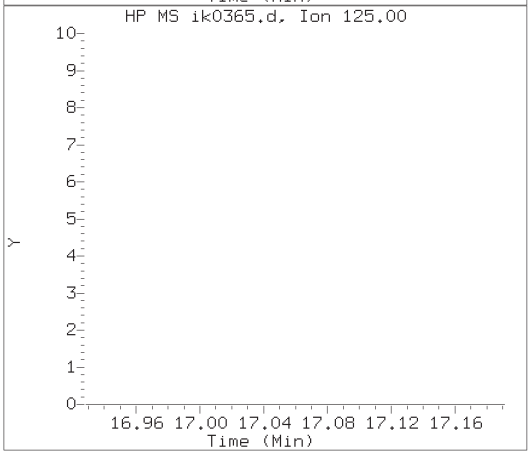
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

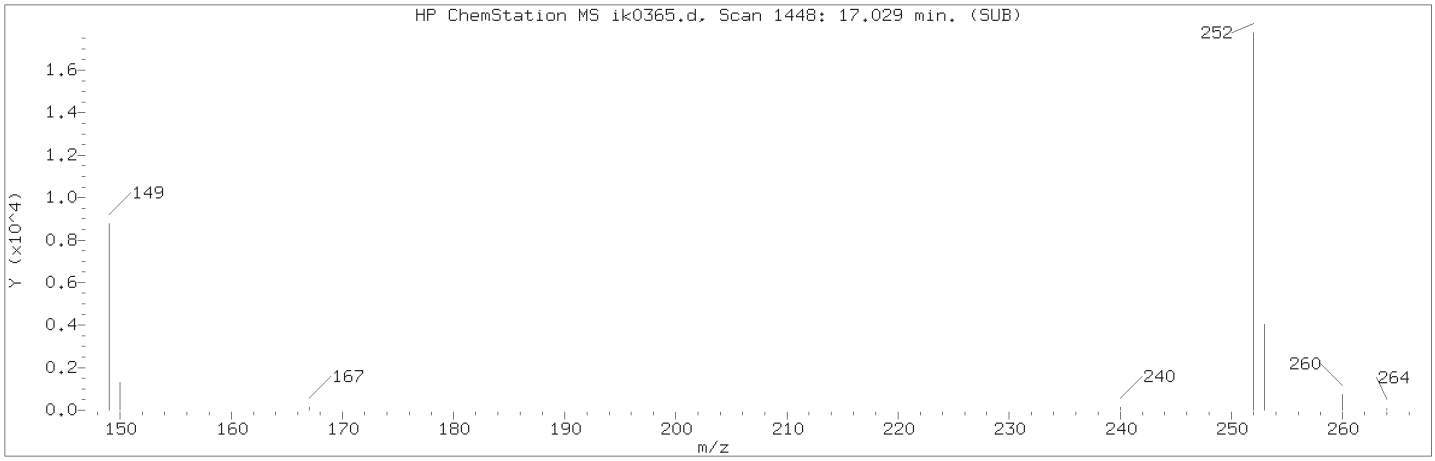
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

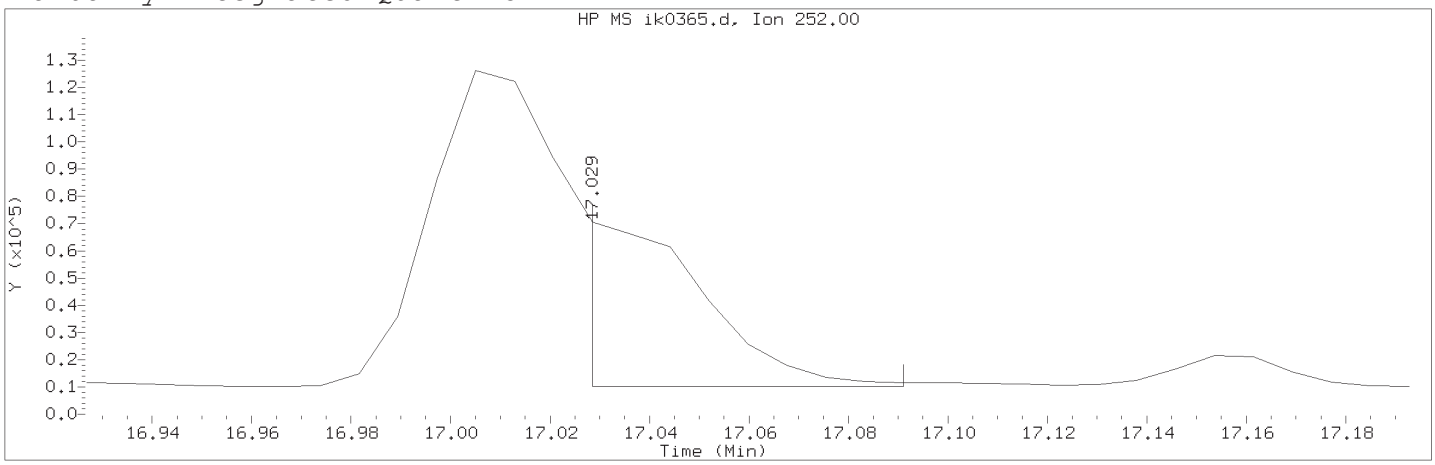
Compound Number	: 47
Compound Name	: Benzo(k)fluoranthene
Scan Number	: 1448
Retention Time (minutes)	: 17.029
Relative Retention Time	: 0.00125
Quant Ion	: 252.00
Area (flag)	: 107596M
On-column Amount (ng/ul)	: 0.3166

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

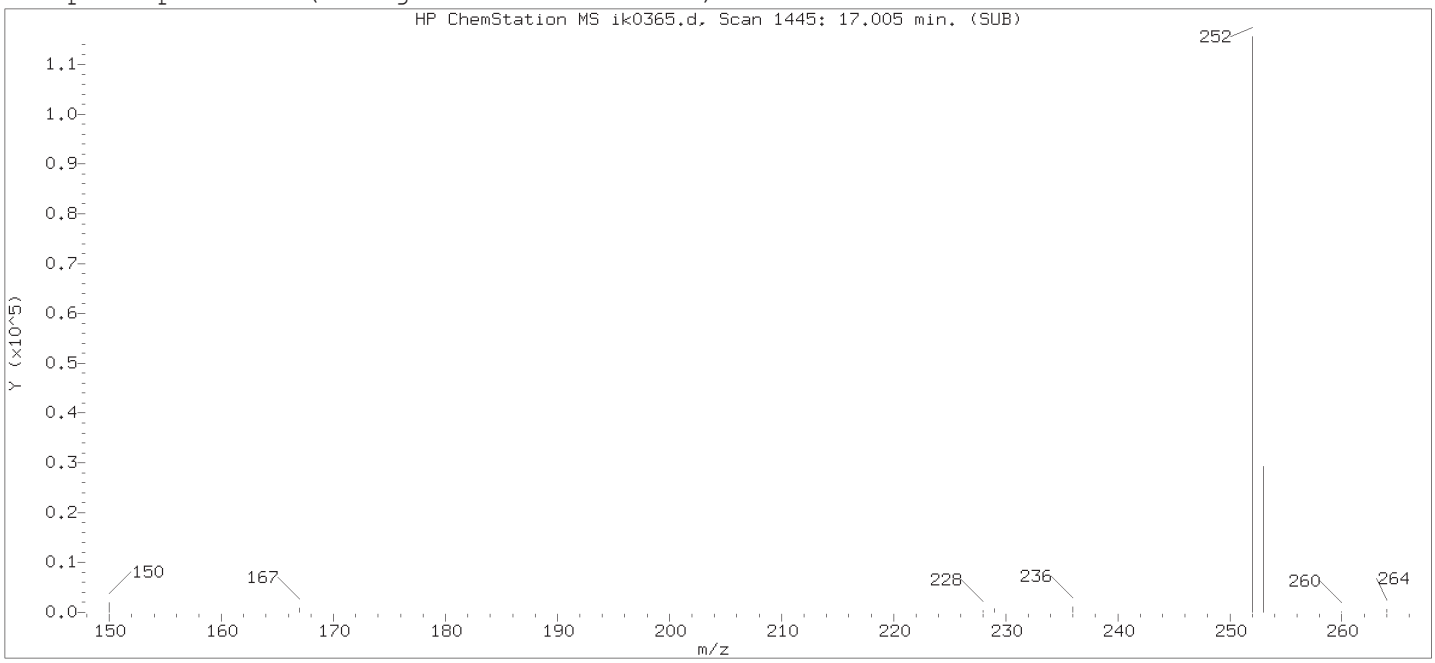
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1448
Retention Time (minutes) : 17.029
Quant Ion : 252.00
Area (flag) : 107596M
On-column Amount (ng/ul) : 0.3166
Integration start scan : 1447 Integration stop scan: 1455
Y at integration start : 10142 Y at integration end: 10142

Reason for manual integration: improper integration

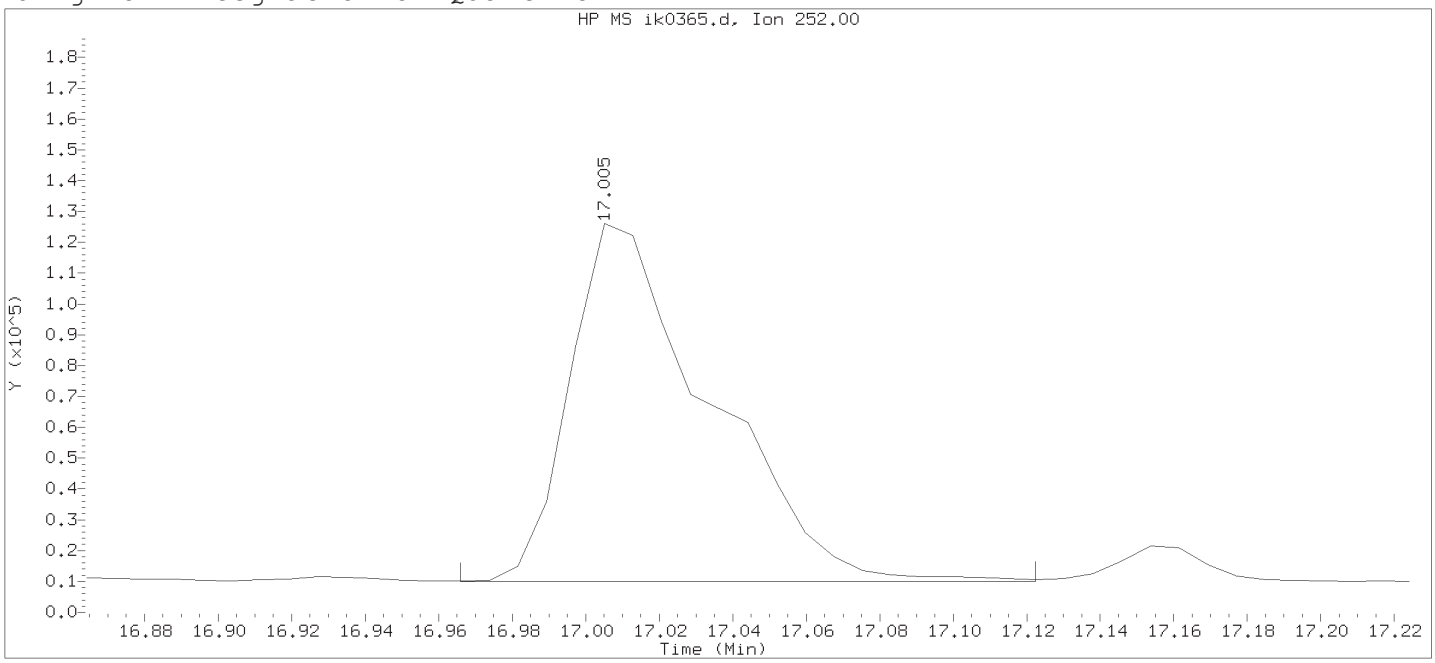
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

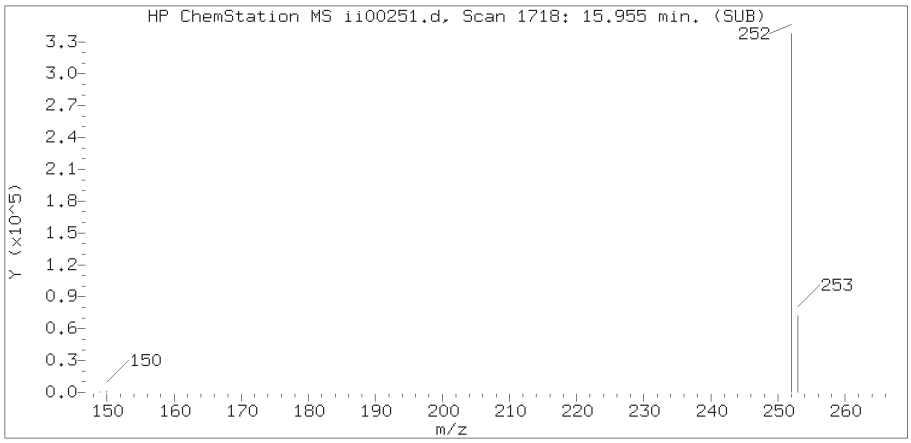
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

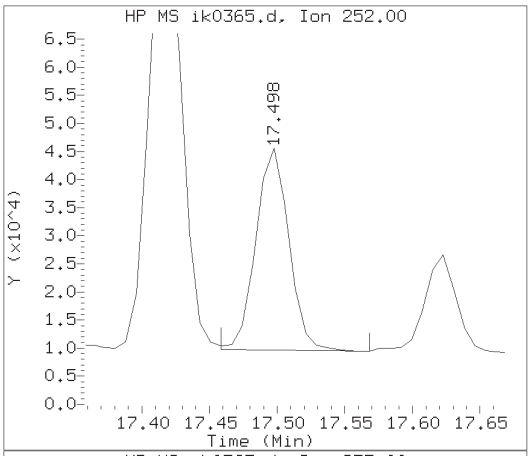
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1445		
Retention Time (minutes)	: 17.005		
Quant Ion	: 252.00		
Area	: 307547		
On-column Amount (ng/ul)	: 0.9050		
Integration start scan	: 1439	Integration stop scan:	1459
Y at integration start	: 9986	Y at integration end:	9963

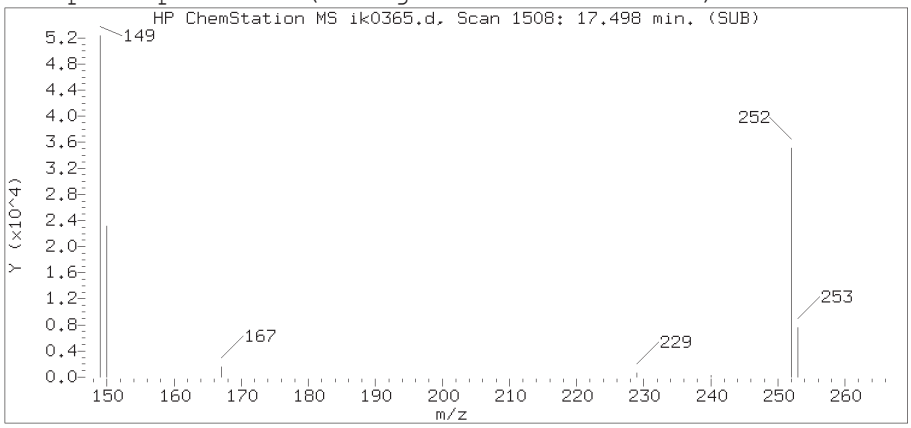
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature used.

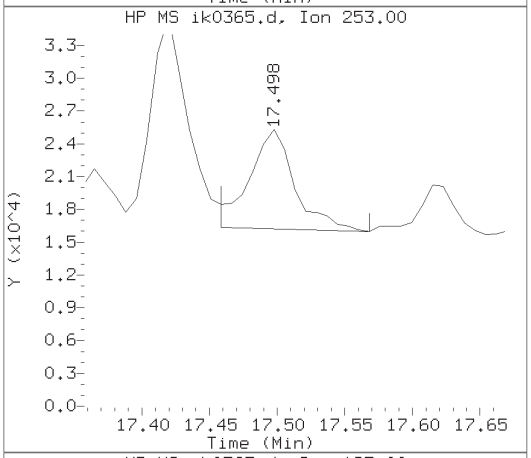
Reference Standard Spectrum for Benzo(a)pyrene



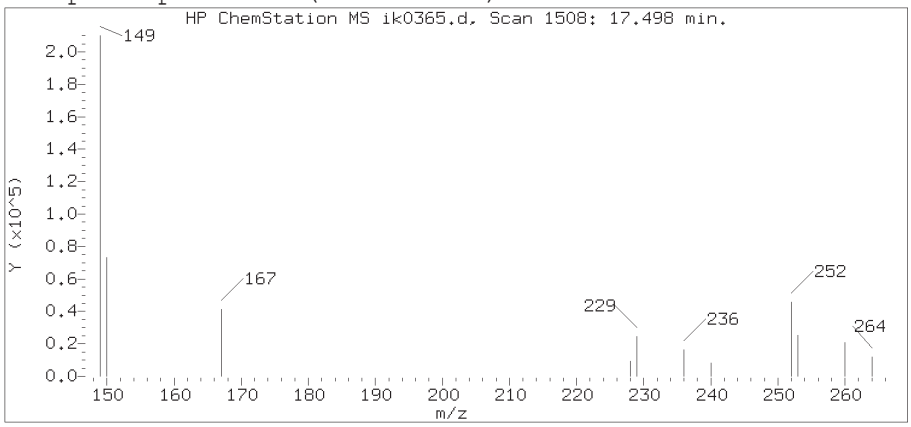


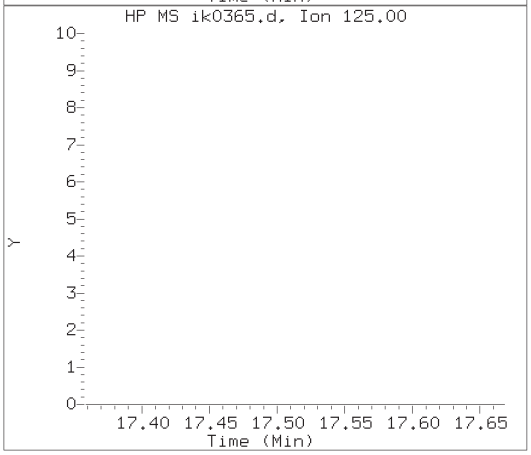
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

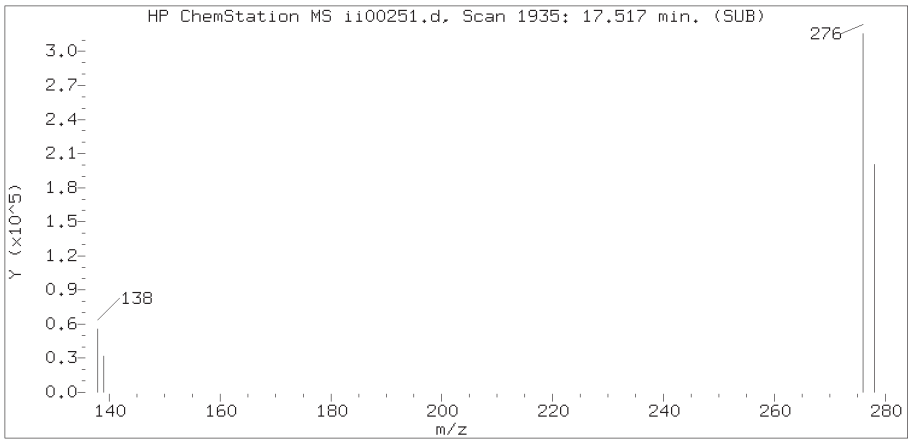
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

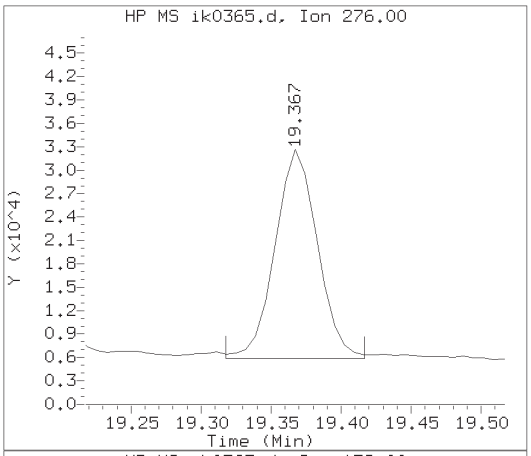
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1508
Retention Time (minutes)	: 17.498
Relative Retention Time	:-0.00001
Quant Ion	: 252.00
Area (flag)	: 60795
On-column Amount (ng/ul)	: 0.1957

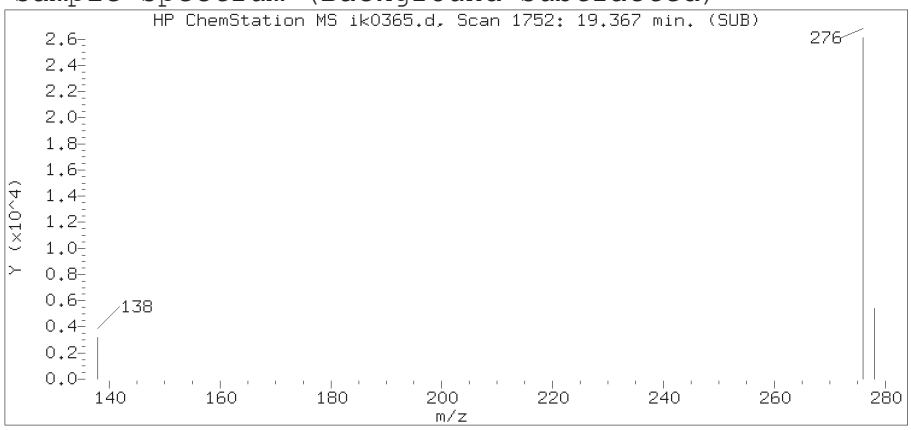
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

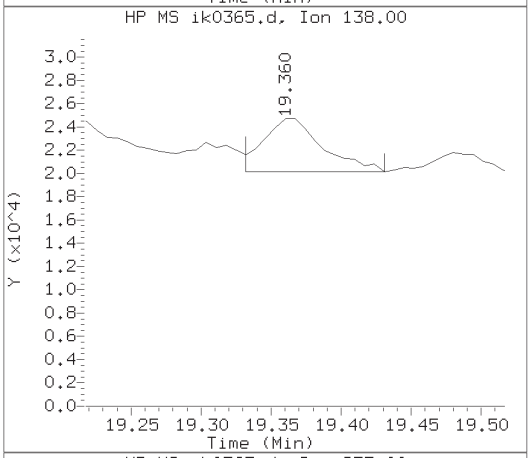
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



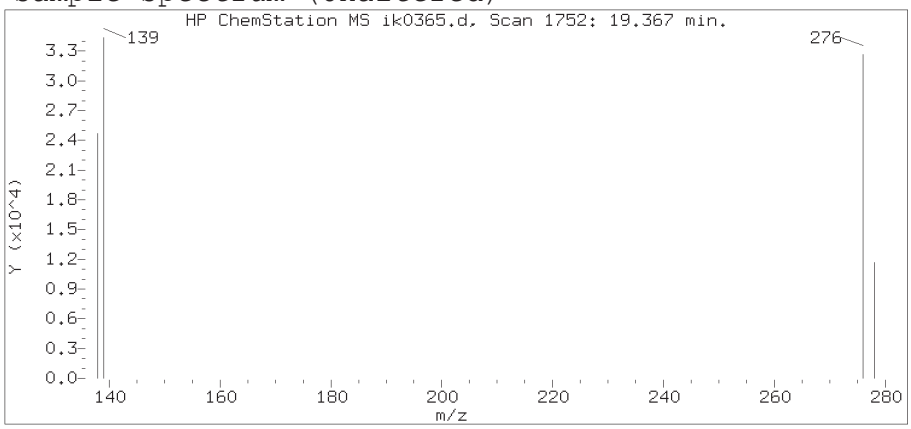


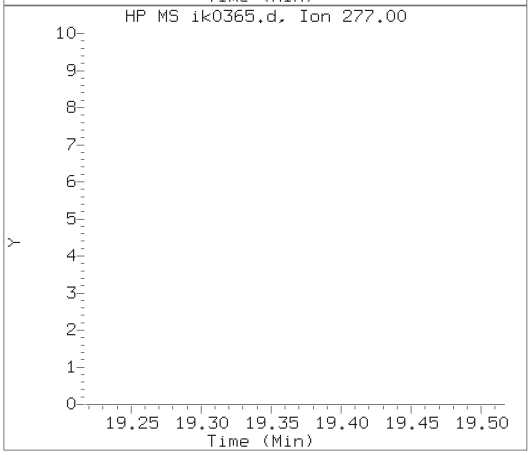
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

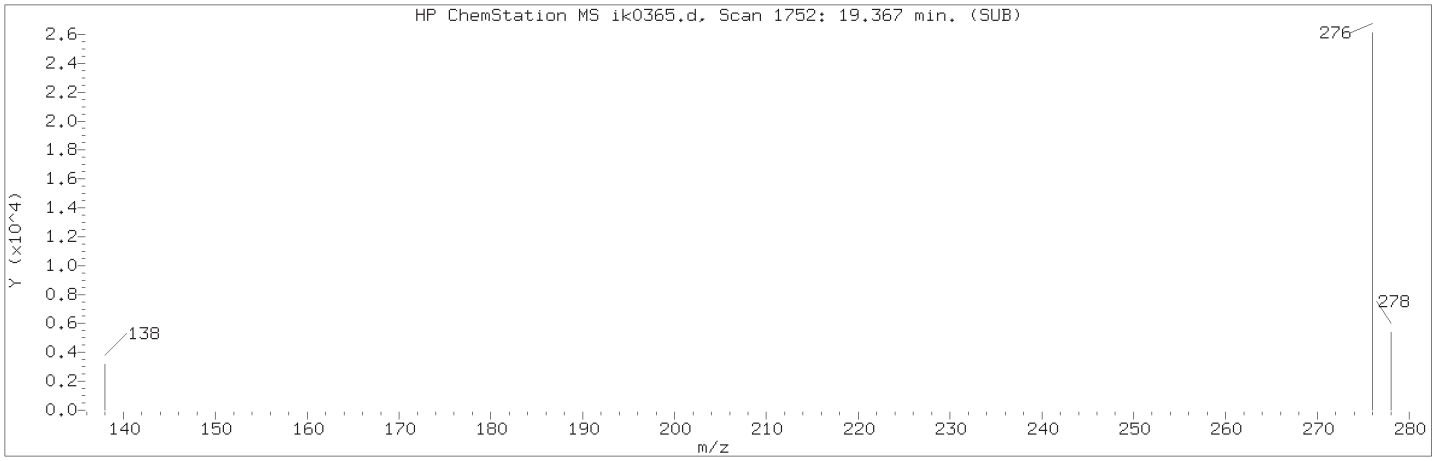
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

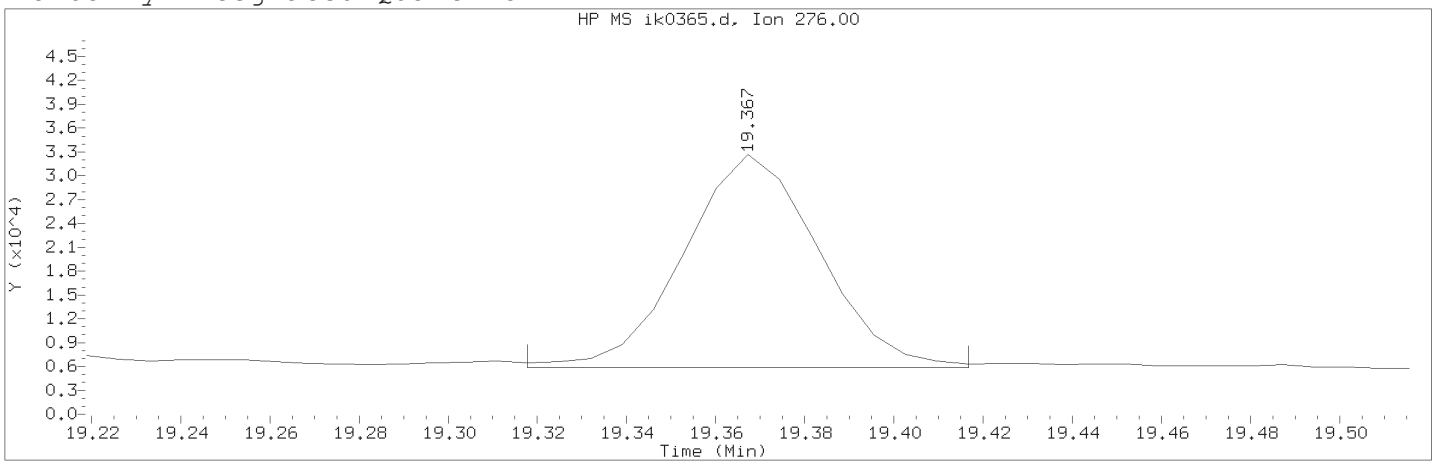
Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1752
Retention Time (minutes)	: 19.367
Relative Retention Time	:-0.00027
Quant Ion	: 276.00
Area (flag)	: 56590M
On-column Amount (ng/ul)	: 0.1544

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

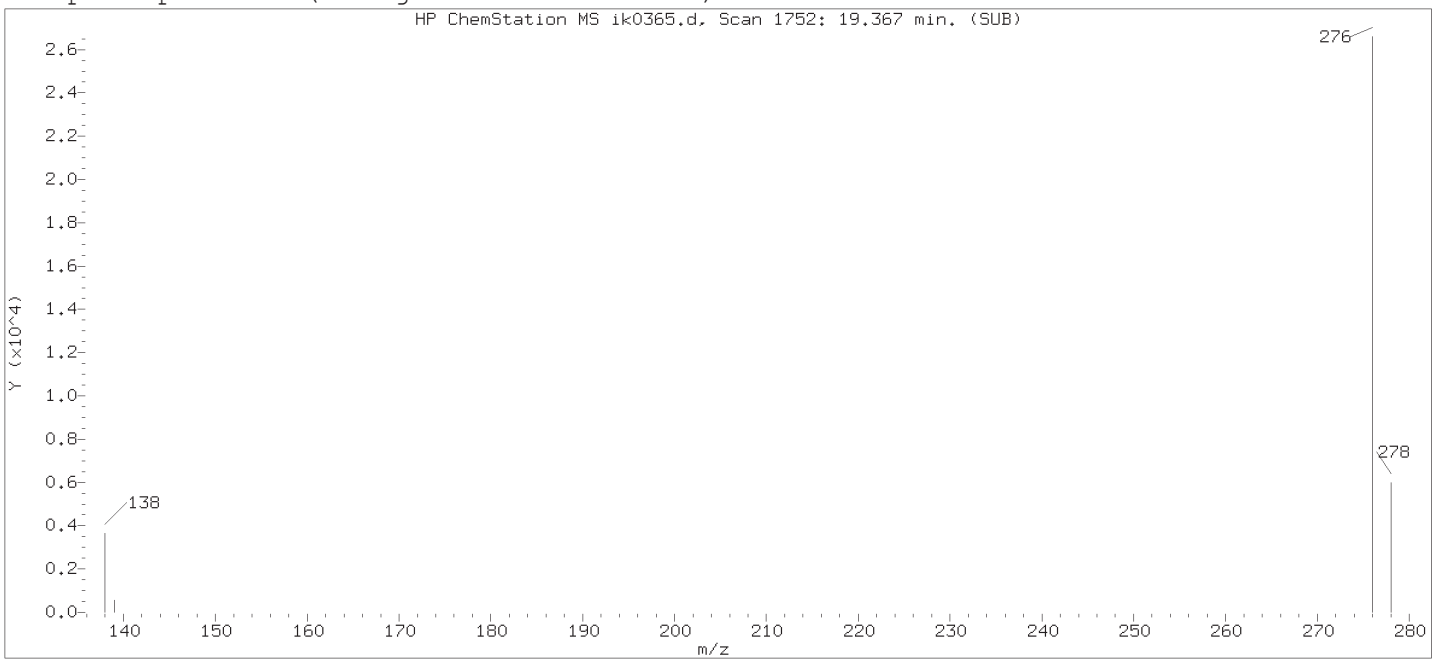
Compound Number : 53
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 1752
Retention Time (minutes) : 19.367
Quant Ion : 276.00
Area (flag) : 56590M
On-column Amount (ng/ul) : 0.1544
Integration start scan : 1744 Integration stop scan: 1758
Y at integration start : 5856 Y at integration end: 5856

Reason for manual integration: improper integration

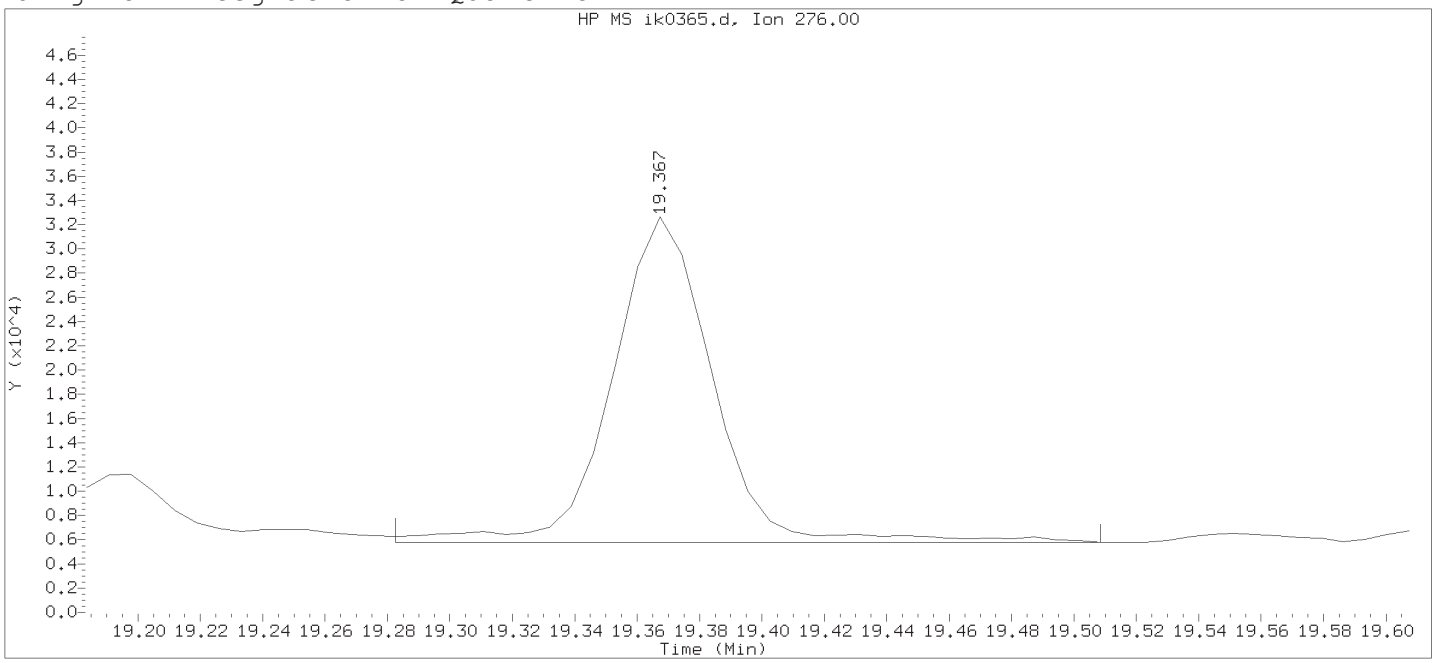
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55. Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

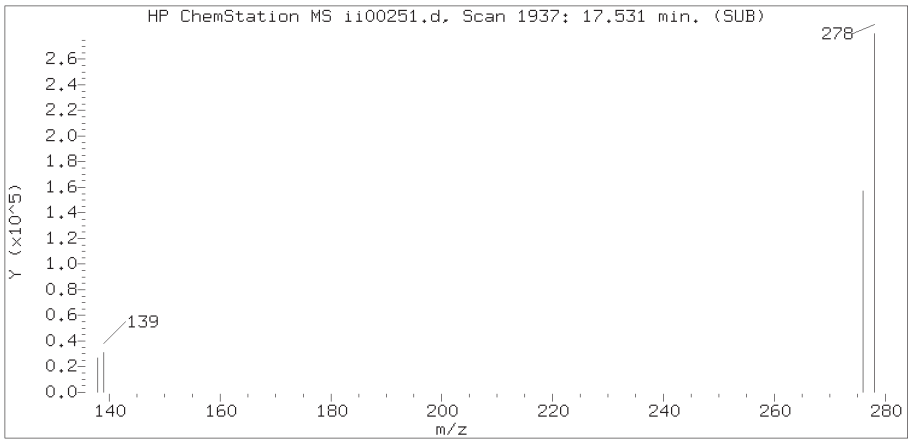
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 15:00 Automation

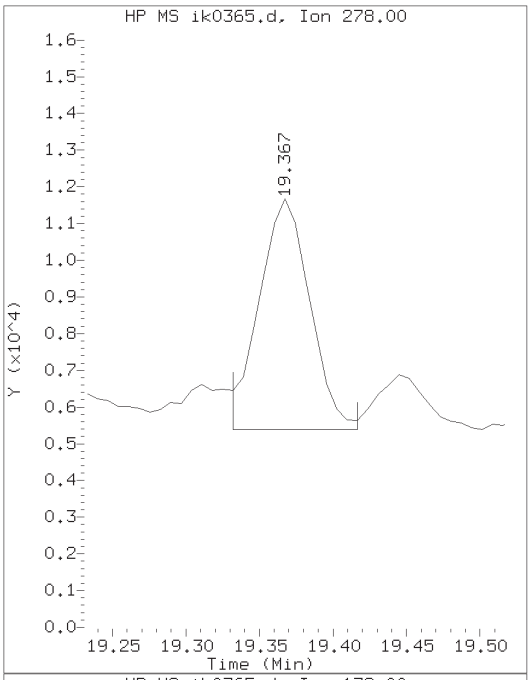
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1752		
Retention Time (minutes)	: 19.367		
Quant Ion	: 276.00		
Area	: 60763		
On-column Amount (ng/ul)	: 0.1658		
Integration start scan	: 1739	Integration stop scan:	1771
Y at integration start	: 5752	Y at integration end:	5752

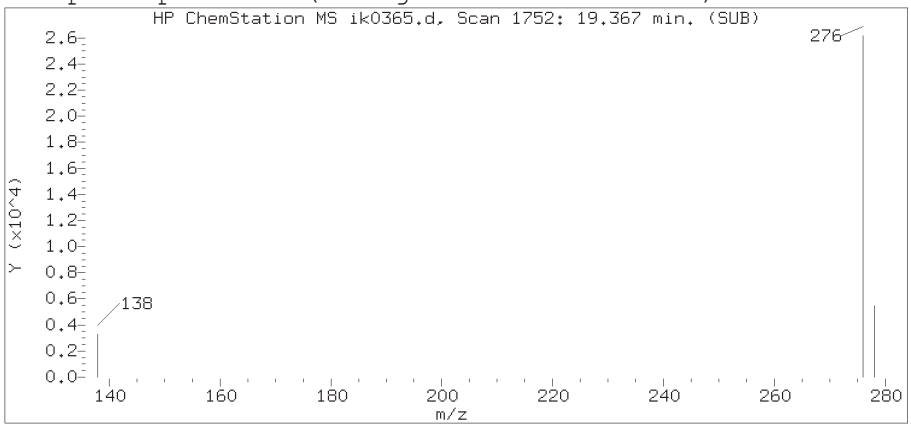
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature used 11/08/2018 16:56

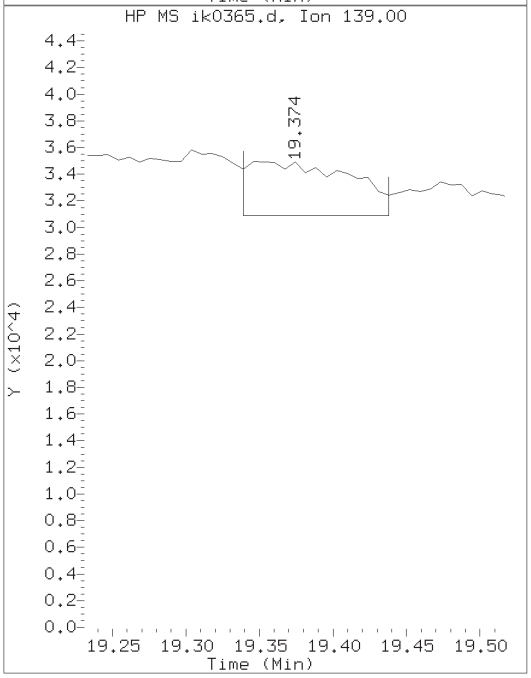
Reference Standard Spectrum for Dibenz(a,h)anthracene



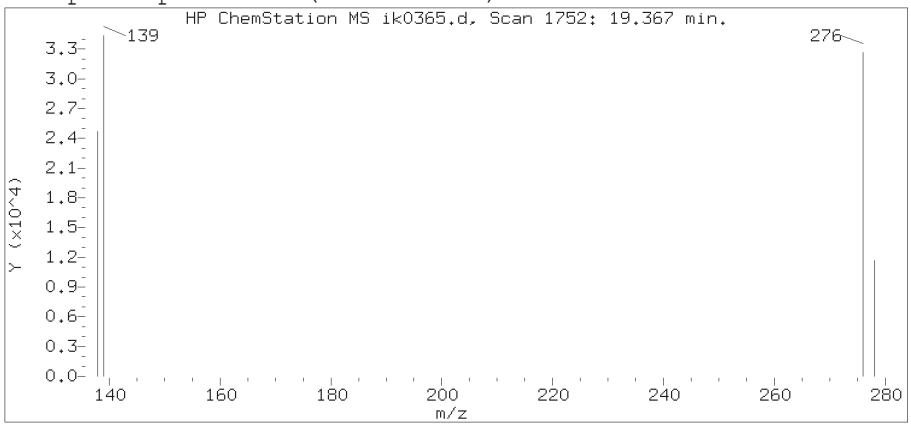


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

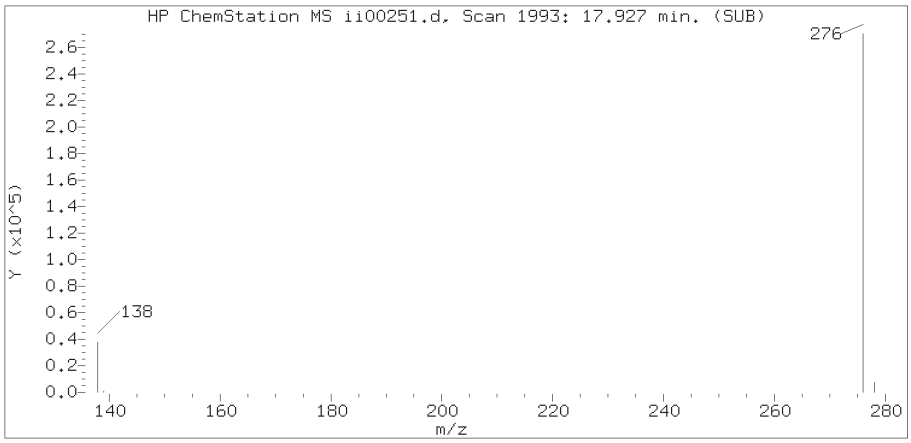
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

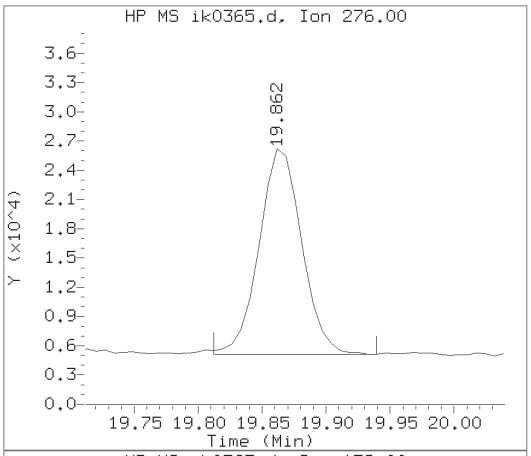
Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1752
Retention Time (minutes)	: 19.367
Relative Retention Time	: 0.00013
Quant Ion	: 278.00
Area (flag)	: 15042
On-column Amount (ng/ul)	: 0.0503

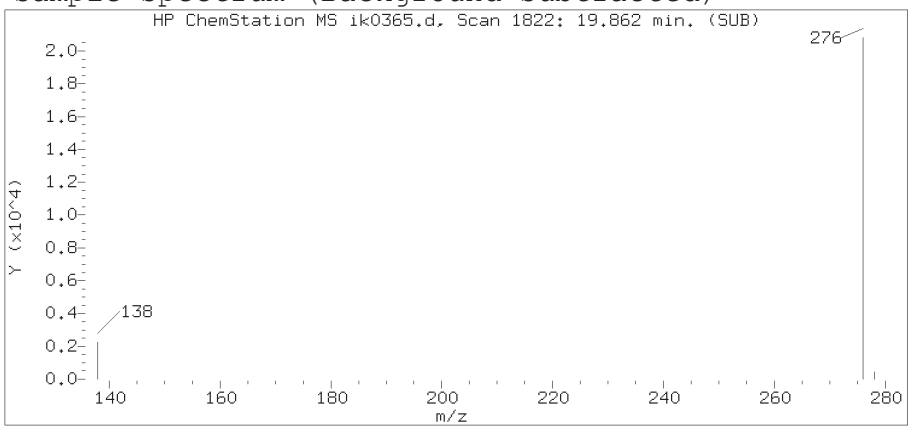
Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

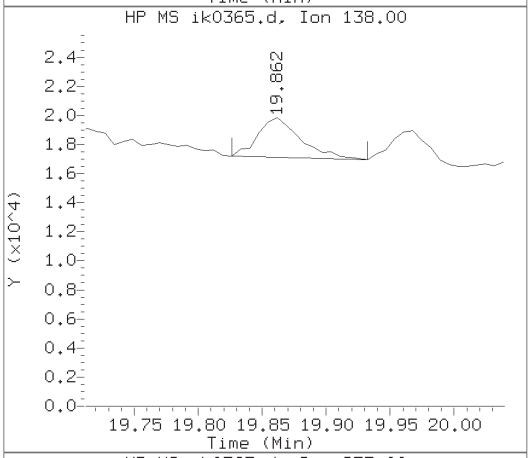
Reference Standard Spectrum for Benzo(g,h,i)perylene



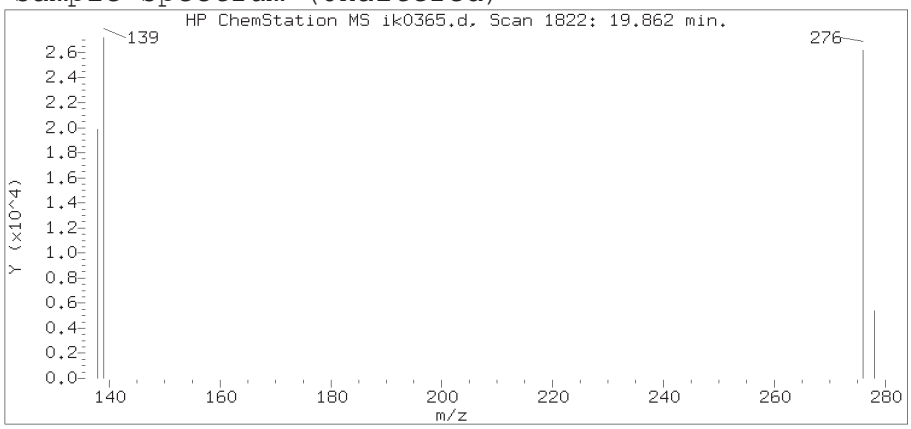


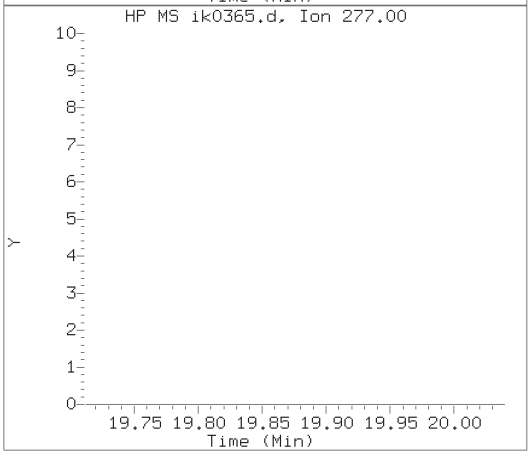
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov08.b/ik0365.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 14:34 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 17:42 apb10206

Sample Name: 12T07DL Lab Sample ID: 9872065DL

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1822
Retention Time (minutes)	: 19.862
Relative Retention Time	:-0.00020
Quant Ion	: 276.00
Area (flag)	: 48576
On-column Amount (ng/ul)	: 0.1508

Digitally signed by Anthony P. Bauer on 11/08/2018 at 17:55.
Target 3.5 esignature user ID: apb10206

Data file: /chem/HP10623.i/18nov16.b/ck0707.d Injection date and time: **16-NOV-2018 09:55**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;SAMPLE;;DOD26;T3 Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:Comment 112

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.777(-0.013)	474	152	61232 (-11)	1.00	
10) Naphthalene-d8	8.289(0.000)	588	136	238342 (-10)	1.00	
20) Acenaphthene-d10	10.469(-0.011)	775	164	98180M (-19)	1.00	
31) Phenanthrene-d10	12.327(-0.023)	941	188	140430 (-39)	1.00	
43) Chrysene-d12	15.695(-0.086)	1262	240	86658A (-51)	1.00	*
51) Perylene-d12	17.900(-0.180)	1544	264	77924MA(-49)	1.00	#

 # = Relative Retention Time outside QC limits * = Internal Standard area outside QC limits M = Internal Standard was manually integrated A = User selected an

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
14) 1-Methylnaphthalene-d10	(2)	9.242(-0.001)	152	88732MA	0.737	74%		61 - 111
36) Fluoranthene-d10	(4)	13.843(-0.001)	212	103583	0.813	81%		54 - 122
49) Benzo(a)pyrene-d12	(6)	17.759(0.000)	264	44036A	0.615	61%		54 - 122

M = Surrogate Standard was manually integrated. A = User selected an alternate peak.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.311(-0.010)	88	4726	0.120	4.00			0.02
11) Naphthalene	(2)	8.316(-0.000)	128	341767	1.350	45.02			0.04
19) Acenaphthylene	(3)	10.285(-0.000)	152	73927	0.379	12.64	0.335	B	0.01
21) Acenaphthene	(3)	10.502(0.000)	154	14297M	0.107	3.57			0.02
26) Fluorene	(3)	11.147(0.000)	166	20456M	0.143	4.78			0.02
32) Phenanthrene	(4)	12.361(0.000)	178	263230	1.571	52.37			0.02
33) Anthracene	(4)	12.428(0.000)	178	104418	0.648	21.60			0.02
35) Di-n-butylphthalate	(4)	12.990(0.000)	149	329166M	1.834	61.13			0.2
37) Fluoranthene	(4)	13.867(-0.000)	202	337368	2.049	68.30			0.02
39) Pyrene	(5)	14.160(0.002)	202	404466A	2.900	96.66			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.593(0.000)	149	3460422A	33.850	1128.32	18.477	B E	0.3
42) Benzo(a)anthracene	(5)	15.679(-0.000)	228	182614A	1.626	54.20			0.02
44) Chrysene	(5)	15.718(0.000)	228	303254A	2.635	87.85			0.01
46) Benzo(b)fluoranthene	(6)	17.251(0.000)	252	577074A	5.778	192.60			0.02
47) Benzo(k)fluoranthene	(6)			Not Detected					0.02
50) Benzo(a)pyrene	(6)	17.806(-0.000)	252	170518A	1.871	62.38			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.852(-0.000)	276	120068A	1.328	44.28			0.02
54) Dibenz(a,h)anthracene	(6)	19.845(0.000)	278	27753A	0.370	12.35			0.02
55) Benzo(g,h,i)perylene	(6)	20.410(-0.000)	276	113083M	1.341	44.69			0.02

B = Compound detected in referenced method blank. M = Compound was manually integrated. A = User selected an alternate peak.
E = Compound concentration above calibration range.

Digitally signed by William H Saadeh on 11/16/2018 at 12:56. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP10623.i/18nov16.b/ck0707.d Injection date and time: **16-NOV-2018 09:55**
Data file Sample Info. Line: 12T07RE;9872065RE;2;0;SAMPLE;;DOD26;T3 Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

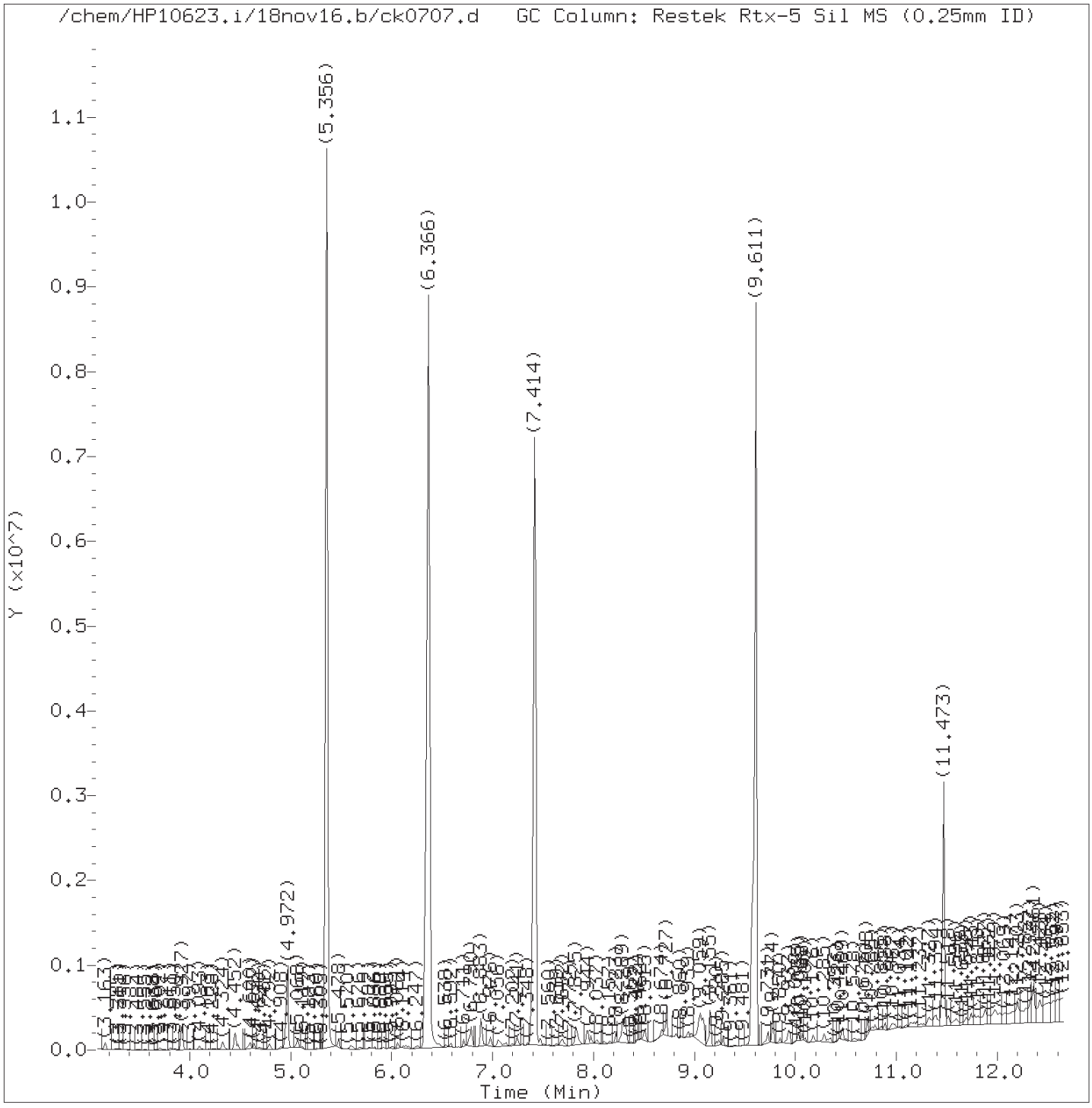
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by William H Saadeh on 11/16/2018 at 12:56. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

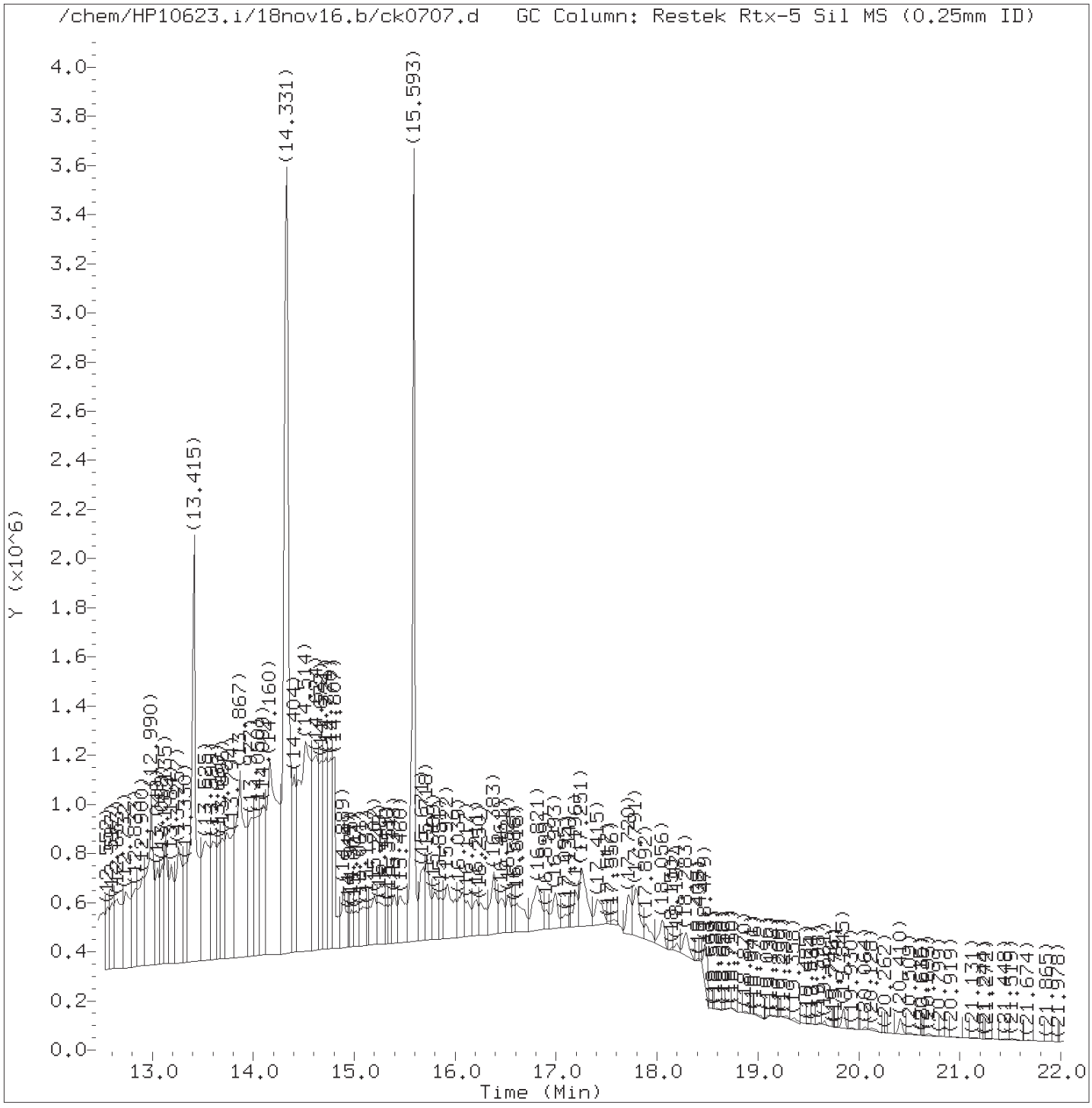
Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

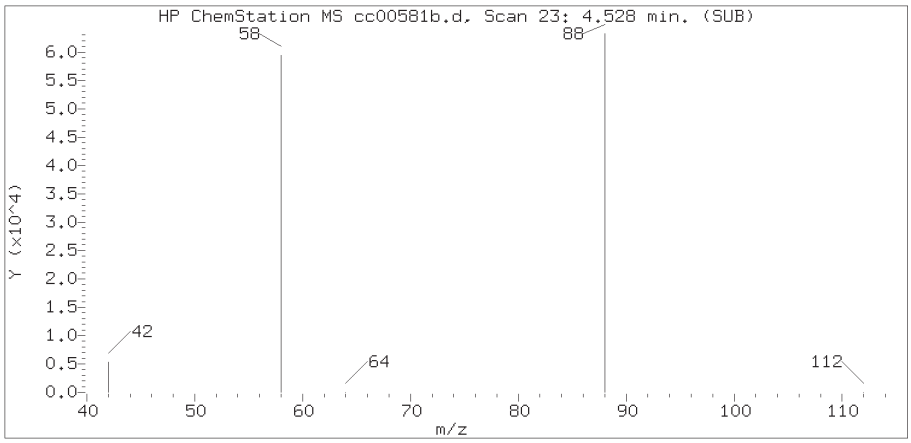
Sample Name: 12T07RE Lab Sample ID: 9872065RE

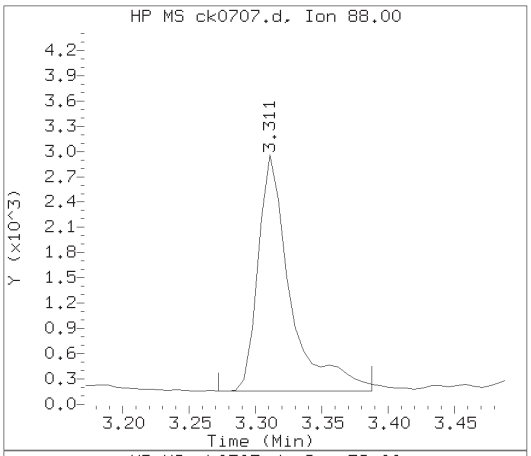
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.311	88	4726	0.120
6)*1,4-Dichlorobenzene-d4	(1)	6.777	152	61232	1.000
10)*Naphthalene-d8	(2)	8.289	136	238342	1.000
11) Naphthalene	(2)	8.316	128	341767	1.350
14)$1-Methylnaphthalene-d10	(2)	9.242	152	88732MA	0.737
19) Acenaphthylene	(3)	10.285	152	73927	0.379
20)*Acenaphthene-d10	(3)	10.469	164	98180M	1.000
21) Acenaphthene	(3)	10.502	154	14297M	0.107
26) Fluorene	(3)	11.147	166	20456M	0.143
31)*Phenanthrene-d10	(4)	12.327	188	140430	1.000
32) Phenanthrene	(4)	12.361	178	263230	1.571
33) Anthracene	(4)	12.428	178	104418	0.648
35) Di-n-butylphthalate	(4)	12.990	149	329166M	1.834
36)$Fluoranthene-d10	(4)	13.843	212	103583	0.813
37) Fluoranthene	(4)	13.867	202	337368	2.049
39) Pyrene	(5)	14.160	202	404466A	2.900
41) bis(2-Ethylhexyl)phthalate	(5)	15.593	149	3460422A	33.850
42) Benzo(a)anthracene	(5)	15.679	228	182614A	1.626
43)*Chrysene-d12	(5)	15.695	240	86658A	1.000
44) Chrysene	(5)	15.718	228	303254A	2.635
46) Benzo(b)fluoranthene	(6)	17.251	252	577074A	5.778
49)$Benzo(a)pyrene-d12	(6)	17.759	264	44036A	0.615
50) Benzo(a)pyrene	(6)	17.806	252	170518A	1.871
51)*Perylene-d12	(6)	17.900	264	77924MA	1.000
54) Dibenz(a,h)anthracene	(6)	19.845	278	27753A	0.370
53) Indeno(1,2,3-cd)pyrene	(6)	19.852	276	120068A	1.328
55) Benzo(g,h,i)perylene	(6)	20.410	276	113083M	1.341

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

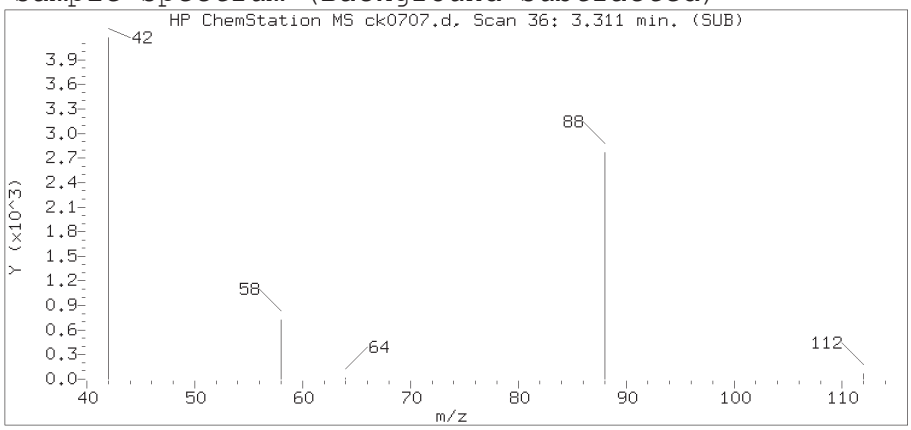
Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

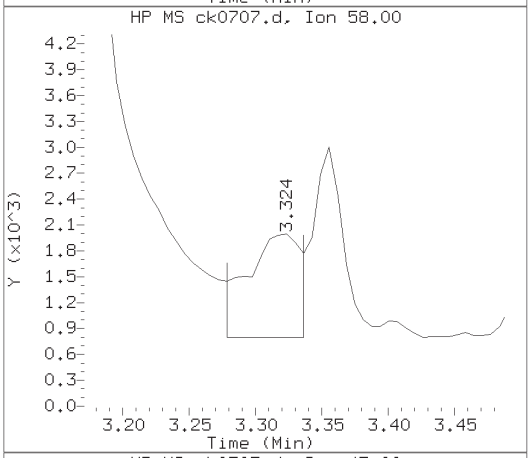
Reference Standard Spectrum for 1,4-Dioxane



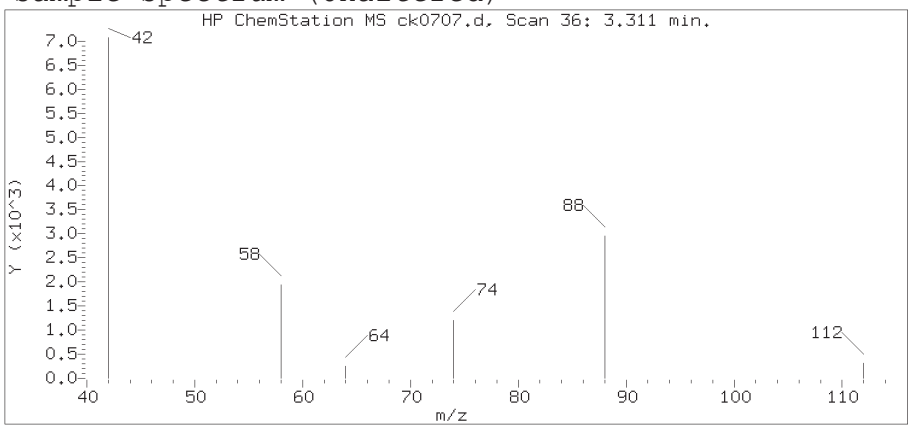


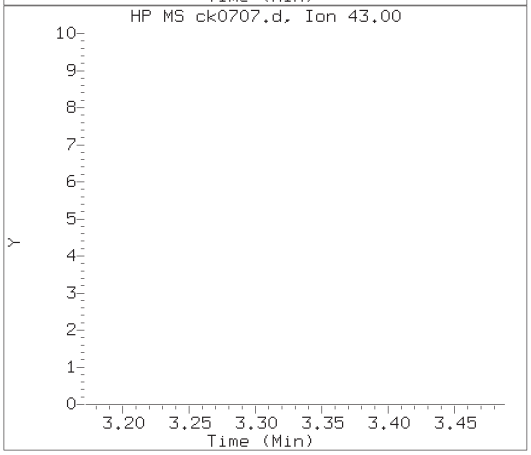
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 1
Compound Name	: 1,4-Dioxane
Scan Number	: 36
Retention Time (minutes)	: 3.311
Relative Retention Time	:-0.01043
Quant Ion	: 88.00
Area (flag)	: 4726
On-column Amount (ng/ul)	: 0.1201

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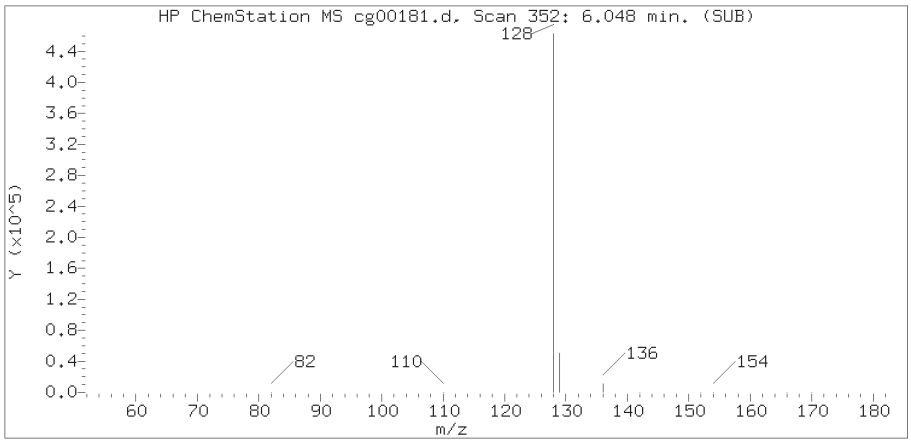
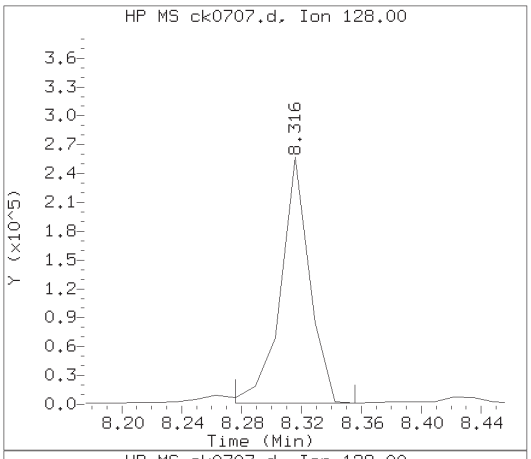
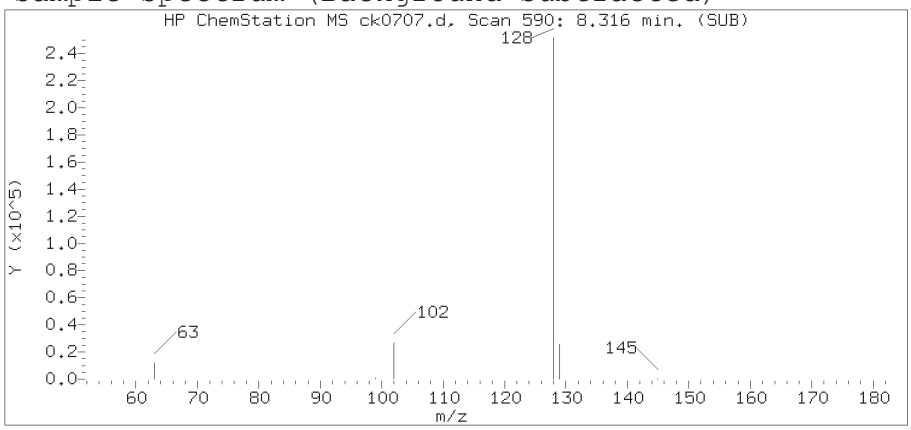
Target 3.5 esignature user ID: whs02991

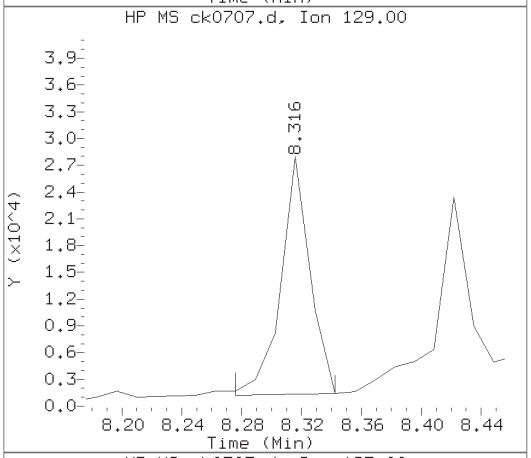
Reference Standard Spectrum for Naphthalene



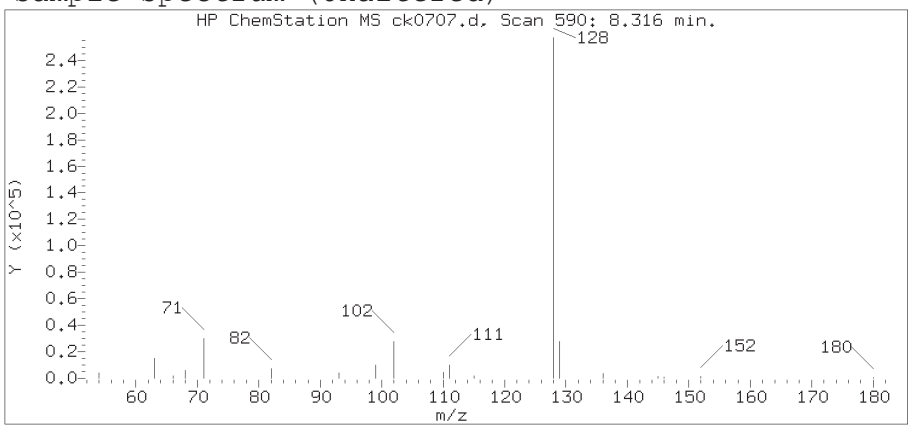


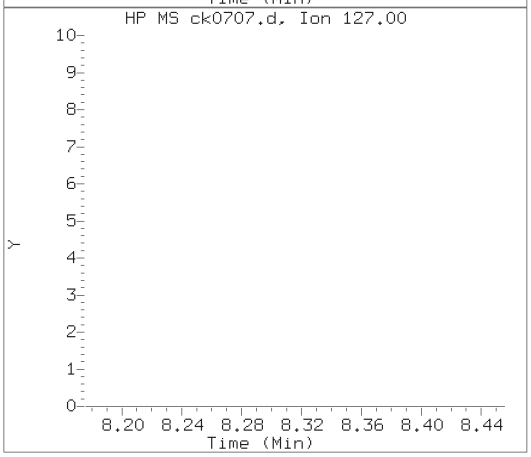
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 590
Retention Time (minutes)	: 8.316
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 341767
On-column Amount (ng/ul)	: 1.3505

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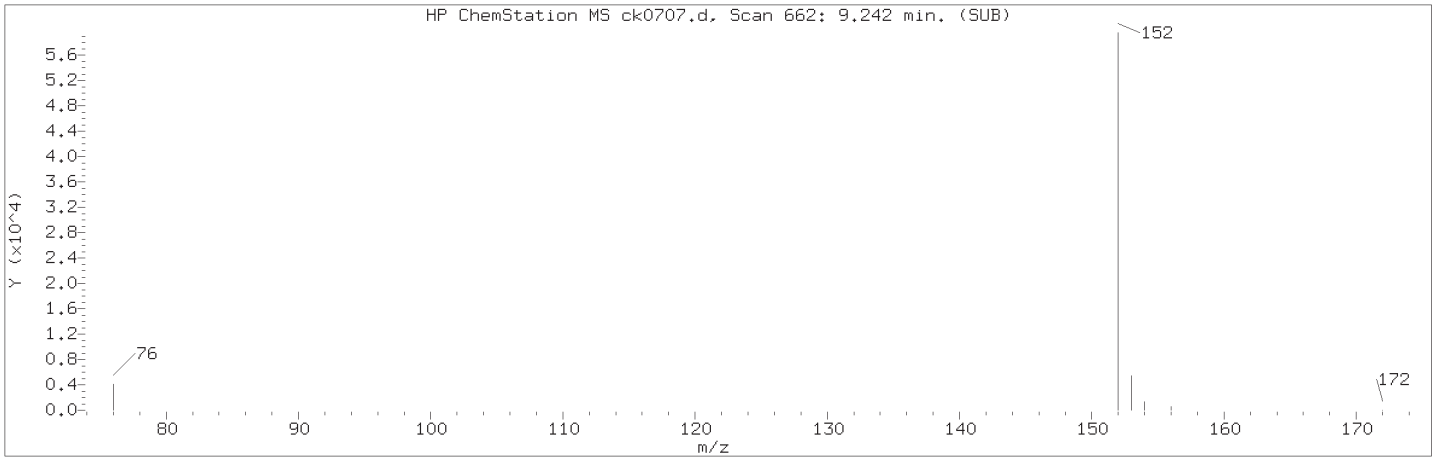
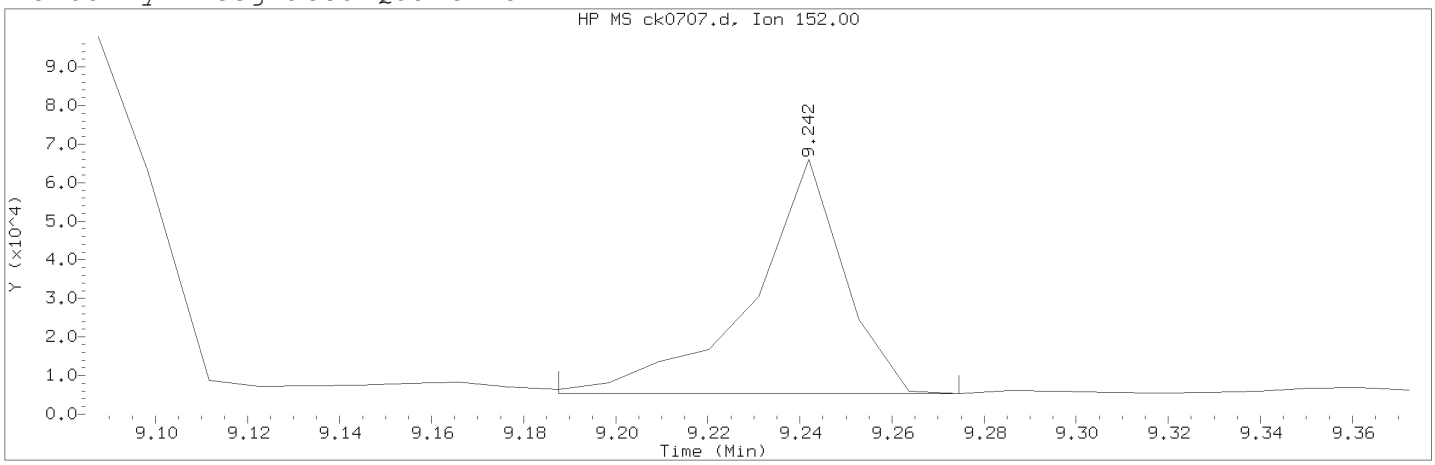
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

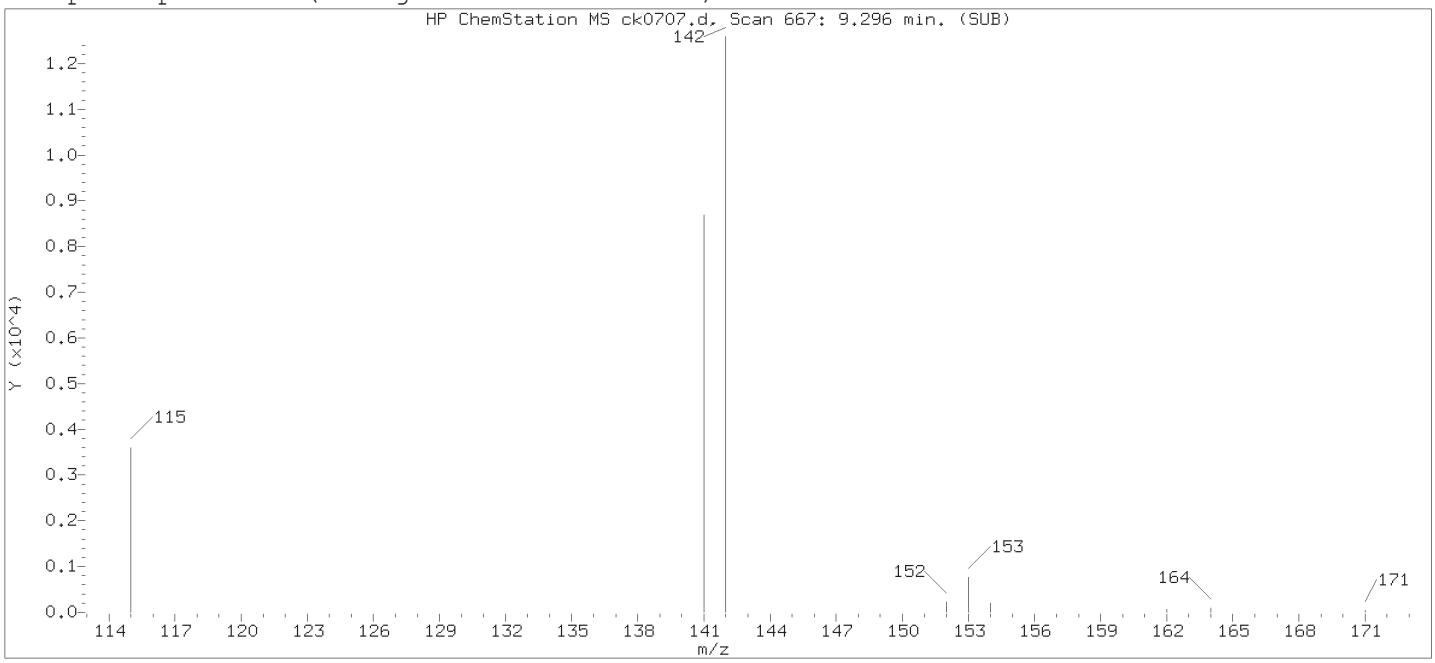
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 662		
Retention Time (minutes)	: 9.242		
Quant Ion	: 152.00		
Area (flag)	: 88732AM		
On-column Amount (ng/ul)	: 0.7368		
Integration start scan	: 656	Integration stop scan:	664
Y at integration start	: 5388	Y at integration end:	5388

Reason for manual integration: improper integration

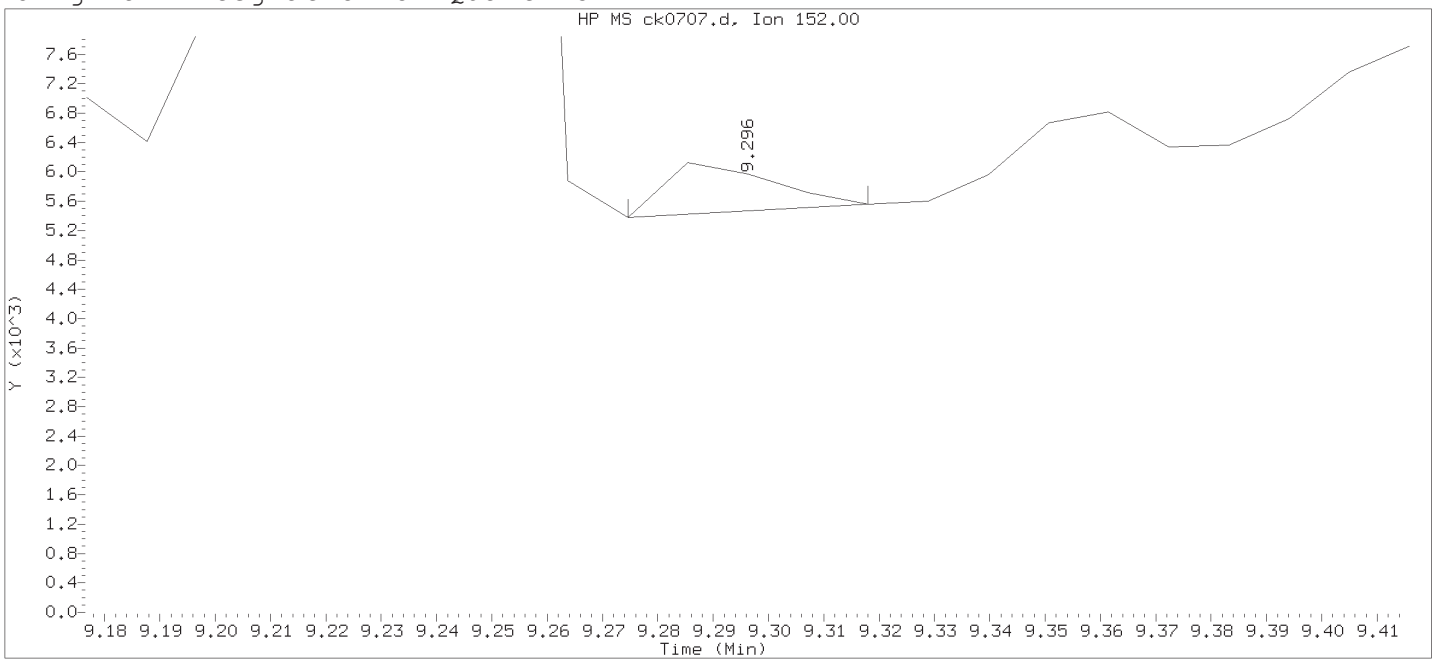
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 667		
Retention Time (minutes)	: 9.296		
Quant Ion	: 152.00		
Area	: 960		
On-column Amount (ng/ul)	: 0.0080		
Integration start scan	: 664	Integration stop scan:	668
Y at integration start	: 5383	Y at integration end:	5557

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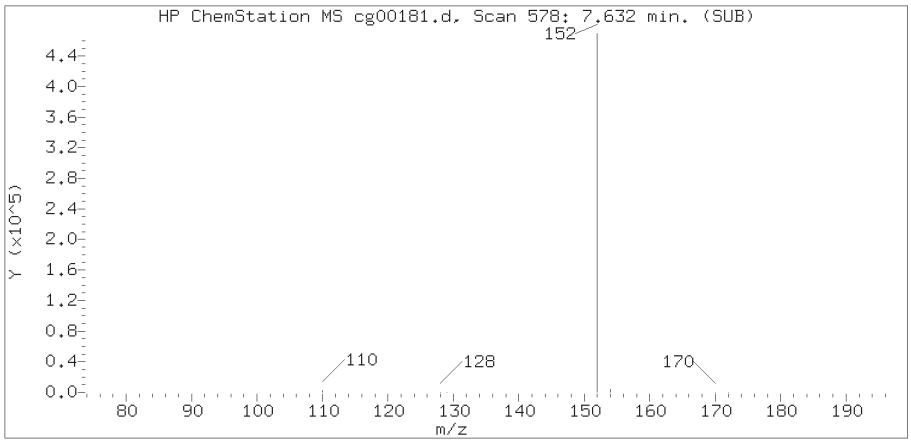
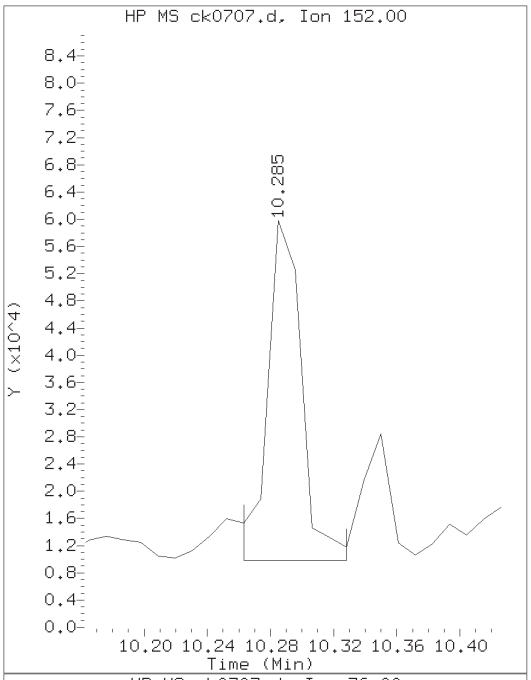
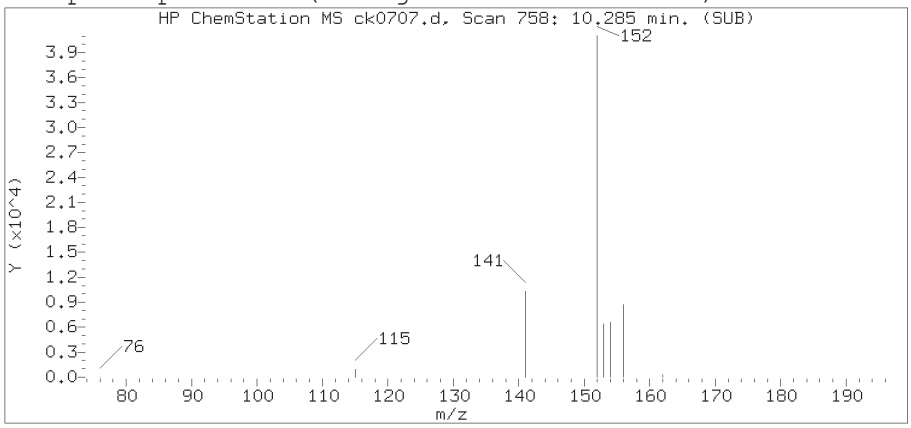
Target 3.5 esignature used 1.0.1 Page 3047 of 7494

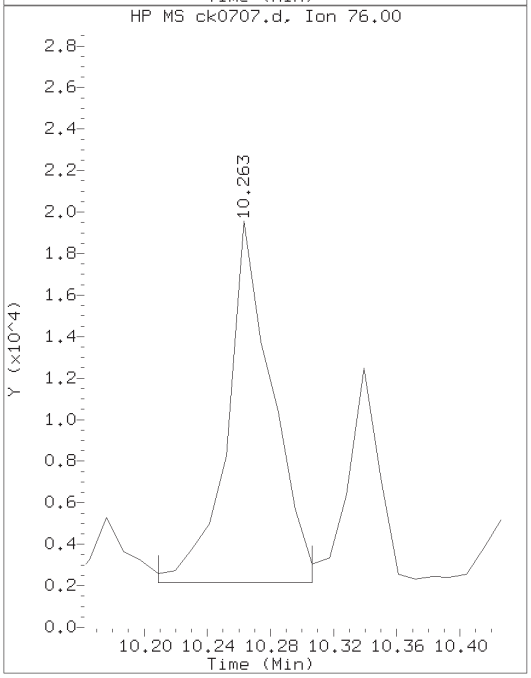
Reference Standard Spectrum for Acenaphthylene



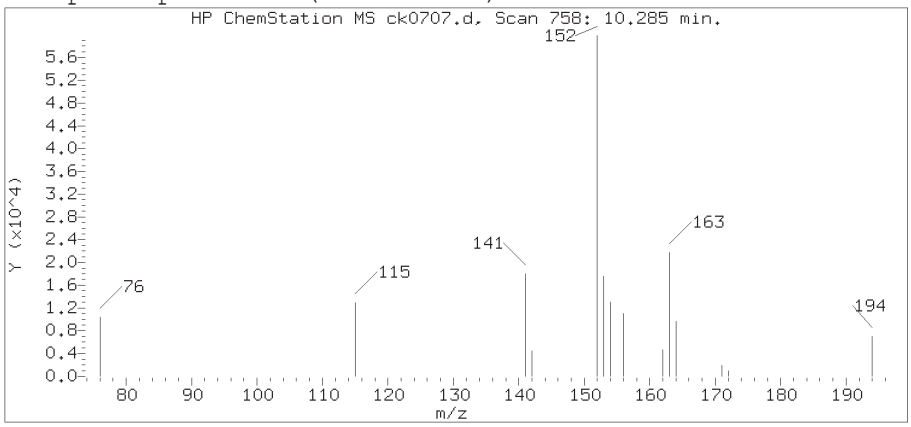


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 758
Retention Time (minutes)	: 10.285
Relative Retention Time	:-0.00002
Quant Ion	: 152.00
Area (flag)	: 73927
On-column Amount (ng/ul)	: 0.3793

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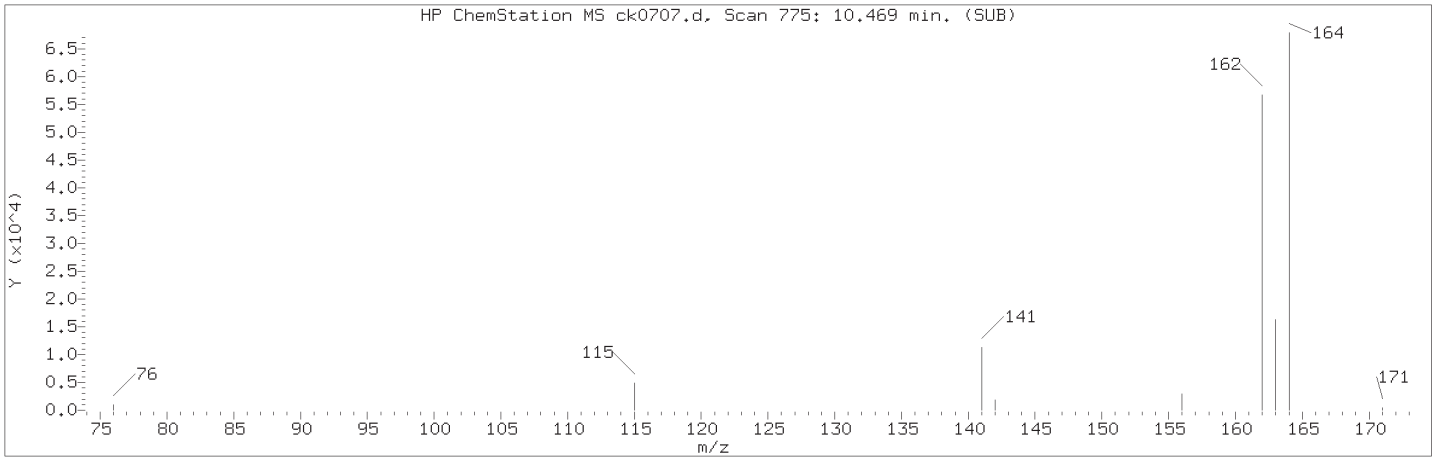
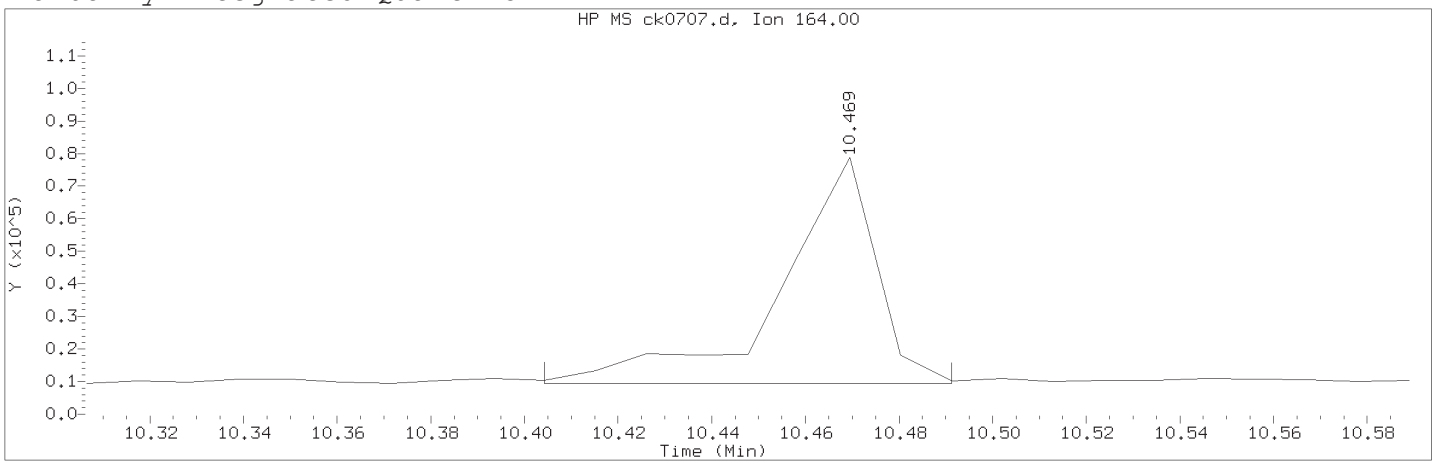
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

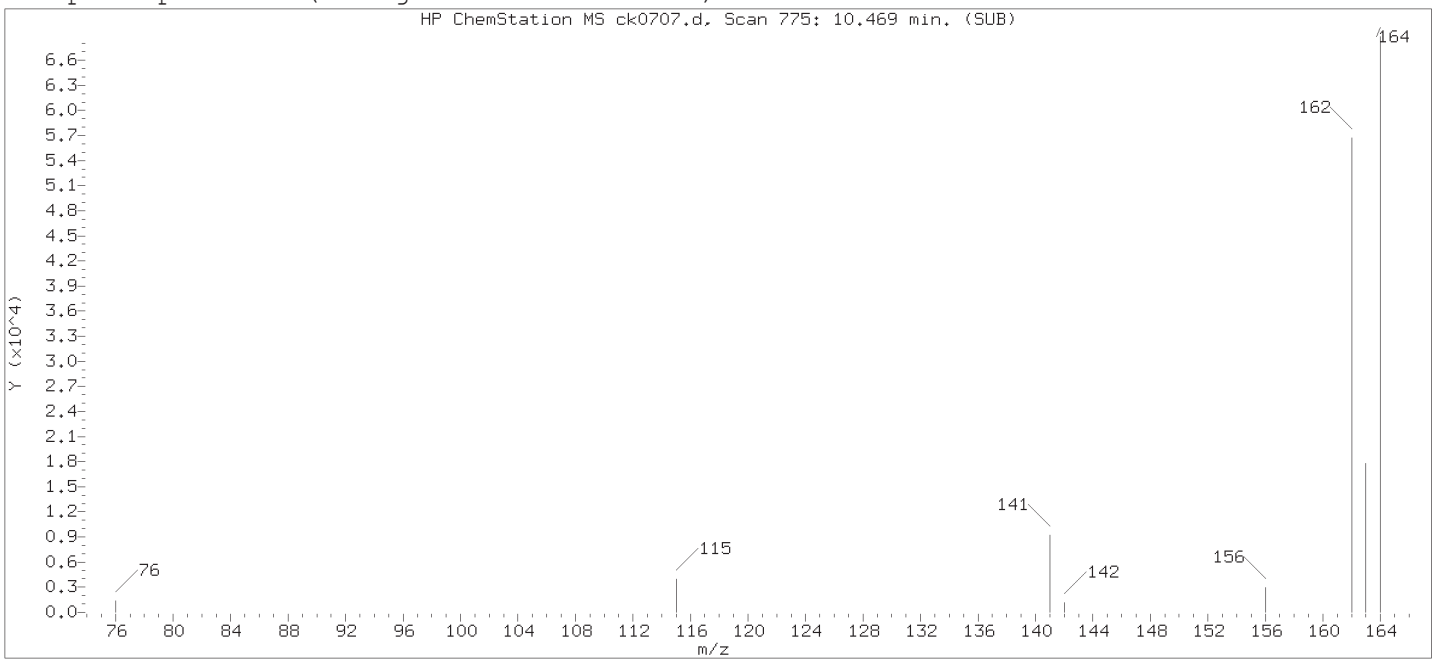
Compound Number : 20
Compound Name : Acenaphthene-d10
Scan Number : 775
Retention Time (minutes) : 10.469
Quant Ion : 164.00
Area (flag) : 98180M
On-column Amount (ng/ul) : 1.0000
Integration start scan : 768 Integration stop scan: 776
Y at integration start : 9402 Y at integration end: 9402

Reason for manual integration: improper integration

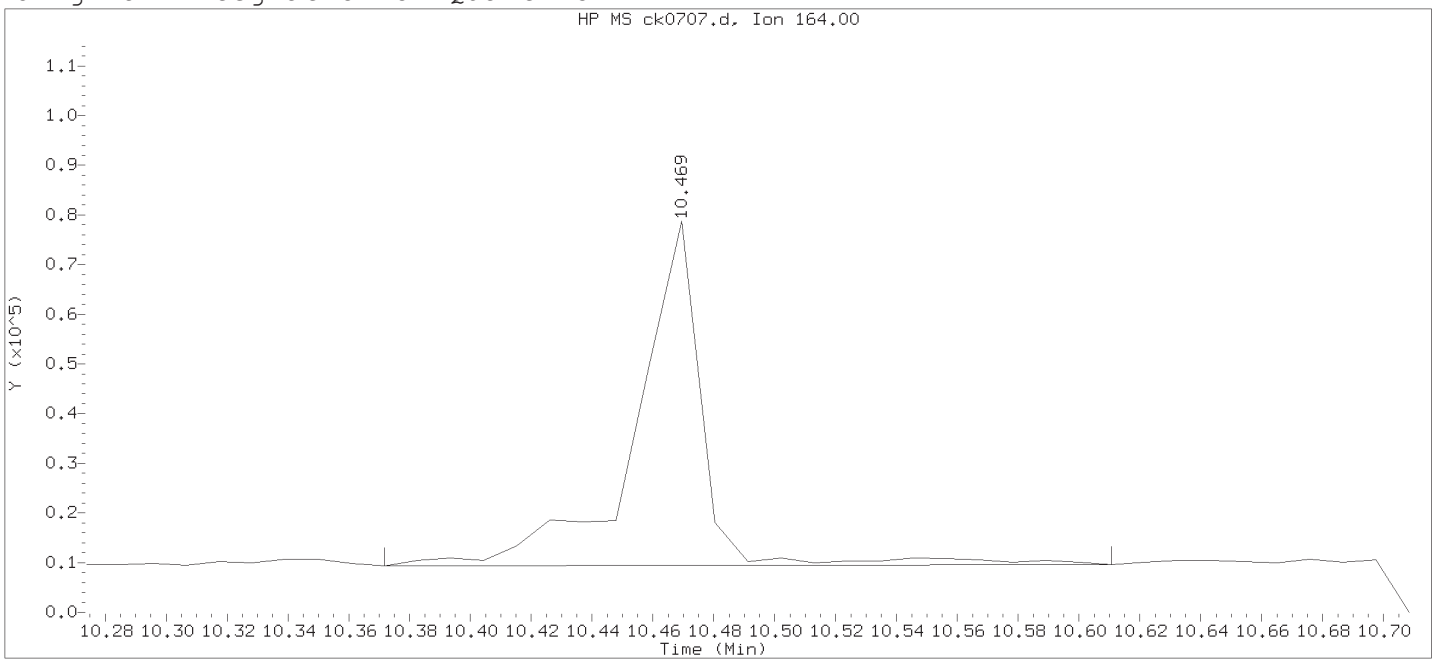
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

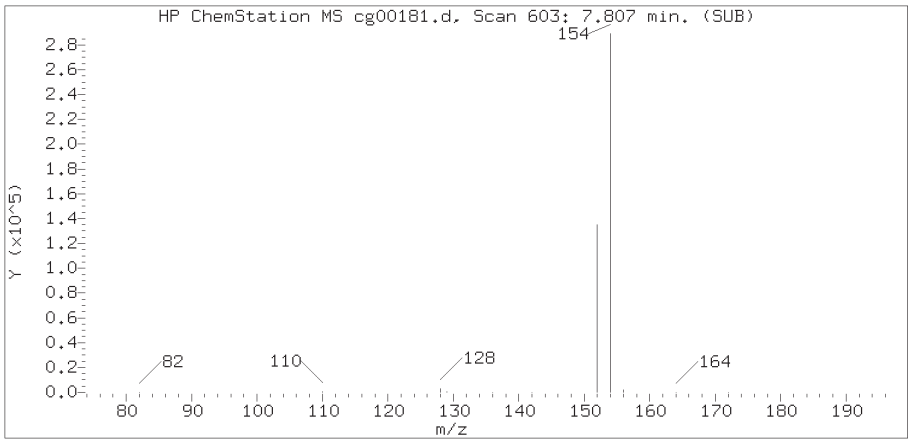
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

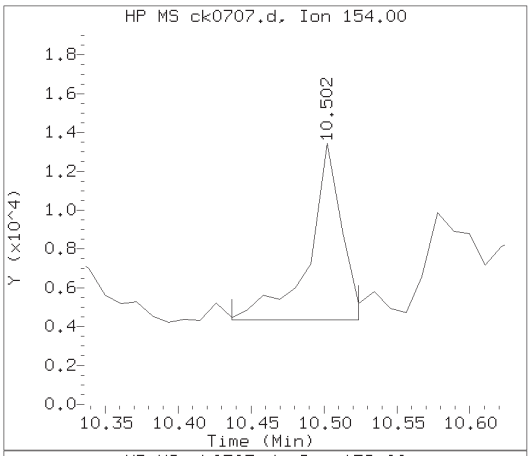
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 20		
Compound Name	: Acenaphthene-d10		
Scan Number	: 775		
Retention Time (minutes)	: 10.469		
Quant Ion	: 164.00		
Area	: 106938		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 765	Integration stop scan:	787
Y at integration start	: 9297	Y at integration end:	9584

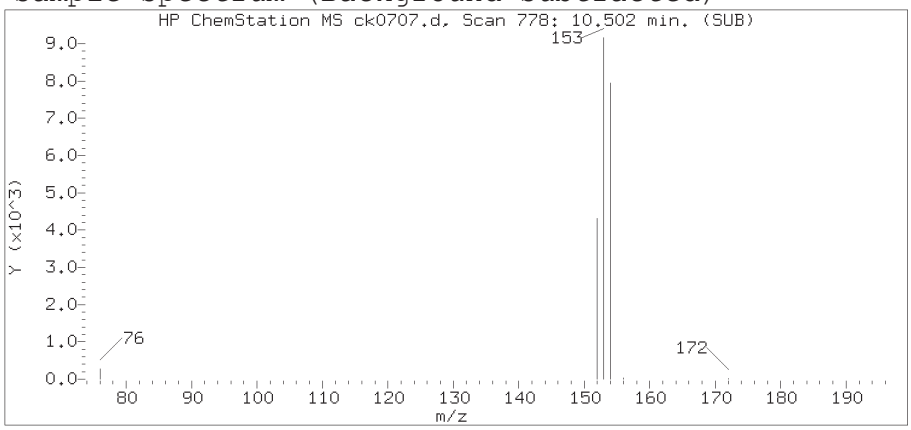
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.0.0.0

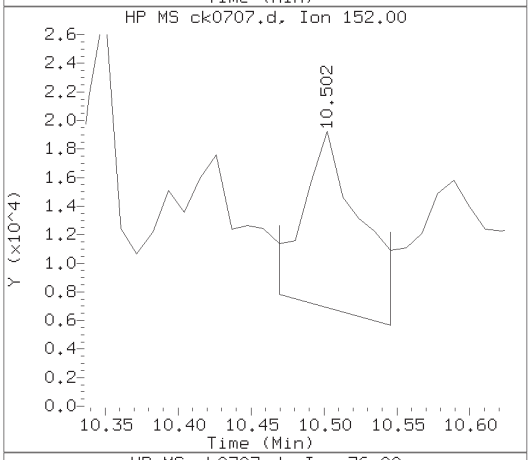
Reference Standard Spectrum for Acenaphthene



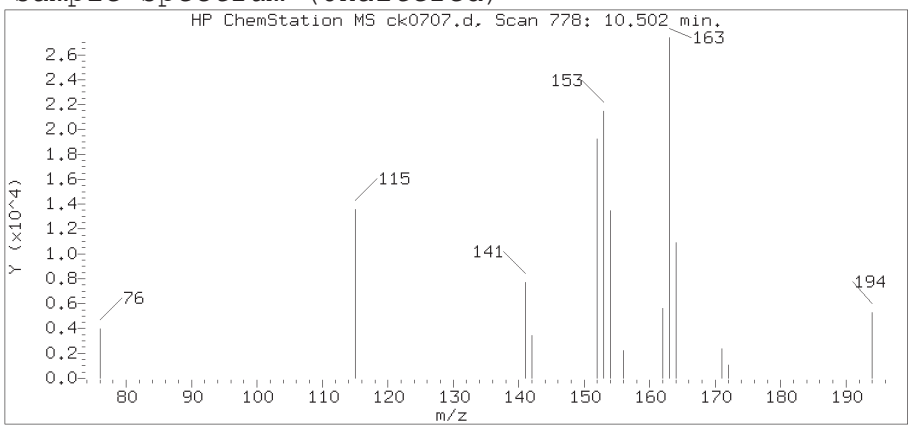


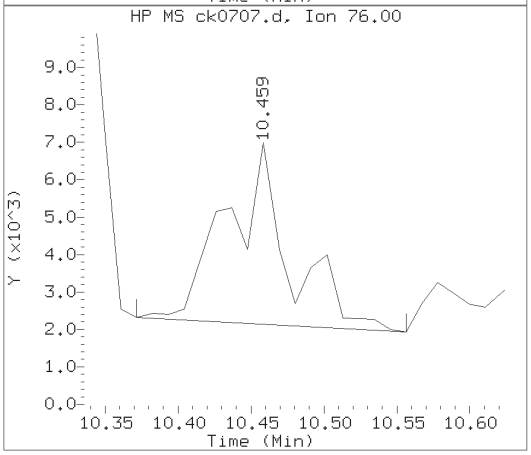
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

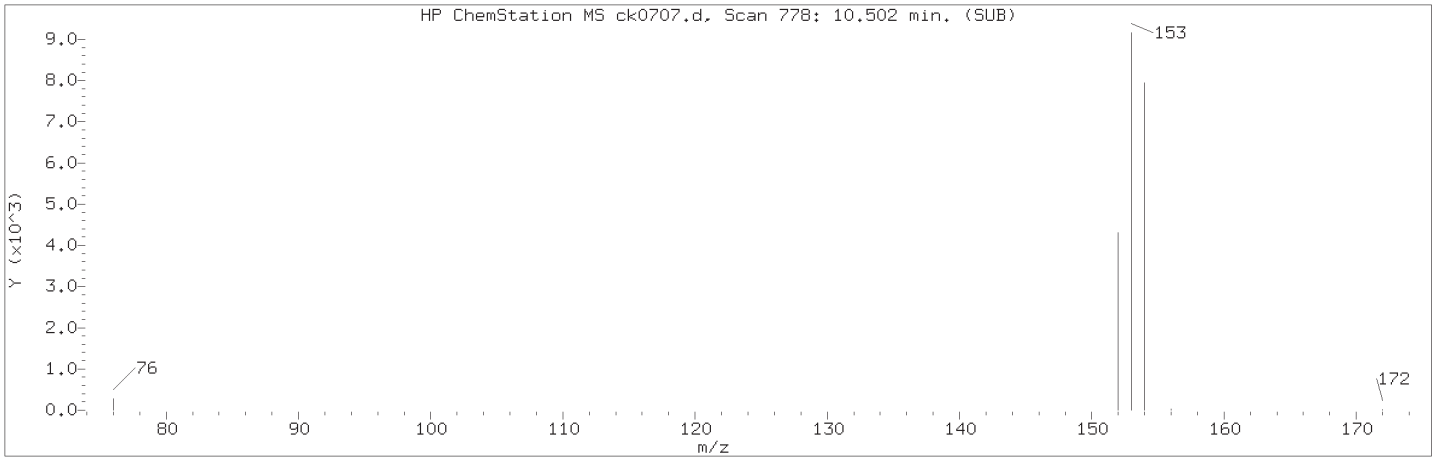
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

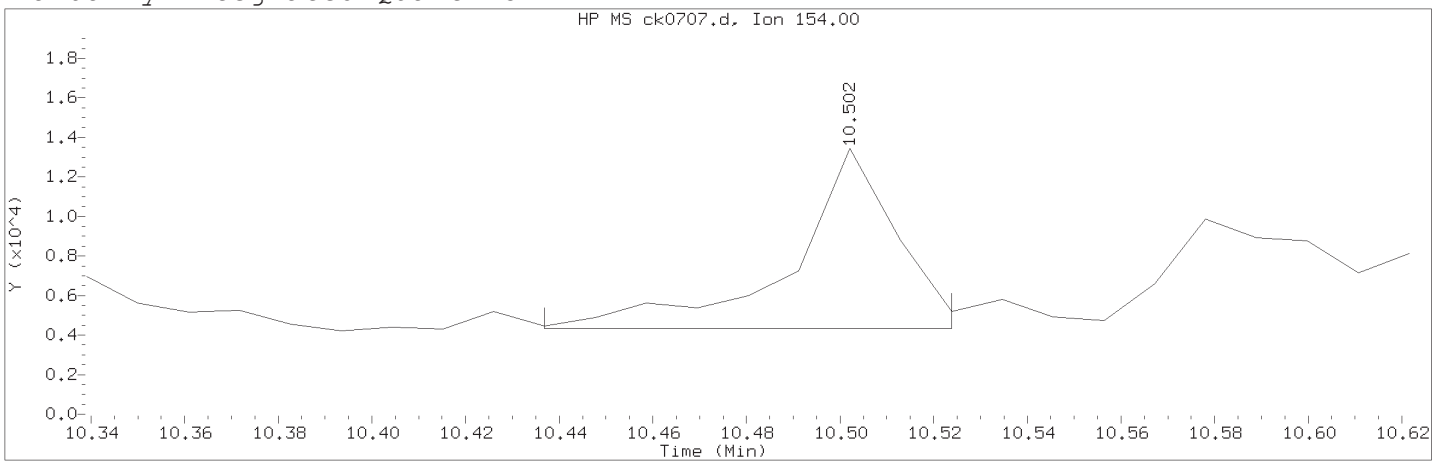
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 778
Retention Time (minutes)	: 10.502
Relative Retention Time	: 0.00000
Quant Ion	: 154.00
Area (flag)	: 14297M
On-column Amount (ng/ul)	: 0.1072

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

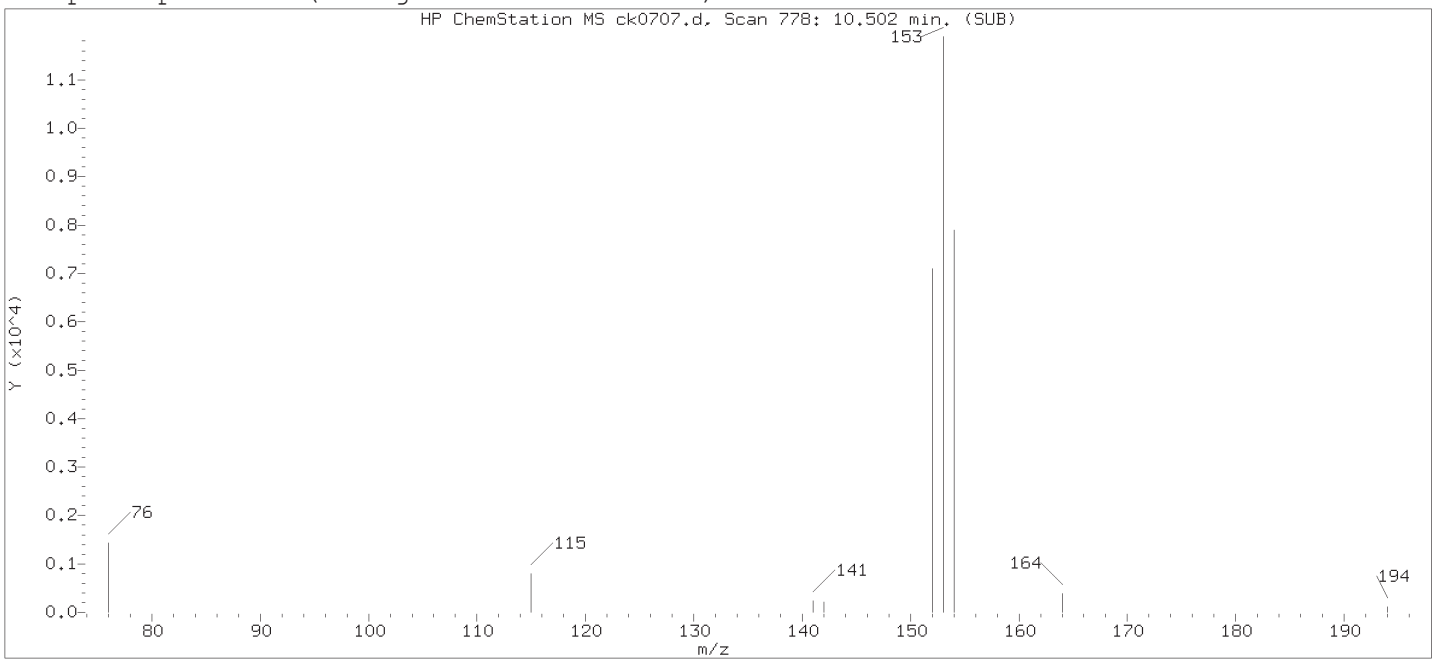
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 778
Retention Time (minutes) : 10.502
Quant Ion : 154.00
Area (flag) : 14297M
On-column Amount (ng/ul) : 0.1072
Integration start scan : 771 Integration stop scan: 779
Y at integration start : 4349 Y at integration end: 4349

Reason for manual integration: improper integration

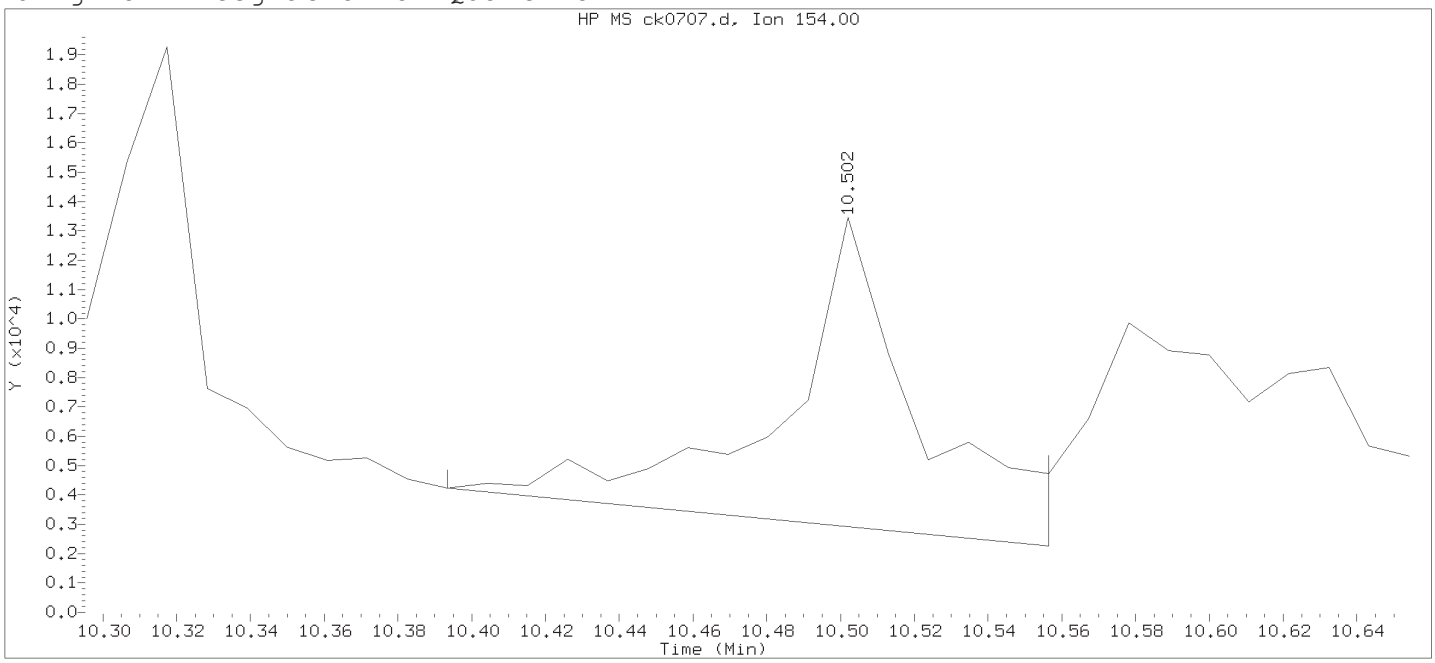
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

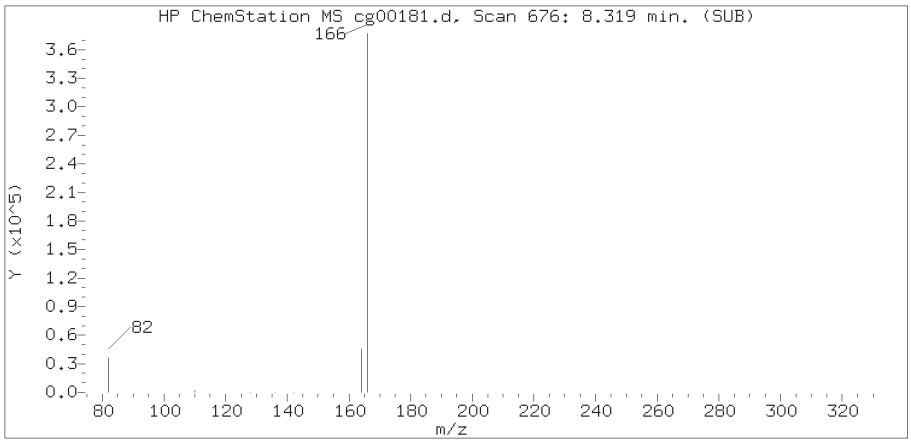
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

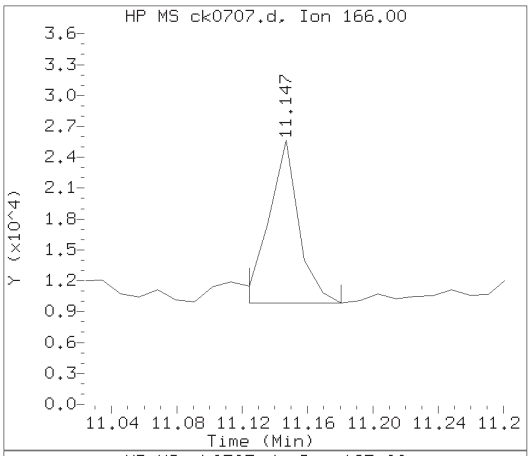
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 778		
Retention Time (minutes)	: 10.502		
Quant Ion	: 154.00		
Area	: 27181		
On-column Amount (ng/ul)	: 0.1871		
Integration start scan	: 767	Integration stop scan:	782
Y at integration start	: 4225	Y at integration end:	2250

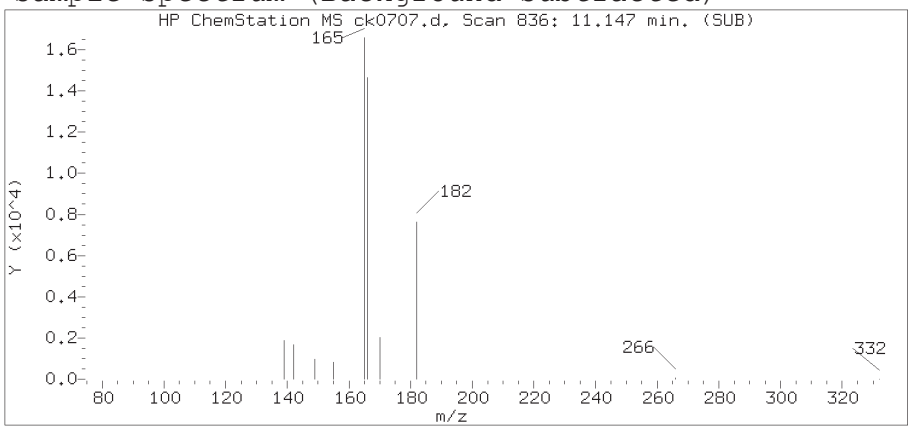
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used 11/16/2018

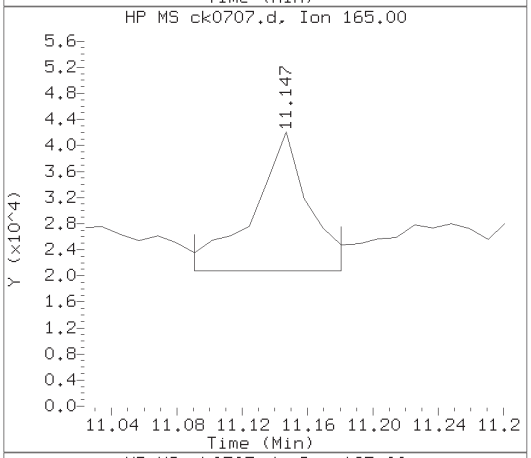
Reference Standard Spectrum for Fluorene



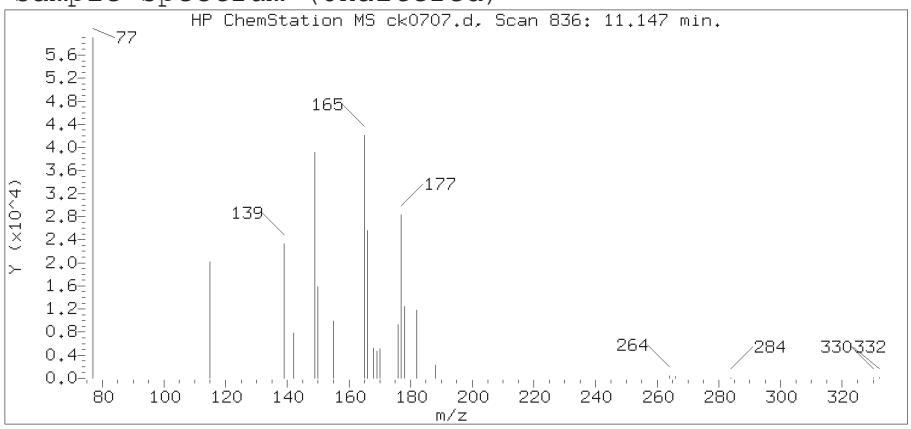


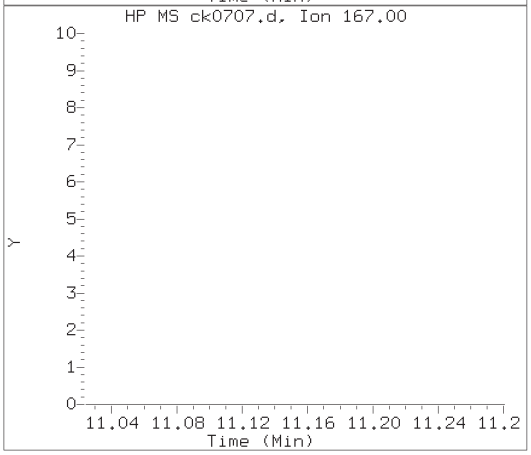
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

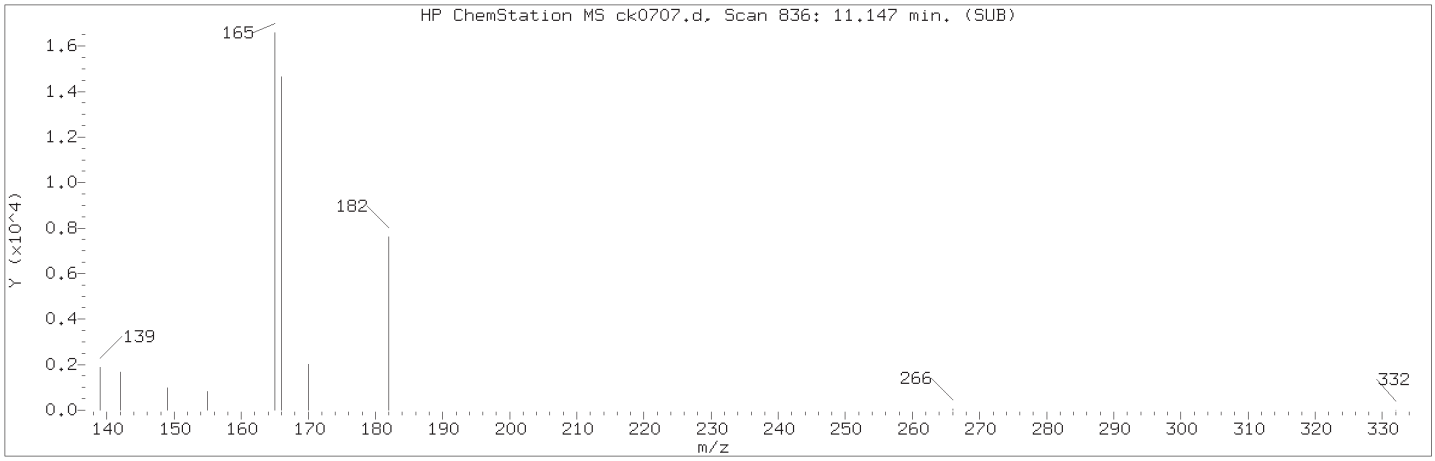
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

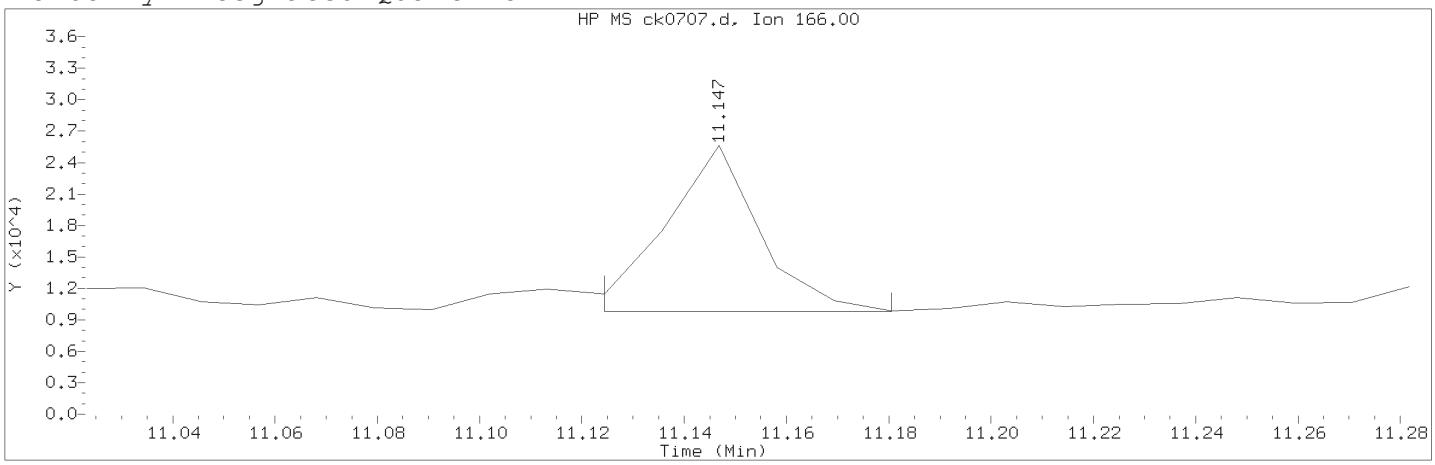
Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 836
Retention Time (minutes)	: 11.147
Relative Retention Time	: 0.00003
Quant Ion	: 166.00
Area (flag)	: 20456M
On-column Amount (ng/ul)	: 0.1434

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

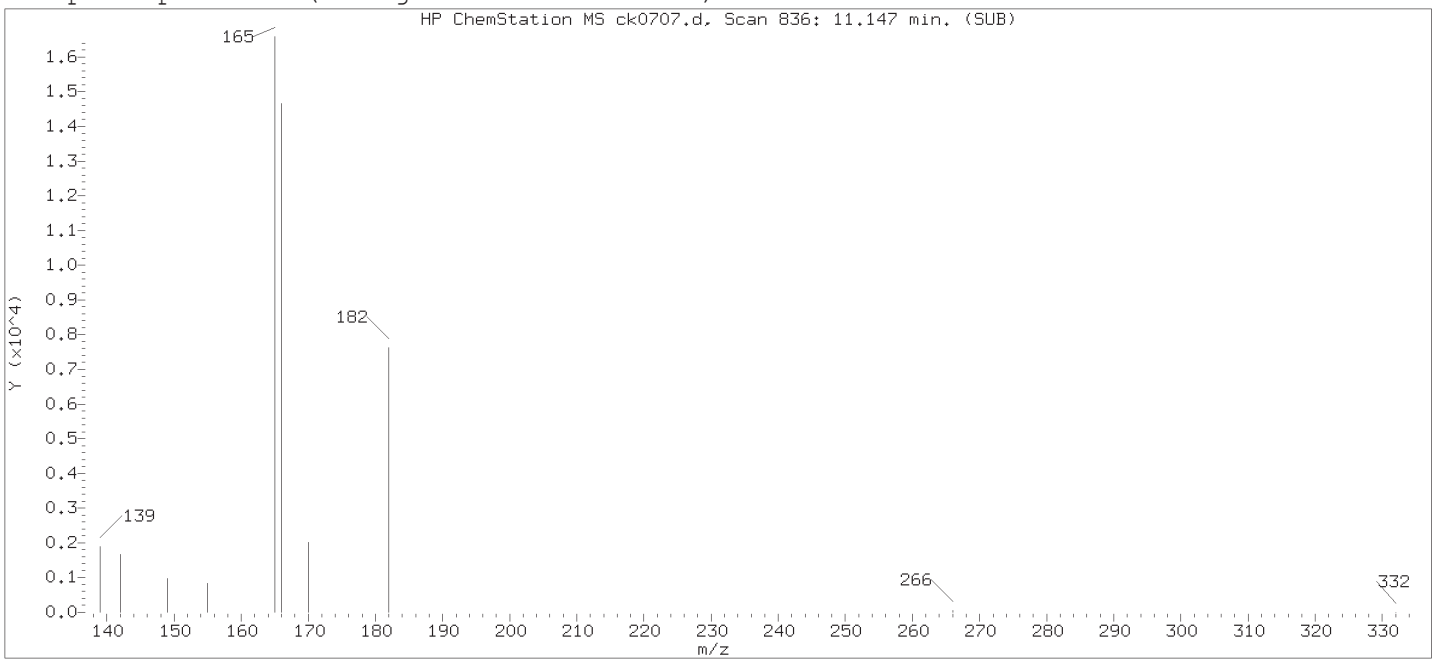
Compound Number : 26
Compound Name : Fluorene
Scan Number : 836
Retention Time (minutes) : 11.147
Quant Ion : 166.00
Area (flag) : 20456M
On-column Amount (ng/ul) : 0.1434
Integration start scan : 833 Integration stop scan: 838
Y at integration start : 9822 Y at integration end: 9822

Reason for manual integration: improper integration

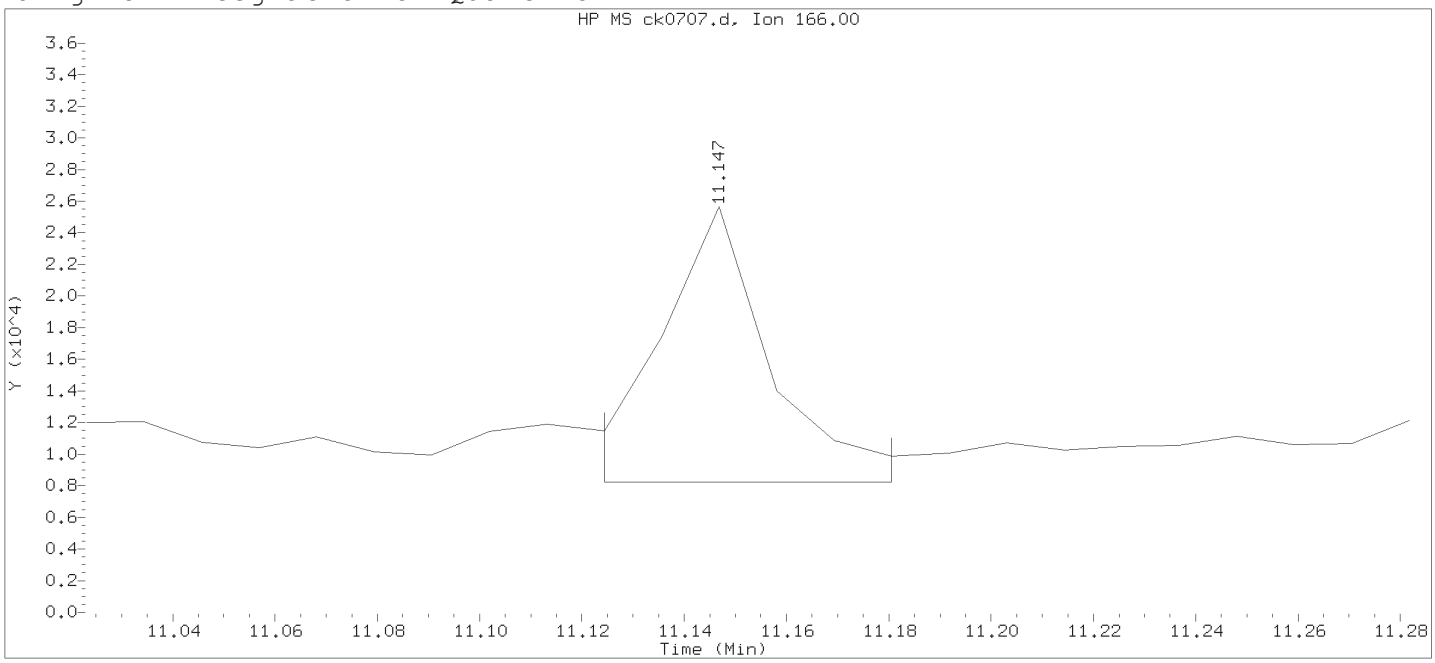
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

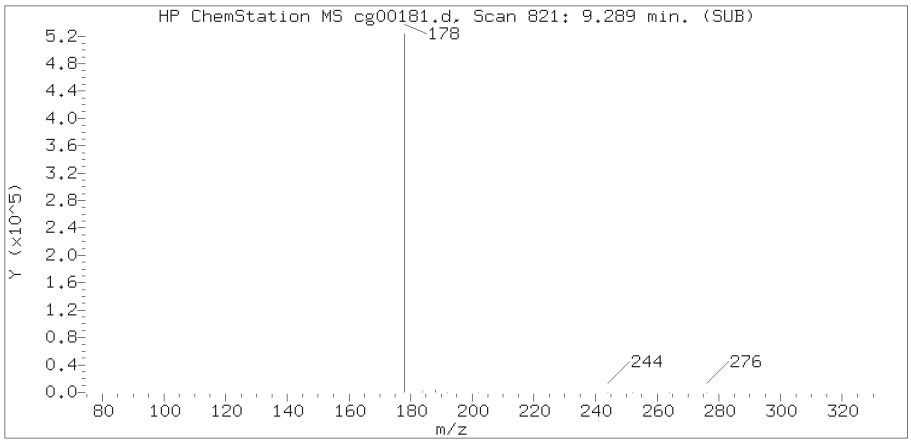
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

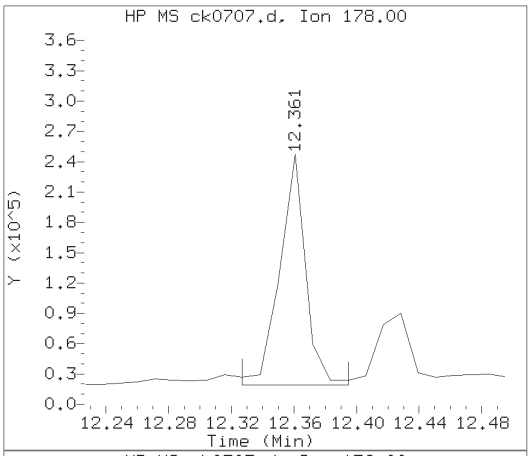
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 836		
Retention Time (minutes)	: 11.147		
Quant Ion	: 166.00		
Area	: 25175		
On-column Amount (ng/ul)	: 0.1620		
Integration start scan	: 833	Integration stop scan:	838
Y at integration start	: 8253	Y at integration end:	8253

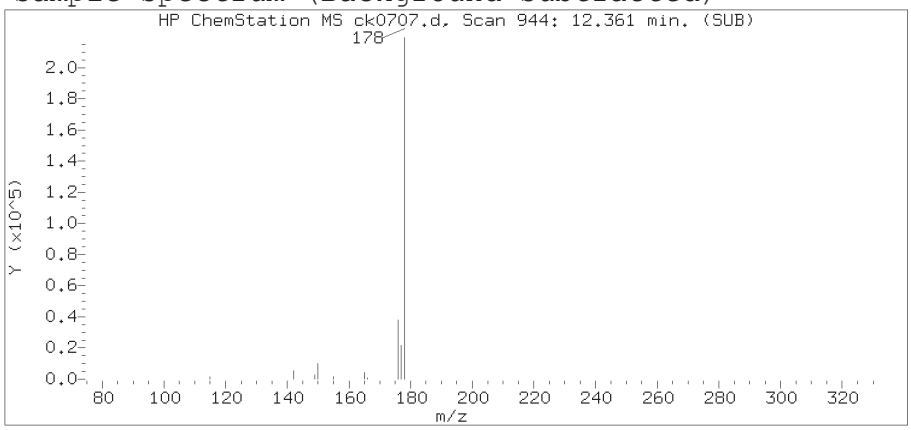
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used [illegible]

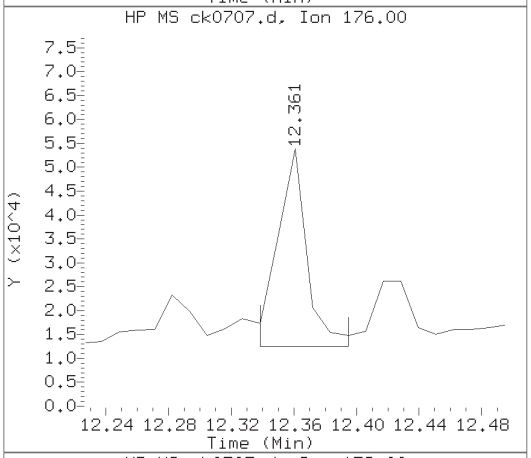
Reference Standard Spectrum for Phenanthrene



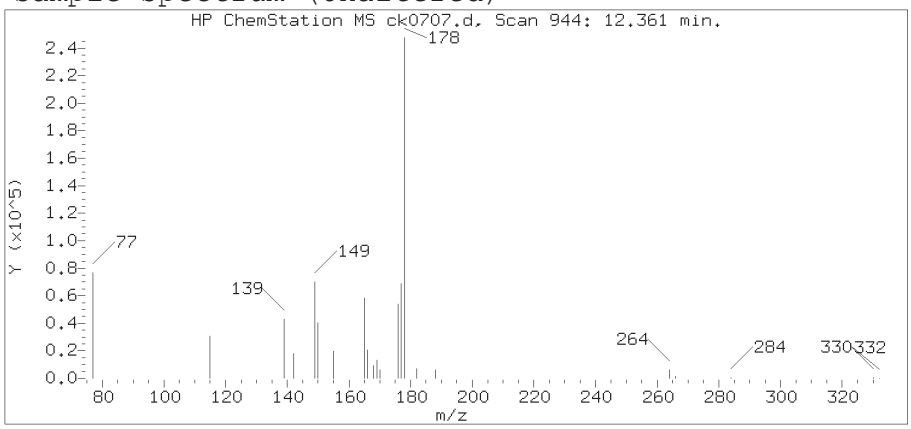


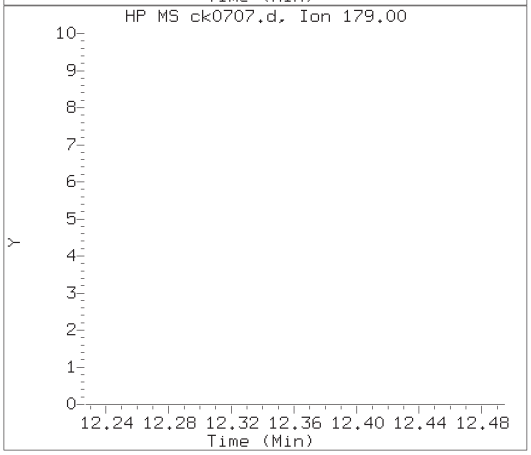
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

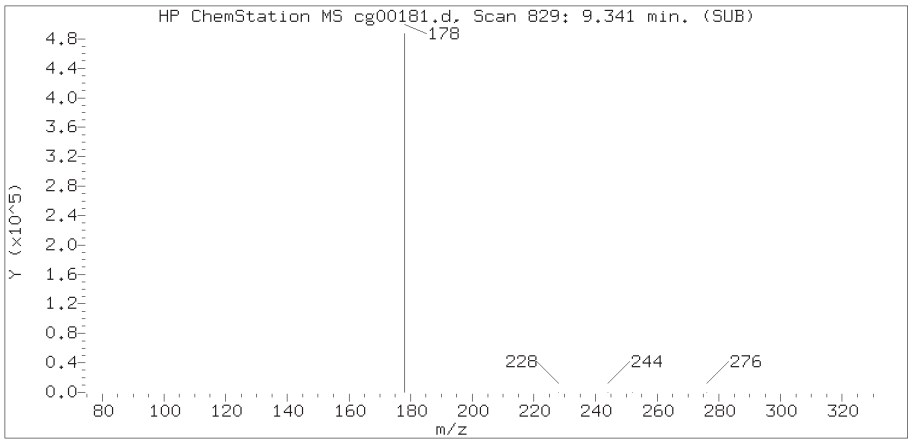
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

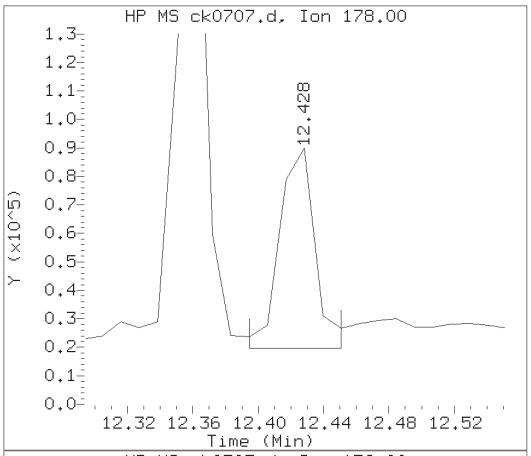
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 944
Retention Time (minutes)	: 12.361
Relative Retention Time	: 0.00001
Quant Ion	: 178.00
Area (flag)	: 263230
On-column Amount (ng/ul)	: 1.5710

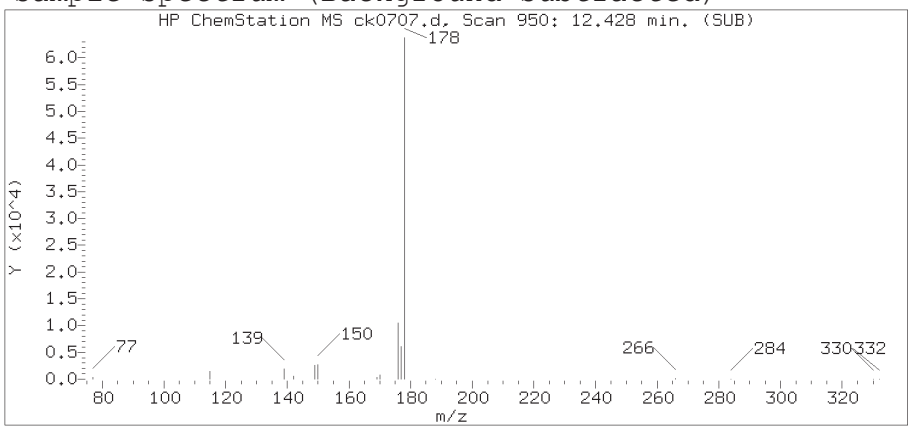
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

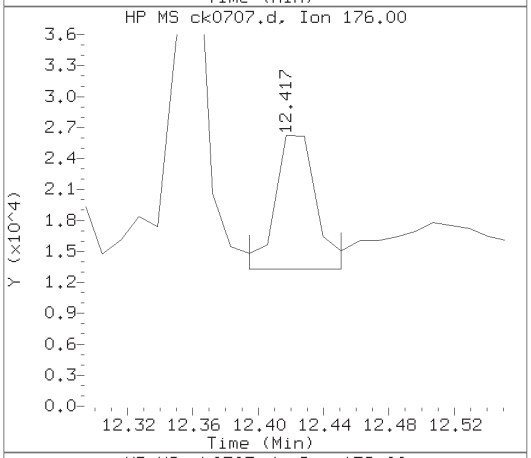
Reference Standard Spectrum for Anthracene



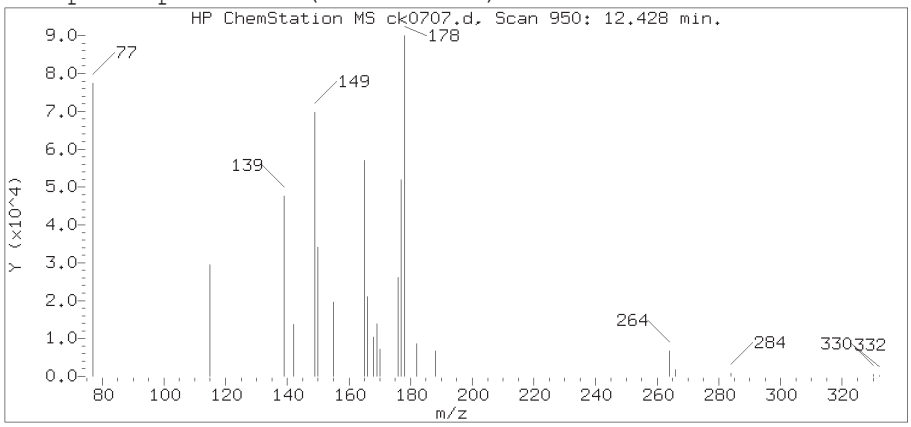


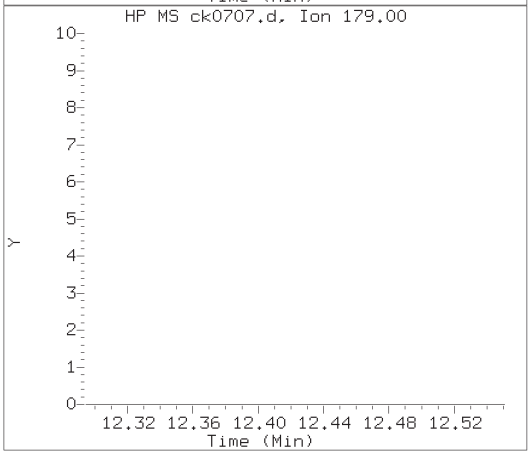
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

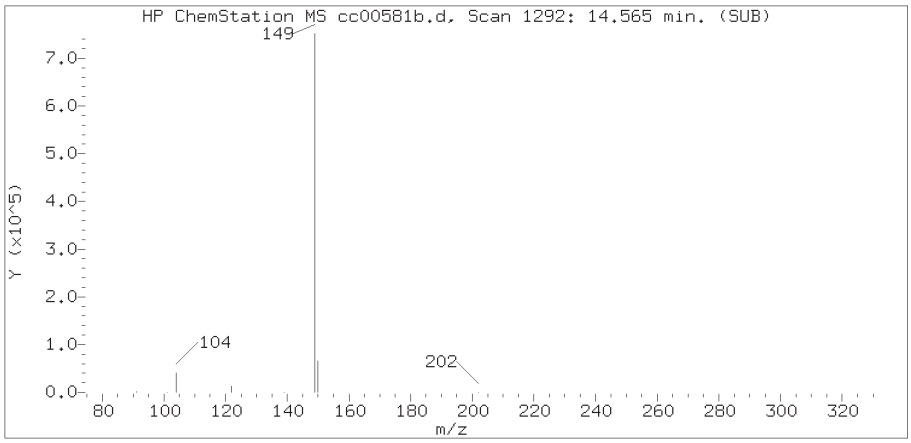
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

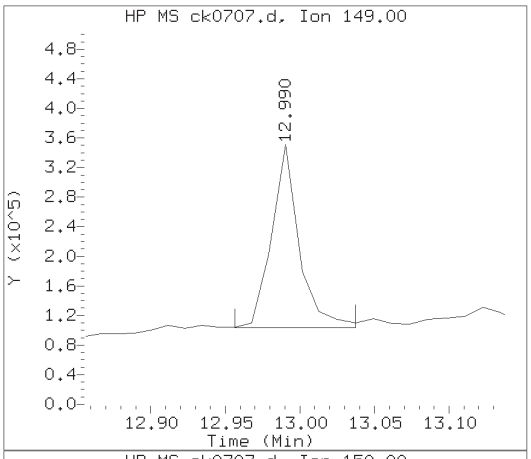
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 950
Retention Time (minutes)	: 12.428
Relative Retention Time	: 0.00002
Quant Ion	: 178.00
Area (flag)	: 104418
On-column Amount (ng/ul)	: 0.6481

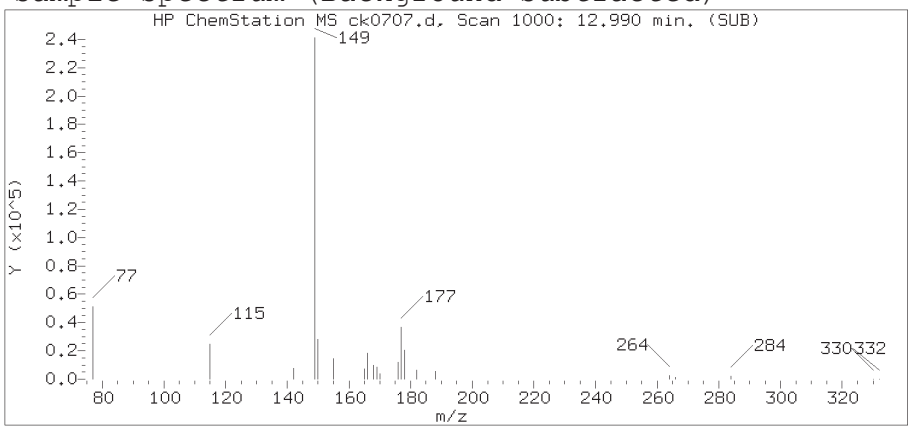
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

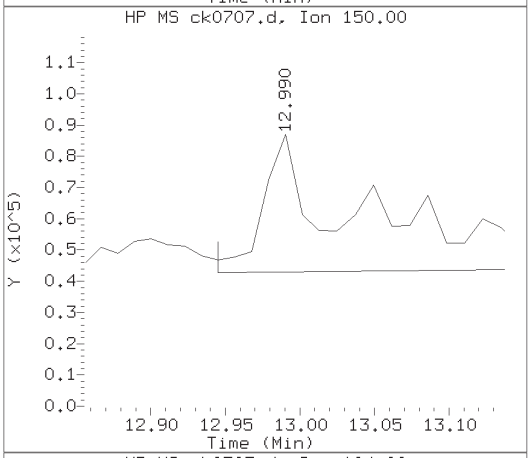
Reference Standard Spectrum for Di-n-butylphthalate



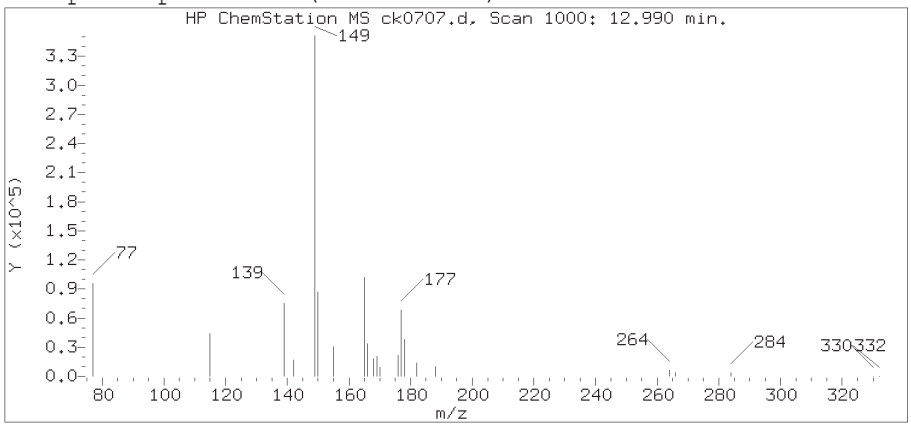


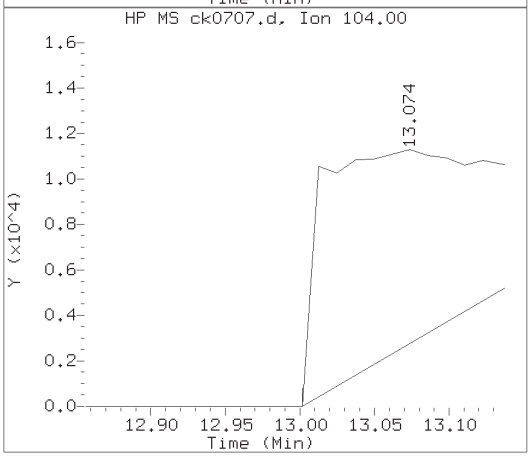
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

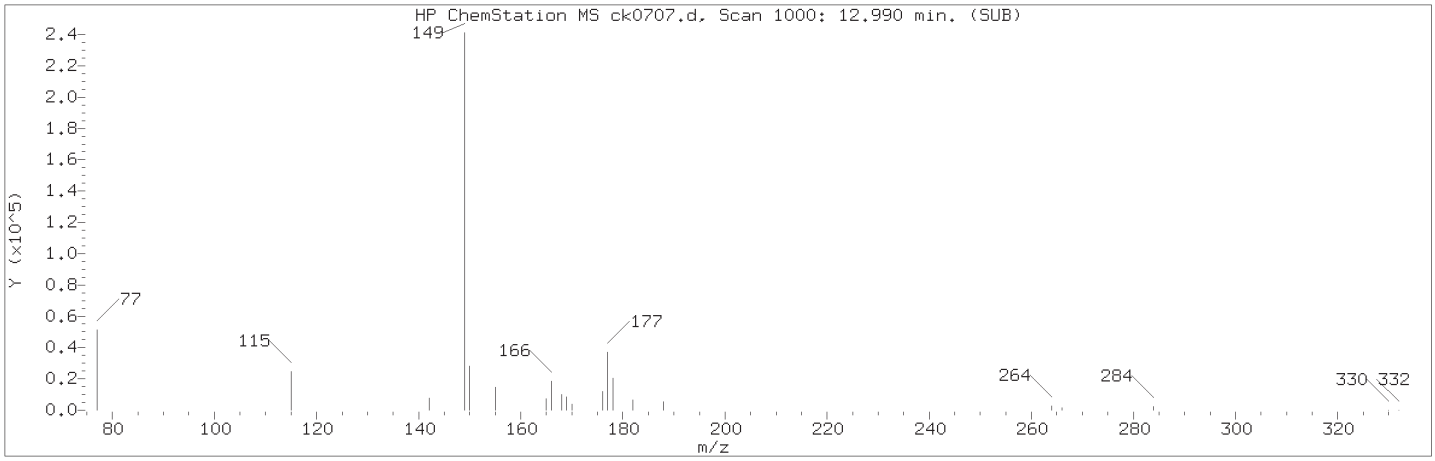
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

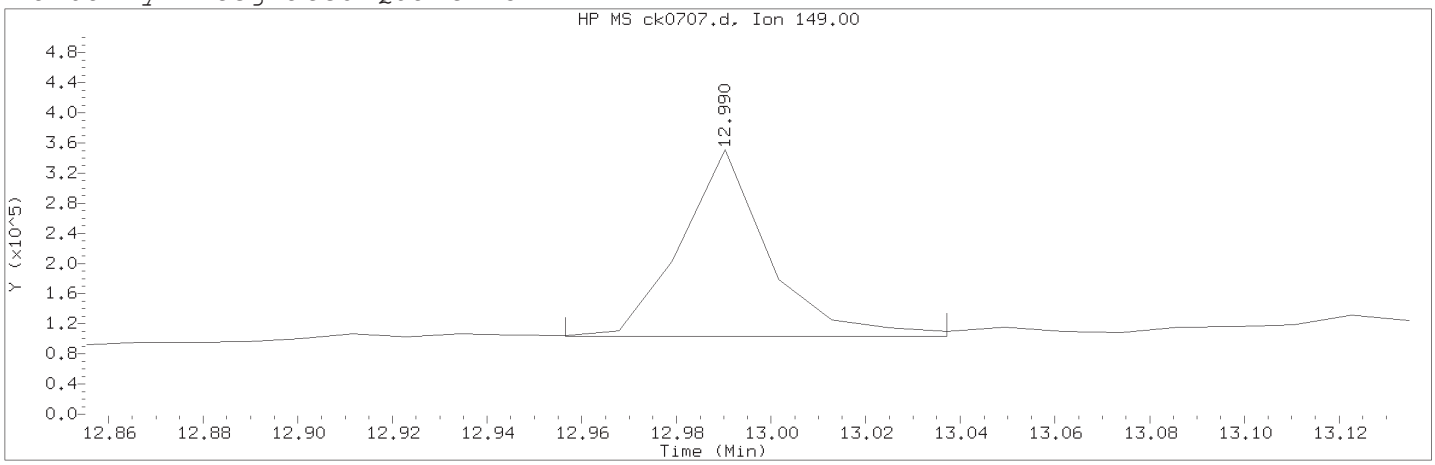
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1000
Retention Time (minutes)	: 12.990
Relative Retention Time	: 0.00010
Quant Ion	: 149.00
Area (flag)	: 329166M
On-column Amount (ng/ul)	: 1.8340

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

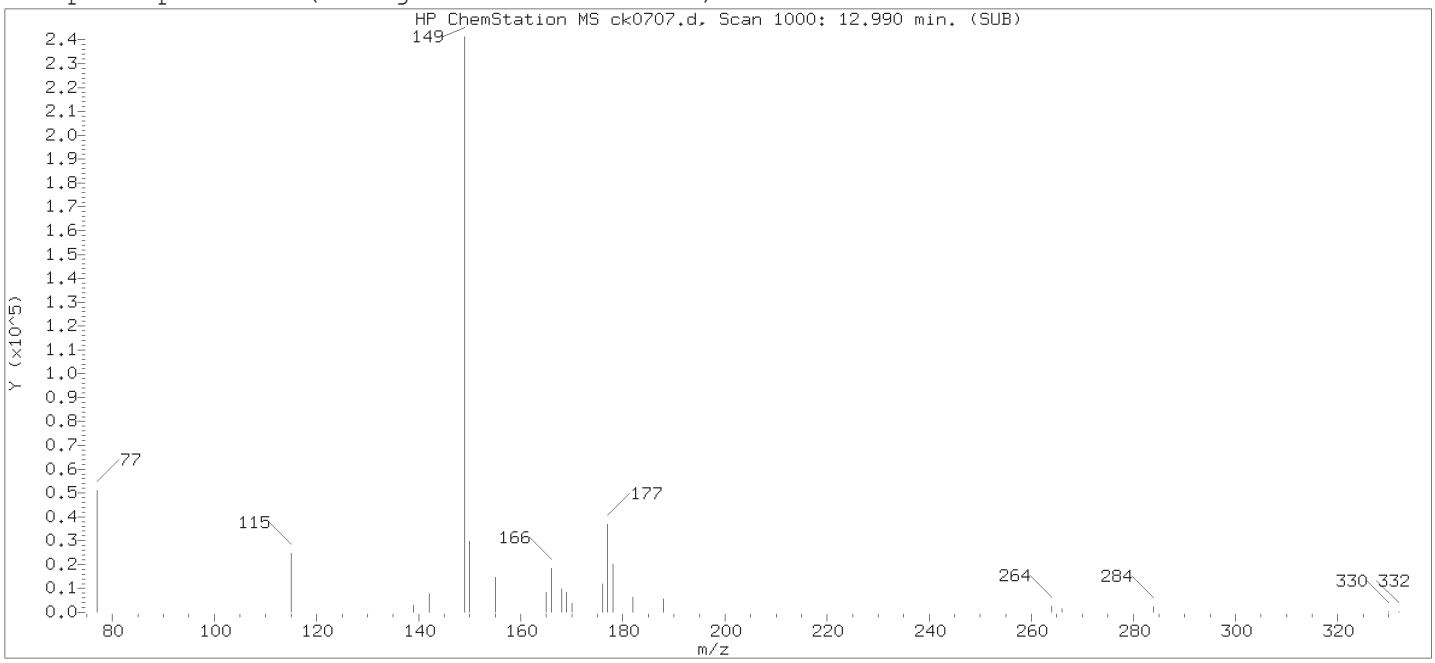
Compound Number : 35
Compound Name : Di-n-butylphthalate
Scan Number : 1000
Retention Time (minutes) : 12.990
Quant Ion : 149.00
Area (flag) : 329166M
On-column Amount (ng/ul) : 1.8340
Integration start scan : 996 Integration stop scan: 1003
Y at integration start : 103175 Y at integration end: 103175

Reason for manual integration: improper integration

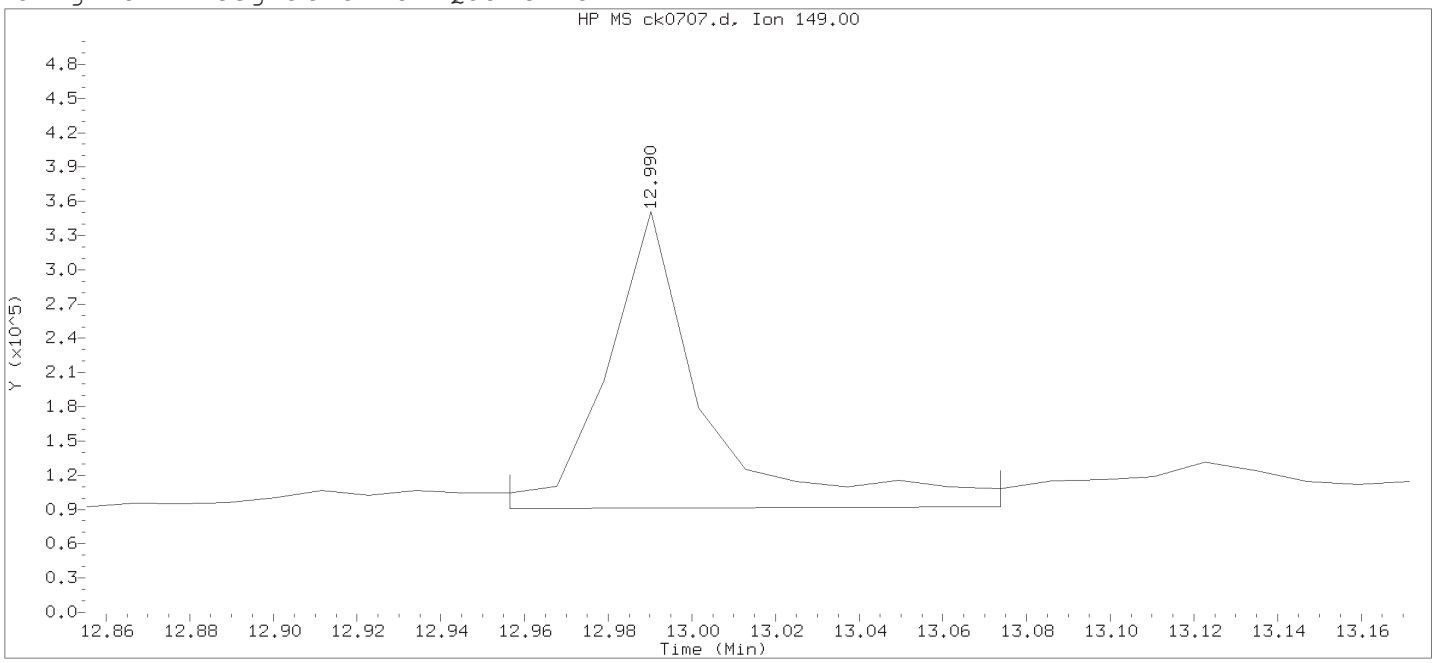
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

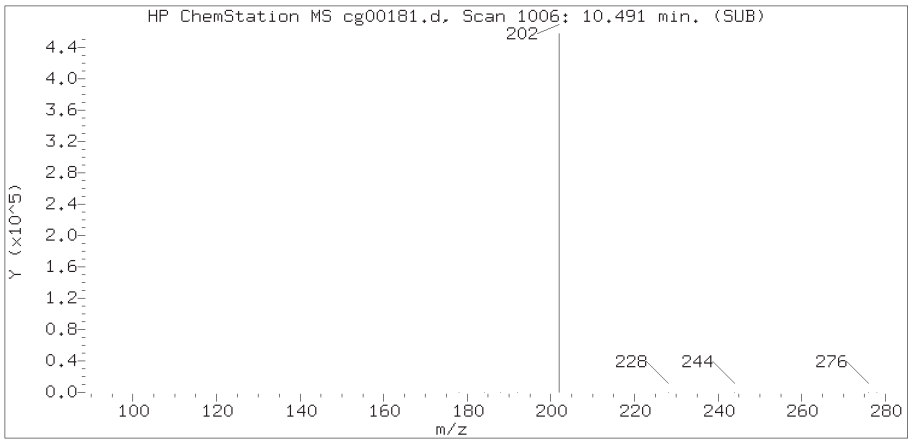
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

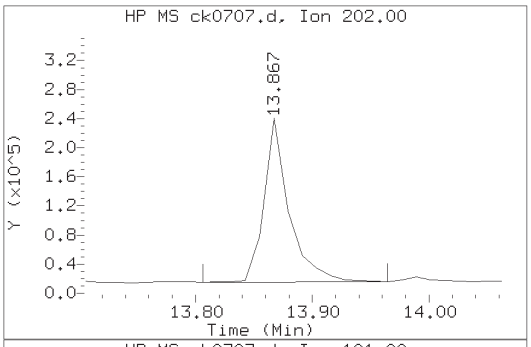
Sample Name: 12T07RE Lab Sample ID: 9872065RE

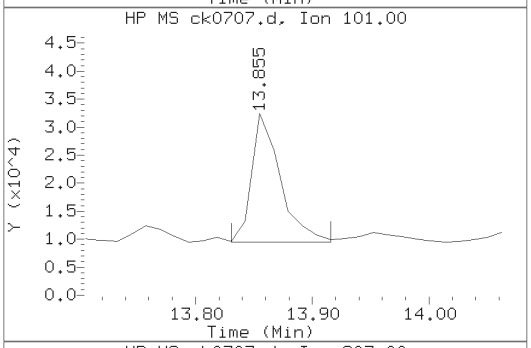
Compound Number	: 35
Compound Name	: Di-n-butylphthalate
Scan Number	: 1000
Retention Time (minutes)	: 12.990
Quant Ion	: 149.00
Area	: 425324
On-column Amount (ng/ul)	: 2.3698
Integration start scan	: 996 Integration stop scan: 1006
Y at integration start	: 90865 Y at integration end: 92558

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used [illegible]

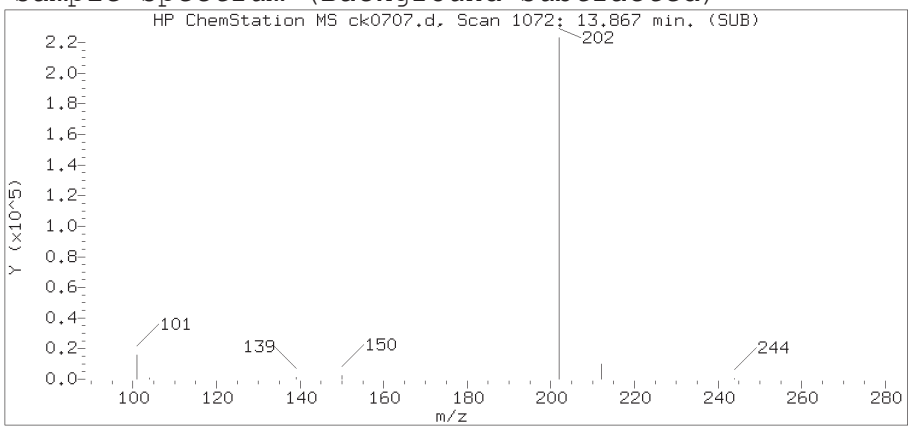
Reference Standard Spectrum for Fluoranthene

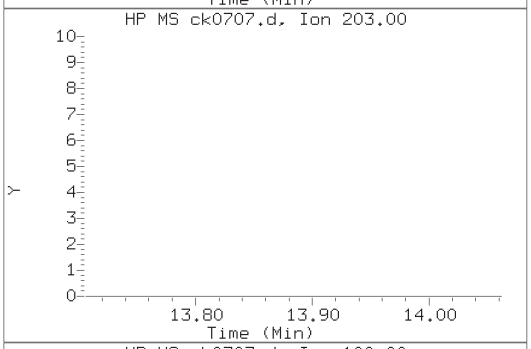




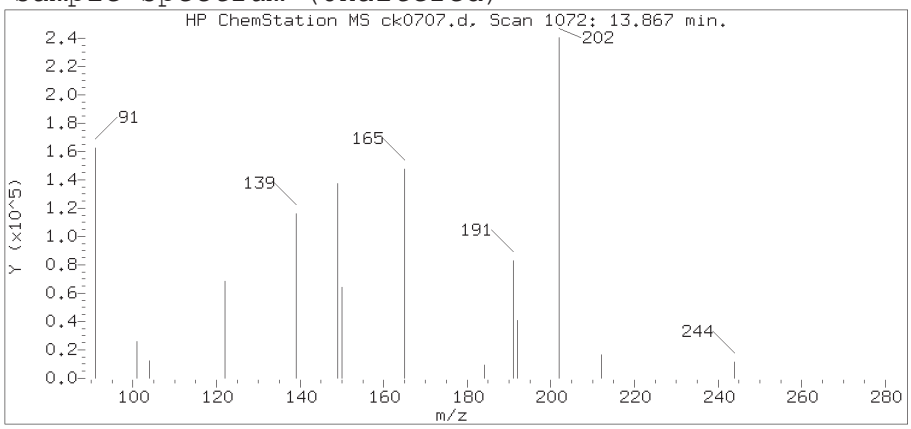


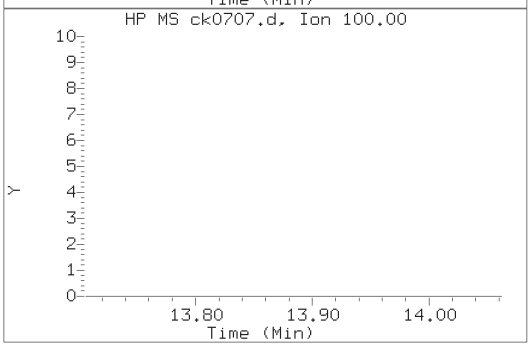
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

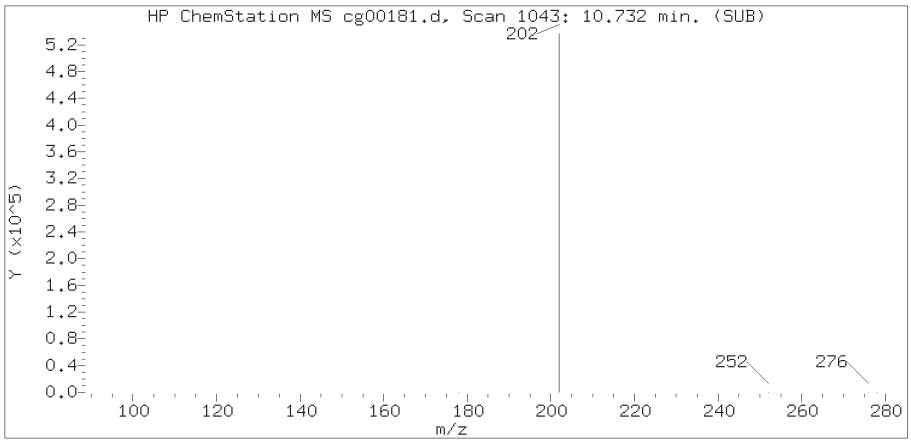
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

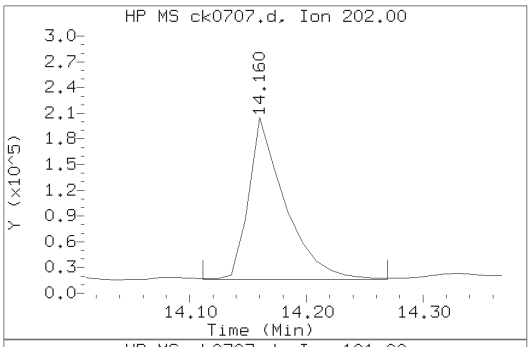
Sample Name: 12T07RE Lab Sample ID: 9872065RE

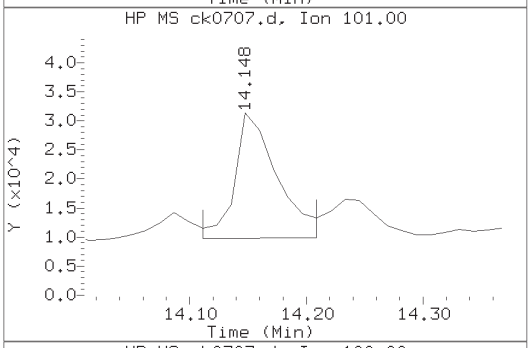
Compound Number	: 37
Compound Name	: Fluoranthene
Scan Number	: 1072
Retention Time (minutes)	: 13.867
Relative Retention Time	:-0.00092
Quant Ion	: 202.00
Area (flag)	: 337368
On-column Amount (ng/ul)	: 2.0491

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

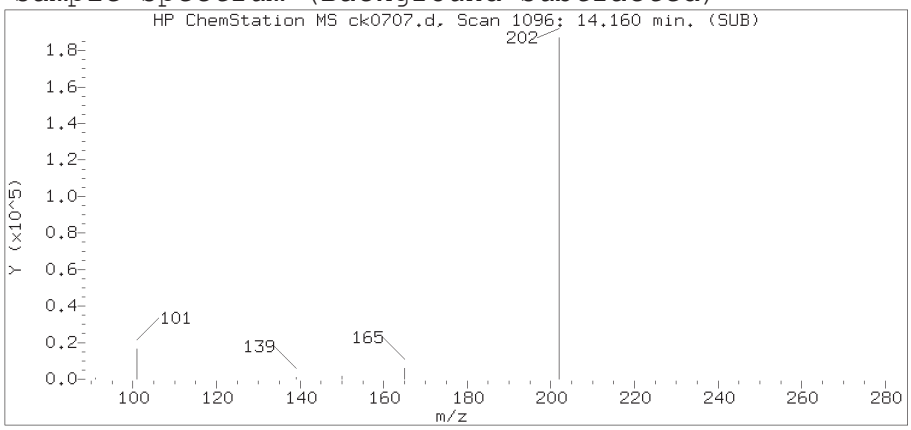
Reference Standard Spectrum for Pyrene

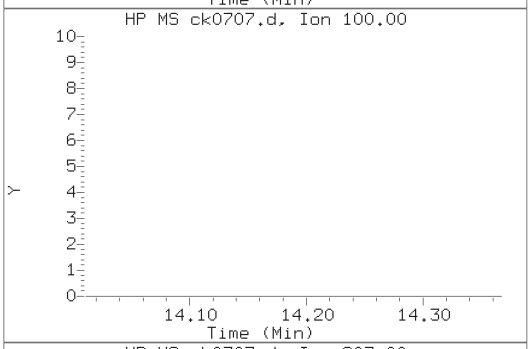




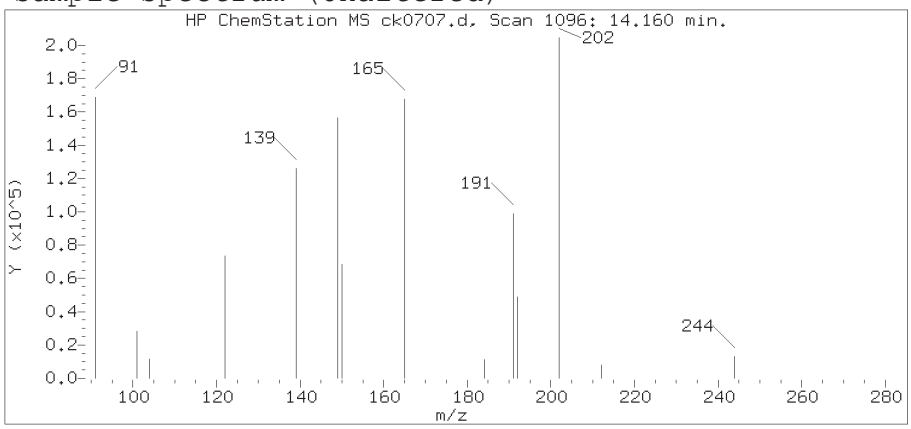


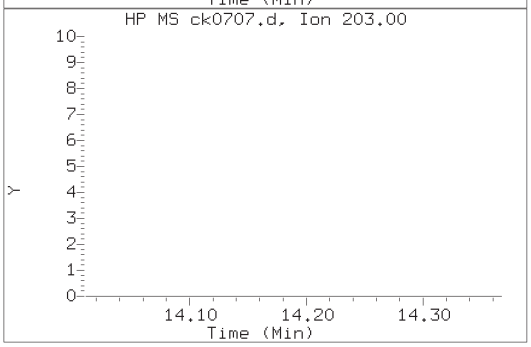
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

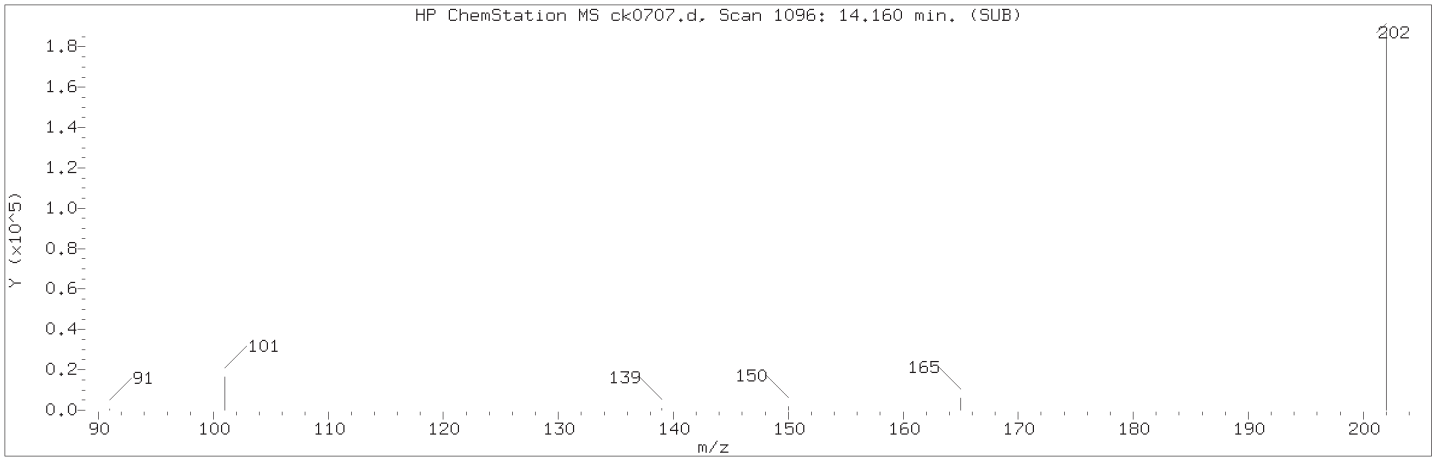
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

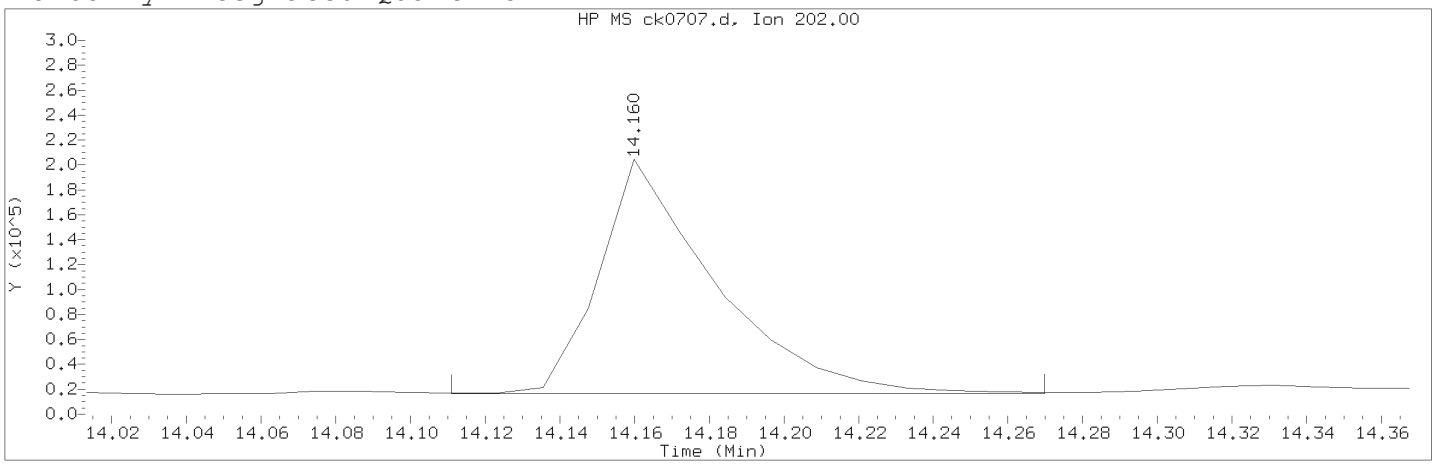
Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1096
Retention Time (minutes)	: 14.160
Relative Retention Time	: 0.00262
Quant Ion	: 202.00
Area (flag)	: 404466A
On-column Amount (ng/ul)	: 2.8999

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

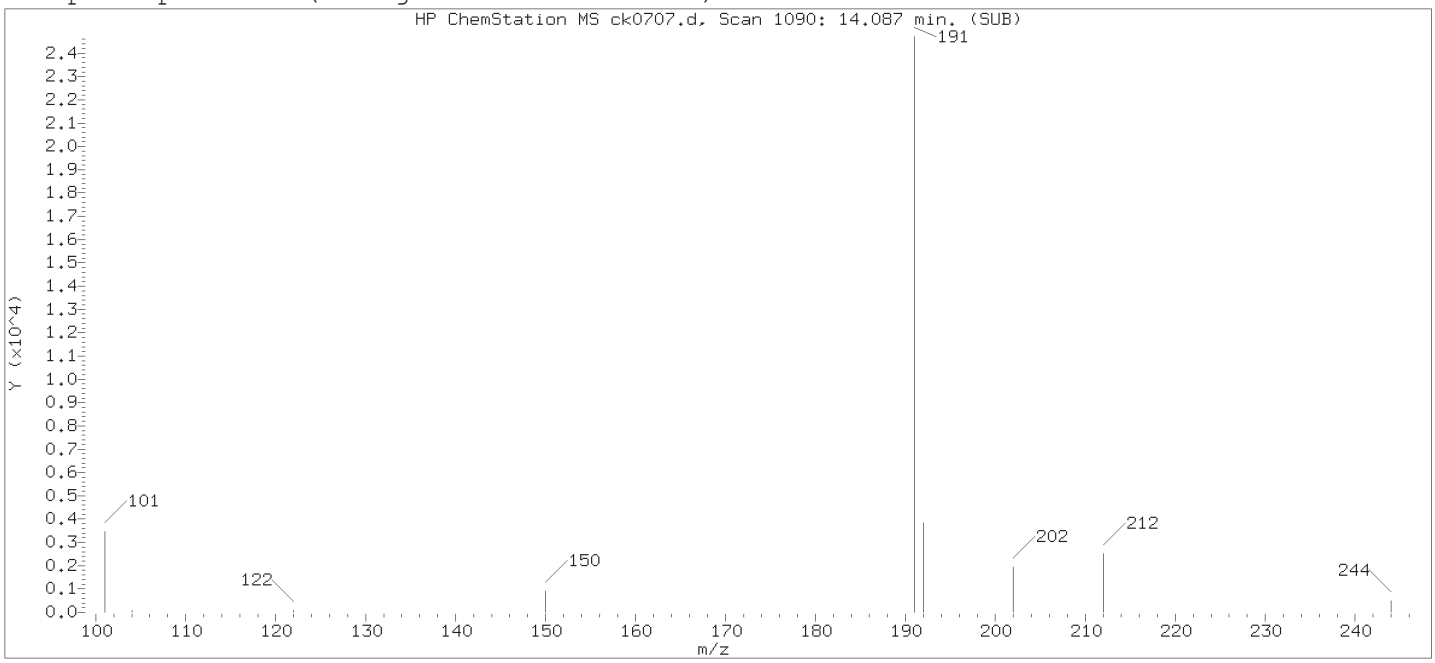
Compound Number : 39
Compound Name : Pyrene
Scan Number : 1096
Retention Time (minutes) : 14.160
Quant Ion : 202.00
Area (flag) : 404466A
On-column Amount (ng/ul) : 2.8999
Integration start scan : 1091 Integration stop scan: 1104
Y at integration start : 16340 Y at integration end: 16504

Reason for manual integration: improper integration

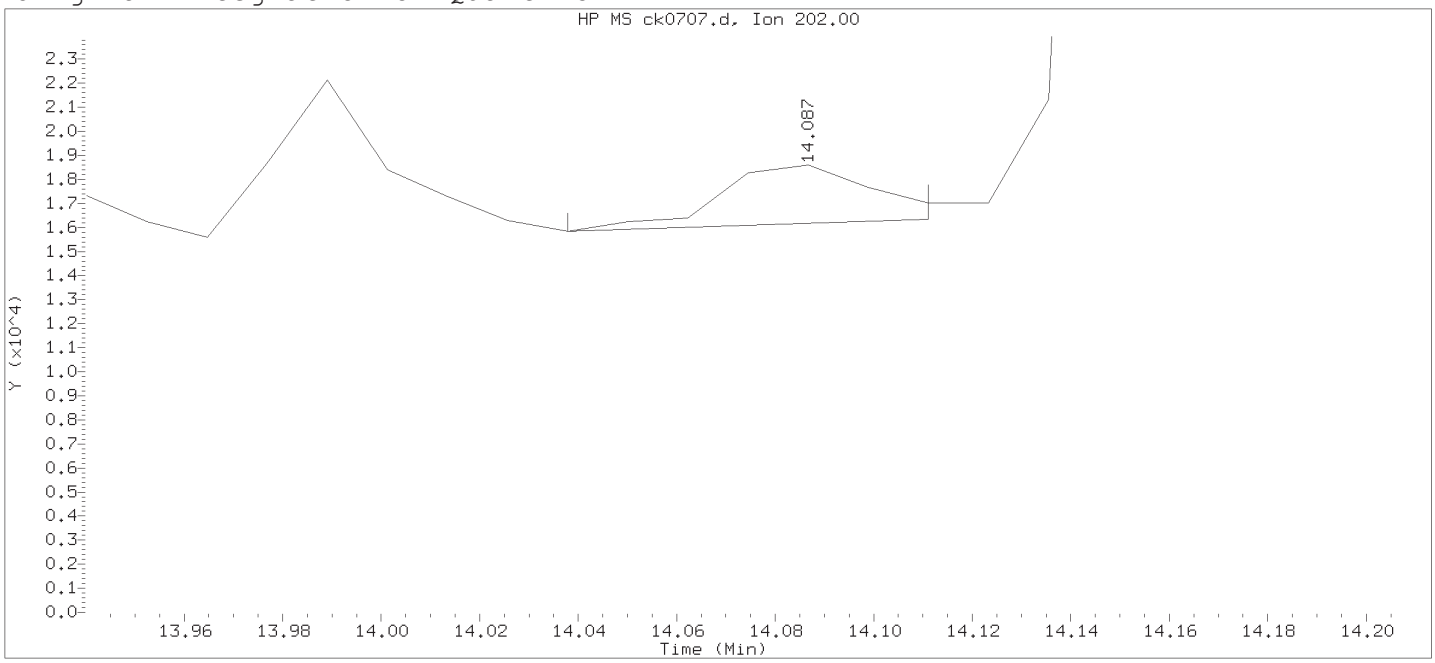
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

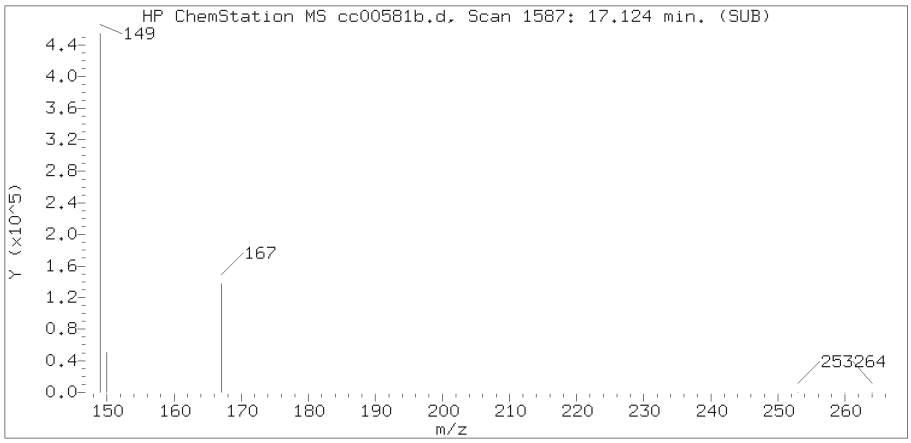
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

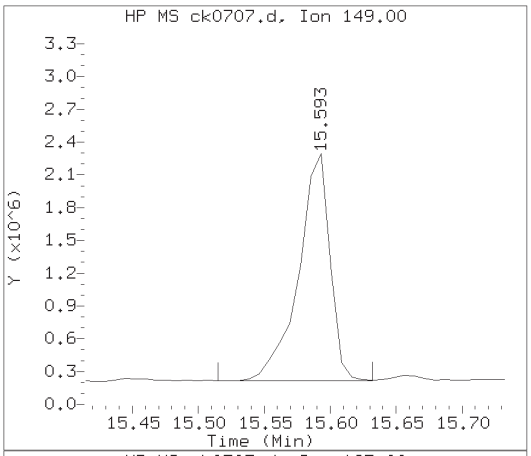
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 39
Compound Name	: Pyrene
Scan Number	: 1090
Retention Time (minutes)	: 14.087
Quant Ion	: 202.00
Area	: 5156
On-column Amount (ng/ul)	: 0.3526
Integration start scan	: 1085 Integration stop scan: 1091
Y at integration start	: 15848 Y at integration end: 16340

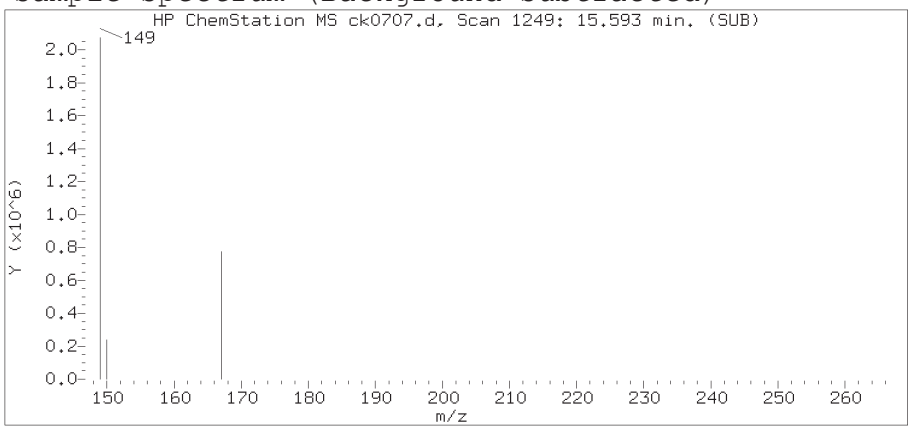
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.0.0.0

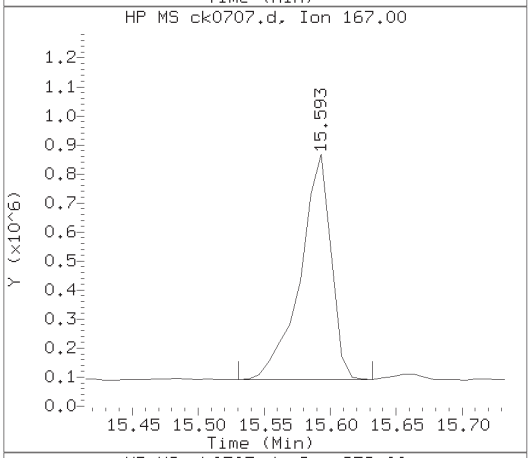
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



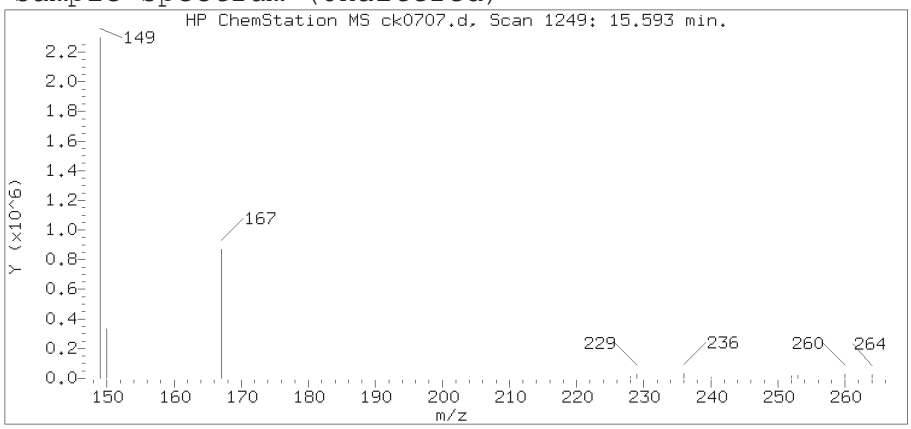


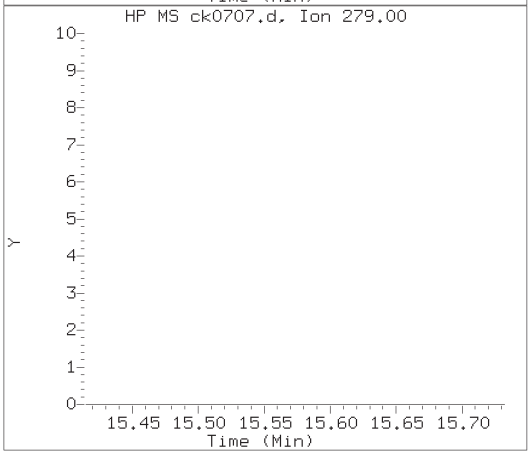
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

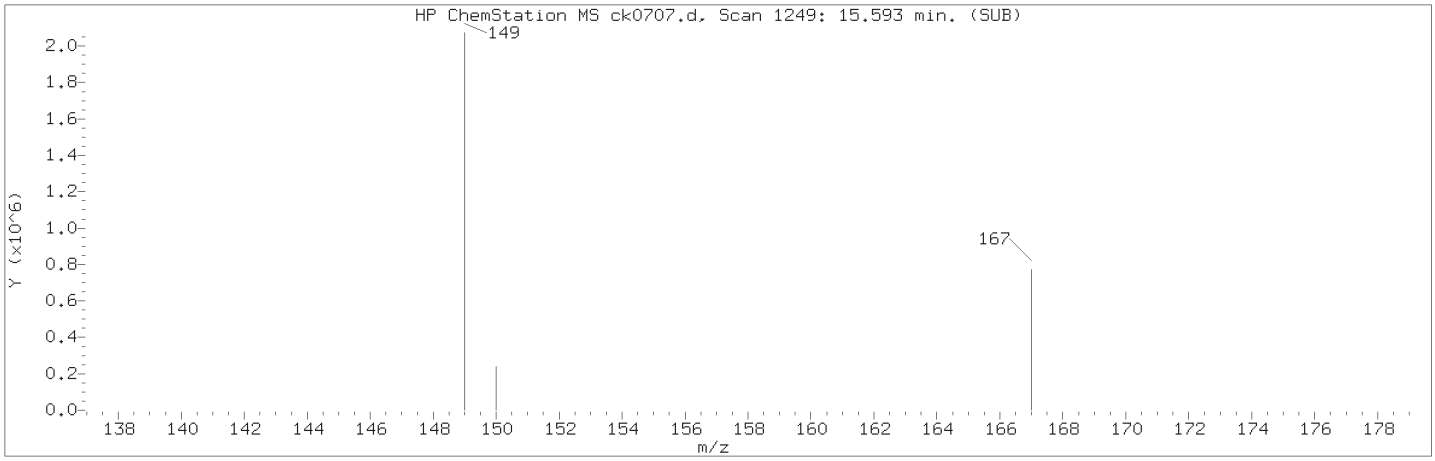
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

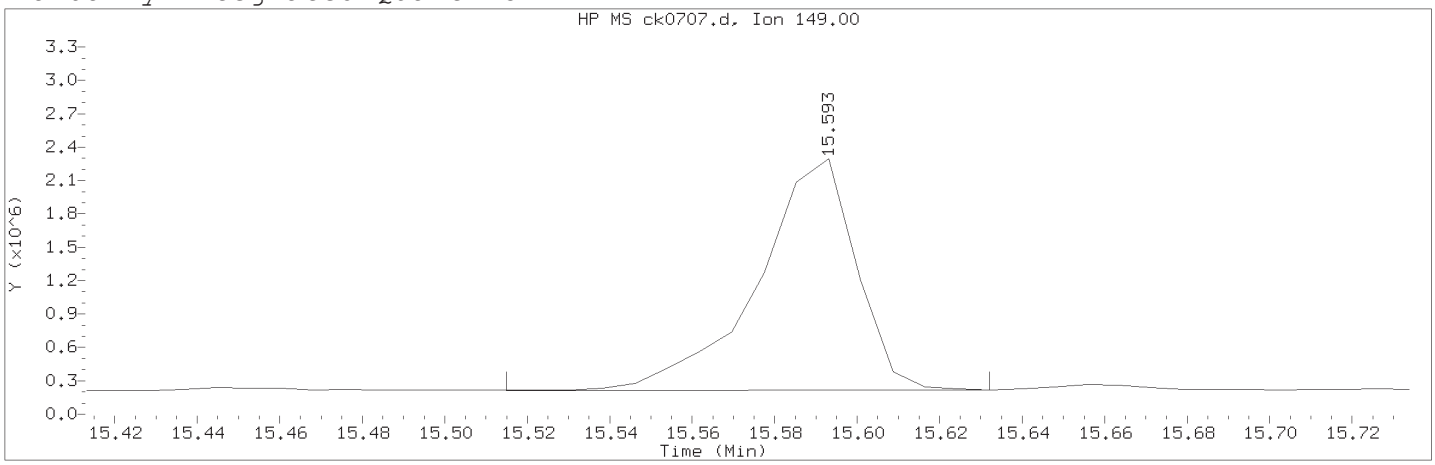
Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1249
Retention Time (minutes)	: 15.593
Relative Retention Time	: 0.00097
Quant Ion	: 149.00
Area (flag)	: 3460422A
On-column Amount (ng/ul)	: 33.8495

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

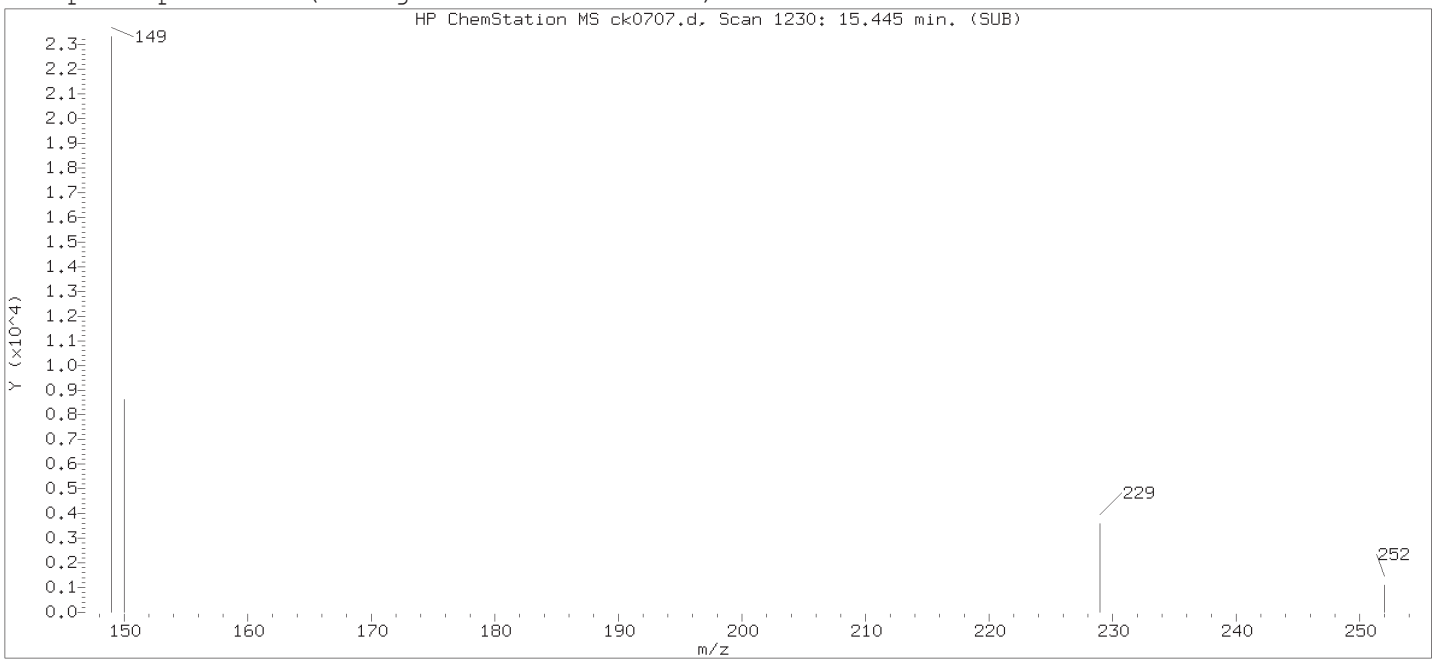
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1249
Retention Time (minutes) : 15.593
Quant Ion : 149.00
Area (flag) : 3460422A
On-column Amount (ng/ul) : 33.8495
Integration start scan : 1238 Integration stop scan: 1253
Y at integration start : 212576 Y at integration end: 215204

Reason for manual integration: improper integration

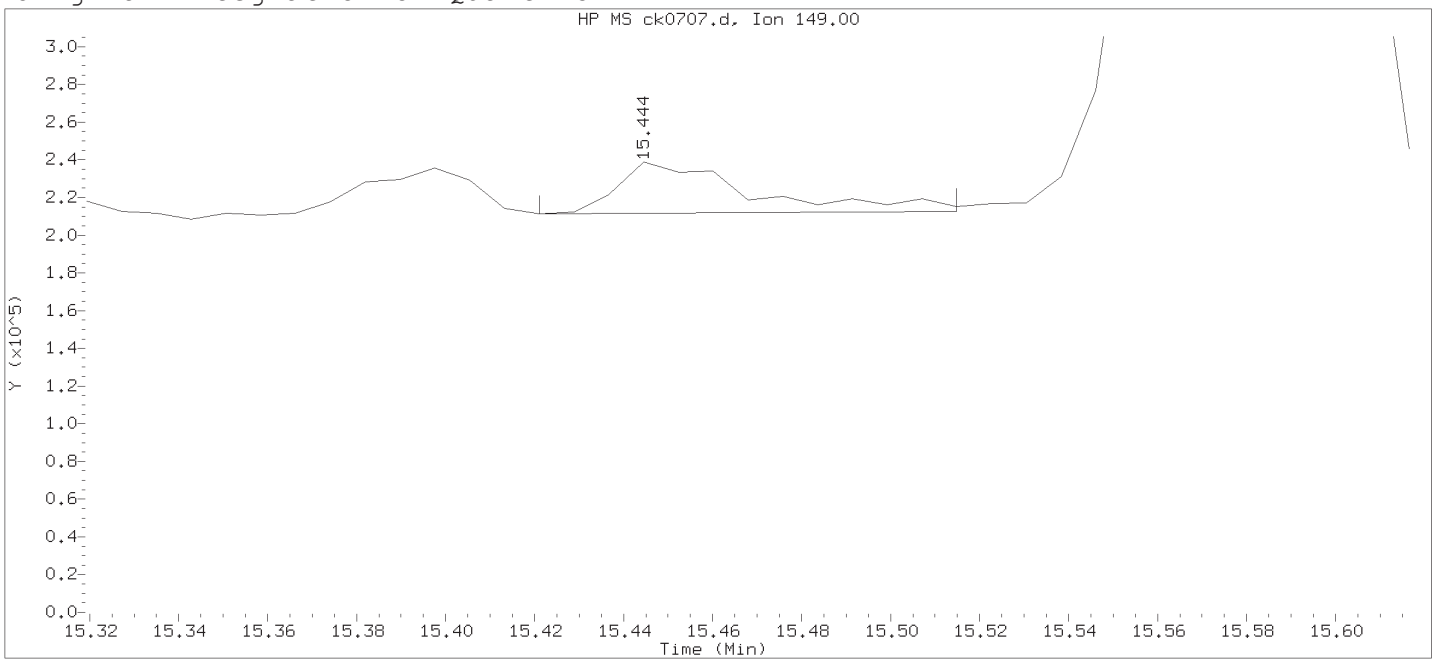
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

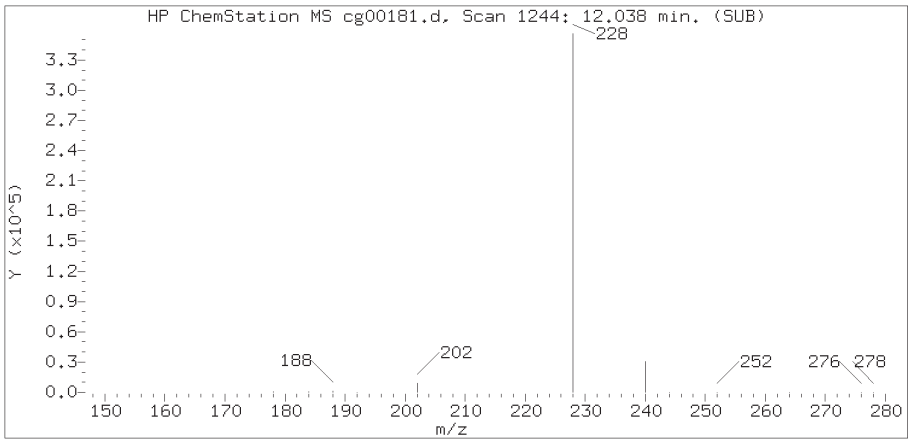
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

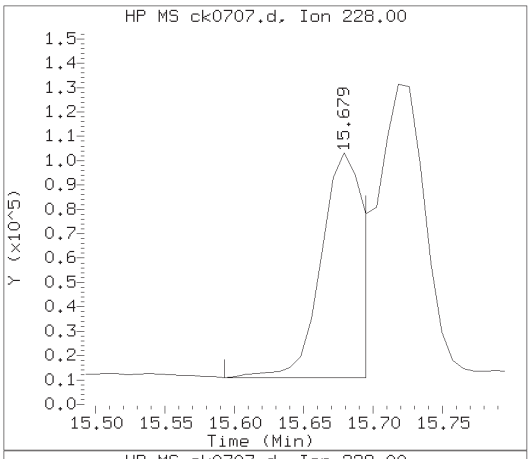
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1230
Retention Time (minutes) : 15.444
Quant Ion : 149.00
Area : 56694
On-column Amount (ng/ul) : 5.3933
Integration start scan : 1226 Integration stop scan: 1238
Y at integration start : 211264 Y at integration end: 212576

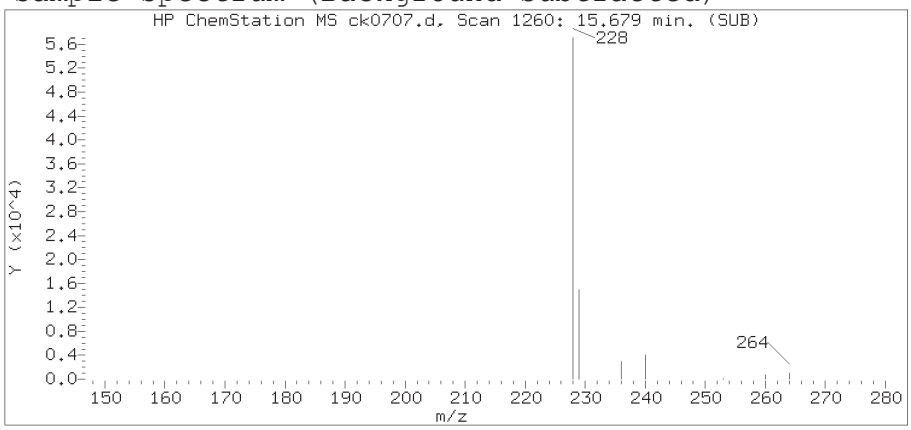
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: jmg00346

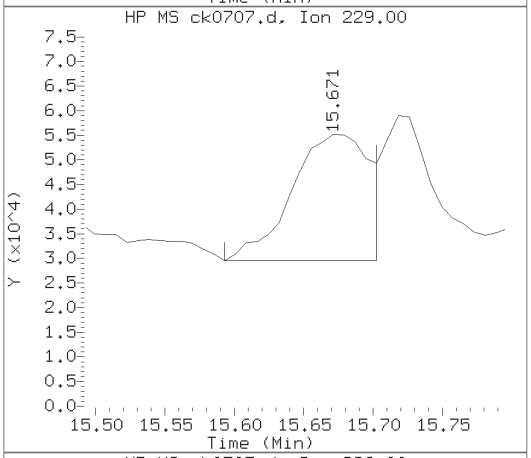
Reference Standard Spectrum for Benzo(a)anthracene



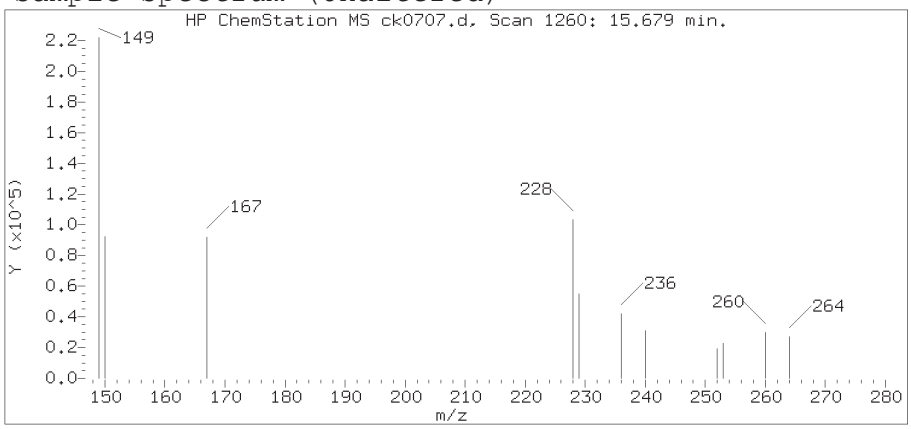


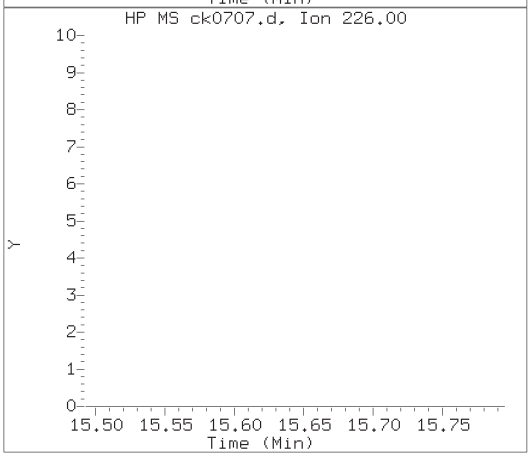
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

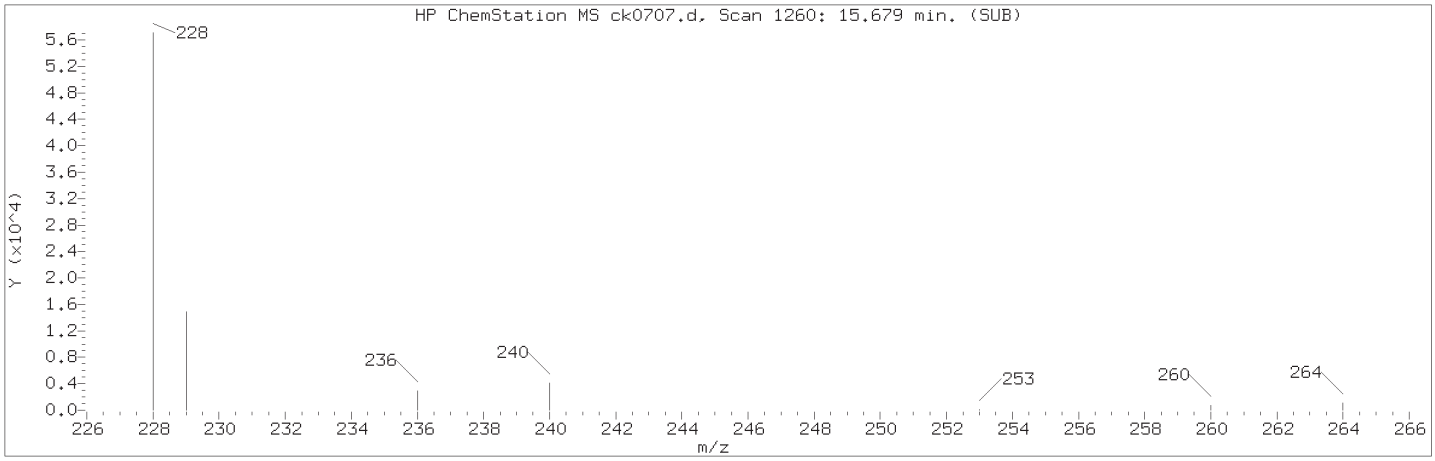
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

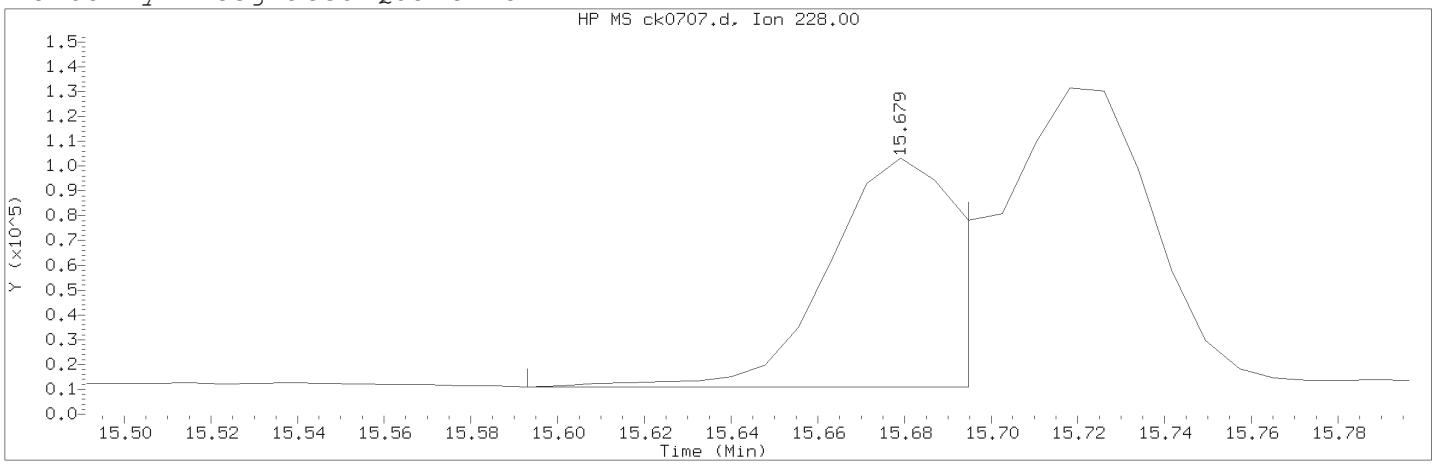
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1260
Retention Time (minutes)	: 15.679
Relative Retention Time	:-0.00001
Quant Ion	: 228.00
Area (flag)	: 182614A
On-column Amount (ng/ul)	: 1.6260

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

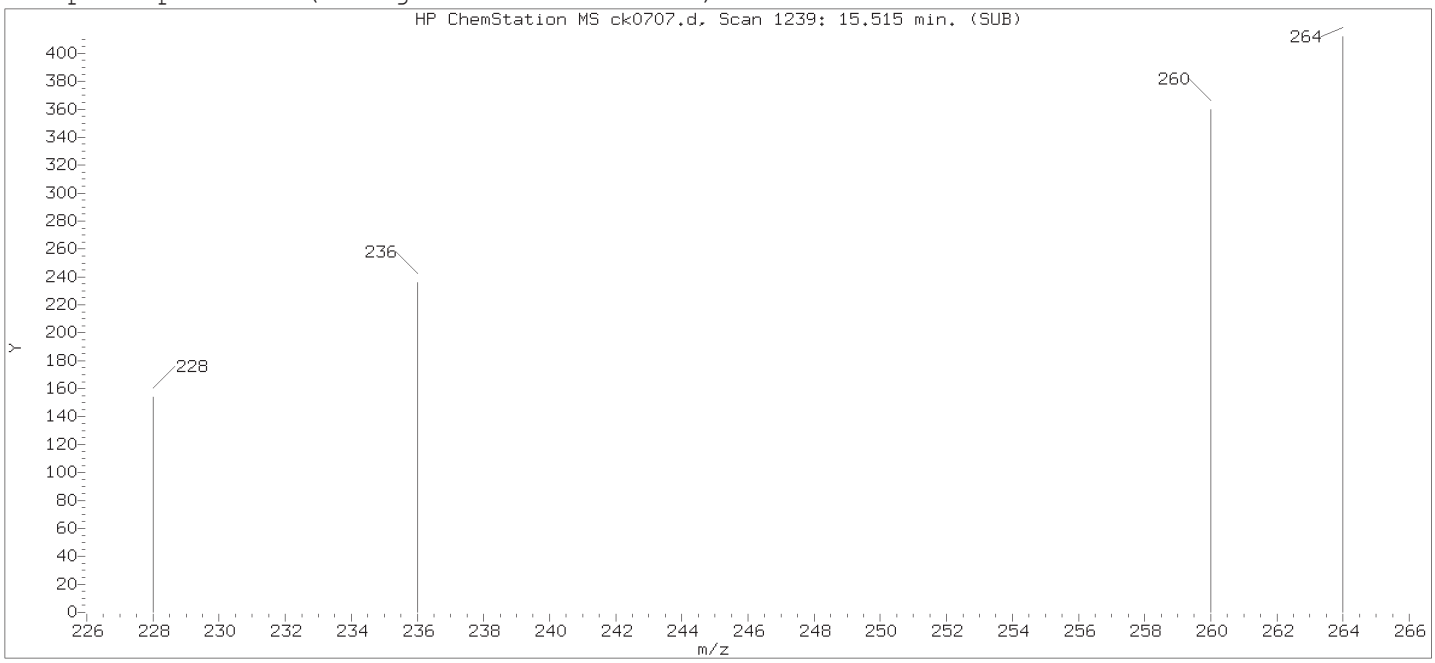
Compound Number : 42
Compound Name : Benzo(a)anthracene
Scan Number : 1260
Retention Time (minutes) : 15.679
Quant Ion : 228.00
Area (flag) : 182614A
On-column Amount (ng/ul) : 1.6260
Integration start scan : 1248 Integration stop scan: 1261
Y at integration start : 10927 Y at integration end: 10927

Reason for manual integration: improper integration

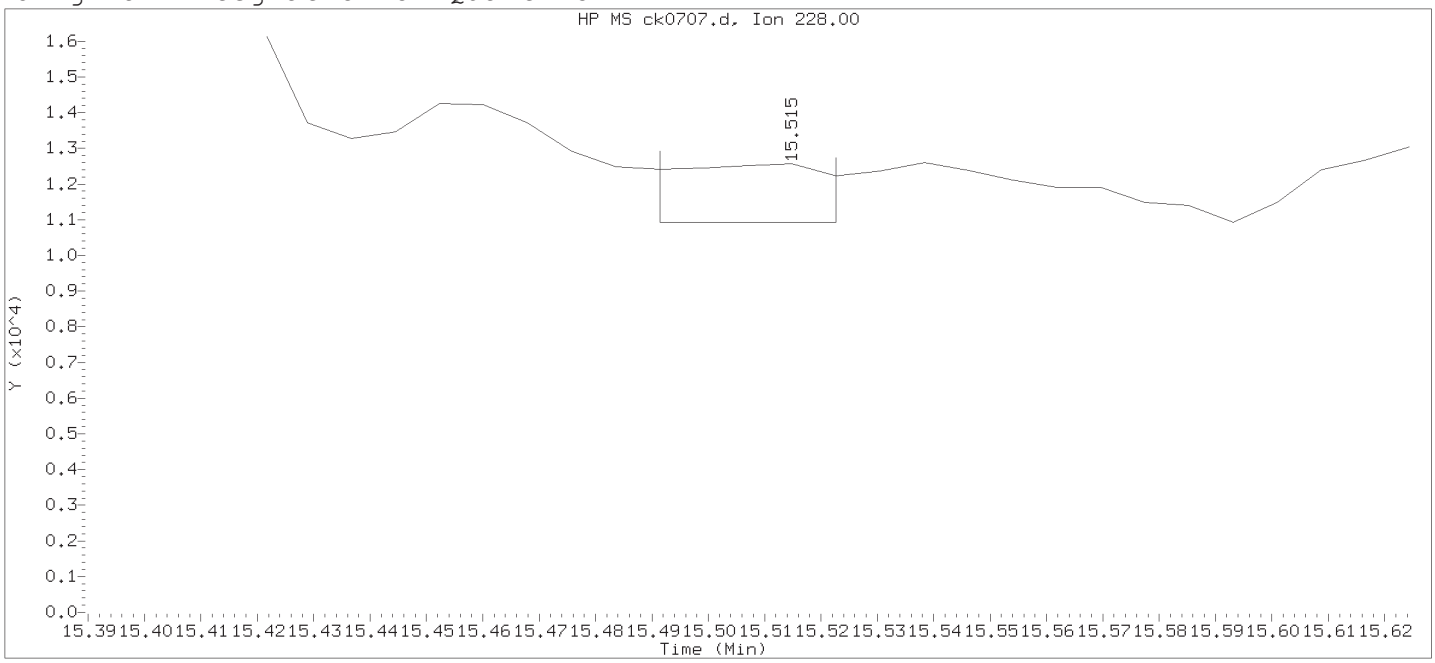
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

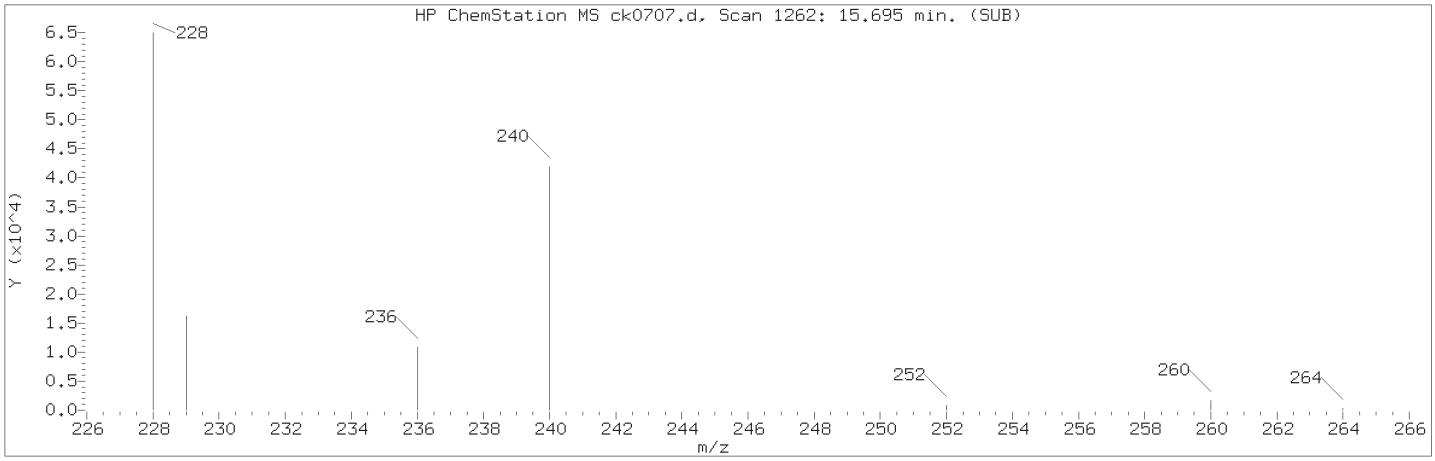
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

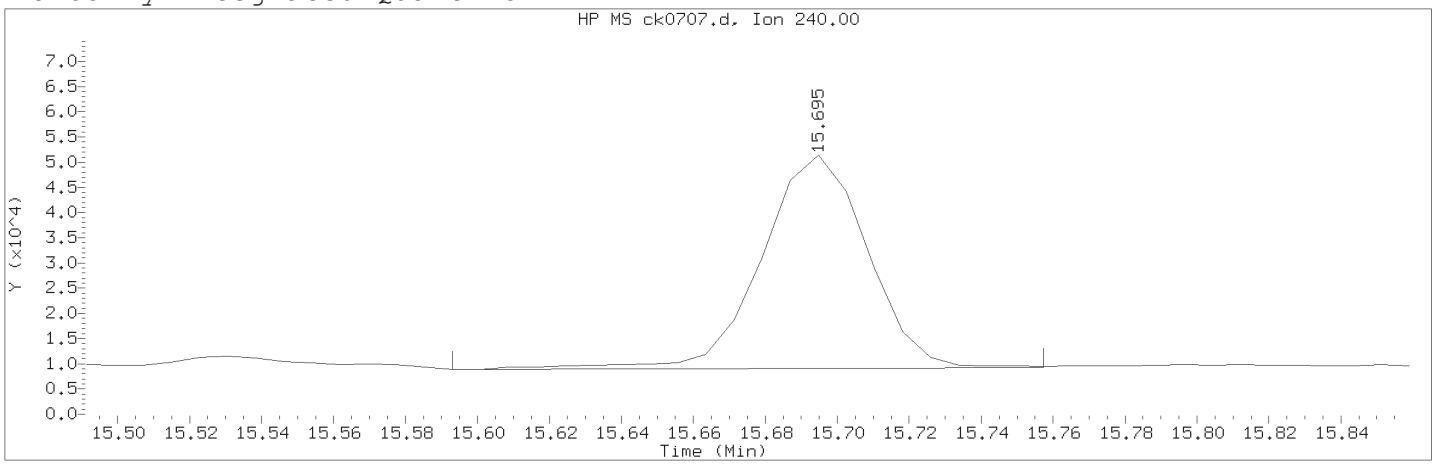
Compound Number	: 42
Compound Name	: Benzo(a)anthracene
Scan Number	: 1239
Retention Time (minutes)	: 15.515
Quant Ion	: 228.00
Area	: 2886
On-column Amount (ng/ul)	: 0.2451
Integration start scan	: 1235 Integration stop scan: 1239
Y at integration start	: 10927 Y at integration end: 10927

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.0.0.71

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

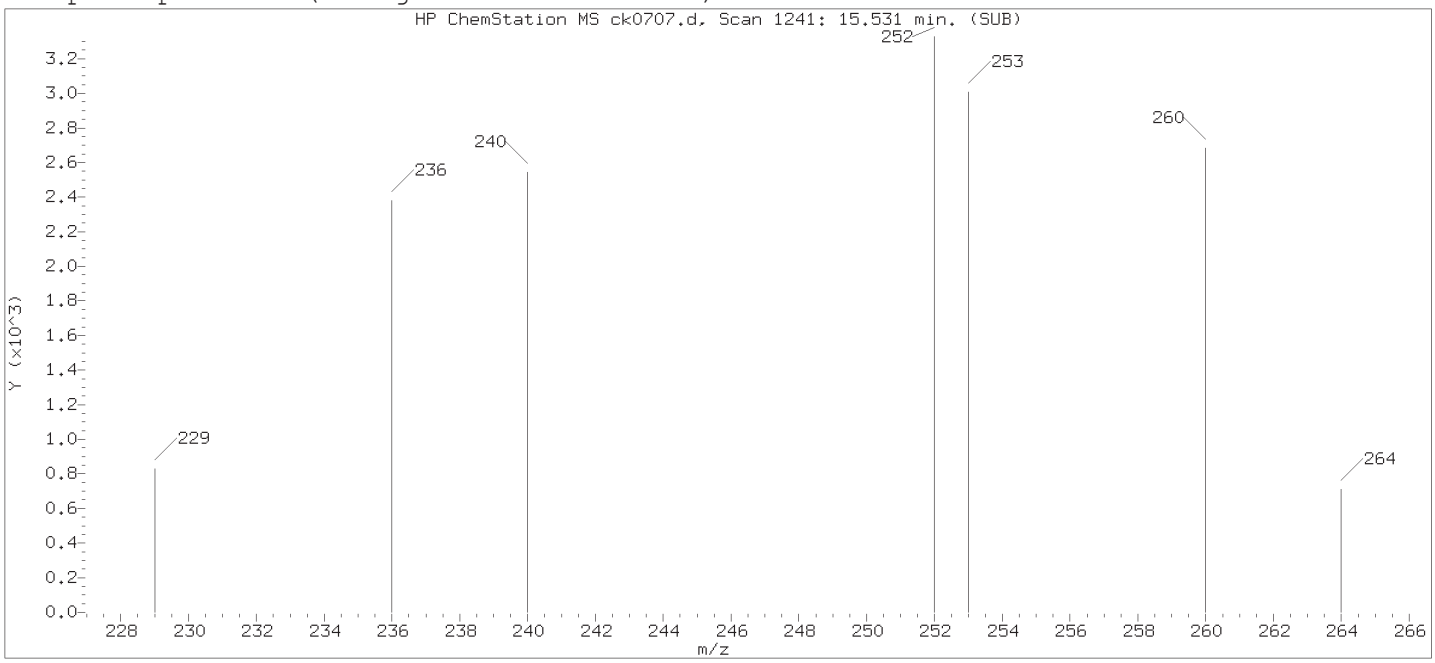
Compound Number : 43
Compound Name : Chrysene-d12
Scan Number : 1262
Retention Time (minutes) : 15.695
Quant Ion : 240.00
Area (flag) : 86658A
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1248 Integration stop scan: 1269
Y at integration start : 8843 Y at integration end: 9267

Reason for manual integration: improper integration

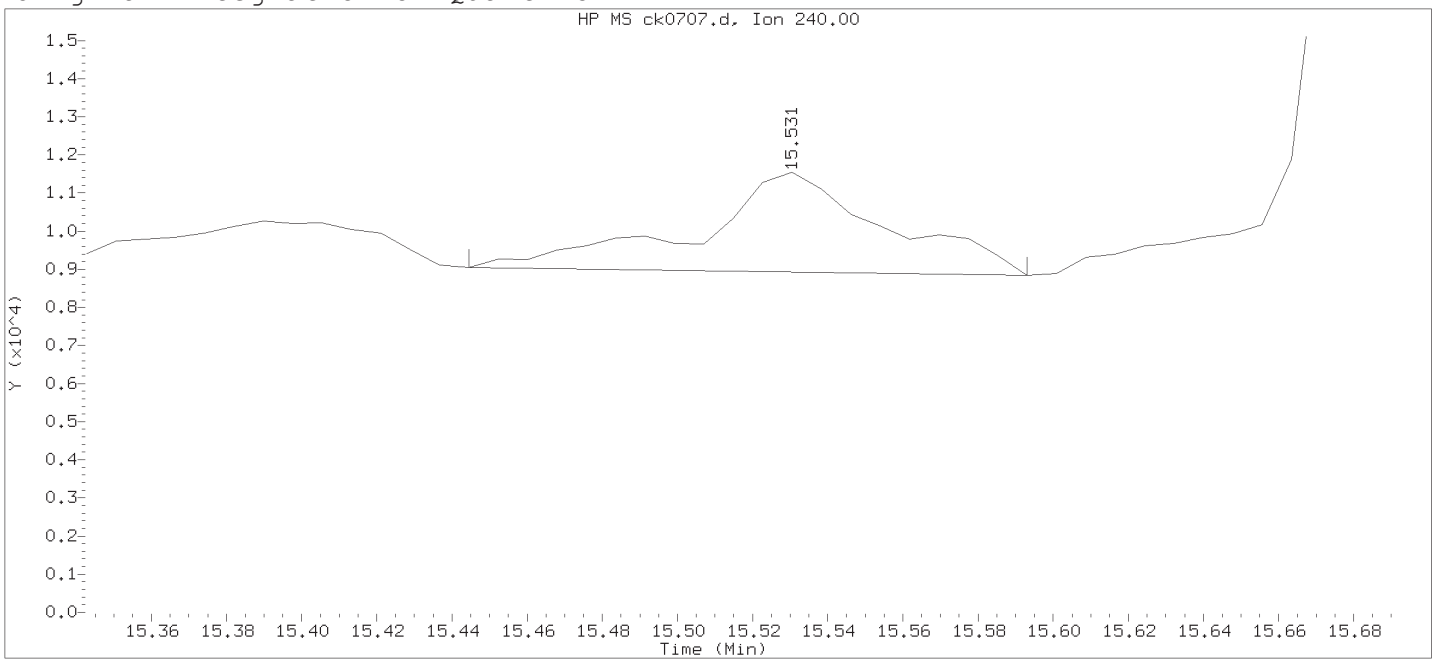
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

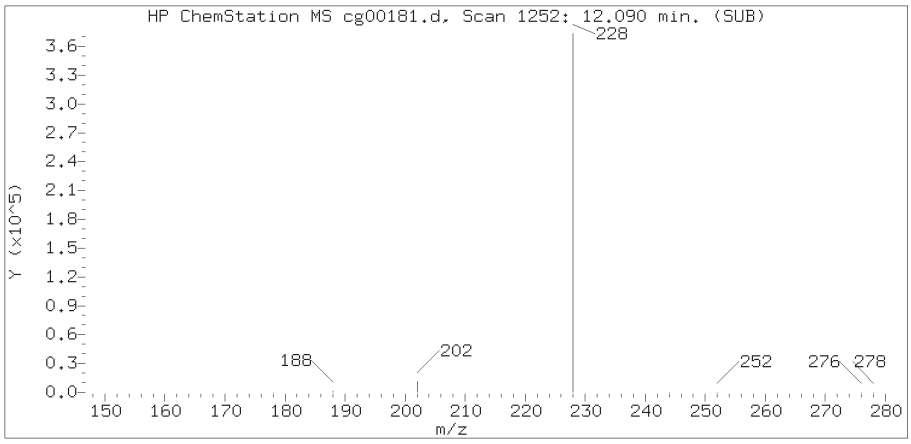
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

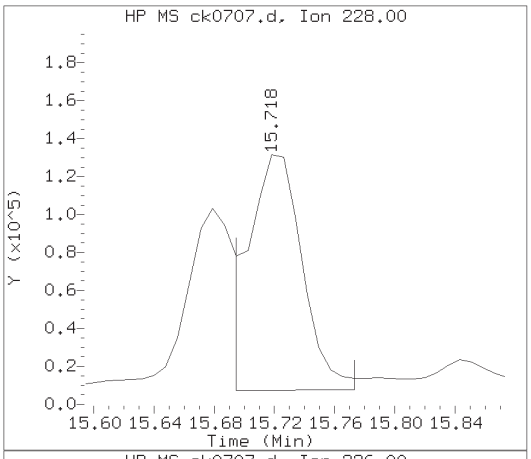
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 43		
Compound Name	: Chrysene-d12		
Scan Number	: 1241		
Retention Time (minutes)	: 15.531		
Quant Ion	: 240.00		
Area	: 9086		
On-column Amount (ng/ul)	: 1.0000		
Integration start scan	: 1229	Integration stop scan:	1248
Y at integration start	: 9047	Y at integration end:	8843

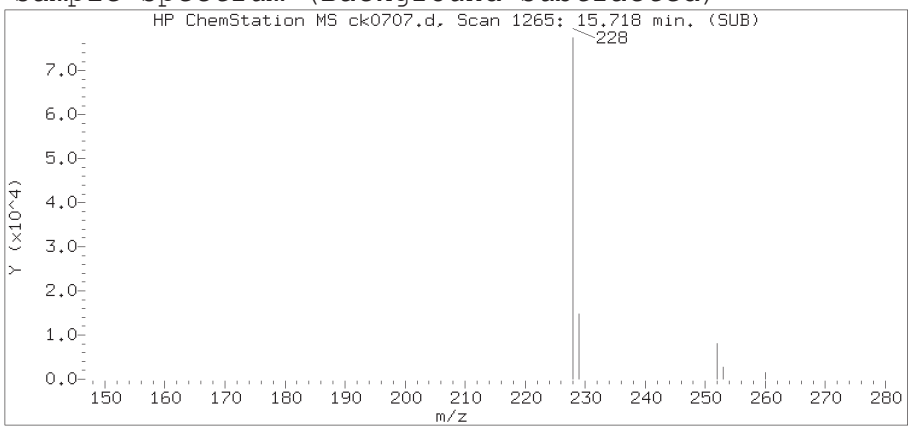
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used [illegible]

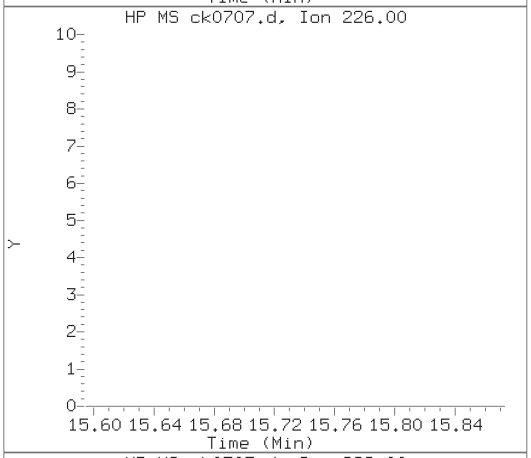
Reference Standard Spectrum for Chrysene



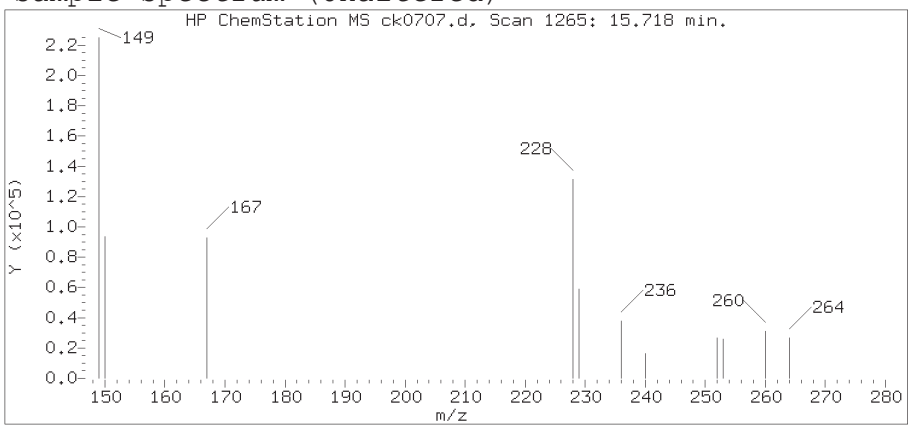


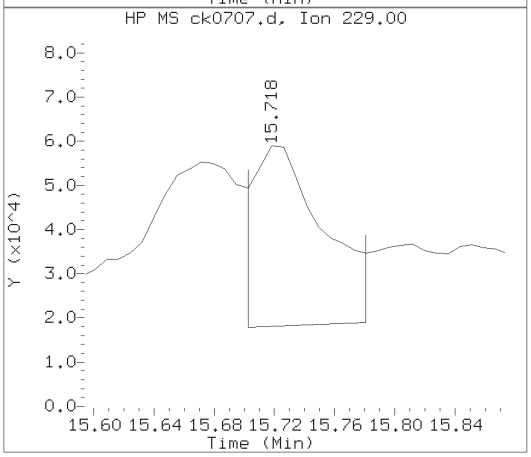
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

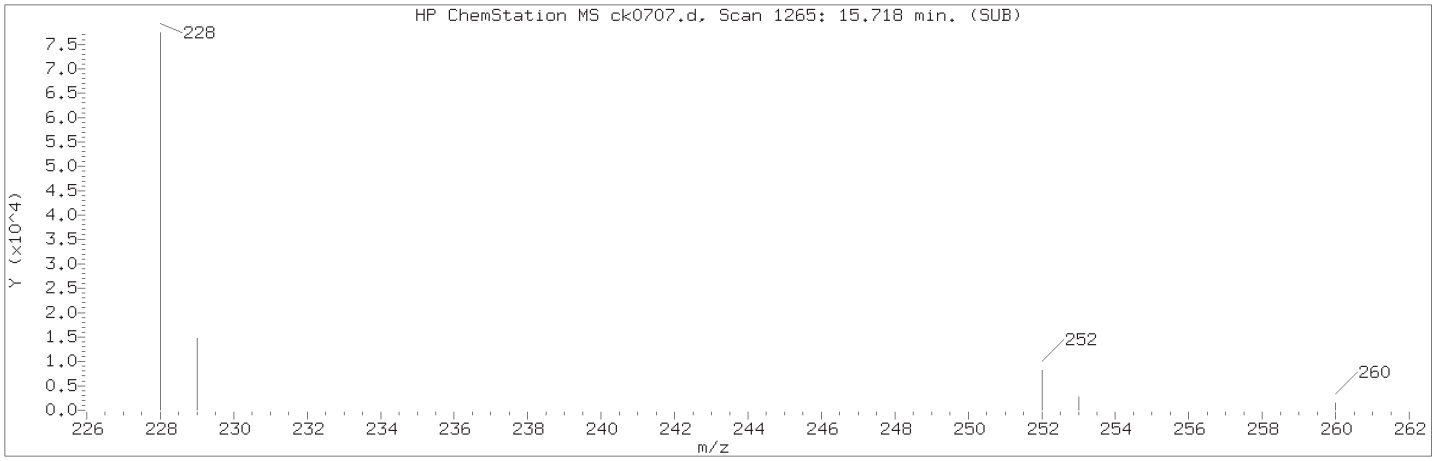
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

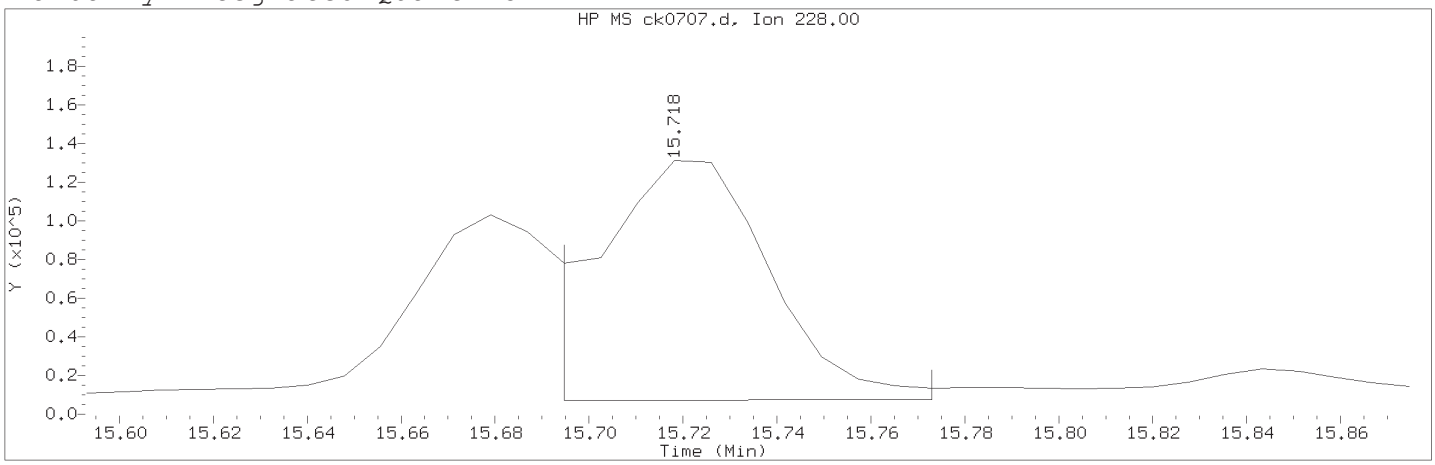
Compound Number	: 44
Compound Name	: Chrysene
Scan Number	: 1265
Retention Time (minutes)	: 15.718
Relative Retention Time	: 0.00051
Quant Ion	: 228.00
Area (flag)	: 303254A
On-column Amount (ng/ul)	: 2.6354

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

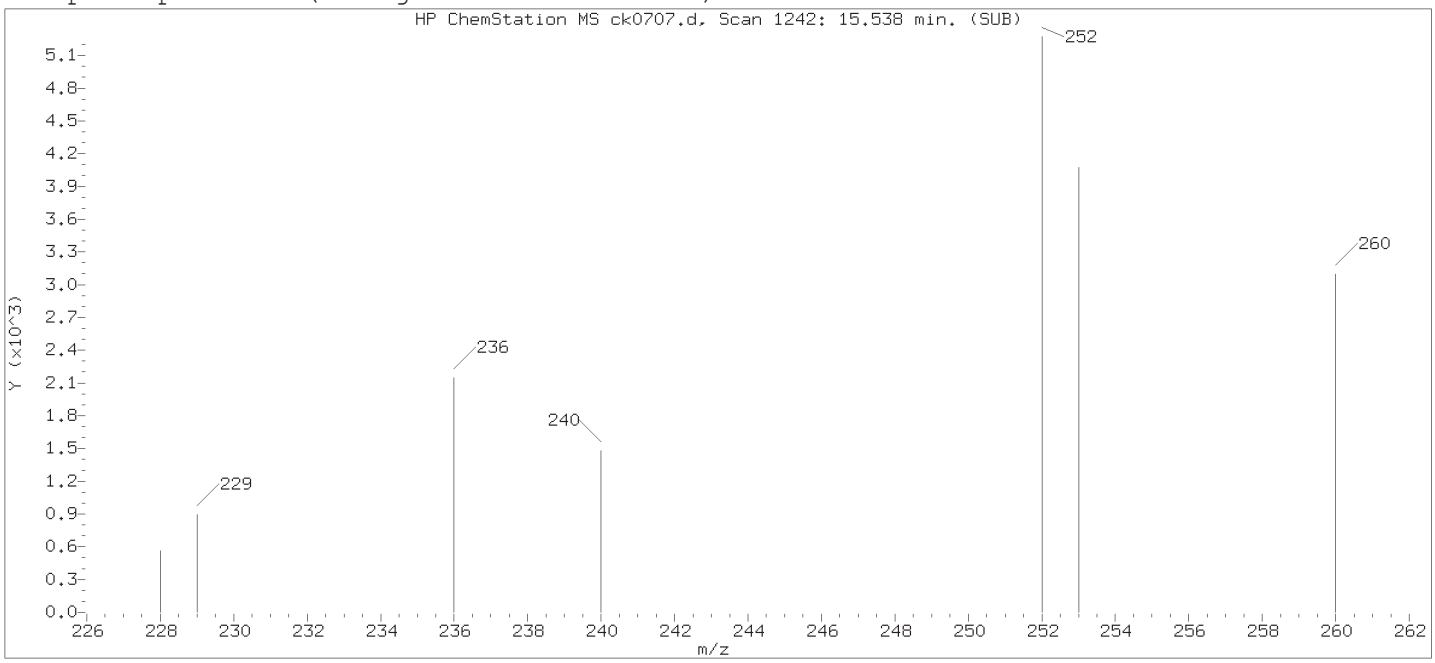
Compound Number : 44
Compound Name : Chrysene
Scan Number : 1265
Retention Time (minutes) : 15.718
Quant Ion : 228.00
Area (flag) : 303254A
On-column Amount (ng/ul) : 2.6354
Integration start scan : 1261 Integration stop scan: 1271
Y at integration start : 7172 Y at integration end: 7467

Reason for manual integration: improper integration

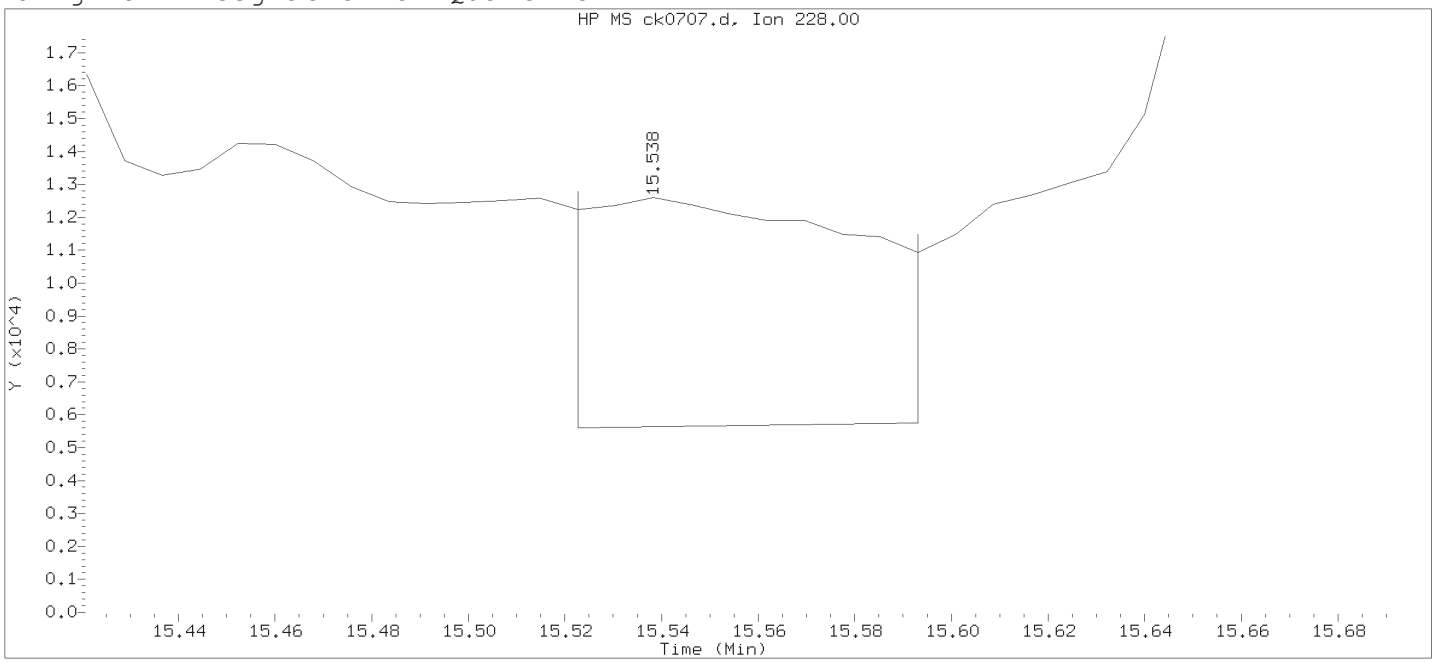
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

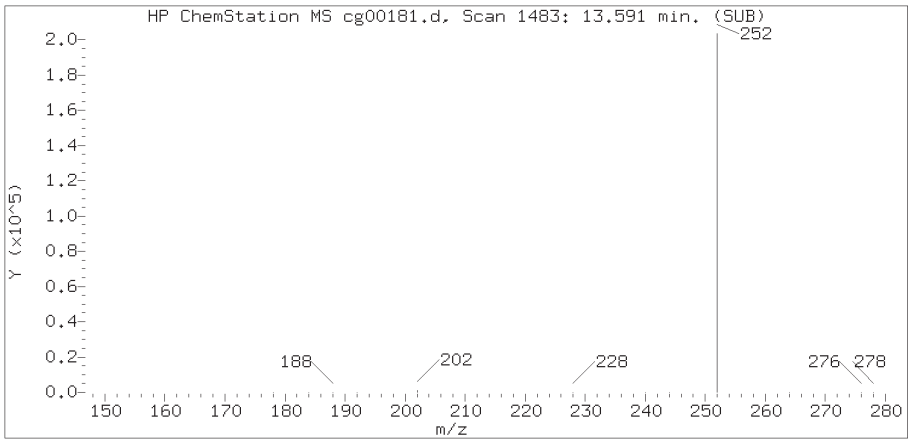
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

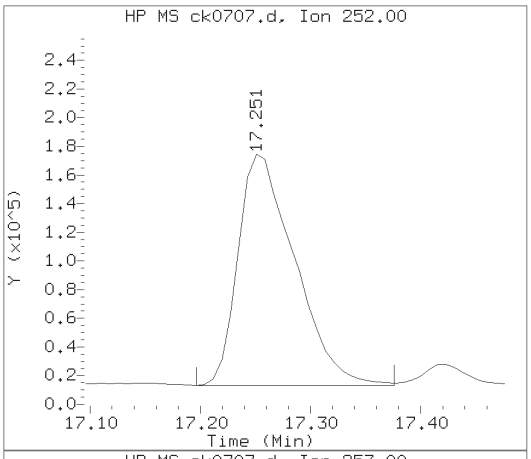
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 44		
Compound Name	: Chrysene		
Scan Number	: 1242		
Retention Time (minutes)	: 15.538		
Quant Ion	: 228.00		
Area	: 26642		
On-column Amount (ng/ul)	: 2.2082		
Integration start scan	: 1239	Integration stop scan:	1248
Y at integration start	: 5609	Y at integration end:	5750

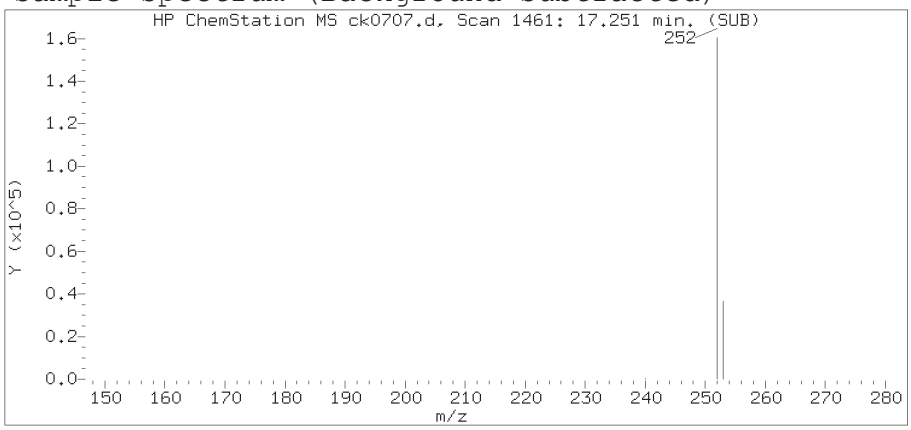
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used 21 CFR Part 11

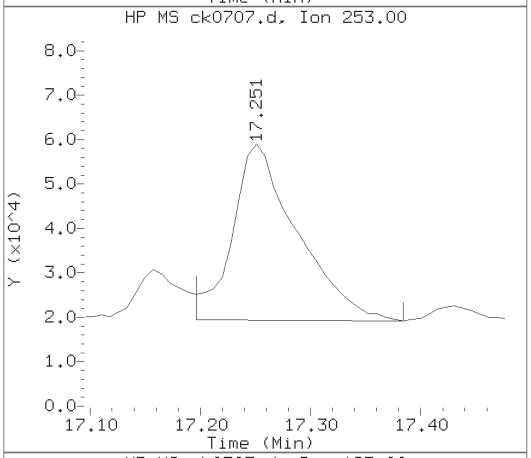
Reference Standard Spectrum for Benzo(b)fluoranthene



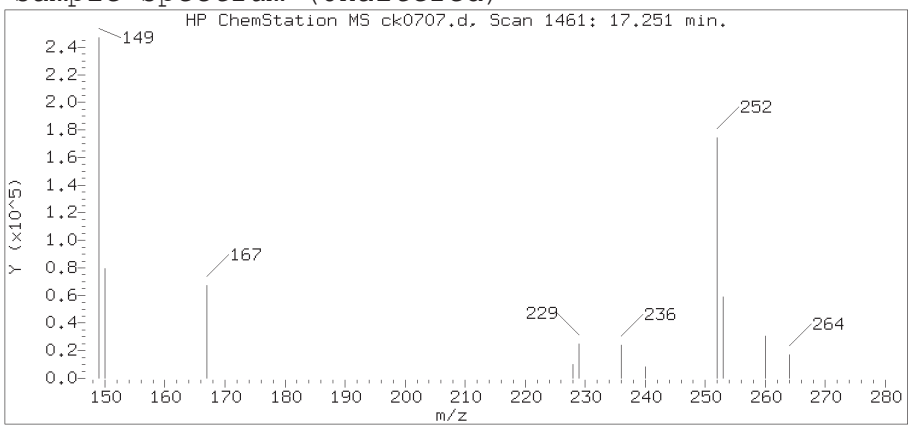


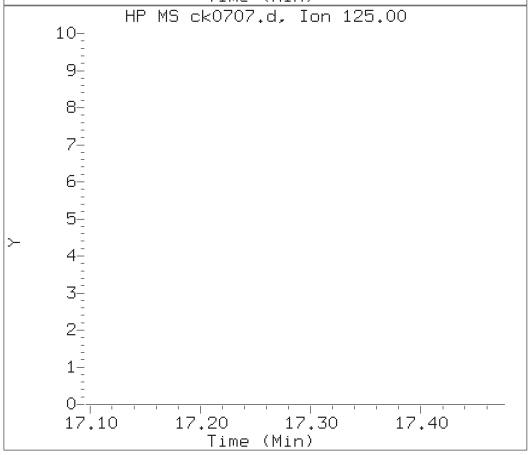
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

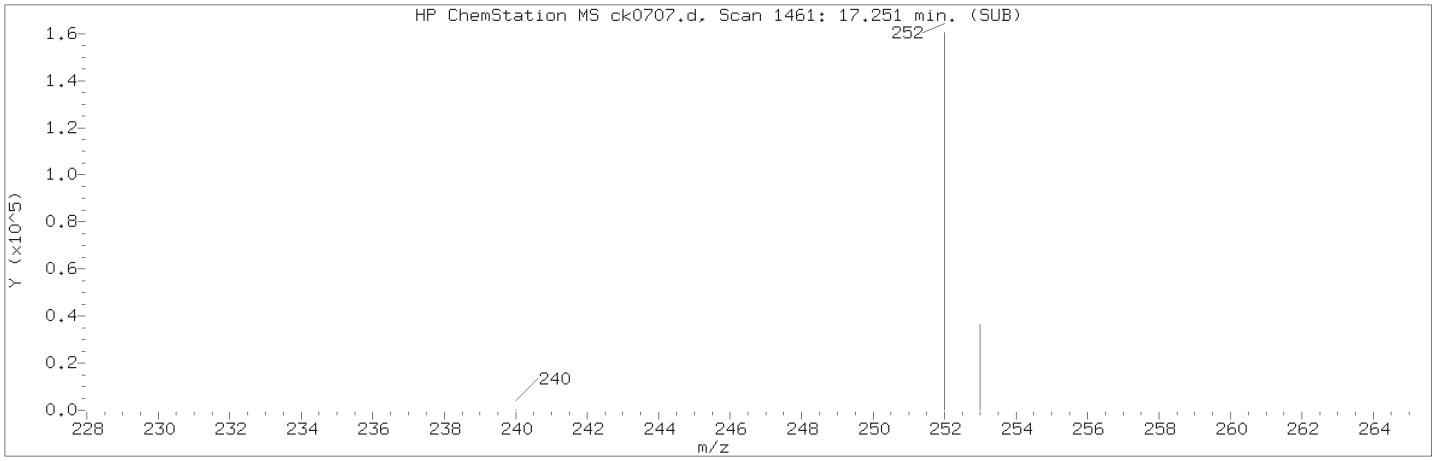
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

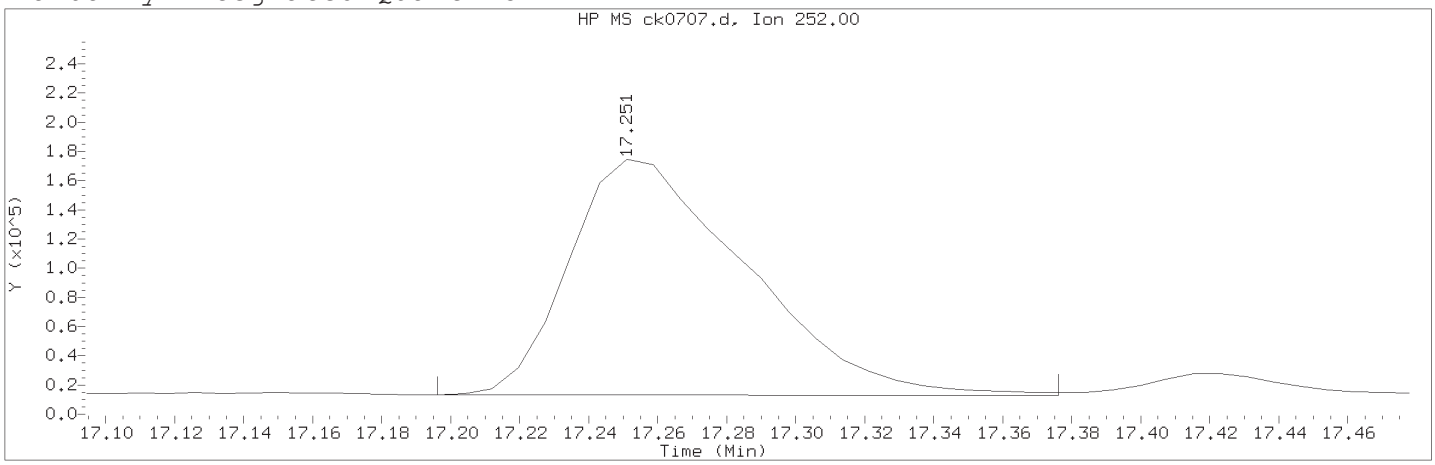
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1461
Retention Time (minutes)	: 17.251
Relative Retention Time	: 0.00095
Quant Ion	: 252.00
Area (flag)	: 577074A
On-column Amount (ng/ul)	: 5.7781

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

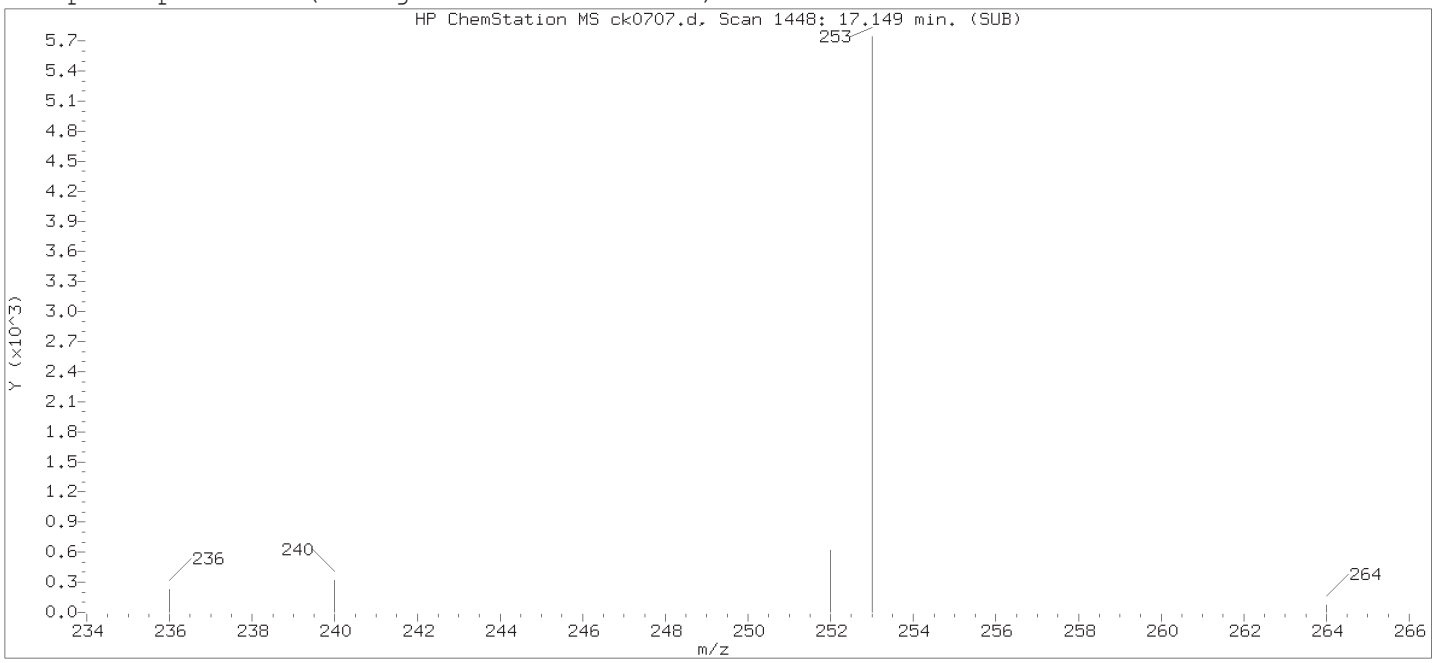
Compound Number : 46
Compound Name : Benzo(b)fluoranthene
Scan Number : 1461
Retention Time (minutes) : 17.251
Quant Ion : 252.00
Area (flag) : 577074A
On-column Amount (ng/ul) : 5.7781
Integration start scan : 1453 Integration stop scan: 1476
Y at integration start : 13041 Y at integration end: 13031

Reason for manual integration: improper integration

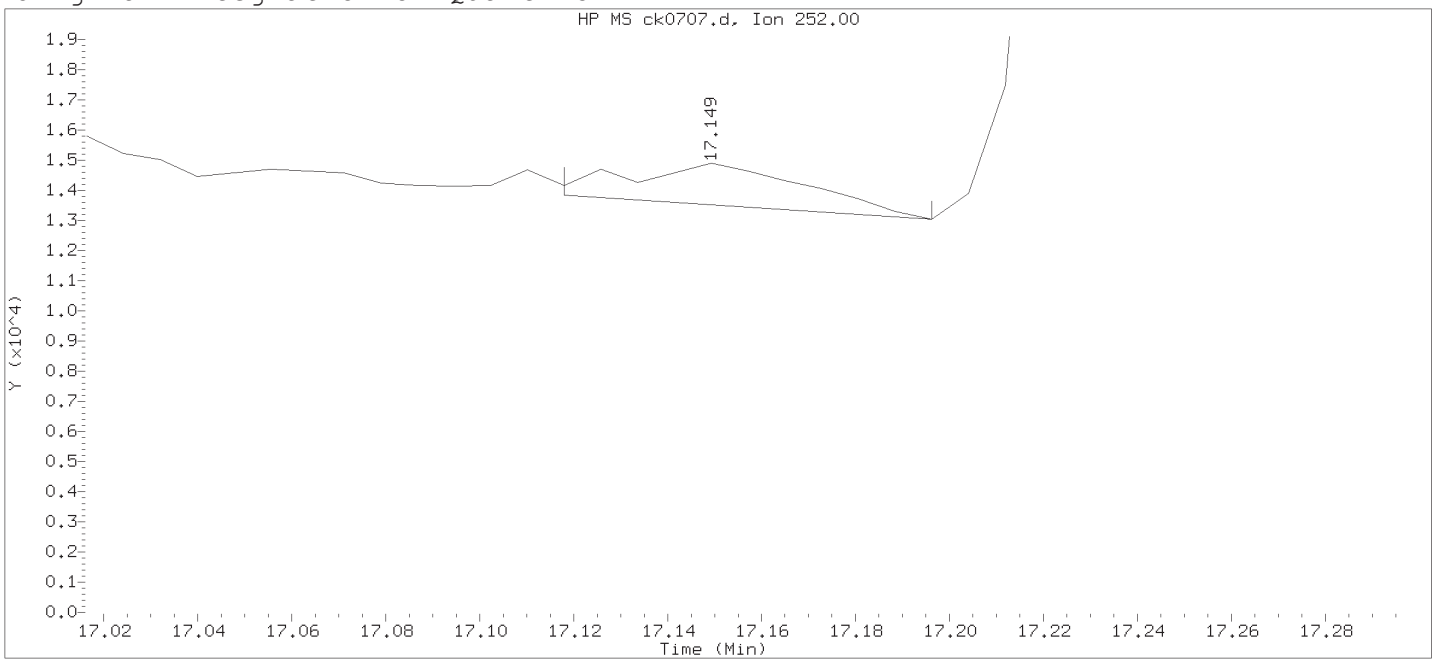
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

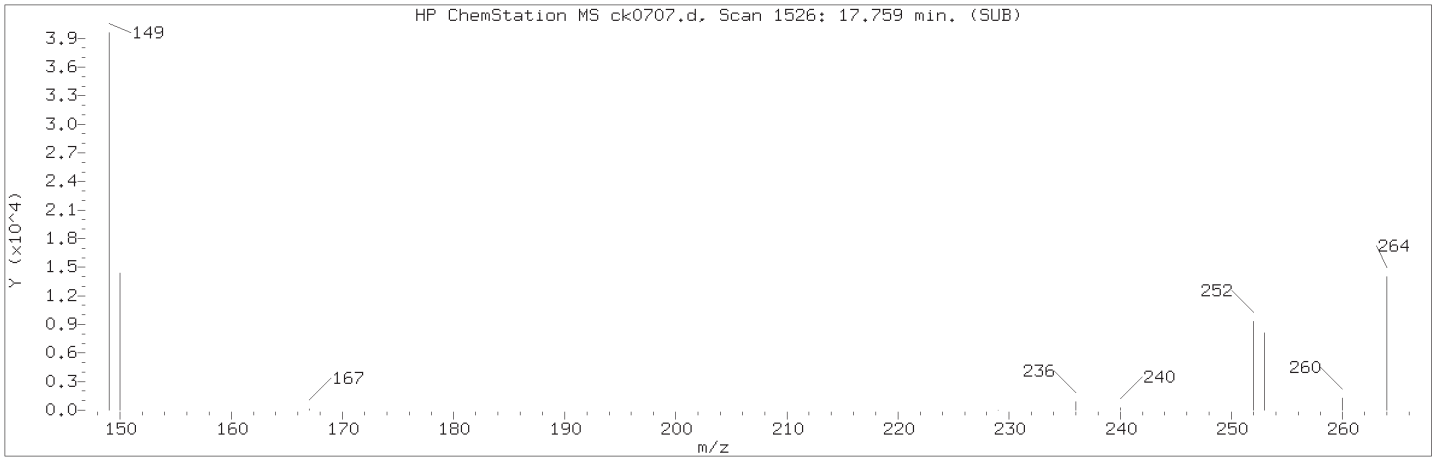
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

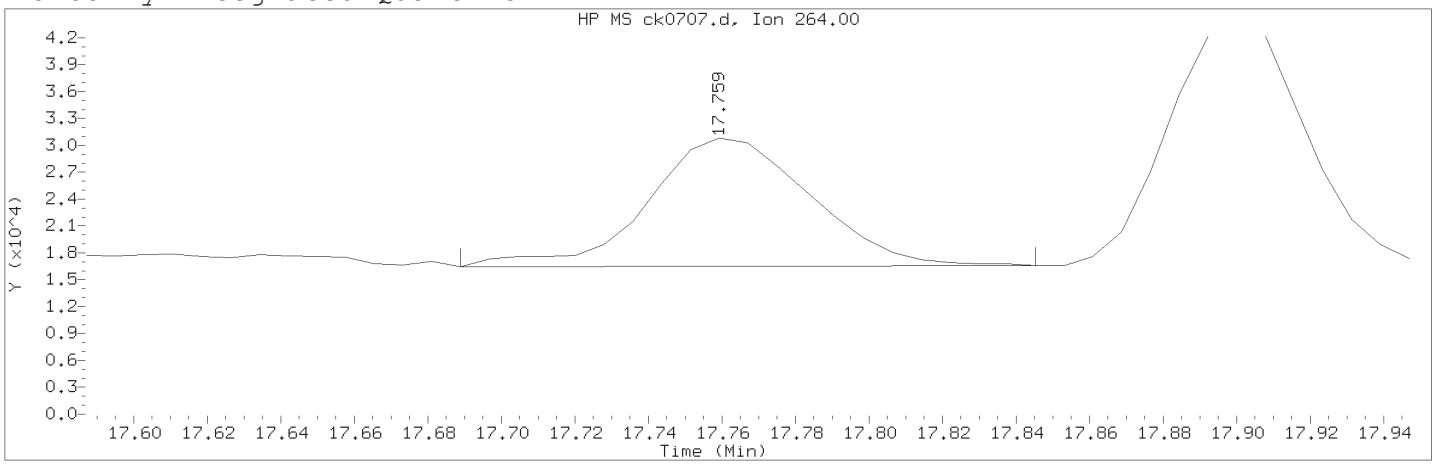
Compound Number	: 46
Compound Name	: Benzo(b)fluoranthene
Scan Number	: 1448
Retention Time (minutes)	: 17.149
Quant Ion	: 252.00
Area	: 3573
On-column Amount (ng/ul)	: 0.0583
Integration start scan	: 1443 Integration stop scan: 1453
Y at integration start	: 13838 Y at integration end: 13041

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

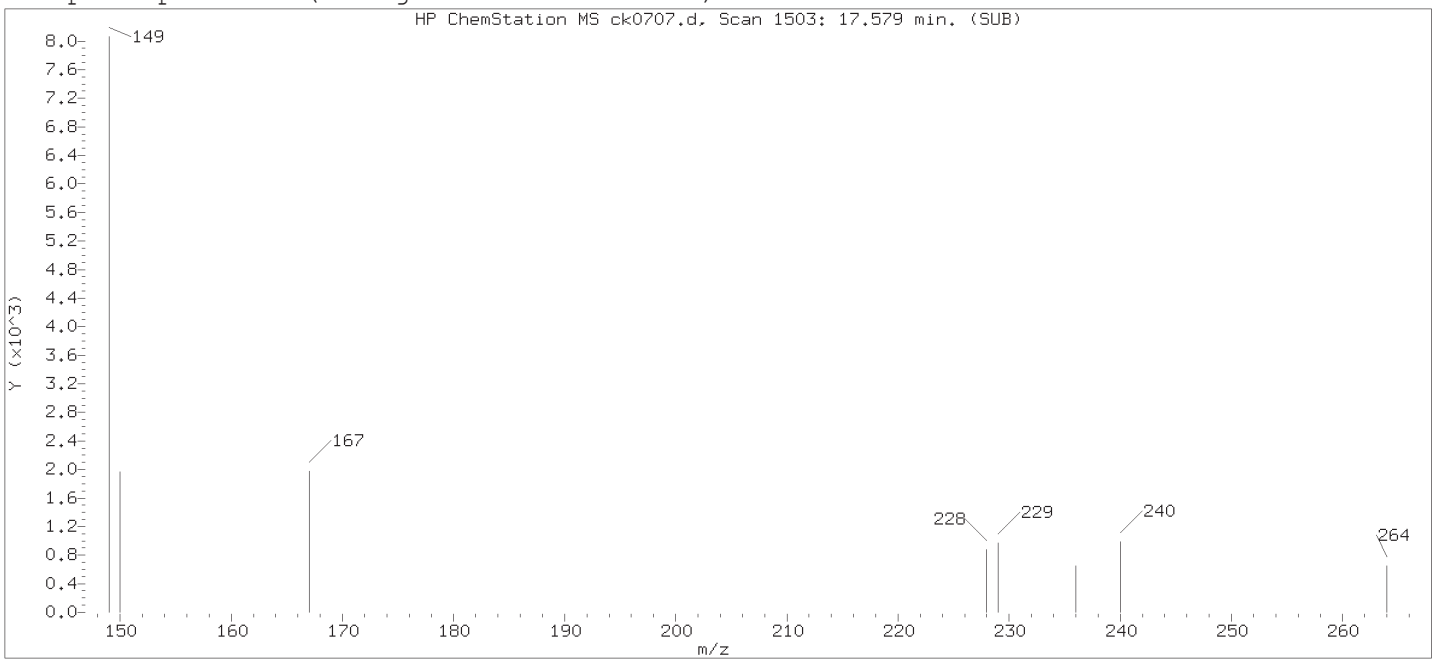
Compound Number : 49
Compound Name : Benzo(a)pyrene-d12
Scan Number : 1526
Retention Time (minutes) : 17.759
Quant Ion : 264.00
Area (flag) : 44036A
On-column Amount (ng/ul) : 0.6149
Integration start scan : 1516 Integration stop scan: 1536
Y at integration start : 16456 Y at integration end: 16553

Reason for manual integration: improper integration

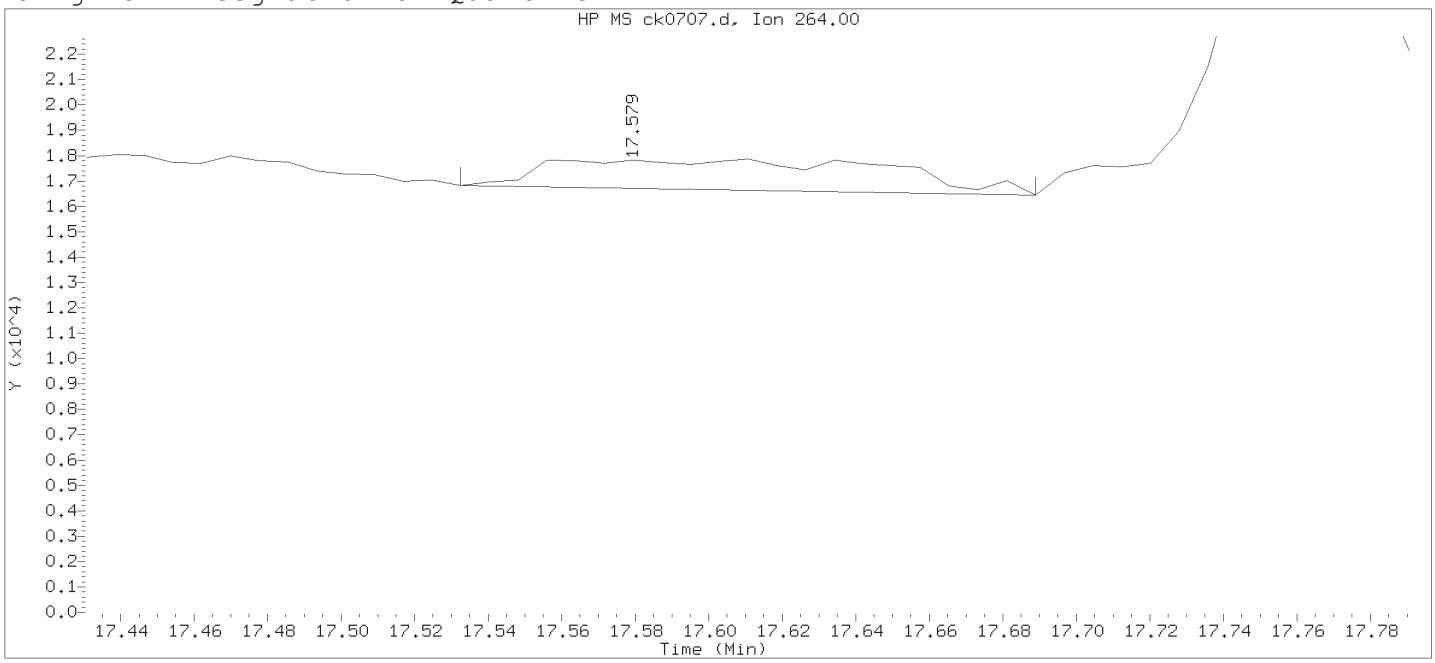
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

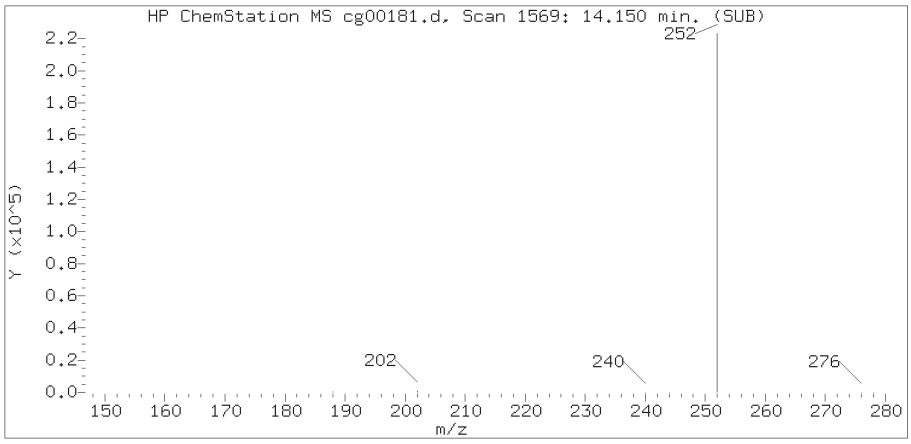
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

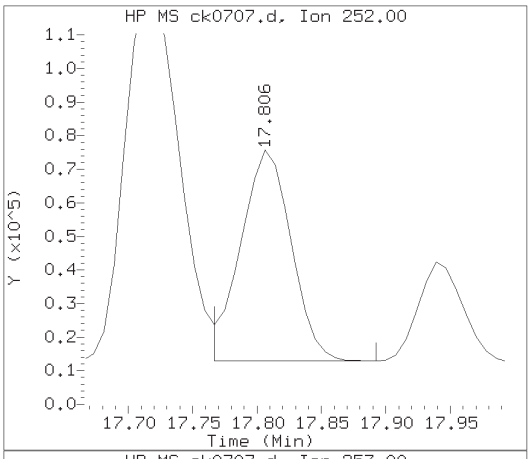
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 49
Compound Name	: Benzo(a)pyrene-d12
Scan Number	: 1503
Retention Time (minutes)	: 17.579
Quant Ion	: 264.00
Area	: 7591
On-column Amount (ng/ul)	: 0.1728
Integration start scan	: 1496 Integration stop scan: 1516
Y at integration start	: 16832 Y at integration end: 16456

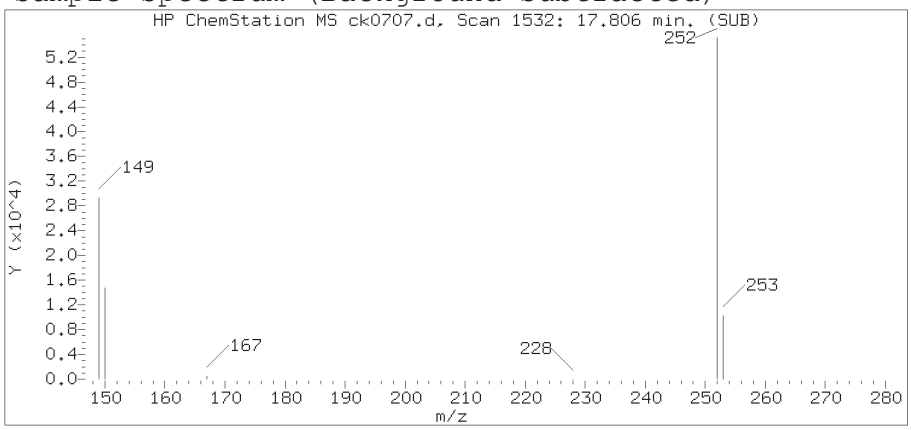
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: jmg00346

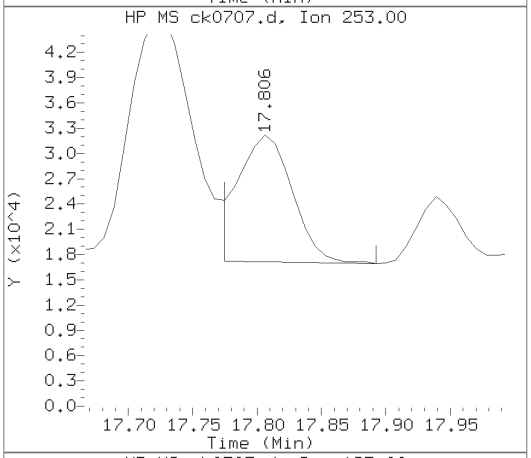
Reference Standard Spectrum for Benzo(a)pyrene



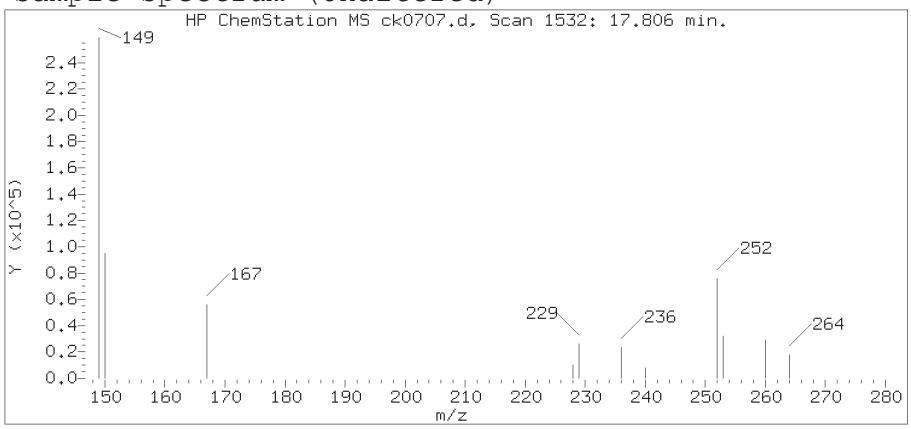


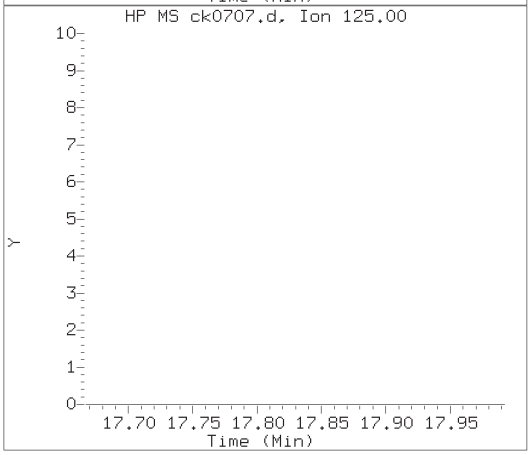
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

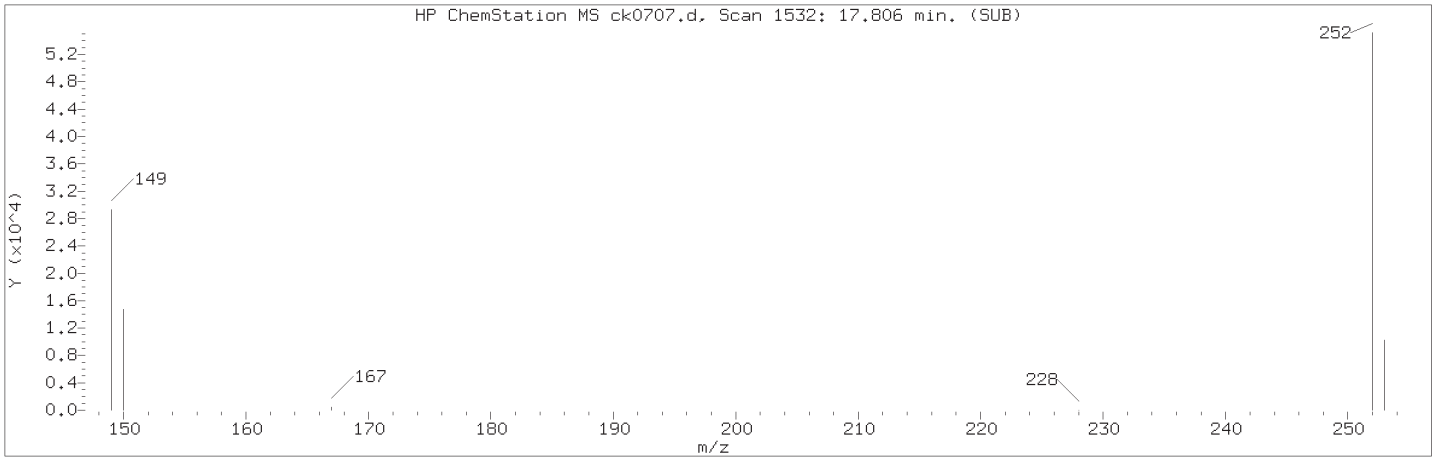
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

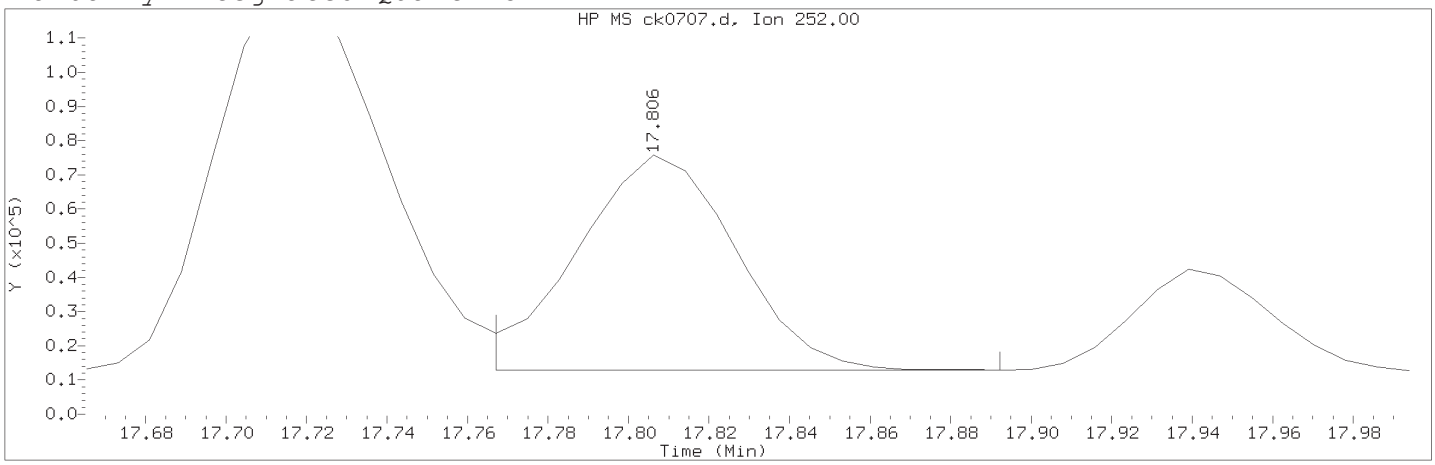
Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1532
Retention Time (minutes)	: 17.806
Relative Retention Time	:-0.00005
Quant Ion	: 252.00
Area (flag)	: 170518A
On-column Amount (ng/ul)	: 1.8714

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

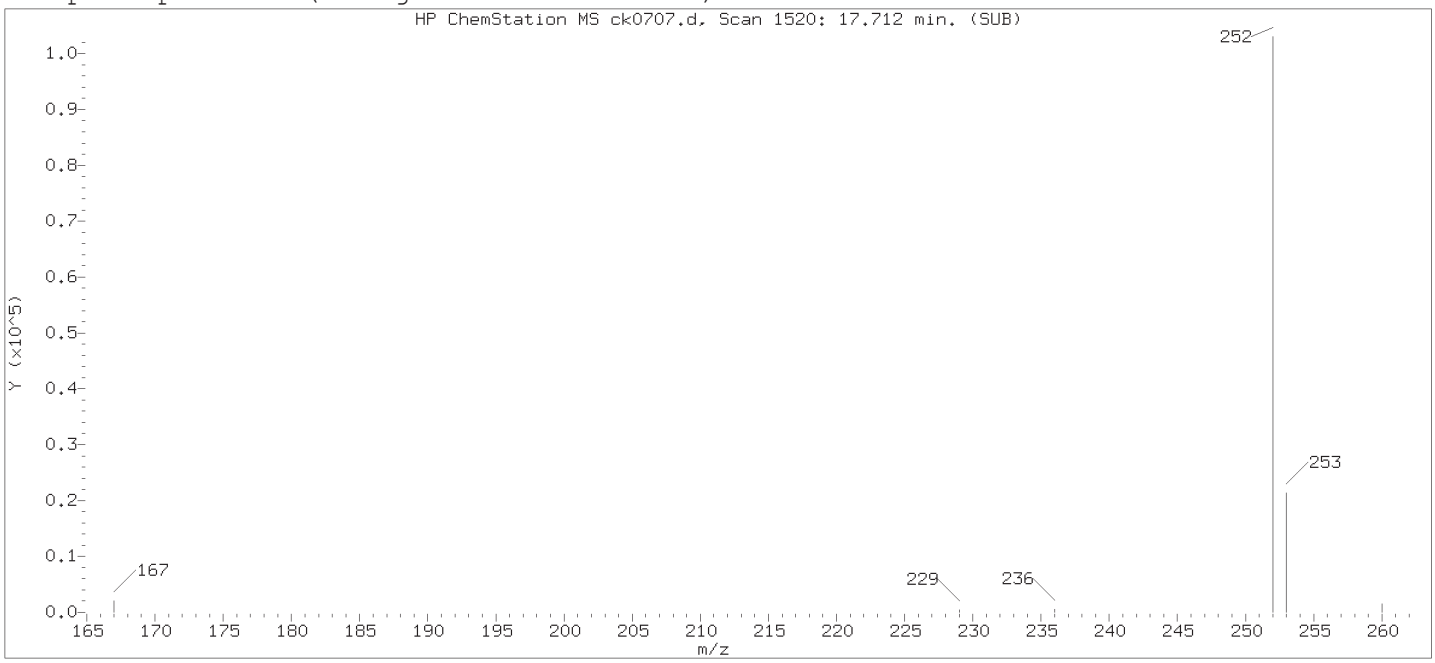
Compound Number : 50
Compound Name : Benzo(a)pyrene
Scan Number : 1532
Retention Time (minutes) : 17.806
Quant Ion : 252.00
Area (flag) : 170518A
On-column Amount (ng/ul) : 1.8714
Integration start scan : 1526 Integration stop scan: 1542
Y at integration start : 12980 Y at integration end: 12894

Reason for manual integration: improper integration

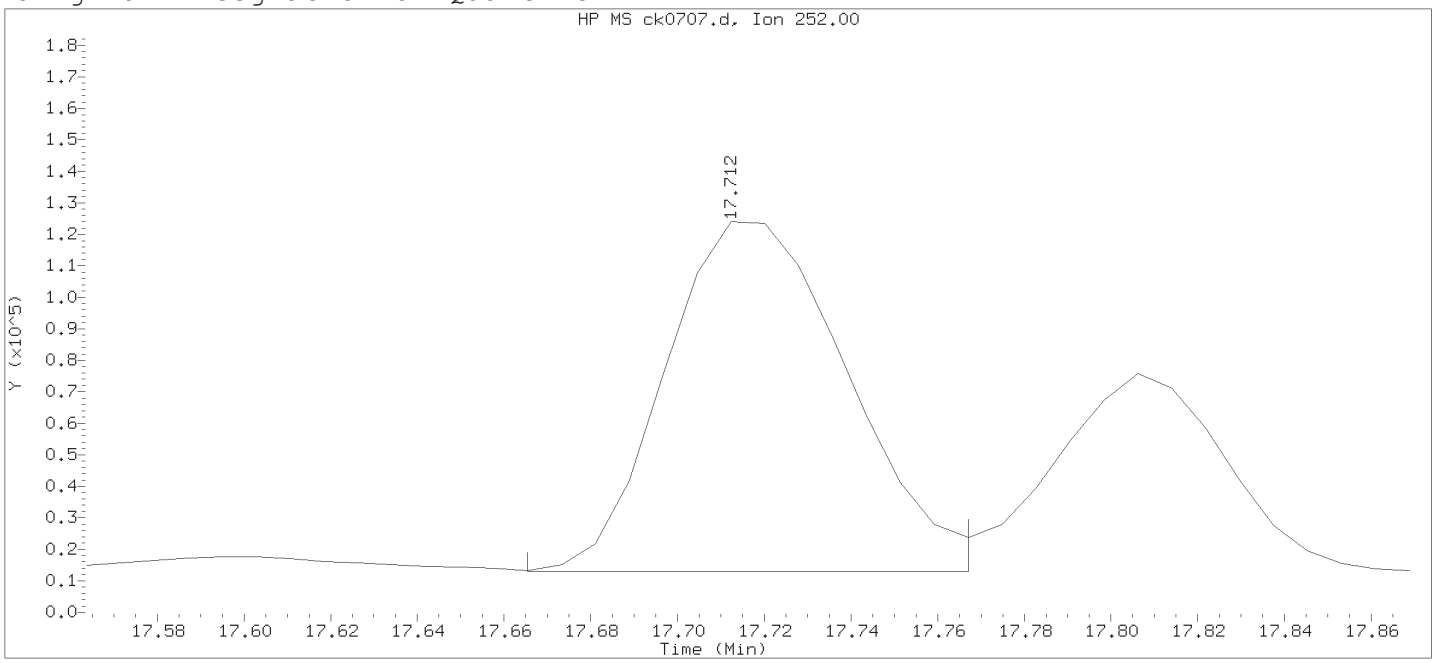
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

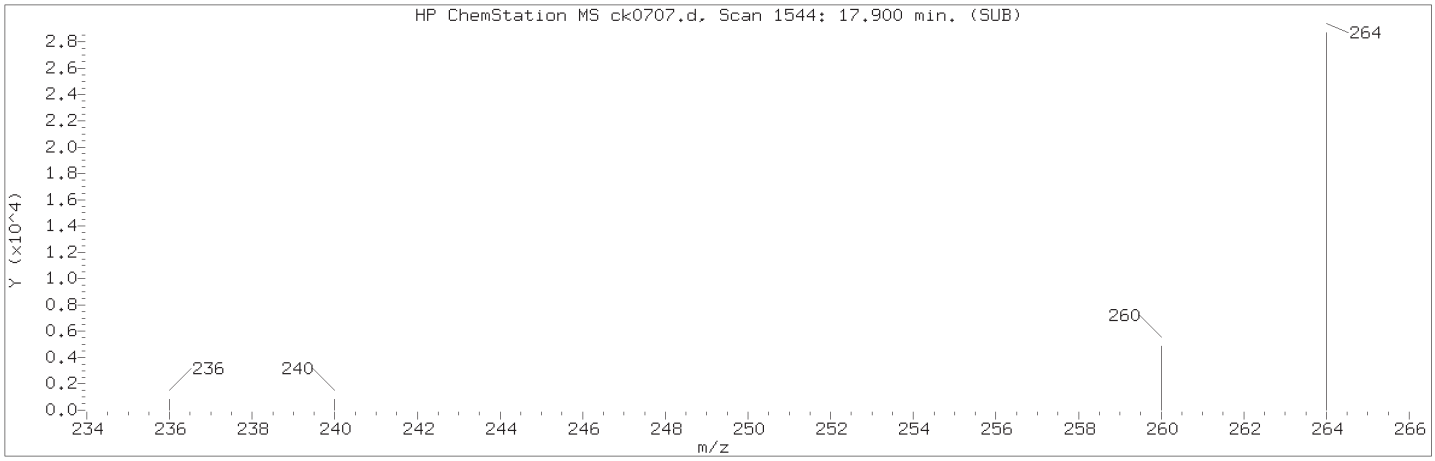
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

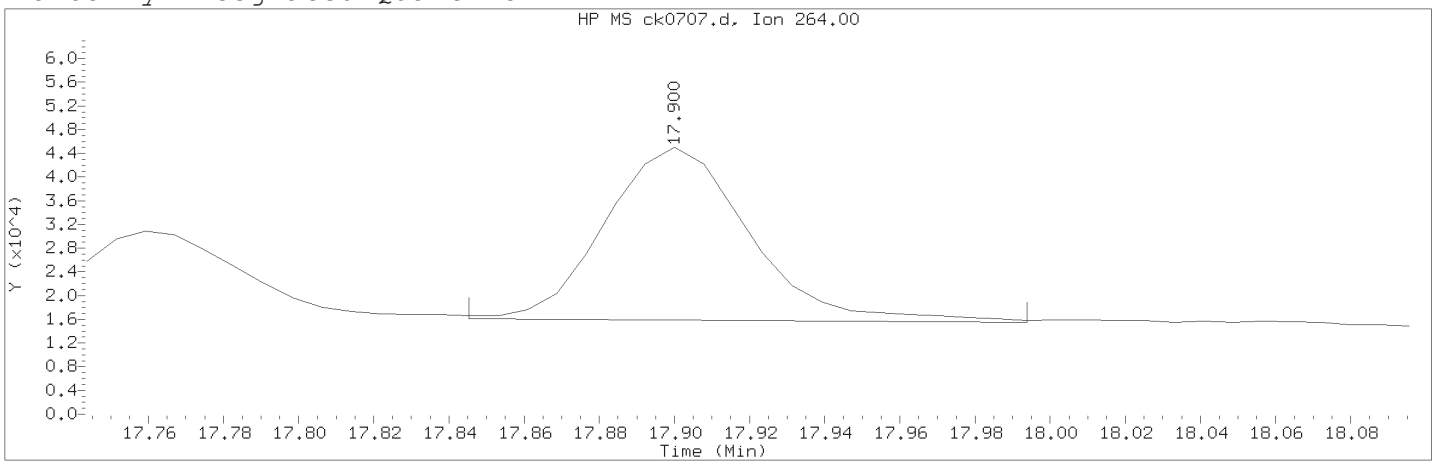
Compound Number	: 50
Compound Name	: Benzo(a)pyrene
Scan Number	: 1520
Retention Time (minutes)	: 17.712
Quant Ion	: 252.00
Area	: 322347
On-column Amount (ng/ul)	: 5.7683
Integration start scan	: 1513 Integration stop scan: 1526
Y at integration start	: 13051 Y at integration end: 12980

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.12 Page 3084

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

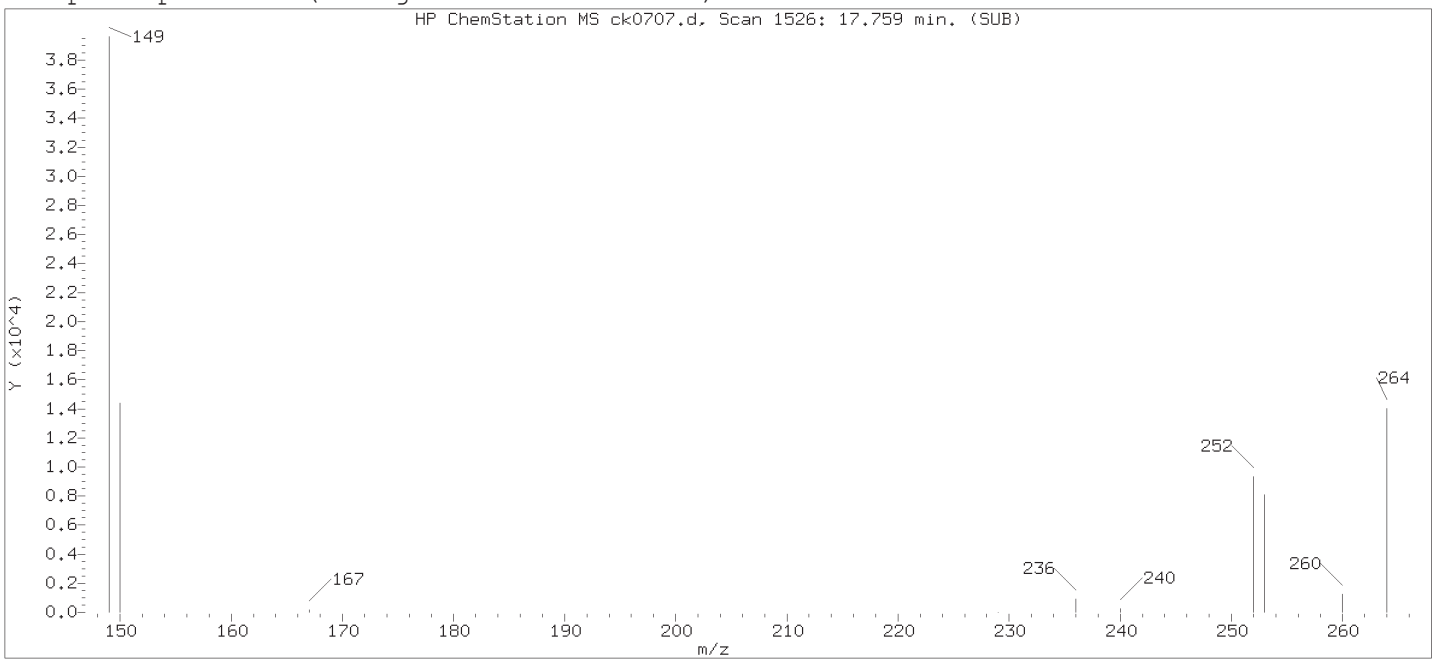
Compound Number : 51
Compound Name : Perylene-d12
Scan Number : 1544
Retention Time (minutes) : 17.900
Quant Ion : 264.00
Area (flag) : 77924AM
On-column Amount (ng/ul) : 1.0000
Integration start scan : 1536 Integration stop scan: 1555
Y at integration start : 16120 Y at integration end: 15474

Reason for manual integration: improper integration

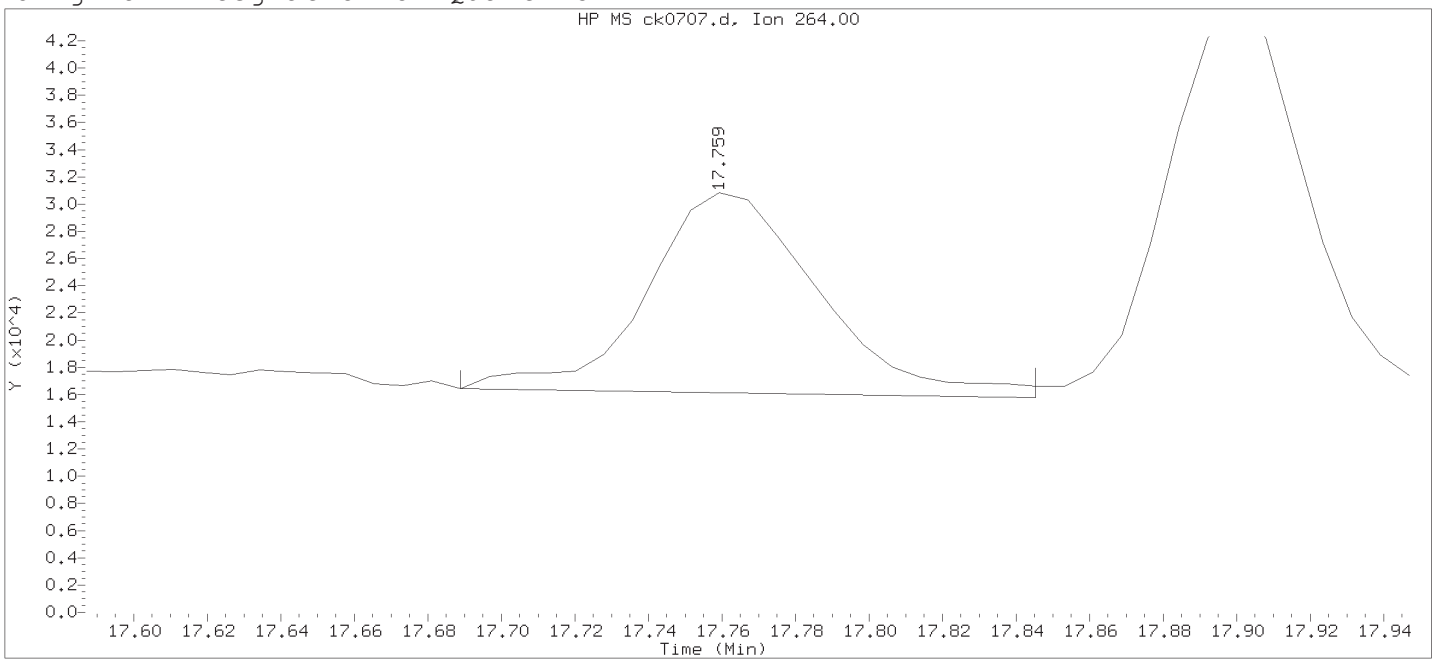
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

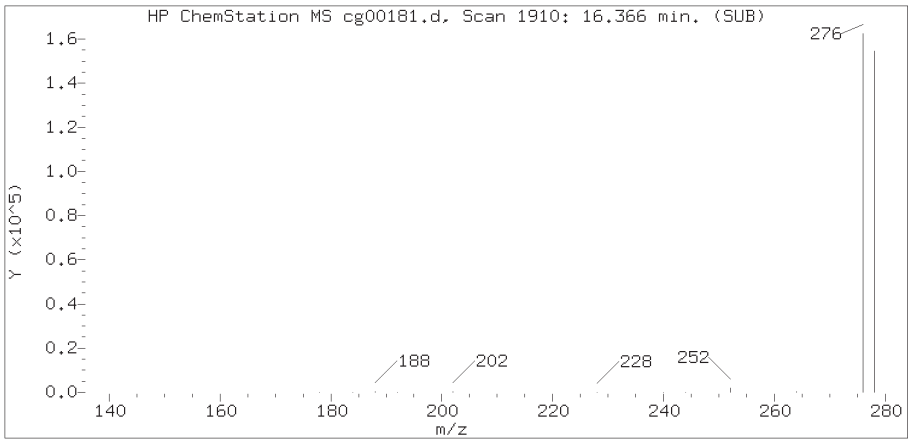
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

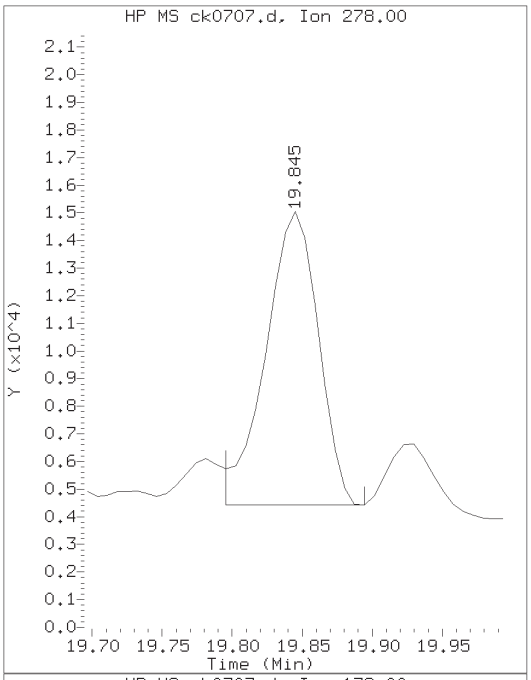
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 51
Compound Name	: Perylene-d12
Scan Number	: 1526
Retention Time (minutes)	: 17.759
Quant Ion	: 264.00
Area	: 47790
On-column Amount (ng/ul)	: 1.0000
Integration start scan	: 1516 Integration stop scan: 1536
Y at integration start	: 16456 Y at integration end: 15753

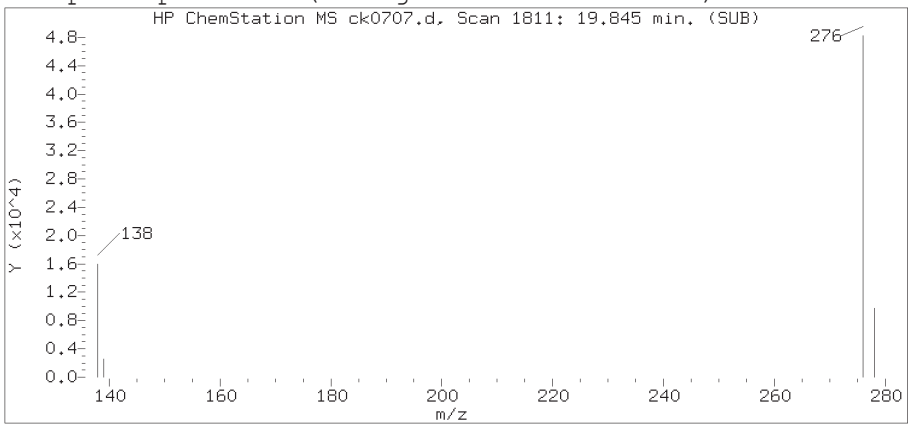
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.12

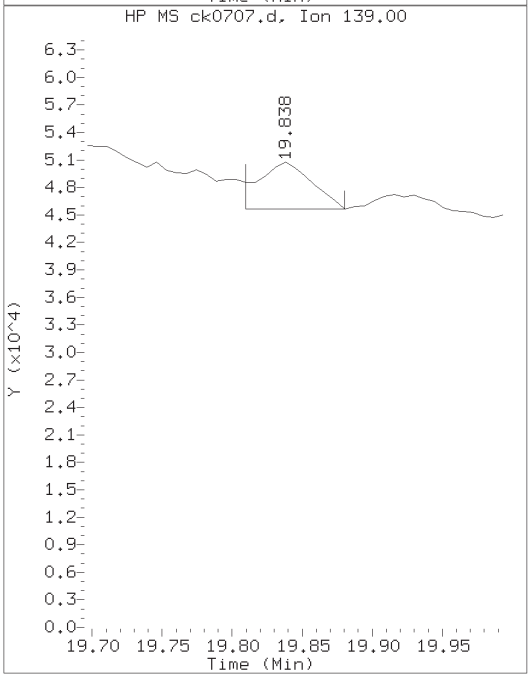
Reference Standard Spectrum for Dibenz(a,h)anthracene



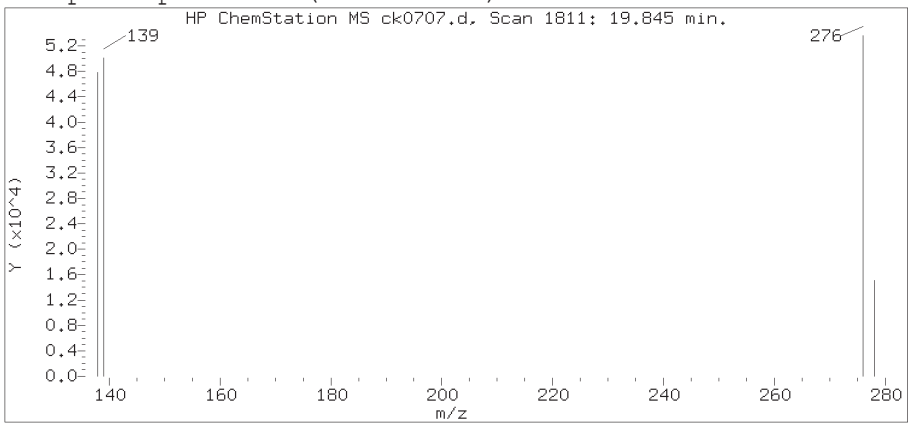


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

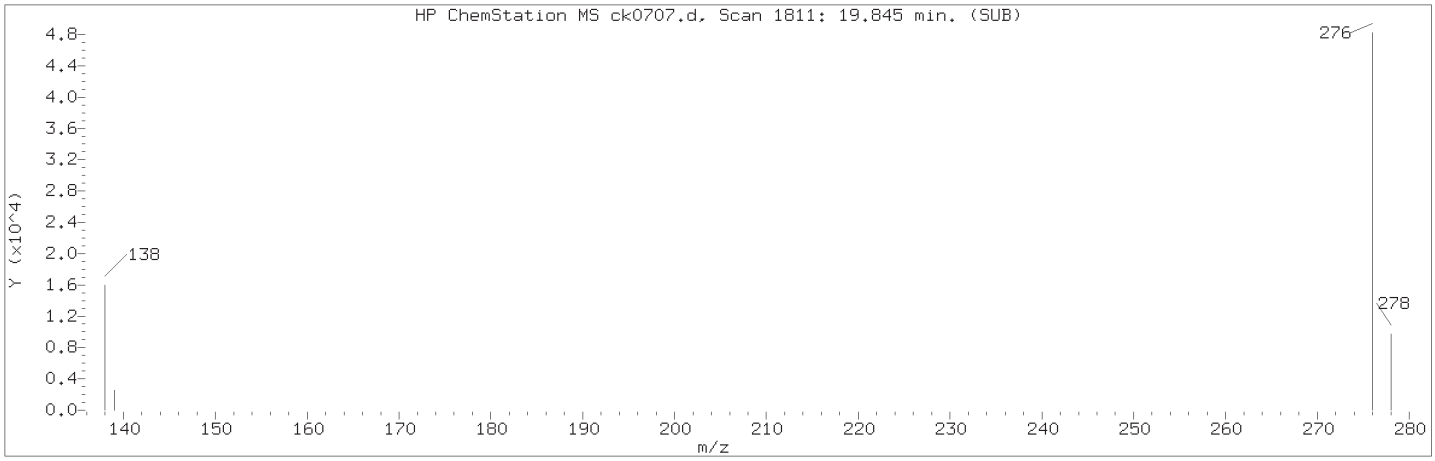
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

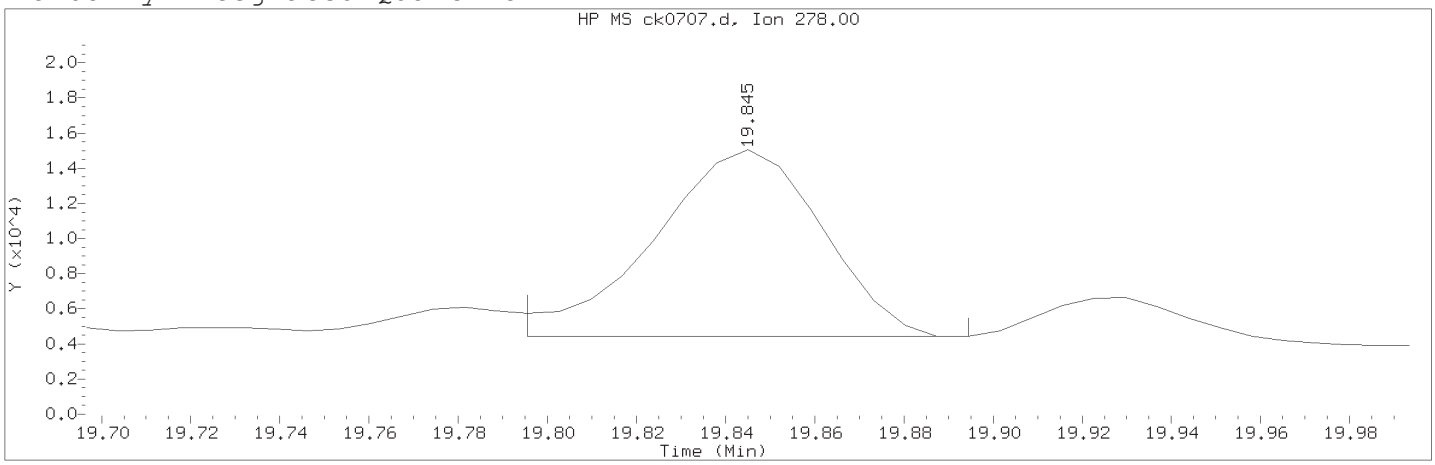
Compound Number	: 54
Compound Name	: Dibenz(a,h)anthracene
Scan Number	: 1811
Retention Time (minutes)	: 19.845
Relative Retention Time	: 0.00049
Quant Ion	: 278.00
Area (flag)	: 27753A
On-column Amount (ng/ul)	: 0.3704

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

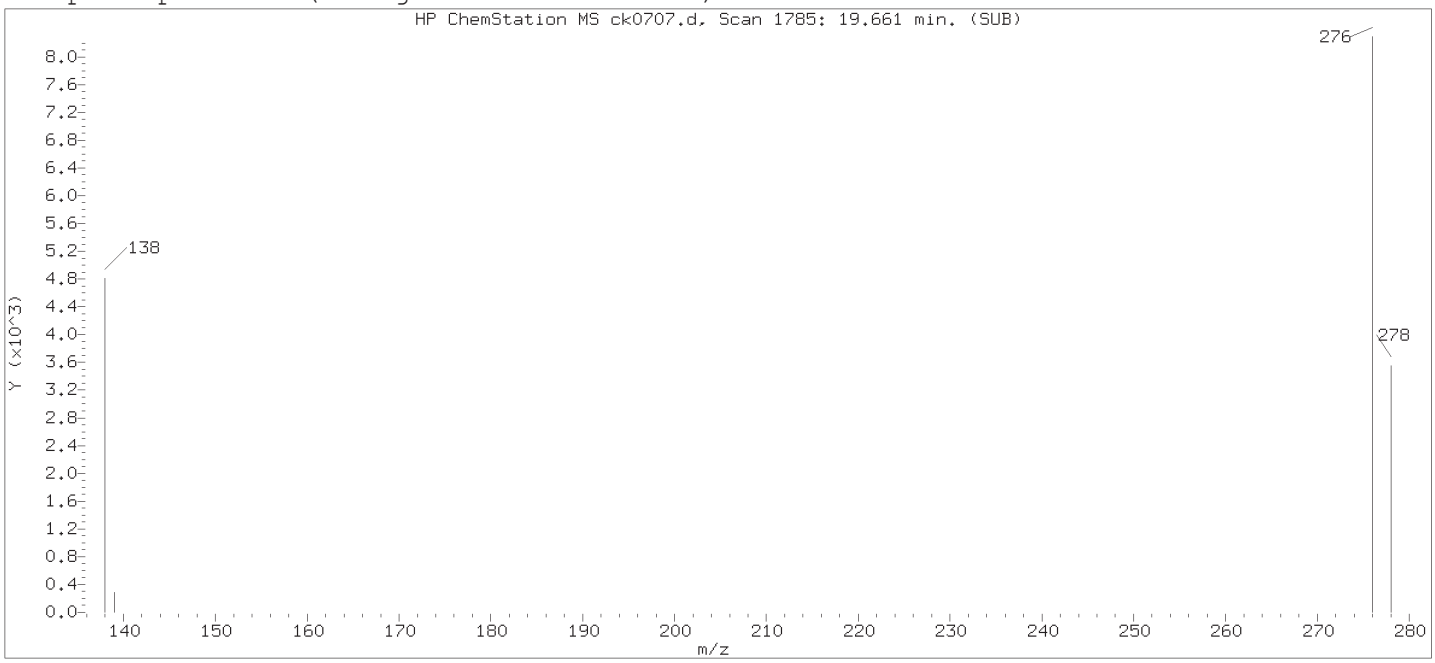
Compound Number	: 54		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 1811		
Retention Time (minutes)	: 19.845		
Quant Ion	: 278.00		
Area (flag)	: 27753A		
On-column Amount (ng/ul)	: 0.3704		
Integration start scan	: 1803	Integration stop scan:	1817
Y at integration start	: 4419	Y at integration end:	4419

Reason for manual integration: improper integration

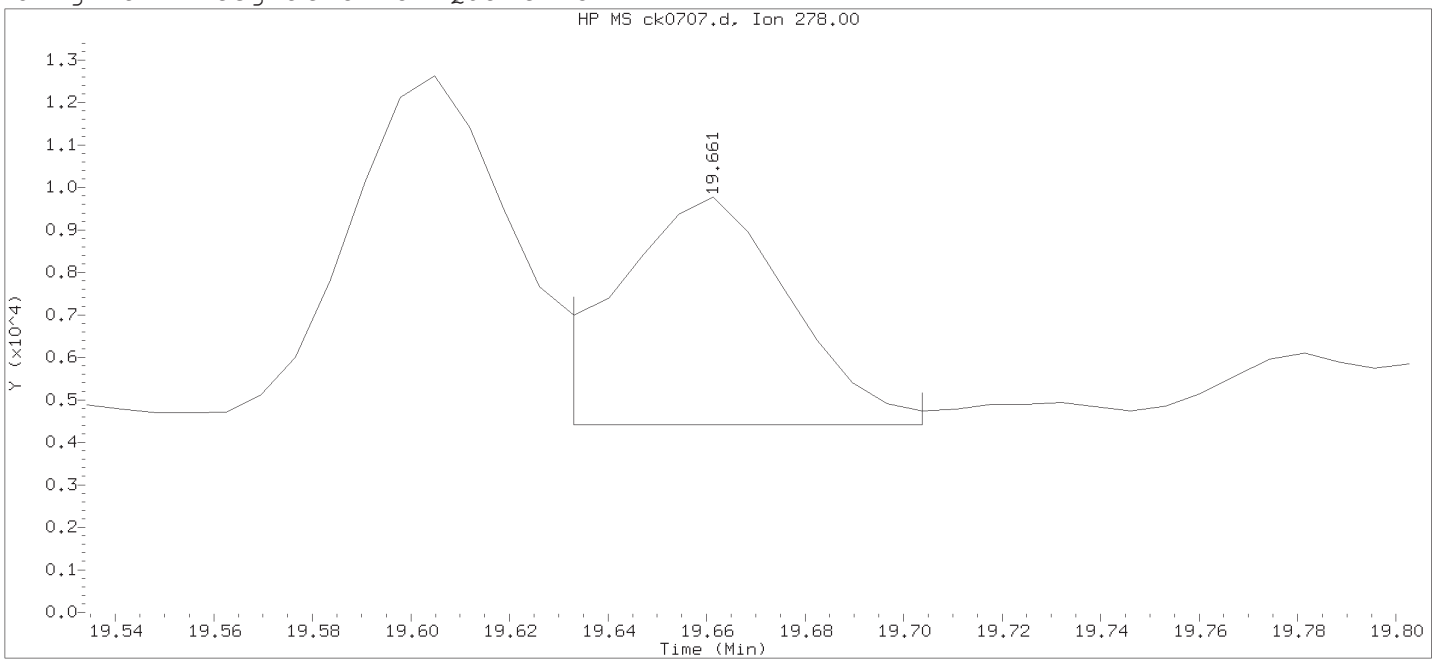
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

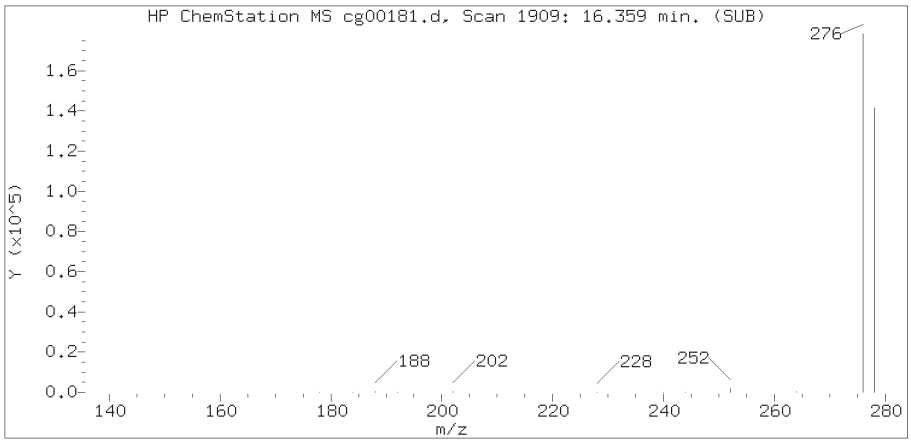
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

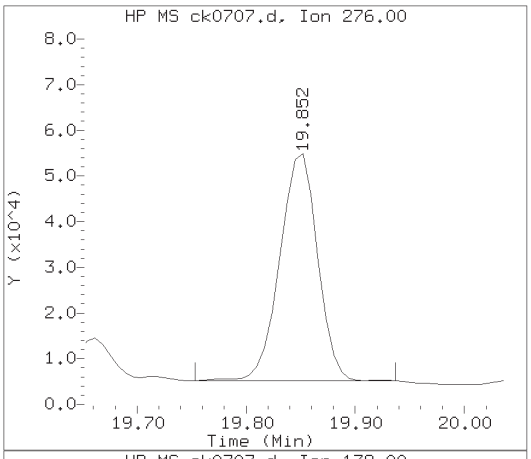
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 54		
Compound Name	: Dibenz(a,h)anthracene		
Scan Number	: 1785		
Retention Time (minutes)	: 19.661		
Quant Ion	: 278.00		
Area	: 12692		
On-column Amount (ng/ul)	: 0.2762		
Integration start scan	: 1780	Integration stop scan:	1790
Y at integration start	: 4419	Y at integration end:	4419

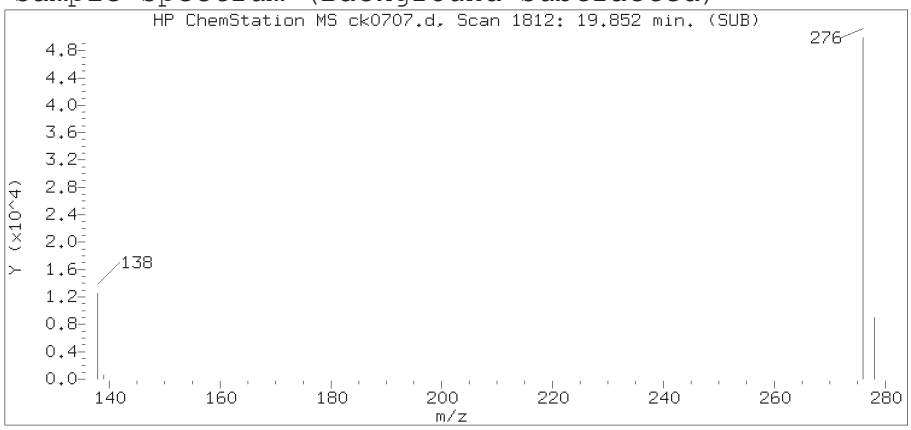
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: 1.0.1

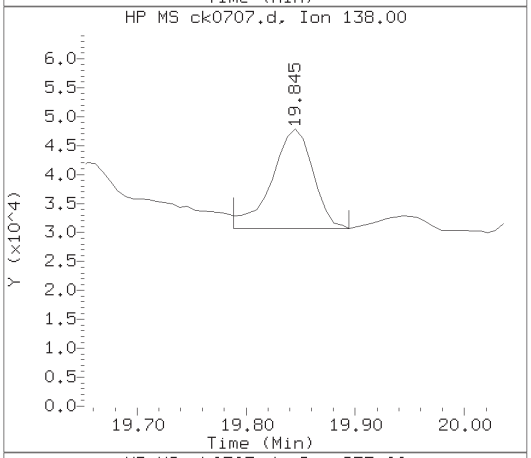
Reference Standard Spectrum for Indeno(1,2,3-cd)pyrene



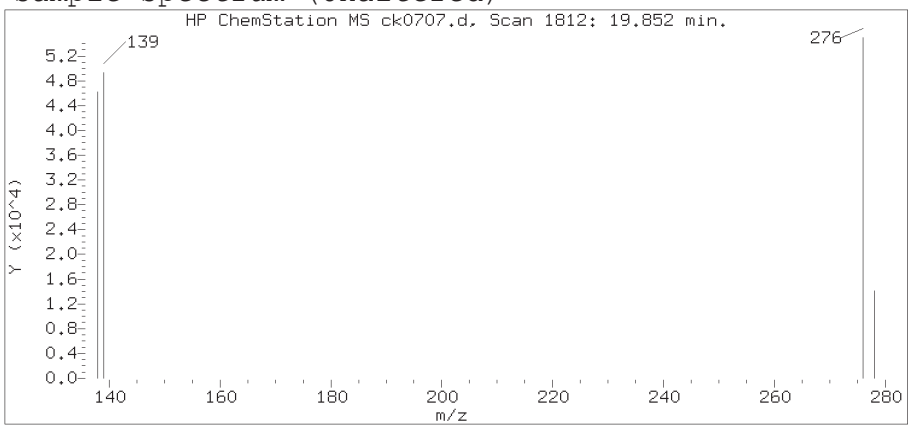


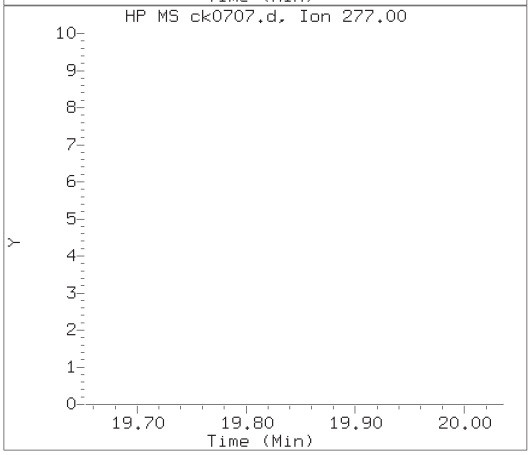
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

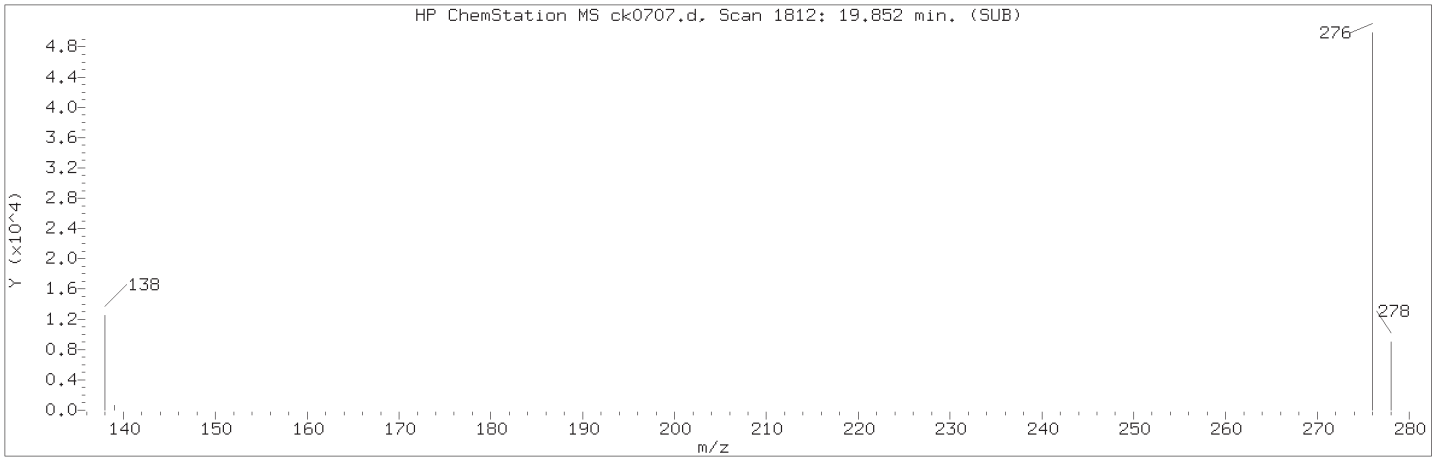
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

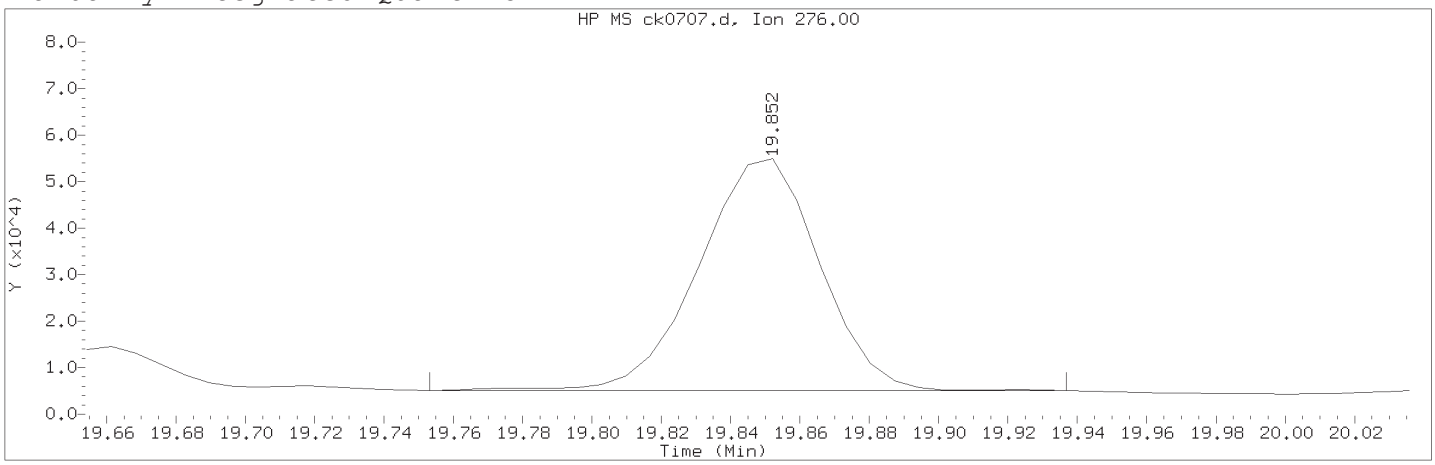
Compound Number	: 53
Compound Name	: Indeno(1,2,3-cd)pyrene
Scan Number	: 1812
Retention Time (minutes)	: 19.852
Relative Retention Time	:-0.00030
Quant Ion	: 276.00
Area (flag)	: 120068A
On-column Amount (ng/ul)	: 1.3284

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

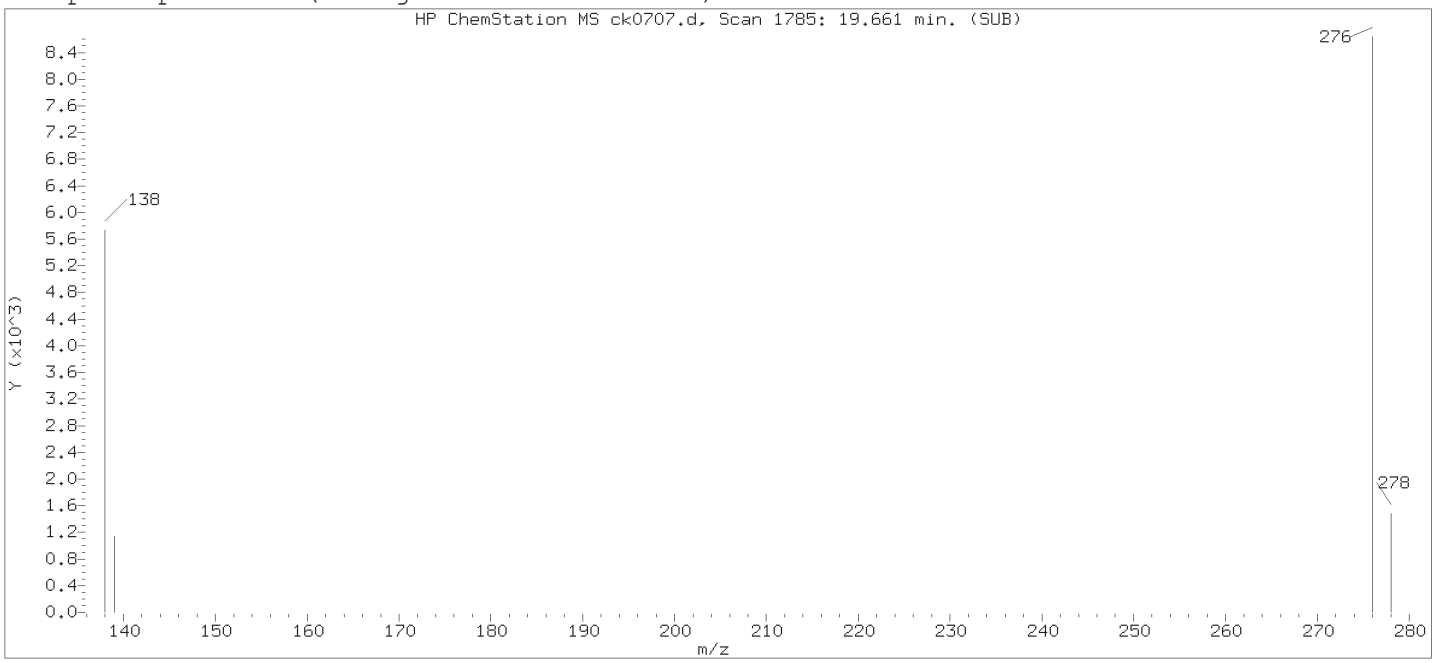
Compound Number : 53
Compound Name : Indeno(1,2,3-cd)pyrene
Scan Number : 1812
Retention Time (minutes) : 19.852
Quant Ion : 276.00
Area (flag) : 120068A
On-column Amount (ng/ul) : 1.3284
Integration start scan : 1797 Integration stop scan: 1823
Y at integration start : 5121 Y at integration end: 5121

Reason for manual integration: improper integration

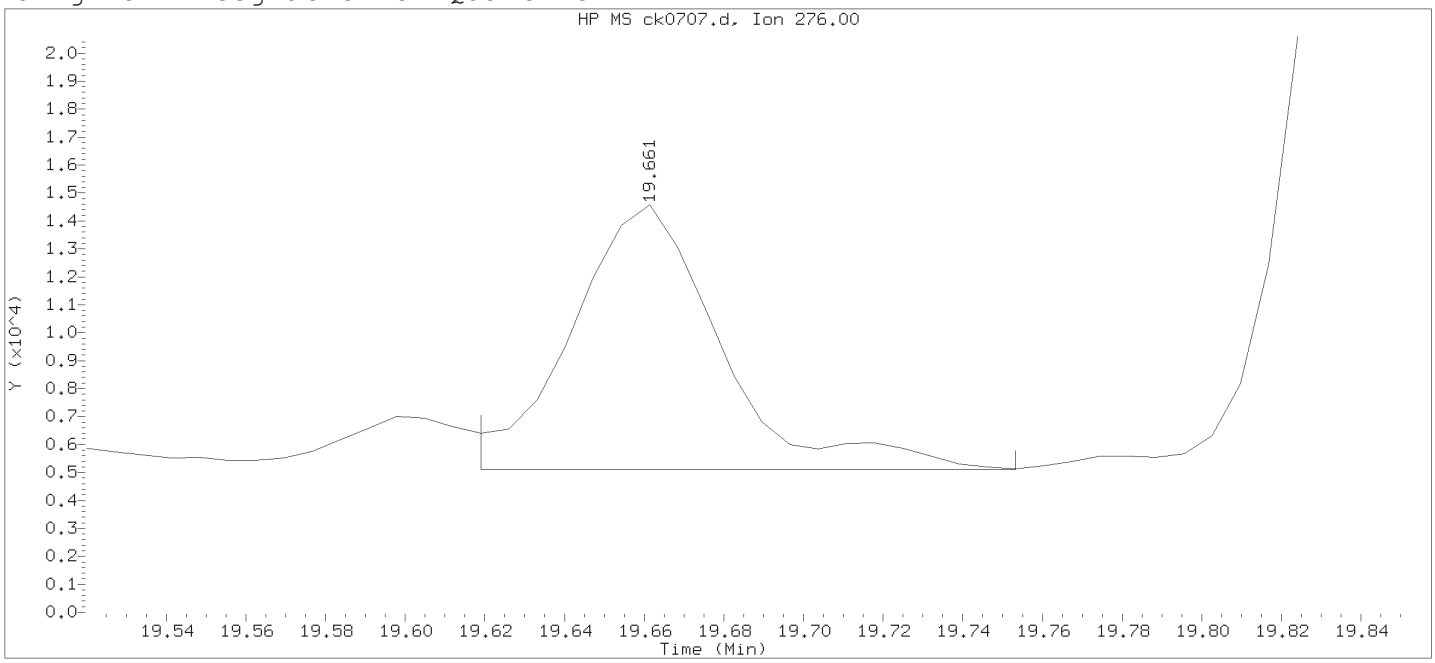
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

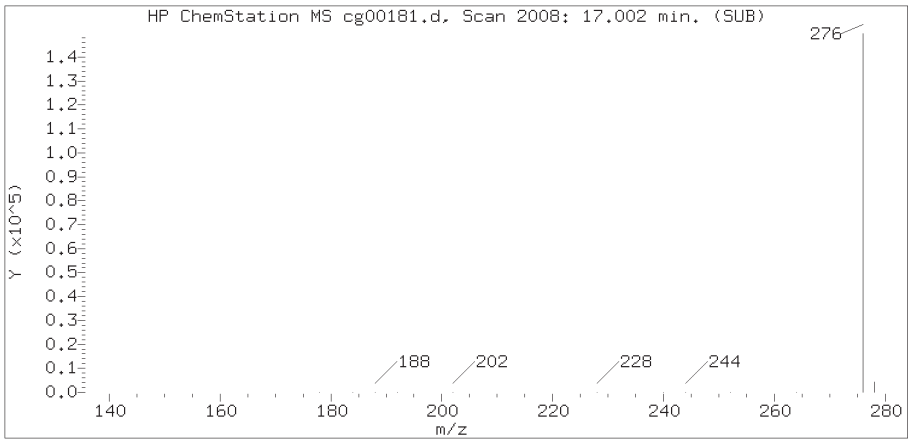
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

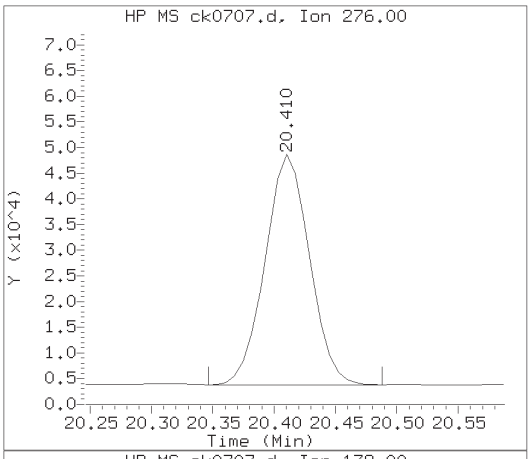
Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 53	
Compound Name	: Indeno(1,2,3-cd)pyrene	
Scan Number	: 1785	
Retention Time (minutes)	: 19.661	
Quant Ion	: 276.00	
Area	: 24411	
On-column Amount (ng/ul)	: 0.4404	
Integration start scan	: 1778	Integration stop scan: 1797
Y at integration start	: 5121	Y at integration end: 5121

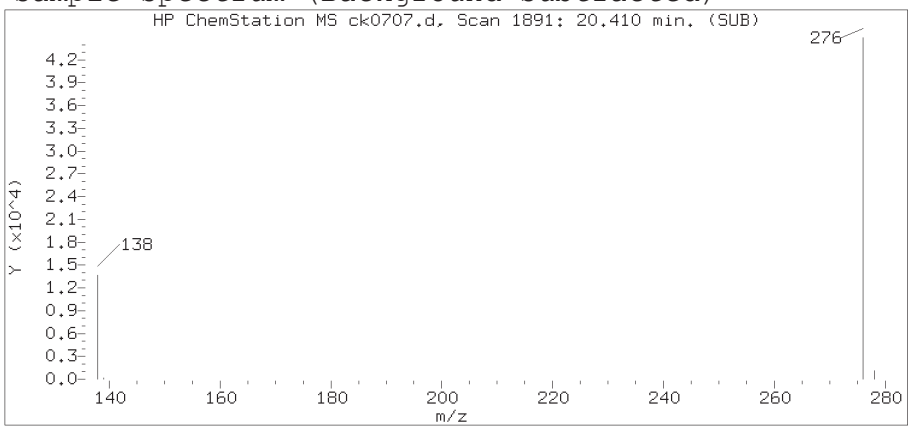
Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature used: D12 Page 3092 of 7494

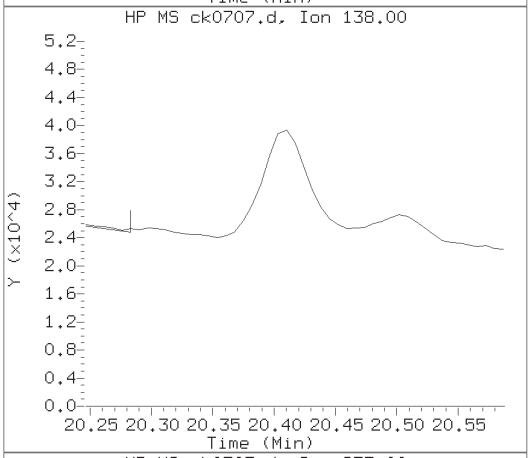
Reference Standard Spectrum for Benzo(g,h,i)perylene



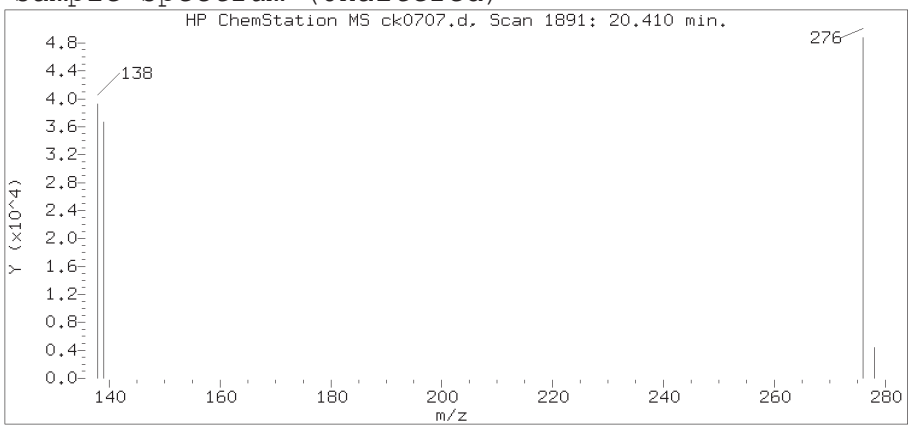


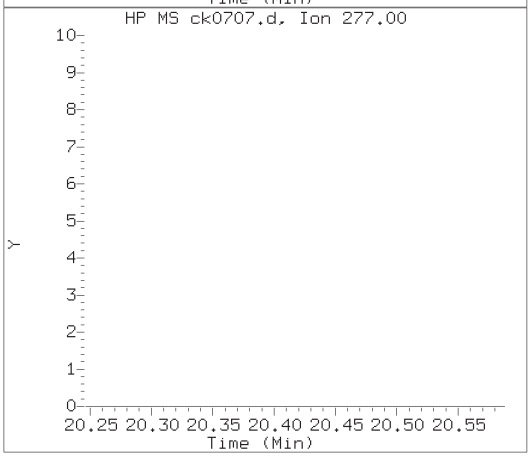
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

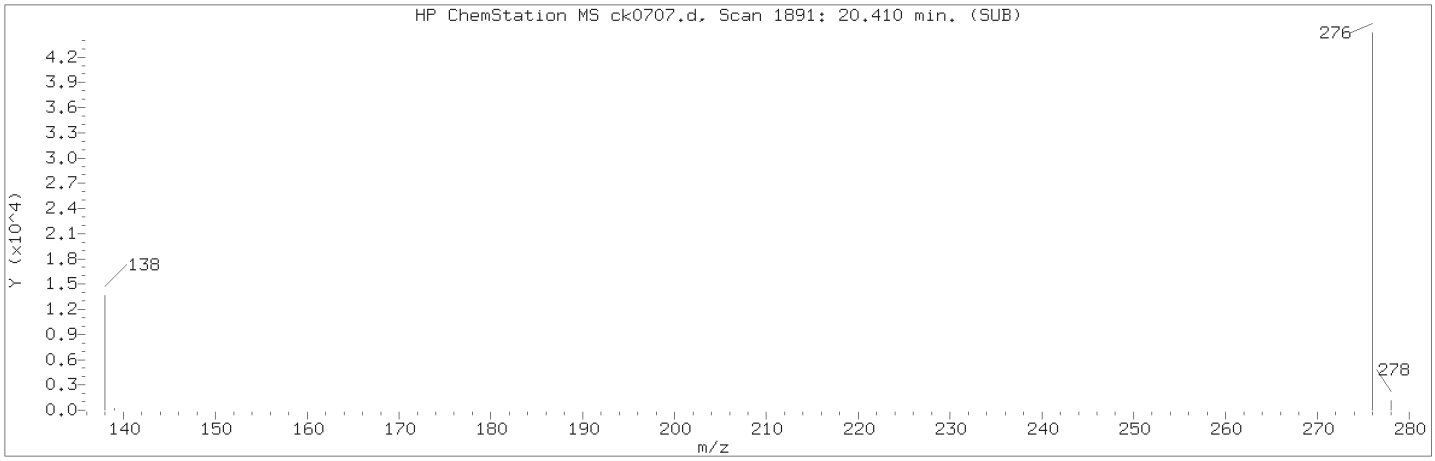
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

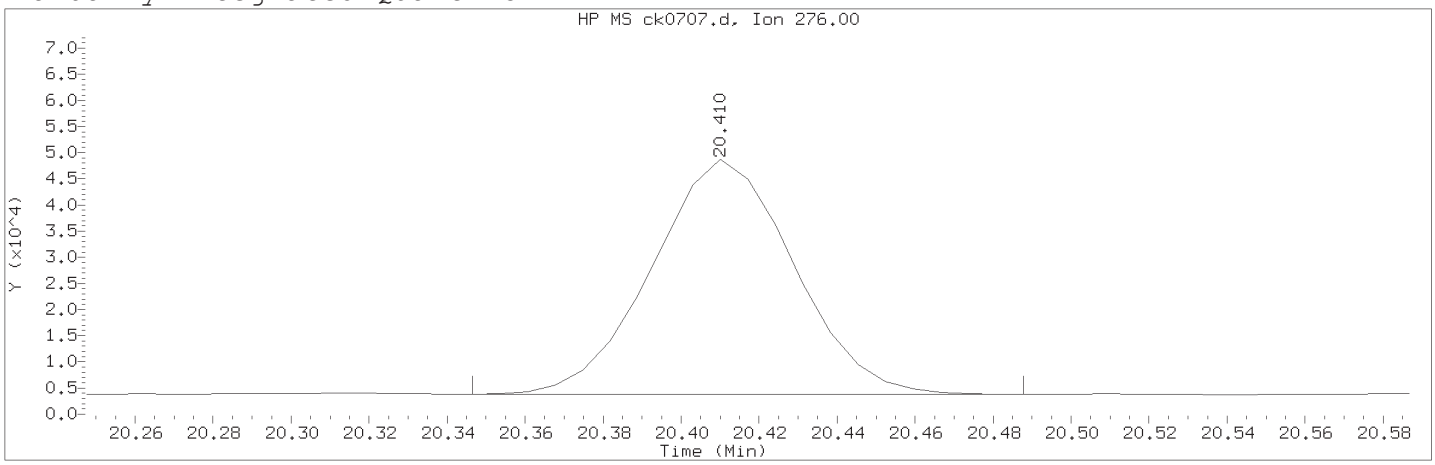
Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1891
Retention Time (minutes)	: 20.410
Relative Retention Time	:-0.00038
Quant Ion	: 276.00
Area (flag)	: 113083M
On-column Amount (ng/ul)	: 1.3406

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:54 whs02991

Sample Name: 12T07RE Lab Sample ID: 9872065RE

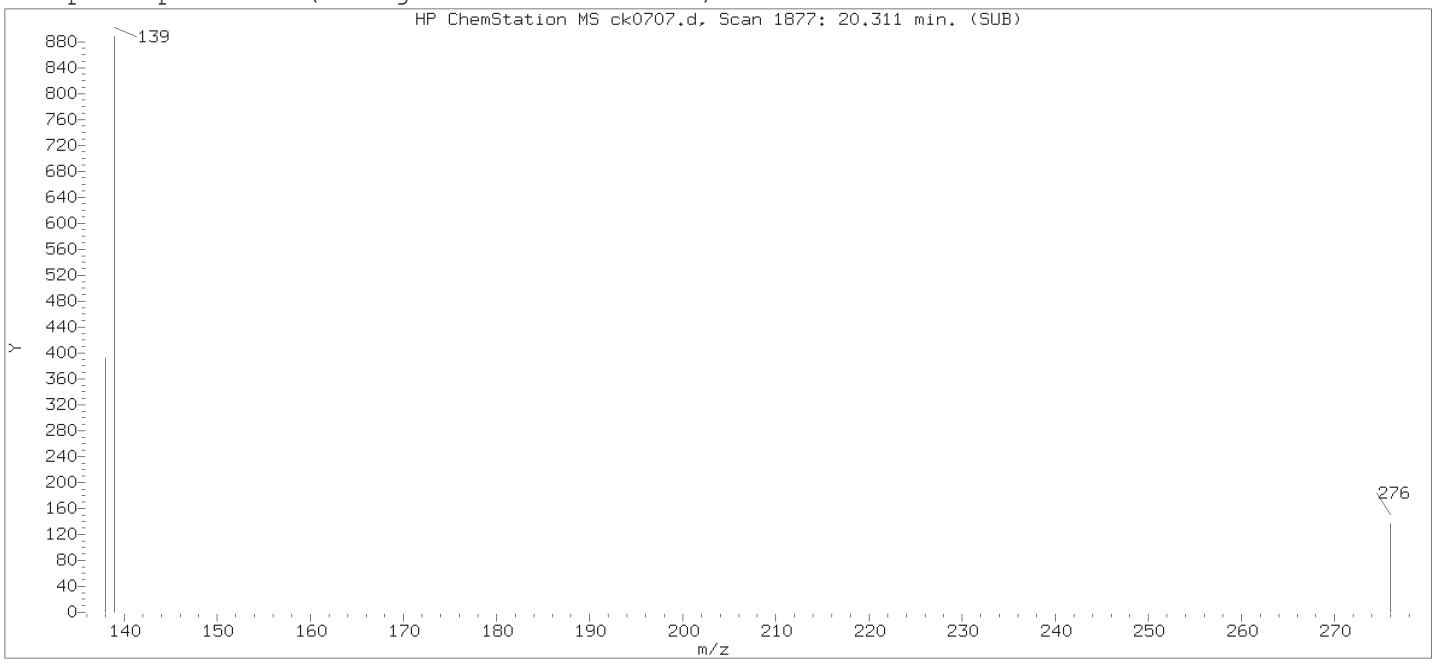
Compound Number : 55
Compound Name : Benzo(g,h,i)perylene
Scan Number : 1891
Retention Time (minutes) : 20.410
Quant Ion : 276.00
Area (flag) : 113083M
On-column Amount (ng/ul) : 1.3406
Integration start scan : 1881 Integration stop scan: 1901
Y at integration start : 3801 Y at integration end: 3788

Reason for manual integration: improper integration

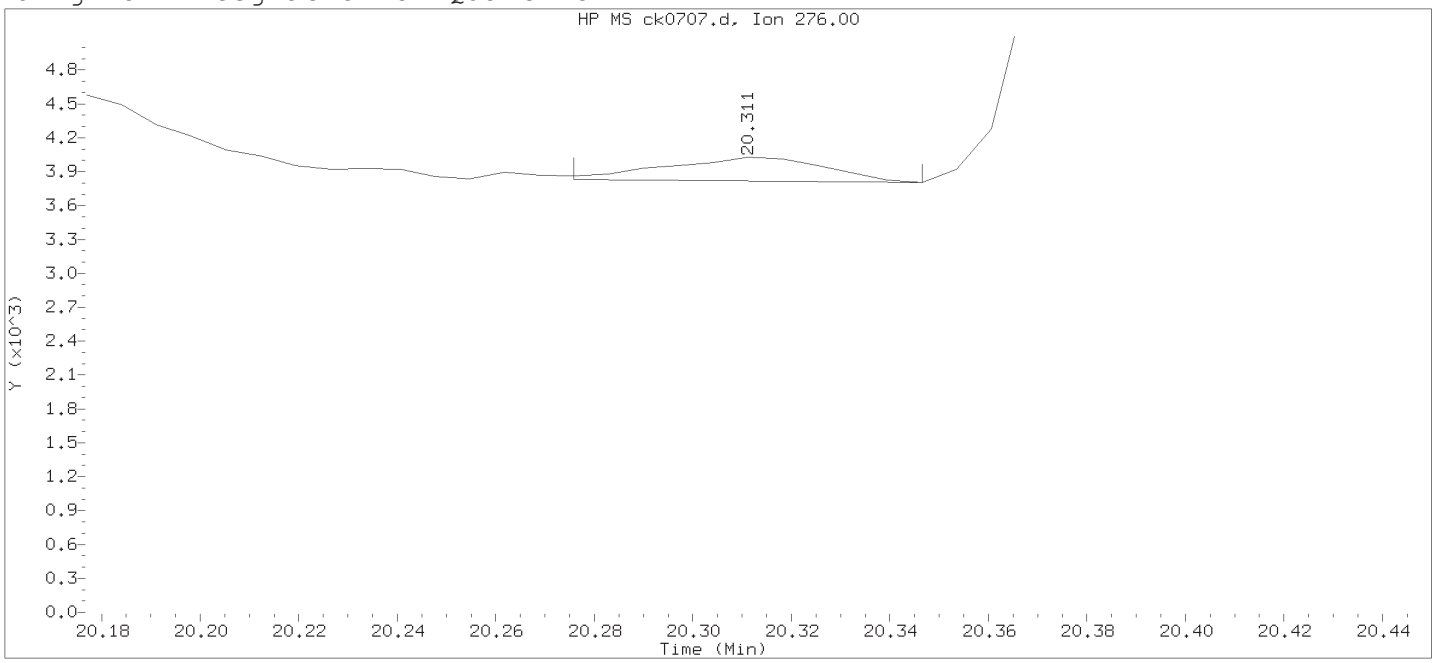
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:24.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0707.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 09:55 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 10:22 Automation

Sample Name: 12T07RE Lab Sample ID: 9872065RE

Compound Number	: 55
Compound Name	: Benzo(g,h,i)perylene
Scan Number	: 1877
Retention Time (minutes)	: 20.311
Quant Ion	: 276.00
Area	: 473
On-column Amount (ng/ul)	: 0.0092
Integration start scan	: 1871 Integration stop scan: 1881
Y at integration start	: 3830 Y at integration end: 3804

Digitally signed by William H Saadeh on 11/16/2018 at 12:56.
Target 3.5 esignature user ID: jmg00346

Standards Data

Semivolatiles by GC/MS-SIM

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10623 **HP #03**

Data Directory Path is - C:\msdchem\1\data\18oct06d\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	CJ0280d.D	DFTPP2408	10/06/2018	23:06		
apb10206	CJ0281d.D	SIM2598	10/06/2018	23:27		
apb10206	CJ0282d.D	SIM2598	10/07/2018	00:04		
apb10206	CJ0283d.D	SIM2598	10/07/2018	00:35		
apb10206	CJ0284d.D	SIM2598	10/07/2018	01:07		
apb10206	CJ0285d.D	SIM2598	10/07/2018	01:39		
apb10206	CJ0286d.D	SIM2598	10/07/2018	02:10		
apb10206	CJ0287d.D	SIM2598	10/07/2018	02:42		
apb10206	CJ0288d.D	SIM2598	10/07/2018	03:13		
apb10206	CJ0289d.D	SIM2598	10/07/2018	03:45		
apb10206	CJ0290d.D	SICV1908	10/07/2018	04:16		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10623 **HP #03**

Data Directory Path is - C:\msdchem\1\data\18nov05a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	CK0200.D	DFTPP2408	11/05/2018	18:21		
apb10206	CK0201.D	SIM2598	11/05/2018	18:38		
apb10206	CK0202.D	SBLKLE302	11/05/2018	19:15	18302SLE	
apb10206	CK0203.D	302LELCS	11/05/2018	19:46	18302SLE	
apb10206	CK0204.D	9863851	11/05/2018	20:17	18302SLE	
apb10206	CK0205.D	9863852	11/05/2018	20:48	18302SLE	
apb10206	CK0206.D	9863853	11/05/2018	21:20	18302SLE	
apb10206	CK0207.D	9863854	11/05/2018	21:51	18302SLE	
apb10206	CK0208.D	9863855	11/05/2018	22:22	18302SLE	
apb10206	CK0209.D	9863857	11/05/2018	22:54	18302SLE	
apb10206	CK0210.D	9863858	11/05/2018	23:25	18302SLE	
apb10206	CK0211.D	9866461	11/05/2018	23:56	18302SLE	
apb10206	CK0212.D	9866462	11/06/2018	00:27	18302SLE	10
apb10206	CK0213.D	9866463	11/06/2018	00:58	18302SLE	
apb10206	CK0214.D	9866464	11/06/2018	01:30	18302SLE	
apb10206	CK0215.D	9866465	11/06/2018	02:01	18302SLE	
apb10206	CK0216.D	9866466	11/06/2018	02:32	18302SLE	
apb10206	CK0217.D	9866467	11/06/2018	03:03	18302SLE	
apb10206	CK0218.D	9870251	11/06/2018	03:35	18302SLE	
apb10206	CK0219.D	9870252	11/06/2018	04:06	18302SLE	10
apb10206	CK0220.D	9870253	11/06/2018	04:37	18302SLE	10
apb10206	CK0221.D	9870254	11/06/2018	05:09	18302SLE	10
apb10206	CK0222.D	SIM2598	11/06/2018	05:40		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10623 **HP #03**

Data Directory Path is - C:\msdchem\1\data\18nov06a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	CK0300.D	DFTPP2408	11/06/2018	16:18		
apb10206	CK0301.D	SIM2598	11/06/2018	16:36		
apb10206	CK0302.D	9872060	11/06/2018	17:30	18302SLE	10
apb10206	CK0303.D	9872061	11/06/2018	18:01	18302SLE	10
apb10206	CK0304.D	9872062	11/06/2018	18:33	18302SLE	10
apb10206	CK0305.D	9872063	11/06/2018	19:04	18302SLE	10
apb10206	CK0306.D	9863852DL	11/06/2018	19:35	18302SLE	5
apb10206	CK0307.D	9863852RE	11/06/2018	20:07	18302SLE	
apb10206	CK0308.D	9866467DL	11/06/2018	20:38	18302SLE	5
apb10206	CK0309.D	9870252DL	11/06/2018	21:09	18302SLE	50
apb10206	CK0310.D	9870253DL	11/06/2018	21:41	18302SLE	100
apb10206	CK0311.D	9870254DL	11/06/2018	22:12	18302SLE	100
apb10206	CK0302a.D	9872060DL	11/06/2018	22:44	18302SLE	50
apb10206	CK0303a.D	9872061DL	11/06/2018	23:15	18302SLE	50
apb10206	CK0304a.D	9872062DL	11/06/2018	23:46	18302SLE	50
apb10206	CK0312.D	SIM2598	11/07/2018	00:17		
apb10206	CK0305a.D	9872063	11/07/2018	00:51	18302SLE	
apb10206	CK0312a.D	SIM2598	11/07/2018	01:22		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10623 **HP #03**

Data Directory Path is - C:\msdchem\1\data\18nov16\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jmg00346	CK0700.D	DFTPP2408	11/16/2018	05:01		
jmg00346	CK0701.D	SIM2598	11/16/2018	05:17		
jmg00346	CK0701a.D	SIM2598	11/16/2018	05:58		
jmg00346	CK0702.D	SBLKLC317	11/16/2018	07:21	18317SLC	
jmg00346	CK0703.D	317LCLCS	11/16/2018	07:51	18317SLC	
jmg00346	CK0704.D	9867761RE	11/16/2018	08:22	18317SLC	
jmg00346	CK0705.D	9867766RE	11/16/2018	08:53	18317SLC	
jmg00346	CK0706.D	9867767RE	11/16/2018	09:24	18317SLC	
jmg00346	CK0707.D	9872065RE	11/16/2018	09:55	18317SLC	
jmg00346	CK0708.D	9867762RE	11/16/2018	10:26	18317SLC	
jmg00346	CK0709.D	9867763RE	11/16/2018	10:57	18317SLC	
jmg00346	CK0710.D	9867764RE	11/16/2018	11:28	18317SLC	
jmg00346	CK0711.D	SIM2598	11/16/2018	11:59		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10976 **HP #09**

Data Directory Path is - D:\msdchem\1\data\18sep04a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	II0101s.D	SIM1288	09/04/2018	16:45		
apb10206	II0101w.D	SIM1288	09/04/2018	17:22		
apb10206	II0100.D	DFTPP1598	09/04/2018	17:56		
apb10206	II0100a.D	DFTPP1598	09/04/2018	18:19		
apb10206	II0100b.D	DFTPP1598	09/04/2018	18:34		
apb10206	II0100d.D	DFTPP1598	09/04/2018	18:49		
apb10206	II0100e.D	DFTPP1598	09/04/2018	19:02		
apb10206	II0100f.D	DFTPP1598	09/04/2018	19:19		
apb10206	II0101.D	SIM1288	09/04/2018	19:41		
apb10206	II0102.D	SIM1288	09/04/2018	20:12		
apb10206	II0103.D	SIM1288	09/04/2018	20:43		
apb10206	II0104.D	SIM1288	09/04/2018	21:14		
apb10206	II0105.D	SIM1288	09/04/2018	21:45		
apb10206	II0106.D	SIM1288	09/04/2018	22:16		
apb10206	II0107.D	SIM1288	09/04/2018	22:47		
apb10206	II0108.D	SIM1288	09/04/2018	23:18		
apb10206	II0109.D	SIM1288	09/04/2018	23:49		
apb10206	II0110.D	SICV1908	09/05/2018	00:19		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10976 **HP #09**

Data Directory Path is - D:\msdchem\1\data\18nov07\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
apb10206	IK0300.D	DFTPP2408	11/07/2018	17:14		
apb10206	IK0301.D	SIM2598	11/07/2018	17:32		
apb10206	IK0302.D	SBLKLH302	11/07/2018	18:15	18302SLH	
apb10206	IK0302x.D	iblank	11/07/2018	18:46		
apb10206	IK0302a.D	SBLKLH302	11/07/2018	19:16	18302SLH	
apb10206	IK0303.D	302LHLCS	11/07/2018	19:46	18302SLH	
apb10206	IK0304.D	9867761	11/07/2018	20:15	18302SLH	
apb10206	IK0305.D	9867762	11/07/2018	20:45	18302SLH	
apb10206	IK0306.D	9867763	11/07/2018	21:15	18302SLH	
apb10206	IK0307.D	9867764	11/07/2018	21:45	18302SLH	
apb10206	IK0308.D	9867766	11/07/2018	22:14	18302SLH	
apb10206	IK0309.D	9867767	11/07/2018	22:44	18302SLH	
apb10206	IK0310.D	9872064	11/07/2018	23:14	18302SLH	10
apb10206	IK0311.D	9872065	11/07/2018	23:43	18302SLH	
apb10206	IK0312.D	SIM2598	11/08/2018	00:13		
apb10206	IK0313.D	9878781	11/08/2018	00:43	18306SLB	
apb10206	IK0314.D	9878782	11/08/2018	01:13	18306SLB	
apb10206	IK0315.D	blank	11/08/2018	01:43		
apb10206	IK0316.D	blank	11/08/2018	02:13		
apb10206	IK0317.D	blank	11/08/2018	02:43		
apb10206	IK0318.D	blank	11/08/2018	03:12		
apb10206	IK0319.D	blank	11/08/2018	03:42		

Lancaster Laboratories
Semi-Volatiles
Runlog for Agilent GC/MS System HP10976 **HP #09**

Data Directory Path is - D:\msdchem\1\data\18nov08\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
jmg00346	IK0350.D	DFTPP2408	11/08/2018	06:43		
jmg00346	IK0351.D	SIM2598	11/08/2018	07:03		
jmg00346	IK0352.D	SBLKLH302	11/08/2018	08:03	18302SLH	
jmg00346	IK0353.D	302LHLCS	11/08/2018	08:33	18302SLH	
jmg00346	IK0354.D	9867761	11/08/2018	09:03	18302SLH	
jmg00346	IK0355.D	9867762	11/08/2018	09:33	18302SLH	
jmg00346	IK0356.D	9867762DL	11/08/2018	10:03	18302SLH	10
jmg00346	IK0357.D	9867763	11/08/2018	10:33	18302SLH	
jmg00346	IK0358.D	9867764	11/08/2018	11:04	18302SLH	
jmg00346	IK0359.D	9867766	11/08/2018	11:34	18302SLH	
jmg00346	IK0360.D	9867767	11/08/2018	12:05	18302SLH	
jmg00346	IK0361.D	9867767DL	11/08/2018	12:35	18302SLH	10
jmg00346	IK0362.D	9872064	11/08/2018	13:04	18302SLH	10
jmg00346	IK0363.D	9872064DL	11/08/2018	13:34	18302SLH	100
jmg00346	IK0364.D	9872065	11/08/2018	14:04	18302SLH	
jmg00346	IK0365.D	9872065DL	11/08/2018	14:34	18302SLH	10
jmg00346	IK0366.D	SIM2598	11/08/2018	15:04		
apb10206	IK0356a.D	9867762DL2	11/08/2018	17:03	18302SLH	50
apb10206	IK0366a.D	SIM2598	11/08/2018	17:32		

Data File: /chem/HP10623.i/18oct06d.b/cj0280d.d

Date : 06-OCT-2018 23:06

Client ID: DFTPP050

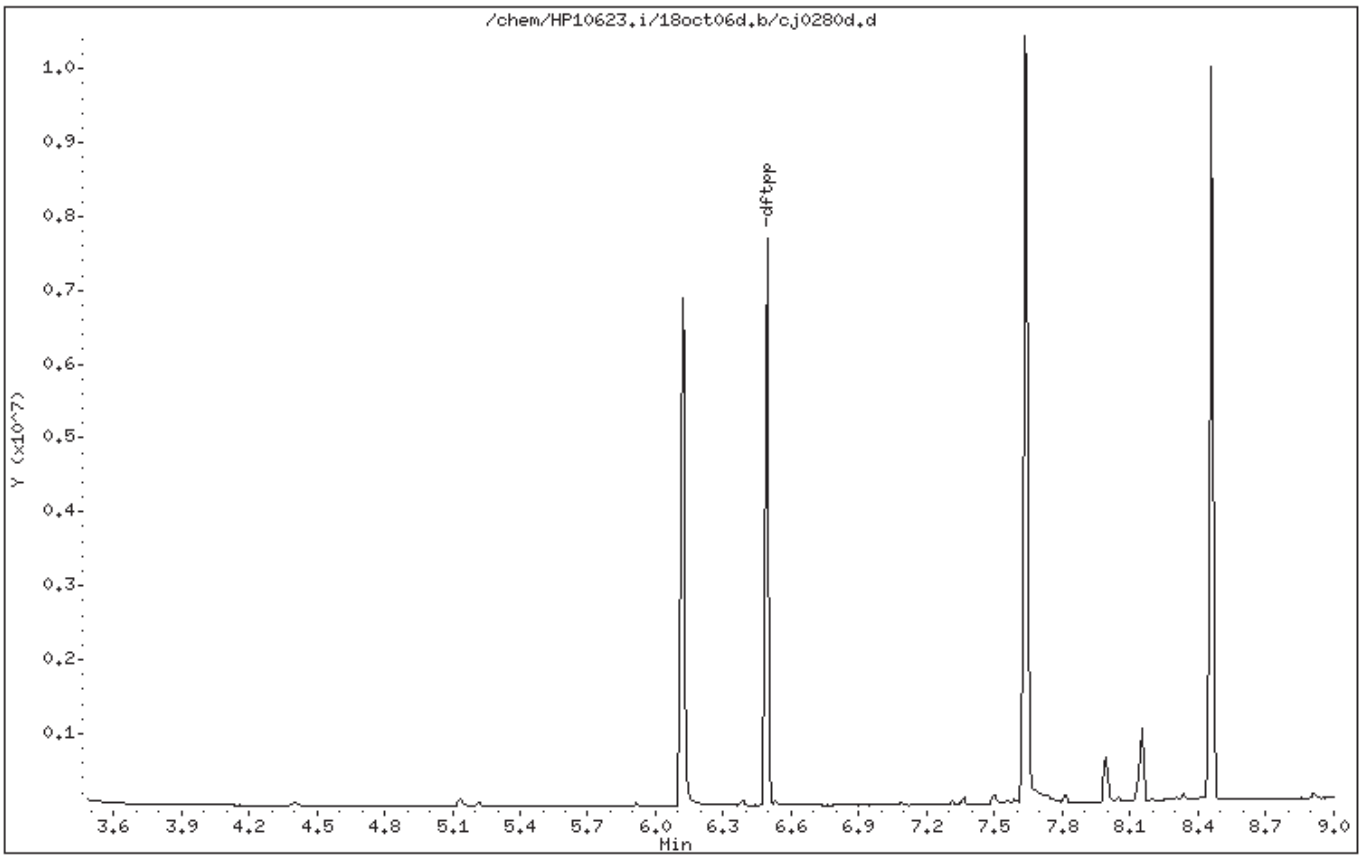
Instrument: HP10623.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:13.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10623.i/18oct06d.b/cj0280d.d

Date : 06-OCT-2018 23:06

Client ID: DFTPP050

Instrument: HP10623.i

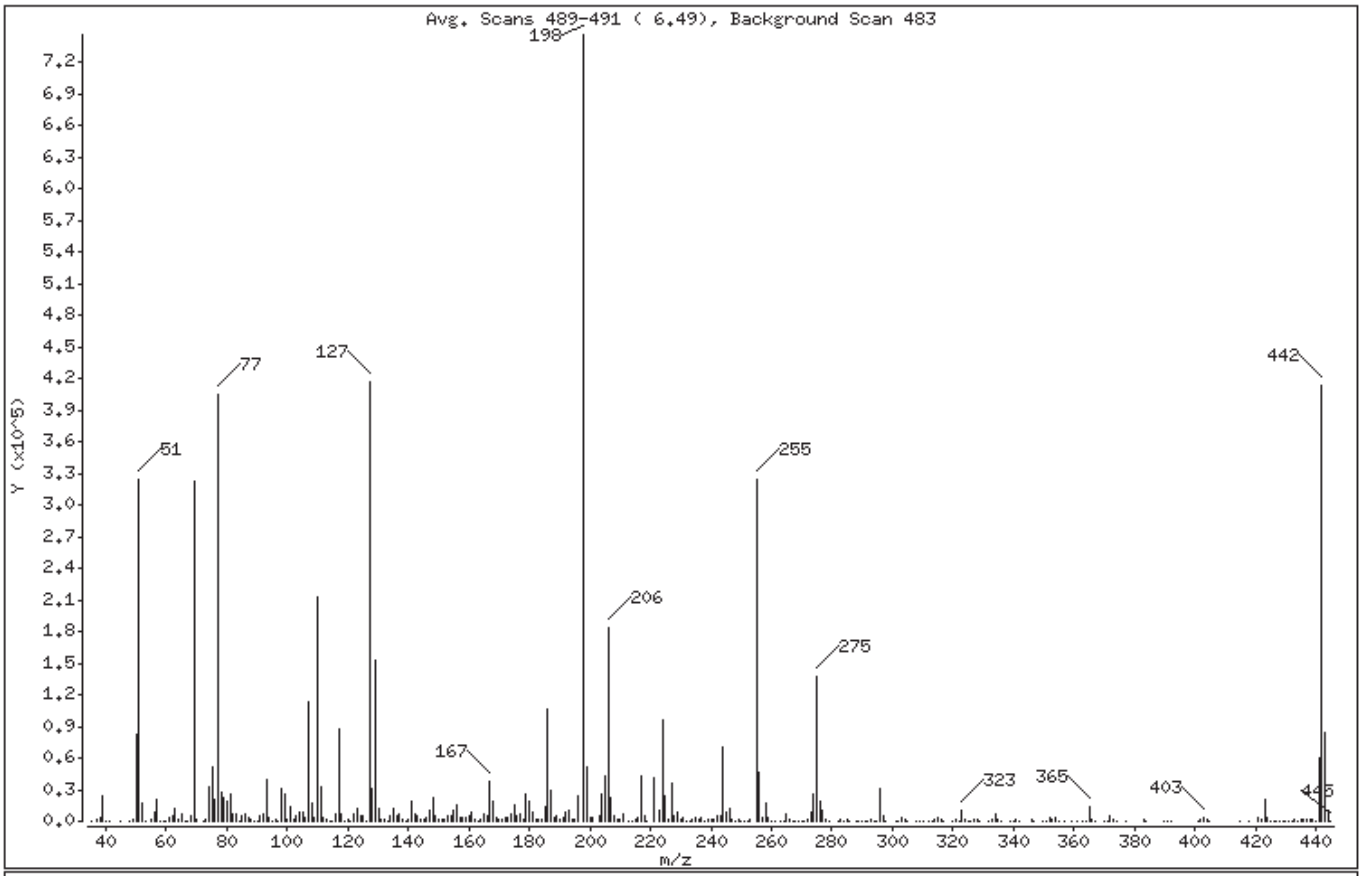
Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	43.48
68	Less than 2.00% of mass 69	0.76 (1.76)
69	Mass 69 relative abundance	43.20
70	Less than 2.00% of mass 69	0.21 (0.49)
127	10.00 - 80.00% of mass 198	55.88
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.86
275	10.00 - 60.00% of mass 198	18.45
365	Greater than 1.00% of mass 198	1.74
441	0.01 - 24.00% of mass 442	8.00 (14.45)
442	50.00 - 99.99% of mass 198	55.35
443	15.00 - 24.00% of mass 442	11.26 (20.35)

Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:13.
Target 3.5 esignature user ID: apb10206

Date : 06-OCT-2018 23:06

Client ID: DFTPP050 Instrument: HP10623.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: cj0280d.d
Spectrum: Avg. Scans 489-491 (6.49), Background Scan 483
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	63	128.00	30552	216.00	3798	313.00	300
37.00	1396	129.00	153280	217.00	42648	314.00	1747
38.00	3625	130.00	12694	218.00	5459	315.00	3428
39.00	23328	131.00	2382	219.00	593	316.00	2154
40.00	657	132.00	1234	221.00	41816	317.00	363
41.00	42	133.00	192	223.00	10328	320.00	88
45.00	314	134.00	4370	224.00	95488	321.00	966
48.00	67	135.00	12024	225.00	23544	322.00	656
49.00	1339	136.00	5013	226.00	2563	323.00	10520
50.00	83048	137.00	6388	227.00	35176	324.00	1949
51.00	324416	138.00	1401	228.00	5283	325.00	202
52.00	16324	139.00	752	229.00	7833	326.00	142
53.00	554	140.00	1827	230.00	1176	327.00	1868
55.00	1117	141.00	18496	231.00	3348	328.00	1009
56.00	8857	142.00	6235	232.00	635	329.00	78
57.00	21112	143.00	4418	233.00	664	332.00	819
58.00	849	144.00	1187	234.00	2240	333.00	1102
59.00	352	145.00	1080	235.00	2580	334.00	6874
60.00	95	146.00	3252	236.00	1915	335.00	1760
61.00	3833	147.00	9771	237.00	2850	336.00	228
62.00	4536	148.00	21584	238.00	526	339.00	100
63.00	12387	149.00	4619	239.00	1452	340.00	232
64.00	1967	150.00	1400	240.00	1152	341.00	1121
65.00	6438	151.00	2484	241.00	2104	342.00	331
66.00	563	152.00	1568	242.00	4818	346.00	2422
67.00	323	153.00	5771	243.00	5333	347.00	368
68.00	5673	154.00	4512	244.00	70112	350.00	51
69.00	322304	155.00	10549	245.00	9222	351.00	119
70.00	1577	156.00	16019	246.00	11706	352.00	3055
72.00	203	157.00	3191	247.00	2550	353.00	2235
73.00	2182	158.00	3202	248.00	730	354.00	3330
74.00	32416	159.00	2775	249.00	2336	355.00	696
75.00	52104	160.00	5683	250.00	552	357.00	50
76.00	19816	161.00	8361	251.00	650	359.00	194
77.00	405440	162.00	2313	252.00	809	361.00	116

Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:13.
Target 3.5 esignature user ID: apb10206

Date : 06-OCT-2018 23:06

Client ID: DFTPP050 Instrument: HP10623.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: cj0280d.d
Spectrum: Avg. Scans 489-491 (6.49), Background Scan 483
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	28000	163.00	628	253.00	1890	363.00	183
79.00	22736	164.00	1098	255.00	324160	364.00	75
80.00	18080	165.00	6245	256.00	46888	365.00	12973
81.00	25440	166.00	5471	257.00	3820	366.00	1836
82.00	6650	167.00	38520	258.00	17032	367.00	78
83.00	6129	168.00	18296	259.00	2709	370.00	242
84.00	320	169.00	3184	260.00	472	371.00	850
85.00	5199	170.00	1134	261.00	632	372.00	5080
86.00	6682	171.00	1565	263.00	241	373.00	1356
87.00	3489	172.00	3315	264.00	563	374.00	211
88.00	1273	173.00	4097	265.00	6635	377.00	94
89.00	680	174.00	7688	266.00	1042	383.00	1340
90.00	125	175.00	14895	267.00	244	384.00	383
91.00	5854	176.00	4621	268.00	10	390.00	702
92.00	6461	177.00	6636	269.00	89	391.00	464
93.00	39072	178.00	2371	270.00	420	392.00	425
94.00	2868	179.00	26488	271.00	766	401.00	248
95.00	831	180.00	18560	272.00	1224	402.00	2307
96.00	1993	181.00	8652	273.00	9199	403.00	2865
97.00	572	182.00	1323	274.00	25440	404.00	1010
98.00	30936	183.00	921	275.00	137600	405.00	126
99.00	25336	184.00	2270	276.00	18544	415.00	90
100.00	2294	185.00	13042	277.00	10815	418.00	60
101.00	14215	186.00	105992	278.00	1814	421.00	2903
102.00	916	187.00	28776	279.00	398	422.00	2552
103.00	4729	188.00	2770	282.00	351	423.00	20120
104.00	9024	189.00	5932	283.00	1256	424.00	4138
105.00	8165	190.00	949	284.00	832	425.00	464
106.00	3027	191.00	2911	285.00	1904	426.00	153
107.00	113656	192.00	8462	286.00	346	427.00	121
108.00	17784	193.00	9591	288.00	119	428.00	199
109.00	3666	194.00	2223	289.00	401	429.00	286
110.00	212864	195.00	1423	290.00	352	430.00	250
111.00	31824	196.00	23400	291.00	261	431.00	384
112.00	3847	198.00	746112	292.00	530	432.00	558

Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:13.
Target 3.5 esignature user ID: apb10206

Date : 06-OCT-2018 23:06

Client ID: DFTPP050 Instrument: HP10623.i

Sample Info: DFTPP050;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

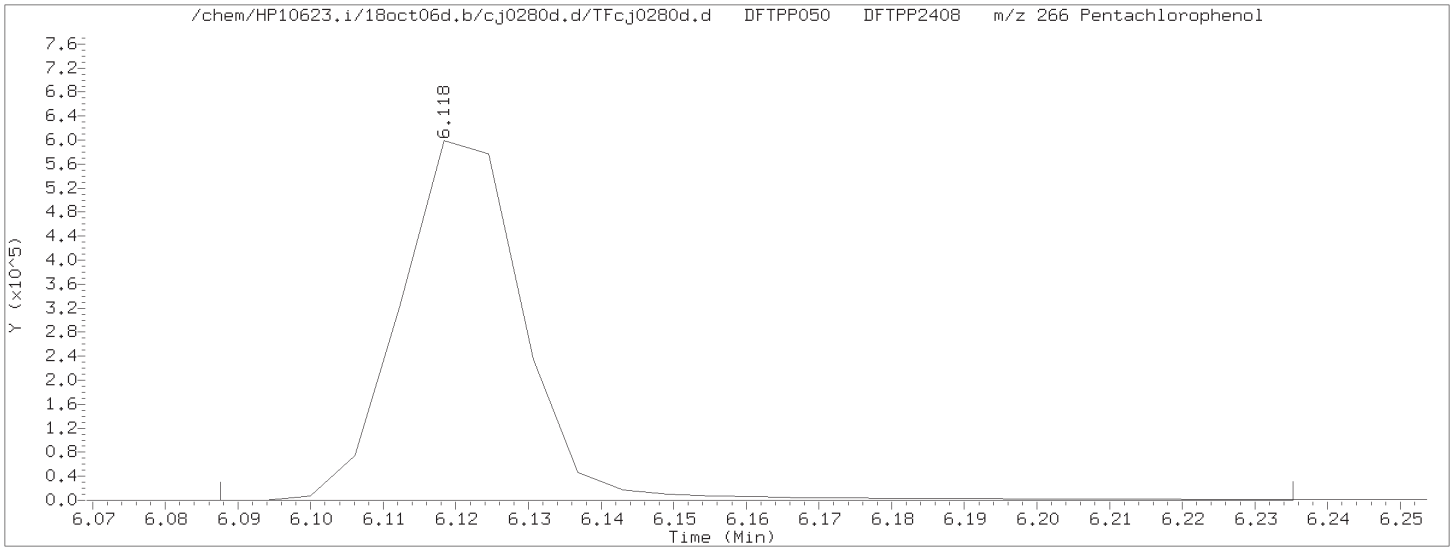
Data File: cj0280d.d
Spectrum: Avg. Scans 489-491 (6.49), Background Scan 483
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1257	199.00	51176	293.00	2521	433.00	865
114.00	363	200.00	3613	294.00	771	434.00	288
115.00	333	201.00	3588	295.00	673	435.00	972
116.00	6502	203.00	4947	296.00	31088	436.00	1286
117.00	87248	204.00	25208	297.00	4742	437.00	1292
118.00	6679	205.00	42368	298.00	318	438.00	2134
119.00	779	206.00	183488	301.00	446	439.00	1277
120.00	1184	207.00	23096	302.00	605	440.00	150
121.00	653	208.00	5688	303.00	4066	441.00	59680
122.00	7524	209.00	1846	304.00	1263	442.00	412992
123.00	11292	210.00	1598	305.00	113	443.00	84048
124.00	5033	211.00	7057	308.00	482	444.00	7774
125.00	4900	213.00	475	309.00	208	445.00	414
126.00	621	214.00	283	310.00	497		
127.00	416896	215.00	1814	312.00	76		

Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:13.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

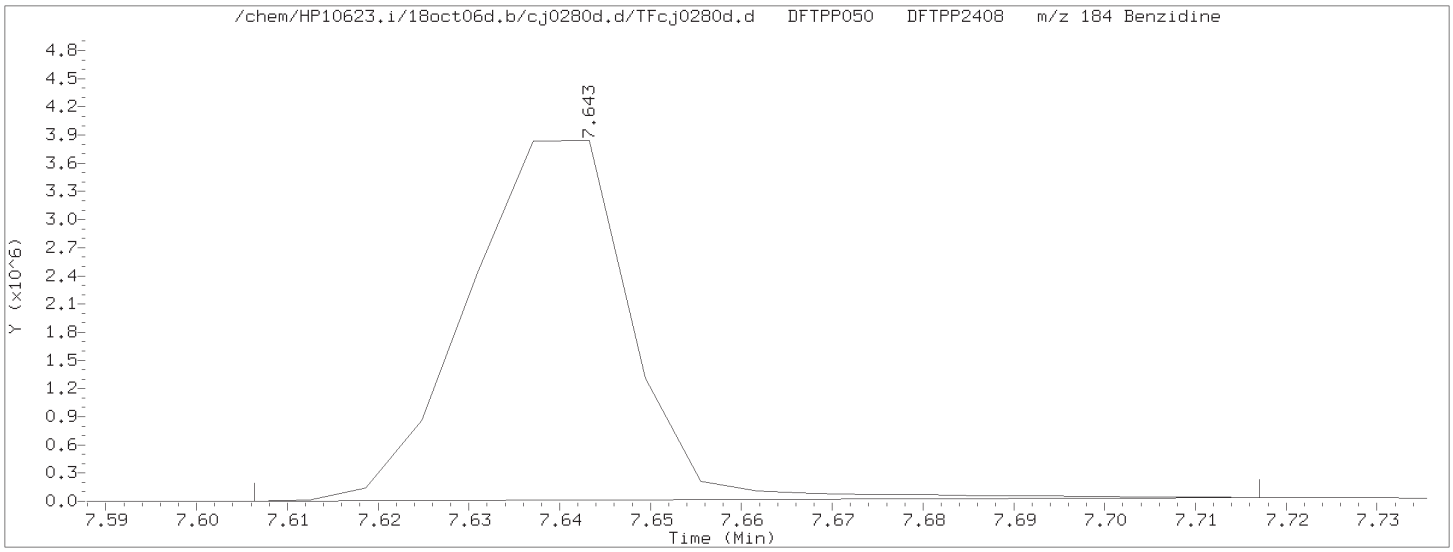
Instrument ID: HP10623.i Injection Date: 06-OCT-2018 23:06 Operator: apb10206



Pentachlorophenol EICP peak height = 599232 EICP peak height at 10% = 59923 Pentachlorophenol EICP area = 711135

Pentachlorophenol EICP peak apex (min.) = 6.118
RT at 10% of front half of EICP (min.) = 6.105 'Front' peak width (min.) = 0.0135500000
RT at 10% of back half of EICP (min.) = 6.136 'Tailing' peak width (min.) = 0.0179833333

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0179833333}{0.0135500000} = 1.327$



Benzidine EICP peak height = 3830813 EICP peak height at 10% = 383081 Benzidine EICP area = 4755658

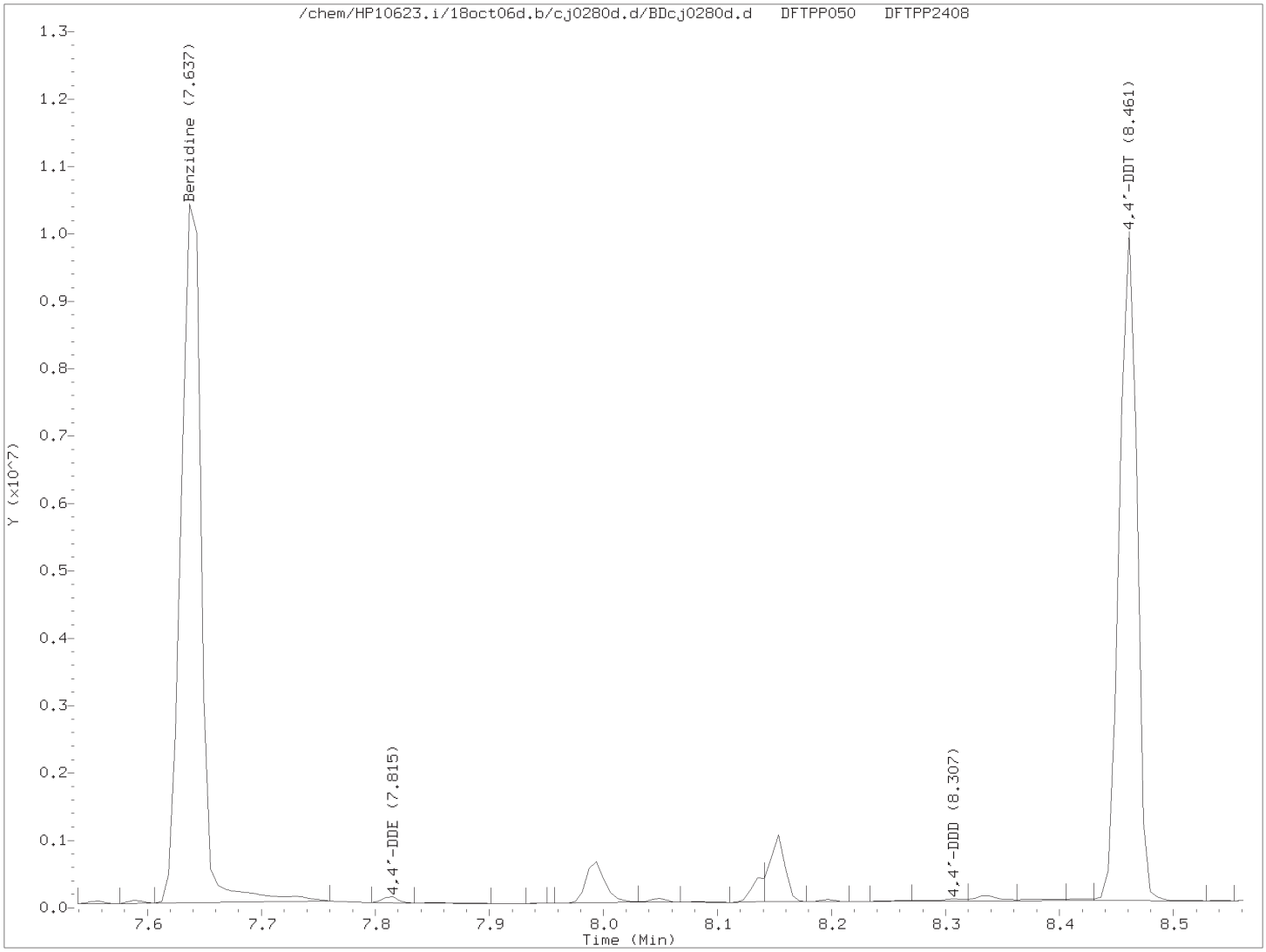
Benzidine EICP peak apex (min.) = 7.643
RT at 10% of front half of EICP (min.) = 7.621 'Front' peak width (min.) = 0.0223833333
RT at 10% of back half of EICP (min.) = 7.655 'Tailing' peak width (min.) = 0.0112500000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0112500000}{0.0223833333} = 0.503$

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:14. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

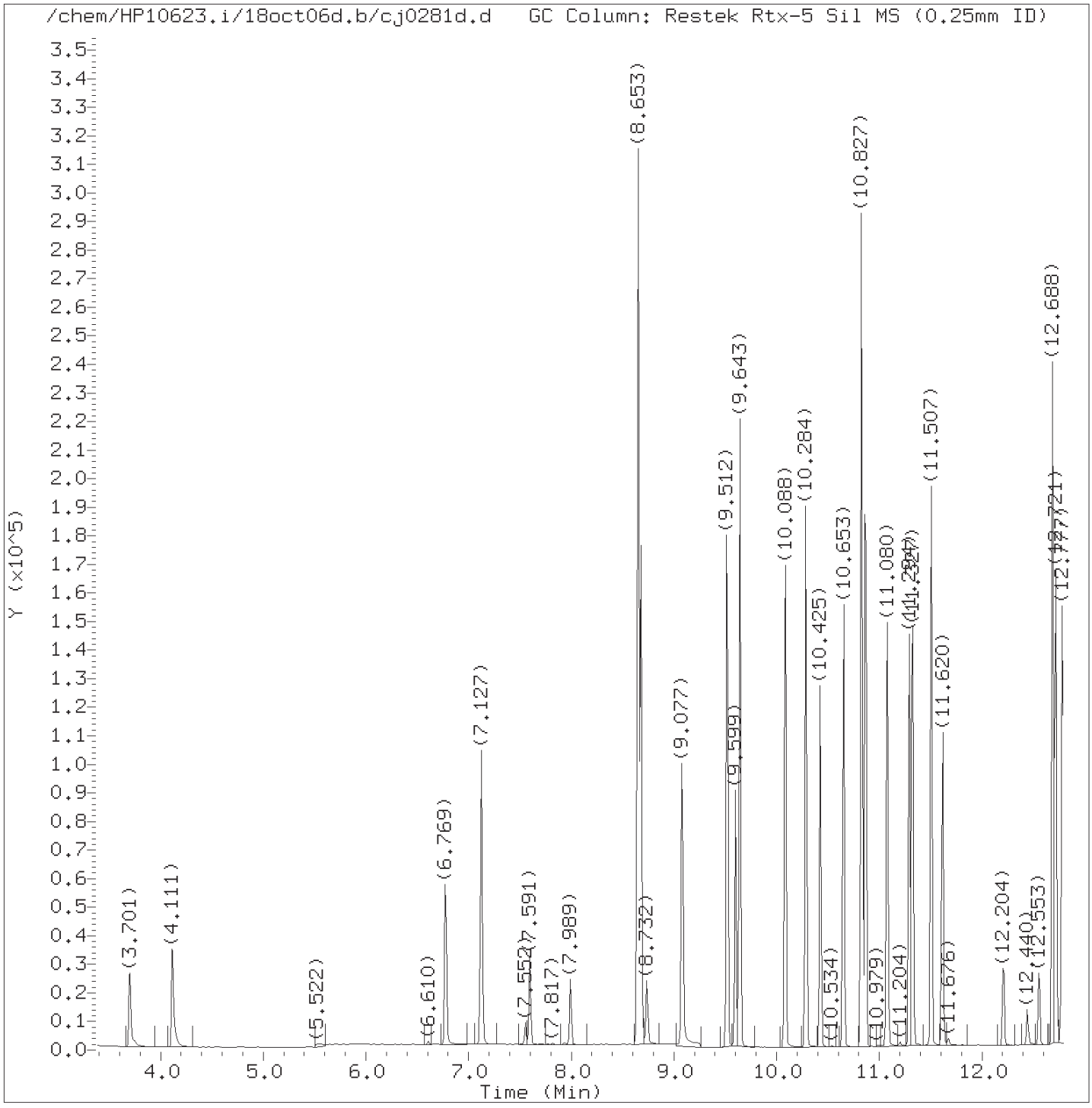
Instrument ID: HP10623.i Injection Date: 06-OCT-2018 23:06 Operator: apb10206



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{80588 + 47588}{80588 + 47588 + 10715843} \times 100 = 1.2$$

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:14. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

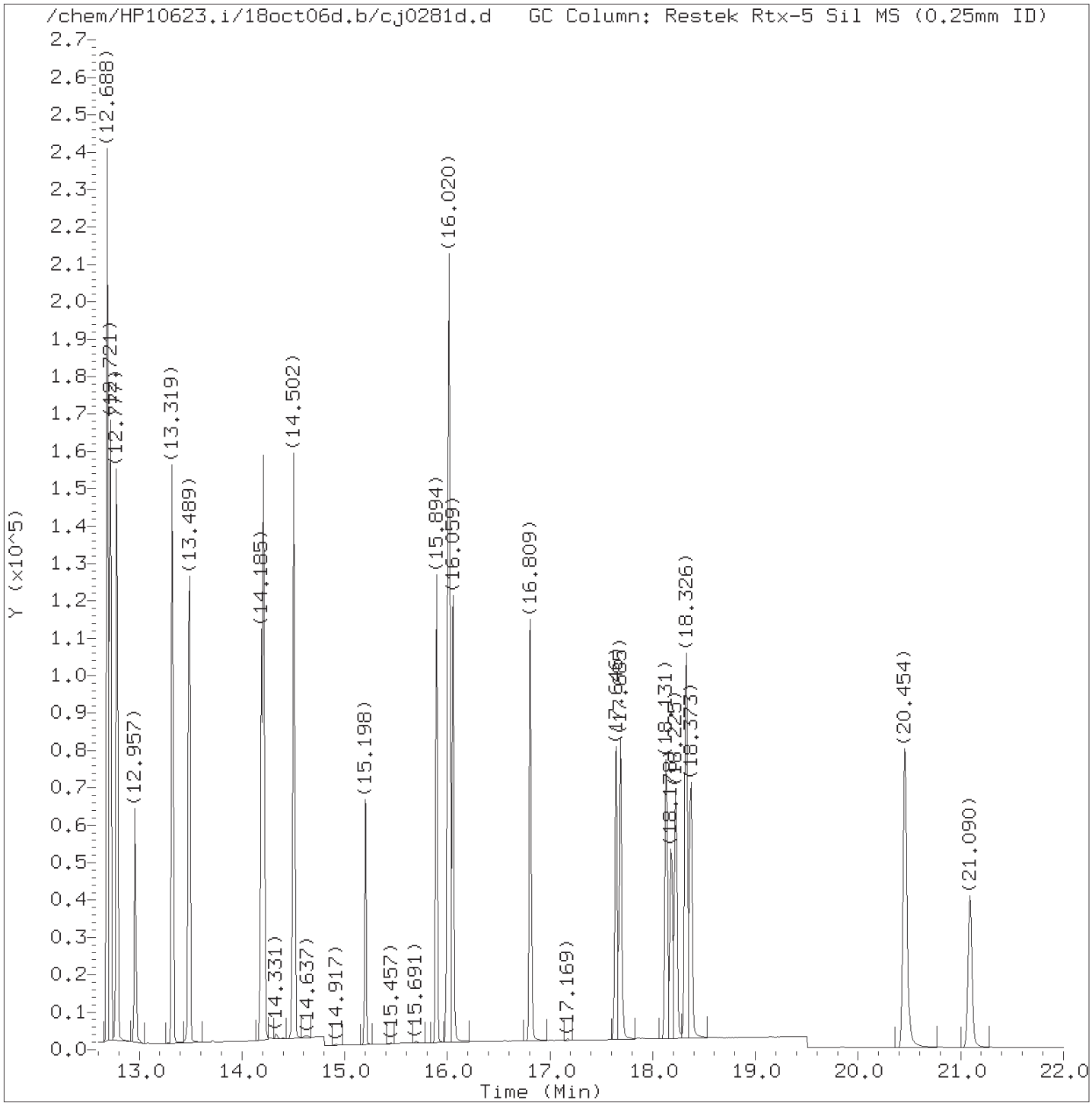
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.701	88	23365	0.500
2) N-Nitrosodimethylamine	(1)	4.118	74	30008	0.500
5) bis(2-Chloroethyl)ether	(1)	6.782	93	46939M	0.500
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	73266	1.000
10)*Naphthalene-d8	(2)	8.653	136	298915	1.000
11) Naphthalene	(2)	8.679	128	160506	0.500
12) Quinoline	(2)	9.077	129	94205	0.500
13) 2-Methylnaphthalene	(2)	9.512	142	100073	0.500
14)$1-Methylnaphthalene-d10	(2)	9.599	152	76776	0.500
15) 1-Methylnaphthalene	(2)	9.643	142	101176	0.500
18) Dimethylphthalate	(3)	10.425	163	100169	0.500
19) Acenaphthylene	(3)	10.653	152	139683	0.500
20)*Acenaphthene-d10	(3)	10.827	164	137445	1.000
21) Acenaphthene	(3)	10.870	154	94663	0.500
22) Dibenzofuran	(3)	11.080	168	130081	0.500
23) Diethylphthalate	(3)	11.294	149	97919M	0.500
26) Fluorene	(3)	11.507	166	102925	0.500
28) NDPA as diphenylamine	(4)	11.620	169	65290	0.500
27) N-Nitrosodiphenylamine	(4)	11.620	169	65290	0.500
29) Hexachlorobenzene	(4)	12.215	284	22288	0.500
31)*Phenanthrene-d10	(4)	12.688	188	254258	1.000
32) Phenanthrene	(4)	12.721	178	152998	0.500
33) Anthracene	(4)	12.777	178	149680	0.500
35) Di-n-butylphthalate	(4)	13.319	149	157280	0.500
36)$Fluoranthene-d10	(4)	14.185	212	119907	0.500
37) Fluoranthene	(4)	14.209	202	153883	0.500
39) Pyrene	(5)	14.502	202	158872	0.500
40) Butylbenzylphthalate	(5)	15.198	149	67793	0.500
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	91618	0.500
42) Benzo(a)anthracene	(5)	16.004	228	128412	0.500
43)*Chrysene-d12	(5)	16.020	240	189562	1.000
44) Chrysene	(5)	16.059	228	133154	0.500
45) Di-n-octylphthalate	(6)	16.809	149	146906	0.500
46) Benzo(b)fluoranthene	(6)	17.646	252	104334	0.500
47) Benzo(k)fluoranthene	(6)	17.685	252	117144	0.500
48) Benzo(e)pyrene	(6)	18.131	252	105600	0.500
49)$Benzo(a)pyrene-d12	(6)	18.178	264	73603	0.500
50) Benzo(a)pyrene	(6)	18.225	252	97235	0.500
51)*Perylene-d12	(6)	18.326	264	150250	1.000
52) Perylene	(6)	18.373	252	99985	0.500

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

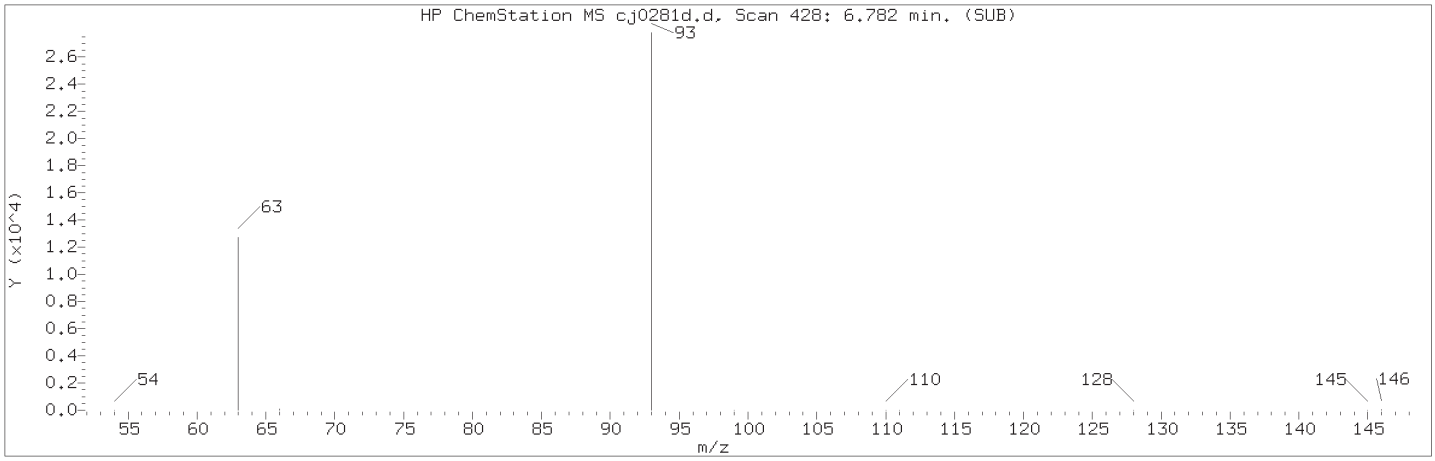
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

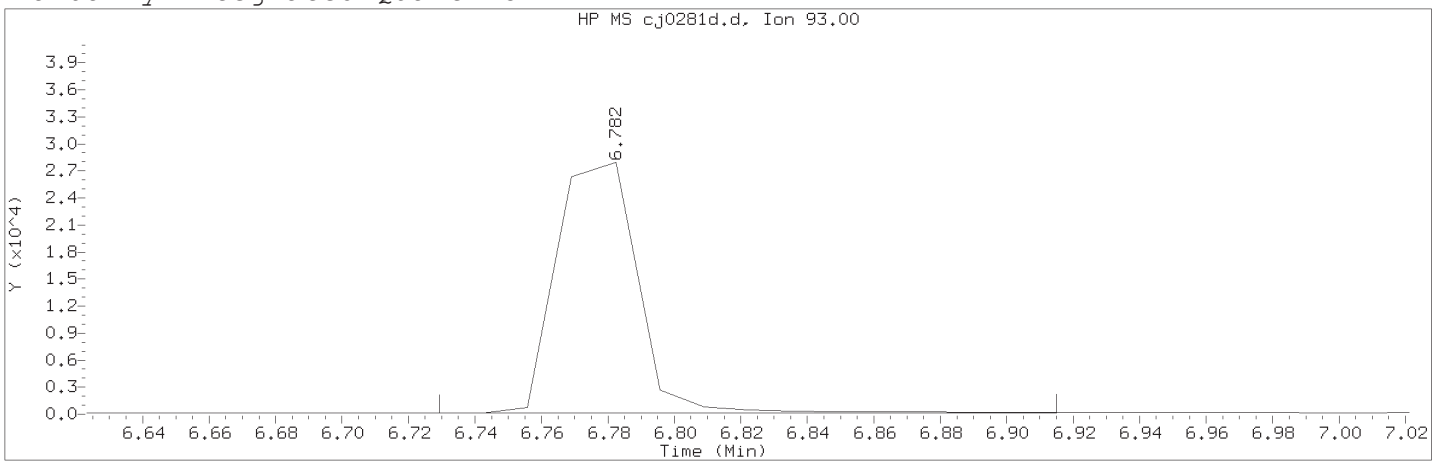
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	91164	0.500
54) Dibenz(a,h)anthracene	(6)	20.461	278	79170	0.500
55) Benzo(g,h,i)perylene	(6)	21.090	276	84595	0.500

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

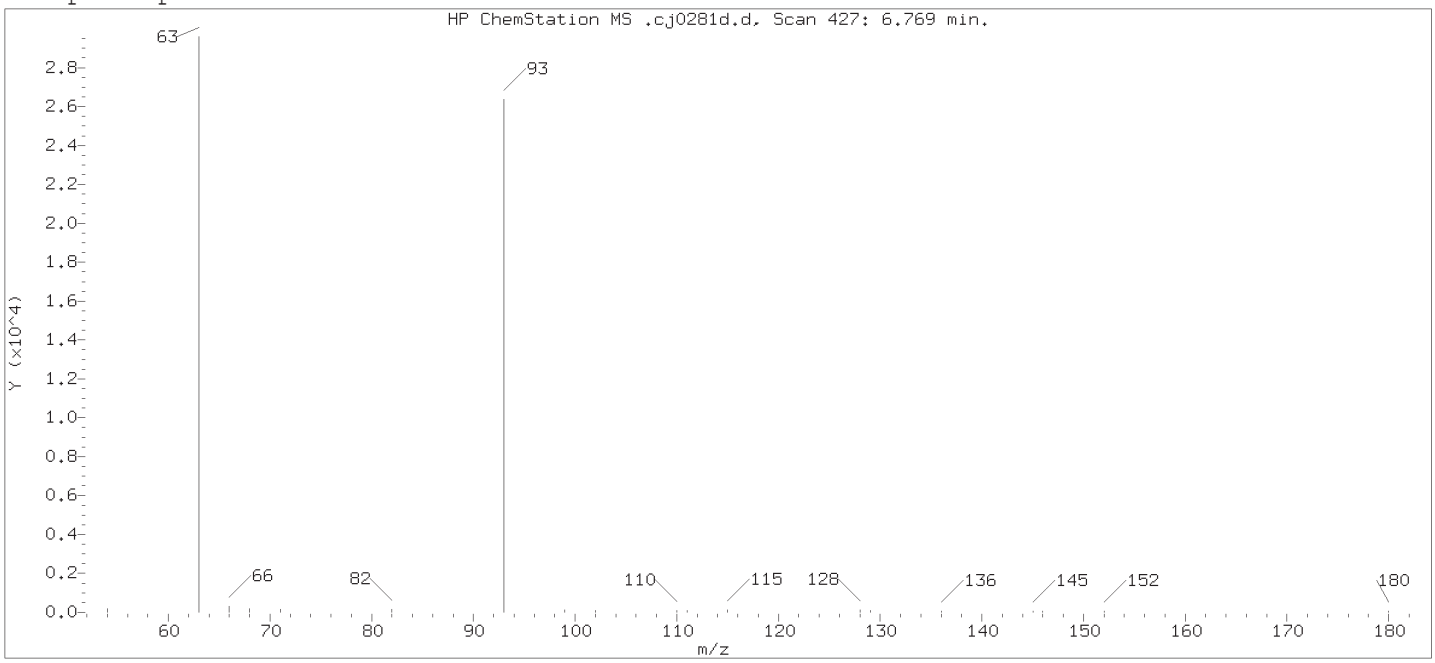
Compound Number : 5
Compound Name : bis(2-Chloroethyl)ether
Scan Number : 428
Retention Time (minutes) : 6.782
Quant Ion : 93.00
Area (flag) : 46939M
On-Column Amount (ng/ul) : 0.5000
Integration start scan : 423 Integration stop scan: 437
Y at integration start : 133 Y at integration end: 133

Reason for manual integration: missed peak

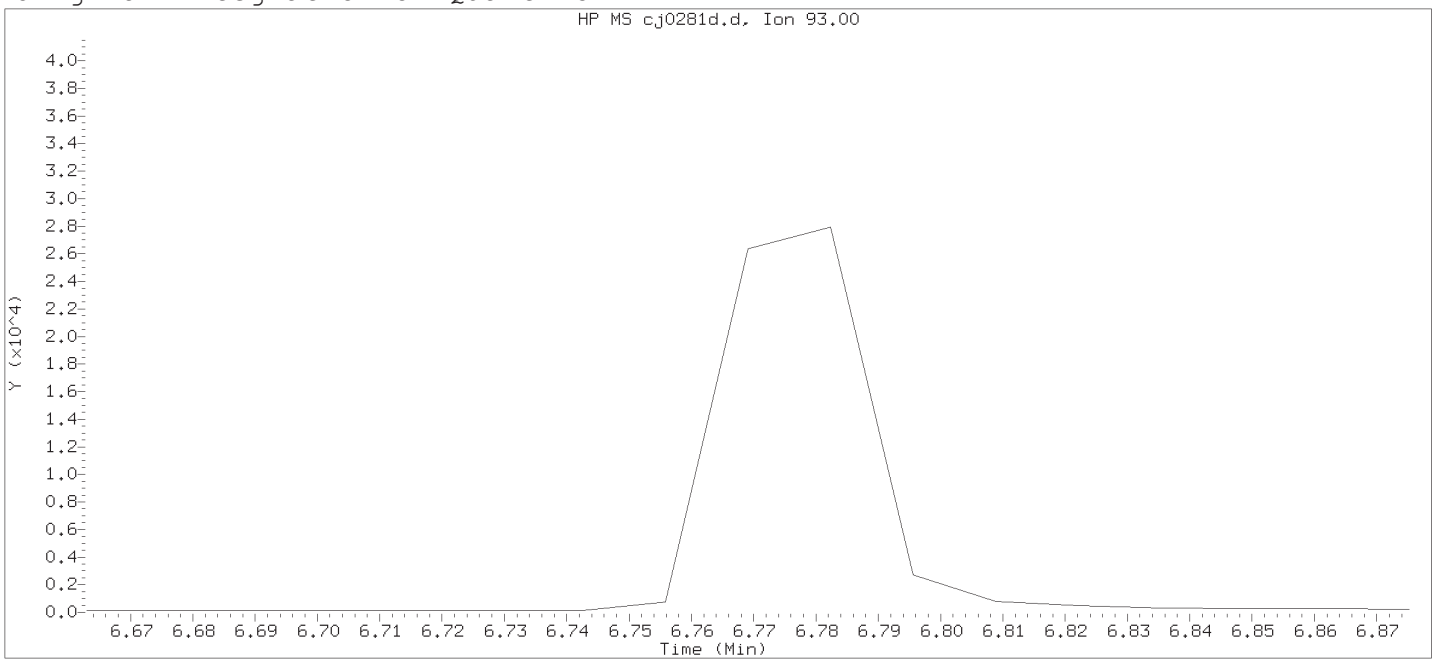
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

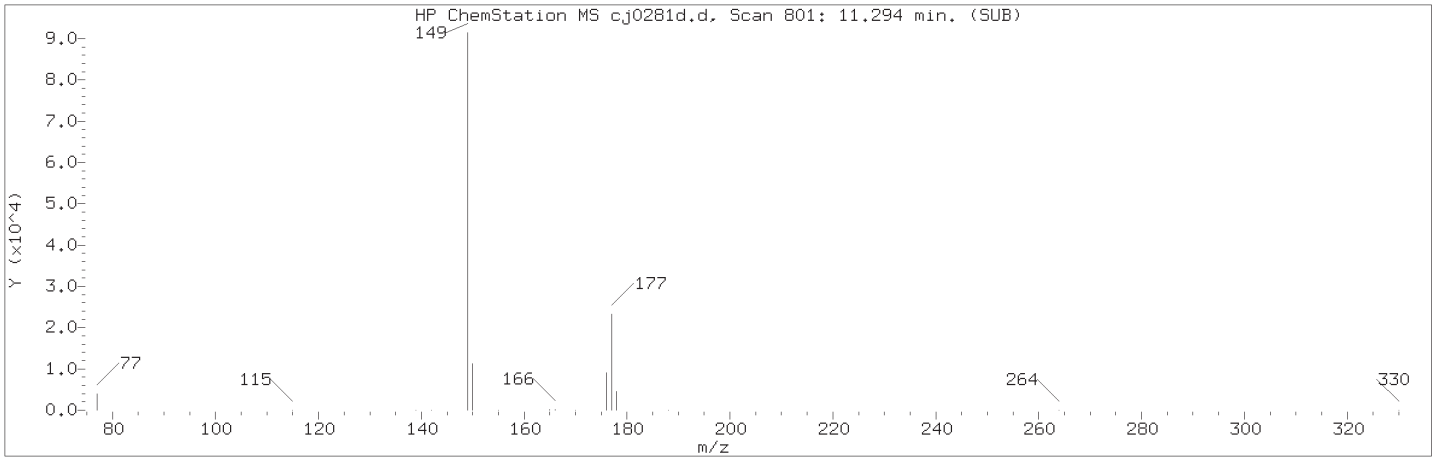
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:00
Date, time and analyst ID of latest file update: 07-Oct-2018 21:00 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

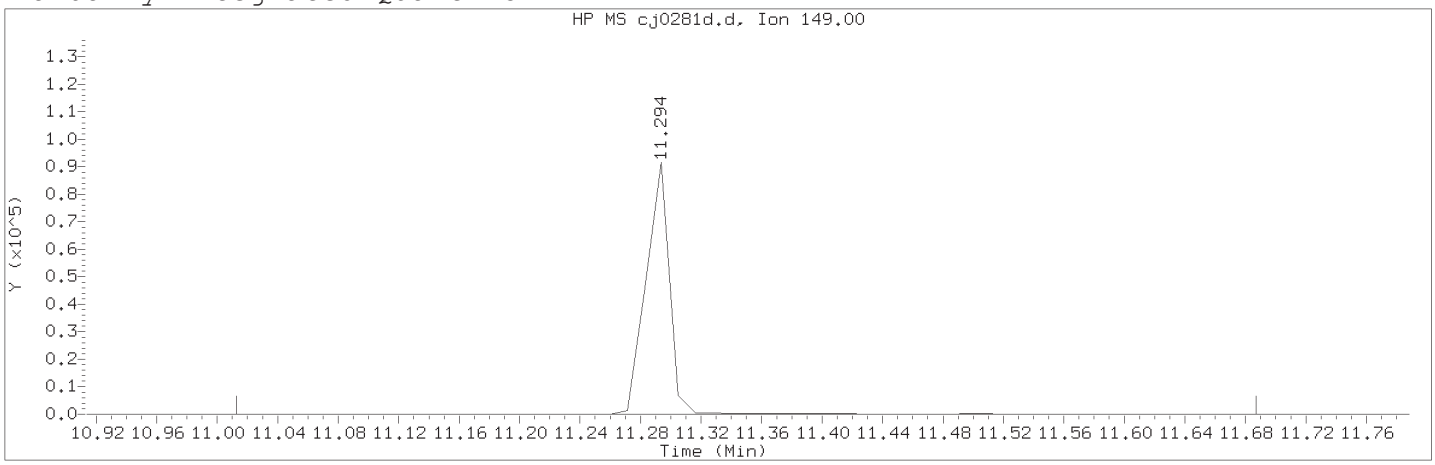
Compound Number : 5
Compound Name : bis(2-Chloroethyl)ether
Expected RT (minutes) : 6.769
Quant Ion : 93.00

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:25.
Target 3.5 esignature used 10/07/2018 at 21:25

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

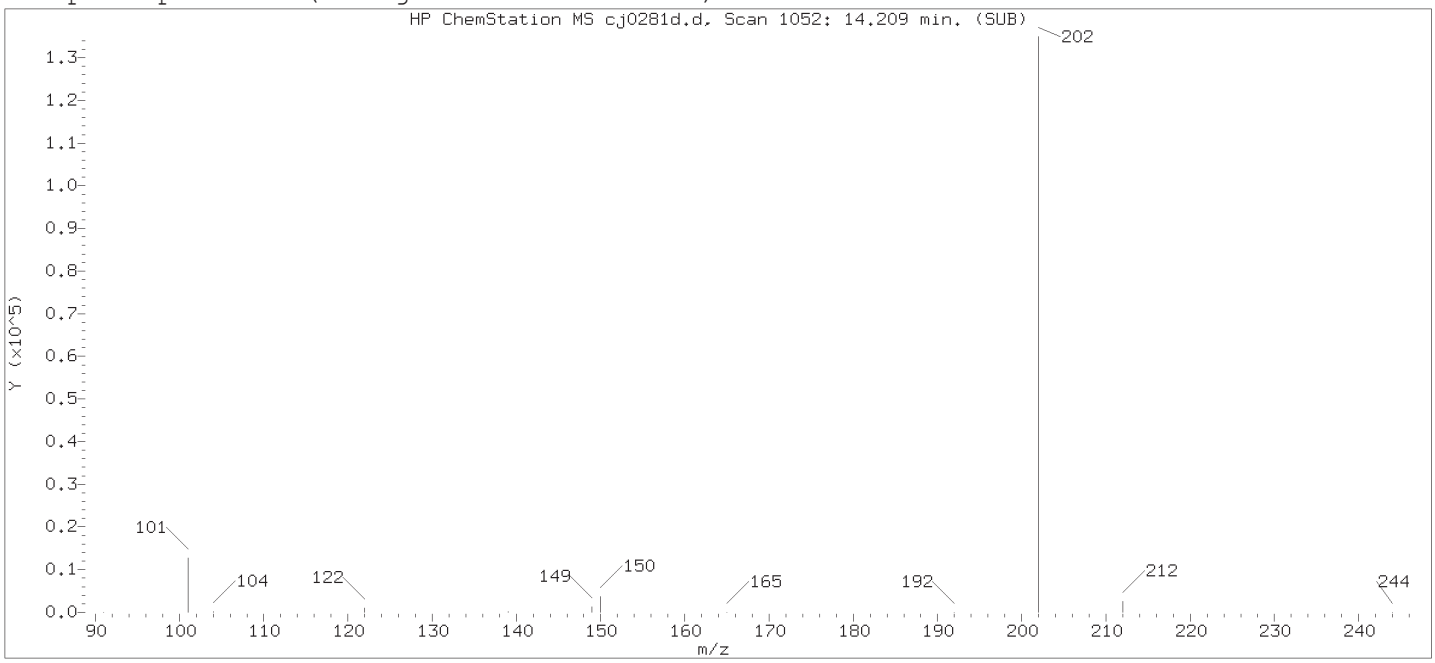
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 801		
Retention Time (minutes)	: 11.294		
Quant Ion	: 149.00		
Area (flag)	: 97919M		
On-Column Amount (ng/ul)	: 0.5000		
Integration start scan	: 775	Integration stop scan:	835
Y at integration start	: 80	Y at integration end:	88

Reason for manual integration: improper integration

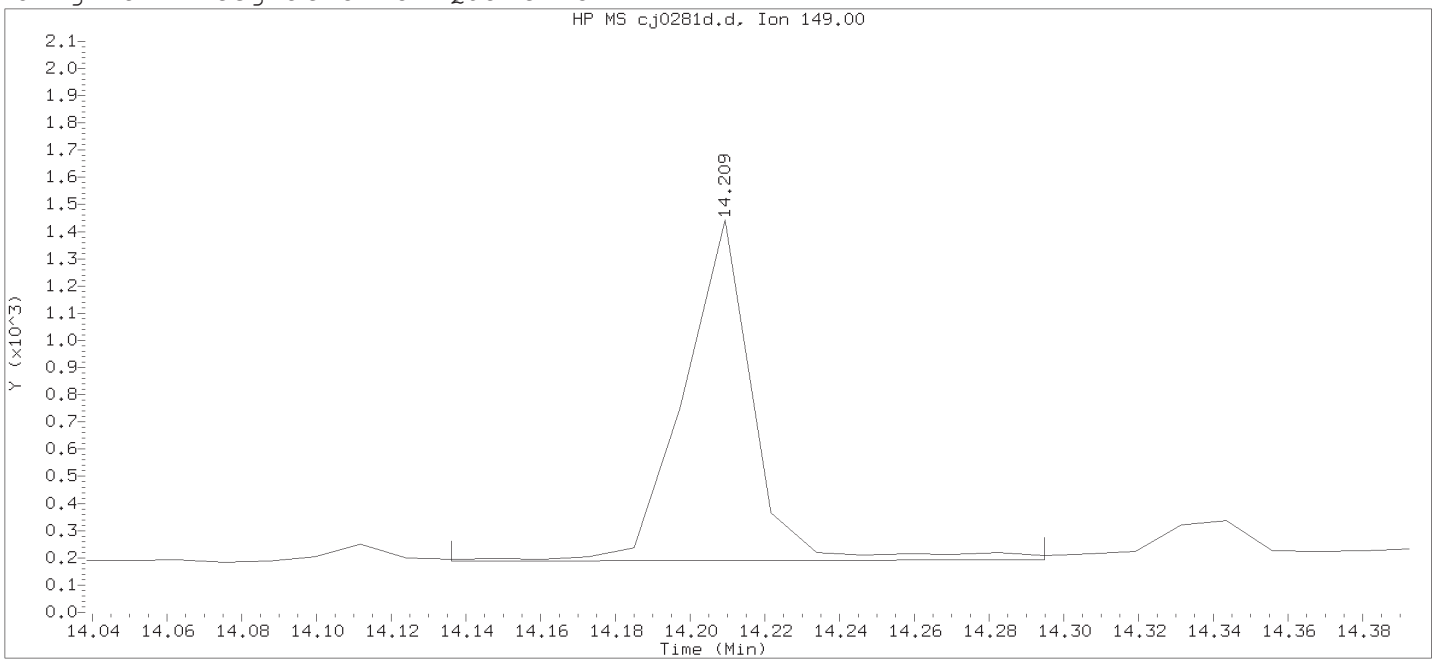
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:25.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



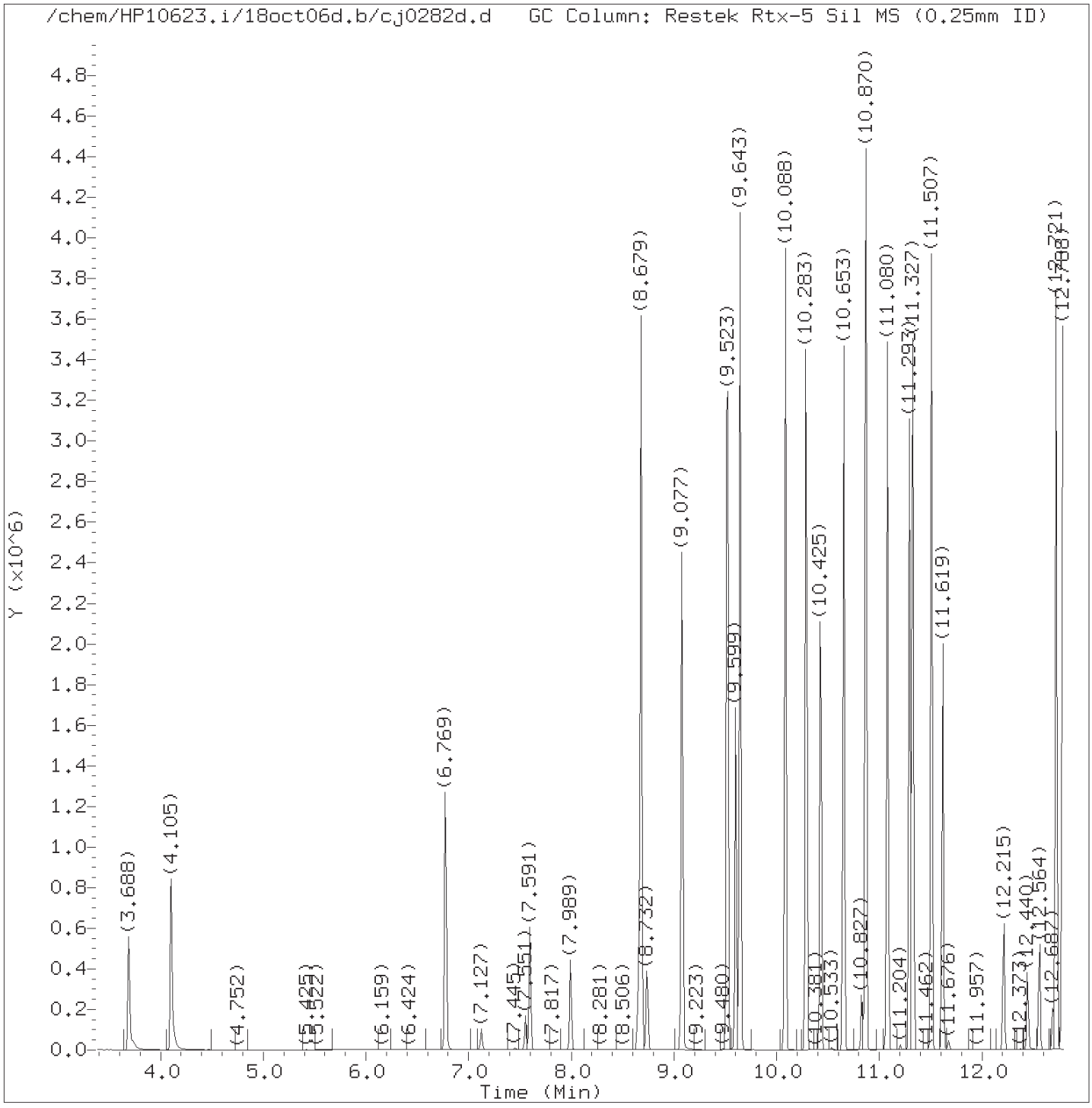
Data File: /chem/HP10623.i/18oct06d.b/cj0281d.d Instrument ID: HP10623.i
Injection date and time: 06-OCT-2018 23:27 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:00
Date, time and analyst ID of latest file update: 07-Oct-2018 21:00 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM2598

Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 1052		
Retention Time (minutes)	: 14.209		
Quant Ion	: 149.00		
Area	: 1603		
On-column Amount (ng/ul)	: 0.0000		
Integration start scan	: 1045	Integration stop scan:	1058
Y at integration start	: 189	Y at integration end:	193

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:25.
Target 3.5 esignature used 10/07/2018



Total Ion Chromatogram (TIC)

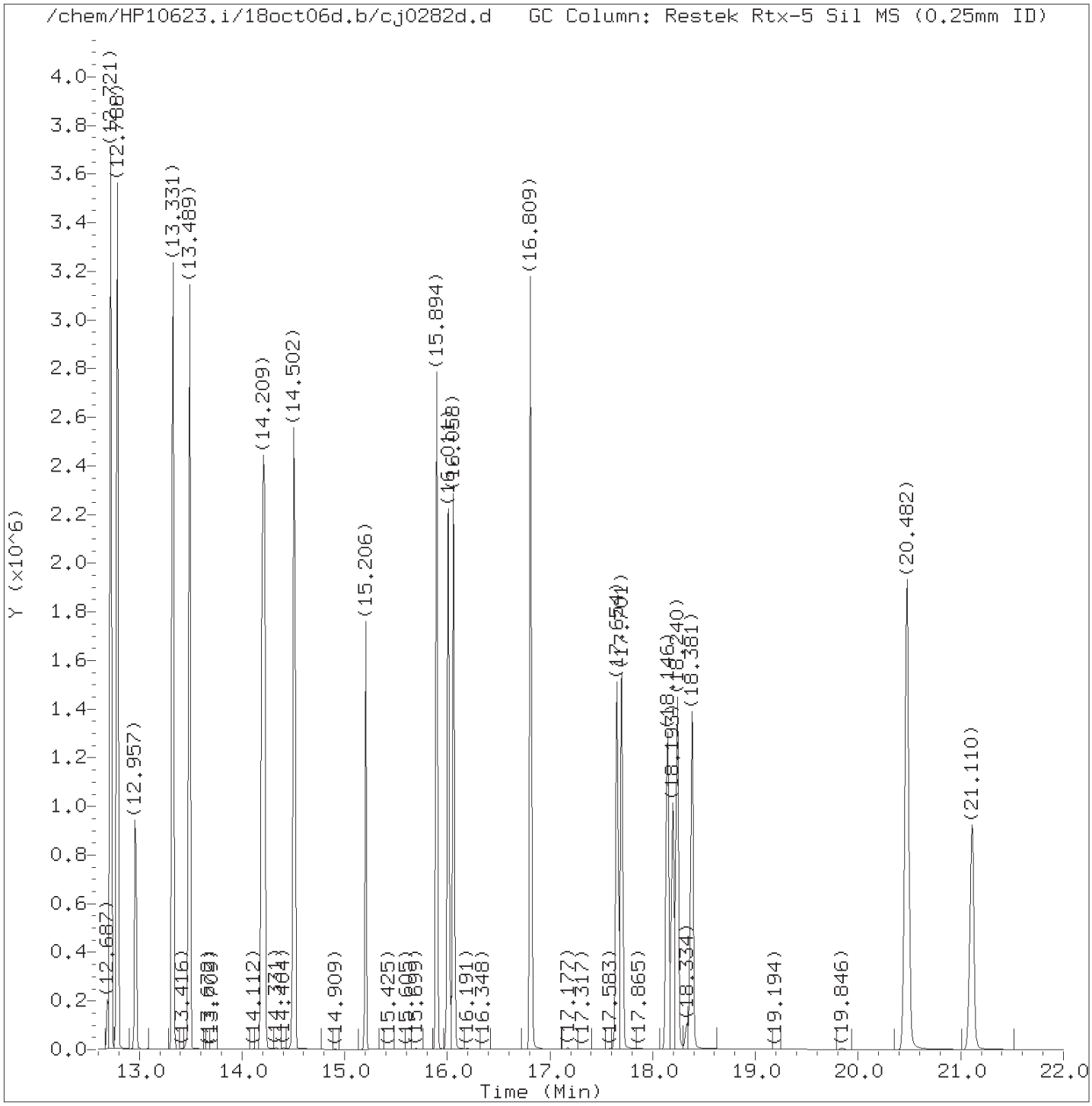
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0282d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:04 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM2598

Digitally signed by Linda M. Hartenstine
on 10/09/2018 at 12:15.
Target 3.5 esignature user ID: lmh00956



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0282d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:04 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM2598

Digitally signed by Linda M. Hartenstine
on 10/09/2018 at 12:15.
Target 3.5 esignature user ID: lmh00956

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0282d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:04 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.688	88	463969	10.069
2) N-Nitrosodimethylamine	(1)	4.105	74	650852	10.509
5) bis(2-Chloroethyl)ether	(1)	6.769	93	980777	10.323
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	71753	1.000
10)*Naphthalene-d8	(2)	8.652	136	308079	1.000
11) Naphthalene	(2)	8.679	128	3167180	9.782
12) Quinoline	(2)	9.077	129	1949825	10.020
13) 2-Methylnaphthalene	(2)	9.523	142	2060526	9.994
14)$1-Methylnaphthalene-d10	(2)	9.599	152	1495843	9.718
15) 1-Methylnaphthalene	(2)	9.643	142	2016101	9.831
18) Dimethylphthalate	(3)	10.425	163	2057082	10.254
19) Acenaphthylene	(3)	10.653	152	2943585	10.383
20)*Acenaphthene-d10	(3)	10.827	164	134145	1.000
21) Acenaphthene	(3)	10.870	154	1855867	10.022
22) Dibenzofuran	(3)	11.080	168	2512582	9.947
23) Diethylphthalate	(3)	11.293	149	2055948	10.364
26) Fluorene	(3)	11.507	166	2002488	9.984
28) NDPA as diphenylamine	(4)	11.619	169	1048704	9.069
27) N-Nitrosodiphenylamine	(4)	11.619	169	1048704	9.069
29) Hexachlorobenzene	(4)	12.215	284	448538	10.193
31)*Phenanthrene-d10	(4)	12.687	188	246146	1.000
32) Phenanthrene	(4)	12.721	178	2958048	9.993
33) Anthracene	(4)	12.788	178	3066571	10.282
35) Di-n-butylphthalate	(4)	13.331	149	3627117	10.872
36)$Fluoranthene-d10	(4)	14.197	212	2334580	10.028
37) Fluoranthene	(4)	14.221	202	3021868	10.071
39) Pyrene	(5)	14.502	202	3119818	9.995
40) Butylbenzylphthalate	(5)	15.206	149	1571712	10.823
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	2177451	10.947
42) Benzo(a)anthracene	(5)	16.004	228	2567894	10.086
43)*Chrysene-d12	(5)	16.027	240	186307	1.000
44) Chrysene	(5)	16.058	228	2501420	9.774
45) Di-n-octylphthalate	(6)	16.809	149	3692480	10.679
46) Benzo(b)fluoranthene	(6)	17.654	252	2255405	9.927
47) Benzo(k)fluoranthene	(6)	17.701	252	2131312	9.067
48) Benzo(e)pyrene	(6)	18.146	252	2092605	9.492
49)$Benzo(a)pyrene-d12	(6)	18.193	264	1562767	9.837
50) Benzo(a)pyrene	(6)	18.240	252	2049784	9.801
51)*Perylene-d12	(6)	18.334	264	164798	1.000
52) Perylene	(6)	18.381	252	2085269	9.747

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda M. Hartenstine
on 10/09/2018 at 12:15.
Target 3.5 esignature user ID: lmh00956

Quant Report

Target Revision 3.5

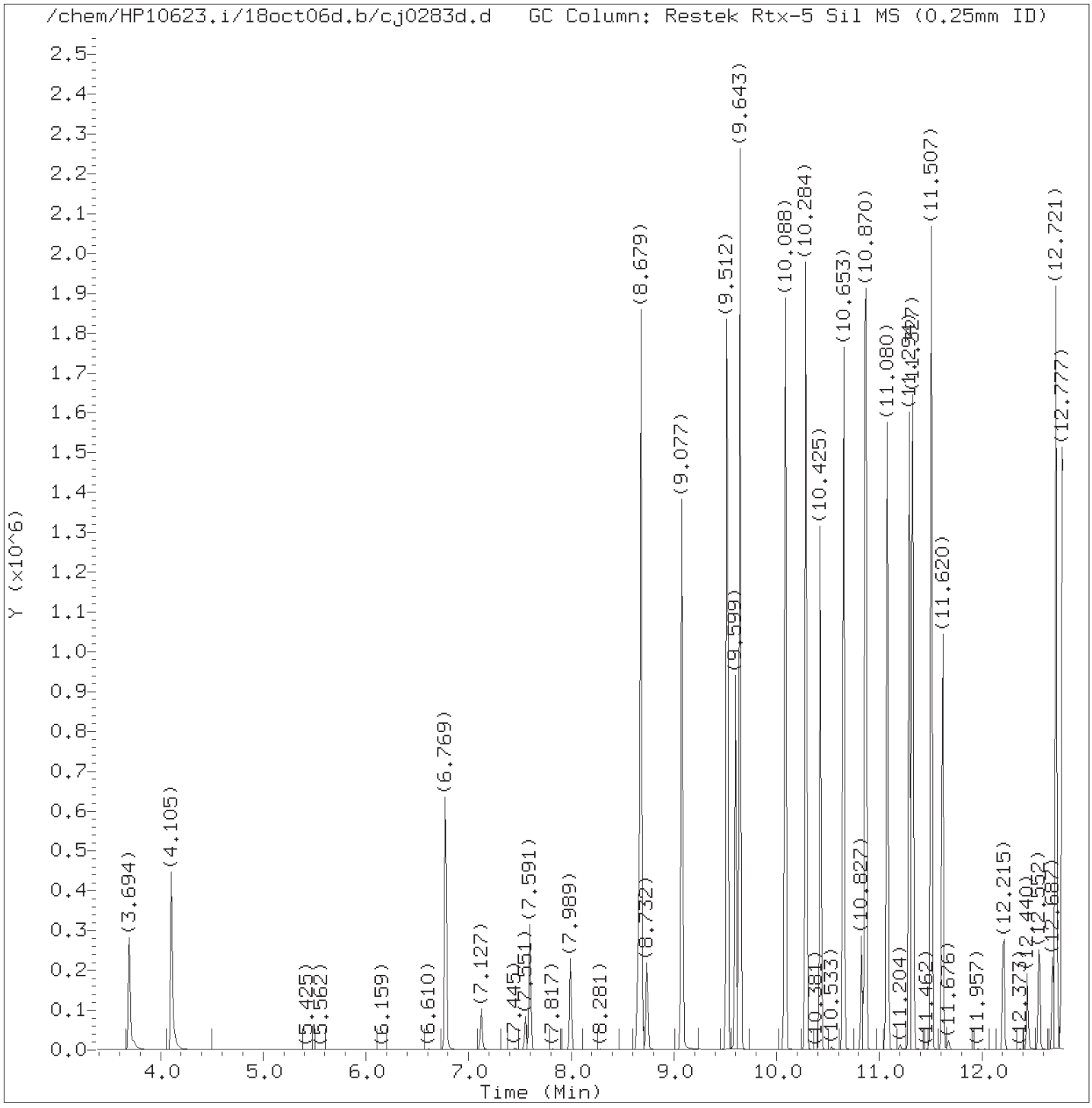
Data File: /chem/HP10623.i/18oct06d.b/cj0282d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:04 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.475	276	2013410	10.034
54) Dibenz(a,h)anthracene	(6)	20.482	278	1740492	10.011
55) Benzo(g,h,i)perylene	(6)	21.110	276	1909635	10.143

Digitally signed by Linda M. Hartenstine
on 10/09/2018 at 12:15.
Target 3.5 esignature user ID: lmh00956



Total Ion Chromatogram (TIC)

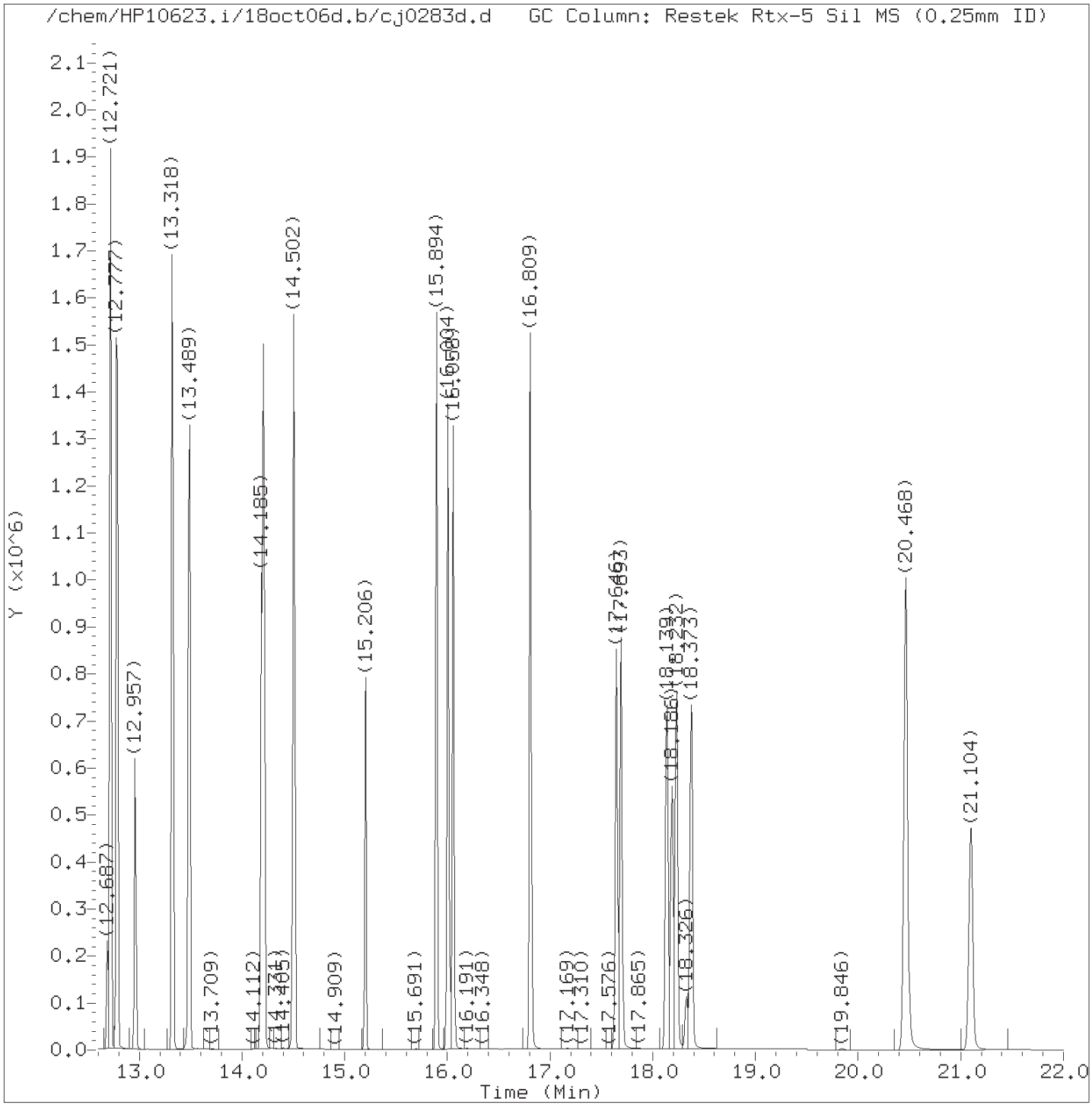
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.694	88	239732	5.133
2) N-Nitrosodimethylamine	(1)	4.105	74	330106	5.215
5) bis(2-Chloroethyl)ether	(1)	6.769	93	503818M	5.198
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	71753	1.000
10)*Naphthalene-d8	(2)	8.652	136	293967	1.000
11) Naphthalene	(2)	8.679	128	1646604	5.215
12) Quinoline	(2)	9.077	129	1006781	5.274
13) 2-Methylnaphthalene	(2)	9.512	142	1065425	5.270
14)$1-Methylnaphthalene-d10	(2)	9.599	152	801315	5.295
15) 1-Methylnaphthalene	(2)	9.643	142	1059638	5.269
18) Dimethylphthalate	(3)	10.425	163	1055752	5.171
19) Acenaphthylene	(3)	10.653	152	1544682	5.289
20)*Acenaphthene-d10	(3)	10.827	164	134194	1.000
21) Acenaphthene	(3)	10.870	154	959362	5.118
22) Dibenzofuran	(3)	11.080	168	1308310	5.117
23) Diethylphthalate	(3)	11.294	149	1061984	5.229
26) Fluorene	(3)	11.507	166	1065939	5.204
28) NDPA as diphenylamine	(4)	11.620	169	604256	5.110
27) N-Nitrosodiphenylamine	(4)	11.620	169	604256	5.110
29) Hexachlorobenzene	(4)	12.215	284	230452	5.118
31)*Phenanthrene-d10	(4)	12.687	188	248906	1.000
32) Phenanthrene	(4)	12.721	178	1581620	5.186
33) Anthracene	(4)	12.789	178	1609228	5.219
35) Di-n-butylphthalate	(4)	13.318	149	1820462	5.257
36)$Fluoranthene-d10	(4)	14.185	212	1218613	5.116
37) Fluoranthene	(4)	14.209	202	1569825	5.114
39) Pyrene	(5)	14.502	202	1638380	5.118
40) Butylbenzylphthalate	(5)	15.206	149	795085	5.261
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	1095137	5.280
42) Benzo(a)anthracene	(5)	16.004	228	1344603	5.138
43)*Chrysene-d12	(5)	16.019	240	188840	1.000
44) Chrysene	(5)	16.058	228	1353637	5.143
45) Di-n-octylphthalate	(6)	16.809	149	1831638	5.173
46) Benzo(b)fluoranthene	(6)	17.646	252	1166933	5.069
47) Benzo(k)fluoranthene	(6)	17.693	252	1190085	5.021
48) Benzo(e)pyrene	(6)	18.139	252	1104607M	4.986
49)$Benzo(a)pyrene-d12	(6)	18.186	264	819422	5.083
50) Benzo(a)pyrene	(6)	18.232	252	1063239	5.034
51)*Perylene-d12	(6)	18.326	264	165846	1.000
52) Perylene	(6)	18.373	252	1095986	5.060

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

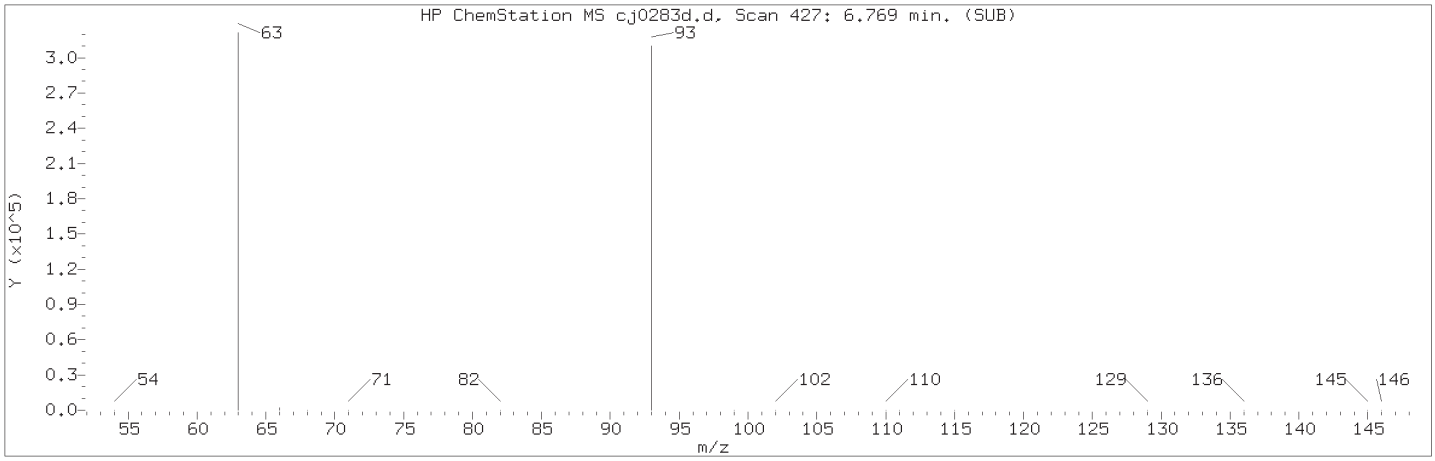
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

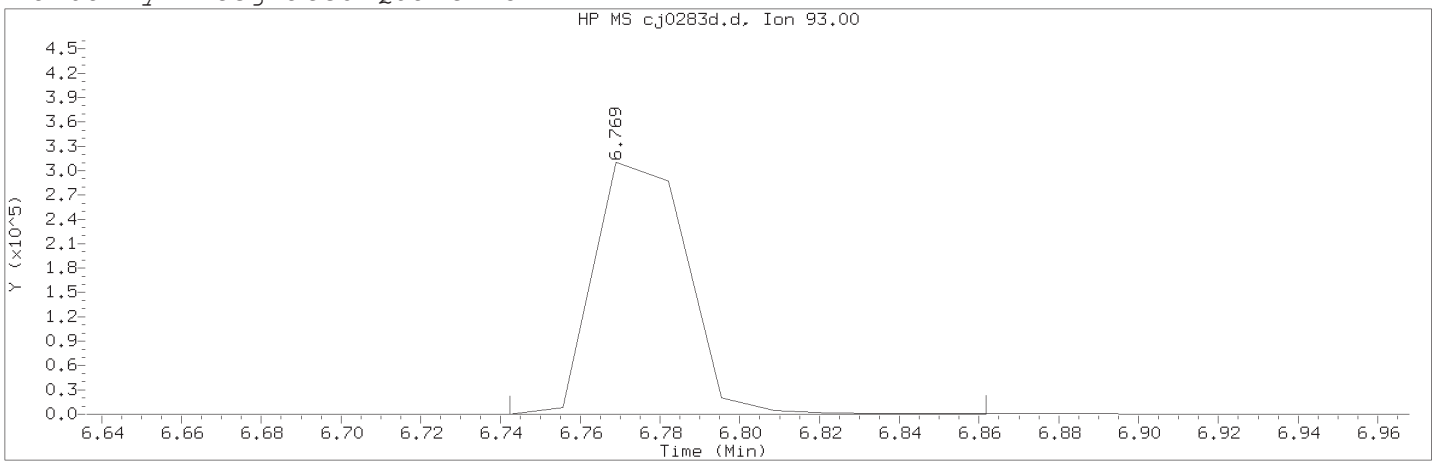
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.461	276	1042961	5.109
54) Dibenz(a,h)anthracene	(6)	20.468	278	903259	5.107
55) Benzo(g,h,i)perylene	(6)	21.104	276	974556	5.095

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

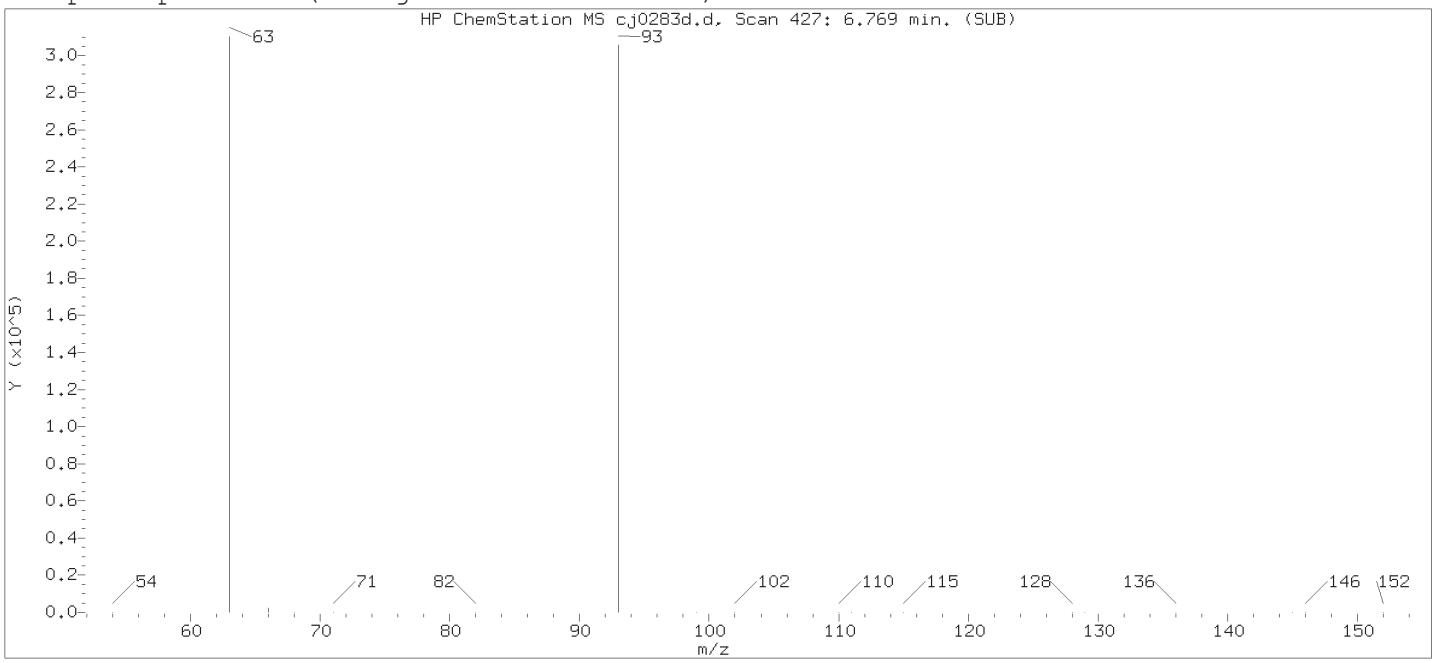
Compound Number : 5
Compound Name : bis(2-Chloroethyl)ether
Scan Number : 427
Retention Time (minutes) : 6.769
Quant Ion : 93.00
Area (flag) : 503818M
On-Column Amount (ng/ul) : 5.1979
Integration start scan : 424 Integration stop scan: 433
Y at integration start : 112 Y at integration end: 112

Reason for manual integration: improper integration

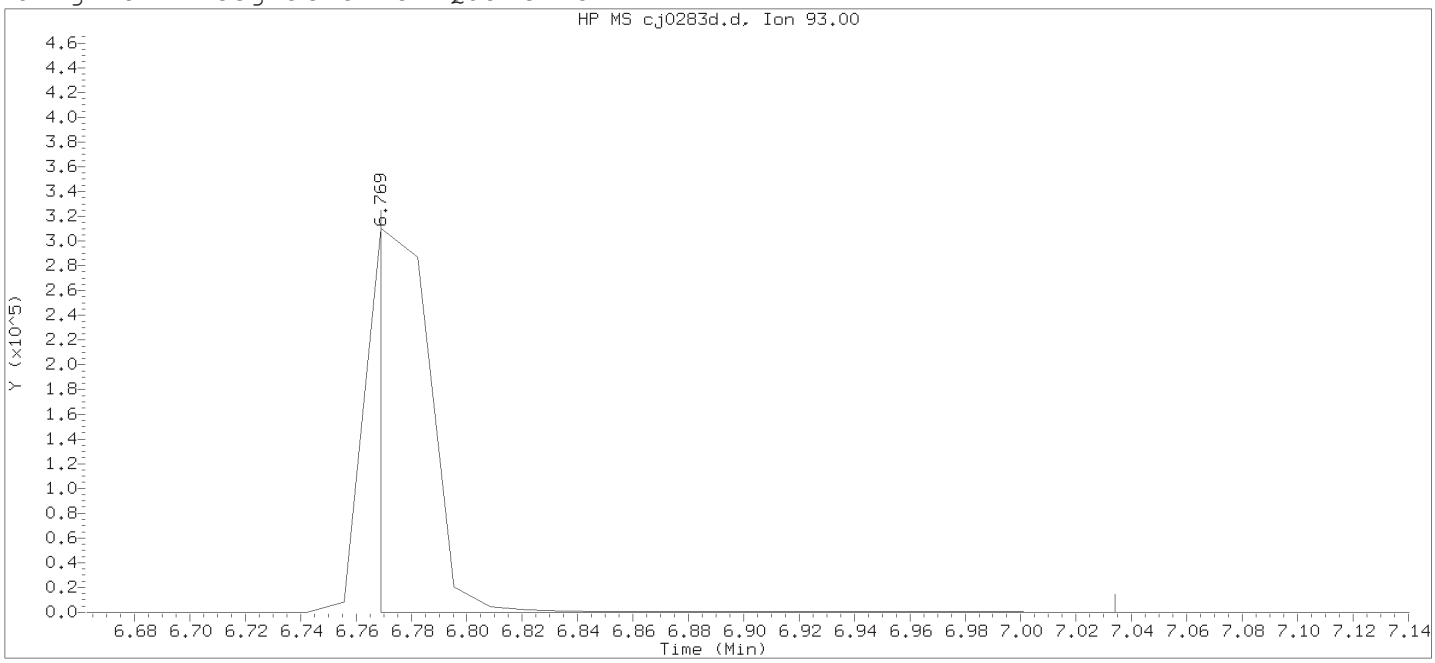
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:05
Date, time and analyst ID of latest file update: 07-Oct-2018 21:05 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

Compound Number	: 5		
Compound Name	: bis(2-Chloroethyl)ether		
Scan Number	: 427		
Retention Time (minutes)	: 6.769		
Quant Ion	: 93.00		
Area	: 374654		
On-column Amount (ng/ul)	: 1.3127		
Integration start scan	: 426	Integration stop scan:	446
Y at integration start	: 122	Y at integration end:	236

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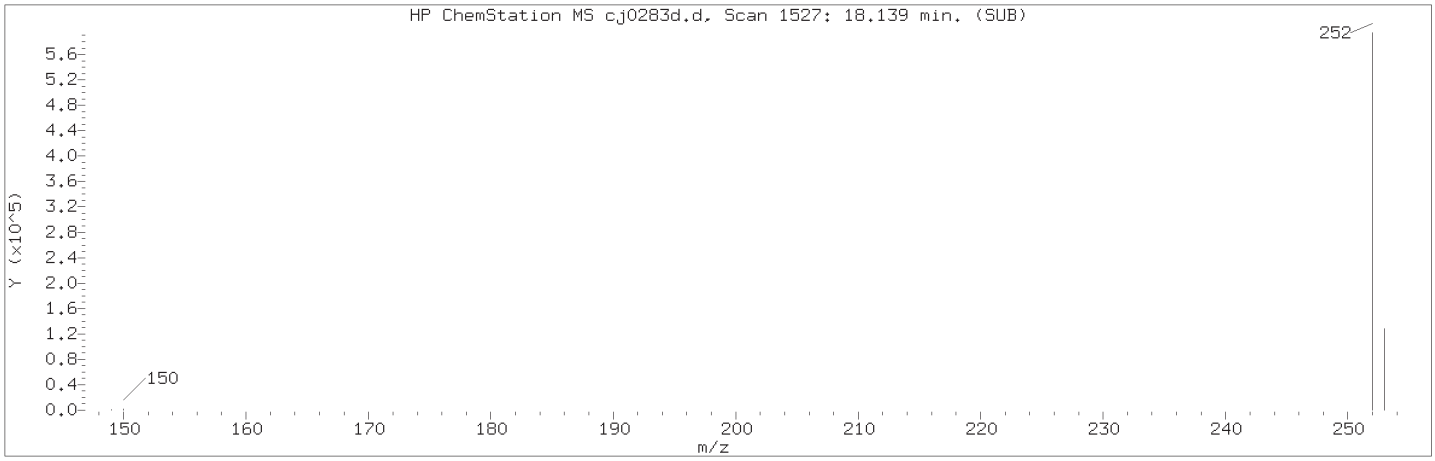
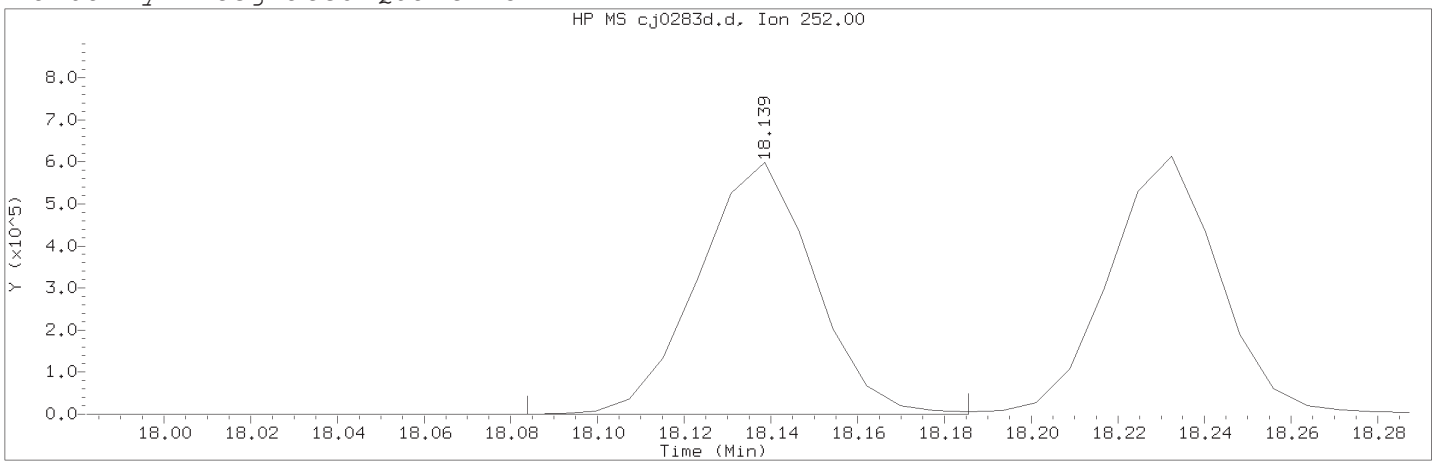
Target 3.5 esignature used 1D12 Page 3128

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

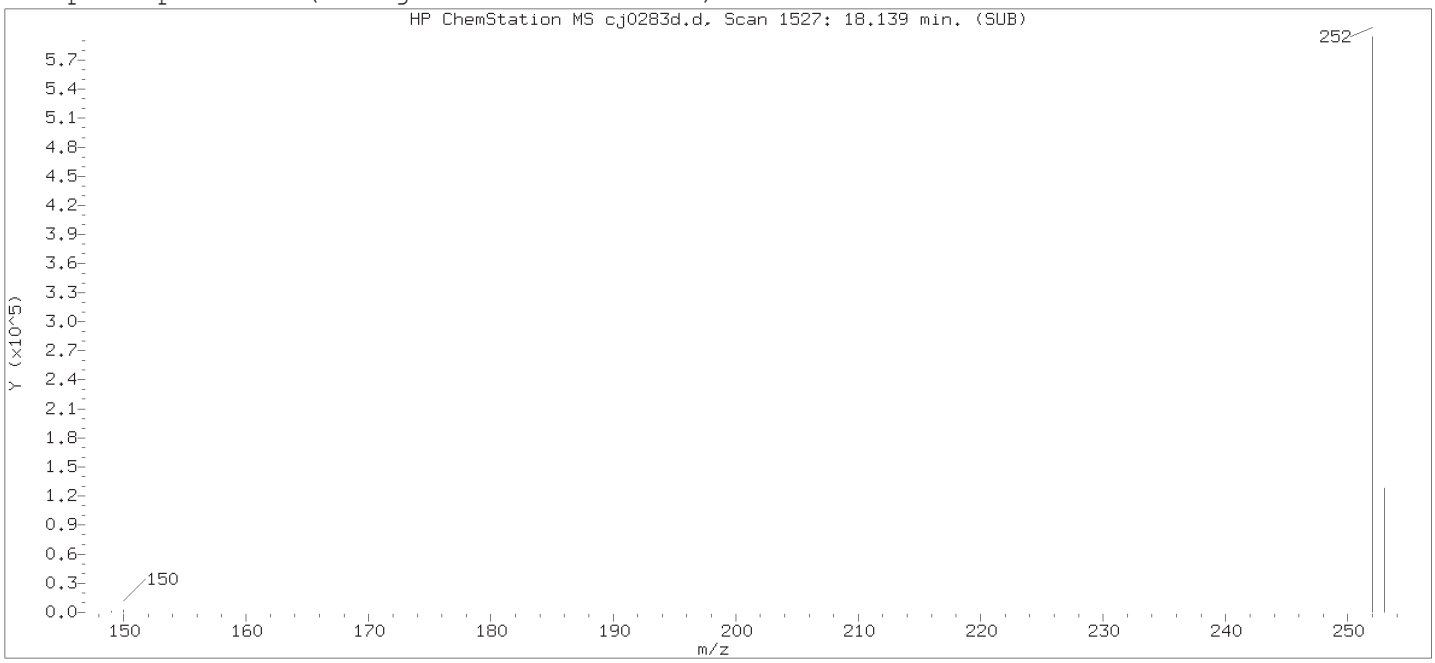
Compound Number : 48
Compound Name : Benzo(e)pyrene
Scan Number : 1527
Retention Time (minutes) : 18.139
Quant Ion : 252.00
Area (flag) : 1104607M
On-Column Amount (ng/ul) : 4.9859
Integration start scan : 1519 Integration stop scan: 1532
Y at integration start : 687 Y at integration end: 687

Reason for manual integration: improper integration

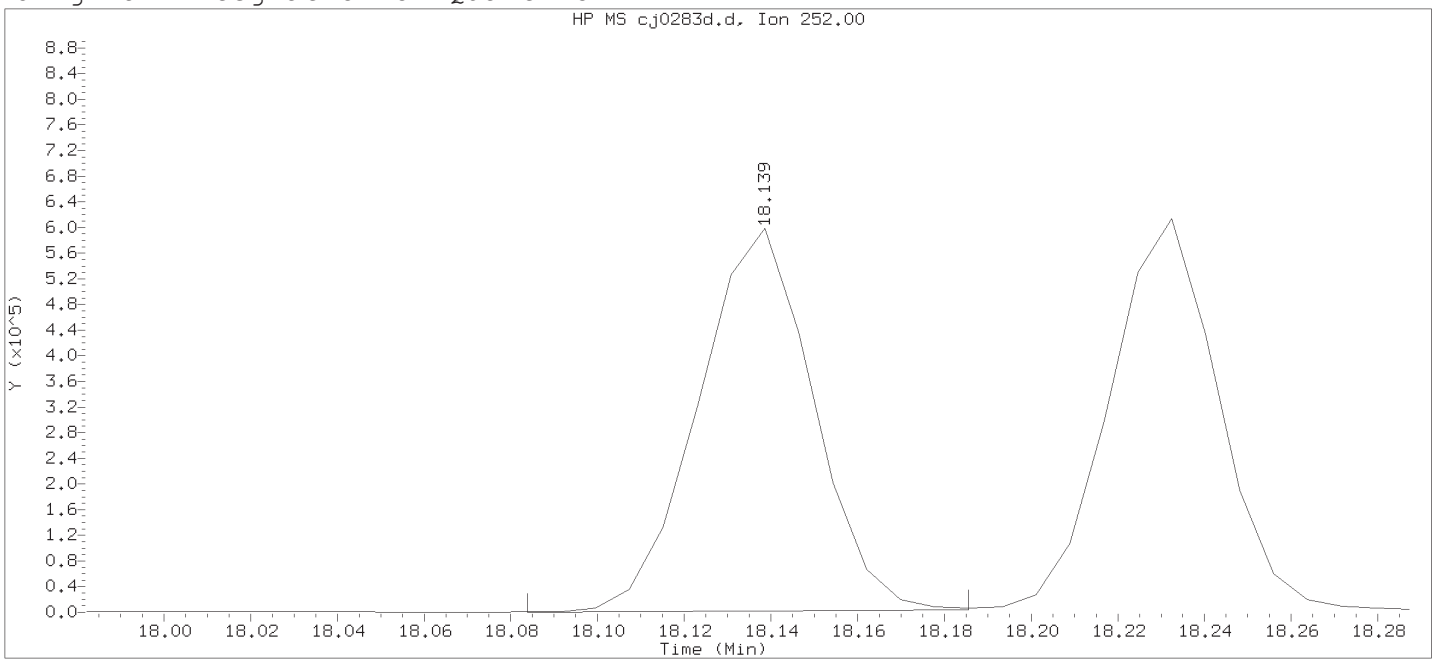
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



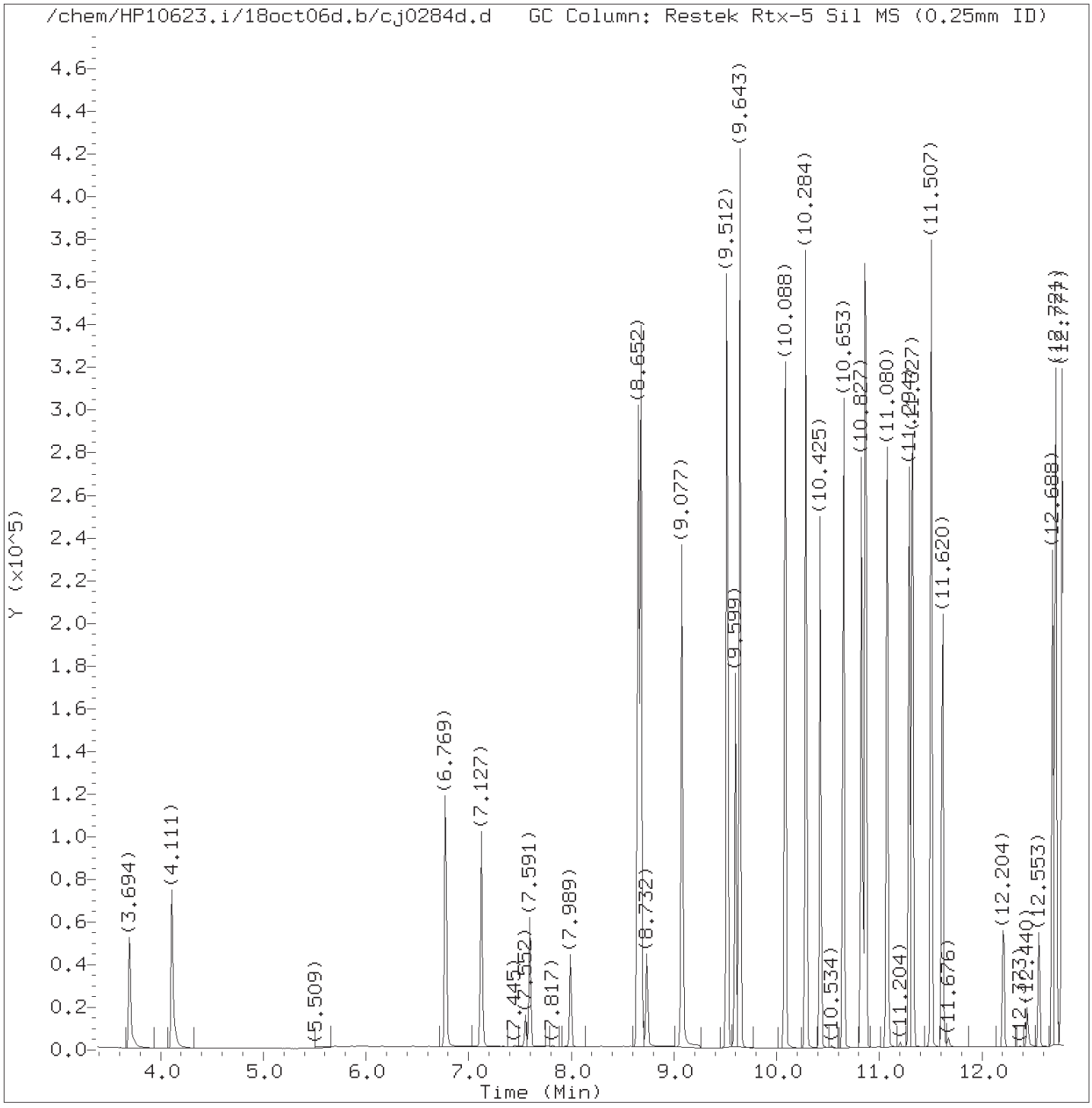
Data File: /chem/HP10623.i/18oct06d.b/cj0283d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 00:35 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:05
Date, time and analyst ID of latest file update: 07-Oct-2018 21:05 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM2598

Compound Number	: 48		
Compound Name	: Benzo(e)pyrene		
Scan Number	: 1527		
Retention Time (minutes)	: 18.139		
Quant Ion	: 252.00		
Area	: 1095511		
On-column Amount (ng/ul)	: 2.8650		
Integration start scan	: 1519	Integration stop scan:	1532
Y at integration start	: 440	Y at integration end:	3508

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used 10/07/2018



Total Ion Chromatogram (TIC)

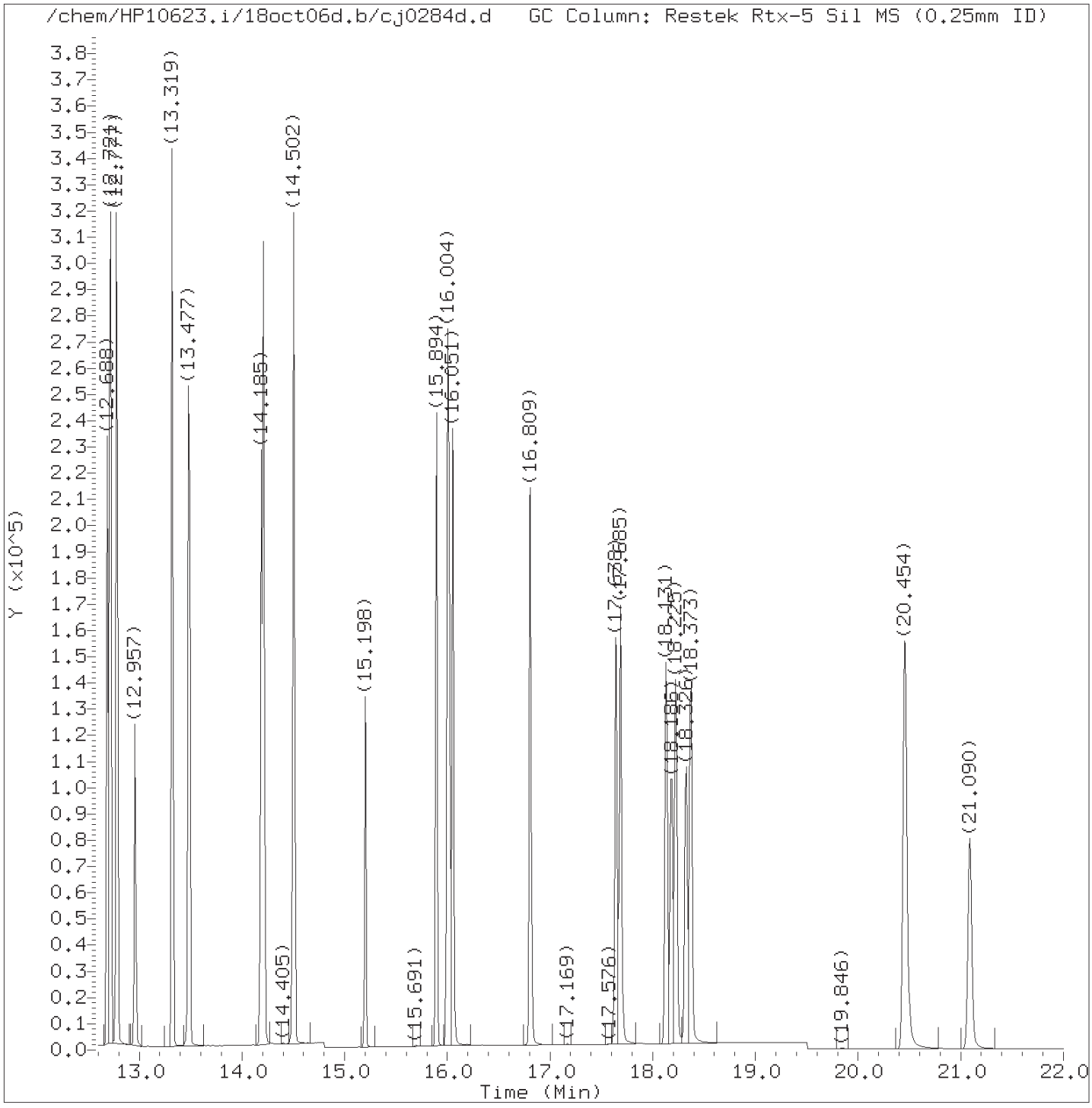
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0284d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:07 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0284d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:07 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0284d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:07 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.701	88	45502	0.991
2) N-Nitrosodimethylamine	(1)	4.111	74	59367	0.962
5) bis(2-Chloroethyl)ether	(1)	6.769	93	94349	0.990
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	70798	1.000
10)*Naphthalene-d8	(2)	8.652	136	288589	1.000
11) Naphthalene	(2)	8.679	128	313192	1.008
12) Quinoline	(2)	9.077	129	185770	0.993
13) 2-Methylnaphthalene	(2)	9.512	142	197592	0.997
14)$1-Methylnaphthalene-d10	(2)	9.599	152	151540	1.015
15) 1-Methylnaphthalene	(2)	9.643	142	197753	1.001
18) Dimethylphthalate	(3)	10.425	163	194020	0.973
19) Acenaphthylene	(3)	10.653	152	274368	0.964
20)*Acenaphthene-d10	(3)	10.827	164	132299	1.000
21) Acenaphthene	(3)	10.870	154	183364	0.994
22) Dibenzofuran	(3)	11.080	168	252652	1.002
23) Diethylphthalate	(3)	11.294	149	189429	0.959
26) Fluorene	(3)	11.507	166	200628	0.995
28) NDPA as diphenylamine	(4)	11.620	169	126976	1.069
27) N-Nitrosodiphenylamine	(4)	11.620	169	126976	1.069
29) Hexachlorobenzene	(4)	12.215	284	43948	0.996
31)*Phenanthrene-d10	(4)	12.688	188	244232	1.000
32) Phenanthrene	(4)	12.721	178	299747	1.001
33) Anthracene	(4)	12.777	178	293854	0.978
35) Di-n-butylphthalate	(4)	13.319	149	308532	0.929
36)$Fluoranthene-d10	(4)	14.185	212	234864	1.004
37) Fluoranthene	(4)	14.209	202	302136	1.002
39) Pyrene	(5)	14.502	202	312011	0.990
40) Butylbenzylphthalate	(5)	15.198	149	129422	0.897
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	174273	0.884
42) Benzo(a)anthracene	(5)	16.004	228	253431	0.985
43)*Chrysene-d12	(5)	16.020	240	186483	1.000
44) Chrysene	(5)	16.051	228	261829	1.006
45) Di-n-octylphthalate	(6)	16.809	149	279705	0.895
46) Benzo(b)fluoranthene	(6)	17.638	252	210830	1.002
47) Benzo(k)fluoranthene	(6)	17.685	252	237263	1.070
48) Benzo(e)pyrene	(6)	18.131	252	208049	1.021
49)$Benzo(a)pyrene-d12	(6)	18.186	264	150499	1.017
50) Benzo(a)pyrene	(6)	18.225	252	201235	1.032
51)*Perylene-d12	(6)	18.326	264	151438	1.000
52) Perylene	(6)	18.373	252	202825	1.019

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

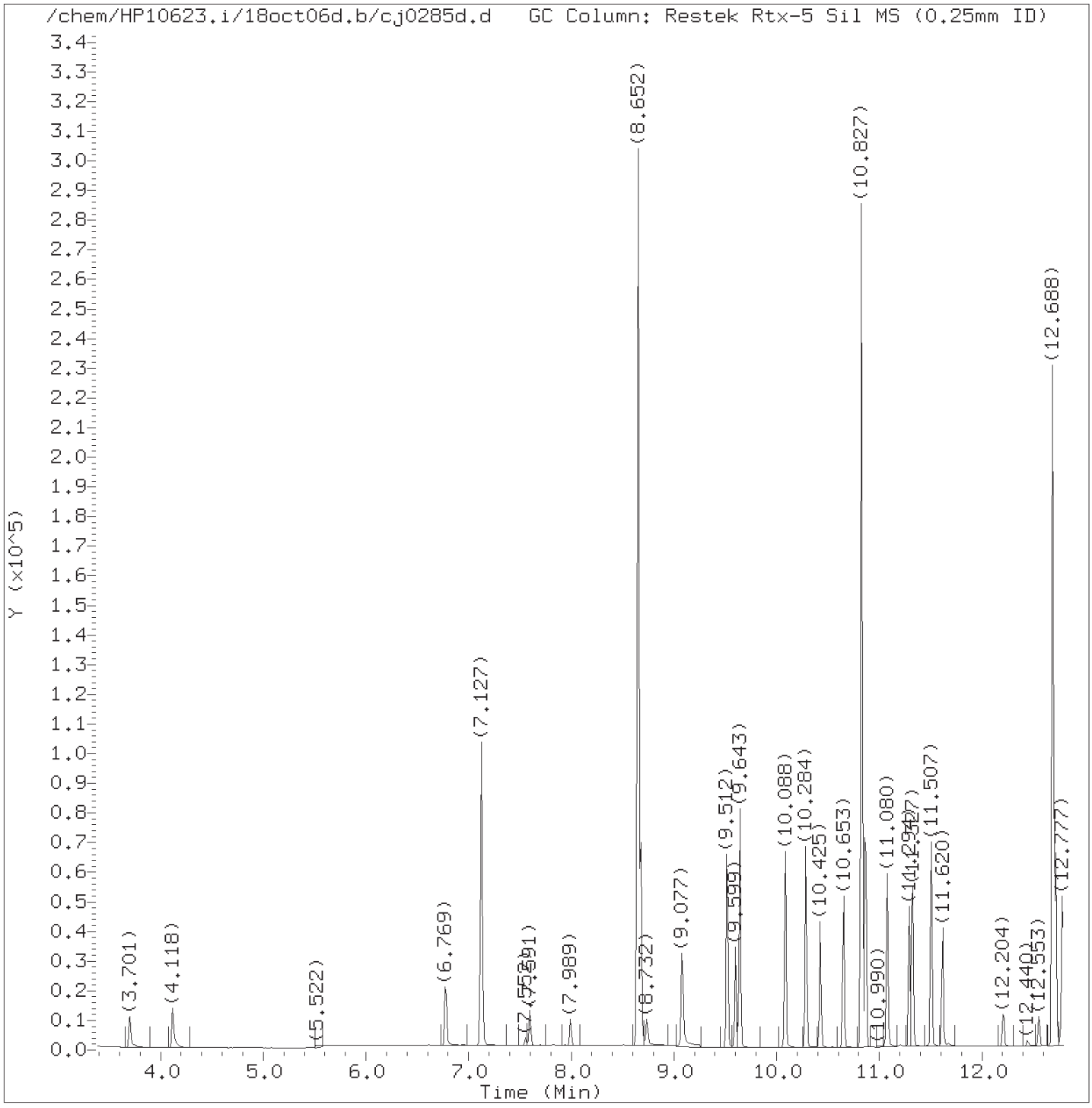
Data File: /chem/HP10623.i/18oct06d.b/cj0284d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:07 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	183301	0.987
54) Dibenz(a,h)anthracene	(6)	20.461	278	158769	0.987
55) Benzo(g,h,i)perylene	(6)	21.090	276	161252	0.941

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

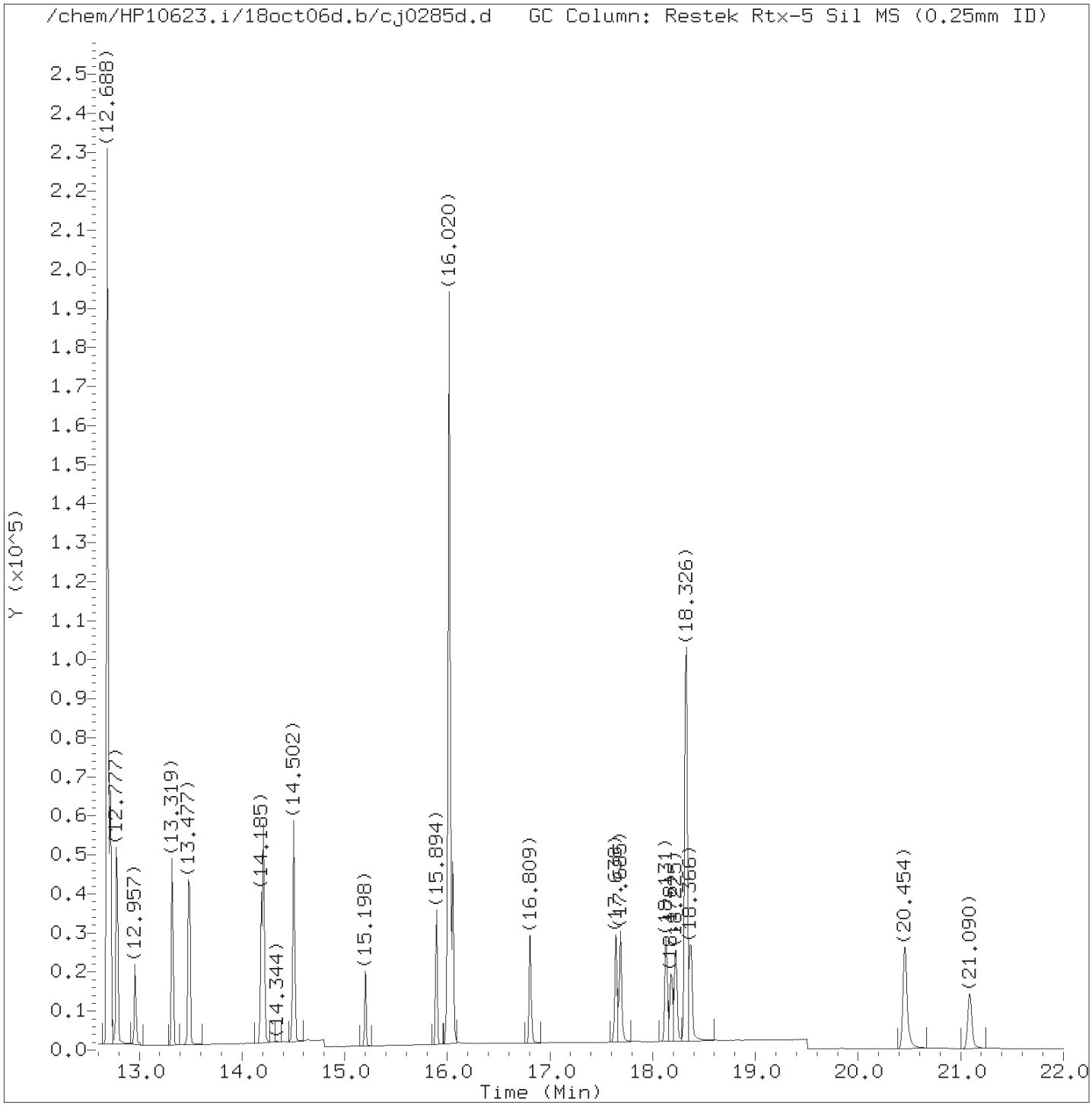
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.701	88	9291	0.202
2) N-Nitrosodimethylamine	(1)	4.118	74	11286	0.190
5) bis(2-Chloroethyl)ether	(1)	6.782	93	18037	0.194
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	71447	1.000
10)*Naphthalene-d8	(2)	8.652	136	291607	1.000
11) Naphthalene	(2)	8.679	128	62182	0.201
12) Quinoline	(2)	9.077	129	34008	0.190
13) 2-Methylnaphthalene	(2)	9.512	142	37023	0.192
14)$1-Methylnaphthalene-d10	(2)	9.599	152	29171	0.198
15) 1-Methylnaphthalene	(2)	9.643	142	37997	0.196
18) Dimethylphthalate	(3)	10.425	163	35340	0.186
19) Acenaphthylene	(3)	10.653	152	47624	0.179
20)*Acenaphthene-d10	(3)	10.827	164	134148	1.000
21) Acenaphthene	(3)	10.870	154	35716	0.196
22) Dibenzofuran	(3)	11.080	168	48411M	0.195
23) Diethylphthalate	(3)	11.294	149	33225	0.179
26) Fluorene	(3)	11.507	166	37346	0.192
28) NDPA as diphenylamine	(4)	11.620	169	23569	0.202
27) N-Nitrosodiphenylamine	(4)	11.620	169	23569	0.202
29) Hexachlorobenzene	(4)	12.215	284	8604	0.197
31)*Phenanthrene-d10	(4)	12.688	188	247979	1.000
32) Phenanthrene	(4)	12.721	178	58447	0.198
33) Anthracene	(4)	12.777	178	52872	0.186
35) Di-n-butylphthalate	(4)	13.319	149	47293	0.149
36)$Fluoranthene-d10	(4)	14.185	212	42399	0.188
37) Fluoranthene	(4)	14.209	202	56135	0.193
39) Pyrene	(5)	14.502	202	57040	0.192
40) Butylbenzylphthalate	(5)	15.198	149	19724	0.147
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	25348M	0.140
42) Benzo(a)anthracene	(5)	16.004	228	45387	0.190
43)*Chrysene-d12	(5)	16.020	240	184440	1.000
44) Chrysene	(5)	16.051	228	50023	0.204
45) Di-n-octylphthalate	(6)	16.809	149	38136	0.136
46) Benzo(b)fluoranthene	(6)	17.638	252	37440	0.198
47) Benzo(k)fluoranthene	(6)	17.685	252	42303	0.209
48) Benzo(e)pyrene	(6)	18.131	252	38774M	0.200
49)$Benzo(a)pyrene-d12	(6)	18.178	264	25536	0.189
50) Benzo(a)pyrene	(6)	18.225	252	35108	0.204
51)*Perylene-d12	(6)	18.326	264	147266	1.000
52) Perylene	(6)	18.373	252	38313M	0.204

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

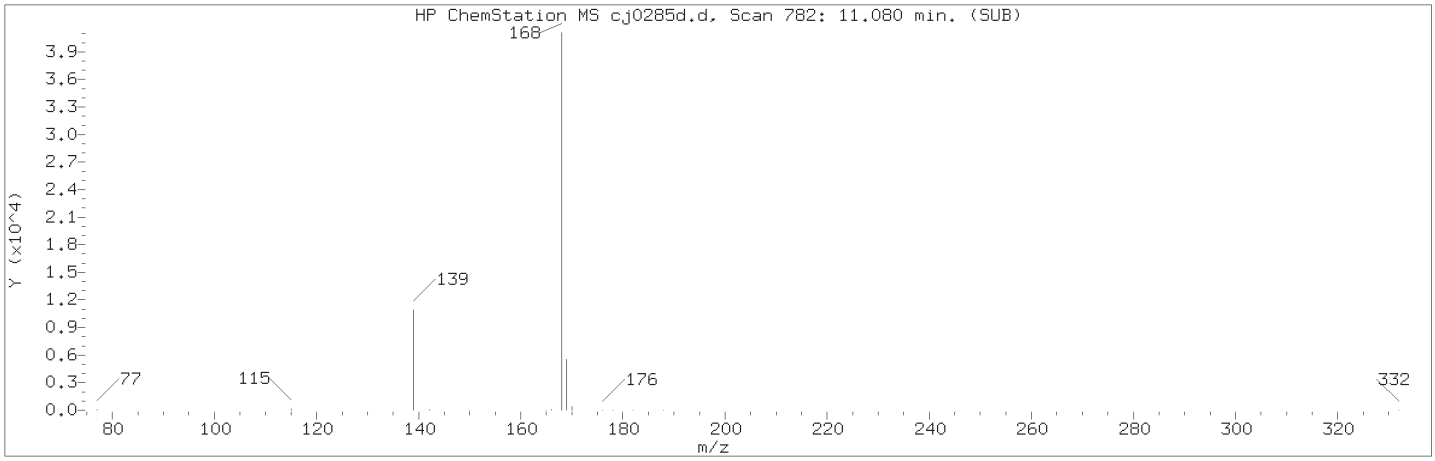
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

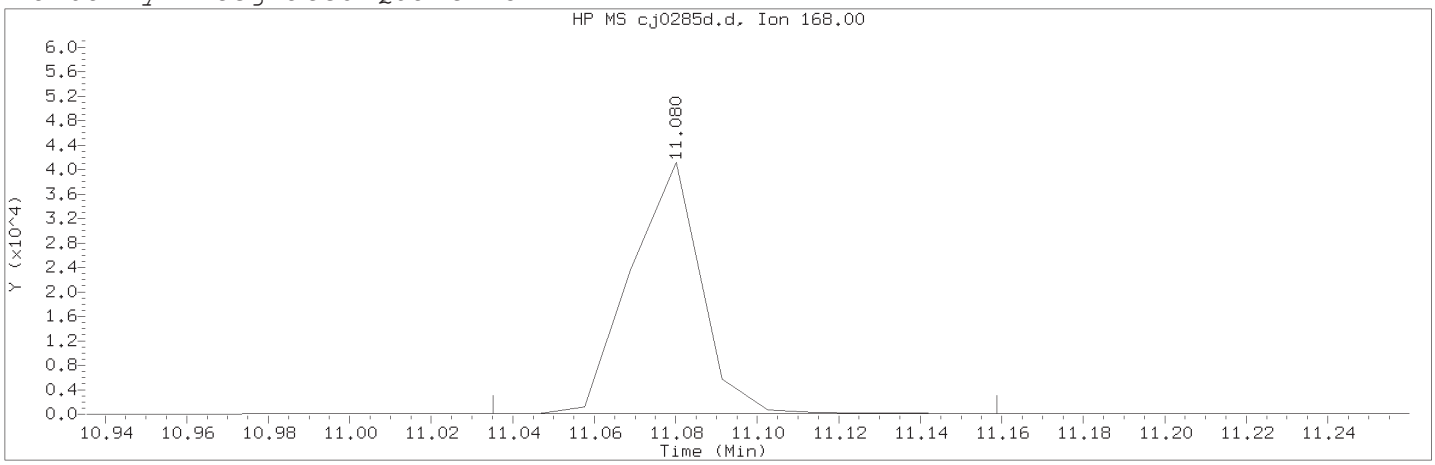
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	32609	0.199
54) Dibenz(a,h)anthracene	(6)	20.468	278	28185	0.199
55) Benzo(g,h,i)perylene	(6)	21.090	276	31473	0.197

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

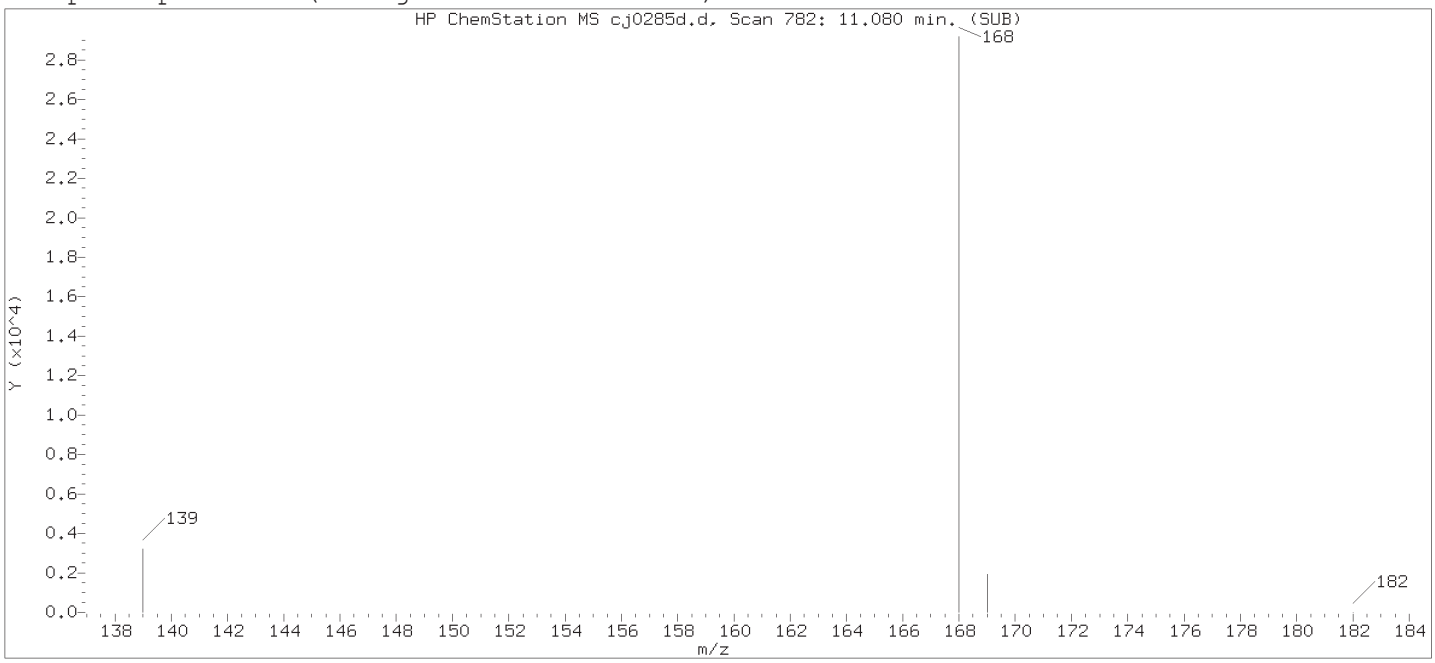
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 782		
Retention Time (minutes)	: 11.080		
Quant Ion	: 168.00		
Area (flag)	: 48411M		
On-Column Amount (ng/ul)	: 0.1951		
Integration start scan	: 777	Integration stop scan:	788
Y at integration start	: 50	Y at integration end:	50

Reason for manual integration: improper integration

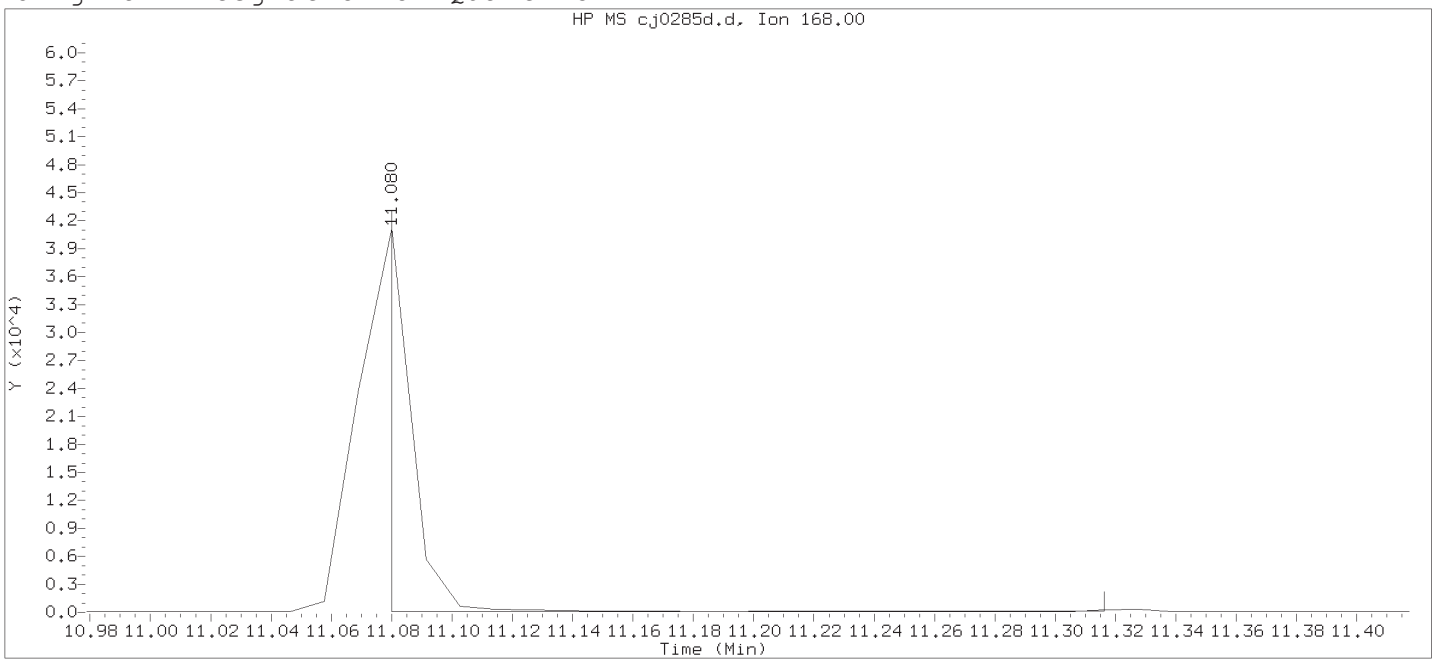
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

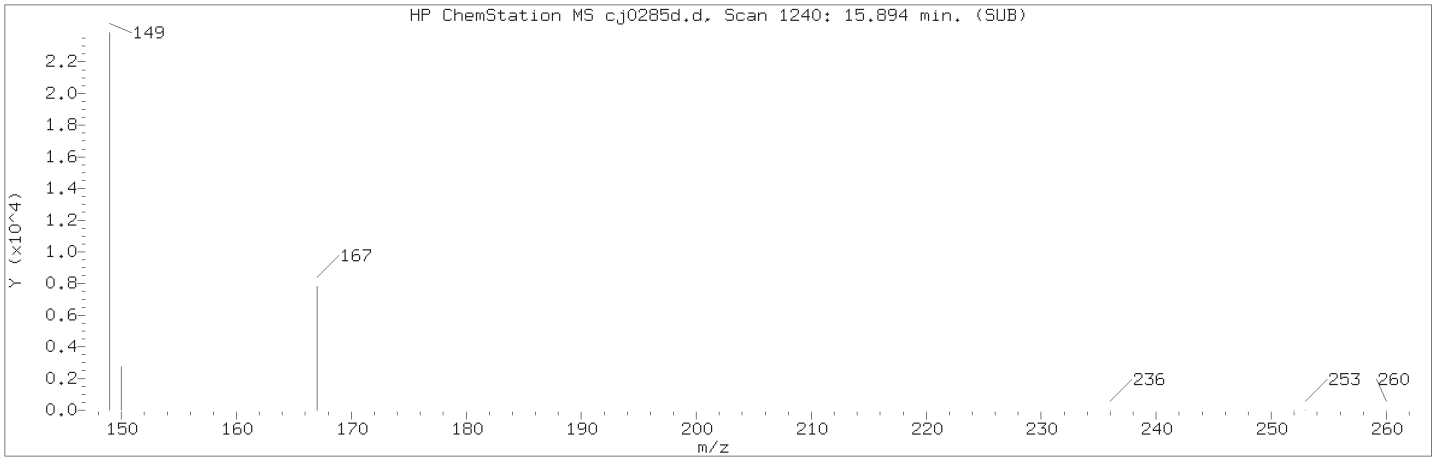
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

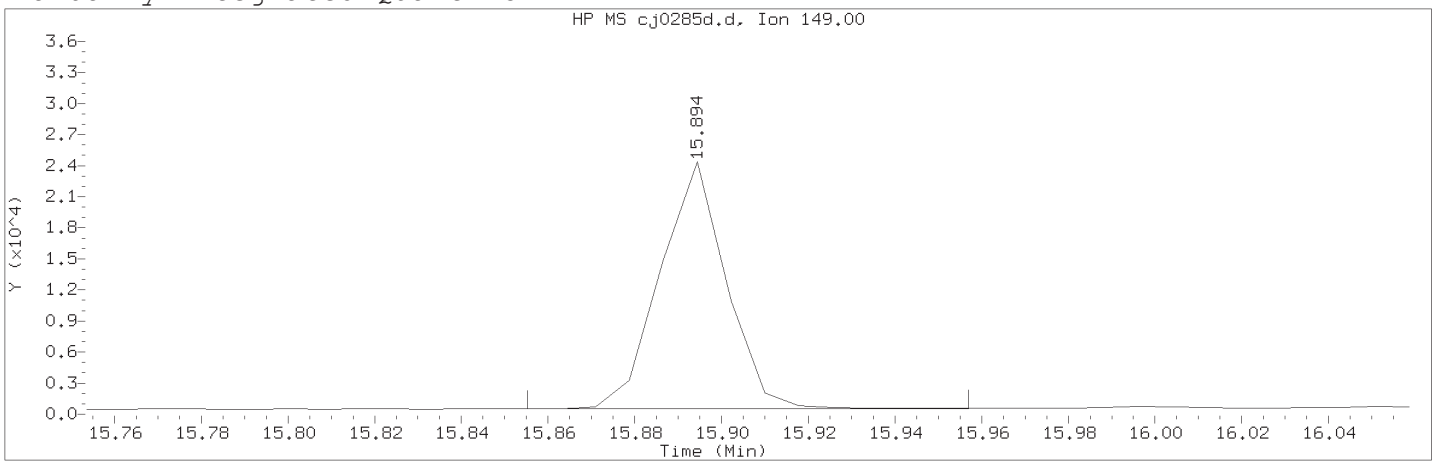
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 782		
Retention Time (minutes)	: 11.080		
Quant Ion	: 168.00		
Area	: 18291		
On-column Amount (ng/ul)	: 0.0272		
Integration start scan	: 781	Integration stop scan:	802
Y at integration start	: 51	Y at integration end:	108

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

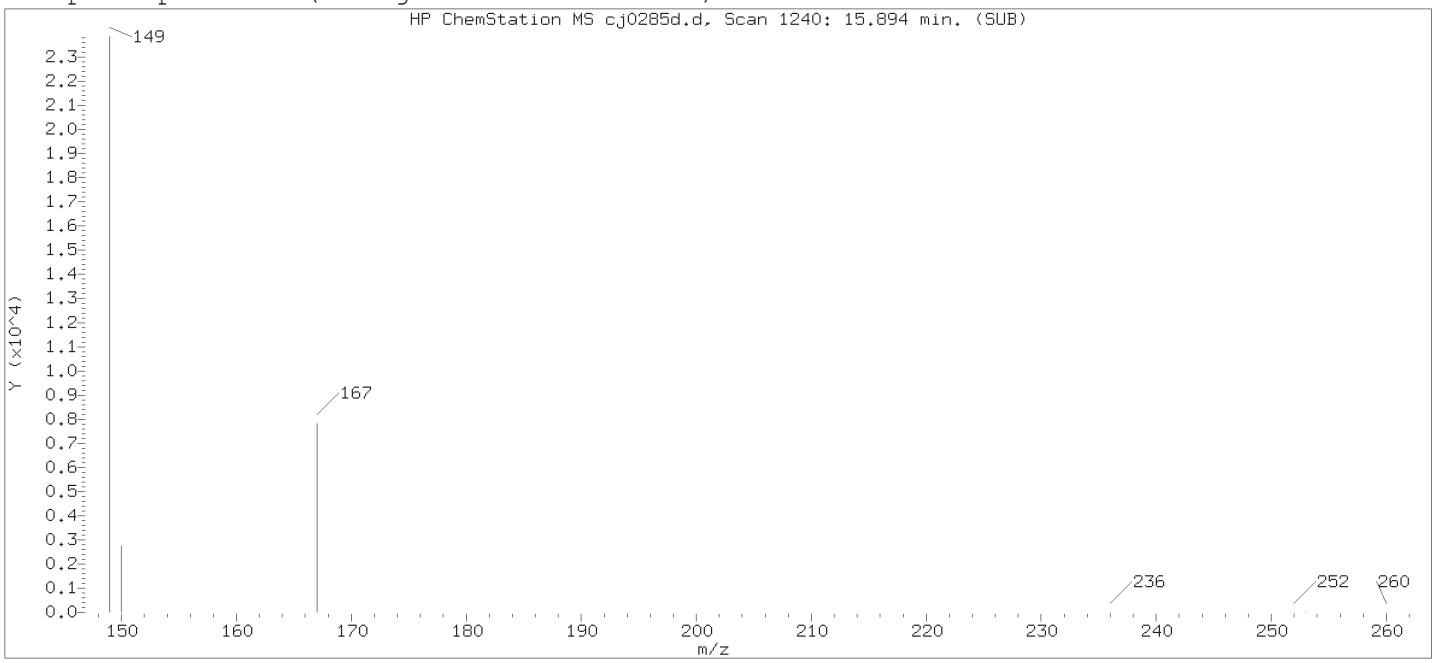
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1240
Retention Time (minutes) : 15.894
Quant Ion : 149.00
Area (flag) : 25348M
On-Column Amount (ng/ul) : 0.1398
Integration start scan : 1234 Integration stop scan: 1247
Y at integration start : 497 Y at integration end: 497

Reason for manual integration: improper integration

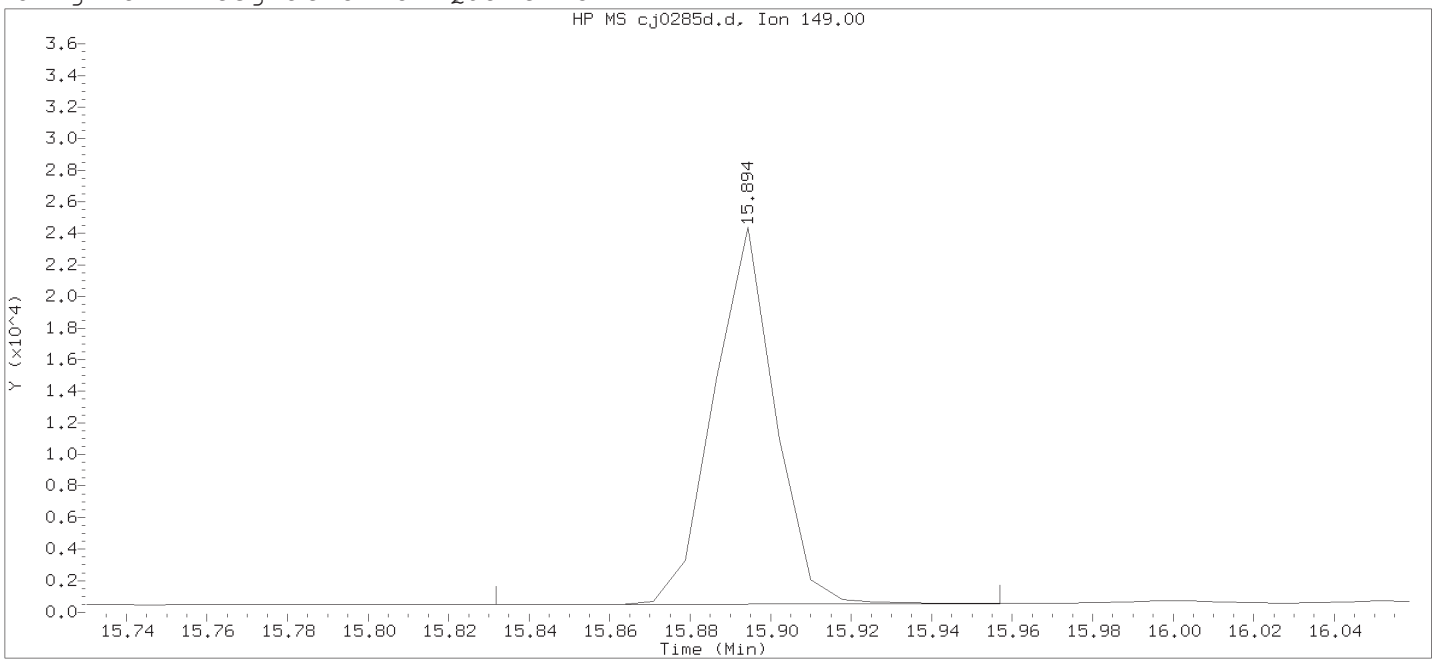
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

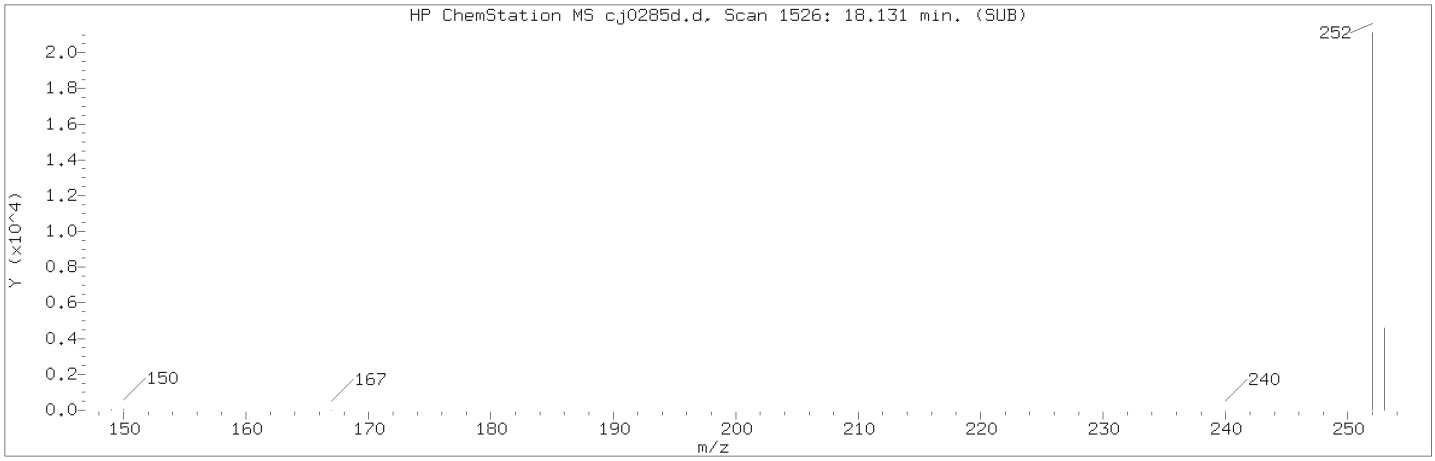
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

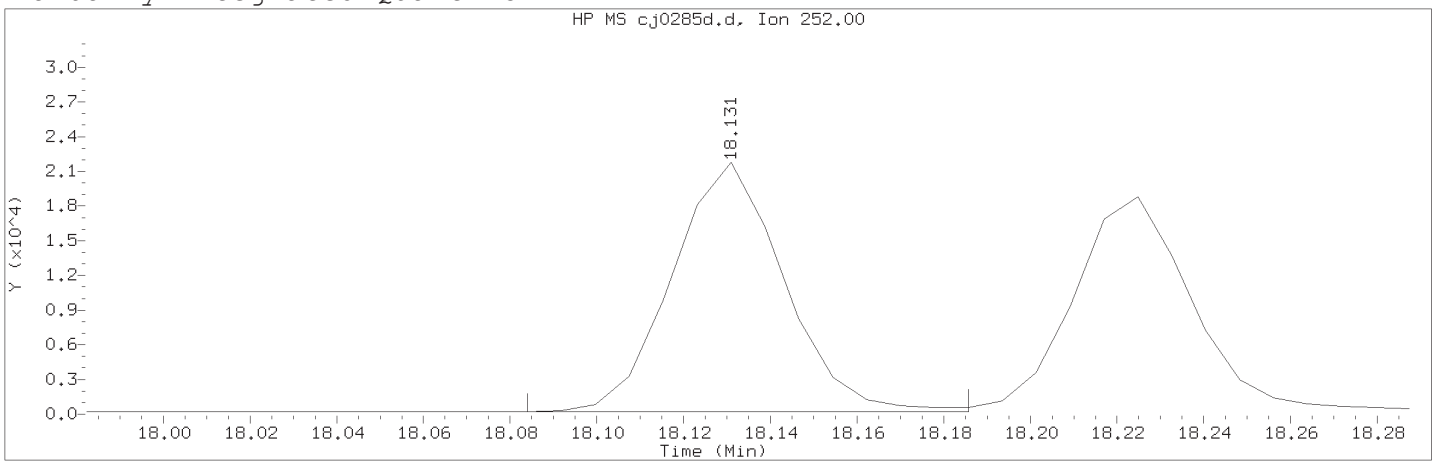
Compound Number	: 41		
Compound Name	: bis(2-Ethylhexyl)phthalate		
Scan Number	: 1240		
Retention Time (minutes)	: 15.894		
Quant Ion	: 149.00		
Area	: 25298		
On-column Amount (ng/ul)	: 0.0411		
Integration start scan	: 1231	Integration stop scan:	1247
Y at integration start	: 486	Y at integration end:	520

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used 10/07/2018 21:26

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

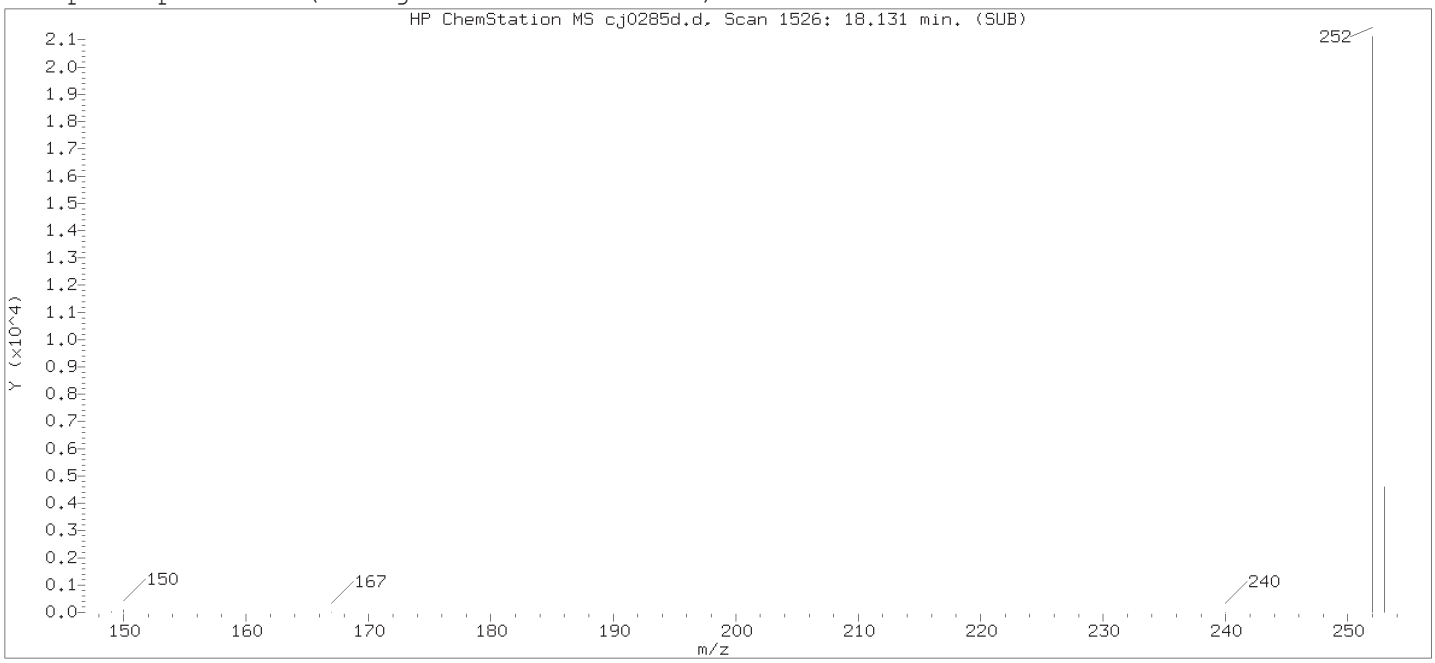
Compound Number : 48
Compound Name : Benzo(e)pyrene
Scan Number : 1526
Retention Time (minutes) : 18.131
Quant Ion : 252.00
Area (flag) : 38774M
On-Column Amount (ng/ul) : 0.2004
Integration start scan : 1519 Integration stop scan: 1532
Y at integration start : 189 Y at integration end: 189

Reason for manual integration: improper integration

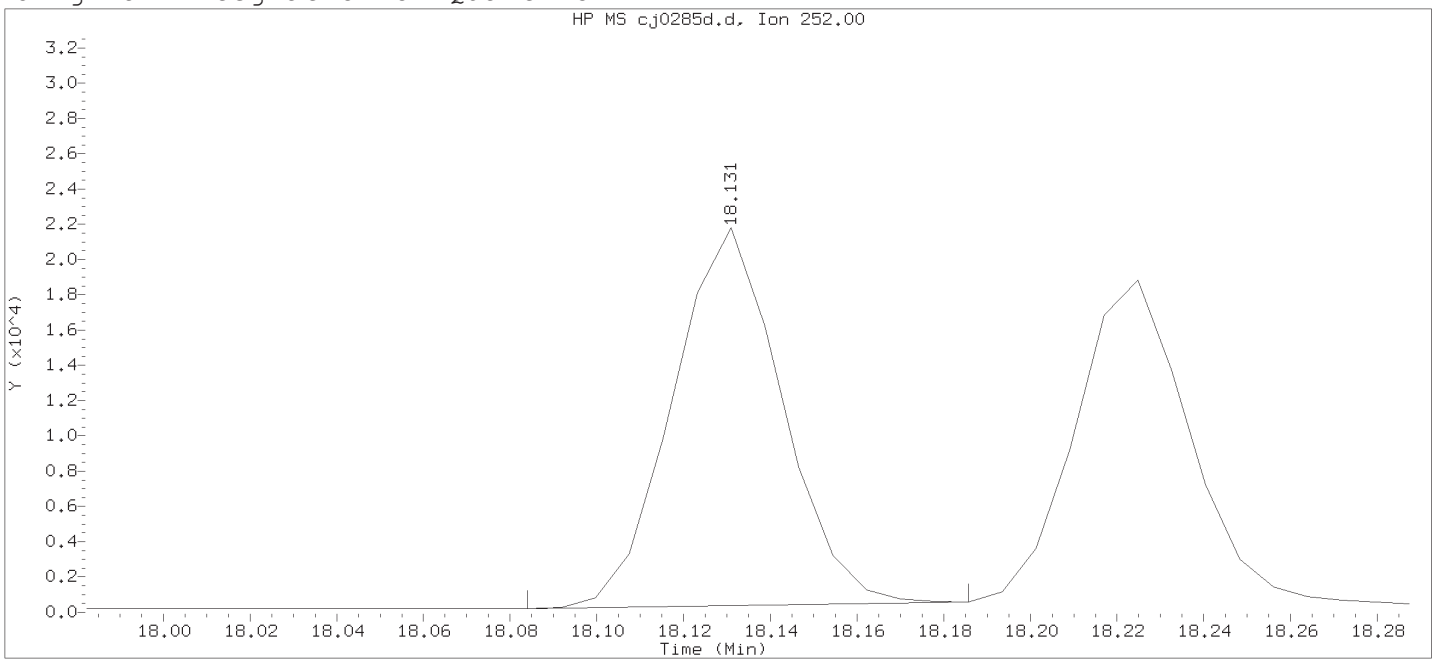
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

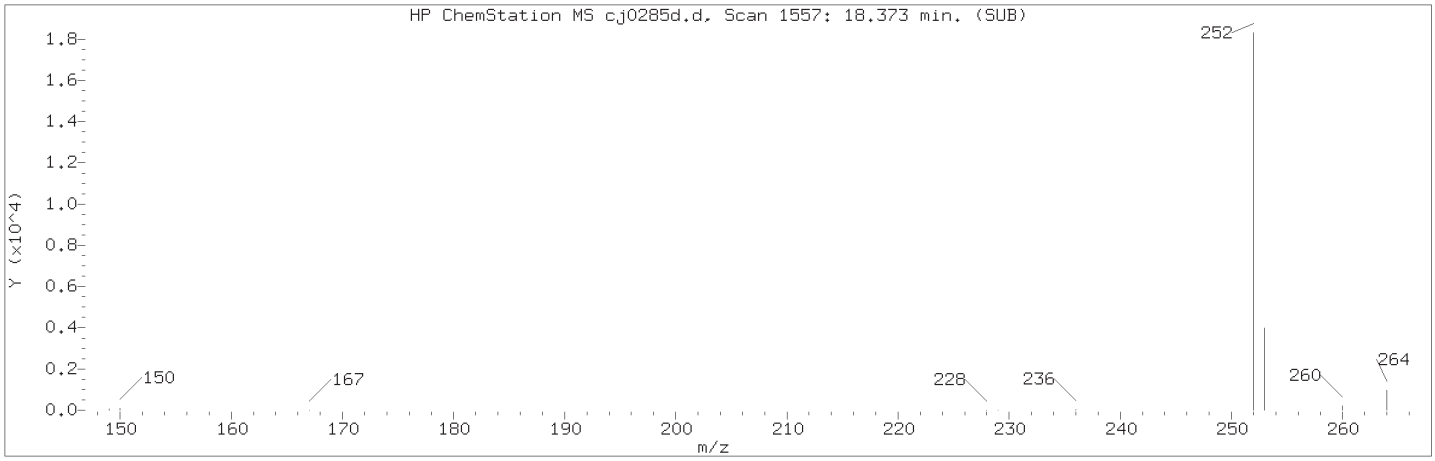
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

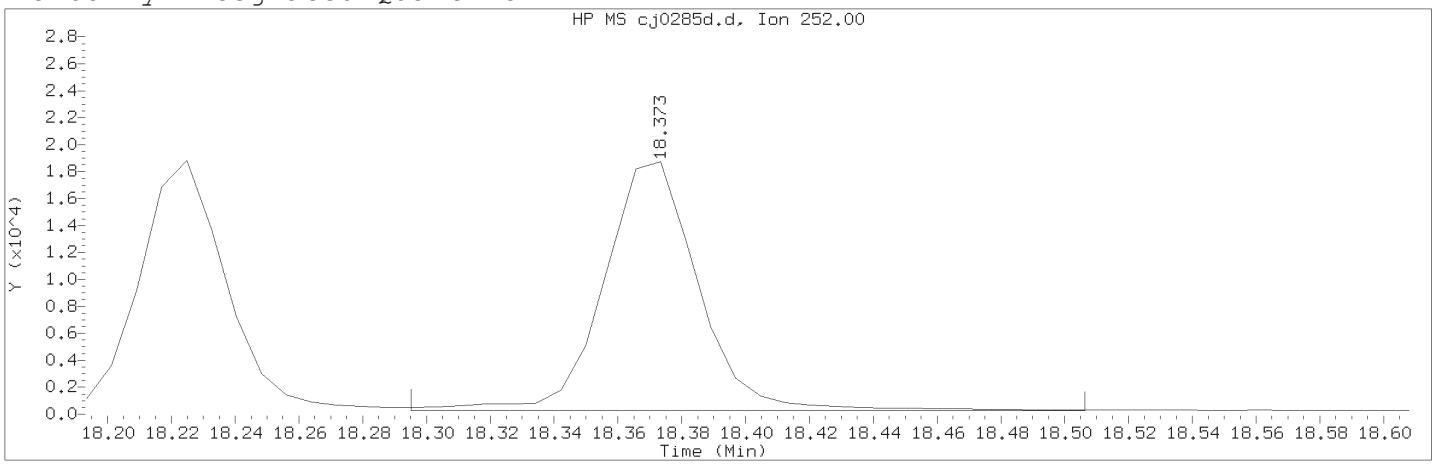
Compound Number	: 48		
Compound Name	: Benzo(e)pyrene		
Scan Number	: 1526		
Retention Time (minutes)	: 18.131		
Quant Ion	: 252.00		
Area	: 37422		
On-column Amount (ng/ul)	: 0.0789		
Integration start scan	: 1519	Integration stop scan:	1532
Y at integration start	: 208	Y at integration end:	581

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:14 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

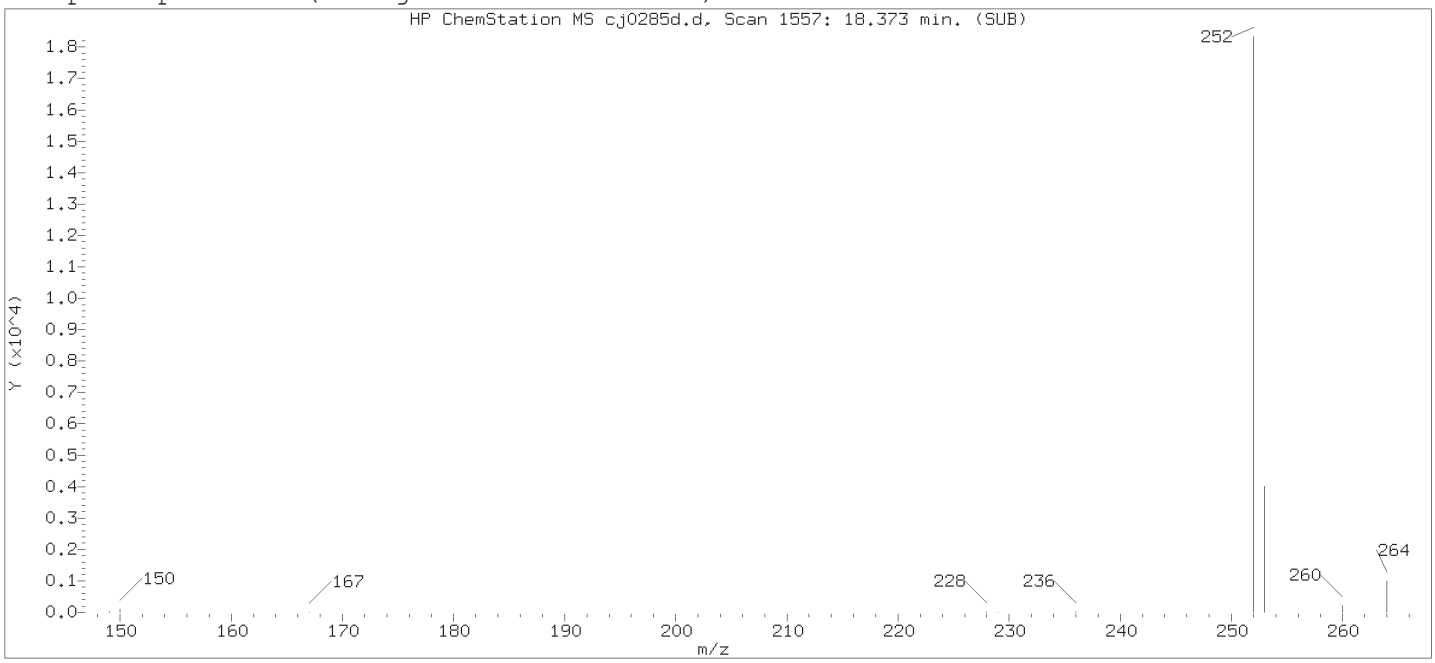
Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1557		
Retention Time (minutes)	: 18.373		
Quant Ion	: 252.00		
Area (flag)	: 38313M		
On-Column Amount (ng/ul)	: 0.2044		
Integration start scan	: 1546	Integration stop scan:	1573
Y at integration start	: 258	Y at integration end:	258

Reason for manual integration: improper integration

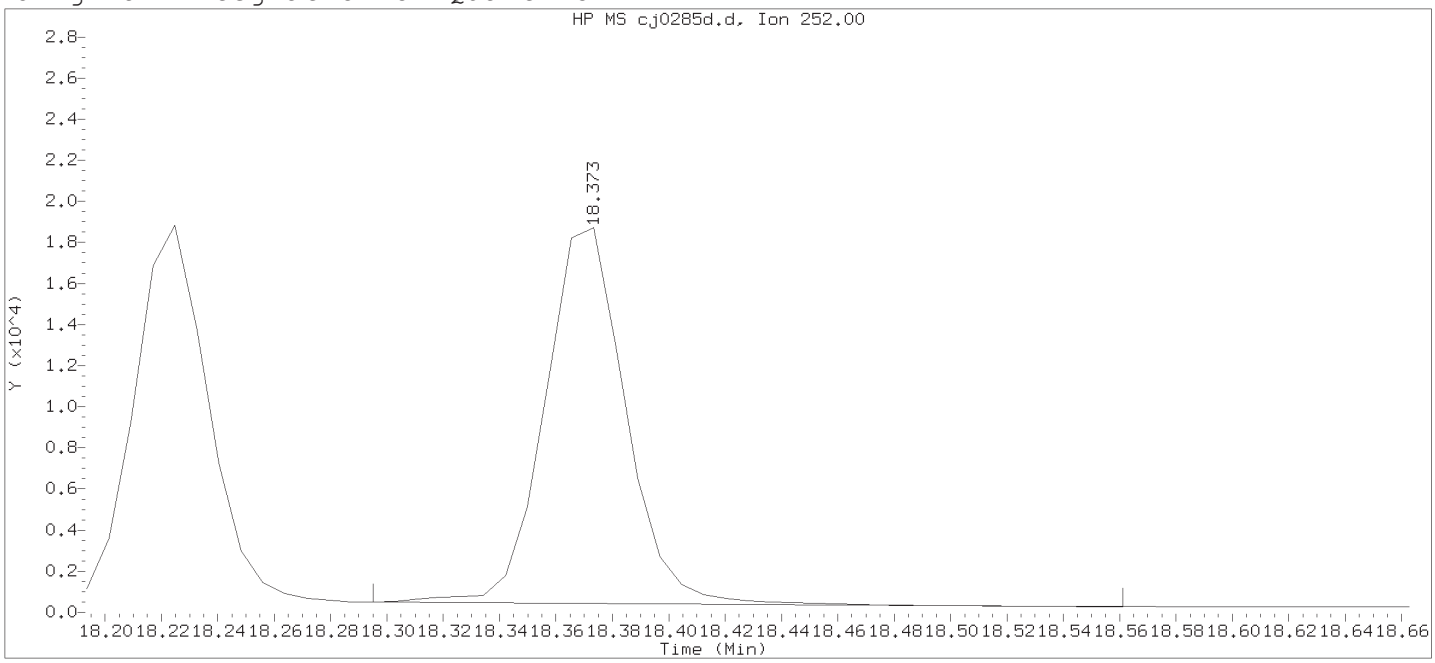
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0285d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 01:39 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.20 Lab Sample ID: SIM2598

Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1557		
Retention Time (minutes)	: 18.373		
Quant Ion	: 252.00		
Area	: 36501		
On-column Amount (ng/ul)	: 0.0776		
Integration start scan	: 1546	Integration stop scan:	1580
Y at integration start	: 490	Y at integration end:	261

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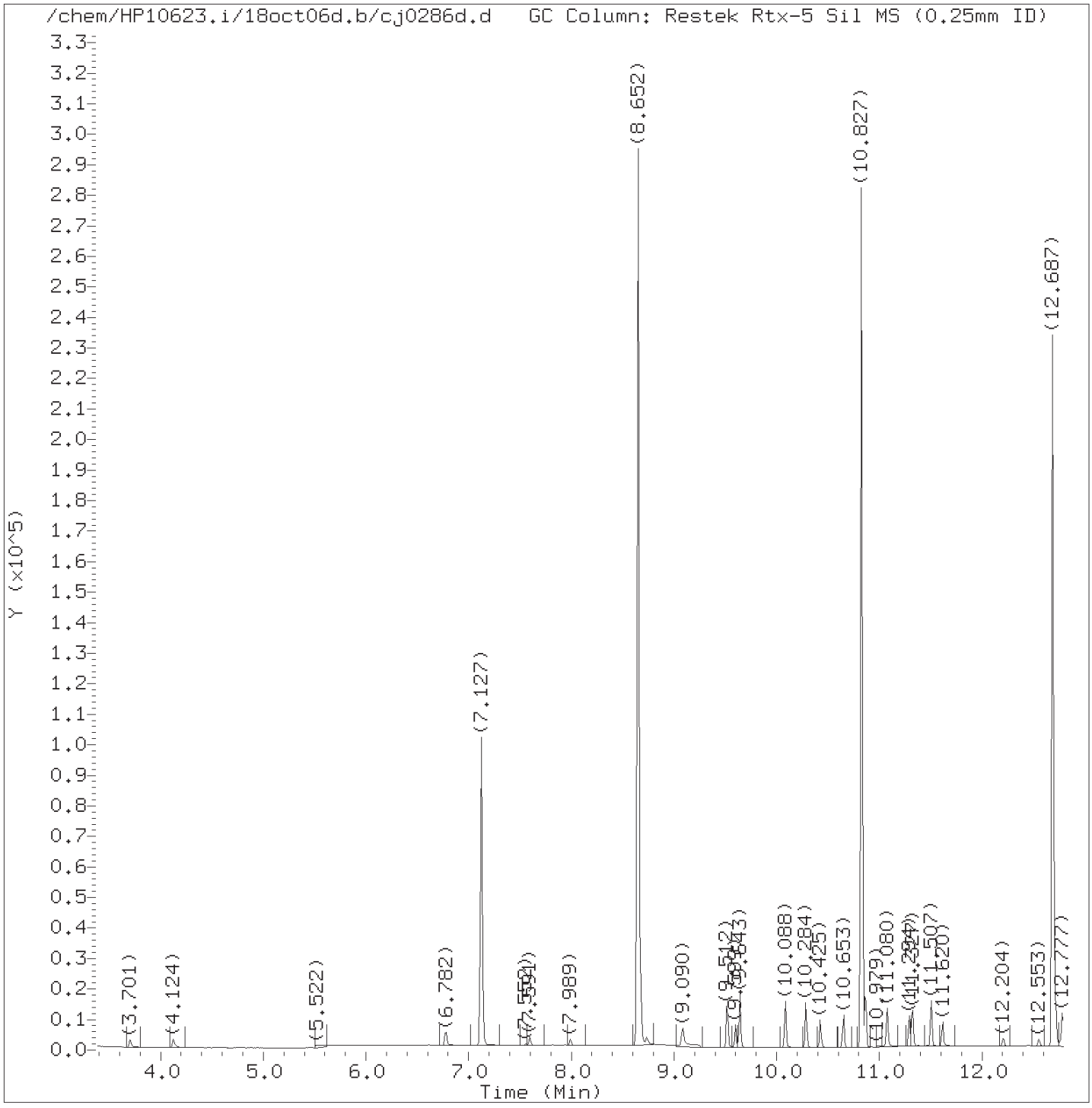
Target 3.5 esignature used 1 Page 1 of 6



Total Ion Chromatogram (TIC)

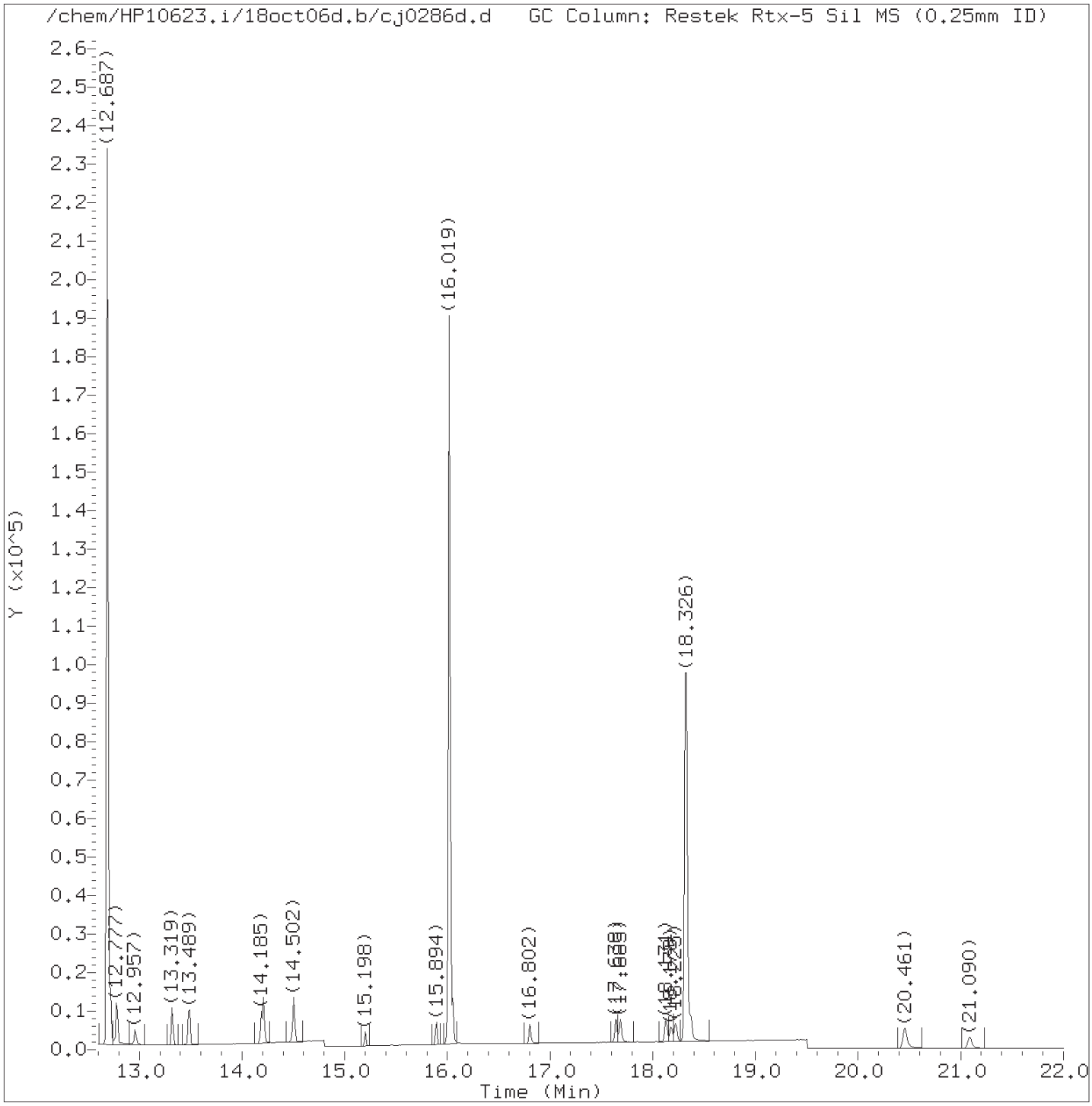
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.701	88	2202	0.048
2) N-Nitrosodimethylamine	(1)	4.124	74	2539	0.042
5) bis(2-Chloroethyl)ether	(1)	6.782	93	4194	0.045
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	72122	1.000
10)*Naphthalene-d8	(2)	8.652	136	288195	1.000
11) Naphthalene	(2)	8.679	128	14369	0.047
12) Quinoline	(2)	9.090	129	7385M	0.042
13) 2-Methylnaphthalene	(2)	9.512	142	8495M	0.045
14)$1-Methylnaphthalene-d10	(2)	9.599	152	6654	0.046
15) 1-Methylnaphthalene	(2)	9.643	142	8778	0.046
18) Dimethylphthalate	(3)	10.425	163	7631	0.041
19) Acenaphthylene	(3)	10.653	152	10197	0.039
20)*Acenaphthene-d10	(3)	10.827	164	133032	1.000
21) Acenaphthene	(3)	10.870	154	8283M	0.046
22) Dibenzofuran	(3)	11.080	168	11114M	0.045
23) Diethylphthalate	(3)	11.294	149	7238	0.039
26) Fluorene	(3)	11.507	166	8192	0.042
28) NDPA as diphenylamine	(4)	11.620	169	5049	0.043
27) N-Nitrosodiphenylamine	(4)	11.620	169	5049	0.043
29) Hexachlorobenzene	(4)	12.215	284	1981	0.046
31)*Phenanthrene-d10	(4)	12.687	188	246827	1.000
32) Phenanthrene	(4)	12.721	178	13295	0.045
33) Anthracene	(4)	12.777	178	11092	0.039
35) Di-n-butylphthalate	(4)	13.319	149	9113	0.029
36)$Fluoranthene-d10	(4)	14.185	212	9334	0.042
37) Fluoranthene	(4)	14.209	202	11923	0.041
39) Pyrene	(5)	14.502	202	12298	0.042
40) Butylbenzylphthalate	(5)	15.198	149	3568	0.027
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	4619	0.026
42) Benzo(a)anthracene	(5)	16.004	228	10048	0.042
43)*Chrysene-d12	(5)	16.019	240	181988	1.000
44) Chrysene	(5)	16.051	228	11404	0.046
45) Di-n-octylphthalate	(6)	16.802	149	6482	0.023
46) Benzo(b)fluoranthene	(6)	17.638	252	8158	0.042
47) Benzo(k)fluoranthene	(6)	17.685	252	9199	0.044
48) Benzo(e)pyrene	(6)	18.131	252	8611M	0.045
49)$Benzo(a)pyrene-d12	(6)	18.178	264	5361	0.040
50) Benzo(a)pyrene	(6)	18.225	252	7261	0.041
51)*Perylene-d12	(6)	18.326	264	145437	1.000
52) Perylene	(6)	18.373	252	7844M	0.042

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

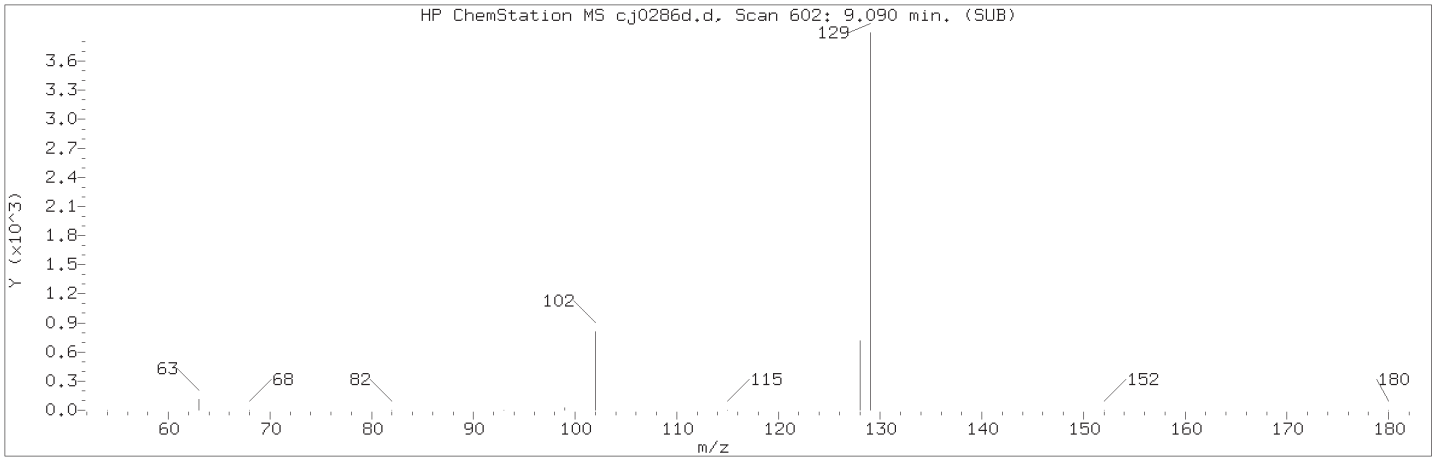
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

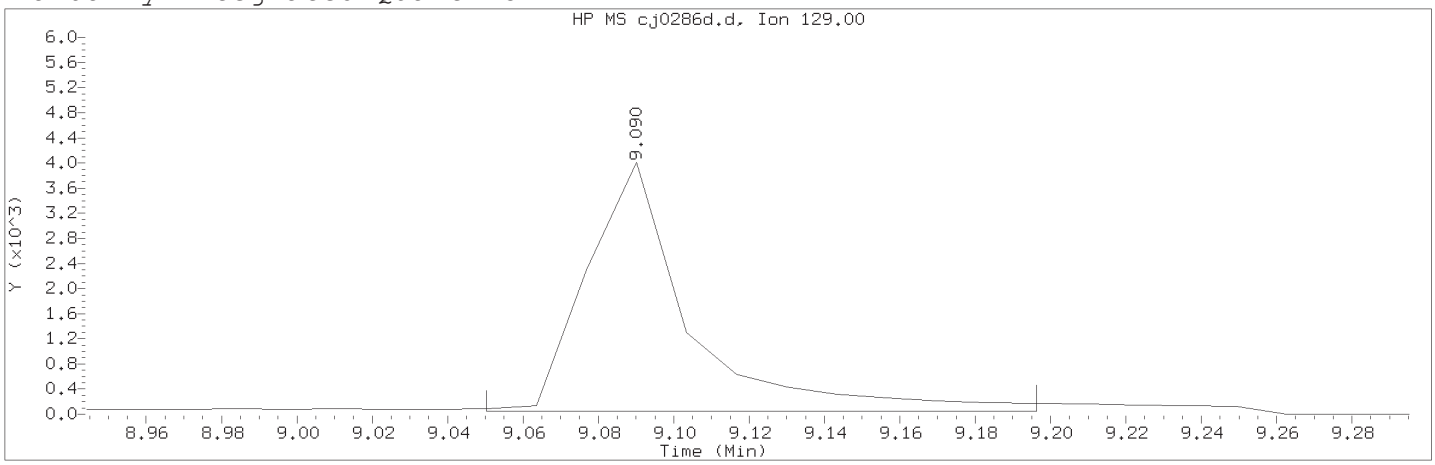
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	6900	0.041
54) Dibenz(a,h)anthracene	(6)	20.461	278	5934	0.041
55) Benzo(g,h,i)perylene	(6)	21.090	276	6556	0.042

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

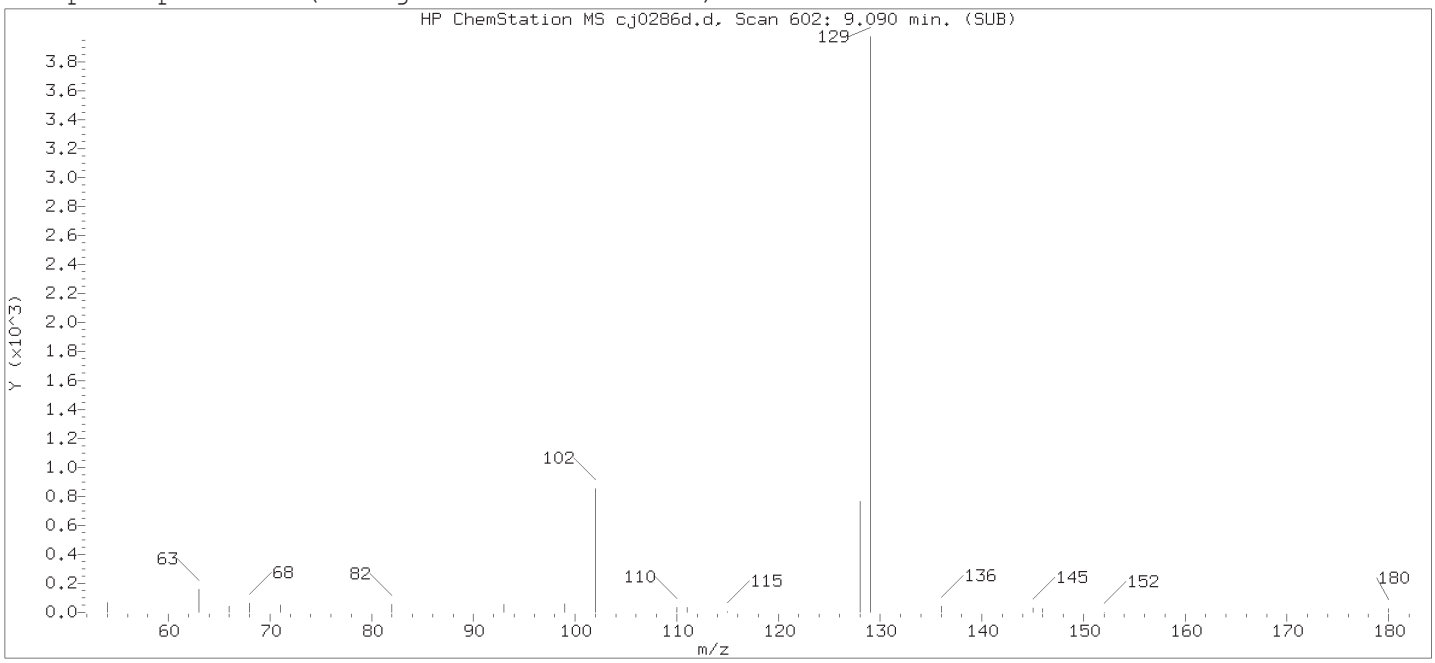
Compound Number	: 12		
Compound Name	: Quinoline		
Scan Number	: 602		
Retention Time (minutes)	: 9.090		
Quant Ion	: 129.00		
Area (flag)	: 7385M		
On-Column Amount (ng/ul)	: 0.0417		
Integration start scan	: 598	Integration stop scan:	609
Y at integration start	: 45	Y at integration end:	45

Reason for manual integration: improper integration

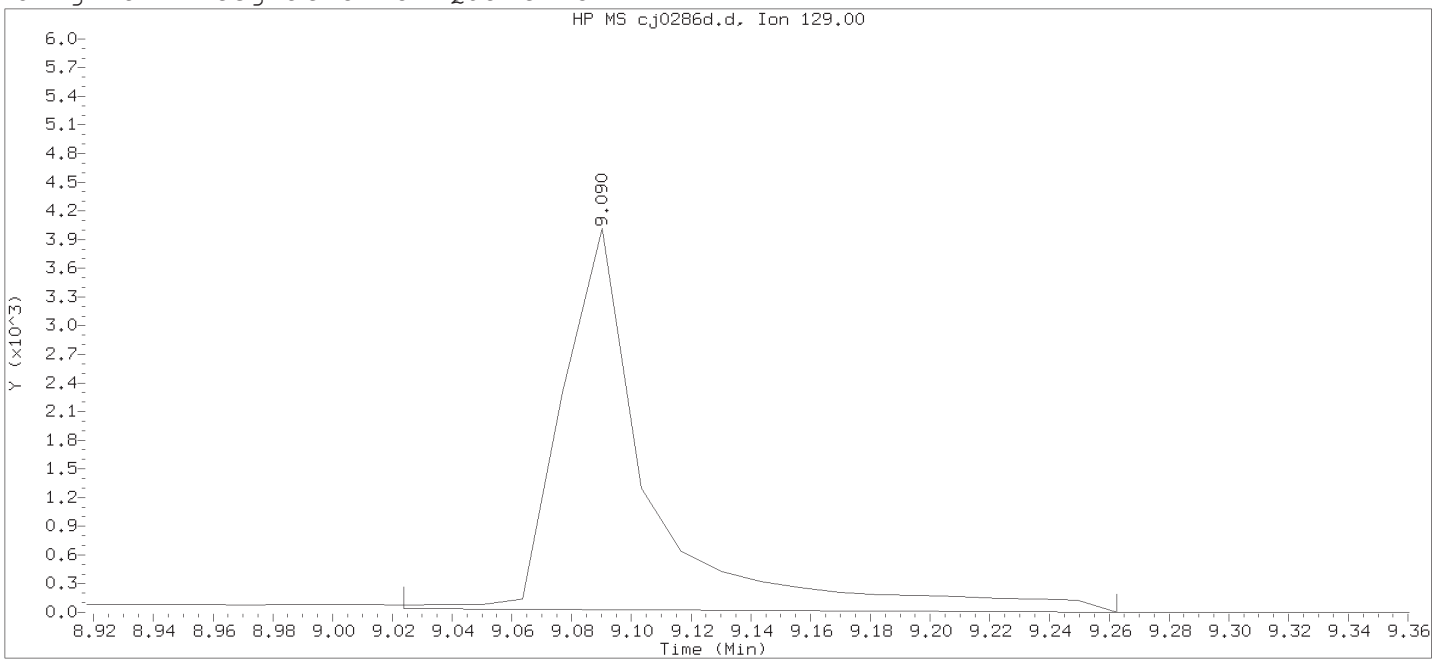
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

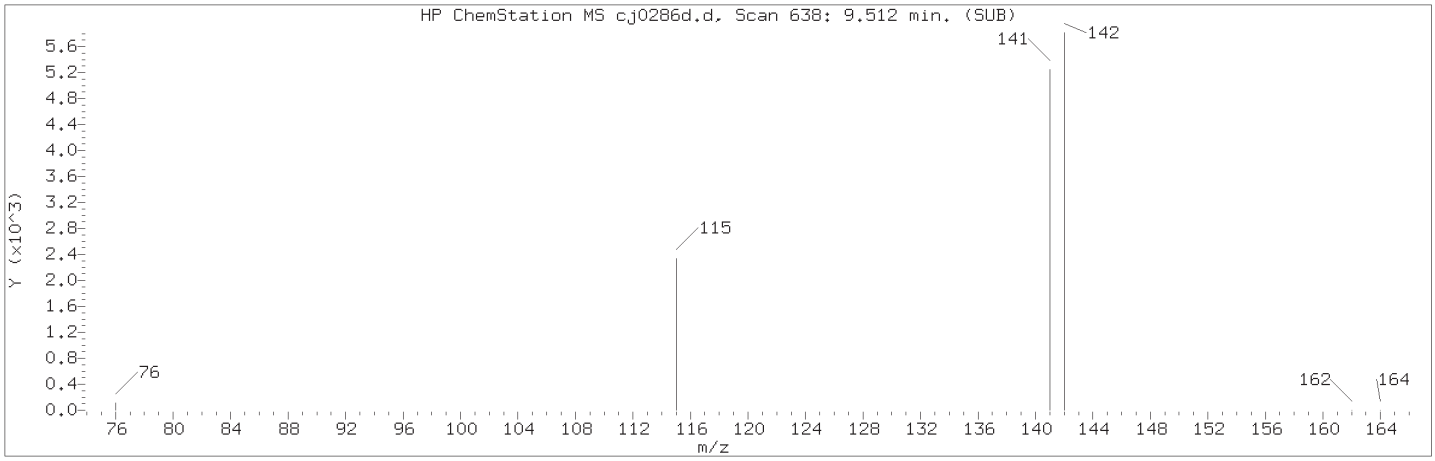
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

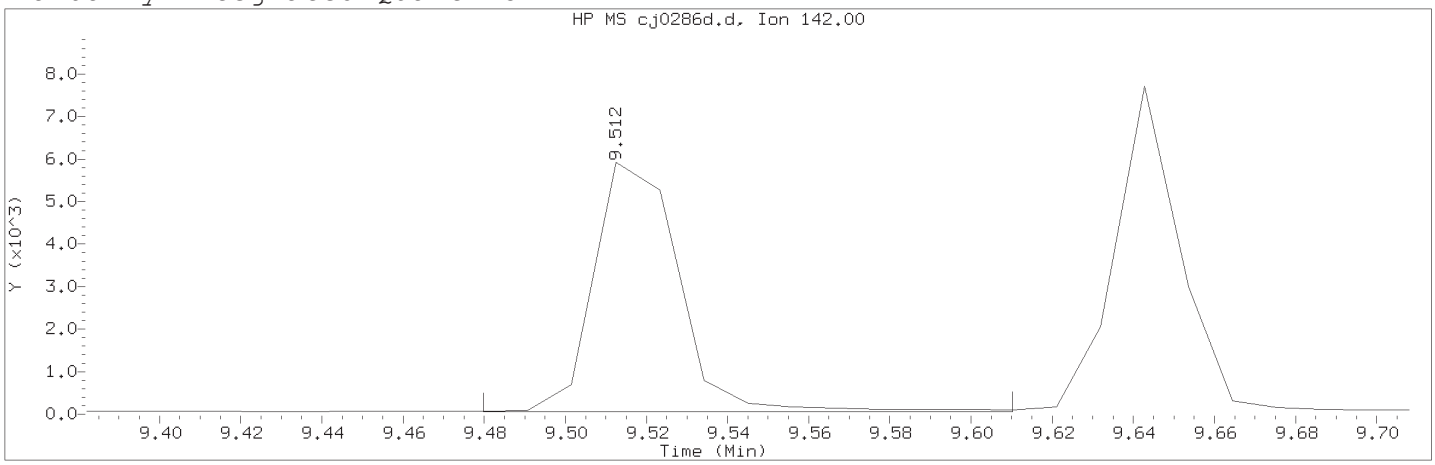
Compound Number	: 12		
Compound Name	: Quinoline		
Scan Number	: 602		
Retention Time (minutes)	: 9.090		
Quant Ion	: 129.00		
Area	: 8040		
On-column Amount (ng/ul)	: 0.0134		
Integration start scan	: 596	Integration stop scan:	614
Y at integration start	: 39	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

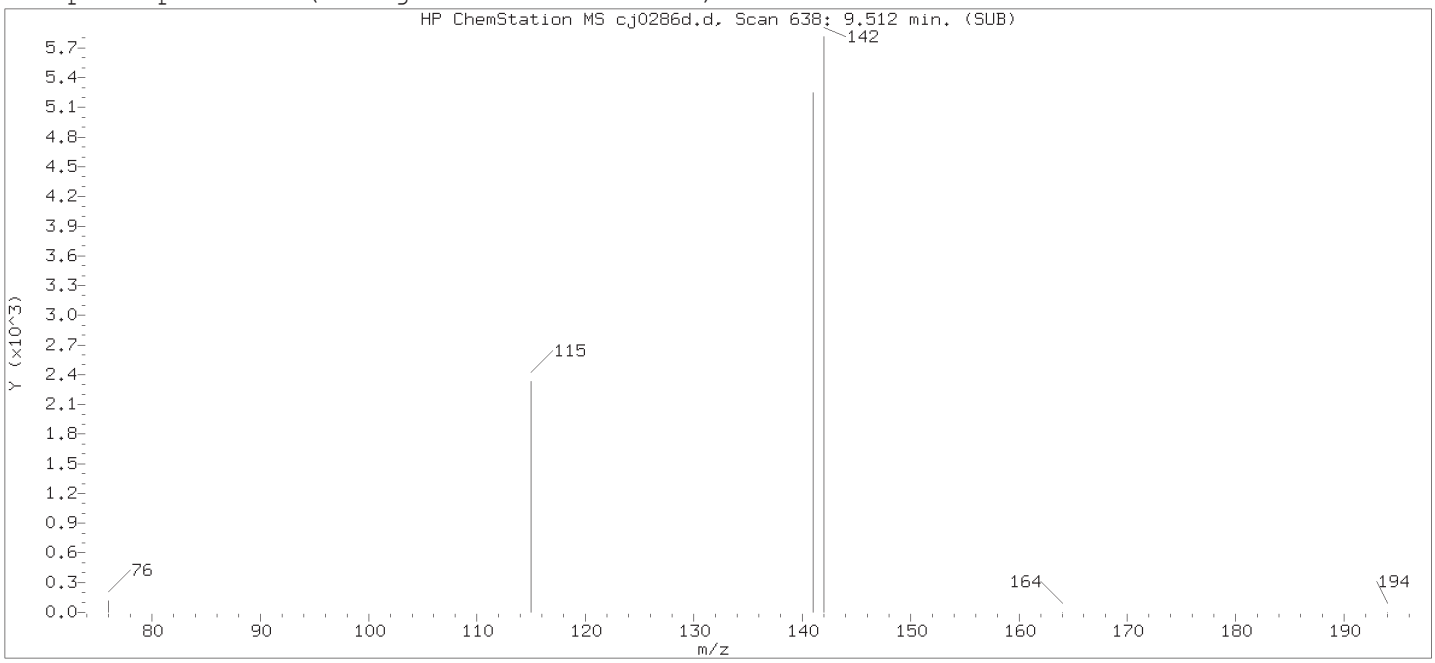
Compound Number : 13
Compound Name : 2-Methylnaphthalene
Scan Number : 638
Retention Time (minutes) : 9.512
Quant Ion : 142.00
Area (flag) : 8495M
On-Column Amount (ng/ul) : 0.0445
Integration start scan : 634 Integration stop scan: 646
Y at integration start : 63 Y at integration end: 63

Reason for manual integration: improper integration

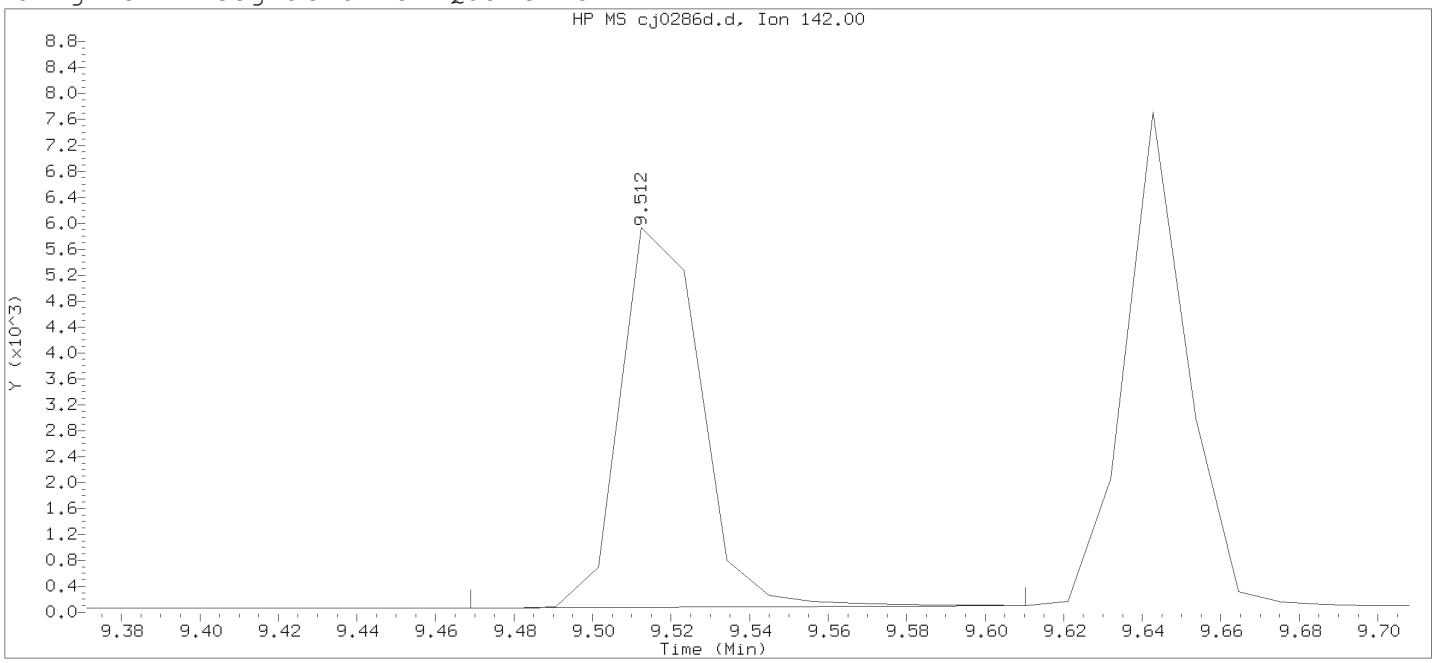
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Compound Number	: 13		
Compound Name	: 2-Methylnaphthalene		
Scan Number	: 638		
Retention Time (minutes)	: 9.512		
Quant Ion	: 142.00		
Area	: 8327		
On-column Amount (ng/ul)	: 0.0170		
Integration start scan	: 633	Integration stop scan:	646
Y at integration start	: 62	Y at integration end:	101

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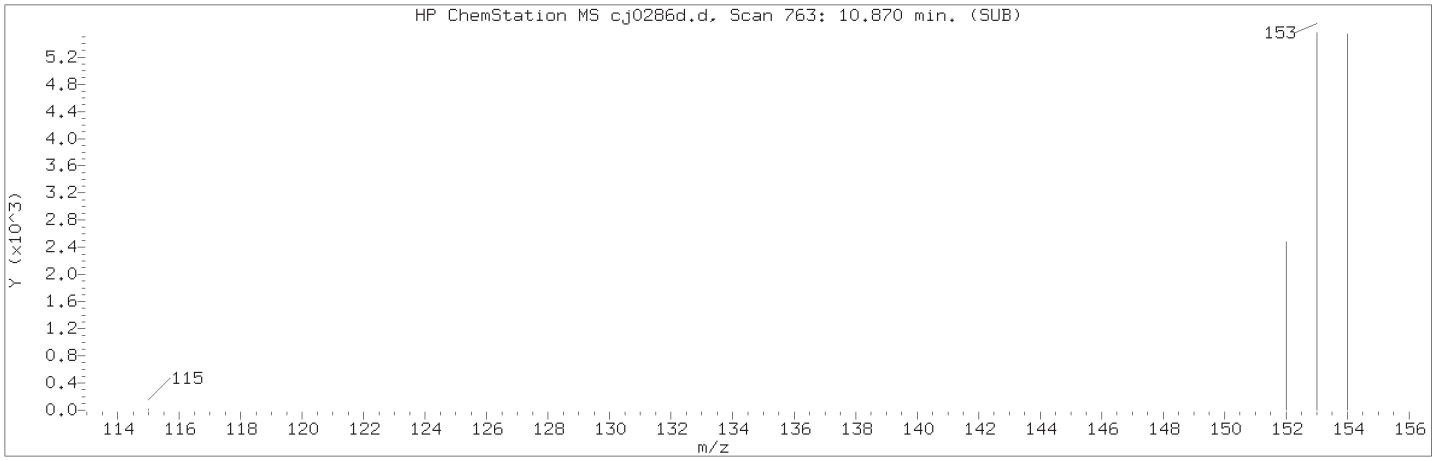
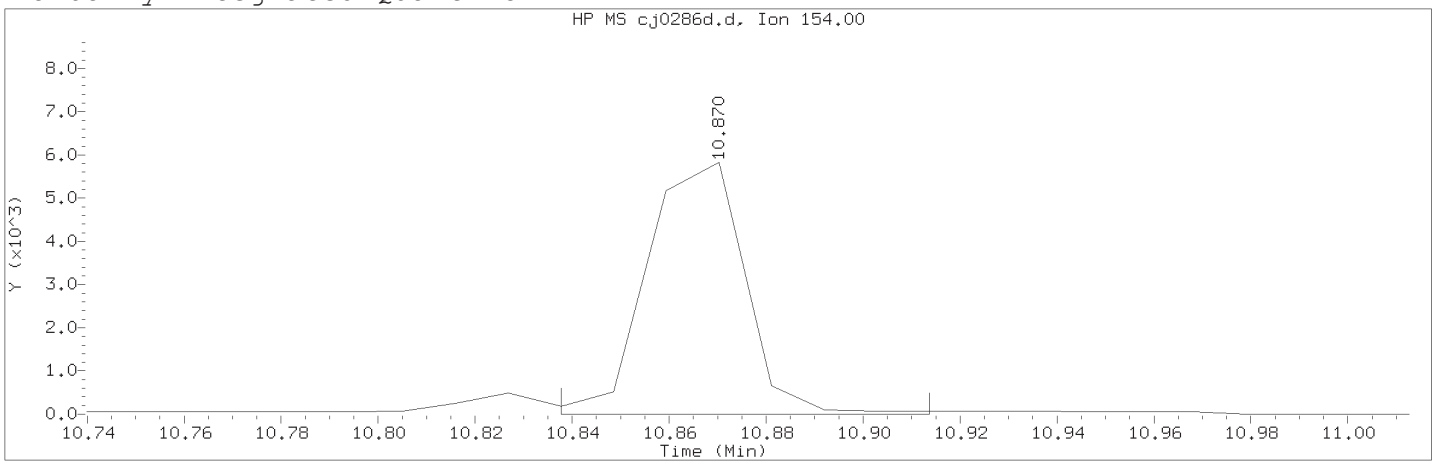
Target 3.5 esignature used: D12 Page 3154 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

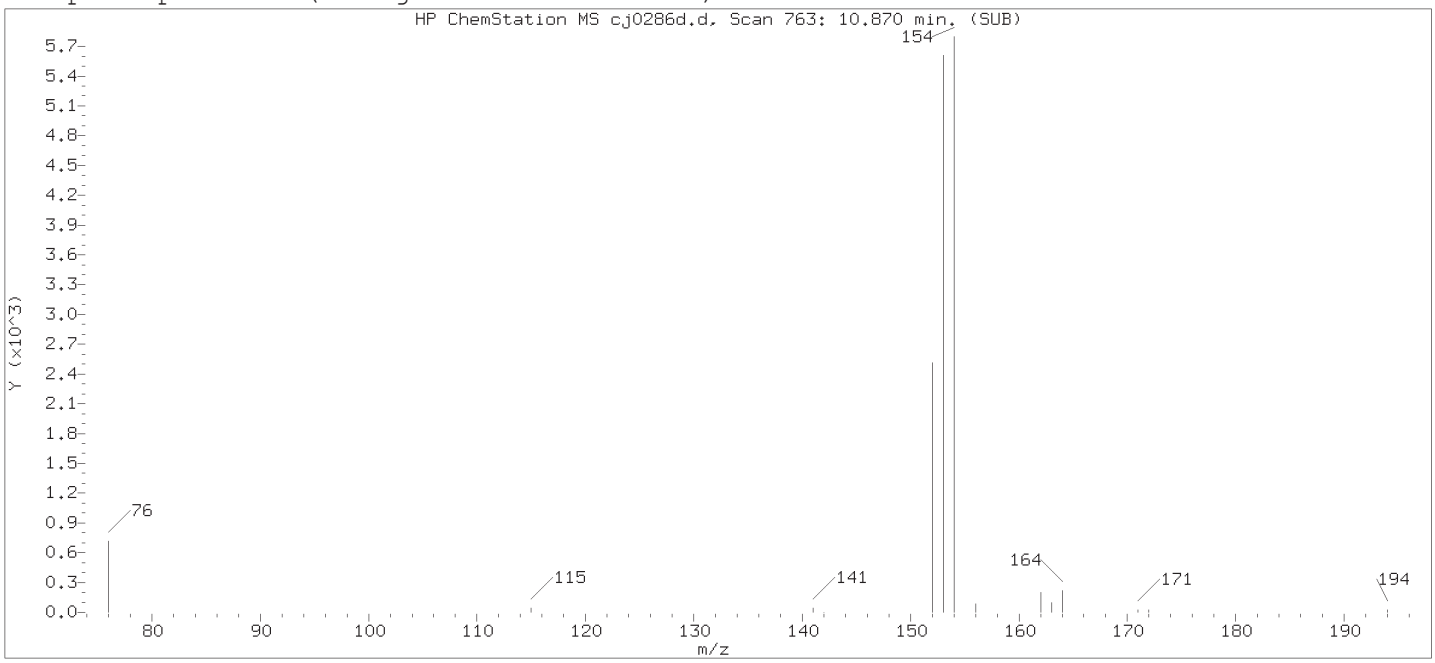
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 763
Retention Time (minutes) : 10.870
Quant Ion : 154.00
Area (flag) : 8283M
On-Column Amount (ng/ul) : 0.0458
Integration start scan : 759 Integration stop scan: 766
Y at integration start : -1 Y at integration end: -1

Reason for manual integration: improper integration

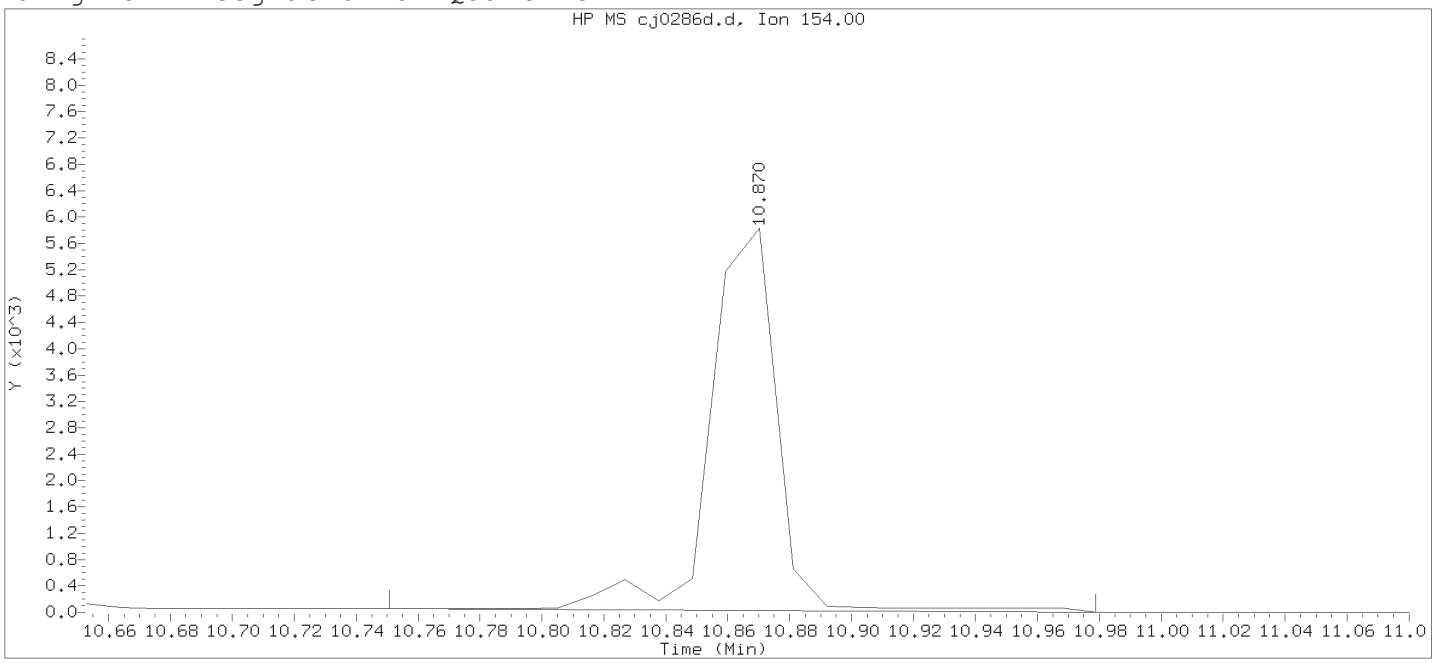
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

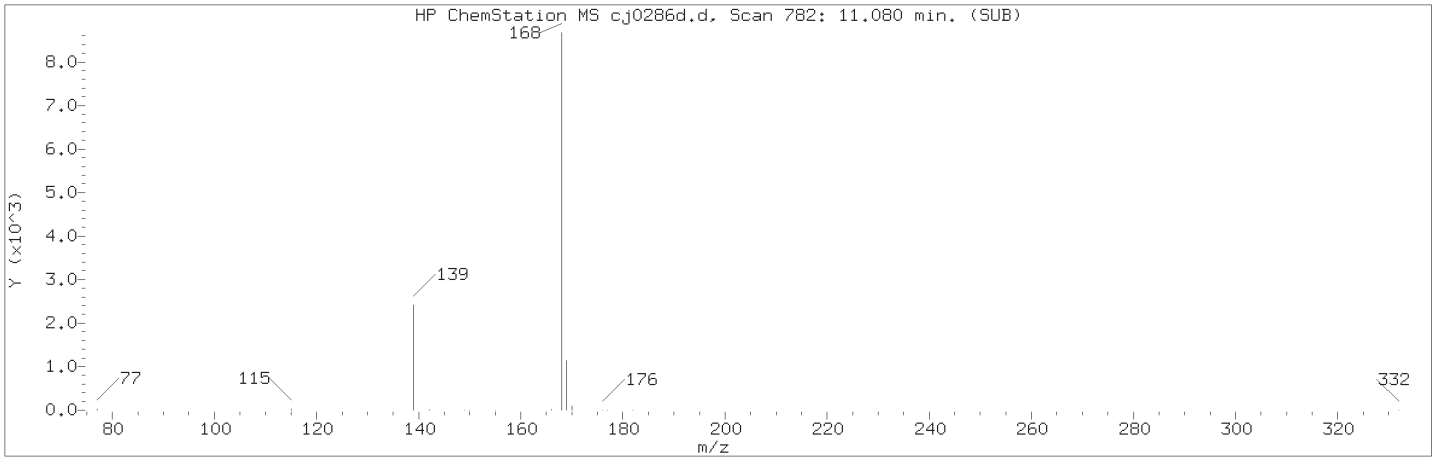
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

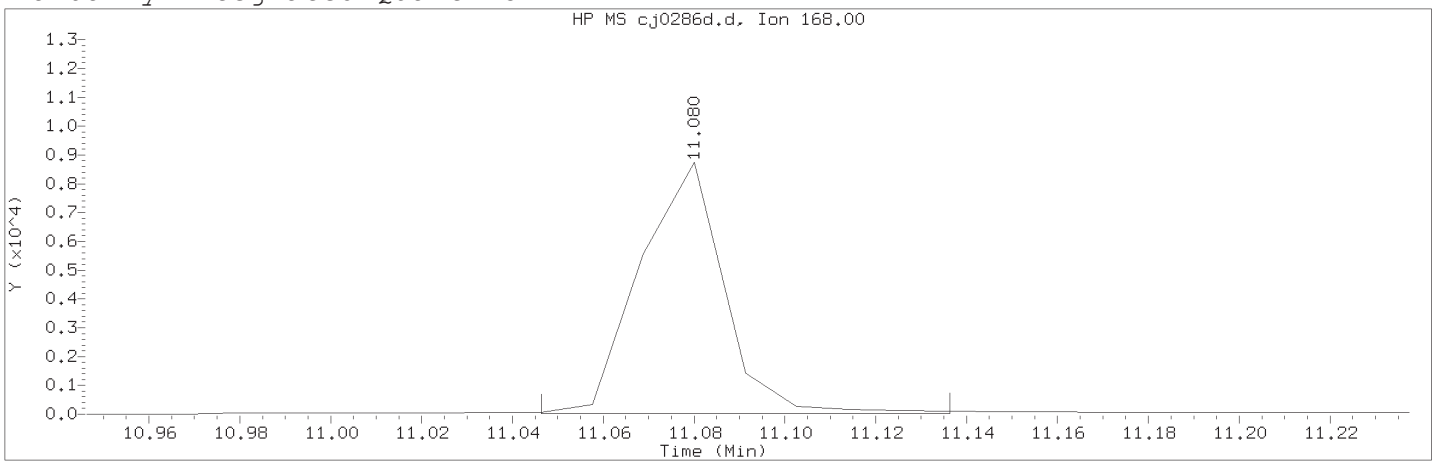
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 763		
Retention Time (minutes)	: 10.870		
Quant Ion	: 154.00		
Area	: 8807		
On-column Amount (ng/ul)	: 0.0192		
Integration start scan	: 751	Integration stop scan:	772
Y at integration start	: 54	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used 1 Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

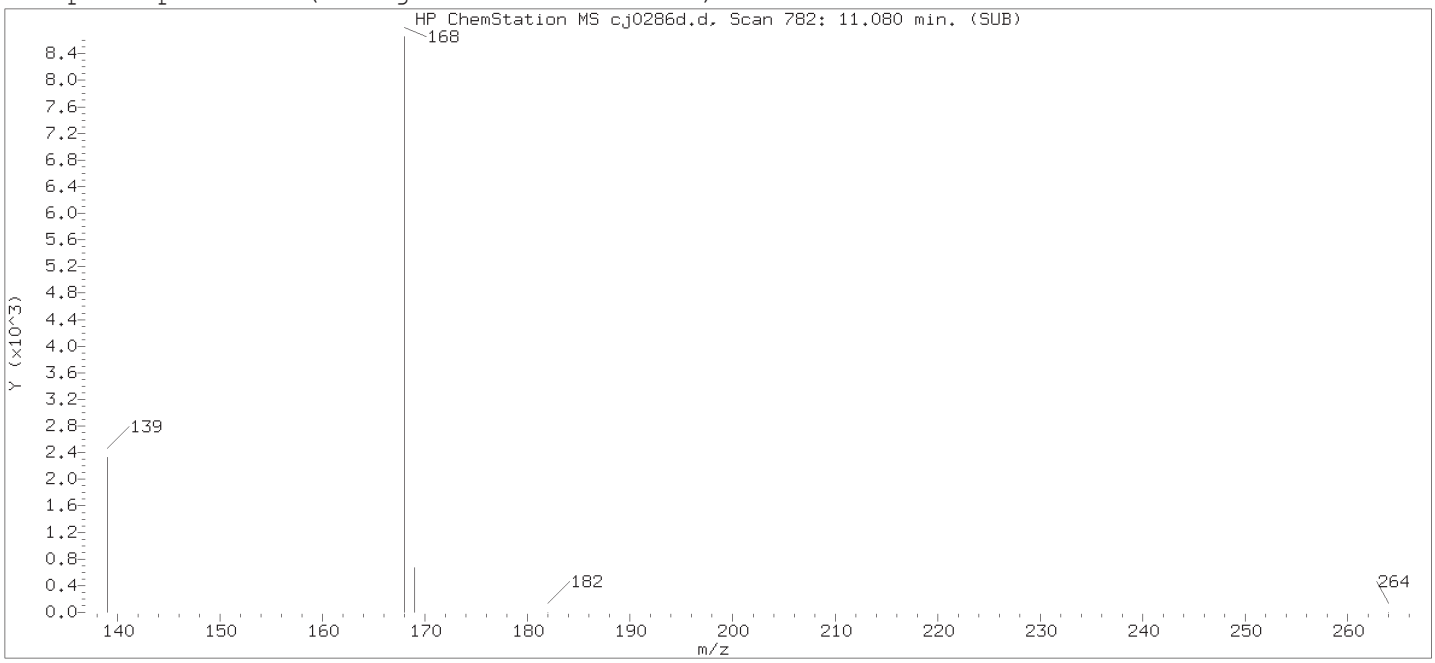
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 782		
Retention Time (minutes)	: 11.080		
Quant Ion	: 168.00		
Area (flag)	: 11114M		
On-Column Amount (ng/ul)	: 0.0452		
Integration start scan	: 778	Integration stop scan:	786
Y at integration start	: 17	Y at integration end:	17

Reason for manual integration: improper integration

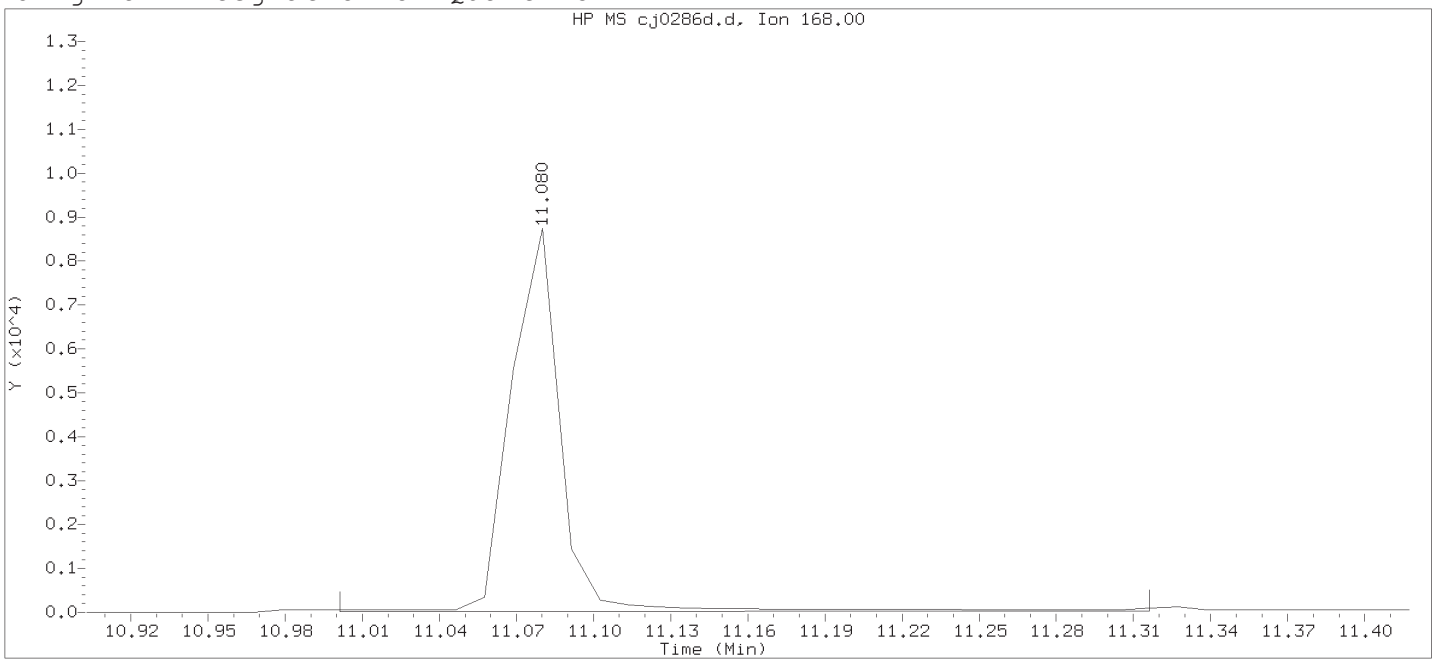
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 782		
Retention Time (minutes)	: 11.080		
Quant Ion	: 168.00		
Area	: 11615		
On-column Amount (ng/ul)	: 0.0174		
Integration start scan	: 774	Integration stop scan:	802
Y at integration start	: 9	Y at integration end:	34

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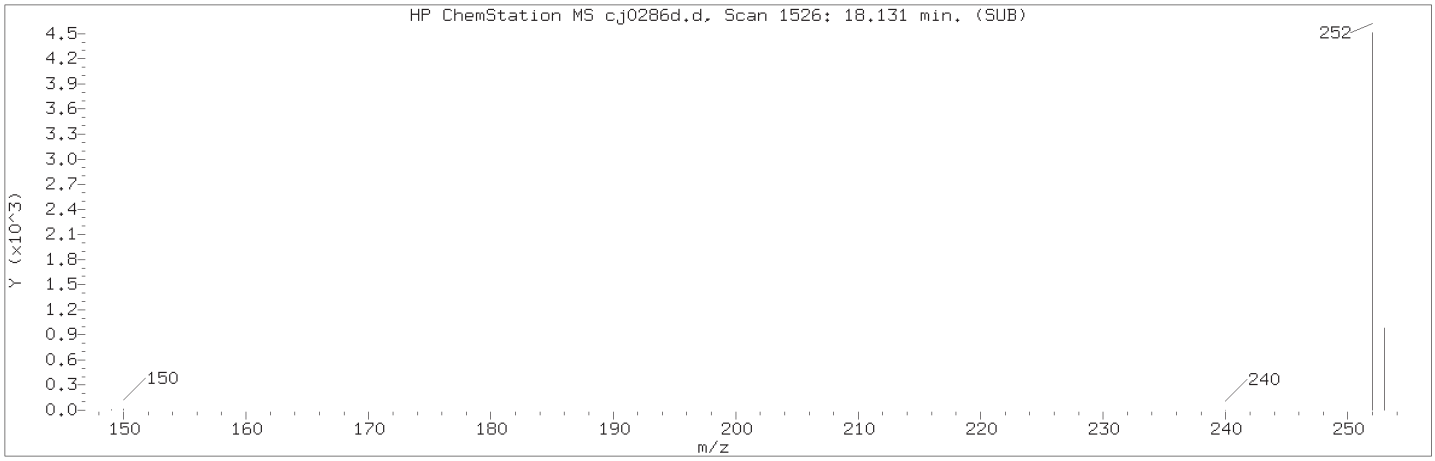
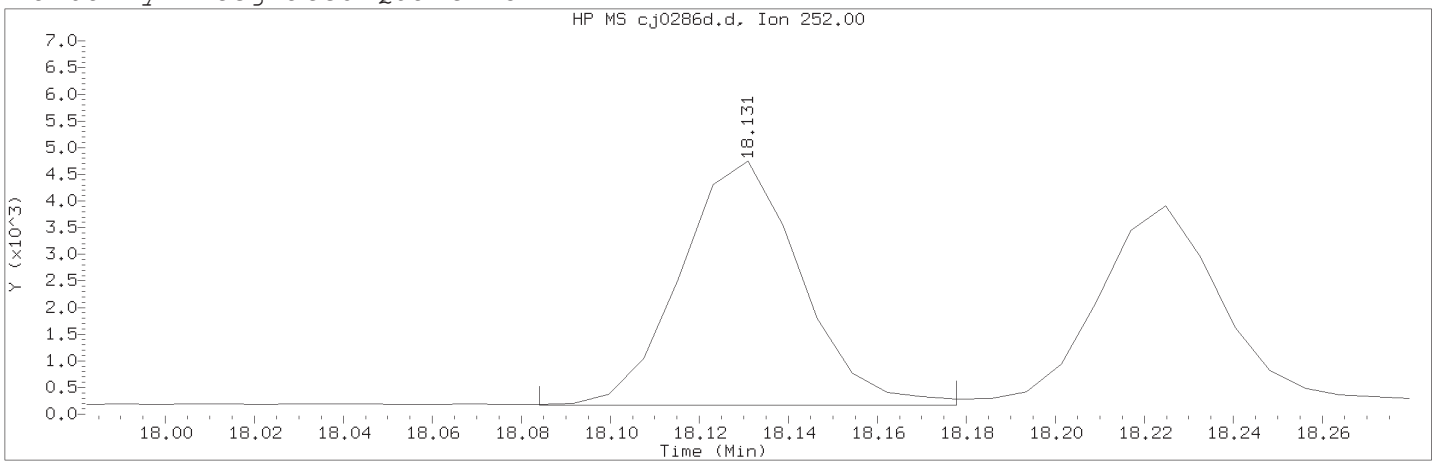
Target 3.5 esignature used 1D12 Page 3158

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

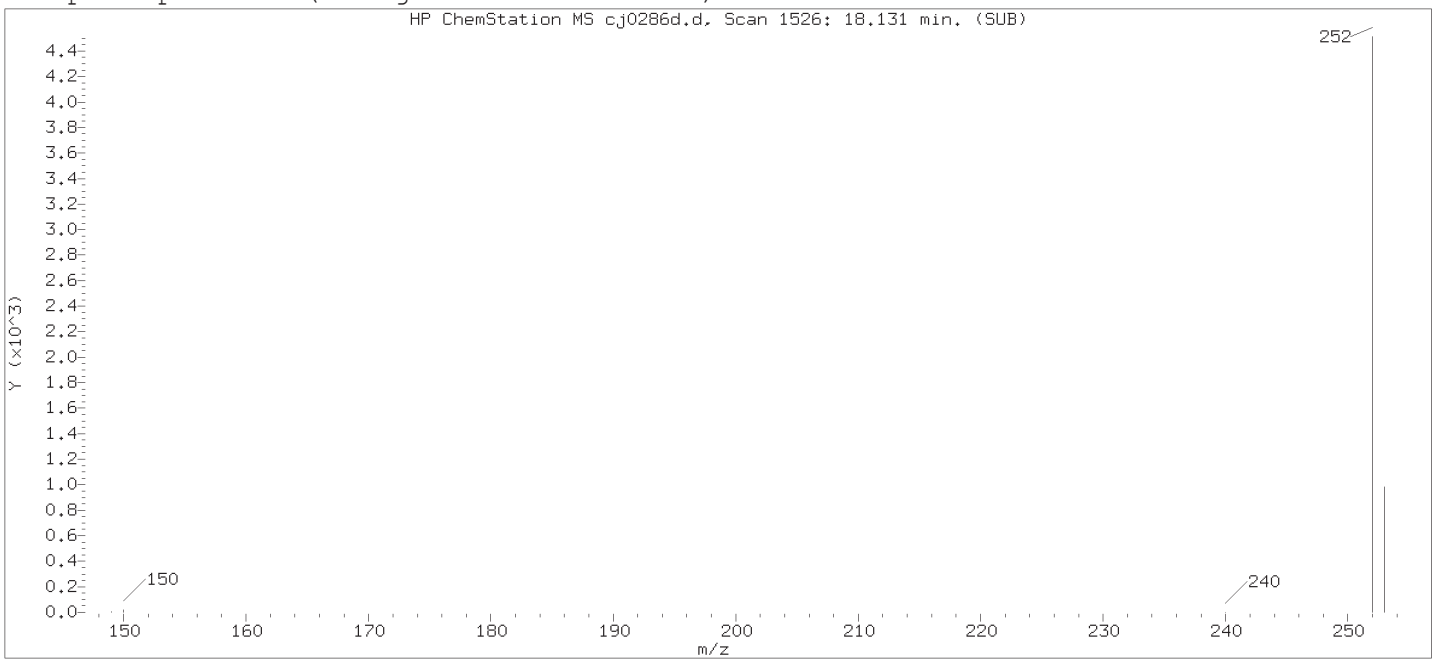
Compound Number	: 48		
Compound Name	: Benzo(e)pyrene		
Scan Number	: 1526		
Retention Time (minutes)	: 18.131		
Quant Ion	: 252.00		
Area (flag)	: 8611M		
On-Column Amount (ng/ul)	: 0.0451		
Integration start scan	: 1519	Integration stop scan:	1531
Y at integration start	: 167	Y at integration end:	167

Reason for manual integration: improper integration

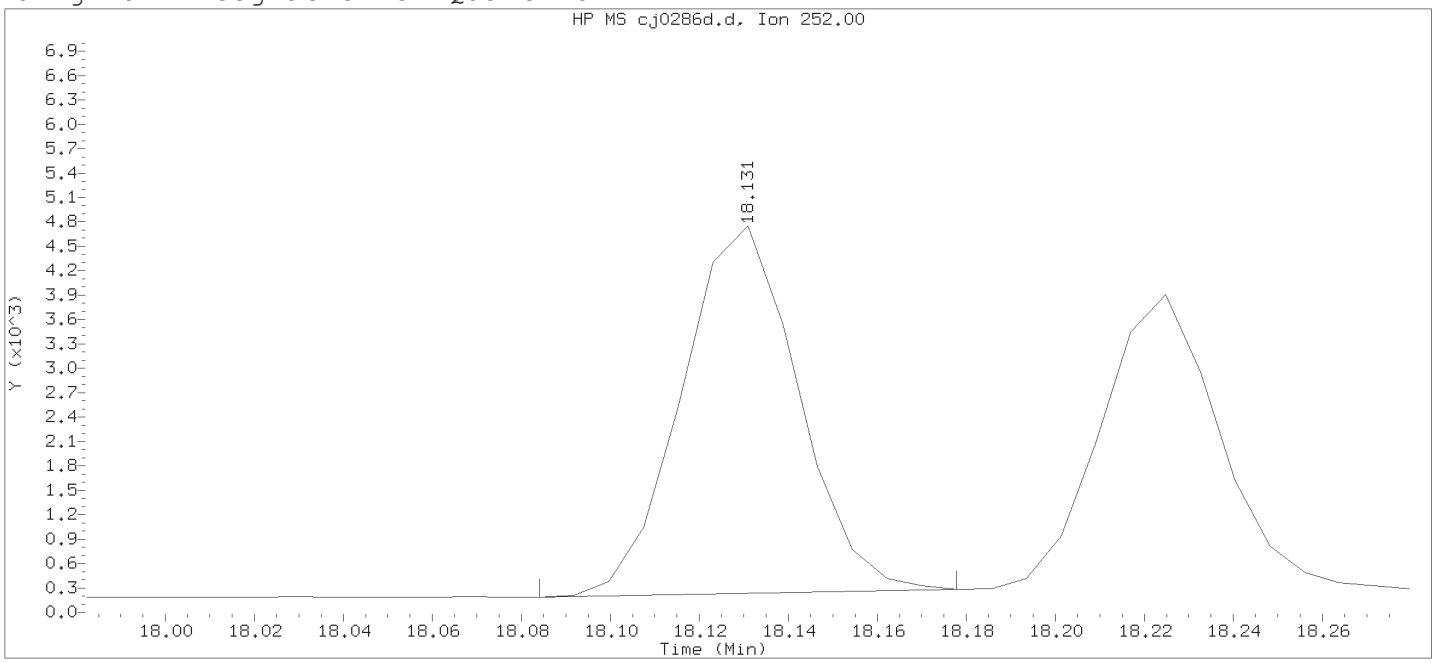
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

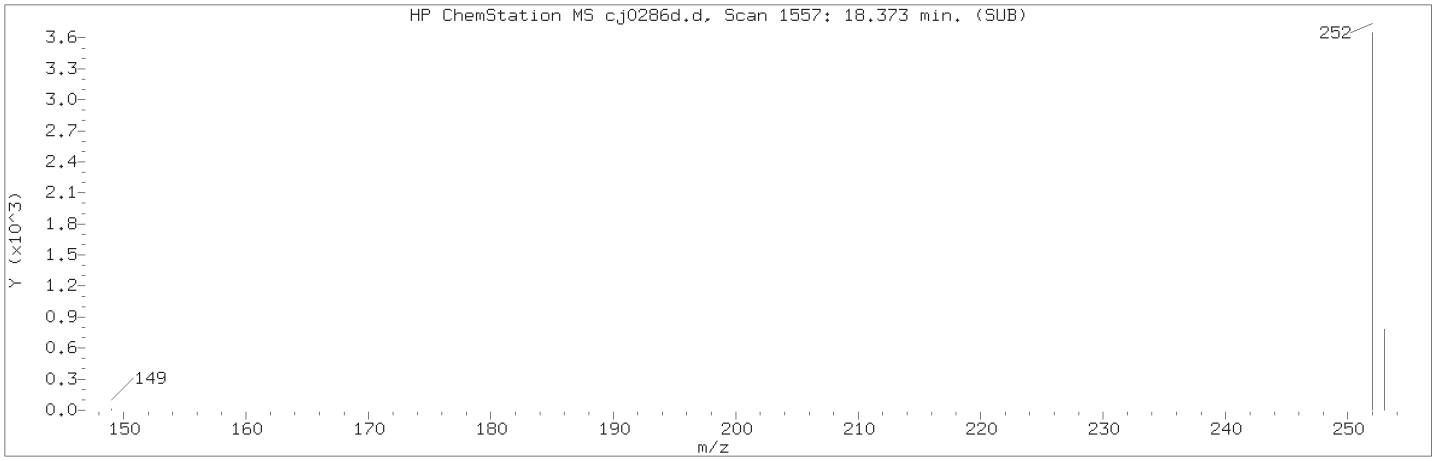
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

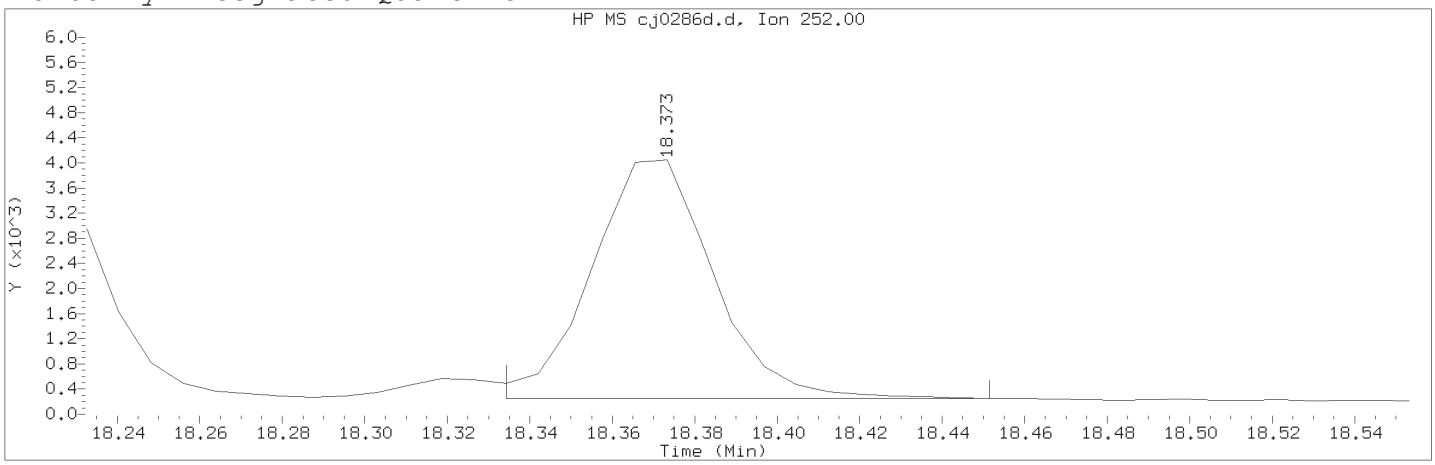
Compound Number	: 48		
Compound Name	: Benzo(e)pyrene		
Scan Number	: 1526		
Retention Time (minutes)	: 18.131		
Quant Ion	: 252.00		
Area	: 8217		
On-column Amount (ng/ul)	: 0.0176		
Integration start scan	: 1519	Integration stop scan:	1531
Y at integration start	: 183	Y at integration end:	280

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

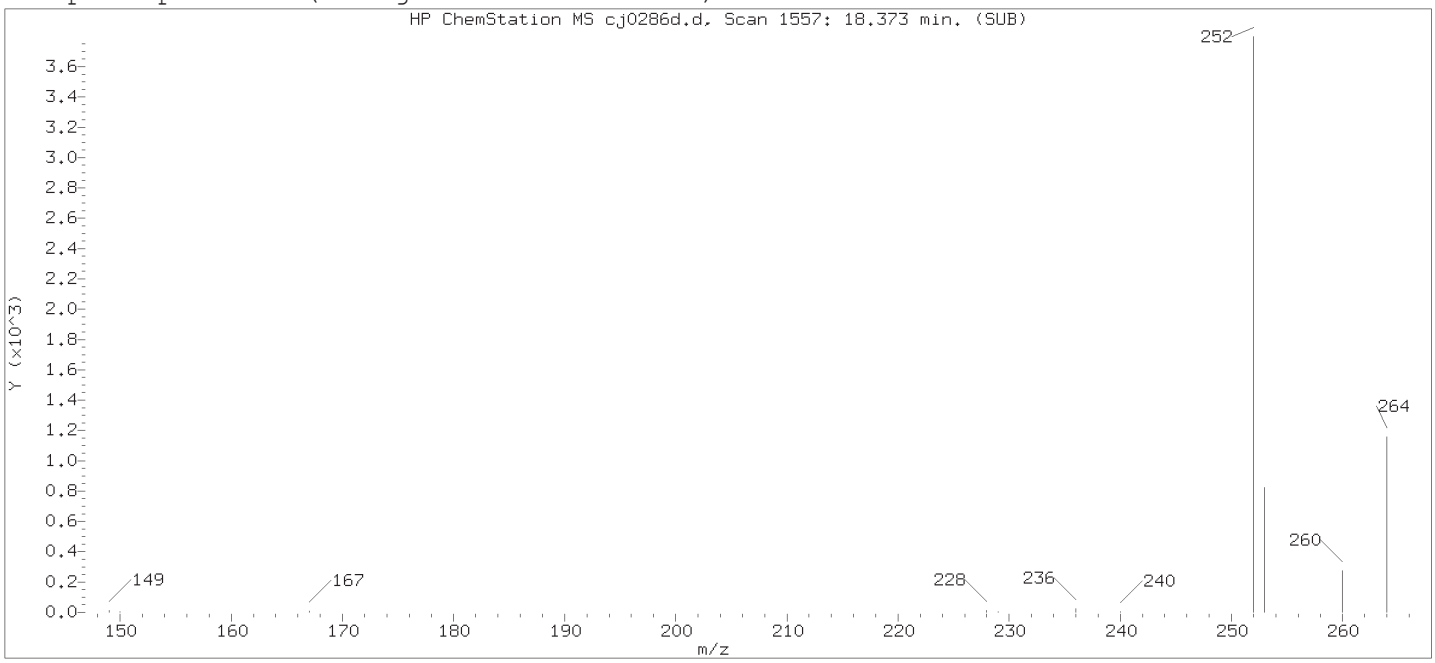
Compound Number : 52
Compound Name : Perylene
Scan Number : 1557
Retention Time (minutes) : 18.373
Quant Ion : 252.00
Area (flag) : 7844M
On-Column Amount (ng/ul) : 0.0424
Integration start scan : 1551 Integration stop scan: 1566
Y at integration start : 247 Y at integration end: 247

Reason for manual integration: improper integration

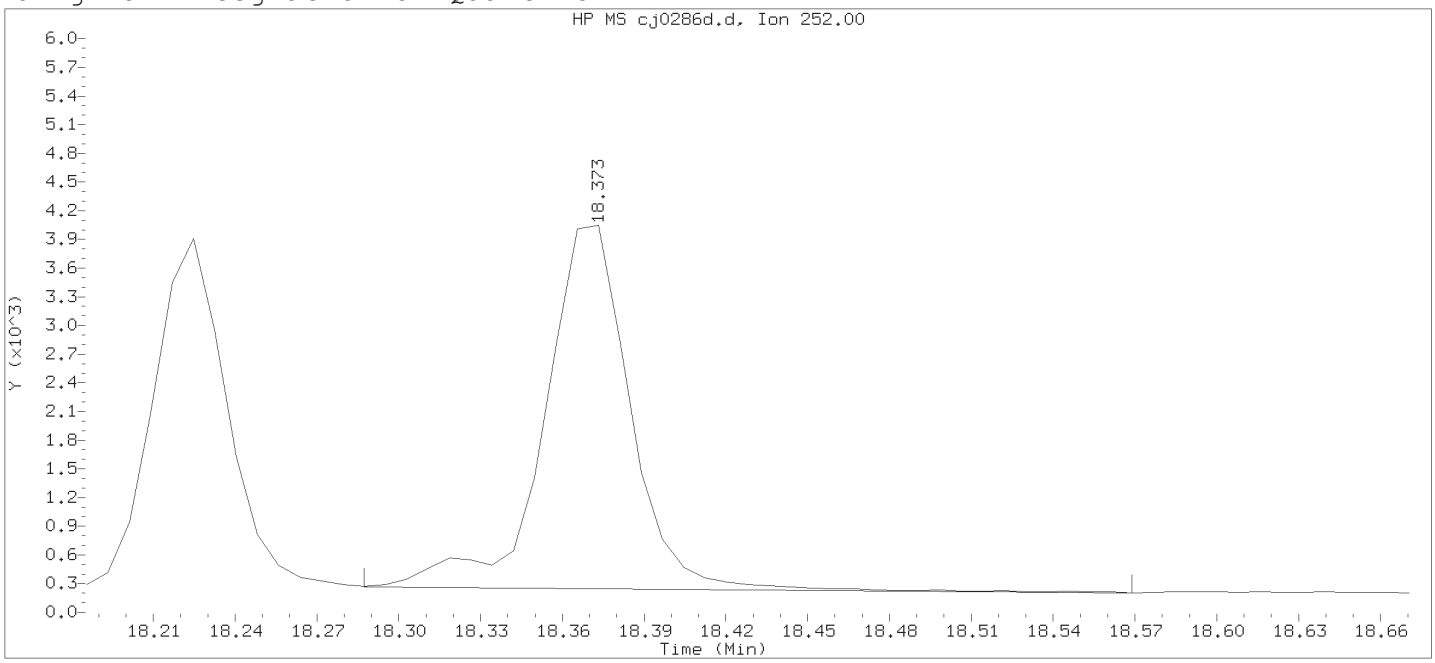
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



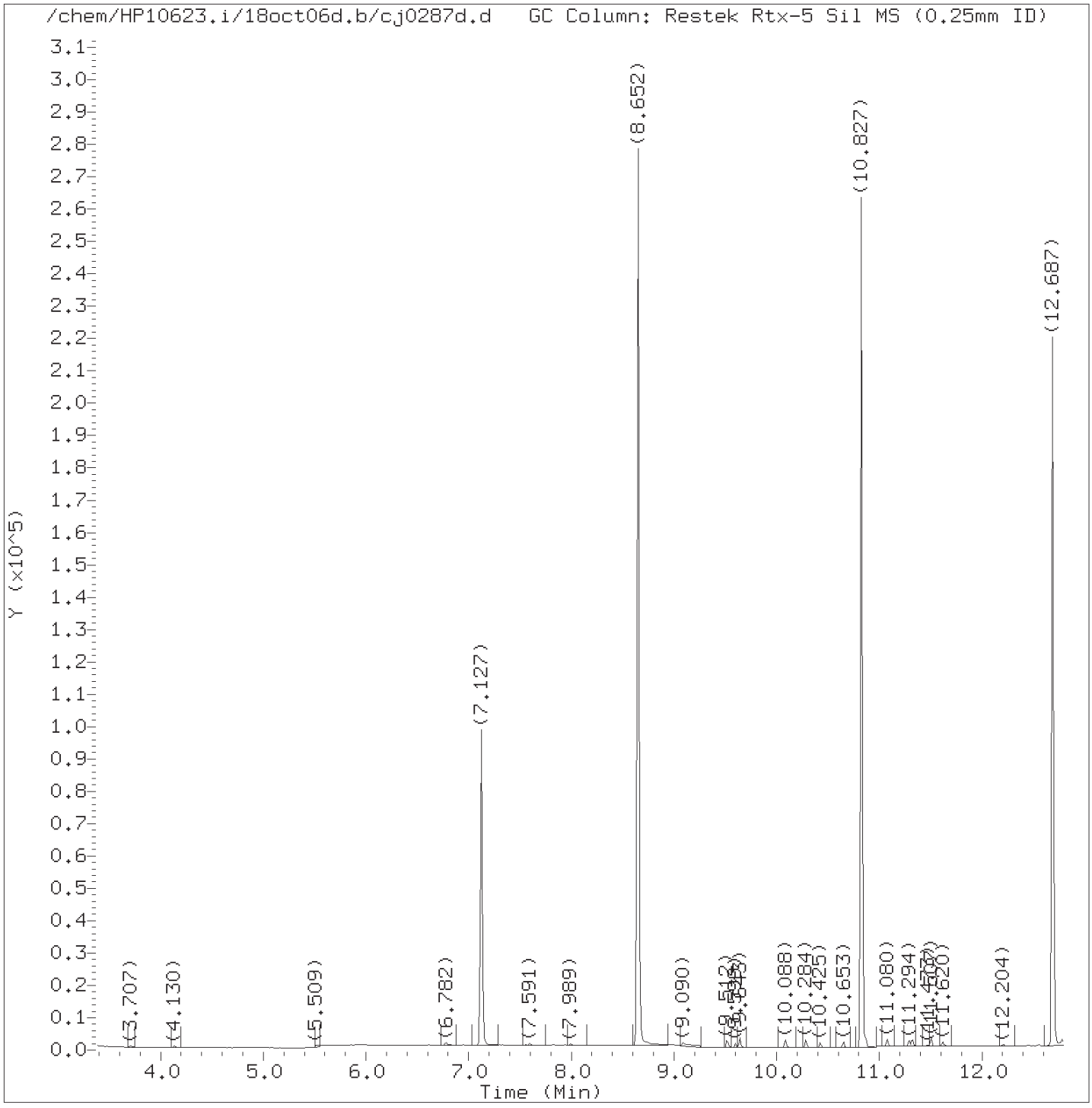
Data File: /chem/HP10623.i/18oct06d.b/cj0286d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:10 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM2598

Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1557		
Retention Time (minutes)	: 18.373		
Quant Ion	: 252.00		
Area	: 8387		
On-column Amount (ng/ul)	: 0.0180		
Integration start scan	: 1545	Integration stop scan:	1581
Y at integration start	: 265	Y at integration end:	202

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used 10/07/2018



Total Ion Chromatogram (TIC)

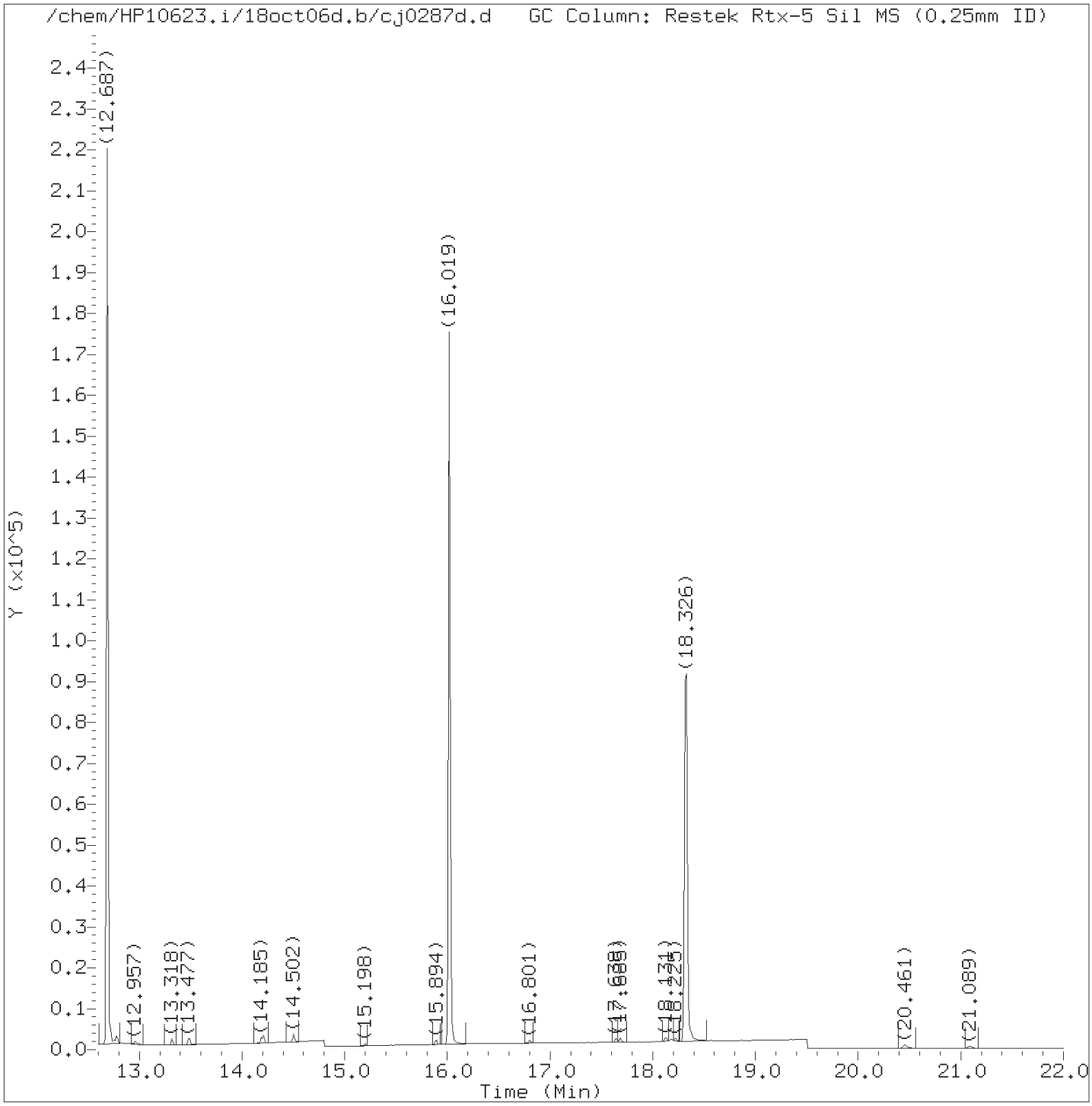
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.707	88	482	0.011
2) N-Nitrosodimethylamine	(1)	4.137	74	438	0.008
5) bis(2-Chloroethyl)ether	(1)	6.782	93	777	0.009
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	68868	1.000
10)*Naphthalene-d8	(2)	8.652	136	277886	1.000
11) Naphthalene	(2)	8.679	128	2613	0.009
12) Quinoline	(2)	9.090	129	1886	0.011
13) 2-Methylnaphthalene	(2)	9.512	142	1411	0.008
14)$1-Methylnaphthalene-d10	(2)	9.599	152	1191	0.008
15) 1-Methylnaphthalene	(2)	9.643	142	1511	0.008
18) Dimethylphthalate	(3)	10.425	163	1229	0.007
19) Acenaphthylene	(3)	10.653	152	1747	0.007
20)*Acenaphthene-d10	(3)	10.827	164	124779	1.000
21) Acenaphthene	(3)	10.827	154	2091	0.012
22) Dibenzofuran	(3)	11.080	168	2606	0.011
23) Diethylphthalate	(3)	11.294	149	1405	0.008
26) Fluorene	(3)	11.507	166	1451	0.008
27) N-Nitrosodiphenylamine	(4)	11.620	169	865	0.008
28) NDPA as diphenylamine	(4)	11.620	169	865	0.008
29) Hexachlorobenzene	(4)	12.215	284	339	0.008
31)*Phenanthrene-d10	(4)	12.687	188	231062	1.000
32) Phenanthrene	(4)	12.721	178	2327	0.008
33) Anthracene	(4)	12.777	178	1805	0.007
35) Di-n-butylphthalate	(4)	13.318	149	1476	0.005
36)$Fluoranthene-d10	(4)	14.185	212	1504	0.007
37) Fluoranthene	(4)	14.209	202	1890	0.007
39) Pyrene	(5)	14.502	202	1945	0.007
40) Butylbenzylphthalate	(5)	15.198	149	597	0.005
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	959	0.006
42) Benzo(a)anthracene	(5)	16.004	228	2069	0.009
43)*Chrysene-d12	(5)	16.019	240	169404	1.000
44) Chrysene	(5)	16.051	228	1864	0.008
45) Di-n-octylphthalate	(6)	16.801	149	1067	0.004
46) Benzo(b)fluoranthene	(6)	17.638	252	1385M	0.008
47) Benzo(k)fluoranthene	(6)	17.685	252	1462	0.008
48) Benzo(e)pyrene	(6)	18.131	252	1370	0.008
49)$Benzo(a)pyrene-d12	(6)	18.178	264	820	0.007
50) Benzo(a)pyrene	(6)	18.225	252	1146	0.007
52) Perylene	(6)	18.319	252	1802	0.010
51)*Perylene-d12	(6)	18.326	264	135541	1.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

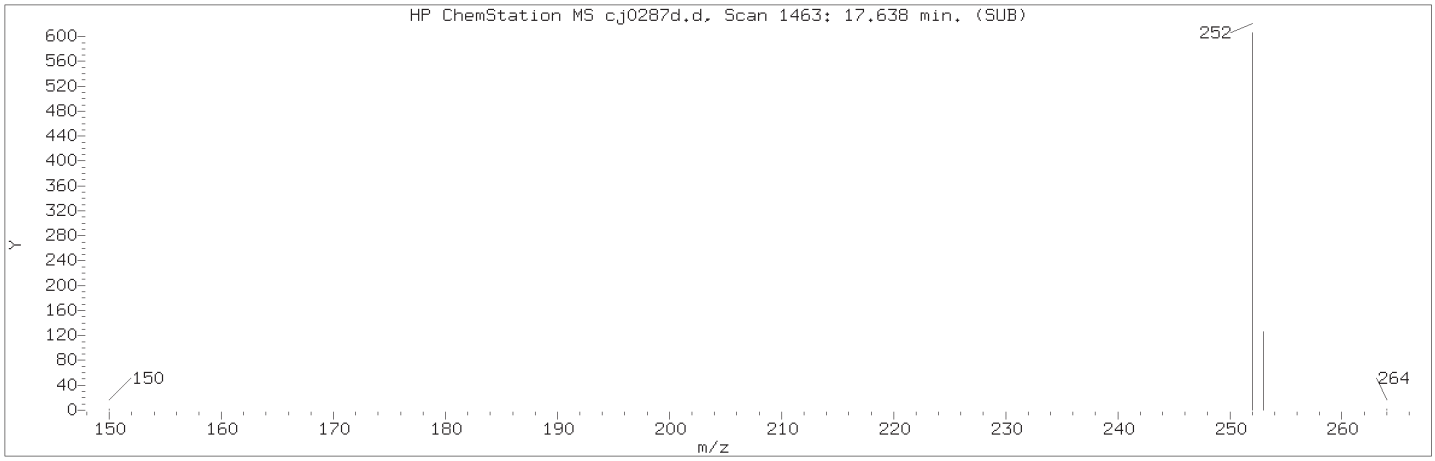
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

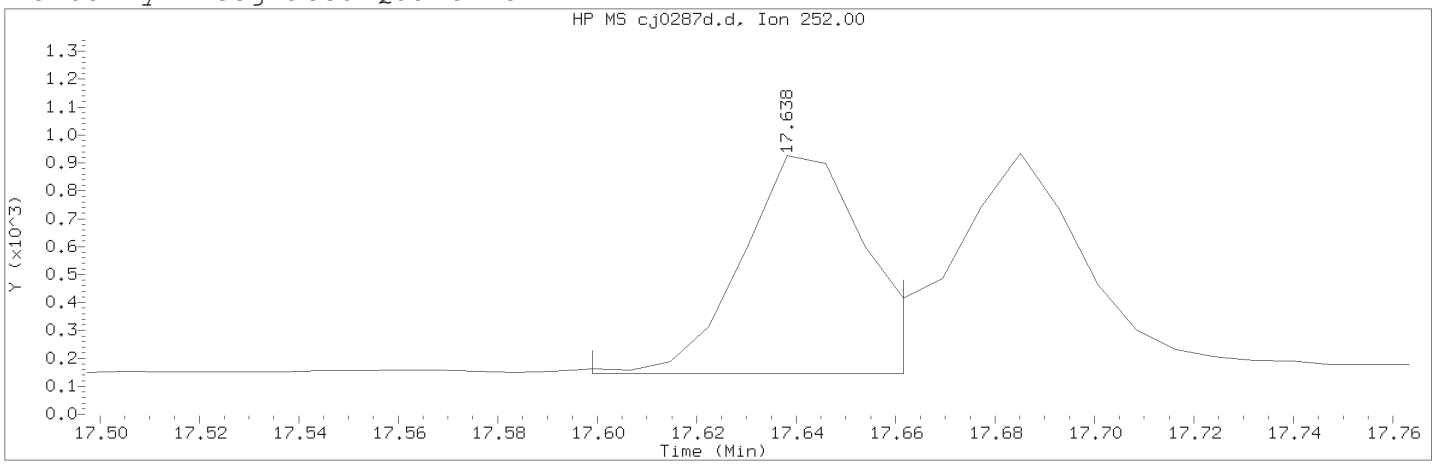
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	1102	0.007
54) Dibenz(a,h)anthracene	(6)	20.461	278	963	0.007
55) Benzo(g,h,i)perylene	(6)	21.089	276	1052	0.007

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:12
Date, time and analyst ID of latest file update: 07-Oct-2018 21:12 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

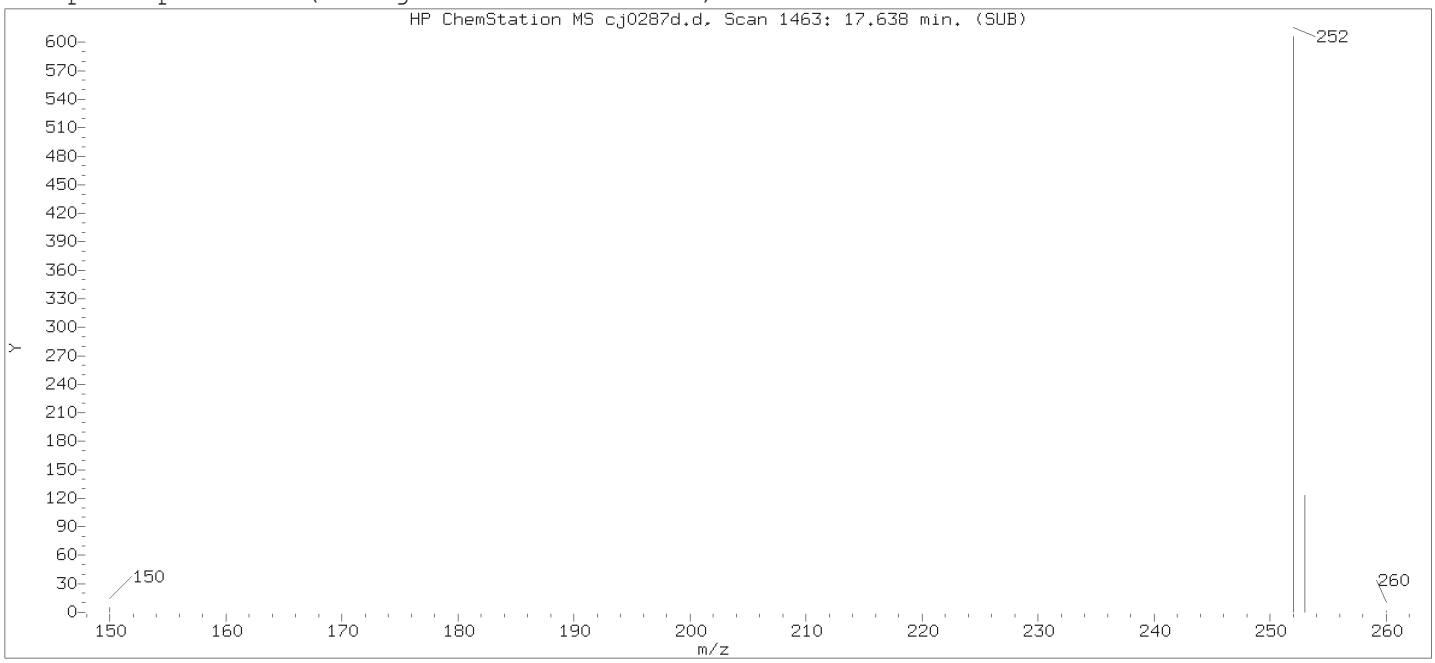
Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1463		
Retention Time (minutes)	: 17.638		
Quant Ion	: 252.00		
Area (flag)	: 1385M		
On-Column Amount (ng/ul)	: 0.0080		
Integration start scan	: 1457	Integration stop scan:	1465
Y at integration start	: 146	Y at integration end:	146

Reason for manual integration: improper integration

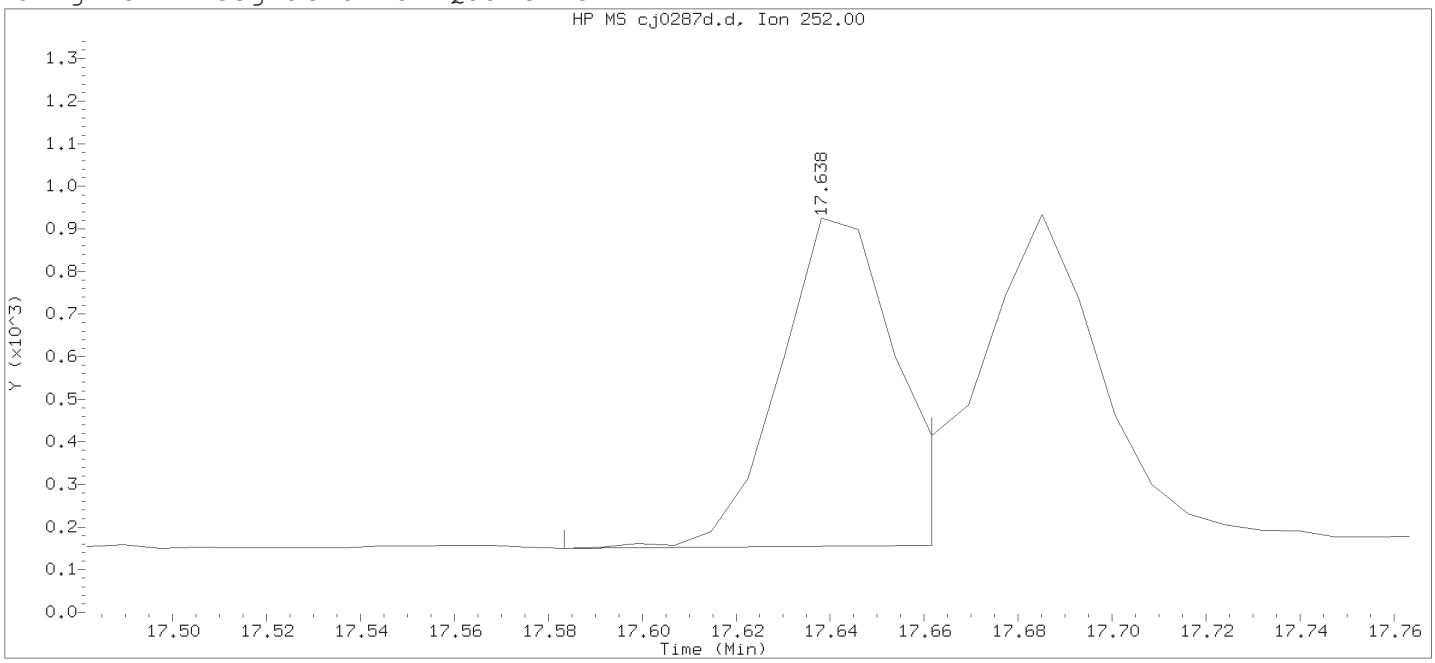
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 21:26.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



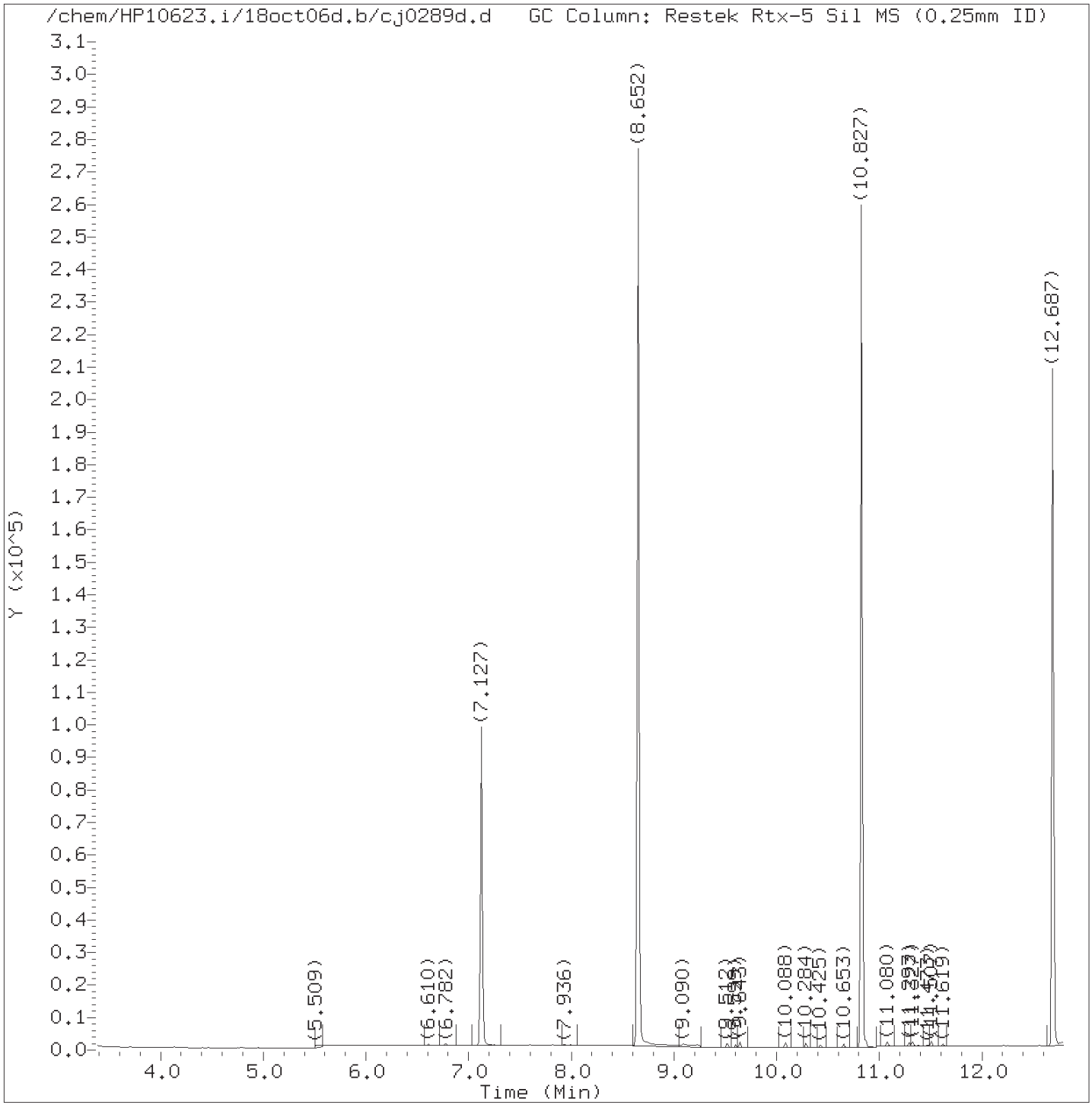
Data File: /chem/HP10623.i/18oct06d.b/cj0287d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 02:42 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 21:06
Date, time and analyst ID of latest file update: 07-Oct-2018 21:06 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM2598

Compound Number	: 46		
Compound Name	: Benzo(b)fluoranthene		
Scan Number	: 1463		
Retention Time (minutes)	: 17.638		
Quant Ion	: 252.00		
Area	: 1291		
On-column Amount (ng/ul)	: 0.0032		
Integration start scan	: 1455	Integration stop scan:	1465
Y at integration start	: 150	Y at integration end:	157

Digitally signed by Anthony P. Bauer on 10/07/2018 at 21:26.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

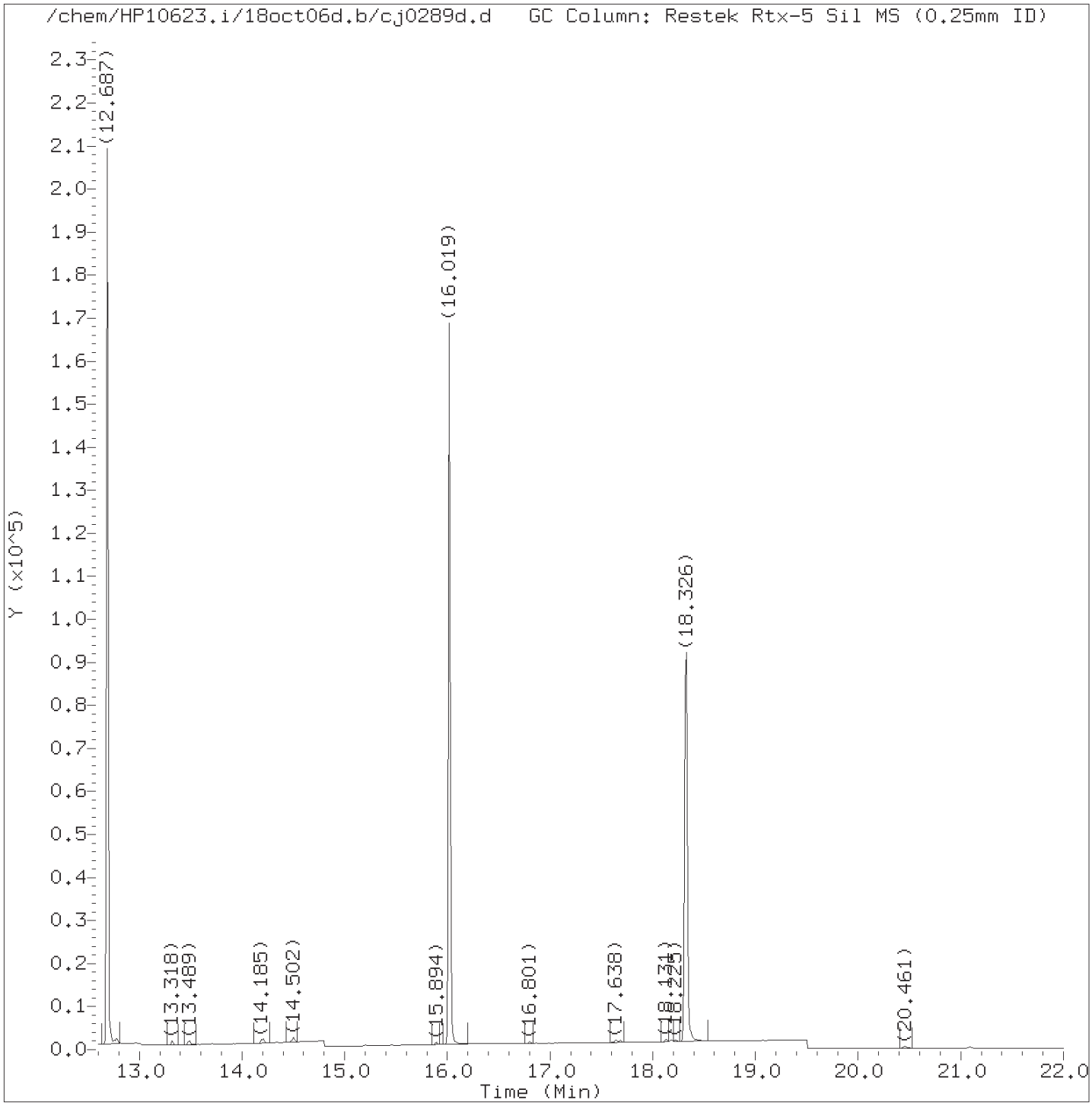
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.701	88	203M	0.005
2) N-Nitrosodimethylamine	(1)	4.130	74	227	0.004
5) bis(2-Chloroethyl)ether	(1)	6.782	93	414	0.005
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	68441	1.000
10)*Naphthalene-d8	(2)	8.652	136	273056	1.000
11) Naphthalene	(2)	8.679	128	1562	0.005
12) Quinoline	(2)	9.090	129	678M	0.004
13) 2-Methylnaphthalene	(2)	9.523	142	840	0.005
14)$1-Methylnaphthalene-d10	(2)	9.599	152	769	0.006
15) 1-Methylnaphthalene	(2)	9.643	142	888	0.005
18) Dimethylphthalate	(3)	10.425	163	704	0.004
19) Acenaphthylene	(3)	10.653	152	972	0.004
20)*Acenaphthene-d10	(3)	10.827	164	122372	1.000
21) Acenaphthene	(3)	10.870	154	833M	0.005
22) Dibenzofuran	(3)	11.080	168	1139M	0.005
23) Diethylphthalate	(3)	11.293	149	822M	0.005
26) Fluorene	(3)	11.507	166	807M	0.005
28) NDPA as diphenylamine	(4)	11.619	169	478	0.004
27) N-Nitrosodiphenylamine	(4)	11.619	169	478	0.004
29) Hexachlorobenzene	(4)	12.215	284	210M	0.005
31)*Phenanthrene-d10	(4)	12.687	188	226910	1.000
32) Phenanthrene	(4)	12.721	178	1415	0.005
33) Anthracene	(4)	12.777	178	1062M	0.004
35) Di-n-butylphthalate	(4)	13.318	149	913M	0.003
36)$Fluoranthene-d10	(4)	14.185	212	1148	0.006
37) Fluoranthene	(4)	14.209	202	1149	0.004
39) Pyrene	(5)	14.502	202	1257	0.005
40) Butylbenzylphthalate	(5)	15.198	149	353M	0.003
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	446M	0.126
42) Benzo(a)anthracene	(5)	16.004	228	1387	0.006
43)*Chrysene-d12	(5)	16.019	240	165422	1.000
44) Chrysene	(5)	16.051	228	1133	0.005
45) Di-n-octylphthalate	(6)	16.801	149	577M	0.002
46) Benzo(b)fluoranthene	(6)	17.638	252	781	0.005
47) Benzo(k)fluoranthene	(6)	17.685	252	920	0.005
48) Benzo(e)pyrene	(6)	18.131	252	890M	0.005
49)$Benzo(a)pyrene-d12	(6)	18.178	264	631	0.005
50) Benzo(a)pyrene	(6)	18.225	252	642	0.004
51)*Perylene-d12	(6)	18.326	264	132274	1.000
52) Perylene	(6)	18.365	252	824M	0.005

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

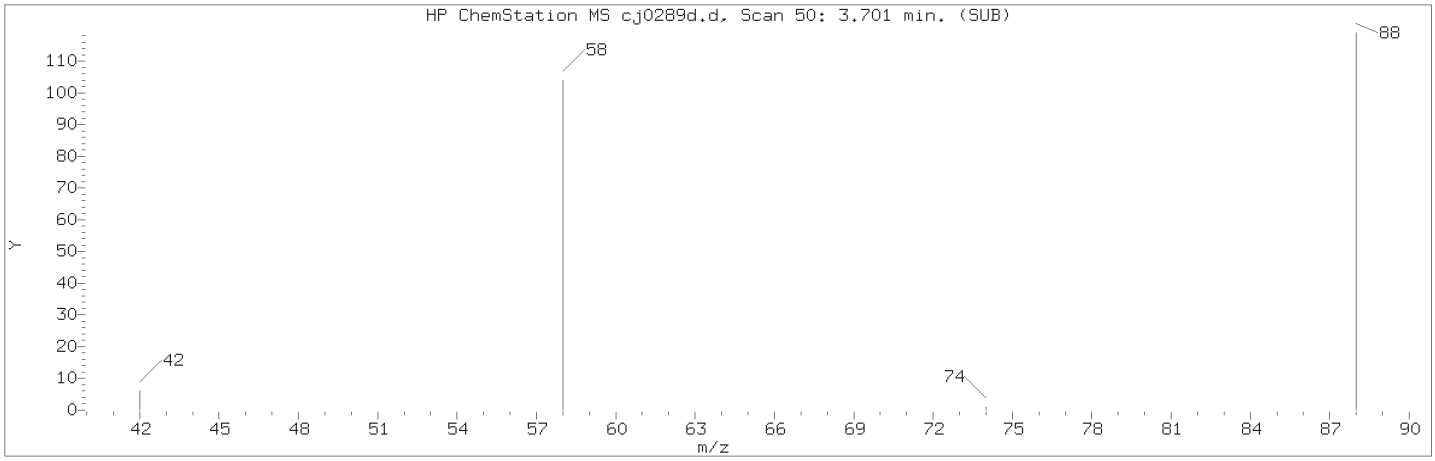
Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

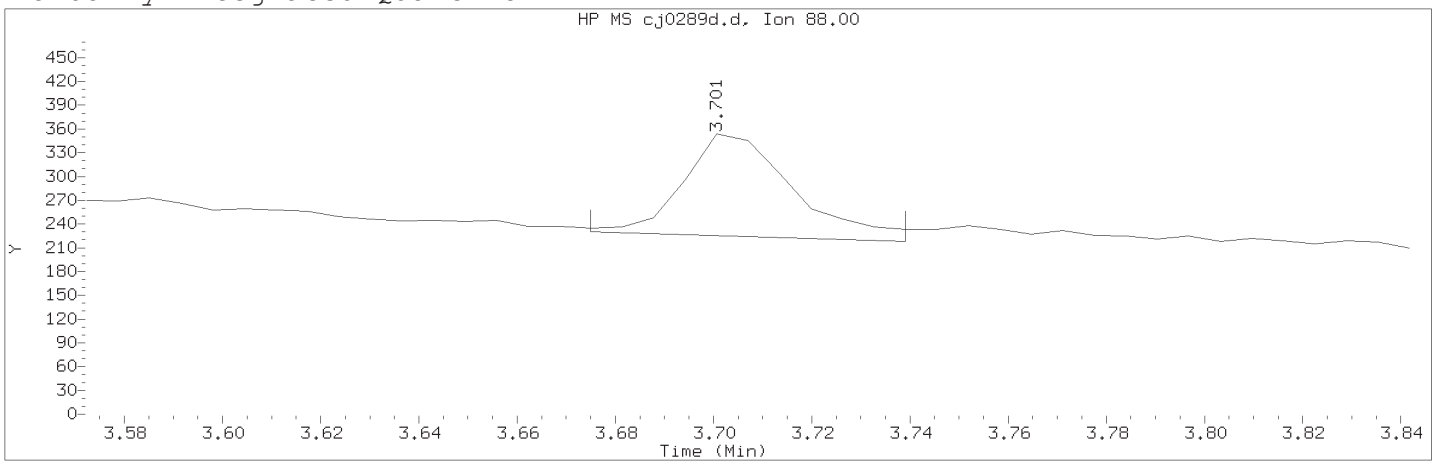
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	645	0.004
54) Dibenz(a,h)anthracene	(6)	20.461	278	551	0.004
55) Benzo(g,h,i)perylene	(6)	21.089	276	672	0.005

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

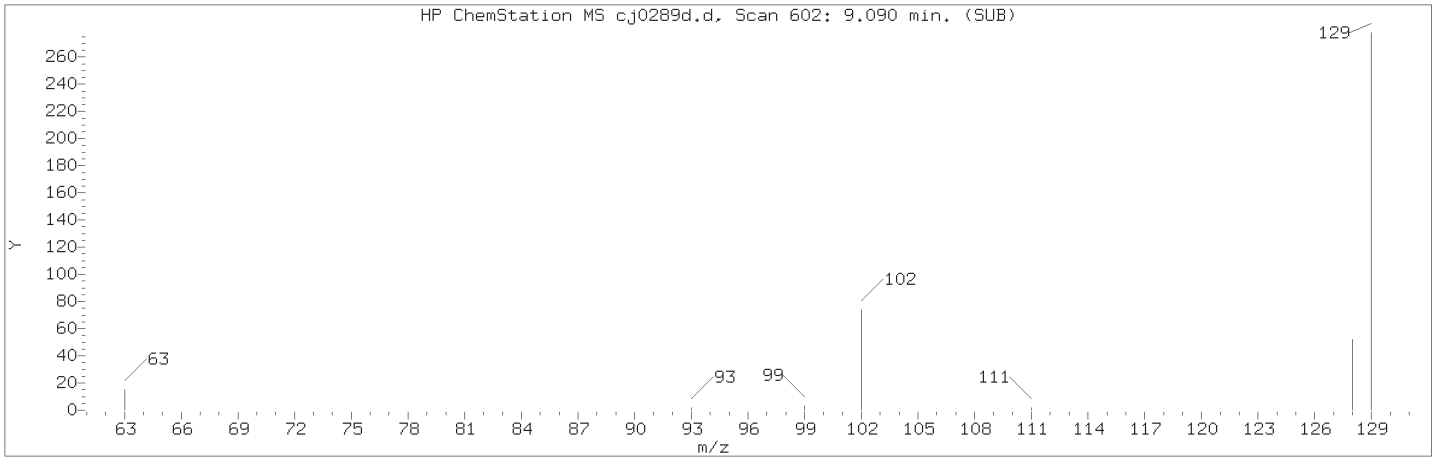
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 50		
Retention Time (minutes)	: 3.701		
Quant Ion	: 88.00		
Area (flag)	: 203M		
On-Column Amount (ng/ul)	: 0.0046		
Integration start scan	: 45	Integration stop scan:	55
Y at integration start	: 230	Y at integration end:	218

Reason for manual integration: improper integration

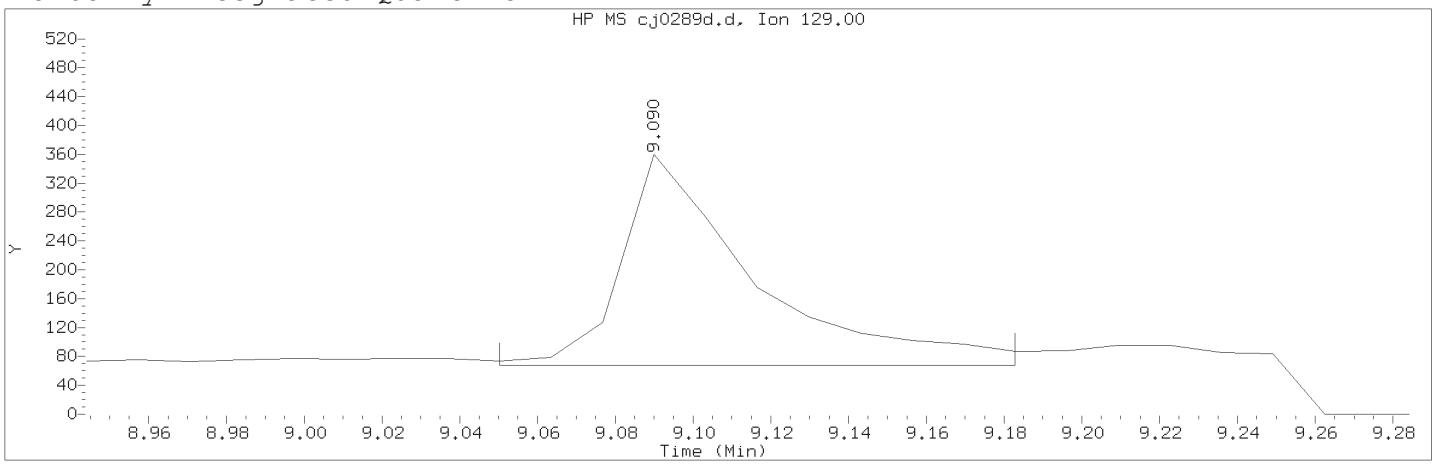
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

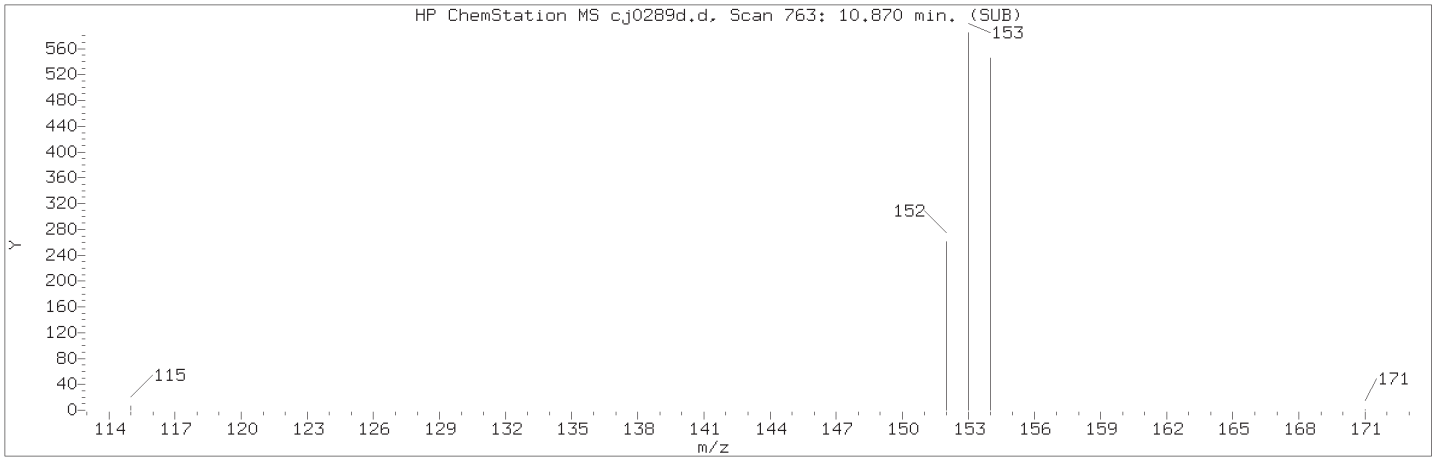
Compound Number : 12
Compound Name : Quinoline
Scan Number : 602
Retention Time (minutes) : 9.090
Quant Ion : 129.00
Area (flag) : 678M
On-Column Amount (ng/ul) : 0.0040
Integration start scan : 598 Integration stop scan: 608
Y at integration start : 68 Y at integration end: 68

Reason for manual integration: improper integration

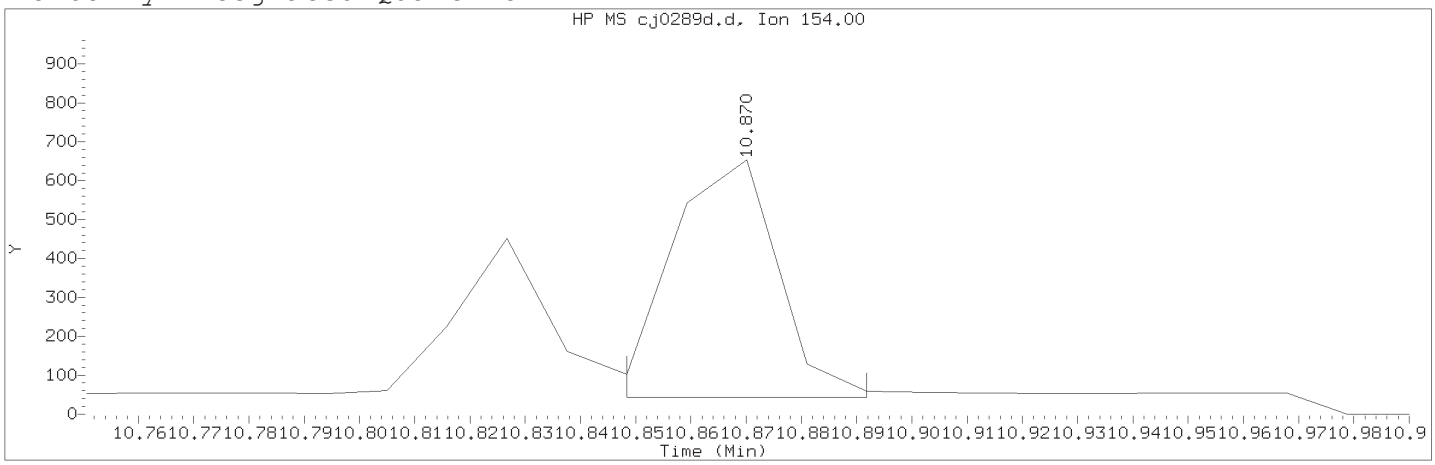
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

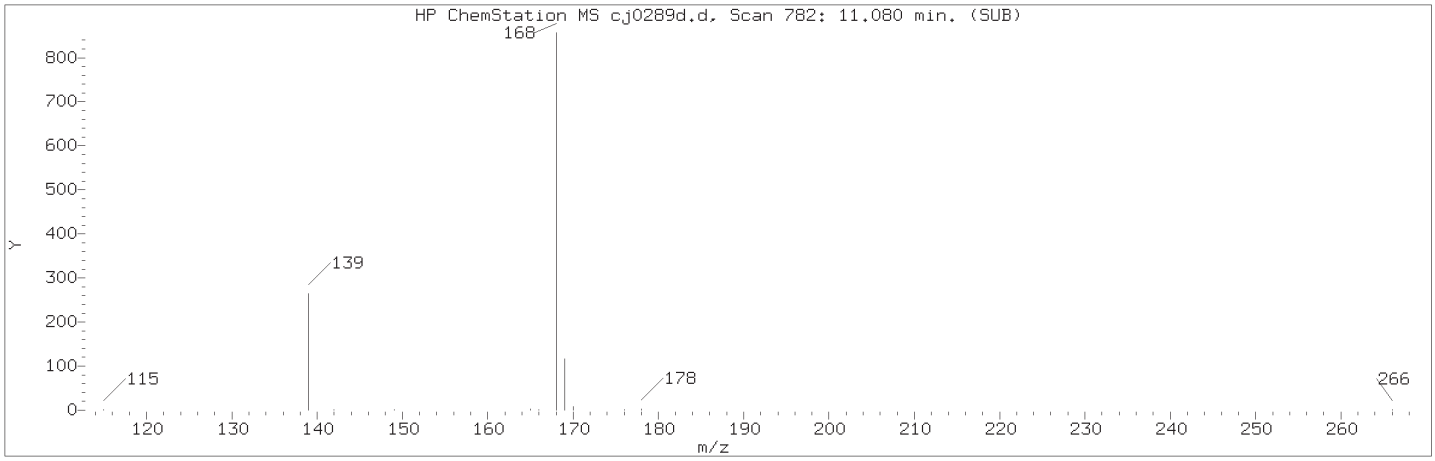
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 763		
Retention Time (minutes)	: 10.870		
Quant Ion	: 154.00		
Area (flag)	: 833M		
On-Column Amount (ng/ul)	: 0.0050		
Integration start scan	: 760	Integration stop scan:	764
Y at integration start	: 44	Y at integration end:	44

Reason for manual integration: improper integration

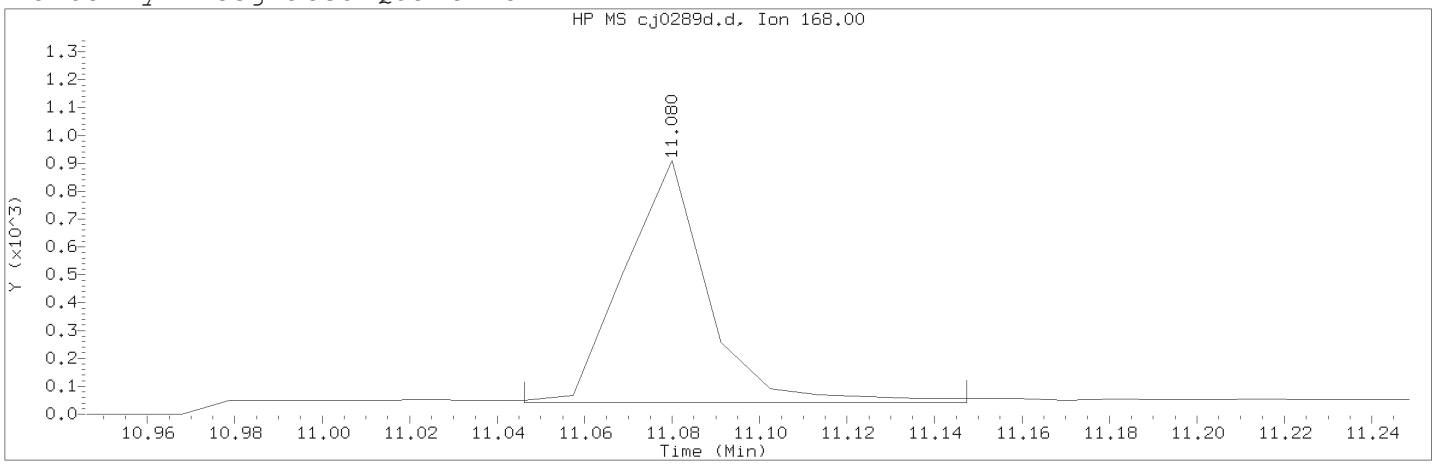
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

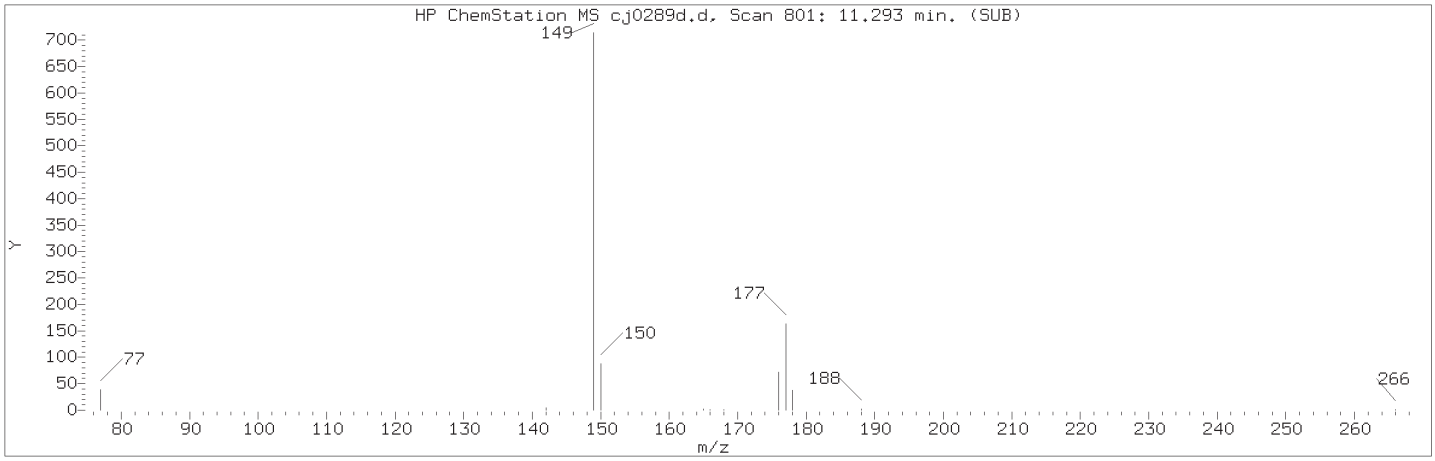
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 782		
Retention Time (minutes)	: 11.080		
Quant Ion	: 168.00		
Area (flag)	: 1139M		
On-Column Amount (ng/ul)	: 0.0050		
Integration start scan	: 778	Integration stop scan:	787
Y at integration start	: 42	Y at integration end:	42

Reason for manual integration: improper integration

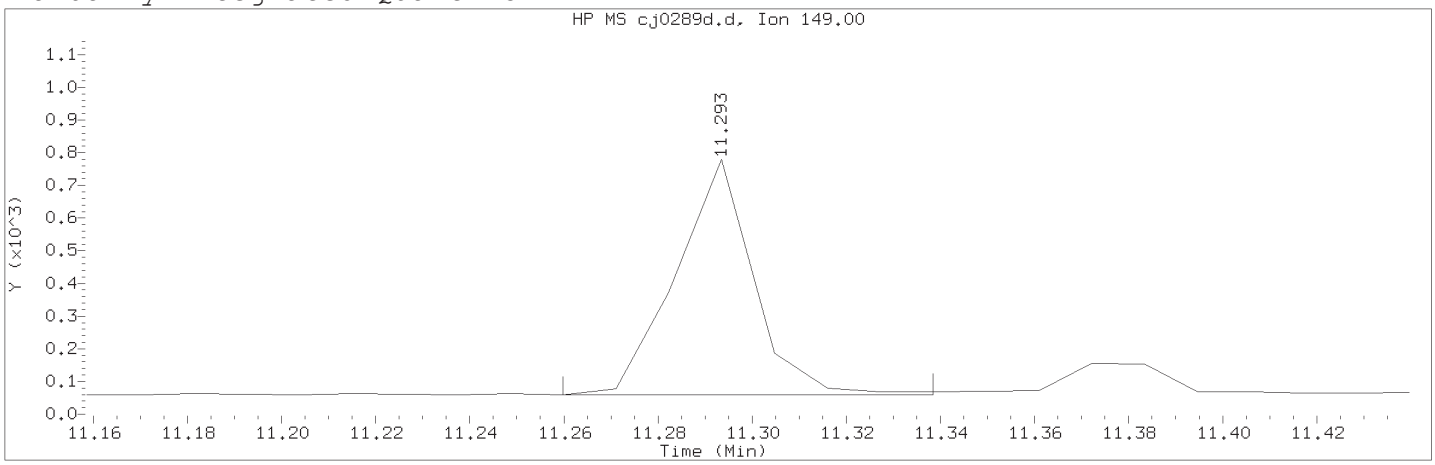
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

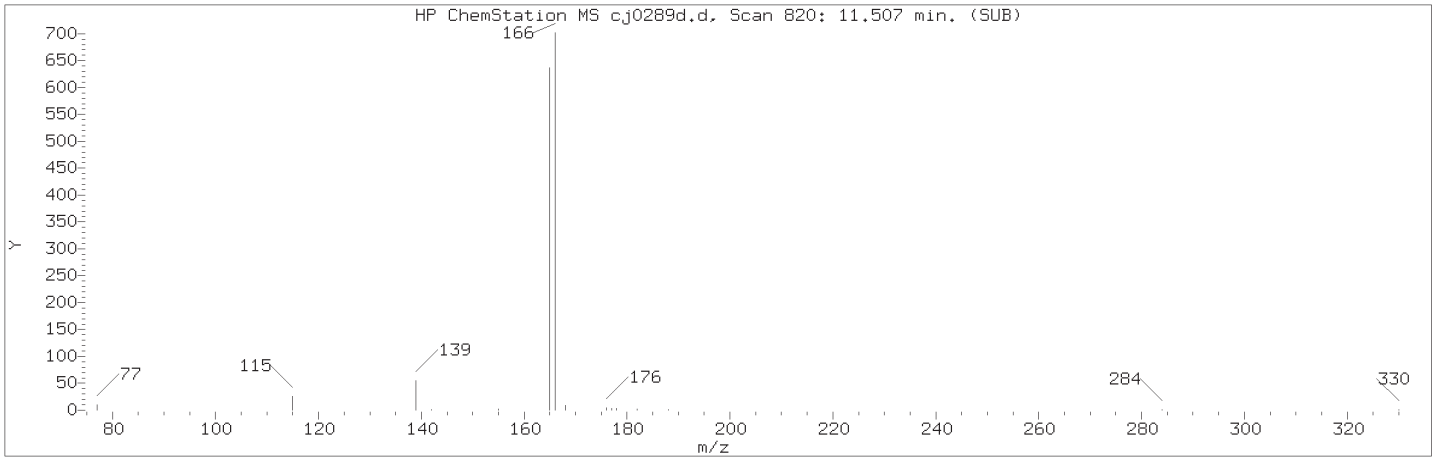
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 801		
Retention Time (minutes)	: 11.293		
Quant Ion	: 149.00		
Area (flag)	: 822M		
On-Column Amount (ng/ul)	: 0.0049		
Integration start scan	: 797	Integration stop scan:	804
Y at integration start	: 59	Y at integration end:	59

Reason for manual integration: improper integration

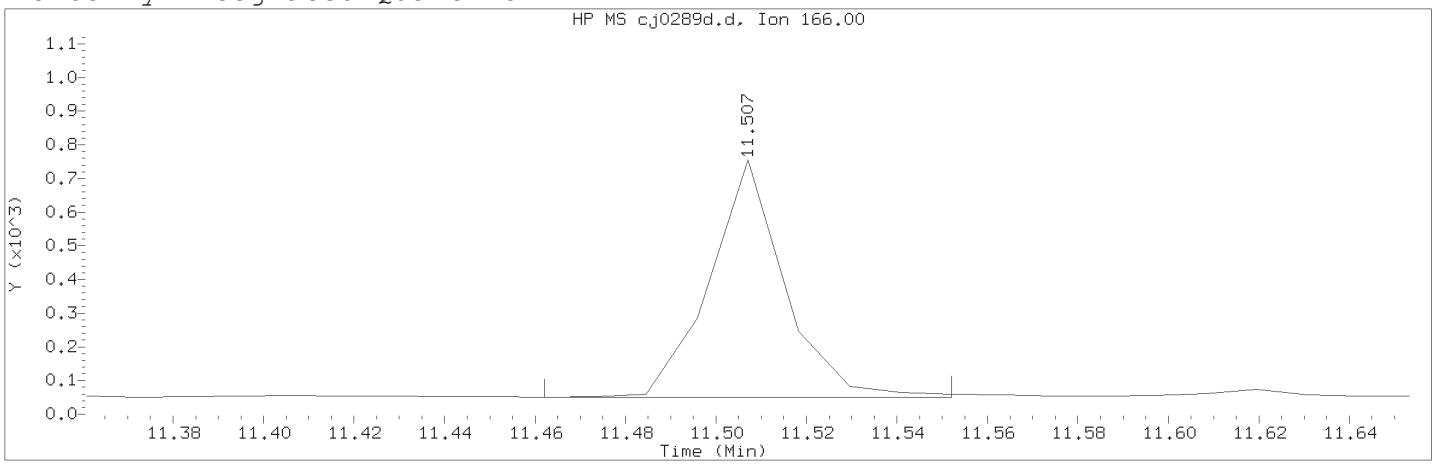
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

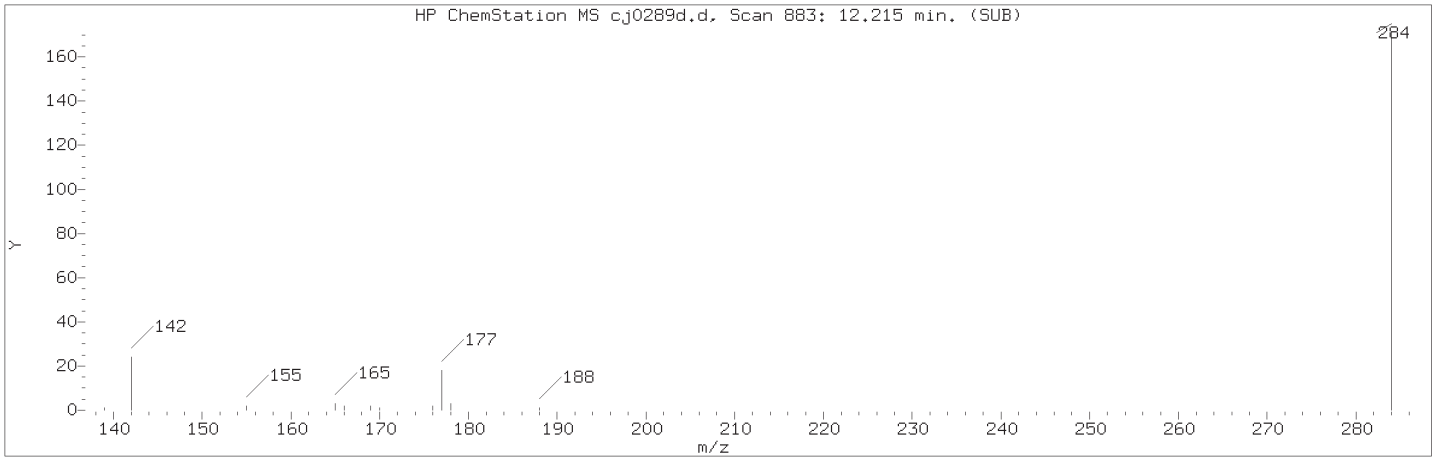
Compound Number	: 26		
Compound Name	: Fluorene		
Scan Number	: 820		
Retention Time (minutes)	: 11.507		
Quant Ion	: 166.00		
Area (flag)	: 807M		
On-Column Amount (ng/ul)	: 0.0045		
Integration start scan	: 815	Integration stop scan:	823
Y at integration start	: 51	Y at integration end:	51

Reason for manual integration: improper integration

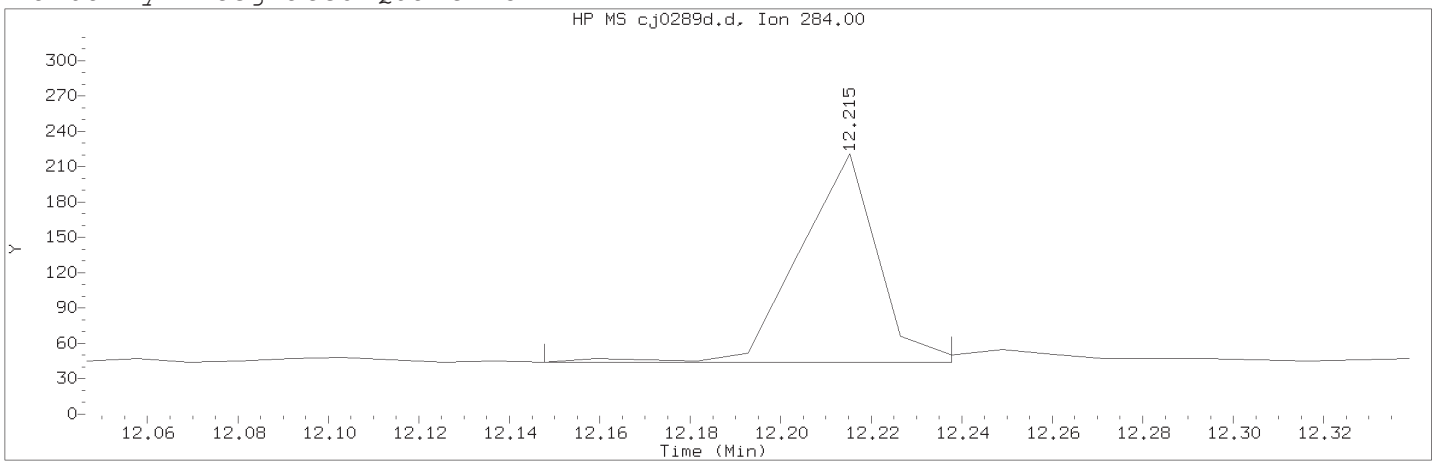
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

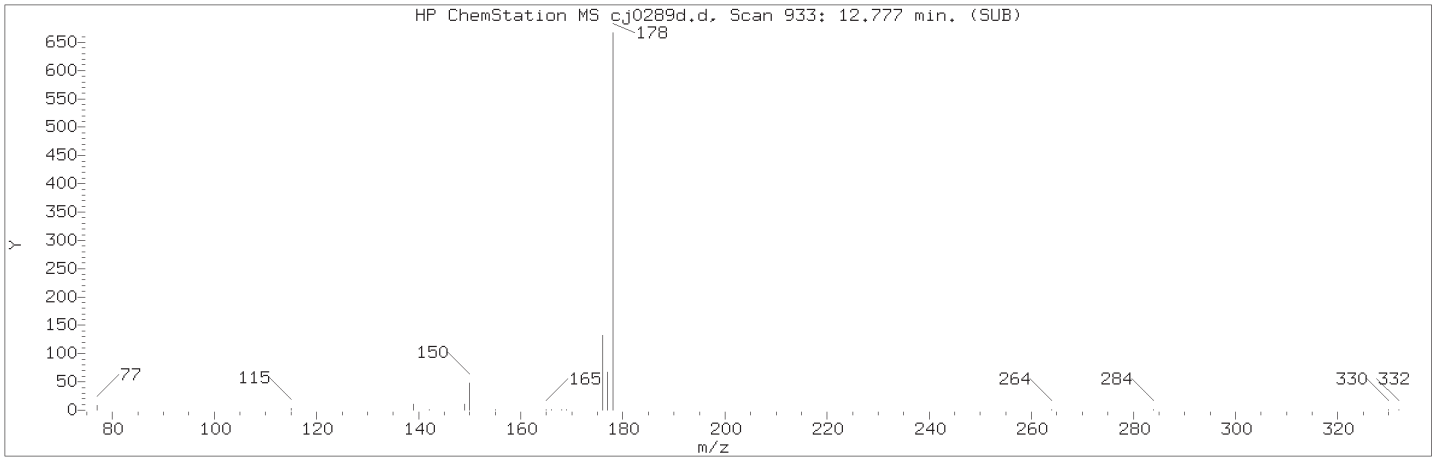
Compound Number : 29
Compound Name : Hexachlorobenzene
Scan Number : 883
Retention Time (minutes) : 12.215
Quant Ion : 284.00
Area (flag) : 210M
On-Column Amount (ng/ul) : 0.0053
Integration start scan : 876 Integration stop scan: 884
Y at integration start : 44 Y at integration end: 44

Reason for manual integration: improper integration

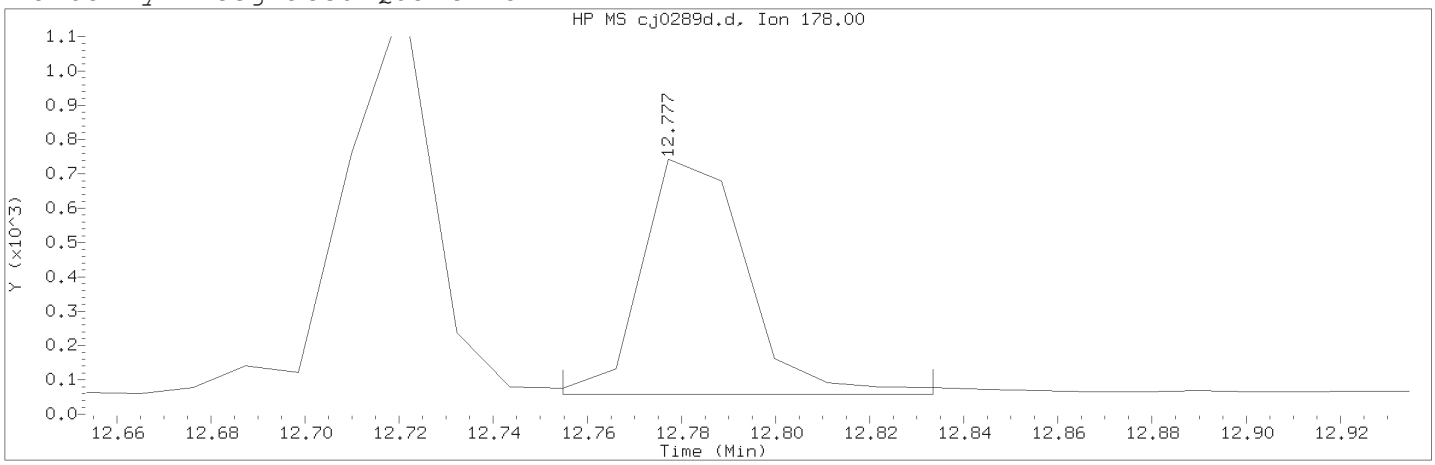
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

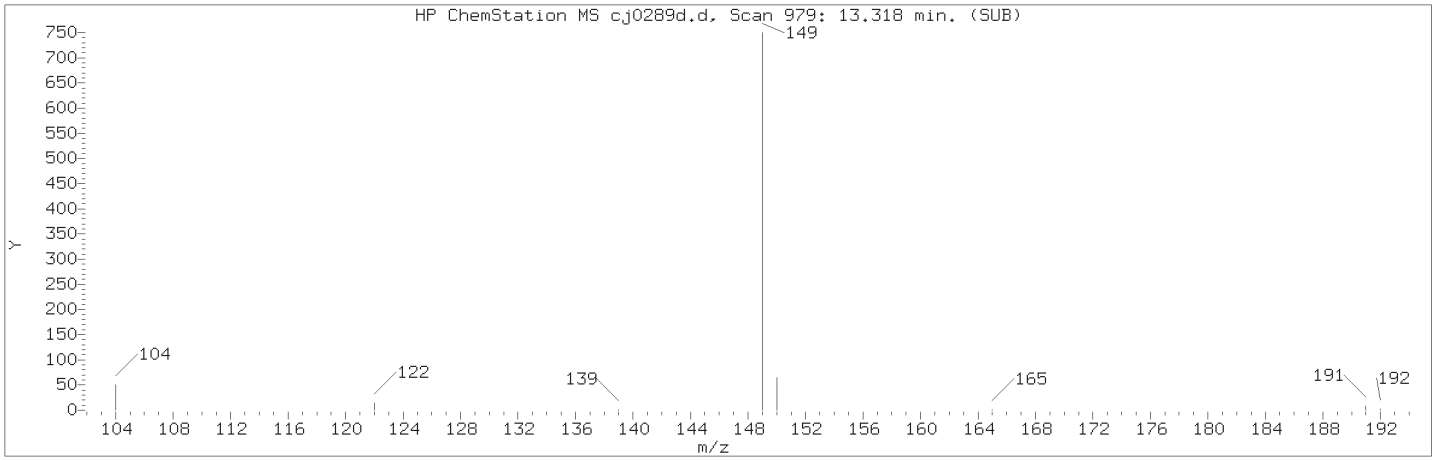
Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 933		
Retention Time (minutes)	: 12.777		
Quant Ion	: 178.00		
Area (flag)	: 1062M		
On-Column Amount (ng/ul)	: 0.0041		
Integration start scan	: 930	Integration stop scan:	937
Y at integration start	: 58	Y at integration end:	58

Reason for manual integration: improper integration

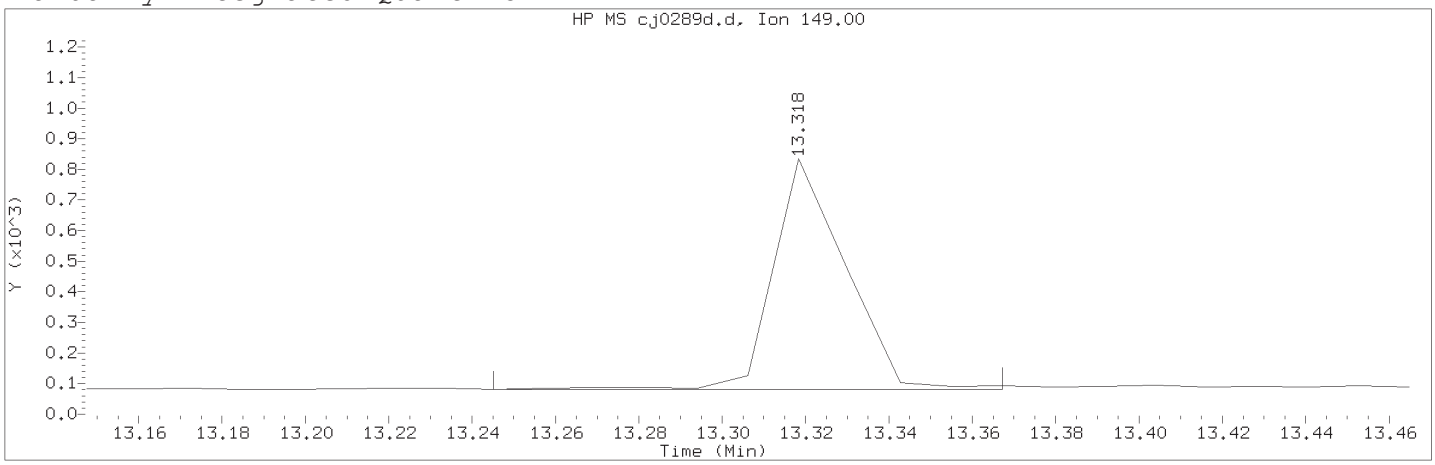
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

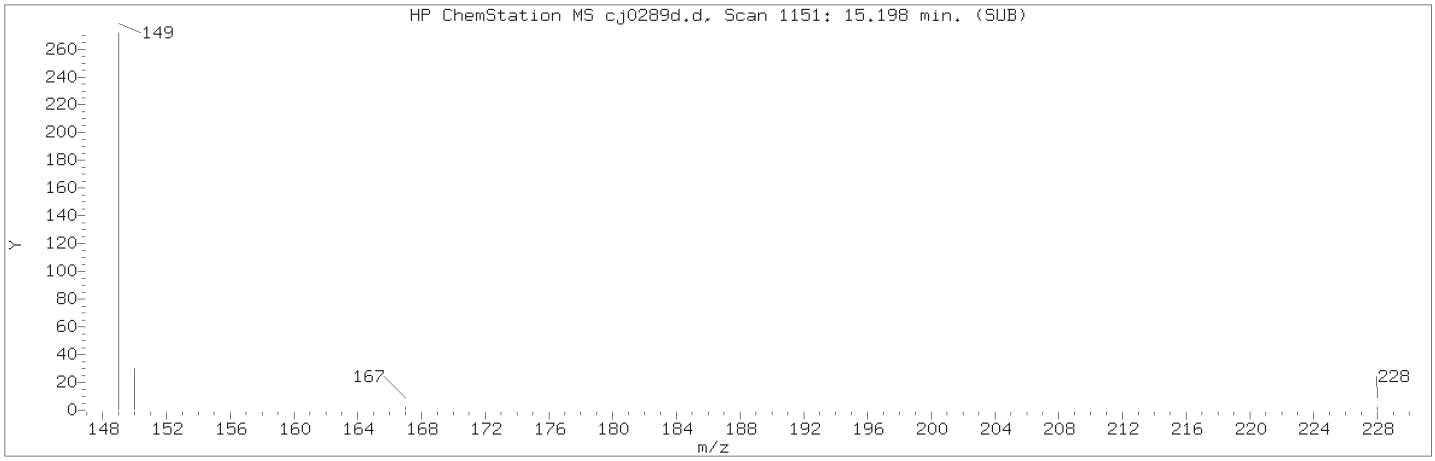
Compound Number	: 35		
Compound Name	: Di-n-butylphthalate		
Scan Number	: 979		
Retention Time (minutes)	: 13.318		
Quant Ion	: 149.00		
Area (flag)	: 913M		
On-Column Amount (ng/ul)	: 0.0031		
Integration start scan	: 972	Integration stop scan:	982
Y at integration start	: 80	Y at integration end:	80

Reason for manual integration: improper integration

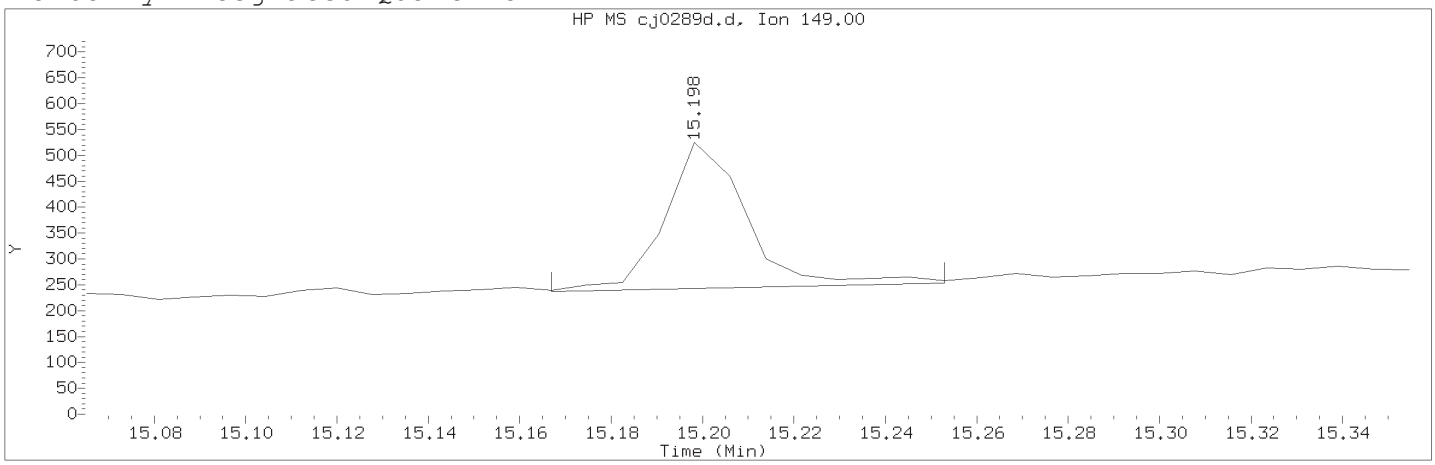
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

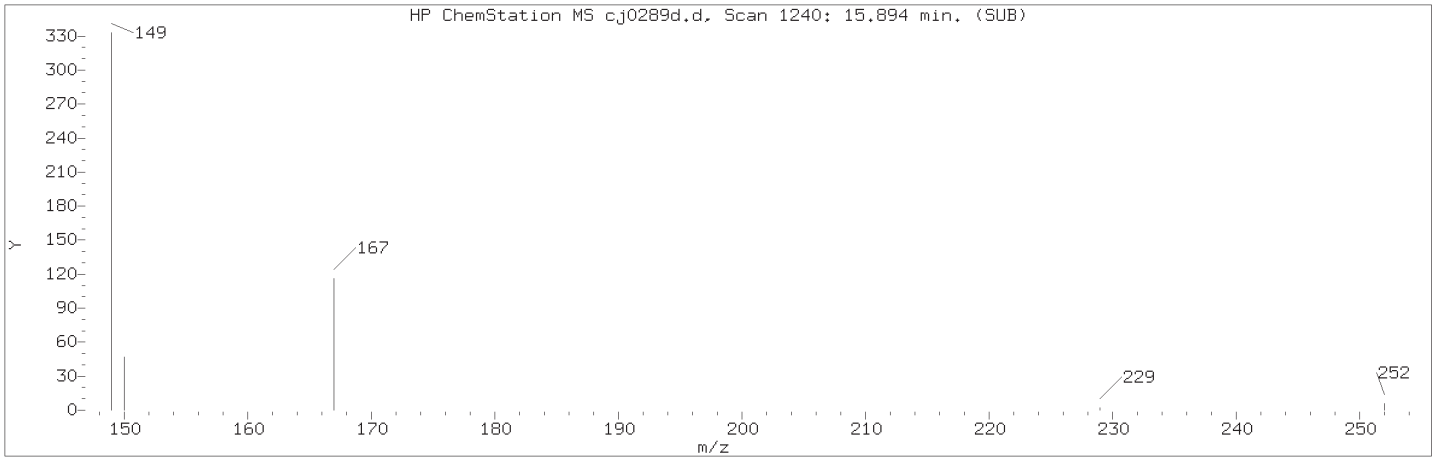
Compound Number : 40
Compound Name : Butylbenzylphthalate
Scan Number : 1151
Retention Time (minutes) : 15.198
Quant Ion : 149.00
Area (flag) : 353M
On-Column Amount (ng/ul) : 0.0029
Integration start scan : 1146 Integration stop scan: 1157
Y at integration start : 237 Y at integration end: 253

Reason for manual integration: improper integration

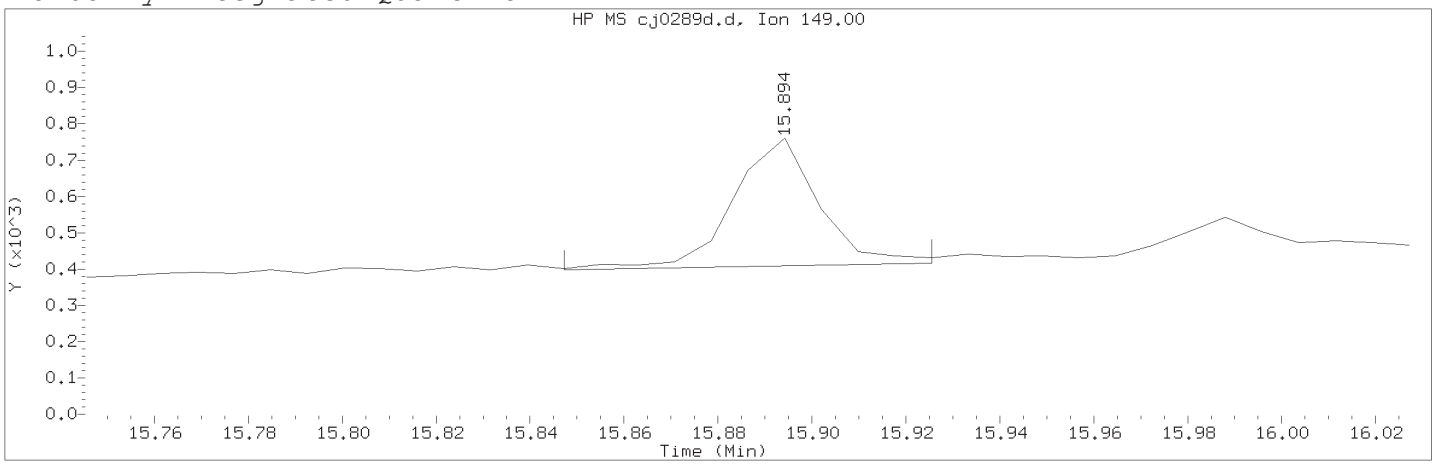
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

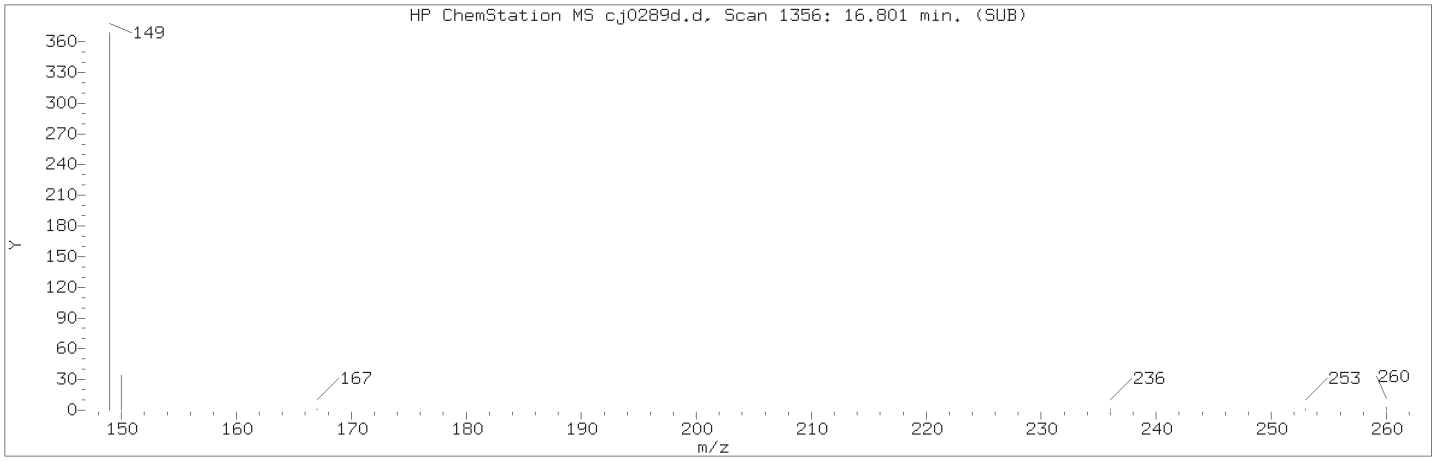
Compound Number	: 41		
Compound Name	: bis(2-Ethylhexyl)phthalate		
Scan Number	: 1240		
Retention Time (minutes)	: 15.894		
Quant Ion	: 149.00		
Area (flag)	: 446M		
On-Column Amount (ng/ul)	: 0.1257		
Integration start scan	: 1233	Integration stop scan:	1243
Y at integration start	: 398	Y at integration end:	417

Reason for manual integration: improper integration

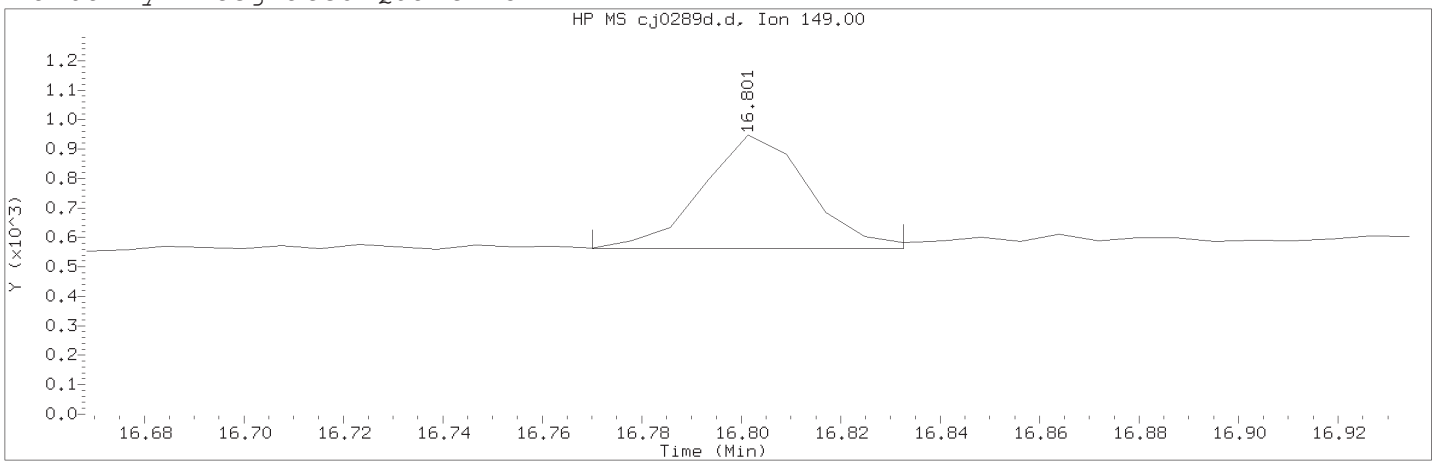
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

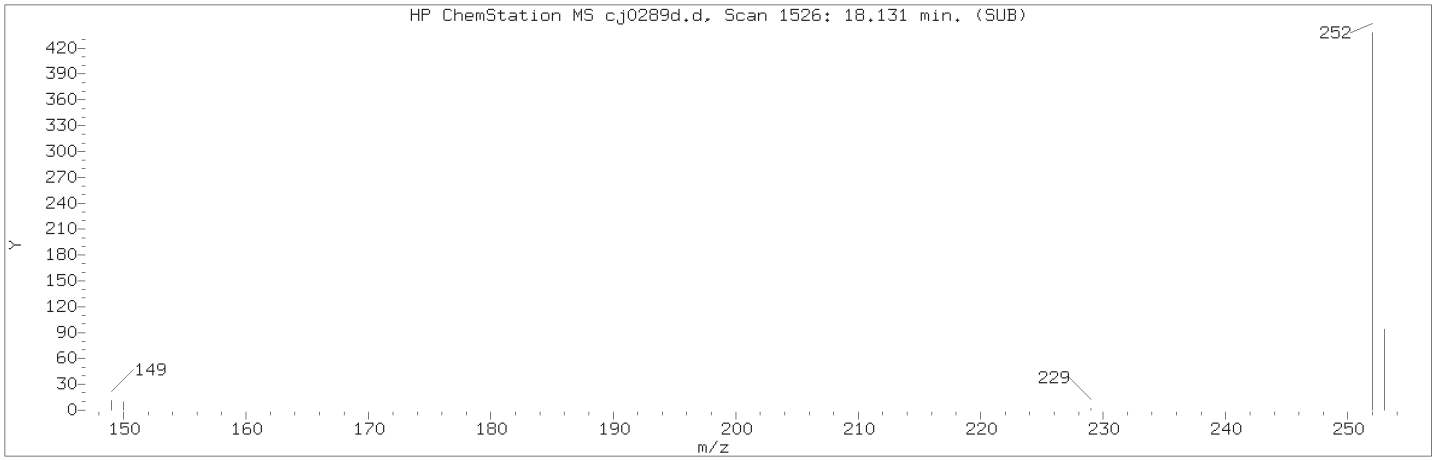
Compound Number : 45
Compound Name : Di-n-octylphthalate
Scan Number : 1356
Retention Time (minutes) : 16.801
Quant Ion : 149.00
Area (flag) : 577M
On-Column Amount (ng/ul) : 0.0023
Integration start scan : 1351 Integration stop scan: 1359
Y at integration start : 561 Y at integration end: 561

Reason for manual integration: improper integration

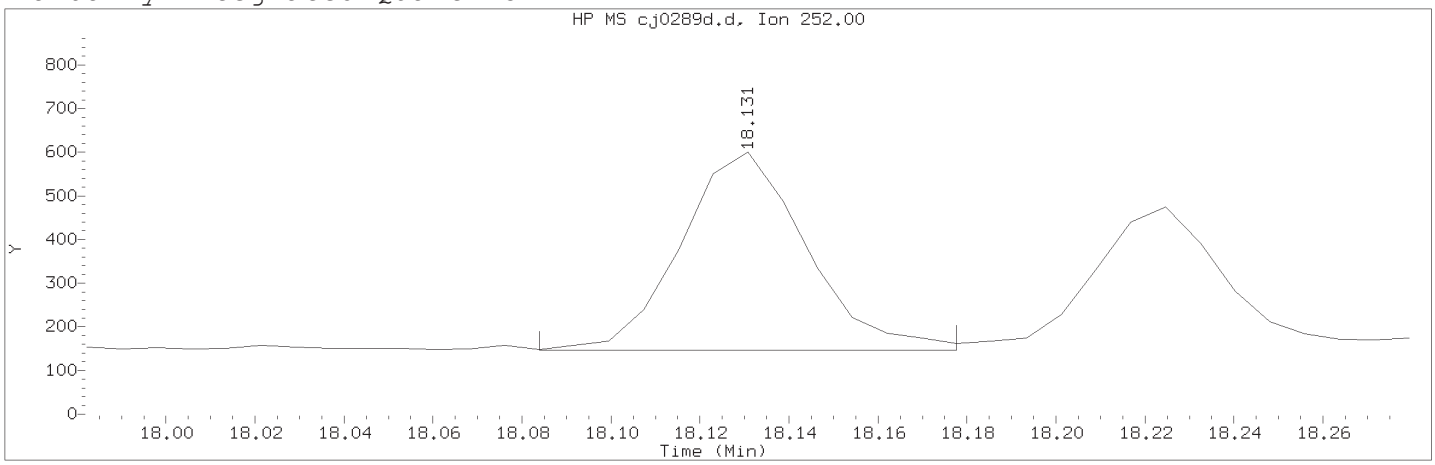
Analyst responsible for change: Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD0.005 Lab Sample ID: SIM2598

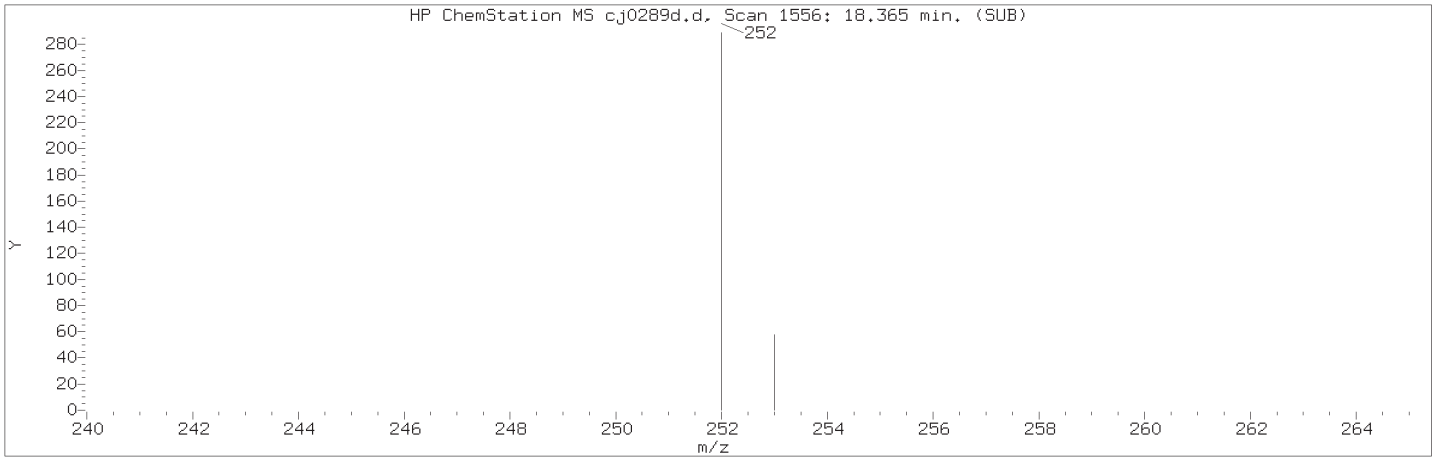
Compound Number : 48
Compound Name : Benzo(e)pyrene
Scan Number : 1526
Retention Time (minutes) : 18.131
Quant Ion : 252.00
Area (flag) : 890M
On-Column Amount (ng/ul) : 0.0051
Integration start scan : 1519 Integration stop scan: 1531
Y at integration start : 147 Y at integration end: 147

Reason for manual integration: improper integration

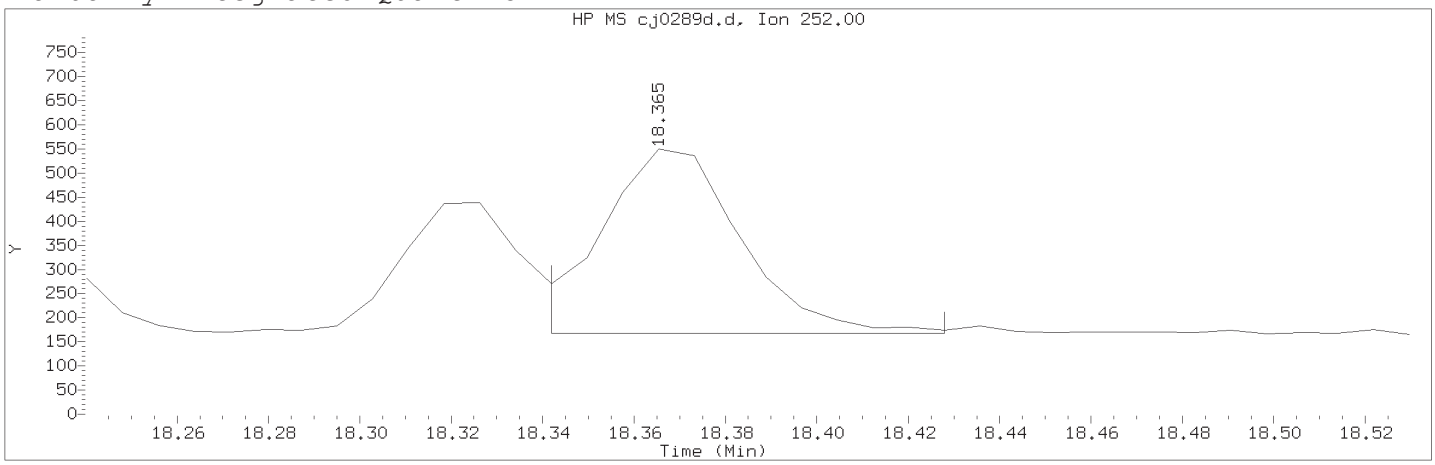
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0289d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 03:45 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

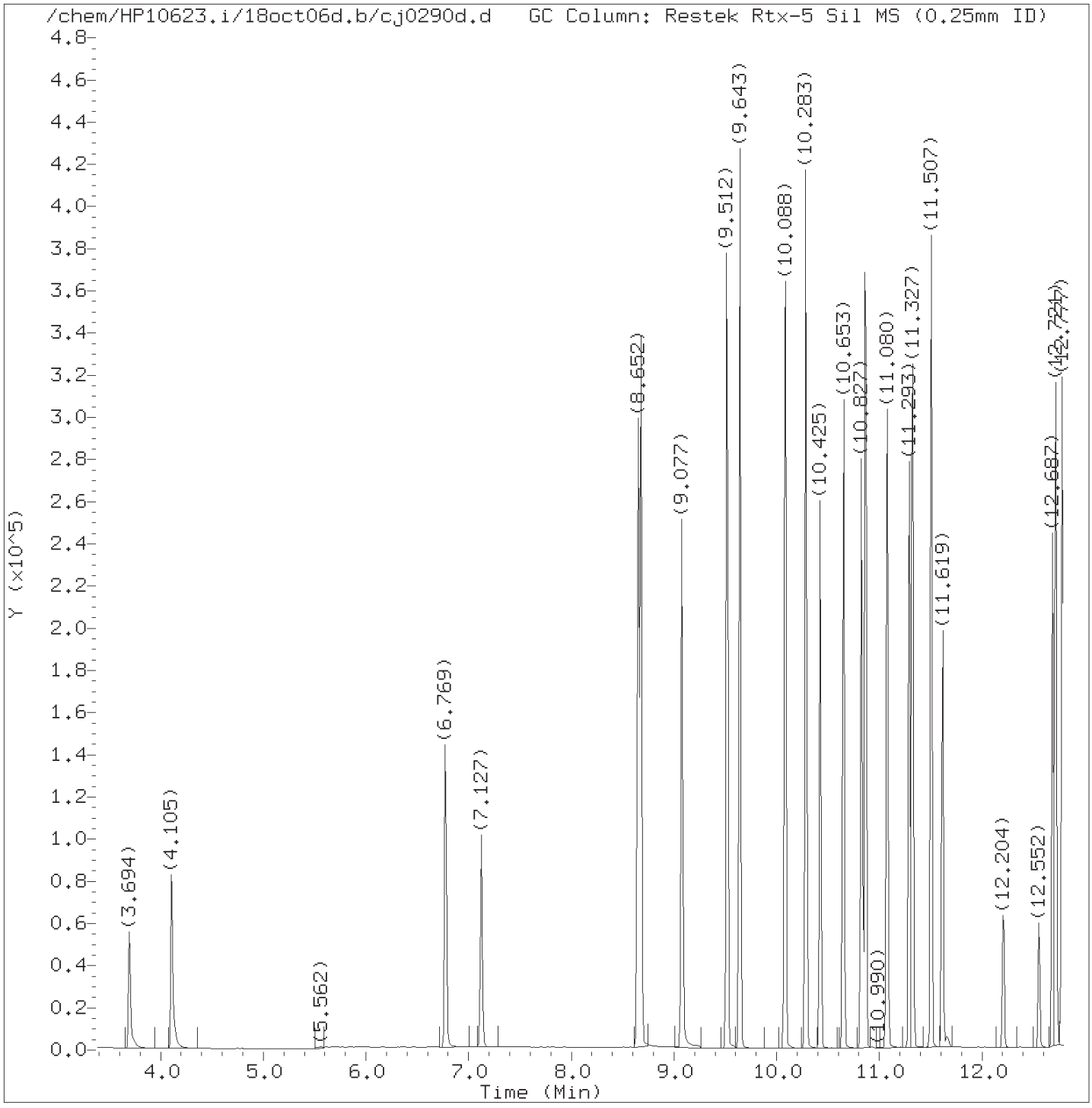
Sample Name: SSTD0.005 Lab Sample ID: SIM2598

Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1556		
Retention Time (minutes)	: 18.365		
Quant Ion	: 252.00		
Area (flag)	: 824M		
On-Column Amount (ng/ul)	: 0.0049		
Integration start scan	: 1552	Integration stop scan:	1563
Y at integration start	: 168	Y at integration end:	168

Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

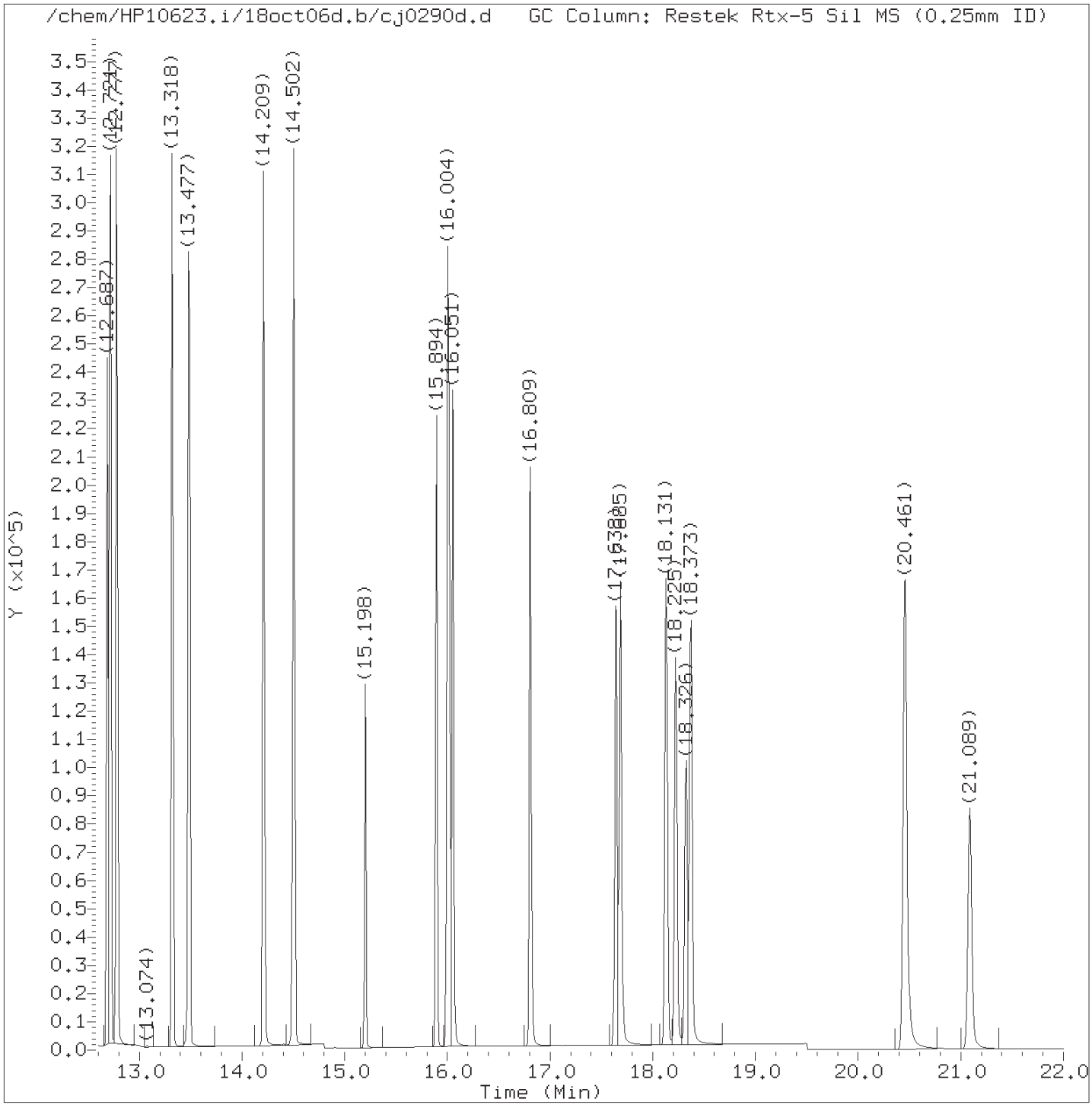
Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0290d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 04:16 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: icvall1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD001 Lab Sample ID: SICV1908

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0290d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 04:16 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: icvall1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD001 Lab Sample ID: SICV1908

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18oct06d.b/cj0290d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 04:16 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: icvall1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD001 Lab Sample ID: SICV1908

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.694	88	47418	1.023
2) N-Nitrosodimethylamine	(1)	4.111	74	64900	1.084
5) bis(2-Chloroethyl)ether	(1)	6.769	93	115694M	1.232
6)*1,4-Dichlorobenzene-d4	(1)	7.127	152	72140	1.000
10)*Naphthalene-d8	(2)	8.652	136	292464	1.000
11) Naphthalene	(2)	8.679	128	318651	1.026
12) Quinoline	(2)	9.077	129	195904	1.090
13) 2-Methylnaphthalene	(2)	9.512	142	206707	1.068
15) 1-Methylnaphthalene	(2)	9.643	142	197491	1.013
18) Dimethylphthalate	(3)	10.425	163	204754	1.093
19) Acenaphthylene	(3)	10.653	152	282805	1.077
20)*Acenaphthene-d10	(3)	10.827	164	132248	1.000
21) Acenaphthene	(3)	10.870	154	182180	1.014
22) Dibenzofuran	(3)	11.080	168	267169	1.092
23) Diethylphthalate	(3)	11.293	149	197646	1.081
26) Fluorene	(3)	11.507	166	211062	1.098
27) N-Nitrosodiphenylamine	(4)	11.619	169	117967	1.001
28) NDPA as diphenylamine	(4)	11.619	169	117967	1.001
29) Hexachlorobenzene	(4)	12.215	284	50451	1.146
31)*Phenanthrene-d10	(4)	12.687	188	249995	1.000
32) Phenanthrene	(4)	12.721	178	304503	1.021
33) Anthracene	(4)	12.777	178	295369	1.030
35) Di-n-butylphthalate	(4)	13.318	149	302035	0.945
37) Fluoranthene	(4)	14.209	202	305368	1.042
39) Pyrene	(5)	14.502	202	315711	1.022
40) Butylbenzylphthalate	(5)	15.198	149	121788	0.874
41) bis(2-Ethylhexyl)phthalate	(5)	15.894	149	163058	0.841
42) Benzo(a)anthracene	(5)	16.004	228	263021	1.058
43)*Chrysene-d12	(5)	16.019	240	191865	1.000
44) Chrysene	(5)	16.051	228	260762	1.024
45) Di-n-octylphthalate	(6)	16.809	149	263363	0.938
46) Benzo(b)fluoranthene	(6)	17.638	252	211462	1.122
47) Benzo(k)fluoranthene	(6)	17.685	252	242326	1.197
48) Benzo(e)pyrene	(6)	18.131	252	236610	1.225
50) Benzo(a)pyrene	(6)	18.225	252	200087	1.164
51)*Perylene-d12	(6)	18.326	264	147055	1.000
52) Perylene	(6)	18.373	252	224520	1.200
53) Indeno(1,2,3-cd)pyrene	(6)	20.454	276	199583	1.170
54) Dibenz(a,h)anthracene	(6)	20.461	278	160373	1.134
55) Benzo(g,h,i)perylene	(6)	21.089	276	177182	1.113

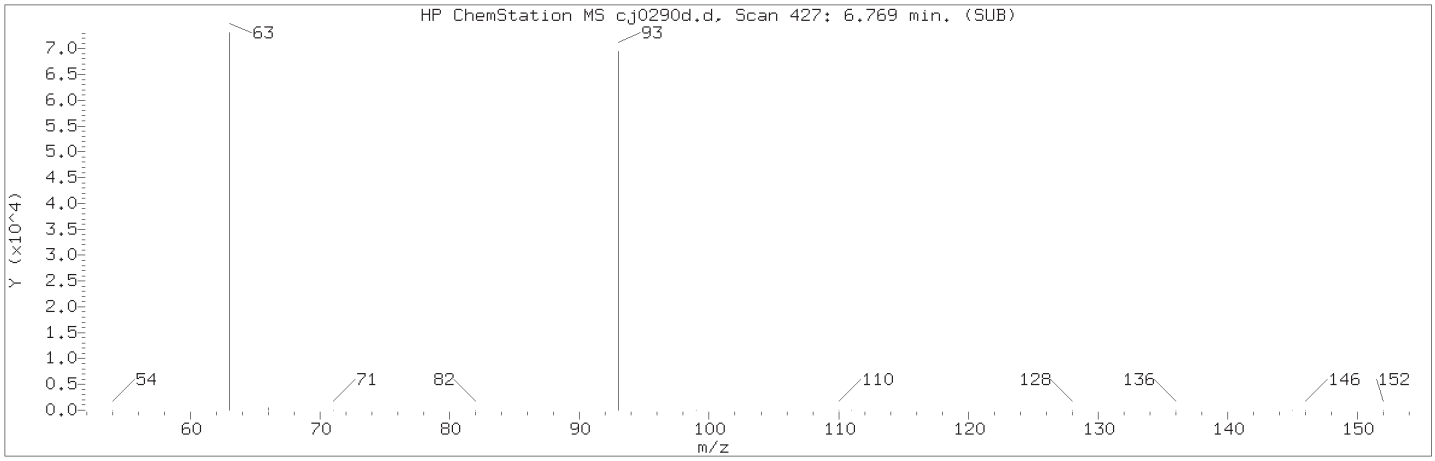
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

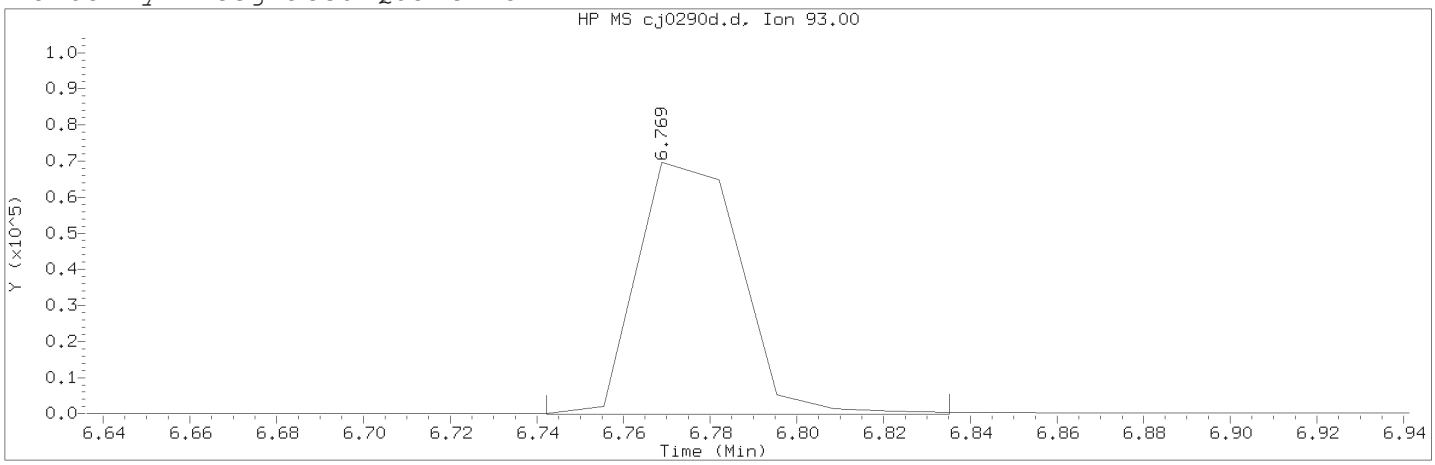
M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0290d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 04:16 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: icvall1
Calibration date and time: 07-OCT-2018 23:02
Date, time and analyst ID of latest file update: 07-Oct-2018 23:03 apb10206

Sample Name: SSTD001 Lab Sample ID: SICV1908

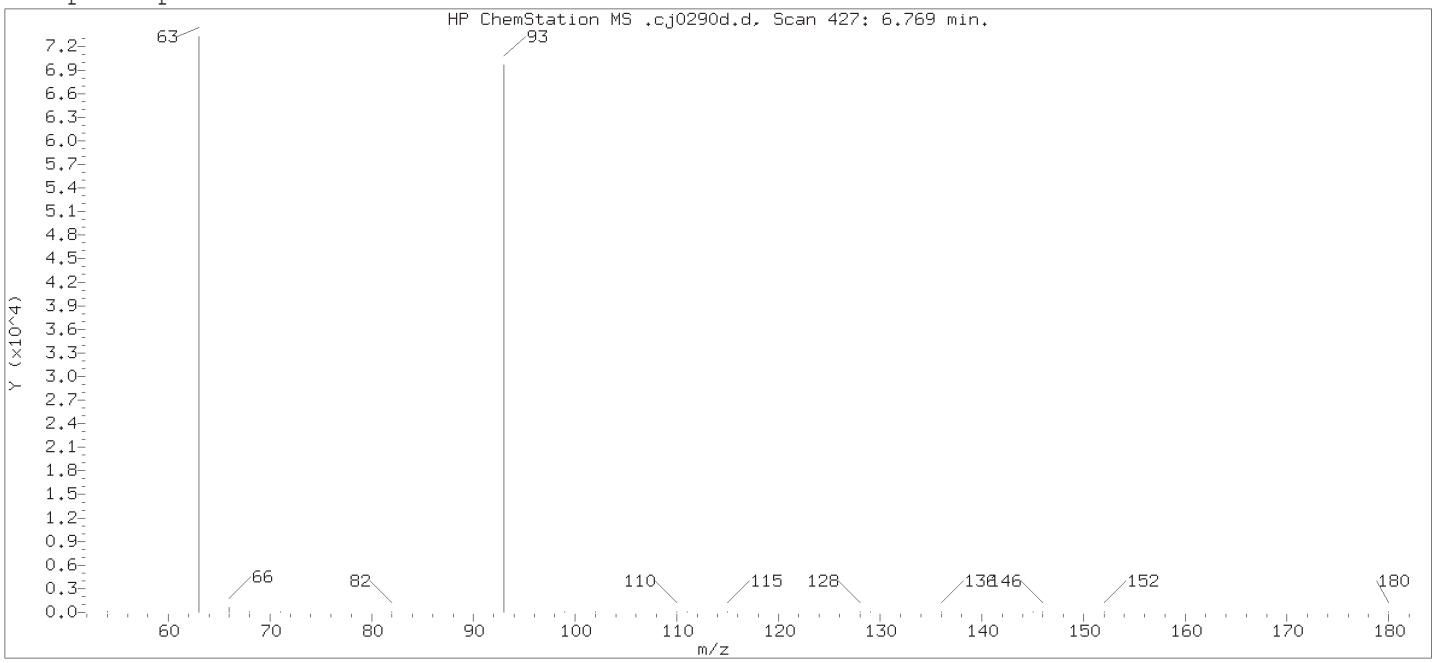
Compound Number	: 5		
Compound Name	: bis(2-Chloroethyl)ether		
Scan Number	: 427		
Retention Time (minutes)	: 6.769		
Quant Ion	: 93.00		
Area (flag)	: 115694M		
On-Column Amount (ng/ul)	: 1.2320		
Integration start scan	: 424	Integration stop scan:	431
Y at integration start	: -112	Y at integration end:	-112

Reason for manual integration: missed peak

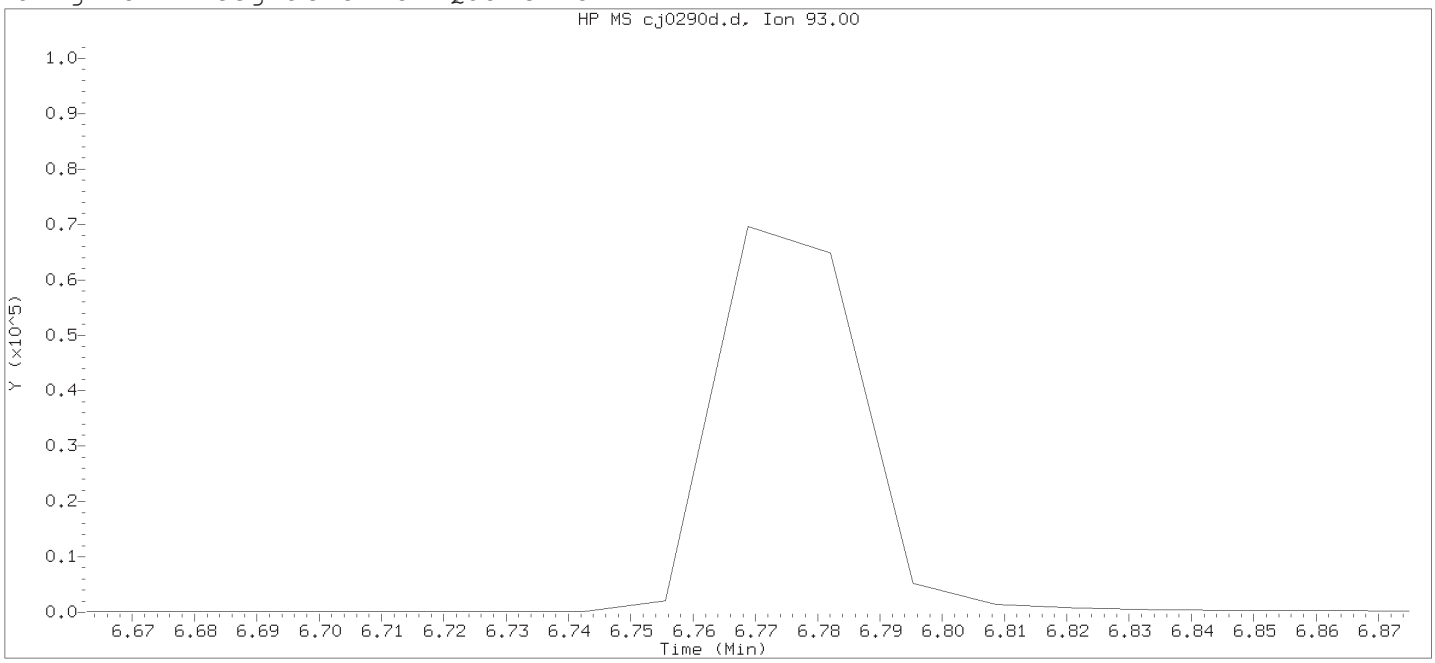
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 10/07/2018 at 23:03.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Chad A. Moline on 10/09/2018 at 12:23.
PARALLAX ID: cam01237

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18oct06d.b/cj0290d.d Instrument ID: HP10623.i
Injection date and time: 07-OCT-2018 04:16 Analyst ID: apb10206

Method used: /chem/HP10623.i/18oct06d.b/sim8270d.m Sublist used: icvall1
Calibration date and time: 07-OCT-2018 22:55
Date, time and analyst ID of latest file update: 07-Oct-2018 22:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SICV1908

Compound Number : 5
Compound Name : bis(2-Chloroethyl)ether
Expected RT (minutes) : 6.769
Quant Ion : 93.00

Digitally signed by Anthony P. Bauer on 10/07/2018 at 23:03.
Target 3.5 esignature used in this report

Data File: /chem/HP10623.i/18nov05a.b/ck0200.d

Date : 05-NOV-2018 18:21

Client ID: DFTPP

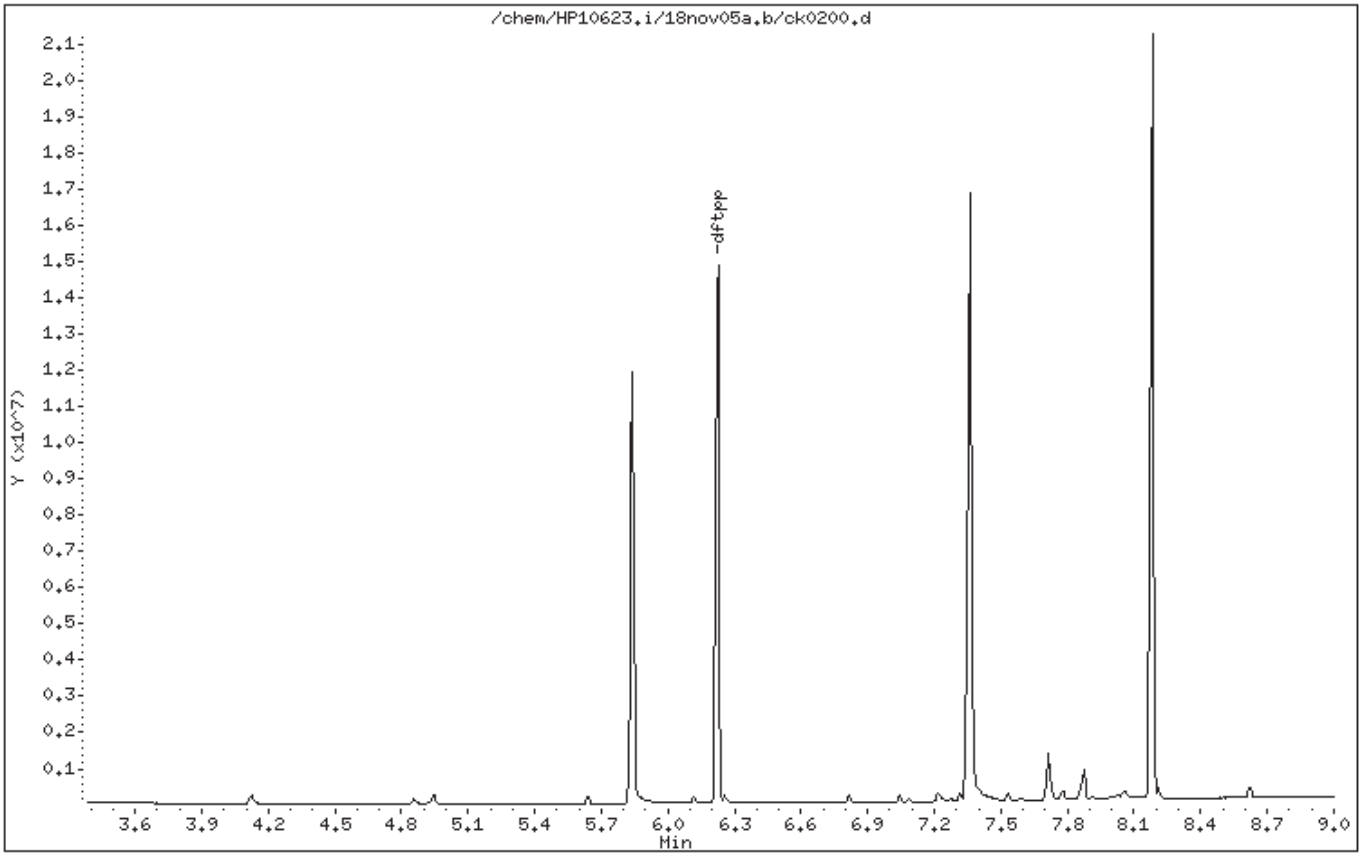
Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10623.i/18nov05a.b/ck0200.d

Date : 05-NOV-2018 18:21

Client ID: DFTPP

Instrument: HP10623.i

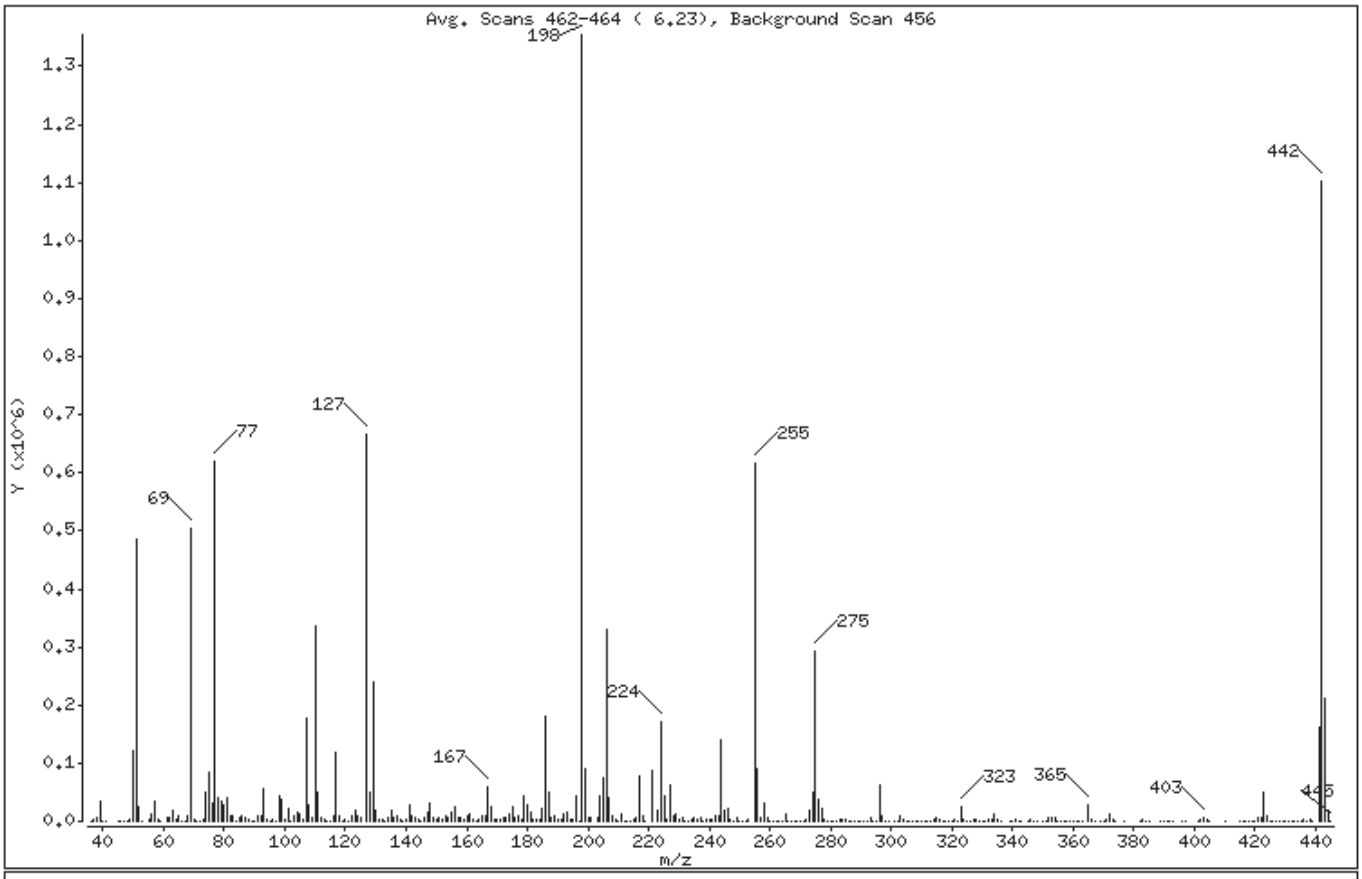
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	35.97
68	Less than 2.00% of mass 69	0.68 (1.82)
69	Mass 69 relative abundance	37.21
70	Less than 2.00% of mass 69	0.18 (0.48)
127	10.00 - 80.00% of mass 198	49.28
197	Less than 2.00% of mass 198	0.03
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 60.00% of mass 198	21.65
365	Greater than 1.00% of mass 198	1.98
441	0.01 - 24.00% of mass 442	11.87 (14.61)
442	50.00 - 99.99% of mass 198	81.29
443	15.00 - 24.00% of mass 442	15.55 (19.13)

Digitally signed by Anthony P. Bauer on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Date : 05-NOV-2018 18:21

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0200.d
Spectrum: Avg. Scans 462-464 (6.23), Background Scan 456
Location of Maximum: 198.00
Number of points: 370

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	142	135.00	19376	231.00	6101	326.00	420
37.00	1719	136.00	7196	232.00	1226	327.00	4127
38.00	5623	137.00	9378	233.00	1426	328.00	2017
39.00	34808	138.00	1689	234.00	4077	329.00	416
40.00	1184	139.00	1190	235.00	4968	330.00	65
41.00	314	140.00	2903	236.00	3211	331.00	176
45.00	779	141.00	29016	237.00	5429	332.00	1903
46.00	92	142.00	9954	238.00	795	333.00	2196
47.00	61	143.00	6208	239.00	2023	334.00	13840
48.00	245	144.00	1875	240.00	1934	335.00	3554
49.00	2419	145.00	1401	241.00	3589	336.00	440
50.00	120744	146.00	5621	242.00	8647	339.00	351
51.00	487168	147.00	15175	243.00	9580	340.00	415
52.00	24248	148.00	32064	244.00	138752	341.00	2478
53.00	752	149.00	6486	245.00	17880	342.00	778
55.00	1867	150.00	1826	246.00	21728	343.00	109
56.00	13544	151.00	4772	247.00	4637	345.00	122
57.00	32936	152.00	2298	248.00	1124	346.00	4254
58.00	1577	153.00	8956	249.00	5313	347.00	800
59.00	316	154.00	6854	250.00	1076	348.00	64
61.00	5875	155.00	16488	251.00	1036	350.00	251
62.00	7160	156.00	25888	252.00	1257	351.00	560
63.00	19584	157.00	4993	253.00	3085	352.00	6505
64.00	2762	158.00	5441	255.00	614912	353.00	4710
65.00	10418	159.00	4061	256.00	91280	354.00	7634
66.00	538	160.00	9294	257.00	6795	355.00	1502
67.00	456	161.00	13434	258.00	30840	356.00	142
68.00	9159	162.00	3995	259.00	4818	357.00	115
69.00	503872	163.00	1154	260.00	997	358.00	83
70.00	2440	164.00	1582	261.00	1211	359.00	575
71.00	114	165.00	10129	262.00	209	360.00	69
72.00	360	166.00	8336	263.00	329	361.00	258
73.00	3126	167.00	59728	264.00	867	362.00	156
74.00	50856	168.00	25400	265.00	12198	363.00	277
75.00	82504	169.00	4450	266.00	1395	365.00	26880

Digitally signed by Anthony P. Bauer on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Date : 05-NOV-2018 18:21

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0200.d
Spectrum: Avg. Scans 462-464 (6.23), Background Scan 456
Location of Maximum: 198.00
Number of points: 370

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	29616	170.00	1975	267.00	135	366.00	4092
77.00	617984	171.00	2711	268.00	203	367.00	332
78.00	40968	172.00	5064	269.00	204	369.00	152
79.00	34872	173.00	6656	270.00	689	370.00	656
80.00	26840	174.00	11893	271.00	1464	371.00	1896
81.00	40336	175.00	24128	272.00	1713	372.00	12078
82.00	9661	176.00	7169	273.00	18216	373.00	3169
83.00	9957	177.00	10741	274.00	50600	374.00	332
84.00	873	178.00	3573	275.00	293120	377.00	309
85.00	7309	179.00	43960	276.00	38480	382.00	93
86.00	10183	180.00	29248	277.00	20936	383.00	2932
87.00	5181	181.00	14944	278.00	3472	384.00	1033
88.00	2006	182.00	2169	279.00	643	385.00	308
89.00	955	183.00	1601	280.00	121	389.00	76
90.00	139	184.00	3957	281.00	180	390.00	1445
91.00	8636	185.00	21704	282.00	535	391.00	1247
92.00	9822	186.00	179904	283.00	2361	392.00	883
93.00	56976	187.00	49000	284.00	1823	393.00	101
94.00	4107	188.00	4790	285.00	3655	396.00	54
95.00	747	189.00	9783	286.00	607	397.00	103
96.00	2921	190.00	1606	287.00	220	401.00	717
97.00	1283	191.00	4379	288.00	200	402.00	4586
98.00	44112	192.00	13300	289.00	1078	403.00	6688
99.00	36760	193.00	14890	290.00	754	404.00	2257
100.00	3104	194.00	2965	291.00	493	405.00	301
101.00	22368	195.00	2264	292.00	974	410.00	110
102.00	1395	196.00	44888	293.00	4722	415.00	313
103.00	7804	197.00	421	294.00	1313	416.00	97
104.00	14672	198.00	1354240	295.00	1037	417.00	110
105.00	12890	199.00	89248	296.00	63312	418.00	75
106.00	4444	200.00	6465	297.00	8924	419.00	260
107.00	176320	201.00	7104	298.00	669	420.00	322
108.00	27544	203.00	7775	299.00	176	421.00	6453
109.00	6007	204.00	42184	301.00	914	422.00	6259
110.00	336000	205.00	73216	302.00	1552	423.00	50384

Digitally signed by Anthony P. Bauer on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Date : 05-NOV-2018 18:21

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

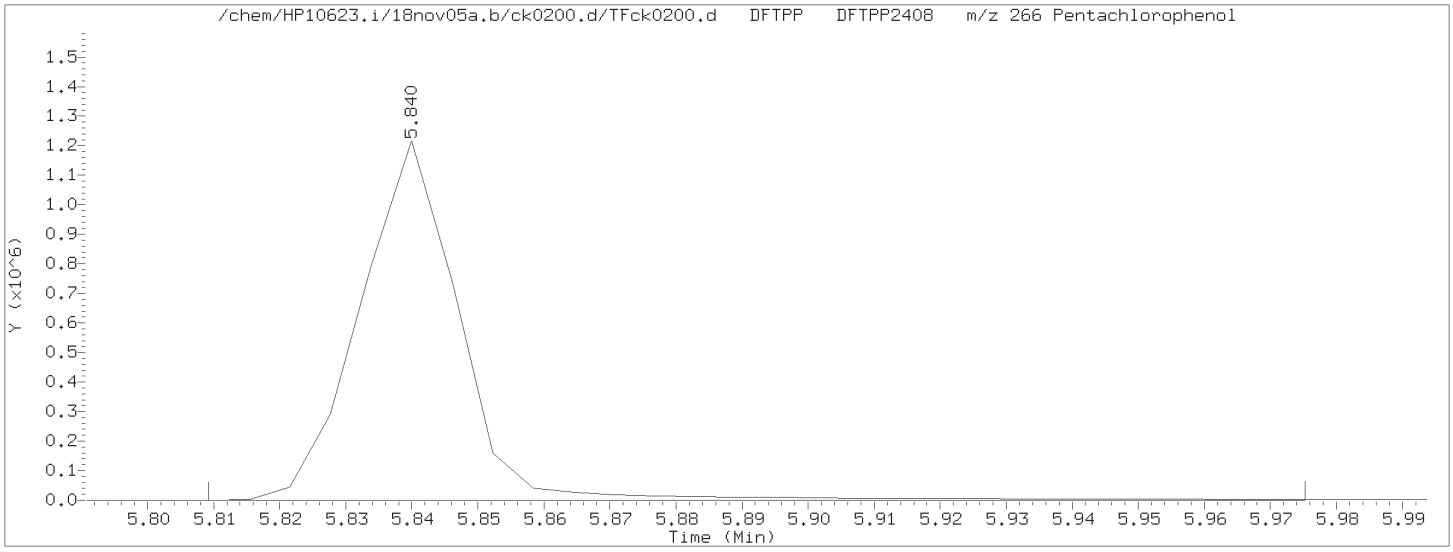
Data File: ck0200.d
Spectrum: Avg. Scans 462-464 (6.23), Background Scan 456
Location of Maximum: 198.00
Number of points: 370

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	49576	206.00	329088	303.00	8119	424.00	10109
112.00	5909	207.00	41720	304.00	2456	425.00	976
113.00	2004	208.00	9823	305.00	313	426.00	161
114.00	563	209.00	3065	306.00	91	427.00	284
115.00	529	210.00	589	307.00	102	428.00	190
116.00	9685	211.00	11652	308.00	919	429.00	237
117.00	118368	212.00	212	309.00	567	430.00	336
118.00	8146	213.00	932	310.00	1029	431.00	715
119.00	937	214.00	413	311.00	187	432.00	481
120.00	2192	215.00	3037	312.00	295	433.00	637
121.00	639	216.00	6525	313.00	843	434.00	713
122.00	10648	217.00	76880	314.00	3363	435.00	1212
123.00	17384	218.00	10011	315.00	7261	436.00	1717
124.00	7791	219.00	1037	316.00	4293	437.00	633
125.00	7487	221.00	87144	317.00	708	438.00	4000
127.00	667392	223.00	17920	318.00	62	439.00	1030
128.00	49448	224.00	171392	319.00	178	441.00	160768
129.00	238592	225.00	44160	320.00	392	442.00	1100800
130.00	20096	226.00	4602	321.00	2274	443.00	210560
131.00	4057	227.00	62632	322.00	1445	444.00	18304
132.00	2045	228.00	8949	323.00	24224	445.00	1037
133.00	806	229.00	13761	324.00	4193		
134.00	6115	230.00	2130	325.00	503		

Digitally signed by Anthony P. Bauer on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

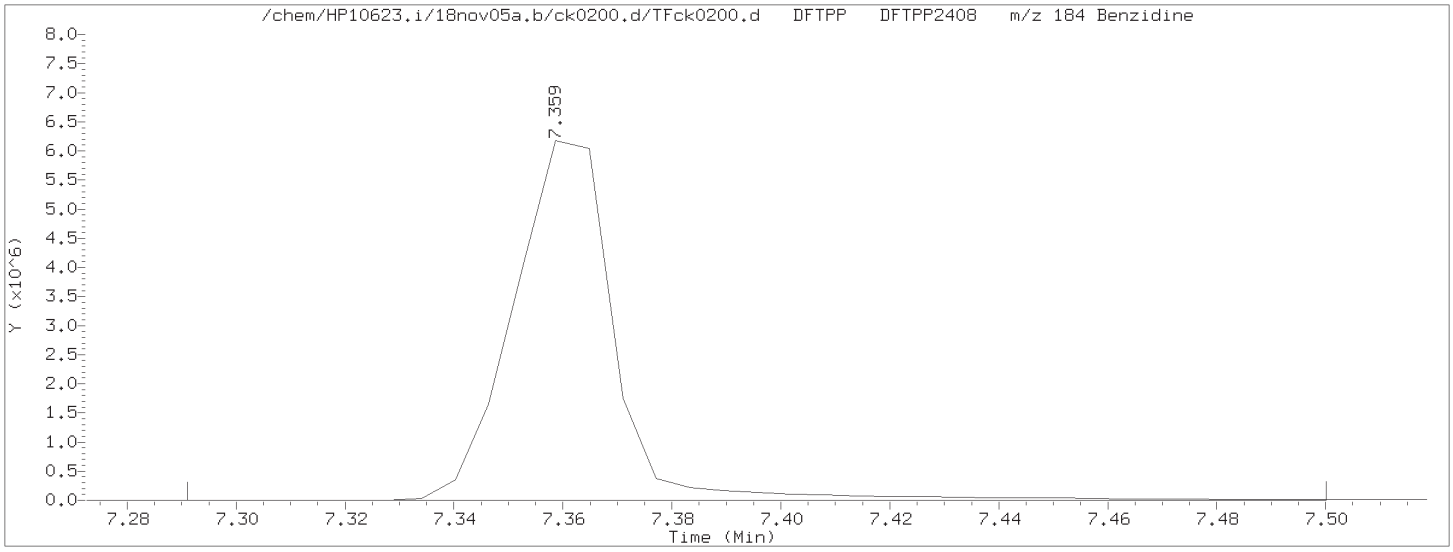
Instrument ID: HP10623.i Injection Date: 05-NOV-2018 18:21 Operator: apb10206



Pentachlorophenol EICP peak height = 1217536 EICP peak height at 10% = 121754 Pentachlorophenol EICP area = 1268308

Pentachlorophenol EICP peak apex (min.) = 5.840
RT at 10% of front half of EICP (min.) = 5.823 'Front' peak width (min.) = 0.0165000000
RT at 10% of back half of EICP (min.) = 5.854 'Tailing' peak width (min.) = 0.0142166667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0142166667}{0.0165000000} = 0.862$



Benzidine EICP peak height = 6179160 EICP peak height at 10% = 617916 Benzidine EICP area = 7950814

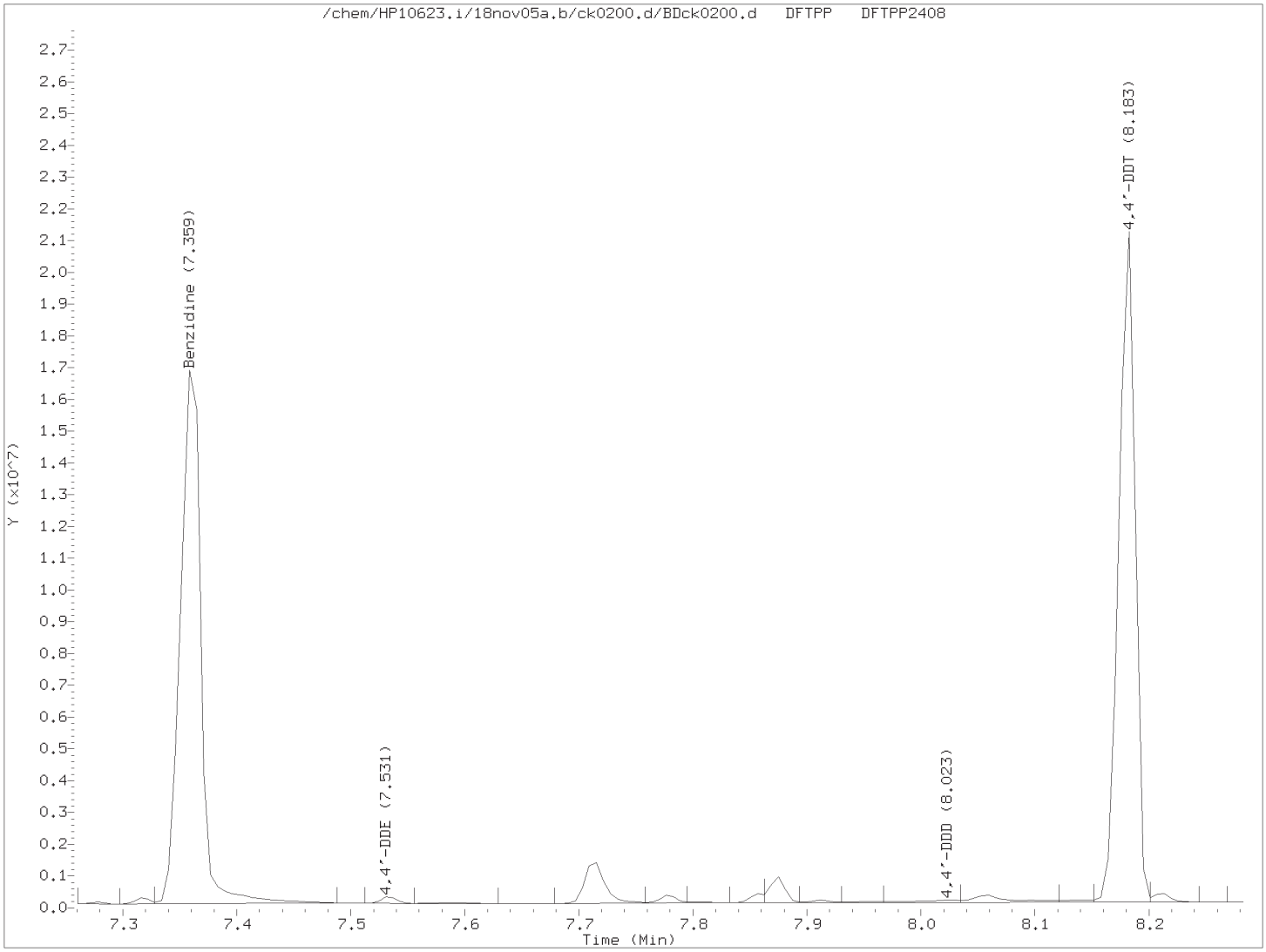
Benzidine EICP peak apex (min.) = 7.359
RT at 10% of front half of EICP (min.) = 7.341 'Front' peak width (min.) = 0.0171833333
RT at 10% of back half of EICP (min.) = 7.376 'Tailing' peak width (min.) = 0.0173500000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0173500000}{0.0171833333} = 1.010$

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:20. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

Instrument ID: HP10623.i Injection Date: 05-NOV-2018 18:21 Operator: apb10206

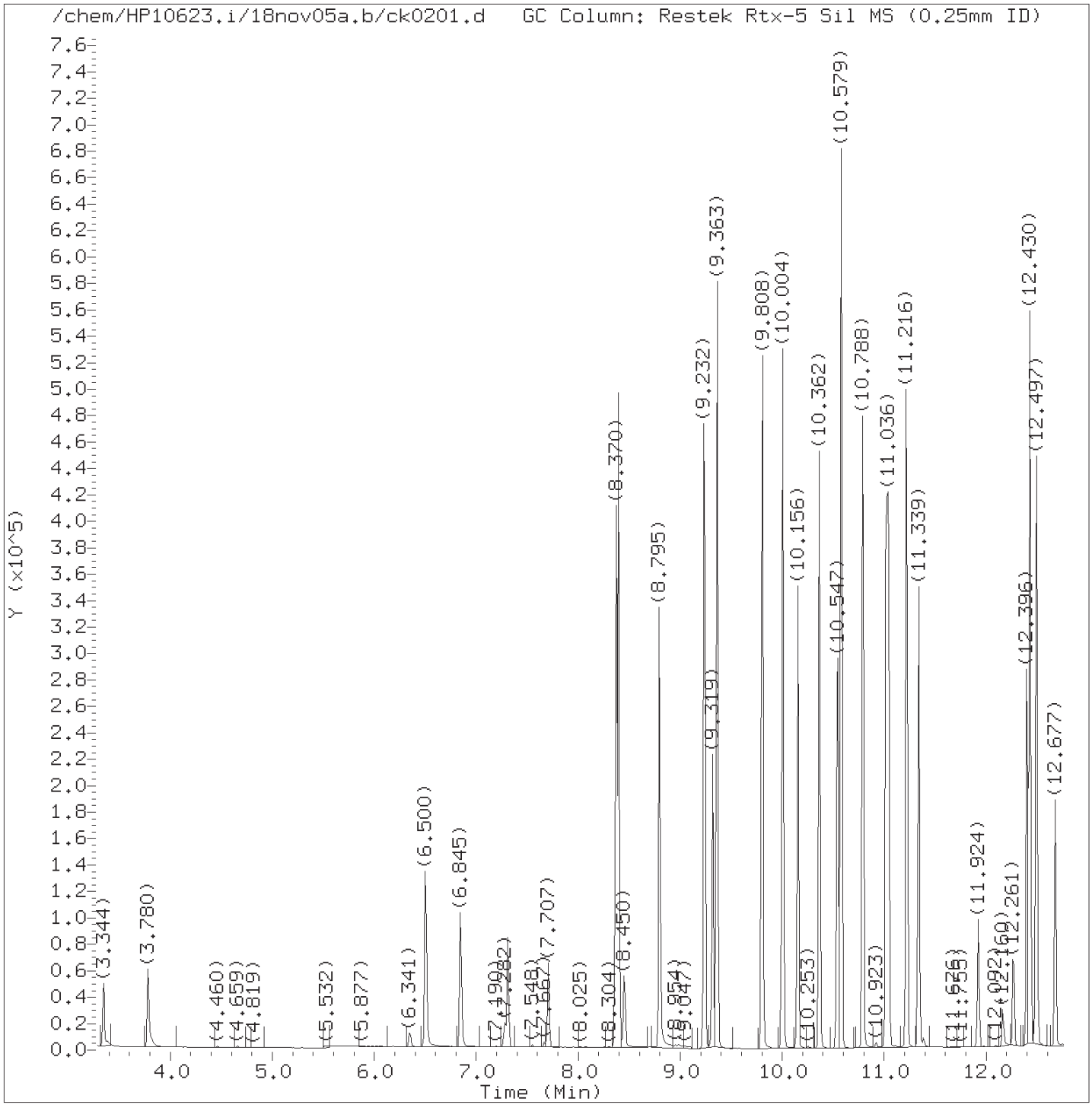


$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{188495 + 191072}{188495 + 191072 + 21305751} \times 100 = 1.8$$

printed on 11/05/2018 at 18:36

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:20. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

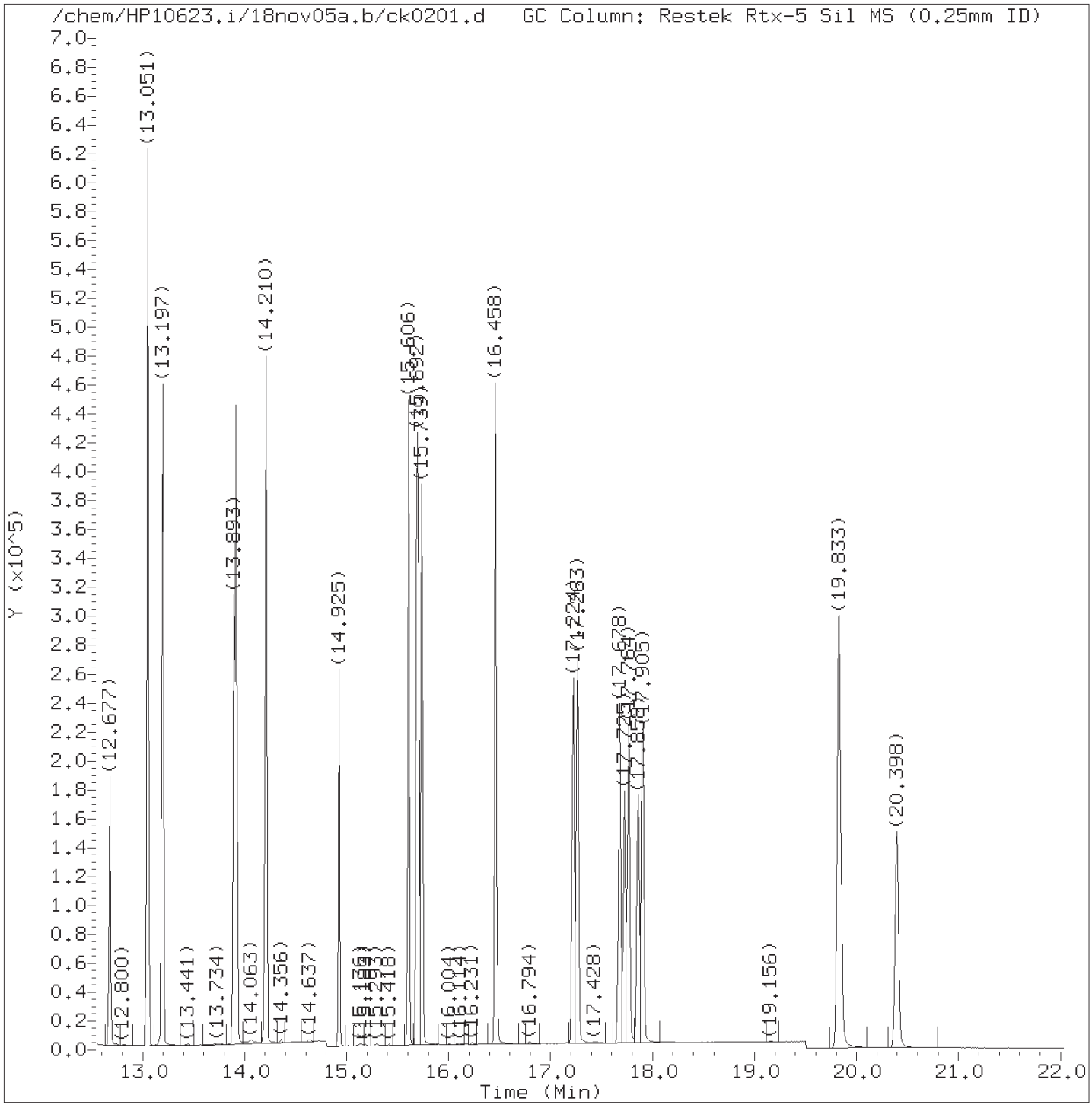
Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0201.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 18:38 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: all1
Calibration date and time: 05-NOV-2018 19:11
Date, time and analyst ID of latest file update: 05-Nov-2018 19:11 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0201.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 18:38 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: all1
Calibration date and time: 05-NOV-2018 19:11
Date, time and analyst ID of latest file update: 05-Nov-2018 19:11 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0201.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 18:38 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: all1
Calibration date and time: 05-NOV-2018 19:11
Date, time and analyst ID of latest file update: 05-Nov-2018 19:11 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.344	88	41687	0.812
2) N-Nitrosodimethylamine	(1)	3.780	74	52339	0.790
5) bis(2-Chloroethyl)ether	(1)	6.500	93	114318	1.100
6)*1,4-Dichlorobenzene-d4	(1)	6.845	152	79848	1.000
10)*Naphthalene-d8	(2)	8.370	136	370998	1.000
11) Naphthalene	(2)	8.397	128	429282	1.090
12) Quinoline	(2)	8.795	129	272564	1.195
13) 2-Methylnaphthalene	(2)	9.232	142	285244	1.161
14)$1-Methylnaphthalene-d10	(2)	9.319	152	195079	1.041
15) 1-Methylnaphthalene	(2)	9.363	142	279260	1.130
18) Dimethylphthalate	(3)	10.156	163	288444	1.152
19) Acenaphthylene	(3)	10.362	152	408925	1.165
20)*Acenaphthene-d10	(3)	10.547	164	176869	1.000
21) Acenaphthene	(3)	10.579	154	259040	1.078
22) Dibenzofuran	(3)	10.788	168	357687	1.093
23) Diethylphthalate	(3)	11.013	149	355426	1.453
26) Fluorene	(3)	11.216	166	293114	1.140
28) NDPA as diphenylamine	(4)	11.339	169	181280	1.146
27) N-Nitrosodiphenylamine	(4)	11.339	169	181280	1.146
29) Hexachlorobenzene	(4)	11.924	284	65675	1.111
31)*Phenanthrene-d10	(4)	12.396	188	335518	1.000
32) Phenanthrene	(4)	12.430	178	427848	1.069
33) Anthracene	(4)	12.497	178	434364	1.128
35) Di-n-butylphthalate	(4)	13.051	149	507622	1.184
36)$Fluoranthene-d10	(4)	13.893	212	338076	1.111
37) Fluoranthene	(4)	13.917	202	435404	1.107
39) Pyrene	(5)	14.210	202	454214	1.091
40) Butylbenzylphthalate	(5)	14.925	149	250810	1.336
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	149	320623	1.170
42) Benzo(a)anthracene	(5)	15.692	228	374108	1.116
43)*Chrysene-d12	(5)	15.707	240	258664	1.000
44) Chrysene	(5)	15.739	228	370222	1.078
45) Di-n-octylphthalate	(6)	16.458	149	534069	1.204
46) Benzo(b)fluoranthene	(6)	17.224	252	316363	1.063
47) Benzo(k)fluoranthene	(6)	17.263	252	354392	1.108
48) Benzo(e)pyrene	(6)	17.678	252	319559	1.047
49)$Benzo(a)pyrene-d12	(6)	17.725	264	231703	1.085
50) Benzo(a)pyrene	(6)	17.764	252	304221	1.120
51)*Perylene-d12	(6)	17.858	264	232299	1.000
52) Perylene	(6)	17.905	252	309944	1.048

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

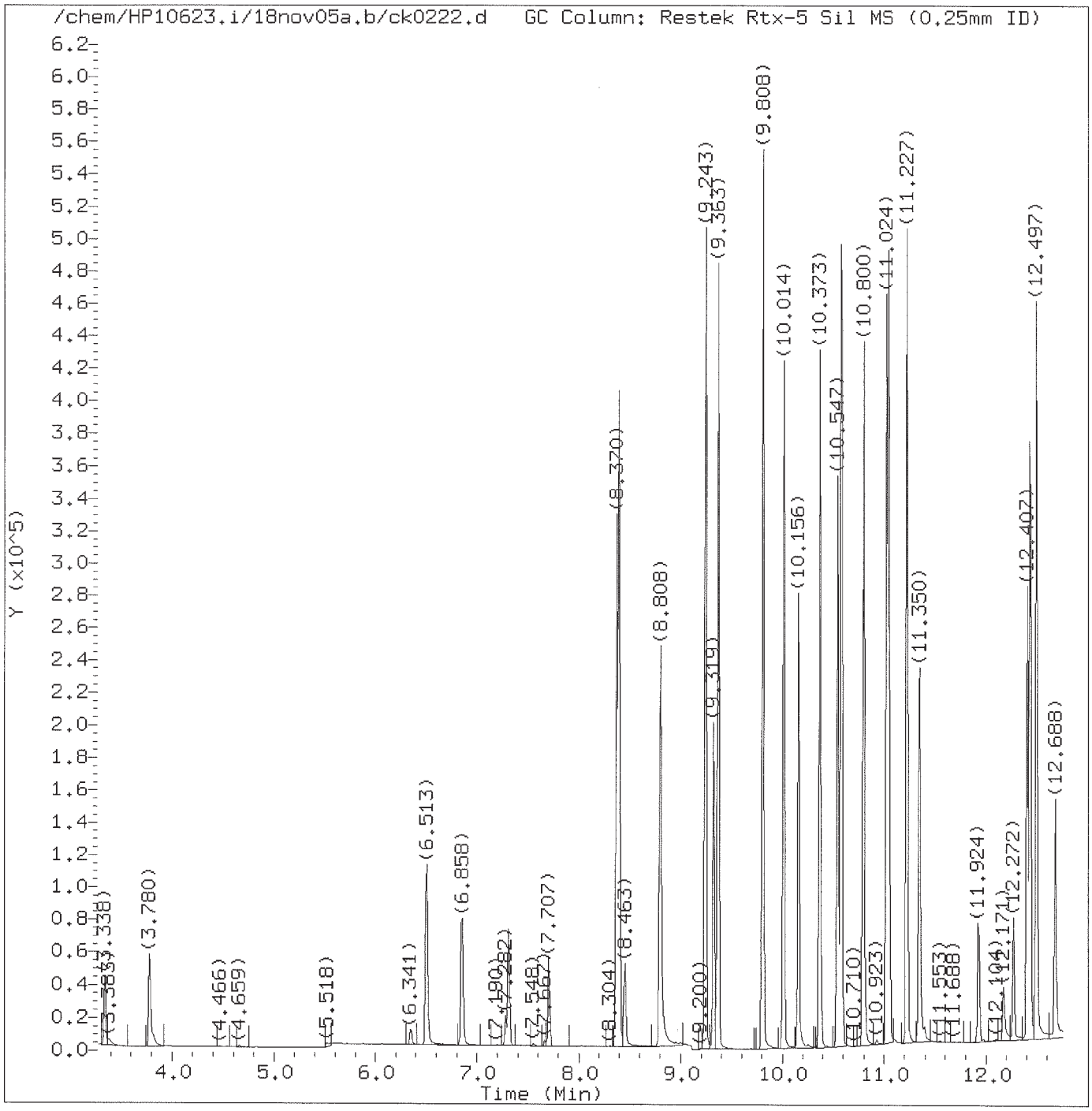
Data File: /chem/HP10623.i/18nov05a.b/ck0201.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 18:38 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: all1
Calibration date and time: 05-NOV-2018 19:11
Date, time and analyst ID of latest file update: 05-Nov-2018 19:11 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	19.826	276	296213	1.099
54) Dibenz(a,h)anthracene	(6)	19.833	278	259772	1.163
55) Benzo(g,h,i)perylene	(6)	20.398	276	273392	1.087

Digitally signed by Anthony P. Bauer
on 11/05/2018 at 21:20.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

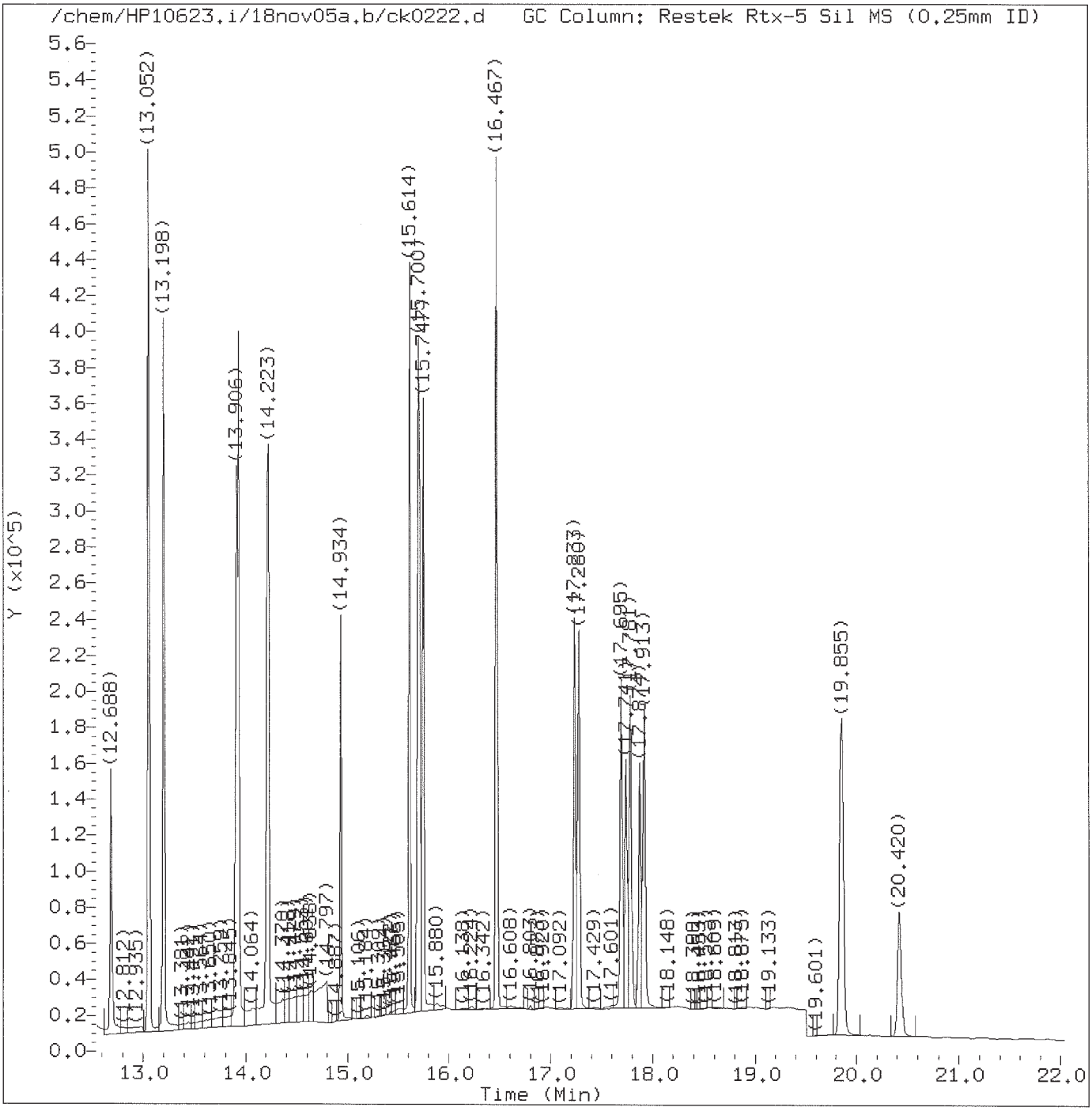
Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0222.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 05:40 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 05-NOV-2018 21:20
Date, time and analyst ID of latest file update: 06-Nov-2018 08:14 jmg00346

Sample Name: SECC001 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 08:15.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0222.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 05:40 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 05-NOV-2018 21:20
Date, time and analyst ID of latest file update: 06-Nov-2018 08:14 jmg00346

Sample Name: SECC001 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 08:15.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0222.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 05:40 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 05-NOV-2018 21:20
Date, time and analyst ID of latest file update: 06-Nov-2018 08:14 jmg00346

Sample Name: SECC001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.344	88	34985	0.721
6)*1,4-Dichlorobenzene-d4	(1)	6.858	152	75476	1.000
10)*Naphthalene-d8	(2)	8.370	136	342710	1.000
11) Naphthalene	(2)	8.397	128	394085	1.083
14)$1-Methylnaphthalene-d10	(2)	9.319	152	183894	1.062
19) Acenaphthylene	(3)	10.373	152	392351	1.191
20)*Acenaphthene-d10	(3)	10.547	164	165888	1.000
21) Acenaphthene	(3)	10.590	154	242972	1.078
26) Fluorene	(3)	11.227	166	268075	1.112
31)*Phenanthrene-d10	(4)	12.407	188	293202	1.000
32) Phenanthrene	(4)	12.441	178	373636	1.068
33) Anthracene	(4)	12.497	178	393106	1.169
35) Di-n-butylphthalate	(4)	13.052	149	468236	1.250
36)$Fluoranthene-d10	(4)	13.906	212	301561	1.134
37) Fluoranthene	(4)	13.930	202	386295	1.124
39) Pyrene	(5)	14.223	202	405448	1.093
41) bis(2-Ethylhexyl)phthalate	(5)	15.614	149	309058	1.256
42) Benzo(a)anthracene	(5)	15.700	228	332809	1.114
43)*Chrysene-d12	(5)	15.716	240	230494	1.000
44) Chrysene	(5)	15.747	228	332449	1.086
46) Benzo(b)fluoranthene	(6)	17.233	252	278612	1.190
47) Benzo(k)fluoranthene	(6)	17.272	252	284321	1.131
49)$Benzo(a)pyrene-d12	(6)	17.741	264	186991	1.114
50) Benzo(a)pyrene	(6)	17.781	252	240715	1.127
51)*Perylene-d12	(6)	17.874	264	182678	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.848	276	168550	0.795
54) Dibenz(a,h)anthracene	(6)	19.855	278	158041	0.900
55) Benzo(g,h,i)perylene	(6)	20.427	276	131969	0.667

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 08:15.
Target 3.5 esignature user ID: jmg00346

Data File: /chem/HP10623.i/18nov06a.b/ck0300.d

Date : 06-NOV-2018 16:18

Client ID: DFTPP

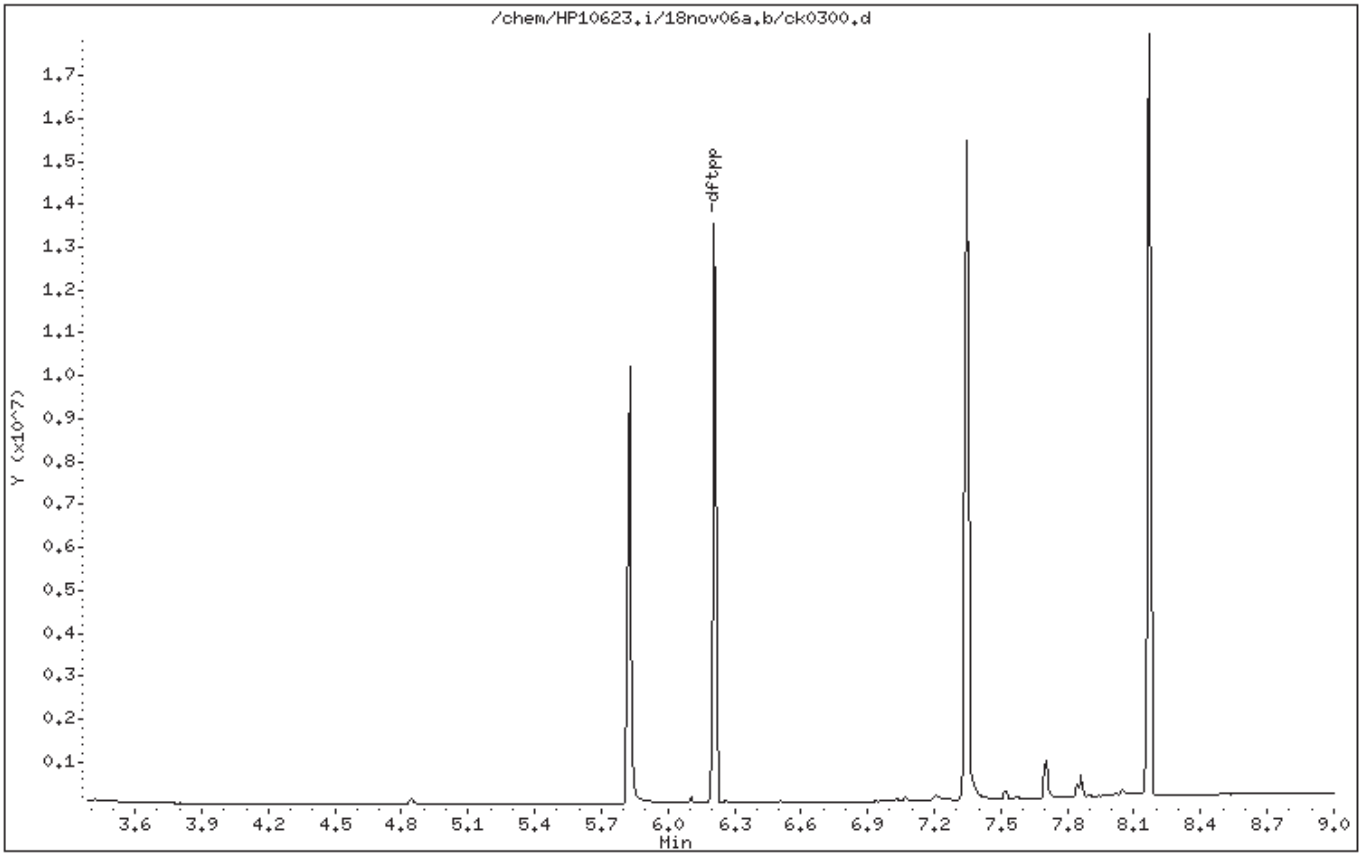
Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10623.i/18nov06a.b/ck0300.d

Date : 06-NOV-2018 16:18

Client ID: DFTPP

Instrument: HP10623.i

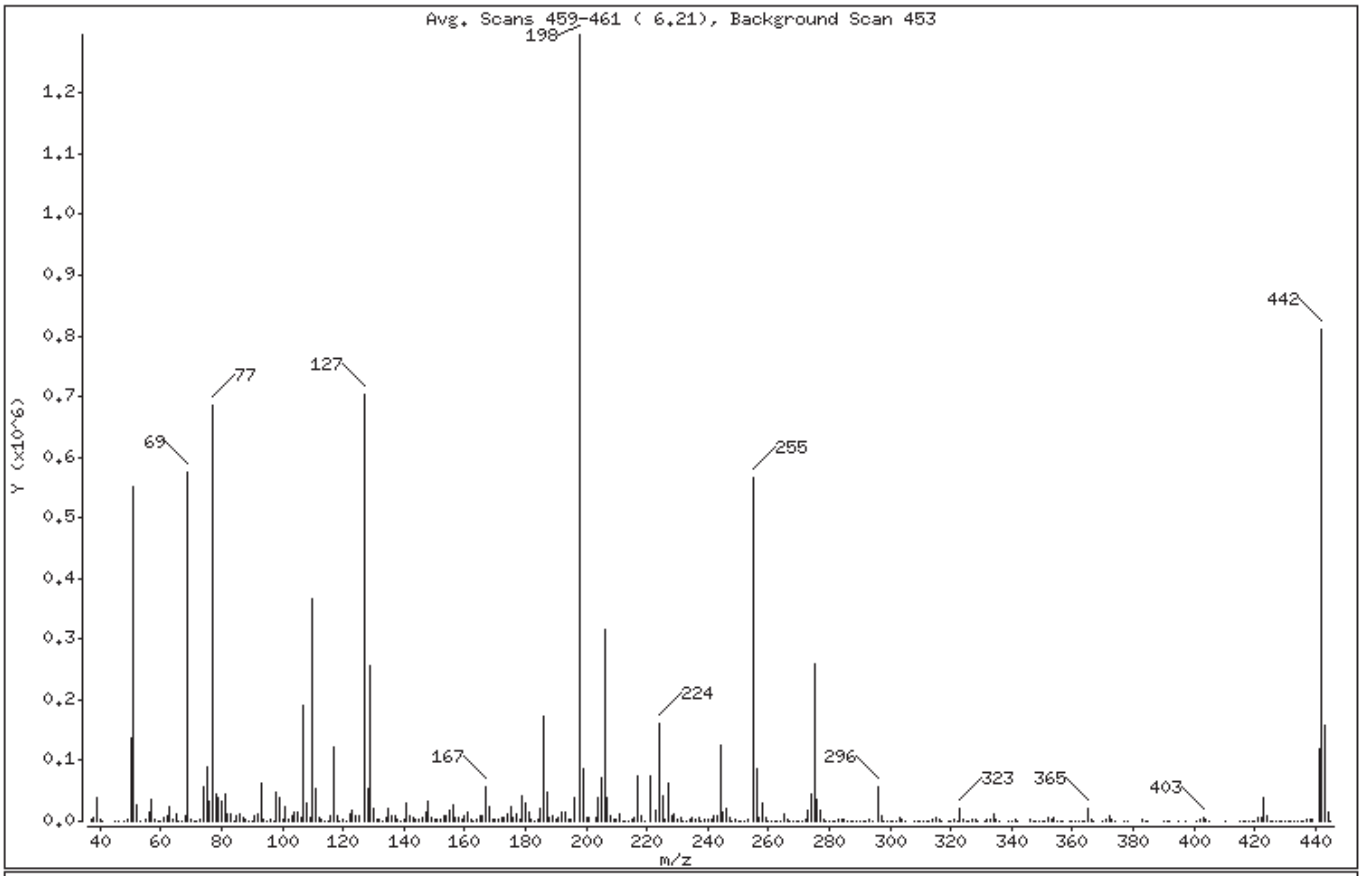
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	42.60
68	Less than 2.00% of mass 69	0.78 (1.75)
69	Mass 69 relative abundance	44.32
70	Less than 2.00% of mass 69	0.20 (0.46)
127	10.00 - 80.00% of mass 198	54.31
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 60.00% of mass 198	19.89
365	Greater than 1.00% of mass 198	1.70
441	0.01 - 24.00% of mass 442	9.24 (14.76)
442	50.00 - 99.99% of mass 198	62.56
443	15.00 - 24.00% of mass 442	12.26 (19.60)

Digitally signed by Anthony P. Bauer on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Date : 06-NOV-2018 16:18

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0300.d
Spectrum: Avg. Scans 459-461 (6.21), Background Scan 453
Location of Maximum: 198.00
Number of points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2153	134.00	6834	229.00	12676	325.00	473
38.00	6081	135.00	19648	230.00	1782	326.00	476
39.00	39136	136.00	8157	231.00	6006	327.00	3153
40.00	1517	137.00	9547	232.00	928	328.00	1875
41.00	323	138.00	2086	233.00	1319	329.00	332
45.00	756	139.00	1443	234.00	3903	331.00	80
46.00	59	140.00	3035	235.00	4528	332.00	1561
48.00	209	141.00	29840	236.00	2841	333.00	1925
49.00	2277	142.00	10335	237.00	4838	334.00	12015
50.00	136896	143.00	7049	238.00	811	335.00	3333
51.00	552320	144.00	1956	239.00	2108	336.00	368
52.00	27592	145.00	1806	240.00	1976	339.00	277
53.00	916	146.00	5127	241.00	3367	340.00	310
55.00	1944	147.00	14851	242.00	7786	341.00	2129
56.00	15329	148.00	31432	243.00	8608	342.00	755
57.00	36112	149.00	6238	244.00	123928	346.00	3809
58.00	1585	150.00	1904	245.00	16197	347.00	866
59.00	397	151.00	4070	246.00	21528	348.00	79
60.00	273	152.00	2206	247.00	4557	349.00	109
61.00	6868	153.00	9622	248.00	1188	350.00	195
62.00	7863	154.00	7876	249.00	4181	351.00	470
63.00	22400	155.00	16640	250.00	946	352.00	5776
64.00	3263	156.00	25640	251.00	886	353.00	3977
65.00	11580	157.00	5604	252.00	1090	354.00	5649
66.00	846	158.00	5532	253.00	2650	355.00	1045
67.00	445	159.00	4099	255.00	566912	356.00	109
68.00	10053	160.00	8945	256.00	85096	357.00	112
69.00	574528	161.00	13934	257.00	6074	359.00	430
70.00	2620	162.00	4149	258.00	29800	360.00	138
71.00	160	163.00	1063	259.00	4809	361.00	205
72.00	320	164.00	1860	260.00	986	362.00	171
73.00	3653	165.00	9793	261.00	1015	363.00	105
74.00	56104	166.00	8381	262.00	203	364.00	412
75.00	90064	167.00	57944	263.00	427	365.00	22056
76.00	32208	168.00	24704	264.00	740	366.00	3298

Digitally signed by Anthony P. Bauer on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Date : 06-NOV-2018 16:18

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0300.d
Spectrum: Avg. Scans 459-461 (6.21), Background Scan 453
Location of Maximum: 198.00
Number of points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	686656	169.00	4466	265.00	11994	367.00	152
78.00	45768	170.00	2204	266.00	1667	370.00	718
79.00	38416	171.00	2190	267.00	187	371.00	1553
80.00	31432	172.00	5183	268.00	135	372.00	10067
81.00	44616	173.00	6167	269.00	264	373.00	2591
82.00	10674	174.00	12556	270.00	534	374.00	297
83.00	11026	175.00	23416	271.00	1202	377.00	282
84.00	702	176.00	7387	272.00	1562	378.00	52
85.00	7762	177.00	10955	273.00	16392	383.00	2224
86.00	11498	178.00	3729	274.00	44088	384.00	732
87.00	5203	179.00	42408	275.00	257856	385.00	164
88.00	1982	180.00	29880	276.00	34640	390.00	1250
89.00	780	181.00	14420	277.00	18392	391.00	1036
90.00	304	182.00	2414	278.00	3089	392.00	703
91.00	9320	183.00	1458	279.00	655	395.00	55
92.00	10615	184.00	3328	280.00	52	397.00	133
93.00	63096	185.00	21048	281.00	182	401.00	676
94.00	4422	186.00	171648	282.00	448	402.00	3369
95.00	862	187.00	48400	283.00	2134	403.00	5423
96.00	2794	188.00	4785	284.00	1664	404.00	1718
97.00	1200	189.00	9891	285.00	3416	405.00	224
98.00	47016	190.00	1552	286.00	708	410.00	132
99.00	39512	191.00	4600	287.00	75	415.00	306
100.00	3592	192.00	13901	288.00	193	416.00	58
101.00	24584	193.00	15082	289.00	839	417.00	65
102.00	1524	194.00	3202	290.00	516	418.00	63
103.00	8187	195.00	2317	291.00	402	419.00	85
104.00	15006	196.00	39424	292.00	900	420.00	133
105.00	13803	198.00	1296384	293.00	4287	421.00	4712
106.00	4661	199.00	86968	294.00	1084	422.00	4836
107.00	189376	200.00	6058	296.00	56192	423.00	37944
108.00	30408	201.00	6119	297.00	7860	424.00	7706
109.00	5712	203.00	7221	298.00	734	425.00	805
110.00	365824	204.00	40176	299.00	125	426.00	229
111.00	53888	205.00	70616	300.00	102	427.00	60

Digitally signed by Anthony P. Bauer on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Date : 06-NOV-2018 16:18

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

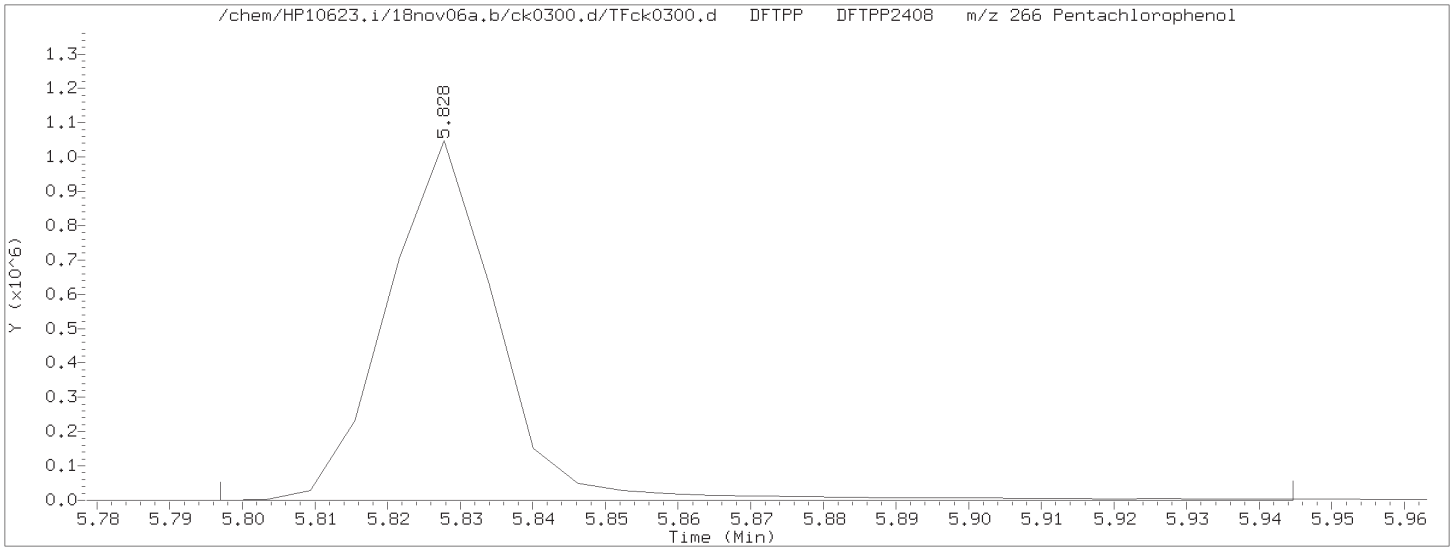
Data File: ck0300.d
Spectrum: Avg. Scans 459-461 (6.21), Background Scan 453
Location of Maximum: 198.00
Number of points: 360

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	6115	206.00	315136	301.00	662	428.00	73
113.00	1828	207.00	40024	302.00	1257	429.00	240
114.00	496	208.00	8772	303.00	7244	430.00	149
115.00	792	209.00	2639	304.00	2065	431.00	217
116.00	10255	210.00	4377	305.00	184	432.00	471
117.00	121992	211.00	11938	308.00	1005	433.00	328
118.00	9384	212.00	597	309.00	483	434.00	567
119.00	1301	213.00	1068	310.00	842	435.00	461
120.00	2670	214.00	270	311.00	308	436.00	1276
121.00	955	215.00	2935	312.00	165	437.00	1605
122.00	11292	216.00	6457	313.00	541	438.00	1495
123.00	17208	217.00	73936	314.00	2902	439.00	1923
124.00	8016	218.00	9414	315.00	6517	441.00	119736
125.00	8206	219.00	912	316.00	3372	442.00	811136
127.00	704192	221.00	73968	317.00	845	443.00	158976
128.00	52432	223.00	17264	319.00	90	444.00	14061
129.00	256448	224.00	159872	320.00	314	445.00	874
130.00	20872	225.00	40792	321.00	1899		
131.00	3913	226.00	4442	322.00	1383		
132.00	2348	227.00	62192	323.00	20392		
133.00	663	228.00	8981	324.00	3717		

Digitally signed by Anthony P. Bauer on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

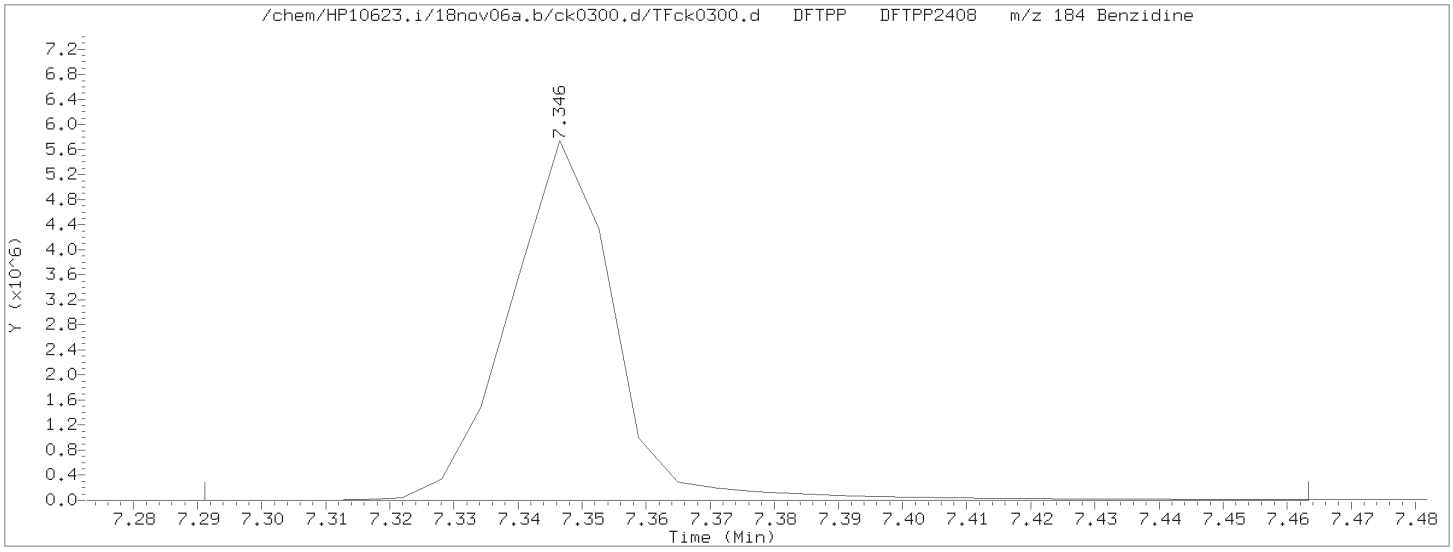
Instrument ID: HP10623.i Injection Date: 06-NOV-2018 16:18 Operator: apb10206



Pentachlorophenol EICP peak height = 1048128 EICP peak height at 10% = 104813 Pentachlorophenol EICP area = 1105230

Pentachlorophenol EICP peak apex (min.) = 5.828
RT at 10% of front half of EICP (min.) = 5.812 'Front' peak width (min.) = 0.0161333333
RT at 10% of back half of EICP (min.) = 5.843 'Tailing' peak width (min.) = 0.0150166667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0150166667}{0.0161333333} = 0.931$



Benzidine EICP peak height = 5743192 EICP peak height at 10% = 574319 Benzidine EICP area = 6507613

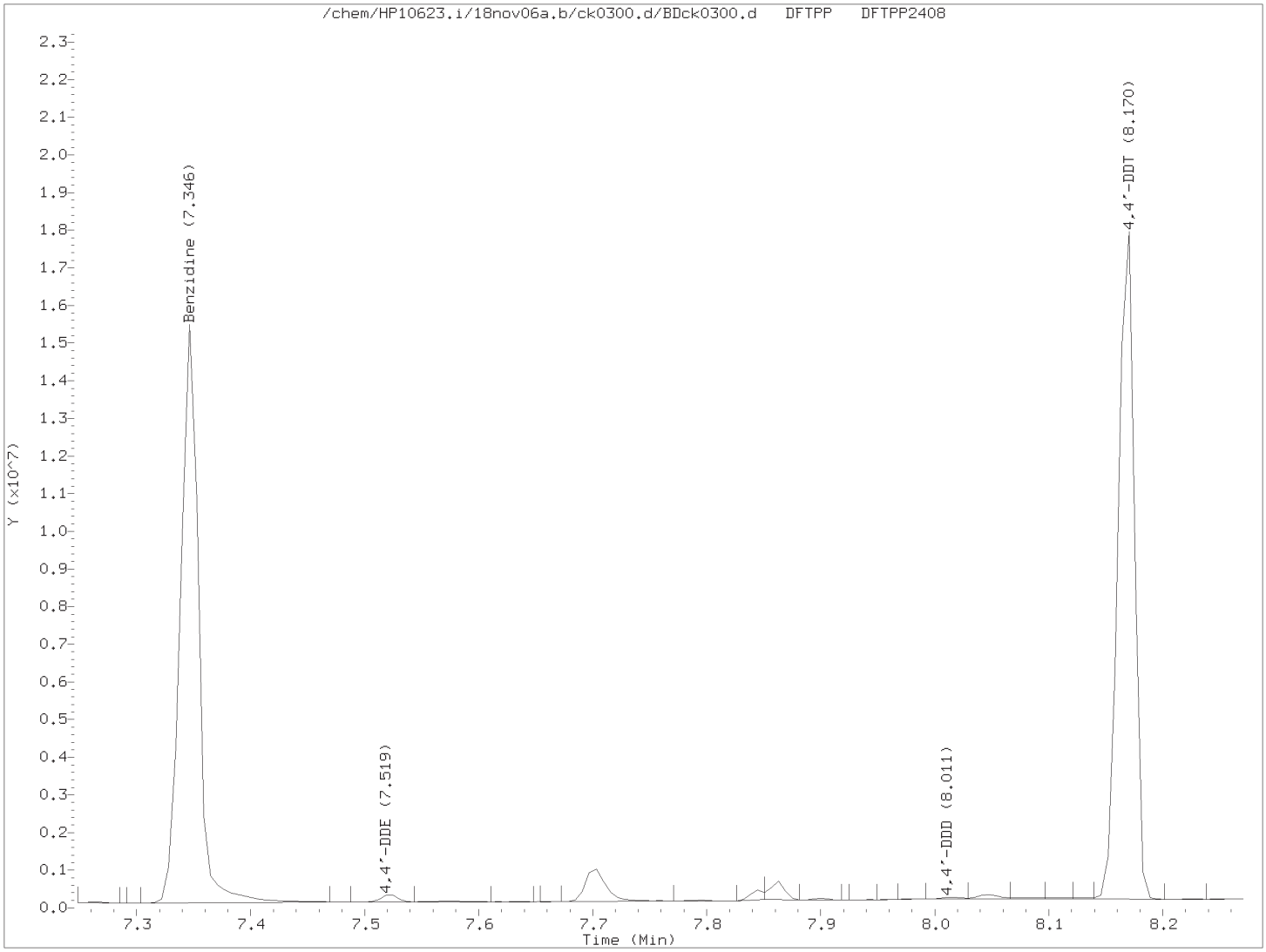
Benzidine EICP peak apex (min.) = 7.346
RT at 10% of front half of EICP (min.) = 7.329 'Front' peak width (min.) = 0.0171166667
RT at 10% of back half of EICP (min.) = 7.362 'Tailing' peak width (min.) = 0.0159333333

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0159333333}{0.0171166667} = 0.931$

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:20. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

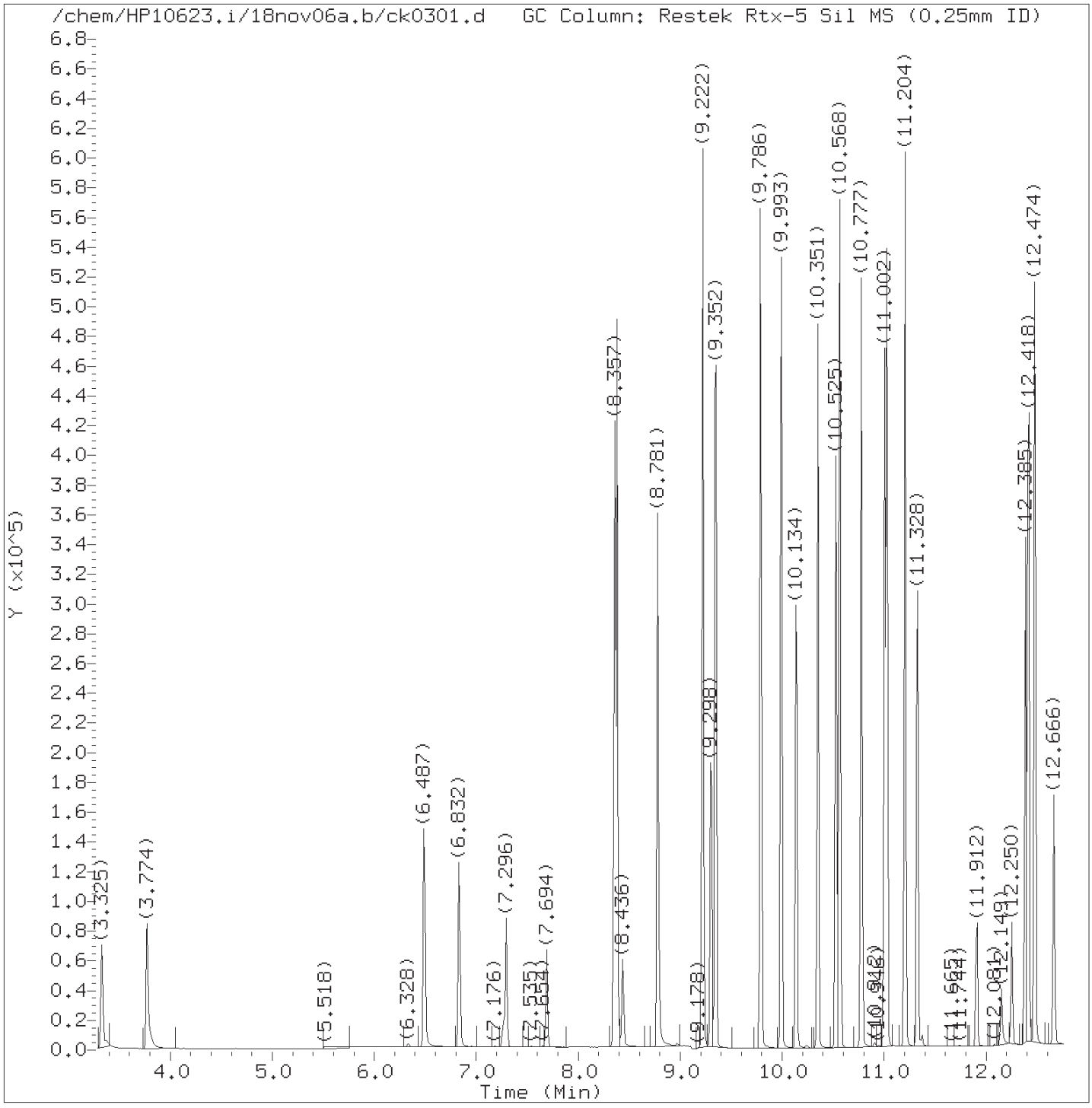
Instrument ID: HP10623.i Injection Date: 06-NOV-2018 16:18 Operator: apb10206



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{182029 + 56306}{182029 + 56306 + 17854898} \times 100 = 1.3$$

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:20. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

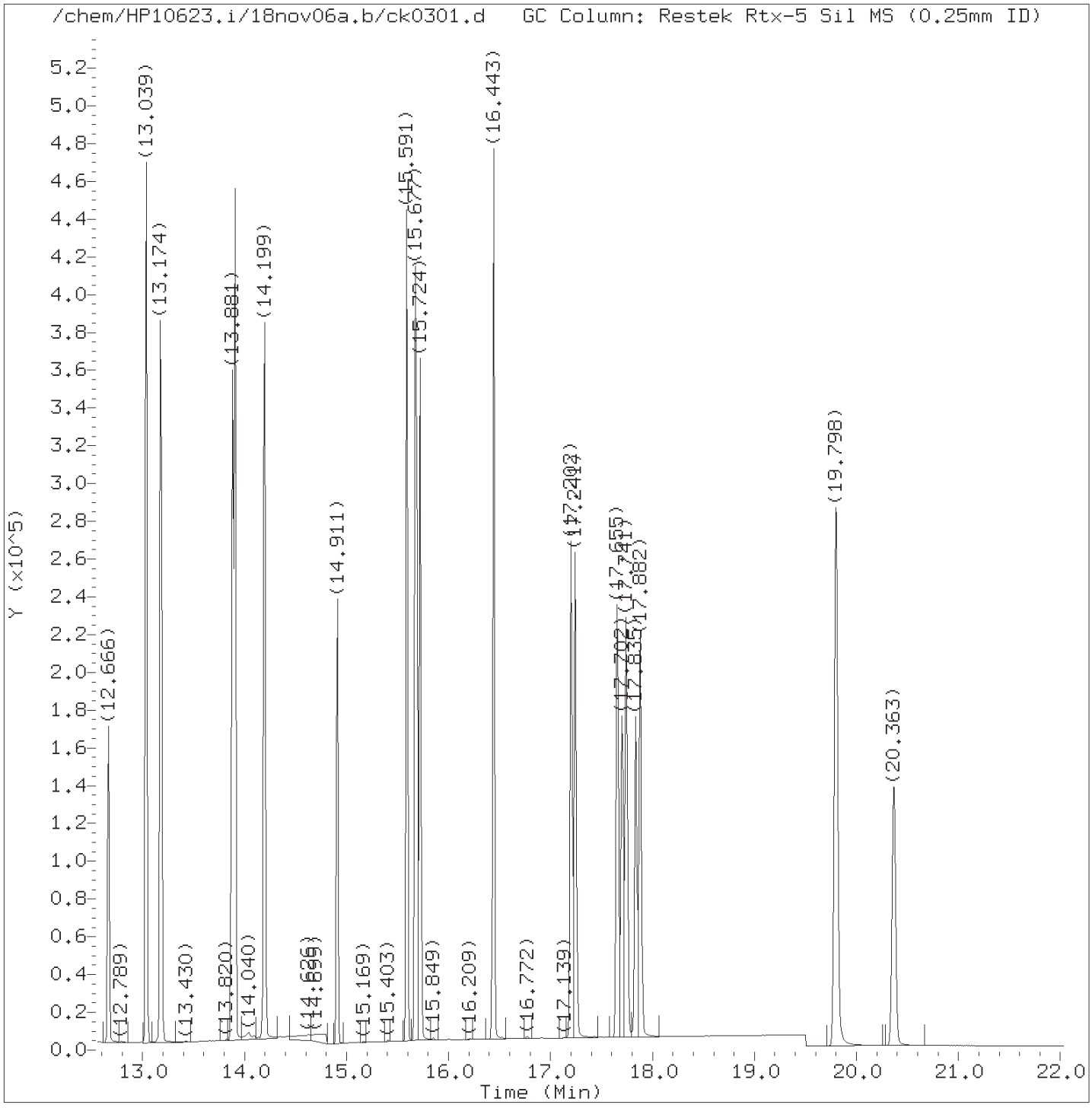
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0301.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 16:36 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: all1
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0301.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 16:36 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: all1
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0301.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 16:36 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: all1
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.325	88	57756	0.953
2) N-Nitrosodimethylamine	(1)	3.774	74	76515	0.978
5) bis(2-Chloroethyl)ether	(1)	6.487	93	124482	1.015
6)*1,4-Dichlorobenzene-d4	(1)	6.832	152	94256	1.000
10)*Naphthalene-d8	(2)	8.357	136	403036	1.000
11) Naphthalene	(2)	8.383	128	445009	1.040
12) Quinoline	(2)	8.781	129	282327	1.140
13) 2-Methylnaphthalene	(2)	9.222	142	302545	1.134
14)$1-Methylnaphthalene-d10	(2)	9.298	152	212143	1.042
15) 1-Methylnaphthalene	(2)	9.352	142	294414	1.096
18) Dimethylphthalate	(3)	10.134	163	290957	1.102
19) Acenaphthylene	(3)	10.351	152	416318	1.125
20)*Acenaphthene-d10	(3)	10.525	164	186397	1.000
21) Acenaphthene	(3)	10.568	154	266404	1.052
22) Dibenzofuran	(3)	10.777	168	370105	1.073
23) Diethylphthalate	(3)	11.002	149	319109	1.238
26) Fluorene	(3)	11.204	166	300671	1.110
28) NDPA as diphenylamine	(4)	11.328	169	190305	1.171
27) N-Nitrosodiphenylamine	(4)	11.328	169	190305	1.171
29) Hexachlorobenzene	(4)	11.912	284	67137	1.106
31)*Phenanthrene-d10	(4)	12.385	188	344537	1.000
32) Phenanthrene	(4)	12.418	178	431865	1.051
33) Anthracene	(4)	12.474	178	439750	1.112
35) Di-n-butylphthalate	(4)	13.039	149	486081	1.104
36)$Fluoranthene-d10	(4)	13.881	212	346420	1.108
37) Fluoranthene	(4)	13.906	202	437452	1.083
39) Pyrene	(5)	14.199	202	449465	1.109
40) Butylbenzylphthalate	(5)	14.911	149	240641	1.316
41) bis(2-Ethylhexyl)phthalate	(5)	15.591	149	307671	1.155
42) Benzo(a)anthracene	(5)	15.669	228	363627	1.114
43)*Chrysene-d12	(5)	15.685	240	251887	1.000
44) Chrysene	(5)	15.724	228	357792	1.070
45) Di-n-octylphthalate	(6)	16.443	149	517609	1.200
46) Benzo(b)fluoranthene	(6)	17.202	252	333424	1.151
47) Benzo(k)fluoranthene	(6)	17.241	252	314374	1.011
48) Benzo(e)pyrene	(6)	17.655	252	305029	1.028
49)$Benzo(a)pyrene-d12	(6)	17.702	264	226906	1.093
50) Benzo(a)pyrene	(6)	17.741	252	296069	1.121
51)*Perylene-d12	(6)	17.835	264	225953	1.000
52) Perylene	(6)	17.882	252	300728	1.046

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

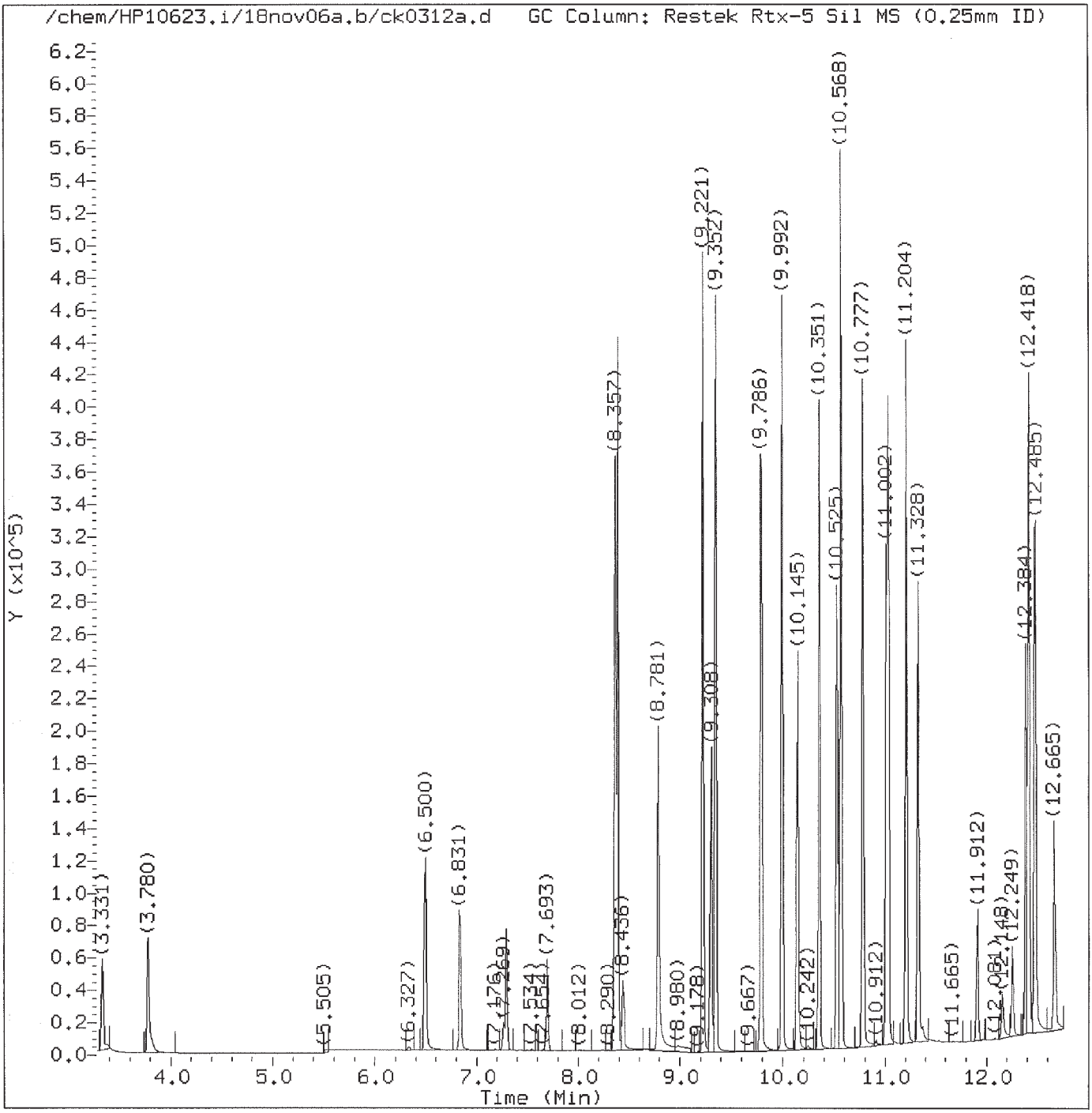
Data File: /chem/HP10623.i/18nov06a.b/ck0301.d Instrument ID: HP10623.i
Injection date and time: 06-NOV-2018 16:36 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: all1
Calibration date and time: 06-NOV-2018 17:12
Date, time and analyst ID of latest file update: 06-Nov-2018 17:12 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	19.798	276	285217	1.088
54) Dibenz(a,h)anthracene	(6)	19.805	278	249977	1.151
55) Benzo(g,h,i)perylene	(6)	20.371	276	260960	1.067

Digitally signed by Anthony P. Bauer
on 11/06/2018 at 20:00.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

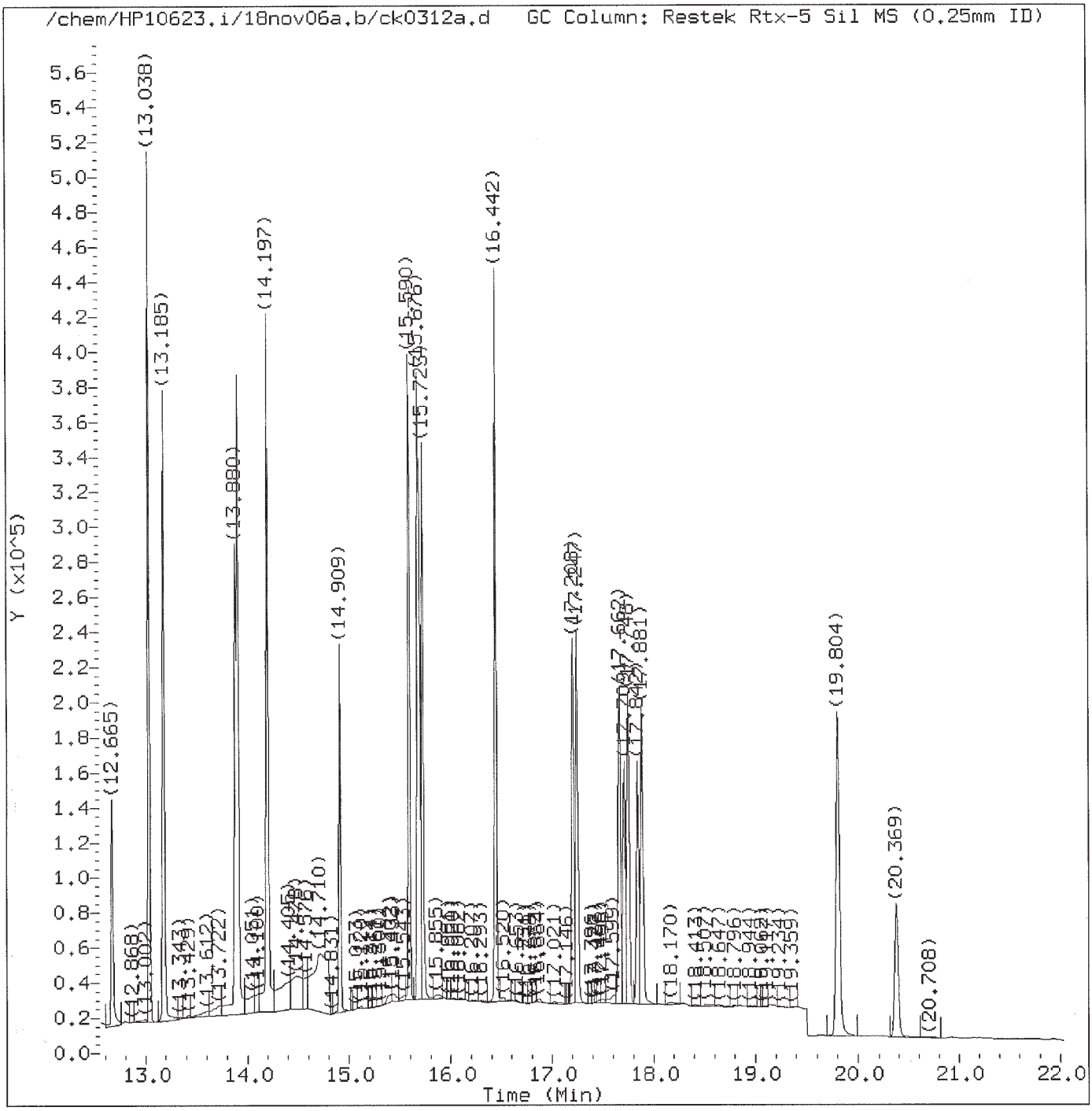
Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0312a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 01:22 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 02:06 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 02:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0312a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 01:22 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 02:06 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 02:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov06a.b/ck0312a.d Instrument ID: HP10623.i
Injection date and time: 07-NOV-2018 01:22 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov06a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 20:01
Date, time and analyst ID of latest file update: 07-Nov-2018 02:06 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.331	88	44881	0.865
6)*1,4-Dichlorobenzene-d4	(1)	6.844	152	80754	1.000
10)*Naphthalene-d8	(2)	8.357	136	336235	1.000
11) Naphthalene	(2)	8.383	128	379561	1.063
14)$1-Methylnaphthalene-d10	(2)	9.308	152	179080	1.054
19) Acenaphthylene	(3)	10.351	152	349343	1.127
20)*Acenaphthene-d10	(3)	10.525	164	156163	1.000
21) Acenaphthene	(3)	10.568	154	219850	1.036
26) Fluorene	(3)	11.204	166	241440	1.064
31)*Phenanthrene-d10	(4)	12.384	188	277689	1.000
32) Phenanthrene	(4)	12.418	178	339213	1.024
33) Anthracene	(4)	12.485	178	369313	1.159
35) Di-n-butylphthalate	(4)	13.038	149	422063	1.189
36)$Fluoranthene-d10	(4)	13.880	212	285448	1.133
37) Fluoranthene	(4)	13.905	202	357736	1.099
39) Pyrene	(5)	14.197	202	377071	1.085
41) bis(2-Ethylhexyl)phthalate	(5)	15.590	149	274874	1.199
42) Benzo(a)anthracene	(5)	15.676	228	309405	1.106
43)*Chrysene-d12	(5)	15.691	240	215915	1.000
44) Chrysene	(5)	15.723	228	308803	1.077
46) Benzo(b)fluoranthene	(6)	17.208	252	261947	1.114
47) Benzo(k)fluoranthene	(6)	17.247	252	281387	1.115
49)$Benzo(a)pyrene-d12	(6)	17.709	264	187823	1.114
50) Benzo(a)pyrene	(6)	17.748	252	240130	1.120
51)*Perylene-d12	(6)	17.842	264	183431	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.804	276	179688	0.845
54) Dibenz(a,h)anthracene	(6)	19.811	278	167503	0.950
55) Benzo(g,h,i)perylene	(6)	20.376	276	142826	0.719

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 02:06.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10623.i/18nov16.b/ck0700.d

Date : 16-NOV-2018 05:01

Client ID: DFTPP

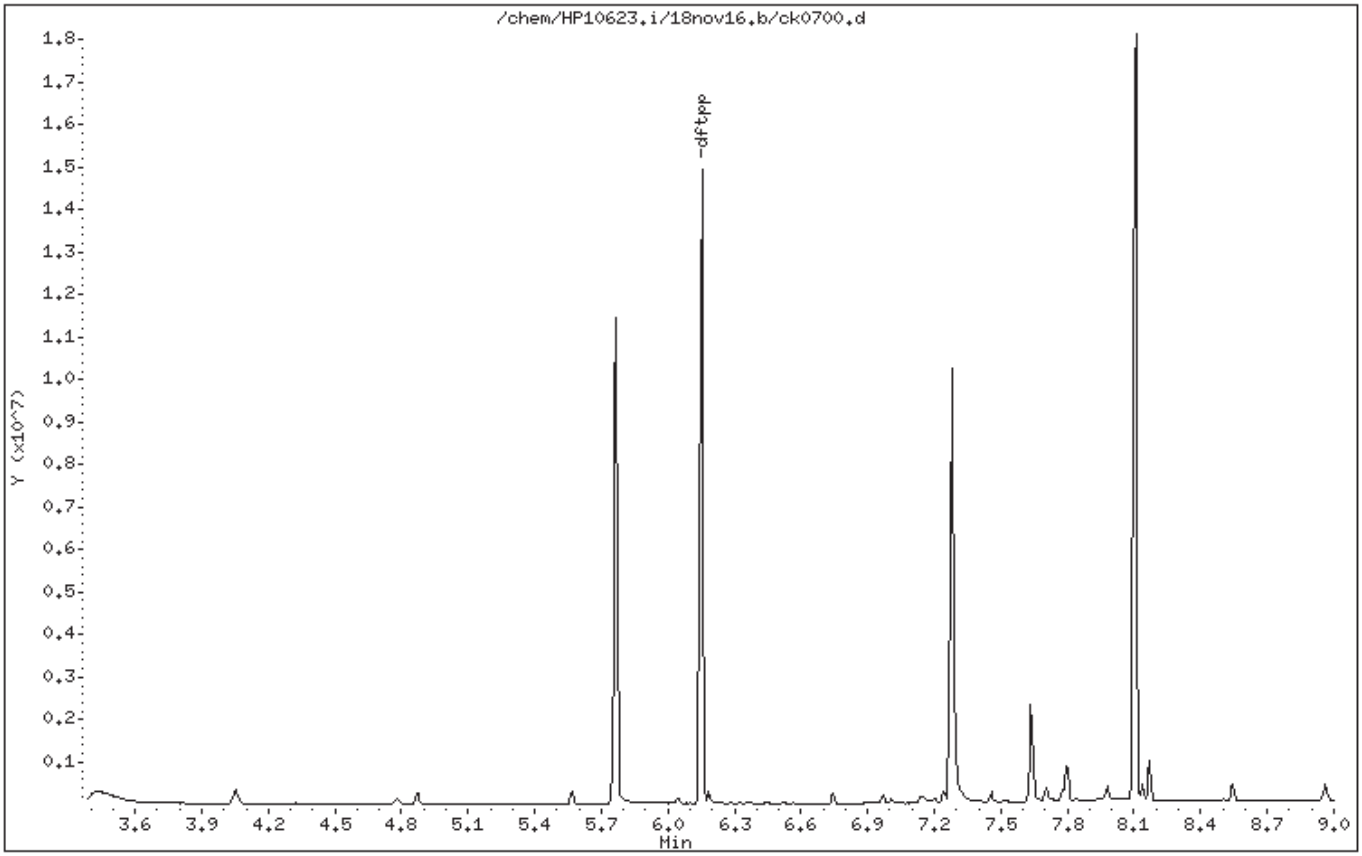
Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Data File: /chem/HP10623.i/18nov16.b/ck0700.d

Date : 16-NOV-2018 05:01

Client ID: DFTPP

Instrument: HP10623.i

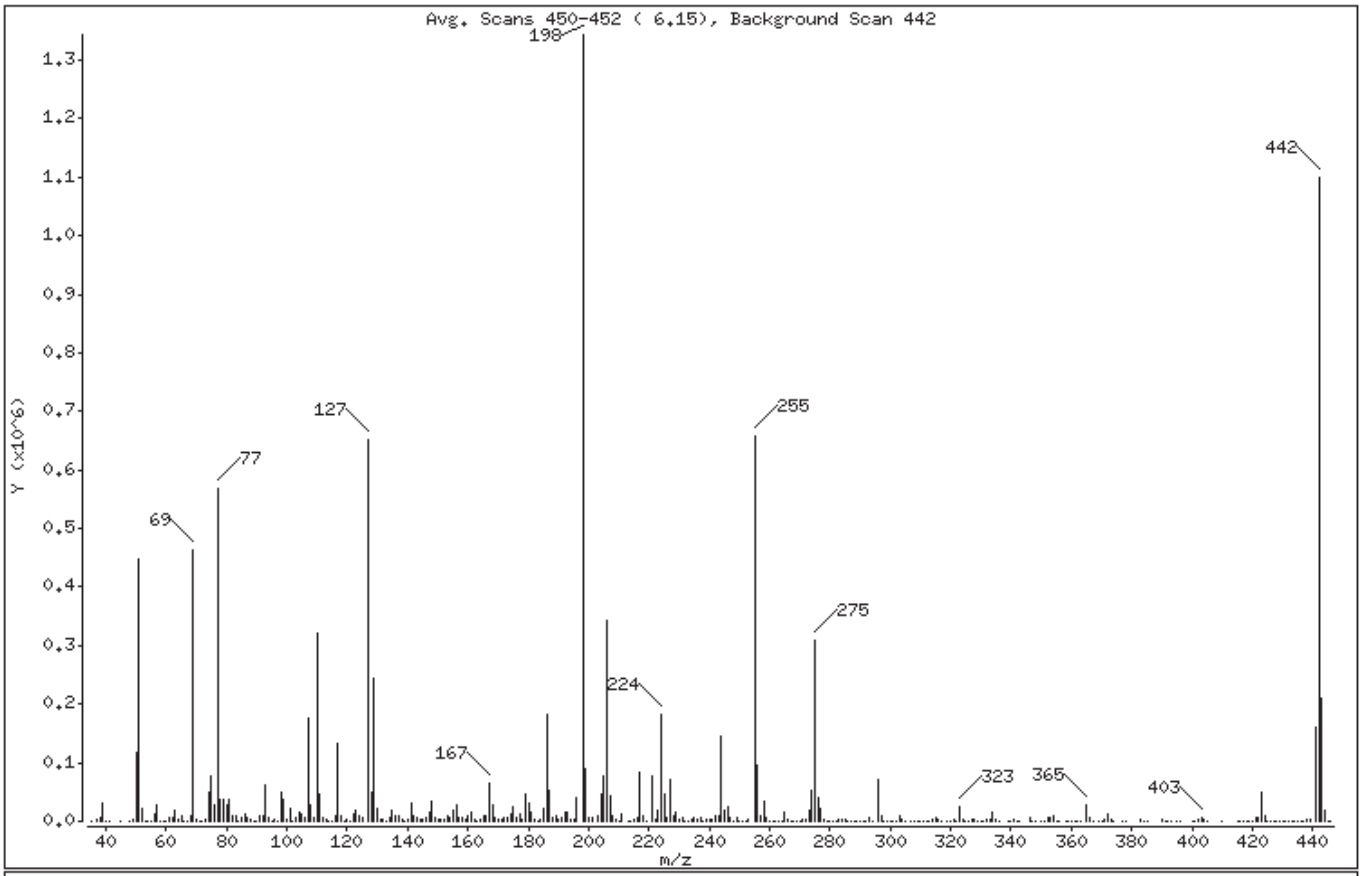
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.40
68	Less than 2.00% of mass 69	0.65 (1.87)
69	Mass 69 relative abundance	34.56
70	Less than 2.00% of mass 69	0.18 (0.51)
127	10.00 - 80.00% of mass 198	48.39
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 60.00% of mass 198	22.96
365	Greater than 1.00% of mass 198	2.12
441	0.01 - 24.00% of mass 442	11.93 (14.58)
442	50.00 - 99.99% of mass 198	81.82
443	15.00 - 24.00% of mass 442	15.64 (19.11)

Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Date : 16-NOV-2018 05:01

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0700.d
Spectrum: Avg. Scans 450-452 (6.15), Background Scan 442
Location of Maximum: 198.00
Number of points: 366

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	84	134.00	6720	230.00	2073	326.00	523
37.00	1776	135.00	20040	231.00	6568	327.00	4344
38.00	5433	136.00	7797	232.00	1227	328.00	2350
39.00	31496	137.00	9861	233.00	1452	329.00	394
40.00	1414	138.00	2123	234.00	4283	330.00	142
41.00	166	139.00	1258	235.00	5089	331.00	202
45.00	594	140.00	3071	236.00	3484	332.00	1635
48.00	143	141.00	30280	237.00	5457	333.00	2292
49.00	2698	142.00	10352	238.00	828	334.00	15164
50.00	118768	143.00	6353	239.00	2646	335.00	4122
51.00	448832	144.00	1847	240.00	2191	336.00	480
52.00	22840	145.00	1826	241.00	4072	339.00	379
53.00	680	146.00	5608	242.00	9025	340.00	349
54.00	64	147.00	16004	243.00	10090	341.00	2895
55.00	1467	148.00	34960	244.00	144512	342.00	809
56.00	12484	149.00	6886	245.00	19280	343.00	67
57.00	28912	150.00	2143	246.00	24216	346.00	5224
58.00	1201	151.00	4341	247.00	4691	347.00	974
59.00	407	152.00	1795	248.00	1342	348.00	64
60.00	273	153.00	9792	249.00	4913	350.00	180
61.00	5317	154.00	7650	250.00	1014	351.00	387
62.00	6521	155.00	17840	251.00	1213	352.00	6983
63.00	18264	156.00	26640	252.00	1458	353.00	5087
64.00	2655	157.00	5484	253.00	3283	354.00	7771
65.00	9333	158.00	5602	255.00	656832	355.00	1492
66.00	426	159.00	4371	256.00	96216	356.00	155
67.00	398	160.00	9135	257.00	7772	358.00	74
68.00	8695	161.00	14081	258.00	34504	359.00	515
69.00	464384	162.00	3967	259.00	5589	360.00	123
70.00	2356	163.00	1166	260.00	1018	361.00	138
71.00	196	164.00	1898	261.00	1223	362.00	71
72.00	394	165.00	10748	262.00	235	363.00	187
73.00	3539	166.00	9501	263.00	358	365.00	28432
74.00	49688	167.00	63960	264.00	1010	366.00	4714
75.00	77856	168.00	28560	265.00	14018	367.00	355

Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Date : 16-NOV-2018 05:01

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

Data File: ck0700.d
Spectrum: Avg. Scans 450-452 (6.15), Background Scan 442
Location of Maximum: 198.00
Number of points: 366

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	28056	169.00	4932	266.00	2086	369.00	73
77.00	568704	170.00	2128	267.00	279	370.00	697
78.00	38376	171.00	2658	268.00	128	371.00	2070
79.00	35776	172.00	5359	269.00	227	372.00	12388
80.00	27040	173.00	6937	270.00	853	373.00	2877
81.00	38568	174.00	13011	271.00	1613	374.00	393
82.00	9215	175.00	25144	272.00	2076	377.00	326
83.00	9004	176.00	7475	273.00	19376	378.00	66
84.00	811	177.00	11561	274.00	53848	383.00	3044
85.00	7086	178.00	3566	275.00	308480	384.00	891
86.00	10871	179.00	46064	276.00	41656	385.00	275
87.00	5047	180.00	31064	277.00	22512	390.00	1808
88.00	2024	181.00	15292	278.00	3954	391.00	1168
89.00	948	182.00	2483	279.00	853	392.00	796
90.00	235	183.00	1270	280.00	131	393.00	82
91.00	8299	184.00	3768	281.00	161	395.00	57
92.00	9751	185.00	22608	282.00	660	396.00	55
93.00	60864	186.00	183744	283.00	2637	400.00	53
94.00	4644	187.00	51864	284.00	1829	401.00	785
95.00	889	188.00	4973	285.00	4015	402.00	4332
96.00	2666	189.00	10550	286.00	711	403.00	6402
97.00	340	190.00	2047	287.00	134	404.00	2441
98.00	47888	191.00	5055	288.00	281	405.00	318
99.00	37408	192.00	14233	289.00	868	410.00	339
100.00	3422	193.00	15953	290.00	985	415.00	263
101.00	21464	194.00	3384	291.00	593	416.00	86
102.00	1360	195.00	2500	292.00	1201	417.00	58
103.00	7340	196.00	41344	293.00	5056	418.00	58
104.00	14065	198.00	1343488	294.00	1305	419.00	135
105.00	12767	199.00	90176	296.00	70600	420.00	69
106.00	4709	200.00	6519	297.00	9373	421.00	6034
107.00	176704	201.00	6462	298.00	674	422.00	5963
108.00	27616	203.00	8510	299.00	181	423.00	50328
109.00	5715	204.00	45656	300.00	61	424.00	10060
110.00	322496	205.00	78648	301.00	947	425.00	987

Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Date : 16-NOV-2018 05:01

Client ID: DFTPP Instrument: HP10623.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

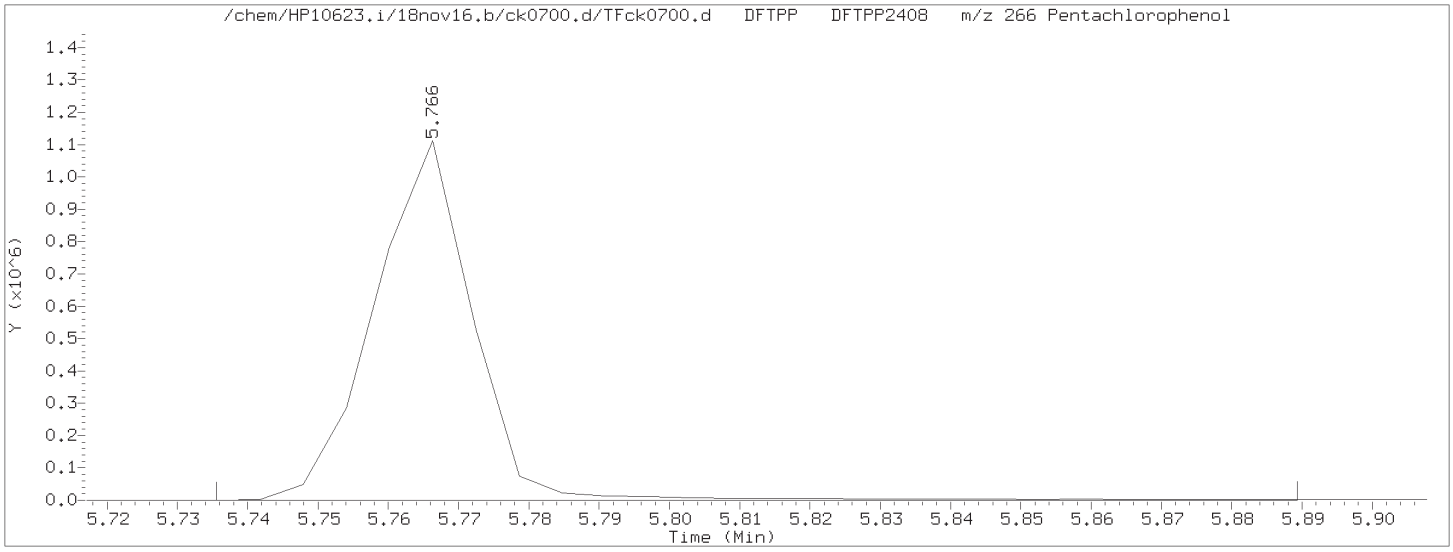
Data File: ck0700.d
Spectrum: Avg. Scans 450-452 (6.15), Background Scan 442
Location of Maximum: 198.00
Number of points: 366

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	47776	206.00	341440	302.00	1406	426.00	88
112.00	5981	207.00	44448	303.00	9021	427.00	240
113.00	1771	208.00	10438	304.00	2548	428.00	152
114.00	495	209.00	3419	305.00	333	429.00	407
115.00	486	210.00	923	307.00	72	430.00	377
116.00	10175	211.00	12199	308.00	953	431.00	453
117.00	133824	213.00	927	309.00	628	432.00	339
118.00	10144	214.00	445	310.00	1049	433.00	719
119.00	923	215.00	3396	311.00	357	434.00	1052
120.00	2298	216.00	6989	312.00	259	435.00	697
121.00	700	217.00	82144	313.00	804	436.00	1412
122.00	11664	218.00	10715	314.00	3536	437.00	1209
123.00	17408	219.00	1079	315.00	7549	438.00	1693
124.00	7984	221.00	78672	316.00	4468	439.00	1571
125.00	7335	222.00	2425	317.00	758	441.00	160256
127.00	650176	223.00	19264	319.00	151	442.00	1099264
128.00	48440	224.00	181760	320.00	415	443.00	210112
129.00	243904	225.00	45616	321.00	2460	444.00	18264
130.00	20120	226.00	5063	322.00	1477	445.00	1130
131.00	3831	227.00	70304	323.00	25304	446.00	62
132.00	1891	228.00	9500	324.00	4330		
133.00	715	229.00	15304	325.00	478		

Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Assessment of GC Column Performance and Injection Port Inertness for

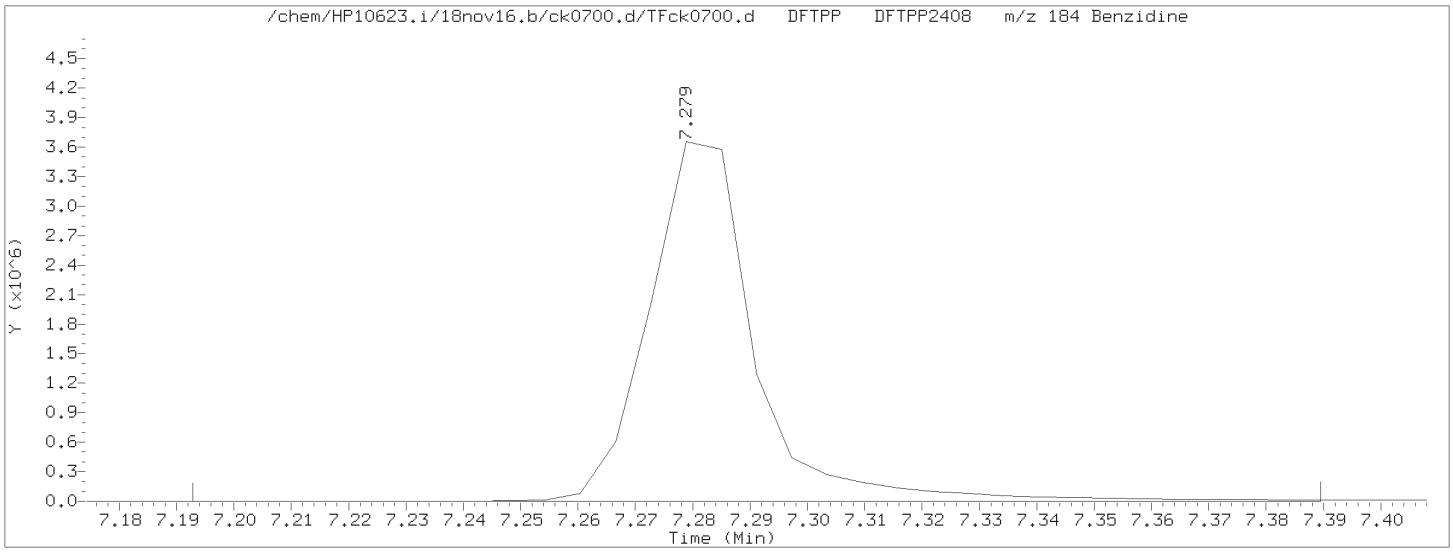
Instrument ID: HP10623.i Injection Date: 16-NOV-2018 05:01 Operator: jmg00346



Pentachlorophenol EICP peak height = 1112576 EICP peak height at 10% = 111258 Pentachlorophenol EICP area = 1082233

Pentachlorophenol EICP peak apex (min.) = 5.766
RT at 10% of front half of EICP (min.) = 5.750 'Front' peak width (min.) = 0.0168000000
RT at 10% of back half of EICP (min.) = 5.778 'Tailing' peak width (min.) = 0.0117833333

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0117833333}{0.0168000000} = 0.701$



Benzidine EICP peak height = 3657312 EICP peak height at 10% = 365731 Benzidine EICP area = 4676439

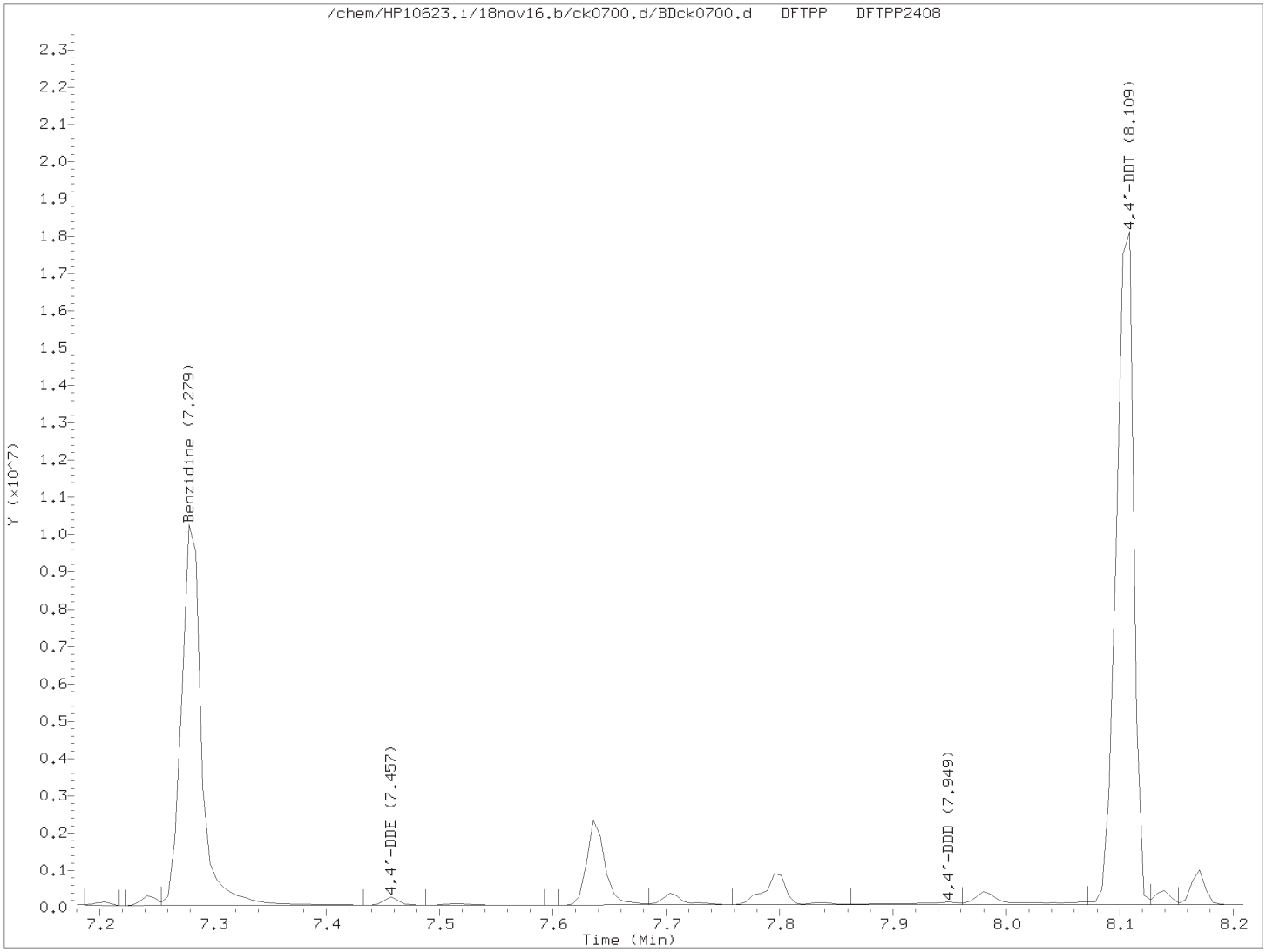
Benzidine EICP peak apex (min.) = 7.279
RT at 10% of front half of EICP (min.) = 7.264 'Front' peak width (min.) = 0.0150666667
RT at 10% of back half of EICP (min.) = 7.300 'Tailing' peak width (min.) = 0.0209500000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0209500000}{0.0150666667} = 1.390$

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20. PARALLAX ID: cam01237

Assessment of GC Column Performance and Injection Port Inertness for

Instrument ID: HP10623.i Injection Date: 16-NOV-2018 05:01 Operator: jmg00346

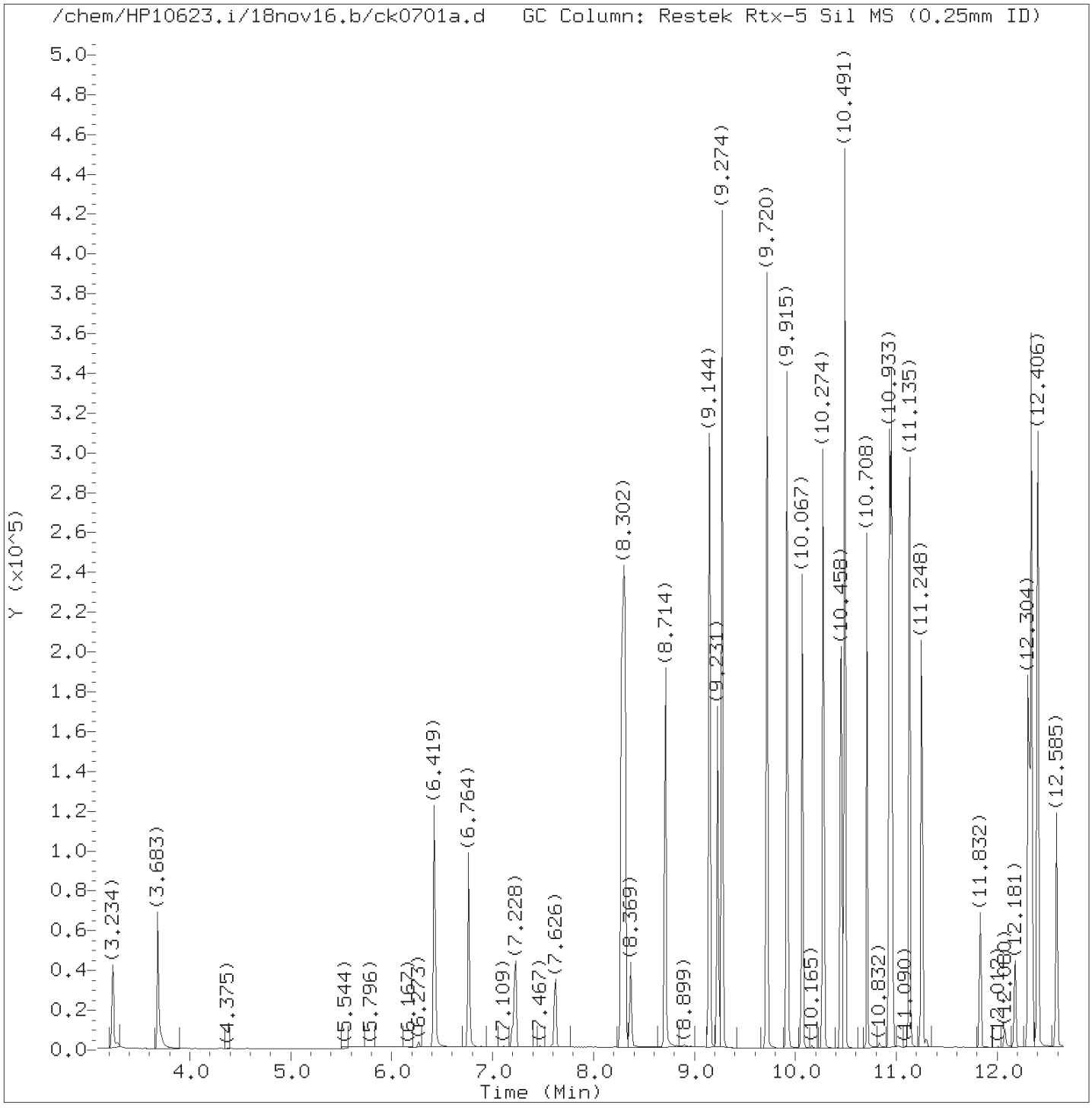


$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{204617 + 204672}{204617 + 204672 + 19809835} \times 100 = 2.0$$

printed on 11/16/2018 at 05:16

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

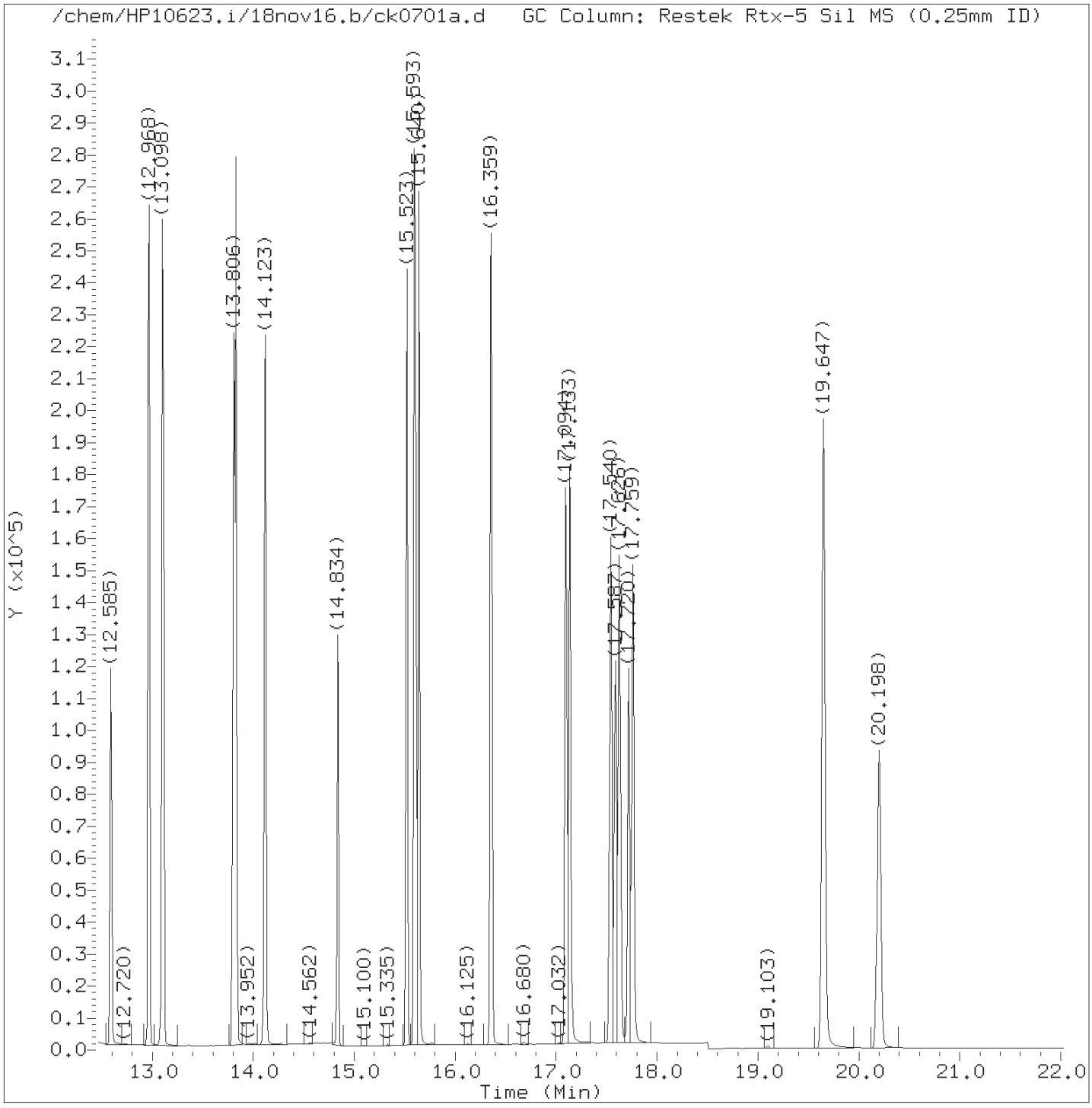
Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 06:29 jmg00346

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 06:29 jmg00346

Sample Name: SSTD001 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 06:29 jmg00346

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.234	88	36423MA	0.827
2) N-Nitrosodimethylamine	(1)	3.683	74	52972	0.931
5) bis(2-Chloroethyl)ether	(1)	6.419	93	86842	0.973
6)*1,4-Dichlorobenzene-d4	(1)	6.764	152	68540	1.000
10)*Naphthalene-d8	(2)	8.289	136	263636	1.000
11) Naphthalene	(2)	8.316	128	295438	1.055
12) Quinoline	(2)	8.714	129	175316	1.082
13) 2-Methylnaphthalene	(2)	9.155	142	208814	1.196
14)$1-Methylnaphthalene-d10	(2)	9.231	152	150442	1.129
15) 1-Methylnaphthalene	(2)	9.274	142	200281	1.140
18) Dimethylphthalate	(3)	10.067	163	188531	1.100
19) Acenaphthylene	(3)	10.274	152	262067	1.090
20)*Acenaphthene-d10	(3)	10.458	164	121087	1.000
21) Acenaphthene	(3)	10.491	154	169544	1.030
22) Dibenzofuran	(3)	10.708	168	136838	0.611
23) Diethylphthalate	(3)	10.933	149	196044	1.171
26) Fluorene	(3)	11.135	166	192891	1.096
28) NDPA as diphenylamine	(4)	11.248	169	122753	1.138
27) N-Nitrosodiphenylamine	(4)	11.248	169	122753	1.138
29) Hexachlorobenzene	(4)	11.832	284	45020	1.117
31)*Phenanthrene-d10	(4)	12.304	188	228805	1.000
32) Phenanthrene	(4)	12.338	178	281287	1.030
33) Anthracene	(4)	12.406	178	284040	1.082
35) Di-n-butylphthalate	(4)	12.968	149	312845	1.070
36)$Fluoranthene-d10	(4)	13.806	212	220454	1.062
37) Fluoranthene	(4)	13.830	202	279123	1.041
39) Pyrene	(5)	14.123	202	287516	1.019
40) Butylbenzylphthalate	(5)	14.834	149	157361	1.236
41) bis(2-Ethylhexyl)phthalate	(5)	15.523	149	183479	1.007
42) Benzo(a)anthracene	(5)	15.593	228	244941	1.078
43)*Chrysene-d12	(5)	15.609	240	175341	1.000
44) Chrysene	(5)	15.640	228	248215	1.066
45) Di-n-octylphthalate	(6)	16.359	149	301867	1.031
46) Benzo(b)fluoranthene	(6)	17.094	252	223926	1.139
47) Benzo(k)fluoranthene	(6)	17.133	252	226905	1.075
48) Benzo(e)pyrene	(6)	17.540	252	214569	1.065
49)$Benzo(a)pyrene-d12	(6)	17.587	264	156026	1.107
50) Benzo(a)pyrene	(6)	17.626	252	203573	1.135
51)*Perylene-d12	(6)	17.720	264	153412	1.000
52) Perylene	(6)	17.759	252	203145	1.040

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

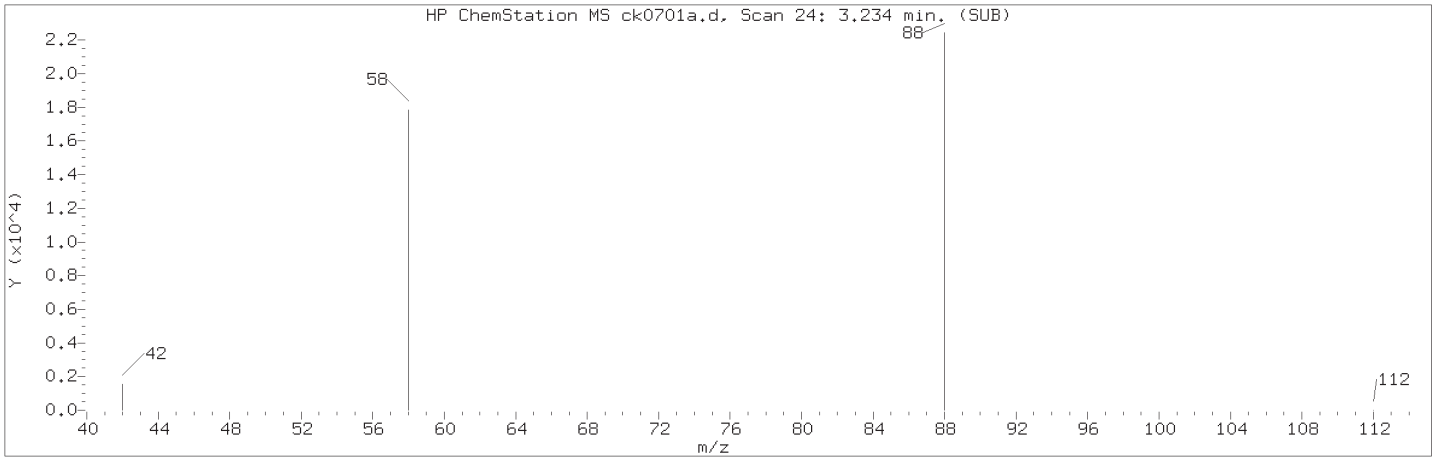
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 06:29 jmg00346

Sample Name: SSTD001 Lab Sample ID: SIM2598

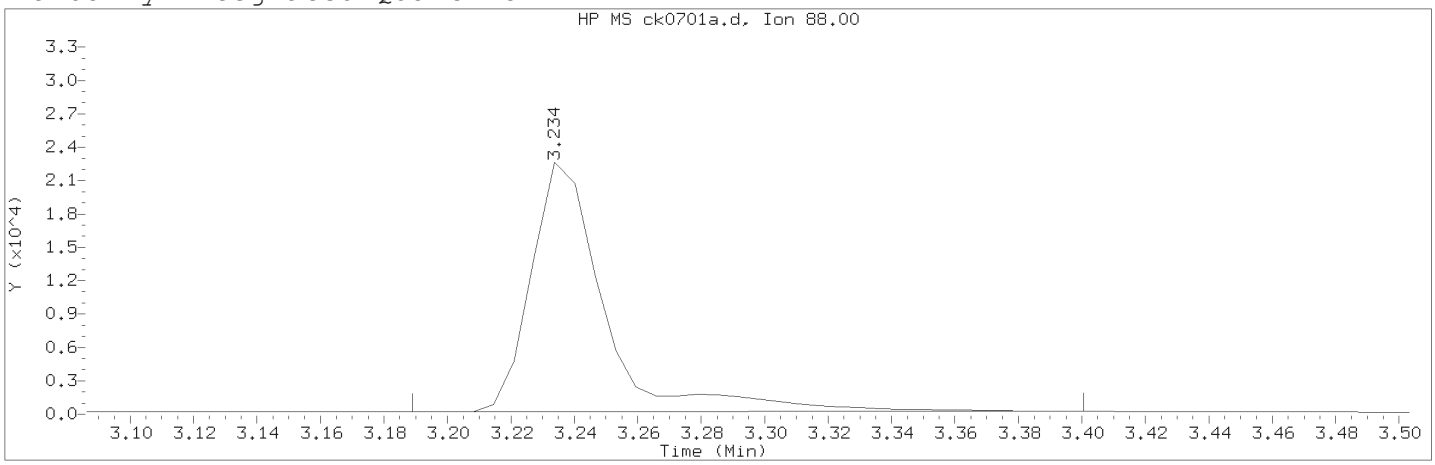
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	19.647	276	193811	1.089
54) Dibenz(a,h)anthracene	(6)	19.654	278	169330	1.148
55) Benzo(g,h,i)perylene	(6)	20.198	276	178428	1.074

Digitally signed by Joseph M. Gambler
on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 06:29 jmg00346

Sample Name: SSTD001 Lab Sample ID: SIM2598

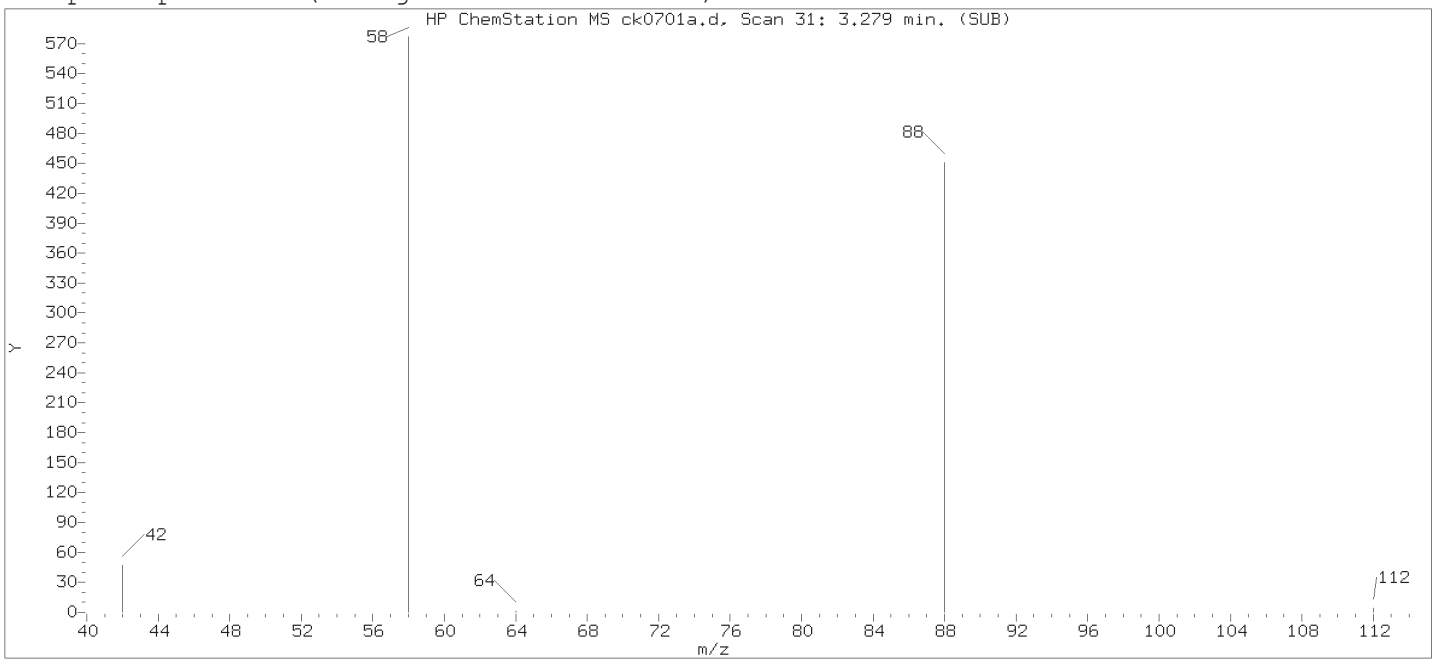
Compound Number : 1
Compound Name : 1,4-Dioxane
Scan Number : 24
Retention Time (minutes) : 3.234
Quant Ion : 88.00
Area (flag) : 36423MA
On-Column Amount (ng/ul) : 0.8268
Integration start scan : 16 Integration stop scan: 49
Y at integration start : 199 Y at integration end: 247

Reason for manual integration: improper integration

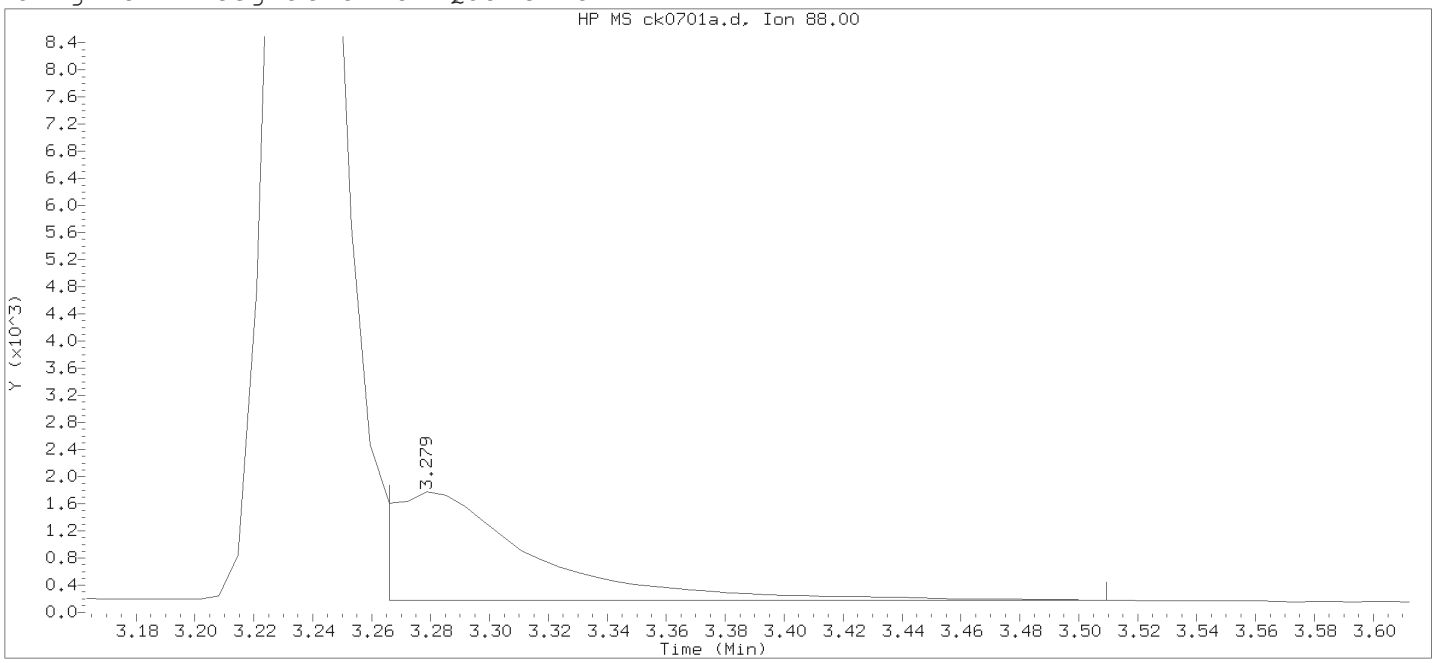
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/16/2018 at 06:31.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



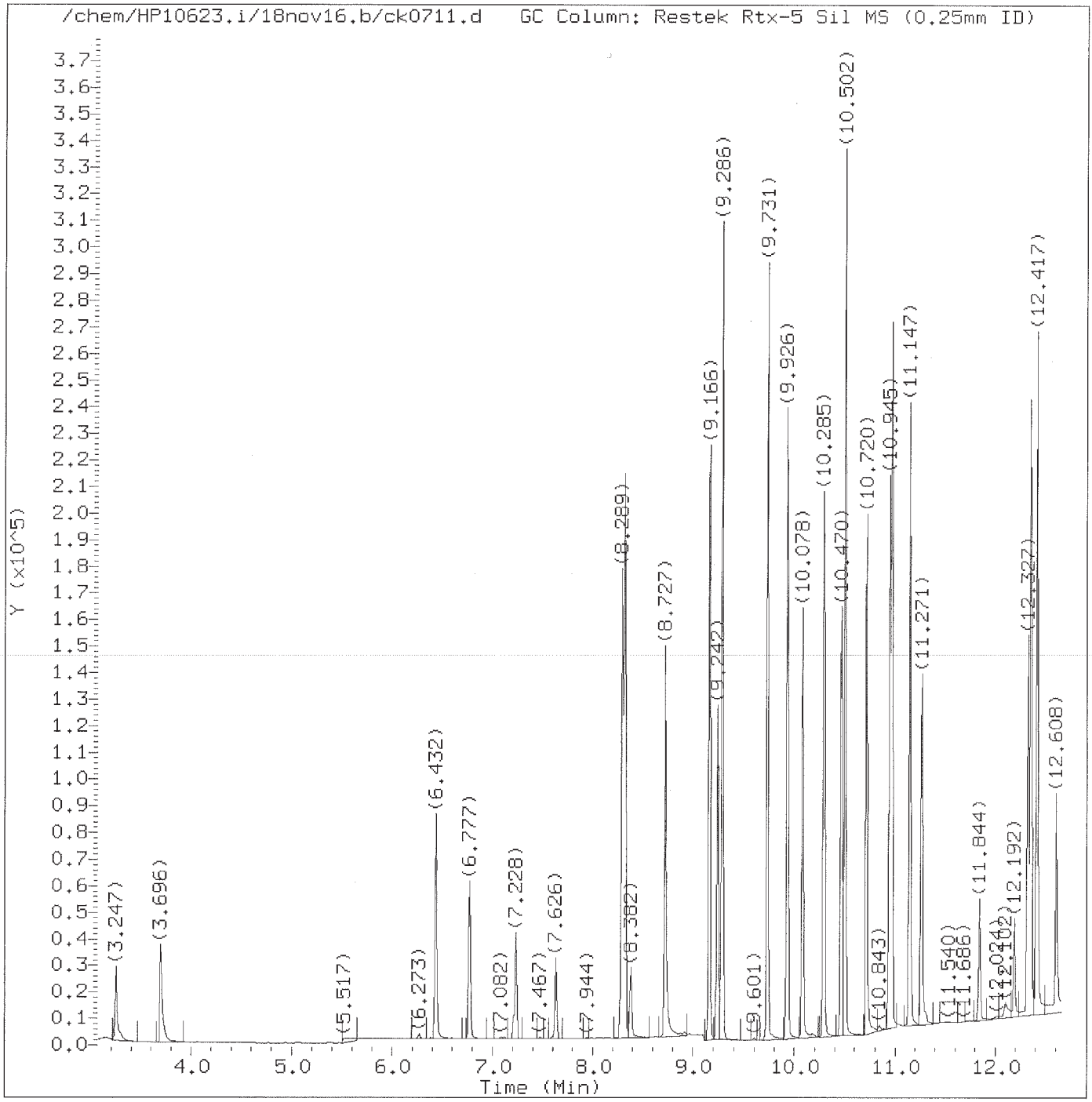
Data File: /chem/HP10623.i/18nov16.b/ck0701a.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 05:58 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: all1
Calibration date and time: 16-NOV-2018 06:25
Date, time and analyst ID of latest file update: 16-Nov-2018 06:25 Automation

Sample Name: SSTD001 Lab Sample ID: SIM2598

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 31		
Retention Time (minutes)	: 3.279		
Quant Ion	: 88.00		
Area	: 5173		
On-column Amount (ng/ul)	: 0.1174		
Integration start scan	: 28	Integration stop scan:	66
Y at integration start	: 177	Y at integration end:	177

Digitally signed by Joseph M. Gambler on 11/16/2018 at 06:31.
Target 3.5 esignature used 11/16/2018 06:25



Total Ion Chromatogram (TIC)

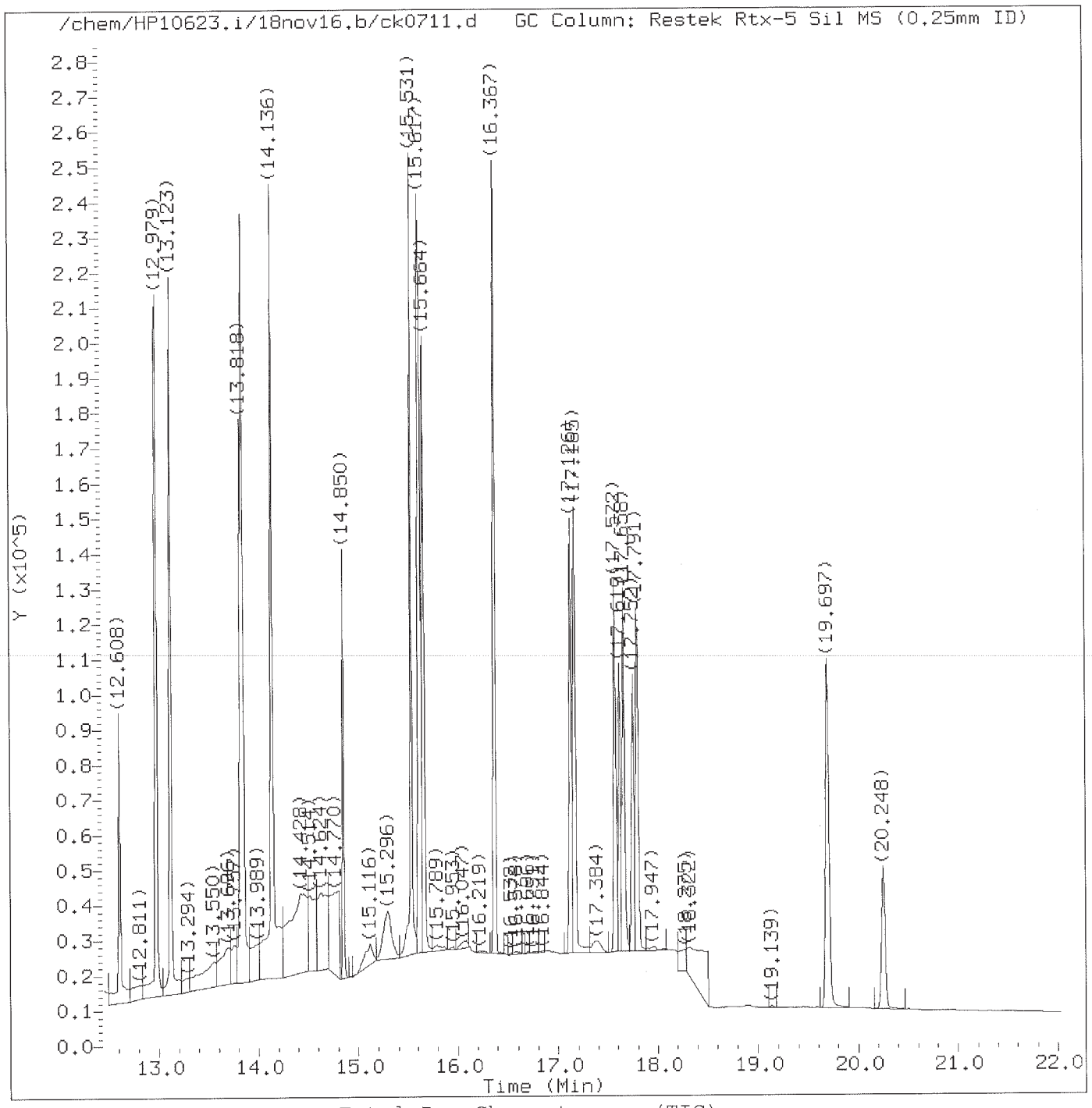
Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0711.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 11:59 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:30 whs02991

Sample Name: SECC1.0 Lab Sample ID: SIM2598

Digitally signed by William H Saadeh
on 11/16/2018 at 12:31.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0711.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 11:59 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:30 whs02991

Sample Name: SECC1.0 Lab Sample ID: SIM2598

Digitally signed by William H Saadeh
on 11/16/2018 at 12:31.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0711.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 11:59 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:30 whs02991

Sample Name: SECC1.0 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.247	88	27947	0.881
6)*1,4-Dichlorobenzene-d4	(1)	6.777	152	49338	1.000
10)*Naphthalene-d8	(2)	8.289	136	198221	1.000
11) Naphthalene	(2)	8.316	128	215294	1.023
14)$1-Methylnaphthalene-d10	(2)	9.242	152	112672	1.125
19) Acenaphthylene	(3)	10.285	152	209169	1.083
20)*Acenaphthene-d10	(3)	10.470	164	97301	1.000
21) Acenaphthene	(3)	10.502	154	131143	0.992
26) Fluorene	(3)	11.147	166	138279	0.978
31)*Phenanthrene-d10	(4)	12.327	188	165912	1.000
32) Phenanthrene	(4)	12.350	178	196234	0.991
33) Anthracene	(4)	12.417	178	215974	1.135
35) Di-n-butylphthalate	(4)	12.979	149	252263	1.190
36)$Fluoranthene-d10	(4)	13.818	212	167985	1.116
37) Fluoranthene	(4)	13.843	202	208389	1.071
39) Pyrene	(5)	14.136	202	217572	1.037
41) bis(2-Ethylhexyl)phthalate	(5)	15.531	149	181404	1.299
42) Benzo(a)anthracene	(5)	15.609	228	186616	1.105
43)*Chrysene-d12	(5)	15.632	240	130311	1.000
44) Chrysene	(5)	15.664	228	182487	1.055
46) Benzo(b)fluoranthene	(6)	17.126	252	151776	1.131
47) Benzo(k)fluoranthene	(6)	17.165	252	166373	1.154
49)$Benzo(a)pyrene-d12	(6)	17.619	264	108717	1.130
50) Benzo(a)pyrene	(6)	17.658	252	138569	1.132
51)*Perylene-d12	(6)	17.752	264	104720	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.690	276	98528	0.811
54) Dibenz(a,h)anthracene	(6)	19.697	278	92868	0.922
55) Benzo(g,h,i)perylene	(6)	20.255	276	76624	0.676

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 11/16/2018 at 12:31.
Target 3.5 esignature user ID: whs02991

Data File: /chem/HP10976.i/18sep04a.b/ii0100f.d

Date : 04-SEP-2018 19:19

Client ID: DFTPP050

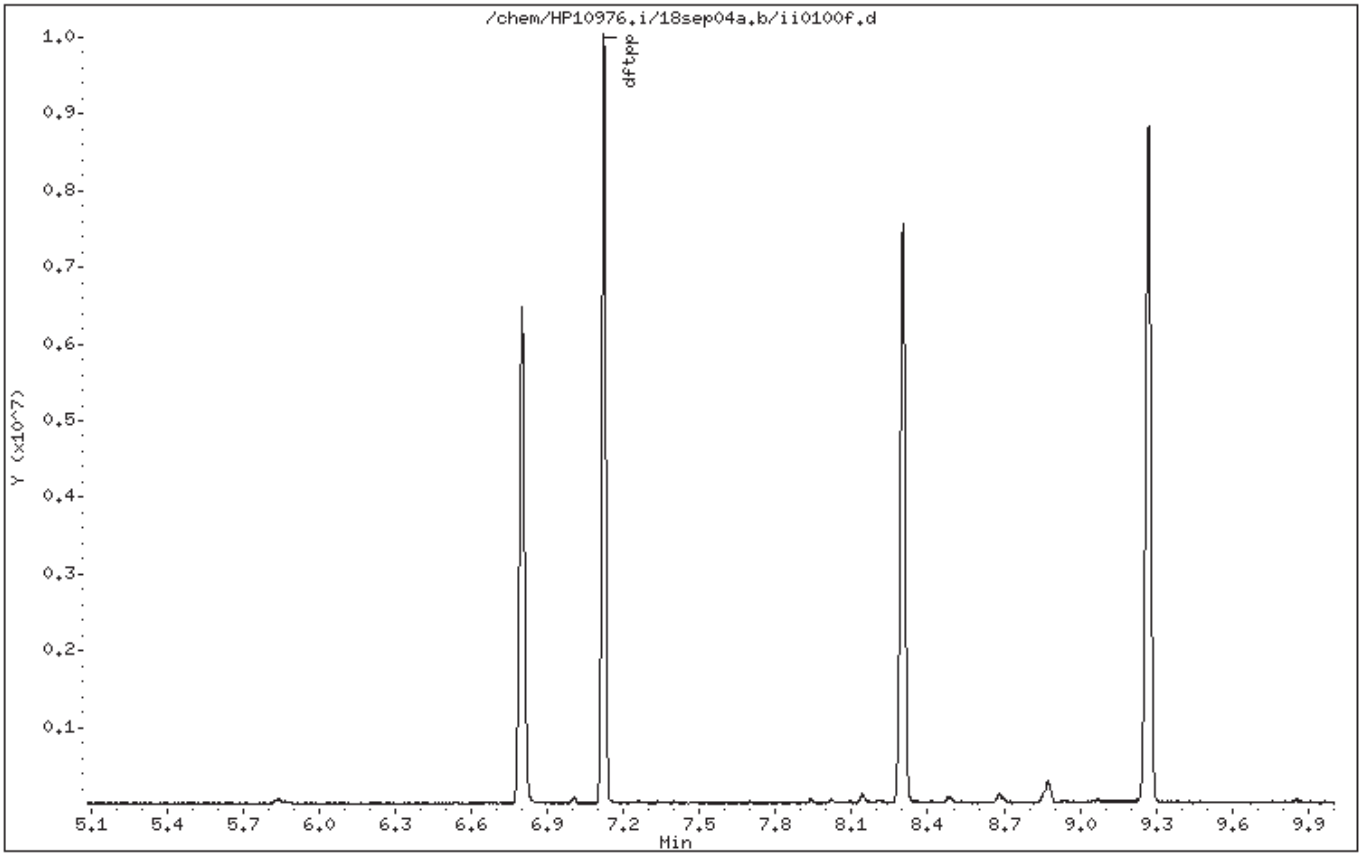
Instrument: HP10976.i

Sample Info: DFTPP050;DFTPP1598;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10976.i/18sep04a.b/ii0100f.d

Date : 04-SEP-2018 19:19

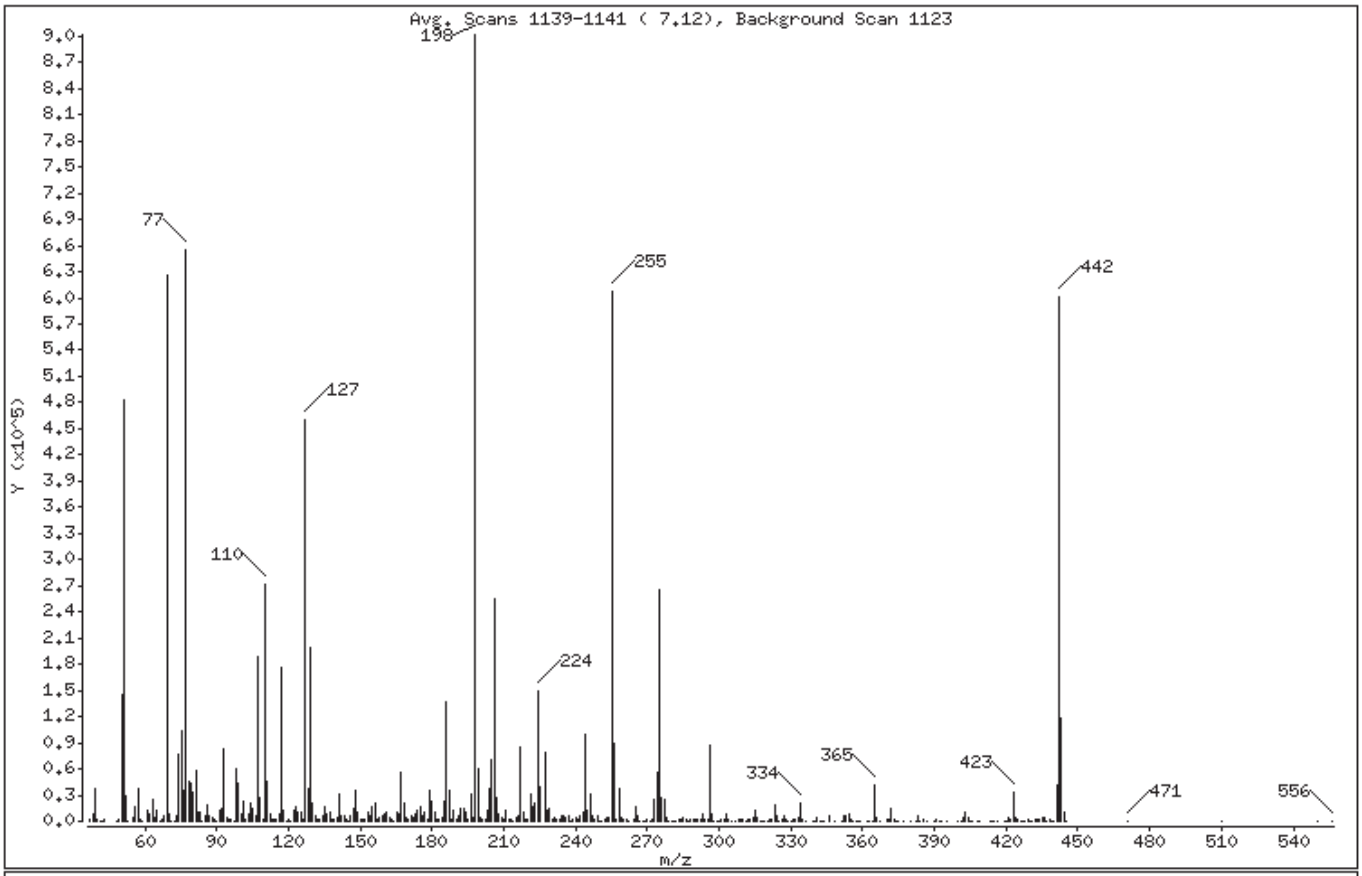
Client ID: DFTPP050 Instrument: HP10976.i

Sample Info: DFTPP050;DFTPP1598;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	53.63
68	Less than 2.00% of mass 69	0.66 (0.95)
69	Mass 69 relative abundance	69.47
70	Less than 2.00% of mass 69	0.99 (1.43)
127	10.00 - 80.00% of mass 198	51.07
197	Less than 2.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.74
275	10.00 - 60.00% of mass 198	29.37
365	Greater than 1.00% of mass 198	4.58
441	0.01 - 24.00% of mass 442	4.71 (7.06)
442	50.00 - 99.99% of mass 198	66.70
443	15.00 - 24.00% of mass 442	13.04 (19.55)

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Date : 04-SEP-2018 19:19

Client ID: DFTPP050 Instrument: HP10976.i

Sample Info: DFTPP050;DFTPP1598;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ii0100f.d
Spectrum: Avg. Scans 1139-1141 (7.12), Background Scan 1123
Location of Maximum: 198.00
Number of points: 376

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	3030	138.00	1964	234.00	6519	331.00	1112
38.00	8522	139.00	1284	235.00	6462	332.00	2160
39.00	36888	140.00	3378	236.00	4500	333.00	4976
40.00	1602	141.00	30336	237.00	6799	334.00	21440
41.00	779	142.00	5828	238.00	908	335.00	2970
42.00	88	143.00	5706	239.00	2066	336.00	645
43.00	1376	144.00	2763	240.00	4211	339.00	959
48.00	223	145.00	924	241.00	2649	340.00	317
49.00	2511	146.00	7197	242.00	7182	341.00	3891
50.00	145792	147.00	14815	243.00	9585	342.00	589
51.00	483584	148.00	35344	244.00	98664	343.00	490
52.00	29136	149.00	9330	245.00	13263	344.00	417
53.00	852	150.00	1200	246.00	31000	346.00	6726
55.00	3326	151.00	2977	247.00	5486	348.00	227
56.00	16920	152.00	1338	248.00	1679	351.00	1009
57.00	36880	153.00	10119	249.00	6279	352.00	7118
58.00	2328	154.00	6886	250.00	884	353.00	5954
59.00	303	155.00	16496	251.00	289	354.00	7638
61.00	11854	156.00	21088	252.00	1638	355.00	2006
62.00	8396	157.00	2986	253.00	4849	356.00	523
63.00	24648	158.00	4645	254.00	3230	357.00	57
64.00	3246	159.00	5537	255.00	607488	358.00	240
65.00	11786	160.00	9202	256.00	88384	359.00	75
66.00	256	161.00	9681	257.00	1369	362.00	304
67.00	1528	162.00	3882	258.00	38104	363.00	155
68.00	5933	163.00	3086	259.00	4915	364.00	267
69.00	626368	164.00	544	260.00	1698	365.00	41304
70.00	8937	165.00	11267	261.00	1192	366.00	4376
71.00	173	166.00	8487	262.00	521	367.00	123
72.00	138	167.00	55440	264.00	1180	370.00	1304
73.00	5916	168.00	20640	265.00	17560	371.00	1848
74.00	75744	169.00	5046	266.00	6050	372.00	13525
75.00	104488	170.00	1800	267.00	51	373.00	2708
76.00	36024	171.00	5644	268.00	609	374.00	228
77.00	655296	172.00	4457	269.00	738	375.00	257

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Date : 04-SEP-2018 19:19

Client ID: DFTPP050 Instrument: HP10976.i

Sample Info: DFTPP050;DFTPP1598;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ii0100f.d
Spectrum: Avg. Scans 1139-1141 (7.12), Background Scan 1123
Location of Maximum: 198.00
Number of points: 376

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	44840	173.00	7593	270.00	1409	377.00	950
79.00	43184	174.00	12241	271.00	317	380.00	66
80.00	32608	175.00	16400	272.00	2894	382.00	781
81.00	57616	176.00	7069	273.00	25136	383.00	5500
82.00	9663	177.00	11031	274.00	56192	384.00	625
83.00	10621	178.00	2798	275.00	264832	385.00	1778
84.00	825	179.00	35784	276.00	27280	387.00	281
85.00	6203	180.00	22696	277.00	24680	390.00	844
86.00	18232	181.00	11162	278.00	3858	391.00	1122
87.00	6611	182.00	2666	279.00	976	392.00	861
88.00	3977	183.00	1883	280.00	269	393.00	830
89.00	1438	184.00	3694	281.00	148	395.00	95
90.00	398	185.00	23392	282.00	275	400.00	243
91.00	12516	186.00	136640	283.00	1899	401.00	825
92.00	13649	187.00	35520	284.00	1941	402.00	3865
93.00	83000	188.00	3068	285.00	4075	403.00	9629
94.00	4935	189.00	11766	286.00	2272	404.00	4619
95.00	1200	190.00	1975	287.00	278	405.00	669
96.00	1775	191.00	6629	288.00	1628	406.00	608
97.00	436	192.00	14788	289.00	1291	408.00	90
98.00	59320	193.00	14957	290.00	1672	409.00	439
99.00	43928	194.00	9774	291.00	1170	413.00	533
100.00	7435	195.00	1934	292.00	2403	414.00	1034
101.00	22104	196.00	30760	293.00	8427	415.00	610
102.00	1551	197.00	5095	294.00	1241	416.00	437
103.00	9084	198.00	901632	295.00	1844	419.00	380
104.00	20288	199.00	60752	296.00	86736	420.00	895
105.00	14691	200.00	3558	297.00	8106	421.00	5119
106.00	6501	201.00	3022	298.00	380	422.00	2721
107.00	189248	202.00	3032	299.00	566	423.00	33536
108.00	27000	203.00	12842	300.00	152	424.00	3717
109.00	2263	204.00	38000	301.00	1390	425.00	1495
110.00	271296	205.00	70944	302.00	1443	426.00	994
111.00	45080	206.00	254464	303.00	9266	427.00	608
112.00	9118	207.00	26312	304.00	2206	428.00	826

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Date : 04-SEP-2018 19:19

Client ID: DFTPP050 Instrument: HP10976.i

Sample Info: DFTPP050;DFTPP1598;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

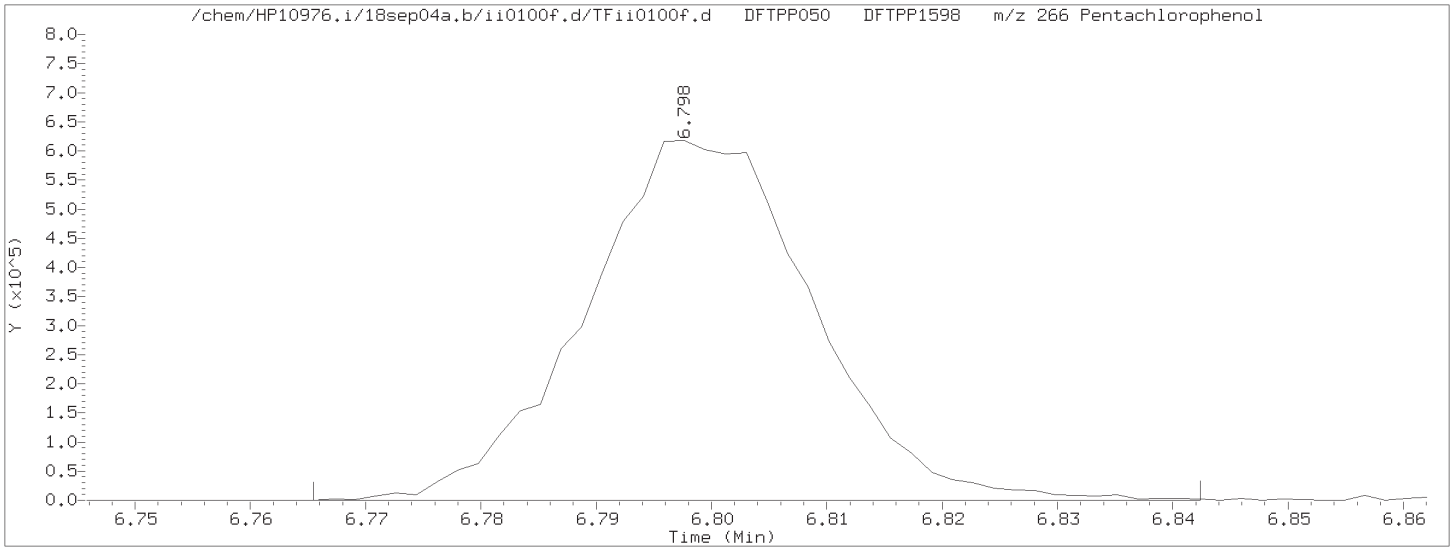
Data File: ii0100f.d
Spectrum: Avg. Scans 1139-1141 (7.12), Background Scan 1123
Location of Maximum: 198.00
Number of points: 376

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	2002	208.00	8932	305.00	398	429.00	1116
114.00	1281	209.00	3514	307.00	289	430.00	917
115.00	1188	210.00	2665	308.00	2522	431.00	340
116.00	7340	211.00	11507	309.00	1077	432.00	2301
117.00	177024	212.00	2576	310.00	1615	433.00	2552
118.00	11555	213.00	2326	311.00	674	434.00	2847
119.00	972	214.00	704	312.00	2038	435.00	4714
120.00	2267	215.00	3463	313.00	1770	436.00	3774
121.00	753	216.00	7135	314.00	4129	437.00	876
122.00	13251	217.00	85096	315.00	13140	438.00	1685
123.00	15856	218.00	9698	316.00	3476	439.00	947
124.00	10115	219.00	1464	317.00	830	440.00	421
125.00	9343	220.00	1499	318.00	531	441.00	42448
126.00	1134	221.00	31784	319.00	269	442.00	601408
127.00	460480	222.00	17128	320.00	890	443.00	117600
128.00	37912	223.00	20776	321.00	2697	444.00	10723
129.00	198848	224.00	149376	322.00	1567	445.00	81
130.00	19936	225.00	39256	323.00	18752	471.00	170
131.00	5919	227.00	79080	324.00	7143	510.00	81
132.00	1936	228.00	11648	325.00	214	550.00	100
133.00	1136	229.00	15197	326.00	1193	556.00	210
134.00	5541	230.00	2091	327.00	6771		
135.00	16166	231.00	3992	328.00	2714		
136.00	8171	232.00	2371	329.00	766		
137.00	11172	233.00	1867	330.00	243		

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

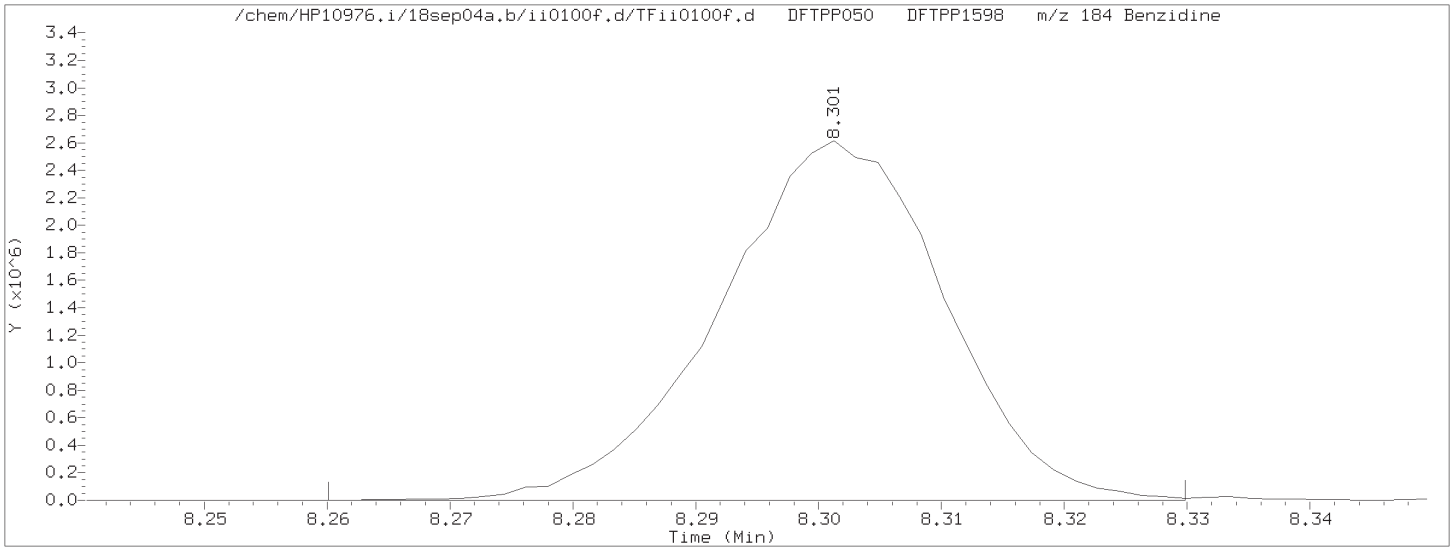
Instrument ID: HP10976.i Injection Date: 04-SEP-2018 19:19 Operator: apb10206



Pentachlorophenol EICP peak height = 617846 EICP peak height at 10% = 61785 Pentachlorophenol EICP area = 851276

Pentachlorophenol EICP peak apex (min.) = 6.798
RT at 10% of front half of EICP (min.) = 6.780 'Front' peak width (min.) = 0.0179333333
RT at 10% of back half of EICP (min.) = 6.818 'Tailing' peak width (min.) = 0.0206166667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0206166667}{0.0179333333} = 1.150$



Benzidine EICP peak height = 2616832 EICP peak height at 10% = 261683 Benzidine EICP area = 3340050

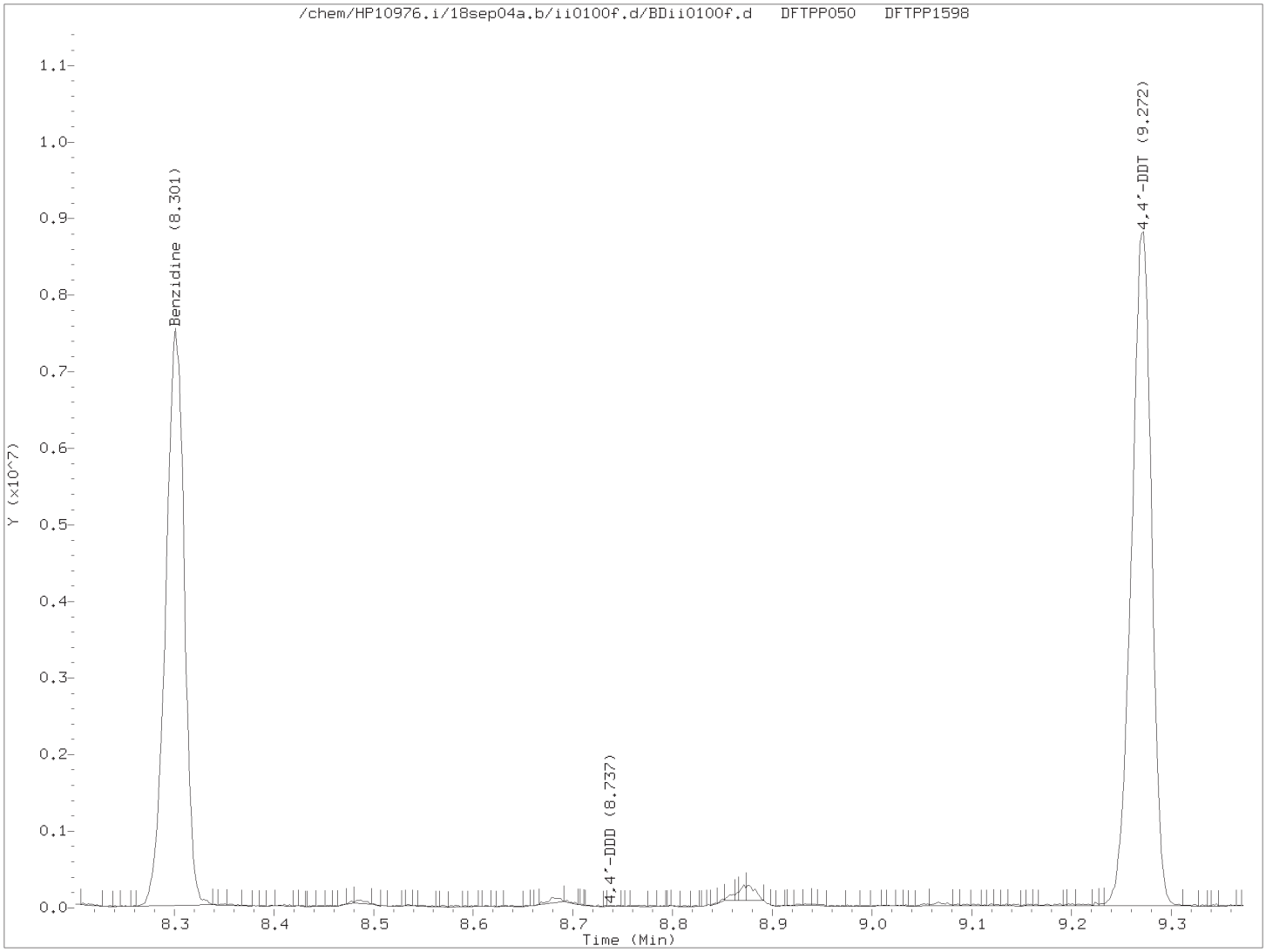
Benzidine EICP peak apex (min.) = 8.301
RT at 10% of front half of EICP (min.) = 8.282 'Front' peak width (min.) = 0.0195000000
RT at 10% of back half of EICP (min.) = 8.318 'Tailing' peak width (min.) = 0.0172166667

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0172166667}{0.0195000000} = 0.883$

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44. PARALLAX ID: reb00745

Assessment of GC Column Performance and Injection Port Inertness for

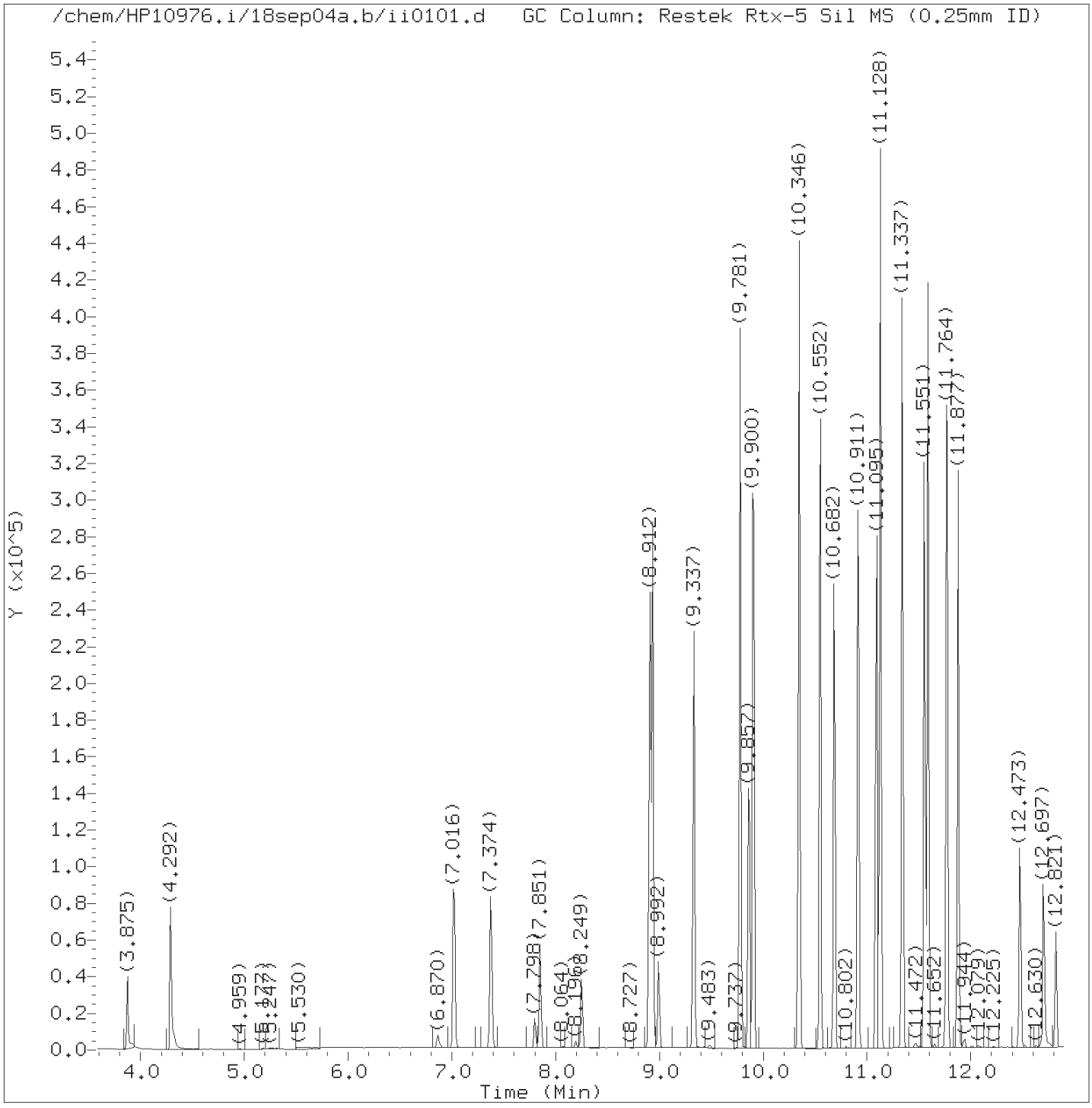
Instrument ID: HP10976.i Injection Date: 04-SEP-2018 19:19 Operator: apb10206



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{0 + 5723}{0 + 5723 + 12398171} \times 100 = 0.0$$

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44. PARALLAX ID: reb00745



Total Ion Chromatogram (TIC)

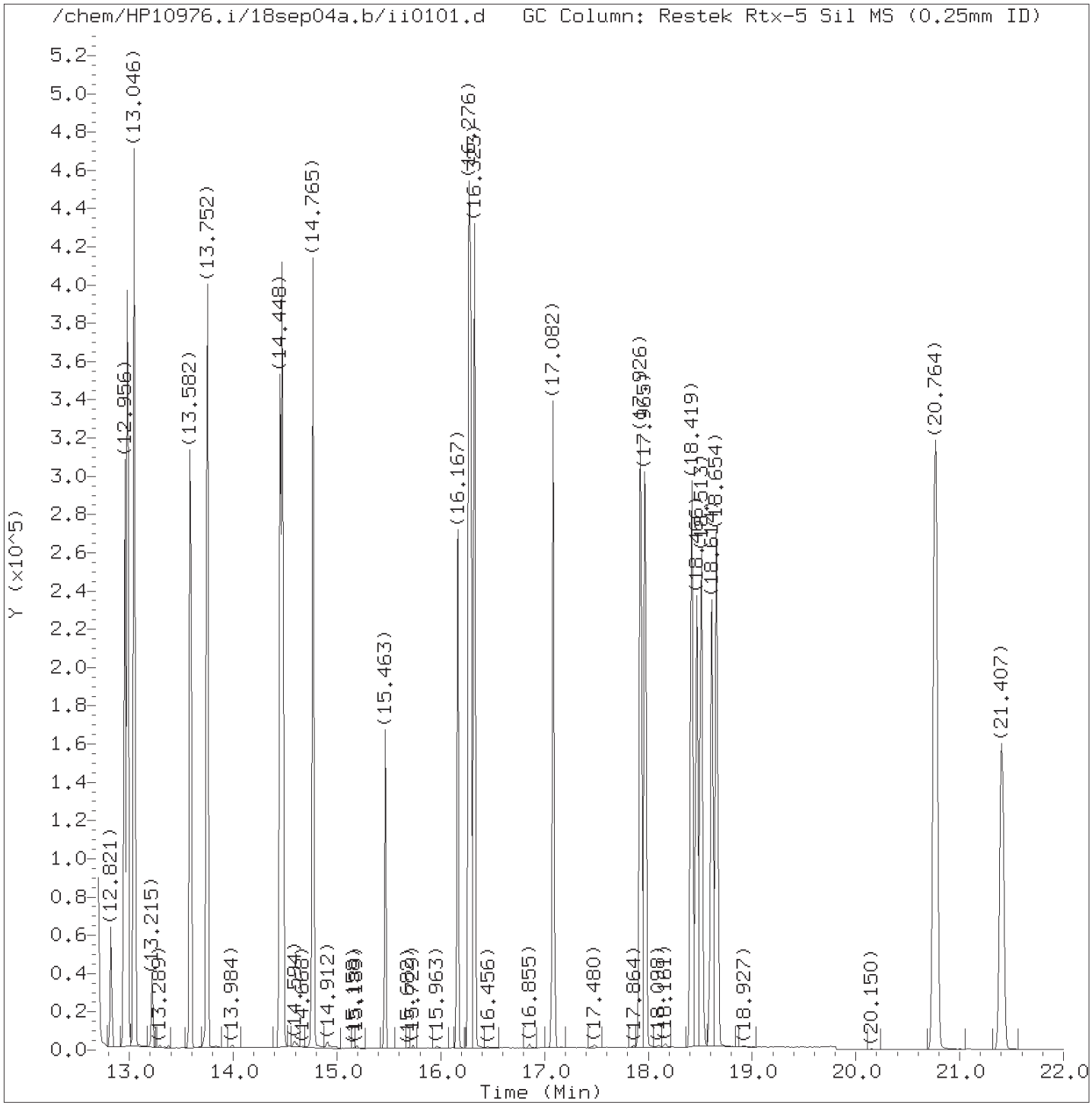
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.875	88	38748M	1.000
2) N-Nitrosodimethylamine	(1)	4.292	74	59842	1.000
5) bis(2-Chloroethyl)ether	(1)	7.029	93	81454	1.000
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	62135	1.000
10)*Naphthalene-d8	(2)	8.912	136	234679	1.000
11) Naphthalene	(2)	8.939	128	248039	1.000
12) Quinoline	(2)	9.337	129	156667	1.000
13) 2-Methylnaphthalene	(2)	9.781	142	181099	1.000
14)$1-Methylnaphthalene-d10	(2)	9.857	152	147620	1.000
15) 1-Methylnaphthalene	(2)	9.911	142	175423	1.000
18) Dimethylphthalate	(3)	10.682	163	217279	1.000
19) Acenaphthylene	(3)	10.911	152	282181	1.000
20)*Acenaphthene-d10	(3)	11.095	164	144286	1.000
21) Acenaphthene	(3)	11.128	154	184275	1.000
22) Dibenzofuran	(3)	11.337	168	288387	1.000
23) Diethylphthalate	(3)	11.551	149	215754	1.000
26) Fluorene	(3)	11.776	166	232172	1.000
28) NDPA as diphenylamine	(4)	11.877	169	151673	1.000
27) N-Nitrosodiphenylamine	(4)	11.877	169	151673	1.000
29) Hexachlorobenzene	(4)	12.473	284	97087	1.000
31)*Phenanthrene-d10	(4)	12.956	188	331893	1.000
32) Phenanthrene	(4)	12.978	178	361428	1.000
33) Anthracene	(4)	13.046	178	371409	1.000
35) Di-n-butylphthalate	(4)	13.582	149	356687	1.000
36)$Fluoranthene-d10	(4)	14.448	212	418761	1.000
37) Fluoranthene	(4)	14.472	202	459245	1.000
39) Pyrene	(5)	14.765	202	467872	1.000
40) Butylbenzylphthalate	(5)	15.463	149	153840	1.000
41) bis(2-Ethylhexyl)phthalate	(5)	16.159	149	231831	1.000
42) Benzo(a)anthracene	(5)	16.268	228	429192	1.000
43)*Chrysene-d12	(5)	16.292	240	331592	1.000
44) Chrysene	(5)	16.323	228	414543	1.000
45) Di-n-octylphthalate	(6)	17.082	149	388731	1.000
46) Benzo(b)fluoranthene	(6)	17.926	252	428975	1.000
47) Benzo(k)fluoranthene	(6)	17.965	252	389755	1.000
48) Benzo(e)pyrene	(6)	18.419	252	415958	1.000
49)$Benzo(a)pyrene-d12	(6)	18.466	264	329224	1.000
50) Benzo(a)pyrene	(6)	18.513	252	366720	1.000
51)*Perylene-d12	(6)	18.614	264	333223	1.000
52) Perylene	(6)	18.654	252	403061	1.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

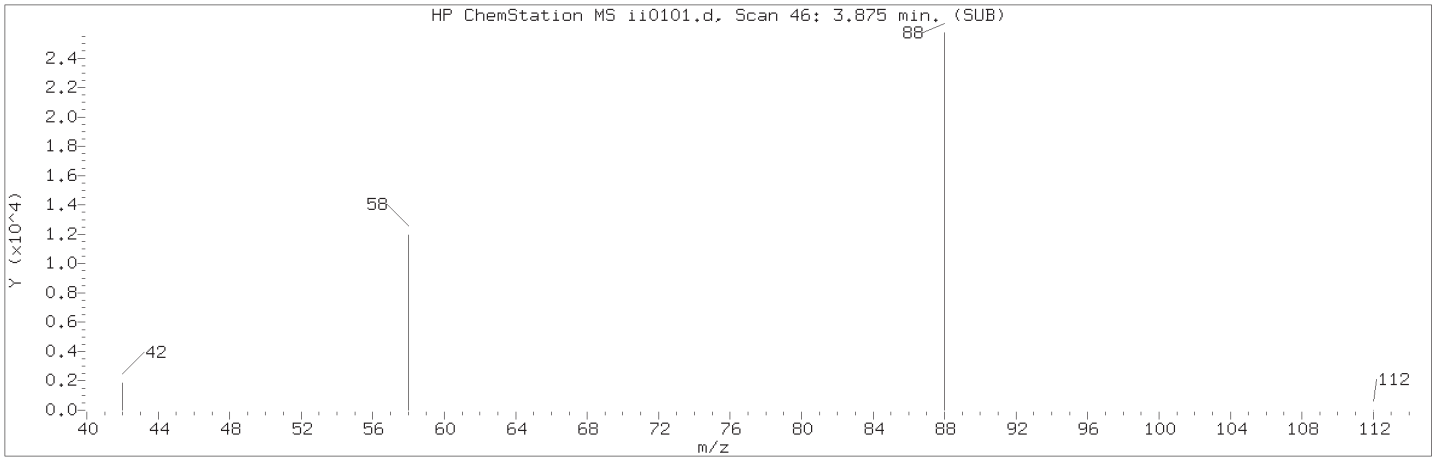
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM1288

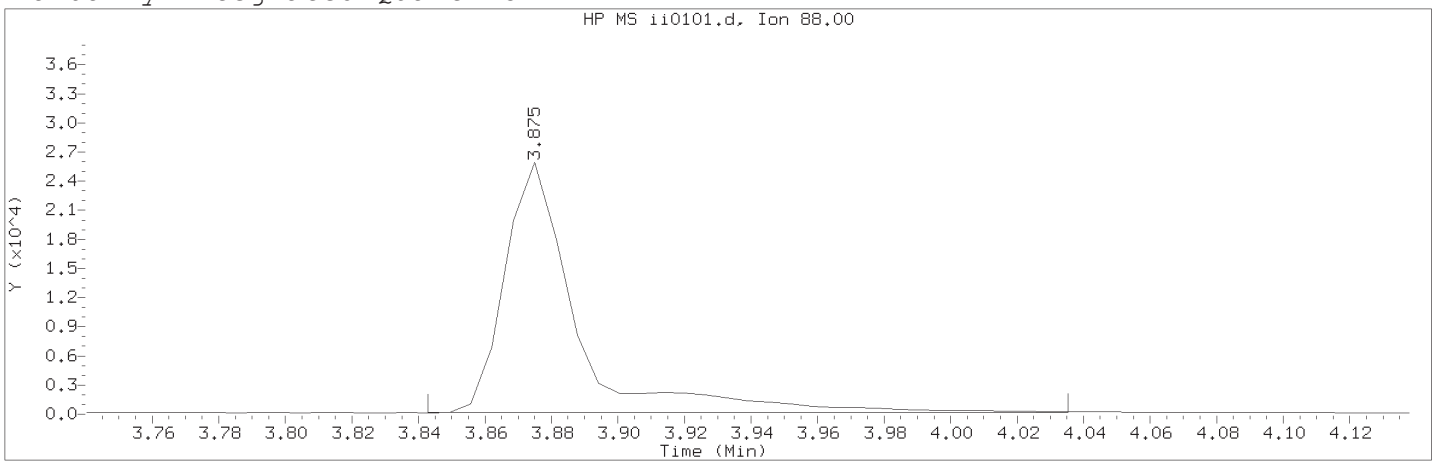
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.757	276	431266	1.000
54) Dibenz(a,h)anthracene	(6)	20.772	278	350989	1.000
55) Benzo(g,h,i)perylene	(6)	21.407	276	378567	1.000

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD001 Lab Sample ID: SIM1288

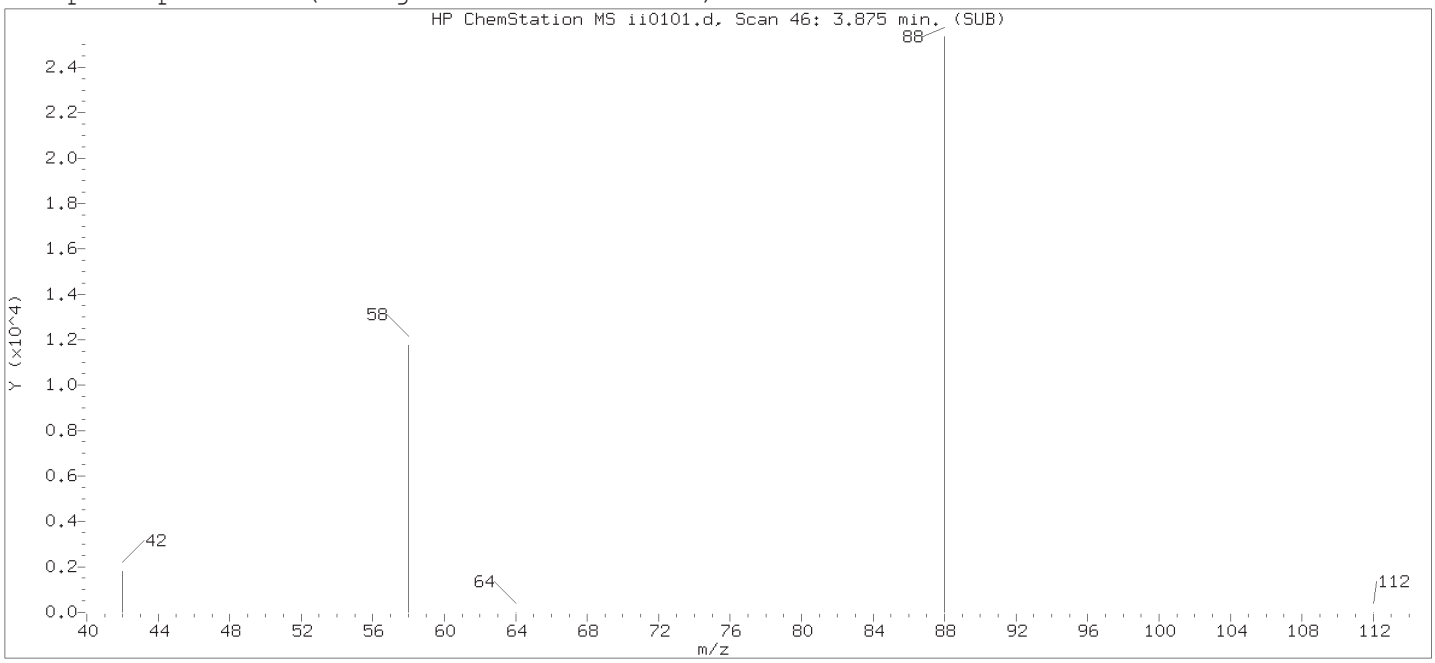
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area (flag)	: 38748M		
On-Column Amount (ng/ul)	: 1.0000		
Integration start scan	: 40	Integration stop scan:	70
Y at integration start	: 158	Y at integration end:	158

Reason for manual integration: improper integration

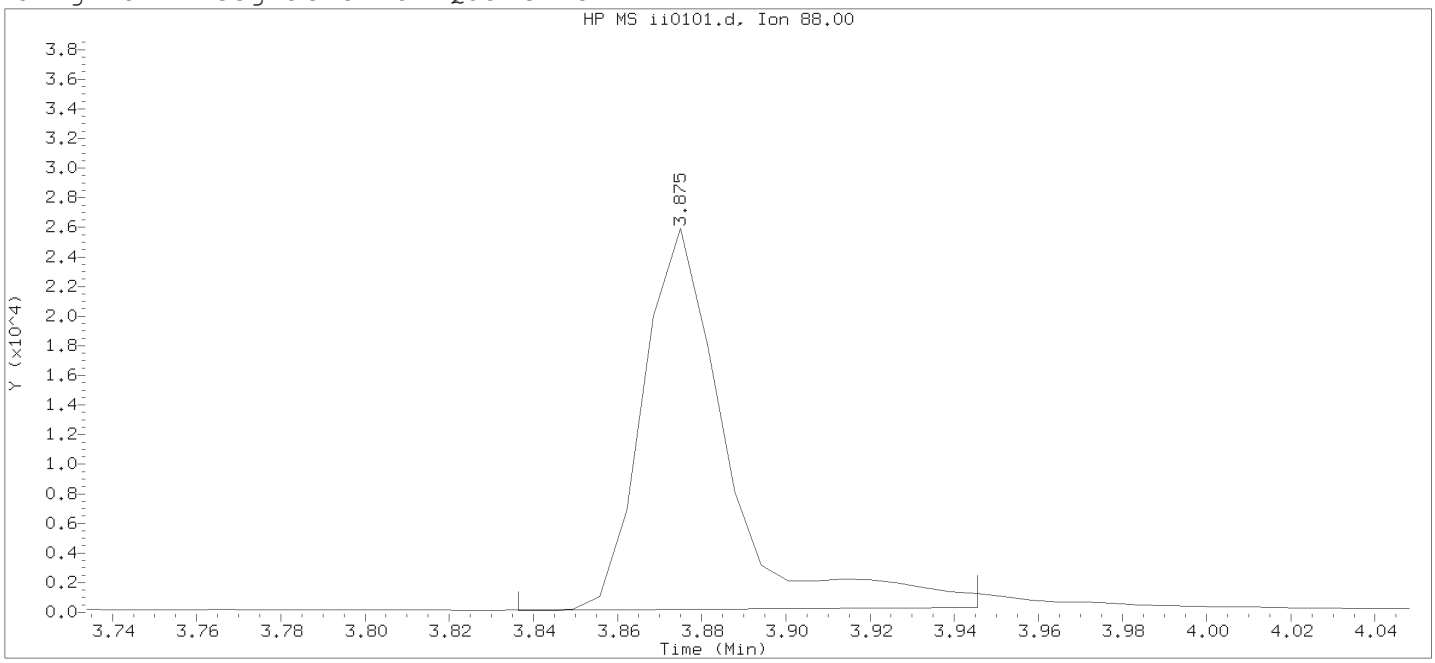
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



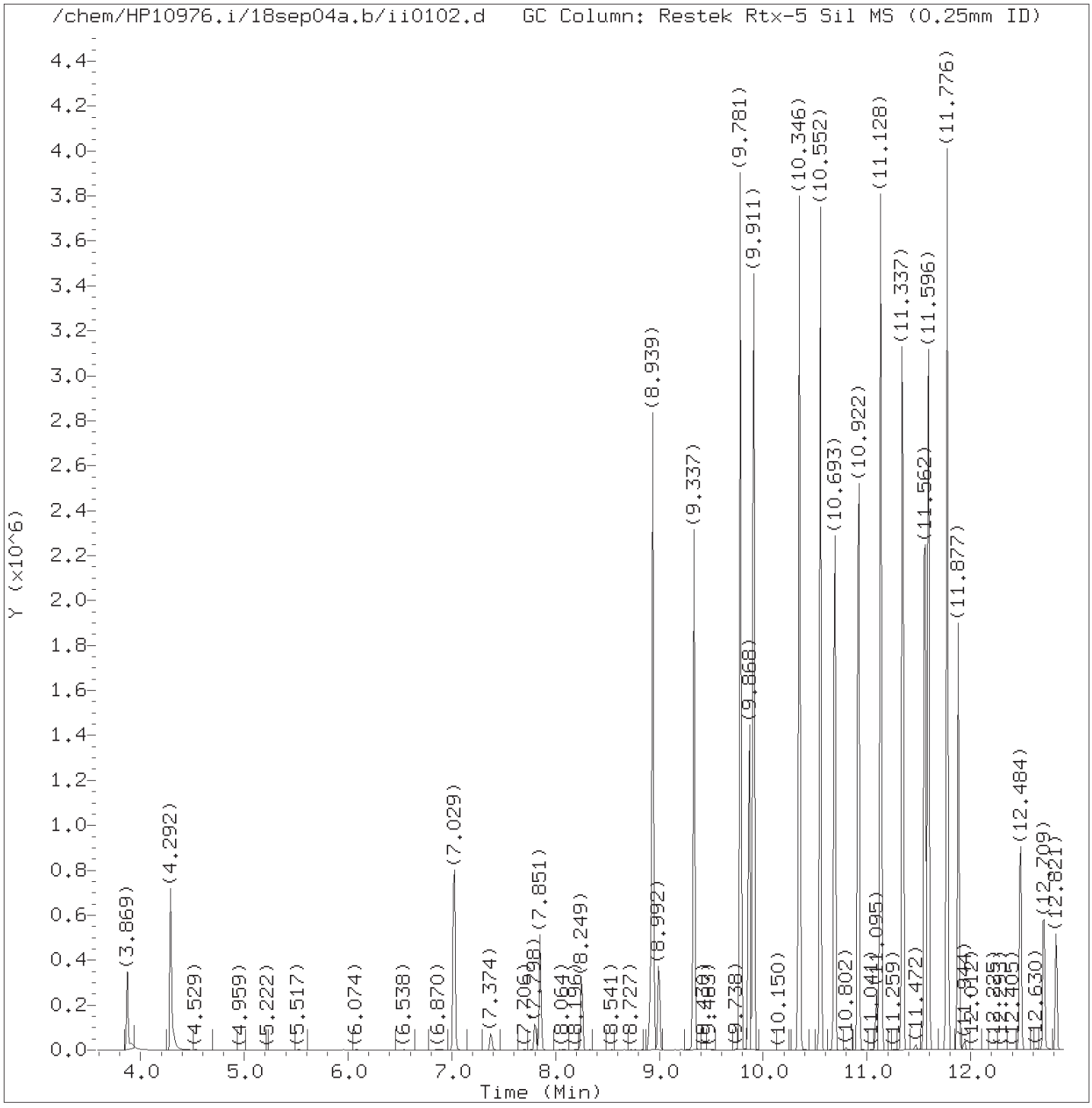
Data File: /chem/HP10976.i/18sep04a.b/ii0101.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 19:41 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 20:07
Date, time and analyst ID of latest file update: 04-Sep-2018 20:07 Automation

Sample Name: SSTD001 Lab Sample ID: SIM1288

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area	: 36156		
On-column Amount (ng/ul)	: 0.7526		
Integration start scan	: 39	Integration stop scan:	56
Y at integration start	: 138	Y at integration end:	343

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

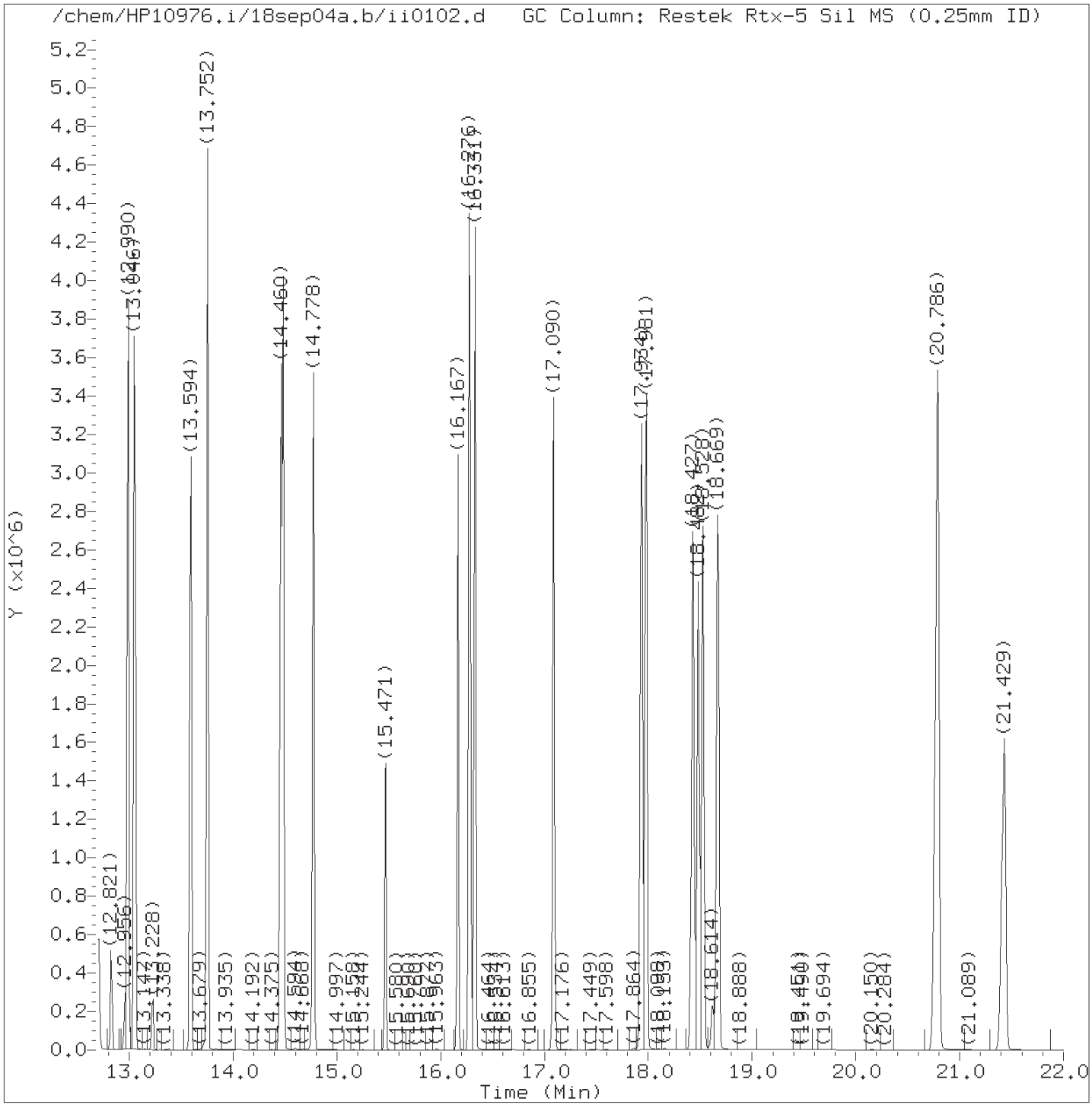
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.875	88	362064M	10.073
2) N-Nitrosodimethylamine	(1)	4.292	74	550798	9.998
5) bis(2-Chloroethyl)ether	(1)	7.029	93	738820	9.925
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	57215	1.000
10)*Naphthalene-d8	(2)	8.913	136	223185	1.000
11) Naphthalene	(2)	8.939	128	2314578	9.905
12) Quinoline	(2)	9.337	129	1448949	9.861
13) 2-Methylnaphthalene	(2)	9.781	142	1677762	9.869
14)$1-Methylnaphthalene-d10	(2)	9.868	152	1367985	9.870
15) 1-Methylnaphthalene	(2)	9.911	142	1628242	9.878
18) Dimethylphthalate	(3)	10.693	163	2043848	10.093
19) Acenaphthylene	(3)	10.922	152	2654640	10.093
20)*Acenaphthene-d10	(3)	11.095	164	133230	1.000
21) Acenaphthene	(3)	11.128	154	1694824	9.980
22) Dibenzofuran	(3)	11.337	168	2655704	9.986
23) Diethylphthalate	(3)	11.551	149	1952402	9.899
26) Fluorene	(3)	11.776	166	2135737	9.981
28) NDPA as diphenylamine	(4)	11.877	169	1033904	8.388
27) N-Nitrosodiphenylamine	(4)	11.877	169	1033904	8.388
29) Hexachlorobenzene	(4)	12.484	284	892326	9.869
31)*Phenanthrene-d10	(4)	12.956	188	313169	1.000
32) Phenanthrene	(4)	12.990	178	3442231	10.046
33) Anthracene	(4)	13.046	178	3485468	9.973
35) Di-n-butylphthalate	(4)	13.594	149	3386440	10.031
36)$Fluoranthene-d10	(4)	14.460	212	4074100	10.153
37) Fluoranthene	(4)	14.485	202	4483902	10.171
39) Pyrene	(5)	14.778	202	4500970	9.686
40) Butylbenzylphthalate	(5)	15.471	149	1511732	9.793
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	2296697	9.833
42) Benzo(a)anthracene	(5)	16.276	228	4301275	9.891
43)*Chrysene-d12	(5)	16.292	240	339647	1.000
44) Chrysene	(5)	16.331	228	4176207	9.917
45) Di-n-octylphthalate	(6)	17.090	149	3940222	9.871
46) Benzo(b)fluoranthene	(6)	17.934	252	4359472	9.884
47) Benzo(k)fluoranthene	(6)	17.981	252	4187959	10.162
48) Benzo(e)pyrene	(6)	18.427	252	4224379	9.880
49)$Benzo(a)pyrene-d12	(6)	18.482	264	3441305	10.025
50) Benzo(a)pyrene	(6)	18.528	252	3787666	9.965
51)*Perylene-d12	(6)	18.614	264	346603	1.000
52) Perylene	(6)	18.669	252	4075200	9.858

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

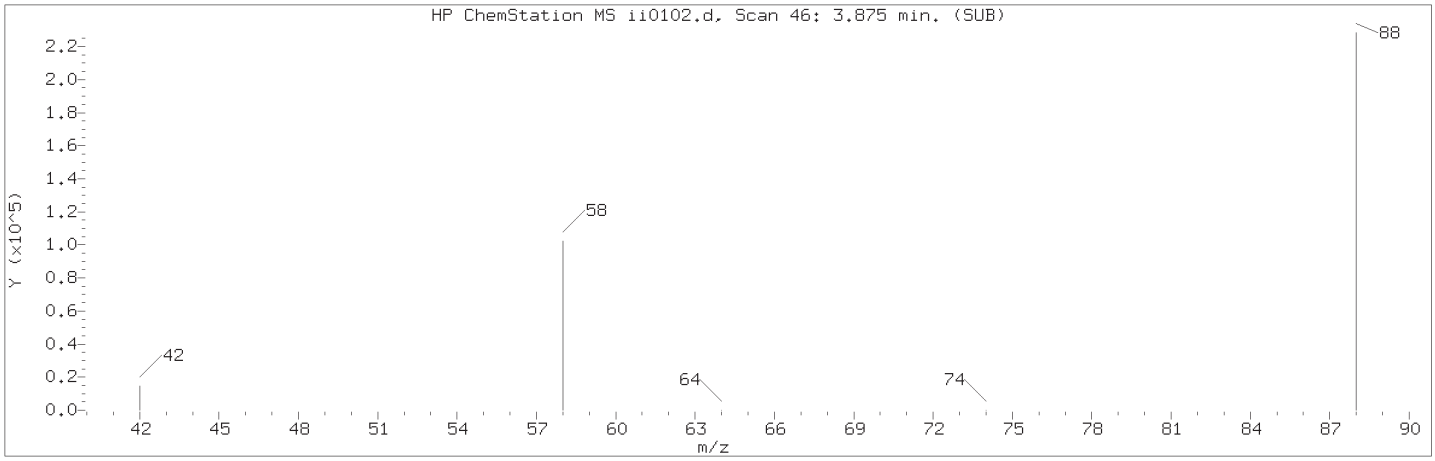
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM1288

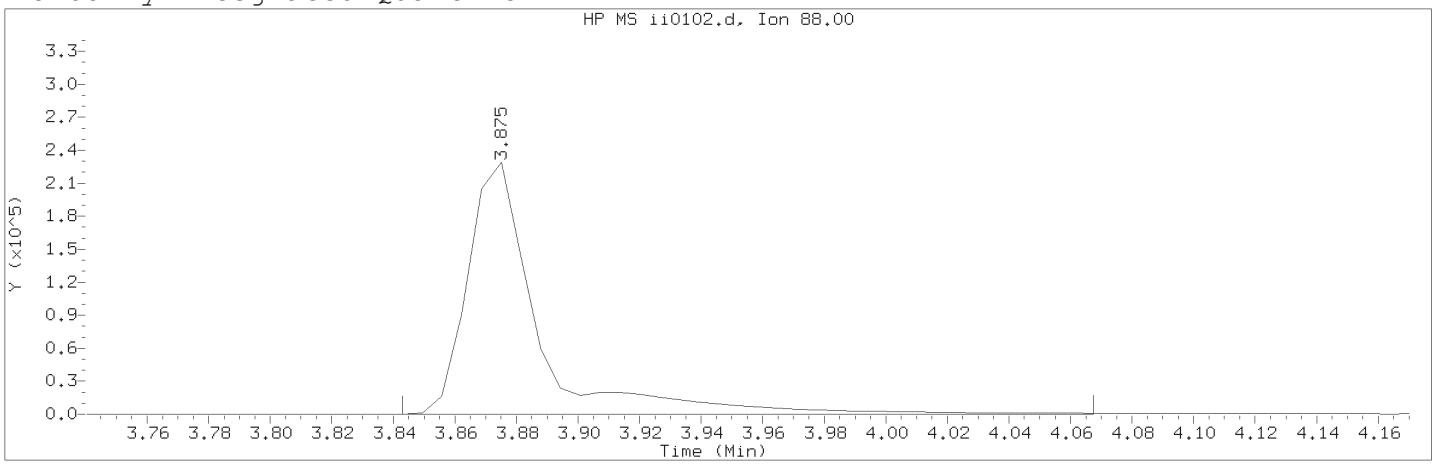
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.786	276	4527401	10.046
54) Dibenz(a,h)anthracene	(6)	20.793	278	3687824	10.050
55) Benzo(g,h,i)perylene	(6)	21.429	276	3854992	9.894

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD010 Lab Sample ID: SIM1288

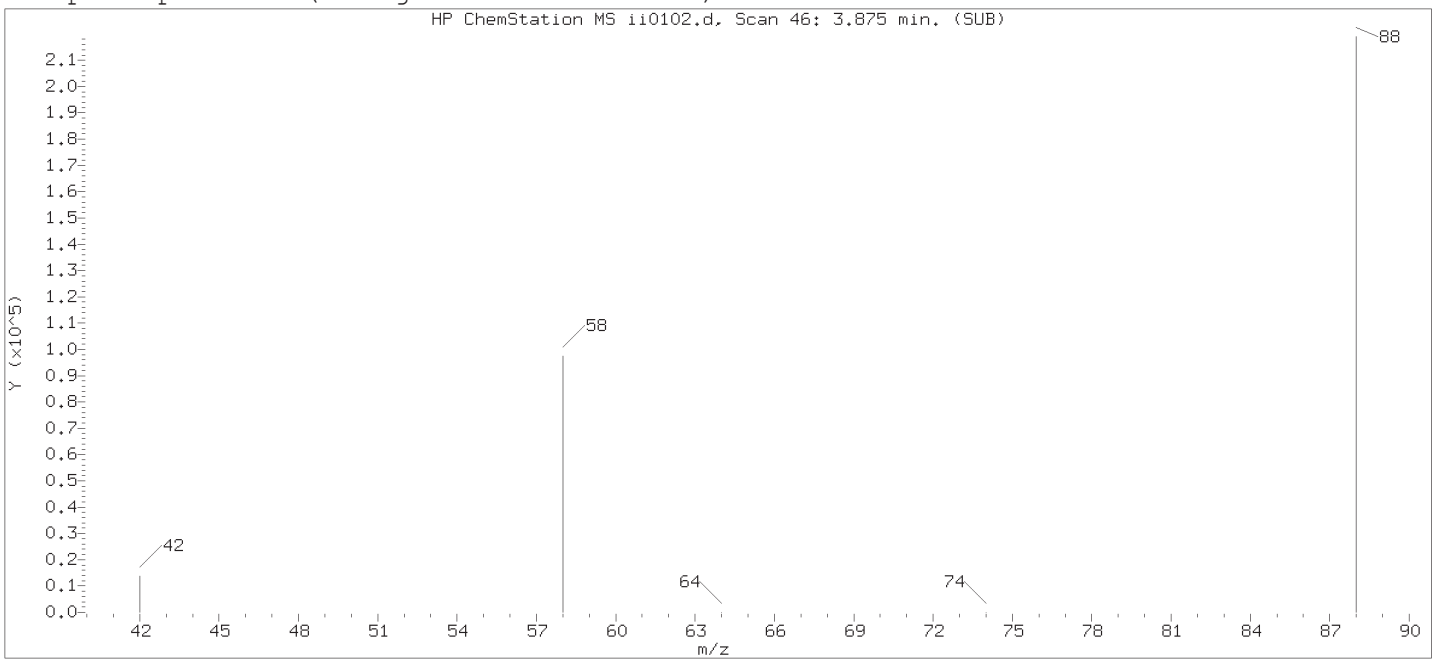
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area (flag)	: 362064M		
On-Column Amount (ng/ul)	: 10.0732		
Integration start scan	: 40	Integration stop scan:	75
Y at integration start	: 134	Y at integration end:	134

Reason for manual integration: improper integration

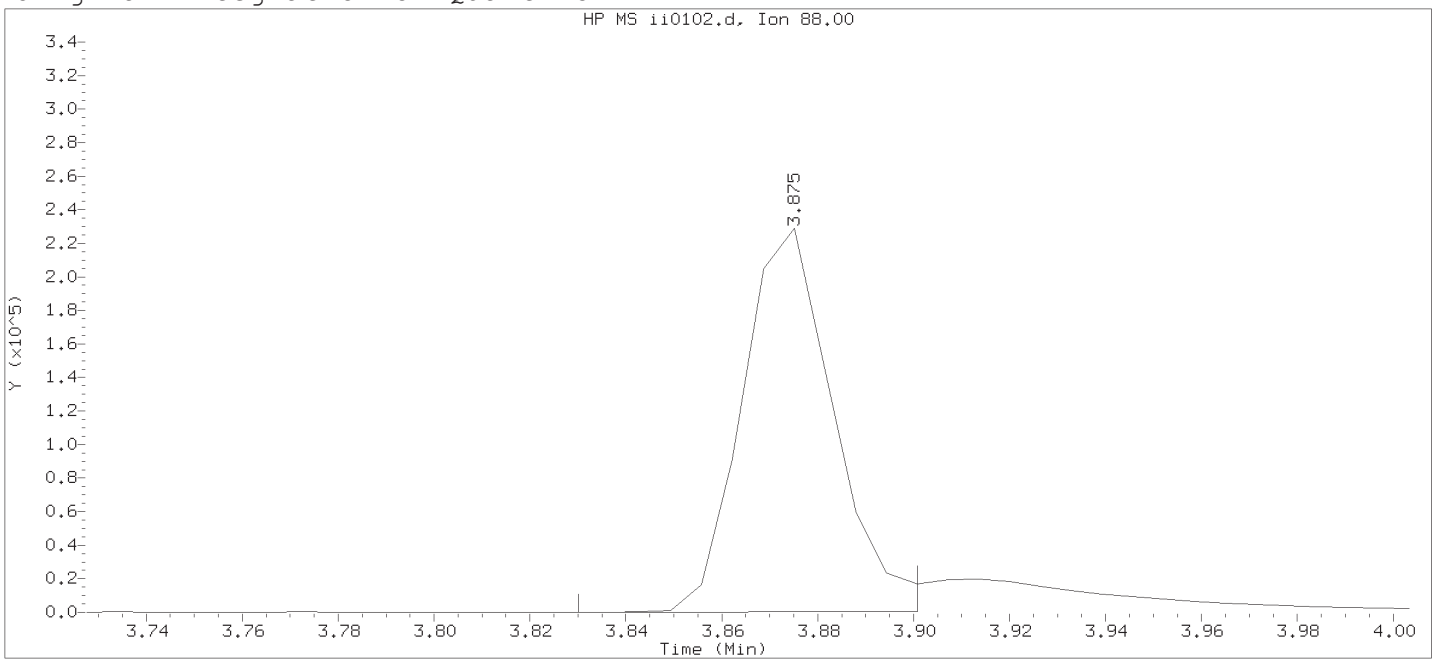
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



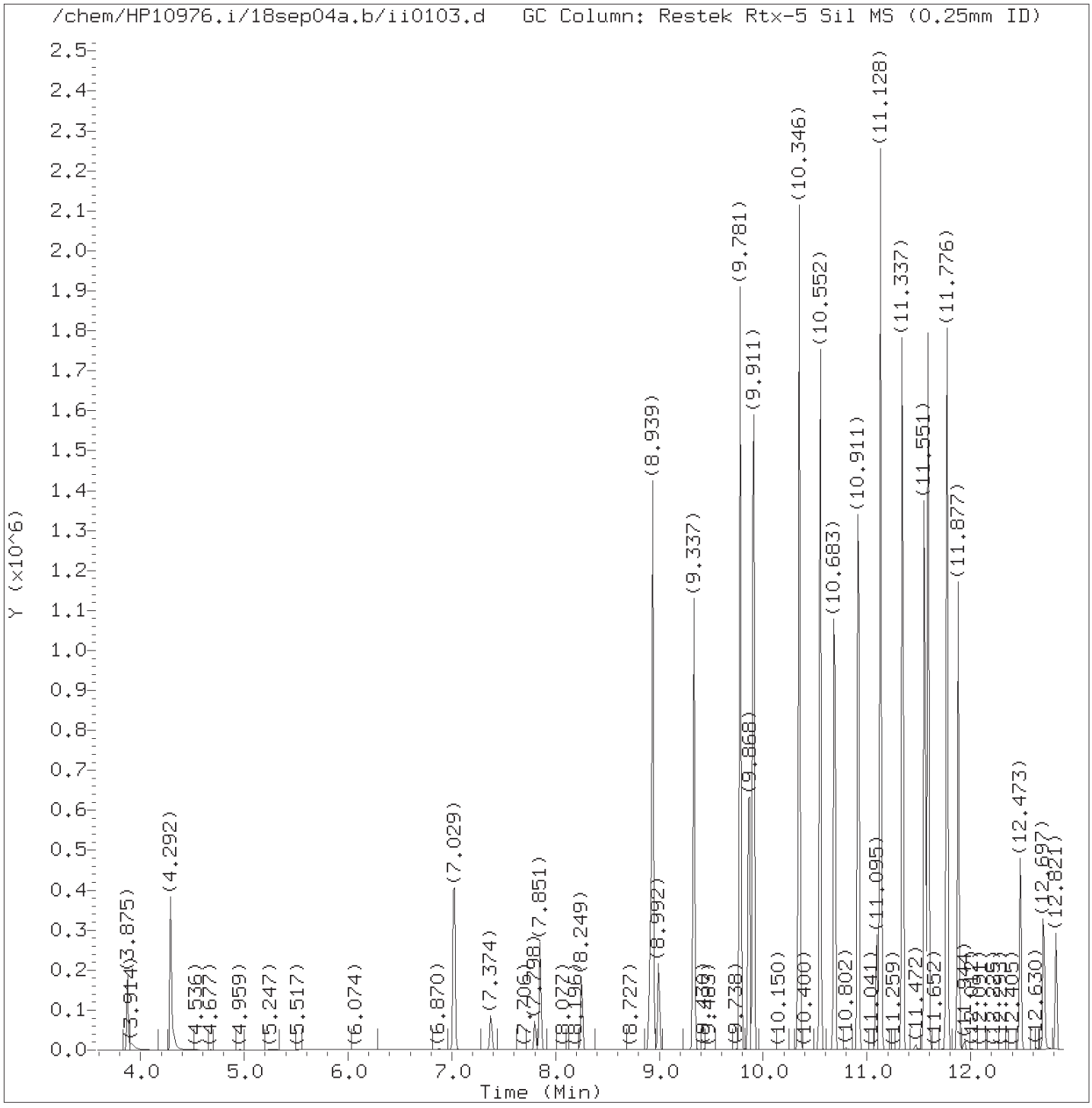
Data File: /chem/HP10976.i/18sep04a.b/ii0102.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:12 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 20:38
Date, time and analyst ID of latest file update: 04-Sep-2018 20:38 Automation

Sample Name: SSTD010 Lab Sample ID: SIM1288

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area	: 299008		
On-column Amount (ng/ul)	: 7.1517		
Integration start scan	: 38	Integration stop scan:	49
Y at integration start	: 142	Y at integration end:	191

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

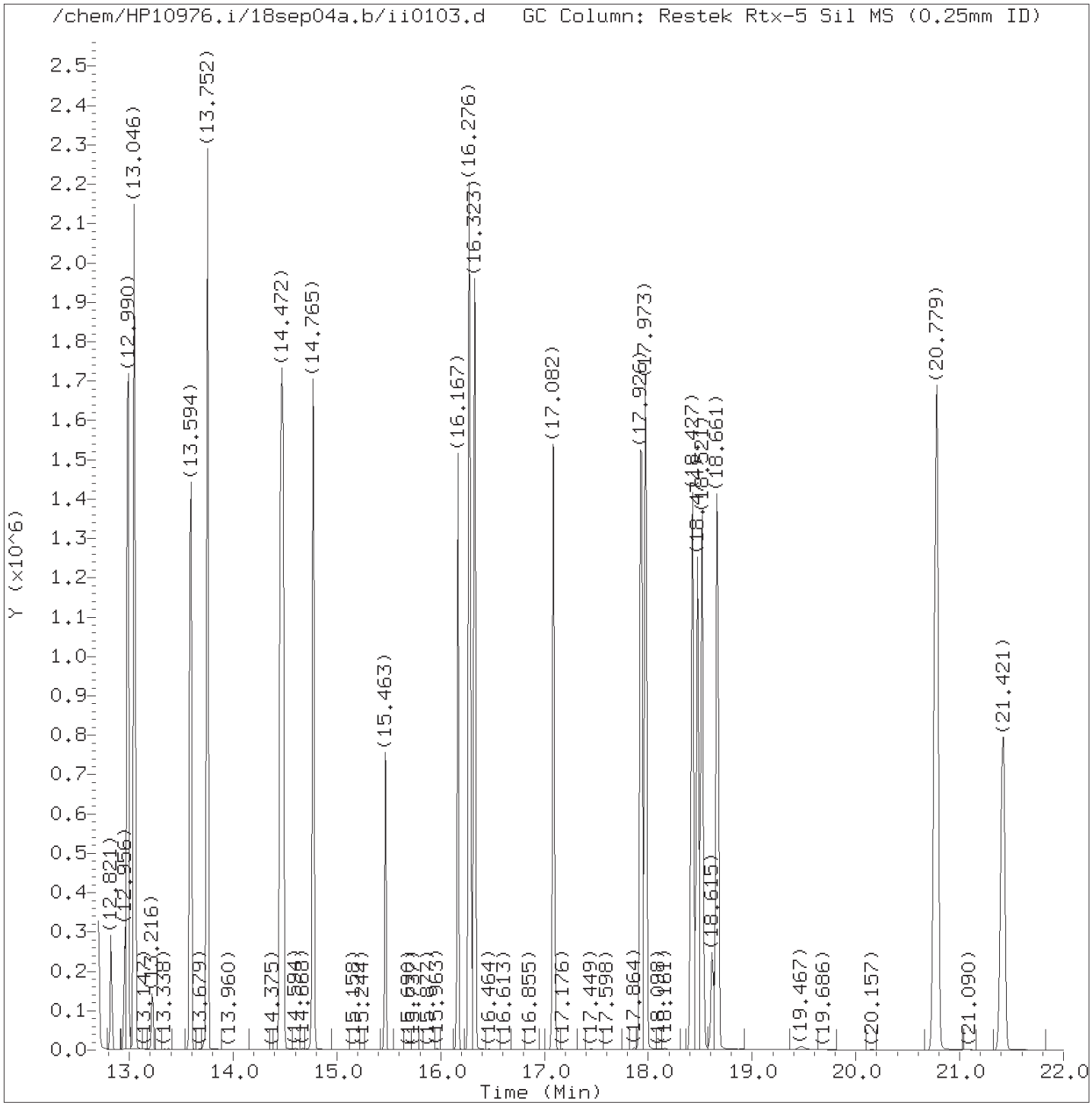
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.875	88	188863M	4.740
2) N-Nitrosodimethylamine	(1)	4.292	74	291792	4.766
5) bis(2-Chloroethyl)ether	(1)	7.029	93	396349	4.783
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	65069	1.000
10)*Naphthalene-d8	(2)	8.913	136	241875	1.000
11) Naphthalene	(2)	8.939	128	1202702	4.830
12) Quinoline	(2)	9.337	129	741148	4.764
13) 2-Methylnaphthalene	(2)	9.781	142	870578	4.813
14)$1-Methylnaphthalene-d10	(2)	9.868	152	710388	4.816
15) 1-Methylnaphthalene	(2)	9.911	142	859964	4.875
18) Dimethylphthalate	(3)	10.683	163	1049303	4.832
19) Acenaphthylene	(3)	10.911	152	1377563	4.867
20)*Acenaphthene-d10	(3)	11.095	164	145290	1.000
21) Acenaphthene	(3)	11.128	154	878620	4.827
22) Dibenzofuran	(3)	11.337	168	1372984	4.820
23) Diethylphthalate	(3)	11.551	149	1021533	4.830
26) Fluorene	(3)	11.776	166	1114832	4.849
28) NDPA as diphenylamine	(4)	11.877	169	597826	4.672
27) N-Nitrosodiphenylamine	(4)	11.877	169	597826	4.672
29) Hexachlorobenzene	(4)	12.484	284	464327	4.857
31)*Phenanthrene-d10	(4)	12.956	188	335792	1.000
32) Phenanthrene	(4)	12.990	178	1745445	4.831
33) Anthracene	(4)	13.046	178	1784307	4.838
35) Di-n-butylphthalate	(4)	13.594	149	1722035	4.835
36)$Fluoranthene-d10	(4)	14.460	212	2086320	4.898
37) Fluoranthene	(4)	14.485	202	2240634	4.824
39) Pyrene	(5)	14.778	202	2315913	4.868
40) Butylbenzylphthalate	(5)	15.463	149	762204	4.837
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	1136922	4.791
42) Benzo(a)anthracene	(5)	16.276	228	2176476	4.882
43)*Chrysene-d12	(5)	16.292	240	352329	1.000
44) Chrysene	(5)	16.323	228	2088206	4.851
45) Di-n-octylphthalate	(6)	17.082	149	1943153	4.823
46) Benzo(b)fluoranthene	(6)	17.926	252	2101485	4.753
47) Benzo(k)fluoranthene	(6)	17.973	252	2138375	5.034
48) Benzo(e)pyrene	(6)	18.427	252	2117576	4.879
49)$Benzo(a)pyrene-d12	(6)	18.474	264	1718267	4.914
50) Benzo(a)pyrene	(6)	18.521	252	1899854	4.910
51)*Perylene-d12	(6)	18.615	264	356058	1.000
52) Perylene	(6)	18.661	252	2053968	4.890

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

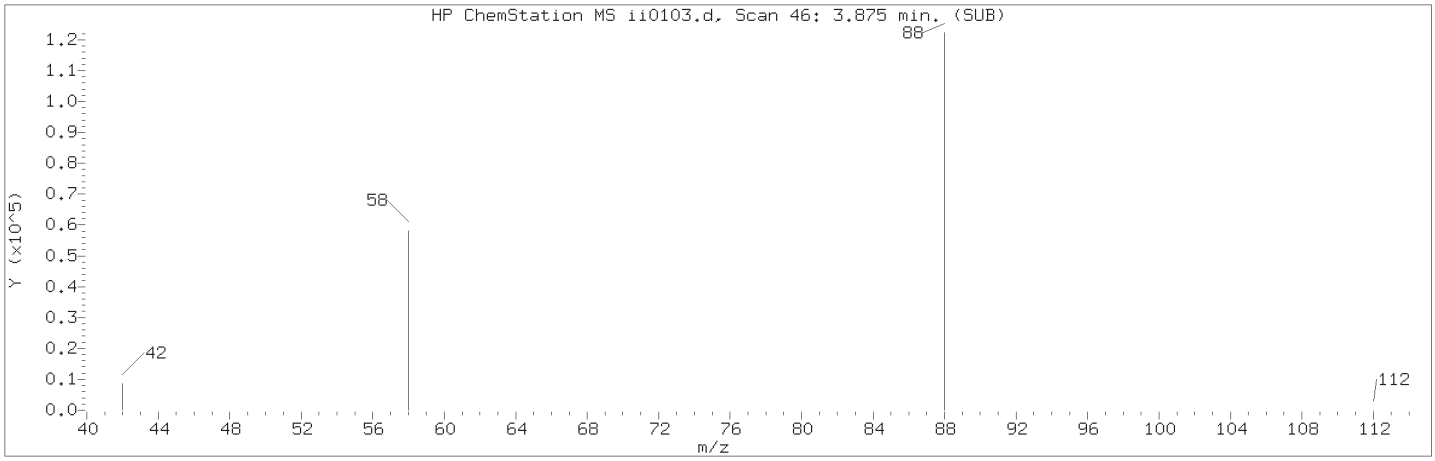
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM1288

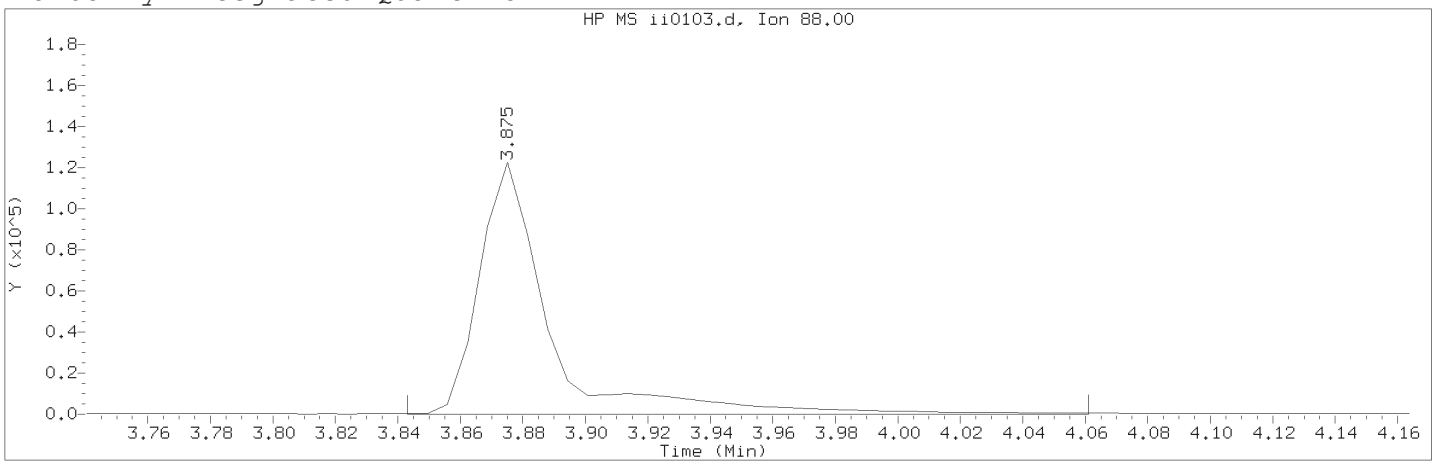
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.772	276	2245455	4.899
54) Dibenz(a,h)anthracene	(6)	20.779	278	1821440	4.887
55) Benzo(g,h,i)perylene	(6)	21.421	276	1938195	4.894

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD005 Lab Sample ID: SIM1288

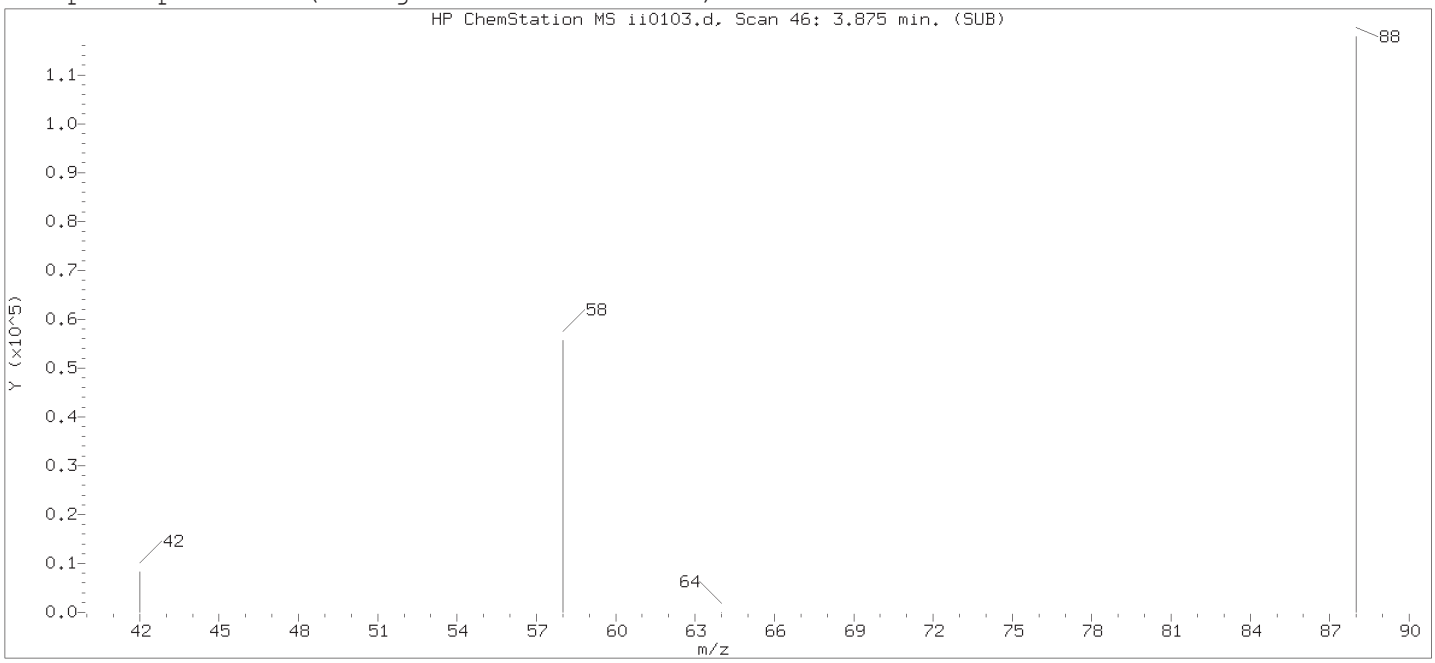
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area (flag)	: 188863M		
On-Column Amount (ng/ul)	: 4.7403		
Integration start scan	: 40	Integration stop scan:	74
Y at integration start	: 102	Y at integration end:	102

Reason for manual integration: improper integration

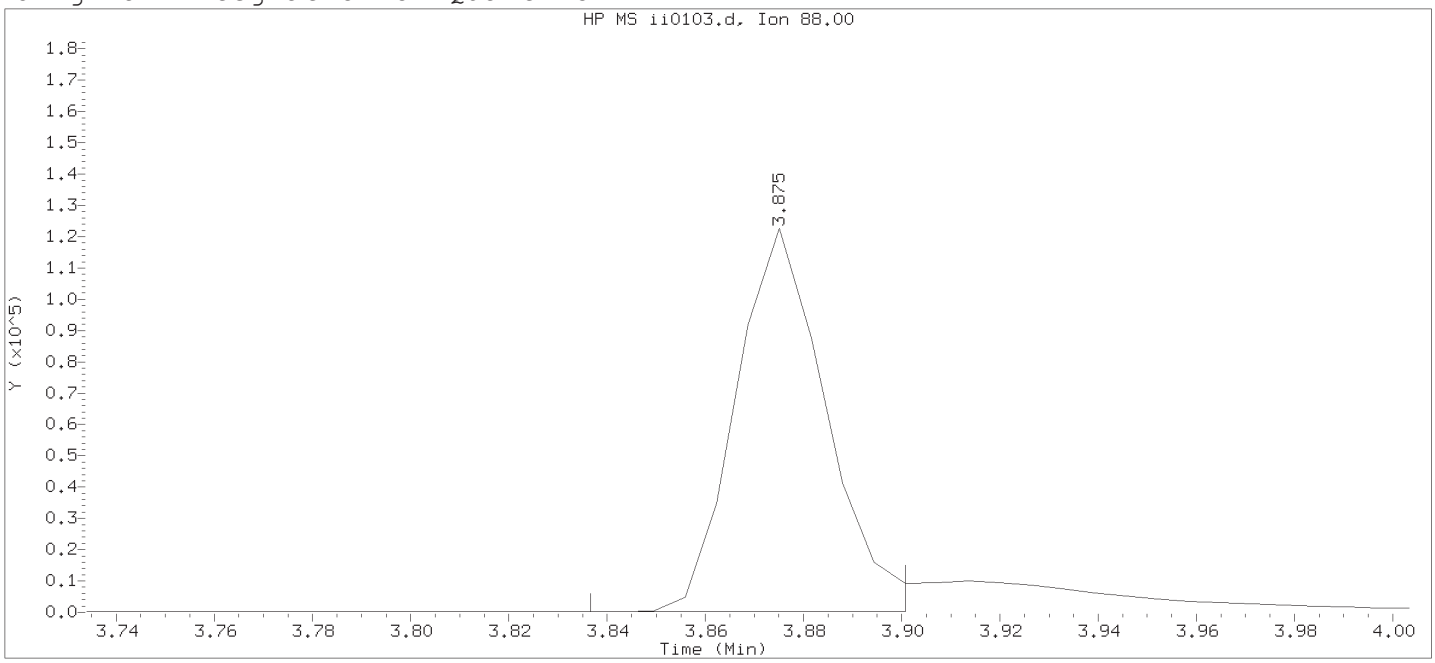
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0103.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 20:43 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 21:09
Date, time and analyst ID of latest file update: 04-Sep-2018 21:09 Automation

Sample Name: SSTD005 Lab Sample ID: SIM1288

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 46		
Retention Time (minutes)	: 3.875		
Quant Ion	: 88.00		
Area	: 154938		
On-column Amount (ng/ul)	: 3.4927		
Integration start scan	: 39	Integration stop scan:	49
Y at integration start	: 147	Y at integration end:	190

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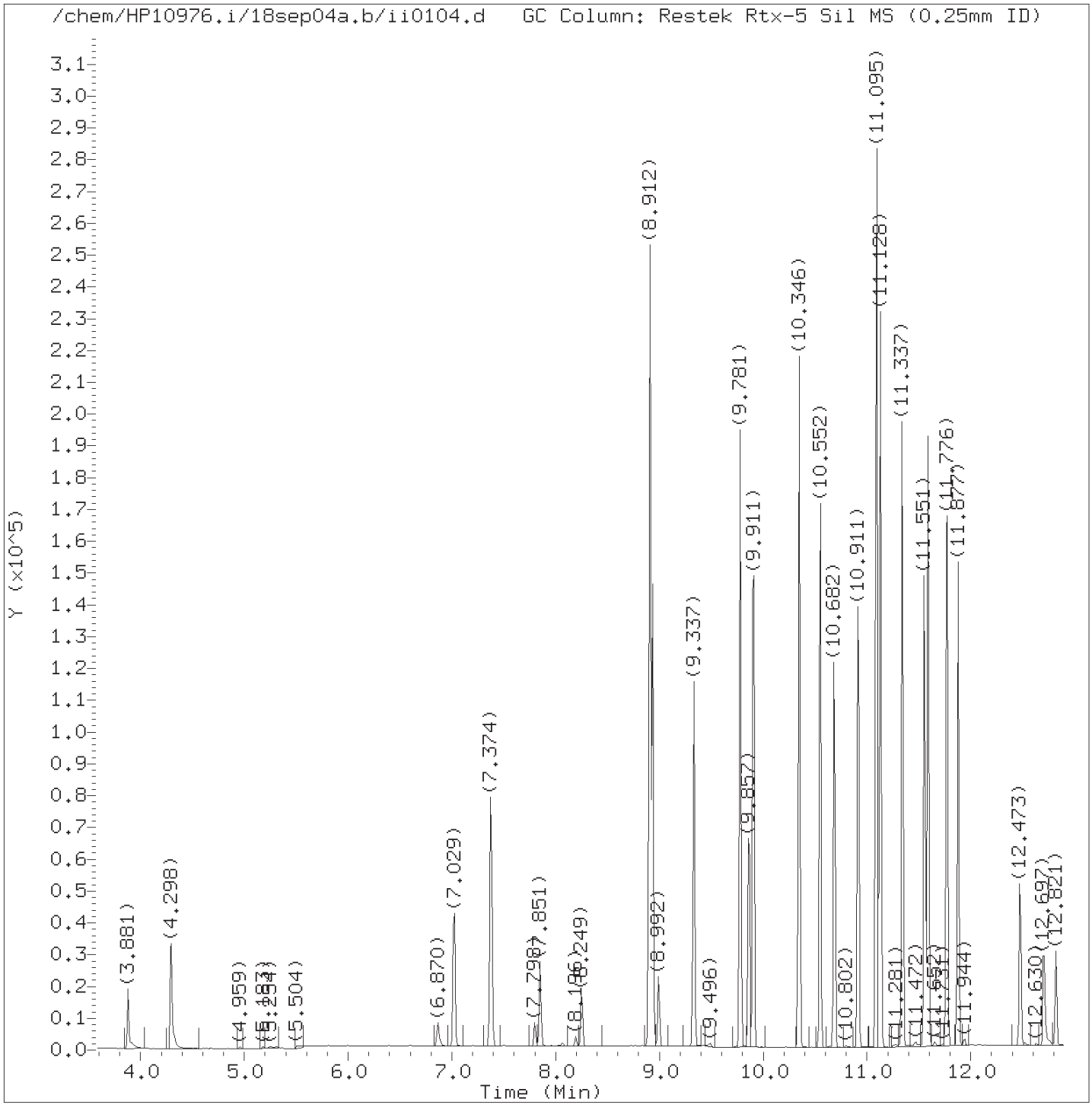
Target 3.5 esignature used: D12 Page 1 of 6



Total Ion Chromatogram (TIC)

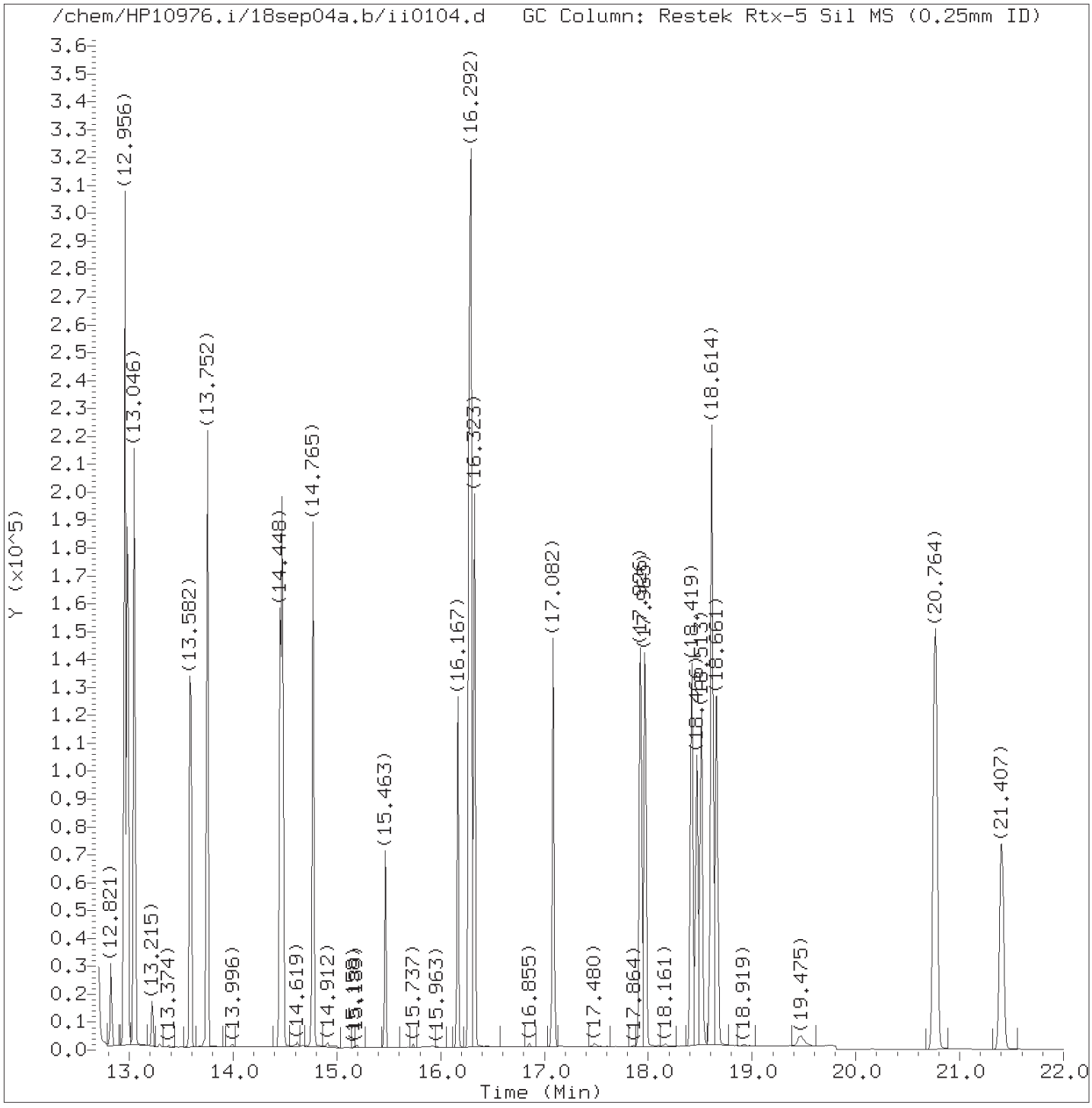
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.881	88	18790M	0.499
2) N-Nitrosodimethylamine	(1)	4.298	74	28065	0.488
5) bis(2-Chloroethyl)ether	(1)	7.029	93	39012	0.498
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	61558	1.000
10)*Naphthalene-d8	(2)	8.912	136	232516	1.000
11) Naphthalene	(2)	8.939	128	122459	0.509
12) Quinoline	(2)	9.337	129	75798	0.505
13) 2-Methylnaphthalene	(2)	9.781	142	87298	0.502
14)$1-Methylnaphthalene-d10	(2)	9.857	152	70554	0.498
15) 1-Methylnaphthalene	(2)	9.911	142	85884	0.505
18) Dimethylphthalate	(3)	10.682	163	104049	0.495
19) Acenaphthylene	(3)	10.911	152	136828	0.498
20)*Acenaphthene-d10	(3)	11.095	164	141121	1.000
21) Acenaphthene	(3)	11.128	154	91212	0.512
22) Dibenzofuran	(3)	11.337	168	139935	0.504
23) Diethylphthalate	(3)	11.551	149	104433	0.506
26) Fluorene	(3)	11.776	166	110744	0.497
28) NDPA as diphenylamine	(4)	11.877	169	74341	0.578
27) N-Nitrosodiphenylamine	(4)	11.877	169	74341	0.578
29) Hexachlorobenzene	(4)	12.484	284	47785	0.518
31)*Phenanthrene-d10	(4)	12.956	188	320188	1.000
32) Phenanthrene	(4)	12.978	178	174996	0.506
33) Anthracene	(4)	13.046	178	174040	0.496
35) Di-n-butylphthalate	(4)	13.582	149	164021	0.487
36)$Fluoranthene-d10	(4)	14.448	212	201179	0.497
37) Fluoranthene	(4)	14.472	202	217615	0.493
39) Pyrene	(5)	14.765	202	220894	0.521
40) Butylbenzylphthalate	(5)	15.463	149	68368	0.496
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	103164	0.496
42) Benzo(a)anthracene	(5)	16.268	228	198055	0.504
43)*Chrysene-d12	(5)	16.292	240	309373	1.000
44) Chrysene	(5)	16.323	228	194063	0.510
45) Di-n-octylphthalate	(6)	17.082	149	170312	0.487
46) Benzo(b)fluoranthene	(6)	17.926	252	198483	0.509
47) Benzo(k)fluoranthene	(6)	17.965	252	182440	0.492
48) Benzo(e)pyrene	(6)	18.419	252	194214	0.508
49)$Benzo(a)pyrene-d12	(6)	18.466	264	150286	0.493
50) Benzo(a)pyrene	(6)	18.513	252	169215	0.499
51)*Perylene-d12	(6)	18.614	264	312109	1.000
52) Perylene	(6)	18.661	252	188059	0.508

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

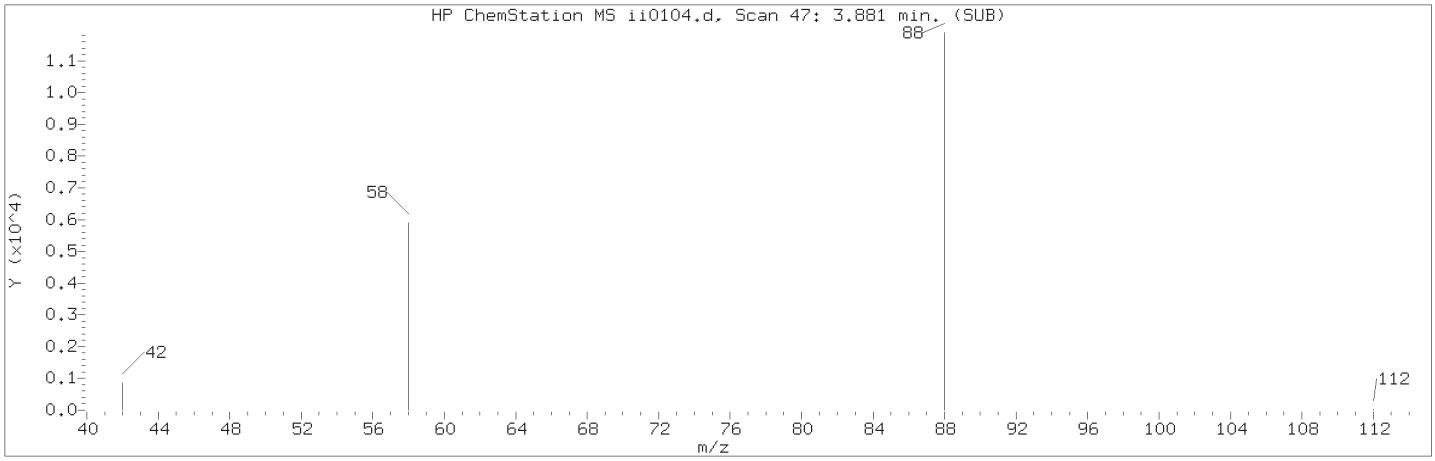
Sample Name: SSTD0.5 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.757	276	199821	0.498
54) Dibenz(a,h)anthracene	(6)	20.772	278	162824	0.499
55) Benzo(g,h,i)perylene	(6)	21.407	276	175272M	0.504

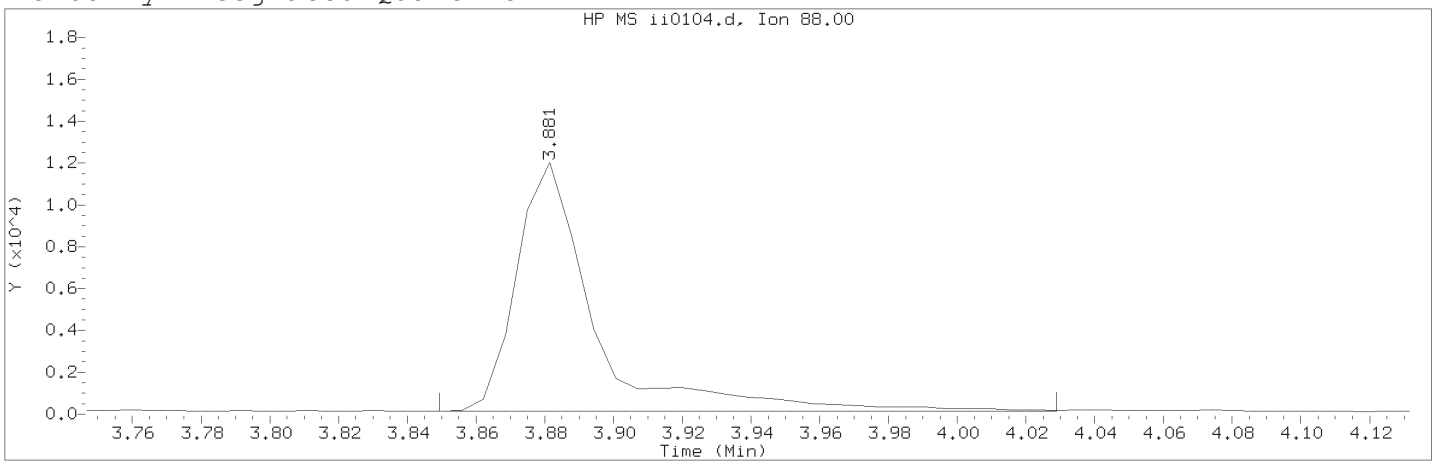
M = Compound was manually integrated.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

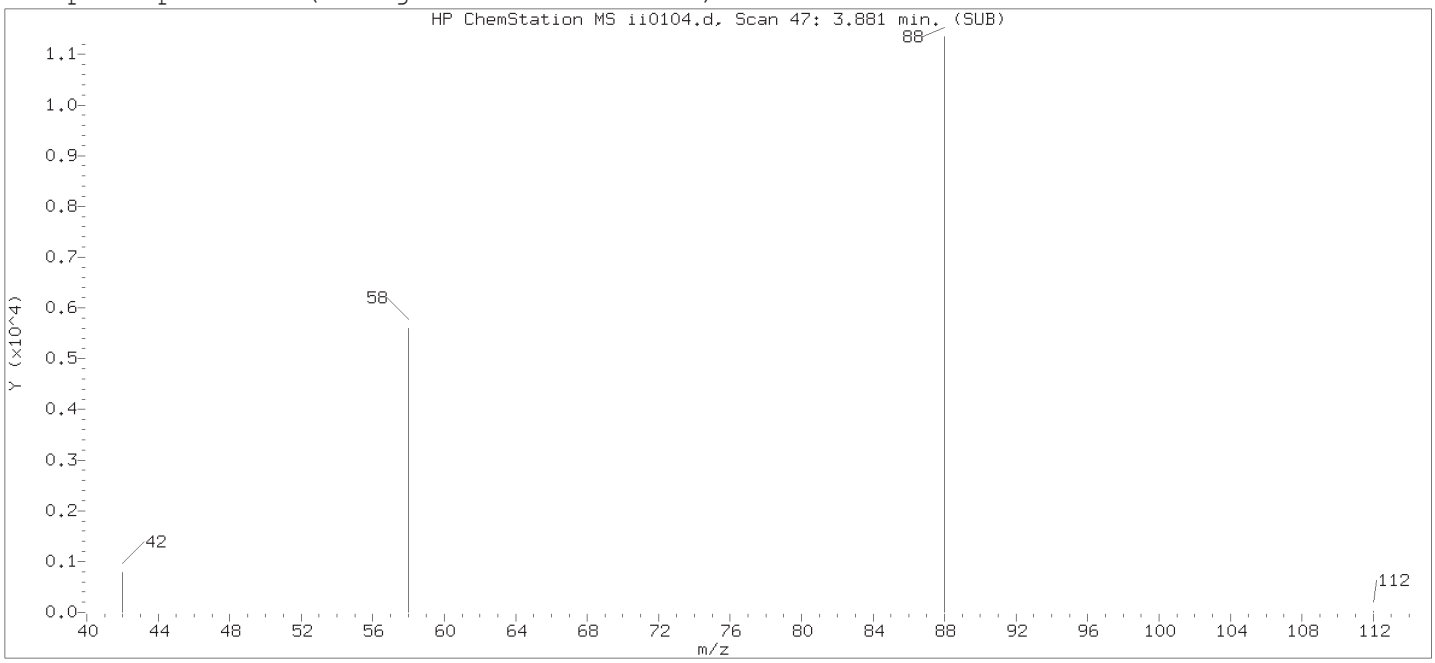
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 47		
Retention Time (minutes)	: 3.881		
Quant Ion	: 88.00		
Area (flag)	: 18790M		
On-Column Amount (ng/ul)	: 0.4989		
Integration start scan	: 41	Integration stop scan:	69
Y at integration start	: 135	Y at integration end:	135

Reason for manual integration: improper integration

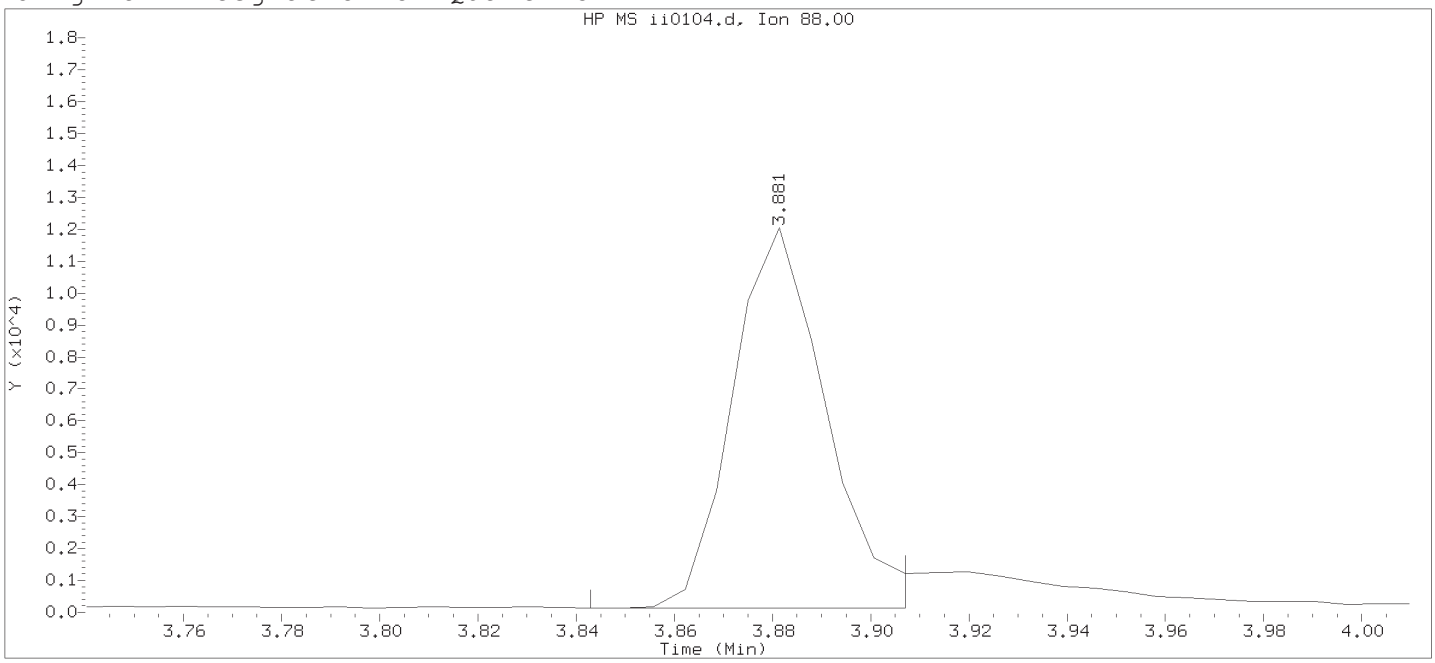
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

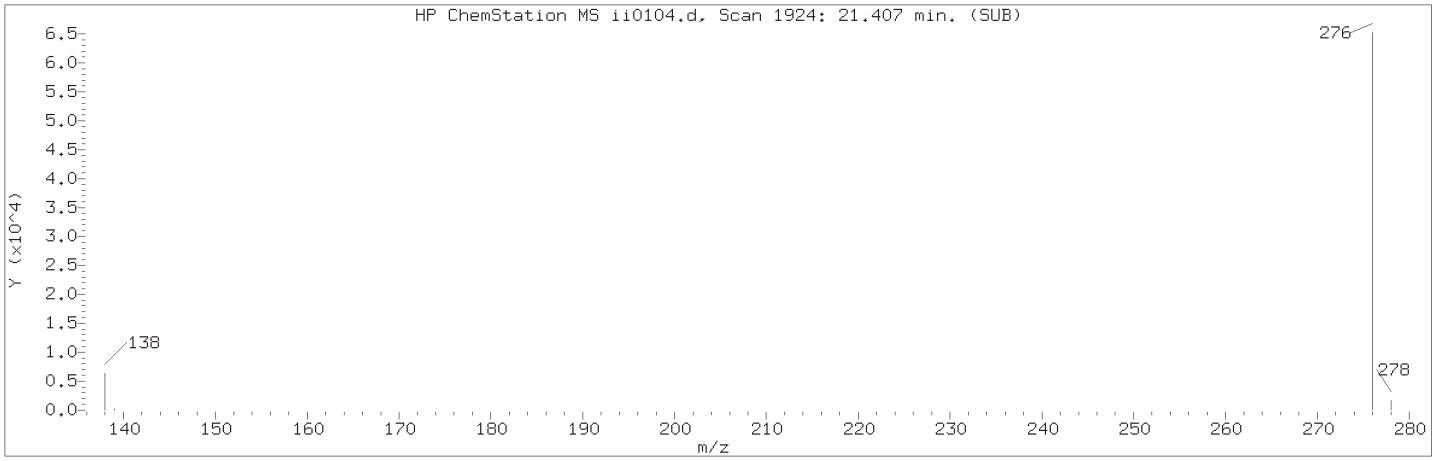
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 21:40
Date, time and analyst ID of latest file update: 04-Sep-2018 21:40 Automation

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

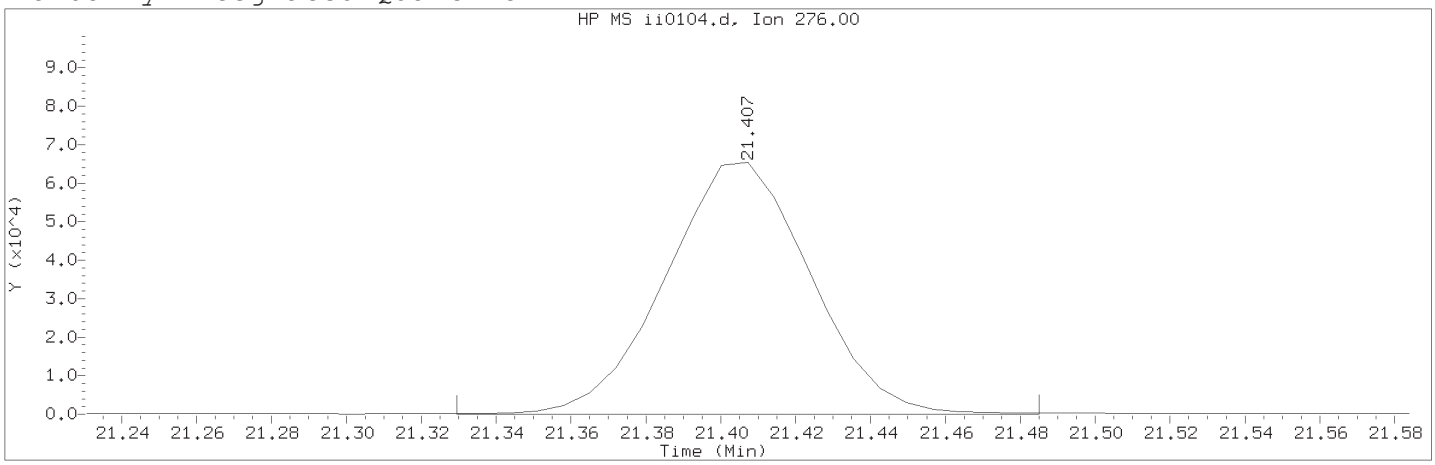
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 47		
Retention Time (minutes)	: 3.881		
Quant Ion	: 88.00		
Area	: 15504		
On-column Amount (ng/ul)	: 0.3974		
Integration start scan	: 40	Integration stop scan:	50
Y at integration start	: 136	Y at integration end:	136

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used 1D12 Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

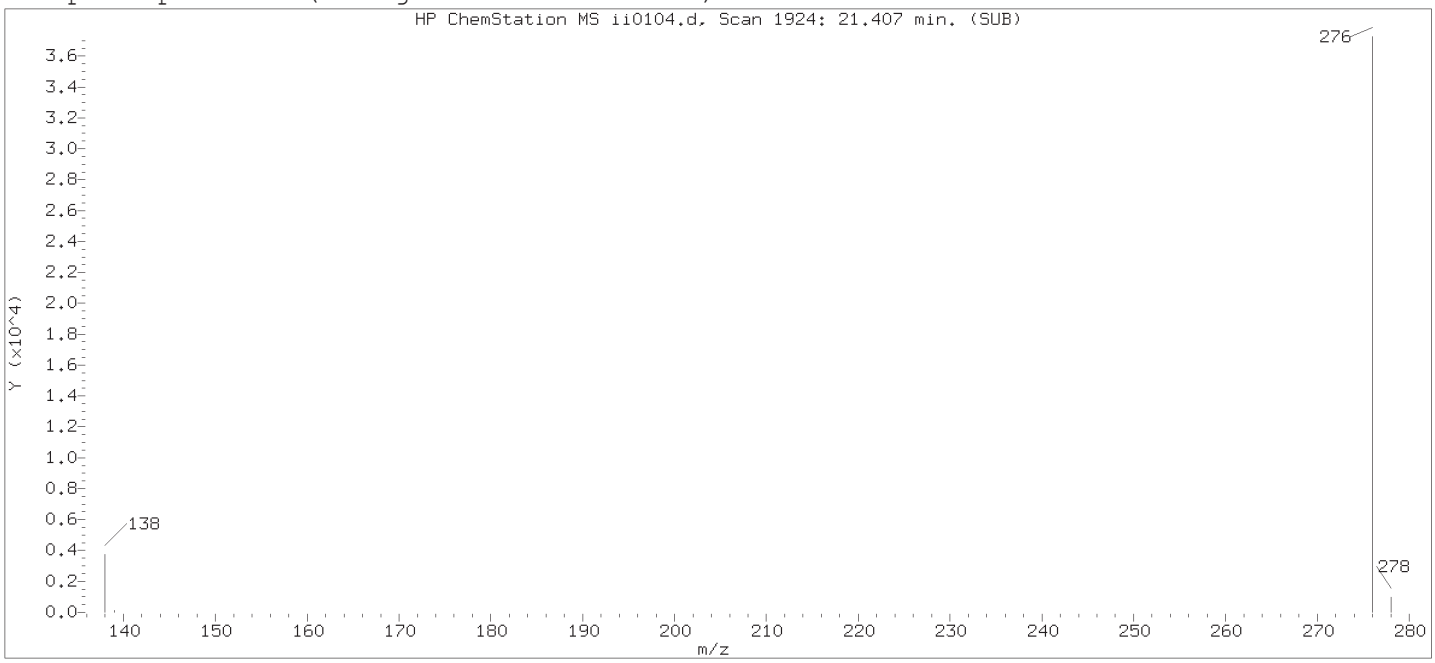
Compound Number : 55
Compound Name : Benzo(g,h,i)perylene
Scan Number : 1924
Retention Time (minutes) : 21.407
Quant Ion : 276.00
Area (flag) : 175272M
On-Column Amount (ng/ul) : 0.5036
Integration start scan : 1912 Integration stop scan: 1934
Y at integration start : 71 Y at integration end: 71

Reason for manual integration: improper integration

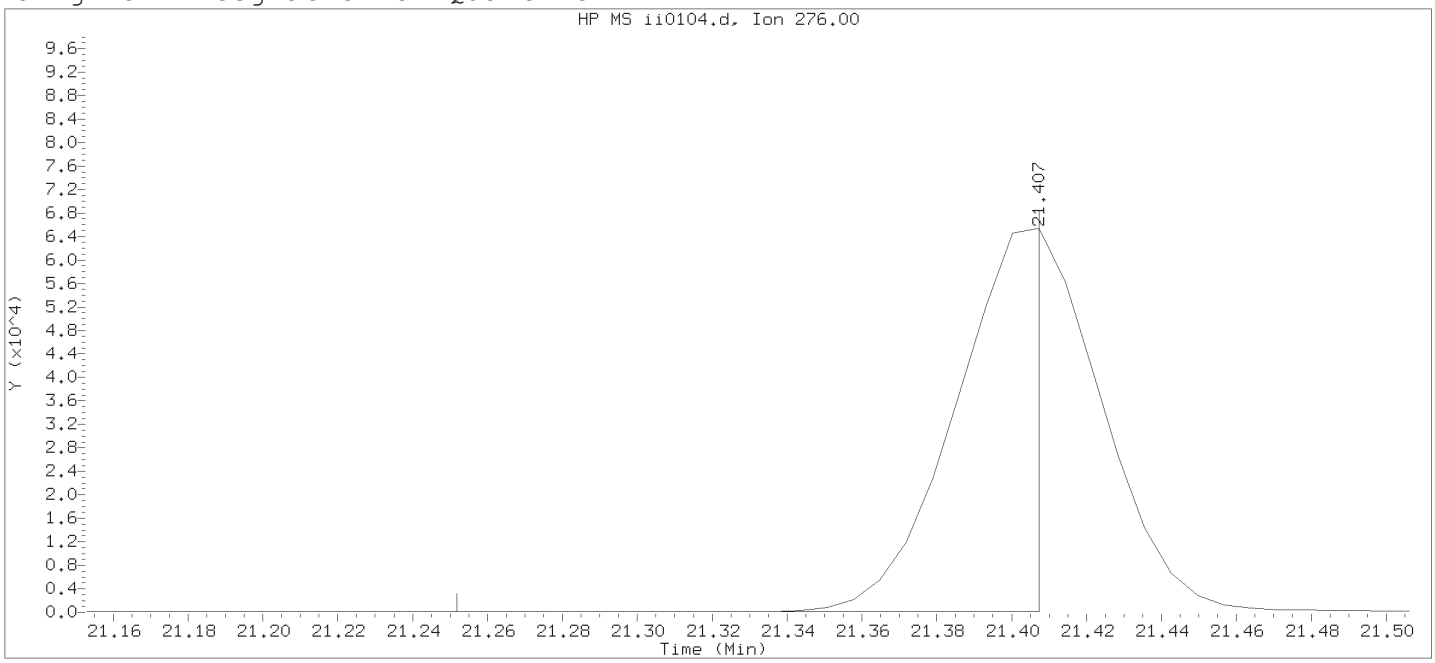
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



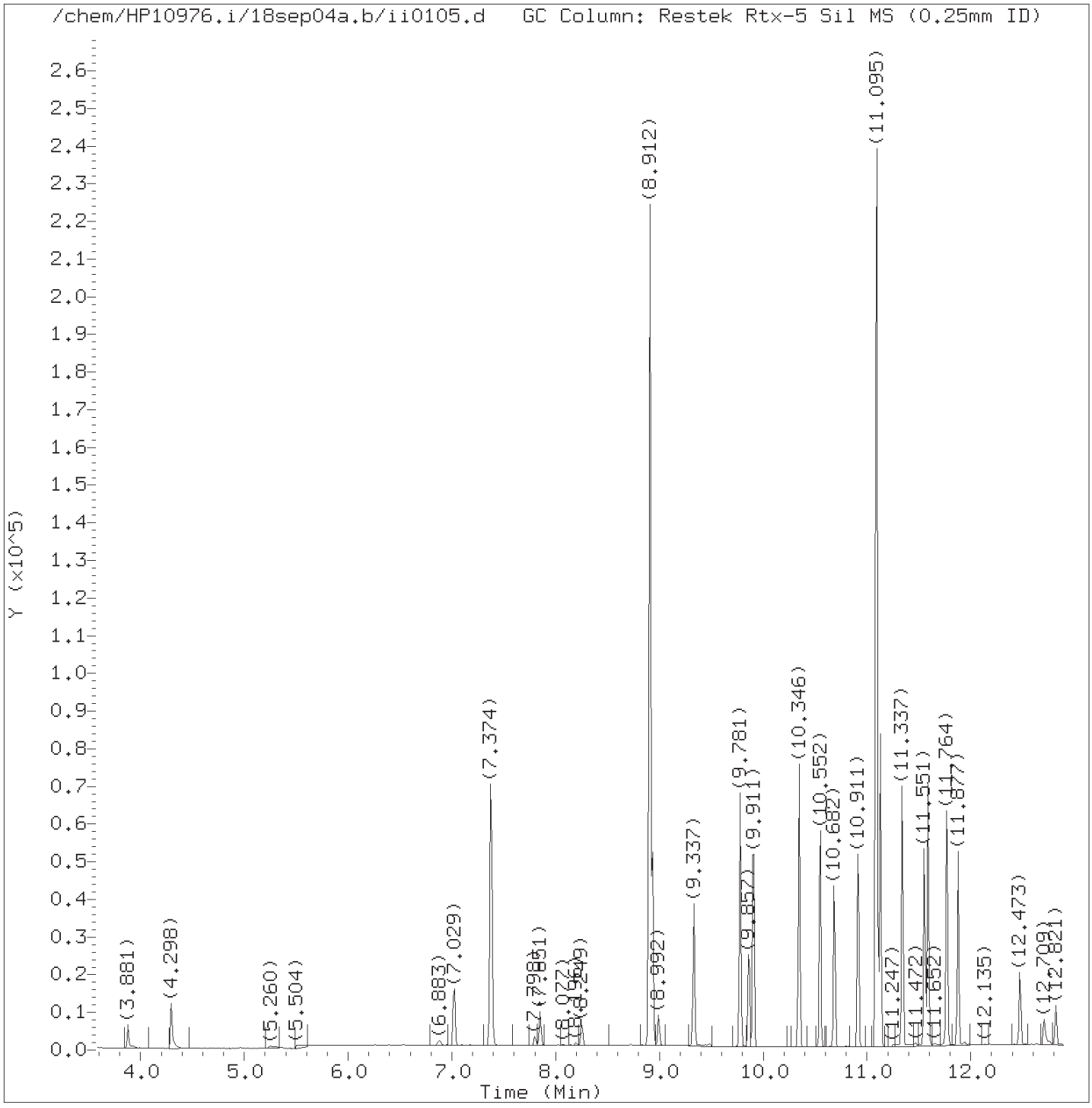
Data File: /chem/HP10976.i/18sep04a.b/ii0104.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:14 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 21:40
Date, time and analyst ID of latest file update: 04-Sep-2018 21:40 Automation

Sample Name: SSTD0.5 Lab Sample ID: SIM1288

Compound Number	: 55		
Compound Name	: Benzo(g,h,i)perylene		
Scan Number	: 1924		
Retention Time (minutes)	: 21.407		
Quant Ion	: 276.00		
Area	: 97424		
On-column Amount (ng/ul)	: 0.2804		
Integration start scan	: 1901	Integration stop scan:	1923
Y at integration start	: 78	Y at integration end:	78

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

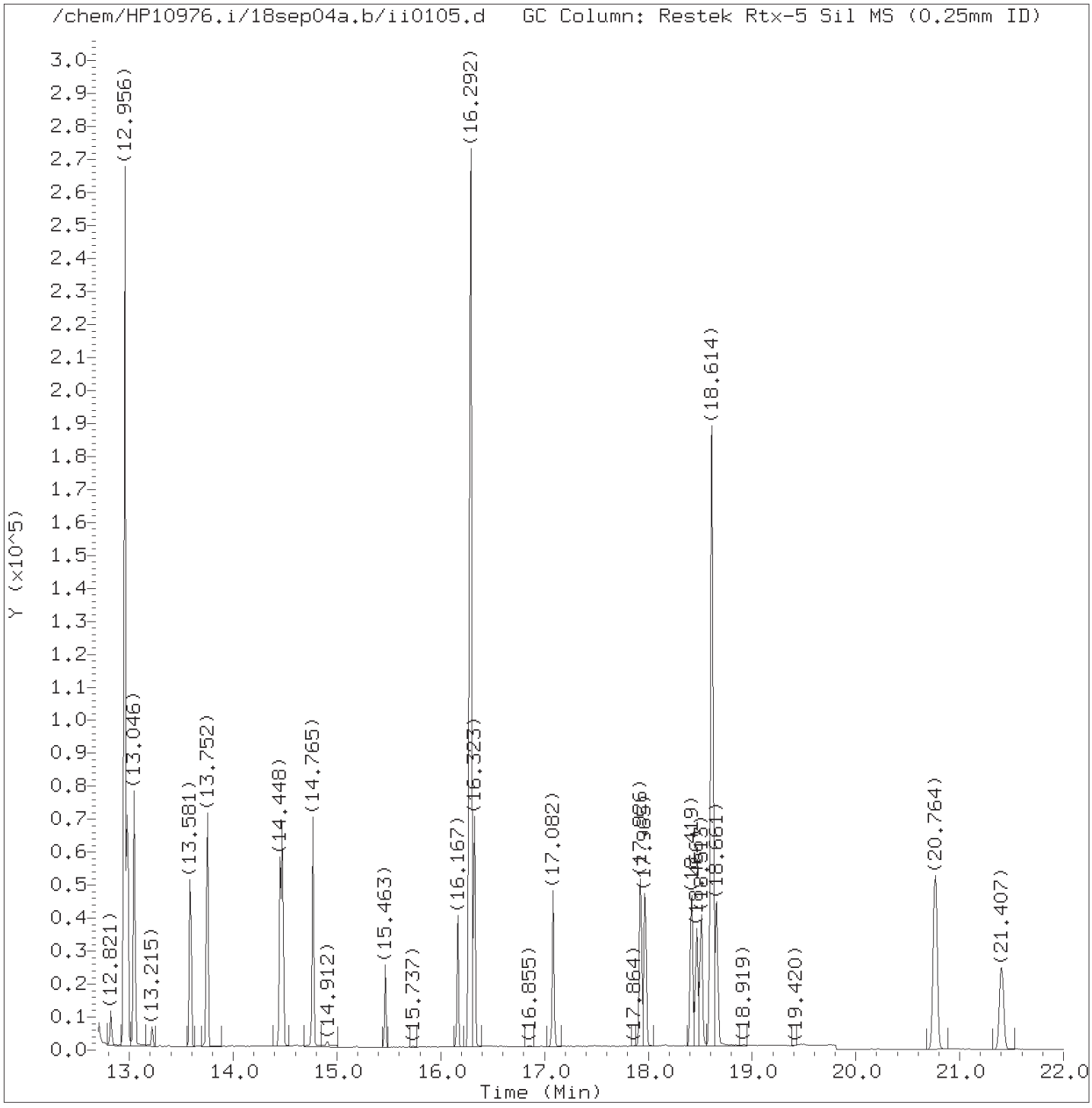
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.881	88	6632M	0.194
2) N-Nitrosodimethylamine	(1)	4.298	74	9922	0.191
5) bis(2-Chloroethyl)ether	(1)	7.029	93	13856	0.195
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	56238	1.000
10)*Naphthalene-d8	(2)	8.912	136	211328	1.000
11) Naphthalene	(2)	8.939	128	43050	0.197
12) Quinoline	(2)	9.337	129	26293	0.194
13) 2-Methylnaphthalene	(2)	9.781	142	31020	0.197
14)$1-Methylnaphthalene-d10	(2)	9.857	152	25343	0.198
15) 1-Methylnaphthalene	(2)	9.911	142	30262	0.197
18) Dimethylphthalate	(3)	10.682	163	37048	0.196
19) Acenaphthylene	(3)	10.911	152	47671	0.193
20)*Acenaphthene-d10	(3)	11.095	164	127752	1.000
21) Acenaphthene	(3)	11.128	154	32210	0.200
22) Dibenzofuran	(3)	11.337	168	49687	0.198
23) Diethylphthalate	(3)	11.551	149	35721	0.193
26) Fluorene	(3)	11.764	166	38900	0.194
28) NDPA as diphenylamine	(4)	11.877	169	25708	0.217
27) N-Nitrosodiphenylamine	(4)	11.877	169	25708	0.217
29) Hexachlorobenzene	(4)	12.473	284	17234	0.206
31)*Phenanthrene-d10	(4)	12.956	188	289036	1.000
32) Phenanthrene	(4)	12.978	178	62304	0.200
33) Anthracene	(4)	13.046	178	61318	0.195
35) Di-n-butylphthalate	(4)	13.581	149	55637	0.186
36)$Fluoranthene-d10	(4)	14.448	212	69088	0.191
37) Fluoranthene	(4)	14.472	202	74920	0.190
39) Pyrene	(5)	14.765	202	76340	0.202
40) Butylbenzylphthalate	(5)	15.463	149	22294	0.185
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	33198	0.183
42) Benzo(a)anthracene	(5)	16.268	228	68642	0.197
43)*Chrysene-d12	(5)	16.292	240	276026	1.000
44) Chrysene	(5)	16.323	228	67560	0.199
45) Di-n-octylphthalate	(6)	17.082	149	54510	0.180
46) Benzo(b)fluoranthene	(6)	17.926	252	68663	0.199
47) Benzo(k)fluoranthene	(6)	17.965	252	62051	0.191
48) Benzo(e)pyrene	(6)	18.419	252	66028	0.196
49)$Benzo(a)pyrene-d12	(6)	18.466	264	50857	0.190
50) Benzo(a)pyrene	(6)	18.513	252	57202	0.192
51)*Perylene-d12	(6)	18.614	264	276848	1.000
52) Perylene	(6)	18.661	252	65239	0.199

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

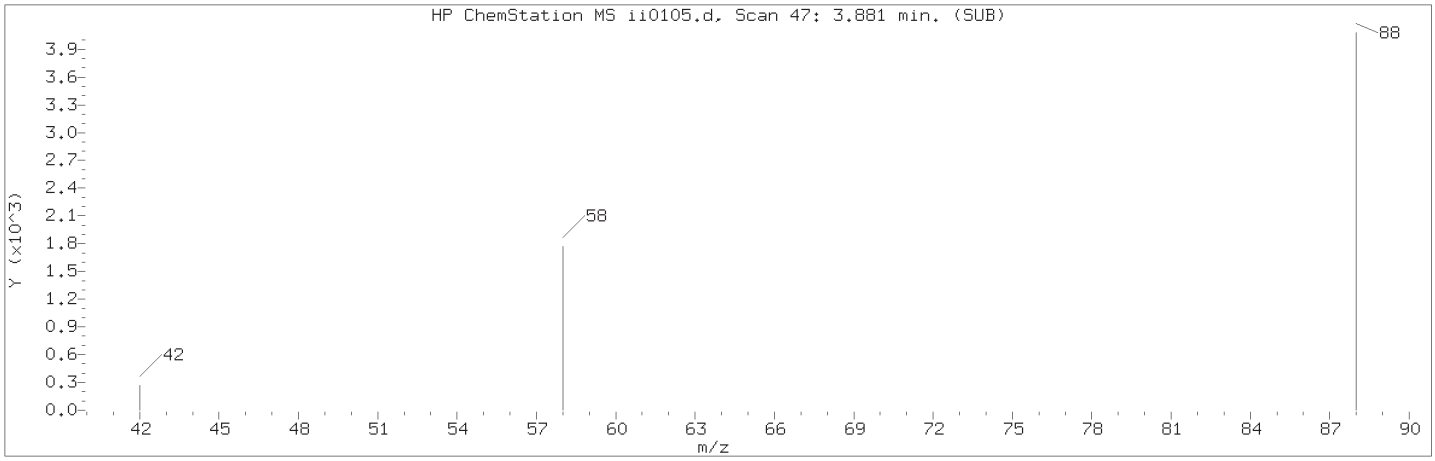
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

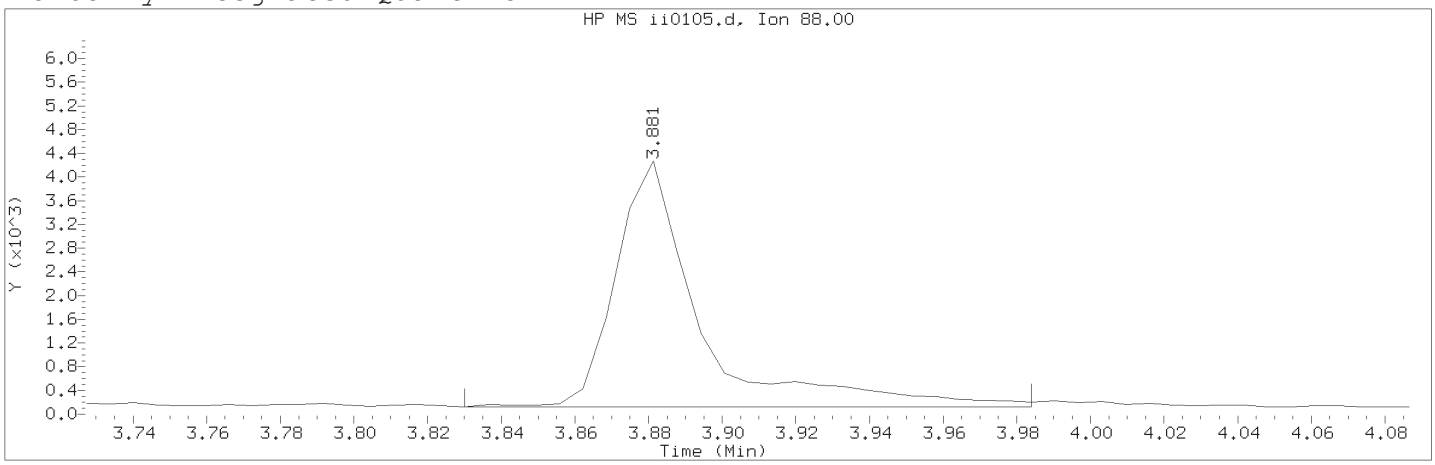
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.757	276	68478	0.194
54) Dibenz(a,h)anthracene	(6)	20.771	278	56350	0.196
55) Benzo(g,h,i)perylene	(6)	21.407	276	60147	0.196

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

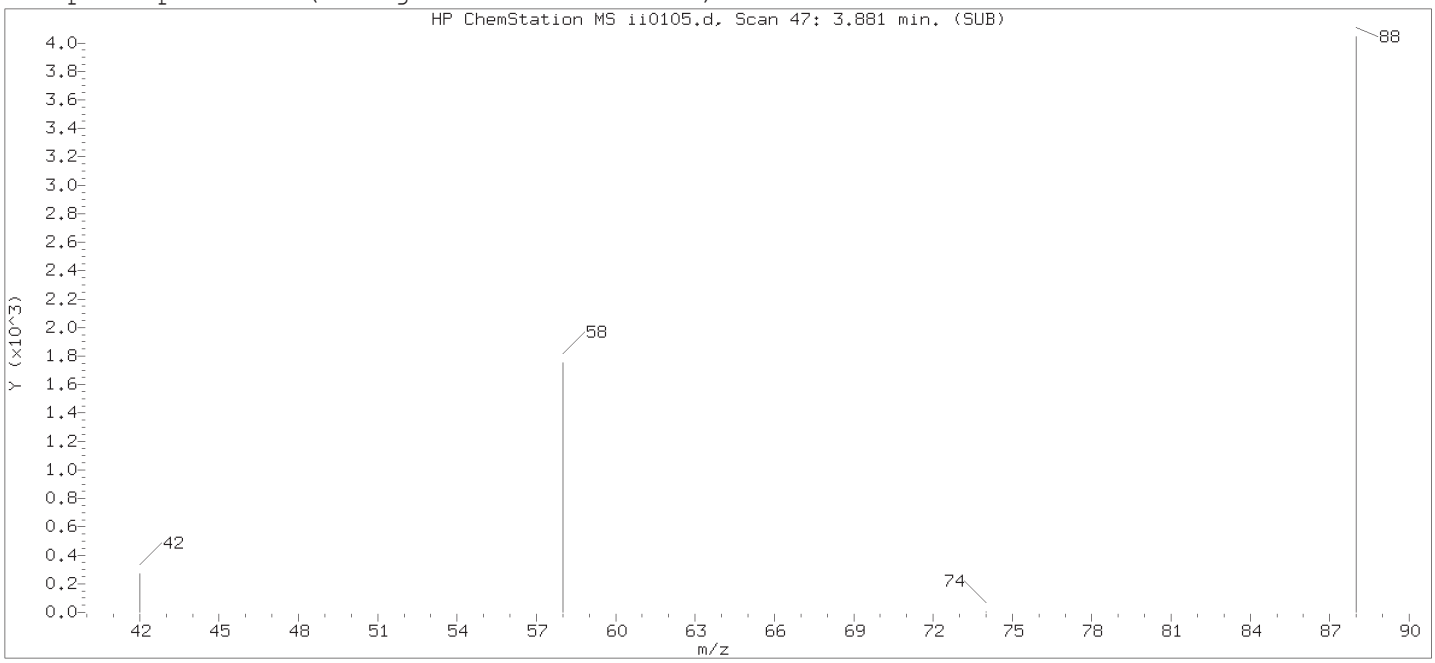
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 47		
Retention Time (minutes)	: 3.881		
Quant Ion	: 88.00		
Area (flag)	: 6632M		
On-Column Amount (ng/ul)	: 0.1941		
Integration start scan	: 38	Integration stop scan:	62
Y at integration start	: 119	Y at integration end:	119

Reason for manual integration: improper integration

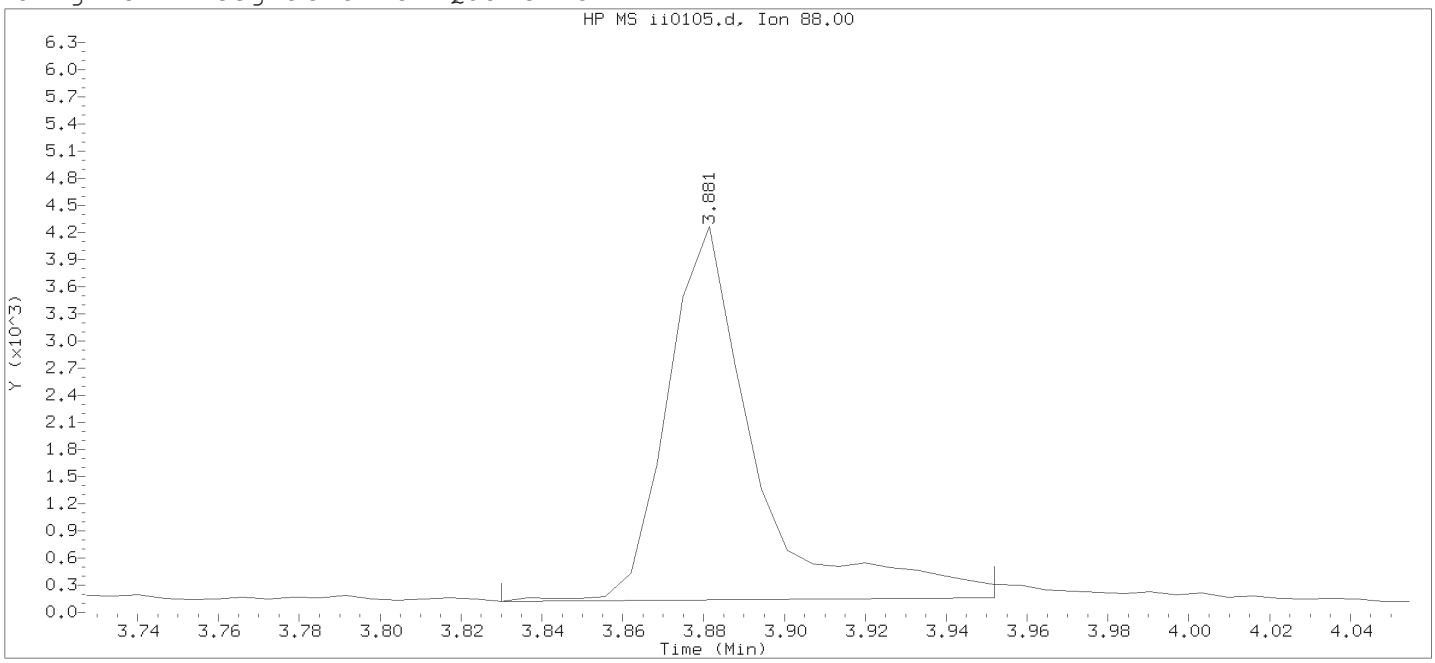
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



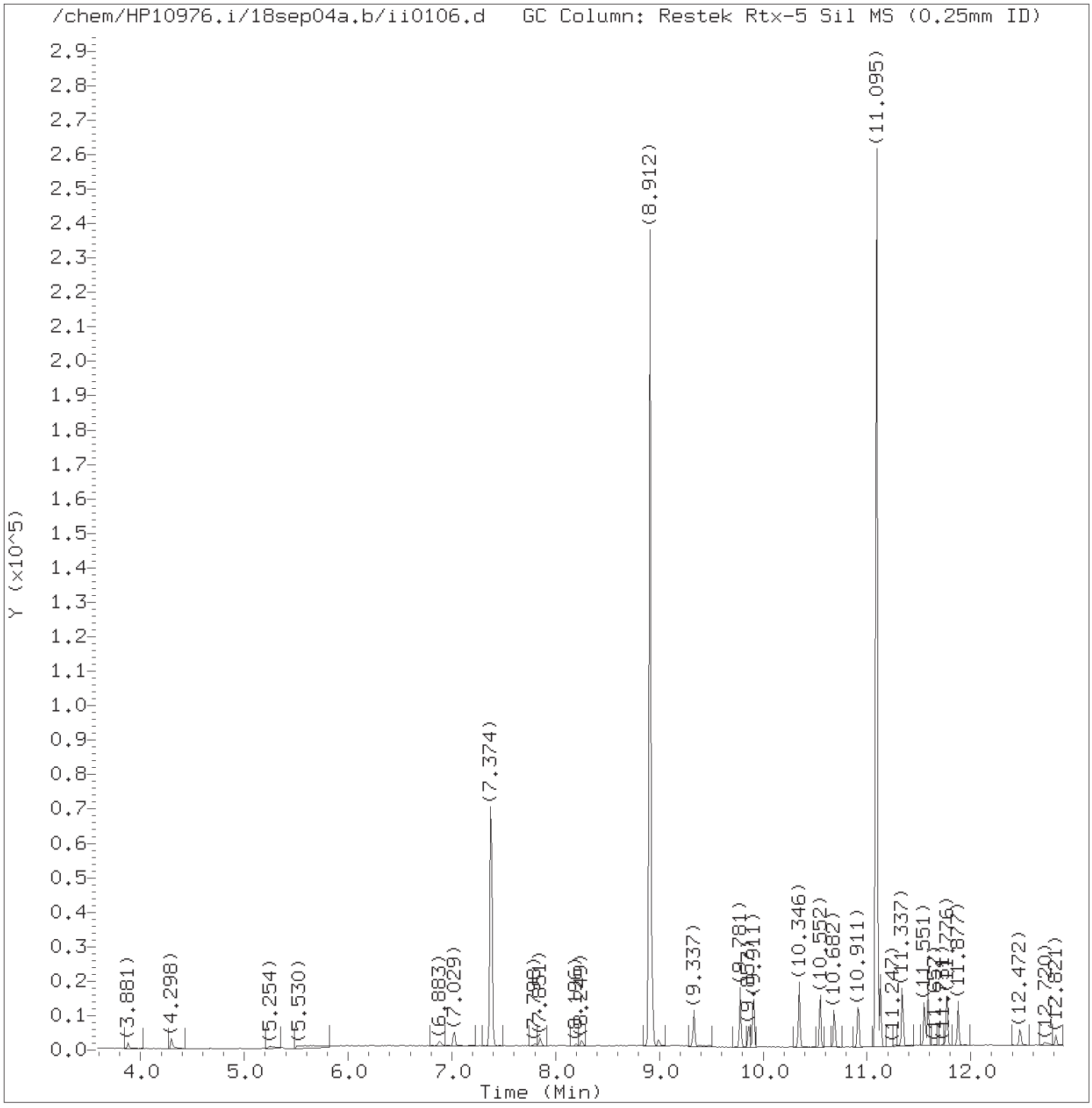
Data File: /chem/HP10976.i/18sep04a.b/ii0105.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 21:45 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:11
Date, time and analyst ID of latest file update: 04-Sep-2018 22:11 Automation

Sample Name: SSTD0.2 Lab Sample ID: SIM1288

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 47		
Retention Time (minutes)	: 3.881		
Quant Ion	: 88.00		
Area	: 6192		
On-column Amount (ng/ul)	: 0.1841		
Integration start scan	: 38	Integration stop scan:	57
Y at integration start	: 122	Y at integration end:	162

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used 1 of 1 times.



Total Ion Chromatogram (TIC)

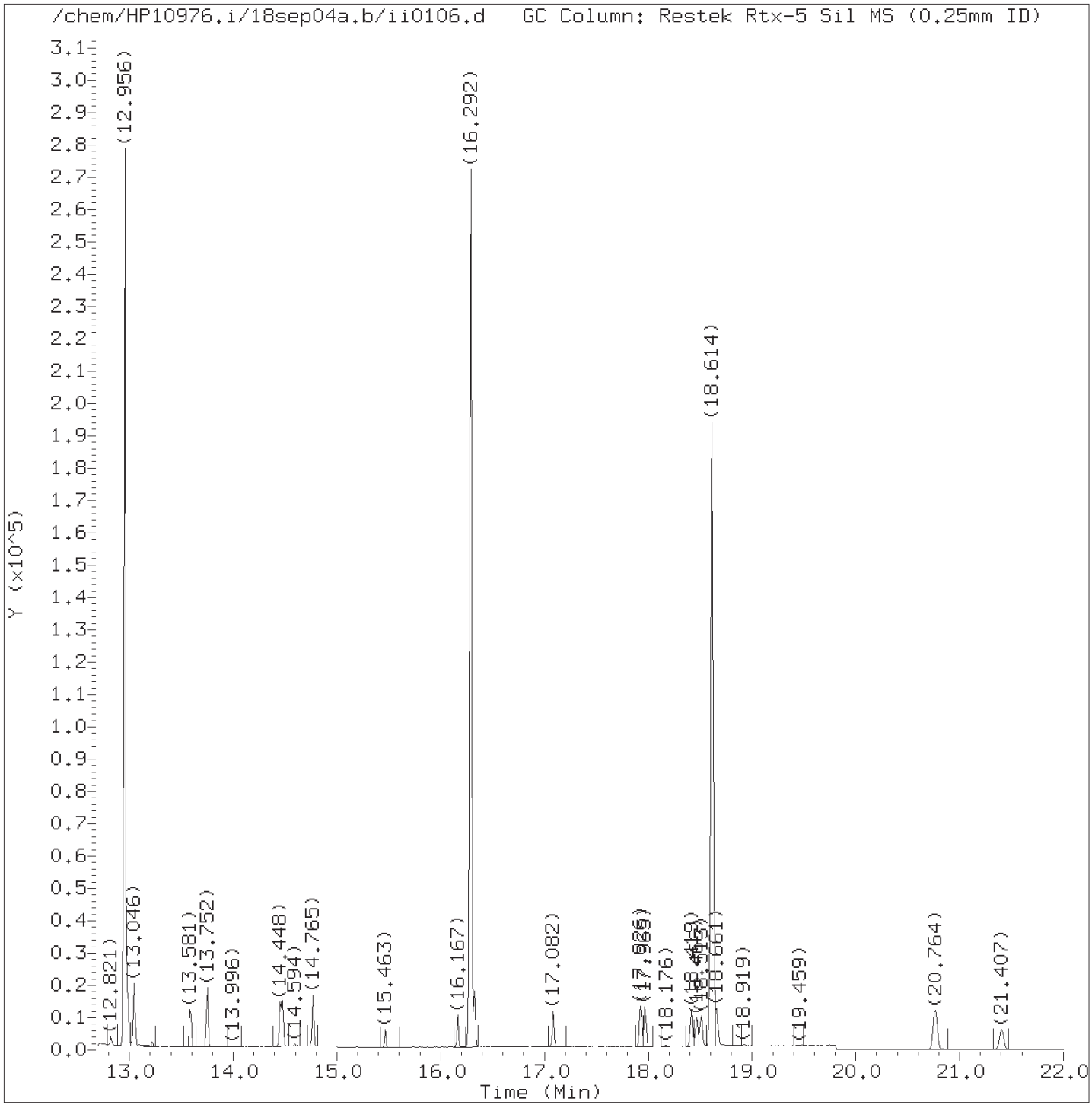
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.881	88	1582	0.046
2) N-Nitrosodimethylamine	(1)	4.298	74	2463	0.047
5) bis(2-Chloroethyl)ether	(1)	7.029	93	3452	0.048
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	57036	1.000
10)*Naphthalene-d8	(2)	8.912	136	215309	1.000
11) Naphthalene	(2)	8.939	128	10961	0.049
12) Quinoline	(2)	9.337	129	6642	0.048
13) 2-Methylnaphthalene	(2)	9.781	142	7735	0.048
14)$1-Methylnaphthalene-d10	(2)	9.868	152	6705	0.051
15) 1-Methylnaphthalene	(2)	9.911	142	7752	0.050
18) Dimethylphthalate	(3)	10.682	163	9414	0.049
19) Acenaphthylene	(3)	10.911	152	12023	0.048
20)*Acenaphthene-d10	(3)	11.095	164	130523	1.000
21) Acenaphthene	(3)	11.128	154	8121M	0.049
22) Dibenzofuran	(3)	11.337	168	12335M	0.048
23) Diethylphthalate	(3)	11.551	149	9076M	0.048
26) Fluorene	(3)	11.776	166	9535	0.047
28) NDPA as diphenylamine	(4)	11.877	169	6556	0.054
27) N-Nitrosodiphenylamine	(4)	11.877	169	6556	0.054
29) Hexachlorobenzene	(4)	12.484	284	4502	0.052
31)*Phenanthrene-d10	(4)	12.956	188	293041	1.000
32) Phenanthrene	(4)	12.978	178	15878	0.050
33) Anthracene	(4)	13.046	178	15375	0.048
35) Di-n-butylphthalate	(4)	13.581	149	13780	0.045
36)$Fluoranthene-d10	(4)	14.448	212	17324	0.048
37) Fluoranthene	(4)	14.472	202	18541	0.047
39) Pyrene	(5)	14.765	202	19768	0.052
40) Butylbenzylphthalate	(5)	15.463	149	5625	0.047
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	8273M	0.046
42) Benzo(a)anthracene	(5)	16.268	228	17291	0.050
43)*Chrysene-d12	(5)	16.292	240	273917	1.000
44) Chrysene	(5)	16.323	228	17103	0.051
45) Di-n-octylphthalate	(6)	17.082	149	13171	0.044
46) Benzo(b)fluoranthene	(6)	17.926	252	16528	0.049
47) Benzo(k)fluoranthene	(6)	17.965	252	15463	0.049
48) Benzo(e)pyrene	(6)	18.419	252	16404M	0.050
49)$Benzo(a)pyrene-d12	(6)	18.466	264	12249	0.047
50) Benzo(a)pyrene	(6)	18.513	252	13878	0.048
51)*Perylene-d12	(6)	18.614	264	270990	1.000
52) Perylene	(6)	18.661	252	16314	0.051

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

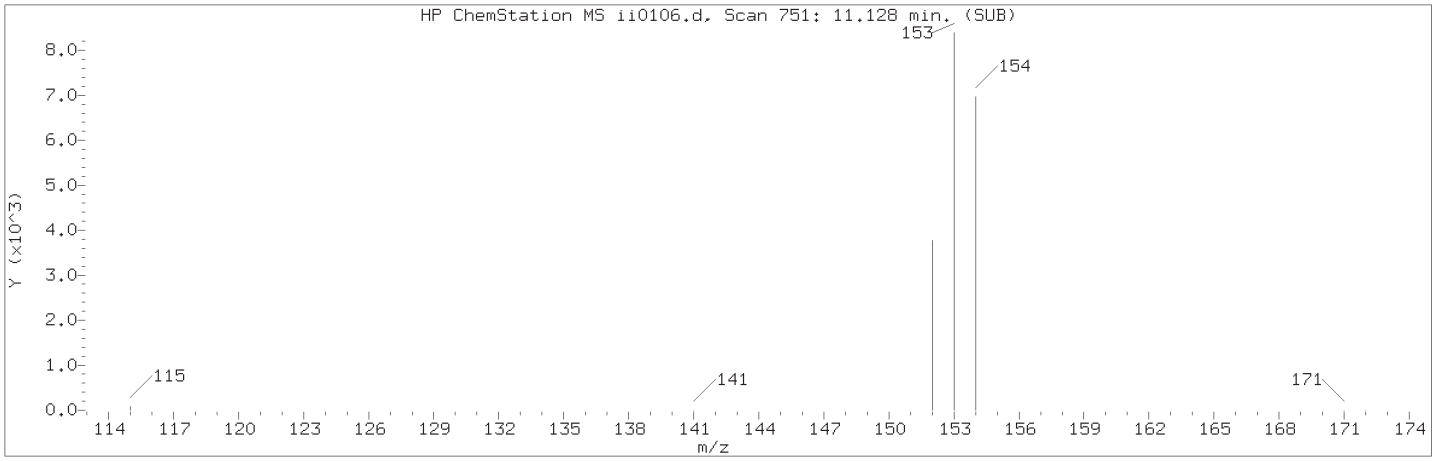
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

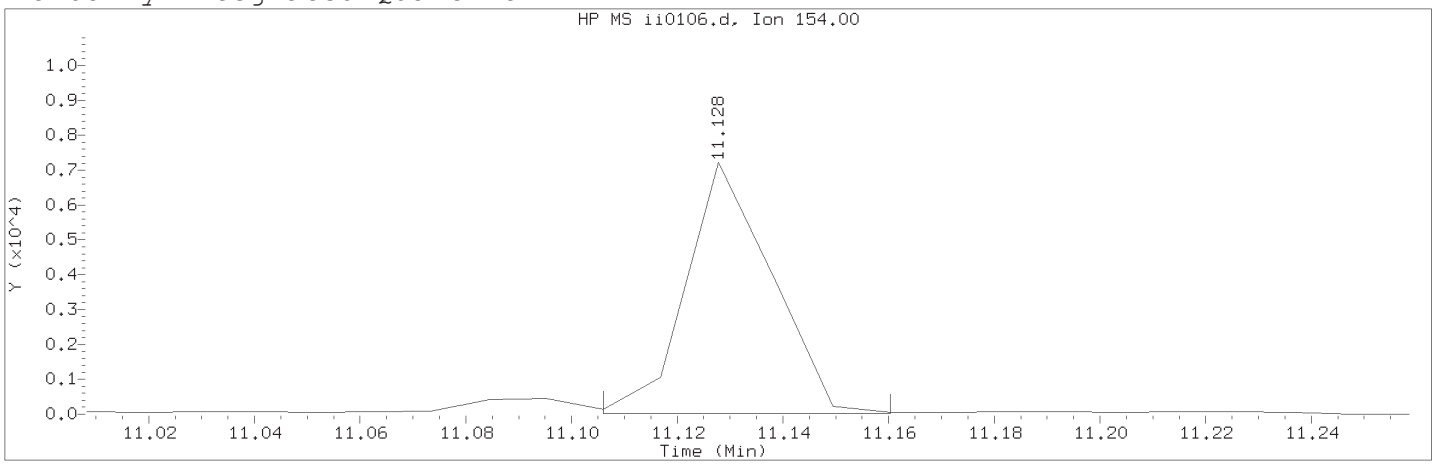
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.757	276	16622	0.048
54) Dibenz(a,h)anthracene	(6)	20.771	278	13574	0.048
55) Benzo(g,h,i)perylene	(6)	21.407	276	14697	0.049

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

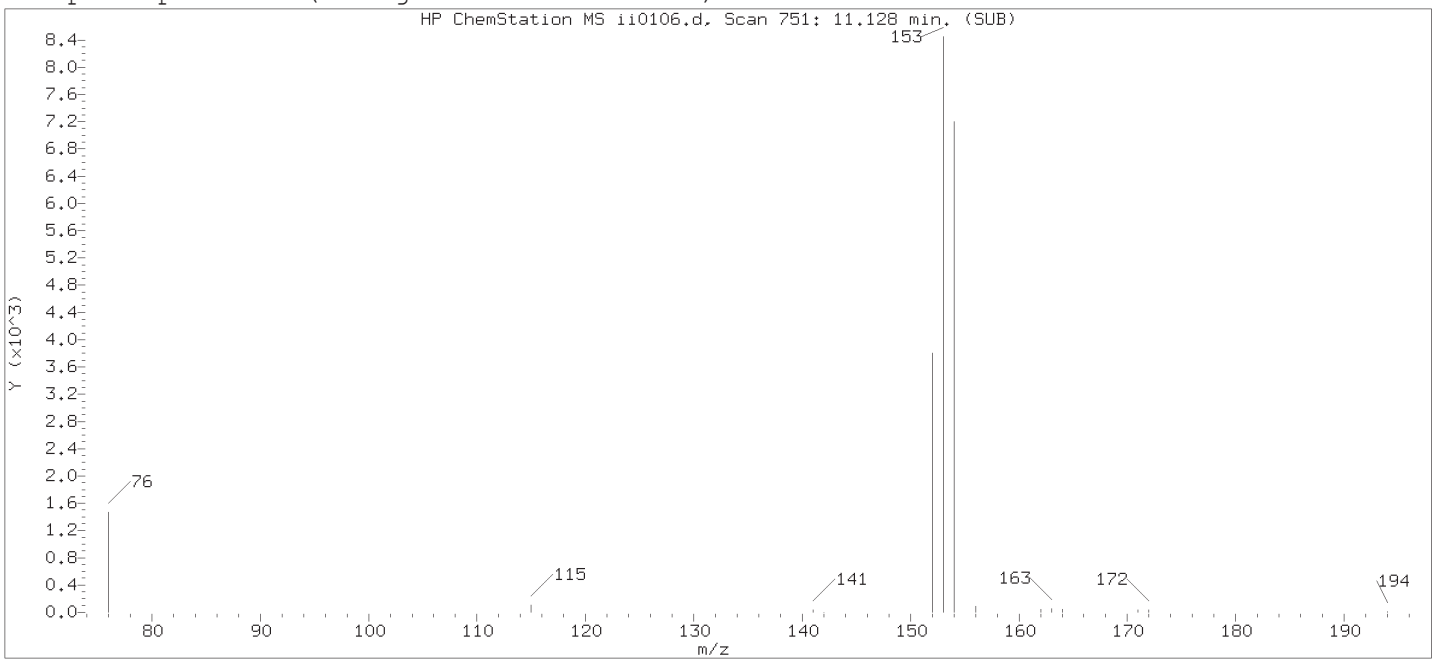
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 751		
Retention Time (minutes)	: 11.128		
Quant Ion	: 154.00		
Area (flag)	: 8121M		
On-Column Amount (ng/ul)	: 0.0494		
Integration start scan	: 748	Integration stop scan:	753
Y at integration start	: 24	Y at integration end:	24

Reason for manual integration: improper integration

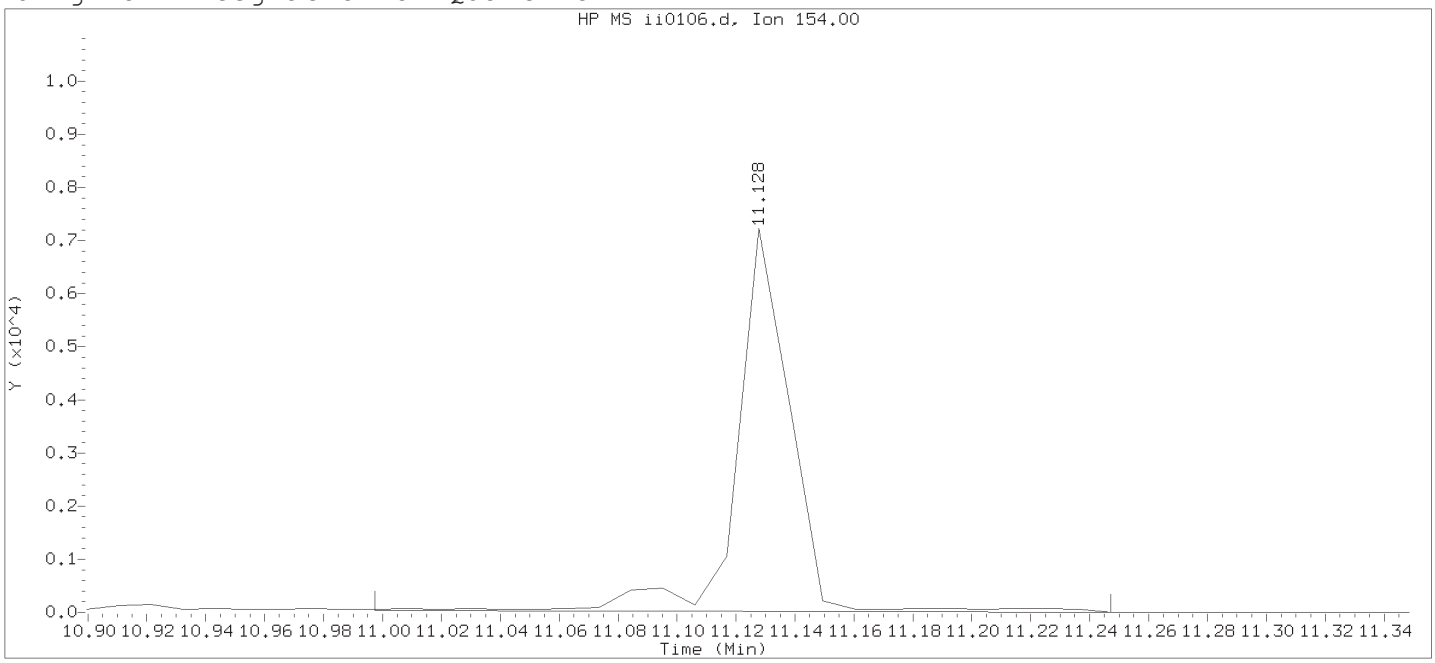
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

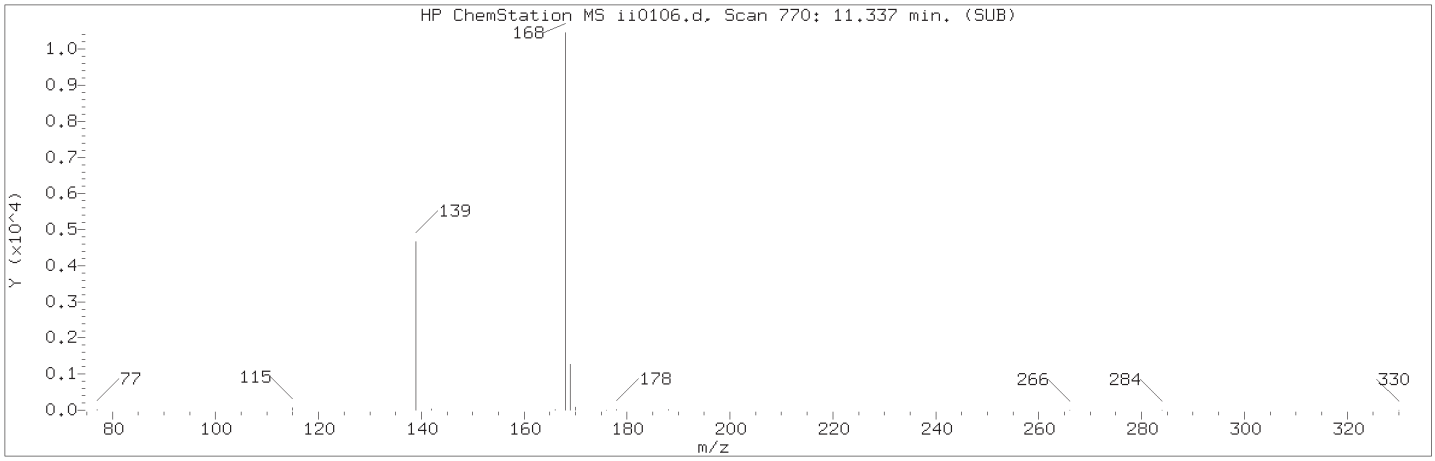
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:42
Date, time and analyst ID of latest file update: 04-Sep-2018 22:42 Automation

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

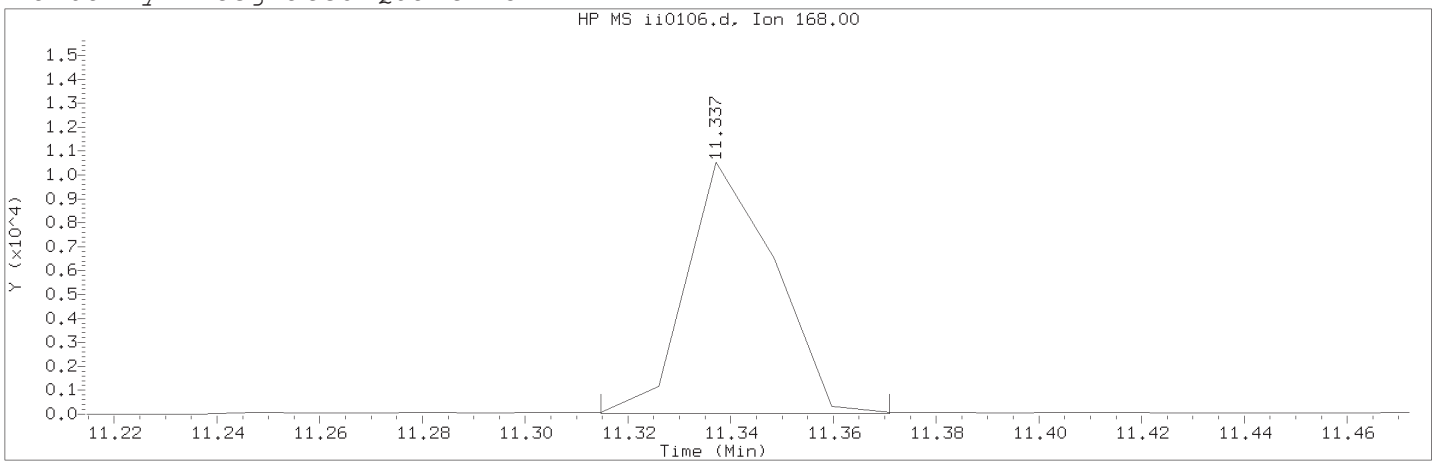
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 751		
Retention Time (minutes)	: 11.128		
Quant Ion	: 154.00		
Area	: 9121		
On-column Amount (ng/ul)	: 0.0548		
Integration start scan	: 738	Integration stop scan:	761
Y at integration start	: 36	Y at integration end:	0

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used: D12 Page 1 of 6

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

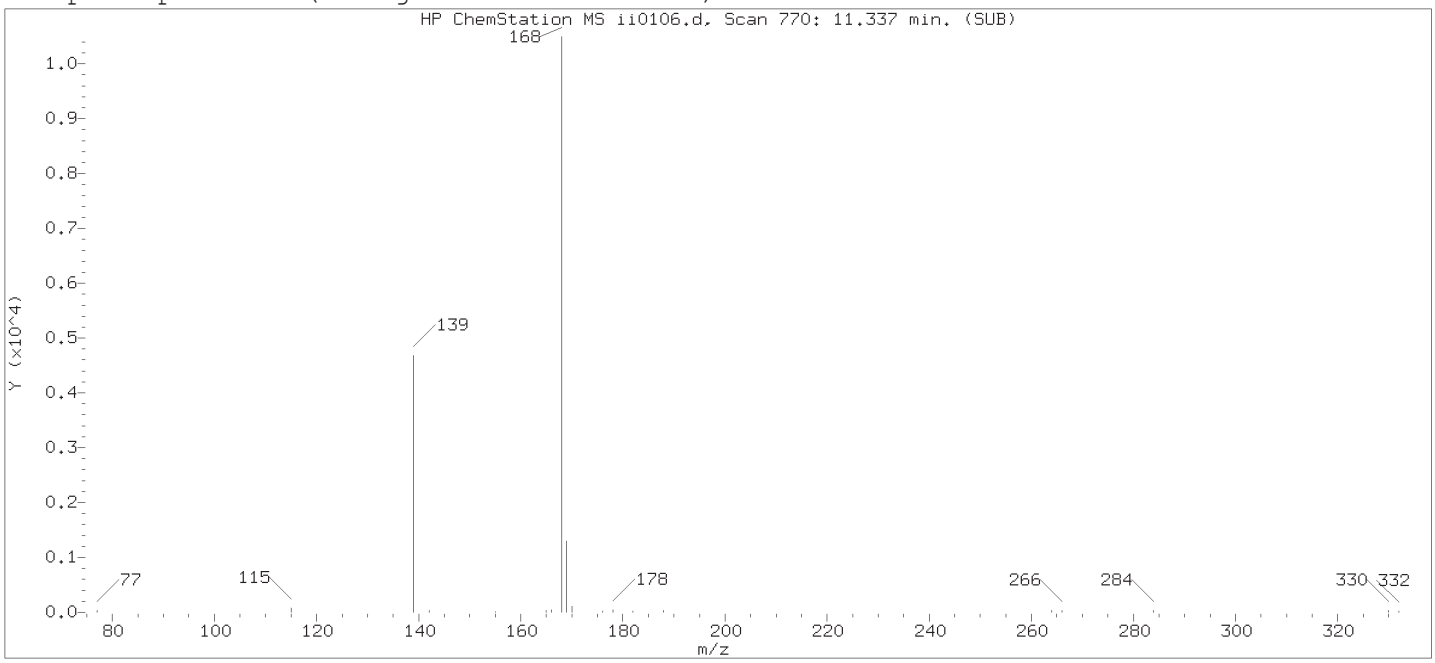
Compound Number : 22
Compound Name : Dibenzofuran
Scan Number : 770
Retention Time (minutes) : 11.337
Quant Ion : 168.00
Area (flag) : 12335M
On-Column Amount (ng/ul) : 0.0485
Integration start scan : 767 Integration stop scan: 772
Y at integration start : 30 Y at integration end: 30

Reason for manual integration: improper integration

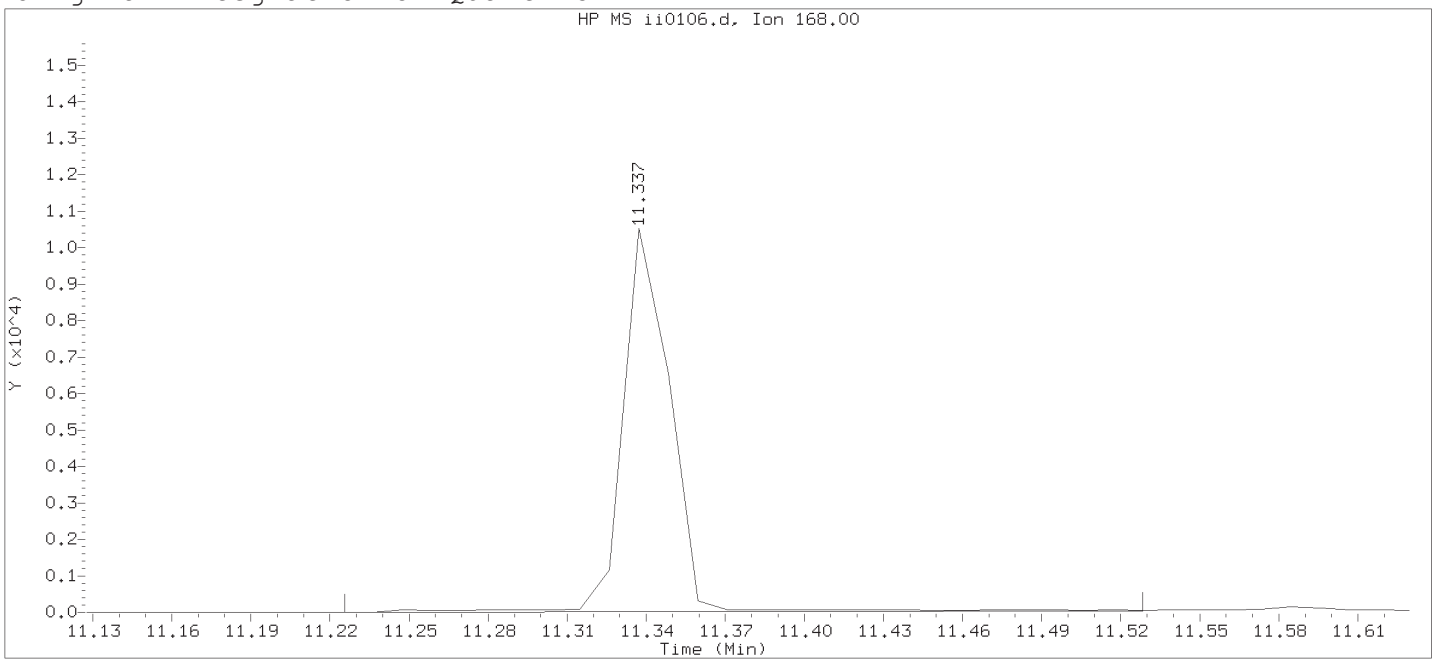
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

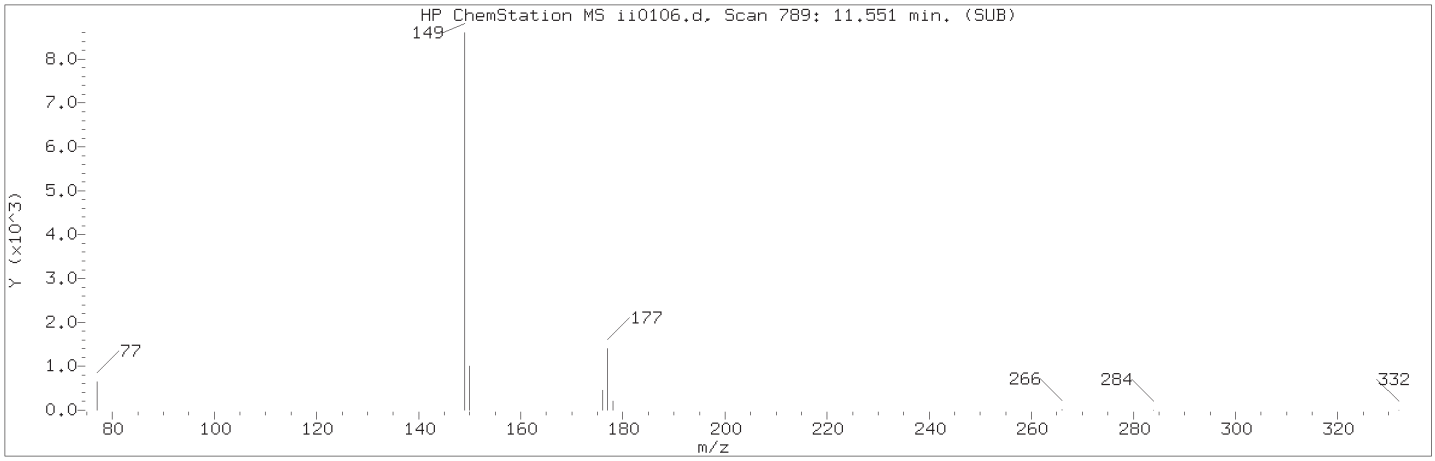
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:42
Date, time and analyst ID of latest file update: 04-Sep-2018 22:42 Automation

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

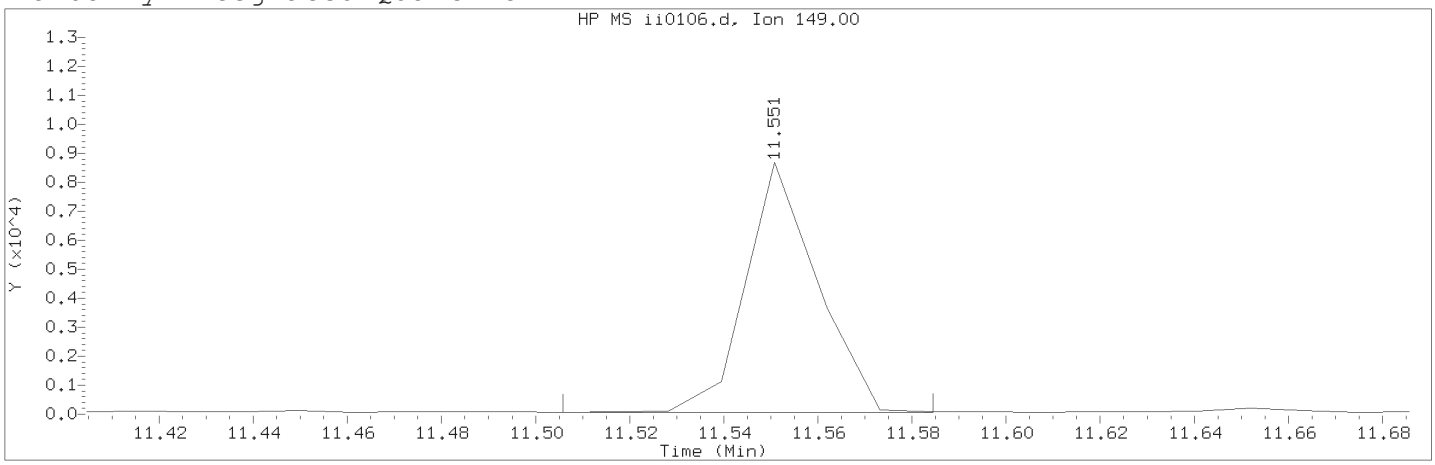
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 770		
Retention Time (minutes)	: 11.337		
Quant Ion	: 168.00		
Area	: 13018		
On-column Amount (ng/ul)	: 0.0502		
Integration start scan	: 759	Integration stop scan:	786
Y at integration start	: 0	Y at integration end:	26

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used in this report.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

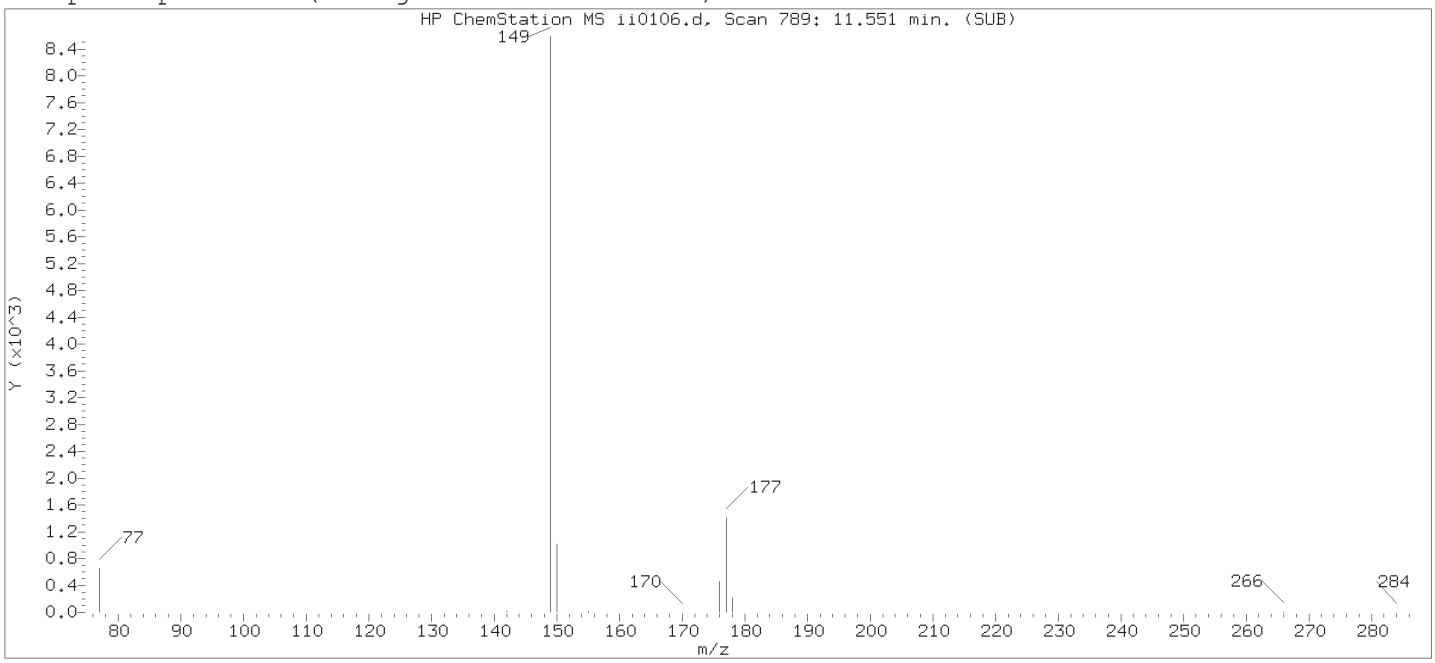
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 789		
Retention Time (minutes)	: 11.551		
Quant Ion	: 149.00		
Area (flag)	: 9076M		
On-Column Amount (ng/ul)	: 0.0483		
Integration start scan	: 784	Integration stop scan:	791
Y at integration start	: 59	Y at integration end:	59

Reason for manual integration: improper integration

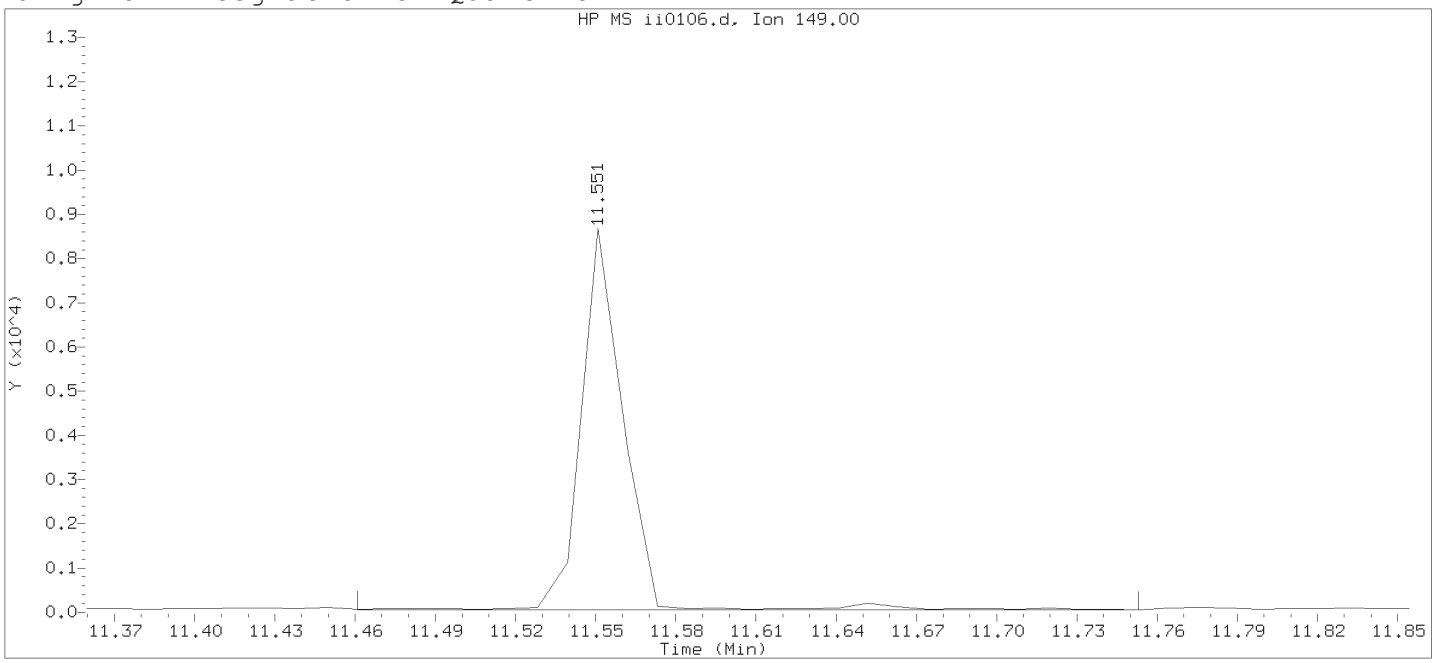
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

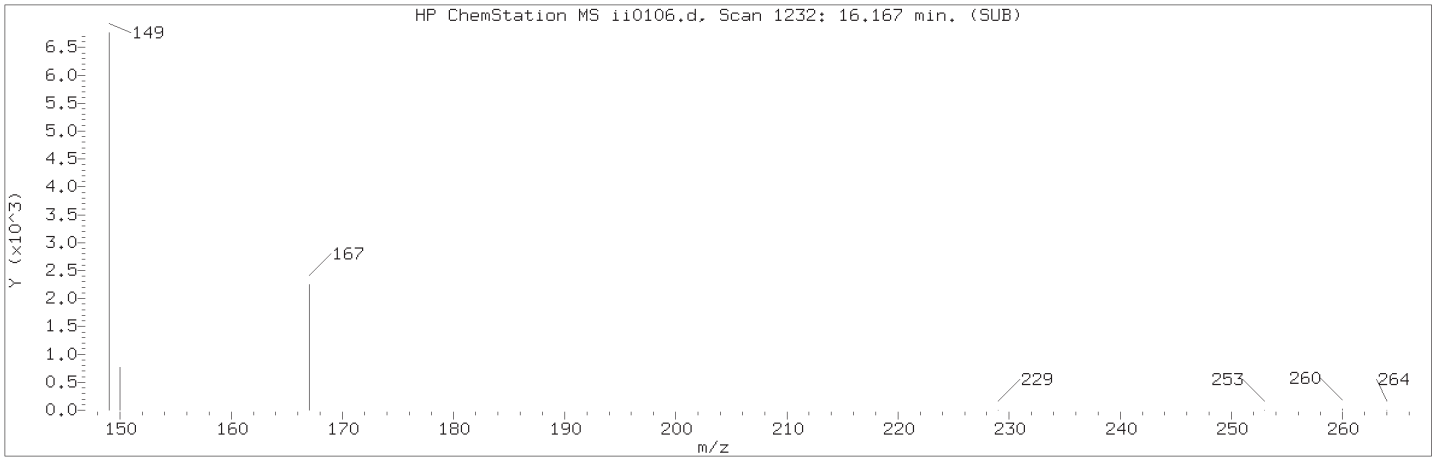
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:42
Date, time and analyst ID of latest file update: 04-Sep-2018 22:42 Automation

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

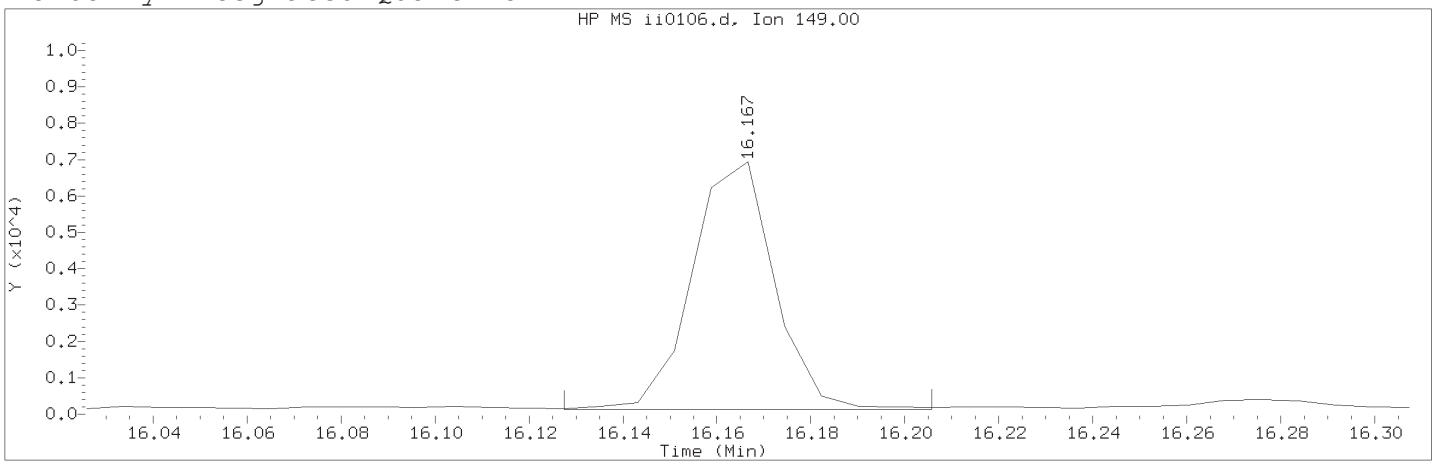
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 789		
Retention Time (minutes)	: 11.551		
Quant Ion	: 149.00		
Area	: 9428		
On-column Amount (ng/ul)	: 0.0505		
Integration start scan	: 780	Integration stop scan:	806
Y at integration start	: 60	Y at integration end:	60

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used 1D12 Page 3285 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

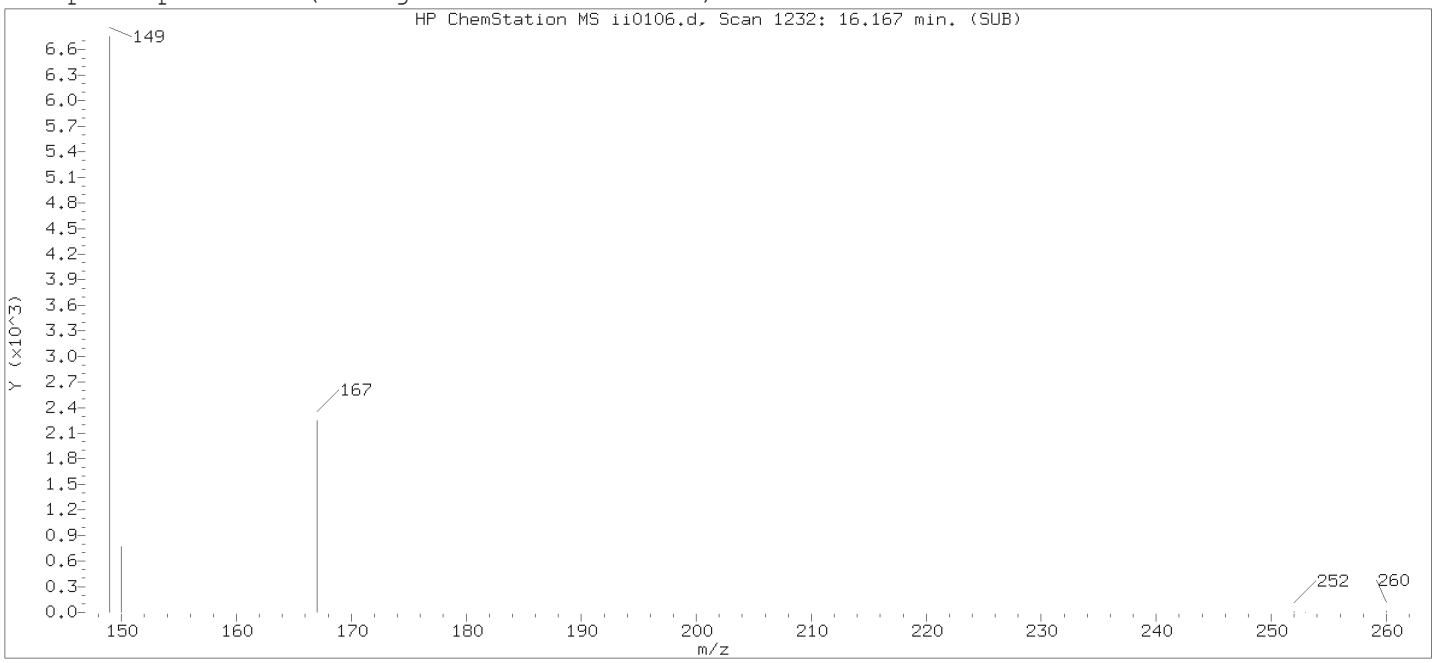
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1232
Retention Time (minutes) : 16.167
Quant Ion : 149.00
Area (flag) : 8273M
On-Column Amount (ng/ul) : 0.0459
Integration start scan : 1226 Integration stop scan: 1236
Y at integration start : 135 Y at integration end: 135

Reason for manual integration: improper integration

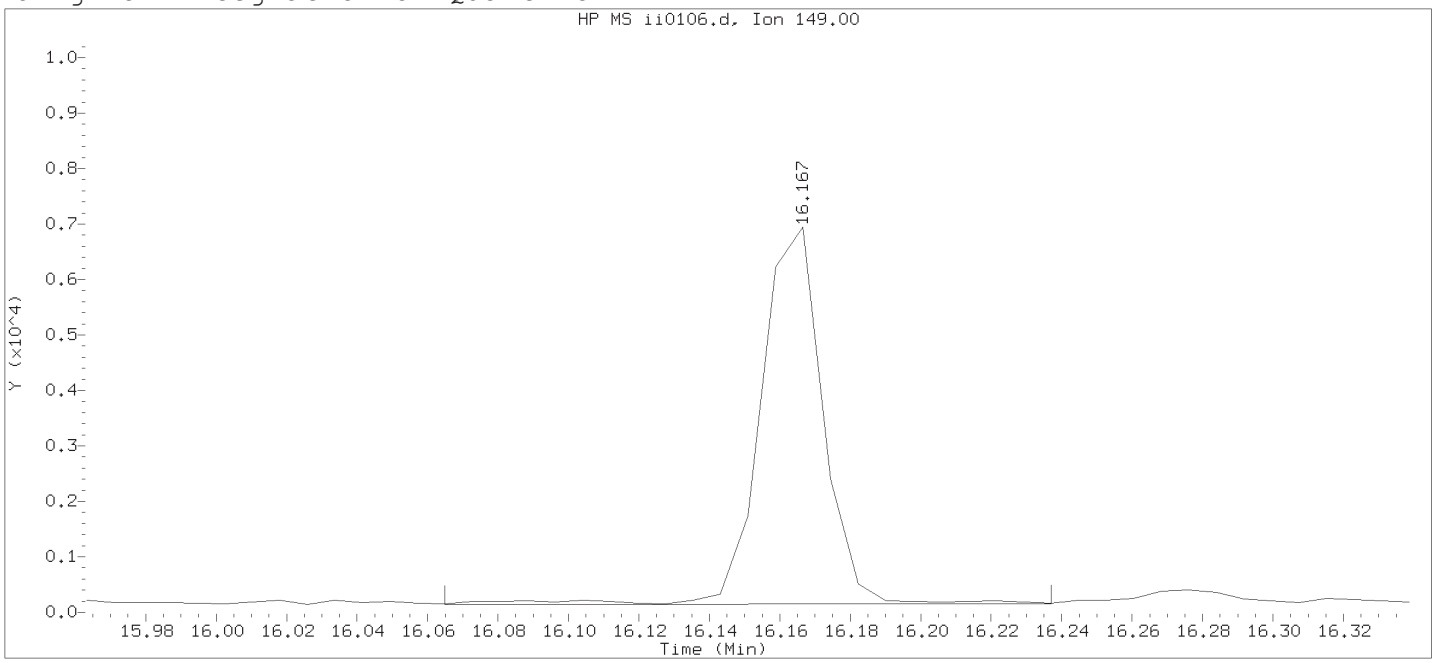
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:42
Date, time and analyst ID of latest file update: 04-Sep-2018 22:42 Automation

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

Compound Number	: 41		
Compound Name	: bis(2-Ethylhexyl)phthalate		
Scan Number	: 1232		
Retention Time (minutes)	: 16.167		
Quant Ion	: 149.00		
Area	: 8424		
On-column Amount (ng/ul)	: 0.0468		
Integration start scan	: 1218	Integration stop scan:	1240
Y at integration start	: 145	Y at integration end:	152

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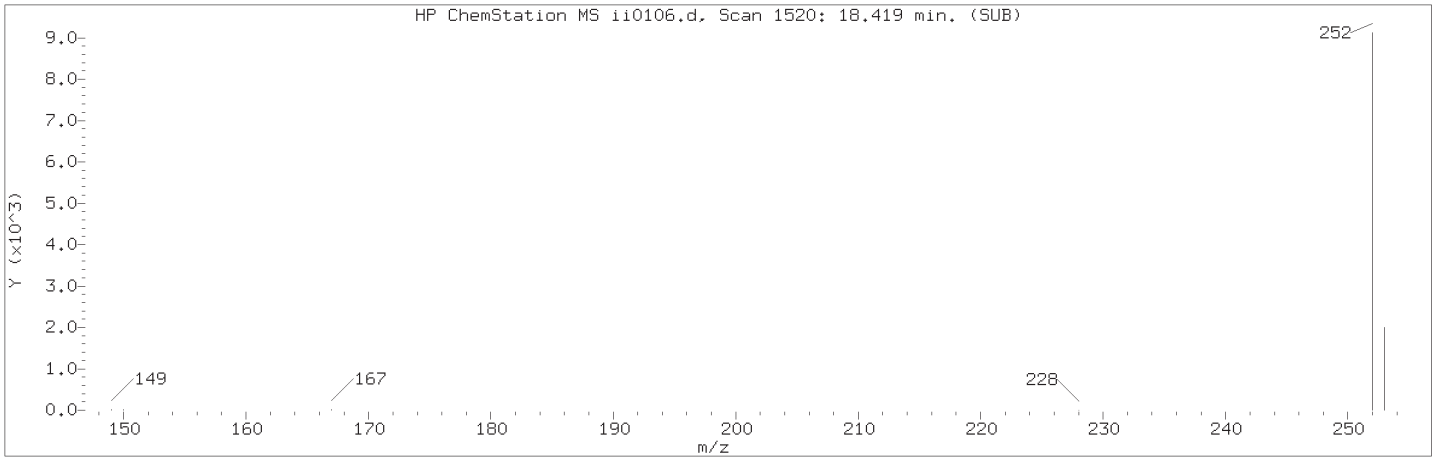
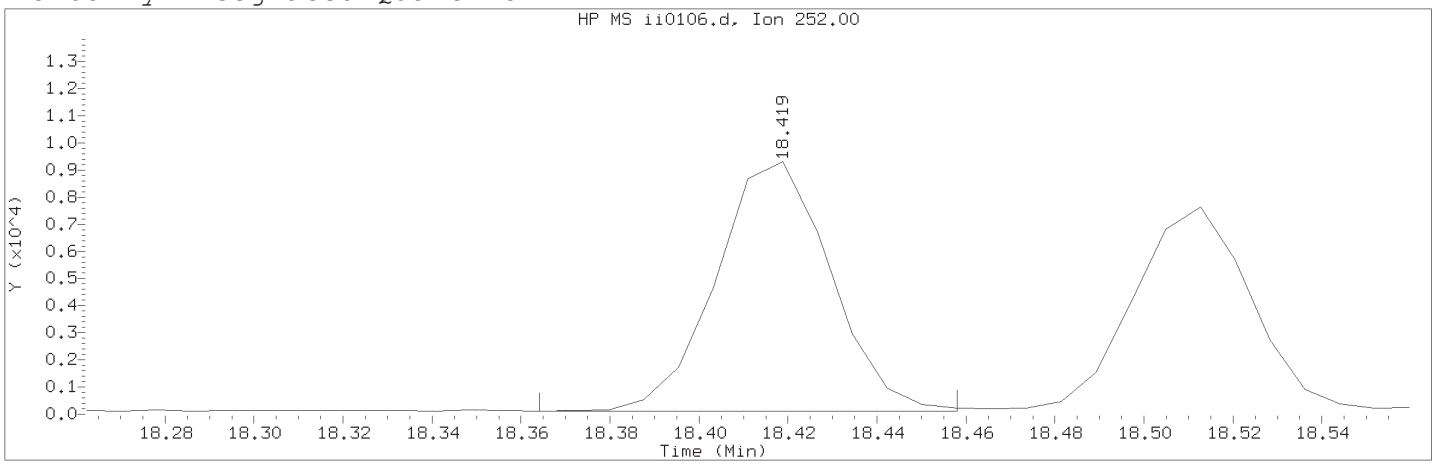
Target 3.5 esignature used 1D12 Page 3287 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

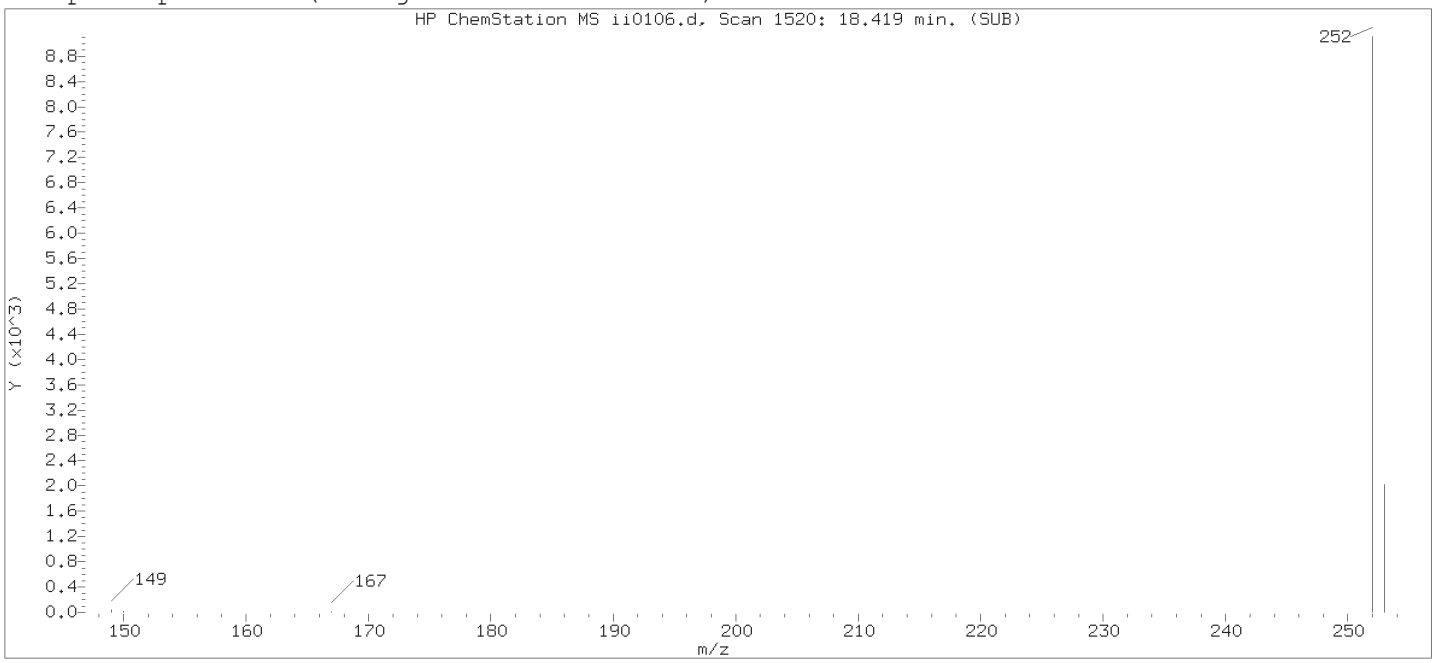
Compound Number : 48
Compound Name : Benzo(e)pyrene
Scan Number : 1520
Retention Time (minutes) : 18.419
Quant Ion : 252.00
Area (flag) : 16404M
On-Column Amount (ng/ul) : 0.0497
Integration start scan : 1512 Integration stop scan: 1524
Y at integration start : 117 Y at integration end: 117

Reason for manual integration: improper integration

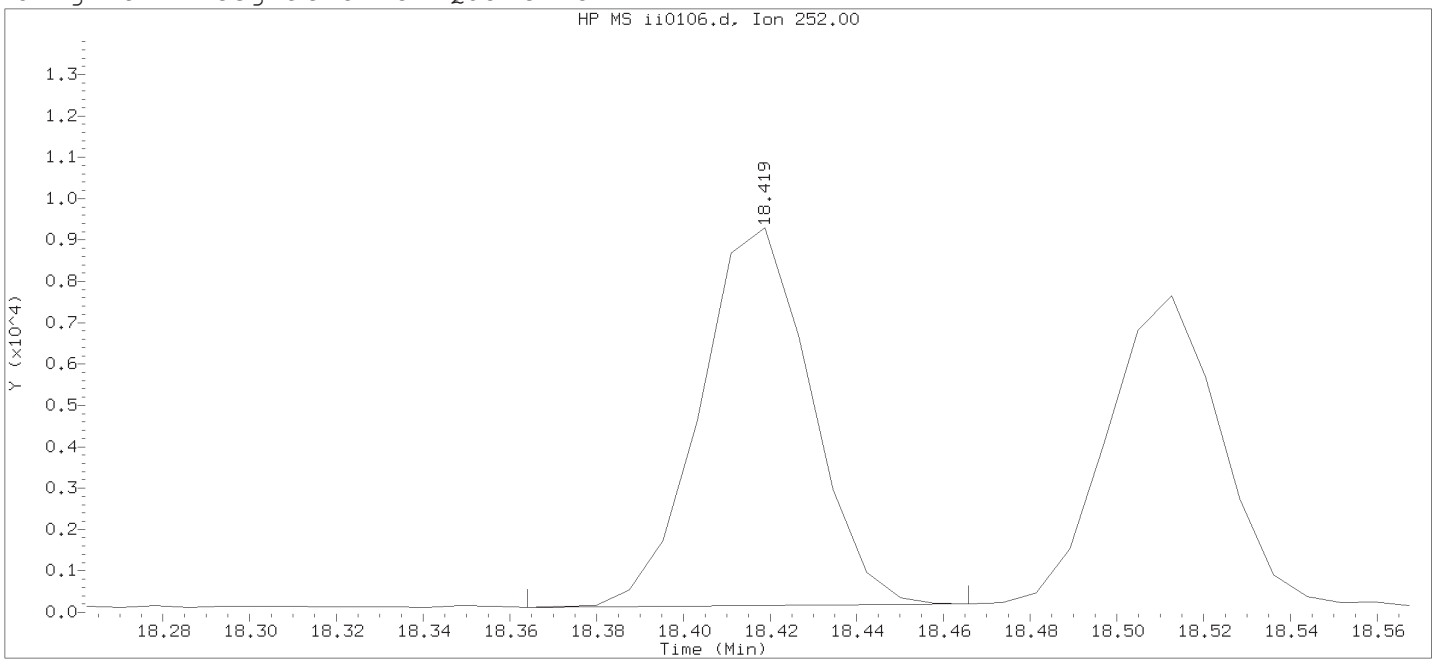
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



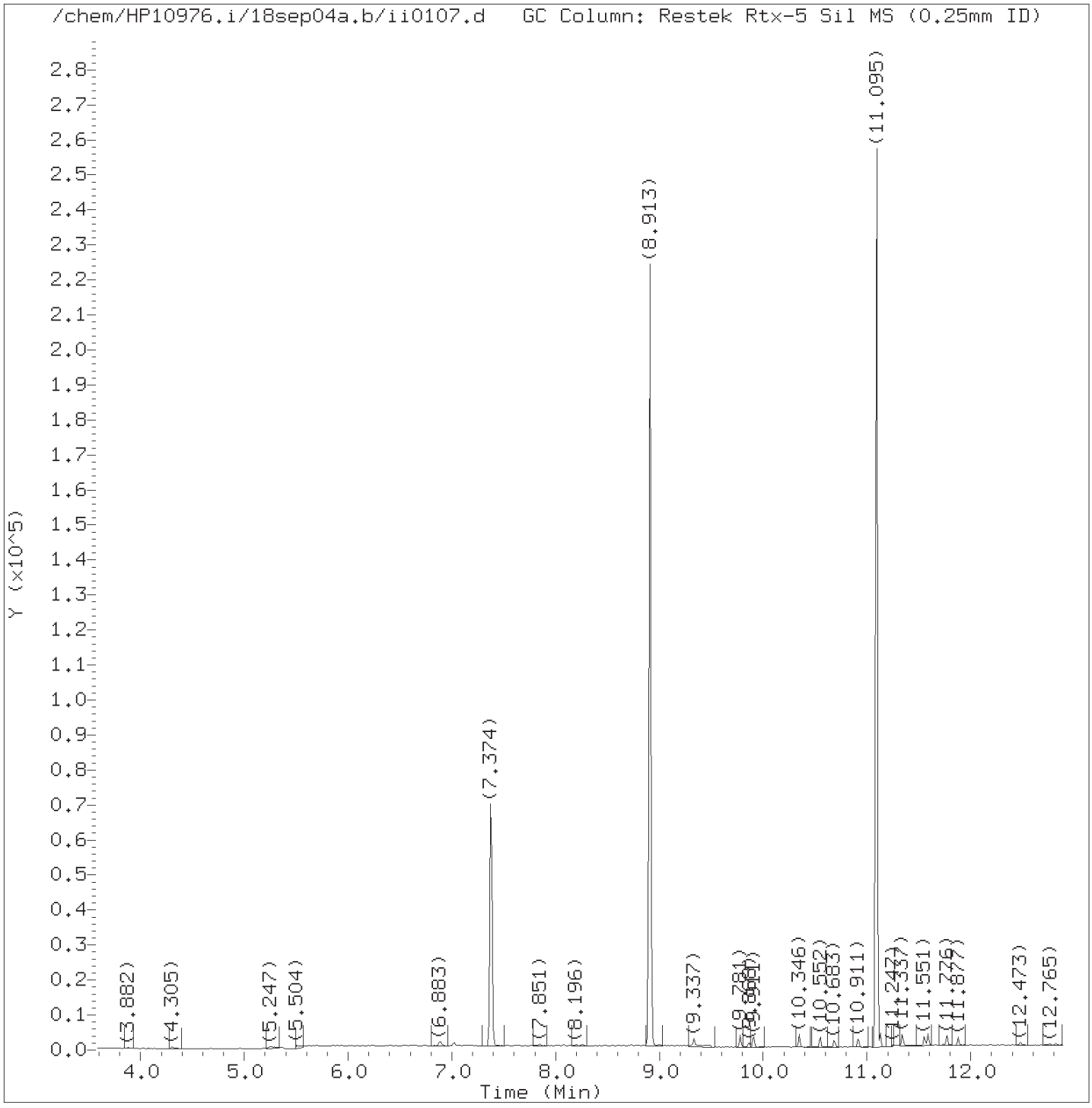
Data File: /chem/HP10976.i/18sep04a.b/ii0106.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:16 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 22:42
Date, time and analyst ID of latest file update: 04-Sep-2018 22:42 Automation

Sample Name: SSTD0.05 Lab Sample ID: SIM1288

Compound Number	: 48		
Compound Name	: Benzo(e)pyrene		
Scan Number	: 1520		
Retention Time (minutes)	: 18.419		
Quant Ion	: 252.00		
Area	: 16187		
On-column Amount (ng/ul)	: 0.0487		
Integration start scan	: 1512	Integration stop scan:	1525
Y at integration start	: 112	Y at integration end:	200

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

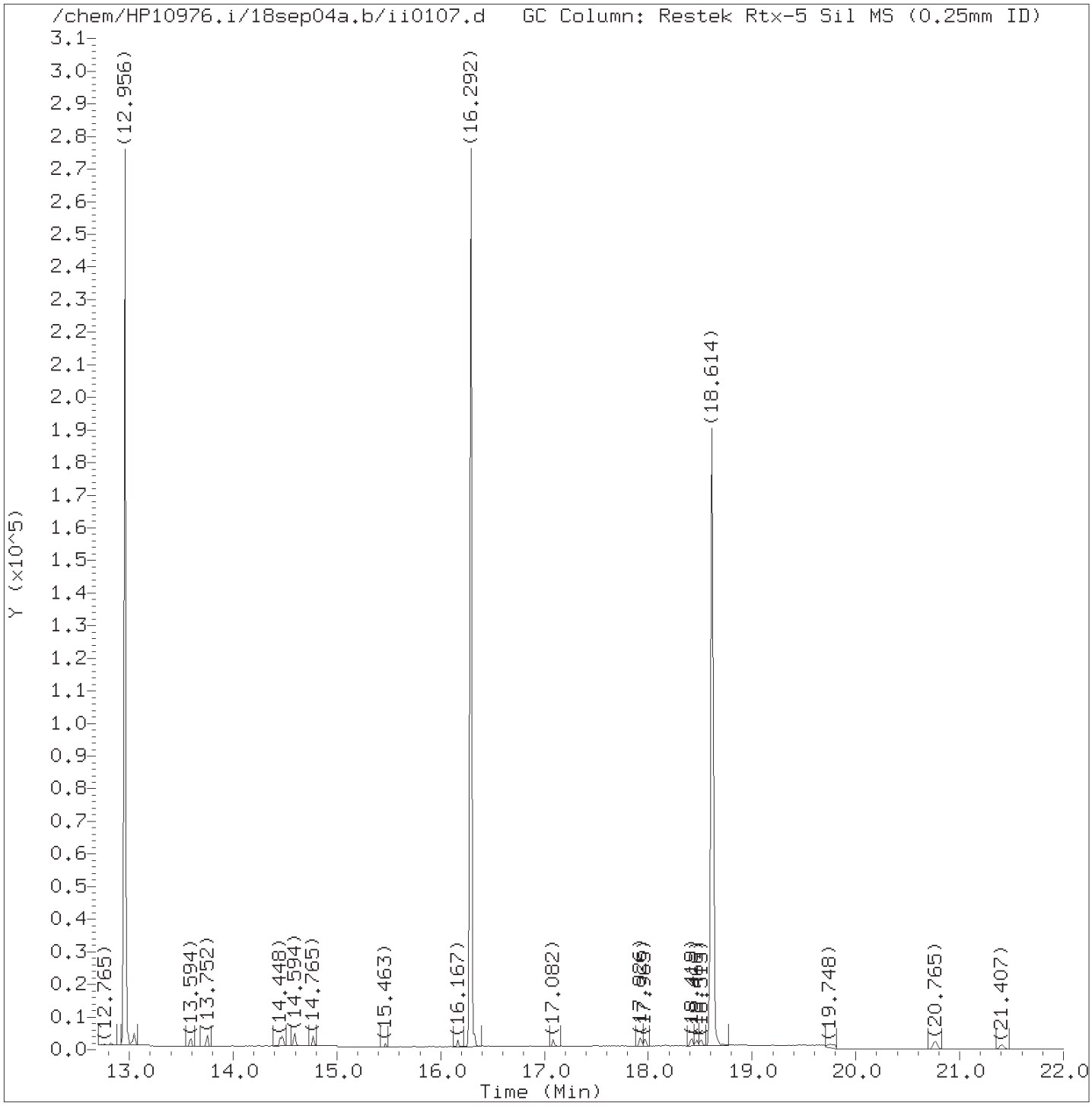
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.882	88	338	0.010
2) N-Nitrosodimethylamine	(1)	4.305	74	642	0.013
5) bis(2-Chloroethyl)ether	(1)	7.029	93	755	0.011
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	55324	1.000
10)*Naphthalene-d8	(2)	8.913	136	207127	1.000
11) Naphthalene	(2)	8.939	128	2163	0.010
12) Quinoline	(2)	9.337	129	1409	0.011
13) 2-Methylnaphthalene	(2)	9.781	142	1521	0.010
14)$1-Methylnaphthalene-d10	(2)	9.868	152	1286	0.010
15) 1-Methylnaphthalene	(2)	9.911	142	1538	0.010
18) Dimethylphthalate	(3)	10.683	163	1848	0.010
19) Acenaphthylene	(3)	10.911	152	2284	0.009
20)*Acenaphthene-d10	(3)	11.095	164	126750	1.000
21) Acenaphthene	(3)	11.128	154	2440	0.015
22) Dibenzofuran	(3)	11.337	168	3040	0.012
23) Diethylphthalate	(3)	11.551	149	1868	0.010
26) Fluorene	(3)	11.776	166	1796	0.009
28) NDPA as diphenylamine	(4)	11.877	169	1343	0.011
27) N-Nitrosodiphenylamine	(4)	11.877	169	1343	0.011
29) Hexachlorobenzene	(4)	12.484	284	937	0.011
31)*Phenanthrene-d10	(4)	12.956	188	285967	1.000
32) Phenanthrene	(4)	12.978	178	3397	0.011
33) Anthracene	(4)	13.046	178	2856	0.009
35) Di-n-butylphthalate	(4)	13.594	149	2910	0.010
36)$Fluoranthene-d10	(4)	14.448	212	3313	0.009
37) Fluoranthene	(4)	14.472	202	3568	0.009
39) Pyrene	(5)	14.765	202	4032	0.011
40) Butylbenzylphthalate	(5)	15.463	149	1117	0.010
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	1662	0.009
42) Benzo(a)anthracene	(5)	16.276	228	3799	0.011
43)*Chrysene-d12	(5)	16.292	240	266943	1.000
44) Chrysene	(5)	16.323	228	3231	0.010
45) Di-n-octylphthalate	(6)	17.082	149	2660	0.009
46) Benzo(b)fluoranthene	(6)	17.926	252	3293	0.010
47) Benzo(k)fluoranthene	(6)	17.965	252	3036M	0.010
48) Benzo(e)pyrene	(6)	18.419	252	3109	0.010
49)$Benzo(a)pyrene-d12	(6)	18.466	264	2348	0.009
50) Benzo(a)pyrene	(6)	18.513	252	2793M	0.010
51)*Perylene-d12	(6)	18.614	264	263732	1.000
52) Perylene	(6)	18.661	252	3185	0.010

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

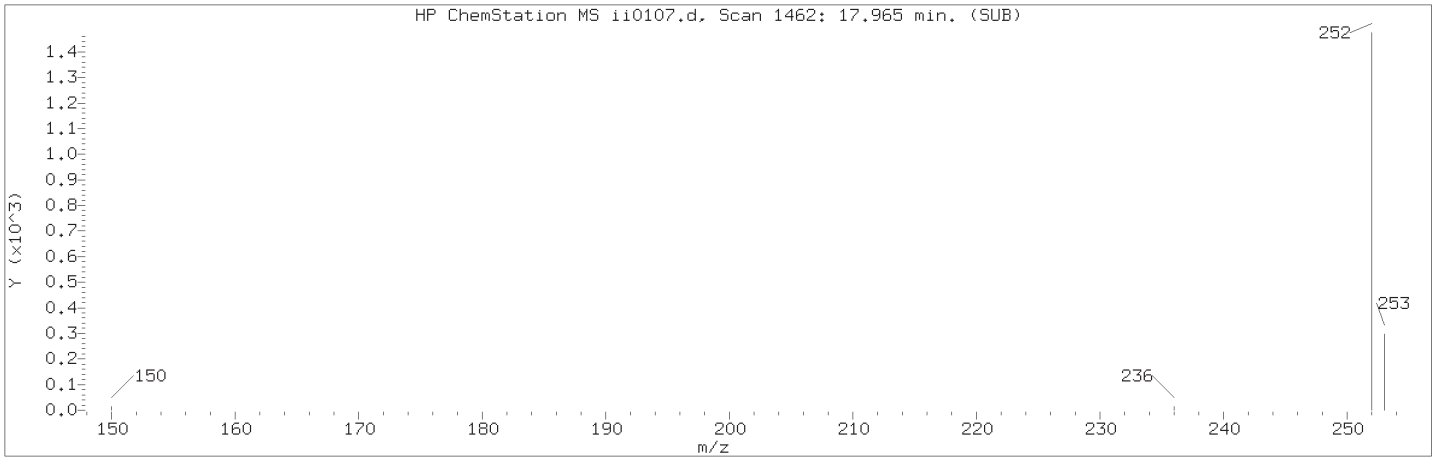
Sample Name: SSTD0.01 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.758	276	3147M	0.009
54) Dibenz(a,h)anthracene	(6)	20.765	278	2587	0.010
55) Benzo(g,h,i)perylene	(6)	21.407	276	2873	0.010

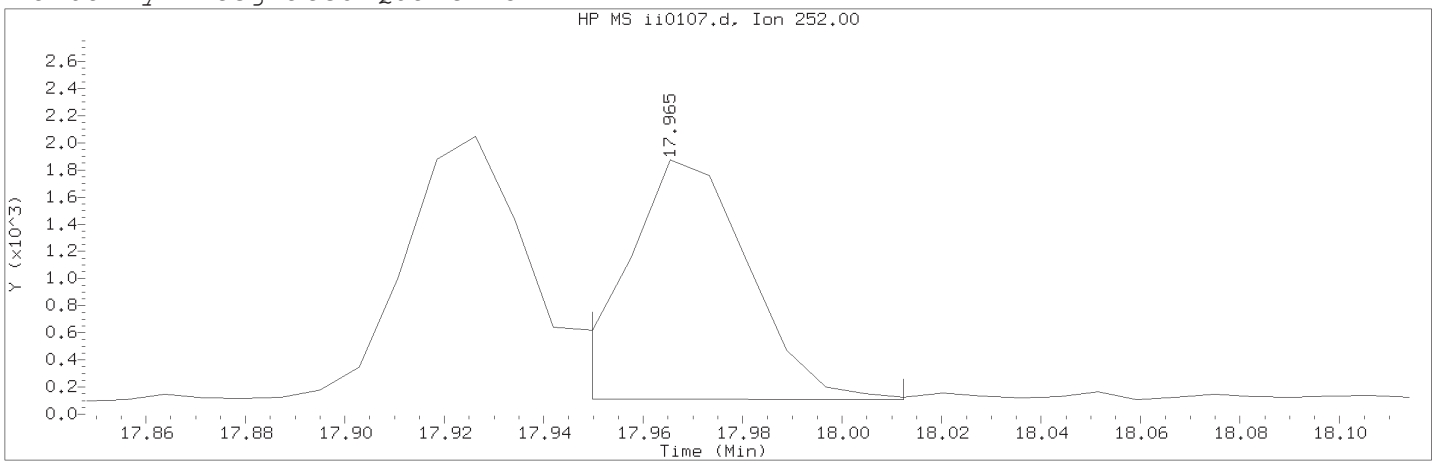
M = Compound was manually integrated.

Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

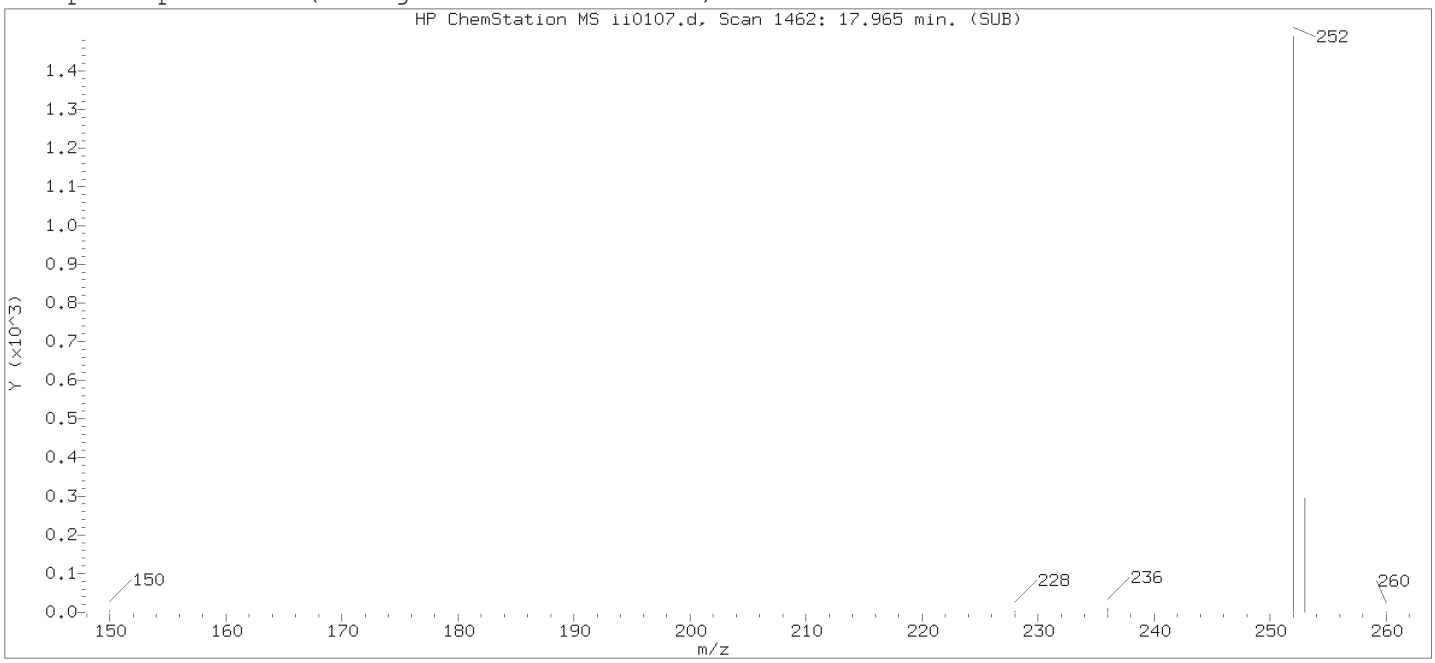
Compound Number : 47
Compound Name : Benzo(k)fluoranthene
Scan Number : 1462
Retention Time (minutes) : 17.965
Quant Ion : 252.00
Area (flag) : 3036M
On-Column Amount (ng/ul) : 0.0099
Integration start scan : 1459 Integration stop scan: 1467
Y at integration start : 111 Y at integration end: 109

Reason for manual integration: improper integration

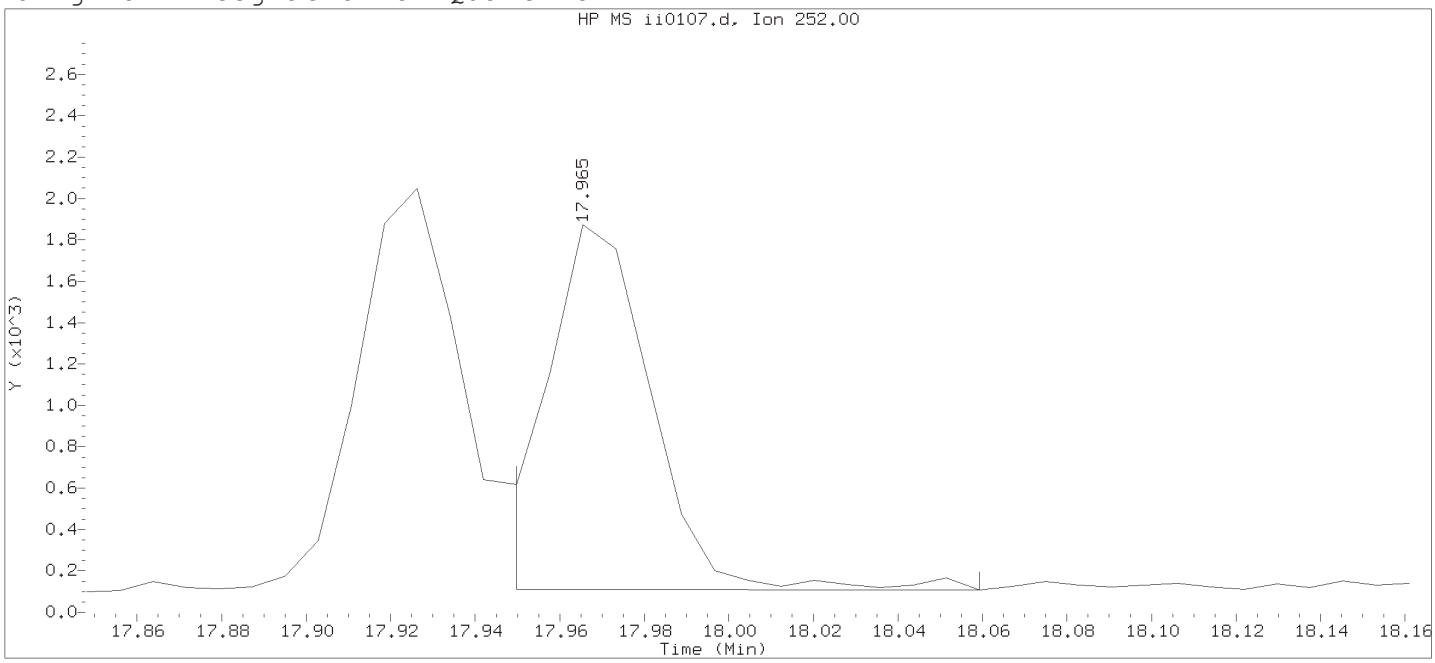
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

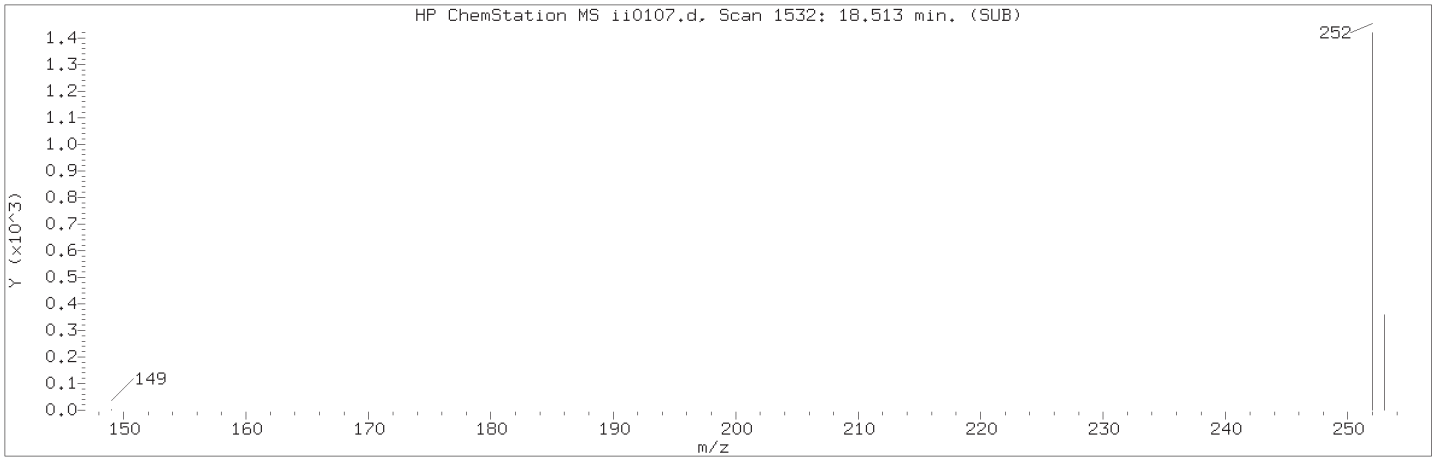
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:13
Date, time and analyst ID of latest file update: 04-Sep-2018 23:13 Automation

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

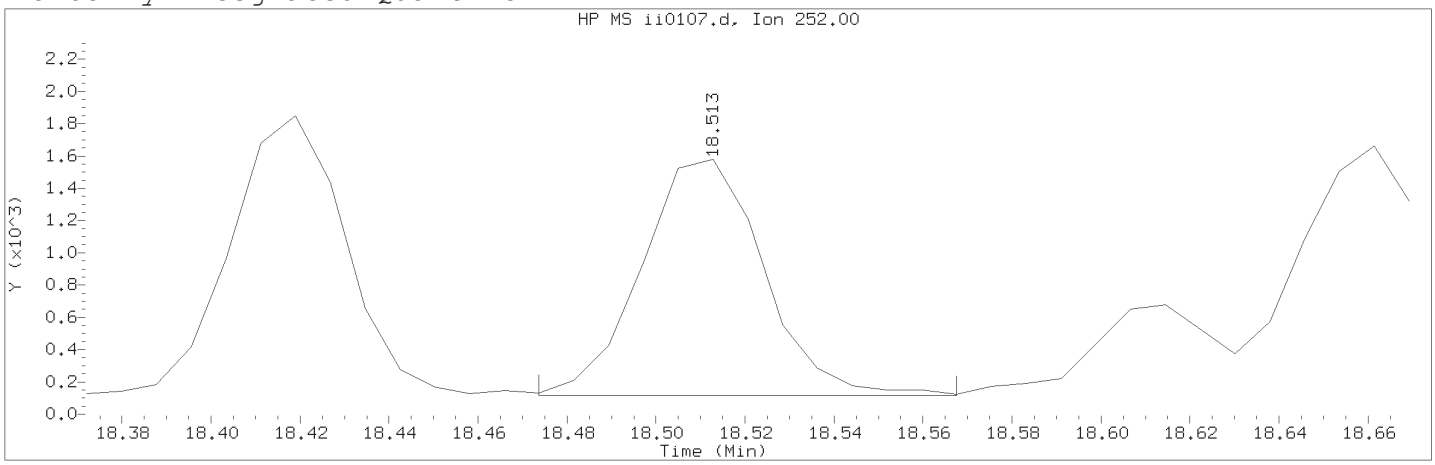
Compound Number	: 47		
Compound Name	: Benzo(k)fluoranthene		
Scan Number	: 1462		
Retention Time (minutes)	: 17.965		
Quant Ion	: 252.00		
Area	: 2995		
On-column Amount (ng/ul)	: 0.0094		
Integration start scan	: 1459	Integration stop scan:	1473
Y at integration start	: 111	Y at integration end:	107

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

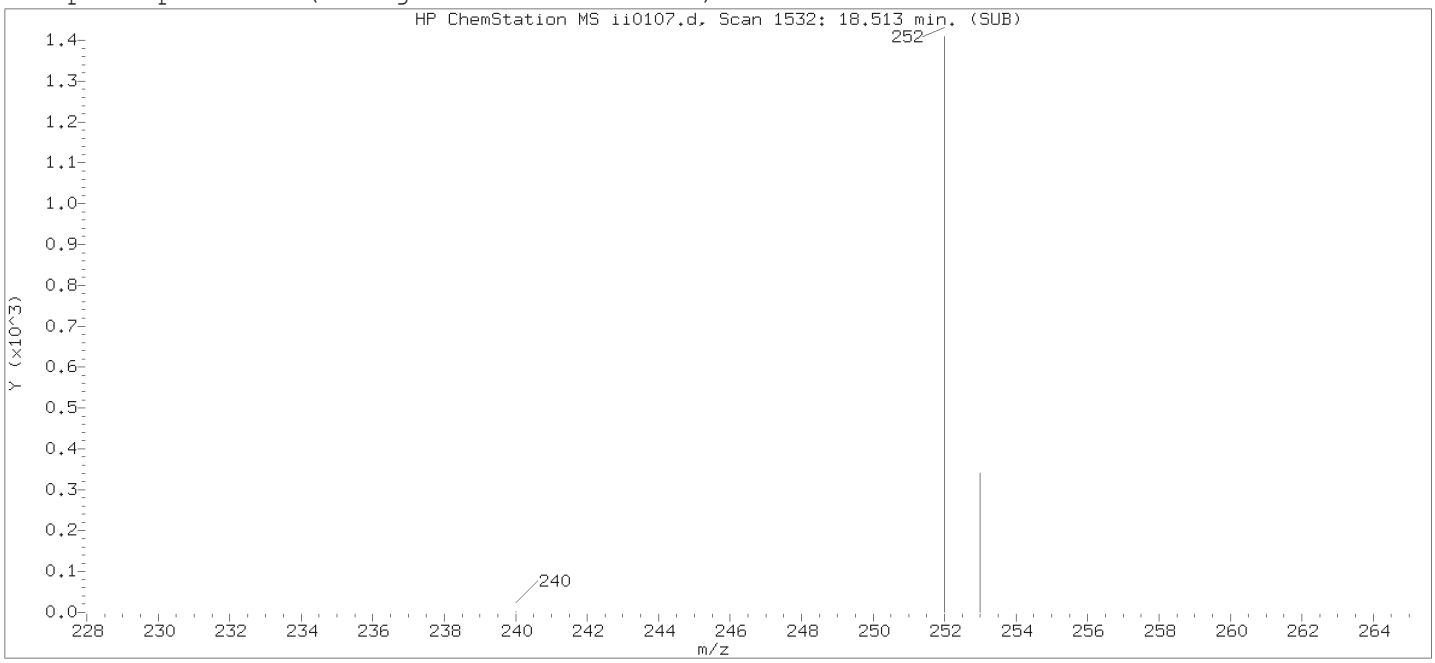
Compound Number	: 50		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 1532		
Retention Time (minutes)	: 18.513		
Quant Ion	: 252.00		
Area (flag)	: 2793M		
On-Column Amount (ng/ul)	: 0.0099		
Integration start scan	: 1526	Integration stop scan:	1538
Y at integration start	: 116	Y at integration end:	116

Reason for manual integration: improper integration

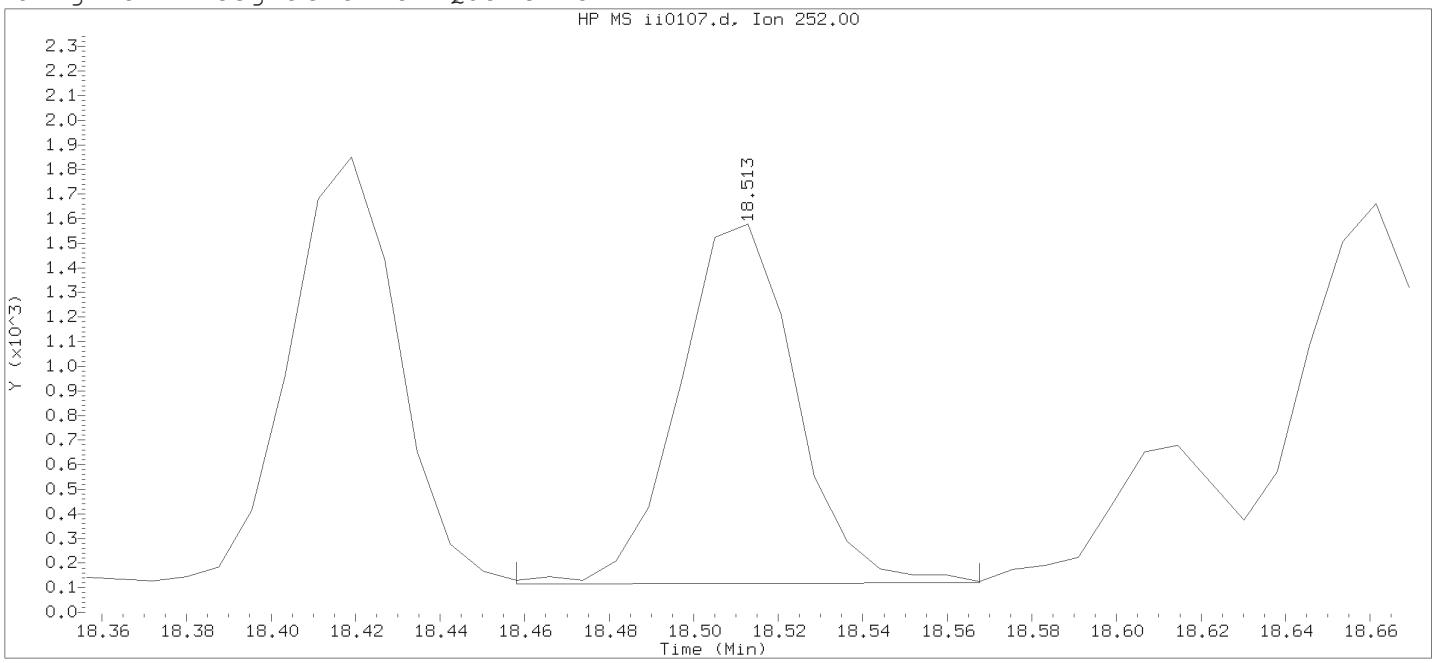
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

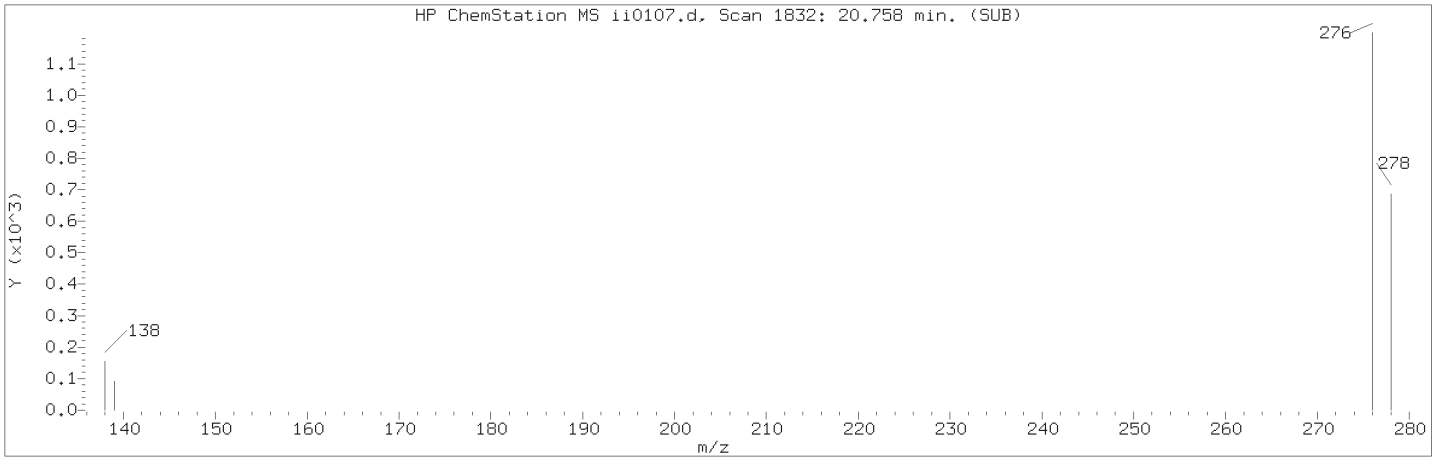
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:13
Date, time and analyst ID of latest file update: 04-Sep-2018 23:13 Automation

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

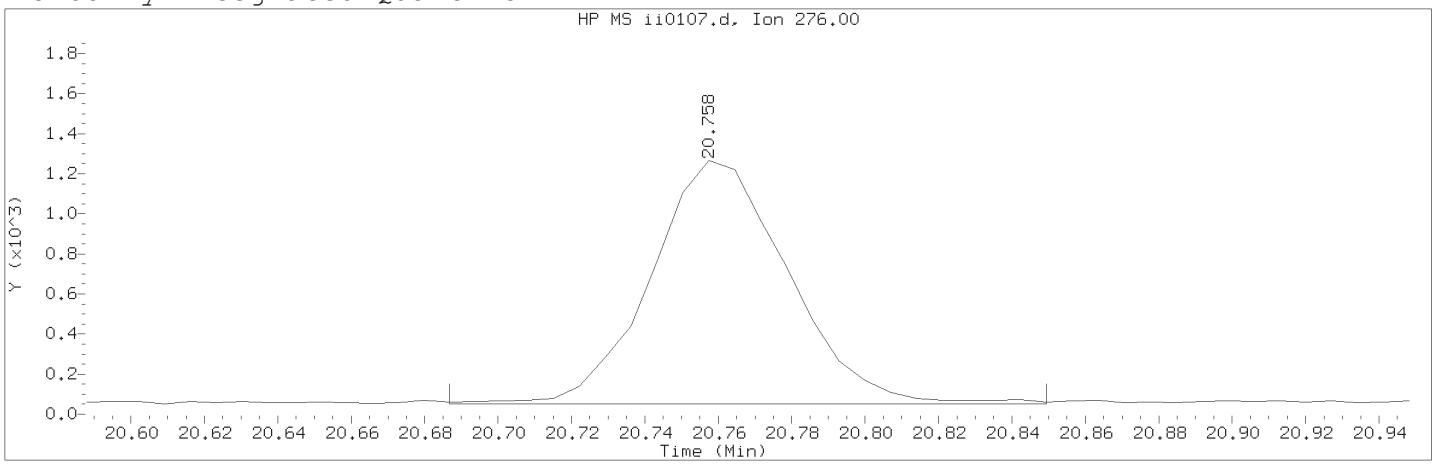
Compound Number	: 50		
Compound Name	: Benzo(a)pyrene		
Scan Number	: 1532		
Retention Time (minutes)	: 18.513		
Quant Ion	: 252.00		
Area	: 2804		
On-column Amount (ng/ul)	: 0.0098		
Integration start scan	: 1524	Integration stop scan:	1538
Y at integration start	: 114	Y at integration end:	119

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:56
Date, time and analyst ID of latest file update: 04-Sep-2018 23:56 apb10206

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

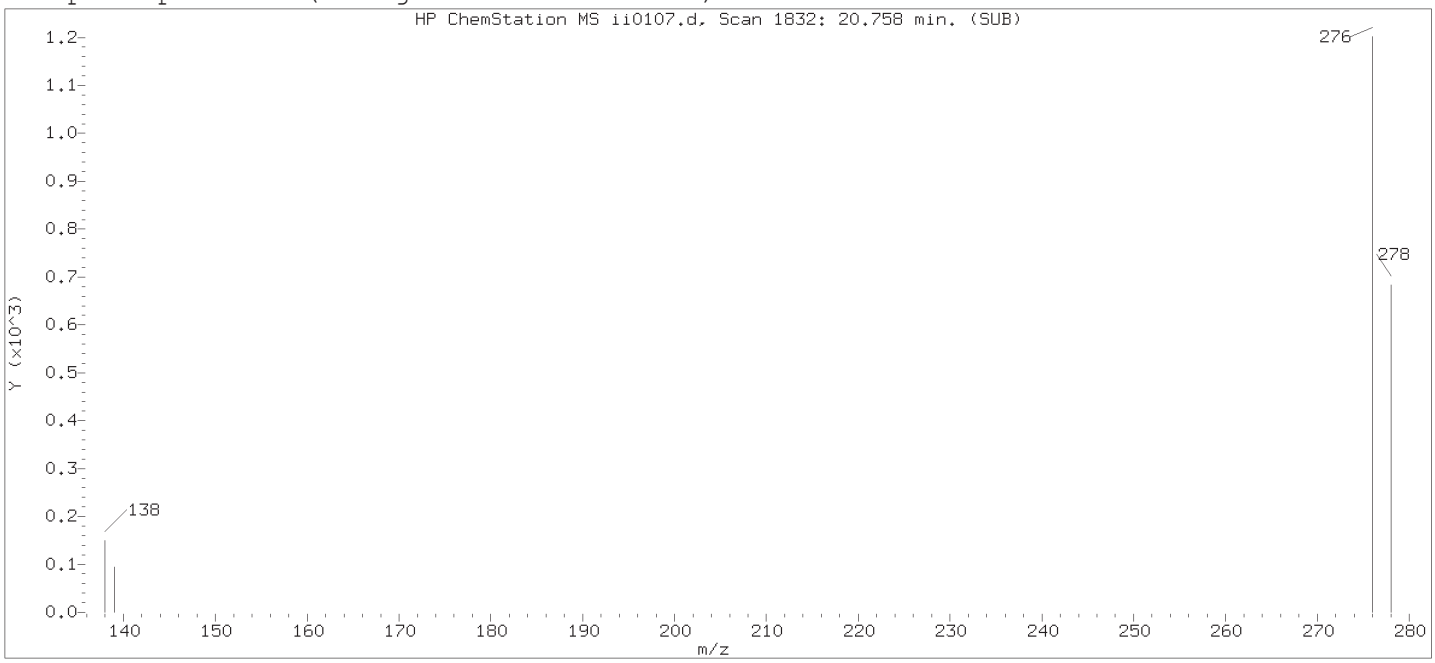
Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1832		
Retention Time (minutes)	: 20.758		
Quant Ion	: 276.00		
Area (flag)	: 3147M		
On-Column Amount (ng/ul)	: 0.0095		
Integration start scan	: 1821	Integration stop scan:	1844
Y at integration start	: 52	Y at integration end:	52

Reason for manual integration: improper integration

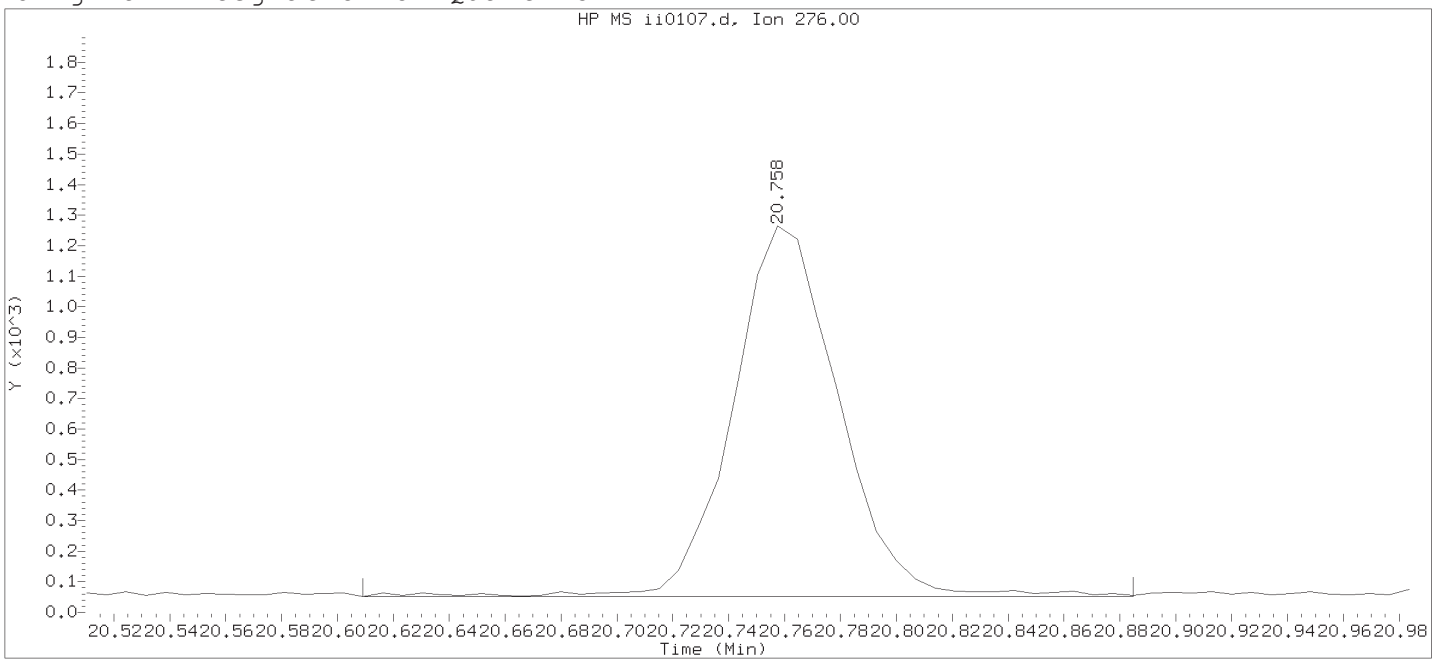
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 09/05/2018 at 00:06.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



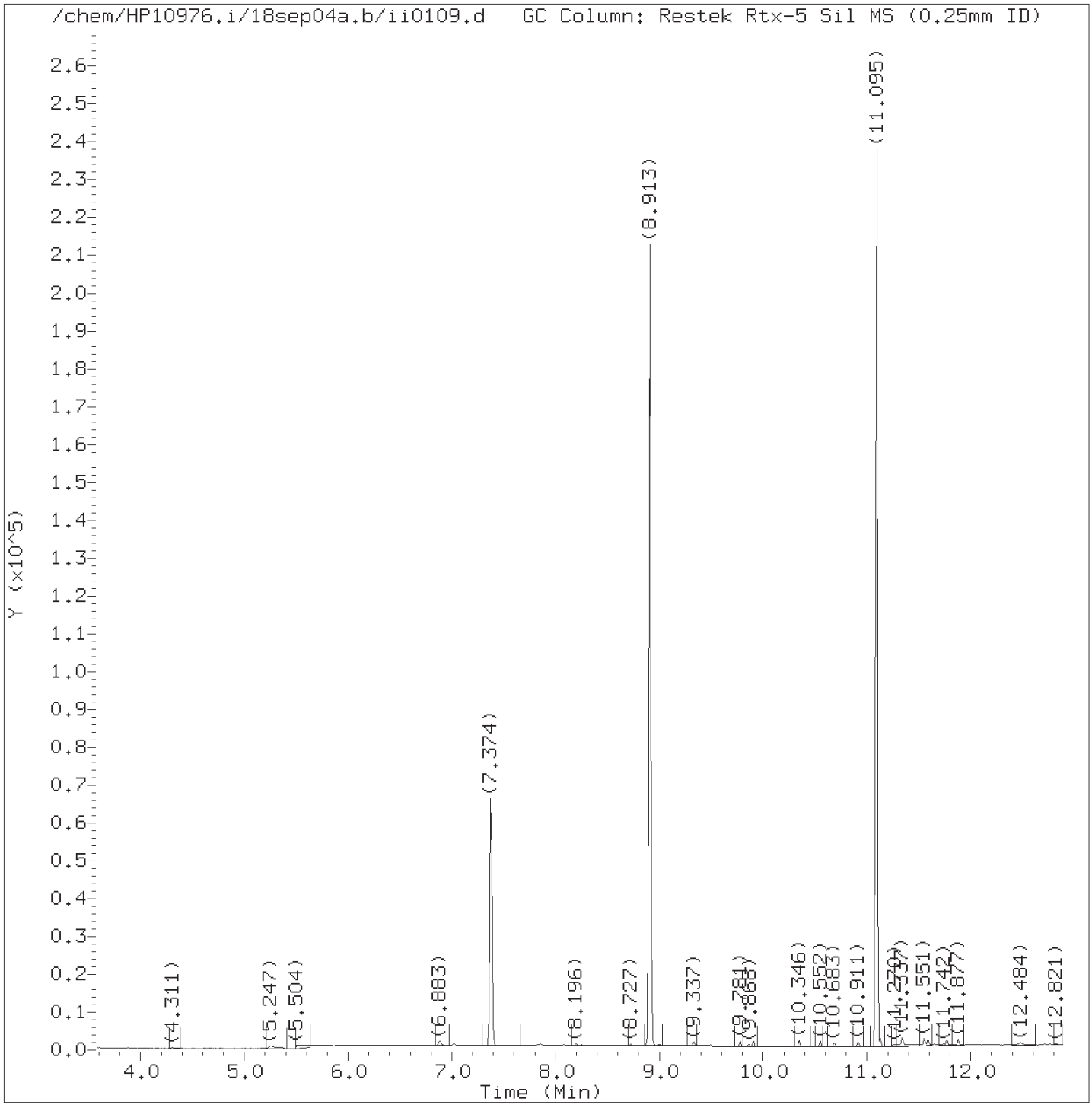
Data File: /chem/HP10976.i/18sep04a.b/ii0107.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 22:47 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:13
Date, time and analyst ID of latest file update: 04-Sep-2018 23:13 Automation

Sample Name: SSTD0.01 Lab Sample ID: SIM1288

Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1832		
Retention Time (minutes)	: 20.758		
Quant Ion	: 276.00		
Area	: 3197		
On-column Amount (ng/ul)	: 0.0094		
Integration start scan	: 1810	Integration stop scan:	1849
Y at integration start	: 52	Y at integration end:	52

Digitally signed by Anthony P. Bauer on 09/05/2018 at 00:06.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

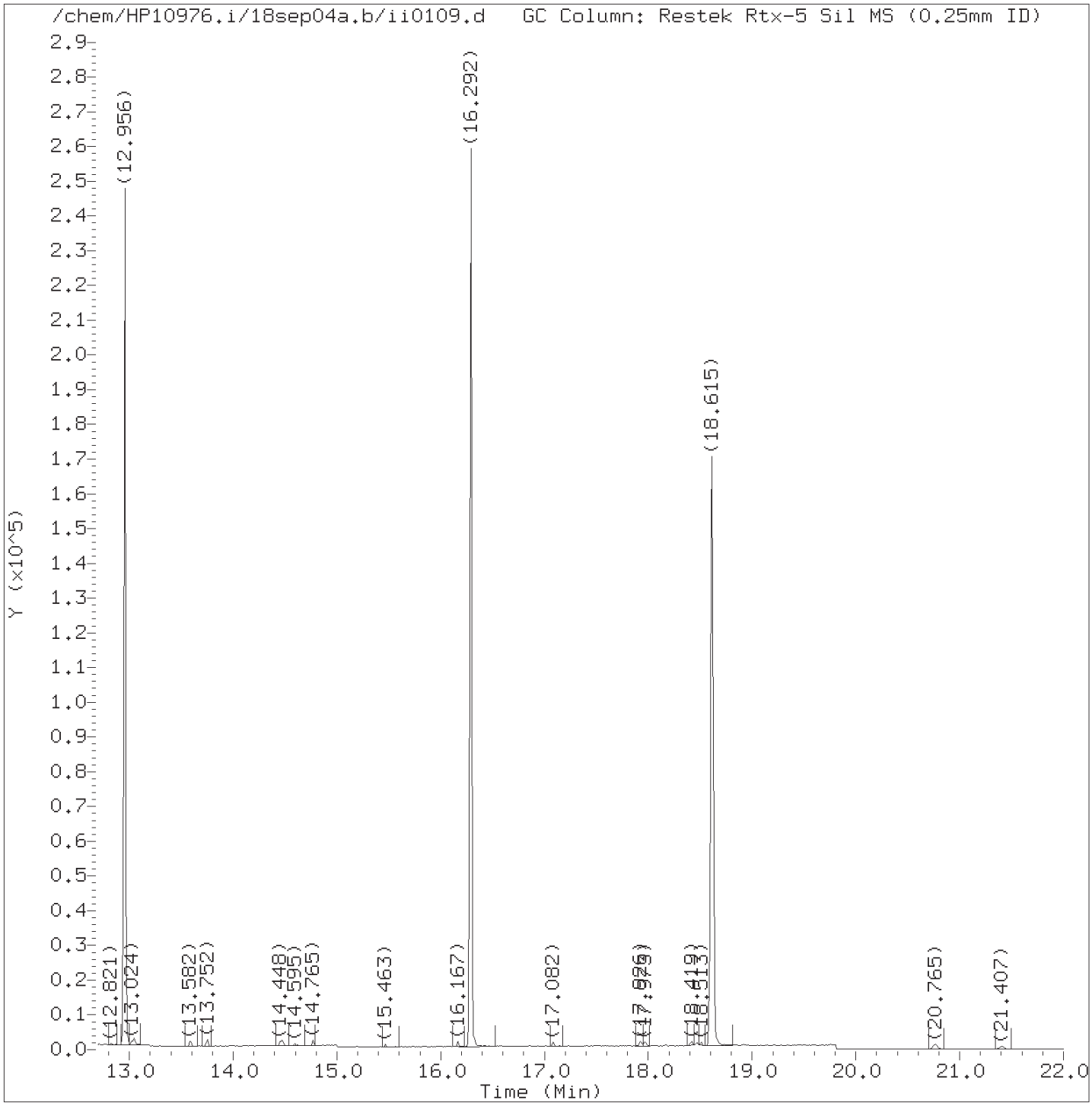
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.882	88	199	0.006
2) N-Nitrosodimethylamine	(1)	4.311	74	326M	0.007
5) bis(2-Chloroethyl)ether	(1)	7.029	93	515M	0.008
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	53019	1.000
10)*Naphthalene-d8	(2)	8.913	136	196735	1.000
11) Naphthalene	(2)	8.939	128	1219	0.006
12) Quinoline	(2)	9.337	129	683	0.005
13) 2-Methylnaphthalene	(2)	9.781	142	875	0.006
14)$1-Methylnaphthalene-d10	(2)	9.868	152	631M	0.005
15) 1-Methylnaphthalene	(2)	9.911	142	791	0.006
18) Dimethylphthalate	(3)	10.683	163	1016	0.006
19) Acenaphthylene	(3)	10.911	152	1262	0.006
20)*Acenaphthene-d10	(3)	11.095	164	116138	1.000
21) Acenaphthene	(3)	11.128	154	849M	0.006
22) Dibenzofuran	(3)	11.337	168	1352M	0.006
23) Diethylphthalate	(3)	11.551	149	1152M	0.007
26) Fluorene	(3)	11.776	166	1013	0.006
28) NDPA as diphenylamine	(4)	11.877	169	749M	0.007
27) N-Nitrosodiphenylamine	(4)	11.877	169	739M	0.007
29) Hexachlorobenzene	(4)	12.473	284	465M	0.006
31)*Phenanthrene-d10	(4)	12.956	188	262605	1.000
32) Phenanthrene	(4)	12.979	178	1941M	0.007
33) Anthracene	(4)	13.046	178	1646M	0.006
35) Di-n-butylphthalate	(4)	13.582	149	1569M	0.006
36)$Fluoranthene-d10	(4)	14.448	212	1770M	0.005
37) Fluoranthene	(4)	14.473	202	1917	0.005
39) Pyrene	(5)	14.765	202	1922	0.006
40) Butylbenzylphthalate	(5)	15.463	149	714	0.007
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	1195M	0.007
42) Benzo(a)anthracene	(5)	16.276	228	2460	0.008
43)*Chrysene-d12	(5)	16.292	240	247109	1.000
44) Chrysene	(5)	16.323	228	1726	0.006
45) Di-n-octylphthalate	(6)	17.082	149	1316	0.005
46) Benzo(b)fluoranthene	(6)	17.926	252	1840	0.006
47) Benzo(k)fluoranthene	(6)	17.973	252	1722	0.006
48) Benzo(e)pyrene	(6)	18.419	252	1756	0.006
49)$Benzo(a)pyrene-d12	(6)	18.466	264	1294	0.006
50) Benzo(a)pyrene	(6)	18.513	252	1481	0.006
51)*Perylene-d12	(6)	18.615	264	242241	1.000
52) Perylene	(6)	18.661	252	1649M	0.006

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

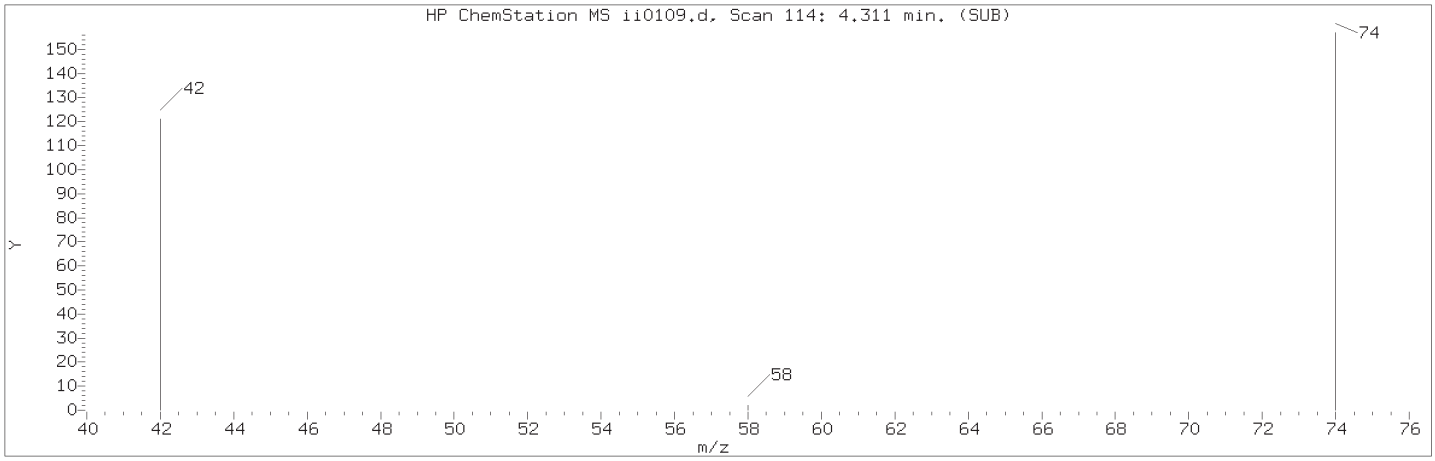
Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	20.765	276	1737M	0.006
54) Dibenz(a,h)anthracene	(6)	20.772	278	1471	0.006
55) Benzo(g,h,i)perylene	(6)	21.407	276	1619	0.006

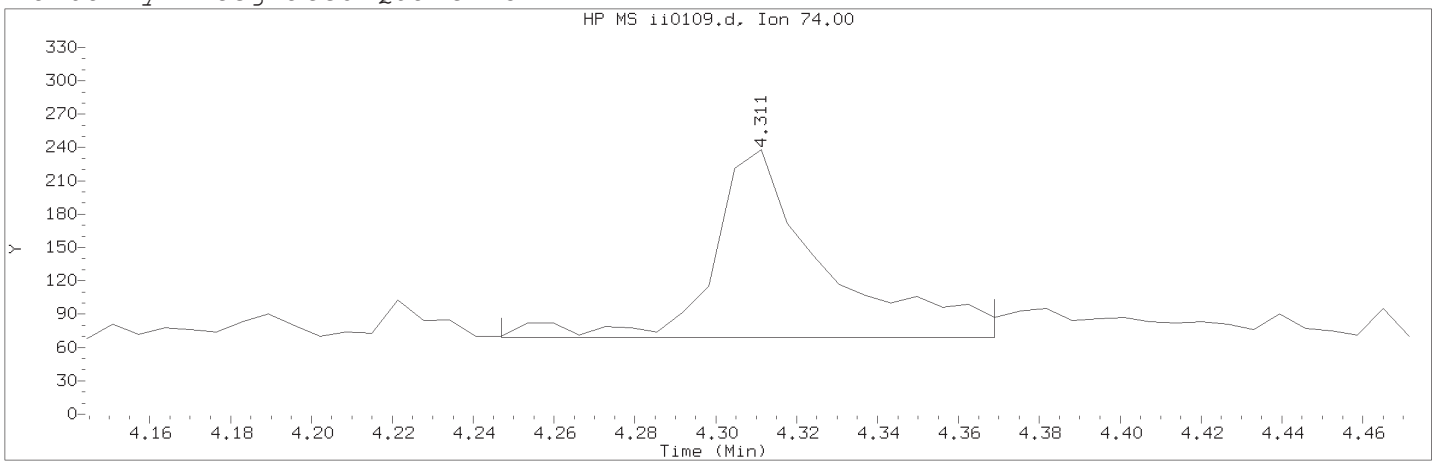
M = Compound was manually integrated.

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

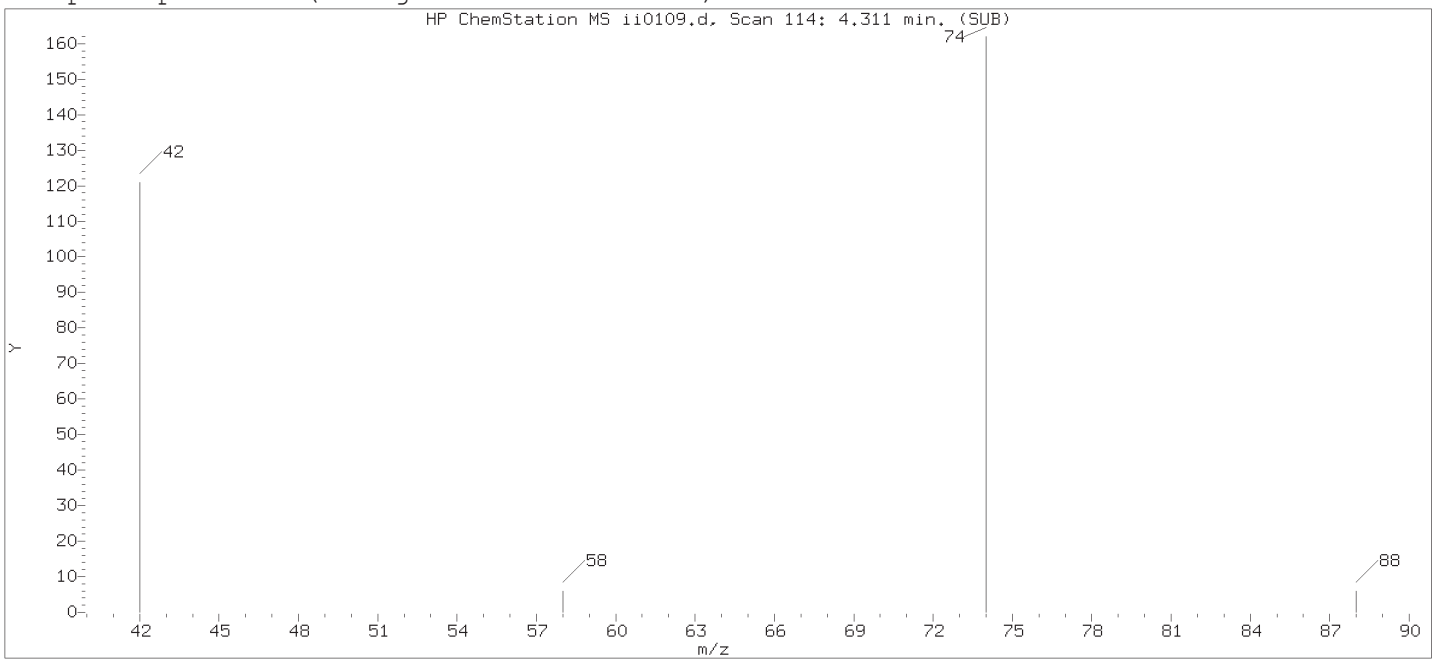
Compound Number	: 2		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 114		
Retention Time (minutes)	: 4.311		
Quant Ion	: 74.00		
Area (flag)	: 326M		
On-Column Amount (ng/ul)	: 0.0067		
Integration start scan	: 103	Integration stop scan:	122
Y at integration start	: 69	Y at integration end:	69

Reason for manual integration: improper integration

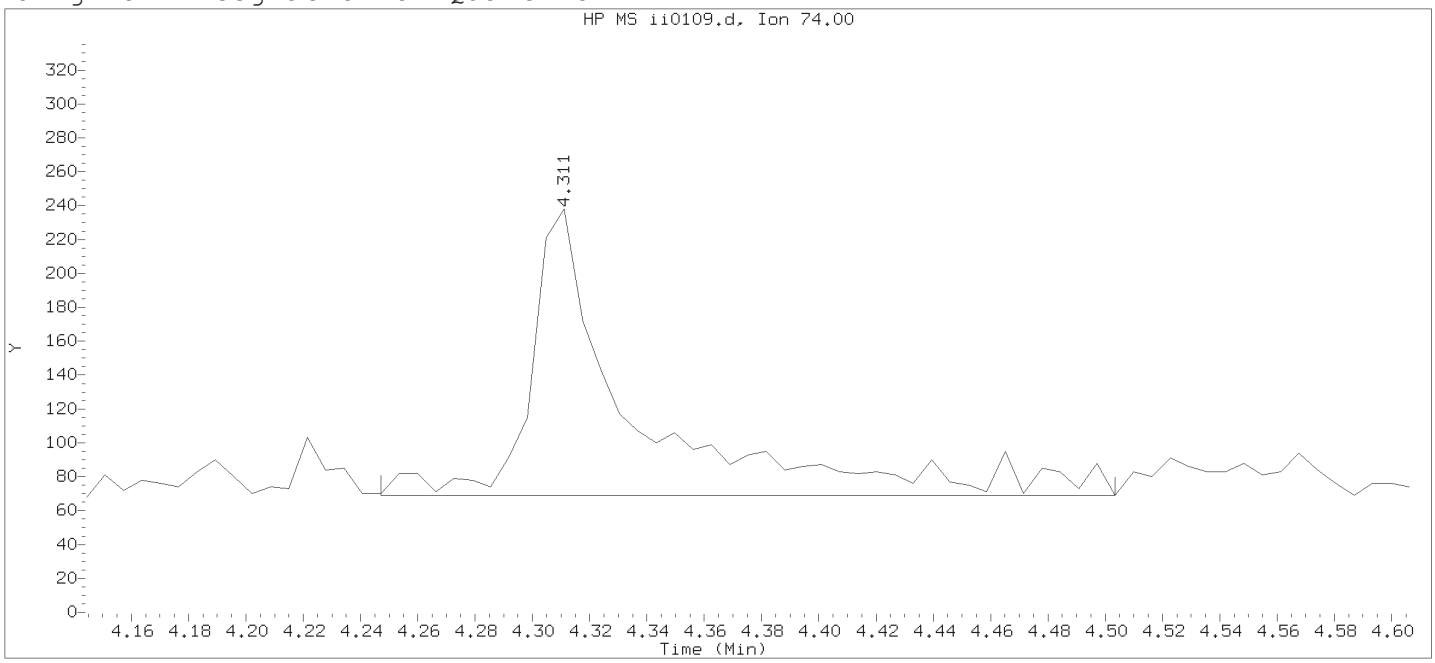
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

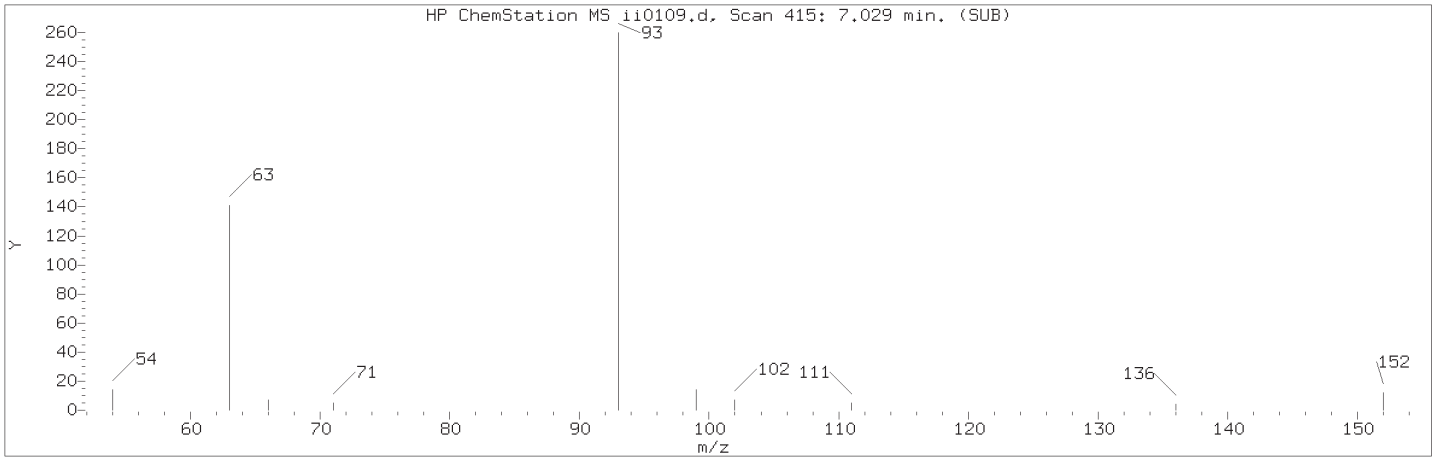
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

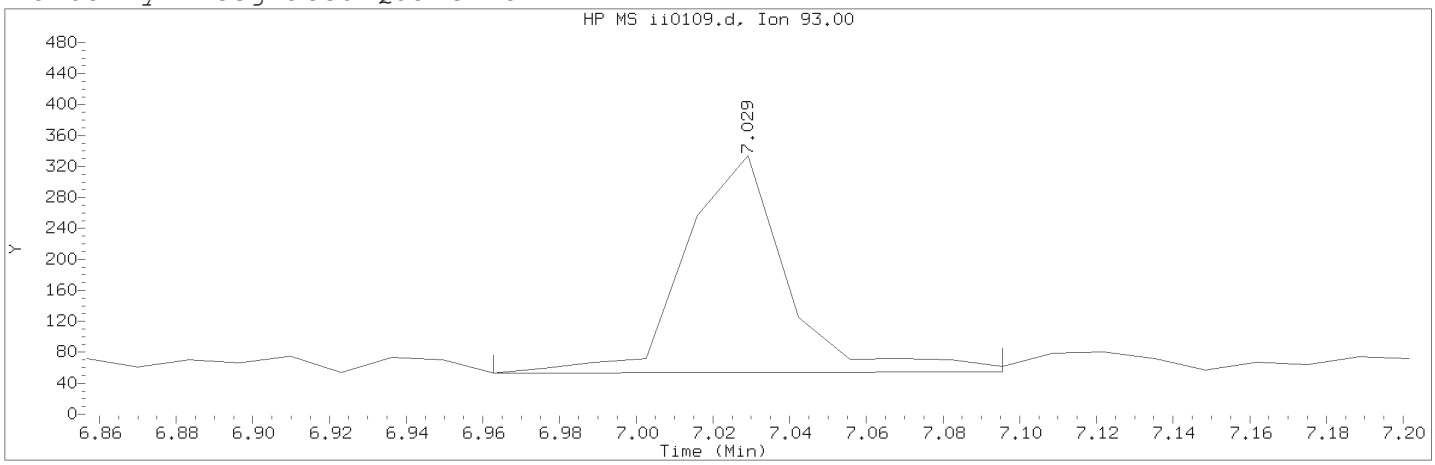
Compound Number	: 2		
Compound Name	: N-Nitrosodimethylamine		
Scan Number	: 114		
Retention Time (minutes)	: 4.311		
Quant Ion	: 74.00		
Area	: 433		
On-column Amount (ng/ul)	: 0.0089		
Integration start scan	: 103	Integration stop scan:	143
Y at integration start	: 69	Y at integration end:	69

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2005

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

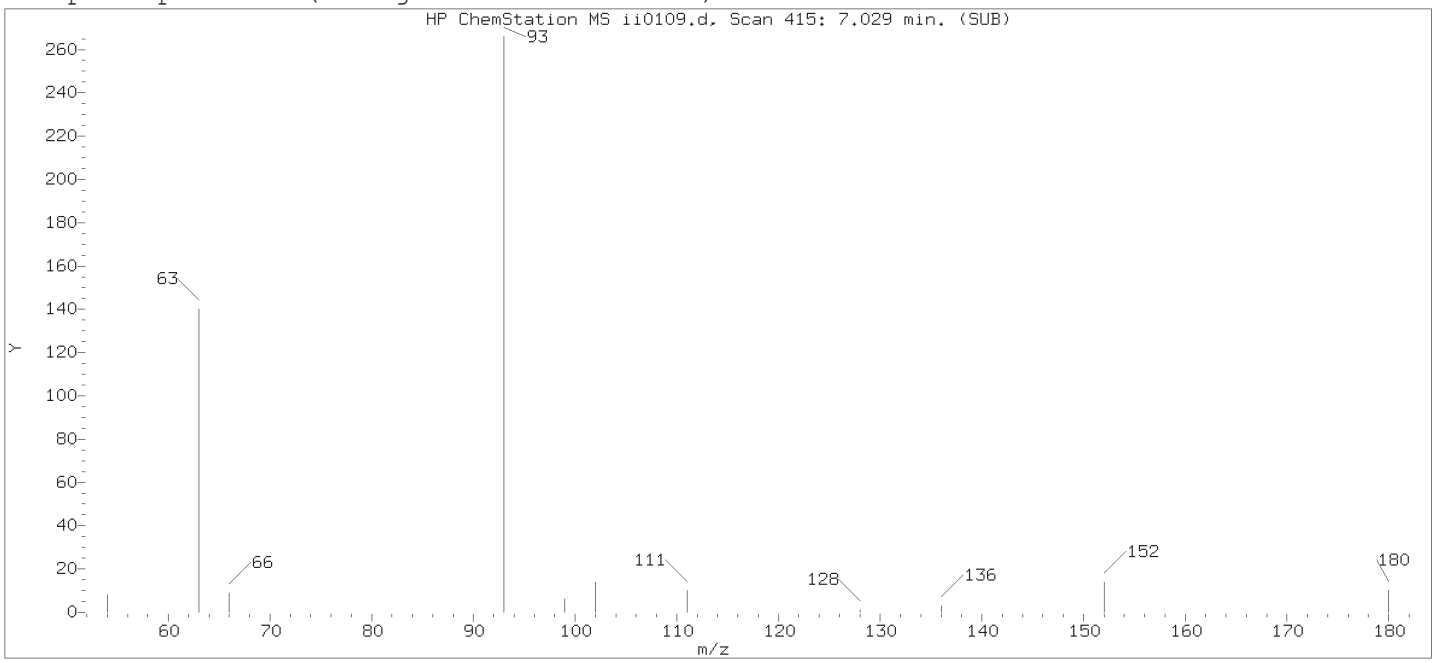
Compound Number	: 5		
Compound Name	: bis(2-Chloroethyl)ether		
Scan Number	: 415		
Retention Time (minutes)	: 7.029		
Quant Ion	: 93.00		
Area (flag)	: 515M		
On-Column Amount (ng/ul)	: 0.0077		
Integration start scan	: 409	Integration stop scan:	419
Y at integration start	: 53	Y at integration end:	55

Reason for manual integration: improper integration

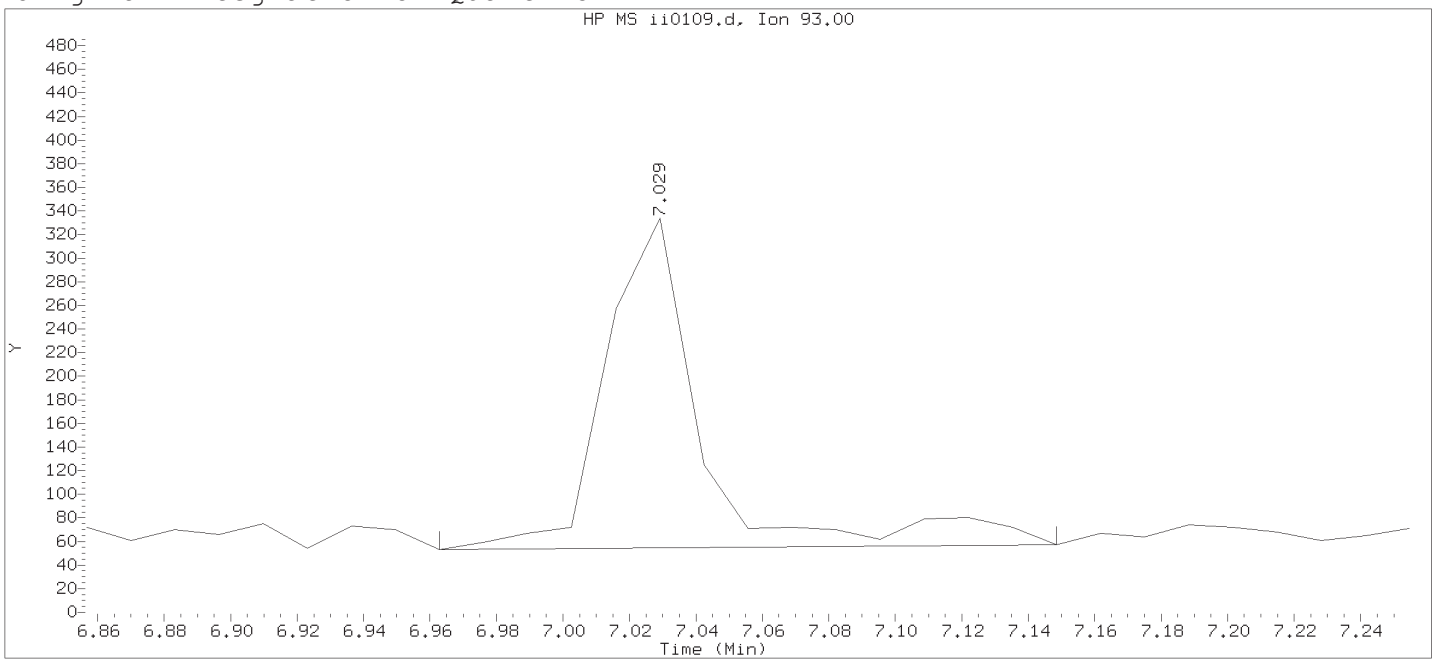
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

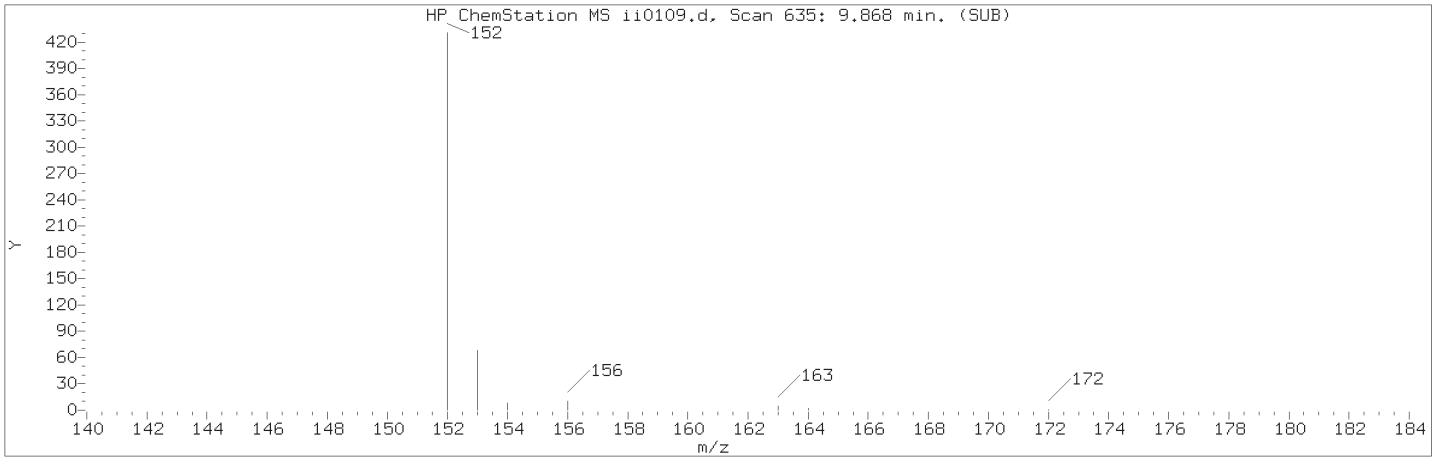
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

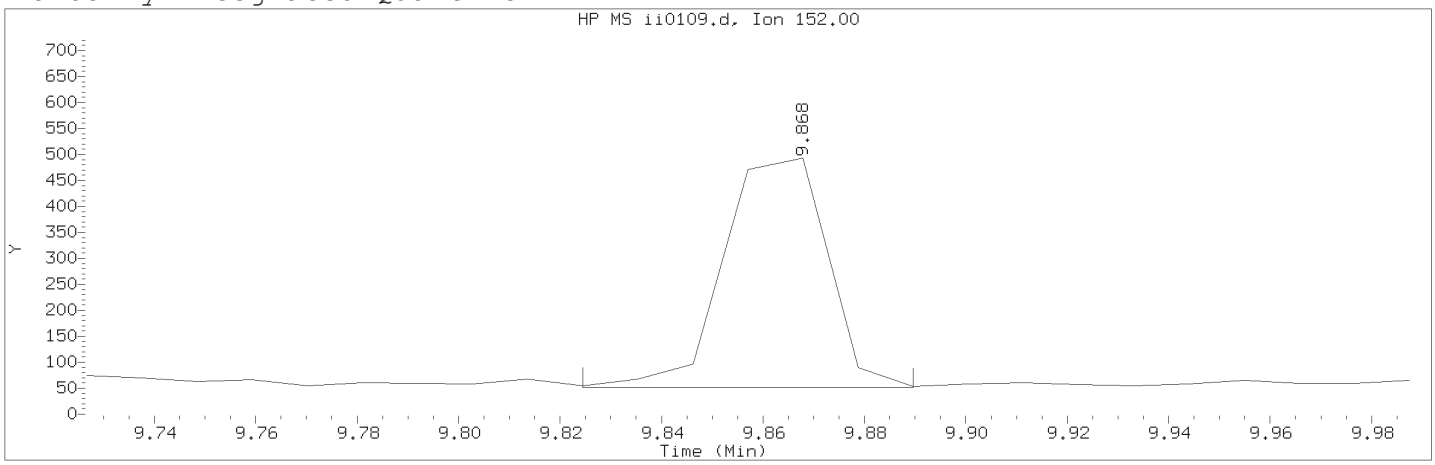
Compound Number	: 5		
Compound Name	: bis(2-Chloroethyl)ether		
Scan Number	: 415		
Retention Time (minutes)	: 7.029		
Quant Ion	: 93.00		
Area	: 561		
On-column Amount (ng/ul)	: 0.0084		
Integration start scan	: 409	Integration stop scan:	423
Y at integration start	: 53	Y at integration end:	57

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

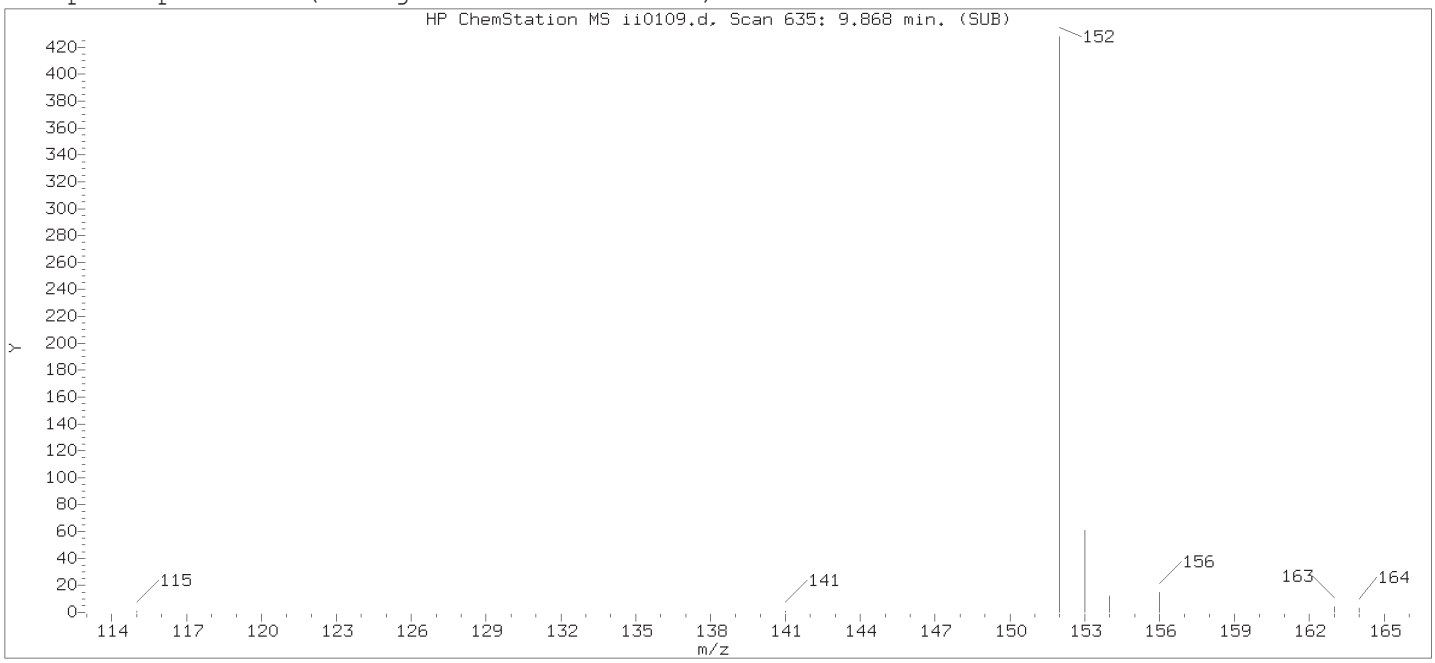
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 635		
Retention Time (minutes)	: 9.868		
Quant Ion	: 152.00		
Area (flag)	: 631M		
On-Column Amount (ng/ul)	: 0.0053		
Integration start scan	: 630	Integration stop scan:	636
Y at integration start	: 51	Y at integration end:	51

Reason for manual integration: improper integration

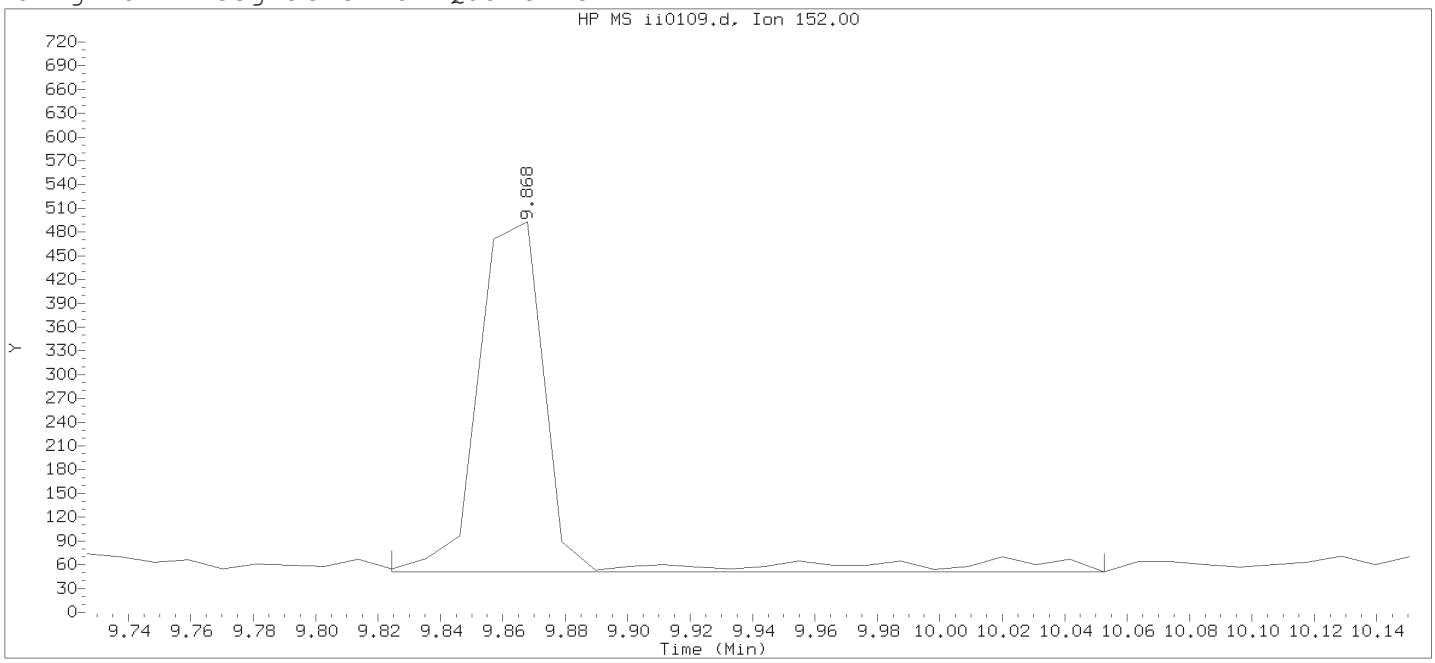
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

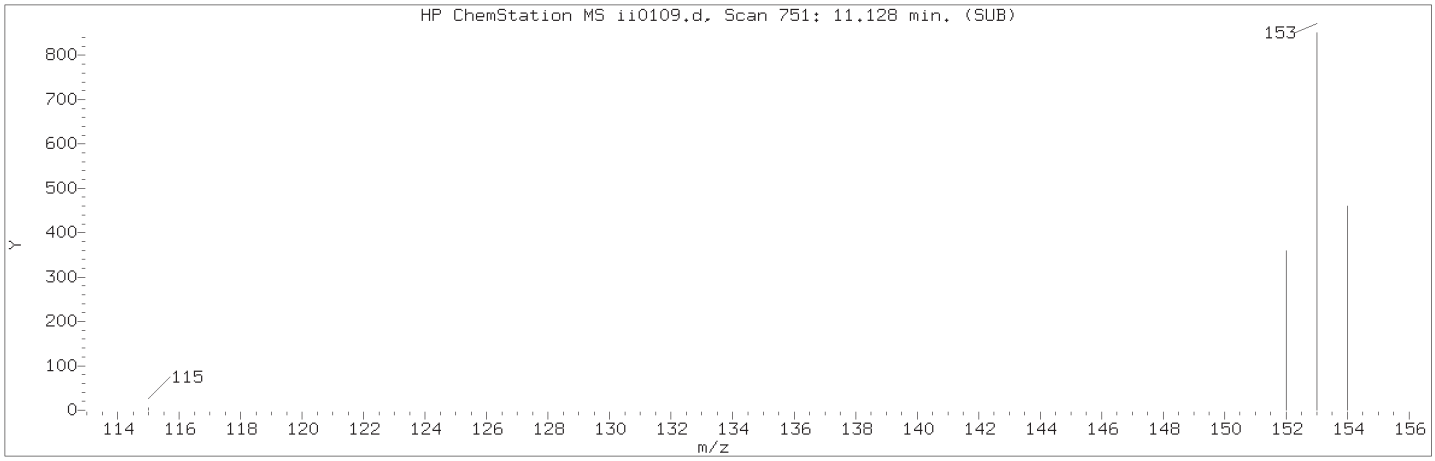
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

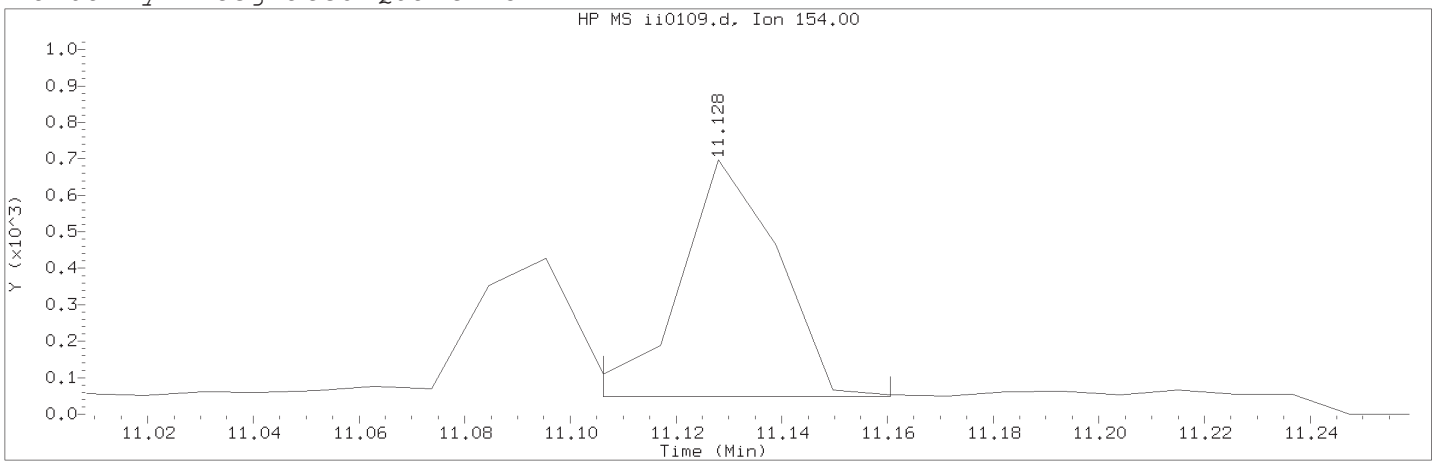
Compound Number	: 14		
Compound Name	: 1-Methylnaphthalene-d10		
Scan Number	: 635		
Retention Time (minutes)	: 9.868		
Quant Ion	: 152.00		
Area	: 715		
On-column Amount (ng/ul)	: 0.0060		
Integration start scan	: 630	Integration stop scan:	651
Y at integration start	: 51	Y at integration end:	51

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 1 time(s).

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

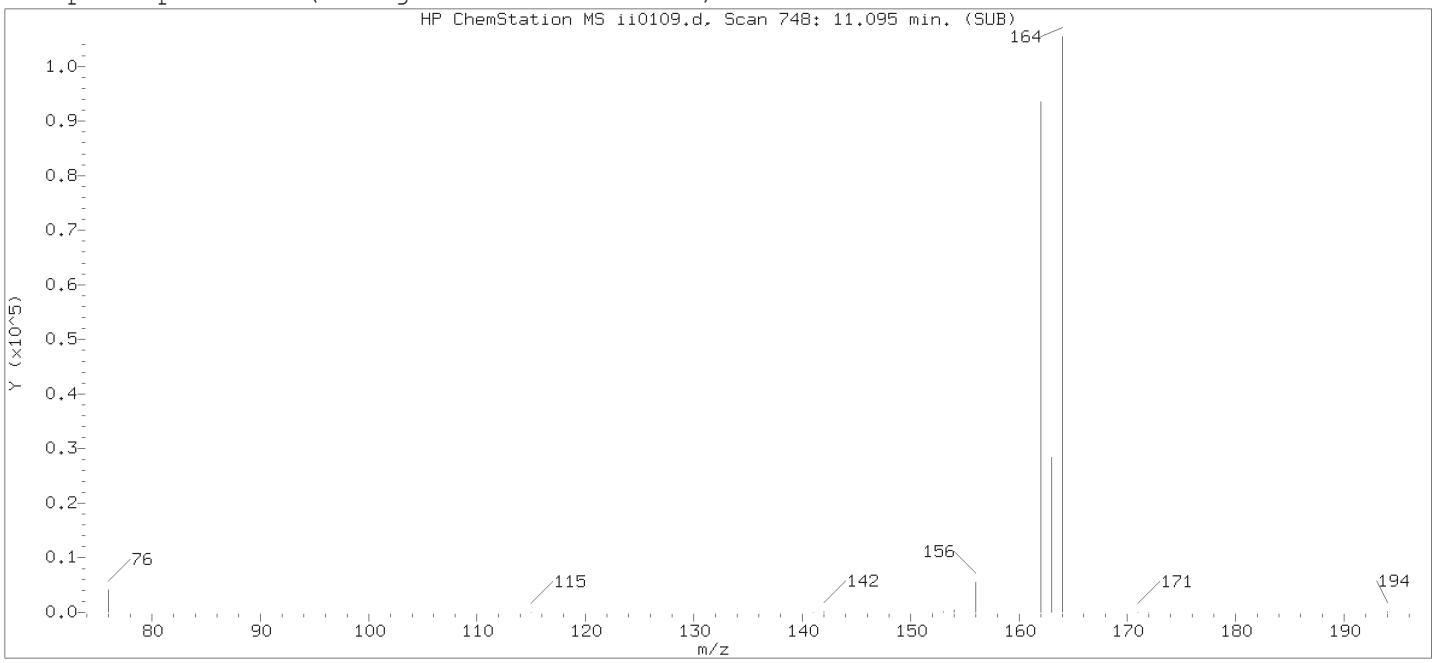
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 751		
Retention Time (minutes)	: 11.128		
Quant Ion	: 154.00		
Area (flag)	: 849M		
On-Column Amount (ng/ul)	: 0.0058		
Integration start scan	: 748	Integration stop scan:	753
Y at integration start	: 48	Y at integration end:	48

Reason for manual integration: improper integration

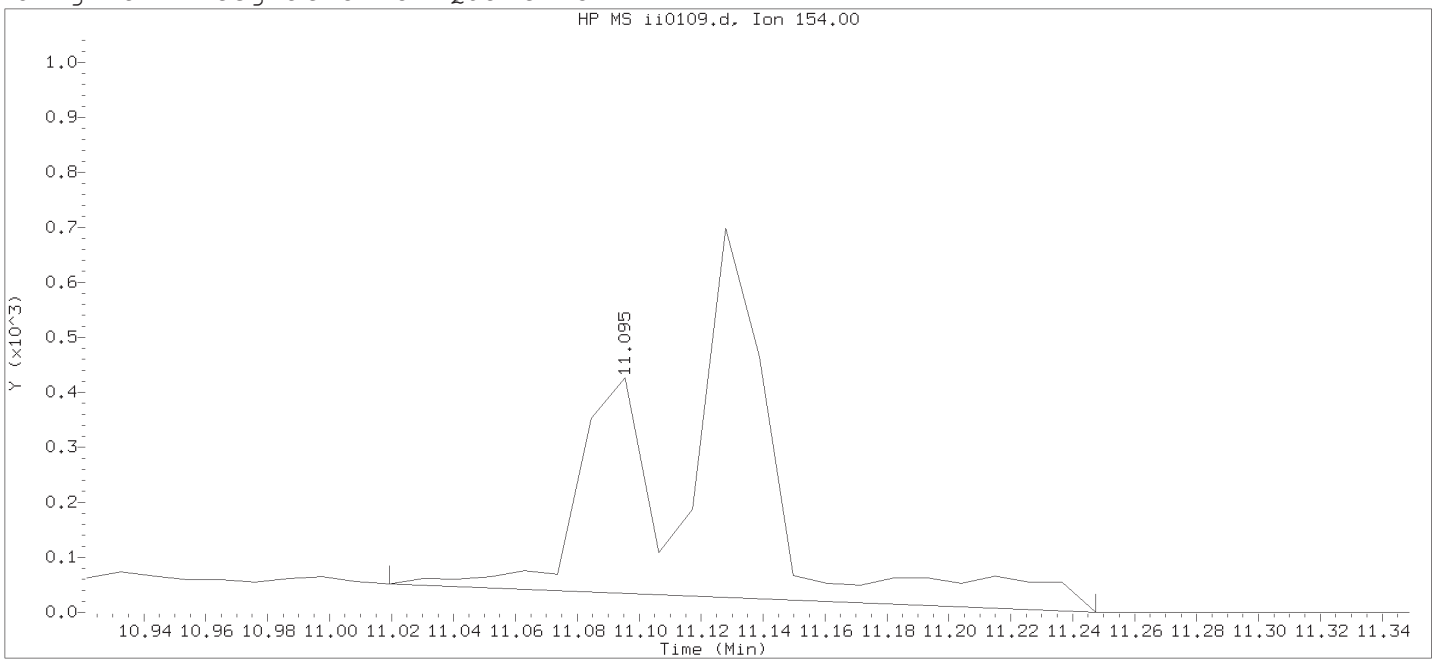
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

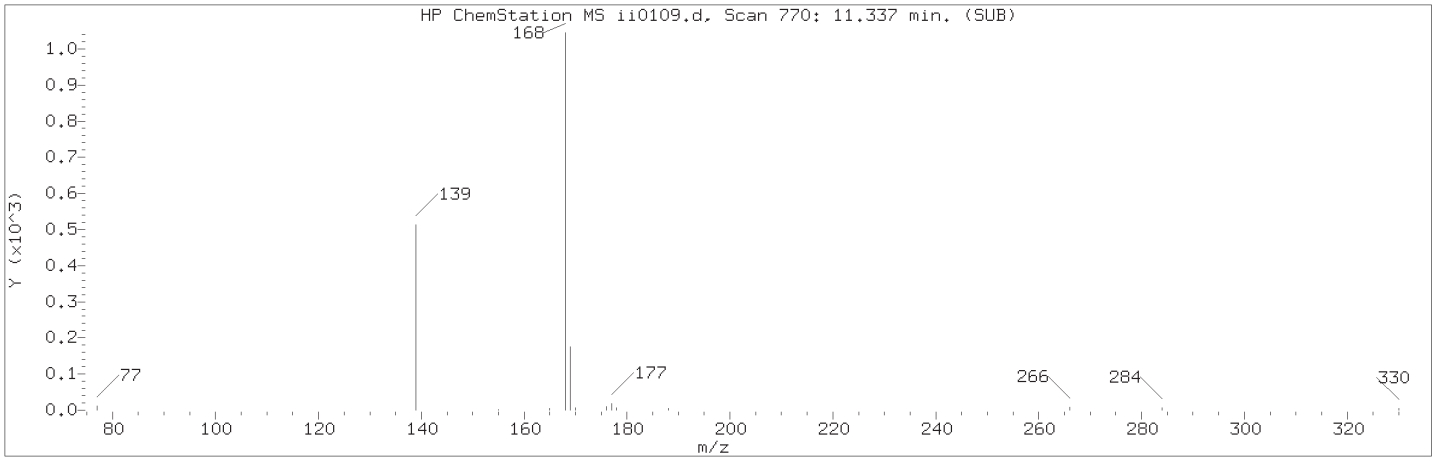
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

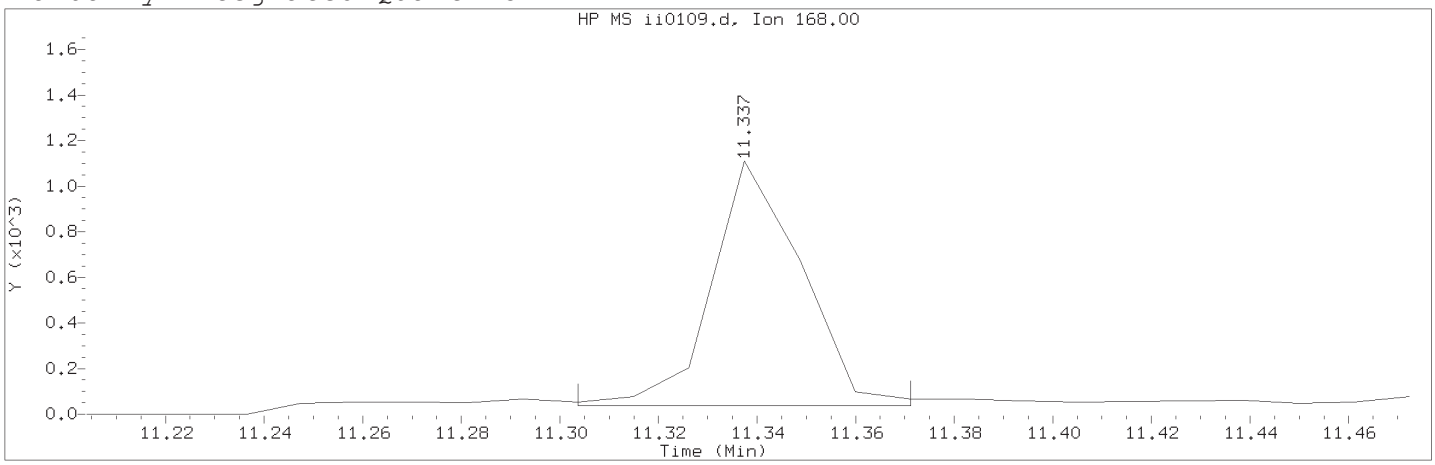
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 748		
Retention Time (minutes)	: 11.095		
Quant Ion	: 154.00		
Area	: 1692		
On-column Amount (ng/ul)	: 0.0116		
Integration start scan	: 740	Integration stop scan:	761
Y at integration start	: 52	Y at integration end:	0

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 2012 January 16

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

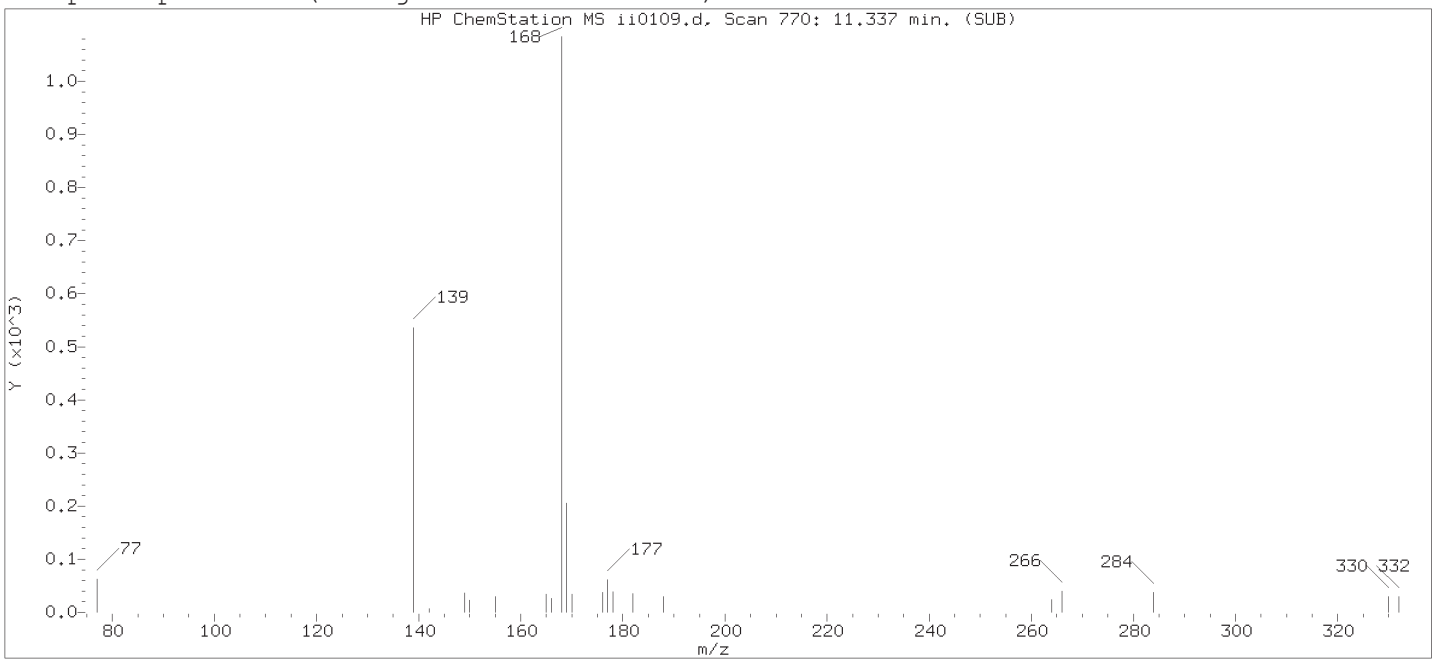
Compound Number : 22
Compound Name : Dibenzofuran
Scan Number : 770
Retention Time (minutes) : 11.337
Quant Ion : 168.00
Area (flag) : 1352M
On-Column Amount (ng/ul) : 0.0060
Integration start scan : 766 Integration stop scan: 772
Y at integration start : 37 Y at integration end: 37

Reason for manual integration: improper integration

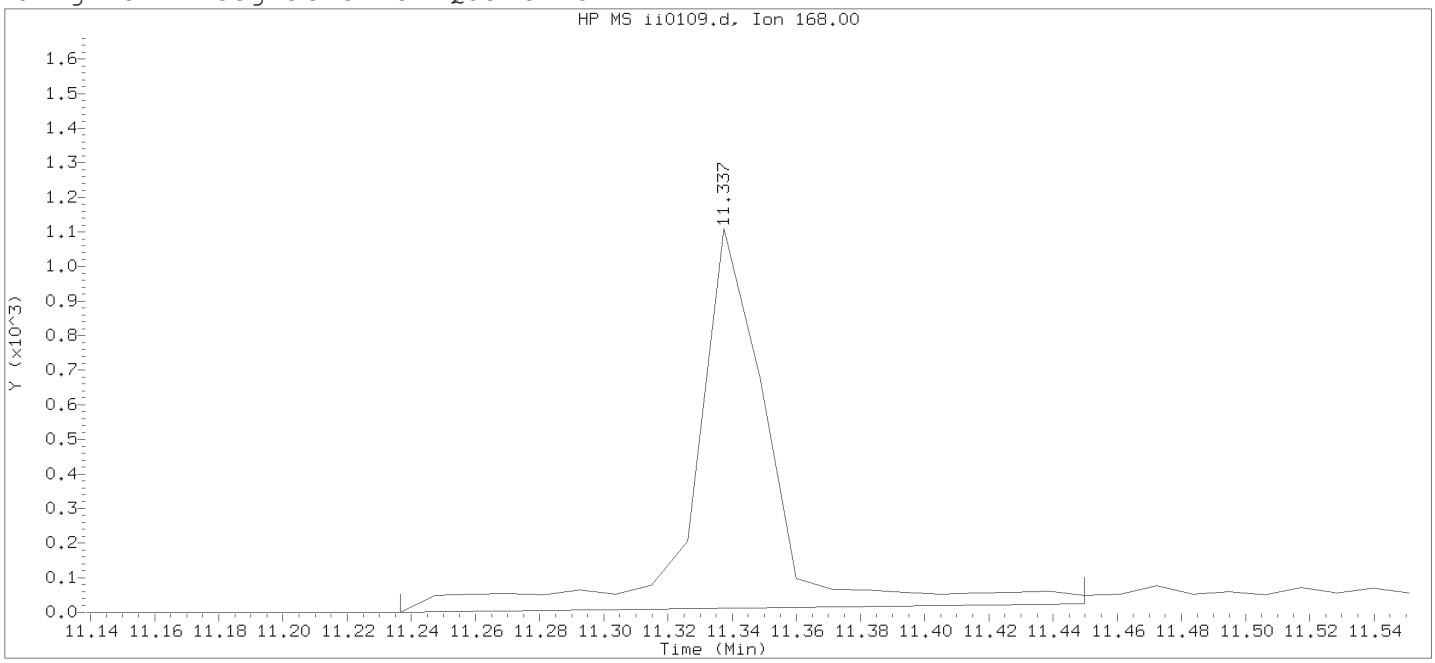
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

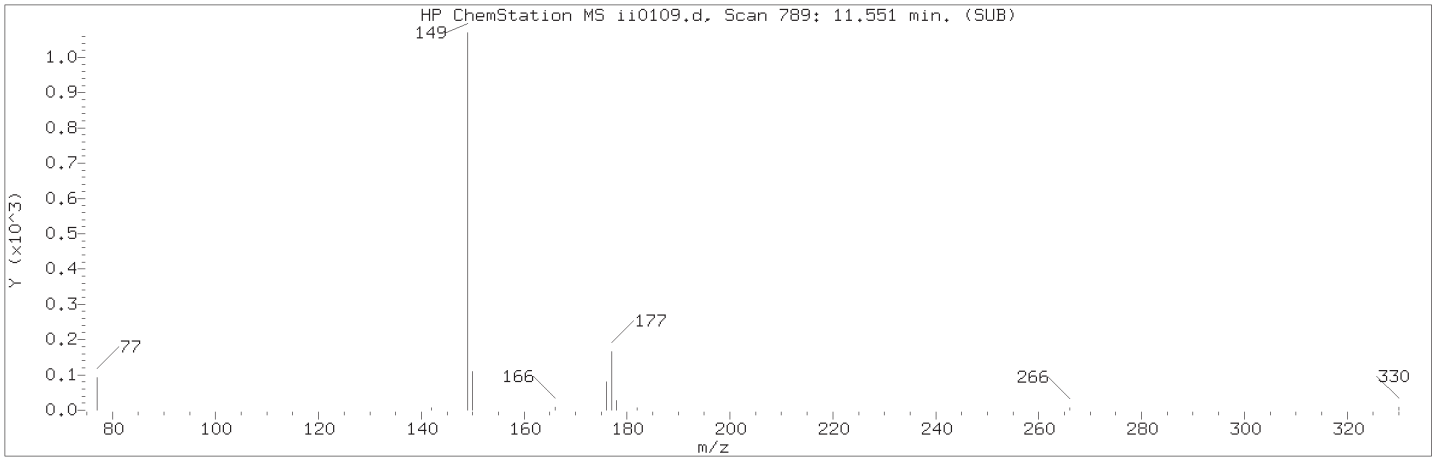
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

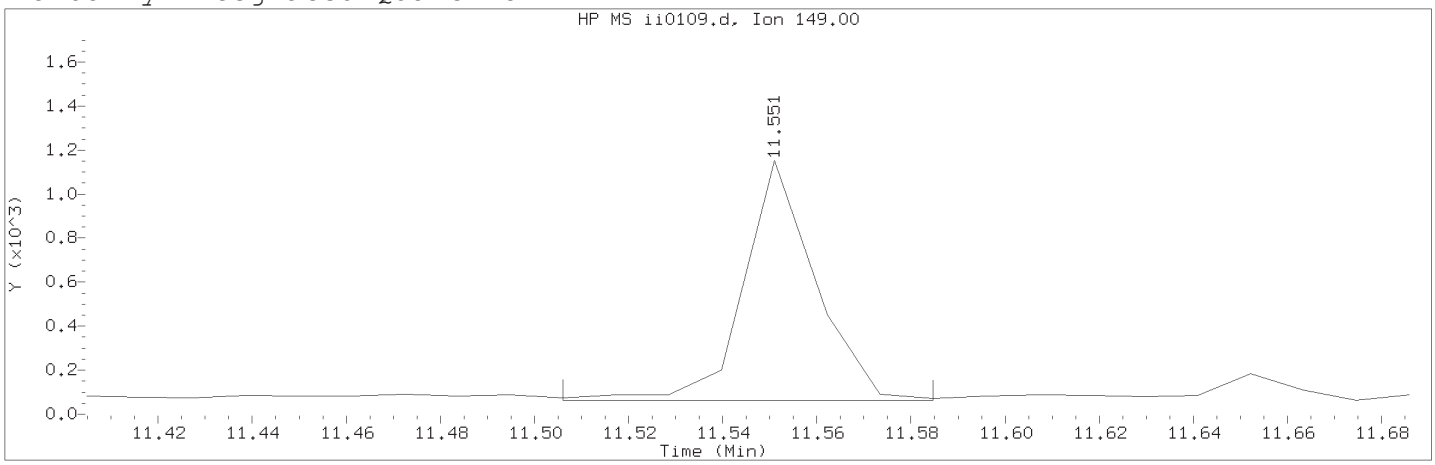
Compound Number	: 22		
Compound Name	: Dibenzofuran		
Scan Number	: 770		
Retention Time (minutes)	: 11.337		
Quant Ion	: 168.00		
Area	: 1803		
On-column Amount (ng/ul)	: 0.0080		
Integration start scan	: 760	Integration stop scan:	779
Y at integration start	: 0	Y at integration end:	24

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

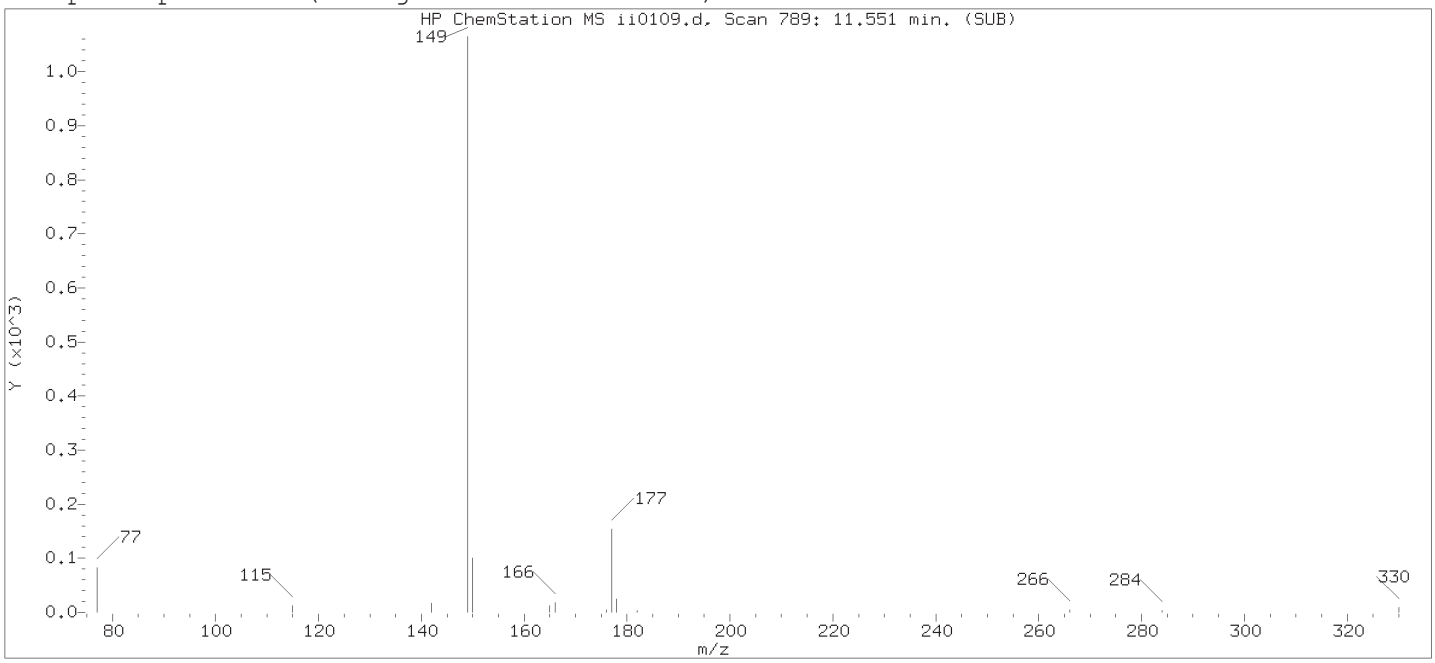
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 789		
Retention Time (minutes)	: 11.551		
Quant Ion	: 149.00		
Area (flag)	: 1152M		
On-Column Amount (ng/ul)	: 0.0069		
Integration start scan	: 784	Integration stop scan:	791
Y at integration start	: 63	Y at integration end:	63

Reason for manual integration: improper integration

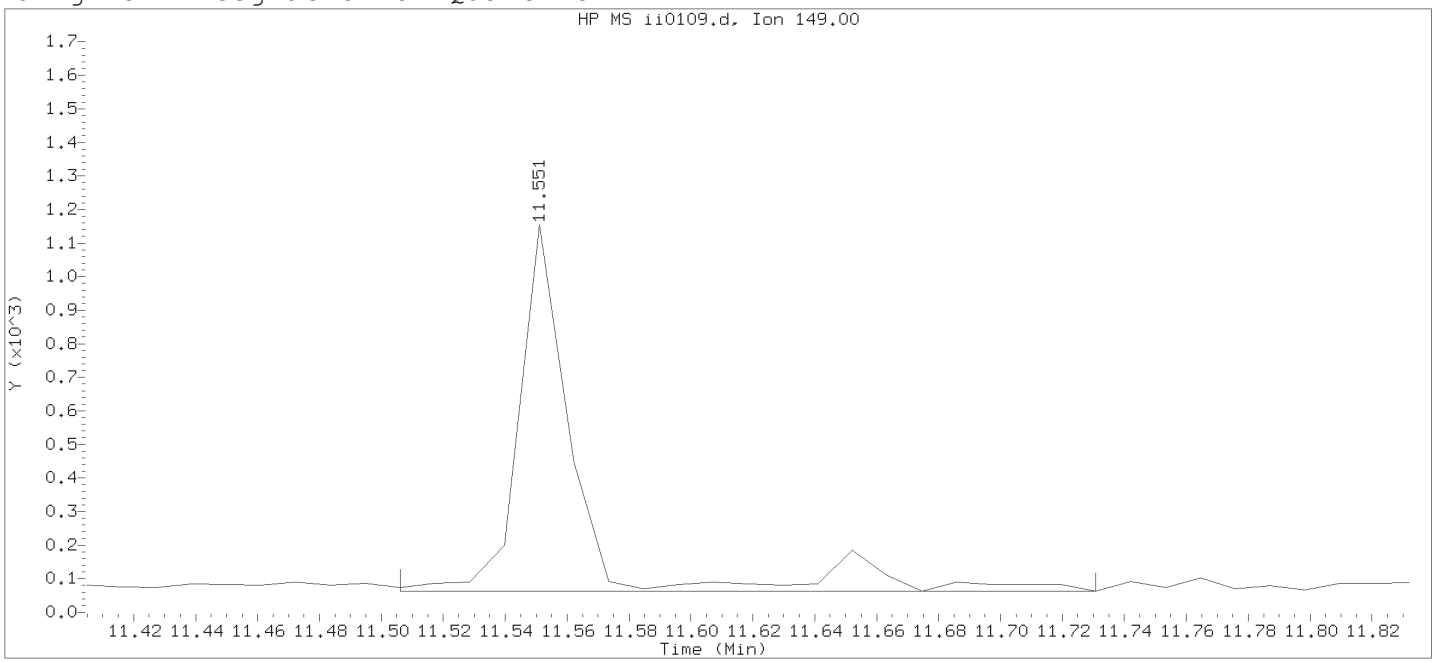
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

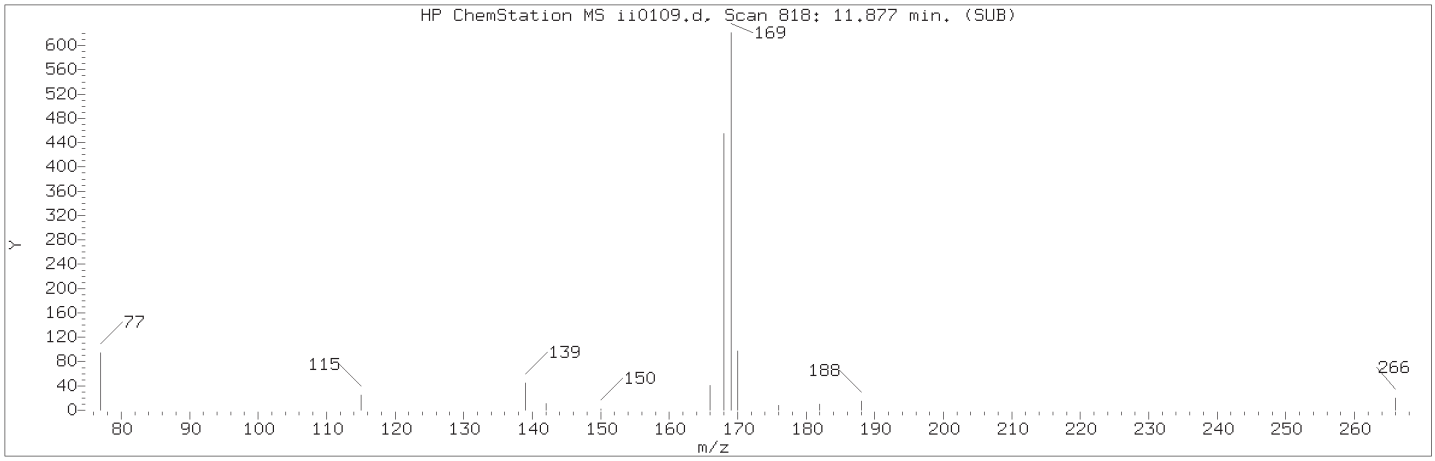
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

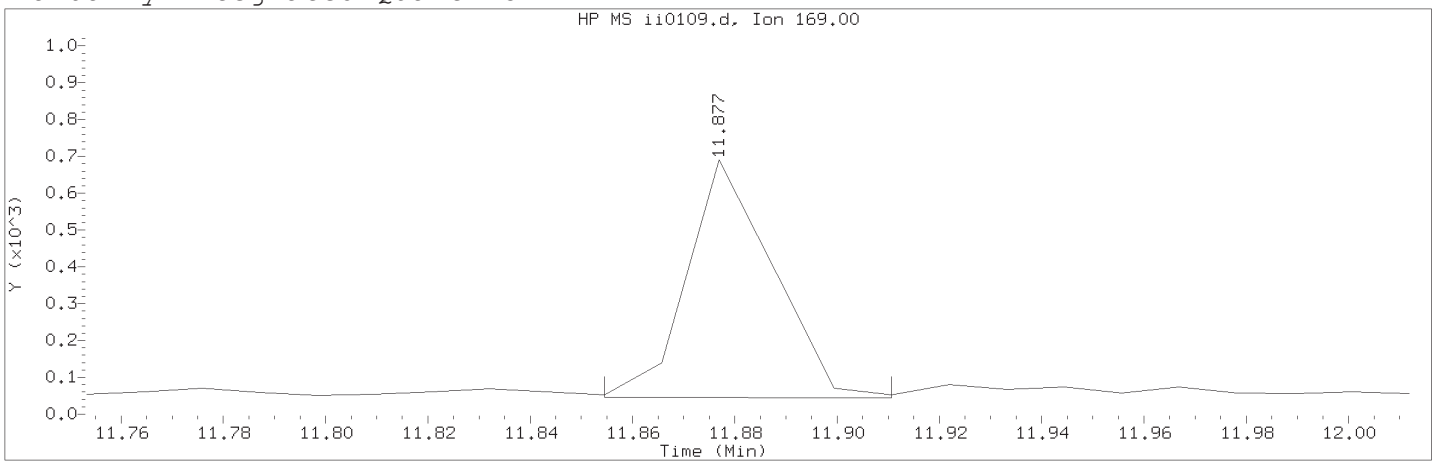
Compound Number	: 23		
Compound Name	: Diethylphthalate		
Scan Number	: 789		
Retention Time (minutes)	: 11.551		
Quant Ion	: 149.00		
Area	: 1390		
On-column Amount (ng/ul)	: 0.0083		
Integration start scan	: 784	Integration stop scan:	804
Y at integration start	: 63	Y at integration end:	63

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2018

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

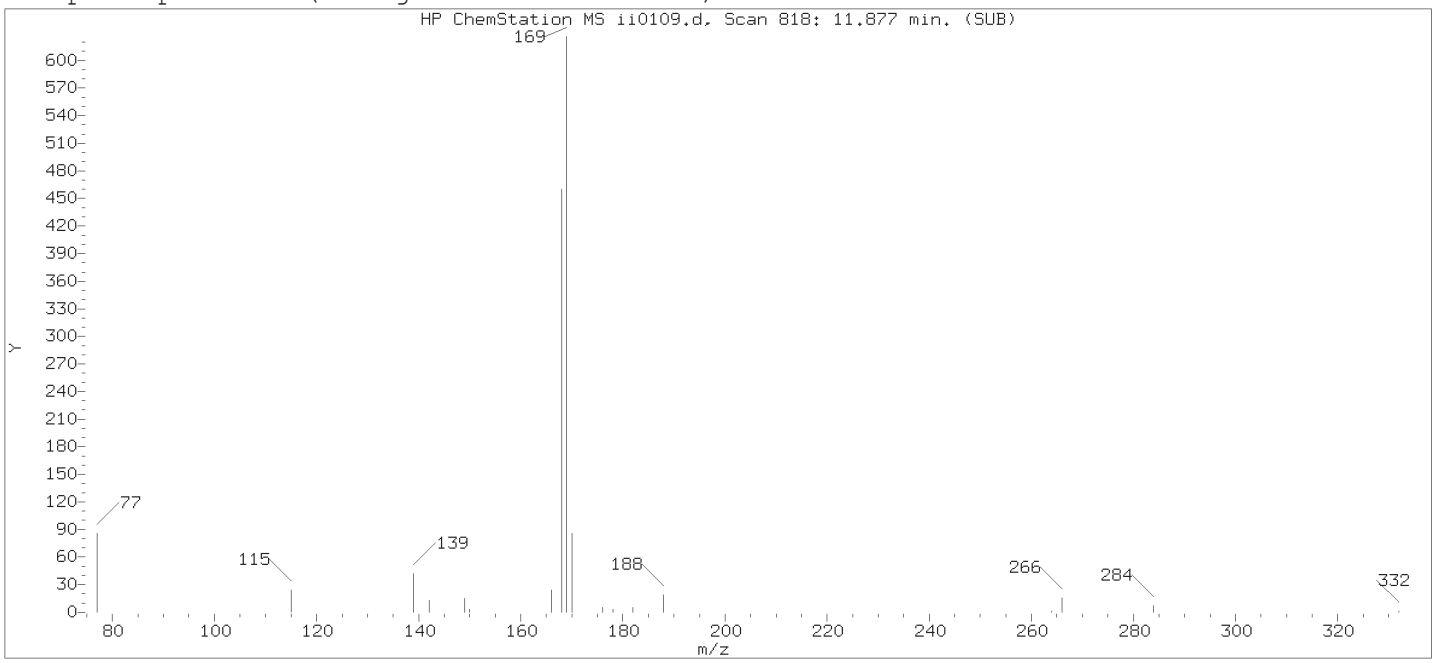
Compound Number : 28
Compound Name : NDPA as diphenylamine
Scan Number : 818
Retention Time (minutes) : 11.877
Quant Ion : 169.00
Area (flag) : 749M
On-Column Amount (ng/ul) : 0.0069
Integration start scan : 815 Integration stop scan: 820
Y at integration start : 46 Y at integration end: 45

Reason for manual integration: improper integration

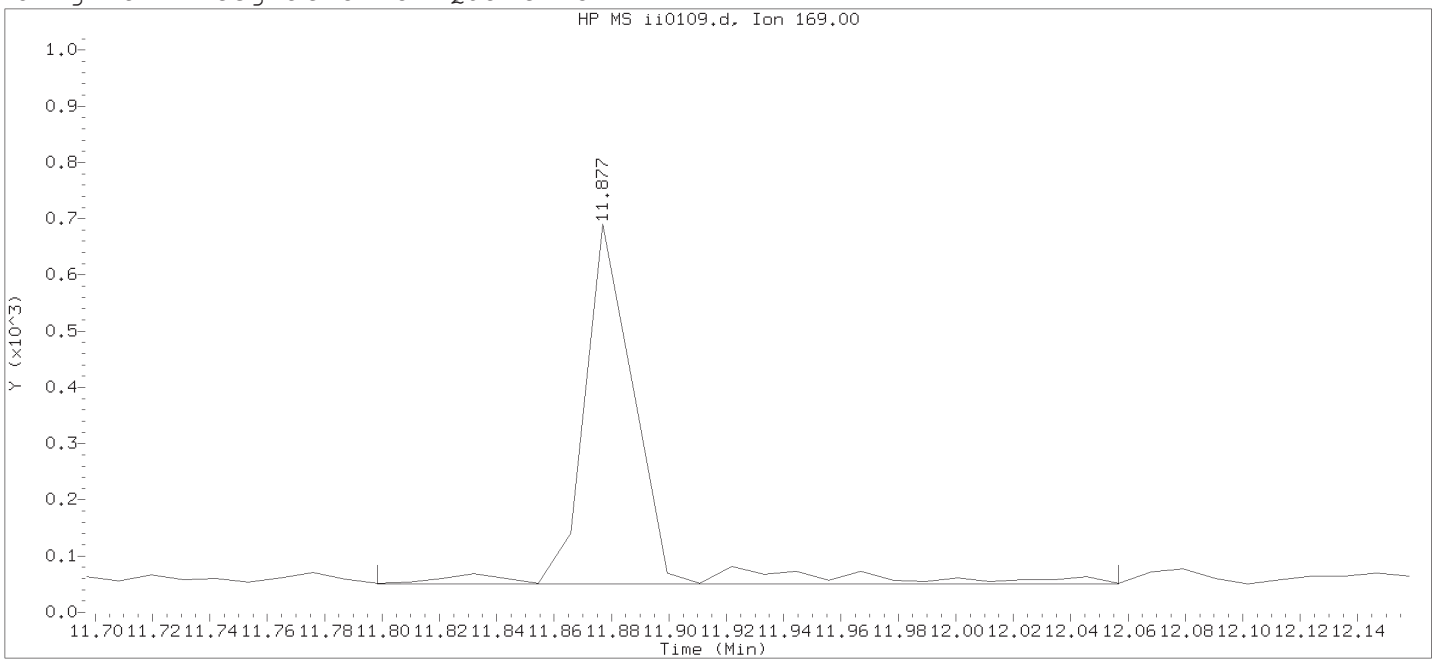
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

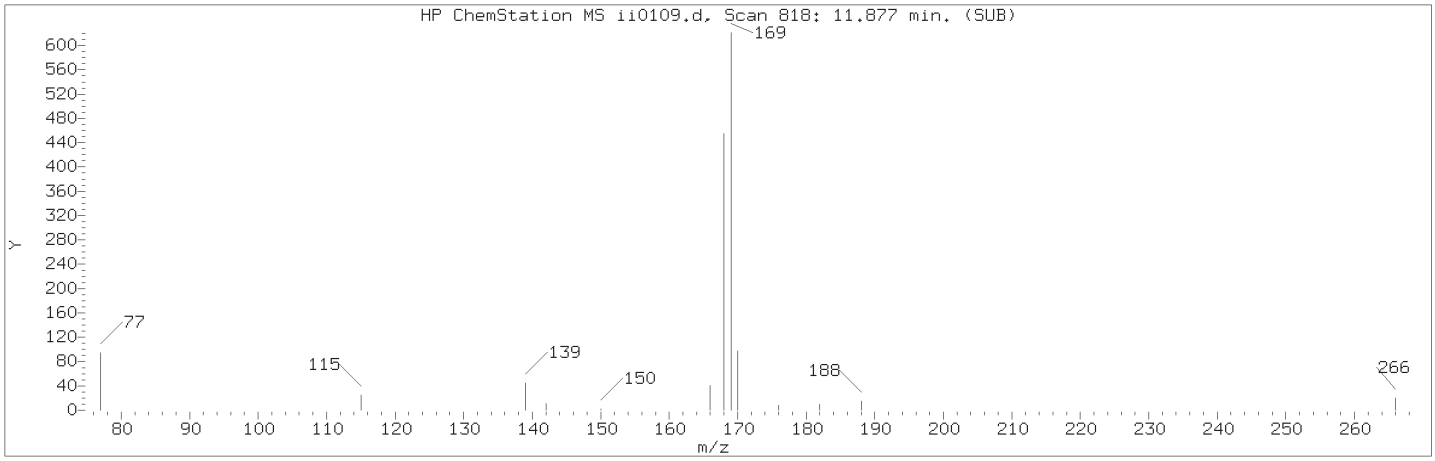
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

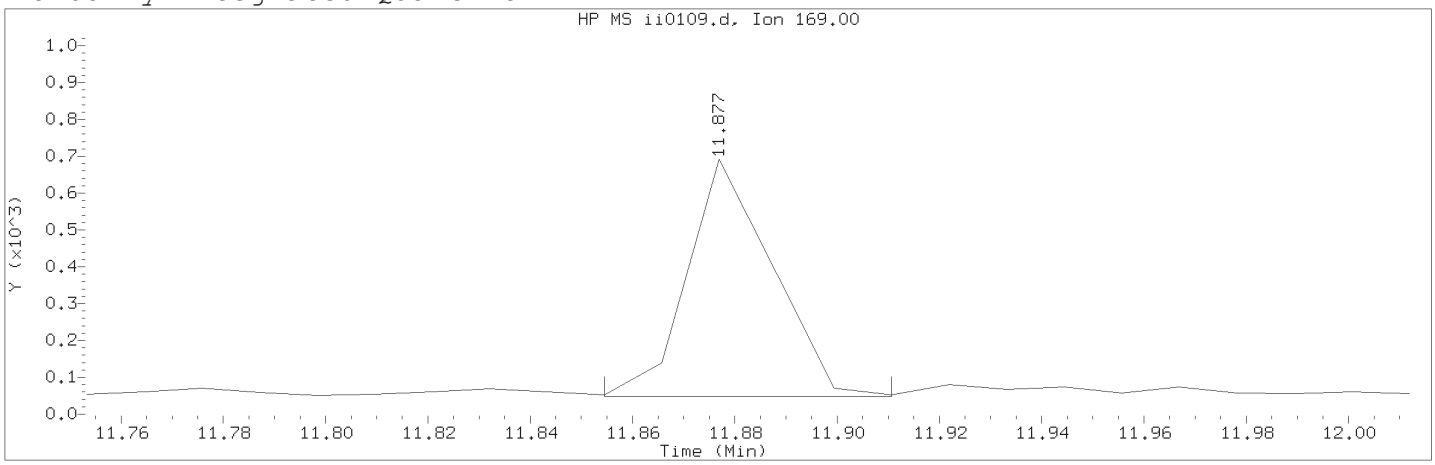
Compound Number	: 28		
Compound Name	: NDPA as diphenylamine		
Scan Number	: 818		
Retention Time (minutes)	: 11.877		
Quant Ion	: 169.00		
Area	: 869		
On-column Amount (ng/ul)	: 0.0079		
Integration start scan	: 810	Integration stop scan:	833
Y at integration start	: 50	Y at integration end:	50

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

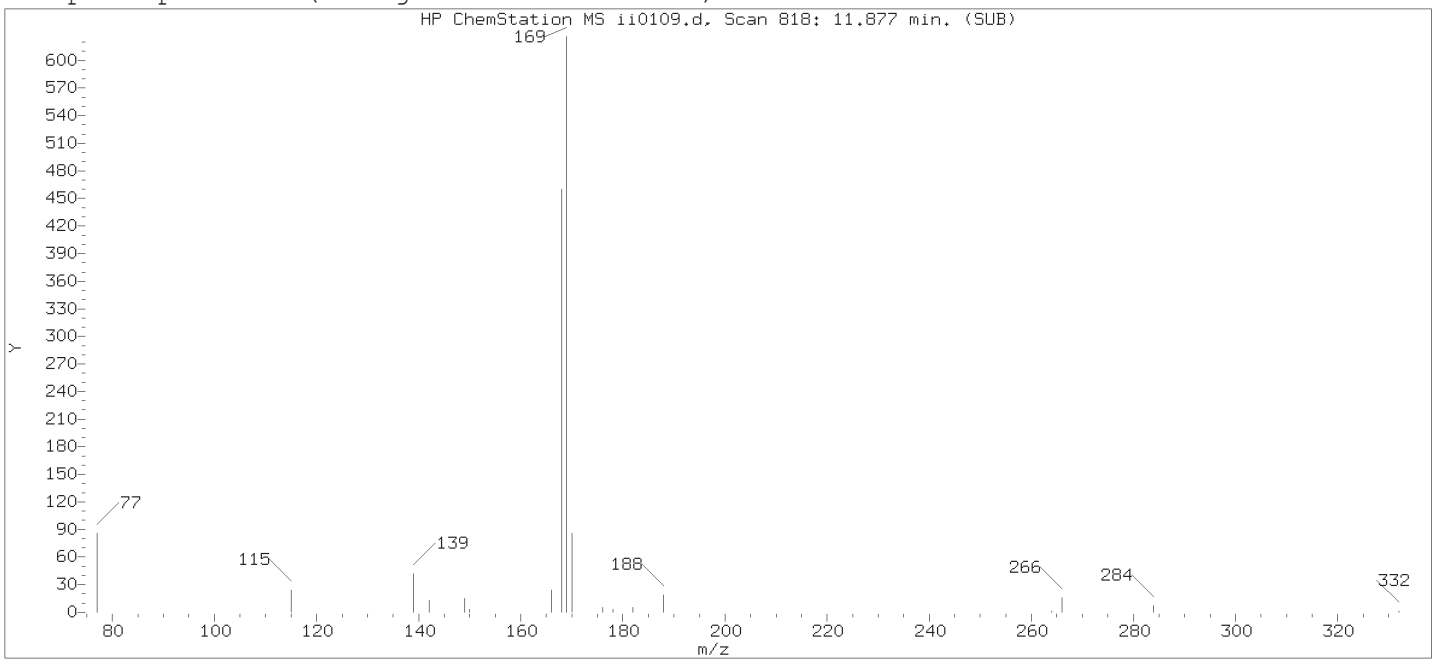
Compound Number	: 27		
Compound Name	: N-Nitrosodiphenylamine		
Scan Number	: 818		
Retention Time (minutes)	: 11.877		
Quant Ion	: 169.00		
Area (flag)	: 739M		
On-Column Amount (ng/ul)	: 0.0068		
Integration start scan	: 815	Integration stop scan:	820
Y at integration start	: 48	Y at integration end:	48

Reason for manual integration: improper integration

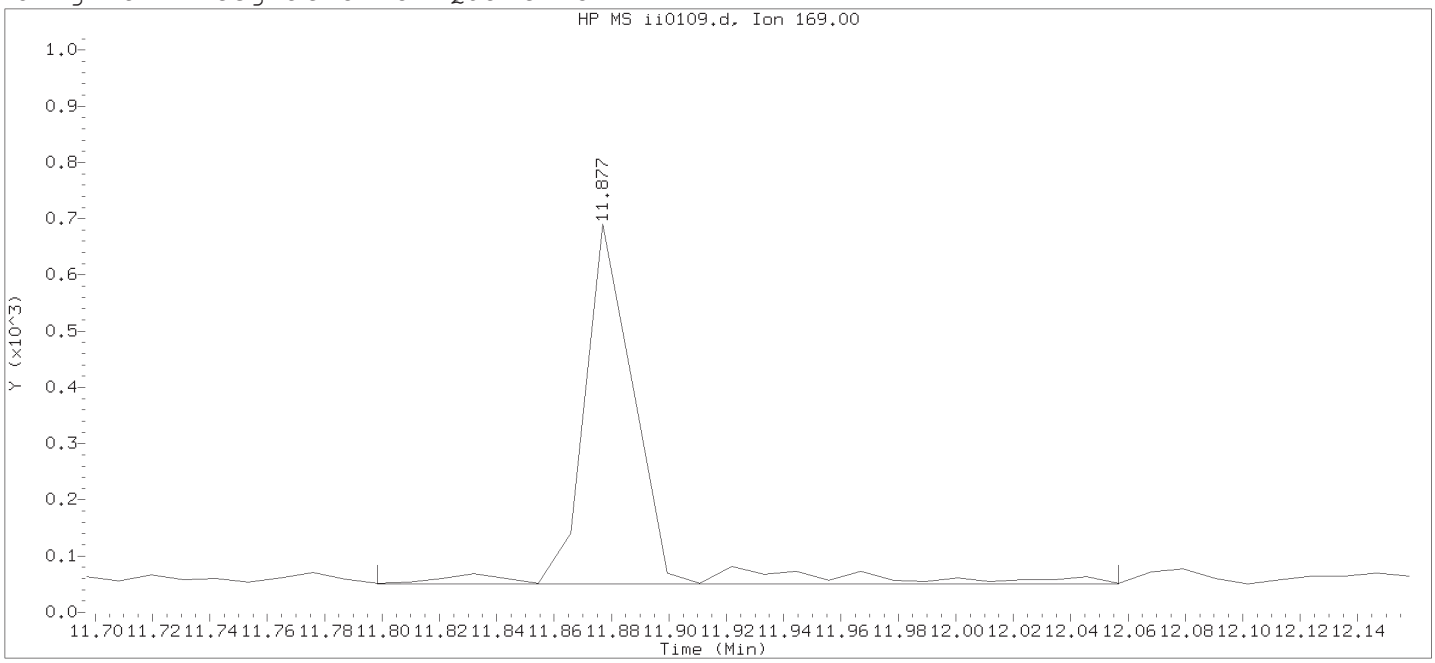
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

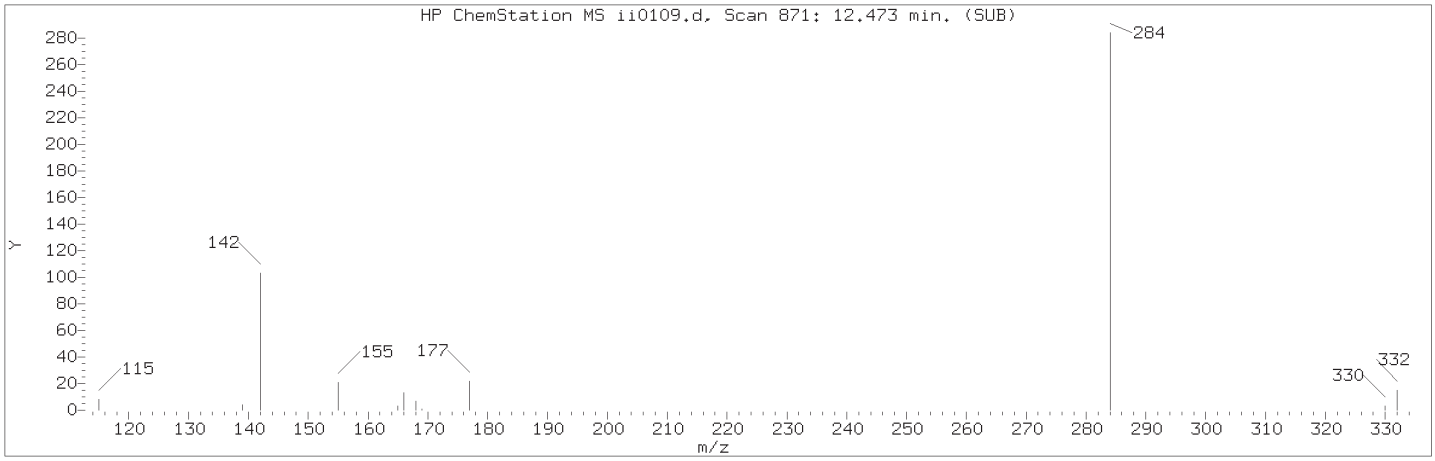
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

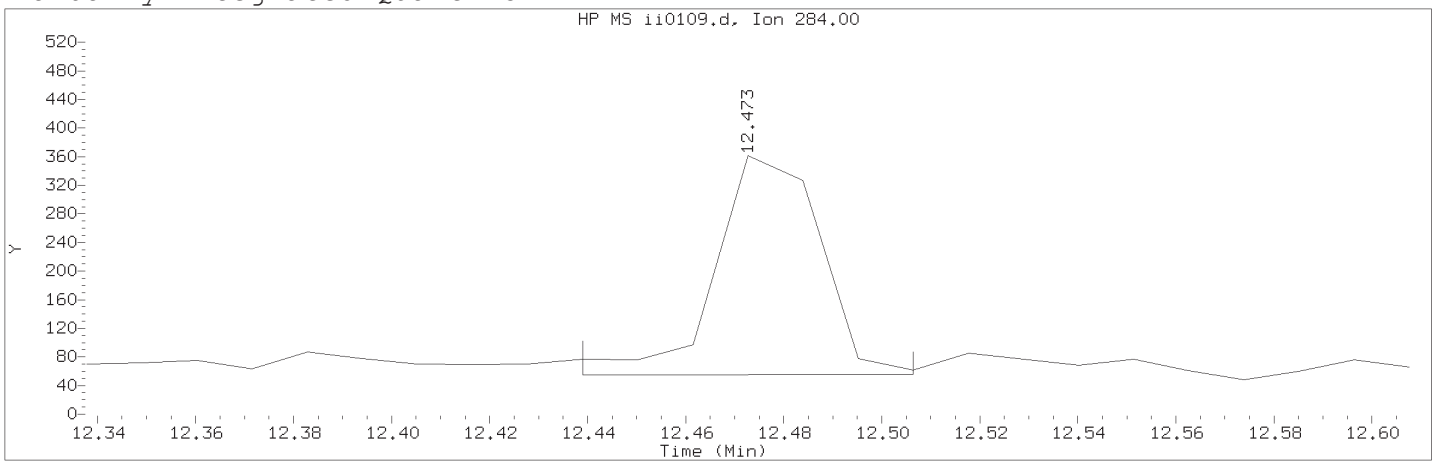
Compound Number	: 27		
Compound Name	: N-Nitrosodiphenylamine		
Scan Number	: 818		
Retention Time (minutes)	: 11.877		
Quant Ion	: 169.00		
Area	: 869		
On-column Amount (ng/ul)	: 0.0079		
Integration start scan	: 810	Integration stop scan:	833
Y at integration start	: 50	Y at integration end:	50

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11/12/2015

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

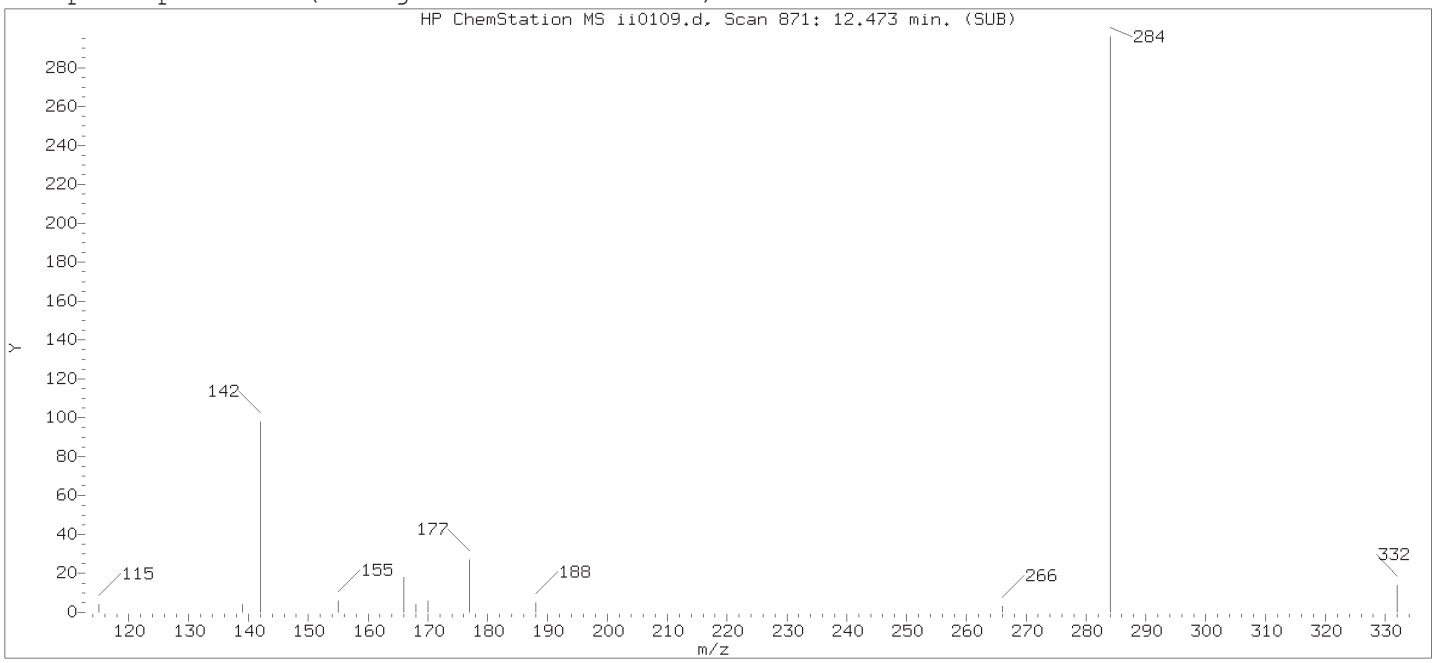
Compound Number	: 29		
Compound Name	: Hexachlorobenzene		
Scan Number	: 871		
Retention Time (minutes)	: 12.473		
Quant Ion	: 284.00		
Area (flag)	: 465M		
On-Column Amount (ng/ul)	: 0.0060		
Integration start scan	: 867	Integration stop scan:	873
Y at integration start	: 55	Y at integration end:	56

Reason for manual integration: improper integration

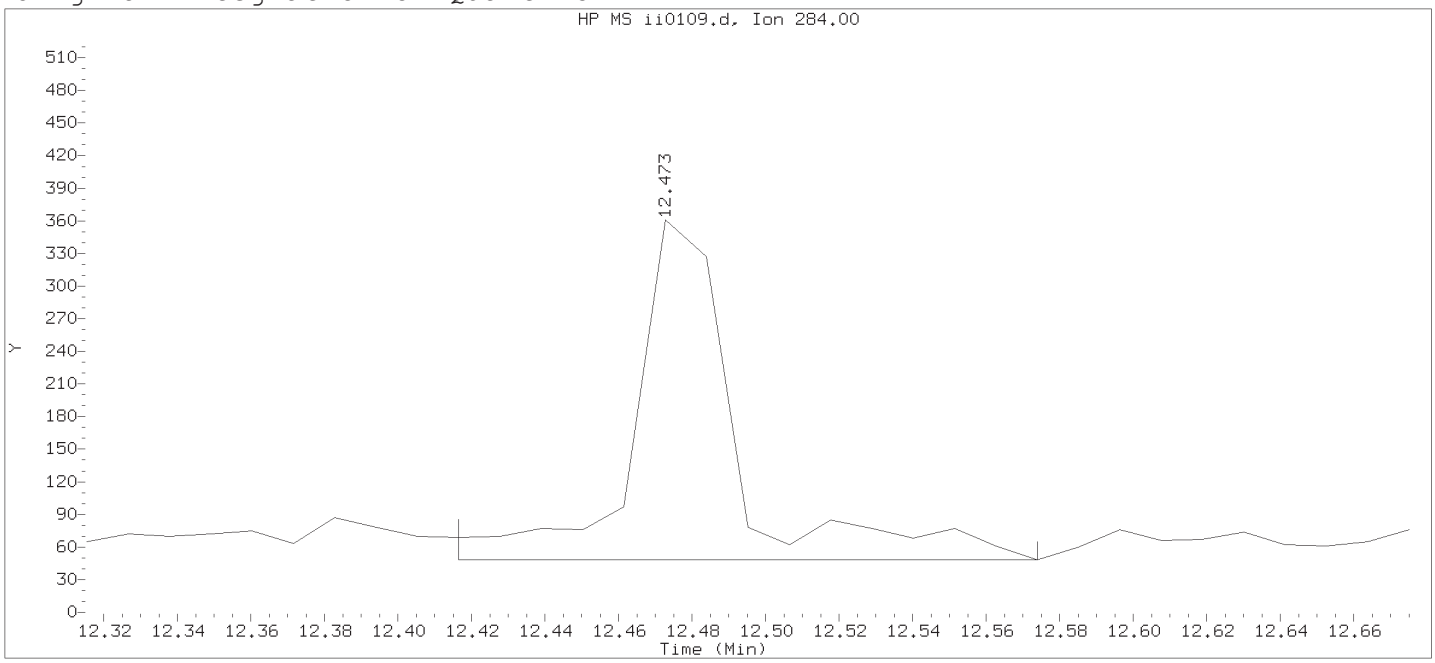
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

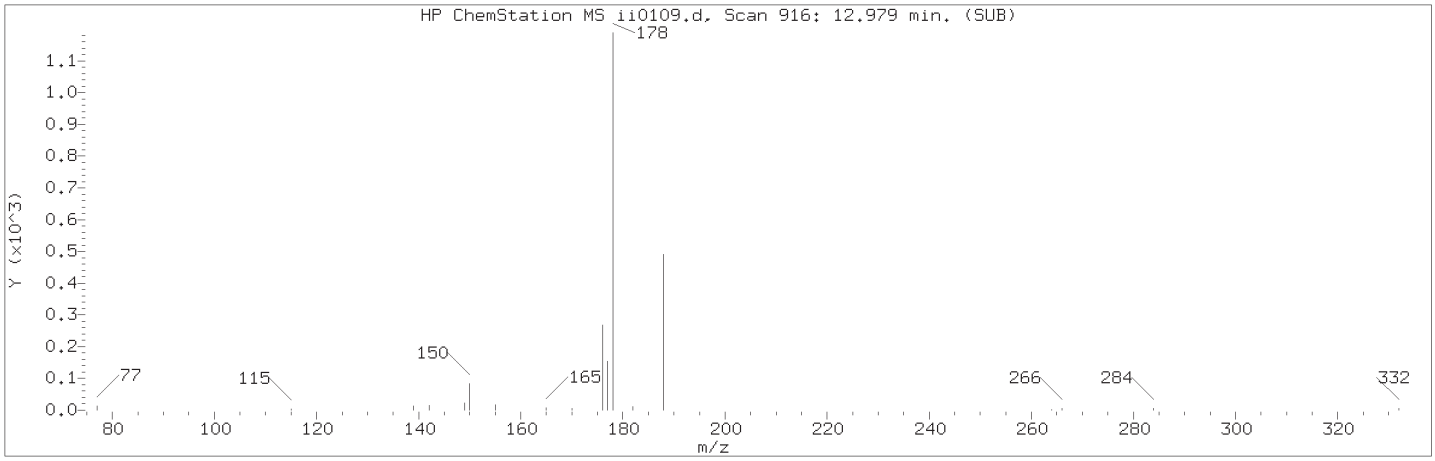
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

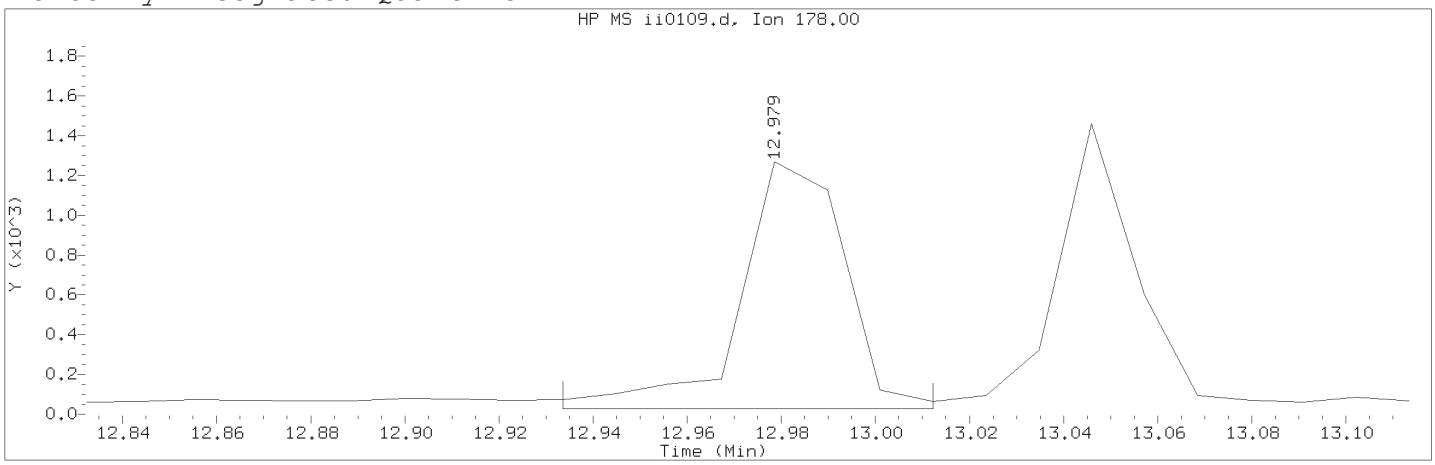
Compound Number	: 29		
Compound Name	: Hexachlorobenzene		
Scan Number	: 871		
Retention Time (minutes)	: 12.473		
Quant Ion	: 284.00		
Area	: 608		
On-column Amount (ng/ul)	: 0.0079		
Integration start scan	: 865	Integration stop scan:	879
Y at integration start	: 48	Y at integration end:	48

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used: 0.0 Page 0.0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

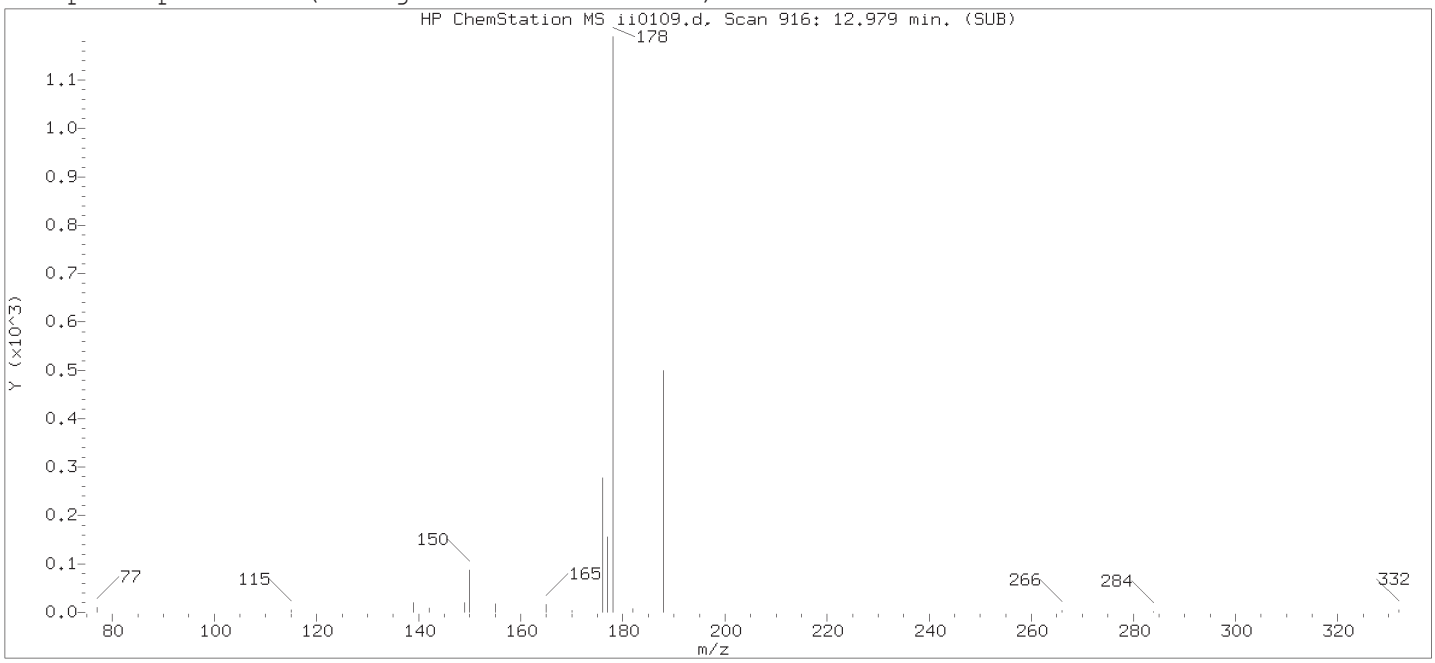
Compound Number	: 32		
Compound Name	: Phenanthrene		
Scan Number	: 916		
Retention Time (minutes)	: 12.979		
Quant Ion	: 178.00		
Area (flag)	: 1941M		
On-Column Amount (ng/ul)	: 0.0068		
Integration start scan	: 911	Integration stop scan:	918
Y at integration start	: 27	Y at integration end:	27

Reason for manual integration: improper integration

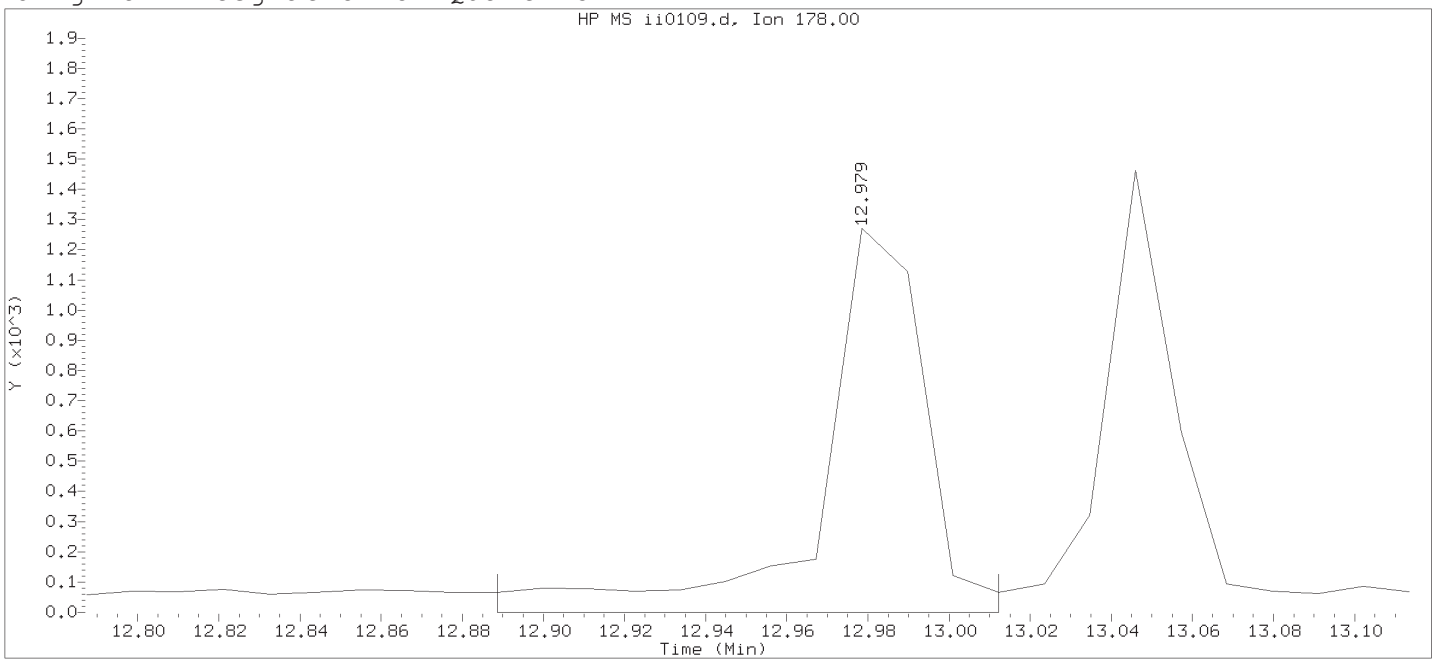
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

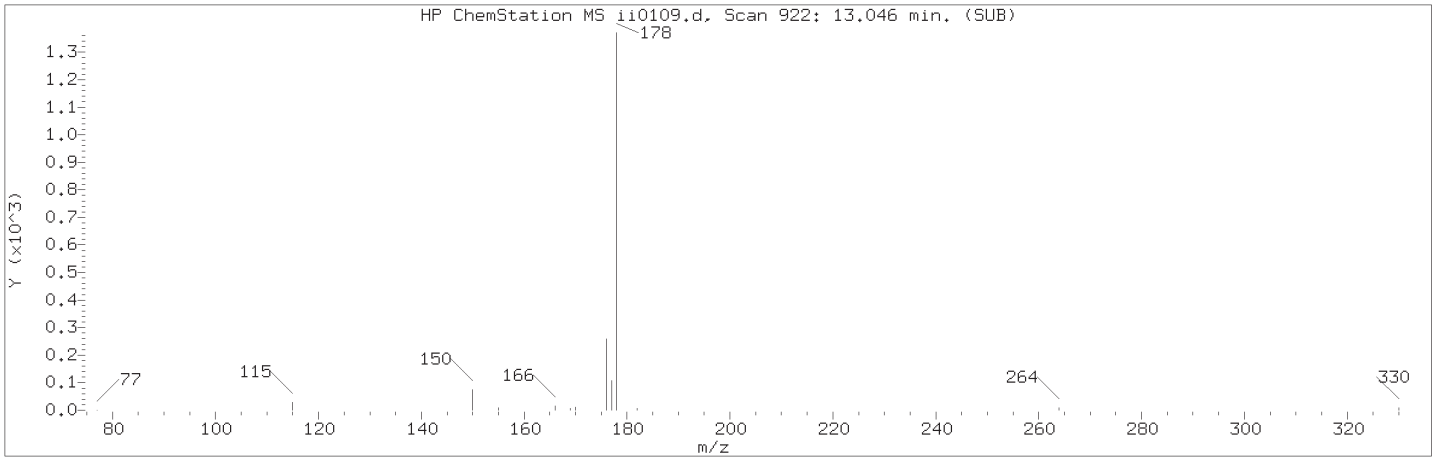
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

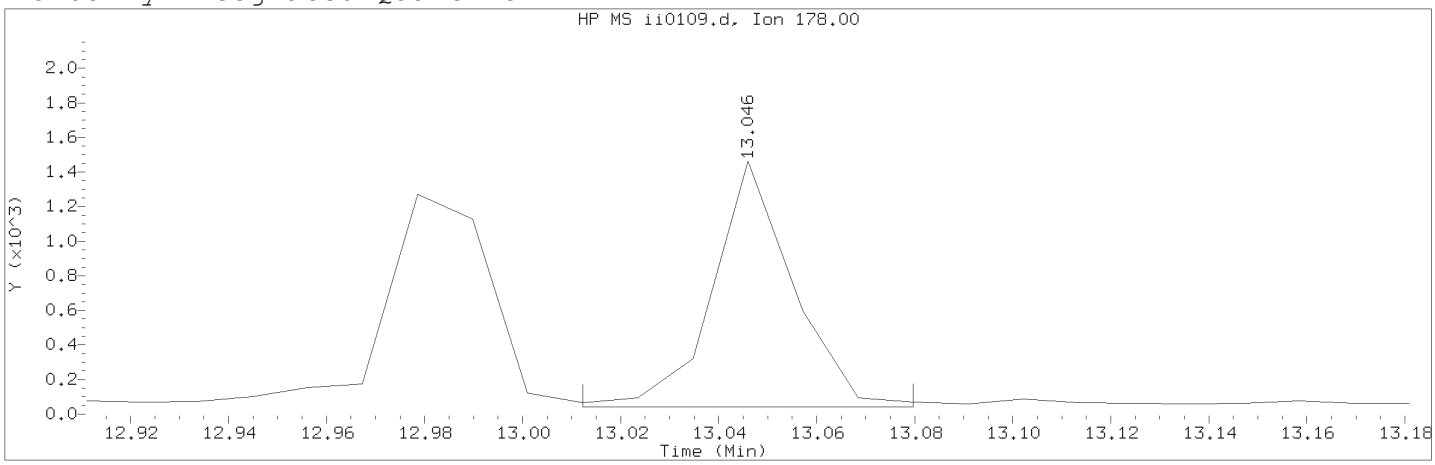
Compound Number	: 32		
Compound Name	: Phenanthrene		
Scan Number	: 916		
Retention Time (minutes)	: 12.979		
Quant Ion	: 178.00		
Area	: 2244		
On-column Amount (ng/ul)	: 0.0079		
Integration start scan	: 907	Integration stop scan:	918
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 1.1.0.23

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

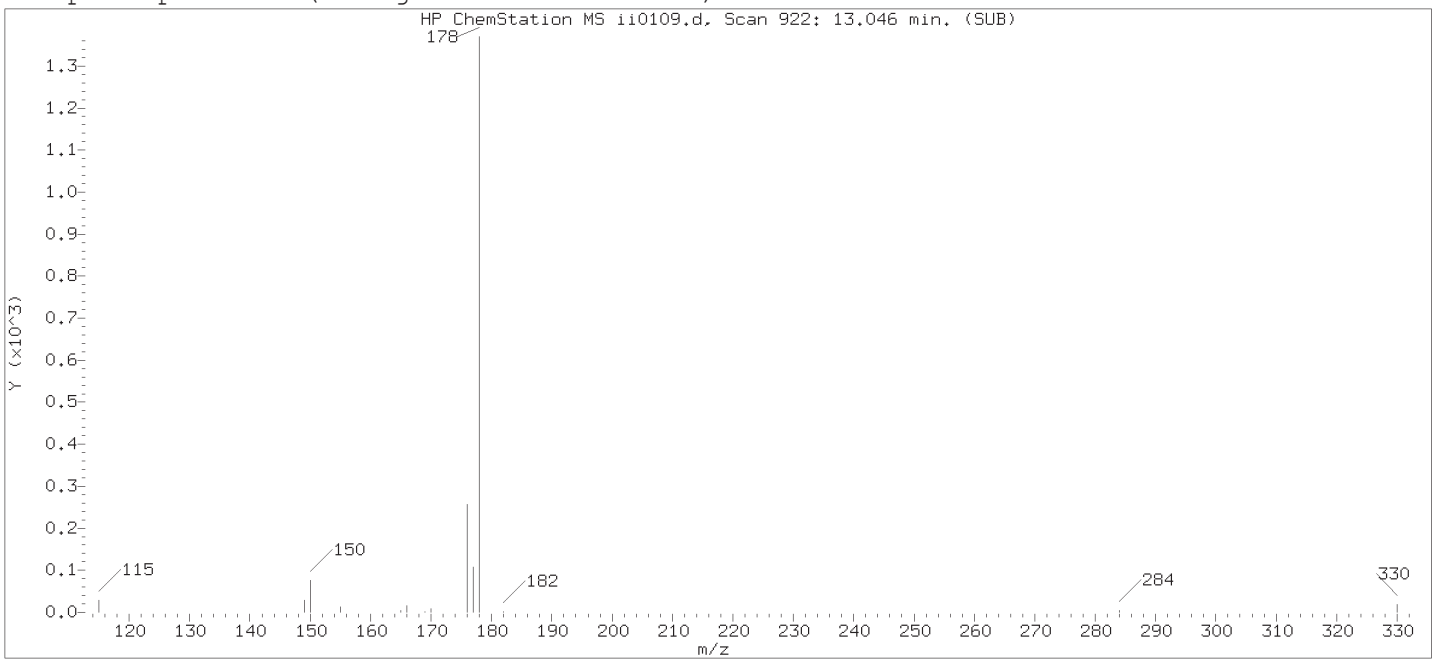
Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 922		
Retention Time (minutes)	: 13.046		
Quant Ion	: 178.00		
Area (flag)	: 1646M		
On-Column Amount (ng/ul)	: 0.0058		
Integration start scan	: 918	Integration stop scan:	924
Y at integration start	: 42	Y at integration end:	42

Reason for manual integration: improper integration

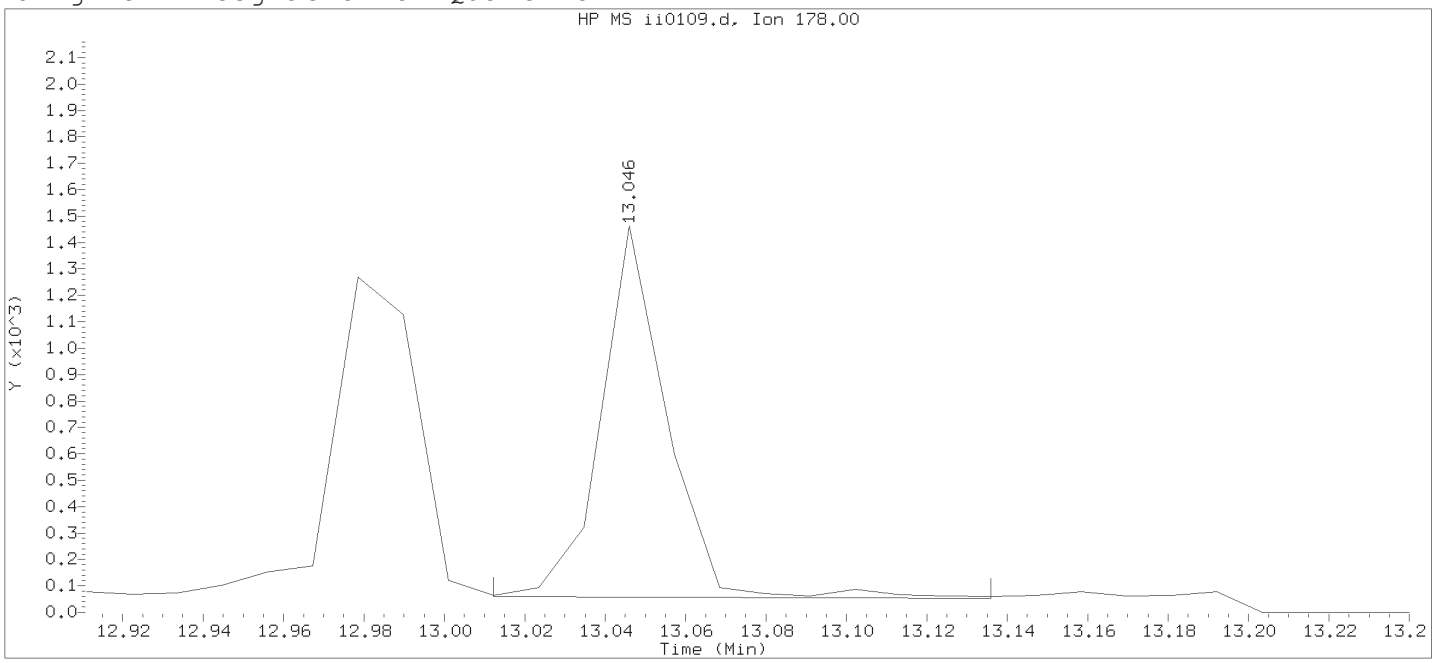
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

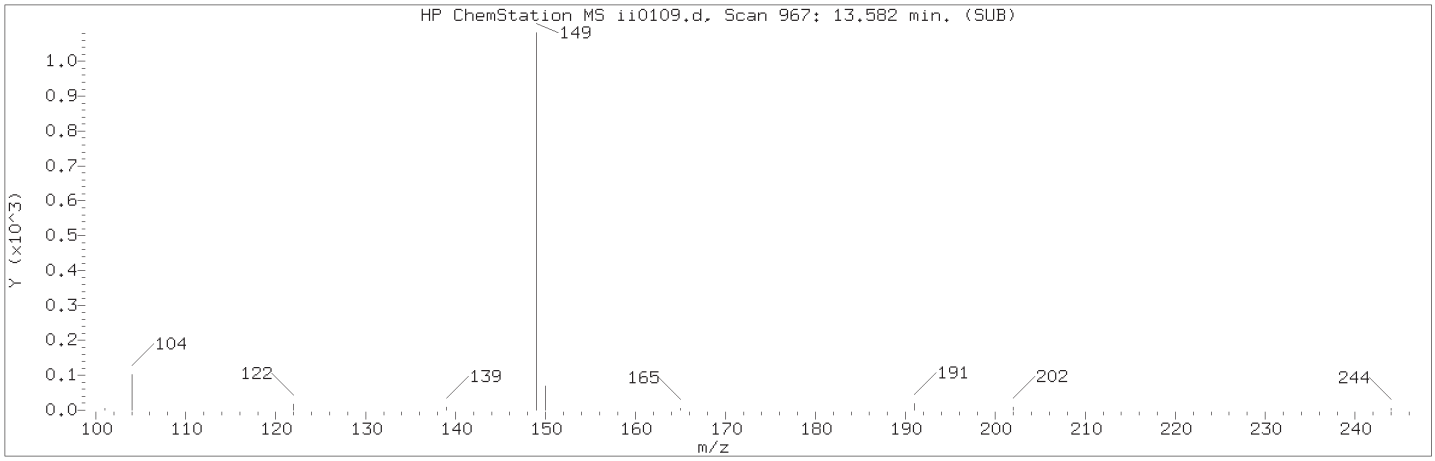
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

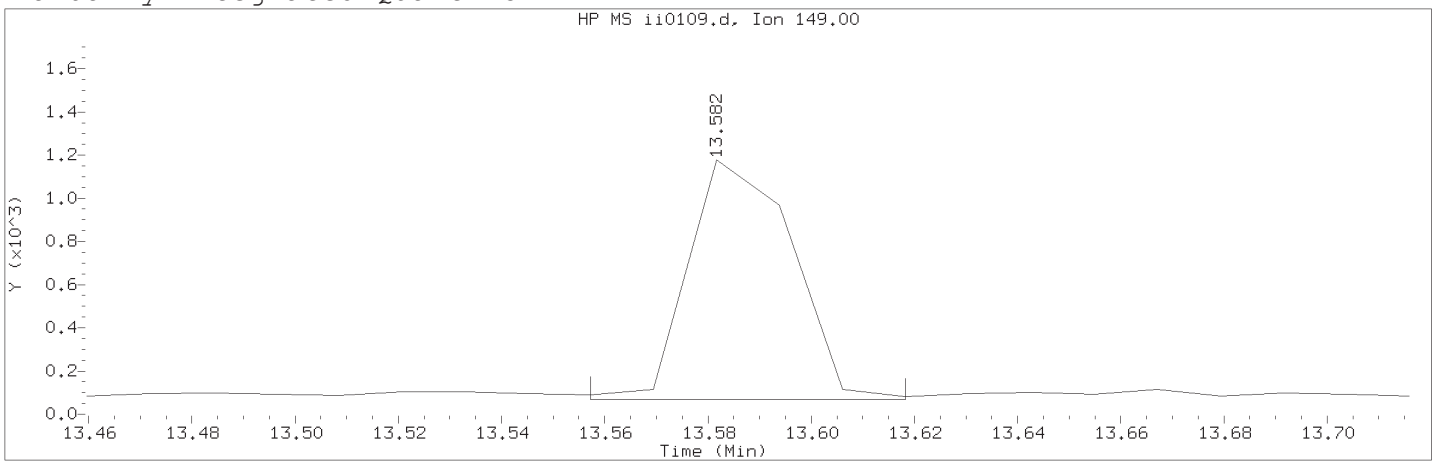
Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 922		
Retention Time (minutes)	: 13.046		
Quant Ion	: 178.00		
Area	: 1615		
On-column Amount (ng/ul)	: 0.0057		
Integration start scan	: 918	Integration stop scan:	929
Y at integration start	: 59	Y at integration end:	53

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used. TID12 Page 0325

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

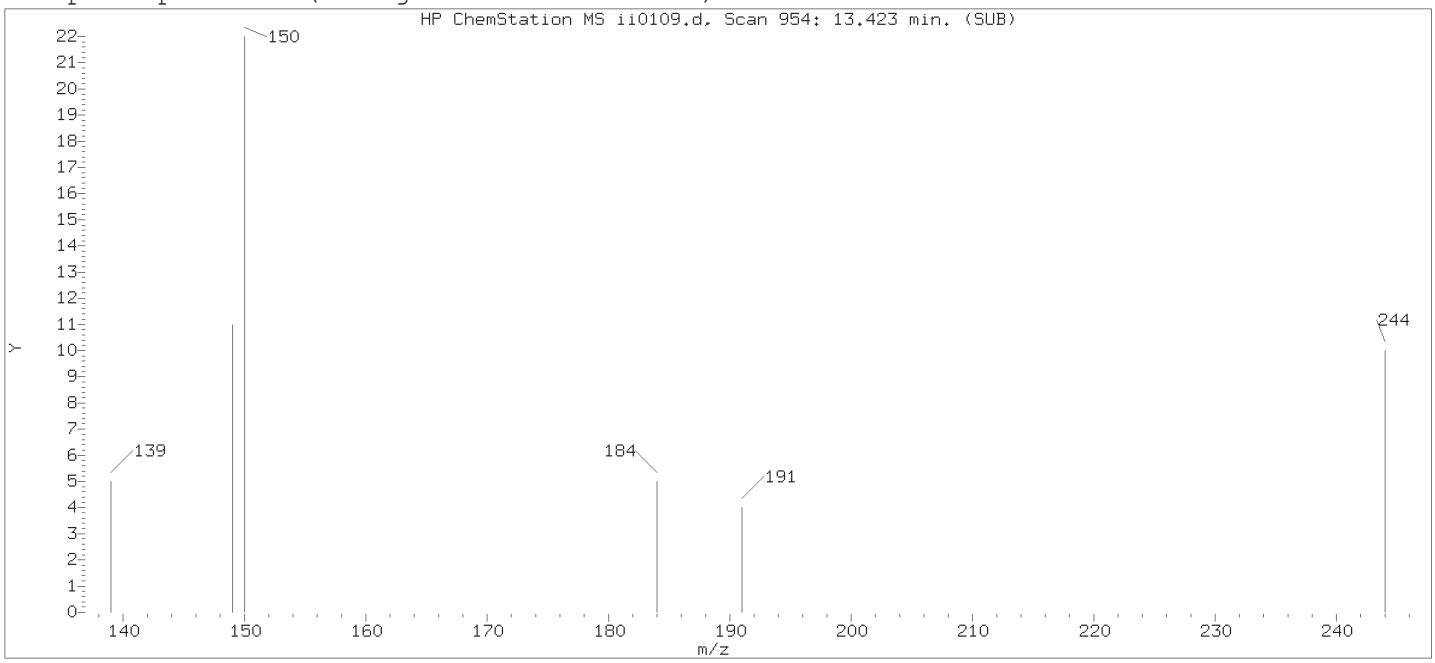
Compound Number	: 35		
Compound Name	: Di-n-butylphthalate		
Scan Number	: 967		
Retention Time (minutes)	: 13.582		
Quant Ion	: 149.00		
Area (flag)	: 1569M		
On-Column Amount (ng/ul)	: 0.0058		
Integration start scan	: 964	Integration stop scan:	969
Y at integration start	: 67	Y at integration end:	67

Reason for manual integration: improper integration

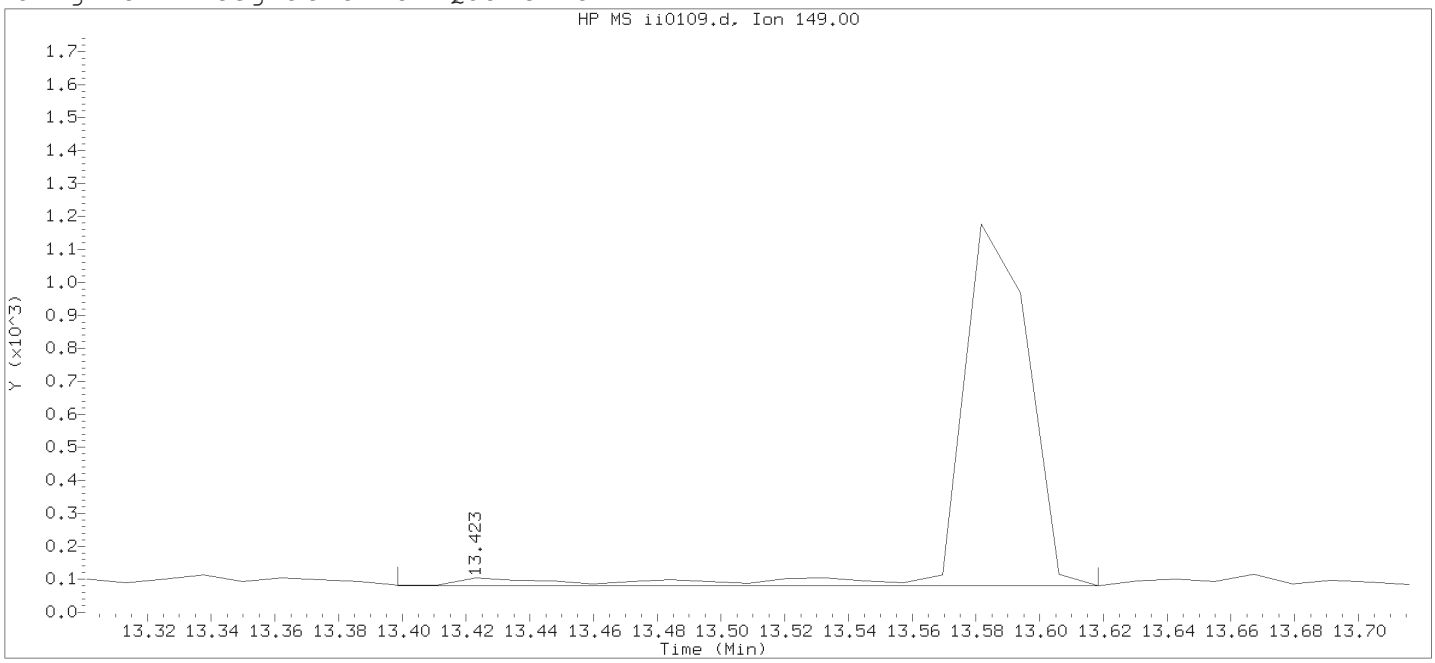
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

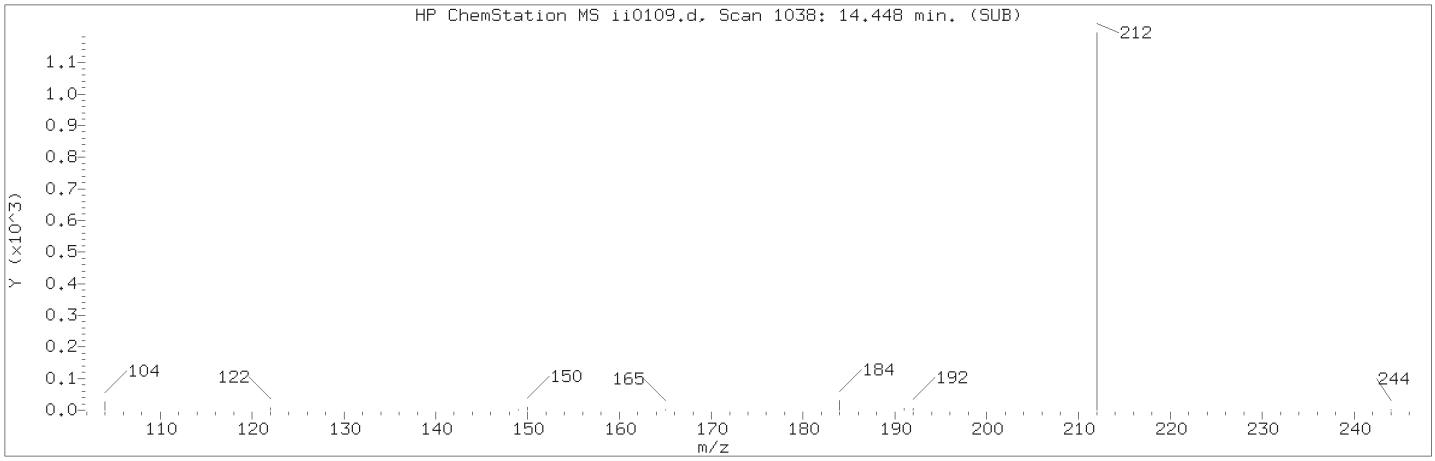
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

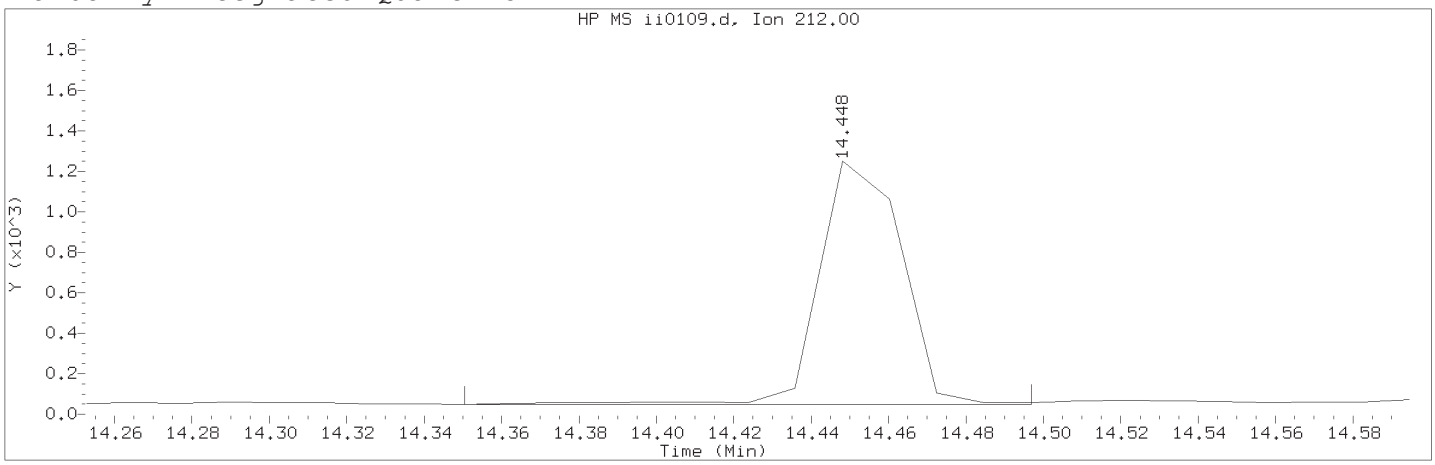
Compound Number	: 35		
Compound Name	: Di-n-butylphthalate		
Scan Number	: 954		
Retention Time (minutes)	: 13.423		
Quant Ion	: 149.00		
Area	: 1643		
On-column Amount (ng/ul)	: 0.0061		
Integration start scan	: 951	Integration stop scan:	969
Y at integration start	: 80	Y at integration end:	80

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

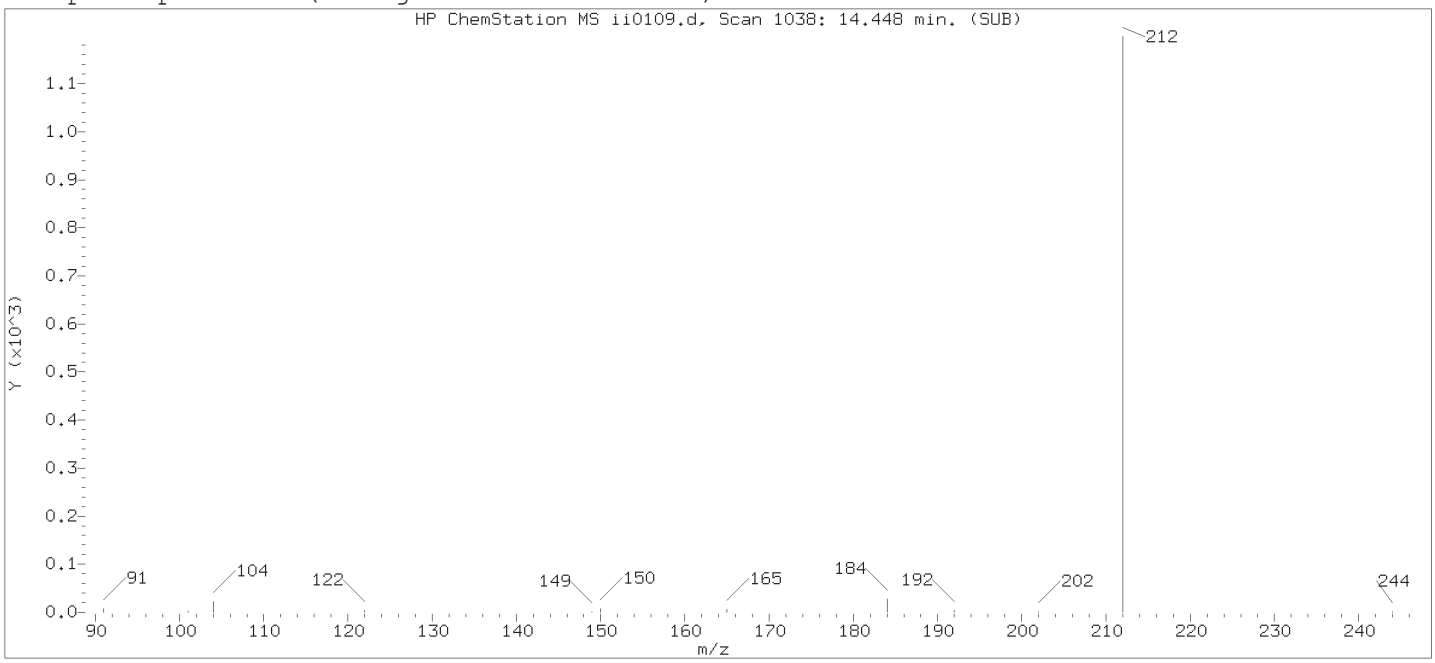
Compound Number : 36
Compound Name : Fluoranthene-d10
Scan Number : 1038
Retention Time (minutes) : 14.448
Quant Ion : 212.00
Area (flag) : 1770M
On-Column Amount (ng/ul) : 0.0054
Integration start scan : 1029 Integration stop scan: 1041
Y at integration start : 49 Y at integration end: 49

Reason for manual integration: improper integration

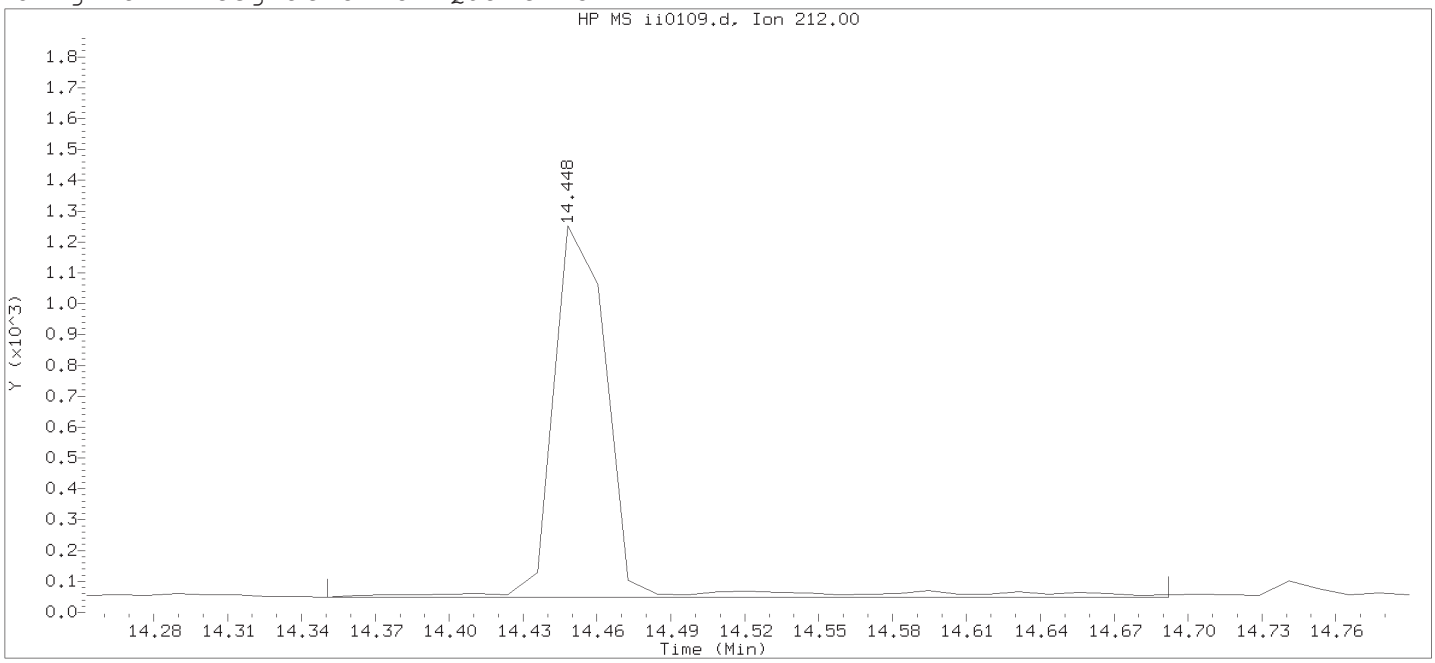
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Compound Number	: 36		
Compound Name	: Fluoranthene-d10		
Scan Number	: 1038		
Retention Time (minutes)	: 14.448		
Quant Ion	: 212.00		
Area	: 1916		
On-column Amount (ng/ul)	: 0.0059		
Integration start scan	: 1029	Integration stop scan:	1057
Y at integration start	: 49	Y at integration end:	49

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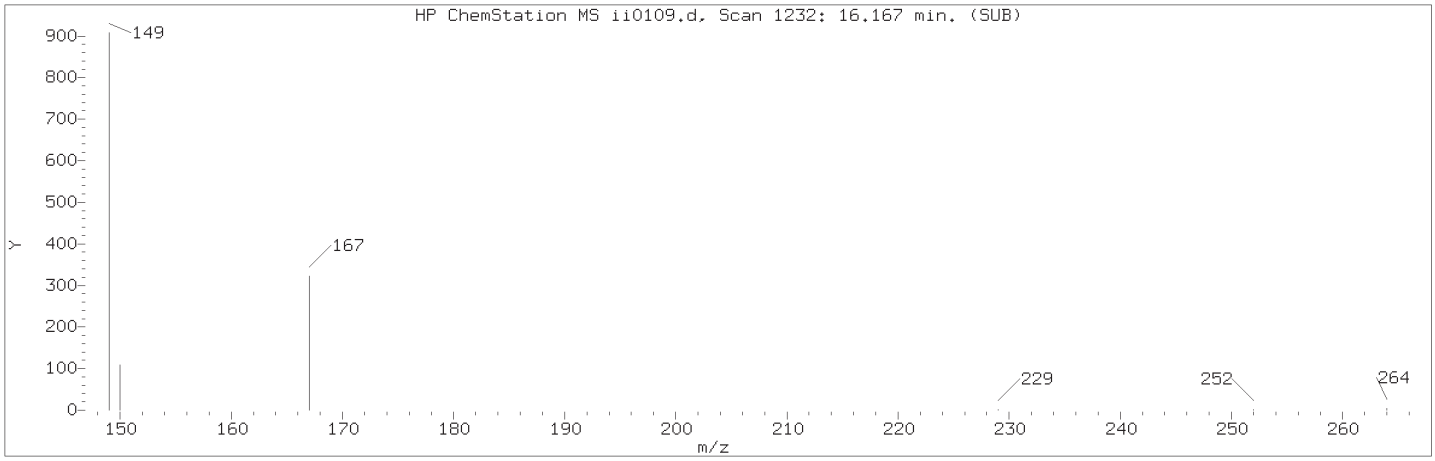
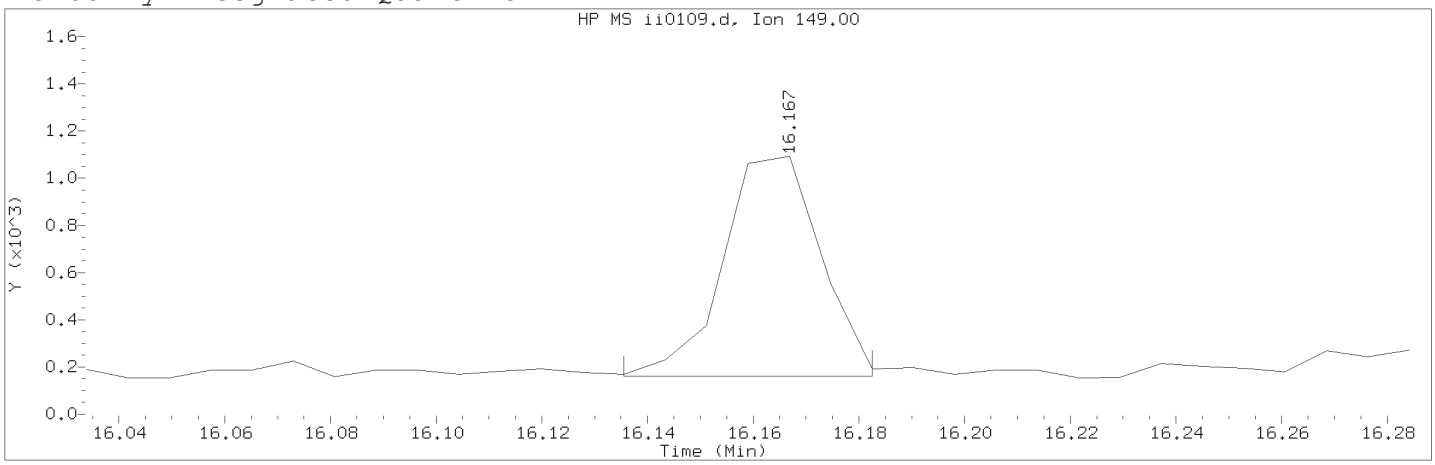
Target 3.5 esignature used 11 January 2016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

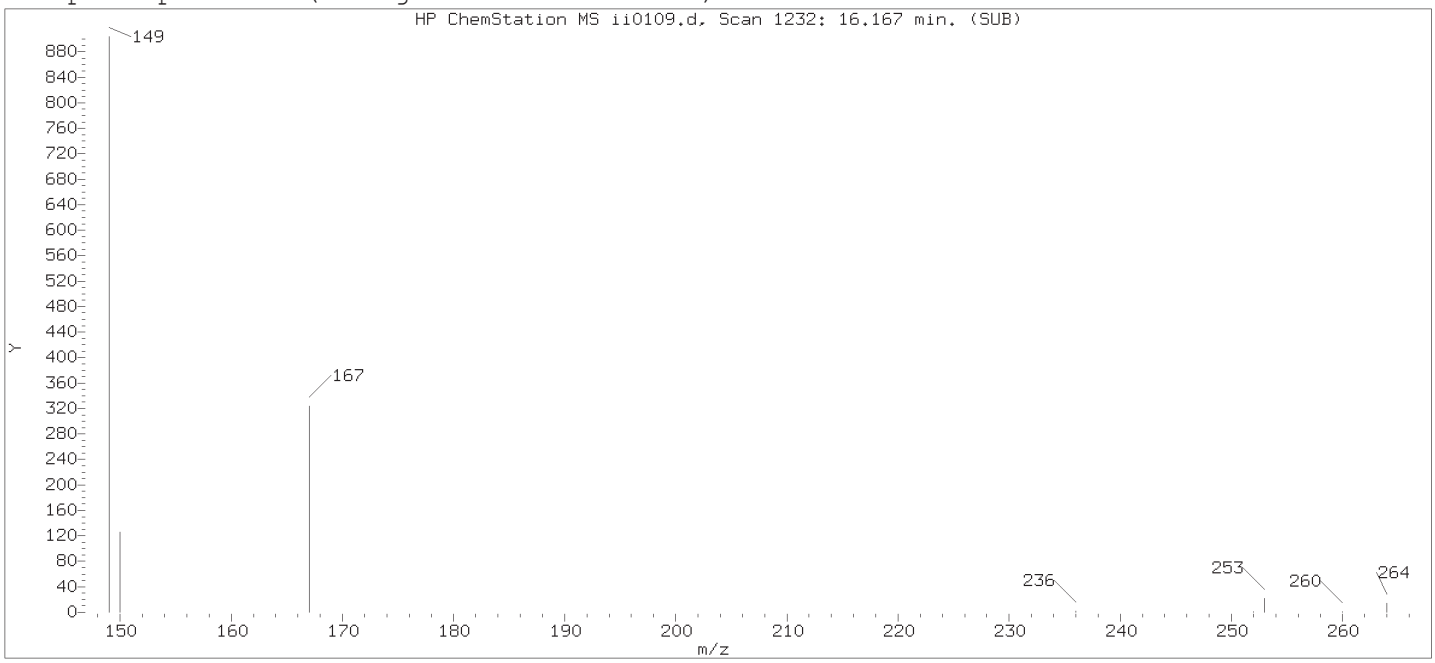
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1232
Retention Time (minutes) : 16.167
Quant Ion : 149.00
Area (flag) : 1195M
On-Column Amount (ng/ul) : 0.0074
Integration start scan : 1227 Integration stop scan: 1233
Y at integration start : 162 Y at integration end: 162

Reason for manual integration: improper integration

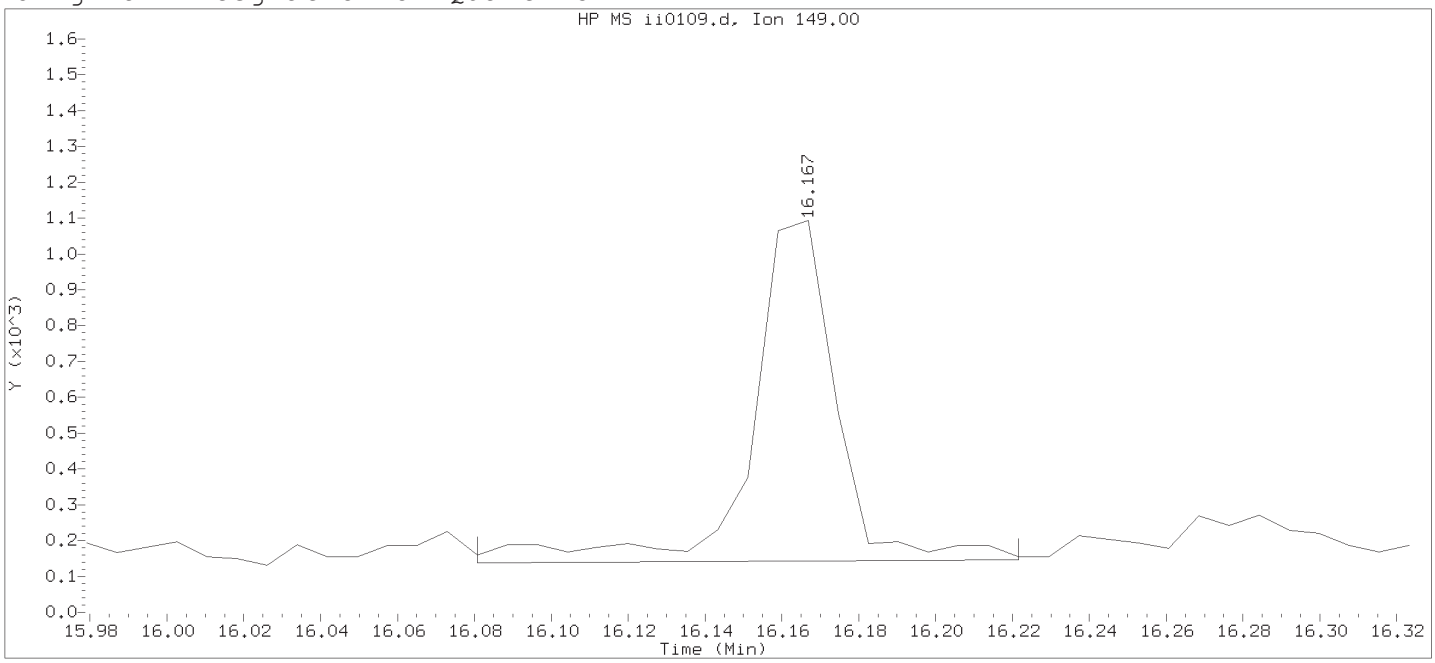
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

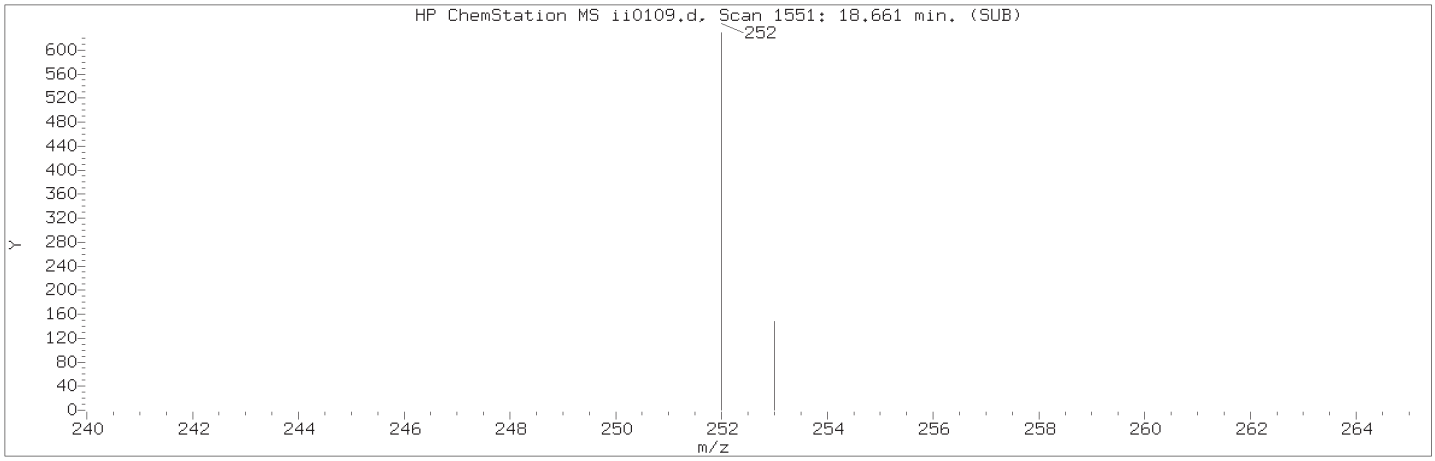
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

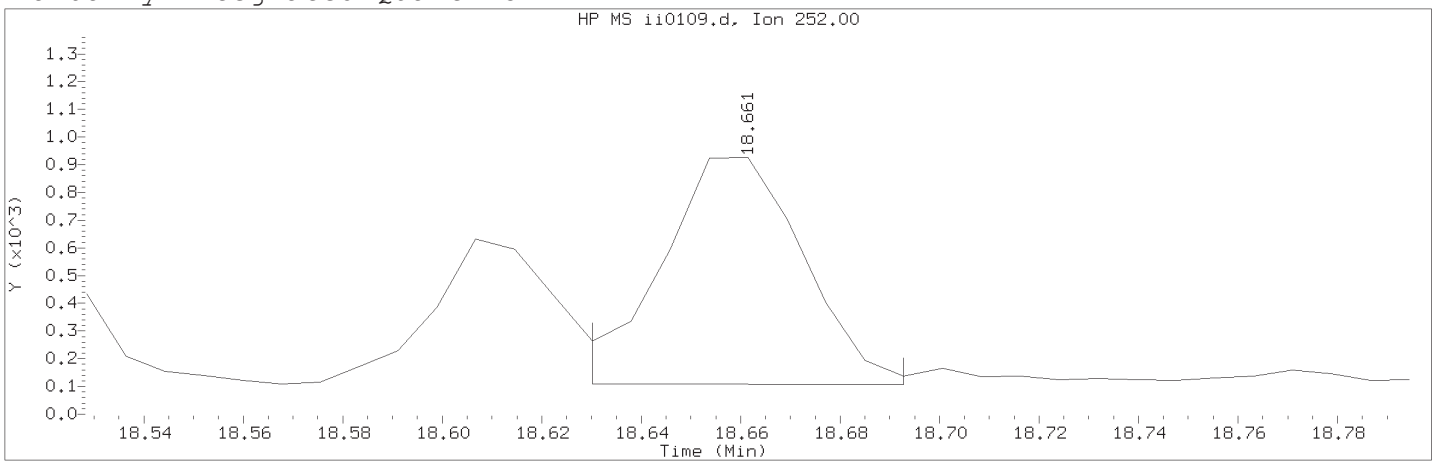
Compound Number	: 41	
Compound Name	: bis(2-Ethylhexyl)phthalate	
Scan Number	: 1232	
Retention Time (minutes)	: 16.167	
Quant Ion	: 149.00	
Area	: 1456	
On-column Amount (ng/ul)	: 0.0090	
Integration start scan	: 1220	Integration stop scan: 1238
Y at integration start	: 138	Y at integration end: 147

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

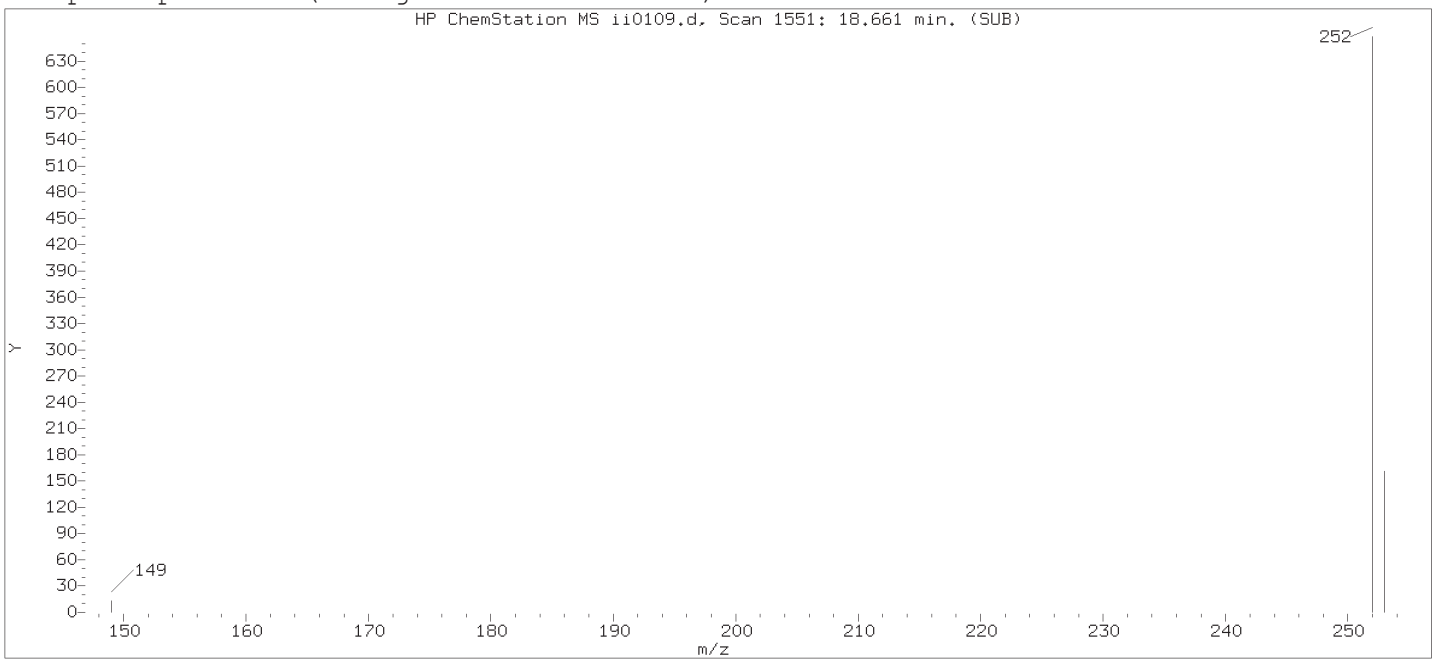
Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1551		
Retention Time (minutes)	: 18.661		
Quant Ion	: 252.00		
Area (flag)	: 1649M		
On-Column Amount (ng/ul)	: 0.0057		
Integration start scan	: 1546	Integration stop scan:	1554
Y at integration start	: 108	Y at integration end:	107

Reason for manual integration: improper integration

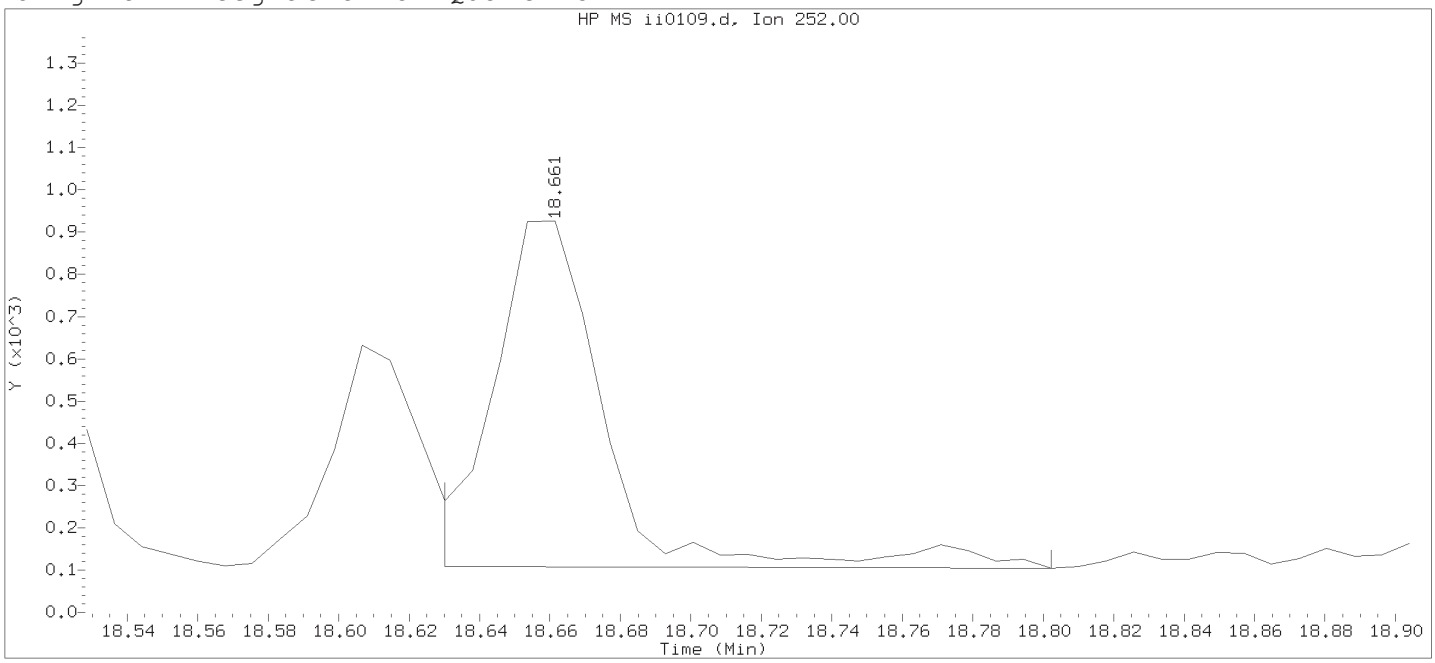
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

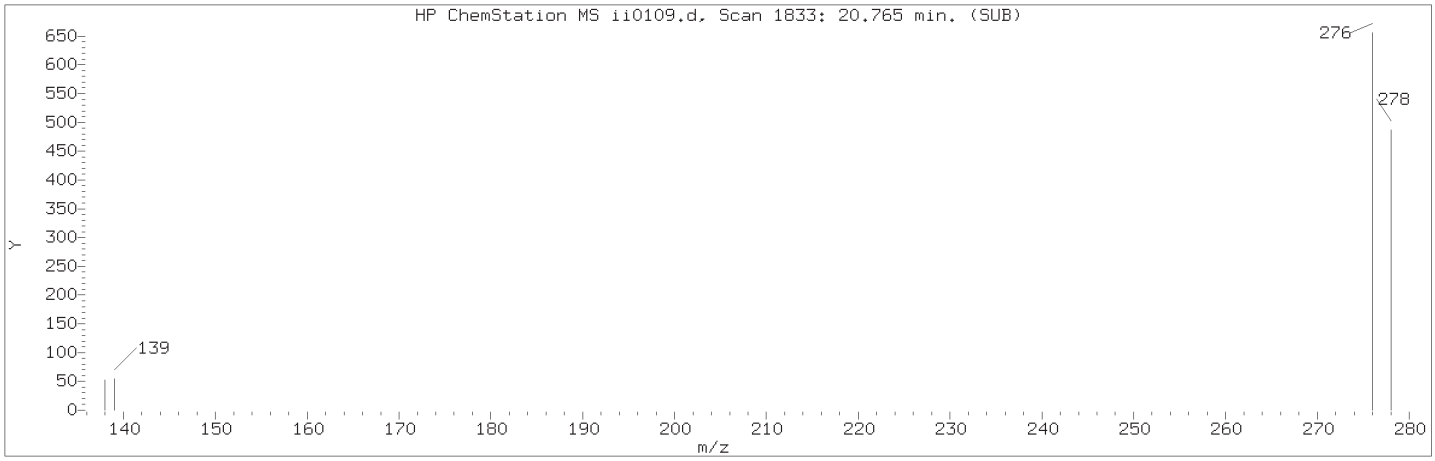
Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

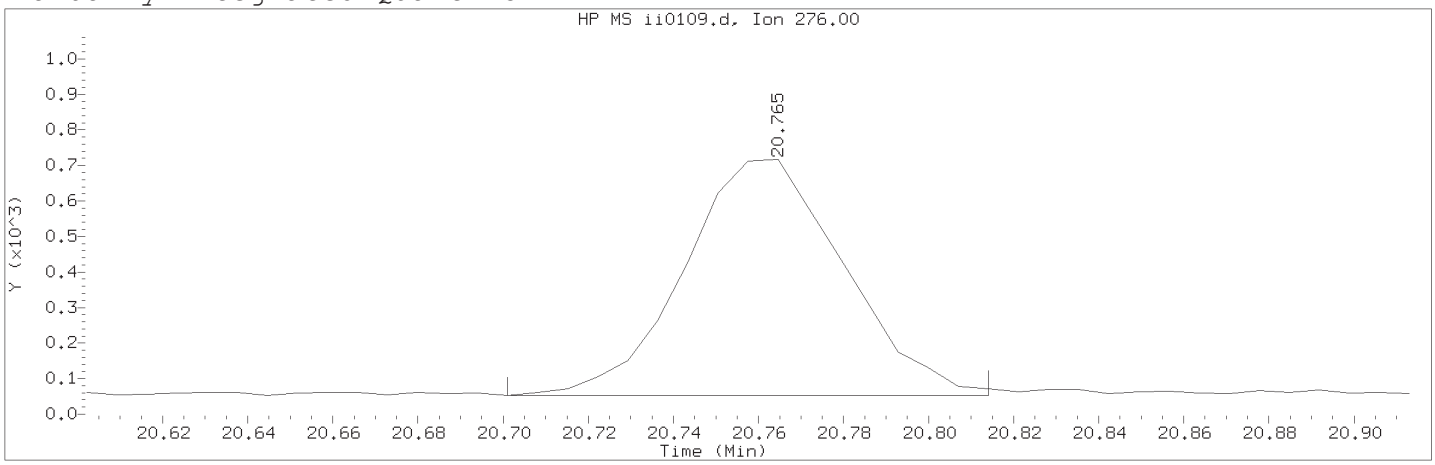
Compound Number	: 52		
Compound Name	: Perylene		
Scan Number	: 1551		
Retention Time (minutes)	: 18.661		
Quant Ion	: 252.00		
Area	: 1796		
On-column Amount (ng/ul)	: 0.0062		
Integration start scan	: 1546	Integration stop scan:	1568
Y at integration start	: 108	Y at integration end:	104

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 1D12 Page 3333 of 7494

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:25 jmg00346

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

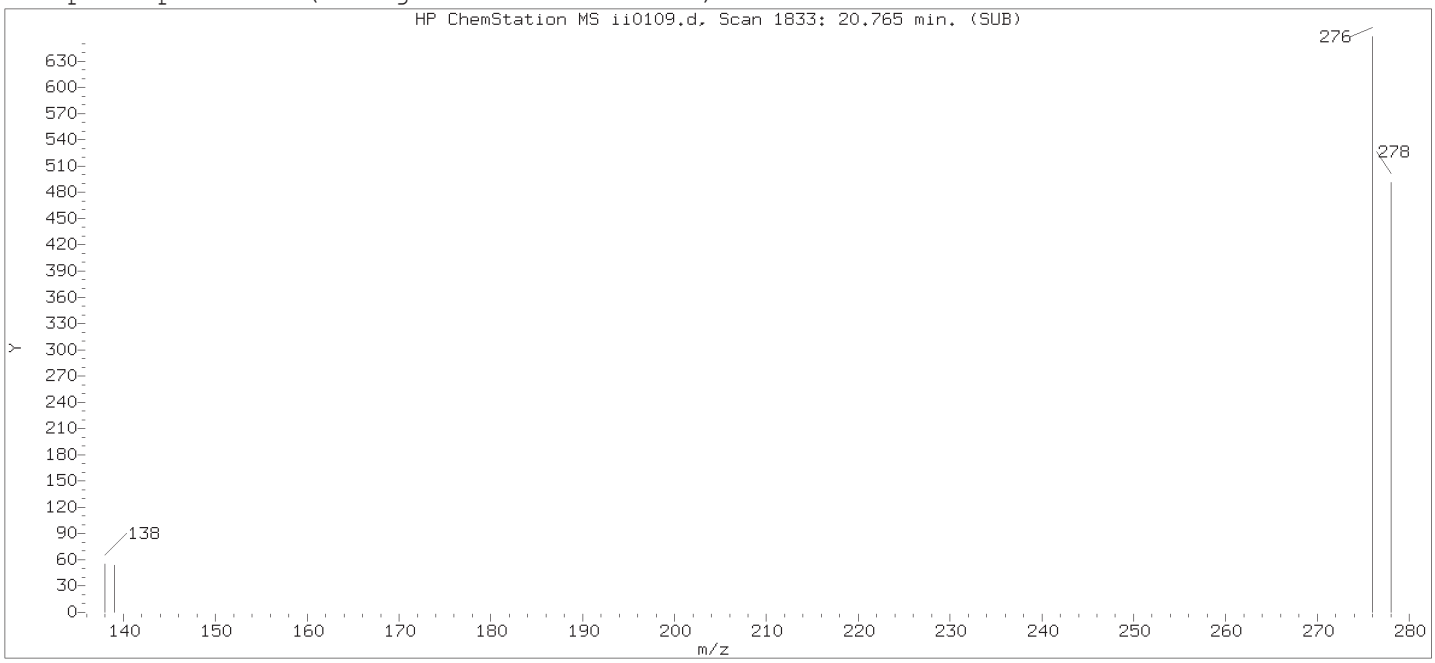
Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1833		
Retention Time (minutes)	: 20.765		
Quant Ion	: 276.00		
Area (flag)	: 1737M		
On-Column Amount (ng/ul)	: 0.0057		
Integration start scan	: 1823	Integration stop scan:	1839
Y at integration start	: 52	Y at integration end:	52

Reason for manual integration: improper integration

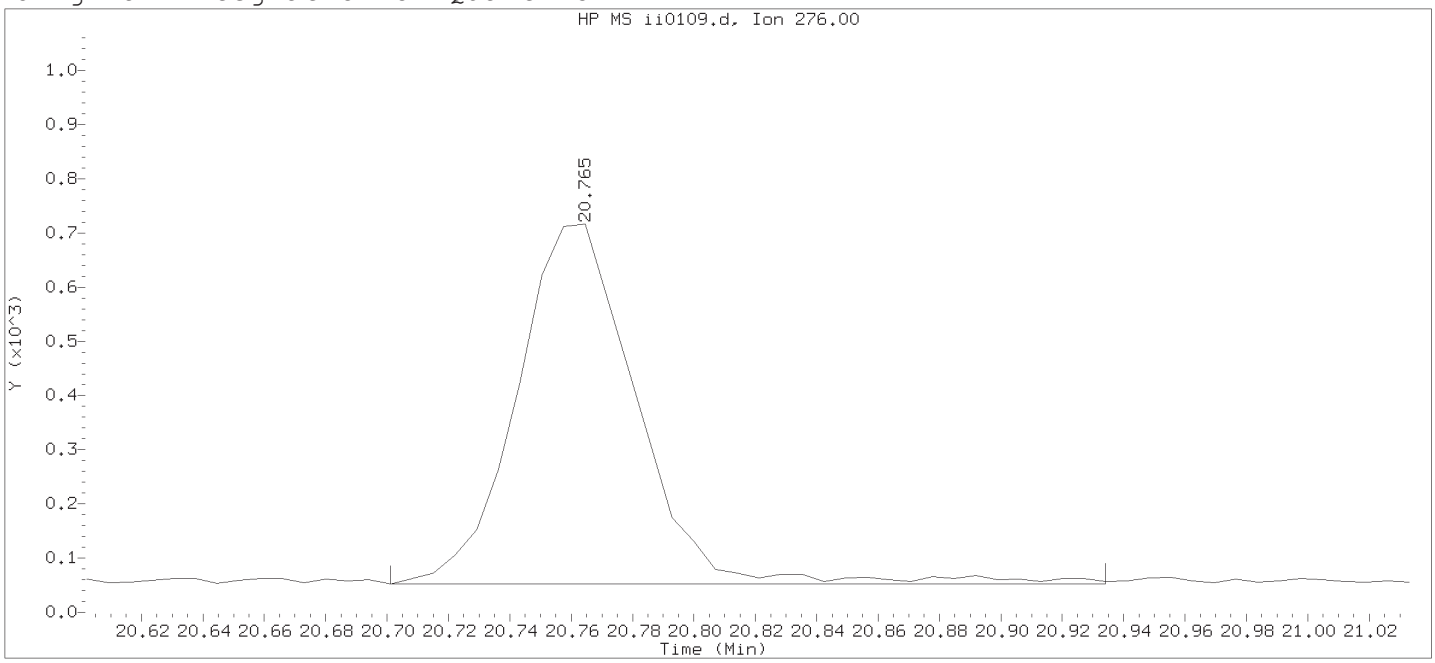
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Matthew E. Barton on 09/06/2018 at 07:44.
PARALLAX ID: reb00745

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



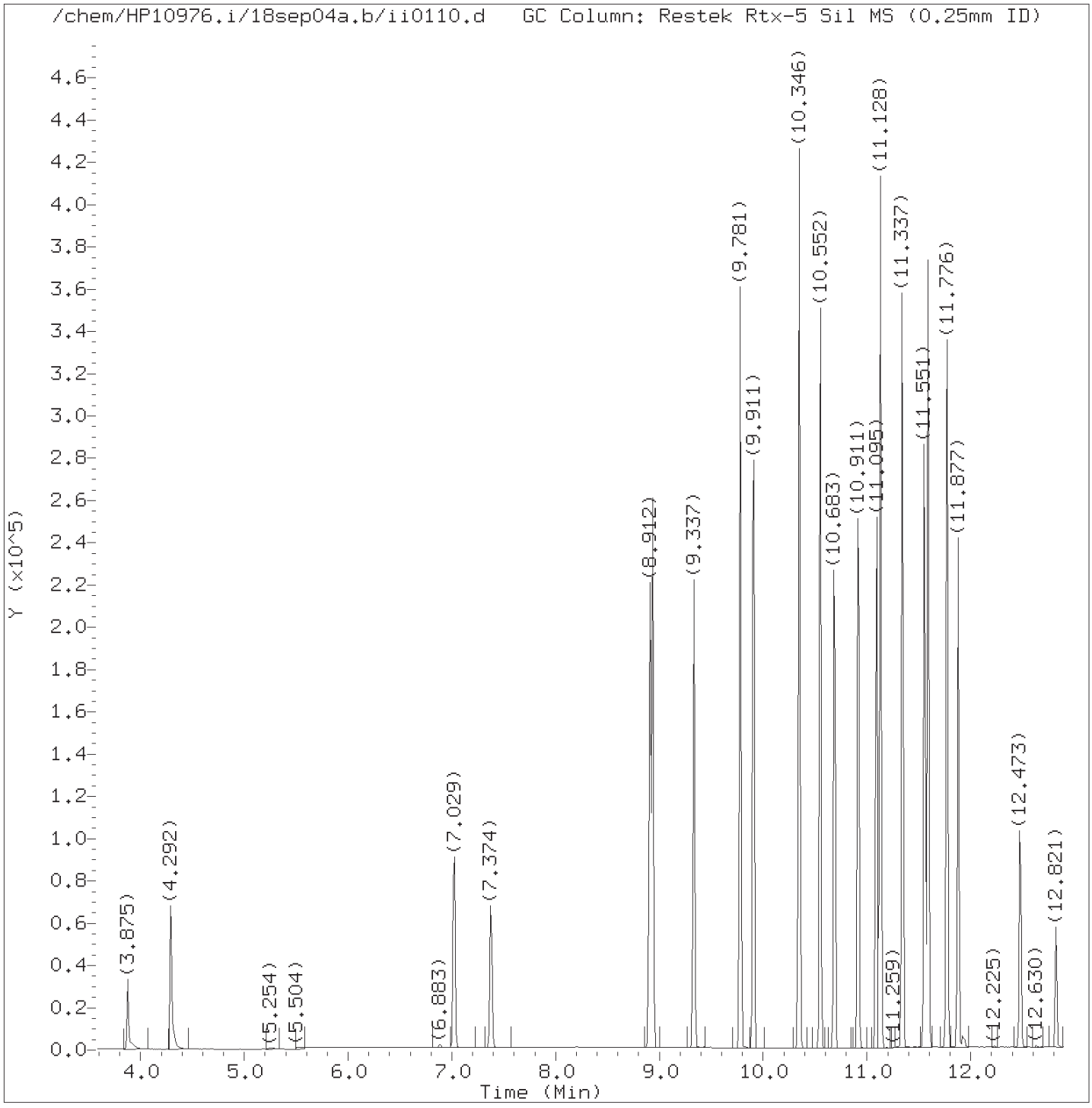
Data File: /chem/HP10976.i/18sep04a.b/ii0109.d Instrument ID: HP10976.i
Injection date and time: 04-SEP-2018 23:49 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 00:15 Automation

Sample Name: SSTD0.005 Lab Sample ID: SIM1288

Compound Number	: 53		
Compound Name	: Indeno(1,2,3-cd)pyrene		
Scan Number	: 1833		
Retention Time (minutes)	: 20.765		
Quant Ion	: 276.00		
Area	: 1810		
On-column Amount (ng/ul)	: 0.0059		
Integration start scan	: 1823	Integration stop scan:	1856
Y at integration start	: 52	Y at integration end:	52

Digitally signed by Joseph M. Gambler on 09/05/2018 at 03:58.
Target 3.5 esignature used 11 January 2018



Total Ion Chromatogram (TIC)

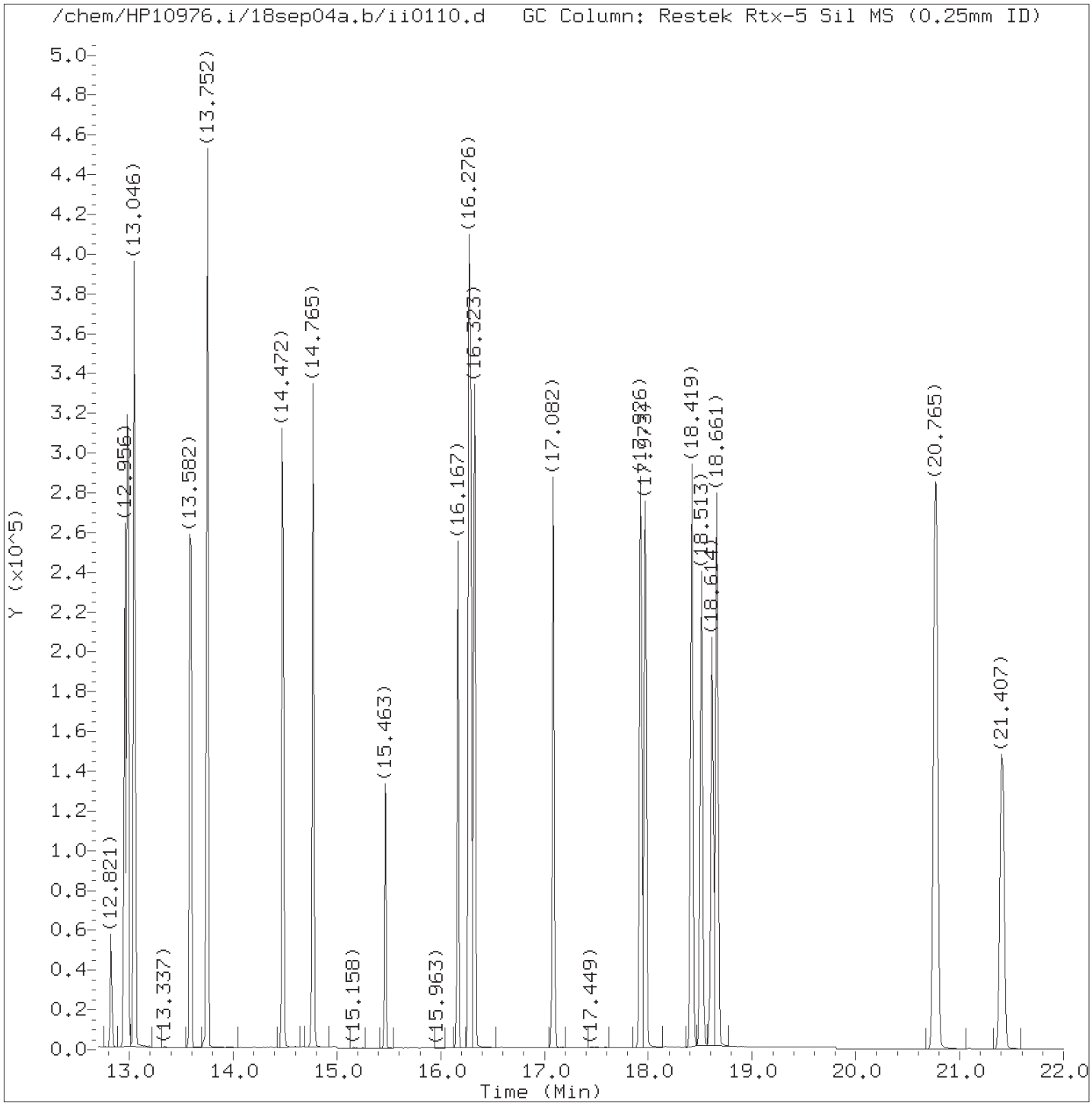
Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0110.d Instrument ID: HP10976.i
Injection date and time: 05-SEP-2018 00:19 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:28 jmg00346

Sample Name: SSTD001 Lab Sample ID: SICV1908

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0110.d Instrument ID: HP10976.i
Injection date and time: 05-SEP-2018 00:19 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:28 jmg00346

Sample Name: SSTD001 Lab Sample ID: SICV1908

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18sep04a.b/ii0110.d Instrument ID: HP10976.i
Injection date and time: 05-SEP-2018 00:19 Analyst ID: apb10206

Method used: /chem/HP10976.i/18sep04a.b/sim8270d.m Sublist used: all1
Calibration date and time: 04-SEP-2018 23:57
Date, time and analyst ID of latest file update: 05-Sep-2018 03:28 jmg00346

Sample Name: SSTD001 Lab Sample ID: SICV1908

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.875	88	34271	1.073
2) N-Nitrosodimethylamine	(1)	4.292	74	53859	1.105
5) bis(2-Chloroethyl)ether	(1)	7.029	93	82892	1.238
6)*1,4-Dichlorobenzene-d4	(1)	7.387	152	53345	1.000
10)*Naphthalene-d8	(2)	8.912	136	202211	1.000
11) Naphthalene	(2)	8.939	128	218267	1.048
12) Quinoline	(2)	9.337	129	143297	1.113
13) 2-Methylnaphthalene	(2)	9.781	142	161061	1.075
15) 1-Methylnaphthalene	(2)	9.911	142	152527	1.037
18) Dimethylphthalate	(3)	10.683	163	213133	1.157
19) Acenaphthylene	(3)	10.911	152	257537	1.076
20)*Acenaphthene-d10	(3)	11.095	164	124922	1.000
21) Acenaphthene	(3)	11.128	154	161228	1.025
22) Dibenzofuran	(3)	11.337	168	263206	1.080
23) Diethylphthalate	(3)	11.551	149	204025	1.135
26) Fluorene	(3)	11.776	166	210744	1.088
28) NDPA as diphenylamine	(4)	11.877	169	120583	1.027
27) N-Nitrosodiphenylamine	(4)	11.877	169	120583	1.027
29) Hexachlorobenzene	(4)	12.484	284	98579	1.193
31)*Phenanthrene-d10	(4)	12.956	188	281922	1.000
32) Phenanthrene	(4)	12.990	178	319382	1.049
33) Anthracene	(4)	13.046	178	323696	1.061
35) Di-n-butylphthalate	(4)	13.594	149	324426	1.113
37) Fluoranthene	(4)	14.472	202	396995	1.047
39) Pyrene	(5)	14.765	202	406254	1.040
40) Butylbenzylphthalate	(5)	15.463	149	132819	1.075
41) bis(2-Ethylhexyl)phthalate	(5)	16.167	149	196816	1.060
42) Benzo(a)anthracene	(5)	16.276	228	377008	1.038
43)*Chrysene-d12	(5)	16.292	240	282330	1.000
44) Chrysene	(5)	16.323	228	347595	1.002
45) Di-n-octylphthalate	(6)	17.082	149	336052	1.069
46) Benzo(b)fluoranthene	(6)	17.926	252	370830	1.037
47) Benzo(k)fluoranthene	(6)	17.973	252	358541	1.070
48) Benzo(e)pyrene	(6)	18.419	252	402759	1.151
50) Benzo(a)pyrene	(6)	18.513	252	332151	1.084
51)*Perylene-d12	(6)	18.614	264	287393	1.000
52) Perylene	(6)	18.661	252	392101	1.149
53) Indeno(1,2,3-cd)pyrene	(6)	20.765	276	394573	1.092
54) Dibenz(a,h)anthracene	(6)	20.772	278	312958	1.061
55) Benzo(g,h,i)perylene	(6)	21.407	276	358963	1.130

* = Compound is an internal standard.

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: jmg00346

* = Compound is an internal standard.

Digitally signed by Joseph M. Gambler
on 09/05/2018 at 03:58.
Target 3.5 esignature user ID: img00346

Data File: /chem/HP10976.i/18nov07.b/ik0300.d

Date : 07-NOV-2018 17:14

Client ID: DFTPP

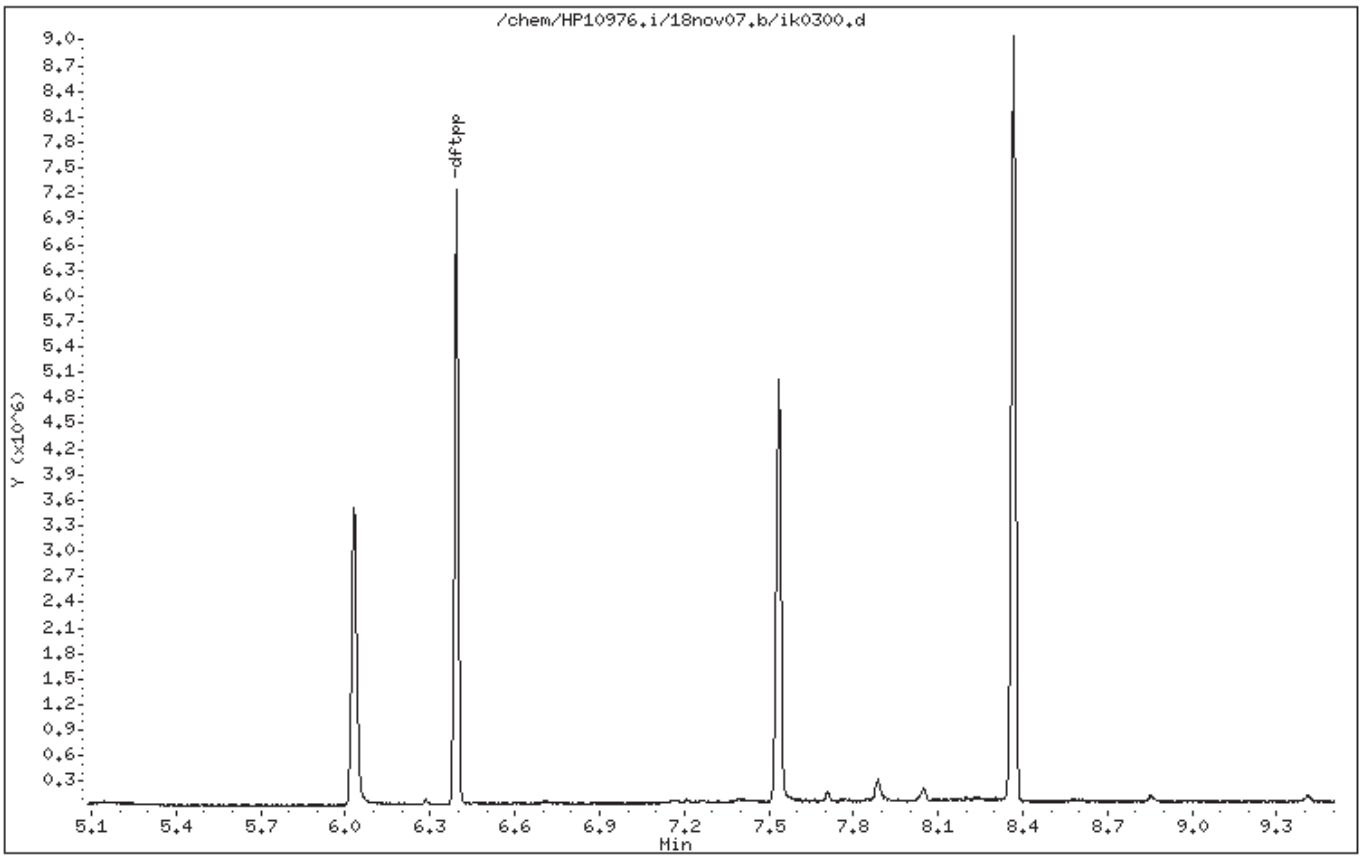
Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Data File: /chem/HP10976.i/18nov07.b/ik0300.d

Date : 07-NOV-2018 17:14

Client ID: DFTPP

Instrument: HP10976.i

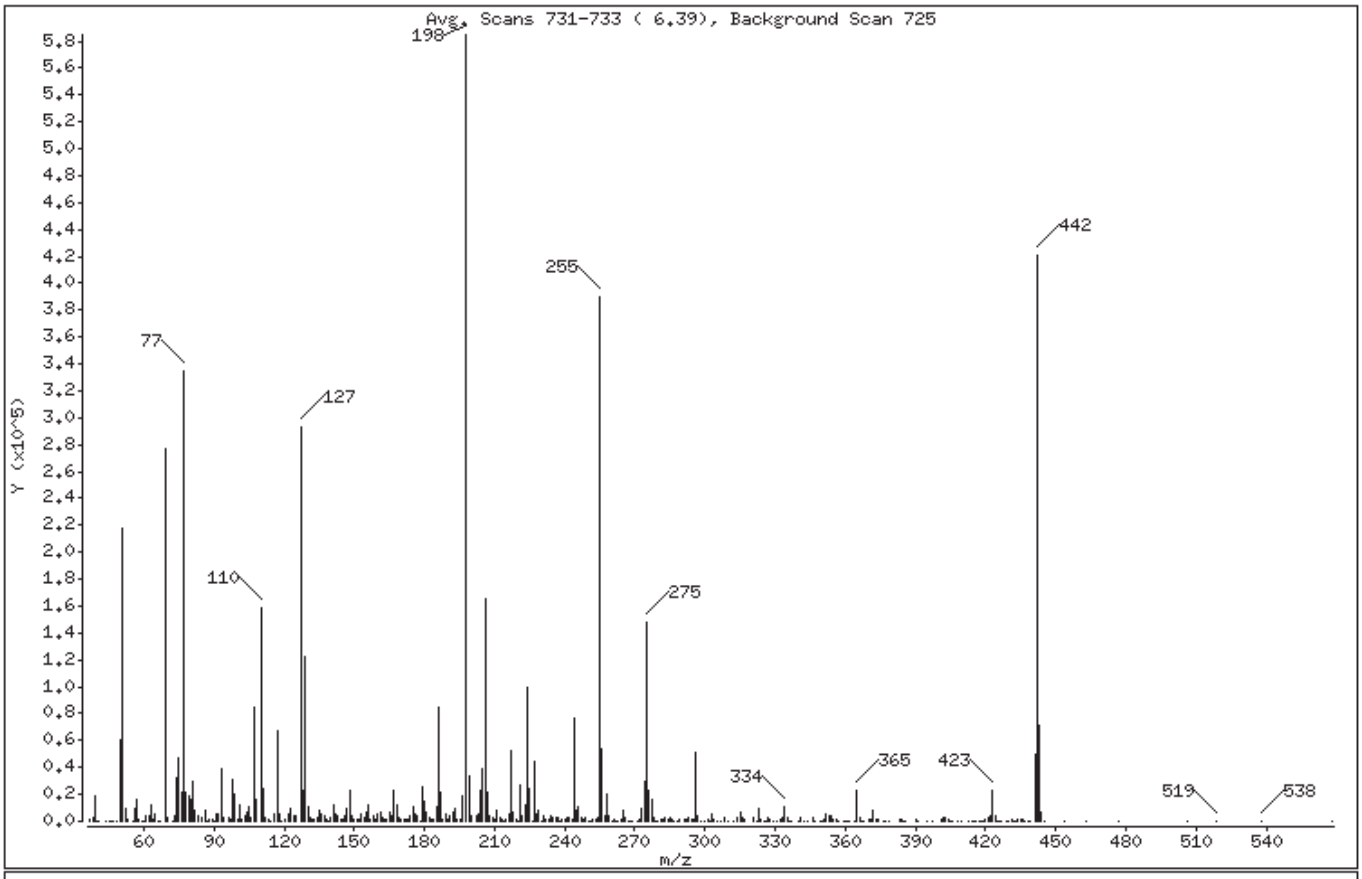
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	37.31
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	47.41
70	Less than 2.00% of mass 69	0.35 (0.74)
127	10.00 - 80.00% of mass 198	50.12
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	5.73
275	10.00 - 60.00% of mass 198	25.36
365	Greater than 1.00% of mass 198	3.90
441	0.01 - 24.00% of mass 442	8.58 (11.91)
442	50.00 - 99.99% of mass 198	72.03
443	15.00 - 24.00% of mass 442	12.29 (17.07)

Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Date : 07-NOV-2018 17:14

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ik0300.d
Spectrum: Avg. Scans 731-733 (6.39), Background Scan 725
Location of Maximum: 198.00
Number of points: 362

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	997	140.00	2709	233.00	692	335.00	2675
38.00	3102	141.00	11965	234.00	4420	336.00	563
39.00	18968	142.00	5289	235.00	2768	337.00	74
40.00	615	143.00	4357	236.00	2206	340.00	83
41.00	248	144.00	765	237.00	2200	341.00	2893
44.00	115	145.00	988	238.00	437	342.00	581
45.00	68	146.00	3974	239.00	1209	344.00	208
46.00	129	147.00	9414	240.00	1386	346.00	2155
47.00	227	148.00	22336	241.00	2744	347.00	267
48.00	127	149.00	4512	242.00	3211	349.00	365
50.00	60400	150.00	1848	243.00	1839	350.00	65
51.00	218176	151.00	1930	244.00	77216	351.00	902
52.00	9132	152.00	1350	245.00	8273	352.00	5211
53.00	751	153.00	5334	246.00	11092	353.00	3388
55.00	91	154.00	2514	247.00	2941	354.00	3373
56.00	9227	155.00	7220	248.00	1633	355.00	1240
57.00	15635	156.00	11569	249.00	2451	356.00	1053
58.00	1476	157.00	2008	250.00	258	357.00	283
59.00	312	158.00	3851	251.00	459	359.00	258
60.00	365	159.00	1688	252.00	1150	360.00	550
61.00	3784	160.00	4977	253.00	996	361.00	104
62.00	4009	161.00	6451	254.00	2299	362.00	329
63.00	11491	162.00	2380	255.00	390400	364.00	176
64.00	712	163.00	1142	256.00	53152	365.00	22824
65.00	5979	164.00	1035	257.00	3600	366.00	2407
66.00	34	165.00	7367	258.00	20312	367.00	616
67.00	538	166.00	4100	259.00	3948	368.00	395
69.00	277248	167.00	22368	260.00	519	370.00	942
70.00	2040	168.00	11967	261.00	1115	371.00	718
72.00	423	169.00	2964	262.00	83	372.00	7690
73.00	4161	170.00	1188	263.00	175	373.00	1046
74.00	32624	171.00	1708	264.00	1381	374.00	729
75.00	47616	172.00	1184	265.00	8501	376.00	150
76.00	21928	173.00	1148	266.00	2048	377.00	91
77.00	334144	174.00	4029	267.00	459	379.00	115

Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Date : 07-NOV-2018 17:14

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

Data File: ik0300.d
Spectrum: Avg. Scans 731-733 (6.39), Background Scan 725
Location of Maximum: 198.00
Number of points: 362

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	21584	175.00	10330	268.00	496	383.00	1244
79.00	18672	176.00	5486	269.00	180	384.00	873
80.00	15688	177.00	4536	271.00	570	385.00	54
81.00	29320	178.00	536	272.00	827	386.00	106
82.00	7619	179.00	25632	273.00	8962	390.00	1268
83.00	3862	180.00	14385	274.00	29296	391.00	537
85.00	2991	181.00	7369	275.00	148288	395.00	155
86.00	7992	182.00	2293	276.00	22632	397.00	268
87.00	346	183.00	1654	277.00	16608	401.00	1124
88.00	936	184.00	1820	278.00	2750	402.00	3307
89.00	687	185.00	11185	279.00	614	403.00	2973
90.00	242	186.00	84176	280.00	358	404.00	1558
91.00	5687	187.00	21688	281.00	1024	405.00	115
92.00	5117	188.00	2013	282.00	765	406.00	101
93.00	39624	189.00	5099	283.00	2103	408.00	69
94.00	2077	190.00	1674	284.00	961	410.00	161
96.00	2729	191.00	3579	285.00	2474	413.00	149
97.00	1316	192.00	6088	286.00	986	414.00	75
98.00	30784	193.00	9187	287.00	103	415.00	164
99.00	19544	194.00	1434	288.00	377	416.00	558
100.00	1789	195.00	1963	289.00	1257	417.00	593
101.00	12508	196.00	19464	291.00	694	418.00	325
102.00	917	198.00	584832	292.00	1088	419.00	419
103.00	3404	199.00	33520	293.00	2083	420.00	725
104.00	6414	200.00	4181	294.00	1793	421.00	3140
105.00	10127	202.00	4209	295.00	710	422.00	3744
106.00	2153	203.00	4894	296.00	51024	423.00	22792
107.00	84272	204.00	22800	297.00	4562	424.00	4450
108.00	16219	205.00	39416	298.00	627	425.00	477
110.00	159296	206.00	165696	300.00	97	426.00	77
111.00	24664	207.00	21304	301.00	1013	427.00	482
112.00	2523	208.00	4441	302.00	598	429.00	366
113.00	1427	209.00	2357	303.00	5313	430.00	326
114.00	485	210.00	1644	304.00	1386	431.00	1470
116.00	6028	211.00	7822	305.00	185	432.00	592

Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Date : 07-NOV-2018 17:14

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: apb10206

Column phase: DB-5MS Column diameter: 0.18

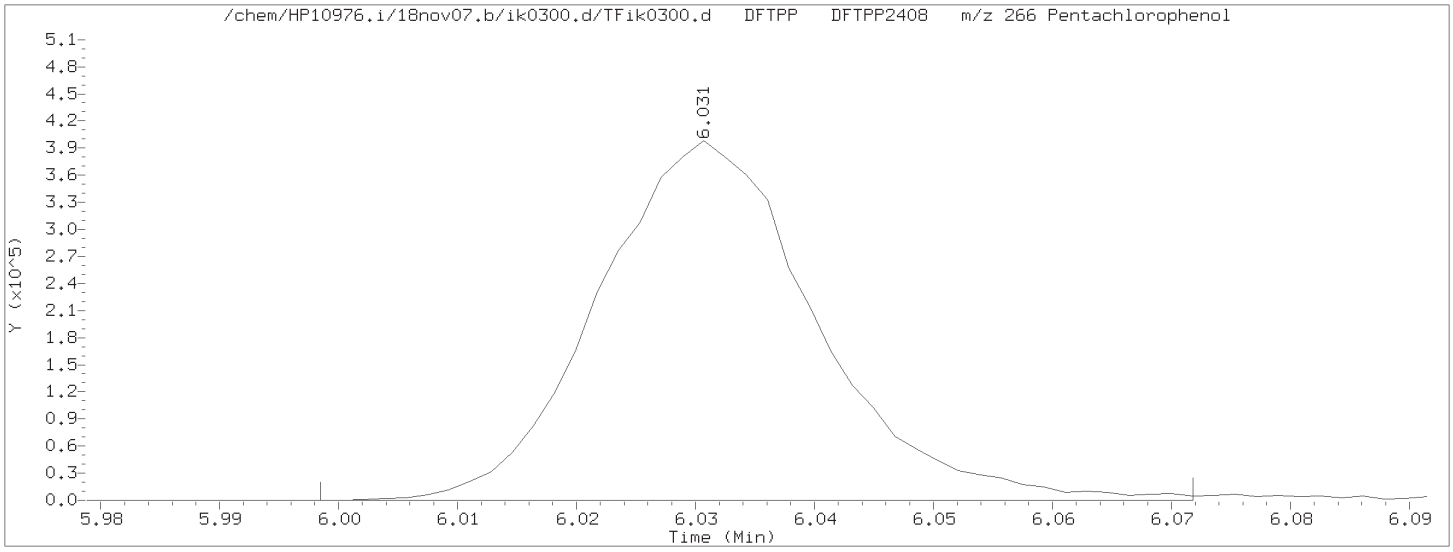
Data File: ik0300.d
Spectrum: Avg. Scans 731-733 (6.39), Background Scan 725
Location of Maximum: 198.00
Number of points: 362

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	67424	212.00	3193	307.00	326	433.00	418
118.00	5025	213.00	851	308.00	2104	434.00	1009
119.00	598	214.00	190	310.00	336	435.00	1454
120.00	1016	215.00	1642	312.00	179	436.00	1005
122.00	5931	216.00	5424	314.00	3133	437.00	343
123.00	9170	217.00	51944	315.00	6378	438.00	522
124.00	4407	218.00	6985	316.00	2984	439.00	88
125.00	3805	219.00	686	317.00	812	441.00	50184
127.00	293056	220.00	321	321.00	2701	442.00	421248
128.00	22736	221.00	27368	322.00	191	443.00	71888
129.00	122992	222.00	4170	323.00	9075	444.00	7318
130.00	10699	223.00	11726	324.00	943	445.00	78
131.00	2610	224.00	99888	325.00	585	454.00	94
132.00	884	225.00	24408	326.00	150	463.00	80
133.00	1358	226.00	511	327.00	2655	477.00	86
134.00	2756	227.00	44872	328.00	1905	506.00	116
135.00	8628	228.00	6027	329.00	346	519.00	129
136.00	4890	229.00	8208	331.00	270	538.00	66
137.00	4046	230.00	399	332.00	1608	568.00	63
138.00	957	231.00	4286	333.00	2114		
139.00	582	232.00	736	334.00	10181		

Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Assessment of GC Column Performance and Injection Port Inertness for

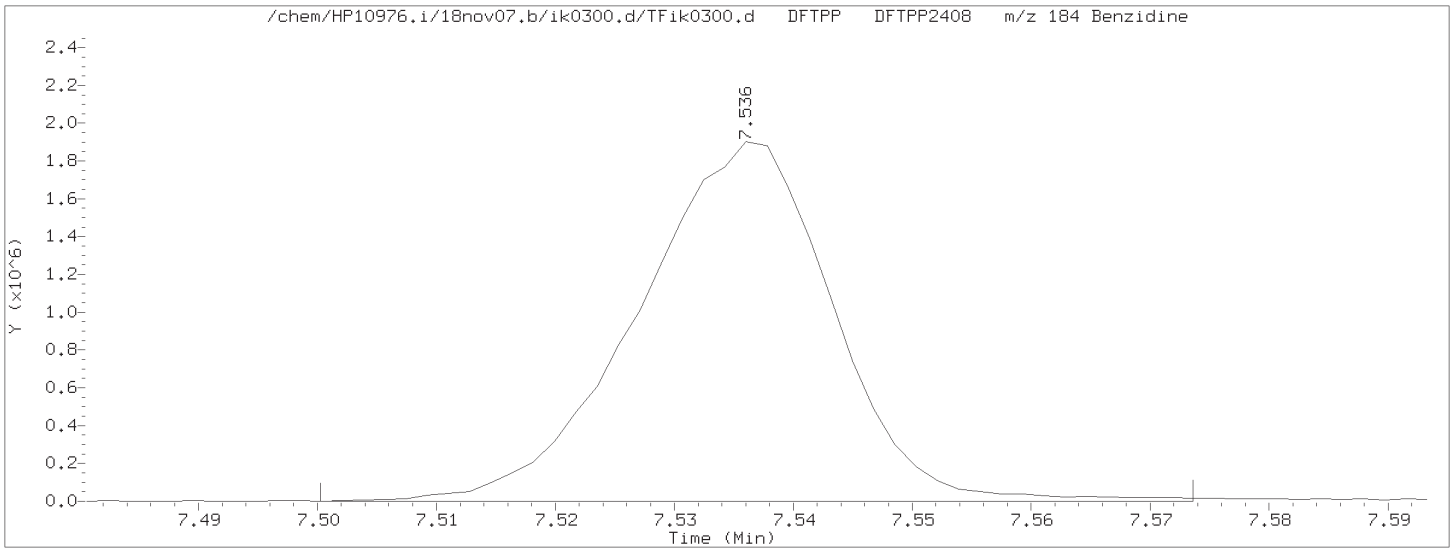
Instrument ID: HP10976.i Injection Date: 07-NOV-2018 17:14 Operator: apb10206



Pentachlorophenol EICP peak height = 398336 EICP peak height at 10% = 39834 Pentachlorophenol EICP area = 506974

Pentachlorophenol EICP peak apex (min.) = 6.031
RT at 10% of front half of EICP (min.) = 6.014 'Front' peak width (min.) = 0.0170000000
RT at 10% of back half of EICP (min.) = 6.051 'Tailing' peak width (min.) = 0.0199666667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0199666667}{0.0170000000} = 1.175$



Benzidine EICP peak height = 1903104 EICP peak height at 10% = 190310 Benzidine EICP area = 2161003

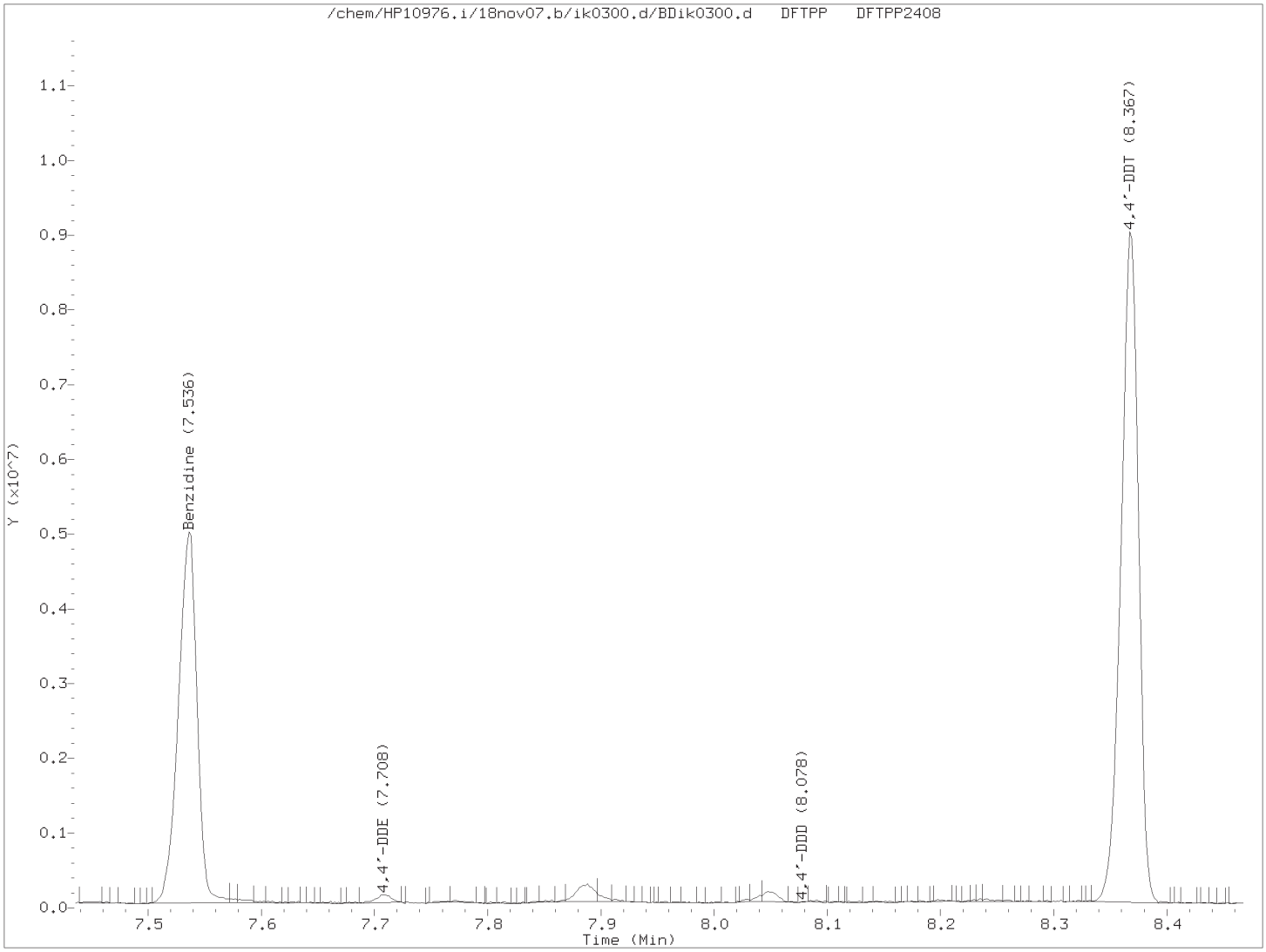
Benzidine EICP peak apex (min.) = 7.536
RT at 10% of front half of EICP (min.) = 7.518 'Front' peak width (min.) = 0.0181500000
RT at 10% of back half of EICP (min.) = 7.550 'Tailing' peak width (min.) = 0.0140500000

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0140500000}{0.0181500000} = 0.774$

Secondary review performed and digitally signed by Irene L. Dodd on 11/08/2018 at 13:58. PARALLAX ID: ild00415

Assessment of GC Column Performance and Injection Port Inertness for

Instrument ID: HP10976.i Injection Date: 07-NOV-2018 17:14 Operator: apb10206

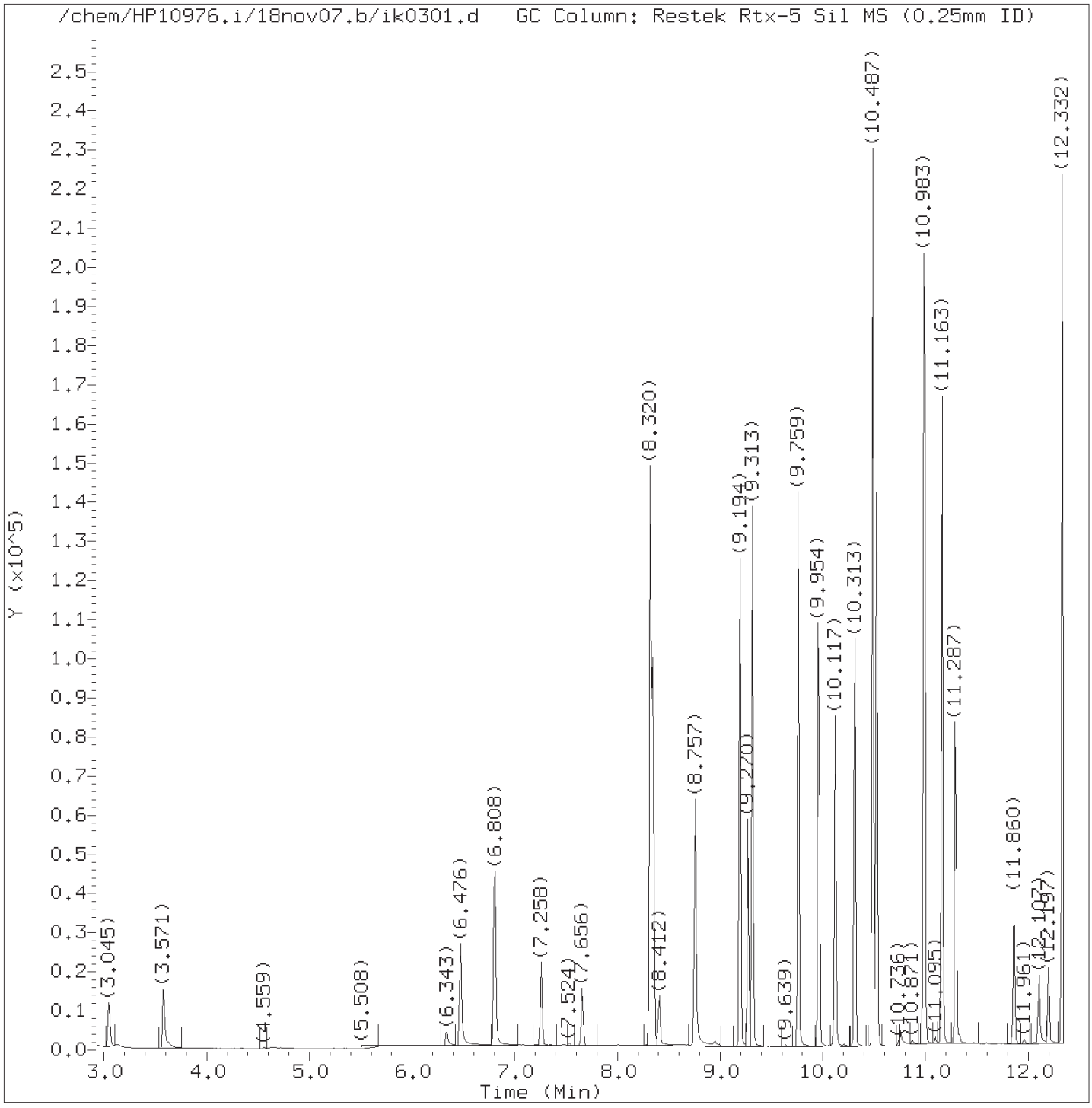


$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{98238 + 2520}{98238 + 2520 + 9664895} \times 100 = 1.0$$

printed on 11/07/2018 at 17:30

Secondary review performed and digitally signed by Irene L. Dodd on 11/08/2018 at 13:58. PARALLAX ID: ild00415



Total Ion Chromatogram (TIC)

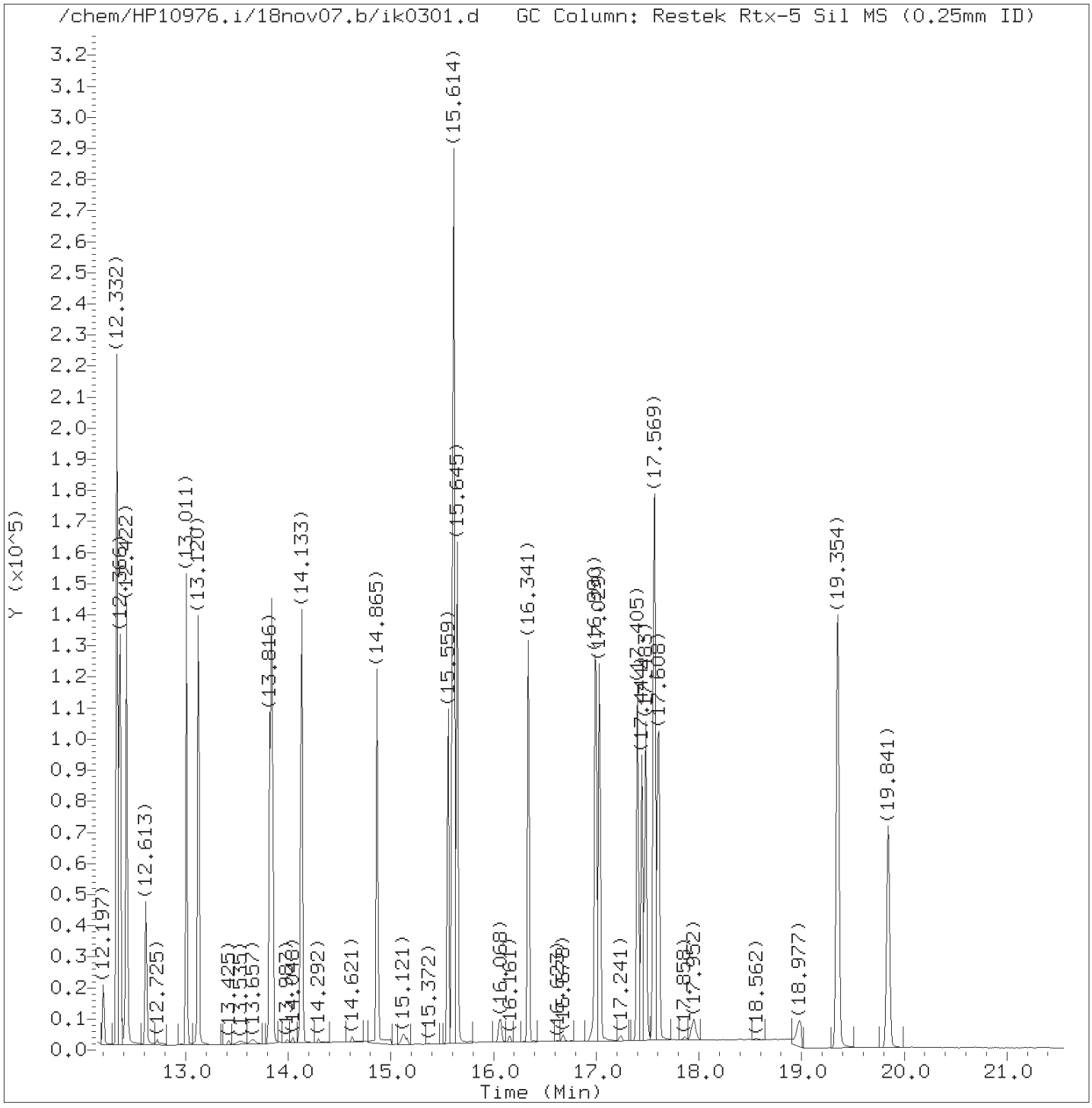
Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 18:02
Date, time and analyst ID of latest file update: 07-Nov-2018 18:02 apb10206

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 18:02
Date, time and analyst ID of latest file update: 07-Nov-2018 18:02 apb10206

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 18:02
Date, time and analyst ID of latest file update: 07-Nov-2018 18:02 apb10206

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.045	88	11342M	0.432
2) N-Nitrosodimethylamine	(1)	3.578	74	18154	0.453
5) bis(2-Chloroethyl)ether	(1)	6.476	93	25495	0.463
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	43881	1.000
10)*Naphthalene-d8	(2)	8.320	136	160275	1.000
11) Naphthalene	(2)	8.346	128	86995	0.527
12) Quinoline	(2)	8.757	129	53905	0.528
13) 2-Methylnaphthalene	(2)	9.194	142	62062	0.522
14)$1-Methylnaphthalene-d10	(2)	9.270	152	47378	0.485
15) 1-Methylnaphthalene	(2)	9.313	142	62071	0.533
18) Dimethylphthalate	(3)	10.117	163	77779	0.521
19) Acenaphthylene	(3)	10.313	152	96528	0.498
20)*Acenaphthene-d10	(3)	10.487	164	101156	1.000
21) Acenaphthene	(3)	10.519	154	63866	0.501
22) Dibenzofuran	(3)	10.758	168	4742	0.024
23) Diethylphthalate	(3)	10.983	149	77541	0.533
26) Fluorene	(3)	11.163	166	78979	0.504
28) NDPA as diphenylamine	(4)	11.287	169	51181	0.552
27) N-Nitrosodiphenylamine	(4)	11.287	169	51181	0.552
29) Hexachlorobenzene	(4)	11.860	284	33393	0.512
31)*Phenanthrene-d10	(4)	12.332	188	222571	1.000
32) Phenanthrene	(4)	12.366	178	124077	0.516
33) Anthracene	(4)	12.422	178	124829	0.518
35) Di-n-butylphthalate	(4)	13.011	149	131878	0.573
36)$Fluoranthene-d10	(4)	13.816	212	135964	0.493
37) Fluoranthene	(4)	13.840	202	154893	0.517
39) Pyrene	(5)	14.133	202	158623	0.500
40) Butylbenzylphthalate	(5)	14.865	149	51296	0.511
41) bis(2-Ethylhexyl)phthalate	(5)	15.559	149	85805	0.569
42) Benzo(a)anthracene	(5)	15.598	228	145457	0.493
43)*Chrysene-d12	(5)	15.614	240	229303	1.000
44) Chrysene	(5)	15.645	228	147125	0.522
45) Di-n-octylphthalate	(6)	16.341	149	140488	0.557
46) Benzo(b)fluoranthene	(6)	16.990	252	146232	0.510
47) Benzo(k)fluoranthene	(6)	17.029	252	140083	0.521
48) Benzo(e)pyrene	(6)	17.405	252	139596	0.497
49)$Benzo(a)pyrene-d12	(6)	17.444	264	110292	0.501
50) Benzo(a)pyrene	(6)	17.483	252	126319	0.514
51)*Perylene-d12	(6)	17.569	264	230626	1.000
52) Perylene	(6)	17.608	252	135099	0.493

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

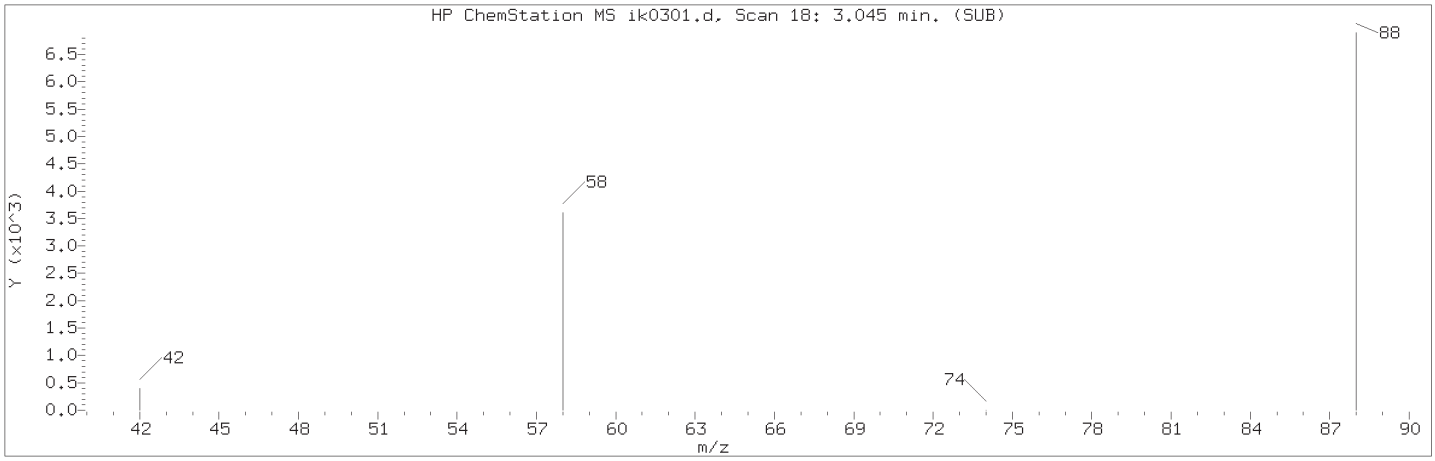
Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 18:02
Date, time and analyst ID of latest file update: 07-Nov-2018 18:02 apb10206

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

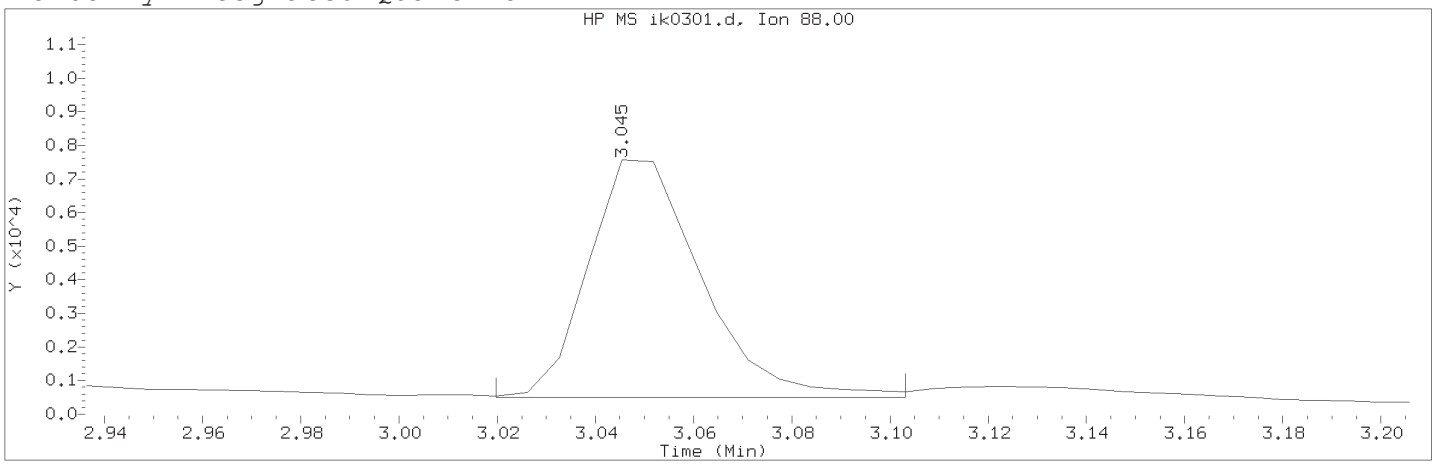
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	19.347	276	143959	0.497
54) Dibenz(a,h)anthracene	(6)	19.354	278	122159	0.516
55) Benzo(g,h,i)perylene	(6)	19.841	276	139563	0.548

Digitally signed by Anthony P. Bauer
on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 18:02
Date, time and analyst ID of latest file update: 07-Nov-2018 18:02 apb10206

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

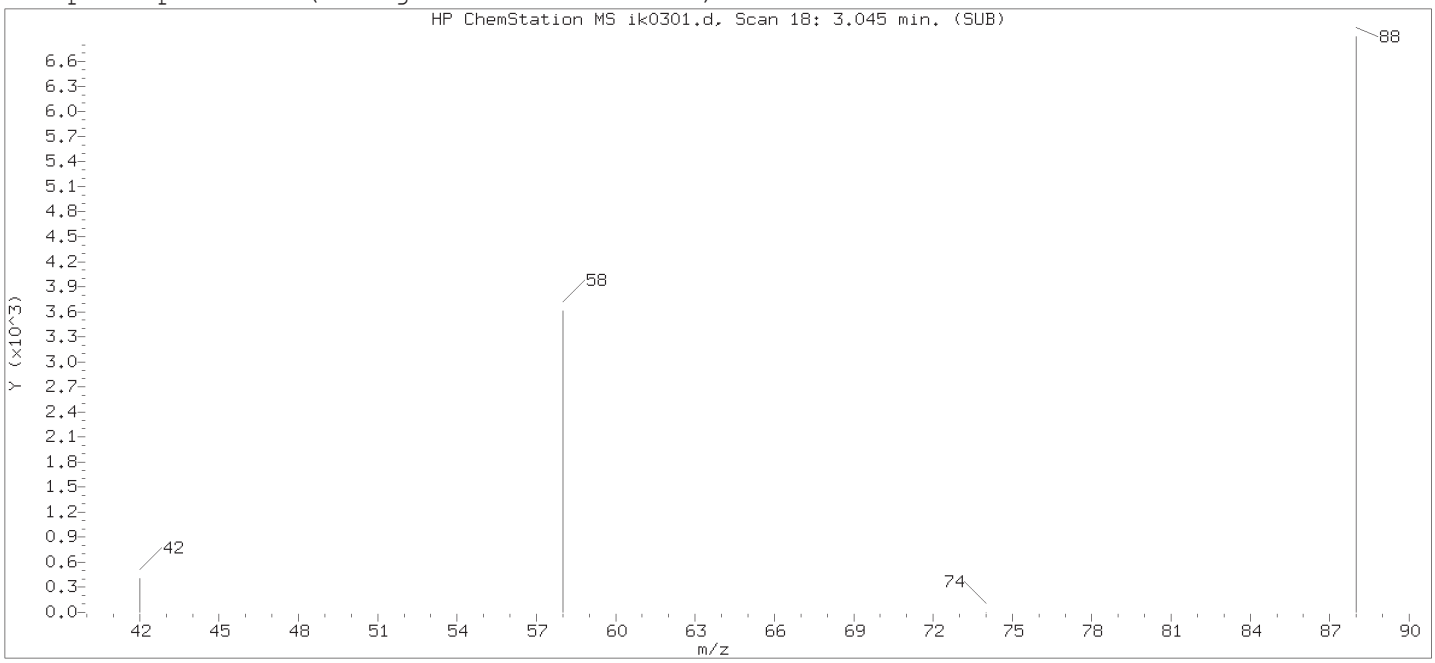
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 18		
Retention Time (minutes)	: 3.045		
Quant Ion	: 88.00		
Area (flag)	: 11342M		
On-Column Amount (ng/ul)	: 0.4318		
Integration start scan	: 13	Integration stop scan:	26
Y at integration start	: 501	Y at integration end:	501

Reason for manual integration: improper integration

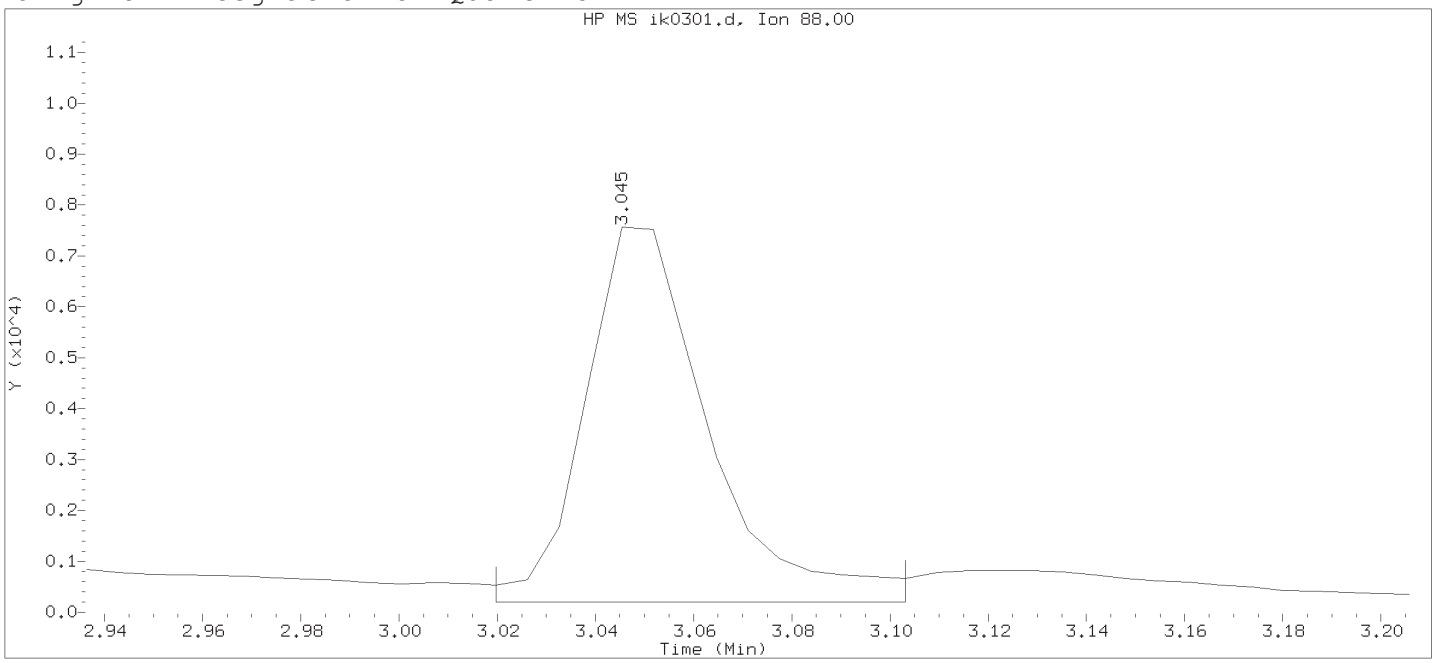
Analyst responsible for change: Digitally signed by Anthony P. Bauer
on 11/07/2018 at 18:15.
Target 3.5 esignature user ID: apb10206

Secondary review performed and digitally signed by Irene L. Dodd on 11/08/2018 at 13:58.
PARALLAX ID: ild00415

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



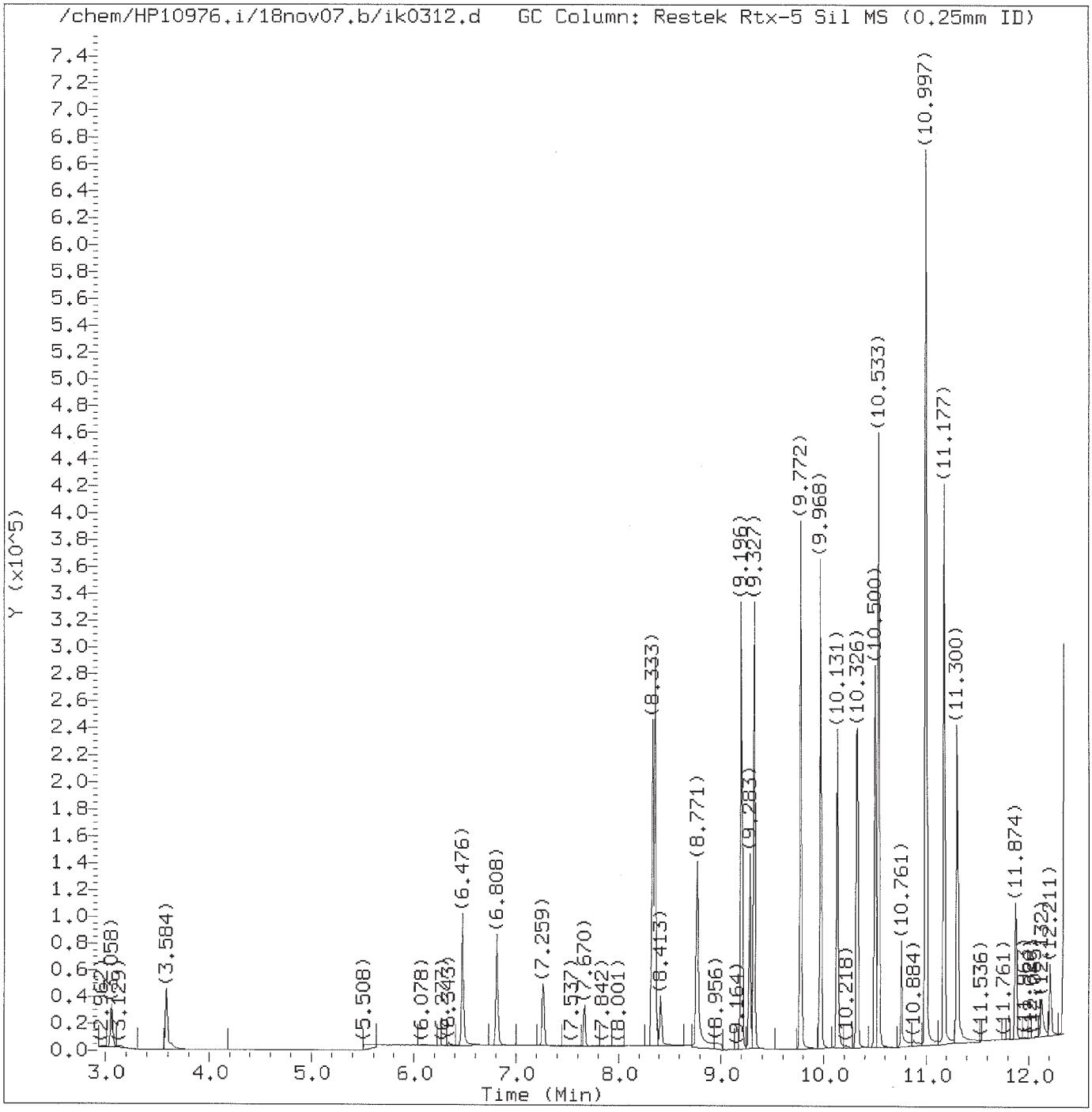
Data File: /chem/HP10976.i/18nov07.b/ik0301.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov06.b/sim8270d.m Sublist used: all1
Calibration date and time: 07-NOV-2018 17:58
Date, time and analyst ID of latest file update: 07-Nov-2018 17:58 Automation

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 18		
Retention Time (minutes)	: 3.045		
Quant Ion	: 88.00		
Area	: 12820		
On-column Amount (ng/ul)	: 0.4880		
Integration start scan	: 13	Integration stop scan:	26
Y at integration start	: 198	Y at integration end:	198

Digitally signed by Anthony P. Bauer on 11/07/2018 at 18:15.
Target 3.5 esignature used [illegible]



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0312.d
Injection date and time: 08-NOV-2018 00:13

Instrument ID: HP10976.i
Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m
Calibration date and time: 07-NOV-2018 18:18

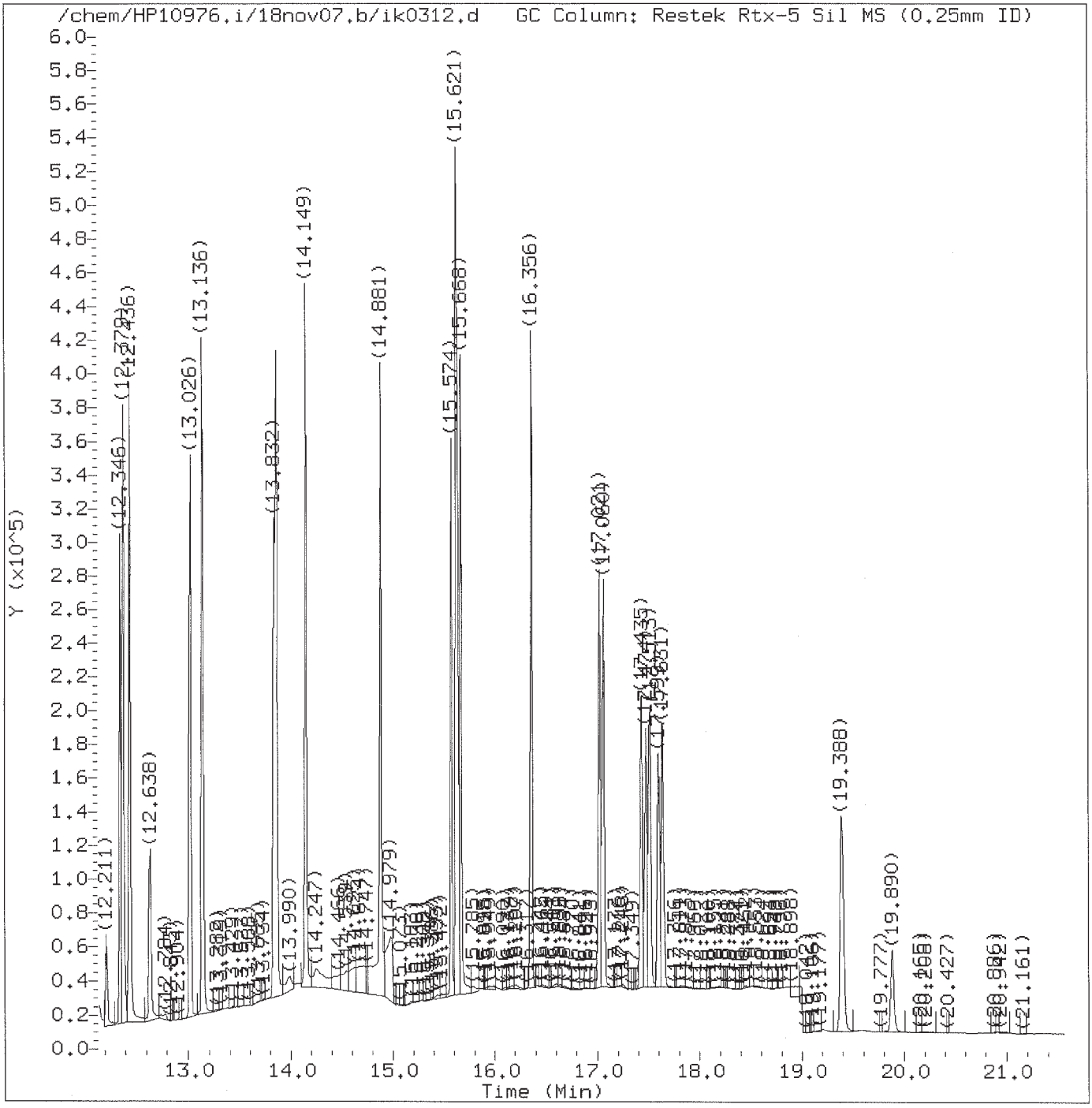
Sublist used: 25804

Date, time and analyst ID of latest file update: 08-Nov-2018 07:42 jmg00346

Sample Name: SECC1

Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:47.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0312.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 00:13 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:42 jmg00346

Sample Name: SECC1 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:47.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0312.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 00:13 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:42 jmg00346

Sample Name: SECC1 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.058	88	32991	0.923
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	59732	1.000
10)*Naphthalene-d8	(2)	8.333	136	221294	1.000
11) Naphthalene	(2)	8.360	128	243249	1.067
14)$1-Methylnaphthalene-d10	(2)	9.283	152	130503	0.967
19) Acenaphthylene	(3)	10.326	152	272158	1.032
20)*Acenaphthene-d10	(3)	10.500	164	137669	1.000
21) Acenaphthene	(3)	10.533	154	174821	1.008
26) Fluorene	(3)	11.177	166	216237	1.013
31)*Phenanthrene-d10	(4)	12.346	188	301953	1.000
32) Phenanthrene	(4)	12.379	178	334141	1.024
33) Anthracene	(4)	12.436	178	357894	1.095
35) Di-n-butylphthalate	(4)	13.026	149	366412	1.174
36)$Fluoranthene-d10	(4)	13.832	212	380751	1.017
37) Fluoranthene	(4)	13.856	202	427155	1.052
39) Pyrene	(5)	14.149	202	453235	1.038
41) bis(2-Ethylhexyl)phthalate	(5)	15.574	149	249525	1.202
42) Benzo(a)anthracene	(5)	15.621	228	405706	1.000
43)*Chrysene-d12	(5)	15.637	240	315477	1.000
44) Chrysene	(5)	15.668	228	407587	1.051
46) Benzo(b)fluoranthene	(6)	17.021	252	266374	1.158
47) Benzo(k)fluoranthene	(6)	17.060	252	298332	1.383
49)$Benzo(a)pyrene-d12	(6)	17.474	264	192256	1.088
50) Benzo(a)pyrene	(6)	17.513	252	219666	1.114
51)*Perylene-d12	(6)	17.599	264	184982	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.388	276	134851	0.580
54) Dibenz(a,h)anthracene	(6)	19.396	278	126050	0.664
55) Benzo(g,h,i)perylene	(6)	19.890	276	98387	0.481

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:47.
Target 3.5 esignature user ID: jmg00346

Data File: /chem/HP10976.i/18nov08.b/ik0350.d

Date : 08-NOV-2018 06:43

Client ID: DFTPP

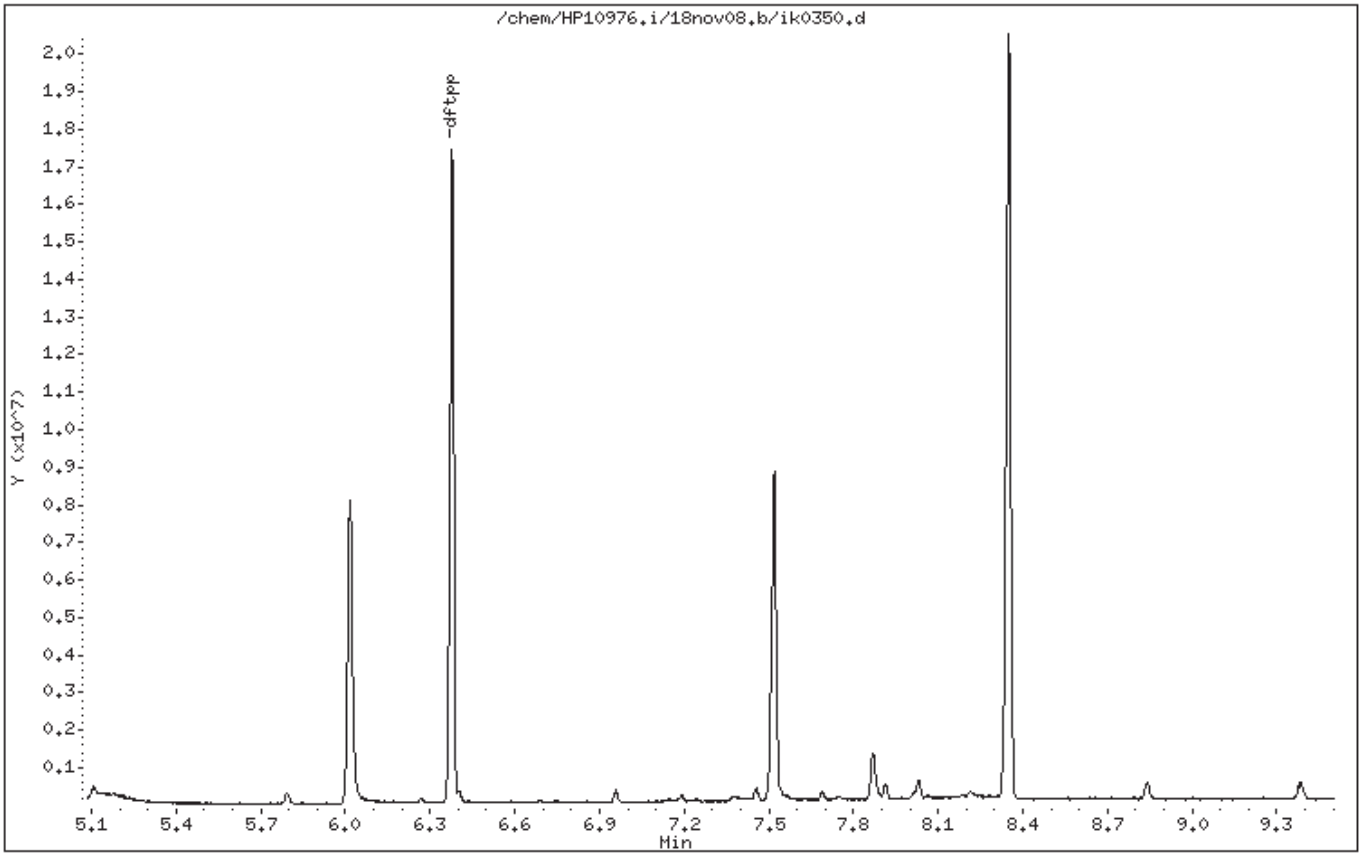
Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS

Column diameter: 0.18



Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Data File: /chem/HP10976.i/18nov08.b/ik0350.d

Date : 08-NOV-2018 06:43

Client ID: DFTPP

Instrument: HP10976.i

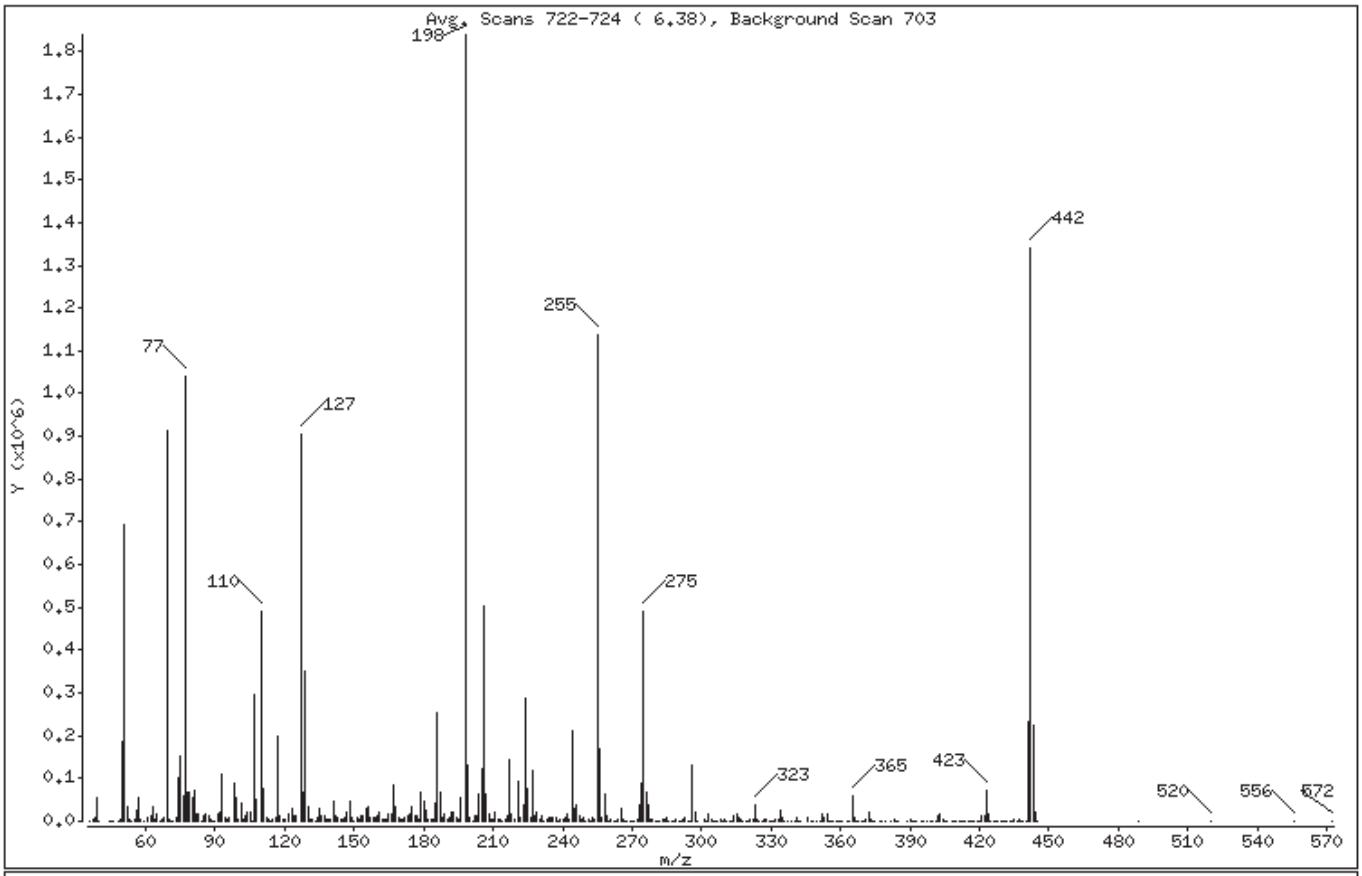
Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	37.78
68	Less than 2.00% of mass 69	0.40 (0.81)
69	Mass 69 relative abundance	49.76
70	Less than 2.00% of mass 69	0.24 (0.47)
127	10.00 - 80.00% of mass 198	49.11
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.04
275	10.00 - 60.00% of mass 198	26.60
365	Greater than 1.00% of mass 198	3.26
441	0.01 - 24.00% of mass 442	12.65 (17.38)
442	50.00 - 99.99% of mass 198	72.81
443	15.00 - 24.00% of mass 442	12.28 (16.87)

Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Date : 08-NOV-2018 06:43

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

Data File: ik0350.d
Spectrum: Avg. Scans 722-724 (6.38), Background Scan 703
Location of Maximum: 198.00
Number of points: 387

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	256	142.00	13533	241.00	6664	341.00	7258
37.00	3205	143.00	7988	242.00	18528	342.00	1864
38.00	9249	144.00	3400	243.00	6112	343.00	574
39.00	56544	145.00	3297	244.00	213376	346.00	8798
40.00	1988	146.00	6909	245.00	27864	347.00	1689
44.00	264	147.00	23064	246.00	37624	348.00	507
45.00	927	148.00	47384	247.00	11689	350.00	814
46.00	52	149.00	7255	248.00	3476	351.00	640
48.00	123	150.00	1631	249.00	7579	352.00	15215
49.00	5150	151.00	6525	250.00	1386	353.00	8854
50.00	183936	152.00	2164	251.00	3297	354.00	15458
51.00	694848	153.00	14120	252.00	2017	355.00	1583
52.00	32192	154.00	12127	253.00	8438	356.00	680
53.00	2391	155.00	27776	254.00	3570	357.00	98
54.00	216	156.00	35136	255.00	1138176	358.00	941
55.00	3342	157.00	6530	256.00	170112	359.00	218
56.00	25032	158.00	7962	257.00	9741	360.00	1213
57.00	54272	159.00	6706	258.00	61824	361.00	183
58.00	2327	160.00	13141	259.00	10705	363.00	1212
59.00	1281	161.00	22792	260.00	925	364.00	428
61.00	9965	162.00	4784	261.00	2797	365.00	59936
62.00	11634	163.00	2138	262.00	309	366.00	7201
63.00	35192	164.00	3410	263.00	1832	367.00	628
64.00	5550	165.00	18720	264.00	2357	368.00	203
65.00	16044	166.00	15354	265.00	28504	369.00	173
66.00	1145	167.00	84424	266.00	3076	370.00	1696
67.00	2527	168.00	33632	267.00	541	371.00	4011
68.00	7384	169.00	8293	268.00	413	372.00	20568
69.00	915136	170.00	3058	269.00	1233	373.00	4414
70.00	4331	171.00	4228	270.00	1413	374.00	179
71.00	1288	172.00	6687	271.00	2097	375.00	186
72.00	894	173.00	12400	272.00	5793	377.00	898
73.00	7885	174.00	17512	273.00	37448	378.00	177
74.00	100776	175.00	35288	274.00	87296	379.00	392
75.00	151552	176.00	12051	275.00	489152	382.00	575

Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Date : 08-NOV-2018 06:43

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

Data File: ik0350.d
Spectrum: Avg. Scans 722-724 (6.38), Background Scan 703
Location of Maximum: 198.00
Number of points: 387

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	57640	177.00	13639	276.00	65688	383.00	5700
77.00	1038016	178.00	5807	277.00	37304	384.00	1030
78.00	68152	179.00	66320	278.00	5941	385.00	842
79.00	67800	180.00	46448	279.00	3112	389.00	236
80.00	56168	181.00	25048	280.00	640	390.00	4229
81.00	72832	182.00	3432	281.00	799	391.00	900
82.00	16576	183.00	3011	282.00	897	392.00	1565
83.00	18296	184.00	3363	283.00	4283	393.00	575
84.00	882	185.00	41080	284.00	3625	395.00	788
85.00	14474	186.00	251776	285.00	8417	396.00	245
86.00	16872	187.00	69040	286.00	1856	397.00	198
87.00	10799	188.00	8154	287.00	283	399.00	86
88.00	3100	189.00	15117	288.00	951	400.00	253
89.00	1618	190.00	3402	289.00	2777	401.00	1462
90.00	368	191.00	7226	290.00	1448	402.00	11075
91.00	16189	192.00	23024	291.00	1124	403.00	15315
92.00	20064	193.00	22552	292.00	2604	404.00	4410
93.00	109072	194.00	7252	293.00	8255	405.00	679
94.00	9852	195.00	3156	294.00	1758	406.00	111
95.00	4029	196.00	52856	295.00	1182	408.00	301
96.00	6901	198.00	1839104	296.00	129360	409.00	657
98.00	89744	199.00	129448	297.00	20352	410.00	577
99.00	53984	200.00	10561	298.00	562	411.00	1277
100.00	5749	201.00	1356	301.00	2945	412.00	192
101.00	44112	202.00	12342	302.00	1308	413.00	600
102.00	3387	203.00	13529	303.00	16249	414.00	294
103.00	12980	204.00	64840	304.00	4779	415.00	854
104.00	23080	205.00	121640	305.00	762	416.00	671
105.00	20208	206.00	503424	306.00	81	417.00	143
106.00	789	207.00	61624	307.00	420	418.00	502
107.00	296512	208.00	16792	308.00	2328	419.00	306
108.00	49224	209.00	4563	309.00	1812	420.00	663
110.00	490368	210.00	5994	310.00	2144	421.00	13149
111.00	76792	211.00	19088	311.00	374	422.00	11272
112.00	8898	212.00	2214	312.00	77	423.00	70736

Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Date : 08-NOV-2018 06:43

Client ID: DFTPP Instrument: HP10976.i

Sample Info: DFTPP;DFTPP2408;1;3;DFTPP;

Operator: jmg00346

Column phase: DB-5MS Column diameter: 0.18

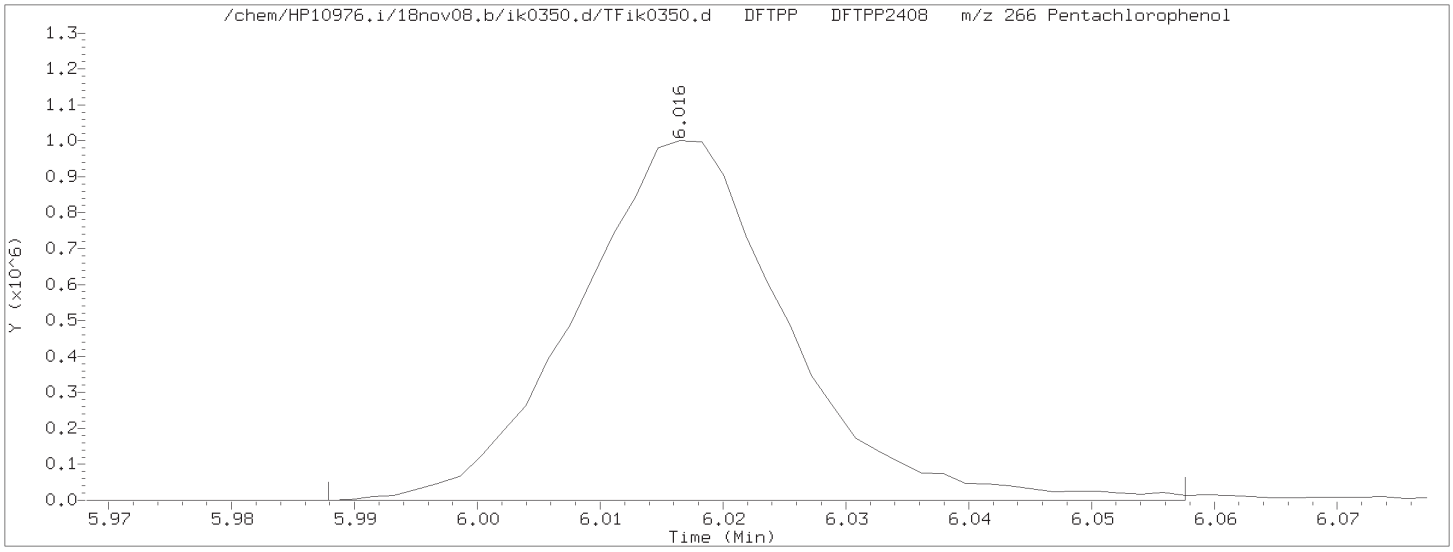
Data File: ik0350.d
Spectrum: Avg. Scans 722-724 (6.38), Background Scan 703
Location of Maximum: 198.00
Number of points: 387

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	3692	213.00	2171	313.00	1824	424.00	18032
114.00	1817	214.00	953	314.00	10779	425.00	2060
115.00	2313	215.00	4259	315.00	15155	426.00	702
116.00	10392	216.00	12189	316.00	6631	427.00	1048
117.00	199168	217.00	145856	317.00	2580	428.00	1171
118.00	13304	218.00	17128	318.00	166	429.00	1916
119.00	2276	219.00	2995	319.00	61	430.00	1280
120.00	3968	221.00	93800	320.00	622	431.00	342
122.00	17240	222.00	9963	321.00	4022	432.00	1299
123.00	31488	223.00	38184	322.00	3558	433.00	1625
124.00	13153	224.00	286272	323.00	39976	434.00	1923
125.00	11083	225.00	76088	324.00	5950	435.00	2519
127.00	903104	226.00	8715	325.00	1366	436.00	1260
128.00	67680	227.00	118328	326.00	1379	437.00	2550
129.00	351424	228.00	14393	327.00	5742	438.00	326
130.00	33216	229.00	22776	328.00	3327	439.00	394
131.00	5395	230.00	2566	329.00	1566	440.00	1197
132.00	2733	231.00	11763	330.00	247	441.00	232704
133.00	1132	232.00	324	331.00	504	442.00	1338880
134.00	8818	233.00	3259	332.00	3713	443.00	225856
135.00	30864	234.00	7989	333.00	5974	444.00	22320
136.00	11209	235.00	8393	334.00	23560	445.00	2027
137.00	12501	236.00	7800	335.00	6735	489.00	263
138.00	5770	237.00	8869	336.00	885	520.00	300
139.00	2274	238.00	849	337.00	865	556.00	60
140.00	4240	239.00	6124	339.00	1581	572.00	53
141.00	45816	240.00	5949	340.00	730		

Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Assessment of GC Column Performance and Injection Port Inertness for

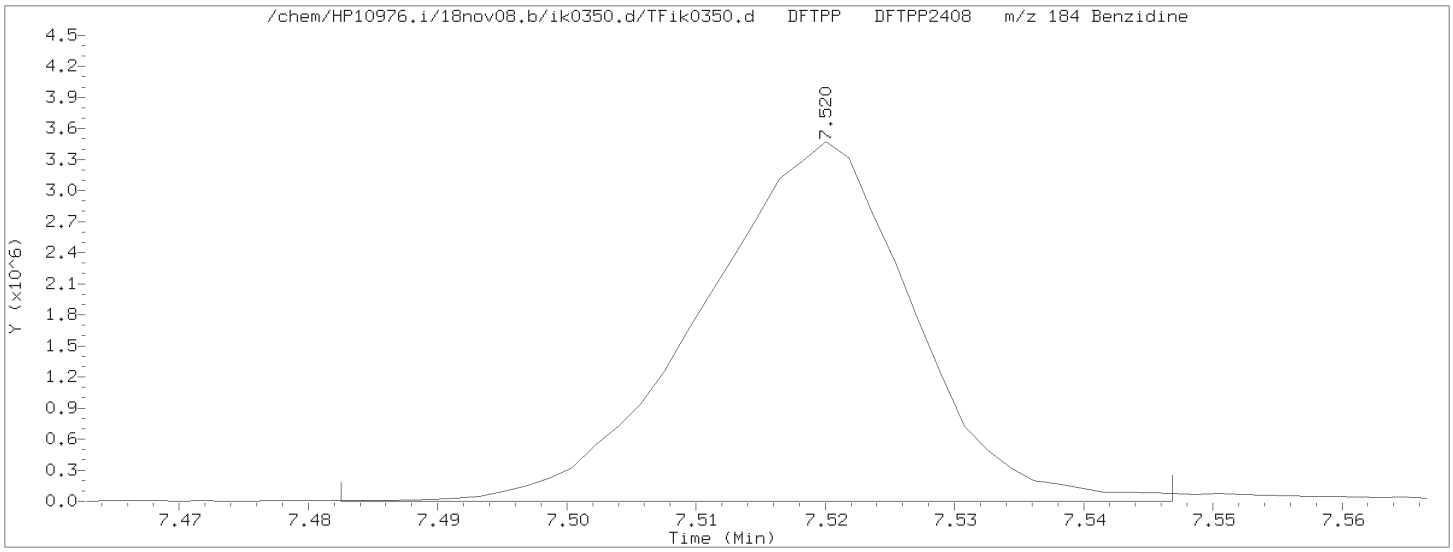
Instrument ID: HP10976.i Injection Date: 08-NOV-2018 06:43 Operator: jmg00346



Pentachlorophenol EICP peak height = 1000701 EICP peak height at 10% = 100070 Pentachlorophenol EICP area = 1182553

Pentachlorophenol EICP peak apex (min.) = 6.016
RT at 10% of front half of EICP (min.) = 6.000 'Front' peak width (min.) = 0.0167000000
RT at 10% of back half of EICP (min.) = 6.034 'Tailing' peak width (min.) = 0.0178666667

PCP tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0178666667}{0.0167000000} = 1.070$



Benzidine EICP peak height = 3473790 EICP peak height at 10% = 347379 Benzidine EICP area = 3928425

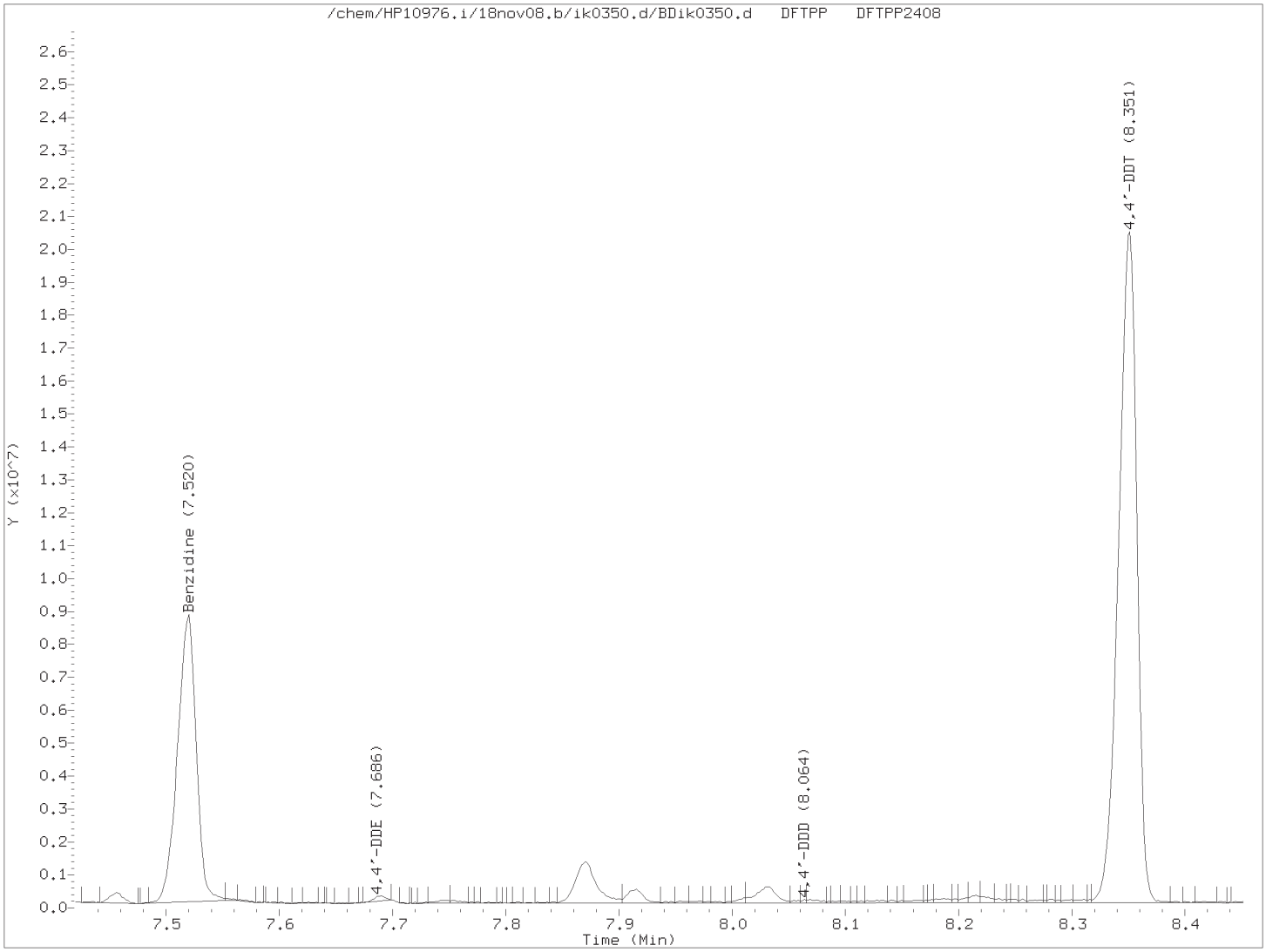
Benzidine EICP peak apex (min.) = 7.520
RT at 10% of front half of EICP (min.) = 7.501 'Front' peak width (min.) = 0.0190666667
RT at 10% of back half of EICP (min.) = 7.534 'Tailing' peak width (min.) = 0.0135333333

Benzidine tailing factor = $\frac{\text{'Tailing' peak width (min.)}}{\text{'Front' peak width (min.)}} = \frac{0.0135333333}{0.0190666667} = 0.710$

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50. PARALLAX ID: hb01996

Assessment of GC Column Performance and Injection Port Inertness for

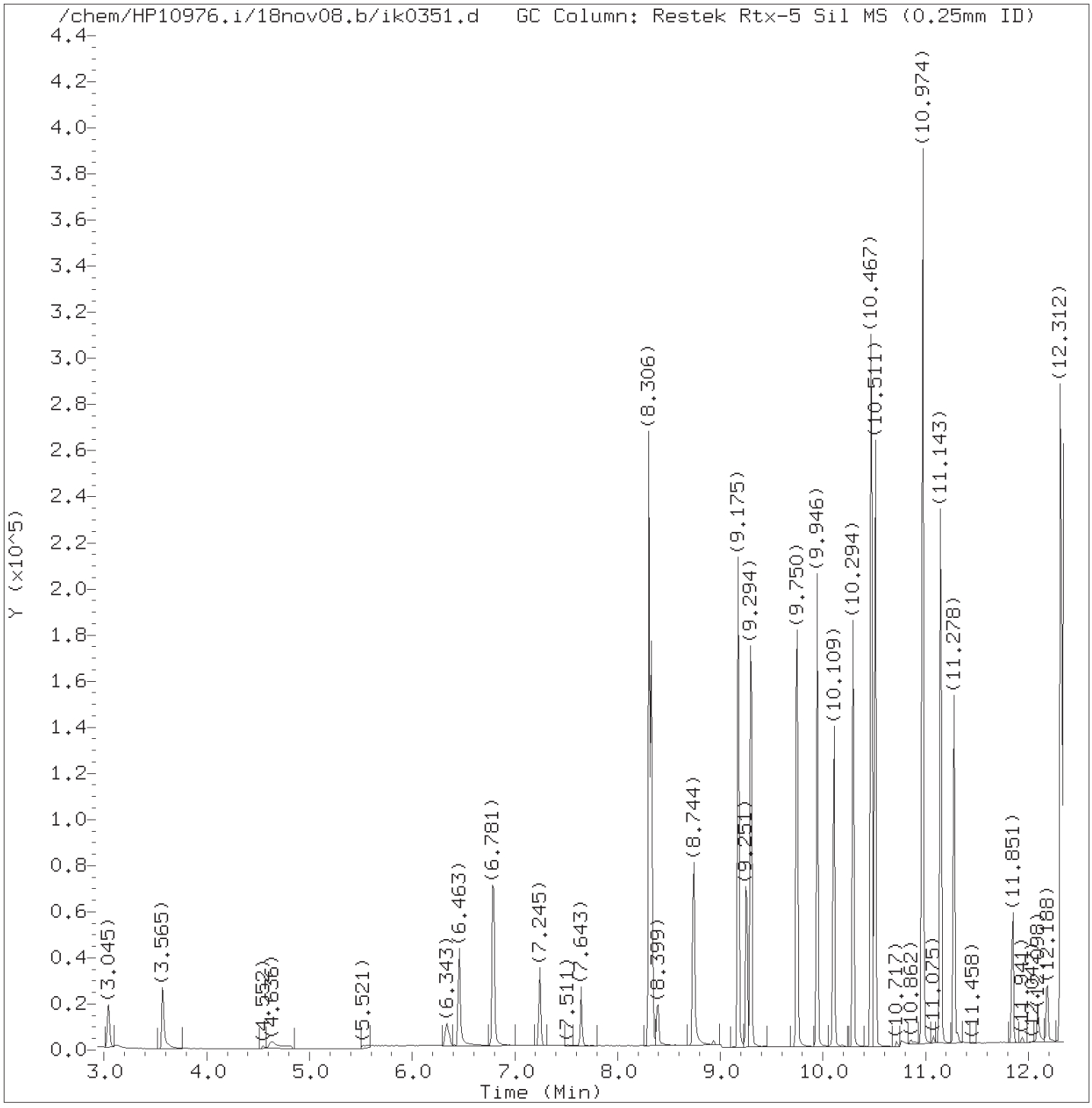
Instrument ID: HP10976.i Injection Date: 08-NOV-2018 06:43 Operator: jmg00346



$$\% \text{ 4,4'-DDT breakdown} = \frac{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area}}{\text{4,4'-DDE TIC area + 4,4'-DDD TIC area + 4,4'-DDT TIC area}} \times 100$$

$$\% \text{ 4,4'-DDT breakdown} = \frac{107932 + 24298}{107932 + 24298 + 22960369} \times 100 = 0.6$$

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

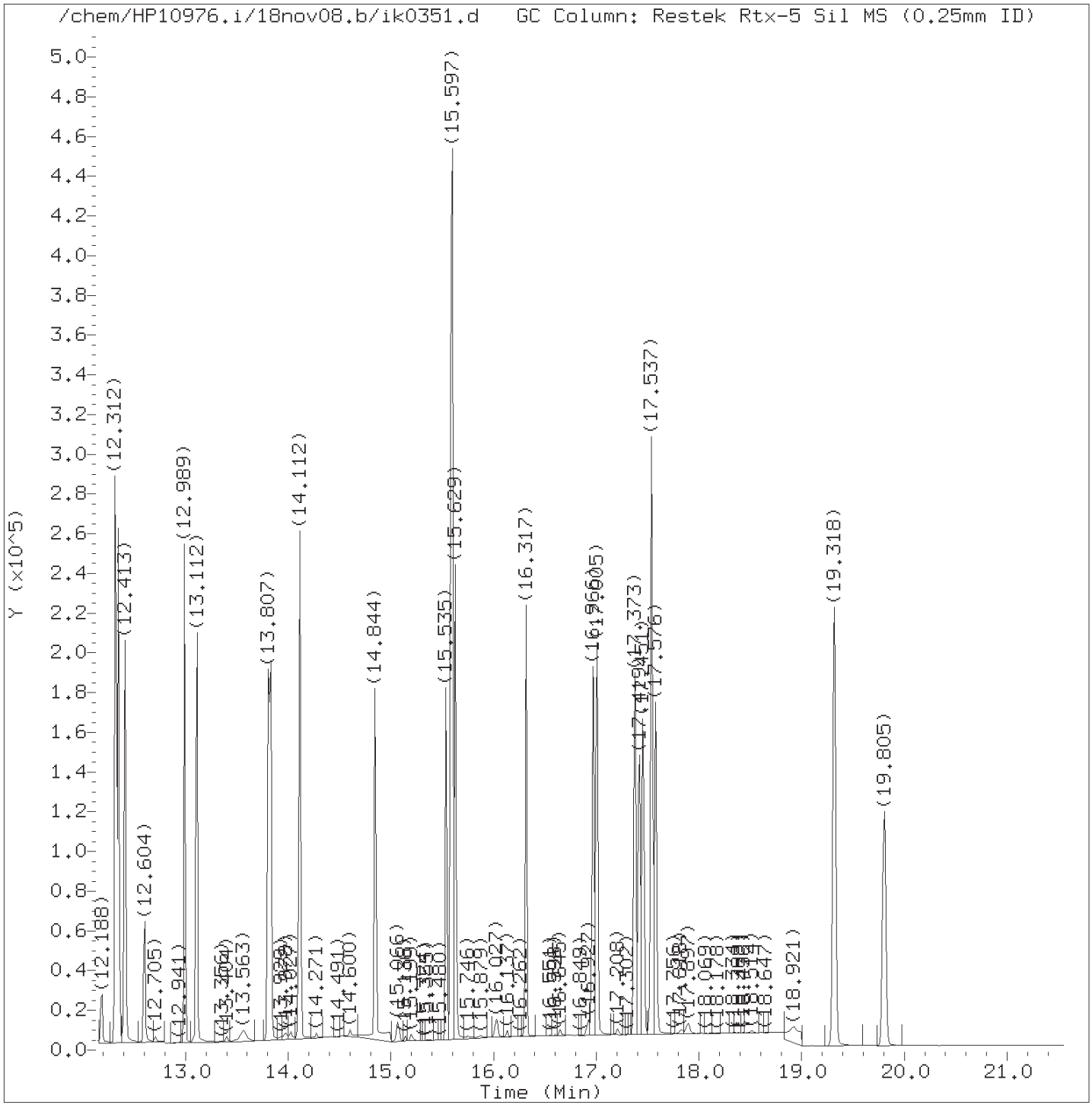
Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 08:10
Date, time and analyst ID of latest file update: 08-Nov-2018 08:10 jmg00346

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 08:10
Date, time and analyst ID of latest file update: 08-Nov-2018 08:10 jmg00346

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 08:10
Date, time and analyst ID of latest file update: 08-Nov-2018 08:10 jmg00346

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.045	88	20412	0.483
2) N-Nitrosodimethylamine	(1)	3.571	74	29857	0.463
5) bis(2-Chloroethyl)ether	(1)	6.463	93	42132	0.476
6)*1,4-Dichlorobenzene-d4	(1)	6.794	152	70563	1.000
10)*Naphthalene-d8	(2)	8.306	136	261021	1.000
11) Naphthalene	(2)	8.333	128	143410	0.534
12) Quinoline	(2)	8.744	129	84058	0.506
13) 2-Methylnaphthalene	(2)	9.175	142	100715	0.521
14)$1-Methylnaphthalene-d10	(2)	9.251	152	76271	0.479
15) 1-Methylnaphthalene	(2)	9.294	142	100627	0.530
18) Dimethylphthalate	(3)	10.109	163	125758	0.533
19) Acenaphthylene	(3)	10.294	152	155648	0.508
20)*Acenaphthene-d10	(3)	10.467	164	160070	1.000
21) Acenaphthene	(3)	10.511	154	102778M	0.510
22) Dibenzofuran	(3)	10.761	168	4302	0.014
23) Diethylphthalate	(3)	10.963	149	133616	0.580
26) Fluorene	(3)	11.143	166	125071	0.504
28) NDPA as diphenylamine	(4)	11.278	169	81174	0.557
27) N-Nitrosodiphenylamine	(4)	11.278	169	81174	0.557
29) Hexachlorobenzene	(4)	11.851	284	52341	0.511
31)*Phenanthrene-d10	(4)	12.312	188	349633	1.000
32) Phenanthrene	(4)	12.346	178	194127	0.514
33) Anthracene	(4)	12.413	178	197562	0.522
35) Di-n-butylphthalate	(4)	12.989	149	206080	0.570
36)$Fluoranthene-d10	(4)	13.807	212	213487	0.492
37) Fluoranthene	(4)	13.832	202	243423	0.518
39) Pyrene	(5)	14.112	202	254781	0.506
40) Butylbenzylphthalate	(5)	14.844	149	81820	0.514
41) bis(2-Ethylhexyl)phthalate	(5)	15.535	149	134517	0.562
42) Benzo(a)anthracene	(5)	15.582	228	230397	0.493
43)*Chrysene-d12	(5)	15.597	240	363603	1.000
44) Chrysene	(5)	15.629	228	230687	0.516
45) Di-n-octylphthalate	(6)	16.317	149	222097	0.559
46) Benzo(b)fluoranthene	(6)	16.966	252	229341	0.508
47) Benzo(k)fluoranthene	(6)	17.005	252	216480	0.511
48) Benzo(e)pyrene	(6)	17.373	252	220184	0.498
49)$Benzo(a)pyrene-d12	(6)	17.419	264	174828	0.504
50) Benzo(a)pyrene	(6)	17.451	252	203574	0.526
51)*Perylene-d12	(6)	17.537	264	363146	1.000
52) Perylene	(6)	17.576	252	215251	0.499

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

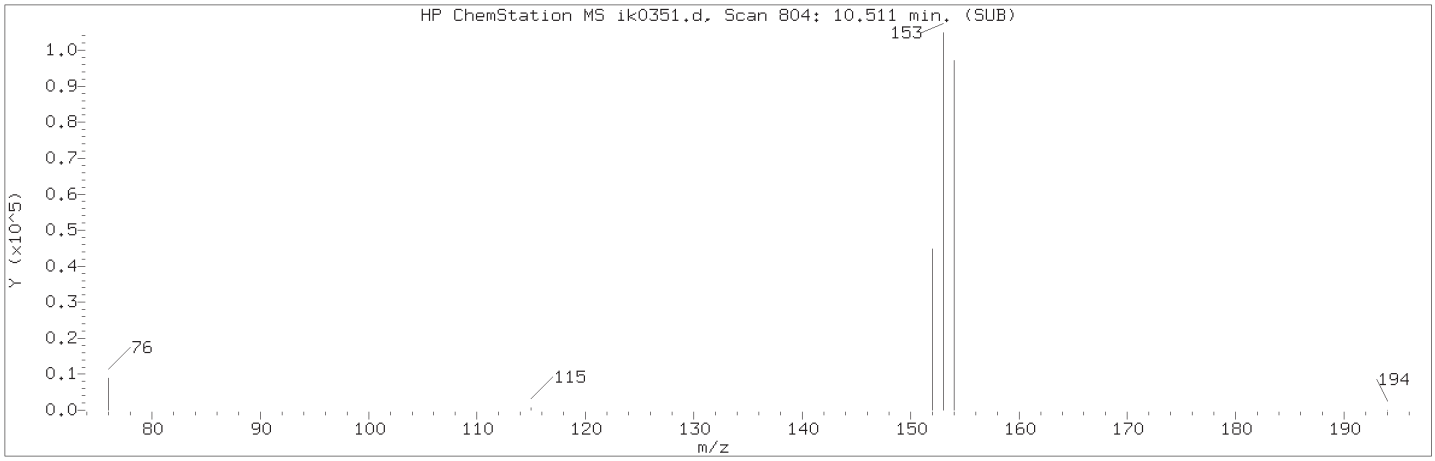
Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 08:10
Date, time and analyst ID of latest file update: 08-Nov-2018 08:10 jmg00346

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

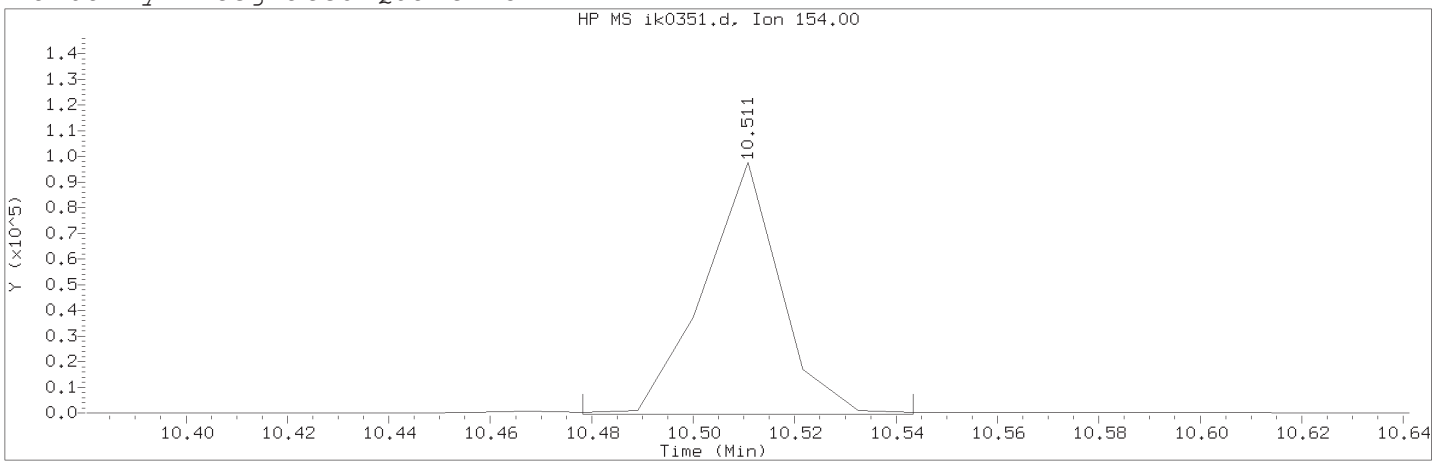
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
53) Indeno(1,2,3-cd)pyrene	(6)	19.311	276	232026	0.508
54) Dibenz(a,h)anthracene	(6)	19.318	278	195999	0.526
55) Benzo(g,h,i)perylene	(6)	19.805	276	223236	0.556

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 08:10
Date, time and analyst ID of latest file update: 08-Nov-2018 08:10 jmg00346

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

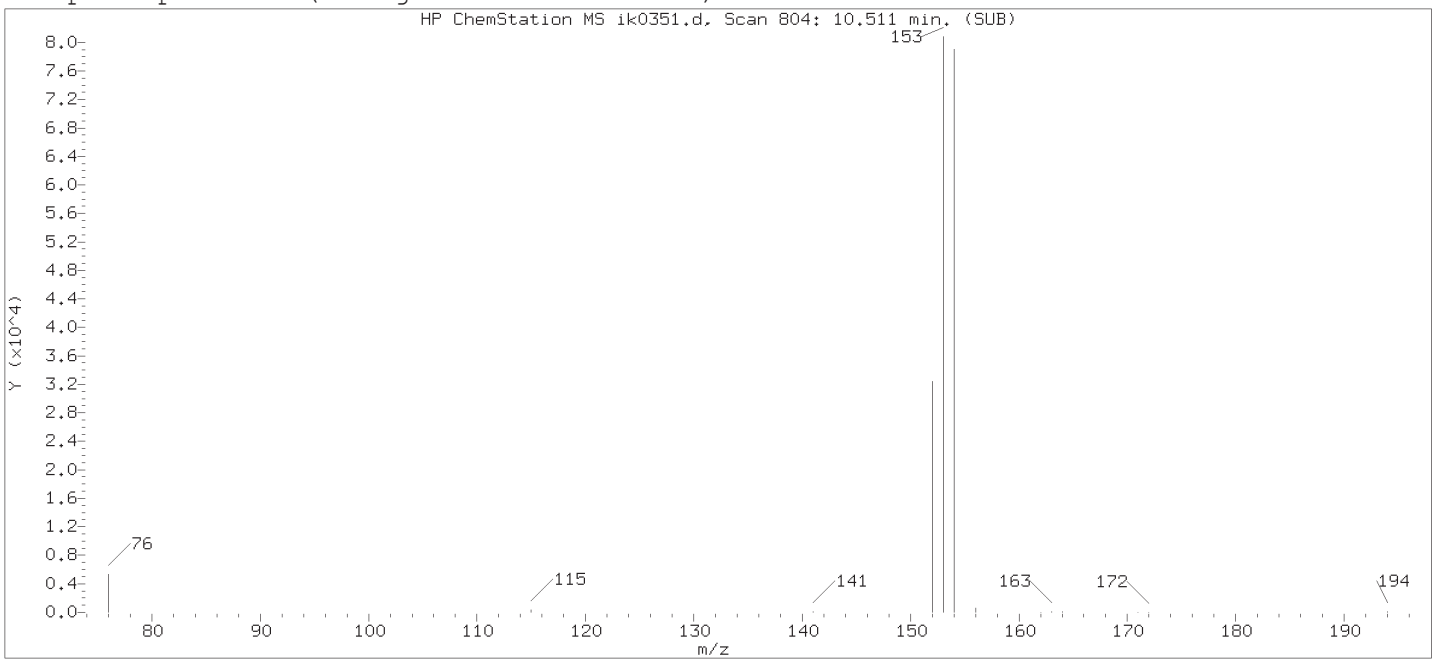
Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 804		
Retention Time (minutes)	: 10.511		
Quant Ion	: 154.00		
Area (flag)	: 102778M		
On-Column Amount (ng/ul)	: 0.5098		
Integration start scan	: 800	Integration stop scan:	806
Y at integration start	: -448	Y at integration end:	-448

Reason for manual integration: improper integration

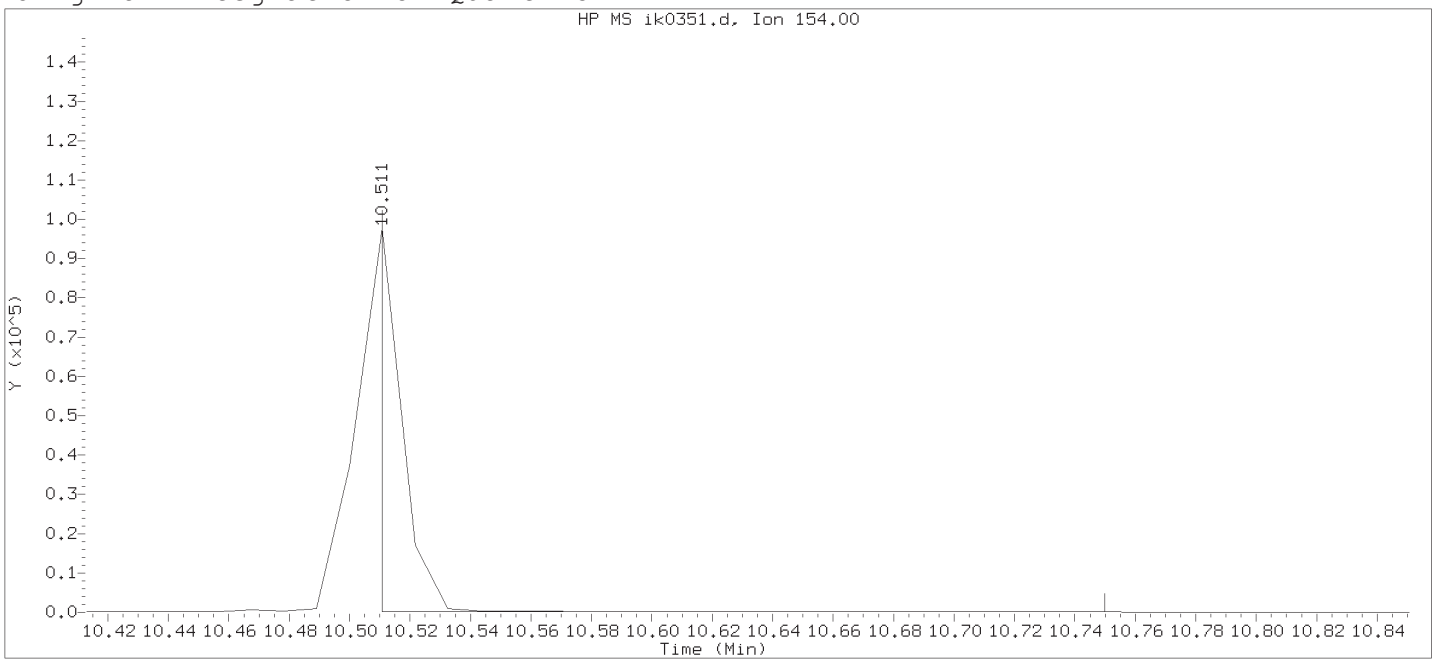
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 08:10.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



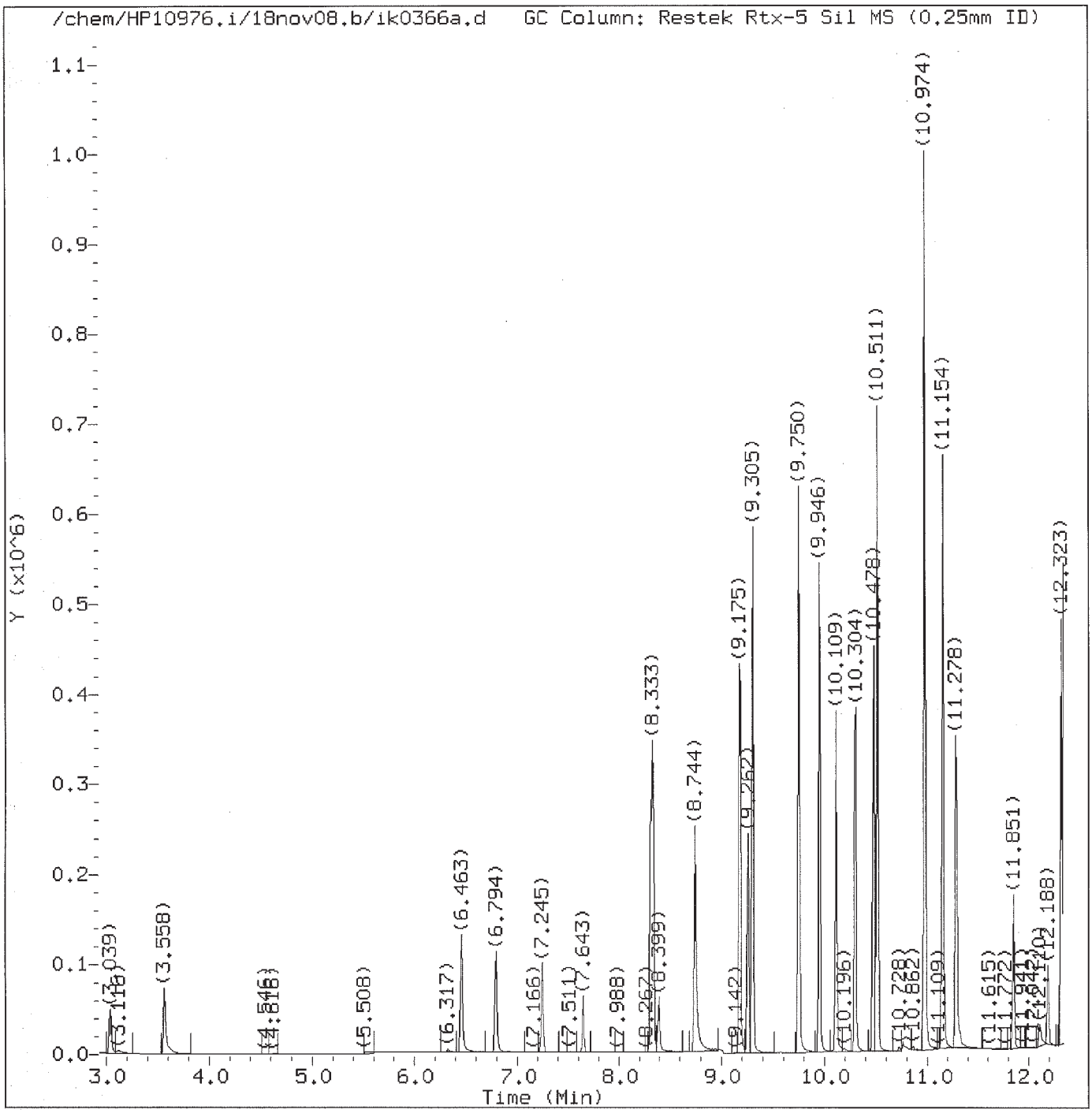
Data File: /chem/HP10976.i/18nov08.b/ik0351.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 07:03 Analyst ID: jmg00346

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: all1
Calibration date and time: 08-NOV-2018 07:29
Date, time and analyst ID of latest file update: 08-Nov-2018 07:29 Automation

Sample Name: SSTD0.50 Lab Sample ID: SIM2598

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 804		
Retention Time (minutes)	: 10.511		
Quant Ion	: 154.00		
Area	: 44016		
On-column Amount (ng/ul)	: 0.2183		
Integration start scan	: 803	Integration stop scan:	825
Y at integration start	: 87	Y at integration end:	107

Digitally signed by Joseph M. Gambler on 11/08/2018 at 08:10.
Target 3.5 esignature used 11/08/2018



Total Ion Chromatogram (TIC)

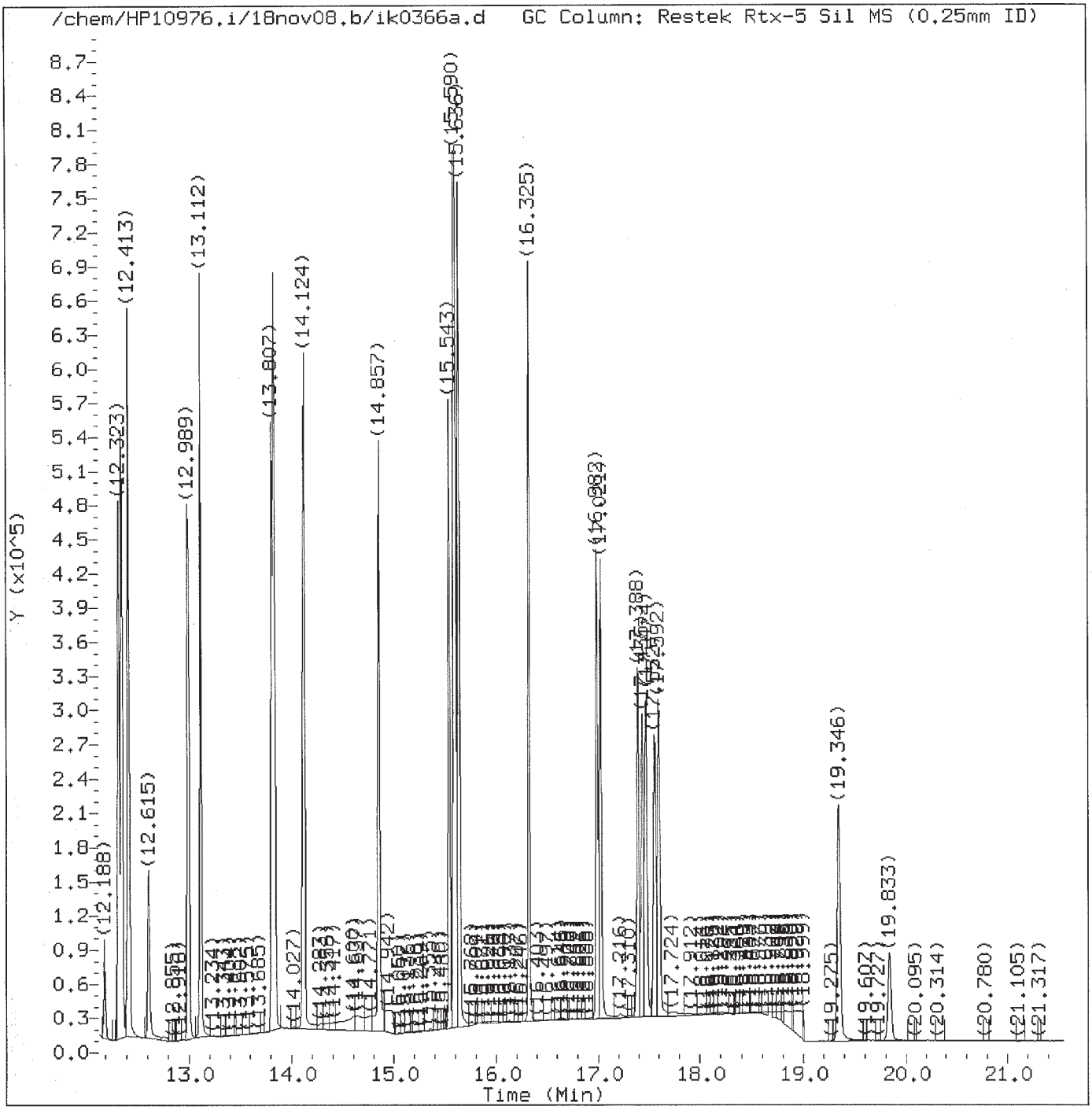
Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0366a.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 18:08 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/08/2018 at 18:08.
Target 3.5 esignature user ID: apb10206



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0366a.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 18:08 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Digitally signed by Anthony P. Bauer
on 11/08/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov08.b/ik0366a.d Instrument ID: HP10976.i
Injection date and time: 08-NOV-2018 17:32 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov08.b/sim8270d.m Sublist used: 25804
Calibration date and time: 08-NOV-2018 11:10
Date, time and analyst ID of latest file update: 08-Nov-2018 18:08 apb10206

Sample Name: SECC1 Lab Sample ID: SIM2598

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.039	88	53196	0.916
6)*1,4-Dichlorobenzene-d4	(1)	6.794	152	96987	1.000
10)*Naphthalene-d8	(2)	8.320	136	341532	1.000
11) Naphthalene	(2)	8.333	128	374339	1.064
14)$1-Methylnaphthalene-d10	(2)	9.262	152	207030	0.994
19) Acenaphthylene	(3)	10.304	152	427151	1.031
20)*Acenaphthene-d10	(3)	10.478	164	216290	1.000
21) Acenaphthene	(3)	10.511	154	279504	1.026
26) Fluorene	(3)	11.154	166	345227	1.030
31)*Phenanthrene-d10	(4)	12.323	188	492570	1.000
32) Phenanthrene	(4)	12.357	178	535391	1.006
33) Anthracene	(4)	12.413	178	568496	1.067
35) Di-n-butylphthalate	(4)	12.989	149	587179	1.153
36)$Fluoranthene-d10	(4)	13.807	212	631328	1.034
37) Fluoranthene	(4)	13.832	202	691997	1.044
39) Pyrene	(5)	14.124	202	725301	1.014
41) bis(2-Ethylhexyl)phthalate	(5)	15.543	149	391091	1.151
42) Benzo(a)anthracene	(5)	15.590	228	653856	0.984
43)*Chrysene-d12	(5)	15.605	240	516639	1.000
44) Chrysene	(5)	15.636	228	678728	1.069
46) Benzo(b)fluoranthene	(6)	16.982	252	493647	1.266
47) Benzo(k)fluoranthene	(6)	17.021	252	466728	1.277
49)$Benzo(a)pyrene-d12	(6)	17.435	264	326893	1.091
50) Benzo(a)pyrene	(6)	17.474	252	375709	1.124
51)*Perylene-d12	(6)	17.552	264	313542	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.339	276	219455	0.557
54) Dibenz(a,h)anthracene	(6)	19.346	278	207596	0.645
55) Benzo(g,h,i)perylene	(6)	19.833	276	158140	0.456

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anthony P. Bauer
on 11/08/2018 at 18:08.
Target 3.5 esignature user ID: apb10206

Raw QC Data

Semivolatiles by GC/MS-SIM

Data file: /chem/HP10623.i/18nov05a.b/ck0202.d Injection date and time: **05-NOV-2018 19:15**
Data file Sample Info. Line: SBLKLE302;SBLKLE302;2;3;BLANK;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 08:48
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov05a.b/ck0201.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.858	(-0.013)	449	152	71653	(-10)	1.00	
10) Naphthalene-d8	8.370	(0.000)	563	136	320623	(-14)	1.00	
20) Acenaphthene-d10	10.547	(0.000)	751	164	154171	(-13)	1.00	
31) Phenanthrene-d10	12.396	(0.000)	916	188	285740	(-15)	1.00	
43) Chrysene-d12	15.707	(0.000)	1233	240	217921	(-16)	1.00	
51) Perylene-d12	17.858	(0.000)	1508	264	188883	(-19)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.319	(0.000)	152	151207	0.933	93%
36) Fluoranthene-d10	(4)	13.893	(0.000)	212	252165	0.973	97%
49) Benzo(a)pyrene-d12	(6)	17.725	(0.000)	264	152680	0.880	88%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)				Not Detected					0.02
11) Naphthalene	(2)				Not Detected					0.04
19) Acenaphthylene	(3)				Not Detected					0.01
21) Acenaphthene	(3)				Not Detected					0.02
26) Fluorene	(3)				Not Detected					0.02
32) Phenanthrene	(4)				Not Detected					0.02
33) Anthracene	(4)				Not Detected					0.02
35) Di-n-butylphthalate	(4)				Not Detected					0.2
37) Fluoranthene	(4)				Not Detected					0.02
39) Pyrene	(5)				Not Detected					0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.605	(-0.000)	149	46269M	0.303	10.09			0.3
42) Benzo(a)anthracene	(5)				Not Detected					0.02
44) Chrysene	(5)				Not Detected					0.01
46) Benzo(b)fluoranthene	(6)				Not Detected					0.02
47) Benzo(k)fluoranthene	(6)				Not Detected					0.02
50) Benzo(a)pyrene	(6)				Not Detected					0.02
53) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.02
54) Dibenz(a,h)anthracene	(6)				Not Detected					0.02
55) Benzo(g,h,i)perylene	(6)				Not Detected					0.02

M = Compound was manually integrated.

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10623.i/18nov05a.b/ck0202.d Injection date and time: **05-NOV-2018 19:15**
Data file Sample Info. Line: SBLKLE302;SBLKLE302;2;3;BLANK;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 08:48
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov05a.b/ck0201.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

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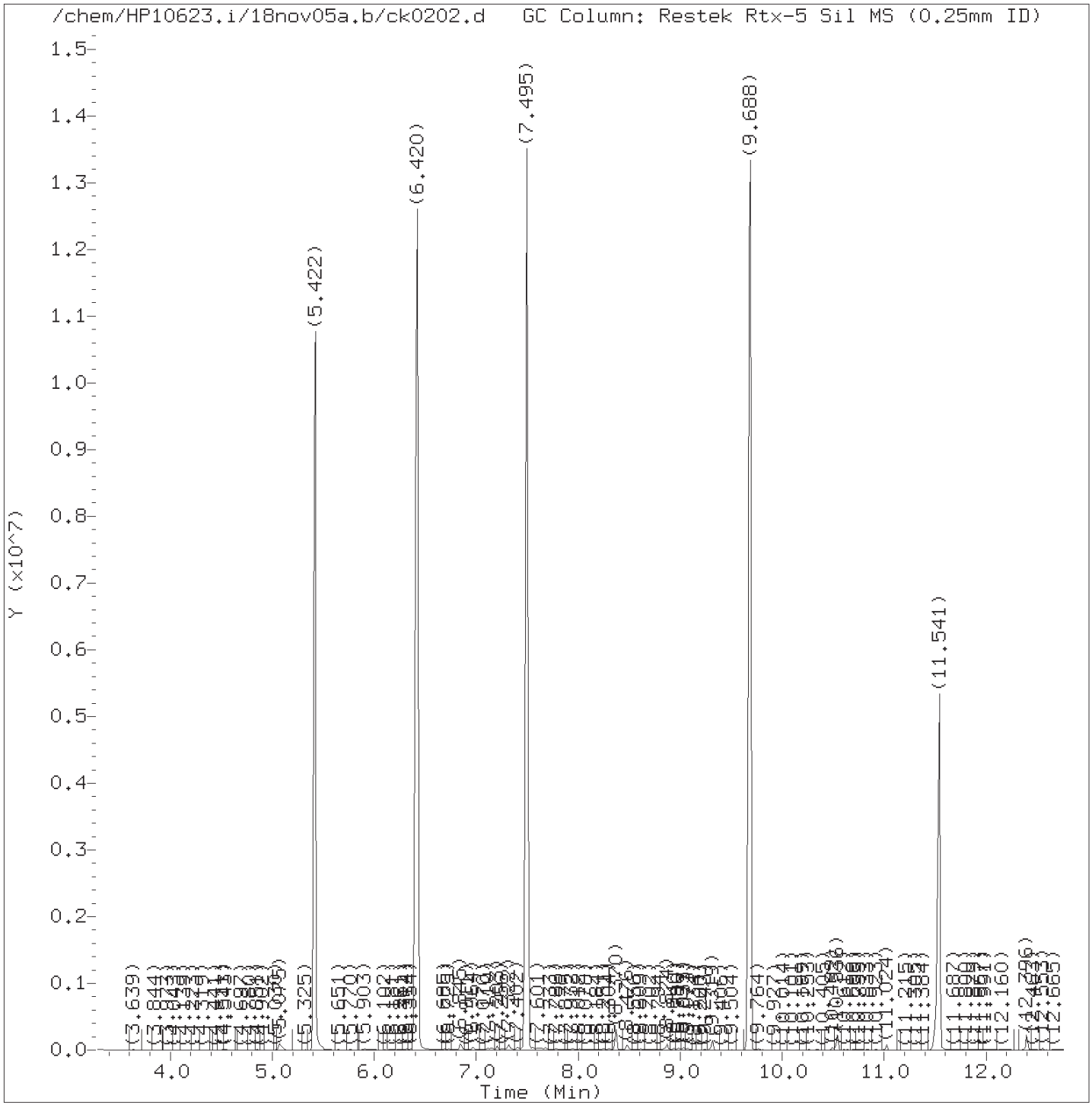
Total number of targets = 19

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

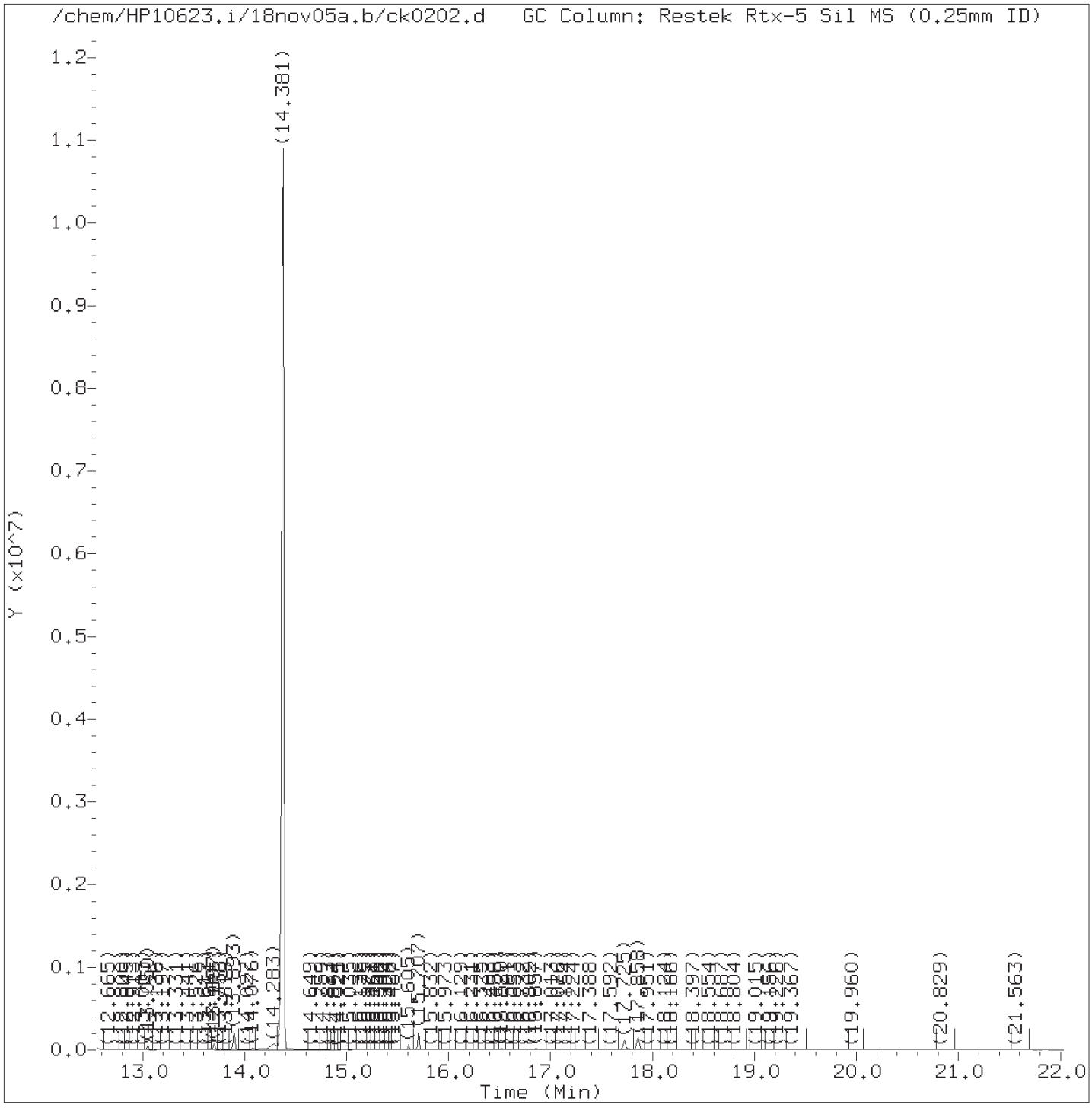
Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

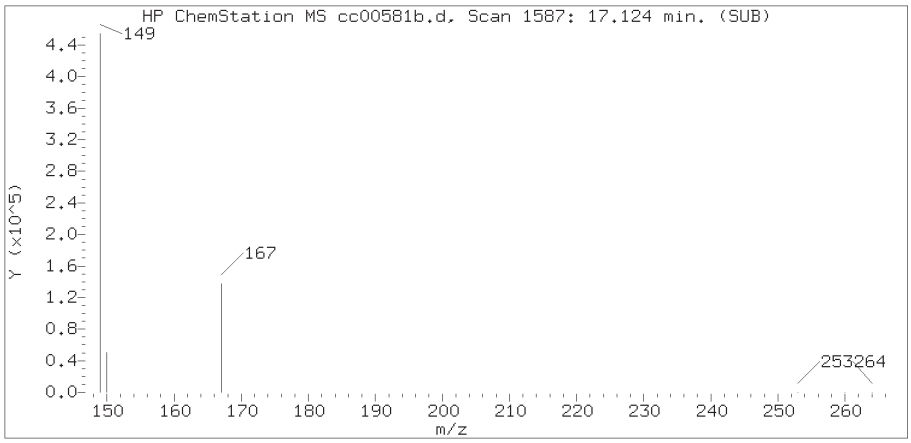
Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

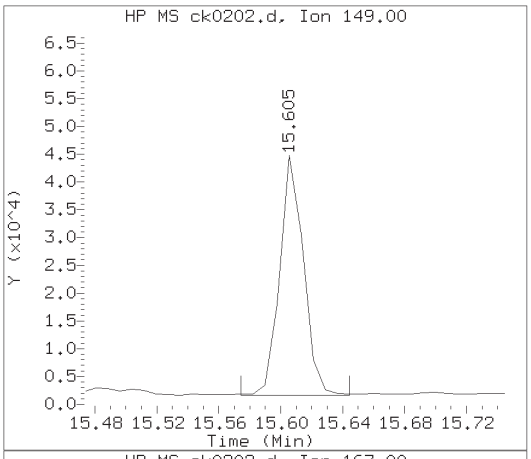
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.858	152	71653	1.000
10)*Naphthalene-d8	(2)	8.370	136	320623	1.000
14)$1-Methylnaphthalene-d10	(2)	9.319	152	151207	0.933
20)*Acenaphthene-d10	(3)	10.547	164	154171	1.000
31)*Phenanthrene-d10	(4)	12.396	188	285740	1.000
36)$Fluoranthene-d10	(4)	13.893	212	252165	0.973
41) bis(2-Ethylhexyl)phthalate	(5)	15.605	149	46269M	0.303
43)*Chrysene-d12	(5)	15.707	240	217921	1.000
49)$Benzo(a)pyrene-d12	(6)	17.725	264	152680	0.880
51)*Perylene-d12	(6)	17.858	264	188883	1.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

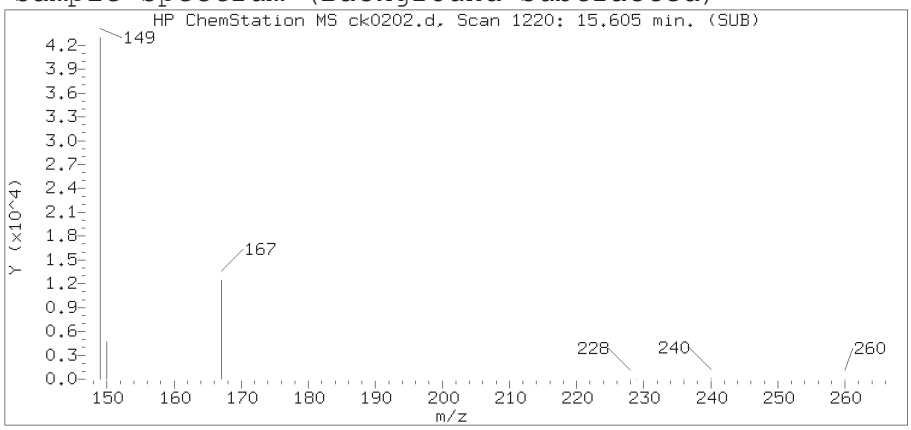
Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346

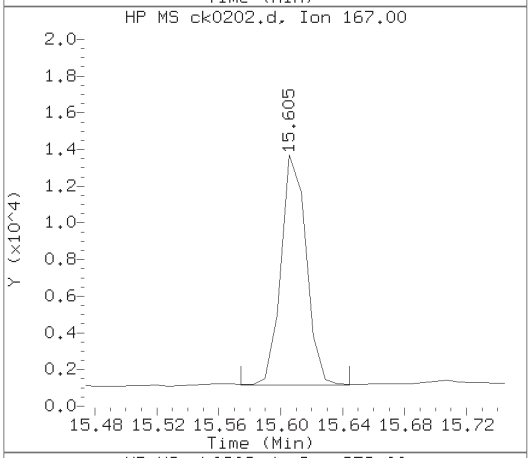
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



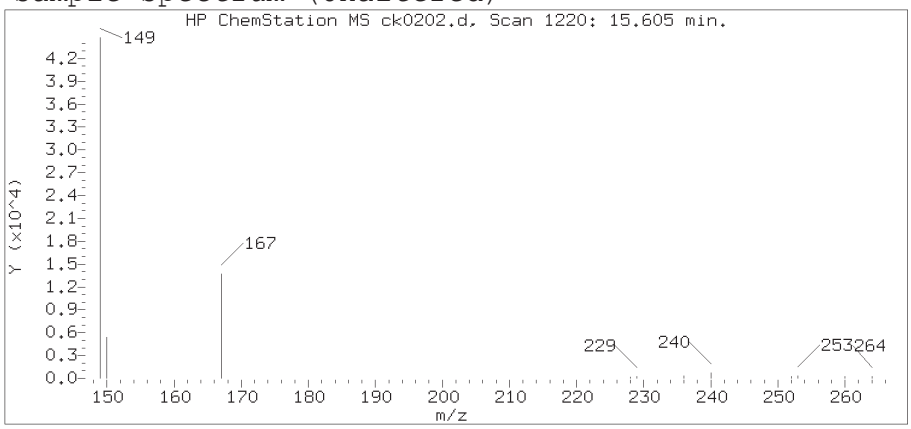


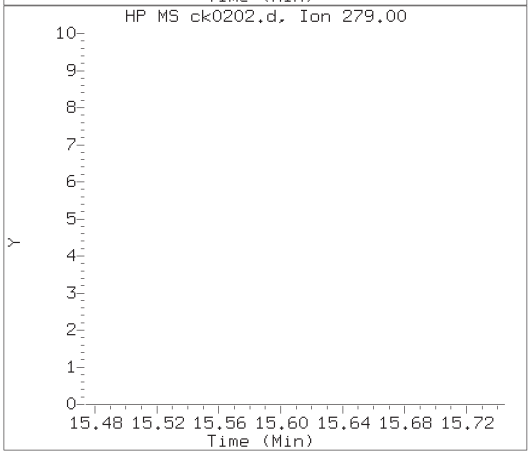
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

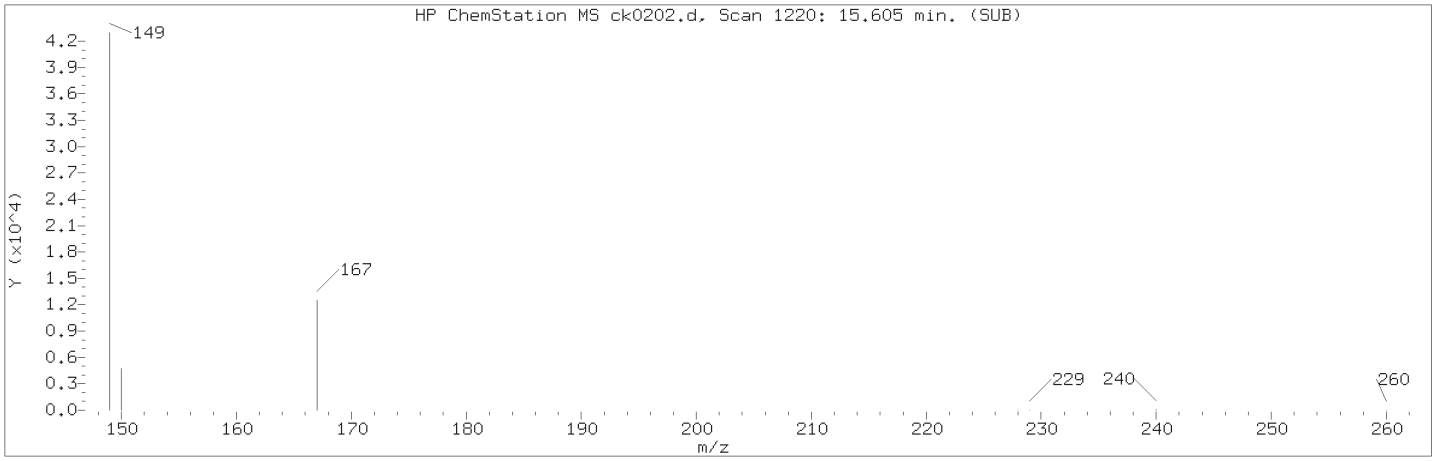
Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

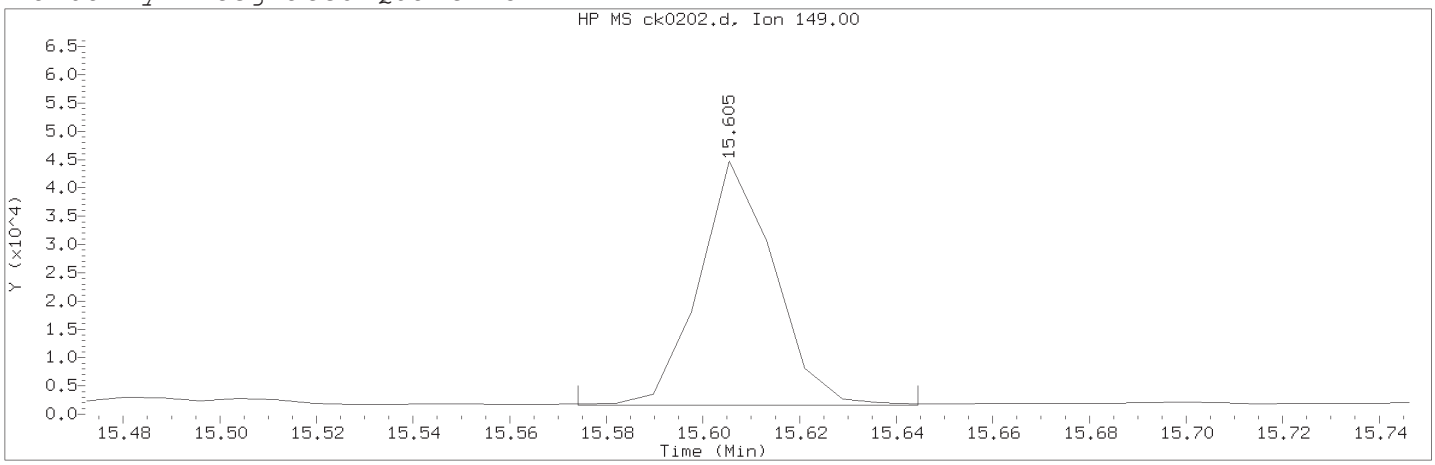
Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1220
Retention Time (minutes)	: 15.605
Relative Retention Time	:-0.00000
Quant Ion	: 149.00
Area (flag)	: 46269M
On-column Amount (ng/ul)	: 0.3028

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

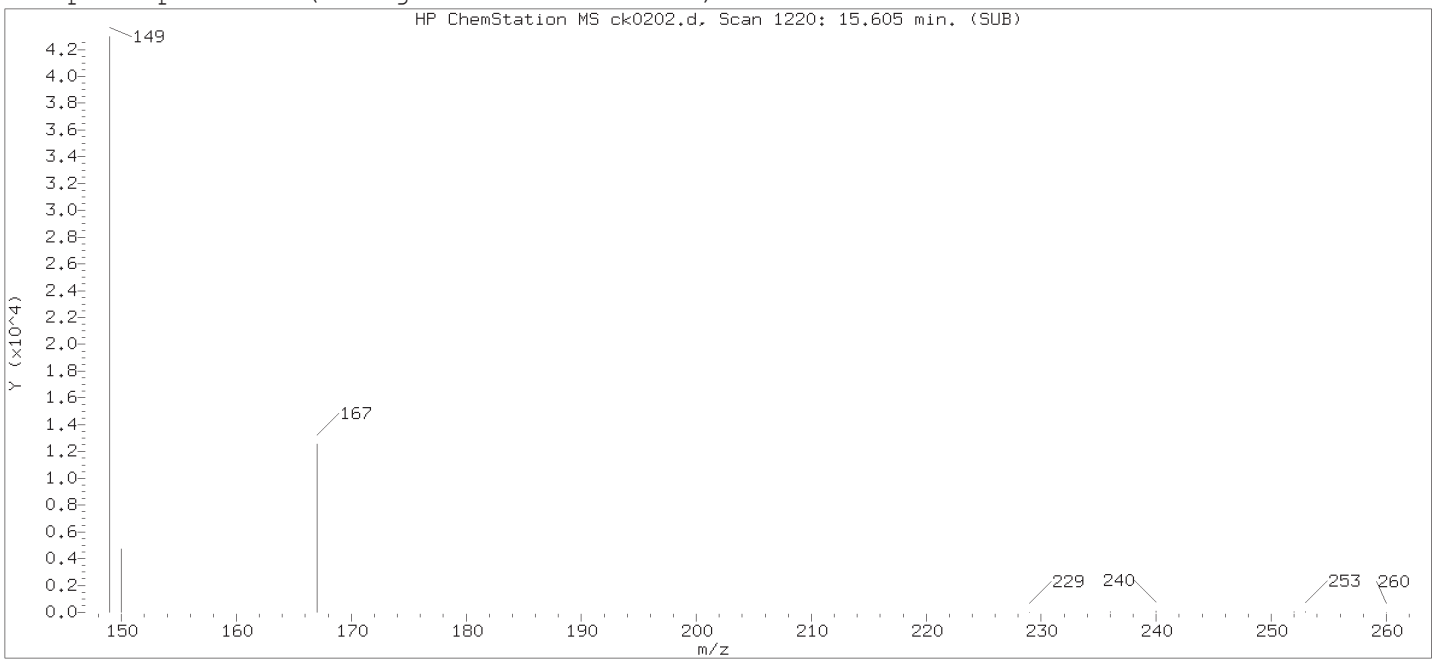
Compound Number : 41
Compound Name : bis(2-Ethylhexyl)phthalate
Scan Number : 1220
Retention Time (minutes) : 15.605
Quant Ion : 149.00
Area (flag) : 46269M
On-column Amount (ng/ul) : 0.3028
Integration start scan : 1215 Integration stop scan: 1224
Y at integration start : 1654 Y at integration end: 1654

Reason for manual integration: improper integration

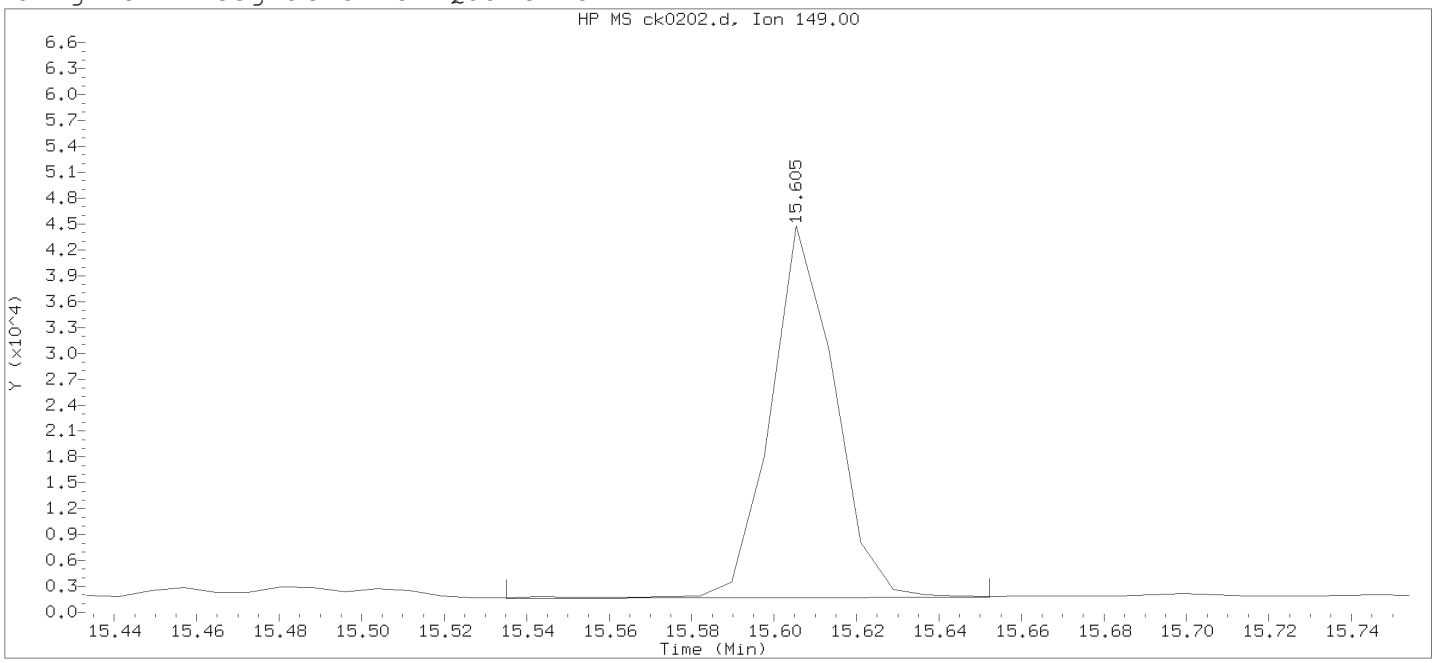
Analyst responsible for change: Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov05a.b/ck0202.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:15 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 05-NOV-2018 19:11
Date, time and analyst ID of latest file update: 05-Nov-2018 19:42 Automation

Sample Name: SBLKLE302 Lab Sample ID: SBLKLE302

Compound Number	: 41	
Compound Name	: bis(2-Ethylhexyl)phthalate	
Scan Number	: 1220	
Retention Time (minutes)	: 15.605	
Quant Ion	: 149.00	
Area	: 46153	
On-column Amount (ng/ul)	: 0.3023	
Integration start scan	: 1210	Integration stop scan: 1225
Y at integration start	: 1640	Y at integration end: 1771

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01.
Target 3.5 esignature used 11/06/2018

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10976.i/18nov07.b/ik0302.d Injection date and time: **07-NOV-2018 18:15**
Data file Sample Info. Line: SBLKLH302;SBLKLH302;2;3;BLANK;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.808	(0.000)	500	152	38204	(-13)	1.00	
10) Naphthalene-d8	8.320	(0.000)	614	136	140365	(-12)	1.00	
20) Acenaphthene-d10	10.489	(-0.002)	802	164	85870	(-15)	1.00	
31) Phenanthrene-d10	12.334	(-0.002)	967	188	190240	(-15)	1.00	
43) Chrysene-d12	15.621	(-0.007)	1268	240	189233	(-17)	1.00	
51) Perylene-d12	17.568	(0.001)	1517	264	179720	(-22)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.272	(0.000)	152	75115	0.878	88%
36) Fluoranthene-d10	(4)	13.819	(0.000)	212	207910	0.881	88%
49) Benzo(a)pyrene-d12	(6)	17.451	(0.000)	264	143997	0.839	84%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)				Not Detected					0.02
11) Naphthalene	(2)	8.346	(-0.000)	128	135776	0.939	31.31			0.04
19) Acenaphthylene	(3)				Not Detected					0.01
21) Acenaphthene	(3)	10.522	(0.000)	154	5590M	0.052	1.72			0.02
26) Fluorene	(3)	11.165	(0.000)	166	7781	0.058	1.95			0.02
32) Phenanthrene	(4)	12.357	(0.000)	178	15782	0.077	2.56			0.02
33) Anthracene	(4)	12.424	(0.000)	178	4519M	0.022	0.73			0.02
35) Di-n-butylphthalate	(4)				Not Detected					0.2
37) Fluoranthene	(4)				Not Detected					0.02
39) Pyrene	(5)				Not Detected					0.02
41) bis(2-Ethylhexyl)phthalate	(5)				Not Detected					0.3
42) Benzo(a)anthracene	(5)				Not Detected					0.02
44) Chrysene	(5)				Not Detected					0.01
46) Benzo(b)fluoranthene	(6)				Not Detected					0.02
47) Benzo(k)fluoranthene	(6)				Not Detected					0.02
50) Benzo(a)pyrene	(6)				Not Detected					0.02
53) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.02
54) Dibenz(a,h)anthracene	(6)				Not Detected					0.02
55) Benzo(g,h,i)perylene	(6)				Not Detected					0.02

M = Compound was manually integrated.

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10976.i/18nov07.b/ik0302.d Injection date and time: **07-NOV-2018 18:15**
Data file Sample Info. Line: SBLKLH302;SBLKLH302;2;3;BLANK;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

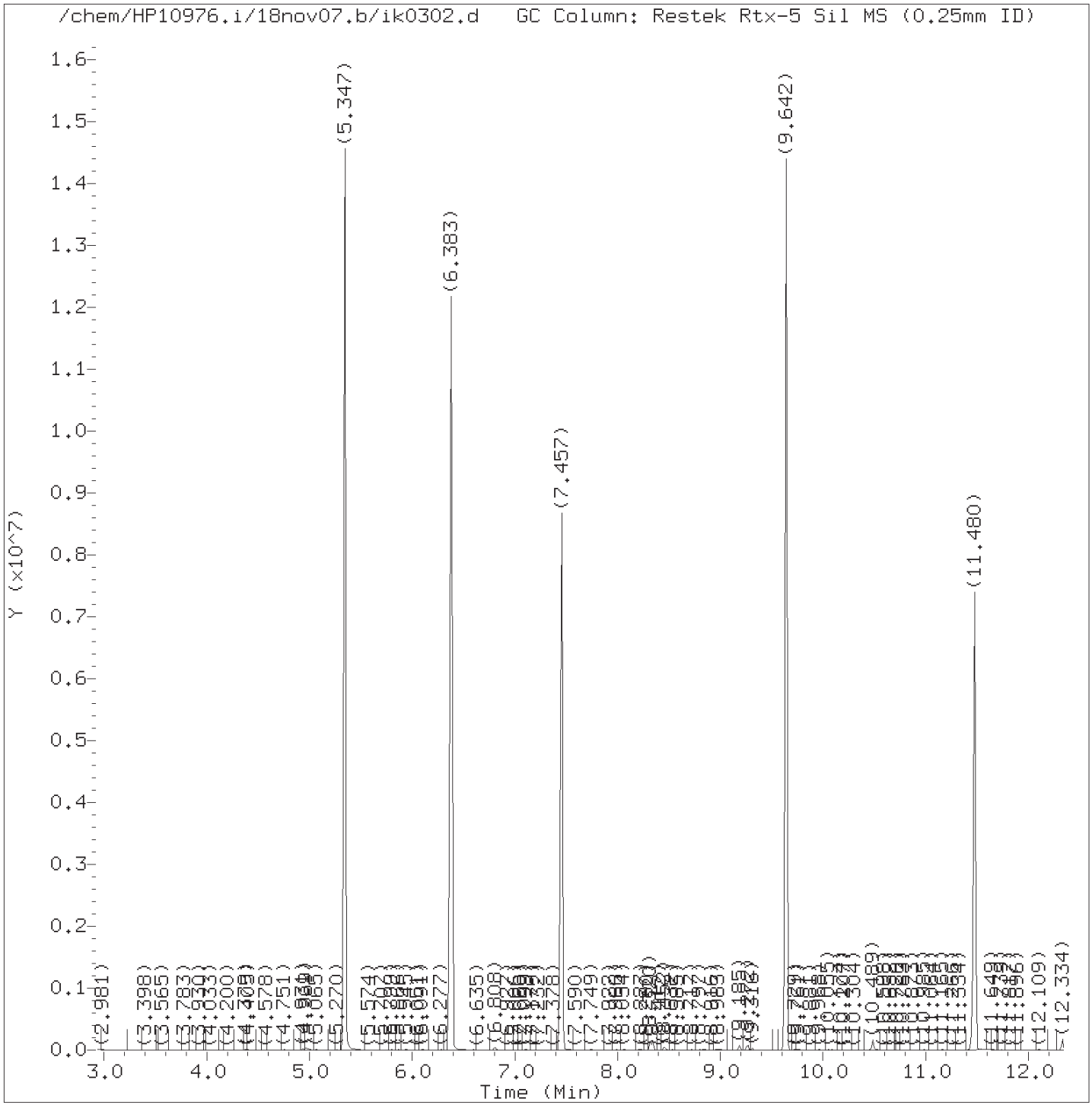
Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 19

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:49. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

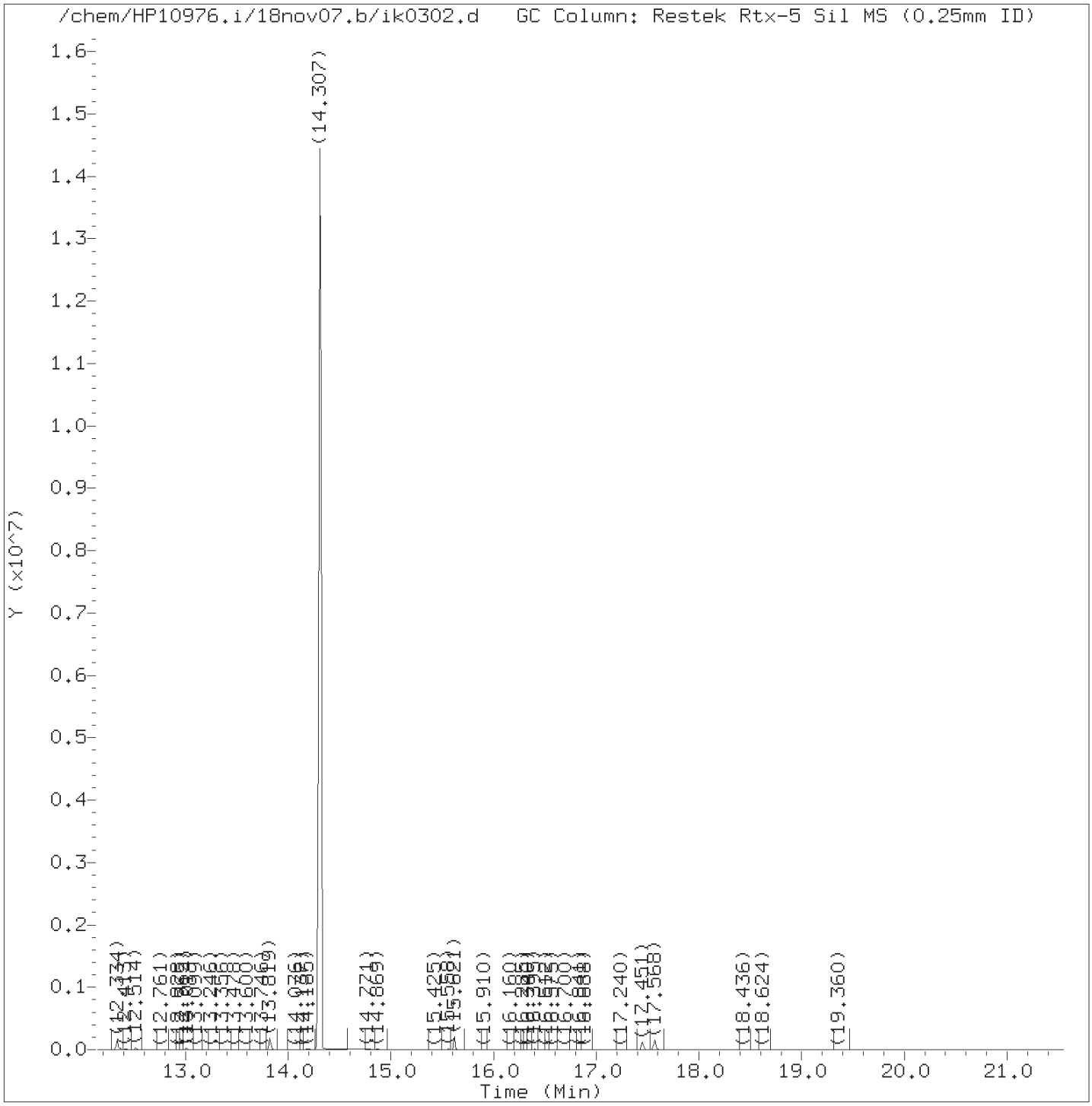
Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

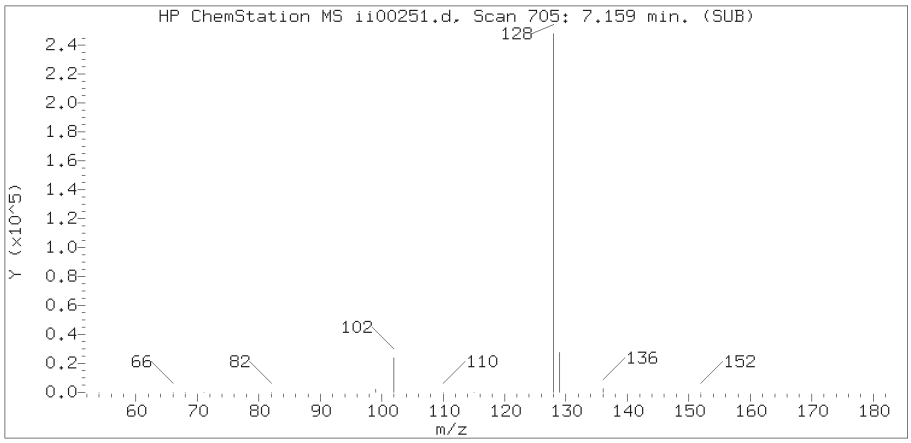
Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

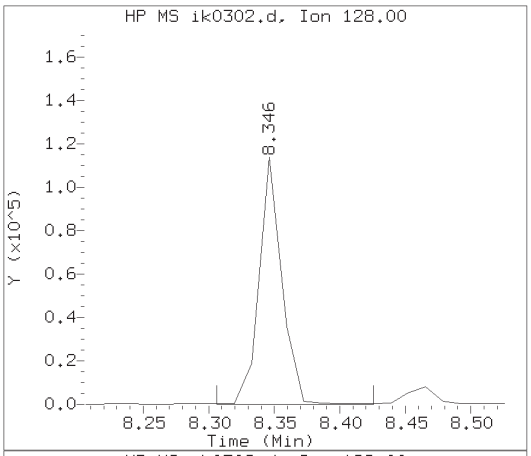
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	38204	1.000
10)*Naphthalene-d8	(2)	8.320	136	140365	1.000
11) Naphthalene	(2)	8.346	128	135776	0.939
14)$1-Methylnaphthalene-d10	(2)	9.272	152	75115	0.878
20)*Acenaphthene-d10	(3)	10.489	164	85870	1.000
21) Acenaphthene	(3)	10.522	154	5590M	0.052
26) Fluorene	(3)	11.165	166	7781	0.058
31)*Phenanthrene-d10	(4)	12.334	188	190240	1.000
32) Phenanthrene	(4)	12.357	178	15782	0.077
33) Anthracene	(4)	12.424	178	4519M	0.022
36)$Fluoranthene-d10	(4)	13.819	212	207910	0.881
43)*Chrysene-d12	(5)	15.621	240	189233	1.000
49)$Benzo(a)pyrene-d12	(6)	17.451	264	143997	0.839
51)*Perylene-d12	(6)	17.568	264	179720	1.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

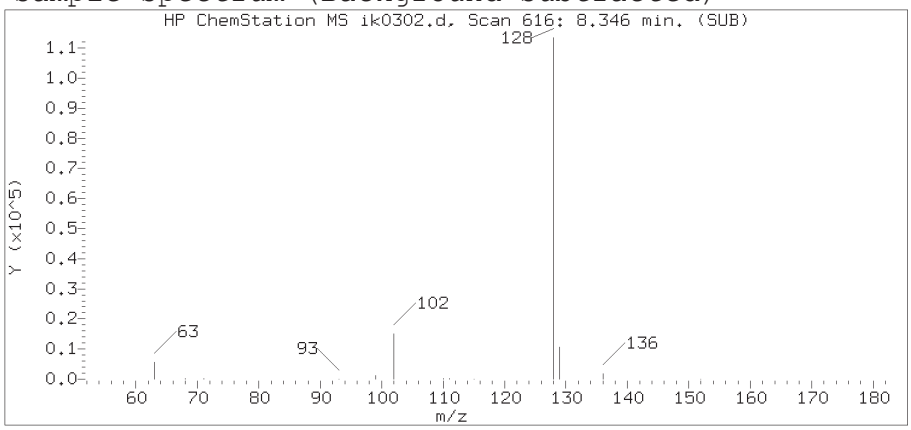
Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

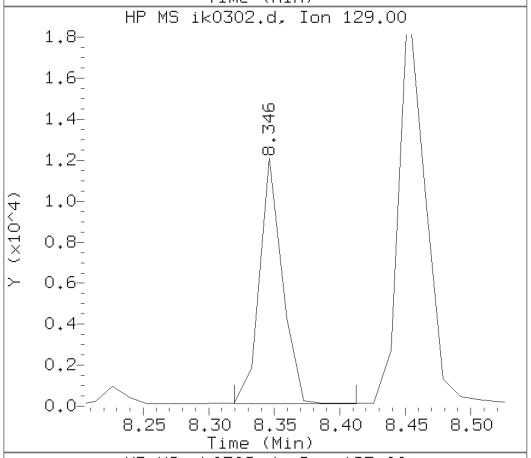
Reference Standard Spectrum for Naphthalene



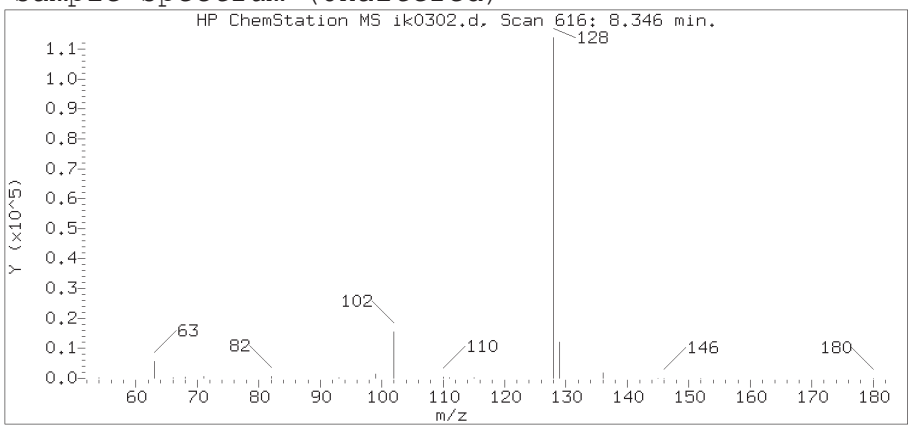


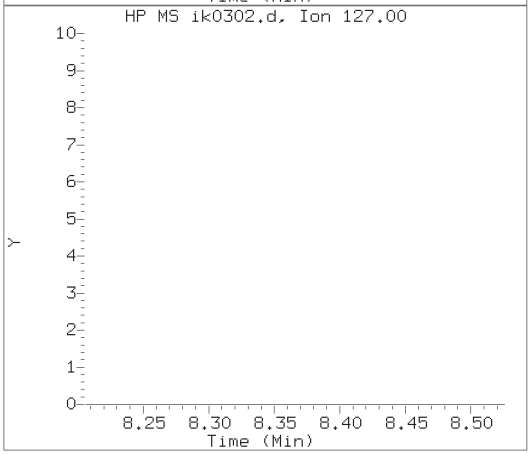
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

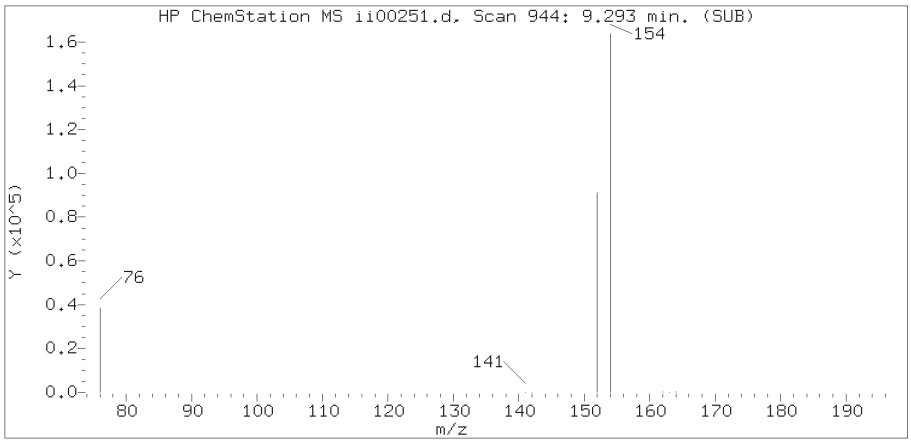
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

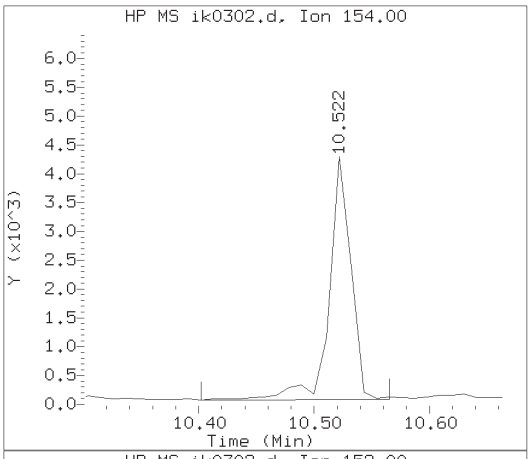
Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Compound Number	: 11
Compound Name	: Naphthalene
Scan Number	: 616
Retention Time (minutes)	: 8.346
Relative Retention Time	:-0.00000
Quant Ion	: 128.00
Area (flag)	: 135776
On-column Amount (ng/ul)	: 0.9394

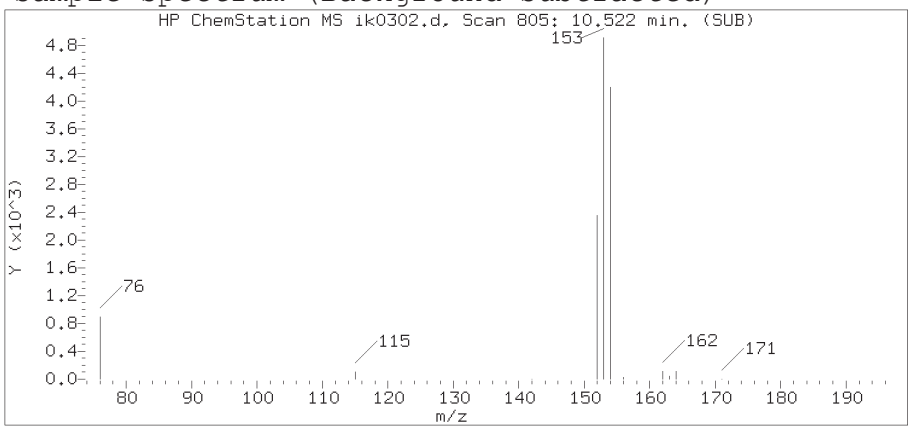
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

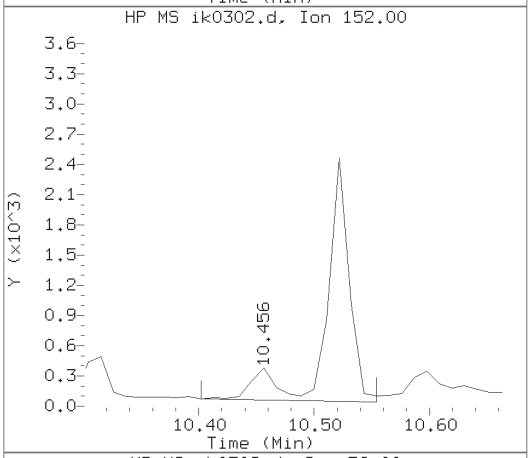
Reference Standard Spectrum for Acenaphthene



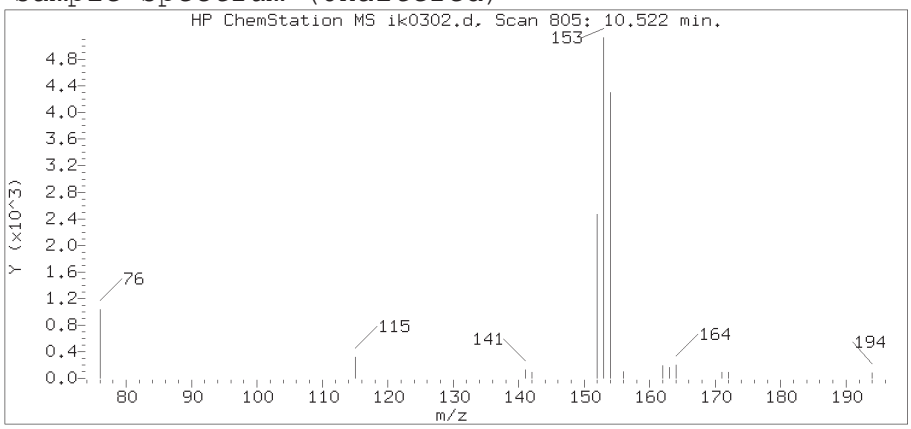


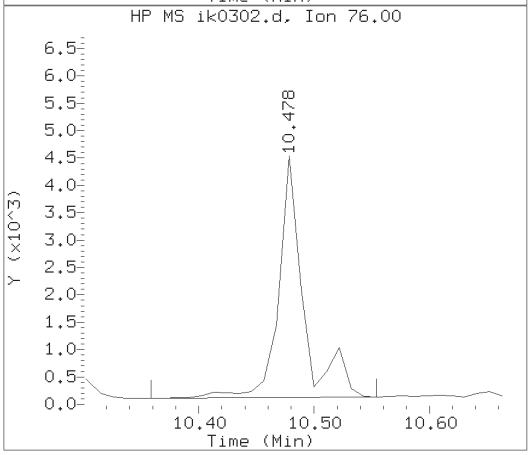
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

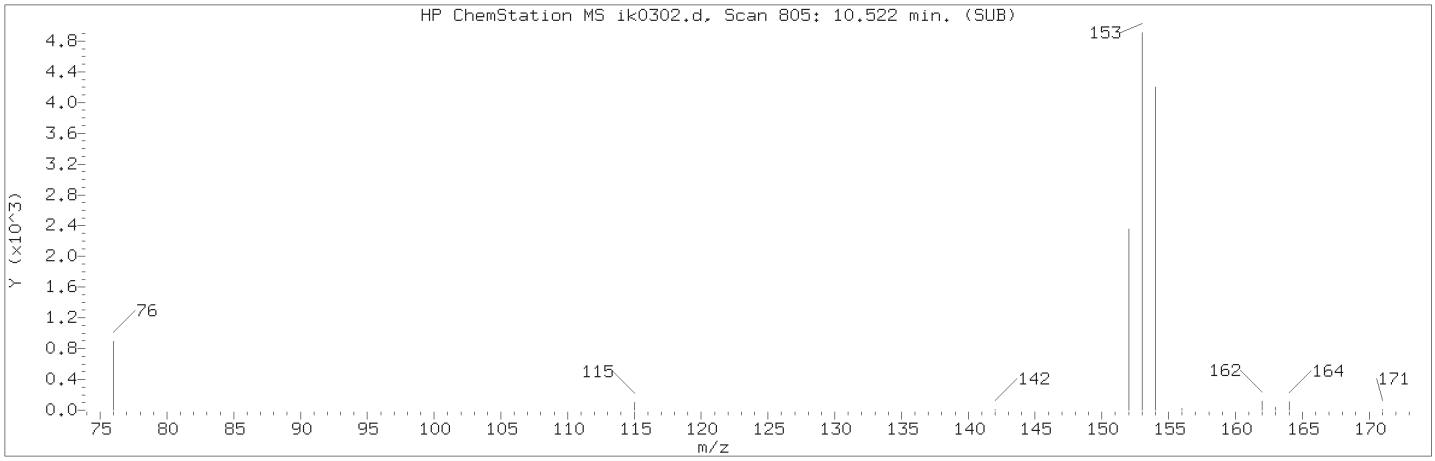
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

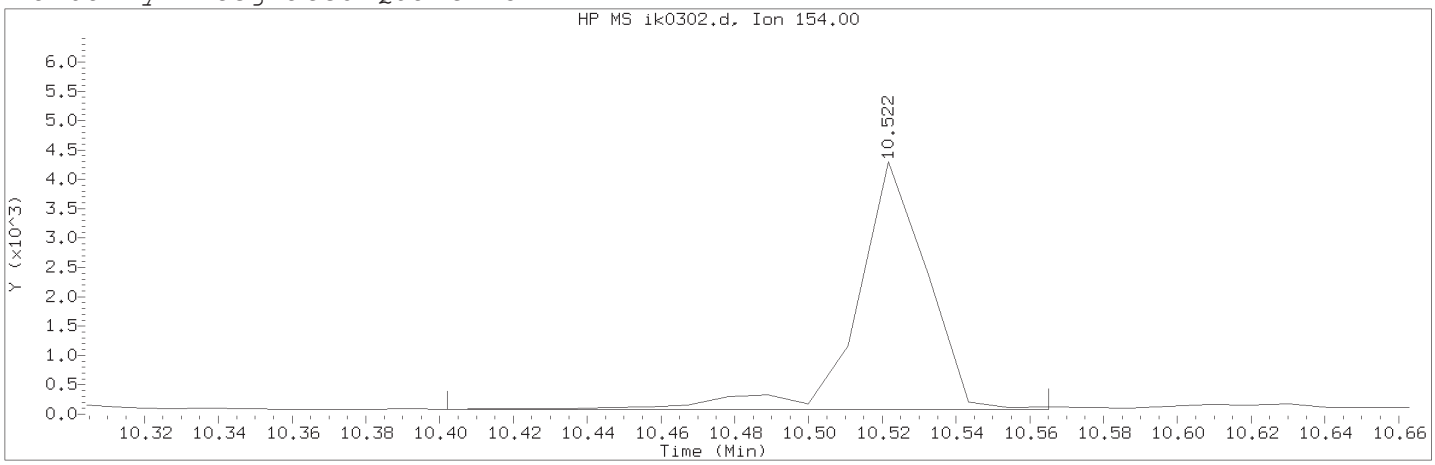
Compound Number	: 21
Compound Name	: Acenaphthene
Scan Number	: 805
Retention Time (minutes)	: 10.522
Relative Retention Time	: 0.00000
Quant Ion	: 154.00
Area (flag)	: 5590M
On-column Amount (ng/ul)	: 0.0517

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

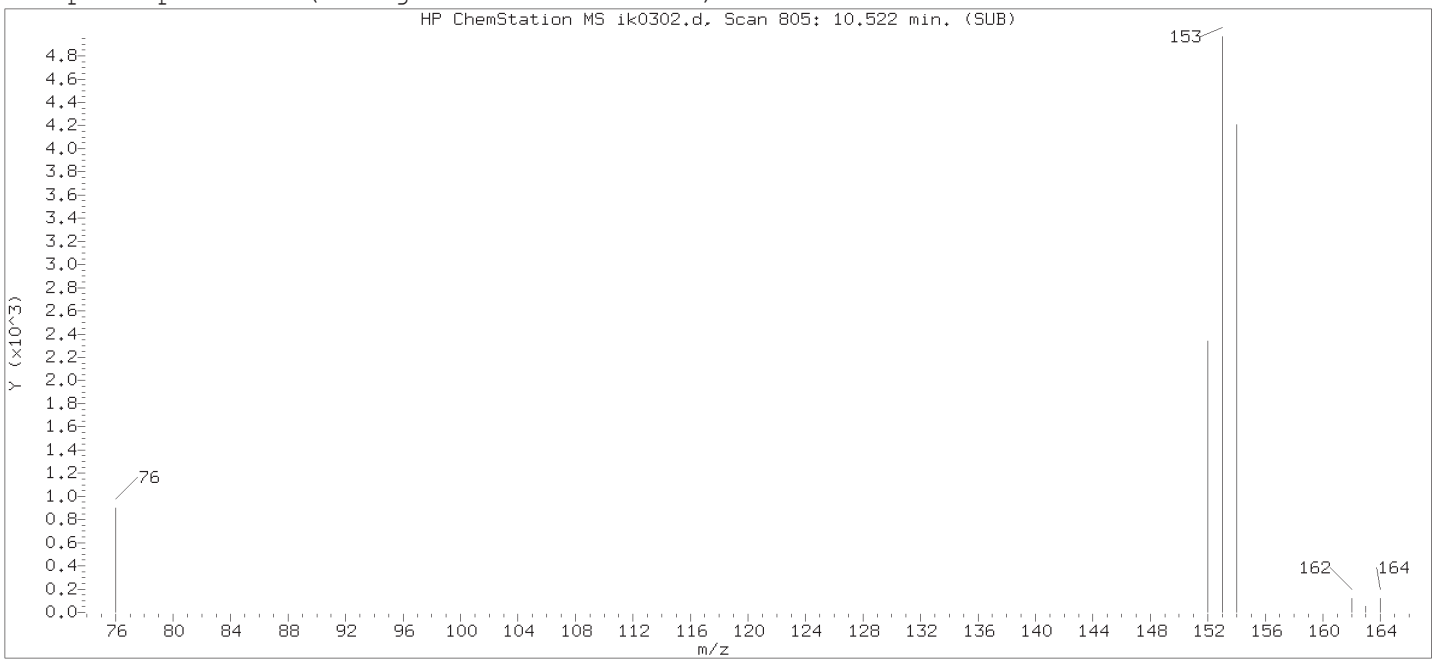
Compound Number : 21
Compound Name : Acenaphthene
Scan Number : 805
Retention Time (minutes) : 10.522
Quant Ion : 154.00
Area (flag) : 5590M
On-column Amount (ng/ul) : 0.0517
Integration start scan : 793 Integration stop scan: 808
Y at integration start : 78 Y at integration end: 80

Reason for manual integration: improper integration

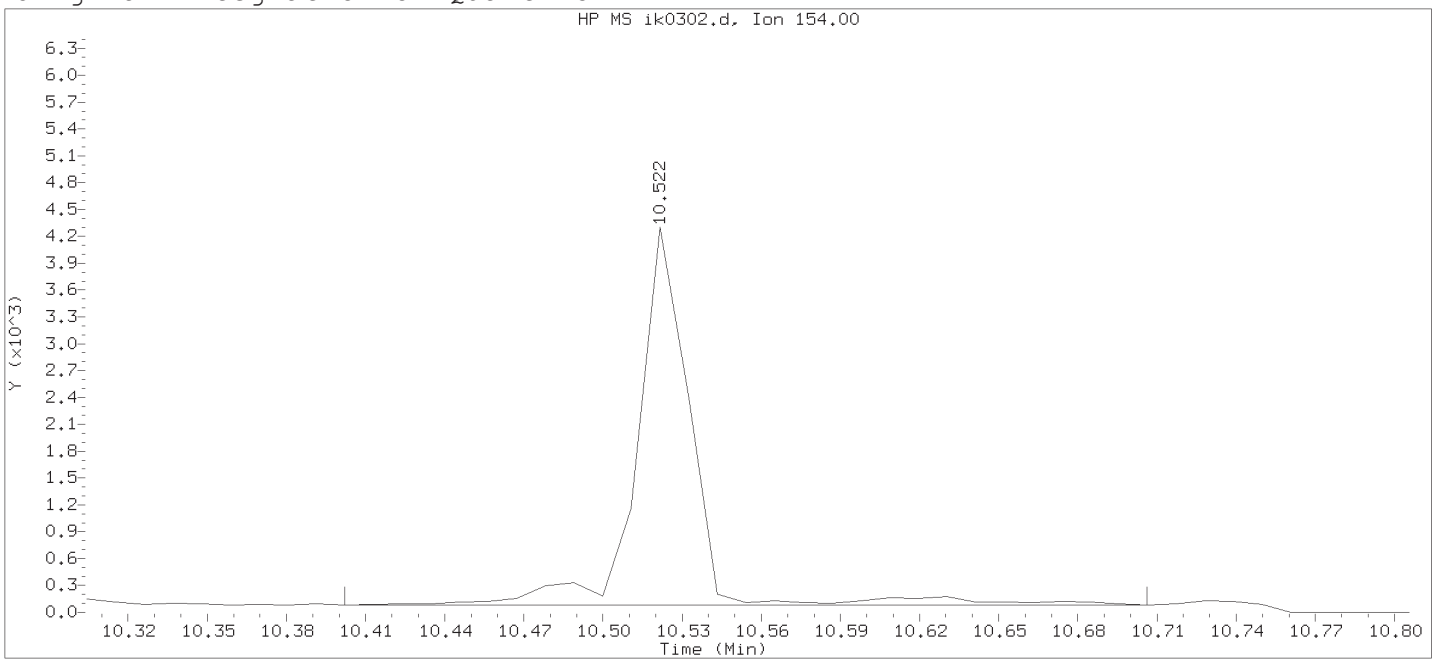
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:49.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

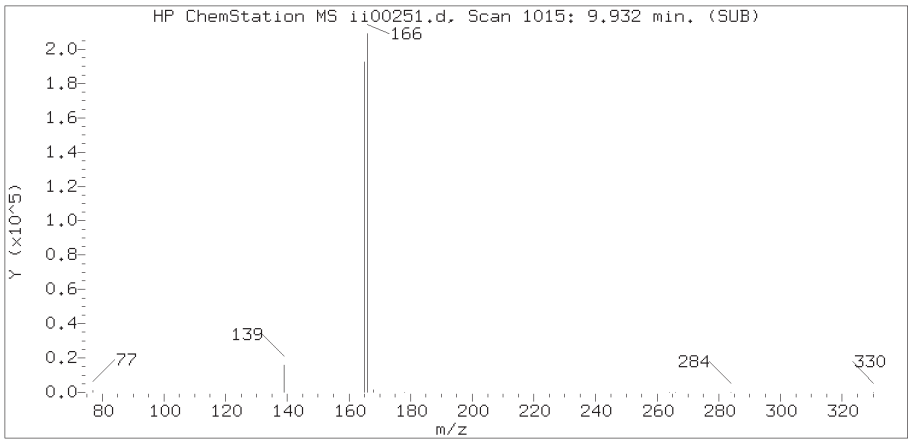
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:09 jmg00346

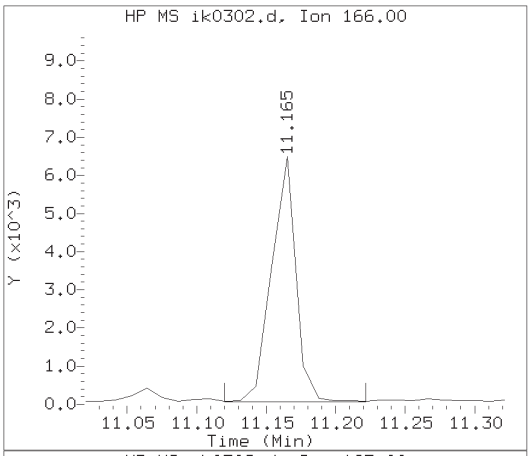
Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Compound Number	: 21		
Compound Name	: Acenaphthene		
Scan Number	: 805		
Retention Time (minutes)	: 10.522		
Quant Ion	: 154.00		
Area	: 5928		
On-column Amount (ng/ul)	: 0.0548		
Integration start scan	: 793	Integration stop scan:	821
Y at integration start	: 78	Y at integration end:	83

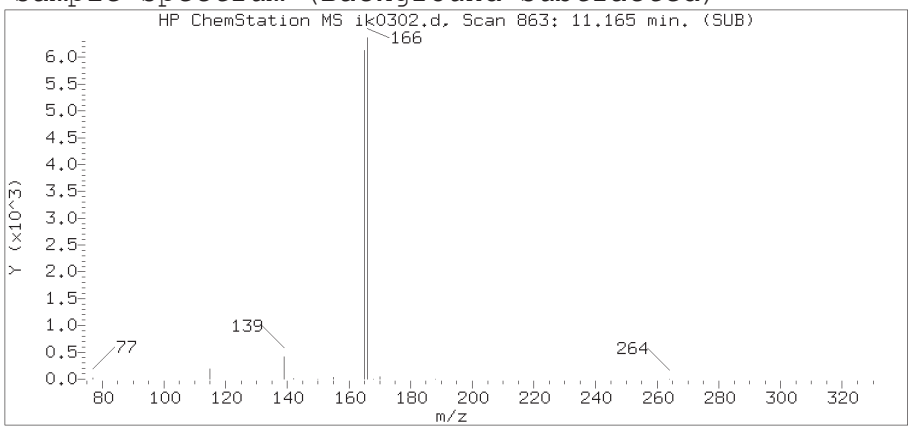
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature used 11/08/2018

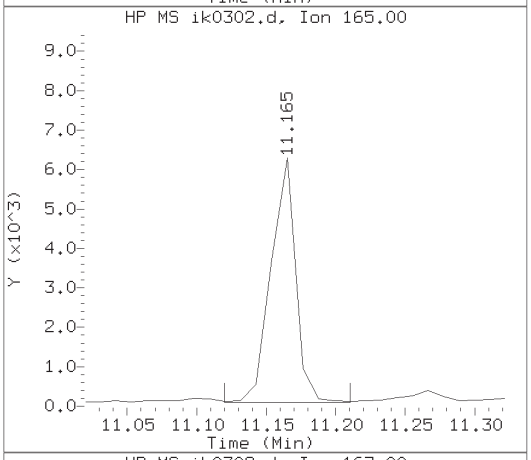
Reference Standard Spectrum for Fluorene



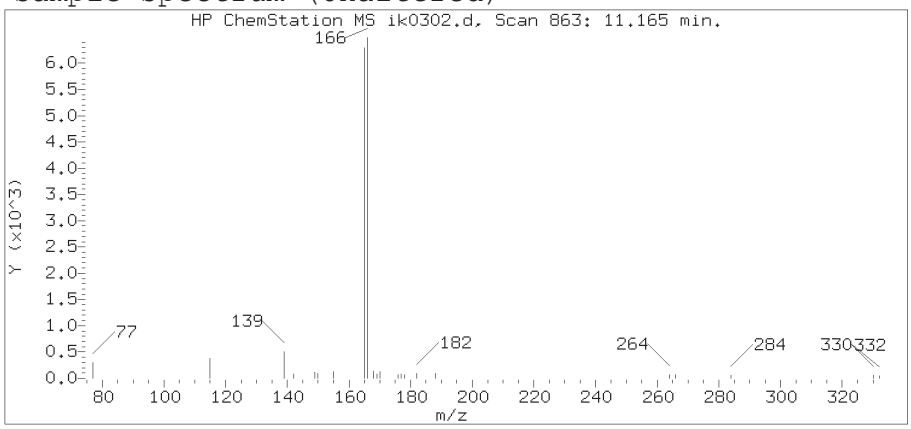


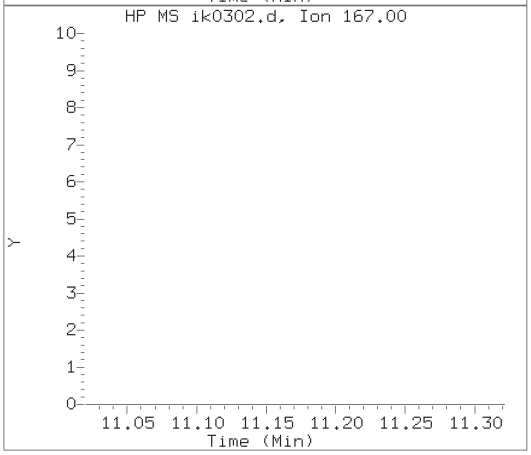
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

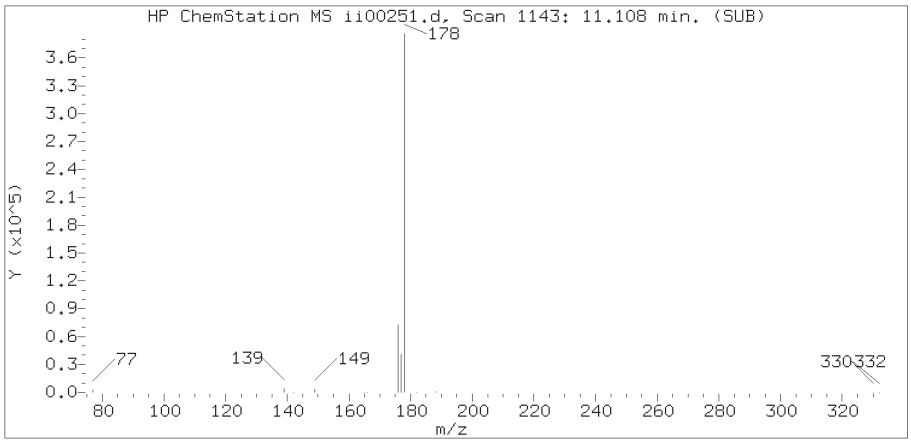
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

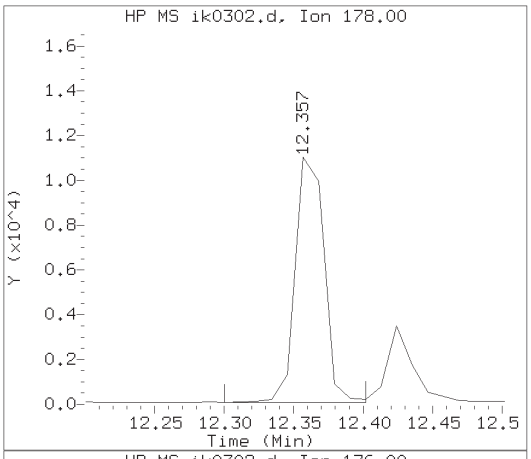
Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Compound Number	: 26
Compound Name	: Fluorene
Scan Number	: 863
Retention Time (minutes)	: 11.165
Relative Retention Time	: 0.00001
Quant Ion	: 166.00
Area (flag)	: 7781
On-column Amount (ng/ul)	: 0.0585

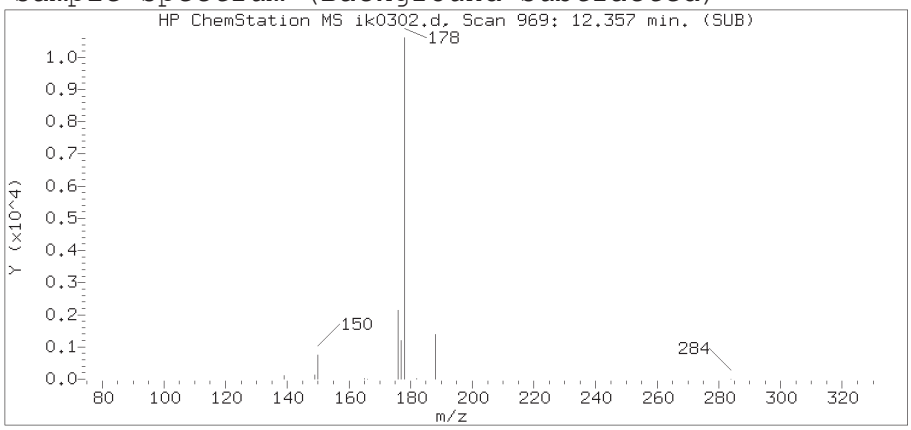
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

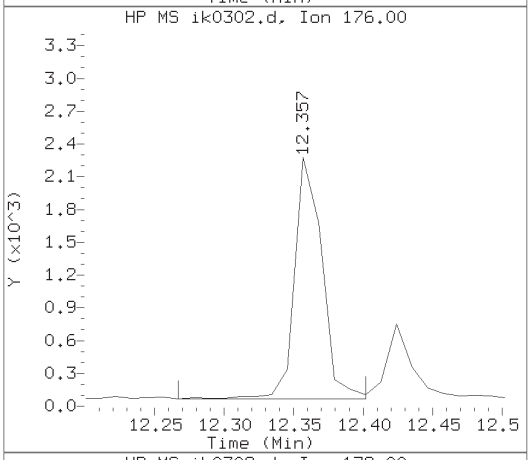
Reference Standard Spectrum for Phenanthrene



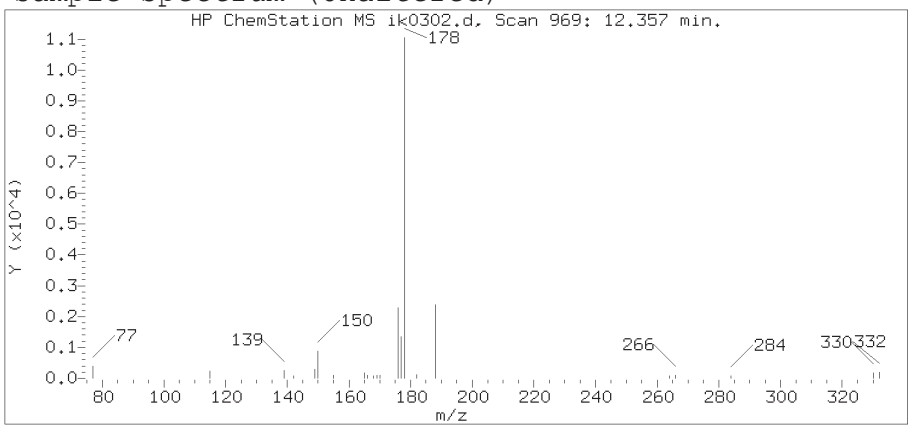


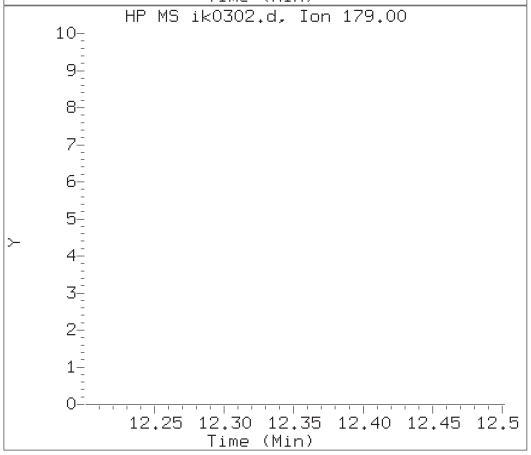
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

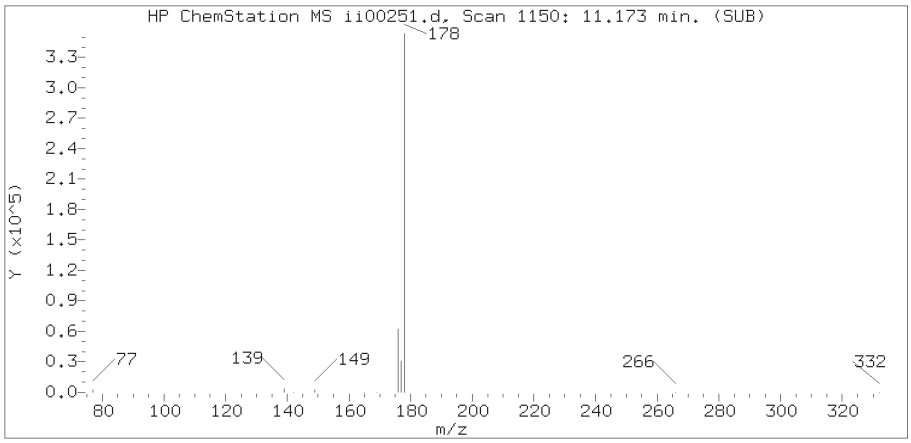
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

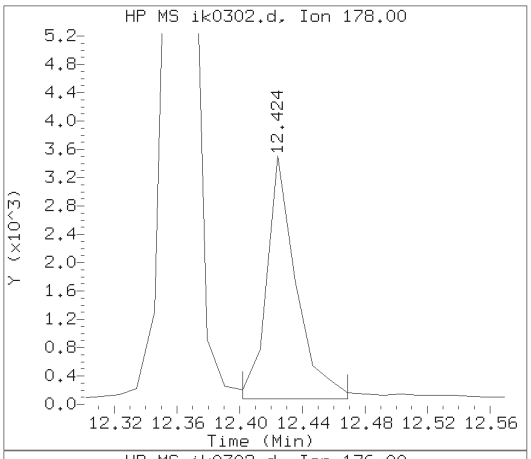
Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Compound Number	: 32
Compound Name	: Phenanthrene
Scan Number	: 969
Retention Time (minutes)	: 12.357
Relative Retention Time	: 0.00091
Quant Ion	: 178.00
Area (flag)	: 15782
On-column Amount (ng/ul)	: 0.0768

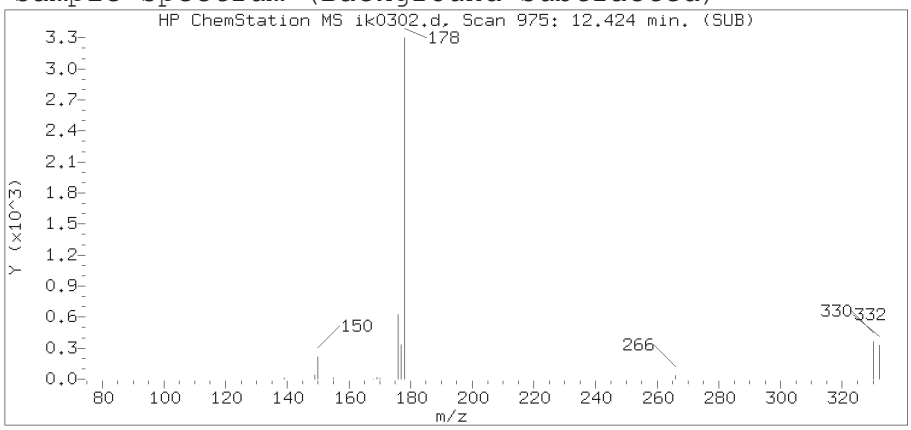
Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

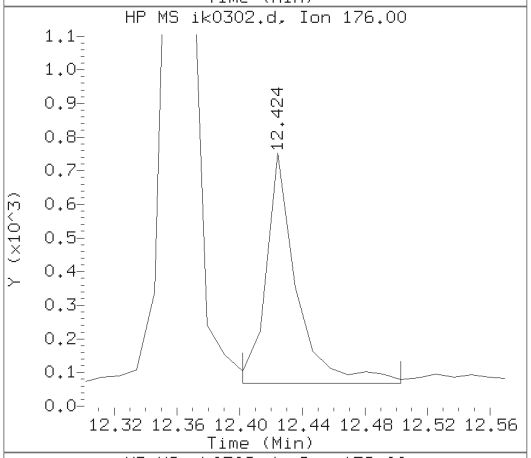
Reference Standard Spectrum for Anthracene



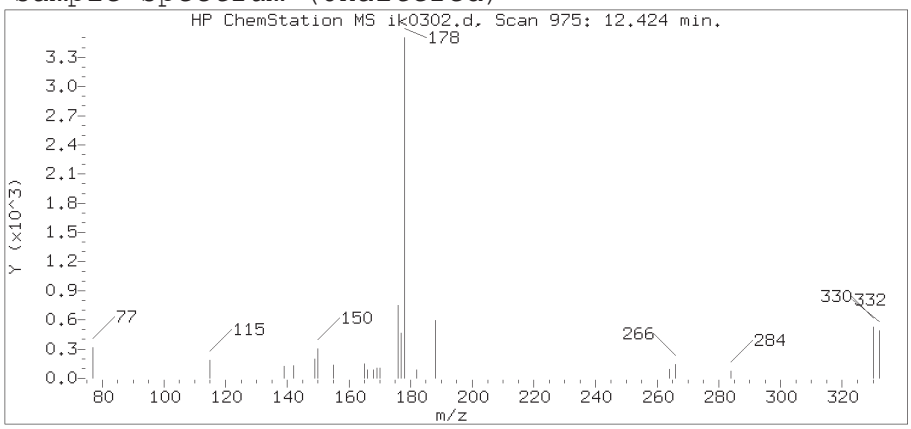


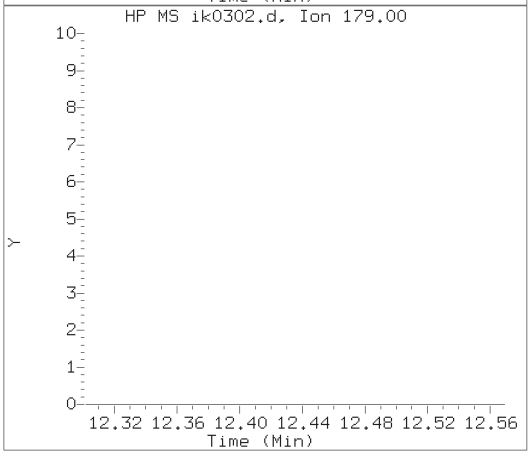
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

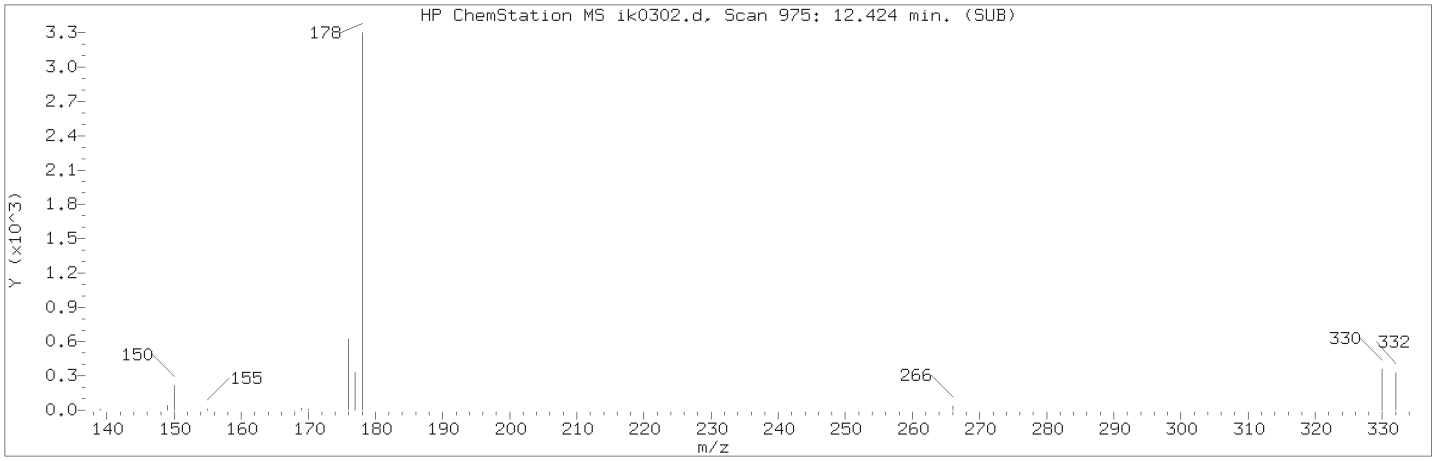
Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

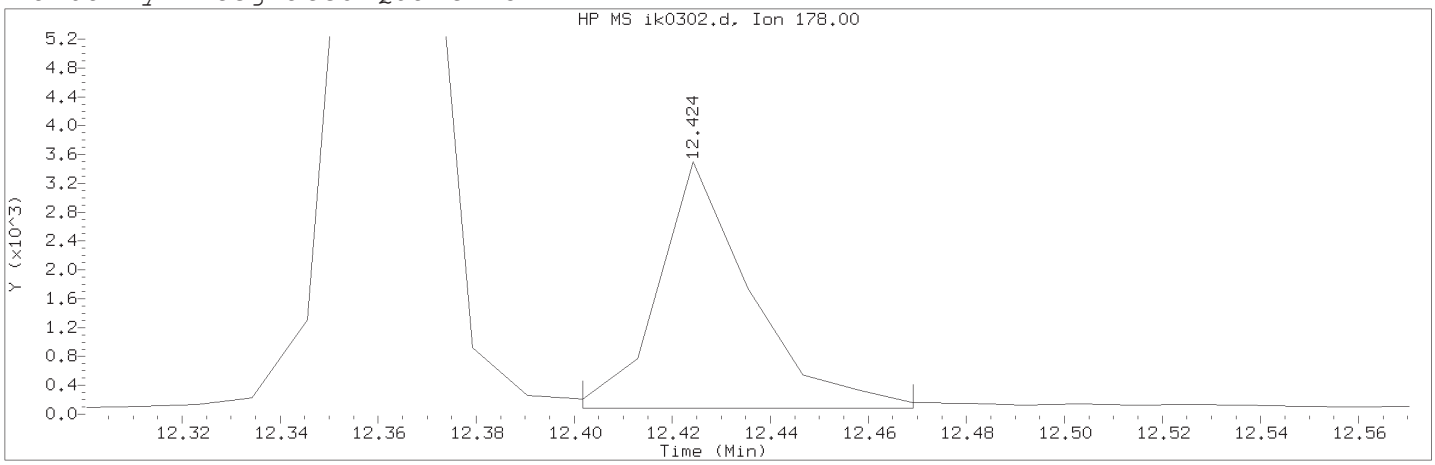
Compound Number	: 33
Compound Name	: Anthracene
Scan Number	: 975
Retention Time (minutes)	: 12.424
Relative Retention Time	: 0.00000
Quant Ion	: 178.00
Area (flag)	: 4519M
On-column Amount (ng/ul)	: 0.0220

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:10 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

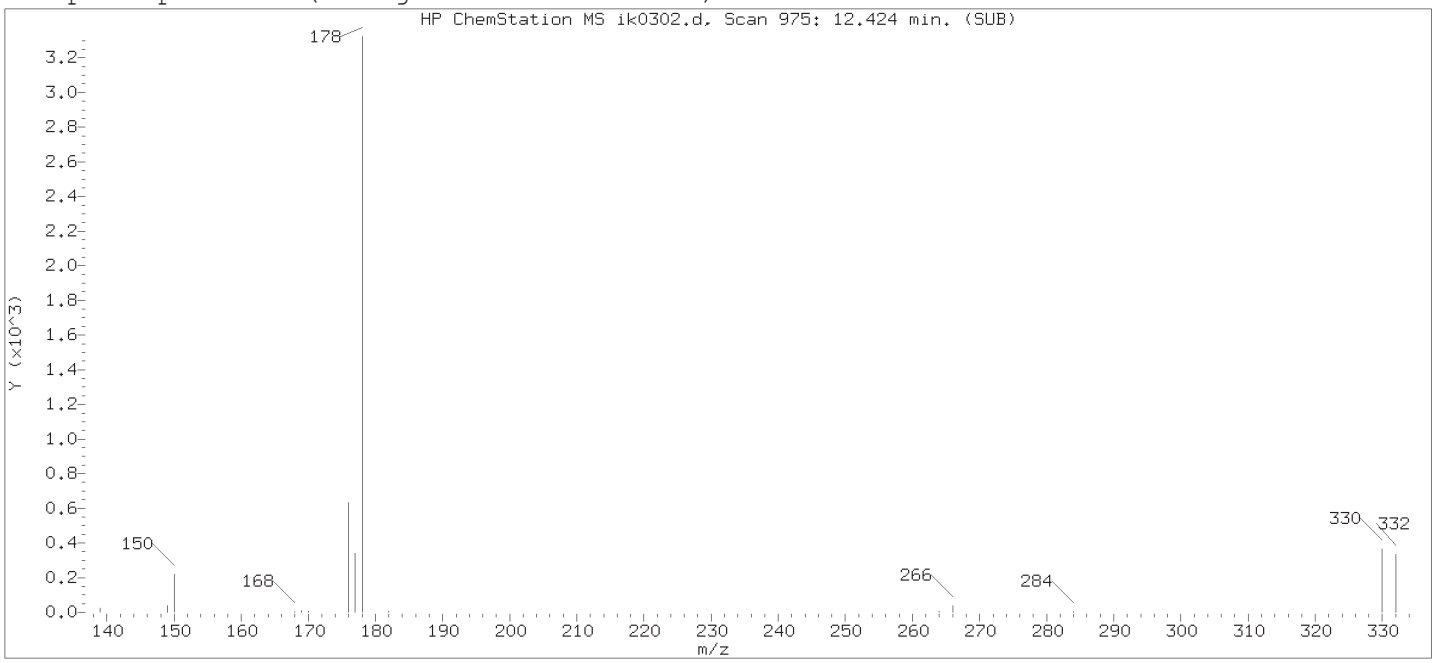
Compound Number : 33
Compound Name : Anthracene
Scan Number : 975
Retention Time (minutes) : 12.424
Quant Ion : 178.00
Area (flag) : 4519M
On-column Amount (ng/ul) : 0.0220
Integration start scan : 972 Integration stop scan: 978
Y at integration start : 80 Y at integration end: 80

Reason for manual integration: improper integration

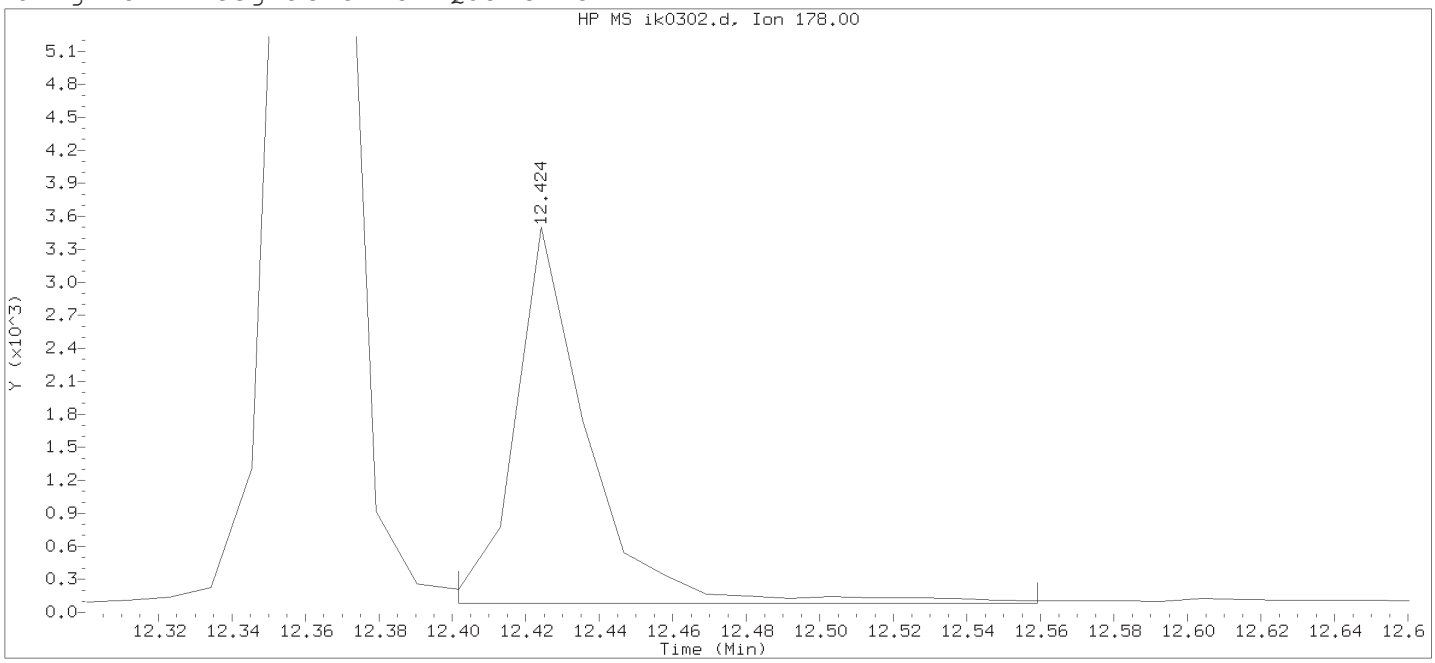
Analyst responsible for change: Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:49.
PARALLAX ID: hb01996

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10976.i/18nov07.b/ik0302.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 18:15 Analyst ID: 18302SLH

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:09 jmg00346

Sample Name: SBLKLH302 Lab Sample ID: SBLKLH302

Compound Number	: 33		
Compound Name	: Anthracene		
Scan Number	: 975		
Retention Time (minutes)	: 12.424		
Quant Ion	: 178.00		
Area	: 4718		
On-column Amount (ng/ul)	: 0.0229		
Integration start scan	: 972	Integration stop scan:	986
Y at integration start	: 80	Y at integration end:	80

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29.
Target 3.5 esignature used 11/07/2018 16:46

Data file: /chem/HP10623.i/18nov16.b/ck0702.d Injection date and time: **16-NOV-2018 07:21**
Data file Sample Info. Line: SBLKLC317;SBLKLC317;2;3;BLANK;;DOD26; Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.764	(0.000)	473	152	62792	(-8)	1.00	
10) Naphthalene-d8	8.276	(0.013)	587	136	252987	(-4)	1.00	
20) Acenaphthene-d10	10.448	(0.011)	773	164	117061	(-3)	1.00	
31) Phenanthrene-d10	12.305	(0.000)	939	188	223243	(-2)	1.00	
43) Chrysene-d12	15.609	(0.000)	1251	240	169975	(-3)	1.00	
51) Perylene-d12	17.720	(0.000)	1521	264	141767	(-8)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.231	(-0.002)	152	137145	1.073	107%
36) Fluoranthene-d10	(4)	13.806	(0.000)	212	217463	1.074	107%
49) Benzo(a)pyrene-d12	(6)	17.587	(0.000)	264	124896	0.959	96%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)				Not Detected					0.02
11) Naphthalene	(2)				Not Detected					0.04
19) Acenaphthylene	(3)	10.274	(-0.001)	152	2332M	0.010	0.33			0.01
21) Acenaphthene	(3)				Not Detected					0.02
26) Fluorene	(3)				Not Detected					0.02
32) Phenanthrene	(4)				Not Detected					0.02
33) Anthracene	(4)				Not Detected					0.02
35) Di-n-butylphthalate	(4)				Not Detected					0.2
37) Fluoranthene	(4)				Not Detected					0.02
39) Pyrene	(5)				Not Detected					0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.523	(0.000)	149	86708	0.554	18.48			0.3
42) Benzo(a)anthracene	(5)				Not Detected					0.02
44) Chrysene	(5)				Not Detected					0.01
46) Benzo(b)fluoranthene	(6)				Not Detected					0.02
47) Benzo(k)fluoranthene	(6)				Not Detected					0.02
50) Benzo(a)pyrene	(6)				Not Detected					0.02
53) Indeno(1,2,3-cd)pyrene	(6)				Not Detected					0.02
54) Dibenz(a,h)anthracene	(6)				Not Detected					0.02
55) Benzo(g,h,i)perylene	(6)				Not Detected					0.02

M = Compound was manually integrated.

Digitally signed by William H Saadeh on 11/16/2018 at 12:33. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP10623.i/18nov16.b/ck0702.d Injection date and time: **16-NOV-2018 07:21**
Data file Sample Info. Line: SBLKLC317;SBLKLC317;2;3;BLANK;;DOD26; Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

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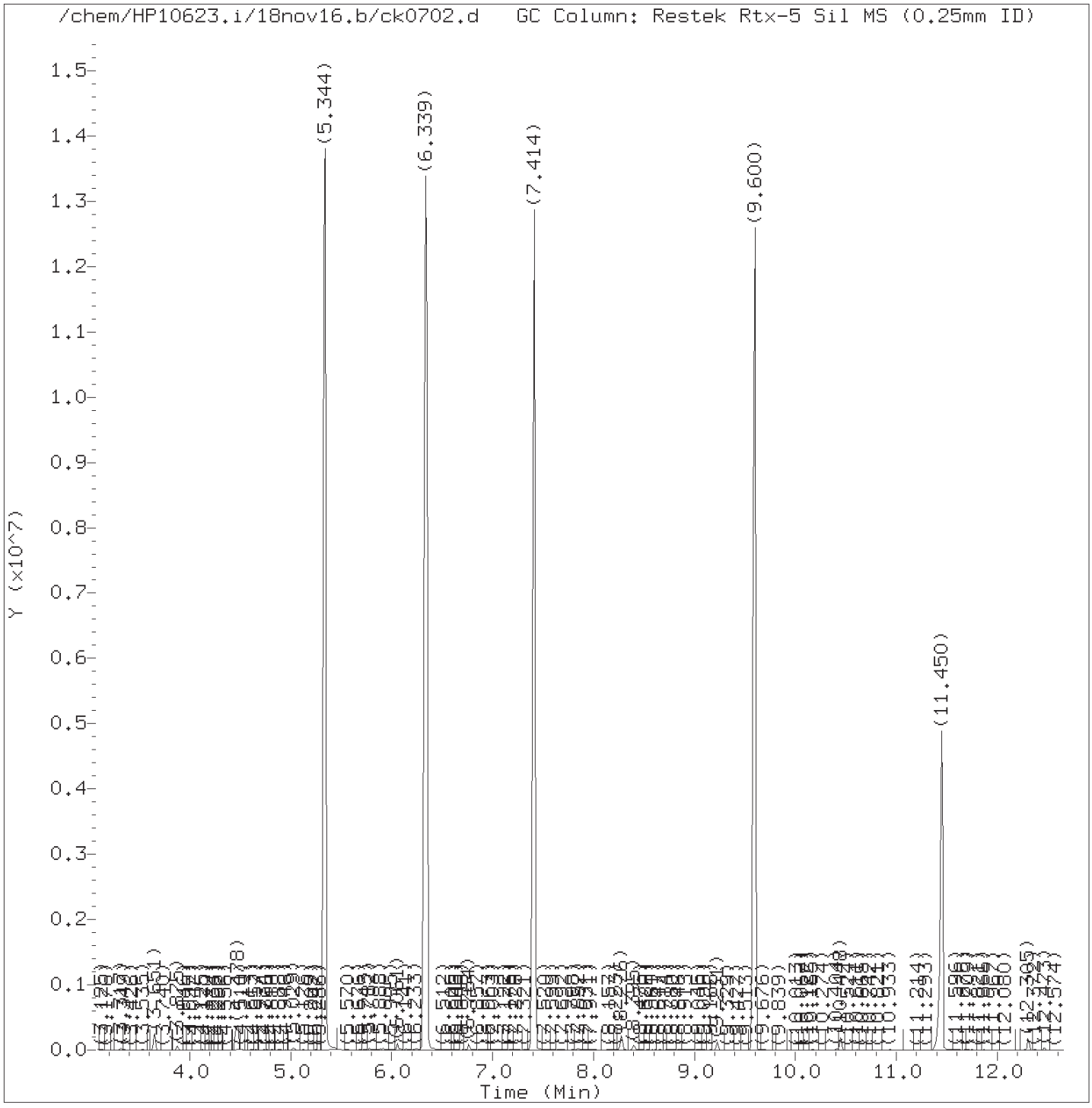
Total number of targets = 19

Digitally signed by William H Saadeh on 11/16/2018 at 12:33. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

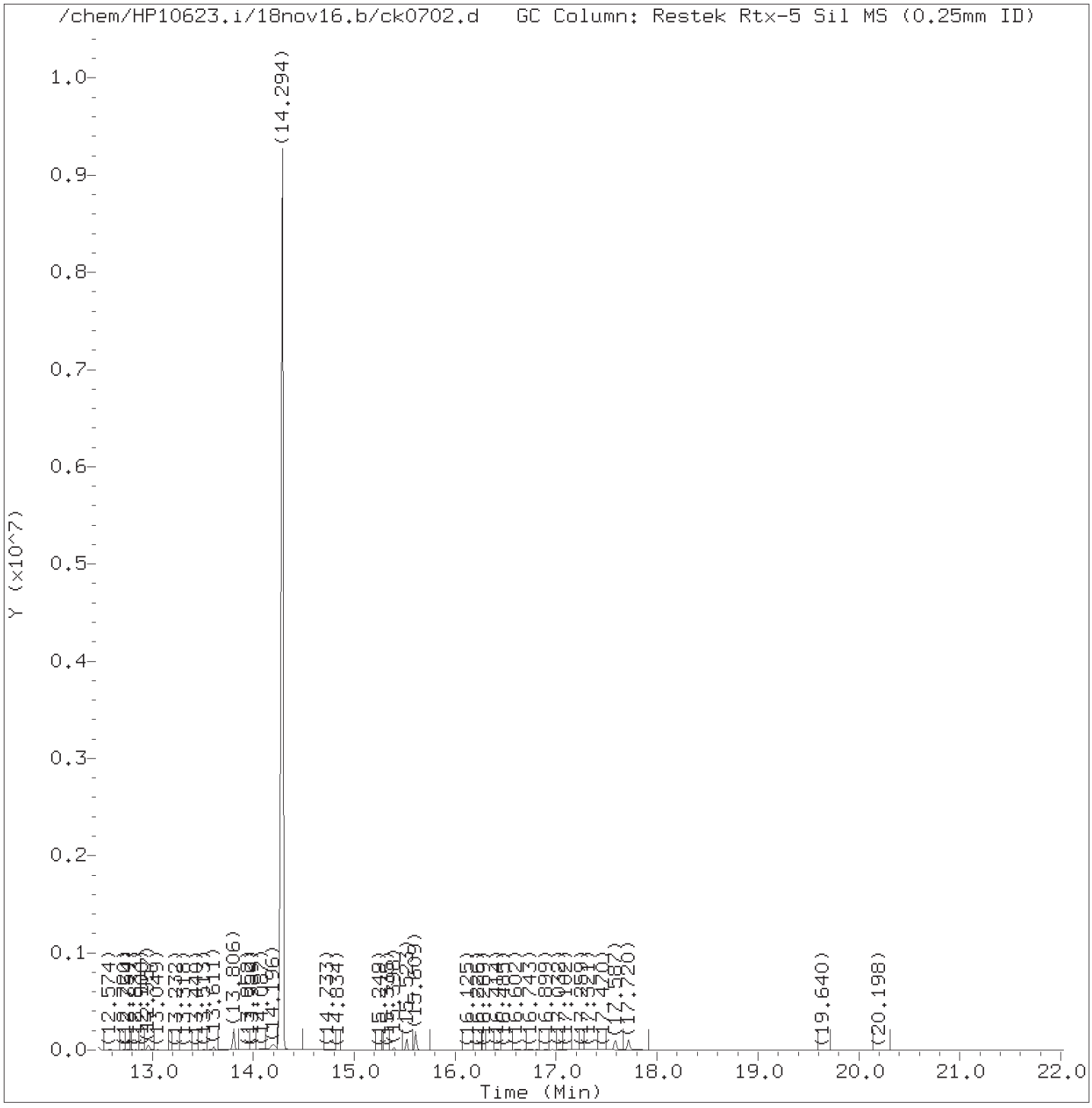
Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

Digitally signed by William H Saadeh
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

Digitally signed by William H Saadeh
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

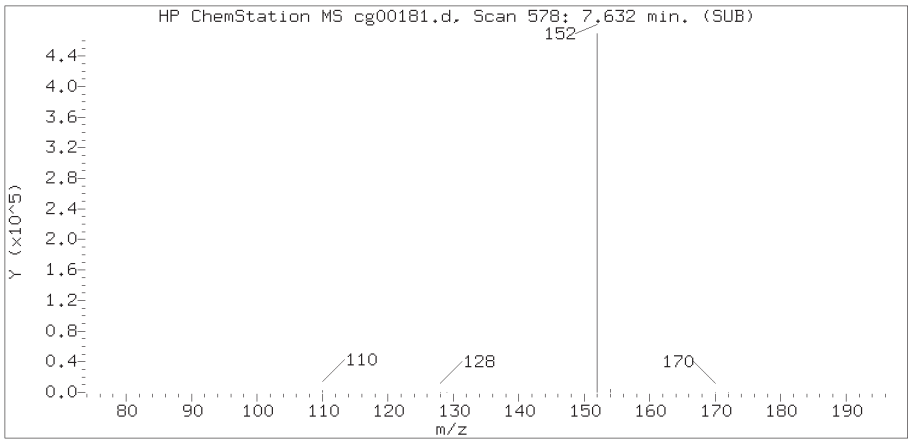
Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

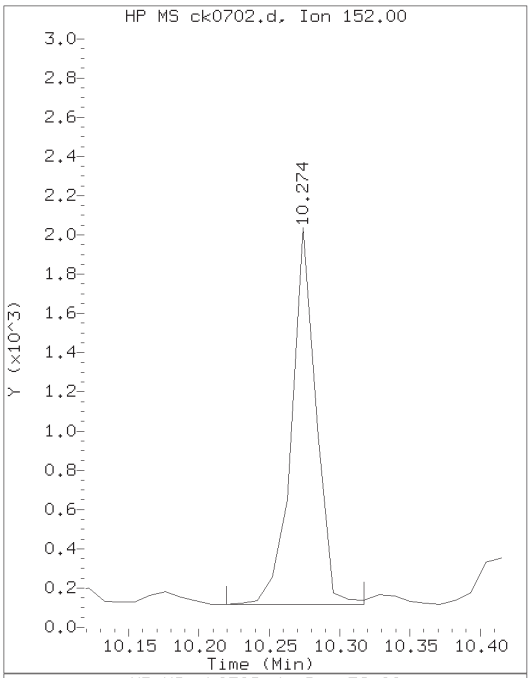
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
6)*1,4-Dichlorobenzene-d4	(1)	6.764	152	62792	1.000
10)*Naphthalene-d8	(2)	8.276	136	252987	1.000
14)$1-Methylnaphthalene-d10	(2)	9.231	152	137145	1.073
19) Acenaphthylene	(3)	10.274	152	2332M	0.010
20)*Acenaphthene-d10	(3)	10.448	164	117061	1.000
31)*Phenanthrene-d10	(4)	12.305	188	223243	1.000
36)$Fluoranthene-d10	(4)	13.806	212	217463	1.074
41) bis(2-Ethylhexyl)phthalate	(5)	15.523	149	86708	0.554
43)*Chrysene-d12	(5)	15.609	240	169975	1.000
49)$Benzo(a)pyrene-d12	(6)	17.587	264	124896	0.959
51)*Perylene-d12	(6)	17.720	264	141767	1.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

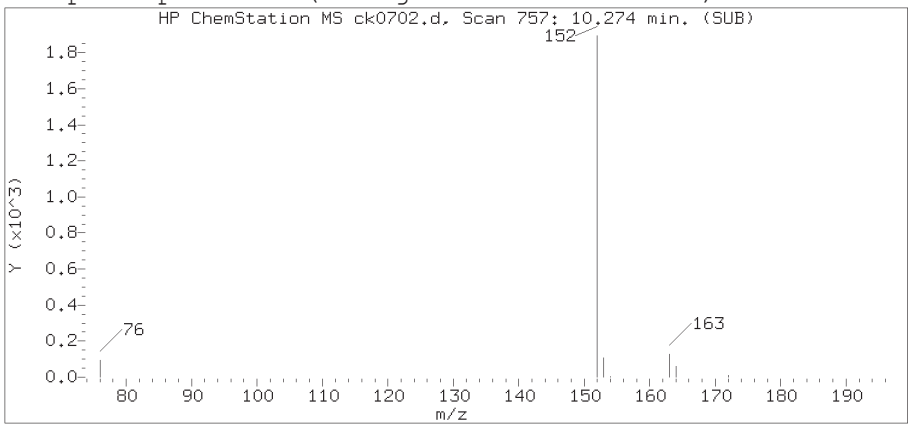
Digitally signed by William H Saadeh
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991

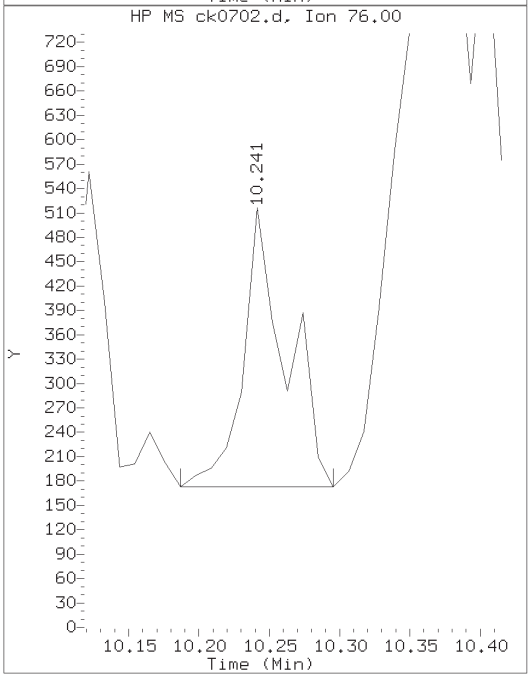
Reference Standard Spectrum for Acenaphthylene



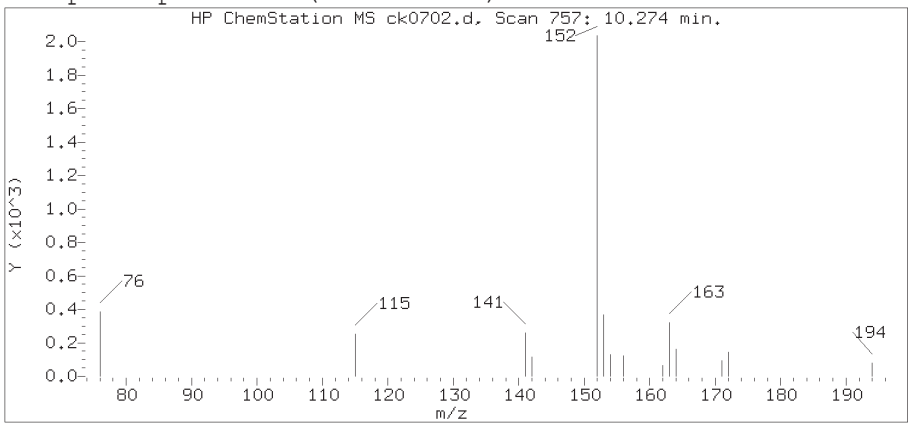


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

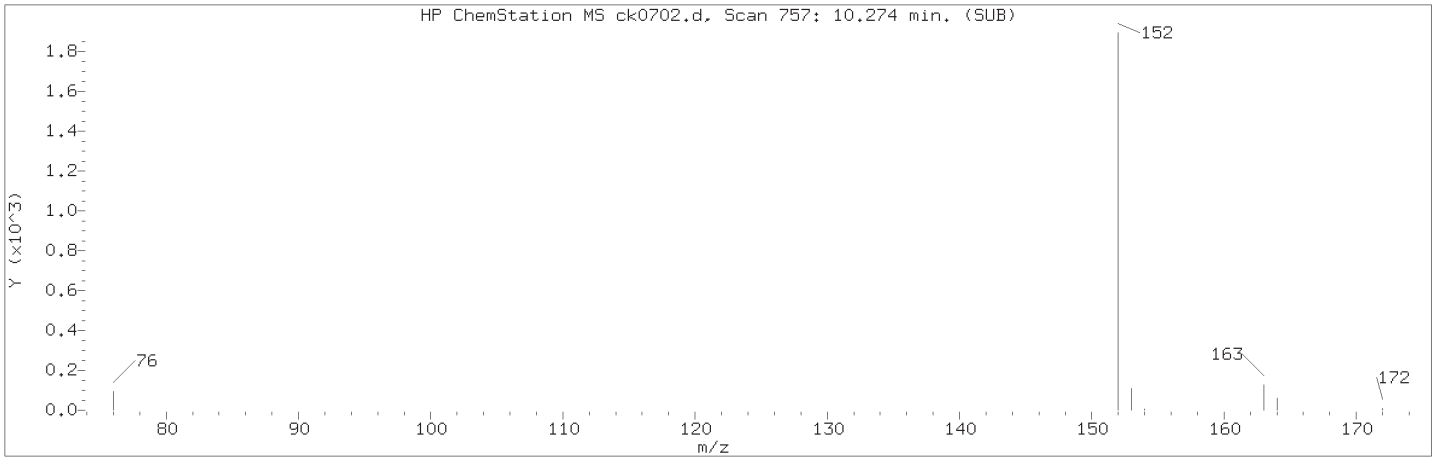
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

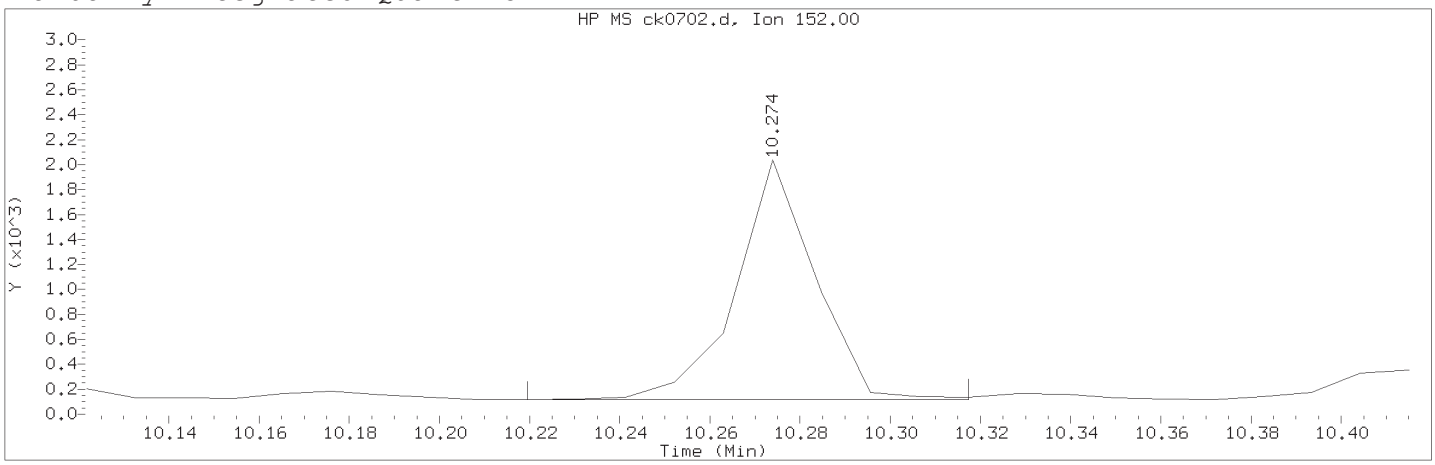
Compound Number	: 19
Compound Name	: Acenaphthylene
Scan Number	: 757
Retention Time (minutes)	: 10.274
Relative Retention Time	:-0.00102
Quant Ion	: 152.00
Area (flag)	: 2332M
On-column Amount (ng/ul)	: 0.0100

Digitally signed by William H Saadeh on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

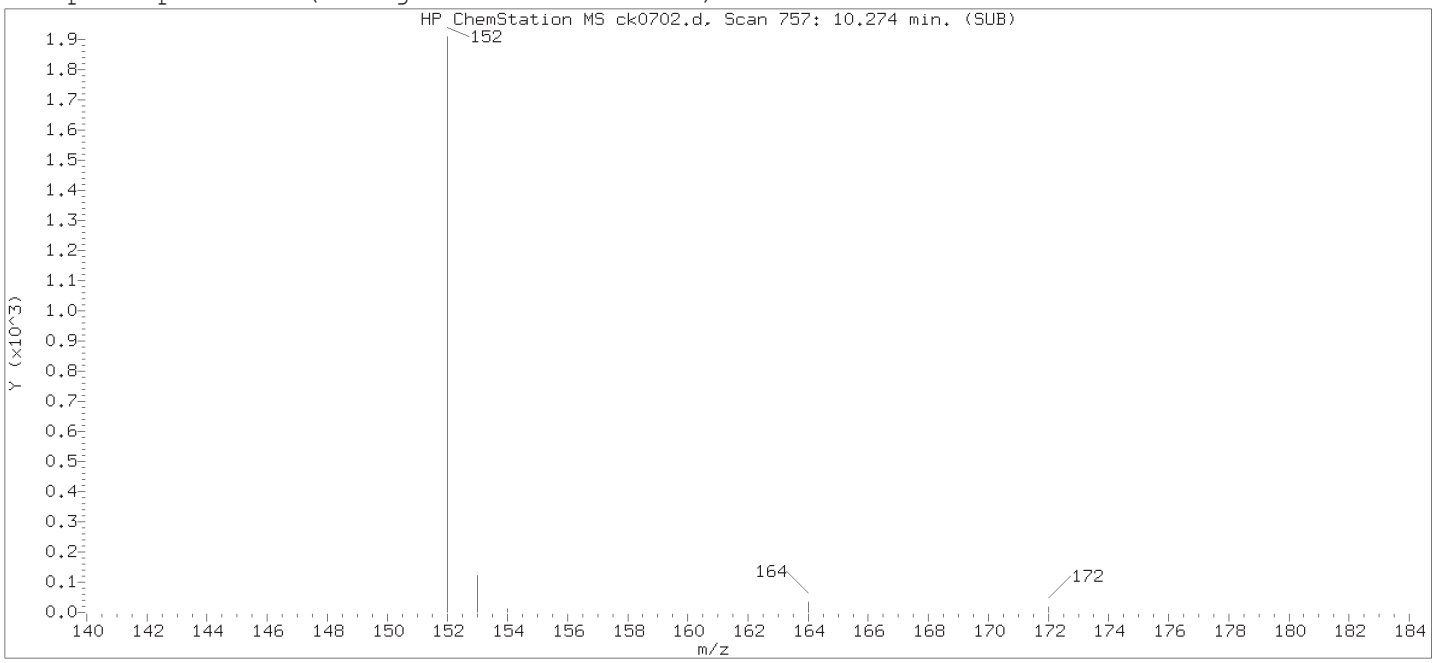
Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 757		
Retention Time (minutes)	: 10.274		
Quant Ion	: 152.00		
Area (flag)	: 2332M		
On-column Amount (ng/ul)	: 0.0100		
Integration start scan	: 751	Integration stop scan:	760
Y at integration start	: 117	Y at integration end:	117

Reason for manual integration: improper integration

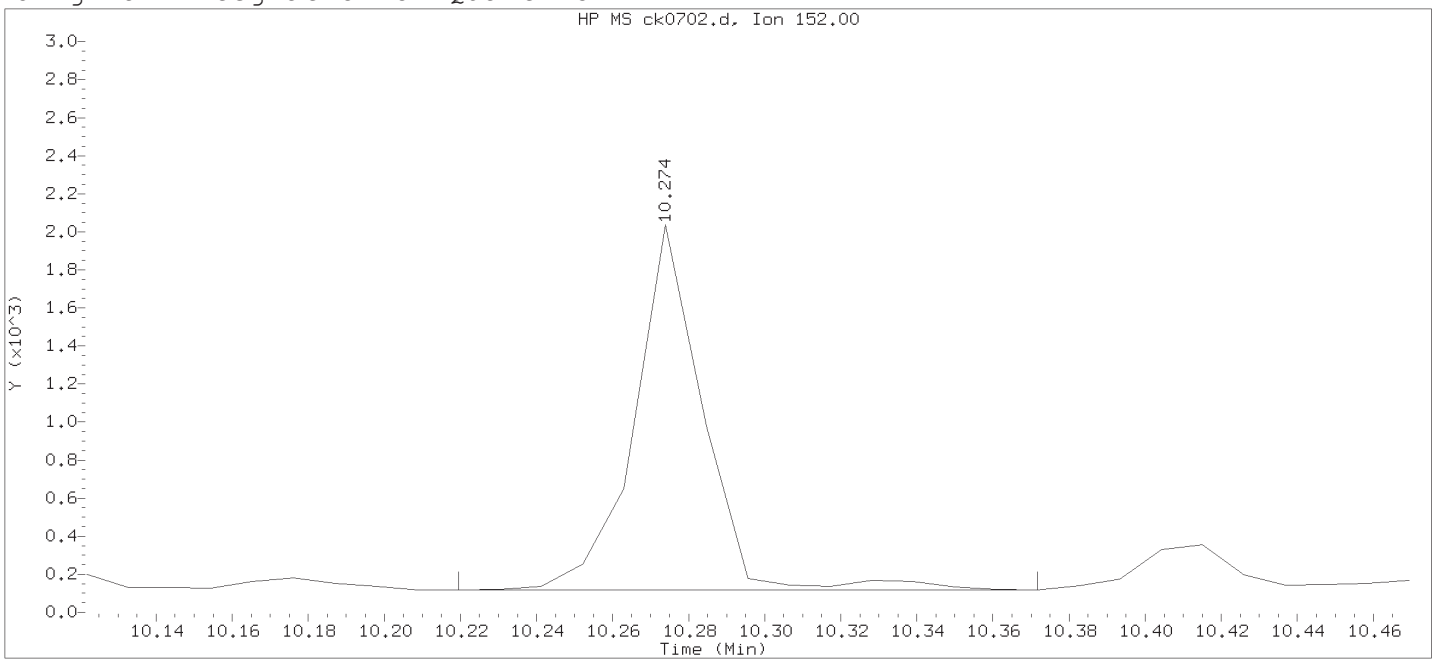
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

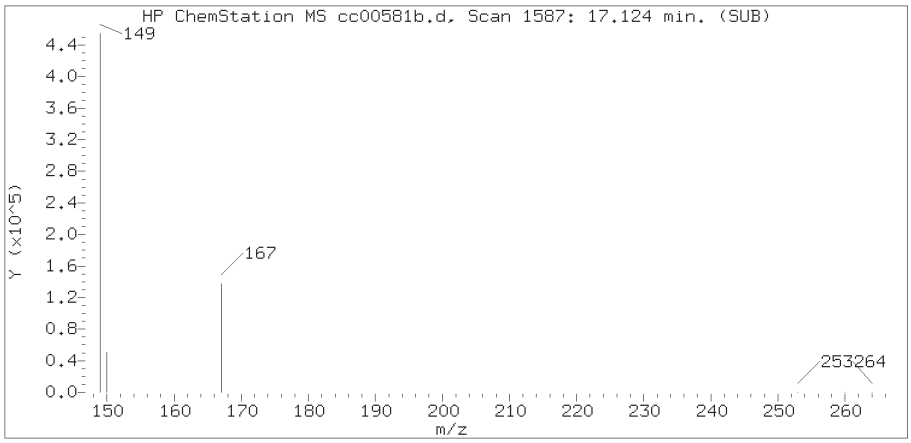
Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 07:48 Automation

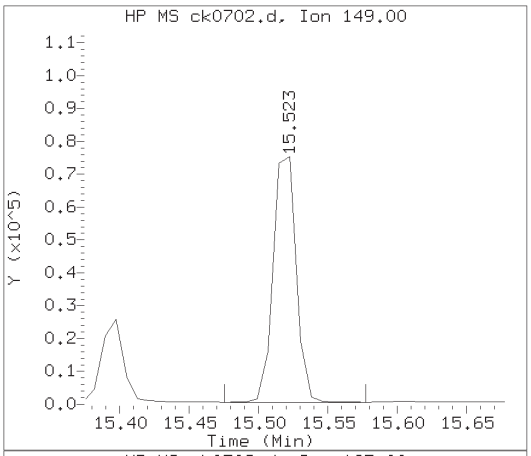
Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

Compound Number	: 19		
Compound Name	: Acenaphthylene		
Scan Number	: 757		
Retention Time (minutes)	: 10.274		
Quant Ion	: 152.00		
Area	: 2407		
On-column Amount (ng/ul)	: 0.0104		
Integration start scan	: 751	Integration stop scan:	765
Y at integration start	: 117	Y at integration end:	117

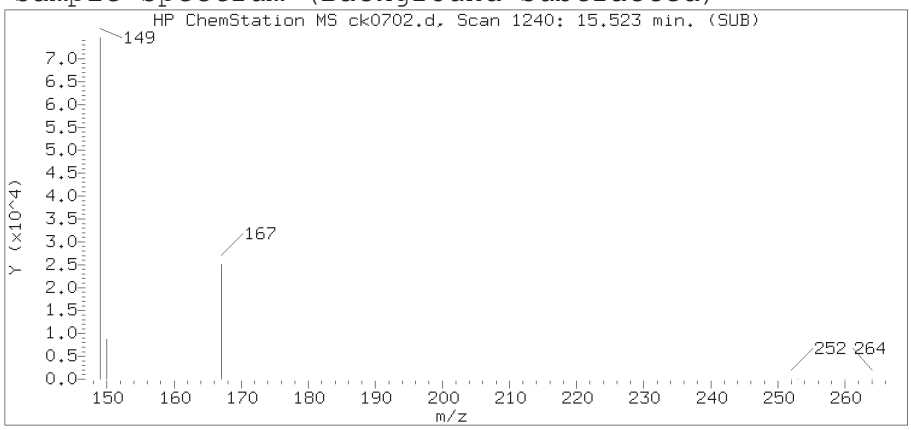
Digitally signed by William H Saadeh on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: jmg00346

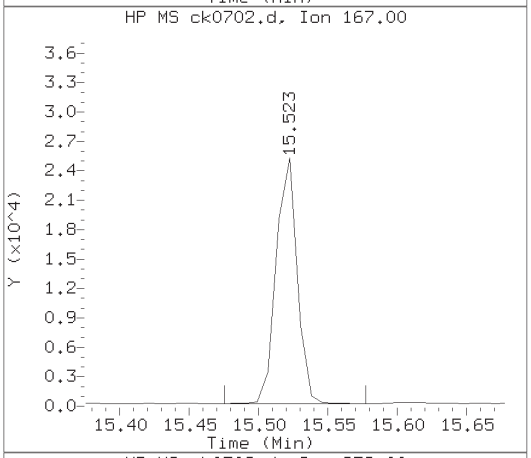
Reference Standard Spectrum for bis(2-Ethylhexyl)phthalate



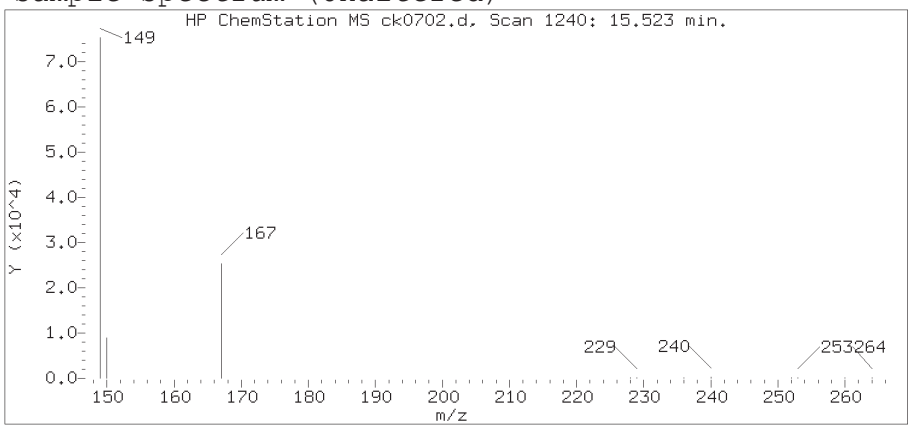


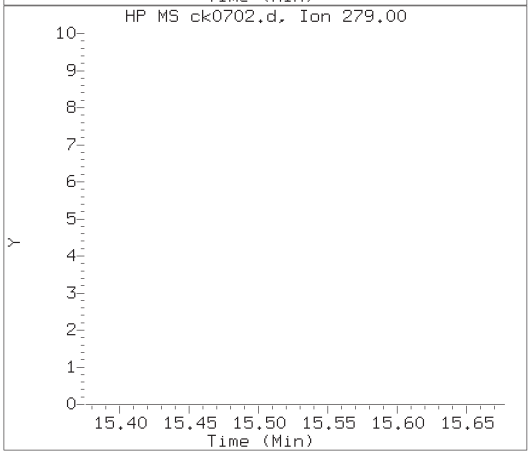
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP10623.i/18nov16.b/ck0702.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:21 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:16 whs02991

Sample Name: SBLKLC317 Lab Sample ID: SBLKLC317

Compound Number	: 41
Compound Name	: bis(2-Ethylhexyl)phthalate
Scan Number	: 1240
Retention Time (minutes)	: 15.523
Relative Retention Time	: 0.00000
Quant Ion	: 149.00
Area (flag)	: 86708
On-column Amount (ng/ul)	: 0.5543

Digitally signed by William H Saadeh on 11/16/2018 at 12:33.
Target 3.5 esignature user ID: whs02991

Lancaster Laboratories, Inc.
Analysis Summary for GC/MS Semivolatiles

302LELCS

Data file: /chem/HP10623.i/18nov05a.b/ck0203.d Injection date and time: **05-NOV-2018 19:46**
Data file Sample Info. Line: 302LELCS;302LELCS;2;3;LCS;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 08:48
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov05a.b/ck0201.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.858	(-0.013)	449	152	68162	(-15)	1.00	
10) Naphthalene-d8	8.370	(0.000)	563	136	317737	(-14)	1.00	
20) Acenaphthene-d10	10.536	(0.011)	750	164	152017	(-14)	1.00	
31) Phenanthrene-d10	12.396	(0.000)	916	188	276898	(-17)	1.00	
43) Chrysene-d12	15.707	(0.000)	1233	240	207087	(-20)	1.00	
51) Perylene-d12	17.858	(0.000)	1508	264	184784	(-20)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.319	(0.000)	152	150144	0.935	94%
36) Fluoranthene-d10	(4)	13.893	(0.000)	212	245351	0.977	98%
49) Benzo(a)pyrene-d12	(6)	17.725	(0.000)	264	152284	0.897	90%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.466	(-0.016)	88	25719	0.587	19.57			0.02
11) Naphthalene	(2)	8.397	(-0.000)	128	321881	0.954	31.80			0.04
19) Acenaphthylene	(3)	10.362	(-0.001)	152	287498	0.953	31.76			0.01
21) Acenaphthene	(3)	10.579	(-0.001)	154	218190	1.056	35.21			0.02
26) Fluorene	(3)	11.216	(-0.001)	166	222244	1.006	33.53			0.02
32) Phenanthrene	(4)	12.429	(0.000)	178	324457	0.982	32.73			0.02
33) Anthracene	(4)	12.497	(0.000)	178	320152	1.008	33.59			0.02
35) Di-n-butylphthalate	(4)	13.051	(0.000)	149	413050	1.167	38.91			0.2
37) Fluoranthene	(4)	13.917	(0.000)	202	328507	1.012	33.73			0.02
39) Pyrene	(5)	14.210	(0.000)	202	331603	0.995	33.16			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	(0.000)	149	291544	1.313	43.75	10.093	B	0.3
42) Benzo(a)anthracene	(5)	15.692	(0.000)	228	281063	1.047	34.91			0.02
44) Chrysene	(5)	15.738	(-0.000)	228	273617	0.995	33.17			0.01
46) Benzo(b)fluoranthene	(6)	17.224	(0.000)	252	249431	1.053	35.11			0.02
47) Benzo(k)fluoranthene	(6)	17.263	(0.000)	252	264684	1.041	34.69			0.02
50) Benzo(a)pyrene	(6)	17.764	(0.000)	252	228783	1.059	35.29			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.826	(0.000)	276	231691	1.081	36.03			0.02
54) Dibenz(a,h)anthracene	(6)	19.833	(0.000)	278	197107	1.109	36.98			0.02
55) Benzo(g,h,i)perylene	(6)	20.398	(0.000)	276	198148	0.991	33.02			0.02

B = Compound detected in referenced method blank.

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10623.i/18nov05a.b/ck0203.d Injection date and time: **05-NOV-2018 19:46**
Data file Sample Info. Line: 302LELCS;302LELCS;2;3;LCS;;DOD26; Instrument ID: **HP10623.i** Batch: **18302SLE**
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Blank Data file reference: **/chem/HP10623.i/18nov05a.b/ck0202.d**

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 06-NOV-2018 08:48
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov05a.b/ck0201.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

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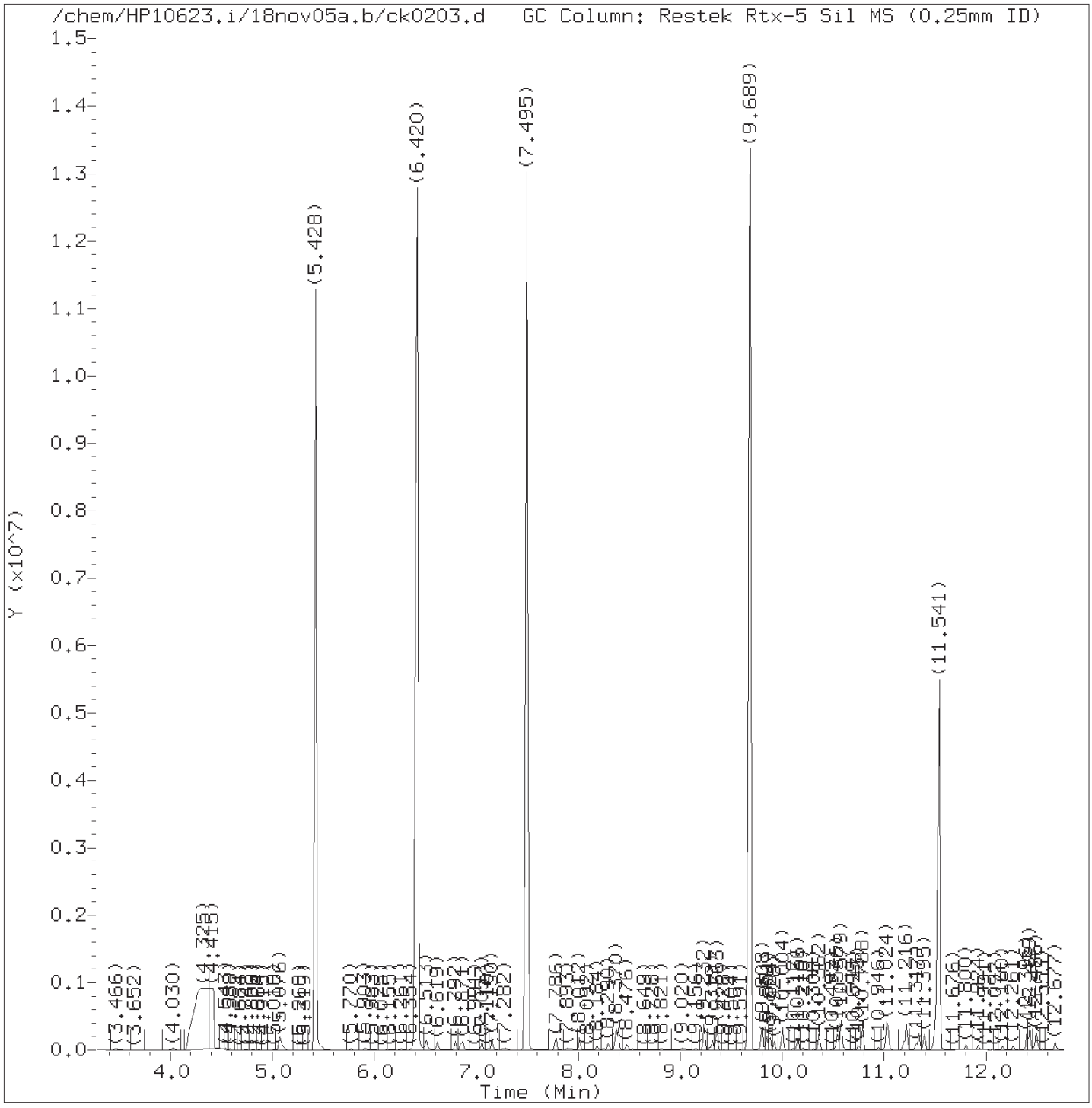
Total number of targets = 19

Digitally signed by Joseph M. Gambler on 11/06/2018 at 09:01. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Chad A. Moline on 11/07/2018 at 11:45. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

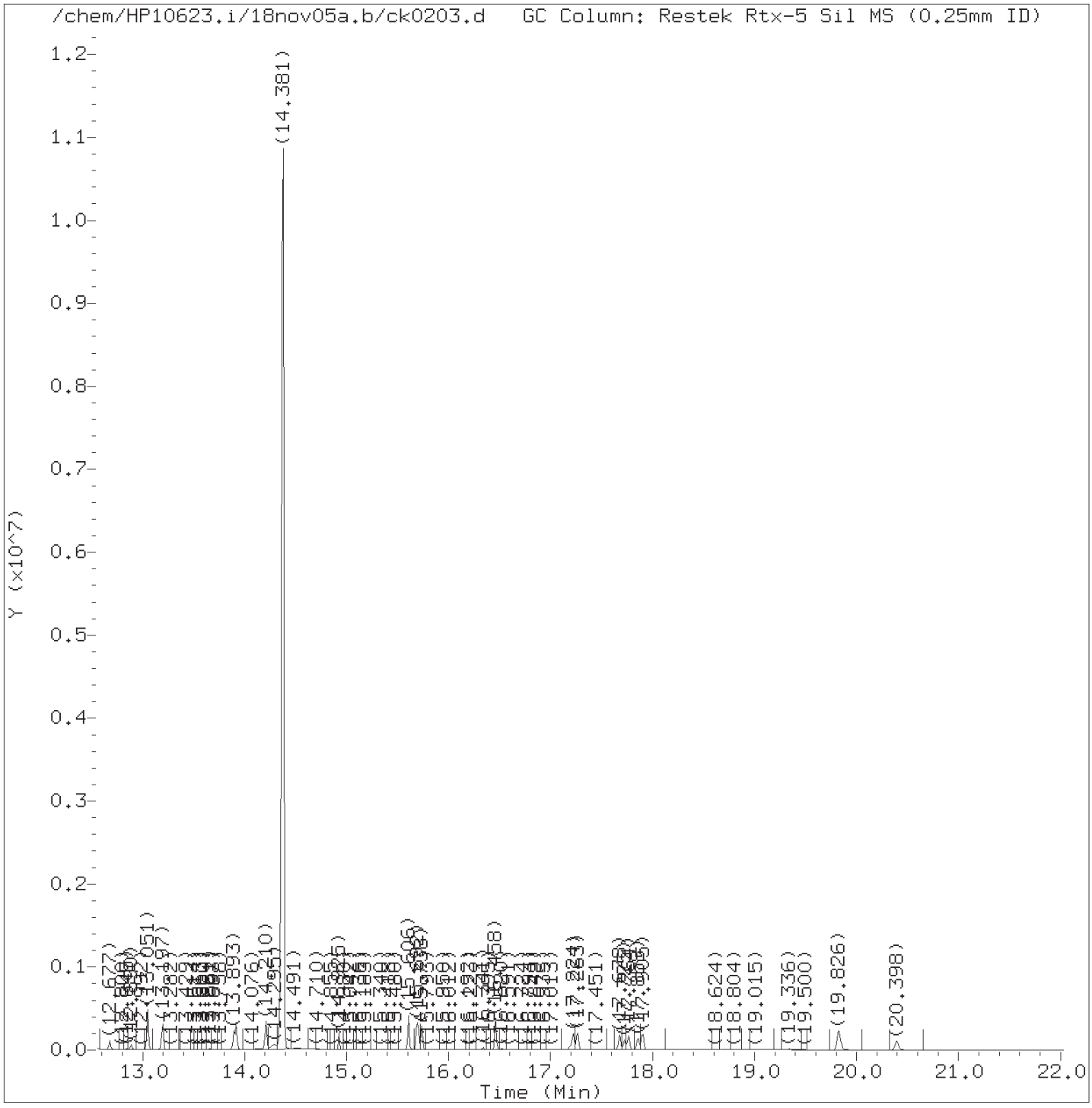
Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0203.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: 302LELCS Lab Sample ID: 302LELCS

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0203.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: 302LELCS Lab Sample ID: 302LELCS

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov05a.b/ck0203.d Instrument ID: HP10623.i
Injection date and time: 05-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10623.i/18nov05a.b/sim8270d.m Sublist used: 25804
Calibration date and time: 06-NOV-2018 08:48
Date, time and analyst ID of latest file update: 06-Nov-2018 09:00 jmg00346

Sample Name: 302LELCS Lab Sample ID: 302LELCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.466	88	25719	0.587
6)*1,4-Dichlorobenzene-d4	(1)	6.858	152	68162	1.000
10)*Naphthalene-d8	(2)	8.370	136	317737	1.000
11) Naphthalene	(2)	8.397	128	321881	0.954
14)$1-Methylnaphthalene-d10	(2)	9.319	152	150144	0.935
19) Acenaphthylene	(3)	10.362	152	287498	0.953
20)*Acenaphthene-d10	(3)	10.536	164	152017	1.000
21) Acenaphthene	(3)	10.579	154	218190	1.056
26) Fluorene	(3)	11.216	166	222244	1.006
31)*Phenanthrene-d10	(4)	12.396	188	276898	1.000
32) Phenanthrene	(4)	12.429	178	324457	0.982
33) Anthracene	(4)	12.497	178	320152	1.008
35) Di-n-butylphthalate	(4)	13.051	149	413050	1.167
36)$Fluoranthene-d10	(4)	13.893	212	245351	0.977
37) Fluoranthene	(4)	13.917	202	328507	1.012
39) Pyrene	(5)	14.210	202	331603	0.995
41) bis(2-Ethylhexyl)phthalate	(5)	15.606	149	291544	1.313
42) Benzo(a)anthracene	(5)	15.692	228	281063	1.047
43)*Chrysene-d12	(5)	15.707	240	207087	1.000
44) Chrysene	(5)	15.738	228	273617	0.995
46) Benzo(b)fluoranthene	(6)	17.224	252	249431	1.053
47) Benzo(k)fluoranthene	(6)	17.263	252	264684	1.041
49)$Benzo(a)pyrene-d12	(6)	17.725	264	152284	0.897
50) Benzo(a)pyrene	(6)	17.764	252	228783	1.059
51)*Perylene-d12	(6)	17.858	264	184784	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.826	276	231691	1.081
54) Dibenz(a,h)anthracene	(6)	19.833	278	197107	1.109
55) Benzo(g,h,i)perylene	(6)	20.398	276	198148	0.991

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/06/2018 at 09:01.
Target 3.5 esignature user ID: jmg00346

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10976.i/18nov07.b/ik0303.d Injection date and time: **07-NOV-2018 19:46**
Data file Sample Info. Line: 302LHLCS;302LHLCS;2;3;LCS;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.808	(0.000)	500	152	41340	(-6)	1.00	
10) Naphthalene-d8	8.320	(0.000)	614	136	148938	(-7)	1.00	
20) Acenaphthene-d10	10.489	(-0.003)	802	164	90471	(-11)	1.00	
31) Phenanthrene-d10	12.334	(-0.003)	967	188	197716	(-11)	1.00	
43) Chrysene-d12	15.621	(-0.007)	1268	240	201020	(-12)	1.00	
51) Perylene-d12	17.576	(-0.007)	1518	264	190917	(-17)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.273	(0.000)	152	77123	0.849	85%
36) Fluoranthene-d10	(4)	13.819	(0.000)	212	210249	0.858	86%
49) Benzo(a)pyrene-d12	(6)	17.451	(0.000)	264	149685	0.821	82%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.187	(-0.020)	88	16960	0.685	22.84			0.02
11) Naphthalene	(2)	8.346	(-0.000)	128	168823	1.101	36.69	31.312	B	0.04
19) Acenaphthylene	(3)	10.315	(-0.000)	152	144050	0.831	27.71			0.01
21) Acenaphthene	(3)	10.522	(0.000)	154	116843	1.025	34.18	1.723	B	0.02
26) Fluorene	(3)	11.165	(0.000)	166	127239	0.907	30.25	1.949	B	0.02
32) Phenanthrene	(4)	12.368	(0.000)	178	199760	0.935	31.17	2.56	B	0.02
33) Anthracene	(4)	12.424	(0.000)	178	197196	0.922	30.73	0.732	B	0.02
35) Di-n-butylphthalate	(4)	13.014	(-0.000)	149	227326	1.112	37.07			0.2
37) Fluoranthene	(4)	13.844	(-0.000)	202	248043	0.933	31.09			0.02
39) Pyrene	(5)	14.137	(0.000)	202	250953	0.902	30.06			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.558	(0.000)	149	155542	1.176	39.21			0.3
42) Benzo(a)anthracene	(5)	15.605	(-0.000)	228	233615	0.903	30.11			0.02
44) Chrysene	(5)	15.652	(0.000)	228	233335	0.945	31.48			0.01
46) Benzo(b)fluoranthene	(6)	16.997	(-0.000)	252	241642	1.018	33.92			0.02
47) Benzo(k)fluoranthene	(6)	17.036	(-0.000)	252	217821	0.979	32.62			0.02
50) Benzo(a)pyrene	(6)	17.490	(-0.000)	252	199345	0.980	32.65			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.353	(0.000)	276	229923	0.958	31.94			0.02
54) Dibenz(a,h)anthracene	(6)	19.367	(-0.000)	278	188284	0.961	32.03			0.02
55) Benzo(g,h,i)perylene	(6)	19.848	(0.000)	276	205301	0.973	32.43			0.02

B = Compound detected in referenced method blank.

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29. Target 3.5 esignature user ID: jmg00346

Data file: /chem/HP10976.i/18nov07.b/ik0303.d Injection date and time: **07-NOV-2018 19:46**
Data file Sample Info. Line: 302LHLCS;302LHLCS;2;3;LCS;;DOD26; Instrument ID: **HP10976.i** Batch: **18302SLH**
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Blank Data file reference: **/chem/HP10976.i/18nov07.b/ik0302.d**

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 07-NOV-2018 18:18
Mid Level Daily Calibration Standard Reference: **/chem/HP10976.i/18nov07.b/ik0301.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

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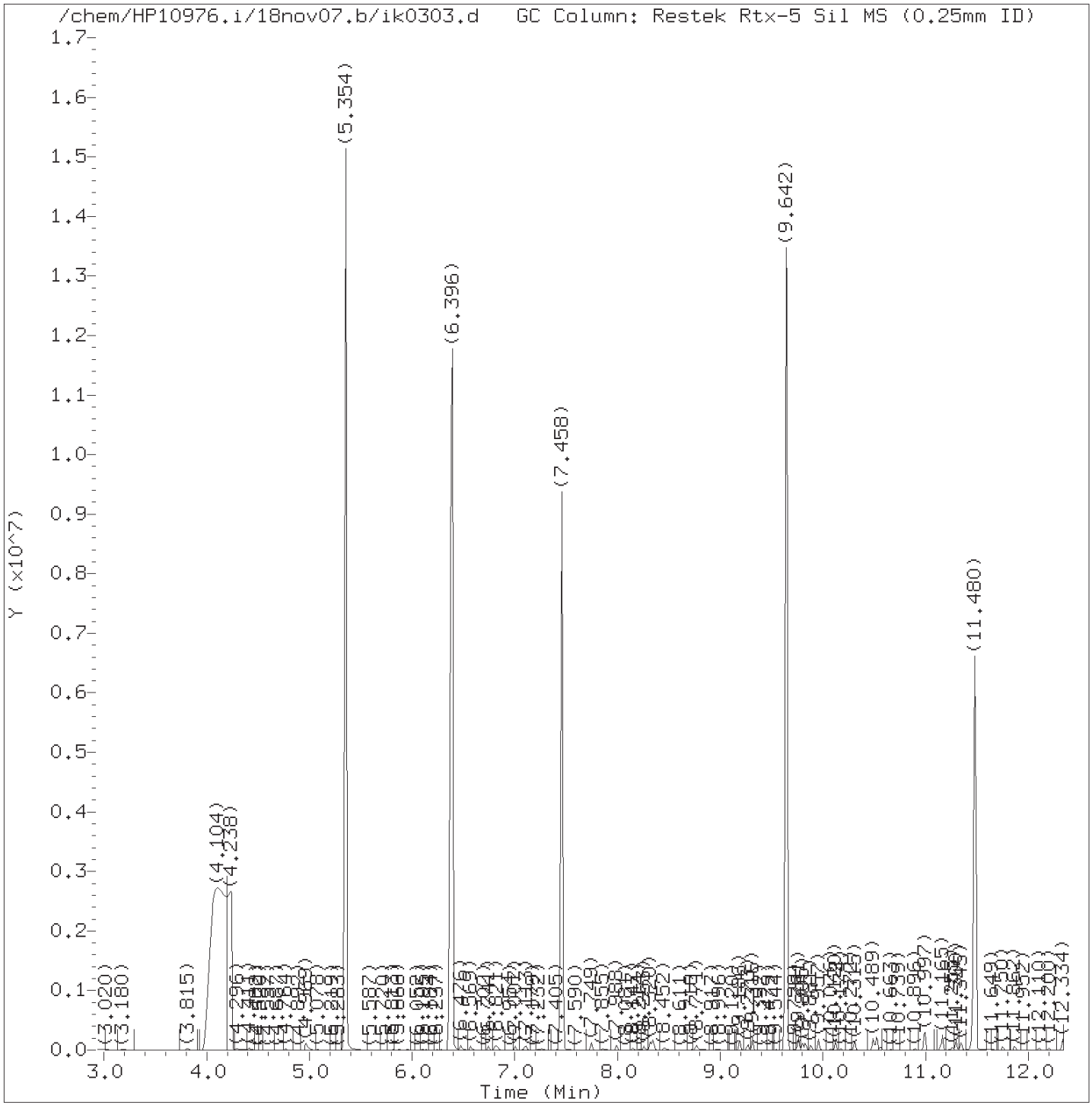
Total number of targets = 19

Digitally signed by Joseph M. Gambler on 11/08/2018 at 07:29. Target 3.5 esignature user ID: jmg00346

Secondary review performed and digitally signed by Holly B. Ziegler on 11/09/2018 at 15:50. PARALLAX ID: hb01996



Total Ion Chromatogram (TIC)

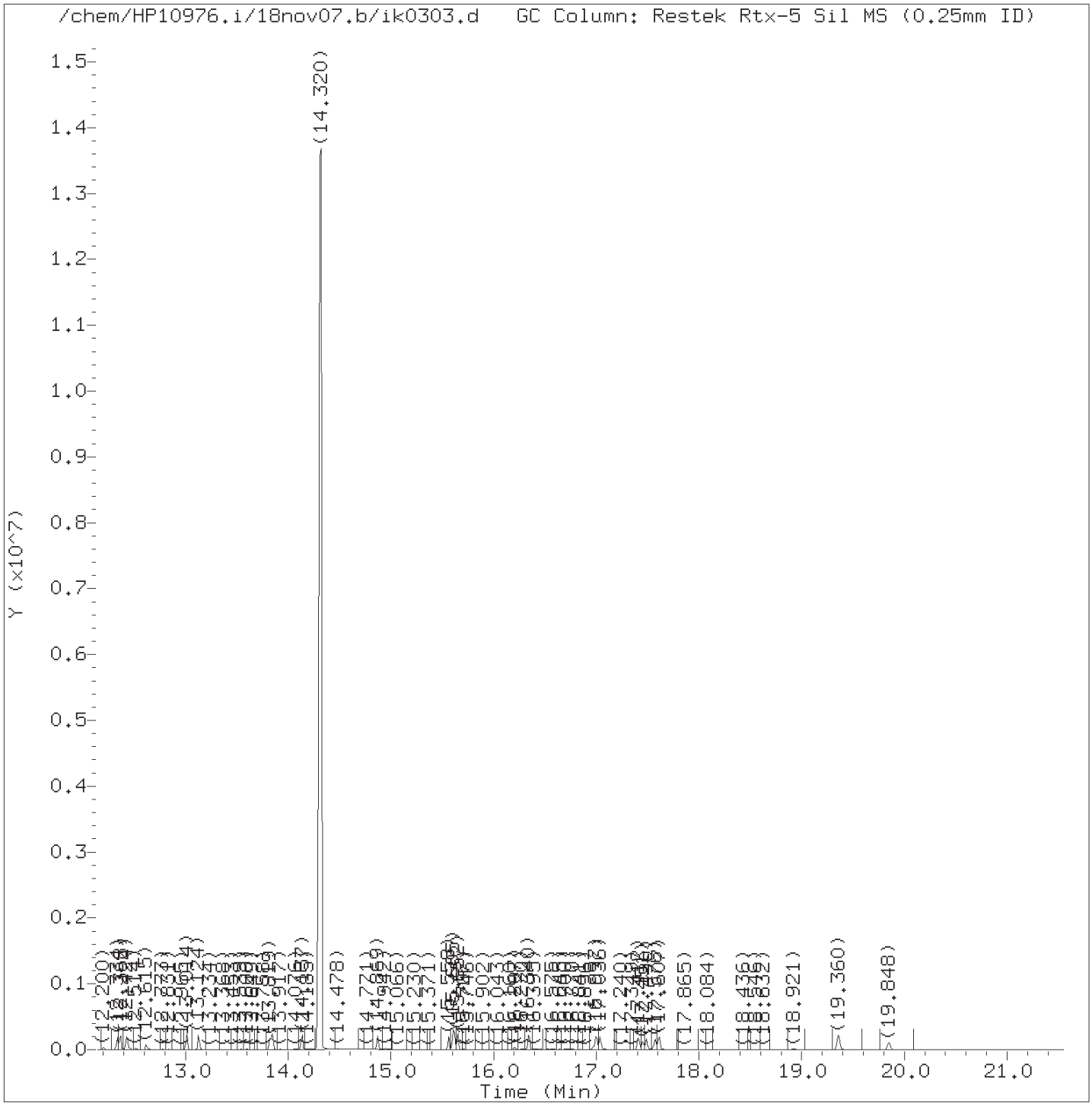
Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0303.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 302LHLCS Lab Sample ID: 302LHLCS

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0303.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 302LHLCS Lab Sample ID: 302LHLCS

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Quant Report

Target Revision 3.5

Data File: /chem/HP10976.i/18nov07.b/ik0303.d Instrument ID: HP10976.i
Injection date and time: 07-NOV-2018 19:46 Analyst ID: apb10206

Method used: /chem/HP10976.i/18nov07.b/sim8270d.m Sublist used: 25804
Calibration date and time: 07-NOV-2018 18:18
Date, time and analyst ID of latest file update: 08-Nov-2018 07:11 jmg00346

Sample Name: 302LHLCS Lab Sample ID: 302LHLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.187	88	16960	0.685
6)*1,4-Dichlorobenzene-d4	(1)	6.808	152	41340	1.000
10)*Naphthalene-d8	(2)	8.320	136	148938	1.000
11) Naphthalene	(2)	8.346	128	168823	1.101
14)$1-Methylnaphthalene-d10	(2)	9.273	152	77123	0.849
19) Acenaphthylene	(3)	10.315	152	144050	0.831
20)*Acenaphthene-d10	(3)	10.489	164	90471	1.000
21) Acenaphthene	(3)	10.522	154	116843	1.025
26) Fluorene	(3)	11.165	166	127239	0.907
31)*Phenanthrene-d10	(4)	12.334	188	197716	1.000
32) Phenanthrene	(4)	12.368	178	199760	0.935
33) Anthracene	(4)	12.424	178	197196	0.922
35) Di-n-butylphthalate	(4)	13.014	149	227326	1.112
36)$Fluoranthene-d10	(4)	13.819	212	210249	0.858
37) Fluoranthene	(4)	13.844	202	248043	0.933
39) Pyrene	(5)	14.137	202	250953	0.902
41) bis(2-Ethylhexyl)phthalate	(5)	15.558	149	155542	1.176
42) Benzo(a)anthracene	(5)	15.605	228	233615	0.903
43)*Chrysene-d12	(5)	15.621	240	201020	1.000
44) Chrysene	(5)	15.652	228	233335	0.945
46) Benzo(b)fluoranthene	(6)	16.997	252	241642	1.018
47) Benzo(k)fluoranthene	(6)	17.036	252	217821	0.979
49)$Benzo(a)pyrene-d12	(6)	17.451	264	149685	0.821
50) Benzo(a)pyrene	(6)	17.490	252	199345	0.980
51)*Perylene-d12	(6)	17.576	264	190917	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.353	276	229923	0.958
54) Dibenz(a,h)anthracene	(6)	19.367	278	188284	0.961
55) Benzo(g,h,i)perylene	(6)	19.848	276	205301	0.973

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Joseph M. Gambler
on 11/08/2018 at 07:29.
Target 3.5 esignature user ID: jmg00346

Analysis Summary for GC/MS Semivolatiles

Data file: /chem/HP10623.i/18nov16.b/ck0703.d Injection date and time: **16-NOV-2018 07:51**
Data file Sample Info. Line: 317LCLCS;317LCLCS;2;3;LCS;;DOD26; Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
6) 1,4-Dichlorobenzene-d4	6.764	(0.000)	473	152	62085	(-9)	1.00	
10) Naphthalene-d8	8.276	(0.013)	587	136	254083	(-4)	1.00	
20) Acenaphthene-d10	10.448	(0.011)	773	164	115753	(-4)	1.00	
31) Phenanthrene-d10	12.305	(0.000)	939	188	211999	(-7)	1.00	
43) Chrysene-d12	15.609	(0.000)	1251	240	155001	(-12)	1.00	
51) Perylene-d12	17.720	(0.000)	1521	264	143114	(-7)	1.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.
14) 1-Methylnaphthalene-d10	(2)	9.231	(-0.002)	152	120754	0.941	94%
36) Fluoranthene-d10	(4)	13.806	(0.000)	212	172264	0.896	90%
49) Benzo(a)pyrene-d12	(6)	17.587	(0.000)	264	107966	0.821	82%

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (on-column)
1) 1,4-Dioxane	(1)	3.349	(-0.017)	88	26790A	0.671	22.38			0.02
11) Naphthalene	(2)	8.302	(-0.000)	128	231896	0.860	28.65			0.04
19) Acenaphthylene	(3)	10.274	(-0.001)	152	195489	0.851	28.36	0.335	B	0.01
21) Acenaphthene	(3)	10.491	(-0.001)	154	141620	0.900	30.01			0.02
26) Fluorene	(3)	11.124	(-0.000)	166	148383	0.882	29.40			0.02
32) Phenanthrene	(4)	12.338	(0.000)	178	218819	0.865	28.84			0.02
33) Anthracene	(4)	12.406	(0.000)	178	214928	0.884	29.45			0.02
35) Di-n-butylphthalate	(4)	12.889	(0.006)	149	321815	1.188	39.59			0.2
37) Fluoranthene	(4)	13.830	(0.000)	202	214137	0.862	28.72			0.02
39) Pyrene	(5)	14.111	(0.000)	202	219033	0.878	29.27			0.02
41) bis(2-Ethylhexyl)phthalate	(5)	15.515	(0.000)	149	217879	1.311	43.69	18.477	B	0.3
42) Benzo(a)anthracene	(5)	15.593	(-0.000)	228	185747	0.925	30.82			0.02
44) Chrysene	(5)	15.640	(0.000)	228	179813	0.874	29.12			0.01
46) Benzo(b)fluoranthene	(6)	17.094	(-0.000)	252	167953	0.916	30.52			0.02
47) Benzo(k)fluoranthene	(6)	17.134	(-0.000)	252	182094	0.924	30.82			0.02
50) Benzo(a)pyrene	(6)	17.626	(0.000)	252	158301	0.946	31.53			0.02
53) Indeno(1,2,3-cd)pyrene	(6)	19.640	(0.000)	276	161900	0.975	32.51			0.02
54) Dibenz(a,h)anthracene	(6)	19.647	(0.000)	278	136667	0.993	33.10			0.02
55) Benzo(g,h,i)perylene	(6)	20.198	(0.000)	276	137691	0.889	29.63			0.02

A = User selected an alternate peak. B = Compound detected in referenced method blank.

Digitally signed by William H Saadeh on 11/16/2018 at 12:59. Target 3.5 esignature user ID: whs02991

Data file: /chem/HP10623.i/18nov16.b/ck0703.d Injection date and time: **16-NOV-2018 07:51**
Data file Sample Info. Line: 317LCLCS;317LCLCS;2;3;LCS;;DOD26; Instrument ID: **HP10623.i** Batch: **18317SLC**
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

Blank Data file reference: **/chem/HP10623.i/18nov16.b/ck0702.d**

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: **25804**
Calibration date and time (Last Method Edit): 16-NOV-2018 10:03
Mid Level Daily Calibration Standard Reference: **/chem/HP10623.i/18nov16.b/ck0701a.d**

Matrix: SOIL Level: Low GPC clean-up: Yes On-Column Amount units: ng/ul In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * DF * (GpcCleanup+1)*Uf * Vt/(Vi * Ws)

Dilution Factor (DF): 1 GpcCleanup (No = 0, Yes = 1): 1 Unit Correction Factor (Uf): 1
Final Extract Volume (Vt): 500 ul Volume Injected (Vi): 1 ul Sample Weight (Ws): 30 g

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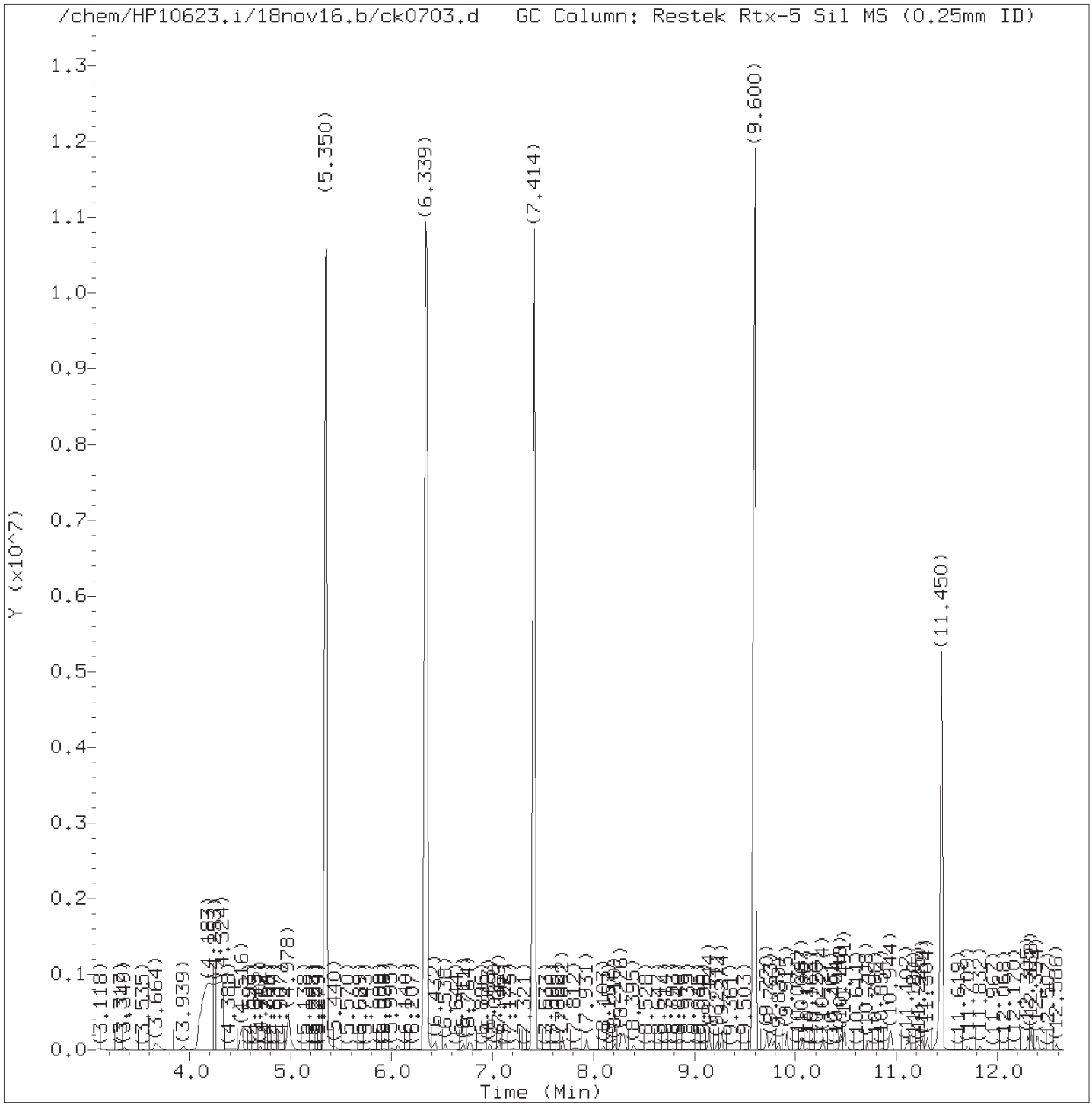
Total number of targets = 19

Digitally signed by William H Saadeh on 11/16/2018 at 12:59. Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20. PARALLAX ID: cam01237



Total Ion Chromatogram (TIC)

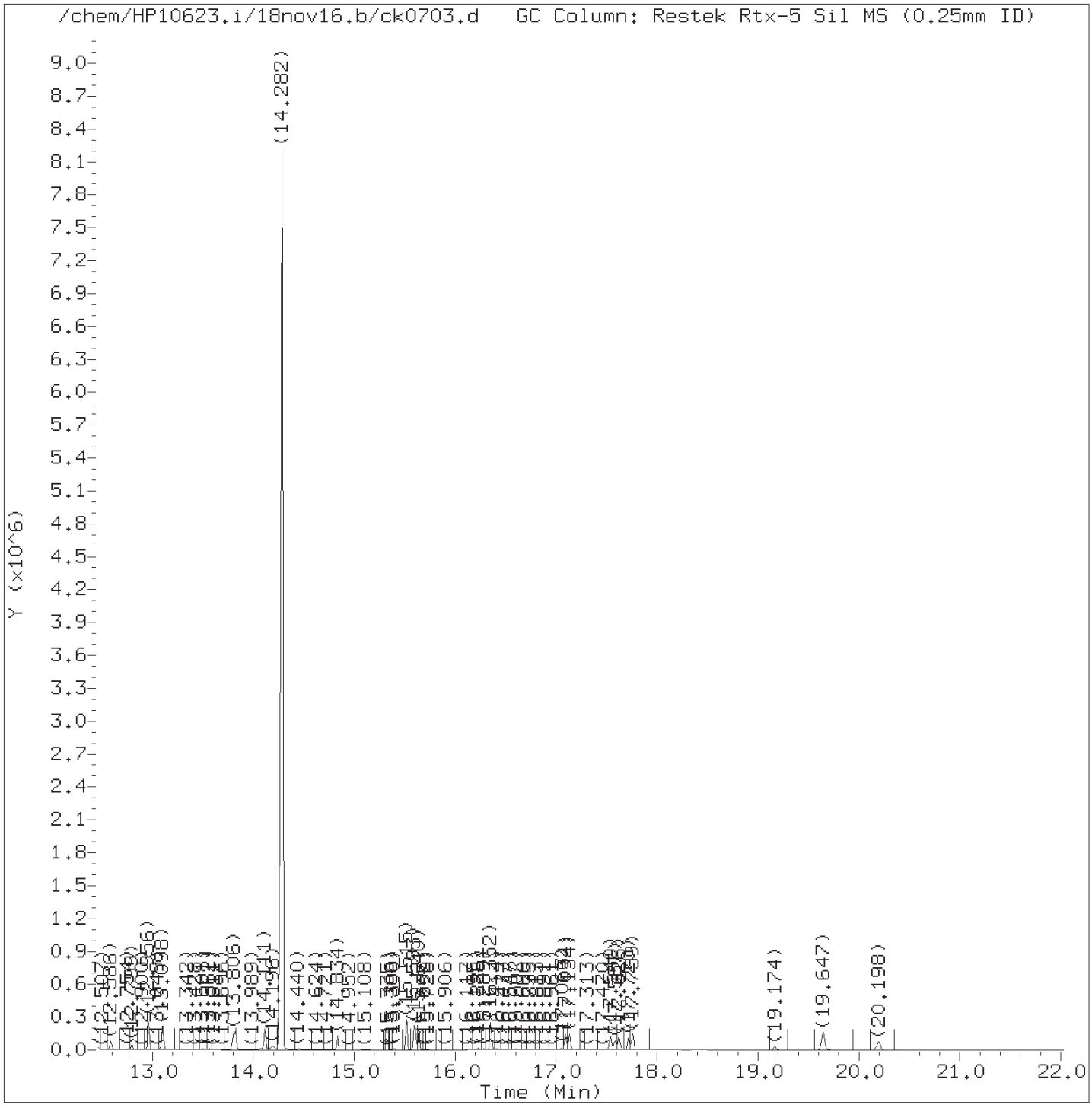
Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0703.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:51 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

Sample Name: 317LCLCS Lab Sample ID: 317LCLCS

Digitally signed by William H Saadeh
on 11/16/2018 at 12:59.
Target 3.5 esignature user ID: whs02991



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0703.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:51 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

Sample Name: 317LCLCS Lab Sample ID: 317LCLCS

Digitally signed by William H Saadeh
on 11/16/2018 at 12:59.
Target 3.5 esignature user ID: whs02991

Quant Report

Target Revision 3.5

Data File: /chem/HP10623.i/18nov16.b/ck0703.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:51 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

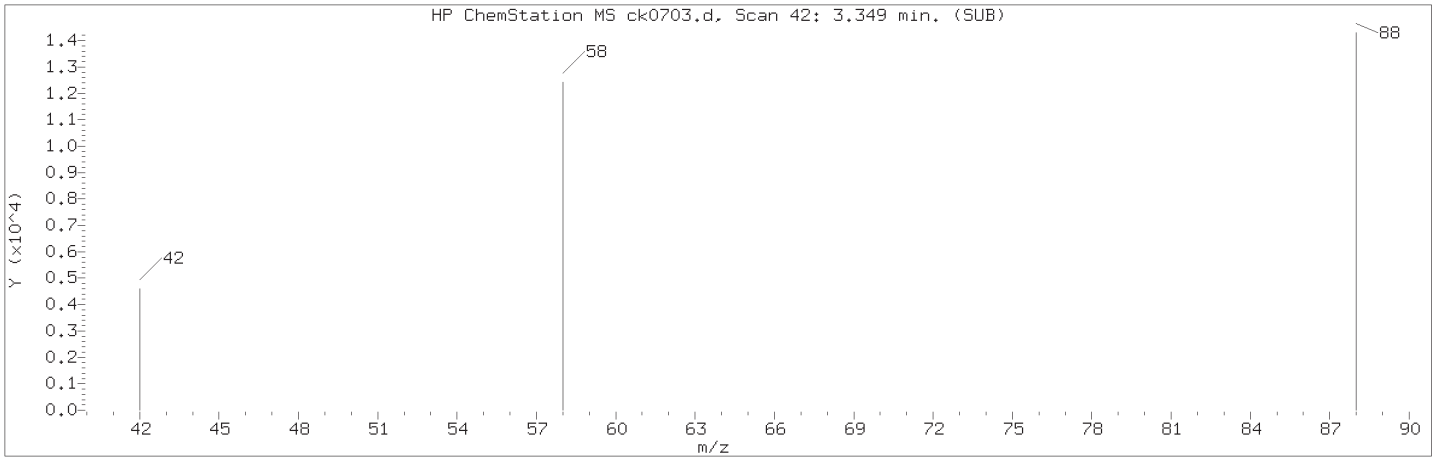
Sample Name: 317LCLCS Lab Sample ID: 317LCLCS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng/ul)
1) 1,4-Dioxane	(1)	3.349	88	26790A	0.671
6)*1,4-Dichlorobenzene-d4	(1)	6.764	152	62085	1.000
10)*Naphthalene-d8	(2)	8.276	136	254083	1.000
11) Naphthalene	(2)	8.302	128	231896	0.860
14)$1-Methylnaphthalene-d10	(2)	9.231	152	120754	0.941
19) Acenaphthylene	(3)	10.274	152	195489	0.851
20)*Acenaphthene-d10	(3)	10.448	164	115753	1.000
21) Acenaphthene	(3)	10.491	154	141620	0.900
26) Fluorene	(3)	11.124	166	148383	0.882
31)*Phenanthrene-d10	(4)	12.305	188	211999	1.000
32) Phenanthrene	(4)	12.338	178	218819	0.865
33) Anthracene	(4)	12.406	178	214928	0.884
35) Di-n-butylphthalate	(4)	12.889	149	321815	1.188
36)$Fluoranthene-d10	(4)	13.806	212	172264	0.896
37) Fluoranthene	(4)	13.830	202	214137	0.862
39) Pyrene	(5)	14.111	202	219033	0.878
41) bis(2-Ethylhexyl)phthalate	(5)	15.515	149	217879	1.311
42) Benzo(a)anthracene	(5)	15.593	228	185747	0.925
43)*Chrysene-d12	(5)	15.609	240	155001	1.000
44) Chrysene	(5)	15.640	228	179813	0.874
46) Benzo(b)fluoranthene	(6)	17.094	252	167953	0.916
47) Benzo(k)fluoranthene	(6)	17.134	252	182094	0.924
49)$Benzo(a)pyrene-d12	(6)	17.587	264	107966	0.821
50) Benzo(a)pyrene	(6)	17.626	252	158301	0.946
51)*Perylene-d12	(6)	17.720	264	143114	1.000
53) Indeno(1,2,3-cd)pyrene	(6)	19.640	276	161900	0.975
54) Dibenz(a,h)anthracene	(6)	19.647	278	136667	0.993
55) Benzo(g,h,i)perylene	(6)	20.198	276	137691	0.889

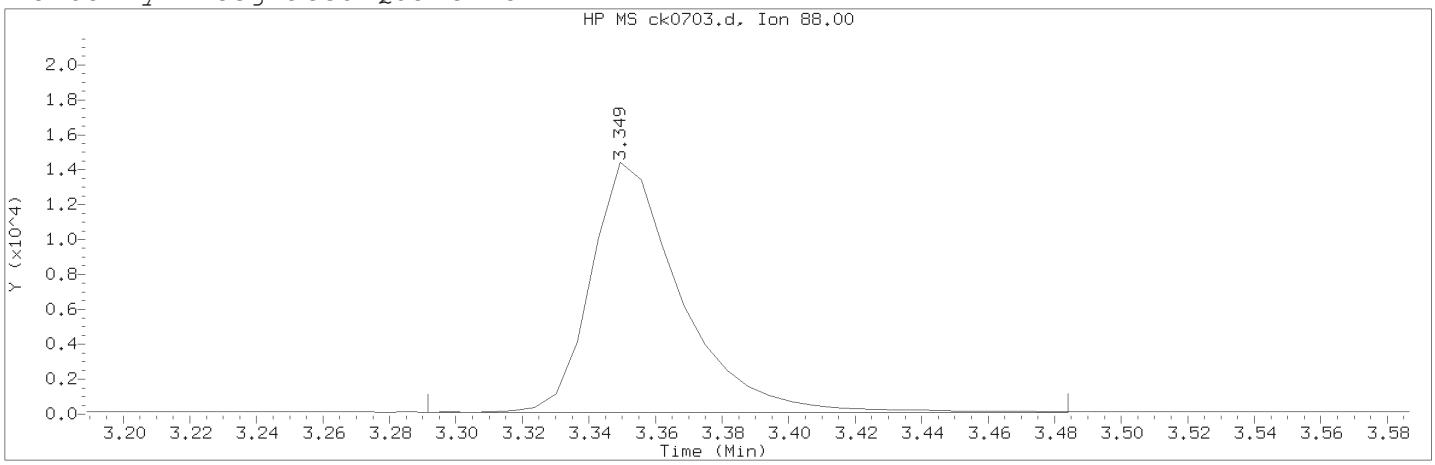
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by William H Saadeh
on 11/16/2018 at 12:59.
Target 3.5 esignature user ID: whs02991

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0703.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:51 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 10:03
Date, time and analyst ID of latest file update: 16-Nov-2018 12:59 whs02991

Sample Name: 317LCLCS Lab Sample ID: 317LCLCS

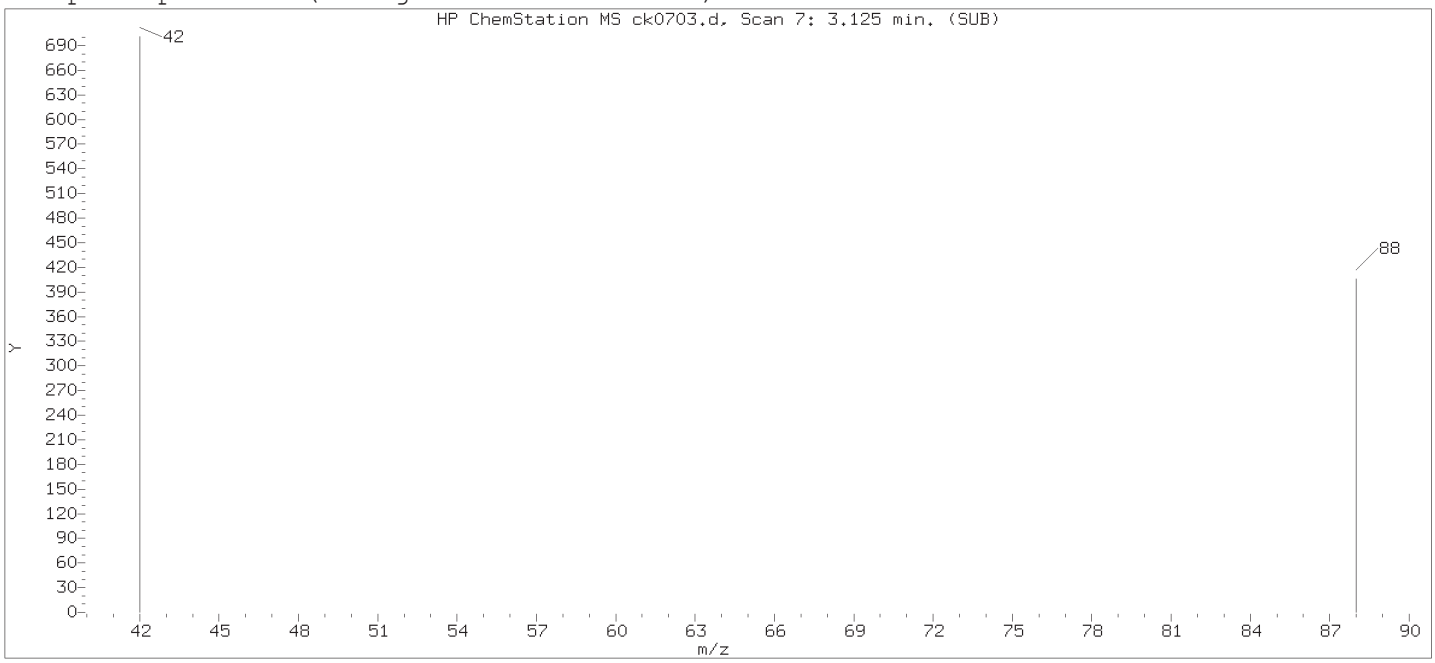
Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 42		
Retention Time (minutes)	: 3.349		
Quant Ion	: 88.00		
Area (flag)	: 26790A		
On-Column Amount (ng/ul)	: 0.6714		
Integration start scan	: 32	Integration stop scan:	62
Y at integration start	: 117	Y at integration end:	117

Reason for manual integration: improper integration

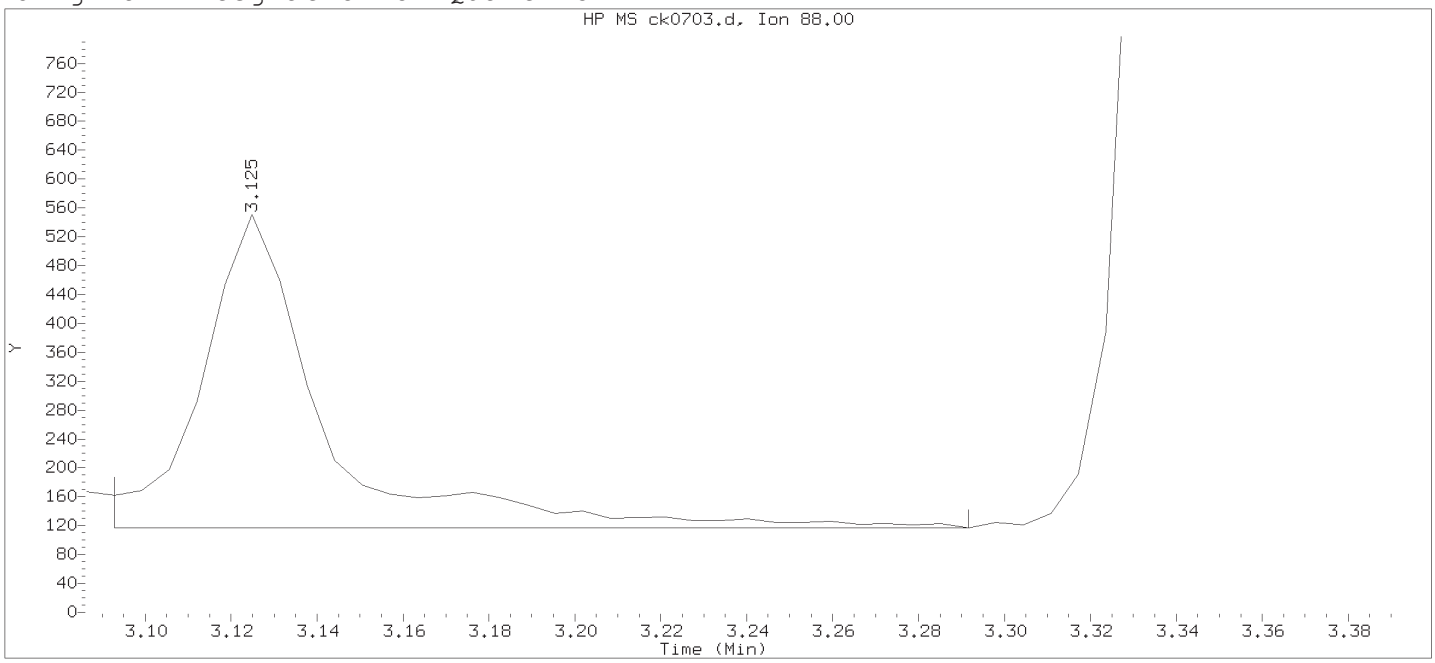
Analyst responsible for change: Digitally signed by William H Saadeh
on 11/16/2018 at 12:59.
Target 3.5 esignature user ID: whs02991

Secondary review performed and digitally signed by Chad A. Moline on 11/16/2018 at 14:20.
PARALLAX ID: cam01237

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP10623.i/18nov16.b/ck0703.d Instrument ID: HP10623.i
Injection date and time: 16-NOV-2018 07:51 Analyst ID: jmg00346

Method used: /chem/HP10623.i/18nov16.b/sim8270d.m Sublist used: 25804
Calibration date and time: 16-NOV-2018 06:29
Date, time and analyst ID of latest file update: 16-Nov-2018 08:19 Automation

Sample Name: 317LCLCS Lab Sample ID: 317LCLCS

Compound Number	: 1		
Compound Name	: 1,4-Dioxane		
Scan Number	: 7		
Retention Time (minutes)	: 3.125		
Quant Ion	: 88.00		
Area	: 849		
On-column Amount (ng/ul)	: 0.0213		
Integration start scan	: 1	Integration stop scan:	32
Y at integration start	: 117	Y at integration end:	117

Digitally signed by William H Saadeh on 11/16/2018 at 12:59.
Target 3.5 esignature used: 1.0.0.0

Extraction/Distillation/Digestion Logs

Semivolatiles by GC/MS-SIM

Organic Extraction Batchlog Assigned to: 9121 Bradley VanLeuven Reviewed by: 10209 11-04-18 Start Date: 10/29/18 Start time: 22:00

18302SLE026

Tech 1: BV 9121 Tech 2: MD300

Dept: 26 Prep Analysis: 10811 BNA Soil Microwave SIM SIM SVOAs 8270D (microwave)

QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
9863854MS	GKP-4	30.11	SS1829826C	1.0	MS1829226A	1.0	10	Z	Z	301A	wet brown gritty soil
9863855MSD	GKP-4	30.41	SS1829826C	↓	MS1829226A	↓	10	Z	Z	301A	wet brown gritty soil
BLANKA	SBLKLE302	30.0	SS1829826C				10	Z	Z	Z	Na2SO4
LCSA	302LELCS	30.0	SS1829826C	↓	MS1829226A	1.0	10	Z	Z	Z	↓

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	178510291 8A
Methylene Chloride	187356
Sodium Sulfate	18299A

N/A

Spike Solutions: MS1829226A SIM LCS SPIKE; SS1829826C BNA SURROGATE STANDARD Witness: N/A

*Split w/ 18302SLC026

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
1 9863851	GKP-1	30.38	SS1829826C	1.0	10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	12969	25804	11/01/2018	N
2 9863852	GKP-2	30.49	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	12969	25804	11/01/2018	N
3 9863853BKG	GKP-4	30.43	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	12969	25804	11/01/2018	N
4 9863857	GKP-D	30.02	SS1829826C		10	Z	Z	301A	Organic Matter;Sludge;Rocks;Brown	12969	25804	11/01/2018	N
5 9863858	GKP-3	30.20	SS1829826C		10	Z	Z	301a	Soil;Wet;Black	12969	25804	11/01/2018	N
6 9866461	T0902	30.14	SS1829826C		10	Z	Z	301A	Sludge;Sandy;Rocks;Brown	12969	25804	11/02/2018	N
7 9866462	T0903	30.35	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Wet;Black	12969	25804	11/02/2018	N
8 9866463	T0904	30.1	SS1829826C		10	Z	Z	036a	brown gritty soil	12969	25804	11/02/2018	N
9 9866464	T0905	30.21	SS1829826C		10	Z	Z	301a	Organic Matter;Soil;Brown	12969	25804	11/02/2018	N
10 9866465	T0906	30.14	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Gritty;Rocks;Grey	12969	25804	11/02/2018	N
11 9866466	T0907	30.48	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Brown	12969	25804	11/02/2018	N
12 9866467	T0908	30.18	SS1829826C		10	Z	Z	301A	Organic Matter;Soil;Rocks;Brown	12969	25804	11/02/2018	N
13 9870251	T1102	30.39	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Red	12969	25804	11/06/2018	N
14 9870252	T1103	30.30	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Black	12969	25804	11/06/2018	N
15 9870253	T1104	30.25	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Black	12969	25804	11/06/2018	N
16 9870254	T1105	30.36	SS1829826C		10	Z	Z	301A	Soil;Gritty;Rocks;Black	12969	25804	11/06/2018	N
17 9872060	12T02	30.32	SS1829826C		10	Z	Z	301A	Soil;Rocks;Black	12969	25804	11/07/2018	N
18 9872061	12T03	30.06	SS1829826C		10	Z	Z	301A	Soil;Rocks;Black	12969	25804	11/07/2018	N
19 9872062	12T04	30.30	SS1829826C	↓	10	Z	Z	301A	Soil;Gritty;Rocks;Black	12969	25804	11/07/2018	N

TID12 Page 3422 of 7494

Bench#	Bench#	Bench#
Rack ID:		Work Station: MICROWAVE
Internal Standard	③ IS/STD 3028	Balance # 17609

Micro Temp 100? ✓

R-VAP ID	C	R-VAP ID	C	R-VAP ID	C
S-bath ID S	90 C	S-bath ID	C	N-Evap	C

M-vap C

18302SLE026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

③ MBrock 11-04-18

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
209872063	12T05	30.04	SS1829826C	1.0	10	Z	Z	301A	Soil;Rocks;Brown	12969	25804	11/07/2018	N

*split w/ ~~18302~~ 18302SLC026
@ KmbH25 10/29/18

BV 9121 11/6/18

Bench#	Bench#	Bench#		
Rack ID:		Work Station	microwave	Micro Temp 100? ✓
Internal Standard		Balance #	17609	

~~R-VAP ID~~	C	R-VAP ID	C	R-VAP ID	C			
S-bath ID 5	90 C	S-bath ID	C	N-Evap	C	M-vap	C	18302SLE026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10811 BNA Soil Microwave SIM
Batch: 18302SLE026

Verified: ARB 10/30/18 11-04-18
Start Date: 10-31-18
Start Time: 14:07
Tech 1: EVS72
Tech 2: _____

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
9863854MS	5	0.5	1			
9863855MSD	5	0.5	1			

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9863851 S	5	0.5	1	2				12969
2	9863852 S				2				12969
3	9863853 S				2				12969
4	9863857 S				2				12969
5	9863858 S				2				12969
6	9866461 S				2				12969
7	9866462 S				2				12969
8	9866463 S				2				12969
9	9866464 S				2				12969
10	9866465 S				2				12969
11	9866466 S				2				12969
12	9866467 S				2				12969
13	9870251 S				2				12969
14	9870252 S				2				12969
15	9870253 S				2				12969
16	9870254 S				2				12969
17	9872060 S				2				12969
18	9872061 S				2				12969
19	9872062 S				2				12969
20	9872063 S				2				12969

Blank

Additional Comment: _____

DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		Methz	187356

S-Evap/~~bath~~ ~~C~~ S-Evap/bath 85°C ~~N-Evap~~ ~~C~~
#16982

Instrument #: GZ-4
Column ID #1: 112
Column ID #2: _____

The documented temperatures are NIST corrected.

Organic Extraction Batchlog Assigned to: 12366 Joshua Ruth Reviewed by: 10106 11-07-18 Start Date: 10/30/18 Start time: 7:00

18302SLH026

Tech 1: JSR 12366 Tech 2: N/A

Dept: 26	Prep Analysis: 10811 BNA Soil Microwave SIM										SIM SVOAs 8270D (microwave)
QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
(5) 9867763MS	T1003	~~30.32~~ 30.1	SS1829826C	1.0	MS1830226B	1.0	10	Z	Z	~~301A~~	brown soil
(5) 9867764MSD	T1003	~~30.34~~ 30.3	SS1829826C	↓	MS1830226B	1.0	10	Z	Z	~~301A~~	↓
BLANKA ☆	SBLKLH302	30.0	SS1829826C	↓	—	—	10	Z	Z	Z	Reagent
LCSA	302LHLCS	30.0	SS1829826C	↓	MS1830226B	1.0	10	Z	Z	Z	↓

(5) Used parent jar BC 036A JSR 12366 10/30/18

☆Split w/ 18302SLJ026

N/A

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	178S102918A
Methylene Chloride	187356
Sodium Sulfate	18299A
Syringe Filter	16837043

Spike Solutions: Witness: N/A

MS1830226B SIM LCS SPIKE

SS1829826C BNA SURROGATE STANDARD

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	List	Due Date	Prio
1 9867761 ☆	T1002	30.16	SS1829826C	1.0	10	Z	Z	301A	Soil;Sandy;Brown	12969	25804	11/05/2018	N
2 9867762BKG ☆	T1003	30.43	SS1829826C	↓	10	Z	Z	301A	Soil;Sandy;Brown	12969	25804	11/05/2018	N
3 9867766 ☆	T1004	30.16	SS1829826C	↓	10	Z	Z	301A	Soil;Sandy;Rocks;Brown	12969	25804	11/05/2018	N
4 9867767 ☆	T1005	30.39	SS1829826C	↓	10	Z	Z	301A	Soil;Wet;Brown	12969	25804	11/05/2018	N
5 9872064 ☆	12T06	30.23	SS1829826C	↓	10	Z	Z	301A	Organic Matter;Soil;Rocks;Black	12969	25804	11/07/2018	N
6 9872065 ☆	12T07	30.15	SS1829826C	↓	10	Z	Z	301A	Soil;Brown	12969	25804	11/07/2018	N

N/A

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Bench# /	Bench# /	Bench# /	17424								
Rack ID:	/	Work Station	Hood900	Micro Temp 100? ✓	R-VAP ID	/ C	R-VAP ID	/ C	R-VAP ID	/ C	
Internal Standard	SISTD 3028	Balance #	17609		S-bath ID 5	98 C	S-bath ID	/ C	N-Evap	/ C	M-vap / C

18302SLH026

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10811 BNA Soil Microwave SIM
Batch: 18302SLH026

Verified: 1206 ATB 11-07-18
Start Date: 11-1-18
Start Time: 18:00
Tech 1: [illegible] 572
Tech 2: _____

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
9867763MS	5	ⓐ 0.5	①			③ [illegible] 572 11-1-18
9867764MSD	5	ⓐ 0.5	①			③ [illegible] 572 11-1-18

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9867761 S	5	0.5	1	2				12969
2	9867762 S				2				12969
3	9867766 S				2				12969
4	9867767 S				2				12969
5	9872064 S				2				12969
6	9872065 S				2				12969

B/amw
LCS

NA [illegible] 572
11-1-18

Additional Comment: _____

DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		MeCl2	187356
		MeCl2	186618

S-Evap/~~bath~~ ___ C | S-Evap/bath 85°C | N-~~Evap~~ ___ C

#16982

Instrument #: GC-4
Column ID #1: 112
Column ID #2: _____

The documented temperatures are NIST corrected.

Organic Extraction Batchlog Assigned to: 504 Sally Appleyard

Reviewed by: JM6 11-16-18 Start Date: 11/13/18 Start time: 1912.5

18317SLC026

Tech 1: SLA-504 Tech 2: _____

Dept: 26 Prep Analysis: 10811 BNA Soil Microwave SIM SIM SVOAs 8270D (microwave)

QC	Sample Code	Amt	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
9867763MS	T1003	20.2	SS1829826C	1.0	MS1831326A	1.0	10	Z	Z	36A	Matrix STDs
9867764MSD	T1003	20.2	SS1829826C	1.0	MS1831326A	1.0	10	Z	Z	36A	Matrix STDs
BLANKA *	SBLKLC317	20.0	SS1829826C	1.0	—	—	10	Z	Z	—	Mb504 1/2 Qty
LCSA	317LCLCS	20.0	SS1829826C	1.0	MS1831326A	1.0	10	Z	Z	—	1/2 Qty

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	244701113188
Methylene Chloride	187001
Sodium Sulfate	183164
—	—

*split w/ 18317SUB026

Spike Solutions: Witness: —

MS1831326A SIM LCS SPIKE

SS1829826C BNA SURROGATE STANDARD

Sample #	Sample Code	Amt	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments		Analyses	List	Due Date	Prio
1 9867761 ~~RR~~	T1002	20.2	SS1829826C	1.0	10	Z	Z	36A	Matrix STDs	D-1	12969	25804	11/05/2018	N
2 9867762BKGR	T1003	20.0	SS1829826C	1.0	10	Z	Z	36A	Matrix STDs	D-1	12969	25804	11/05/2018	N
3 9867766 R	T1004	20.2	SS1829826C	1.0	10	Z	Z	36A	Matrix STDs	D-1	12969	25804	11/05/2018	N
4 9867767 R	T1005	20.0	SS1829826C	1.0	10	Z	Z	36A	Clumpy	D-1	12969	25804	11/05/2018	N
5 9872065 R	12T07	20.0	SS1829826C	1.0	10	Z	Z	36A	Clumpy	D-1	12969	25804	11/07/2018	N

TID12 Page 3427 of 7494

SLA 11/13/18 N/A

Bench#	~~Bench#~~	~~Bench#~~		
Rack ID:	—	Work Station	Micro	Micro Temp 100? ✓
Internal Standard	~~SS1830426~~	Balance #	2519	

DF = Dilution Factor FV = Final Volume Page 1 of 1

B SLA 11/13/18

R-VAP ID	— C	R-VAP ID	— C	R-VAP ID	— C
S-bath ID	5 97 C	S-bath ID	— C	N-Evap	— C

M-vap — C

18317SLC026

Documented temps are NIST corrected.

Prep-Process Worksheet

GPC
Prep: 10811 BNA Soil Microwave SIM
Batch: 18317SLC026

Verified: _____ 13766 11/20/18
Start Date: 11-14-18
Start Time: 12:47
Tech 1: TN 572
Tech 2: CG12385

Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID	D.F. Aliq	D.F. F.V.	Comments
9867763MS	5	0.5	1			
9867764MSD	5	0.5	1			

	Sample #	Vol. (mL) on	Final Conc Volume (ml)	Column ID		D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9867761 S	5	0.5	1	2				12969
2	9867762 S		0.5		2				12969
3	9867766 S		0.5		2				12969
4	9867767 S		0.5		2				12969
5	9872065 S		0.5		2				12969
	Blank	5		1					
	LCS	5		1					

NA TN572 11-14-18

Additional Comment: NA

DF = Dilution Factor FV = Final Volume

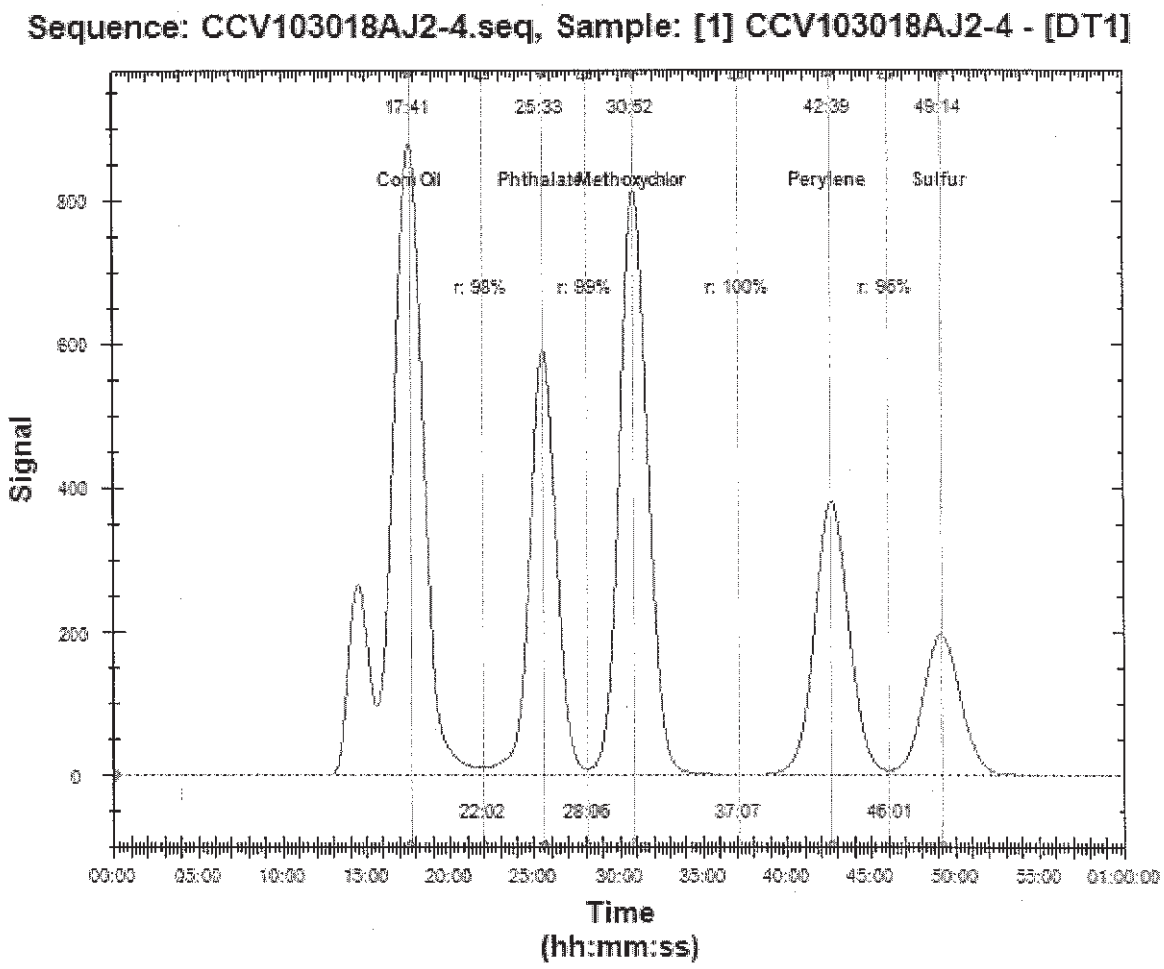
Solvent Used	Lot No.	Solvent Used	Lot No.
		MeCl2	187001

S-Evap/bath	90 °C	S-Evap/bath	C	N-Evap	C

Instrument #: GC-4
Column ID #1: 112
Column ID #2: NA

The documented temperatures are NIST corrected.

CALIBRATION REPORT



TEMPLATE NAME : CO100

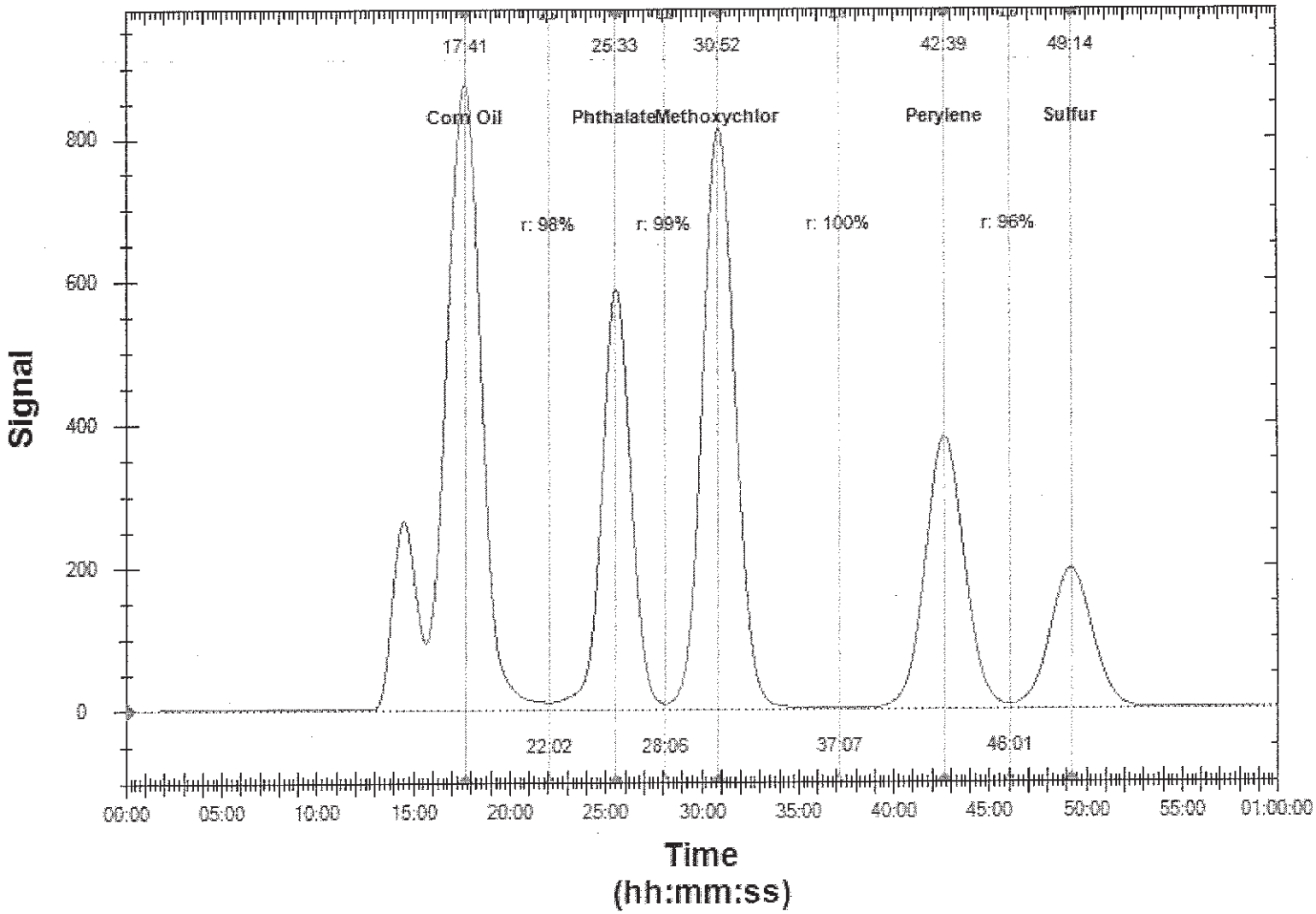
PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	879
2	Phthalate	25:33	592
3	Methoxychlor	30:52	815
4	Perylene	42:39	382
5	Sulfur	49:14	197

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

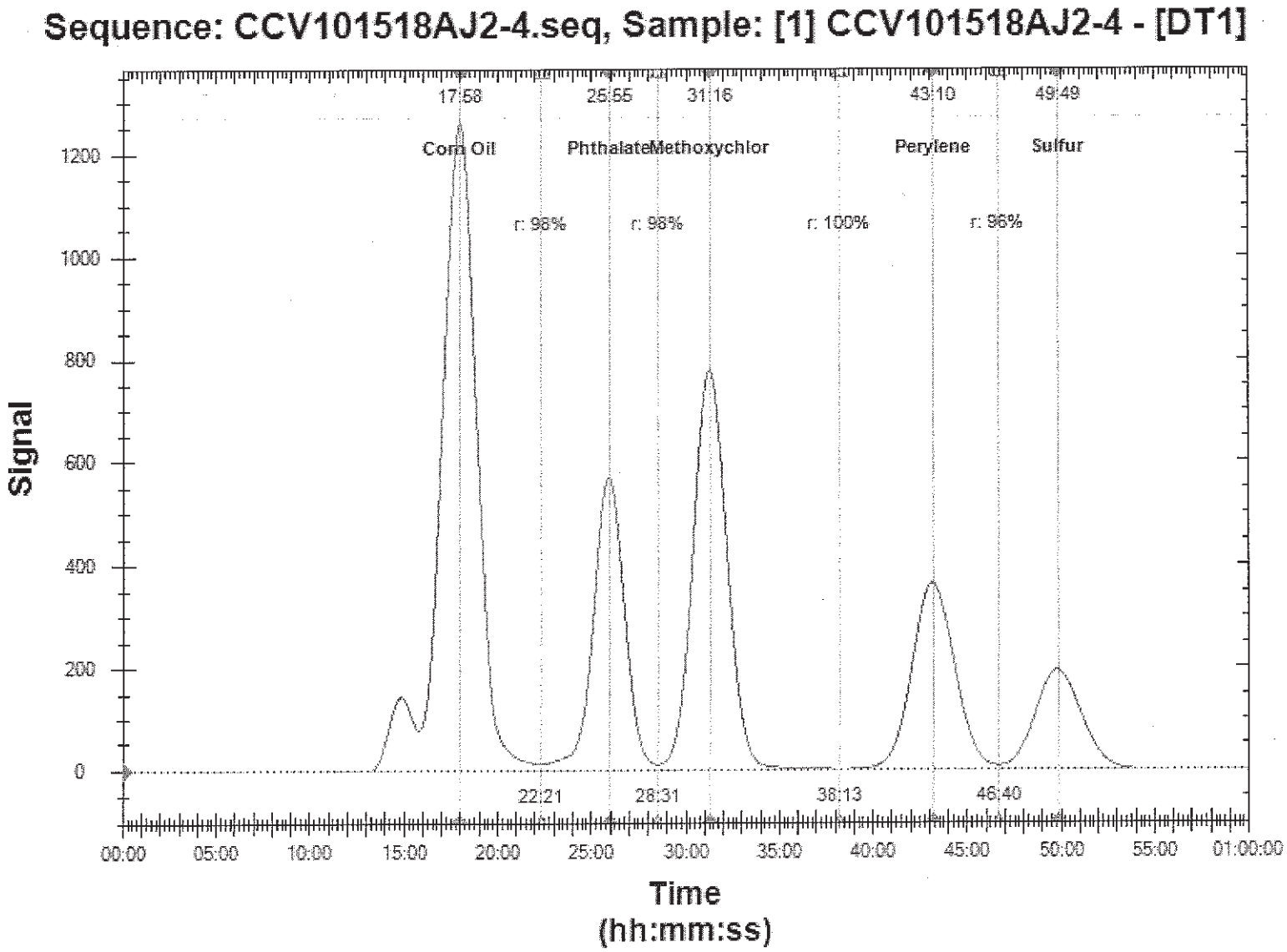
PREPARED BY: System 12/6/2018 1:33:56 PM

SAMPLE	: 1 - 1
TYPE	:
ID	: CCV103018AJ2-4
BATCH	:
START TIME	: 10/30/2018 4:45:56 PM
END TIME	: 10/30/2018 5:50:01 PM
METHOD	: Calibration.gmf
REVISION	: 3
VOLUME (uL)	: 5000
STATUS	: PROCESSED

Sequence: CCV103018AJ2-4.seq, Sample: [1] CCV103018AJ2-4 - [DT1]



PREPARED BY: System 12/6/2018 3:28:04 PM



COLUMN : Inline
SEQUENCE: CCV103018AJ2-4.SEQ, SAMPLE: [1] CCV103018AJ2-4 - [DT1]
PREPARED BY: System 12/6/2018 3:28:04 PM

METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	879
2	Phthalate	25:33	592
3	Methoxychlor	30:52	815
4	Perylene	42:39	382
5	Sulfur	49:14	197

COLUMN : Inline
SEQUENCE: CCV101518AJ2-4.SEQ, SAMPLE: [1] CCV101518AJ2-4 - [DT1]
METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:58	1263
2	Phthalate	25:55	572
3	Methoxychlor	31:16	779
4	Perylene	43:10	364
5	Sulfur	49:49	193

RESULTS

RESOLUTION RESULTS FOR SEQUENCE: CCV103018AJ2-4.SEQ, SAMPLE: [1] CCV103018AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

RESOLUTION RESULTS FOR SEQUENCE: CCV101518AJ2-4.SEQ, SAMPLE: [1] CCV101518AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F

PREPARED BY: System 12/6/2018 3:28:04 PM

1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	96	0	P

RETENTION TIME COMPARISON

COMPOUND	RT DRIFT	RT DRIFT +/-	P/F
Corn Oil	2%	85%	P
Phthalate	1%	85%	P
Methoxychlor	1%	85%	P
Perylene	1%	85%	P
Sulfur	1%	85%	P

OVERALL RESULT: PASS

PREPARED BY: System 12/6/2018 3:28:04 PM

SEQUENCE REPORT V.2

SEQUENCE NAME : 103118AJ2-4.seq

PROCESSED BY : System

MAT NAME : ELLE.m3k

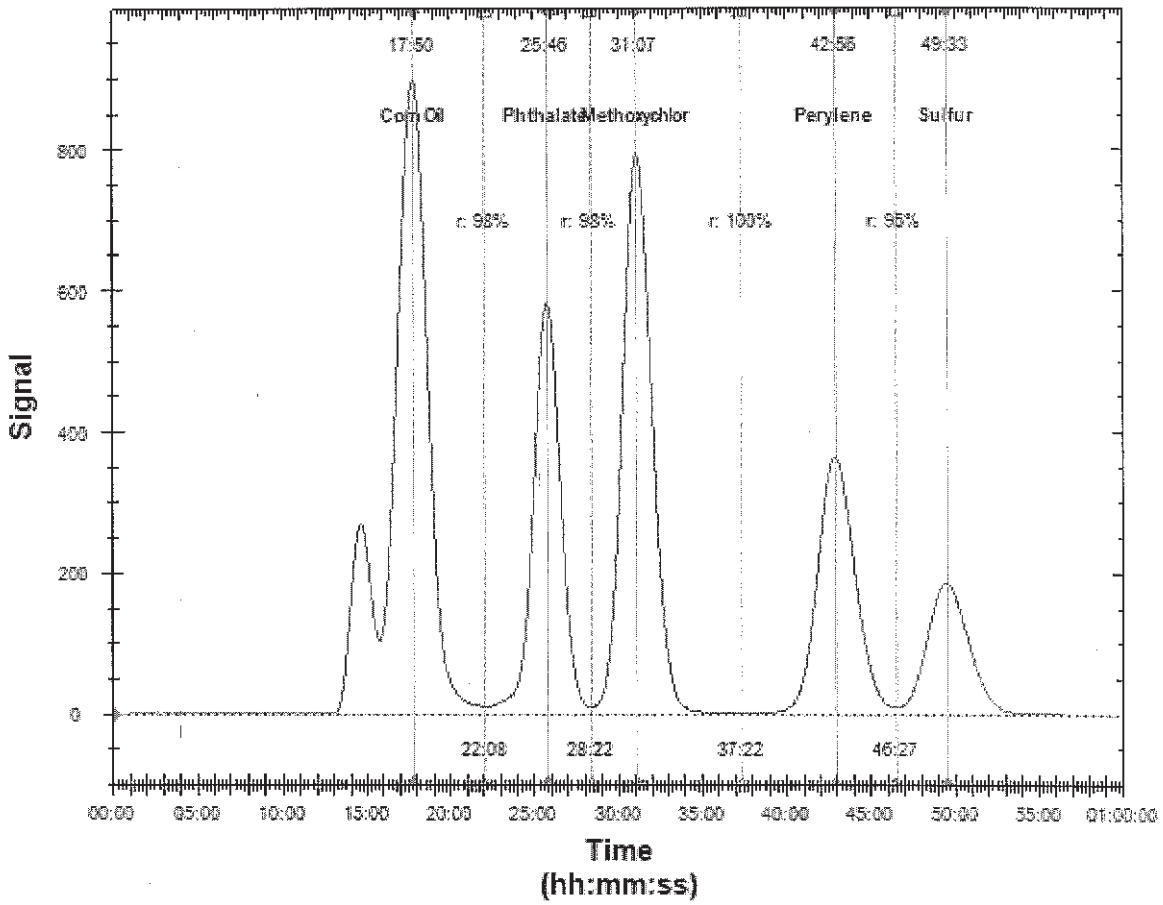
SAMPLE	STATUS	TYPE	METHOD	REV.	VOLUME (uL)	TYPE	ID
1	PROCESSED	GPC	SEMI.gmf	112	5000		BLANKA
2	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
3	PROCESSED	GPC	SEMI.gmf	112	5000		9863854 MS
4	PROCESSED	GPC	SEMI.gmf	112	5000		9863855 MSD
5	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
6	PROCESSED	GPC	SEMI.gmf	112	5000		LCSAP1
7	PROCESSED	GPC	SEMI.gmf	112	5000		LCSDAP1
8	PROCESSED	GPC	SEMI.gmf	112	5000		9863854 MS
9	PROCESSED	GPC	SEMI.gmf	112	5000		9863855 MSD
10	PROCESSED	GPC	SEMI.gmf	112	5000		9863851
11	PROCESSED	GPC	SEMI.gmf	112	5000		9863852
12	PROCESSED	GPC	SEMI.gmf	112	5000		9863853 BKG
13	PROCESSED	GPC	SEMI.gmf	112	5000		9863857
14	PROCESSED	GPC	SEMI.gmf	112	5000		9863858
15	PROCESSED	GPC	SEMI.gmf	112	5000		9866461
16	PROCESSED	GPC	SEMI.gmf	112	5000		9866462
17	PROCESSED	GPC	SEMI.gmf	112	5000		9866463
18	PROCESSED	GPC	SEMI.gmf	112	5000		9866464
19	PROCESSED	GPC	SEMI.gmf	112	5000		9866465
20	PROCESSED	GPC	SEMI.gmf	112	5000		9866466
21	PROCESSED	GPC	SEMI.gmf	112	5000		9866467
22	PROCESSED	GPC	SEMI.gmf	112	5000		9870251
23	PROCESSED	GPC	SEMI.gmf	112	5000		9870252
24	PROCESSED	GPC	SEMI.gmf	112	5000		9870253
25	PROCESSED	GPC	SEMI.gmf	112	5000		9870254
26	PROCESSED	GPC	SEMI.gmf	112	5000		9872060
27	PROCESSED	GPC	SEMI.gmf	112	5000		9872061
28	PROCESSED	GPC	SEMI.gmf	112	5000		9872062
29	PROCESSED	GPC	SEMI.gmf	112	5000		9872063
30	PROCESSED	GPC	SEMI.gmf	112	5000		SYSTEM BLANK
31	PROCESSED	GPC	SEMI.gmf	112	5000		SYSTEM BLANK
32	PROCESSED	GPC	SEMI.gmf	112	5000		BLANKA
33	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
34	PROCESSED	GPC	SEMI.gmf	112	5000		9867763 MS
35	PROCESSED	GPC	SEMI.gmf	112	5000		9867764 MSD
36	PROCESSED	GPC	SEMI.gmf	112	5000		LCSA
37	PROCESSED	GPC	SEMI.gmf	112	5000		LCSAP1
38	PROCESSED	GPC	SEMI.gmf	112	5000		LCSDAP1
39	PROCESSED	GPC	SEMI.gmf	112	5000		9867763 MS
40	PROCESSED	GPC	SEMI.gmf	112	5000		9867764 MSD
41	PROCESSED	GPC	SEMI.gmf	112	5000		9867761
42	PROCESSED	GPC	SEMI.gmf	112	5000		9867762 BKG
43	PROCESSED	GPC	SEMI.gmf	112	5000		9867766
44	PROCESSED	GPC	SEMI.gmf	112	5000		9867767

45	PROCESSED	GPC	SEMI.gmf	112	5000	9872064
46	PROCESSED	GPC	SEMI.gmf	112	5000	9872065
47	PROCESSED	GPC	SEMI.gmf	112	5000	SYSTEM BLANK
48	PROCESSED	GPC	SEMI.gmf	112	5000	SYSTEM BLANK

START TIME : 10/31/2018 2:07:10 PM
END TIME : 11/2/2018 9:29:06 PM

CALIBRATION REPORT

Sequence: CCV111318AJ2-4.seq, Sample: [1] CCV111318AJ2-4 - [DT1]



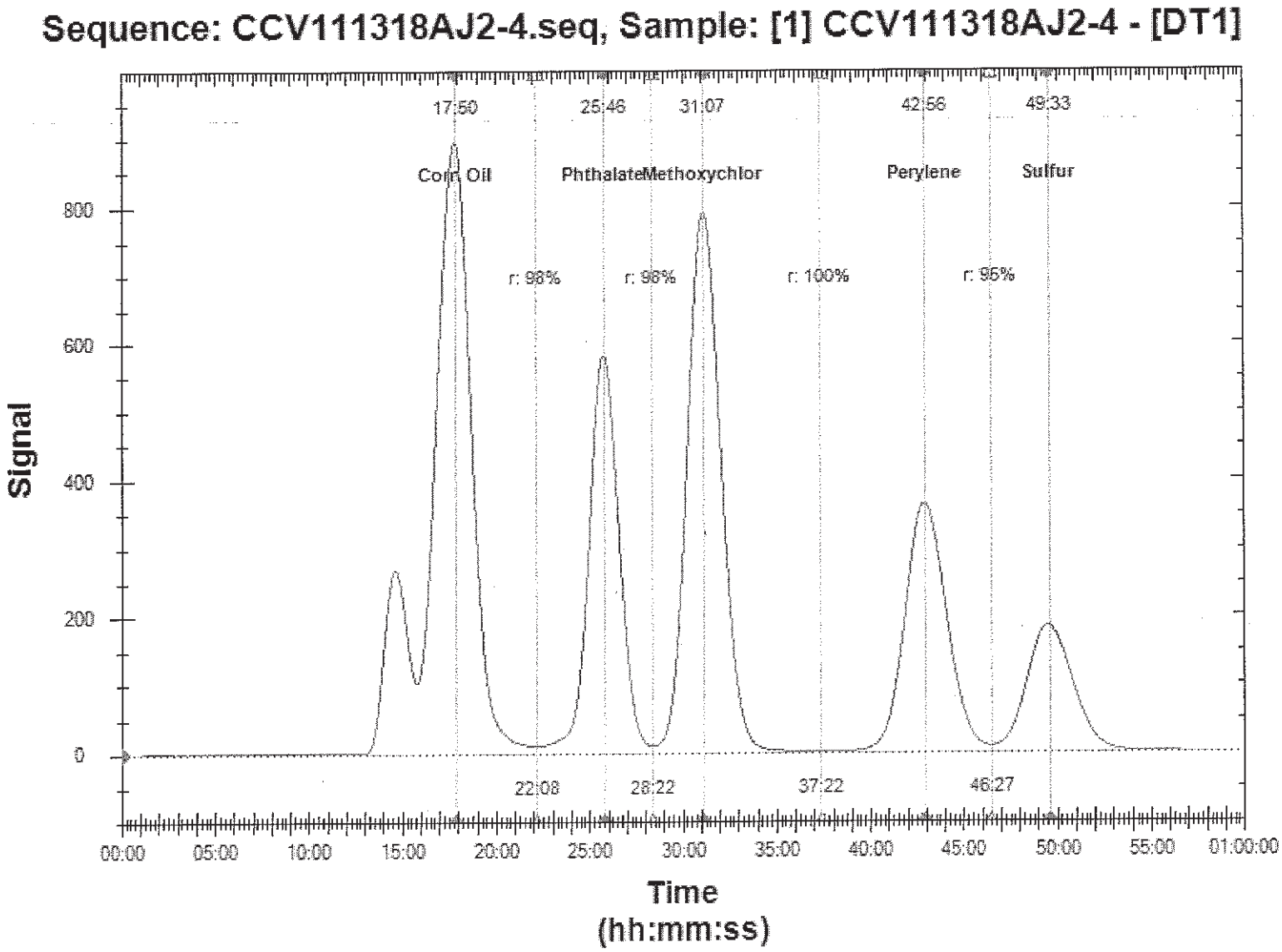
TEMPLATE NAME : CO100

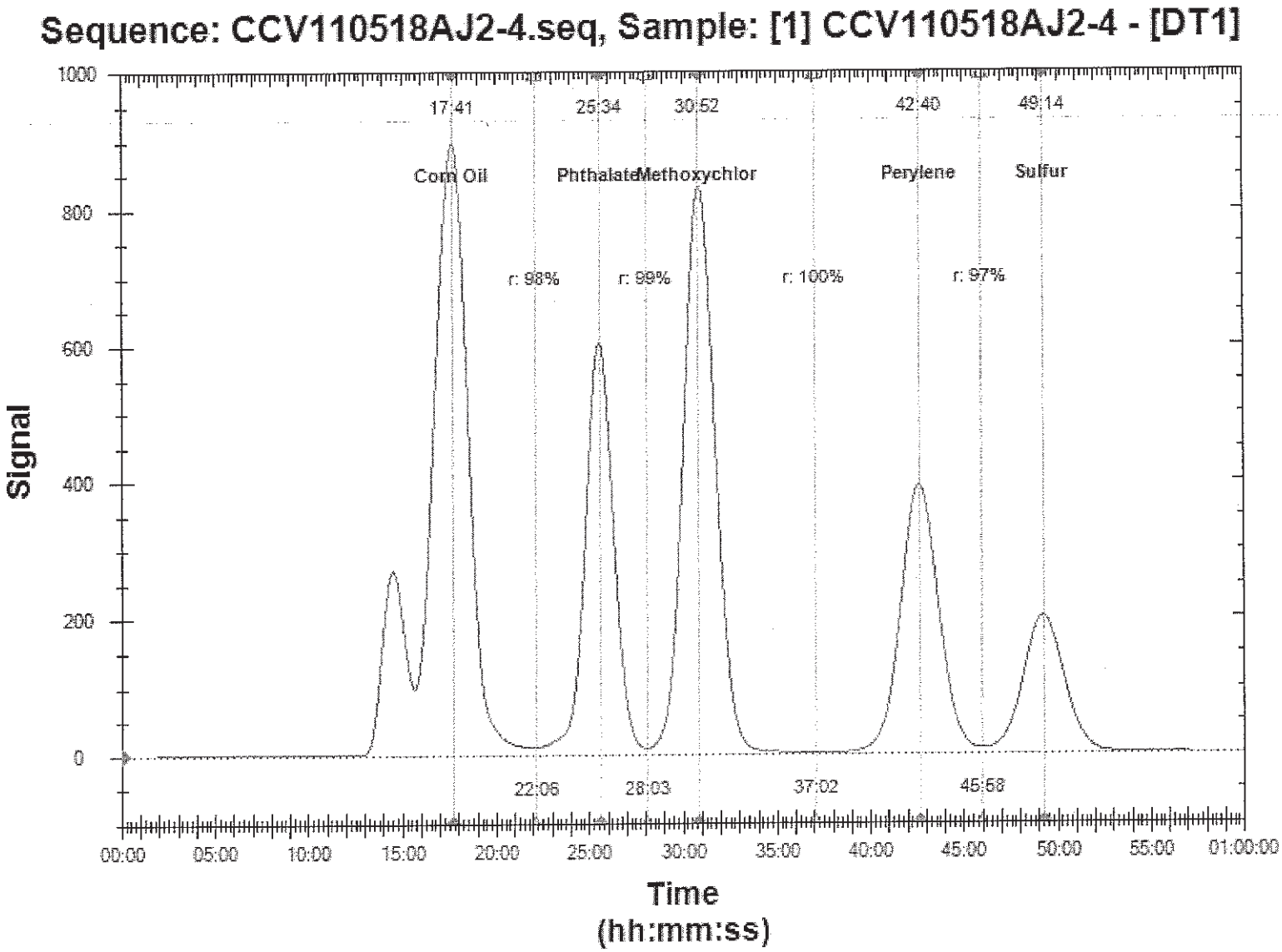
PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:50	898
2	Phthalate	25:46	584
3	Methoxychlor	31:07	795
4	Perylene	42:56	365
5	Sulfur	49:33	186

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	95	0	P

PREPARED BY: System 12/6/2018 1:41:22 PM

SAMPLE	: 1 - 1
TYPE	:
ID	: CCV111318AJ2-4
BATCH	:
START TIME	: 11/13/2018 1:44:52 PM
END TIME	: 11/13/2018 2:48:55 PM
METHOD	: Calibration.gmf
REVISION	: 3
VOLUME (uL)	: 5000
STATUS	: PROCESSED


Sequence: CCV111318AJ2-4.seq, Sample: [1] CCV111318AJ2-4 - [DT1]
17:50
25:46
31:07
42:56
49:33
Corn Oil
PhthalateMethoxychlor
Perylene
Sulfur
r: 98%
r: 98%
r: 100%
r: 95%
800
600
400
200
0
Signal
22:08
28:22
37:22
46:27
00:00
05:00
10:00
15:00
20:00
25:00
30:00
35:00
40:00
45:00
50:00
55:00
01:00:00
Time
(hh:mm:ss)



COLUMN : Inline
SEQUENCE: CCV111318AJ2-4.SEQ, SAMPLE: [1] CCV111318AJ2-4 - [DT1]
PREPARED BY: System 12/6/2018 3:30:29 PM

METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:50	898
2	Phthalate	25:46	584
3	Methoxychlor	31:07	795
4	Perylene	42:56	365
5	Sulfur	49:33	186

COLUMN : Inline
SEQUENCE: CCV110518AJ2-4.SEQ, SAMPLE: [1] CCV110518AJ2-4 - [DT1]
METHOD : Calibration.gmf
TEMPLATE NAME : CO100

PEAK	SAMPLE	RET. TIME	SIGNAL
1	Corn Oil	17:41	899
2	Phthalate	25:34	608
3	Methoxychlor	30:52	836
4	Perylene	42:40	393
5	Sulfur	49:14	203

RESULTS

RESOLUTION RESULTS FOR SEQUENCE: CCV111318AJ2-4.SEQ, SAMPLE: [1] CCV111318AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F
1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	98	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	95	0	P

RESOLUTION RESULTS FOR SEQUENCE: CCV110518AJ2-4.SEQ, SAMPLE: [1] CCV110518AJ2-4 - [DT1]

VALLEY	PEAKS	RES.	LIMIT	P/F

PREPARED BY: System 12/6/2018 3:30:29 PM

1	Corn Oil/Phthalate	98	0	P
2	Phthalate/Methoxychlor	99	0	P
3	Methoxychlor/Perylene	100	0	P
4	Perylene/Sulfur	97	0	P

RETENTION TIME COMPARISON

COMPOUND	RT DRIFT	RT DRIFT +/-	P/F
Corn Oil	1%	85%	P
Phthalate	1%	85%	P
Methoxychlor	1%	85%	P
Perylene	1%	85%	P
Sulfur	1%	85%	P

OVERALL RESULT: PASS

SEQUENCE REPORT V.2

SEQUENCE NAME : 111418AJ2-4.seq

PROCESSED BY : System

MAT NAME : ELLE.m3k

SAMPLE	STATUS	TYPE	METHOD	REV.	VOLUME (uL)	TYPE	ID
1	PROCESSED	GPC	SEMI.gmf	114	5000		BLANKA
2	PROCESSED	GPC	SEMI.gmf	114	5000		LCSA
3	PROCESSED	GPC	SEMI.gmf	114	5000		LCSA
4	PROCESSED	GPC	SEMI.gmf	114	5000		LCSDA
5	PROCESSED	GPC	SEMI.gmf	114	5000		LCSAP1
6	PROCESSED	GPC	SEMI.gmf	114	5000		LCSDAP1
7	PROCESSED	GPC	SEMI.gmf	114	5000		9867763 MS
8	PROCESSED	GPC	SEMI.gmf	114	5000		9867764 MSD
9	PROCESSED	GPC	SEMI.gmf	114	5000		9867761
10	PROCESSED	GPC	SEMI.gmf	114	5000		9867762
11	PROCESSED	GPC	SEMI.gmf	114	5000		9867766
12	PROCESSED	GPC	SEMI.gmf	114	5000		9867767
13	PROCESSED	GPC	SEMI.gmf	114	5000		9872065
14	PROCESSED	GPC	SEMI.gmf	114	5000		SYSTEM BLANK
15	PROCESSED	GPC	SEMI.gmf	114	5000		SYSTEM BLANK

START TIME : 11/14/2018 12:46:47 PM
END TIME : 11/15/2018 6:06:41 AM

Herbicides Data

Case Narrative/Conformance Summary

Herbicides

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Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

Pesticide Residue Analysis

Fraction: Herbicides

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
9872060	OU2-1-SU005-06		X	200	
9872061	OU2-1-SU005-06-DUP		X	200	Field Duplicate Sample
9872062	OU2-1-SU005-16		X	200	
9872063	OU2-1-SU006-05		X	5	
9872064	OU2-1-SU006-14		X	100	
9872065	OU2-1-SU008-02		X	10	

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.
See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

(Sample number(s): 9872060-9872065: Analysis: 10401)
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

(Sample number(s): 9872060-9872065: Analysis: 10401)
The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.

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Case Narrative/Conformance Summary

CLIENT: Tidewater, Inc.
SDG: TID12

Pesticide Residue Analysis

Fraction: Herbicides

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

Surrogate

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

Batch#: 183030010A (Sample number(s): 9872060-9872065)
The recovery(ies) for the following surrogate(s) exceeded the acceptance window: 2,4-DCAA-D1 (9872060, 9872061, 9872062, 9872064), 2,4-DCAA-D2 (9872060, 9872061, 9872062, 9872064, 9872065)

SAMPLE ANALYSIS:

(Sample number(s): 9872060-9872065: Analysis: 10401)
Reporting limits were raised due to interference from the sample matrix.

No other problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

Herbicides

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Quality Control Reference List
Pesticide Residue Analysis

CLIENT: Tidewater, Inc.
SDG: TID12

Fraction: Herbicides

Analysis	Batch Number	Sample Number	Analysis Date
Herbicide soils 8151A Master	183030010A	PBLK10303	11/01/2018 19:09
		LCS10303	11/01/2018 19:42
		9872060	11/16/2018 03:49
		9872061	11/16/2018 04:55
		9872062	11/16/2018 06:02
		9872063	11/03/2018 02:35
		9872064	11/09/2018 05:42
		9872065	11/03/2018 04:14

Quality Control Summary
Method Blank
Pesticide Residue Analysis
SDG: TID12
Matrix: SOLID

Fraction: Herbicides

183030010A / PBLK10303 Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Dalapon	11/01/18	N.D.	ug/kg	44	88	90
Dicamba	11/01/18	N.D.	ug/kg	4.0	8.0	12
MCPP (Mecoprop)	11/01/18	N.D.	ug/kg	3800	7600	7700
MCPA	11/01/18	N.D.	ug/kg	760	1500	2500
2,4-DP (Dichloroprop)	11/01/18	N.D.	ug/kg	9.0	18	20
2,4-D	11/01/18	N.D.	ug/kg	12	24	36
2,4,5-TP	11/01/18	N.D.	ug/kg	0.75	1.5	1.7
Dinoseb	11/01/18	N.D.	ug/kg	9.0	18	24
2,4,5-T	11/01/18	N.D.	ug/kg	0.82	1.6	1.7
2,4-DB	11/01/18	N.D.	ug/kg	9.8	20	21

Fraction: Herbicides

183030010A	2,4-DCAA-D1		2,4-DCAA-D2	
	Spike Added	66.66666 ug/kg	Spike Added	66.66666 ug/kg
Sample	% Recovery	Limits	% Recovery	Limits
PBLK10303	89	27 - 122	84	27 - 122
LCS10303	95	27 - 122	97	27 - 122
9872060	1031 *	27 - 122	2892 *	27 - 122
9872061	801 *	27 - 122	1127 *	27 - 122
9872062	721 *	27 - 122	816 *	27 - 122
9872063	102	27 - 122	112	27 - 122
9872064	7220 *	27 - 122	172 *	27 - 122
9872065	98	27 - 122	128 *	27 - 122

Surrogate recoveries that are noncompliant are confirmed unless attributed to a dilution or otherwise noted.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: TID12
Matrix: SOLID

Pesticide Residue Analysis
Fraction: Herbicides

LCS: LCS10303	Batch: **183030010A** (Sample number(s): 9872060-9872065)							
Analyte	**Spike Added ug/kg**	**LCS Conc ug/kg**	**LCSD Conc ug/kg**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Dalapon	208.58	171.65	NA	82	NA	15-115	NA	NA
Dicamba	8.33	7.85 J	NA	94	NA	38-132	NA	NA
MCPP (Mecoprop)	8352.5	10262.49	NA	123	NA	35-143	NA	NA
MCPA	8366.67	8855.01	NA	106	NA	28-135	NA	NA
2,4-DP (Dichloroprop)	83.42	85.36	NA	102	NA	28-155	NA	NA
2,4-D	83.33	85.1	NA	102	NA	28-144	NA	NA
2,4,5-TP	8.33	9.21	NA	111	NA	43-129	NA	NA
2,4,5-T	8.33	8.94	NA	107	NA	31-138	NA	NA
Dinoseb	41.75	7.74 J	NA	19	NA	10-115	NA	NA
2,4-DB	83.75	85.95	NA	103	NA	34-142	NA	NA

Fraction: Herbicides

10401: Herbicide soils 8151A Master Analyte Name	Default DL	Default LOD	Default LOQ	Units
Dalapon	44	88	90	ug/kg
Dicamba	4	8	12	ug/kg
MCPP (Mecoprop)	3800	7600	7,700	ug/kg
MCPA	760	1520	2,500	ug/kg
2,4-DP (Dichloroprop)	9	18	20	ug/kg
2,4-D	12	24	36	ug/kg
2,4,5-TP	.75	1.5	1.7	ug/kg
2,4,5-T	.82	1.64	1.7	ug/kg
Dinoseb	9	18	24	ug/kg
2,4-DB	9.8	20	21	ug/kg

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Calibration File: 15HERB1830401

GC Column (1) : ZB XLB ID: 0.32 (mm)

ICAL Date(s) Analyzed: 10/31/2018 10/31/2018

COMPOUND	RT OF STANDARDS						MIDPOINT RT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6		FROM	TO
Dalapon	3.72	3.73	3.73	3.72	3.73	3.73	3.73	3.70	3.76
2,4-DCAA	11.96	11.95	11.94	11.94	11.93	11.93	11.94	11.91	11.97
Dicamba	12.09	12.08	12.07	12.06	12.05	12.05	12.07	12.04	12.10
Mcpp	12.49	12.48	12.48	12.48	12.48	12.49	12.48	12.45	12.51
Mcpa	12.87	12.87	12.86	12.86	12.87	12.88	12.86	12.83	12.89
2,4-DP	13.46	13.46	13.46	13.45	13.45	13.44	13.46	13.43	13.49
2,4-D	13.90	13.90	13.90	13.90	13.89	13.89	13.90	13.87	13.93
PCP	15.10	15.10	15.09	15.09	15.09	15.08	15.09	15.06	15.12
2,4,5-TP	15.39	15.39	15.39	15.38	15.38	15.38	15.39	15.36	15.42
2,4,5-T	15.91	15.91	15.91	15.91	15.90	15.90	15.91	15.88	15.94
2,4-DB	16.74	16.74	16.74	16.74	16.74	16.73	16.74	16.71	16.77
Dinoseb	16.93	16.93	16.93	16.93	16.92	16.92	16.93	16.90	16.96
Picloram	17.89	17.89	17.89	17.89	17.89	17.88	17.89	17.86	17.92
Hexachlorophene	26.14	26.14	26.13	26.13	26.13	26.13	26.13	26.10	26.16

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Calibration File: 15HERB1830401

GC Column (1) : ZB XLB ID: 0.32 (mm)

ICAL Date(s) Analyzed: 10/31/2018 10/31/2018

COMPOUND	CALIBRATION FACTORS							%RSD	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	MEAN		
Dalapon	7.74E-04	7.50E-04	7.45E-04	7.24E-04	7.40E-04	7.54E-04	7.48E-04	2	
2,4-DCAA	1.55E-03	1.42E-03	1.35E-03	1.25E-03	1.24E-03	1.28E-03	1.35E-03	9	
Dicamba	5.62E-03	5.70E-03	5.48E-03	5.33E-03	5.24E-03	5.09E-03	5.41E-03	4	
Mcpp	1.30E-05	1.10E-05	9.00E-06	7.00E-06	5.00E-06		9.00E-06	35	Linear
Mcpa	1.70E-05	1.40E-05	1.00E-05	8.00E-06	7.00E-06		1.12E-05	38	Linear
2,4-DP	1.25E-03	1.24E-03	1.12E-03	1.02E-03	9.28E-04		1.11E-03	13	
2,4-D	1.39E-03	1.42E-03	1.35E-03	1.27E-03	1.27E-03	1.28E-03	1.33E-03	5	
PCP	1.57E-02	1.66E-02	1.75E-02	1.69E-02	1.72E-02	1.68E-02	1.68E-02	4	
2,4,5-TP	6.20E-03	6.30E-03	6.43E-03	6.11E-03	6.58E-03	6.55E-03	6.36E-03	3	
2,4,5-T	5.19E-03	5.47E-03	5.52E-03	5.51E-03	5.91E-03	6.08E-03	5.61E-03	6	
2,4-DB	7.64E-04	7.84E-04	7.94E-04	7.43E-04	7.71E-04	8.17E-04	7.79E-04	3	
Dinoseb	3.09E-03	3.06E-03	3.05E-03	2.84E-03	2.84E-03	2.65E-03	2.92E-03	6	
Picloram	4.35E-03	4.64E-03	4.98E-03	4.85E-03	5.10E-03	5.30E-03	4.87E-03	7	
Hexachlorophene	4.92E-03	5.25E-03	5.51E-03	5.27E-03	5.31E-03	5.58E-03	5.30E-03	4	

RL
13378
11/1/18

File Name: V:\CP15\15HERB1830401.CAL
Version: 30

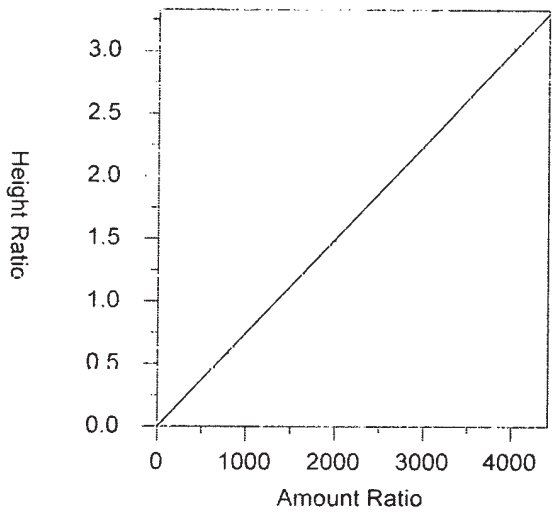
Creator:
Description:
Reason for change:

Internal standard calibration
Standard injection volume: 1
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPB
No default component

Method of calculating data point averages: Current update equal to cal data
No calibration update report

All levels are normal data points.

1 Dalapon



Expected retention time: 3.725 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

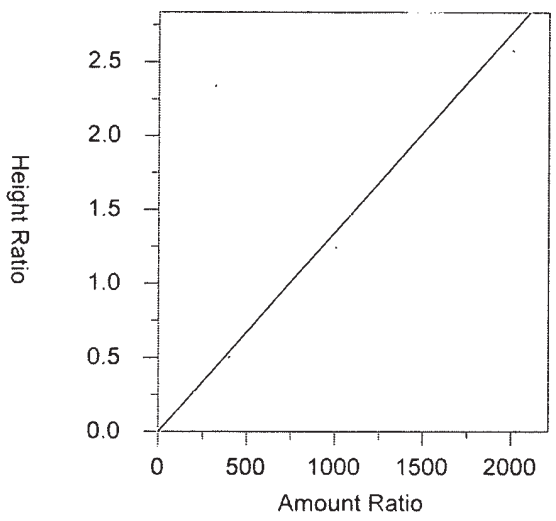
Single peak quantification by height

Y = 0.0007477441 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9997898
Average error: 1.576%
Average CF: 0.0007477441
RSD: 2.226%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	100	858224	8582.24	3.468	100	0.07736794	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
2	201	1662882	8273.045	0.357	201	0.1508334	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
3	401	3394969	8466.257	-0.421	401	0.2985827	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
4	802	6375297	7949.248	-3.236	802	0.5802846	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
5	2005	1.621528E+07	8087.421	-1.072	2005	1.48316	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
6	4010	3.123782E+07	7789.98	0.903	4010	3.025537	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\

2 DCAA



Expected retention time: 11.943 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

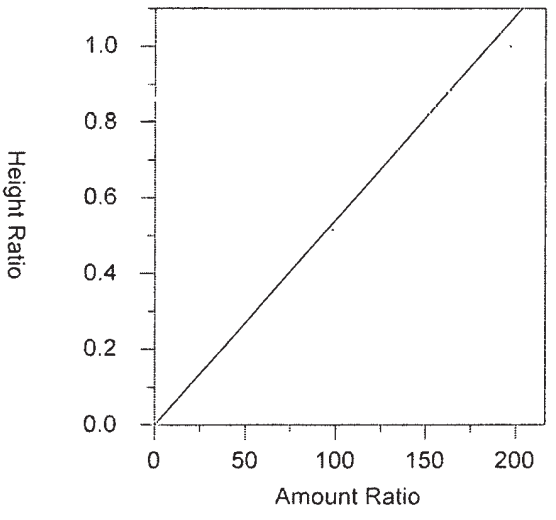
Single peak quantification by height

Y = 0.001346959 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9933155
Average error: 6.738%
Average CF: 0.001346959
RSD: 8.865%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50	859147.9	17182.96	15.002	50	0.07745123	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	101	1575704	15601.03	5.059	101	0.1429258	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	201	3083047	15338.54	0.152	201	0.2711496	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	402	5525293	13744.51	-7.121	402	0.5029166	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1005	1.357703E+07	13509.48	-8.262	1005	1.241847	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2010	2.660314E+07	13235.39	-4.829	2010	2.576645	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

3 DICAMBA



Expected retention time: 12.07 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

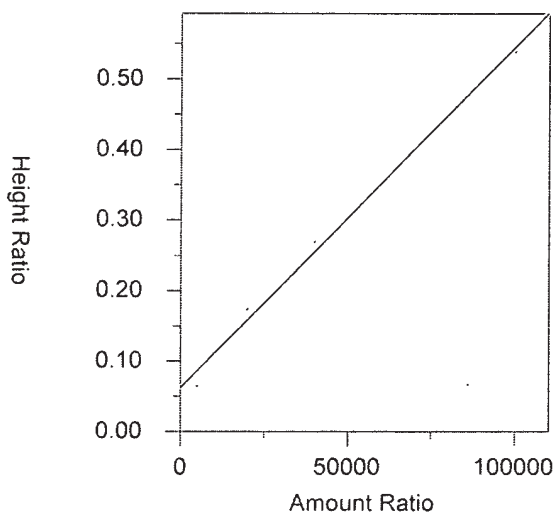
Single peak quantification by height

Y = 0.005410979 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9939634
Average error: 3.509%
Average CF: 0.005410979
RSD: 4.308%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4.9	305319.3	62310.06	3.811	4.9	0.0275242	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.8	616290.5	62886.79	5.419	9.8	0.05590124	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.7	1227761	62322.89	1.298	19.7	0.1079798	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.3	2301711	58567.71	-1.480	39.3	0.2095036	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	98.3	5635526	57329.87	-3.090	98.3	0.5154635	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	196.6	1.032907E+07	52538.5	-5.958	196.6	1.000421	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

4 MCPP



Expected retention time:	12.479 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

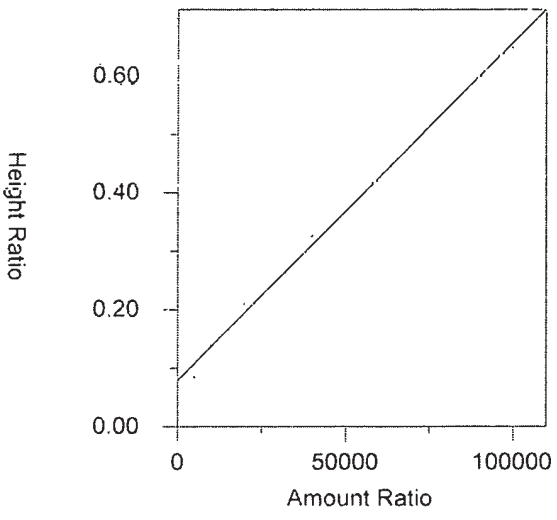
Y = 4.835912E-06 X + 0.06207189

Linear fit with equal weighting

Coefficient of determination:	0.9935448
Average error:	8.322%
Average CF:	8.964442E-06
RSD:	34.516%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5004	717370.8	143.3595	-25.038	5004	0.06467018	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·
2	10008	1227418	122.6437	0.783	10008	0.1113342	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·
3	20016	1973646	98.60342	9.260	20016	0.1735794	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·
4	40032	2954836	73.81185	5.198	40032	0.2689515	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·
5	100080	5890508	58.85799	-1.330	100080	0.5387859	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·
6	(200160)	(9569284)	--	--	200160	9569284	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2·

5 MCPA



Expected retention time:	12.863 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

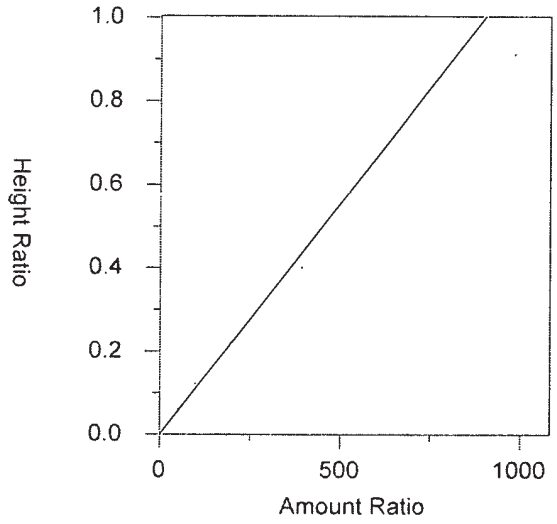
Y = 5.798257E-06 X + 0.07889777

Linear fit with equal weighting

Coefficient of determination:	0.9947603
Average error:	7.346%
Average CF:	1.118598E-05
RSD:	37.811%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4990	935168.3	187.4085	-21.818	4990	0.08430438	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
2	9979	1530045	153.3265	1.481	9979	0.1387842	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
3	19958	2373250	118.9122	7.247	19958	0.208724	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
4	39916	3578818	89.65873	4.964	39916	0.3257469	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
5	99790	7100900	71.15843	-1.218	99790	0.6494965	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
6	(199580)	(1.183941E+07)	--	--	199580	1.183941E+07	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI

6 2,4-DP



Expected retention time: 13.455 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

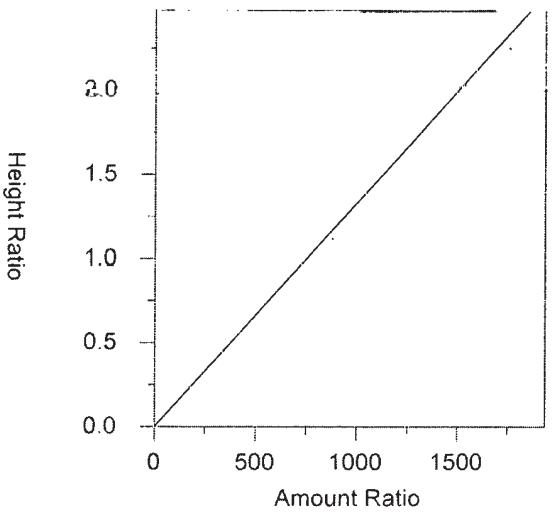
Single peak quantification by height

Y = 0.001111501 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9279918
Average error: 9.789%
Average CF: 0.001111501
RSD: 12.501%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	49.2	682185.7	13865.56	12.457	49.2	0.06149828	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
2	98.3	1343982	13672.25	11.575	98.3	0.1219072	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
3	196.6	2495584	12693.71	0.440	196.6	0.2194831	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
4	393.2	4418721	11237.85	-7.973	393.2	0.4021955	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
5	983	9974529	10147.03	-16.499	983	0.9123381	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI
6	(1966)	(1.686066E+07)	--	--	1966	1.686066E+07	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DI

7 2,4-D



Expected retention time: 13.898 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

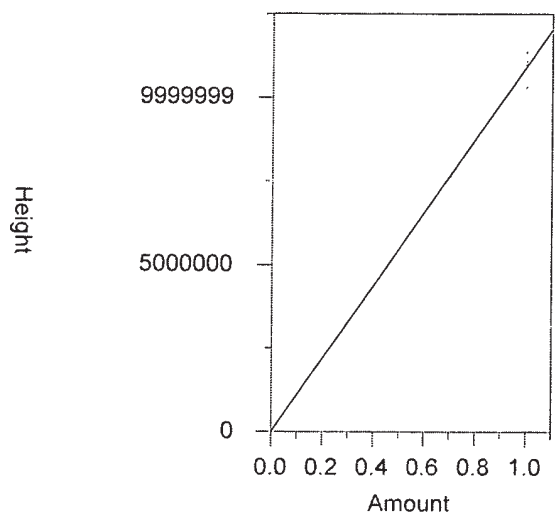
Single peak quantification by height

Y = 0.001328755 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9969206
Average error: 4.296%
Average CF: 0.001328755
RSD: 5.035%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	44	678951.3	15430.71	4.689	44	0.06120671	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	88	1377651	15655.13	6.868	88	0.1249612	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	176	2694477	15309.53	1.332	176	0.2369754	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	352	4894198	13903.97	-4.757	352	0.4454738	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	880	1.223129E+07	13899.19	-4.323	880	1.118757	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1760	2.322572E+07	13196.43	-3.809	1760	2.249525	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

8 DBOFB ** Internal standard component **



Expected retention time: 14.235 minutes
Search window: 0.03 minutes
No internal standard component
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

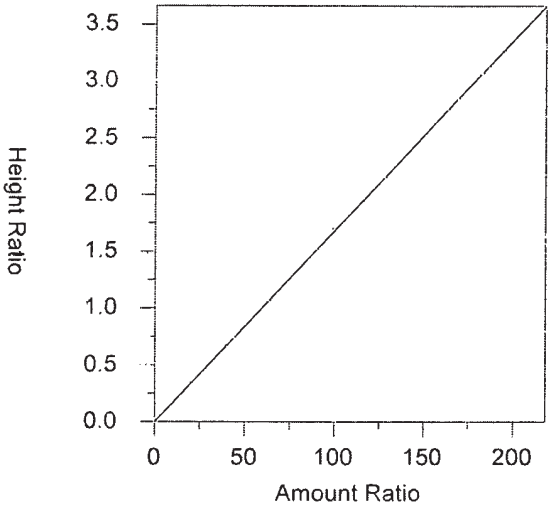
Single peak quantification by height

Y = 1.09553E+07 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0
Average error: 1.987%
Average CF: 1.09553E+07
RSD: 3.149%

Level	Amount	Response	Cal Factor	Error, %	Source
1	1	1.109276E+07	1.109276E+07	1.255	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
2	1	1.102463E+07	1.102463E+07	0.633	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
3	1	1.137028E+07	1.137028E+07	3.788	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
4	1	1.09865E+07	1.09865E+07	0.285	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
5	1	1.093293E+07	1.093293E+07	-0.204	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
6	1	1.032472E+07	1.032472E+07	-5.756	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304

9 PCP



Expected retention time: 15.094 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

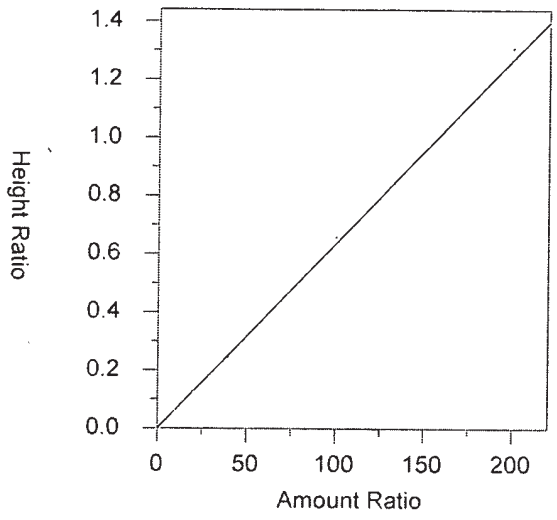
Single peak quantification by height

Y = 0.01680253 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9997659
Average error: 2.525%
Average CF: 0.01680253
RSD: 3.651%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	873142.1	174628.4	-6.308	5	0.07871279	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.9	1810691	182898.1	-1.265	9.9	0.1642405	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.8	3946770	199331.8	4.335	19.8	0.3471128	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.6	7370801	186131.3	0.829	39.6	0.6708962	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99.1	1.864217E+07	188114.7	2.403	99.1	1.705139	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	198.2	3.438624E+07	173492.6	0.006	198.2	3.330477	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

10 2,4,5-TP



Expected retention time: 15.386 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

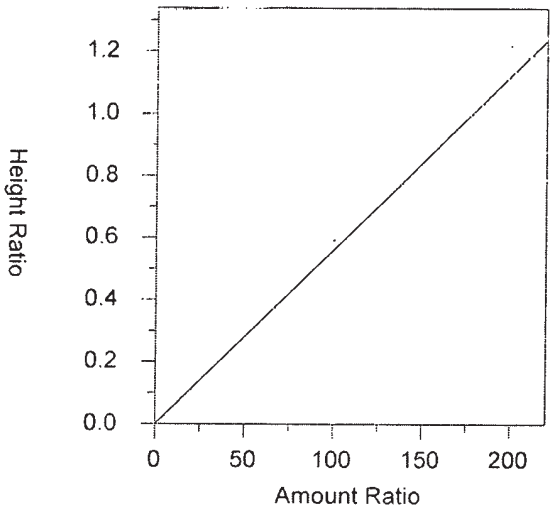
Single peak quantification by height

Y = 0.006360548 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9984261
Average error: 2.472%
Average CF: 0.006360548
RSD: 2.976%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	343771.6	68754.32	-2.554	5	0.03099063	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
2	10	694634.1	69463.41	-0.940	10	0.06300747	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
3	20	1461688	73084.4	1.055	20	0.1285534	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
4	40	2685560	67139	-3.923	40	0.2444418	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
5	100	7194175	71941.75	3.455	100	0.6580281	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
6	200	1.351592E+07	67579.6	2.907	200	1.309083	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF

11 2,4,5-T



Expected retention time: 15.91 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

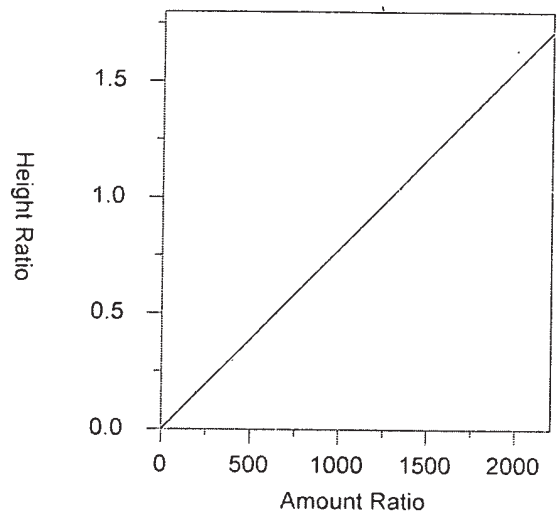
Single peak quantification by height

Y = 0.0056143 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9909356
Average error: 4.557%
Average CF: 0.0056143
RSD: 5.786%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	288078.3	57615.66	-7.486	5	0.02596994	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
2	10	602756.8	60275.68	-2.617	10	0.05467365	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
3	20	1254887	62744.35	-1.710	20	0.1103655	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
4	40	2421446	60536.15	-1.857	40	0.2204019	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
5	100.1	6470386	64639.22	5.309	100.1	0.5918254	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
6	200.2	1.257523E+07	62813.34	8.362	200.2	1.217973	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF

12 2,4-DB



Expected retention time: 16.742 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

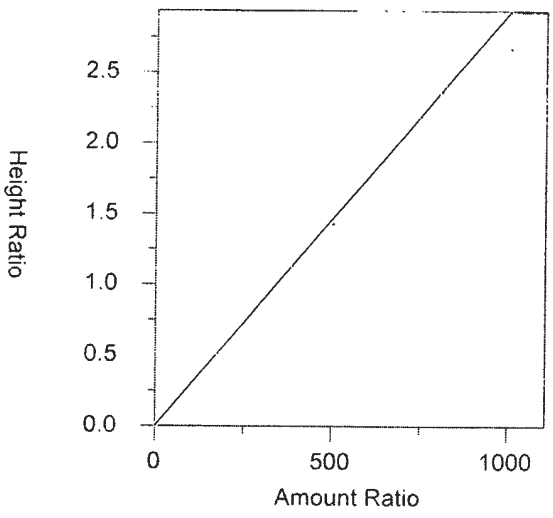
Single peak quantification by height

Y = 0.0007789058 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9968689
Average error: 2.500%
Average CF: 0.0007789058
RSD: 3.274%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50.1	424860.3	8480.246	-1.851	50.1	0.03830069	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	100.1	865643.3	8647.785	0.706	100.1	0.07851904	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	200.2	1807705	9029.496	1.955	200.2	0.1589851	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	400.4	3268072	8162.018	-4.621	400.4	0.2974625	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1001	8436519	8428.091	-1.029	1001	0.7716613	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2002	1.687937E+07	8431.254	4.840	2002	1.63485	Manual

13 DINOSEB



Expected retention time: 16.931 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

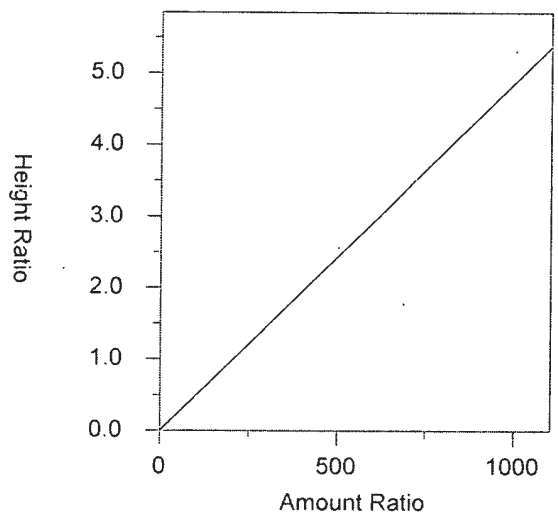
Single peak quantification by height

Y = 0.002921449 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9853474
Average error: 4.915%
Average CF: 0.002921449
RSD: 5.881%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.2	863126.1	34251.04	5.690	25.2	0.07780986	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.4	1699388	33718.02	4.689	50.4	0.1541447	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.7	3491085	34668.18	4.367	100.7	0.307036	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	201.4	6284589	31204.51	-2.779	201.4	0.5720283	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	503.5	1.563065E+07	31043.99	-2.805	503.5	1.429685	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1007	2.759162E+07	27399.82	-9.161	1007	2.672384	Manual

14 Picloram



Expected retention time:	17.889 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

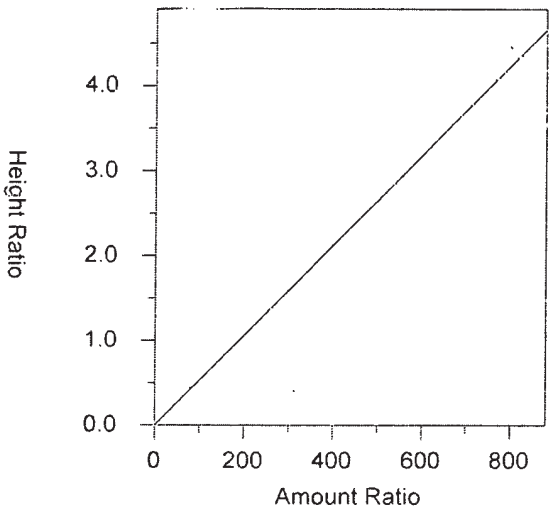
Y = 0.004867646 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9902943
Average error:	5.279%
Average CF:	0.004867646
RSD:	6.957%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.1	1210413	48223.63	-10.690	25.1	0.1091174	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.2	2566900	51133.46	-4.716	50.2	0.2328332	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.4	5681229	56585.95	2.239	100.4	0.499656	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	200.7	1.068681E+07	53247.68	-0.431	200.7	0.972722	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	501.8	2.799226E+07	55783.7	4.822	501.8	2.560362	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1003.5	5.485869E+07	54667.35	8.775	1003.5	5.313334	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

15 Hexachlorophene



Expected retention time:	26.133 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

Y = 0.005304662 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.996512
Average error:	3.042%
Average CF:	0.005304662
RSD:	4.397%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	20	1091063	54553.15	-7.291	20	0.09835812	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	40	2313000	57825	-1.123	40	0.209803	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	80	5007937	62599.21	3.786	80	0.440441	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	160	9258325	57864.53	-0.712	160	0.8427001	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	400	2.322244E+07	58056.1	0.105	400	2.124082	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	800	4.610935E+07	57636.69	5.236	800	4.465918	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Calibration File: 15HERB1830401B

GC Column (2) : ZB 35 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 10/31/2018 10/31/2018

COMPOUND	RT OF STANDARDS						MIDPOINT RT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6		FROM	TO
Dalapon	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.83	3.89
2,4-DCAA	12.53	12.52	12.52	12.51	12.50	12.50	12.52	12.49	12.55
Dicamba	12.89	12.88	12.88	12.87	12.87	12.87	12.88	12.85	12.91
Mcpp	12.94	12.94	12.93	12.93	12.93	12.95	12.93	12.90	12.96
Mcpa	13.46	13.46	13.46	13.46	13.46	13.48	13.46	13.43	13.49
2,4-DP	13.99	13.99	13.99	13.98	13.98	13.97	13.99	13.96	14.02
2,4-D	14.61	14.61	14.61	14.61	14.61	14.60	14.61	14.58	14.64
PCP	15.31	15.31	15.31	15.30	15.30	15.29	15.31	15.28	15.34
2,4,5-TP	15.80	15.80	15.80	15.80	15.80	15.80	15.80	15.77	15.83
2,4,5-T	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.47	16.53
Dinoseb	16.94	16.94	16.94	16.94	16.93	16.93	16.94	16.91	16.97
2,4-DB	17.21	17.21	17.21	17.21	17.20	17.20	17.21	17.18	17.24
Picloram	19.51	19.51	19.51	19.51	19.50	19.50	19.51	19.48	19.54
Hexachlorophene	26.56	26.56	26.55	26.56	26.55	26.55	26.55	26.52	26.58

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Calibration File: 15HERB1830401B

GC Column (2) : ZB 35 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 10/31/2018 10/31/2018

COMPOUND	CALIBRATION FACTORS							%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	MEAN	
Dalapon	1.13E-03	1.10E-03	1.05E-03	1.00E-03	1.03E-03	9.58E-04	1.05E-03	6
2,4-DCAA	1.53E-03	1.46E-03	1.34E-03	1.29E-03	1.34E-03	1.30E-03	1.38E-03	7
Dicamba	5.99E-03	5.96E-03	5.75E-03	5.70E-03	5.62E-03	5.33E-03	5.73E-03	4
Mcpp	6.00E-06	6.00E-06	6.00E-06	5.00E-06	6.00E-06	5.00E-06	5.67E-06	6
Mcpa	9.00E-06	9.00E-06	8.00E-06	7.00E-06	7.00E-06	7.00E-06	7.83E-06	14
2,4-DP	1.45E-03	1.34E-03	1.25E-03	1.11E-03	1.08E-03	9.99E-04	1.20E-03	14
2,4-D	1.45E-03	1.44E-03	1.38E-03	1.31E-03	1.37E-03	1.33E-03	1.38E-03	4
PCP	1.71E-02	1.83E-02	1.80E-02	1.75E-02	1.79E-02	1.72E-02	1.77E-02	3
2,4,5-TP	6.58E-03	6.71E-03	6.47E-03	6.40E-03	6.68E-03	6.28E-03	6.52E-03	3
2,4,5-T	5.63E-03	5.85E-03	5.75E-03	5.64E-03	5.89E-03	5.78E-03	5.76E-03	2
Dinoseb	3.16E-03	3.14E-03	3.07E-03	2.85E-03	2.88E-03	2.68E-03	2.96E-03	6
2,4-DB	8.44E-04	8.42E-04	8.12E-04	7.72E-04	8.20E-04	8.10E-04	8.17E-04	3
Picloram	4.73E-03	5.09E-03	5.25E-03	5.14E-03	5.48E-03	5.54E-03	5.20E-03	6
Hexachlorophene	5.26E-03	5.24E-03	5.46E-03	5.44E-03	5.41E-03	5.55E-03	5.39E-03	2

File Name: V:\CP15\15HERB1830401B.CAL
Version: 35

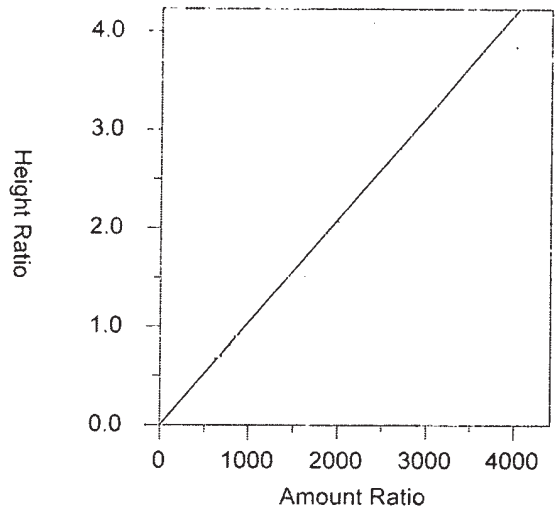
Creator:
Description:
Reason for change:

Internal standard calibration
Standard injection volume: 1
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPB
No default component

Method of calculating data point averages: Current update equal to cal data
No calibration update report

All levels are normal data points.

1 Dalapon



Expected retention time: 3.855 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

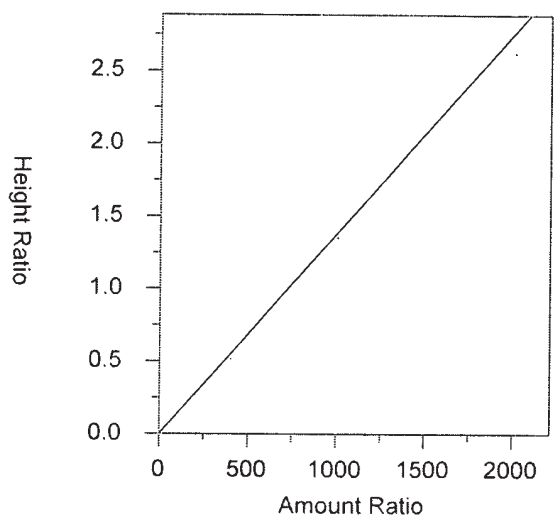
Single peak quantification by height

Y = 0.001045819 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9881734
Average error: 4.685%
Average CF: 0.001045819
RSD: 6.028%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	100	1231728	12317.28	7.923	100	0.1128679	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
2	201	2383770	11859.55	5.412	201	0.2215859	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
3	401	4787344	11938.51	0.719	401	0.4223905	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
4	802	8878889	11070.93	-4.060	802	0.8046976	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
5	2005	2.213928E+07	11042.04	-1.631	2005	2.062678	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
6	4010	4.138906E+07	10321.46	-8.364	4010	3.84297	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\

2 DCAA



Expected retention time: 12.516 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

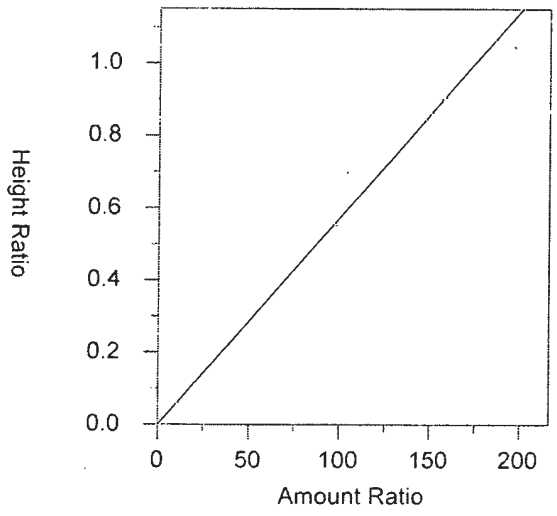
Single peak quantification by height

Y = 0.001377822 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9950715
Average error: 5.543%
Average CF: 0.001377822
RSD: 6.798%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50	832311	16646.22	10.708	50	0.07626778	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	101	1585699	15699.99	5.921	101	0.1474003	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	201	3060839	15228.05	-2.485	201	0.2700598	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	402	5720252	14229.48	-6.401	402	0.518429	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1005	1.450293E+07	14430.78	-2.419	1005	1.351213	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2010	2.823902E+07	14049.26	-5.324	2010	2.62199	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

3 DICAMBA



Expected retention time: 12.878 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

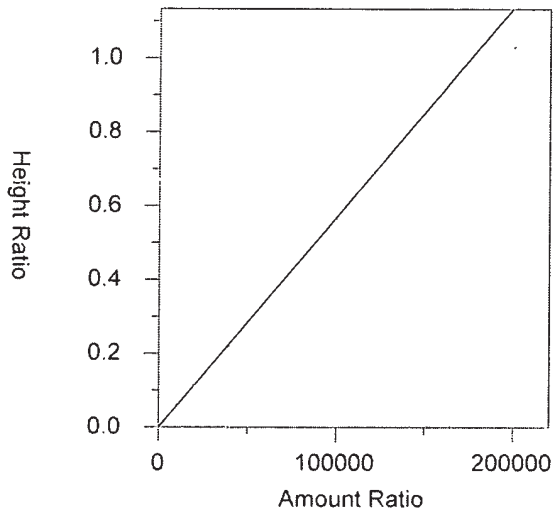
Single peak quantification by height

Y = 0.005724836 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9920483
Average error: 3.044%
Average CF: 0.005724836
RSD: 4.234%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4.9	320092.3	65324.96	4.561	4.9	0.02933126	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.8	628317.6	64114.04	4.104	9.8	0.05840594	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.7	1284205	65188.07	0.467	19.7	0.1133062	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.3	2472484	62913.08	-0.402	39.3	0.2240823	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	98.3	5933390	60360.02	-1.768	98.3	0.5528036	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	196.6	1.127766E+07	57363.48	-6.963	196.6	1.04713	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

4 MCPP



Expected retention time:	12.932 minutes
Search window:	0.03 minutes
Internal standard component:	6 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

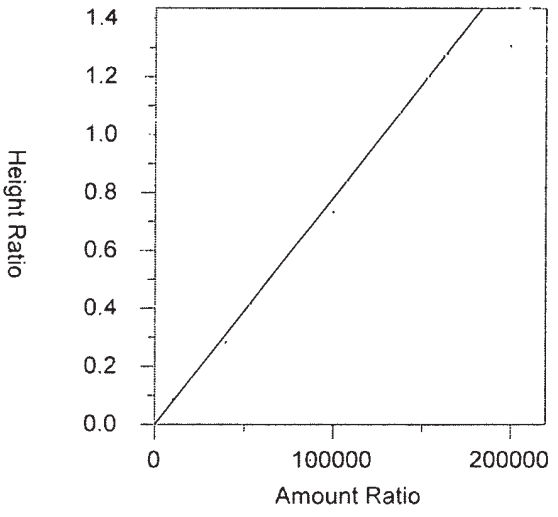
Y = 5.691065E-06 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9843849
Average error:	4.643%
Average CF:	5.691065E-06
RSD:	6.298%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5004	333254.5	66.59762	7.231	5004	0.03053736	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10008	652304.4	65.17829	6.460	10008	0.06063565	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20016	1294153	64.65592	0.238	20016	0.114184	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40032	2426446	60.61266	-3.474	40032	0.2199099	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100080	6058388	60.53545	-0.898	100080	0.5644494	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200160	1.109583E+07	55.4348	-9.558	200160	1.030247	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

5 MCPA



Expected retention time:	13.459 minutes
Search window:	0.03 minutes
Internal standard component:	6 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

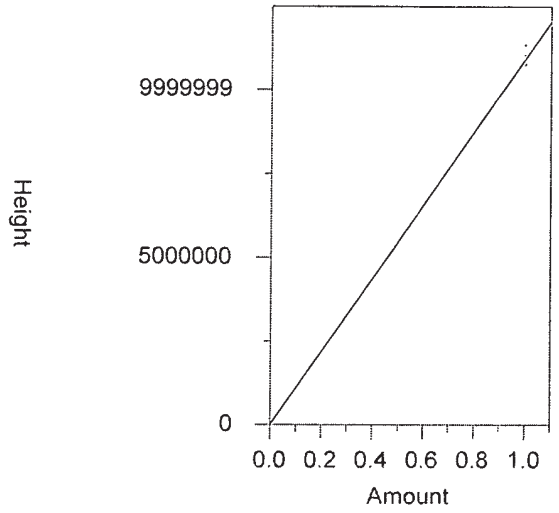
Y = 7.82698E-06 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9437551
Average error:	10.952%
Average CF:	7.82698E-06
RSD:	13.880%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4990	512483.5	102.7021	20.238	4990	0.04696078	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
2	9979	946254.9	94.82462	12.617	9979	0.08796013	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
3	19958	1753191	87.84402	-0.977	19958	0.1546852	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
4	39916	3123468	78.25103	-9.391	39916	0.2830813	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
5	99790	7870239	78.86801	-6.120	99790	0.7332564	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
6	199580	1.40704E+07	70.50005	-16.367	199580	1.306435	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1

6 DBOFB ** Internal standard component **



Expected retention time: 13.715 minutes
Search window: 0.03 minutes
No internal standard component
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

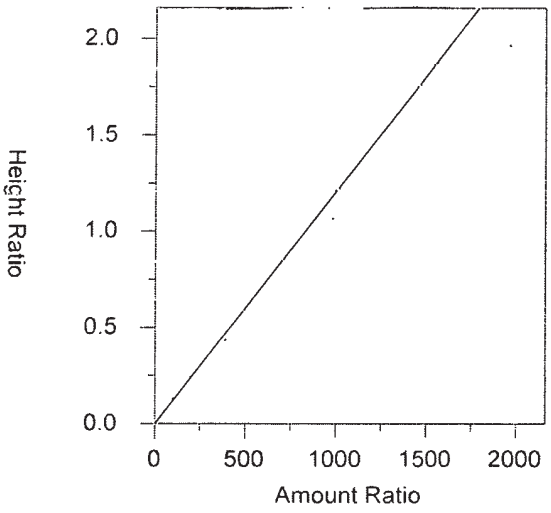
Single peak quantification by height

Y = 1.092365E+07 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0
Average error: 1.588%
Average CF: 1.092365E+07
RSD: 2.119%

Level	Amount	Response	Cal Factor	Error, %	Source
1	1	1.091301E+07	1.091301E+07	-0.097	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
2	1	1.075777E+07	1.075777E+07	-1.518	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
3	1	1.133393E+07	1.133393E+07	3.756	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
4	1	1.103382E+07	1.103382E+07	1.009	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
5	1	1.073327E+07	1.073327E+07	-1.743	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304
6	1	1.077007E+07	1.077007E+07	-1.406	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304

7 2,4-DP



Expected retention time: 13.985 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

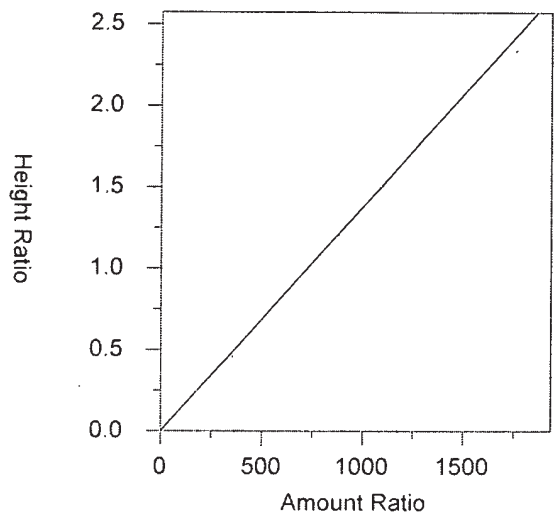
Single peak quantification by height

Y = 0.001204806 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.933893
Average error: 11.671%
Average CF: 0.001204806
RSD: 14.159%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	49.2	777028.1	15793.25	20.119	49.2	0.071202	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	98.3	1420029	14445.87	11.456	98.3	0.1320003	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	196.6	2776951	14124.88	3.440	196.6	0.2450122	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	393.2	4812606	12239.59	-7.929	393.2	0.4361686	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	983	1.14386E+07	11636.42	-10.015	983	1.065714	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1966	2.115571E+07	10760.79	-17.071	1966	1.964306	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

8 2,4-D



Expected retention time: 14.609 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

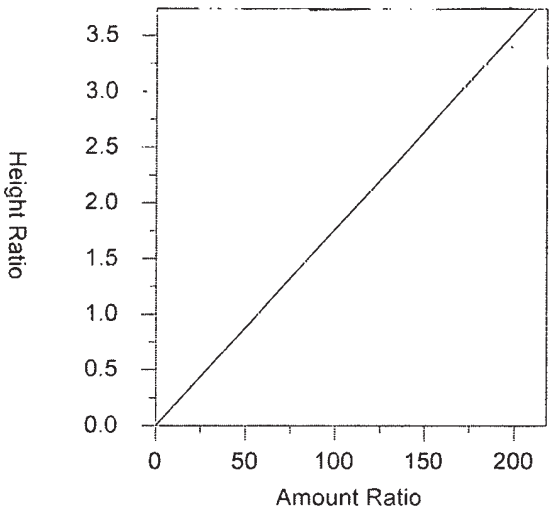
Single peak quantification by height

Y = 0.001380125 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9977708
Average error: 3.190%
Average CF: 0.001380125
RSD: 4.109%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	44	695226.4	15800.6	4.908	44	0.0637062	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	88	1366650	15530.11	4.601	88	0.1270384	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	176	2754721	15651.82	0.061	176	0.2430508	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	352	5093714	14470.78	-4.973	352	0.4616456	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	880	1.291685E+07	14678.24	-0.911	880	1.20344	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1760	2.519645E+07	14316.17	-3.686	1760	2.339488	Manual

9 PCP



Expected retention time: 15.306 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

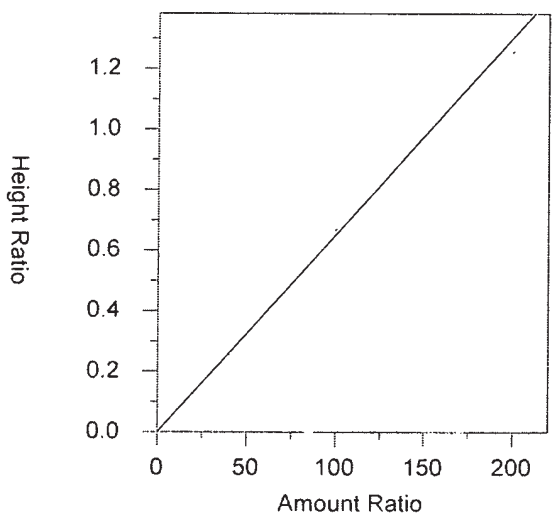
Single peak quantification by height

Y = 0.01766282 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9986944
Average error: 2.357%
Average CF: 0.01766282
RSD: 2.781%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	933507.4	186701.5	-3.140	5	0.08554078	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.9	1950152	196985.1	3.670	9.9	0.1812785	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.8	4042969	204190.4	1.999	19.8	0.3567138	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.6	7636133	192831.7	-1.055	39.6	0.6920661	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99.1	1.905082E+07	192238.3	1.402	99.1	1.774932	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	198.2	3.66196E+07	184760.8	-2.875	198.2	3.400126	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

10 2,4,5-TP



Expected retention time: 15.8 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

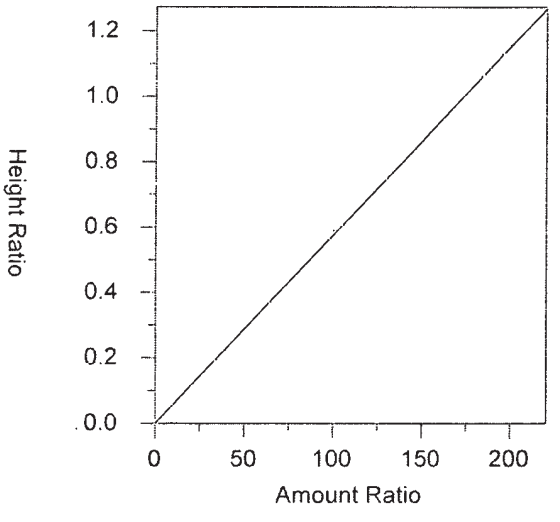
Single peak quantification by height

Y = 0.006518227 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9977756
Average error: 2.110%
Average CF: 0.006518227
RSD: 2.562%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	359201	71840.2	0.994	5	0.03291493	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10	721492.6	72149.27	2.892	10	0.06706712	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20	1465761	73288.05	-0.797	20	0.129325	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40	2822618	70565.45	-1.885	40	0.2558151	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100	7167274	71672.74	2.445	100	0.6677624	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200	1.352809E+07	67640.45	-3.648	200	1.256082	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

11 2,4,5-T



Expected retention time: 16.503 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

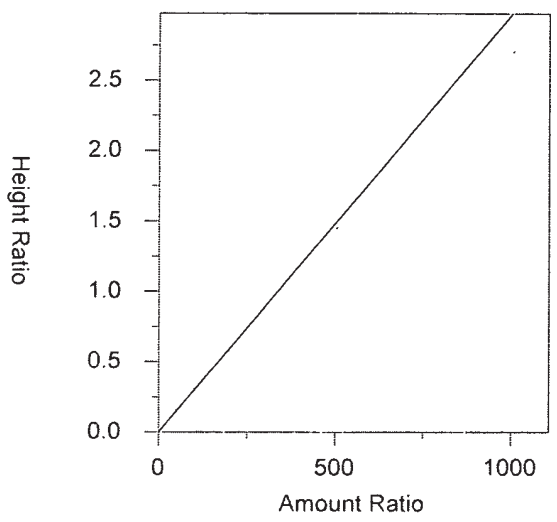
Single peak quantification by height

Y = 0.005758906 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9997687
Average error: 1.451%
Average CF: 0.005758906
RSD: 1.854%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	307396	61479.2	-2.176	5	0.02816785	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
2	10	629615.4	62961.54	1.628	10	0.05852657	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
3	20	1304147	65207.35	-0.098	20	0.1150657	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
4	40	2488851	62221.27	-2.080	40	0.2255657	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
5	100.1	6329542	63232.19	2.298	100.1	0.5897124	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1
6	200.2	1.24703E+07	62289.21	0.428	200.2	1.157866	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEP1

12 DINOSEB



Expected retention time: 16.936 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

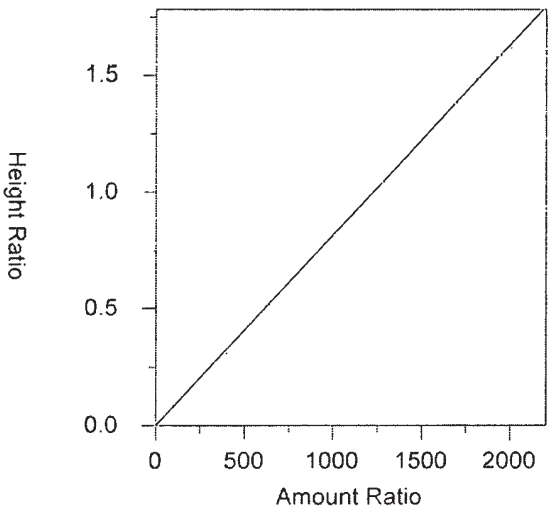
Single peak quantification by height

Y = 0.002964897 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9842514
Average error: 5.443%
Average CF: 0.002964897
RSD: 6.441%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.2	869271.2	34494.89	6.611	25.2	0.07965457	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.4	1704537	33820.18	6.034	50.4	0.1584471	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.7	3508585	34841.96	3.684	100.7	0.3095647	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	201.4	6324136	31400.88	-4.014	201.4	0.5731593	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	503.5	1.556533E+07	30914.26	-2.856	503.5	1.450195	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1007	2.911423E+07	28911.85	-9.458	1007	2.703254	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

13 2,4-DB



Expected retention time: 17.209 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

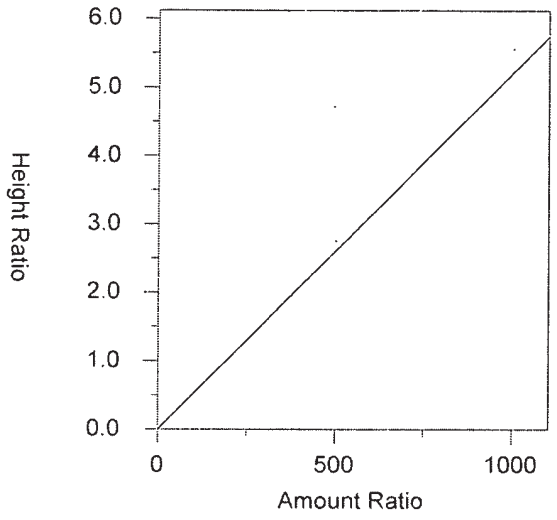
Single peak quantification by height

Y = 0.0008163974 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.99972
Average error: 2.297%
Average CF: 0.0008163974
RSD: 3.235%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50.1	461590.6	9213.386	3.413	50.1	0.04229728	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	100.1	906211.7	9053.063	3.079	100.1	0.08423787	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	200.2	1841865	9200.125	-0.571	200.2	0.1625089	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	400.4	3409265	8514.648	-5.477	400.4	0.3089832	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1001	8806290	8797.492	0.398	1001	0.8204666	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2002	1.745469E+07	8718.626	-0.842	2002	1.620666	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

14 Picloram



Expected retention time: 19.507 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

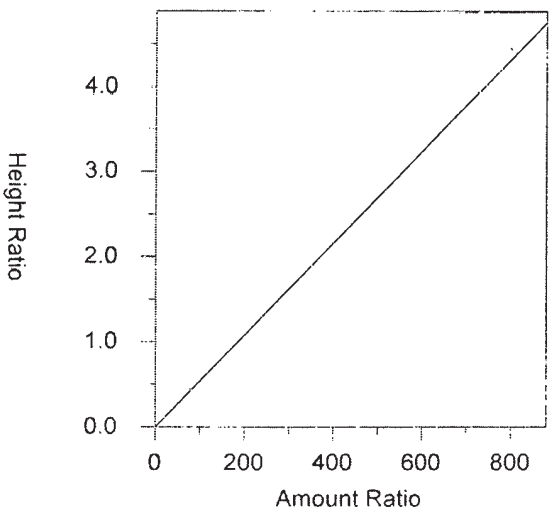
Single peak quantification by height

Y = 0.005204885 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9939634
Average error: 4.220%
Average CF: 0.005204885
RSD: 5.701%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.1	1294424	51570.68	-9.208	25.1	0.1186129	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.2	2748069	54742.41	-2.233	50.2	0.2554497	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.4	5972955	59491.58	0.847	100.4	0.5269977	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	200.7	1.138575E+07	56730.2	-1.218	200.7	1.031896	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	501.8	2.951671E+07	58821.66	5.292	501.8	2.75002	Manual
6	1003.5	5.992133E+07	59712.34	6.521	1003.5	5.56369	Manual

15 Hexachlorophene



Expected retention time: 26.553 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by height

Y = 0.005393045 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.998834
Average error: 1.769%
Average CF: 0.005393045
RSD: 2.246%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	20	1148370	57418.5	-2.440	20	0.1052294	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	40	2254160	56354	-2.867	40	0.2095378	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	80	4950506	61881.32	1.238	80	0.4367864	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	160	9599394	59996.21	0.824	160	0.8699973	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	400	2.321953E+07	58048.82	0.283	400	2.163323	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	800	4.784262E+07	59803.27	2.961	800	4.442183	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Calibration File: 24HERB1831101

GC Column (1) : MR-1 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 11/7/2018 11/7/2018

COMPOUND	RT OF STANDARDS						MIDPOINT RT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6		FROM	TO
Dalapon	2.52	2.52	2.52	2.53	2.53	2.53	2.53	2.50	2.56
2,4-DCAA	9.91	9.90	9.90	9.89	9.89	9.89	9.89	9.86	9.92
Dicamba	10.02	10.01	10.00	10.00	10.00	10.00	10.00	9.97	10.03
Mcpp	10.45	10.45	10.45	10.45	10.46	10.47	10.46	10.43	10.49
Mcpa	10.84	10.83	10.83	10.83	10.84	10.86	10.84	10.81	10.87
2,4-DP	11.40	11.40	11.40	11.40	11.39	11.39	11.39	11.36	11.42
2,4-D	11.85	11.85	11.85	11.85	11.84	11.84	11.84	11.81	11.87
PCP	12.94	12.94	12.94	12.94	12.93	12.93	12.93	12.90	12.96
2,4,5-TP	13.32	13.32	13.32	13.32	13.31	13.31	13.31	13.28	13.34
2,4,5-T	13.85	13.85	13.85	13.85	13.84	13.84	13.84	13.81	13.87
2,4-DB	14.69	14.68	14.68	14.68	14.68	14.67	14.68	14.65	14.71
Dinoseb	14.87	14.87	14.87	14.86	14.86	14.86	14.86	14.83	14.89
Picloram	15.79	15.78	15.78	15.78	15.77	15.77	15.77	15.74	15.80
Hexachlorophene	24.01	24.01	24.01	24.01	24.01	24.01	24.01	23.98	24.04

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Calibration File: 24HERB1831101

GC Column (1) : MR-1 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 11/7/2018 11/7/2018

COMPOUND	CALIBRATION FACTORS							%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	MEAN	
Dalapon	1.65E-03	1.48E-03	1.43E-03	1.27E-03	1.29E-03	1.30E-03	1.40E-03	11
2,4-DCAA	1.93E-03	1.74E-03	1.59E-03	1.36E-03	1.32E-03	1.20E-03	1.52E-03	18
Dicamba	9.21E-03	8.53E-03	7.56E-03	6.66E-03	6.21E-03	5.65E-03	7.31E-03	19
Mcpp	4.00E-06	4.00E-06	4.00E-06	4.00E-06	4.00E-06	3.00E-06	3.83E-06	11
Mcpa	7.00E-06	7.00E-06	6.00E-06	5.00E-06	5.00E-06	4.00E-06	5.67E-06	18
2,4-DP	1.69E-03	1.52E-03	1.35E-03	1.14E-03	1.03E-03	9.25E-04	1.28E-03	23
2,4-D	1.71E-03	1.57E-03	1.49E-03	1.29E-03	1.27E-03	1.26E-03	1.43E-03	13
PCP	2.37E-02	2.29E-02	2.07E-02	1.95E-02	1.91E-02	1.76E-02	2.06E-02	11
2,4,5-TP	9.24E-03	8.35E-03	7.70E-03	6.92E-03	6.60E-03	6.19E-03	7.50E-03	15
2,4,5-T	6.70E-03	6.74E-03	6.54E-03	5.93E-03	5.95E-03	5.62E-03	6.25E-03	8
2,4-DB	9.18E-04	8.73E-04	8.20E-04	7.38E-04	7.45E-04	7.14E-04	8.01E-04	10
Dinoseb	1.49E-03	1.43E-03	1.28E-03	1.15E-03	1.13E-03	1.10E-03	1.26E-03	13
Picloram	3.43E-03	3.72E-03	3.88E-03	3.87E-03	4.59E-03	4.91E-03	4.07E-03	14
Hexachlorophene	6.00E-03	5.52E-03	5.11E-03	4.55E-03	5.02E-03	4.80E-03	5.17E-03	10

Linear

RM 13378 11/8/18

File Name: V:\CP24\24HERB1831101.CAL
Version: 20

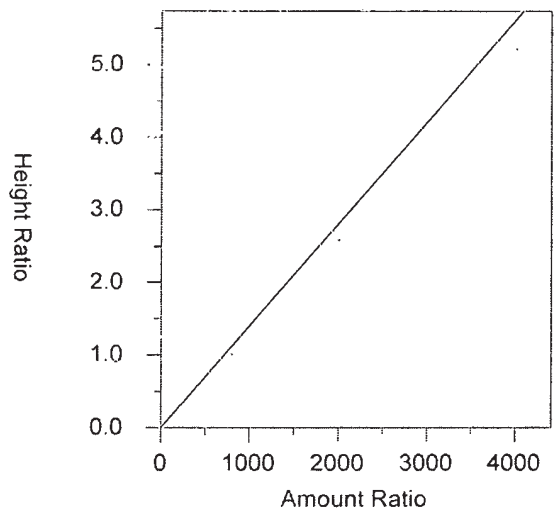
Creator:
Description:
Reason for change:

Internal standard calibration
Standard injection volume: 1
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPB
No default component

Method of calculating data point averages: Current update equal to cal data
No calibration update report

All levels are normal data points.

1 Dalapon



Expected retention time: 2.523 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

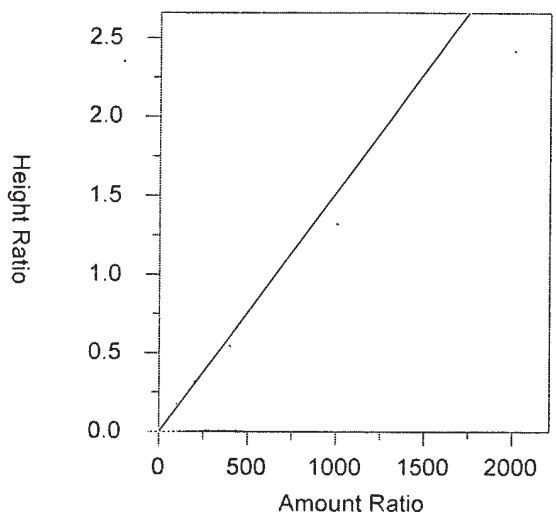
Single peak quantification by height

$Y = 0.001402717\ X + 0$

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.987879
Average error: 8.421%
Average CF: 0.001402717
RSD: 10.507%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	100	2185633	21856.33	17.240	100	0.1644544	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
2	201	3877947	19293.27	5.813	201	0.2983355	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
3	401	7578798	18899.75	2.211	401	0.5749262	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
4	802	1.389305E+07	17323.01	-9.796	802	1.014772	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
5	2005	3.48761E+07	17394.56	-8.226	2005	2.581082	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
6	4010	6.991683E+07	17435.62	-7.241	4010	5.217604	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\

2 DCAA



Expected retention time: 9.897 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

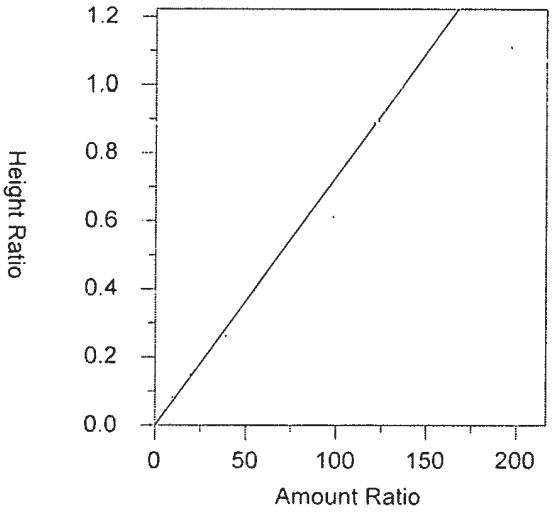
Single peak quantification by height

Y = 0.001521719 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.8877952
Average error: 15.130%
Average CF: 0.001521719
RSD: 18.290%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50	1281013	25620.26	26.683	50	0.09638771	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	101	2280010	22574.36	14.126	101	0.1754041	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	201	4216655	20978.38	4.580	201	0.3198747	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	402	7461560	18561.09	-10.908	402	0.565005	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1005	1.785726E+07	17768.42	-13.585	1005	1.321566	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2010	3.2422E+07	16130.35	-20.896	2010	2.41952	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

3 DICAMBA



Expected retention time: 10.004 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

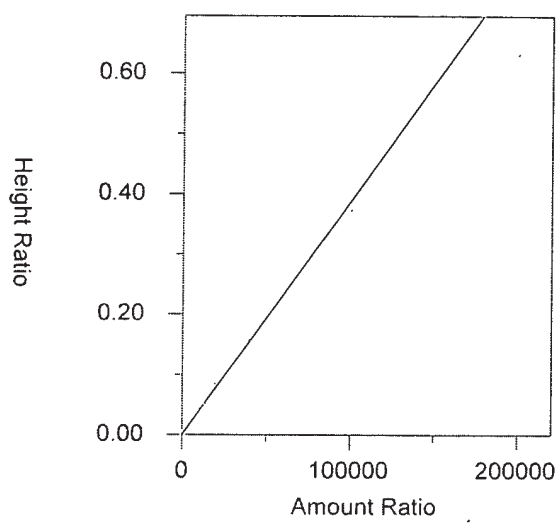
Single peak quantification by height

Y = 0.007305377 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.8620002
Average error: 15.460%
Average CF: 0.007305377
RSD: 18.912%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4.9	599880.9	122424.7	26.094	4.9	0.04513705	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.8	1086923	110910.5	16.797	9.8	0.0836184	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.7	1963287	99659.23	3.487	19.7	0.1489346	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.3	3585425	91232.19	-8.783	39.3	0.2618855	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	98.3	8250492	83931.76	-14.973	98.3	0.6105958	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	196.6	1.489187E+07	75747.05	-22.623	196.6	1.111319	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

4 MCPP



Expected retention time: 10.45 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

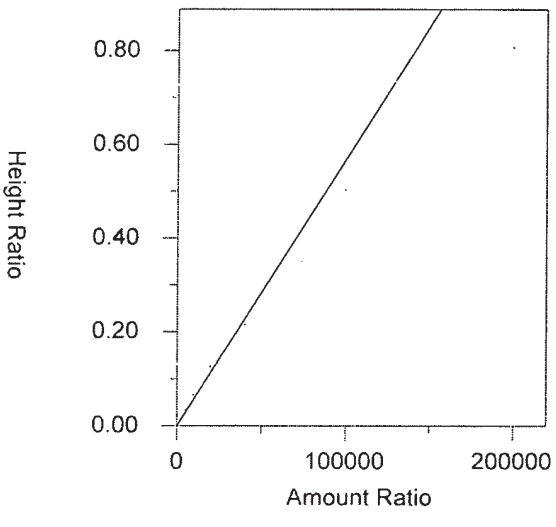
Single peak quantification by height

Y = 3.887303E-06 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9244057
Average error: 7.626%
Average CF: 3.887303E-06
RSD: 10.619%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5004	264643.3	52.88635	2.368	5004	0.01991265	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24
2	10008	560066.9	55.96192	10.751	10008	0.04308667	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24
3	20016	1112375	55.57429	8.452	20016	0.08438456	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24
4	40032	2158364	53.91597	1.307	40032	0.1576506	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24
5	100080	5041496	50.37466	-4.096	100080	0.373107	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24
6	200160	8468160	42.30695	-18.782	200160	0.6319438	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24

5 MCPA



Expected retention time: 10.833 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

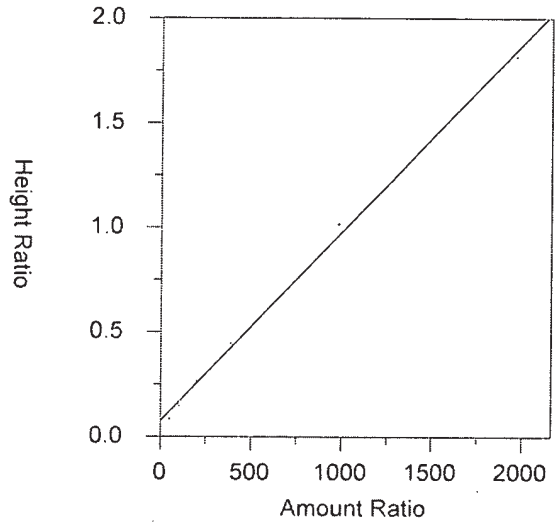
Single peak quantification by height

Y = 5.687159E-06 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.7594346
Average error: 14.986%
Average CF: 5.687159E-06
RSD: 18.364%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4990	445468.3	89.27221	18.111	4990	0.03351853	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9979	858587.4	86.03942	16.387	9979	0.06605224	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19958	1652734	82.8106	10.459	19958	0.1253761	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39916	2956503	74.06812	-4.872	39916	0.215948	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99790	6802546	68.16862	-11.292	99790	0.5034373	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	199580	1.083045E+07	54.26621	-28.793	199580	0.8082317	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

6 2,4-DP



Expected retention time: 11.4 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

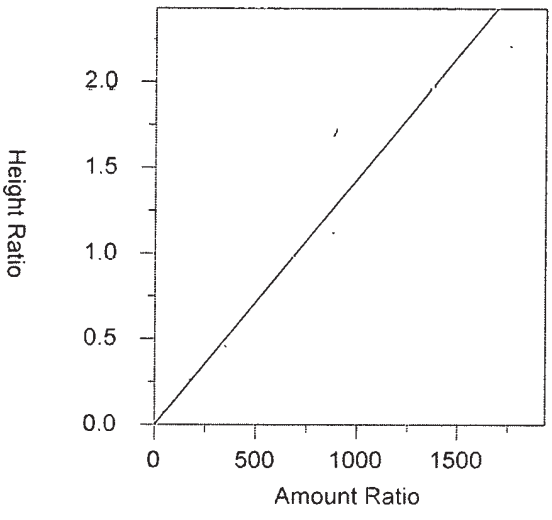
Single peak quantification by height

Y = 0.0009014981 X + 0.07623525

Linear fit with equal weighting
Coefficient of determination: 0.9974656
Average error: 9.305%
Average CF: 0.001277326
RSD: 23.284%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	49.2	1106526	22490.37	-30.957	49.2	0.08325873	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	98.3	1947651	19813.34	-9.109	98.3	0.1498353	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	196.6	3505848	17832.39	4.925	196.6	0.265953	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	393.2	6116288	15555.16	3.724	393.2	0.4467441	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	983	1.372298E+07	13960.31	5.527	983	1.015599	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1966	2.437779E+07	12399.69	-1.589	1966	1.819214	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

7 2,4-D



Expected retention time: 11.849 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

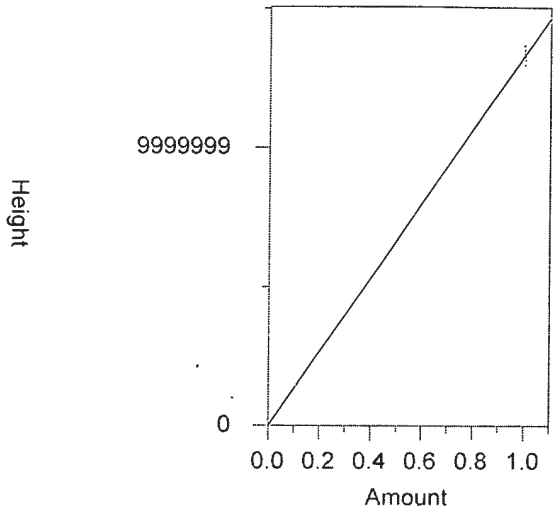
Single peak quantification by height

Y = 0.001432693 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9645152
Average error: 11.108%
Average CF: 0.001432693
RSD: 13.154%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	44	1001224	22755.09	19.507	44	0.07533545	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	88	1797155	20422.22	9.661	88	0.1382575	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	176	3462051	19670.74	4.155	176	0.2626306	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	352	6237149	17719.17	-9.664	352	0.4555719	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	880	1.512057E+07	17182.47	-11.242	880	1.119031	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1760	2.959354E+07	16814.51	-12.417	1760	2.208443	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

8 DBOFB ** Internal standard component **



Expected retention time: 12.21 minutes
Search window: 0.03 minutes
No internal standard component
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

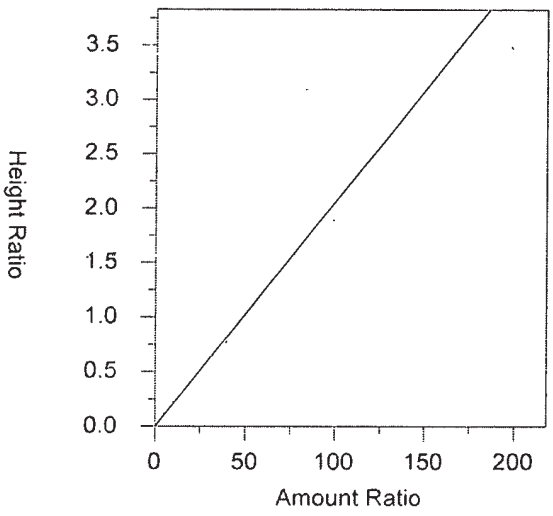
Single peak quantification by height

Y = 1.33457E+07 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0
Average error: 1.414%
Average CF: 1.33457E+07
RSD: 1.836%

Level	Amount	Response	Cal Factor	Error, %	Source
1	1	1.329021E+07	1.329021E+07	-0.416	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311
2	1	1.299861E+07	1.299861E+07	-2.601	Manual
3	1	1.318221E+07	1.318221E+07	-1.225	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311
4	1	1.369081E+07	1.369081E+07	2.586	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311
5	1	1.35122E+07	1.35122E+07	1.248	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311
6	1	1.340018E+07	1.340018E+07	0.408	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311

9 PCP



Expected retention time: 12.938 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

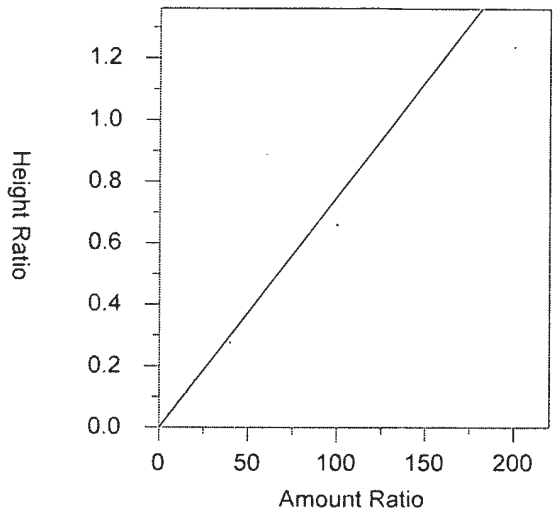
Single peak quantification by height

Y = 0.02058482 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9554656
Average error: 9.052%
Average CF: 0.02058482
RSD: 11.444%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	1576531	315306.2	15.253	5	0.1186235	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.9	2946697	297646.2	11.239	9.9	0.2266932	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.8	5408541	273158.7	0.665	19.8	0.4102909	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.6	1.058634E+07	267331.8	-5.142	39.6	0.7732443	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99.1	2.553546E+07	257673.7	-7.360	99.1	1.889808	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	198.2	4.66593E+07	235415.2	-14.655	198.2	3.481991	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

10 2,4,5-TP



Expected retention time: 13.318 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

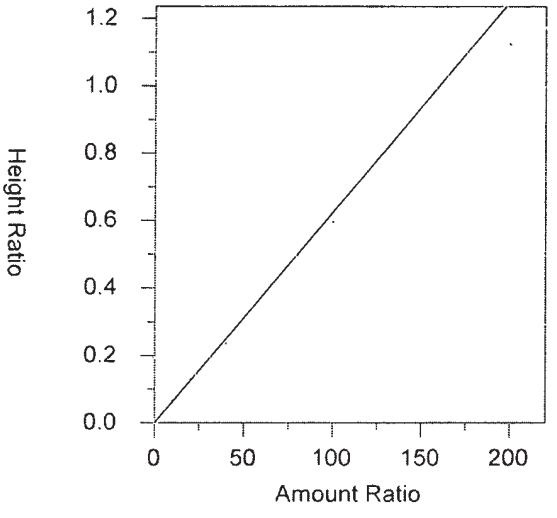
Single peak quantification by height

Y = 0.007497124 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9275428
Average error: 12.411%
Average CF: 0.007497124
RSD: 15.386%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	613690.1	122738	23.184	5	0.04617611	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10	1085317	108531.7	11.369	10	0.08349485	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20	2029546	101477.3	2.680	20	0.153961	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40	3787875	94696.88	-7.740	40	0.2766728	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100	8912798	89127.98	-12.018	100	0.6596112	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200	1.658153E+07	82907.65	-17.474	200	1.237411	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

11 2,4,5-T



Expected retention time: 13.848 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

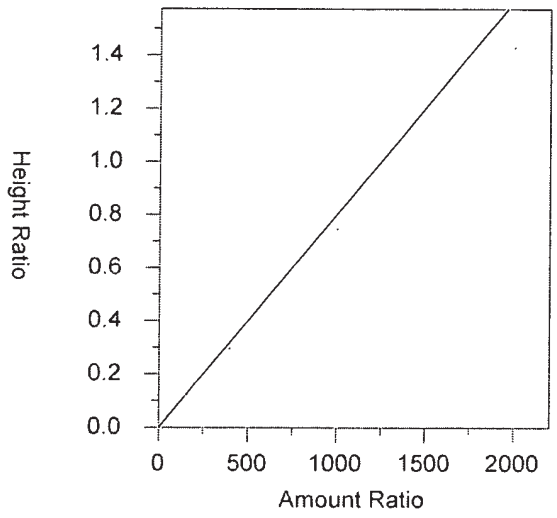
Single peak quantification by height

Y = 0.006245773 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9810034
Average error: 6.657%
Average CF: 0.006245773
RSD: 7.610%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	445386.8	89077.36	7.312	5	0.0335124	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10	876334.4	87633.44	7.941	10	0.06741755	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20	1724325	86216.25	4.716	20	0.130807	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40	3246876	81171.9	-5.073	40	0.2371573	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100.1	8042669	80346.34	-4.796	100.1	0.5952154	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200.2	1.506322E+07	75240.86	-10.101	200.2	1.124106	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

12 2,4-DB



Expected retention time: 14.681 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

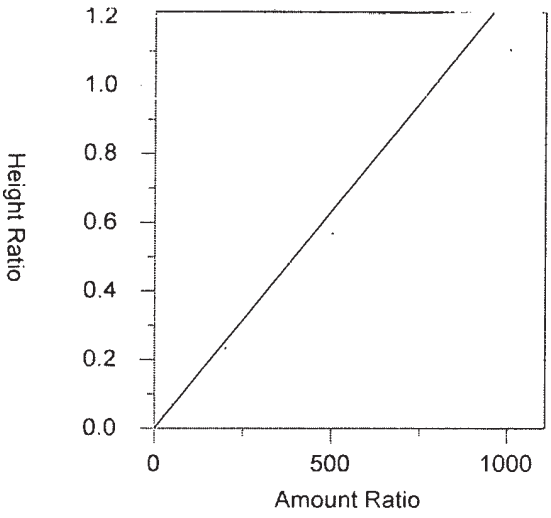
Single peak quantification by height

Y = 0.0008015641 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.976023
Average error: 8.618%
Average CF: 0.0008015641
RSD: 10.288%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50.1	611542	12206.43	14.583	50.1	0.04601447	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	100.1	1136232	11350.97	8.943	100.1	0.08741181	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	200.2	2164638	10812.38	2.328	200.2	0.164209	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	400.4	4047452	10108.52	-7.887	400.4	0.2956327	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1001	1.007849E+07	10068.42	-7.040	1001	0.7458808	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2002	1.915413E+07	9567.497	-10.926	2002	1.429394	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

13 DINOSEB



Expected retention time: 14.865 minutes
Search window: 0.03 minutes
Internal standard component: 8 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

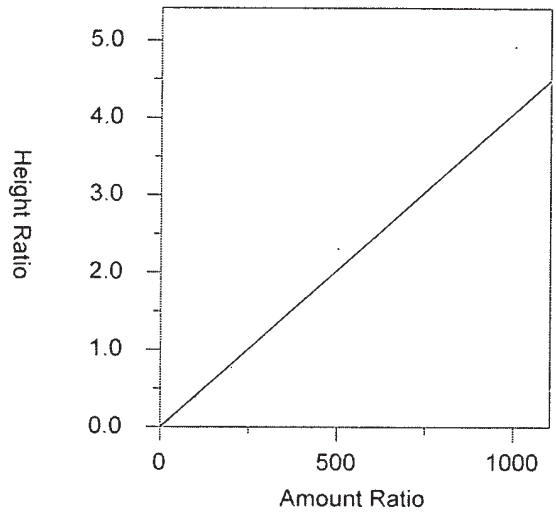
Single peak quantification by height

Y = 0.001264737 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9604348
Average error: 10.943%
Average CF: 0.001264737
RSD: 13.209%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.2	499762	19831.82	17.986	25.2	0.03760377	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.4	938863.3	18628.24	13.312	50.4	0.07222798	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.7	1704604	16927.55	1.533	100.7	0.1293109	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	201.4	3182243	15800.61	-8.748	201.4	0.2324364	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	503.5	7671432	15236.21	-10.844	503.5	0.5677412	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1007	1.480694E+07	14704.01	-13.239	1007	1.104981	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

14 Picloram



Expected retention time:	15.778 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

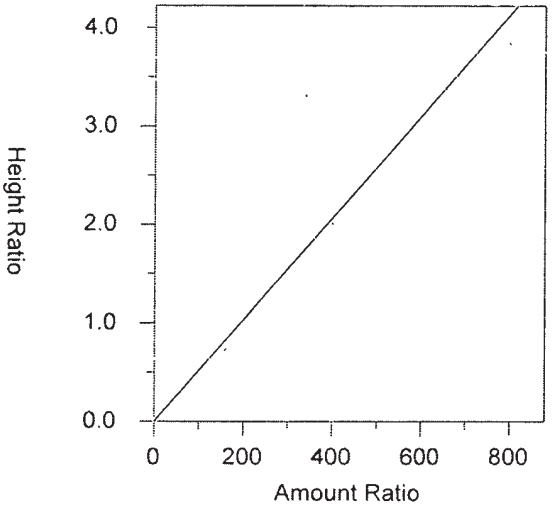
Y = 0.004065508 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9560306
Average error:	11.206%
Average CF:	0.004065508
RSD:	13.822%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.1	1145204	45625.66	-15.557	25.1	0.08616899	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
2	50.2	2426749	48341.61	-8.524	50.2	0.186693	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
3	100.4	5133376	51129.24	-4.596	100.4	0.389417	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
4	200.7	1.061914E+07	52910.52	-4.940	200.7	0.77564	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
5	501.8	3.113229E+07	62041.23	12.938	501.8	2.304013	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
6	1003.5	6.597422E+07	65744.12	20.679	1003.5	4.923383	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF

15 Hexachlorophene



Expected retention time:	24.008 minutes
Search window:	0.03 minutes
Internal standard component:	8 (DBOFB)
No retention time reference component	
No response proxy component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by height

Y = 0.005165778 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9907009
Average error:	7.631%
Average CF:	0.005165778
RSD:	10.073%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	20	1594658	79732.9	16.137	20	0.1199874	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
2	40	2867412	71685.3	6.757	40	0.2205937	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
3	80	5388386	67354.83	-1.089	80	0.4087619	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
4	160	9965371	62283.57	-11.934	160	0.7278876	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
5	400	2.713362E+07	67834.05	-2.818	400	2.008083	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF
6	800	5.147195E+07	64339.94	-7.053	800	3.841139	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEF

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Calibration File: 24HERB1831101

GC Column (1) : MR-1 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 11/7/2018 11/7/2018

COMPOUND	RT OF STANDARDS						MIDPOINT RT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6		FROM	TO
Dalapon	2.52	2.52	2.52	2.53	2.53	2.53	2.53	2.50	2.56
2,4-DCAA	9.91	9.90	9.90	9.89	9.89	9.89	9.89	9.86	9.92
Dicamba	10.02	10.01	10.00	10.00	10.00	10.00	10.00	9.97	10.03
Mcpp	10.45	10.45	10.45	10.45	10.46	10.47	10.46	10.43	10.49
Mcpa	10.84	10.83	10.83	10.83	10.84	10.86	10.84	10.81	10.87
2,4-DP	11.40	11.40	11.40	11.40	11.39	11.39	11.39	11.36	11.42
2,4-D	11.85	11.85	11.85	11.85	11.84	11.84	11.84	11.81	11.87
PCP	12.94	12.94	12.94	12.94	12.93	12.93	12.93	12.90	12.96
2,4,5-TP	13.32	13.32	13.32	13.32	13.31	13.31	13.31	13.28	13.34
2,4,5-T	13.85	13.85	13.85	13.85	13.84	13.84	13.84	13.81	13.87
2,4-DB	14.69	14.68	14.68	14.68	14.68	14.67	14.68	14.65	14.71
Dinoseb	14.87	14.87	14.87	14.86	14.86	14.86	14.86	14.83	14.89
Picloram	15.79	15.78	15.78	15.78	15.77	15.77	15.77	15.74	15.80
Hexachlorophene	24.01	24.01	24.01	24.01	24.01	24.01	24.01	23.98	24.04

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273B Calibration File: 24HERB1831101B

GC Column (2) : MR-2 ID: 0.32 (mm)

ICAL Date(s) Analyzed: 11/7/2018 11/7/2018

COMPOUND	CALIBRATION FACTORS							%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	MEAN	
Dalapon	1.59E-03	1.47E-03	1.38E-03	1.22E-03	1.31E-03	1.40E-03	1.39E-03	9
2,4-DCAA	1.73E-03	1.63E-03	1.49E-03	1.27E-03	1.34E-03	1.32E-03	1.46E-03	13
Dicamba	7.81E-03	7.50E-03	6.88E-03	5.92E-03	5.85E-03	5.47E-03	6.57E-03	15
Mcpp	4.00E-06	5.00E-06	5.00E-06	4.00E-06	5.00E-06	4.00E-06	4.50E-06	8
Mcpa	7.00E-06	7.00E-06	7.00E-06	6.00E-06	6.00E-06	6.00E-06	6.50E-06	8
2,4-DP	1.57E-03	1.49E-03	1.33E-03	1.15E-03	1.10E-03	1.09E-03	1.29E-03	16
2,4-D	1.55E-03	1.54E-03	1.44E-03	1.28E-03	1.33E-03	1.38E-03	1.42E-03	8
PCP	2.09E-02	2.05E-02	1.93E-02	1.70E-02	1.80E-02	1.82E-02	1.90E-02	8
2,4,5-TP	7.42E-03	7.43E-03	7.38E-03	6.62E-03	6.71E-03	6.52E-03	7.01E-03	6
2,4,5-T	5.57E-03	5.92E-03	6.05E-03	5.54E-03	6.04E-03	5.93E-03	5.84E-03	4
Dinoseb	1.45E-03	1.42E-03	1.43E-03	1.23E-03	1.32E-03	1.33E-03	1.36E-03	6
2,4-DB	7.42E-04	7.60E-04	7.63E-04	6.88E-04	7.62E-04	7.81E-04	7.49E-04	4
Picloram	3.66E-03	3.96E-03	4.17E-03	4.02E-03	5.23E-03	5.87E-03	4.49E-03	19
Hexachlorophene	4.80E-03	4.65E-03	4.55E-03	3.86E-03	4.54E-03	4.28E-03	4.45E-03	8

File Name: V:\CP24\24HERB1831101B.CAL
Version: 16

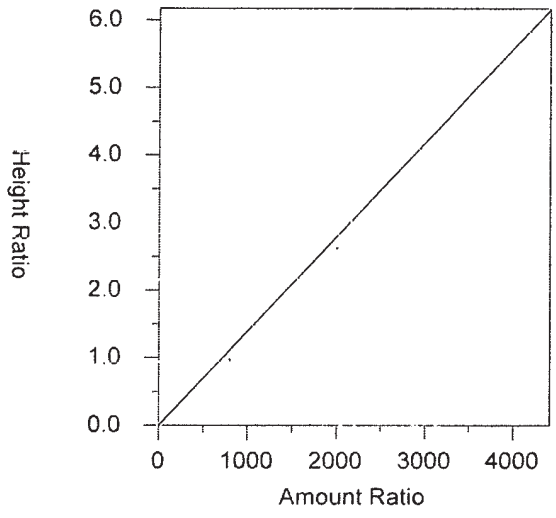
Creator:
Description:
Reason for change:

Internal standard calibration
Standard injection volume: 1
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPB
No default component

Method of calculating data point averages: Current update equal to cal data
No calibration update report

All levels are normal data points.

1 Dalapon



Expected retention time: 2.854 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

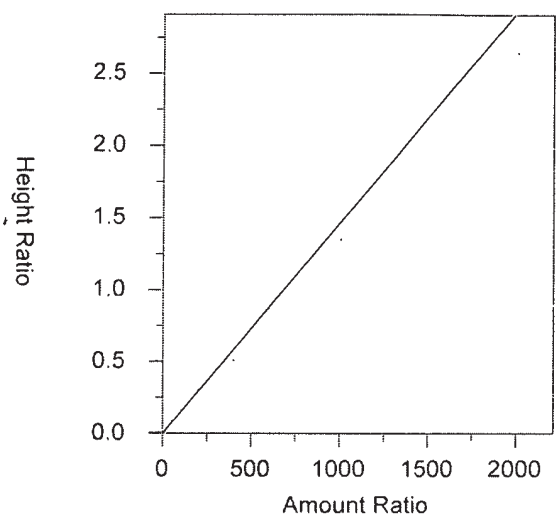
Single peak quantification by height

Y = 0.001394529 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9977897
Average error: 6.479%
Average CF: 0.001394529
RSD: 9.043%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	100	1506832	15068.32	13.743	100	0.1586179	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
2	201	2744693	13655.19	5.407	201	0.2954549	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
3	401	5296321	13207.78	-0.971	401	0.5537766	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
4	802	9960809	12419.96	-12.334	802	0.9804621	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
5	2005	2.546461E+07	12700.55	-6.132	2005	2.624585	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\
6	4010	5.264969E+07	13129.6	0.288	4010	5.608138	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\

2 DCAA



Expected retention time: 10.853 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

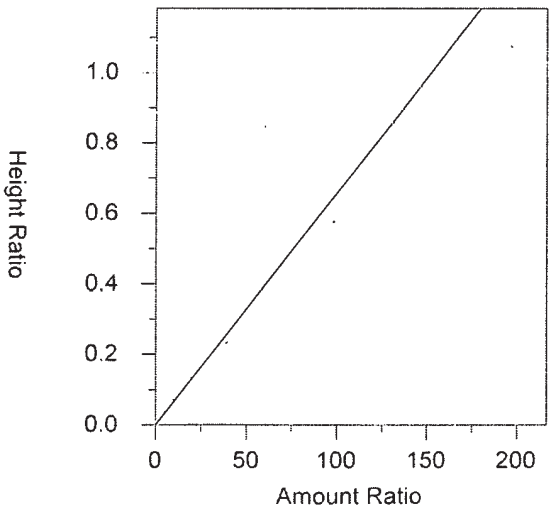
Single peak quantification by height

Y = 0.001462403 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9783557
Average error: 10.455%
Average CF: 0.001462403
RSD: 12.706%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50	822134.4	16442.69	18.357	50	0.08654263	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	101	1525653	15105.48	11.190	101	0.1642303	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	201	2862421	14240.9	1.819	201	0.2992911	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	402	5179379	12884.03	-13.280	402	0.5098165	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1005	1.310624E+07	13041.04	-8.089	1005	1.350833	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2010	2.483677E+07	12356.6	-9.997	2010	2.645562	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

3 DICAMBA



Expected retention time: 11.196 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

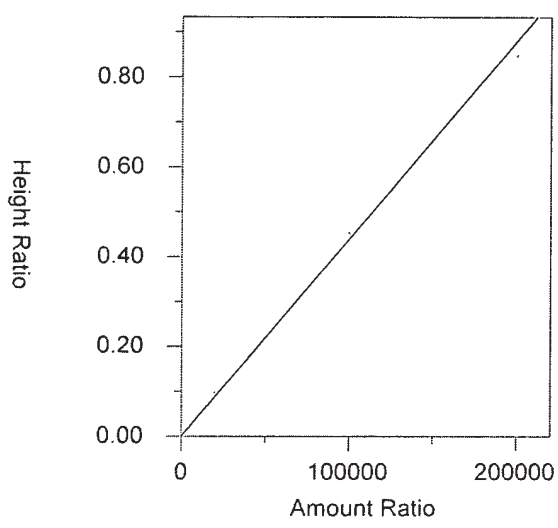
Single peak quantification by height

Y = 0.006572349 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9345169
Average error: 12.564%
Average CF: 0.006572349
RSD: 14.683%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4.9	363475	74178.57	18.808	4.9	0.03826148	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.8	683174.9	69711.72	14.178	9.8	0.07354098	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.7	1296567	65815.58	4.705	19.7	0.1355674	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.3	2363067	60128.93	-9.947	39.3	0.2326014	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	98.3	5583190	56797.45	-10.930	98.3	0.5754479	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	196.6	1.009089E+07	51327.01	-16.814	196.6	1.074861	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

4 MCPP



Expected retention time: 11.288 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

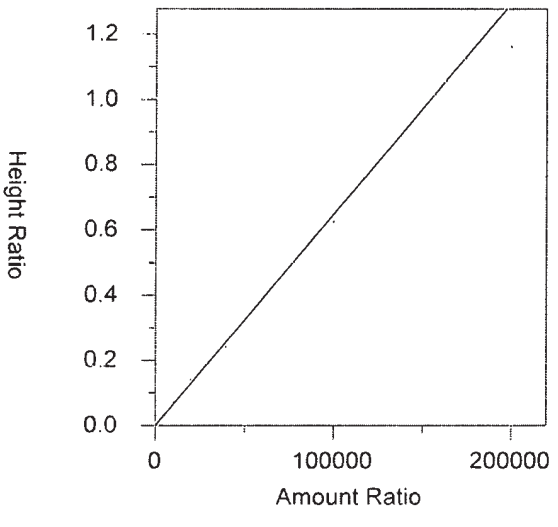
Single peak quantification by height

Y = 4.40491E-06 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9973536
Average error: 5.519%
Average CF: 4.40491E-06
RSD: 7.656%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5004	182691.3	36.50905	-12.753	5004	0.01923114	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2
2	10008	418586.5	41.82519	2.211	10008	0.04505912	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2
3	20016	927933.9	46.35961	10.043	20016	0.09702358	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2
4	40032	1817871	45.41045	1.474	40032	0.1789366	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2
5	100080	4398218	43.94702	2.829	100080	0.4533152	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2
6	200160	7962445	39.7804	-3.804	200160	0.8481434	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-2

5 MCPA



Expected retention time: 11.811 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

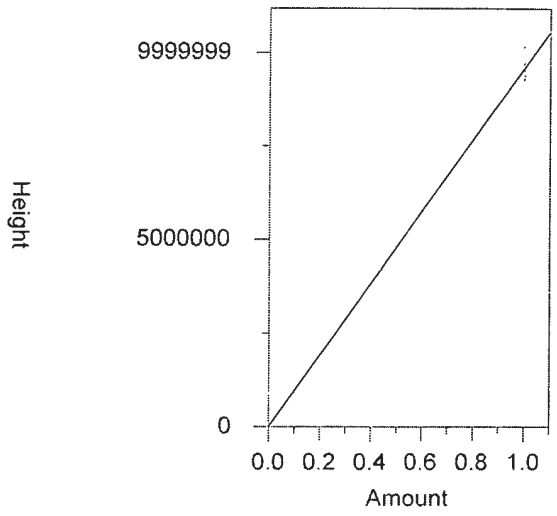
Single peak quantification by height

Y = 6.48436E-06 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9807937
Average error: 6.876%
Average CF: 6.48436E-06
RSD: 8.415%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	4990	311503.2	62.42549	1.340	4990	0.03279063	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9979	663885.3	66.52824	10.443	9979	0.07146454	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19958	1347189	67.50121	8.844	19958	0.1408604	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39916	2445876	61.27558	-6.984	39916	0.2407524	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99790	6063637	60.76397	-3.417	99790	0.6249665	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	199580	1.090716E+07	54.65057	-10.226	199580	1.161808	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

6 DBOFB ** Internal standard component **



Expected retention time: 12.091 minutes
Search window: 0.03 minutes
No internal standard component
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

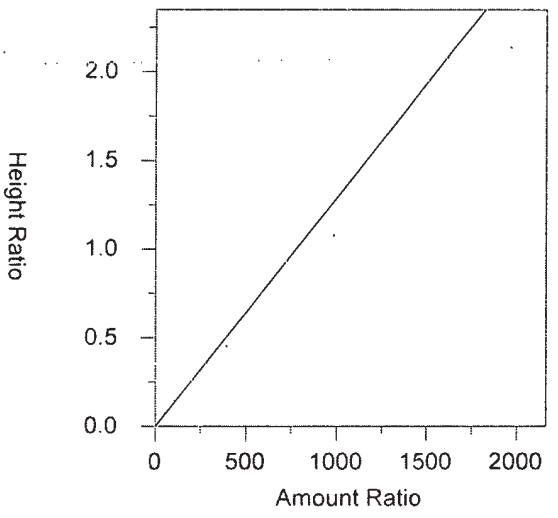
Single peak quantification by height

Y = 9600535 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0
Average error: 2.294%
Average CF: 9600535
RSD: 3.213%

Level	Amount	Response	Cal Factor	Error, %	Source
1	1	9499762	9499762	-1.050	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100
2	1	9289717	9289717	-3.238	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100
3	1	9564003	9564003	-0.381	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100
4	1	1.01593E+07	1.01593E+07	5.820	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100
5	1	9702339	9702339	1.060	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100
6	1	9388088	9388088	-2.213	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb1831100

7 2,4-DP



Expected retention time: 12.322 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

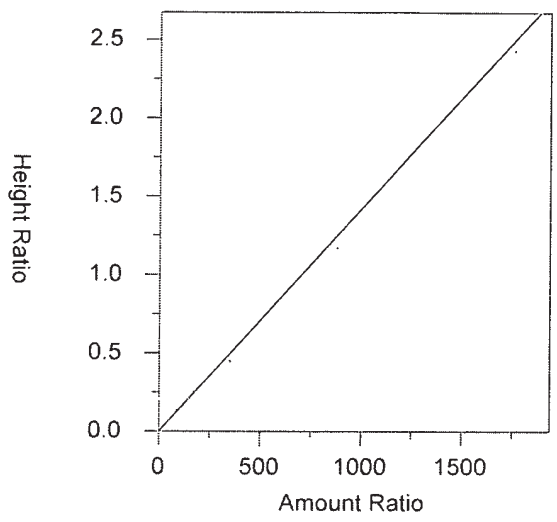
Single peak quantification by height

Y = 0.001288502 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9378383
Average error: 13.708%
Average CF: 0.001288502
RSD: 16.312%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	49.2	735515.6	14949.5	22.132	49.2	0.07742464	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	98.3	1363687	13872.71	15.897	98.3	0.1467953	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	196.6	2497699	12704.47	3.094	196.6	0.2611562	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	393.2	4600016	11698.92	-10.629	393.2	0.4527887	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	983	1.046487E+07	10645.85	-14.843	983	1.078593	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1966	2.005986E+07	10203.39	-15.651	1966	2.136735	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

8 2,4-D



Expected retention time: 12.947 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

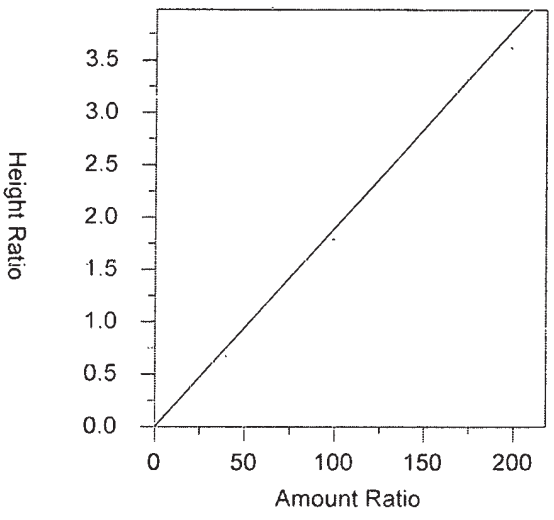
Single peak quantification by height

Y = 0.00142018 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9967772
Average error: 6.373%
Average CF: 0.00142018
RSD: 7.853%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	44	648581.9	14740.5	9.259	44	0.06827348	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	88	1259020	14307.05	8.444	88	0.1355283	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	176	2424421	13775.12	1.417	176	0.2534944	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	352	4564542	12967.45	-10.123	352	0.4492969	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	880	1.136391E+07	12913.53	-6.282	880	1.171255	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1760	2.28286E+07	12970.8	-2.715	1760	2.431656	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

9 PCP



Expected retention time: 13.542 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

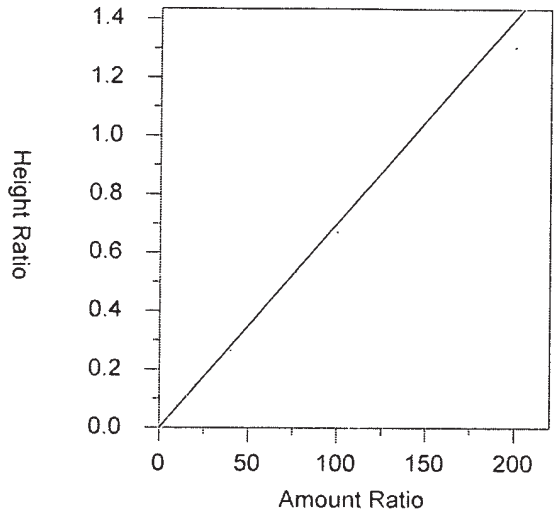
Single peak quantification by height

Y = 0.01898267 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9960707
Average error: 6.452%
Average CF: 0.01898267
RSD: 7.912%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	990363.8	198072.8	9.839	5	0.1042514	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	9.9	1884505	190354	7.945	9.9	0.2028593	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	19.8	3651205	184404.3	1.572	19.8	0.3817654	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	39.6	6831243	172506.1	-10.549	39.6	0.6724128	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	99.1	1.735271E+07	175103	-4.926	99.1	1.788508	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	198.2	3.395104E+07	171296.9	-3.880	198.2	3.616395	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

10 2,4,5-TP



Expected retention time: 14.125 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

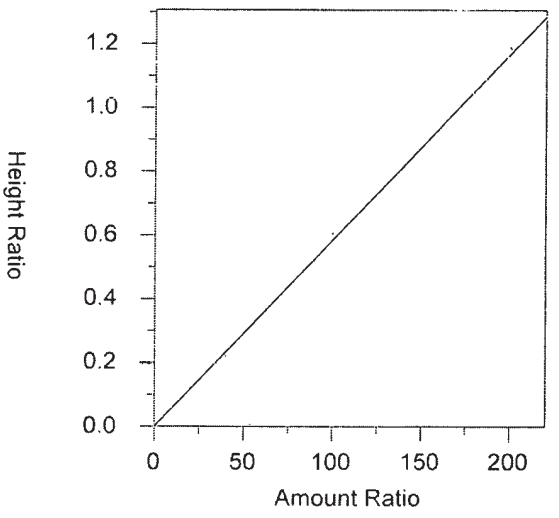
Single peak quantification by height

Y = 0.00701313 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9909792
Average error: 5.674%
Average CF: 0.00701313
RSD: 6.276%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	352295.4	70459.08	5.758	5	0.03708466	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10	690547.6	69054.77	5.994	10	0.07433462	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20	1412173	70608.65	5.270	20	0.147655	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40	2688373	67209.33	-5.669	40	0.2646219	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100	6508463	65084.63	-4.349	100	0.6708138	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200	1.224573E+07	61228.65	-7.004	200	1.30439	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

11 2,4,5-T



Expected retention time: 14.832 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

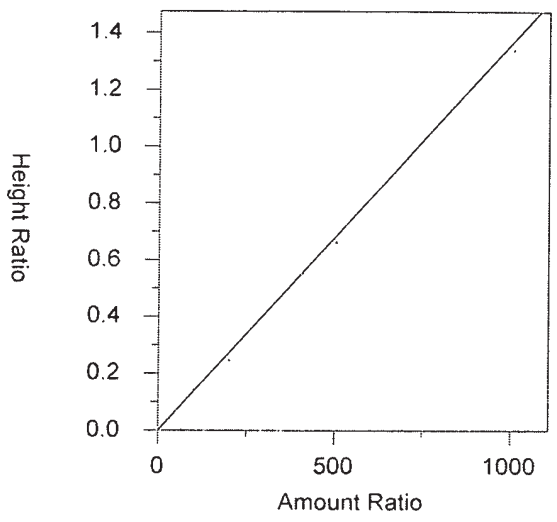
Single peak quantification by height

Y = 0.005839983 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9991075
Average error: 3.274%
Average CF: 0.005839983
RSD: 3.914%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	5	264321.6	52864.32	-4.712	5	0.02782402	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	10	549459.1	54945.91	1.279	10	0.05914703	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	20	1156433	57821.65	3.524	20	0.1209152	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	40	2251938	56298.45	-5.110	40	0.2216627	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	100.1	5865526	58596.66	3.415	100.1	0.6045476	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	200.2	1.115222E+07	55705.39	1.603	200.2	1.187912	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

12 DINOSEB



Expected retention time: 15.254 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

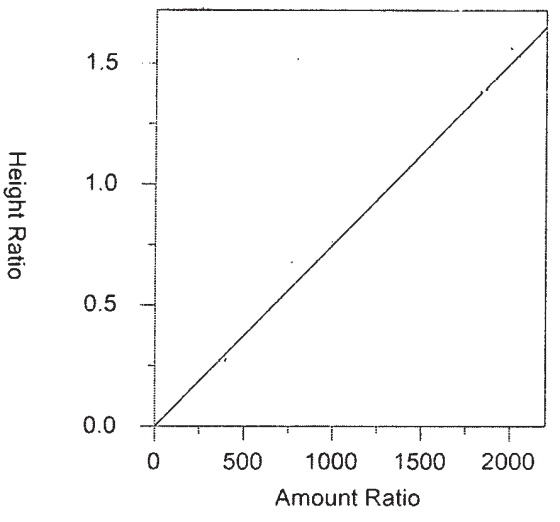
Single peak quantification by height

Y = 0.001362322 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9981271
Average error: 5.262%
Average CF: 0.001362322
RSD: 6.360%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.2	346956.5	13768.11	6.385	25.2	0.03652265	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.4	665884.6	13212	4.397	50.4	0.07167976	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.7	1377688	13681.11	5.003	100.7	0.1440493	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	201.4	2509232	12458.95	-9.980	201.4	0.2469887	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	503.5	6423314	12757.33	-3.483	503.5	0.6620377	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1007	1.258009E+07	12492.64	-2.322	1007	1.340006	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

13 2,4-DB



Expected retention time: 15.541 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

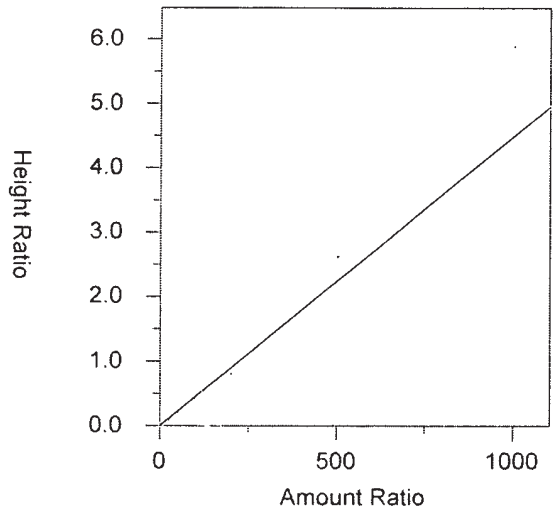
Single peak quantification by height

Y = 0.0007492685 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9972808
Average error: 3.037%
Average CF: 0.0007492685
RSD: 4.329%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	50.1	353292.1	7051.739	-0.929	50.1	0.03718957	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	100.1	706505.3	7057.995	1.401	100.1	0.0760524	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	200.2	1460280	7294.106	1.788	200.2	0.152685	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	400.4	2798497	6989.253	-8.182	400.4	0.2754616	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	1001	7400375	7392.982	1.696	1001	0.7627413	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	2002	1.467758E+07	7331.458	4.226	2002	1.563426	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

14 Picloram



Expected retention time: 17.779 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

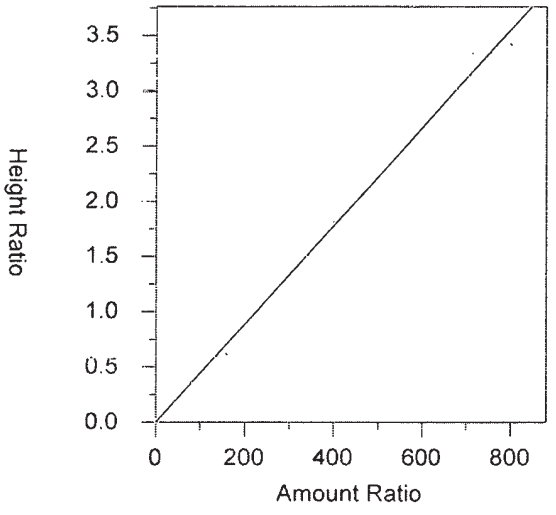
Single peak quantification by height

Y = 0.004485152 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9190747
Average error: 15.805%
Average CF: 0.004485152
RSD: 19.270%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	25.1	873077	34783.95	-18.363	25.1	0.09190515	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	50.2	1846784	36788.52	-11.706	50.2	0.1987987	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	100.4	4006899	39909.35	-6.963	100.4	0.4189563	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	200.7	8195517	40834.66	-10.383	200.7	0.8067009	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	501.8	2.545326E+07	50723.91	16.563	501.8	2.623415	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	1003.5	5.529063E+07	55097.79	30.852	1003.5	5.889445	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

15 Hexachlorophene



Expected retention time: 24.812 minutes
Search window: 0.03 minutes
Internal standard component: 6 (DBOFB)
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by height

Y = 0.004445187 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9966609
Average error: 5.652%
Average CF: 0.004445187
RSD: 7.502%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source
1	20	911091.3	45554.57	7.877	20	0.09590675	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
2	40	1728112	43202.8	4.621	40	0.1860242	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
3	80	3478636	43482.95	2.280	80	0.3637218	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
4	160	6272980	39206.13	-13.184	160	0.6174619	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
5	400	1.762709E+07	44067.73	2.177	400	1.816788	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI
6	800	3.212645E+07	40158.06	-3.771	800	3.422044	\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEI

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A

GC Column (1) : ZB XLB ID: .32 (mm)

Lab File ID: 15HERB18304001.013.RAW

Lab Standard ID: ICHBXAA

Calibration: 15HERB1830401

Date Analyzed: 10/31/18

Time Analyzed: 22:13

Initial Calibration: 15HERB1830401

Init. Calib Date(s): 10/31/18 10/31/18

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	415.23	481.60	-14
2,4-DCAA	11.94	11.91	11.97	186.56	201.00	-7
Dicamba	12.07	12.04	12.10	20.27	18.94	7
Mcpp	12.48	12.45	12.51	21623.53	19186.00	13
Mcpa	12.86	12.83	12.89	21327.76	19084.00	12
2,4-DP	13.45	13.43	13.49	214.13	192.80	11
2,4-D	13.90	13.87	13.93	195.75	187.20	5
PCP	15.09	15.06	15.12	93.48	93.34	0
2,4,5-TP	15.39	15.36	15.42	20.49	18.64	10
2,4,5-T	15.91	15.88	15.94	19.97	18.62	7
2,4-DB	16.74	16.71	16.77	184.24	181.80	1
Dinoseb	16.93	16.90	16.96	84.30	93.34	-10
Picloram	17.89	17.86	17.92	198.75	183.20	8
Hexachlorophene	26.14	26.10	26.16	109.82	99.20	11

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B

GC Column (2) : ZB 35 ID: .32 (mm)

Lab File ID: 15HERB18304001B.013.RAW

Lab Standard ID: ICHBXAA

Calibration: 15HERB1830401B

Date Analyzed: 10/31/18

Time Analyzed: 22:13

Initial Calibration: 15HERB1830401B

Init. Calib Date(s): 10/31/18 10/31/18

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.85	3.83	3.89	418.96	481.60	-13
2,4-DCAA	12.52	12.49	12.55	194.23	201.00	-3
Dicamba	12.88	12.85	12.91	20.43	18.94	8
Mcpp	12.93	12.90	12.96	19502.99	19186.00	2
Mcpa	13.46	13.43	13.49	18662.05	19084.00	-2
2,4-DP	13.99	13.96	14.02	204.79	192.80	6
2,4-D	14.61	14.58	14.64	190.48	187.20	2
PCP	15.31	15.28	15.34	87.44	93.34	-6
2,4,5-TP	15.80	15.77	15.83	20.15	18.64	8
2,4,5-T	16.50	16.47	16.53	19.94	18.62	7
Dinoseb	16.94	16.91	16.97	82.41	93.34	-12
2,4-DB	17.21	17.18	17.24	181.39	181.80	0
Picloram	19.51	19.48	19.54	190.70	183.20	4
Hexachlorophene	26.56	26.52	26.58	111.72	99.20	13

Compounds 14

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Date Analyzed: 11/07/18

GC Column (1) : MR-1 ID: .32 (mm) Time Analyzed: 22:48

Lab File ID: 24HERB18311001.014.RAW Initial Calibration: 24HERB1831101

Lab Standard ID: ICHBXAA Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	2.53	2.49	2.55	430.49	481.60	-11
2,4-DCAA	9.90	9.87	9.93	188.96	201.00	-6
Dicamba	10.00	9.97	10.03	20.48	18.94	8
Mcpp	10.45	10.42	10.48	20433.44	19186.00	7
Mcpa	10.83	10.80	10.86	20133.80	19084.00	6
2,4-DP	11.40	11.37	11.43	217.91	192.80	13
2,4-D	11.85	11.82	11.88	197.22	187.20	5
PCP	12.94	12.91	12.97	88.49	93.34	-5
2,4,5-TP	13.32	13.29	13.35	19.44	18.64	4
2,4,5-T	13.85	13.82	13.88	20.43	18.62	10
2,4-DB	14.68	14.65	14.71	184.27	181.80	1
Dinoseb	14.86	14.84	14.90	91.81	93.34	-2
Picloram	15.78	15.75	15.81	185.34	183.20	1
Hexachlorophene	24.01	23.98	24.04	107.70	99.20	9

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273B Date Analyzed: 11/07/18

GC Column (2) : MR-2 ID: .32 (mm) Time Analyzed: 22:48

Lab File ID: 24HERB18311001B.014.RAW Initial Calibration: 24HERB1831101B

Lab Standard ID: ICHBXAA Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	2.86	2.82	2.88	439.12	481.60	-9
2,4-DCAA	10.85	10.82	10.88	194.77	201.00	-3
Dicamba	11.19	11.17	11.23	20.83	18.94	10
Mcpp	11.29	11.26	11.32	21380.38	19186.00	11
Mcpa	11.81	11.78	11.84	20624.20	19084.00	8
2,4-DP	12.32	12.29	12.35	219.70	192.80	14
2,4-D	12.95	12.92	12.98	198.06	187.20	6
PCP	13.54	13.51	13.57	90.07	93.34	-3
2,4,5-TP	14.13	14.10	14.16	21.06	18.64	13
2,4,5-T	14.83	14.80	14.86	21.22	18.62	14
Dinoseb	15.25	15.22	15.28	92.53	93.34	-1
2,4-DB	15.54	15.51	15.57	192.95	181.80	6
Picloram	17.78	17.75	17.81	186.44	183.20	2
Hexachlorophene	24.81	24.78	24.84	111.92	99.20	13

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/01/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 18:03

Lab File ID: 15HERB18304002.006.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3UH Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	394.20	401.00	-2
2,4-DCAA	11.94	11.91	11.97	199.45	201.00	-1
Dicamba	12.07	12.04	12.10	20.22	19.66	3
Mcpp	12.48	12.45	12.51	22861.76	20016.00	14
Mcpa	12.86	12.83	12.89	21977.63	19958.00	10
2,4-DP	13.45	13.43	13.49	198.63	196.60	1
2,4-D	13.90	13.87	13.93	179.14	176.00	2
PCP	15.09	15.06	15.12	20.37	19.82	3
2,4,5-TP	15.38	15.36	15.42	20.19	20.00	1
2,4,5-T	15.91	15.88	15.94	19.51	20.02	-3
2,4-DB	16.74	16.71	16.77	198.51	200.20	-1
Dinoseb	16.93	16.90	16.96	102.72	100.70	2
Picloram	17.89	17.86	17.92	102.22	99.96	2
Hexachlorophene	26.13	26.10	26.16	81.12	80.00	1

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Date Analyzed: 11/01/18

GC Column (2) : ZB 35 ID: .32 (mm) Time Analyzed: 18:03

Lab File ID: 15HERB18304002B.006.RAW Initial Calibration: 15HERB1830401B

Lab Standard ID: HERB3UH Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.85	3.83	3.89	403.12	401.00	1
2,4-DCAA	12.51	12.49	12.55	200.24	201.00	0
Dicamba	12.88	12.85	12.91	20.03	19.66	2
Mcpp	12.93	12.90	12.96	20397.04	20016.00	2
Mcpa	13.46	13.43	13.49	20252.76	19958.00	1
2,4-DP	13.98	13.96	14.02	200.78	196.60	2
2,4-D	14.61	14.58	14.64	176.59	176.00	0
PCP	15.30	15.28	15.34	20.59	19.82	4
2,4,5-TP	15.80	15.77	15.83	20.31	20.00	2
2,4,5-T	16.50	16.47	16.53	19.87	20.02	-1
Dinoseb	16.93	16.91	16.97	101.98	100.70	1
2,4-DB	17.21	17.18	17.24	197.56	200.20	-1
Picloram	19.50	19.48	19.54	102.23	99.96	2
Hexachlorophene	26.55	26.52	26.58	85.26	80.00	7

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKRQ ID: RQ **Batchnumber: 1830499999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 01, 2018 18:36:36
Instrument : CP15--19850A
Result file : 15HERB18304002.007.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 67% (34-142) Conc.: 2.679998

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.70	3.76	5948	0.007610
DCAA	11.91	11.97	11.97	3773492	2.679998
MCPA	12.83	12.89	12.89	11916	-134.105600
2,4-DP	13.43	13.47	13.49	8068	0.006944
2,4-D	13.87	13.91	13.93	11183	0.008051
DBOFB	14.21	14.23	14.26	10453330	0.001000
PCP	15.06	15.10	15.12	6512	0.000371
2,4,5-T	15.88	15.92	15.94	10396	0.001771
2,4-DB	16.71	16.75	16.77	5880	0.007222
DINOSEB	16.90	16.94	16.96	17159	0.005619
Picloram	17.86	17.90	17.92	117249	0.023043
Hexachlorophene	26.10	26.14	26.16	111395	0.020089

Analysis Report (B)

Injected on : Nov 01, 2018 18:36:36
Instrument : CP15--19850B
Result file : 15HERB18304002B.007.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 62% (34-142) Conc.: 2.490873

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.53	12.55	3697180	2.490873
MCPA	13.43	13.46	13.49	1350	0.160055
DBOFB	13.69	13.72	13.75	10772730	0.001000
2,4-DP	13.96	13.99	14.01	9155	0.007053
2,4-D	14.58	14.62	14.64	11049	0.007431
PCP	15.28	15.31	15.34	8152	0.000428
2,4,5-TP	15.77	15.80	15.83	4811	0.000685
2,4,5-T	16.47	16.51	16.53	6503	0.001048
DINOSEB	16.91	16.94	16.97	15655	0.004901
2,4-DB	17.18	17.22	17.24	8622	0.009804
Picloram	19.48	19.51	19.54	145710	0.025987
Hexachlorophene	26.52	26.56	26.58	130851	0.022523

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.679998				7.32	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP	B	0.007053	<0.5	<0.16		1.57	
☑ 2,4-D	A	0.008051	<0.6	<0.25		8.01	
☐ DBOFB	A	0.001000				0.00	
☑ PCP	B	0.000428	<0.07	<0.027		14.44	
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T	B	0.001048	<0.15	<0.065		51.30	**
☑ 2,4-DB	B	0.009804	<1.5	<0.63		30.32	
☑ DINOSEB	A	0.005619	<0.5	<0.18		13.64	
☑ Picloram	B	0.025987	<1	<0.36		12.01	
☑ Hexachlorophene	B	0.022523	<0.2	<0.18		11.42	

Units: ug/l

Reviewed by: RSH
Date: 11/2/18

Verified by: Michele D Hamilton
Miche'le D. Hamilton
Group Leader
Date: NOV 02 2018

%RPD = High - Low Amount divided by the Average times 100
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Higher Amount Found unless RPD > 40

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/01/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 23:34

Lab File ID: 15HERB18304002.016.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3UI Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	405.06	401.00	1
2,4-DCAA	11.94	11.91	11.97	201.42	201.00	0
Dicamba	12.07	12.04	12.10	19.48	19.66	-1
Mcpp	12.48	12.45	12.51	22371.01	20016.00	12
Mcpa	12.86	12.83	12.89	21704.42	19958.00	9
2,4-DP	13.45	13.43	13.49	195.27	196.60	-1
2,4-D	13.90	13.87	13.93	178.88	176.00	2
PCP	15.09	15.06	15.12	19.80	19.82	0
2,4,5-TP	15.38	15.36	15.42	20.03	20.00	0
2,4,5-T	15.91	15.88	15.94	19.99	20.02	0
2,4-DB	16.74	16.71	16.77	199.51	200.20	0
Dinoseb	16.93	16.90	16.96	105.18	100.70	4
Picloram	17.89	17.86	17.92	101.28	99.96	1
Hexachlorophene	26.13	26.10	26.16	73.68	80.00	-8

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Date Analyzed: 11/01/18

GC Column (2) : ZB 35 ID: .32 (mm) Time Analyzed: 23:34

Lab File ID: 15HERB18304002B.016.RAW Initial Calibration: 15HERB1830401B

Lab Standard ID: HERB3UI Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.85	3.83	3.89	404.06	401.00	1
2,4-DCAA	12.51	12.49	12.55	198.52	201.00	-1
Dicamba	12.88	12.85	12.91	19.69	19.66	0
Mcpp	12.93	12.90	12.96	20015.87	20016.00	0
Mcpa	13.46	13.43	13.49	19980.90	19958.00	0
2,4-DP	13.98	13.96	14.02	198.83	196.60	1
2,4-D	14.61	14.58	14.64	172.80	176.00	-2
PCP	15.30	15.28	15.34	20.05	19.82	1
2,4,5-TP	15.80	15.77	15.83	20.32	20.00	2
2,4,5-T	16.50	16.47	16.53	19.71	20.02	-2
Dinoseb	16.93	16.91	16.97	100.74	100.70	0
2,4-DB	17.21	17.18	17.24	203.42	200.20	2
Picloram	19.50	19.48	19.54	104.11	99.96	4
Hexachlorophene	26.55	26.52	26.58	72.78	80.00	-9

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKRR ID: RR **Batchnumber: 1830499999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 02, 2018 00:07:51
Instrument : CP15--19850A
Result file : 15HERB18304002.017.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 67% (34-142) Conc.: 2.695587

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.75	3.76	3271	0.004125
DCAA	11.91	11.96	11.97	3850422	2.695587
MCPA	12.83	12.88	12.89	9560	-134.516900
2,4-DP	13.43	13.47	13.49	7512	0.006373
2,4-D	13.87	13.90	13.93	10457	0.007421
DBOFB	14.21	14.23	14.26	10604760	0.001000
PCP	15.06	15.10	15.12	6086	0.000342
2,4,5-TP	15.36	15.39	15.42	4197	0.000622
2,4,5-T	15.88	15.92	15.94	10632	0.001786
DINOSEB	16.90	16.94	16.96	16753	0.005407
Picloram	17.86	17.90	17.92	97389	0.018867
Hexachlorophene	26.10	26.13	26.16	84365	0.014997

Analysis Report (B)

Injected on : Nov 02, 2018 00:07:51
Instrument : CP15--19850B
Result file : 15HERB18304002B.017.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 64% (34-142) Conc.: 2.544475

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.53	12.55	3854088	2.544475
MCPA	13.43	13.46	13.49	1348	0.156607
DBOFB	13.69	13.71	13.75	10993350	0.001000
2,4-DP	13.96	13.97	14.01	129527	0.097794
2,4-D	14.58	14.61	14.64	7715	0.005085
PCP	15.28	15.31	15.34	6706	0.000345
2,4,5-TP	15.77	15.80	15.83	4617	0.000644
2,4,5-T	16.47	16.51	16.53	6543	0.001033
DINOSEB	16.91	16.94	16.97	14305	0.004389
2,4-DB	17.18	17.21	17.24	8944	0.009966
Picloram	19.48	19.51	19.54	118258	0.020668
Hexachlorophene	26.52	26.55	26.58	132055	0.022274

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.695587				5.77	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP	A	0.006373	<0.5	<0.16		175.53	**
☑ 2,4-D	A	0.007421	<0.6	<0.25		37.35	
☐ DBOFB	A	0.001000				0.00	
☑ PCP	B	0.000345	<0.07	<0.027		1.12	
☑ 2,4,5-TP	B	0.000644	<0.05	<0.01		3.50	
☑ 2,4,5-T	B	0.001033	<0.15	<0.065		53.37	**
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB	A	0.005407	<0.5	<0.18		20.79	
☑ Picloram	B	0.020668	<1	<0.36		9.11	
☑ Hexachlorophene	B	0.022274	<0.2	<0.18		39.05	

Units: ug/l

Reviewed by: _____ Verified by: Michele D. Hamilton
Miche'le D. Hamilton
Group Leader

Date: 11/2/18 Date: NOV 02 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/03/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 1:29

Lab File ID: 15HERB18304002.063.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3UM Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	385.54	401.00	-4
2,4-DCAA	11.94	11.91	11.97	195.40	201.00	-3
Dicamba	12.06	12.04	12.10	19.58	19.66	0
Mcpp	12.47	12.45	12.51	22257.01	20016.00	11
Mcpa	12.86	12.83	12.89	21008.26	19958.00	5
2,4-DP	13.45	13.43	13.49	199.25	196.60	1
2,4-D	13.89	13.87	13.93	176.12	176.00	0
PCP	15.09	15.06	15.12	19.81	19.82	0
2,4,5-TP	15.38	15.36	15.42	20.00	20.00	0
2,4,5-T	15.90	15.88	15.94	19.46	20.02	-3
2,4-DB	16.74	16.71	16.77	195.00	200.20	-3
Dinoseb	16.92	16.90	16.96	105.53	100.70	5
Picloram	17.88	17.86	17.92	98.32	99.96	-2
Hexachlorophene	26.13	26.10	26.16	67.50	80.00	-16

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Date Analyzed: 11/03/18

GC Column (2) : ZB 35 ID: .32 (mm) Time Analyzed: 1:29

Lab File ID: 15HERB18304002B.063.RAW Initial Calibration: 15HERB1830401B

Lab Standard ID: HERB3UM Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.85	3.83	3.89	403.79	401.00	1
2,4-DCAA	12.51	12.49	12.55	203.07	201.00	1
Dicamba	12.87	12.85	12.91	19.90	19.66	1
Mcpp	12.93	12.90	12.96	20953.64	20016.00	5
Mcpa	13.45	13.43	13.49	19874.42	19958.00	0
2,4-DP	13.98	13.96	14.02	199.03	196.60	1
2,4-D	14.60	14.58	14.64	176.70	176.00	0
PCP	15.30	15.28	15.34	20.52	19.82	4
2,4,5-TP	15.79	15.77	15.83	20.19	20.00	1
2,4,5-T	16.50	16.47	16.53	20.11	20.02	0
Dinoseb	16.93	16.91	16.97	111.59	100.70	11
2,4-DB	17.20	17.18	17.24	201.42	200.20	1
Picloram	19.50	19.48	19.54	103.39	99.96	3
Hexachlorophene	26.55	26.52	26.58	74.25	80.00	-7

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKRV ID: RV **Batchnumber: 1830499999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 03, 2018 02:02:35
Instrument : CP15--19850A
Result file : 15HERB18304002.064.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 67% (34-142) Conc.: 2.672374

Peak name	Min	R.T.	Max	Height	Amount
DCAA	11.91	11.96	11.97	3891244	2.672374
MCPP	12.45	12.46	12.51	24319	-123.704200
MCPA	12.83	12.88	12.89	18254	-133.159400
2,4-DP	13.43	13.46	13.49	20986	0.017466
2,4-D	13.87	13.91	13.93	15633	0.010883
DBOFB	14.21	14.23	14.26	10810280	0.001000
PCP	15.06	15.09	15.12	16379	0.000902
2,4,5-TP	15.36	15.38	15.42	9737	0.001416
2,4,5-T	15.88	15.91	15.94	18797	0.003097
2,4-DB	16.71	16.75	16.77	16228	0.019272
DINOSEB	16.90	16.94	16.96	26307	0.008330
Picloram	17.86	17.89	17.92	151336	0.028760
Hexachlorophene	26.10	26.13	26.16	122888	0.021430

Analysis Report (B)

Injected on : Nov 03, 2018 02:02:35
Instrument : CP15--19850B
Result file : 15HERB18304002B.064.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 61% (34-142) Conc.: 2.442777

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.53	12.55	3786059	2.442777
DICAMBA	12.85	12.88	12.91	5094	0.000791
MCPP	12.90	12.95	12.96	72739	11.362200
MCPA	13.43	13.45	13.49	1038	0.117884
DBOFB	13.69	13.71	13.75	11248910	0.001000
2,4-DP	13.96	13.98	14.01	72988	0.053855
2,4-D	14.58	14.61	14.64	14516	0.009350
2,4,5-T	16.47	16.51	16.53	14001	0.002161
DINOSEB	16.91	16.93	16.97	72773	0.021820
Picloram	19.48	19.50	19.54	193243	0.033005
Hexachlorophene	26.52	26.55	26.58	136386	0.022481

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.672374				8.98	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP	A	0.017466	<0.5	<0.16		102.04	**
☑ 2,4-D	A	0.010883	<0.6	<0.25		15.16	
☐ DBOFB	A	0.001000				0.00	
☑ PCP			<0.07	<0.027			
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T	A	0.003097	<0.15	<0.065		35.60	
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB	A	0.008330	<0.5	<0.18		89.49	**
☑ Picloram	B	0.033005	<1	<0.36		13.75	
☑ Hexachlorophene	B	0.022481	<0.2	<0.10		4.79	

Units: ug/l

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____ NOV 0 7 2018
Date: 11/7 Date: _____

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/03/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 5:20

Lab File ID: 15HERB18304002.070.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3UN Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	385.70	401.00	-4
2,4-DCAA	11.94	11.91	11.97	193.48	201.00	-4
Dicamba	12.06	12.04	12.10	19.63	19.66	0
Mcpp	12.47	12.45	12.51	21269.51	20016.00	6
Mcpa	12.86	12.83	12.89	20385.54	19958.00	2
2,4-DP	13.45	13.43	13.49	192.00	196.60	-2
2,4-D	13.89	13.87	13.93	173.10	176.00	-2
PCP	15.09	15.06	15.12	19.81	19.82	0
2,4,5-TP	15.38	15.36	15.42	19.69	20.00	-2
2,4,5-T	15.90	15.88	15.94	19.49	20.02	-3
2,4-DB	16.74	16.71	16.77	192.14	200.20	-4
Dinoseb	16.92	16.90	16.96	104.46	100.70	4
Picloram	17.88	17.86	17.92	100.14	99.96	0
Hexachlorophene	26.13	26.10	26.16	59.49	80.00	-26

Compounds 14

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Date Analyzed: 11/03/18

GC Column (2) : ZB 35 ID: .32 (mm) Time Analyzed: 5:20

Lab File ID: 15HERB18304002B.070.RAW Initial Calibration: 15HERB1830401B

Lab Standard ID: HERB3UN Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.85	3.83	3.89	384.84	401.00	-4
2,4-DCAA	12.51	12.49	12.55	190.51	201.00	-5
Dicamba	12.87	12.85	12.91	19.41	19.66	-1
Mcpp	12.93	12.90	12.96	19904.58	20016.00	-1
Mcpa	13.45	13.43	13.49	19035.80	19958.00	-5
2,4-DP	13.98	13.96	14.02	191.51	196.60	-3
2,4-D	14.60	14.58	14.64	165.21	176.00	-6
PCP	15.30	15.28	15.34	19.77	19.82	0
2,4,5-TP	15.79	15.77	15.83	19.90	20.00	-1
2,4,5-T	16.50	16.47	16.53	19.55	20.02	-2
Dinoseb	16.93	16.91	16.97	104.14	100.70	3
2,4-DB	17.20	17.18	17.24	192.13	200.20	-4
Picloram	19.50	19.48	19.54	97.62	99.96	-2
Hexachlorophene	26.55	26.52	26.58	74.82	80.00	-6

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKRW ID: RW **Batchnumber: 1830499999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 03, 2018 05:53:43
Instrument : CP15--19850A
Result file : 15HERB18304002.071.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 67% (34-142) Conc.: 2.682799

Peak name	Min	R.T.	Max	Height	Amount
DCAA	11.91	11.96	11.97	3899954	2.682799
MCPA	12.83	12.88	12.89	17774	-133.231200
2,4-DP	13.43	13.46	13.49	12986	0.010826
2,4-D	13.87	13.90	13.93	13430	0.009365
DBOFB	14.21	14.23	14.26	10792380	0.001000
PCP	15.06	15.10	15.12	9252	0.000510
2,4,5-TP	15.36	15.38	15.42	5091	0.000742
2,4,5-T	15.88	15.91	15.94	12656	0.002089
2,4-DB	16.71	16.75	16.77	13972	0.016621
DINOSEB	16.90	16.93	16.96	21692	0.006880
Picloram	17.86	17.89	17.92	154863	0.029479
Hexachlorophene	26.10	26.13	26.16	105956	0.018508

Analysis Report (B)

Injected on : Nov 03, 2018 05:53:43
Instrument : CP15--19850B
Result file : 15HERB18304002B.071.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 62% (34-142) Conc.: 2.461654

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.53	12.55	3895386	2.461654
DICAMBA	12.85	12.88	12.91	3868	0.000588
MCPP	12.90	12.96	12.96	17285	2.644529
MCPA	13.43	13.47	13.49	6443	0.716712
DBOFB	13.69	13.71	13.75	11484980	0.001000
2,4-DP	13.96	13.98	14.01	111583	0.080640
2,4-D	14.58	14.61	14.64	14854	0.009371
2,4,5-TP	15.77	15.80	15.83	5558	0.000742
2,4,5-T	16.47	16.50	16.53	8816	0.001333
DINOSEB	16.91	16.93	16.97	36956	0.010853
Picloram	19.48	19.51	19.54	182575	0.030542
Hexachlorophene	26.52	26.55	26.58	129533	0.020913

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.682799				8.60	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP	A	0.010826	<0.5	<0.16		152.66	**
☑ 2,4-D	B	0.009371	<0.6	<0.25		0.06	
☐ DBOFB	A	0.001000				0.00	
☑ PCP			<0.07	<0.027			
☑ 2,4,5-TP	B	0.000742	<0.05	<0.01		0.10	
☑ 2,4,5-T	B	0.001333	<0.15	<0.065		44.18	**
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB	A	0.006880	<0.5	<0.18		44.81	**
☑ Picloram	B	0.030542	<1	<0.36		3.54	
☑ Hexachlorophene	B	0.020913	<0.2	<0.18		12.20	

Units: ug/l

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____

Date: 11/7/18 Date: NOV 07 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Printed on: 11/6/2018 14:25:30

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/09/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 1:18

Lab File ID: 15HERB18304004.114.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3VK Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	400.28	401.00	0
2,4-DCAA	11.94	11.91	11.97	199.50	201.00	-1
Dicamba	12.07	12.04	12.10	20.39	19.66	4
Mcpp	12.48	12.45	12.51	23408.64	20016.00	17
Mcpa	12.86	12.83	12.89	22862.37	19958.00	15
2,4-DP	13.45	13.43	13.49	197.34	196.60	0
2,4-D	13.90	13.87	13.93	173.92	176.00	-1
PCP	15.09	15.06	15.12	20.35	19.82	3
2,4,5-TP	15.39	15.36	15.42	19.99	20.00	0
2,4,5-T	15.91	15.88	15.94	18.85	20.02	-6
2,4-DB	16.74	16.71	16.77	190.47	200.20	-5
Dinoseb	16.93	16.90	16.96	104.63	100.70	4
Picloram	17.89	17.86	17.92	92.12	99.96	-8
Hexachlorophene	26.14	26.10	26.16	78.01	80.00	-2

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B Date Analyzed: 11/09/18

GC Column (2) : ZB 35 ID: .32 (mm) Time Analyzed: 1:18

Lab File ID: 15HERB18304004B.114.RAW Initial Calibration: 15HERB1830401B

Lab Standard ID: HERB3VK Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.86	3.83	3.89	408.43	401.00	2
2,4-DCAA	12.52	12.49	12.55	198.54	201.00	-1
Dicamba	12.88	12.85	12.91	20.22	19.66	3
Mcpp	12.93	12.90	12.96	22719.48	20016.00	14
Mcpa	13.46	13.43	13.49	21832.68	19958.00	9
2,4-DP	13.99	13.96	14.02	201.02	196.60	2
2,4-D	14.61	14.58	14.64	172.53	176.00	-2
PCP	15.31	15.28	15.34	19.73	19.82	0
2,4,5-TP	15.80	15.77	15.83	19.51	20.00	-2
2,4,5-T	16.51	16.47	16.53	19.37	20.02	-3
Dinoseb	16.94	16.91	16.97	100.22	100.70	0
2,4-DB	17.21	17.18	17.24	186.40	200.20	-7
Picloram	19.51	19.48	19.54	94.01	99.96	-6
Hexachlorophene	26.56	26.52	26.58	82.29	80.00	3

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKST ID: ST **Batchnumber: 1831099999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 09, 2018 01:51:31
Instrument : CP15--19850A
Result file : 15HERB18304004.115.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 66% (34-142) Conc.: 2.630646

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.75	3.76	9129	0.011970
DCAA	11.91	11.97	11.97	3614054	2.630646
2,4-DP	13.43	13.47	13.49	2672	0.002357
2,4-D	13.87	13.92	13.93	3378	0.002493
DBOFB	14.21	14.24	14.26	10199480	0.001000
2,4,5-T	15.88	15.93	15.94	6448	0.001126
DINOSEB	16.90	16.94	16.96	4046	0.001358
Picloram	17.86	17.92	17.92	16618	0.003347
Hexachlorophene	26.10	26.14	26.16	16438	0.003038

Analysis Report (B)

Injected on : Nov 09, 2018 01:51:31
Instrument : CP15--19850B
Result file : 15HERB18304004B.115.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 62% (34-142) Conc.: 2.488864

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.54	12.55	3535416	2.488864
MCPA	13.43	13.46	13.49	985	0.122025
DBOFB	13.69	13.72	13.75	10309700	0.001000
2,4-DP	13.96	14.00	14.01	108274	0.087169
2,4-D	14.58	14.62	14.64	2657	0.001867
PCP	15.28	15.31	15.34	2295	0.000126
2,4,5-T	16.47	16.52	16.53	3625	0.000611
DINOSEB	16.91	16.95	16.97	3219	0.001053
2,4-DB	17.18	17.23	17.24	2354	0.002796
Picloram	19.48	19.53	19.54	26172	0.004877
Hexachlorophene	26.52	26.56	26.58	23596	0.004244

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.630646				5.54	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP	A	0.002357	<0.5	<0.16	<MDL	189.47 **	RU 11/12/18 13378
☑ 2,4-D	A	0.002493	<0.6	<0.25	<MDL	28.69	RU 13378 11/12/18
☐ DBOFB	A	0.001000				0.00	
☑ PCP			<0.07	<0.027			
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T	B	0.000611	<0.15	<0.065	<MDL	59.35 **	RU 13378 11/12/18
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB	A	0.001358	<0.5	<0.18	<MDL	25.28	RU 13378 11/12/18
☑ Picloram	B	0.004877	<1	<0.36	<MDL	37.20	RU 13378 11/12/18
☑ Hexachlorophene	B	0.004244	<0.2	<0.18	<MDL	33.11	RU 13378 11/12/18

Units: ug/l

Reviewed by: _____
Date: 11/12/18

Verified by: _____
Valerie L. Tornabe
Principal Specialist
Date: _____

NOV 13 2018

%RPD = High - Low Amount divided by the Average times 100
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Higher Amount Found unless RPD > 40

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850A Date Analyzed: 11/09/18

GC Column (1) : ZB XLB ID: .32 (mm) Time Analyzed: 6:16

Lab File ID: 15HERB18304004.123.RAW Initial Calibration: 15HERB1830401

Lab Standard ID: HERB3VT Init. Calib Date(s): 10/31/18 10/31/18

Calibration: 15HERB1830401

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.72	3.70	3.76	397.81	401.00	-1
2,4-DCAA	11.94	11.91	11.97	194.73	201.00	-3
Dicamba	12.07	12.04	12.10	19.94	19.66	1
Mcpp	12.48	12.45	12.51	22970.97	20016.00	15
Mcpa	12.86	12.83	12.89	21962.41	19958.00	10
2,4-DP	13.46	13.43	13.49	196.13	196.60	0
2,4-D	13.90	13.87	13.93	170.58	176.00	-3
PCP	15.09	15.06	15.12	20.16	19.82	2
2,4,5-TP	15.39	15.36	15.42	19.19	20.00	-4
2,4,5-T	15.91	15.88	15.94	18.48	20.02	-8
2,4-DB	16.74	16.71	16.77	183.82	200.20	-8
Dinoseb	16.93	16.90	16.96	103.63	100.70	3
Picloram	17.89	17.86	17.92	90.83	99.96	-9
Hexachlorophene	26.14	26.10	26.16	80.69	80.00	1

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 19850B

GC Column (2) : ZB 35 ID: .32 (mm)

Lab File ID: 15HERB18304004B.123.RAW

Lab Standard ID: HERB3VT

Calibration: 15HERB1830401B

Date Analyzed: 11/09/18

Time Analyzed: 6:16

Initial Calibration: 15HERB1830401B

Init. Calib Date(s): 10/31/18 10/31/18

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Dalapon	3.86	3.83	3.89	409.91	401.00	2
2,4-DCAA	12.52	12.49	12.55	196.69	201.00	-2
Dicamba	12.88	12.85	12.91	19.88	19.66	1
Mcpp	12.93	12.90	12.96	21657.32	20016.00	8
Mcpa	13.46	13.43	13.49	20380.34	19958.00	2
2,4-DP	13.99	13.96	14.02	194.74	196.60	-1
2,4-D	14.61	14.58	14.64	166.11	176.00	-6
PCP	15.31	15.28	15.34	19.89	19.82	0
2,4,5-TP	15.80	15.77	15.83	19.56	20.00	-2
2,4,5-T	16.51	16.47	16.53	18.75	20.02	-6
Dinoseb	16.94	16.91	16.97	104.81	100.70	4
2,4-DB	17.21	17.18	17.24	184.98	200.20	-8
Picloram	19.51	19.48	19.54	92.57	99.96	-7
Hexachlorophene	26.56	26.52	26.58	79.49	80.00	-1

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKTC ID: TC **Batchnumber: 1831199999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 09, 2018 06:49:10
Instrument : CP15--19850A
Result file : 15HERB18304004.124.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 64% (34-142) Conc.: 2.558115

Peak name	Min	R.T.	Max	Height	Amount
DCAA	11.91	11.97	11.97	3584266	2.558115
2,4-D	13.87	13.92	13.93	2825	0.002044
DBOFB	14.21	14.24	14.26	10402220	0.001000
2,4,5-T	15.88	15.92	15.94	7598	0.001301
DINOSEB	16.90	16.94	16.96	4469	0.001471
Picloram	17.86	17.92	17.92	15652	0.003091
Hexachlorophene	26.10	26.13	26.16	18063	0.003274

Analysis Report (B)

Injected on : Nov 09, 2018 06:49:10
Instrument : CP15--19850B
Result file : 15HERB18304004B.124.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 60% (34-142) Conc.: 2.38021

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.54	12.55	3445929	2.380210
MCPA	13.43	13.46	13.49	964	0.117257
DBOFB	13.69	13.72	13.75	10507460	0.001000
2,4-DP	13.96	13.98	14.01	94350	0.074530
2,4-D	14.58	14.61	14.64	2526	0.001742
PCP	15.28	15.31	15.34	1521	0.000082
2,4,5-T	16.47	16.52	16.53	2603	0.000430
DINOSEB	16.91	16.95	16.97	3058	0.000981
Picloram	19.48	19.52	19.54	25741	0.004707
Hexachlorophene	26.52	26.56	26.58	20047	0.003538

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	A	2.558115				7.21	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP			<0.5	<0.16			
☑ 2,4-D	A	0.002044	<0.6	<0.25	<MDL	15.94	RL 13378 11/12/18
☐ DBOFB	A	0.001000				0.00	
☑ PCP			<0.07	<0.027			
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T	B	0.000430	<0.15	<0.065	<MDL	100.61 **	RL 13378 11/12/18
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB	A	0.001471	<0.5	<0.18	<MDL	39.90	RL 13378 11/12/18
☑ Picloram	A	0.003091	<1	<0.36	<MDL	41.43 **	RL 13378 11/12/18
☑ Hexachlorophene	B	0.003538	<0.2	<0.18	<MDL	7.76	RL 13378 11/12/18

Units: ug/l

Reviewed by: _____ Verified by: Valerie L. Tomayko, Principal Specialist

Date: 11/12/18 Date: NOV 13 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Date Analyzed: 11/16/18

GC Column (1) : MR-1 ID: .32 (mm) Time Analyzed: 2:10

Lab File ID: 24HERB18311005.029.RAW Initial Calibration: 24HERB1831101

Lab Standard ID: HERB3WT Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (mg/l)	NOM AMOUNT (mg/l)	%D
Dalapon	2.52	2.49	2.55	410.56	401.00	2
2,4-DCAA	9.89	9.87	9.93	207.18	201.00	3
Dicamba	10.00	9.97	10.03	20.89	19.66	6
Mcpp	10.44	10.42	10.48	21780.17	20016.00	9
Mcpa	10.83	10.80	10.86	21436.41	19958.00	7
2,4-DP	11.40	11.37	11.43	211.70	196.60	8
2,4-D	11.85	11.82	11.88	180.02	176.00	2
PCP	12.93	12.91	12.97	20.39	19.82	3
2,4,5-TP	13.31	13.29	13.35	20.90	20.00	5
2,4,5-T	13.85	13.82	13.88	20.54	20.02	3
2,4-DB	14.68	14.65	14.71	205.23	200.20	3
Dinoseb	14.86	14.84	14.90	112.22	100.70	11
Picloram	15.78	15.75	15.81	92.80	99.96	-7
Hexachlorophene	24.01	23.98	24.04	76.44	80.00	-4

Compounds 14

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273B Date Analyzed: 11/16/18

GC Column (2) : MR-2 ID: .32 (mm) Time Analyzed: 2:10

Lab File ID: 24HERB18311005B.029.RAW Initial Calibration: 24HERB1831101B

Lab Standard ID: HERB3WT Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (mg/l)	NOM AMOUNT (mg/l)	%D
Dalapon	2.85	2.82	2.88	393.01	401.00	-2
2,4-DCAA	10.85	10.82	10.88	205.13	201.00	2
Dicamba	11.19	11.17	11.23	20.67	19.66	5
Mcpp	11.28	11.26	11.32	21572.39	20016.00	8
Mcpa	11.81	11.78	11.84	21304.61	19958.00	7
2,4-DP	12.32	12.29	12.35	201.96	196.60	3
2,4-D	12.94	12.92	12.98	174.67	176.00	-1
PCP	13.54	13.51	13.57	20.09	19.82	1
2,4,5-TP	14.12	14.10	14.16	21.21	20.00	6
2,4,5-T	14.83	14.80	14.86	20.34	20.02	2
Dinoseb	15.25	15.22	15.28	108.10	100.70	7
2,4-DB	15.54	15.51	15.57	196.80	200.20	-2
Picloram	17.77	17.75	17.81	91.08	99.96	-9
Hexachlorophene	24.81	24.78	24.84	76.11	80.00	-5

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKUC ID: UC **Batchnumber: 1831899999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 16, 2018 02:43:35
Instrument : CP24--18273A
Result file : 24HERB18311005.030.RAW
Calibration file : 24HERB1831101.CAL
Method file : 24HERB.MET
%SSR(DCAA) : 61% (34-142) Conc.: 2.456207

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	2.49	2.53	2.55	21440	0.012125
DCAA	9.87	9.92	9.93	4711532	2.456207
2,4-D	11.82	11.86	11.88	9259	0.005127
DBOFB	12.18	12.21	12.24	12605580	0.001000
PCP	12.91	12.94	12.97	23209	0.000894
2,4,5-T	13.82	13.86	13.88	12238	0.001554
2,4-DB	14.65	14.70	14.71	18299	0.018110
Picloram	15.75	15.81	15.81	28907	0.005641
Hexachlorophene	23.98	24.01	24.04	73537	0.011293

Analysis Report (B)

Injected on : Nov 16, 2018 02:43:35
Instrument : CP24--18273B
Result file : 24HERB18311005B.030.RAW
Calibration file : 24HERB1831101B.CAL
Method file : 24HERBB.MET
%SSR(DCAA) : 63% (34-142) Conc.: 2.509326

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	2.82	2.83	2.88	10723	0.008760
DCAA	10.82	10.86	10.88	3220931	2.509326
DBOFB	12.06	12.09	12.12	8777223	0.001000
PCP	13.51	13.54	13.57	3006	0.000180
Picloram	17.75	17.79	17.81	23013	0.005846
Hexachlorophene	24.78	24.81	24.84	30971	0.007938

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon	A	0.012125	<4	<1.8		32.22	
☐ DCAA	B	2.509326				2.14	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP			<0.5	<0.16			
☑ 2,4-D			<0.6	<0.25			
☐ DBOFB	A	0.001000				0.00	
☑ PCP	B	0.000180	<0.07	<0.027		132.86	**
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T			<0.15	<0.065			
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB			<0.5	<0.18			
☑ Picloram	B	0.005846	<1	<0.36		3.57	
☑ Hexachlorophene	A	0.011293	<0.2	<0.18		34.89	

Units: ug/l

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____

Date: 11/16/18 Date: NOV 16 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273A Date Analyzed: 11/16/18

GC Column (1) : MR-1 ID: .32 (mm) Time Analyzed: 7:08

Lab File ID: 24HERB18311005.038.RAW Initial Calibration: 24HERB1831101

Lab Standard ID: HERB3WU Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (mg/l)	NOM AMOUNT (mg/l)	%D
Dalapon	2.52	2.49	2.55	401.81	401.00	0
2,4-DCAA	9.89	9.87	9.93	203.13	201.00	1
Dicamba	10.00	9.97	10.03	19.99	19.66	2
Mcpp	10.44	10.42	10.48	21491.60	20016.00	7
Mcpa	10.83	10.80	10.86	21253.64	19958.00	6
2,4-DP	11.40	11.37	11.43	205.35	196.60	4
2,4-D	11.85	11.82	11.88	179.90	176.00	2
PCP	12.93	12.91	12.97	19.70	19.82	-1
2,4,5-TP	13.32	13.29	13.35	19.67	20.00	-2
2,4,5-T	13.85	13.82	13.88	19.38	20.02	-3
2,4-DB	14.68	14.65	14.71	195.45	200.20	-2
Dinoseb	14.86	14.84	14.90	109.59	100.70	9
Picloram	15.78	15.75	15.81	82.28	99.96	-18
Hexachlorophene	24.00	23.98	24.04	70.46	80.00	-12

Compounds 14

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 18273B Date Analyzed: 11/16/18

GC Column (2) : MR-2 ID: .32 (mm) Time Analyzed: 7:08

Lab File ID: 24HERB18311005B.038.RAW Initial Calibration: 24HERB1831101B

Lab Standard ID: HERB3WU Init. Calib Date(s): 11/07/18 11/07/18

Calibration: 24HERB1831101B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (mg/l)	NOM AMOUNT (mg/l)	%D
Dalapon	2.85	2.82	2.88	395.69	401.00	-1
2,4-DCAA	10.85	10.82	10.88	205.06	201.00	2
Dicamba	11.19	11.17	11.23	21.05	19.66	7
Mcpp	11.28	11.26	11.32	22289.52	20016.00	11
Mcpa	11.81	11.78	11.84	21954.86	19958.00	10
2,4-DP	12.32	12.29	12.35	206.64	196.60	5
2,4-D	12.94	12.92	12.98	177.16	176.00	1
PCP	13.54	13.51	13.57	20.23	19.82	2
2,4,5-TP	14.12	14.10	14.16	21.76	20.00	9
2,4,5-T	14.83	14.80	14.86	19.89	20.02	-1
Dinoseb	15.25	15.22	15.28	110.45	100.70	10
2,4-DB	15.54	15.51	15.57	190.93	200.20	-5
Picloram	17.78	17.75	17.81	85.51	99.96	-14
Hexachlorophene	24.81	24.78	24.84	76.76	80.00	-4

Compounds 14

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: HIBLKX1824B HIBLKUD ID: UD **Batchnumber: 1831899999**
Sample Amount: 1000 Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10407

Analysis Report (A)

Injected on : Nov 16, 2018 07:41:31
Instrument : CP24--18273A
Result file : 24HERB18311005.039.RAW
Calibration file : 24HERB1831101.CAL
Method file : 24HERB.MET
%SSR(DCAA) : 61% (34-142) Conc.: 2.436855

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	2.49	2.52	2.55	19740	0.011526
DCAA	9.87	9.92	9.93	4527474	2.436855
2,4-D	11.82	11.88	11.88	3958	0.002263
DBOFB	12.18	12.21	12.24	12209330	0.001000
2,4,5-TP	13.29	13.32	13.35	4095	0.000447
2,4,5-T	13.82	13.86	13.88	11063	0.001451
2,4-DB	14.65	14.70	14.71	15455	0.015792
Picloram	15.75	15.76	15.81	2864	0.000577
Hexachlorophene	23.98	24.00	24.04	74699	0.011844

Analysis Report (B)

Injected on : Nov 16, 2018 07:41:31
Instrument : CP24--18273B
Result file : 24HERB18311005B.039.RAW
Calibration file : 24HERB1831101B.CAL
Method file : 24HERBB.MET
%SSR(DCAA) : 62% (34-142) Conc.: 2.499123

Peak name	Min	R.T.	Max	Height	Amount
DCAA	10.82	10.87	10.88	3116492	2.499123
DBOFB	12.06	12.09	12.12	8527294	0.001000
PCP	13.51	13.54	13.57	4745	0.000293
Picloram	17.75	17.79	17.81	20944	0.005476
Hexachlorophene	24.78	24.81	24.84	31098	0.008204

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<4	<1.8			
☐ DCAA	B	2.499123				2.52	
☑ DICAMBA			<0.3	<0.08			
☑ MCPP			<200	<50			
☑ MCPA			<200	<50			
☑ 2,4-DP			<0.5	<0.16			
☑ 2,4-D			<0.6	<0.25			
☐ DBOFB	A	0.001000				0.00	
☑ PCP			<0.07	<0.027			
☑ 2,4,5-TP			<0.05	<0.01			
☑ 2,4,5-T			<0.15	<0.065			
☑ 2,4-DB			<1.5	<0.63			
☑ DINOSEB			<0.5	<0.18			
☑ Picloram	A	0.000577	<1	<0.36		161.87	**
☑ Hexachlorophene	A	0.011844	<0.2	<0.18		36.31	

Units: ug/l

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____

Date: 11/16/ Date: NOV 16 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Eurofins Lancaster Laboratories
Pesticide Residue Analysis
Runlog for 15HERB18304001
Instrument CP15--19850A

Data Directory Path is - \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304001.001	CONDITIONER		10/31/18 15:37	1830299999	1.00
13378	15HERB18304001.002	CONDITIONER		10/31/18 16:10	1830299999	1.00
13378	15HERB18304001.003	CONDITIONER		10/31/18 16:43	1830299999	1.00
13378	15HERB18304001.004	CONDITIONER		10/31/18 17:16	1830299999	1.00
13378	15HERB18304001.005	HIBLKX1824B	HIBLKAA	10/31/18 17:49	1830299999	10.00
13378	15HERB18304001.006	HERB11824E	HERB1AA	10/31/18 18:22	1830299999	1.00
13378	15HERB18304001.007	HERB21824E	HERB2AA	10/31/18 18:55	1830299999	1.00
13378	15HERB18304001.008	HERB31824F	HERB3AA	10/31/18 19:28	1830299999	1.00
13378	15HERB18304001.009	HERB41824E	HERB4AA	10/31/18 20:01	1830299999	1.00
13378	15HERB18304001.010	HERB51824E	HERB5AA	10/31/18 20:34	1830299999	1.00
13378	15HERB18304001.011	HERB61824E	HERB6AA	10/31/18 21:07	1830299999	1.00
13378	15HERB18304001.012	MDHEX1824E	MDHEXAA	10/31/18 21:40	1830299999	1.00
13378	15HERB18304001.013	ICHBX1824G	ICHBXAA	10/31/18 22:13	1830299999	1.00
13378	15HERB18304001.014	ICHBX1824H	ICHBXQV	10/31/18 22:46	1830299999	1.00
13378	15HERB18304001.015	ICHBX1824I	ICHBXQW	10/31/18 23:19	1830299999	1.00
13378	15HERB18304001.016	BLANKA 10/29/18 F	PBLK08302	10/31/18 23:52	183020008A	10.00
13378	15HERB18304001.017	LCSA 10/29/18 F	LCS08302	11/1/18 0:25	183020008A	10.00
13378	15HERB18304001.018	LCSDA 10/29/18 F	LCSD08302	11/1/18 0:59	183020008A	10.00
13378	15HERB18304001.019	9868184 F	RCL-1	11/1/18 1:32	183020008A	10.00
13378	15HERB18304001.020	9868185 F	RCL-4	11/1/18 2:05	183020008A	10.00
13378	15HERB18304001.021	9868186 F	RCL-7	11/1/18 2:38	183020008A	10.00
13378	15HERB18304001.022	9868187 F	RCLG4	11/1/18 3:11	183020008A	10.00
13378	15HERB18304001.023	9868189 F	RCLFB	11/1/18 3:44	183020008A	10.00
13378	15HERB18304001.024	9870991 F	02W02	11/1/18 4:17	183020008A	10.00
13378	15HERB18304001.025	HERB31824F	HERB3TW	11/1/18 4:50	1830299999	1.00
13378	15HERB18304001.026	HIBLKX1824B	PIBLKFL	11/1/18 5:23	1830299999	10.00
13378	15HERB18304001.027	BLANKA 10/29/18 F	PBLK09302	11/1/18 5:56	183020009A	10.00
13378	15HERB18304001.028	LCSA 10/29/18 F	LCS09302	11/1/18 6:29	183020009A	10.00
13378	15HERB18304001.029	9863853 F	GKP-4	11/1/18 7:02	183020009A	10.00
13378	15HERB18304001.030	9863854MS F	GKP-4	11/1/18 7:35	183020009A	10.00
13378	15HERB18304001.031	9863855MSD F	GKP-4	11/1/18 8:09	183020009A	10.00
13378	15HERB18304001.032	HERB31824F	HERB3TX	11/1/18 8:42	1830299999	1.00
13378	15HERB18304001.033	HIBLKX1824B	PIBLKFM	11/1/18 9:15	1830299999	10.00
13378	15HERB18304001.034	9863851 F	GKP-1	11/1/18 9:48	183020009A	10.00
13378	15HERB18304001.035	9863852 F	GKP-2	11/1/18 10:21	183020009A	10.00
13378	15HERB18304001.036	9863857 F	GKP-D	11/1/18 10:54	183020009A	10.00
13378	15HERB18304001.037	9863858 F	GKP-3	11/1/18 11:27	183020009A	10.00
13378	15HERB18304001.038	9866461 F	T0902	11/1/18 12:00	183020009A	10.00
13378	15HERB18304001.039	9866462 F	T0003	11/1/18 12:33	183020009A	10.00
13378	15HERB18304001.040	9870992 F	02W03	11/1/18 13:06	183020009A	10.00
13378	15HERB18304001.041	HERB31824F	HERB3TY	11/1/18 13:39	1830299999	1.00
13378	15HERB18304001.042	HIBLKX1824B	PIBLKFN	11/1/18 14:13	1830299999	10.00

Eurofins Lancaster Laboratories
Pesticide Residue Analysis
Runlog for 24HERB18311001
Instrument CP24--18273A

Data Directory Path is - \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	24HERB18311001.001	CONDITIONER		11/7/18 15:39	1831099999	1.00
13378	24HERB18311001.002	CONDITIONER		11/7/18 16:12	1831099999	1.00
13378	24HERB18311001.003	CONDITIONER		11/7/18 16:45	1831099999	1.00
13378	24HERB18311001.004	CONDITIONER		11/7/18 17:18	1831099999	1.00
13378	24HERB18311001.005	HIBLKX1824B	HIBLKAA	11/7/18 17:51	1831099999	10.00
13378	24HERB18311001.006	HERB11824E	HERB1AA	11/7/18 18:24	1831099999	1.00
13378	24HERB18311001.007	HERB21824E	HERB2AA	11/7/18 18:57	1831099999	1.00
13378	24HERB18311001.008	HERB31824F	HERB3AA	11/7/18 19:30	1831099999	1.00
13378	24HERB18311001.009	HERB41824E	HERB4AA	11/7/18 20:03	1831099999	1.00
13378	24HERB18311001.010	HERB51824E	HERB5AA	11/7/18 20:36	1831099999	1.00
13378	24HERB18311001.011	HERB61824E	HERB6AA	11/7/18 21:09	1831099999	1.00
13378	24HERB18311001.012	MDHEX1824E	MDHEXAA	11/7/18 21:42	1831099999	1.00
13378	24HERB18311001.013	ICHBX1824G	ICHBXAA	11/7/18 22:15	1831099999	1.00
13378	24HERB18311001.014	ICHBX1824H	ICHBXAA	11/7/18 22:48	1831099999	1.00

Eurofins Lancaster Laboratories
Pesticide Residue Analysis
Runlog for 15HERB18304002
Instrument CP15--19850A

Data Directory Path is - \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304002.001	CONDITIONER		11/1/18 15:18	1830499999	1.00
13378	15HERB18304002.002	CONDITIONER		11/1/18 15:51	1830499999	1.00
13378	15HERB18304002.003	CONDITIONER		11/1/18 16:24	1830499999	1.00
13378	15HERB18304002.004	CONDITIONER		11/1/18 16:57	1830499999	1.00
13378	15HERB18304002.005	CONDITIONER		11/1/18 17:30	1830499999	1.00
13378	15HERB18304002.006	HERB31824F	HERB3UH	11/1/18 18:03	1830499999	1.00
13378	15HERB18304002.007	HIBLKX1824B	HIBLKRQ	11/1/18 18:36	1830499999	10.00
13378	15HERB18304002.008	BLANKA 10/30/18 F	PBLK10303	11/1/18 19:09	183030010A	10.00
13378	15HERB18304002.009	LCSA 10/30/18 F	LCS10303	11/1/18 19:42	183030010A	10.00
13378	15HERB18304002.010	9867762 F	T1003	11/1/18 20:15	183030010A	10.00
13378	15HERB18304002.011	CONDITIONER		11/1/18 20:49	183030010A	10.00
13378	15HERB18304002.012	9867762 F DF5	T1003	11/1/18 21:22	183030010A	50.00
13378	15HERB18304002.013	9867763MS F	T1003	11/1/18 21:55	183030010A	10.00
13378	15HERB18304002.014	CONDITIONER		11/1/18 22:28	183030010A	10.00
13378	15HERB18304002.015	9867763MS F DF5	T1003	11/1/18 23:01	183030010A	50.00
13378	15HERB18304002.016	HERB31824F	HERB3UI	11/1/18 23:34	1830499999	1.00
13378	15HERB18304002.017	HIBLKX1824B	HIBLKRR	11/2/18 0:07	1830499999	10.00
13378	15HERB18304002.018	9867764MSD F	T1003	11/2/18 0:40	183030010A	10.00
13378	15HERB18304002.019	CONDITIONER		11/2/18 1:14	183030010A	10.00
13378	15HERB18304002.020	9867764MSD F DF5	T1003	11/2/18 1:47	183030010A	50.00
13378	15HERB18304002.021	9866463 F	T0904	11/2/18 2:20	183030010A	10.00
13378	15HERB18304002.022	9866463 F DF5	T0904	11/2/18 2:53	183030010A	50.00
13378	15HERB18304002.023	9866464 F	T0905	11/2/18 3:26	183030010A	10.00
13378	15HERB18304002.024	9866464 F DF5	T0905	11/2/18 3:59	183030010A	50.00
13378	15HERB18304002.025	9866465 F	T0906	11/2/18 4:32	183030010A	10.00
13378	15HERB18304002.026	9866465 F DF5	T0906	11/2/18 5:05	183030010A	50.00
13378	15HERB18304002.027	HERB31824F	HERB3UJ	11/2/18 5:39	1830499999	1.00
13378	15HERB18304002.028	HIBLKX1824B	HIBLKRS	11/2/18 6:12	1830499999	10.00
13378	15HERB18304002.029	9866466 F	T0907	11/2/18 6:45	183030010A	10.00
13378	15HERB18304002.030	9866466 F DF5	T0907	11/2/18 7:18	183030010A	50.00
13378	15HERB18304002.031	9866467 F	T0908	11/2/18 7:51	183030010A	10.00
13378	15HERB18304002.032	9866467 F DF5	T0908	11/2/18 8:24	183030010A	50.00
13378	15HERB18304002.033	9867761 F	T1002	11/2/18 8:57	183030010A	10.00
13378	15HERB18304002.034	9867761 F DF5	T1002	11/2/18 9:30	183030010A	50.00
13378	15HERB18304002.035	9867766 F	T1004	11/2/18 10:04	183030010A	10.00
13378	15HERB18304002.036	9867766 F DF5	T1004	11/2/18 10:37	183030010A	50.00
13378	15HERB18304002.037	9867767 F DF10	T1005	11/2/18 11:10	183030010A	100.00
13378	15HERB18304002.038	CONDITIONER		11/2/18 11:43	183030010A	100.00
13378	15HERB18304002.039	HERB31824F	HERB3UK	11/2/18 12:16	1830499999	1.00
13378	15HERB18304002.040	HIBLKX1824B	HIBLKRT	11/2/18 12:49	1830499999	10.00
13378	15HERB18304002.041	9869111 F	E7801	11/2/18 13:22	183030010A	10.00
13378	15HERB18304002.042	9869111 F DF5	E7801	11/2/18 13:55	183030010A	50.00
13378	15HERB18304002.043	9870251 F	T1102	11/2/18 14:28	183030010A	10.00
13378	15HERB18304002.044	9870251 F DF5	T1102	11/2/18 15:01	183030010A	50.00
13378	15HERB18304002.045	9870252 F	T1103	11/2/18 15:34	183030010A	10.00
13378	15HERB18304002.046	9870252 F DF5	T1103	11/2/18 16:07	183030010A	50.00
13378	15HERB18304002.047	9870253 F DF10	T1104	11/2/18 16:40	183030010A	100.00
13378	15HERB18304002.048	CONDITIONER		11/2/18 17:13	183030010A	100.00
13378	15HERB18304002.049	9870254 F	T1105	11/2/18 17:46	183030010A	10.00
13378	15HERB18304002.050	9870254 F DF5	T1105	11/2/18 18:19	183030010A	50.00
13378	15HERB18304002.051	HERB31824F	HERB3UL	11/2/18 18:53	1830499999	1.00
13378	15HERB18304002.052	HIBLKX1824B	HIBLKRU	11/2/18 19:26	1830499999	10.00
13378	15HERB18304002.053	9872060 F DF10	12T02	11/2/18 19:59	183030010A	100.00
13378	15HERB18304002.054	CONDITIONER		11/2/18 20:32	183030010A	100.00
13378	15HERB18304002.055	9872061 F	12T03	11/2/18 21:05	183030010A	10.00
13378	15HERB18304002.056	CONDITIONER		11/2/18 21:38	183030010A	10.00

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304002.057	9872061 F DF5	12T03	11/2/18 22:11	183030010A	50.00
13378	15HERB18304002.058	9872062 F	12T04	11/2/18 22:44	183030010A	10.00
13378	15HERB18304002.059	CONDITIONER		11/2/18 23:17	183030010A	10.00
13378	15HERB18304002.060	9872062 F DF5	12T04	11/2/18 23:50	183030010A	50.00
13378	15HERB18304002.061	9866463	T0904	11/3/18 0:23	183030010A	10.00
13378	15HERB18304002.062	CONDITIONER		11/3/18 0:56	183030010A	10.00
13378	15HERB18304002.063	HERB31824F	HERB3UM	11/3/18 1:29	1830499999	1.00
13378	15HERB18304002.064	HIBLKX1824B	HIBLKRV	11/3/18 2:02	1830499999	10.00
13378	15HERB18304002.065	9872063 F DF5	12T05	11/3/18 2:35	183030010A	50.00
13378	15HERB18304002.066	9872064 F DF10	12T06	11/3/18 3:08	183030010A	100.00
13378	15HERB18304002.067	CONDITIONER		11/3/18 3:41	183030010A	100.00
13378	15HERB18304002.068	9872065 F DF10	12T07	11/3/18 4:14	183030010A	100.00
13378	15HERB18304002.069	CONDITIONER		11/3/18 4:47	183030010A	100.00
13378	15HERB18304002.070	HERB31824F	HERB3UN	11/3/18 5:20	1830499999	1.00
13378	15HERB18304002.071	HIBLKX1824B	HIBLKRW	11/3/18 5:53	1830499999	10.00

Eurofins Lancaster Laboratories
Pesticide Residue Analysis
Runlog for 15HERB18304004
Instrument CP15--19850A

Data Directory Path is - \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304004.001	CONDITIONER		11/6/18 8:10	1830999999	1.00
13378	15HERB18304004.002	CONDITIONER		11/6/18 8:43	1830999999	1.00
13378	15HERB18304004.003	CONDITIONER		11/6/18 9:16	1830999999	1.00
13378	15HERB18304004.004	CONDITIONER		11/6/18 9:49	1830999999	1.00
13378	15HERB18304004.005	HERB31824F	HERB3UV	11/6/18 10:22	1830999999	1.00
13378	15HERB18304004.006	HIBLKX1824B	HIBLKSE	11/6/18 10:55	1830999999	10.00
13378	15HERB18304004.007	BLANKA 10/29/18 RI	PBLK09302	11/6/18 14:36	183020009A	10.00
13378	15HERB18304004.008	9870992 RI F	02W03	11/6/18 15:09	183020009A	10.00
13378	15HERB18304004.009	LCSA 10/28/18 RI F	LCS34299	11/6/18 15:42	182990034A	10.00
13378	15HERB18304004.010	HERB31824F	HERB3UW	11/6/18 16:15	1830999999	1.00
13378	15HERB18304004.011	HIBLKX1824B	AA	11/6/18 16:48	1830999999	10.00
13378	15HERB18304004.012	BLANKA 11/5/18 F	PBLK33309	11/6/18 17:21	183090033A	10.00
13378	15HERB18304004.013	LCSA 11/5/18 F	LCS33309	11/6/18 17:54	183090033A	10.00
13378	15HERB18304004.014	9863853R F	GKP-4	11/6/18 18:27	183090033A	10.00
13378	15HERB18304004.015	9863854RMS F	GKP-4	11/6/18 19:01	183090033A	10.00
13378	15HERB18304004.016	9863855RMSD F	GKP-4	11/6/18 19:34	183090033A	10.00
13378	15HERB18304004.017	9863851R F	GKP-1	11/6/18 20:07	183090033A	10.00
13378	15HERB18304004.018	9863852R F	GKP-2	11/6/18 20:40	183090033A	10.00
13378	15HERB18304004.019	9863857R F	GKP-D	11/6/18 21:13	183090033A	10.00
13378	15HERB18304004.020	9863858R F	GKP-3	11/6/18 21:46	183090033A	10.00
13378	15HERB18304004.021	9881801 F	92E01	11/6/18 22:19	183090033A	10.00
13378	15HERB18304004.022	HERB31824F	HERB3UX	11/6/18 22:52	1830999999	1.00
13378	15HERB18304004.023	HIBLKX1824B	AA	11/6/18 23:25	1830999999	10.00
13378	15HERB18304004.024	9881804 F	92E04	11/6/18 23:58	183090033A	10.00
13378	15HERB18304004.025	9881807 F	92E07	11/7/18 0:31	183090033A	10.00
13378	15HERB18304004.026	BLANKA 11/1/18 RI F	PBLK15305	11/7/18 1:04	183050015A	10.00
13378	15HERB18304004.027	LCSA 11/1/18 RI F	LCS15305	11/7/18 1:37	183050015A	10.00
13378	15HERB18304004.028	9874412 F DF20	T1303	11/7/18 2:10	183050015A	200.00
13378	15HERB18304004.029	CONDITIONER		11/7/18 2:43	183050015A	200.00
13378	15HERB18304004.030	9874412MS F DF20	T1303MS	11/7/18 3:16	183050015A	200.00
13378	15HERB18304004.031	CONDITIONER		11/7/18 3:49	183050015A	200.00
13378	15HERB18304004.032	9874412MSD F DF2(	T1303MSD	11/7/18 4:22	183050015A	200.00
13378	15HERB18304004.033	CONDITIONER		11/7/18 4:55	183050015A	200.00
13378	15HERB18304004.034	HERB31824F	HERB3UY	11/7/18 5:28	1830999999	1.00
13378	15HERB18304004.035	HIBLKX1824B	HIBLKSH	11/7/18 6:01	1830999999	10.00
13378	15HERB18304004.036	9868565 RI F	3E671	11/7/18 6:34	183050015A	10.00
13378	15HERB18304004.037	9868566 RI F	3E531	11/7/18 7:07	183050015A	10.00
13378	15HERB18304004.038	9868567 RI F	3F422	11/7/18 7:40	183050015A	10.00
13378	15HERB18304004.039	9868568 F DF10	3E441	11/7/18 8:13	183050015A	100.00
13378	15HERB18304004.040	CONDITIONER		11/7/18 8:46	183050015A	100.00
13378	15HERB18304004.041	9868571 RI F DF10	E482-	11/7/18 9:19	183050015A	100.00
13378	15HERB18304004.042	CONDITIONER		11/7/18 9:52	183050015A	100.00
13378	15HERB18304004.043	9868571 F DF20	E482-	11/7/18 10:25	183050015A	200.00
13378	15HERB18304004.044	CONDITIONER		11/7/18 10:58	183050015A	200.00
13378	15HERB18304004.045	HERB31824F	HERB3UZ	11/7/18 11:31	1830999999	1.00
13378	15HERB18304004.046	HIBLKX1824B	HIBLKSI	11/7/18 12:04	1830999999	10.00
13378	15HERB18304004.047	9870637 RI F	E538-	11/7/18 12:37	183050015A	10.00
13378	15HERB18304004.048	9870639 F DF5	E575-	11/7/18 13:10	183050015A	50.00
13378	15HERB18304004.049	CONDITIONER		11/7/18 13:43	183050015A	50.00
13378	15HERB18304004.050	9870639 F DF10	E575-	11/7/18 14:16	183050015A	100.00
13378	15HERB18304004.051	9874411 F DF10	T1302	11/7/18 14:49	183050015A	100.00
13378	15HERB18304004.052	CONDITIONER		11/7/18 15:22	183050015A	100.00
13378	15HERB18304004.054	9874413 RI F DF5	T1304	11/7/18 16:13	183050015A	50.00
13378	15HERB18304004.055	CONDITIONER		11/7/18 16:46	183050015A	50.00
13378	15HERB18304004.056	HERB31824F	HERB3VA	11/7/18 17:19	1830999999	1.00
13378	15HERB18304004.057	HIBLKX1824B	HIBLKSJ	11/7/18 17:52	1830999999	10.00

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304004.058	9875251 RI F	36831	11/7/18 18:25	183050015A	10.00
13378	15HERB18304004.059	BLANKA 11/2/18 F	PBLK43305	11/7/18 18:58	183050043A	10.00
13378	15HERB18304004.060	LCSA 11/2/18 F	LCS43305	11/7/18 19:31	183050043A	10.00
13378	15HERB18304004.061	9876334 F	14T04	11/7/18 20:04	183050043A	10.00
13378	15HERB18304004.062	9876335MS F	14T04	11/7/18 20:37	183050043A	10.00
13378	15HERB18304004.063	9876336MSD F	14T04	11/7/18 21:10	183050043A	10.00
13378	15HERB18304004.064	9876332 F	14T02	11/7/18 21:43	183050043A	10.00
13378	15HERB18304004.065	9876342 F	14T06	11/7/18 22:16	183050043A	10.00
13378	15HERB18304004.066	HERB31824F	HERB3VB	11/7/18 22:49	1830999999	1.00
13378	15HERB18304004.067	HIBLKX1824B	HIBLKSK	11/7/18 23:22	1830999999	10.00
13378	15HERB18304004.068	BLANKA 10/28/18 RI	PBLK34299	11/7/18 23:55	182990034A	10.00
13378	15HERB18304004.069	9860859 F DF5	02375	11/8/18 0:28	182990034A	50.00
13378	15HERB18304004.070	CONDITIONER		11/8/18 1:01	182990034A	50.00
13378	15HERB18304004.071	HERB31824F	HERB3VG	11/8/18 1:34	1831099999	1.00
13378	15HERB18304004.072	HIBLKX1824B	HIBLKSP	11/8/18 2:07	1831099999	10.00
13378	15HERB18304004.073	9866461 F DF5	T0902	11/8/18 2:40	183020009A	50.00
13378	15HERB18304004.074	9866462 F DF5	T0903	11/8/18 3:13	183020009A	50.00
13378	15HERB18304004.075	9863858R F DF200	GKP-3	11/8/18 3:46	183090033A	2,000.00
13378	15HERB18304004.076	BLANKA 11/4/18 F	PBLK17306	11/8/18 4:19	183060017A	10.00
13378	15HERB18304004.077	LCSA 11/4/18 F	LCS17306	11/8/18 4:52	183060017A	10.00
13378	15HERB18304004.078	9879191 F DF100	LS754	11/8/18 5:25	183060017A	1,000.00
13378	15HERB18304004.079	CONDITIONER		11/8/18 5:58	183060017A	1,000.00
13378	15HERB18304004.080	9879191 F DF1000	LS754	11/8/18 6:31	183060017A	10,000.00
13378	15HERB18304004.081	CONDITIONER		11/8/18 7:04	183060017A	10,000.00
13378	15HERB18304004.082	HERB31824F	HERB3VH	11/8/18 7:37	1831099999	1.00
13378	15HERB18304004.083	HIBLKX1824B	HIBLKSQ	11/8/18 8:10	1831099999	10.00
13378	15HERB18304004.084	9879191 F DF2000	LS754	11/8/18 8:43	183060017A	20,000.00
13378	15HERB18304004.085	CONDITIONER		11/8/18 9:16	183060017A	20,000.00
13378	15HERB18304004.086	9879191 F DF5000	LS754	11/8/18 9:49	183060017A	50,000.00
13378	15HERB18304004.087	CONDITIONER		11/8/18 10:22	183060017A	50,000.00
13378	15HERB18304004.088	BLANKA 11/4/18 F	PBLK13306	11/8/18 10:55	183060013A	10.00
13378	15HERB18304004.089	LCSA 11/4/18 F	LCS13306	11/8/18 11:28	183060013A	10.00
13378	15HERB18304004.090	9879191 F DF100	LS754	11/8/18 12:01	183060013A	1,000.00
13378	15HERB18304004.091	CONDITIONER		11/8/18 12:34	183060013A	1,000.00
13378	15HERB18304004.092	9879191 F DF1000	LS754	11/8/18 13:07	183060013A	10,000.00
13378	15HERB18304004.093	CONDITIONER		11/8/18 13:40	183060013A	10,000.00
13378	15HERB18304004.094	HERB31824F	HERB3VI	11/8/18 14:13	1831099999	1.00
13378	15HERB18304004.095	HIBLKX1824B	HIBLKSR	11/8/18 14:46	1831099999	10.00
13378	15HERB18304004.096	9879191 F DF2000	LS754	11/8/18 15:24	183060013A	20,000.00
13378	15HERB18304004.097	CONDITIONER		11/8/18 15:57	183060013A	20,000.00
13378	15HERB18304004.098	9879191 F DF5000	LS754	11/8/18 16:30	183060013A	50,000.00
13378	15HERB18304004.099	CONDITIONER		11/8/18 17:03	183060013A	50,000.00
13378	15HERB18304004.100	BLANKA 11/4/18 F	PBLK12306	11/8/18 17:36	183060012A	10.00
13378	15HERB18304004.101	LCSA 11/4/18 F	LCS12306	11/8/18 18:09	183060012A	10.00
13378	15HERB18304004.102	9879192 F	L7551	11/8/18 18:42	183060012A	10.00
13378	15HERB18304004.103	9879193MS F	L7551	11/8/18 19:15	183060012A	10.00
13378	15HERB18304004.104	9879194MSD F	L7551	11/8/18 19:48	183060012A	10.00
13378	15HERB18304004.105	9879196 F	L7552	11/8/18 20:21	183060012A	10.00
13378	15HERB18304004.106	HERB31824F	HERB3VJ	11/8/18 20:54	1831099999	1.00
13378	15HERB18304004.107	HIBLKX1824B	HIBLKSS	11/8/18 21:27	1831099999	10.00
13378	15HERB18304004.108	BLANKA 11/4/18	PBLK18306	11/8/18 22:00	183060018A	10.00
13378	15HERB18304004.109	LCSA 11/4/18	LCS18306	11/8/18 22:33	183060018A	10.00
13378	15HERB18304004.110	9879192	L7551	11/8/18 23:06	183060018A	10.00
13378	15HERB18304004.111	9879193MS	L7551	11/8/18 23:39	183060018A	10.00
13378	15HERB18304004.112	9879194MSD	L7551	11/9/18 0:12	183060018A	10.00
13378	15HERB18304004.113	9879196	L7552	11/9/18 0:45	183060018A	10.00
13378	15HERB18304004.114	HERB31824F	HERB3VK	11/9/18 1:18	1831099999	1.00
13378	15HERB18304004.115	HIBLKX1824B	HIBLKST	11/9/18 1:51	1831099999	10.00
13378	15HERB18304004.116	9870252 F DF50	T1103	11/9/18 2:24	183030010A	500.00
13378	15HERB18304004.117	9870253 F DF50	T1104	11/9/18 2:57	183030010A	500.00
13378	15HERB18304004.118	9870254 F DF50	T1105	11/9/18 3:30	183030010A	500.00
13378	15HERB18304004.119	9872060 F DF100	12T02	11/9/18 4:03	183030010A	1,000.00

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	15HERB18304004.120	9872061 F DF100	12T03	11/9/18 4:36	183030010A	1,000.00
13378	15HERB18304004.121	9872062 F DF100	12T04	11/9/18 5:09	183030010A	1,000.00
13378	15HERB18304004.122	9872064 F DF100	12T06	11/9/18 5:42	183030010A	1,000.00
13378	15HERB18304004.123	HERB31824F	HERB3VT	11/9/18 6:16	1831199999	1.00
13378	15HERB18304004.124	HIBLKX1824B	HIBLKTC	11/9/18 6:49	1831199999	10.00
13378	15HERB18304004.125	BLANKA 11/6/18 F	PBLK05310	11/9/18 7:22	183100005A	10.00
13378	15HERB18304004.126	LCSA 11/6/18 F	LCS05310	11/9/18 7:55	183100005A	10.00
13378	15HERB18304004.127	LCSDA 11/6/18 F	LCSD05310	11/9/18 8:28	183100005A	10.00
13378	15HERB18304004.128	9881309 F	15T-2	11/9/18 9:01	183100005A	10.00
13378	15HERB18304004.129	9881310 F	15T-3	11/9/18 9:34	183100005A	10.00
13378	15HERB18304004.130	9881313 F	15T-6	11/9/18 10:07	183100005A	10.00
13378	15HERB18304004.131	9882870 F	PR-22	11/9/18 10:40	183100005A	10.00
13378	15HERB18304004.132	9882871 F	PR-24	11/9/18 11:13	183100005A	10.00
13378	15HERB18304004.133	9882872 F	PR-25	11/9/18 11:46	183100005A	10.00
13378	15HERB18304004.134	9882873 F	PR-26	11/9/18 12:19	183100005A	10.00
13378	15HERB18304004.135	HERB31824F	HERB3VU	11/9/18 12:52	1831199999	1.00
13378	15HERB18304004.136	HIBLKX1824B	HIBLKTD	11/9/18 13:25	1831199999	10.00
13378	15HERB18304004.137	9882874 F	PR-13	11/9/18 13:58	183100005A	10.00
13378	15HERB18304004.138	9882875 F	PR-04	11/9/18 14:31	183100005A	10.00
13378	15HERB18304004.139	9882876 F	PRFB4	11/9/18 15:04	183100005A	10.00
13378	15HERB18304004.140	HERB31824F	HERB3VV	11/9/18 15:37	1831199999	1.00
13378	15HERB18304004.141	HIBLKX1824B	HIBLKTE	11/9/18 16:11	1831199999	10.00

Eurofins Lancaster Laboratories
Pesticide Residue Analysis
Runlog for 24HERB18311005
Instrument CP24--18273A

Data Directory Path is - \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\

Operator	File	LLI#	Client ID	Analysis Date	Batch	Dilution Factor
13378	24HERB18311005.001	CONDITIONER		11/15/18 10:45	1831899999	1.00
13378	24HERB18311005.002	CONDITIONER		11/15/18 11:18	1831899999	1.00
13378	24HERB18311005.003	CONDITIONER		11/15/18 11:51	1831899999	1.00
13378	24HERB18311005.004	CONDITIONER		11/15/18 12:24	1831899999	1.00
13378	24HERB18311005.005	HERB31824F	HERB3WR	11/15/18 12:57	1831899999	1.00
13378	24HERB18311005.006	HIBLKX1824B	HIBLKUA	11/15/18 13:30	1831899999	10.00
13378	24HERB18311005.007	BLANKA 11/14/18 F	PBLK14318	11/15/18 14:03	183180014A	10.00
13378	24HERB18311005.008	LCSA 11/14/18 F	LCS14318	11/15/18 14:36	183180014A	10.00
13378	24HERB18311005.009	LCSDA 11/14/18 F	LCSD14318	11/15/18 15:09	183180014A	10.00
13378	24HERB18311005.010	9892503 F	HFMSN	11/15/18 15:42	183180014A	10.00
13378	24HERB18311005.011	9893888 F	30188	11/15/18 16:15	183180014A	10.00
13378	24HERB18311005.012	9894746 F	PALDN	11/15/18 16:48	183180014A	10.00
13378	24HERB18311005.013	9895499 F	ALLH2	11/15/18 17:21	183180014A	10.00
13378	24HERB18311005.014	9896184 F	31769	11/15/18 17:54	183180014A	10.00
13378	24HERB18311005.015	9896186 F	31647	11/15/18 18:27	183180014A	10.00
13378	24HERB18311005.016	BLANKA 11/13/18 F	PBLK28317	11/15/18 19:00	183170028A	10.00
13378	24HERB18311005.017	HERB31824F	HERB3WS	11/15/18 19:33	1831899999	1.00
13378	24HERB18311005.018	HIBLKX1824B	HIBLKUB	11/15/18 20:06	1831899999	10.00
13378	24HERB18311005.019	LCSA 11/13/18 F	LCS28317	11/15/18 20:39	183170028A	10.00
13378	24HERB18311005.020	LCSDA 11/13/18 F	LCSD28317	11/15/18 21:12	183170028A	10.00
13378	24HERB18311005.021	9885305 F	776-2	11/15/18 21:46	183170028A	10.00
13378	24HERB18311005.022	9885308 F	776-5	11/15/18 22:19	183170028A	10.00
13378	24HERB18311005.023	9885720 F	12513	11/15/18 22:52	183170028A	10.00
13378	24HERB18311005.024	9885724 F	12517	11/15/18 23:25	183170028A	10.00
13378	24HERB18311005.025	9887906 F	G8802	11/15/18 23:58	183170028A	10.00
13378	24HERB18311005.026	9889801 F	FDM02	11/16/18 0:31	183170028A	10.00
13378	24HERB18311005.027	9889814 F	4X-02	11/16/18 1:04	183170028A	10.00
13378	24HERB18311005.028	9889879 F	S4602	11/16/18 1:37	183170028A	10.00
13378	24HERB18311005.029	HERB31824F	HERB3WT	11/16/18 2:10	1831899999	1.00
13378	24HERB18311005.030	HIBLKX1824B	HIBLKUC	11/16/18 2:43	1831899999	10.00
13378	24HERB18311005.031	9891811 F	94715	11/16/18 3:16	183170028A	10.00
13378	24HERB18311005.032	9872060 F DF200	12T02	11/16/18 3:49	183030010A	2,000.00
13378	24HERB18311005.033	9872060 F DF500	12T02	11/16/18 4:22	183030010A	5,000.00
13378	24HERB18311005.034	9872061 F DF200	12T03	11/16/18 4:55	183030010A	2,000.00
13378	24HERB18311005.035	9872061 F DF500	12T03	11/16/18 5:29	183030010A	5,000.00
13378	24HERB18311005.036	9872062 F DF200	12T04	11/16/18 6:02	183030010A	2,000.00
13378	24HERB18311005.037	9872062 F DF500	12T04	11/16/18 6:35	183030010A	5,000.00
13378	24HERB18311005.038	HERB31824F	HERB3WU	11/16/18 7:08	1831899999	1.00
13378	24HERB18311005.039	HIBLKX1824B	HIBLKUD	11/16/18 7:41	1831899999	10.00

Sample Data

Herbicides

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Data Summary

Sample Name: 9872060 F DF200 12T02 Sample ID: AE **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 2000 ml Analyst: 120 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on Nov 16, 2018 03:49:47
Instrument 18273A
Result file 24HERB18311005.032.RAW
Calibration file 24HERB1831101
Method file 24HERB

%SSR(DCAA) * 1031% (27 - 122) Conc: 687.6469

Analysis Report (B)

Injected on Nov 16, 2018 03:49:47
Instrument 18273B
Result file 24HERB18311005B.032.RAW
Calibration file 24HERB1831101B
Method file 24HERBB

%SSR(DCAA) * 2892% (27 - 122) Conc: 1927.984

Single Component Data

Compound	Min	RT	Max	Height	Amount	Compound	Min	RT	Max	Height	Amount
2,4-DCAA	9.87	9.89	9.93	189954	687.6469	2,4-DCAA	10.82	10.82	10.88	380661	1927.984
MCPP (Mecoprop)	10.42	10.46	10.48	867246	1228980	Dicamba	11.17	11.20	11.23	35925	40.48584
MCPA	10.80	10.81	10.86	75818	73438.77	MCPP (Mecoprop)	11.26	11.30	11.32	84734	142479.7
2,4-D	11.82	11.87	11.88	33161	127.5053	MCPA	11.78	11.82	11.84	81727	93353.53
Pentachlorophenol	12.91	12.94	12.97	194777	52.12446	2,4-DP (Dichloroprop)	12.29	12.31	12.35	513884	2954.009
2,4,5-TP	13.29	13.33	13.35	57856	42.51155	Pentachlorophenol	13.51	13.52	13.57	298396	116.4307
2,4,5-T	13.82	13.84	13.88	17746	15.65207	2,4,5-TP	14.10	14.14	14.16	6166478	6512.644
2,4-DB	14.65	14.68	14.71	55774	383.308	2,4,5-T	14.80	14.84	14.86	11413	14.47475
Dinoseb	14.84	14.89	14.90	94853	413.1461	Dinoseb	15.22	15.24	15.28	11694	63.57782
Hexachlorophene	23.98	24.01	24.04	8002	8.533148	2,4-DB	15.51	15.55	15.57	47770	472.2243
						Picloram	17.75	17.75	17.81	13003	21.47267

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<8800	<17600	<18000	D1		
☐	2,4-DCAA	A	687.6469	667	<1334	<1334	JP	94.84	
☑	2,4-DCAA-D1	A	687.6469	667	<1334	<1334	J		
☑	2,4-DCAA-D2	B	1927.984	667	1334	1334			
☑	Dicamba			<800	<1600	<2400	D1		
☑	MCPP (Mecoprop)			<760000	<1520000	<1540000	D2		
☑	MCPA			<152000	<304000	<500000	D1		
☑	2,4-DP (Dichloroprop)			<1800	<3600	<4000	D1		
☑	2,4-D			<2400	<4800	<7200	D2		
☐	Pentachlorophenol			<66	<132	<340			
☑	2,4,5-TP			<150	<300	<340	D1		
☑	2,4,5-T			<164	<328	<340	D2		
☑	2,4-DB			<1960	<4000	<4200	D1		
☑	Dinoseb			<1800	<3600	<4800	D2		
☐	Picloram			<4000	<8000	<8200			
☐	Hexachlorophene					<4800			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Tomayko
Principal Specialist

NOV 16 2018

Reviewed and digitally signed by Richard A Shober on 11/16/2018 09:03:45

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **9872060** F DF200 12T02 ID: AE **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 2000 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 16, 2018 03:49:47
Instrument : CP24--18273A
Result file : 24HERB18311005.032.RAW
Calibration file : 24HERB1831101.CAL
Method file : 24HERB.MET

%SSR(DCAA) : *1031% (27-122) Conc.: 687.6469

Peak name	Min	R.T.	Max	Height	Amount
DCAA	9.87	9.89	9.93	189954	687.646900
MCPP	10.42	10.46	10.48	867246	1228980.000000
MCPA	10.80	10.81	10.86	75818	73438.770000
2,4-D	11.82	11.87	11.88	33161	127.505300
DBOFB	12.18	12.21	12.24	12102020	0.033333
PCP	12.91	12.94	12.97	194777	52.124460
2,4,5-TP	13.29	13.33	13.35	57856	42.511550
2,4,5-T	13.82	13.84	13.88	17746	15.652070
2,4-DB	14.65	14.68	14.71	55774	383.308000
DINOSEB	14.84	14.89	14.90	94853	413.146100
Hexachlorophene	23.98	24.01	24.04	8002	8.533148

Analysis Report (B)

Injected on : Nov 16, 2018 03:49:47
Instrument : CP24--18273B
Result file : 24HERB18311005B.032.RAW
Calibration file : 24HERB1831101B.CAL
Method file : 24HERBB.MET

%SSR(DCAA) : *2892% (27-122) Conc.: 1927.984

Peak name	Min	R.T.	Max	Height	Amount
DCAA	10.82	10.82	10.88	380661	1927.984000
DICAMBA	11.17	11.20	11.23	35925	40.485840
MCPP	11.26	11.30	11.32	84734	142479.700000
MCPA	11.78	11.82	11.84	81727	93353.530000
DBOFB	12.06	12.09	12.12	9000708	0.033333
2,4-DP	12.29	12.31	12.35	513884	2954.009000
PCP	13.51	13.52	13.57	298396	116.430700
2,4,5-TP	14.10	14.14	14.16	6166478	6512.644000
2,4,5-T	14.80	14.84	14.86	11413	14.474750
DINOSEB	15.22	15.24	15.28	11694	63.577820
2,4-DB	15.51	15.55	15.57	47770	472.224300
Picloram	17.75	17.75	17.81	13003	21.472670

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon			<18000	<8800			
☐ DCAA	A	687.646900	<1334	667	J	94.84	**
☑ DICAMBA			<2400	<800			
☑ MCPP			<1540000	<760000			
☑ MCPA			<500000	<152000			
☑ 2,4-DP			<4000	<1800			
☑ 2,4-D			<7200	<2400			
☐ DBOFB	A	0.033333				0.00	
☐ PCP			<340	<66			
☑ 2,4,5-TP			<340	<150			
☑ 2,4,5-T			<340	<164			
☑ 2,4-DB			<4200	<1960			
☑ DINOSEB			<4800	<1800			
☐ Picloram			<8200	<4000			
☐ Hexachlorophene			<4800				

Units: ug/kg

Valerie L. Tomayko
Principal Specialist

Reviewed by: JHAM
Date: 11/16/18

Verified by:
Date: NOV 16 2018

Diluted for matrix

%RPD = High - Low Amount divided by the Average times 100
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Higher Amount Found unless RPD > 40

9872060 F DF200 AE12T02 T 183030010A 10401 SW-846 8151A

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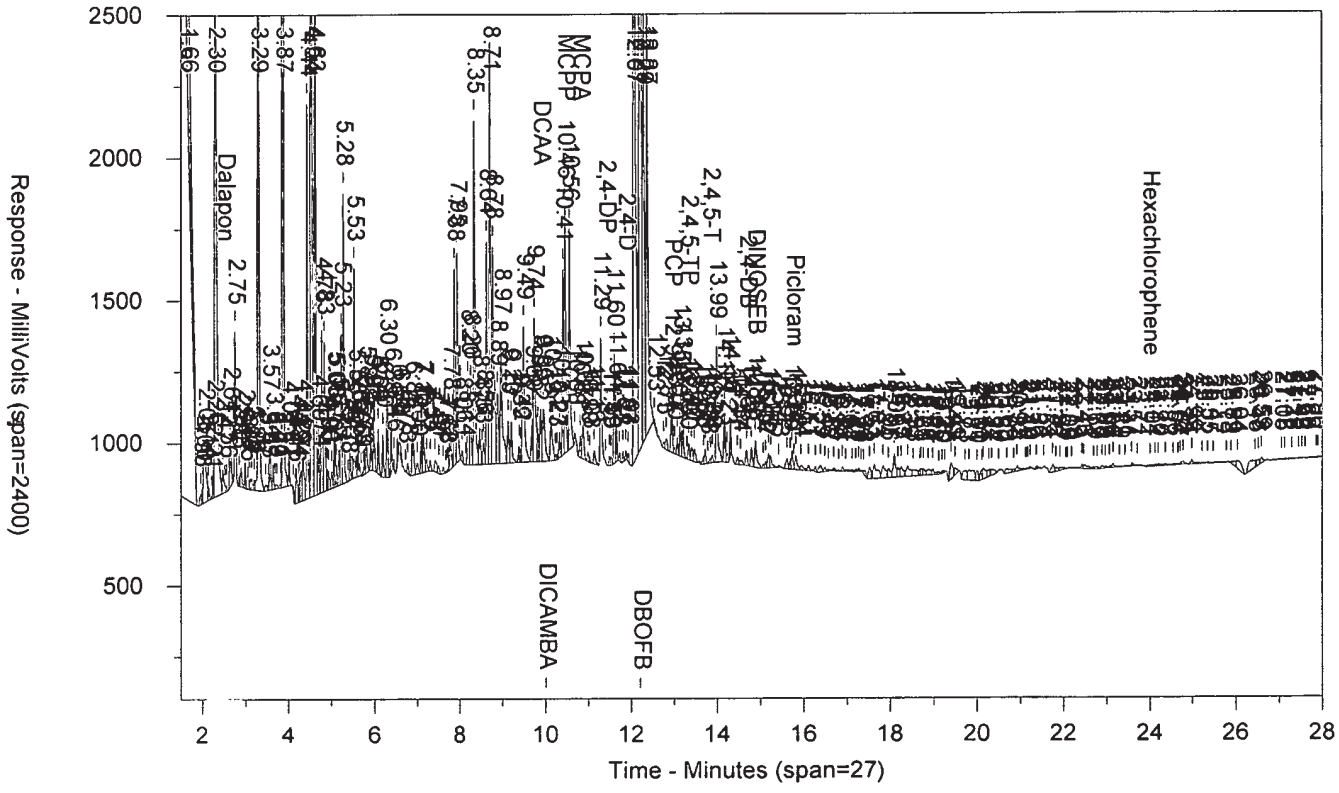

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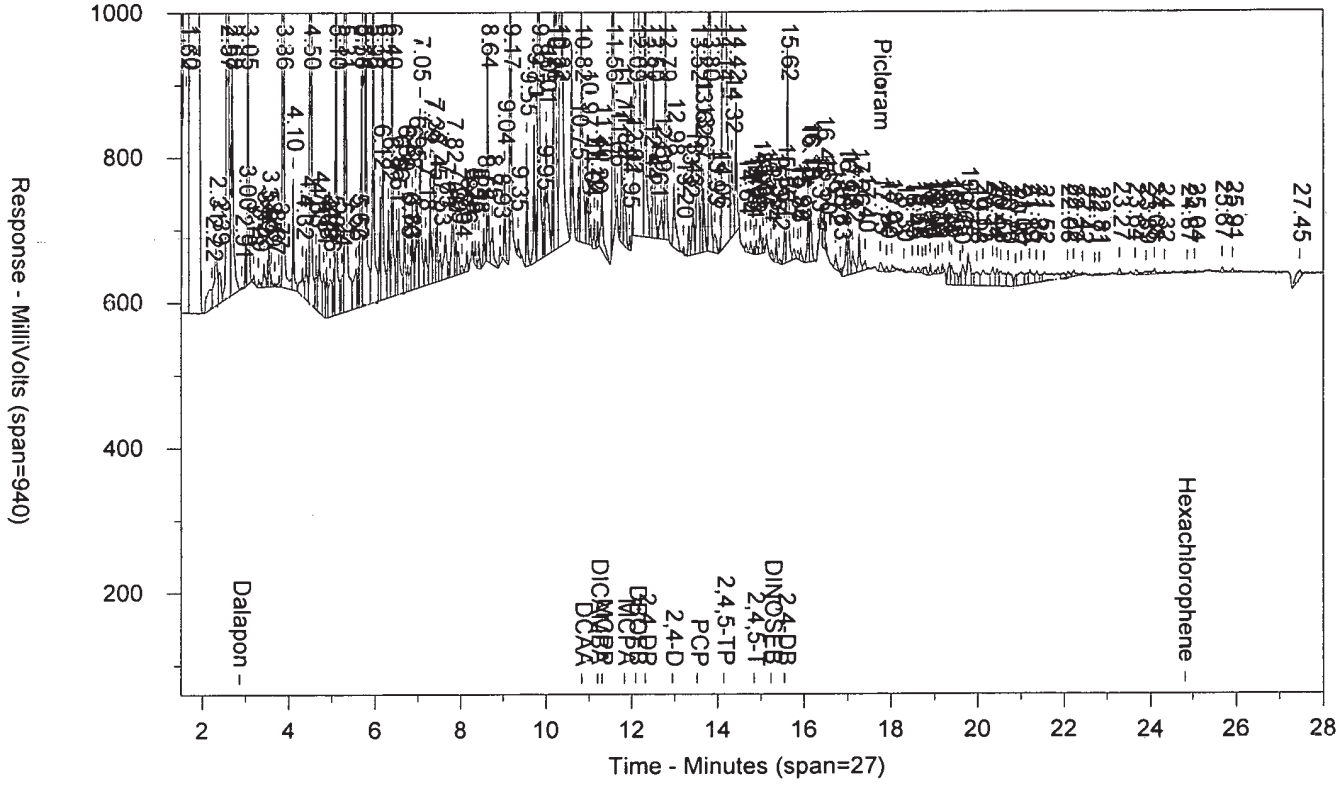

LANCASTER LABORATORIES

Sample Number: 9872060 F DF200 AE12T02 T 183030010A 10401 Sample Weight: 30 SW-846 8151A
Injected On: 11/16/2018 3:49:47 AM Dilution Factor: 2000
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
9.885	189954	687.647	DCAA	10.824	380661	1927.984	DCAA
10.457	867246	1228980	MCPP	11.304	84734	142479.7	MCPP
10.81	75818	73438.77	MCPA	11.824	81727	93353.53	MCPA
	0		DICAMBA	11.199	35925	40.486	DICAMBA
11.868	33161	127.505	2,4-D		0		2,4-D
12.208	12102020	.033	DBOFB	12.09	9000708	.033	DBOFB
	0		2,4-DP	12.309	513884	2954.009	2,4-DP
12.938	194777	52.124	PCP	13.52	298396	116.431	PCP
13.334	57856	42.512	2,4,5-TP	14.138	6166478	6512.644	2,4,5-TP
13.841	17746	15.652	2,4,5-T	14.837	11413	14.475	2,4,5-T
14.68	55774	383.308	2,4-DB	15.546	47770	472.224	2,4-DB
14.887	94853	413.146	DINOSEB	15.237	11694	63.578	DINOSEB
	0		Picloram	17.754	13003	21.473	Picloram
24.006	8002	8.533	Hexachlorophene		0		Hexachlorophen

Files:
Area File: 24herb18311005.032.RAW
Area File: 24herb18311005B.032.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 4:18:36 AM
File Reported On: 11/16/2018 at 7:29:44 AM

9872060 F DF200 AE12T02 T 183030010A 10401 SW-846 8151A

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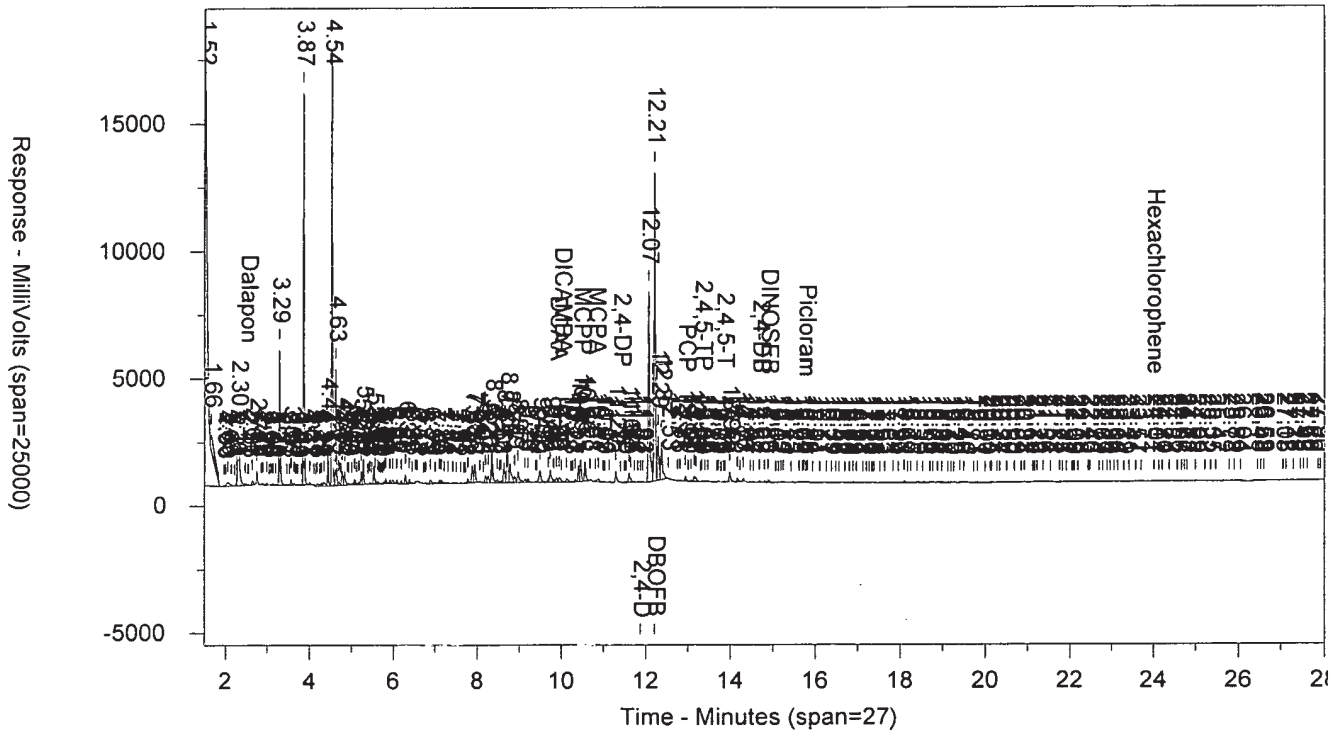

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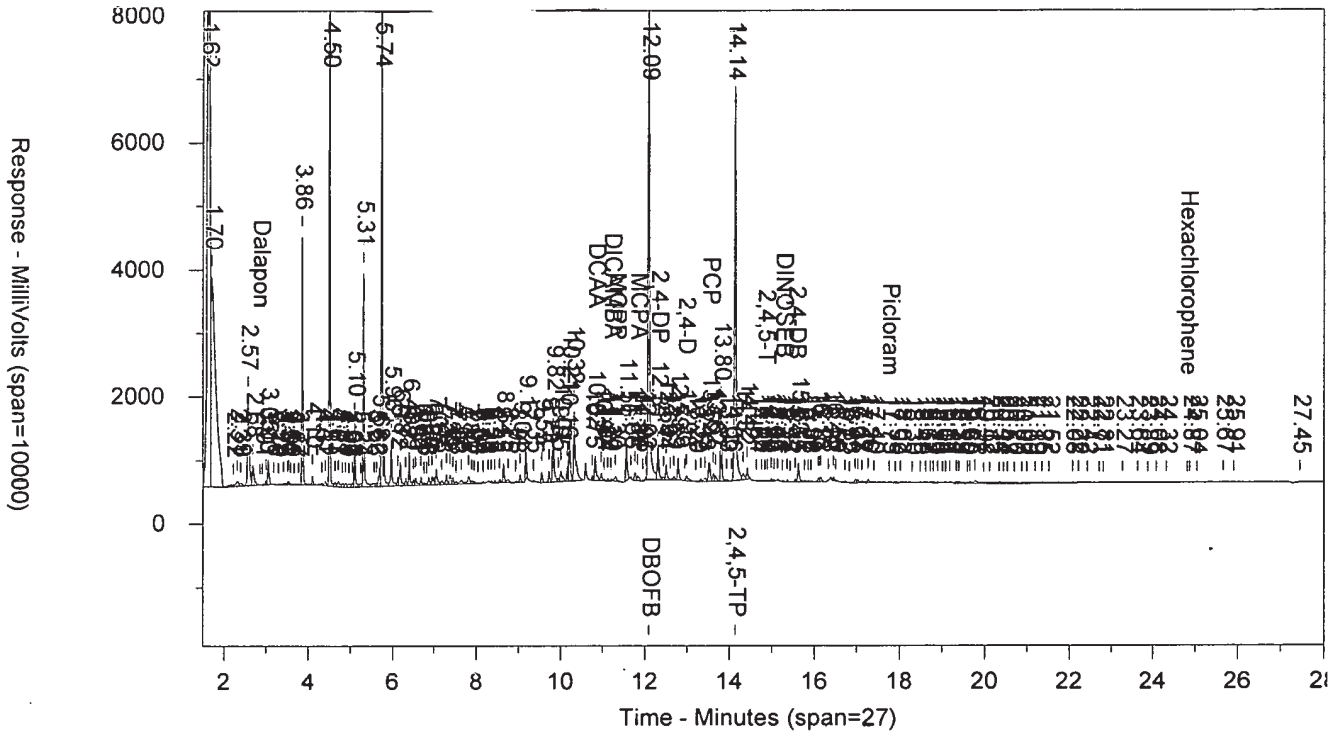

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Data Summary

Sample Name: 9872061 F DF200 12T03 Sample ID: AE **Batchnumber: 183030010A**
Sample Amount: 30.02 g Total Volume: 2000 ml Analyst: 120 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on Nov 16, 2018 04:55:59
Instrument 18273A
Result file 24HERB18311005.034.RAW
Calibration file 24HERB1831101
Method file 24HERB

%SSR(DCAA) * 801% (27 - 122) Conc: 533.9261

Analysis Report (B)

Injected on Nov 16, 2018 04:55:59
Instrument 18273B
Result file 24HERB18311005B.034.RAW
Calibration file 24HERB1831101B
Method file 24HERBB

%SSR(DCAA) * 1127% (27 - 122) Conc: 751.0403

Single Component Data

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	9.87	9.88	9.93	146082	533.9261
MCPP (Mecoprop)	10.42	10.46	10.48	525031	751198.5
MCPA	10.80	10.82	10.86	25443	24882.5
2,4-D	11.82	11.85	11.88	48408	187.9228
Pentachlorophenol	12.91	12.94	12.97	242088	65.40996
2,4,5-TP	13.29	13.34	13.35	21663	16.0712
2,4,5-T	13.82	13.84	13.88	3947	3.514393
2,4-DB	14.65	14.68	14.71	24264	168.3634
Dinoseb	14.84	14.89	14.90	17731	77.97306
Hexachlorophene	23.98	24.00	24.04	8833	9.509706

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	10.82	10.87	10.88	147396	751.0403
Dicamba	11.17	11.20	11.23	74847	84.85881
MCPP (Mecoprop)	11.26	11.31	11.32	279615	473008.9
MCPA	11.78	11.83	11.84	54604	62748.93
2,4-DP (Dichloroprop)	12.29	12.31	12.35	282979	1636.494
Pentachlorophenol	13.51	13.54	13.57	193639	76.01164
2,4,5-TP	14.10	14.14	14.16	6121550	6504.216
2,4,5-T	14.80	14.84	14.86	9876	12.60143
Dinoseb	15.22	15.27	15.28	110649	605.2206
2,4-DB	15.51	15.55	15.57	10753	106.9442
Picloram	17.75	17.78	17.81	4998	8.303017

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<8794.1375	<17588.2749	<17988.0084	D1		
☐	2,4-DCAA	B	751.0403	666.5556	<1333.1113	<1333.1113	J	33.79	
☑	2,4-DCAA-D1	A	533.9261	<666.5556	<1333.1113	<1333.1113	J		
☑	2,4-DCAA-D2	B	751.0403	666.5556	<1333.1113	<1333.1113	J		
☑	Dicamba			<799.467	<1598.9341	<2398.4011	D1		
☑	MCPP (Mecoprop)			<759493.689	<1518987.377	<1538974.054	D2		
☑	MCPA			<151898.7378	<303797.4756	<499666.9006	D1		
☑	2,4-DP (Dichloroprop)			<1798.8008	<3597.6017	<3997.3352	D1		
☑	2,4-D			<2398.4011	<4796.8022	<7195.2034	D2		
☐	Pentachlorophenol			<65.956	<131.9121	<339.7735			
☑	2,4,5-TP			<149.9001	<299.8001	<339.7735	D1		
☑	2,4,5-T			<163.8907	<327.7815	<339.7735	D1		
☑	2,4-DB			<1958.6943	<3997.3352	<4197.202	D2		
☑	Dinoseb			<1798.8008	<3597.6017	<4796.8022	D1		
☐	Picloram			<3997.3352	<7994.6704	<8194.5372			
☐	Hexachlorophene					<4796.8022			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Tomayko
Principal Specialist

NOV 16 2018

Reviewed and digitally signed by Richard A Shober on 11/16/2018 09:03:47

Eurofins Lancaster Laboratories Single Component Data Summary

Sample Name: **9872061** F DF200 12T03 ID: AE **Batchnumber: 183030010A**
Sample Amount: 30.02 g Total Volume: 2000 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 16, 2018 04:55:59
Instrument : CP24--18273A
Result file : 24HERB18311005.034.RAW
Calibration file : 24HERB1831101.CAL
Method file : 24HERB.MET
%SSR(DCAA) : *801% (27-122) Conc.: 533.9261

Peak name	Min	R.T.	Max	Height	Amount
DCAA	9.87	9.88	9.93	146082	533.926100
MCPP	10.42	10.46	10.48	525031	751198.500000
MCPA	10.80	10.82	10.86	25443	24882.500000
2,4-D	11.82	11.85	11.88	48408	187.922800
DBOFB	12.18	12.21	12.24	11978460	0.033311
PCP	12.91	12.94	12.97	242088	65.409960
2,4,5-TP	13.29	13.34	13.35	21663	16.071200
2,4,5-T	13.82	13.84	13.88	3947	3.514393
2,4-DB	14.65	14.68	14.71	24264	168.363400
DINOSEB	14.84	14.89	14.90	17731	77.973060
Hexachlorophene	23.98	24.00	24.04	8833	9.509706

Analysis Report (B)

Injected on : Nov 16, 2018 04:55:59
Instrument : CP24--18273B
Result file : 24HERB18311005B.034.RAW
Calibration file : 24HERB1831101B.CAL
Method file : 24HERBB.MET
%SSR(DCAA) : *1127% (27-122) Conc.: 751.0403

Peak name	Min	R.T.	Max	Height	Amount
DCAA	10.82	10.87	10.88	147396	751.040300
DICAMBA	11.17	11.20	11.23	74847	84.858810
MCPP	11.26	11.31	11.32	279615	473008.900000
MCPA	11.78	11.83	11.84	54604	62748.930000
DBOFB	12.06	12.09	12.12	8940748	0.033311
2,4-DP	12.29	12.31	12.35	282979	1636.494000
PCP	13.51	13.54	13.57	193639	76.011640
2,4,5-TP	14.10	14.14	14.16	6121550	6504.216000
2,4,5-T	14.80	14.84	14.86	9876	12.601430
DINOSEB	15.22	15.27	15.28	110649	605.220600
2,4-DB	15.51	15.55	15.57	10753	106.944200
Picloram	17.75	17.78	17.81	4998	8.303017

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
✓ Dalapon			<17988.007	<8794.1368			
☐ DCAA			<1333.1112	<666.5556			
☑ DICAMBA			<2398.4009	<799.467			
☑ MCPP			38973.9365	759493.631			
☑ MCPA			99666.8625	51898.7262			
☑ 2,4-DP			<3997.3349	<1798.8007			
☑ 2,4-D			<7195.2028	<2398.4009			
☐ DBOFB	A	0.033311				0.00	
☐ PCP			<339.7735	<65.956			
☑ 2,4,5-TP			<339.7735	<149.9001			
☑ 2,4,5-T			<339.7735	<163.8907			
☑ 2,4-DB			<4197.2016	<1958.6941			
☑ DINOSEB			<4796.8019	<1798.8007			
☐ Picloram			<8194.5365	<3997.3349			
☐ Hexachlorophene			<4796.8019				

Units: ug/kg

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____
Date: 11/16/18 Date: NOV 16 2018

DILUTION FOR MATRIX

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

9872061 F DF200 AE12T03 T 183030010A 10401 SW-846 8151A

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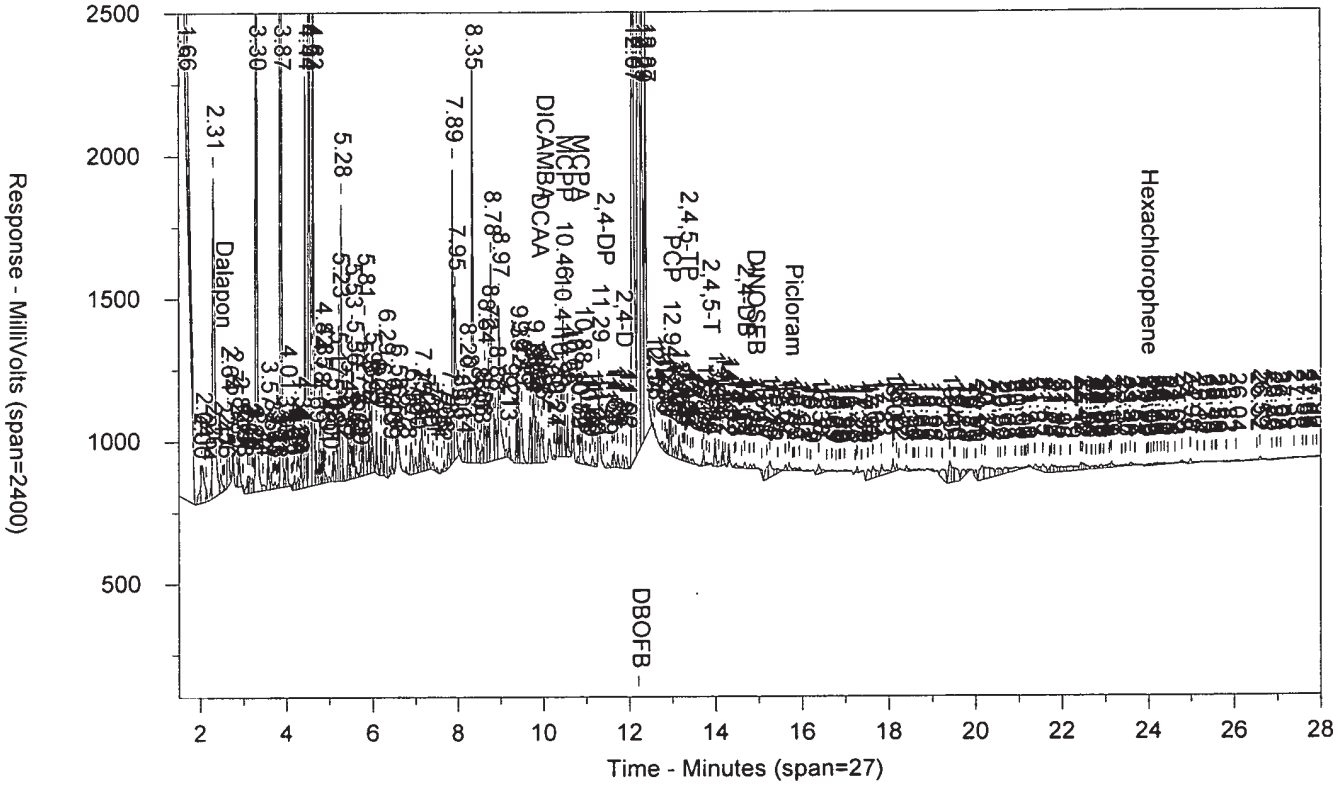

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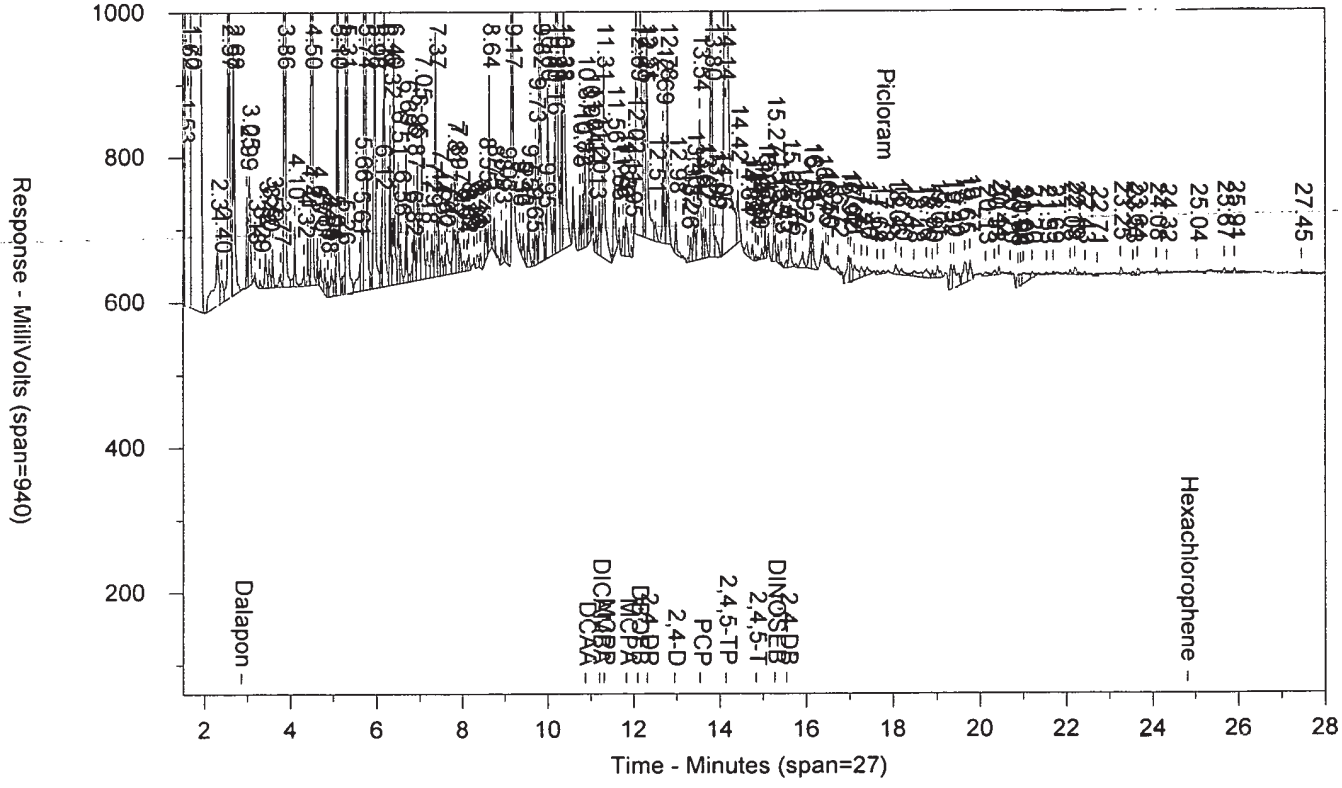

LANCASTER LABORATORIES

Sample Number: 9872061 F DF200 AE12T03 T 183030010A 10401 Sample Weight: 30.02 SW-846 8151A
Injected On: 11/16/2018 4:55:59 AM Dilution Factor: 2000
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
9.88	146082	533.926	DCAA	10.874	147396	751.04	DCAA
10.458	525031	751198.5	MCPP	11.308	279615	473008.9	MCPP
10.817	25443	24882.5	MCPA	11.825	54604	62748.93	MCPA
	0		DICAMBA	11.201	74847	84.859	DICAMBA
11.845	48408	187.923	2,4-D		0		2,4-D
12.207	11978460	.033	DBOFB	12.089	8940748	.033	DBOFB
	0		2,4-DP	12.31	282979	1636.494	2,4-DP
12.938	242088	65.41	PCP	13.537	193639	76.012	PCP
13.343	21663	16.071	2,4,5-TP	14.137	6121550	6504.216	2,4,5-TP
13.844	3947	3.514	2,4,5-T	14.837	9876	12.601	2,4,5-T
14.678	24264	168.363	2,4-DB	15.548	10753	106.944	2,4-DB
14.888	17731	77.973	DINOSEB	15.27	110649	605.221	DINOSEB
	0		Picloram	17.783	4998	8.303	Picloram
23.998	8833	9.51	Hexachlorophene		0		Hexachlorophen

Files:
Area File: 24herb18311005.034.RAW
Area File: 24herb18311005B.034.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 5:24:45 AM
File Reported On: 11/16/2018 at 7:30:18 AM

9872061 F DF200 AE12T03 T 183030010A 10401 SW-846 8151A

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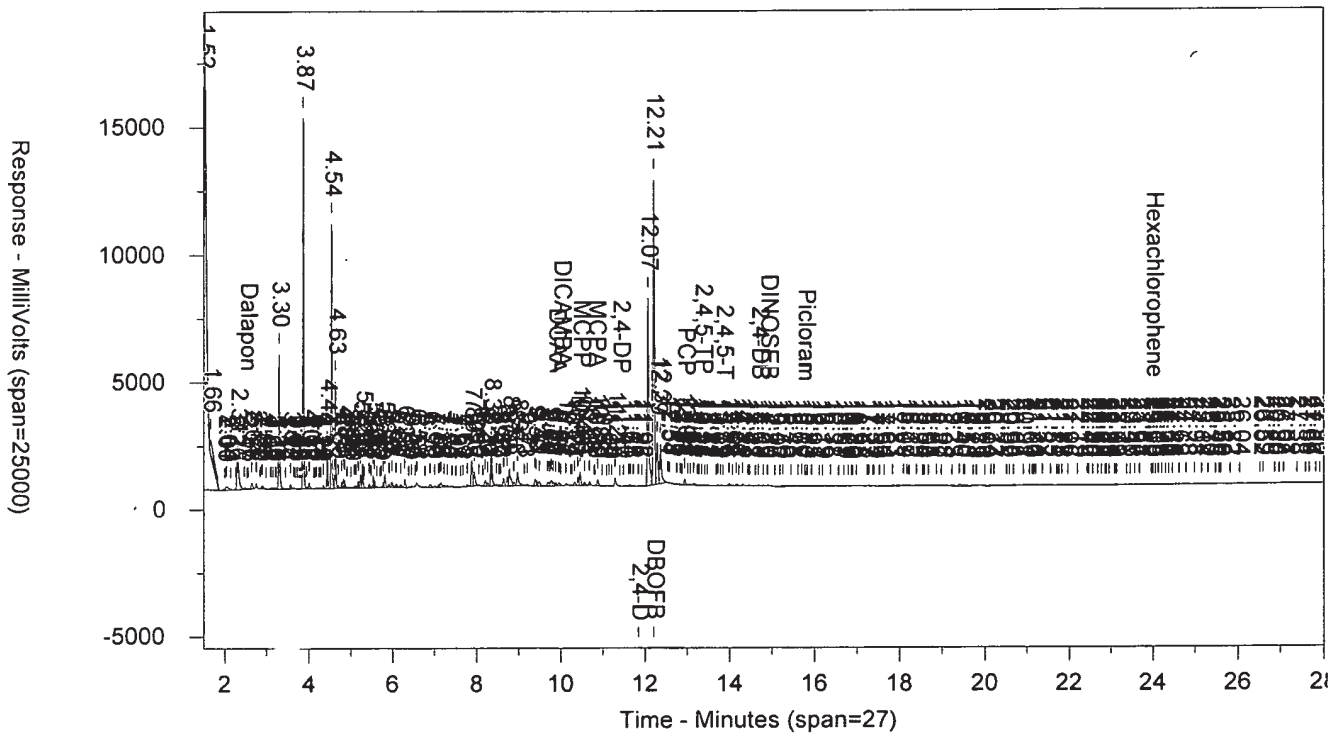

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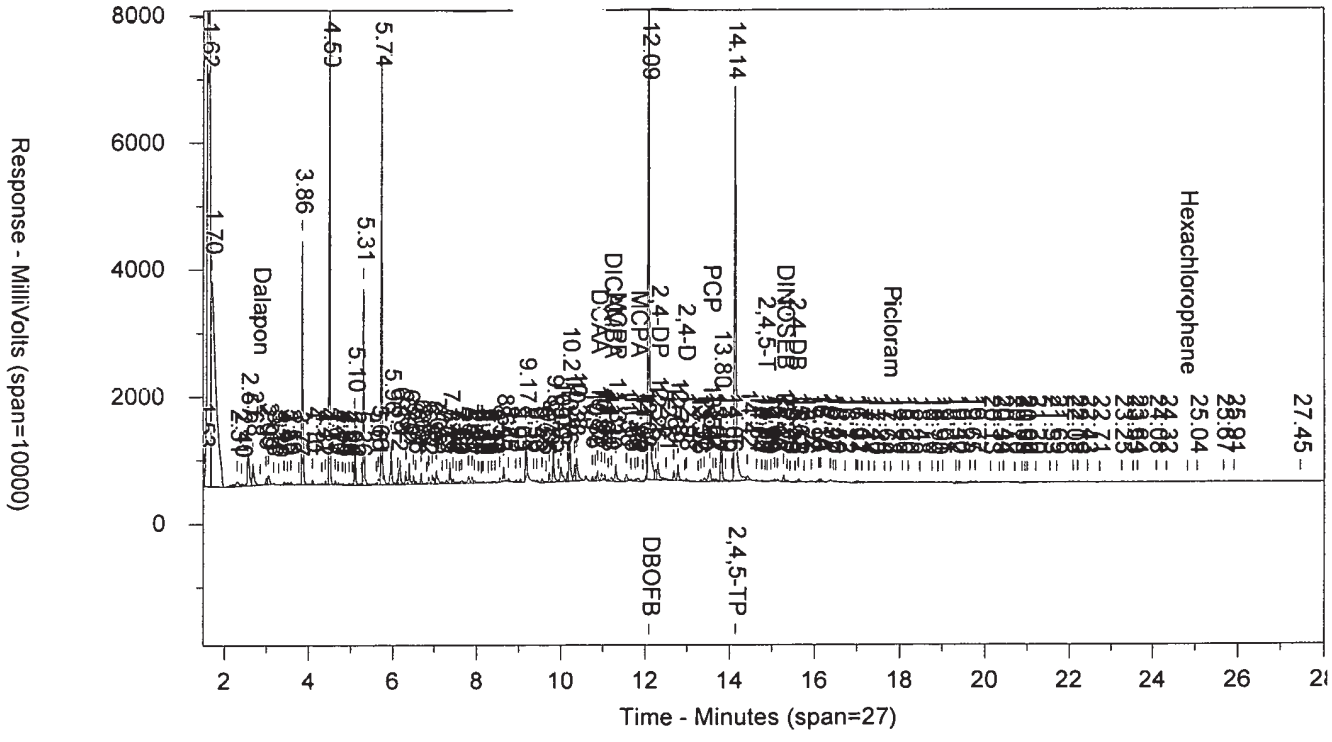

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Data Summary

Sample Name: 9872062 F DF200 12T04 Sample ID: AE **Batchnumber: 183030010A**
Sample Amount: 30.41 g Total Volume: 2000 ml Analyst: 120 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on Nov 16, 2018 06:02:12
Instrument 18273A
Result file 24HERB18311005.036.RAW
Calibration file 24HERB1831101
Method file 24HERB

%SSR(DCAA) * 721% (27 - 122) Conc: 474.2068

Analysis Report (B)

Injected on Nov 16, 2018 06:02:12
Instrument 18273B
Result file 24HERB18311005B.036.RAW
Calibration file 24HERB1831101B
Method file 24HERBB

%SSR(DCAA) * 816% (27 - 122) Conc: 536.576

Single Component Data

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	9.87	9.89	9.93	125314	474.2068
MCPP (Mecoprop)	10.42	10.46	10.48	181476	268828.1
MCPA	10.80	10.81	10.86	20073	20324.04
2,4-DP (Dichloroprop)	11.37	11.40	11.43	5518	0
2,4-D	11.82	11.86	11.88	14198	57.06692
Pentachlorophenol	12.91	12.94	12.97	28637	8.011059
2,4,5-TP	13.29	13.33	13.35	40754	31.30269
2,4,5-T	13.82	13.86	13.88	12315	11.35408
2,4-DB	14.65	14.68	14.71	21245	152.6246
Dinoseb	14.84	14.89	14.90	18708	85.17902
Hexachlorophene	23.98	23.99	24.04	1472	1.640777

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	10.82	10.88	10.88	99996	536.576
Dicamba	11.17	11.21	11.23	14158	16.90413
MCPP (Mecoprop)	11.26	11.31	11.32	48142	85762.45
MCPA	11.78	11.83	11.84	34221	41413.08
2,4-DP (Dichloroprop)	12.29	12.31	12.35	246608	1501.887
Pentachlorophenol	13.51	13.52	13.57	62669	25.9064
2,4,5-TP	14.10	14.14	14.16	1885823	2110.102
Dinoseb	15.22	15.27	15.28	9216	53.08577
2,4-DB	15.51	15.55	15.57	10385	108.7608
Picloram	17.75	17.79	17.81	8357	14.62141

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<8681.3546	<17362.7091	<17757.3161	D1		
	2,4-DCAA	B	536.576	<658.0072	<1316.0144	<1316.0144	J	12.34	
☑	2,4-DCAA-D1	A	474.2068	<658.0072	<1316.0144	<1316.0144	J		
☑	2,4-DCAA-D2	B	536.576	<658.0072	<1316.0144	<1316.0144	J		
☑	Dicamba			<789.2141	<1578.4281	<2367.6422	D1		
☑	MCPP (Mecoprop)			<749753.3478	<1499506.695	<1519237.046	D2		
☑	MCPA			<149950.6696	<299901.3391	<493258.7814	D1		
☑	2,4-DP (Dichloroprop)			<1775.7316	<3551.4632	<3946.0703	D1		
☑	2,4-D			<2367.6422	<4735.2843	<7102.9265	D2		
☐	Pentachlorophenol			<65.1102	<130.2203	<335.416			
☑	2,4,5-TP			<147.9776	<295.9553	<335.416	D1		
☑	2,4,5-T			<161.7889	<323.5778	<335.416	D2		
☑	2,4-DB			<1933.5744	<3946.0703	<4143.3738	D2		
☑	Dinoseb			<1775.7316	<3551.4632	<4735.2843	D2		
☐	Picloram			<3946.0703	<7892.1405	<8089.444			
☐	Hexachlorophene					<4735.2843			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Tomayko
Principal Specialist

NOV 16 2018

Reviewed and digitally signed by Richard A Shober on 11/16/2018 09:03:48

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **9872062** F DF200 12T04 ID: AE **Batchnumber: 183030010A**
Sample Amount: 30.41 g Total Volume: 2000 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 16, 2018 06:02:12
Instrument : CP24--18273A
Result file : 24HERB18311005.036.RAW
Calibration file : 24HERB1831101.CAL
Method file : 24HERB.MET
%SSR(DCAA) : *721% (27-122) Conc.: 474.2068

Peak name	Min	R.T.	Max	Height	Amount
DCAA	9.87	9.89	9.93	125314	474.206800
MCPP	10.42	10.46	10.48	181476	268828.100000
MCPA	10.80	10.81	10.86	20073	20324.040000
2,4-DP	11.37	11.40	11.43	5518	-5526.413000
2,4-D	11.82	11.86	11.88	14198	57.066920
DBOFB	12.18	12.21	12.24	11421170	0.032884
PCP	12.91	12.94	12.97	28637	8.011059
2,4,5-TP	13.29	13.33	13.35	40754	31.302690
2,4,5-T	13.82	13.86	13.88	12315	11.354080
2,4-DB	14.65	14.68	14.71	21245	152.624600
DINOSEB	14.84	14.89	14.90	18708	85.179020
Hexachlorophene	23.98	23.99	24.04	1472	1.640777

Analysis Report (B)

Injected on : Nov 16, 2018 06:02:12
Instrument : CP24--18273B
Result file : 24HERB18311005B.036.RAW
Calibration file : 24HERB1831101B.CAL
Method file : 24HERBB.MET
%SSR(DCAA) : *816% (27-122) Conc.: 536.576

Peak name	Min	R.T.	Max	Height	Amount
DCAA	10.82	10.88	10.88	99996	536.576000
DICAMBA	11.17	11.21	11.23	14158	16.904130
MCPP	11.26	11.31	11.32	48142	85762.450000
MCPA	11.78	11.83	11.84	34221	41413.080000
DBOFB	12.06	12.09	12.12	8381064	0.032884
2,4-DP	12.29	12.31	12.35	246608	1501.887000
PCP	13.51	13.52	13.57	62669	25.906400
2,4,5-TP	14.10	14.14	14.16	1885823	2110.102000
DINOSEB	15.22	15.27	15.28	9216	53.085770
2,4-DB	15.51	15.55	15.57	10385	108.760800
Picloram	17.75	17.79	17.81	8357	14.621410

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon			17757.3161	<8681.3546			
☐ DCAA			<1316.0144	<658.0072			
☑ DICAMBA			<2367.6422	<789.2141			
☑ MCPP			19237.0468	49753.3478			
☑ MCPA			93258.7814	49950.6696			
☑ 2,4-DP			<3946.0703	<1775.7316			
☑ 2,4-D			<7102.9265	<2367.6422			
☐ DBOFB	A	0.032884				0.00	
☐ PCP			<335.416	<65.1102			
☑ 2,4,5-TP			<335.416	<147.9776			
☑ 2,4,5-T			<335.416	<161.7889			
☑ 2,4-DB			<4143.3738	<1933.5744			
☑ DINOSEB			<4735.2843	<1775.7316			
☐ Picloram			<8089.444	<3946.0703			
☐ Hexachlorophene			<4735.2843				

Units: ug/kg

Reviewed by: _____ Verified by: Valerie L. Tomayko, Principal Specialist

Date: 11/16/18 Date: NOV 16 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

9872062 F DF200 AE12T04 T 183030010A 10401 SW-846 8151A

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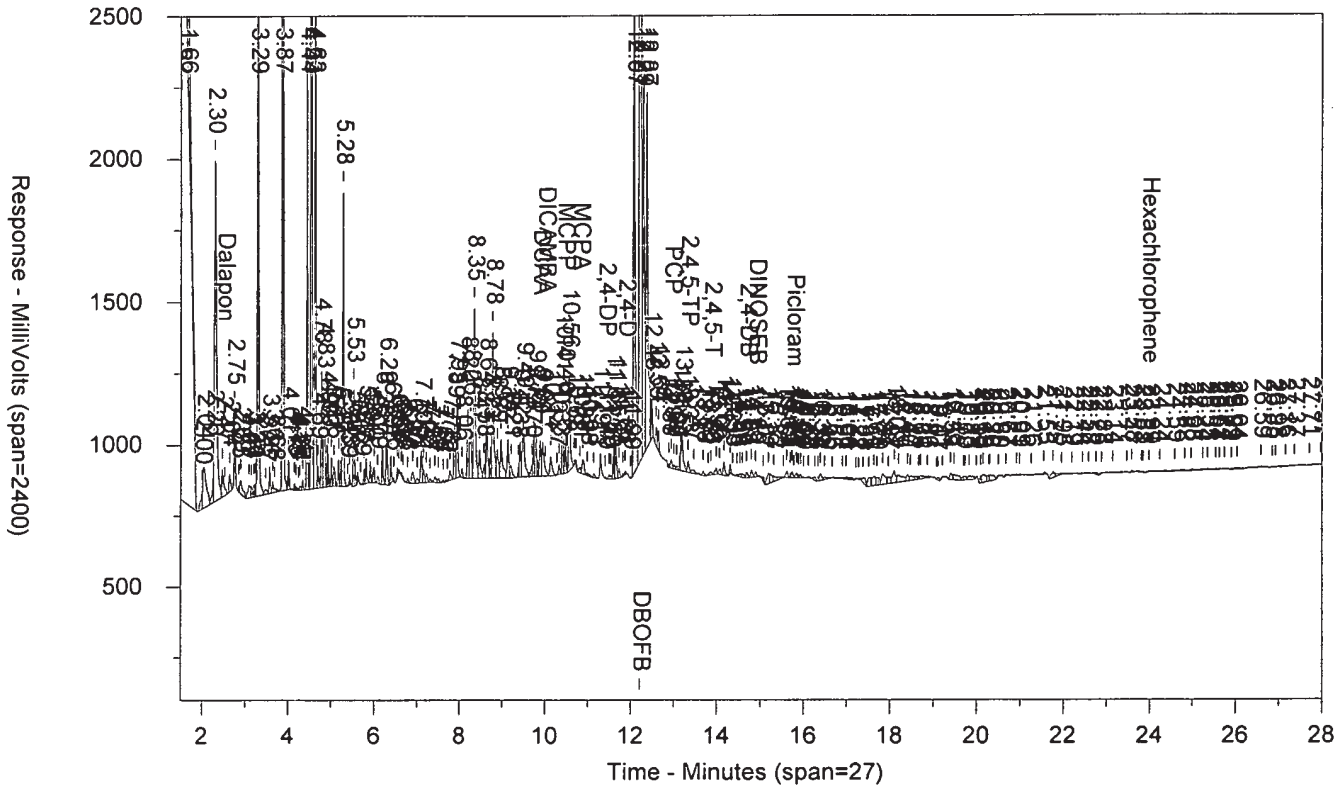

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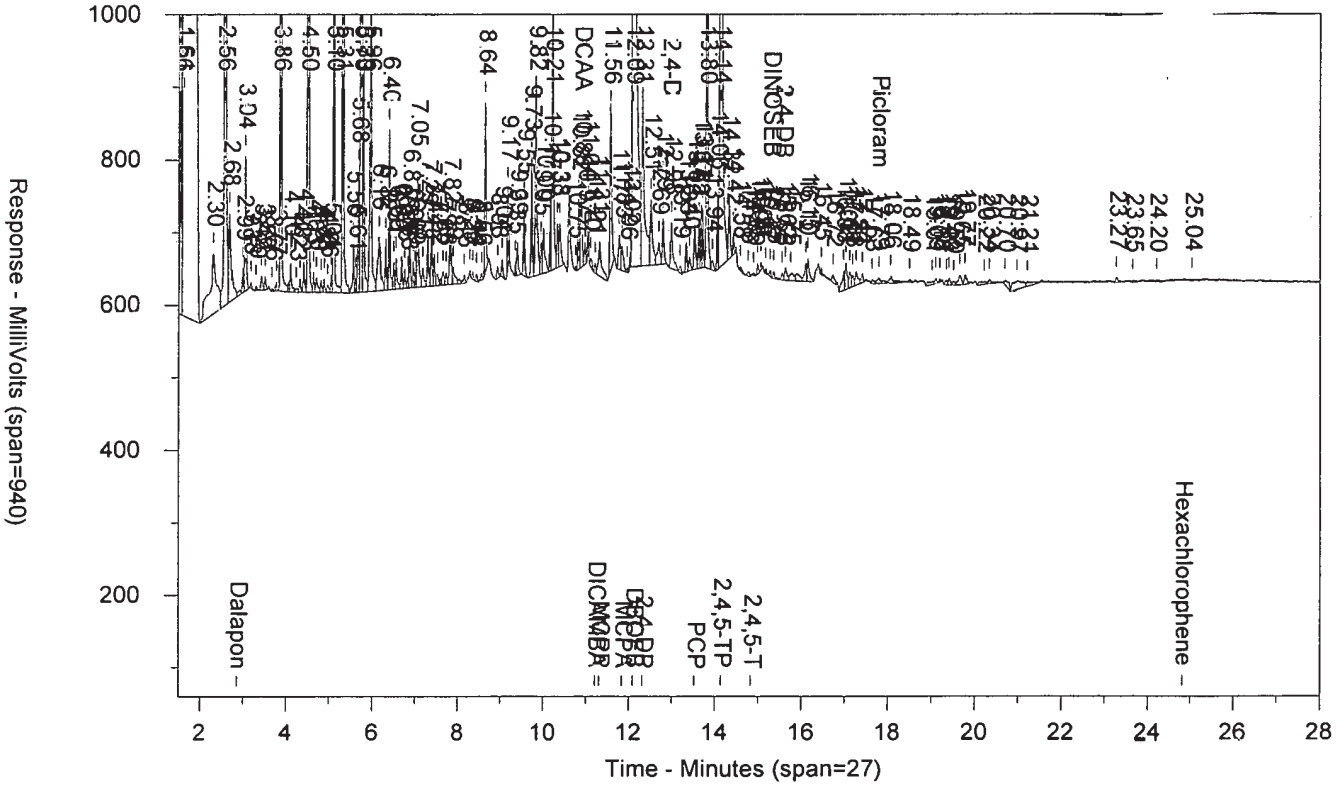

LANCASTER LABORATORIES

Sample Number: 9872062 F DF200 AE12T04 T 183030010A 10401 Sample Weight: 30.41 SW-846 8151A
Injected On: 11/16/2018 6:02:12 AM Dilution Factor: 2000
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
9.888	125314	474.207	DCAA	10.882	99996	536.576	DCAA
10.459	181476	268828.1	MCPP	11.308	48142	85762.45	MCPP
10.81	20073	20324.04	MCPA	11.833	34221	41413.08	MCPA
	0		DICAMBA	11.207	14158	16.904	DICAMBA
11.399	5518	-5526.413	2,4-DP	12.31	246608	1501.887	2,4-DP
11.863	14198	57.067	2,4-D		0		2,4-D
12.208	11421170	.033	DBOFB	12.089	8381065	.033	DBOFB
12.94	28637	8.011	PCP	13.522	62669	25.906	PCP
13.334	40754	31.303	2,4,5-TP	14.137	1885823	2110.102	2,4,5-TP
13.862	12315	11.354	2,4,5-T		0		2,4,5-T
14.681	21245	152.625	2,4-DB	15.546	10385	108.761	2,4-DB
14.891	18708	85.179	DINOSEB	15.274	9216	53.086	DINOSEB
	0		Picloram	17.79	8357	14.621	Picloram
23.987	1472	1.641	Hexachlorophene		0		Hexachlorophen

Files:
Area File: 24herb18311005.036.RAW
Area File: 24herb18311005B.036.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 6:31:04 AM
File Reported On: 11/16/2018 at 7:30:52 AM

9872062 F DF200 AE12T04 T 183030010A 10401 SW-846 8151A

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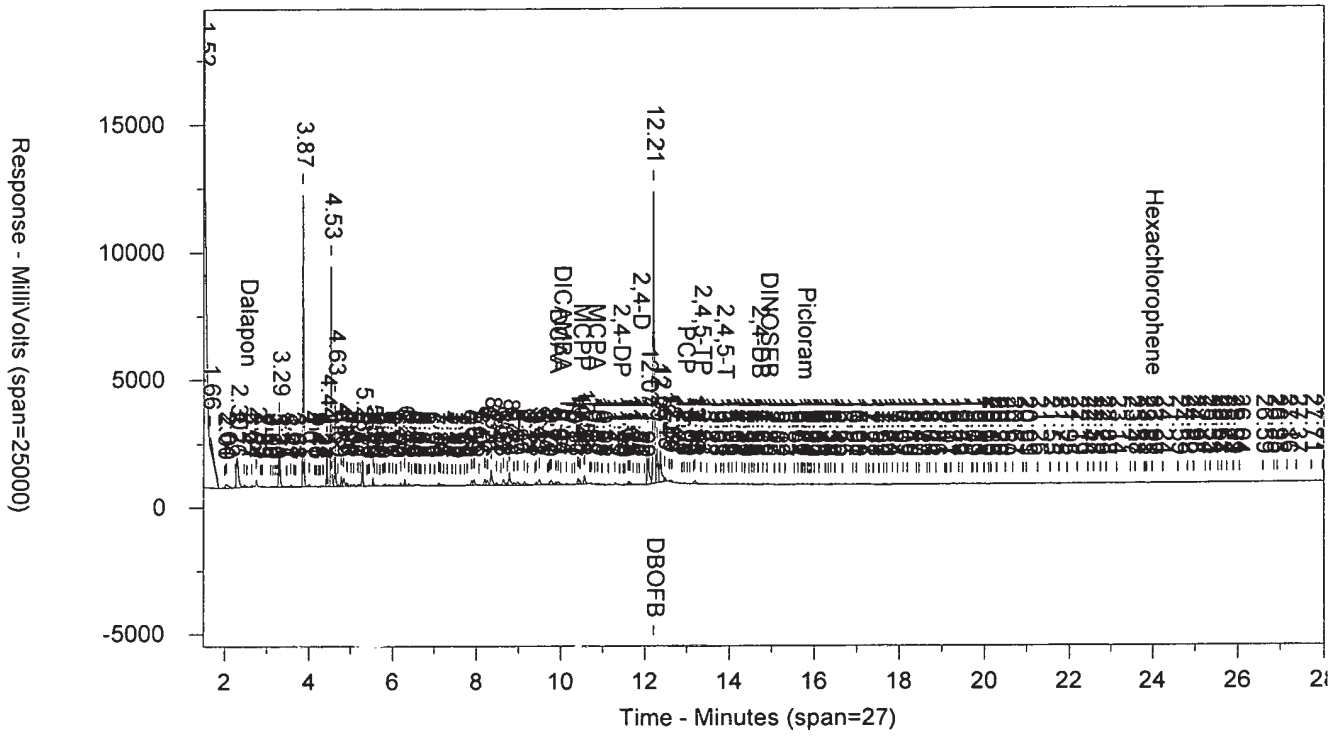

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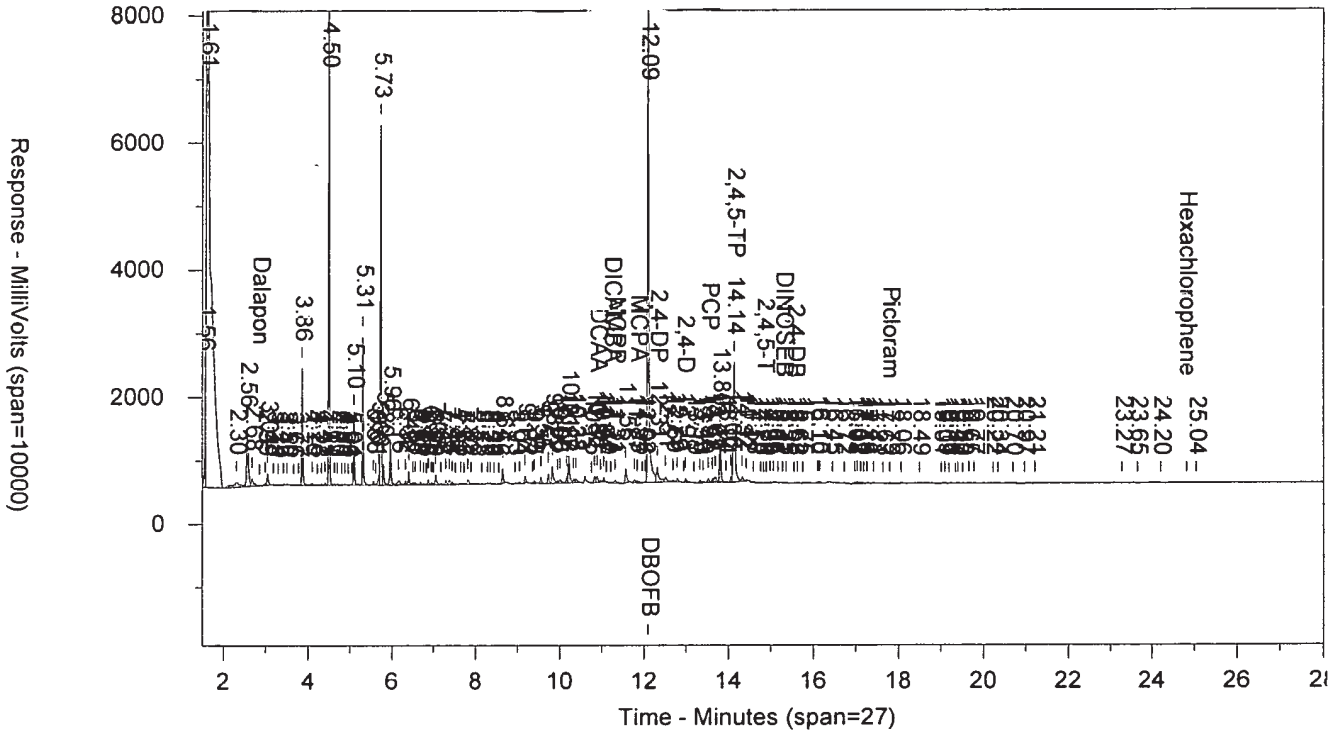

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Data Summary

Sample Name: 9872063 F DF5 12T05 Sample ID: AC **Batchnumber: 183030010A**
Sample Amount: 30.19 g Total Volume: 50 ml Analyst: 120 SDG: TID12 State: NY

Analyses: 10401

Analysis Report (A)

Injected on Nov 03, 2018 02:35:38
Instrument 19850A
Result file 15HERB18304002.065.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 102% (27 - 122) Conc: 67.7437

Analysis Report (B)

Injected on Nov 03, 2018 02:35:38
Instrument 19850B
Result file 15HERB18304002B.065.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) 112% (27 - 122) Conc: 74.41978

Single Component Data

Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.71	3.76	505392	100.1934
2,4-DCAA	11.91	11.95	11.97	615545	67.7437
Dicamba	12.04	12.06	12.10	38180	1.045987
MCPP (Mecoprop)	12.45	12.47	12.51	158683	0
MCPA	12.83	12.88	12.89	9383	0
2,4-DP (Dichloroprop)	13.43	13.44	13.49	35793	4.773598
2,4-D	13.87	13.92	13.93	21452	2.393233
Pentachlorophenol	15.06	15.09	15.12	890714	7.858279
2,4,5-TP	15.36	15.39	15.42	65320	1.522357
2,4,5-T	15.88	15.92	15.94	45163	1.192481
2,4-DB	16.71	16.75	16.77	163974	31.20705
Dinoseb	16.90	16.92	16.96	80321	4.075613
Picloram	17.86	17.86	17.92	41449	1.262279
Hexachlorophene	26.10	26.16	26.16	94556	2.642383

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	12.49	12.52	12.55	744105	74.41978
Dicamba	12.85	12.86	12.91	18382	0.442459
MCPP (Mecoprop)	12.90	12.93	12.96	137477	3328.762
MCPA	13.43	13.47	13.49	51991	915.3367
2,4-DP (Dichloroprop)	13.96	13.97	14.01	127265	14.55594
2,4-D	14.58	14.60	14.64	94128	9.398284
Pentachlorophenol	15.28	15.30	15.34	980012	7.645727
2,4,5-T	16.47	16.49	16.53	76194	1.82317
Dinoseb	16.91	16.93	16.97	136100	6.325489
Hexachlorophene	26.52	26.55	26.58	108559	2.773821

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<218.6154	<437.2309	<447.1679	D2		
☐	2,4-DCAA	B	74.41978	16.5701	33.1401	33.1401		9.39	
☑	2,4-DCAA-D1	A	67.7437	16.5701	33.1401	33.1401			
☑	2,4-DCAA-D2	B	74.41978	16.5701	33.1401	33.1401			
☑	Dicamba			<19.8741	<39.7483	<59.6224	D2		
☑	MCPP (Mecoprop)			<18880.4237	<37760.8475	<38257.7007	D1		
☑	MCPA			<3776.0847	<7552.1695	<12421.3314	D1		
☑	2,4-DP (Dichloroprop)			<44.7168	<89.4336	<99.3707	D1		
☑	2,4-D			<59.6224	<119.2448	<178.8672	D1		
☐	Pentachlorophenol	A	7.858279	1.6396	3.2792	<8.4465	J	2.74	
☑	2,4,5-TP			<3.7264	<7.4528	<8.4465	D2		
☑	2,4,5-T			<4.0742	<8.1484	<8.4465	D1		
☑	2,4-DB			<48.6916	<99.3707	<104.3392	D2		
☑	Dinoseb			<44.7168	<89.4336	<119.2448	D1		
☐	Picloram			<99.3707	<198.7413	<203.7098			
☐	Hexachlorophene					<119.2448			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Tomayko
Principal Specialist

NOV 0 7 2018

Reviewed and digitally signed by Richard A Shober on 11/7/2018 08:54:37

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **9872063** F DF5 12T05 ID: AC **Batchnumber: 183030010A**
Sample Amount: 30.19 g Total Volume: 50 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 03, 2018 02:35:38
Instrument : CP15--19850A
Result file : 15HERB18304002.065.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 102% (27-122) Conc.: 67.7437

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.71	3.76	505392	100.193400
DCAA	11.91	11.95	11.97	615545	67.743700
DICAMBA	12.04	12.06	12.10	38180	1.045987
MCPP	12.45	12.47	12.51	158683	-16393.820000
MCPA	12.83	12.88	12.89	9383	-22295.980000
2,4-DP	13.43	13.44	13.49	35793	4.773598
2,4-D	13.87	13.92	13.93	21452	2.393233
DBOFB	14.21	14.22	14.26	11172320	0.033124
PCP	15.06	15.09	15.12	890714	7.858279
2,4,5-TP	15.36	15.39	15.42	65320	1.522357
2,4,5-T	15.88	15.92	15.94	45163	1.192481
2,4-DB	16.71	16.75	16.77	163974	31.207050
DINOSEB	16.90	16.92	16.96	80321	4.075613
Picloram	17.86	17.86	17.92	41449	1.262279
Hexachlorophene	26.10	26.16	26.16	94556	2.642383

Analysis Report (B)

Injected on : Nov 03, 2018 02:35:38
Instrument : CP15--19850B
Result file : 15HERB18304002B.065.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 112% (27-122) Conc.: 74.41978

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.52	12.55	744105	74.419780
DICAMBA	12.85	12.86	12.91	18382	0.442459
MCPP	12.90	12.93	12.96	137477	3328.762000
MCPA	13.43	13.47	13.49	51991	915.336700
DBOFB	13.69	13.70	13.75	12018760	0.033124
2,4-DP	13.96	13.97	14.01	127265	14.555940
2,4-D	14.58	14.60	14.64	94128	9.398284
PCP	15.28	15.30	15.34	980012	7.645727
2,4,5-T	16.47	16.49	16.53	76194	1.823170
DINOSEB	16.91	16.93	16.97	136100	6.325489
Hexachlorophene	26.52	26.55	26.58	108559	2.773821

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon			<447.1679	<218.6154			
☐ DCAA	B	74.419780	33.1401	16.5701		9.39	
☑ DICAMBA			<59.6224	<19.8741			
☑ MCPP			38257.7007	18880.4237			
☑ MCPA			12421.3314	<3776.0847			
☑ 2,4-DP			<99.3707	<44.7168			
☑ 2,4-D			<178.8672	<59.6224			
☐ DBOFB	A	0.033124				0.00	
☐ PCP	A	7.858279	<8.4465	1.6396	J	2.74	
☑ 2,4,5-TP			<8.4465	<3.7264			
☑ 2,4,5-T			<8.4465	<4.0742			
☑ 2,4-DB			<104.3392	<48.6916			
☑ DINOSEB			<119.2448	<44.7168			
☐ Picloram			<203.7098	<99.3707			
☐ Hexachlorophene	B	2.773821	<119.2448			4.85	

Units: ug/kg

Valerie L. Tomayko
Principal Specialist

Reviewed by: _____ Verified by: _____
Date: 11/7 Date: NOV 07 2018

DILUTION FOR DARK EXTRACT

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Printed on: 11/6/2018 14:22:16

9872063 F DF5 AC12T05 T 183030010A 10401 SW-846 8151A

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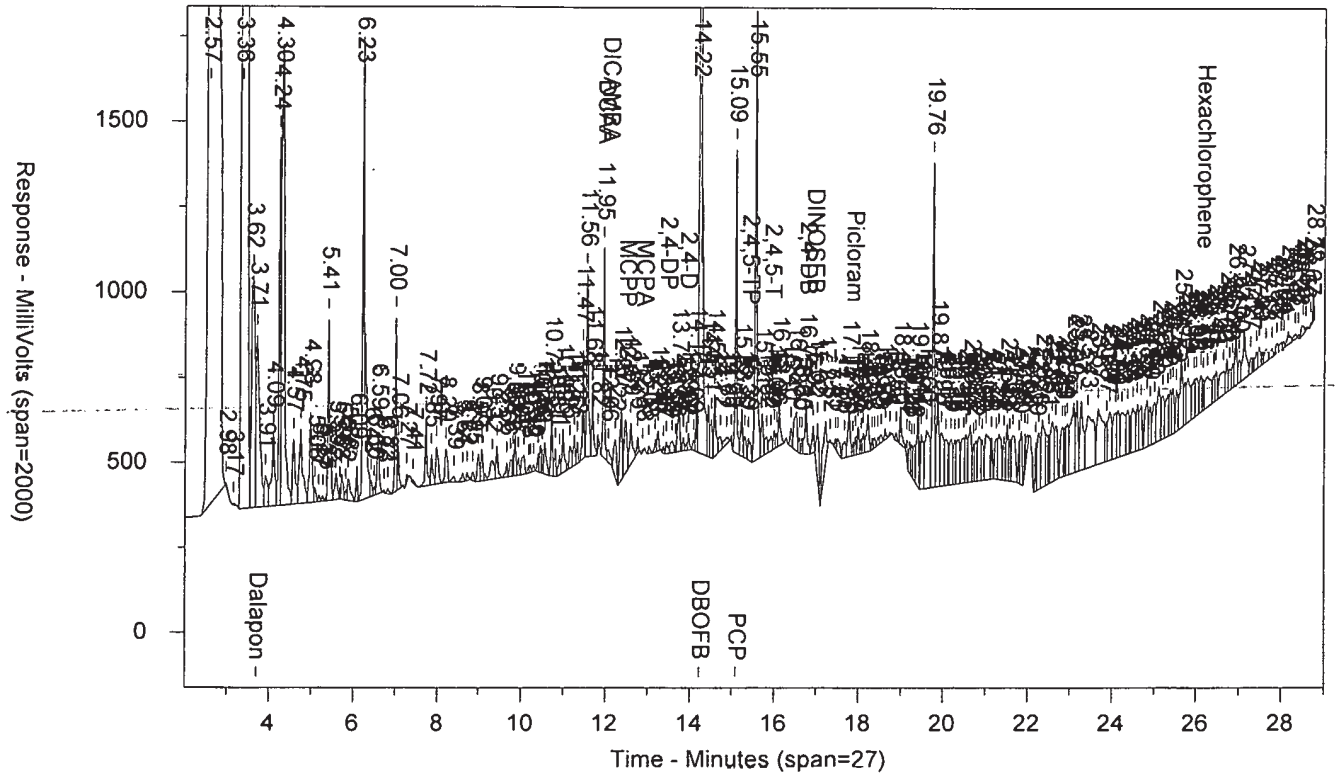

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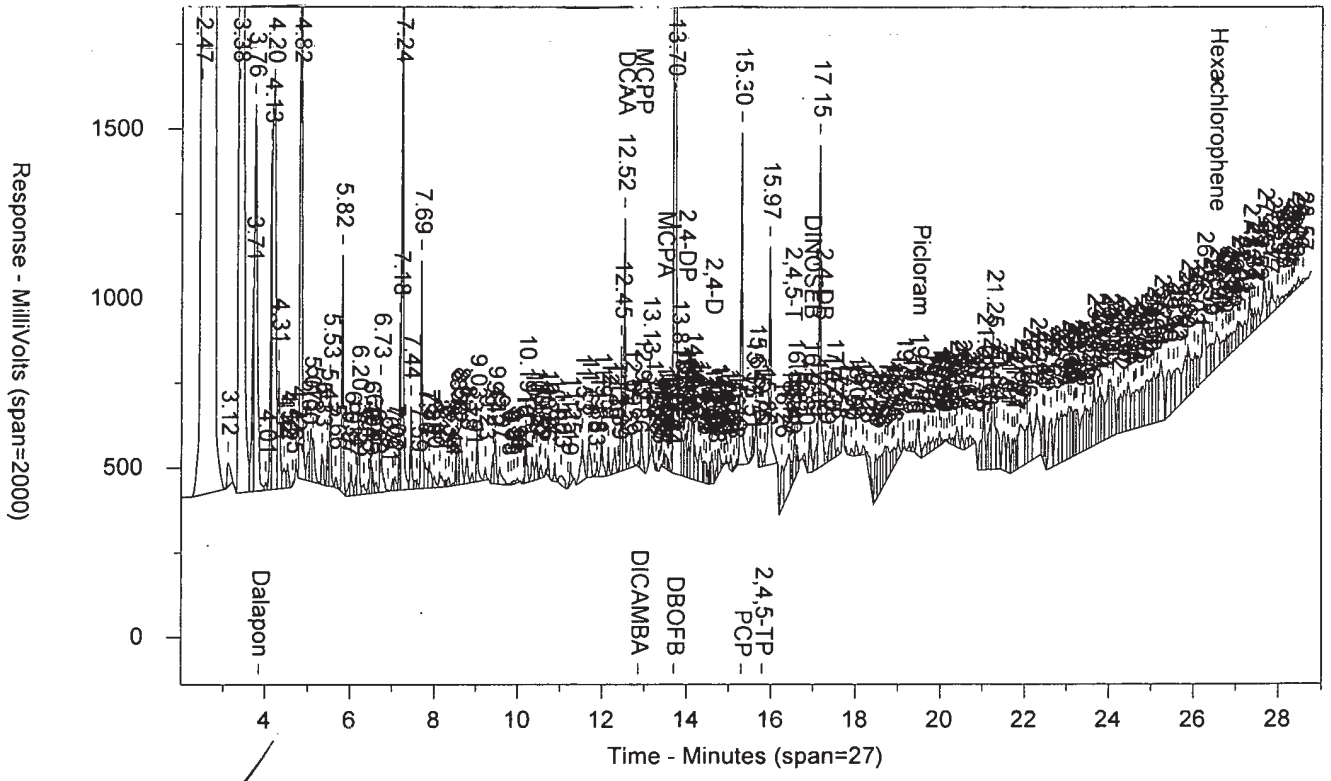

LANCASTER LABORATORIES

Sample Number: 9872063 F DF5 AC12T05 T 183030010A 10401 SW-846 8151A
Injected On: 11/3/2018 2:35:38 AM
Instrument ID: CP15-19850
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Sample Weight: 30.19
Dilution Factor: 50

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.708	505392	100.193	Dalapon		0		Dalapon
11.955	615545	67.744	DCAA	12.525	744105	74.42	DCAA
12.064	38180	1.046	DICAMBA	12.856	18382	.442	DICAMBA
12.472	158683	-16393.82	MCPP	12.927	137477	3328.762	MCPP
12.878	9383	-22295.98	MCPA	13.465	51991	915.337	MCPA
13.441	35793	4.774	2,4-DP	13.967	127265	14.556	2,4-DP
14.224	11172320	.033	DBOFB	13.704	12018760	.033	DBOFB
13.917	21452	2.393	2,4-D	14.605	94128	9.398	2,4-D
15.087	890714	7.858	PCP	15.299	980012	7.646	PCP
15.388	65320	1.522	2,4,5-TP		0		2,4,5-TP
15.919	45163	1.192	2,4,5-T	16.488	76194	1.823	2,4,5-T
16.753	163974	31.207	2,4-DB		0		2,4-DB
16.921	80321	4.076	DINOSEB	16.932	136100	6.325	DINOSEB
17.865	41449	1.262	Picloram		0		Picloram
26.156	94556	2.642	Hexachlorophene	26.545	108559	2.774	Hexachlorophen

Files:
Area File: 15herb18304002.065.RAW
Area File: 15herb18304002B.065.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 3:04:25 AM
File Reported On: 11/6/2018 at 1:59:22 PM

9872063 F DF5 AC12T05 T 183030010A 10401 SW-846 8151A

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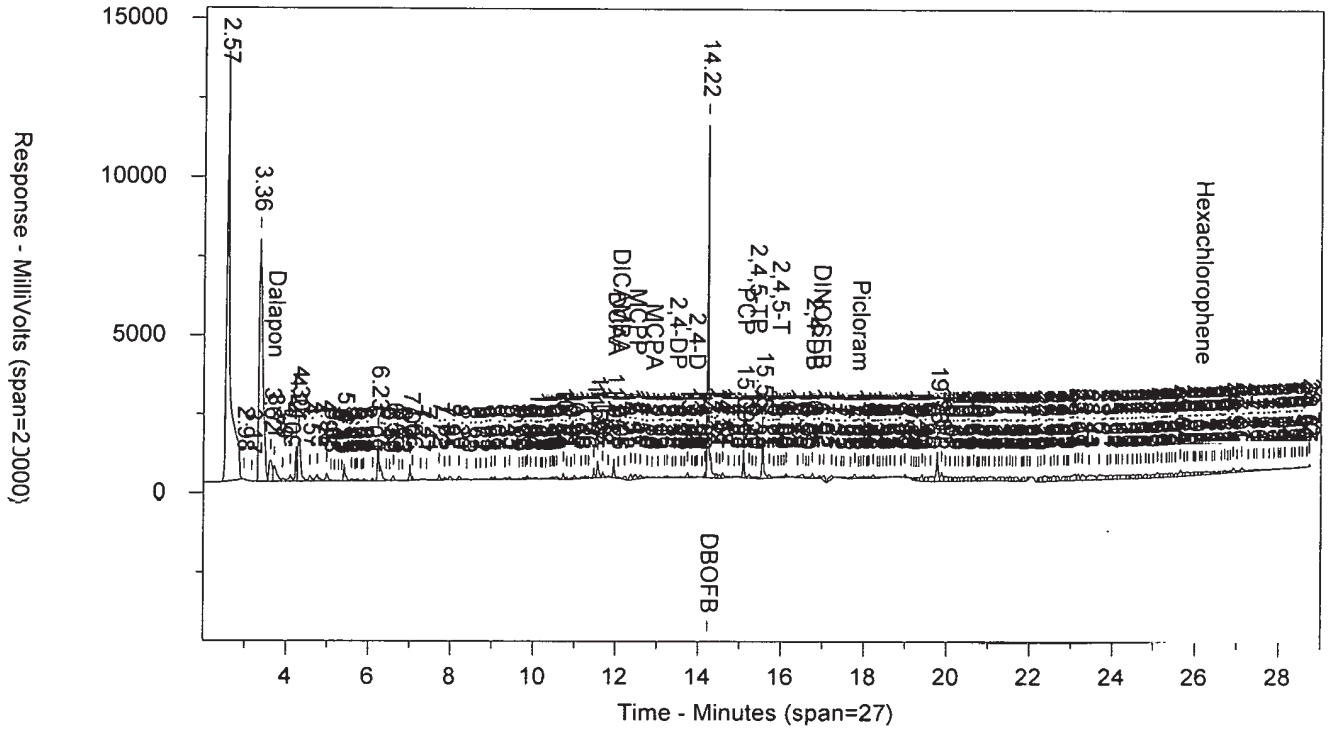

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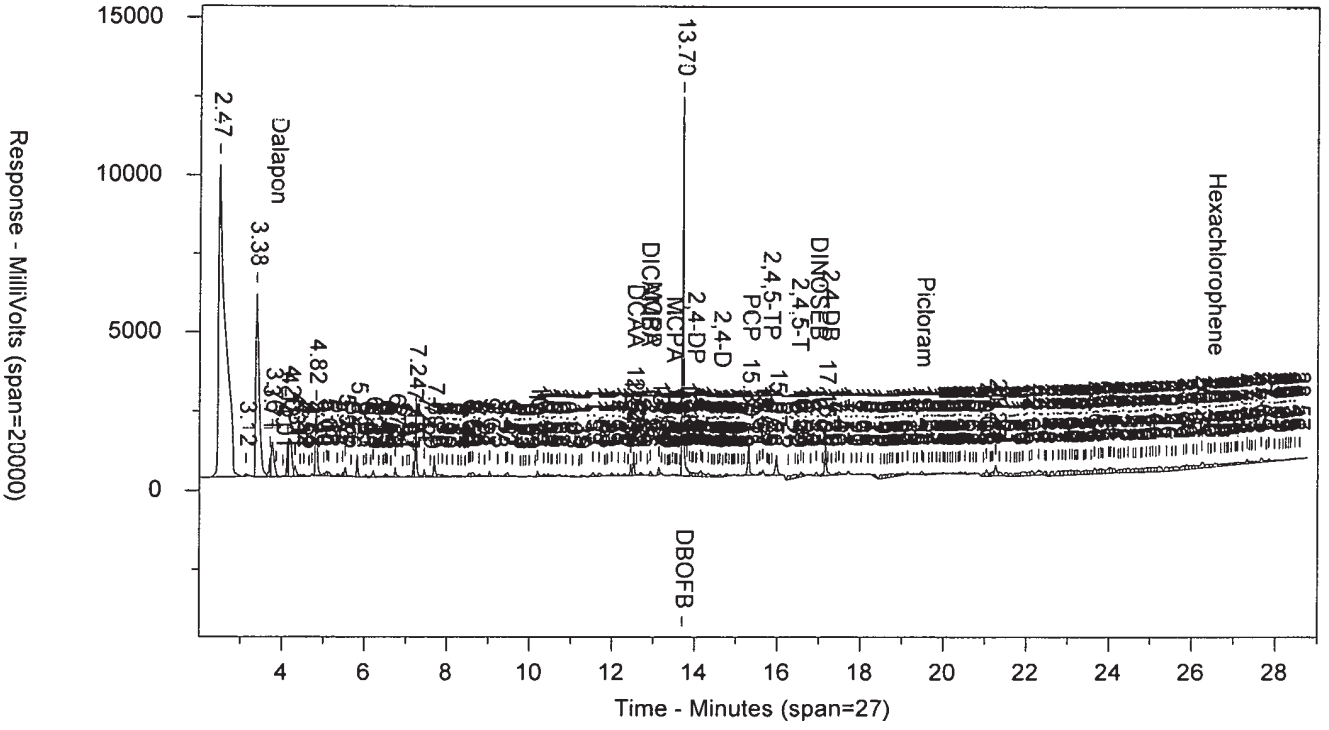

eurofins | Lancaster Laboratories Environmental

Data Summary

Sample Name: 9872064 F DF100 12T06 Sample ID: AD **Batchnumber: 183030010A**
Sample Amount: 30.22 g Total Volume: 1000 ml Analyst: 120 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on Nov 09, 2018 05:42:56
Instrument 19850A
Result file 15HERB18304004.122.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) * 7220% (27 - 122) Conc: 4778.582

Analysis Report (B)

Injected on Nov 09, 2018 05:42:56
Instrument 19850B
Result file 15HERB18304004B.122.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) * 172% (27 - 122) Conc: 114.1028

Single Component Data

Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.71	3.76	156000	645.3898
2,4-DCAA	11.91	11.95	11.97	2080671	4778.582
Dicamba	12.04	12.08	12.10	227582	130.1106
MCPP (Mecoprop)	12.45	12.46	12.51	2871102	1411884
MCPA	12.83	12.88	12.89	43608	0
2,4-DP (Dichloroprop)	13.43	13.45	13.49	421368	1172.74
Pentachlorophenol	15.06	15.09	15.12	298813	55.01428
2,4,5-T	15.88	15.93	15.94	400418	220.6315
2,4-DB	16.71	16.71	16.77	529688	2103.705
Dinoseb	16.90	16.94	16.96	555892	588.6296
Hexachlorophene	26.10	26.14	26.16	74088	43.20547

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	12.49	12.54	12.55	52932	114.1028
Dicamba	12.85	12.89	12.91	1568758	813.8873
2,4-DP (Dichloroprop)	13.96	13.98	14.01	979465	2414.588
Pentachlorophenol	15.28	15.32	15.34	913736	153.6497
2,4,5-T	16.47	16.50	16.53	204492	105.4648
Dinoseb	16.91	16.93	16.97	3738654	3745.217

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<4367.9681	<8735.9363	<8934.4803	D2		
☐	2,4-DCAA	B	114.1028	<331.0721	<662.1443	<662.1443	JP	190.67	
☑	2,4-DCAA-D1	A	4778.582	331.0721	662.1443	662.1443			
☑	2,4-DCAA-D2	B	114.1028	<331.0721	<662.1443	<662.1443	J		
☑	Dicamba			<397.088	<794.176	<1191.264	D1		
☑	MCPP (Mecoprop)			<377233.6121	<754467.2241	<764394.4244	D2		
☑	MCPA			<75446.7224	<150893.4448	<248180.0079	D1		
☑	2,4-DP (Dichloroprop)	A	1172.74	893.448	<1700.0901	<1985.4401	JPD1	69.24	
☑	2,4-D			<1191.264	<2382.5281	<3573.7921	D1		
☐	Pentachlorophenol	A	55.01428	32.7598	<65.5195	<168.7624	JP	94.54	
☑	2,4,5-TP			<74.454	<148.908	<168.7624	D1		
☑	2,4,5-T	B	105.4648	81.403	<162.8061	<168.7624	JPD2	70.63	
☑	2,4-DB			<972.8656	<1985.4401	<2084.7121	D2		
☑	Dinoseb			<893.448	<1786.8961	<2382.5281	D1		
☐	Picloram			<1985.4401	<3970.8801	<4070.1521			
☐	Hexachlorophene					<2382.5281			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Torreyko
Principal Specialist

NOV 15 2018

Reviewed and digitally signed by Richard A Shober on 11/15/2018 13:37:59

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **9872064** F DF100 12T06 ID: AD **Batchnumber: 183030010A**
Sample Amount: 30.22 g Total Volume: 1000 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 09, 2018 05:42:56
Instrument : CP15--19850A
Result file : 15HERB18304004.122.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : *7220% (27-122) Conc.: 4778.582

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.71	3.76	156000	645.389800
DCAA	11.91	11.95	11.97	2080671	4778.582000
DICAMBA	12.04	12.08	12.10	227582	130.110600
MCPP	12.45	12.46	12.51	2871102	1411884.000000
MCPA	12.83	12.88	12.89	43608	-427004.300000
2,4-DP	13.43	13.45	13.49	421368	1172.740000
DBOFB	14.21	14.23	14.26	10696840	0.033091
PCP	15.06	15.09	15.12	298813	55.014280
2,4,5-T	15.88	15.93	15.94	400418	220.631500
2,4-DB	16.71	16.71	16.77	529688	2103.705000
DINOSEB	16.90	16.94	16.96	555892	588.629600
Hexachlorophene	26.10	26.14	26.16	74088	43.205470

Analysis Report (B)

Injected on : Nov 09, 2018 05:42:56
Instrument : CP15--19850B
Result file : 15HERB18304004B.122.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : *172% (27-122) Conc.: 114.1028

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.54	12.55	52932	114.102800
DICAMBA	12.85	12.89	12.91	1568758	813.887300
DBOFB	13.69	13.71	13.75	11141260	0.033091
2,4-DP	13.96	13.98	14.01	979465	2414.588000
PCP	15.28	15.32	15.34	913736	153.649700
2,4,5-T	16.47	16.50	16.53	204492	105.464800
DINOSEB	16.91	16.93	16.97	3738654	3745.217000

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon			<8934.481	<4367.9685			
☐ DCAA			<662.1443	<331.0722			
☑ DICAMBA			<1191.2641	<397.088			
☑ MCPP			34394.4832	77233.6411			
☑ MCPA			248180.027	75446.7282			
☑ 2,4-DP	A	1172.740000	<1985.4402	893.4481	J	69.24	**
☑ 2,4-D			<3573.7924	<1191.2641			
☐ DBOFB	A	0.033091				0.00	
☐ PCP	A	55.014280	<168.7624	32.7598	J	94.54	**
☑ 2,4,5-TP			<168.7624	<74.454			
☑ 2,4,5-T	R	105.464800	<168.7624	81.403	J	70.63	**
☑ 2,4-DB			<2084.7122	<972.8657			
☑ DINOSEB			<2382.5283	<893.4481			
☐ Picloram			<4070.1524	<1985.4402			
☐ Hexachlorophene			<2382.5283				

Units: ug/kg

Reviewed by: _____
Date: 11/15

Verified by: _____
Valerie L. Tomaydo
Principal Specialist
Date: NOV 15 2018

%RPD = High - Low Amount divided by the Average times 100
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

Higher Amount Found unless RPD > 40

Printed on: 11/9/2018 15:37:14

9872064 F DF100 AD12T06 T 183030010A 10401 SW-846 8151A

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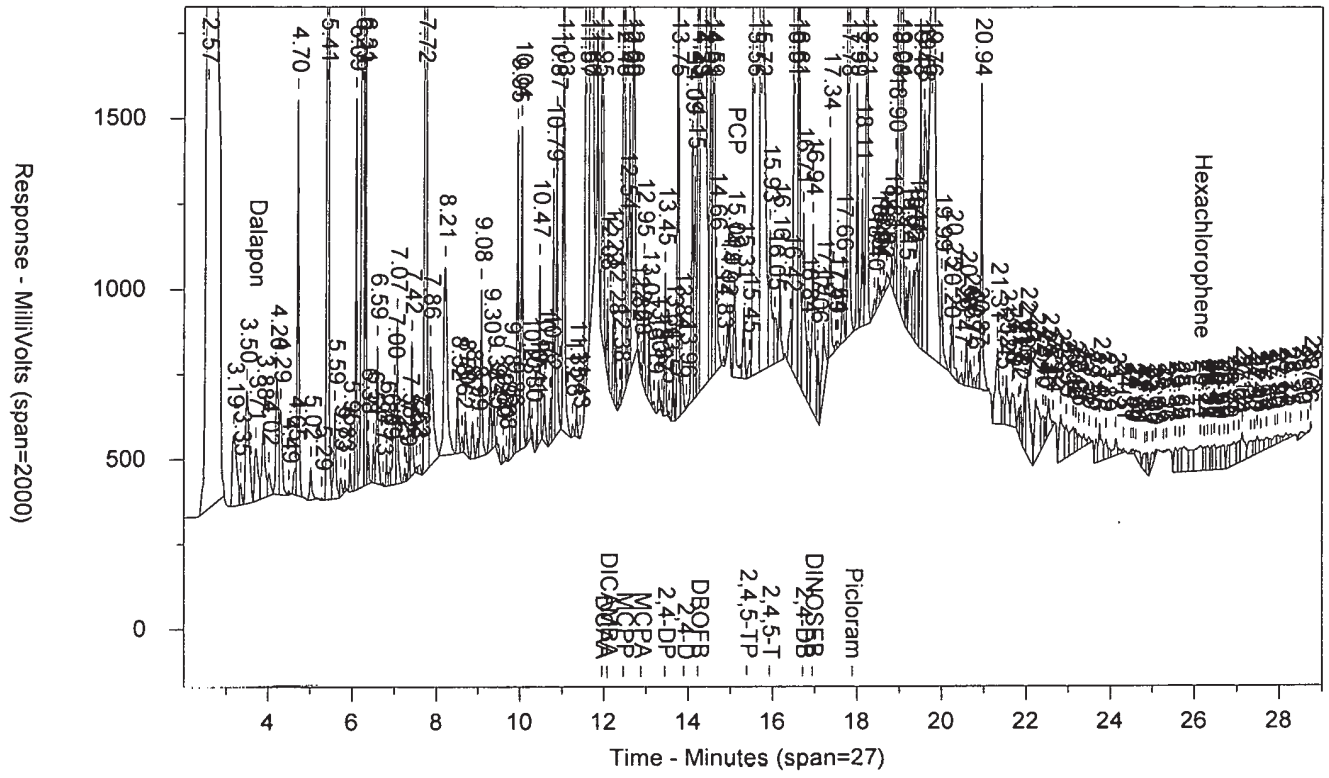

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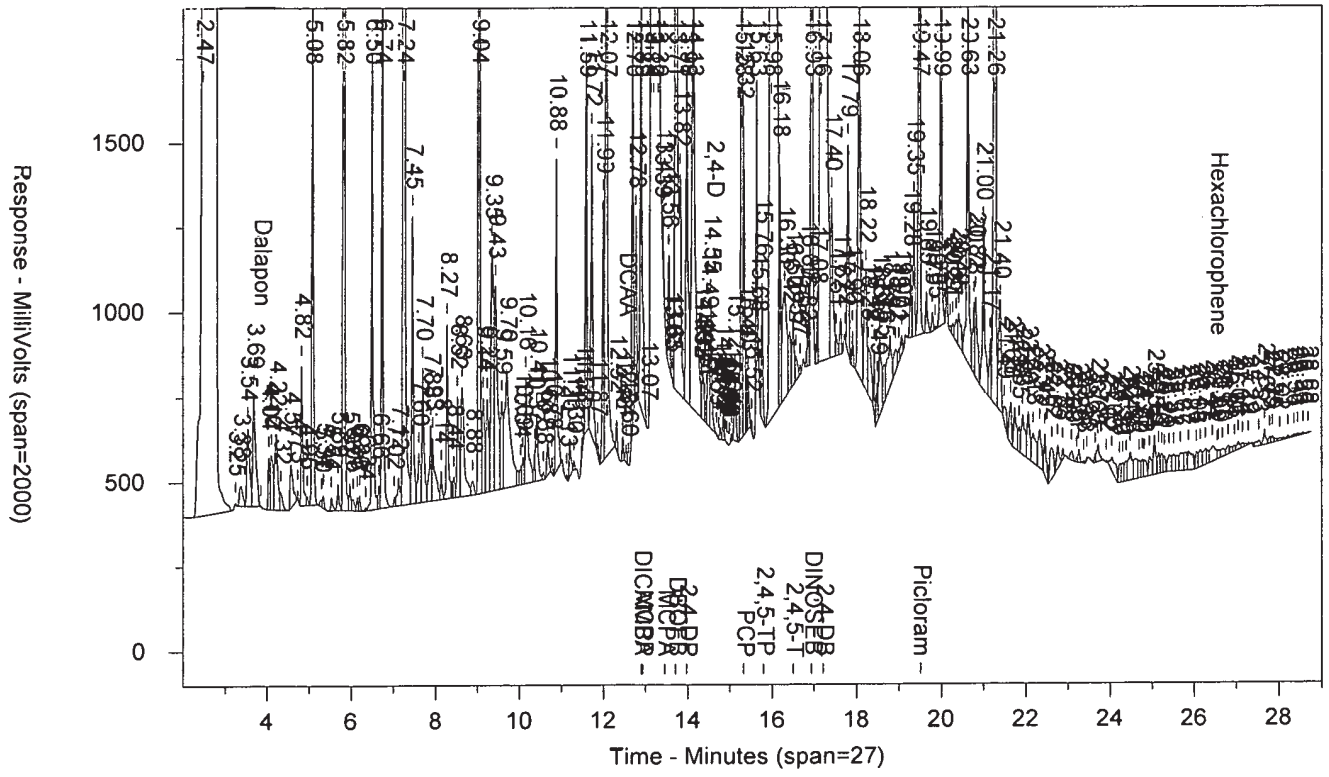

LANCASTER LABORATORIES

Sample Number: 9872064 F DF100 AD12T06 T 183030010A 10401 SW-846 8151A
Injected On: 11/9/2018 5:42:56 AM Sample Weight: 30.22
Instrument ID: CP15-19850 Dilution Factor: 1000
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.709	156000	645.39	Dalapon		0		Dalapon
11.95	2080671	4778.582	DCAA	12.543	52932	114.103	DCAA
12.081	227582	130.111	DICAMBA	12.894	1568758	813.887	DICAMBA
12.463	2871102	1411884	MCPP		0		MCPP
12.882	43608	-427004.3	MCPA		0		MCPA
13.45	421368	1172.74	2,4-DP	13.976	979465	2414.588	2,4-DP
14.231	10696840	.033	DBOFB	13.715	11141260	.033	DBOFB
15.089	298813	55.014	PCP	15.325	913736	153.65	PCP
15.926	400418	220.632	2,4,5-T	16.5	204492	105.465	2,4,5-T
16.714	529688	2103.705	2,4-DB		0		2,4-DB
16.941	555892	588.63	DINOSEB	16.933	3738654	3745.217	DINOSEB
26.142	74088	43.205	Hexachlorophene		0		Hexachlorophen

Files:
Area File: 15herb18304004.122.RAW
Area File: 15herb18304004B.122.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/9/2018 6:11:45 AM
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9872064 F DF100 AD12T06 T 183030010A 10401 SW-846 8151A

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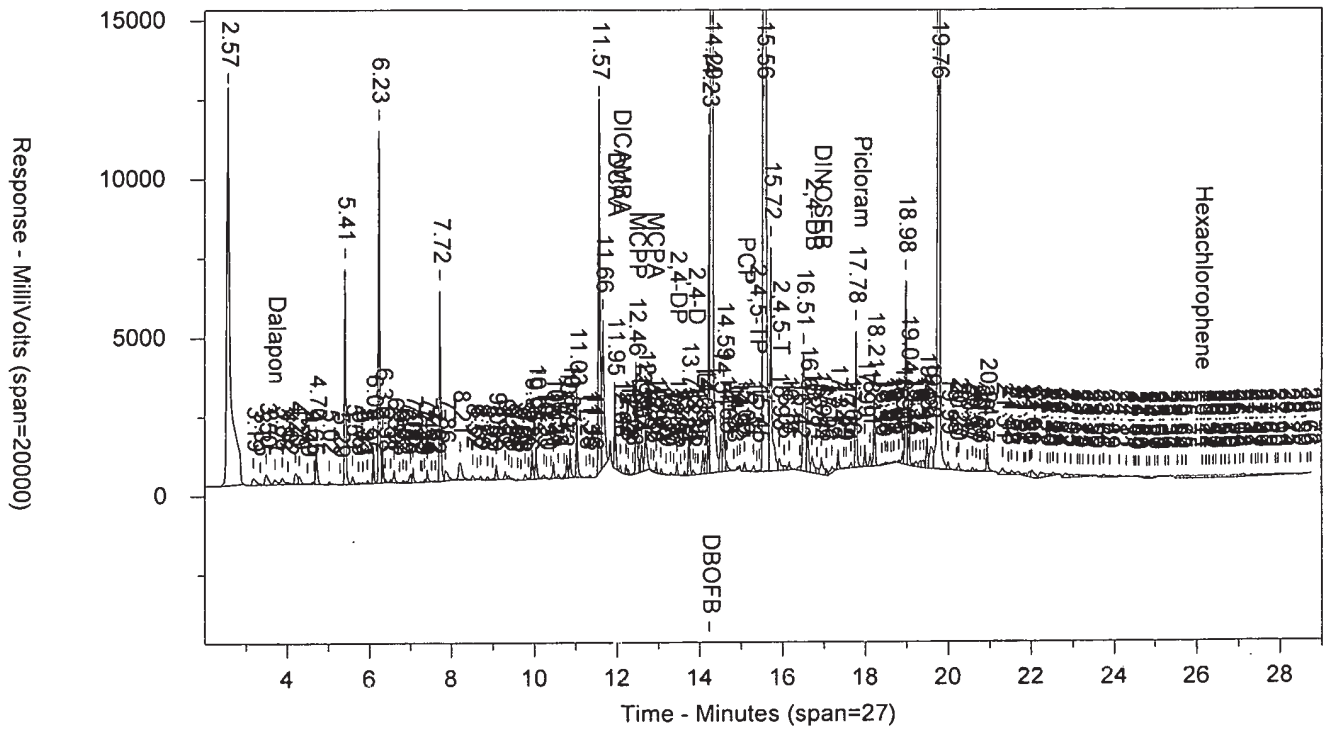

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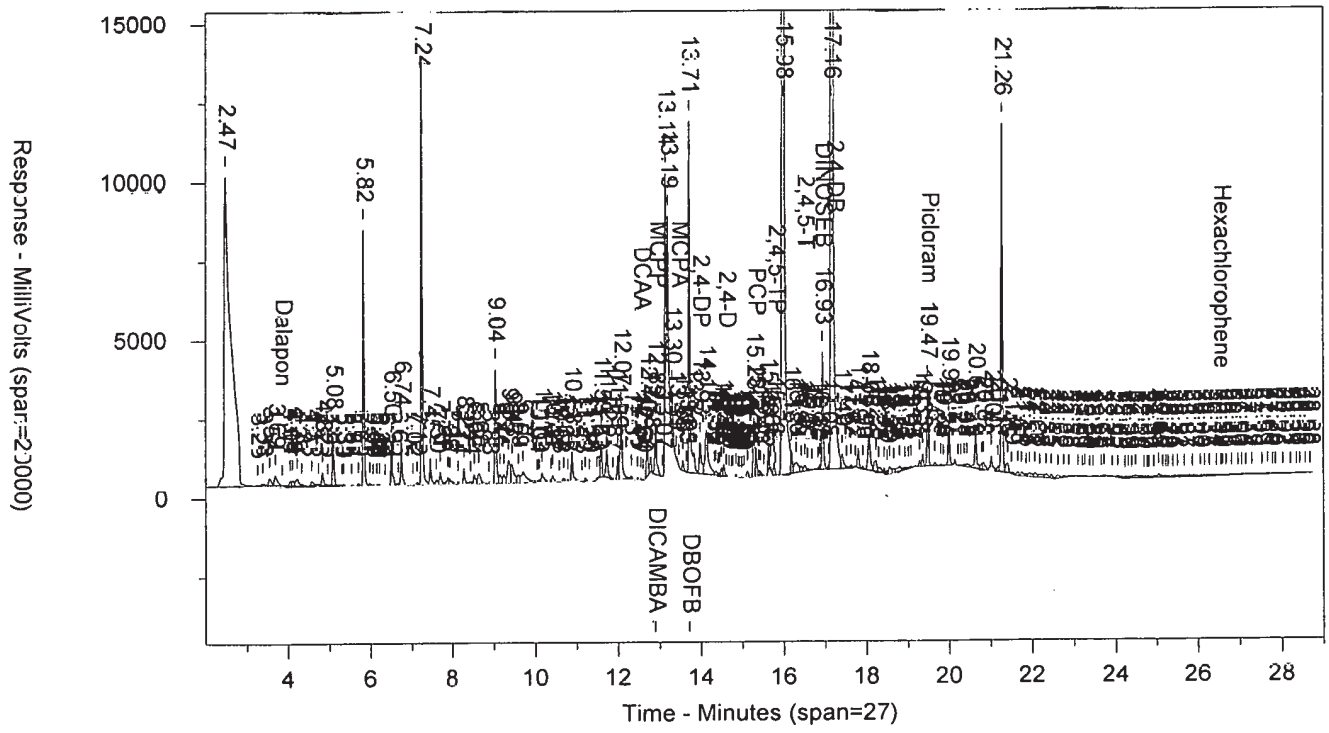

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Data Summary

Sample Name: 9872065 F DF10 12T07 Sample ID: AC **Batchnumber: 183030010A**
Sample Amount: 30.1 g Total Volume: 100 ml Analyst: 120 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on Nov 03, 2018 04:14:38
Instrument 19850A
Result file 15HERB18304002.068.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 98% (27 - 122) Conc: 65.43804

Analysis Report (B)

Injected on Nov 03, 2018 04:14:38
Instrument 19850B
Result file 15HERB18304002B.068.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) * 128% (27 - 122) Conc: 85.24974

Single Component Data

Compound	Min	RT	Max	Height		Amount
Dalapon	3.70	3.71	3.76	345865		142.5586
2,4-DCAA	11.91	11.95	11.97	285986		65.43804
MCPP (Mecoprop)	12.45	12.47	12.51	98006		0
MCPA	12.83	12.87	12.89	53936		0
2,4-DP (Dichloroprop)	13.43	13.43	13.49	67161		18.623
Pentachlorophenol	15.06	15.08	15.12	502969		9.225844
2,4,5-T	15.88	15.92	15.94	90786		4.983829
Dinoseb	16.90	16.95	16.96	217073		22.9006
Picloram	17.86	17.90	17.92	205172		12.99092
Hexachlorophene	26.10	26.12	26.16	57228980	E	3325.05

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	12.49	12.52	12.55	416916	85.24974
Dicamba	12.85	12.87	12.91	164514	8.096129
MCPP (Mecoprop)	12.90	12.92	12.96	117465	5815.036
MCPA	13.43	13.46	13.49	108139	3892.468
2,4-DP (Dichloroprop)	13.96	13.96	14.01	79570	18.60673
Pentachlorophenol	15.28	15.30	15.34	572581	9.133031
2,4,5-TP	15.77	15.81	15.83	117755	5.089659
2,4,5-T	16.47	16.51	16.53	78884	3.859097
Dinoseb	16.91	16.92	16.97	115038	10.93123
Picloram	19.48	19.52	19.54	212276	11.49022
Hexachlorophene	26.52	26.54	26.58	65458000	3419.535

Single Component Summary

	Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
☑	Dalapon			<438.5382	<877.0764	<897.01	D2		
☐	2,4-DCAA	B	85.24974	33.2392	66.4784	66.4784		26.30	
☑	2,4-DCAA-D1	A	65.43804	33.2392	<66.4784	<66.4784	J		
☑	2,4-DCAA-D2	B	85.24974	33.2392	66.4784	66.4784			
☑	Dicamba			<39.8671	<79.7342	<119.6013	D1		
☑	MCPP (Mecoprop)			<37873.7556	<75747.5113	<76744.1891	D1		
☑	MCPA			<7574.7511	<15149.5023	<24916.9445	D1		
☑	2,4-DP (Dichloroprop)			<89.701	<179.402	<199.3356	D2		
☑	2,4-D			<119.6013	<239.2027	<358.804	D1		
☐	Pentachlorophenol	A	9.225844	3.289	6.5781	<16.9435	J	1.01	
☑	2,4,5-TP			<7.4751	<14.9502	<16.9435	D1		
☑	2,4,5-T			<8.1728	<16.3455	<16.9435	D2		
☑	2,4-DB			<97.6744	<199.3356	<209.3023	D1		
☑	Dinoseb			<89.701	<179.402	<239.2027	D2		
☐	Picloram			<199.3356	<398.6711	<408.6379			
☐	Hexachlorophene	B	3419.535			239.2027		2.80	

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Valerie L. Tomayko
Principal Specialist

NOV 0 7 2018

Reviewed and digitally signed by Richard A Shober on 11/7/2018 08:54:39

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **9872065** F DF10 12T07 ID: AC **Batchnumber: 183030010A**
Sample Amount: 30.1 g Total Volume: 100 ml Analyst: 13378 SDG: TID12 State: NY
Analyses: 10401

Analysis Report (A)

Injected on : Nov 03, 2018 04:14:38
Instrument : CP15--19850A
Result file : 15HERB18304002.068.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 98% (27-122) Conc.: 65.43804

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.71	3.76	345865	142.558600
DCAA	11.91	11.95	11.97	285986	65.438040
MCPP	12.45	12.47	12.51	98006	-36397.070000
MCPA	12.83	12.87	12.89	53936	-42339.530000
2,4-DP	13.43	13.43	13.49	67161	18.623000
DBOFB	14.21	14.22	14.26	10779380	0.033223
PCP	15.06	15.08	15.12	502969	9.225844
2,4,5-T	15.88	15.92	15.94	90786	4.983829
DINOSEB	16.90	16.95	16.96	217073	22.900600
Picloram	17.86	17.90	17.92	205172	12.990920
Hexachlorophene	26.10	26.12	26.16	57228980 E	3325.050000

Analysis Report (B)

Injected on : Nov 03, 2018 04:14:38
Instrument : CP15--19850B
Result file : 15HERB18304002B.068.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : *128% (27-122) Conc.: 85.24974

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.52	12.55	416916	85.249740
DICAMBA	12.85	12.87	12.91	164514	8.096129
MCPP	12.90	12.92	12.96	117465	5815.036000
MCPA	13.43	13.46	13.49	108139	3892.468000
DBOFB	13.69	13.70	13.75	11792210	0.033223
2,4-DP	13.96	13.96	14.01	79570	18.606730
PCP	15.28	15.30	15.34	572581	9.133031
2,4,5-TP	15.77	15.81	15.83	117755	5.089659
2,4,5-T	16.47	16.51	16.53	78884	3.859097
DINOSEB	16.91	16.92	16.97	115038	10.931230
Picloram	19.48	19.52	19.54	212276	11.490220
Hexachlorophene	26.52	26.54	26.58	65458000 E	3419.535000

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon			<897.0099	<438.5382			
☐ DCAA	B	85.249740	66.4784	33.2392		26.30	
☑ DICAMBA			<119.6013	<39.8671			
☑ MCPP			76744.1817	<37873.752			
☑ MCPA			24916.9421	<7574.7504			
☑ 2,4-DP			<199.3355	<89.701			
☑ 2,4-D			<358.804	<119.6013			
☐ DBOFB	A	0.033223				0.00	
☐ PCP	A	9.225844	<16.9435	3.289	J	1.01	
☑ 2,4,5-TP			<16.9435	<7.4751			
☑ 2,4,5-T			<16.9435	<8.1728			
☑ 2,4-DB			<209.3023	<97.6744			
☑ DINOSEB			<239.2026	<89.701			
☐ Picloram			<408.6379	<199.3355			
☐ Hexachlorophene	B	3419.535000	239.2026		E	2.80	

Units: ug/kg

Reviewed by: [signature] Verified by: Valerie L. Tomayko Principal Specialist

Date: 11/7 Date: NOV 07 2018

DILUTION FOR MATRIX

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

9872065 F DF10 AC12T07 T 183030010A 10401 SW-846 8151A

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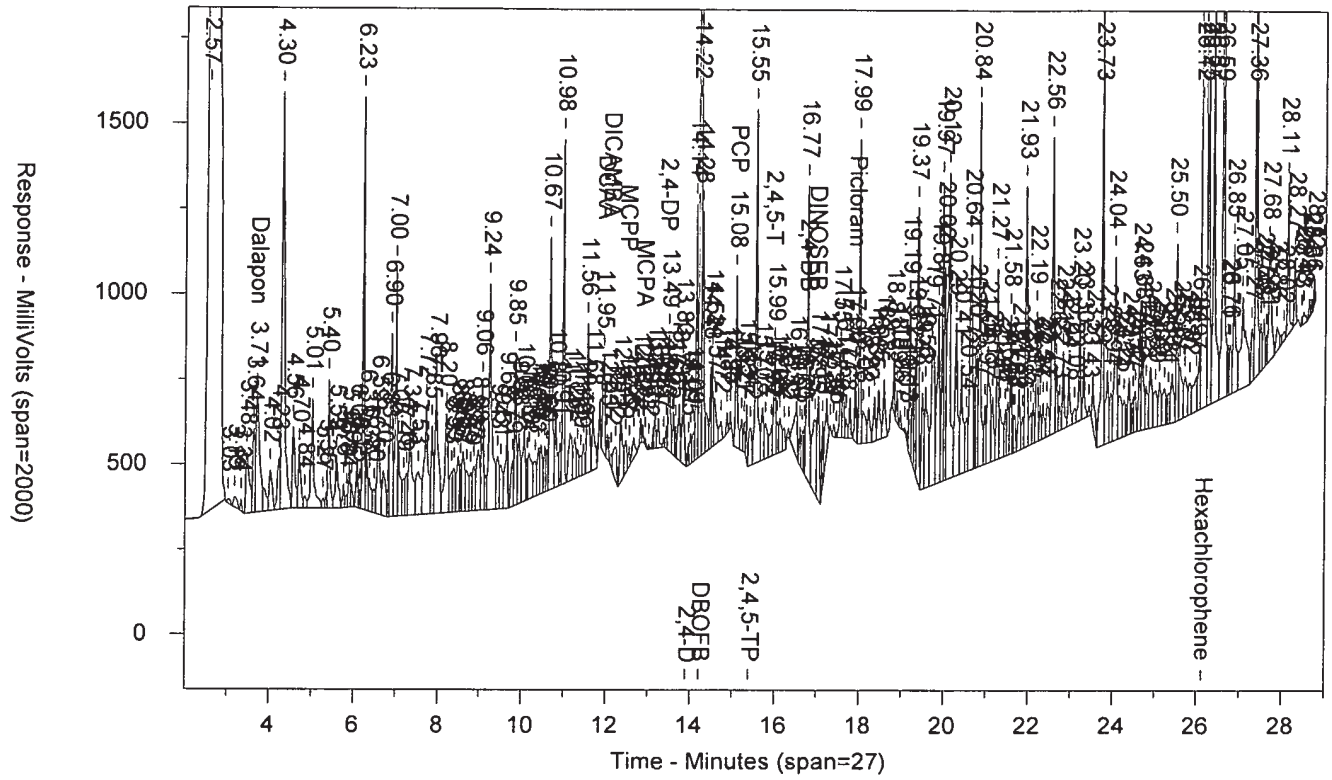

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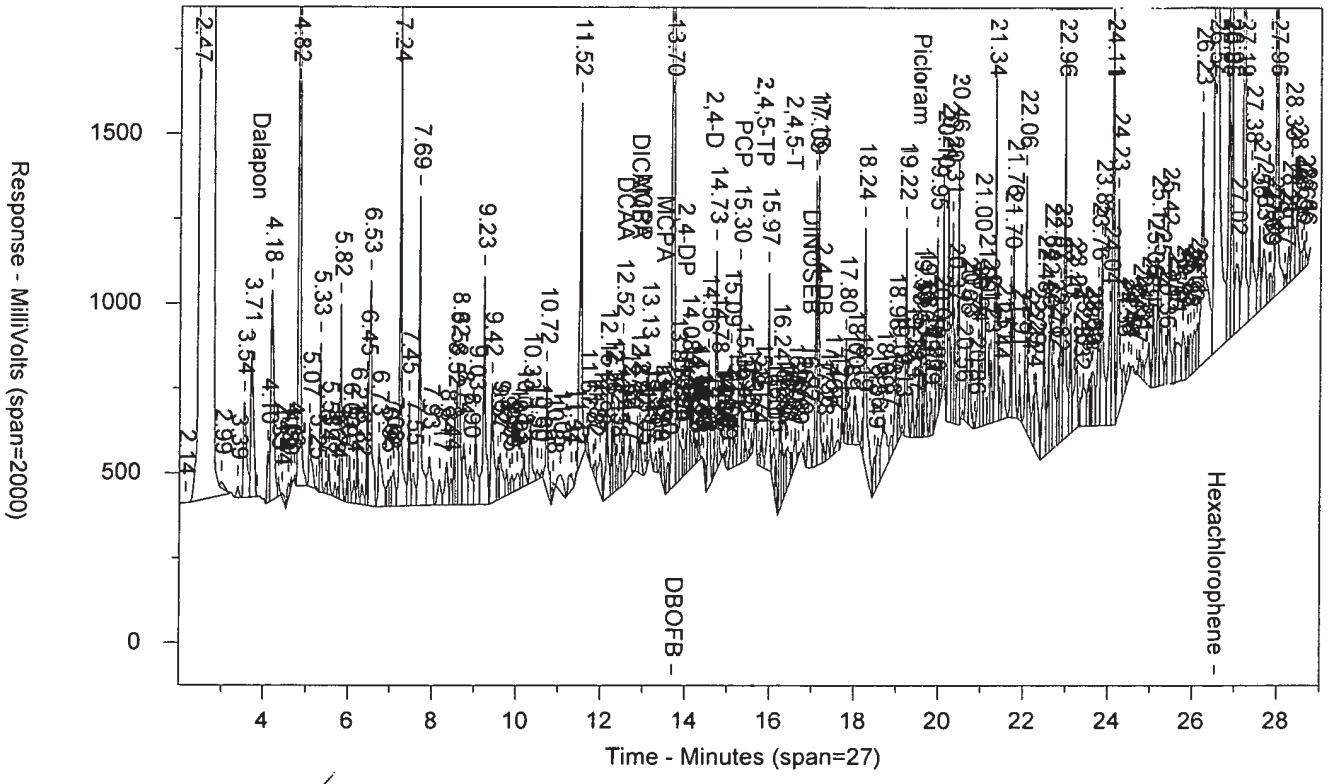

LANCASTER LABORATORIES

Sample Number: 9872065 F DF10 AC12T07 T 183030010A 10401 SW-846 8151A
Injected On: 11/3/2018 4:14:38 AM Sample Weight: 30.1
Instrument ID: CP15-19850 Dilution Factor: 100
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.711	345865	142.559	Dalapon		0		Dalapon
11.948	285986	65.438	DCAA	12.521	416916	85.25	DCAA
12.467	98006	-36397.07	MCPP	12.925	117465	5815.036	MCPP
	0		DICAMBA	12.866	164514	8.096	DICAMBA
12.871	53936	-42339.53	MCPA	13.461	108139	3892.468	MCPA
13.434	67161	18.623	2,4-DP	13.962	79570	18.607	2,4-DP
14.218	10779380	.033	DBOFB	13.698	11792210	.033	DBOFB
15.085	502969	9.226	PCP	15.296	572581	9.133	PCP
	0		2,4,5-TP	15.808	117755	5.09	2,4,5-TP
15.921	90786	4.984	2,4,5-T	16.513	78884	3.859	2,4,5-T
16.947	217073	22.901	DINOSEB	16.924	115038	10.931	DINOSEB
17.896	205172	12.991	Picloram	19.515	212276	11.49	Picloram
26.122	57228980	3325.05	Hexachlorophene	26.545	65458000	3419.535	Hexachloropher

Files:
Area File: 15herb18304002.068.RAW
Area File: 15herb18304002B.068.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 4:43:28 AM
File Reported On: 11/6/2018 at 2:00:21 PM

9872065 F DF10 AC12T07 T 183030010A 10401 SW-846 8151A

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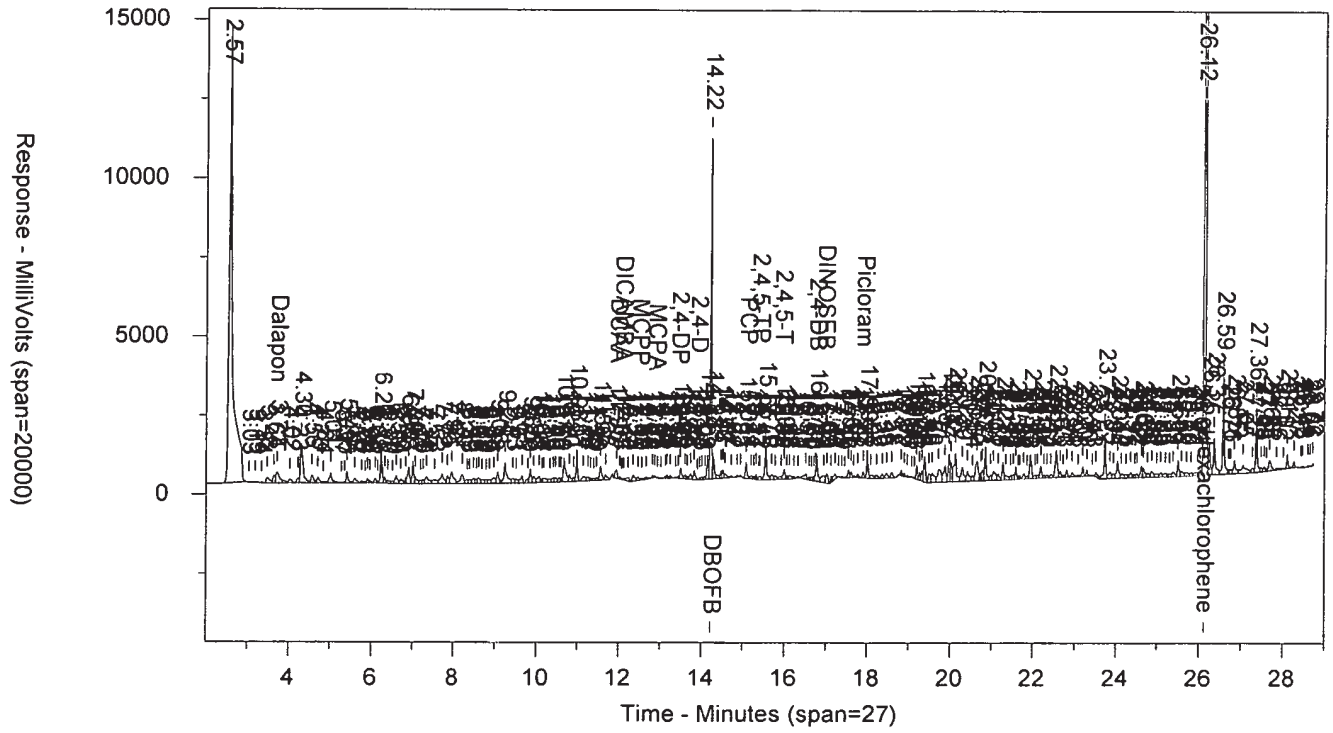

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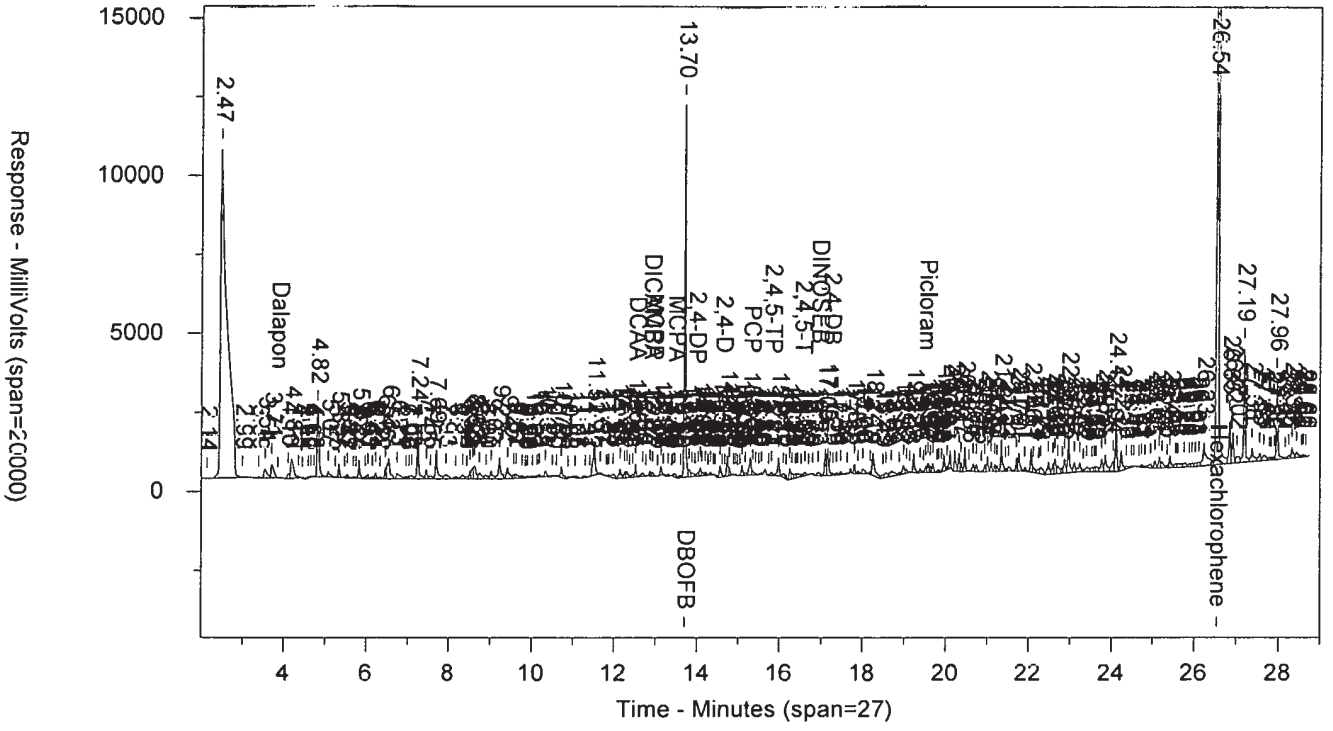

Standards Data

Herbicides

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperfect\chromperfect-data\Dept-24\Active\CP15\15herb18304001.seq

Chromatography Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Number of Entries: 42

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1 CONDITIONER	1	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	
2 CONDITIONER	2	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	
3 CONDITIONER	3	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	
4 CONDITIONER	4	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	
5 HIBLKX1824B	5	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830299999	10407
6 HERB11824E	6	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	1	1830299999	10407
7 HERB21824E	7	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	2	1830299999	10407
8 HERB31824F	8	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	3	1830299999	10407
9 HERB41824E	9	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	4	1830299999	10407
10 HERB51824E	10	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	5	1830299999	10407
11 HERB61824E	11	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	6	1830299999	10407
12 MDHEX1824E	12	ICAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
13 ICHBX1824G	13	CCAL	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
14 ICHBX1824H	14	CCAL	QV	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
15 ICHBX1824I	15	CCAL	QW	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
16 BLANKA 10/29/18 F	16	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183020008A	10407
17 LCSA 10/29/18 F	17	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183020008A	10407
18 LCSDA 10/29/18 F	18	LCSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183020008A	10407
19 9868184 F	19	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1040	10	1	0	183020008A	10407
20 9868185 F	20	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1062	10	1	0	183020008A	10407
21 9868186 F	21	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1045	10	1	0	183020008A	10407
22 9868187 F	22	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1055	10	1	0	183020008A	10407
23 9868189 F	23	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1060	10	1	0	183020008A	10407
24 9870991 F	24	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1029	10	1	0	183020008A	10407
25 HERB31824F	25	CCAL	TW	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
26 HIBLKX1824B	26	PIBLK	FL	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830299999	10407
27 BLANKA 10/29/18 F	27	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183020009A	10401
28 LCSA 10/29/18 F	28	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183020009A	10401
29 9863853 F	29	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	10	1	0	183020009A	10401
30 9863854MS F	30	MS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	10	1	0	183020009A	10401
31 9863855MSD F	31	MSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	10	1	0	183020009A	10401
32 HERB31824F	32	CCAL	TX	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
33 HIBLKX1824B	33	PIBLK	FM	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830299999	10407
34 9863851 F	34	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183020009A	10401
35 9863852 F	35	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.03	10	1	0	183020009A	10401
36 9863857 F	36	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	10	1	0	183020009A	10401
37 9863858 F	37	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.27	10	1	0	183020009A	10401
38 9866461 F	38	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.06	10	1	0	183020009A	10401
39 9866462 F	39	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	10	1	0	183020009A	10401
40 9870992 F	40	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.41	10	1	0	183020009A	10401
41 HERB31824F	41	CCAL	TY	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830299999	10407
42 HIBLKX1824B	42	PIBLK	FN	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830299999	10407

MW 15249
11/2/18

Set-up by: _____ Date: 11/2/18

11/2/2018

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperfect\chromperfect-data\Dept-24\Active\CP24\24herb18311001.seq

Chromatography Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24

Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24

Number of Entries: 14

	Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831099999	
2	CONDITIONER	2	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831099999	
3	CONDITIONER	3	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831099999	
4	CONDITIONER	4	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831099999	
5	HIBLKX1824B	5	MISC	AA	24HERB.MET	1000	10	1	0	1831099999	10407
6	HERB11824E	6	ICAL	AA	24HERB.MET	1	1	1	1	1831099999	10407
7	HERB21824E	7	ICAL	AA	24HERB.MET	1	1	1	2	1831099999	10407
8	HERB31824F	8	ICAL	AA	24HERB.MET	1	1	1	3	1831099999	10407
9	HERB41824E	9	ICAL	AA	24HERB.MET	1	1	1	4	1831099999	10407
10	HERB51824E	10	ICAL	AA	24HERB.MET	1	1	1	5	1831099999	10407
11	HERB61824E	11	ICAL	AA	24HERB.MET	1	1	1	6	1831099999	10407
12	MDHEX1824E	12	ICAL	AA	24HERB.MET	1	1	1	0	1831099999	10407
13	ICHBX1824G	13	CCAL	AA	24HERB.MET	1	1	1	0	1831099999	10407
14	ICHBX1824H	14	CCAL	AA	24HERB.MET	1	1	1	0	1831099999	10407

MW 15249
11/8/18

Set-up by: _____ Date: 11/8/18

11/7/2018

Eurofins Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperfect\chromperfect-data\Dept-24\Active\CP15\15herb18304002.seq

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Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Number of Entries: 71

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1 CONDITIONER	1	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	
2 CONDITIONER	2	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	
3 CONDITIONER	3	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	
4 CONDITIONER	4	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	
5 CONDITIONER	5	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	
6 HERB31824F	6	CCAL	UH	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
7 HIBLKX1824B	7	MISC	RQ	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
8 BLANKA 10/30/18 F	8	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183030010A	10401
9 LCSA 10/30/18 F	9	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183030010A	10401
10 9867762 F	10	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.08	10	1	0	183030010A	10401
11 CONDITIONER	11	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.08	10	1	0	183030010A	10401
12 9867762 F DF5	12	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.08	50	1	0	183030010A	10401
13 9867763MS F	13	MS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	10	1	0	183030010A	10401
14 CONDITIONER	14	MS	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	10	1	0	183030010A	10401
15 9867763MS F DF5	15	MS	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	50	1	0	183030010A	10401
16 HERB31824F	16	CCAL	UI	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
17 HIBLKX1824B	17	MISC	RR	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
18 9867764MSD F	18	MSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.2	10	1	0	183030010A	10401
19 CONDITIONER	19	MSD	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.2	10	1	0	183030010A	10401
20 9867764MSD F DF5	20	MSD	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.2	50	1	0	183030010A	10401
21 9866463 F	21	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	10	1	0	183030010A	10401
22 9866463 F DF5	22	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	50	1	0	183030010A	10401
23 9866464 F	23	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.23	10	1	0	183030010A	10401
24 9866464 F DF5	24	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.23	50	1	0	183030010A	10401
25 9866465 F	25	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.3	10	1	0	183030010A	10401
26 9866465 F DF5	26	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.3	50	1	0	183030010A	10401
27 HERB31824F	27	CCAL	UJ	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
28 HIBLKX1824B	28	MISC	RS	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
29 9866466 F	29	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	10	1	0	183030010A	10401
30 9866466 F DF5	30	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	50	1	0	183030010A	10401
31 9866467 F	31	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	10	1	0	183030010A	10401
32 9866467 F DF5	32	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	50	1	0	183030010A	10401
33 9867761 F	33	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	10	1	0	183030010A	10401
34 9867761 F DF5	34	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	50	1	0	183030010A	10401
35 9867766 F	35	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.44	10	1	0	183030010A	10401
36 9867766 F DF5	36	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.44	50	1	0	183030010A	10401
37 9867767 F DF10	37	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	100	1	0	183030010A	10401
38 CONDITIONER	38	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	100	1	0	183030010A	10401
39 HERB31824F	39	CCAL	UK	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
40 HIBLKX1824B	40	MISC	RT	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
41 9869111 F	41	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.49	10	1	0	183030010A	10401
42 9869111 F DF5	42	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.49	50	1	0	183030010A	10401
43 9870251 F	43	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.19	10	1	0	183030010A	10401
44 9870251 F DF5	44	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.19	50	1	0	183030010A	10401
45 9870252 F	45	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.14	10	1	0	183030010A	10401
46 9870252 F DF5	46	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.14	50	1	0	183030010A	10401
47 9870253 F DF10	47	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	100	1	0	183030010A	10401
48 CONDITIONER	48	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	100	1	0	183030010A	10401
49 9870254 F	49	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.15	10	1	0	183030010A	10401
50 9870254 F DF5	50	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.15	50	1	0	183030010A	10401

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperfect\chromperfect-data\Dept-24\Active\CP15\15herb18304002.seq

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Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Number of Entries: 71

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
51 HERB31824F	51	CCAL	UL	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
52 HIBLKX1824B	52	MISC	RU	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
53 9872060 F DF10	53	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30	100	1	0	183030010A	10401
54 CONDITIONER	54	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30	100	1	0	183030010A	10401
55 9872061 F	55	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	10	1	0	183030010A	10401
56 CONDITIONER	56	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	10	1	0	183030010A	10401
57 9872061 F DF5	57	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.02	50	1	0	183030010A	10401
58 9872062 F	58	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.41	10	1	0	183030010A	10401
59 CONDITIONER	59	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.41	10	1	0	183030010A	10401
60 9872062 F DF5	60	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.41	50	1	0	183030010A	10401
61 9866463	61	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	10	1	0	183030010A	10401
62 CONDITIONER	62	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.28	10	1	0	183030010A	10401
63 HERB31824F	63	CCAL	UM	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
64 HIBLKX1824B	64	MISC	RV	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407
65 9872063 F DF5	65	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.19	50	1	0	183030010A	10401
66 9872064 F DF10	66	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.22	100	1	0	183030010A	10401
67 CONDITIONER	67	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.22	100	1	0	183030010A	10401
68 9872065 F DF10	68	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	100	1	0	183030010A	10401
69 CONDITIONER	69	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.22	100	1	0	183030010A	10401
70 HERB31824F	70	CCAL	UN	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830499999	10407
71 HIBLKX1824B	71	MISC	RW	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830499999	10407

MW 15249

11/6/18

Set-up by: _____ Date: 11/2/18

11/2/2018

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperfect\chromperfect-data\Dept-24\Active\CP15\15herb18304004.seq

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Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Number of Entries: 141

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1 CONDITIONER	1	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	
2 CONDITIONER	2	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	
3 CONDITIONER	3	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	
4 CONDITIONER	4	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	
5 HERB31824F	5	CCAL	UV	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
6 HIBLKX1824B	6	MISC	SE	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
7 BLANKA 10/29/18 RI F	7	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183020009A	10401
8 9870992 RI F	8	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.41	10	1	0	183020009A	10401
9 LCSA 10/28/18 RI F	9	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	182990034A	10401
10 HERB31824F	10	CCAL	UW	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
11 HIBLKX1824B	11	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
12 BLANKA 11/5/18 F	12	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183090033A	10401
13 LCSA 11/5/18 F	13	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183090033A	10401
14 9863853R F	14	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	10	1	0	183090033A	10401
15 9863854RMS F	15	MS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183090033A	10401
16 9863855RMSD F	16	MSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.4	10	1	0	183090033A	10401
17 9863851R F	17	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	10	1	0	183090033A	10401
18 9863852R F	18	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.3	10	1	0	183090033A	10401
19 9863857R F	19	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	10	1	0	183090033A	10401
20 9863858R F	20	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	10	1	0	183090033A	10401
21 9881801 F	21	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	10	1	0	183090033A	10401
22 HERB31824F	22	CCAL	UX	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
23 HIBLKX1824B	23	MISC	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
24 9881804 F	24	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.13	10	1	0	183090033A	10401
25 9881807 F	25	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.2	10	1	0	183090033A	10401
26 BLANKA 11/1/18 RI F	26	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183050015A	10401
27 LCSA 11/1/18 RI F	27	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	183050015A	10401
28 9874412 F DF20	28	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	30.09	200	1	0	183050015A	10401
29 CONDITIONER	29	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.09	200	1	0	183050015A	10401
30 9874412MS F DF20	30	MS	AE	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	200	1	0	183050015A	10401
31 CONDITIONER	31	MS	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	200	1	0	183050015A	10401
32 9874412MSD F DF20	32	MSD	AE	EPT-24\ACTIVE\CP15\15HERB.MET	30.5	200	1	0	183050015A	10401
33 CONDITIONER	33	MSD	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.5	200	1	0	183050015A	10401
34 HERB31824F	34	CCAL	UY	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
35 HIBLKX1824B	35	MISC	SH	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
36 9868565 RI F	36	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.14	10	1	0	183050015A	10401
37 9868566 RI F	37	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.16	10	1	0	183050015A	10401
38 9868567 RI F	38	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.22	10	1	0	183050015A	10401
39 9868568 F DF10	39	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	100	1	0	183050015A	10401
40 CONDITIONER	40	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.39	100	1	0	183050015A	10401
41 9868571 RI F DF10	41	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	100	1	0	183050015A	10401
42 CONDITIONER	42	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	100	1	0	183050015A	10401
43 9868571 F DF20	43	T	AH	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	200	1	0	183050015A	10401
44 CONDITIONER	44	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.29	200	1	0	183050015A	10401
45 HERB31824F	45	CCAL	UZ	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
46 HIBLKX1824B	46	MISC	SI	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
47 9870637 RI F	47	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.15	10	1	0	183050015A	10401
48 9870639 F DF5	48	T	AE	EPT-24\ACTIVE\CP15\15HERB.MET	30.12	50	1	0	183050015A	10401
49 CONDITIONER	49	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.12	50	1	0	183050015A	10401
50 9870639 F DF10	50	T	AF	EPT-24\ACTIVE\CP15\15HERB.MET	30.12	100	1	0	183050015A	10401

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CHROM PERFECT SEQUENCE FILE

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Number of Entries: 141

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
51 9874411 F DF10	51	T	AE	EPT-24\ACTIVE\CP15\15HERB.MET	30.04	100	1	0	183050015A	10401
52 CONDITIONER	52	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.04	100	1	0	183050015A	10401
53 9874411 F DF20	53	T	AF	EPT-24\ACTIVE\CP15\15HERB.MET	30.04	200	1	0	183050015A	10401
54 9874413 RI F DF5	54	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.17	50	1	0	183050015A	10401
55 CONDITIONER	55	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.17	50	1	0	183050015A	10401
56 HERB31824F	56	CCAL	VA	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
57 HIBLKX1824B	57	MISC	SJ	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
58 9875251 RI F	58	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30.42	10	1	0	183050015A	10401
59 BLANKA 11/2/18 F	59	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183050043A	10407
60 LCSA 11/2/18 F	60	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183050043A	10407
61 9876334 F	61	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1056	10	1	0	183050043A	10407
62 9876335MS F	62	MS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1063	10	1	0	183050043A	10407
63 9876336MSD F	63	MSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1060	10	1	0	183050043A	10407
64 9876332 F	64	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1060	10	1	0	183050043A	10407
65 9876342 F	65	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1062	10	1	0	183050043A	10407
66 HERB31824F	66	CCAL	VB	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1830999999	10407
67 HIBLKX1824B	67	MISC	SK	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1830999999	10407
68 BLANKA 10/28/18 RI F	68	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	30	10	1	0	182990034A	10401
69 9860859 F DF5	69	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.33	50	1	0	182990034A	10401
70 CONDITIONER	70	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	30.33	50	1	0	182990034A	10401
71 HERB31824F	71	CCAL	VG	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1831099999	10407
72 HIBLKX1824B	72	MISC	SP	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1831099999	10407
73 9866461 F DF5	73	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.06	50	1	0	183020009A	10401
74 9866462 F DF5	74	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	30.18	50	1	0	183020009A	10401
75 9863858R F DF200	75	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	30.1	2000	1	0	183090033A	10401
76 BLANKA 11/4/18 F	76	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060017A	10407
77 LCSA 11/4/18 F	77	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060017A	10407
78 9879191 F DF100	78	T	AC	EPT-24\ACTIVE\CP15\15HERB.MET	994	1000	1	0	183060017A	10407
79 CONDITIONER	79	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	994	1000	1	0	183060017A	10407
80 9879191 F DF1000	80	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	994	10000	1	0	183060017A	10407
81 CONDITIONER	81	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	994	10000	1	0	183060017A	10407
82 HERB31824F	82	CCAL	VH	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1831099999	10407
83 HIBLKX1824B	83	MISC	SQ	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1831099999	10407
84 9879191 F DF2000	84	T	AE	EPT-24\ACTIVE\CP15\15HERB.MET	994	20000	1	0	183060017A	10407
85 CONDITIONER	85	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	994	20000	1	0	183060017A	10407
86 9879191 F DF5000	86	T	AF	EPT-24\ACTIVE\CP15\15HERB.MET	994	50000	1	0	183060017A	10407
87 CONDITIONER	87	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	994	50000	1	0	183060017A	10407
88 BLANKA 11/4/18 F	88	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060013A	10407
89 LCSA 11/4/18 F	89	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060013A	10407
90 9879191 F DF100	90	T	AD	EPT-24\ACTIVE\CP15\15HERB.MET	1036	1000	1	0	183060013A	10407
91 CONDITIONER	91	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1036	1000	1	0	183060013A	10407
92 9879191 F DF1000	92	T	AE	EPT-24\ACTIVE\CP15\15HERB.MET	1036	10000	1	0	183060013A	10407
93 CONDITIONER	93	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1036	10000	1	0	183060013A	10407
94 HERB31824F	94	CCAL	VI	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1831099999	10407
95 HIBLKX1824B	95	MISC	SR	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1831099999	10407
96 9879191 F DF2000	96	T	AF	EPT-24\ACTIVE\CP15\15HERB.MET	1036	20000	1	0	183060013A	10407
97 CONDITIONER	97	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1036	20000	1	0	183060013A	10407
98 9879191 F DF5000	98	T	AG	EPT-24\ACTIVE\CP15\15HERB.MET	1036	50000	1	0	183060013A	10407
99 CONDITIONER	99	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1036	50000	1	0	183060013A	10407
100 BLANKA 11/4/18 F	100	BLK	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060012A	10407

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CHROM PERFECT SEQUENCE FILE

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Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15

Number of Entries: 141

Samplename	VP	Code	ID	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
101 LCSA 11/4/18 F	101	LCS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060012A	10407
102 9879192 F	102	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1049	10	1	0	183060012A	10407
103 9879193MS F	103	MS	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1071	10	1	0	183060012A	10407
104 9879194MSD F	104	MSD	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1057	10	1	0	183060012A	10407
105 9879196 F	105	T	AB	EPT-24\ACTIVE\CP15\15HERB.MET	1058	10	1	0	183060012A	10407
106 HERB31824F	106	CCAL	VJ	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1831099999	10407
107 HIBLKX1824B	107	MISC	SS	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1831099999	10407
108 BLANKA 11/4/18	108	BLK	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060018A	10407
109 LCSA 11/4/18	109	LCS	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	183060018A	10407
110 9879192	110	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1062	10	1	0	183060018A	10407
111 9879193MS	111	MS	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1064	10	1	0	183060018A	10407
112 9879194MSD	112	MSD	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1061	10	1	0	183060018A	10407
113 9879196	113	T	AA	EPT-24\ACTIVE\CP15\15HERB.MET	1055	10	1	0	183060018A	10407
114 HERB31824F	114	CCAL	VK	EPT-24\ACTIVE\CP15\15HERB.MET	1	1	1	0	1831099999	10407
115 HIBLKX1824B	115	MISC	ST	EPT-24\ACTIVE\CP15\15HERB.MET	1000	10	1	0	1831099999	10407
116 9870252 F DF50	116	T	AD	15HERB.MET	30.14	500	1	0	183030010A	10401
117 9870253 F DF50	117	T	AD	15HERB.MET	30.18	500	1	0	183030010A	10401
118 9870254 F DF50	118	T	AD	15HERB.MET	30.15	500	1	0	183030010A	10401
119 9872060 F DF100	119	T	AD	15HERB.MET	30	1000	1	0	183030010A	10401
120 9872061 F DF100	120	T	AD	15HERB.MET	30.02	1000	1	0	183030010A	10401
121 9872062 F DF100	121	T	AD	15HERB.MET	30.41	1000	1	0	183030010A	10401
122 9872064 F DF100	122	T	AD	15HERB.MET	30.22	1000	1	0	183030010A	10401
123 HERB31824F	123	CCAL	VT	15HERB.MET	1	1	1	0	1831199999	10407
124 HIBLKX1824B	124	MISC	TC	15HERB.MET	1000	10	1	0	1831199999	10407
125 BLANKA 11/6/18 F	125	BLK	AB	15HERB.MET	1000	10	1	0	183100005A	10407
126 LCSA 11/6/18 F	126	LCS	AB	15HERB.MET	1000	10	1	0	183100005A	10407
127 LCSDA 11/6/18 F	127	LCSD	AB	15HERB.MET	1000	10	1	0	183100005A	10407
128 9881309 F	128	T	AB	15HERB.MET	1042	10	1	0	183100005A	10407
129 9881310 F	129	T	AB	15HERB.MET	1039	10	1	0	183100005A	10407
130 9881313 F	130	T	AB	15HERB.MET	1044	10	1	0	183100005A	10407
131 9882870 F	131	T	AB	15HERB.MET	1055	10	1	0	183100005A	10407
132 9882871 F	132	T	AB	15HERB.MET	1061	10	1	0	183100005A	10407
133 9882872 F	133	T	AB	15HERB.MET	1057	10	1	0	183100005A	10407
134 9882873 F	134	T	AB	15HERB.MET	1064	10	1	0	183100005A	10407
135 HERB31824F	135	CCAL	VU	15HERB.MET	1	1	1	0	1831199999	10407
136 HIBLKX1824B	136	MISC	TD	15HERB.MET	1000	10	1	0	1831199999	10407
137 9882874 F	137	T	AB	15HERB.MET	1054	10	1	0	183100005A	10407
138 9882875 F	138	T	AB	15HERB.MET	1058	10	1	0	183100005A	10407
139 9882876 F	139	T	AB	15HERB.MET	1032	10	1	0	183100005A	10407
140 HERB31824F	140	CCAL	VV	15HERB.MET	1	1	1	0	1831199999	10407
141 HIBLKX1824B	141	MISC	TE	15HERB.MET	1000	10	1	0	1831199999	10407

MW15249
11/9/18

Set-up by: _____ Date: 11/8/18

11/8/2018

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CHROM PERFECT SEQUENCE FILE

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Method Directory: \\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24

Number of Entries: 39

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1	CONDITIONER	1	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831899999	
2	CONDITIONER	2	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831899999	
3	CONDITIONER	3	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831899999	
4	CONDITIONER	4	MISC	AA	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831899999	
5	HERB31824F	5	CCAL	WR	EPT-24\ACTIVE\CP24\24HERB.MET	1	1	1	0	1831899999	10407
6	HIBLKX1824B	6	MISC	UA	EPT-24\ACTIVE\CP24\24HERB.MET	1000	10	1	0	1831899999	10407
7	BLANKA 11/14/18 F	7	BLK	AB	24HERB.MET	50	10	1	0	183180014A	00952
8	LCSA 11/14/18 F	8	LCS	AB	24HERB.MET	50	10	1	0	183180014A	00952
9	LCSDA 11/14/18 F	9	LCSD	AB	24HERB.MET	50	10	1	0	183180014A	00952
10	9892503 F	10	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
11	9893888 F	11	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
12	9894746 F	12	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
13	9895499 F	13	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
14	9896184 F	14	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
15	9896186 F	15	T	AB	24HERB.MET	50	10	1	0	183180014A	00952
16	BLANKA 11/13/18 F	16	BLK	AB	24HERB.MET	50	10	1	0	183170028A	00952
17	HERB31824F	17	CCAL	WS	24HERB.MET	1	1	1	0	1831899999	10407
18	HIBLKX1824B	18	MISC	UB	24HERB.MET	1000	10	1	0	1831899999	10407
19	LCSA 11/13/18 F	19	LCS	AB	24HERB.MET	50	10	1	0	183170028A	00952
20	LCSDA 11/13/18 F	20	LCSD	AB	24HERB.MET	50	10	1	0	183170028A	00952
21	9885305 F	21	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
22	9885308 F	22	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
23	9885720 F	23	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
24	9885724 F	24	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
25	9887906 F	25	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
26	9889801 F	26	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
27	9889814 F	27	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
28	9889879 F	28	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
29	HERB31824F	29	CCAL	WT	24HERB.MET	1	1	1	0	1831899999	10407
30	HIBLKX1824B	30	MISC	UC	24HERB.MET	1000	10	1	0	1831899999	10407
31	9891811 F	31	T	AB	24HERB.MET	50	10	1	0	183170028A	00952
32	9872060 F DF200	32	T	AE	24HERB.MET	30	2000	1	0	183030010A	10401
33	9872060 F DF500	33	T	AF	24HERB.MET	30	5000	1	0	183030010A	10401
34	9872061 F DF200	34	T	AE	24HERB.MET	30.02	2000	1	0	183030010A	10401
35	9872061 F DF500	35	T	AF	24HERB.MET	30.02	5000	1	0	183030010A	10401
36	9872062 F DF200	36	T	AE	24HERB.MET	30.41	2000	1	0	183030010A	10401
37	9872062 F DF500	37	T	AF	24HERB.MET	30.41	5000	1	0	183030010A	10401
38	HERB31824F	38	CCAL	WU	24HERB.MET	1	1	1	0	1831899999	10407
39	HIBLKX1824B	39	MISC	UD	24HERB.MET	1000	10	1	0	1831899999	10407

MJ 11/15/18
J6347

Set-up by: RMA Date: 11/15/18

11/15/2018

HIBLKX1824B AAHIBLKAA ICAL 1830299999 10407 SW-846 8015A

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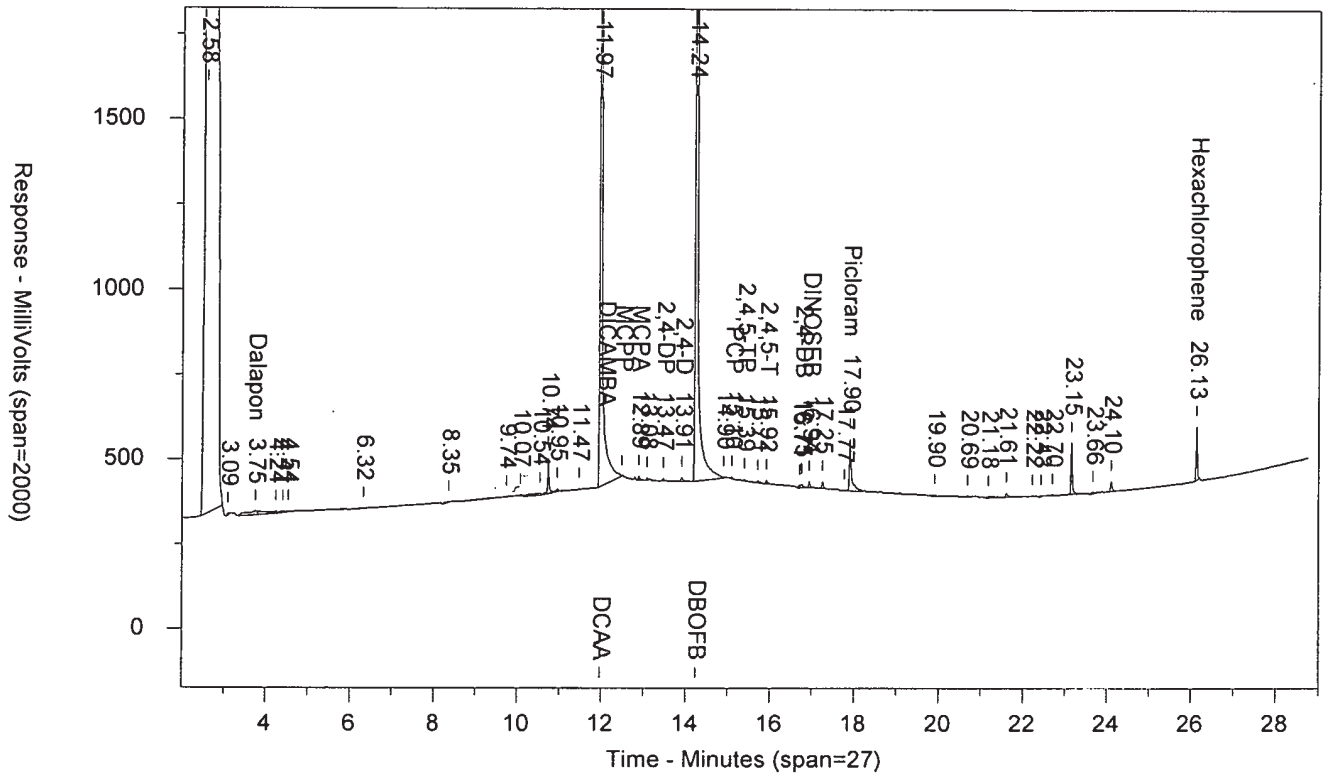

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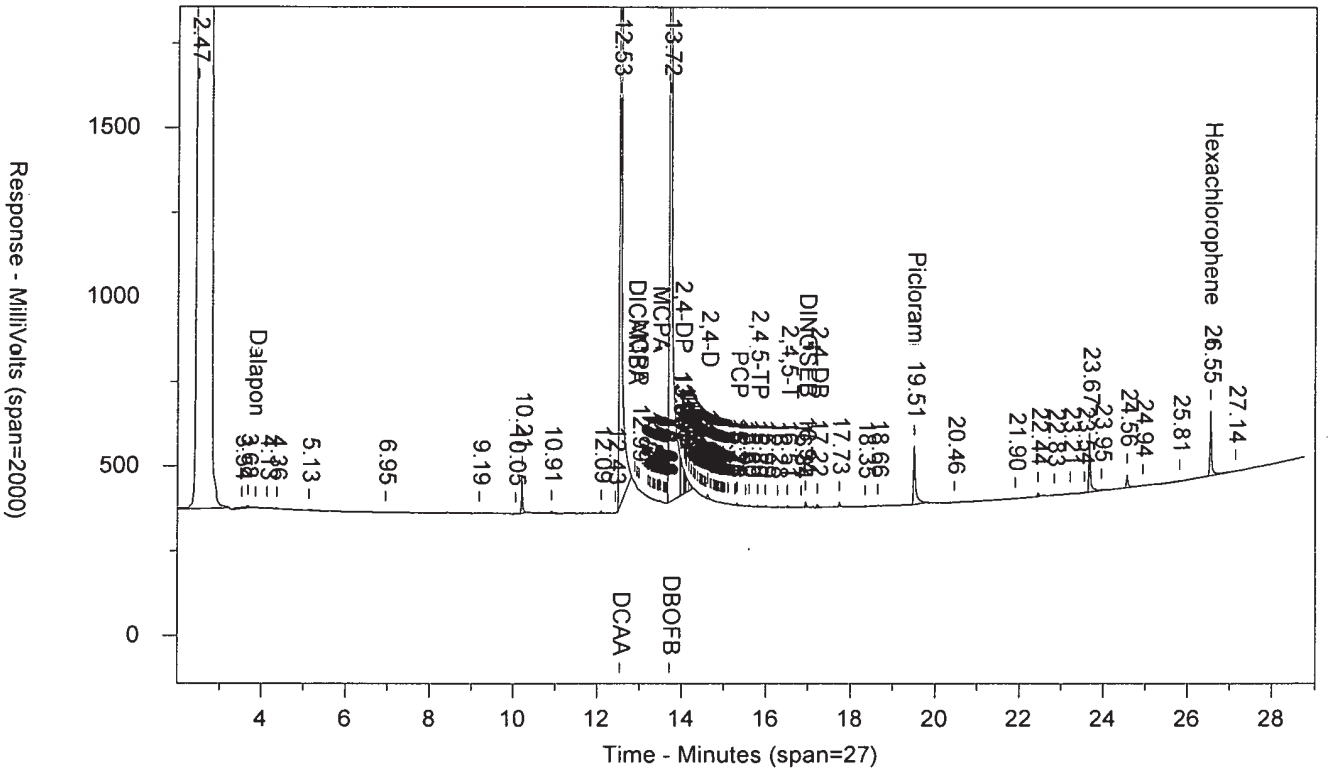

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B AAHIBLKAA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 5:49:08 PM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.755	11581	.014	Dalapon		0		Dalapon
11.967	3921036	2.449	DCAA	12.534	3622133	2.326	DCAA
12.887	13381	1.111	MCPA	13.465	3261	.369	MCPA
13.47	8364	.007	2,4-DP	13.988	110770	.082	2,4-DP
14.236	10527320	.001	DBOFB	13.717	10561740	.001	DBOFB
13.912	12860	.008	2,4-D	14.617	13251	.008	2,4-D
15.097	6722		PCP	15.311	7542		PCP
15.391	5830	.001	2,4,5-TP	15.803	4935	.001	2,4,5-TP
15.917	11915	.002	2,4,5-T	16.511	6362	.001	2,4,5-T
16.752	10643	.011	2,4-DB	17.218	10684	.011	2,4-DB
16.936	19320	.006	DINOSEB	16.938	17975	.006	DINOSEB
17.9	152489	.024	Picloram	19.508	174574	.027	Picloram
26.134	158545	.026	Hexachlorophene	26.555	194068	.033	Hexachlorophen

Files:
Area File: 15herb18304001.005.RAW
Area File: 15herb18304001B.005.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 6:17:58 PM
File Reported On: 11/1/2018 at 9:25:08 AM

HIBLKX1824B AAHIBLKAA ICAL 1830299999 10407 SW-846 801

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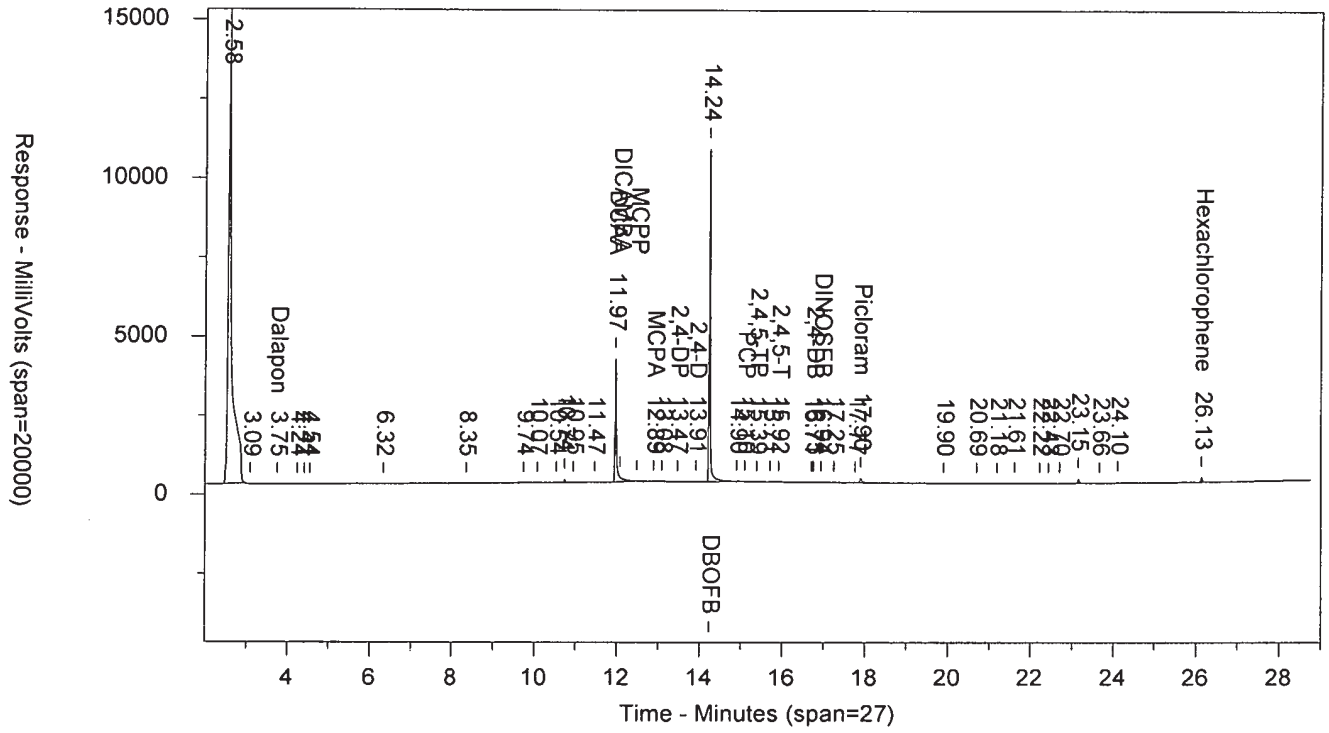

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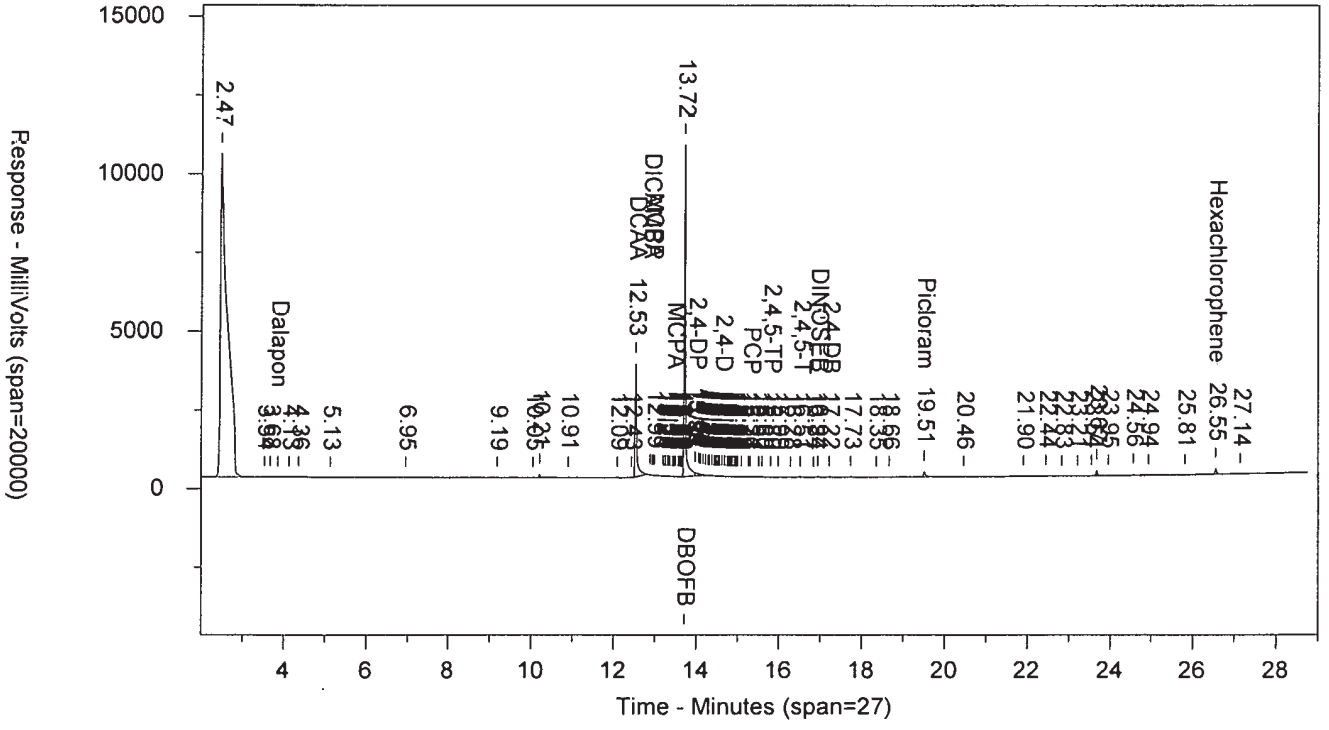

HERB11824E AAHERB1AA ICAL 1830299999 10407 SW-846 8015A

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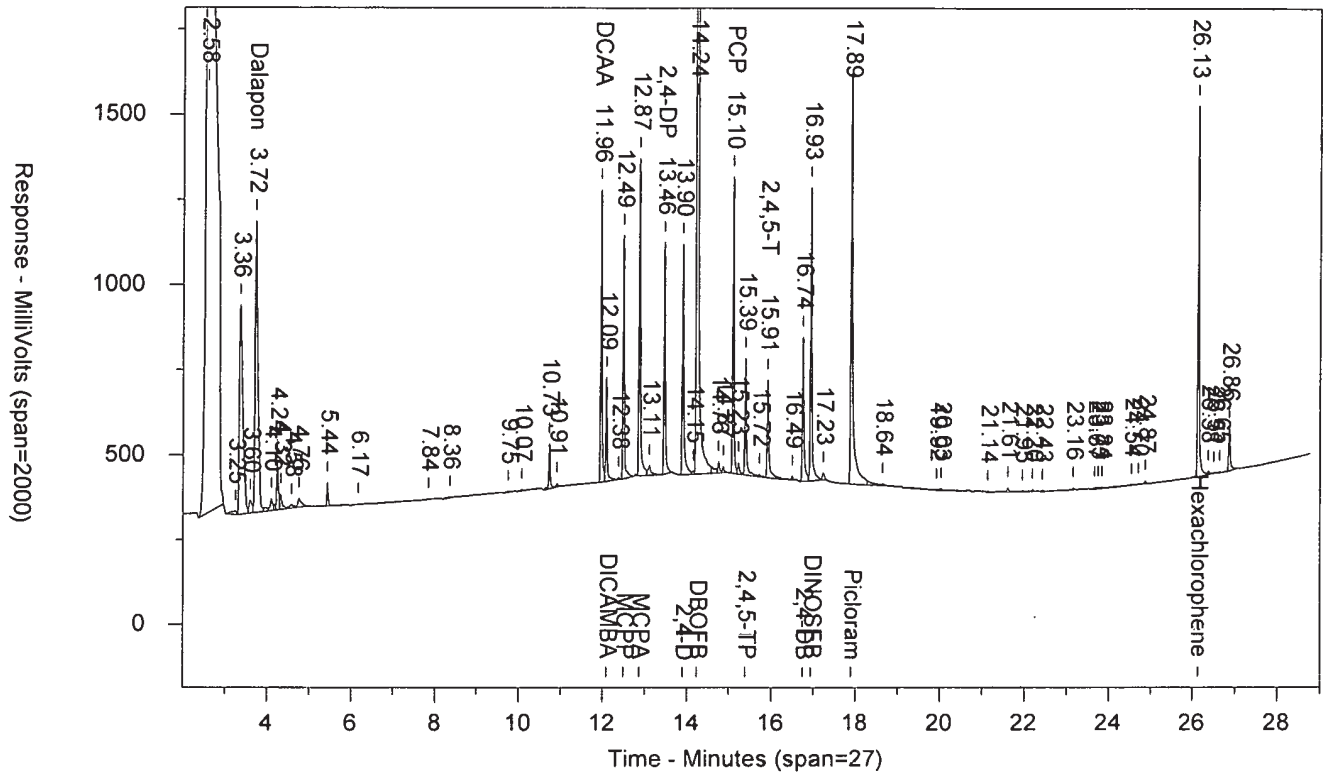

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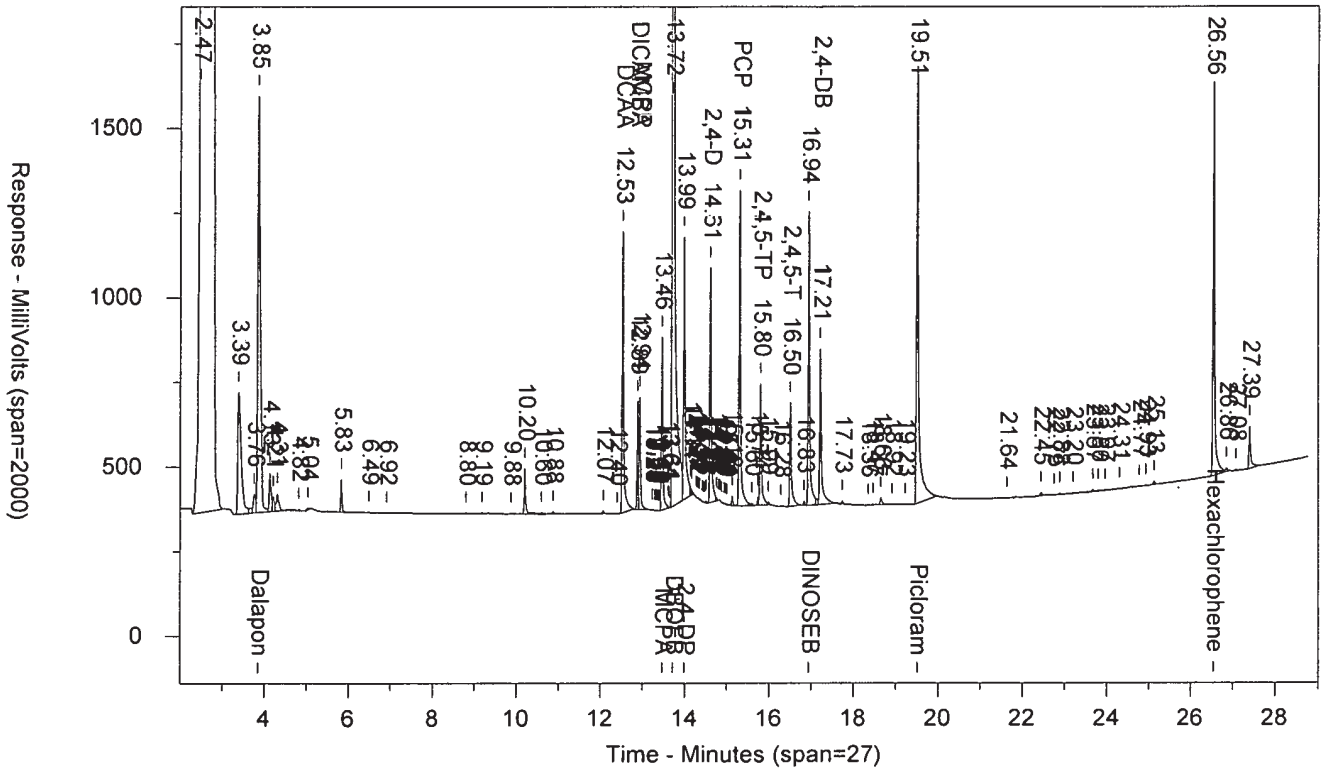

LANCASTER LABORATORIES

Sample Number: HERB11824E AAHERB1AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 6:22:14 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.724	858224	97.18	Dalapon	3.855	1231728	102.024	Dalapon
11.959	859148	50.935	DCAA	12.529	832311	51.724	DCAA
12.086	305319	4.787	DICAMBA	12.889	320092	4.977	DICAMBA
12.489	717371	7031.88	MCPP	12.939	333255	5137.129	MCPP
12.869	935168	7370.042	MCPA	13.463	512484	5606.446	MCPA
13.461	682186	51.525	2,4-DP	13.989	777028	55.525	2,4-DP
14.235	11092760	1	DBOFB	13.716	10913010	1	DBOFB
13.901	678951	39.858	2,4-D	14.612	695226	41.444	2,4-D
15.097	873142	4.426	PCP	15.308	933507	4.622	PCP
15.387	343772	4.347	2,4,5-TP	15.8	359201	4.573	2,4,5-TP
15.912	288078	4.008	2,4,5-T	16.504	307396	4.333	2,4,5-T
16.744	424860	42.414	2,4-DB	17.212	461591	45.755	2,4-DB
16.934	863126	25.201	DINOSEB	16.939	869271	27.617	DINOSEB
17.894	1210413	18.349	Picloram	19.509	1294424	19.657	Picloram
26.135	1091063	17.06	Hexachlorophene	26.555	1148370	18.721	Hexachlorophen

Files:
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Area File: 15herb18304001B.006.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 6:51:02 PM
File Reported On: 11/1/2018 at 9:25:15 AM

HERB11824E AAHERB1AA ICAL 1830299999 10407 SW-846 801

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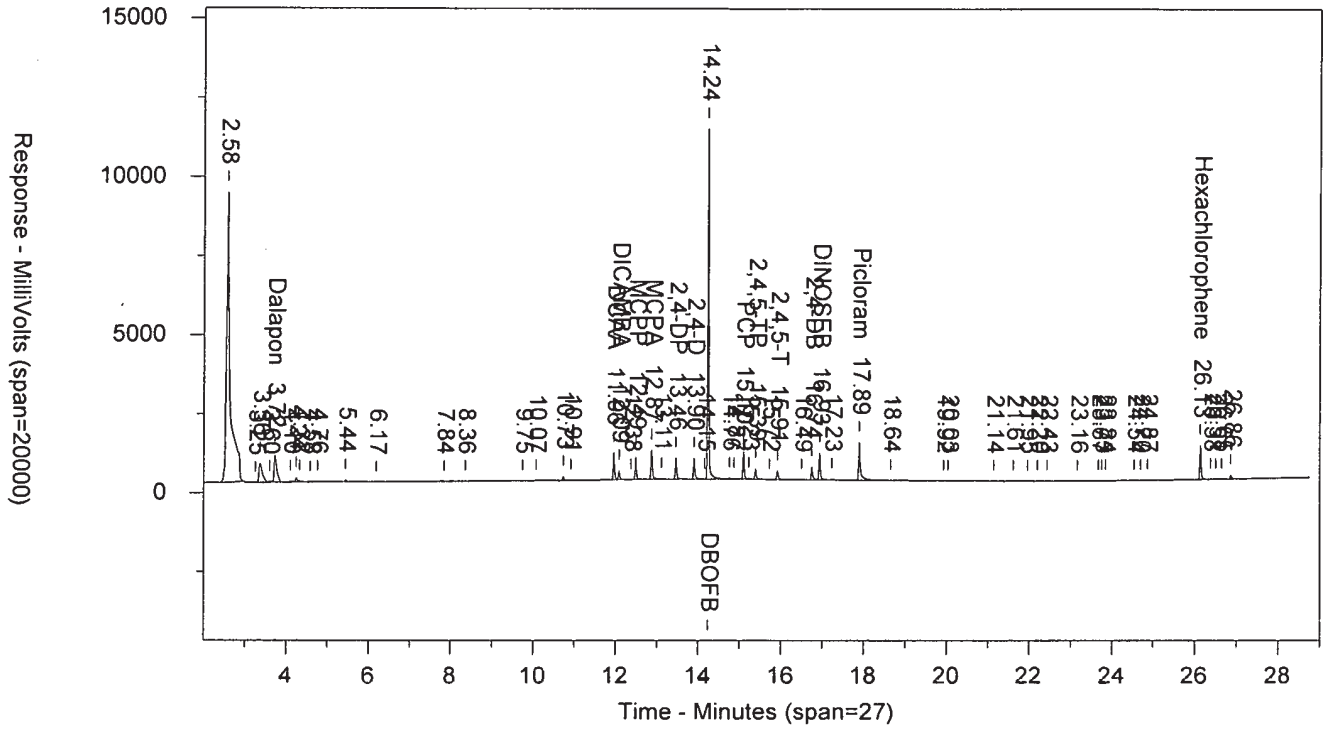

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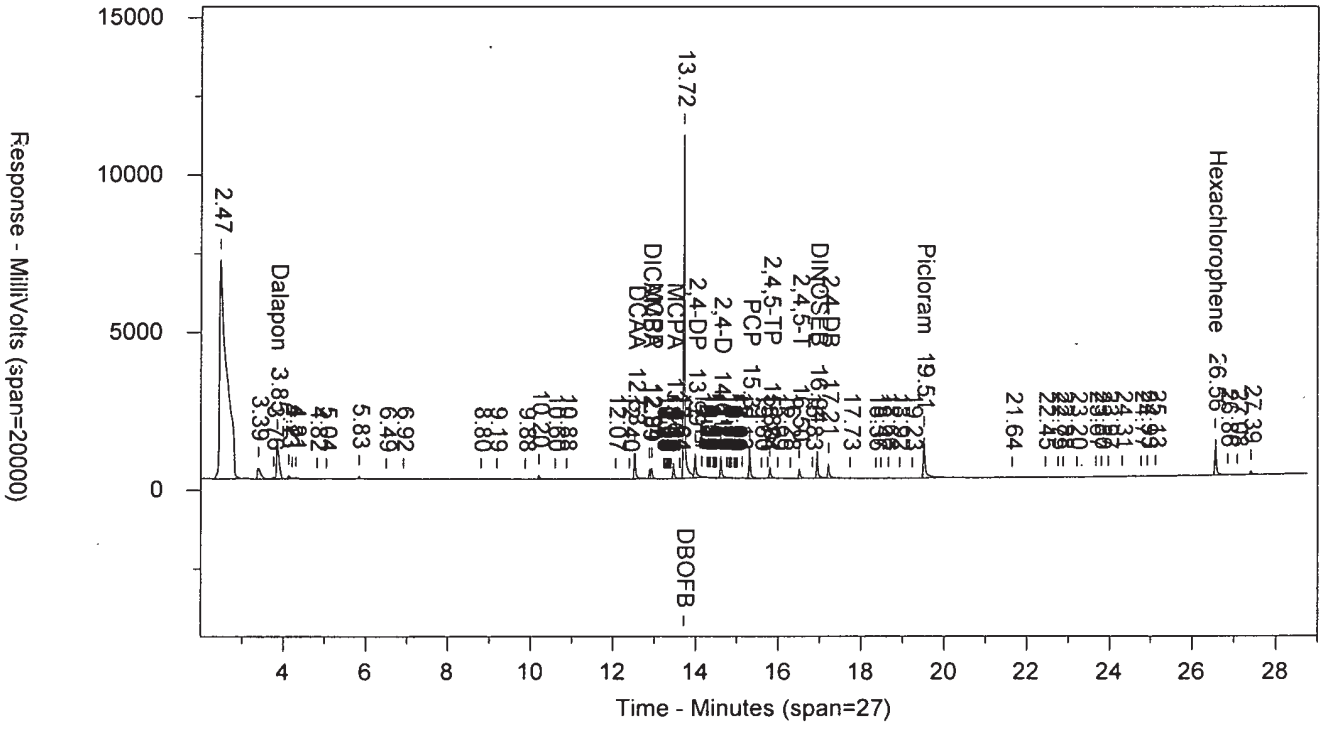

HERB21824E AAHERB2AA ICAL 1830299999 10407 SW-846 8015A

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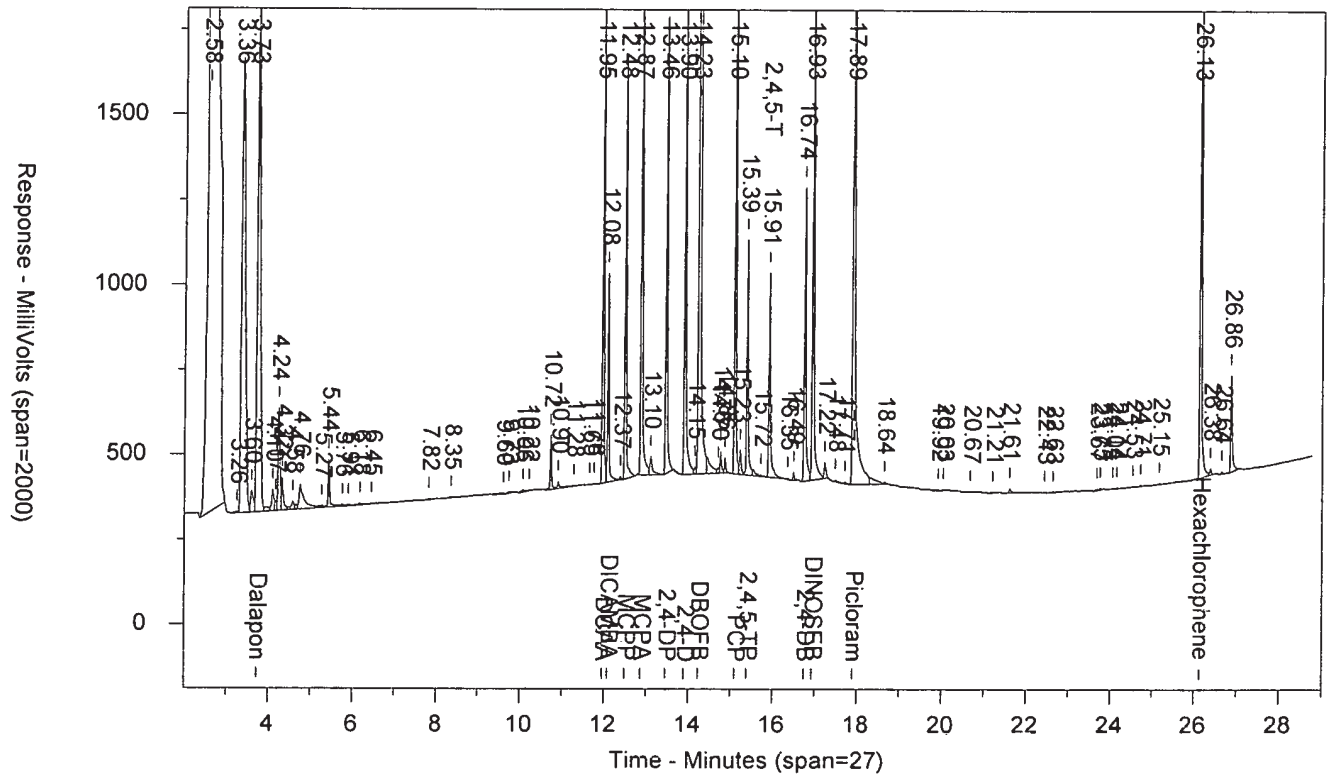

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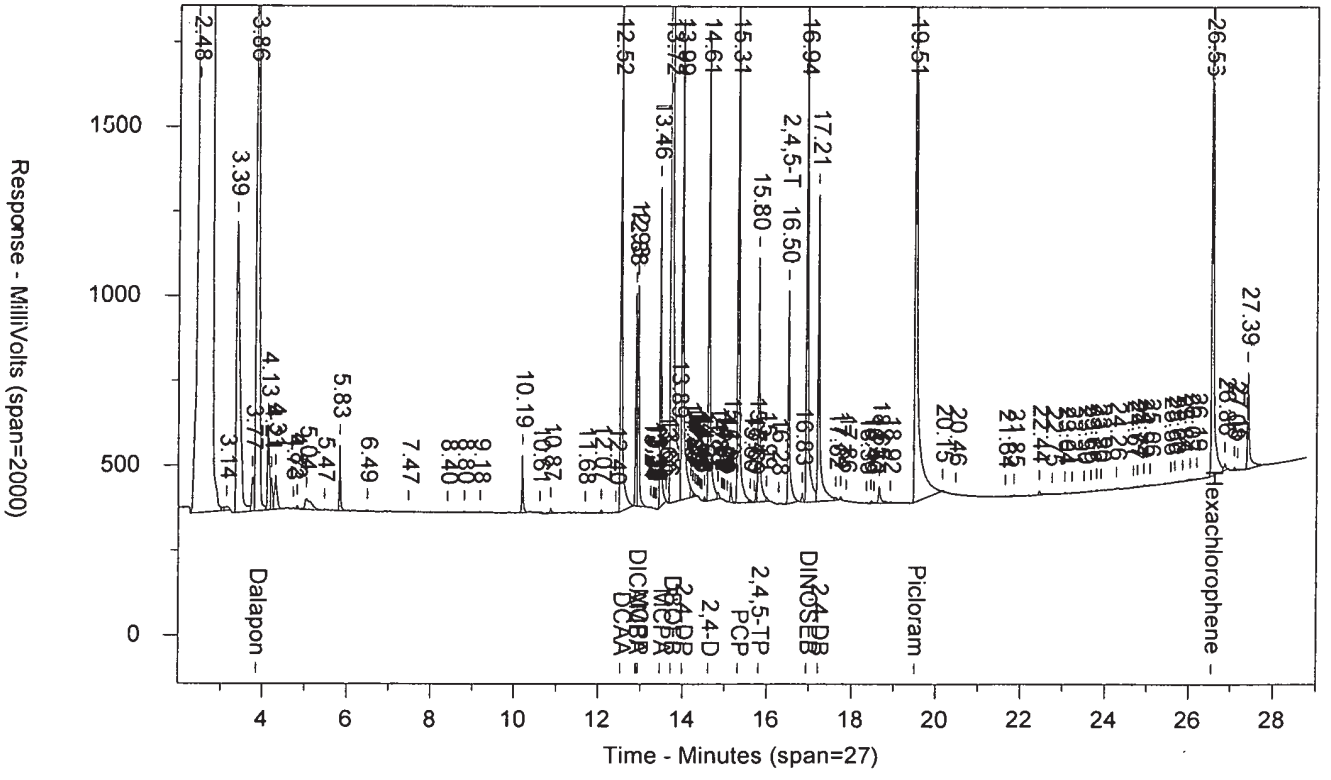

LANCASTER LABORATORIES

Sample Number: HERB21824E AAHERB2AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 6:55:13 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.726	1662882	190.089	Dalapon	3.855	2383770	200.332	Dalapon
11.951	1575704	95.385	DCAA	12.522	1585699	100.285	DCAA
12.077	616291	9.777	DICAMBA	12.884	628318	9.868	DICAMBA
12.483	1227418	12419.01	MCPP	12.935	652304	10249.88	MCPP
12.865	1530045	12518.54	MCPA	13.46	946255	10607.04	MCPA
13.459	1343982	103.912	2,4-DP	13.988	1420029	103.46	2,4-DP
14.234	11024630	1	DBOFB	13.715	10757770	1	DBOFB
13.899	1377651	82.779	2,4-D	14.611	1366650	83.474	2,4-D
15.097	1810691	9.26	PCP	15.306	1950152	9.806	PCP
15.388	694634	8.902	2,4,5-TP	15.801	721493	9.384	2,4,5-TP
15.911	602757	8.55	2,4,5-T	16.503	629615	9.056	2,4,5-T
16.744	865643	88.261	2,4-DB	17.211	906212	91.255	2,4-DB
16.931	1699388	50.154	DINOSEB	16.937	1704537	54.011	DINOSEB
17.892	2566900	39.526	Picloram	19.507	2748069	42.6	Picloram
26.135	2313000	36.72	Hexachlorophene	26.555	2254160	37.344	Hexachloropher

Files:
Area File: 15herb18304001.007.RAW
Area File: 15herb18304001B.007.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 7:23:59 PM
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HERB21824E AAHERB2AA ICAL 1830299999 10407 SW-846 801

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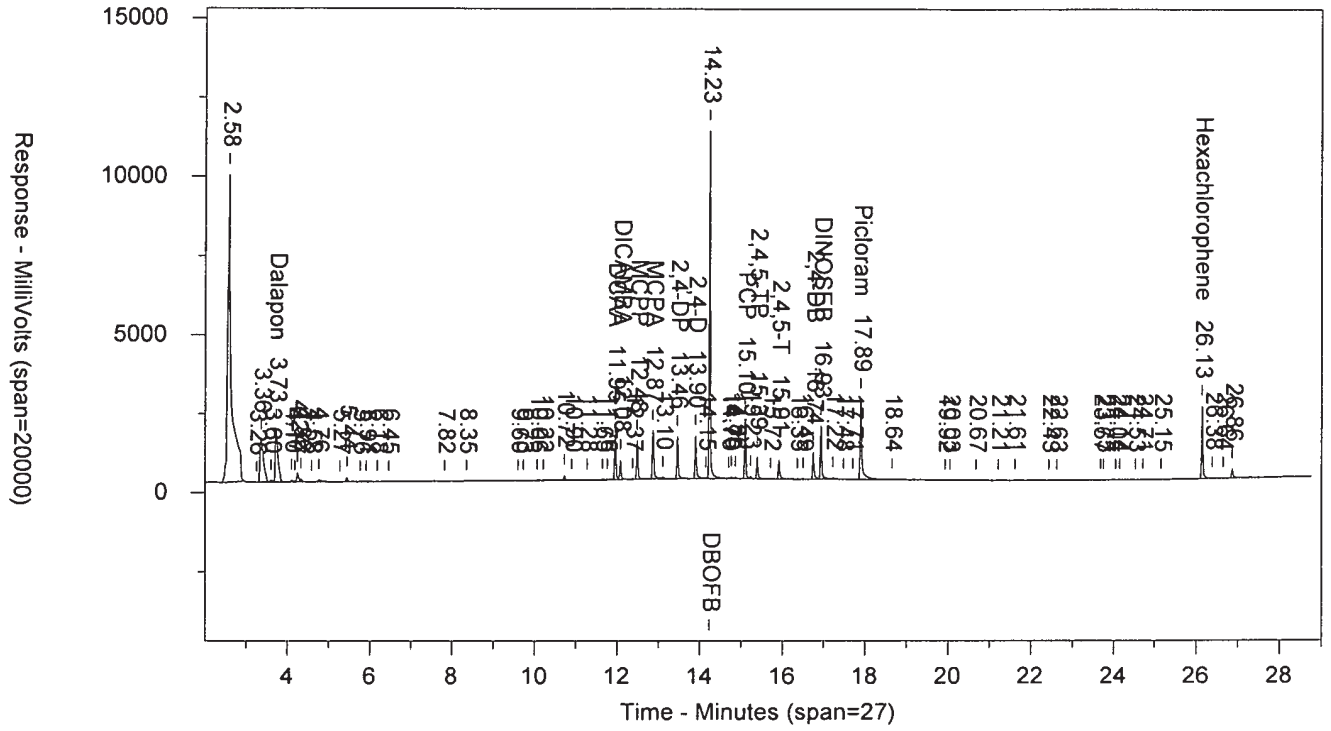

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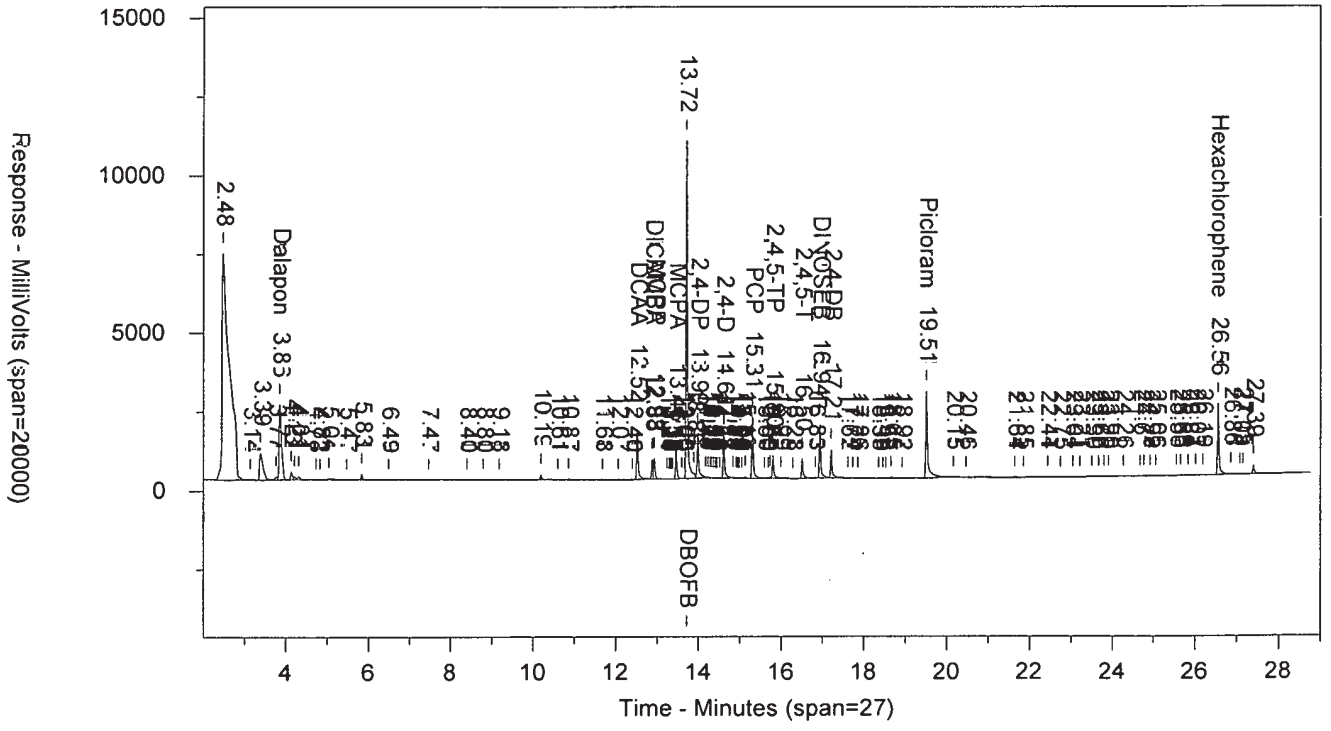

HERB31824F AAHERB3AA ICAL 1830299999 10407 SW-846 8015A

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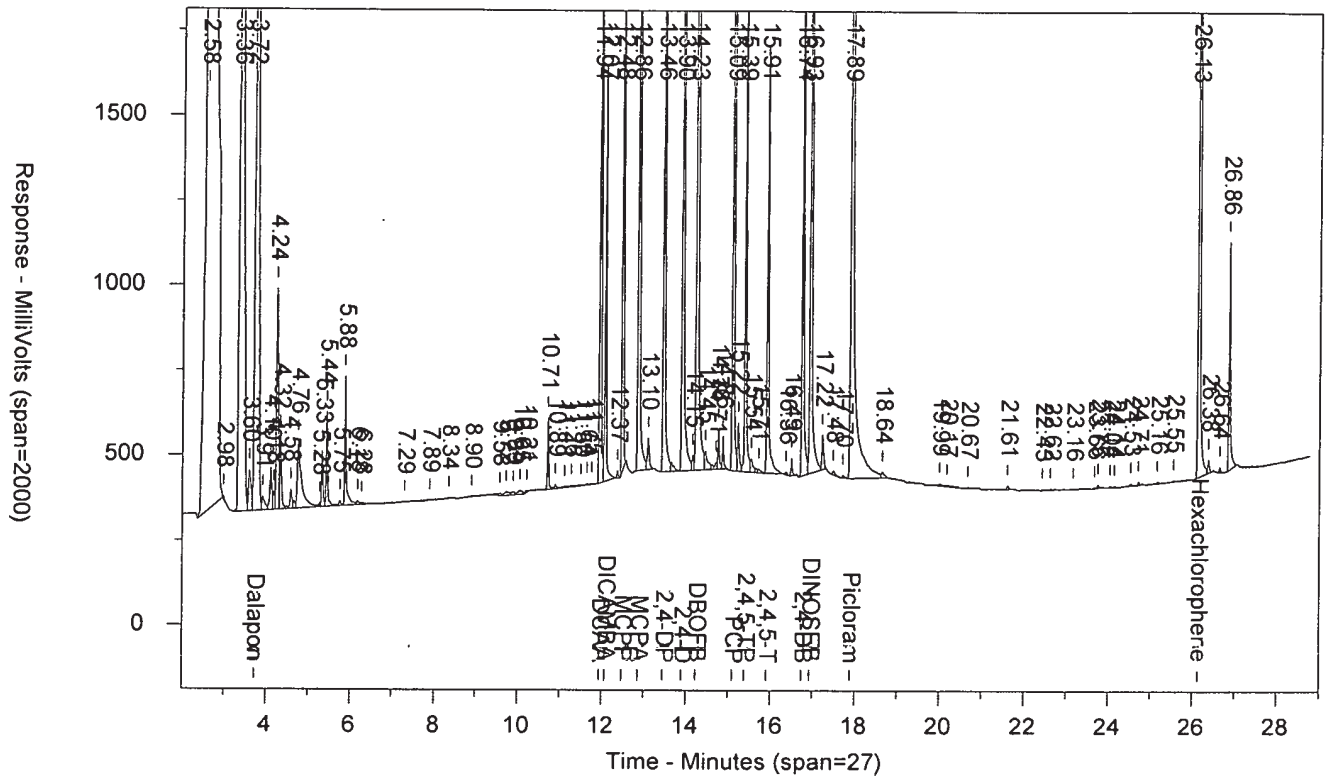

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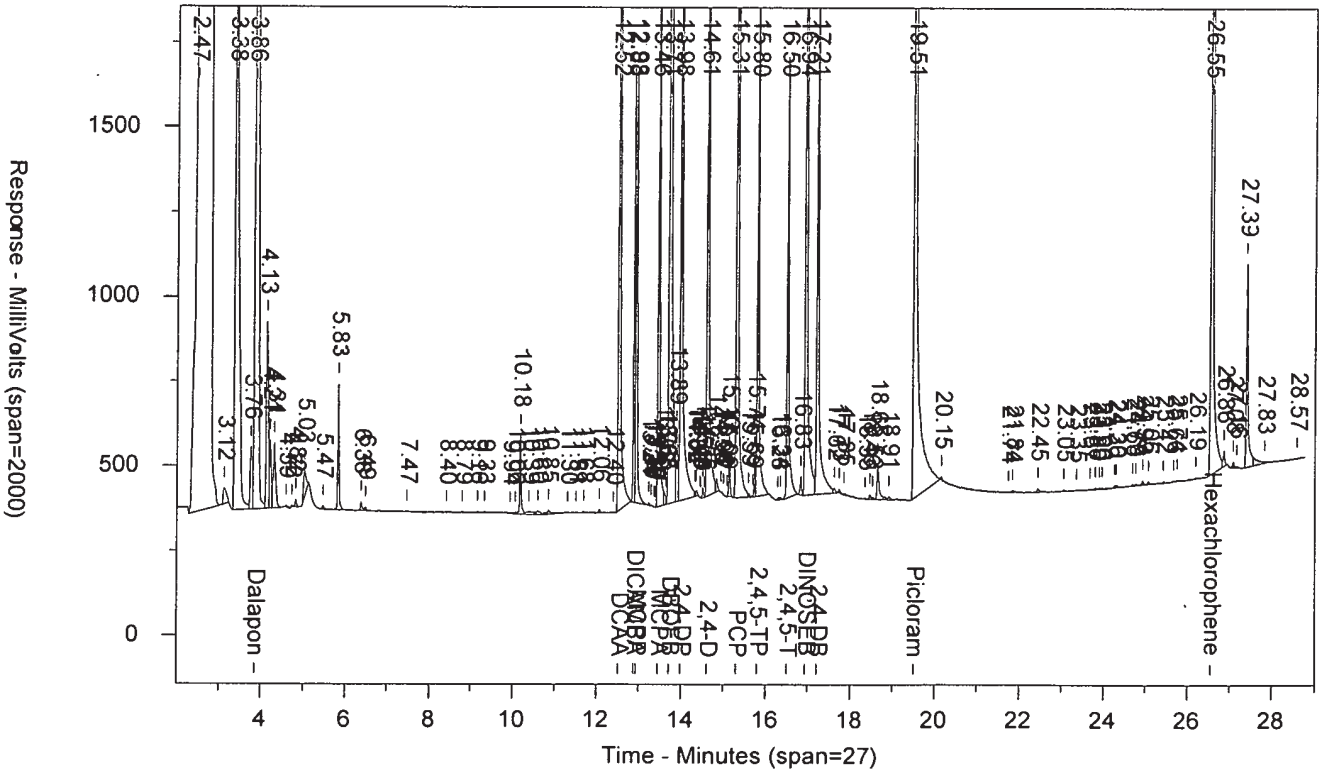

LANCASTER LABORATORIES

Sample Number: HERB31824F AAHERB3AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 7:28:13 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.725	3394969	377.487	Dalapon	3.855	4787344	381.064	Dalapon
11.943	3083047	183.885	DCAA	12.516	3060839	183.609	DCAA
12.07	1227761	18.87	DICAMBA	12.878	1284205	19.049	DICAMBA
12.479	1973646	19723.64	MCPP	12.932	1294153	19296.11	MCPP
12.863	2373250	19076.33	MCPA	13.459	1753191	18699.51	MCPA
13.455	2495584	189.37	2,4-DP	13.985	2776951	191.685	2,4-DP
14.235	11370280	1	DBOFB	13.715	11333930	1	DBOFB
13.898	2694477	158.938	2,4-D	14.609	2754721	160.899	2,4-D
15.094	3946770	19.657	PCP	15.306	4042969	19.17	PCP
15.386	1461688	18.338	2,4,5-TP	15.8	1465761	18.145	2,4,5-TP
15.91	1254887	17.484	2,4,5-T	16.503	1304147	17.821	2,4,5-T
16.742	1807705	181.843	2,4-DB	17.209	1841865	177.732	2,4-DB
16.931	3491085	100.584	DINOSEB	16.936	3508585	104.421	DINOSEB
17.889	5681229	86.29	Picloram	19.507	5972955	88.349	Picloram
26.133	5007937	77.258	Hexachlorophene	26.553	4950506	77.745	Hexachlorophen

Files:
Area File: 15herb18304001.008.RAW
Area File: 15herb18304001B.008.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
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HERB31824F AAHERB3AA ICAL 1830299999 10407 SW-846 801

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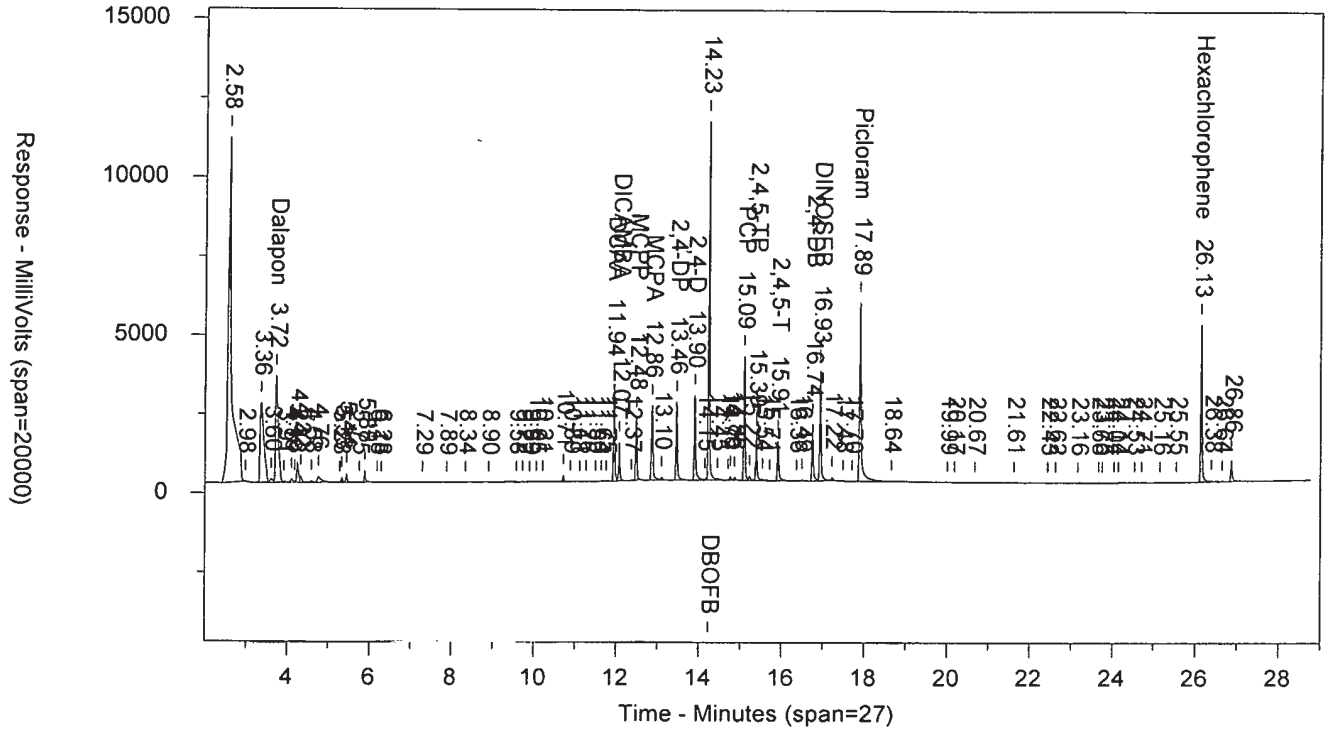

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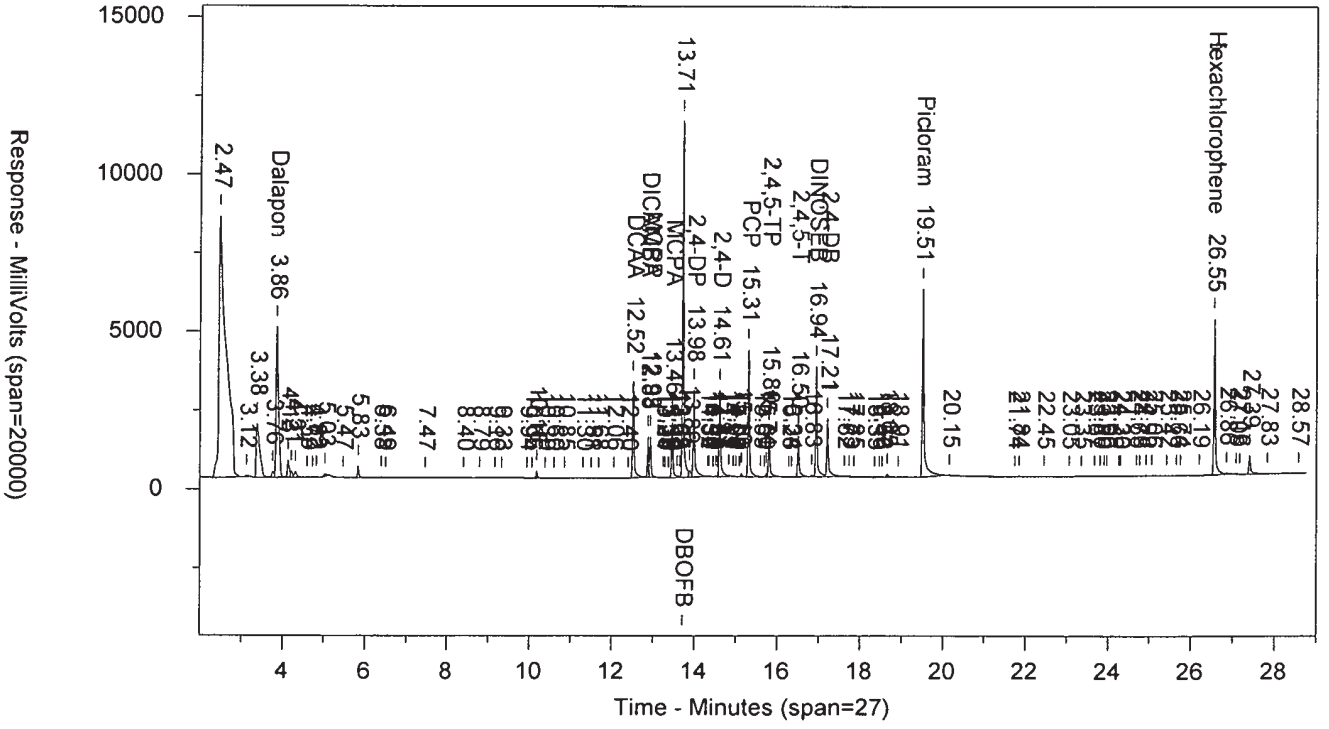

HERB41824E AAHERB4AA ICAL 1830299999 10407 SW-846 8015A

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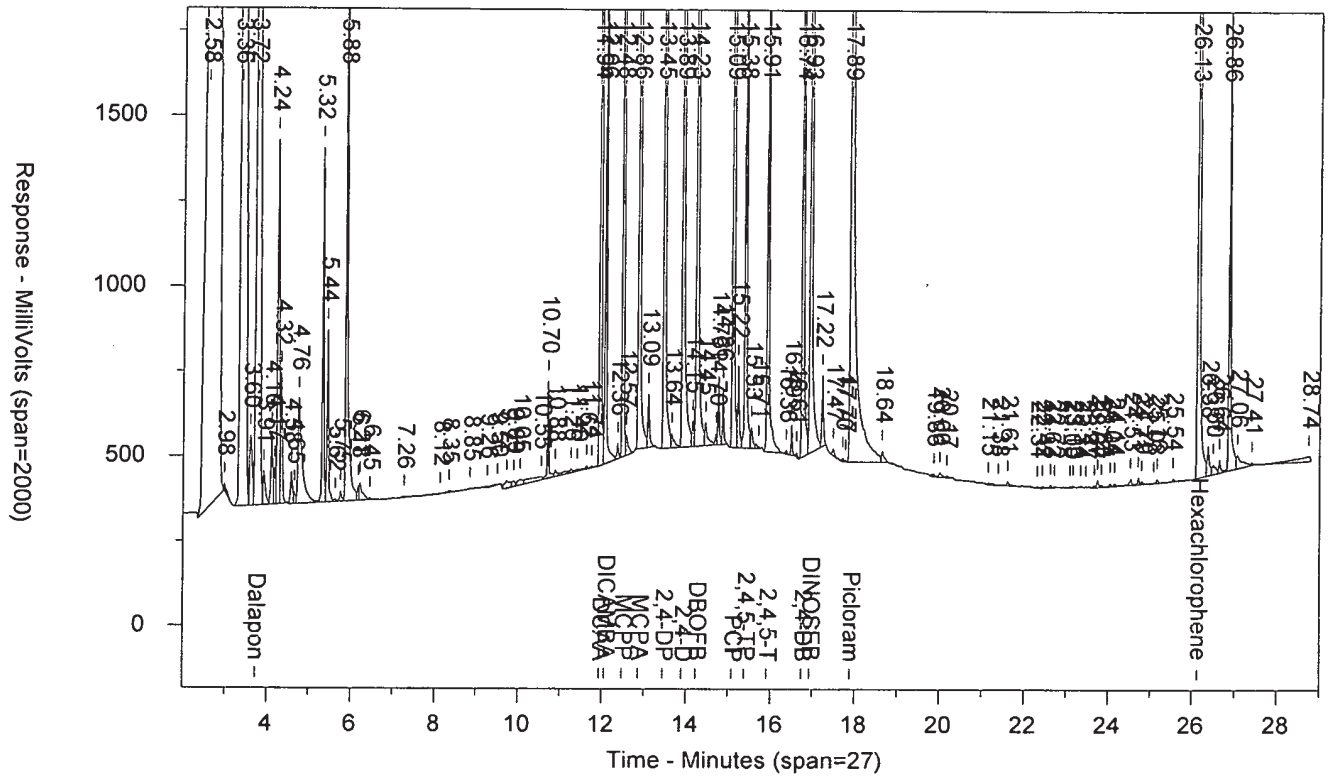

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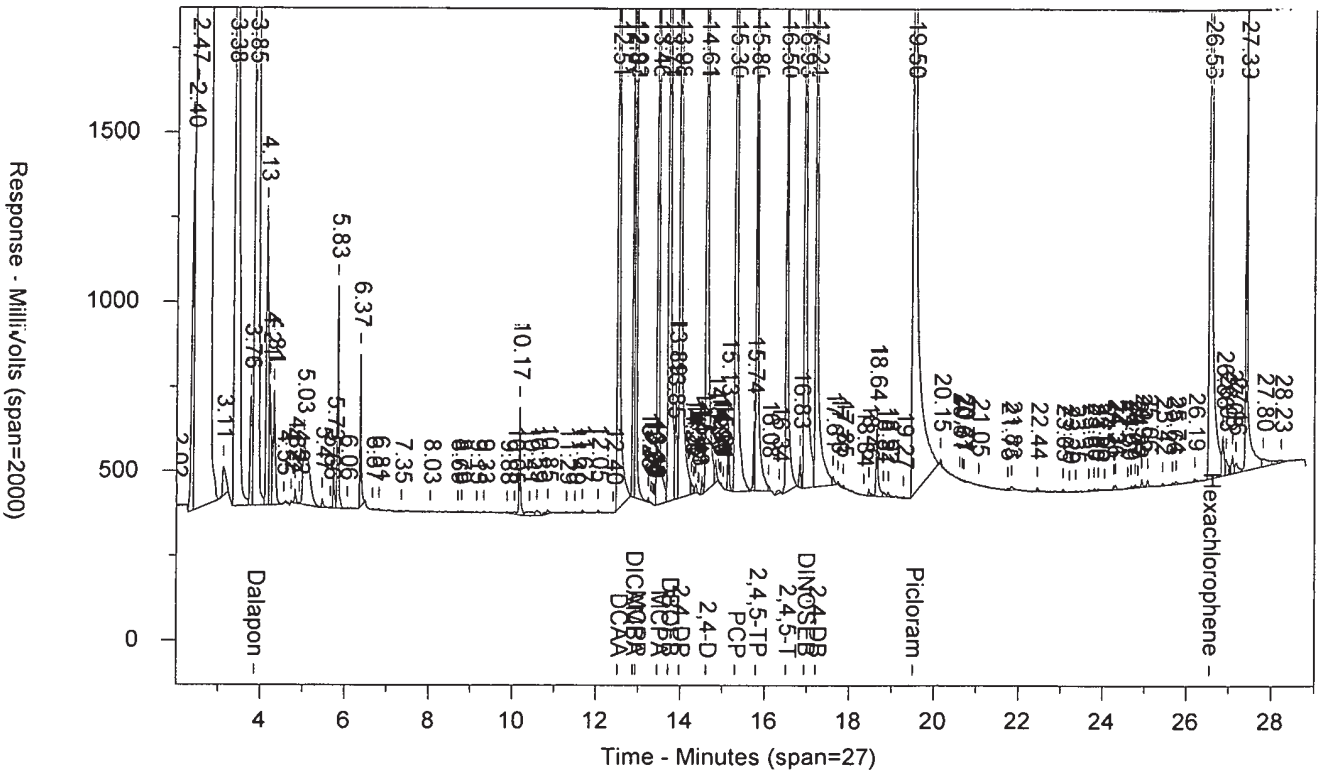

LANCASTER LABORATORIES

Sample Number: HERB41824E AAHERB4AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 8:01:20 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.724	6375297	736.816	Dalapon	3.855	8878889	727.782	Dalapon
11.936	5525293	347.552	DCAA	12.51	5720252	354.284	DCAA
12.062	2301711	36.913	DICAMBA	12.873	2472484	37.404	DICAMBA
12.477	2954836	31186.8	MCPP	12.929	2426446	37139.09	MCPP
12.861	3578818	30329	MCPA	13.458	3123468	34326.52	MCPA
13.451	4418721	351.918	2,4-DP	13.983	4812606	340.739	2,4-DP
14.234	10986500	1	DBOFB	13.715	11033820	1	DBOFB
13.895	4894198	304.81	2,4-D	14.608	5093714	308.343	2,4-D
15.092	7370801	38.011	PCP	15.304	7636133	37.188	PCP
15.384	2685560	35.279	2,4,5-TP	15.799	2822618	36.323	2,4,5-TP
15.908	2421446	35.45	2,4,5-T	16.501	2488851	35.366	2,4,5-T
16.739	3268072	345.118	2,4-DB	17.208	3409265	342.171	2,4-DB
16.929	6284589	188.254	DINOSEB	16.935	6324136	190.684	DINOSEB
17.887	10686810	172.731	Picloram	19.505	11385750	175.491	Picloram
26.132	9258325	148.313	Hexachlorophene	26.556	9599394	154.091	Hexachlorophen

Files:
Area File: 15herb18304001.009.RAW
Area File: 15herb18304001B.009.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 8:30:11 PM
File Reported On: 11/1/2018 at 9:30:16 AM

HERB41824E AAHERB4AA ICAL 1830299999 10407 SW-846 801

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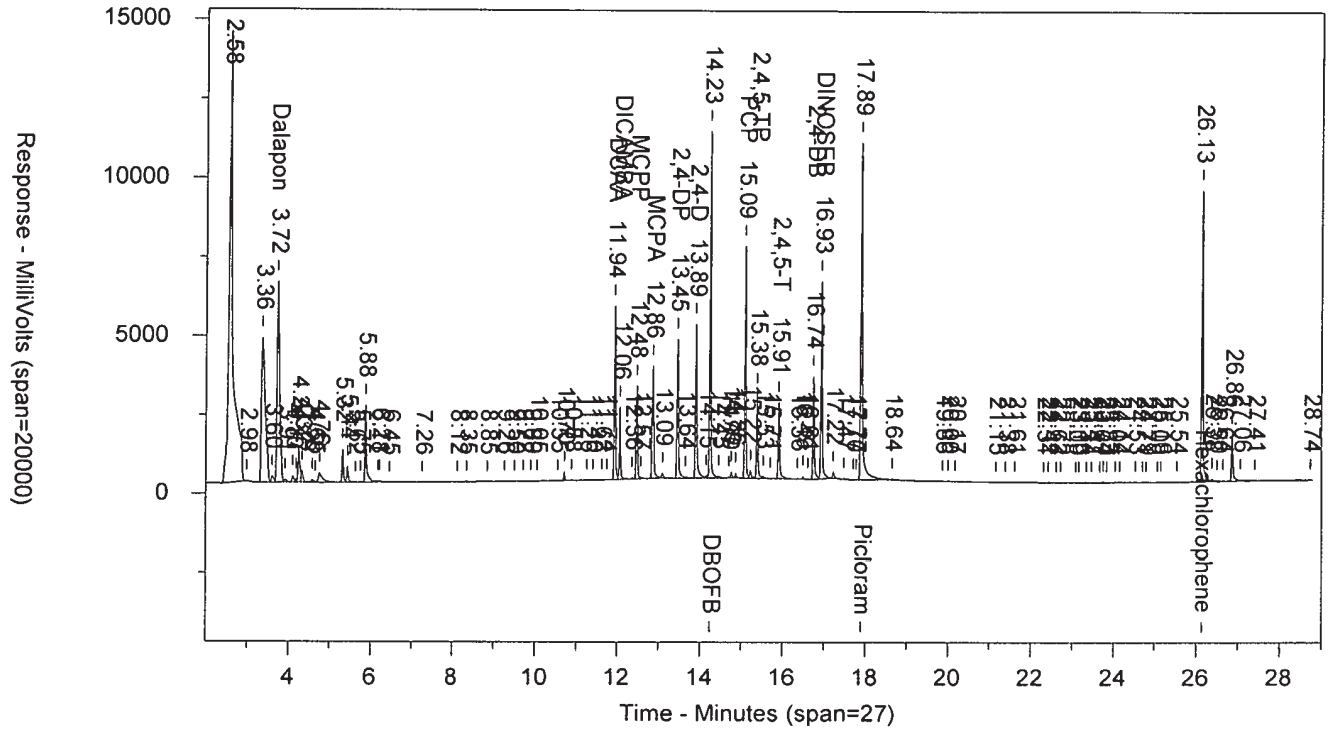

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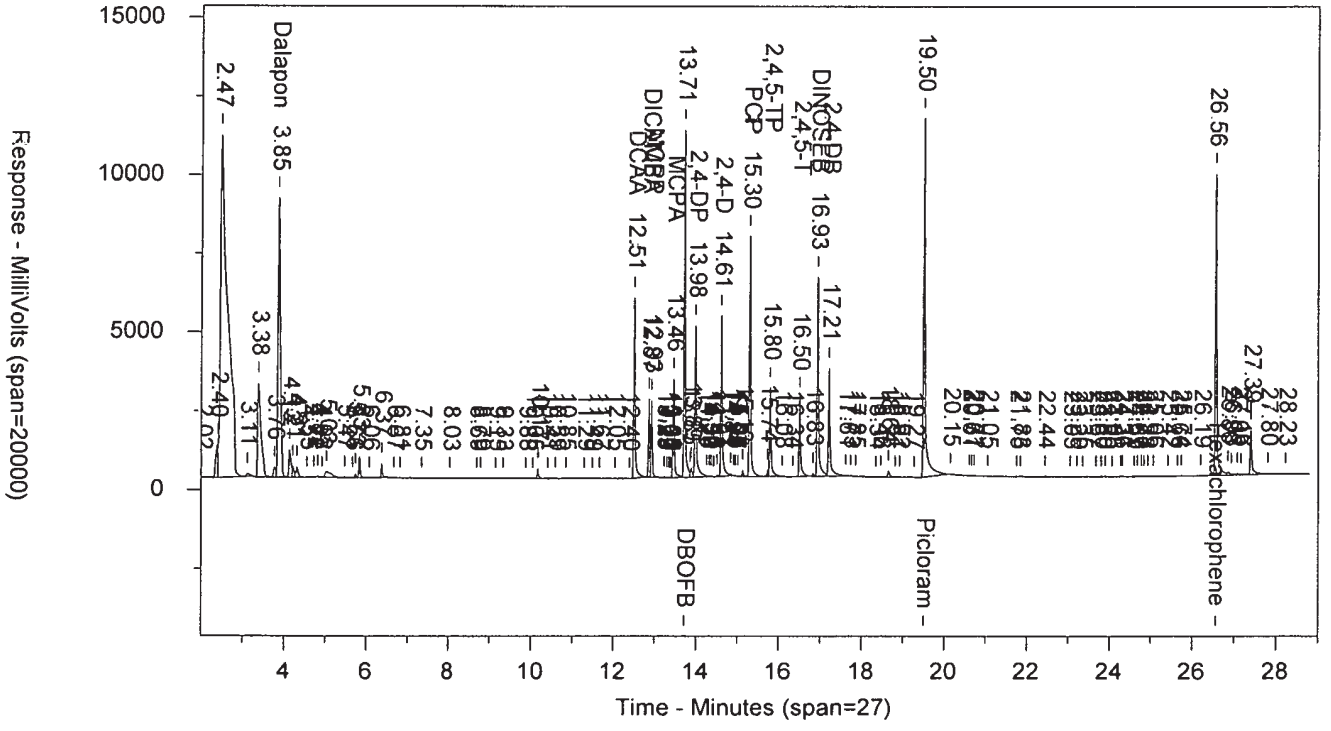

HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 8015A

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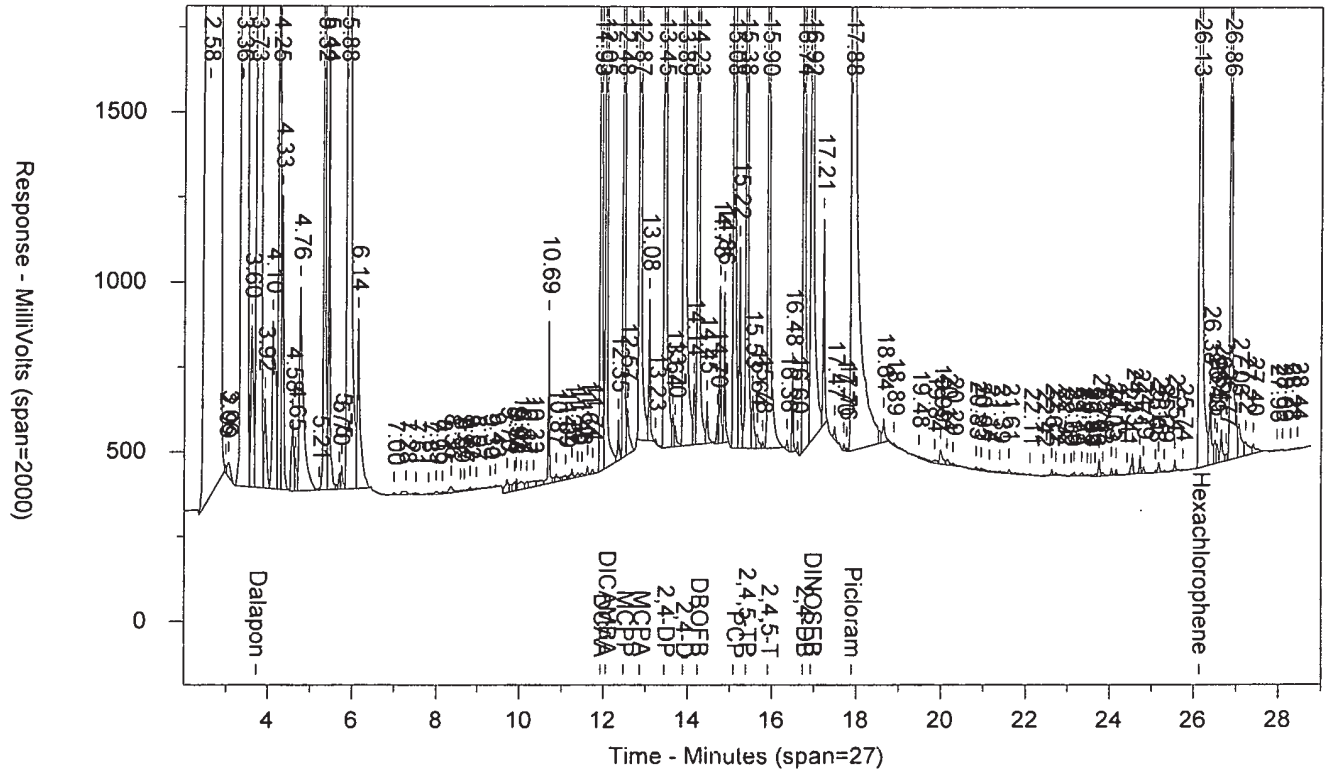

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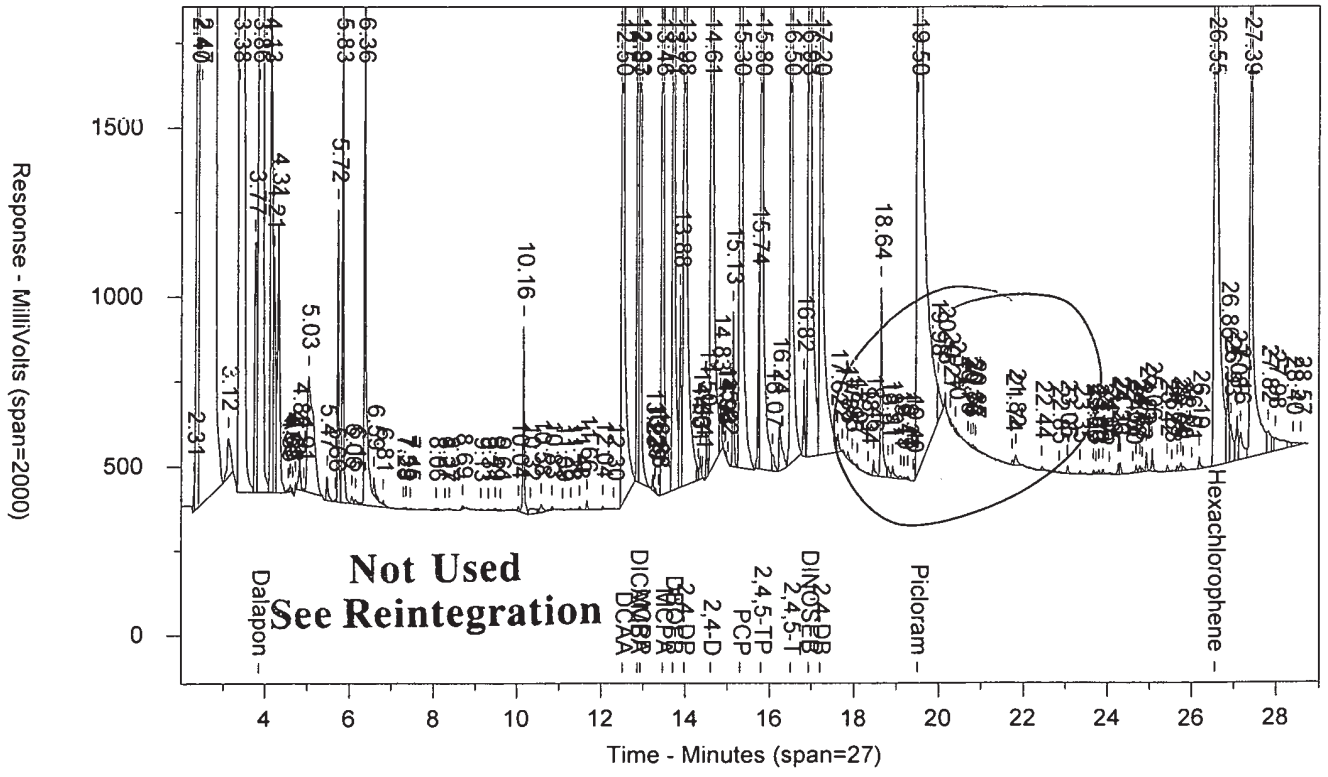

LANCASTER LABORATORIES

Sample Number: HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 8:34:23 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.728	16215280	1893.653	Dalapon	3.857	22139280	1886.55	Dalapon
11.927	13577030	875.306	DCAA	12.504	14502930	935.72	DCAA
12.054	5635526	91.222	DICAMBA	12.867	5933390	92.341	DICAMBA
12.48	5890508	63367.5	MCPP	12.932	6058388	95916.18	MCPP
12.865	7100900	61143.84	MCPA	13.462	7870239	90040.71	MCPA
13.447	9974529	809.979	2,4-DP	13.978	11438600	847.173	2,4-DP
14.229	10932930	1	DBOFB	13.71	10733270	1	DBOFB
13.893	12231290	782.635	2,4-D	14.605	12916850	820.02	2,4-D
15.085	18642170	97.325	PCP	15.298	19050820	96.516	PCP
15.381	7194175	97.083	2,4,5-TP	15.797	7167274	96.357	2,4,5-TP
15.904	6470386	97.312	2,4,5-T	16.499	6329542	94.543	2,4,5-T
16.735	8436519	914.741	2,4-DB	17.203	8806290	929.471	2,4-DB
16.924	15630650	474.27	DINOSEB	16.929	15565330	483.324	DINOSEB
17.885	27992260	468.64	Picloram	19.501	29498940	482.161	Picloram
26.133	23222440	379.812	Hexachlorophene	26.554	23219530	382.92	Hexachlorophen

Files:
Area File: 15herb18304001.010.RAW
Area File: 15herb18304001B.010.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 9:03:12 PM
File Reported On: 11/1/2018 at 9:30:22 AM

Not Used
See Reintegration

HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 801

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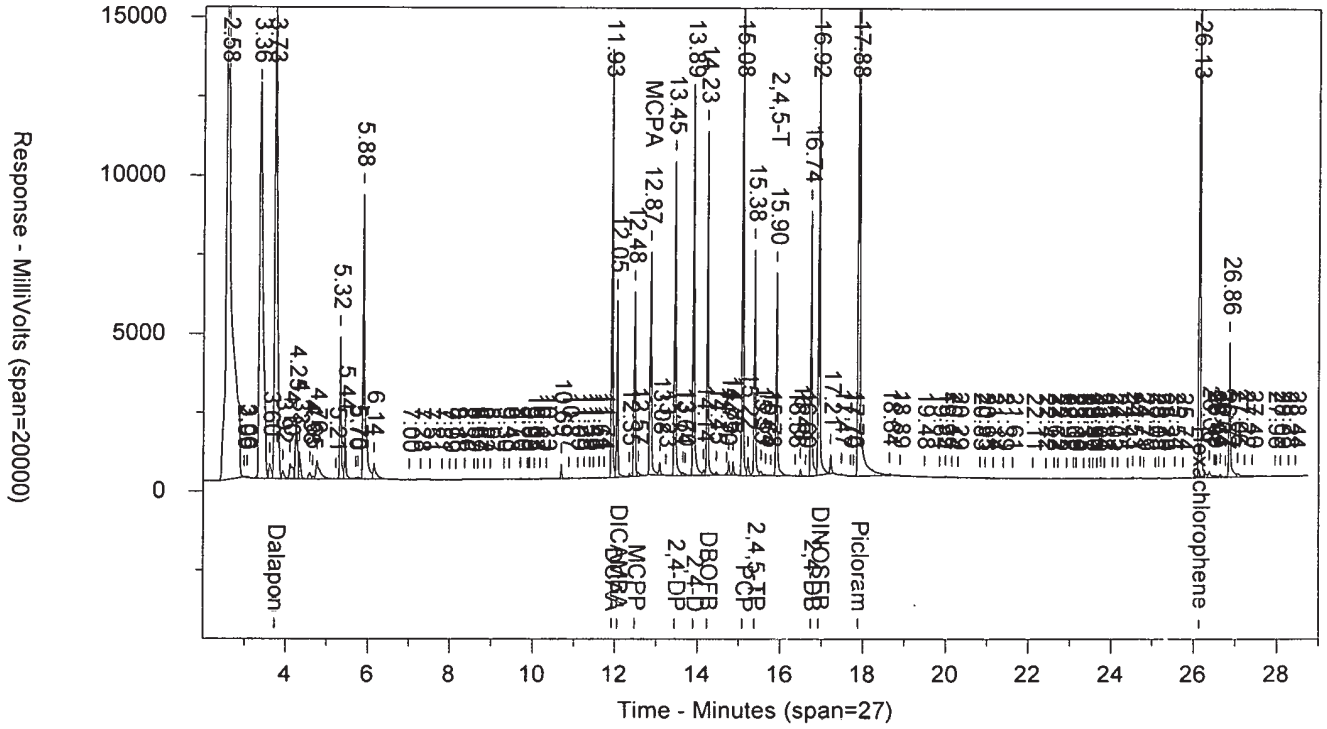

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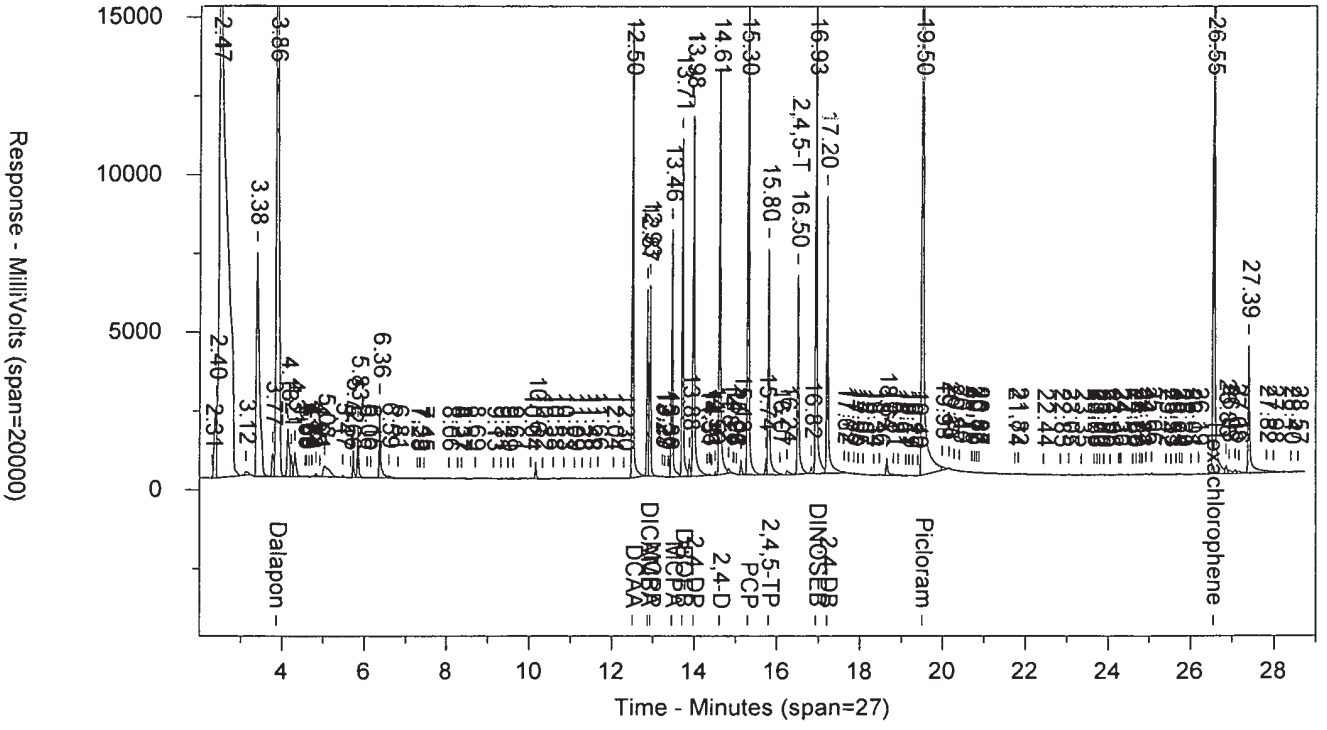

HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 8015A

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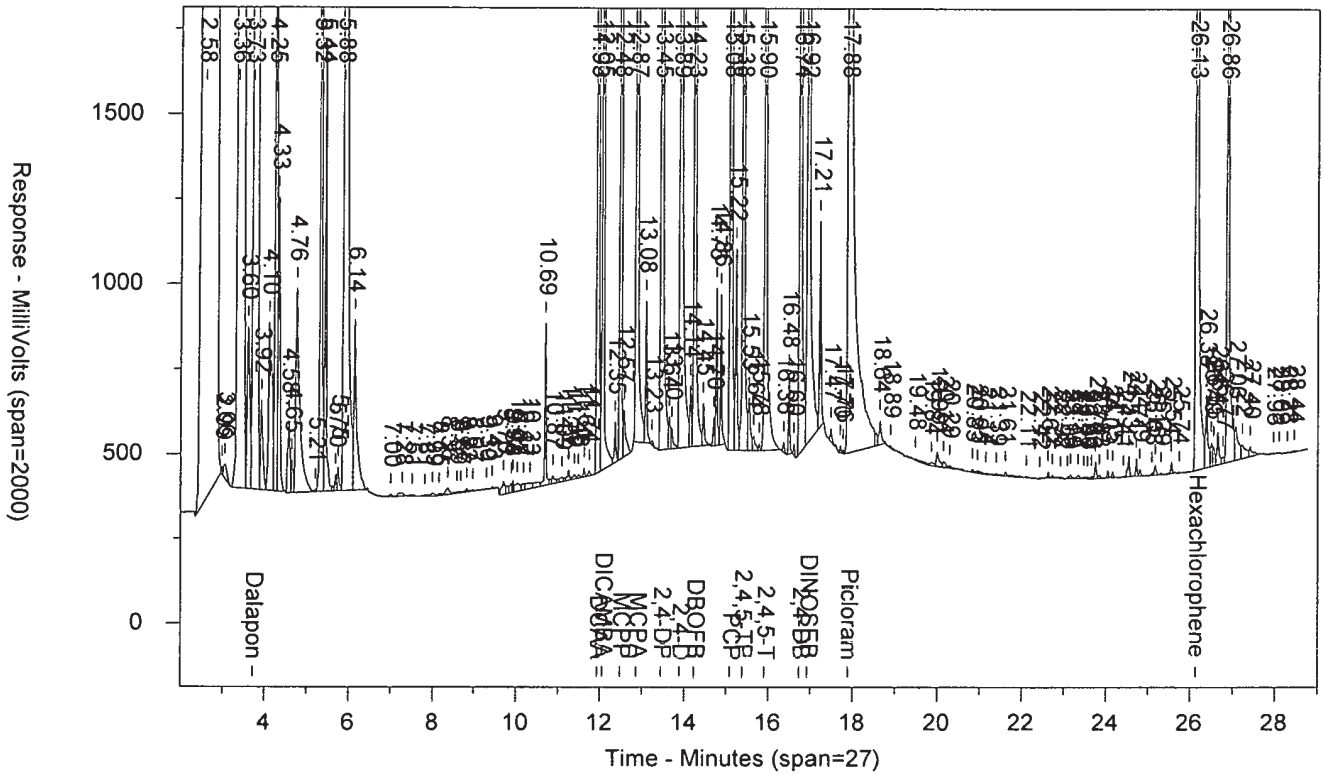

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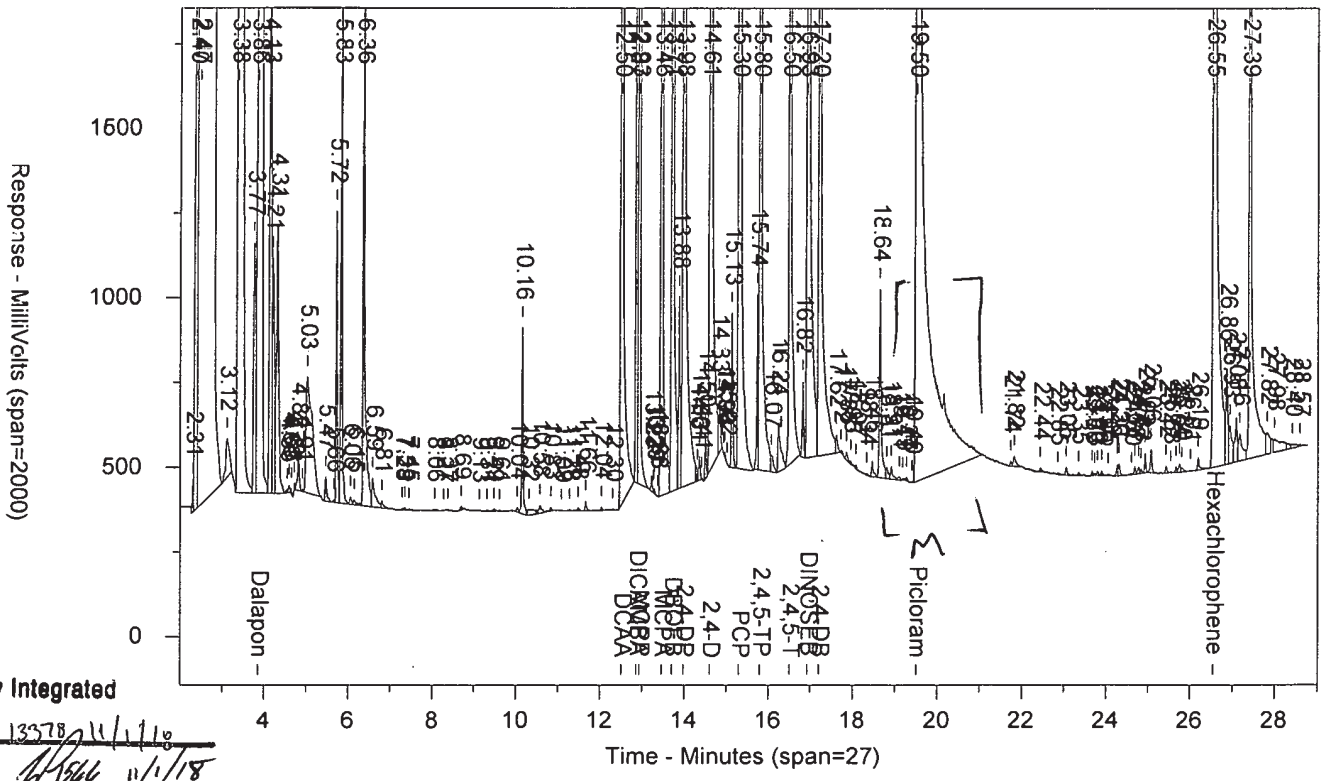

M = Manually Integrated

Analyst RU 13378 11/1/18

Approved by [signature] 11/1/18

Circle Reason 1 (2) 3 4

1 = Missed Peak

2 = Improper Baseline

3 = RT Update

4 = Other _____

Printed 1/1/2018 10:16:47 AM

LANCASTER LABORATORIES

Sample Number: HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 8:34:23 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.728	16215280	1893.653	Dalapon	3.857	22139280	1972.308	Dalapon
11.927	13577030	875.306	DCAA	12.504	14502930	980.687	DCAA
12.054	5635526	91.222	DICAMBA	12.867	5933390	96.562	DICAMBA
12.48	5890508	63367.5	MCPP	12.932	6058388	99181.66	MCPP
12.865	7100900	61143.84	MCPA	13.462	7870239	93683.16	MCPA
13.447	9974529	809.979	2,4-DP	13.978	11438600	884.552	2,4-DP
14.229	10932930	1	DBOFB	13.71	10733270	1	DBOFB
13.893	12231290	782.635	2,4-D	14.605	12916850	872.169	2,4-D
15.085	18642170	97.325	PCP	15.298	19050820	100.49	PCP
15.381	7194175	97.083	2,4,5-TP	15.797	7167274	102.445	2,4,5-TP
15.904	6470386	97.312	2,4,5-T	16.499	6329542	102.4	2,4,5-T
16.735	8436519	914.741	2,4-DB	17.203	8806290	1004.984	2,4-DB
16.924	15630650	474.27	DINOSEB	16.929	15565330	489.121	DINOSEB
17.885	27992260	468.64	Picloram	19.501	29516710	528.462	Picloram
26.133	23222440	379.812	Hexachlorophene	26.554	23219530	401.132	Hexachlorophen

Files:
Area File: 15herb18304001.010.BND
Area File: 15herb18304001B.010.BND
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/1/2018 9:30:20 AM
File Reported On: 11/1/2018 at 10:16:46 AM

HERB51824E AAHERB5AA ICAL 1830299999 10407 SW-846 801

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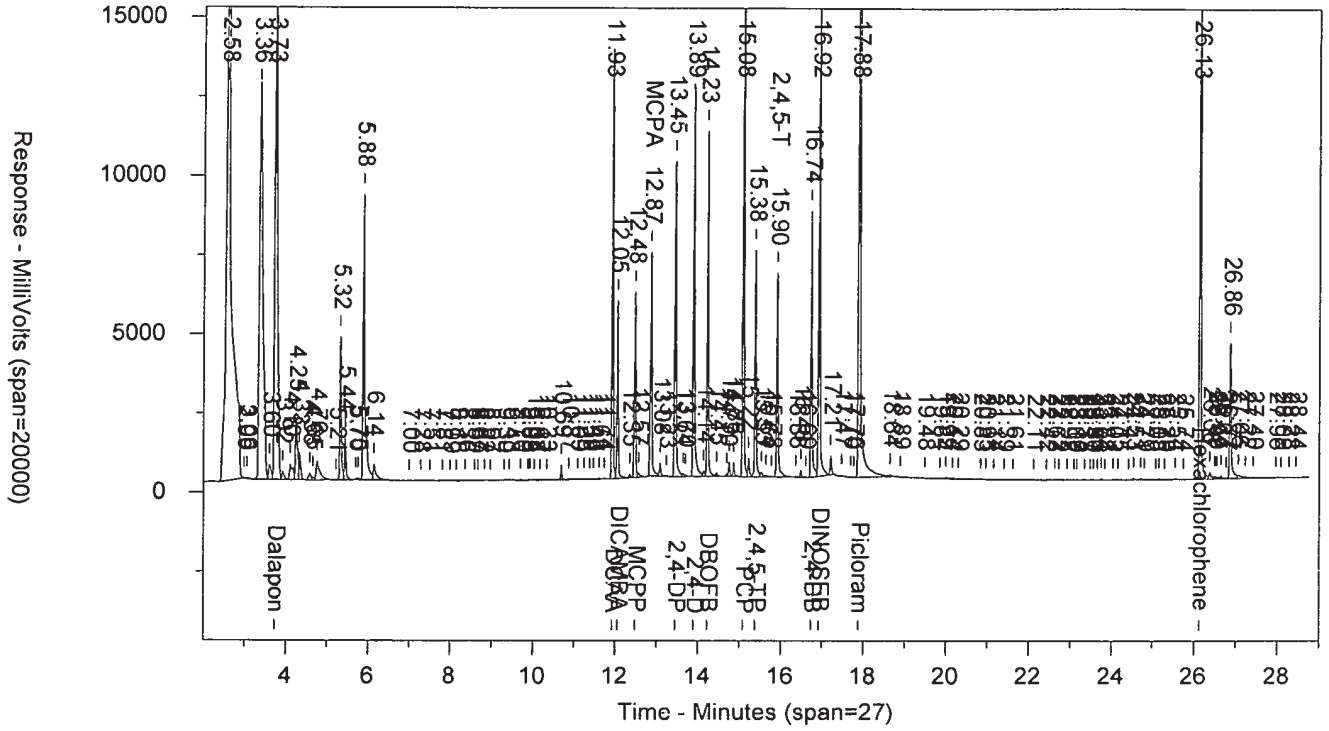

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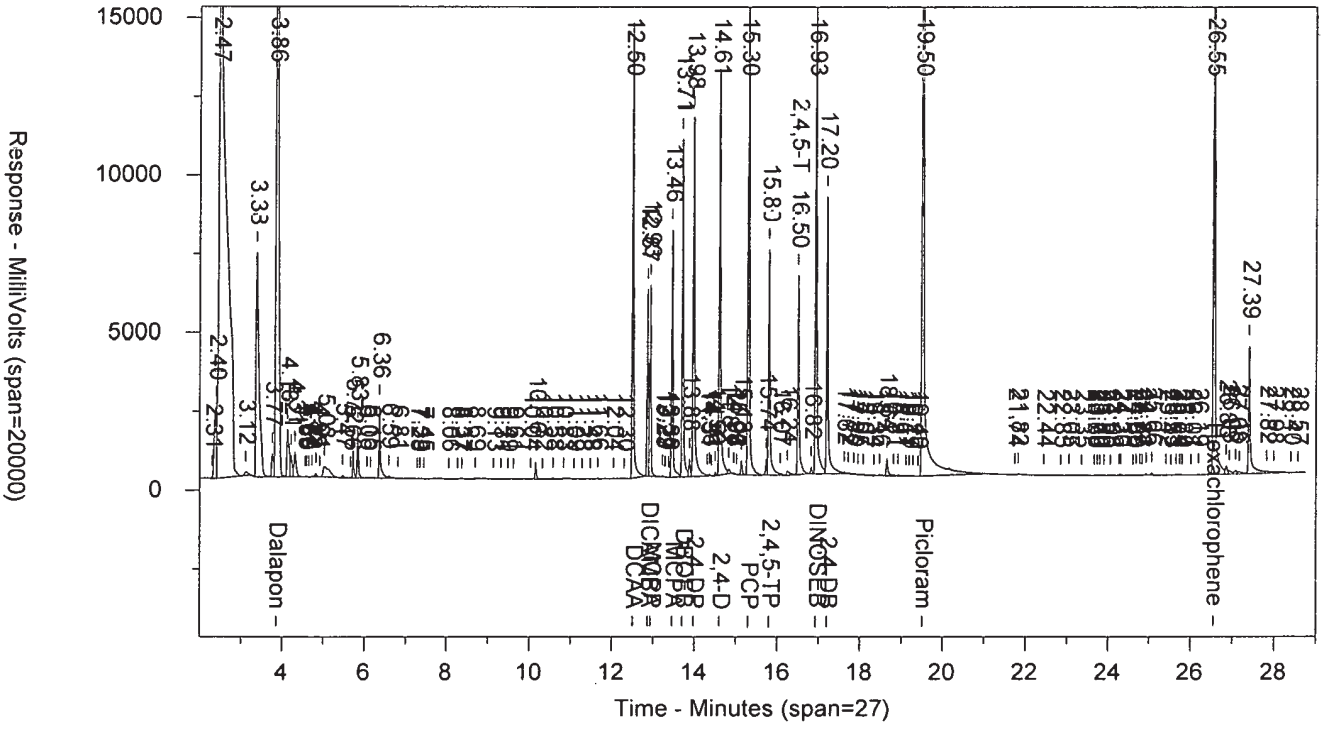

HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 8015A

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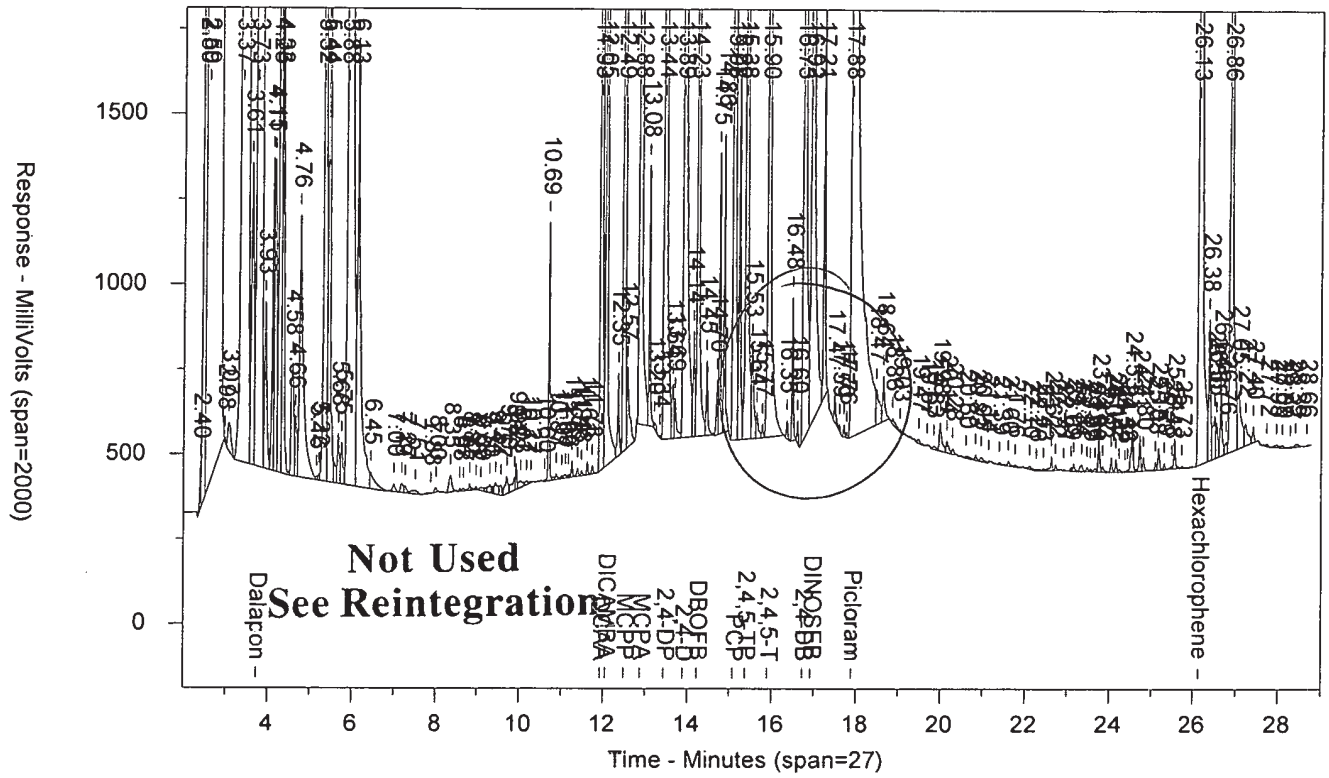

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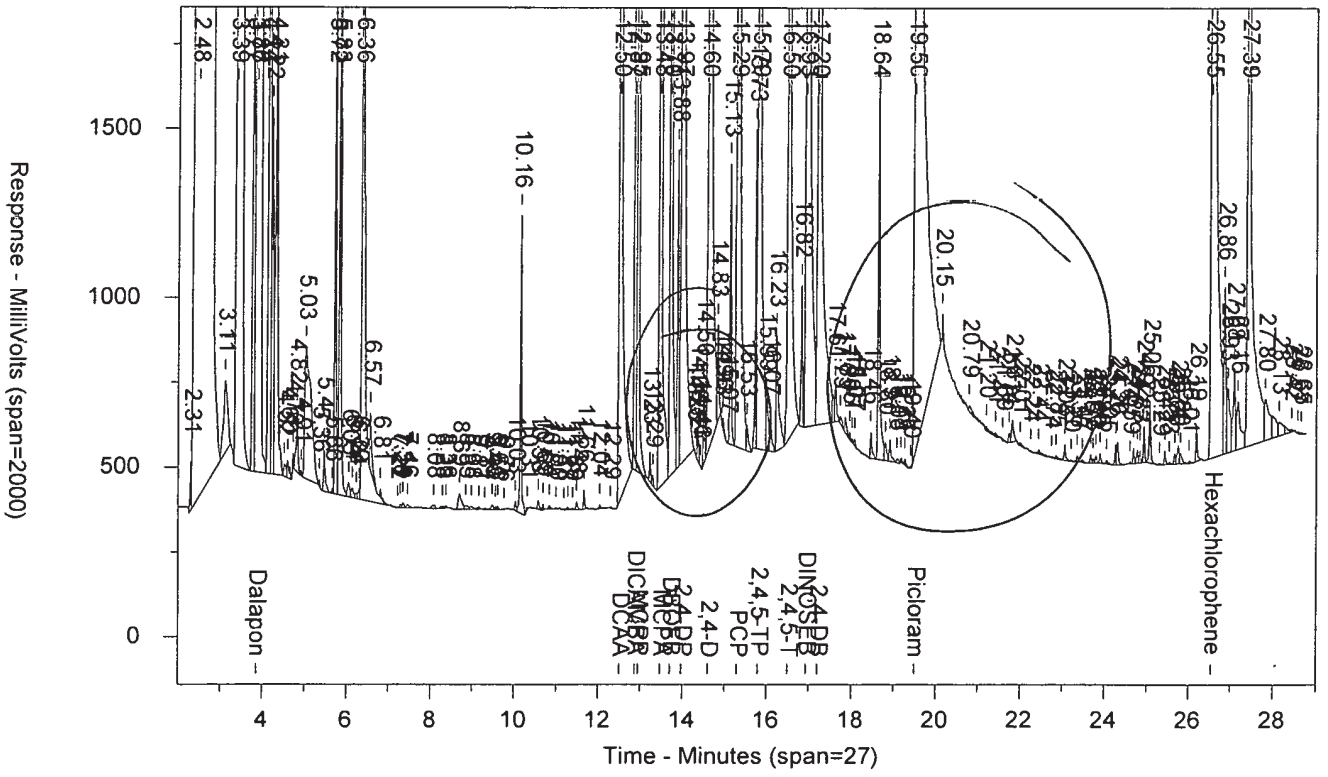

LANCASTER LABORATORIES

Sample Number: HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 9:07:29 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.73	31237820	3946.291	Dalapon	3.858	41389060	3568.115	Dalapon
11.927	26603140	1860.51	DCAA	12.504	28239020	1843.23	DCAA
12.054	10329070	180.491	DICAMBA	12.868	11277660	177.361	DICAMBA
12.492	9569284	110830.4	MCPP	12.945	11095830	176882.2	MCPP
12.879	11839410	109573.6	MCPA	13.475	14070400	162308.6	MCPA
13.441	16860660	1490.894	2,4-DP	13.974	21155710	1587.717	2,4-DP
14.226	10324720	1	DBOFB	13.705	10770070	1	DBOFB
13.891	23225720	1622.502	2,4-D	14.603	25162240	1631.939	2,4-D
15.081	34386240	192.968	PCP	15.294	36619600	187.367	PCP
15.378	13515920	198.53	2,4,5-TP	15.795	13528090	185.112	2,4,5-TP
15.903	12575230	208.107	2,4,5-T	16.498	12470300	191.809	2,4,5-T
16.733	16867390	2017.079	2,4-DB	17.202	17454690	1901.733	2,4-DB
16.923	27550030	893.439	DINOSEB	16.928	29114230	903.289	DINOSEB
17.882	54858690	1026.063	Picloram	19.502	59887510	1013.51	Picloram
26.132	46109350	819.744	Hexachlorophene	26.554	47842620	799.998	Hexachlorophen

Files:
Area File: 15herb18304001.011.RAW
Area File: 15herb18304001B.011.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 9:36:16 PM
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Not Used
See Reintegration

HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 801

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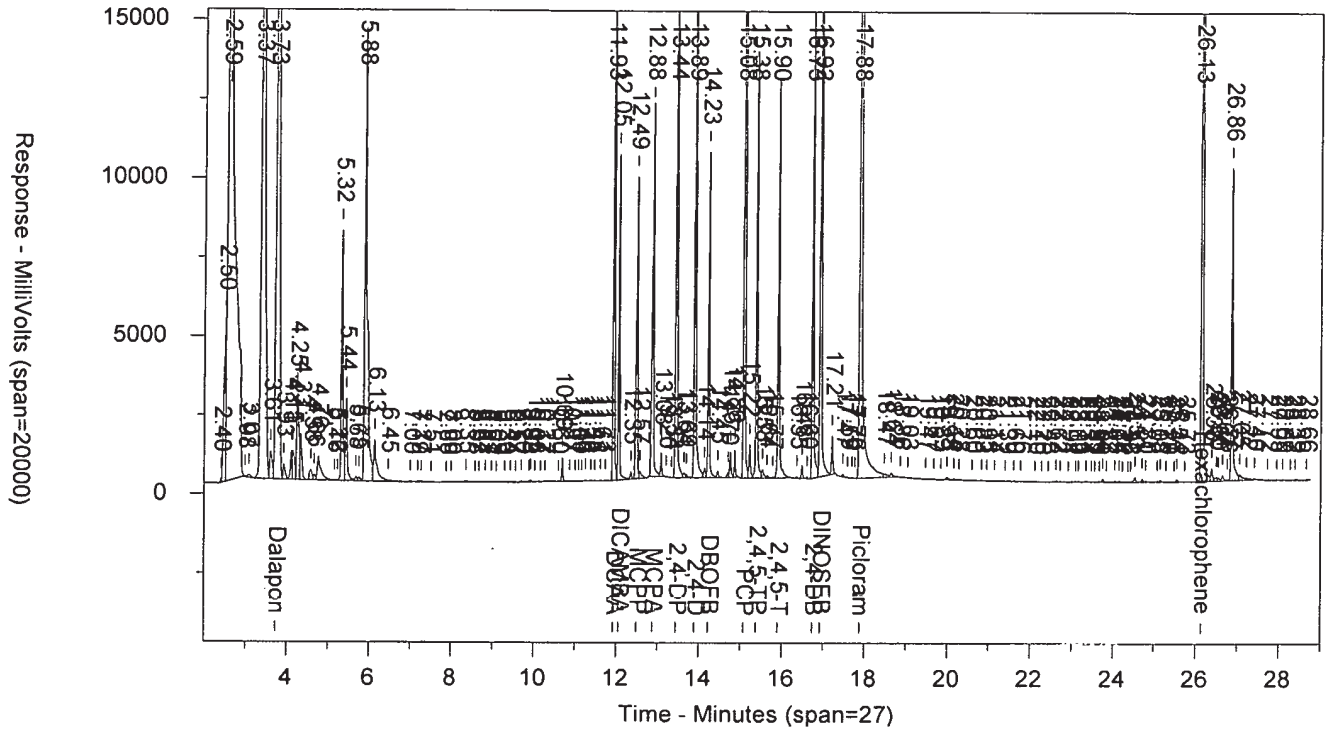

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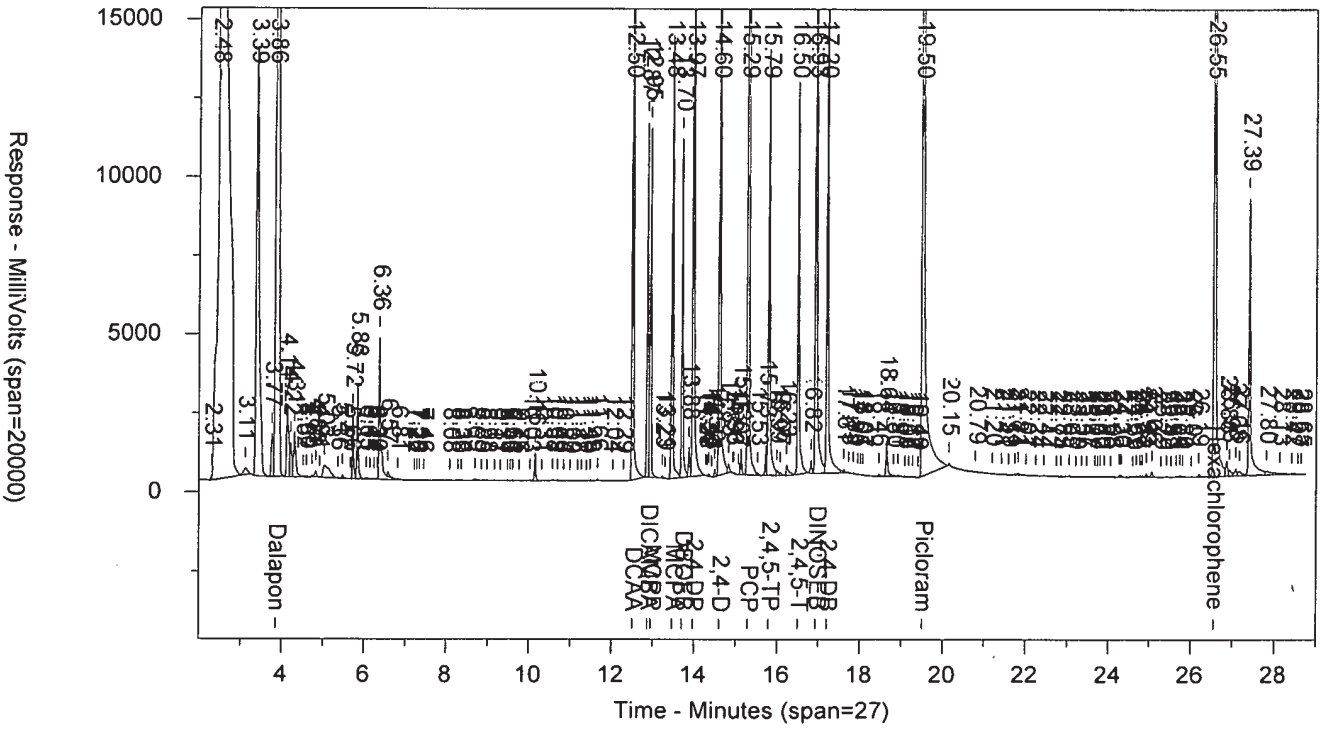

HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 8015A

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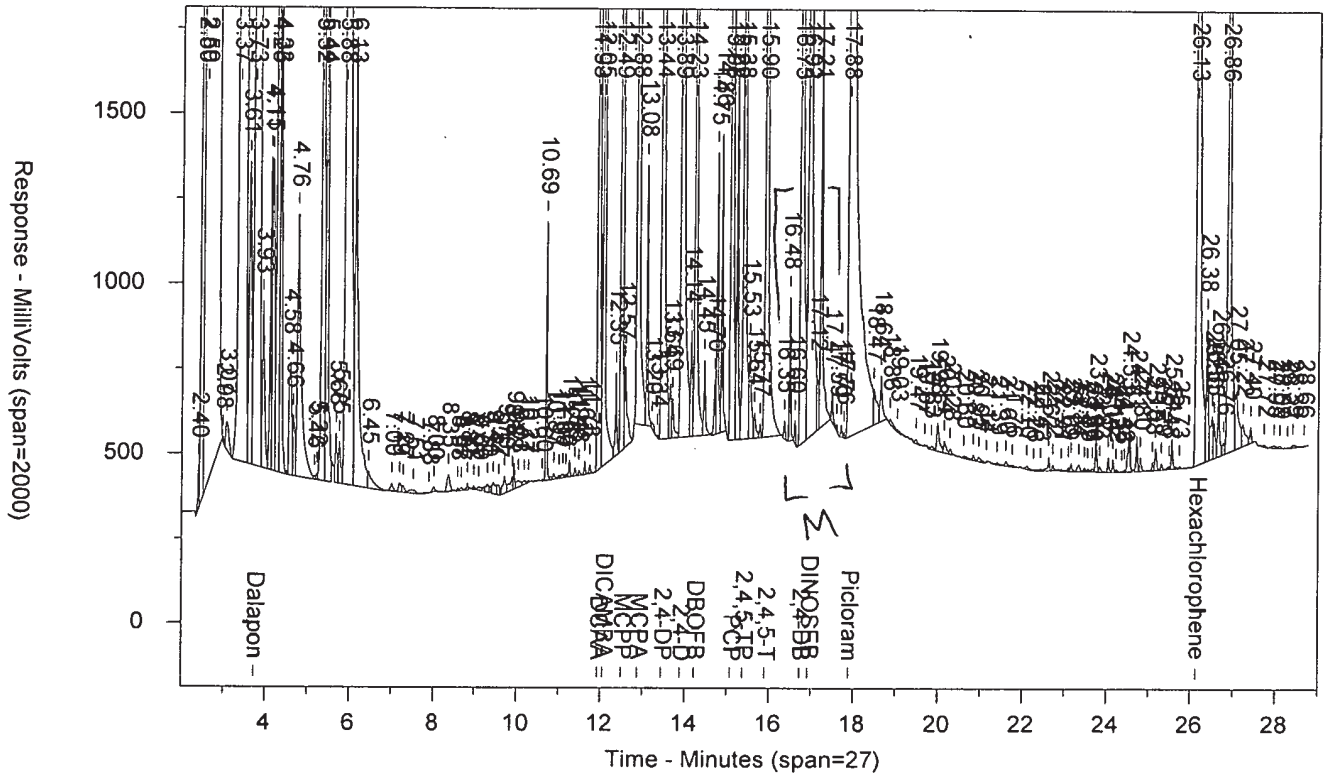

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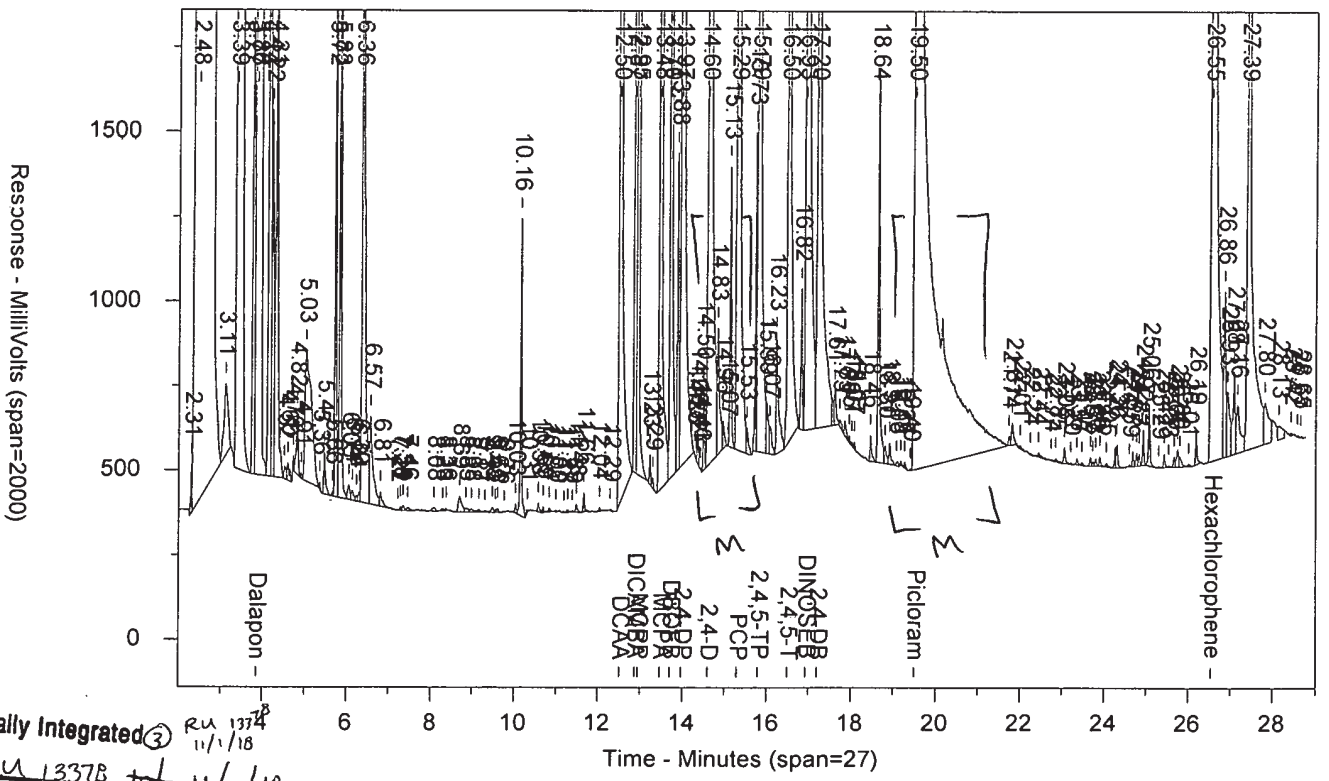

M = Manually Integrated (3) RU 13378 11/1/18

Analyst RU 13378 tot 11/1/18

Approved by [signature] 11/1/18

Circle Reason 1 2 3 4

1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

LANCASTER LABORATORIES

Sample Number: HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 9:07:29 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.73	31237820	4046.221	Dalapon	3.858	41389060	3674.603	Dalapon
11.927	26603140	1912.936	DCAA	12.504	28239020	1902.996	DCAA
12.054	10329070	184.887	DICAMBA	12.868	11277660	182.91	DICAMBA
12.492	9569284	178820.6	MCPP	12.945	11095830	181028.7	MCPP
12.879	11839410	184160.1	MCPA	13.475	14070400	166914.3	MCPA
13.441	16860660	1533.814	2,4-DP	13.974	21155710	1630.392	2,4-DP
14.226	10324720	1	DBOFB	13.705	10770070	1	DBOFB
13.891	23225720	1692.958	2,4-D	14.603	25196450	1695.497	2,4-D
15.081	34386240	198.213	PCP	15.294	36619600	192.502	PCP
15.378	13515920	205.813	2,4,5-TP	15.795	13528090	192.703	2,4,5-TP
15.903	12575230	216.941	2,4,5-T	16.498	12470300	201.057	2,4,5-T
16.733	16879370	2099.167	2,4-DB	17.202	17454690	1985.144	2,4-DB
16.923	27591620	914.955	DINOSEB	16.928	29114230	911.753	DINOSEB
17.882	54858690	1091.562	Picloram	19.502	59921330	1069.156	Picloram
26.132	46109350	841.886	Hexachlorophene	26.554	47842620	823.687	Hexachlorophen

Files:
Area File: 15herb18304001.011.BND
Area File: 15herb18304001B.011.BND
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
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HERB61824E AAHERB6AA ICAL 1830299999 10407 SW-846 801

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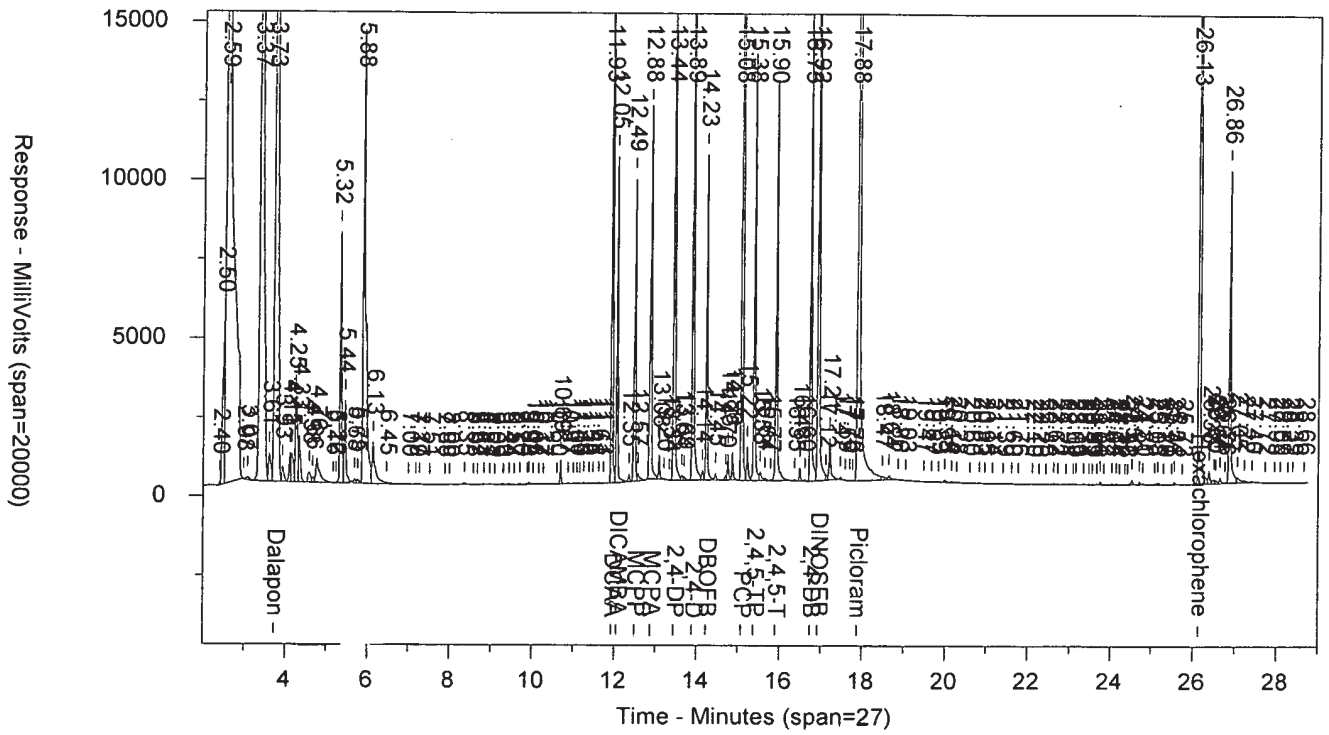

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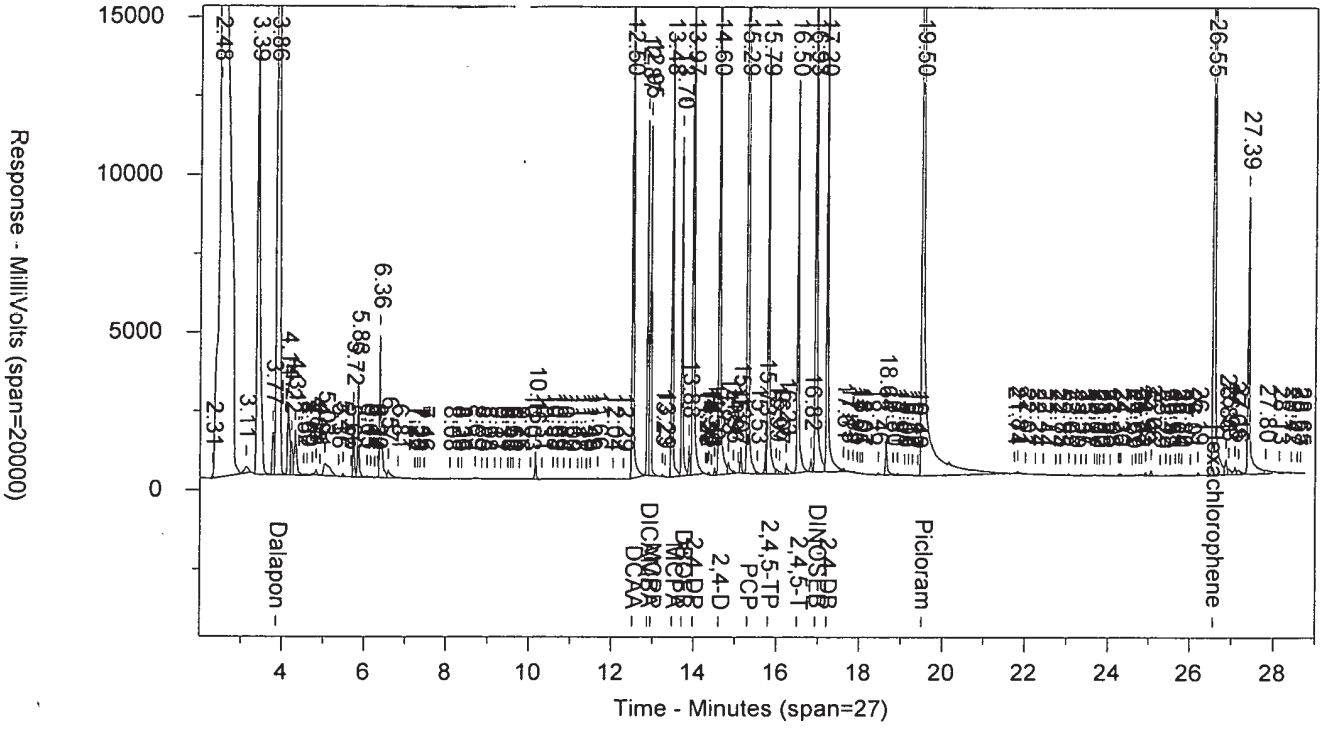

MDHEX1824E AAMDHEXAA ICAL 1830299999 10407 SW-846 8015/

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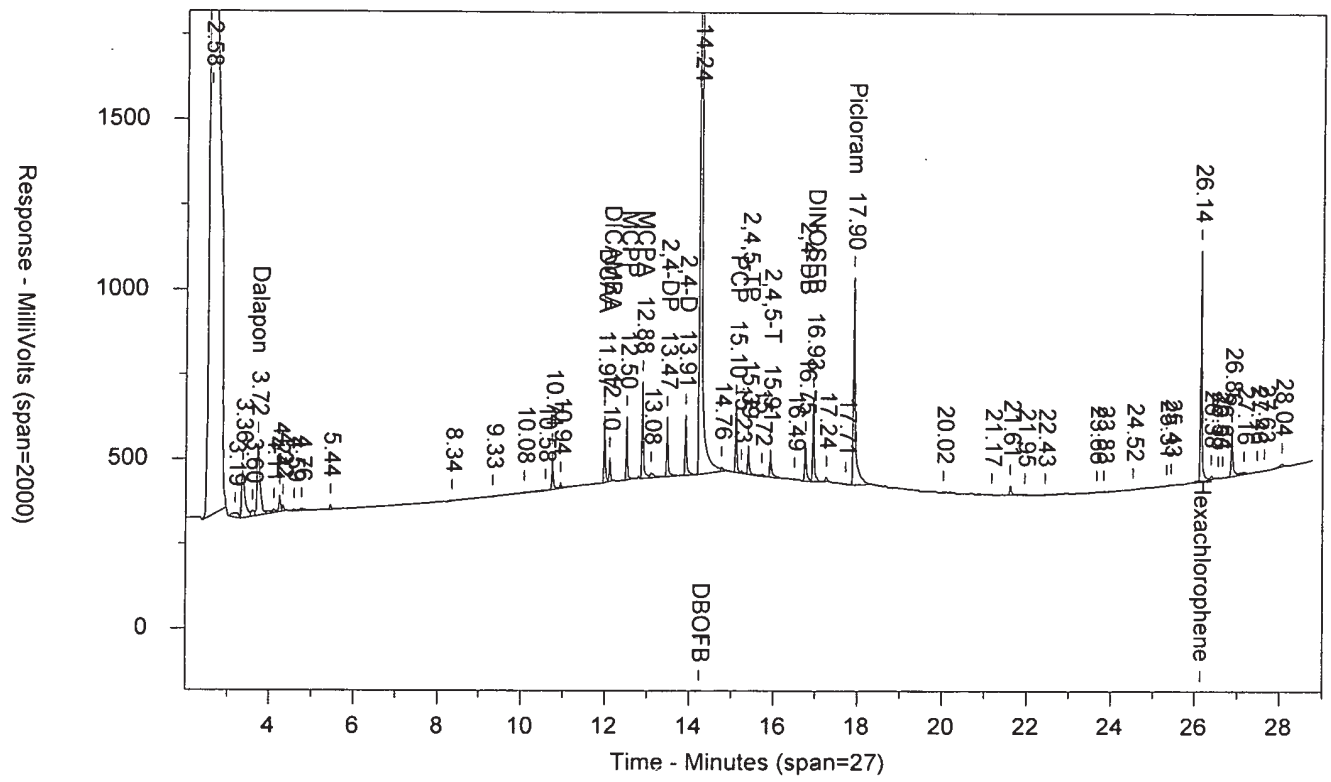

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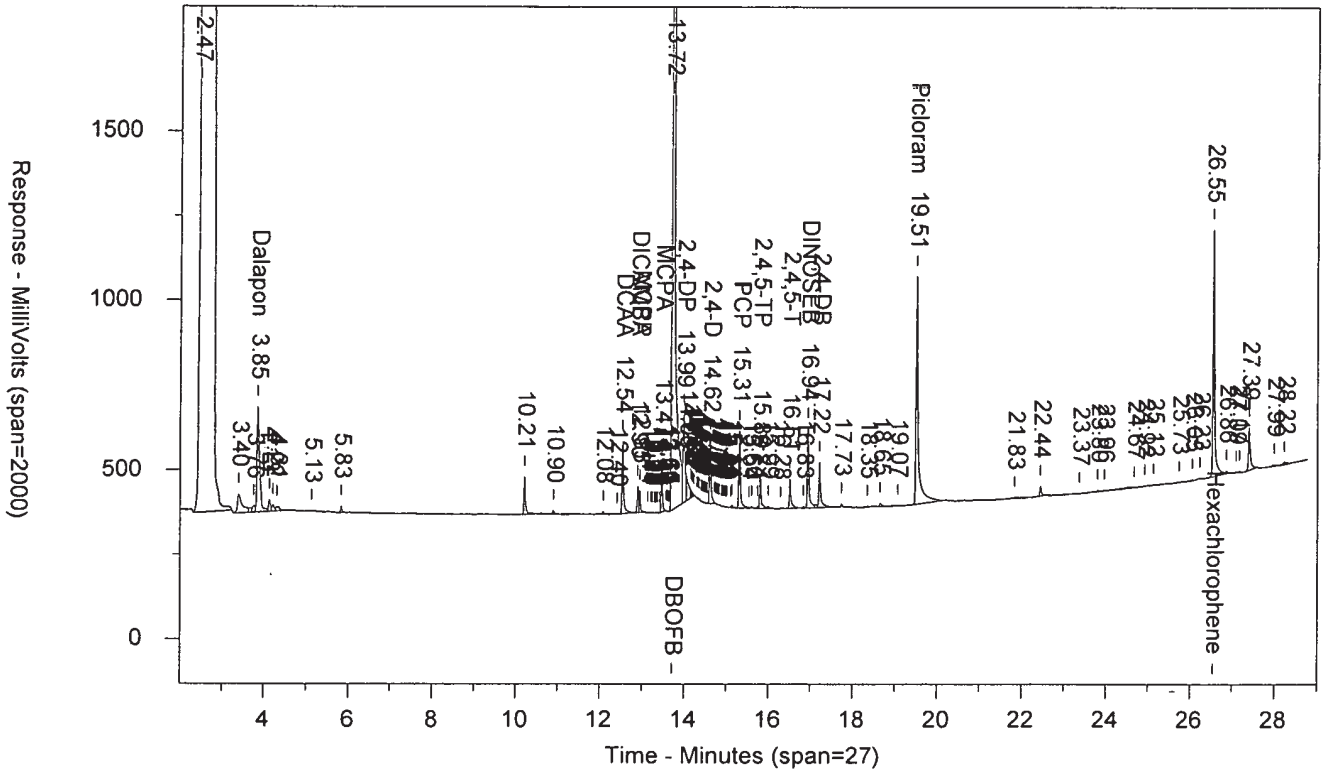

LANCASTER LABORATORIES

Sample Number: MDHEX1824E AAMDHEXAA ICAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 9:40:35 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.724	213103	27.744	Dalapon	3.854	310864	28.232	Dalapon
11.971	196530	14.204	DCAA	12.537	215005	14.821	DCAA
12.099	69358	1.248	DICAMBA	12.898	78828	1.308	DICAMBA
12.498	188428	-9042.412	MCPP	12.946	65748	1097.269	MCPP
12.877	286940	-8789.521	MCPA	13.47	140147	1700.647	MCPA
13.465	177636	16.242	2,4-DP	13.993	258124	20.349	2,4-DP
14.236	10272130	1	DBOFB	13.716	10528740	1	DBOFB
13.905	178380	13.069	2,4-D	14.615	188232	12.954	2,4-D
15.099	198728	1.151	PCP	15.309	227553	1.224	PCP
15.389	84763	1.297	2,4,5-TP	15.803	96961	1.413	2,4,5-TP
15.913	82356	1.428	2,4,5-T	16.506	87010	1.435	2,4,5-T
16.75	117280	14.658	2,4-DB	17.216	134689	15.669	2,4-DB
16.934	247547	8.249	DINOSEB	16.94	233763	7.488	DINOSEB
17.897	613381	12.267	Picloram	19.509	672706	12.275	Picloram
26.137	682844	12.532	Hexachlorophene	26.555	729938	12.855	Hexachlorophen

Files:
Area File: 15herb18304001.012.RAW
Area File: 15herb18304001B.012.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 10:09:22 PM
File Reported On: 11/1/2018 at 10:35:13 AM

MDHEX1824E AAMDHEXAA ICAL 1830299999 10407 SW-846 8(

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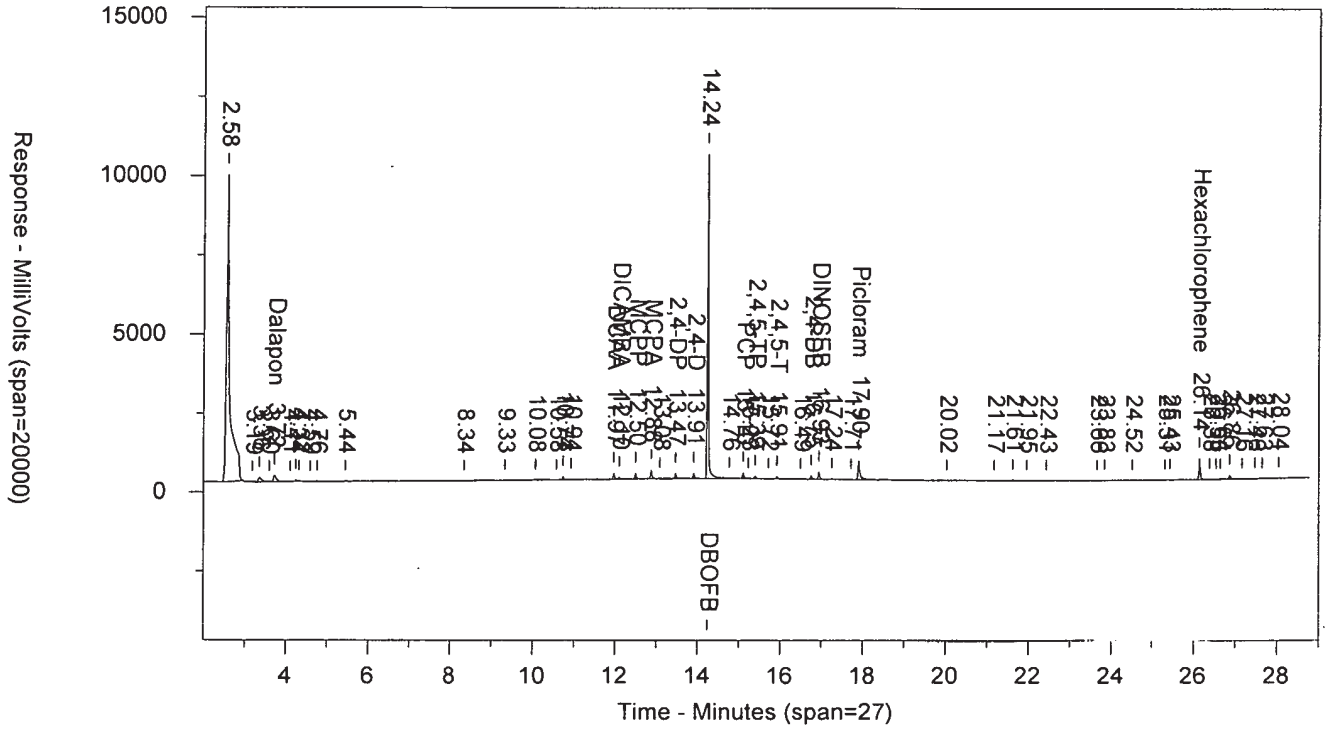

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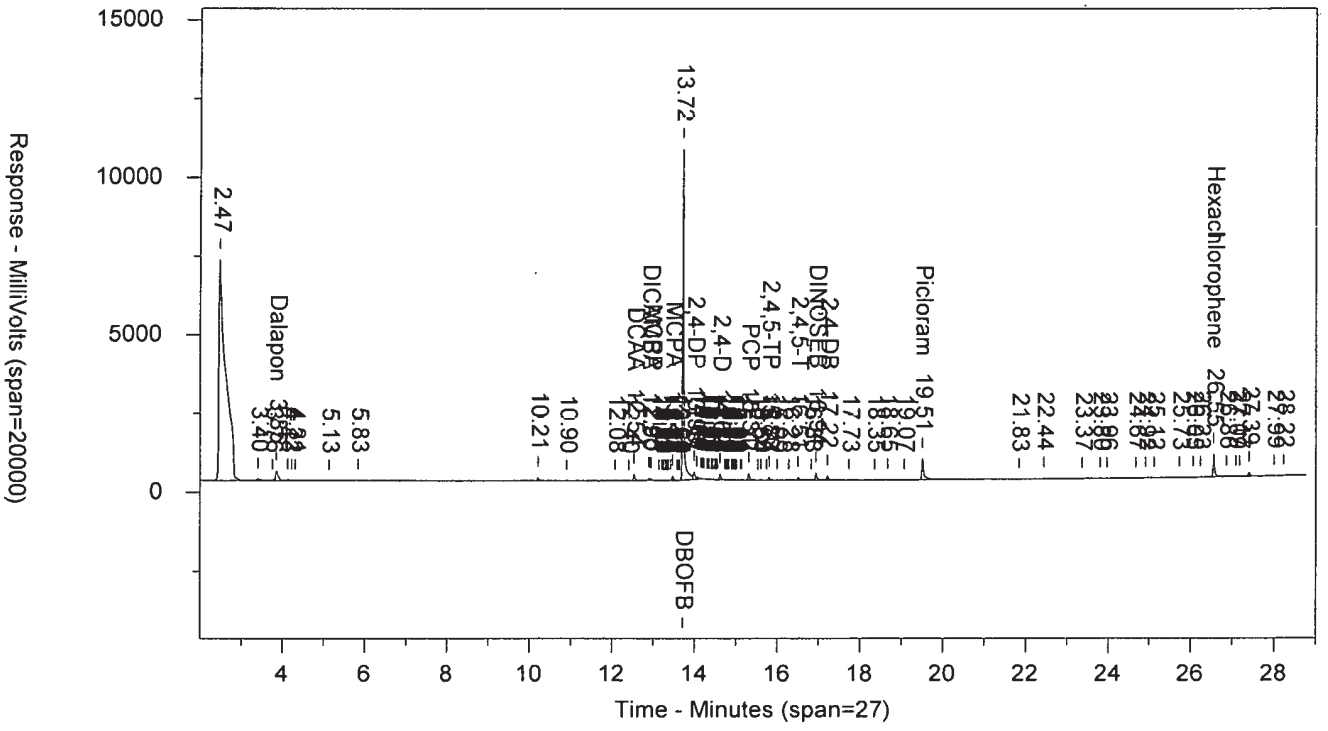

ICHBX1824G AAICHBXAA CCAL 1830299999 10407 SW-846 8015A

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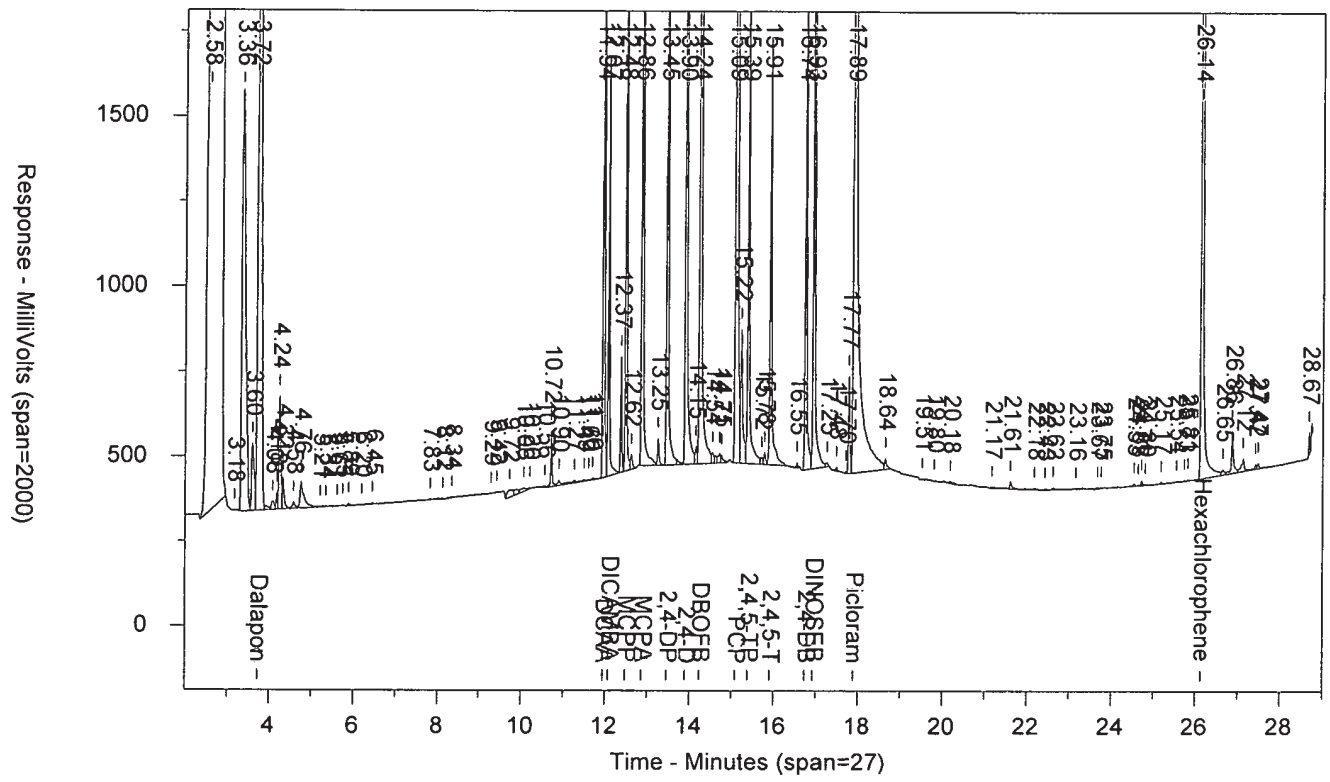

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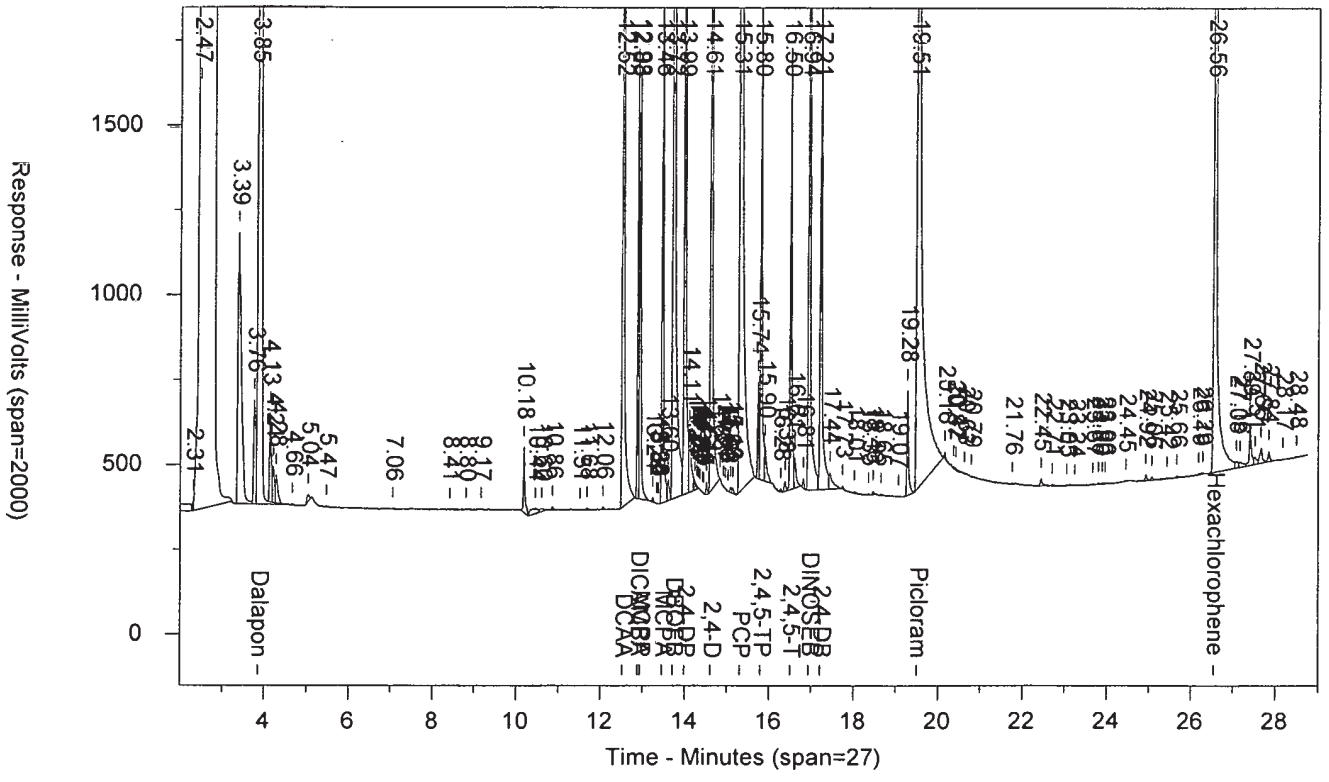

LANCASTER LABORATORIES

Sample Number: ICHBX1824G AAICHBXAA CCAL 1830299999 10407 SW-846 8015A
Injected On: 10/31/2018 10:13:35 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.724	3484956	415.233	Dalapon	3.855	4969726	418.962	Dalapon
11.944	2820565	186.564	DCAA	12.518	3035387	194.232	DCAA
12.07	1230845	20.266	DICAMBA	12.879	1326542	20.429	DICAMBA
12.479	1870406	21623.53	MCPP	12.932	1258913	19502.99	MCPP
12.863	2273579	21327.76	MCPA	13.458	1656741	18662.05	MCPA
13.455	2671381	214.128	2,4-DP	13.985	2798496	204.789	2,4-DP
14.235	11224140	1	DBOFB	13.715	11342300	1	DBOFB
13.898	2919491	195.753	2,4-D	14.61	2981738	190.48	2,4-D
15.093	17630100	93.482	PCP	15.306	17516720	87.436	PCP
15.386	1462964	20.492	2,4,5-TP	15.8	1489461	20.146	2,4,5-TP
15.91	1258346	19.969	2,4,5-T	16.503	1302423	19.939	2,4,5-T
16.742	1610705	184.238	2,4-DB	17.21	1679637	181.39	2,4-DB
16.932	2764359	84.303	DINOSEB	16.936	2771244	82.407	DINOSEB
17.888	10858720	198.75	Picloram	19.505	11258260	190.704	Picloram
26.136	6538899	109.823	Hexachlorophene	26.556	6833608	111.716	Hexachlorophen

Files:
Area File: 15herb18304001.013.RAW
Area File: 15herb18304001B.013.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 10/31/2018 10:42:23 PM
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ICHBX1824G AAICHBXAA CCAL 1830299999 10407 SW-846 801

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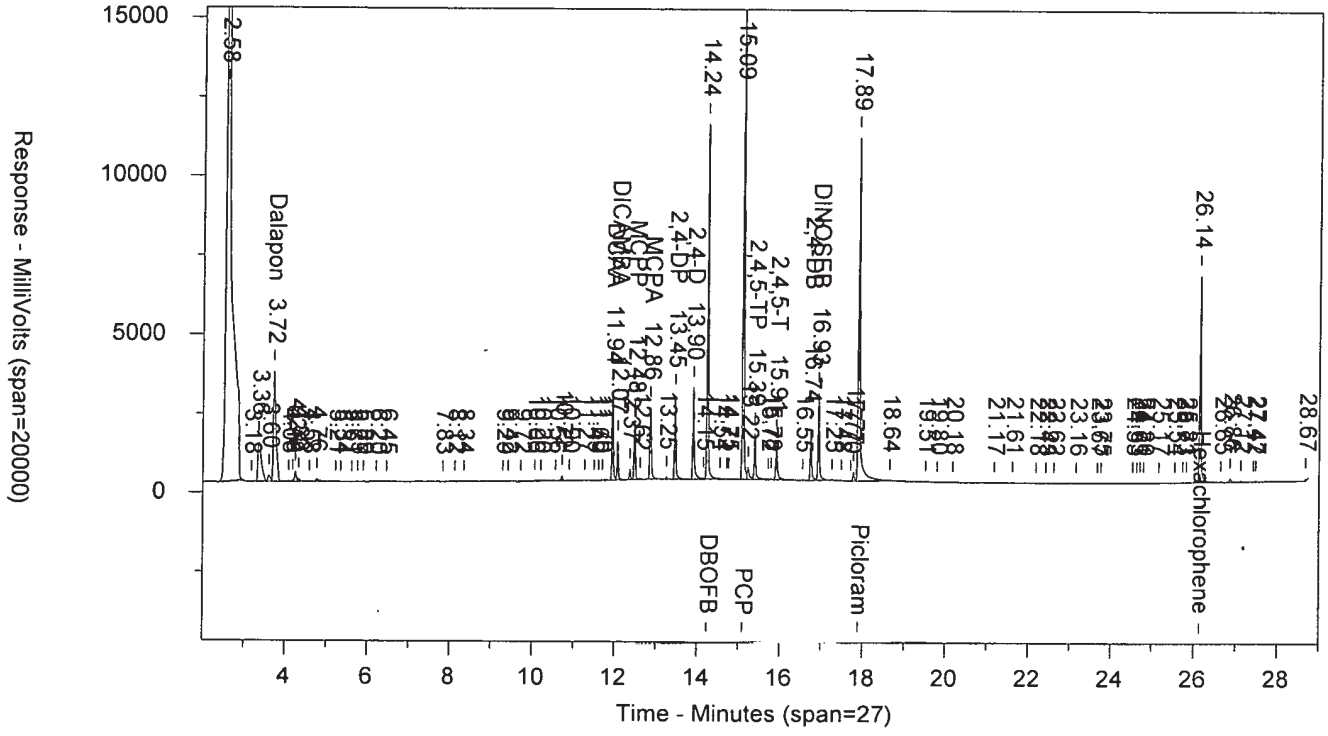

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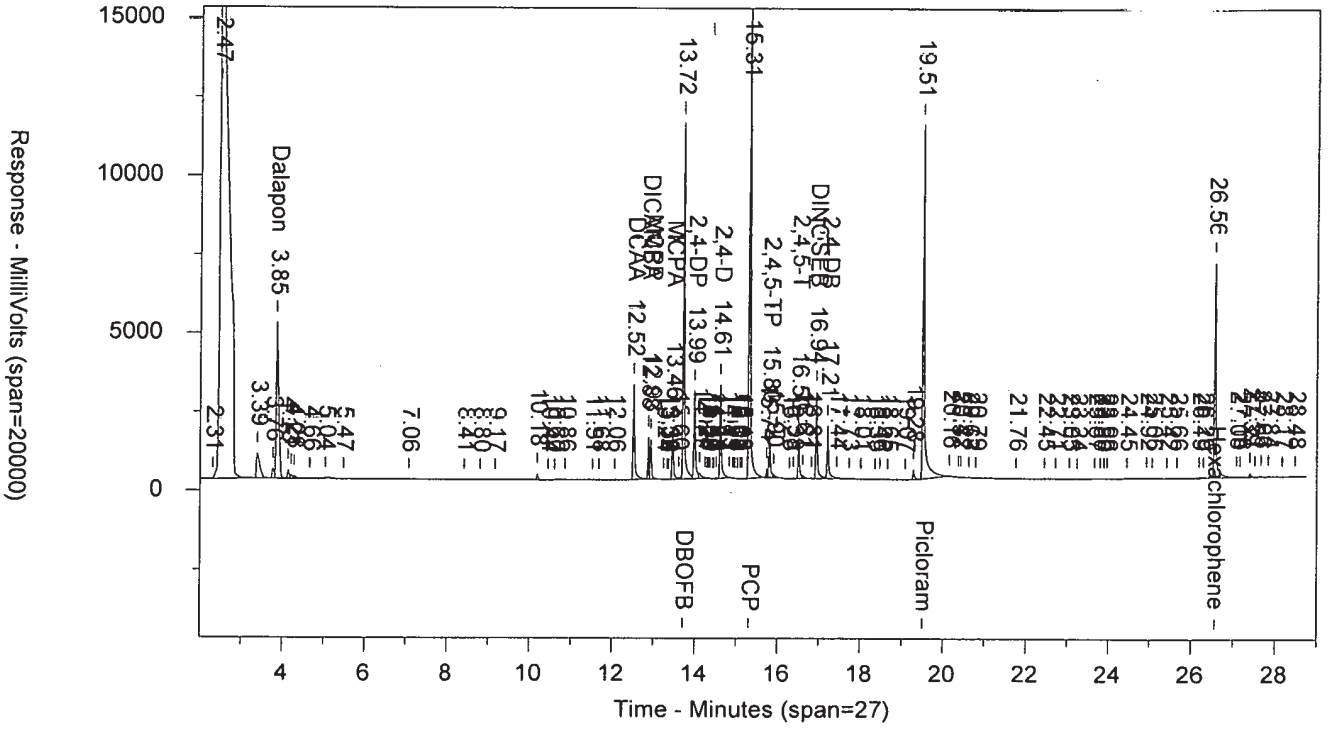

HIBLKX1824B AAHIBLKAA MISC 1831099999 10407 SW-846 8151A

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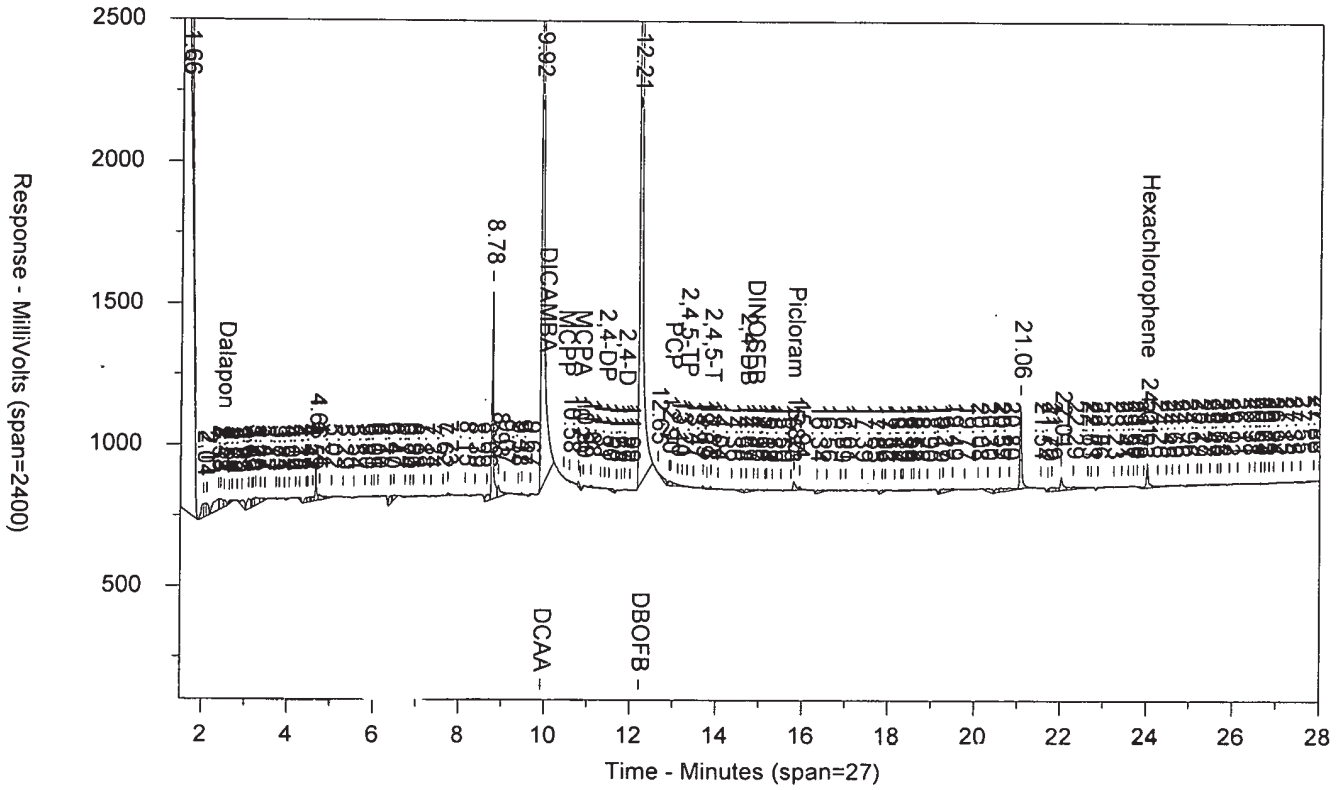

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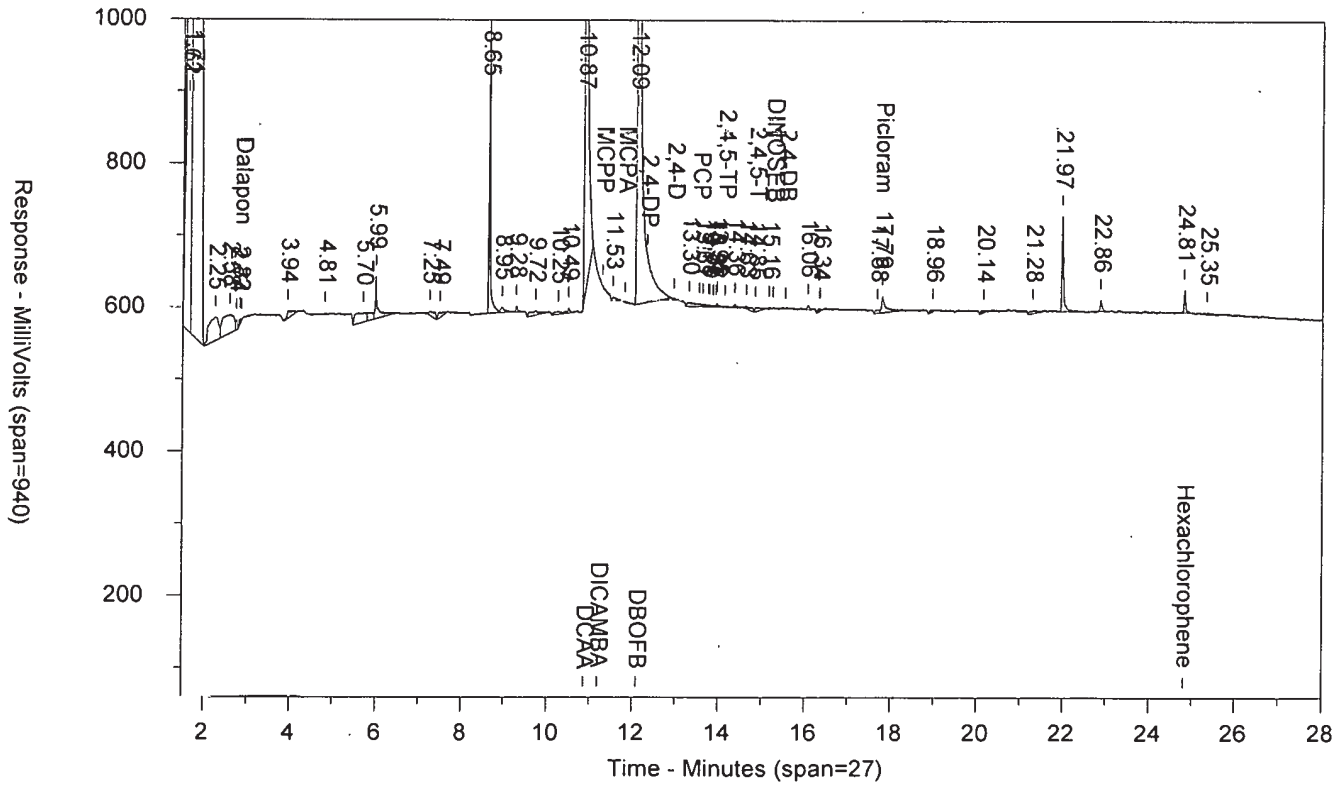

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B AAHIBLKAA MISC 1831099999 10407 Sample Weight: 1000 SW-846 8151A
Injected On: 11/7/2018 5:51:13 PM Dilution Factor: 10
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.517	24972	.015	Dalapon		0		Dalapon
9.917	4535484	2.511	DCAA	10.867	3111354	2.579	DCAA
11.867	4829	.003	2,4-D		0		2,4-D
12.211	11943900	.001	DBOFB	12.094	8157301	.001	DBOFB
13.867	12976	.002	2,4,5-T	14.847	6559	.001	2,4,5-T
14.694	11364	.012	2,4-DB		0		2,4-DB
14.873	6559	.004	DINOSEB		0		DINOSEB
15.799	33488	.007	Picloram	17.794	23474	.006	Picloram
24.008	87695	.014	Hexachlorophene	24.812	31668	.009	Hexachlorophene

Files:
Area File: 24herb18311001.005.RAW
Area File: 24herb18311001B.005.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 6:20:03 PM
File Reported On: 11/8/2018 at 12:27:20 PM

HIBLKX1824B AAHIBLKAA MISC 1831099999 10407 SW-846 815

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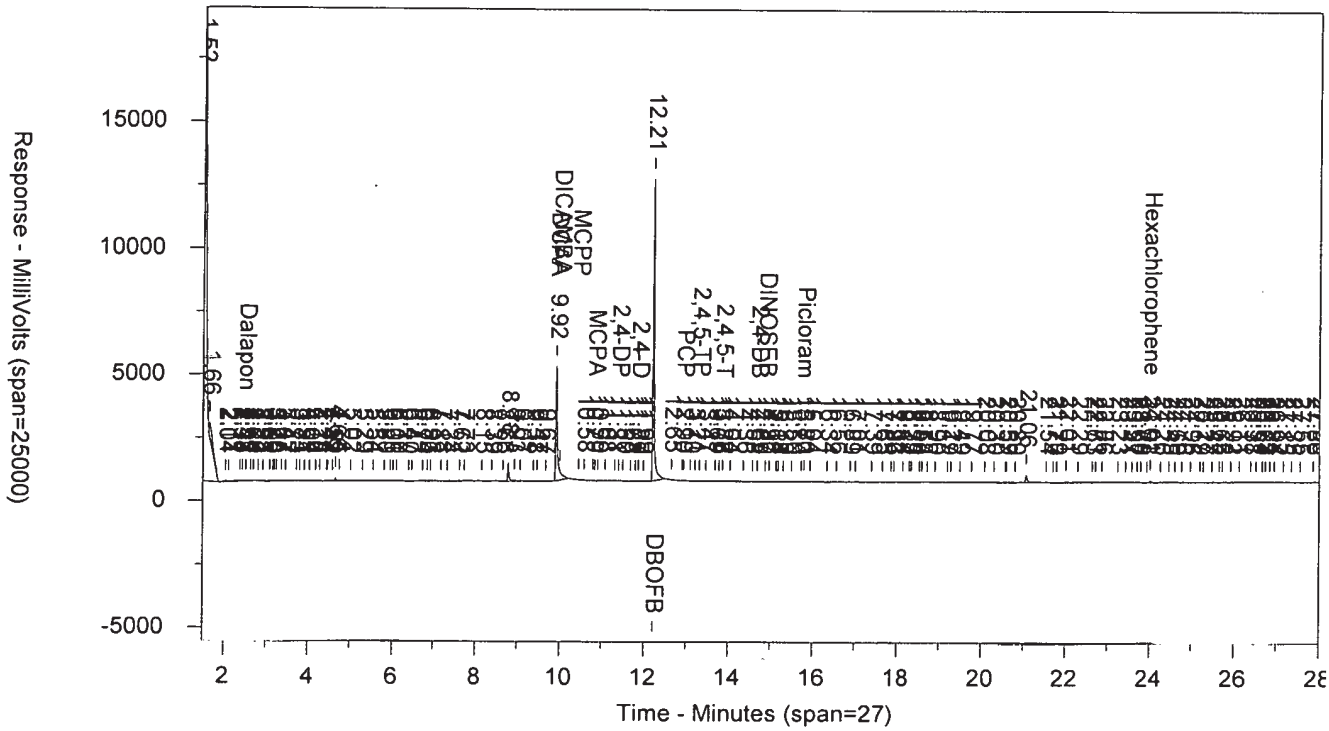

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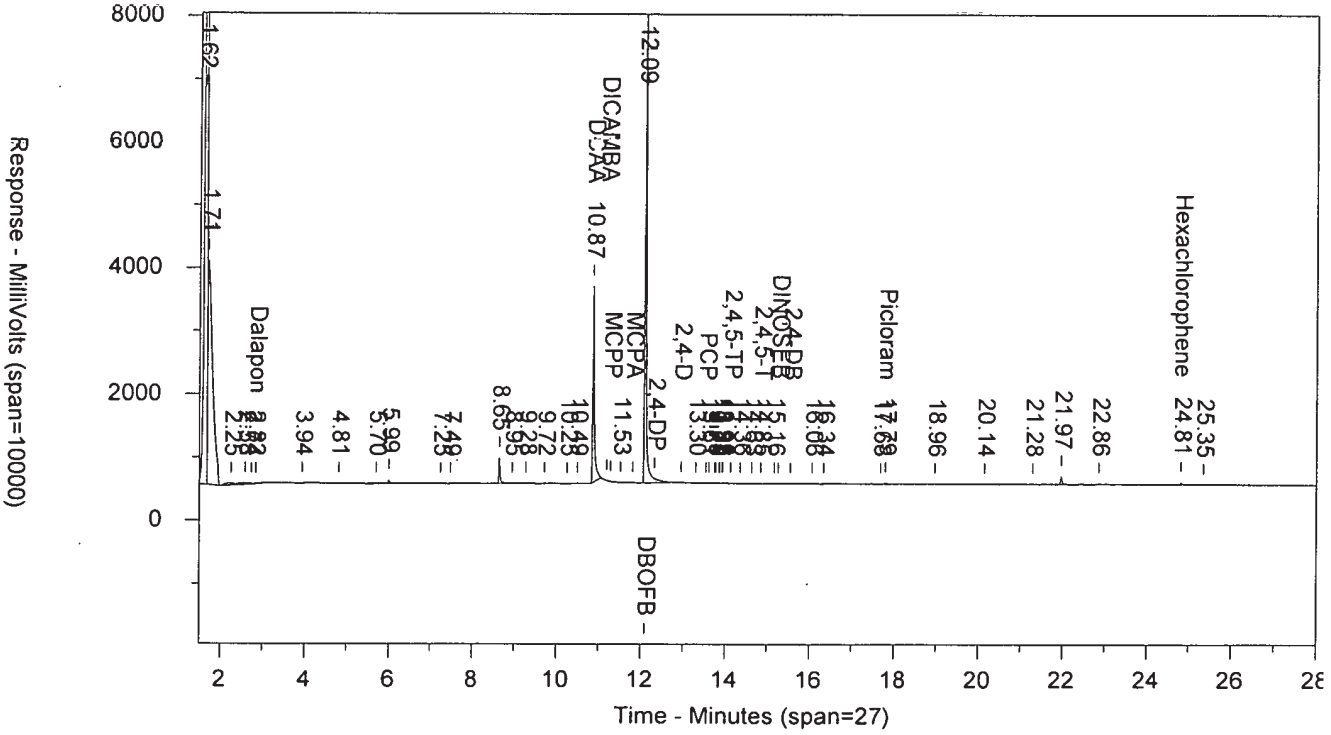

HERB11824E AAHERB1AA ICAL 1831099999 10407 SW-846 8151A

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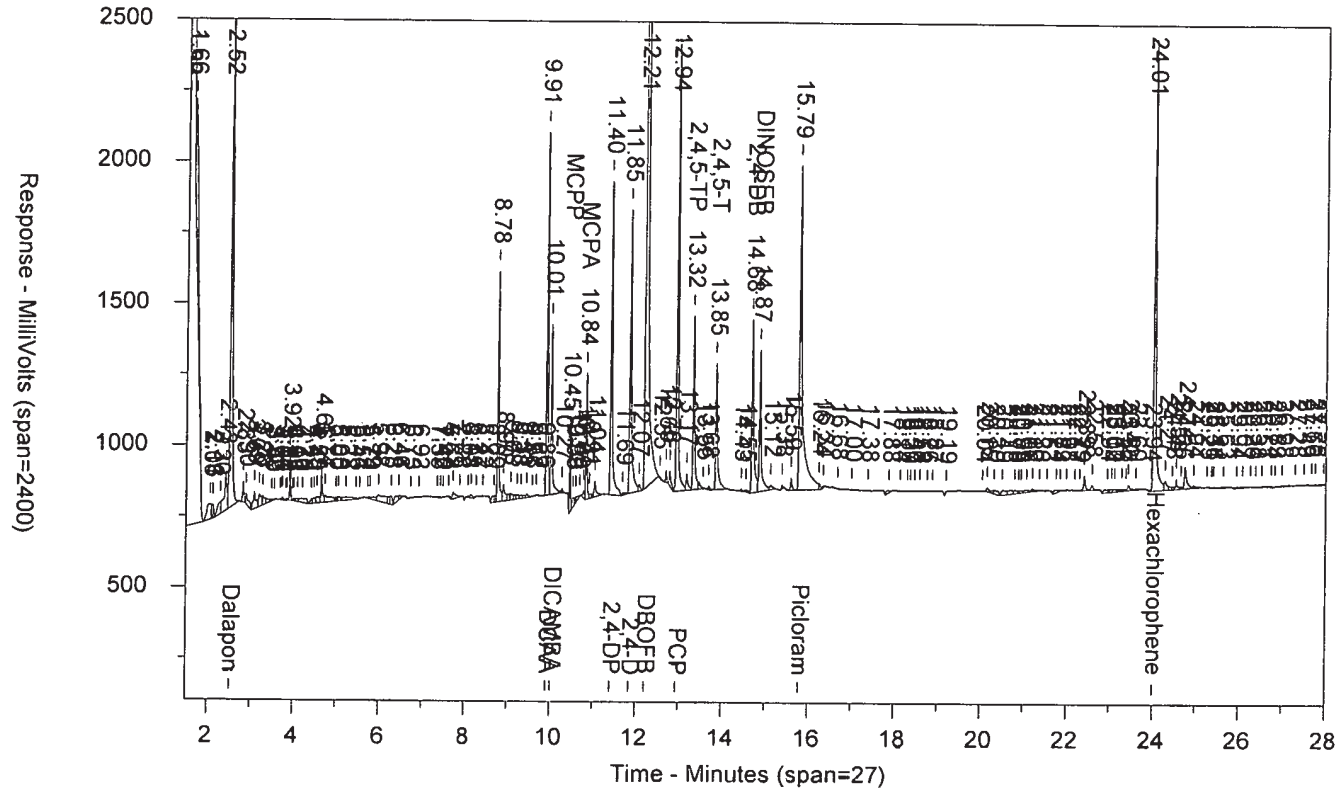

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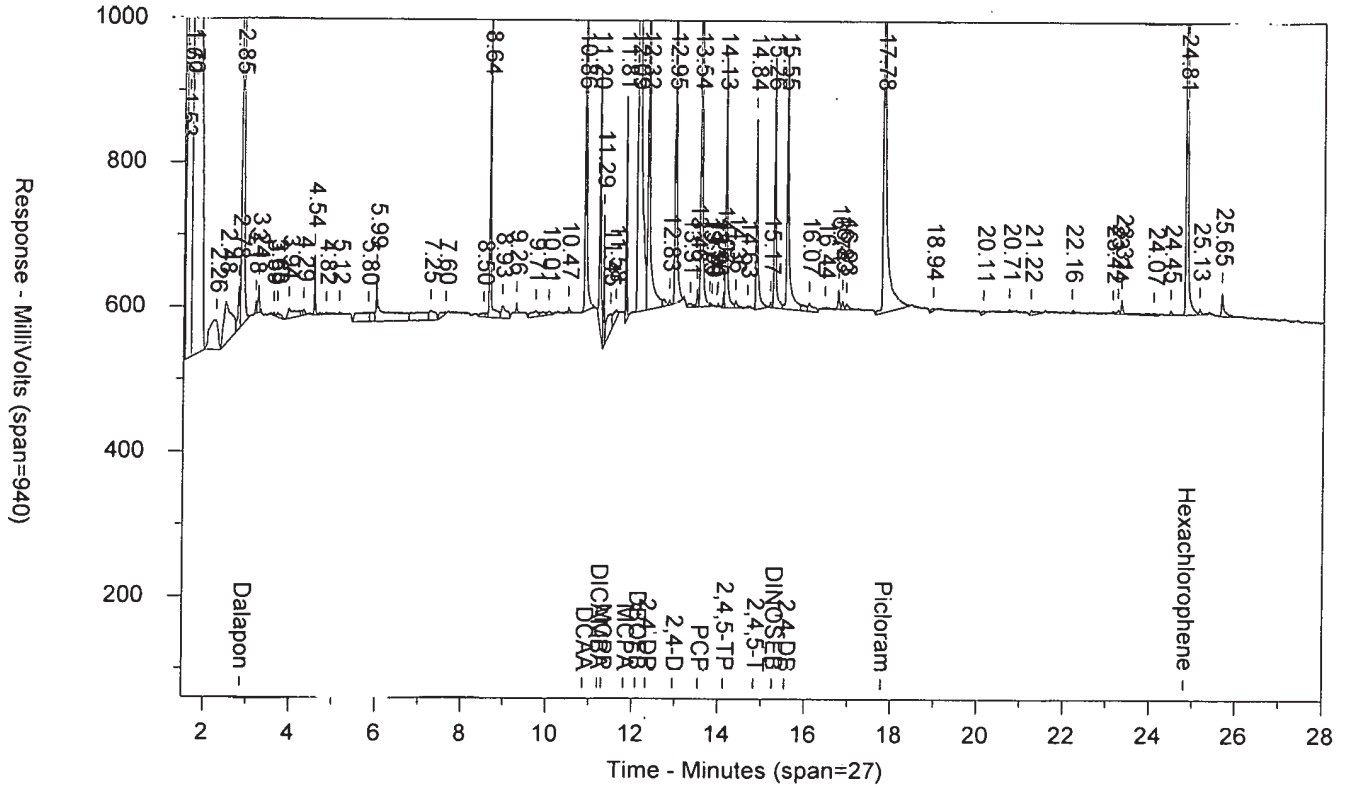

LANCASTER LABORATORIES

Sample Number: HERB11824E AAHERB1AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 6:24:14 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	2185633	114.628	Dalapon	2.854	1506832	109.154	Dalapon
9.909	1281013	63.724	DCAA	10.861	822134	58.512	DCAA
10.015	599881	6.278	DICAMBA	11.202	363475	5.888	DICAMBA
10.454	264643	5204.644	MCPP	11.293	182691	4404.183	MCPP
10.836	445468	5907.979	MCPA	11.814	311503	5161.97	MCPA
11.404	1106526	64.559	2,4-DP	12.325	735516	58.919	2,4-DP
11.852	1001224	51.623	2,4-D	12.95	648582	46.906	2,4-D
12.211	13290210	1	DBOFB	12.092	9499762	1	DBOFB
12.938	1576531	5.727	PCP	13.544	990364	5.475	PCP
13.318	613690	6.123	2,4,5-TP	14.127	352295	5.122	2,4,5-TP
13.851	445387	5.185	2,4,5-T	14.835	264322	4.668	2,4,5-T
14.685	611542	56.38	2,4-DB	15.546	353292	49.055	2,4-DB
14.868	499762	26.893	DINOSEB	15.257	346957	24.769	DINOSEB
15.785	1145204	20.295	Picloram	17.782	873077	19.704	Picloram
24.007	1594658	23.514	Hexachlorophene	24.811	911091	21.089	Hexachlorophene

Files:
Area File: 24herb18311001.006.RAW
Area File: 24herb18311001B.006.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 6:53:05 PM
File Reported On: 11/8/2018 at 12:27:38 PM

HERB11824E AAHERB1AA ICAL 1831099999 10407 SW-846 815

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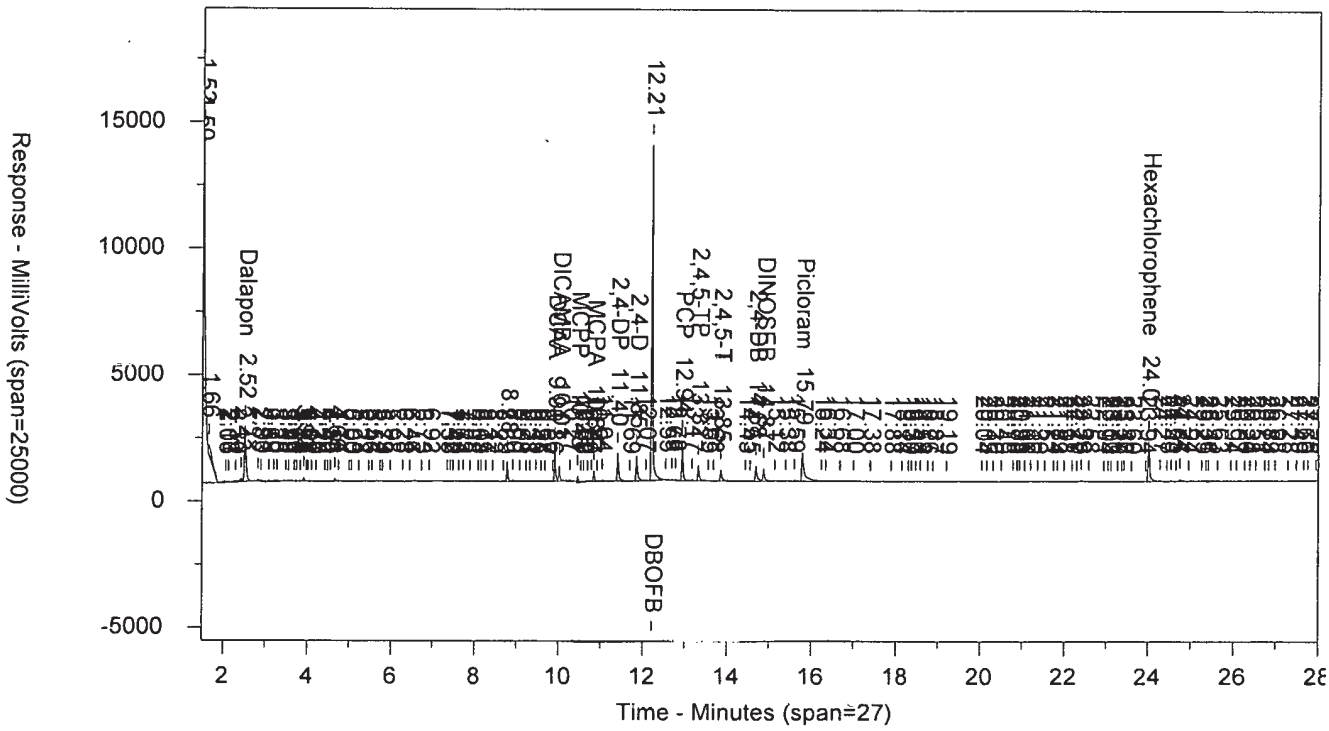

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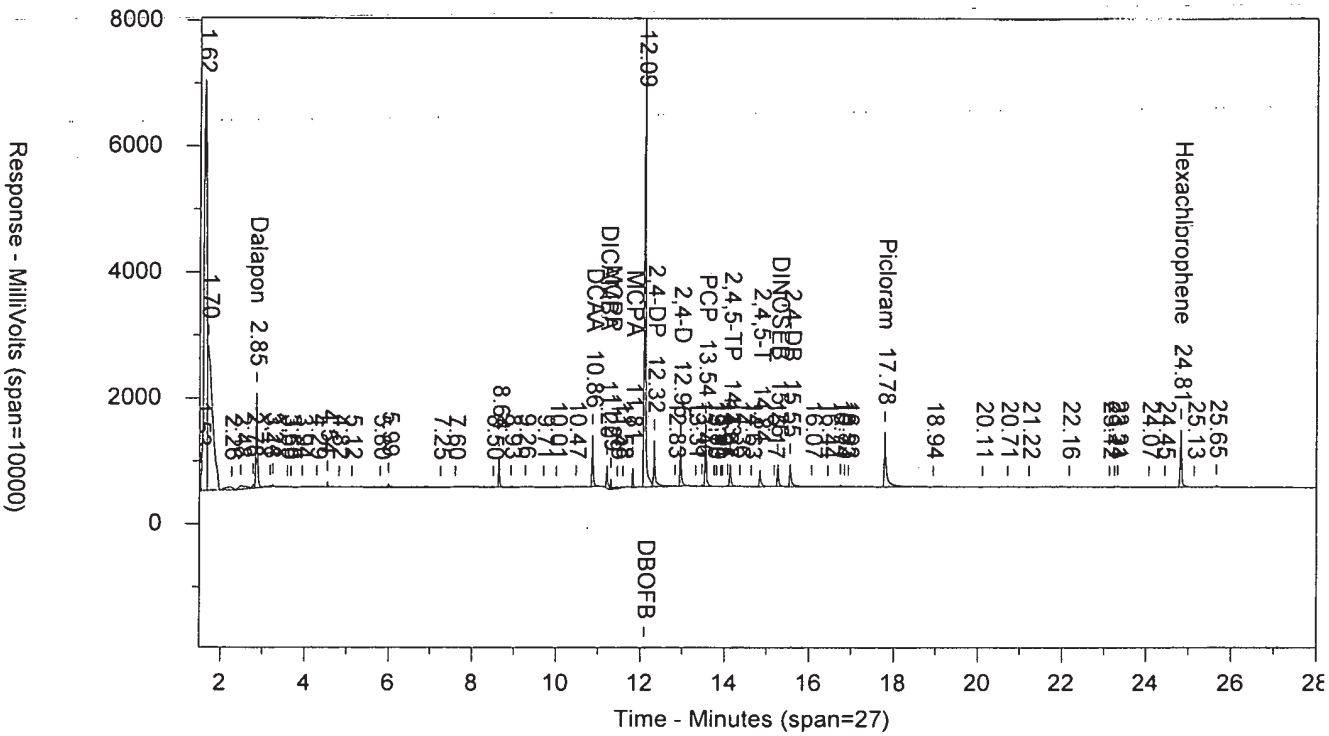

HERB21824E AAHERB2AA ICAL 1831099999 10407 SW-846 8151A

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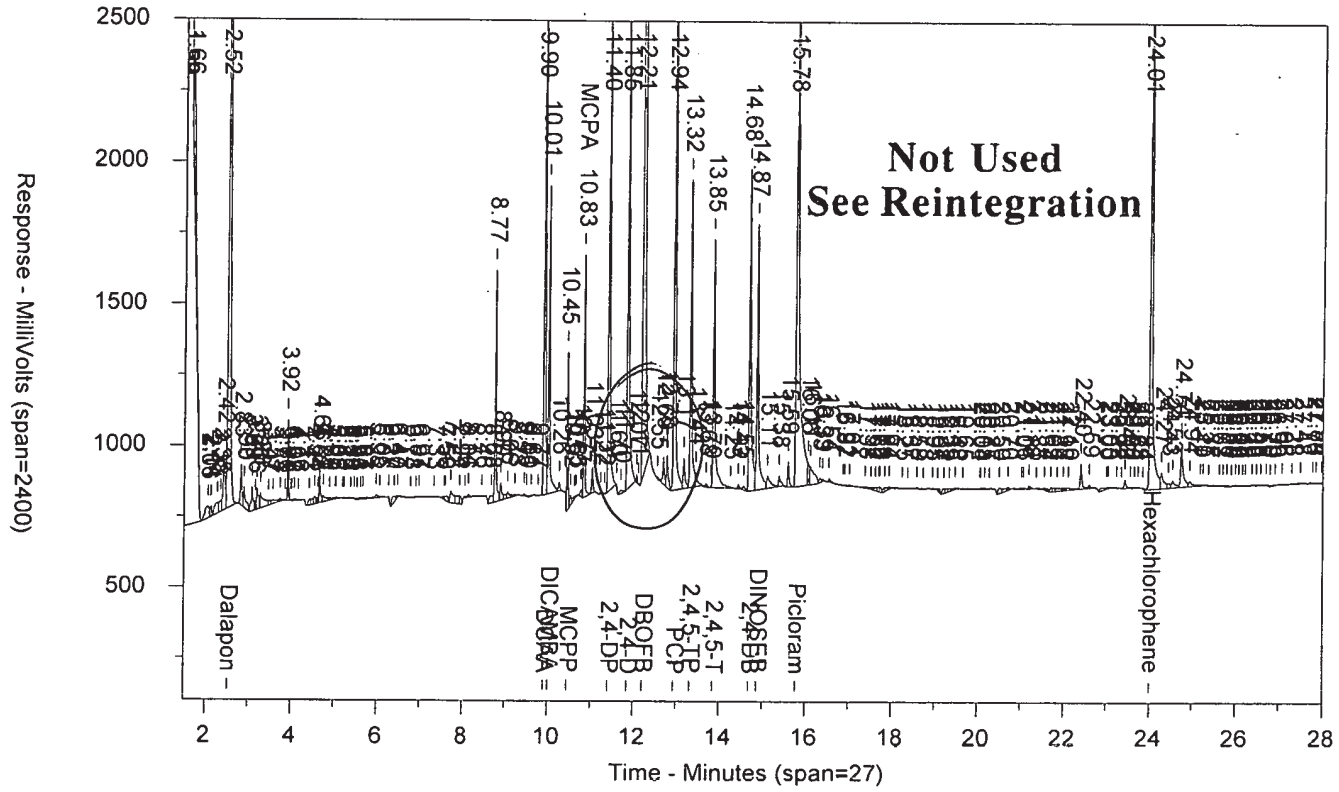

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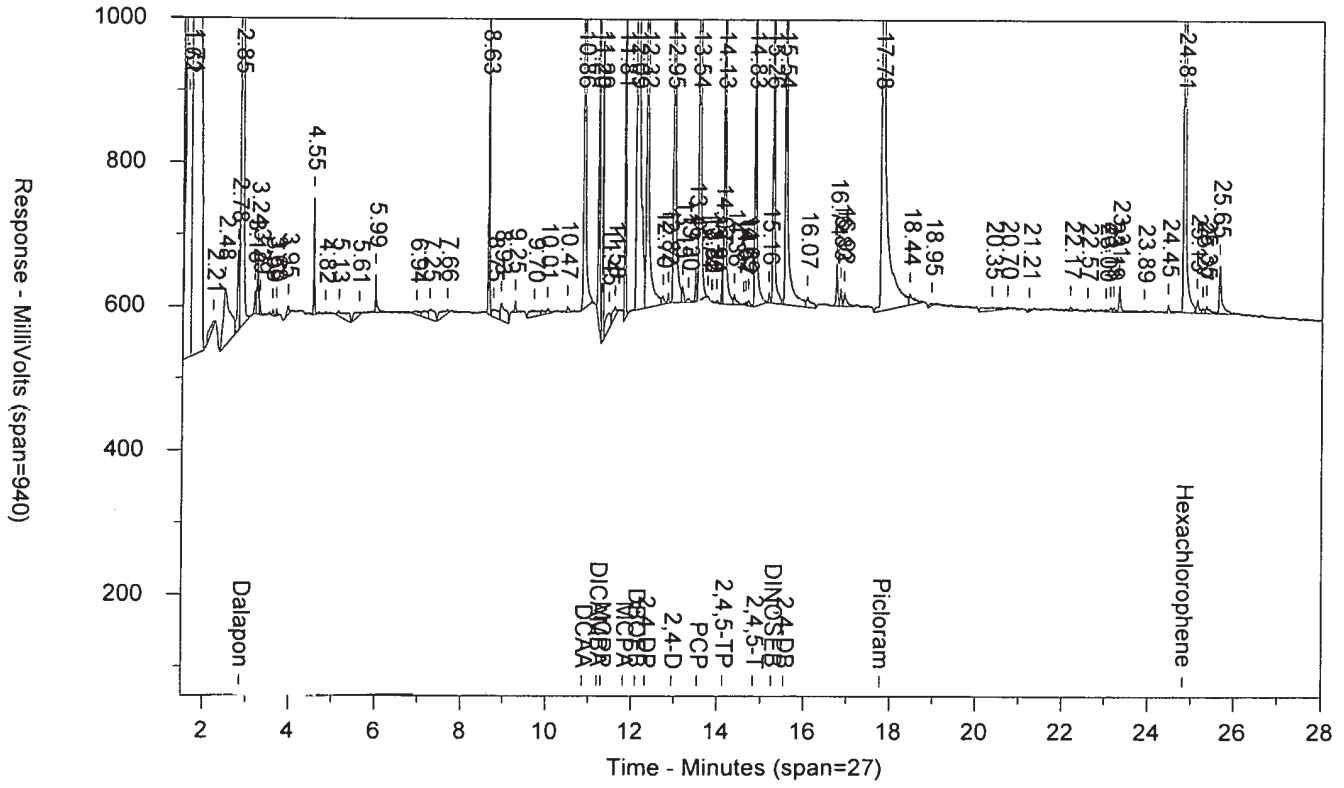

LANCASTER LABORATORIES

Sample Number: HERB21824E AAHERB2AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 6:57:19 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	3877947	209.23	Dalapon	2.855	2744693	203.968	Dalapon
9.904	2280010	116.804	DCAA	10.856	1525653	111.128	DCAA
10.01	1086923	11.707	DICAMBA	11.199	683175	11.337	DICAMBA
10.451	560067	11222.54	MCPP	11.29	418587	10288.53	MCPP
10.833	858587	11721.6	MCPA	11.812	663885	11236.01	MCPA
11.403	1947651	117.903	2,4-DP	12.324	1363687	112.699	2,4-DP
11.85	1797155	95.748	2,4-D	12.949	1259020	93.171	2,4-D
12.21	12970520	1	DBOFB	12.092	9289717	1	DBOFB
12.938	2946697	11.053	PCP	13.543	1884505	10.676	PCP
13.318	1085317	11.121	2,4,5-TP	14.127	690548	10.344	2,4,5-TP
13.85	876334	10.637	2,4,5-T	14.834	549459	9.959	2,4,5-T
14.684	1136232	108.15	2,4-DB	15.544	706505	100.156	2,4-DB
14.866	938863	53.174	DINOSEB	15.255	665885	49.174	DINOSEB
15.782	2426749	44.57	Picloram	17.781	1846784	42.736	Picloram
24.007	2867412	43.408	Hexachlorophene	24.813	1728112	41.067	Hexachlorophene

Files:
Area File: 24herb18311001.007.RAW
Area File: 24herb18311001B.007.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 7:26:08 PM
File Reported On: 11/8/2018 at 12:27:57 PM

Not Used
See Reintegration

HERB21824E AAHERB2AA ICAL 1831099999 10407 SW-846 815

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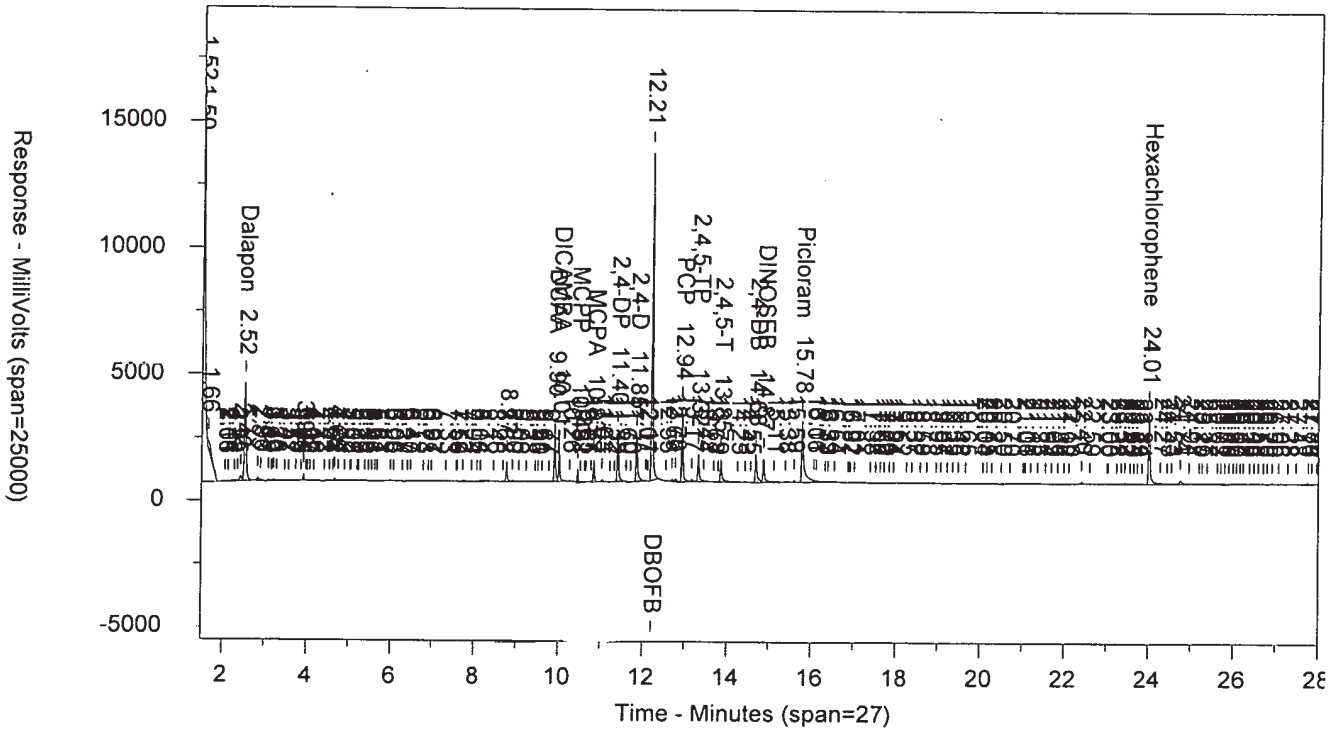

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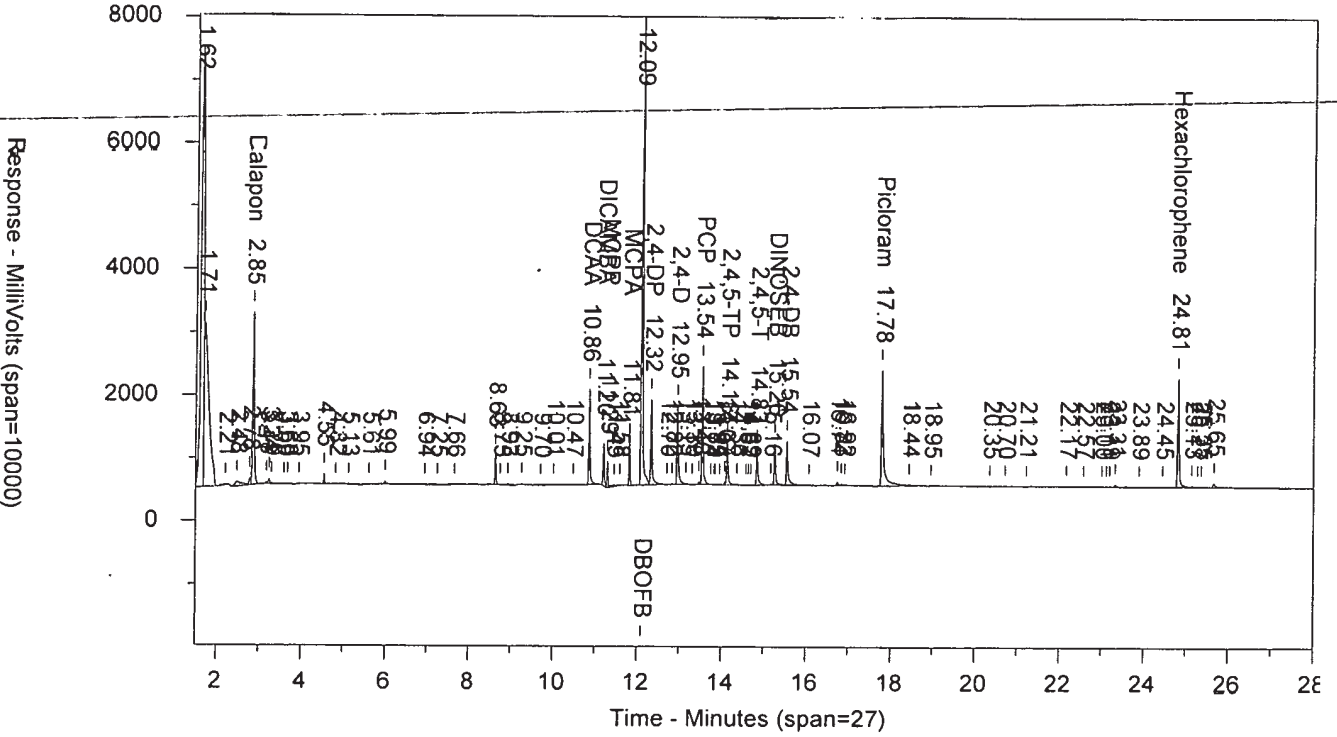

HERB21824E AAHERB2AA ICAL 1831099999 10407 SW-846 8151A

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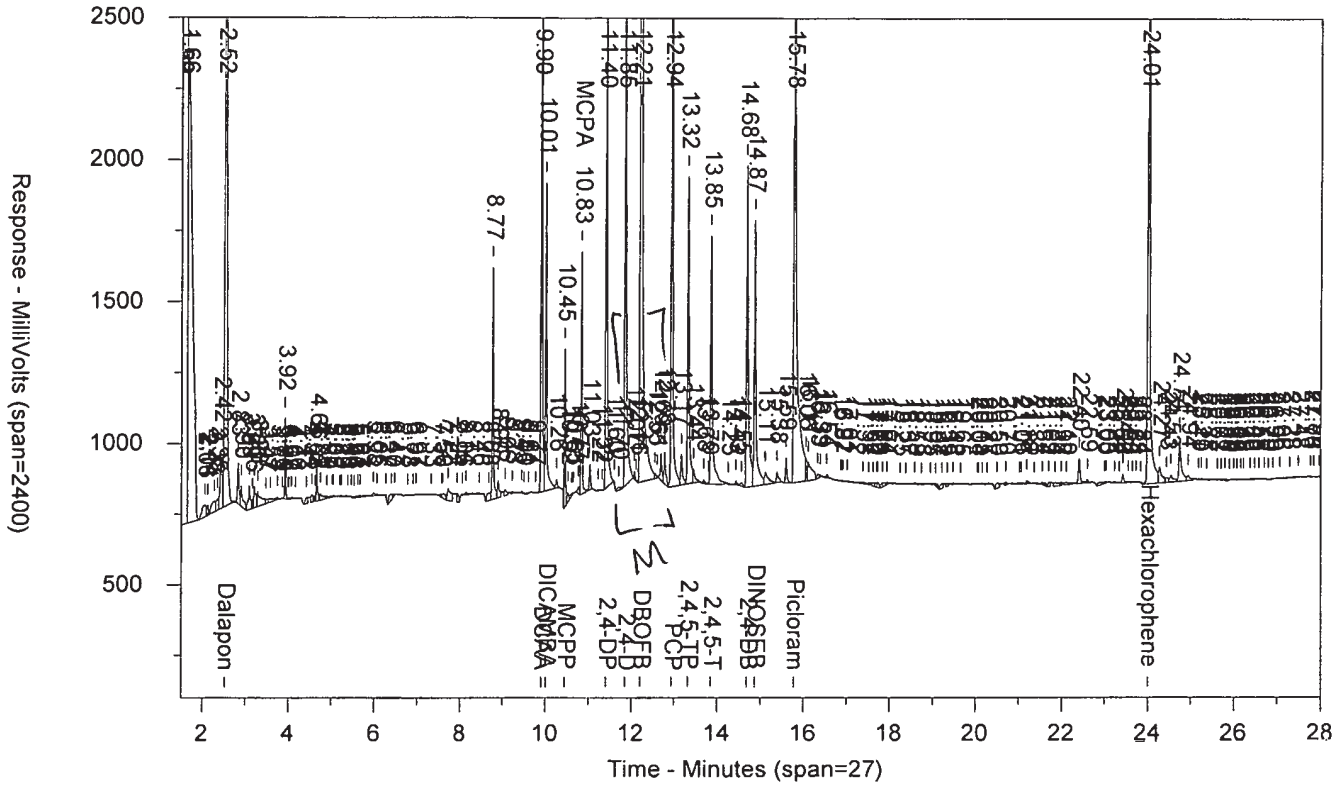

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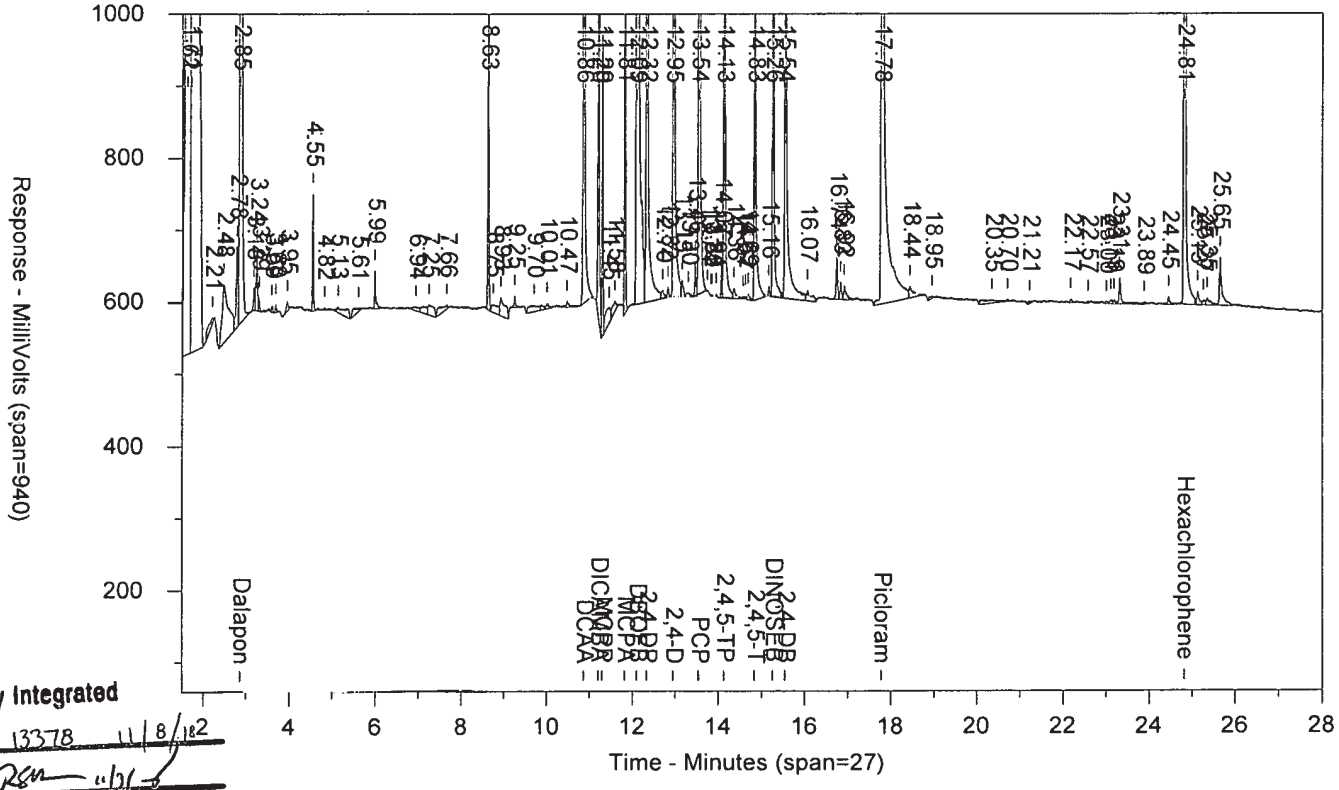

M = Manually Integrated

Analyst Ru 13378 11/8/18

Approved by Ru 11/9

Circle Reason 1 (2) 3 4

1 = Missed Peak

2 = Improper Baseline

3 = RT Update

4 = Other

LANCASTER LABORATORIES

Sample Number: HERB21824E AAHERB2AA , ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 6:57:19 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	3877947	212.603	Dalapon	2.855	2744693	203.968	Dalapon
9.904	2280010	115.22	DCAA	10.856	1525653	111.128	DCAA
10.01	1086923	11.441	DICAMBA	11.199	683175	11.337	DICAMBA
10.451	560067	11079.52	MCPP	11.29	418587	10288.53	MCPP
10.833	858587	11609.4	MCPA	11.812	663885	11236.01	MCPA
11.403	1947651	81.546	2,4-DP	12.324	1363687	112.699	2,4-DP
11.85	1797155	96.464	2,4-D	12.949	1259020	93.171	2,4-D
12.21	12998610	1	DBOFB	12.092	9289717	1	DBOFB
12.938	2946697	11.008	PCP	13.543	1884505	10.676	PCP
13.318	1085317	11.132	2,4,5-TP	14.127	690548	10.344	2,4,5-TP
13.85	876334	10.79	2,4,5-T	14.834	549459	9.959	2,4,5-T
14.684	1136232	109.009	2,4-DB	15.544	706505	100.156	2,4-DB
14.866	938863	57.086	DINOSEB	15.255	665885	49.174	DINOSEB
15.782	2426749	45.906	Picloram	17.781	1846784	42.736	Picloram
24.007	2867412	42.686	Hexachlorophene	24.813	1728112	41.067	Hexachlorophene

Files:
Area File: 24herb18311001.007.BND
Area File: 24herb18311001B.007.BND
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/8/2018 12:46:19 PM
File Reported On: 11/8/2018 at 12:49:06 PM

HERB21824E AAHERB2AA ICAL 1831099999 10407 SW-846 815

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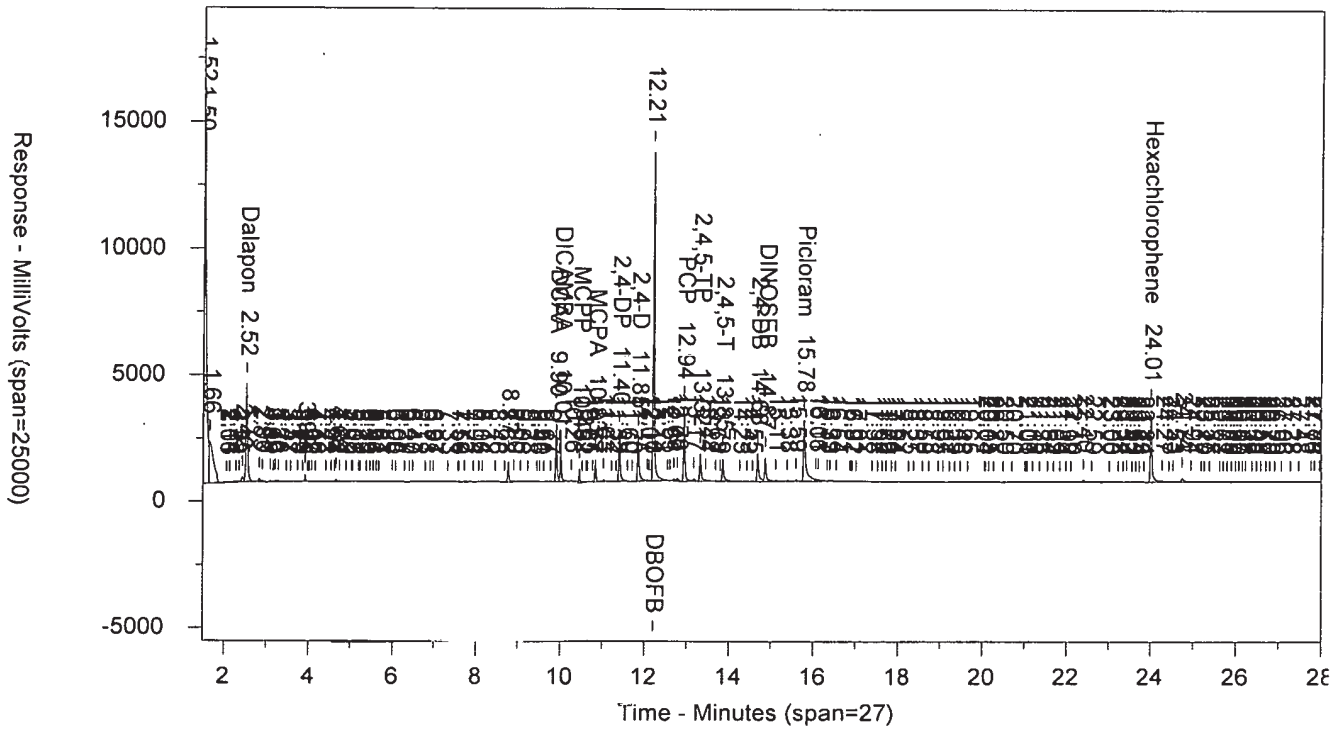

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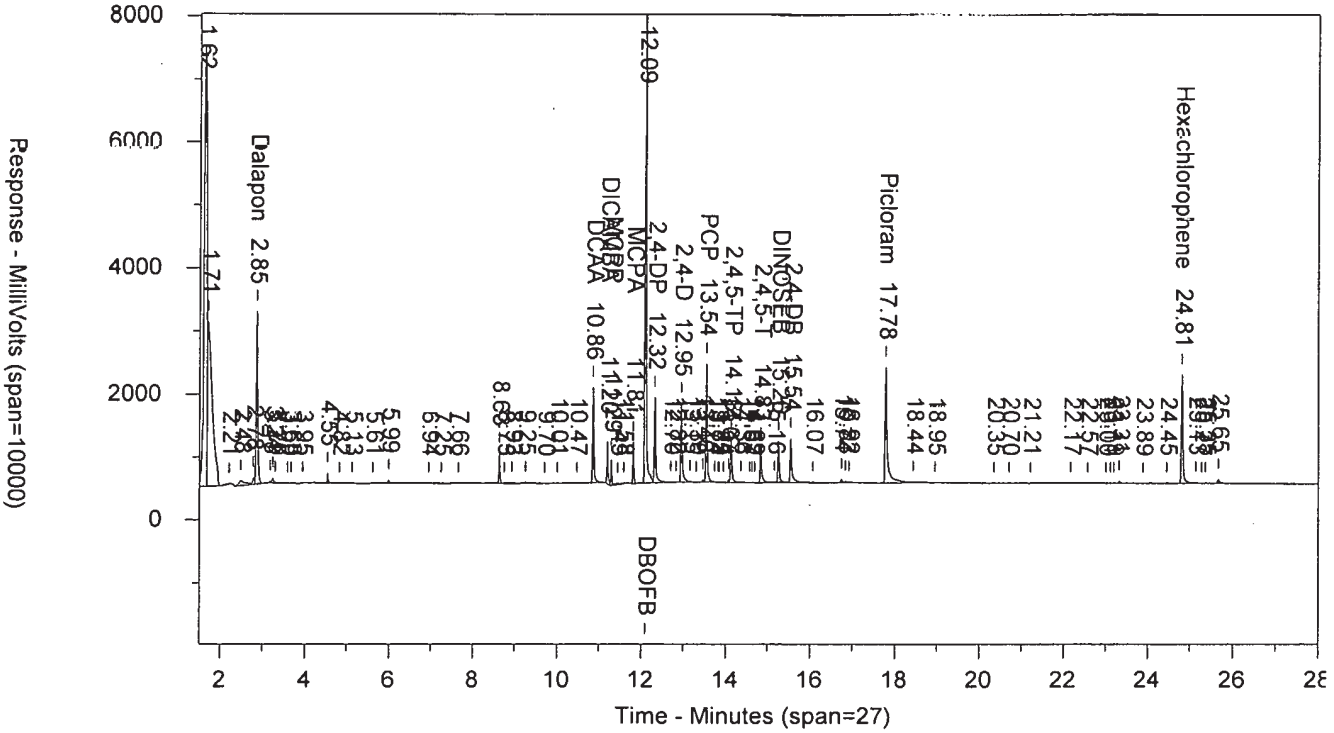

HERB31824F AAHERB3AA ICAL 1831099999 10407 SW-846 8151A

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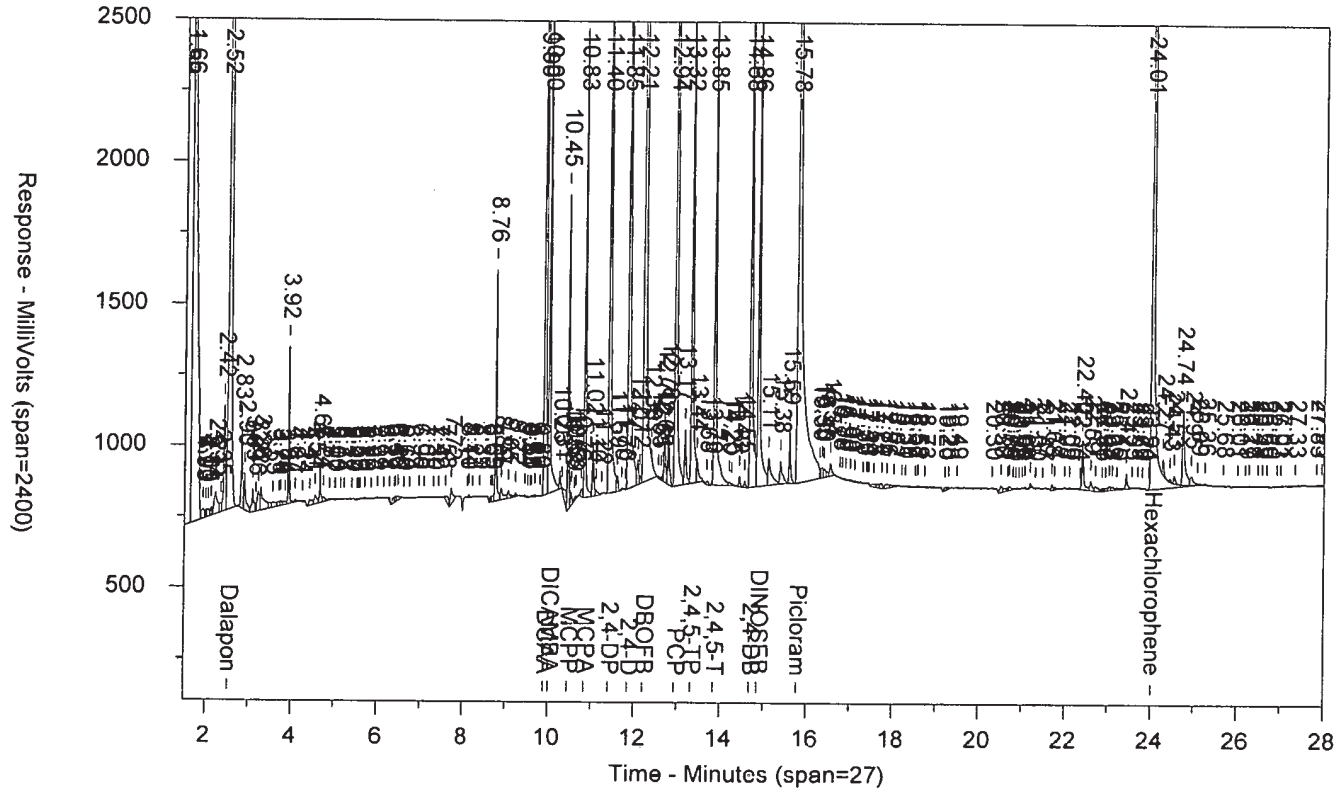

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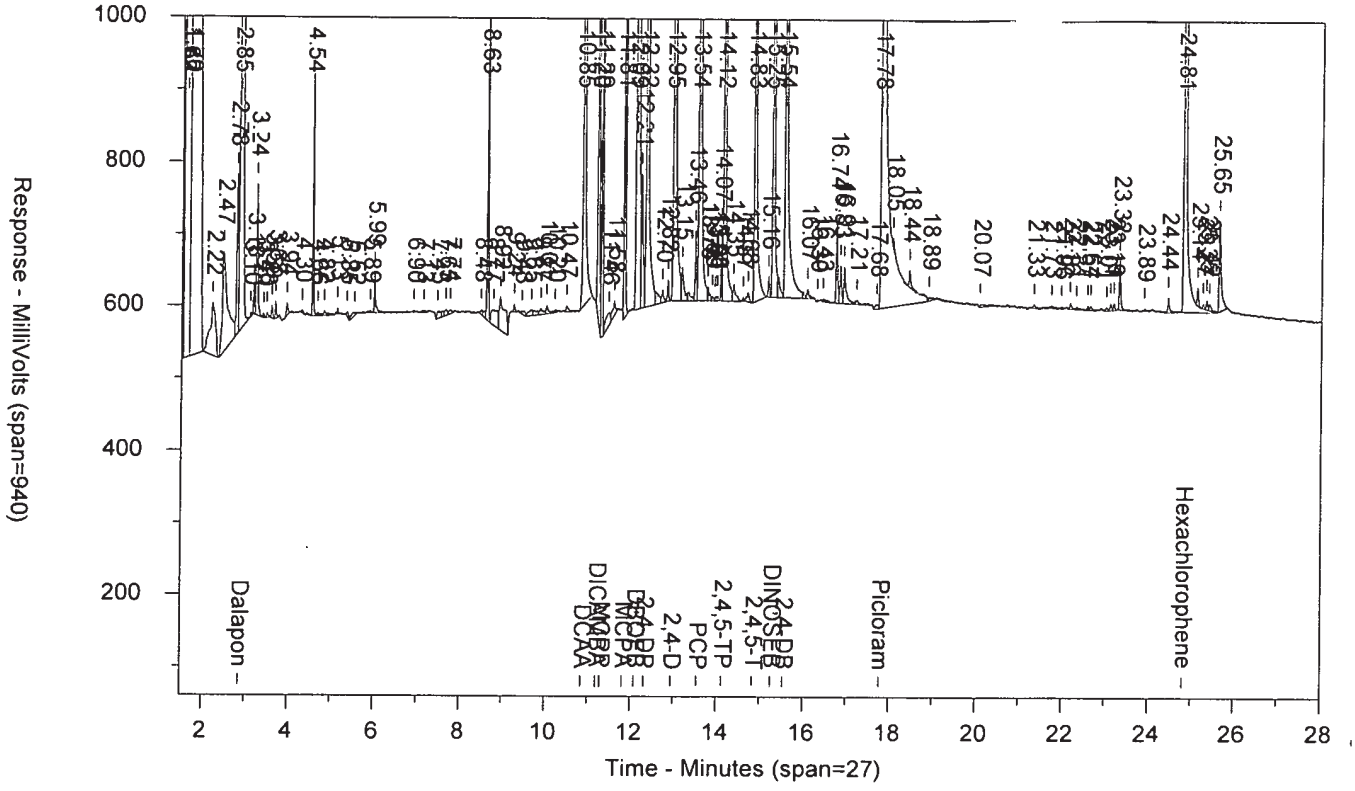

LANCASTER LABORATORIES

Sample Number: HERB31824F AAHERB3AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 7:30:15 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	7578798	404.544	Dalapon	2.854	5296321	384.434	Dalapon
9.897	4216655	212.338	DCAA	10.853	2862421	202.572	DCAA
10.004	1963287	20.692	DICAMBA	11.196	1296567	20.709	DICAMBA
10.45	1112375	21776.14	MCPP	11.288	927934	22176.63	MCPP
10.833	1652734	22220.78	MCPA	11.811	1347189	21974.11	MCPA
11.4	3505848	207.999	2,4-DP	12.322	2497699	200.54	2,4-DP
11.849	3462051	181.602	2,4-D	12.947	2424421	174.398	2,4-D
12.21	13182210	1	DBOFB	12.091	9564003	1	DBOFB
12.938	5408541	19.888	PCP	13.542	3651205	20.097	PCP
13.318	2029546	20.547	2,4,5-TP	14.125	1412173	20.594	2,4,5-TP
13.848	1724325	20.81	2,4,5-T	14.832	1156433	20.416	2,4,5-T
14.681	2164638	204.479	2,4-DB	15.541	1460280	201.22	2,4-DB
14.865	1704604	96.7	DINOSEB	15.254	1377688	100.129	DINOSEB
15.778	5133376	92.915	Picloram	17.779	4006899	90.354	Picloram
24.008	5388386	79.83	Hexachlorophene	24.812	3478636	80.742	Hexachlorophene

Files:
Area File: 24herb18311001.008.RAW
Area File: 24herb18311001B.008.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 7:59:03 PM
File Reported On: 11/8/2018 at 12:28:14 PM

HERB31824F AAHERB3AA ICAL 1831099999 10407 SW-846 815

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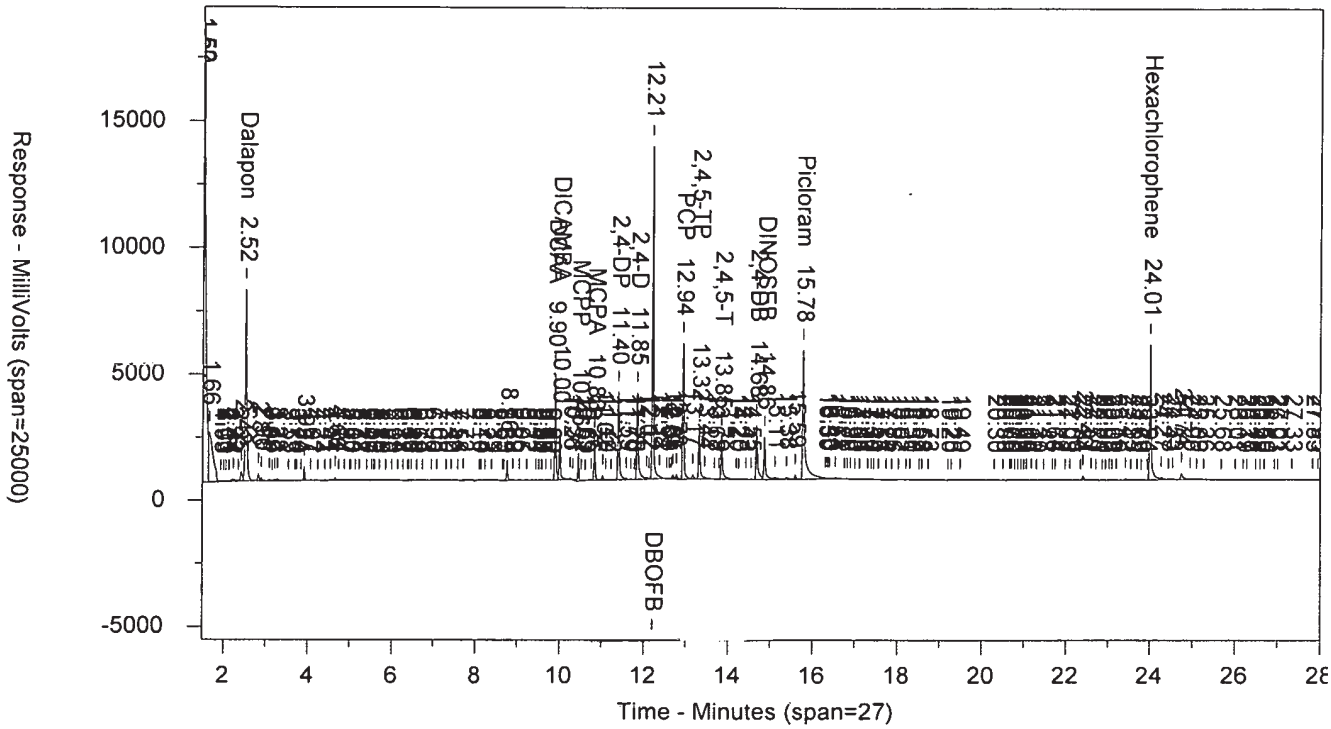

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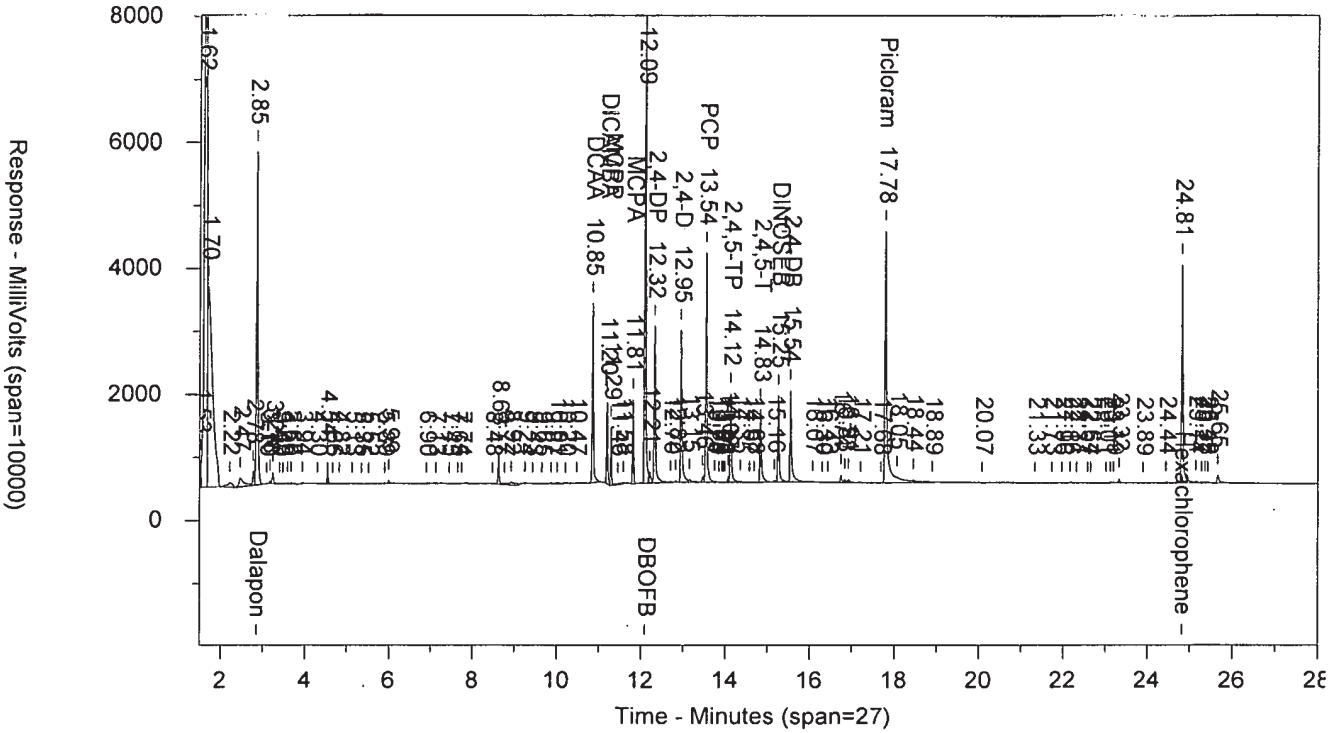

HERB41824E AAHERB4AA ICAL 1831099999 10407 SW-846 8151A

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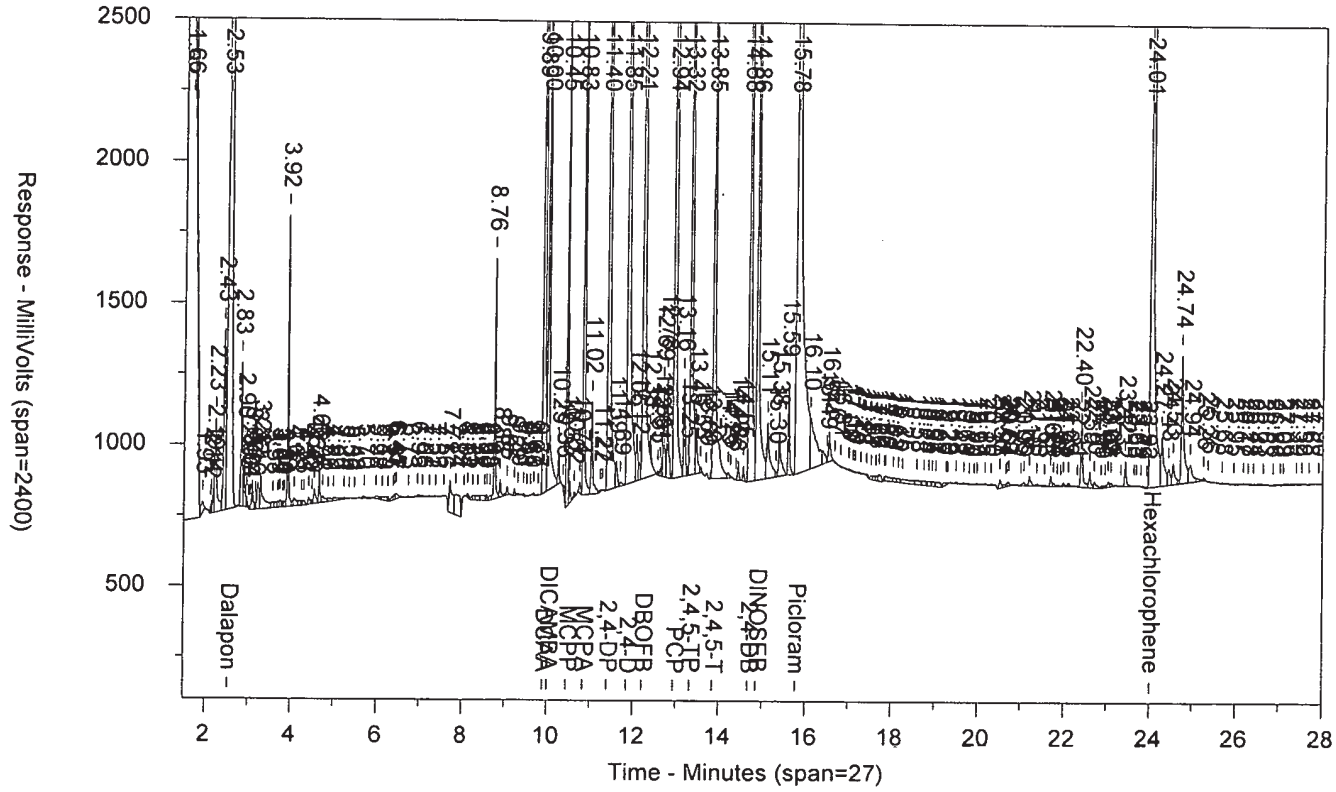

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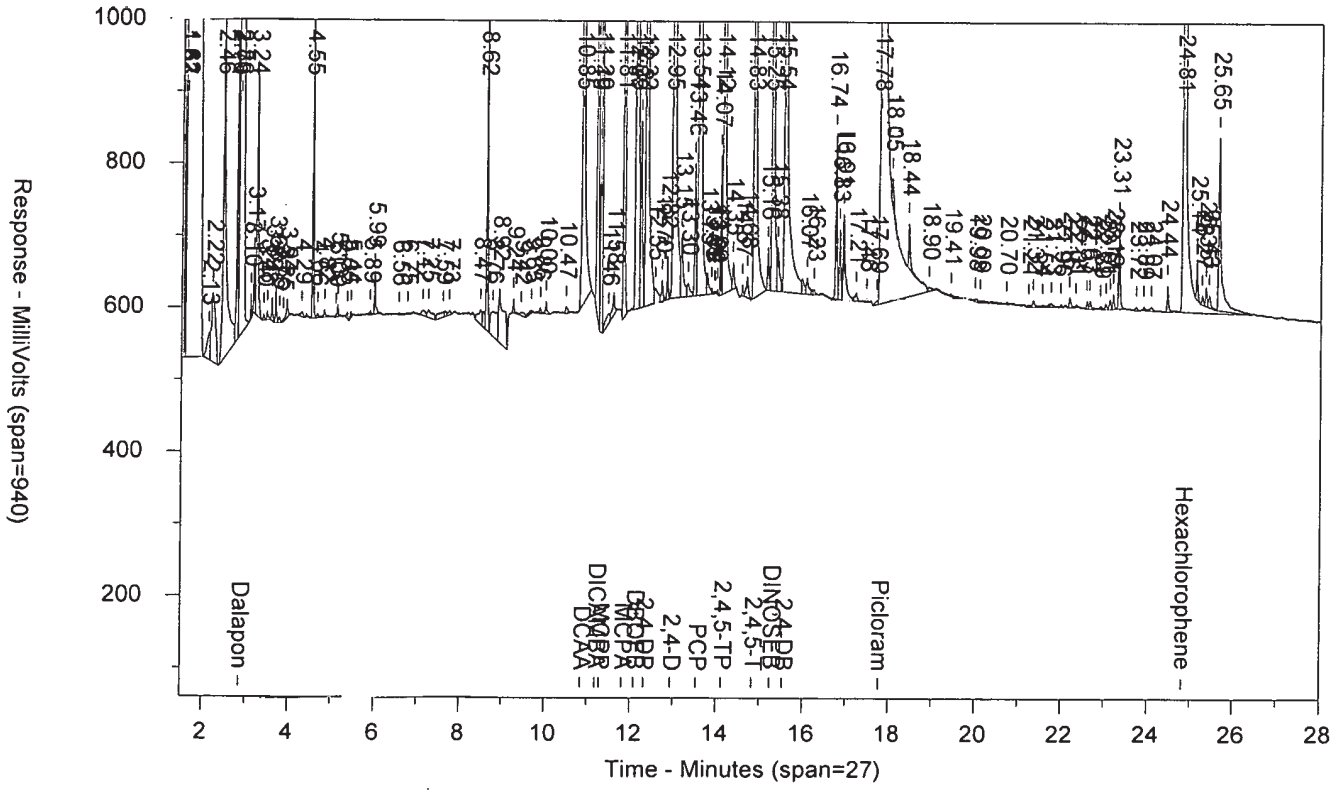

LANCASTER LABORATORIES

Sample Number: HERB41824E AAHERB4AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 8:03:17 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.526	13893050	710.414	Dalapon	2.856	9960809	684.346	Dalapon
9.893	7461560	359.307	DCAA	10.849	5179379	345.55	DCAA
10	3585425	36.153	DICAMBA	11.192	2363067	35.388	DICAMBA
10.45	2158364	40631.84	MCPP	11.288	1817871	40810.19	MCPP
10.832	2956503	37882.42	MCPA	11.813	2445876	37382.96	MCPA
11.398	6116288	348.122	2,4-DP	12.321	4600016	350.03	2,4-DP
11.847	6237149	315.012	2,4-D	12.946	4564542	310.332	2,4-D
12.209	13690810	1	DBOFB	12.091	10159300	1	DBOFB
12.936	10586340	37.453	PCP	13.541	6831243	35.519	PCP
13.317	3787875	36.75	2,4,5-TP	14.124	2688373	37.063	2,4,5-TP
13.848	3246876	37.711	2,4,5-T	14.828	2251938	37.697	2,4,5-T
14.678	4047452	368.415	2,4-DB	15.54	2798497	364.905	2,4-DB
14.864	3182243	176.221	DINOSEB	15.253	2509232	174.527	DINOSEB
15.776	10619140	185.683	Picloram	17.777	8195517	174.974	Picloram
24.007	9965371	141.496	Hexachlorophene	24.811	6272980	137.516	Hexachlorophen

Files:
Area File: 24herb18311001.009.RAW
Area File: 24herb18311001B.009.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 8:32:09 PM
File Reported On: 11/8/2018 at 12:28:42 PM

HERB41824E AAHERB4AA ICAL 1831099999 10407 SW-846 815

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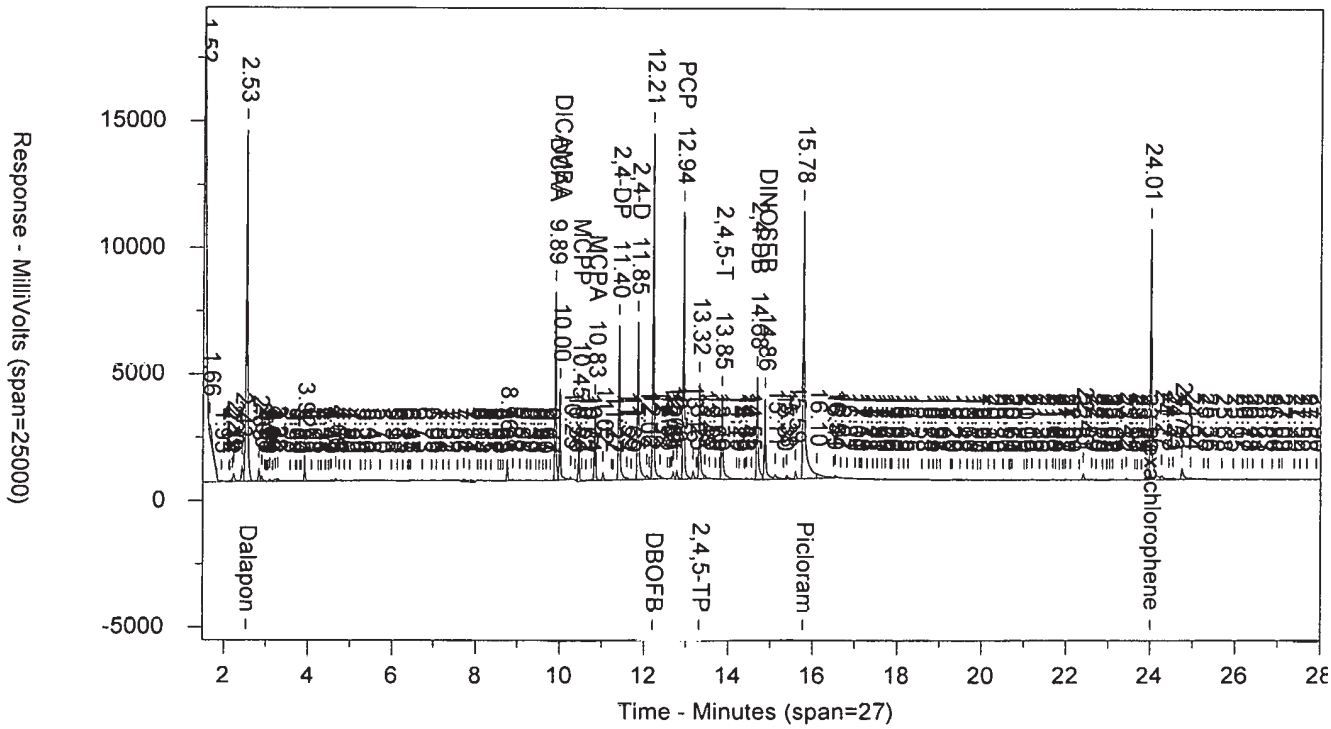

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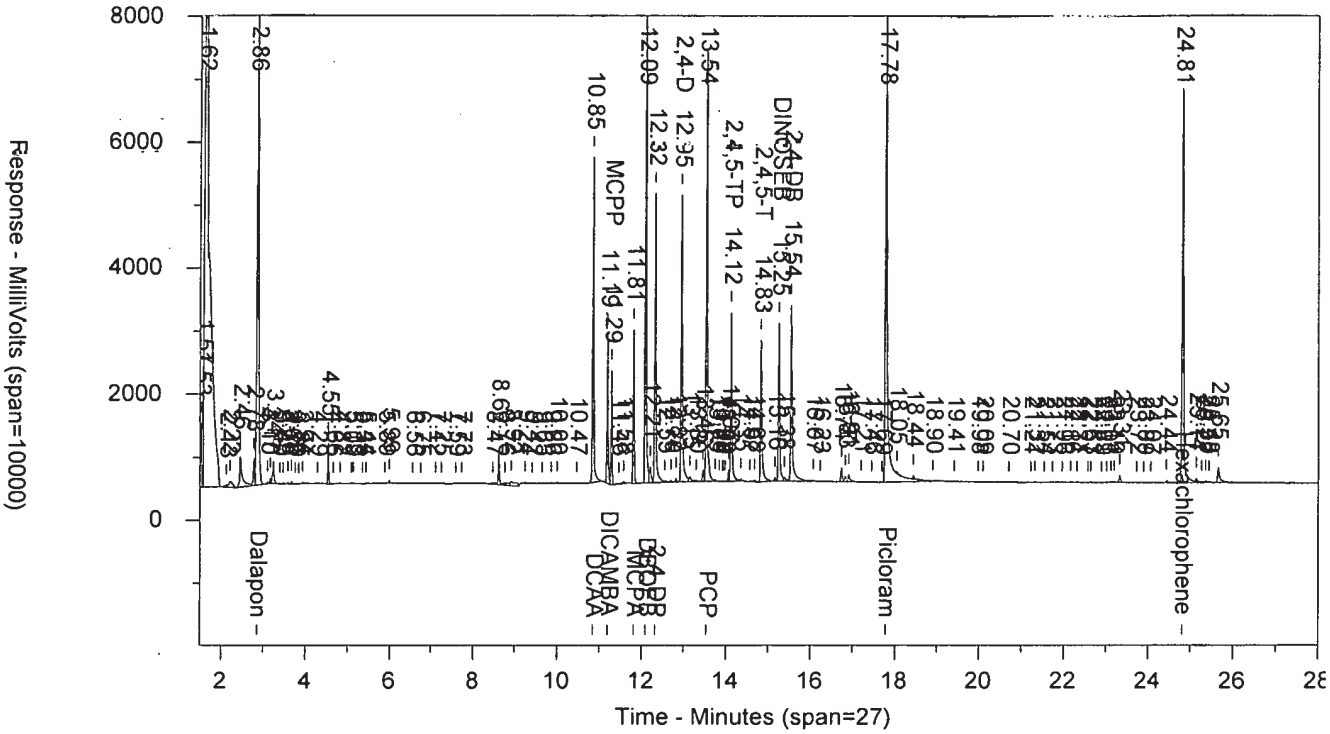

HERB51824E AAHERB5AA ICAL 1831099999 10407 SW-846 8151A

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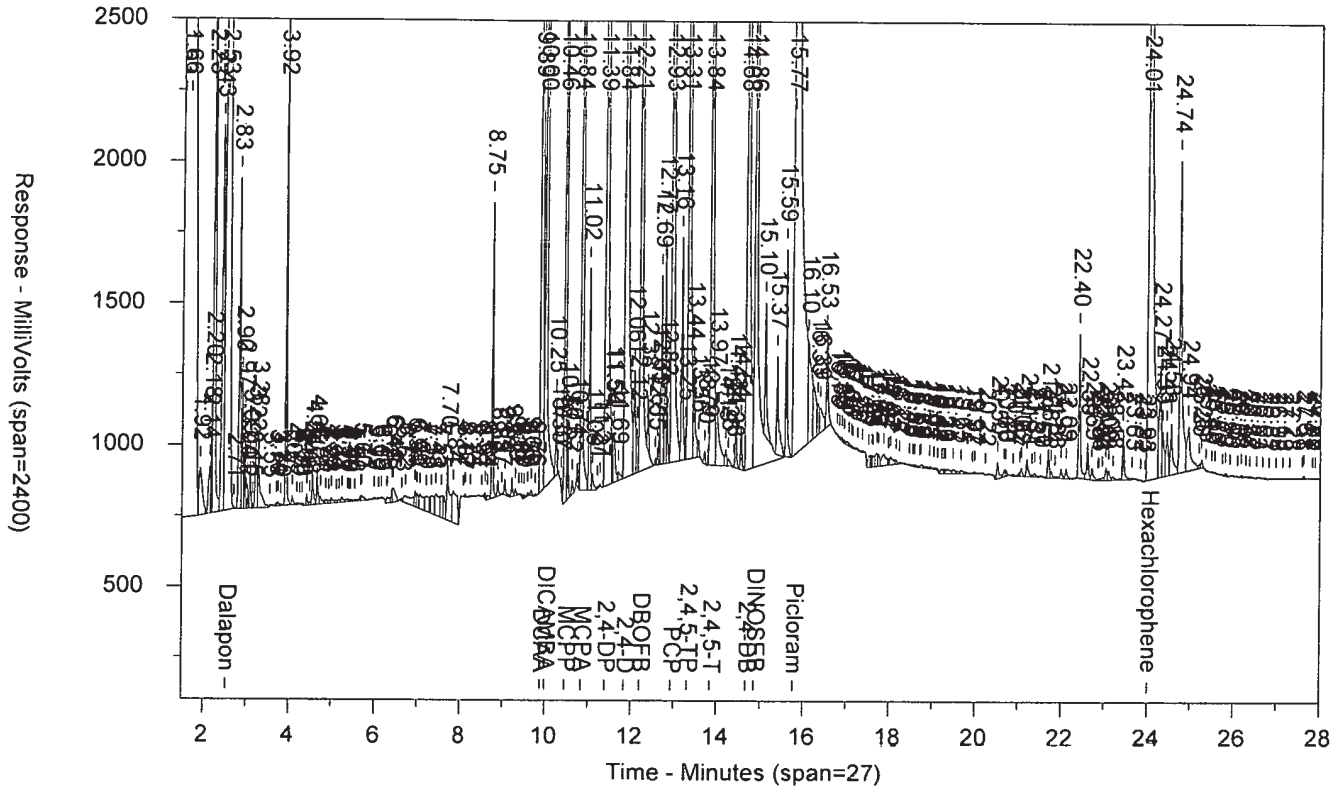

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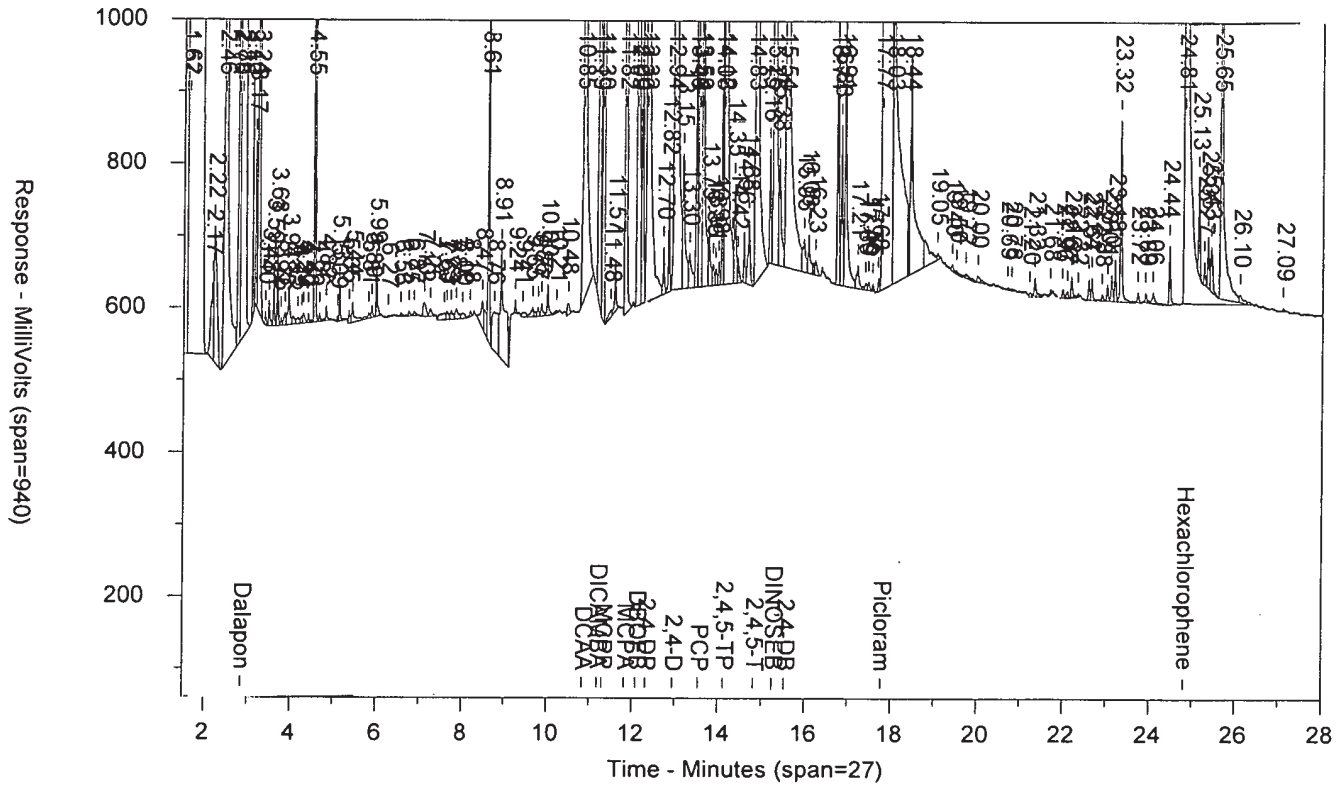

LANCASTER LABORATORIES

Sample Number: HERB51824E AAHERB5AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 8:36:11 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.526	34876100	1816.903	Dalapon	2.857	25464610	1856.944	Dalapon
9.889	17857260	872.571	DCAA	10.846	13106240	925.653	DCAA
9.996	8250492	84.023	DICAMBA	11.189	5583190	87.863	DICAMBA
10.459	5041496	96277.56	MCPP	11.296	4398218	104059.2	MCPP
10.843	6802546	88753.99	MCPA	11.82	6063637	98034.45	MCPA
11.394	13722980	794.184	2,4-DP	12.319	10464870	834.343	2,4-DP
11.844	15120570	776.744	2,4-D	12.944	11363910	821.879	2,4-D
12.206	13512200	1	DBOFB	12.088	9702339	1	DBOFB
12.933	25535460	91.586	PCP	13.538	17352710	95.15	PCP
13.314	8912798	87.812	2,4,5-TP	14.123	6508463	95.143	2,4,5-TP
13.844	8042669	95.232	2,4,5-T	14.827	5865526	104.263	2,4,5-T
14.676	10078490	930.975	2,4-DB	15.537	7400375	1021.716	2,4-DB
14.86	7671432	435.838	DINOSEB	15.251	6423314	480.279	DINOSEB
15.772	31132290	557.121	Picloram	17.774	25453260	579.823	Picloram
24.007	27133620	392.257	Hexachlorophene	24.812	17627090	409.495	Hexachlorophen

Files:
Area File: 24herb18311001.010.RAW
Area File: 24herb18311001B.010.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 9:05:01 PM
File Reported On: 11/8/2018 at 12:29:03 PM

HERB51824E AAHERB5AA ICAL 1831099999 10407 SW-846 815

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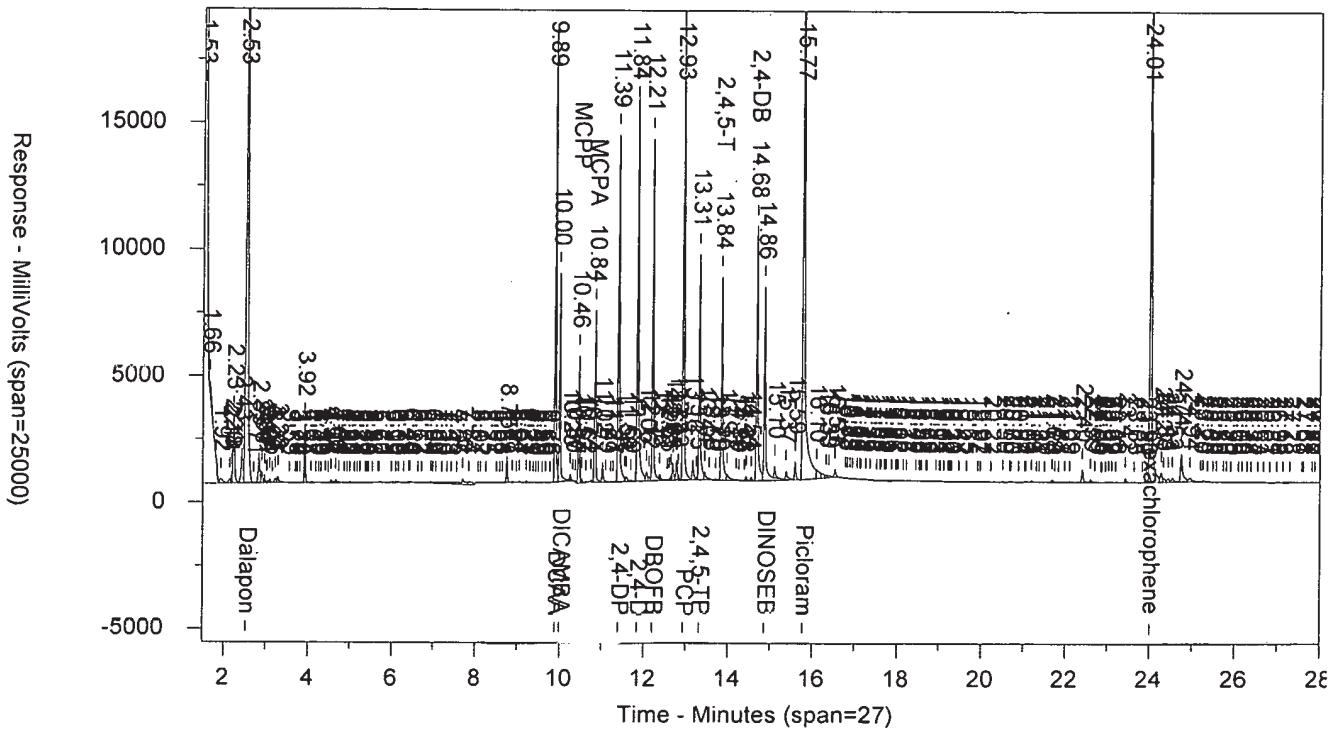

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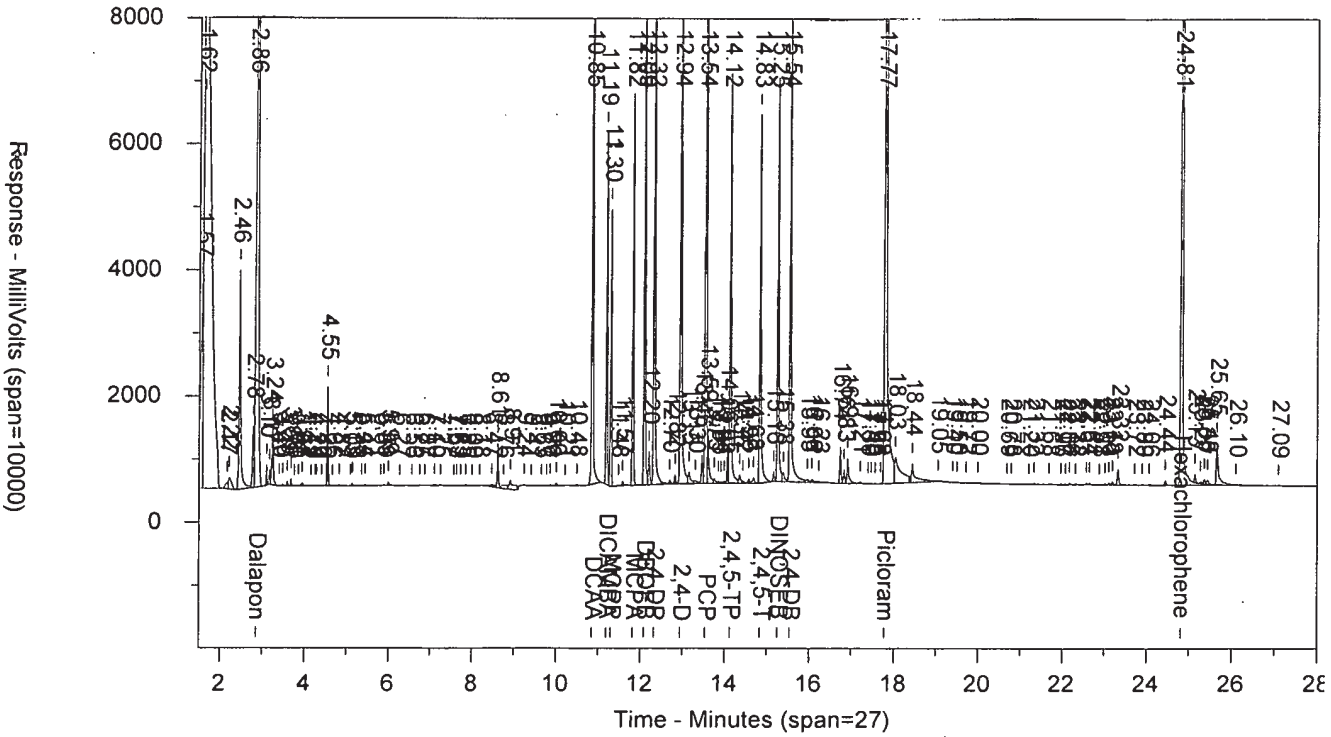

HERB61824E AAHERB6AA ICAL 1831099999 10407 SW-846 8151A

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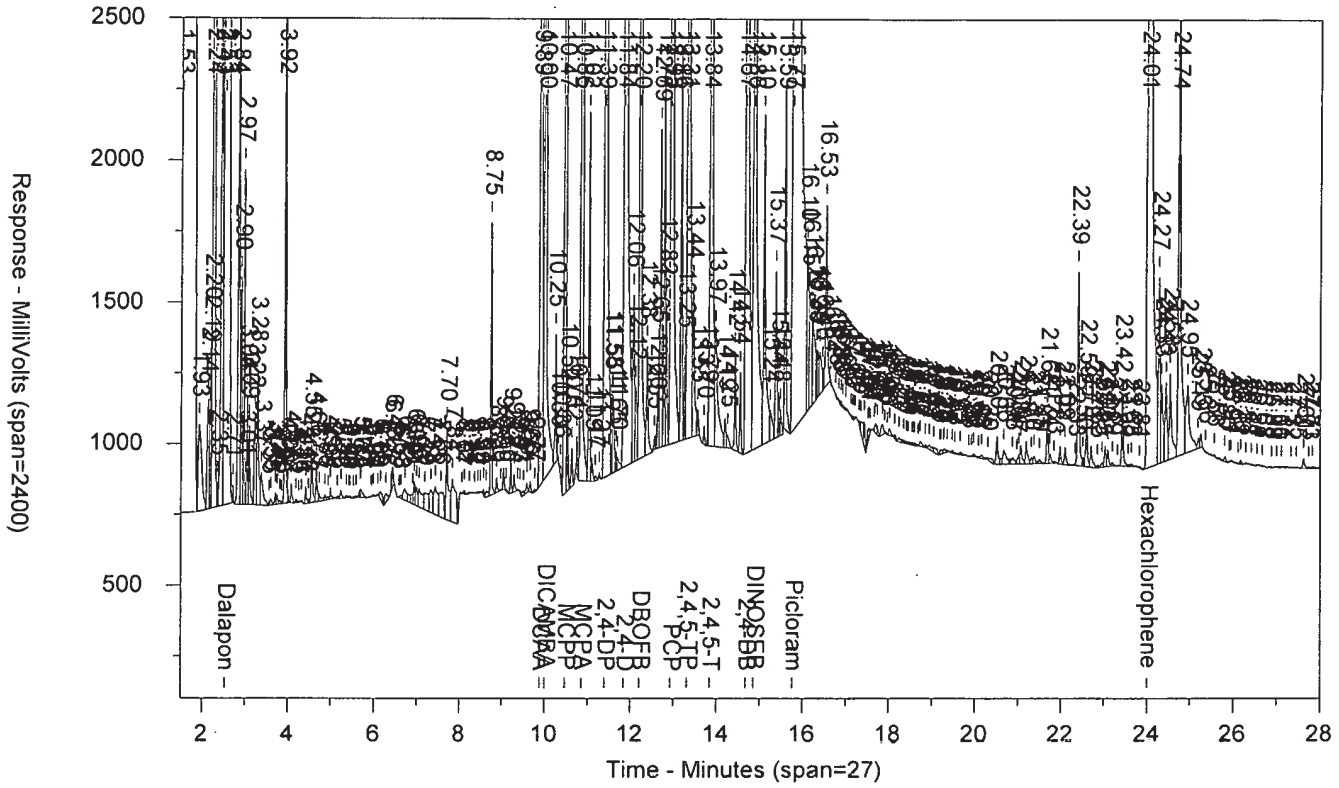

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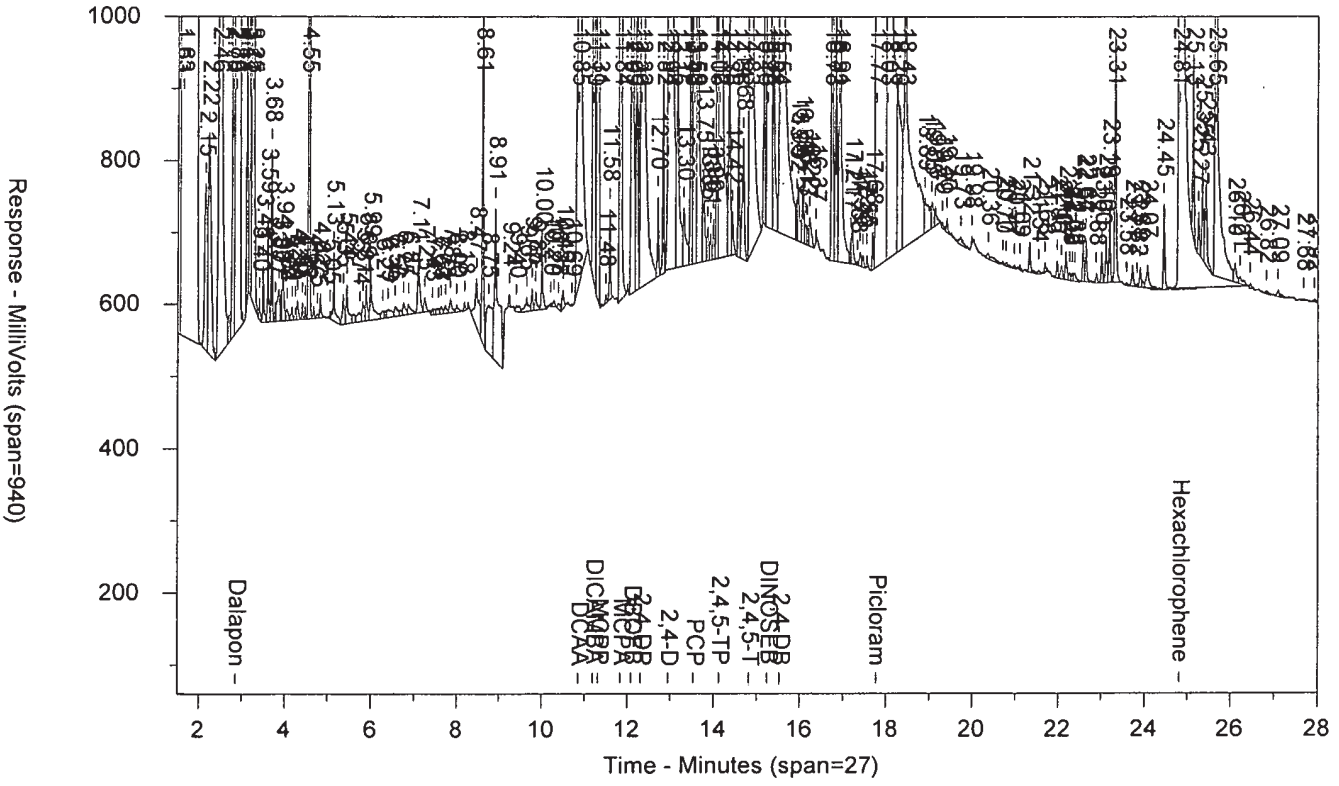

LANCASTER LABORATORIES

Sample Number: HERB61824E AAHERB6AA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 9:09:21 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.53	69916830	3691.655	Dalapon	2.859	52649690	3994.06	Dalapon
9.89	32422000	1586.174	DCAA	10.847	24836770	1809.927	DCAA
9.997	14891870	152.598	DICAMBA	11.19	10090890	163.325	DICAMBA
10.474	8468160	162147.3	MCPP	11.309	7962445	193316.7	MCPP
10.86	10830450	141710.8	MCPA	11.835	10907160	180508.4	MCPA
11.392	24377790	1418.204	2,4-DP	12.315	20059860	1652.326	2,4-DP
11.843	29593540	1537.59	2,4-D	12.944	22828600	1706.431	2,4-D
12.205	13400180	1	DBOFB	12.086	9388088	1	DBOFB
12.929	46659300	168.242	PCP	13.535	33951040	191.331	PCP
13.313	16581530	164.472	2,4,5-TP	14.121	12245730	185.298	2,4,5-TP
13.843	15063220	179.02	2,4,5-T	14.825	11152220	203.61	2,4,5-T
14.673	19154130	1772.721	2,4-DB	15.536	14677580	2088.469	2,4-DB
14.858	14806940	858.068	DINOSEB	15.249	12580090	977.239	DINOSEB
15.77	65974220	1199.205	Picloram	17.774	55290630	1306.328	Picloram
24.005	51471950	743.251	Hexachlorophene	24.813	32126450	766.55	Hexachlorophen

Files:
Area File: 24herb18311001.011.RAW
Area File: 24herb18311001B.011.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
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HERB61824E AAHERB6AA ICAL 1831099999 10407 SW-846 815

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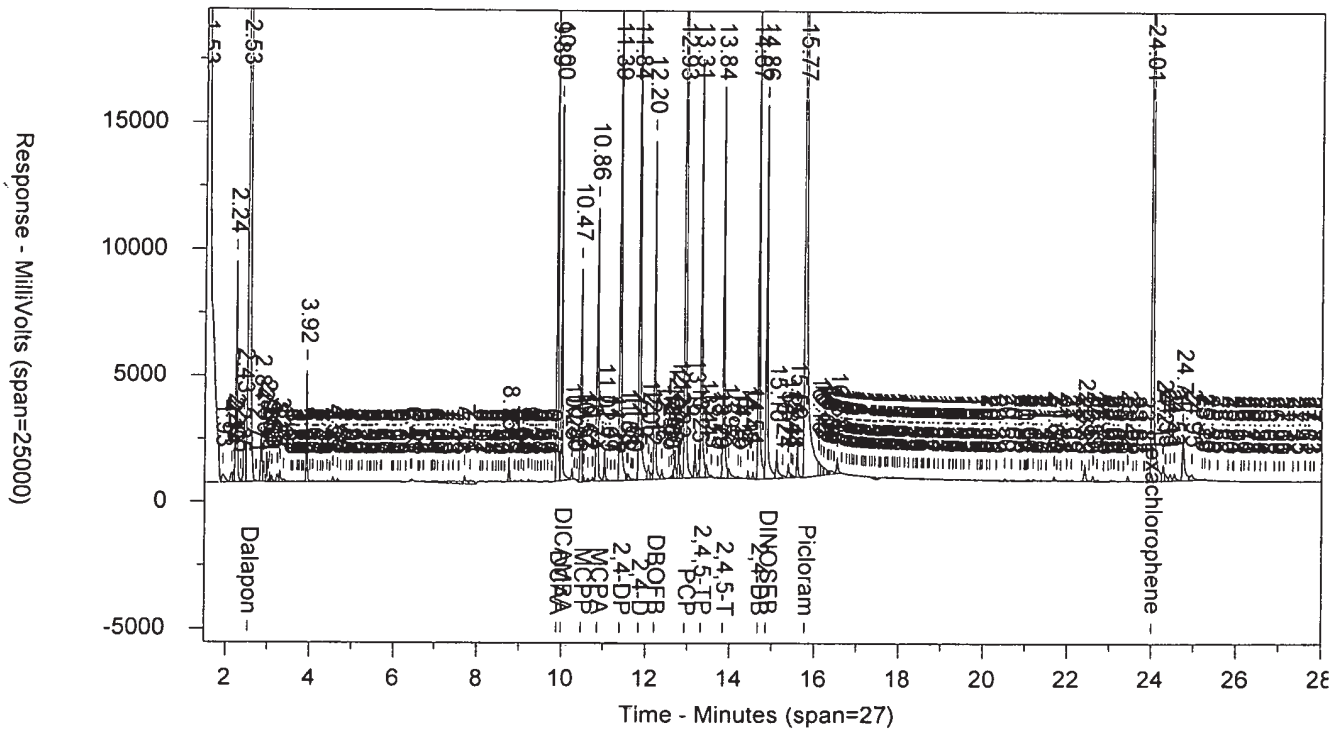

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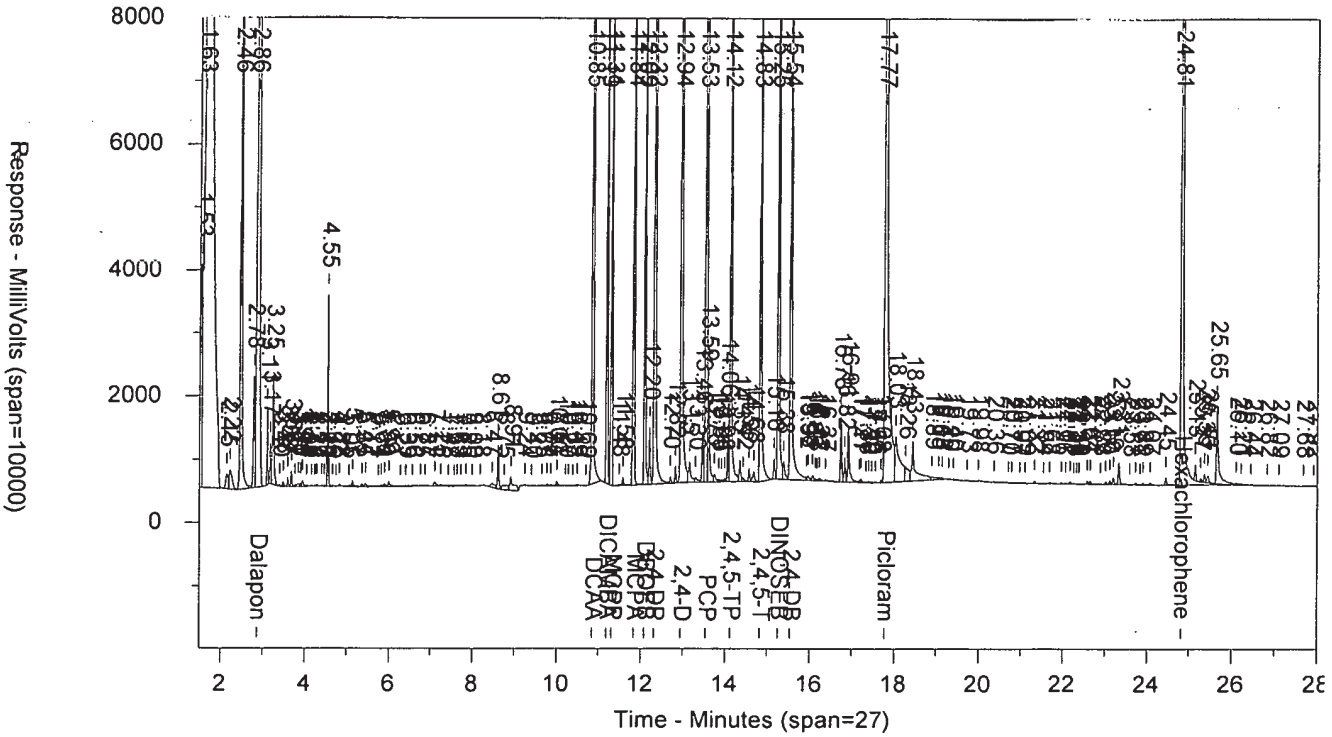

MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 SW-846 8151/

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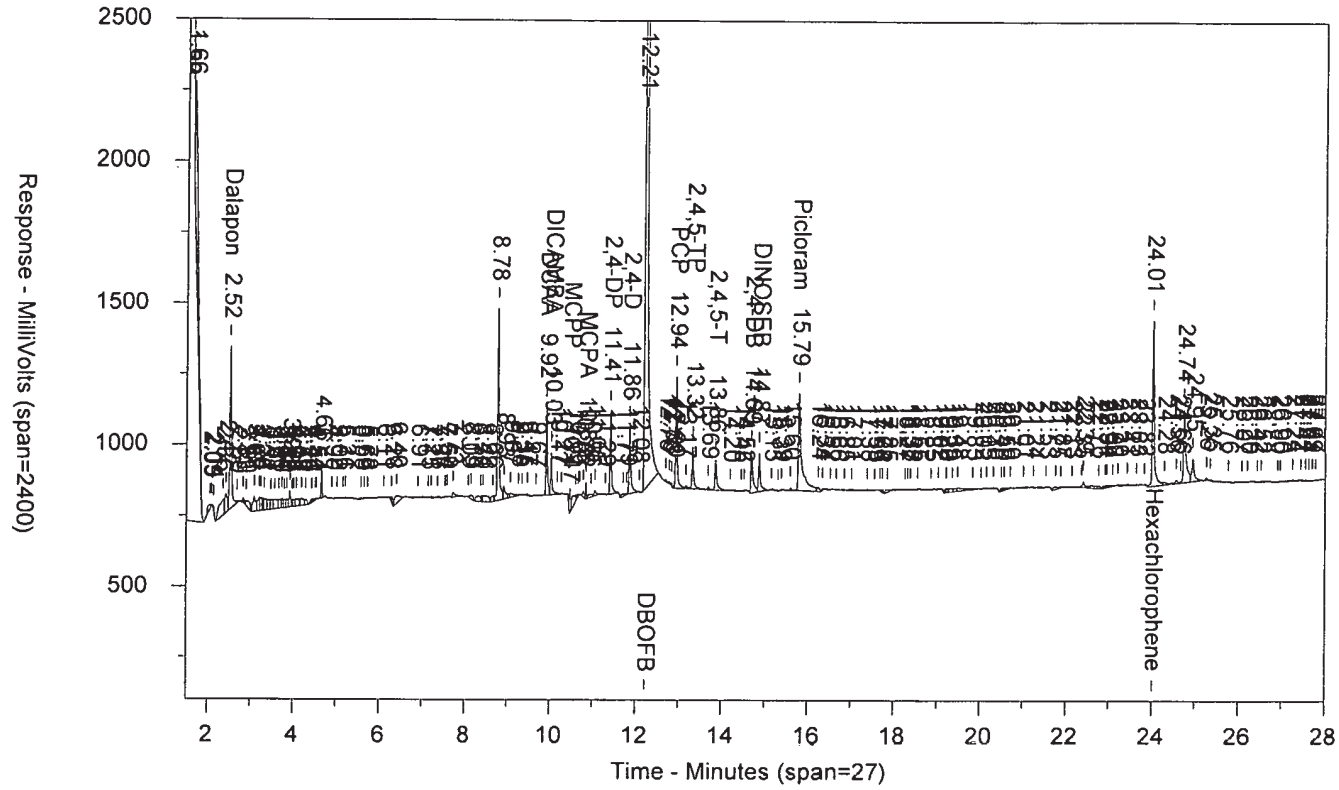

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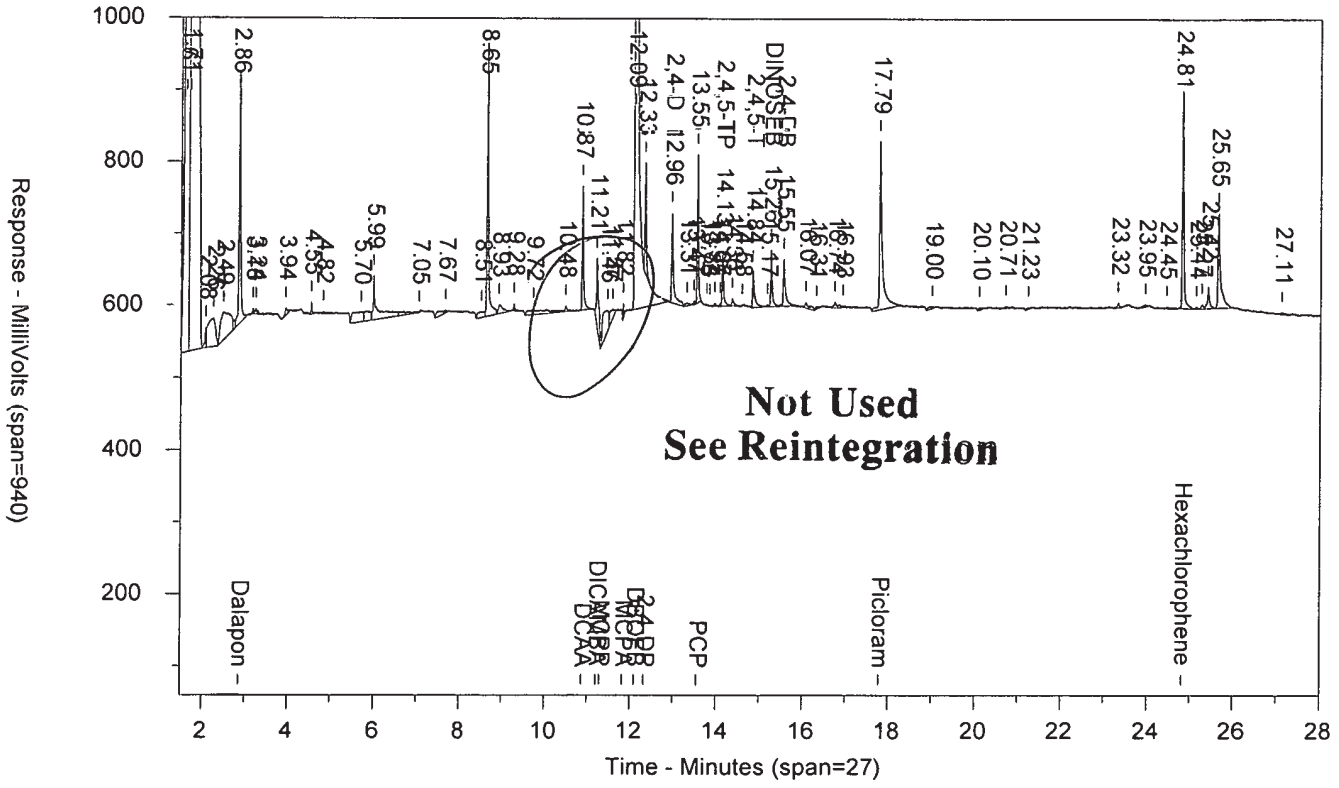

LANCASTER LABORATORIES

Sample Number: MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 9:42:14 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	576219	35.372	Dalapon	2.855	352523	29.819	Dalapon
9.921	315163	17.834	DCAA	10.871	173098	13.962	DCAA
10.028	149483	1.762	DICAMBA	11.211	93831	1.684	DICAMBA
10.466	10797	239.159	MCPP		0		MCPP
10.844	57950	877.421	MCPA	11.822	21280	387.113	MCPA
11.409	290234	-56.843	2,4-DP	12.33	153833	14.083	2,4-DP
11.856	234312	14.083	2,4-D	12.956	126144	10.477	2,4-D
12.212	11613250	1	DBOFB	12.095	8477451	1	DBOFB
12.941	394691	1.651	PCP	13.548	207245	1.288	PCP
13.323	146851	1.687	2,4,5-TP	14.13	75255	1.266	2,4,5-TP
13.858	107881	1.487	2,4,5-T	14.841	50985	1.03	2,4,5-T
14.692	147015	15.793	2,4-DB	15.555	65458	10.305	2,4-DB
14.87	135826	9.248	DINOSEB	15.259	79245	6.862	DINOSEB
15.793	344113	7.288	Picloram	17.788	235616	6.197	Picloram
24.01	587259	9.789	Hexachlorophene	24.814	304164	8.071	Hexachlorophene

Files:
Area File: 24herb18311001.012.RAW
Area File: 24herb18311001B.012.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 10:11:02 PM
File Reported On: 11/8/2018 at 12:52:32 PM

Not Used
See Reintegration

MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 SW-846 81

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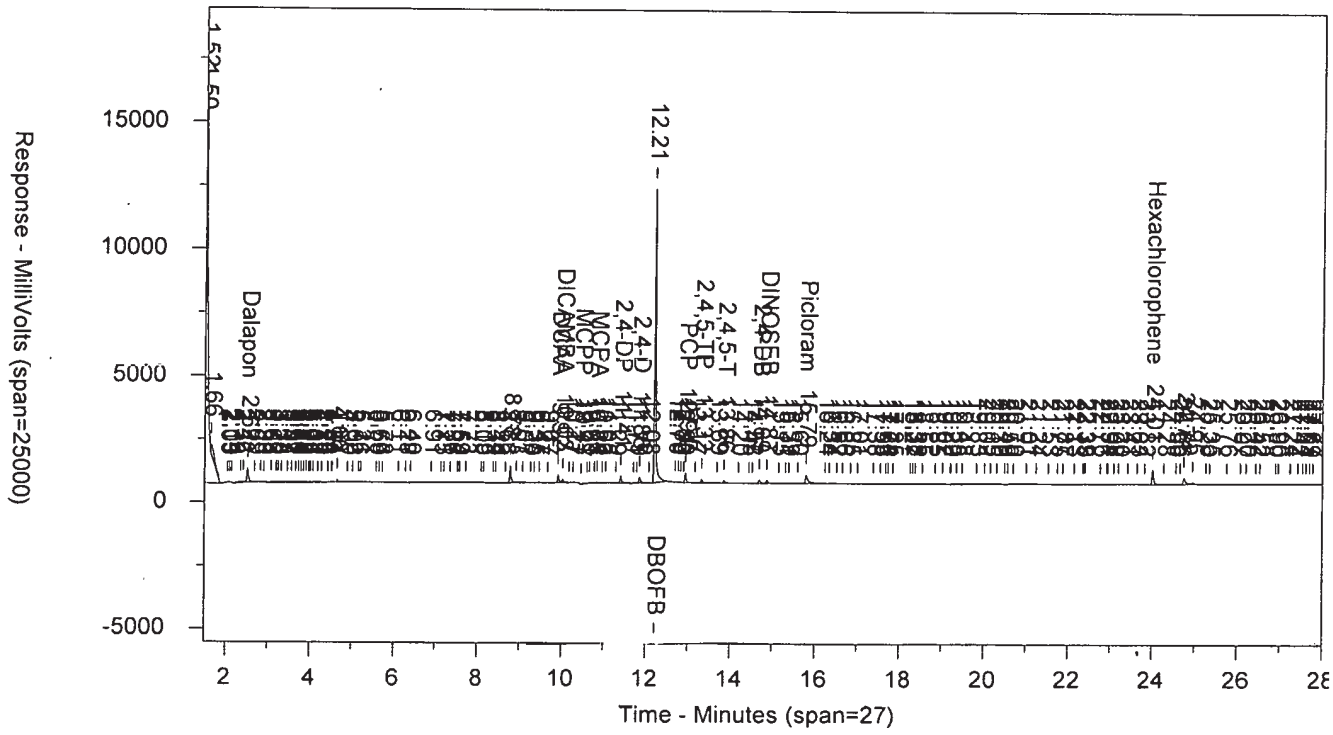

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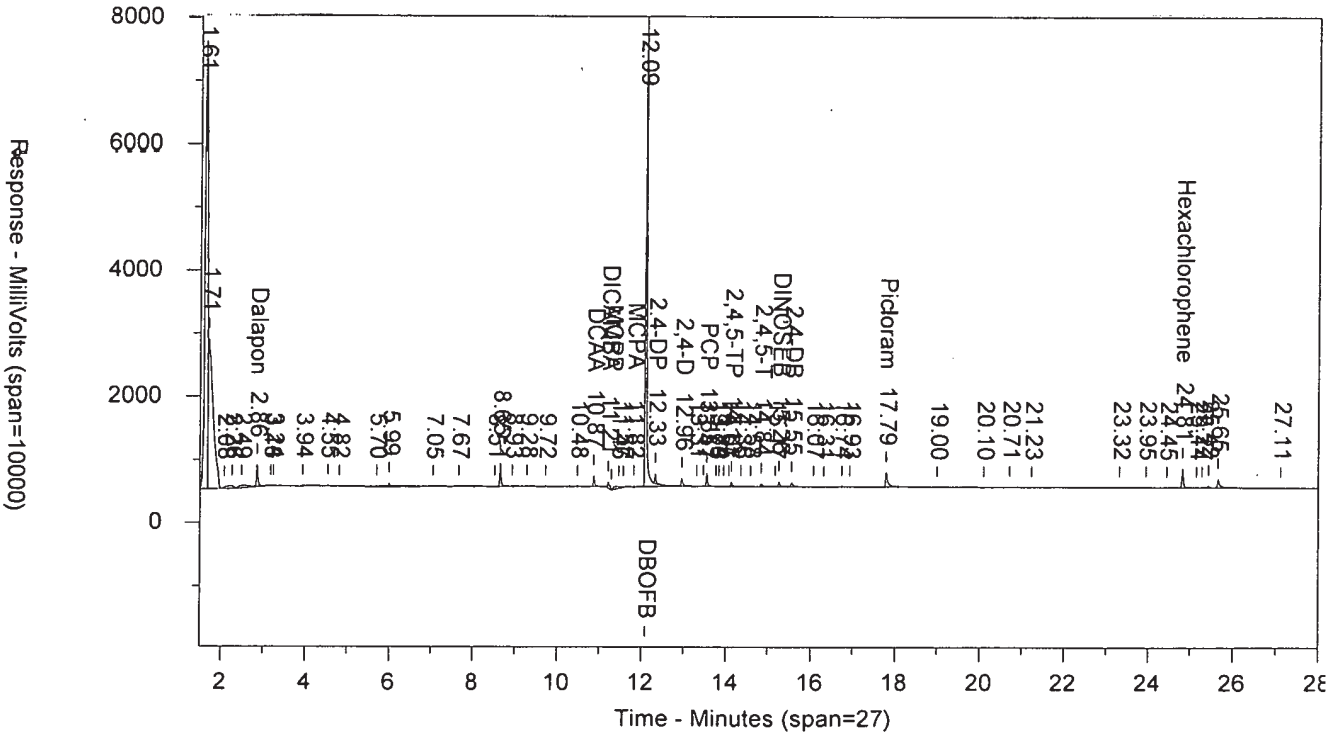

MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 SW-846 8151/

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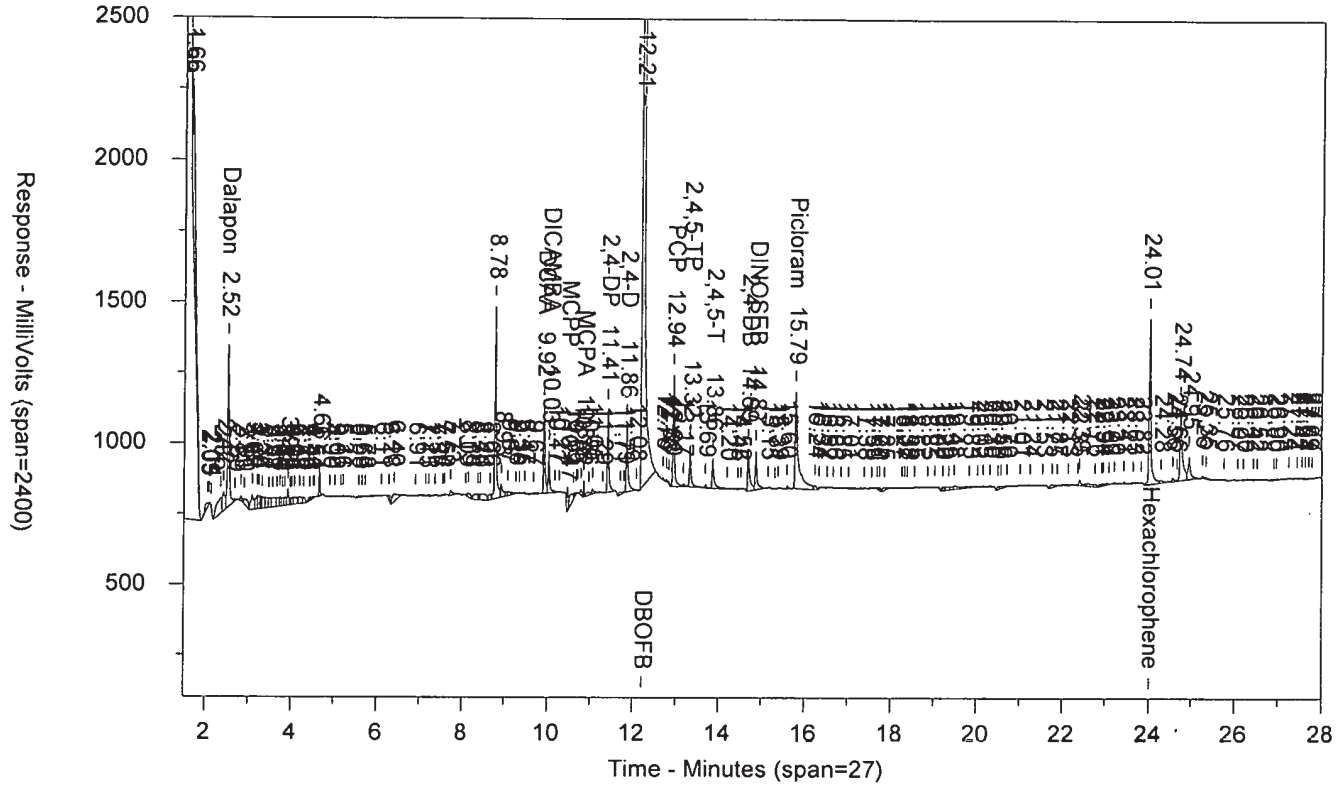

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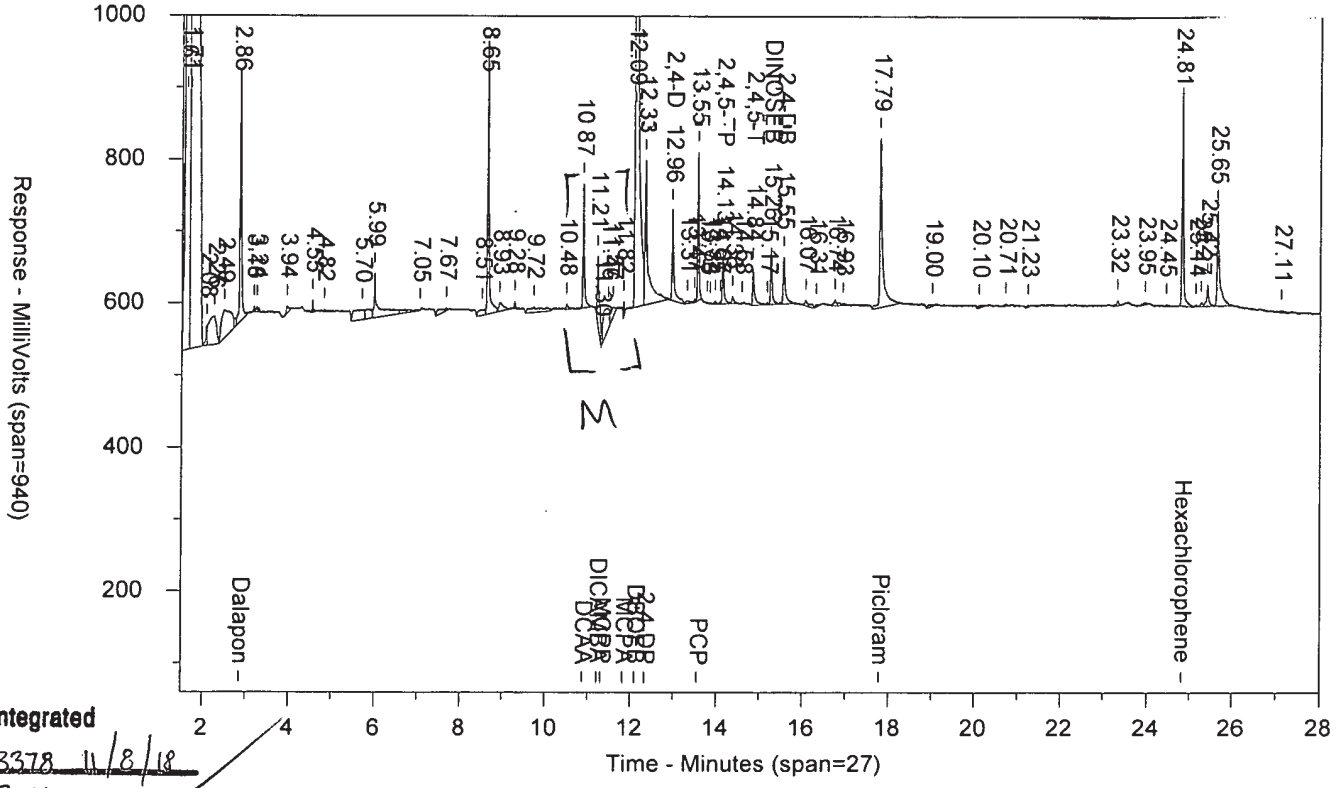

M = Manually Integrated

Analyst RM 13378 11/8/18

Approved by RSK 11/9/18

Circle Reason (1) (2) 3 4

1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

LANCASTER LABORATORIES

Sample Number: MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 9:42:14 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	576219	35.372	Dalapon	2.855	352523	29.819	Dalapon
9.921	315163	17.834	DCAA	10.871	173098	13.962	DCAA
10.028	149483	1.762	DICAMBA	11.211	93831	1.684	DICAMBA
10.466	10797	239.159	MCPP	11.302	3292	88.165	MCPP
10.844	57950	877.421	MCPA	11.822	21280	387.113	MCPA
11.409	290234	-56.843	2,4-DP	12.33	201395	18.437	2,4-DP
11.856	234312	14.083	2,4-D	12.956	126144	10.477	2,4-D
12.212	11613250	1	DBOFB	12.095	8477451	1	DBOFB
12.941	394691	1.651	PCP	13.548	207245	1.288	PCP
13.323	146851	1.687	2,4,5-TP	14.13	75255	1.266	2,4,5-TP
13.858	107881	1.487	2,4,5-T	14.841	50985	1.03	2,4,5-T
14.692	147015	15.793	2,4-DB	15.555	65458	10.305	2,4-DB
14.87	135826	9.248	DINOSEB	15.259	79245	6.862	DINOSEB
15.793	344113	7.288	Picloram	17.788	235616	6.197	Picloram
24.01	587259	9.789	Hexachlorophene	24.814	304164	8.071	Hexachlorophene

Files:
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Area File: 24herb18311001B.012.BND
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/8/2018 12:52:21 PM
File Reported On: 11/8/2018 at 1:00:58 PM

MDHEX1824E AAMDHEXAA ICAL 1831099999 10407 SW-846 81

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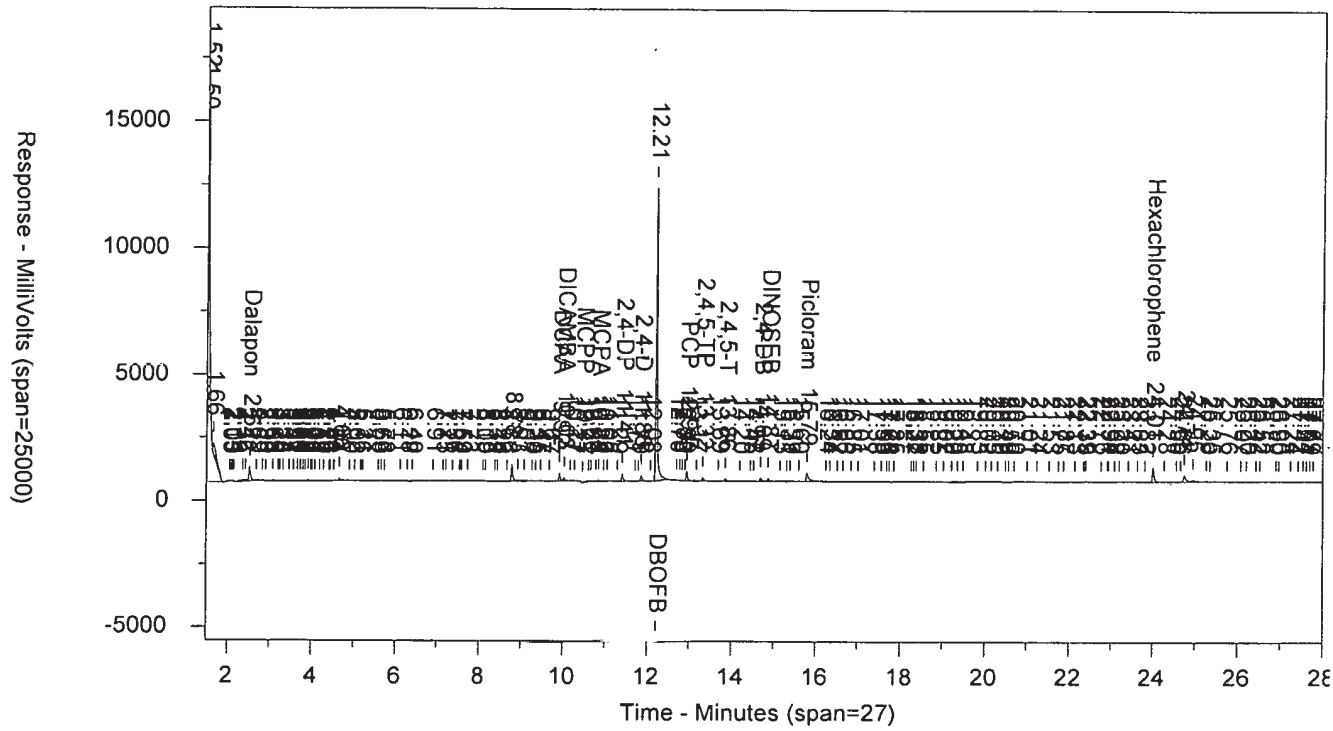

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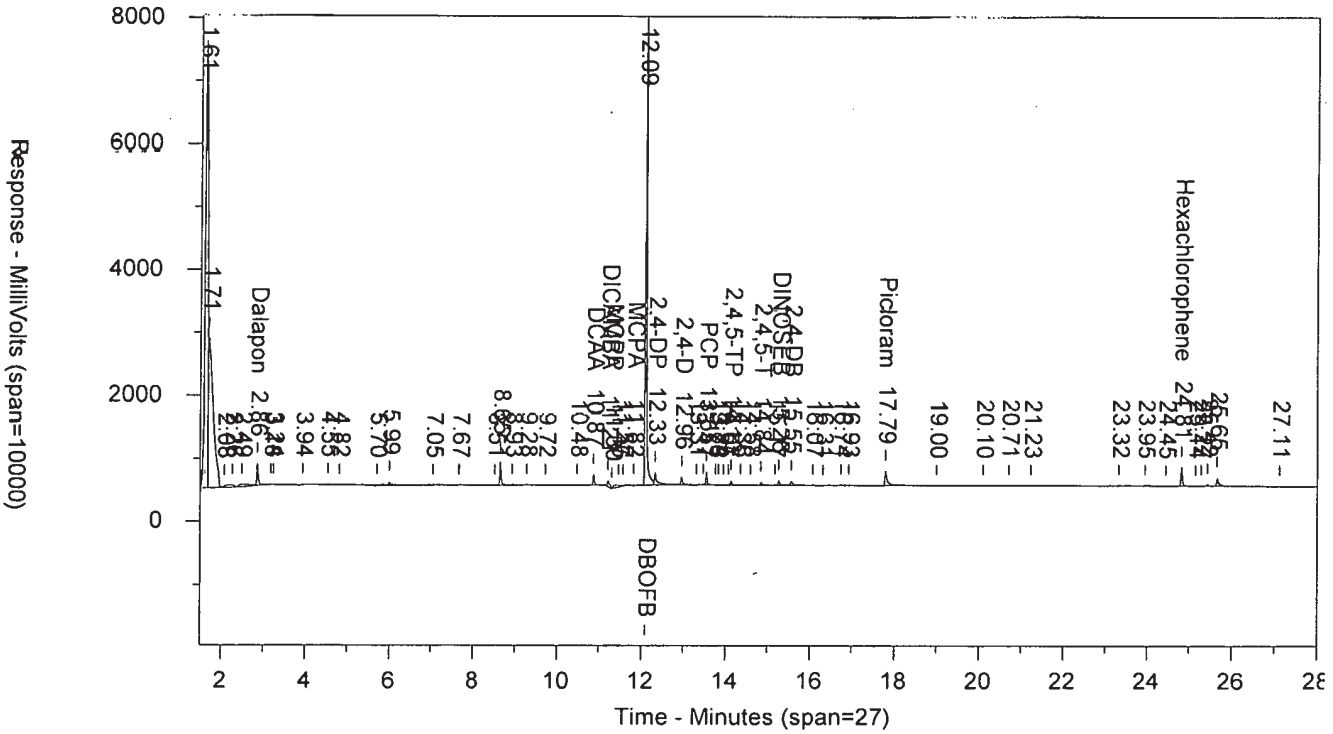

ICHBX1824H AAICHBXAA CCAL 1831099999 10407 SW-846 8151A

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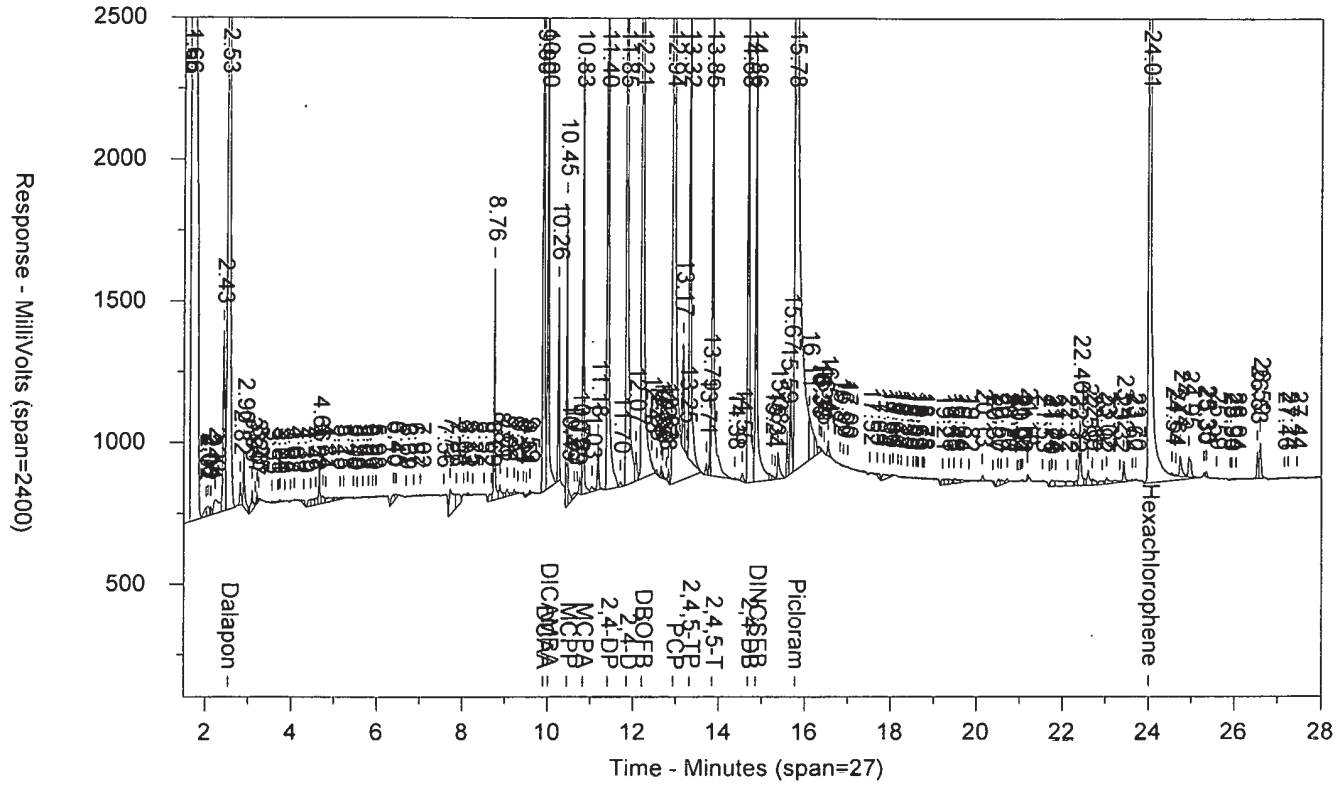

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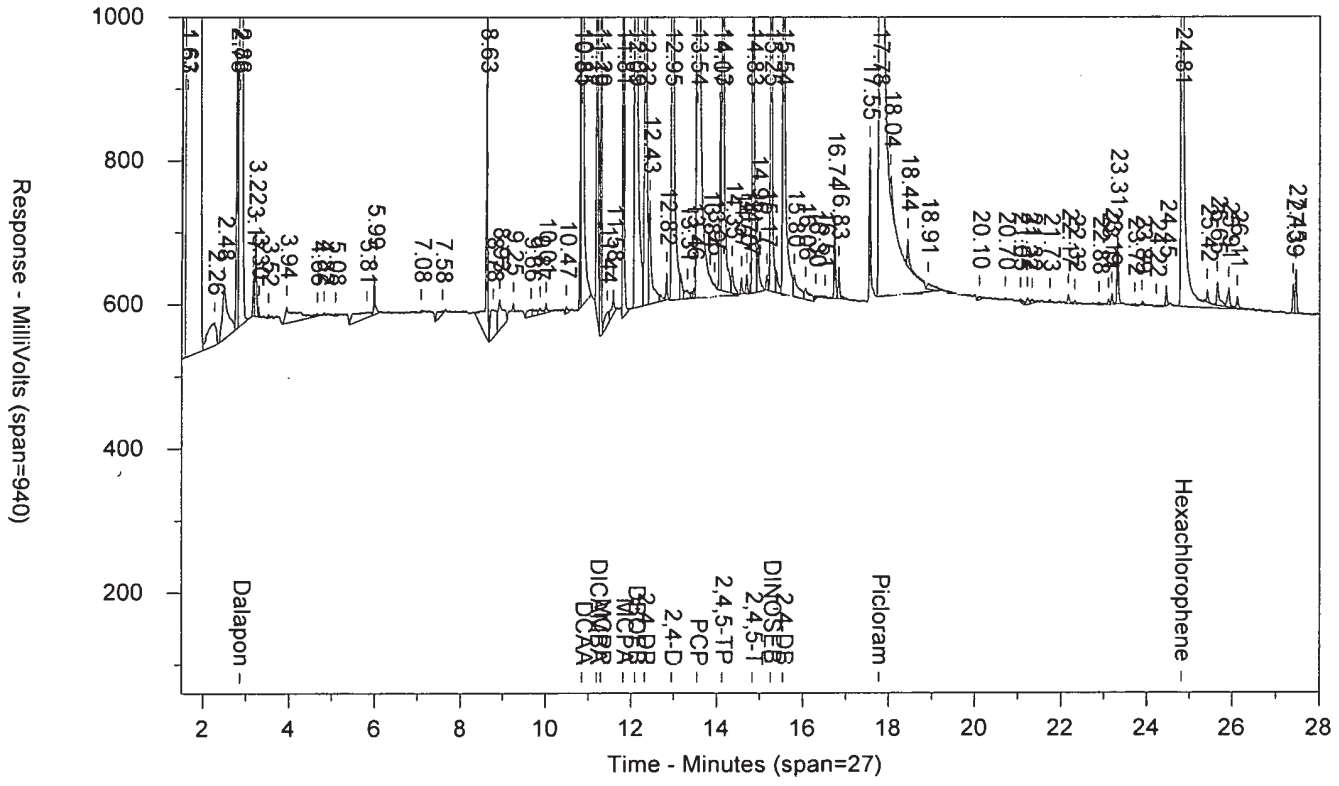

LANCASTER LABORATORIES

Sample Number: ICHBX1824H AAICHBXAA CCAL 1831099999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/7/2018 10:48:23 PM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.526	8140481	430.494	Dalapon	2.857	5793619	439.119	Dalapon
9.898	3876224	188.957	DCAA	10.852	2694778	194.767	DCAA
10.005	2017323	20.484	DICAMBA	11.195	1295464	20.834	DICAMBA
10.449	1070786	20433.44	MCPP	11.288	891031	21380.38	MCPP
10.832	1543597	20133.8	MCPA	11.811	1265274	20624.2	MCPA
11.401	3675983	217.914	2,4-DP	12.321	2678301	219.702	2,4-DP
11.848	3808956	197.215	2,4-D	12.947	2661180	198.057	2,4-D
12.21	13480710	1	DBOFB	12.091	9461070	1	DBOFB
12.937	24554770	88.486	PCP	13.541	16176860	90.073	PCP
13.319	1965034	19.443	2,4,5-TP	14.125	1397483	21.062	2,4,5-TP
13.849	1720344	20.432	2,4,5-T	14.831	1172428	21.219	2,4,5-T
14.68	1991198	184.274	2,4-DB	15.54	1367768	192.946	2,4-DB
14.864	1565352	91.812	DINOSEB	15.255	1192651	92.532	DINOSEB
15.775	10157720	185.34	Picloram	17.776	7911597	186.443	Picloram
24.007	7499888	107.698	Hexachlorophene	24.809	4706970	111.921	Hexachlorophen

Files:
Area File: 24herb18311001.014.RAW
Area File: 24herb18311001B.014.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/7/2018 11:17:13 PM
File Reported On: 11/8/2018 at 12:53:11 PM

ICHBX1824H AAICHBXAA CCAL 1831099999 10407 SW-846 815

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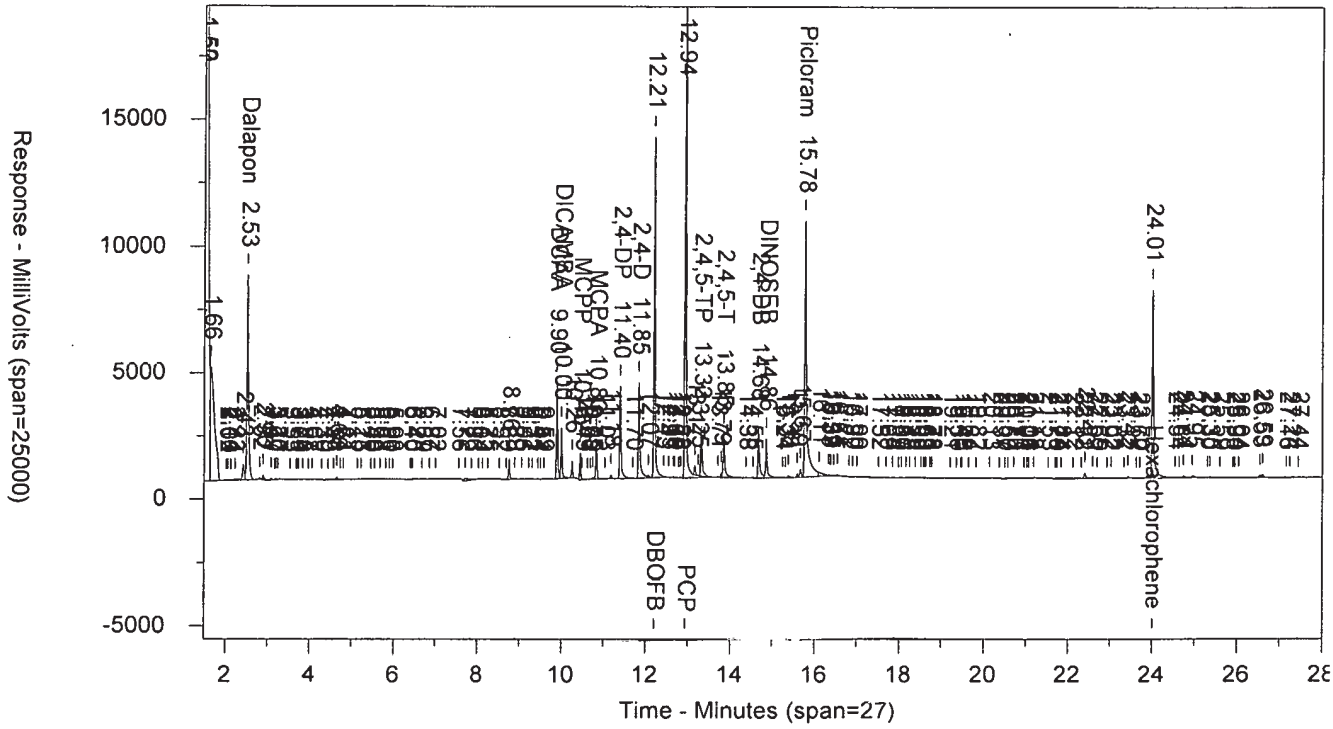

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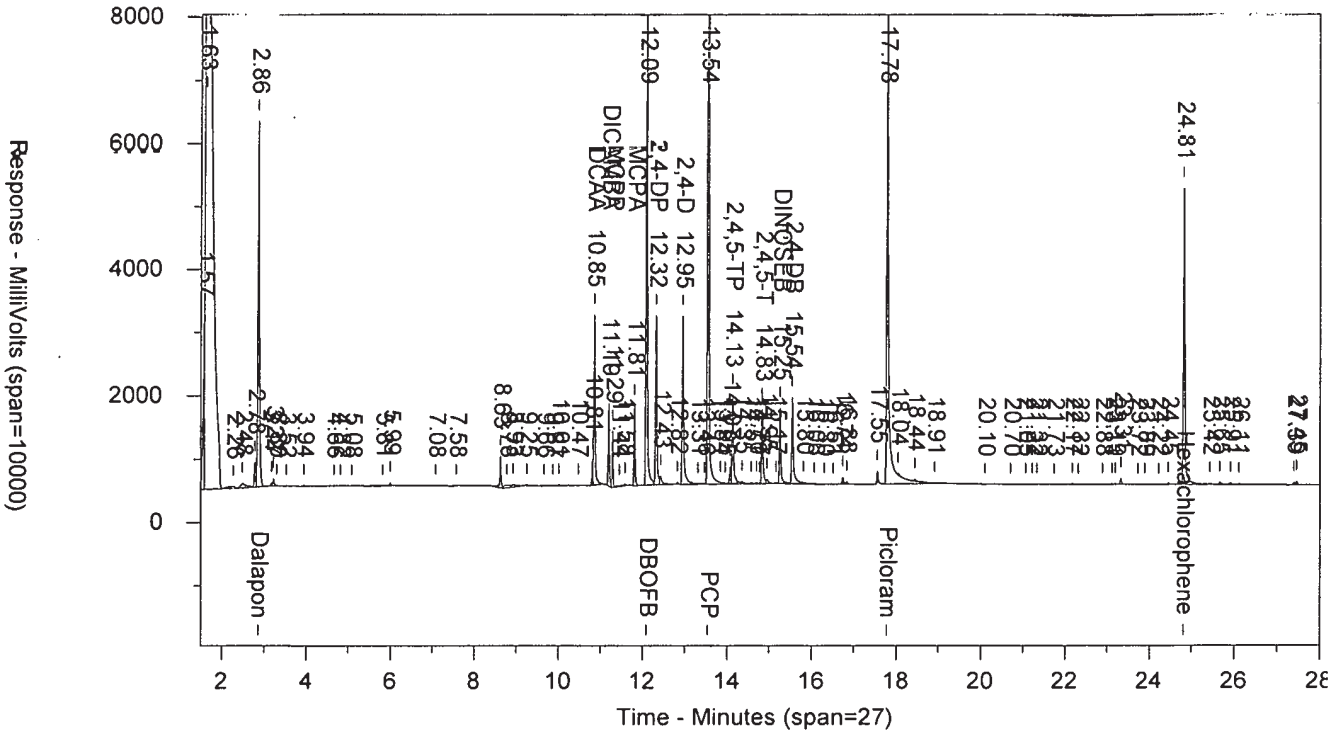

HERB31824F UHHERB3UH CCAL 1830499999 10407 SW-846 8151/

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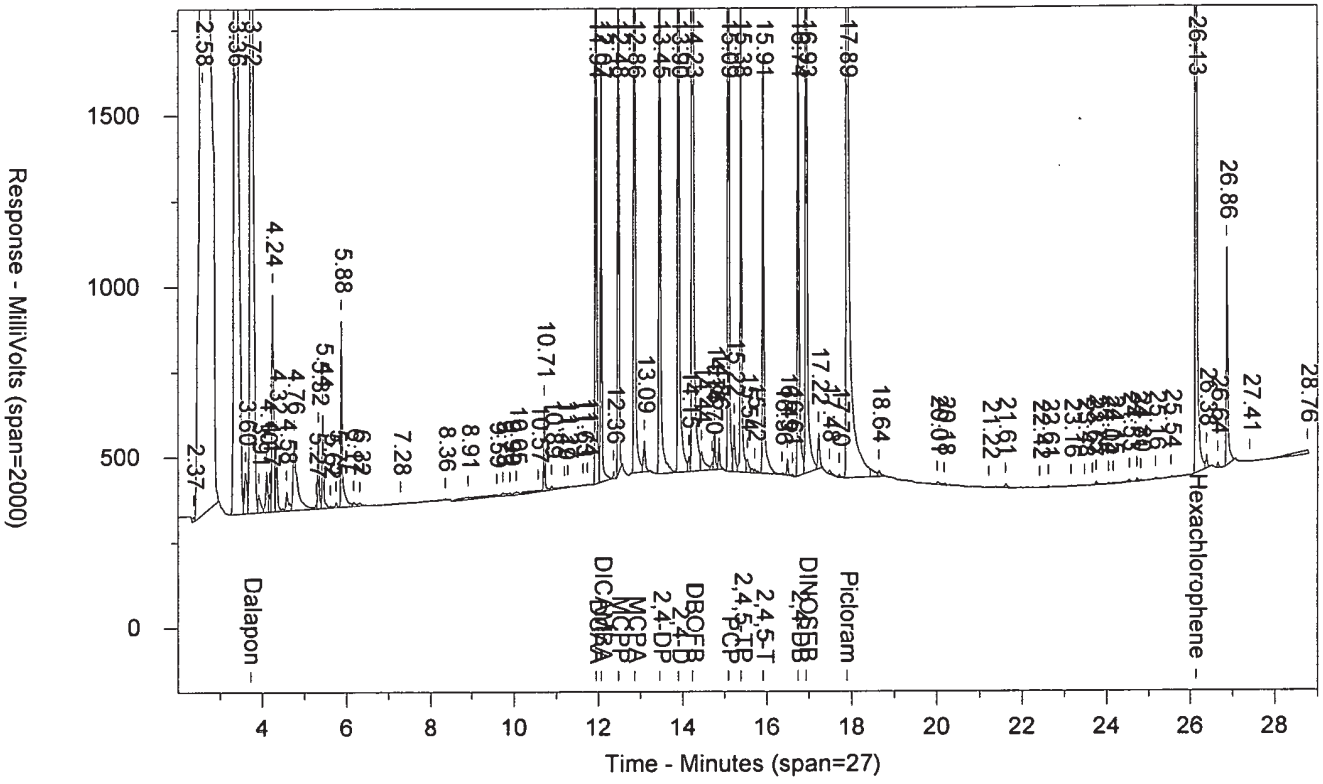

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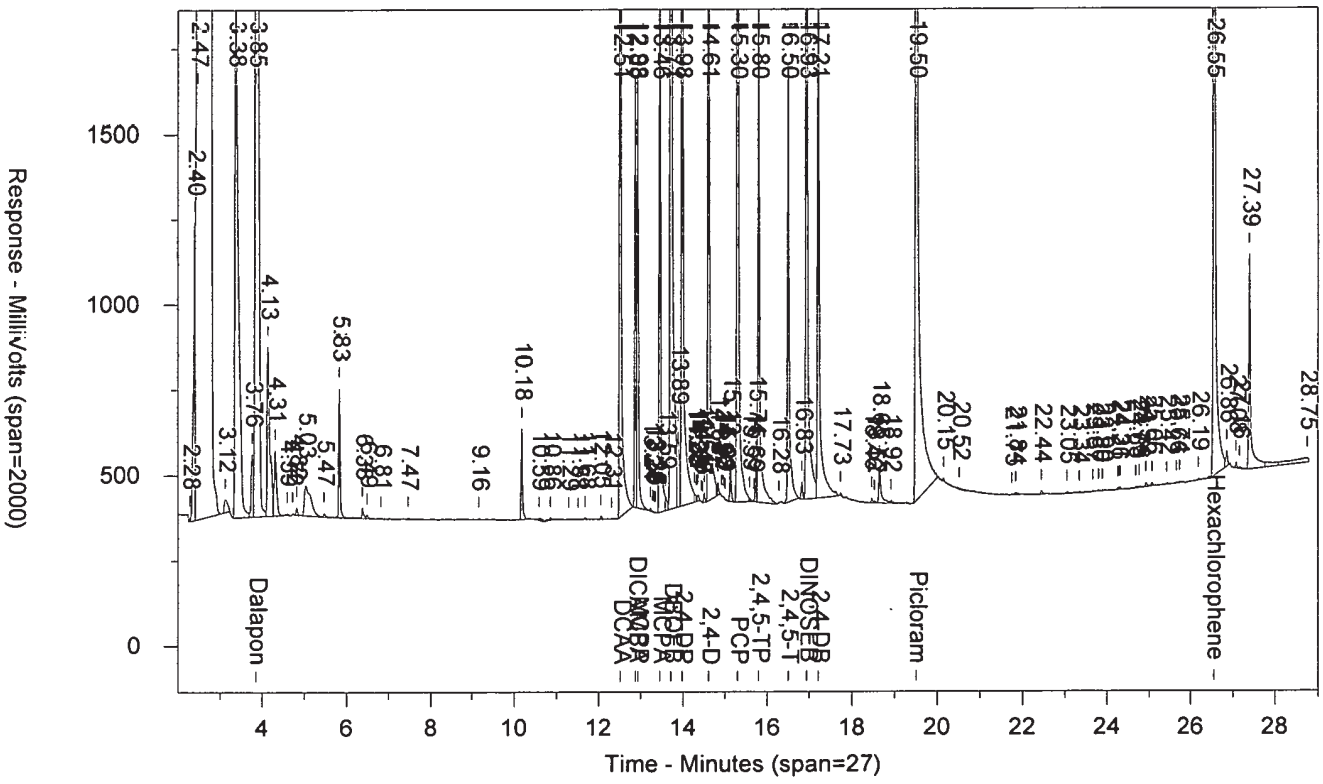

LANCASTER LABORATORIES

Sample Number: HERB31824F UHHERB3UH CCAL 1830499999 10407 SW-846 8151A
Injected On: 11/1/2018 6:03:36 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.724	3300811	394.204	Dalapon	3.854	4724419	403.122	Dalapon
11.941	3008387	199.449	DCAA	12.515	3091738	200.242	DCAA
12.068	1225344	20.223	DICAMBA	12.876	1284765	20.027	DICAMBA
12.477	1933132	22861.76	MCPP	12.929	1300815	20397.04	MCPP
12.861	2310514	21977.63	MCPA	13.456	1776370	20252.76	MCPA
13.454	2472340	198.633	2,4-DP	13.983	2710751	200.779	2,4-DP
14.233	11198160	1	DBOFB	13.714	11206110	1	DBOFB
13.896	2665503	179.138	2,4-D	14.608	2731040	176.585	2,4-D
15.092	3832548	20.369	PCP	15.303	4075206	20.589	PCP
15.385	1438172	20.192	2,4,5-TP	15.798	1483780	20.314	2,4,5-TP
15.908	1226851	19.514	2,4,5-T	16.501	1282452	19.872	2,4,5-T
16.741	1731443	198.507	2,4-DB	17.208	1807384	197.558	2,4-DB
16.929	3360577	102.723	DINOSEB	16.935	3388160	101.976	DINOSEB
17.889	5571903	102.22	Picloram	19.504	5962906	102.233	Picloram
26.134	4818540	81.117	Hexachlorophene	26.552	5152464	85.256	Hexachlorophe

Files:
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Method B: 15HERBB.MET
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Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/1/2018 6:32:24 PM
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HERB31824F UHHERB3UH CCAL 1830499999 10407 SW-846 8

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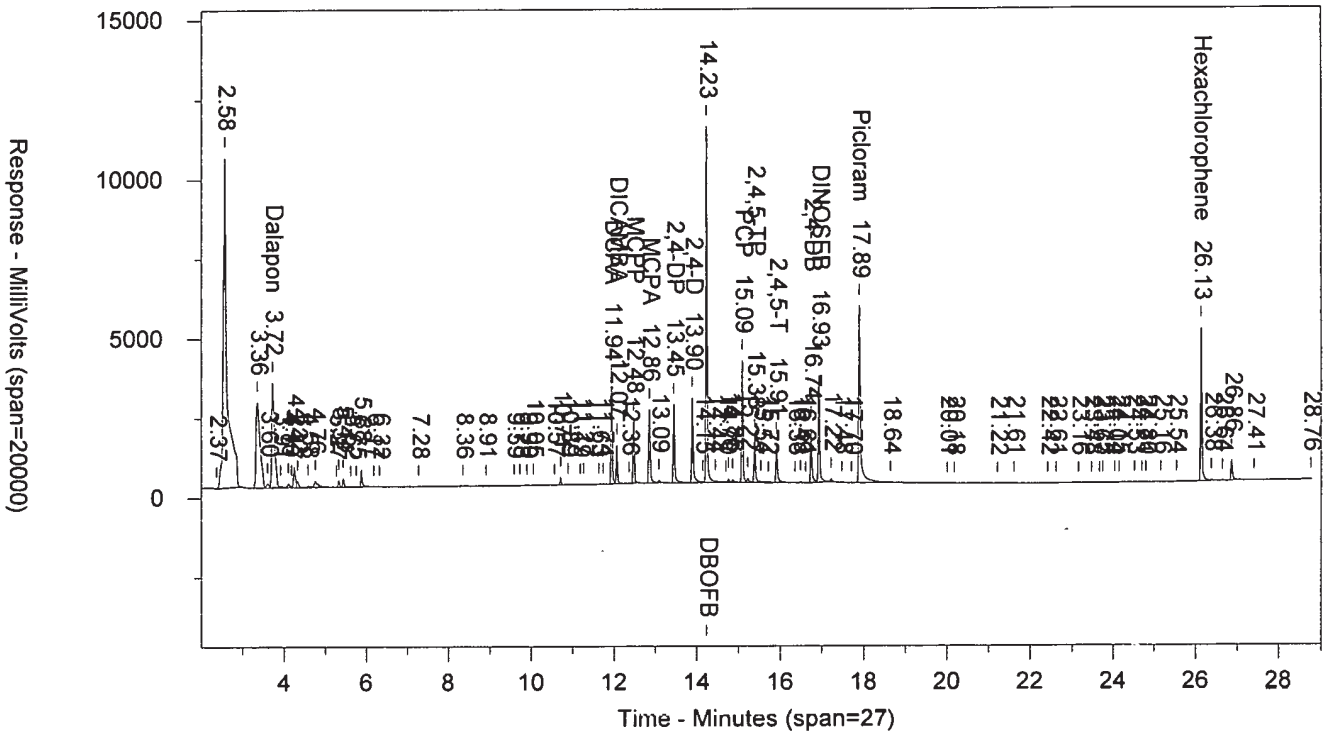

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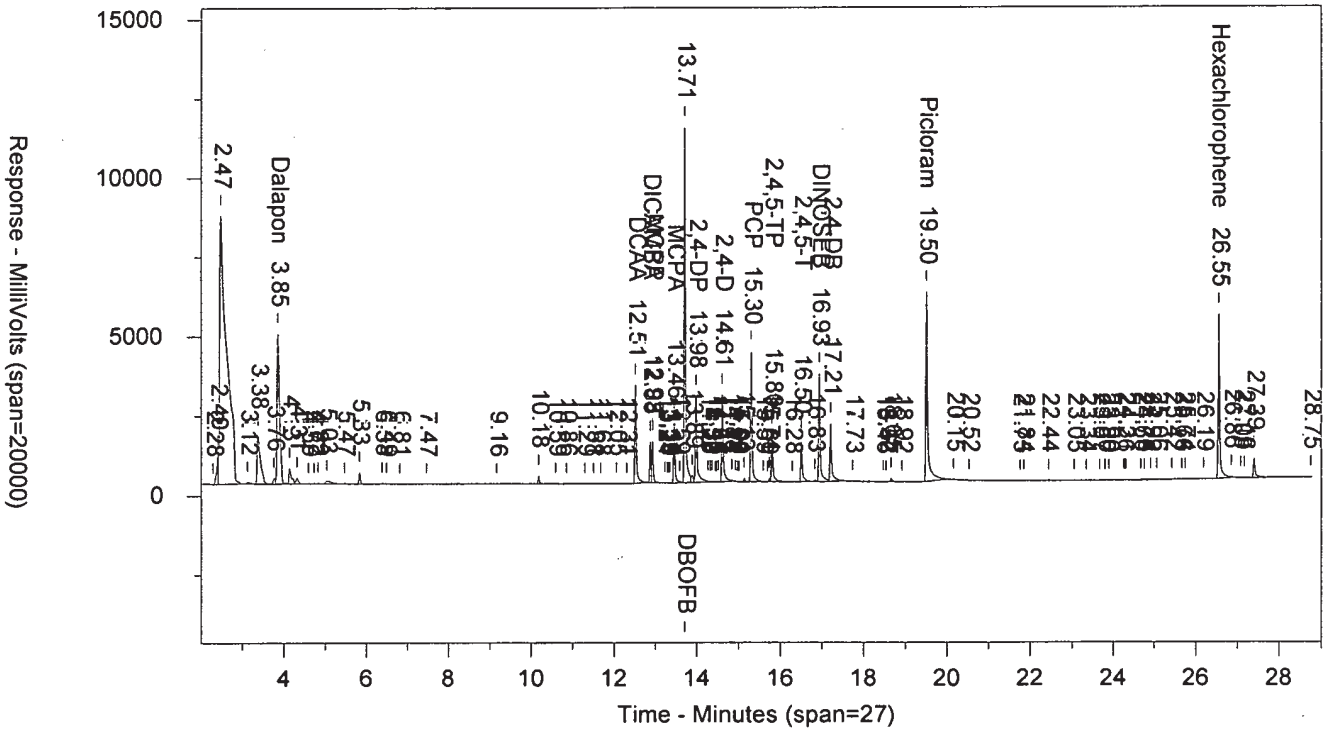

HIBLKX1824B RQHIBLKRQ MISC 1830499999 10407 SW-846 8151A

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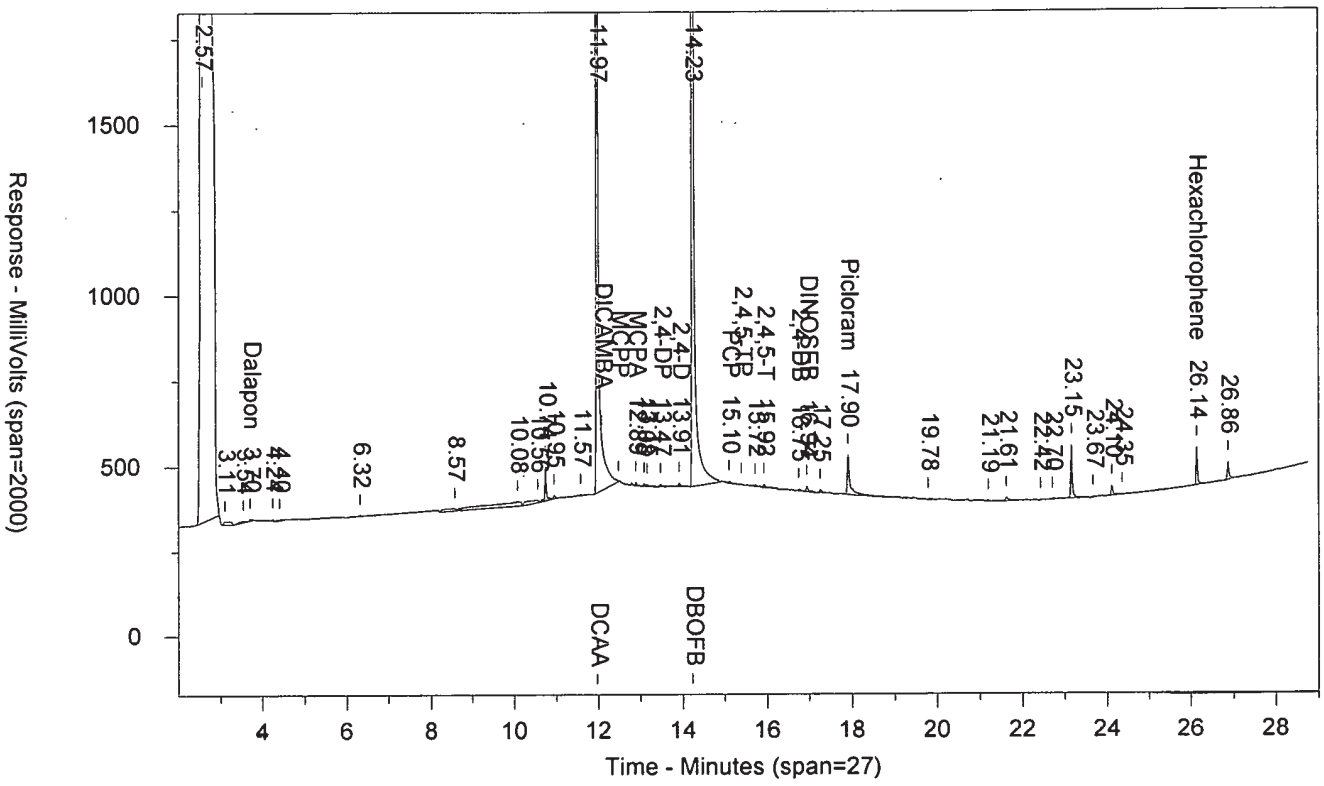

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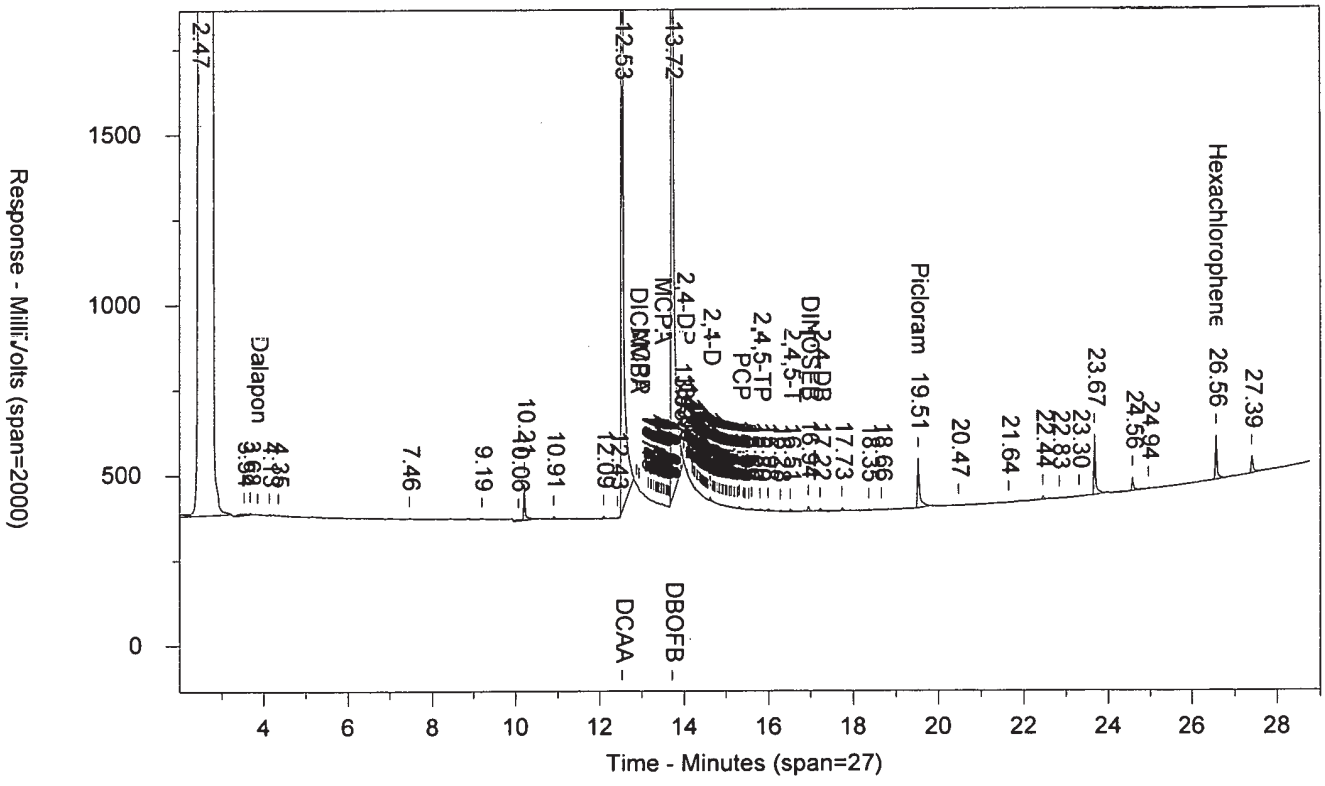

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B RQHIBLKRQ MISC 1830499999 10407 SW-846 8151A
Injected On: 11/1/2018 6:36:36 PM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.7	5948	.008	Dalapon		0		Dalapon
11.966	3773492	2.68	DCAA	12.532	3697180	2.491	DCAA
12.887	11916	-134.106	MCPA	13.463	1350	.16	MCPA
13.47	8068	.007	2,4-DP	13.989	9155	.007	2,4-DP
14.235	10453330	.001	DBOFB	13.715	10772730	.001	DBOFB
13.91	11183	.008	2,4-D	14.619	11049	.007	2,4-D
15.1	6512		PCP	15.311	8152		PCP
	0		2,4,5-TP	15.799	4811	.001	2,4,5-TP
15.919	10396	.002	2,4,5-T	16.511	6503	.001	2,4,5-T
16.749	5880	.007	2,4-DB	17.217	8622	.01	2,4-DB
16.936	17159	.006	DINOSEB	16.941	15655	.005	DINOSEB
17.901	117249	.023	Picloram	19.511	145710	.026	Picloram
26.135	111395	.02	Hexachlorophene	26.556	130851	.023	Hexachlorophe

Files:
Area File: 15herb18304002.007.RAW
Area File: 15herb18304002B.007.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/1/2018 7:05:25 PM
File Reported On: 11/2/2018 at 1:17:27 PM

HIBLKX1824B RQHIBLKRQ MISC 1830499999 10407 SW-846 81

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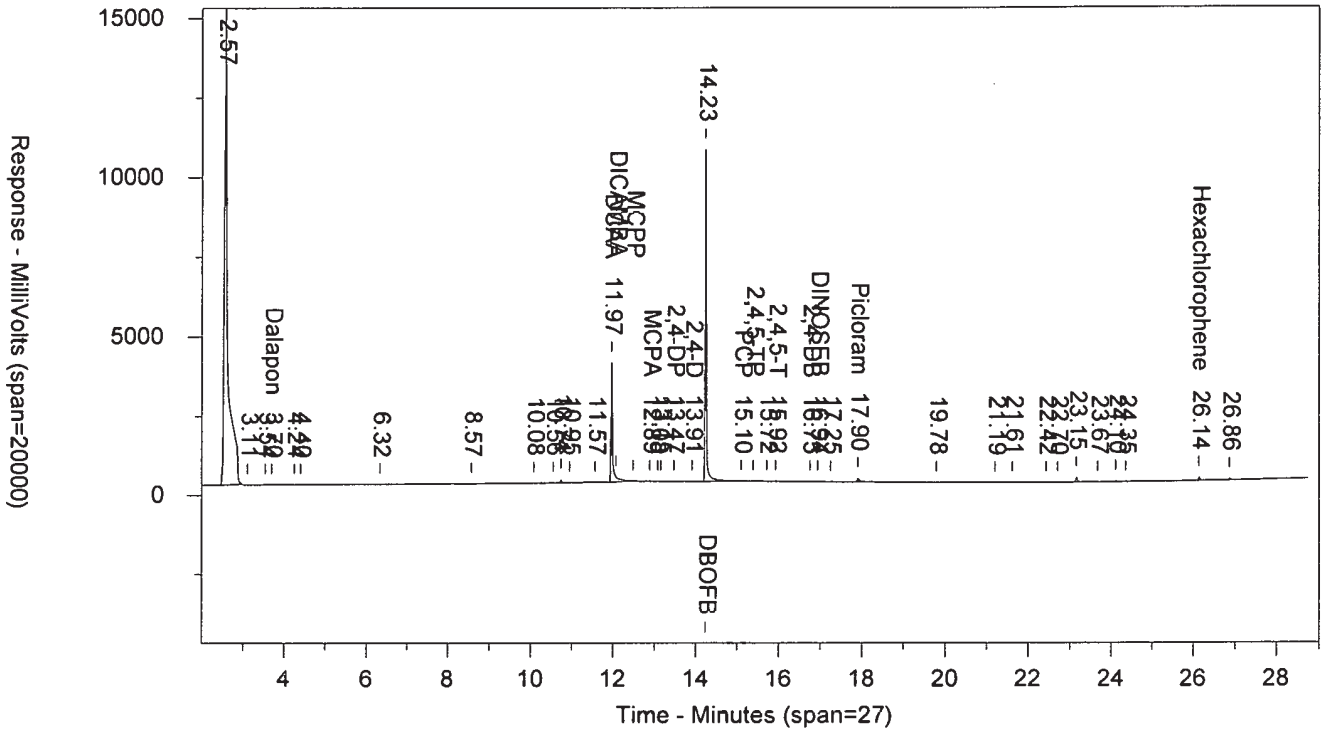

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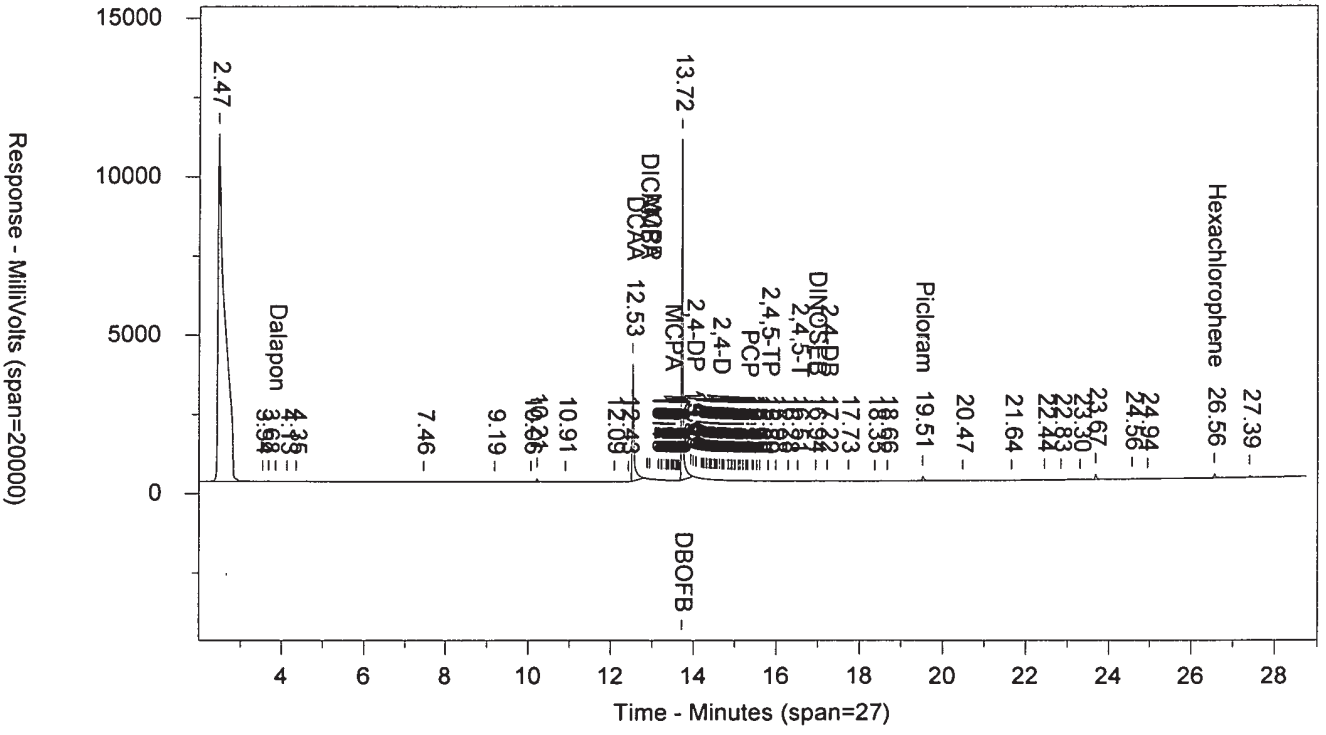

HERB31824F UIHERB3UI CCAL 1830499999 10407 SW-846 8151A

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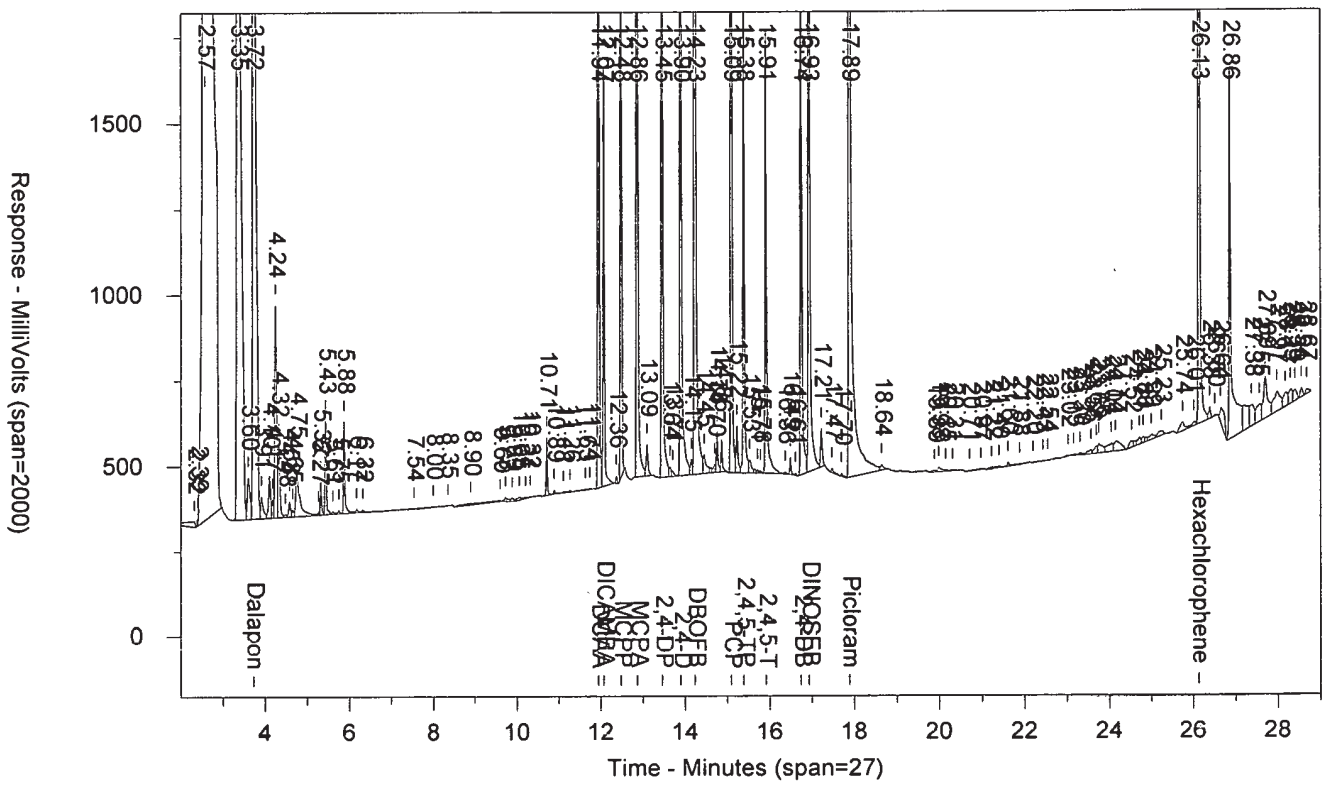

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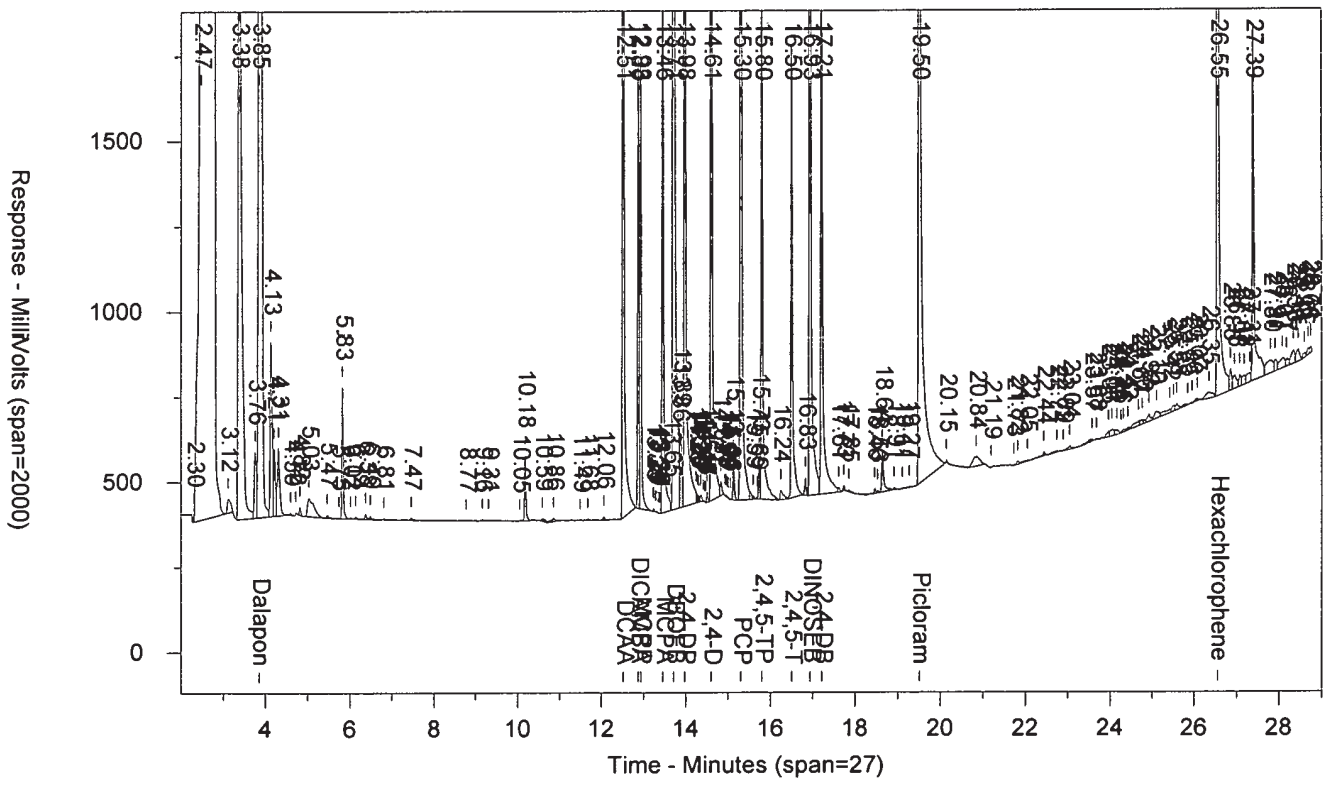

LANCASTER LABORATORIES

Sample Number: HERB31824F UIHERB3UI CCAL 1830499999 10407 SW-846 8151A
Injected On: 11/1/2018 11:34:44 PM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.722	3504353	405.064	Dalapon	3.853	4953212	404.063	Dalapon
11.941	3139001	201.422	DCAA	12.514	3206077	198.518	DCAA
12.068	1219618	19.481	DICAMBA	12.875	1321194	19.689	DICAMBA
12.478	1969852	22371.01	MCPP	12.929	1335210	20015.87	MCPP
12.86	2368893	21704.42	MCPA	13.456	1833120	19980.9	MCPA
13.453	2511139	195.267	2,4-DP	13.982	2807945	198.834	2,4-DP
14.233	11569940	1	DBOFB	13.712	11721460	1	DBOFB
13.895	2750081	178.883	2,4-D	14.606	2795319	172.795	2,4-D
15.092	3849678	19.802	PCP	15.303	4151376	20.052	PCP
15.383	1473673	20.025	2,4,5-TP	15.797	1552260	20.317	2,4,5-TP
15.908	1298401	19.989	2,4,5-T	16.5	1330811	19.715	2,4,5-T
16.74	1797990	199.513	2,4-DB	17.206	1946590	203.419	2,4-DB
16.927	3555274	105.183	DINOSEB	16.932	3500999	100.74	DINOSEB
17.885	5703832	101.278	Picloram	19.501	6351613	104.11	Picloram
26.131	4522275	73.683	Hexachlorophene	26.553	4600637	72.778	Hexachlorophe

Files:
Area File: 15herb18304002.016.RAW
Area File: 15herb18304002B.016.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/2/2018 12:03:31 AM
File Reported On: 11/2/2018 at 1:20:05 PM

HERB31824F UIHERB3UI CCAL 1830499999 10407 SW-846 815

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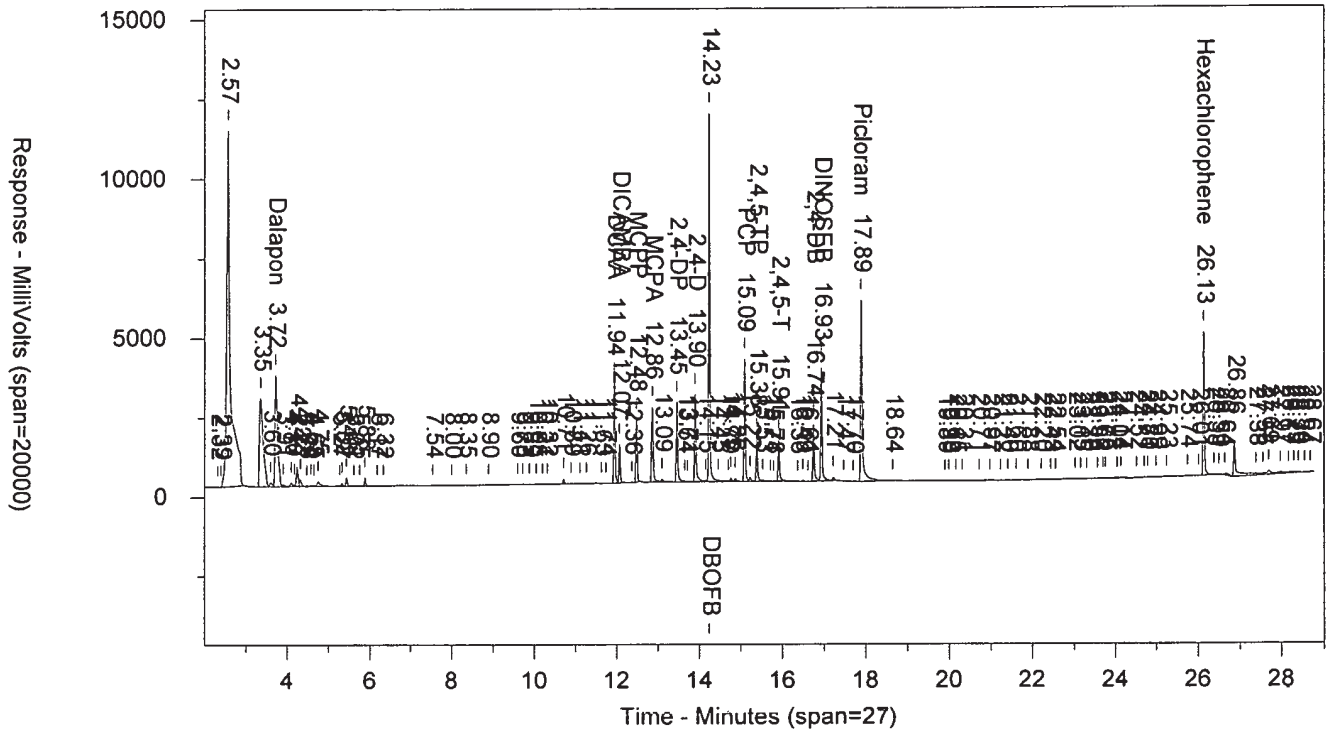

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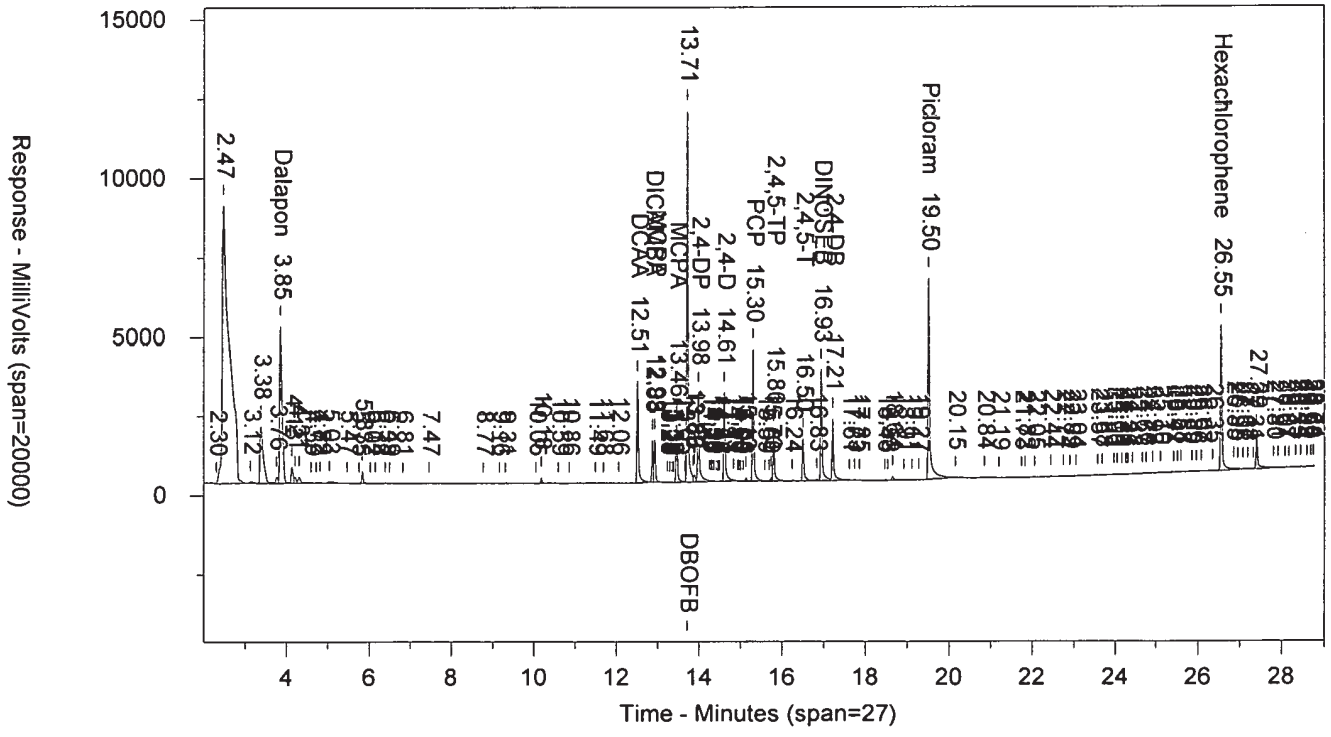

HIBLKX1824B RRHIBLKRR MISC 1830499999 10407 SW-846 8151A

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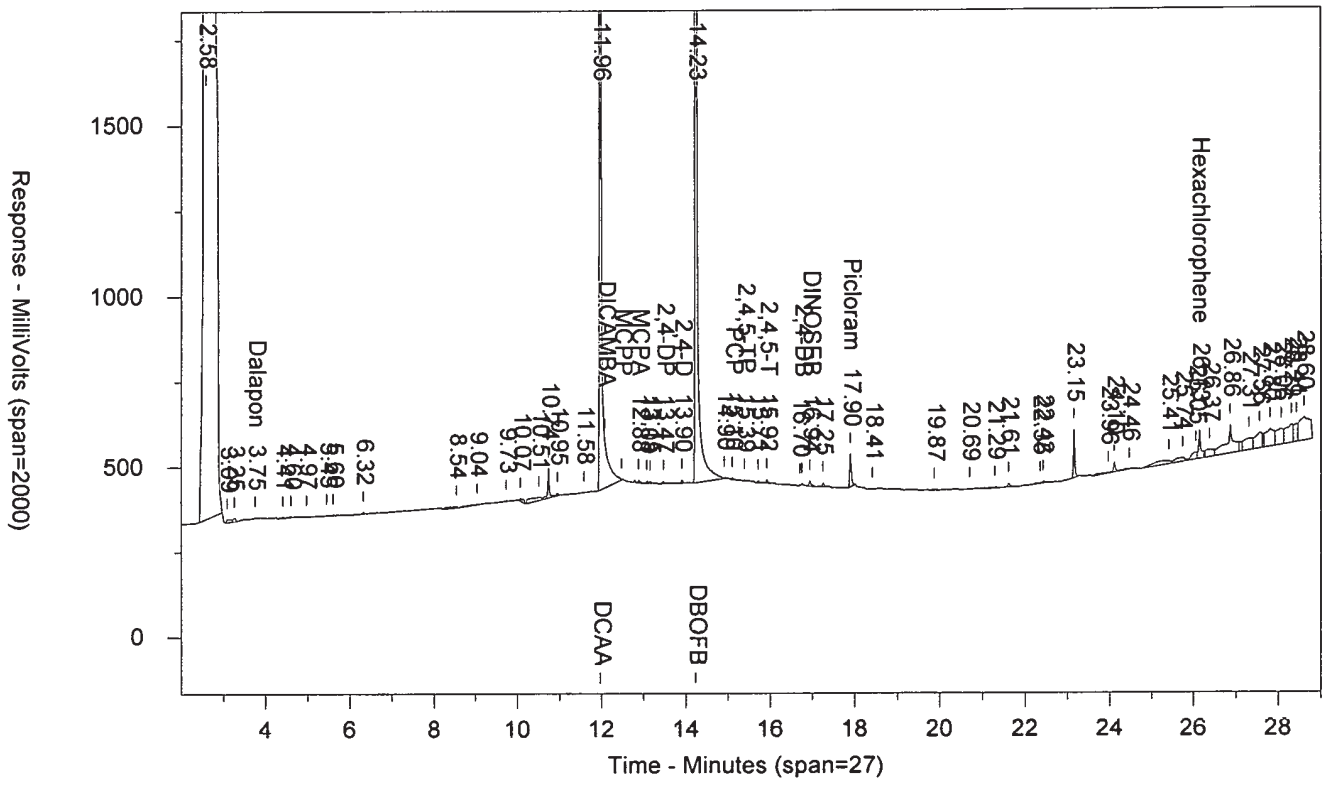

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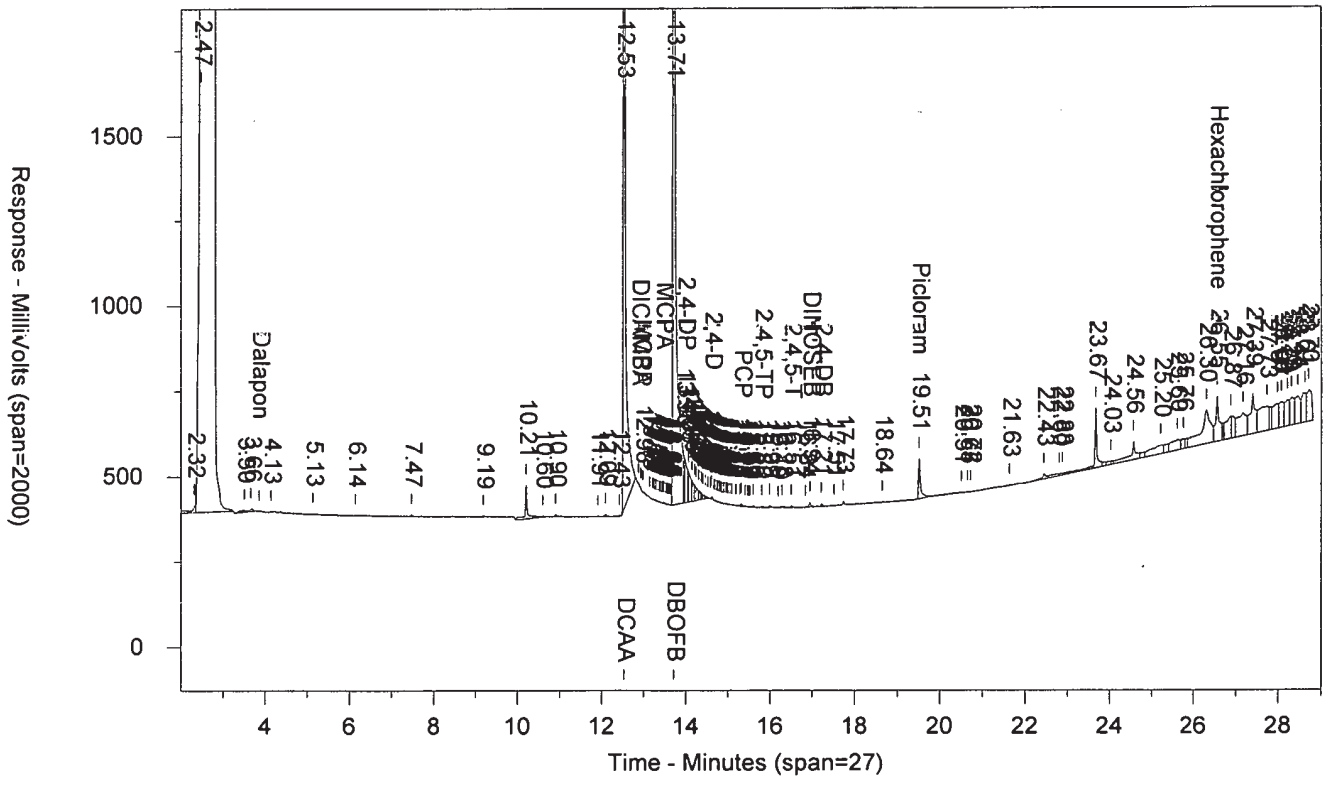

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B RRHIBLKRR MISC 1830499999 10407 SW-846 8151A
Injected On: 11/2/2018 12:07:51 AM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.751	3271	.004	Dalapon		0		Dalapon
11.964	3850422	2.696	DCAA	12.53	3854088	2.544	DCAA
12.882	9560	-134.517	MCPA	13.459	1348	.157	MCPA
13.47	7512	.006	2,4-DP	13.975	129527	.098	2,4-DP
14.234	10604760	.001	DBOFB	13.714	10993350	.001	DBOFB
13.904	10457	.007	2,4-D	14.61	7715	.005	2,4-D
15.097	6086		PCP	15.306	6706		PCP
15.388	4197	.001	2,4,5-TP	15.802	4617	.001	2,4,5-TP
15.916	10632	.002	2,4,5-T	16.505	6543	.001	2,4,5-T
16.935	16753	.005	DINOSEB	16.94	14305	.004	DINOSEB
	0		2,4-DB	17.212	8944	.01	2,4-DB
17.896	97389	.019	Picloram	19.505	118258	.021	Picloram
26.135	84365	.015	Hexachlorophene	26.551	132055	.022	Hexachlorophe

Files:
Area File: 15herb18304002.017.RAW
Area File: 15herb18304002B.017.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/2/2018 12:36:43 AM
File Reported On: 11/2/2018 at 1:20:22 PM

HIBLKX1824B RRHIBLKRR MISC 1830499999 10407 SW-846 81

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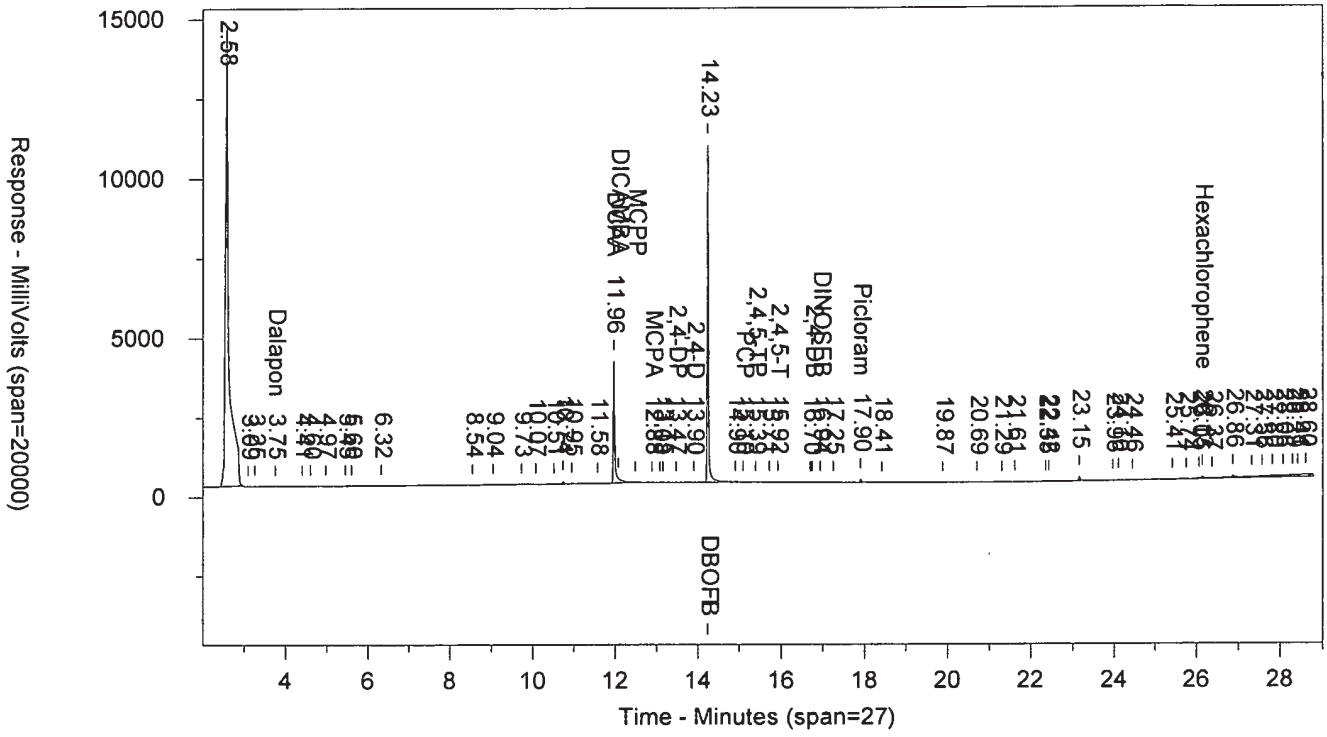

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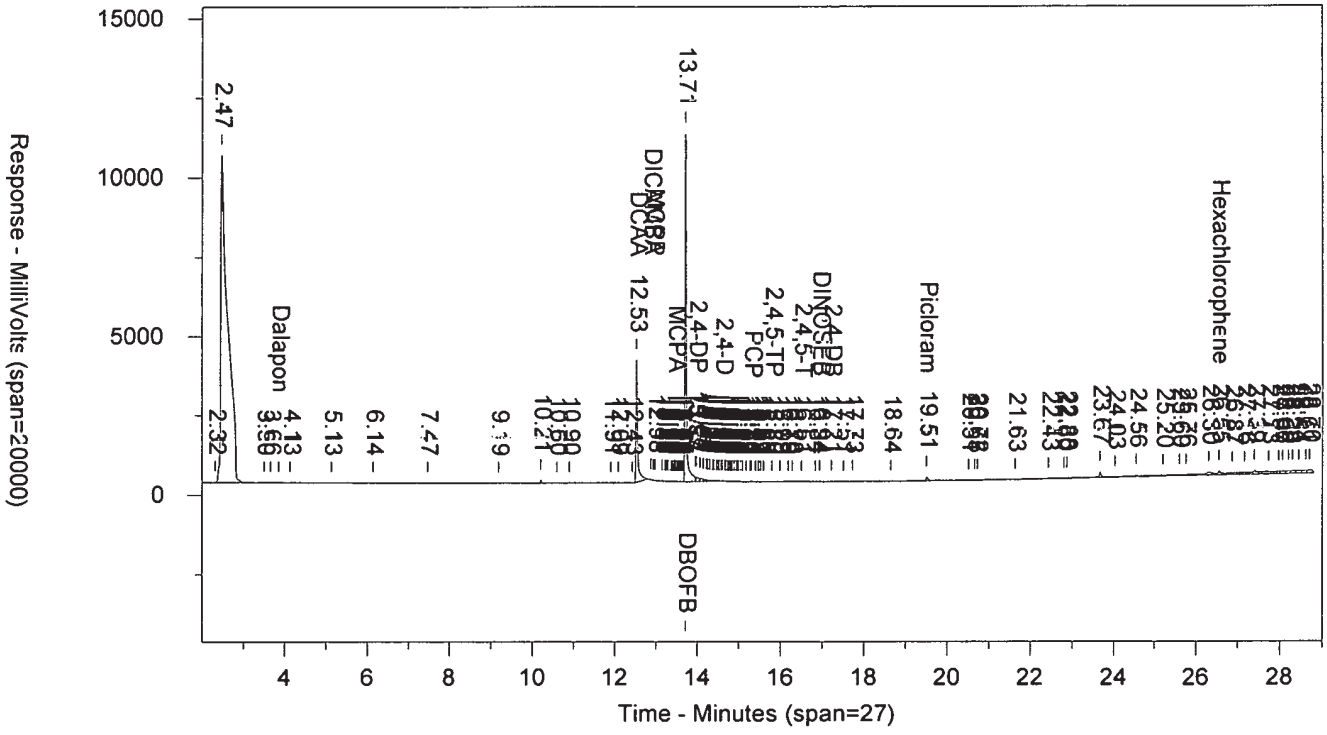

HERB31824F UMHERB3UM CCAL 1830499999 10407 SW-846 8151

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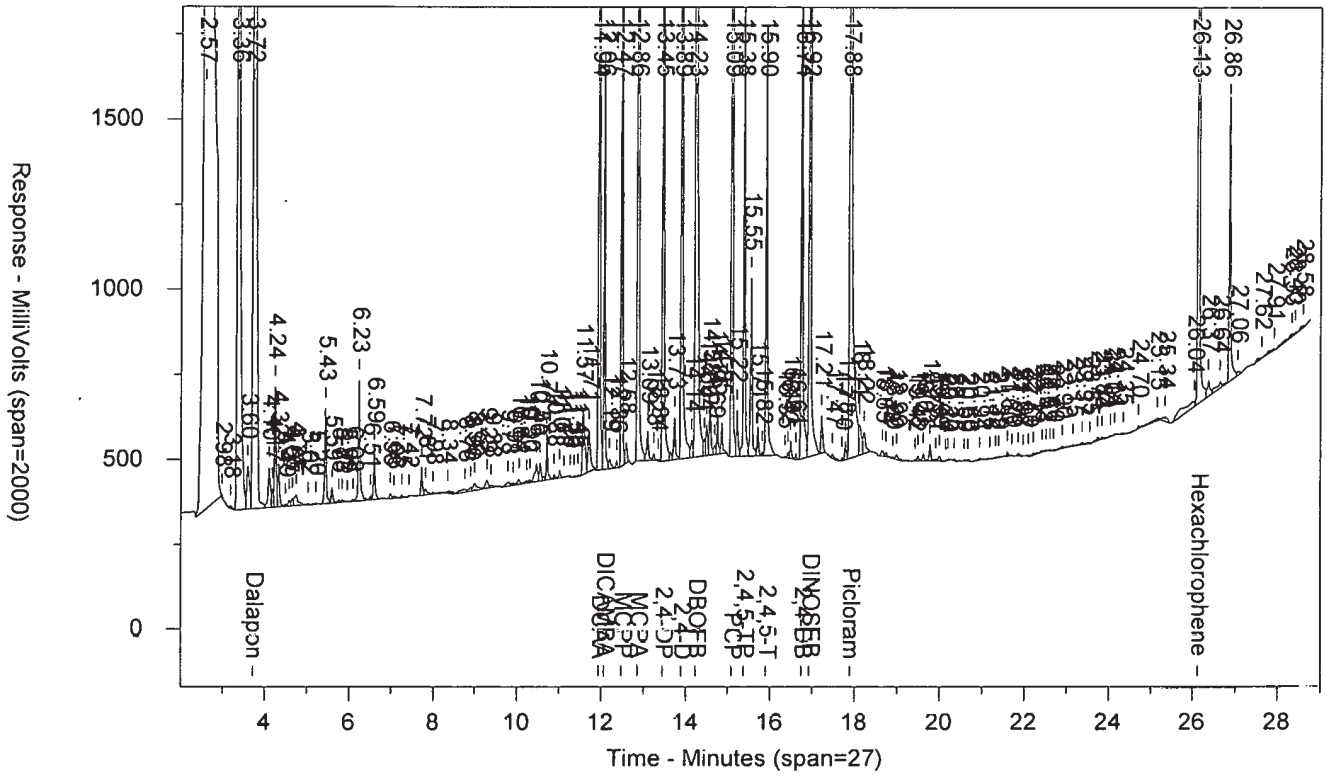

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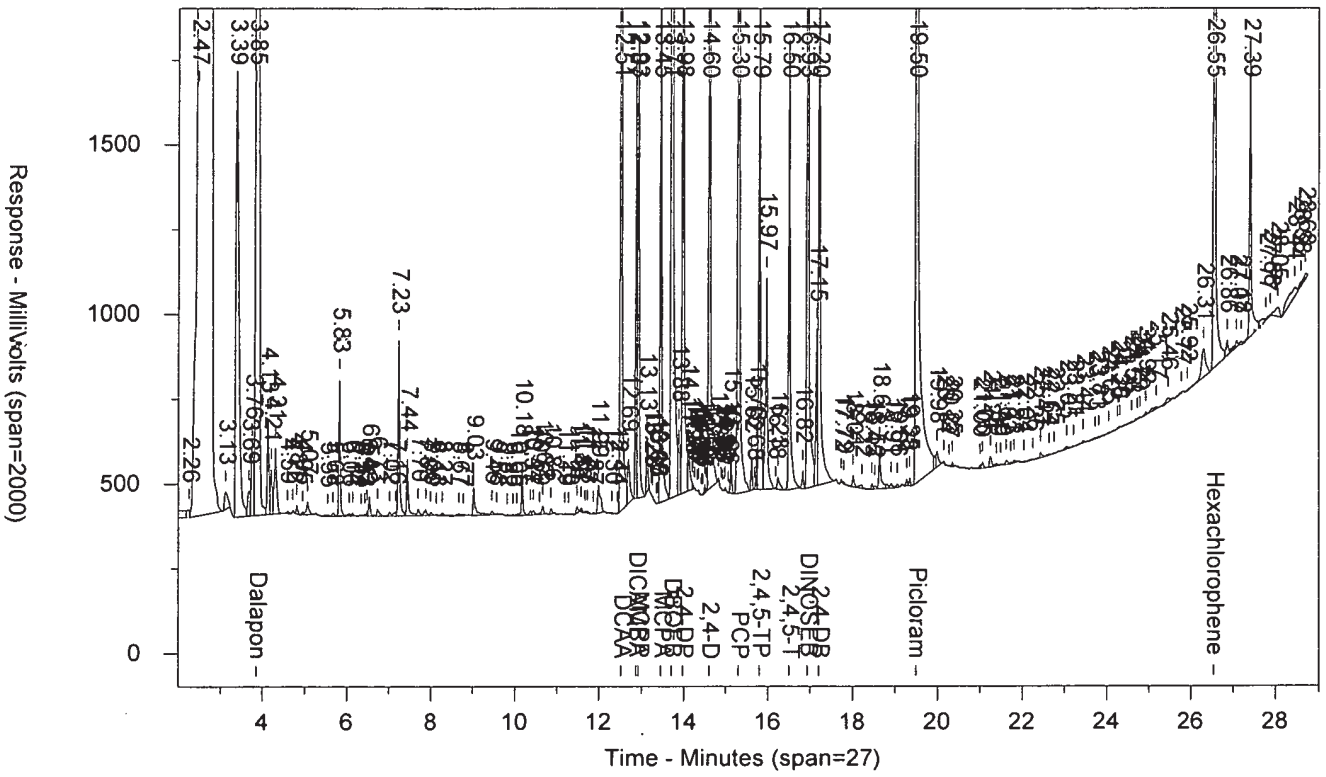

LANCASTER LABORATORIES

Sample Number: HERB31824F UMHERB3UM CCAL 1830499999 10407 SW-846 8151A
Injected On: 11/3/2018 1:29:32 AM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.722	3332371	385.541	Dalapon	3.853	4842256	403.794	Dalapon
11.938	3042342	195.4	DCAA	12.511	3208238	203.068	DCAA
12.063	1224486	19.577	DICAMBA	12.872	1306366	19.901	DICAMBA
12.473	1961660	22257.01	MCPP	12.926	1367364	20953.64	MCPP
12.856	2320046	21008.26	MCPA	13.453	1783691	19874.42	MCPA
13.449	2559944	199.247	2,4-DP	13.978	2749635	199.034	2,4-DP
14.228	11559250	1	DBOFB	13.708	11466500	1	DBOFB
13.892	2705147	176.123	2,4-D	14.604	2796302	176.699	2,4-D
15.088	3846725	19.806	PCP	15.3	4155298	20.517	PCP
15.378	1470618	20.002	2,4,5-TP	15.793	1509133	20.191	2,4,5-TP
15.903	1262622	19.456	2,4,5-T	16.497	1327693	20.106	2,4,5-T
16.736	1755732	195.004	2,4-DB	17.203	1885572	201.424	2,4-DB
16.924	3563877	105.535	DINOSEB	16.929	3793604	111.586	DINOSEB
17.883	5531977	98.318	Picloram	19.499	6170372	103.388	Picloram
26.128	4139175	67.504	Hexachlorophene	26.55	4591471	74.248	Hexachlorophen

Files:
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Area File: 15herb18304002B.063.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 1:58:21 AM
File Reported On: 11/6/2018 at 1:58:56 PM

HERB31824F UMHERB3UM CCAL 1830499999 10407 SW-846 8

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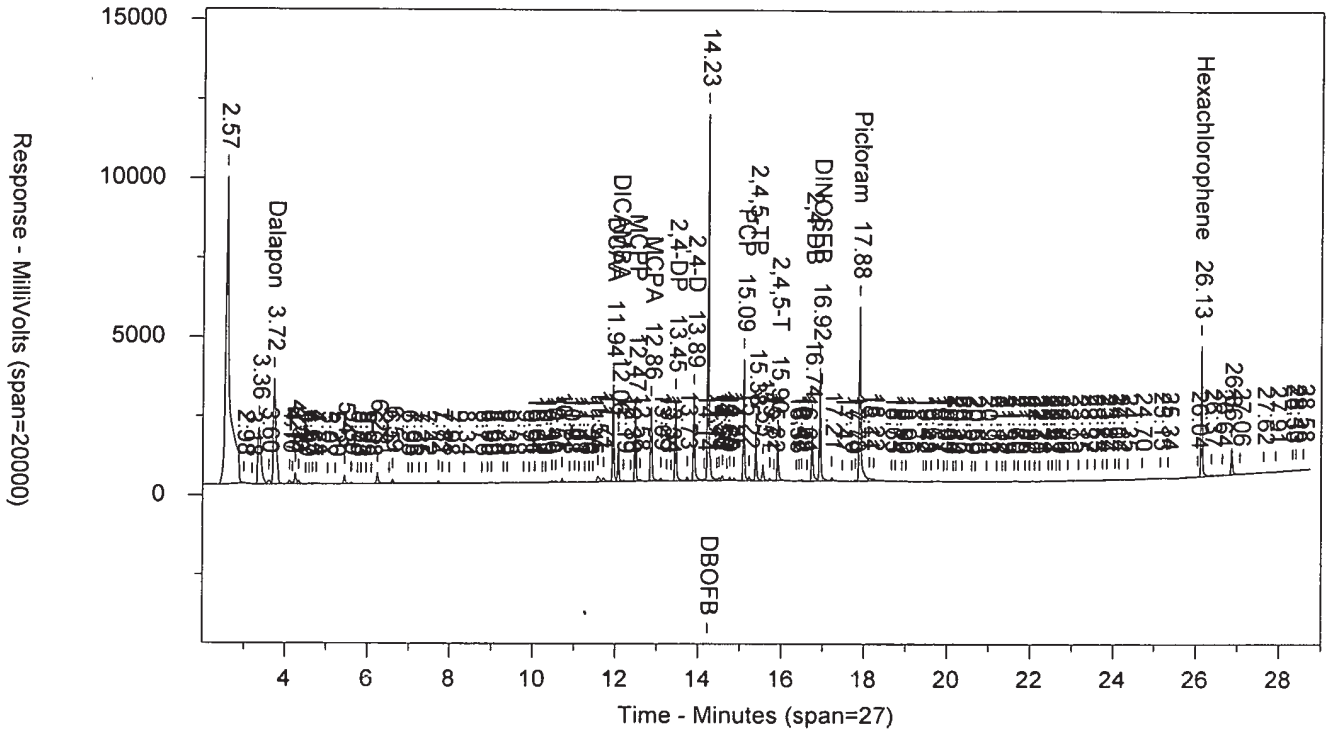

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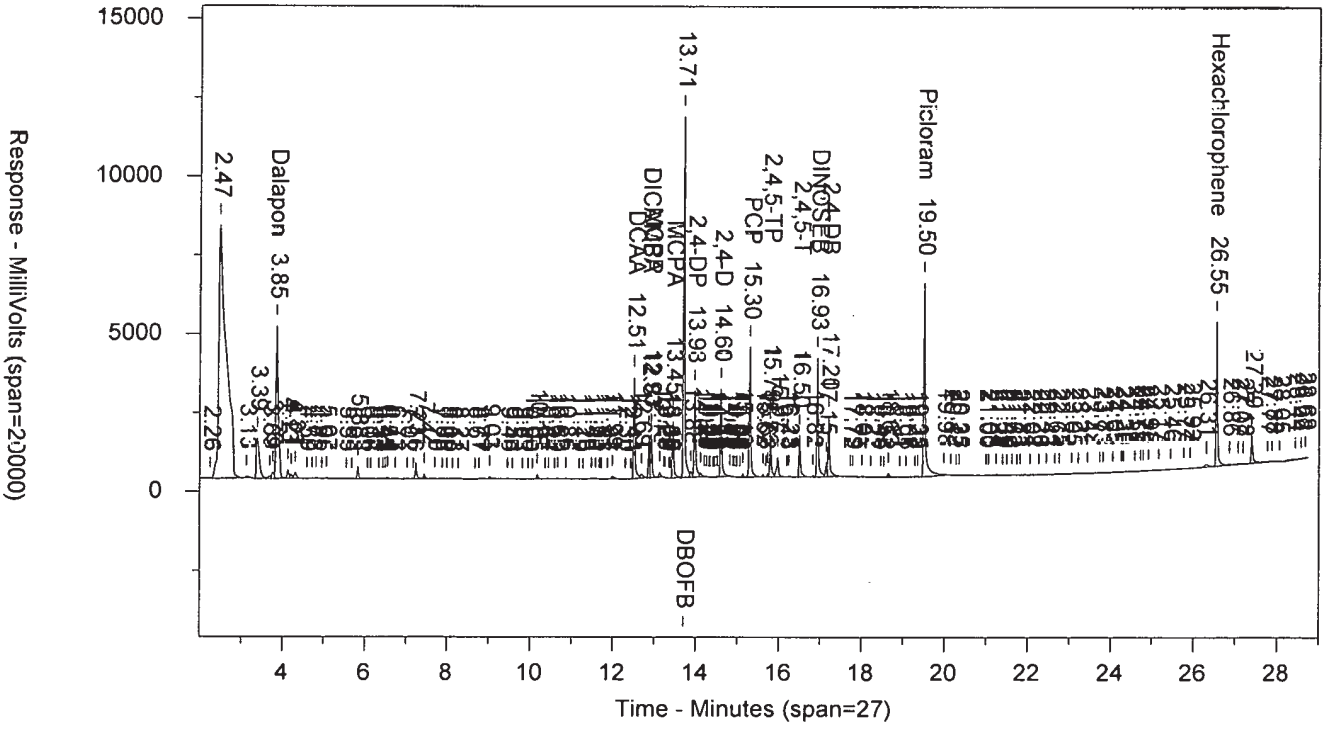

HIBLKX1824B RVHIBLKRV MISC 1830499999 10407 SW-846 8151A

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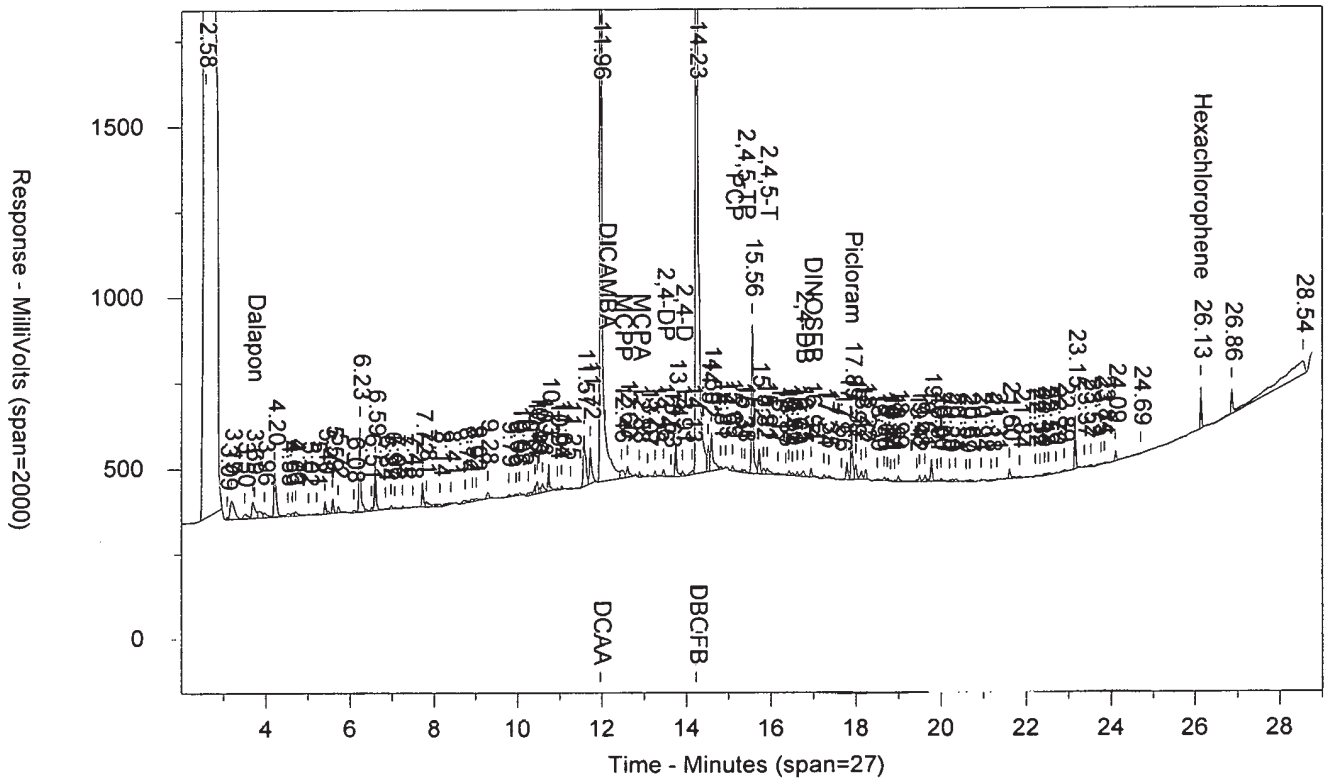

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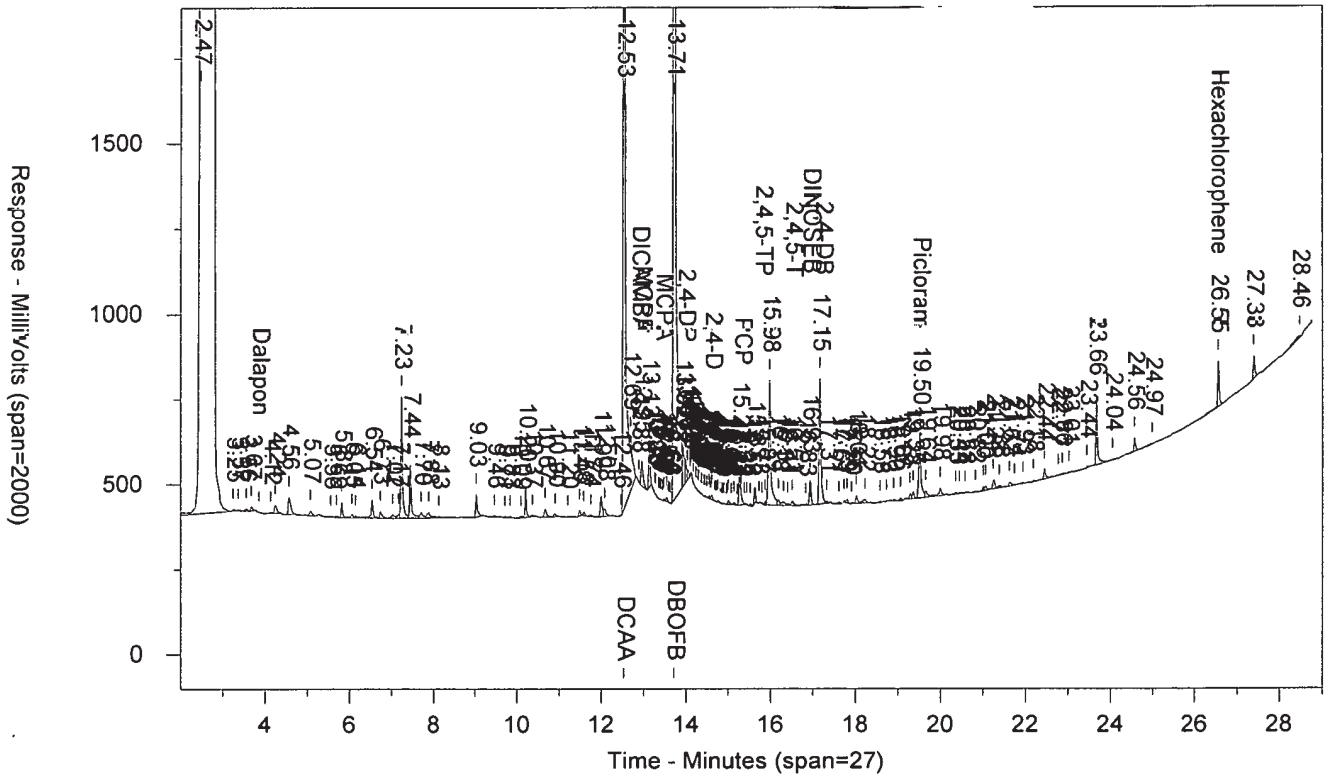

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B RVHIBLKRV MISC 1830499999 10407 SW-846 8151A
Injected On: 11/3/2018 2:02:35 AM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
11.962	3891244	2.672	DCAA	12.529	3786059	2.443	DCAA
12.458	24319	-123.704	MCPP	12.95	72739	11.362	MCPP
12.88	18254	-133.159	MCPA	13.448	1038	.118	MCPA
	0		DICAMBA	12.883	5094	.001	DICAMBA
13.457	20986	.017	2,4-DP	13.982	72988	.054	2,4-DP
14.23	10810280	.001	DBOFB	13.711	11248910	.001	DBOFB
13.905	15633	.011	2,4-D	14.609	14516	.009	2,4-D
15.091	16379	.001	PCP		0		PCP
15.379	9737	.001	2,4,5-TP		0		2,4,5-TP
15.907	18797	.003	2,4,5-T	16.507	14001	.002	2,4,5-T
16.749	16228	.019	2,4-DB		0		2,4-DB
16.937	26307	.008	DINOSEB	16.93	72773	.022	DINOSEB
17.892	151336	.029	Picloram	19.502	193243	.033	Picloram
26.131	122888	.021	Hexachlorophene	26.549	136386	.022	Hexachlorophe

Files:
Area File: 15herb18304002.064.RAW
Area File: 15herb18304002B.064.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 2:31:22 AM
File Reported On: 11/7/2018 at 8:05:54 AM

HIBLKX1824B RVHIBLKRV MISC 1830499999 10407 SW-846 81

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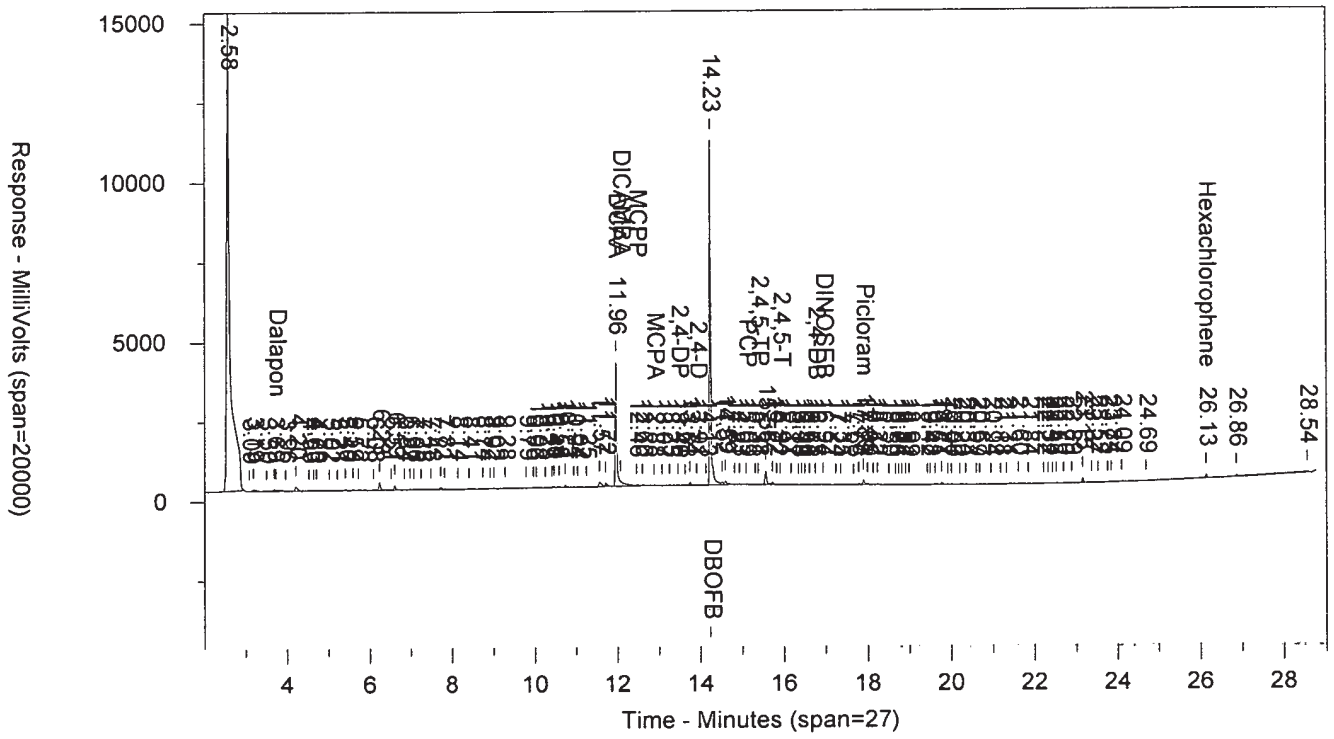

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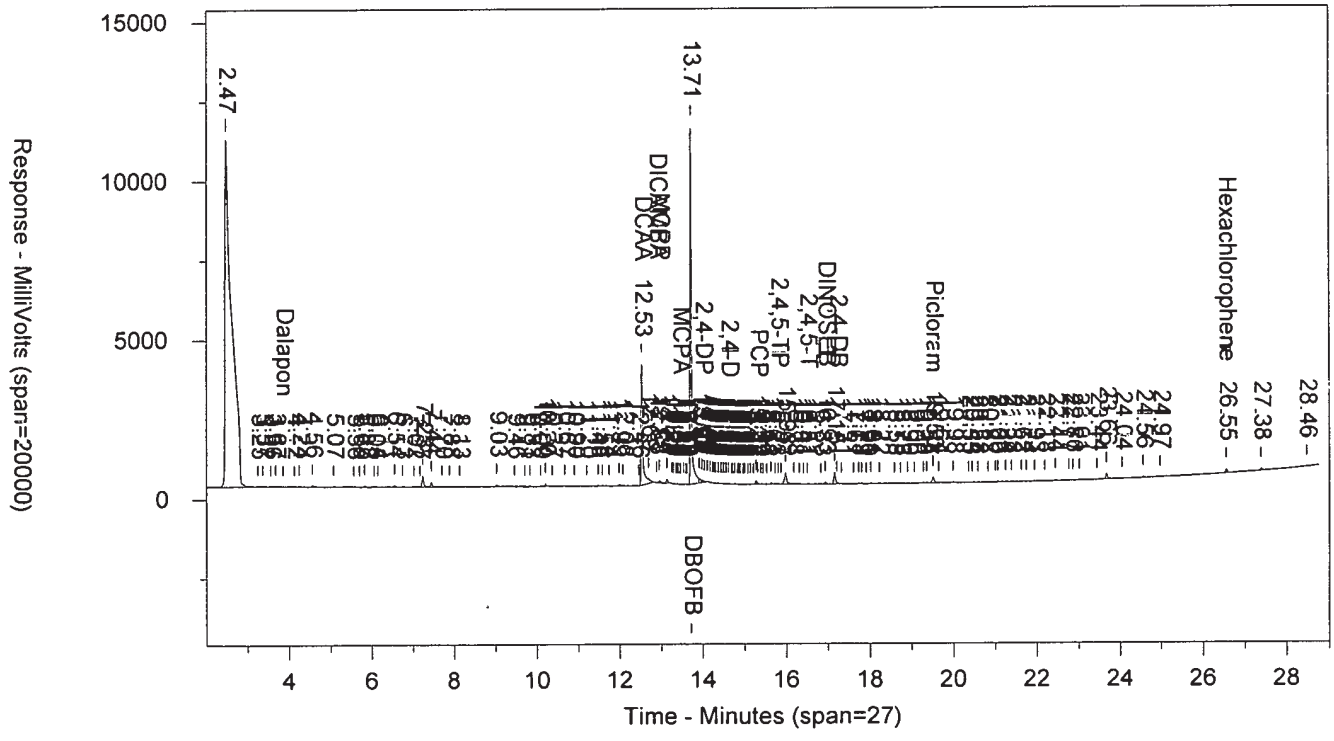

HERB31824F UNHERB3UN CCAL 1830499999 10407 SW-846 8151/

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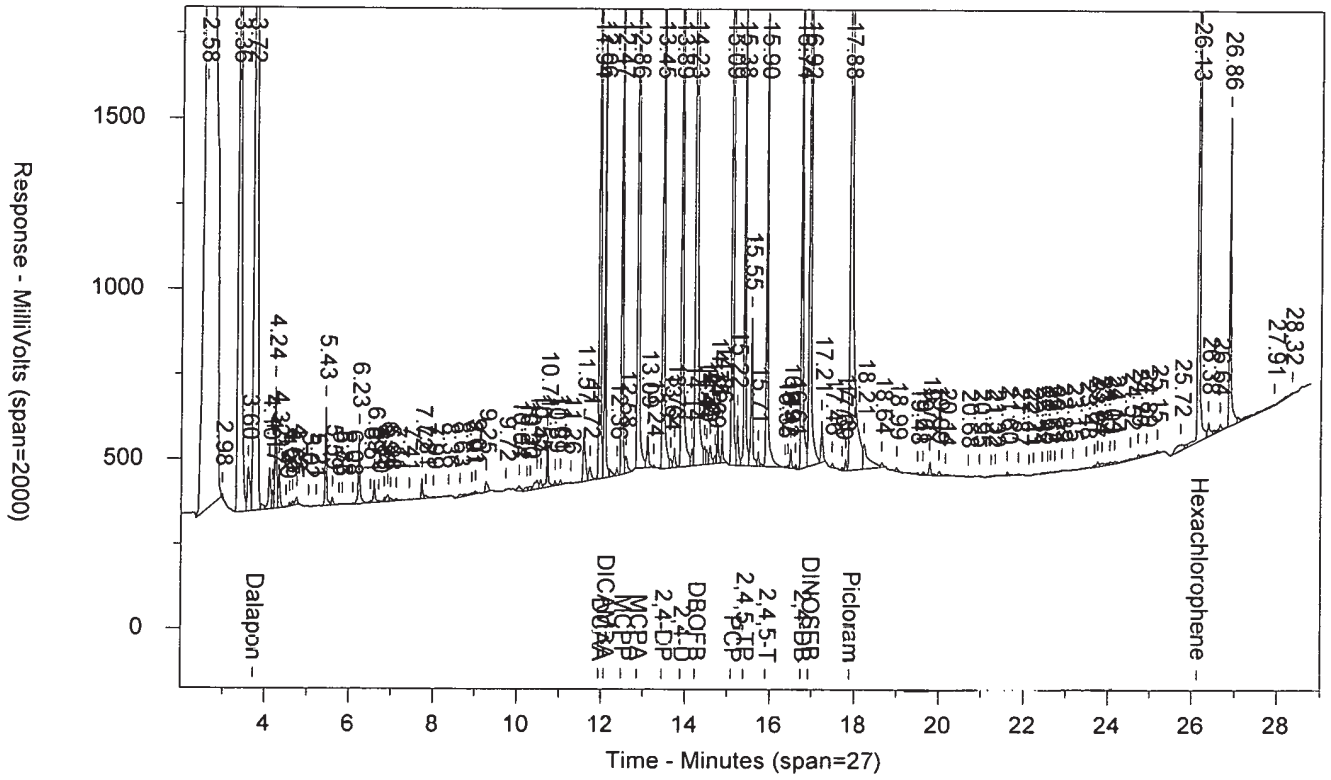

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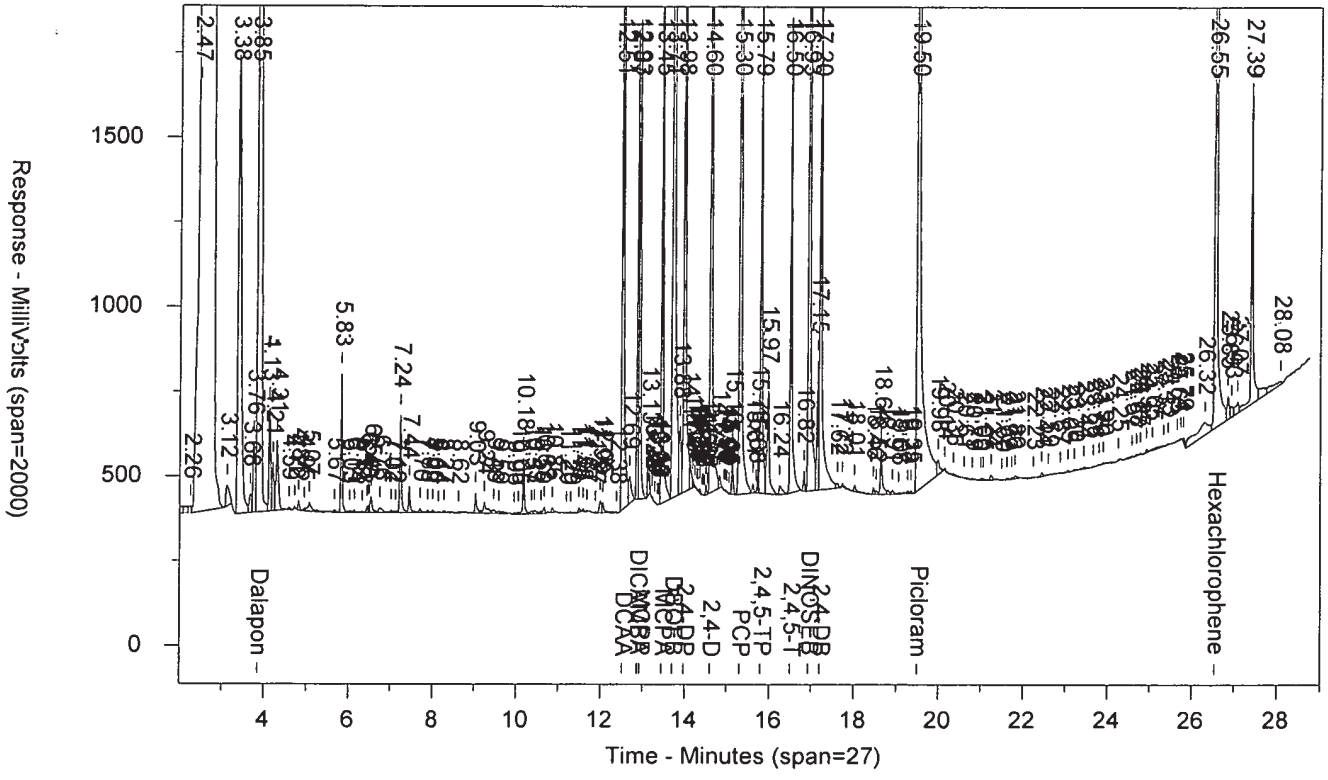

LANCASTER LABORATORIES

Sample Number: HERB31824F UNHERB3UN CCAL 1830499999 10407 SW-846 8151A
Injected On: 11/3/2018 5:20:37 AM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.723	3512621	385.701	Dalapon	3.852	5031146	384.837	Dalapon
11.938	3174090	193.481	DCAA	12.511	3281330	190.512	DCAA
12.064	1293813	19.632	DICAMBA	12.873	1388806	19.406	DICAMBA
12.474	2008748	21269.51	MCPP	12.926	1416056	19904.58	MCPP
12.857	2400549	20385.54	MCPA	13.454	1862513	19035.8	MCPA
13.449	2599249	192.004	2,4-DP	13.979	2884328	191.511	2,4-DP
14.229	12179450	1	DBOFB	13.71	12500690	1	DBOFB
13.892	2801367	173.1	2,4-D	14.604	2850240	165.207	2,4-D
15.088	4053937	19.81	PCP	15.3	4364138	19.765	PCP
15.38	1525256	19.689	2,4,5-TP	15.793	1621174	19.896	2,4,5-TP
15.905	1332689	19.49	2,4,5-T	16.498	1407254	19.548	2,4,5-T
16.737	1822788	192.143	2,4-DB	17.204	1960756	192.127	2,4-DB
16.924	3716843	104.46	DINOSEB	16.93	3859615	104.136	DINOSEB
17.885	5936882	100.141	Picloram	19.5	6351713	97.622	Picloram
26.128	3843270	59.486	Hexachlorophene	26.55	5044374	74.824	Hexachlorophen

Files:
Area File: 15herb18304002.070.RAW
Area File: 15herb18304002B.070.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 5:49:24 AM
File Reported On: 11/6/2018 at 2:00:59 PM

HERB31824F UNHERB3UN CCAL 1830499999 10407 SW-846 8

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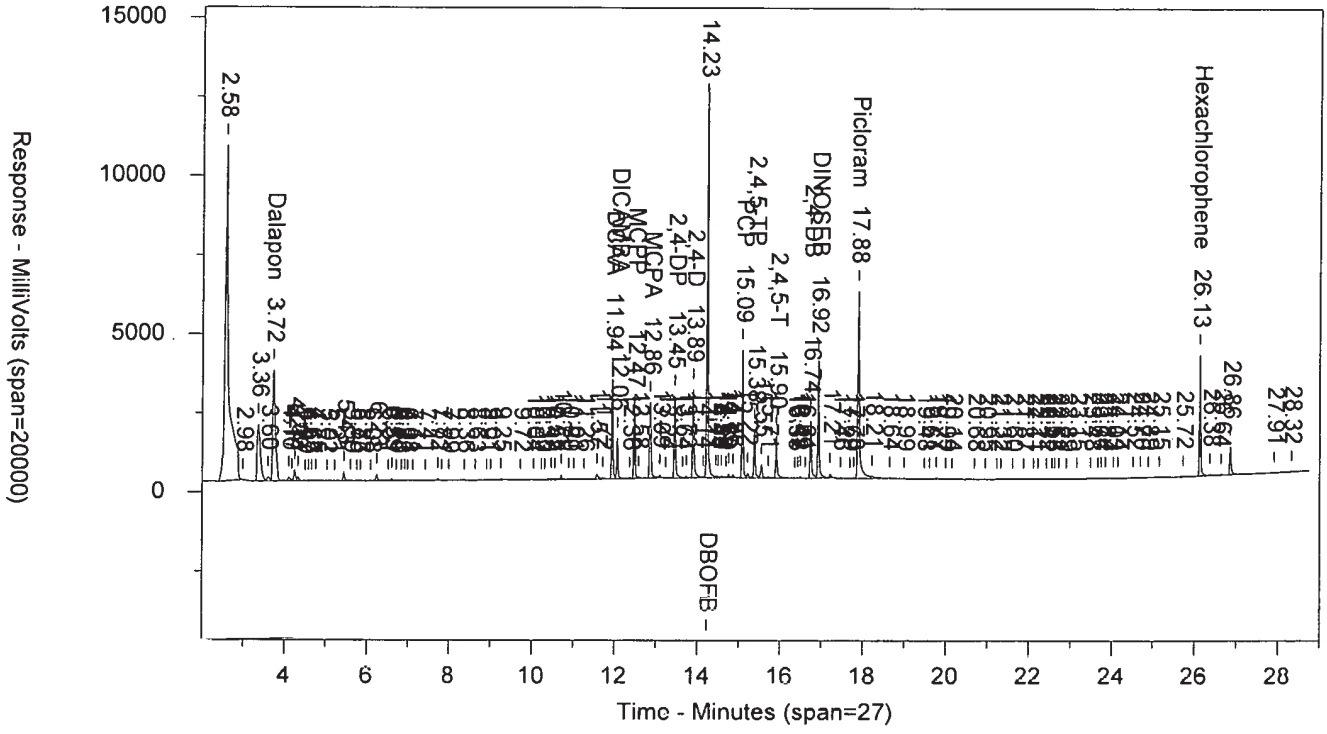

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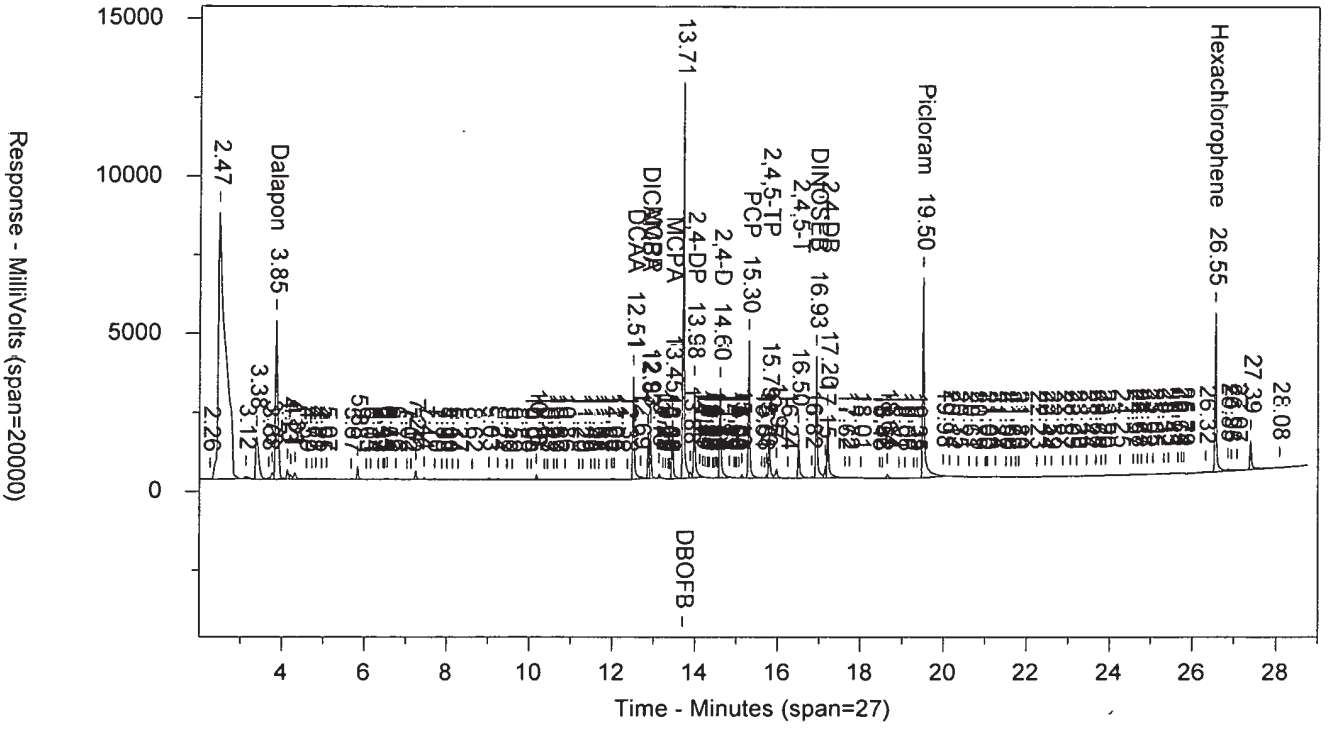

HIBLKX1824B RWHIBLKRW MISC 1830499999 10407 SW-846 8151A

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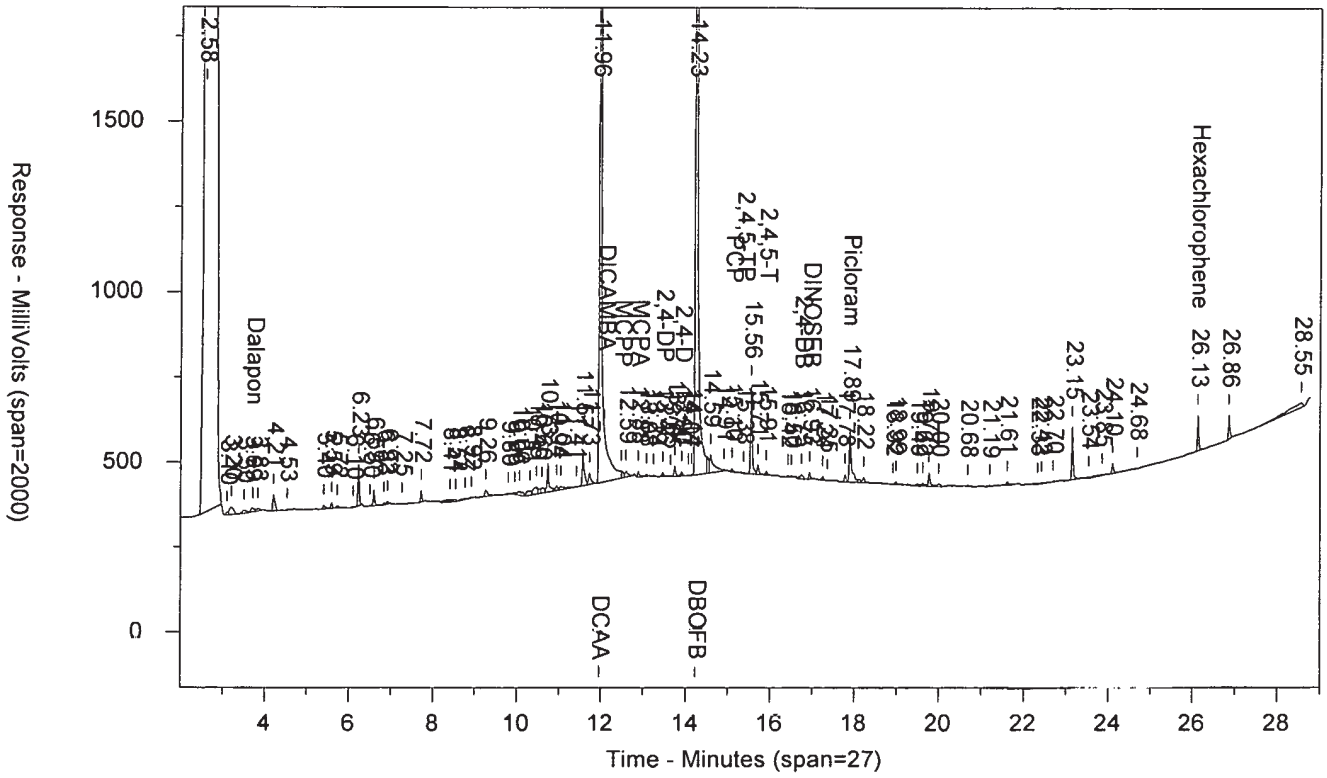

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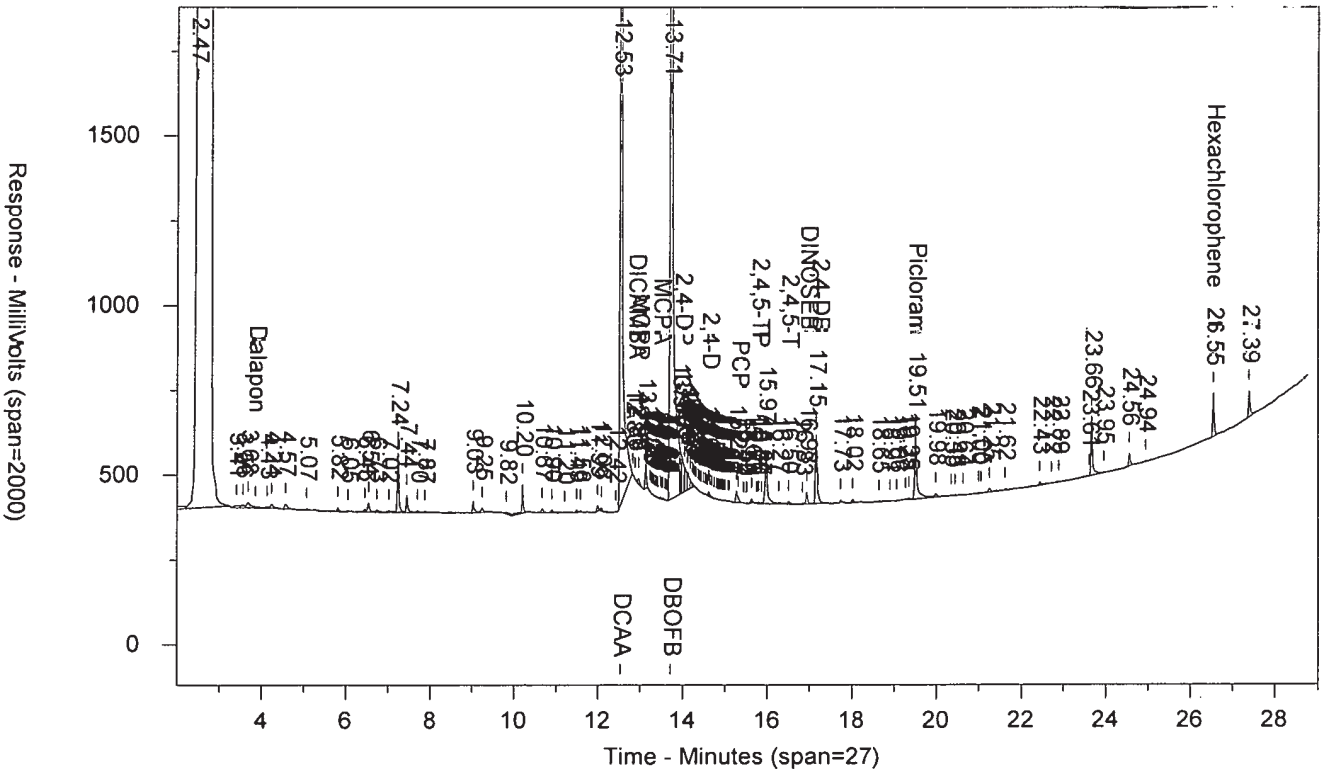

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B RWHIBLKRW MISC 1830499999 10407 SW-846 8151A
Injected On: 11/3/2018 5:53:43 AM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
11.961	3899954	2.683	DCAA	12.529	3895387	2.462	DCAA
12.881	17774	-133.231	MCPA	13.473	6443	.717	MCPA
	0		DICAMBA	12.883	3868	.001	DICAMBA
	0		MCPP	12.962	17285	2.645	MCPP
13.457	12986	.011	2,4-DP	13.978	111583	.081	2,4-DP
14.229	10792380	.001	DBOFB	13.711	11484980	.001	DBOFB
13.901	13430	.009	2,4-D	14.61	14854	.009	2,4-D
15.095	9252	.001	PCP		0		PCP
15.381	5091	.001	2,4,5-TP	15.797	5558	.001	2,4,5-TP
15.909	12656	.002	2,4,5-T	16.503	8816	.001	2,4,5-T
16.746	13972	.017	2,4-DB		0		2,4-DB
16.933	21692	.007	DINOSEB	16.934	36956	.011	DINOSEB
17.894	154863	.029	Picloram	19.506	182575	.031	Picloram
26.132	105956	.019	Hexachlorophene	26.553	129533	.021	Hexachloropher

Files:
Area File: 15herb18304002.071.RAW
Area File: 15herb18304002B.071.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/3/2018 6:22:30 AM
File Reported On: 11/6/2018 at 2:01:17 PM

HIBLKX1824B RWHIBLKRW MISC 1830499999 10407 SW-846 81

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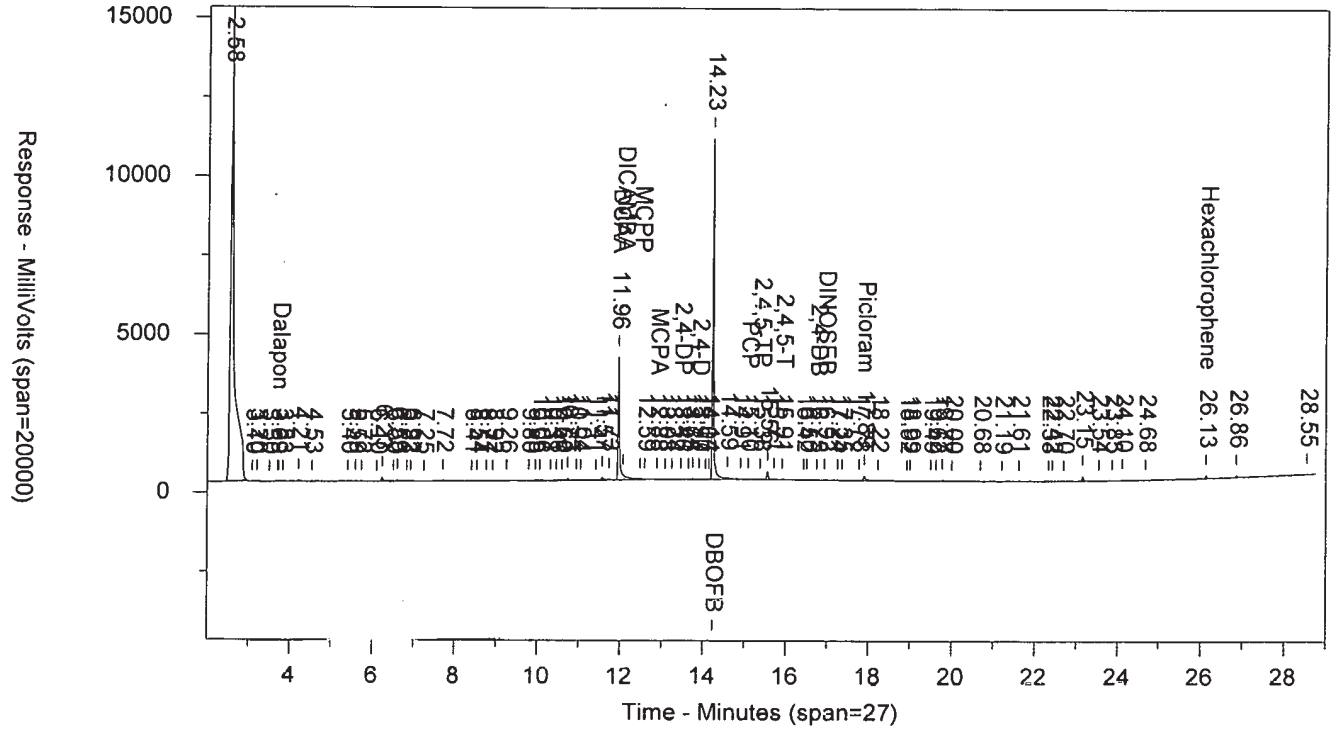

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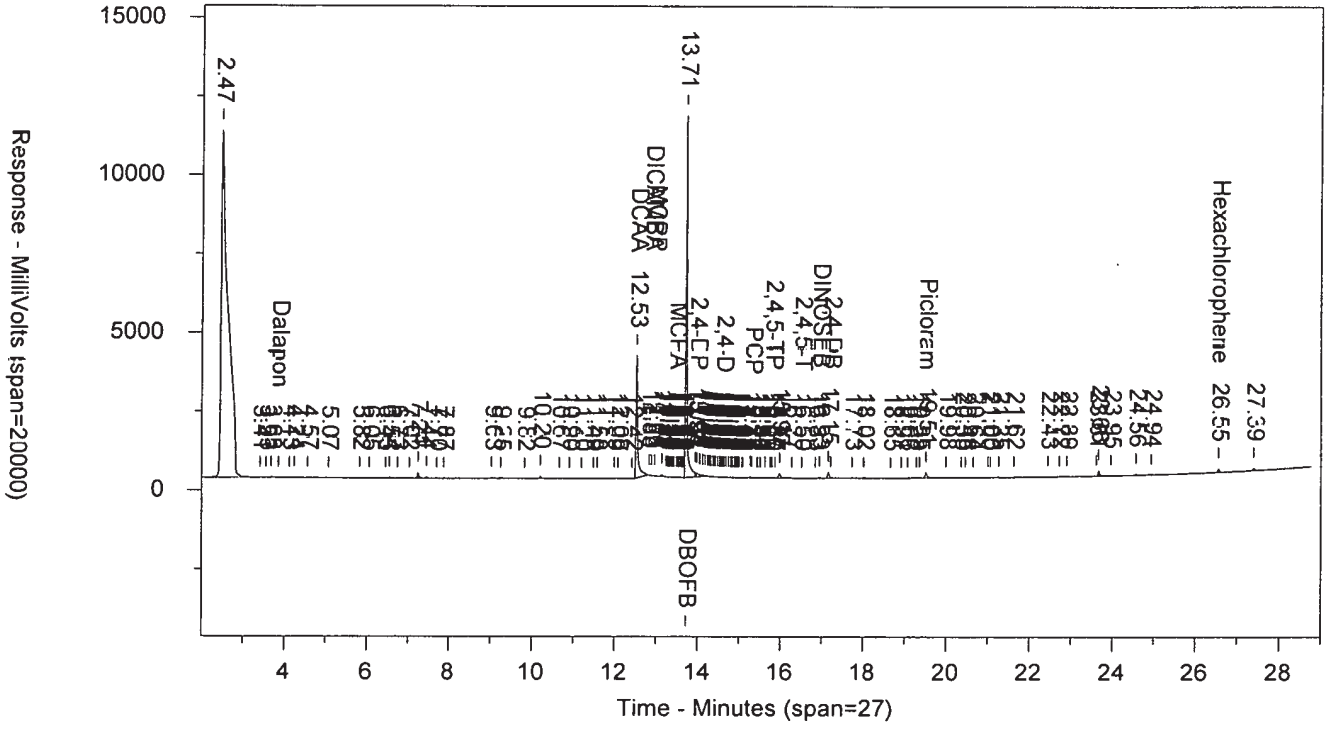

HERB31824F VKHERB3VK CCAL 1831099999 10407 SW-846 8151A

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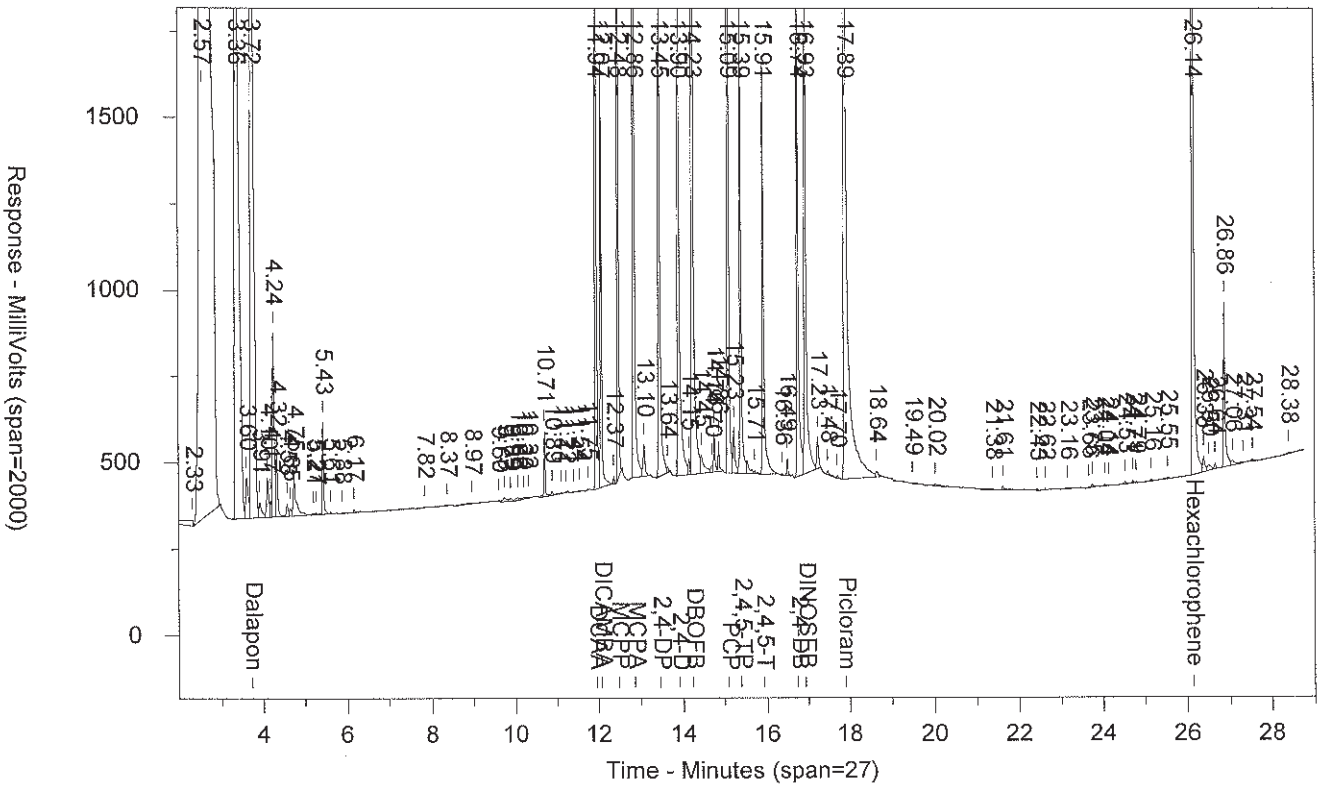

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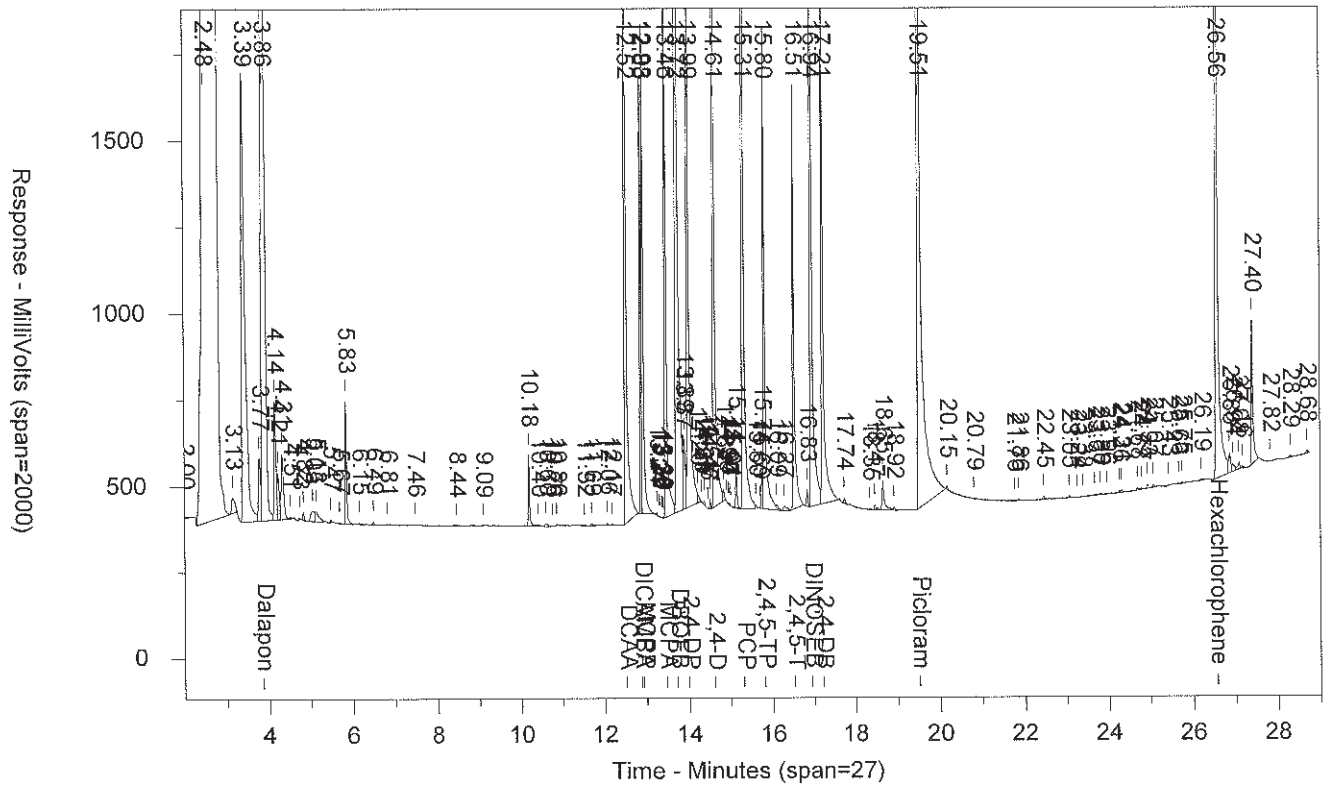


LANCASTER LABORATORIES

Sample Number: HERB31824F VKHERB3VK CCAL 1831099999 10407 SW-846 8151A
Injected On: 11/9/2018 1:18:35 AM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

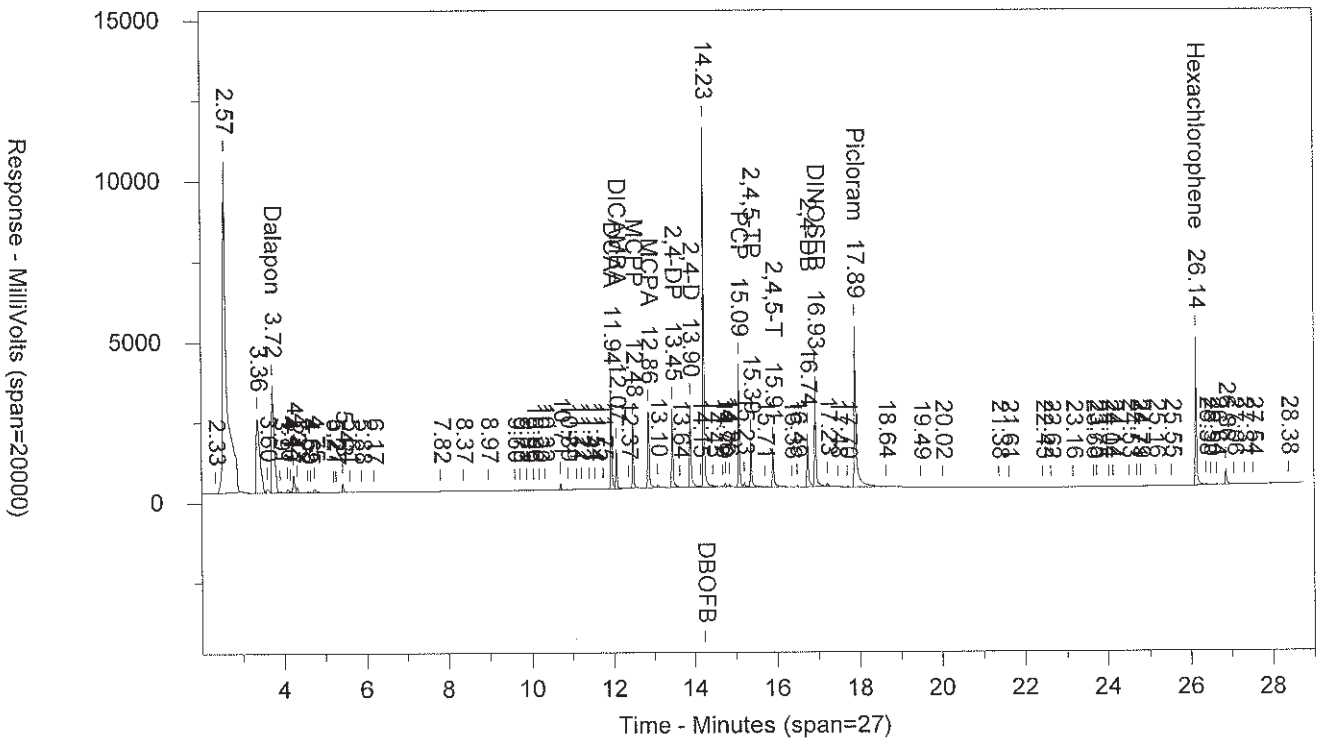
Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.723	3350788	400.284	Dalapon	3.855	4685591	408.427	Dalapon
11.944	3008286	199.498	DCAA	12.519	3000850	198.545	DCAA
12.07	1235403	20.394	DICAMBA	12.88	1269879	20.221	DICAMBA
12.479	1962199	23408.64	MCPP	12.934	1418355	22719.48	MCPP
12.862	2367299	22862.37	MCPA	13.46	1874538	21832.68	MCPA
13.455	2455537	197.338	2,4-DP	13.988	2656745	201.02	2,4-DP
14.233	11195040	1	DBOFB	13.718	10969660	1	DBOFB
13.898	2587156	173.921	2,4-D	14.612	2611952	172.526	2,4-D
15.093	3828306	20.352	PCP	15.308	3822195	19.727	PCP
15.386	1423216	19.987	2,4,5-TP	15.803	1394916	19.509	2,4,5-TP
15.909	1184946	18.853	2,4,5-T	16.507	1223710	19.371	2,4,5-T
16.742	1660845	190.467	2,4-DB	17.213	1669328	186.401	2,4-DB
16.929	3422088	104.633	DINOSEB	16.939	3259702	100.225	DINOSEB
17.893	5019812	92.118	Picloram	19.51	5367854	94.015	Picloram
26.135	4632438	78.006	Hexachlorophene	26.559	4868437	82.293	Hexachlorophen

Files:
Area File: 15herb18304004.114.RAW
Area File: 15herb18304004B.114.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/9/2018 1:47:22 AM
File Reported On: 11/9/2018 at 3:18:50 PM

HERB31824F VKHERB3VK CCAL 1831099999 10407 SW-846 81

\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP15\15herb18304004.114.RAW



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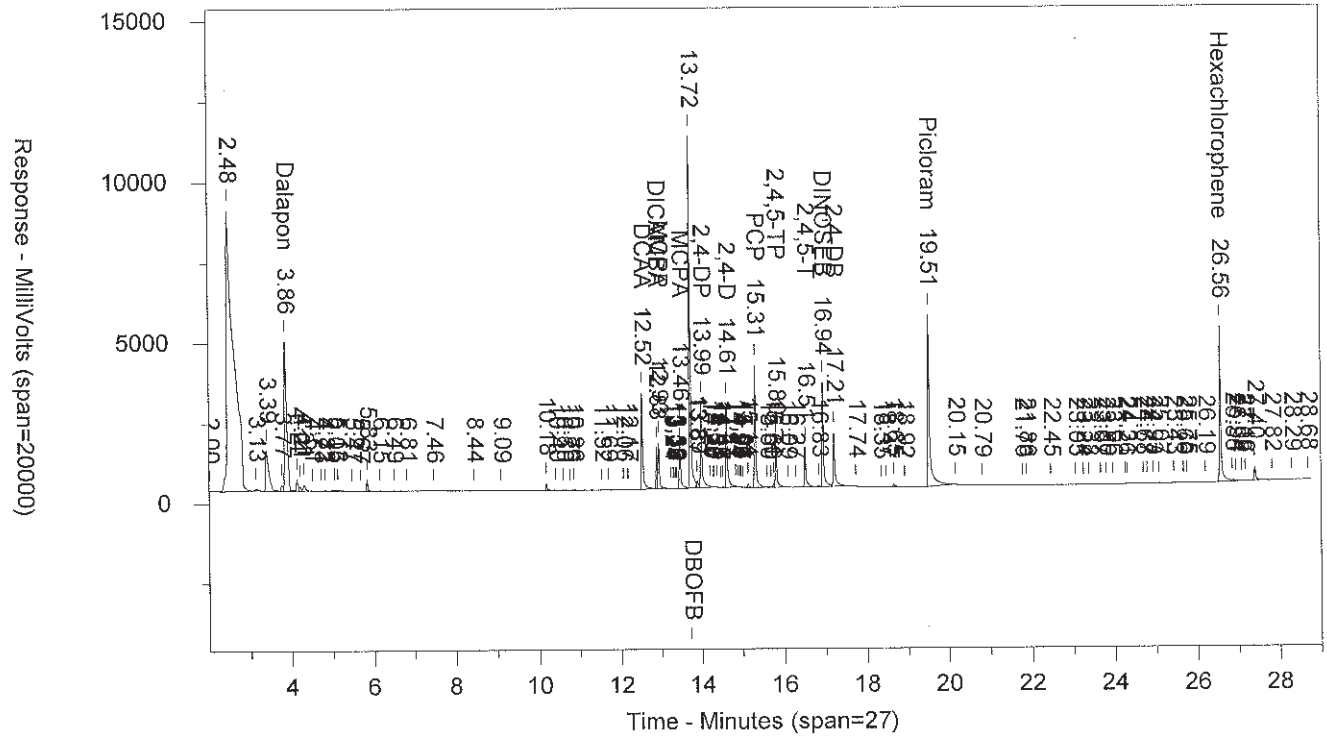

HIBLKX1824B STHIBLKST MISC 1831099999 10407 SW-846 8151A

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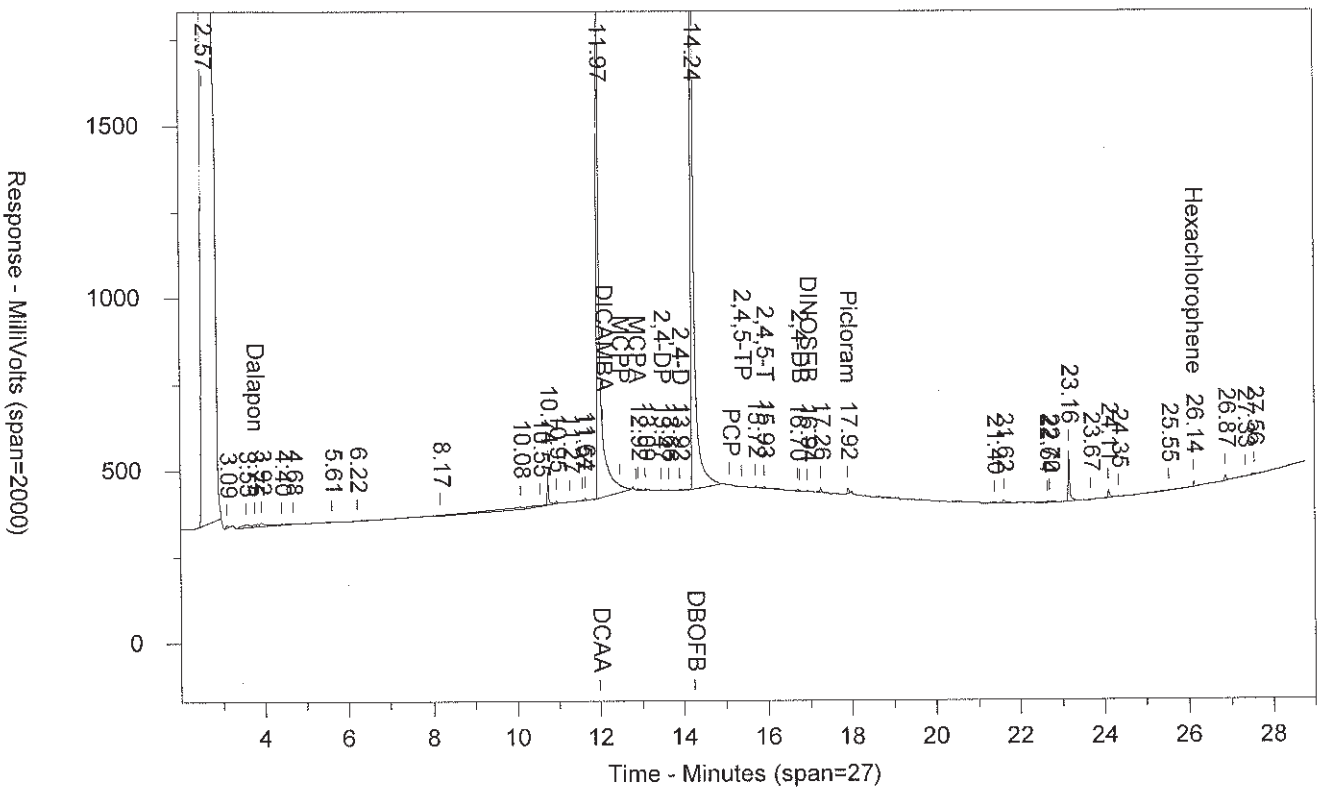

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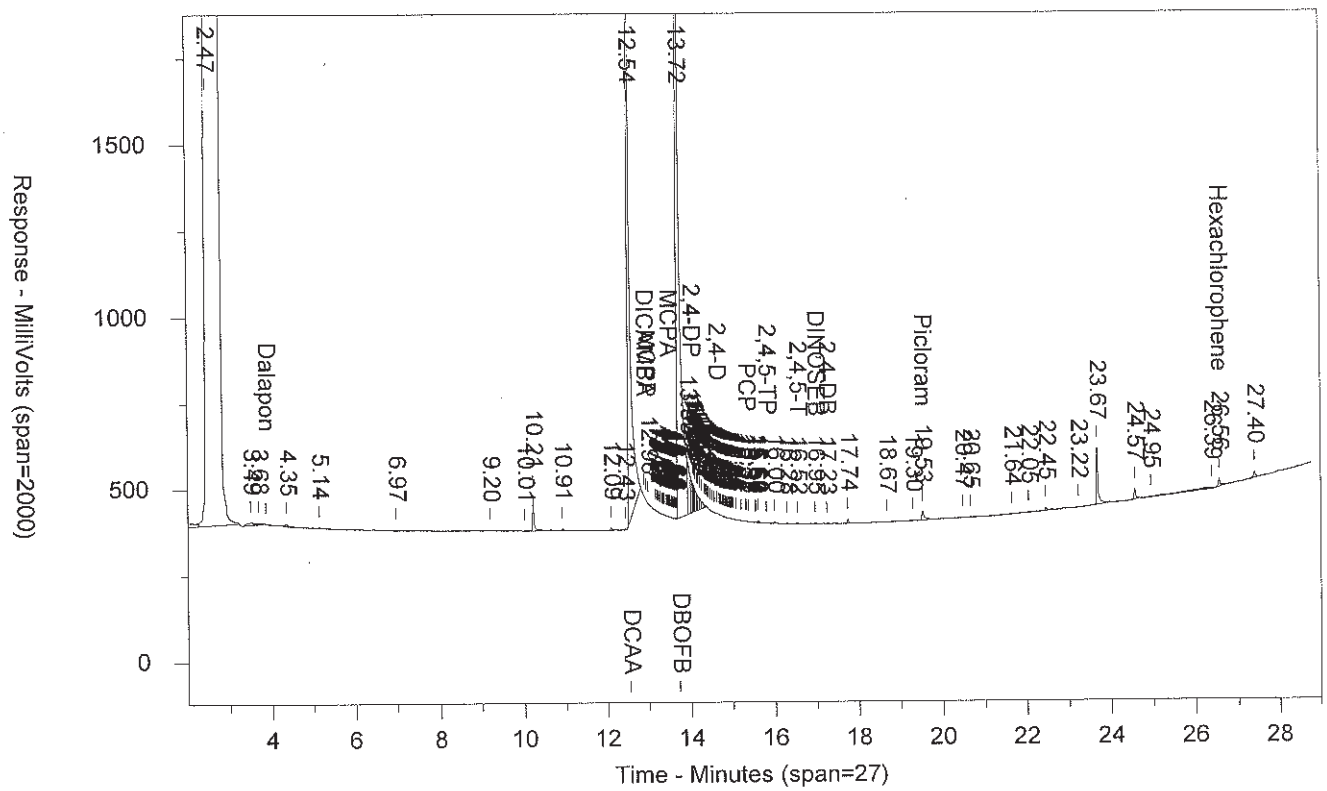

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B STHIBLKST MISC 1831099999 10407 SW-846 8151A
Injected On: 11/9/2018 1:51:31 AM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.753	9129	.012	Dalapon		0		Dalapon
11.969	3614054	2.631	DCAA	12.538	3535416	2.489	DCAA
	0		MCPA	13.46	985	.122	MCPA
13.474	2672	.002	2,4-DP	14	108274	.087	2,4-DP
14.237	10199480	.001	DBOFB	13.72	10309700	.001	DBOFB
13.918	3378	.002	2,4-D	14.622	2657	.002	2,4-D
	0		PCP	15.308	2295		PCP
15.926	6448	.001	2,4,5-T	16.522	3625	.001	2,4,5-T
16.941	4046	.001	DINOSEB	16.95	3219	.001	DINOSEB
	0		2,4-DB	17.233	2354	.003	2,4-DB
17.917	16618	.003	Picloram	19.528	26172	.005	Picloram
26.136	16438	.003	Hexachlorophene	26.562	23596	.004	Hexachloropher

Files:
Area File: 15herb18304004.115.RAW
Area File: 15herb18304004B.115.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/9/2018 2:20:18 AM
File Reported On: 11/9/2018 at 3:05:05 PM

HIBLKX1824B STHIBLKST MISC 1831099999 10407 SW-846 815

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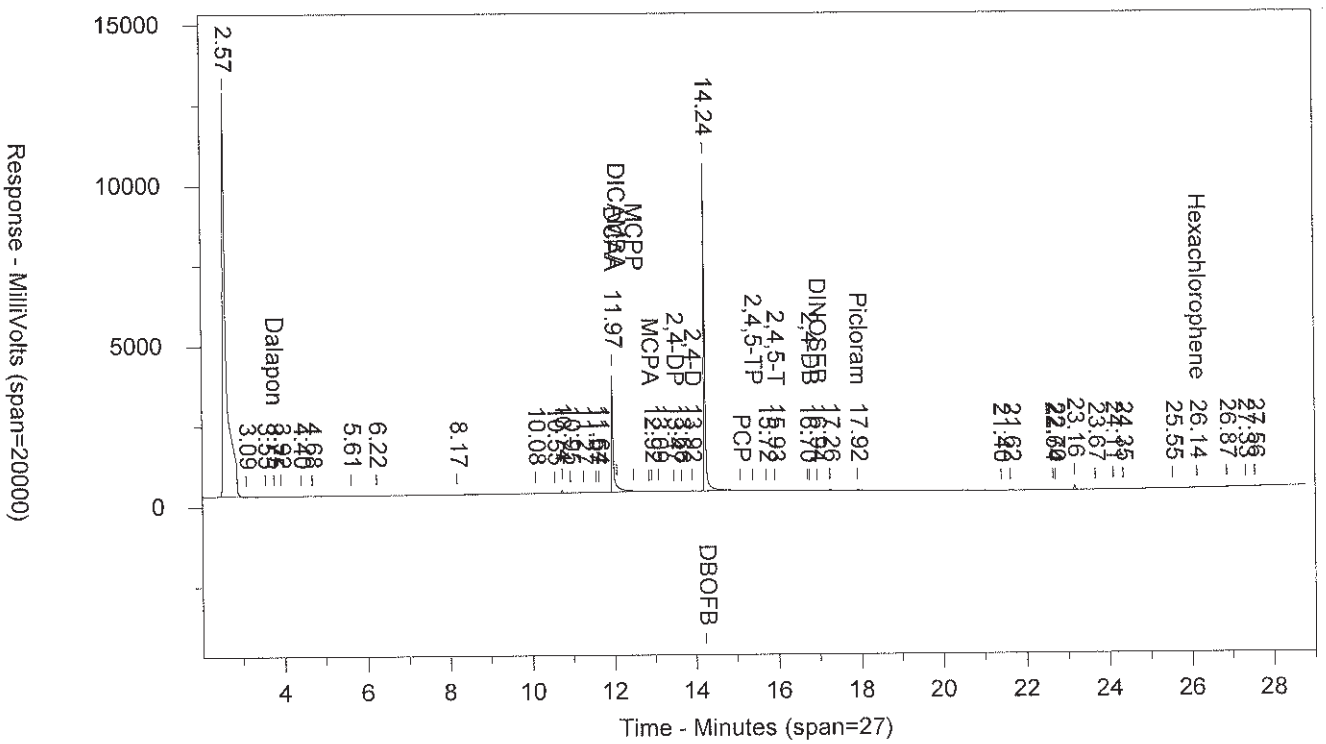

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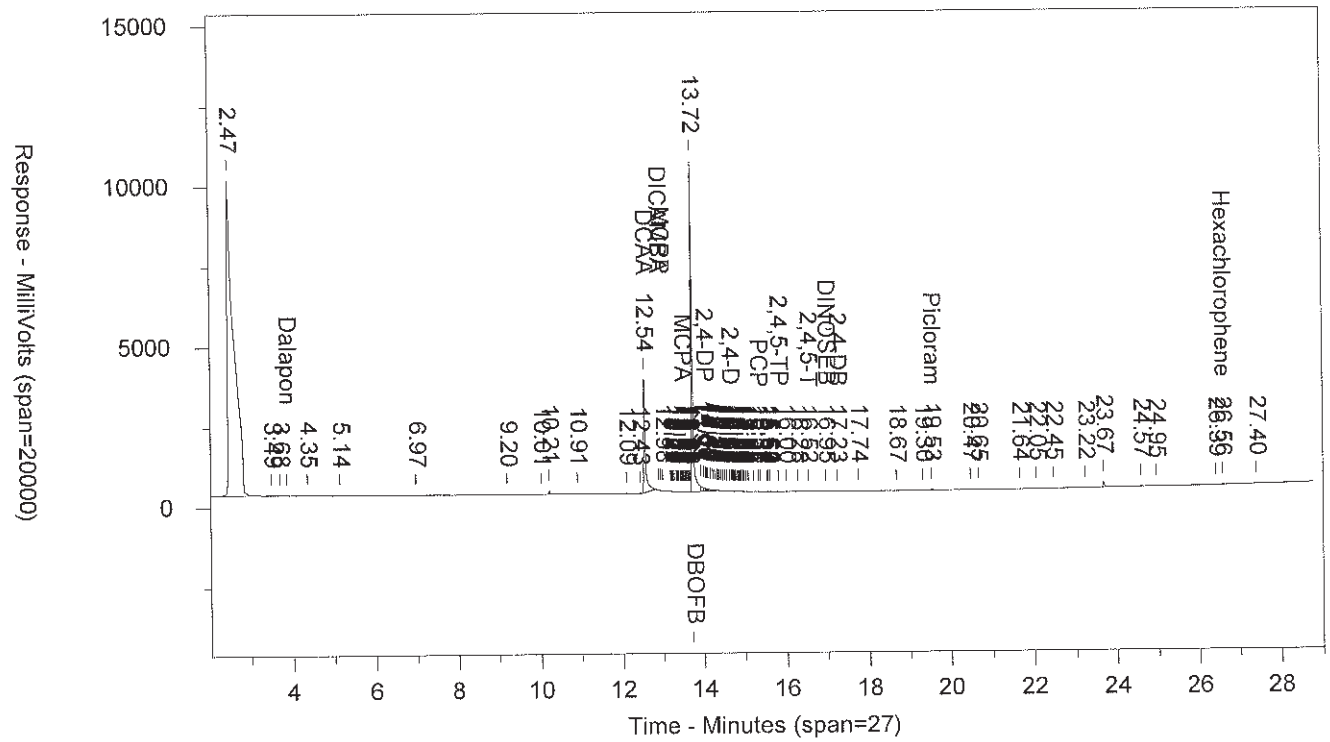

HERB31824F VTHERB3VT CCAL 1831199999 10407 SW-846 8151A

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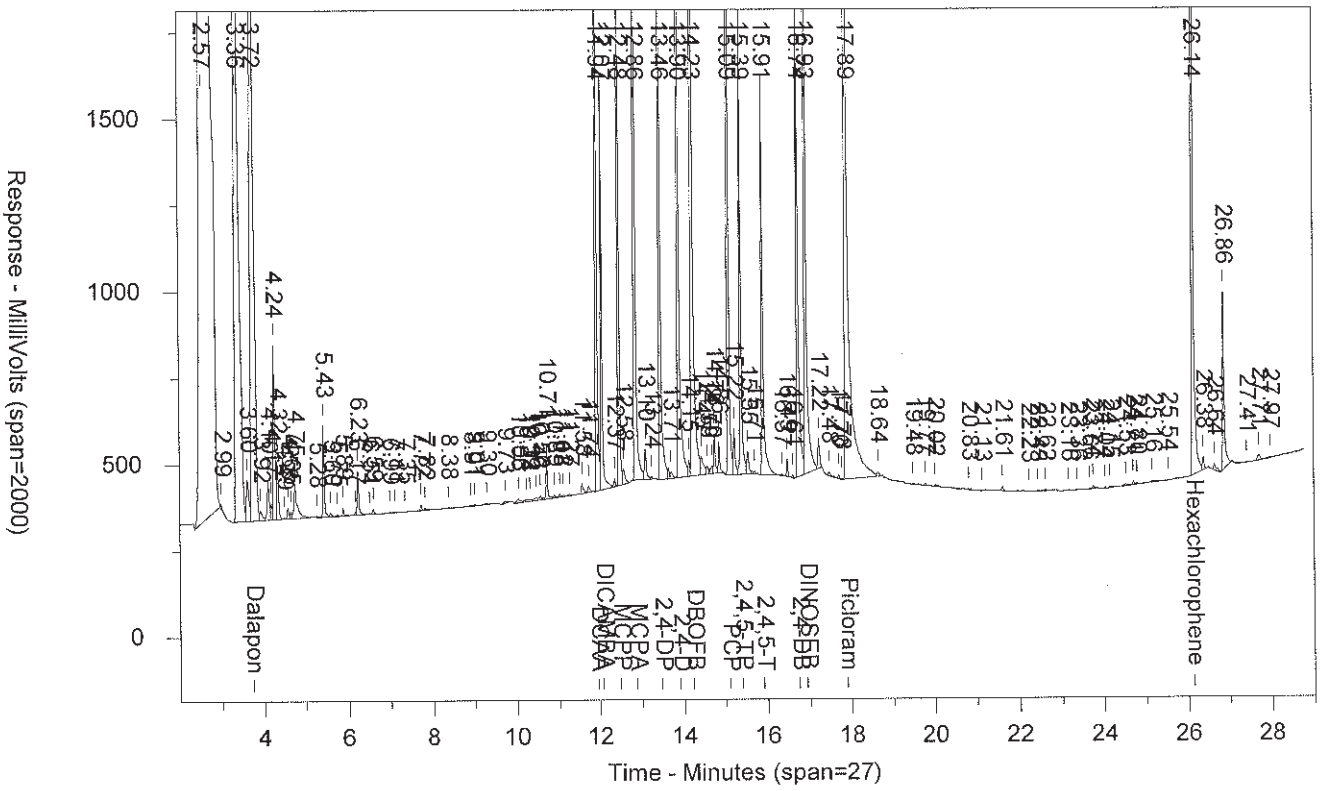

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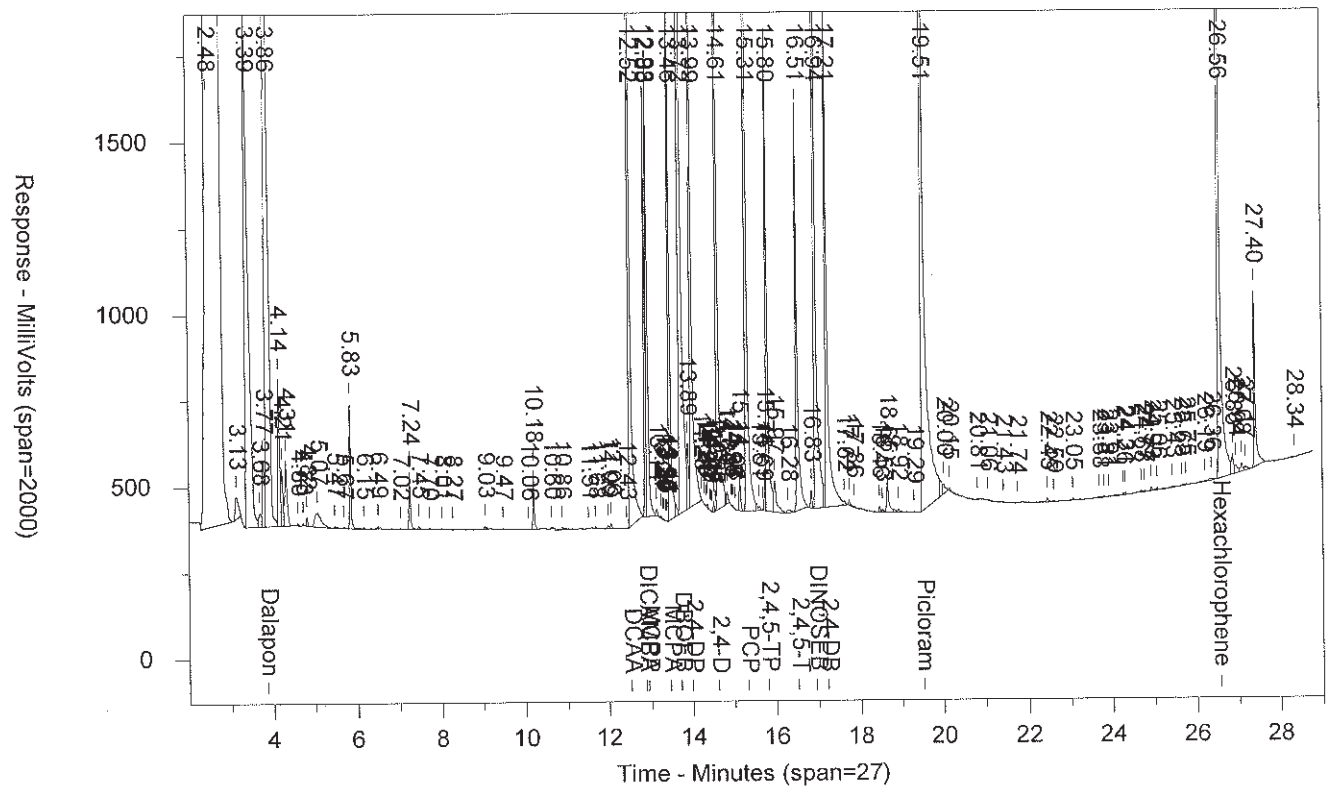

LANCASTER LABORATORIES

Sample Number: HERB31824F VTHERB3VT CCAL 1831199999 10407 SW-846 8151A
Injected On: 11/9/2018 6:16:05 AM Sample Weight: 1
Instrument ID: CP15-19850 Dilution Factor: 1
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.725	3330424	397.812	Dalapon	3.857	4708827	409.907	Dalapon
11.944	2936608	194.726	DCAA	12.519	2976847	196.694	DCAA
12.07	1208197	19.943	DICAMBA	12.88	1250012	19.878	DICAMBA
12.478	1938698	22970.97	MCPP	12.934	1353847	21657.32	MCPP
12.862	2309111	21962.41	MCPA	13.46	1752173	20380.34	MCPA
13.455	2440796	196.134	2,4-DP	13.988	2577184	194.741	2,4-DP
14.234	11196150	1	DBOFB	13.718	10984270	1	DBOFB
13.898	2537724	170.581	2,4-D	14.613	2518098	166.105	2,4-D
15.093	3793251	20.164	PCP	15.31	3859059	19.891	PCP
15.386	1366398	19.187	2,4,5-TP	15.804	1400600	19.562	2,4,5-TP
15.91	1161574	18.479	2,4,5-T	16.507	1186031	18.749	2,4,5-T
16.743	1603056	183.821	2,4-DB	17.214	1658781	184.976	2,4-DB
16.93	3389573	103.628	DINOSEB	16.939	3413417	104.811	DINOSEB
17.893	4950030	90.828	Picloram	19.51	5292573	92.573	Picloram
26.136	4792471	80.692	Hexachlorophene	26.559	4708869	79.49	Hexachlorophen

Files:
Area File: 15herb18304004.123.RAW
Area File: 15herb18304004B.123.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/9/2018 6:44:54 AM
File Reported On: 11/9/2018 at 3:08:38 PM

HERB31824F VTHERB3VT CCAL 1831199999 10407 SW-846 81

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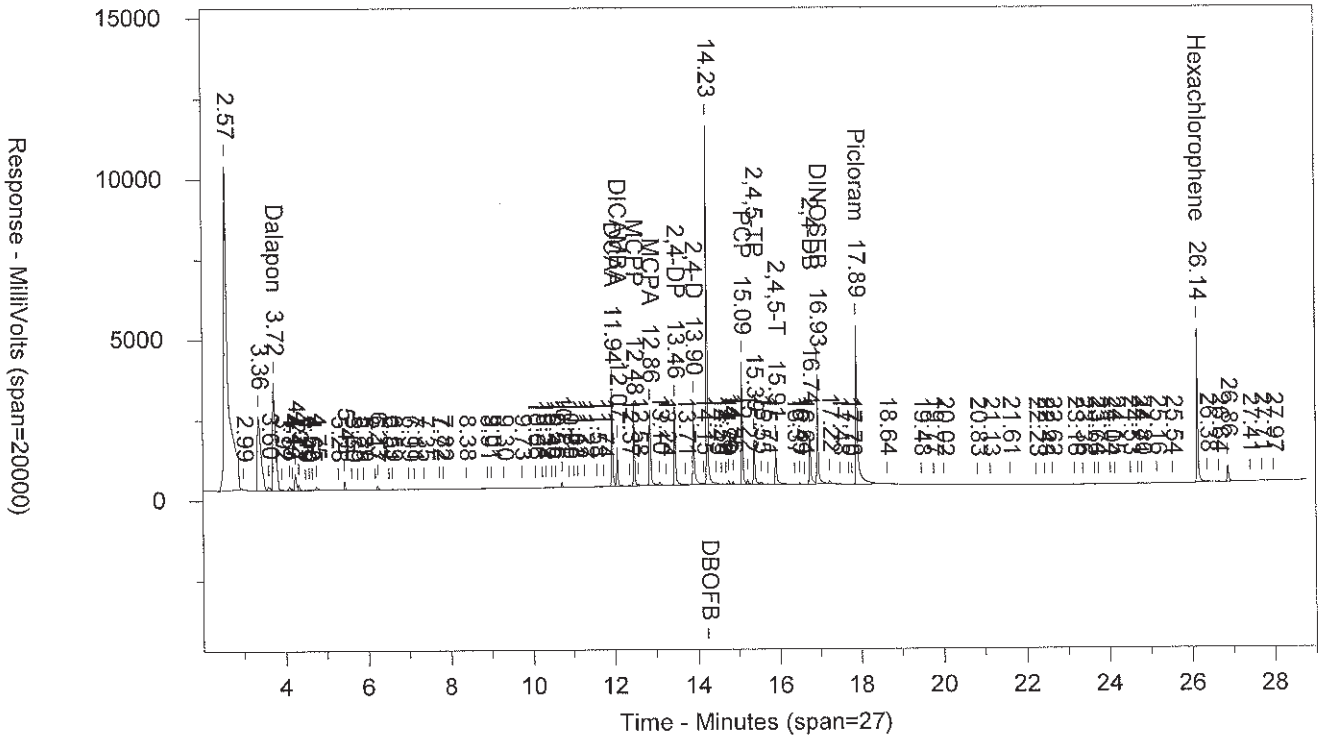

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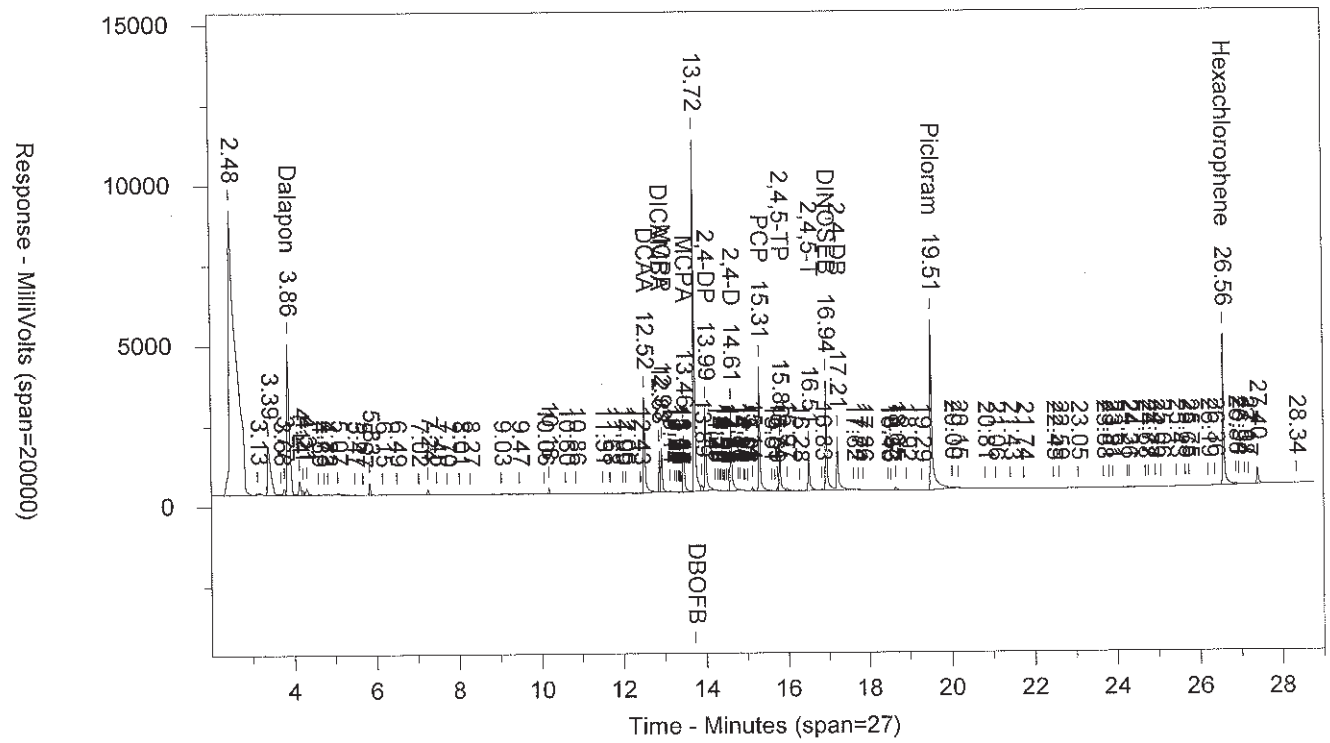

HIBLKX1824B TCHIBLKTC MISC 1831199999 10407 SW-846 8151A

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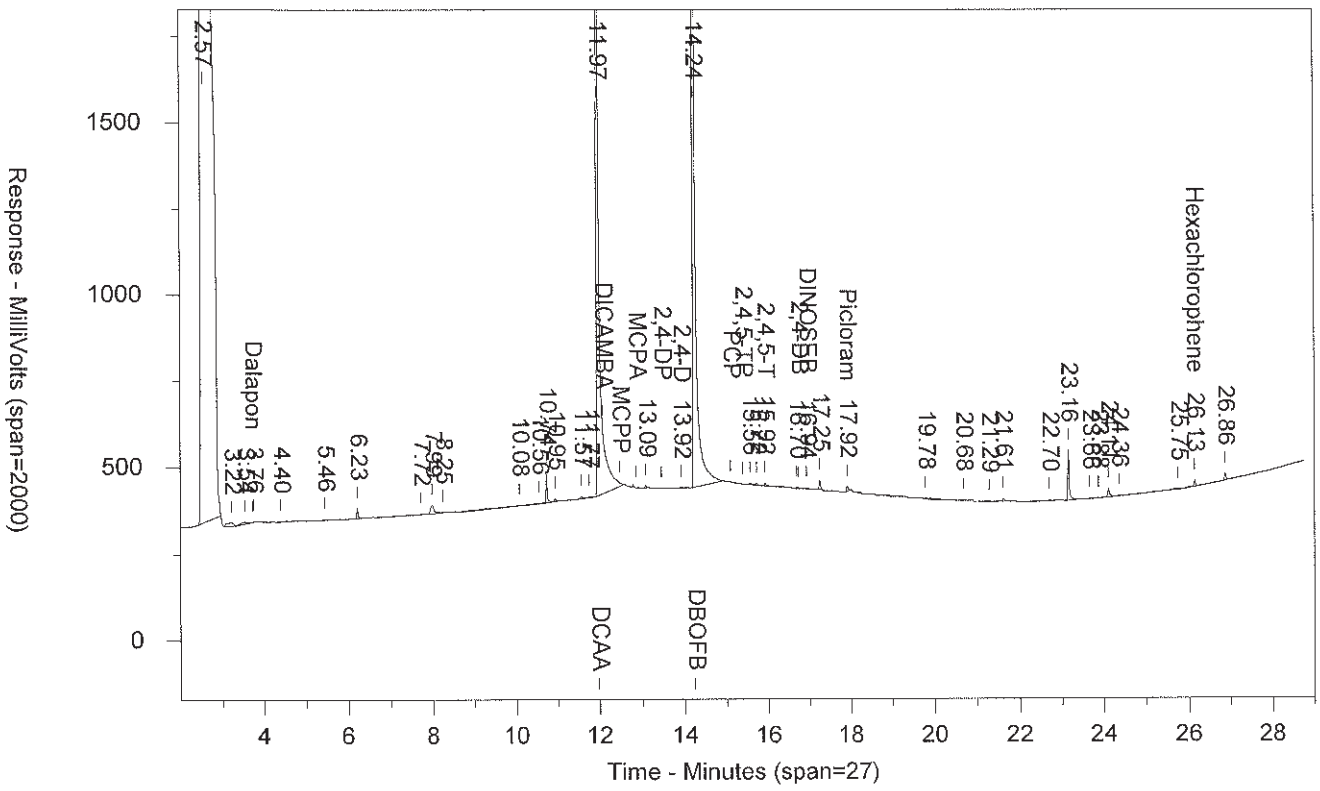

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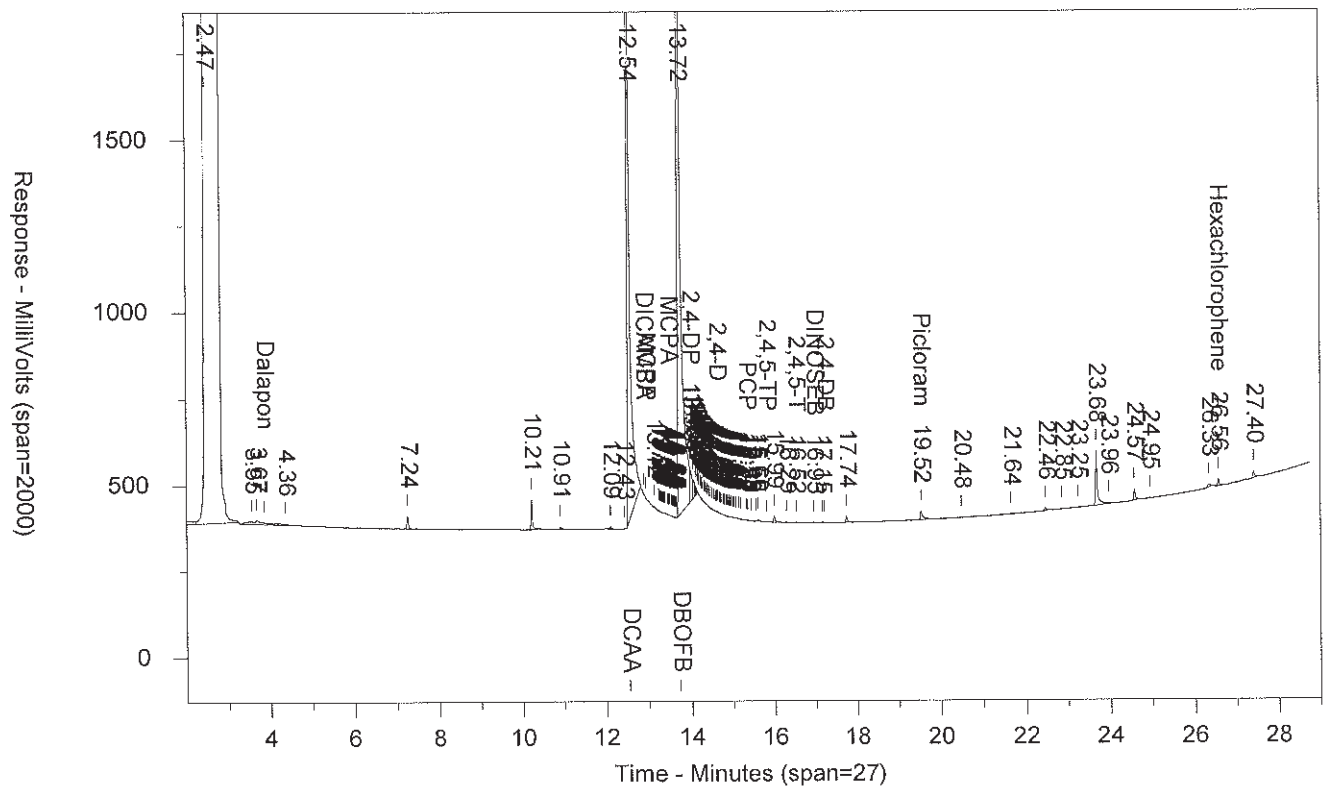

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B TCHIBLKTC MISC 1831199999 10407 SW-846 8151A
Injected On: 11/9/2018 6:49:10 AM Sample Weight: 1000
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
11.969	3584267	2.558	DCAA	12.538	3445929	2.38	DCAA
	0		MCPA	13.458	964	.117	MCPA
14.235	10402220	.001	DBOFB	13.72	10507460	.001	DBOFB
13.92	2825	.002	2,4-D	14.608	2526	.002	2,4-D
	0		2,4-DP	13.977	94350	.075	2,4-DP
	0		PCP	15.311	1521		PCP
15.921	7598	.001	2,4,5-T	16.518	2603		2,4,5-T
16.936	4469	.001	DINOSEB	16.95	3058	.001	DINOSEB
17.917	15652	.003	Picloram	19.524	25741	.005	Picloram
26.134	18063	.003	Hexachlorophene	26.56	20047	.004	Hexachlorophen

Files:
Area File: 15herb18304004.124.RAW
Area File: 15herb18304004B.124.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/9/2018 7:17:57 AM
File Reported On: 11/9/2018 at 3:08:54 PM

HIBLKX1824B TCHIBLKTC MISC 1831199999 10407 SW-846 815

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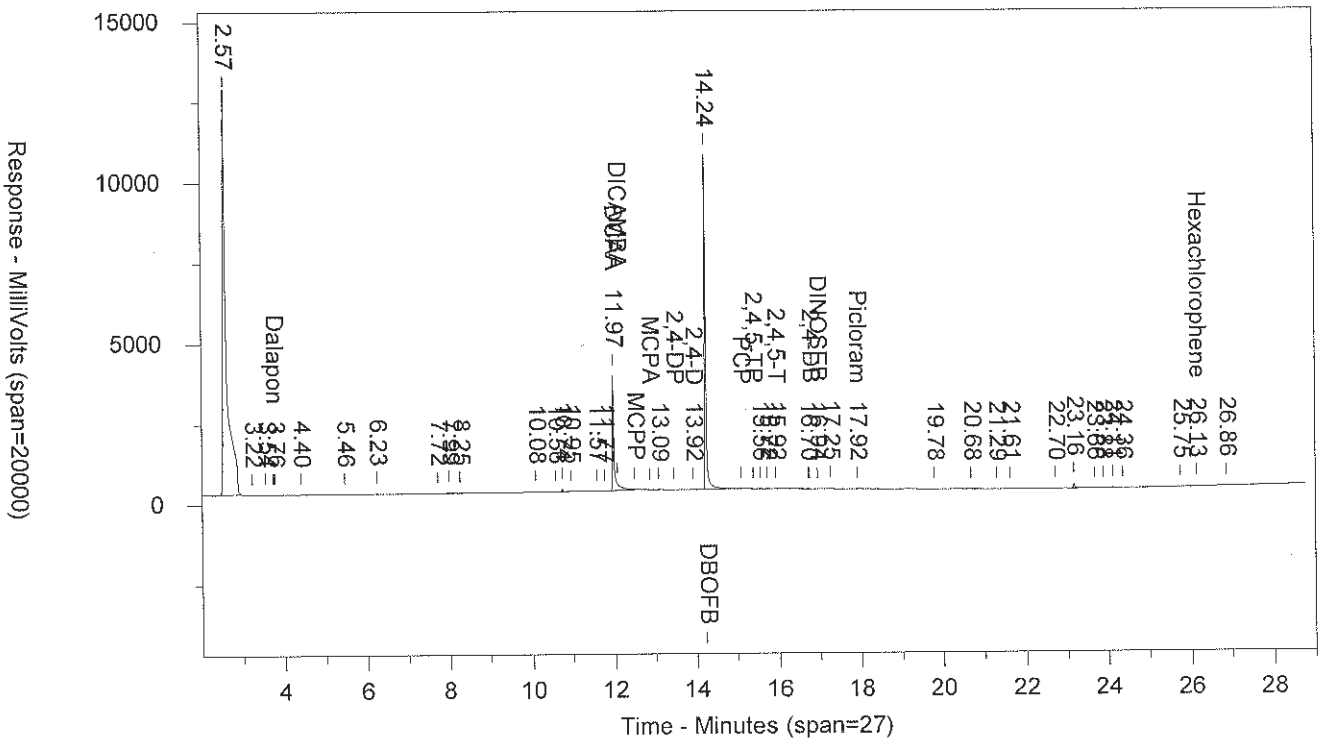

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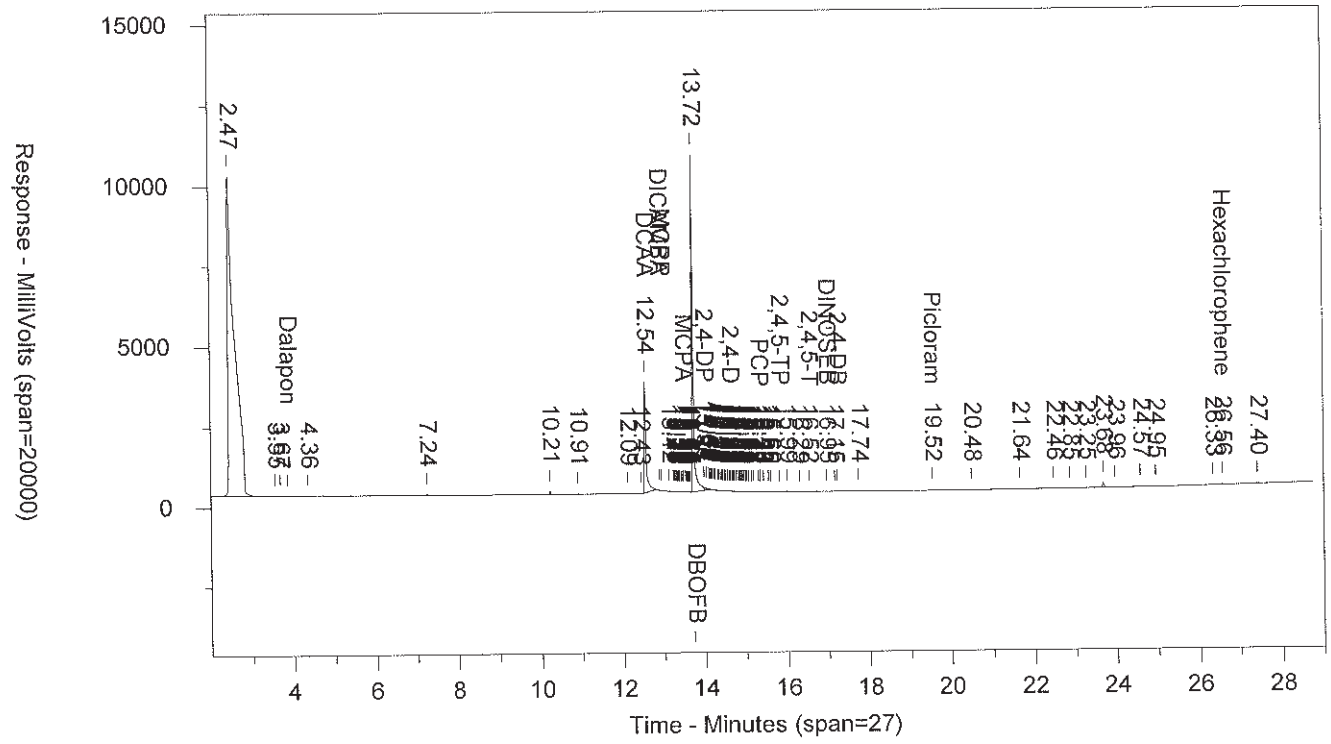

HERB31824F WTHERB3WT CCAL 1831899999 10407 SW-846 8151

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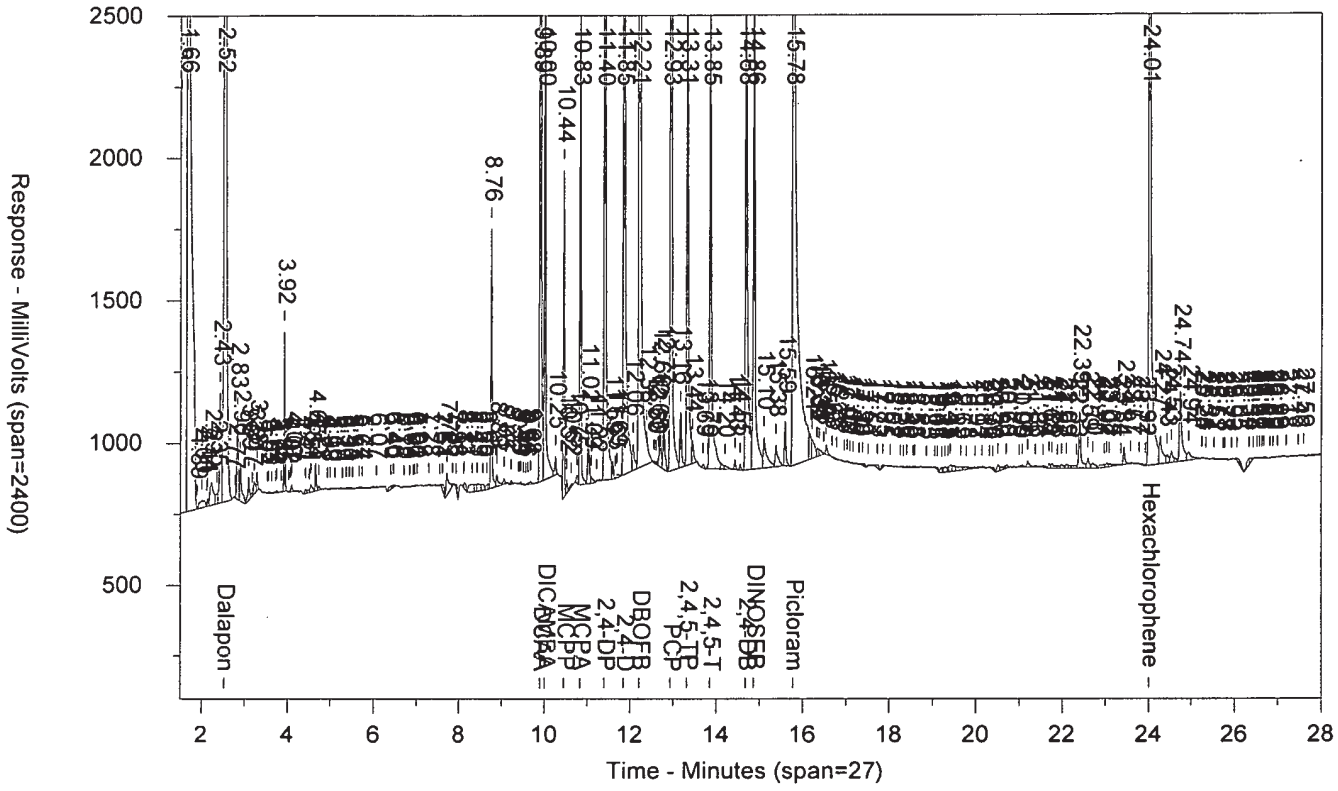

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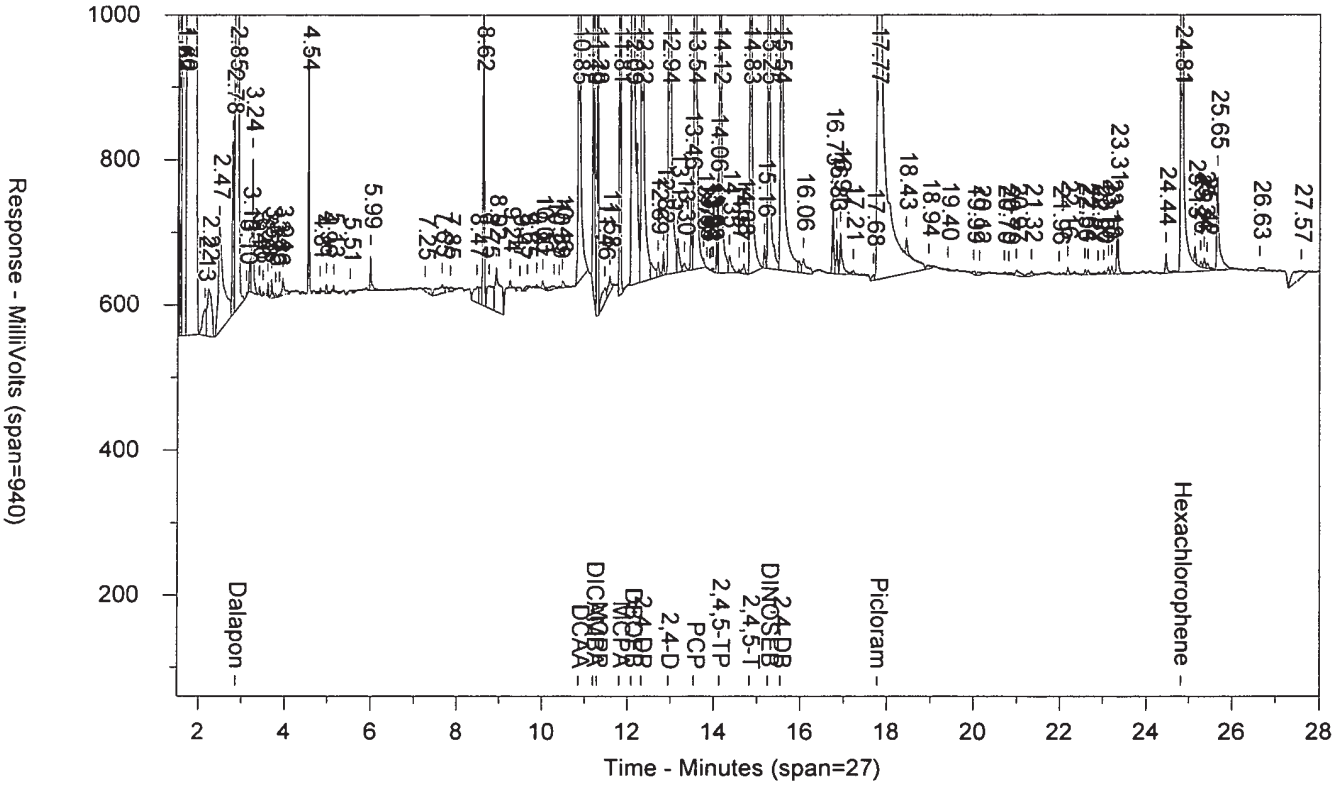

LANCASTER LABORATORIES

Sample Number: HERB31824F WTHERB3WT CCAL 1831899999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/16/2018 2:10:31 AM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.524	7828320	410.559	Dalapon	2.855	5446554	393.007	Dalapon
9.893	4285500	207.178	DCAA	10.847	2981174	205.129	DCAA
10	2074637	20.892	DICAMBA	11.191	1349910	20.668	DICAMBA
10.445	1150886	21780.17	MCPP	11.283	944342	21572.39	MCPP
10.828	1657182	21436.41	MCPA	11.807	1372887	21304.61	MCPA
11.397	3630495	211.699	2,4-DP	12.317	2586038	201.956	2,4-DP
11.845	3505903	180.021	2,4-D	12.943	2465182	174.667	2,4-D
12.206	13593230	1	DBOFB	12.087	9937885	1	DBOFB
12.933	5704068	20.385	PCP	13.537	3790503	20.093	PCP
13.314	2130312	20.904	2,4,5-TP	14.122	1478227	21.21	2,4,5-TP
13.845	1744235	20.545	2,4,5-T	14.828	1180439	20.339	2,4,5-T
14.676	2236124	205.227	2,4-DB	15.538	1465423	196.803	2,4-DB
14.862	1929335	112.224	DINOSEB	15.249	1463460	108.095	DINOSEB
15.777	5128493	92.801	Picloram	17.774	4059619	91.078	Picloram
24.005	5367334	76.436	Hexachlorophene	24.808	3362105	76.107	Hexachlorophen

Files:
Area File: 24herb18311005.029.RAW
Area File: 24herb18311005B.029.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 2:39:20 AM
File Reported On: 11/16/2018 at 7:28:43 AM

HERB31824F WTHERB3WT CCAL 1831899999 10407 SW-846 8

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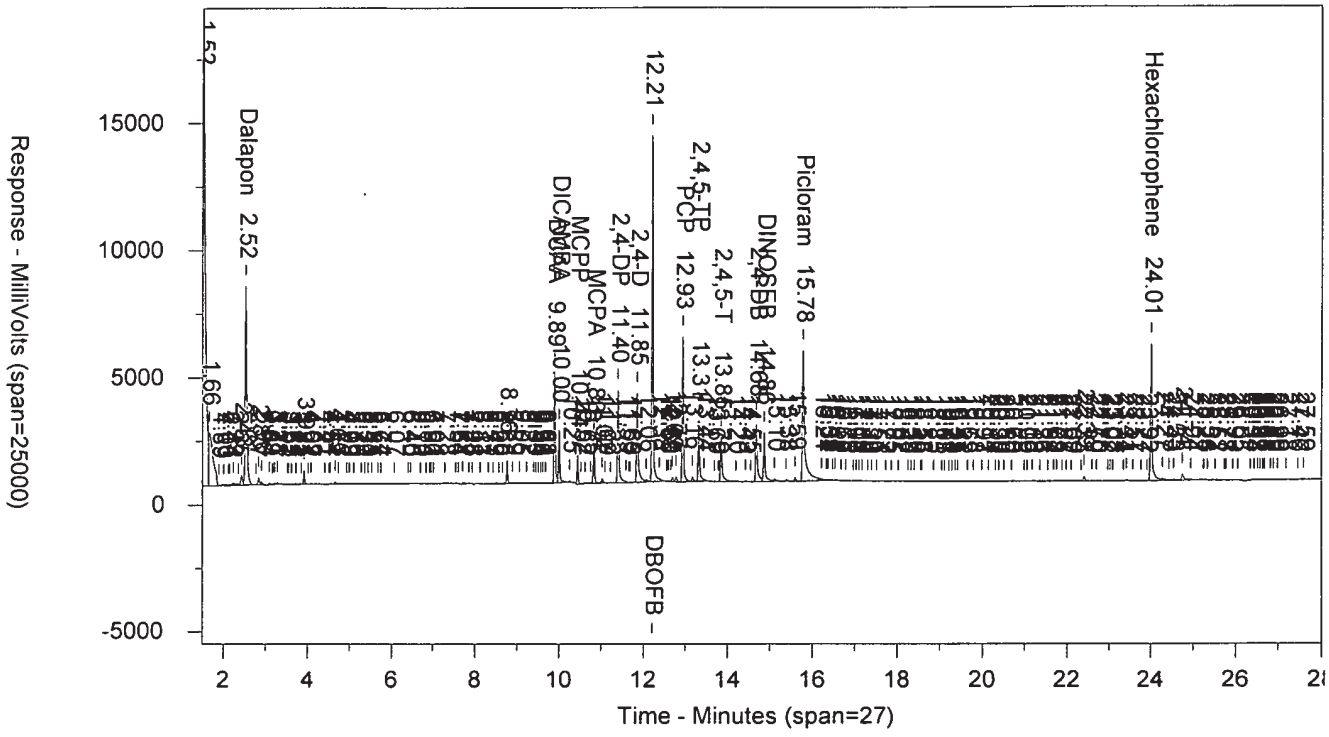

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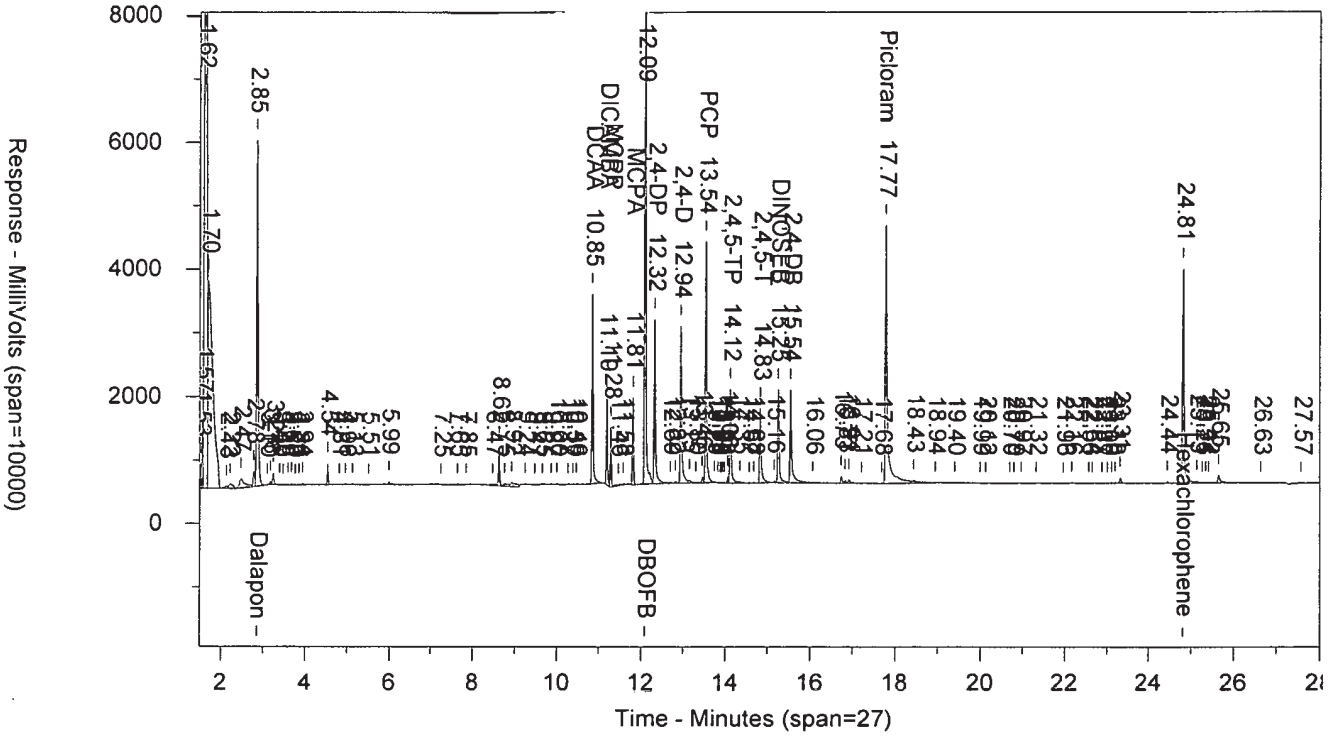

HIBLKX1824B UCHIBLKUC MISC 1831899999 10407 SW-846 8151A

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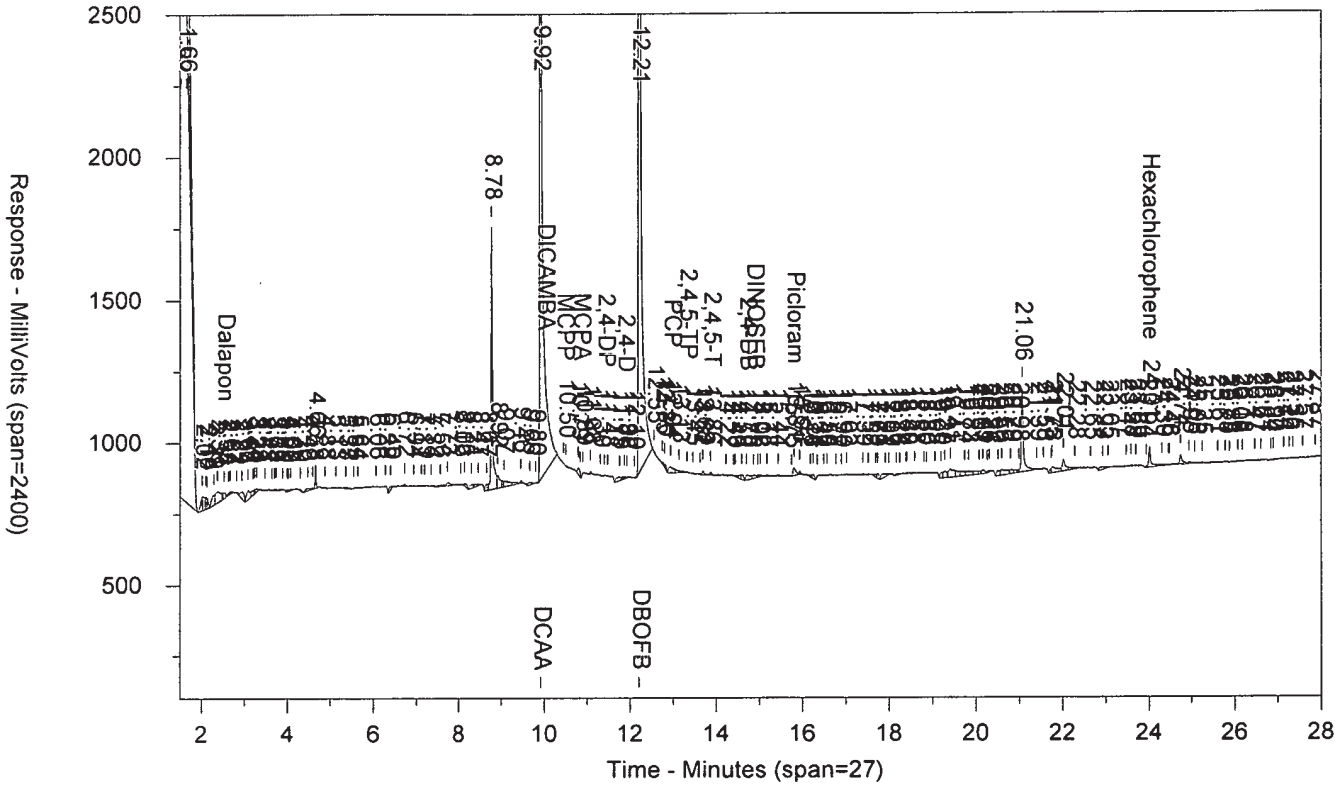

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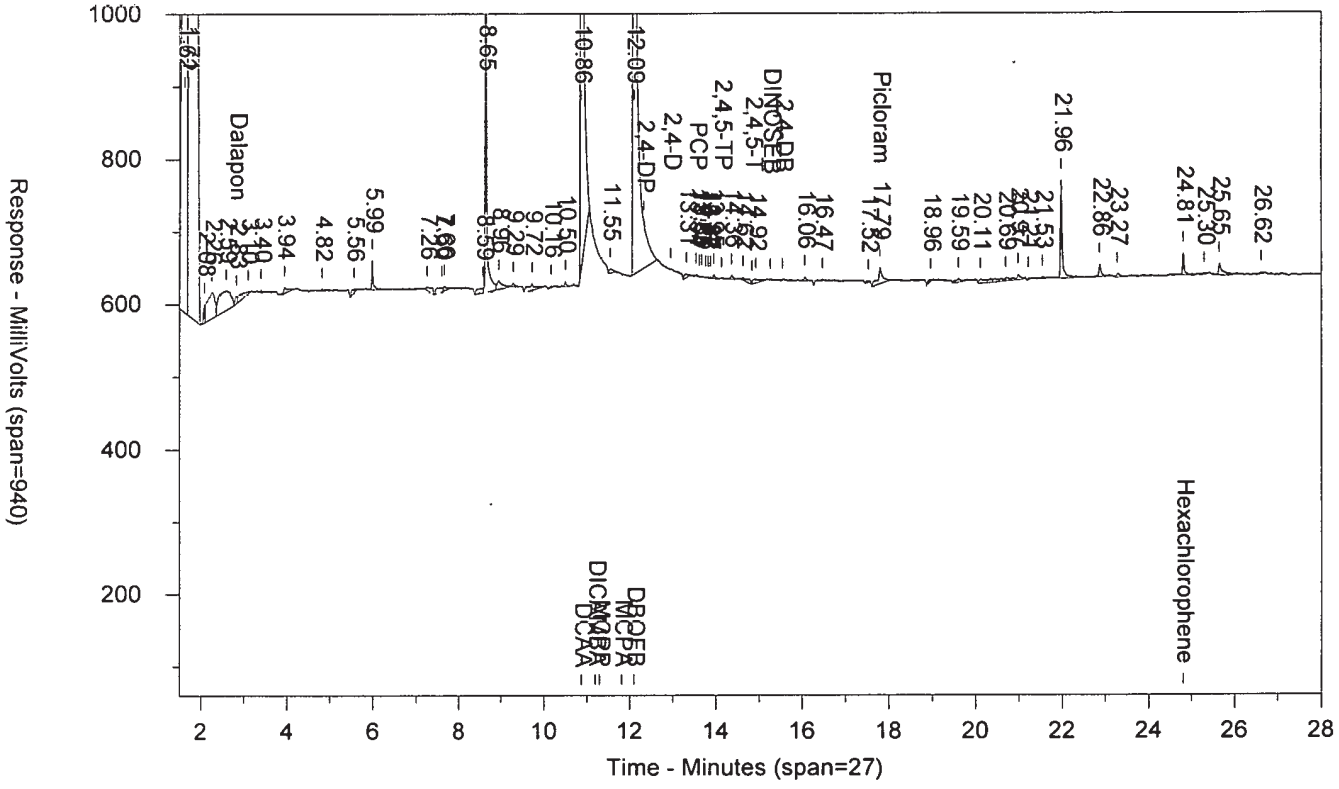


LANCASTER LABORATORIES

Sample Number: HIBLKX1824B UCHIBLKUC MISC 1831899999 10407 Sample Weight: 1000 SW-846 8151A
Injected On: 11/16/2018 2:43:35 AM Dilution Factor: 10
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

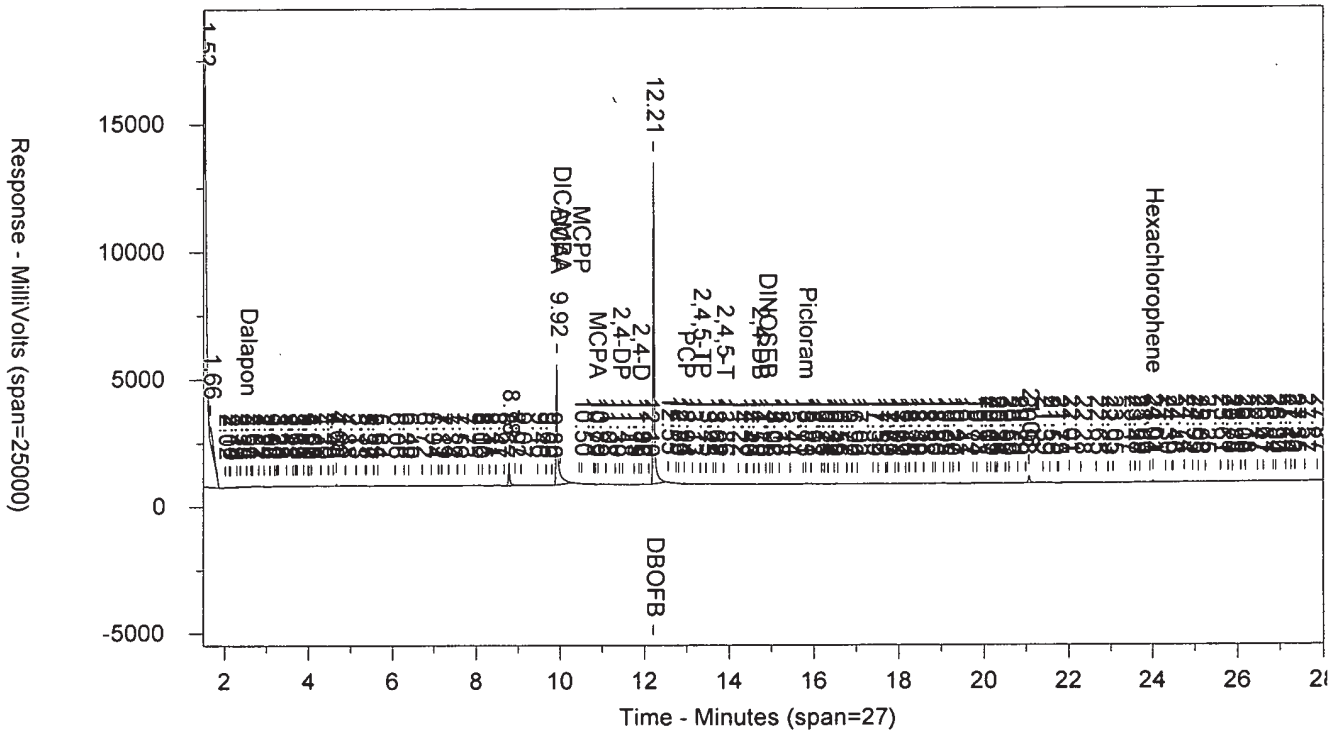
Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.53	21440	.012	Dalapon	2.827	10723	.009	Dalapon
9.916	4711532	2.456	DCAA	10.864	3220931	2.509	DCAA
11.865	9259	.005	2,4-D		0		2,4-D
12.21	12605580	.001	DBOFB	12.092	8777223	.001	DBOFB
12.938	23209	.001	PCP	13.536	3006		PCP
13.86	12238	.002	2,4,5-T		0		2,4,5-T
14.698	18299	.018	2,4-DB		0		2,4-DB
15.806	28907	.006	Picloram	17.789	23013	.006	Picloram
24.006	73537	.011	Hexachlorophene	24.811	30971	.008	Hexachlorophen

Files:
Area File: 24herb18311005.030.RAW
Area File: 24herb18311005B.030.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 3:12:22 AM
File Reported On: 11/16/2018 at 7:28:59 AM

HIBLKX1824B UCHIBLKUC MISC 1831899999 10407 SW-846 81

\\USLAN-CHROMPERFECT\CHROMPERFECT-DATA\DEPT-24\ACTIVE\CP24\24herb18311005.030.RAW



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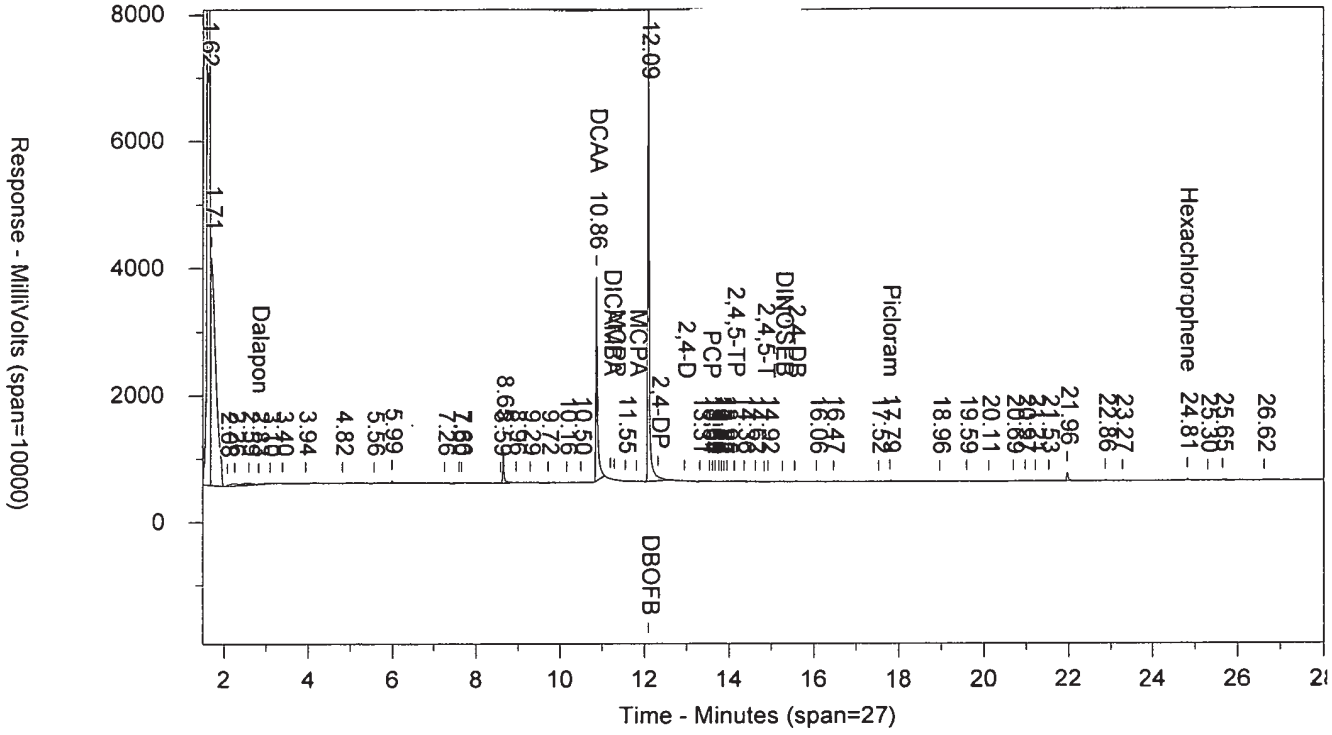

HERB31824F WUHERB3WU CCAL 1831899999 10407 SW-846 8151

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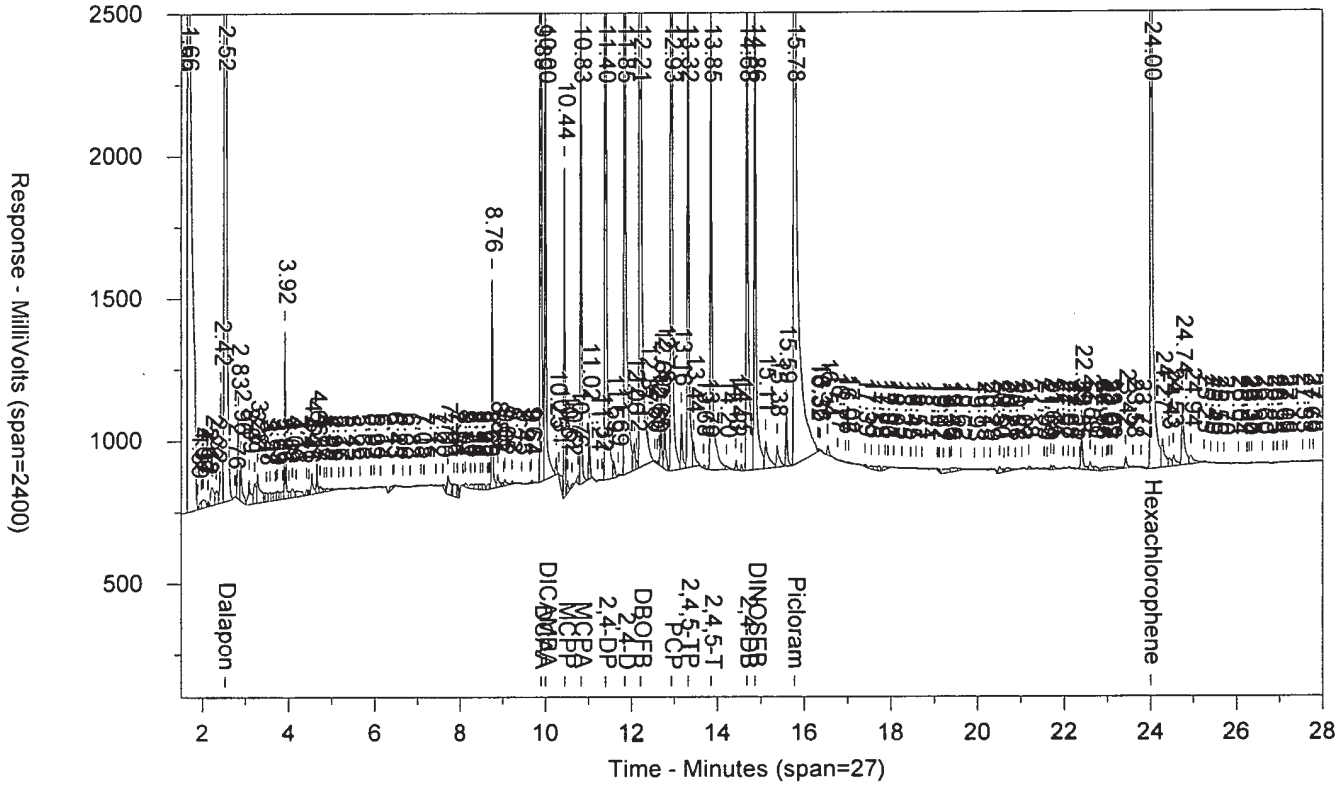

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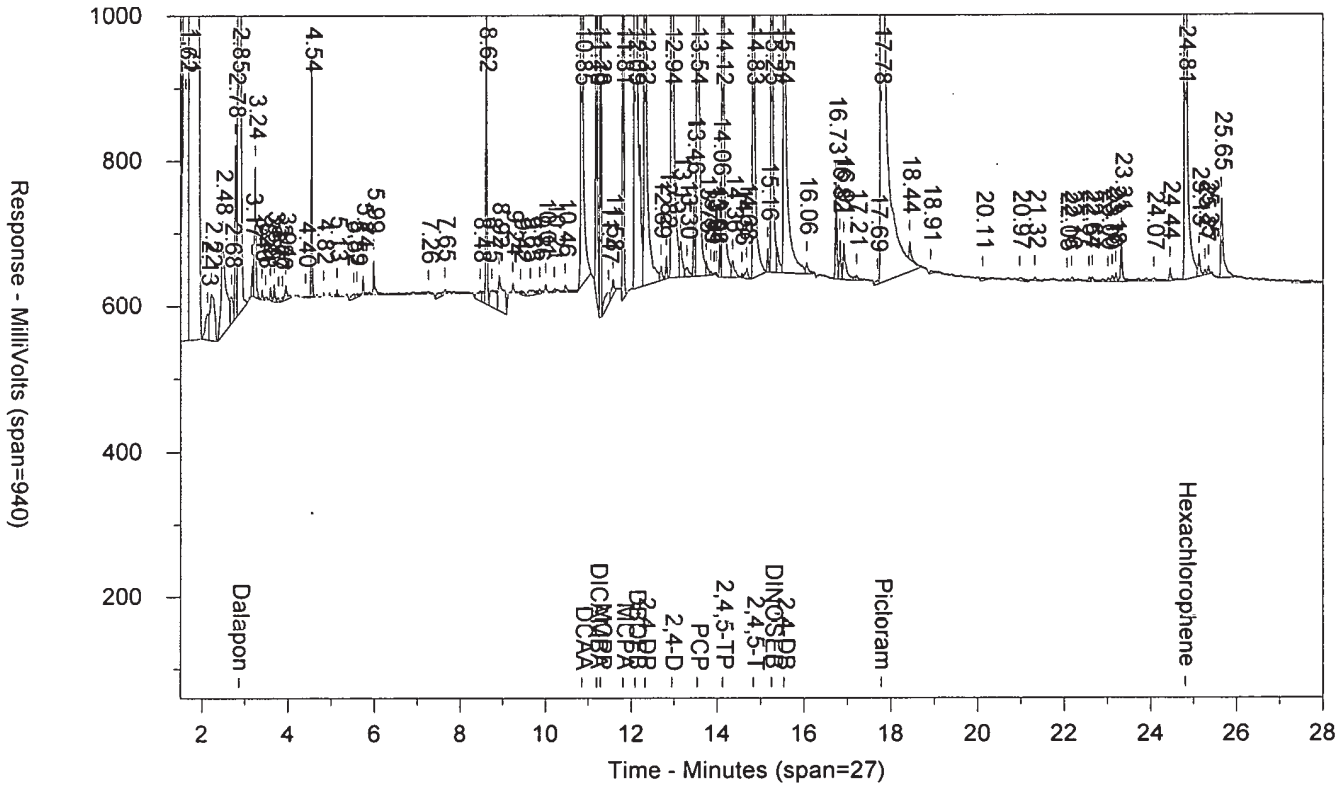

LANCASTER LABORATORIES

Sample Number: HERB31824F WUHERB3WU CCAL 1831899999 10407 Sample Weight: 1 SW-846 8151A
Injected On: 11/16/2018 7:08:21 AM Dilution Factor: 1
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.523	7814601	401.806	Dalapon	2.854	5381104	395.695	Dalapon
9.893	4285667	203.125	DCAA	10.849	2924369	205.06	DCAA
10	2024685	19.989	DICAMBA	11.19	1349239	21.052	DICAMBA
10.445	1158343	21491.6	MCPP	11.283	957462	22289.52	MCPP
10.828	1675902	21253.64	MCPA	11.806	1388294	21954.86	MCPA
11.397	3623676	205.346	2,4-DP	12.317	2596441	206.638	2,4-DP
11.845	3573673	179.904	2,4-D	12.943	2453542	177.16	2,4-D
12.206	13865010	1	DBOFB	12.088	9751776	1	DBOFB
12.934	5623723	19.704	PCP	13.537	3745594	20.234	PCP
13.315	2044234	19.666	2,4,5-TP	14.123	1488266	21.761	2,4,5-TP
13.846	1677941	19.376	2,4,5-T	14.829	1132841	19.892	2,4,5-T
14.679	2172171	195.45	2,4-DB	15.536	1395067	190.93	2,4-DB
14.861	1921794	109.594	DINOSEB	15.251	1467291	110.447	DINOSEB
15.777	4638088	82.282	Picloram	17.775	3740197	85.513	Picloram
24.004	5046810	70.463	Hexachlorophene	24.806	3327579	76.763	Hexachlorophen

Files:
Area File: 24herb18311005.038.RAW
Area File: 24herb18311005B.038.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 7:37:10 AM
File Reported On: 11/16/2018 at 8:04:41 AM

HERB31824F WUHERB3WU CCAL 1831899999 10407 SW-846

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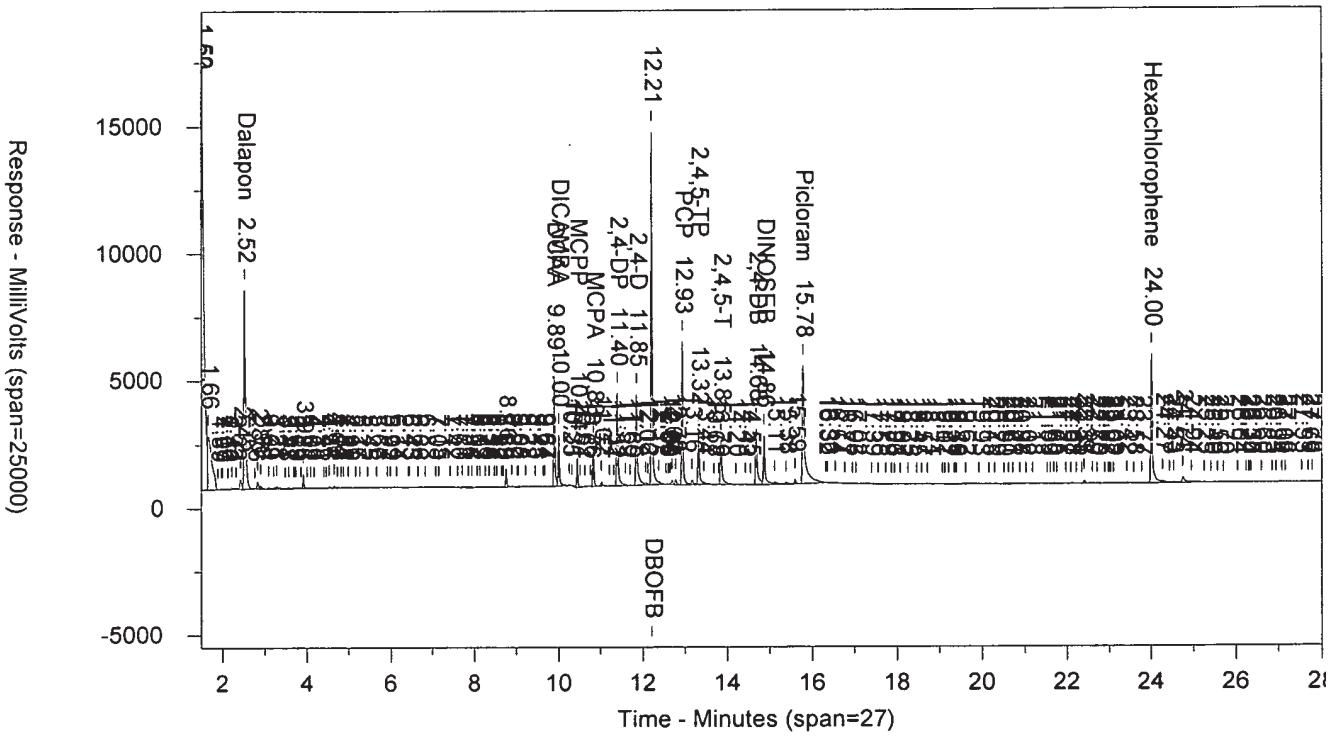

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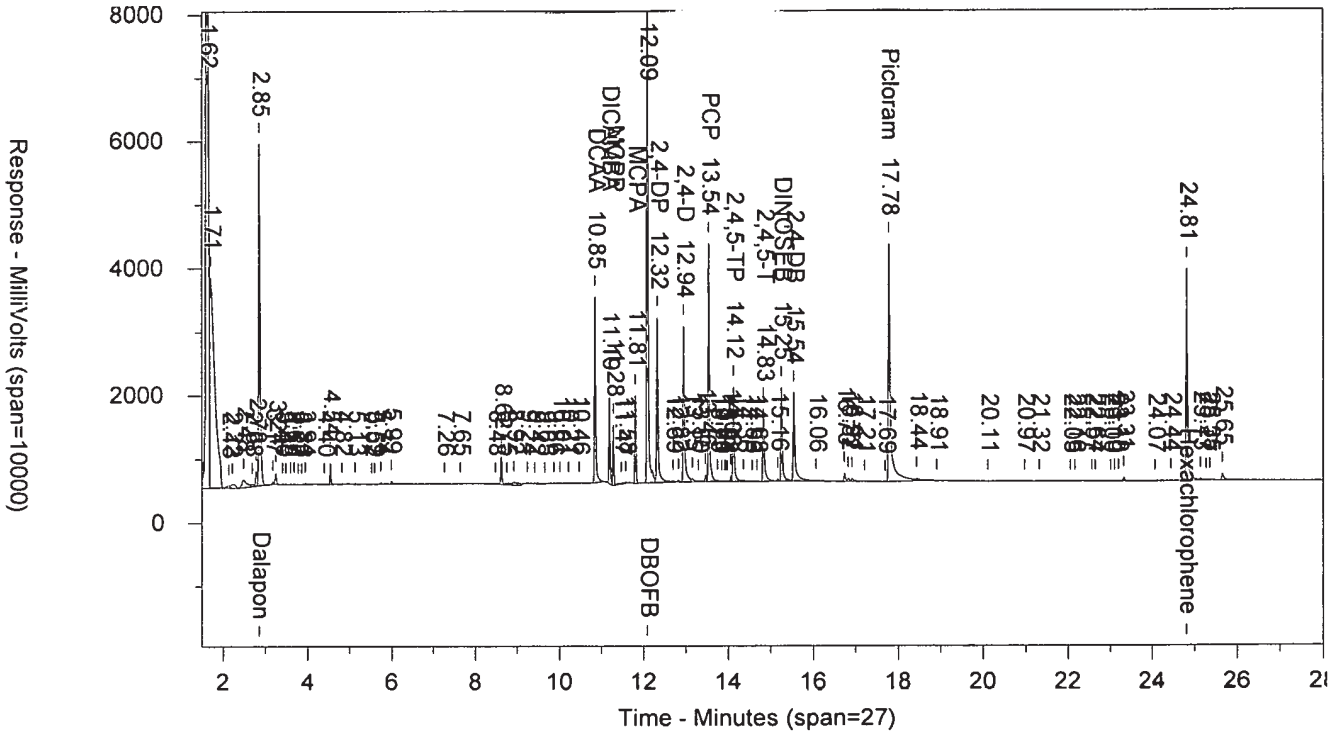

HIBLKX1824B UDHIBLKUD MISC 1831899999 10407 SW-846 8151A

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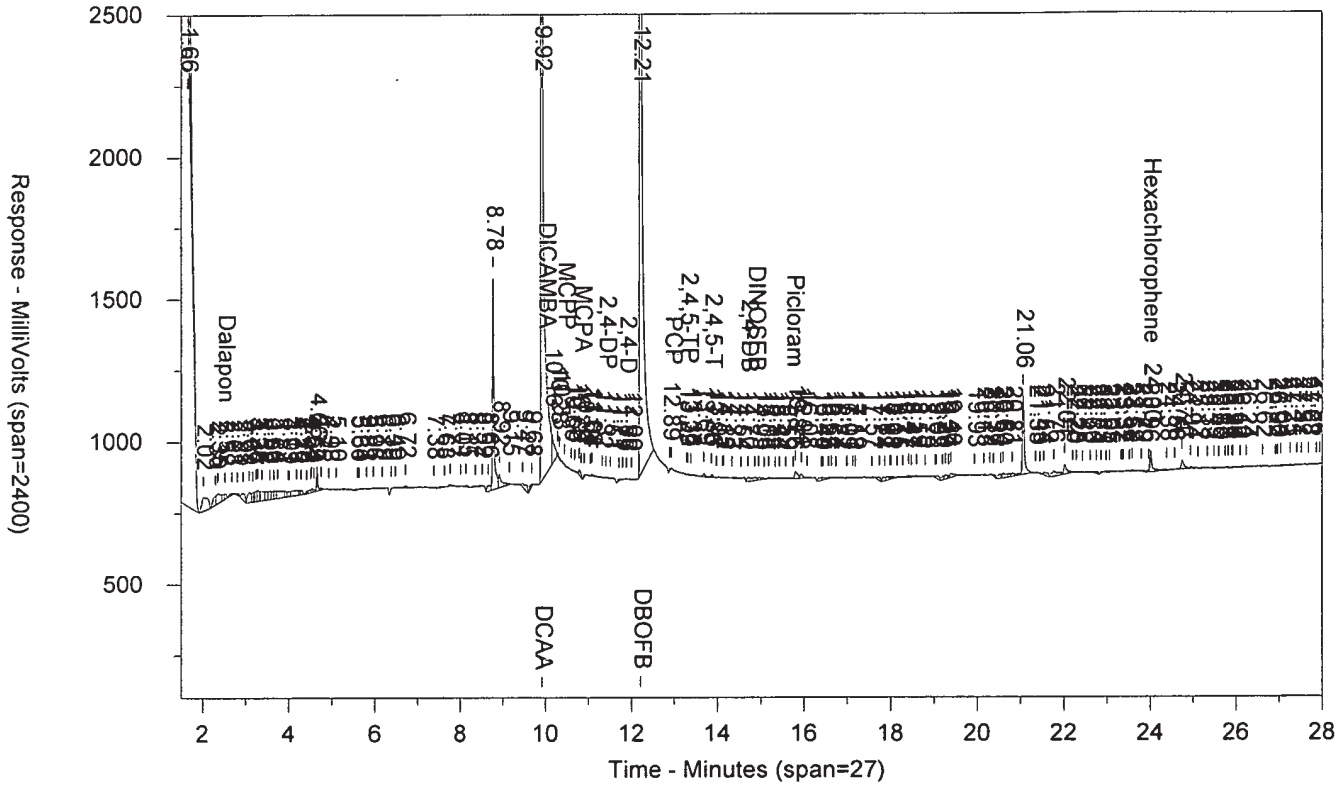

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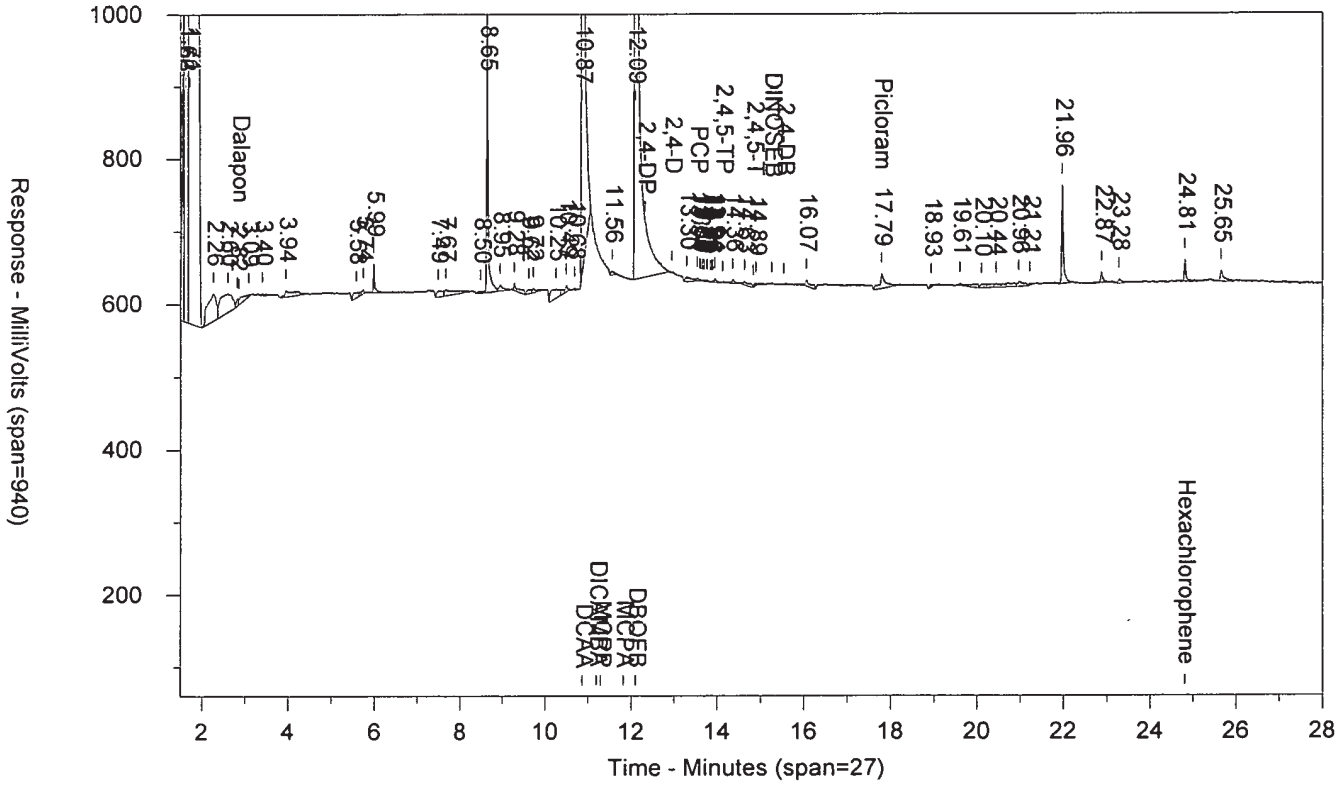

LANCASTER LABORATORIES

Sample Number: HIBLKX1824B UDHIBLKUD MISC 1831899999 10407 Sample Weight: 1000 SW-846 8151A
Injected On: 11/16/2018 7:41:31 AM Dilution Factor: 10
Instrument ID: CP24-18273
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB 30m x 0.32mm x 0.25 um
Column B ID: ZB-35 30m x 0.32 mm x 0.25 um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
2.519	19740	.012	Dalapon		0		Dalapon
9.916	4527474	2.437	DCAA	10.866	3116492	2.499	DCAA
11.877	3958	.002	2,4-D		0		2,4-D
12.21	12209330	.001	DBOFB	12.092	8527294	.001	DBOFB
13.321	4095		2,4,5-TP		0		2,4,5-TP
	0		PCP	13.543	4745		PCP
13.864	11063	.001	2,4,5-T		0		2,4,5-T
14.704	15455	.016	2,4-DB		0		2,4-DB
15.76	2864	.001	Picloram	17.793	20944	.005	Picloram
24.005	74699	.012	Hexachlorophene	24.809	31098	.008	Hexachlorophen

Files:
Area File: 24herb18311005.039.RAW
Area File: 24herb18311005B.039.RAW
Method A: 24HERB.MET
Method B: 24HERBB.MET
Calibration File A: 24HERB1831101.CAL
Calibration File B: 24HERB1831101B.CAL
Format A: herw24.FMTA
Format B: herw24.FMTA
Area File Created On: 11/16/2018 8:10:17 AM
File Reported On: 11/16/2018 at 8:38:29 AM

HIBLKX1824B UDHIBLKUD MISC 1831899999 10407 SW-846 81

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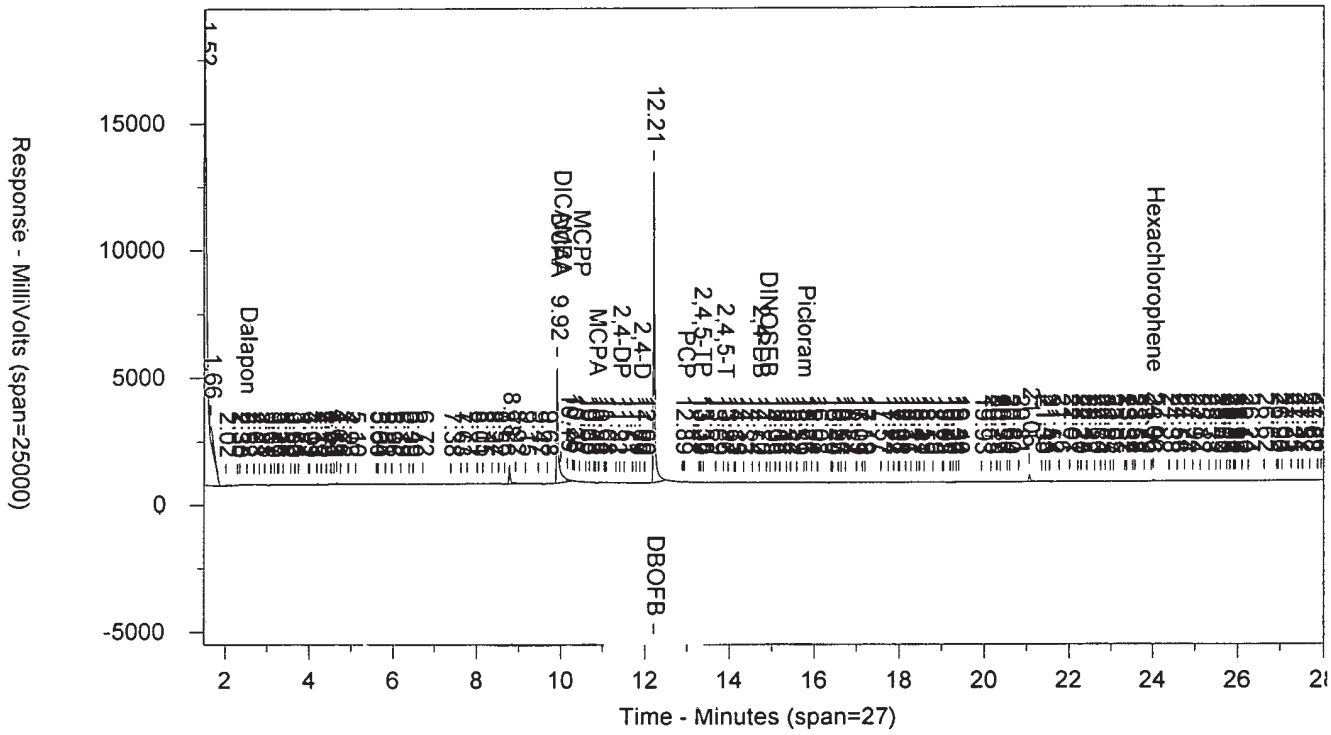

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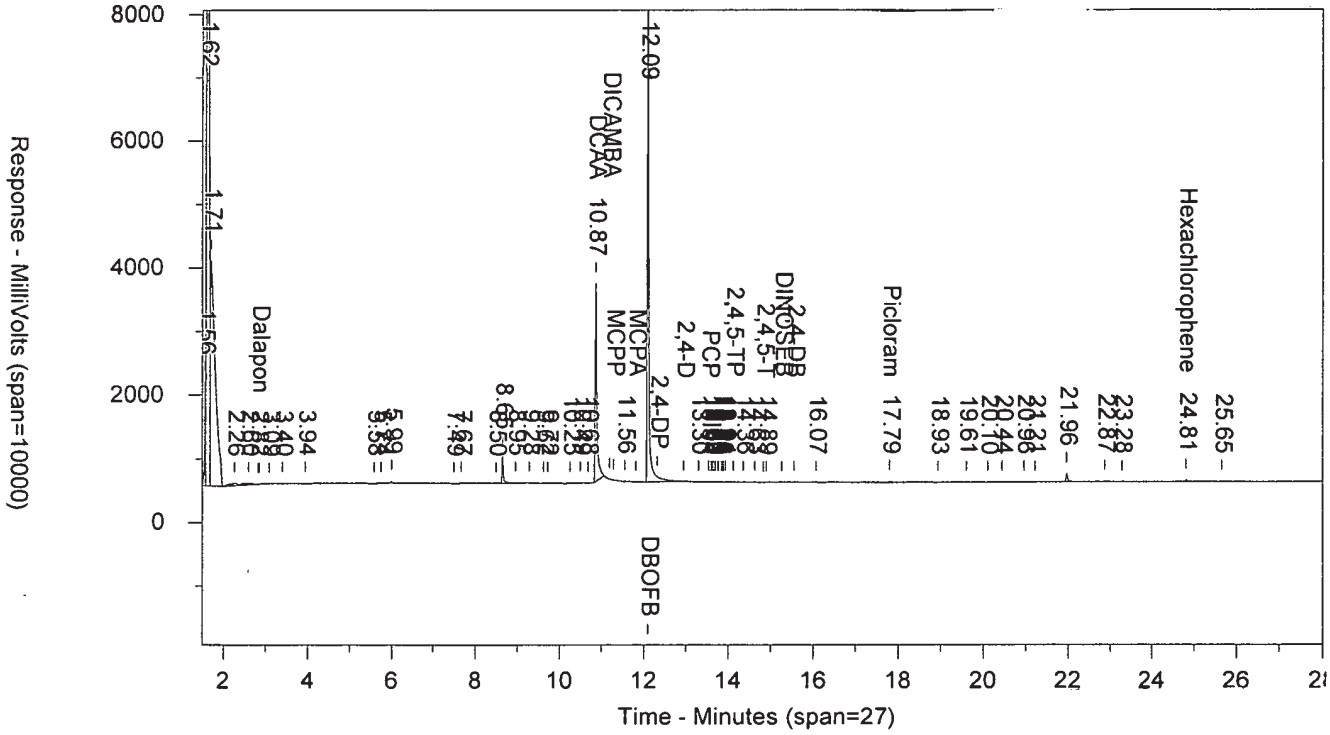

Raw QC Data

Herbicides

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Data Summary

Sample Name: BLANKA 10/30/18 F PBLK10303 BLK Sample ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 120 SDG: State:
Analyses: 10401

Analysis Report (A)

Injected on Nov 01, 2018 19:09:38
Instrument 19850A
Result file 15HERB18304002.008.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 89% (34 - 127) Conc: 59.3964

Analysis Report (B)

Injected on Nov 01, 2018 19:09:38
Instrument 19850B
Result file 15HERB18304002B.008.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) 84% (34 - 127) Conc: 55.8809

Single Component Data

Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.71	3.76	1138496	49.81089
2,4-DCAA	11.91	11.95	11.97	2445505	59.3964
MCPP (Mecoprop)	12.45	12.49	12.51	127899	0
2,4-DP (Dichloroprop)	13.43	13.44	13.49	17199	0.50622
2,4-D	13.87	13.89	13.93	19107	0.470432
Pentachlorophenol	15.06	15.09	15.12	28481	0.055453
2,4,5-T	15.88	15.90	15.94	23824	0.138826
Dinoseb	16.90	16.92	16.96	75265	0.842828
Picloram	17.86	17.87	17.92	27268	0.183265
Hexachlorophene	26.10	26.13	26.16	12239	0.075483

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	12.49	12.52	12.55	2506680	55.8809
MCPA	13.43	13.47	13.49	1206	4.734526
2,4-DP (Dichloroprop)	13.96	14.00	14.01	60689	1.547204
2,4-D	14.58	14.61	14.64	286305	6.371878
Pentachlorophenol	15.28	15.30	15.34	32321	0.056207
Picloram	19.48	19.50	19.54	61501	0.362936
Hexachlorophene	26.52	26.55	26.58	15455	0.088024

Single Component Summary

Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
Dalapon			<44	<88	<90			
2,4-DCAA	A	59.3964	3.335	6.67	6.67		6.10	
2,4-DCAA-D1	A	59.3964	3.335	6.67	6.67			
2,4-DCAA-D2	B	55.8809	3.335	6.67	6.67			
Dicamba			<4	<8	<12			
MCPP (Mecoprop)			<3800	<7600	<7700			
MCPA			<760	<1520	<2500			
2,4-DP (Dichloroprop)			<9	<18	<20			
2,4-D			<12	<24	<36			
Pentachlorophenol			<0.33	<0.66	<1.7			
2,4,5-TP			<0.75	<1.5	<1.7			
2,4,5-T			<0.82	<1.64	<1.7			
2,4-DB			<9.8	<20	<21			
Dinoseb			<9	<18	<24			
Picloram			<20	<40	<41			
Hexachlorophene					<24			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Michelle D. Hamilton
Group Leader

NOV 02 2018

Reviewed and digitally signed by Richard A Shober on 11/2/2018 14:49:42

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Data Summary

Sample Name: BLANKA 10/30/18 F PBLK10303 BLK Sample ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 120 SDG: State:

Analyses: 10401

Analysis Report (A)

Injected on Nov 01, 2018 19:09:38
Instrument 19850A
Result file 15HERB18304002.008.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 89% (27 - 122) Conc: 59.3964

Analysis Report (B)

Injected on Nov 01, 2018 19:09:38
Instrument 19850B
Result file 15HERB18304002B.008.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) 84% (27 - 122) Conc: 55.8809

Single Component Data

Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.71	3.76	1138496	49.81089
2,4-DCAA	11.91	11.95	11.97	2445505	59.3964
MCPP (Mecoprop)	12.45	12.49	12.51	127899	0
2,4-DP (Dichloroprop)	13.43	13.44	13.49	17199	0.50622
2,4-D	13.87	13.89	13.93	19107	0.470432
Pentachlorophenol	15.06	15.09	15.12	28481	0.055453
2,4,5-T	15.88	15.90	15.94	23824	0.138826
Dinoseb	16.90	16.92	16.96	75265	0.842828
Picloram	17.86	17.87	17.92	27268	0.183265
Hexachlorophene	26.10	26.13	26.16	12239	0.075483

Compound	Min	RT	Max	Height	Amount
2,4-DCAA	12.49	12.52	12.55	2506680	55.8809
MCPA	13.43	13.47	13.49	1206	4.734526
2,4-DP (Dichloroprop)	13.96	14.00	14.01	60689	1.547204
2,4-D	14.58	14.61	14.64	286305	6.371878
Pentachlorophenol	15.28	15.30	15.34	32321	0.056207
Picloram	19.48	19.50	19.54	61501	0.362936
Hexachlorophene	26.52	26.55	26.58	15455	0.088024

Single Component Summary

Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
Dalapon			<44	<88	<90			
2,4-DCAA	A	59.3964	3.335	6.67	6.67		6.10	
2,4-DCAA-D1	A	59.3964	3.335	6.67	6.67			
2,4-DCAA-D2	B	55.8809	3.335	6.67	6.67			
Dicamba			<4	<8	<12			
MCPP (Mecoprop)			<3800	<7600	<7700			
MCPA			<760	<1520	<2500			
2,4-DP (Dichloroprop)			<9	<18	<20			
2,4-D			<12	<24	<36			
Pentachlorophenol			<0.33	<0.66	<1.7			
2,4,5-TP			<0.75	<1.5	<1.7			
2,4,5-T			<0.82	<1.64	<1.7			
2,4-DB			<9.8	<20	<21			
Dinoseb			<9	<18	<24			
Picloram			<20	<40	<41			
Hexachlorophene					<24			

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Michele D. Hamilton
Group Leader

NOV 02 2018

Reviewed and digitally signed by Richard A Shober on 11/2/2018 14:49:45

Eurofins Lancaster Laboratories-Single Component Data Summary

Sample Name: **BLANKA** 10/30/18 F PBLK10303 ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10401

Analysis Report (A)

Injected on : Nov 01, 2018 19:09:38
Instrument : CP15--19850A
Result file : 15HERB18304002.008.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 89% (34-127) Conc.: 59.3964

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.71	3.76	1138496	49.810890
DCAA	11.91	11.95	11.97	2445505	59.396400
MCPP	12.45	12.49	12.51	127899	-3413.299000
2,4-DP	13.43	13.44	13.49	17199	0.506220
2,4-D	13.87	13.89	13.93	19107	0.470432
DBOFB	14.21	14.23	14.26	10189030	0.033333
PCP	15.06	15.09	15.12	28481	0.055453
2,4,5-T	15.88	15.90	15.94	23824	0.138826
DINOSEB	16.90	16.92	16.96	75265	0.842828
Picloram	17.86	17.87	17.92	27268	0.183265
Hexachlorophene	26.10	26.13	26.16	12239	0.075483

Analysis Report (B)

Injected on : Nov 01, 2018 19:09:38
Instrument : CP15--19850B
Result file : 15HERB18304002B.008.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 84% (34-127) Conc.: 55.8809

Peak name	Min	R.T.	Max	Height	Amount
DCAA	12.49	12.52	12.55	2506680	55.880900
MCPA	13.43	13.47	13.49	1206	4.734526
DBOFB	13.69	13.71	13.75	10852280	0.033333
2,4-DP	13.96	14.00	14.01	60689	1.547204
2,4-D	14.58	14.61	14.64	286305	6.371878
PCP	15.28	15.30	15.34	32321	0.056207
Picloram	19.48	19.50	19.54	61501	0.362936
Hexachlorophene	26.52	26.55	26.58	15455	0.088024

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
☑ Dalapon			<90	<44			
☐ DCAA	A	59.396400				6.10	
☑ DICAMBA			<12	<4			
☑ MCPP			<7700	<3800			
☑ MCPA			<2500	<760			
☑ 2,4-DP			<20	<9			
☑ 2,4-D			<36	<12			
☐ DBOFB	A	0.033333				0.00	
☑ PCP			<1.7	<0.33			
☑ 2,4,5-TP			<1.7	<0.75			
☑ 2,4,5-T			<1.7	<0.82			
☑ 2,4-DB			<21	<9.8			
☑ DINOSEB			<24	<9			
☑ Picloram			<41	<20			
☑ Hexachlorophene			<24	<8			

Units: ug/kg

Revicwcd by: RMSH
Date: 11/2/18

Verified by: Michelle D. Hamilton
Michelle D. Hamilton
Group Leader
Date: NOV 02 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

BLANKA 10/30/18 F ABPBLK10303 BLK 183030010A 10401 SW-846 8151

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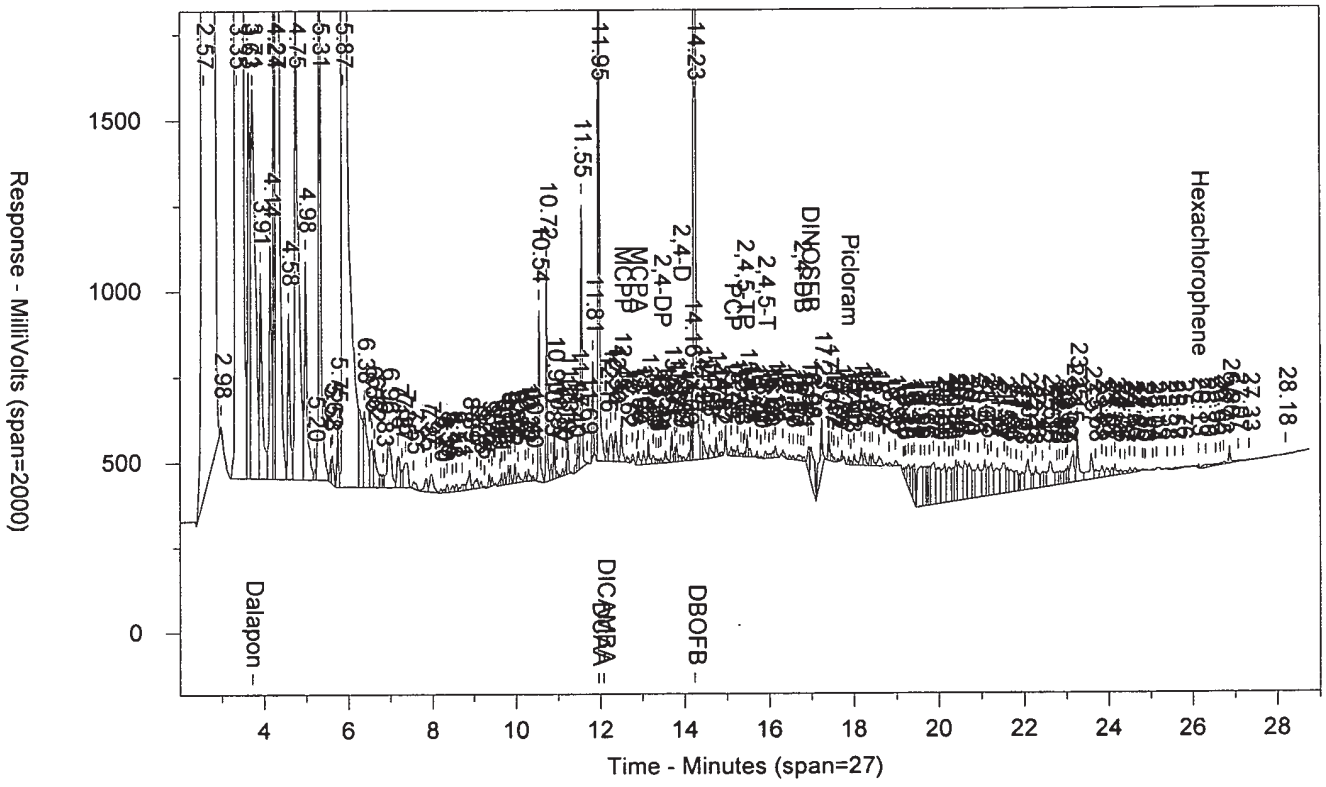

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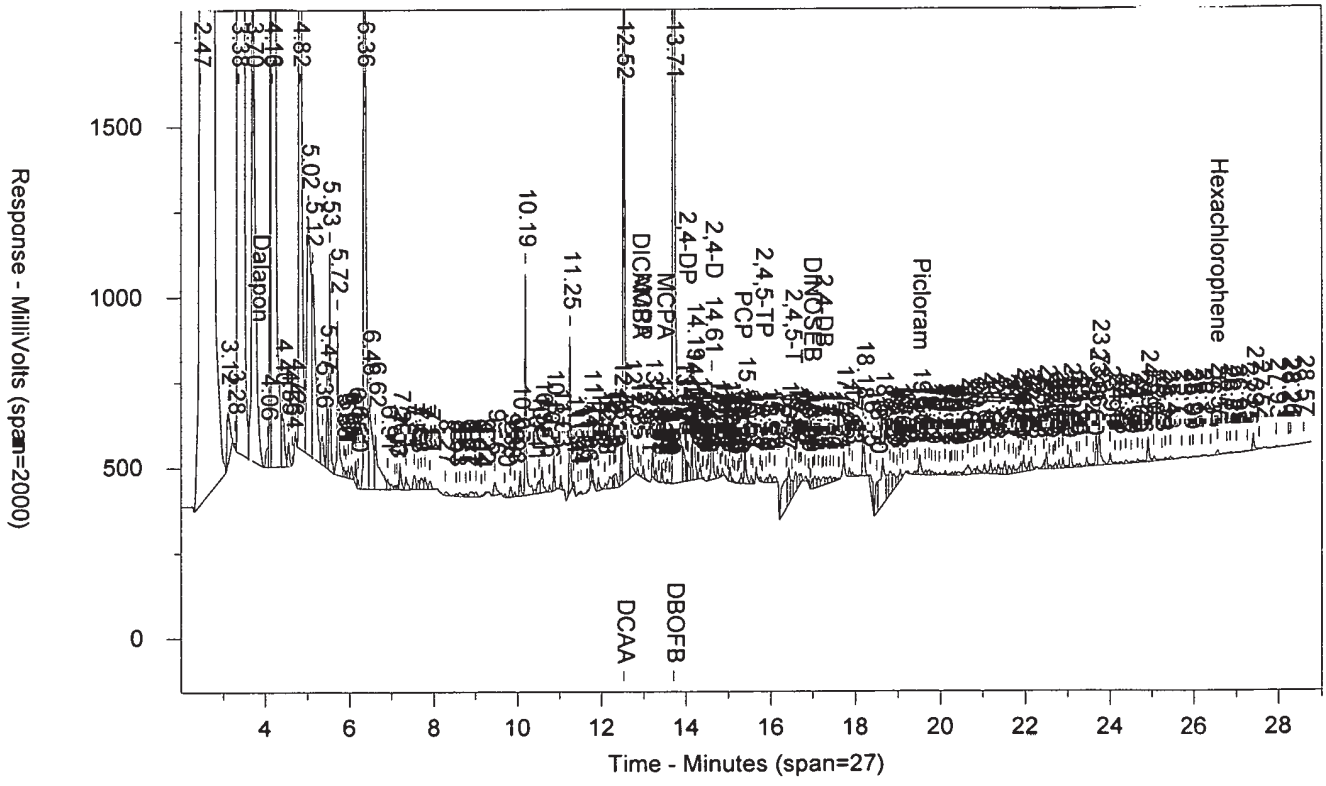

LANCASTER LABORATORIES

Sample Number: BLANKA 10/30/18 F ABPBLK10303 BLK 183030010A 10401 SW-846 8151A
Injected On: 11/1/2018 7:09:38 PM Sample Weight: 30
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.714	1138496	49.811	Dalapon		0		Dalapon
11.955	2445505	59.396	DCAA	12.525	2506680	55.881	DCAA
12.492	127899	-3413.299	MCPP		0		MCPP
13.435	17199	.506	2,4-DP	13.999	60689	1.547	2,4-DP
	0		MCPA	13.473	1206	4.735	MCPA
14.229	10189030	.033	DBOFB	13.709	10852280	.033	DBOFB
13.893	19107	.47	2,4-D	14.61	286305	6.372	2,4-D
15.093	20481	.055	PCP	15.302	32321	.056	PCP
15.898	23824	.139	2,4,5-T		0		2,4,5-T
16.921	75265	.843	DINOSEB		0		DINOSEB
17.868	27268	.183	Picloram	19.501	61501	.363	Picloram
26.127	12239	.075	Hexachlorophene	26.549	15455	.088	Hexachlorophe

Files:
Area File: 15herb18304002.008.RAW
Area File: 15herb18304002B.008.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/1/2018 7:38:27 PM
File Reported On: 11/2/2018 at 1:17:43 PM

BLANKA 10/30/18 F ABPBLK10303 BLK 183030010A 10401 SW-846 8

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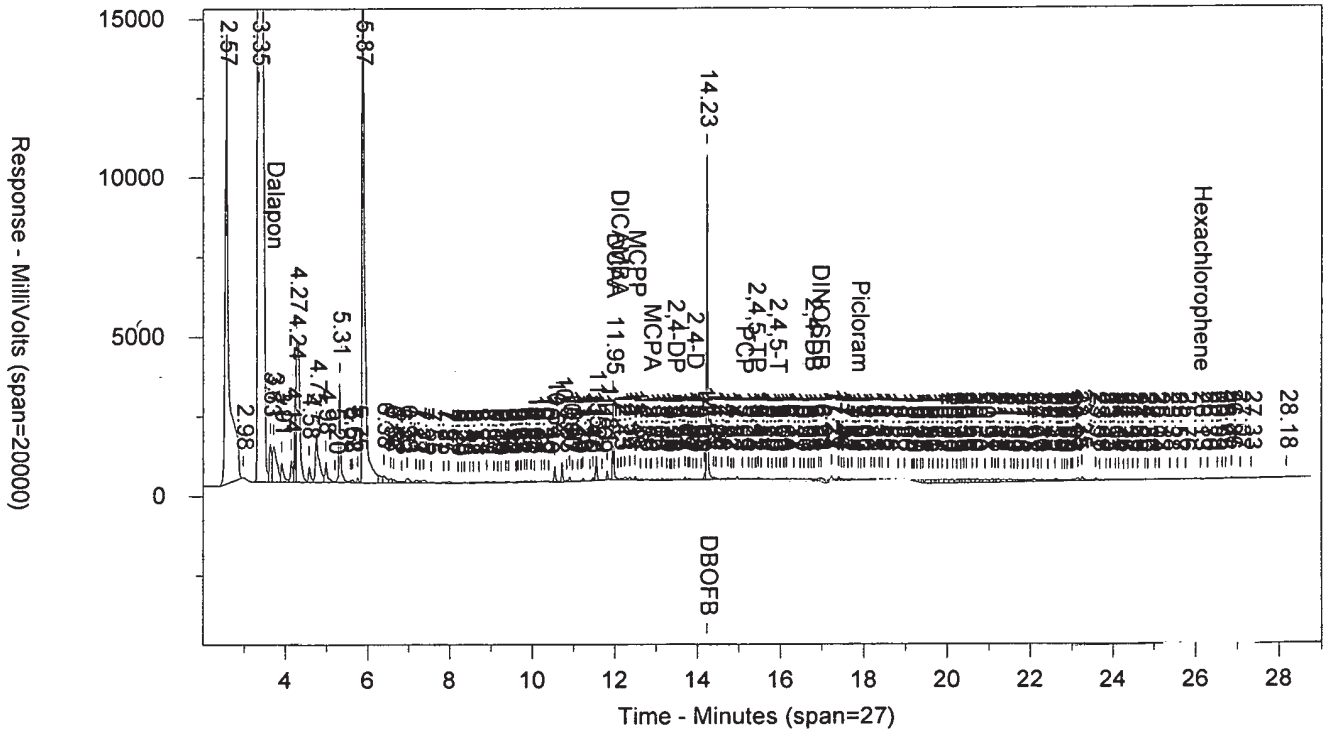

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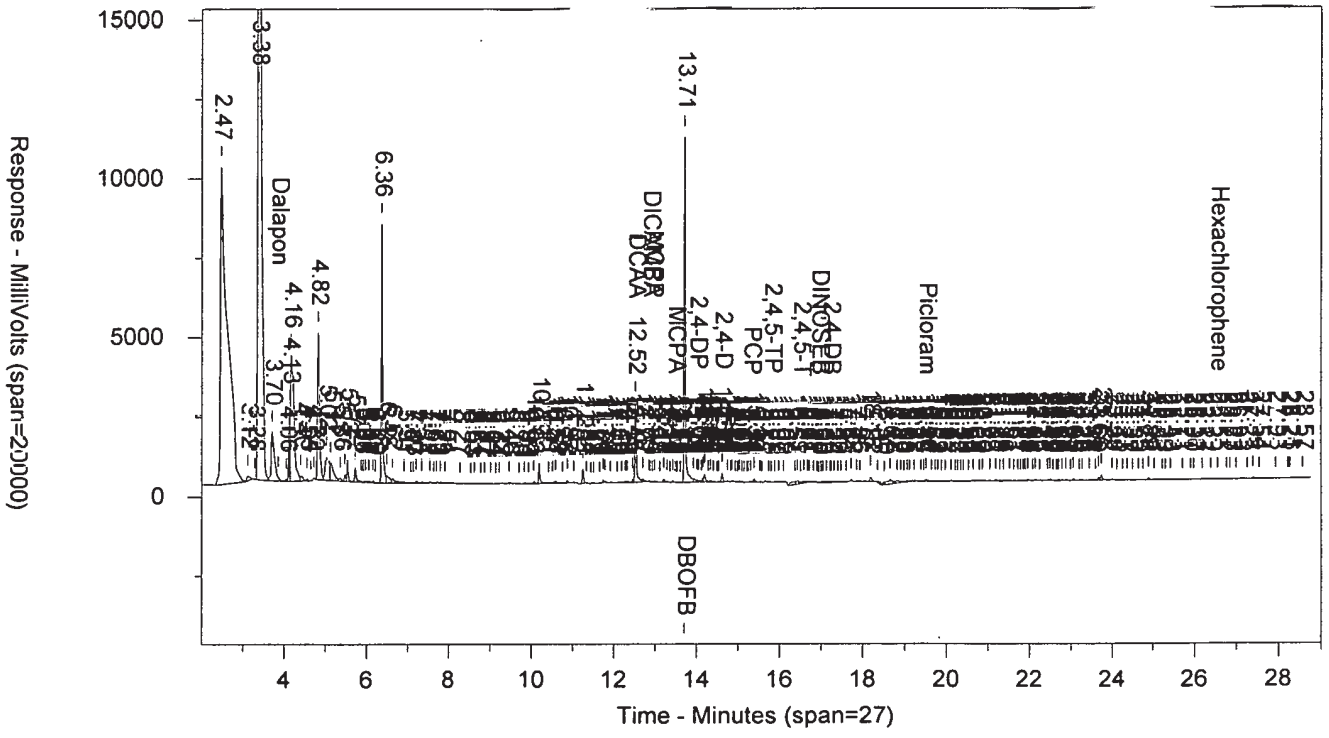

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Data Summary

Sample Name: LCSA 10/30/18 F LCS10303 LCS Sample ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 120 SDG: State:
Analyses: 10401

Analysis Report (A)

Injected on Nov 01, 2018 19:42:52
Instrument 19850A
Result file 15HERB18304002.009.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 95% (34 - 127) Conc: 63.50301

Analysis Report (B)

Injected on Nov 01, 2018 19:42:52
Instrument 19850B
Result file 15HERB18304002B.009.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) 97% (34 - 127) Conc: 64.66614

Single Component Data

Compound	Min	RT	Max	Height	Amount	Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.72	3.76	3747767	171.6505	Dalapon	3.83	3.85	3.89	3552652	109.4348
2,4-DCAA	11.91	11.94	11.97	2497602	63.50301	2,4-DCAA	12.49	12.51	12.55	2765734	64.66614
Dicamba	12.04	12.07	12.10	1240140	7.849104	Dicamba	12.85	12.87	12.91	1363894	7.67498
MCPP (Mecoprop)	12.45	12.48	12.51	2053280	10262.49	MCPP (Mecoprop)	12.90	12.93	12.96	1375239	7784.744
MCPA	12.83	12.86	12.89	2267129	8855.012	MCPA	13.43	13.46	13.49	1756215	7228.417
2,4-DP (Dichloroprop)	13.43	13.45	13.49	2770226	85.35532	2,4-DP (Dichloroprop)	13.96	13.98	14.01	2981721	79.72778
2,4-D	13.87	13.89	13.93	3264883	84.14883	2,4-D	14.58	14.60	14.64	3645792	85.10071
Pentachlorophenol	15.06	15.09	15.12	14602510	29.76311	Pentachlorophenol	15.28	15.30	15.34	15544370	28.35129
2,4,5-TP	15.36	15.37	15.42	1710482	9.209785	2,4,5-TP	15.77	15.79	15.83	1730285	8.551607
2,4,5-T	15.88	15.90	15.94	1465849	8.941679	2,4,5-T	16.47	16.50	16.53	1547798	8.658326
2,4-DB	16.71	16.74	16.77	1954714	85.9456	Dinoseb	16.91	16.93	16.97	487421	5.296077
Dinoseb	16.90	16.92	16.96	660383	7.741457	2,4-DB	17.18	17.20	17.24	2066991	81.56363
Picloram	17.86	17.88	17.92	11277040	79.34167	Picloram	19.48	19.50	19.54	12451130	77.06504
Hexachlorophene	26.10	26.13	26.16	4640360	29.95845	Hexachlorophene	26.52	26.55	26.58	5116291	30.56194

Single Component Summary

Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
Dalapon	A	171.6505	44	88	90	P^	44.27	
2,4-DCAA	B	64.66614	3.335	6.67	6.67		1.81	
2,4-DCAA-D1	A	63.50301	3.335	6.67	6.67			
2,4-DCAA-D2	B	64.66614	3.335	6.67	6.67			
Dicamba	A	7.849104	4	<8	<12	J	2.24	
MCPP (Mecoprop)	A	10262.49	3800	7600	7700		27.46	
MCPA	A	8855.012	760	1520	2500		20.23	
2,4-DP (Dichloroprop)	A	85.35532	9	18	20		6.82	
2,4-D	B	85.10071	12	24	36		1.12	
Pentachlorophenol	A	29.76311	0.33	0.66	1.7		4.86	
2,4,5-TP	A	9.209785	0.75	1.5	1.7		7.41	
2,4,5-T	A	8.941679	0.82	1.64	1.7		3.22	
2,4-DB	A	85.9456	9.8	20	21		5.23	
Dinoseb	A	7.741457	<9	<18	<24		37.51	
Picloram	A	79.34167	20	40	41		2.91	
Hexachlorophene	B	30.56194			24		1.99	

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Michele D. Hamilton
Group Leader

NOV 02 2018

Reviewed and digitally signed by Richard A Shober on 11/2/2018 14:49:52

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Data Summary

Sample Name: LCSA 10/30/18 F LCS10303 LCS Sample ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 120 SDG: State:

Analyses: 10401

Analysis Report (A)

Injected on Nov 01, 2018 19:42:52
Instrument 19850A
Result file 15HERB18304002.009.RAW
Calibration file 15HERB1830401
Method file 15HERB

%SSR(DCAA) 95% (27 - 122) Conc: 63.50301

Analysis Report (B)

Injected on Nov 01, 2018 19:42:52
Instrument 19850B
Result file 15HERB18304002B.009.RAW
Calibration file 15HERB1830401B
Method file 15HERBB

%SSR(DCAA) 97% (27 - 122) Conc: 64.66614

Single Component Data

Compound	Min	RT	Max	Height	Amount	Compound	Min	RT	Max	Height	Amount
Dalapon	3.70	3.72	3.76	3747767	171.6505	Dalapon	3.83	3.85	3.89	3552652	109.4348
2,4-DCAA	11.91	11.94	11.97	2497602	63.50301	2,4-DCAA	12.49	12.51	12.55	2765734	64.66614
Dicamba	12.04	12.07	12.10	1240140	7.849104	Dicamba	12.85	12.87	12.91	1363894	7.67498
MCPP (Mecoprop)	12.45	12.48	12.51	2053280	10262.49	MCPP (Mecoprop)	12.90	12.93	12.96	1375239	7784.744
MCPA	12.83	12.86	12.89	2267129	8855.012	MCPA	13.43	13.46	13.49	1756215	7228.417
2,4-DP (Dichloroprop)	13.43	13.45	13.49	2770226	85.35532	2,4-DP (Dichloroprop)	13.96	13.98	14.01	2981721	79.72778
2,4-D	13.87	13.89	13.93	3264883	84.14883	2,4-D	14.58	14.60	14.64	3645792	85.10071
Pentachlorophenol	15.06	15.09	15.12	14602510	29.76311	Pentachlorophenol	15.28	15.30	15.34	15544370	28.35129
2,4,5-TP	15.36	15.37	15.42	1710482	9.209785	2,4,5-TP	15.77	15.79	15.83	1730285	8.551607
2,4,5-T	15.88	15.90	15.94	1465849	8.941679	2,4,5-T	16.47	16.50	16.53	1547798	8.658326
2,4-DB	16.71	16.74	16.77	1954714	85.9456	Dinoseb	16.91	16.93	16.97	487421	5.296077
Dinoseb	16.90	16.92	16.96	660383	7.741457	2,4-DB	17.18	17.20	17.24	2066991	81.56363
Picloram	17.86	17.88	17.92	11277040	79.34167	Picloram	19.48	19.50	19.54	12451130	77.06504
Hexachlorophene	26.10	26.13	26.16	4640360	29.95845	Hexachlorophene	26.52	26.55	26.58	5116291	30.56194

Single Component Summary

Compound Name	Column	Amount Found	DL	LOD	LOQ	Qualifiers	%RPD	Comments
Dalapon	A	171.6505	44	88	90	P^	44.27	
2,4-DCAA	B	64.66614	3.335	6.67	6.67		1.81	
2,4-DCAA-D1	A	63.50301	3.335	6.67	6.67			
2,4-DCAA-D2	B	64.66614	3.335	6.67	6.67			
Dicamba	A	7.849104	4	<8	<12	J	2.24	
MCPP (Mecoprop)	A	10262.49	3800	7600	7700		27.46	
MCPA	A	8855.012	760	1520	2500		20.23	
2,4-DP (Dichloroprop)	A	85.35532	9	18	20		6.82	
2,4-D	B	85.10071	12	24	36		1.12	
Pentachlorophenol	A	29.76311	0.33	0.66	1.7		4.86	
2,4,5-TP	A	9.209785	0.75	1.5	1.7		7.41	
2,4,5-T	A	8.941679	0.82	1.64	1.7		3.22	
2,4-DB	A	85.9456	9.8	20	21		5.23	
Dinoseb	A	7.741457	<9	<18	<24		37.51	
Picloram	A	79.34167	20	40	41		2.91	
Hexachlorophene	B	30.56194			24		1.99	

Units: ug/kg

%RPD = High - Low Amount divided by the Average times 100

Michele D. Hamilton
Group Leader

NOV 02 2018

Reviewed and digitally signed by Richard A Shober on 11/2/2018 14:50:10

Eurofins Lancaster Laboratories Single Component Data Summary

Sample Name: **LCSA** 10/30/18 F LCS10303 ID: AB **Batchnumber: 183030010A**
Sample Amount: 30 g Total Volume: 10 ml Analyst: 13378 SDG: State:
Analyses: 10401

Analysis Report (A)

Injected on : Nov 01, 2018 19:42:52
Instrument : CP15--19850A
Result file : 15HERB18304002.009.RAW
Calibration file : 15HERB1830401.CAL
Method file : 15HERB.MET
%SSR(DCAA) : 95% (34-127) Conc.: 63.50301

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.70	3.72	3.76	3747767	171.650500
DCAA	11.91	11.94	11.97	2497602	63.503010
DICAMBA	12.04	12.07	12.10	1240140	7.849104
MCPP	12.45	12.48	12.51	2053280	10262.490000
MCPA	12.83	12.86	12.89	2267129	8855.012000
2,4-DP	13.43	13.45	13.49	2770226	85.355320
2,4-D	13.87	13.89	13.93	3264883	84.148830
DBOFB	14.21	14.23	14.26	9733149	0.033333
PCP	15.06	15.09	15.12	14602510	29.763110
2,4,5-TP	15.36	15.37	15.42	1710482	9.209785
2,4,5-T	15.88	15.90	15.94	1465849	8.941679
2,4-DB	16.71	16.74	16.77	1954714	85.945600
DINOSEB	16.90	16.92	16.96	660383	7.741457
Picloram	17.86	17.88	17.92	11277040	79.341670
Hexachlorophene	26.10	26.13	26.16	4640360	29.958450

Analysis Report (B)

Injected on : Nov 01, 2018 19:42:52
Instrument : CP15--19850B
Result file : 15HERB18304002B.009.RAW
Calibration file : 15HERB1830401B.CAL
Method file : 15HERBB.MET
%SSR(DCAA) : 97% (34-127) Conc.: 64.66614

Peak name	Min	R.T.	Max	Height	Amount
Dalapon	3.83	3.85	3.89	3552652	109.434800
DCAA	12.49	12.51	12.55	2765734	64.666140
DICAMBA	12.85	12.87	12.91	1363894	7.674980
MCPP	12.90	12.93	12.96	1375239	7784.744000
MCPA	13.43	13.46	13.49	1756215	7228.417000
DBOFB	13.69	13.71	13.75	10347110	0.033333
2,4-DP	13.96	13.98	14.01	2981721	79.727780
2,4-D	14.58	14.60	14.64	3645792	85.100710
PCP	15.28	15.30	15.34	15544370	28.351290
2,4,5-TP	15.77	15.79	15.83	1730285	8.551607
2,4,5-T	16.47	16.50	16.53	1547798	8.658326
DINOSEB	16.91	16.93	16.97	487421	5.296077
2,4-DB	17.18	17.20	17.24	2066991	81.563630
Picloram	19.48	19.50	19.54	12451130	77.065040
Hexachlorophene	26.52	26.55	26.58	5116291	30.561940

Summary Report

Compound Name	Column	Amount Found	LOQ	DL	Qualifiers	%RPD	Comments
☑ Dalapon	B	109.434800	90	44		44.27	**
☑ DCAA	B	64.666140	6.67	3.335		1.81	
☑ DICAMBA	A	7.849104	<12	4	J	2.24	
☑ MCPP	A	10262.490000	7700	3800		27.46	
☑ MCPA	A	8855.012000	2500	760		20.23	
☑ 2,4-DP	A	85.355320	20	9		6.82	
☑ 2,4-D	B	85.100710	36	12		1.12	
☐ DBOFB	A	0.033333				0.00	
☑ PCP	A	29.763110	1.7	0.33		4.86	
☑ 2,4,5-TP	A	9.209785	1.7	0.75		7.41	
☑ 2,4,5-T	A	8.941679	1.7	0.82		3.22	
☑ 2,4-DB	A	85.945600	21	9.8		5.23	
☑ DINOSEB	A	7.74	<24	<9			
☑ Picloram	A	79.341670	41	20		2.91	
☐ Hexachlorophene	B	30.561940	24			1.99	

Units: ug/kg

Reviewed by: _____ Verified by: _____
Michele D. Hamilton
Group Leader
Date: 11/2/18 Date: NOV 02 2018

%RPD = High - Low Amount divided by the Average times 100 Higher Amount Found unless RPD > 40
** %Difference > 40, lower amount found reported
* Recovery outside QC Limits

LCSA 10/30/18 F ABLCS10303 LCS 183030010A 10401 SW-846 8151A

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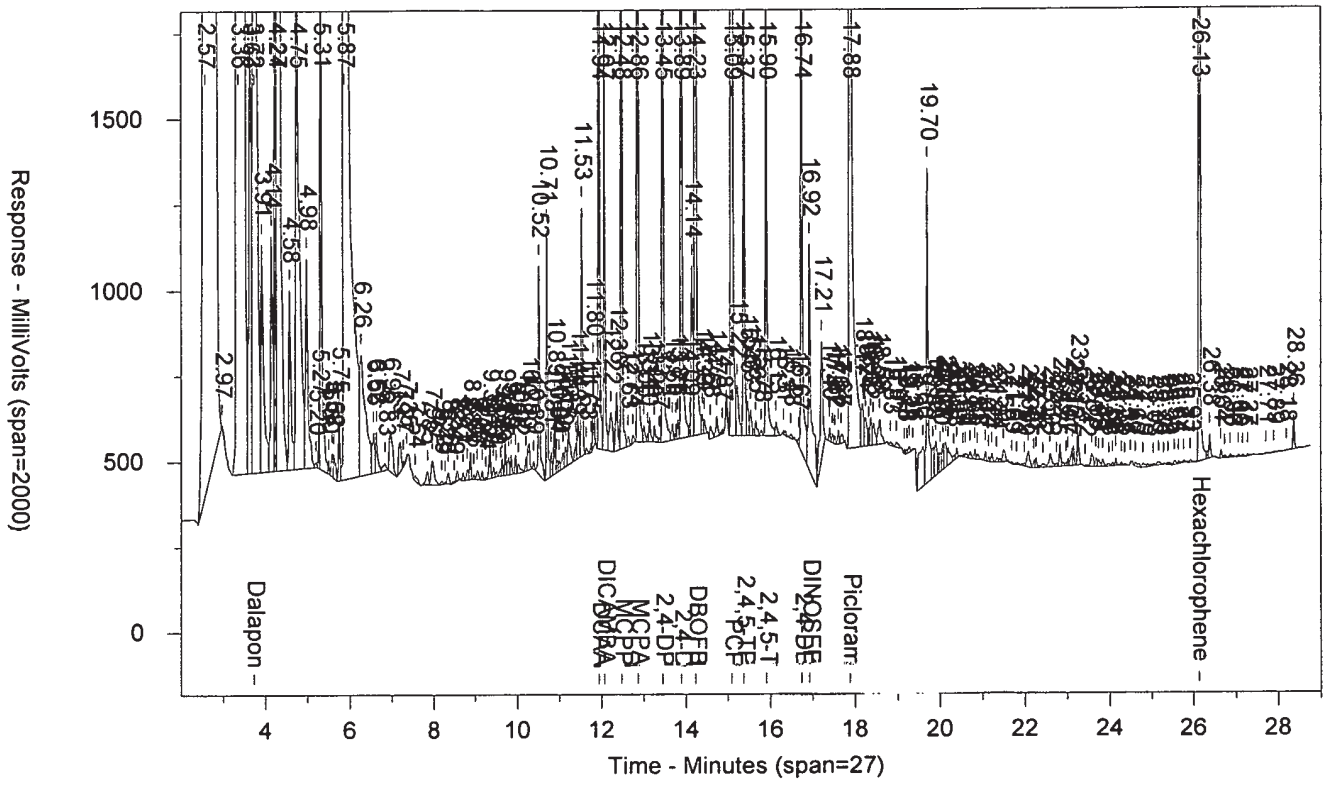

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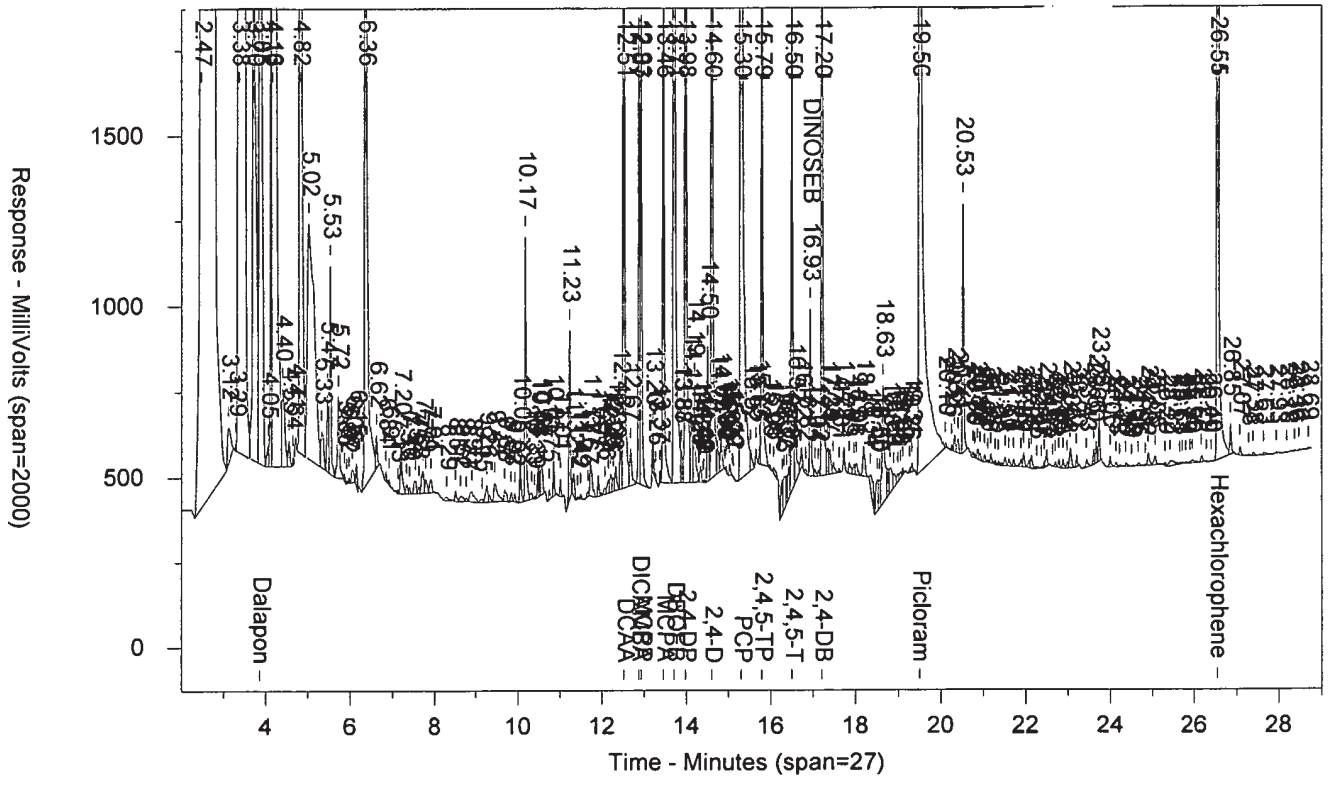

LANCASTER LABORATORIES

Sample Number: LCSA 10/30/18 F ABLCS10303 LCS 183030010A 10401 SW-846 8151A
Injected On: 11/1/2018 7:42:52 PM Sample Weight: 30
Instrument ID: CP15-19850 Dilution Factor: 10
Oven Parameters: 50 hold 0.5 min; to 100 @ 25c/min; to 310 @ 12c/min, hold 2 min.
Column A ID: ZB-XLB-HT 30m x 0.32mm x 0.25um
Column B ID: ZB35 30m x 0.32mm x 0.25um
Injection Volume: 1 ul

Threshold: 4
Calibration Type: internal
Quantitation: Height

Analyst: 13378

RT A	Height A	Amount A - PPB	Compound A	RT B	Height B	Amount B - PPB	Compound B
3.722	3747767	171.651	Dalapon	3.853	3552652	109.435	Dalapon
11.939	2497602	63.503	DCAA	12.513	2765734	64.666	DCAA
12.066	1240140	7.849	DICAMBA	12.874	1363894	7.675	DICAMBA
12.477	2053280	10262.49	MCPP	12.928	1375239	7784.744	MCPP
12.861	2267129	8855.012	MCPA	13.456	1756215	7228.417	MCPA
13.45	2770227	85.355	2,4-DP	13.98	2981721	79.728	2,4-DP
14.229	9733149	.033	DBOFB	13.707	10347110	.033	DBOFB
13.891	3264883	84.149	2,4-D	14.605	3645793	85.101	2,4-D
15.09	1480251U	29.763	PCP	15.3	15544370	28.351	PCP
15.374	1710483	9.21	2,4,5-TP	15.79	1730285	8.552	2,4,5-TP
15.901	1465849	8.942	2,4,5-T	16.496	1547798	8.658	2,4,5-T
16.735	1954714	85.946	2,4-DB	17.202	2066991	81.564	2,4-DB
16.922	660383	7.741	DINOSEB	16.927	487421	5.296	DINOSEB
17.879	11277040	79.342	Picloram	19.498	12451130	77.065	Picloram
26.131	4640360	29.958	Hexachlorophene	26.55	5116291	30.562	Hexachlorophe

Files:
Area File: 15herb18304002.009.RAW
Area File: 15herb18304002B.009.RAW
Method A: 15HERB.MET
Method B: 15HERBB.MET
Calibration File A: 15HERB1830401.CAL
Calibration File B: 15HERB1830401b.CAL
Format A: herw15.FMTA
Format B: herw15.FMTA
Area File Created On: 11/1/2018 8:11:39 PM
File Reported On: 11/2/2018 at 2:20:04 PM

LCSA 10/30/18 F ABLCS10303 LCS 183030010A 10401 SW-846 815

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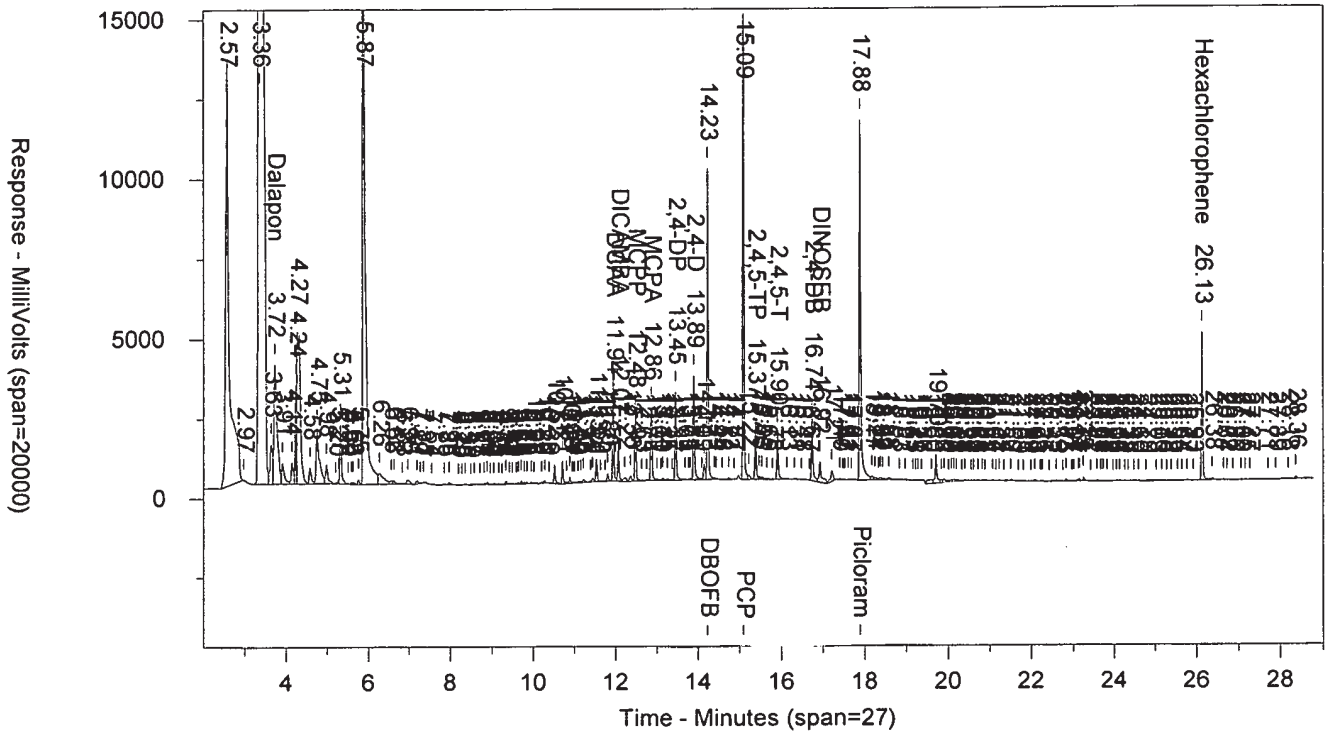

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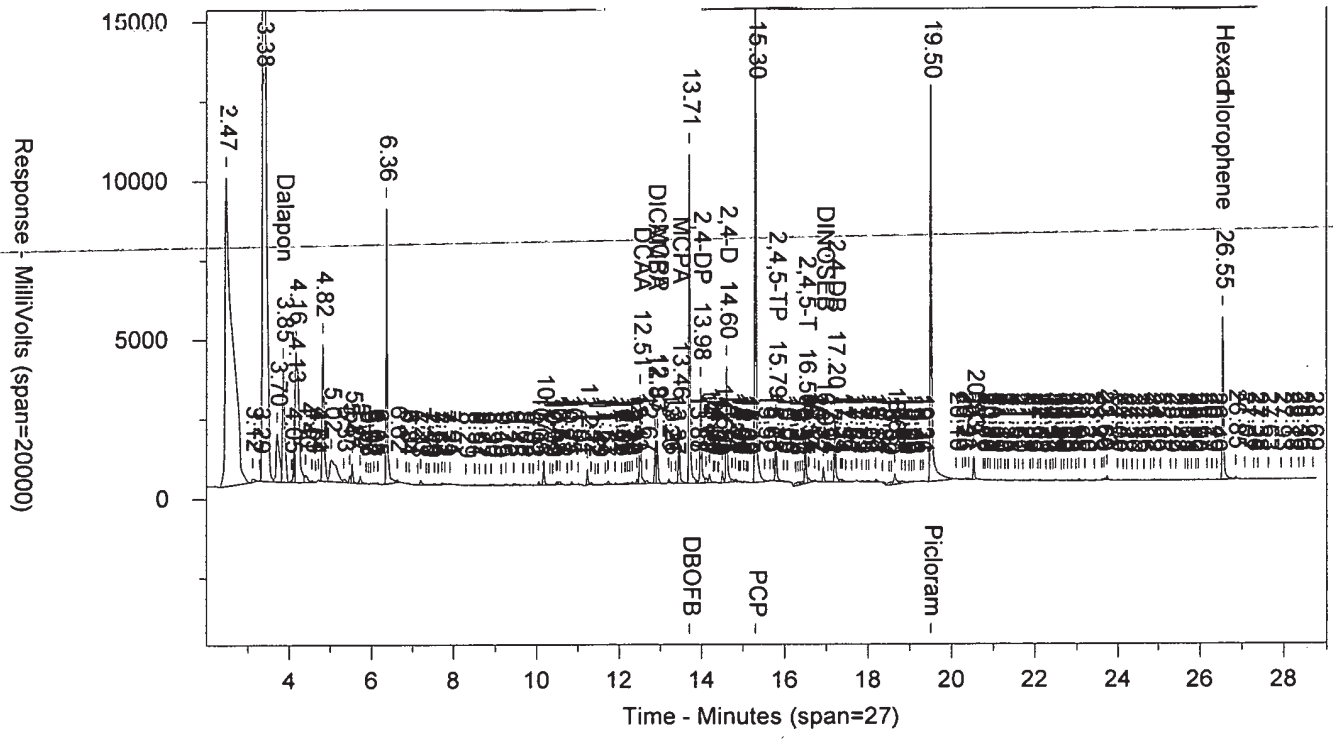

Extraction/Distillation/Digestion Logs

Herbicides

Organic Extraction Batchlog Assigned to: 9121 Bradley VanLeuven Reviewed by: RU 13378 Start Date: 10/30/18 Start time: 20:00

183030010A Tech 1: BV 9121 Tech 2: DS 2894

Dept: 24 Prep Analysis: 04181 Herbicide Soil Extraction Herbicide soils 8151A Master

QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH 2	pH 2	BC	Comments
9867763MS	T1003	30.39	IS1828824A SS1828124A	0.1 1.0	MS1828224A	1.0	10.0	✓	✓	302A	sandy brown soil
9867764MSD	T1003	30.20	IS1828824A SS1828124A	0.1 1.0	MS1828224A	↓	10.0	✓	✓	302A	sandy brown soil
BLANKA	PBLK10303	30.6	IS1828824A SS1828124A	0.1 1.0	—	—	10.0	✓	✓	Z	Acidified Na2SO4
LCSA	LCS10303	30.0	IS1828824A SS1828124A	0.1 1.0	MS1828224A	1.0	10.0	✓	✓	Z	↓

Solvent Used	Lot No.
1:1 Methylene Chloride/Acetone	9121103018A
25% Sulfuric Acid	4801693
37% KOH	9121100418A
Diazald Solution	2894103118A
Ethyl Ether	183339
Filter paper	16827493
Hexane	185388
Methanol	181172
Methylene Chloride	187356
Sodium Sulfate(Acid)	2894102218D

N/A DS 2894 10-31-18

Spike Solutions: Witness: N/A

IS1828824A HERB INTERNAL STANDARD
MS1828224A HERB SPIKE
SS1828124A HERB SURROGATE STANDARD

	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH 2	pH 2	BC	Comments	Analyses	List	Due Date	Prio
1	9866463	T0904	30.28	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302a	Soil;Rocks;Brown	10401	25790	11/02/2018	N
2	9866464	T0905	30.23	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Organic Matter;Soil;Brown	10401	25790	11/02/2018	N
3	9866465	T0906	30.30	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Organic Matter;Soil;Gritty;Rocks;Grey	10401	25790	11/02/2018	N
4	9866466	T0907	30.02	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Organic Matter;Soil;Brown	10401	25790	11/02/2018	N
5	9866467	T0908	30.39	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Organic Matter;Soil;Rocks;Brown	10401	25790	11/02/2018	N
6	9867761	T1002	30.18	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Sandy;Brown	10401	25790	11/05/2018	N
7	9867762BKG	T1003	30.08	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Sandy;Brown	10401	25790	11/05/2018	N

TID12 Page 3698 of 7494

NA DS 2894 10-31-18

Bench#	Bench#	Bench#		
Rack ID:		Work Station	SON HOOD Heth Hood	Micro Temp 100?
Internal Standard		Balance #	176009	

R-VAP ID	C	R-VAP ID	C	R-VAP ID	C			
S-bath ID 5	90 C	S-bath ID 169851	85 C	N-Evap 3	40° C	M-vap	C	183030010A

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	pH 2	pH 2	BC	Comments	Analyses	List	Due Date	Prio
8 9867766	T1004	30.44	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Sandy;Rocks;Brown	10401	25790	11/05/2018	N
9 9867767	T1005	30.28	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Wet;Brown	10401	25790	11/05/2018	N
10 9869111	E7801 ③ ~~30.17~~ 30.49 AV 9121 10/30/18		IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓ ③	~~302a~~ 302B	Soil;Gritty;Wet;Rocks;Brown;Fuel Odor AV 9121 10/30/18	10401	1886	11/05/2018	P
11 9870251	T1102	30.19	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Gritty;Rocks;Red	10401	25790	11/06/2018	N
12 9870252	T1103	30.14	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Gritty;Rocks;Black	10401	25790	11/06/2018	N
13 9870253	T1104	30.18	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Gritty;Rocks;Black	10401	25790	11/06/2018	N
14 9870254	T1105	30.15	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Gritty;Rocks;Black	10401	25790	11/06/2018	N
15 9872060	12T02	30.00	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302a	Soil;Rocks;Black	10401	25790	11/07/2018	N
16 9872061	12T03	30.02	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Rocks;Black	10401	25790	11/07/2018	N
17 9872062	12T04	30.41	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Gritty;Rocks;Black	10401	25790	11/07/2018	N
18 9872063	12T05	30.19	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Rocks;Brown	10401	25790	11/07/2018	N
19 9872064	12T06	30.22	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Organic Matter;Soil;Rocks;Black	10401	25790	11/07/2018	N
20 9872065	12T07	30.10	IS1828824A SS1828124A	0.1 1.0	10.0	✓	✓	302A	Soil;Brown	10401	25790	11/07/2018	N

TID12 Page 3600 of 7494

N/A DS 10-31-18

Bench#	Bench#	Bench#		
Rack ID:		Work Station	SON HOOD Hesb Hood	Micro Temp 100?
Internal Standard		Balance #	17609	

~~R-VAP ID~~	~~C~~	~~R-VAP ID~~	C	R-VAP ID	~~C~~
S-bath ID 5	90 C	S-bath ID 16951	85 C	N-Evap 3	40°C

M-vap	C	183030010A

DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Prep-Process Worksheet

Florisil
Prep: 04181 Herbicide Soil Extraction
Batch: 183030010A

Verified: _____
Start Date: 10-31-18
Start Time: 13:00
Tech 1: DS 28944
Tech 2: _____

Sample #	Aliquot (mL)	Final Volume (mL)	D.F. Aliq	D.F. F.V.	Comments
9867763MS	2.0	2.0			
9867764MSD	↓	↓			
BLANKA	↓	↓			
LCSA	↓	↓			

	Sample #	QC	Aliquot (mL)	Final Volume (mL)	D.F. Aliq	D.F. F.V.	Comments	Analyses
1	9866463		2.0	2.0				10401
2	9866464		↓	↓				10401
3	9866465		↓	↓				10401
4	9866466		↓	↓				10401
5	9866467		↓	↓				10401
6	9867761		↓	↓				10401
7	9867762		↓	↓				10401
8	9867766		↓	↓				10401
9	9867767		↓	↓				10401
10	9869111		↓	↓				10401
11	9870251		↓	↓				10401
12	9870252		↓	↓				10401
13	9870253		↓	↓				10401
14	9870254		↓	↓				10401
15	9872060		↓	↓				10401
16	9872061		↓	↓				10401
17	9872062		↓	↓				10401
18	9872063		↓	↓				10401
19	9872064		↓	↓				10401
20	9872065		↓	↓				10401

Additional Comment: _____

DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		Florisil	6362355-17
		50% Ether/Hexane	289410311BB

S-Evap/bath ✓ C S-Evap/bath ✓ C N-Evap3 40° C

NA DS 28944
10-31-18

The documented temperatures are NIST corrected.