New Jersey
ACCUTEST
LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP56061/GN43983	20	0.0	mg/kg	800	802	100.3	90-110%
Chromium, Hexavalent	GP56056/GN43949	0.40	0.0	mg/kg	40.0	37.7	94.3	80-120%
Chromium, Hexavalent	GP56056/GN43949			mg/kg	1000	938	93.8	80-120%
Cyanide	GP55943/GN43793	0.24	0.0	mg/kg	1	0.986	98.6	90-110%
Cyanide	GP55945/GN43597	0.24	0.0	mg/kg	1	0.954	95.4	90-110%
Nitrogen, Nitrate + Nitrite	GP55966/GN43823	20	0.0	mg/kg	200	200	100.0	80-120%
Sulfate	GP56061/GN43983	100	0.0	mg/kg	800	823	102.9	90-110%
Total Organic Carbon	GP56044/GN43910	1000	0.00	mg/kg	20000	20900	104.5	80-120%
Total Organic Carbon	GP56044/GN43974	1000	0.00	mg/kg	20000	20600	103.0	80-120%
Total Organic Carbon	GP56044/GN44094	1000	0.00	mg/kg	20000	20800	104.0	80-120%

Associated Samples:
Batch GP55943: JA58750-1, JA58750-10, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP55945: JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18
Batch GP55966: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56044: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56056: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56061: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP56061/GN43983	JA58750-11	mg/kg	1.7	1.7	0.0	0-20%
Chromium, Hexavalent	GP56056/GN43949	JA58750-11	mg/kg	0.0	0.0	0.0	0-20%
Cyanide	GP55943/GN43793	JA58750-1	mg/kg	0.0	0.0	0.0	0-37%
Cyanide	GP55945/GN43597	JA58750-11	mg/kg	0.0	0.0	0.0	0-37%
Nitrogen, Nitrate + Nitrite	GP55966/GN43823	JA58750-11	mg/kg	0.0	0.0	0.0	0-41%
Redox Potential Vs H2	GN43788	JA58750-11	mv	339	323	4.8	0-17%
Sulfate	GP56061/GN43983	JA58750-11	mg/kg	23.8	25.4	6.5	0-20%
Total Organic Carbon	GP56044/GN44094	JA58750-11	mg/kg	12600	14200	11.9	0-39%
pH	GN43786	JA58750-11	su	7.66	7.66	0.0	0-10%

Associated Samples:
Batch GN43786: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GN43788: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP55943: JA58750-1, JA58750-10, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP55945: JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18
Batch GP55966: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56044: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56056: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56061: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP56061/GN43983	JA58750-11	mg/kg	1.7	958	970	101.1	80-120%
Chloride	GP56061/GN43983	JA58750-8	mg/kg	2.4	952	961	100.7	80-120%
Chromium, Hexavalent	GP56056/GN43949	JA58750-11	mg/kg	0.0	46.9	0.96	2.0N(a)	75-125%
Chromium, Hexavalent	GP56056/GN43949	JA58750-11	mg/kg	0.0	1430	1130	79.3(b)	75-125%
Cyanide	GP55943/GN43793	JA58750-1	mg/kg	0.0	1.28	1.3	102.0	20-159%
Cyanide	GP55945/GN43597	JA58750-11	mg/kg	0.0	1.17	1.1	93.7	20-159%
Nitrogen, Nitrate + Nitrite	GP55966/GN43823	JA58750-11	mg/kg	0.0	240	254	106.0	41-141%
Sulfate	GP56061/GN43983	JA58750-11	mg/kg	23.8	958	1030	105.0	80-120%
Sulfate	GP56061/GN43983	JA58750-8	mg/kg	26.2	952	1030	105.4	80-120%
Total Organic Carbon	GP56044/GN44094	JA58750-11	mg/kg	12600	22500	33000	90.8	41-135%

Associated Samples:
Batch GP55943: JA58750-1, JA58750-10, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP55945: JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18
Batch GP55966: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56044: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56056: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
Batch GP56061: JA58750-1, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Soluble XCR matrix spike recovery indicates possible matrix interference. Good post spike recovery (101%) on this sample.
(b) Good recovery on insoluble XCR matrix spike. See additional comments on soluble matrix spike recovery.

13.3

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102010W2.CN Date Analyzed: 10/20/10 Methods: SW846 9012 M/LACHAT
Analyst: VA Run ID: GN43597
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:11	GN43597-STD1	1		STDA
14:13	GN43597-STD2	1		STDB
14:14	GN43597-STD3	1		STDC
14:15	GN43597-STD4	1		STDD
14:16	GN43597-STD5	1		STDE
14:17	GN43597-STD6	1		STDF
14:19	GN43597-STD7	1		STDG
14:20	GN43597-ICV1	1		
14:21	GN43597-ICB1	1		
14:22	GN43597-CCV1	1		
14:49	GN43597-ICV2	1		
14:50	GN43597-ICB2	1		
14:51	GN43597-CCV2	1		
14:52	GN43597-CCB1	1		
14:53	GP55943-MB1	1		
14:55	GP55943-B1	1		Blank spike fail. Low.
14:56	GP55943-S1	1		Blank spike fail. Low.
14:57	GP55943-S2	1		Blank spike fail. Low.
14:58	GP55943-D1	1		Blank spike fail. Low.
14:59	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:02	JA58750-1	1		Blank spike fail. Low.
15:03	JA58750-2	1		Blank spike fail. Low.
15:04	JA58750-3	1		Blank spike fail. Low.
15:05	GN43597-CCV3	1		
15:06	GN43597-CCB2	1		
15:08	JA58750-4	1		Blank spike fail. Low.
15:09	JA58750-5	1		Blank spike fail. Low.
15:10	JA58750-6	1		Blank spike fail. Low.
15:11	JA58750-7	1		Blank spike fail. Low.
15:12	JA58750-8	1		Blank spike fail. Low.
15:14	JA58750-9	1		Blank spike fail. Low.
15:15	JA58750-10	1		Blank spike fail. Low.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102010W2.CN Date Analyzed: 10/20/10 Methods: SW846 9012 M/LACHAT
Analyst: VA Run ID: GN43597
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:16	ZZZZZZ	1		
15:17	JA58710-3	1		(sample used for QC only; not part of login JA58750)
15:18	ZZZZZZ	1		
15:19	GN43597-CCV4	1		
15:21	GN43597-CCB3	1		
15:22	ZZZZZZ	1		
15:23	ZZZZZZ	1		
15:24	ZZZZZZ	1		
15:25	ZZZZZZ	1		
15:27	ZZZZZZ	1		
15:28	GP55943-MB1	1		
15:29	GP55944-MB1	1		
15:30	GP55944-B1	1		
15:31	GP55944-S1	1		%sol
15:33	GP55944-S2	1		%sol
15:34	GN43597-CCV5	1		
15:35	GN43597-CCB4	1		
15:36	GP55944-D1	1		%sol
15:37	JA58710-14	1		(sample used for QC only; not part of login JA58750)
15:38	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:41	JA58675-1A	1		(sample used for QC only; not part of login JA58750)
15:42	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:44	ZZZZZZ	1		
15:45	ZZZZZZ	1		
15:47	ZZZZZZ	1		
15:48	GN43597-CCV6	1		
15:49	GN43597-CCB5	1		
15:50	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:54	ZZZZZZ	1		

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102010W2.CN Date Analyzed: 10/20/10 Methods: SW846 9012 M/LACHAT
Analyst: VA Run ID: GN43597
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:55	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:57	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:01	ZZZZZZ	1		
16:02	GN43597-CCV7	1		
16:03	GN43597-CCB6	1		
16:04	ZZZZZZ	1		
16:06	GP55945-MB1	1		
16:07	GP55945-B1	1		
16:08	GP55945-S1	1		%sol
16:09	GP55945-S2	1		%sol
16:10	GP55945-D1	1		%sol
16:12	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:14	ZZZZZZ	1		
16:15	ZZZZZZ	1		
16:16	GN43597-CCV8	1		
16:17	GN43597-CCB7	1		
16:19	ZZZZZZ	1		
16:20	JA58750-11	1		%sol
16:21	JA58750-12	1		%sol
16:23	JA58750-13	1		%sol
16:25	JA58750-14	1		%sol
16:26	JA58750-15	1		%sol
16:27	JA58750-16	1		%sol
16:28	JA58750-17	1		%sol
16:29	JA58750-18	1		%sol
16:30	GN43597-CCV9	1		
16:32	GN43597-CCB8	1		
16:33	JA58900-7	1		(sample used for QC only; not part of login JA58750)
16:34	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102010W2.CN Date Analyzed: 10/20/10 Methods: SW846 9012 M/LACHAT
Analyst: VA Run ID: GN43597
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:35	ZZZZZZ	1		
16:36	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:41	GN43597-CCV10	1		
16:42	GN43597-CCB9	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102010W2.CN Date Analyzed: 10/20/10 Methods: SW846 9012 M/LACHAT
Run ID: GN43597 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43597-ICV2	Cyanide	0.29	0.020	0.0021	.3	96.7	90-110
GN43597-ICB2	Cyanide	-0.0021	0.020	0.0021			
GN43597-CCV2	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB1	Cyanide	-0.0048	0.020	0.0021			
GN43597-CCV3	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB2	Cyanide	-0.0047	0.020	0.0021			
GN43597-CCV4	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB3	Cyanide	-0.0035	0.020	0.0021			
GN43597-CCV5	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB4	Cyanide	-0.0041	0.020	0.0021			
GN43597-CCV6	Cyanide	0.40	0.020	0.0021	.4	100.0	90-110
GN43597-CCB5	Cyanide	-0.0045	0.020	0.0021			
GN43597-CCV7	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB6	Cyanide	-0.0040	0.020	0.0021			
GN43597-CCV8	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB7	Cyanide	-0.0042	0.020	0.0021			
GN43597-CCV9	Cyanide	0.39	0.020	0.0021	.4	97.5	90-110
GN43597-CCB8	Cyanide	-0.0043	0.020	0.0021			
GN43597-CCV10	Cyanide	0.38	0.020	0.0021	.4	95.0	90-110
GN43597-CCB9	Cyanide	-0.0042	0.020	0.0021			

(!) Outside of QC limits

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Analyst: NP Run ID: GN43793
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:43	GN43793-STD1	1		STDA
12:44	GN43793-STD2	1		STDB
12:45	GN43793-STD3	1		STDC
12:46	GN43793-STD4	1		STDD
12:47	GN43793-STD5	1		STDE
12:49	GN43793-STD6	1		STDF
12:50	GN43793-STD7	1		STDG
12:51	GN43793-ICV1	1		
12:52	GN43793-ICB1	1		
12:53	GN43793-CCV1	1		
12:54	GN43793-CCB1	1		
12:56	GP55943-MB2	1		
12:57	GP55943-B2	1		
12:58	GP55943-S1	1		%sol
12:59	GP55943-S2	1		
13:00	GP55943-D1	1		%sol
13:02	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	JA58750-1	1		%sol
13:05	JA58750-2	1		%sol
13:06	JA58750-3	1		%sol
13:07	GN43793-CCV2	1		
13:09	GN43793-CCB2	1		
13:10	JA58750-4	1		%sol
13:11	JA58750-5	1		%sol
13:12	JA58750-6	1		%sol
13:13	JA58750-7	1		%sol
13:15	JA58750-8	1		%sol
13:16	JA58750-9	1		%sol
13:17	JA58750-10	1		%sol
13:18	ZZZZZZ	1		
13:19	JA58710-3	1		(sample used for QC only; not part of login JA58750)
13:20	ZZZZZZ	1		

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Analyst: NP Run ID: GN43793
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:22	GN43793-CCV3	1		
13:23	GN43793-CCB3	1		
13:24	ZZZZZZ	1		
13:25	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:31	GP56007-MB1	1		
13:32	GP56007-B1	1		
13:34	GP56007-S1	1		%sol
13:35	GP56007-S2	1		%sol
13:36	GN43793-CCV4	1		
13:37	GN43793-CCB4	1		
13:38	GP56007-D1	1		%sol
13:39	ZZZZZZ	1		
13:41	JA58900-12	1		(sample used for QC only; not part of login JA58750)
13:42	ZZZZZZ	1		
13:43	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:49	ZZZZZZ	1		
13:50	GN43793-CCV5	1		
13:51	GN43793-CCB5	1		
13:52	JA59199-12	1		(sample used for QC only; not part of login JA58750)
13:54	ZZZZZZ	1		
13:55	ZZZZZZ	1		
13:56	ZZZZZZ	1		
13:57	ZZZZZZ	1		
13:58	ZZZZZZ	1		
13:59	ZZZZZZ	1		
14:01	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Analyst: NP Run ID: GN43793
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:02	GP55987-MB1	1		
14:03	GP55987-B1	1		
14:04	GN43793-CCV6	1		
14:05	GN43793-CCB6	1		
14:07	GP55987-S1	1		%sol
14:08	GP55987-S2	1		
14:09	GP55987-D1	1		%sol
14:10	JA58815-1A	1		(sample used for QC only; not part of login JA58750)
14:11	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:15	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:18	GN43793-CCV7	1		
14:20	GN43793-CCB7	1		
14:21	ZZZZZZ	1		
14:22	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:24	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:33	GN43793-CCV8	1		
14:34	GN43793-CCB8	1		
14:35	JA58900-3	1		(sample used for QC only; not part of login JA58750)
14:36	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:39	GP56009-MB1	1		
14:40	GP56009-B1	1		

13.5

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Analyst: NP Run ID: GN43793
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:41	GP56009-D1	1		%sol
14:42	ZZZZZZ	1		
14:43	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:47	GN43793-CCV9	1		
14:48	GN43793-CCB9	1		
14:49	ZZZZZZ	1		
14:50	JA58914-1	1		(sample used for QC only; not part of login JA58750)
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:01	GN43793-CCV10	1		
15:02	GN43793-CCB10	1		
15:03	ZZZZZZ	1		
15:05	GP55843-MB3	1		
15:05	GP56009-MB2	1		
15:06	GP55843-B3	1		
15:06	GP56009-B2	1		
15:07	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:09	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:12	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:16	GN43793-CCV11	1		
15:17	GN43793-CCB11	1		
16:08	GN43793-CCV12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Analyst: NP Run ID: GN43793
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:10	GN43793-CCB12	1		
16:11	ZZZZZZ	1		
16:14	GN43793-CCV13	1		
16:15	GN43793-CCB13	1		

Refer to raw data for calibration curve and standards.

13.5 13

Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: C102510W1.CN Date Analyzed: 10/25/10 Methods: SW846 9012 M/LACHAT, SW846 CHAP7/9012 B, SW846 C
Run ID: GN43793 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43793-ICV1	Cyanide	0.33	0.020	0.0021	.3	110.0	90-110
GN43793-ICB1	Cyanide	-0.0051	0.020	0.0021			
GN43793-CCV1	Cyanide	0.42	0.020	0.0021	.4	105.0	90-110
GN43793-CCB1	Cyanide	-0.0047	0.020	0.0021			
GN43793-CCV2	Cyanide	0.42	0.020	0.0021	.4	105.0	90-110
GN43793-CCB2	Cyanide	-0.0043	0.020	0.0021			
GN43793-CCV3	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB3	Cyanide	-0.0043	0.020	0.0021			
GN43793-CCV4	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB4	Cyanide	-0.0049	0.020	0.0021			
GN43793-CCV5	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB5	Cyanide	-0.0045	0.020	0.0021			
GN43793-CCV6	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB6	Cyanide	-0.0041	0.020	0.0021			
GN43793-CCV7	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB7	Cyanide	-0.0041	0.020	0.0021			
GN43793-CCV8	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB8	Cyanide	-0.0038	0.020	0.0021			
GN43793-CCV9	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB9	Cyanide	-0.0047	0.020	0.0021			
GN43793-CCV10	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB10	Cyanide	-0.0044	0.020	0.0021			
GN43793-CCV11	Cyanide	0.43	0.020	0.0021	.4	107.5	90-110
GN43793-CCB11	Cyanide	-0.0041	0.020	0.0021			
GN43793-CCV12	Cyanide	0.41	0.020	0.0021	.4	102.5	90-110
GN43793-CCB12	Cyanide	-0.0039	0.020	0.0021			
GN43793-CCV13	Cyanide	0.41	0.020	0.0021	.4	102.5	90-110
GN43793-CCB13	Cyanide	-0.0045	0.020	0.0021			

(!) Outside of QC limits

13.5

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: B102610W1.NO3 Date Analyzed: 10/26/10 Methods: EPA 353.2 M/LACHAT, EPA 353.2/LACHAT
Analyst: NP Run ID: GN43823
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:46	GN43823-STD1	1		STDA
09:47	GN43823-STD2	1		STDB
09:48	GN43823-STD3	1		STDC
09:48	GN43823-STD4	1		STDD
09:49	GN43823-STD5	1		STDE
09:50	GN43823-STD6	1		STDF
09:51	GN43823-STD7	1		STDG
09:53	GN43823-ICV1	1		
09:53	GN43823-ICB1	1		
09:54	GN43823-CCV1	1		
09:55	GN43823-CCB1	1		
09:56	GP56033-MB1	1		
09:57	GP56033-B1	1		
09:58	GP56033-S1	1		
09:58	GP56033-S2	1		
09:59	GP56033-D1	1		
10:00	ZZZZZZ	1		
10:01	ZZZZZZ	1		
10:02	ZZZZZZ	1		
10:03	ZZZZZZ	1		
10:04	ZZZZZZ	1		
10:04	GN43823-CCV2	1		
10:05	GN43823-CCB2	1		
10:06	ZZZZZZ	1		
10:07	ZZZZZZ	1		
10:08	ZZZZZZ	1		
10:08	ZZZZZZ	1		
10:09	ZZZZZZ	1		
10:10	ZZZZZZ	1		
10:11	ZZZZZZ	1		
10:12	JA59216-29	1		(sample used for QC only; not part of login JA58750)
10:13	ZZZZZZ	1		
10:13	ZZZZZZ	1		

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: B102610W1.NO3 Date Analyzed: 10/26/10 Methods: EPA 353.2 M/LACHAT, EPA 353.2/LACHAT
Analyst: NP Run ID: GN43823
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:14	GN43823-CCV3	1		
10:15	GN43823-CCB3	1		
10:16	ZZZZZZ	1		
10:19	GN43823-CCV4	1		
10:20	GN43823-CCB4	1		
10:21	ZZZZZZ	1		
10:22	ZZZZZZ	1		
10:23	ZZZZZZ	1		
10:24	ZZZZZZ	1		
10:24	ZZZZZZ	1		
10:25	ZZZZZZ	1		
10:26	ZZZZZZ	1		
10:27	JA59216-29	1		(sample used for QC only; not part of login JA58750)
10:28	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:29	GN43823-CCV5	1		
10:30	GN43823-CCB5	1		
10:31	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:33	JA59289-9	1		(sample used for QC only; not part of login JA58750)
10:34	ZZZZZZ	1		
10:34	GP55862-MB2	1		
10:34	GP55877-MB2	1		
10:35	GP55862-B2	1		
10:35	GP55877-B2	1		
10:36	ZZZZZZ	1		
10:37	ZZZZZZ	1		
10:38	ZZZZZZ	1		
10:39	ZZZZZZ	1		
10:39	GN43823-CCV6	1		
10:40	GN43823-CCB6	1		
10:41	ZZZZZZ	1		
10:42	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: B102610W1.NO3 Date Analyzed: 10/26/10 Methods: EPA 353.2 M/LACHAT, EPA 353.2/LACHAT
Analyst: NP Run ID: GN43823
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:43	ZZZZZZ	1		
10:44	ZZZZZZ	1		
10:44	GP55966-MB1	1		
10:45	GP55966-B1	1		
10:46	GP55966-S1	1		%sol
10:47	GP55966-D1	1		%sol
10:48	JA58750-11	1		%sol
10:49	JA58750-1	1		%sol
10:49	GN43823-CCV7	1		
10:50	GN43823-CCB7	1		
10:51	JA58750-2	1		%sol
10:52	JA58750-3	1		%sol
10:53	JA58750-4	1		%sol
10:54	JA58750-5	1		%sol
10:54	JA58750-6	1		%sol
10:55	JA58750-7	1		%sol
10:56	JA58750-8	1		%sol
10:57	JA58750-9	1		%sol
10:58	JA58750-10	1		%sol
10:59	JA58750-12	1		%sol
10:59	GN43823-CCV8	1		
11:00	GN43823-CCB8	1		
11:01	JA58750-13	1		%sol
11:02	JA58750-14	1		%sol
11:03	JA58750-15	1		%sol
11:04	JA58750-16	1		%sol
11:04	JA58750-17	1		%sol
11:05	JA58750-18	1		%sol
11:06	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:08	ZZZZZZ	1		
11:09	ZZZZZZ	20		
11:09	GN43823-CCV9	1		

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: B102610W1.NO3 Date Analyzed: 10/26/10 Methods: EPA 353.2 M/LACHAT, EPA 353.2/LACHAT
Analyst: NP Run ID: GN43823
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:10	GN43823-CCB9	1		
11:11	ZZZZZZ	40		
11:13	GN43823-CCV10	1		
11:14	GN43823-CCB10	1		

Refer to raw data for calibration curve and standards.

13.6

Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: B102610W1.NO3 Date Analyzed: 10/26/10 Methods: EPA 353.2 M/LACHAT, EPA 353.2/LACHAT
Run ID: GN43823 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43823-ICV1	Nitrogen, Nitrate + Nitrite	1.9	0.10	0.0050	2	95.0	90-110
GN43823-ICB1	Nitrogen, Nitrate + Nitrite	0.0050 U	0.10	0.0050			
GN43823-CCV1	Nitrogen, Nitrate + Nitrite	2.6	0.10	0.0050	2.5	104.0	90-110
GN43823-CCB1	Nitrogen, Nitrate + Nitrite	0.0050 U	0.10	0.0050			
GN43823-CCV2	Nitrogen, Nitrate + Nitrite	2.5	0.10	0.0050	2.5	100.0	90-110
GN43823-CCB2	Nitrogen, Nitrate + Nitrite	0.0050 U	0.10	0.0050			
GN43823-CCV3	Nitrogen, Nitrate + Nitrite	2.1	0.10	0.0050	2.5	84.0!(a)	90-110
GN43823-CCB3	Nitrogen, Nitrate + Nitrite	0.0050 U	0.10	0.0050			
GN43823-CCV4	Nitrogen, Nitrate + Nitrite	2.5	0.10	0.0050	2.5	100.0	90-110
GN43823-CCB4	Nitrogen, Nitrate + Nitrite	0.0089	0.10	0.0050			
GN43823-CCV5	Nitrogen, Nitrate + Nitrite	2.4	0.10	0.0050	2.5	96.0	90-110
GN43823-CCB5	Nitrogen, Nitrate + Nitrite	0.0051	0.10	0.0050			
GN43823-CCV6	Nitrogen, Nitrate + Nitrite	2.5	0.10	0.0050	2.5	100.0	90-110
GN43823-CCB6	Nitrogen, Nitrate + Nitrite	0.0075	0.10	0.0050			
GN43823-CCV7	Nitrogen, Nitrate + Nitrite	2.3	0.10	0.0050	2.5	92.0	90-110
GN43823-CCB7	Nitrogen, Nitrate + Nitrite	0.010	0.10	0.0050			
GN43823-CCV8	Nitrogen, Nitrate + Nitrite	2.4	0.10	0.0050	2.5	96.0	90-110
GN43823-CCB8	Nitrogen, Nitrate + Nitrite	0.011	0.10	0.0050			
GN43823-CCV9	Nitrogen, Nitrate + Nitrite	2.4	0.10	0.0050	2.5	96.0	90-110
GN43823-CCB9	Nitrogen, Nitrate + Nitrite	0.015	0.10	0.0050			
GN43823-CCV10	Nitrogen, Nitrate + Nitrite	2.4	0.10	0.0050	2.5	96.0	90-110
GN43823-CCB10	Nitrogen, Nitrate + Nitrite	0.016	0.10	0.0050			

(!) Outside of QC limits
(a) No samples reported for this test in the area associated with this QC.

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01027S2.TXT Date Analyzed: 10/27/10 Methods: CORP ENG 81M/SW9060M
Analyst: SJG Run ID: GN43910
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:21	GN43910-STD1	1		STDA
09:42	GN43910-STD2	1		STDB
09:51	GN43910-STD3	1		STDC
10:10	GN43910-STD4	1		STDD
10:19	GN43910-STD5	1		STDE
10:30	GN43910-STD6	1		STDF
10:40	GN43910-STD7	1		STDG
08:38	GN43910-CRI1	1		
08:49	GN43910-HSTD1	1		
09:02	GN43910-ICV1	1		
09:23	GN43910-ICB1	1		
09:32	GN43910-CCV1	1		
09:48	GN43910-CCB1	1		
11:06	GN43910-CCV2	1		
11:21	GN43910-CCB2	1		
12:00	GP56044-MB1	1		
12:10	GP56044-B1	1		
12:21	JA58750-11	1		%sol
12:35	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:57	JA58750-1	1		%sol
13:19	JA58750-3	1		High CV% rehomogenize and rerun
13:31	JA58750-4	1		%sol
13:43	JA58750-5	1		%sol
14:06	JA58750-6	1		High CV% rehomogenize and rerun
14:19	GN43910-CCV3	1		
14:46	JA58750-7	1		%sol
14:57	JA58750-8	1		%sol
15:49	GN43910-CCV4	1		

Refer to raw data for calibration curve and standards.

13.7 13

Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01027S2.TXT Date Analyzed: 10/27/10 Methods: CORP ENG 81M/SW9060M
Run ID: GN43910 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43910-CRI1	Total Organic Carbon	1140	1000	730	1000	114.0	70-130
GN43910-HSTD1	Total Organic Carbon	52800	1000	730	50000	105.6	90-110
GN43910-ICV1	Total Organic Carbon	21300	1000	730	20000	106.5	90-110
GN43910-ICB1	Total Organic Carbon	730 U	1000	730			
GN43910-CCV1	Total Organic Carbon	26700	1000	730	25000	106.8	90-110
GN43910-CCB1	Total Organic Carbon	730 U	1000	730			
GN43910-CCV2	Total Organic Carbon	26100	1000	730	25000	104.4	90-110
GN43910-CCB2	Total Organic Carbon	730 U	1000	730			
GN43910-CCV3	Total Organic Carbon	26200	1000	730	25000	104.8	90-110
GN43910-CCV4	Total Organic Carbon	26300	1000	730	25000	105.2	90-110

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01028S1.TXT Date Analyzed: 10/28/10 Methods: CORP ENG 81M/SW9060M
Analyst: SJG Run ID: GN43974
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:21	GN43974-STD1	1		STDA
09:42	GN43974-STD2	1		STDB
09:51	GN43974-STD3	1		STDC
10:10	GN43974-STD4	1		STDD
10:19	GN43974-STD5	1		STDE
10:30	GN43974-STD6	1		STDF
10:40	GN43974-STD7	1		STDG
09:32	GN43974-CRI1	1		
09:44	GN43974-HSTD1	1		
09:56	GN43974-ICV1	1		
10:07	GN43974-CCV1	1		
10:34	GP56044-MB2	1		
10:53	GP56044-B2	1		
11:07	JA58750-9	1		
11:21	JA58750-10	1		
11:46	JA58750-12	1		Multiple injections indicate possible sample non-homogeneity.
12:24	JA58750-13	1		
12:34	JA58750-14	1		
12:59	JA58750-15	1		Multiple injections indicate possible sample non-homogeneity.
13:07	JA58750-16	1		Overrange rerun 0.05g
13:20	JA58750-17	1		
13:35	GN43974-CCV2	1		
14:00	JA58750-18	1		
14:29	GP56044-D1	1		High CV% rehomogenize and rerun
14:57	GP56044-S1	1		High CV% rehomogenize and rerun
15:07	JA58750-2	1		
15:18	JA58750-3	1		
15:29	JA58750-6	1		
15:48	JA58750-16	1		High CV% rehomogenize and rerun
16:11	JA58750-18	1		Rerun for confirmation only
16:22	GN43974-CCV3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01028S1.TXT Date Analyzed: 10/28/10 Methods: CORP ENG 81M/SW9060M
Run ID: GN43974 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43974-CRI1	Total Organic Carbon	1220	1000	730	1000	122.0	70-130
GN43974-HSTD1	Total Organic Carbon	52800	1000	730	50000	105.6	90-110
GN43974-ICV1	Total Organic Carbon	20900	1000	730	20000	104.5	90-110
GN43974-CCV1	Total Organic Carbon	26600	1000	730	25000	106.4	90-110
GN43974-CCV2	Total Organic Carbon	26400	1000	730	25000	105.6	90-110
GN43974-CCV3	Total Organic Carbon	26200	1000	730	25000	104.8	90-110

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: 210102801.TXT Date Analyzed: 10/28/10 Methods: EPA 300/SW846 9056
Analyst: MS Run ID: GN43983
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:05	GN43983-STD1	1		Manually integrated chrom. peaks reviewed and verified to comply with criteria of Accutest SOP EQA044.
11:52	GN43983-STD2	1		STDB
12:16	GN43983-STD3	1		STDC
13:04	GN43983-STD4	1		STDD
13:52	GN43983-STD5	1		STDE
14:15	GN43983-STD6	1		STDF
14:39	GN43983-STD7	1		STDG
10:13	GN43983-ICV1	1		
10:36	GN43983-CCV1	1		
11:00	GN43983-CCB1	1		
11:24	GP56061-MB1	1		
11:48	GP56061-B1	1		
12:12	GP56061-S1	1		%sol
12:36	GP56061-D1	1		%sol
13:00	JA58750-11	1		%sol
13:24	JA58750-1	1		%sol
13:48	JA58750-2	1		%sol
14:12	JA58750-3	1		%sol
14:36	JA58750-4	1		%sol
15:00	JA58750-5	1		%sol
15:24	GN43983-CCV2	1		
15:48	GN43983-CCB2	1		
16:11	JA58750-6	1		%sol
16:35	JA58750-7	1		%sol
16:59	GP56061-S2	1		%sol
17:23	JA58750-8	1		%sol
17:47	JA58750-9	1		%sol
18:11	JA58750-10	1		%sol
18:35	JA58750-12	1		%sol
18:59	JA58750-13	1		%sol
19:23	JA58750-14	1		%sol
19:47	JA58750-15	1		%sol
20:11	GN43983-CCV3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: 210102801.TXT Date Analyzed: 10/28/10 Methods: EPA 300/SW846 9056
Analyst: MS Run ID: GN43983
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:35	GN43983-CCB3	1		
20:59	JA58750-16	1		%sol
21:22	JA58750-17	1		%sol
21:46	JA58750-18	1		%sol
22:10	GN43983-CCV4	1		
22:34	GN43983-CCB4	1		

Refer to raw data for calibration curve and standards.

13.9

Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: 210102801.TXT Date Analyzed: 10/28/10 Methods: EPA 300/SW846 9056
Run ID: GN43983 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN43983-ICV1	Chloride	102	2.0	0.012	101.55	100.4	90-110
GN43983-ICV1	Sulfate	107	10	0.11	103.17	103.7	90-110
GN43983-CCV1	Chloride	202	2.0	0.012	200	101.0	90-110
GN43983-CCV1	Sulfate	204	10	0.11	200	102.0	90-110
GN43983-CCB1	Chloride	0.012 U	2.0	0.012			
GN43983-CCB1	Sulfate	0.16	10	0.11			
GN43983-CCV2	Chloride	202	2.0	0.012	200	101.0	90-110
GN43983-CCV2	Sulfate	206	10	0.11	200	103.0	90-110
GN43983-CCB2	Chloride	0.012 U	2.0	0.012			
GN43983-CCB2	Sulfate	0.36	10	0.11			
GN43983-CCV3	Chloride	202	2.0	0.012	200	101.0	90-110
GN43983-CCV3	Sulfate	207	10	0.11	200	103.5	90-110
GN43983-CCB3	Chloride	0.012 U	2.0	0.012			
GN43983-CCB3	Sulfate	0.36	10	0.11			
GN43983-CCV4	Chloride	202	2.0	0.012	200	101.0	90-110
GN43983-CCV4	Sulfate	207	10	0.11	200	103.5	90-110
GN43983-CCB4	Chloride	0.012 U	2.0	0.012			
GN43983-CCB4	Sulfate	0.39	10	0.11			

(!) Outside of QC limits

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Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01030S1.TXT Date Analyzed: 10/30/10 Methods: CORP ENG 81M/SW9060M
Analyst: SJG Run ID: GN44094
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:21	GN44094-STD1	1		STDA
09:42	GN44094-STD2	1		STDB
09:51	GN44094-STD3	1		STDC
10:10	GN44094-STD4	1		STDD
10:19	GN44094-STD5	1		STDE
10:30	GN44094-STD6	1		STDF
10:40	GN44094-STD7	1		STDG
09:57	GN44094-CRI1	1		
10:09	GN44094-HSTD1	1		
10:21	GN44094-ICV1	1		
10:35	GN44094-CCV1	1		
10:51	GP56044-MB3	1		
11:04	GP56044-B3	1		
11:25	JA58750-16	1		
12:03	GP56044-D1	1		
12:16	GP56044-S1	1		
12:54	GN44094-CCV2	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary
Inorganics Analyses

Login Number: JA58750
Account: ENSRMAA - AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

File ID: A01030S1.TXT Date Analyzed: 10/30/10 Methods: CORP ENG 81M/SW9060M
Run ID: GN44094 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN44094-CRI1	Total Organic Carbon	1230	1000	730	1000	123.0	70-130
GN44094-HSTD1	Total Organic Carbon	54300	1000	730	50000	108.6	90-110
GN44094-ICV1	Total Organic Carbon	21700	1000	730	20000	108.5	90-110
GN44094-CCV1	Total Organic Carbon	26900	1000	730	25000	107.6	90-110
GN44094-CCV2	Total Organic Carbon	26000	1000	730	25000	104.0	90-110

(!) Outside of QC limits

13.10

Percent Solids Raw Data Summary

Job Number: JA58750
Account: ENSRMAA AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Sample: JA58750-1 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW1-C

Wet Weight (Total)	33.64	g
Tare Weight	26.17	g
Dry Weight (Total)	32.03	g
Solids, Percent	78.4	%

Sample: JA58750-2 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW2-C

Wet Weight (Total)	31.1	g
Tare Weight	25.83	g
Dry Weight (Total)	30.17	g
Solids, Percent	82.4	%

Sample: JA58750-3 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW3-C

Wet Weight (Total)	32.57	g
Tare Weight	27.06	g
Dry Weight (Total)	31.67	g
Solids, Percent	83.7	%

Sample: JA58750-4 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW6-C

Wet Weight (Total)	34.74	g
Tare Weight	27.99	g
Dry Weight (Total)	33.62	g
Solids, Percent	83.4	%

Sample: JA58750-5 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW9-C

Wet Weight (Total)	32.47	g
Tare Weight	26.16	g
Dry Weight (Total)	31.1	g
Solids, Percent	78.3	%

Sample: JA58750-6 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW9-FD

Wet Weight (Total)	26.58	g
Tare Weight	18.55	g
Dry Weight (Total)	25.39	g
Solids, Percent	85.2	%

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Percent Solids Raw Data Summary

Job Number: JA58750
Account: ENSRMAA AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Sample: JA58750-7 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW12-C

Wet Weight (Total)	36.15	g
Tare Weight	27.35	g
Dry Weight (Total)	34.9	g
Solids, Percent	85.8	%

Sample: JA58750-8 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW15-C

Wet Weight (Total)	28.87	g
Tare Weight	22.72	g
Dry Weight (Total)	27.86	g
Solids, Percent	83.6	%

Sample: JA58750-9 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW18-C

Wet Weight (Total)	31.15	g
Tare Weight	25.63	g
Dry Weight (Total)	29.79	g
Solids, Percent	75.4	%

Sample: JA58750-10 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW21-C

Wet Weight (Total)	34.32	g
Tare Weight	25.32	g
Dry Weight (Total)	32.68	g
Solids, Percent	81.8	%

Sample: JA58750-11 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW5-C

Wet Weight (Total)	33.96	g
Tare Weight	26.32	g
Dry Weight (Total)	32.7	g
Solids, Percent	83.5	%

Sample: JA58750-12 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW8-C

Wet Weight (Total)	29.02	g
Tare Weight	23.55	g
Dry Weight (Total)	27.91	g
Solids, Percent	79.7	%

Percent Solids Raw Data Summary

Job Number: JA58750
Account: ENSRMAA AECOM, INC.
Project: Bell Bend Nuclear Power Plant, Salem Township, PA

Sample: JA58750-13 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW11-C

Wet Weight (Total)	29.57	g
Tare Weight	20.36	g
Dry Weight (Total)	27.98	g
Solids, Percent	82.7	%

Sample: JA58750-14 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW14-C

Wet Weight (Total)	33.99	g
Tare Weight	25.79	g
Dry Weight (Total)	32.72	g
Solids, Percent	84.5	%

Sample: JA58750-15 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW17-C

Wet Weight (Total)	37.11	g
Tare Weight	28.13	g
Dry Weight (Total)	35.2	g
Solids, Percent	78.7	%

Sample: JA58750-16 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW20-C

Wet Weight (Total)	35.52	g
Tare Weight	28	g
Dry Weight (Total)	34.12	g
Solids, Percent	81.4	%

Sample: JA58750-17 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW23-C

Wet Weight (Total)	33.55	g
Tare Weight	26.13	g
Dry Weight (Total)	32	g
Solids, Percent	79.1	%

Sample: JA58750-18 **Analyzed:** 01-NOV-10 by DK **Method:** SM18 2540G
ClientID: BBNP-CW20-C-FD

Wet Weight (Total)	31.31	g
Tare Weight	25.79	g
Dry Weight (Total)	29.07	g
Solids, Percent	59.4	%

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New Jersey
ACCUTEST
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General Chemistry

Raw Data

QC Reports: GN43597

Original Run Filename: OM_10-20-2010_02-48-16PM.OMN created 10/20/2010 2:48:16 PM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-20-2010_02-48-16PM.OMN last modified 10/20/2010 4:44:41 PM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 CN (mg/L)	Detection Time	MDF	% Recovery
ICV	1	8	0.293	10/20/2010@2:49:12 PM		97.7
	Known Conc:		0.300			
	Calibration:		Table/Fig. 1			
ICB	1	9	-2.07e-3	10/20/2010@2:50:22 PM		
	Known Conc:		0.00			
CCV	1	10	0.392	10/20/2010@2:51:33 PM		98.0
	Known Conc:		0.400			
CCB	1	11	-4.80e-3	10/20/2010@2:52:44 PM		
	Known Conc:		0.00			
gp55943-mb1	1	12	0.367	10/20/2010@2:53:54 PM		
gp55943-b1	1	13	0.0638	10/20/2010@2:55:05 PM		76.6
gp55943-s1	1	14	0.0596	10/20/2010@2:56:16 PM		
gp55943-s2	1	15	0.0616	10/20/2010@2:57:27 PM		
gp55943-d1	1	16	3.52e-3	10/20/2010@2:58:38 PM		
ja58959-1	1	17	0.0179	10/20/2010@2:59:49 PM		
ja58959-2	1	18	1.44e-3	10/20/2010@3:01:00 PM		
ja58750-1	1	19	4.68e-3	10/20/2010@3:02:11 PM		
ja58750-2	1	20	2.86e-3	10/20/2010@3:03:21 PM		
ja58750-3	1	21	5.10e-3	10/20/2010@3:04:32 PM		
CCV	1	10	0.394	10/20/2010@3:05:43 PM		98.5
	Known Conc:		0.400			
CCB	1	11	-4.71e-3	10/20/2010@3:06:54 PM		
	Known Conc:		0.00			
ja58750-4	1	22	7.20e-3	10/20/2010@3:08:06 PM		
ja58750-5	1	23	5.77e-3	10/20/2010@3:09:17 PM		
ja58750-6	1	24	4.44e-3	10/20/2010@3:10:27 PM		
ja58750-7	1	25	5.79e-3	10/20/2010@3:11:39 PM		
ja58750-8	1	26	3.85e-3	10/20/2010@3:12:51 PM		
ja58750-9	1	27	4.33e-3	10/20/2010@3:14:02 PM		
ja58750-10	1	28	5.56e-3	10/20/2010@3:15:13 PM		
ja58669-1	1	29	6.18e-3	10/20/2010@3:16:25 PM		
ja58710-3	1	30	7.52e-3	10/20/2010@3:17:35 PM		
ja58710-7	1	31	7.57e-3	10/20/2010@3:18:47 PM		
CCV	1	10	0.394	10/20/2010@3:19:58 PM		98.5
	Known Conc:		0.400			
CCB	1	11	-3.54e-3	10/20/2010@3:21:08 PM		
	Known Conc:		0.00			
ja58710-8	1	32	5.59e-3	10/20/2010@3:22:20 PM		
ja58710-9	1	33	2.41e-3	10/20/2010@3:23:32 PM		
ja58710-11	1	35	8.77e-3	10/20/2010@3:24:44 PM		
ja58710-12	1	37	0.0137	10/20/2010@3:25:55 PM		
ja58710-13	1	38	0.0158	10/20/2010@3:27:07 PM		
gp55943-mb1	1	12	-4.98e-3	10/20/2010@3:28:18 PM		
gp55944-mb1	1	39	-4.69e-4	10/20/2010@3:29:30 PM		
go55944-b1	1	40	0.0825	10/20/2010@3:30:41 PM		99.0
gp55944-s1	1	1	-4.09e-4	10/20/2010@3:31:52 PM		
gp55944-s2	1	2	0.0249	10/20/2010@3:33:02 PM		
CCV	1	10	0.392	10/20/2010@3:34:12 PM		98.0
	Known Conc:		0.400			
CCB	1	11	-4.11e-3	10/20/2010@3:35:24 PM		
	Known Conc:		0.00			
gp55944-d1	1	3	7.40e-4	10/20/2010@3:36:34 PM		
ja58710-14	1	4	3.49e-3	10/20/2010@3:37:44 PM		
ja58710-15	1	5	5.89e-3	10/20/2010@3:38:55 PM		
ja58710-16	1	6	0.0153	10/20/2010@3:40:06 PM		
ja58675-1a	1	7	-2.58e-4	10/20/2010@3:41:16 PM		
ja58675-2a	1	8	1.86e-4	10/20/2010@3:42:27 PM		
ja58675-3a	1	9	-4.11e-3	10/20/2010@3:43:37 PM		
ja58675-5a	1	12	1.53e-3	10/20/2010@3:44:48 PM		
ja58675-6a	1	13	3.19e-4	10/20/2010@3:45:59 PM		

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Author: Omnion User

Date : 10/20/2010

ja58675-7a	1	14	-1.61e-3	10/20/2010@3:47:10 PM	
CCV	1	10	0.395	10/20/2010@3:48:20 PM	98.8
	Known Conc:		0.400		
CCB	1	11	-4.51e-3	10/20/2010@3:49:31 PM	
	Known Conc:		0.00		
ja58675-10a	1	15	1.09e-3	10/20/2010@3:50:42 PM	
ja58675-12a	1	16	0.0259	10/20/2010@3:51:53 PM	
ja58675-14a	1	17	5.26e-3	10/20/2010@3:53:04 PM	
ja58675-16a	1	18	6.98e-3	10/20/2010@3:54:15 PM	
ja58675-17a	1	19	-4.44e-4	10/20/2010@3:55:25 PM	
ja58675-18a	1	20	4.68e-3	10/20/2010@3:56:36 PM	
ja58675-21a	1	21	-1.50e-3	10/20/2010@3:57:47 PM	
ja58675-24a	1	22	1.61e-3	10/20/2010@3:58:59 PM	
ja58675-26a	1	23	4.14e-3	10/20/2010@4:00:10 PM	
ja58675-29a	1	24	-1.01e-3	10/20/2010@4:01:20 PM	
CCV	1	10	0.393	10/20/2010@4:02:30 PM	98.3
	Known Conc:		0.400		
CCB	1	11	-3.95e-3	10/20/2010@4:03:42 PM	
	Known Conc:		0.00		
ja58675-31a	1	25	6.67e-4	10/20/2010@4:04:52 PM	
gp55945-mb1	1	26	-6.08e-4	10/20/2010@4:06:04 PM	
gp55945-b1	1	27	0.0795	10/20/2010@4:07:16 PM	95.4
gp55945-s1	1	28	0.0758	10/20/2010@4:08:27 PM	
gp55945-s2	1	29	0.0727	10/20/2010@4:09:38 PM	
gp55945-d1	1	30	-1.51e-3	10/20/2010@4:10:49 PM	
ja58675-33a	1	31	4.61e-4	10/20/2010@4:12:01 PM	
ja58675-35a	1	32	-6.95e-4	10/20/2010@4:13:13 PM	
ja58960-1	1	33	0.0220	10/20/2010@4:14:24 PM	
ja58960-2	1	34	-1.92e-3	10/20/2010@4:15:36 PM	
CCV	1	10	0.389	10/20/2010@4:16:46 PM	97.3
	Known Conc:		0.400		
CCB	1	11	-4.24e-3	10/20/2010@4:17:57 PM	
	Known Conc:		0.00		
ja58960-6	1	35	0.0170	10/20/2010@4:19:09 PM	
ja58750-11	1	37	-2.52e-3	10/20/2010@4:20:20 PM	
ja58750-12	1	38	-1.39e-4	10/20/2010@4:21:33 PM	
Sample77	1	39	0.400	10/20/2010@4:22:44 PM	
ja58750-13	1	40	-2.11e-3	10/20/2010@4:23:55 PM	Air Spike
ja58750-14	1	1	-3.36e-3	10/20/2010@4:25:06 PM	
ja58750-15	1	2	-2.67e-3	10/20/2010@4:26:17 PM	
ja58750-16	1	3	-2.60e-3	10/20/2010@4:27:27 PM	
ja58750-17	1	4	-3.08e-3	10/20/2010@4:28:38 PM	
ja58750-18	1	5	-2.84e-3	10/20/2010@4:29:47 PM	
CCV	1	10	0.386	10/20/2010@4:30:58 PM	96.5
	Known Conc:		0.400		
CCB	1	11	-4.26e-3	10/20/2010@4:32:09 PM	
	Known Conc:		0.00		
ja58900-7	1	6	-2.08e-3	10/20/2010@4:33:20 PM	
ja58900-8	1	7	-2.89e-3	10/20/2010@4:34:31 PM	
ja58900-9	1	8	-2.51e-3	10/20/2010@4:35:42 PM	
ja58900-10	1	9	-1.90e-3	10/20/2010@4:36:52 PM	
ja58900-11	1	12	-3.68e-3	10/20/2010@4:38:03 PM	
CCV	1	10	0.384	10/20/2010@4:41:12 PM	96.0
	Known Conc:		0.400		
CCB	1	11	-4.21e-3	10/20/2010@4:42:24 PM	
	Known Conc:		0.00		

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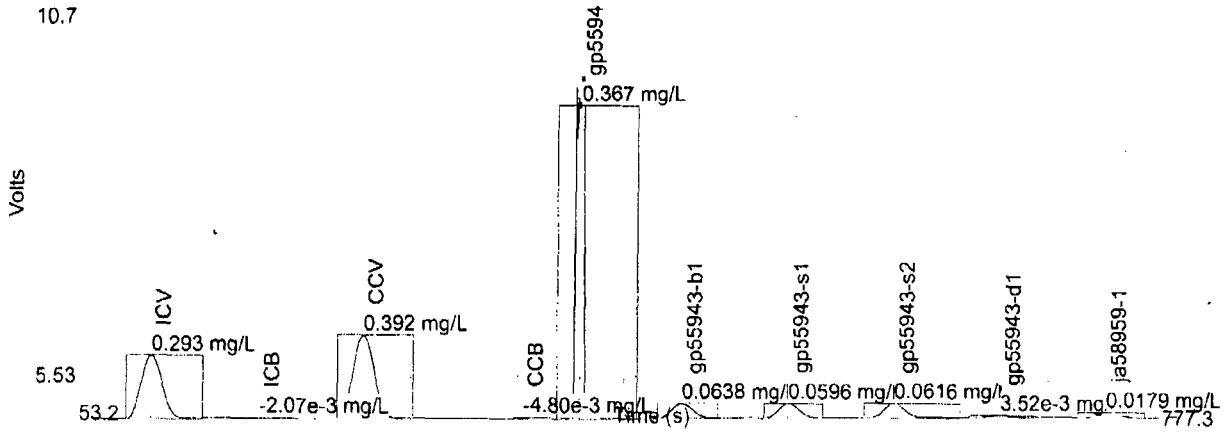
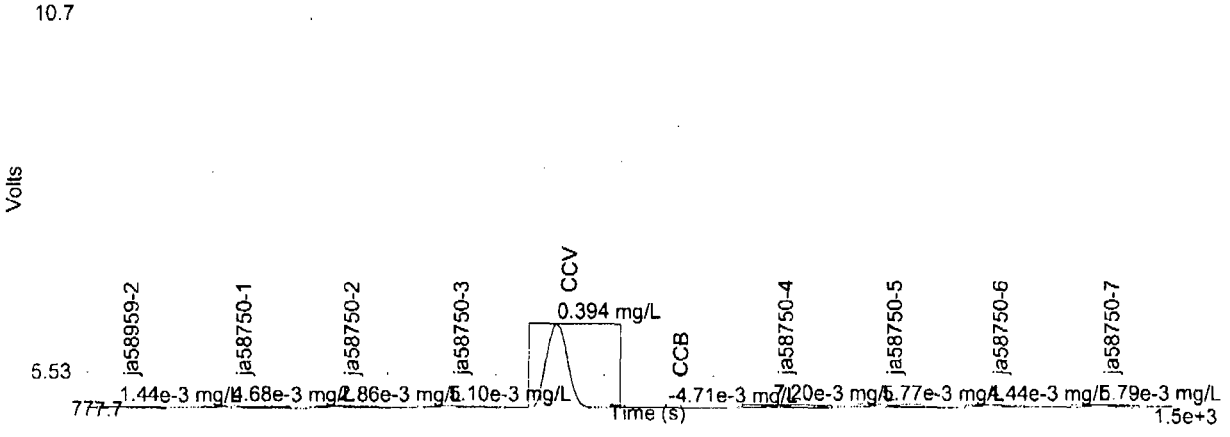
Author: Omnion User

Date : 10/20/2010

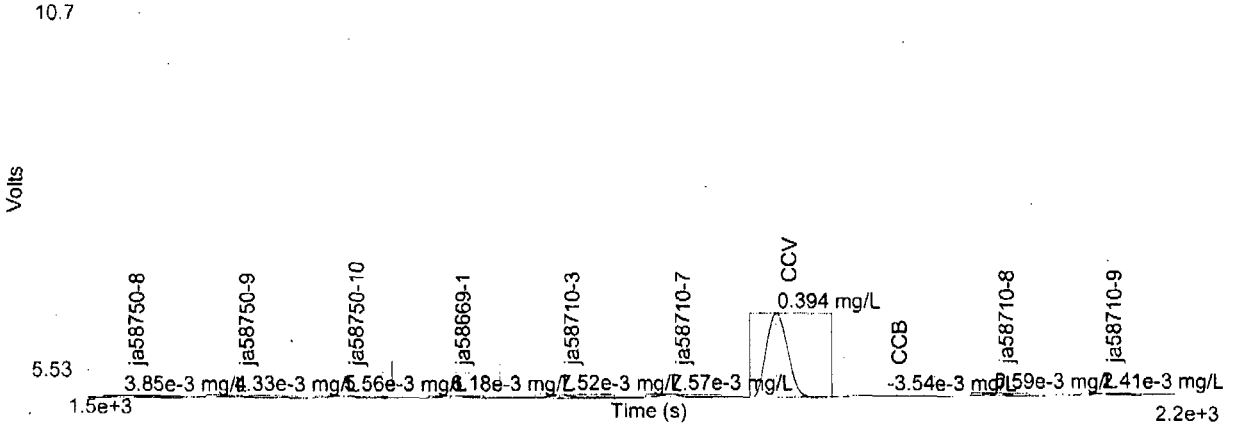
Channel 1: Set 1 of 10



Channel 1: Set 2 of 10



Channel 1: Set 3 of 10



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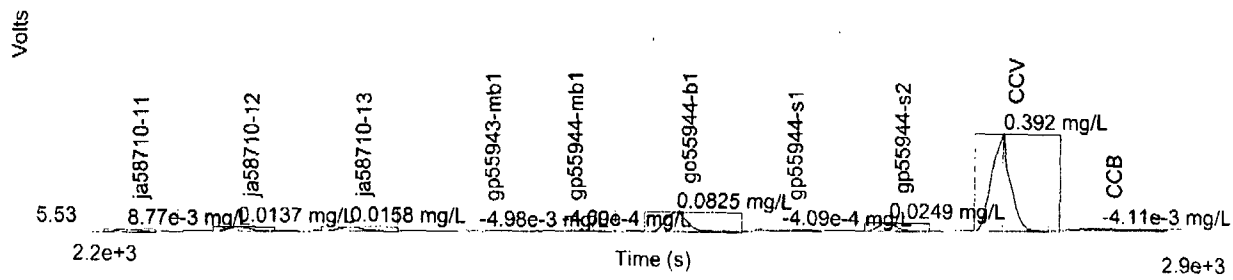
JA58750

Author: Omnion User

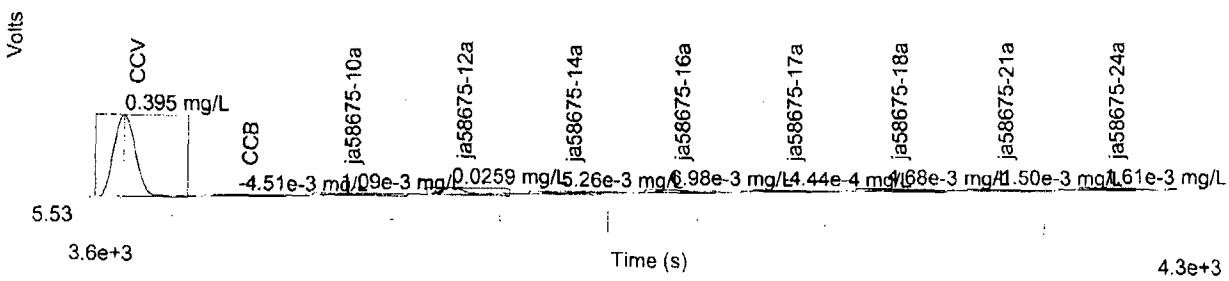
Date : 10/20/2010

Channel 1: Set 4 of 10



Channel 1: Set 5 of 10

Channel 1: Set 6 of 10



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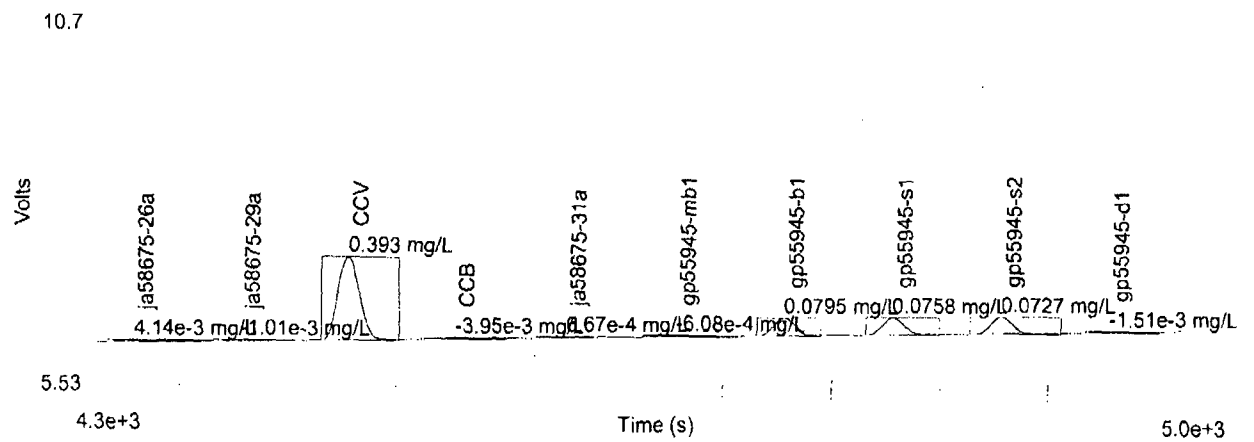
ACCUTEST LABORATORIES

JA58750

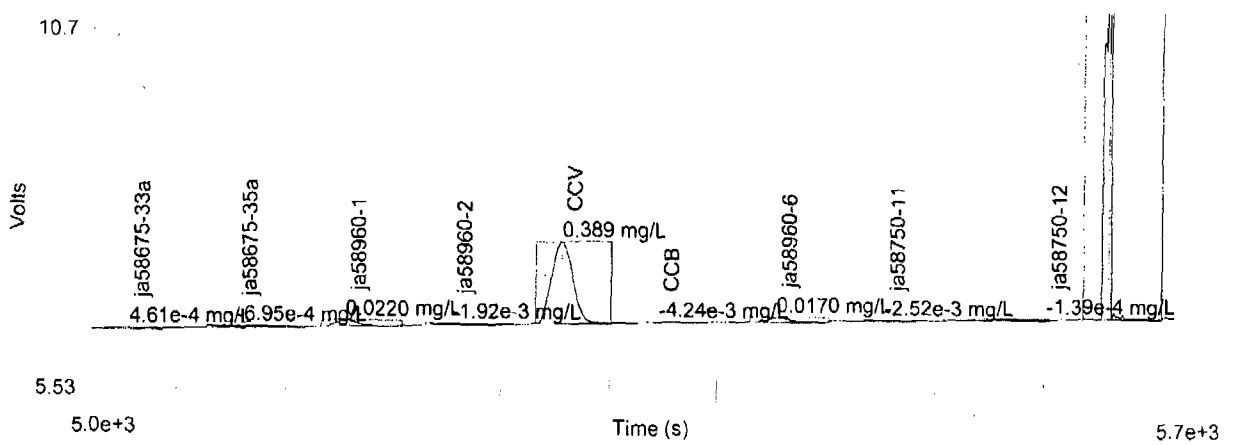
Author: Omnion User

Date : 10/20/2010

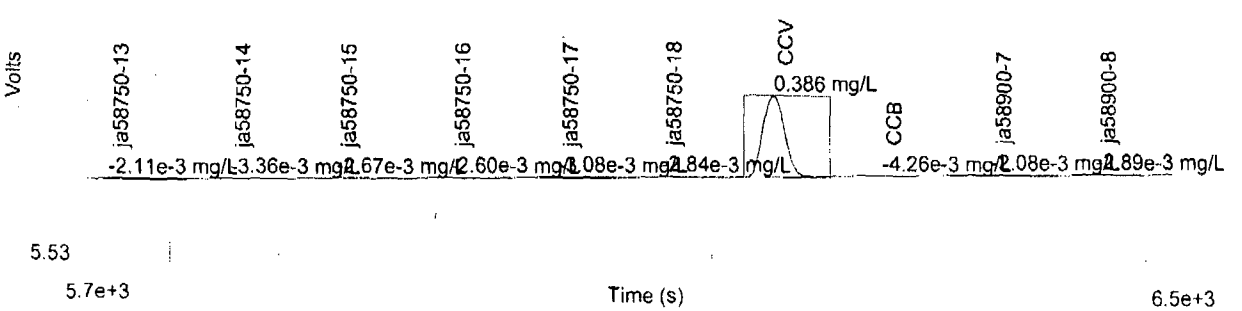
Channel 1: Set 7 of 10



Channel 1: Set 8 of 10



Channel 1: Set 9 of 10



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Author: Omnion User

Date : 10/20/2010

Channel 1: Set 10 of 10

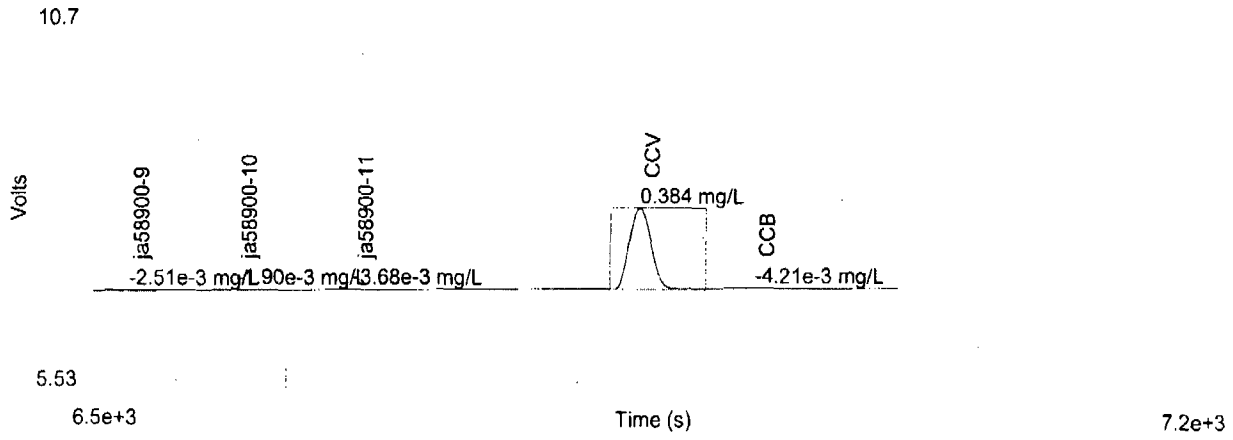
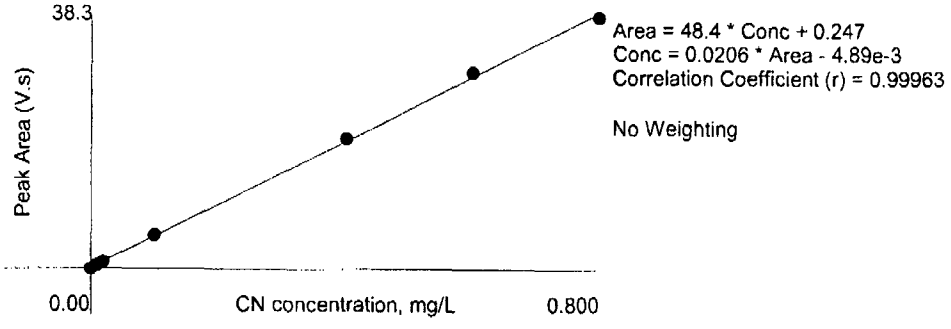


Table 1: CN

	Known Conc. (mg/L)	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. (mg/L)	Detection Date	Detection Time
1	0.800	1	38.3	2.29	0.0	1.7	0.786	10/20/2010	2:11:57 PM
2	0.600	1	29.9	1.80	0.0	-2.0	0.612	10/20/2010	2:13:08 PM
3	0.400	1	20.0	1.22	0.0	-2.2	0.409	10/20/2010	2:14:18 PM
4	0.100	1	5.27	0.325	0.0	-3.5	0.104	10/20/2010	2:15:29 PM
5	0.0200	1	1.10	0.0684	0.0	9.5	0.0178	10/20/2010	2:16:39 PM
6	0.0100	1	0.586	0.0364	0.0	20.0	7.19e-3	10/20/2010	2:17:50 PM
7	0.00	1	-0.0119	-1.80e-3			-5.14e-3	10/20/2010	2:19:01 PM

Figure 1: CN



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QC Reports: GN43597

GN43597

Author: Omnion User

Date : 10/20/2010

Original Run Filename: OM_10-20-2010_02-11-02PM.OMN created 10/20/2010 2:11:02 PM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-20-2010_02-11-02PM.OMN last modified 10/20/2010 2:24:49 PM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 CN (mg/L)	Detection Time	MDF
STDA	1	1	0.800	10/20/2010@2:11:57 PM	
STDB	1	2	0.600	10/20/2010@2:13:08 PM	
STDC	1	3	0.400	10/20/2010@2:14:18 PM	
STDD	1	4	0.100	10/20/2010@2:15:29 PM	
STDE	1	5	0.0200	10/20/2010@2:16:39 PM	
STDF	1	6	0.0100	10/20/2010@2:17:50 PM	
STDG	1	7	0.00	10/20/2010@2:19:01 PM	
ICV	1	8	0.267	10/20/2010@2:20:11 PM	
		Known Conc:	0.300		
		Calibration:	Table/Fig. 1		
ICB	1	9	-4.58e-3	10/20/2010@2:21:22 PM	
		Known Conc:	0.00		
CCV	1	10	0.342	10/20/2010@2:22:32 PM	
		Known Conc:	0.400		

Channel 1: Set 1 of 1

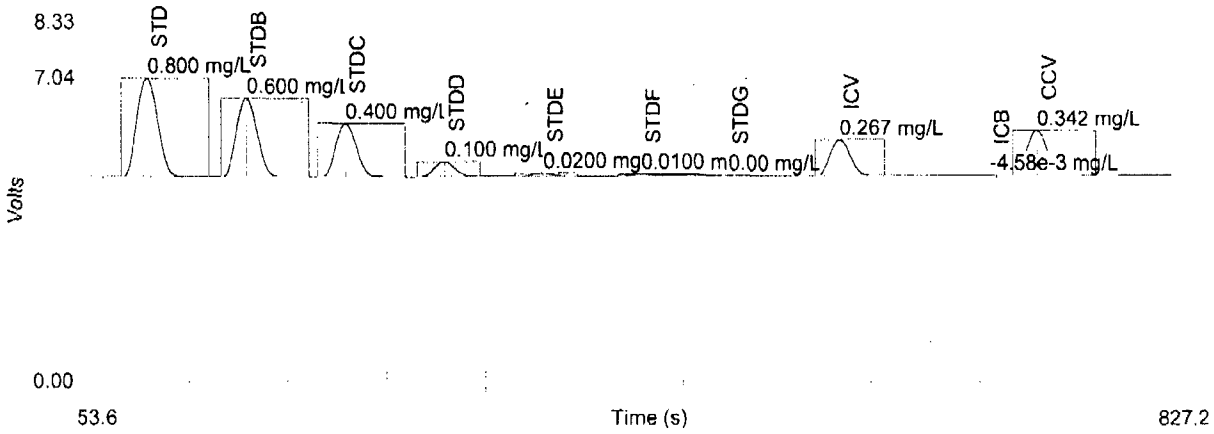

Table 1: CN

	Known Conc. (mg/L)	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. (mg/L)	Detection Date	Detection Time
1	0.800	1	38.3	2.29	0.0	1.7	0.786	10/20/2010	2:11:57 PM
2	0.600	1	29.9	1.80	0.0	-2.0	0.612	10/20/2010	2:13:08 PM
3	0.400	1	20.0	1.22	0.0	-2.2	0.409	10/20/2010	2:14:18 PM
4	0.100	1	5.27	0.325	0.0	-3.5	0.104	10/20/2010	2:15:29 PM
5	0.0200	1	1.10	0.0684	0.0	9.5	0.0178	10/20/2010	2:16:39 PM
6	0.0100	1	0.586	0.0364	0.0	20.0	7.19e-3	10/20/2010	2:17:50 PM
7	0.00	1	-0.0119	-1.80e-3			-5.14e-3	10/20/2010	2:19:01 PM

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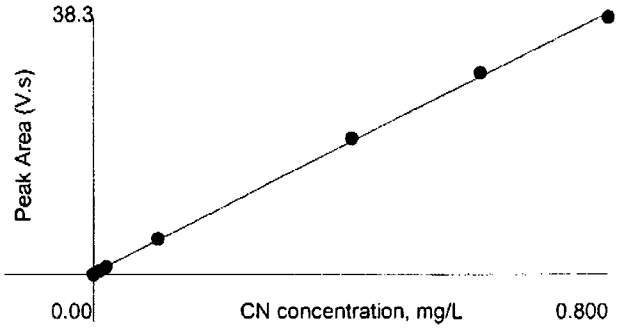
Figure 1: CN



Area = 48.4 * Conc + 0.247
Conc = 0.0206 * Area - 4.89e-3
Correlation Coefficient (r) = 0.99963

No Weighting

14.1

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Creator : QC Reports: GN43597
Creation Date : 6/24/2010 11:00:55 AM
Last Modified : 10/18/2010 12:26:31 PM
Description :

C102010W1. CN

Cup	Sample ID	MDF	Weight	Sample Type	Comments
	STDA			Calibration Standard	
	STDB			Calibration Standard	
	STDC			Calibration Standard	
	STDD			Calibration Standard	
	STDE			Calibration Standard	
	STDF			Calibration Standard	
	STDG			Calibration Standard	
	ICV			Check Standard	
	ICB			Check Standard	
0	CCV			Check Standard	
1	CCB			Check Standard	
2	gp55943-mb1			Unknown	
3	gp55943-b1			Unknown	
4	gp55943-s1			Unknown	
5	gp55943-s2			Unknown	
6	gp55943-d1			Unknown	
7	ja58959-1			Unknown	
8	ja58959-2			Unknown	
9	ja58750-1			Unknown	
0	ja58750-2			Unknown	
1	ja58750-3			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
2	ja58750-4			Unknown	
3	ja58750-5			Unknown	
4	ja58750-6			Unknown	
5	ja58750-7			Unknown	
6	ja58750-8			Unknown	
7	ja58750-9			Unknown	
8	ja58750-10			Unknown	
9	ja58669-1			Unknown	
0	ja58710-3			Unknown	
1	ja58710-7			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
2	ja58710-8			Unknown	
3	ja58710-9			Unknown	
4	ja58710-~~10~~ 11 VA 10/20/10			Unknown	Air spike. (no sample)
5	ja58710-11			Unknown	
6	Sample36			Unknown	Air Spike.

7	ja58710-12			Unknown	
8	ja58710-13			Unknown	
9	gp55944-mb1			Unknown	
0	go55944-b1			Unknown	
	gp55944-s1			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
	gp55944-s2			Unknown	
	gp55944-d1			Unknown	
	ja58710-14			Unknown	
	ja58710-15			Unknown	
	ja58710-16			Unknown	
	ja58675-1a			Unknown	
	ja58675-2a			Unknown	
	ja58675-3a			Unknown	
2	ja58675-5a			Unknown	
3	ja58675-6a			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
4	ja58675-7a			Unknown	
5	ja58675-10a			Unknown	
6	ja58675-12a			Unknown	
7	ja58675-14a			Unknown	
8	ja58675-16a			Unknown	
9	ja58675-17a			Unknown	
0	ja58675-18a			Unknown	
1	ja58675-21a			Unknown	
2	ja58675-24a			Unknown	
3	ja58675-26a			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
4	ja58675-29a			Unknown	
5	ja58675-31a			Unknown	
6	gp55945-mb1			Unknown	
7	gp55945-b1			Unknown	
8	gp55945-s1			Unknown	
9	gp55945-s2			Unknown	
0	gp55945-d1			Unknown	
1	ja58675-33a			Unknown	
2	ja58675-35a			Unknown	
3	ja58960-1			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
4	ja58960-2			Unknown	
5	ja58960-6			Unknown	

6	Sample74			Unknown	
7	ja58750-11			Unknown	
8	ja58750-12			Unknown	
9	Sample77			Unknown	
0	ja58750-13			Unknown	
	ja58750-14			Unknown	
	ja58750-15			Unknown	
	ja58750-16			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	
	ja58750-17			Unknown	
	ja58750-18			Unknown	
	ja58900-7			Unknown	
	ja58900-8			Unknown	
	ja58900-9			Unknown	
	ja58900-10			Unknown	
2	ja58900-11			Unknown	
0	CCV			Check Standard	
1	CCB			Check Standard	

alyte Table	CN
	(mg/L)
TDA	0.800
TDB	0.600
TDC	0.400
TDD	0.100
TDE	0.0200
TDF	0.0100
TDG	0.00

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ACCUTEST

Batch ID:

Autopipette ID: 8, 16

Balance ID: B 14

QC Reports: GN43597

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GR55943

NO.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots
		1	MB	12	-			6	120	11:05	11:35	10/19/10	GP -MB1	
			BSP										GP -B1	0.10 ml of 5.0 mg/l (c)
			MS1 JA58750-1				0.56						GP -S1	0.10 ml of 5.0 mg/l
			MS2 JA58710-3				0.52						GP -S2	0.10 ml of 5.0 mg/l
			Dup JA58750-1				0.52						GP -D1	
1	1		JA58959-1				0.52							
2			-2				0.58							
3			JA58750 -1				0.58							QC gray watery
4	2		-2				0.58							
5			-3				0.54							
6	1		-4				0.51							
7			-5				0.50							
8			-6				0.50							
9			-7				0.50							
10	2		-8				0.59							
11	1		-9				0.50							
12	2		-10				0.51							
13	1		JA58689 -1				0.55							
14	2		JA58710 -3				0.50							QC gray watery
15			-7				0.53							
16		2	-8				0.57							
17			-9				0.57							
18			-11				0.54							
19			-12				0.58							
20			-13				0.50							

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the o

Comments:

Spike = 1.03 - mls of 968 - ppm CN STD, 200-mls with 0.25 N from 0.75 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

ACCUTEST LABORATORIES JA58750

ACCUTEST

Batch ID:

Autopipette ID: 8,6,17

Balance ID: B 14

QC Reports: GN43597

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GP55944

NO.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots	A
			MB	12	–			6	120	11:50	12:20	10/19/10	GP -MB1		
			BSP										GP -B1	0.10 ml of 5.0 mg/l (c)	
			MSJA58675-1A				0.59						GP -S1	0.10 ml of 5.0 mg/l	
			MSDJA58710-14				0.56						GP -S2	0.10 ml of 5.0 mg/l	
			DUPJA58675-1A				0.53						GP -D1		
1	2		JA58710-14				0.53							Qc gray watery	
2			-15				0.53								
3			-16				0.55								
4	1		JA58675-1A				0.55							Qc red/brown dry	
5			-2A				0.58								
6			-3A				0.50								
er 10/19/10 (4)			~~4A~~	12	–		0	6	120						
7			-5A				0.58								
8			-6A				0.55								
9			-7A				0.59								
10			-10A				0.51								
11			-12A				0.53								
12			-14A				0.54								
13			-16A				0.54								
14			-17A				0.54								
15			-18A				0.58								
16			-21A				0.55								
17			-24A				0.51								
18			-26A				0.57								
19			-29A				0.51								
20			-30A				0.52								

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the othe

Comments:

Spike = 1.03 – mls of 968 – ppm CN STD, 200-mls with 0.25 N from 0.75 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

Rev. Date: 12/15/09

ACCUTEST

GN43517

Batch ID:

QC Reports: GN43597

Autopipette ID: 8, 16, 17

Balance ID: B 14

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GP5 5945

NO.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots	Analyst
			MB	12	–		6ml	6	120	12:35	13:05	10/19/10	GP -MB1		B
			BS8				6ml						GP -B1	0.10 ml of 5.0 mg/l (c)	
			MS1 JA58750-11				0.52						GP -S1	0.10 ml of 5.0 mg/l	
			MS2 JA58900-7				0.51						GP -S2	0.10 ml of 5.0 mg/l	
			Dup JA58750-11				0.53						GP -D1		
1	1		JA58675-33A				0.55								
2			-35A				0.55								
3			JA58960-1				0.52								
4			-2				0.57								
5			-6				0.58								
6	3		JA58750-11				0.50							QC gray/wet	
7	1		-12				0.50								
8			-13				0.51								
9			-14				0.55								
10	2		-15				0.52								
11			-16				0.57								
12	1		-17				0.52								
13	2		-18				0.56								
14	1		JA58900-7				0.51							QC watery gray	
15			-8				0.58								
16			-9				0.56								
17	2		-10				0.56								
18	1		-11				0.57								

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

Spike = 1.0? – mls of 968 – ppm CN STD, 1200-mls with 0.25 N from 0.95 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

Rev. Date: 12/15/09

ACCUTEST LABORATORIES JA58750

ACCUTEST

GN43597

CYANIDE DISTILLATION LOG (WATERS - MICRO DISTILLATION)

CN METHOD: EPA 335.2M/335.4 CNA METHOD: EPA 335.1

tl	No.	Block	Sample ID	pH	S^{2-}	Add (a)	Initial Volume (ml)	Final Volume (ml)	Date	GP Number (a)	Spike Amounts and Comments including Spike Lots	Analyst
										GP -D1		
										GP -S1	0.1 ml of 5.0 mg/l Spike ID:	
										GP -B1	0.1 ml of 5.0 mg/l Spike ID:	
										GP -MB1		
			Calibration Curve									
			0	12		✓	6	6	10/19/10		6ml .25N NaOH	BJL
			.01			✓					6ml .01ppm	
			.02			✓					6ml .02ppm	
			.1			✓					6ml .1ppm	
			.4			✓					6ml .4ppm	
			.6			✓					6ml .6ppm	
			.8			✓					6ml .8ppm	

(a) Check if sulfamic acid was added.
(b) Add method blanks/spike blanks as appropriate. A minimum of one method blank/spike blank per day is required.

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

QC Sample Description

Comments:

QC Reviewer: Date:

Form: GN-012
Rev. Date: 9/6/06

14.1 14

GN43597

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG for CYANIDE

GN or GP Number: _____

Intermediate Standard Description	Stock used to prepare standard	Standard-ization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE6-25303-CN	10/13/10	968	1.03	.25 N NaOH	200	5.0	12/18/10	BL	10/19/10
Distilled ICV Stock	GNE				.25 N NaOH	200	5.0	↓	↓	↓
Undistilled ICV Int.	GNE	10/20/10			.25 N NaOH	100	20		VA	10/20/10
Undistilled CCV Int.	GNE6-25303-CN	10/20/10			.25 N NaOH	100	20	12/18/10	↓	↓

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Diluent (b)	Final Volume in ml	Final Conc. of Standard (mg/l)	Expiration Date (c)	Analyst	Date
A	5.0		5.0	16.00	.25 N NaOH	100	0.80	10/2/10	BL	10/19/10
B	5.0		5.0	12.00	.25 N NaOH	100	0.60	↓	↓	↓
C	5.0		5.0	8.00	.25 N NaOH	100	0.40	↓	↓	↓
D	5.0		5.0	2.00	.25 N NaOH	100	0.10	↓	↓	↓
E	5.0		5.0	0.40	.25 N NaOH	100	0.02	↓	↓	↓
F	5.0		5.0	0.20	.25 N NaOH	100	0.01	↓	↓	↓
Undistilled ICV	ICV Int.		20	1.5	.25 N NaOH	100	0.3	10/20/10	VA	10/20/10
Undistilled CCV	CCV Int.		20	2.0	.25 N NaOH	100	0.4	↓	↓	↓

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number:_____ Expiration Date:_____

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.

Reason codes for data corrections : 1 - reviewer error correction; 2 - transcription error; 3-computer error; 4- analyst error

Form: GN200-01
Rev. Date: 7/18/06

GN43597

ACCUTEST.

Reagent Information Log - CN - Distillation

GP Numbers:

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Magnesium Chloride Solution	GNE9-26098-CN	3/14/11
Sulfamic Acid	Acros A0274254	8/27/15
Sulfuric Ac id	JTBaker J04F05	7/26/15
Sodium Hydroxide 1.25N/0.25N	GNE10-26392-CN	3/13/11
Cadmium Carbonate, Powder	—	—
Micro Distillation tubes	Lachat # 9/24/10	~~3/28/11~~ 10/19/10 (4)
.95 NaOH	GNE9-26209-CN	3/28/11
Cyanide Stock STD	GNE6-25303-CN	12/18/10

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

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Form: GN0871-28
Rev. Date: 07/19/06

GN43597

ACCUTEST

Reagent Information Log - CN Lachat Autoanalyzer

GN Number:

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent		
Chloramine-T	GNE10 - 26390 - CN	10/22/10
Phosphate Buffer Solution, 1.0 M	GNE10 - 26349 - CN	4/11/11
0.25 N Sodium Hydroxide Carrier Solution	GNE10 - 26392 - CN	VA 10/20/10 ~~3/10~~ 3/13/11

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

14.1

14

Form: GN0871-27
Rev. Date: 7/19/06

ACCUTEST.

Test: **pH, Corrosivity**
Method: **SW846 9040B or SW846 9045C**

Product: **PH, CORR**
Analyst: RI
GN Batch ID: GN43786
Analysis Date: 10/25/2010
pH Meter ID: 22

Thermometer ID: 112
Correction Factor: 1

QC Summary

Duplicate ID: GN43786-D1
Sample ID: JA58750-11
Dup Result: 7.66
% RPD: 0.00%

Sample ID	Wt./Vol. used for soilds	Uncorrected/ Corrected Temp in Deg C.	Result	Corrosivity	Read time
Buffer Check: 4		25	3.99		
Buffer Check: 7		25	7.00		
Buffer Check: 10		25	10.02		
GN43786-D1		25	7.66		
JA58750-11		25	7.66		
JA58750-1		25	6.74		
JA58750-2		25	7.49		
JA58750-3		25	7.70		
JA58750-4		25	7.96		
JA58750-5		25	7.98		
JA58750-6		25	7.94		
JA58750-7		25	8.03		
JA58750-8		25	7.47		
Buffer Check:4		25	4.02		
Buffer Check:10		25	10.00		
JA58750-9		25	7.27		
JA58750-10		25	7.76		
JA58750-12		25	7.93		
JA58750-13		25	7.96		
JA58750-14		25	8.37		
JA58750-15		25	7.91		
JA58750-16		25	7.34		
JA58750-17		25	7.92		
JA58750-18		25	7.24		
Buffer Check: 7		25	6.99		
Buffer Check: 10		25	9.99		
Buffer Check:					
Buffer Check:					

QC Reviewer: Date: 10/25

Comments: ph-4 Fisher 03204 5/12, ph-7 Fisher 100990 2/12
ph-10 Fisher 102758 4/12, ph-13 Aqua 0030296 3/11

14.2 14

ACCUTEST

Analyst RI

Method EH / pH

Prep Date 10-25-10

GP # GN43786 / 437AA
pH / EH

Balance # B35

Sample Prep Log

Sample ID	Sample Size	Final Volume
JA58750-11DHp	50.24	50 ml DI Water
11	50.70	
1	50.14	
2	50.83	
3	50.47	
4	50.26	
5	50.71	
6	50.32	
7	50.44	
8	50.03	
9	50.99	
10	50.54	
12	51.70	
13	49.98	
14	50.16	
15	50.89	
16	50.80	
17	50.12	
18	50.35	

14.2 14

Form: GN166-02
Rev. Date: 8/5/05

QC Review _____

QC Reports: GN43788

ACCUTEST

Test: Redox Potential | **Test Code: REDOX** | **Analyst:** RI

Matrix: Aqueous ○ | Method: ASTM D1498-76 | **Date:** 10/25/10

Matrix: Solid ◉ | Method: ASTM D1498-76 Mod. | **GN Batch ID:** GN43788

Temp (Deg C): 25

Quality Control Summary

Sample ID:	GN43788-D1	Results:	338.7	Dup:	323.2	% RPD:	4.68%
Ferrous-Ferric True: 675				Found	681.5	% Rec	100.96%
pH 4 Quinhydrone True: 462				Found	471.8	% Rec	102.12%
pH 4 Quinhydrone True: 462				Found	481.6	% Rec	104.24%
pH 4 Quinhydrone True: 462				Found	457.2	% Rec	98.96%
pH 7 Quinhydrone True: 285				Found	299.2	% Rec	104.98%
pH 7 Quinhydrone True: 285				Found	299.9	% Rec	105.23%
pH 7 Quinhydrone True: 285				Found	298.1	% Rec	104.60%

Sample #:		mv vs. Ag/AgCl Electrode	Corrected results (mv vs. Hydrogen electrode) ***
Ferrous-Ferric Solution		470.1	681.5
pH 4 Quinhydrone		260.3	471.8
pH 7 Quinhydrone		87.7	299.2
Dup	GN43788-D1	118.8	323.2
1.	JA58750-11	128	338.7
2.	JA58750-1	125.6	337.1
3.	JA58750-2	143.9	355.2
4.	JA58750-3	142.8	354.3
5.	JA58750-4	143.6	355.1
6.	JA58750-5	138.7	350.3
7.	JA58750-6	135.1	346.6
8.	JA58750-7	133.7	345.2
9.	JA58750-8	140.4	351.9
pH 4 Quinhydrone		270.1	481.6
pH 7 Quinhydrone		88.4	299.9
10.	JA58750-9	115.1	326.6
11.	JA58750-10	120.8	332.3
12.	JA58750-12	122.1	333.6
13.	JA58750-13	127.3	338.8
14.	JA58750-14	124.6	336.1
15.	JA58750-15	137.8	349.1
16.	JA58750-16	123.3	334.6
17.	JA58750-17	123	334.3
18.	JA58750-18	116.1	327.7
19.			
pH 4 Quinhydrone		245.7	457.2
pH 7 Quinhydrone		86.6	298.1

*** Note: Results vs Ag/AgCl electrode are converted to corrected results automatically at the instrument by changing to the relative mv scale. This conversion is done by adding about 200 mV to the Ag/AgCl reading.

Reagent Numbers: pH 4 Fisher 103024 exp 05/2012, pH 7 Fisher 100990 exp 02/2012 ph10 102758 ex04/2012 Redox standard gne10-26312-orp EXP 4/7/11 Quinhydrone ACROS A0282816

Comments:

Analyst: RI | Date: 10/25/10 | QC Reviewer: 10/28 | Date:

F/N GN141.DOC

Rev. Date: 3/27/2007

14.3 14

ACCUTEST

Analyst DZ

Method EH / PH

Prep Date 10-25-10

GP # GN43786 / 43788
PH / EH

Balance # B35

Sample Prep Log

Sample ID	Sample Size	Final Volume
JA58750-11Dup	50.24	50 ml DI Water
11	50.70	
1	50.14	
2	50.63	
3	50.47	
4	50.26	
5	50.71	
6	50.32	
7	50.44	
8	50.03	
9	50.99	
10	50.54	
12	51.70	
13	49.98	
14	50.16	
15	50.89	
16	50.80	
17	50.12	
18	50.35	

14.3 14

Form: GN166-02
Rev. Date: 8/5/05

QC Review_____

C102510 WI-CN GN43793

Author: Omnion User

Date : 10/25/2010

Original Run Filename: OM_10-25-2010_12-42-13PM.OMN created 10/25/2010 12:42:13 PM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-25-2010_12-42-13PM.OMN last modified 10/25/2010 3:20:02 PM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 CN (mg/L)	Detection Time	MDF	% REC
STDA	1	1	0.800	10/25/2010@12:43:08 PM		
STDB	1	2	0.600	10/25/2010@12:44:19 PM		
STDC	1	3	0.400	10/25/2010@12:45:29 PM		
STDD	1	4	0.100	10/25/2010@12:46:39 PM		
STDE	1	5	0.0200	10/25/2010@12:47:50 PM		
STDF	1	6	0.0100	10/25/2010@12:49:01 PM		
STDG	1	7	0.00	10/25/2010@12:50:11 PM		
ICV	1	8	0.325	10/25/2010@12:51:22 PM		108.33
	Known Conc:		0.300			
	Calibration:		Table/Fig. 1			
ICB	1	9	-5.06e-3	10/25/2010@12:52:33 PM		
	Known Conc:		0.00			
CCV	1	10	0.422	10/25/2010@12:53:43 PM		105.5
	Known Conc:		0.400			
CCB	1	11	-4.74e-3	10/25/2010@12:54:54 PM		
	Known Conc:		0.00			
GP55943-MB2	1	12	-3.57e-3	10/25/2010@12:56:05 PM		
GP55943-B2	1	13	0.0822	10/25/2010@12:57:16 PM		98.68
GP55943-S1	1	14	0.0856	10/25/2010@12:58:27 PM		
GP55943-S2	1	15	0.0870	10/25/2010@12:59:37 PM		
GP55943-D1	1	16	-3.21e-3	10/25/2010@1:00:48 PM		
JA58959-1 A	1	17	0.0184	10/25/2010@1:02:00 PM		
JA58959-2	1	18	1.97e-3	10/25/2010@1:03:11 PM		
JA58750-1	1	19	-2.59e-3	10/25/2010@1:04:21 PM		
JA58750-2	1	20	-3.10e-3	10/25/2010@1:05:32 PM		
JA58750-3	1	21	-2.89e-3	10/25/2010@1:06:44 PM		
CCV	1	10	0.424	10/25/2010@1:07:54 PM		106
	Known Conc:		0.400			
CCB	1	11	-4.31e-3	10/25/2010@1:09:05 PM		
	Known Conc:		0.00			
JA58750-4 A	1	22	-3.29e-3	10/25/2010@1:10:17 PM		
JA58750-5	1	23	-3.79e-3	10/25/2010@1:11:28 PM		
JA58750-6	1	24	-3.49e-3	10/25/2010@1:12:38 PM		
JA58750-7	1	25	-4.53e-3	10/25/2010@1:13:49 PM		
JA58750-8	1	26	3.59e-3	10/25/2010@1:15:01 PM		
JA58750-9	1	27	-4.94e-3	10/25/2010@1:16:13 PM		
JA58750-10	1	28	-3.12e-3	10/25/2010@1:17:24 PM		
JA58669-1	1	29	1.32e-3	10/25/2010@1:18:35 PM		
JA58710-3	1	30	1.55e-3	10/25/2010@1:19:46 PM		
JA58710-7	1	31	1.92e-3	10/25/2010@1:20:58 PM		
CCV	1	10	0.426	10/25/2010@1:22:08 PM		106.5
	Known Conc:		0.400			
CCB	1	11	-4.26e-3	10/25/2010@1:23:20 PM		
	Known Conc:		0.00			
JA58710-8 A	1	32	1.23e-3	10/25/2010@1:24:31 PM		
JA58710-9	1	33	9.33e-4	10/25/2010@1:25:43 PM		
JA58710-11	1	34	1.91e-3	10/25/2010@1:26:54 PM		
JA58710-12	1	35	0.0157	10/25/2010@1:28:05 PM		
ignore Sample36	1	36	0.571	10/25/2010@1:29:17 PM		
JA58710-13 A	1	37	9.47e-3	10/25/2010@1:30:29 PM		
GP56007-MB1	1	38	-5.44e-3	10/25/2010@1:31:41 PM		
GP56007-B1	1	39	0.0822	10/25/2010@1:32:53 PM		98.68
GP56007-S1	1	40	0.103	10/25/2010@1:34:04 PM		
GP56007-S2	1	1	0.0882	10/25/2010@1:35:15 PM		
CCV	1	10	0.426	10/25/2010@1:36:25 PM		106.5
	Known Conc:		0.400			
CCB	1	11	-4.93e-3	10/25/2010@1:37:36 PM		
	Known Conc:		0.00			
GP56007-D1	1	2	-8.74e-6	10/25/2010@1:38:46 PM		
JA59264-1 A	1	3	-5.00e-4	10/25/2010@1:39:57 PM		

Author: Omnion User

Date : 10/25/2010

JA58900-12 A	1	4	2.29e-3	10/25/2010@1:41:07 PM	
JA58817-1	1	5	0.0185	10/25/2010@1:42:17 PM	
JA58960-5	1	6	0.0297	10/25/2010@1:43:28 PM	
JA59199-2	1	7	0.0186	10/25/2010@1:44:39 PM	
JA59199-4	1	8	2.79e-3	10/25/2010@1:45:49 PM	
JA59199-6	1	9	5.22e-3	10/25/2010@1:47:00 PM	
JA59199-8	1	12	-2.81e-3	10/25/2010@1:48:11 PM	
JA59199-10	1	13	-7.99e-4	10/25/2010@1:49:21 PM	
CCV	1	10	0.426	10/25/2010@1:50:32 PM	106.5
	Known Conc:		0.400		
CCB	1	11	-4.52e-3	10/25/2010@1:51:43 PM	
	Known Conc:		0.00		
JA59199-12 A	1	14	4.44e-4	10/25/2010@1:52:54 PM	
JA59199-14	1	15	0.0156	10/25/2010@1:54:04 PM	
JA59199-16	1	16	9.32e-3	10/25/2010@1:55:16 PM	
JA59199-18	1	17	5.55e-3	10/25/2010@1:56:27 PM	
JA59199-20	1	18	7.39e-4	10/25/2010@1:57:38 PM	
JA59199-22	1	19	-1.61e-3	10/25/2010@1:58:48 PM	
JA59199-24	1	20	-1.05e-3	10/25/2010@1:59:59 PM	
JA59199-28	1	21	8.13e-3	10/25/2010@2:01:11 PM	
GP55987-MB1	1	22	-4.94e-3	10/25/2010@2:02:22 PM	
GP55987-B1	1	23	0.0791	10/25/2010@2:03:34 PM	94.96
CCV	1	10	0.426	10/25/2010@2:04:43 PM	106.5
	Known Conc:		0.400		
CCB	1	11	-4.06e-3	10/25/2010@2:05:55 PM	
	Known Conc:		0.00		
GP55987-S1	1	24	0.0985	10/25/2010@2:07:05 PM	
GP55987-S2	1	25	0.101	10/25/2010@2:08:16 PM	
GP55987-D1	1	26	-2.70e-3	10/25/2010@2:09:28 PM	
JA58815-1A A	1	27	-5.19e-4	10/25/2010@2:10:40 PM	
JA58815-3A	1	28	-1.02e-3	10/25/2010@2:11:52 PM	
JA58815-5A	1	29	-1.20e-3	10/25/2010@2:13:03 PM	
JA58815-7A	1	30	-4.35e-4	10/25/2010@2:14:14 PM	
JA58815-9A	1	31	6.74e-3	10/25/2010@2:15:25 PM	
JA58815-11A	1	32	-1.76e-3	10/25/2010@2:16:38 PM	
JA58815-13A	1	33	-2.60e-3	10/25/2010@2:17:49 PM	
CCV	1	10	0.427	10/25/2010@2:18:59 PM	106.75
	Known Conc:		0.400		
CCB	1	11	-4.12e-3	10/25/2010@2:20:10 PM	
	Known Conc:		0.00		
JA58815-15A A	1	34	-1.82e-3	10/25/2010@2:21:22 PM	
JA58815-17A	1	35	8.23e-4	10/25/2010@2:22:33 PM	
JA58815-19A	1	43	-2.63e-4	10/25/2010@2:23:45 PM	
JA58815-21A	1	37	-1.53e-3	10/25/2010@2:24:56 PM	
JA58815-23A	1	38	-2.24e-3	10/25/2010@2:26:09 PM	
JA58815-25A	1	39	3.00e-3	10/25/2010@2:27:20 PM	
JA58960-3	1	40	0.0515	10/25/2010@2:28:31 PM	
JA58960-4	1	1	0.0401	10/25/2010@2:29:42 PM	
JA58900-1	1	2	-3.17e-3	10/25/2010@2:30:53 PM	
JA58900-2	1	3	-3.18e-3	10/25/2010@2:32:03 PM	
CCV	1	10	0.427	10/25/2010@2:33:13 PM	106.75
	Known Conc:		0.400		
CCB	1	11	-3.77e-3	10/25/2010@2:34:24 PM	
	Known Conc:		0.00		
JA58900-3 A	1	4	-3.67e-3	10/25/2010@2:35:34 PM	
JA58900-4	1	5	-1.99e-3	10/25/2010@2:36:44 PM	
JA58900-14	1	6	-2.60e-3	10/25/2010@2:37:55 PM	
GP56009-MB1	1	7	-4.66e-3	10/25/2010@2:39:05 PM	
GP56009-B1	1	8	0.148	10/25/2010@2:40:16 PM	7.63
GP56009-D1	1	9	-4.73e-3	10/25/2010@2:41:26 PM	
JA59171-1 A	1	12	-4.87e-3	10/25/2010@2:42:37 PM	
JA59171-2	1	13	-4.79e-3	10/25/2010@2:43:48 PM	
JA59264-1A	1	14	-5.05e-3	10/25/2010@2:44:59 PM	
JA59280-1	1	15	-5.00e-3	10/25/2010@2:46:09 PM	
CCV	1	10	0.428	10/25/2010@2:47:19 PM	107
	Known Conc:		0.400		
CCB	1	11	-4.66e-3	10/25/2010@2:48:30 PM	
	Known Conc:		0.00		

TV = 1.94

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W.I. CN GN43793

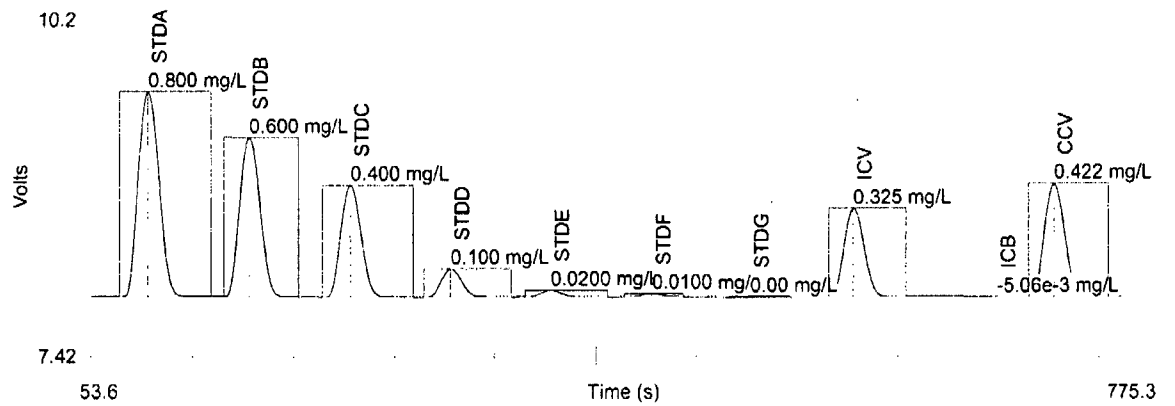
Author: Omnion User

Date : 10/25/2010

JA59310-1 A	1	16	-5.14e-3	10/25/2010@2:49:41 PM	
JA58914-1	1	17	-5.13e-3	10/25/2010@2:50:53 PM	
JA58914-2	1	18	-4.97e-3	10/25/2010@2:52:03 PM	
JA58914-3	1	19	-5.39e-3	10/25/2010@2:53:14 PM	
JA58914-4	1	20	-5.12e-3	10/25/2010@2:54:24 PM	
JA58914-5	1	21	-5.72e-3	10/25/2010@2:55:36 PM	
JA58914-6	1	22	-5.02e-3	10/25/2010@2:56:47 PM	
JA59157-1	1	23	-5.06e-3	10/25/2010@2:57:58 PM	
JA59229-1	1	24	-5.59e-3	10/25/2010@2:59:09 PM	
JA59269-1	1	25	-5.32e-3	10/25/2010@3:00:19 PM	
CCV	1	10	0.426	10/25/2010@3:01:30 PM	106.5
	Known Conc:		0.400		
CCB	1	11	-4.36e-3	10/25/2010@3:02:41 PM	
	Known Conc:		0.00		
JA59269-2 A	1	26	-4.94e-3	10/25/2010@3:03:53 PM	
GP55843-MB3	1	27	-5.25e-3	10/25/2010@3:05:05 PM	
GP55843-B3	1	28	0.282	10/25/2010@3:06:16 PM	14.54
JA58965-2 A	1	29	-5.26e-3	10/25/2010@3:07:26 PM	
JA59365-1	1	30	-5.46e-3	10/25/2010@3:08:38 PM	
JA59403-1	1	31	-5.74e-3	10/25/2010@3:09:49 PM	
JA59455-1	1	32	-5.20e-3	10/25/2010@3:11:01 PM	
JA59455-2	1	33	-4.90e-3	10/25/2010@3:12:13 PM	
JA59455-3	1	34	-4.94e-3	10/25/2010@3:13:24 PM	
CCV	1	10	0.429	10/25/2010@3:16:34 PM	107.25
	Known Conc:		0.400		
CCB	1	11	-4.07e-3	10/25/2010@3:17:46 PM	
	Known Conc:		0.00		

TV=1.94

Channel 1: Set 1 of 13



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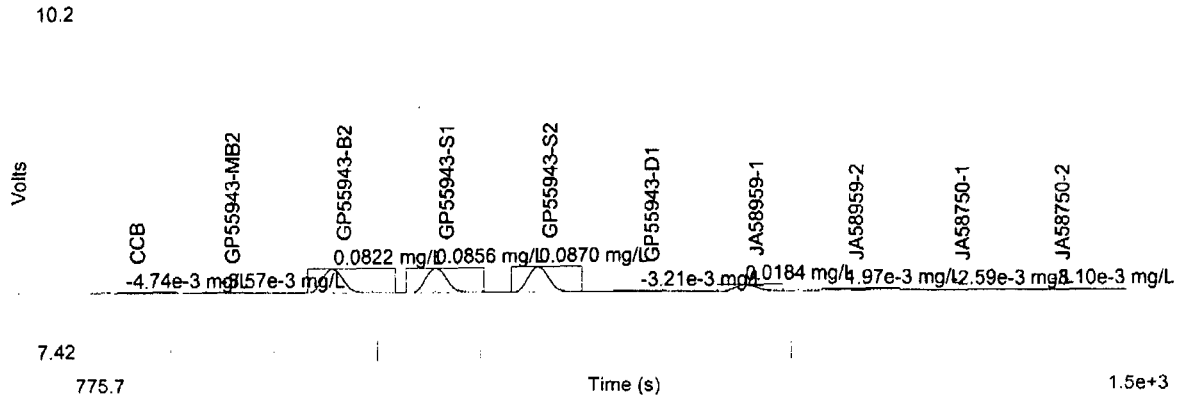
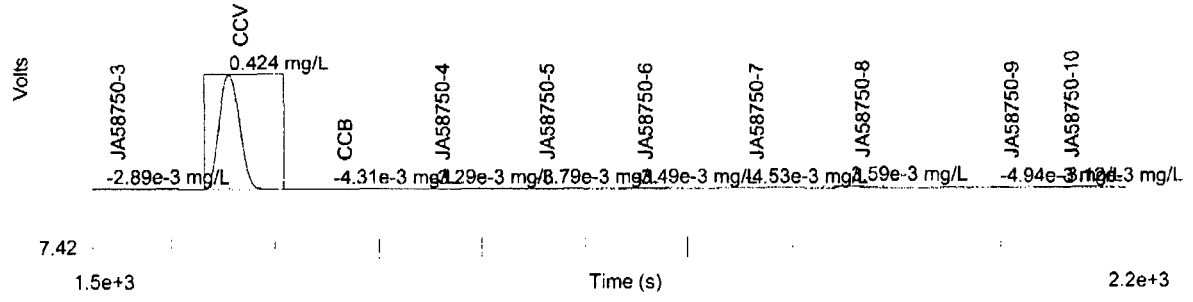
Author: Omnion User

Date : 10/25/2010

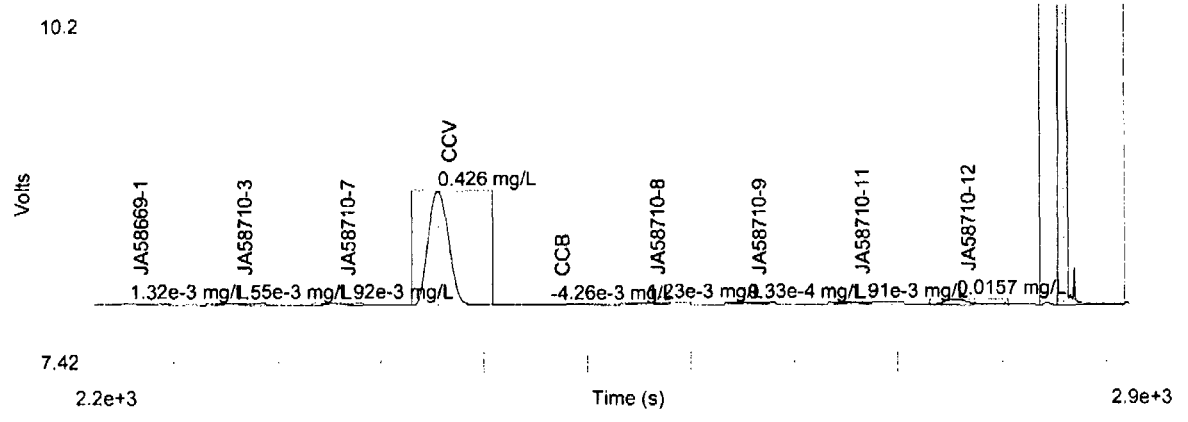
Channel 1: Set 2 of 13



Channel 1: Set 3 of 13



Channel 1: Set 4 of 13



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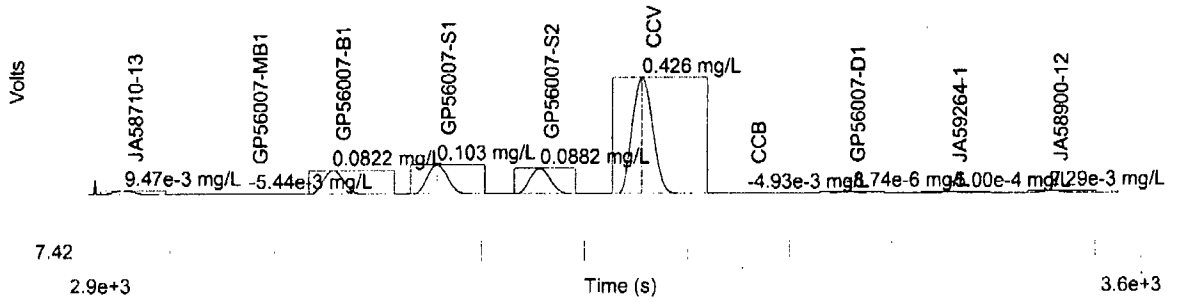
WI-CN GN43793

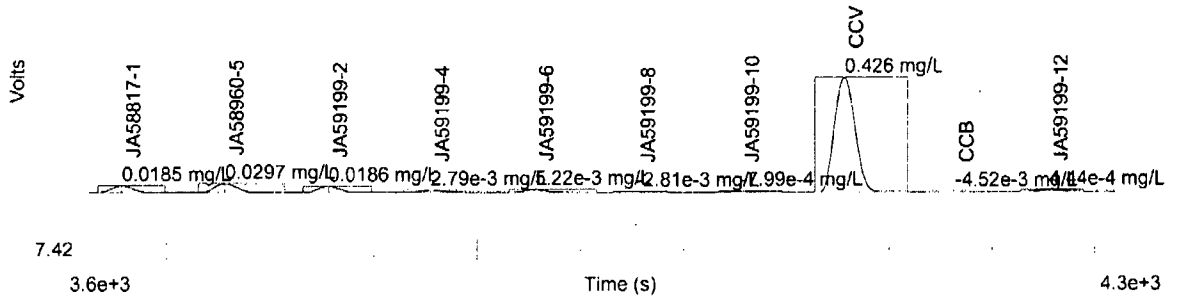
Author: Omnion User

Date : 10/25/2010

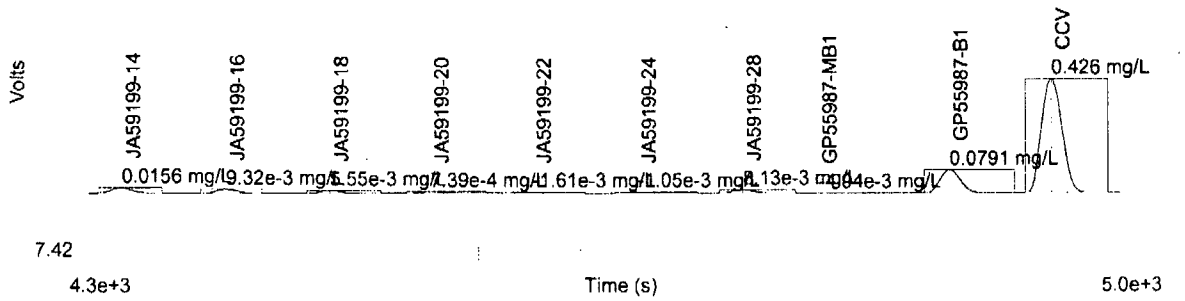
Channel 1: Set 5 of 13



Channel 1: Set 6 of 13



Channel 1: Set 7 of 13



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ACCUTEST LABORATORIES

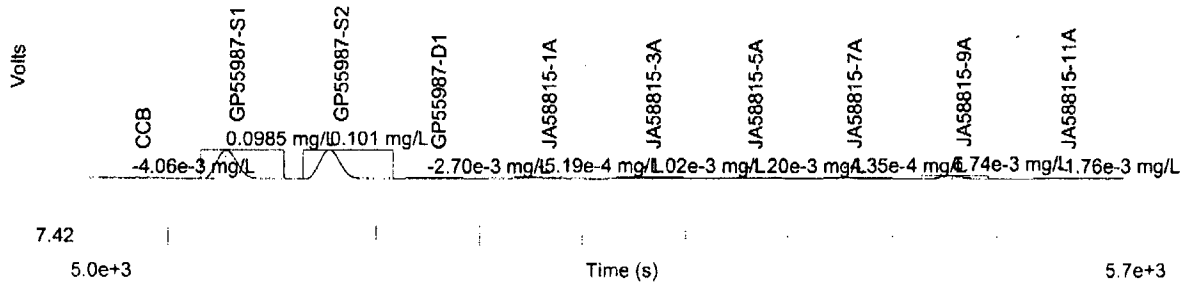
JA58750

WI-CN GN43773

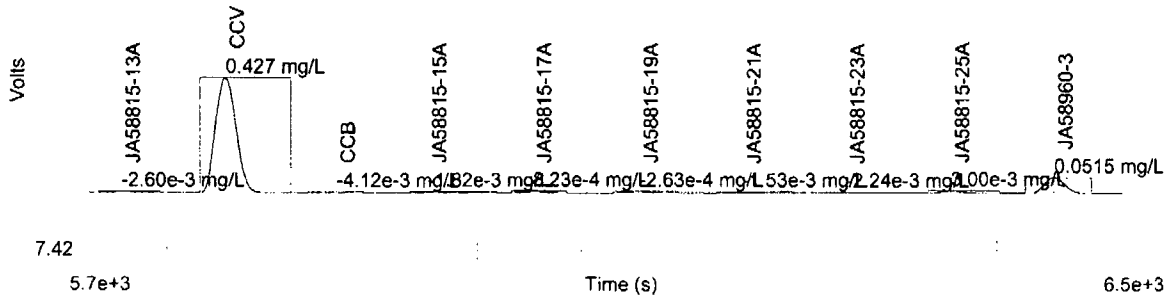
Author: Omnion User

Date : 10/25/2010

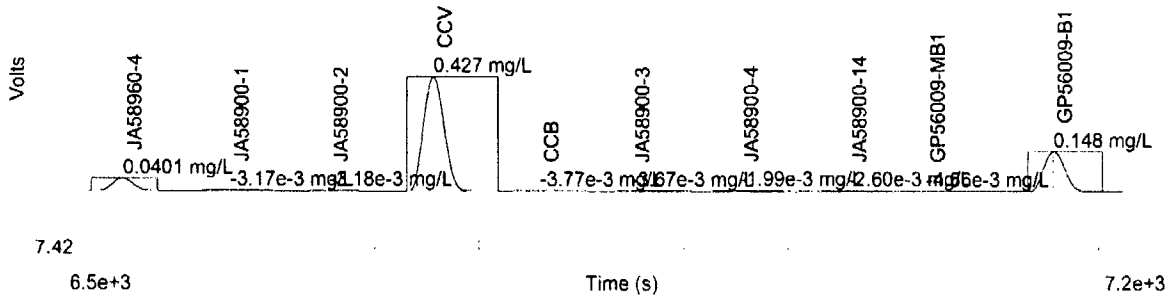
Channel 1: Set 8 of 13



Channel 1: Set 9 of 13



Channel 1: Set 10 of 13

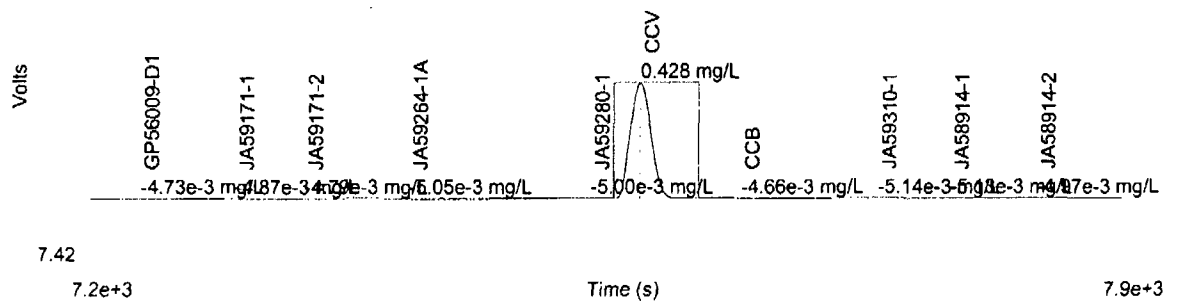


W1·CN GN43793

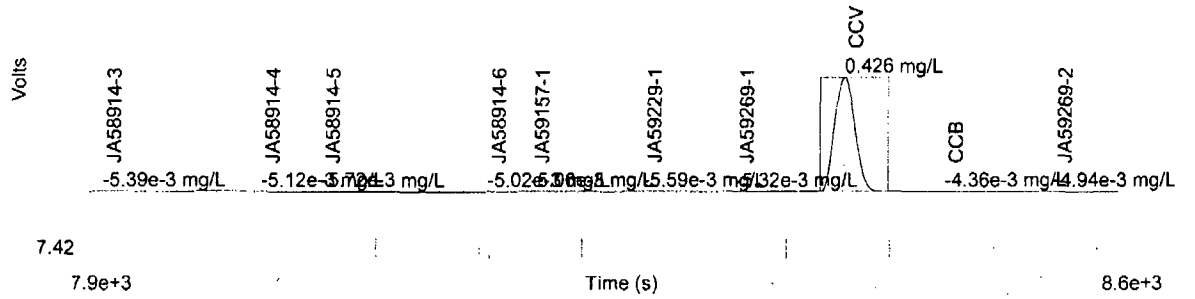
Author: Omnion User

Date : 10/25/2010

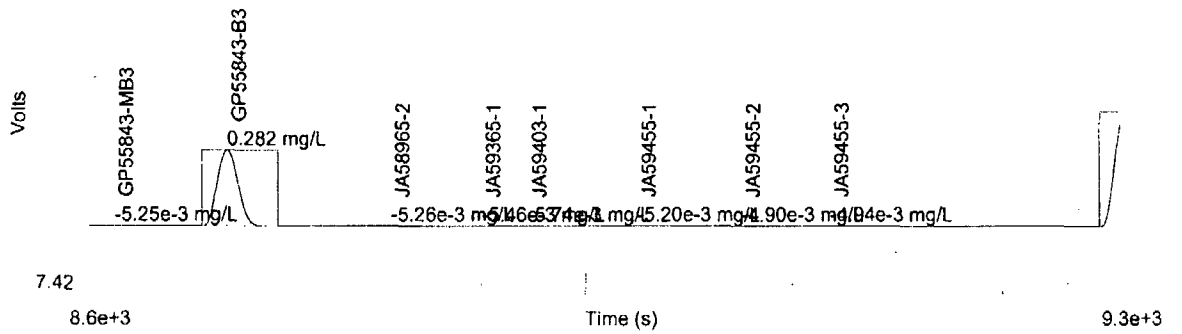
Channel 1: Set 11 of 13



Channel 1: Set 12 of 13



Channel 1: Set 13 of 13



14.4

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W1·CN GN43793

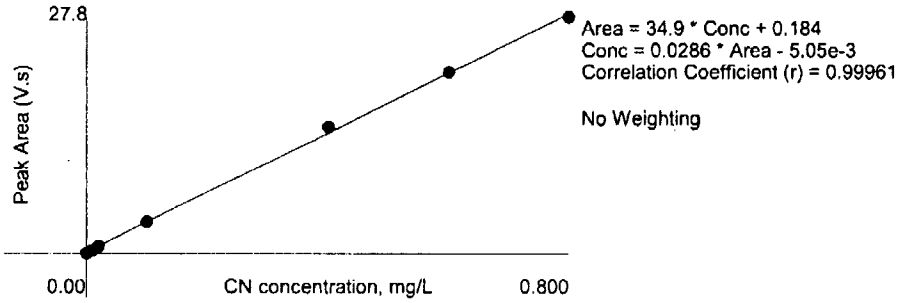
Author: Omnion User

Date : 10/25/2010

Table 1: CN

	Known Conc. (mg/L)	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. (mg/L)	Detection Date	Detection Time
1	0.800	1	27.8	1.68	0.0	1.3	0.789	10/25/2010	12:43:08 PM
2	0.600	1	21.2	1.30	0.0	-0.4	0.602	10/25/2010	12:44:19 PM
3	0.400	1	14.8	0.914	0.0	-4.6	0.419	10/25/2010	12:45:29 PM
4	0.100	1	3.66	0.229	0.0	0.3	0.0998	10/25/2010	12:46:39 PM
5	0.0200	1	0.834	0.0532	0.0	5.5	0.0188	10/25/2010	12:47:50 PM
6	0.0100	1	0.392	0.0266	0.0	26.5	6.17e-3	10/25/2010	12:49:01 PM
7	0.00	1	0.0383	4.49e-3			-3.96e-3	10/25/2010	12:50:11 PM

Figure 1: CN



14.4 14

Author: On

C102510W2.CN Date : 10/ GN43793

Original Run Filename: OM_10-25-2010_04-07-54PM.OMN created 10/25/2010 4:07:54 PM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-25-2010_04-07-54PM.OMN last modified 10/25/2010 4:17:52 PM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 1 CN (mg/L)	Detection Time	MDF	% REC
CCV	1	10	0.412	10/25/2010@4:08:50 PM		103
Known Conc:			0.400			
Calibration:			Table/Fig. 1			
CCB	1	11	-3.86e-3	10/25/2010@4:10:01 PM		
Known Conc:			0.00			
JA59669-1 (A)	1	35	-5.34e-3	10/25/2010@4:11:12 PM		
CCV	1	10	0.408	10/25/2010@4:14:22 PM		102
Known Conc:			0.400			
CCB	1	11	-4.46e-3	10/25/2010@4:15:33 PM		
Known Conc:			0.00			

Channel 1: Set 1 of 1

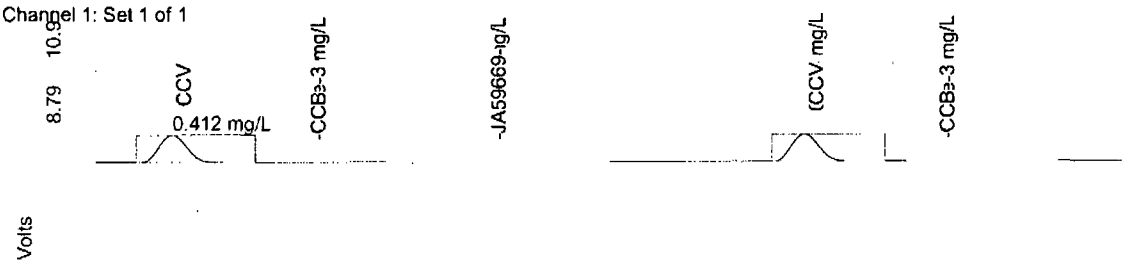


Table 1: CN

	Known Conc. (mg/L)	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. (mg/L)	Detection Date	Detection Time
1	0.00	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]
7	52.8	1	[illegible]	[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]

14.4 14

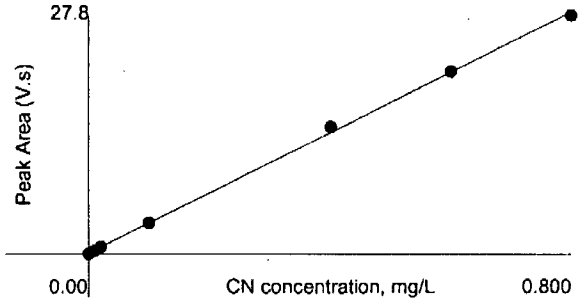
-1-

W2-CN GN43793

Author: Omnion User

Date : 10/25/2010

Figure 1: CN



Area = 34.9 * Conc + 0.184
Conc = 0.0286 * Area - 5.05e-3
Correlation Coefficient (r) = 0.99961

No Weighting

14.4 14

Creator : Omnion User
Creation Date : 6/24/2010 11:00:55 AM
Last Modified : 10/18/2010 12:26:31 PM
Description : C10251001-CN GN43793

Cup	Sample ID	MDF	Weight	Sample Type	Comments
1	STDA			Calibration Standard	
2	STDB			Calibration Standard	
3	STDC			Calibration Standard	
4	STDD			Calibration Standard	
5	STDE			Calibration Standard	
6	STDF			Calibration Standard	
7	STDG			Calibration Standard	
8	ICV			Check Standard	
9	ICB			Check Standard	
10	CCV			Check Standard	
11	CCB			Check Standard	
12	GP55943-MB2			Unknown	
13	GP55943-B2			Unknown	
14	GP55943-S1			Unknown	
15	GP55943-S2			Unknown	
16	GP55943-D1			Unknown	
17	JA58959-1			Unknown	
18	JA58959-2			Unknown	
19	JA58750-1			Unknown	
20	JA58750-2			Unknown	
21	JA58750-3			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
22	JA58750-4			Unknown	
23	JA58750-5			Unknown	
24	JA58750-6			Unknown	
25	JA58750-7			Unknown	
26	JA58750-8			Unknown	
27	JA58750-9			Unknown	
28	JA58750-10			Unknown	
29	JA58669-1			Unknown	
30	JA58710-3			Unknown	
31	JA58710-7			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
32	JA58710-8			Unknown	
33	JA58710-9			Unknown	
34	JA58710-11			Unknown	
35	JA58710-12			Unknown	
36	Sample36			Unknown	

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37	JA58710-13			Unknown	
38	GP56007-MB1			Unknown	
39	GP56007-B1			Unknown	
40	GP56007-S1			Unknown	
1	GP56007-S2			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
2	GP56007-D1			Unknown	
3	JA59264-1			Unknown	
4	JA58900-12			Unknown	
5	JA58817-1			Unknown	
6	JA58960-5			Unknown	
7	JA59199-2			Unknown	
8	JA59199-4			Unknown	
9	JA59199-6			Unknown	
12	JA59199-8			Unknown	
13	JA59199-10			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
14	JA59199-12			Unknown	
15	JA59199-14			Unknown	
16	JA59199-16			Unknown	
17	JA59199-18			Unknown	
18	JA59199-20			Unknown	
19	JA59199-22			Unknown	
20	JA59199-24			Unknown	
21	JA59199-28			Unknown	
22	GP55987-MB1			Unknown	
23	GP55987-B1			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
24	GP55987-S1			Unknown	
25	GP55987-S2			Unknown	
26	GP55987-D1			Unknown	
27	JA58815-1A			Unknown	
28	JA58815-3A			Unknown	
29	JA58815-5A			Unknown	
30	JA58815-7A			Unknown	
31	JA58815-9A			Unknown	
32	JA58815-11A			Unknown	
33	JA58815-13A			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
34	JA58815-15A			Unknown	
35	JA58815-17A			Unknown	

W01-CN GN43793

36	JA58815-19A			Unknown	
37	JA58815-21A			Unknown	
38	JA58815-23A			Unknown	
39	JA58815-25A			Unknown	
40	JA58960-3			Unknown	
1	JA58960-4			Unknown	
2	JA58900-1			Unknown	
3	JA58900-2			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
4	JA58900-3			Unknown	
5	JA58900-4			Unknown	
6	JA58900-14			Unknown	
7	GP56009-MB1			Unknown	
8	GP56009-B1			Unknown	
9	GP56009-D1			Unknown	
12	JA59171-1			Unknown	
13	JA59171-2			Unknown	
14	JA59264-1A			Unknown	
15	JA59280-1			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
16	JA59310-1			Unknown	
17	JA58914-1			Unknown	
18	JA58914-2			Unknown	
19	JA58914-3			Unknown	
20	JA58914-4			Unknown	
21	JA58914-5			Unknown	
22	JA58914-6			Unknown	
23	JA59157-1			Unknown	
24	JA59229-1			Unknown	
25	JA59269-1			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	
26	JA59269-2			Unknown	
10	CCV			Check Standard	
11	CCB			Check Standard	

W01.CN

GN43793

Analyte Table	CN
	(mg/L)
STDA	0.800
STDB	0.600
STDC	0.400
STDD	0.100
STDE	0.0200
STDF	0.0100
STDG	0.00

ACCUTEST

GN43793

Batch ID:

Autopipette ID:

Balance ID: B14

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GP55943 redo

NO.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots	Analyst
			MB2	12	-			6	120	16:10	16:40	10/22/10	GP -MB1		BL
			BSP2										GP -B1	0.10 ml of 5.0 mg/l (c)	
	3		MS1 JA58750-1				0.50						GP -S1	0.10 ml of 5.0 mg/l	
			MS2 JA58710-3				0.56						GP -S2	0.10 ml of 5.0 mg/l	
	3		Dup JA58750-1				0.55						GP -D1		
1	3		JA58959-1				0.53								
2			-2				0.50								
3	1		JA58750-1				0.56							QC gray water	
4			-2				0.58								
5			-3				0.57								
6	2		-4				0.53								
7			-5				0.55								
8			-6				0.56								
9			-7				0.51								
10			-8				0.57								
11			-9				0.56								
12	1		-10				0.54								
13			JA58669-1				0.58								
14			JA58710-3				0.54							QC gray water	
15			-7				0.52								
16			-8				0.50								
17			-9				0.51								
18			-11				0.53								
19			-12				0.51								
20			-13				0.56								

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

Spike = 1.03 - mls of 968 - ppm CN STD, 1200 - mls with 0.25 N from 0.95 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

Rev. Date: 12/15/09

QC Reports:

GN43793

ACCUTEST

GN43793

Batch ID:

Autopipette ID:

Balance ID: B 14

CYANIDE DISTILLATION LOG (SOILS - MICRO DISTILLATION)

GP56007

Method: SW846 9012B M

No.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots	Analyst
			MB	12	-			6	120	16:15	16:45	10/22/10	GP -MB1		BL
			LCSP										GP -B1	0.10 ml of 5.0 mg/l (c)	
			MS1JA59199-12				0.56						GP -S1	0.10 ml of 5.0 mg/l	
			MS2JA59200-12				0.50						GP -S2	0.10 ml of 5.0 mg/l	
			DupJA59199-12				0.55						GP -D1		
1			JA59264-1				0.54								
2			JA58900-12				0.58							Qc grayweterg	
3			JA58817-1				0.52								
4			JA58960-5				0.54								
5			JA59199-2				0.50								
6			-4				0.50								
7			-6				0.55								
8			-8				0.56								
9			-10				0.54								
10			-12				0.52							Qc brown dry	
11			-14				0.58								
12			-16				0.51								
13			-18				0.54								
14			-20				0.50								
15			-22				0.54								
16			-24				0.58								
17			-28				0.59								

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

Table = 1.03 - [illegible] = 968 - [illegible] STD [illegible] ml [illegible] 5.05 N titrant 0.95 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

Rev. Date: 12/15/09

ACCUTEST LABORATORIES JA58750

GN43793

ACCUTEST.

GN43730

GN43793

Batch ID:

Autopipette ID:

Balance ID: B 14

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW846 9012B M

GP55987

NO.	Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments including Spike Lots	Analyst
			MB	12	–			6	120	15:40	16:10	10/21/10	GP -MB1		BCN
			BSP										GP -B1	0.10 ml of 5.0 mg/l (c)	
	1		MS1JA58900-3				0.53						GP -S1	0.10 ml of 5.0 mg/l	
			MS2JA58815-1A				0.50						GP -S2	0.10 ml of 5.0 mg/l	
			DUPJA58900-3				0.56						GP -D1		
1			JA58815-1A				0.52							Qc red dry	
2			-3A				0.51								
3			-5A				0.50								
4			-7A				0.54								
5			-9A				0.51								
6			-11A				0.55								
7			-13A				0.52								
8			-15A				0.52								
9			-17A				0.57								
10			-19A				0.56								
11			-21A				0.58								
12			-23A				0.58								
13			-25A				0.59								
14			JA58960-3				0.57								
15			-4				0.55								
16	2		JA58900-1				0.51								
17	2		-2				0.58								
18	4		-3				0.57							Qc gray wet	
19	1		-4				0.57								
20	1		-14				0.50								

(a) Check if sulfamic acid was added.

(b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

(c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mgl for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

Spike = 1.03 mls of 968 ppm CN STD, 1200 mls with 0.25 N from 0.95 N NaOH

QC Reviewer: Date:

Form: GN0012-03A

Rev. Date: 12/15/09

QC Reports:

GN43793

ACCUTEST

GN43793

Balance ID = 6 14

CYANIDE/~~SULFIDE~~ REACTIVITY DISTILLATION LOG (SOILS)

METHOD: SW846 Chapter 7

Bottle #	No.	gp56009 Sample ID	Initial Weight (g)	Final Volume (ml)	Date	GP Number (a)	Spike Amounts and Comments including Spike Lots	Analyst
1		Dup JA58914-1	10.00	500	10/22/10	GP -D1		MW
		BSP				GP -B1	~~5.0~~ 10 ml of _____ mg/l CN Spike ID:	
						GP -B2	5.0 ml of _____ mg/l S Spike ID:	
		MB				GP -MB1		
2	1	JA59171-1	10.00					
2	2	2	9.98					
1	3	JA59264-1A	10.01					
1	4	JA59280-1	9.98					
1	5	JA59310-1	9.95					
1	6	JA58914-1	10.04				Brown + Rocks	
1	7	2	9.99					
1	8	3	9.97					
1	9	4	9.98					
1	10	5	9.95					
1	11	6	9.96					
1	12	JA59157-1	9.97					
1	13	JA59229-1	10.02					
1	14	JA59269-1	9.96					
1	15	2	9.99					

Comments: CrOAC: 20 ml of 968ppm CN Stock + 200 ml of 0.25N NaOH

QC Reviewer: _____ Date: _____

Form: GN-019

Rev. Date: 2/4/99

14.4 14

ACCUTEST.

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: Gp 56608 Gp 56009 GN43793

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNEB-25303-CN	12/19/10	10/20/10
Sulfide Spike Solution	fisher lot # 064238	N/A	NA
Sulfuric Acid, 0.010 N	GNE10-26455-REAC	4/22/11	NA
Sodium Hydroxide, 0.25 N	GNE10-26395-CN	3/23/11	NA

14.4 14

Form: GN-087 1-64
Rev. Date: 3/12/04

ACCUTEST.

GN43793
GP55843

CYANIDE/SULFIDE REACTIVITY DISTILLATION LOG (AQUEOUS)
METHOD: SW846 Chapter 7

No.	Sample ID	Initial Vol. (ml)	Final Volume (ml)	Date	GP Number (a)	Spike Amounts and Comments including Spike Lots	Analyst
	DUP JA57726-1	10	500	10/13/10	GP -D1		QE
					GP -B1	5.0 ml of ____ mg/l CN Spike ID:	
	BSP	10	500		GP -B2	10 5.0 ml of 96.8 mg/l S Spike ID:	
	MB				GP -MB1		
1	JA57726-1						
2	↓ -2						
	MB2	10ml	500	10/20/10			BC
	BSP2					10ml of CN EAC	
3	JA58327-1						
	MB3			10/25/10			BC
	BSP3					10ml of CN EAC	
4	JA58965-2						
5	JA59669-1						

Comments: QC = white liquid

BSP = 20 ml of CN STD 96.8ppm + 200 ml w/ 0.25N NaOH

QC Reviewer: _____ Date: _____

Form: GN-020
Rev. Date: 2/4/99

14.4 14

ACCUTEST.

GN43793

CYANIDE/~~SULFIDE~~ REACTIVITY DISTILLATION LOG (SOILS)

Balance ID = 6 14

METHOD: SW846 Chapter 7

Bottle #	No.	GP56009 Sample ID	Initial Weight (g)	Final Volume (ml)	Date	GP Number (a)	Spike Amounts and Comments including Spike Lots	Analyst
1		Dup JA58914-1	10.00	500	10/22/10	GP -D1		mW
		BSP				GP -B1	~~5.0~~ 10 ml of _____ mg/l CN Spike ID:	
						GP -B2	5.0 ml of _____ mg/l S Spike ID:	
		MB				GP -MB1		
2	1	JA59171-1	10.00					
2	2	2	9.98					
1	3	JA59264-1A	10.01					
1	4	JA59280-1	9.98					
1	5	JA59310-1	9.95					
1	6	JA58914-1	10.04				Brown + Rocks	
1	7	2	9.98					
1	8	3	9.97					
1	9	4	9.98					
1	10	5	9.95					
1	11	6	9.96					
1	12	JA59157-1	9.97					
1	13	JA59229-1	10.02					
1	14	JA59269-1	9.96					
1	15	2	9.99					
		MB2		500	10/25/10			BG
		BSP					10ml c + CREAC	
	16	JA59365-1	10.07					
	17	JA59403-1	10.03					
	18	JA59455-1	9.99					
	19	-2	9.96					
	20	-3	9.98					

Comments: CREAC: 20ml of 968ppm CN stock + 200ml of 0.25N NaOH

QC Reviewer: _____ Date: _____

Form: GN-019

Rev. Date: 2/4/99

14.4 14

ACCUTEST

Reagent Information Log - CREAC and SREAC Distillations

GP Numbers: GN43793

Reagent	Reagent # or Manufacturer/Lot	Expiration date	Standardization Date
Cyanide Spike Solution	GNE6-25303-CN	12/18/10	10/20/10
Sulfide Spike Solution	fisher # 064238	—	NA
Sulfuric Acid, 0.010 N	GNE10-26455-REAC	4/22/11	NA
Sodium Hydroxide, 0.25 N	GNE10-26396-CN	4/22/10	NA

14.4 14

Form: GN-087 1-64
Rev. Date: 3/12/04

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG for CYANIDE

GN or GP Number: GN43793

Intermediate Standard Description	Stock used to prepare standard	Standard-ization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
Standards Stock	GNE6-25303-CN	10/20/10	968	1.03	.25 N NaOH	200	5.0	12/18/10	BG	10/23/10
Distilled ICV Stock	GNE				.25 N NaOH	200	5.0			
Undistilled ICV Int.	GNE5-25072-CN	10/20/10	964	2.07	.25 N NaOH	100	20	11/25/10	NP	10/25/10
Undistilled CCV Int.	GNE6-25303-CN	↓	968	2.07	.25 N NaOH	100	20	12/18/10	↓	↓

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Diluent (b)	Final Volume in ml	Final Conc. of Standard (mg/l)	Expiration Date (c)	Analyst	Date
A	5.0		5.0	16.00	.25 N NaOH	100	0.80	11/6/10	BG	10/23/10
B	5.0		5.0	12.00	.25 N NaOH	100	0.60	↓	↓	↓
C	5.0		5.0	8.00	.25 N NaOH	100	0.40			
D	5.0		5.0	2.00	.25 N NaOH	100	0.10			
E	5.0		5.0	0.40	.25 N NaOH	100	0.02			
F	5.0		5.0	0.20	.25 N NaOH	100	0.01			
Undistilled ICV	ICV Int.		20	1.5	.25 N NaOH	100	0.3	10/25/10	NP	10/25/10
Undistilled CCV	CCV Int.		20	2.0	.25 N NaOH	100	0.4	↓	↓	↓

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: See attached Expiration Date:

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.

Reason codes for data corrections : 1 - reviewer error correction; 2 - transcription error; 3-computer error; 4- analyst error

Form: GI/200-01
Rev. Date: 7/18/06

ACCUTEST

GN43793

CYANIDE DISTILLATION LOG (WATERS - MICRO DISTILLATION)

CN METHOD: EPA 335.2M/335.4 CNA METHOD: EPA 335.1

Btl #	No.	Block	Sample ID	pH	S^{2-}	Add (a)	Initial Volume (ml)	Final Volume (ml)	Date	GP Number (a)	Spike Amounts and Comments including Spike Lots	Analyst
										GP -D1		
										GP -S1	0.1 ml of 5.0 mg/l Spike ID:	
										GP -B1	0.1 ml of 5.0 mg/l Spike ID:	
										GP -MB1		
			Calibration Curve									
			0	12		✓	6	6	10/23/10		6ml .25N NaOH	BL
			.01			✓					6ml .01 ppm	
			.02			✓					6ml .02ppm	
			.1			✓					6ml .1ppm	
			.4			✓					6ml .4 ppm	
			.6			✓					6ml .6 ppm	
			.8			✓					6ml .8ppm	

(a) Check if sulfamic acid was added.
(b) Add method blanks/spike blanks as appropriate. A minimum of one method blank/spike blank per day is required.

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

QC Sample Description

Comments:

QC Reviewer: Date:

Form: GN-012
Rev. Date: 9/6/06

14.4 14

GN43793

ACCUTEST

Reagent Information Log - CN - Distillation

GP Numbers: GN43793

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Magnesium Chloride Solution	GNE9-26098-CN	3/14/11
Sulfamic Acid	Acros A0274254	8/27/15
Sulfuric Ac id	JT Baker J04F05	7/26/15
Sodium Hydroxide 1.25N/0.25N	GNE10-26392-CN	3/13/11
Cadmium Carbonate, Powder		
Micro Distillation tubes	Lachat # 9/24/10	
.95 NaOH	GNE10-26319-CN	3/7/11
Cyanide Stock STD	GNE6-25303-CN	12/18/10

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

14.4 14

Form: GN0871-28
Rev. Date: 07/19/06

ACCUTEST

Reagent Information Log - CN Lachat Autoanalyzer

GN Number: GN143793

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituric Acid Reagent	GNE11-26464-CN	4/25/2011
Chloramine-T	GNE11-26463-CN	11/1/2010
Phosphate Buffer Solution, 1.0 M	GNE10-26349-CN	4/11/2011
0.25 N Sodium Hydroxide Carrier Solution	GNE10-26435-CN	3/7/2011

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

14.4 14

Form: GN0871-27
Rev. Date: 7/19/06

b102610 wl. NO3 GN43823

Author: Omnion User

Date : 10/26/2010

Original Run Filename: OM_10-26-2010_09-45-31AM.OMN created 10/26/2010 9:45:31 AM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-26-2010_09-45-31AM.OMN last modified 10/26/2010 10:18:07 AM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 NO32	Detection Time	MDF	Y. REC
STDA	1	1	5.00	10/26/2010@9:46:26 AM		
STDB	1	2	2.50	10/26/2010@9:47:17 AM		
STDC	1	3	1.00	10/26/2010@9:48:07 AM		
STDD	1	4	0.500	10/26/2010@9:48:58 AM		
STDE	1	5	0.200	10/26/2010@9:49:48 AM		
STDF	1	6	0.100	10/26/2010@9:50:39 AM		
STDG	1	7	0.00	10/26/2010@9:51:29 AM		
EFFCHK	1	8	1.98	10/26/2010@9:52:19 AM		99
	Known Conc:		2.00			
	Calibration:		Table/Fig. 1			
ICV	1	9	1.91	10/26/2010@9:53:09 AM		95.5
	Known Conc:		2.00			
ICB	1	10	4.53e-3	10/26/2010@9:53:58 AM		
	Known Conc:		0.00			
CCV	1	11	2.55	10/26/2010@9:54:48 AM		102
	Known Conc:		2.50			
CCB	1	12	3.82e-3	10/26/2010@9:55:38 AM		
	Known Conc:		0.00			
GP56033-MB1	1	13	4.65e-3	10/26/2010@9:56:27 AM		
GP56033-B1	1	14	2.05	10/26/2010@9:57:16 AM		102.5
GP56033-S1	1	15	3.56	10/26/2010@9:58:06 AM		96
GP56033-S2	1	16	2.01	10/26/2010@9:58:57 AM		99.97
GP56033-D1	1	17	1.58	10/26/2010@9:59:48 AM		
JA59491-1 A	1	18	5.65e-3	10/26/2010@10:00:38 AM		
JA59491-2	1	19	0.204	10/26/2010@10:01:28 AM		
JA59491-3	1	20	2.97	10/26/2010@10:02:19 AM		
JA59553-1	1	21	-3.21e-3	10/26/2010@10:03:09 AM		
JA59553-2	1	22	4.90	10/26/2010@10:04:00 AM		
CCV	1	11	2.51	10/26/2010@10:04:49 AM		100.4
	Known Conc:		2.50			
CCB	1	12	4.67e-3	10/26/2010@10:05:39 AM		
	Known Conc:		0.00			
JA59553-3 2	1	23	0.602	10/26/2010@10:06:29 AM		CCV fails low
JA59147-2	1	24	3.45e-3	10/26/2010@10:07:18 AM		
JA59147-3	1	25	0.0209	10/26/2010@10:08:08 AM		
JA59147-4	1	26	7.90e-3	10/26/2010@10:08:58 AM		
JA59147-5	1	27	0.0117	10/26/2010@10:09:48 AM		
JA59216-2	1	28	0.466	10/26/2010@10:10:37 AM		
JA59216-26	1	29	2.06	10/26/2010@10:11:27 AM		
JA59216-29	1	30	1.62	10/26/2010@10:12:16 AM		
JA59278-1	1	31	0.0466	10/26/2010@10:13:07 AM		
JA59278-2	1	32	0.0864	10/26/2010@10:13:57 AM		
CCV	1	11	2.12	10/26/2010@10:14:47 AM		84.8
	Known Conc:		2.50			
CCB	1	12	4.92e-3	10/26/2010@10:15:36 AM		
	Known Conc:		0.00			
JA59278-3 2	1	33	19.6	10/26/2010@10:16:27 AM		

See 1:20 & 1:40 dilutions directly.

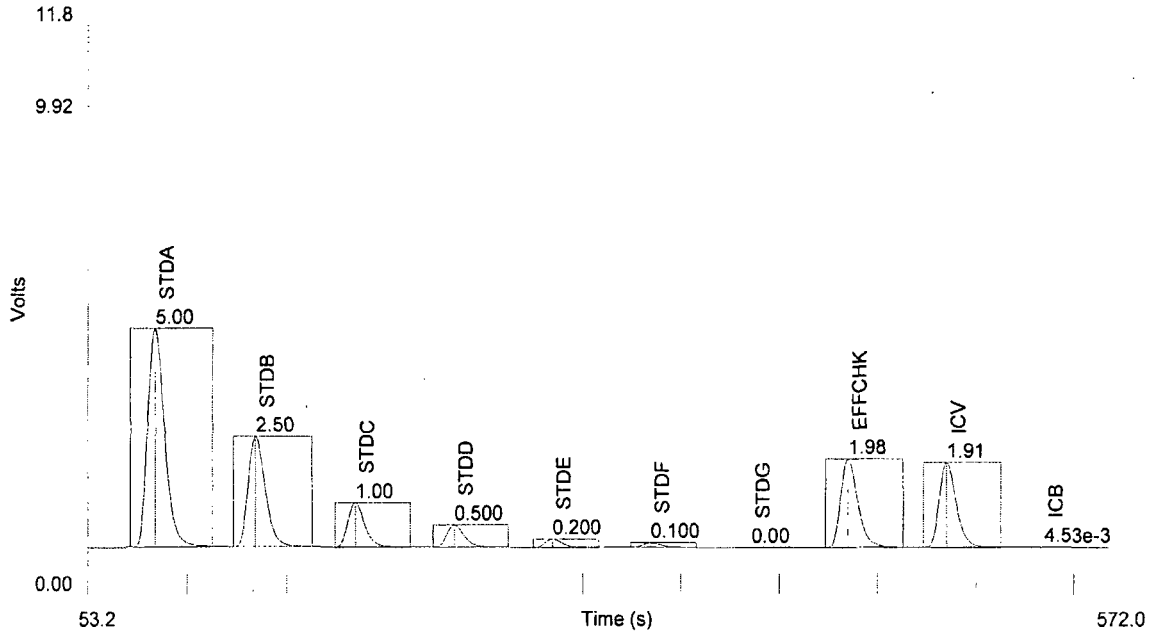
14.5 14

W1.NO3 GN43823

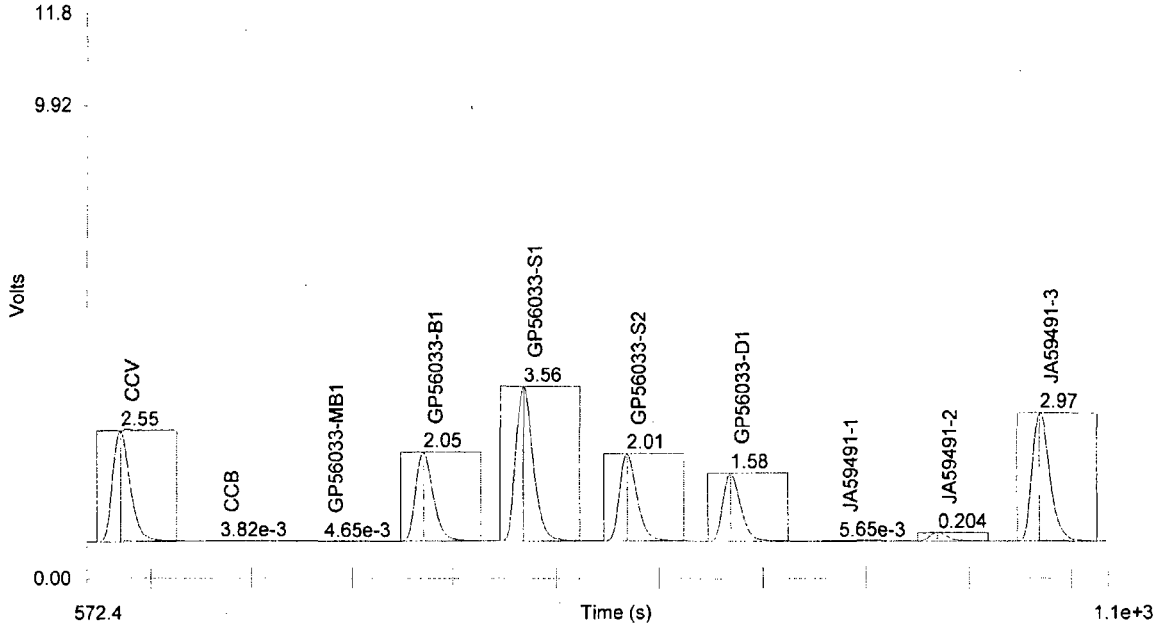
Author: Omnion User

Date : 10/26/2010

Channel 2: Set 1 of 4



Channel 2: Set 2 of 4

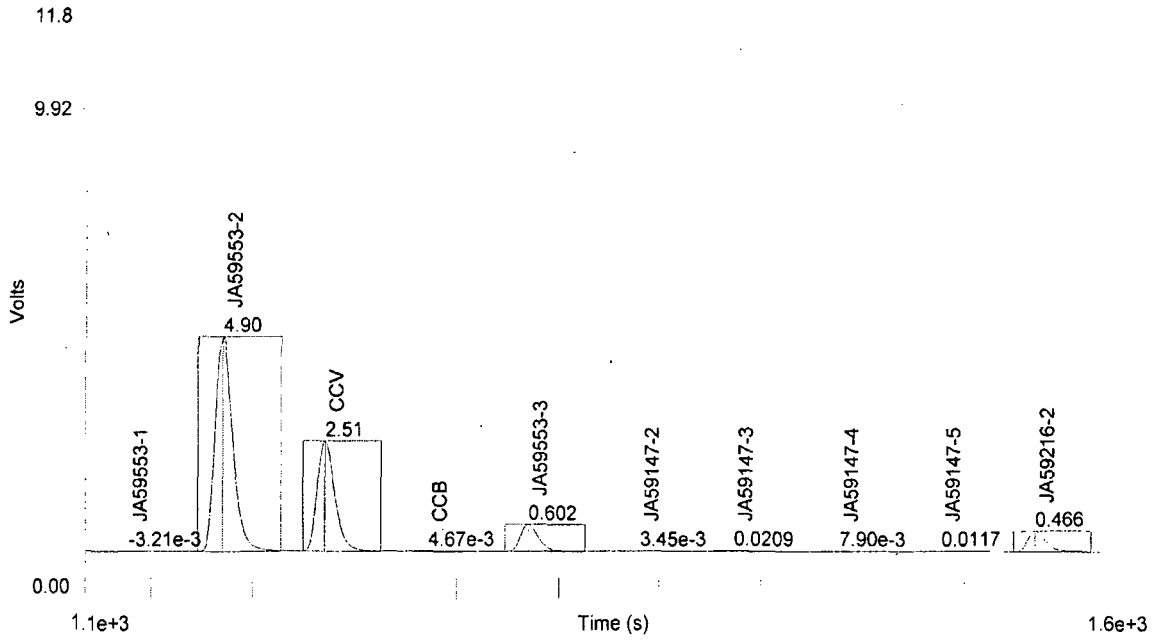


W1-NO3 GN43823

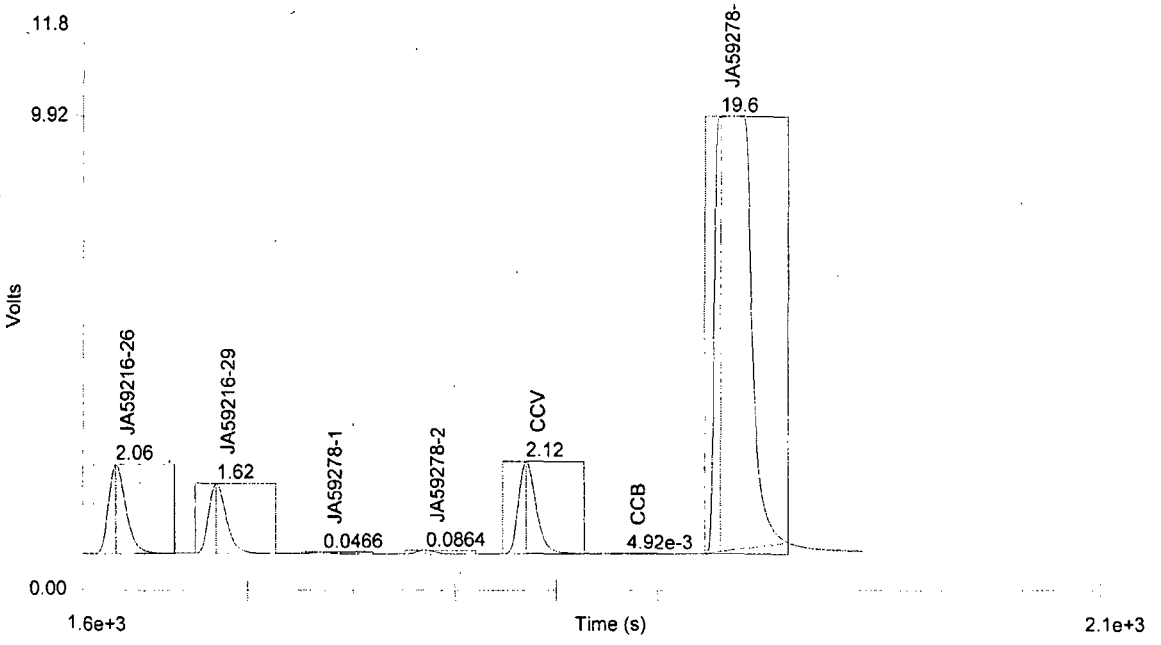
Author: Omnion User

Date : 10/26/2010

Channel 2: Set 3 of 4



Channel 2: Set 4 of 4



W1-NO3 GN43823

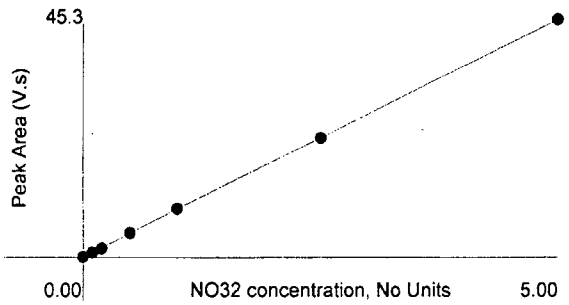
Author: Omnion User

Date : 10/26/2010

Table 1: NO32

	Known Conc. ()	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. ()	Detection Date	Detection Time
1	5.00	1	45.3	4.55	0.0	0.0	5.00	10/26/2010	9:46:26 AM
2	2.50	1	22.7	2.29	0.0	0.0	2.50	10/26/2010	9:47:17 AM
3	1.00	1	9.10	0.918	0.0	-0.3	1.00	10/26/2010	9:48:07 AM
4	0.500	1	4.59	0.459	0.0	-1.0	0.505	10/26/2010	9:48:58 AM
5	0.200	1	1.71	0.172	0.0	6.5	0.187	10/26/2010	9:49:48 AM
6	0.100	1	0.942	0.0959	0.0	-2.4	0.102	10/26/2010	9:50:39 AM
7	0.00	1	0.0428	7.72e-3			3.29e-3	10/26/2010	9:51:29 AM

Figure 1: NO32



Area = 9.07 * Conc + 0.0131.
Conc = 0.110 * Area - 1.43e-3
Correlation Coefficient (r) = 0.99999

No Weighting

14.5 14

b102610 W2. NO3 GN43823

Author: Omnion User

Date : 10/26/2010

Original Run Filename: OM_10-26-2010_10-19-08AM.OMN created 10/26/2010 10:19:08 AM
Original Run Author's Signature: [Omnion User]
Current Run Filename: OM_10-26-2010_10-19-08AM.OMN last modified 10/26/2010 11:16:28 AM
Current Run Author's Signature: [Omnion User]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 NO32	Detection Time	MDF	% REC
CCV	1	11	2.47	10/26/2010@10:19:54 AM		98.8
	Known Conc:		2.50			
CCB	1	12	8.92e-3	10/26/2010@10:20:44 AM		
	Known Conc:		0.00			
	Calibration:		Table/Fig. 1			
JA59553-3 (A)	1	23	0.603	10/26/2010@10:21:34 AM		
JA59147-2	1	24	-4.39e-3	10/26/2010@10:22:24 AM		
JA59147-3	1	25	0.0216	10/26/2010@10:23:13 AM		
JA59147-4	1	26	9.70e-3	10/26/2010@10:24:03 AM		
JA59147-5	1	27	0.0128	10/26/2010@10:24:53 AM		
JA59216-2	1	28	0.477	10/26/2010@10:25:43 AM		
JA59216-26	1	29	2.08	10/26/2010@10:26:31 AM		
JA59216-29	1	30	1.64	10/26/2010@10:27:21 AM		
JA59278-1	1	31	0.0487	10/26/2010@10:28:12 AM		
JA59278-2	1	32	0.106	10/26/2010@10:29:03 AM		
CCV	1	11	2.41	10/26/2010@10:29:52 AM		96.4
	Known Conc:		2.50			
CCB	1	12	5.13e-3	10/26/2010@10:30:42 AM		
	Known Conc:		0.00			
JA59278-4 (A)	1	34	0.0101	10/26/2010@10:31:32 AM		
JA59289-2	1	35	8.72e-3	10/26/2010@10:32:23 AM		
JA59289-9	1	36	0.0106	10/26/2010@10:33:13 AM		
JA59289-10	1	37	7.42e-3	10/26/2010@10:34:04 AM		
GP55862-MB2	1	38	3.96e-3	10/26/2010@10:34:54 AM		
GP55862-B2	1	39	2.02	10/26/2010@10:35:43 AM		101
JA59289-11 (A)	1	40	-5.62e-3	10/26/2010@10:36:33 AM		
JA59289-12	1	41	0.0216	10/26/2010@10:37:23 AM		
JA59289-13	1	42	0.0109	10/26/2010@10:38:13 AM		
JA59289-16	1	43	8.69e-3	10/26/2010@10:39:02 AM		
CCV	1	11	2.49	10/26/2010@10:39:51 AM		99.6
	Known Conc:		2.50			
CCB	1	12	7.48e-3	10/26/2010@10:40:41 AM		
	Known Conc:		0.00			
JA59289-17 (A)	1	44	0.0102	10/26/2010@10:41:32 AM		
JA59289-18	1	45	8.66e-3	10/26/2010@10:42:22 AM		
JA59289-19	1	46	0.0125	10/26/2010@10:43:12 AM		
JA59289-20	1	47	0.0120	10/26/2010@10:44:03 AM		
GP55966-MB1	1	48	7.70e-3	10/26/2010@10:44:53 AM		
GP55966-B1	1	49	0.998	10/26/2010@10:45:44 AM		99.8
GP55966-S1	1	50	1.06	10/26/2010@10:46:34 AM		106
GP55966-D1	1	51	0.0363	10/26/2010@10:47:24 AM		
JA58750-11 (A)	1	52	6.94e-3	10/26/2010@10:48:14 AM		
JA58750-1	1	53	0.0108	10/26/2010@10:49:04 AM		
CCV	1	11	2.34	10/26/2010@10:49:54 AM		93.6
	Known Conc:		2.50			
CCB	1	12	0.0101	10/26/2010@10:50:44 AM		
	Known Conc:		0.00			
JA58750-2 (A)	1	54	0.0100	10/26/2010@10:51:33 AM		
JA58750-3	1	55	9.41e-3	10/26/2010@10:52:23 AM		
JA58750-4	1	56	6.62e-3	10/26/2010@10:53:12 AM		
JA58750-5	1	57	4.90e-3	10/26/2010@10:54:02 AM		
JA58750-6	1	58	9.56e-3	10/26/2010@10:54:52 AM		
JA58750-7	1	59	0.0376	10/26/2010@10:55:42 AM		
JA58750-8	1	60	5.77e-3	10/26/2010@10:56:31 AM		
JA58750-9	1	1	7.46e-3	10/26/2010@10:57:22 AM		
JA58750-10	1	2	0.0120	10/26/2010@10:58:13 AM		
JA58750-12	1	3	0.0105	10/26/2010@10:59:03 AM		
CCV	1	11	2.38	10/26/2010@10:59:54 AM		95.2
	Known Conc:		2.50			
CCB	1	12	0.0110	10/26/2010@11:00:43 AM		

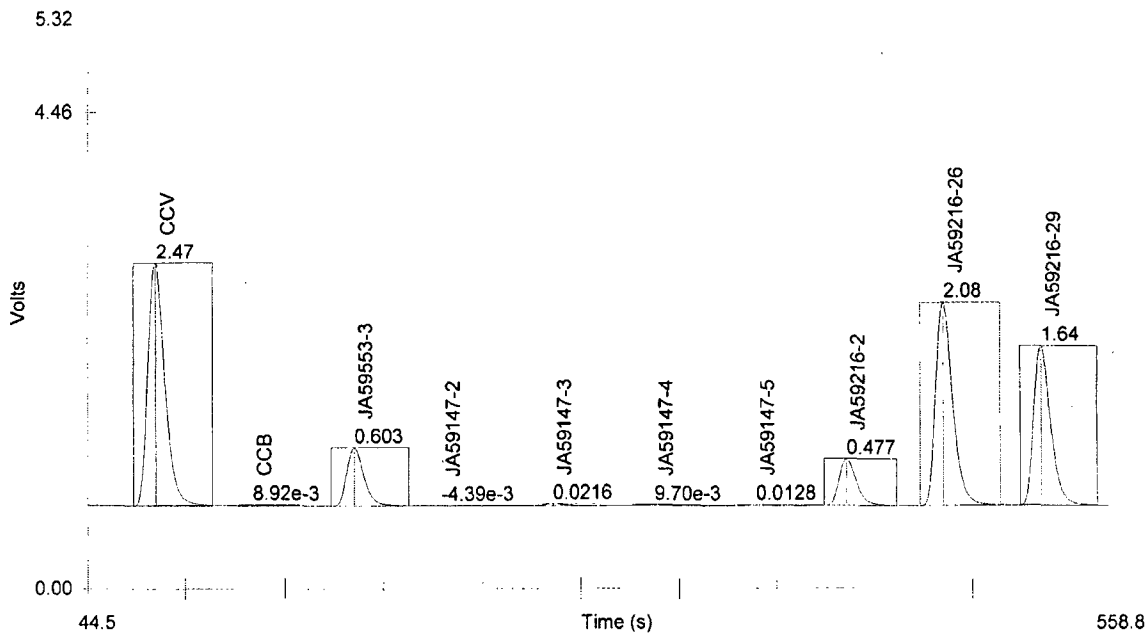
W2-NO3 GN43823

Author: Omnion User

Date : 10/26/2010

	Known Conc:		0.00		
JA58750-13 (A)	1	4	5.73e-3	10/26/2010@11:01:33 AM	
JA58750-14	1	5	7.80e-3	10/26/2010@11:02:24 AM	
JA58750-15	1	6	5.79e-3	10/26/2010@11:03:14 AM	
JA58750-16	1	7	0.0115	10/26/2010@11:04:05 AM	
JA58750-17	1	8	7.32e-3	10/26/2010@11:04:54 AM	
JA58750-18	1	9	7.59e-3	10/26/2010@11:05:44 AM	
JA59695-1	1	10	4.36e-3	10/26/2010@11:06:34 AM	
JA59695-2	1	13	3.02	10/26/2010@11:07:23 AM	
JA59695-3	1	14	2.96	10/26/2010@11:08:12 AM	
JA59278-3 (7)	1	15	80.9	10/26/2010@11:09:03 AM	20.00
CCV	1	11	2.39	10/26/2010@11:09:52 AM	-95.6
	Known Conc:		2.50		
CCB	1	12	0.0151	10/26/2010@11:10:41 AM	
	Known Conc:		0.00		
JA59278-3 (A)	1	16	83.8	10/26/2010@11:11:33 AM	40.00
CCV	1	11	2.42	10/26/2010@11:13:58 AM	-96.8
	Known Conc:		2.50		
CCB	1	12	0.0159	10/26/2010@11:14:47 AM	
	Known Conc:		0.00		

Channel 2: Set 1 of 7

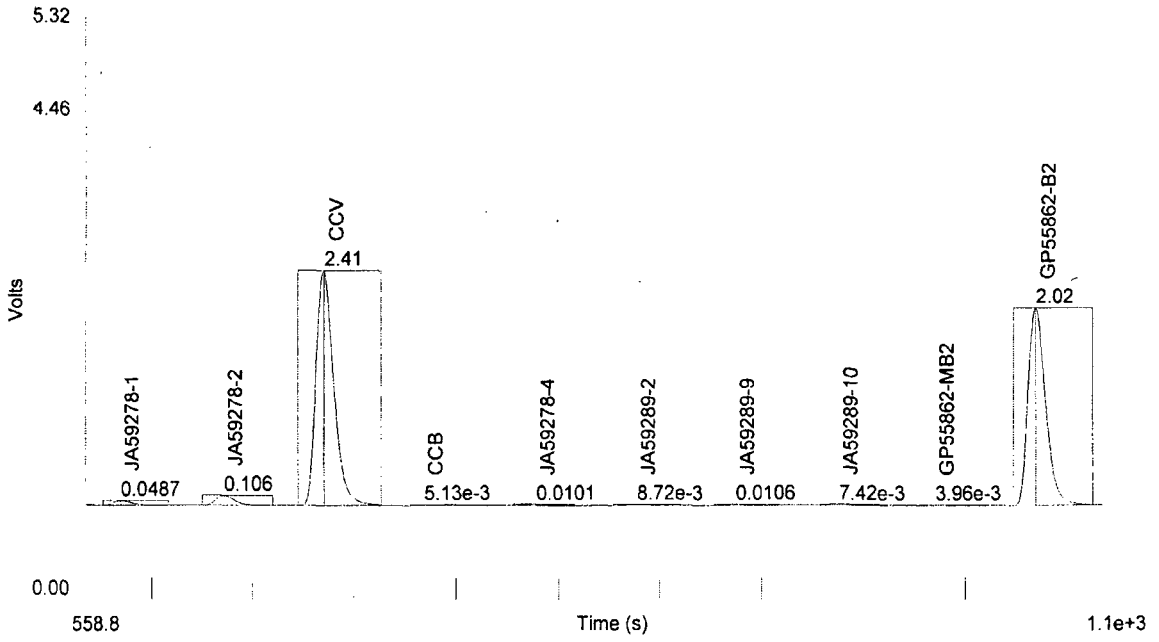


W2. NO3 GN43823

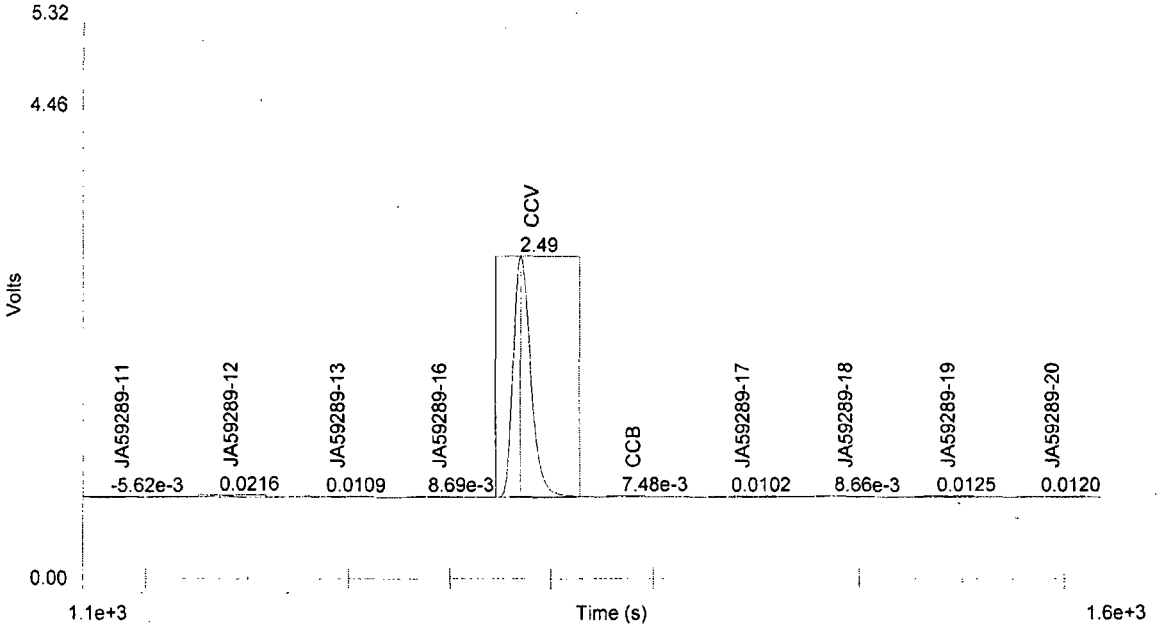
Author: Omnion User

Date : 10/26/2010

Channel 2: Set 2 of 7



Channel 2: Set 3 of 7

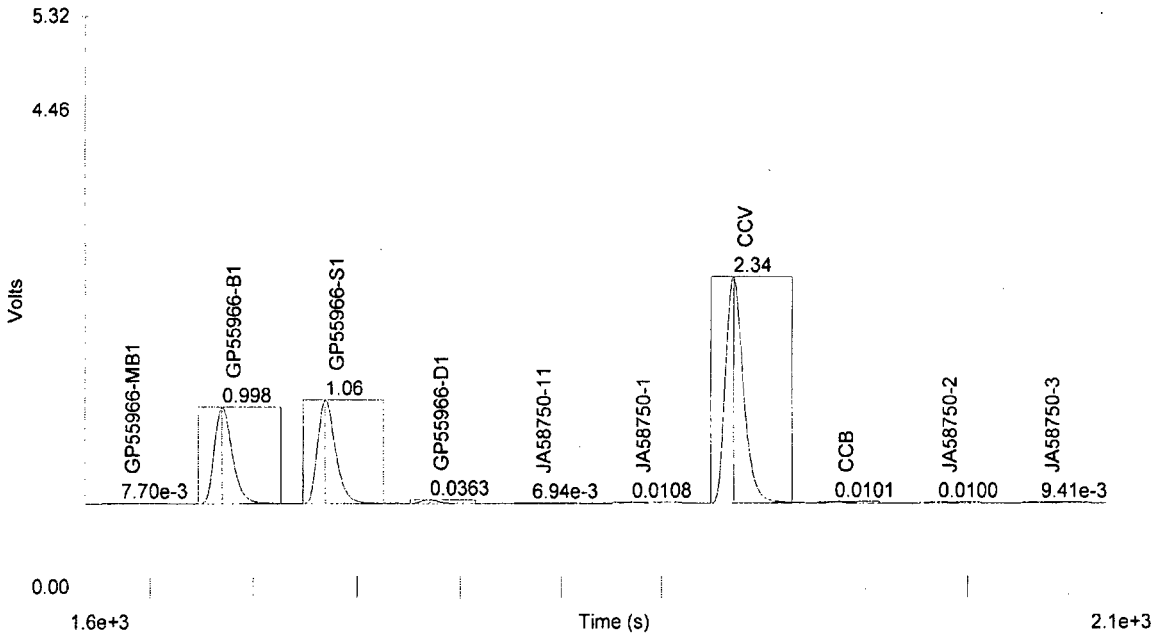


W2-NO3 GN43823

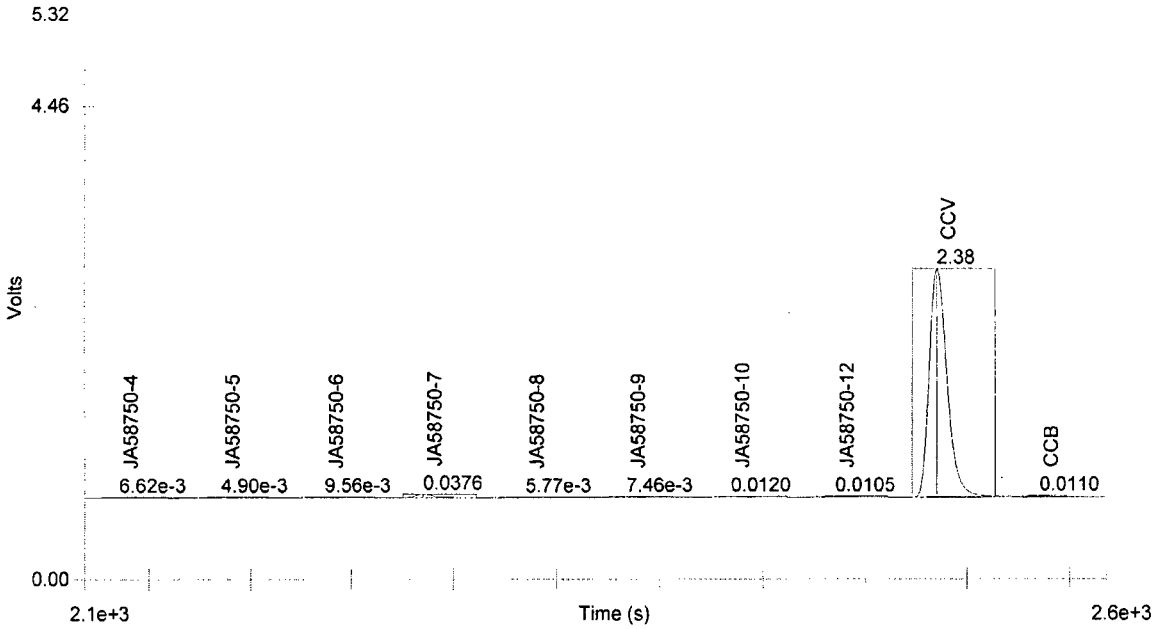
Author: Omnion User

Date : 10/26/2010

Channel 2: Set 4 of 7



Channel 2: Set 5 of 7

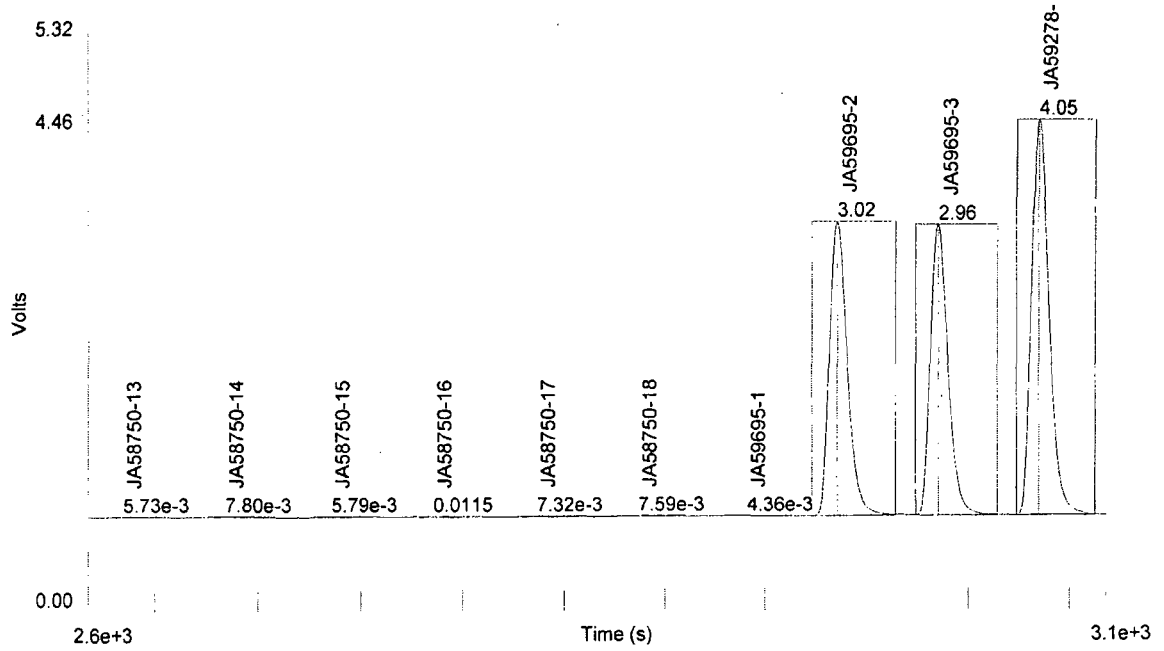


W2-NO3 GN43823

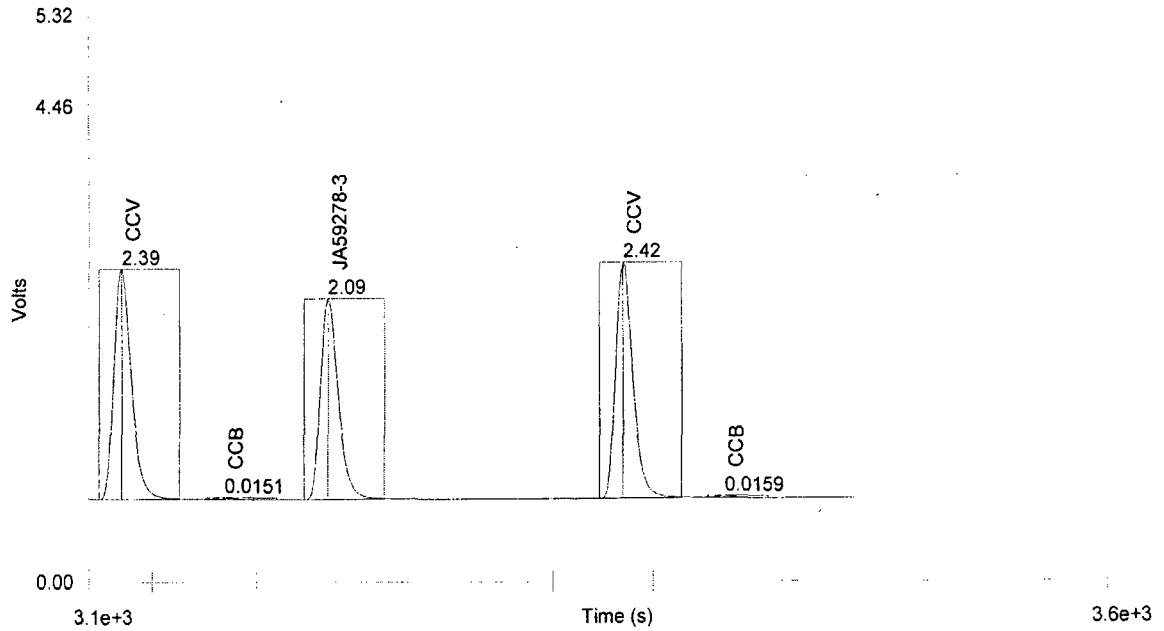
Author: Omnion User

Date : 10/26/2010

Channel 2: Set 6 of 7



Channel 2: Set 7 of 7



14.5 14

W2·NO3 GN43823

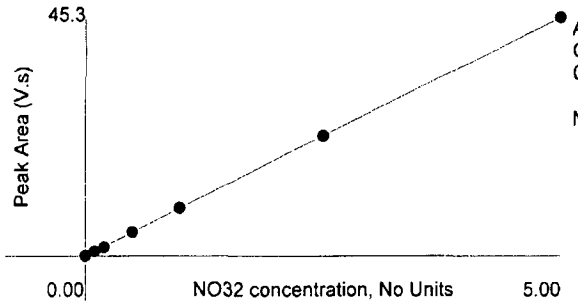
Author: Omnion User

Date : 10/26/2010

Table 1: NO32

	Known Conc. ()	Rep	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc. ()	Detection Date	Detection Time
1	5.00	1	45.3	4.55	0.0	0.0	5.00	10/26/2010	9:46:26 AM
2	2.50	1	22.7	2.29	0.0	0.0	2.50	10/26/2010	9:47:17 AM
3	1.00	1	9.10	0.918	0.0	-0.3	1.00	10/26/2010	9:48:07 AM
4	0.500	1	4.59	0.459	0.0	-1.0	0.505	10/26/2010	9:48:58 AM
5	0.200	1	1.71	0.172	0.0	6.5	0.187	10/26/2010	9:49:48 AM
6	0.100	1	0.942	0.0959	0.0	-2.4	0.102	10/26/2010	9:50:39 AM
7	0.00	1	0.0428	7.72e-3			3.29e-3	10/26/2010	9:51:29 AM

Figure 1: NO32



Area = 9.07 * Conc + 0.0131
Conc = 0.110 * Area - 1.43e-3
Correlation Coefficient (r) = 0.99999

No Weighting

eator: QC Reports: Chemistry

eation Date : 11/16/2007 10:41:57 AM

ıst Modified : 9/1/2010 11:58:47 AM

escription :

GN43823 GN43823

Bottle # b102610W1·N03

ıp	Sample ID	MDF	~~Weight~~	Sample Type	Comments
	STDA			Calibration Standard	
	STDB			Calibration Standard	
	STDC			Calibration Standard	
	STDD			Calibration Standard	
	STDE			Calibration Standard	
	STDF			Calibration Standard	
	STDG			Calibration Standard	
	EFFCHK			Check Standard	
	ICV			Check Standard	
	ICB			Check Standard	
	CCV			Check Standard	
	CCB			Check Standard	
	GP56033-MB1			Unknown	
	GP56033-B1			Unknown	
	GP56033-S1-JA59216-29		7	Unknown	0.1-ml of 100 ppM STD, 15-ml with sample
	GP56033-S2-JA59289-9			Unknown	
	GP56033-D1-JA59216-29		7	Unknown	
	JA59491-1		5	Unknown	-FB
	JA59491-2			Unknown	
	JA59491-3			Unknown	
	JA59553-1		6	Unknown	-FB
	JA59553-2			Unknown	
	CCV			Check Standard	
	CCB			Check Standard	
	JA59553-3		6	Unknown	
	JA59147-2		4	Unknown	
	JA59147-3			Unknown	
	JA59147-4			Unknown	
	JA59147-5			Unknown	
	JA59216-2		3	Unknown	
	JA59216-26			Unknown	
	JA59216-29		7	Unknown	-colorless, clear
	JA59278-1		5	Unknown	
	JA59278-2			Unknown	
	CCV			Check Standard	
	CCB			Check Standard	
	JA59278-3		5	Unknown	-1:20, 1:40
	JA59278-4			Unknown	
	JA59289-2		6	Unknown	-FB
	JA59289-9			Unknown	-colorless, clear

14.5 14

ACCUTEST LABORATORIES

JA58750

QC Reports:

Bottle # GN43823 GN43823 WI-NO3

	JA59289-10	6	Unknown	
	GP55862-MB2		Unknown	
	GP55862-B2		Unknown	
	JA59289-11	6	Unknown	
	JA59289-12		Unknown	
	JA59289-13		Unknown	
	CCV		Check Standard	
	CCB		Check Standard	
	JA59289-16	6	Unknown	
	JA59289-17		Unknown	
	JA59289-18		Unknown	
	JA59289-19		Unknown	
	JA59289-20		Unknown	
	GP55966-MB1		Unknown	
	GP55966-B1		Unknown	
	GP55966-S1		Unknown	
	GP55966-D1		Unknown	
	JA58750-11		Unknown	
	CCV		Check Standard	
	CCB		Check Standard	
	JA58750-1		Unknown	
	JA58750-2		Unknown	
	JA58750-3		Unknown	
	JA58750-4		Unknown	
	JA58750-5		Unknown	
	JA58750-6		Unknown	
	JA58750-7		Unknown	
	JA58750-8		Unknown	
	JA58750-9		Unknown	
	JA58750-10		Unknown	
	CCV		Check Standard	
	CCB		Check Standard	
	JA58750-12		Unknown	
	JA58750-13		Unknown	
	JA58750-14		Unknown	
	JA58750-15		Unknown	
	JA58750-16		Unknown	
	JA58750-17		Unknown	
	JA58750-18		Unknown	
	CCV		Check Standard	
	CCB		Check Standard	

14.5 14

QC Reports:

lyte-Table	NO32
TDA	5.00
TDB	2.50
TDC	1.00
TDD	0.500
TDE	0.200
TDF	0.100
TDG	0.00

GP55877 -MB2
↓ -B2
JA59695-1 → FB
↓ -2
-3

Bottle #
12
12
12

14.5 14

Reports:
ACCUTEST

GN43823

Analyst S. R. Tipton

Method N032 Soil

Prep Date 10/20/10

Balance # B-14

GP # GP55966

Sample Prep Log

	Sample ID	Sample Size	Final Volume
1	MB1		20 ml
2	B1		2 ml of 100 PPM
3	DUP JA58750-11	1.04 gm	
4	MS JA58750-11	1.00 gm	2 ml of 100 PPM
5	JA58750-11	1.00 gm	
6	-1	1.06 gm	
7	-2	1.06 gm	
8	-3	1.09 gm	
9	-4	1.04 gm	
10	-5	1.07 gm	
11	-6	1.04 gm	
12	-7	1.03 gm	
13	-8	1.03 gm	
14	-9	1.01 gm	
15	-10	1.08 gm	
16	-12	1.08 gm	
17	-13	1.06 gm	
18	-14	1.07 gm	
19	-15	1.03 gm	
20	-16	1.06 gm for 10/20/10	
21	-17	~~1.04 gm~~ 1.04 gm	
22	-18	1.06 gm	

14.5 14

Form: GN166-02
Rev. Date: 8/5/05

QC Review_____

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR NITRATE

GN or GP Number: GN43823

Intermediate Standard Description	Stock used to prepare standard	Standard-ization date	Stock concentration in mg/l	Stock volume used in ml	Diluent (a)	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
NO3 100 ppm	GNE8-25766-N032	8/9/10	1000	10	Carrier	100 ml	100	2/9/11	NP	10/26/10
NO3 10 ppm	GNE ↓	↓	1000	1.0	Carrier	100 ml	10	↓	↓	↓
Eff Check Intermediate	~~GNE~~ ERACAL 030309	N/A	** 1000	** 10	Carrier	100 ml	100	03/2011	NP	10/26/10
ICV Intermediate	GNE8-25768-N082	8/9/10	1000	10	Carrier	100 ml	100	2/9/11	↓	↓

Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
5.0 mg/l NO3	100 ppm		100 mg/l	5.0	Carrier	100 ml	5.0	10/26/10	NP	10/26/10
2.5 mg/l NO3	100 ppm		100 mg/l	2.5	Carrier	100 ml	2.5			
1.0 mg/l NO3	100 ppm		100 mg/l	1.0	Carrier	100 ml	1.0			
0.5 mg/l NO3	10 ppm		10 mg/l	5.0	Carrier	100 ml	0.5			
0.2 mg/l NO3	10 ppm		10 mg/l	2.0	Carrier	100 ml	0.2			
0.1 mg/l NO3	10 ppm		10 mg/l	1.0	Carrier	100 ml	0.1			
Effcheck 2.0	Eff Check Int.		100 mg/l	2.0	Carrier	100 ml	2.0			
ICV	ICV Int.		100 mg/l	2.0	Carrier	100 ml	2.0			

(a) Diluent reagent reference number see attached Expiration Date

**Volume will change with standardization concentration.

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN199-01
Rev. Date: 7/18/06

GN43823

ACCUTEST

GN43823

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Spiking Solution Source	GNE8-25766-N032	2/9/2011
Ammonium Chloride Buffer Solution	GNE9-26197-N03	3/27/2011
Sulfanilamide Color Reagent	GNE10-26421-N03	11/18/2010
Carrier Solution	GNE9-26121-N03	3/17/2011
1:1 NH4OH	GNE10-26285-N03	4/4/2011

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

14.5 14

Form: GN0871-43
Rev. Date: 7/19/06

	Sample Name	Sample ID	Method	Analysis	Dilution	Date / Time	Conc.	CV	
1	CRI		tocscal4.met	SSM-TC	1.000	10/27/10 08:3	0.1139 %	3.71%	
2	CRI		tocscal4.met	SSM-TC	1.000	10/27/10 08:3	0.1139 %	3.71%	
3	HSTD		tocscal4.met	SSM-TC	1.000	10/27/10 08:4	5.283 %	1.45%	
4	HSTD		tocscal4.met	SSM-TC	1.000	10/27/10 08:4	5.283 %	1.45%	
5	ICV		tocscal4.met	SSM-TC	1.000	10/27/10 09:0	2.133 %	1.48%	
6	ICV		tocscal4.met	SSM-TC	1.000	10/27/10 09:0	2.133 %	1.48%	
7	ICB		tocscal4.met	SSM-TC	1.000	10/27/10 09:2	0.01451 %	0.0000%	
8	ICB		tocscal4.met	SSM-TC	1.000	10/27/10 09:2	0.01451 %	0.0000%	
9	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 09:3	2.665 %	0.742%	
10	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 09:3	2.665 %	0.742%	
11	CCB		tocscal4.met	SSM-TC	1.000	10/27/10 09:4	0.01451 %	0.0000%	
12	CCB		tocscal4.met	SSM-TC	1.000	10/27/10 09:4	0.01451 %	0.0000%	
13	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 11:0	2.606 %	0.376%	
14	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 11:0	2.606 %	0.376%	
15	CCB		tocscal4.met	SSM-TC	1.000	10/27/10 11:2	0.01451 %	0.0000%	
16	CCB		tocscal4.met	SSM-TC	1.000	10/27/10 11:2	0.01451 %	0.0000%	
17	GP56044-MB		tocss4.met	SSM-TC	1.000	10/27/10 12:0	0.01451 %	0.0000%	
18	GP56044-MB		tocss4.met	SSM-TC	1.000	10/27/10 12:0	0.01451 %	0.0000%	
19	GP56044-B1		tocss4.met	SSM-TC	1.000	10/27/10 12:1	2.091 %	1.12%	
20	GP56044-B1		tocss4.met	SSM-TC	1.000	10/27/10 12:1	2.091 %	1.12%	
21	JA58750-11	A	tocss4.met	SSM-TC	1.000	10/27/10 12:2	1.049 %	6.10%	
22	JA58750-11		tocss4.met	SSM-TC	1.000	10/27/10 12:2	1.049 %	6.10%	
23	JA57759-1RU		tocss4.met	SSM-TC	1.000	10/27/10 12:3	1.965 %	9.25%	
24	JA57759-1RU		tocss4.met	SSM-TC	1.000	10/27/10 12:3	1.965 %	9.25%	
25	JA59689-1		tocss4.met	SSM-TC	1.000	10/27/10 12:4	0.05182 %	102%	
26	JA59689-1		tocss4.met	SSM-TC	1.000	10/27/10 12:4	0.05182 %	102%	
27	JA58750-1		tocss4.met	SSM-TC	1.000	10/27/10 12:5	0.8984 %	10.6%	
28	JA58750-1		tocss4.met	SSM-TC	1.000	10/27/10 12:5	0.8984 %	10.6%	
29	JA58750-3	S	tocss4.met	SSM-TC	1.000	10/27/10 13:1	0.8845 %	48.3%	High CV & rehomogenize + rerun
30	JA58750-3		tocss4.met	SSM-TC	1.000	10/27/10 13:1	0.8845 %	48.3%	
31	JA58750-3		tocss4.met	SSM-TC	1.000	10/27/10 13:1	0.8845 %	48.3%	
32	JA58750-3		tocss4.met	SSM-TC	1.000	10/27/10 13:1	0.8845 %	48.3%	
33	JA58750-4	A	tocss4.met	SSM-TC	1.000	10/27/10 13:3	0.6080 %	9.63%	
34	JA58750-4		tocss4.met	SSM-TC	1.000	10/27/10 13:3	0.6080 %	9.63%	
35	JA58750-5		tocss4.met	SSM-TC	1.000	10/27/10 13:4	1.804 %	7.60%	
36	JA58750-5		tocss4.met	SSM-TC	1.000	10/27/10 13:4	1.804 %	7.60%	
37	JA58750-6	S	tocss4.met	SSM-TC	1.000	10/27/10 14:0	0.8304 %	48.7%	High CV & rehomogenize + rerun
38	JA58750-6		tocss4.met	SSM-TC	1.000	10/27/10 14:0	0.8304 %	48.7%	
39	JA58750-6		tocss4.met	SSM-TC	1.000	10/27/10 14:0	0.8304 %	48.7%	
40	JA58750-6		tocss4.met	SSM-TC	1.000	10/27/10 14:0	0.8304 %	48.7%	
41	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 14:1	2.619 %	0.510%	
42	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 14:1	2.619 %	0.510%	
43	JA58750-7	A	tocss4.met	SSM-TC	1.000	10/27/10 14:4	0.7225 %	19.6%	
44	JA58750-7		tocss4.met	SSM-TC	1.000	10/27/10 14:4	0.7225 %	19.6%	
45	JA58750-7		tocss4.met	SSM-TC	1.000	10/27/10 14:4	0.7225 %	19.6%	
46	JA58750-7		tocss4.met	SSM-TC	1.000	10/27/10 14:4	0.7225 %	19.6%	
47	JA58750-8		tocss4.met	SSM-TC	1.000	10/27/10 14:5	0.08123 %	10.6%	
48	JA58750-8		tocss4.met	SSM-TC	1.000	10/27/10 14:5	0.08123 %	10.6%	
49	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 15:4	2.629 %	0.437%	

a010275a.TOC

GN43910
10/28/10

14.6 14

	Sample Name	Sample ID	Method	Analysis	Dilution	Date / Time	Conc.	CV
50	CCV		tocscal4.met	SSM-TC	1.000	10/27/10 15:4	2.629 %	0.437%

a0102752.TOC

GN43910

10/28/10

14.6 14

ACCUTEST

a01027S2.TOC

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43910
Product: **TOC** Balance ID: B-39 Date 10/27/10
Method: **Corp. Eng. 81 M/SW846 9060M or EPA Region 2 Lloyd Kahn** (circle one) Analyst
RDL = 1000 mg/kg or 100 mg/kg (circle one)

Sample ID	Sample Weight	Bottle #	Sample Description & comments
CRI			
HSTD			
ICV			
CCV			
GP56044-MB1	0.1000		
	0.1000		
GP56044-B1	0.1000		
	0.1000		
JA58750-11	0.1093	1	
	0.1017		
	0.1041		
	0.1023		
JA57759-1RU	0.1041	1	
	0.1008		
	0.1071		
	0.1058		
JA59689-1	0.1021	1	
	0.1001		
	0.1009		
	0.1081		
JA58750-1	0.1037	1	
	0.1001		
	0.1041		
	0.1081		

Analyst: Date: 10/27/10 QCReviewer: Date:
Manager Review: Date:
Comments:
BS - 100µl of 20000 mg C/L → 0.1 g Silica Sand TV= 20000 mg/kg

Form: GN-058a
Rev. Date: 11/11/08

14.6 14

ACCUTEST.

(2)

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43910
Product: **TOC** Balance ID: B-39 Date 10/27/10
Method: **Corp Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
JA58750-3	0.1060	1	high cv & rehomogenize
	0.1044		+ rerun 0.1g
	0.1051		
	0.1041		
JA58750-4	0.1068	1	
	0.1057		
	0.1090		
	0.1040		
JA58750-5	0.1053	1	
	0.1004		
	0.1081		
	0.1094		
JA58750-6	0.1077	1	high cv & rehomogenize
	0.1010		+ rerun 0.1g
	0.1008		
	0.1033		
CCV			
JA58750-7	0.1064	1	
	0.1016		
	0.1029		
	0.1071		
JA58750-8	0.1062	1	
	0.1017		
	0.1075		

Analyst: Date: 10/27/10 QCReviewer: Date:
Manager Review: Date:
Comments:

Form: GN-058a
Rev. Date: 11/11/08

14.6 14

ACCUTEST

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43910
Product: **TOC** Balance ID: B39 Date 10/27/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
	0.1085		
CCV			

Analyst: Date: 10/27/10 QCReviewer: Date:
Manager Review: Date:
Comments:

Form: GN-058a
Rev. Date: 11/11/08

14.6 14

ACCUTEST

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Bal B39

Glass pipets - Class A

Product: TOC

GN or GP Number: GN43910

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNE10-26334-TOC	Fisher 092849	Sucrose	47.5g	DI H2O	100ml	200000	11/7/10	[illegible]	10/27/10
				↓	↓		↓	↓	↓
GNE10-26335-TOC	Fisher 086673A	Glucose	12.5g			50000			

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
Sucrose Stds									
GNE10-26336-TOC	GNE10-26334-TOC	200000	0.5	DI H2O	100ml	1000	11/7/10	[illegible]	10/27/10
GNE10-26337-TOC	↓	↓	2.5	↓	↓	5000	↓	↓	↓
GNE10-26338-TOC			5.0			10000			
GNE10-26339-TOC			12.5			25000			
GNE10-26340-TOC			20.0			40000			
GNE10-26341-TOC			25.0			50000			
Glucose Stds.									
GNE10-26342-TOC	GNE10-26335-TOC	50000	40.0	DI H2O	100ml	20000	11/7/10	[illegible]	↓
GNE10-26343-TOC	↓	↓	50.0	↓	↓	25000	↓	↓	

Form: GN121
Rev. Date:2/26/03

GN43910

ACCUTEST

GN 43910

Reagent Information Log - TOC - Soil

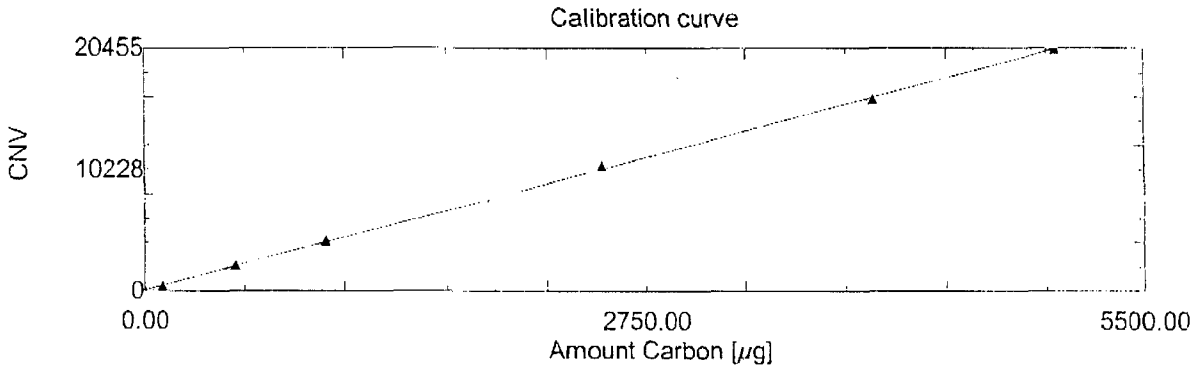
Reagent	Reagent # or Manufacturer/Lot	XP
Sucrose Stock Solution, 200000 mg/L	GNE10-26334-TOC	11/7/10
Glucose Stock Solution, 50000 ug/L	GNE10-26335-TOC	11/7/10
Glucose Check Solution, 25000 ug/L	GNE10-26343-TOC	11/7/10
Nitric Acid, Reagent Grade	J19023 Baker	9/2/12
Glucose ~~Stock~~ Check Solution, 20000 ug/L	GNE10-26342-TOC	11/7/10

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN-087 1-66
Rev. Date:4/26/01

14.6 14

TOC-Control



Calibration Curves

Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

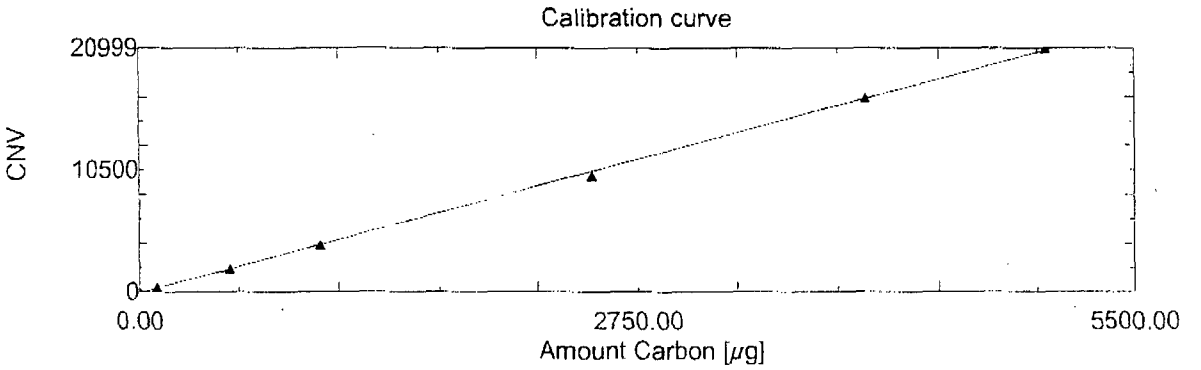
Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	00000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	0.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

14.6 14

TOC-Control



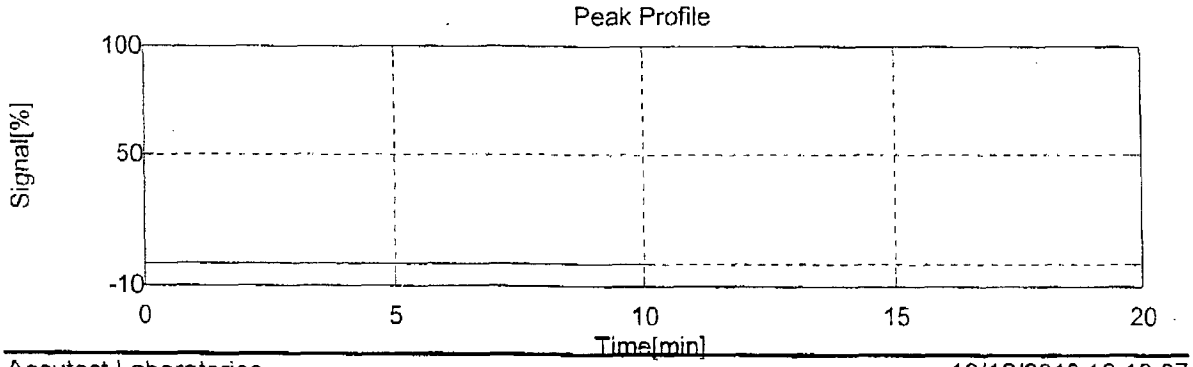
Samples

Sample Name: STDA
Sample ID: 0.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:21:44

Mean Area	Conc	Result	SD	CV	CNV	Modified
0	0.000%		0.000	0.00%	0	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0	0.0000		******	10/12/2010 09:14:47	a01012s1.cal
2	5	0	0	0.0000		******	10/12/2010 09:21:44	a01012s1.cal



TOC-Control

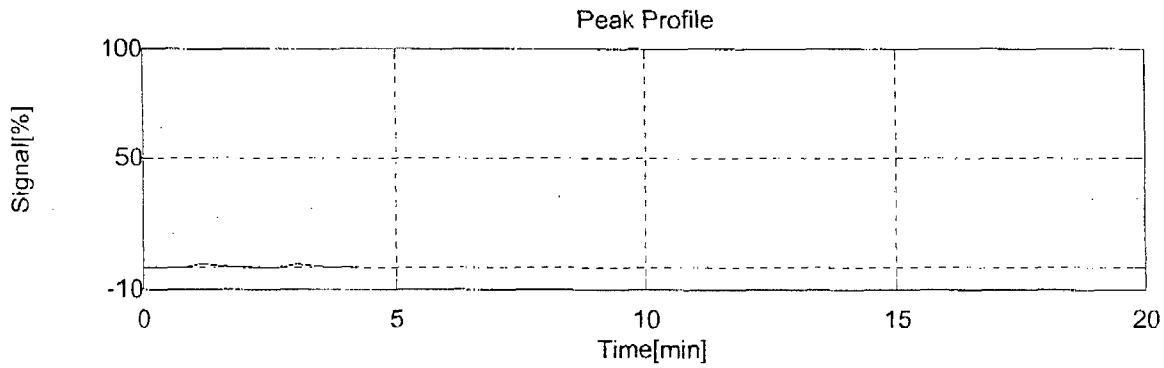
Samples

Sample Name: STDB
Sample ID: 0.1
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:42:51

Mean Area	Conc	Result	SD	CV	CNV	Modified
446	0.1000%		0.000	0.00%	446	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	464	464	0.10000		******	10/12/2010 09:38:02	a01012s1.cal
2	5	429	429	0.10000		******	10/12/2010 09:42:51	a01012s1.cal



Samples

Sample Name: STDC
Sample ID: 0.5
Comment:

TOC-Control

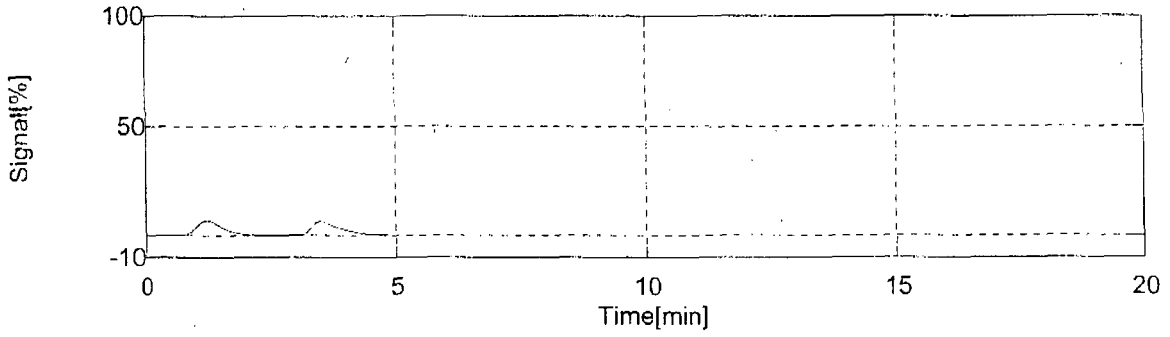
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:51:36

Mean Area	Conc	Result	SD	CV	CNV	Modified
2082	0.5000%		0.000	0.00%	2082	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2044	2044	0.50000		******	10/12/2010 09:47:07	a01012s1.cal
2	5	2120	2120	0.50000		******	10/12/2010 09:51:36	a01012s1.cal

Peak Profile



Samples

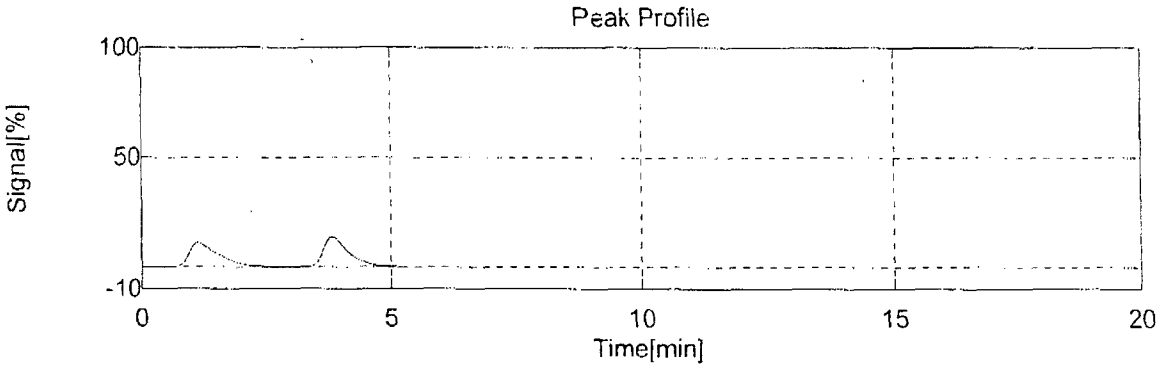
Sample Name: STDD
Sample ID: 1.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:10:39

Mean Area	Conc	Result	SD	CV	CNV	Modified
4098	1.000%		0.000	0.00%	4098	

TOC-Control

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3983	3983	1.0000		******	10/12/2010 10:05:56	a01012s1.cal
2	5	4214	4214	1.0000		******	10/12/2010 10:10:39	a01012s1.cal



Samples

Sample Name: STDE
Sample ID: 2.5
Comment:
Cal Curve: 1: a01012s1.cal

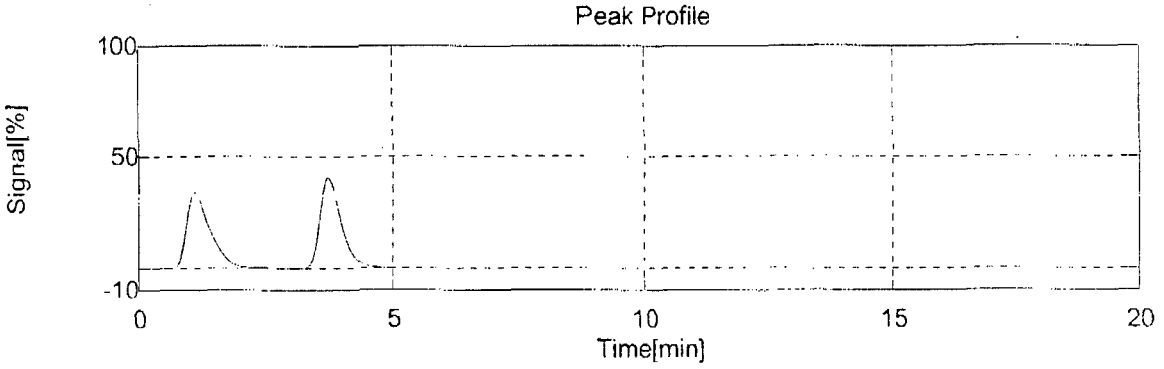
Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:19:29

Mean Area	Conc	Result	SD	CV	CNV	Modified
10025	2.500%		0.000	0.00%	10025	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	9615	9615	2.5000		******	10/12/2010 10:14:48	a01012s1.cal
2	5	10436	10436	2.5000		******	10/12/2010 10:19:29	a01012s1.cal

14.6 14

TOC-Control



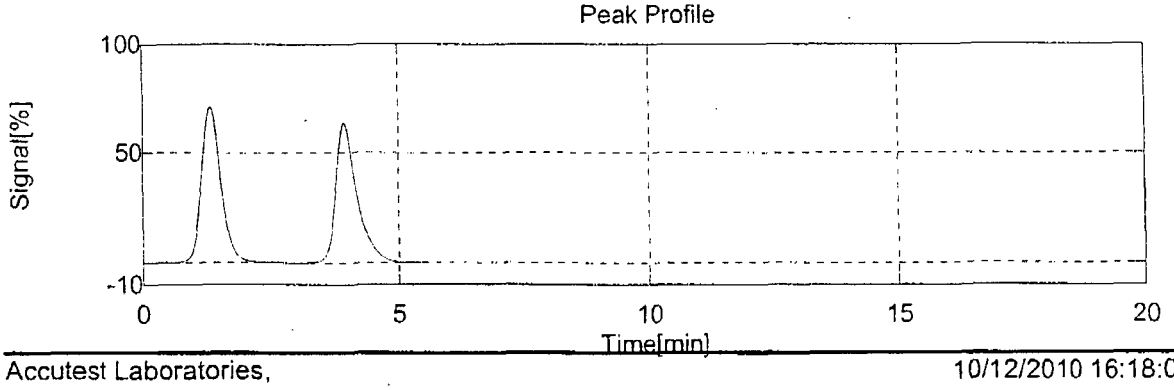
Samples

Sample Name: STDF
Sample ID: 4.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:30:06

Mean Area	Conc	Result	SD	CV	CNV	Modified
16704	4.000%		0.000	0.00%	16704	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	16705	16705	4.0000		******	10/12/2010 10:25:12	a01012s1.cal
2	5	16704	16704	4.0000		******	10/12/2010 10:30:06	a01012s1.cal



TOC-Control

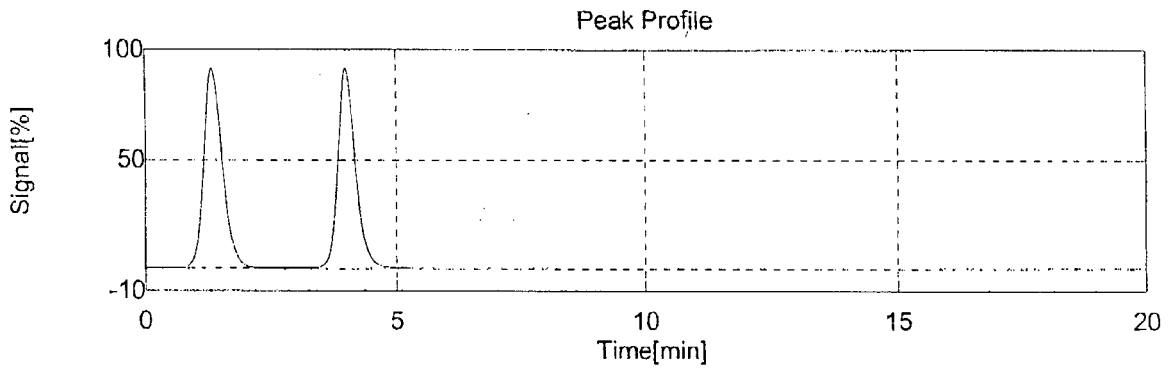
Samples

Sample Name: STDG
Sample ID: 5.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:40:05

Mean Area	Conc	Result	SD	CV	CNV	Modified
20999	5.000%		0.000	0.00%	20999	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21046	21046	5.0000		******	10/12/2010 10:35:01	a01012s1.cal
2	5	20952	20952	5.0000		******	10/12/2010 10:40:05	a01012s1.cal



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met

TOC-Control

General Information

Organization: Accutest Laboratories
User:
Title:
Instrument ID: TOC1
Filename: C:\TOCCNTR\DATA\A01027S2.TOC
Comment:

Instrument Conditions

Instrument Attachments: TOC-5000 + SSM 5000

Calibration Curves

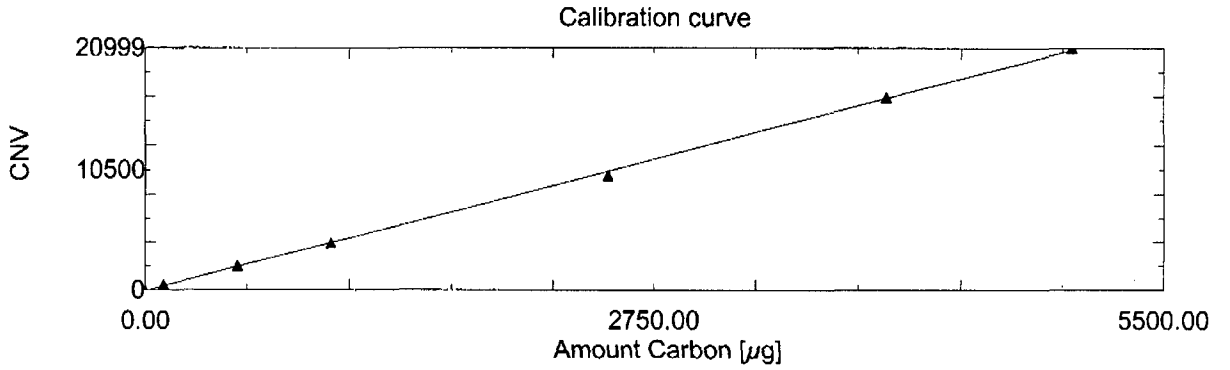
Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	00000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

TOC-Control



Samples

Sample Name: CRI
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

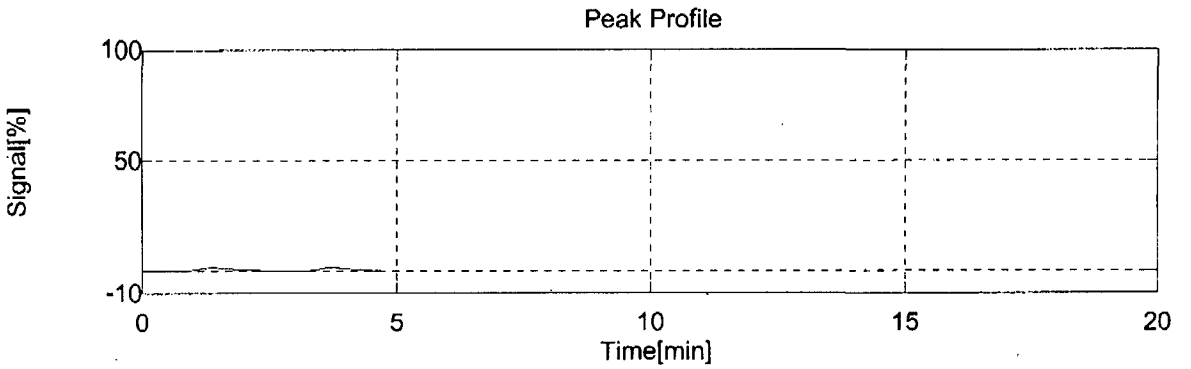
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 08:38:55

Mean Area	Conc	Result	SD	CV	Modified
415	0.1139%		0.00423	3.71%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	403	0.11088		******	10/27/2010 08:33:54	a01012s1.cal
2	5	428	0.11686		******	10/27/2010 08:38:55	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: HSTD
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

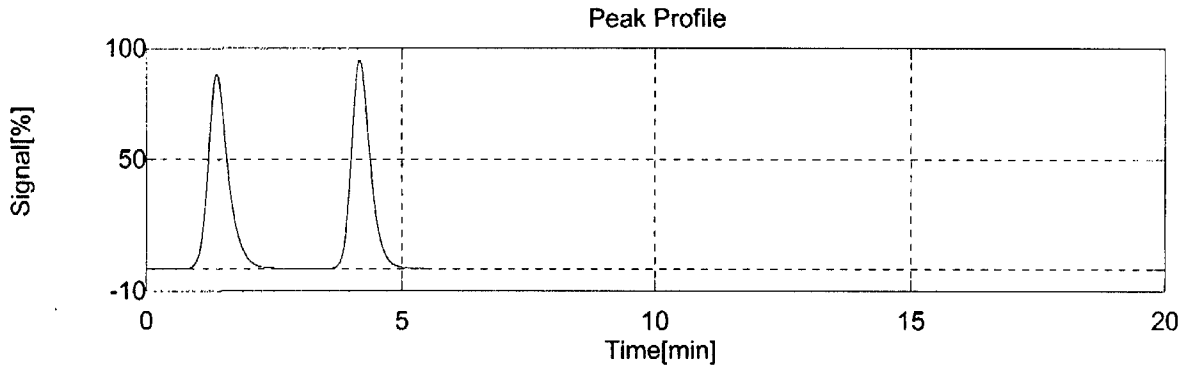
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 08:49:59

Mean Area	Conc	Result	SD	CV	Modified
22031	5.283%		0.07677	1.45%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21804	5.2286		******	10/27/2010 08:44:39	a01012s1.cal
2	5	22258	5.3372		******	10/27/2010 08:49:59	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

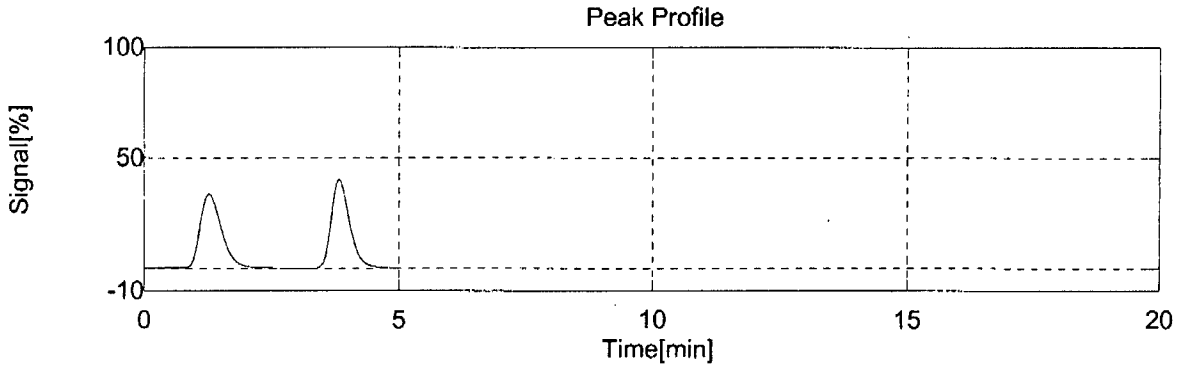
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 09:02:49

Mean Area	Conc	Result	SD	CV	Modified
8858	2.133%		0.03162	1.48%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8765	2.1105		******	10/27/2010 08:54:25	a01012s1.cal
2	5	8952	2.1552		******	10/27/2010 09:02:49	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: ICB
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

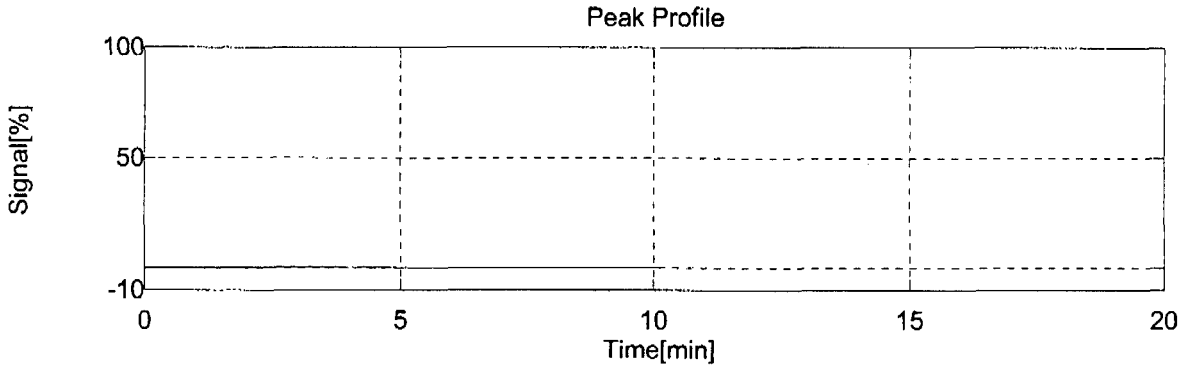
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 09:23:16

Mean Area	Conc	Result	SD	CV	Modified
0	0.01451%		0.00000	0.0000%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0.014506		******	10/27/2010 09:16:17	a01012s1.cal
2	5	0	0.014506		******	10/27/2010 09:23:16	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

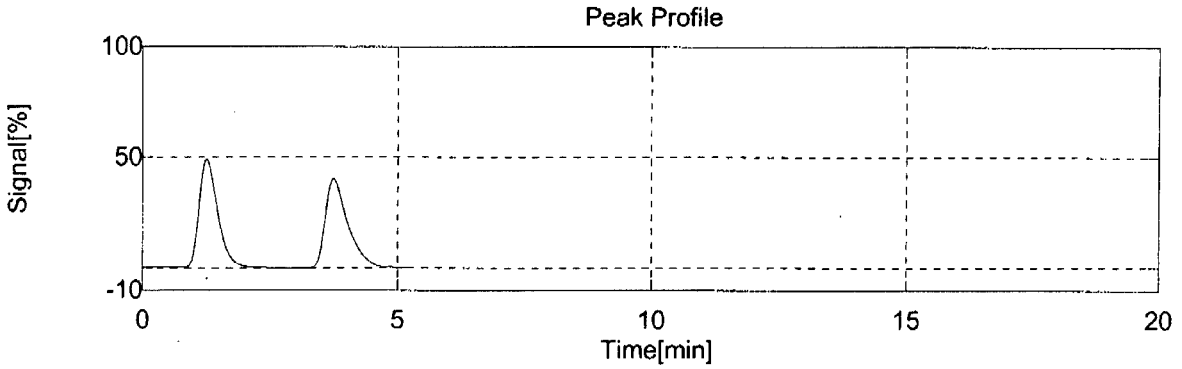
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 09:32:48

Mean Area	Conc	Result	SD	CV	Modified
11085	2.665%		0.01978	0.742%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	11144	2.6794		******	10/27/2010 09:27:29	a01012s1.cal
2	5	11027	2.6515		******	10/27/2010 09:32:48	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCB
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

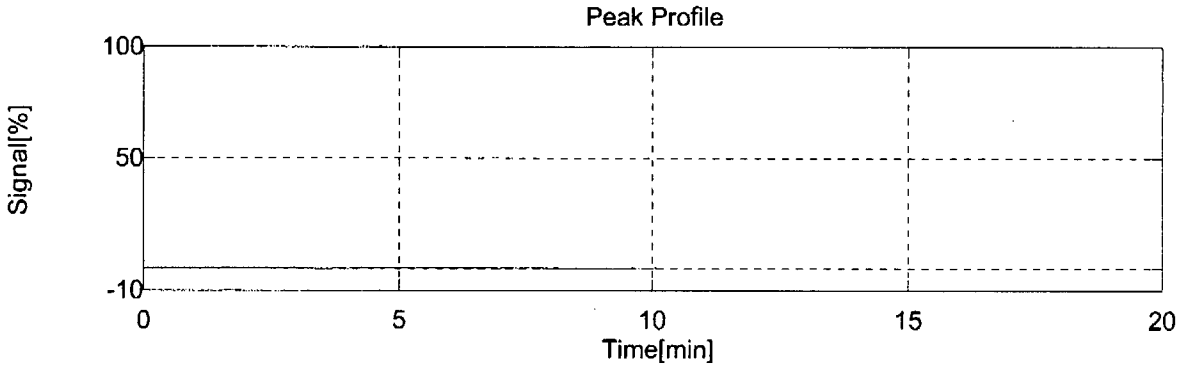
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 09:48:01

Mean Area	Conc	Result	SD	CV	Modified
0	0.01451%		0.00000	0.0000%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0.014506		******	10/27/2010 09:40:27	a01012s1.cal
2	5	0	0.014506		******	10/27/2010 09:48:01	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

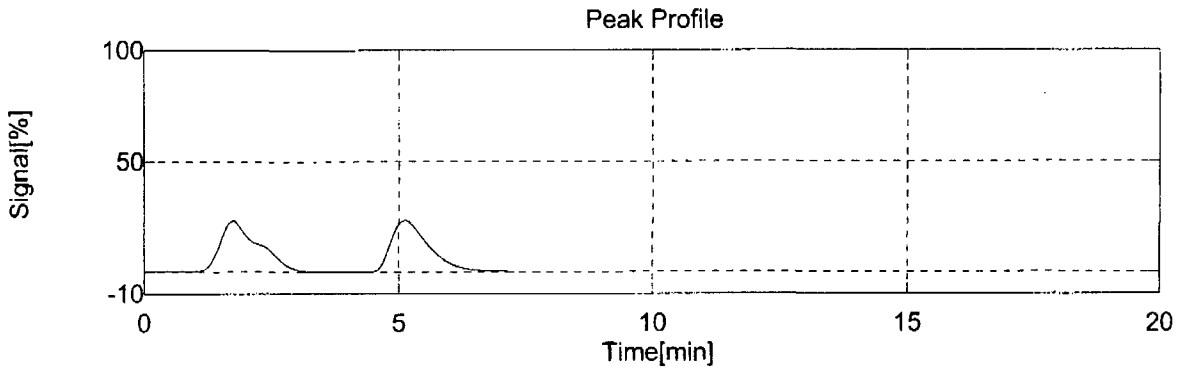
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 11:06:22

Mean Area	Conc	Result	SD	CV	Modified
10835	2.606%		0.00981	0.376%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	10864	2.6125		******	10/27/2010 11:00:09	a01012s1.cal
2	5	10806	2.5986		******	10/27/2010 11:06:22	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCB
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

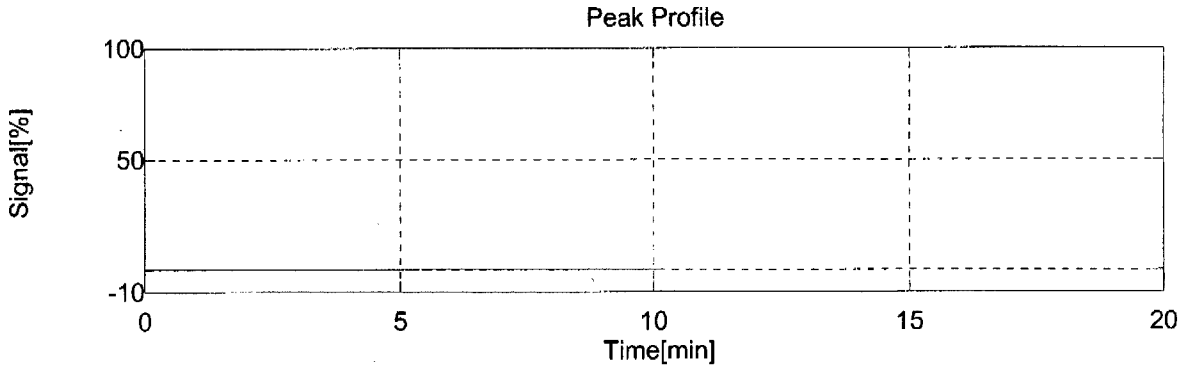
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 11:21:24

Mean Area	Conc	Result	SD	CV	Modified
0	0.01451%		0.00000	0.0000%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0.014506		******	10/27/2010 11:14:32	a01012s1.cal
2	5	0	0.014506		******	10/27/2010 11:21:24	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: GP56044-MB1
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

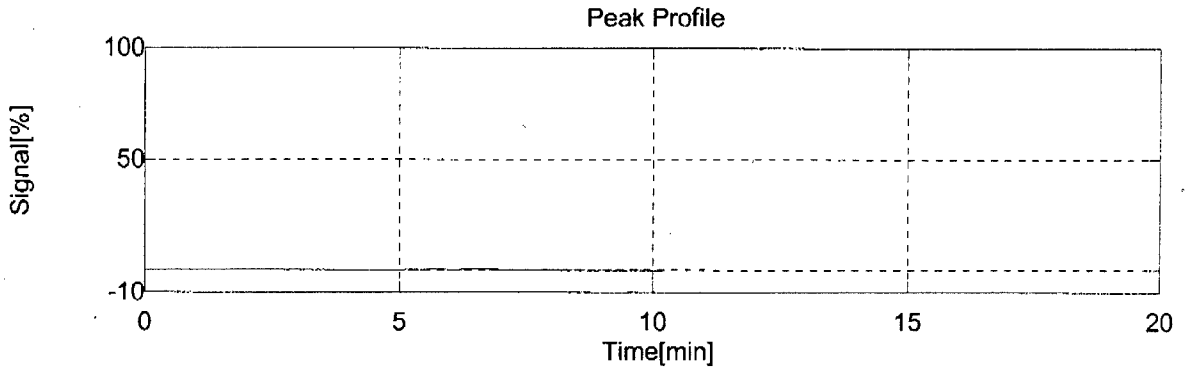
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:00:52

Mean Area	Conc	Result	SD	CV	Weight	Modified
0	0.01451%		0.00000	0.0000%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	100.0	0.014506		******	10/27/2010 11:33:01	a01012s1.cal
2	5	0	100.0	0.014506		******	10/27/2010 12:00:52	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: GP56044-B1
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

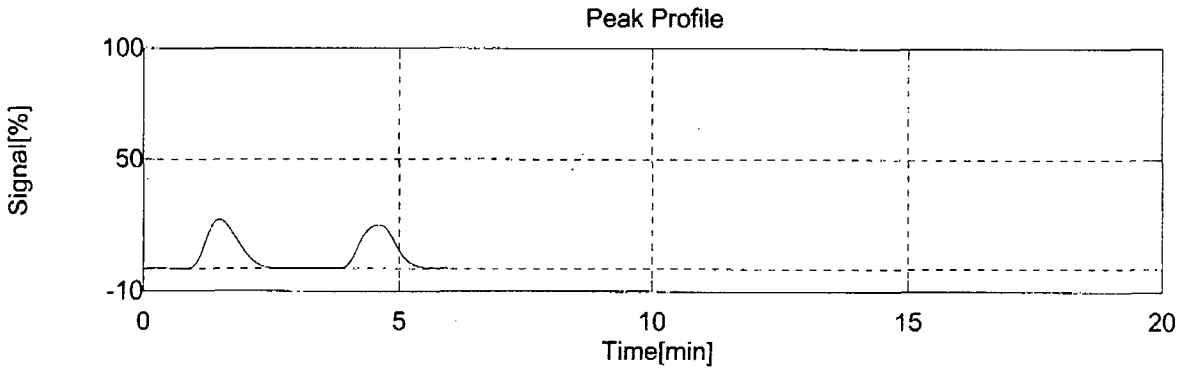
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:10:48

Mean Area	Conc	Result	SD	CV	Weight	Modified
8683	2.091%		0.02350	1.12%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8753	100.0	2.1077		******	10/27/2010 12:05:27	a01012s1.cal
2	5	8614	100.0	2.0744		******	10/27/2010 12:10:48	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-11
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:21:53

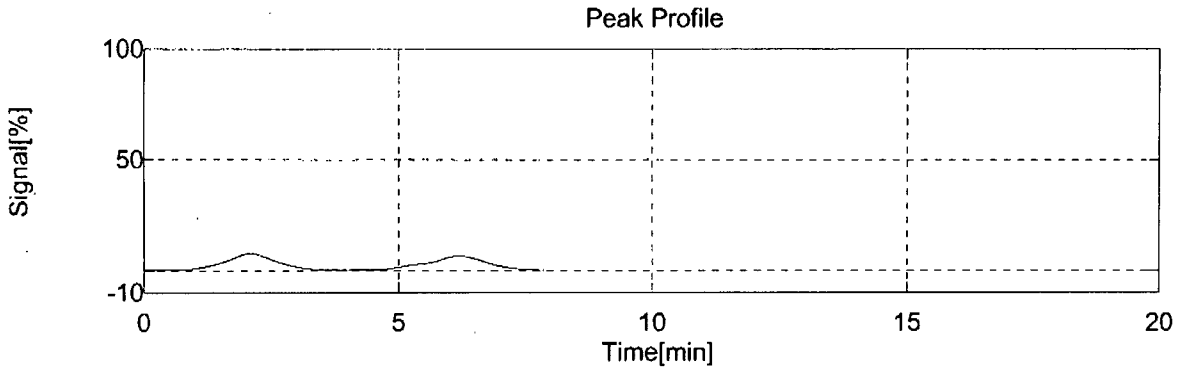
Mean Area	Conc	Result	SD	CV	Weight	Modified
4559	1.049%		0.06400	6.10%	105.5	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	4526	109.3	1.0035		******	10/27/2010 12:16:10	a01012s1.cal
2	5	4592	101.7	1.0940		******	10/27/2010 12:21:53	a01012s1.cal

14.6

14

TOC-Control



Samples

Sample Name: JA57759-1RU
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

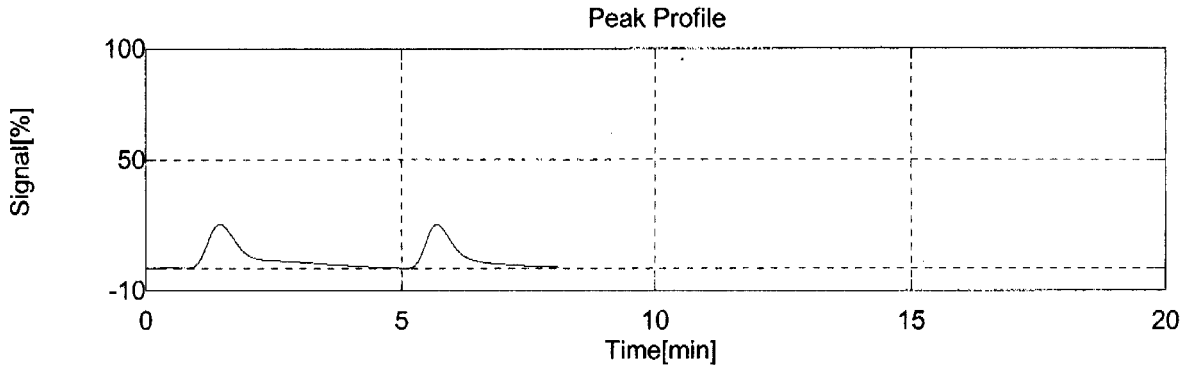
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:35:31

Mean Area	Conc	Result	SD	CV	Weight	Modified
8367	1.965%		0.1819	9.25%	102.5	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	9054	104.1	2.0938		******	10/27/2010 12:28:09	a01012s1.cal
2	5	7681	100.8	1.8366	.	******	10/27/2010 12:35:31	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA59689-1
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

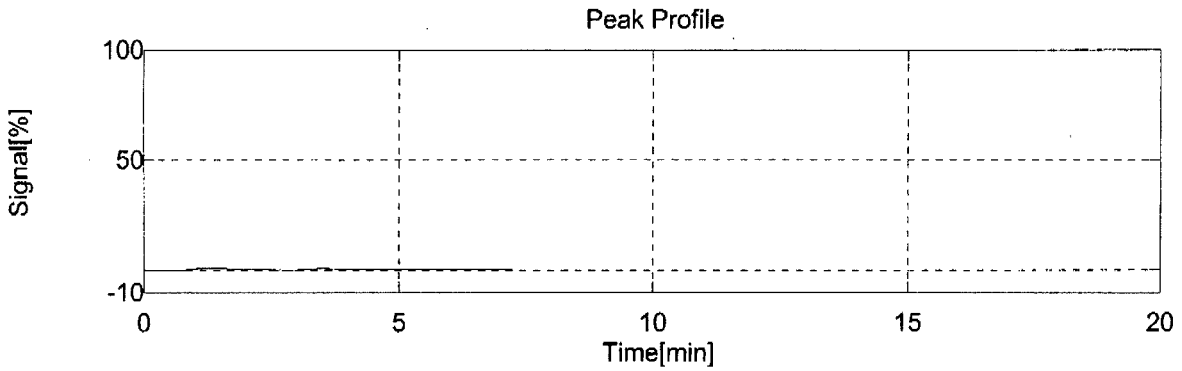
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:46:33

Mean Area	Conc	Result	SD	CV	Weight	Modified
160	0.05182%		0.05280	102%	101.1	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	320	102.1	0.089157		******	10/27/2010 12:39:48	a01012s1.cal
2	5	0	100.1	0.014491		******	10/27/2010 12:46:33	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-1
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

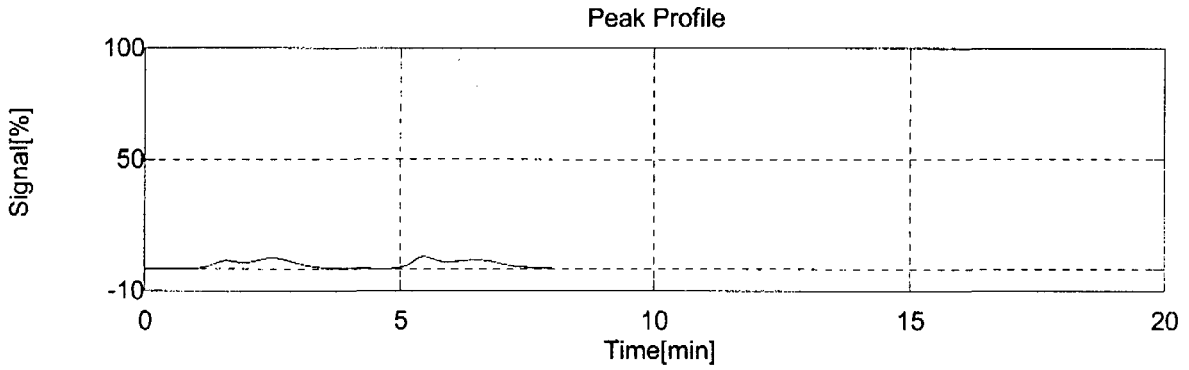
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 12:57:50

Mean Area	Conc	Result	SD	CV	Weight	Modified
3762	0.8984%		0.09496	10.6%	101.9	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3544	103.7	0.83125		******	10/27/2010 12:52:03	a01012s1.cal
2	5	3981	100.1	0.96554		******	10/27/2010 12:57:50	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-3
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

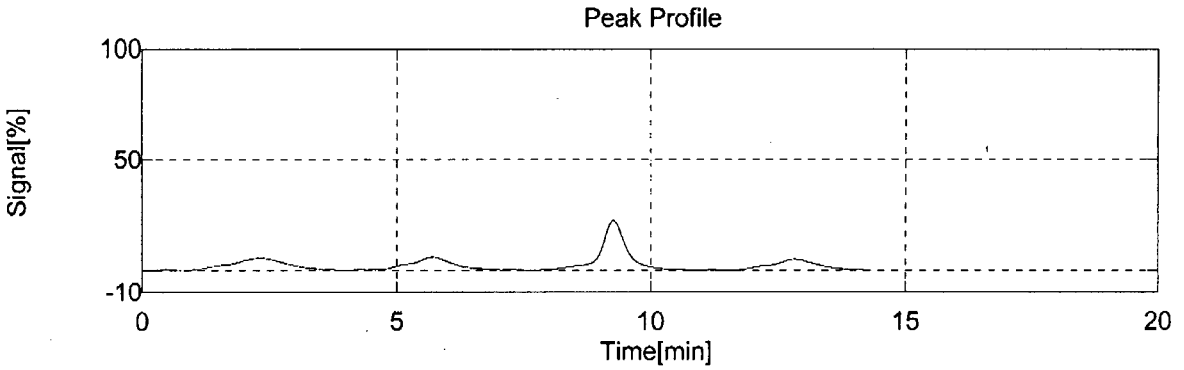
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 13:19:26

Mean Area	Conc	Result	SD	CV	Weight	Modified
3822	0.8845%		0.4272	48.3%	104.9	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3380	106.0	0.77621		******	10/27/2010 13:03:09	a01012s1.cal
2	5	2684	104.4	0.62868		******	10/27/2010 13:08:54	a01012s1.cal
3	5	6602	105.1	1.5160		******	10/27/2010 13:14:32	a01012s1.cal
4	5	2625	104.1	0.61694		******	10/27/2010 13:19:26	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-4
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

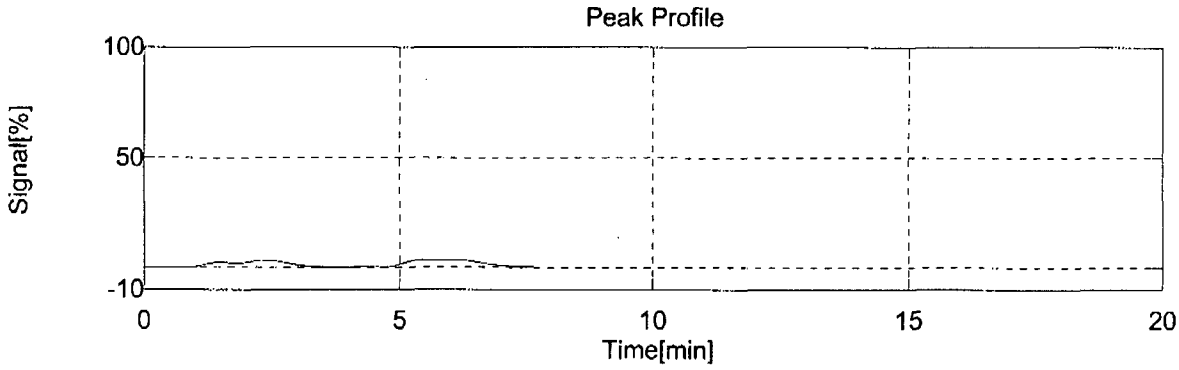
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 13:31:34

Mean Area	Conc	Result	SD	CV	Weight	Modified
2640	0.6080%		0.05856	9.63%	106.3	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2470	106.8	0.56664		******	10/27/2010 13:26:09	a01012s1.cal
2	5	2810	105.7	0.64946		******	10/27/2010 13:31:34	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-5
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

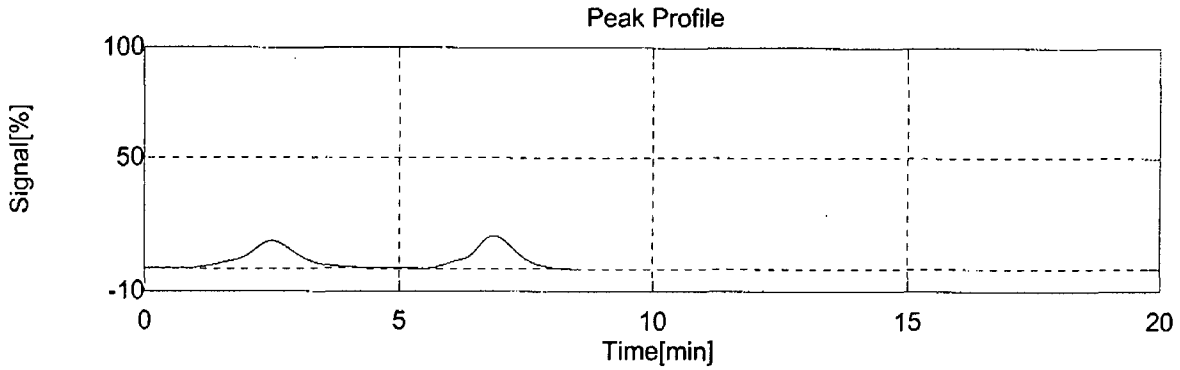
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 13:43:03

Mean Area	Conc	Result	SD	CV	Weight	Modified
7690	1.804%		0.1371	7.60%	102.9	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	7458	105.3	1.7075		******	10/27/2010 13:37:36	a01012s1.cal
2	5	7922	100.4	1.9013		******	10/27/2010 13:43:03	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-6
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

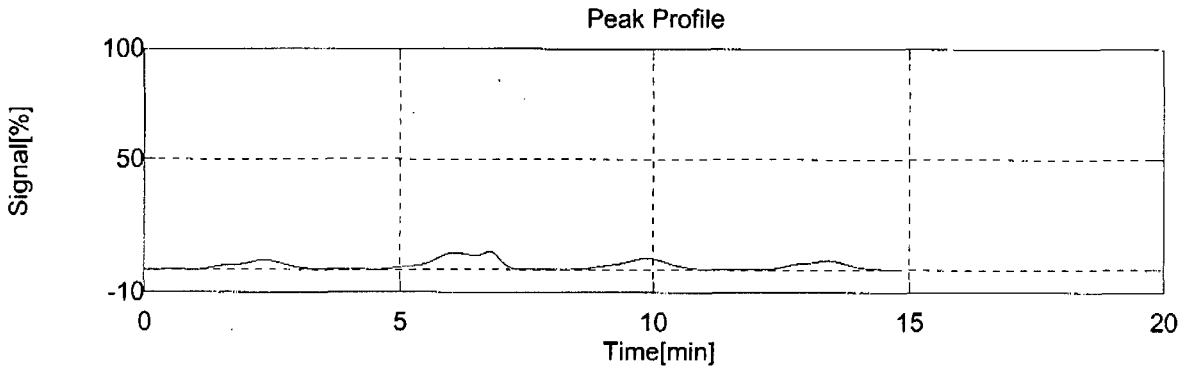
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 14:06:53

Mean Area	Conc	Result	SD	CV	Weight	Modified
3499	0.8304%		0.4040	48.7%	103.2	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2543	107.7	0.57811		******	10/27/2010 13:48:04	a01012s1.cal
2	5	5975	101.0	1.4291		******	10/27/2010 13:56:06	a01012s1.cal
3	5	2970	100.8	0.71899		******	10/27/2010 14:01:48	a01012s1.cal
4	5	2511	103.3	0.59533		******	10/27/2010 14:06:53	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

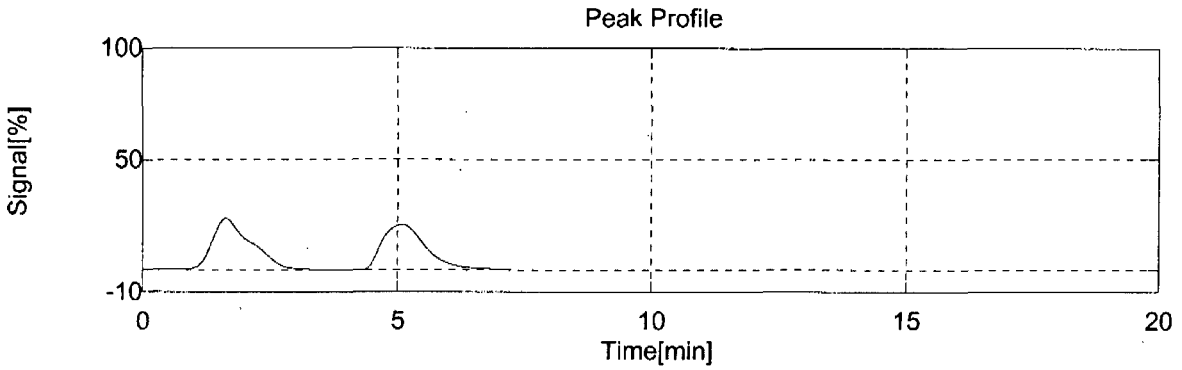
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 14:19:38

Mean Area	Conc	Result	SD	CV	Modified
10892	2.619%		0.01336	0.510%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	10932	2.6287		******	10/27/2010 14:13:48	a01012s1.cal
2	5	10853	2.6098		******	10/27/2010 14:19:38	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-7
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

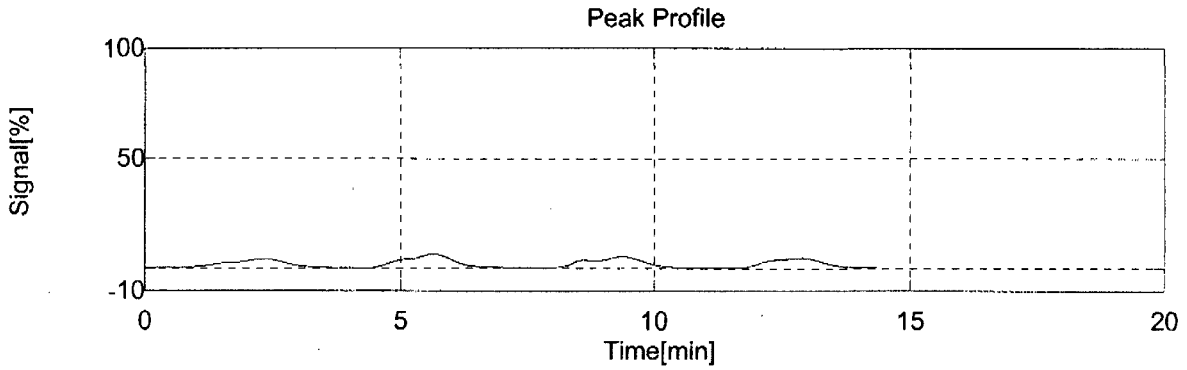
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 14:46:24

Mean Area	Conc	Result	SD	CV	Weight	Modified
3086	0.7225%		0.1419	19.6%	104.5	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2318	106.4	0.53461		******	10/27/2010 14:26:51	a01012s1.cal
2	5	3556	101.6	0.85125		******	10/27/2010 14:34:19	a01012s1.cal
3	5	3426	102.9	0.81029		******	10/27/2010 14:41:25	a01012s1.cal
4	5	3047	107.1	0.69389		******	10/27/2010 14:46:24	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: JA58750-8
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

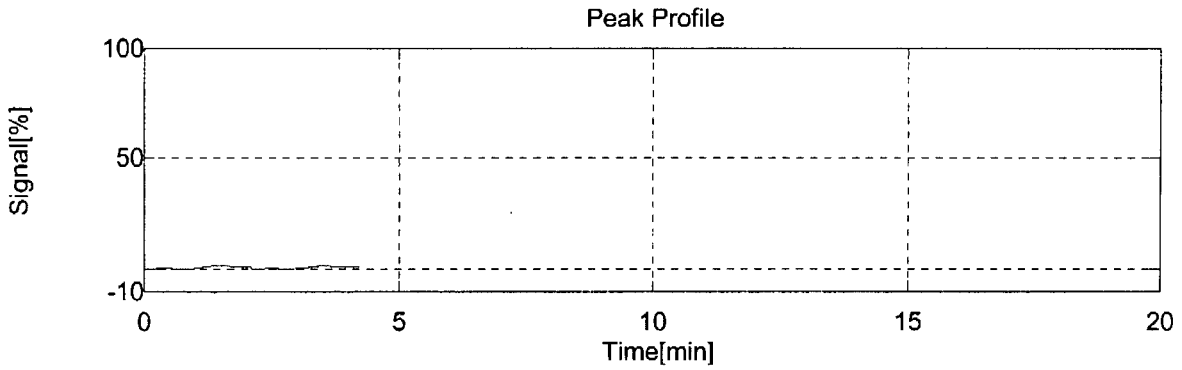
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 14:57:41

Mean Area	Conc	Result	SD	CV	Weight	Modified
293	0.08123%		0.00858	10.6%	104.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	327	106.2	0.087291		******	10/27/2010 14:52:37	a01012s1.cal
2	5	259	101.7	0.075164		******	10/27/2010 14:57:41	a01012s1.cal

14.6 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

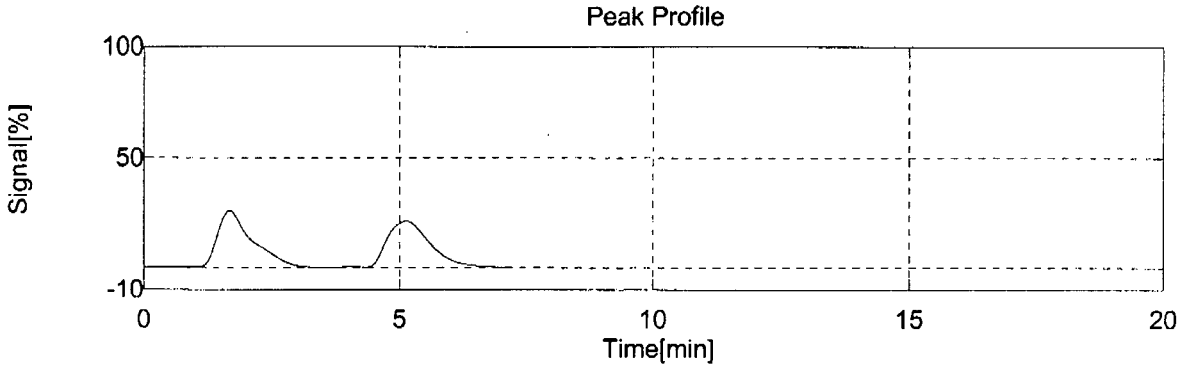
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/27/2010 15:49:48

Mean Area	Conc	Result	SD	CV	Modified
10934	2.629%		0.01150	0.437%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	10900	2.6211		******	10/27/2010 15:35:44	a01012s1.cal
2	5	10968	2.6373		******	10/27/2010 15:49:48	a01012s1.cal

14.6 14

TOC-Control



Statistics / Summary

Sample Name	Analysis	Conc.
CRI	SSM-TC	0.1139 %
HSTD	SSM-TC	5.283 %
ICV	SSM-TC	2.133 %
ICB	SSM-TC	0.01451 %
CCV	SSM-TC	2.630 %
CCB	SSM-TC	0.01451 %
GP56044-MB1	SSM-TC	0.01451 %
GP56044-B1	SSM-TC	2.091 %
JA58750-11	SSM-TC	1.049 %
JA57759-1RU	SSM-TC	1.965 %
JA59689-1	SSM-TC	0.05182 %
JA58750-1	SSM-TC	0.8984 %
JA58750-3	SSM-TC	0.8845 %
JA58750-4	SSM-TC	0.6080 %
JA58750-5	SSM-TC	1.804 %
JA58750-6	SSM-TC	0.8304 %
JA58750-7	SSM-TC	0.7225 %
JA58750-8	SSM-TC	0.08123 %

QC Reports:

Hexavalent Chromium

Test Title: XCRA
GN Batch: GN43949
Analyst: BD
Prep Date: 10/27/2010
Analysis Date: 10/28/2010
Instrument ID: H

Method: SW846 3060A, 7196A

Note: All results below shown on a wet weight basis.

Corr. Coef: 0.99994
Slope: 0.8832
Y Intercept: 0.0009

Bottle #	Sample #	Sample Absorbance	BKGRD Abs	Analysis Times	Y Values Corr Sample Absorbance	X Values Conc(mg/l)	Final Vol. (ml)	Sam Wt. (g)	Dilution	Final Conc.	Units	MDL	RDL
	Cal. Blk.	0	NA	11:04	0.000	0.0000							
	STD 1	0.009	NA	NA	0.009	0.0100							
	STD 2	0.045	NA	NA	0.045	0.0500							
	STD 3	0.091	NA	NA	0.091	0.1000							
	STD 4	0.265	NA	NA	0.265	0.3000							
	STD 5	0.441	NA	NA	0.441	0.5000							
	STD 6	0.715	NA	NA	0.715	0.8000							
	STD 7	0.879	NA	11:07	0.879	1.0000							
	CCV	0.406	NA	11:47	0.406	0.4586	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	11:47	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
	GP56056-MB1	0.000	0.000	12:00	0.000	-0.0010	100.0	2.5000	1	-0.041	mg/kg	0.220	0.400
	GP56056-B1	0.834 -	0.001	12:00	0.833	0.9421	100.0	2.5000	1	37.684	mg/kg	0.220	0.400
	GP56056-S1	0.019	0.000	12:00	0.019	0.0205	100.0	2.5500	1	0.803	mg/kg	0.216	0.392
	GP56056-D1	0.000	0.000	12:00	0.000	-0.0010	100.0	2.5000	1	-0.041	mg/kg	0.220	0.400
	JA58750-11	0.001	0.001	12:00	0.000	-0.0010	100.0	2.4700	1	-0.042	mg/kg	0.223	0.405
	JA58750-11PSCONF	0.445	0.000	12:00	0.445	0.5028	100.0	2.4700	2	40.713	mg/kg	0.445	0.810
	GP56056-B2	3.608	OVR	12:00	FALSE	-0.0010	100.0	2.5000	1	-0.041	mg/kg	0.220	0.400
	GP56056-S2	3.607	OVR	12:00	FALSE	-0.0010	100.0	2.4800	1	-0.042	mg/kg	0.222	0.403
	GP56056-B2	0.415	0.000	12:00	0.415	0.4688	100.0	2.5000	50	937.670	mg/kg	11.000	20.000
	GP56056-S2	0.414	0.000	12:00	0.414	0.4677	100.0	2.4800	50	942.949	mg/kg	11.089	20.161
	CCV	0.406	NA	12:00	0.406	0.4586	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	12:00	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV	0.443	NA	13:52	0.443	0.5005	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	13:52	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
	JA58750-1	0.011	0.002	14:02	0.009	0.0092	100.0	2.5000	1	0.366	mg/kg	0.220	0.400
	JA58750-2	0.001	0.001	14:02	0.000	-0.0010	100.0	2.5500	1	-0.040	mg/kg	0.216	0.392
	JA58750-3	0.001	0.001	14:02	0.000	-0.0010	100.0	2.4700	1	-0.042	mg/kg	0.223	0.405
	JA58750-4	0.000	0.000	14:02	0.000	-0.0010	100.0	2.5500	1	-0.040	mg/kg	0.216	0.392
	JA58750-5	0.000	0.000	14:02	0.000	-0.0010	100.0	2.4400	1	-0.042	mg/kg	0.225	0.410
	JA58750-6	0.000	0.000	14:02	0.000	-0.0010	100.0	2.4600	1	-0.042	mg/kg	0.224	0.407
	JA58750-7	0.000	0.000	14:02	0.000	-0.0010	100.0	2.5100	1	-0.041	mg/kg	0.219	0.398
	JA58750-8	0.002	0.001	14:02	0.001	0.0001	100.0	2.4700	1	0.004	mg/kg	0.223	0.405
	JA58750-9	0.000	0.000	14:02	0.000	-0.0010	100.0	2.5500	1	-0.040	mg/kg	0.216	0.392
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV	0.443	NA	14:02	0.443	0.5005	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	14:02	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV	0.424	NA	14:44	0.424	0.4790	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	14:44	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
	JA58750-10	0.001	0.001	14:54	0.000	-0.0010	100.0	2.4700	1	-0.042	mg/kg	0.223	0.405
	JA58750-12	0.000	0.000	14:54	0.000	-0.0010	100.0	2.5000	1	-0.041	mg/kg	0.220	0.400
	JA58750-13	0.000	0.000	14:54	0.000	-0.0010	100.0	2.5500	1	-0.040	mg/kg	0.216	0.392
	JA58750-14	0.000	0.000	14:54	0.000	-0.0010	100.0	2.5400	1	-0.041	mg/kg	0.217	0.394

14.7

14

	JA58750-15	0.001	0.000	14:54	0.001	0.0001	100.0	2.5000	1	0.004	mg/kg	0.220	0.400
	JA58750-16	0.003	0.002	14:54	0.001	0.0001	100.0	2.5700	1	0.004	mg/kg	0.214	0.389
	JA58750-17	0.001	0.000	14:54	0.001	0.0001	100.0	2.5000	1	0.004	mg/kg	0.220	0.400
	JA58750-18	0.004	0.002	14:54	0.002	0.0012	100.0	2.4600	1	0.050	mg/kg	0.224	0.407
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV	0.424	NA	14:54	0.424	0.4790	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB	0.000	NA	14:54	0.000	-0.0010	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
					FALSE	-0.0010	100.0		1	#DIV/0!	mg/kg	#DIV/0!	#DIV/0!
	CCV		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010
	CCB		NA			#VALUE!	NA	NA	NA	NA	mg/l	0.006	0.010

revised 2/18

Comments:

ACCUTEST LABS
DAYTON, NJ

3060A/7196A POST-DIGEST SPIKE LEVEL CALCULATION SPREADSHEET

NOTE: Always dilute post-spike first, then take a 45 ml aliquot of the diluted post-spike and add the spike amount.

Sample ID	PS Aliquot Weight in g Digested in 100 ml	Weight in 45 ml	Results in mg/kg.	Amount in ml to add of 100 ppm solution	Dilution needed	Suggested Dilution to use	Actual Dilution to be used	Suggested ml of 100 ppm to spike on dilution of sample.	Actual ml of 100 ppm to spike on dilution of sample.	Est. Read-back on curve in mg/l	Calculated Spike Amount in mg/kg	Use calculated or default spike?
JA58750-11	2.47	1.1115	0	0.445	no	0	2	0.223	0.223	0.496	40.126	efault (40 mg/kg) spike
		0		0.000	no	0		#DIV/0!		#DIV/0!	#DIV/0!	efault (40 mg/kg) spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike
		#VALUE!		#VALUE!	#VALUE!	#VALUE!		#VALUE!		#VALUE!	#VALUE!	calculated spike

3060A/7196A INSOLUBLE SPIKE CALCULATION

Weight of PbCrO4	Weight of Sample	Amount Spiked
0.0183	2.48	1187.221
0.0156	2.5	1003.960
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!
		#VALUE!

GN43949

GN43949

ACCUTEST

Test: **Hexavalent Chromium** MDL = 0.22 mg/kg GNBatch ID: GN43949
Product: **XCr** RDL = 0.40 mg/kg Date: 10/28/2010
Method: **SW846 3060A/7196A**

Digestion Batch QC Summary Units = mg/kg

Method Blank ID: GP36056-MB1 Date: 10/28/2010 Result: <RDL RDL: 0.40 <RDL: yes
Sol. Spike Blank ID: GP36056-BS1 Date: ↓ Result: 37.7 Spike: 40.0 %Rec.: 94.3
Insol. Spike Blank ID: GP36056-BS2 Date: ↓ Result: 938 Spike: 1000 %Rec.: 93.8
Duplicate ID: GP36056-D1 Samp. Result: <MDL Dup. Result: <MDL %RPD: —
Sol. MS ID: GP36056-S1 Samp. Result: ↓ MS Result: 0.803 Spike: 39.2 %Rec: 2.05
Insol. MS ID: GP36056-S2 Samp. Result: ↓ MS Result: 943 Spike: 1190 %Rec: 79.2
Post Spike ID: JA58750-11 Samp. Result: ↓ PS Result: 40.7 Spike: 40.1 %Rec: 101
Diluted Sample ID: NA Samp. Result: NA Dil. Result: NA %RPD: NA
pH adj. PS ID: NA Samp. Result: NA MS Result: NA Spike: NA %Rec: NA

Analysis Batch QC Summary Units = mg/l

CCV: 10/28/2010 Result: 0.4586 TV: 0.500 %Rec.: 91.7
CCV: ↓ Result: 0.4586 TV: 0.500 %Rec.: 91.7
CCV: ↓ Result: 0.5005 TV: 0.500 %Rec.: 100
CCV: ↓ Result: 0.5005 TV: 0.500 %Rec.: 100
CCV: ↓ Result: 0.4790 TV: 0.500 %Rec.: 95.8
CCV: ↓ Result: 0.4790 TV: 0.500 %Rec.: 95.8
CCV: ↓ Result: TV: 0.500 %Rec.:
CCV: ↓ Result: TV: 0.500 %Rec.:
CCV: ↓ Result: TV: 0.500 %Rec.:

CCB: 10/28/2010 Result: <RDL RDL: 0.010 <RDL: yes
CCB: ↓ Result: ↓ RDL: 0.010 <RDL: ↓
CCB: ↓ Result: ↓ RDL: 0.010 <RDL: ↓
CCB: ↓ Result: ↓ RDL: 0.010 <RDL: ↓
CCB: ↓ Result: ↓ RDL: 0.010 <RDL: ↓
CCB: ↓ Result: ↓ RDL: 0.010 <RDL: ↓
CCB: ↓ Result: RDL: 0.010 <RDL:
CCB: ↓ Result: RDL: 0.010 <RDL:
CCB: ↓ Result: RDL: 0.010 <RDL:

Reagent Reference Information - refer to attached reagent reference information page(s).
Insoluble spike = $PbCrO_4$ Molecular weight = 323.2 g/mol Cr = 52.0 g/mol
{1000000 ug/g x Insoluble spike wt(g) x 52/323.2}/ms sample wt(g) = Insoluble spike amount

Analyst: [signature] Date: 10/28/2010

Comments:

Form: GN066-01
Rev. Date: 2/18/10

14.7 14

GN43949

ACCUTEST.

Hexavalent Chromium pH Adjustment Log

Method: SW846 3060A/7196A

Digestion Date: 10-27-10

pH adj. start time: 11:18 / 13:21 / 14:14 11:34 / 13:40 / 14:33

pH adj. end time: 11:33 / 13:39 / 14:39 11:48 / 13:47 / 14:39

pH adj. Date: 10/28/2010

GN Batch ID: GN43949

6P56056 Sample ID	Sample Weight in g	pH after HNO3	Final Volume (ml)	pH after H2SO4	bkg pH after H2SO4	Spike Amounts	Comments
CCV		7.58	100	2.08		5ml	10ppm Ultra
CCV		7.70	↓	2.17		↓	
CCV		7.52		1.91			
CCV							
CCB		7.84	100	1.93			
CCB		7.70	↓	2.07			
CCB		7.90		1.96			
CCB							
MS (Sol) JA58750-11	2.55	7.24	100	2.09	2.13	1ml	100ppm Absolute
MS (Insol.)	2.48	7.71		2.13	ONL	0.0163	Pb CrO4
DUP	2.50	7.48		2.09	2.13		
SB (Sol)		7.68		2.10	2.04	1ml	100ppm Absolute
SB (Insol)		7.91		2.19	ONL	0.0156 g	Pb CrO4
MB		7.34		1.93	1.91		
1 JA58750-11	2.47	7.80		2.15	1.72		
2 1	2.50	7.44		2.05	2.13		
3 2	2.55	7.55		1.98	2.03		
4 3	2.47	7.67		2.02	2.20		
5 4	2.55	7.91		2.11	2.05		
6 5	2.44	7.80		2.08	2.02		
7 6	2.46	7.61		2.16	1.88		
8 7	2.51	7.78		2.16	1.72		
9 8	2.47	7.64		2.05	2.01		
10 9	2.55	7.61		2.10	2.09		
11 10	2.47	7.48		2.19	2.02		
12 12	2.50	7.68		2.17	1.97		
13 13	2.55	7.25		2.02	1.99		
14 14	2.54	7.80		2.18	1.94		
15 15	2.50	7.84		2.17	1.81		
16 16	2.57	7.83		2.03	2.16		
17 17	2.53	7.83		2.12	1.90		
18 18	2.46	7.61	↓	2.05	1.94		
19							
20							
SB (Insol)		7.91	100	2.04	1.99		dilution 1:50
MS (Insol.)	2.48	7.71	↓	2.03	2.12		dilution 1:50
PS	2.47	7.80		1.96	1.72	0.883mL of	100 PPM ROS. in 45mL 1:2
pH adjusted PS							
1:5 dil.							
extra JA58750-11	2.50						

Reagent Reference Information - refer to attached reagent reference information page(s).

{1000000 ug/g x insoluble spike wt(g) x 52/323.2}/ms sample wt(g) = Insoluble spike amount of PbCrO4

Form: GN-067

Rev. Date:10/13/05

Anayst: Debra Dale

Date: 10/28/2010

14.7

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ACCUTEST

Hexavalent Chromium Digestion Temperature Log

Method: SW846 3060A

Record the temperature at the beginning, during, and at the end of each digestion.

Digestion Batch ID	Description	Time	Temp. in deg. C Hot Plate # 1	Temp. in deg. C Hot Plate # 2	Temp. in deg. C Hot Plate # 3	Temp. in deg. C Hot Plate # 1
GP58056	Starting Time	10:15	95	95	95	
	Time 1	10:45	95	95	95	
	Ending Time	11:15	95	95	95	
	Starting Time	11:40	95	95		
	Time 1	12:10	95	95		
	Ending Time	12:40	95	95		
	Starting Time					
	Time 1					
	Ending Time					

Form: GN-074
Rev. Date:5/8/06

Analyst: R2 Date: 10-27-10

GN43949

GN43949

ACCUTEST

GP/GN Batch ID: GP56056 / GN43949

Reagent Information Log - XCR (soil 3060A)

Reagent	Exp. Date	Reagent # or Manufacturer/Lot
Calibration Source: Hexavalent Chromium, 1000 mg/L Stock	4/26/2013	Absolute Grade Lot # 042610
Calibration Checks: Hexavalent Chromium, 1000 mg/L Stock	7/31/2015	Ultra Lot # J00509
Spiking Solution Source	4/26/2013	Absolute Grade Lot # 042610
Lead Chromate (Insoluble Hexavalent Chromium Spike)	10/29/2014	Sigma Aldrich Lot # 0001355440
Magnesium Chloride, Anhydrous	6/29/2015	Alfa Aesar Lot # I02T070
1N NaOH	NA	NA
Digestion Solution	11-19-10	GNE 10-2642A XCR
Phosphate Buffer Solution	4-17-11	GNE 10-26310 XCRA
5.0 M Nitric Acid	4/15/11	GNE 10-26391 XCRA
Diphenylcarbazide Solution	11/27/10	GNE 10-26495-XCR
Sulfuric Acid 10%	4/25/11	GNE10-26468-XCR
Filter		FOEA0658F3
Teflon Chips	NA	919120

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Form: GN-087 1-21
Rev. Date: 5/5/06

ACCUTEST.

TEST: SAMPLE COMPOSITE (COMP)

ANALYST: RL DATE: 10-27-10

NOTE: ONE SAMPLE PER PAGE.

ACCUTEST SAMPLE NUMBER: JA58750-11

PLEASE CIRCLE ONE: SOIL / WATER MATRIX

	CLIENT SAMPLE #	VOLUME (ML)	INITIAL WT (GM)	FINAL WT. (GM)	DIFFERENCE
1)	JA58750-11.1		861.3 g	818.9 g	
2)	.2		845.0	841.6	
3)	.3		791.4	828.8	
4)	.4		810.4	814.1	
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					
14)					
15)					

TOTAL WEIGHT (GM) / VOLUME (ML): _____

ANALYST: _____ DATE: _____ QC REVIEW: _____ DATE: _____

COMMENTS: JA58750-11.1 & 4 water on top of soil
JA58750-11.2 & 3 no water

~~2 bottles~~ MD

Homogenized before weighing for XCr

MD 10-27-10

Form: GN096-01
Rev. Date: 10/26/2010

14.7 14

ACCUTEST.

Hexavalent Chromium pH Adjustment Log
Method: SW846 3060A/7196A

pH adj. start time: 10:44 10:56 pH adjustment Date: 10/28/2010
pH adj. end time: 10:55 10:59 GN Batch ID: GN43949

Sample ID	Sample Weight in g	pH after HNO3	Final Volume (ml)	pH after H2SO4	Comments	Spike Info.
Calibration Blank	NA	7.64	100	1.95		
0.010 mg/l standard	NA	7.68		1.96	10 PPM Absolute	0.10 ml of 10 mg/l
0.050 mg/l standard	NA	7.54		1.92		0.50 ml of 10 mg/l
0.100 mg/l standard	NA	7.94		2.03		1.00 ml of 10 mg/l
0.300 mg/l standard	NA	7.18		1.83		3.00 ml of 10 mg/l
0.500 mg/l standard	NA	7.15		1.92		5.00 ml of 10 mg/l
0.800 mg/l standard	NA	7.44		2.05		8.00 ml of 10 mg/l
1.00 mg/l standard	NA	7.44		1.96		10.0 ml of 10 mg/l

Reagent Reference Information - refer to attached reagent reference information page(s).

{1000000 ug/g x Insoluble spike wt(g) x 52/323.2}/ms sample wt(g) = Insoluble spike amount of PbCrO4

Anayst: Barbara Dyke
Date: 10/28/2010

Form: GN068-01
Rev. Date:5/22/06

14.7 14

ACCUTEST

HEXAVALENT CHROMIUM STANDARD PREPARATION LOG

Product: XCRA

GN or GP Number: GN43949

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
10 ppm	Absolute Grade Lot # 042610	1000 ppm	1.0 ml	DI	100 mls	10 mg/l	4/26/2013	[illegible]	10/28/10
100 ppm		1000 ppm	10 ml	DI	100 mls	100 mg/l			
5 ppm		1000 ppm	1.0 ml	DI	200 mg/l	5 mg/l			
7.5 ppm		1000 ppm	1.5 ml	DI	200 mg/l	7.5 mg/l			
10 ppm	Ultra lot J00509	1000 ppm	1.0 ml	DI	100 mg/l	10 mg/l	7/31/2015		

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. Of Standard (mg/l)	Expiration Date	Analyst	Date
.010 ppm	10.0 ppm abs	10.0 ppm	0.1 ppm	DI	100 mls	0.01 mg/l	10/28/10	[illegible]	10/28/10
.050 ppm			0.5 ppm	DI		0.05 mg/l			
.10 ppm			1.0 ppm	DI		0.10 mg/l			
.30 ppm			3.0 ppm	DI		0.30 mg/l			
.50 ppm			5.0 ppm	DI		0.50 mg/l			
.80 ppm			8.0 ppm	DI		0.80 mg/l			
1.00 ppm			10.0 ppm	DI		1.0 mg/l			

Form: GN205-02
Rev. Date:10/16/09

GN43949

	Sample Name	Sample ID	Method	Analysis	Dilution	Date / Time	Conc.	CV	
1	CRI		tocscal4.met	SSM-TC	1.000	10/28/10 09:3	0.1216 %	0.834%	
2	CRI		tocscal4.met	SSM-TC	1.000	10/28/10 09:3	0.1216 %	0.834%	
3	HSTD		tocscal4.met	SSM-TC	1.000	10/28/10 09:4	5.284 %	1.12%	
4	HSTD		tocscal4.met	SSM-TC	1.000	10/28/10 09:4	5.284 %	1.12%	
5	ICV		tocscal4.met	SSM-TC	1.000	10/28/10 09:5	2.088 %	1.47%	
6	ICV		tocscal4.met	SSM-TC	1.000	10/28/10 09:5	2.088 %	1.47%	
7	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 10:0	2.662 %	0.400%	
8	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 10:0	2.662 %	0.400%	
9	GP56044-MB		tocss4.met	SSM-TC	1.000	10/28/10 10:3	0.01451 %	0.0000%	
10	GP56044-MB		tocss4.met	SSM-TC	1.000	10/28/10 10:3	0.01451 %	0.0000%	
11	GP56044-B2		tocss4.met	SSM-TC	1.000	10/28/10 10:5	2.062 %	1.59%	
12	GP56044-B2		tocss4.met	SSM-TC	1.000	10/28/10 10:5	2.062 %	1.59%	
13	JA58750-9	A	tocss4.met	SSM-TC	1.000	10/28/10 11:0	0.7915 %	5.62%	
14	JA58750-9		tocss4.met	SSM-TC	1.000	10/28/10 11:0	0.7915 %	5.62%	
15	JA58750-10		tocss4.met	SSM-TC	1.000	10/28/10 11:2	2.391 %	12.9%	
16	JA58750-10		tocss4.met	SSM-TC	1.000	10/28/10 11:2	2.391 %	12.9%	
17	JA58750-12		tocss4.met	SSM-TC	1.000	10/28/10 11:4	0.8282 %	16.3%	
18	JA58750-12		tocss4.met	SSM-TC	1.000	10/28/10 11:4	0.8282 %	16.3%	
19	JA58750-12		tocss4.met	SSM-TC	1.000	10/28/10 11:4	0.8282 %	16.3%	
20	JA58750-12		tocss4.met	SSM-TC	1.000	10/28/10 11:4	0.8282 %	16.3%	
21	JA58750-13		tocss4.met	SSM-TC	1.000	10/28/10 12:2	0.6401 %	1.04%	
22	JA58750-13		tocss4.met	SSM-TC	1.000	10/28/10 12:2	0.6401 %	1.04%	
23	JA58750-14		tocss4.met	SSM-TC	1.000	10/28/10 12:3	0.5710 %	3.96%	
24	JA58750-14		tocss4.met	SSM-TC	1.000	10/28/10 12:3	0.5710 %	3.96%	
25	JA58750-15		tocss4.met	SSM-TC	1.000	10/28/10 12:5	0.7156 %	21.4%	
26	JA58750-15		tocss4.met	SSM-TC	1.000	10/28/10 12:5	0.7156 %	21.4%	
27	JA58750-15		tocss4.met	SSM-TC	1.000	10/28/10 12:5	0.7156 %	21.4%	
28	JA58750-15		tocss4.met	SSM-TC	1.000	10/28/10 12:5	0.7156 %	21.4%	
29	JA58750-16	3	tocss4.met	SSM-TC	1.000	10/28/10 13:0	4.720 %	0.00%	overrange rerun 0.05g
30	JA58750-17	A	tocss4.met	SSM-TC	1.000	10/28/10 13:2	1.197 %	10.9%	
31	JA58750-17		tocss4.met	SSM-TC	1.000	10/28/10 13:2	1.197 %	10.9%	
32	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 13:3	2.637 %	1.20%	
33	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 13:3	2.637 %	1.20%	
34	JA58750-18	A	tocss4.met	SSM-TC	1.000	10/28/10 14:0	1.862 %	29.8%	
35	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 14:0	1.862 %	29.8%	
36	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 14:0	1.862 %	29.8%	
37	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 14:0	1.862 %	29.8%	
38	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:2	1.372 %	74.0%	High cv b/c inhomogeneity + rerun
39	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:2	1.372 %	74.0%	
40	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:2	1.372 %	74.0%	
41	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:2	1.372 %	74.0%	
42	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:5	3.048 %	26.2%	
43	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:5	3.048 %	26.2%	
44	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:5	3.048 %	26.2%	
45	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/28/10 14:5	3.048 %	26.2%	
46	JA58750-2	A	tocss4.met	SSM-TC	1.000	10/28/10 15:0	0.6406 %	6.57%	
47	JA58750-2		tocss4.met	SSM-TC	1.000	10/28/10 15:0	0.6406 %	6.57%	
48	JA58750-3		tocss4.met	SSM-TC	1.000	10/28/10 15:1	0.6000 %	9.00%	
49	JA58750-3		tocss4.met	SSM-TC	1.000	10/28/10 15:1	0.6000 %	9.00%	

a0102851.TOC

GN43974

10/28/10

14.8

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	Sample Name	Sample ID	Method	Analysis	Dilution	Date / Time	Conc.	CV	
50	JA58750-6	A	tocss4.met	SSM-TC	1.000	10/28/10 15:2	0.6475 %	8.22%	
51	JA58750-6		tocss4.met	SSM-TC	1.000	10/28/10 15:2	0.6475 %	8.22%	
52	JA58750-16	5	tocss4.met	SSM-TC	1.000	10/28/10 15:4	1.085 %	69.0%	High CV & rehomogenize + rerun 0.05
53	JA58750-16		tocss4.met	SSM-TC	1.000	10/28/10 15:4	1.085 %	69.0%	
54	JA58750-16		tocss4.met	SSM-TC	1.000	10/28/10 15:4	1.085 %	69.0%	
55	JA58750-16		tocss4.met	SSM-TC	1.000	10/28/10 15:4	1.085 %	69.0%	
56	JA58750-18	7	tocss4.met	SSM-TC	1.000	10/28/10 16:1	1.671 %	44.1%	Confirmation only
57	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 16:1	1.671 %	44.1%	
58	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 16:1	1.671 %	44.1%	
59	JA58750-18		tocss4.met	SSM-TC	1.000	10/28/10 16:1	1.671 %	44.1%	
60	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 16:2	2.617 %	0.510%	
61	CCV		tocscal4.met	SSM-TC	1.000	10/28/10 16:2	2.617 %	0.510%	

a0102851.TOC

GN43974

10/30/10

14.8

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ACCUTEST

① a01028S1.TOC

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43974
Product: **TOC** Balance ID: B-39 Date 10/28/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
CRI			
HSTD			
ICV			
CCV			
GPS6044- MB2	0.1000		
	0.1000		
GPS6044- B2	0.1000		
	0.1000		
JA58750-9	0.1069	1	
	0.1064		
	0.1090		
	0.1083		
JA58750-10	0.1090	1	
	0.1079		
	0.1001		
	0.1055		
JA58750-12	0.1079 ④	1	
	0.1061 ①		
	0.1022 ②		
	0.1038 ③		
JA58750-13	0.1094	1	
	0.1058		
	0.1064		
	0.1062		

Analyst: Date: 10/28/10 QCReviewer: Date:
Manager Review Date:
Comments:
BS - 100µl of 20000 mg/L → 0.1g Silica Sand TV= 20000 mg/kg

Form: GN-058a
Rev. Date: 11/11/08

14.8 14

ACCUTEST.

(2)

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43974
Product: TOC Balance ID: B-39 Date 10/28/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
JA58750-M	0.1058	1	
	0.1004		
	0.1062		
	0.1064		
JA58750-15	0.1045	1	
	0.1011		
	0.1065		
	0.1052		
JA58750-16	0.1082	1	overrange rerun 0.05g
	0.1002		
	0.1013		
	0.1055		
JA58750-17	0.1059		
	0.1034		
	0.1097		
	0.1038		
CCV			
JA58750-18	0.1077		high CV% rehomogenize
	0.1026		+ rerun
	0.1072		
	0.1084		
GP56044-D1	0.1093		JA58750-11 High CV%
	0.1035		rehomogenize
	0.1041		+ rerun

Analyst: Date: 10/28/10 QCReviewer: Date:
Manager Review: Date:
Comments:

14.8 14

Form: GN-058a
Rev. Date: 11/11/08

ACCUTEST

(3)

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43974
Product: **TOC** Balance ID: B-39 Date 10/28/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
	0.1023		
GP56044-S1	0.1065	1	JA58750-11 High CVE
	0.1046		Rehomogenize
	0.1092		TV= 18722 + reprep
	0.1070		
JA58750-2	0.1079	1	
	0.1064		
	0.1014		
	0.1063		
JA58750-3	0.1012	1	
	0.1004		
	0.1056		
	0.1057		
JA58750-6	0.1079	1	
	0.1011		
	0.1094		
	0.1082		
JA58750-16	0.0510	1	
	0.0508		
	0.0506		
	0.0507		
JA58750-18	0.1054	1	
	0.1032		
	0.1089		

Analyst: Date 10/28/10 QCReviewer: Date:
Manager Review: Date:
Comments:

14.8 14

Form: GN-058a
Rev. Date: 11/11/08

ACCUTEST.

(4)

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 43974
Product: **TOC** Balance ID: B-39 Date 10/28/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
	0.1077		
CCV			

Analyst: Date: 10/28/10 QCReviewer: Date:
Manager Review: Date:
Comments:

Form: GN-058a
Rev. Date: 11/11/08

14.8 14

ACCUTEST

Bal B39

Glass pipets - Class A

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: TOC

GN or GP Number: GN43974

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNE10-26334-TOC	Fisher 092849	Sucrose	47.5g	DI H_2O	100ml	200000	11/7/10	[illegible]	10/28/10
				↓	↓		↓	↓	↓
GNE10-26335-TOC	Fisher 086673A	Glucose	12.5g			50000			

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
Sucrose Stds									
GNE10-26336-TOC	GNE10-26334-TOC	200000	0.5	DI H_2O	100ml	1000	11/7/10	[illegible]	10/28/10
GNE10-26337-TOC	↓	↓	2.5	↓	↓	5000	↓	↓	↓
GNE10-26338-TOC			5.0			10000			
GNE10-26339-TOC			12.5			25000			
GNE10-26340-TOC			20.0			40000			
GNE10-26341-TOC			25.0			50000			
Glucose Stds.									
GNE10-26342-TOC	GNE10-26335-TOC	50000	40.0	DI H_2O	100ml	20000	11/7/10	[illegible]	↓
GNE10-26343-TOC	↓	↓	50.0	↓	↓	25000	↓	↓	

Form: GN121
Rev. Date:2/26/03

ACCUTEST

GN43974

Reagent Information Log - TOC - Soil

Reagent	Reagent # or Manufacturer/Lot	XP
Sucrose Stock Solution, 200000 mg/L	GNE10-26334-TOC	11/7/10
Glucose Stock Solution, 50000 ug/L	GNE10-26335-TOC	11/7/10
Glucose Check Solution, 25000 ug/L	GNE10-26343-TOC	11/7/10
Nitric Acid, Reagent Grade	J19023 Baker	9/2/12
Glucose ~~Stock~~ Check Solution, 20000 µg/L	GNE10-26342-TOC	11/7/10

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN-087 1-66
Rev. Date:4/26/01

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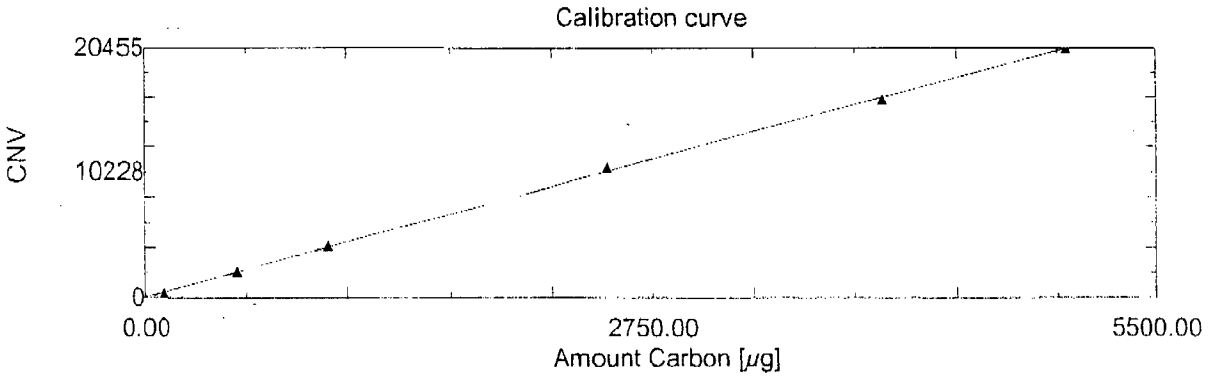
TOC-Control



Calibration Curves

Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

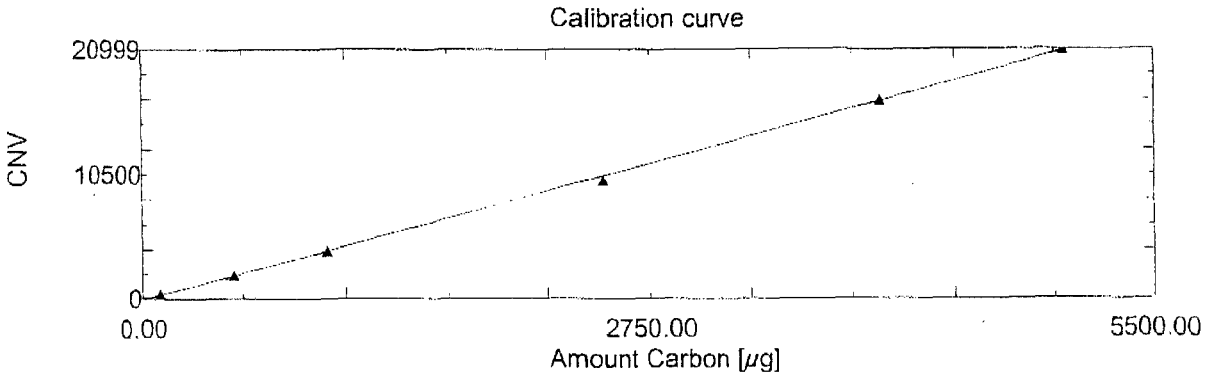
Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg]	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	000000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	0.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

14.8 14

TOC-Control



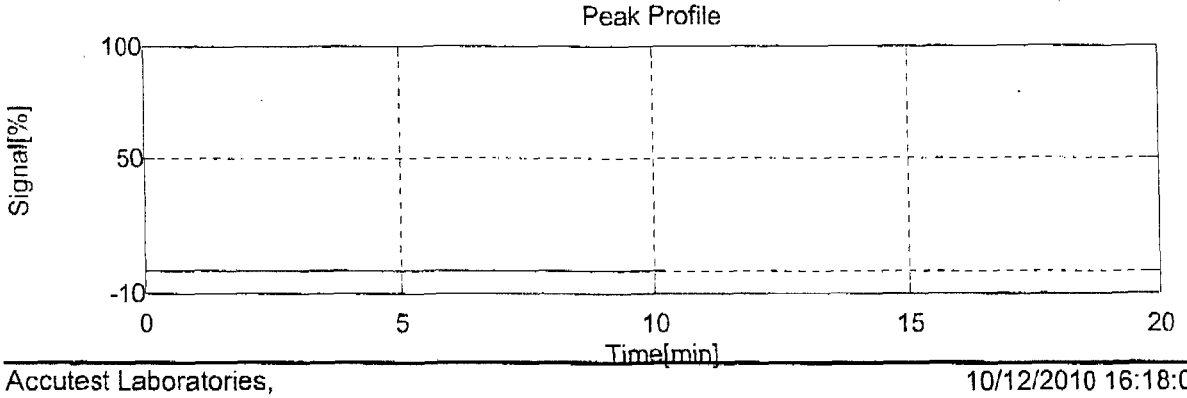
Samples

Sample Name: STDA
Sample ID: 0.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:21:44

Mean Area	Conc	Result	SD	CV	CNV	Modified
0	0.000%		0.000	0.00%	0	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0	0.0000		******	10/12/2010 09:14:47	a01012s1.cal
2	5	0	0	0.0000		******	10/12/2010 09:21:44	a01012s1.cal



TOC-Control

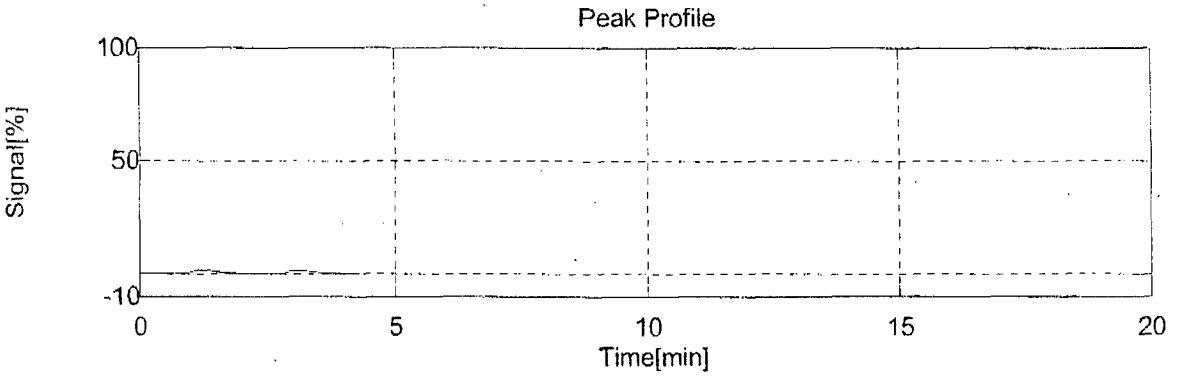
Samples

Sample Name: STDB
Sample ID: 0.1
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:42:51

Mean Area	Conc	Result	SD	CV	CNV	Modified
446	0.1000%		0.000	0.00%	446	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	464	464	0.10000		******	10/12/2010 09:38:02	a01012s1.cal
2	5	429	429	0.10000		******	10/12/2010 09:42:51	a01012s1.cal



Samples

Sample Name: STDC
Sample ID: 0.5
Comment:

TOC-Control

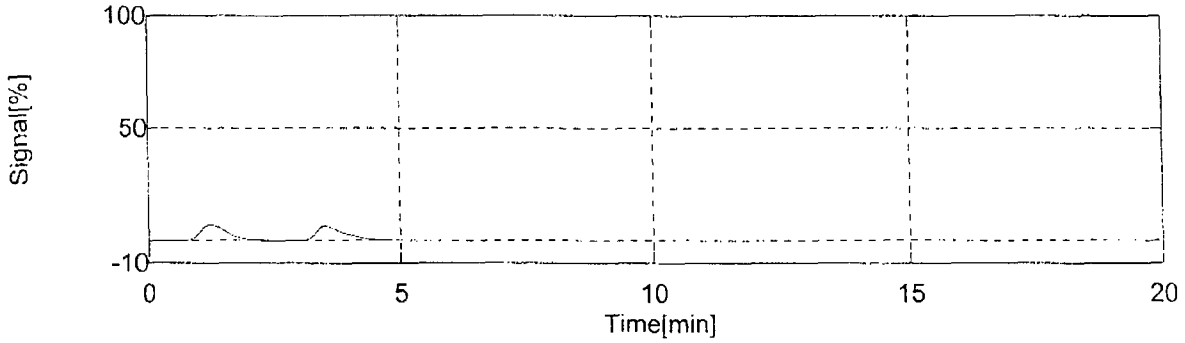
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:51:36

Mean Area	Conc	Result	SD	CV	CNV	Modified
2082	0.5000%		0.000	0.00%	2082	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2044	2044	0.50000		******	10/12/2010 09:47:07	a01012s1.cal
2	5	2120	2120	0.50000		******	10/12/2010 09:51:36	a01012s1.cal

Peak Profile



Samples

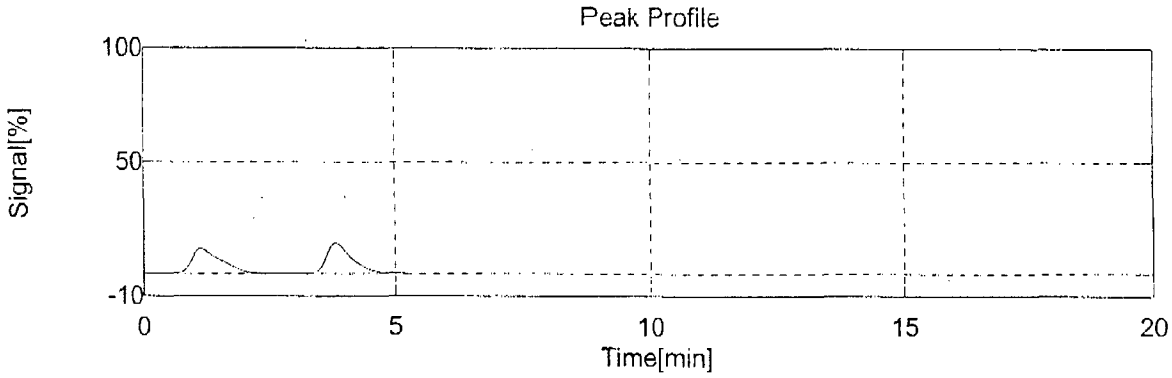
Sample Name: STDD
Sample ID: 1.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:10:39

Mean Area	Conc	Result	SD	CV	CNV	Modified
4098	1.000%		0.000	0.00%	4098	

TOC-Control

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3983	3983	1.0000		******	10/12/2010 10:05:56	a01012s1.cal
2	5	4214	4214	1.0000		******	10/12/2010 10:10:39	a01012s1.cal



Samples

Sample Name: STDE
Sample ID: 2.5
Comment:
Cal Curve: 1: a01012s1.cal

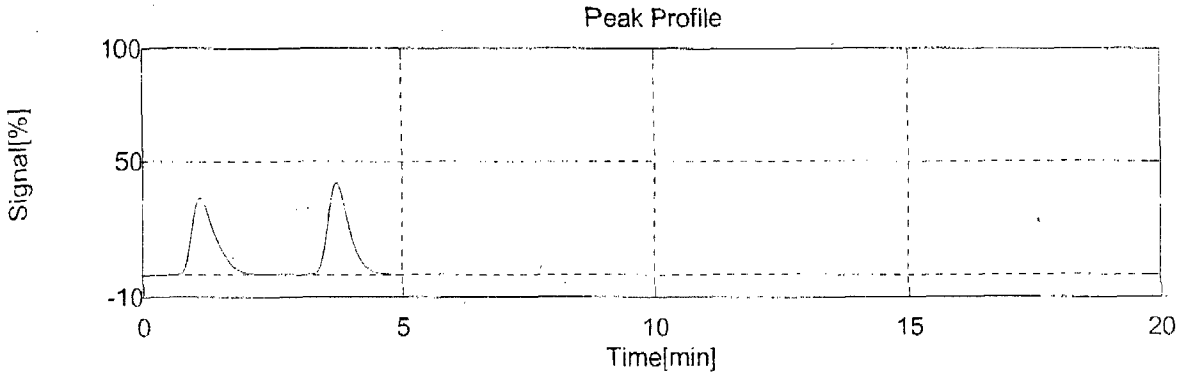
Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:19:29

Mean Area	Conc	Result	SD	CV	CNV	Modified
10025	2.500%		0.000	0.00%	10025	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	9615	9615	2.5000		******	10/12/2010 10:14:48	a01012s1.cal
2	5	10436	10436	2.5000		******	10/12/2010 10:19:29	a01012s1.cal

14.8 14

TOC-Control



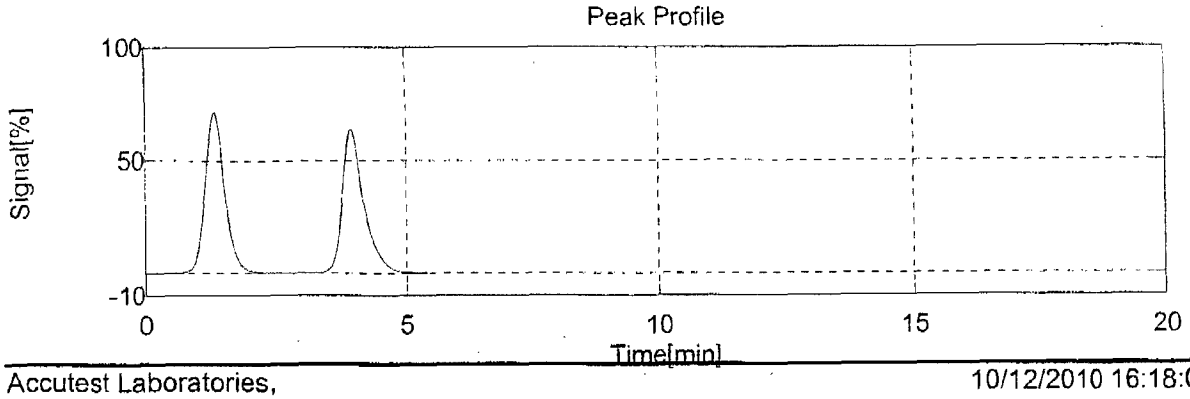
Samples

Sample Name: STDF
Sample ID: 4.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:30:06

Mean Area	Conc	Result	SD	CV	CNV	Modified
16704	4.000%		0.000	0.00%	16704	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	16705	16705	4.0000		******	10/12/2010 10:25:12	a01012s1.cal
2	5	16704	16704	4.0000		******	10/12/2010 10:30:06	a01012s1.cal



TOC-Control

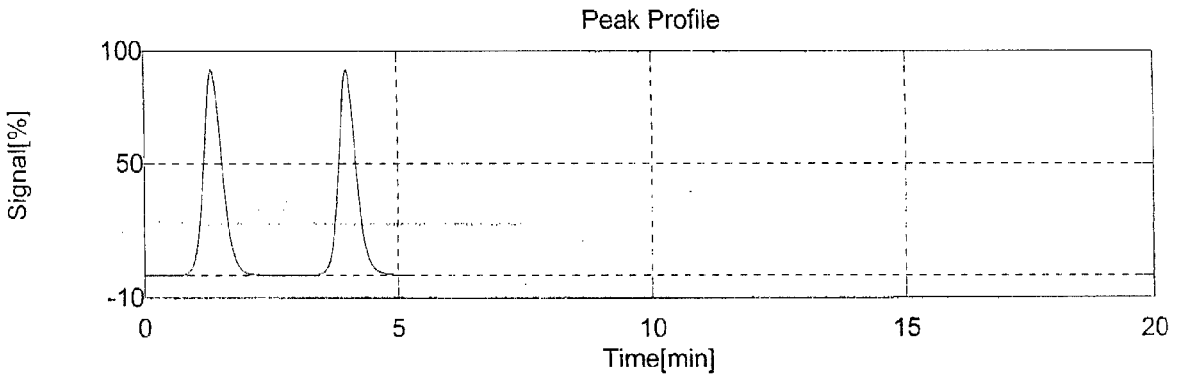
Samples

Sample Name: STDG
Sample ID: 5.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:40:05

Mean Area	Conc	Result	SD	CV	CNV	Modified
20999	5.000%		0.000	0.00%	20999	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21046	21046	5.0000		******	10/12/2010 10:35:01	a01012s1.cal
2	5	20952	20952	5.0000		******	10/12/2010 10:40:05	a01012s1.cal



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met

TOC-Control

General Information

Organization: Accutest Laboratories
User:
Title:
Instrument ID: TOC1
Filename: C:\TOCCNTR\DATA\A01028S1.TOC
Comment:

Instrument Conditions

Instrument Attachments: TOC-5000 + SSM 5000

Calibration Curves

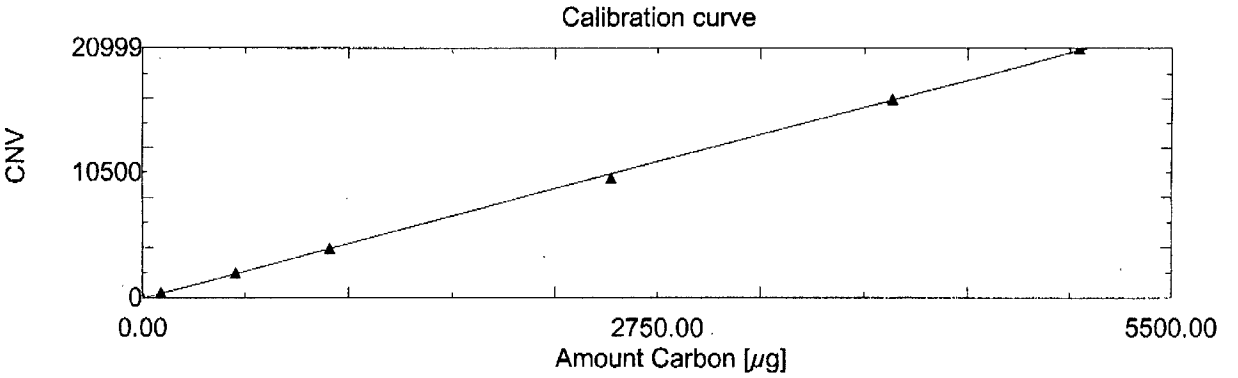
Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	00000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	0.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

TOC-Control



Samples

Sample Name: CRI
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

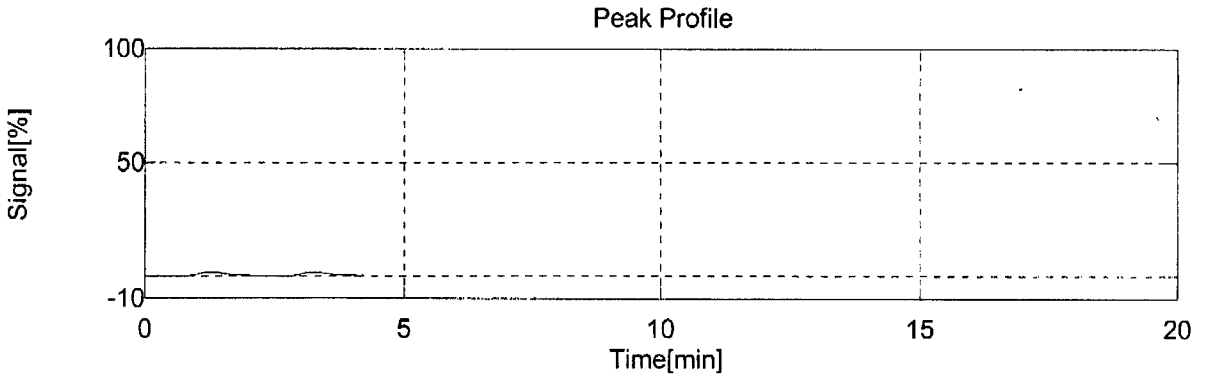
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 09:32:21

Mean Area	Conc	Result	SD	CV	Modified
448	0.1216%		0.00101	0.834%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	451	0.12236		******	10/28/2010 09:27:00	a01012s1.cal
2	5	445	0.12092		******	10/28/2010 09:32:21	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: HSTD
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

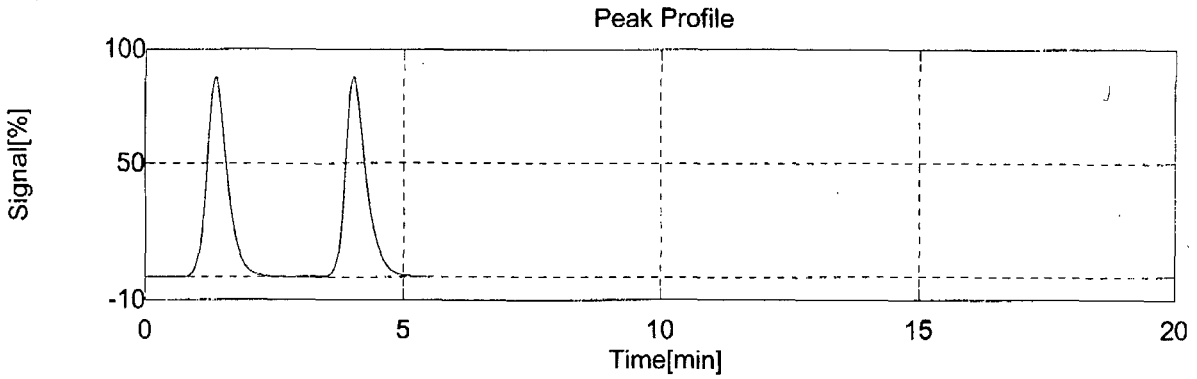
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 09:44:50

Mean Area	Conc	Result	SD	CV	Modified
22037	5.284%		0.05918	1.12%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21862	5.2425		******	10/28/2010 09:39:05	a01012s1.cal
2	5	22212	5.3262		******	10/28/2010 09:44:50	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

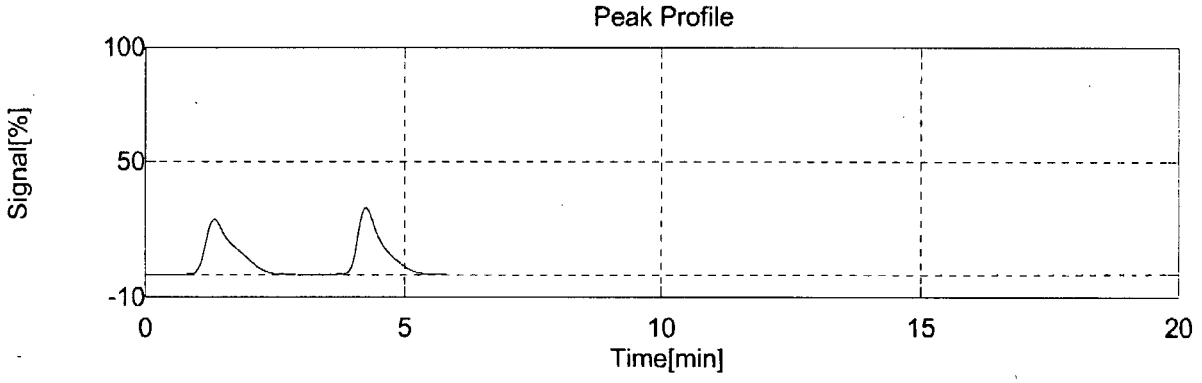
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 09:56:54

Mean Area	Conc	Result	SD	CV	Modified
8672	2.088%		0.03061	1.47%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8582	2.0668		******	10/28/2010 09:51:27	a01012s1.cal
2	5	8763	2.1101		******	10/28/2010 09:56:54	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

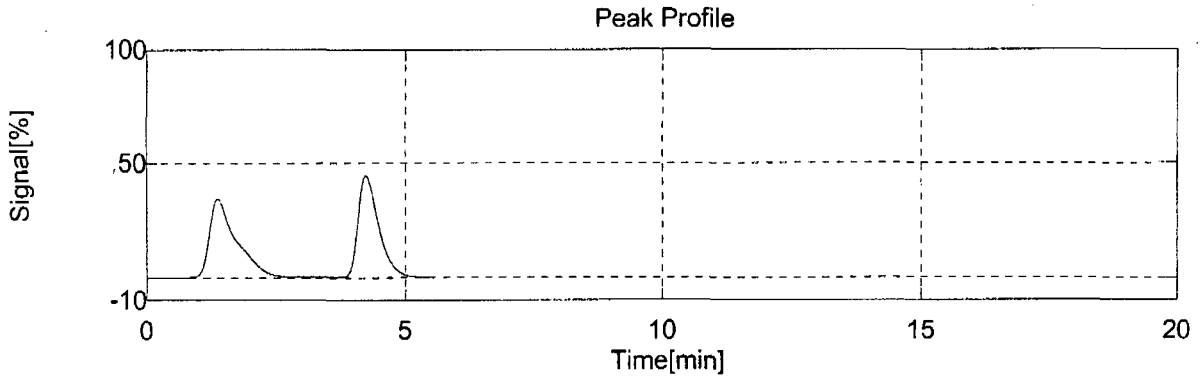
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 10:07:12

Mean Area	Conc	Result	SD	CV	Modified
11072	2.662%		0.01065	0.400%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	11104	2.6699		******	10/28/2010 10:02:16	a01012s1.cal
2	5	11041	2.6548		******	10/28/2010 10:07:12	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: GP56044-MB2
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

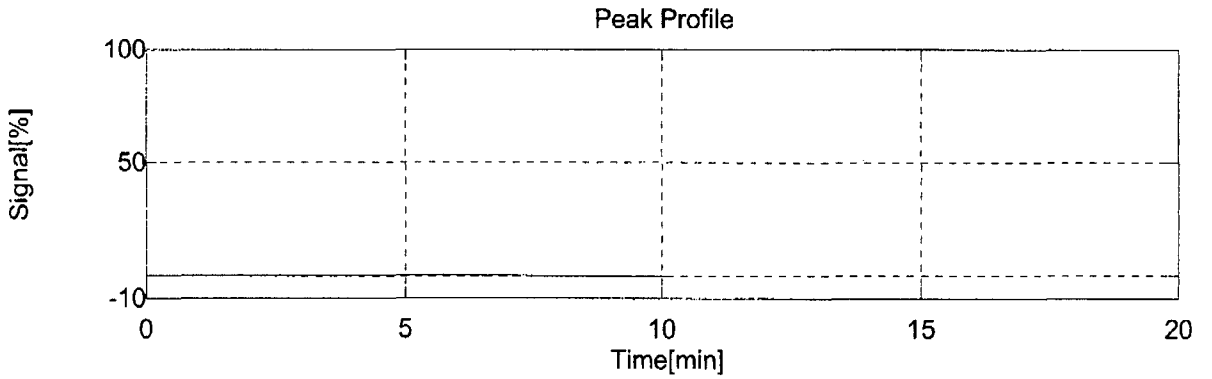
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 10:34:59

Mean Area	Conc	Result	SD	CV	Weight	Modified
0	0.01451%		0.00000	0.0000%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	100.0	0.014506		******	10/28/2010 10:19:33	a01012s1.cal
2	5	0	100.0	0.014506		******	10/28/2010 10:34:59	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: GP56044-B2
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

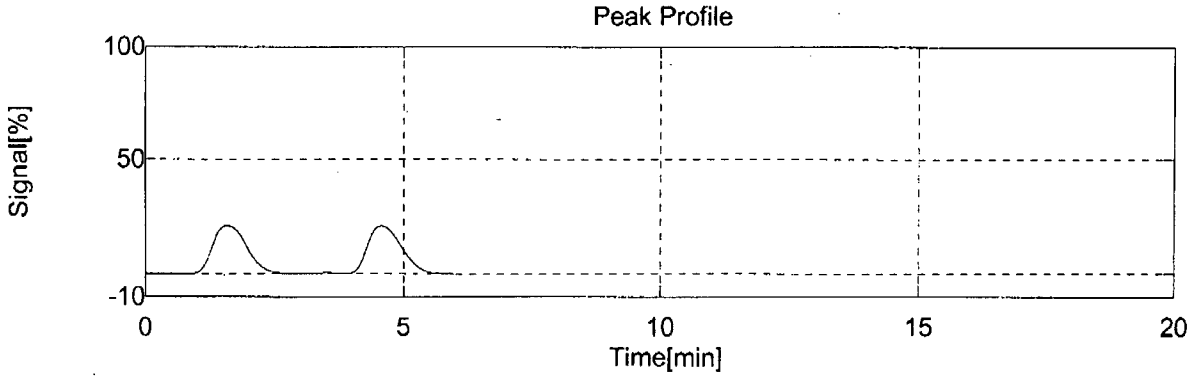
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 10:53:05

Mean Area	Conc	Result	SD	CV	Weight	Modified
8564	2.062%		0.03280	1.59%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8661	100.0	2.0857		******	10/28/2010 10:41:40	a01012s1.cal
2	5	8467	100.0	2.0393		******	10/28/2010 10:53:05	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: JA58750-9
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

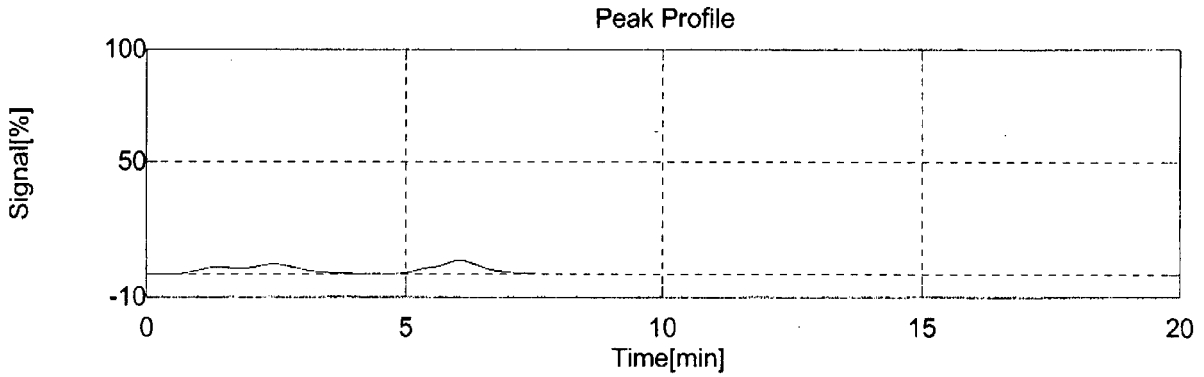
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 11:07:21

Mean Area	Conc	Result	SD	CV	Weight	Modified
3469	0.7915%		0.04447	5.62%	106.7	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3618	106.9	0.82292		******	10/28/2010 11:01:25	a01012s1.cal
2	5	3321	106.4	0.76003		******	10/28/2010 11:07:21	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: JA58750-10
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

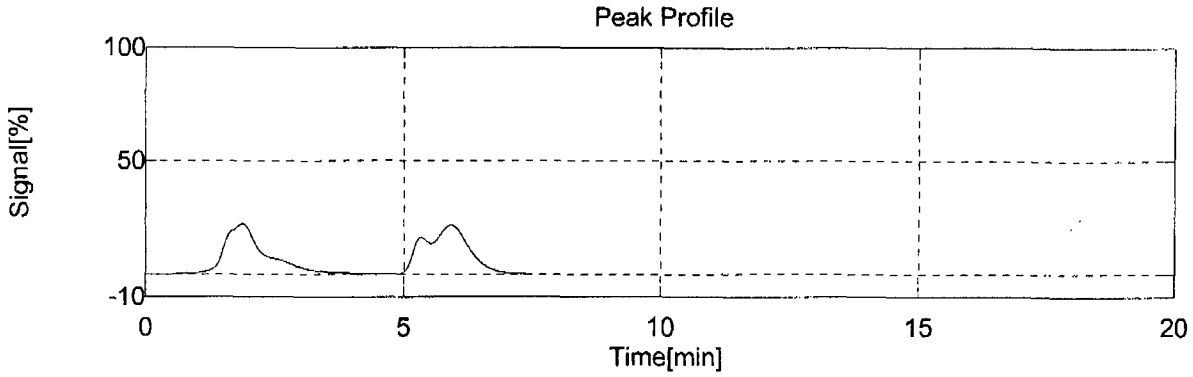
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 11:21:00

Mean Area	Conc	Result	SD	CV	Weight	Modified
10779	2.391%		0.3097	12.9%	108.5	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	9841	109.0	2.1723		******	10/28/2010 11:14:38	a01012s1.cal
2	5	11717	107.9	2.6102		******	10/28/2010 11:21:00	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: JA58750-12
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 11:46:45

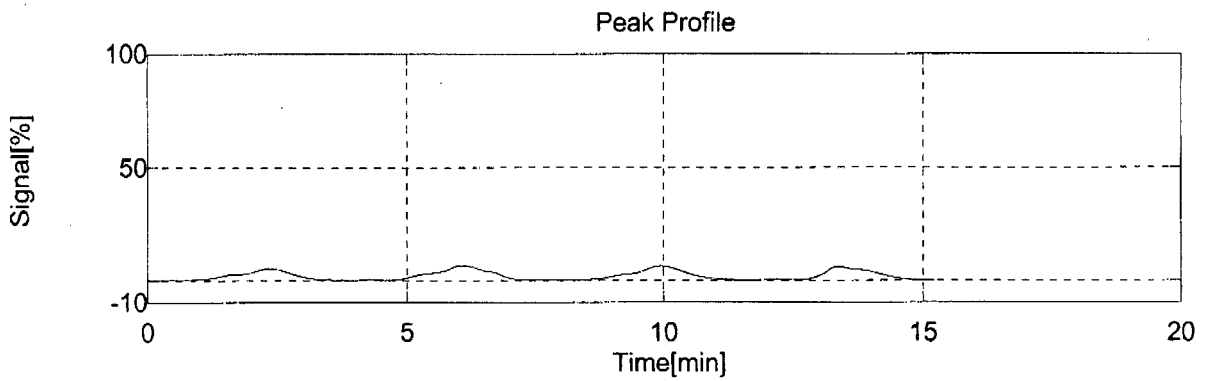
Mean Area	Conc	Result	SD	CV	Weight	Modified
3566	0.8282%		0.1353	16.3%	105.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2974	106.1	0.68397		******	10/28/2010 11:28:06	a01012s1.cal
2	5	4170	102.2	0.98992		******	10/28/2010 11:33:24	a01012s1.cal
3	5	3767	103.8	0.88182		******	10/28/2010 11:40:26	a01012s1.cal
4	5	3355	107.9	0.75700		******	10/28/2010 11:46:45	a01012s1.cal

14.8

14

TOC-Control



Samples

Sample Name: JA58750-13
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 12:24:16

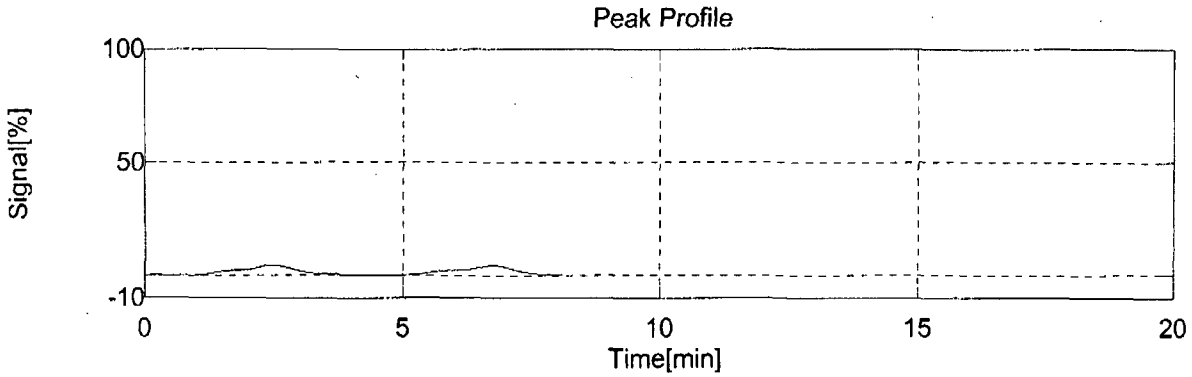
Mean Area	Conc	Result	SD	CV	Weight	Modified
2819	0.6401%		0.00666	1.04%	107.6	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2846	109.4	0.63536		******	10/28/2010 12:13:40	a01012s1.cal
2	5	2792	105.8	0.64478		******	10/28/2010 12:24:16	a01012s1.cal

14.8

14

TOC-Control



Samples

Sample Name: JA58750-14
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 12:34:58

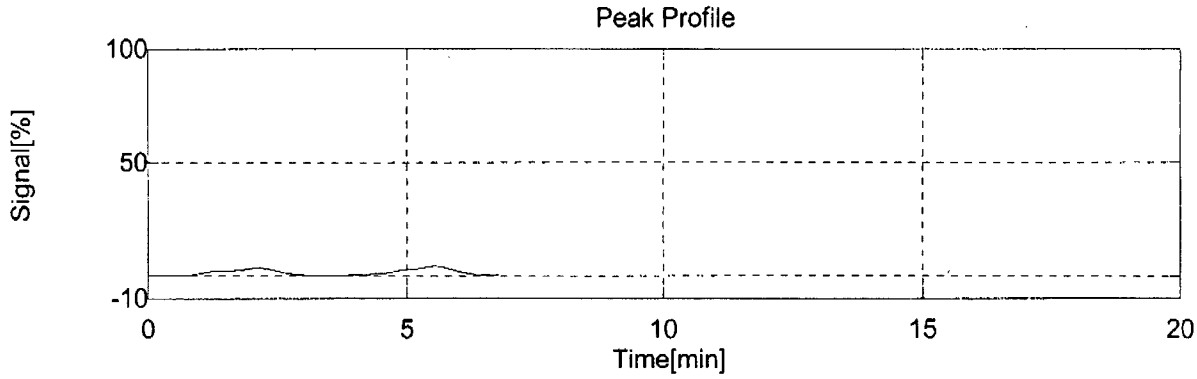
Mean Area	Conc	Result	SD	CV	Weight	Modified
2399	0.5710%		0.02262	3.96%	103.1	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2395	105.8	0.55504		******	10/28/2010 12:30:12	a01012s1.cal
2	5	2404	100.4	0.58704		******	10/28/2010 12:34:58	a01012s1.cal

14.8

14

TOC-Control



Samples

Sample Name: JA58750-15
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

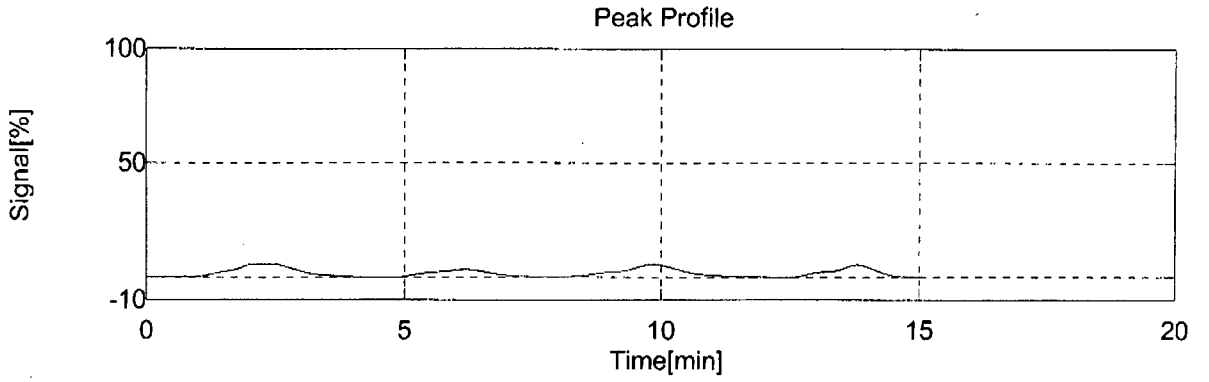
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 12:59:42

Mean Area	Conc	Result	SD	CV	Weight	Modified
3068	0.7156%		0.1530	21.4%	104.3	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3887	104.5	0.90337		******	10/28/2010 12:41:15	a01012s1.cal
2	5	2219	101.1	0.53922		******	10/28/2010 12:47:13	a01012s1.cal
3	5	3296	106.5	0.75371		******	10/28/2010 12:53:45	a01012s1.cal
4	5	2870	105.2	0.66618		******	10/28/2010 12:59:42	a01012s1.cal

14.8 14

TOC-Control



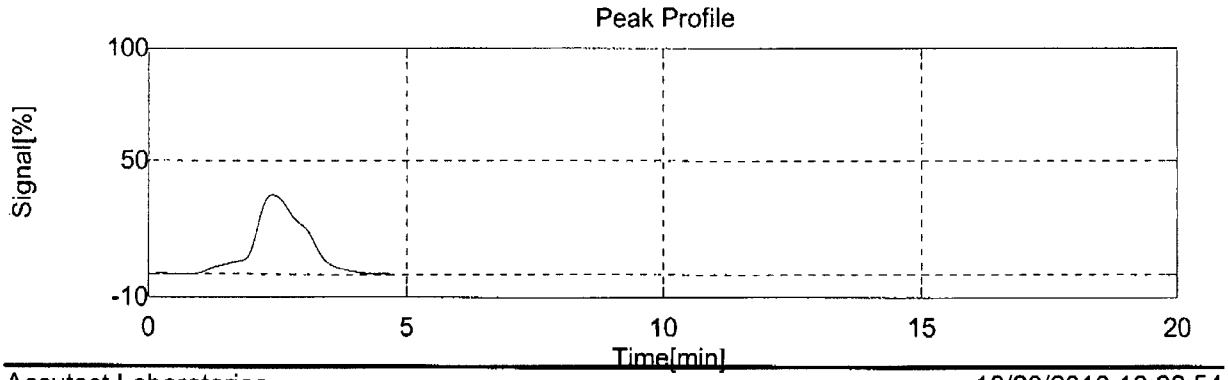
Samples

Sample Name: JA58750-16
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 13:07:04

Mean Area	Conc	Result	SD	CV	Weight	Modified
21296	4.720%		0.000	0.00%	108.2	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21296	108.2	4.7201		******	10/28/2010 13:07:04	a01012s1.cal



TOC-Control

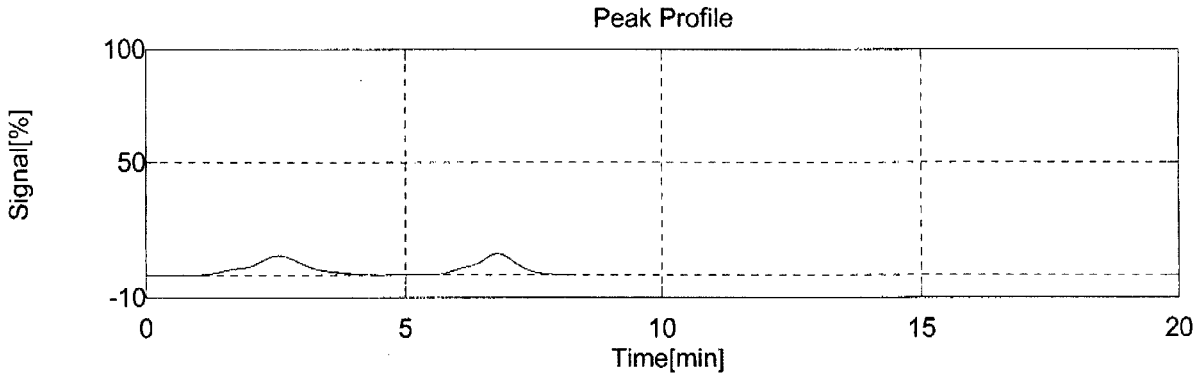
Samples

Sample Name: JA58750-17
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 13:20:01

Mean Area	Conc	Result	SD	CV	Weight	Modified
5181	1.197%		0.1301	10.9%	104.7	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	5646	105.9	1.2886		******	10/28/2010 13:14:27	a01012s1.cal
2	5	4716	103.4	1.1047		******	10/28/2010 13:20:01	a01012s1.cal



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met

TOC-Control

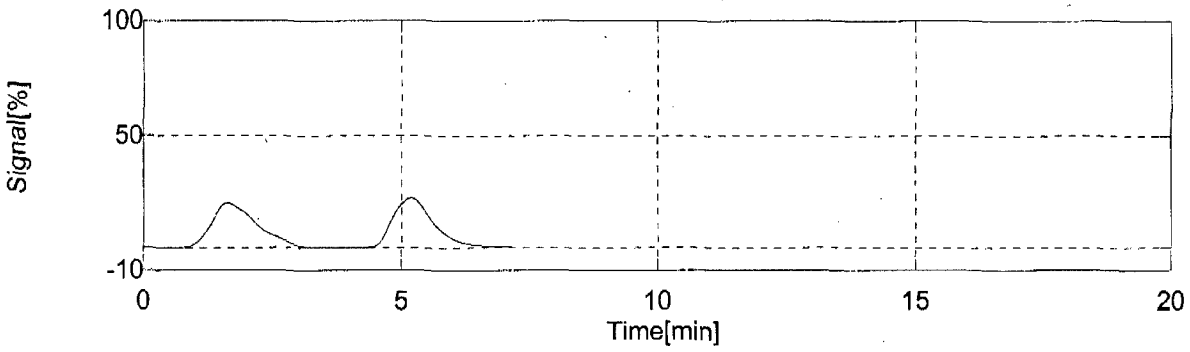
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 13:35:18

Mean Area	Conc	Result	SD	CV	Modified
10964	2.637%		0.03162	1.20%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	11058	2.6589		******	10/28/2010 13:26:19	a01012s1.cal
2	5	10871	2.6141		******	10/28/2010 13:35:18	a01012s1.cal

Peak Profile



Samples

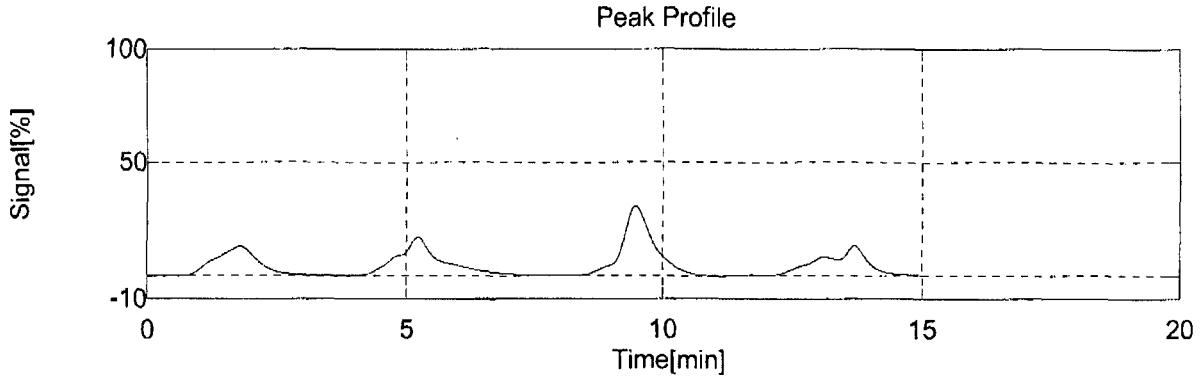
Sample Name: JA58750-18
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 14:00:47

Mean Area	Conc	Result	SD	CV	Weight	Modified
8216	1.862%		0.5548	29.8%	106.5	

TOC-Control

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	6273	107.7	1.4063		******	10/28/2010 13:40:36	a01012s1.cal
2	5	8352	102.6	1.9608		******	10/28/2010 13:48:09	a01012s1.cal
3	5	11625	107.2	2.6068		******	10/28/2010 13:55:04	a01012s1.cal
4	5	6617	108.4	1.4731		******	10/28/2010 14:00:47	a01012s1.cal



Samples

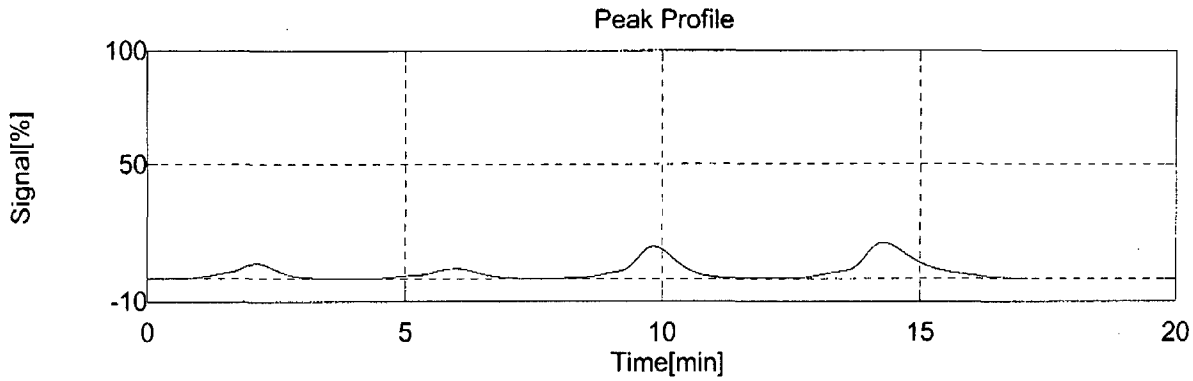
Sample Name: GP56044-D1
Sample ID: JA58750-11
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 14:29:58

Mean Area	Conc	Result	SD	CV	Weight	Modified
5899	1.372%		1.016	74.0%	104.8	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3367	109.3	0.74993		******	10/28/2010 14:10:47	a01012s1.cal
2	5	1616	103.5	0.38739		******	10/28/2010 14:16:51	a01012s1.cal
3	5	7347	104.1	1.7017		******	10/28/2010 14:23:05	a01012s1.cal
4	5	11268	102.3	2.6482		******	10/28/2010 14:29:58	a01012s1.cal

TOC-Control



Samples

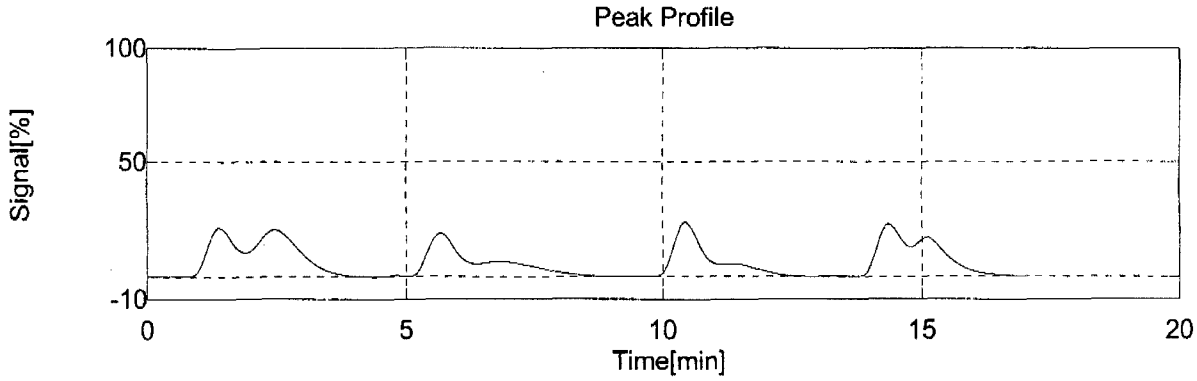
Sample Name: GP56044-S1
Sample ID: JA58750-11
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 14:57:01

Mean Area	Conc	Result	SD	CV	Weight	Modified
13541	3.048%		0.7999	26.2%	106.8	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	18203	106.5	4.1009		******	10/28/2010 14:39:09	a01012s1.cal
2	5	11389	104.6	2.6176		******	10/28/2010 14:45:40	a01012s1.cal
3	5	10314	109.2	2.2719		******	10/28/2010 14:51:18	a01012s1.cal
4	5	14259	107.0	3.2003		******	10/28/2010 14:57:01	a01012s1.cal

TOC-Control



Samples

Sample Name: JA58750-2
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

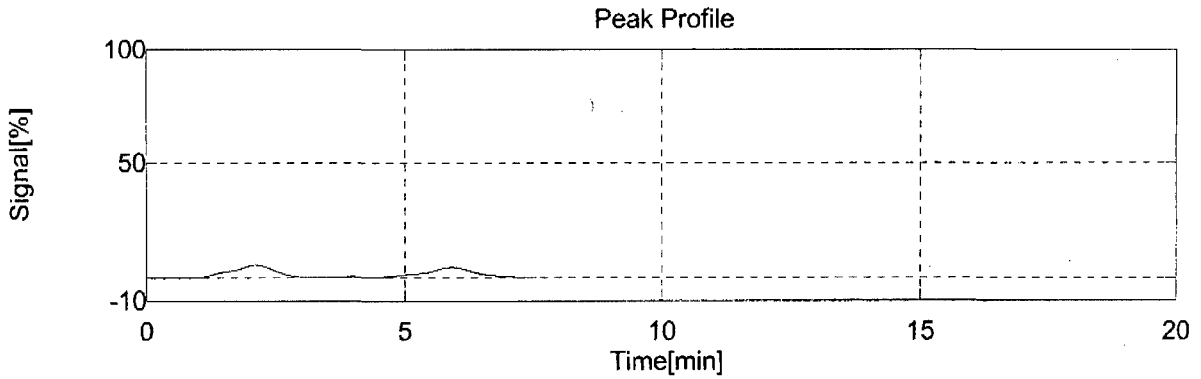
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 15:07:53

Mean Area	Conc	Result	SD	CV	Weight	Modified
2810	0.6406%		0.04211	6.57%	107.2	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2964	107.9	0.67035		******	10/28/2010 15:02:18	a01012s1.cal
2	5	2657	106.4	0.61080		******	10/28/2010 15:07:53	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: JA58750-3
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

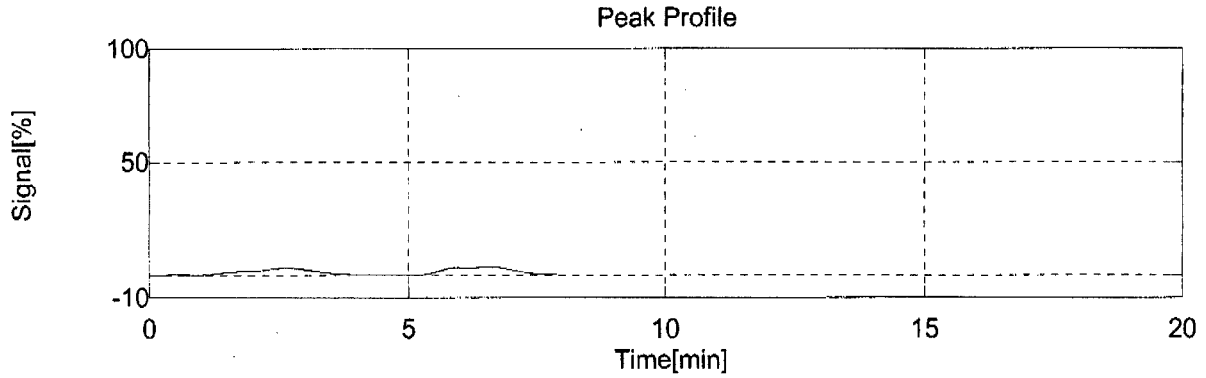
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 15:18:42

Mean Area	Conc	Result	SD	CV	Weight	Modified
2468	0.6000%		0.05403	9.00%	100.8	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2317	101.2	0.56184		******	10/28/2010 15:13:37	a01012s1.cal
2	5	2619	100.4	0.63825		******	10/28/2010 15:18:42	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: JA58750-6
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

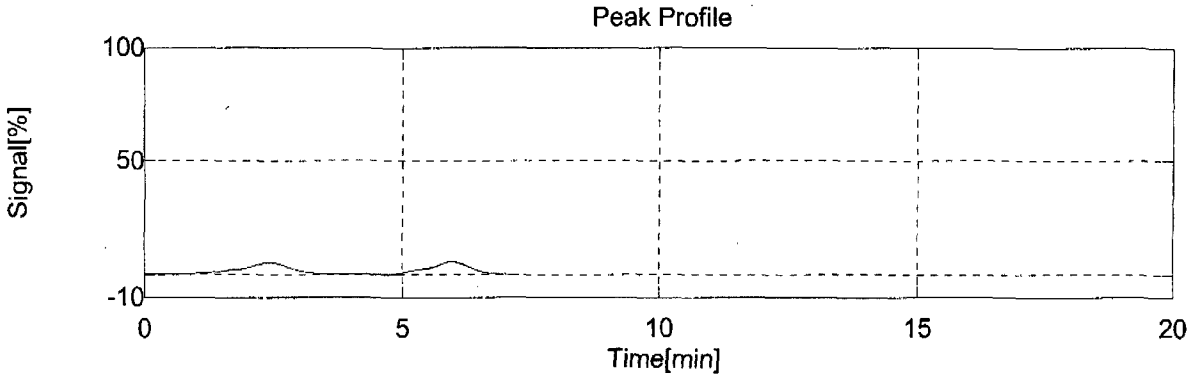
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 15:29:14

Mean Area	Conc	Result	SD	CV	Weight	Modified
2763	0.6475%		0.05326	8.22%	104.5	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2691	107.9	0.60984		******	10/28/2010 15:24:32	a01012s1.cal
2	5	2836	101.1	0.68516		******	10/28/2010 15:29:14	a01012s1.cal

14.8 14

TOC-Control



Samples

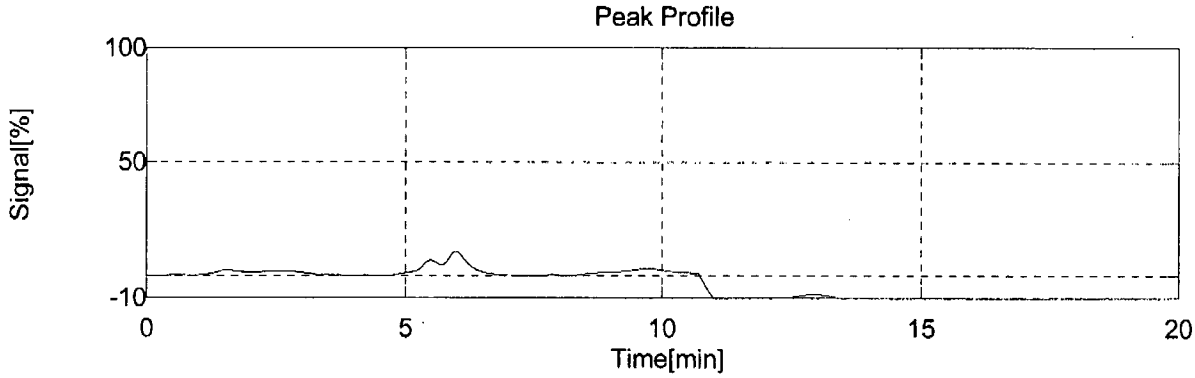
Sample Name: JA58750-16
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 15:48:39

Mean Area	Conc	Result	SD	CV	Weight	Modified
2244	1.085%		0.7490	69.0%	50.78	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	1878	51.00	0.90902		******	10/28/2010 15:34:20	a01012s1.cal
2	5	4584	50.80	2.1864		******	10/28/2010 15:39:15	a01012s1.cal
3	5	1409	50.60	0.69456		******	10/28/2010 15:44:05	a01012s1.cal
4	5	1105	50.70	0.54980		******	10/28/2010 15:48:39	a01012s1.cal

TOC-Control



Samples

Sample Name: JA58750-18
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

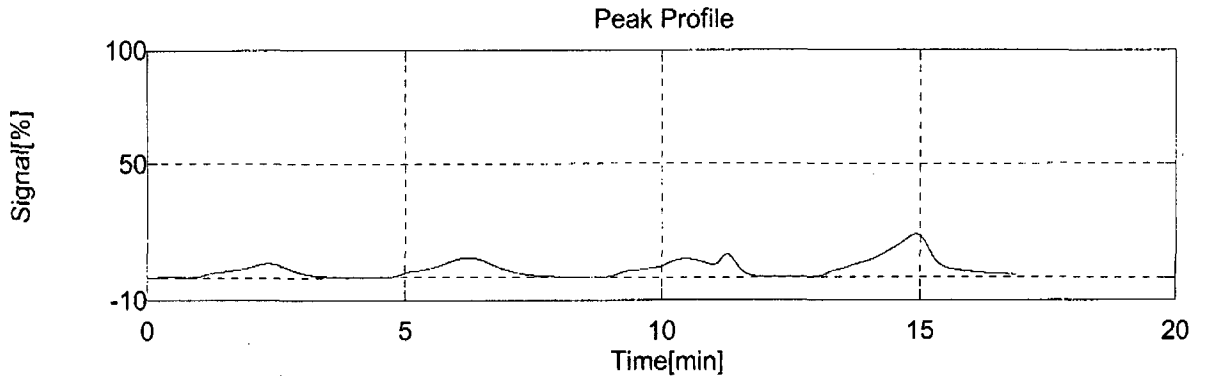
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 16:11:43

Mean Area	Conc	Result	SD	CV	Weight	Modified
7396	1.671%		0.7378	44.1%	106.3	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3982	105.4	0.91721		******	10/28/2010 15:53:55	a01012s1.cal
2	5	6300	103.2	1.4739		******	10/28/2010 15:59:51	a01012s1.cal
3	5	7283	108.9	1.6126		******	10/28/2010 16:05:27	a01012s1.cal
4	5	12019	107.7	2.6822		******	10/28/2010 16:11:43	a01012s1.cal

14.8 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

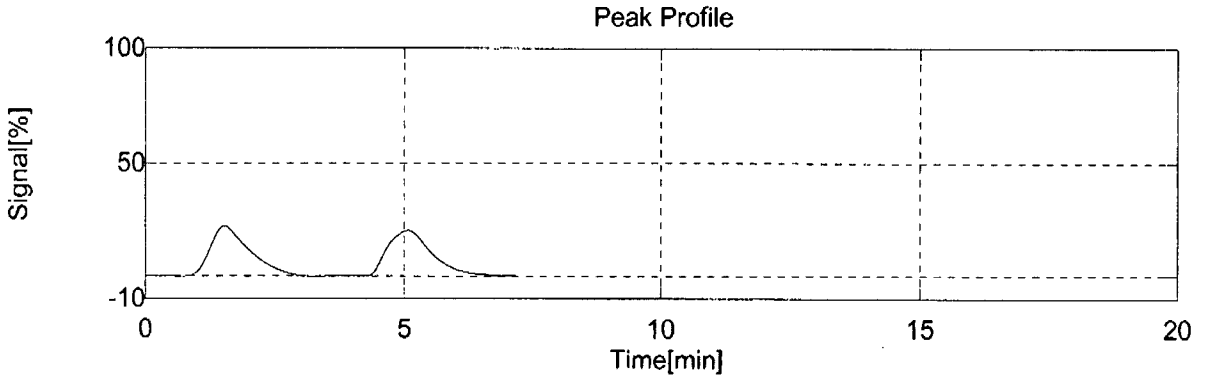
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/28/2010 16:22:38

Mean Area	Conc	Result	SD	CV	Modified
10883	2.617%		0.01336	0.510%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	10923	2.6266		******	10/28/2010 16:17:17	a01012s1.cal
2	5	10844	2.6077	-	******	10/28/2010 16:22:38	a01012s1.cal

14.8 14

TOC-Control



Statistics / Summary

Sample Name	Analysis	Conc.
CRI	SSM-TC	0.1216 %
HSTD	SSM-TC	5.284 %
ICV	SSM-TC	2.088 %
CCV	SSM-TC	2.639 %
GP56044-MB2	SSM-TC	0.01451 %
GP56044-B2	SSM-TC	2.062 %
JA58750-9	SSM-TC	0.7915 %
JA58750-10	SSM-TC	2.391 %
JA58750-12	SSM-TC	0.8282 %
JA58750-13	SSM-TC	0.6401 %
JA58750-14	SSM-TC	0.5710 %
JA58750-15	SSM-TC	0.7156 %
JA58750-16	SSM-TC	2.903 %
JA58750-17	SSM-TC	1.197 %
JA58750-18	SSM-TC	1.767 %
GP56044-D1	SSM-TC	1.372 %
GP56044-S1	SSM-TC	3.048 %
JA58750-2	SSM-TC	0.6406 %
JA58750-3	SSM-TC	0.6000 %
JA58750-6	SSM-TC	0.6475 %

Sequence: 210102801
Operator: Chemistry

6N43983

Printed: 10/28/2010 3:12:40 PM

Title:
Datasource: NJCHMIC2_local
Location: accutest_perchlorate_system_2\system 2 my sequences\anions-2010\Oct
Timebase: ACCUTEST_SYS#2
#Samples: 41

Created: 10/28/2010 8:44:46 AM by Chemistry
Last Update: 10/28/2010 8:46:36 AM by Chemistry

No.	Name	Type	Pos.	Inj. Vol.	Dil. Factor	Status	Inj. Date/Time	Comment
1	BLANKCONF	Unknown	1	20.0	1.0000	Finished	10/28/2010 9:49:43 AM	
2	STDA	Standard	1	20.0	1.0000	Finished	10/22/2010 11:05:08 AM	
3	STDB	Standard	3	20.0	1.0000	Finished	10/22/2010 11:52:23 AM	
4	STDC	Standard	4	20.0	1.0000	Finished	10/22/2010 12:16:19 PM	
5	STDD	Standard	6	20.0	1.0000	Finished	10/22/2010 1:04:10 PM	
6	STDE	Standard	8	20.0	1.0000	Finished	10/22/2010 1:52:01 PM	
7	STDF	Standard	9	20.0	1.0000	Finished	10/22/2010 2:15:56 PM	
8	STDG	Standard	10	20.0	1.0000	Finished	10/22/2010 2:39:52 PM	
9	ICV	Unknown	2	20.0	1.0000	Finished	10/28/2010 10:13:03 AM	
10	CCV	Unknown	3	20.0	1.0000	Finished	10/28/2010 10:36:58 AM	
11	CCB	Unknown	4	20.0	1.0000	Finished	10/28/2010 11:00:53 AM	
12	MB-SOIL	Unknown	5	20.0	1.0000	Finished	10/28/2010 11:24:49 AM	
13	BS-SOIL	Unknown	6	20.0	1.0000	Finished	10/28/2010 11:48:44 AM	
14	JA58750-11MS	Unknown	7	20.0	1.0000	Finished	10/28/2010 12:12:39 PM	
15	JA58750-11DUP	Unknown	8	20.0	1.0000	Finished	10/28/2010 12:36:35 PM	
16	JA58750-11	Unknown	9	20.0	1.0000	Finished	10/28/2010 1:00:30 PM	
17	JA58750-1	Unknown	10	20.0	1.0000	Finished	10/28/2010 1:24:25 PM	
18	JA58750-2	Unknown	11	20.0	1.0000	Finished	10/28/2010 1:48:21 PM	
19	JA58750-3	Unknown	12	20.0	1.0000	Finished	10/28/2010 2:12:17 PM	
20	JA58750-4	Unknown	13	20.0	1.0000	Finished	10/28/2010 2:36:13 PM	
[redacted]	JA58750-5	Unknown	14	20.0	1.0000	Running	10/28/2010 3:00:08 PM	
22	CCV	Unknown	15	20.0	1.0000	Single		
23	CCB	Unknown	16	20.0	1.0000	Single		
24	JA58750-6	Unknown	17	20.0	1.0000	Single		
25	JA58750-7	Unknown	18	20.0	1.0000	Single		
26	JA58750-8MS	Unknown	19	20.0	1.0000	Single		
27	JA58750-8	Unknown	20	20.0	1.0000	Single		
28	JA58750-9	Unknown	21	20.0	1.0000	Single		
29	JA58750-10	Unknown	22	20.0	1.0000	Single		
30	JA58750-12	Unknown	23	20.0	1.0000	Single		
31	JA58750-13	Unknown	24	20.0	1.0000	Single		
32	JA58750-14	Unknown	25	20.0	1.0000	Single		
33	JA58750-15	Unknown	26	20.0	1.0000	Single		
34	CCV	Unknown	27	20.0	1.0000	Single		
35	CCB	Unknown	28	20.0	1.0000	Single		
36	JA58750-16	Unknown	29	20.0	1.0000	Single		
37	JA58750-17	Unknown	30	20.0	1.0000	Single		
38	JA58750-18	Unknown	31	20.0	1.0000	Single		
39	CCV	Unknown	32	20.0	1.0000	Single		
40	CCB	Unknown	33	20.0	1.0000	Single		
41	STANDBY	Unknown	34	20.0	1.0000	Single		

GP56061
SOIL (1)
CHL, SO4

14.9 14

Chromeleon © Dionex Corporation, Version 6.80 SR9a Build 2680 (163077)

ACCUTEST

Analyst MJ

Method IC

Prep Date 10/27/10 12:00

GP # 6P56061

Balance # B-36

Pipet #3

Sample Prep Log

Bot #	Sample ID	Sample Size	Final Volume
	MB	~~1.0 ml 10/27/10~~	100 mL DI
	BS	~~6.5 mL~~ GN09-66-135	
2	MS(JA58750-11)	10.00g, 1mL GN09-66-135	
	DUP(JA58750-11)	10.10g	
	JA58750-11	10.09g	
	-1	10.02g	
	-2	10.03g	
	-3	10.00g	
	-4	10.06g	
	-5	10.09g	
1	-6	10.00g	
2	-7	10.06g	
	MS(JA58750-8)	10.05g, 1mL GN09-66-135	
	JA58750-8	10.03g	
1	-9	10.00g	
2	-10	10.09g	
2	-12	10.08g	
1	-13	10.03g	
	-14	10.06g	
	-15	10.09g	
2	-16	10.01g	
	-17	10.09g	
	-18	10.08g	

QC: JA58750-11 - brownish gray clay

Form: GN166-02
Rev. Date: 8/5/05

QC Review _____

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ACCUTEST

GN43983

Reagent Information Log - IONC - Water /Soil

Reagent	Reagent # or Manufacturer/Lot	Exp. Date
Standard Intermediate (for calibration curve)	6N09-72-73	10/25/10 curve ran on 10/29/10
Standard Intermediates (for calibration curve)	6N09-72-75	10/25/10
ICV	6N09-68-~~60~~	11/1/10
Eluent	1008526500 12	8/12
Standard Intermediate (for working Stds/Spikes)	6N09-72-76	11/1/10
Standard Intermediate (for working Stds/Spikes)	6N09-72-78	
CCV	6N09-85-109	
Spiking Solution intermediate	6N09-66-130	
Spiking Solution intermediate	6N09-66-131	
Spiking Solution	6N09-66-135	
Filter Lot number	21750783	NA

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

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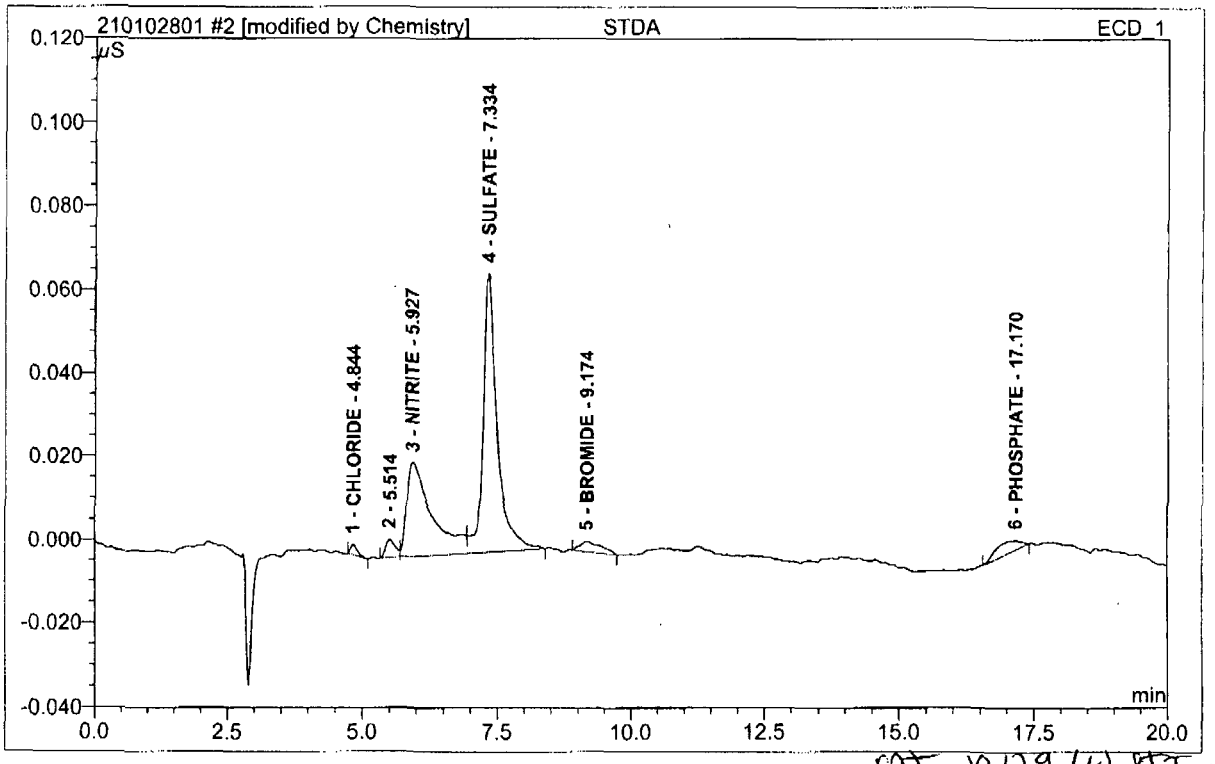
Form: GN087A-76
Rev. Date: 4/7/09

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

2 STDA

Sample Name:	**STDA**	*Injection Volume:*	**20.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 11:05**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MT 10/29/10

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.84	CHLORIDE	0.002	0.000	0.98	0.002	BMB*
2	5.51	n.a.	0.005	0.001	2.51	n.a.	BM *
3	5.93	NITRITE	0.022	0.012	33.75	0.018	M *
4	7.33	SULFATE	0.067	0.020	55.24	0.112	MB*
5	9.17	BROMIDE	0.002	0.001	3.28	0.010	BMB*
6	17.17	PHOSPHATE	0.002	0.002	4.24	0.005	BMB
Total:			0.101	0.037	100.00	0.147	

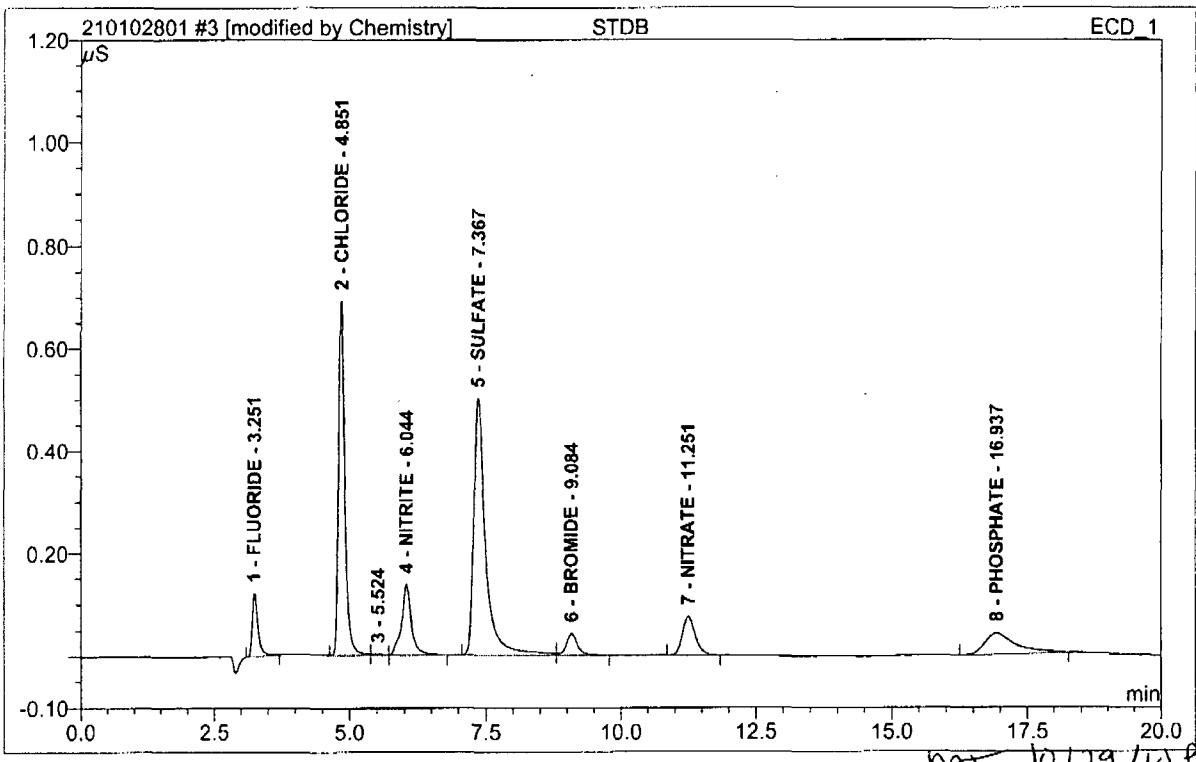
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

3 STDB

Sample Name:	**STDB**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 11:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MJ 10/29/10 PM

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.121	0.015	4.62	0.037	BMB
2	4.85	CHLORIDE	0.691	0.092	28.55	0.387	BM *
3	5.52	n.a.	0.002	0.000	0.15	n.a.	Mb*
4	6.04	NITRITE	0.137	0.029	9.07	0.043	bMB*
5	7.37	SULFATE	0.500	0.127	39.55	0.704	BM *
6	9.08	BROMIDE	0.043	0.011	3.36	0.092	MB*
7	11.25	NITRATE	0.074	0.021	6.37	0.036	BMB
8	16.94	PHOSPHATE	0.040	0.027	8.33	0.087	BMB
Total:			1.608	0.322	100.00	1.387	

anions/Integration

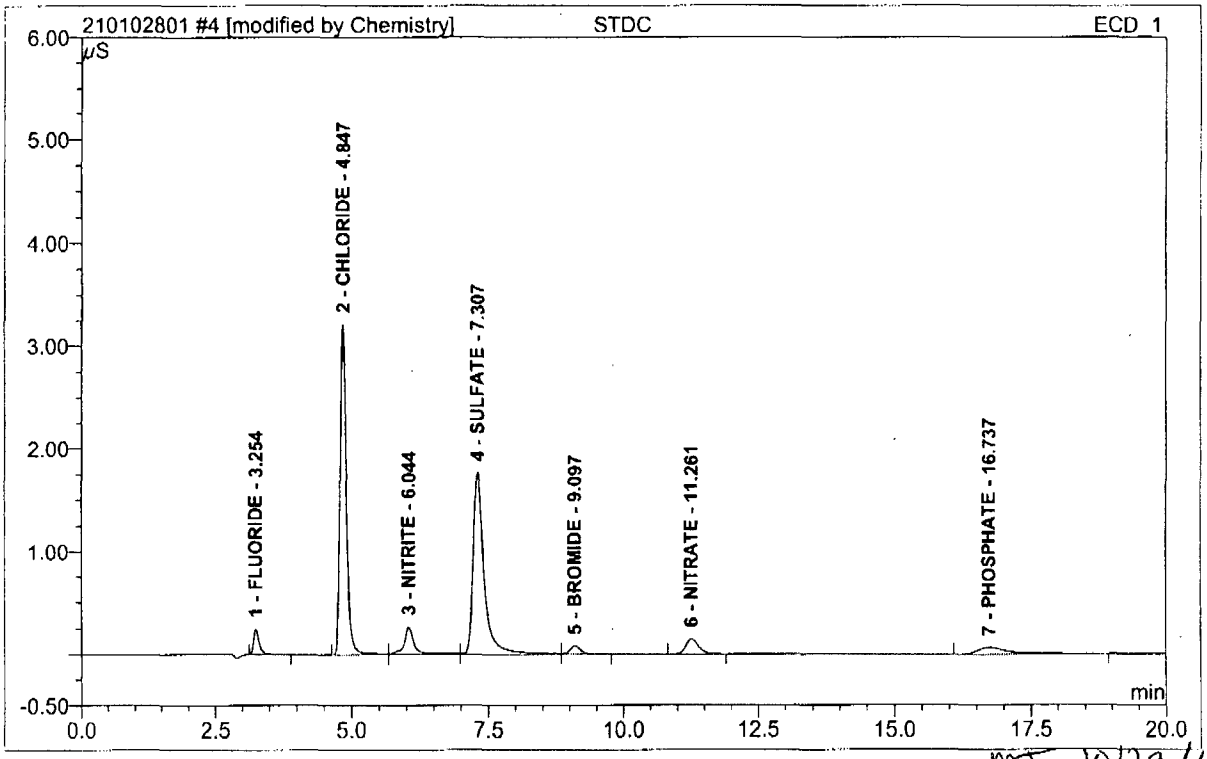
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

4 STDC

Sample Name:	**STDC**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 12:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MJ 10/29/10 PII

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.245	0.030	2.88	0.075	BMB*
2	4.85	CHLORIDE	3.222	0.425	40.93	1.790	BM *
3	6.04	NITRITE	0.266	0.058	5.56	0.086	M *
4	7.31	SULFATE	1.770	0.420	40.38	2.321	M *
5	9.10	BROMIDE	0.081	0.019	1.85	0.163	MB*
6	11.26	NITRATE	0.146	0.041	3.91	0.072	BMB
7	16.74	PHOSPHATE	0.068	0.047	4.49	0.152	BMB
Total:			5.798	1.039	100.00	4.658	

14.9 14

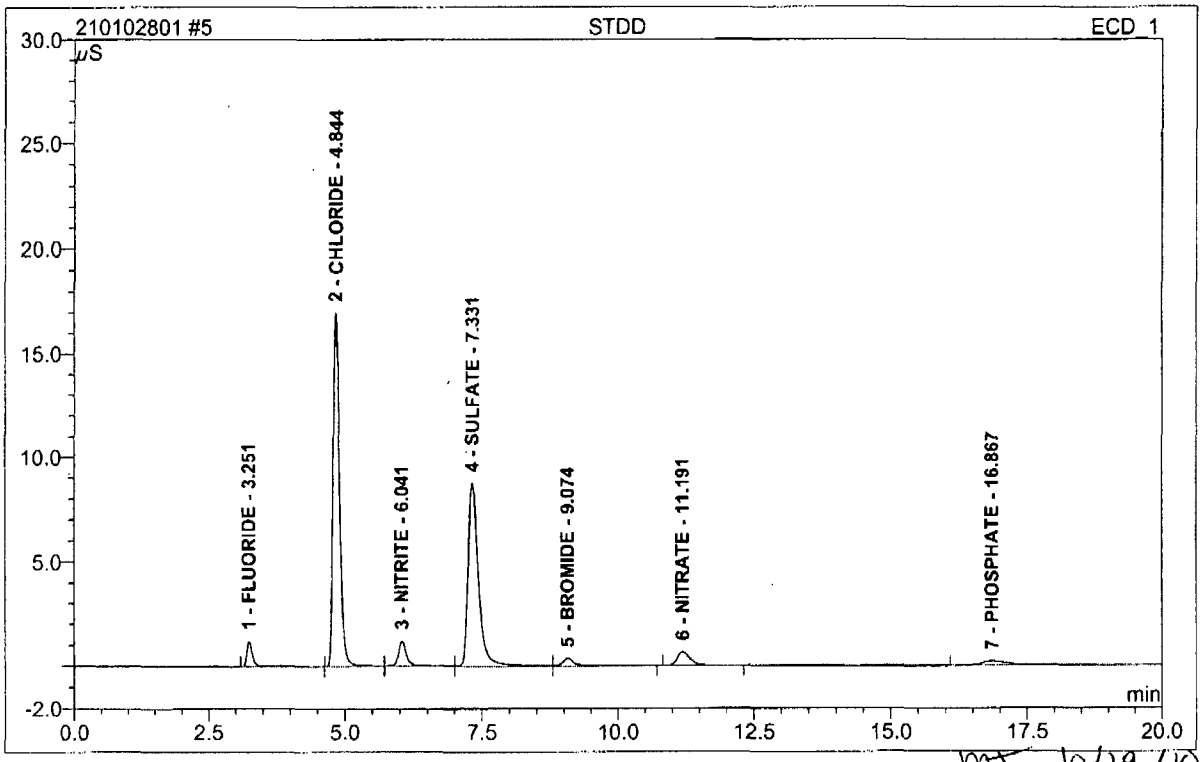
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

5 STDD

Sample Name:	**STDD**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 13:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MT 10/29/10 PII

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	1.189	0.141	2.80	0.351	BMB
2	4.84	CHLORIDE	16.984	2.300	45.90	9.685	BM
3	6.04	NITRITE	1.206	0.219	4.38	0.326	M
4	7.33	SULFATE	8.762	1.943	38.78	10.749	M
5	9.07	BROMIDE	0.359	0.089	1.77	0.750	MB
6	11.19	NITRATE	0.660	0.178	3.56	0.316	BMB
7	16.87	PHOSPHATE	0.199	0.141	2.82	0.459	BMB
Total:			29.358	5.012	100.00	22.637	

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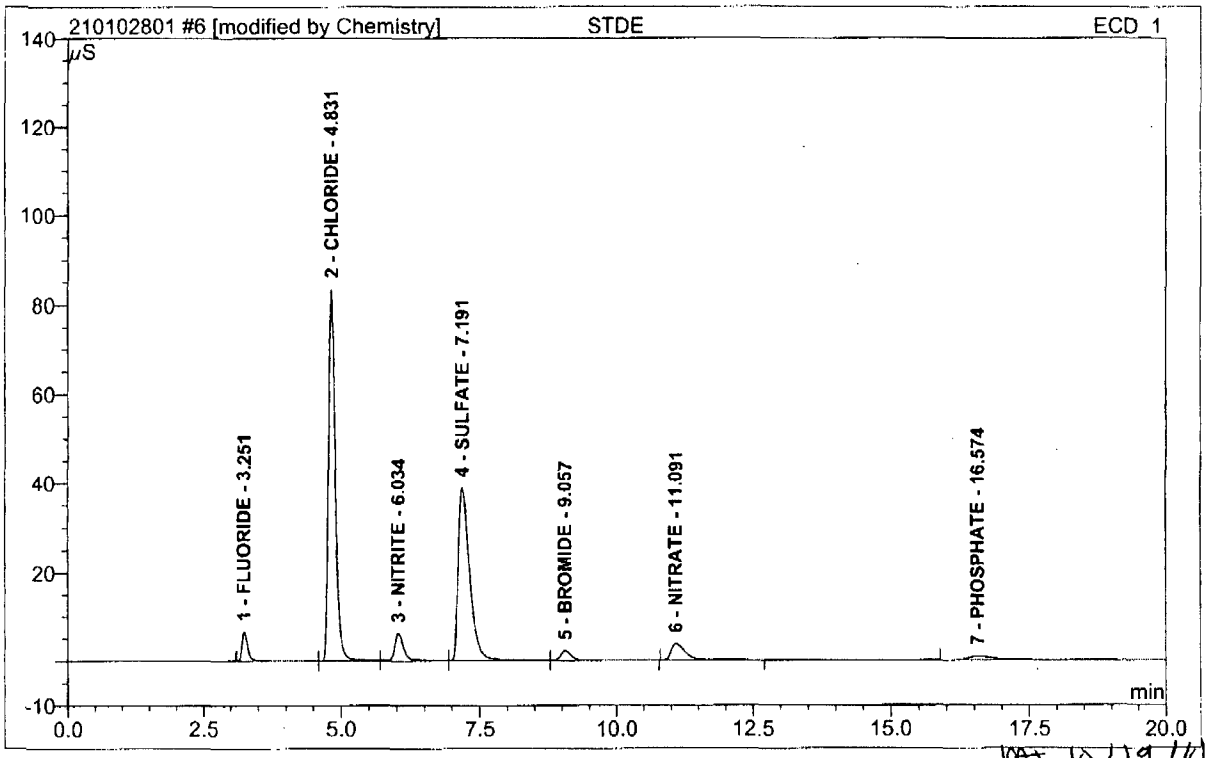
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

6 STDE

Sample Name:	**STDE**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 13:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MAJ 10/29/10 PH

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	6.636	0.800	3.15	1.996	BMb*
2	4.83	CHLORIDE	83.432	11.801	46.50	49.682	bM *
3	6.03	NITRITE	6.245	1.215	4.79	1.807	M *
4	7.19	SULFATE	38.983	9.387	36.99	51.922	M *
5	9.06	BROMIDE	2.180	0.511	2.02	4.335	MB*
6	11.09	NITRATE	3.666	1.071	4.22	1.901	BMB*
7	16.57	PHOSPHATE	0.891	0.593	2.34	1.927	BMB
Total:			142.033	25.378	100.00	113.570	

anions/Integration

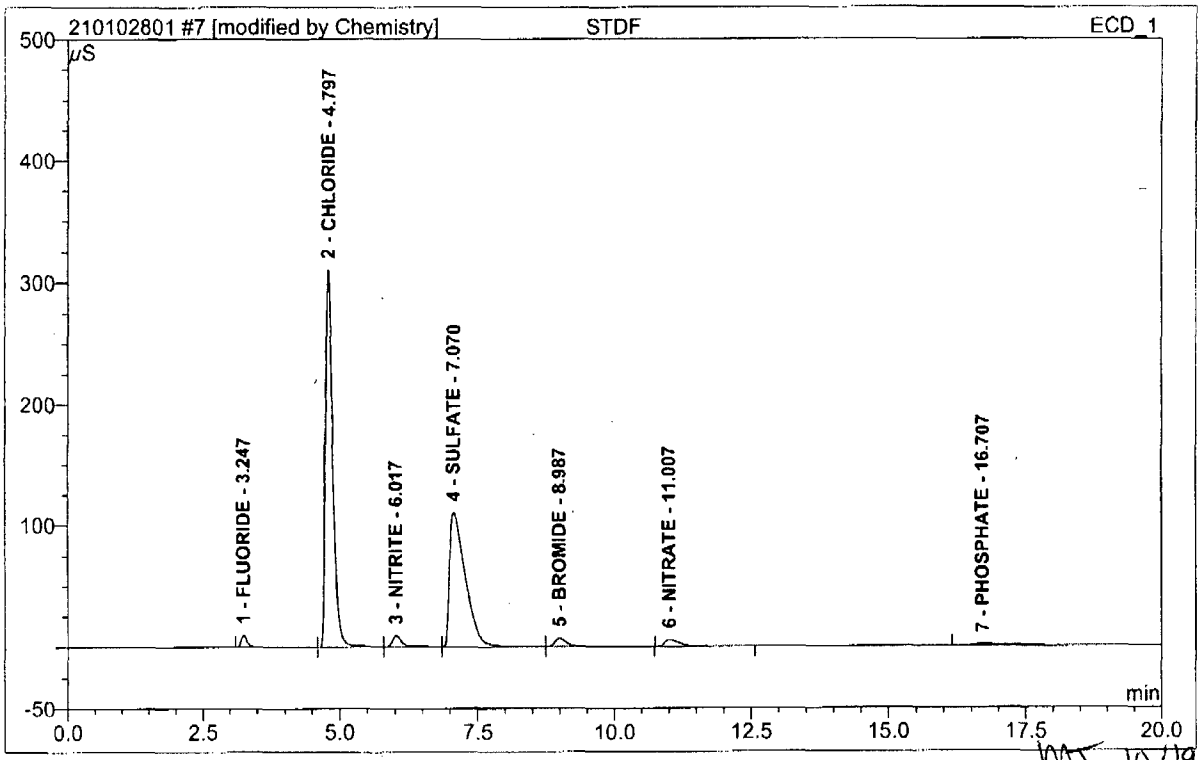
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

7 STDF

Sample Name:	**STDF**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 14:15**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MT 10/29/10 RJT

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	9.741	1.213	1.32	3.026	BMb*
2	4.80	CHLORIDE	310.407	47.808	52.06	201.282	bM *
3	6.02	NITRITE	9.488	2.016	2.19	2.997	M *
4	7.07	SULFATE	110.543	36.535	39.78	202.080	M *
5	8.99	BROMIDE	6.804	1.694	1.84	14.356	MB*
6	11.01	NITRATE	5.415	1.665	1.81	2.955	BMB*
7	16.71	PHOSPHATE	1.335	0.904	0.98	2.939	BMB
Total:			453.732	91.834	100.00	429.635	

14.9 14

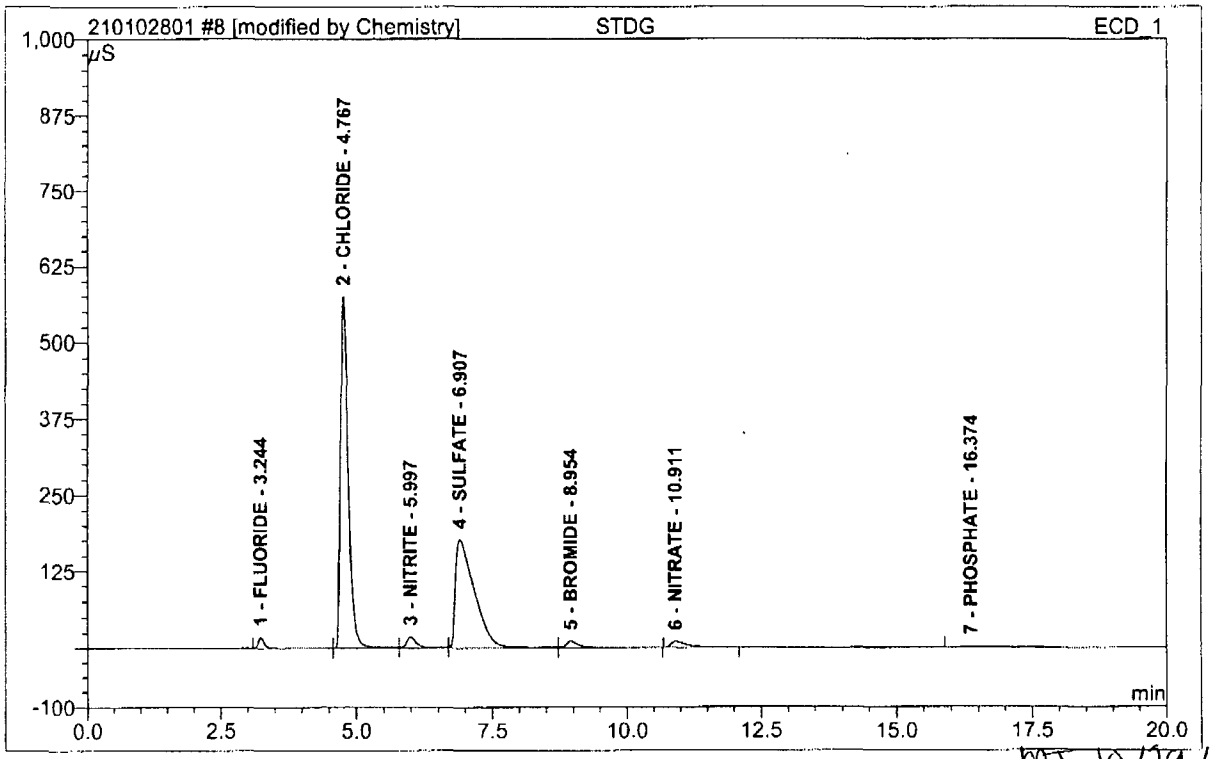
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

8 STDG

Sample Name:	**STDG**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2010 14:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



MT 10/29/10 PM

No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.24	FLUORIDE	18.173	2.401	1.32	5.992	BMb*
2	4.77	CHLORIDE	575.289	94.867	52.20	399.408	bM *
3	6.00	NITRITE	18.308	4.083	2.25	6.071	M *
4	6.91	SULFATE	177.633	72.082	39.67	398.699	M *
5	8.95	BROMIDE	11.147	3.012	1.66	25.531	MB*
6	10.91	NITRATE	9.826	3.416	1.88	6.062	BMB*
7	16.37	PHOSPHATE	2.396	1.861	1.02	6.050	BMB
Total:			812.771	181.722	100.00	847.812	

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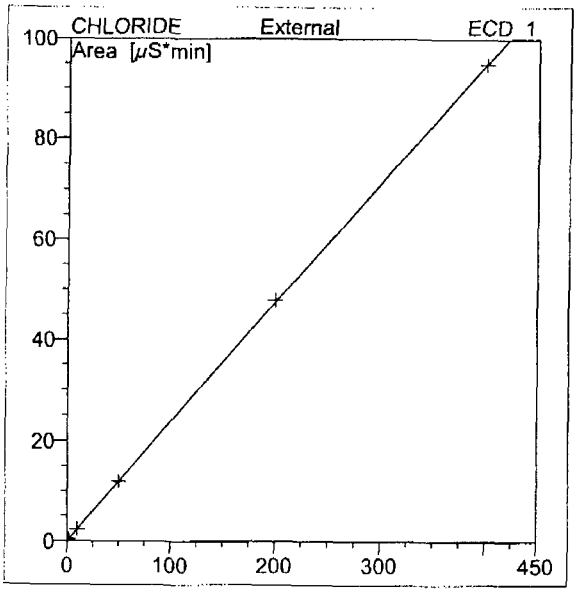
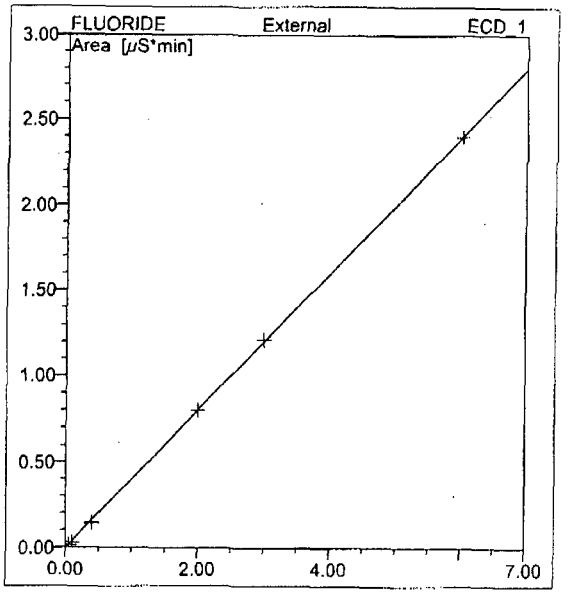
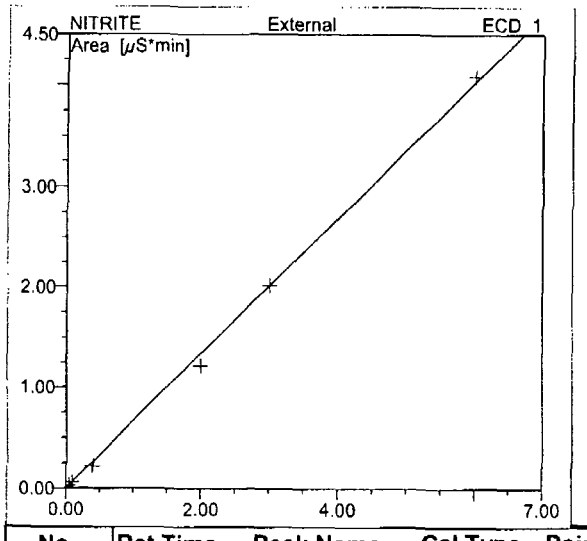
anions/Integration

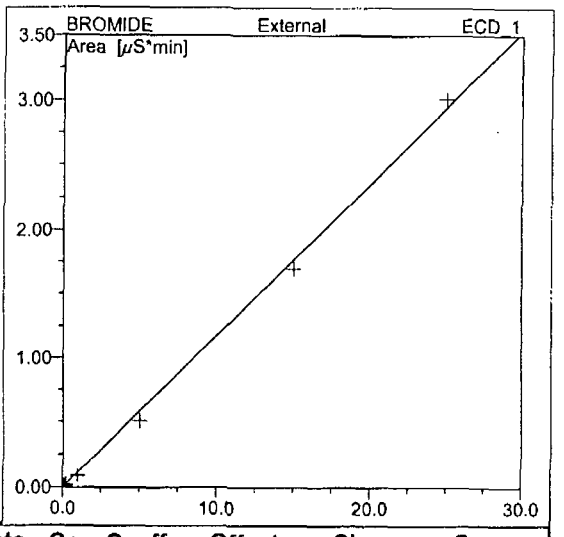
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801









No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.24	FLUORIDE	Lin	6	99.9956	0.0000	0.4007	0.0000
2	4.77	CHLORIDE	Lin	7	99.9992	0.0000	0.2375	0.0000
3	6.00	NITRITE	Lin	7	99.9368	0.0000	0.6725	0.0000
4	6.91	SULFATE	Lin	7	99.9975	0.0000	0.1808	0.0000
5	8.95	BROMIDE	Lin	7	99.9209	0.0000	0.1180	0.0000
6	10.91	NITRATE	Lin	6	99.9809	0.0000	0.5635	0.0000
7	16.37	PHOSPHATE	Lin	7	99.9699	0.0000	0.3075	0.0000
Average:					99.9716	0.0000	0.3544	0.0000

14.9

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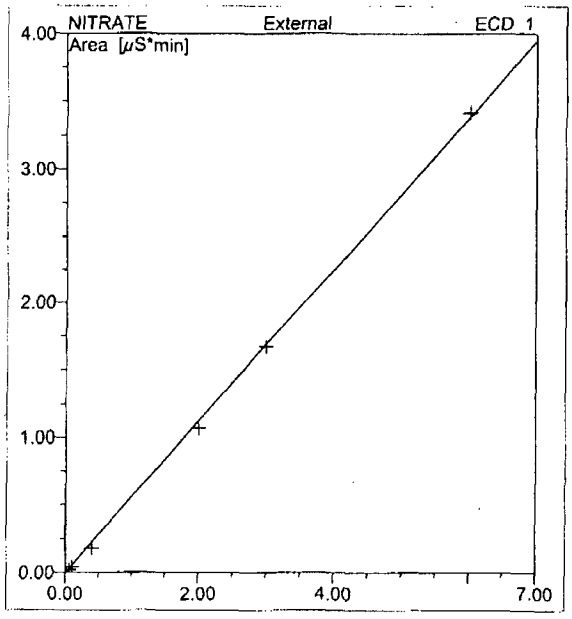
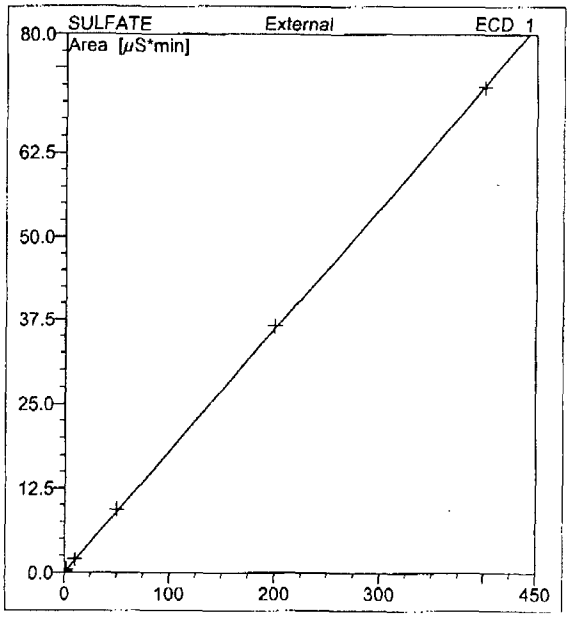
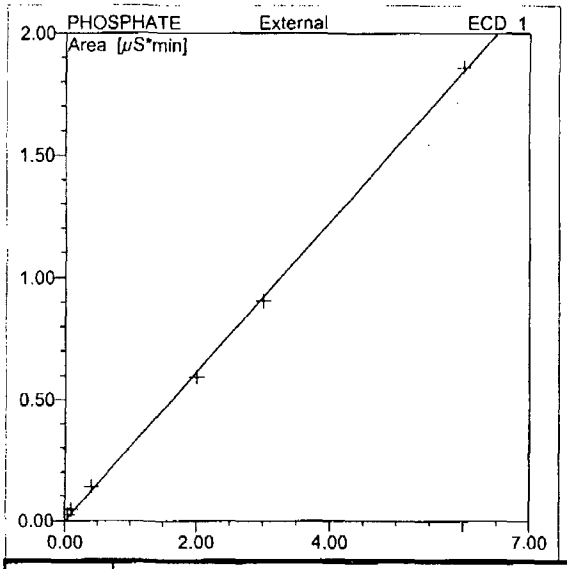
anions/Calibration(Curr.Peak)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801







No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	3.24	FLUORIDE	Lin	6	99.9956	0.0000	0.4007	0.0000
2	4.77	CHLORIDE	Lin	7	99.9992	0.0000	0.2375	0.0000
3	6.00	NITRITE	Lin	7	99.9368	0.0000	0.6725	0.0000
4	6.91	SULFATE	Lin	7	99.9975	0.0000	0.1808	0.0000
5	8.95	BROMIDE	Lin	7	99.9209	0.0000	0.1180	0.0000
6	10.91	NITRATE	Lin	6	99.9809	0.0000	0.5635	0.0000
7	16.37	PHOSPHATE	Lin	7	99.9699	0.0000	0.3075	0.0000
Average:					99.9716	0.0000	0.3544	0.0000

14.9

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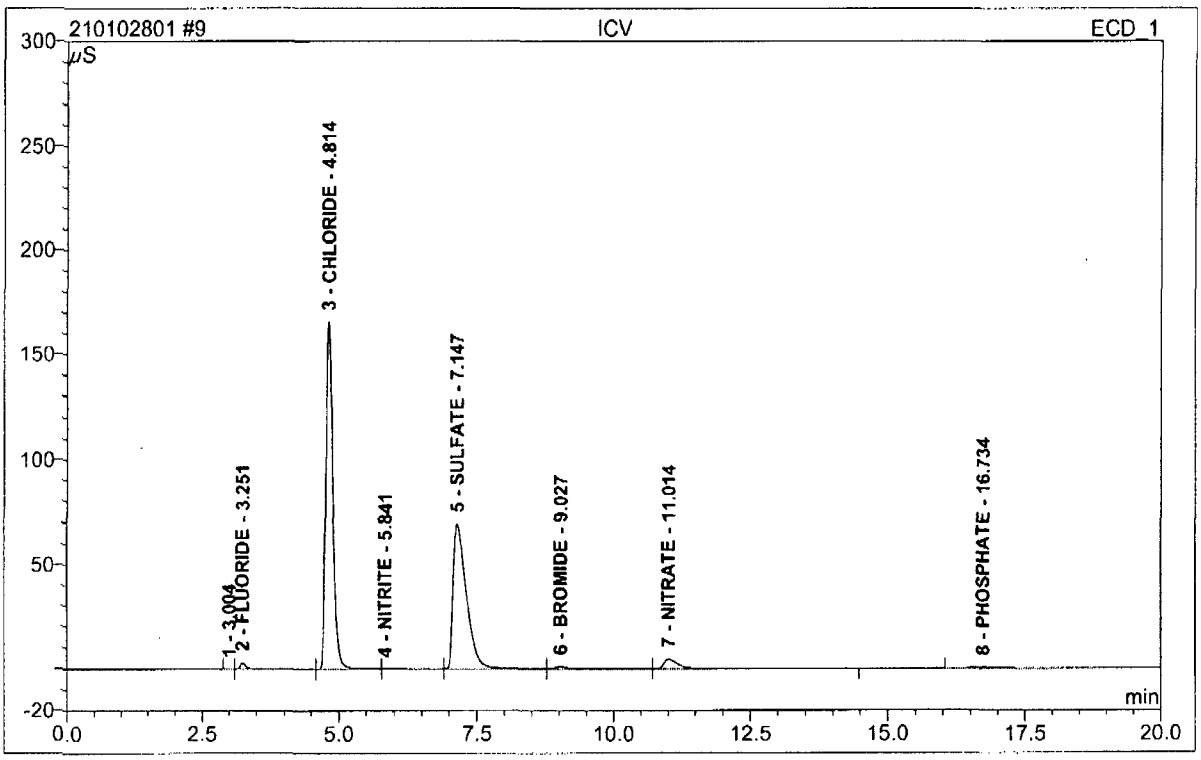
anions/Calibration(Curr.Peak)

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

9 ICV

Sample Name:	**ICV**	*Injection Volume:*	**20.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 10:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount		Type	% Rec
1	3.00	n.a.	0.011	0.001	0.00		n.a.	BMB	
2	3.25	FLUORIDE	2.918	0.371	0.80		0.926	BM	
3	4.81	CHLORIDE	165.963	24.193	52.17	101.55	101.857	M	100.3
4	5.84	NITRITE	0.201	0.155	0.33		0.231	M	
5	7.15	SULFATE	69.472	19.416	41.87	103.17	107.391	M	104.1
6	9.03	BROMIDE	1.219	0.427	0.92		3.619	M	
7	11.01	NITRATE	4.503	1.431	3.09		2.539	MB	
8	16.73	PHOSPHATE	0.571	0.378	0.82		1.229	BMB	
Total:			244.859	46.372	100.00		217.792		

14.9 14

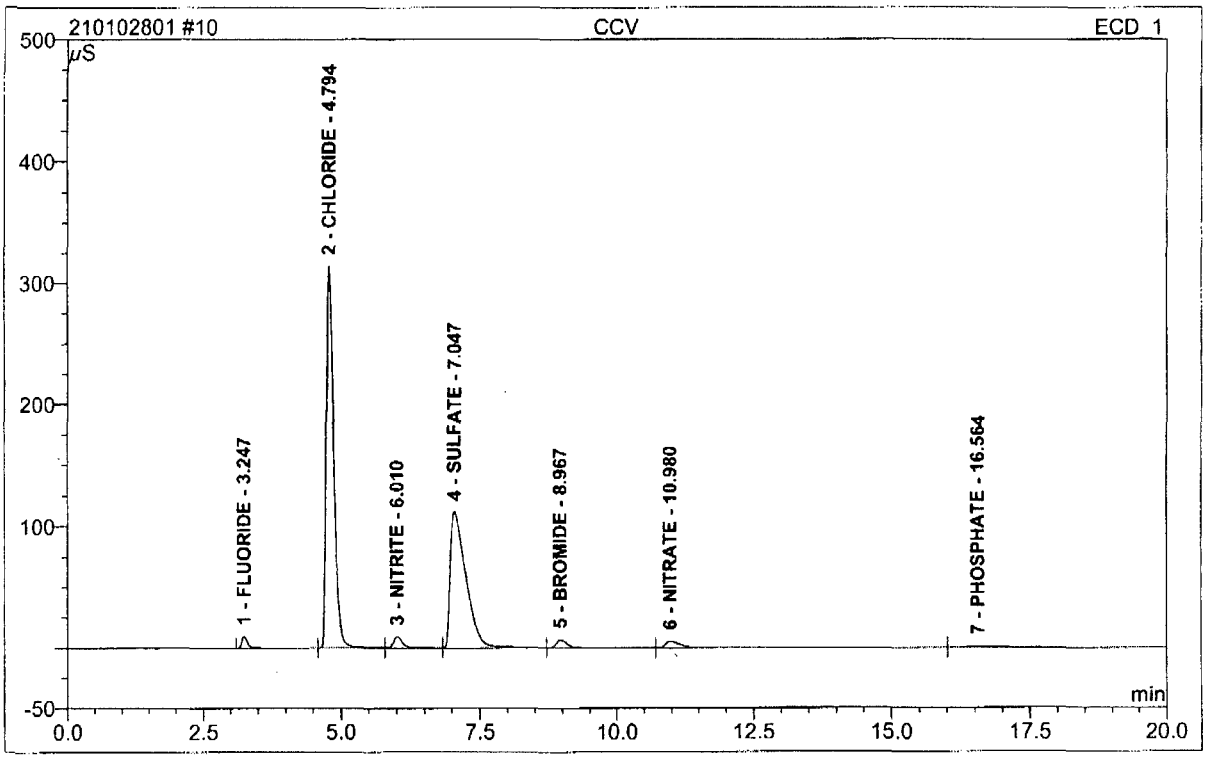
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

10 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 10:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type	%Rec
1	3.25	FLUORIDE	9.781	1.224	1.32	3.053	BM	
2	4.79	CHLORIDE	314.157	47.907	51.58	201.697	M	101.0
3	6.01	NITRITE	9.665	2.074	2.23	3.084	M	
4	7.05	SULFATE	112.076	36.934	39.77	204.290	M	102.0
5	8.97	BROMIDE	7.002	1.922	2.07	16.291	M	
6	10.98	NITRATE	5.579	1.940	2.09	3.442	M	
7	16.56	PHOSPHATE	1.332	0.878	0.94	2.853	MB	
Total:			459.591	92.878	100.00	434.710		

14.9 14

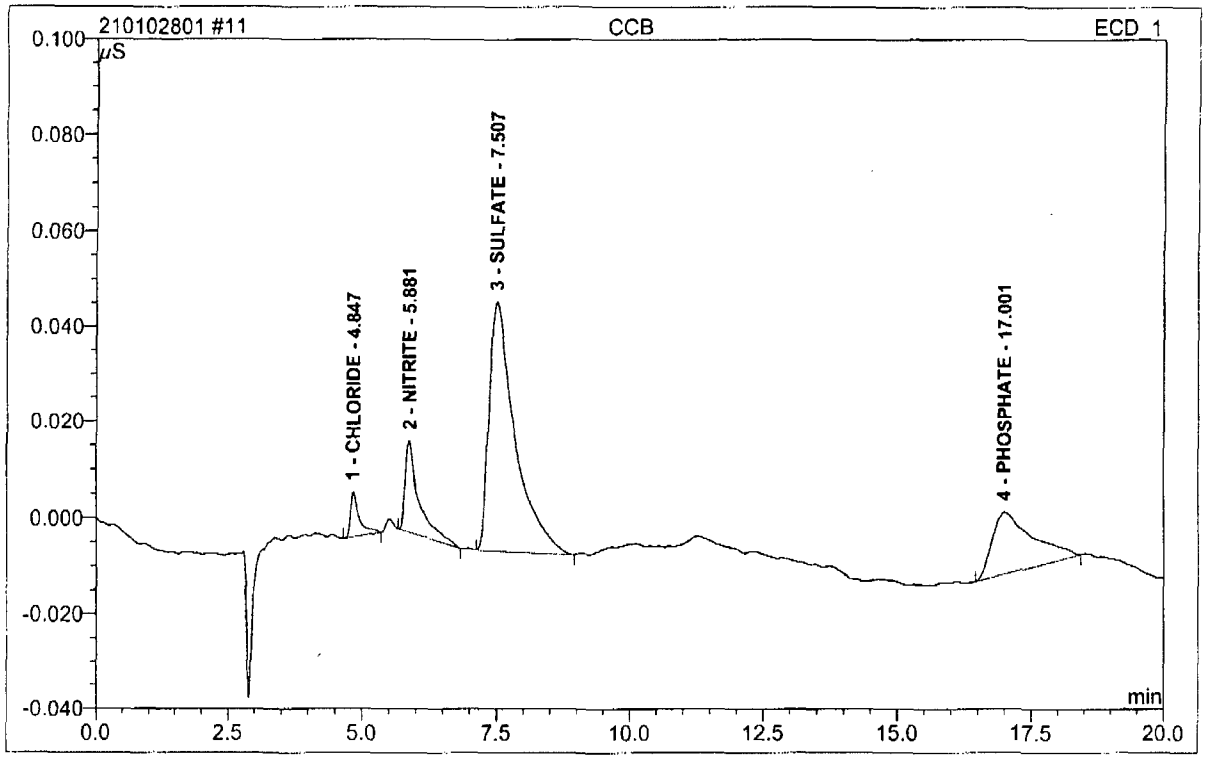
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

11 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 11:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	4.85	CHLORIDE	0.009	0.002	3.66	0.007	BMB
2	5.88	NITRITE	0.019	0.006	11.73	0.008	BMB
3	7.51	SULFATE	0.052	0.029	60.99	0.161	BMB
4	17.00	PHOSPHATE	0.013	0.011	23.63	0.037	BMB
Total:			0.093	0.048	100.00	0.213	

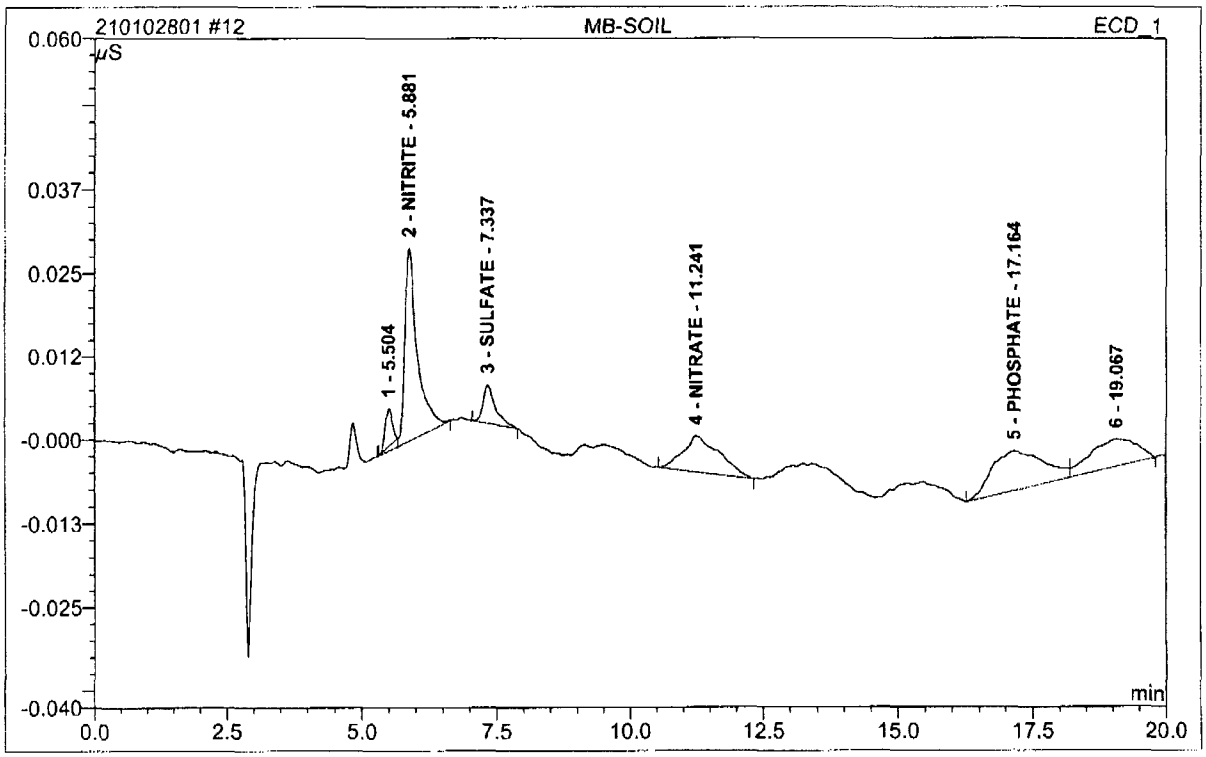
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

12 MB-SOIL

Sample Name:	**MB-SOIL**	*Injection Volume:*	**20.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 11:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	5.50	n.a.	0.006	0.001	3.37	n.a.	Ru
2	5.88	NITRITE	0.029	0.008	31.27	0.012	BMB
3	7.34	SULFATE	0.006	0.002	6.07	0.009	BMB
4	11.24	NITRATE	0.005	0.004	17.12	0.008	BMB
5	17.16	PHOSPHATE	0.006	0.007	25.65	0.021	BM
6	19.07	n.a.	0.004	0.004	16.52	n.a.	MB
Total:			0.056	0.025	100.00	0.049	

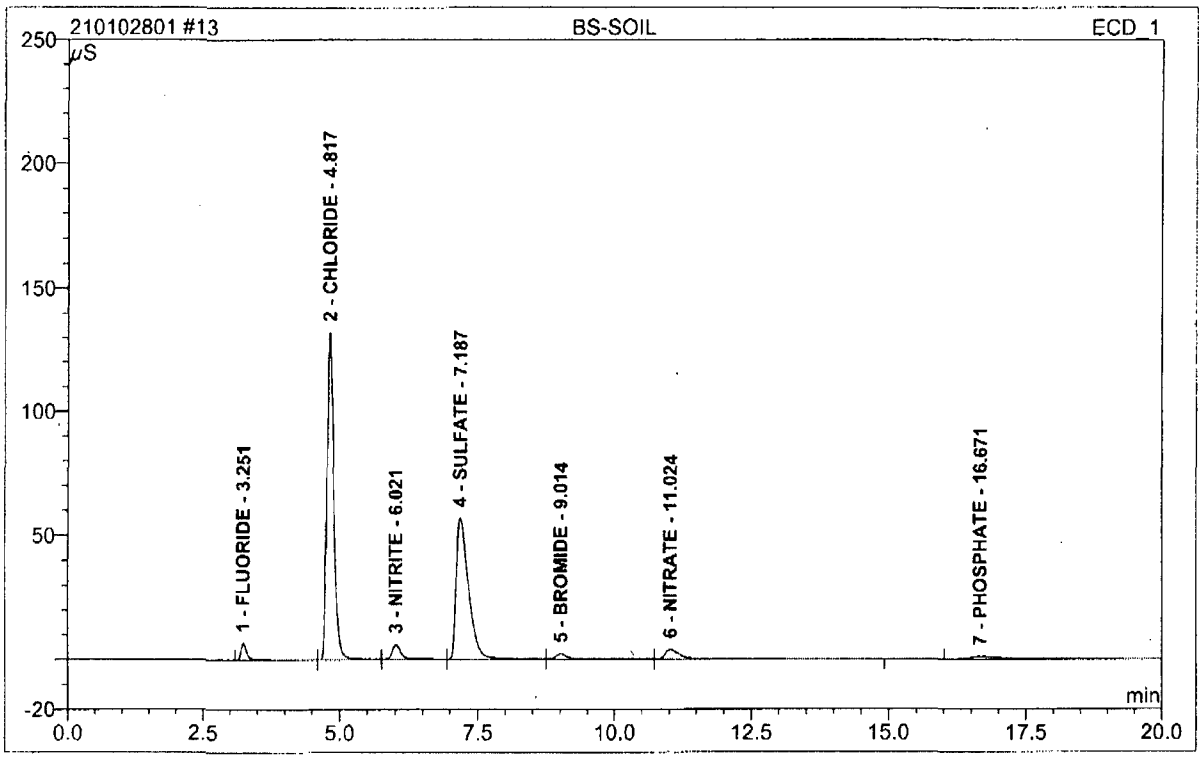
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

13 BS-SOIL

Sample Name:	**BS-SOIL**	*Injection Volume:*	**20.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 11:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type	%Rec
1	3.25	FLUORIDE	6.626	0.809	2.11	2.019	BM	
2	4.82	CHLORIDE	132.252	19.058	49.63	80.240	M	100.3
3	6.02	NITRITE	6.102	1.227	3.20	1.825	M	
4	7.19	SULFATE	56.796	14.882	38.75	82.313	M	102.9
5	9.01	BROMIDE	2.265	0.608	1.58	5.158	M	
6	11.02	NITRATE	3.925	1.215	3.16	2.156	MB	
7	16.67	PHOSPHATE	0.943	0.600	1.56	1.950	BMB	
Total:			208.909	38.399	100.00	175.660		

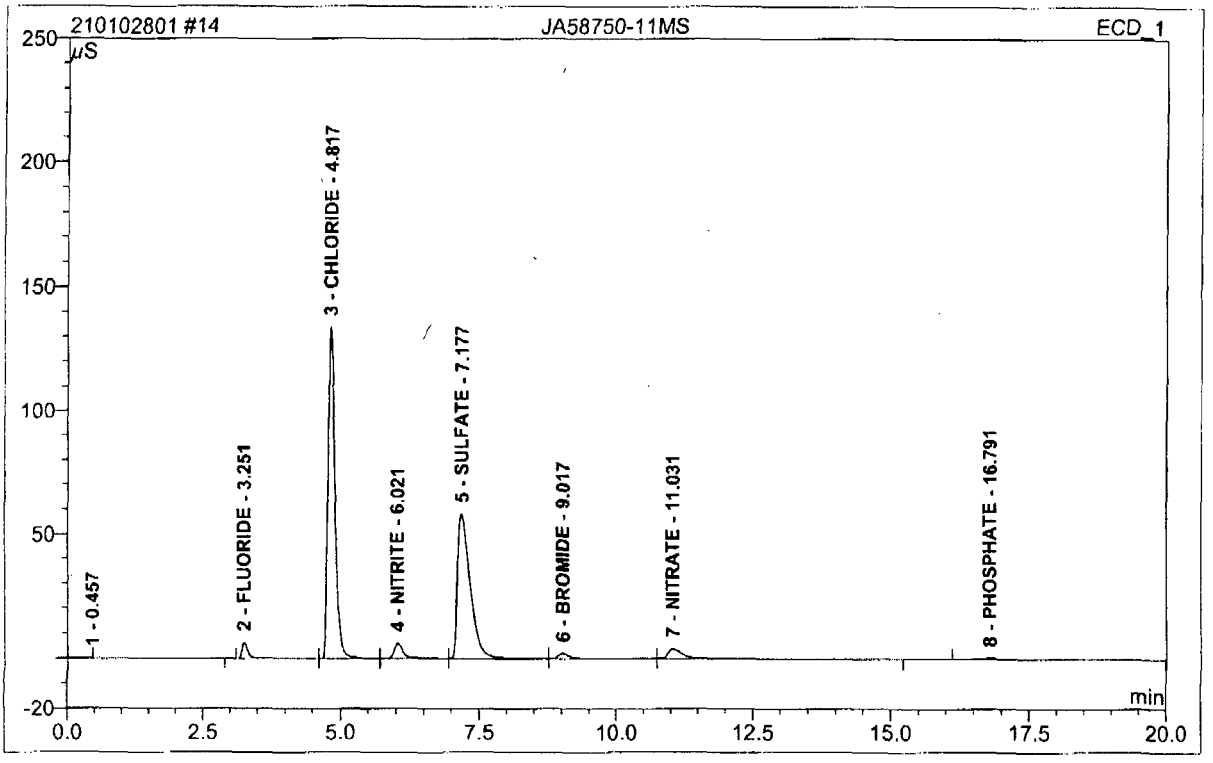
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

14 JA58750-11MS

Sample Name:	**JA58750-11MS**	*Injection Volume:*	**20.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 12:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.46	n.a.	0.000	0.028	0.07	n.a.	BMB
2	3.25	FLUORIDE	6.366	0.789	2.02	1.968	BM
3	4.82	CHLORIDE	133.929	19.241	49.31	81.009	M
4	6.02	NITRITE	6.135	1.275	3.27	1.896	M
5	7.18	SULFATE	58.415	15.516	39.76	85.822	M
6	9.02	BROMIDE	2.287	0.626	1.60	5.304	M
7	11.03	NITRATE	3.929	1.244	3.19	2.207	MB
8	16.79	PHOSPHATE	0.414	0.304	0.78	0.989	BMB
Total:			211.476	39.022	100.00	179.196	

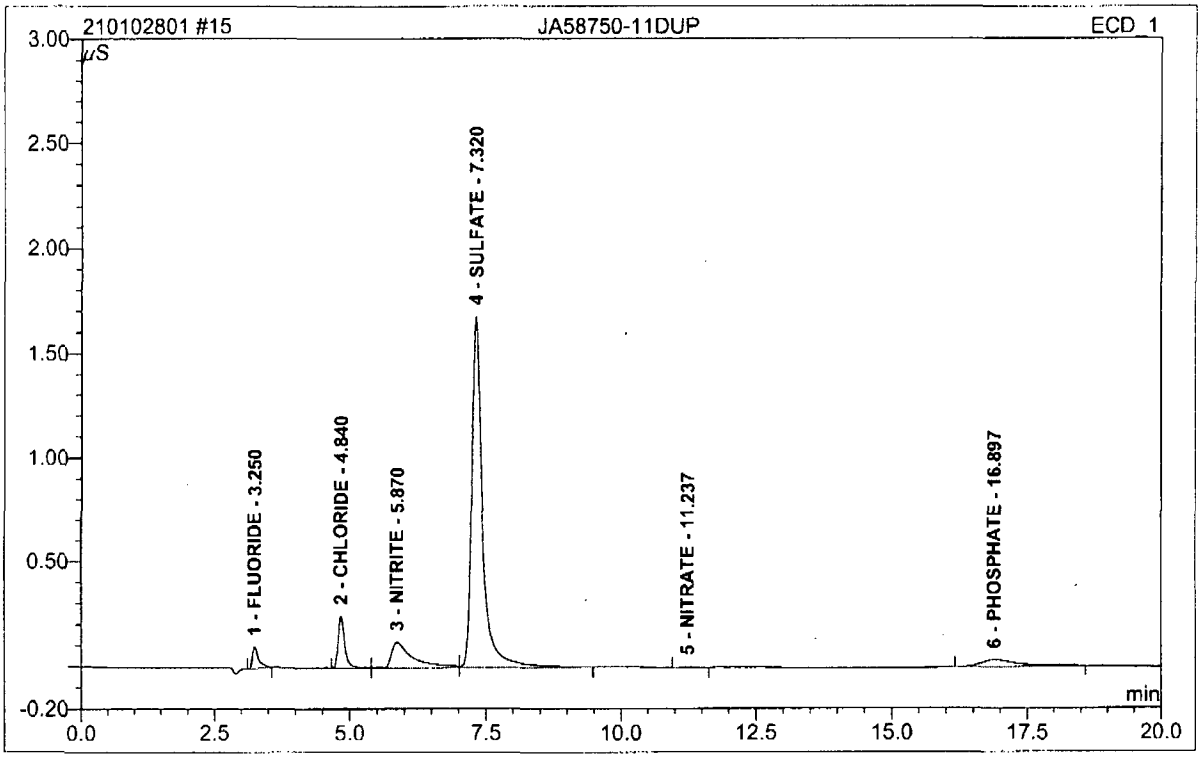
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

15 JA58750-11DUP

Sample Name:	**JA58750-11DUP**	*Injection Volume:*	**20.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 12:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.102	0.014	2.63	0.034	BMB
2	4.84	CHLORIDE	0.248	0.035	6.73	0.147	BM
3	5.87	NITRITE	0.122	0.055	10.53	0.081	M
4	7.32	SULFATE	1.679	0.388	74.90	2.146	MB
5	11.24	NITRATE	0.005	0.001	0.28	0.003	BMB
6	16.90	PHOSPHATE	0.032	0.025	4.92	0.083	BMB
Total:			2.189	0.518	100.00	2.493	

anions/Integration

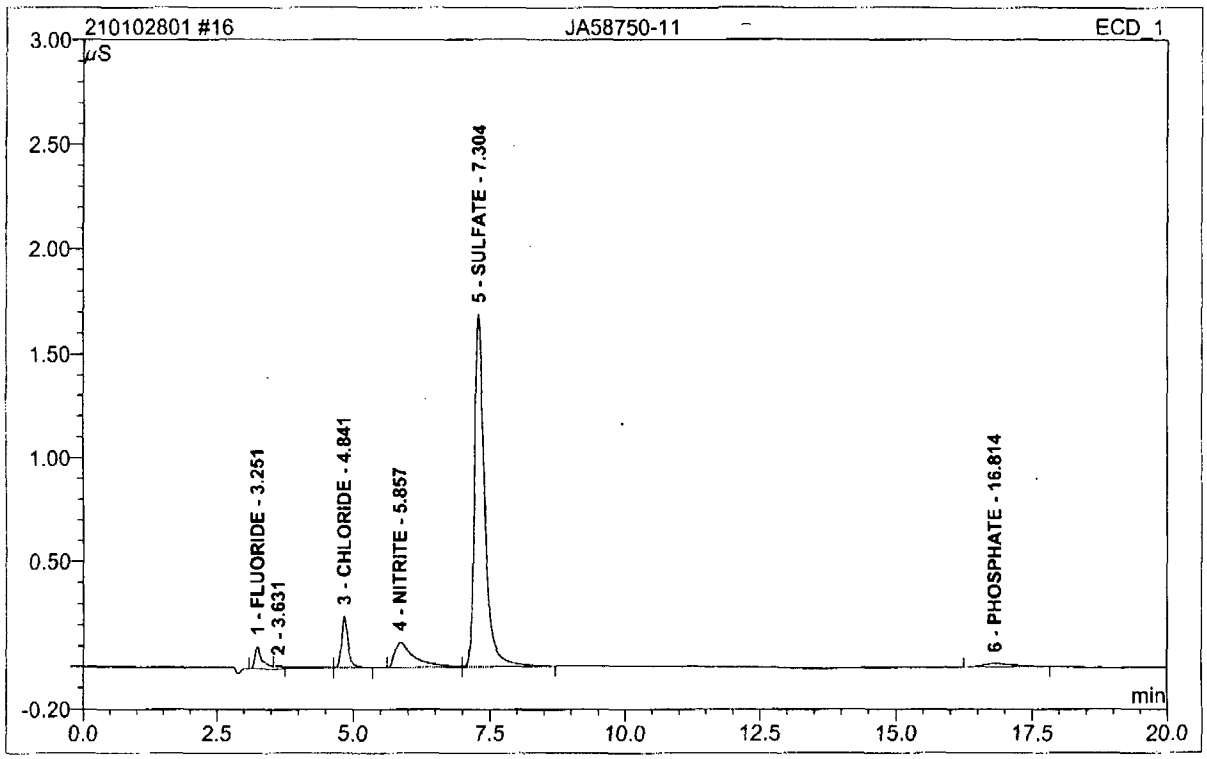
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

16 JA58750-11

Sample Name:	**JA58750-11**	*Injection Volume:*	**20.0**
Vial Number:	**9**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 13:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.106	0.022	4.52	0.054	BM
2	3.63	n.a.	0.003	0.000	0.07	n.a.	Rd
3	4.84	CHLORIDE	0.245	0.034	7.08	0.143	MB
4	5.86	NITRITE	0.121	0.051	10.61	0.076	BM
5	7.30	SULFATE	1.689	0.363	75.66	2.008	MB
6	16.81	PHOSPHATE	0.016	0.010	2.06	0.032	BMB
Total:			2.180	0.480	100.00	2.312	

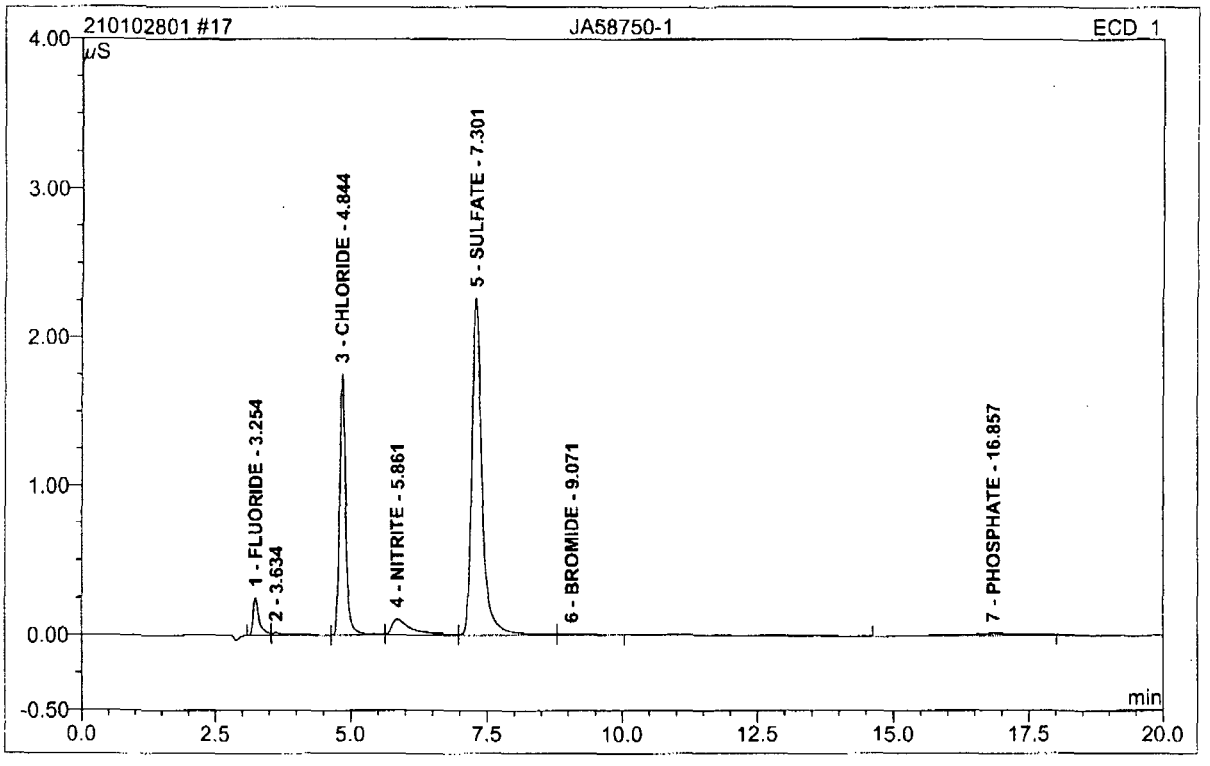
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

17 JA58750-1

Sample Name:	**JA58750-1**	*Injection Volume:*	**20.0**
Vial Number:	**10**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 13:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.250	0.033	4.02	0.083	BM
2	3.63	n.a.	0.019	0.005	0.56	n.a.	MB
3	4.84	CHLORIDE	1.754	0.232	28.08	0.978	BM
4	5.86	NITRITE	0.105	0.045	5.45	0.067	M
5	7.30	SULFATE	2.265	0.495	59.79	2.737	M
6	9.07	BROMIDE	0.005	0.003	0.38	0.027	MB
7	16.86	PHOSPHATE	0.013	0.014	1.72	0.046	BMB
Total:			4.411	0.827	100.00	3.938	

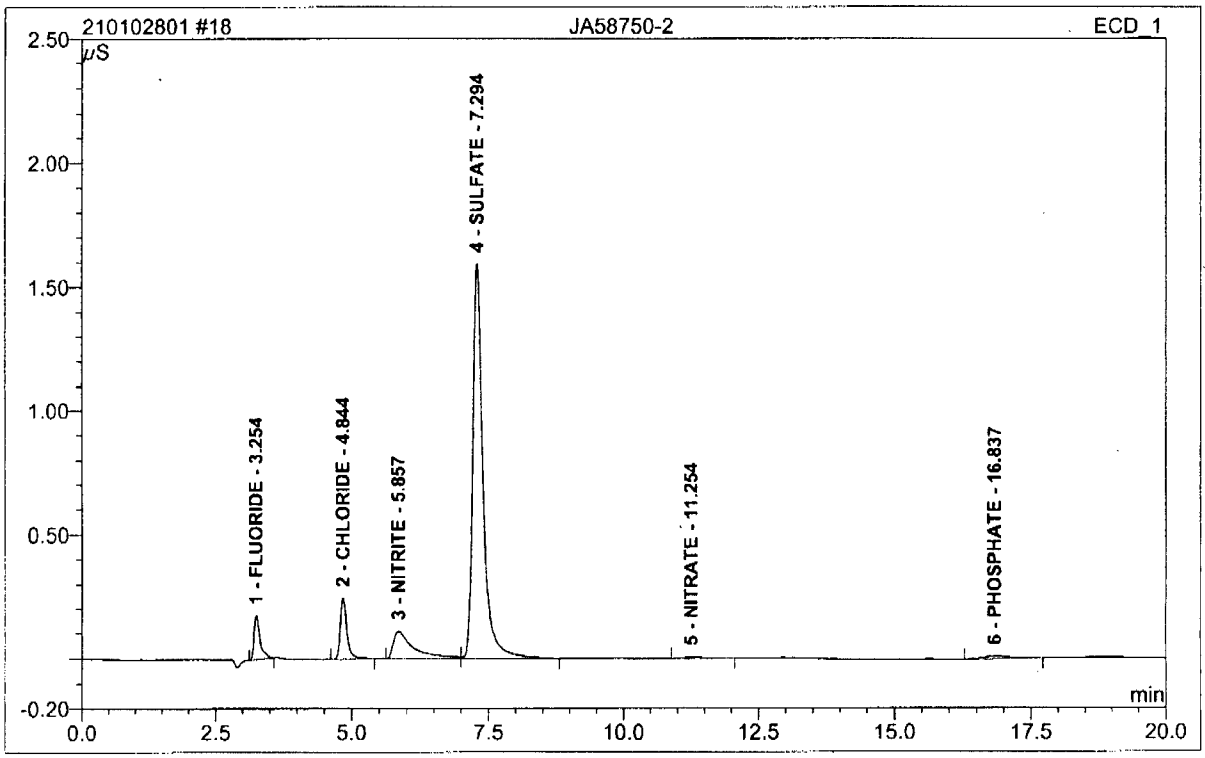
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

18 JA58750-2

Sample Name:	**JA58750-2**	*Injection Volume:*	**20.0**
Vial Number:	**11**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 13:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.175	0.022	4.86	0.056	BMB
2	4.84	CHLORIDE	0.246	0.034	7.45	0.145	BMB
3	5.86	NITRITE	0.109	0.047	10.10	0.069	BM
4	7.29	SULFATE	1.594	0.350	75.79	1.935	MB
5	11.25	NITRATE	0.005	0.002	0.46	0.004	BMB
6	16.84	PHOSPHATE	0.010	0.006	1.34	0.020	BMB
Total:			2.140	0.462	100.00	2.229	

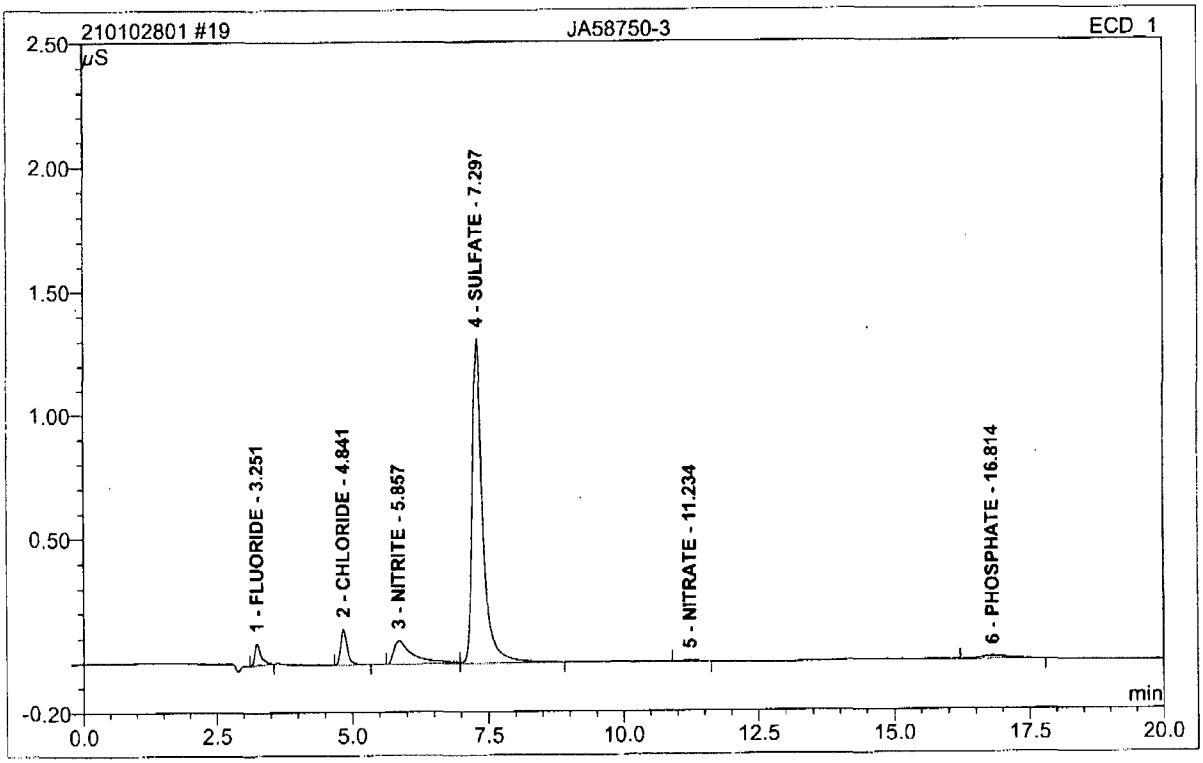
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

19 JA58750-3

Sample Name:	**JA58750-3**	*Injection Volume:*	**20.0**
Vial Number:	**12**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 14:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.087	0.012	3.13	0.029	BMB
2	4.84	CHLORIDE	0.144	0.020	5.37	0.084	BMB
3	5.86	NITRITE	0.092	0.038	10.22	0.056	BM
4	7.30	SULFATE	1.308	0.291	78.71	1.609	MB
5	11.23	NITRATE	0.006	0.002	0.47	0.003	BMB
6	16.81	PHOSPHATE	0.012	0.008	2.10	0.025	BMB
Total:			1.649	0.370	100.00	1.806	

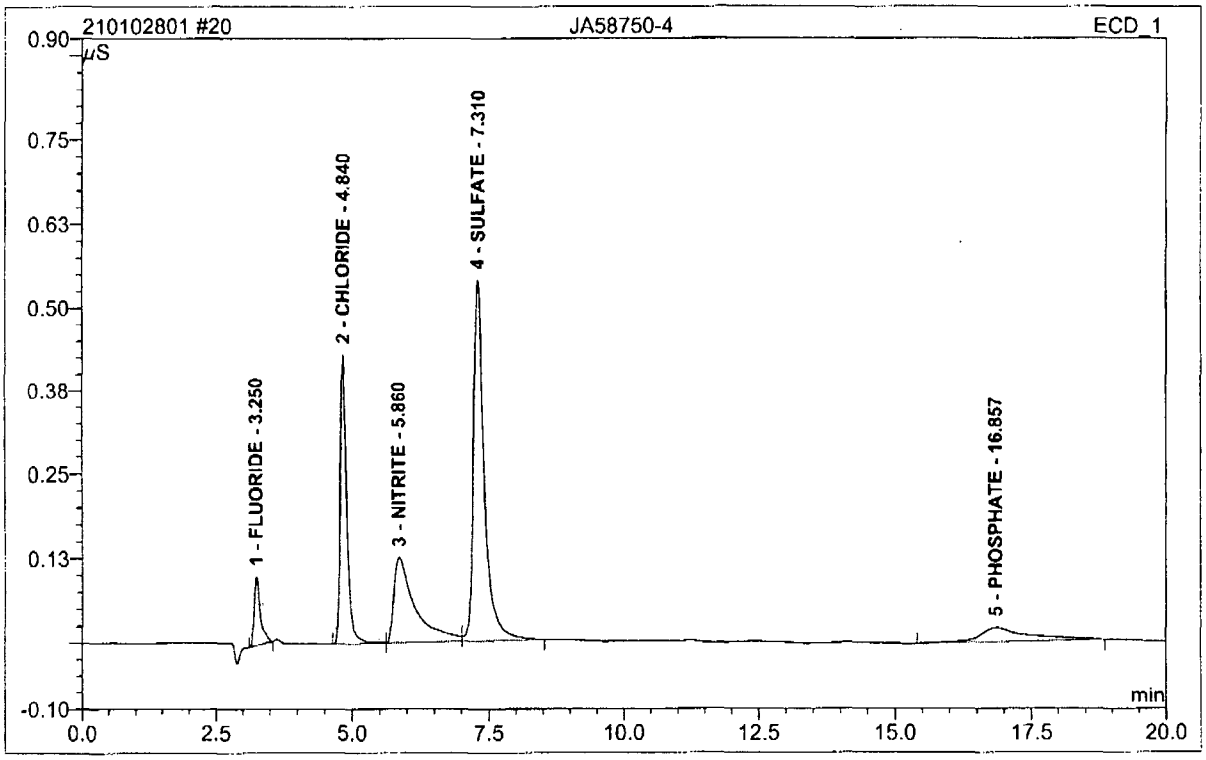
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

20 JA58750-4

Sample Name:	**JA58750-4**	*Injection Volume:*	**20.0**
Vial Number:	**13**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 14:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.101	0.013	4.88	0.033	BMB
2	4.84	CHLORIDE	0.431	0.059	21.51	0.249	BM
3	5.86	NITRITE	0.126	0.057	20.55	0.084	M
4	7.31	SULFATE	0.539	0.124	45.17	0.687	MB
5	16.86	PHOSPHATE	0.021	0.022	7.89	0.071	BMB
Total:			1.217	0.275	100.00	1.125	

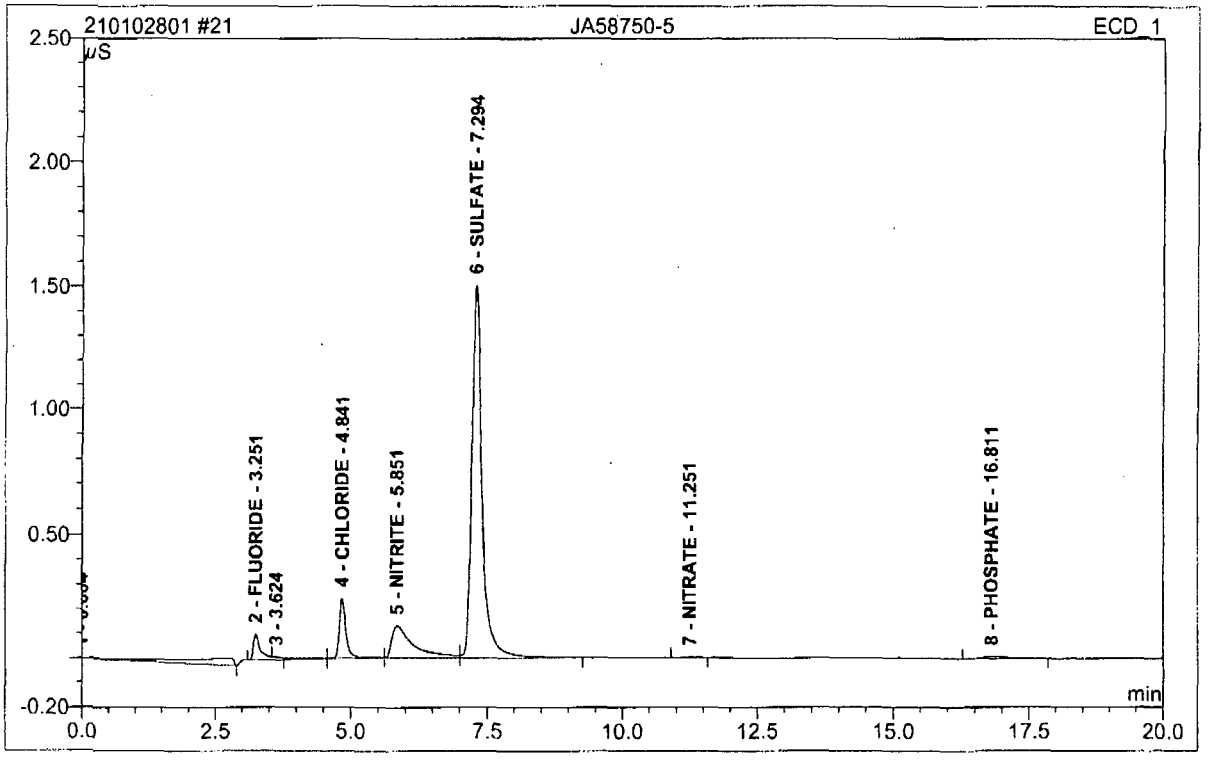
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

21 JA58750-5

Sample Name:	**JA58750-5**	*Injection Volume:*	**20.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 15:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	0.00	n.a.	0.000	0.034	6.98	n.a.	BMB
2	3.25	FLUORIDE	0.105	0.021	4.23	0.052	BM
3	3.62	n.a.	0.004	0.000	0.08	n.a.	Rd
4	4.84	CHLORIDE	0.244	0.035	7.01	0.145	MB
5	5.85	NITRITE	0.133	0.062	12.54	0.092	bM
6	7.29	SULFATE	1.504	0.334	67.69	1.846	MB
7	11.25	NITRATE	0.004	0.001	0.25	0.002	BMB
8	16.81	PHOSPHATE	0.009	0.006	1.23	0.020	BMB
Total:			2.004	0.493	100.00	2.157	

anions/Integration

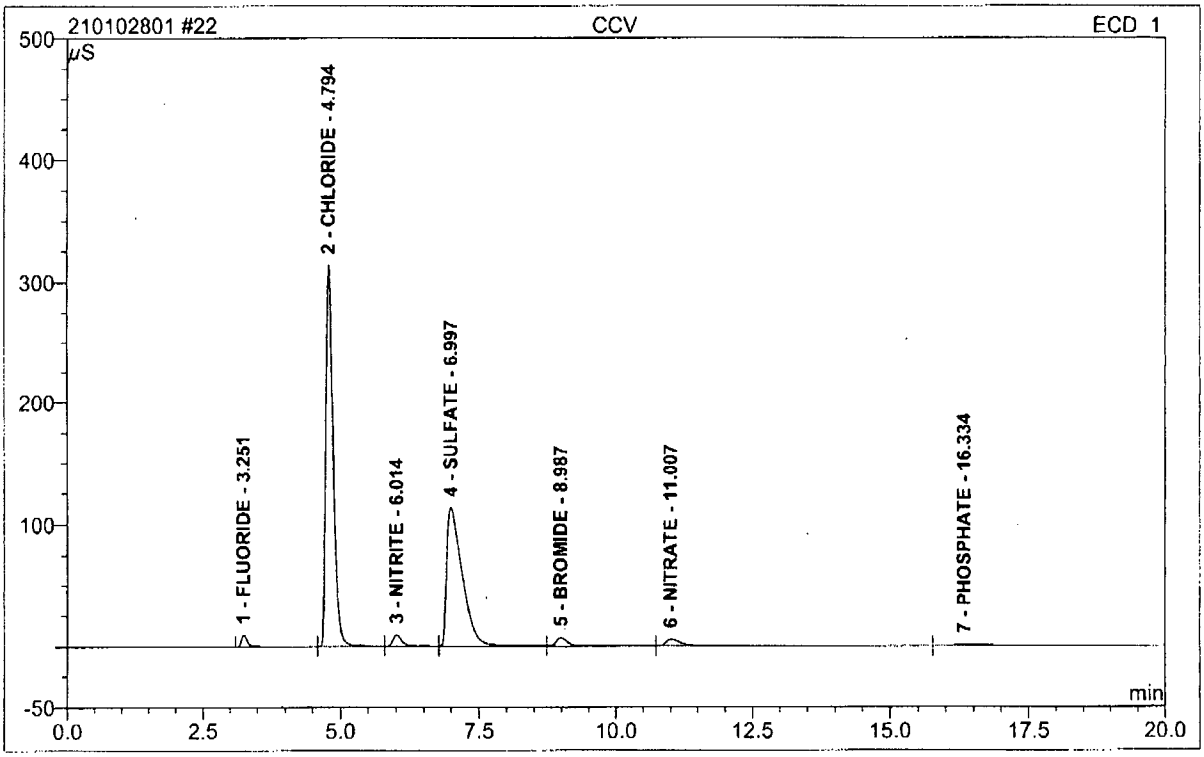
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

22 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 15:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type	%Rec
1	3.25	FLUORIDE	9.749	1.235	1.33	3.083	BM	
2	4.79	CHLORIDE	313.714	47.943	51.49	201.850	M	101.0
3	6.01	NITRITE	9.588	2.026	2.18	3.013	M	
4	7.00	SULFATE	113.298	37.271	40.03	206.154	M	103.0
5	8.99	BROMIDE	6.919	1.852	1.99	15.700	M	
6	11.01	NITRATE	5.515	1.898	2.04	3.368	M	
7	16.33	PHOSPHATE	1.332	0.882	0.95	2.868	MB	
Total:			460.116	93.108	100.00	436.034		

anions/Integration

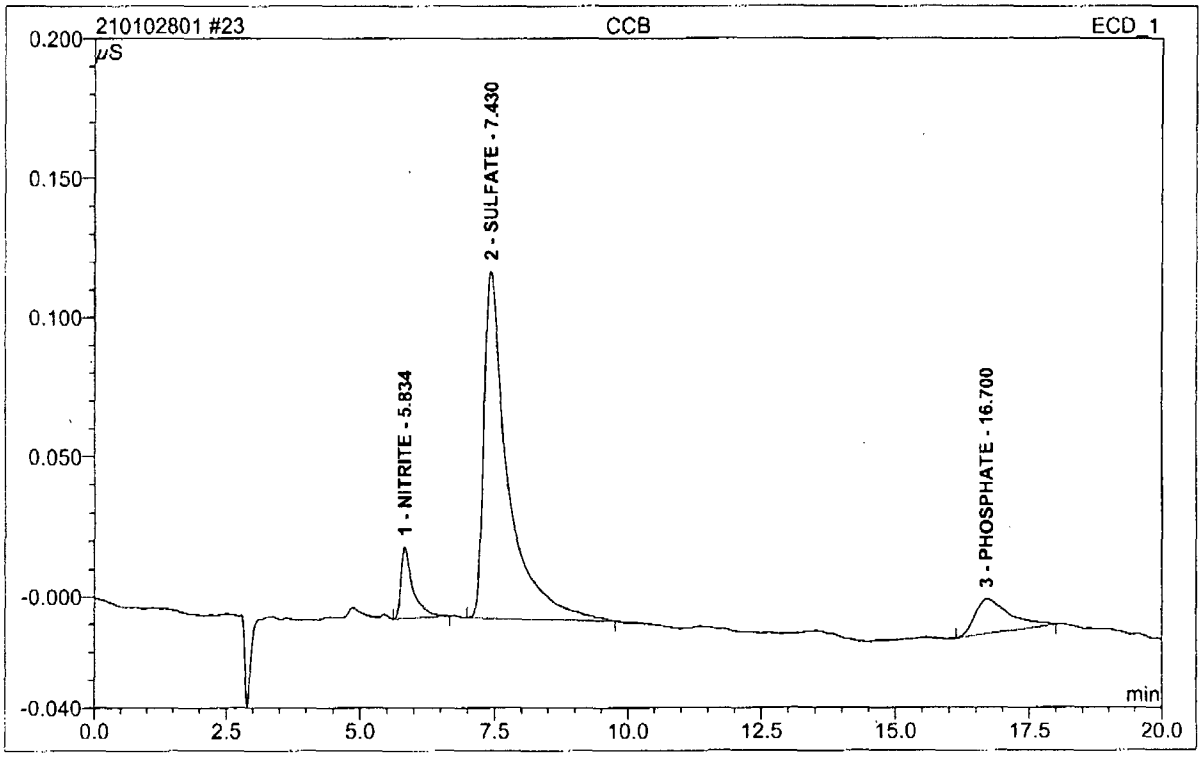
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

23 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 15:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	5.83	NITRITE	0.026	0.007	8.23	0.010	BMB
2	7.43	SULFATE	0.124	0.064	79.88	0.356	BMB
3	16.70	PHOSPHATE	0.013	0.010	11.88	0.031	BMB
Total:			0.163	0.080	100.00	0.397	

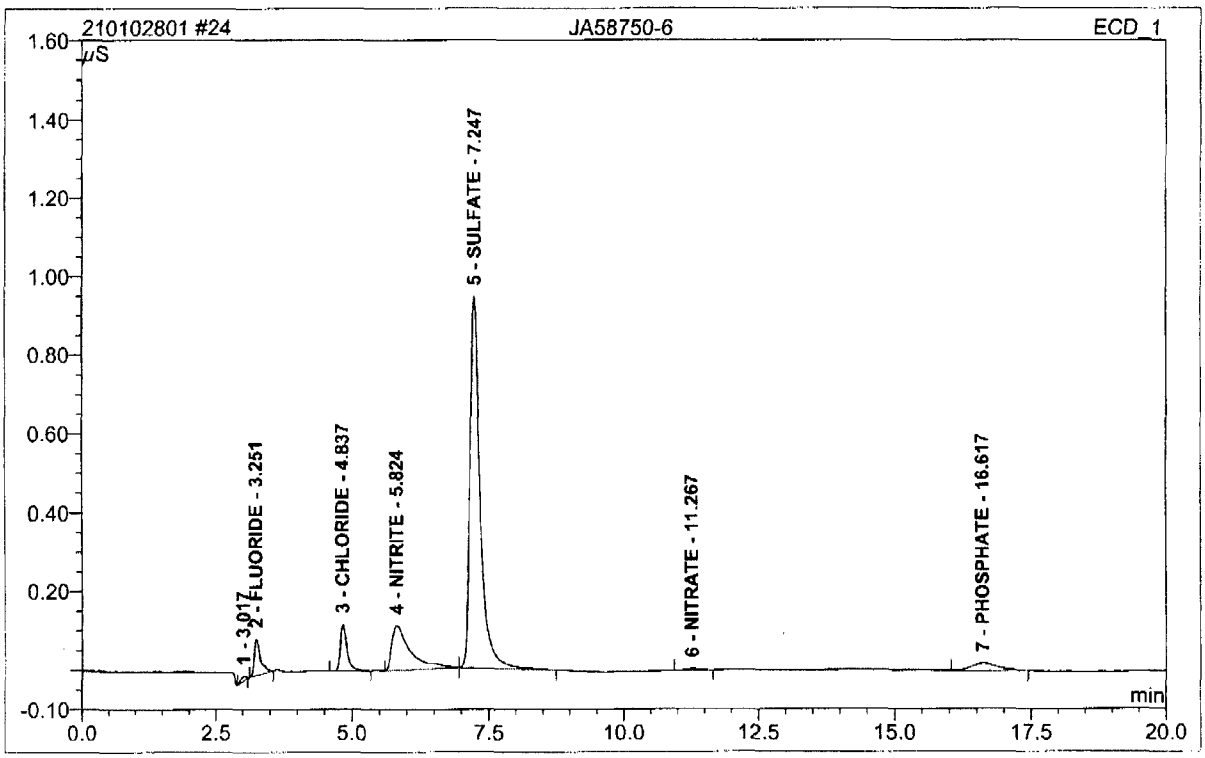
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

24 JA58750-6

Sample Name:	**JA58750-6**	*Injection Volume:*	**20.0**
Vial Number:	**17**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 16:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	n.a.	0.011	0.001	0.47	n.a.	BMB
2	3.25	FLUORIDE	0.091	0.012	4.25	0.031	BMB
3	4.84	CHLORIDE	0.117	0.016	5.70	0.069	BMB
4	5.82	NITRITE	0.113	0.044	15.27	0.066	BMB
5	7.25	SULFATE	0.944	0.204	70.44	1.127	bMB
6	11.27	NITRATE	0.004	0.001	0.38	0.002	BMB
7	16.62	PHOSPHATE	0.018	0.010	3.49	0.033	BMB
Total:			1.298	0.289	100.00	1.327	

anions/Integration

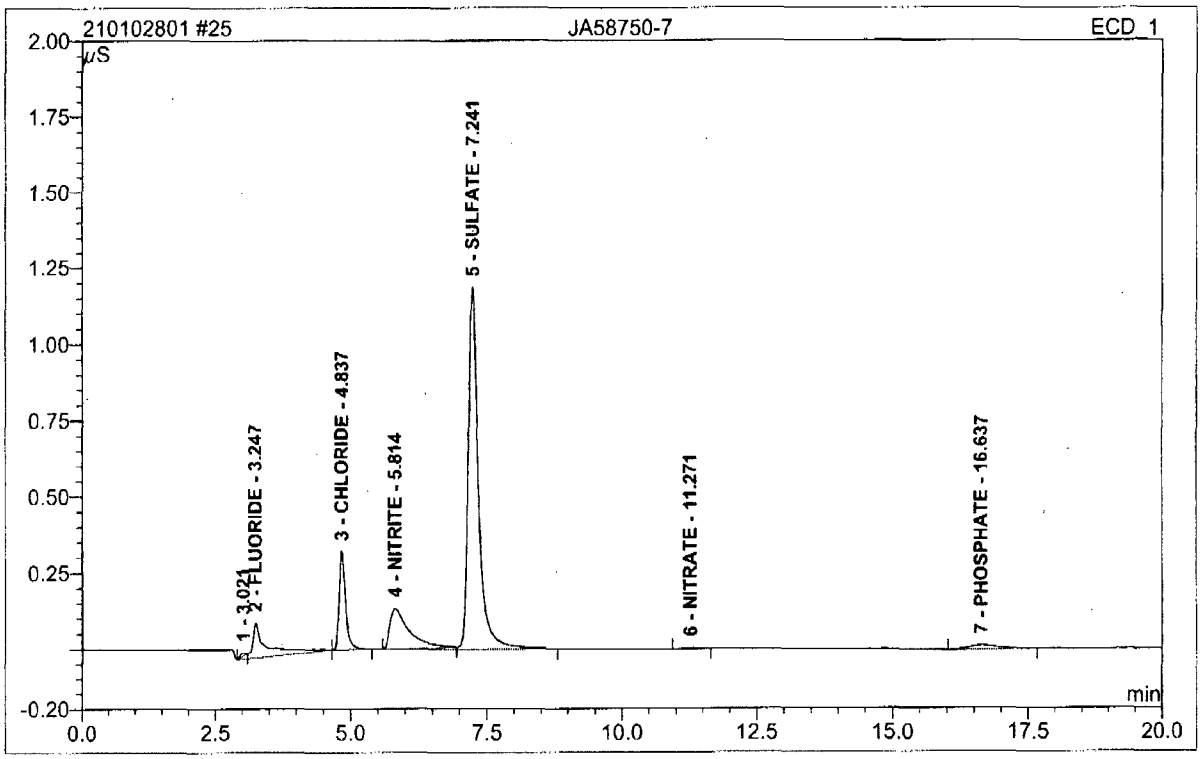
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

25 JA58750-7

Sample Name:	**JA58750-7**	*Injection Volume:*	**20.0**
Vial Number:	**18**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 16:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	n.a.	0.010	0.001	0.32	n.a.	Ru
2	3.25	FLUORIDE	0.113	0.036	8.68	0.089	BMB
3	4.84	CHLORIDE	0.323	0.044	10.84	0.187	bMB
4	5.81	NITRITE	0.133	0.054	13.18	0.080	Ru
5	7.24	SULFATE	1.185	0.265	64.66	1.464	BMB
6	11.27	NITRATE	0.003	0.001	0.26	0.002	BMB
7	16.64	PHOSPHATE	0.013	0.009	2.08	0.028	BMB
Total:			1.780	0.409	100.00	1.849	

anions/Integration

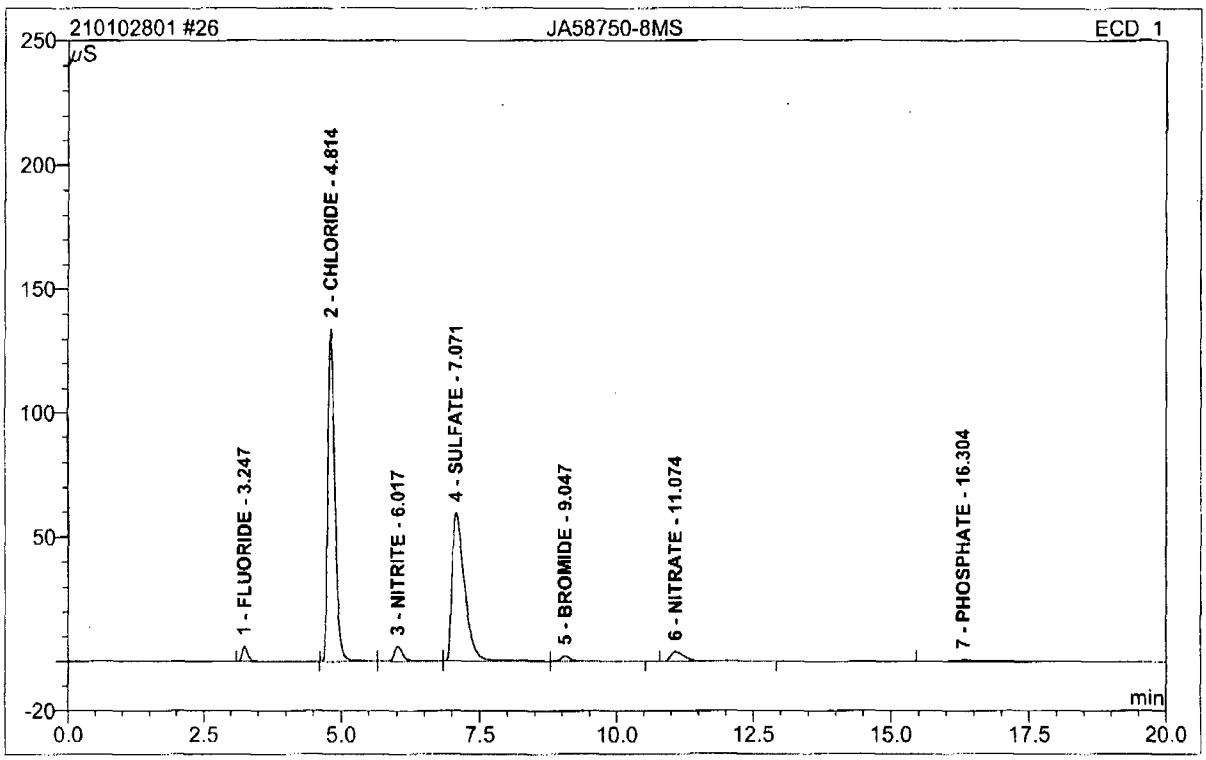
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

26 JA58750-8MS

Sample Name:	**JA58750-8MS**	*Injection Volume:*	**20.0**
Vial Number:	**19**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 16:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	5.947	0.729	1.88	1.818	BMB
2	4.81	CHLORIDE	134.095	19.183	49.61	80.765	BMb
3	6.02	NITRITE	5.967	1.068	2.76	1.588	bMB
4	7.07	SULFATE	59.567	15.640	40.45	86.508	BM
5	9.05	BROMIDE	2.193	0.487	1.26	4.130	MB
6	11.07	NITRATE	3.864	1.138	2.94	2.020	BMB
7	16.30	PHOSPHATE	0.616	0.424	1.10	1.377	BMB
Total:			212.251	38.669	100.00	178.206	

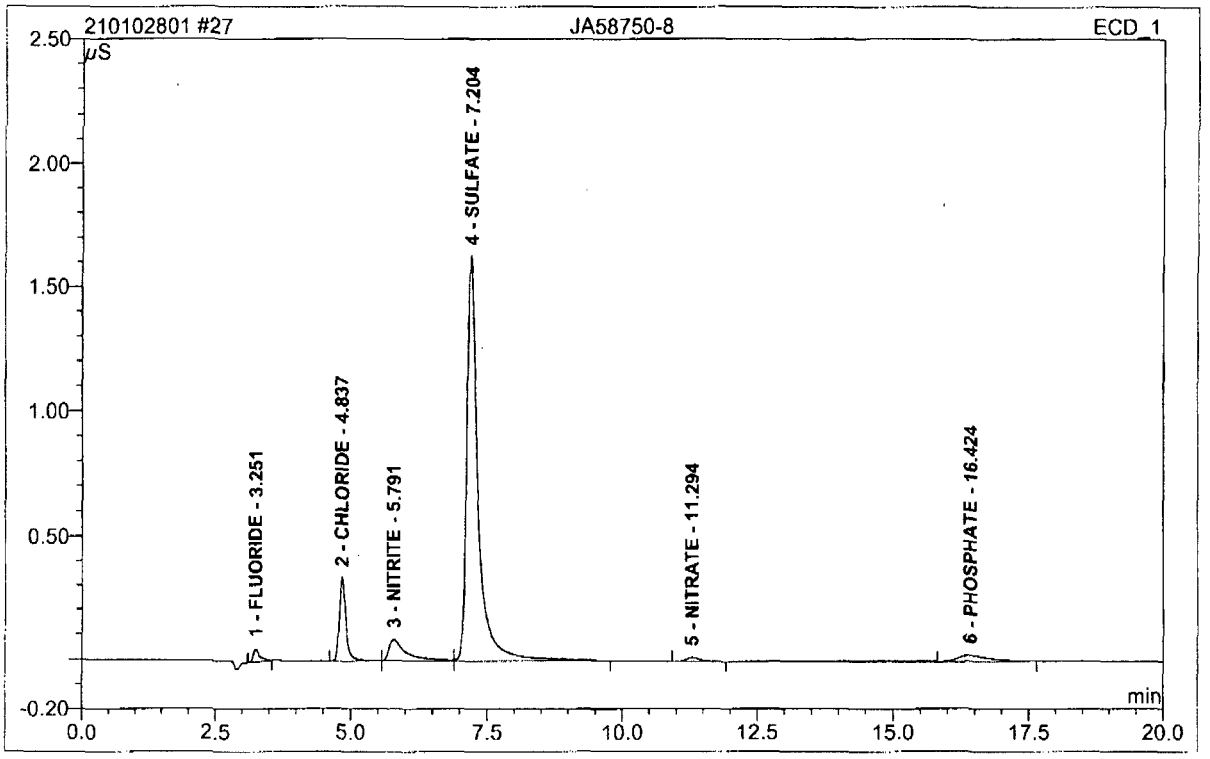
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

27 JA58750-8

Sample Name:	**JA58750-8**	*Injection Volume:*	**20.0**
Vial Number:	**20**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 17:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.053	0.007	1.46	0.018	BMB
2	4.84	CHLORIDE	0.339	0.048	9.38	0.200	BMB
3	5.79	NITRITE	0.083	0.032	6.22	0.047	BM
4	7.20	SULFATE	1.632	0.398	78.53	2.200	MB
5	11.29	NITRATE	0.016	0.005	0.96	0.009	BMB
6	16.42	PHOSPHATE	0.025	0.017	3.45	0.057	BMB
Total:			2.148	0.507	100.00	2.531	

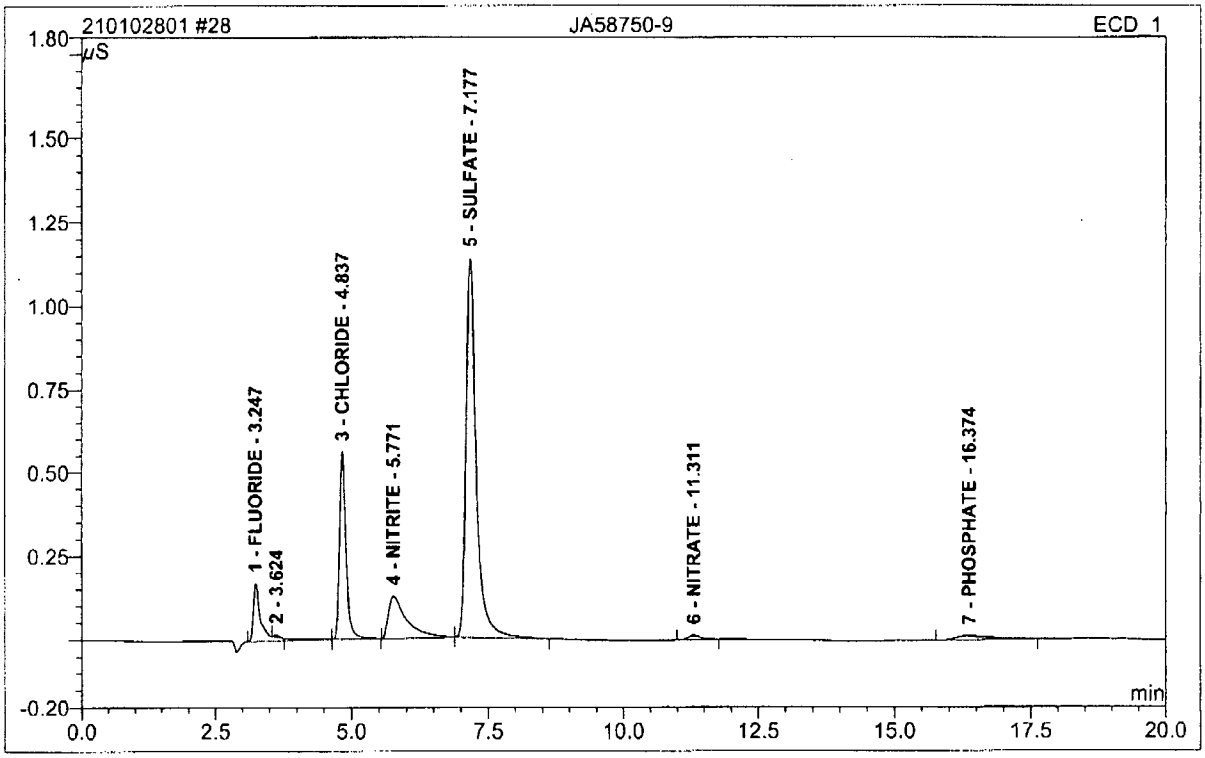
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

28 JA58750-9

Sample Name:	**JA58750-9**	*Injection Volume:*	**20.0**
Vial Number:	**21**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 17:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.171	0.029	7.13	0.074	BMB
2	3.62	n.a.	0.007	0.001	0.16	n.a.	Rd
3	4.84	CHLORIDE	0.561	0.077	18.54	0.323	bMB
4	5.77	NITRITE	0.125	0.049	11.75	0.072	BMb
5	7.18	SULFATE	1.135	0.245	59.38	1.358	bMB
6	11.31	NITRATE	0.013	0.004	0.85	0.006	BMB
7	16.37	PHOSPHATE	0.012	0.009	2.19	0.029	BMB
Total:			2.024	0.413	100.00	1.862	

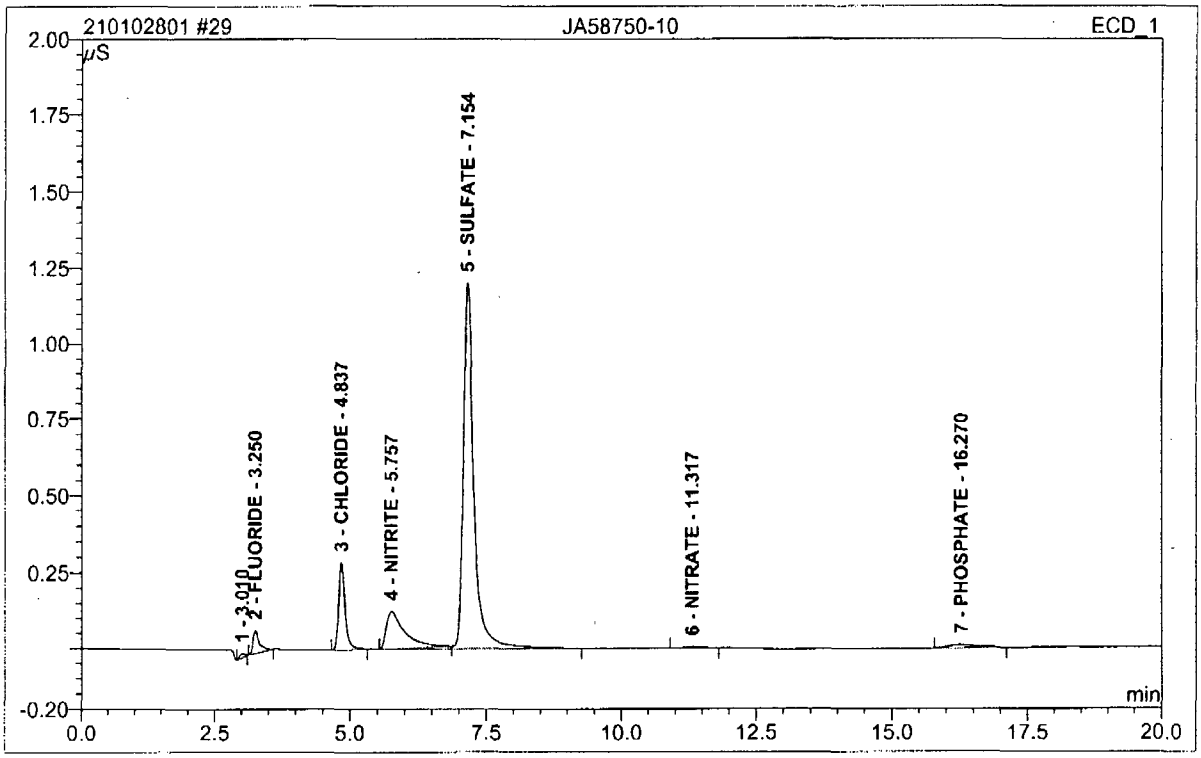
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

29 JA58750-10

Sample Name:	**JA58750-10**	*Injection Volume:*	**20.0**
Vial Number:	**22**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 18:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.01	n.a.	0.013	0.001	0.39	n.a.	BMB
2	3.25	FLUORIDE	0.075	0.010	2.74	0.026	BMB
3	4.84	CHLORIDE	0.286	0.040	10.32	0.166	BMB
4	5.76	NITRITE	0.124	0.048	12.60	0.072	Ru
5	7.15	SULFATE	1.202	0.276	71.95	1.524	BMB
6	11.32	NITRATE	0.005	0.002	0.41	0.003	BMB
7	16.27	PHOSPHATE	0.010	0.006	1.61	0.020	BMB
Total:			1.715	0.383	100.00	1.811	

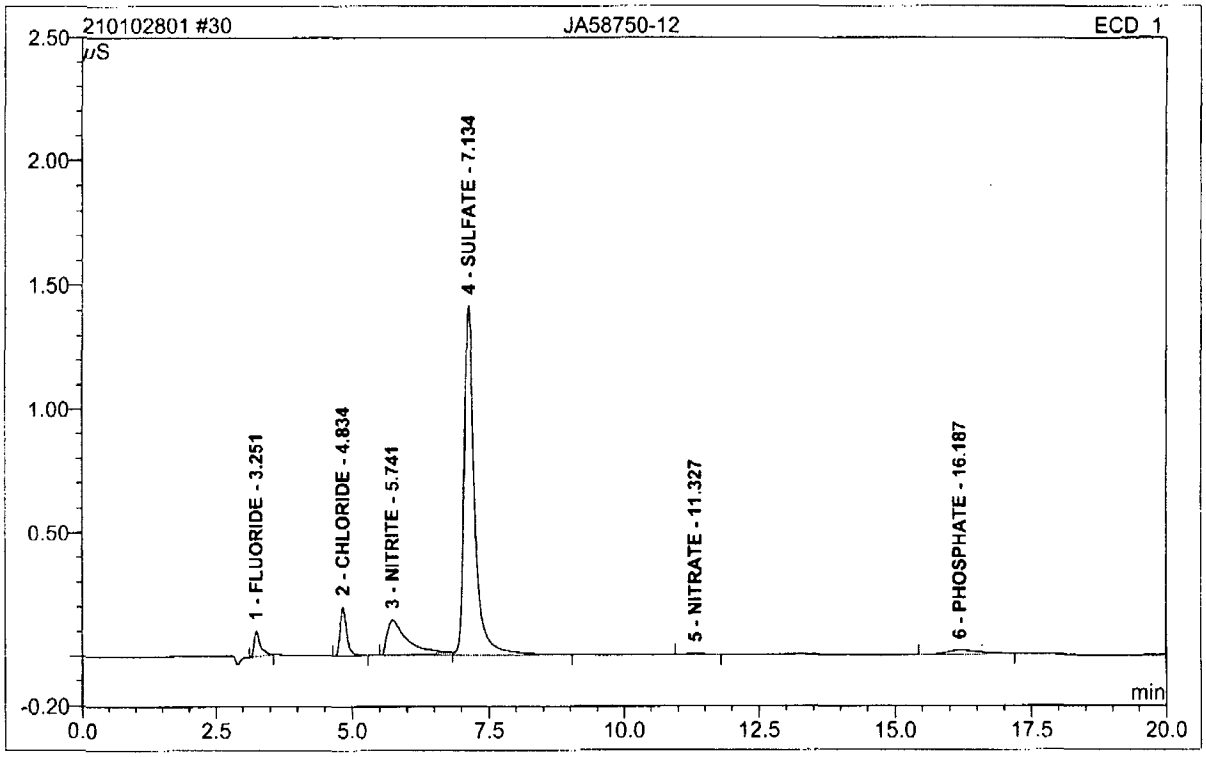
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

30 JA58750-12

Sample Name:	**JA58750-12**	*Injection Volume:*	**20.0**
Vial Number:	**23**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 18:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.102	0.014	3.17	0.034	BMB
2	4.83	CHLORIDE	0.197	0.027	6.28	0.115	BMB
3	5.74	NITRITE	0.142	0.059	13.48	0.087	Ru
4	7.13	SULFATE	1.414	0.322	73.93	1.781	BMB
5	11.33	NITRATE	0.005	0.002	0.36	0.003	BMB
6	16.19	PHOSPHATE	0.017	0.012	2.78	0.039	BMB
Total:			1.877	0.435	100.00	2.060	

anions/Integration

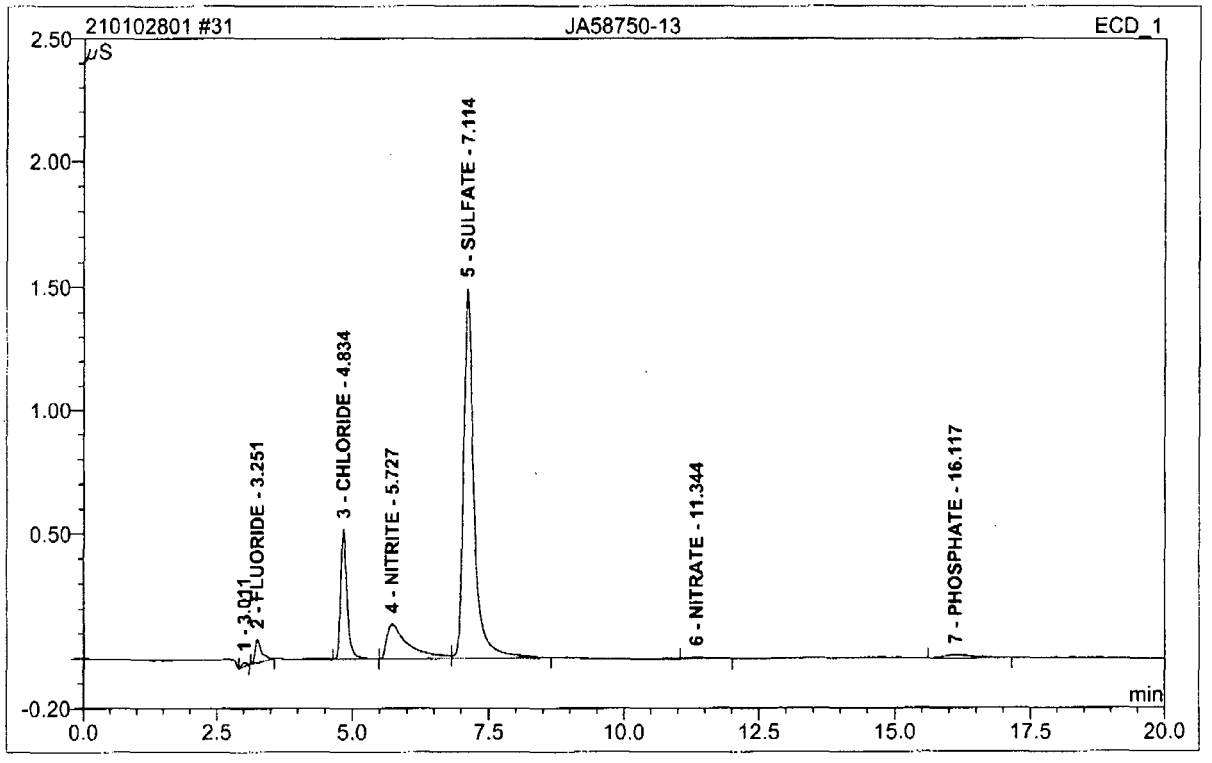
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

31 JA58750-13

Sample Name:	**JA58750-13**	*Injection Volume:*	**20.0**
Vial Number:	**24**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 18:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.01	n.a.	0.014	0.002	0.32	n.a.	BMB
2	3.25	FLUORIDE	0.091	0.013	2.62	0.032	BMB
3	4.83	CHLORIDE	0.521	0.071	14.50	0.300	BMB
4	5.73	NITRITE	0.139	0.063	12.85	0.094	BM
5	7.11	SULFATE	1.493	0.333	67.61	1.840	MB
6	11.34	NITRATE	0.005	0.002	0.35	0.003	BMB
7	16.12	PHOSPHATE	0.013	0.009	1.76	0.028	BMB
Total:			2.276	0.492	100.00	2.297	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

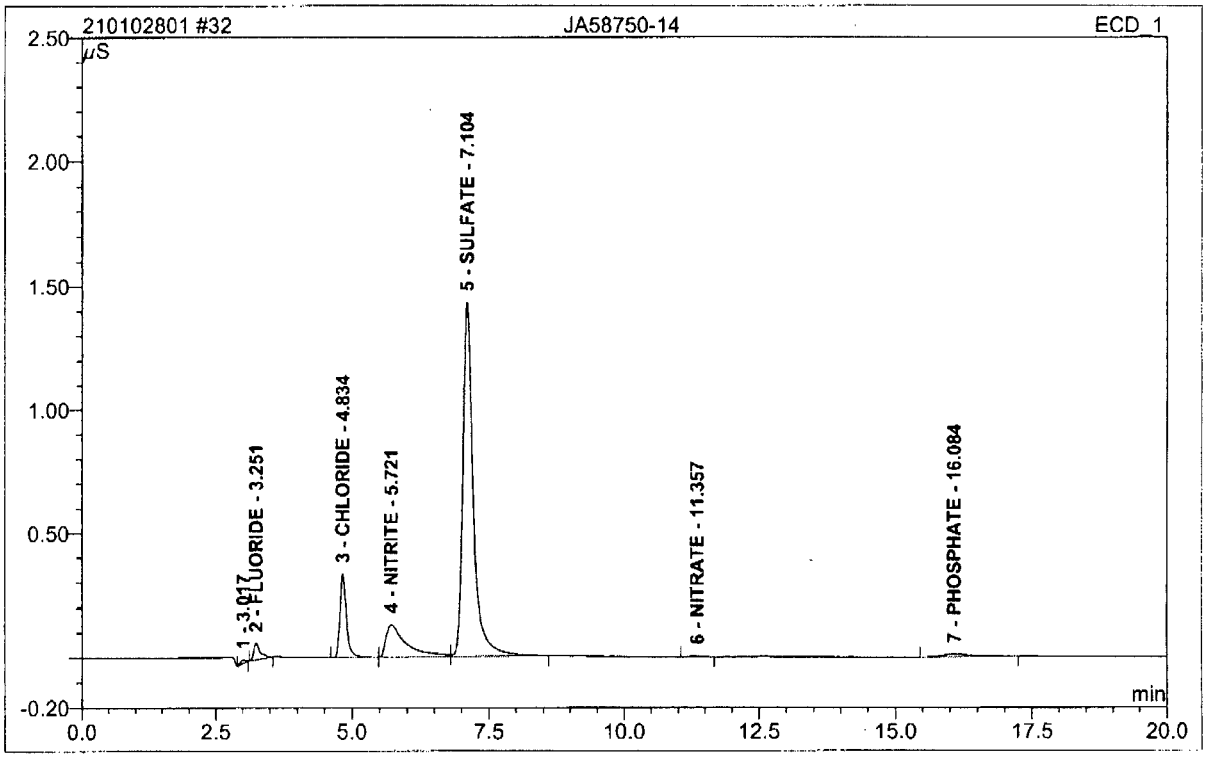
14.9

14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

32 JA58750-14

Sample Name:	**JA58750-14**	*Injection Volume:*	**20.0**
Vial Number:	**25**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 19:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.02	n.a.	0.012	0.001	0.33	n.a.	BMB
2	3.25	FLUORIDE	0.067	0.010	2.18	0.024	BMB
3	4.83	CHLORIDE	0.333	0.046	10.48	0.195	BMB
4	5.72	NITRITE	0.131	0.057	12.79	0.084	BM
5	7.10	SULFATE	1.430	0.319	72.10	1.762	MB
6	11.36	NITRATE	0.004	0.001	0.24	0.002	BMB
7	16.08	PHOSPHATE	0.011	0.008	1.89	0.027	BMB
Total:			1.988	0.442	100.00	2.094	

anions/Integration

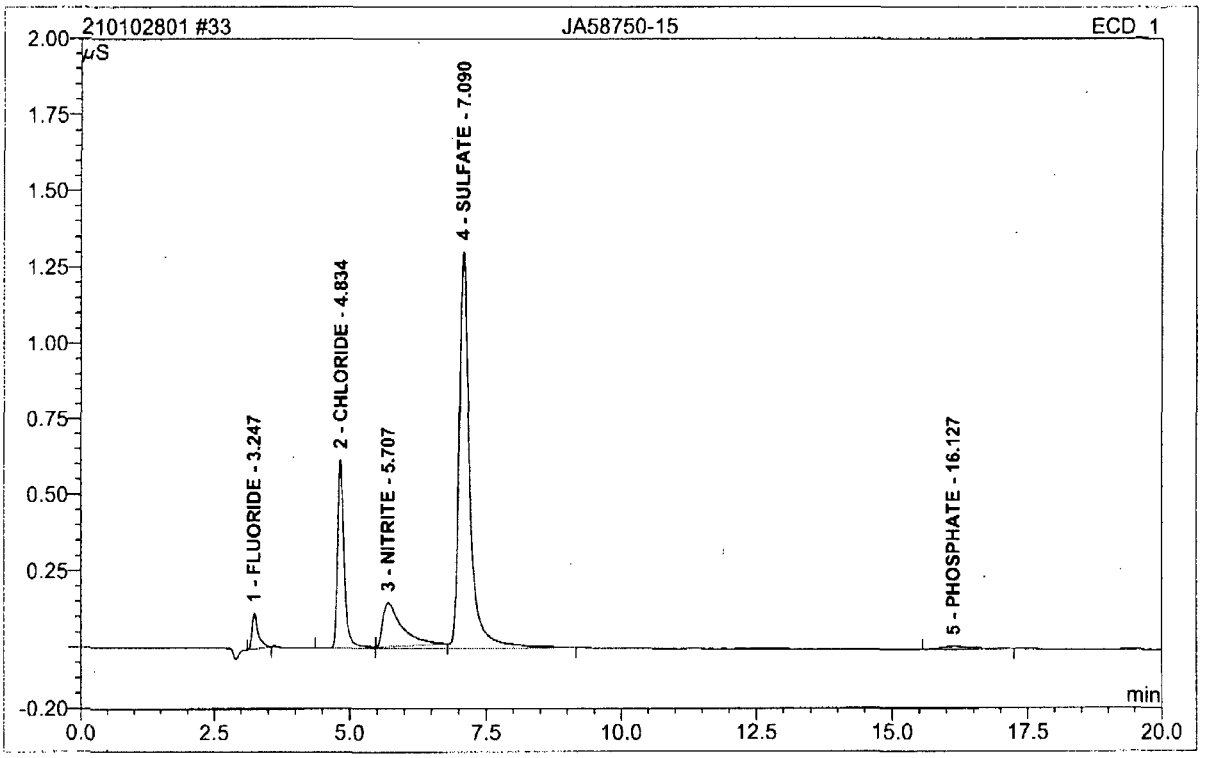
Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

33 JA58750-15

Sample Name:	**JA58750-15**	*Injection Volume:*	**20.0**
Vial Number:	**26**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 19:47**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.115	0.015	3.23	0.038	BMB
2	4.83	CHLORIDE	0.617	0.086	18.19	0.362	BM
3	5.71	NITRITE	0.143	0.058	12.36	0.087	Ru
4	7.09	SULFATE	1.304	0.307	64.80	1.696	MB
5	16.13	PHOSPHATE	0.009	0.007	1.42	0.022	BMB
Total:			2.187	0.473	100.00	2.205	

14.9

14

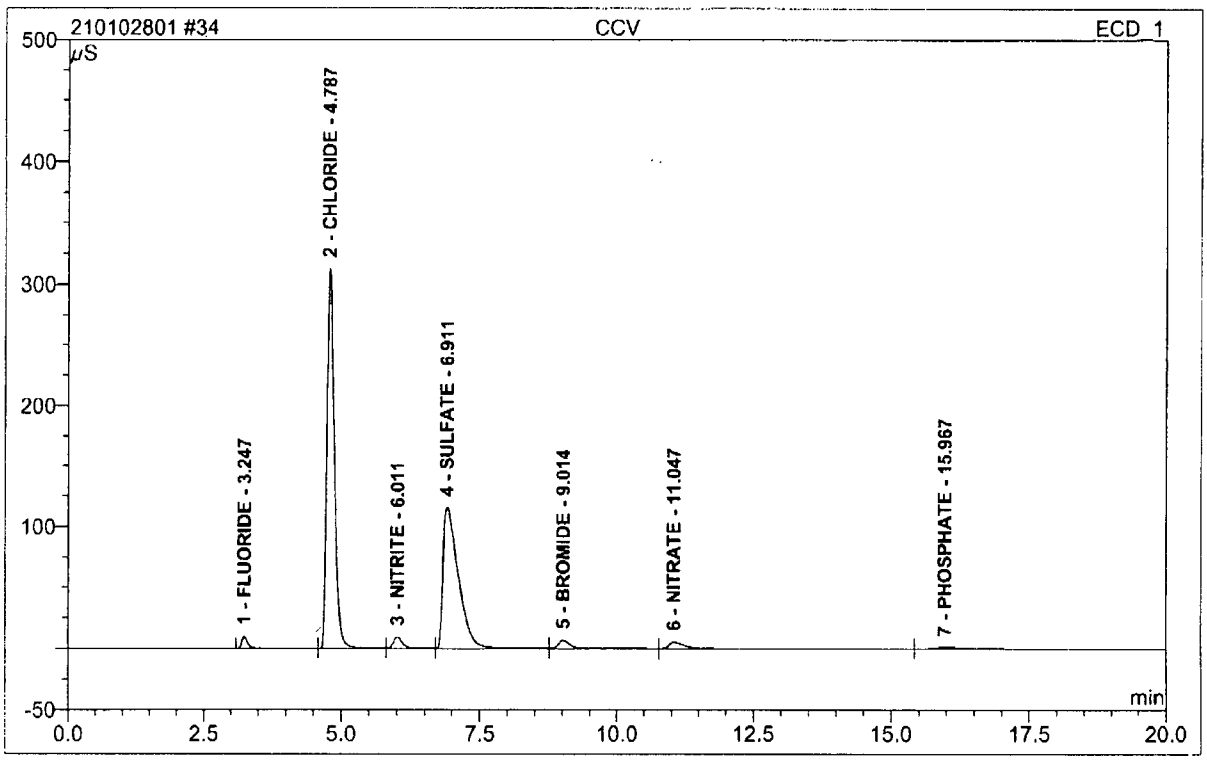
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

34 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**27**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 20:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type	% Rec
1	3.25	FLUORIDE	9.719	1.233	1.32	3.076	BM	
2	4.79	CHLORIDE	312.488	48.054	51.47	202.314	M	101.0
3	6.01	NITRITE	9.513	1.978	2.12	2.941	M	
4	6.91	SULFATE	115.561	37.497	40.16	207.401	M	103.5
5	9.01	BROMIDE	6.857	1.834	1.96	15.544	M	
6	11.05	NITRATE	5.436	1.888	2.02	3.351	M	
7	15.97	PHOSPHATE	1.357	0.883	0.95	2.872	MB	
Total:			460.930	93.366	100.00	437.500		

14.9 14

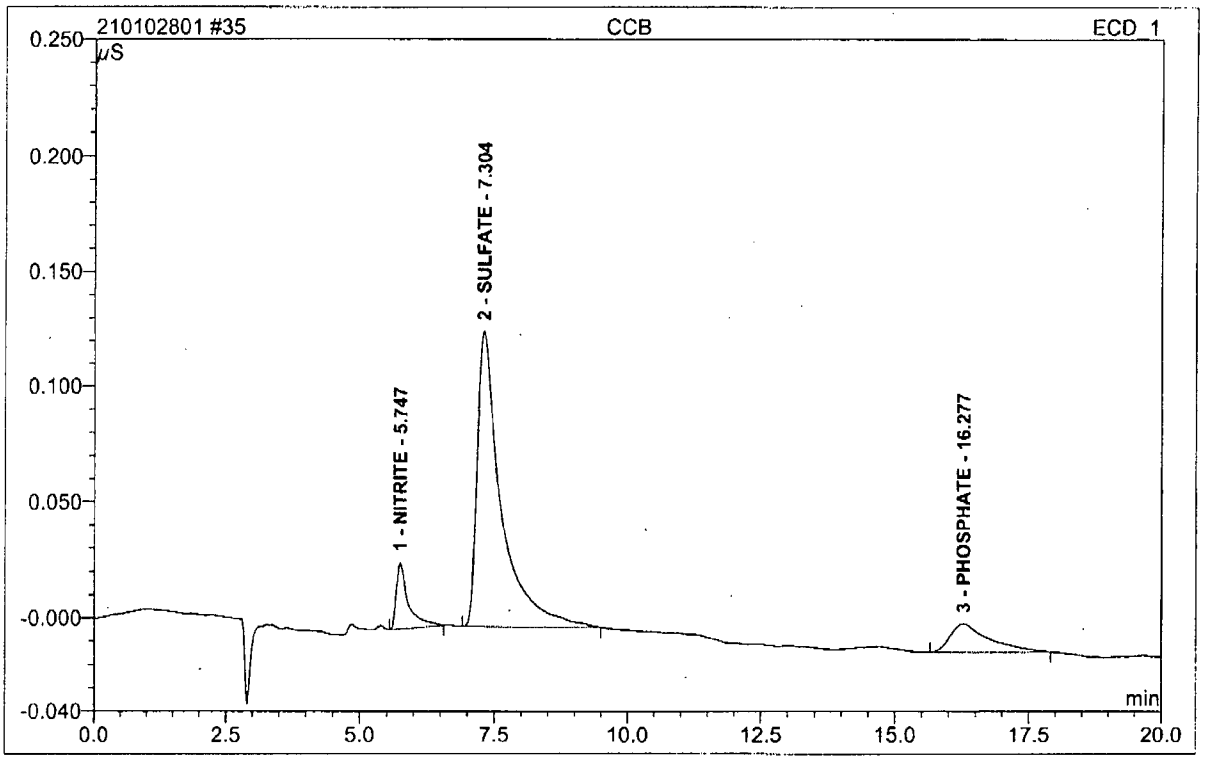
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

35 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**28**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 20:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	5.75	NITRITE	0.028	0.007	8.91	0.011	BMB
2	7.30	SULFATE	0.128	0.066	78.46	0.363	BMB
3	16.28	PHOSPHATE	0.012	0.011	12.62	0.034	BMB
Total:			0.169	0.084	100.00	0.408	

14.9 14

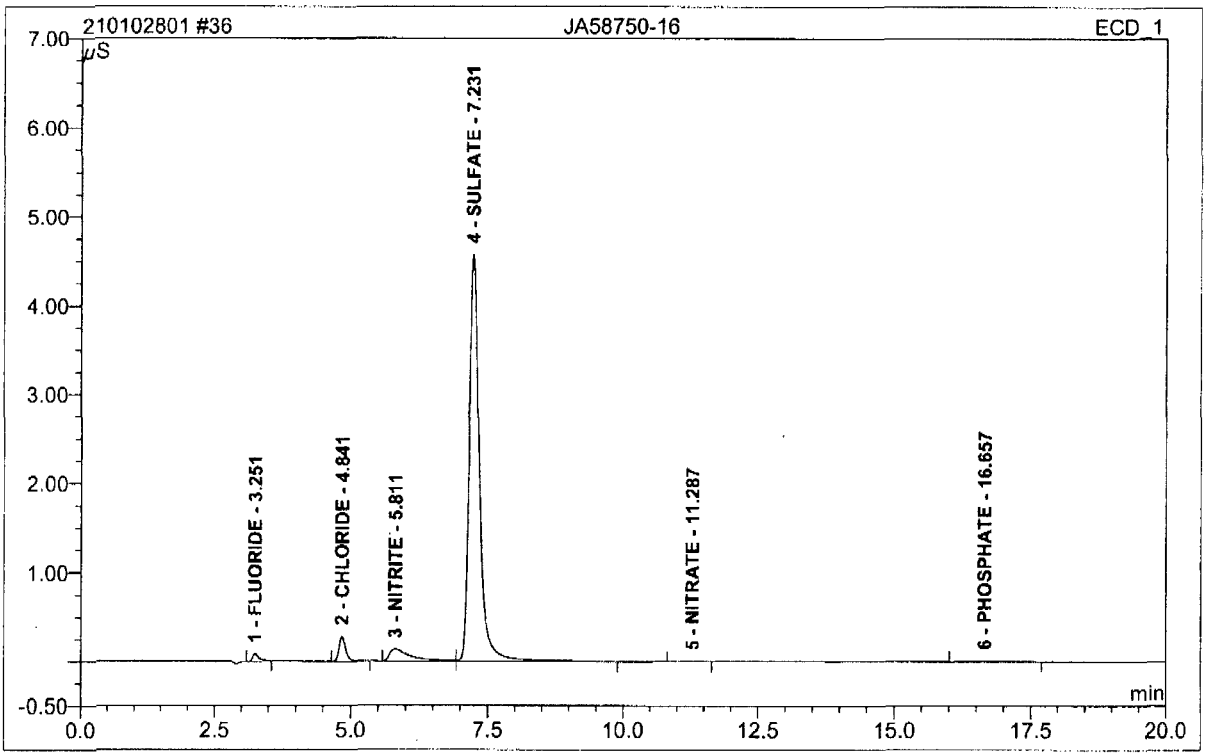
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

36 JA58750-16

Sample Name:	**JA58750-16**	*Injection Volume:*	**20.0**
Vial Number:	**29**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 20:59**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.087	0.012	1.04	0.029	BMB
2	4.84	CHLORIDE	0.288	0.040	3.52	0.168	BMB
3	5.81	NITRITE	0.137	0.063	5.54	0.093	BM
4	7.23	SULFATE	4.576	1.007	89.11	5.572	MB
5	11.29	NITRATE	0.005	0.001	0.12	0.002	BMB
6	16.66	PHOSPHATE	0.010	0.008	0.68	0.025	BMB
Total:			5.103	1.130	100.00	5.889	

14.9 14

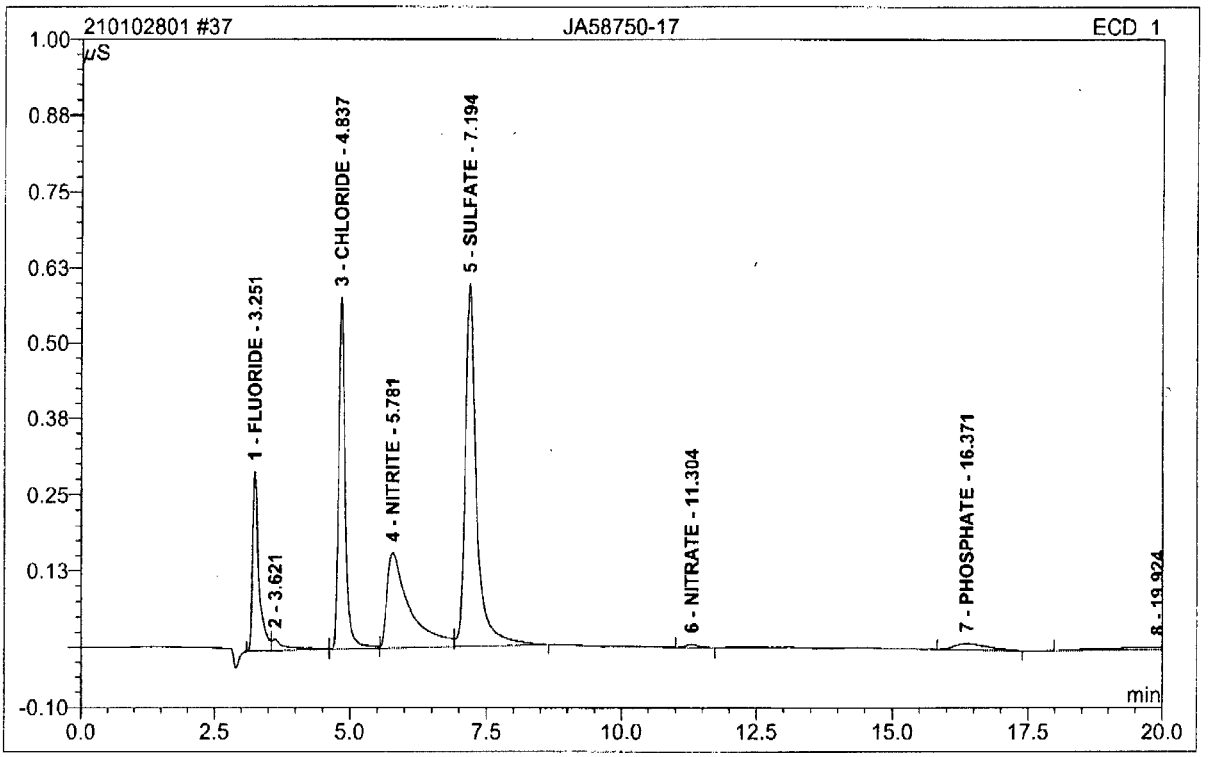
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

37 JA58750-17

Sample Name:	**JA58750-17**	*Injection Volume:*	**20.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 21:22**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.293	0.040	11.10	0.100	BM
2	3.62	n.a.	0.019	0.006	1.52	n.a.	M
3	4.84	CHLORIDE	0.579	0.081	22.30	0.339	M
4	5.78	NITRITE	0.156	0.075	20.83	0.112	M
5	7.19	SULFATE	0.597	0.144	39.73	0.794	MB
6	11.30	NITRATE	0.006	0.002	0.42	0.003	BMB
7	16.37	PHOSPHATE	0.011	0.007	1.99	0.023	BMB
8	19.92	n.a.	0.004	0.008	2.10	n.a.	BMB
Total:			1.664	0.361	100.00	1.372	

14.9 14

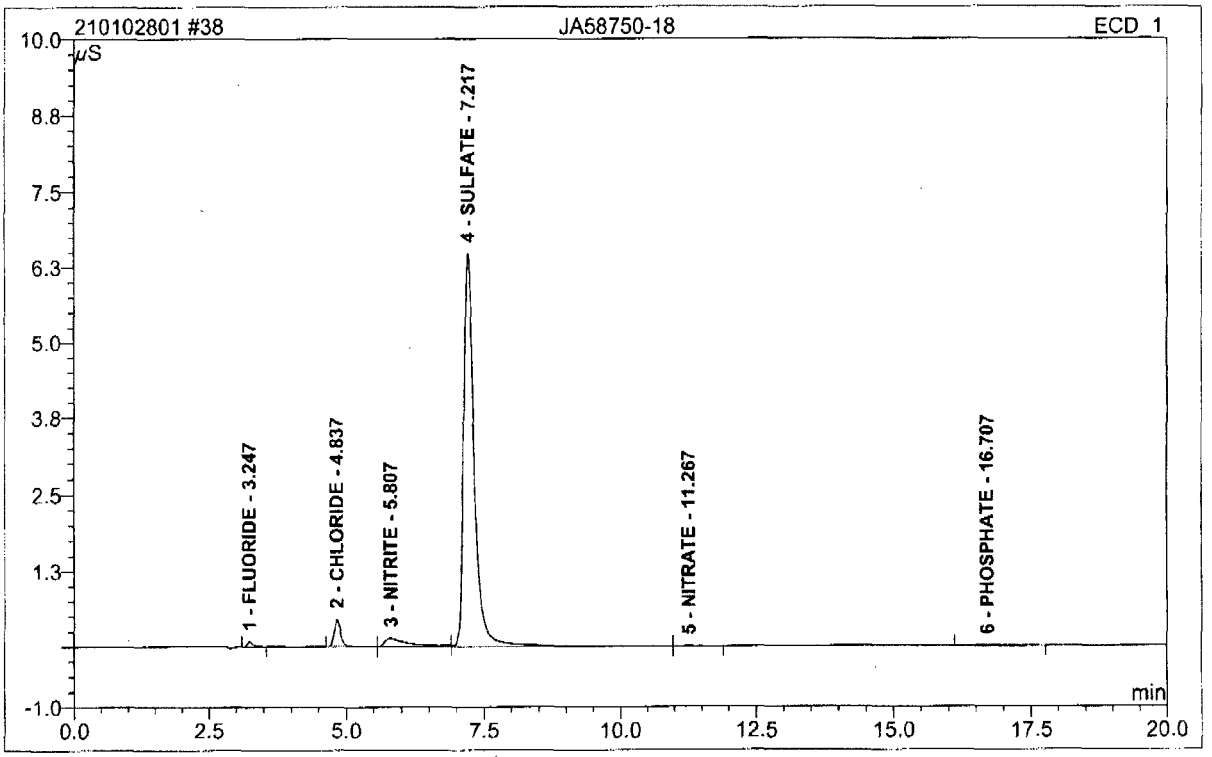
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

38 JA58750-18

Sample Name:	**JA58750-18**	*Injection Volume:*	**20.0**
Vial Number:	**31**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 21:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	0.087	0.012	0.73	0.029	BMB
2	4.84	CHLORIDE	0.448	0.062	3.84	0.262	BM
3	5.81	NITRITE	0.144	0.071	4.37	0.105	M
4	7.22	SULFATE	6.484	1.470	90.58	8.131	M
5	11.27	NITRATE	0.008	0.003	0.17	0.005	MB
6	16.71	PHOSPHATE	0.007	0.005	0.32	0.017	BMB
Total:			7.178	1.623	100.00	8.549	

14.9

14

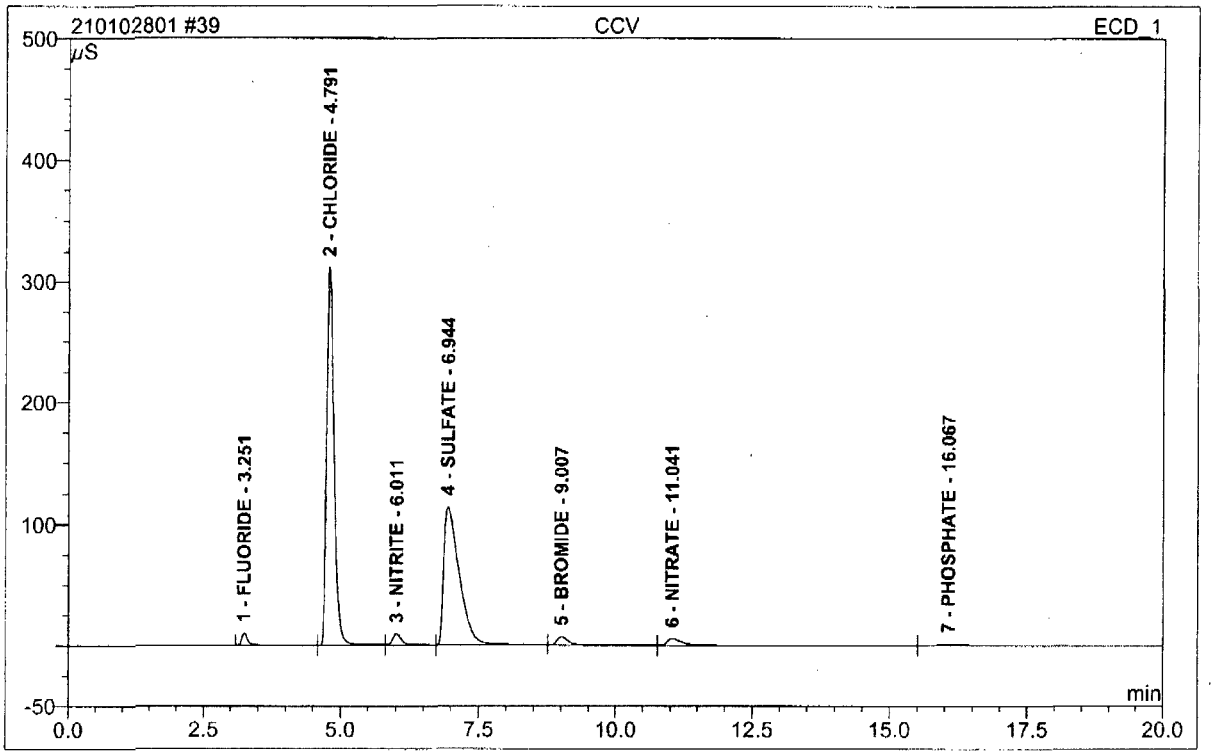
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

39 CCV

Sample Name:	**CCV**	*Injection Volume:*	**20.0**
Vial Number:	**32**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 22:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	3.25	FLUORIDE	9.662	1.236	1.32	3.085	BM
2	4.79	CHLORIDE	311.835	48.079	51.40	202.422	M
3	6.01	NITRITE	9.540	2.017	2.16	2.999	M
4	6.94	SULFATE	114.510	37.506	40.10	207.454	M
5	9.01	BROMIDE	6.896	1.878	2.01	15.917	M
6	11.04	NITRATE	5.474	1.917	2.05	3.401	M
7	16.07	PHOSPHATE	1.377	0.901	0.96	2.929	MB
Total:			459.294	93.534	100.00	438.208	

% Rec
101.0
103.5

14.9 14

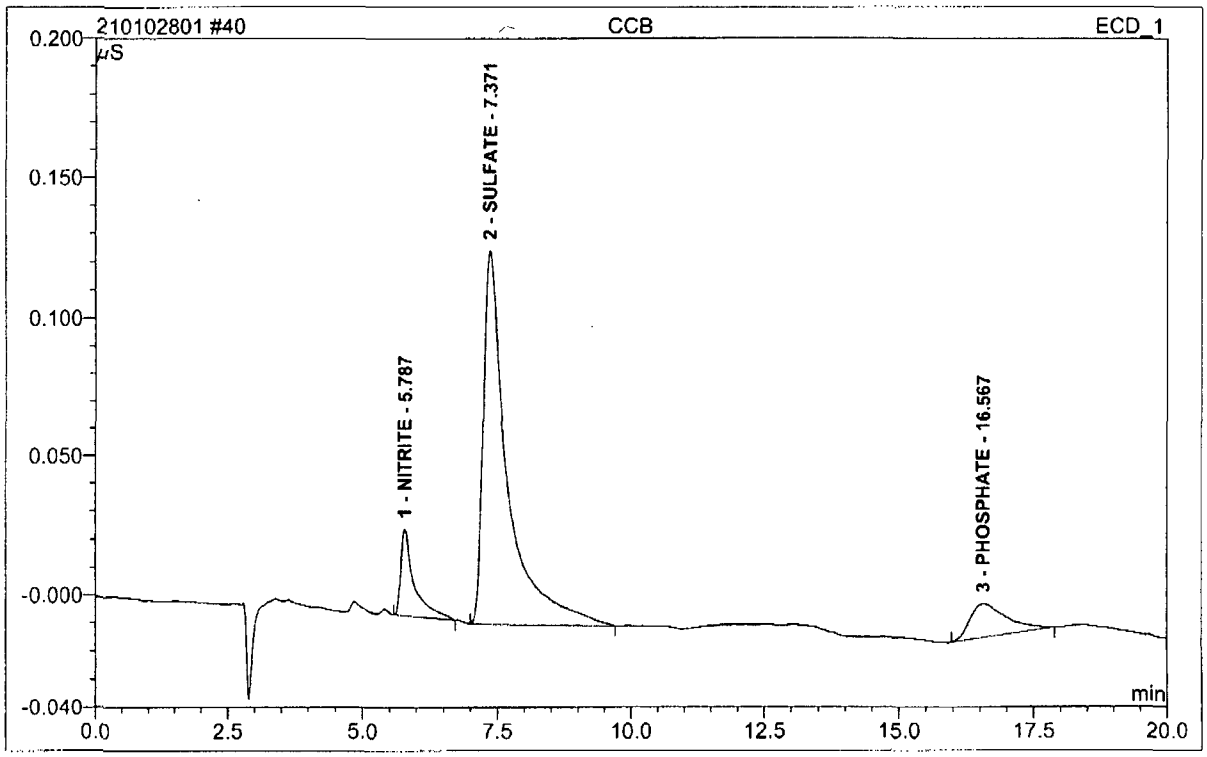
anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

Operator:Chemistry Timebase:ACCUTEST_SYS#2 Sequence:210102801

40 CCB

Sample Name:	**CCB**	*Injection Volume:*	**20.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions2_ASDV**	*Bandwidth:*	**n.a.**
Quantif. Method:	**ANIONS2**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/28/2010 22:34**	*Sample Weight:*	**1.0000**
Run Time (min):	**21.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount	Type
1	5.79	NITRITE	0.031	0.009	10.12	0.013	BMB
2	7.37	SULFATE	0.134	0.070	79.14	0.389	BMB
3	16.57	PHOSPHATE	0.012	0.010	10.74	0.031	BMB
Total:			0.177	0.089	100.00	0.433	

anions/Integration

Chromeleon (c) Dionex 1996-2001
Version 6.80 SR9a Build 2680 (163077)

14.9 14

	Sample Name	Sample ID	Method	Analysis	Dilution	Date / Time	Conc.	CV
1	CRI		tocscal4.met	SSM-TC	1.000	10/30/10 09:5	0.1234 %	2.33%
2	CRI		tocscal4.met	SSM-TC	1.000	10/30/10 09:5	0.1234 %	2.33%
3	HSTD		tocscal4.met	SSM-TC	1.000	10/30/10 10:0	5.434 %	1.41%
4	HSTD		tocscal4.met	SSM-TC	1.000	10/30/10 10:0	5.434 %	1.41%
5	ICV		tocscal4.met	SSM-TC	1.000	10/30/10 10:2	2.173 %	0.864%
6	ICV		tocscal4.met	SSM-TC	1.000	10/30/10 10:2	2.173 %	0.864%
7	CCV		tocscal4.met	SSM-TC	1.000	10/30/10 10:3	2.691 %	1.93%
8	CCV		tocscal4.met	SSM-TC	1.000	10/30/10 10:3	2.691 %	1.93%
9	GP56044-MB		tocss4.met	SSM-TC	1.000	10/30/10 10:5	0.01451 %	0.0000%
10	GP56044-MB		tocss4.met	SSM-TC	1.000	10/30/10 10:5	0.01451 %	0.0000%
11	GP56044-B3		tocss4.met	SSM-TC	1.000	10/30/10 11:0	2.079 %	2.84%
12	GP56044-B3		tocss4.met	SSM-TC	1.000	10/30/10 11:0	2.079 %	2.84%
13	JA58750-16	A	tocss4.met	SSM-TC	1.000	10/30/10 11:2	2.256 %	37.6%
14	JA58750-16		tocss4.met	SSM-TC	1.000	10/30/10 11:2	2.256 %	37.6%
15	JA58750-16		tocss4.met	SSM-TC	1.000	10/30/10 11:2	2.256 %	37.6%
16	JA58750-16		tocss4.met	SSM-TC	1.000	10/30/10 11:2	2.256 %	37.6%
17	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:0	1.184 %	16.4%
18	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:0	1.184 %	16.4%
19	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:0	1.184 %	16.4%
20	GP56044-D1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:0	1.184 %	16.4%
21	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:1	2.754 %	10.5%
22	GP56044-S1	JA58750-11	tocss4.met	SSM-TC	1.000	10/30/10 12:1	2.754 %	10.5%
23	CCV		tocscal4.met	SSM-TC	1.000	10/30/10 12:5	2.598 %	2.22%
24	CCV		tocscal4.met	SSM-TC	1.000	10/30/10 12:5	2.598 %	2.22%

a0103051.TOC

GN 44094

11/11/10

14.10 14

QC Reports: GN44094

ACCUTEST

Q01030S1.TOC

Test: **Total Organic Carbon** Units = mg/kg GN Batch ID 44094
Product: **TOC** Balance ID: B-39 Date 10/30/10
Method: **Corp. Eng. 81 M/SW846 9060 M or EPA Region 2 Lloyd Kahn** (circle one)
RDL = 1000 mg/kg or 100 mg/kg (circle one) Analyst

Sample ID	Sample Weight	Bottle #	Sample Description & comments
CRI			
HSTD			
ICV			
CCV			
GP56044-MB3	0.1000		
	0.1000		
GP56044-B3	0.1000		
	0.1000		
JA58750-16	0.0520	2	
	0.0525		
	0.0531		
	0.0540		
GP56044-D1	0.1073	1	JA58750-11
	0.1069		
	0.1068		
	0.1032		
GP56044-S1	0.1068	1	
	0.1065		TV= 18753
	0.1092		
	0.1031		
~~JA58750-18~~	~~0.1084~~	2	
	~~0.1028~~ Not		
	~~0.1026~~ run		
	~~0.1015~~ 10/30/10		

CCV

Analyst: Date: 10/30/10 QCReviewer: Date:
Manager Review: Date:
Comments:
BS - 100µl of 20000 mg C/L →

Form: GN-058a
Rev. Date: 11/11/08

14.10 14

ACCUTEST

Bal B39

Glass pipets - Class A

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: TOC

GN or GP Number: GN44094

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Analyst	Date
GNE10-26334-TOC	Fisher 092849	Sucrose	47.5g	DI H_2O	100ml	200000	11/7/10	[illegible]	10/30/10
GNE10-26335-TOC	Fisher 086673A	Glucose	12.5g	↓	↓	50000	↓	↓	↓

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml	Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	Analyst	Date
Sucrose Stds									
GNE10-26336-TOC	GNE10-26334-TOC	200000	0.5	DI H_2O	100ml	1000	11/7/10	[illegible]	10/30/10
GNE10-26337-TOC	↓	↓	2.5	↓	↓	5000	↓	↓	↓
GNE10-26338-TOC			5.0			10000			
GNE10-26339-TOC			12.5			25000			
GNE10-26340-TOC			20.0			40000			
GNE10-26341-TOC			25.0			50000			
Glucose Stds.									
GNE10-26342-TOC	GNE10-26335-TOC	50000	40.0	DI H_2O	100ml	20000	11/7/10	[illegible]	↓
GNE10-26343-TOC	↓	↓	50.0	↓	↓	25000	↓	↓	

Form: GN121
Rev. Date:2/26/03

ACCUTEST

GN44094

Reagent Information Log - TOC - Soil

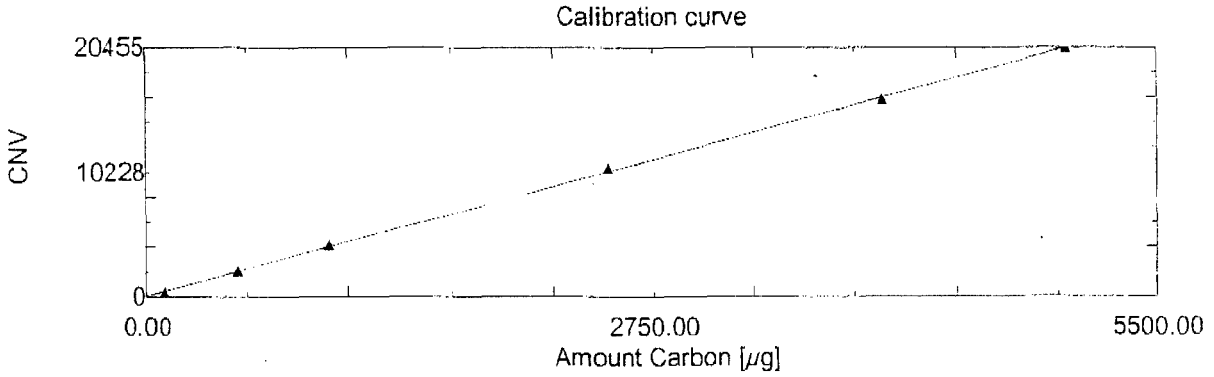
Reagent	Reagent # or Manufacturer/Lot	XP
Sucrose Stock Solution, 200000 mg/L	GNE10-26334-TOC	11/7/10
Glucose Stock Solution, 50000 ug/L	GNE10-26335-TOC	11/7/10
Glucose Check Solution, 25000 ug/L	GNE10-26343-TOC	11/7/10
Nitric Acid, Reagent Grade	J19023 Baker	9/2/12
Glucose ~~Stock~~ Check Solution, 20000 µg/L	GNE10-26342-TOC	11/7/10

14.10 14

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN-087 1-66
Rev. Date:4/26/01

TOC-Control



Calibration Curves

Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

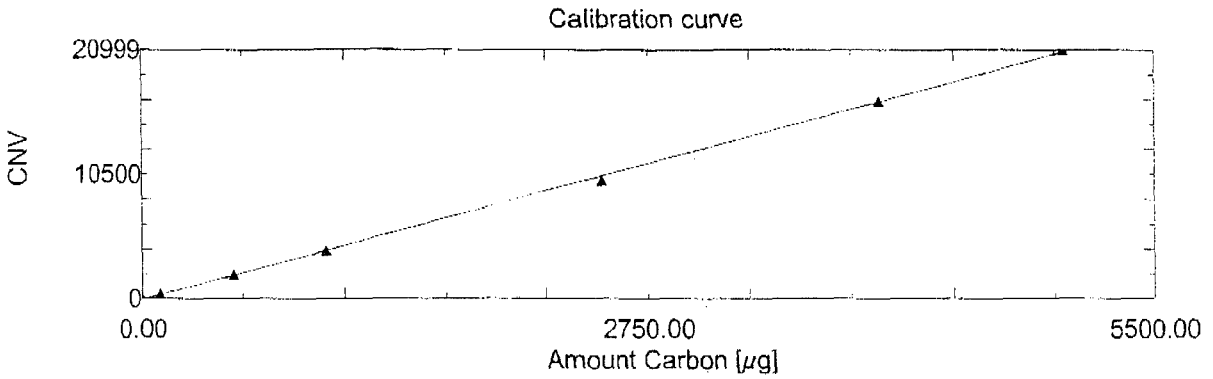
Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	00000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	0.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

14.10 14

TOC-Control



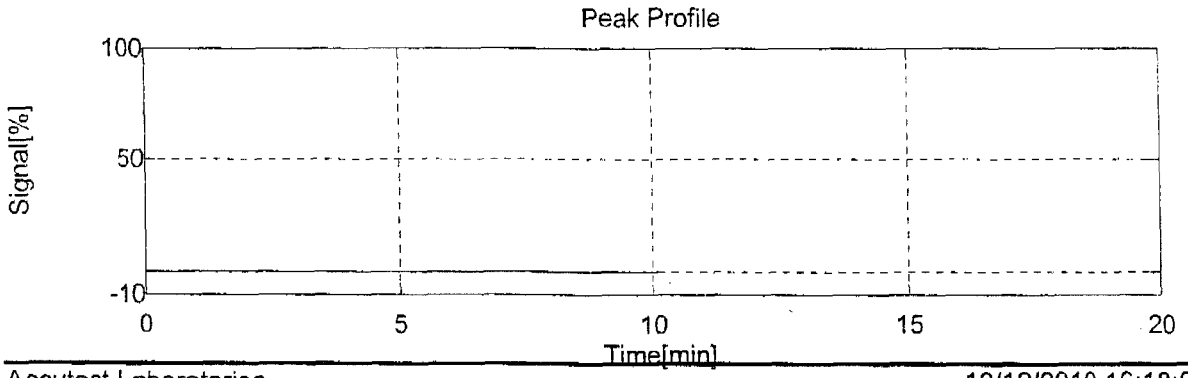
Samples

Sample Name: STDA
Sample ID: 0.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:21:44

Mean Area	Conc	Result	SD	CV	CNV	Modified
0	0.000%		0.000	0.00%	0	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	0	0.0000		******	10/12/2010 09:14:47	a01012s1.cal
2	5	0	0	0.0000		******	10/12/2010 09:21:44	a01012s1.cal



TOC-Control

Samples

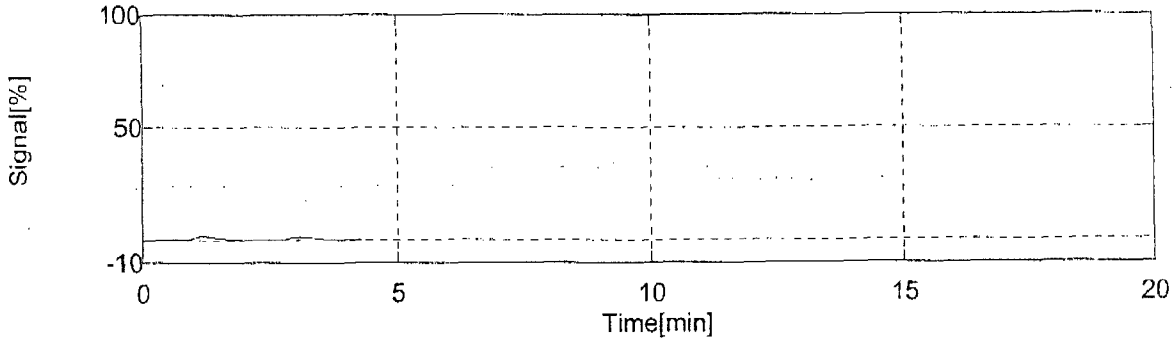
Sample Name: STDB
Sample ID: 0.1
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:42:51

Mean Area	Conc	Result	SD	CV	CNV	Modified
446	0.1000%		0.000	0.00%	446	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	464	464	0.10000		******	10/12/2010 09:38:02	a01012s1.cal
2	5	429	429	0.10000		******	10/12/2010 09:42:51	a01012s1.cal

Peak Profile



Samples

Sample Name: STDC
Sample ID: 0.5
Comment:

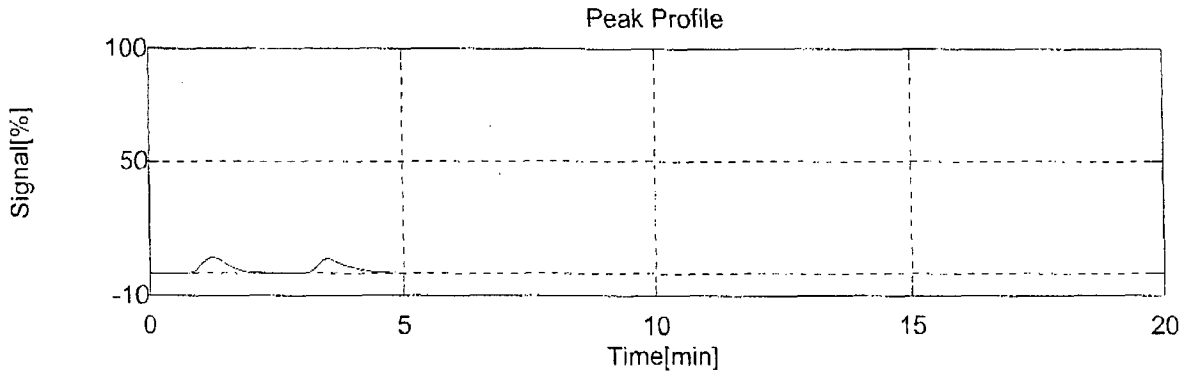
TOC-Control

Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 09:51:36

Mean Area	Conc	Result	SD	CV	CNV	Modified
2082	0.5000%		0.000	0.00%	2082	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	2044	2044	0.50000		******	10/12/2010 09:47:07	a01012s1.cal
2	5	2120	2120	0.50000		******	10/12/2010 09:51:36	a01012s1.cal



Samples

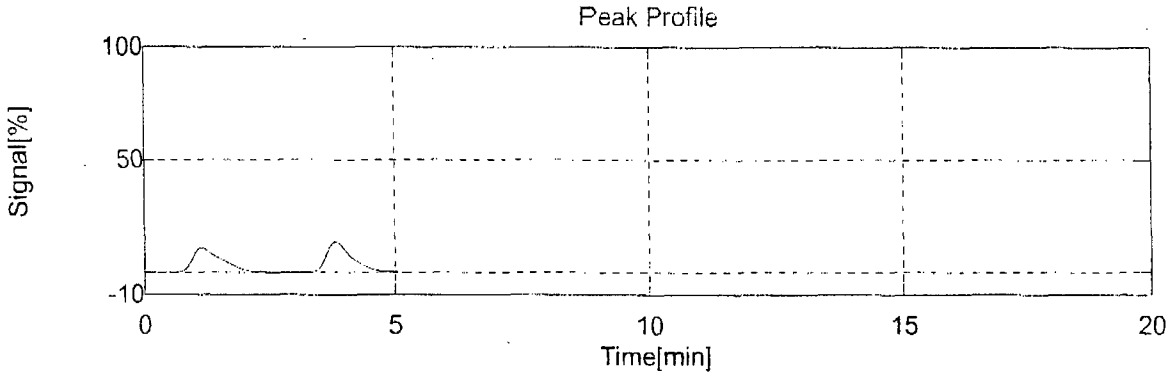
Sample Name: STDD
Sample ID: 1.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:10:39

Mean Area	Conc	Result	SD	CV	CNV	Modified
4098	1.000%		0.000	0.00%	4098	

TOC-Control

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	3983	3983	1.0000		******	10/12/2010 10:05:56	a01012s1.cal
2	5	4214	4214	1.0000		******	10/12/2010 10:10:39	a01012s1.cal



Samples

Sample Name: STDE
Sample ID: 2.5
Comment:
Cal Curve: 1: a01012s1.cal

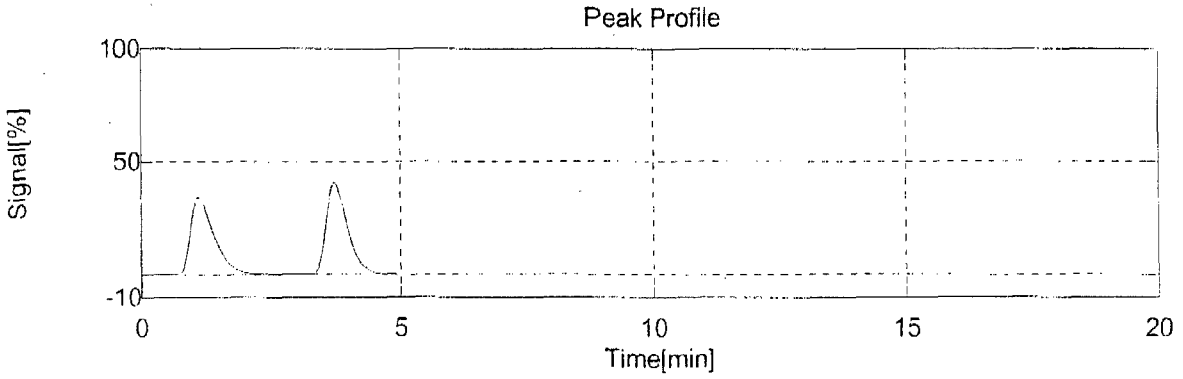
Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:19:29

Mean Area	Conc	Result	SD	CV	CNV	Modified
10025	2.500%		0.000	0.00%	10025	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	9615	9615	2.5000		******	10/12/2010 10:14:48	a01012s1.cal
2	5	10436	10436	2.5000		******	10/12/2010 10:19:29	a01012s1.cal

14.10 14

TOC-Control



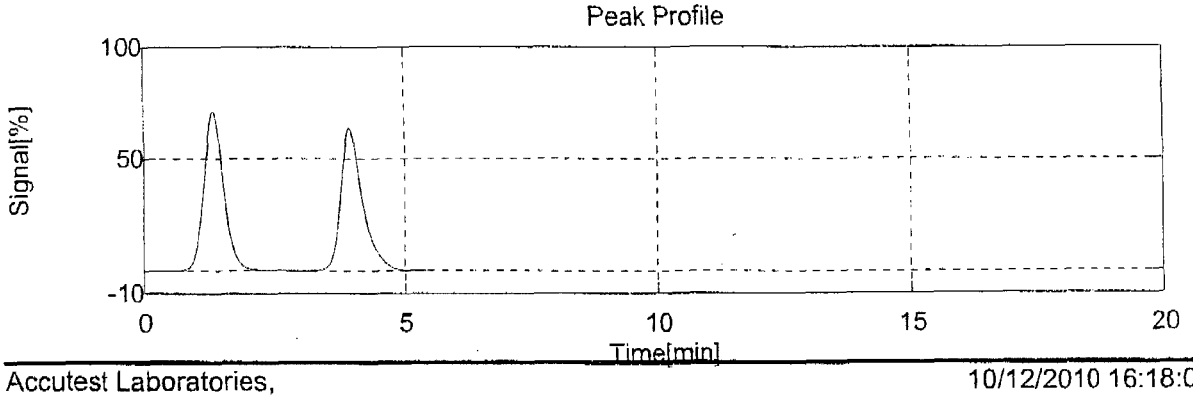
Samples

Sample Name: STDF
Sample ID: 4.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:30:06

Mean Area	Conc	Result	SD	CV	CNV	Modified
16704	4.000%		0.000	0.00%	16704	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	16705	16705	4.0000		******	10/12/2010 10:25:12	a01012s1.cal
2	5	16704	16704	4.0000		******	10/12/2010 10:30:06	a01012s1.cal



TOC-Control

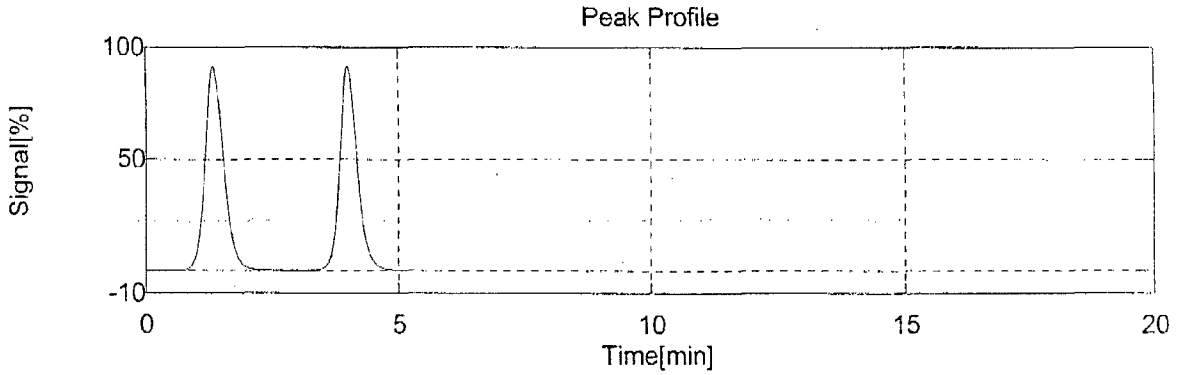
Samples

Sample Name: STDG
Sample ID: 5.0
Comment:
Cal Curve: 1: a01012s1.cal

Type	Analysis	Dilution	Date/Time
Standard	SSM-TC	1.000	10/12/2010 10:40:05

Mean Area	Conc	Result	SD	CV	CNV	Modified
20999	5.000%		0.000	0.00%	20999	

No.	Range	Area	CNV	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	21046	21046	5.0000		******	10/12/2010 10:35:01	a01012s1.cal
2	5	20952	20952	5.0000		******	10/12/2010 10:40:05	a01012s1.cal



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met

TOC-Control

General Information

Organization: Accutest Laboratories
User:
Title:
Instrument ID: TOC1
Filename: C:\TOCCNTR\DATA\A01030S1.TOC
Comment:

Instrument Conditions

Instrument Attachments: TOC-5000 + SSM 5000

Calibration Curves

Filename: a01012s1.cal
Title: a01012s1.cal
Calculation method: Lin. regression without zero shift

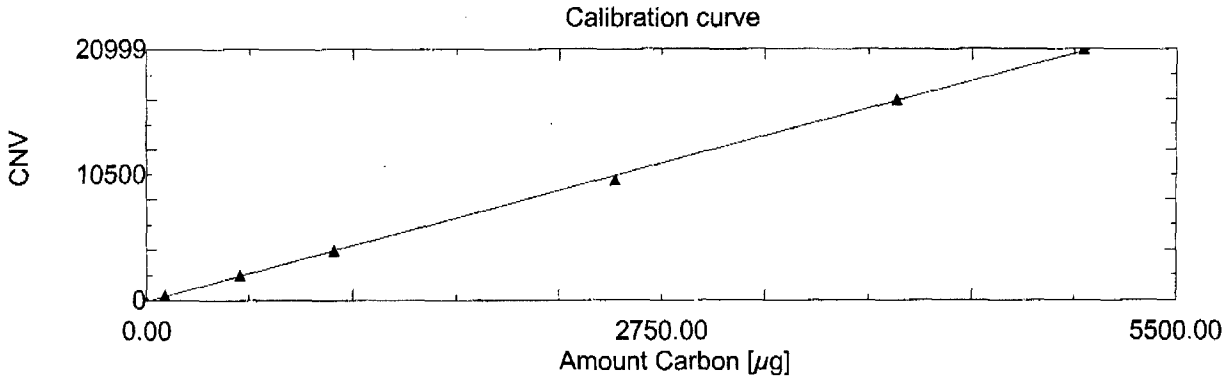
Analysis	Unit	Range	Density
SSM-TC	%	5	1.000

Sample Name	Sample ID	Conc.	No. of Inj.	Mean Area	Volume	CNV	Abs C [µg	SD	CV
STDA	0.0	0.000	2	0	0.00000	0	0.000	0	0.00%
STDB	0.1	0.1000	2	447	0.00000	446	100.0	24	5.54%
STDC	0.5	0.5000	2	2082	0.00000	2082	500.0	53	2.58%
STDD	1.0	1.000	2	4099	00000000	4098	1000	163	3.99%
STDE	2.5	2.500	2	10026	-0.00000	10025	2500	580	5.79%
STDF	4.0	4.000	2	16705	0.00000	16704	4000	0	.0042%
STDG	5.0	5.000	2	20999	0.00000	20999	5000	66	0.317%

Slope: 4.1817
Intercept: -60.659
R^2: 0.999584

14.10 14

TOC-Control



Samples

Sample Name: CRI
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

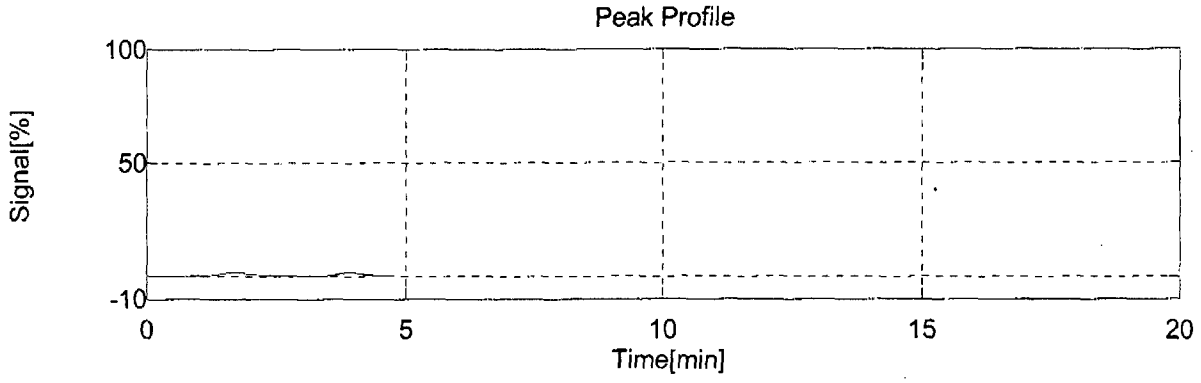
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 09:57:27

Mean Area	Conc	Result	SD	CV	Modified
455	0.1234%		0.00287	2.33%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	447	0.12140		******	10/30/2010 09:52:23	a01012s1.cal
2	5	464	0.12546		******	10/30/2010 09:57:27	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: HSTD
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

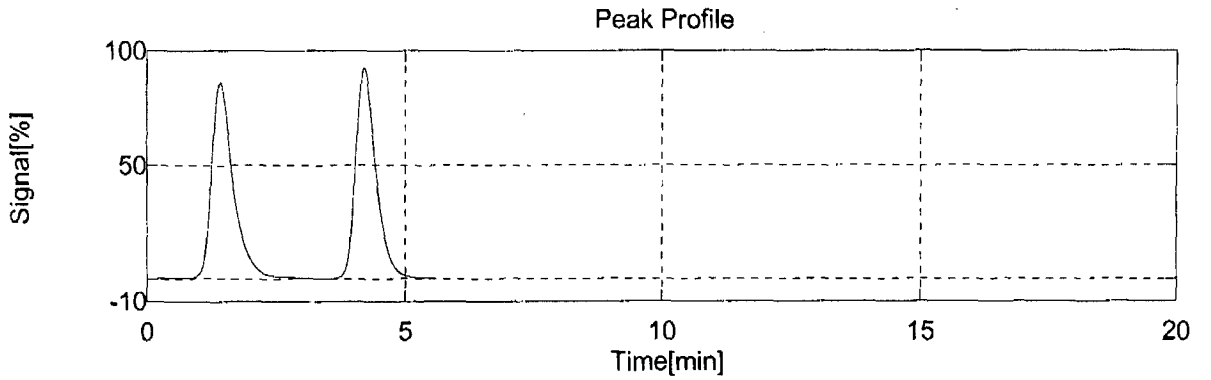
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 10:09:41

Mean Area	Conc	Result	SD	CV	Modified
22662	5.434%		0.07677	1.41%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	22435	5.3795		******	10/30/2010 10:03:48	a01012s1.cal
2	5	22889	5.4881		******	10/30/2010 10:09:41	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: ICV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

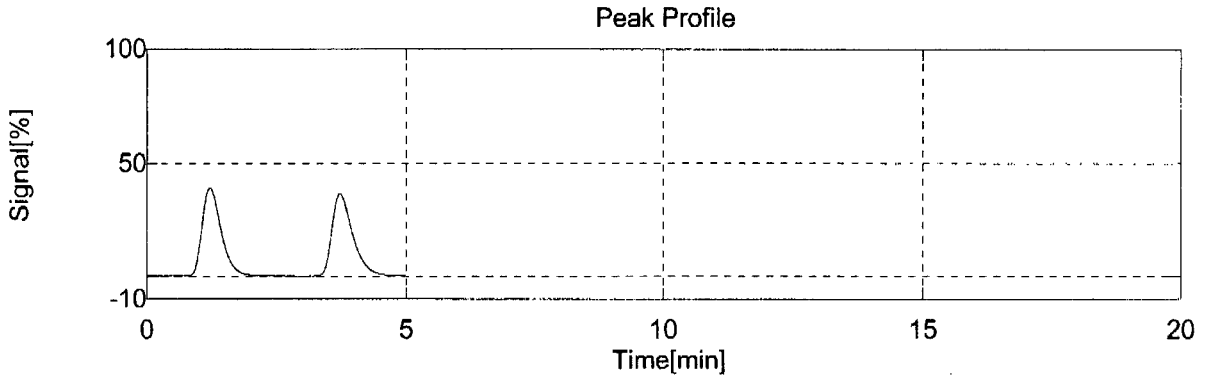
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 10:21:01

Mean Area	Conc	Result	SD	CV	Modified
9024	2.173%		0.01877	0.864%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8969	2.1593		******	10/30/2010 10:14:28	a01012s1.cal
2	5	9080	2.1859		******	10/30/2010 10:21:01	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

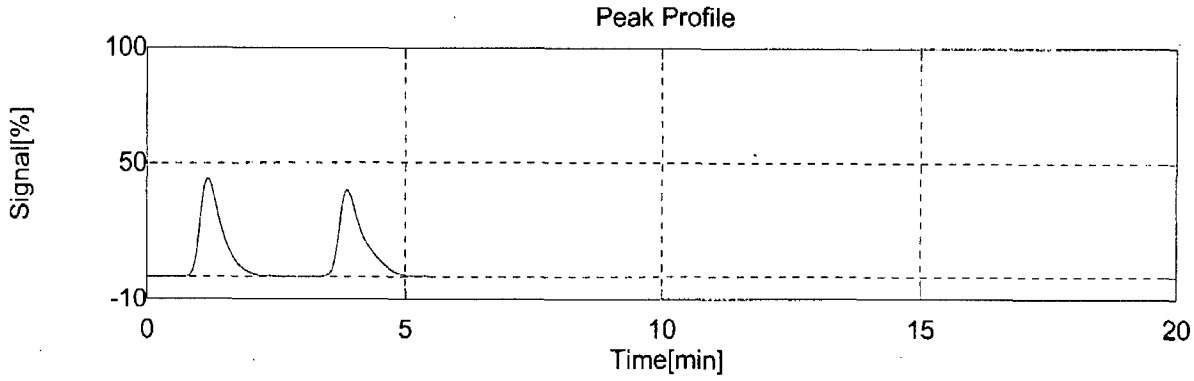
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 10:35:28

Mean Area	Conc	Result	SD	CV	Modified
11193	2.691%		0.05191	1.93%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	11347	2.7280		******	10/30/2010 10:25:33	a01012s1.cal
2	5	11040	2.6546		******	10/30/2010 10:35:28	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: GP56044-MB3
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

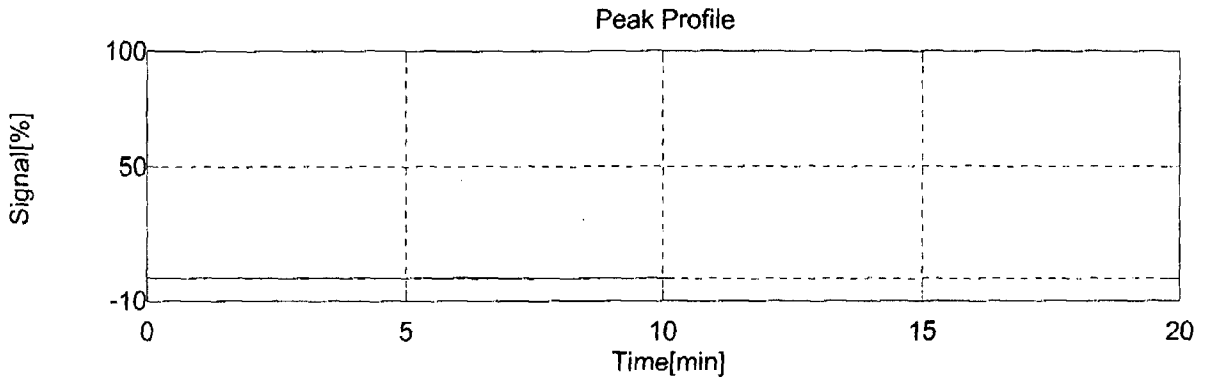
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 10:51:27

Mean Area	Conc	Result	SD	CV	Weight	Modified
0	0.01451%		0.00000	0.0000%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	0	100.0	0.014506		******	10/30/2010 10:44:19	a01012s1.cal
2	5	0	100.0	0.014506		******	10/30/2010 10:51:27	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: GP56044-B3
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

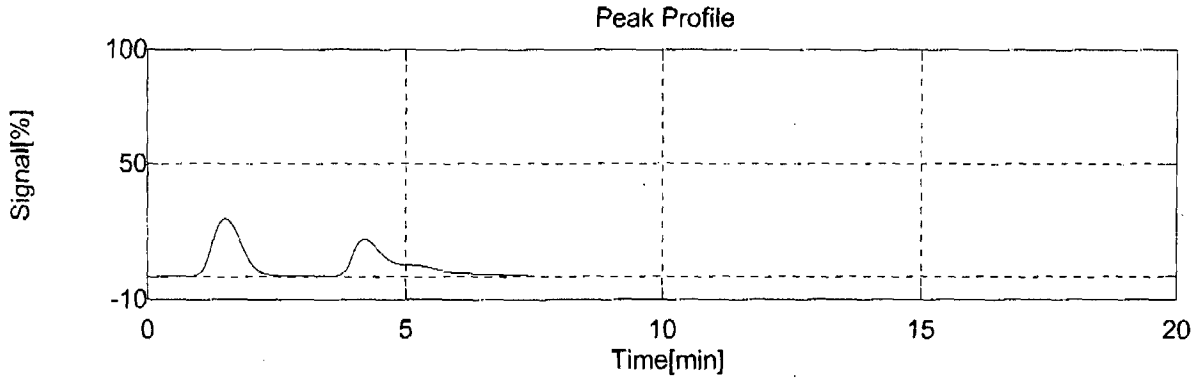
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 11:04:00

Mean Area	Conc	Result	SD	CV	Weight	Modified
8634	2.079%		0.05901	2.84%	100.0	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	8809	100.0	2.1211		******	10/30/2010 10:56:42	a01012s1.cal
2	5	8460	100.0	2.0376		******	10/30/2010 11:04:00	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: JA58750-16
Sample ID:
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

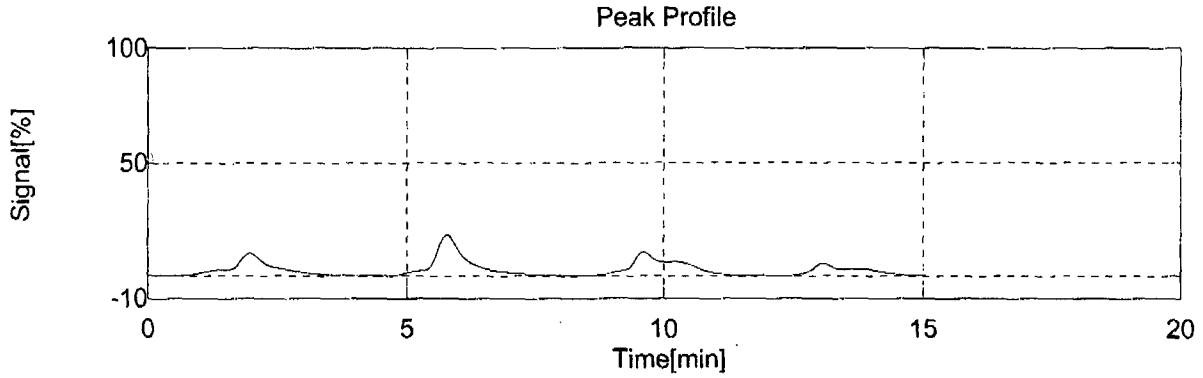
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 11:25:49

Mean Area	Conc	Result	SD	CV	Weight	Modified
4917	2.256%		0.8494	37.6%	52.90	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	4447	52.00	2.0730		******	10/30/2010 11:09:30	a01012s1.cal
2	5	7026	52.50	3.2279		******	10/30/2010 11:15:22	a01012s1.cal
3	5	5545	53.10	2.5245		******	10/30/2010 11:20:44	a01012s1.cal
4	5	2650	54.00	1.2004		******	10/30/2010 11:25:49	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: GP56044-D1
Sample ID: JA58750-11
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

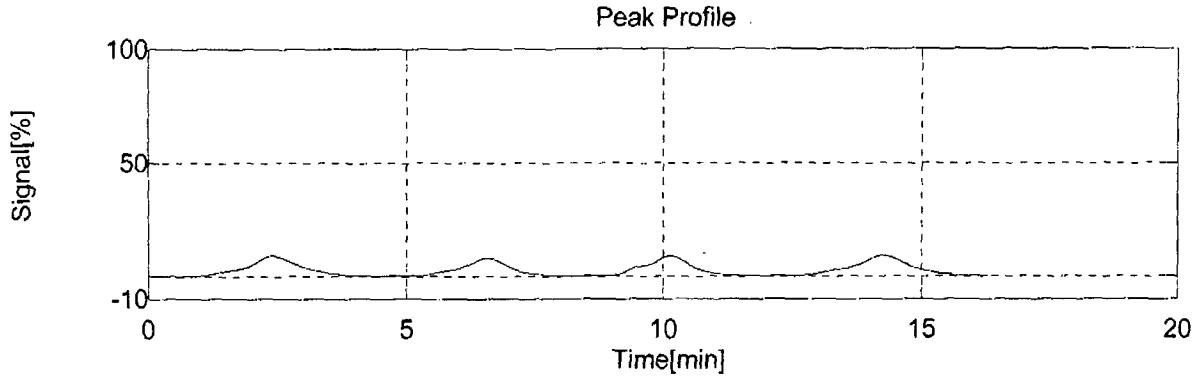
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 12:03:48

Mean Area	Conc	Result	SD	CV	Weight	Modified
5181	1.184%		0.1941	16.4%	106.1	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	5675	107.3	1.2783		******	10/30/2010 11:33:35	a01012s1.cal
2	5	4441	106.9	1.0070		******	10/30/2010 11:50:46	a01012s1.cal
3	5	4580	106.8	1.0391		******	10/30/2010 11:57:54	a01012s1.cal
4	5	6031	103.2	1.4116		******	10/30/2010 12:03:48	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: GP56044-S1
Sample ID: JA58750-11
Comment:
Method: tocss4.met
Cal Curve: 1: a01012s1.cal

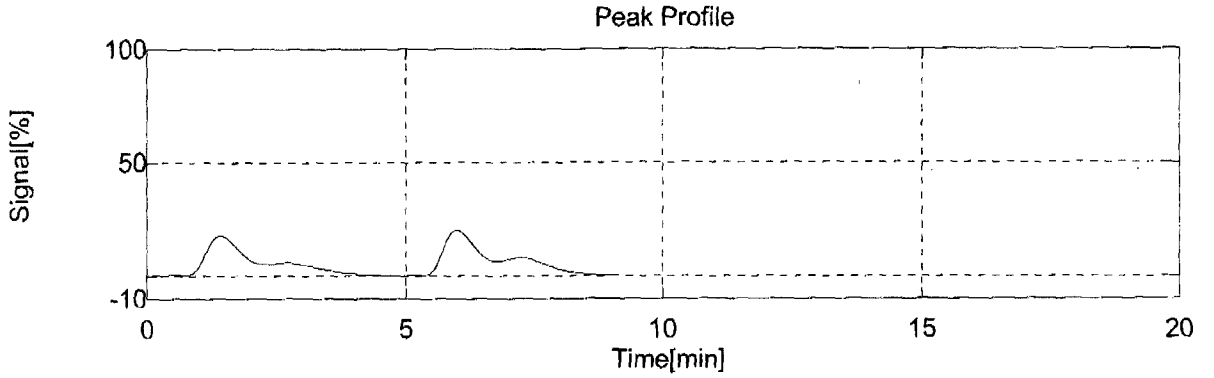
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 12:16:28

Mean Area	Conc	Result	SD	CV	Weight	Modified
12220	2.754%		0.2890	10.5%	106.7	

No.	Range	Area	Weight	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	11326	106.8	2.5496		******	10/30/2010 12:10:01	a01012s1.cal
2	5	13114	106.5	2.9582		******	10/30/2010 12:16:28	a01012s1.cal

14.10 14

TOC-Control



Samples

Sample Name: CCV
Sample ID:
Comment:
Method: tocscal4.met
Cal Curve: 1: a01012s1.cal

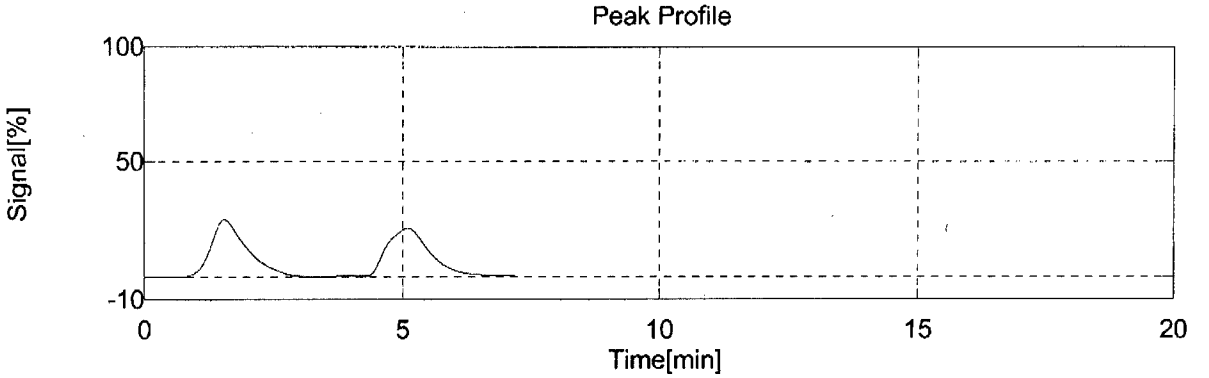
Type	Analysis	Dilution	Date/Time
Unknown	SSM-TC	1.000	10/30/2010 12:54:44

Mean Area	Conc	Result	SD	CV	Modified
10805	2.598%		0.05766	2.22%	

No.	Range	Area	Conc	Excl.	Notes	Date/Time	Cal Curve
1	5	10976	2.6393		******	10/30/2010 12:46:57	a01012s1.cal
2	5	10635	2.5577		******	10/30/2010 12:54:44	a01012s1.cal

14.10 14

TOC-Control



Statistics / Summary

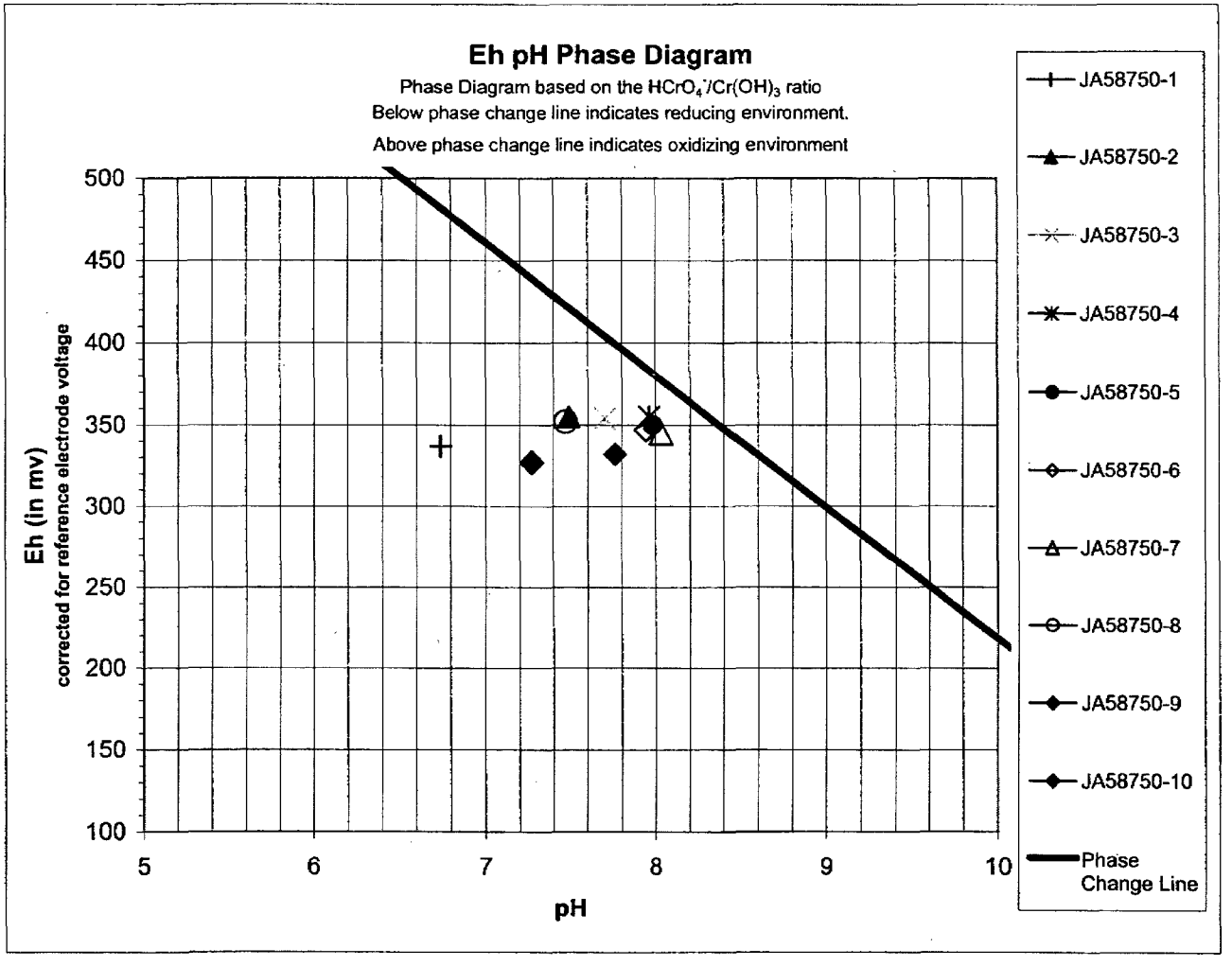
Sample Name	Analysis	Conc.
CRI	SSM-TC	0.1234 %
HSTD	SSM-TC	5.434 %
ICV	SSM-TC	2.173 %
CCV	SSM-TC	2.645 %
GP56044-MB3	SSM-TC	0.01451 %
GP56044-B3	SSM-TC	2.079 %
JA58750-16	SSM-TC	2.256 %
GP56044-D1	SSM-TC	1.184 %
GP56044-S1	SSM-TC	2.754 %

14.10 14

ACCUTEST.

	pH	eH (MV)
Phase Change Line	0	1027.7
	14	-105.6

Sample Number	pH	eH (mv)
JA58750-1	6.74	337
JA58750-2	7.49	355
JA58750-3	7.7	354
JA58750-4	7.96	355
JA58750-5	7.98	350
JA58750-6	7.94	347
JA58750-7	8.03	345
JA58750-8	7.47	352
JA58750-9	7.27	327
JA58750-10	7.76	332



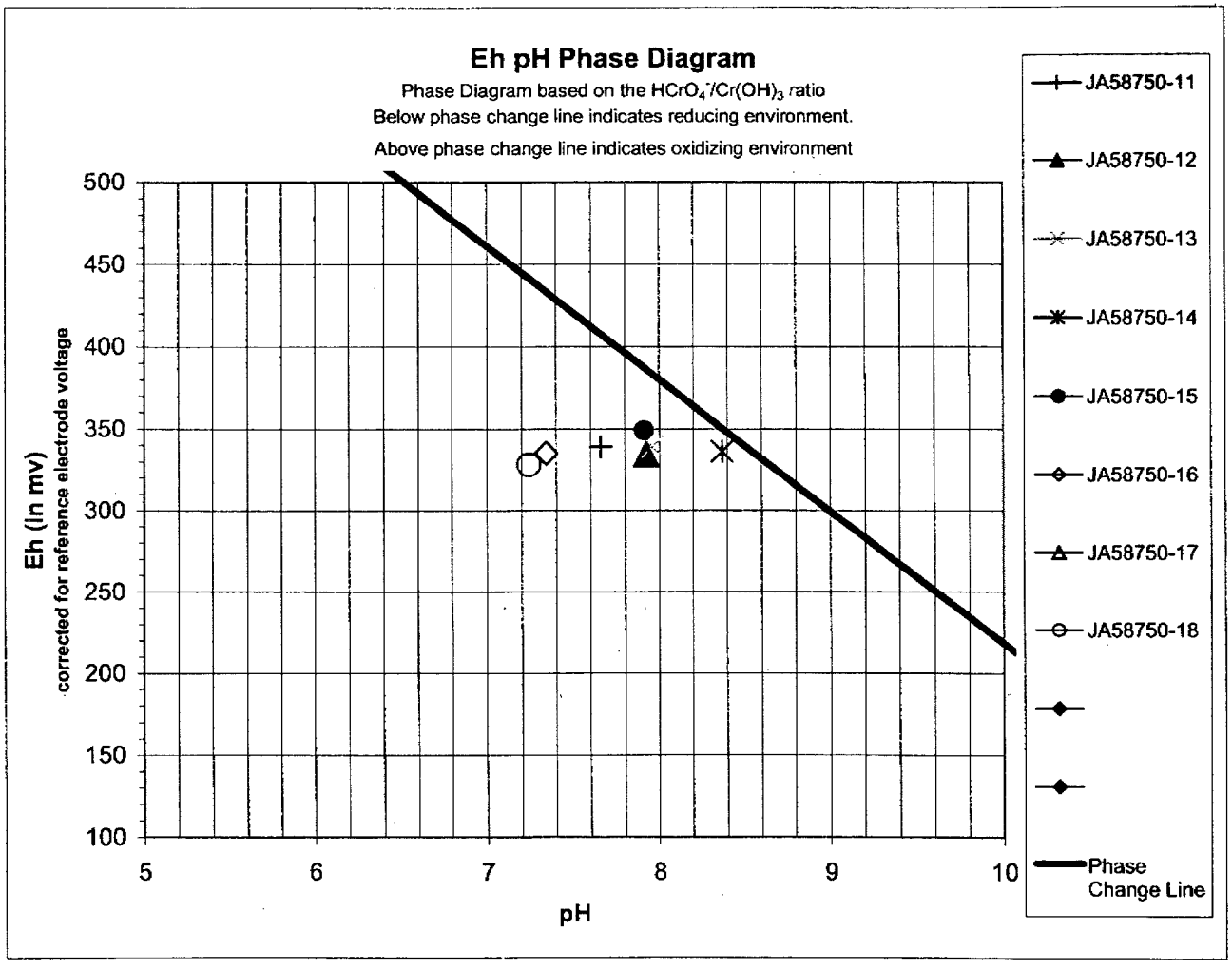
Note that the Eh values plotted on this diagram are corrected for the reference electrode voltage and the values shown are versus the standard hydrogen electrode

Reference for graph: SW846 method 3060A

ACCUTEST.

Phase Change Line	pH	eH (MV)
	0	1027.7
	14	-105.6

Sample Number	pH	eH (mv)
JA58750-11	7.66	339
JA58750-12	7.93	334
JA58750-13	7.96	339
JA58750-14	8.37	336
JA58750-15	7.91	349
JA58750-16	7.34	335
JA58750-17	7.92	334
JA58750-18	7.24	328



Note that the Eh values plotted on this diagram are corrected for the reference electrode voltage and the values shown are versus the standard hydrogen electrode

Reference for graph: SW846 method 3060A

New Jersey
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480

Accutest Job #: JA58750
Accutest Quote #:

Client Information

Accutest
Name: 2235 Route 130
Address: Dayton NJ 08810
City State Zip
Tammy McCloskey
Send Report to:
Phone #: (732) 329-0200 x364

Facility Information

Project Name: Bell Bend Power Plant, PA
Location:
Project No.: JA58750
FAX #: (732) 329-3499

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	LC8315FORM
-1	10/12/10	10:26	MH	Soil							X
2	10/12/10	11:10	MH	Soil							X
3	10/12/10	12:02	MH	Soil							X
4	10/12/10	12:40	MH	Soil							X
5	10/12/10	14:23	MH	Soil							X
6	10/12/10	14:23	MH	Soil							X
7	10/12/10	14:51	MH	Soil							X
8	10/12/10	15:49	MH	Soil							X
9	10/12/10	16:11	MH	Soil							X
10	10/12/10	16:29	MH	Soil							X

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days EMERGENCY
- [X] Other 21 (Days)

21 Day Turnaround Hardcopy, Emergency or RUSH is FAX Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] State Forms

Comments / Remarks

HE

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	[illegible]	1	2	10/15/10 09:30	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by Sampler: 5	Date Time:	Received By: 5	Seal #	Preserved where applicable ☐	On Ice ☑ 2.5°C

15.1 15

JA58750: Chain of Custody
Page 1 of 5
Accutest Labs of New England, Inc.

ACCUTEST

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480

Accutest Job #: JA58750
Accutest Quote #:

Client Information

Name: Accutest
Address: 2235 Route 130
City: Dayton State: NJ Zip: 08810
Send Report to: Tammy McCloskey
Phone #: (732) 329-0200

Facility Information

Project Name: Bell Bend Power Plant, PA
Location:
Project No.: JA58750
FAX #: (732) 329-3499

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	LC8315FORM
11, 11D, 11S	10/13/10	8:25	MH	Soil							X
12	10/13/10	8:55	MH	Soil							X
13	10/13/10	9:25	MH	Soil							X
14	10/13/10	10:01	MH	Soil							X
15	10/13/10	10:25	MH	Soil							X
16	10/13/10	11:15	MH	Soil							X
17	10/13/10	11:58	MH	Soil							X
18	10/13/10	11:15	MH	Soil							X

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [X] Other 21 (Days)

21 Day Turnaround Hardcopy, Emergency or RUSH is FAX Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [x] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2	10/15/10 09:30	2
3		3	4		4
5		5	Seal #	Preserved where applicable [ ]	On Ice [✓] 2.5°C

15.1 15

JA58750: Chain of Custody
Page 2 of 5

CHAIN OF CUSTODY

ACCUTEST

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480

Accutest Job #: JA58750
Accutest Quote #:

Client Information

Accutest
ne
2235 Route 130
ress
Dayton NJ 08810
State Zip
Tammy McCloskey
d Report to:
one #: (732) 329-0200 x364

Facility Information

Project Name: Bell Bend Power Plant, PA
Location:
Project No.: JA58750
FAX #: (732) 329-3499

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	LC8315FORM
-1	10/12/10	10:26	MH	Soil							X
2	10/12/10	11:10	MH	Soil							X
3	10/12/10	12:02	MH	Soil							X
4	10/12/10	12:40	MH	Soil							X
5	10/12/10	14:23	MH	Soil							X
6	10/12/10	14:23	MH	Soil							X
7	10/12/10	14:51	MH	Soil							X
8	10/12/10	15:49	MH	Soil							X
9	10/12/10	16:11	MH	Soil							X
10	10/12/10	16:29	MH	Soil							X

Turnaround Information

- [ ] 21 Day Standard — Approved By:
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [X] Other 21 (Days)

1 Day Turnaround Hardcopy, Emergency or RUSH is FAX data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [X] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] State Forms

Comments / Remarks

14E

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	[illegible]	1 [illegible]	2	10/15/10 09:30	2 [illegible]
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applicable	On Ice
5		5		[ ]	[X] 2.5 °C

15.1 15

JA58750: Chain of Custody
Page 3 of 5

ACCUTEST

CHAIN OF CUSTODY

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
908-329-0200 FAX: 908-329-3499/3480

Accutest Job #: JA58750
Accutest Quote #:

Client Information

Accutest
ie: 2235 Route 130
ress: Dayton NJ 08810
State Zip
Tammy McCloskey
d Report to:
one #: (732) 329-0200

Facility Information

Project Name: Bell Bend Power Plant, PA
Location:
Project No.: JA58750
FAX #: (732) 329-3499

Analytical Information

Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	LC8315FORM
11, 11D, 11S	10/13/10	8:25	MH	Soil							X
12	10/13/10	8:55	MH	Soil							X
13	10/13/10	9:25	MH	Soil							X
14	10/13/10	10:01	MH	Soil							X
15	10/13/10	10:25	MH	Soil							X
16	10/13/10	11:15	MH	Soil							X
17	10/13/10	11:58	MH	Soil							X
18	10/13/10	11:15	MH	Soil							X

Turnaround Information

- [ ] 21 Day Standard
- [ ] 14 Day
- [ ] 7 Days *EMERGENCY*
- [x] Other 21 (Days)

Approved By:

:1 Day Turnaround Hardcopy, Emergency or RUSH is FAX
Data unless previously approved.

Data Deliverable Information

- [ ] NJ Reduced
- [x] NJ Full
- [ ] FULL CLP
- [ ] Disk Deliverable
- [ ] Other (Specify)
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] State Forms

Comments / Remarks

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	10/13/10 17:00	1 [illegible]	2	10/15/10 09:30	2 [illegible]
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Seal #	Preserved where applicable	On Ice
5		5		[ ]	[x] 2.5°C

15.1 15

JA58750: Chain of Custody
Page 4 of 2

ACCUTEST Laboratories

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JA58750 **Client:** ALNJ **Immediate Client Services Action Required:** No

Date / Time Received: 10/15/2010 9:30:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: BELL BEND POWER PLANT PA **Airbill #'s:** N/A

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

JA58750: Chain of Custody
Page 5 of 5

Internal Sample Tracking Chronicle

Accutest New Jersey

Job No: JA58750

ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA
Project No: 60160208

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JA58750-1 Collected: 12-OCT-10 10:26 By: MH Received: 13-OCT-10 By: JB BBNP-CW1-C						
JA58750-1	SW846 8315	21-OCT-10 18:13	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-1	SW846 8315	22-OCT-10 10:30	CZ	18-OCT-10	AF	LC8315FORM
JA58750-2 Collected: 12-OCT-10 10:10 By: MH Received: 13-OCT-10 By: JB BBNP-CW2-C						
JA58750-2	SW846 8315	21-OCT-10 18:34	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-2	SW846 8315	22-OCT-10 10:51	CZ	18-OCT-10	AF	LC8315FORM
JA58750-3 Collected: 12-OCT-10 12:02 By: MH Received: 13-OCT-10 By: JB BBNP-CW3-C						
JA58750-3	SW846 8315	21-OCT-10 18:55	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-3	SW846 8315	22-OCT-10 11:12	CZ	18-OCT-10	AF	LC8315FORM
JA58750-4 Collected: 12-OCT-10 12:40 By: MH Received: 13-OCT-10 By: JB BBNP-CW6-C						
JA58750-4	SW846 8315	21-OCT-10 19:16	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-4	SW846 8315	22-OCT-10 11:32	CZ	18-OCT-10	AF	LC8315FORM
JA58750-5 Collected: 12-OCT-10 14:23 By: MH Received: 13-OCT-10 By: JB BBNP-CW9-C						
JA58750-5	SW846 8315	21-OCT-10 19:37	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-5	SW846 8315	22-OCT-10 11:53	CZ	18-OCT-10	AF	LC8315FORM
JA58750-6 Collected: 12-OCT-10 14:23 By: MH Received: 13-OCT-10 By: JB BBNP-CW9-FD						
JA58750-6	SW846 8315	21-OCT-10 19:58	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-6	SW846 8315	22-OCT-10 12:14	CZ	18-OCT-10	AF	LC8315FORM
JA58750-7 Collected: 12-OCT-10 14:51 By: MH Received: 13-OCT-10 By: JB BBNP-CW12-C						
JA58750-7	SW846 8315	21-OCT-10 20:40	CZ	18-OCT-10	AF	LC+ ACHD

Internal Sample Tracking Chronicle

Accutest New Jersey

Job No: JA58750

ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA
Project No: 60160208

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JA58750-7	SW846 8315	22-OCT-10 12:56	CZ	18-OCT-10	AF	LC8315FORM
JA58750-8	Collected: 12-OCT-10 15:49 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW15-C						
JA58750-8	SW846 8315	21-OCT-10 21:01	CZ	18-OCT-10	AF	LC+ ACHD,LC8315FORM
JA58750-9	Collected: 12-OCT-10 16:11 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW18-C						
JA58750-9	SW846 8315	21-OCT-10 21:22	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-9	SW846 8315	22-OCT-10 13:38	CZ	18-OCT-10	AF	LC8315FORM
JA58750-10	Collected: 12-OCT-10 16:29 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW21-C						
JA58750-10	SW846 8315	21-OCT-10 21:43	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-10	SW846 8315	22-OCT-10 13:59	CZ	18-OCT-10	AF	LC8315FORM
JA58750-11	Collected: 13-OCT-10 08:25 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW5-C						
JA58750-11	SW846 8315	21-OCT-10 22:03	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-11	SW846 8315	22-OCT-10 14:20	CZ	18-OCT-10	AF	LC8315FORM
JA58750-12	Collected: 13-OCT-10 08:55 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW8-C						
JA58750-12	SW846 8315	21-OCT-10 22:24	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-12	SW846 8315	22-OCT-10 14:41	CZ	18-OCT-10	AF	LC8315FORM
JA58750-13	Collected: 13-OCT-10 09:25 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW11-C						
JA58750-13	SW846 8315	21-OCT-10 22:45	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-13	SW846 8315	22-OCT-10 15:01	CZ	18-OCT-10	AF	LC8315FORM
JA58750-14	Collected: 13-OCT-10 10:01 By: MH			Received: 13-OCT-10 By: JB		
BBNP-CW14-C						

Internal Sample Tracking Chronicle

Accutest New Jersey

Job No: JA58750

ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA
Project No: 60160208

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JA58750-14	SW846 8315	21-OCT-10 23:06	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-14	SW846 8315	22-OCT-10 15:22	CZ	18-OCT-10	AF	LC8315FORM
JA58750-15 Collected: 13-OCT-10 10:25 By: MH Received: 13-OCT-10 By: JB BBNP-CW17-C						
JA58750-15	SW846 8315	21-OCT-10 23:27	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-15	SW846 8315	22-OCT-10 15:43	CZ	18-OCT-10	AF	LC8315FORM
JA58750-16 Collected: 13-OCT-10 11:15 By: MH Received: 13-OCT-10 By: JB BBNP-CW20-C						
JA58750-16	SW846 8315	21-OCT-10 23:48	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-16	SW846 8315	22-OCT-10 16:04	CZ	18-OCT-10	AF	LC8315FORM
JA58750-17 Collected: 13-OCT-10 11:58 By: MH Received: 13-OCT-10 By: JB BBNP-CW23-C						
JA58750-17	SW846 8315	22-OCT-10 00:30	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-17	SW846 8315	22-OCT-10 16:46	CZ	18-OCT-10	AF	LC8315FORM
JA58750-18 Collected: 13-OCT-10 11:15 By: MH Received: 13-OCT-10 By: JB BBNP-CW20-C-FD						
JA58750-18	SW846 8315	22-OCT-10 00:51	CZ	18-OCT-10	AF	LC+ ACHD
JA58750-18	SW846 8315	22-OCT-10 17:07	CZ	18-OCT-10	AF	LC8315FORM

Accutest Internal Chain of Custody

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA
Received: 10/13/10

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JA58750-1.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-1.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-1.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-2.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-2.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-2.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-3.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-3.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-3.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-4.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-4.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-4.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-5.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-5.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-5.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-6.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-6.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-6.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-7.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-7.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-7.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-8.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-8.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-8.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-9.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-9.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-9.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-10.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-10.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-10.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-11.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-11.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-11.1	Scott Parsick		12/28/10 11:18	Disposed

Accutest Internal Chain of Custody

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA
Received: 10/13/10

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JA58750-12.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-12.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-12.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-13.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-13.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-13.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-14.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-14.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-14.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-15.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-15.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-15.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-16.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-16.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-16.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-17.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-17.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-17.1	Scott Parsick		12/28/10 11:18	Disposed
JA58750-18.1	Walk In Ref #9	Hamid Siamak	10/15/10 13:47	Retrieve from Storage
JA58750-18.1	Hamid Siamak	Walk In Ref #9	10/15/10 14:46	Return to Storage
JA58750-18.1	Scott Parsick		12/28/10 11:18	Disposed

New Jersey
ACCUTEST
LABORATORIES

GC Semi-volatiles

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP22983-MB	VU28450.D	1	10/21/10	CZ	10/18/10	OP22983	GVU1288

The QC reported here applies to the following samples: **Method:** SW846 8315

JA58750-1, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18

CAS No.	Compound	Result	RL	MDL	Units	Q
50-00-0	Formaldehyde	ND	800	110	ug/kg	
75-07-0	Acetaldehyde	ND	800	47	ug/kg	

CAS No.	Surrogate Recoveries		Limits
123-72-8	Butyraldehyde	89%	18-186%
123-72-8	Butyraldehyde	91%	18-186%

16.1.1

16

Leachate Blank Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP22983-LB	VU28474.D	1	10/22/10	CZ	10/18/10	OP22983	GVU1288

The QC reported here applies to the following samples: **Method:** SW846 8315

JA58750-1, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18

CAS No.	Compound	Result	RL	MDL	Units	Q
50-00-0	Formaldehyde	ND	800	110	ug/kg	
75-07-0	Acetaldehyde	ND	800	47	ug/kg	

CAS No.	Surrogate Recoveries		Limits
123-72-8	Butyraldehyde	85%	18-186%
123-72-8	Butyraldehyde	86%	18-186%

16.2.1

16

Blank Spike Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP22983-BS	VU28451.D	1	10/21/10	CZ	10/18/10	OP22983	GVU1288

The QC reported here applies to the following samples: **Method:** SW846 8315

JA58750-1, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
50-00-0	Formaldehyde	1600	1320	83	27-150
75-07-0	Acetaldehyde	1600	1250	78	32-143

CAS No.	Surrogate Recoveries	BSP	Limits
123-72-8	Butyraldehyde	103%	18-186%
123-72-8	Butyraldehyde	104%	18-186%

16.3.1 16

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP22983-MS	VU28495.D	5	10/22/10	CZ	10/18/10	OP22983	GVU1289
OP22983-MSD	VU28496.D	5	10/22/10	CZ	10/18/10	OP22983	GVU1289
JA58750-11	VU28465.D	1	10/21/10	CZ	10/18/10	OP22983	GVU1288
JA58750-11	VU28508.D	5	10/22/10	CZ	10/18/10	OP22983	GVU1289

The QC reported here applies to the following samples: **Method:** SW846 8315

JA58750-1, JA58750-2, JA58750-3, JA58750-4, JA58750-5, JA58750-6, JA58750-7, JA58750-8, JA58750-9, JA58750-10, JA58750-11, JA58750-12, JA58750-13, JA58750-14, JA58750-15, JA58750-16, JA58750-17, JA58750-18

CAS No.	Compound	JA58750-11 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
50-00-0	Formaldehyde	15400 [b]		1920	22500	371* [a]	25200	511* [a]	11	10-150/35
75-07-0	Acetaldehyde	133	J	1920	1340	63	1420	67	6	10-150/35

CAS No.	Surrogate Recoveries	MS	MSD	JA58750-11	JA58750-11	Limits
123-72-8	Butyraldehyde	142%	138%	127%	123%	18-186%
123-72-8	Butyraldehyde	146%	143%	129%	129%	18-186%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Result is from Run #2.

16.4.1

Semivolatile Surrogate Recovery Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Method: SW846 8315 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JA58750-1	VU28497.D	137.0	143.0
JA58750-1	VU28454.D	141.0	140.0
JA58750-2	VU28498.D	126.0	131.0
JA58750-2	VU28455.D	126.0	125.0
JA58750-3	VU28499.D	120.0	123.0
JA58750-3	VU28456.D	117.0	115.0
JA58750-4	VU28500.D	121.0	126.0
JA58750-4	VU28457.D	125.0	124.0
JA58750-5	VU28501.D	119.0	124.0
JA58750-5	VU28458.D	121.0	122.0
JA58750-6	VU28502.D	111.0	117.0
JA58750-6	VU28459.D	117.0	117.0
JA58750-7	VU28504.D	94.0	97.0
JA58750-7	VU28461.D	90.0	90.0
JA58750-8	VU28462.D	94.0	95.0
JA58750-9	VU28506.D	134.0	141.0
JA58750-9	VU28463.D	140.0	143.0
JA58750-10	VU28507.D	122.0	127.0
JA58750-10	VU28464.D	125.0	122.0
JA58750-11	VU28508.D	123.0	129.0
JA58750-11	VU28465.D	127.0	129.0
JA58750-12	VU28509.D	118.0	124.0
JA58750-12	VU28466.D	120.0	121.0
JA58750-13	VU28510.D	120.0	123.0
JA58750-13	VU28467.D	122.0	123.0
JA58750-14	VU28511.D	128.0	137.0
JA58750-14	VU28468.D	137.0	137.0
JA58750-15	VU28512.D	117.0	121.0
JA58750-15	VU28469.D	117.0	118.0
JA58750-16	VU28513.D	128.0	132.0
JA58750-16	VU28470.D	134.0	136.0
JA58750-17	VU28515.D	111.0	120.0
JA58750-17	VU28472.D	107.0	107.0
JA58750-18	VU28516.D	100.0	106.0
JA58750-18	VU28473.D	102.0	102.0
OP22983-BS	VU28451.D	103.0	104.0
OP22983-LB	VU28474.D	85.0	86.0
OP22983-MB	VU28450.D	89.0	91.0
OP22983-MS	VU28495.D	142.0	146.0
OP22983-MSD	VU28496.D	138.0	143.0

Semivolatile Surrogate Recovery Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Method: SW846 8315 **Matrix:** SO

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits

Surrogate Compounds	Recovery Limits
S1 = Butyraldehyde	18-186%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1288-CC1253	**Injection Date:**	10/21/10
Lab File ID:	VU28449.D	**Injection Time:**	16:23
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.32	13.32

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP22983-MB	VU28450.D	10/21/10	16:50	13.33	13.33
OP22983-BS	VU28451.D	10/21/10	17:11	13.30	13.30
JA58750-1	VU28454.D	10/21/10	18:13	13.34	13.34
JA58750-2	VU28455.D	10/21/10	18:34	13.35	13.34
JA58750-3	VU28456.D	10/21/10	18:55	13.35	13.35
JA58750-4	VU28457.D	10/21/10	19:16	13.35	13.35
JA58750-5	VU28458.D	10/21/10	19:37	13.37	13.38
JA58750-6	VU28459.D	10/21/10	19:58	13.41	13.41

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.1

16

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1288-CC1253	**Injection Date:**	10/21/10
Lab File ID:	VU28460.D	**Injection Time:**	20:19
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.45	13.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
JA58750-7	VU28461.D	10/21/10	20:40	13.48	13.48
JA58750-8	VU28462.D	10/21/10	21:01	13.59	13.59
JA58750-9	VU28463.D	10/21/10	21:22	13.32	13.32
JA58750-10	VU28464.D	10/21/10	21:43	13.34	13.34
JA58750-11	VU28465.D	10/21/10	22:03	13.36	13.35
JA58750-12	VU28466.D	10/21/10	22:24	13.37	13.37
JA58750-13	VU28467.D	10/21/10	22:45	13.35	13.35
JA58750-14	VU28468.D	10/21/10	23:06	13.35	13.35
JA58750-15	VU28469.D	10/21/10	23:27	13.36	13.36
JA58750-16	VU28470.D	10/21/10	23:48	13.36	13.37

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.2

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1288-CC1253	**Injection Date:**	10/22/10
Lab File ID:	VU28471.D	**Injection Time:**	00:09
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.37	13.37

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
JA58750-17	VU28472.D	10/22/10	00:30	13.37	13.37
JA58750-18	VU28473.D	10/22/10	00:51	13.36	13.36
OP22983-LB	VU28474.D	10/22/10	01:12	13.34	13.34

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.3 16

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1289-CC1253	**Injection Date:**	10/22/10
Lab File ID:	VU28494.D	**Injection Time:**	09:09
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.51	13.51

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP22983-MS	VU28495.D	10/22/10	09:48	13.46	13.46
OP22983-MSD	VU28496.D	10/22/10	10:09	13.47	13.46
JA58750-1	VU28497.D	10/22/10	10:30	13.45	13.45
JA58750-2	VU28498.D	10/22/10	10:51	13.46	13.46
JA58750-3	VU28499.D	10/22/10	11:12	13.45	13.45
JA58750-4	VU28500.D	10/22/10	11:32	13.45	13.44
JA58750-5	VU28501.D	10/22/10	11:53	13.43	13.43
JA58750-6	VU28502.D	10/22/10	12:14	13.38	13.39

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.4 16

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1289-CC1253	**Injection Date:**	10/22/10
Lab File ID:	VU28503.D	**Injection Time:**	12:35
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.34	13.34

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
JA58750-7	VU28504.D	10/22/10	12:56	13.35	13.35
JA58750-9	VU28506.D	10/22/10	13:38	13.39	13.39
JA58750-10	VU28507.D	10/22/10	13:59	13.42	13.42
JA58750-11	VU28508.D	10/22/10	14:20	13.43	13.44
JA58750-12	VU28509.D	10/22/10	14:41	13.45	13.45
JA58750-13	VU28510.D	10/22/10	15:01	13.42	13.42
JA58750-14	VU28511.D	10/22/10	15:22	13.44	13.44
JA58750-15	VU28512.D	10/22/10	15:43	13.42	13.42
JA58750-16	VU28513.D	10/22/10	16:04	13.40	13.41

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.5

16

GC Surrogate Retention Time Summary

Job Number: JA58750
Account: ALNJ Accutest New Jersey
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Check Std:	GVU1289-CC1253	**Injection Date:**	10/22/10
Lab File ID:	VU28514.D	**Injection Time:**	16:25
Instrument ID:	GCVU	**Method:**	SW846 8315

	S1 [a] RT	S1 [b] RT
Check Std	13.42	13.42

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
JA58750-17	VU28515.D	10/22/10	16:46	13.42	13.42
JA58750-18	VU28516.D	10/22/10	17:07	13.13	13.13

Surrogate Compounds

S1 = Butyraldehyde

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

16.6.6 16

Initial Calibration Summary

Job Number: JA58750 **Sample:** GVU1253-ICC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU27924.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
                    Response Factor Report  G1315A

  Method       : K:\HPLC2\METHODS\FM070610.M (RTE Integrator)
  Title        : LC8315FORM/032310/ic1209/op20876
  Last Update  : Wed Jul 07 09:33:41 2010
  Response via : Initial Calibration

  Calibration Files
  1   =VU27923.D   2   =VU27924.D   3   =VU27925.D   4   =VU27926.D
  5      =VU27927.D    6      =VU27928.D

        Compound              1     2     3     4     5     6     Avg    %RSD
  ---------------------------------------------------------------------------
  1)      Formaldehyde        0.236 0.293 0.291 0.352 0.462 1.033 0.445 E5  67.10
           ----- Quadratic regression -----  Coefficient =  0.9981
                Response Ratio = 51516.94310 + 31750.28549 *A + -85.97234 *A^2

  2)      Acetaldehyde        0.373 0.482 0.419 0.563 0.716 1.507 0.677 E5  62.71
           ----- Quadratic regression -----  Coefficient =  0.9941
                Response Ratio = 46838.46160 + 52778.35038 *A + -157.35314 *A^2

  3) s    Butyraldehyde       1.879 2.264 1.685 1.867 2.045 3.994 2.289 E4  37.47
           ----- Quadratic regression -----  Coefficient =  0.9934
                Response Ratio = -35678.24236 + 24769.28645 *A + -54.97964 *A^2


Signal #2

  1)      Formaldehyde        0.640 0.804 0.795 0.974 1.282 3.115 1.268 E5  73.39
           ----- Quadratic regression -----  Coefficient =  0.9976
                Response Ratio = 154796.34944 + 86883.32869 *A + -242.46209 *A^2

  2)      Acetaldehyde        0.727 0.916 0.844 1.200 1.713 4.232 1.605 E5  83.12
           ----- Quadratic regression -----  Coefficient =  0.9946
                Response Ratio = 268283.95198 + 94044.36771 *A + -236.82367 *A^2

  3) s    Butyraldehyde       3.420 4.082 3.022 3.160 3.437 5.777 3.816 E4  26.92
           ----- Quadratic regression -----  Coefficient =  0.9938
                Response Ratio = -79635.93019 + 44871.05988 *A + -96.50411 *A^2

 ---------------------------------------------------------------------------
 (#) = Out of Range

          FM070610.M        Wed Jul 07 09:39:21 2010   RPT1
```

16.7.1

16

Initial Calibration Verification

Job Number: JA58750 **Sample:** GVU1253-ICV1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU27929.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : K:\HPLC2\DATA\070610\VU27929.D\dad1b.ch      Vial: 7
Acq On    : 06-Jul-2010, 17:06:55                    Operator: caobinz
Sample    : icv1253-50,form 50,icv                   Inst    : G1315A
Misc      : op21785,gvu1253,25,,,1,,soil             Multiplr: 1.00
IntFile   : rteint.p

Data File : K:\HPLC2\DATA\070610\VU27929.D\dad1a.ch      Vial: 7
Acq On    : 06-Jul-2010, 17:06:55                    Operator: sonal
Sample    : form 50,icv                              Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : K:\HPLC2\METHODS\FM070610.M (RTE Integrator)
Title        : LC8315FORM/032310/ic1209/op20876
Last Update  : Wed Jul 07 09:33:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  35%  Max. R.T. Dev  0.50min
Max. RRF Dev :  65%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	28.800 E3	35.2	98	0.00
2	Acetaldehyde	67.665	40.359 E3	40.4	84	0.00
3 s	Butyraldehyde	22.890	22.098 E3	3.5	98	0.00

Signal #2

1	Formaldehyde	126.806	78.052 E3	38.4	97	0.00
2	Acetaldehyde	160.538	74.700 E3	53.5	82	0.00
3 s	Butyraldehyde	38.164	40.346 E3	-5.7	99	0.01

Evaluate Continuing Calibration Report - Not Founds

```
Data File : K:\HPLC2\DATA\070610\VU27929.D\dad1b.ch      Vial: 7
Acq On    : 06-Jul-2010, 17:06:55                    Operator: caobinz
Sample    : icv1253-50,form 50,icv                   Inst    : G1315A
Misc      : op21785,gvu1253,25,,,1,,soil             Multiplr: 1.00
IntFile   : rteint.p

Data File : K:\HPLC2\DATA\070610\VU27929.D\dad1a.ch      Vial: 7
Acq On    : 06-Jul-2010, 17:06:55                    Operator: sonal
Sample    : form 50,icv                              Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : K:\HPLC2\METHODS\FM070610.M (RTE Integrator)
Title        : LC8315FORM/032310/ic1209/op20876
Last Update  : Wed Jul 07 09:33:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  35%  Max. R.T. Dev  0.50min
Max. RRF Dev :  65%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.2 16

Initial Calibration Verification

Job Number: JA58750 **Sample:** GVU1253-ICV1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU27929.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VU27924.D FM070610.M Wed Jul 07 09:36:32 2010 RPT1

16.7.2 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28449.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102110\VU28449.D\dad1b.ch      Vial: 91
Acq On    : 21-Oct-2010, 16:23:29                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28449.D\dad1a.ch      Vial: 91
Acq On    : 21-Oct-2010, 16:23:29                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Tue Oct 19 16:05:29 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.193 E3	34.3#	100	0.01
2	Acetaldehyde	67.665	42.686 E3	36.9#	102	0.02
3 s	Butyraldehyde	22.890	18.236 E3	20.3#	108	0.00

Signal #2

1	Formaldehyde	126.806	81.054 E3	36.1#	102	0.01
2	Acetaldehyde	160.538	91.223 E3	43.2#	108	0.02
3 s	Butyraldehyde	38.164	32.767 E3	14.1	108	0.00

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102110\VU28449.D\dad1b.ch      Vial: 91
Acq On    : 21-Oct-2010, 16:23:29                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28449.D\dad1a.ch      Vial: 91
Acq On    : 21-Oct-2010, 16:23:29                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Tue Oct 19 16:05:29 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.3 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28449.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

---------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28431.D  FM102110.M       Fri Oct 22 08:44:06 2010   RPT1
```

16.7.3 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28460.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102110\VU28460.D\dad1b.ch      Vial: 91
Acq On    : 21-Oct-2010, 20:19:31                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28460.D\dad1a.ch      Vial: 91
Acq On    : 21-Oct-2010, 20:19:31                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.584 E3	33.5#	102	0.07
2	Acetaldehyde	67.665	41.932 E3	38.0#	100	0.08
3 s	Butyraldehyde	22.890	19.003 E3	17.0#	113	0.13

Signal #2

1	Formaldehyde	126.806	79.867 E3	37.0#	100	0.07
2	Acetaldehyde	160.538	91.309 E3	43.1#	108	0.08
3 s	Butyraldehyde	38.164	33.763 E3	11.5	112	0.12

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102110\VU28460.D\dad1b.ch      Vial: 91
Acq On    : 21-Oct-2010, 20:19:31                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28460.D\dad1a.ch      Vial: 91
Acq On    : 21-Oct-2010, 20:19:31                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.4 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28460.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

--------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28449.D  FM102110.M       Fri Oct 22 09:06:15 2010   RPT1
```

16.7.4 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28471.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102110\VU28471.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 00:09:31                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28471.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 00:09:31                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	28.913 E3	35.0#	99	0.02
2	Acetaldehyde	67.665	42.196 E3	37.6#	101	0.02
3 s	Butyraldehyde	22.890	19.226 E3	16.0#	114	0.05

Signal #2

1	Formaldehyde	126.806	80.585 E3	36.5#	101	0.02
2	Acetaldehyde	160.538	90.821 E3	43.4#	108	0.02
3 s	Butyraldehyde	38.164	33.933 E3	11.1	112	0.05

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102110\VU28471.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 00:09:31                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28471.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 00:09:31                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.5 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28471.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

--------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28449.D  FM102110.M       Fri Oct 22 09:32:33 2010   RPT1
```

16.7.5 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28475.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102110\VU28475.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 01:33:17                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28475.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 01:33:17                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.889 E3	32.8#	103	0.00
2	Acetaldehyde	67.665	41.296 E3	39.0#	99	0.00
3 s	Butyraldehyde	22.890	18.911 E3	17.4#	112	0.04

Signal #2

1	Formaldehyde	126.806	81.241 E3	35.9#	102	0.00
2	Acetaldehyde	160.538	90.092 E3	43.9#	107	0.00
3 s	Butyraldehyde	38.164	33.534 E3	12.1	111	0.03

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102110\VU28475.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 01:33:17                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28475.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 01:33:17                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.6 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1288-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28475.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

---------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28449.D  FM102110.M       Fri Oct 22 09:36:18 2010   RPT1
```

16.7.6 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28494.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102210\VU28494.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 09:09:07                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28494.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 09:09:07                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 09:53:58 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.300 E3	34.1#	101	0.00
2	Acetaldehyde	67.665	41.790 E3	38.2#	100	0.00
3 s	Butyraldehyde	22.890	18.435 E3	19.5#	109	0.00

Signal #2

1	Formaldehyde	126.806	81.330 E3	35.9#	102	0.00
2	Acetaldehyde	160.538	90.705 E3	43.5#	108	0.00
3 s	Butyraldehyde	38.164	32.942 E3	13.7	109	0.00

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102210\VU28494.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 09:09:07                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28494.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 09:09:07                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 09:53:58 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.7 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28494.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VU28494.D FM102210.M Fri Oct 22 12:05:14 2010 RPT1

16.7.7 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28503.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102210\VU28503.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 12:35:39                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28503.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 12:35:39                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.107 E3	34.5#	100	-0.05
2	Acetaldehyde	67.665	42.633 E3	37.0#	102	-0.08
3 s	Butyraldehyde	22.890	18.944 E3	17.2#	112	-0.17

Signal #2

1	Formaldehyde	126.806	80.020 E3	36.9#	101	-0.05
2	Acetaldehyde	160.538	93.723 E3	41.6#	111	-0.07
3 s	Butyraldehyde	38.164	33.602 E3	12.0	111	-0.17

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102210\VU28503.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 12:35:39                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28503.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 12:35:39                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.8 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28503.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

--------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28494.D  FM102210.M       Fri Oct 22 13:47:40 2010   RPT1
```

16.7.8 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28514.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102210\VU28514.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 16:25:24                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28514.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 16:25:24                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.657 E3	33.3#	102	-0.03
2	Acetaldehyde	67.665	43.184 E3	36.2#	103	-0.04
3 s	Butyraldehyde	22.890	18.304 E3	20.0#	109	-0.09

Signal #2

1	Formaldehyde	126.806	80.225 E3	36.7#	101	-0.03
2	Acetaldehyde	160.538	92.155 E3	42.6#	109	-0.04
3 s	Butyraldehyde	38.164	33.308 E3	12.7	110	-0.09

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102210\VU28514.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 16:25:24                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28514.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 16:25:24                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.9 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28514.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

```
Signal #2

--------------------------------------------------------------------------

  (#) = Out of Range              SPCC's out = 0  CCC's out = 0
   VU28494.D  FM102210.M       Sat Oct 23 09:24:33 2010   RPT1
```

16.7.9 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28526.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Evaluate Continuing Calibration Report

```
Data File : D:\HPLC2\DATA\102210\VU28526.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 20:36:06                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22999,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28526.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 20:36:06                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Formaldehyde	44.466	29.995 E3	32.5#	103	-0.10
2	Acetaldehyde	67.665	43.188 E3	36.2#	103	-0.15
3 s	Butyraldehyde	22.890	18.964 E3	17.2#	113	-0.37

Signal #2

1	Formaldehyde	126.806	81.579 E3	35.7#	103	-0.10
2	Acetaldehyde	160.538	91.201 E3	43.2#	108	-0.14
3 s	Butyraldehyde	38.164	33.569 E3	12.0	111	-0.37

Evaluate Continuing Calibration Report - Not Founds

```
Data File : D:\HPLC2\DATA\102210\VU28526.D\dad1b.ch      Vial: 91
Acq On    : 22-Oct-2010, 20:36:06                    Operator: caobinz
Sample    : cc1253-20,form 20                        Inst    : G1315A
Misc      : op22999,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28526.D\dad1a.ch      Vial: 91
Acq On    : 22-Oct-2010, 20:36:06                    Operator: caobinz
Sample    : form 20                                  Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p

Method       : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  85%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 115%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)

16.7.10 16

Continuing Calibration Summary

Job Number: JA58750 **Sample:** GVU1289-CC1253
Account: ALNJ Accutest New Jersey **Lab FileID:** VU28526.D
Project: ENSRMAA: Bell Bend Nuclear Power Plant, Salem Townwhip, PA

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
VU28494.D FM102210.M Sat Oct 23 09:35:03 2010 RPT1

16.7.10 16

New Jersey
ACCUTEST
LABORATORIES

GC Semi-volatiles

Raw Data

(Accutest Labs of New England, Inc.)

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

```
Data File : D:\HPLC2\DATA\102110\VU28454.D\dad1b.ch      Vial: 5
Acq On    : 21-Oct-2010, 18:13:50                    Operator: caobinz
Sample    : ja58750-1                                Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28454.D\dad1a.ch      Vial: 5
Acq On    : 21-Oct-2010, 18:13:50                    Operator: caobinz
Sample    : ja58750-1                                Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:00 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

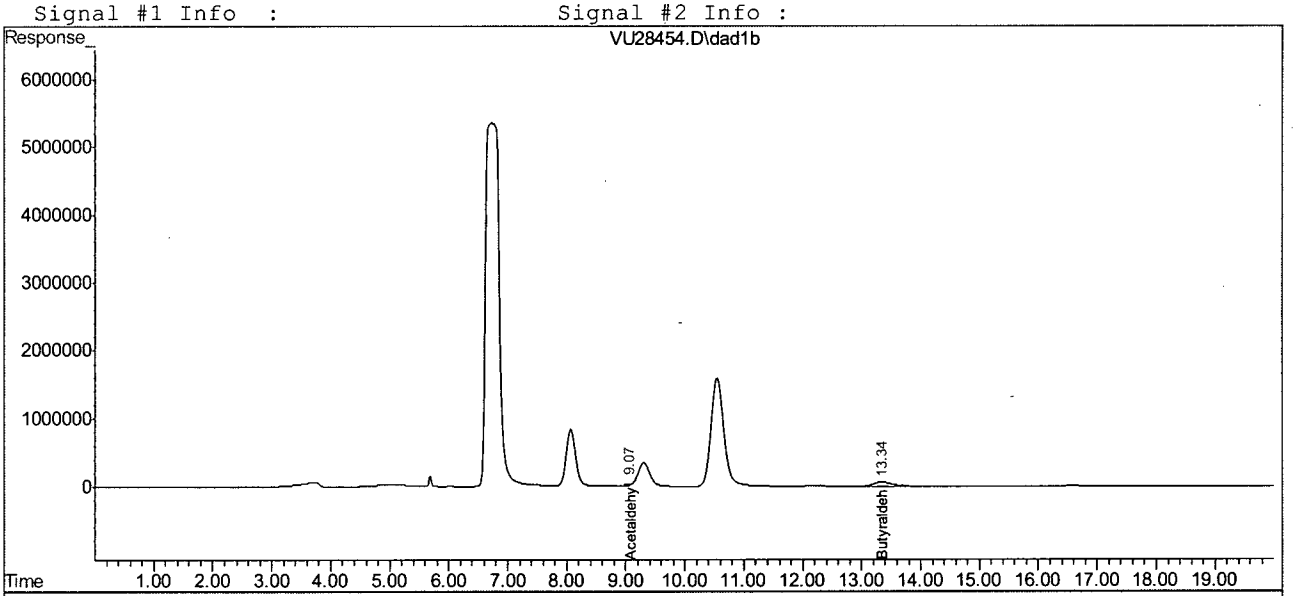
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.34	13.34	1438991	2589961	70.600m	70.048m
Spiked Amount 50.000	Range 10 - 115		Recovery =		141.20%#	140.10%#
Target Compounds						
2) Acetaldehyde	9.07	9.06	158016	264839	2.120m	397.144m#

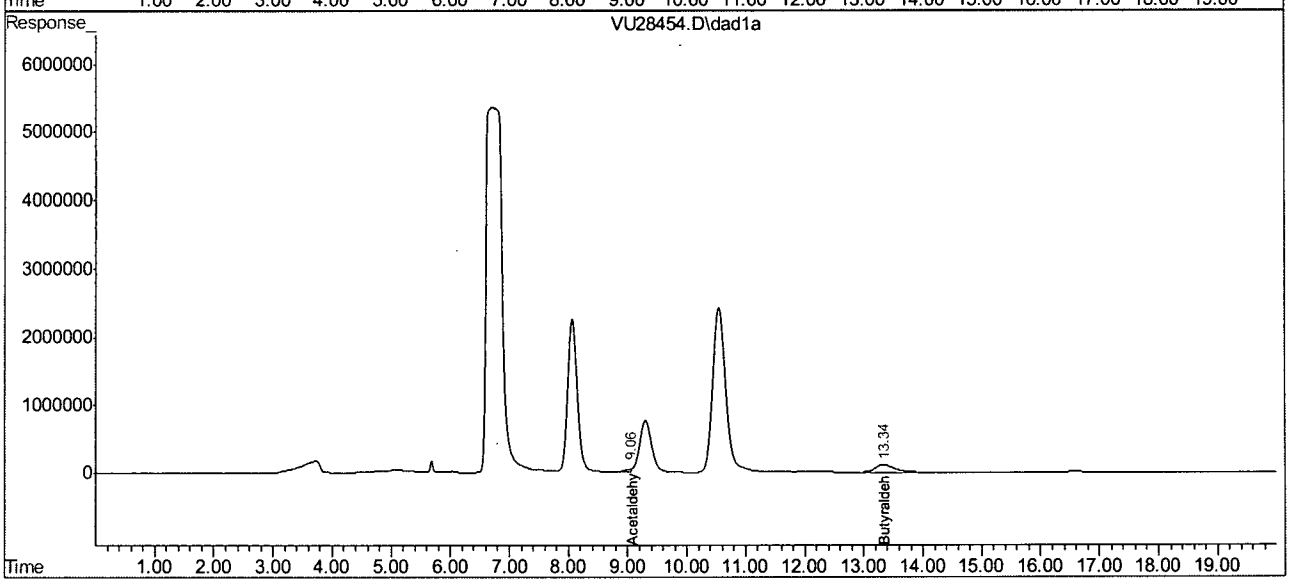
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

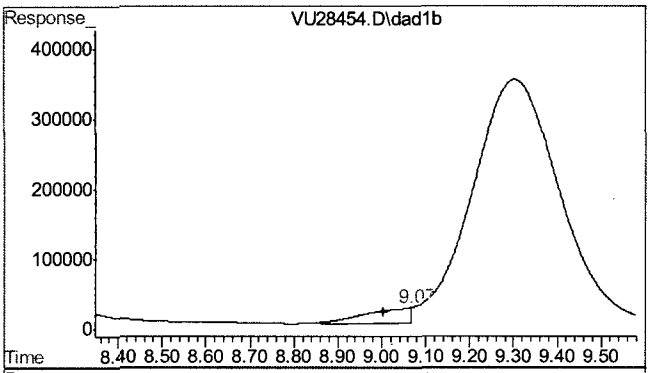
VU28454.D FM102110.M Fri Oct 22 10:51:10 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102110\VU28454.D\dad1b.ch      Vial: 5
Acq On    : 21-Oct-2010, 18:13:50                     Operator: caobinz
Sample    : ja58750-1                                 Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                    Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28454.D\dad1a.ch      Vial: 5
Acq On    : 21-Oct-2010, 18:13:50                     Operator: caobinz
Sample    : ja58750-1                                 Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:00 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

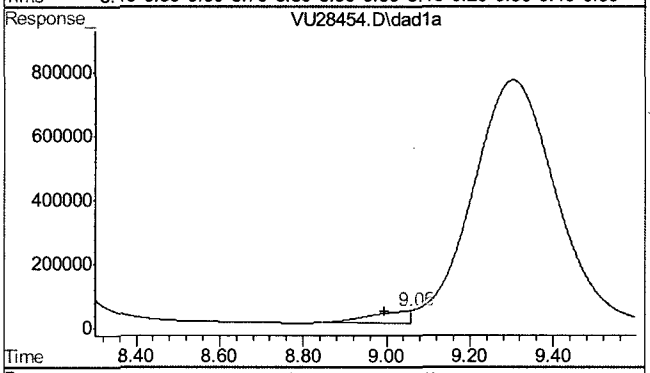






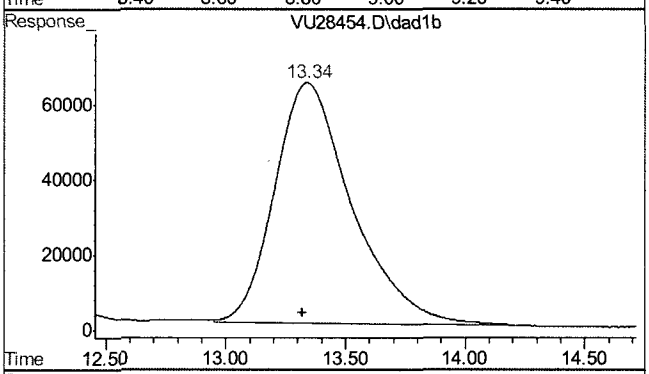
#2 Acetaldehyde

R.T.: 9.067 min
Delta R.T.: 0.063 min
Response: 158016
Conc: 2.12 ppm m



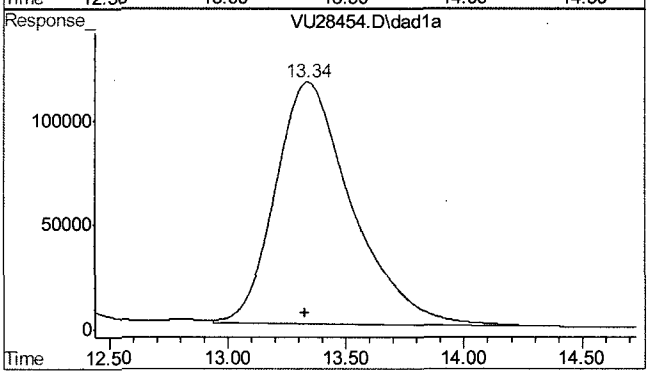
#2 Acetaldehyde

R.T.: 9.059 min
Delta R.T.: 0.063 min
Response: 264839
Conc: 397.14 ppm m



#3 Butyraldehyde

R.T.: 13.337 min
Delta R.T.: 0.018 min
Response: 1438991
Conc: 70.60 ug/ml m



#3 Butyraldehyde

R.T.: 13.337 min
Delta R.T.: 0.013 min
Response: 2589961
Conc: 70.05 ug/ml m

17.1.1

17

Sample Results: VU28497.D

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 11/08/10 15:13

Quantitation Report (QT Reviewed)

```
Data File : D:\HPLC2\DATA\102210\VU28497.D\dad1b.ch      Vial: 5
Acq On    : 22-Oct-2010, 10:30:16                     Operator: caobinz
Sample    : ja58750-1,1ul                             Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                  Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28497.D\dad1a.ch      Vial: 5
Acq On    : 22-Oct-2010, 10:30:16                     Operator: caobinz
Sample    : ja58750-1,1ul                             Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:09 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

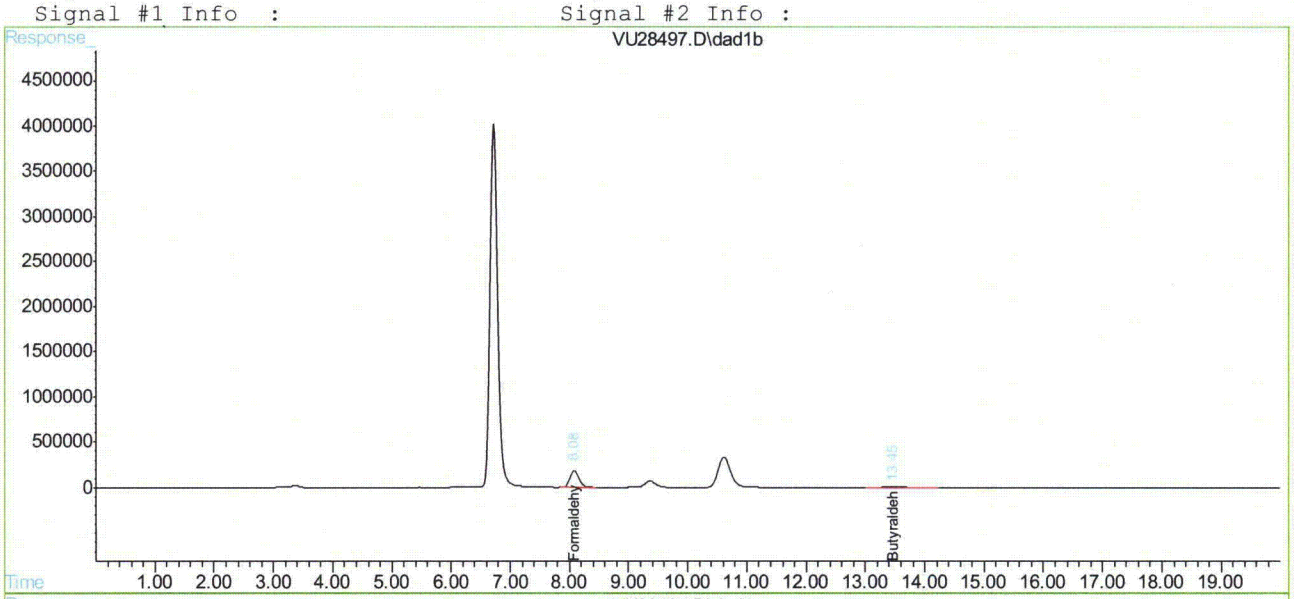
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.45	13.45	293252	541914	13.696m	14.291m
Spiked Amount 50.000	Range 10 - 115		Recovery =		27.39%	28.58%
Target Compounds						
1) Formaldehyde	8.08	8.08	1918749	5237400	73.397m	73.627m

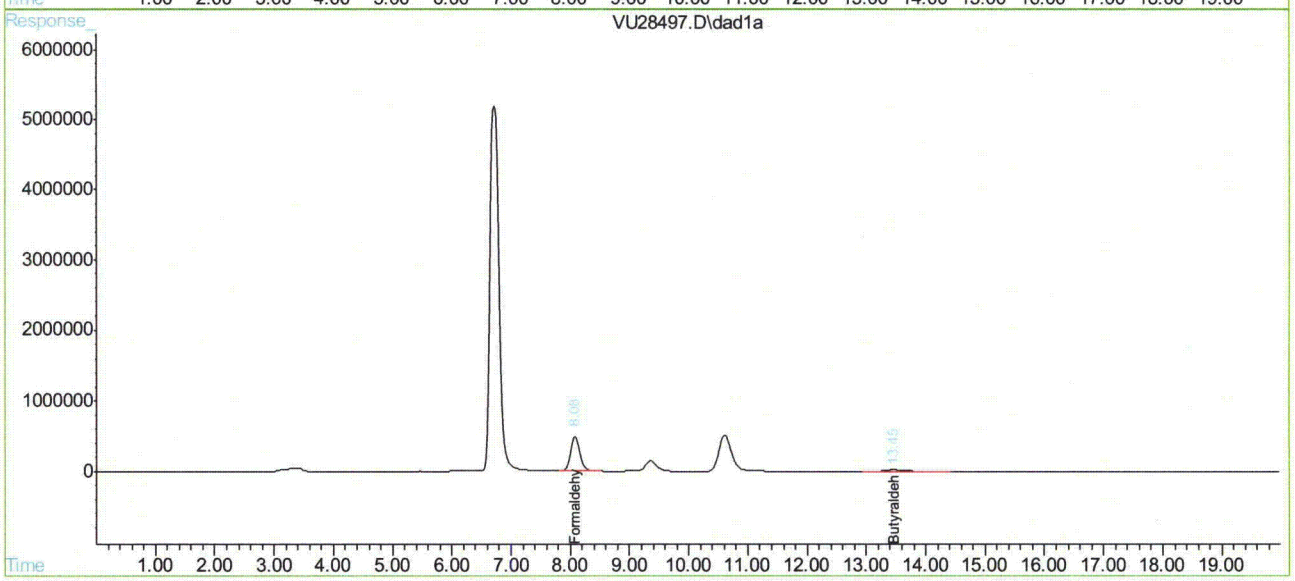
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

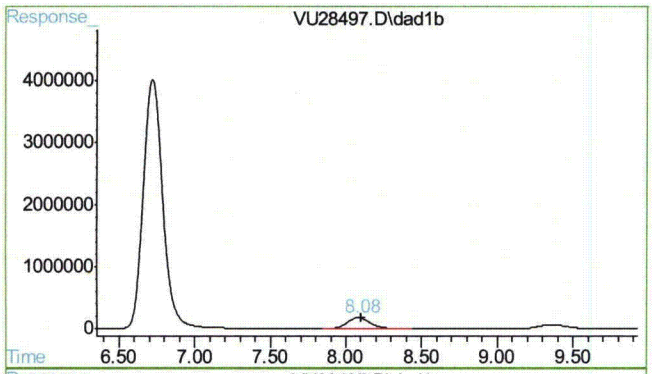
VU28497.D FM102210.M Sat Oct 23 10:54:23 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102210\VU28497.D\dad1b.ch      Vial: 5
Acq On    : 22-Oct-2010, 10:30:16                     Operator: caobinz
Sample    : ja58750-1,1ul                             Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                  Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28497.D\dad1a.ch      Vial: 5
Acq On    : 22-Oct-2010, 10:30:16                     Operator: caobinz
Sample    : ja58750-1,1ul                             Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:09 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

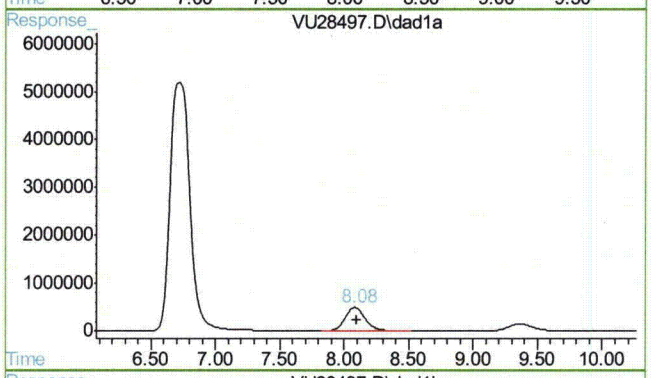






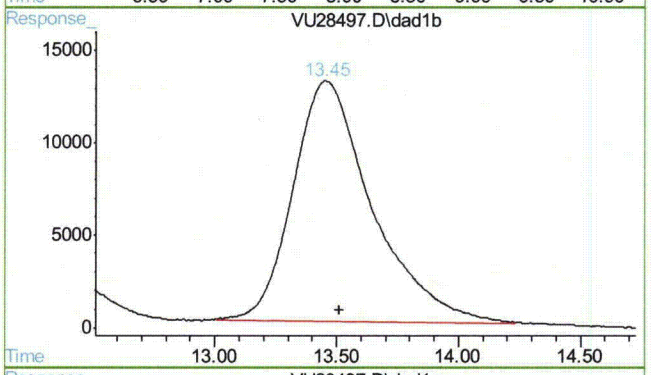
#1 Formaldehyde

R.T.: 8.080 min
Delta R.T.: -0.021 min
Response: 1918749
Conc: 73.40 ppm m



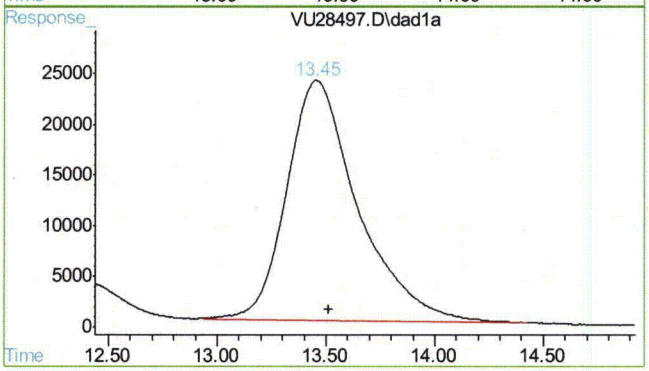
#1 Formaldehyde

R.T.: 8.080 min
Delta R.T.: -0.021 min
Response: 5237400
Conc: 73.63 ppm m



#3 Butyraldehyde

R.T.: 13.452 min
Delta R.T.: -0.060 min
Response: 293252
Conc: 13.70 ug/ml m



#3 Butyraldehyde

R.T.: 13.452 min
Delta R.T.: -0.060 min
Response: 541914
Conc: 14.29 ug/ml m

17.1.2 17

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

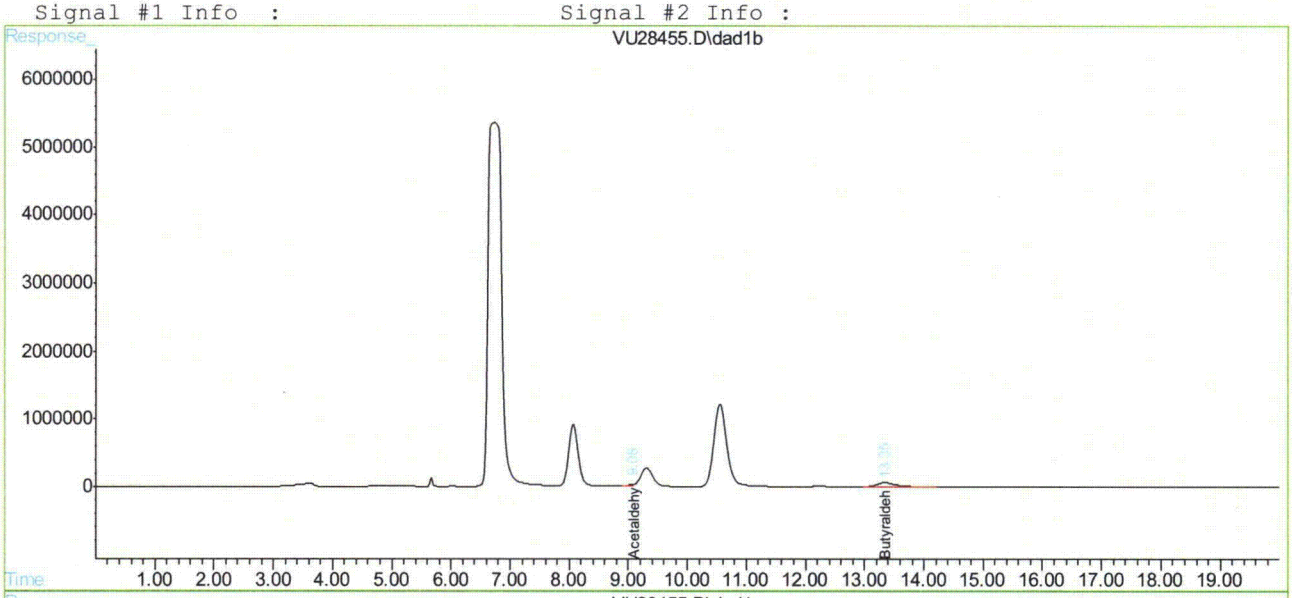
```
Data File : D:\HPLC2\DATA\102110\VU28455.D\dad1b.ch      Vial: 6
Acq On    : 21-Oct-2010, 18:34:45                    Operator: caobinz
Sample    : ja58750-2                                Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28455.D\dad1a.ch      Vial: 6
Acq On    : 21-Oct-2010, 18:34:45                    Operator: caobinz
Sample    : ja58750-2                                Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:01 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

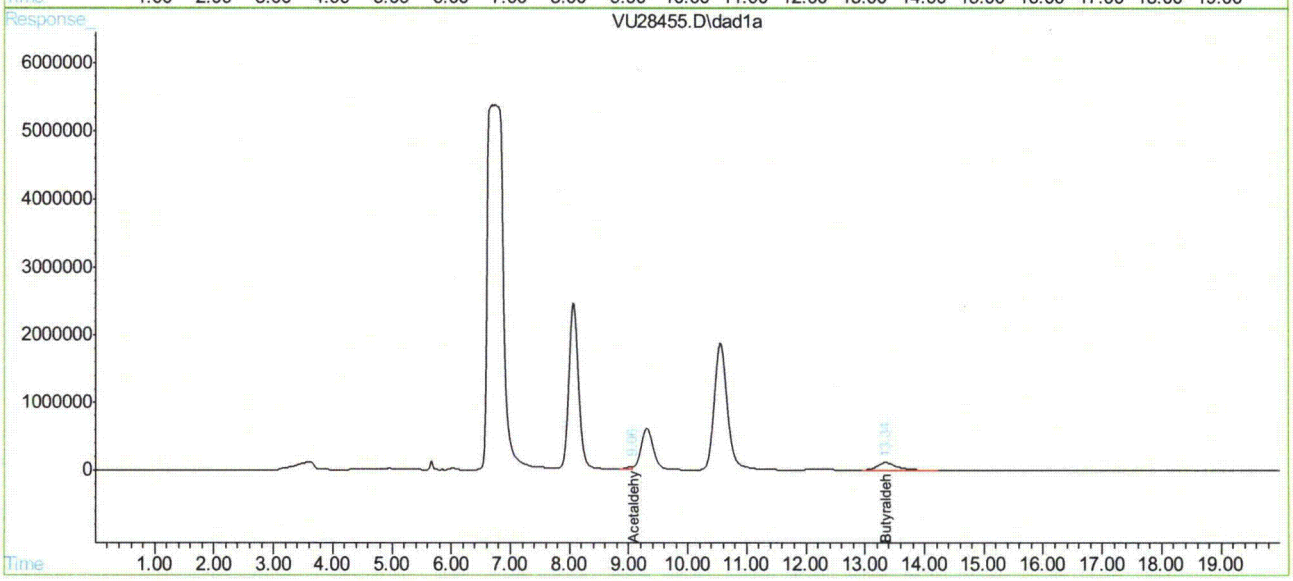
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.35	13.34	1307331	2344802	63.043m	62.408m
Spiked Amount 50.000	Range 10 - 115		Recovery =		126.09%#	124.82%#
Target Compounds						
2) Acetaldehyde	9.08	9.06	117362	243618	1.342m	397.369m#

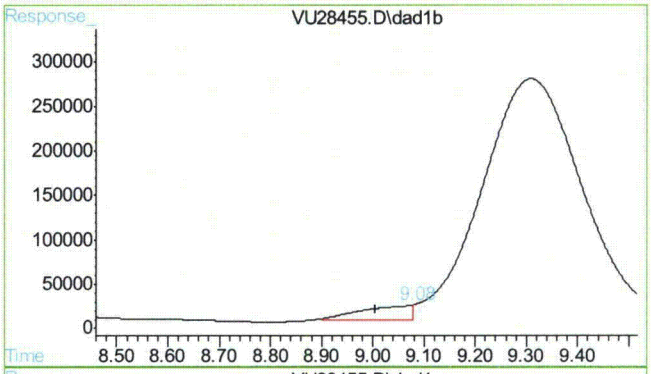
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
VU28455.D FM102110.M Fri Oct 22 10:51:15 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102110\VU28455.D\dad1b.ch      Vial: 6
Acq On    : 21-Oct-2010, 18:34:45                     Operator: caobinz
Sample    : ja58750-2                                 Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                    Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28455.D\dad1a.ch      Vial: 6
Acq On    : 21-Oct-2010, 18:34:45                     Operator: caobinz
Sample    : ja58750-2                                 Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:01 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

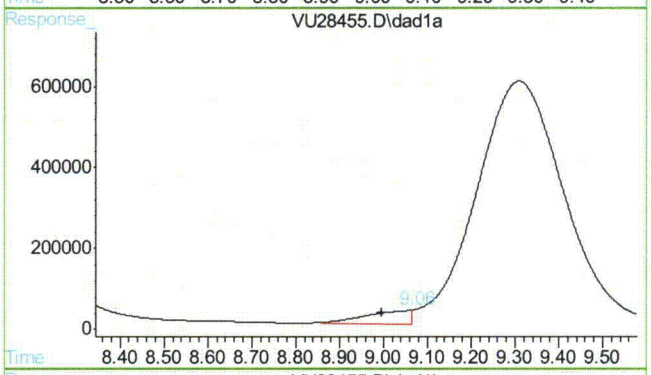






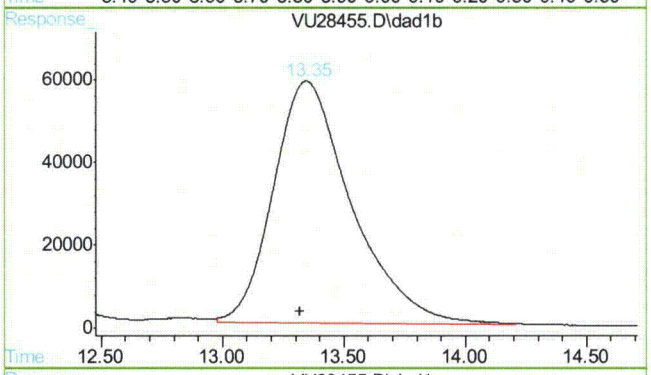
#2 Acetaldehyde

R.T.: 9.078 min
Delta R.T.: 0.074 min
Response: 117362
Conc: 1.34 ppm m



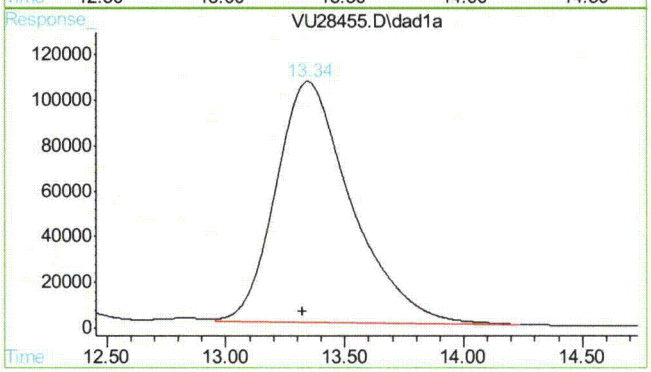
#2 Acetaldehyde

R.T.: 9.065 min
Delta R.T.: 0.069 min
Response: 243618
Conc: 397.37 ppm m



#3 Butyraldehyde

R.T.: 13.346 min
Delta R.T.: 0.027 min
Response: 1307331
Conc: 63.04 ug/ml m



#3 Butyraldehyde

R.T.: 13.345 min
Delta R.T.: 0.020 min
Response: 2344802
Conc: 62.41 ug/ml m

17.1.3

17

Sample Results: VU28498.D

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton 11/08/10 15:13

Quantitation Report (QT Reviewed)

```
Data File : D:\HPLC2\DATA\102210\VU28498.D\dad1b.ch      Vial: 6
Acq On    : 22-Oct-2010, 10:51:08                    Operator: caobinz
Sample    : ja58750-2,1ul                            Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28498.D\dad1a.ch      Vial: 6
Acq On    : 22-Oct-2010, 10:51:08                    Operator: caobinz
Sample    : ja58750-2,1ul                            Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:10 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

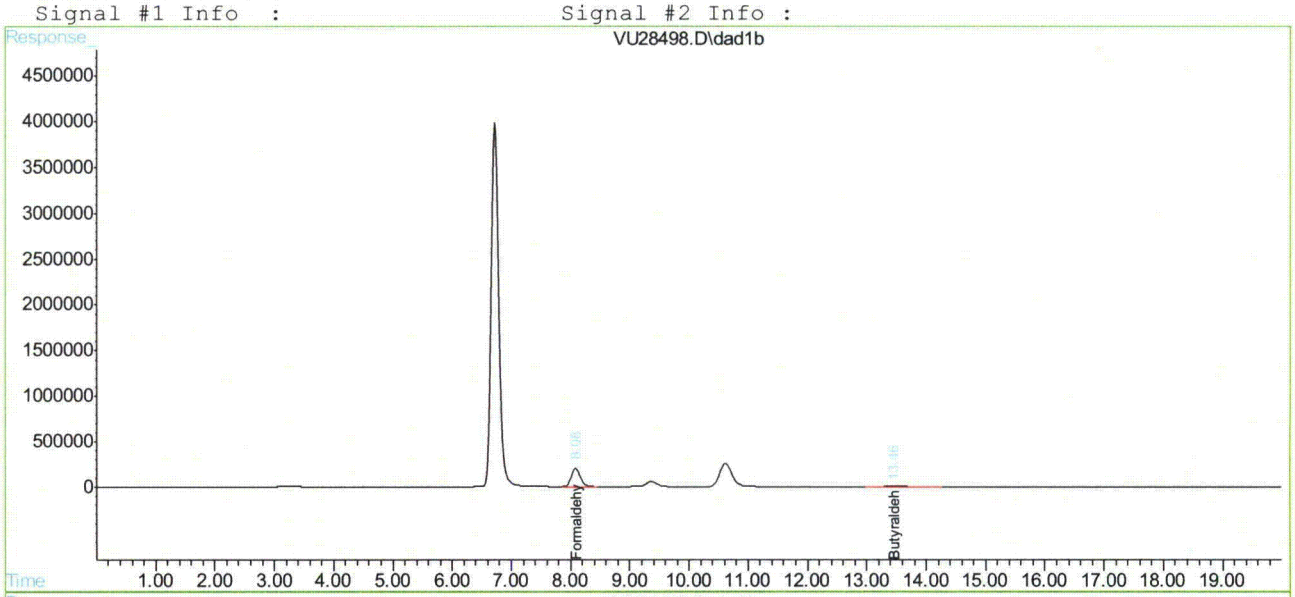
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.46	13.46	268506	491523	12.635m	13.098m
Spiked Amount 50.000	Range 10 - 115		Recovery =		25.27%	26.20%
Target Compounds						
1) Formaldehyde	8.08	8.08	2102384	5733241	83.451m	83.806m

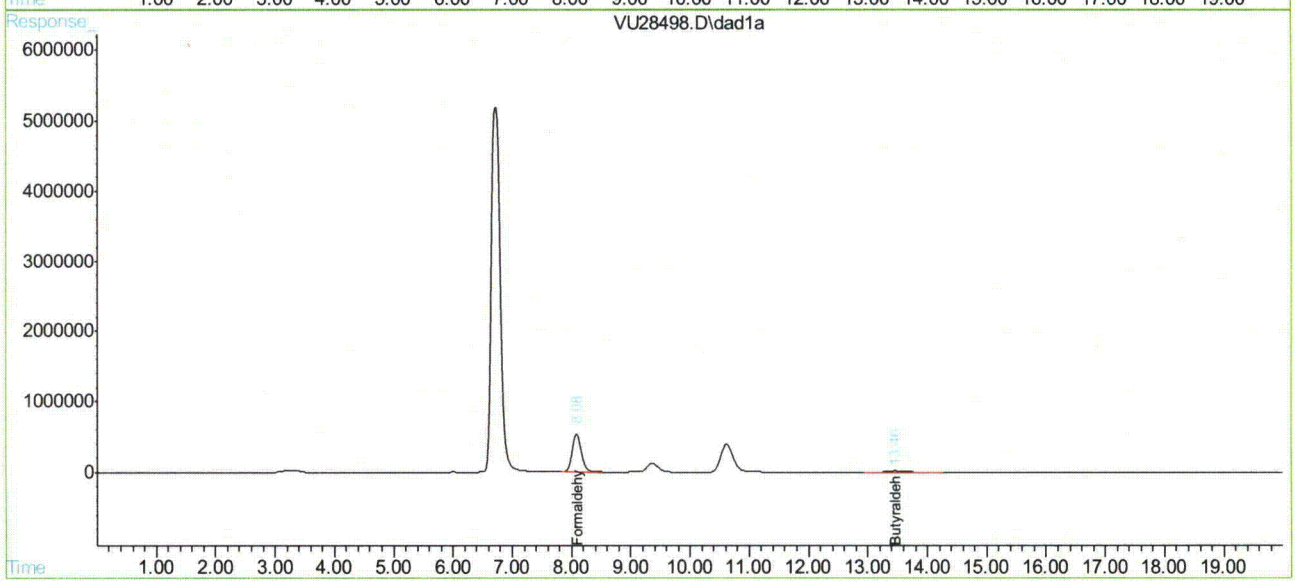
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

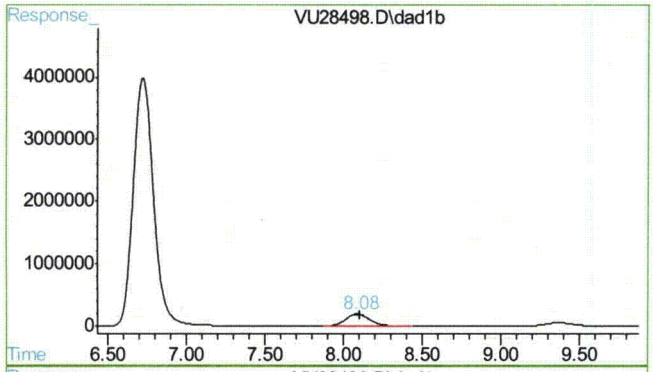
VU28498.D FM102210.M Sat Oct 23 10:54:30 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102210\VU28498.D\dad1b.ch      Vial: 6
Acq On    : 22-Oct-2010, 10:51:08                     Operator: caobinz
Sample    : ja58750-2,1ul                             Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                  Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28498.D\dad1a.ch      Vial: 6
Acq On    : 22-Oct-2010, 10:51:08                     Operator: caobinz
Sample    : ja58750-2,1ul                             Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:10 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

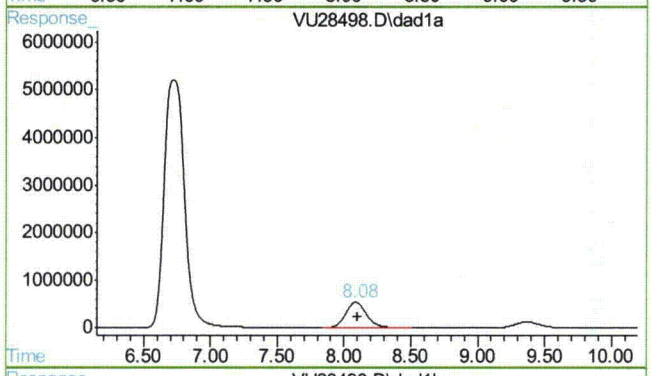






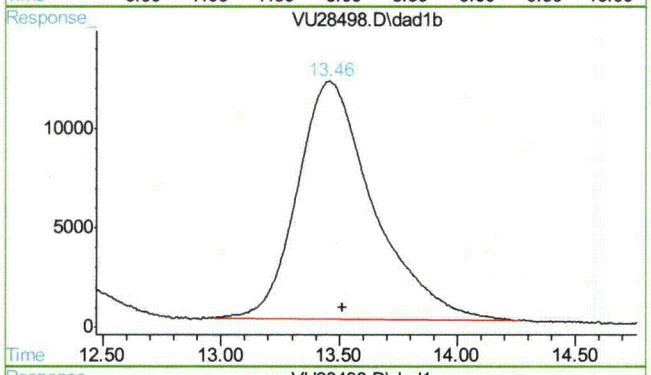
#1 Formaldehyde

R.T.: 8.085 min
Delta R.T.: -0.017 min
Response: 2102384
Conc: 83.45 ppm m



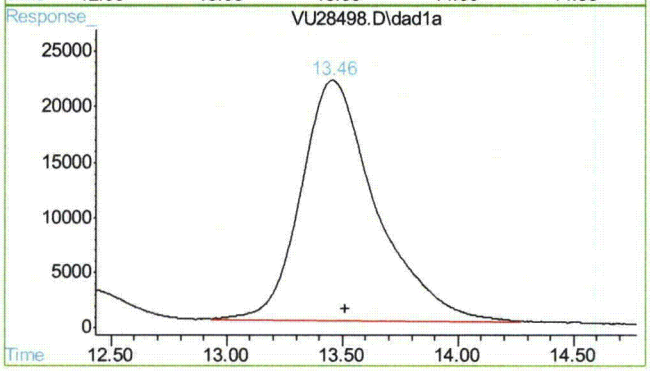
#1 Formaldehyde

R.T.: 8.085 min
Delta R.T.: -0.017 min
Response: 5733241
Conc: 83.81 ppm m



#3 Butyraldehyde

R.T.: 13.458 min
Delta R.T.: -0.053 min
Response: 268506
Conc: 12.64 ug/ml m



#3 Butyraldehyde

R.T.: 13.457 min
Delta R.T.: -0.055 min
Response: 491523
Conc: 13.10 ug/ml m

17.1.4 17

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

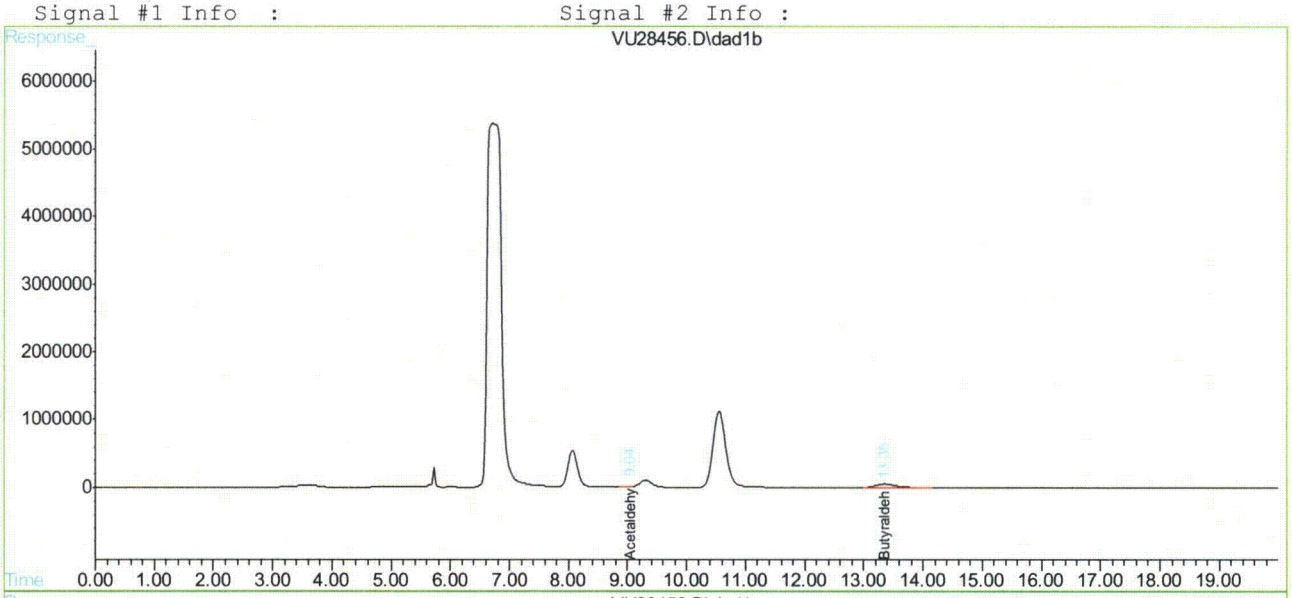
```
Data File : D:\HPLC2\DATA\102110\VU28456.D\dad1b.ch      Vial: 7
Acq On    : 21-Oct-2010, 18:55:39                    Operator: caobinz
Sample    : ja58750-3                                Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28456.D\dad1a.ch      Vial: 7
Acq On    : 21-Oct-2010, 18:55:39                    Operator: caobinz
Sample    : ja58750-3                                Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:02 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

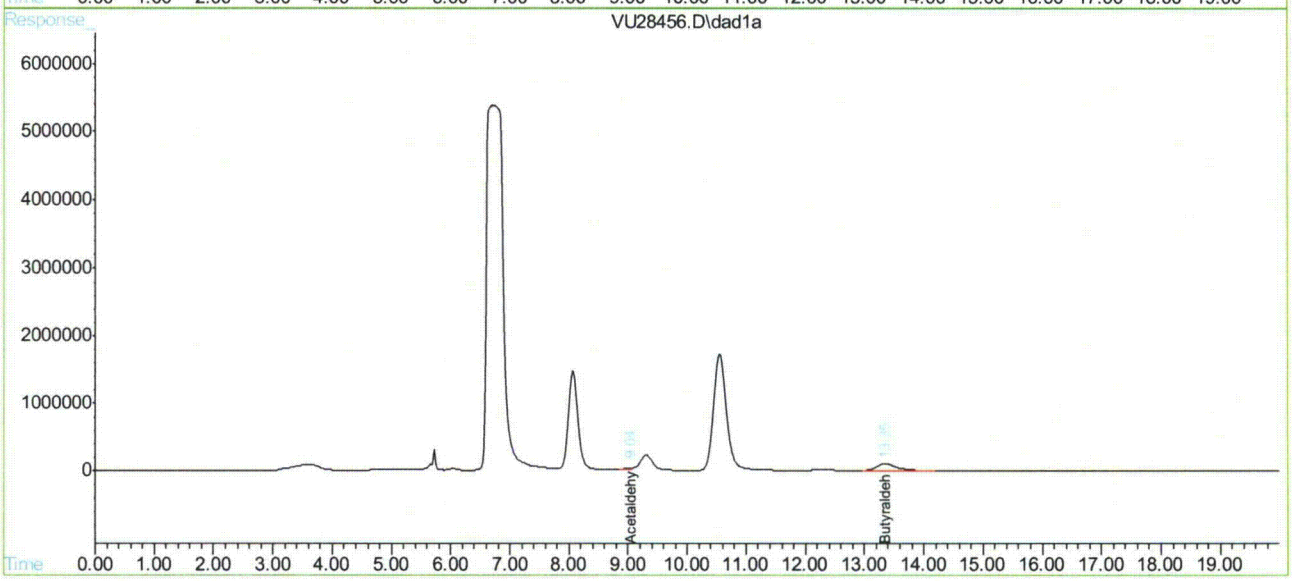
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.35	13.35	1228667	2189200	58.691	57.732m
Spiked Amount 50.000	Range 10 - 115		Recovery =		117.38%#	115.46%#
Target Compounds						
2) Acetaldehyde	9.04	9.04	119264	193114	1.378	397.905 #

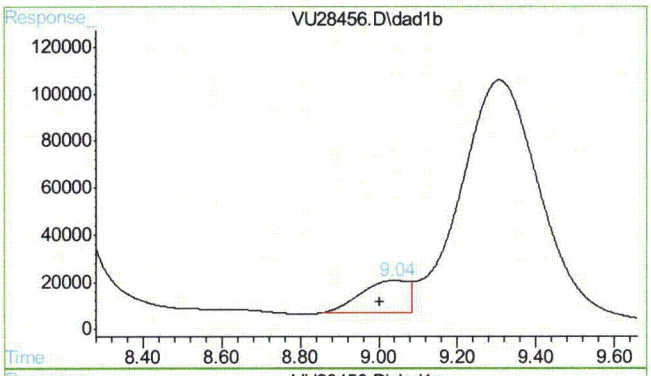
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
VU28456.D FM102110.M Fri Oct 22 10:51:20 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102110\VU28456.D\dad1b.ch      Vial: 7
Acq On    : 21-Oct-2010, 18:55:39                    Operator: caobinz
Sample    : ja58750-3                                Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                   Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28456.D\dad1a.ch      Vial: 7
Acq On    : 21-Oct-2010, 18:55:39                    Operator: caobinz
Sample    : ja58750-3                                Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:02 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

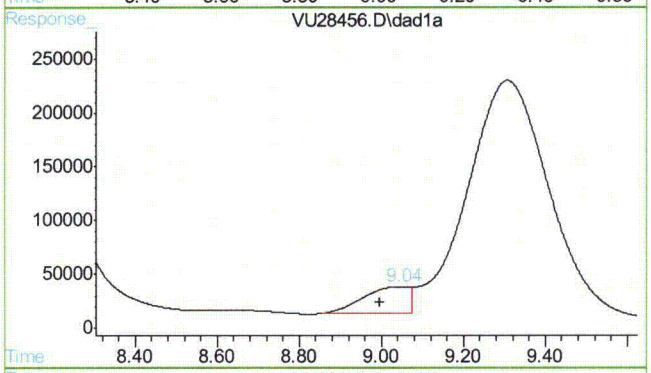






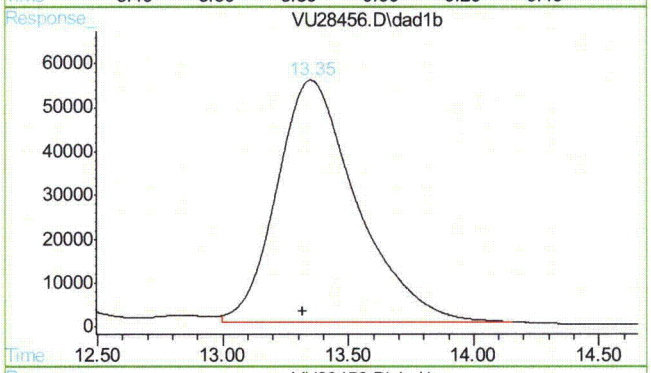
#2 Acetaldehyde

R.T.: 9.035 min
Delta R.T.: 0.031 min
Response: 119264
Conc: 1.38 ppm



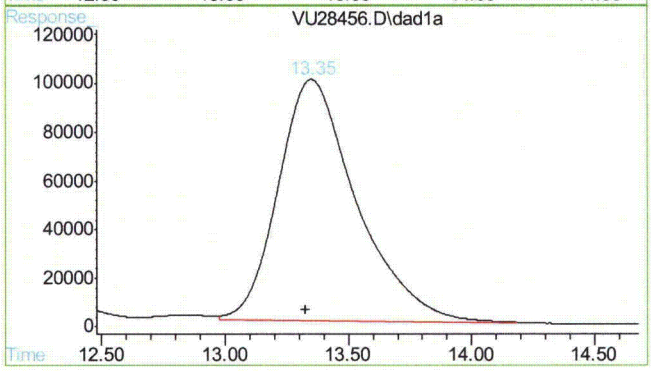
#2 Acetaldehyde

R.T.: 9.043 min
Delta R.T.: 0.047 min
Response: 193114
Conc: 397.90 ppm



#3 Butyraldehyde

R.T.: 13.350 min
Delta R.T.: 0.031 min
Response: 1228667
Conc: 58.69 ug/ml



#3 Butyraldehyde

R.T.: 13.348 min
Delta R.T.: 0.024 min
Response: 2189200
Conc: 57.73 ug/ml m

17.1.5

17

Sample Results: VU28499.D

Manual Integrations APPROVED (compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

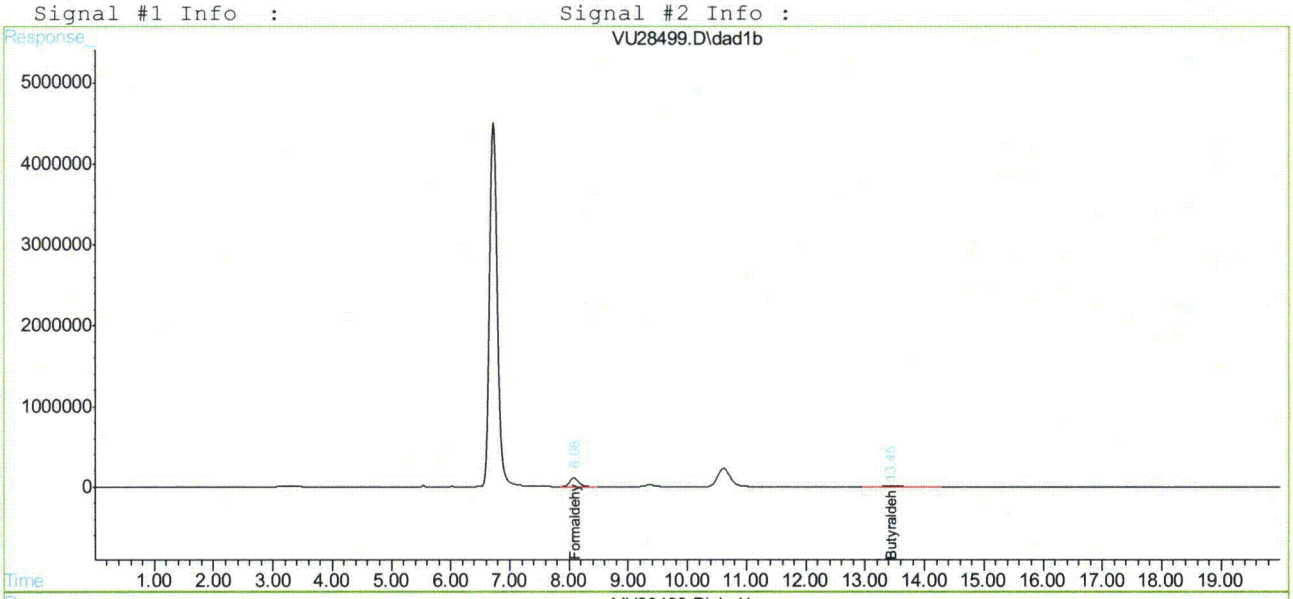
```
Data File : D:\HPLC2\DATA\102210\VU28499.D\dad1b.ch      Vial: 7
Acq On    : 22-Oct-2010, 11:12:07                    Operator: caobinz
Sample    : ja58750-3,1ul                            Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28499.D\dad1a.ch      Vial: 7
Acq On    : 22-Oct-2010, 11:12:07                    Operator: caobinz
Sample    : ja58750-3,1ul                            Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:11 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

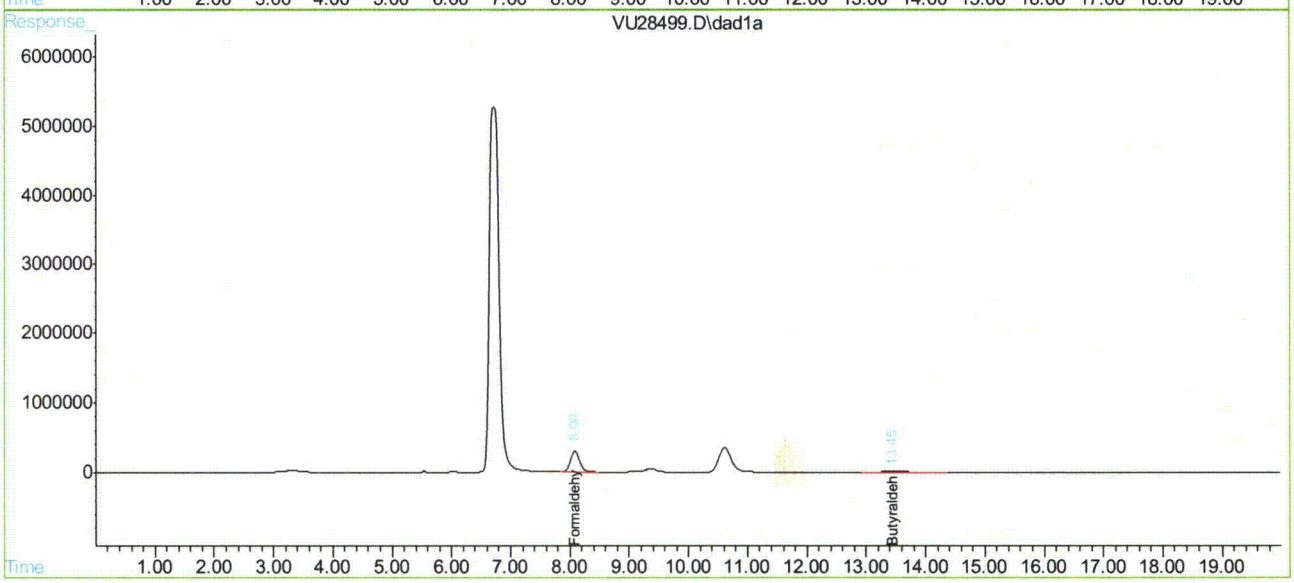
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.45	13.45	254117	456213	12.021m	12.266m
Spiked Amount 50.000	Range 10 - 115		Recovery =		24.04%	24.53%
Target Compounds						
1) Formaldehyde	8.08	8.08	1174773	3180924	39.631m	39.095m

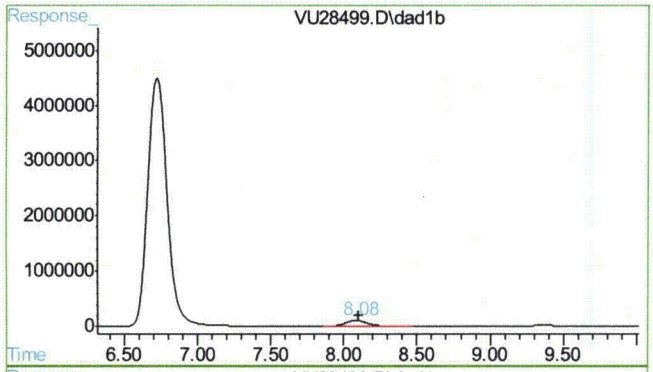
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
VU28499.D FM102210.M Sat Oct 23 10:54:36 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102210\VU28499.D\dad1b.ch      Vial: 7
Acq On    : 22-Oct-2010, 11:12:07                    Operator: caobinz
Sample    : ja58750-3,1ul                            Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28499.D\dad1a.ch      Vial: 7
Acq On    : 22-Oct-2010, 11:12:07                    Operator: caobinz
Sample    : ja58750-3,1ul                            Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:11 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

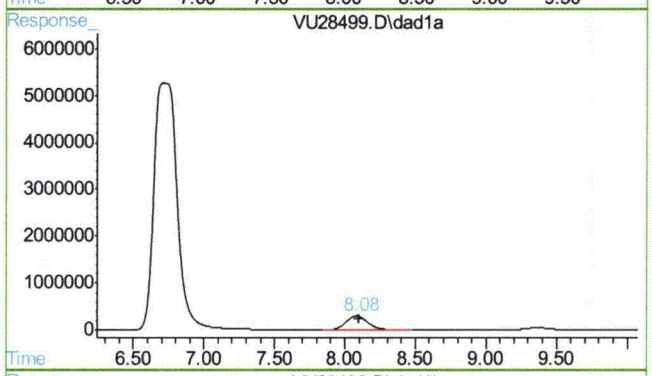






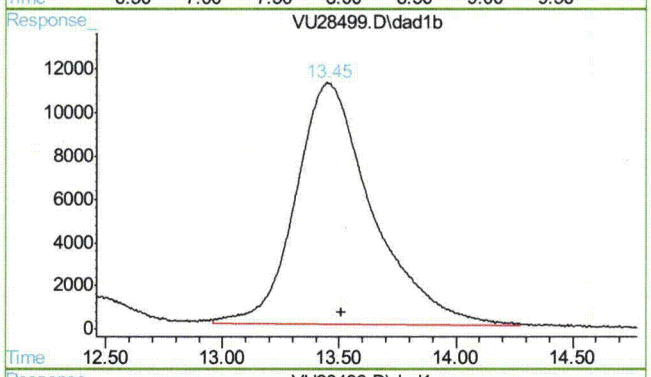
#1 Formaldehyde

R.T.: 8.082 min
Delta R.T.: -0.019 min
Response: 1174773
Conc: 39.63 ppm m



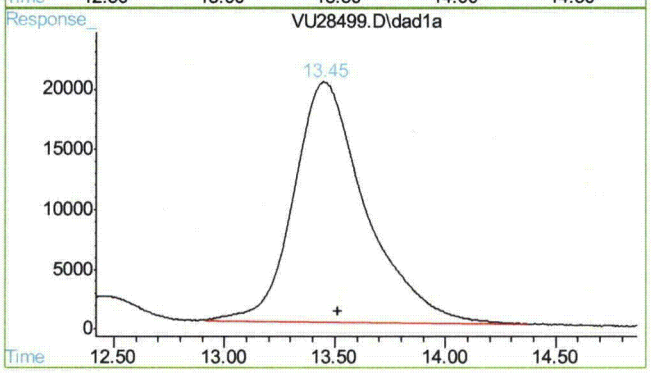
#1 Formaldehyde

R.T.: 8.081 min
Delta R.T.: -0.021 min
Response: 3180924
Conc: 39.10 ppm m



#3 Butyraldehyde

R.T.: 13.447 min
Delta R.T.: -0.064 min
Response: 254117
Conc: 12.02 ug/ml m



#3 Butyraldehyde

R.T.: 13.447 min
Delta R.T.: -0.064 min
Response: 456213
Conc: 12.27 ug/ml m

17.1.6 17

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

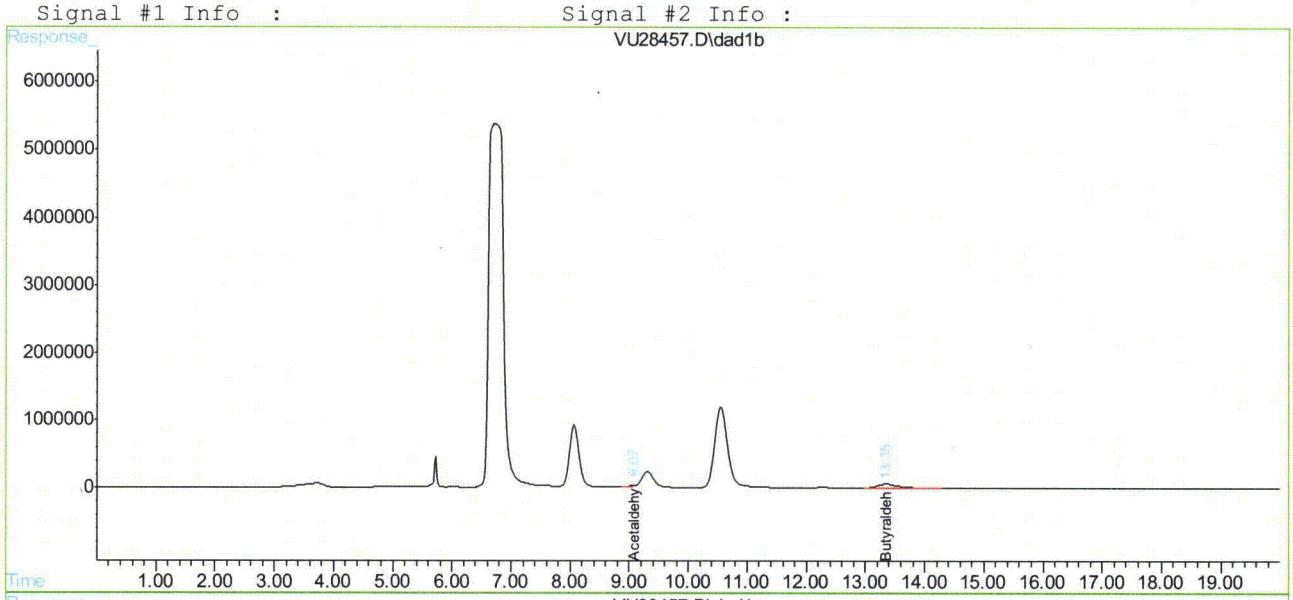
```
Data File : D:\HPLC2\DATA\102110\VU28457.D\dad1b.ch      Vial: 8
Acq On    : 21-Oct-2010, 19:16:34                  Operator: caobinz
Sample    : ja58750-4                              Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28457.D\dad1a.ch      Vial: 8
Acq On    : 21-Oct-2010, 19:16:34                  Operator: caobinz
Sample    : ja58750-4                              Inst    : G1315A
Misc      :                                        Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:03 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                  Signal #2 Phase:
Signal #1 Info  :                  Signal #2 Info :
```

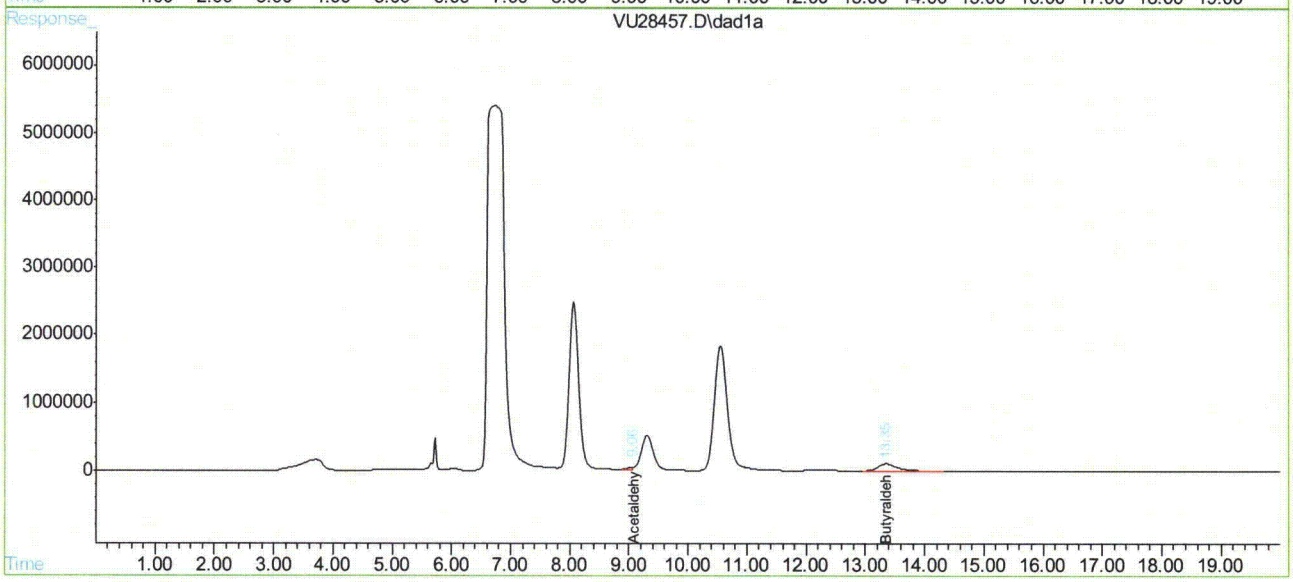
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.35	13.35	1294984	2337446	62.352m	62.184m
Spiked Amount 50.000	Range 10 - 115		Recovery =		124.70%#	124.37%#
Target Compounds						
2) Acetaldehyde	9.07	9.06	118805	233533	1.369m	397.476m#

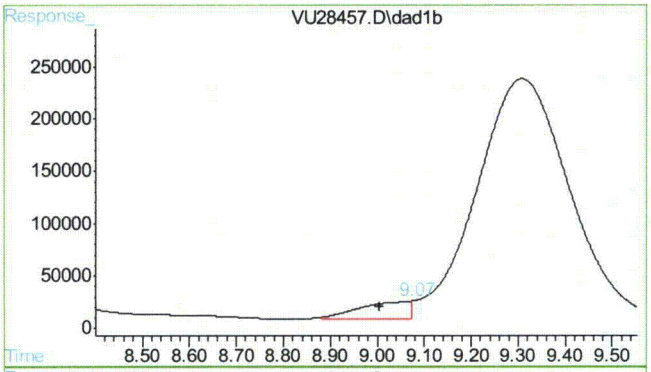
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
VU28457.D FM102110.M Fri Oct 22 10:51:25 2010 RPT1

Quantitation Report

```
Data File : D:\HPLC2\DATA\102110\VU28457.D\dad1b.ch      Vial: 8
Acq On    : 21-Oct-2010, 19:16:34                     Operator: caobinz
Sample    : ja58750-4                                 Inst    : G1315A
Misc      : op22983,gvu1288,25,,,1                    Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102110\VU28457.D\dad1a.ch      Vial: 8
Acq On    : 21-Oct-2010, 19:16:34                     Operator: caobinz
Sample    : ja58750-4                                 Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22  9:03 2010  Quant Results File: FM102110.RES

Quant Method : D:\HPLC2\METHODS\FM102110.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 08:44:26 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

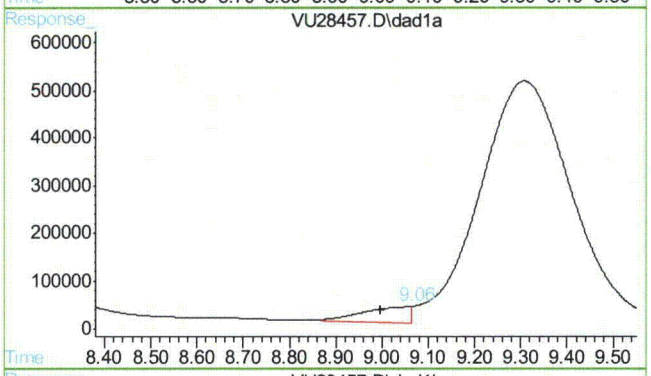






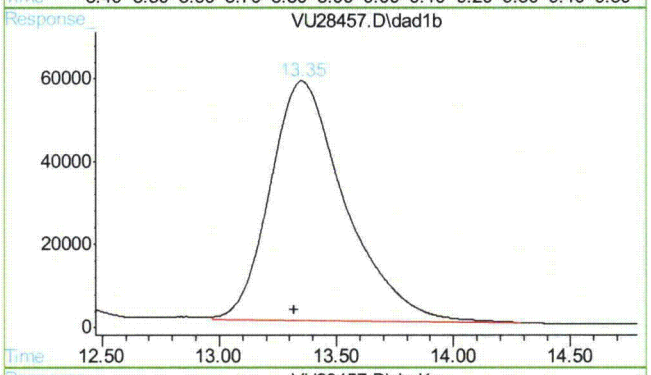
#2 Acetaldehyde

R.T.: 9.074 min
Delta R.T.: 0.070 min
Response: 118805
Conc: 1.37 ppm m



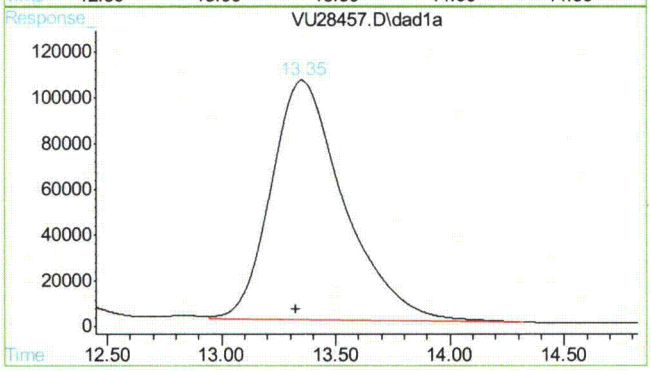
#2 Acetaldehyde

R.T.: 9.064 min
Delta R.T.: 0.068 min
Response: 233533
Conc: 397.48 ppm m



#3 Butyraldehyde

R.T.: 13.351 min
Delta R.T.: 0.032 min
Response: 1294984
Conc: 62.35 ug/ml m



#3 Butyraldehyde

R.T.: 13.351 min
Delta R.T.: 0.027 min
Response: 2337446
Conc: 62.18 ug/ml m

Manual Integrations
APPROVED
(compounds with "m" flag)
John Hamilton
11/08/10 15:13

Quantitation Report (QT Reviewed)

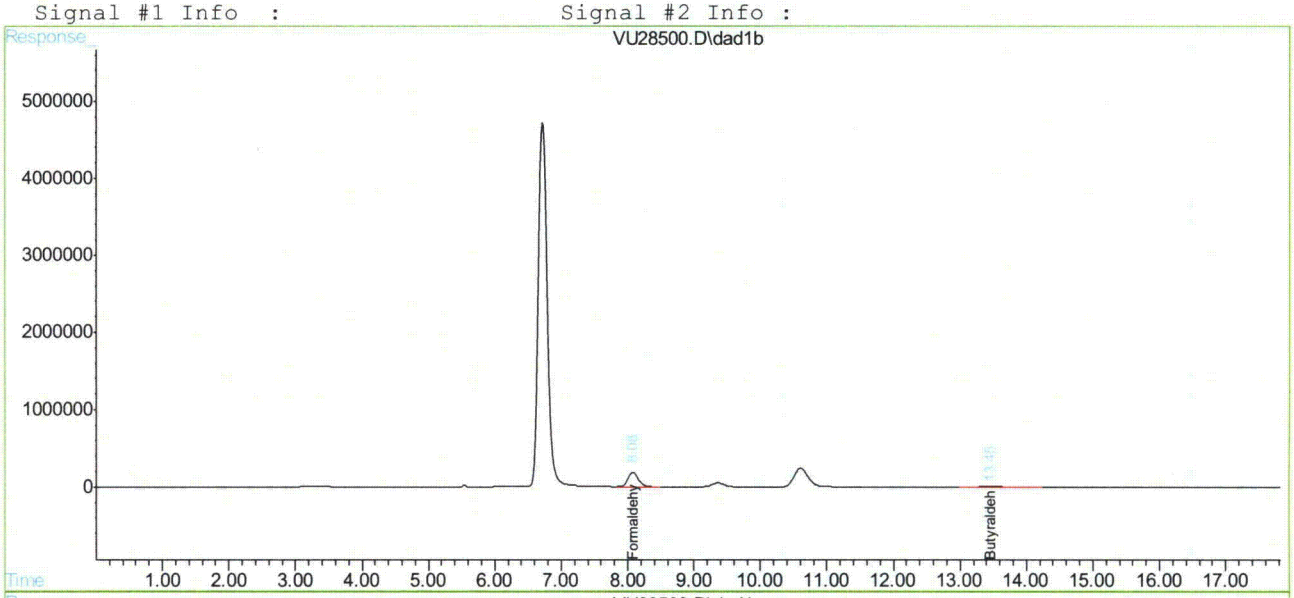
```
Data File : D:\HPLC2\DATA\102210\VU28500.D\dad1b.ch      Vial: 8
Acq On    : 22-Oct-2010, 11:32:59                    Operator: caobinz
Sample    : ja58750-4,1ul                            Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                 Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28500.D\dad1a.ch      Vial: 8
Acq On    : 22-Oct-2010, 11:32:59                    Operator: caobinz
Sample    : ja58750-4,1ul                            Inst    : G1315A
Misc      :                                          Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:11 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Initial Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

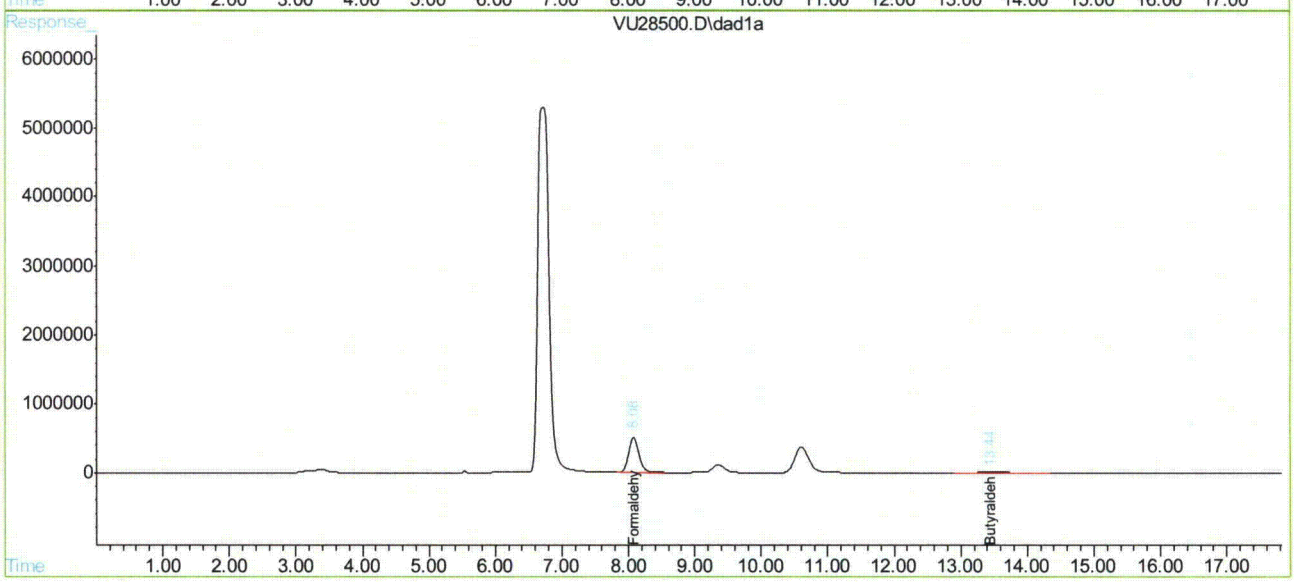
Compound	RT#1	RT#2	Resp#1	Resp#2	ppm	ppm
System Monitoring Compounds						
3) s Butyraldehyde	13.45	13.44	255570	469944	12.082m	12.589m
Spiked Amount 50.000	Range 10 - 115		Recovery =		24.16%	25.18%
Target Compounds						
1) Formaldehyde	8.08	8.08	1984593	5385822	76.894m	76.568m

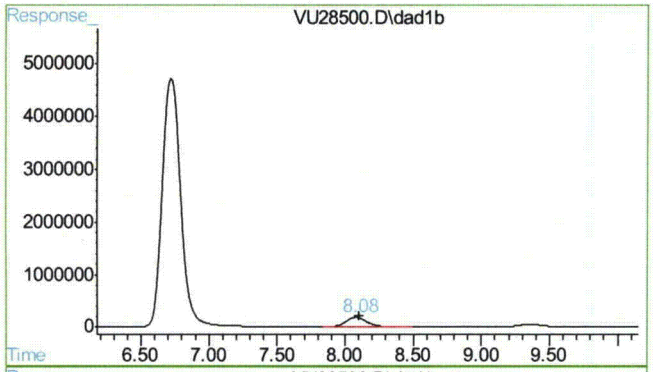
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report

```
Data File : D:\HPLC2\DATA\102210\VU28500.D\dad1b.ch      Vial: 8
Acq On    : 22-Oct-2010, 11:32:59                     Operator: caobinz
Sample    : ja58750-4,1ul                             Inst    : G1315A
Misc      : op22983,gvu1289,25,,,1,5                  Multiplr: 1.00
IntFile   : rteint.p

Data File : D:\HPLC2\DATA\102210\VU28500.D\dad1a.ch      Vial: 8
Acq On    : 22-Oct-2010, 11:32:59                     Operator: caobinz
Sample    : ja58750-4,1ul                             Inst    : G1315A
Misc      :                                           Multiplr: 1.00
IntFile   : rteint2.p
Quant Time: Oct 22 12:11 2010  Quant Results File: FM102210.RES

Quant Method : D:\HPLC2\METHODS\FM102210.M (RTE Integrator)
Title        : LC8315FORM/070610/ic1253/op21796
Last Update  : Fri Oct 22 12:05:41 2010
Response via : Multiple Level Calibration
DataAcq Meth : F6040D.M

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```

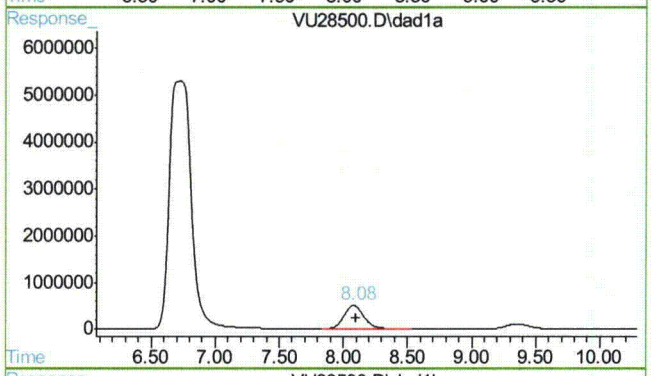






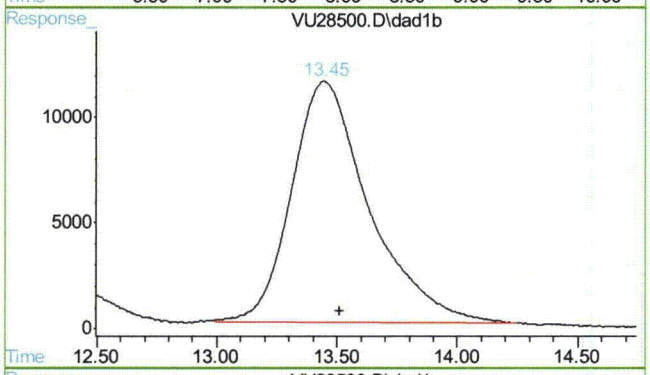
#1 Formaldehyde

R.T.: 8.079 min
Delta R.T.: -0.023 min
Response: 1984593
Conc: 76.89 ppm m



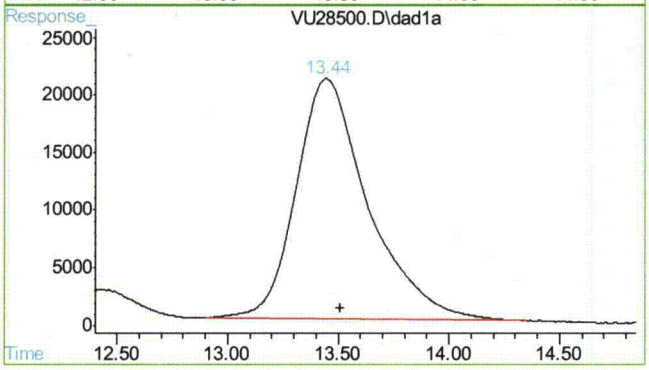
#1 Formaldehyde

R.T.: 8.079 min
Delta R.T.: -0.023 min
Response: 5385822
Conc: 76.57 ppm m



#3 Butyraldehyde

R.T.: 13.445 min
Delta R.T.: -0.066 min
Response: 255570
Conc: 12.08 ug/ml m



#3 Butyraldehyde

R.T.: 13.444 min
Delta R.T.: -0.068 min
Response: 469944
Conc: 12.59 ug/ml m

17.1.8

17