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PYROLYSIS GAS CHROMATOGRAPHY

ANALYSIS OF 3 THERMO-LAG

FIRE BARRIER SAMPLES

Performed For:

Entergy Operations, Inc.
Waterford 3
P.O. Box B
Killona, LA 70066

P.O. No. NWC0035

30 May 1995

Distribution

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Lab (1)

NUCON 06LP829/01

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I. ABSTRACT

Inspection of the pyrograms of 3 Thermo-Lag fire barrier samples indicated that they are all similar in chemical composition. However, sample 0395-37B, a 3-hour rated panel sample had disproportionate amounts of characteristic compounds.

II. OBJECTIVE

Pyrolysis Gas Chromatography (PGC) with Mass Selective Detection (MSD) was used to qualitatively compare three Thermo-Lag fire barrier samples.

III. DESCRIPTION OF METHOD

The samples were compared by pyrolysis gas chromatography using ASTM D3452 as a general guide. A Hewlett-Packard model 5890 series II gas chromatograph equipped with a Hewlett Packard model 5972 mass selective detector was used to generate chromatograms of the pyrolysis products. Pyrolysis of the Thermo-Lag samples were performed with a CDS pyroprobe mounted in an independently heated interface attached to the injection port of the GC. Analysis involved weighing 1-3 mgs. of sample in a quartz tube and placement of the tube in the platinum coil element of the probe. The probe is then placed in the interface and pyrolysed ballistically for 2 seconds. Pyrolytic products are then swept by the carrier gas onto the fused silica capillary column where they are separated and detected with a MSD. Chromatographic and pyrolysis conditions are shown in Table 1. Prior to each analysis, the column is heated to 250°C to elute any volatiles which were not entrained in the polymer.

IV. PRESENTATION OF RESULTS

The three pyrograms for each of the three Thermo-Lag samples are shown in Figures 1, 3 and 5. The extracted ion chromatograms using the acrylate base ion m/e of 55 common to ethyl acrylate (EA) and base ion m/e of 69 common to methyl methacrylate (MMA) for each sample are shown in Figures 2, 4 and 6. The EA/MMA area ratios and densities for each sample are shown in Table 2. Following each set of figures a library search is attached which identifies some of the major peaks for each sample followed by a summary area percent report.

V. DISCUSSION OF RESULTS

The average extracted ion area ratio of 1.34 $\pm$0.1 ($\pm$ σ) for EA/MMA shown in Table 2 is consistent with the average ratio of 1.3 $\pm$0.1 ($\pm$ σ) obtained from other Thermo-Lag samples.

The extracted ion chromatograms (Figure 2) for sample 0395-37A, a 3 hour rated panel sample, have an EA/MMA ratio of 1.43. Pyridine compounds identified in the pyrogram (Figure 1) are 3-methyl pyridine and 3, 4-dimethyl pyridine. Other key components identified are pentanedioic acid diethyl ester, trimethyl phenyl phosphate, and octicizer.

The extracted ion chromatograms (Figure 4) for sample 0395-37B, a 3 hour rated panel sample, have an EA/MMA ratio of 1.38. Pyridine compounds were not identified in the pyrogram (Figure 3) although visual inspection shows trace amounts present. Other key components identified are pentanedioic acid diethyl ester, octicizer, triphenyl phosphate and trimethphenyl phosphate. This sample showed a much higher content of organic phosphate compounds than other Thermo-Lag samples.

Sample 0395-37B was retested and the extracted ion chromatograms shown in Figure 7 have an EA/MMA ratio of 1.29. Pyridine compounds identified in the pyrogram (Figure 8) and library search (Figures 9, 10, 11 and 12) are 3-methyl pyridine, 3, 5-dimethyl pyridine and 2, 5-dimethyl pyridine. Other key components identified are pentanedioic acid diethyl ester (Figure 13) 2, 3, 4, 5-tetramethyl 1-H-pyrrole (Figure 14) and octicizer (Figure 15).

The extracted ion chromatograms (Figure 6) for sample 0395-37C, a 3 hour rated panels sample, have an EA/MMA ratio of 1.21. Pyridine compounds identified in the pyrogram (Figure 6) are pyridine, 3-methyl pyridine, 2, 5-dimethyl pyridine, 3-ethenyl pyridine, 3, 5-dimethyl pyridine, 2, 3, 5-trimethyl pyridine and 3-ethyl-5-methyl pyridine. Other key components identified are 2, 3, 4, 5-tetramethyl 1H-pyrrole, pentanedioic acid diethyl ester, octicizer, triphenyl phosphate and trimethyl phenyl phosphate.

In conclusion, inspection of the pyrograms for the Thermo-Lag samples 0395-37A and C indicates that they are consistent with other Thermo-Lag samples in terms of chemical composition. Sample 0395-37C has a much larger quantity of organic phosphate compounds than other Thermo-Lag samples. This may be due to selection of the subsample used for analysis. The heterogeneity of this material is evidenced by the two sets of results for sample 0395-37B, where, in the first test, only trace amounts of pyridine compounds are found but a large amount of octicizer is present, while in the second test of the same sample only a small amount of octicizer is present.

TABLE 1

Chromatographic Conditions:

30 meter 0.25 mm narrow bore fused silica HP-5 CB capillary column.

Carrier Gas: Helium, 0.9 mL/min, split ratio 35:1

Column Conditions:

Initial Temperature: 50°C for 1 minute hold

Temperature Ramp: 8°C/min to 250°C

Final Temperature: Hold at 250°C for 10 minutes

Injector Temperature: 250°C

Detector Temperature: 280°C

Detector was an HP MSD in scan mode (30-550 amu)

Pyrolysis Conditions:

Pyrolysis Temperature: 650°C

Interval: 2 seconds

Ramp: 2°C/millisecond

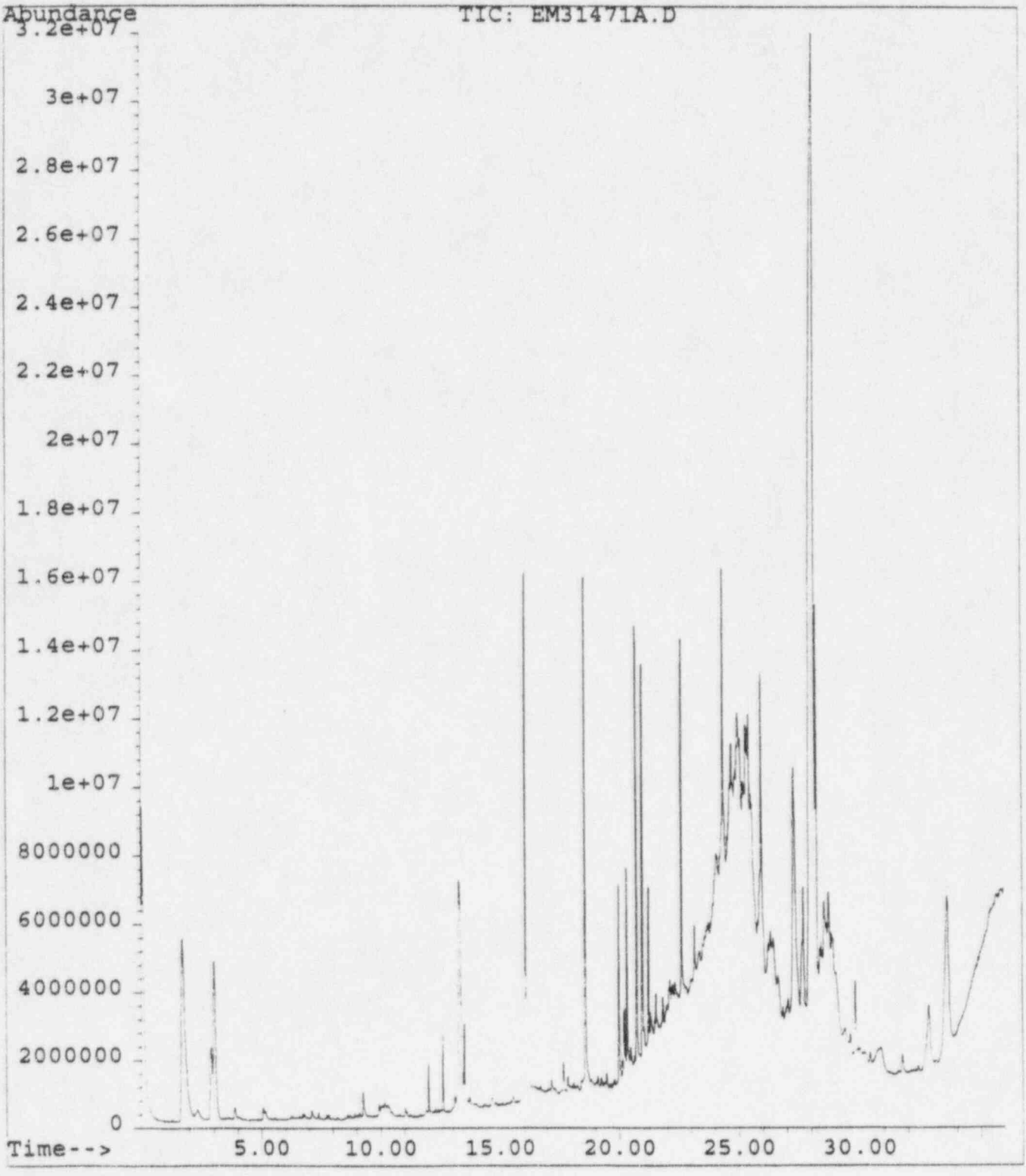
Probe Type: Platinum Coil

Interface Temperature: 205°C

TABLE 2		
Sample	**EA/MMA Ratio**	**Density**
NUCON Lab Log # 0395-37A Pre-fabricated, 3 hour rated panel, trowel grade and top coat. Location: RAB + 21 elev. diesel generator Room A FD-77-Fire Area, RAB 16	1.43	1.36 g/mL
NUCON Lab Log # 0395-37B Pre-fabricated, 3 hour rated panel trowel grade and top coat. Location: RAB-4 elev. boric acid concentrator Room A FD-177, Fire Area RAB 31	1.38	1.20 g/mL
NUCON Lab Log # 0395-37C Pre-fabricated 3 hour rated panel, trowel grade and top coat. Location RAB + 21 elev. in front of tool room FD-3HV-B217B- Fire area RAB 25	1.21	1.50 g/mL

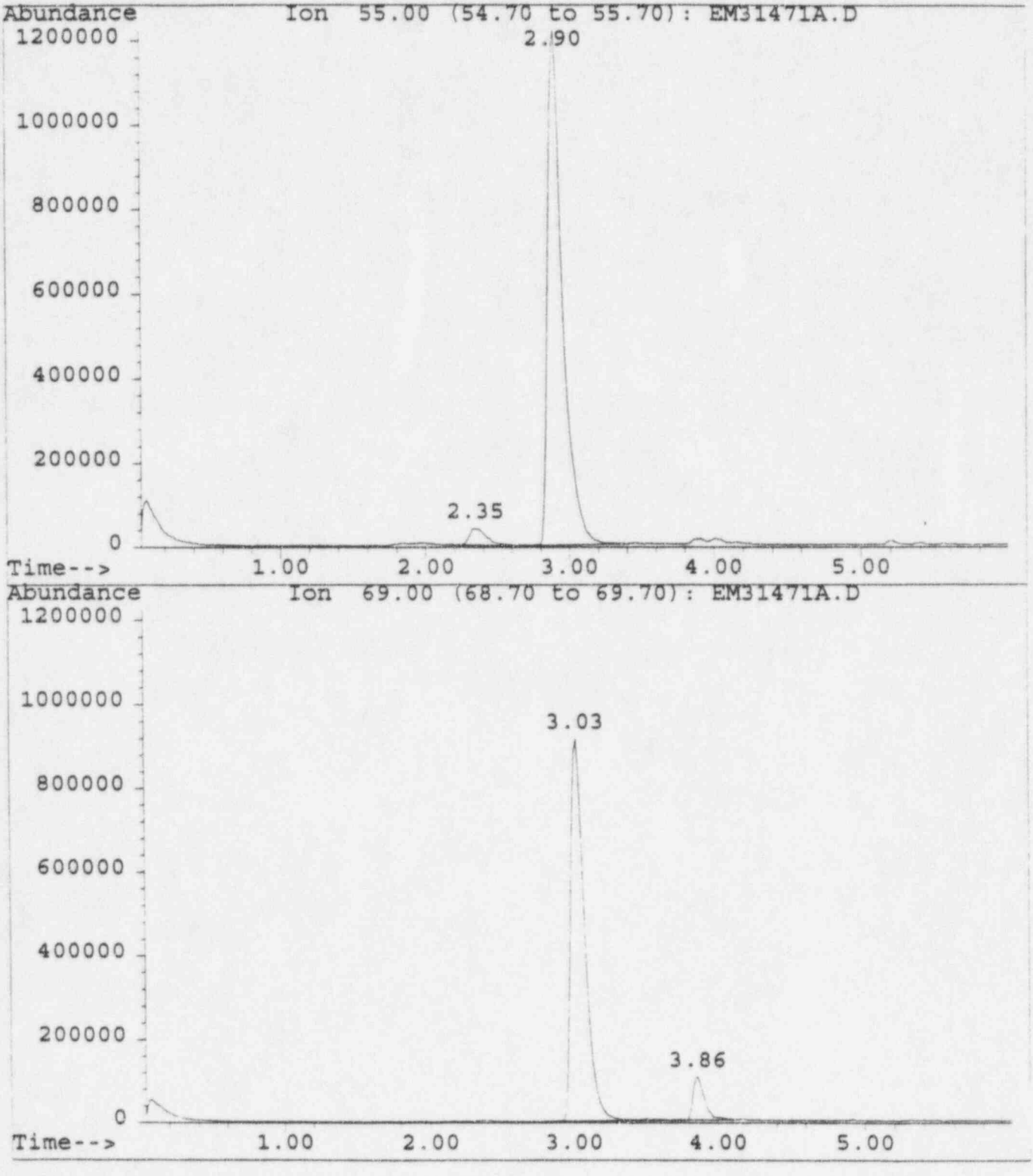
File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Instrument : 35972 - 33
Sample Name: 0495-37a 12mg/5 wfr
Misc Info : Thermolag sample
Vial Number: 1

FIGURE 1



File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: 0295-37a
Misc Info : Thermolag sample
Vial Number: 1

FIGURE 2



Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Sample Name: 0495-37a
Misc Info : Thermolag sample
Vial Number: 1

Search Libraries: C:\DATABASE\NBS75K.L Minimum Quality: 0

Unknown Spectrum: Apex
Integration Params: AutoIntegrate

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
1	1.74	1.89	C:\DATABASE\NBS75K.L			
			No matches found			
2	2.33	0.11	C:\DATABASE\NBS75K.L			
			Xanthatin, 8-[4-[[(isopropylamino)	55737	000000-00-0	12
			Benzeneethanamine, N-methyl-	6311	000589-08-2	10
			Amphetamine	6317	000300-62-9	10
3	3.03	1.37	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, 2-methyl-, methy	63329	000080-62-6	68
			2-Propenoic acid, 2-methyl-, methy	63330	000080-62-6	64
			2-Propenoic acid, 2-methyl-, methy	1484	000080-62-6	64
4	3.87	0.07	C:\DATABASE\NBS75K.L			
			2-Butenoic acid, 4-nitrophenyl est	24526	014617-88-0	50
			2-Propenoic acid, 2-methyl-, ethyl	2900	000097-63-2	45
			2-Propenoic acid, 2-methyl-, ethyl	64113	000097-63-2	41
5	5.08	0.08	C:\DATABASE\NBS75K.L			
			Pyridine, 3-methyl-	981	000108-99-6	92
			Pyridine, 3-methyl-	63046	000108-99-6	64
			Pyridine, 3-methyl-	63045	000108-99-6	64
6	7.13	0.03	C:\DATABASE\NBS75K.L			
			Pyridine, 3,4-dimethyl-	63728	000583-58-4	90
			Pyridine, 3,5-dimethyl-	2047	000591-22-0	90
			Pyridine, 3,4-dimethyl-	2050	000583-58-4	90
7	9.27	0.07	C:\DATABASE\NBS75K.L			
			2,3-Pyridinediamine	2194	000452-58-4	47
			Butanamide, N-(4-hydroxyphenyl)-	17435	000101-91-7	43
			2(1H)-Pyridinone, 1-methyl-	63813	000694-85-9	43
8	10.17	0.17	C:\DATABASE\NBS75K.L			
			Cyclopentasiloxane, decamethyl-	51266	000541-02-6	76
			Benzeneacetic acid, .alpha.,3,4-tr	74564	037148-65-5	43
			Ergoline-8-carboxamide, 9,10-dideh	37179	000478-94-4	27
9	10.29	0.11	C:\DATABASE\NBS75K.L			
			Cyclopentasiloxane, decamethyl-	51266	000541-02-6	76
			Benzoic acid, 2,6-bis[(trimethylsi	51296	003782-85-2	38
			Silane, [[4-[1,2-bis[(trimethylsil	57393	056114-62-6	35

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
10	11.03	0.03	C:\DATABASE\NBS75K.L			
			3-Acetyl-1-methylpyrrole	4027	000932-62-7	52
			1H-Pyrrole, 3-ethyl-2,4-dimethyl-	64742	000517-22-6	52
			Acetamide, N-(4-methoxyphenyl)-	67892	000051-66-1	52
11	12.01	0.12	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, 2-methyl-, dime	68429	014035-94-0	38
			Pentanedioic acid, diethyl ester	69156	000818-38-2	12
			2,4,5-Tri-O-acetyl-3-O-methyl-6-de	42895	000000-00-0	12
12	12.28	0.03	C:\DATABASE\NBS75K.L			
			Benzaldehyde, 2,4,6-trinitro-	32082	000606-34-8	12
			5-Bromo-2-iodosobenzoic aicd	48296	000000-00-0	8
			Cyanamide, [2-(1-bromo-6a,7,7a,10a	55409	055401-69-9	7
13	12.60	0.16	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, diethyl ester	19778	000818-38-2	87
			Pentanedioic acid, diethyl ester	69156	000818-38-2	59
			Pentanedioic acid, 2,4-dimethyl-,	38087	057983-50-3	37
14	13.32	1.63	C:\DATABASE\NBS75K.L			
			Cyclohexasiloxane, dodecamethyl-	56711	000540-97-6	91
			2-Chloro-4-(4-methoxyphenyl)-6-(4-	48253	063673-76-7	35
			Acetic acid, [bis[(trimethylsilyl)	49839	053044-27-2	34
15	13.50	0.27	C:\DATABASE\NBS75K.L			
			2-(Diethylamino)-3-methylcycloprop	11187	091295-98-6	32
			2H-Quinolizin-3-ol, octahydro-, tr	11200	015769-36-5	32
			Piperidine, 4-methyl-	1421	000626-58-4	30
16	14.64	0.06	C:\DATABASE\NBS75K.L			
			Octadecanoic acid, 2-[(trimethylsi	52732	056196-58-8	15
			4-Amino-5-imidazole carboxamide, t	48317	000000-00-0	11
			Octadecanoic acid, trimethylsilyl	73766	018748-91-9	10
17	15.55	0.05	C:\DATABASE\NBS75K.L			
			Dimethyl phthalate	69376	000131-11-3	42
			Dimethyl phthalate	69379	000131-11-3	42
			Dimethyl phthalate	69380	000131-11-3	38
18	16.11	1.74	C:\DATABASE\NBS75K.L			
			3-Isopropoxy-1,1,1,7,7,7-hexamethy	60503	071579-69-6	37
			Tetrasiloxane, 3,5-diethoxy-1,1,1,	59390	072439-78-2	27
			1,1,1,3,5,7,9,9,9-Nonamethylpentas	48301	084409-41-6	16
19	16.47	0.12	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	92
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	58
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	53
20	17.19	0.10	C:\DATABASE\NBS75K.L			
			1,3,4,6-Hexanetetrone, 1-(4-chloro	48347	058330-14-6	30
			Ethanone, 1-[4-(1,1-dimethylethyl)	16773	000943-27-1	27
			Pyridine, 3-(2-thienyl)-	12681	021298-53-3	27

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
21	17.68	0.11	C:\DATABASE\NBS75K.L			
			Butanethioic acid, S-butyl ester	12349	002432-52-2	49
			Propanoic acid, 2-methyl-, 1-(1,1-	40505	074381-40-1	47
			2-Furanmethanol, tetrahydro-	63508	000097-99-4	47
22	17.86	0.11	C:\DATABASE\NBS75K.L			
			Phenol, 4-(2,2,4-trimethylpentyl)-	24397	000000-00-0	64
			2H-Imidazo[4,5-b]pyridin-2-one, 1,	6253	016328-62-4	50
			Phenol, 4-(1,1-dimethylpropyl)-	13527	000080-46-6	50
23	18.10	0.04	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	95
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	91
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	87
24	18.59	1.51	C:\DATABASE\NBS75K.L			
			Silane, [[4-[1,2-bis[(trimethylsil	74512	056114-62-6	55
			3,4-Dihydroxymandelic acid, ethyl	55759	000000-00-0	49
			1,3,5,7-Tetraethyl-1-ethylbutoxysi	56589	073420-30-1	47
25	19.10	0.12	C:\DATABASE\NBS75K.L			
			Butanoic acid, 2-amino-4,4,4-trifl	19090	061141-67-1	25
			.delta.2-Tetrazaboroline, 5-ethyl-	4392	020534-01-4	11
			Phenol, 2,2'-[(1-methyl-1,2-ethane	39799	000094-91-7	11
26	19.26	0.06	C:\DATABASE\NBS75K.L			
			5-Acetoxymethyl-2-furaldehyde	14397	010551-58-3	11
			Butanoic acid, 2-amino-4,4,4-trifl	19090	061141-67-1	11
			Phenol, 2-[(1-methylethyl)thio]-	14457	029549-62-0	11
27	19.48	0.10	C:\DATABASE\NBS75K.L			
			Phenol, 2,2'-[(1-methyl-1,2-ethane	39799	000094-91-7	25
			Bendazol	24958	000621-72-7	18
			1-Benzopyrylium, 2-phenyl-	24651	014051-53-7	14
28	19.80	0.06	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	95
			Phenothiaphosphine, 2,8-dimethyl-1	51105	023861-49-6	45
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	42
29	20.01	0.57	C:\DATABASE\NBS75K.L			
			1,1'-Biphenyl, 3-azido-	21582	014213-01-5	20
			3-Cyclobutene-1,2-dicarboxylic aci	29069	055673-94-4	18
			7,8-Dihydro-2-methyl(6H)pyrazolo[3	27965	000000-00-0	16
30	20.22	0.38	C:\DATABASE\NBS75K.L			
			cis-2,4,5-Trimethoxy-.beta.-methyl	34481	000000-00-0	30
			1,3-Diphenyl-(4H)1,2,4-triazoline-	34507	000000-00-0	27
			4-Hexen-2-yn-1-one, 1-phenyl-5-(1-	34549	029743-43-9	25
31	20.34	0.61	C:\DATABASE\NBS75K.L			
			1H-Purine, 6-(methylthio)-	67932	000050-66-8	27
			Rheadan-8-ol, 2,3,10,11-tetrametho	54012	014028-91-2	25
			7,8-Dihydro-2-methyl(6H)pyrazolo[3	27965	000000-00-0	25

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
32	20.48	0.25	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	97
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	93
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	91
33	20.74	1.49	C:\DATABASE\NBS75K.L			
			.beta.-D-Glucopyranosiduronic acid	62040	052092-53-2	43
			Morphinan, 7,8-didehydro-4,5-epoxy	55885	055449-66-6	43
			Estra-1,3,5(10)-trien-17-one, 2-[(	55893	077883-26-2	38
34	20.97	1.43	C:\DATABASE\NBS75K.L			
			Benzenamine, N,N,3-trimethyl-	65619	000121-72-2	14
			Acetic acid, (4-formylphenoxy)-, e	24812	051264-69-8	14
			3-Pyridinecarbonitrile, 1,4-dihydr	6098	000767-98-6	14
35	21.24	1.32	C:\DATABASE\NBS75K.L			
			4-Amino-2-methyl-5,6-trimethylenep	9460	076881-49-7	25
			1H-Purin-6-amine, N-methyl-	66644	000443-72-1	20
			4-Pyridinecarboxaldehyde, 3-hydrox	14236	000066-72-8	18
36	21.55	1.09	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	95
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	89
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	86
37	21.83	0.63	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	91
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	86
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	76
38	22.13	1.34	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	90
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	64
			Phenothiaphosphine, 2,8-dimethyl-1	51105	023861-49-6	46
39	22.25	0.63	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	94
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	87
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	86
40	22.36	1.20	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	95
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	92
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	45
41	22.64	2.68	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	27
			Benzene, 1-phenyl-4-(2-cyano-2-phe	39643	027869-56-3	10
			14.alpha.-Morphinan, 7,8-didehydro	39631	017939-34-3	10
42	23.18	2.32	C:\DATABASE\NBS75K.L			
			2,4,6,8,9,10-Hexathiatricyclo[3.3.	46703	057289-12-0	16
43	23.38	1.30	C:\DATABASE\NBS75K.L			
			2,4(1H)-Cyclo-3,4-secoakuammilan-1	52355	006472-42-0	35
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	27
			Butanamide, 3-methyl-	1621	000541-46-8	25

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
44	23.76	2.96	C:\DATABASE\NBS75K.L			
			Pentane, 2-methoxy-	1778	006795-88-6	43
			Hydrazine, 1-methyl-1-(2-methylpro	1757	020240-63-5	38
			Butanamide, 3-methyl-	1621	000541-46-8	38
45	24.11	4.29	C:\DATABASE\NBS75K.L			
			2,4,6,8,9,10-Hexathiatricyclo[3.3.	50037	057274-38-1	38
			Butanamide, 3-methyl-	1621	000541-46-8	38
			3-Pentanol, 2-methyl-	63561	000565-67-3	38
46	24.40	4.55	C:\DATABASE\NBS75K.L			
			Benzeneacetic acid, .alpha.,3,4-tr	74565	037148-65-5	32
			1,3,5,7-Tetraethyl-1-ethylbutoxysi	56589	073420-30-1	30
			Benzoic acid, 2,4-bis[(trimethylsi	73975	010586-16-0	25
47	24.74	5.03	C:\DATABASE\NBS75K.L			
			1-Propanol, 2-(2-methoxy-1-methyle	9239	055956-21-3	43
			Butane, 2-methoxy-	854	006795-87-5	38
			1-Propanol, 2-(2-methoxypropoxy)-	9232	013588-28-8	37
48	25.02	7.01	C:\DATABASE\NBS75K.L			
			1-Propanol, 2-(2-methoxy-1-methyle	9239	055956-21-3	47
			2-Naphthalenemethanol, decahydro-.	28205	051317-08-9	37
			Butanamide, 3-methyl-	1621	000541-46-8	35
49	25.42	8.21	C:\DATABASE\NBS75K.L			
			3-Pentanol, 2-methyl-	63561	000565-67-3	43
			Propane, 1-ethoxy-2-methyl-	63544	000627-02-1	43
			Butanamide, 3-methyl-	1621	000541-46-8	38
50	25.98	3.89	C:\DATABASE\NBS75K.L			
			Morphinan, 7,8-didehydro-4,5-epoxy	55885	055449-66-6	46
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	42
			Estra-1,3,5(10)-trien-17-one, 2-[(	55893	077883-26-2	27
51	26.34	1.81	C:\DATABASE\NBS75K.L			
			2,4(1H)·Cyclo-3,4-secoakuammilan-1	52355	006472-42-0	30
			Benzo[1,2-c:4,5-c']dipyrrole-1,3,5	53562	031663-79-3	11
			Benzo[1,2-c:4,5-c']dipyrrole-1,3,5	53561	031663-75-9	11
52	26.46	1.28	C:\DATABASE\NBS75K.L			
			Bikaverin	52326	033390-21-5	59
			2,4(1H)-Cyclo-3,4-secoakuammilan-1	52355	006472-42-0	35
			Sarpagan-16-carboxylic acid, 3,17-	52356	053632-75-0	22
53	26.65	1.35	C:\DATABASE\NBS75K.L			
			2-Propanol, 1-(2-ethoxypropoxy)-	12860	010143-32-5	47
			2-Pentanone, 5-methoxy-	64282	017429-04-8	47
			Ethane, 1-ethoxy-1-methoxy-	1926	010471-14-4	47
54	27.06	0.89	C:\DATABASE\NBS75K.L			
			Amylene Hydrate	62940	000075-85-4	47
			2-Pentanol, 2-methyl-	1763	000590-36-3	38
			2-Propanol, 1-(2-ethoxypropoxy)-	12860	010143-32-5	38

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
55	27.33	3.58	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	45
			Morphinan, 7,8-didehydro-4,5-epoxy	55885	055449-66-6	42
			.beta.-D-Glucopyranosiduronic acid	62040	052092-53-2	27
56	27.70	1.76	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	38
			Benzoic acid, 2,4-bis[(trimethylsi	73975	010586-16-0	15
			Benzoic acid, 2,5-bis(trimethylsil	73978	003618-20-0	10
57	28.16	14.62	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	38
			Benz[b]acridine, 1,2,3,4,7,8,9,10-	34157	055044-74-1	23
			Benz[c]acridine, 1,2,3,4,8,9,10,11	34155	055044-73-0	23
58	28.58	2.76	C:\DATABASE\NBS75K.L			
			1-Propanol, 2-(2-methoxy-1-methyle	9239	055956-21-3	47
			1,2-Propanediol, 2-methyl-, 1-meth	14343	074792-80-6	38
			2,5,8,11-Tetraoxadodecane	17074	000112-49-2	38
59	28.76	3.59	C:\DATABASE\NBS75K.L			
			1-Propanol, 2-(2-methoxy-1-methyle	9239	055956-21-3	43
			Butane, 1-ethoxy-	63550	000628-81-9	38
			2-Butanol, 2,3-dimethyl-	63570	000594-60-5	35
60	29.41	0.60	C:\DATABASE\NBS75K.L			
			Pentane, 2-methoxy-	1778	006795-88-6	25
			Ethanedioic acid, dimethyl ester	3458	000553-90-2	25
			1-Chloro-2-ethoxyethane	2079	000628-34-2	25
61	29.63	0.29	C:\DATABASE\NBS75K.L			
			1,2-Benzenedicarboxylic acid, mono	39132	004376-20-9	43
			1,2-Benzenedicarboxylic acid, 3-ni	25513	000603-11-2	43
			Bis(2-ethylhexyl) phthalate	53128	000117-81-7	43
62	29.85	0.50	C:\DATABASE\NBS75K.L			
			Benzoic acid, 2,4-bis[(trimethylsi	73975	010586-16-0	20
			Benzoic acid, 2,5-bis(trimethylsil	51295	003618-20-0	18
			Silane, [[4-[1,2-bis[(trimethylsil	74512	056114-62-6	16
63	30.43	0.15	C:\DATABASE\NBS75K.L			
			Tanshinone II-b	44270	017397-93-2	39
			4H-1-Benzopyran-2-carboxylic acid,	39264	030192-14-4	22
			3-Aminodiftalone	39292	067483-30-1	20
64	30.86	0.63	C:\DATABASE\NBS75K.L			
			Phenol, dimethyl-, phosphate (3:1)	54605	025155-23-1	51
			Cholesta-5,7-dien-3-one, 4,4-dimet	54634	000000-00-0	12
			C(14a)-Homo-27-norgammacer-14-ene	54655	018046-86-1	10
65	31.77	0.11	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	90
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	86
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	49

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
66	32.41	0.02	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	91
			1H-12a,5-(Epoxymethano)pyrido[3',4	51134	003329-92-8	25
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	25
67	32.86	0.59	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	12
			Heptasiloxane, hexadecamethyl-	59695	000541-01-5	12
			Benzoic acid, 2,5-bis(trimethylsil	73978	003618-20-0	11
68	33.13	0.01	C:\DATABASE\NBS75K.L			
			2-Naphthalenemethanol, decahydro-.	28205	051317-08-9	47
			Heptane, 1-ethoxy-	8517	001969-43-3	30
			Cyclooctanemethanol, .alpha.,.alph	15325	016624-06-9	27
69	33.62	1.62	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	38
			Heptasiloxane, hexadecamethyl-	59695	000541-01-5	14
			Benzoic acid, 2,5-bis(trimethylsil	73978	003618-20-0	11
70	35.69	0.21	C:\DATABASE\NBS75K.L			
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	38
			Pentane, 2-methoxy-	1778	006795-88-6	38
			Butanamide, 3-methyl-	1621	000541-46-8	38
71	35.88	0.11	C:\DATABASE\NBS75K.L			
			Butanamide, 3-methyl-	1621	000541-46-8	38
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	38
			Propanoic acid, 2-hydroxy-2-methyl	3494	002110-78-3	3[illegible]

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Sample Name: 0495-37a
Misc Info : Thermolag sample
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
Total Ion Chromatogram			
1.742	601393536	1.891	12.936
2.335	35461107	0.112	0.763
3.027	434519950	1.366	9.347
3.866	22070112	0.069	0.475
5.078	26666286	0.084	0.574
7.130	10865117	0.034	0.234
9.274	22612605	0.071	0.486
10.173	53471448	0.168	1.150
10.290	34352204	0.108	0.739
11.032	10335885	0.032	0.222
12.002	385?0794	0.121	0.830
12.280	9140554	0.029	0.197
12.604	51331931	0.161	1.104
13.312	516844108	1.625	11.118
13.494	85651901	0.269	1.842
14.644	19755558	0.062	0.425
15.543	14726153	0.046	0.317
16.107	554815668	1.745	11.934
16.466	39303151	0.124	0.845
17.190	31161994	0.098	0.670
17.677	35868588	0.113	0.772
17.864	34835411	0.110	0.749
18.094	14137921	0.044	0.304
18.587	479371689	1.507	10.312
19.104	36818758	0.116	0.792
19.259	20506049	0.064	0.441
19.478	31975393	0.101	0.688
19.799	20146385	0.063	0.433
20.004	181939663	0.572	3.914
20.225	122243376	0.384	2.630
20.336	193466228	0.608	4.162
20.483	80764082	0.254	1.737
20.733	474225524	1.491	10.201
20.979	454847358	1.430	9.784
21.232	418319486	1.315	8.998

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Sample Name: 0495-37a
Misc Info : Thermolag sample
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
21.545	347601288	1.093	7.477
21.833	199517775	0.627	4.292
22.133	427224089	1.343	9.190
22.254	200848722	0.632	4.320
22.361	381247456	1.199	8.201
22.642	852348617	2.680	18.334
23.180	737361875	2.319	15.861
23.385	414625472	1.304	8.919
23.767	940298835	2.957	20.226
24.113	1363159995	4.286	29.322
24.393	1447207021	4.550	31.130
24.743	1599518140	5.029	34.406
25.016	2228418622	7.007	47.934
25.417	2609952331	8.207	56.141
25.980	1237946489	3.893	26.629
26.340	577189096	1.815	12.416
26.455	406990370	1.280	8.755
26.649	428636001	1.348	9.220
27.058	281595199	0.885	6.057
27.327	1139525626	3.583	24.512
27.703	559735188	1.760	12.040
28.171	4648891930	14.618	100.000
28.587	878228811	2.761	18.891
28.766	1142368693	3.592	24.573
29.410	190822799	0.600	4.105
29.633	90861797	0.286	1.954
29.845	159718577	0.502	3.436
30.429	47831864	0.150	1.029
30.861	201454672	0.633	4.333
31.768	34752574	0.109	0.748
32.415	6300133	0.020	0.136
32.860	187537080	0.590	4.034
33.121	4663432	0.015	0.100
33.620	515022573	1.619	11.078
35.686	67680920	0.213	1.456
35.880	33755208	0.106	0.726

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471A.D
Operator : Marti
Acquired : 13 Apr 95 12:57 pm using AcqMethod EM31492
Sample Name: 0495-37a
Misc Info : Thermolag sample
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %

Ion 55.00 (54.70 to 55.70): EM31471A.D
0495-37a

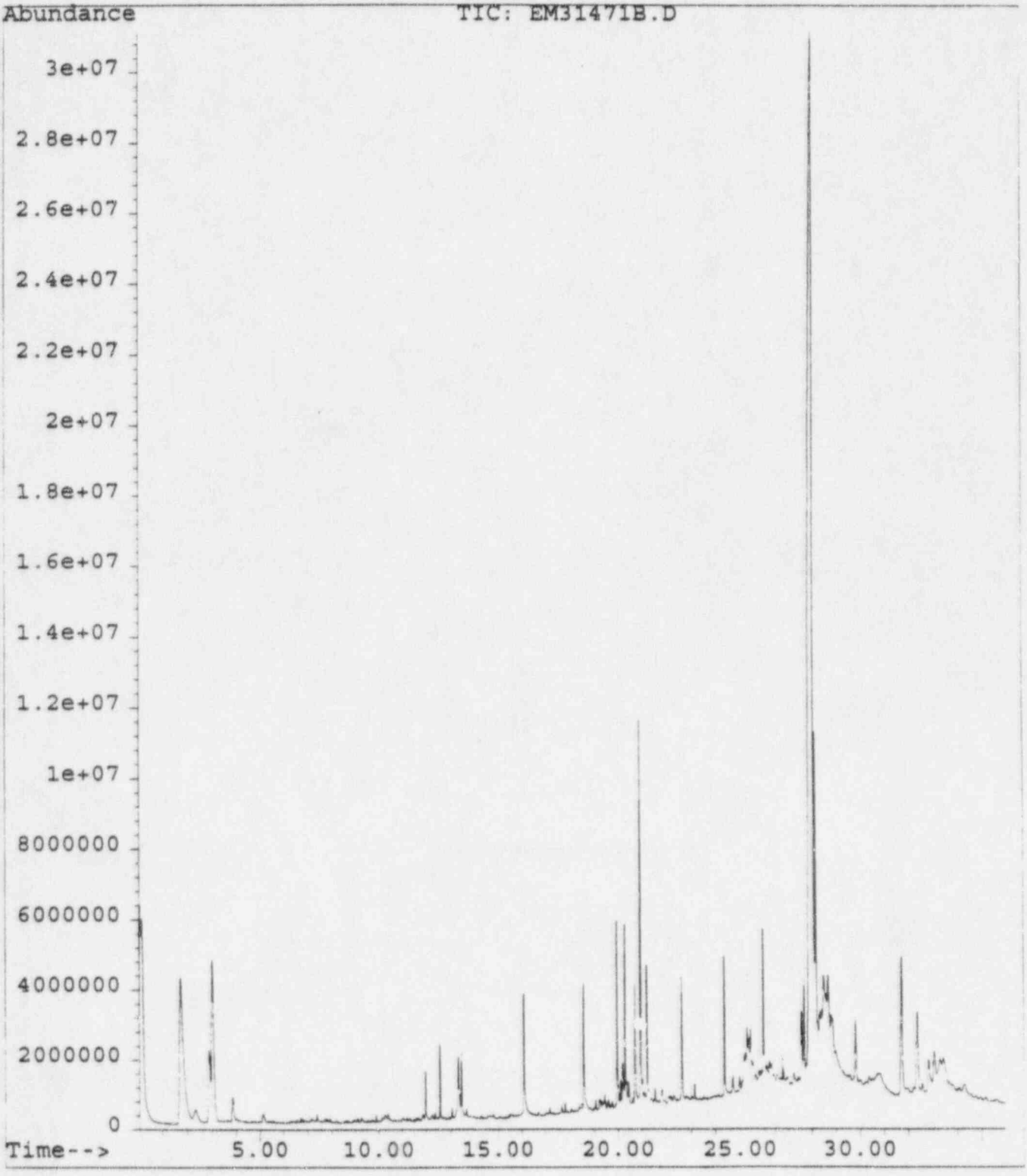
Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	2.345	BB	0.128	3286432	2.136	2.721
2	2.898	BB	0.109	86746091	2.751	3.386

Ion. 69.00 (68.70 to 69.70): EM31471A.D
0495-37a

Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	3.028	BV	0.103	60439623	2.820	3.425
2	3.862	VV	0.086	5842676	3.425	4.100

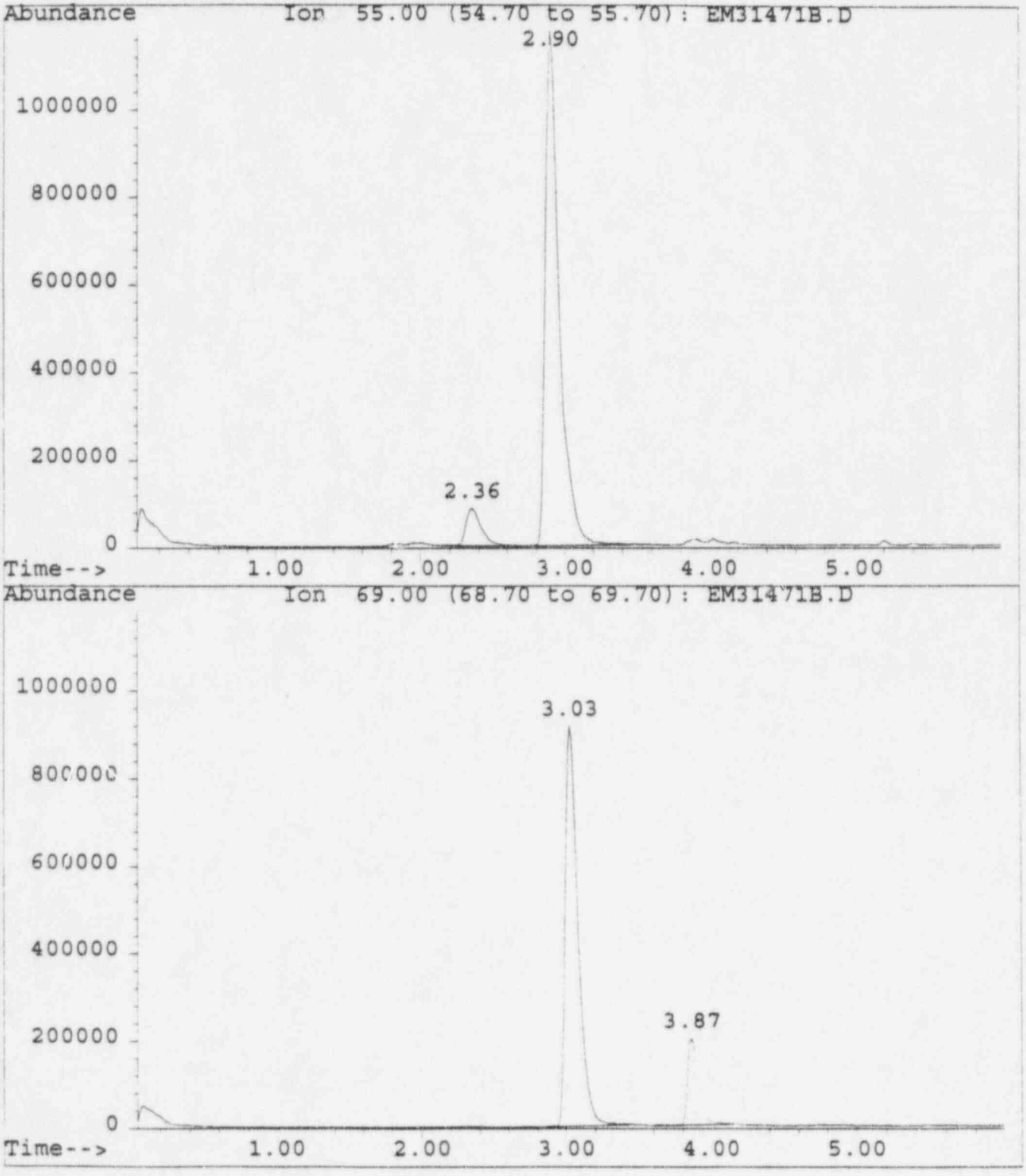
File : C:\HPCHEM\1\DATA\EM31471B.D
Operator : Marti
Acquired : 13 Apr 95 2:25 pm using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: 0495-37b wt# 12.7855
Misc Info : Thermolag sample
Vial Number: 1

FIGURE 3



File : C:\HPCHEM\1\DATA\EM31471B.D
Operator : Marti
Acquired : 13 Apr 95 2:25 pm using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: 0495-37b WH 12 Apr 95
Misc Info : Thermolag sample
Vial Number: 1

FIGURE 4



Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471B.D
Operator : Marti
Acquired : 13 Apr 95 2:25 pm using AcqMethod EM31492
Sample Name: 0495-37b WPF 4/14/95
Misc Info : Thermolag sample
Vial Number: 1

Search Libraries: C:\DATABASE\NBS75K.L Minimum Quality: 0

Unknown Spectrum: Apex
Integration Params: AutoIntegrate

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
1	0.16	-12.73	C:\DATABASE\NBS75K.L			
			2-Hexanol, 2-methyl-	64355	000625-23-0	35
			2-Hexanol, 2-methyl-	64354	000625-23-0	35
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	32
2	1.74	6.46	C:\DATABASE\NBS75K.L			
			No matches found			
3	2.33	0.61	C:\DATABASE\NBS75K.L			
			.beta.-D-Allofuranuronic acid, 5-[	59138	019396-06-6	25
			Meprobamate	70443	000057-53-4	25
			Acetamide, N-(aminocarbonyl)-	1671	000591-07-1	25
4	2.91	1.37	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, ethyl ester	63318	000140-88-5	91
			2-Propenoic acid, ethyl ester	1461	000140-88-5	91
			2-Propenoic acid, ethyl ester	63320	000140-88-5	83
5	3.04	4.05	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, 2-methyl-, methy	63329	000080-62-6	68
			2-Butenoic acid, methyl ester, (E)	1458	000623-43-8	64
			2-Propenoic acid, 2-methyl-, methy	63330	000080-62-6	64
6	3.86	0.49	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, 2-methyl-, ethyl	2900	000097-63-2	64
			2-Propenoic acid, 2-methyl-, ethyl	64113	000097-63-2	60
			2-Butenoic acid, 4-nitrophenyl est	24526	014617-88-0	50
7	5.15	0.20	C:\DATABASE\NBS75K.L			
			p-Xylene	63701	000106-42-3	70
			Benzene, 1,2-dimethyl-	63706	000095-47-6	70
			Benzene, 1,3-dimethyl-	63697	000108-38-3	70
8	7.39	0.10	C:\DATABASE\NBS75K.L			
			1,2,4-Trimethylbenzene	3771	000095-36-3	90
			Benzene, 1,2,3-trimethyl-	64576	000526-73-8	86
			Benzene, 1,3,5-trimethyl-	64570	000108-67-8	86
9	11.98	0.49	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, diethyl ester	69155	000818-38-2	27
			Pentanedioic acid, 2-methyl-, mono	12301	072088-36-9	25
			1,3,2-Dioxaborinane, 4,6-dimethyl-	22867	052964-02-0	22

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
10	12.58	0.57	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, diethyl ester	19778	000818-38-2	87
			Pentanedioic acid, diethyl ester	69156	000818-38-2	64
			Pentanedioic acid, diethyl ester	69155	000818-38-2	58
11	13.08	0.09	C:\DATABASE\NBS75K.L			
			3-Pentanone, dimethylhydrazone	4996	016795-73-6	30
			3-Piperidinol	63447	006859-99-0	30
			Pyrimidine, 5-chloro-2-dimethylami	11664	081568-09-4	25
12	13.34	1.12	C:\DATABASE\NBS75K.L			
			Cyclohexasiloxane, dodecamethyl-	56711	000540-97-6	93
			Acetic acid, [bis[(trimethylsilyl)	49839	053044-27-2	34
			2,4,6(1H,3H,5H)-Pyrimidinetrione,	49865	052988-92-8	32
13	13.47	0.60	C:\DATABASE\NBS75K.L			
			Piperidine, 4-methyl-	63292	000626-58-4	38
			Piperidine, 4-methyl-	1421	000626-58-4	38
			2-(Diethylamino)-3-methylcycloprop	11187	091295-98-6	32
14	16.10	1.53	C:\DATABASE\NBS75K.L			
			3-Isopropoxy-1,1,1,7,7,7-hexamethy	60503	071579-69-6	25
			Tetrasiloxane, 3,5-diethoxy-1,1,1,	59390	072439-78-2	22
			1-[2,4-Bis(trimethylsilyloxy)pheny	58102	000000-00-0	16
15	17.17	0.15	C:\DATABASE\NBS75K.L			
			4,5,6,7-Tetramethylphthalide	20315	029002-54-8	42
			Benzene, 1-(1-ethylpropyl)-4-propy	20374	054789-16-1	38
			Benzene, 1-(1,1-dimethylethyl)-3-e	16799	006630-01-9	38
16	17.66	0.09	C:\DATABASE\NBS75K.L			
			Pentane, 3-bromo-	66684	001809-10-5	38
			Borane, diethyl[1-ethyl-2-(methoxy	21917	053670-48-7	38
			Pentane, 2,3,4-trimethyl-	64229	000565-75-3	38
17	17.81	0.09	C:\DATABASE\NBS75K.L			
			Phenol, 4-(1,1,3,3-tetramethylbuty	24424	000140-66-9	64
			Phenol, 4-(2,2,3,3-tetramethylbuty	24409	054932-78-4	52
			Phenol, 4-(1,1,3,3-tetramethylbuty	70047	000140-66-9	52
18	18.58	1.43	C:\DATABASE\NBS75K.L			
			Silane, [[4-[1,2-bis[(trimethylsil	57393	056114-62-6	55
			1,2-Benzenediol, 4-(2-amino-1-hydr	57358	056145-09-6	47
			Silane, [[4-[1,2-bis[(trimethylsil	74512	056114-62-6	46
19	19.08	0.15	C:\DATABASE\NBS75K.L			
			Phenol, 2,2'-[(1-methyl-1,2-ethane	39799	000094-91-7	42
			5H-Dibenzo[a,d]cyclohepten-5-one,	70114	001210-35-1	41
			Naphthalene, 1,2,3,4-tetrahydro-1-	25032	003018-20-0	41
20	19.22	0.20	C:\DATABASE\NBS75K.L			
			Phenol, 2,2'-[(1-methyl-1,2-ethane	39799	000094-91-7	32
			Ethyl N'-isopropylureidoacetate	19738	000000-00-0	30
			Ethanamine, N-methyl-2-[(2-methylp	34965	015301-93-6	27

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
21	19.45	0.23	C:\DATABASE\NBS75K.L			
			1H-Inden-1-ol, 2,3-dihydro-	65500	006351-10-6	18
			Dibenzo[b,e]-1,4-diazabicyclo[2.2.	24947	000000-00-0	15
			1,2,4-Oxadiazol-5-amine, 3-phenyl-	12634	003663-37-4	14
22	19.60	0.15	C:\DATABASE\NBS75K.L			
			5-Bromo-2-iodosobenzoic aicd	48296	000000-00-0	25
			N-Desmethyldiphenhydramine	32185	000000-00-0	25
			Phenol, 2,2'-[(1-methyl-1,2-ethane	39799	000094-91-7	25
23	19.97	1.72	C:\DATABASE\NBS75K.L			
			Benzo[b]thiophene, 2-(butylthio)-	28074	054965-46-7	15
			1,1'-Biphenyl, 3-azido-	21582	014213-01-5	15
			3-Cyclobutene-1,2-dicarboxylic aci	29069	055673-94-4	11
24	20.12	0.25	C:\DATABASE\NBS75K.L			
			2-Iodohistidine	39529	000000-00-0	38
			1,4-Oxathiin-3-carboxylic acid, 2-	24692	117238-98-9	15
			Pyridine, 2-ethyl-4,6-dimethyl-	6309	001124-35-2	14
25	20.21	0.66	C:\DATABASE\NBS75K.L			
			1,3-Diphenyl-(4H)1,2,4-triazoline-	34507	000000-00-0	38
			2,5-Cyclohexadien-1-one, 2,5-dimet	34546	054245-93-1	27
			Triamterene	34464	000396-01-0	18
26	20.31	1.77	C:\DATABASE\NBS75K.L			
			7,8-Dihydro-2-methyl(6H)pyrazolo[3	27965	000000-00-0	25
			Flavone	28172	000525-82-6	18
			Urea, 1-neopentyl-3-phenyl-2-thio-	28087	015093-39-7	11
27	20.45	0.32	C:\DATABASE\NBS75K.L			
			Propanedioic acid, bis(2-methyl-2-	31923	074793-47-8	30
			1H-Indole-3-ethanamine, 6-fluoro-.	20703	077590-52-4	22
			Acetic acid, oxo-	62541	000298-12-4	11
28	20.71	1.28	C:\DATABASE\NBS75K.L			
			2H-1,4-Benzodiazepin-2-one, 7-chlo	55928	055319-93-2	35
			Cyclohexasiloxane, dodecamethyl-	56711	000540-97-6	14
			Heptasiloxane, hexadecamethyl-	59695	000541-01-5	12
29	20.95	3.99	C:\DATABASE\NBS75K.L			
			Benzene, 1-methyl-4-(nitromethyl)-	9997	029559-27-1	14
			Pyridine, 2-ethyl-4,6-dimethyl-	6309	001124-35-2	14
			Pyridine, 2,6-diethyl-	6323	000935-28-4	14
30	21.20	1.24	C:\DATABASE\NBS75K.L			
			3-(3-Pyridyl)propenoic acid	9438	001126-74-5	22
			4-Amino-2-methyl-5,6-trimethylenep	9460	076881-49-7	20
			7H-Purin-6-amine, 7-methyl-	9421	000935-69-3	18
31	21.52	0.13	C:\DATABASE\NBS75K.L			
			Cobalt, [[3,3'-(1,2-ethanediyldini	54324	036466-12-3	11
			8-Methyl-13,14-dioxo-8H,13H,14H-na	46504	059050-31-6	10
			12,13-Dihydro-12-methyl-13,14-diox	46505	059050-19-0	10

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
32	21.81	0.25	C:\DATABASE\NBS75K.L			
			Pyridine, 3,5-dichloro-4-methoxy-2	24013	051050-42-1	49
			1,3-Dioxolane, 2-(2,4-dimethylphen	27648	074752-98-0	47
			6-Phenylisoquinoline	24117	070125-61-0	46
33	22.63	1.25	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	30
			Cyclohexasiloxane, dodecamethyl-	56711	000540-97-6	10
			4,5-Ethylene-8,9-dimethoxy-6-phena	39611	000000-00-0	10
34	23.16	0.20	C:\DATABASE\NBS75K.L			
			Isoxazole, 5-(4-methoxyphenyl)-3-p	34124	003672-51-3	35
			Pregn-5-en-20-one, 3,16-bis(acetyl	56086	023357-24-6	7
35	24.37	1.27	C:\DATABASE\NBS75K.L			
			Benzoic acid, 2,4-bis[(trimethylsi	51292	010586-16-0	42
			Silane, [[4-[1,2-bis[(trimethylsil	74512	056114-62-6	40
			Silane, [[4-[1,2-bis[(trimethylsil	57393	056114-62-6	40
36	24.72	0.33	C:\DATABASE\NBS75K.L			
			Ethanol, 2-[2-[4-(1,1,3,3-tetramet	41793	002315-61-9	90
			Octicizer	50542	001241-94-7	42
			6-(Methylamino)phenanthren-3-ol	28427	098033-23-9	38
37	24.99	0.26	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	46
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	27
			2-Hydrazino-8-hydroxy-4-phenylquin	34111	000000-00-0	11
38	25.30	4.23	C:\DATABASE\NBS75K.L			
			2,5,8,11-Tetraoxatetradecan-13-ol,	36541	020324-34-9	43
			Propane, 1-ethoxy-2-methyl-	63543	000627-02-1	38
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	38
39	25.65	0.27	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	52
			Octicizer	50542	001241-94-7	50
			2-Hydrazino-8-hydroxy-4-phenylquin	34111	000000-00-0	25
40	25.78	0.42	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	53
			Octicizer	50542	001241-94-7	47
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	27
41	25.88	0.33	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	72
			9-(3-Fluorobenzyl)-9-hydroxy-3,6,1	50407	000000-00-0	22
			2-Hydrazino-8-hydroxy-4-phenylquin	34111	000000-00-0	22
42	25.97	1.94	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	40
			Morphinan, 7,8-didehydro-4,5-epoxy	55885	055449-66-6	38
			Benzoic acid, 2,4-bis[(trimethylsi	51292	010586-16-0	35

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
43	26.10	0.43	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	47
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	47
			Heptane, 1-ethoxy-	8517	001969-43-3	18
44	26.22	0.41	C:\DATABASE\NBS75K.L			
			3-(2-Hydroxy-6-methylphenyl)-2-met	36963	000000-00-0	38
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	38
			Benzeneacetaldehyde, 3,4-dimethoxy	34066	000000-00-0	38
45	26.31	0.54	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	50
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	50
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	49
46	26.78	0.14	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	70
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	49
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	45
47	26.83	0.16	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	78
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	58
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	50
48	27.26	0.17	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	60
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	59
			Benzenamine, ar,ar-dibromo-	33621	050307-05-6	43
49	27.59	1.08	C:\DATABASE\NBS75K.L			
			Phosphoric acid, triphenyl ester	73338	000115-86-6	99
			Phosphoric acid, triphenyl ester	46311	000115-86-6	95
			Phosphoric acid, triphenyl ester	73337	000115-86-6	93
50	27.70	1.18	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	38
			Benzoic acid, 2,4-bis[(trimethylsi	73975	010586-16-0	15
			Benzeneethanamine, N-[(pentafluoro	74706	055429-13-5	10
51	28.12	43.60	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	38
			Benz[b]acridine, 1,2,3,4,7,8,9,10-	34157	055044-74-1	23
			Benz[c]acridine, 1,2,3,4,8,9,10,11	34155	055044-73-0	23
52	28.20	4.41	C:\DATABASE\NBS75K.L			
			No matches found			
53	28.52	4.77	C:\DATABASE\NBS75K.L			
			Propane, 2-ethoxy-2-methyl-	1790	000637-92-3	35
			2-Butanol, 2,3-dimethyl-	63571	000594-60-5	35
			Butanamide, 3-methyl-	1621	000541-46-8	35
54	28.70	1.94	C:\DATABASE\NBS75K.L			
			Propanoic acid, 2-hydroxy-2-methyl	3494	002110-78-3	38
			3-Pentanol, 2-methyl-	63561	000565-67-3	38
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	38

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
55	28.83	1.08	C:\DATABASE\NBS75K.L			
			Pentane, 2-methoxy-	1778	006795-88-6	38
			Nonanamide	11725	001120-07-6	35
			Hexylene Glycol	64445	000107-41-5	35
56	29.82	0.89	C:\DATABASE\NBS75K.L			
			Benzoic acid, 2,4-bis[(trimethylsi	51292	010586-16-0	25
			3-Isopropoxy-1,1,1,7,7,7-hexamethy	60503	071579-69-6	22
			Heptasiloxane, hexadecamethyl-	59695	000541-01-5	14
57	30.37	0.16	C:\DATABASE\NBS75K.L			
			4H-1-Benzopyran-2-carboxylic acid,	39264	030192-14-4	41
			2,4,6,8-Tetrathiatricyclo[3.3.1.13	39250	057289-09-5	12
			4H-1-Benzopyran-2-carboxylic acid,	39266	030095-84-2	10
58	30.77	1.40	C:\DATABASE\NBS75K.L			
			2-Naphthalenemethanol, 2,3,4,4a,5,	28228	063891-61-2	12
			Tricyclo[4.3.1.13,8]undecane, 3-ch	18853	027011-47-8	12
			Benzamide, N-(1,1-dimethylethyl)-3	24615	049834-28-8	11
59	31.74	2.62	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	91
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	91
60	32.39	1.56	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	94
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	76
61	32.58	0.16	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(4-methylphen	51126	000078-32-0	38
			trans-4-Methoxy-3-propoxy-.beta.-m	34070	000000-00-0	16
			.alpha.-t-Butyl-.alpha.-isopropyl-	31118	000000-00-0	16
62	32.84	0.79	C:\DATABASE\NBS75K.L			
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	52
			3,6-Dioxa-2,4,5,7-tetrasilaoctane,	41682	004342-25-0	12
			Benzoic acid, 2,5-bis(trimethylsil	51295	003618-20-0	11
63	33.08	0.91	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	92
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	86
64	33.31	1.06	C:\DATABASE\NBS75K.L			
			Trisiloxane, 1,1,1,5,5,5-hexamethy	74103	003555-47-3	25
			3-Isopropoxy-1,1,1,7,7,7-hexamethy	60503	071579-69-6	25
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	10
65	33.45	0.99	C:\DATABASE\NBS75K.L			
			Pentasiloxane, dodecamethyl-	52458	000141-63-9	38
			Heptasiloxane, hexadecamethyl-	59695	000541-01-5	33
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	25

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471B.D
Operator : Marti
Acquired : 13 Apr 95 2:25 pm using AcqMethod EM31492
Sample Name: 0495-37b
Misc Info : Thermolag sample
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
Total Ion Chromatogram			
0.166	-940991759	-12.730	-29.201
1.744	477714650	6.463	14.824
2.336	45118082	0.610	1.400
2.904	100951042	1.366	3.133
3.032	299430828	4.051	9.292
3.866	36385987	0.492	1.129
5.151	14676265	0.199	0.455
7.393	7713126	0.104	0.239
11.981	36416239	0.493	1.130
12.583	42069998	0.569	1.306
13.077	6720577	0.091	0.209
13.341	82553068	1.117	2.562
13.474	44243710	0.599	1.373
16.101	113445396	1.535	3.520
17.170	11435878	0.155	0.355
17.663	6291396	0.085	0.195
17.809	6406232	0.087	0.199
18.573	105712108	1.430	3.280
19.077	11009494	0.149	0.342
19.224	14806605	0.200	0.459
19.448	17014260	0.230	0.528
19.604	10994816	0.149	0.341
19.978	127290902	1.722	3.950
20.116	18277055	0.247	0.567
20.210	48738878	0.659	1.512
20.309	130898074	1.771	4.062
20.455	23328295	0.316	0.724
20.718	94695151	1.281	2.939
20.951	295043716	3.992	9.156
21.203	91827953	1.242	2.850
21.525	9855411	0.133	0.306
21.805	18501093	0.250	0.574
22.626	92106796	1.246	2.858
23.157	14491603	0.196	0.450
24.379	93814414	1.269	2.911

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471B.D
Operator : Marti
Acquired : 13 Apr 95 2:25 pm using AcqMethod EM31492
Sample Name: 0495-37b
Misc Info : Thermolag sample
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
24.714	24091389	0.326	0.748
24.992	19059905	0.258	0.591
25.300	312595369	4.229	9.700
25.648	19622723	0.265	0.609
25.783	31365149	0.424	0.973
25.880	24731593	0.335	0.767
25.968	143739453	1.945	4.460
26.107	31511870	0.426	0.978
26.219	30664316	0.415	0.952
26.305	39590163	0.536	1.229
26.788	10305991	0.139	0.320
26.827	12057232	0.163	0.374
27.263	12793678	0.173	0.397
27.590	79518975	1.076	2.468
27.696	86866396	1.175	2.696
28.114	3222515027	43.596	100.000
28.199	325968746	4.410	10.115
28.523	352471792	4.768	10.938
28.708	143447592	1.941	4.451
28.830	79747261	1.079	2.475
29.825	65838100	0.891	2.043
30.373	12169538	0.165	0.378
30.767	103484203	1.400	3.211
31.743	194030722	2.625	6.021
32.383	115536827	1.563	3.585
32.577	11814532	0.160	0.367
32.843	58374995	0.790	1.811
33.074	67218295	0.909	2.086
33.309	78624229	1.064	2.440
33.448	73011166	0.988	2.266

0495-37b
3 12 MAY 1995 WF

Peak#	Rec Time	Type	Width	Area	Start Time	End Time
1.	2.357	BB	0.116	6332151	2.166	2.702
2	2.904	BV	0.102	78729031	2.781	3.466

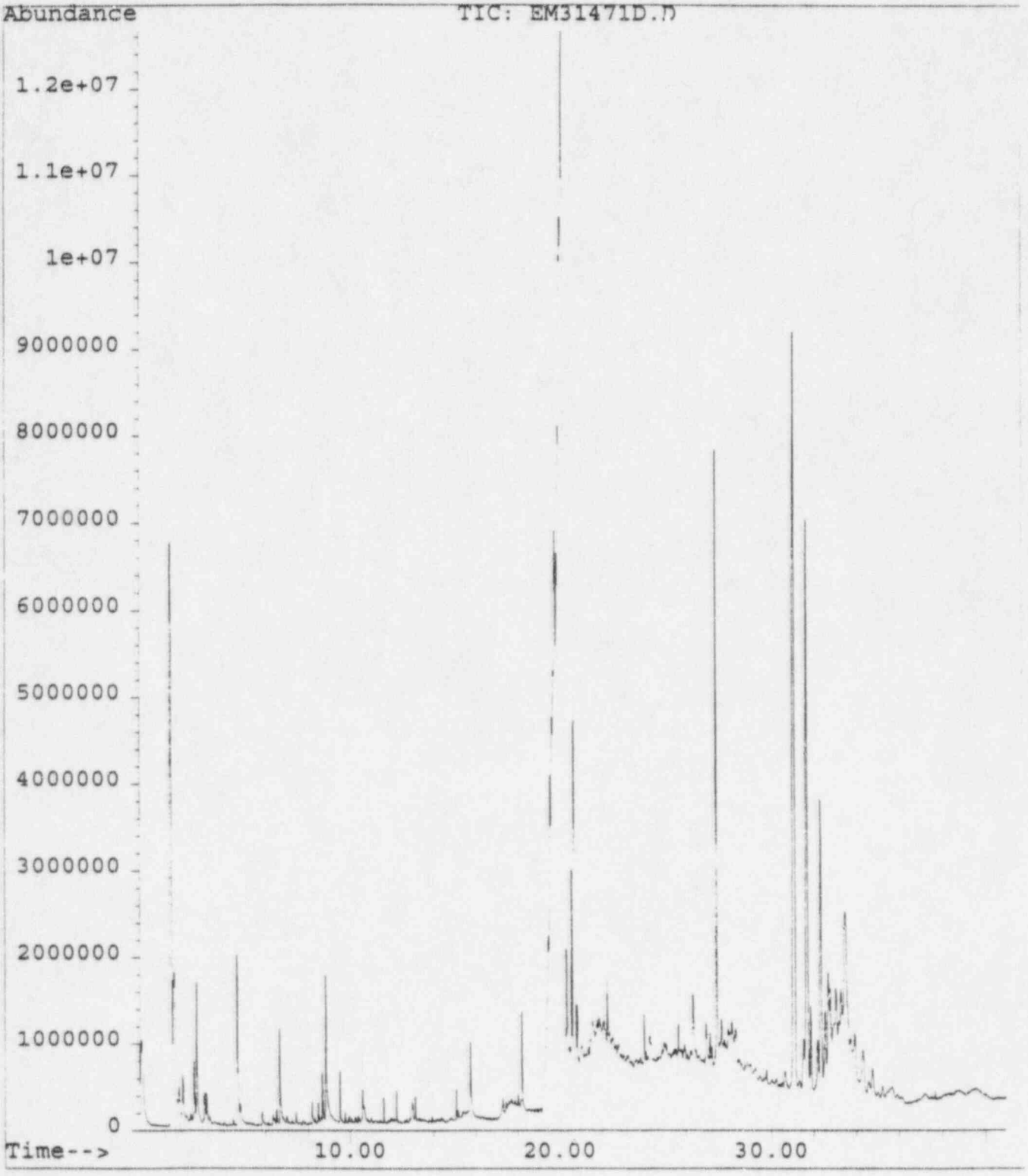
Ion 69.00 (68.70 to 69.70): EM31471B.D

0495-37b
3 WAY 12MAY95

Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	3.033	PV	0.097	57150189	2.851	3.436
2	3.866	BV	0.077	10004129	3.594	4.150

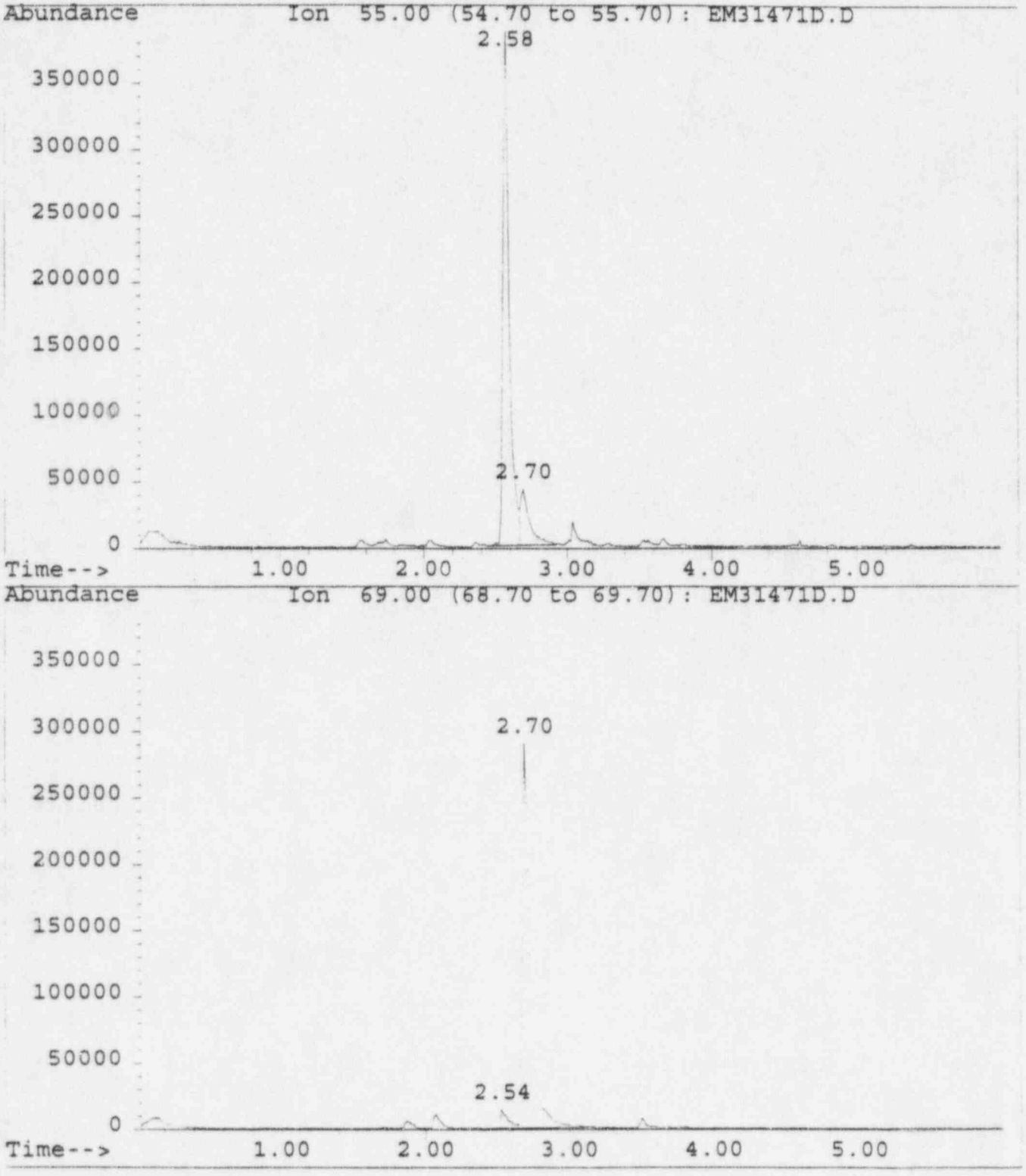
File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1

FIGURE 5



File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1

FIGURE 6



Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1

Search Libraries: C:\DATABASE\NBS75K.L Minimum Quality: 0

Unknown Spectrum: Apex
Integration Params: AutoIntegrate

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
1	0.14	1.08	C:\DATABASE\NBS75K.L			
			Hydrazine, (1-methylpropyl)-	832	030924-14-2	30
			2-Propanol, 1-(2-methoxy-1-methyle	9238	020324-32-7	27
			4-Ethoxyamphetamine	17479	000000-00-0	22
2	1.50	4.40	C:\DATABASE\NBS75K.L			
			No matches found			
3	1.65	1.45	C:\DATABASE\NBS75K.L			
			No matches found			
4	1.87	0.31	C:\DATABASE\NBS75K.L			
			2-Propenal, 2-methyl-	62430	000078-85-3	50
			Furan, 2,3-dihydro-	62438	001191-99-7	46
			Butanal	62486	000123-72-8	43
5	2.05	0.33	C:\DATABASE\NBS75K.L			
			Furan, 2-methyl-	62666	000534-22-5	91
			Furan, 2-methyl-	463	000534-22-5	76
			Furan, 2-methyl-	62665	000534-22-5	64
6	2.57	0.28	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, ethyl ester	63318	000140-88-5	87
			2-Propenoic acid, ethyl ester	63319	000140-88-5	78
			2-Propenoic acid, ethyl ester	63317	000140-88-5	72
7	2.70	0.70	C:\DATABASE\NBS75K.L			
			2-Propenoic acid, 2-methyl-, methy	1484	000080-62-6	58
			2-Propenoic acid, 2-methyl-, 3-hyd	8333	002761-09-3	50
			2-Butenoic acid, methyl ester, (E)	1458	000623-43-8	38
8	3.06	0.15	C:\DATABASE\NBS75K.L			
			Pyridine	62632	000110-86-1	95
			Pyridine	62633	000110-86-1	76
			Pyridine	62631	000110-86-1	76
9	3.16	0.12	C:\DATABASE\NBS75K.L			
			1-Penten-3-yne, 2-methyl-	62647	000926-55-6	50
			1H-Pyrrole, 1-methyl-	62656	000096-54-8	46
			1H-Pyrrole, 2-methyl-	444	000636-41-9	43

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
10	4.64	0.66	C:\DATABASE\NBS75K.L			
			Pyridine, 3-methyl-	63044	000108-99-6	97
			Pyridine, 3-methyl-	981	000108-99-6	94
			Pyridine, 3-methyl-	63046	000108-99-6	91
11	4.78	0.16	C:\DATABASE\NBS75K.L			
			Benzene, 1,2-dimethyl-	63706	000095-47-6	38
			Benzene, 1,2-dimethyl-	63705	000095-47-6	38
			p-Xylene	2032	000106-42-3	38
12	5.84	0.07	C:\DATABASE\NBS75K.L			
			Pyridine, 2,5-dimethyl-	2046	000589-93-5	93
			Pyridine, 2,5-dimethyl-	63719	000589-93-5	90
			Benzenamine, 3-methyl-	63727	000108-44-1	68
13	6.53	0.06	C:\DATABASE\NBS75K.L			
			Pyridine, 3-ethenyl-	1970	001121-55-7	87
			Pyridine, 2-ethenyl-	1972	000100-69-6	74
			Pyridine, 4-ethenyl-	1971	000100-43-6	64
14	6.69	0.37	C:\DATABASE\NBS75K.L			
			Pyridine, 3,5-dimethyl-	2047	000591-22-0	95
			Pyridine, 3,5-dimethyl-	63720	000591-22-0	91
			Pyridine, 3,4-dimethyl-	2050	000583-58-4	91
15	7.44	0.06	C:\DATABASE\NBS75K.L			
			Pyridine, 2-ethyl-6-methyl-	3834	001122-69-6	43
			6H-Purine, 5,7-dihydro-6-(1-methyl	17628	056247-56-4	35
			1H-Pyrrole, 2,3,5-trimethyl-	2225	002199-41-9	27
16	8.20	0.08	C:\DATABASE\NBS75K.L			
			Pyridine, 2,3,5-trimethyl-	3839	000695-98-7	91
			Pyridine, 2,3,6-trimethyl-	3822	001462-84-6	81
			Pyridine, 2,3,6-trimethyl-	64607	001462-84-6	81
17	8.49	0.09	C:\DATABASE\NBS75K.L			
			Pyridine, 3-ethyl-5-methyl-	3821	003999-78-8	94
			Pyridine, 5-ethyl-2-methyl-	64621	000104-90-5	90
			Benzenamine, 2,6-dimethyl-	64611	000087-62-7	81
18	8.69	0.21	C:\DATABASE\NBS75K.L			
			4-Aminostyrene	3652	001520-21-4	83
			Pyridine, 5-ethenyl-2-methyl-	3656	000140-76-1	76
			Benzoic acid, 2,5-dimethyl-, (2,4-	37433	055000-48-1	59
19	8.86	1.01	C:\DATABASE\NBS75K.L			
			1H-Pyrrole-2-carboxaldehyde, 1-met	63814	001192-58-1	50
			2,6-Pyridinediamine	2190	000141-86-6	47
			3,4-Pyridinediamine	2193	000054-96-6	45
20	9.54	0.16	C:\DATABASE\NBS75K.L			
			1H-Pyrrole, 2,3,4,5-tetramethyl-	4056	001003-90-3	94
			1H-Pyrrole, 3-ethyl-2,4,5-trimethy	65853	000520-69-4	37
			Pyrazine, 5-butyl-2,3-dimethyl-	67853	015834-78-3	23

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
21	10.62	0.26	C:\DATABASE\NBS75K.L			
			Ethanone, 1-(1-methyl-1H-pyrrol-2-	64728	000932-16-1	78
			1H-Pyrrole, 3-ethyl-2,4-dimethyl-	64741	000517-22-6	56
			1H-Pyrrole, 2-ethyl-3,5-dimethyl-	4057	032990-59-3	56
22	11.62	0.07	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, 2-methyl-, mono	12301	072088-36-9	32
			Butanedioic acid, 2,2-dimethyl-, d	16117	049827-44-3	27
			Dimethyl ethylbutane-1,4-dioate	16107	000000-00-0	27
23	12.23	0.21	C:\DATABASE\NBS75K.L			
			Pentanedioic acid, diethyl ester	19778	000818-38-2	87
			Pentanedioic acid, diethyl ester	69155	000818-38-2	72
			Pentanedioic acid, diethyl ester	69156	000818-38-2	72
24	12.98	0.15	C:\DATABASE\NBS75K.L			
			Cyclohexasiloxane, dodecamethyl-	56711	000540-97-6	90
			Acetic acid, [bis[(trimethylsilyl)	49839	053044-27-2	53
			1,3,5,7,9-Pentaethylcyclopentasilo	51267	017995-44-7	32
25	13.13	0.07	C:\DATABASE\NBS75K.L			
			2H-Quinolizin-3-ol, octahydro-, tr	11200	015769-36-5	38
			2-(Diethylamino)-3-methylcycloprop	11187	091295-98-6	38
			Diethyl isopropylidenemalonate	69708	006802-75-1	35
26	15.08	0.09	C:\DATABASE\NBS75K.L			
			Propanamide	62531	000079-05-0	46
			Methanesulfonamide, N,N-dimethyl-	4001	000918-05-8	38
			dl-3-Aminobutyric acid	1815	002835-82-7	35
27	15.76	0.50	C:\DATABASE\NBS75K.L			
			3-Isopropoxy-1,1,1,7,7,7-hexamethy	60503	071579-69-6	37
			1-[2,4-Bis(trimethylsilyloxy)pheny	58102	000000-00-0	27
			Tetrasiloxane, 3,5-diethoxy-1,1,1,	59390	072439-78-2	22
28	17.31	0.05	C:\DATABASE\NBS75K.L			
			Julolidine	16010	000479-59-4	32
			1,2,3,7-Tetramethylindole	15993	000000-00-0	25
			4-(2-Hydroxyphenyl)pyrimidine	15725	068535-55-7	25
29	17.73	0.36	C:\DATABASE\NBS75K.L			
			Cyclopentanone, dimethylhydrazone	4509	014090-60-9	27
			1,3,5-Benzenetriol	64864	000108-73-6	22
			Thiazole, 2,4-dimethyl-5-propyl-	11176	041981-70-8	22
30	17.90	0.12	C:\DATABASE\NBS75K.L			
			.delta.2-Tetrazaboroline, 5-ethyl-	4392	020534-01-4	38
			1-Ethylamino-1-butylcyclohexane	18625	000000-00-0	38
			3H-Pyrazol-3-one, 1,2-dihydro-1,2,	4441	003201-26-1	22
31	18.05	0.12	C:\DATABASE\NBS75K.L			
			N,N-Diethyltrifluoroacetamide	14830	000360-92-9	38
			Benzene, 1-chloro-4-(2,2-dichloro-	27960	054965-40-1	25
			1-Nonanone, 1-(2-thienyl)-	28638	059782-24-0	22

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
32	18.24	0.40	C:\DATABASE\NBS75K.L			
			Benzeneethanamine, N-[(pentafluoro	60339	055429-13-5	43
			Phenethylamine, N-methyl-.beta.,3,	74238	010538-85-9	43
			Benzeneacetic acid, .alpha.,3,4-tr	57997	037148-65-5	38
33	19.89	13.30	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	93
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	59
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	45
34	20.23	22.91	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	90
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	53
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	42
35	20.39	1.34	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	35
			Octicizer	50542	001241-94-7	20
			Benzenamine, ar,ar-dibromo-	33621	050307-05-6	16
36	20.74	4.62	C:\DATABASE\NBS75K.L			
			No matches found			
37	21.07	0.90	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	49
			Octicizer	50542	001241-94-7	38
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	38
38	21.59	2.47	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	66
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	47
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	27
39	21.92	1.84	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	35
			Butanamide, 3-methyl-	1621	000541-46-8	30
			Butane, 2-methoxy-	854	006795-87-5	30
40	22.12	1.26	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	27
			Methyl 16-methoxyheptadecanoate	44818	000000-00-0	27
			Octicizer	50542	001241-94-7	25
41	22.30	1.13	C:\DATABASE\NBS75K.L			
			Trisiloxane, 1,1,1,5,5,5-hexamethy	52459	003555-47-3	14
			1,1,1,5,7,7,7-Heptamethyl-3,3-bis(	56714	038147-00-1	10
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	10
42	24.05	0.61	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	35
			2,4(1H,3H)-Quinolinedione, 3-benzo	49822	070611-42-6	32
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	27
43	24.31	1.10	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	47
			Octicizer	50542	001241-94-7	25
			2,4,6,8,9,10-Hexathiatricyclo[3.3.	50037	057274-38-1	18

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
44	24.98	1.59	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	38
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	35
			Octicizer	50542	001241-94-7	35
45	25.46	0.68	C:\DATABASE\NBS75K.L			
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	43
			Octicizer	50542	001241-94-7	42
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	22
46	25.65	0.66	C:\DATABASE\NBS75K.L			
			3-(2-Hydroxy-6-methylphenyl)-2-met	36963	000000-00-0	47
			Octicizer	50542	001241-94-7	45
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	43
47	25.94	0.53	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	70
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	43
			2-Propanol, 1-[1-methyl-2-(2-prope	68438	055956-25-7	18
48	26.35	1.12	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	94
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	93
49	26.97	0.42	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	97
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	95
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	78
50	27.16	0.32	C:\DATABASE\NBS75K.L			
			Phosphoric acid, triphenyl ester	73338	000115-86-6	99
			Phosphoric acid, triphenyl ester	73337	000115-86-6	92
			Phosphoric acid, triphenyl ester	46311	000115-86-6	83
51	27.50	2.69	C:\DATABASE\NBS75K.L			
			Octicizer	50542	001241-94-7	90
			7-Amino-2,3-dihydro-5-phenyl-1H-1,	34112	004928-02-3	59
			2-(4-Cyanophenyl)-5-dimethylaminom	34091	000000-00-0	59
52	27.70	0.76	C:\DATABASE\NBS75K.L			
			Isothiazole, 3-methyl-5-phenyl-	68481	001732-45-2	37
			2H-1-Benzopyran-2-one, 7-amino-4-m	16440	026093-31-2	28
			Oxycarboxin	71900	005259-88-1	25
53	28.20	0.92	C:\DATABASE\NBS75K.L			
			Propanoic acid, 2-hydroxy-2-methyl	5790	000080-55-7	47
			2-Butanol, 3-methoxy-	1908	053778-72-6	43
			Butanamide, 3-methyl-	1621	000541-46-8	38
54	28.37	0.39	C:\DATABASE\NBS75K.L			
			Butane, 2-methoxy-	854	006795-87-5	43
			Propanoic acid, 2-hydroxy-2-methyl	3494	002110-78-3	38
			Pentanamide, 4-methyl-	3136	001119-29-5	38

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
55	29.79	0.09	C:\DATABASE\NBS75K.L			
			Pregna-4,6-diene-3,20-dione, 2.alp	56634	005234-56-0	27
			10H-Phenoxaphosphine, 8-fluoro-10-	39085	037041-13-7	25
			4H-1-Benzopyran-2-carboxylic acid,	39266	030095-84-2	16
56	30.65	0.14	C:\DATABASE\NBS75K.L			
			.alpha.-D-Xylo-Hex-5-enofuranose,	19338	007284-07-3	10
			Hexane, 1-ethoxy-	65280	005756-43-4	10
			8-Hydroxycarvotanacetone	14600	007712-46-1	9
57	31.14	5.94	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	93
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	91
58	31.54	0.37	C:\DATABASE\NBS75K.L			
			Sarpagan-16-carboxylic acid, 3,17-	52356	053632-75-0	22
			Benzeneethanamine	64604	000064-04-0	14
			Bikaverin	52326	033390-21-5	11
59	31.73	4.03	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	99
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	94
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	93
60	31.89	0.45	C:\DATABASE\NBS75K.L			
			Acetophenone, 2',4'-dimethoxy-3'-m	21229	060512-80-3	30
			9H-Fluorene, 9,9-dimethyl-	21436	004569-45-3	22
			9H-Fluoren-9-imine	17504	004440-33-9	18
61	32.21	0.37	C:\DATABASE\NBS75K.L			
			Sarpagan-16-carboxylic acid, 3,17-	52356	053632-75-0	22
			Morphinan, 6,8a-etheno,-3-acetoxy-	52348	000000-00-0	18
			Acridine	68683	000260-94-6	15
62	32.38	1.90	C:\DATABASE\NBS75K.L			
			Phosphoric acid, tris(3-methylphen	51124	000563-04-2	98
			Phosphoric acid, tris(methylphenyl	73955	001330-78-5	96
			Phosphoric acid, tris(methylphenyl	51123	001330-78-5	93
63	32.57	0.62	C:\DATABASE\NBS75K.L			
			Ethanol, 2-[4-(1,1-dimethylethyl)p	21346	000713-46-2	22
			Acetophenone, 2',4'-dimethoxy-3'-m	21229	060512-80-3	22
			2',4'-Dimethoxy-3'-methylpropiophe	24862	077942-13-3	14
64	32.72	1.61	C:\DATABASE\NBS75K.L			
			2,2,6,6-Tetrachloro-1,5-dioxa-2,6-	52155	063503-14-0	23
			Morphinan, 6,8a-etheno,-3-acetoxy-	52348	000000-00-0	22
			Sarpagan-16-carboxylic acid, 3,17-	52356	053632-75-0	22
65	33.08	1.62	C:\DATABASE\NBS75K.L			
			Butanamide, 3-methyl-	1621	000541-46-8	22
			2,3,3-Trimethyl-2-pentanol	5510	023171-85-9	22
			Ethane, 1-bromo-2-ethoxy-	10074	000592-55-2	22

Pk#	RT	Area%	Library/ID	Ref#	CAS#	Qual
66	33.32	1.50	C:\DATABASE\NBS75K.L			
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	38
			2-Propanol, 1-[1-methyl-2-(2-prope	16196	055956-25-7	38
			Butanamide, 3-methyl-	1621	000541-46-8	38
67	33.52	3.46	C:\DATABASE\NBS75K.L			
			2-Propanol, 1-(2-methoxypropoxy)-	9233	013429-07-7	14
			1-Butanol, 3-methoxy-	1922	002517-43-3	14
			Butanamide, 3-methyl-	1621	000541-46-8	14
68	33.95	0.87	C:\DATABASE\NBS75K.L			
			1-Propanol, 2-(2-methoxy-1-methyle	9239	055956-21-3	43
			2-Propanol, 1-[2-(2-methoxy-1-meth	24251	020324-33-8	37
			Methane, diethoxy-	1915	000462-95-3	27
69	34.33	0.62	C:\DATABASE\NBS75K.L			
			1H-Benzimidazole, 5-chloro-2-(1-me	21182	004886-29-7	20
			Acridine	68684	000260-94-6	11
			Acridine	68685	000260-94-6	11
70	34.76	0.28	C:\DATABASE\NBS75K.L			
			Bikaverin	52326	033390-21-5	38
			p-Quinquiphenyl	52398	000000-00-0	18
			1,1':3',1'':3'',1''':3''',1''''-Qu	52399	016716-13-5	18
71	35.23	0.08	C:\DATABASE\NBS75K.L			
			Pentane, 2-methoxy-	1778	006795-88-6	30
			2-Propanol, 1-[1-methyl-2-(2-prope	68438	055956-25-7	27
			2,4,6,8,9,10-Hexathiatricyclo[3.3.	50037	057274-38-1	25
72	39.57	0.34	C:\DATABASE\NBS75K.L			
			2-Propanol, 1-(2-methoxy-1-methyle	9238	020324-32-7	38
			Butane, 2-methoxy-	854	006795-87-5	35
			Propanoic acid, 2-hydroxy-2-methyl	3494	002110-78-3	35

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
Total Ion Chromatogram			
0.140	92722369	1.082	4.723
1.495	377302691	4.403	19.218
1.657	124284126	1.450	6.330
1.871	26406527	0.308	1.345
2.050	28477981	0.332	1.451
2.578	24074246	0.281	1.226
2.698	60276495	0.703	3.070
3.058	13211834	0.154	0.673
3.154	10119389	0.118	0.515
4.638	56653564	0.661	2.886
4.777	14011580	0.164	0.714
5.844	5834804	0.068	0.297
6.528	5096275	0.059	0.260
6.683	31886156	0.372	1.624
7.443	4983175	0.058	0.254
8.197	7042570	0.082	0.359
8.489	7286336	0.085	0.371
8.695	18230036	0.213	0.929
8.861	86836671	1.013	4.423
9.542	13358226	0.156	0.680
10.624	21907773	0.256	1.116
11.630	5640899	0.066	0.287
12.235	18[illegible]0	0.210	0.918
12.987	[illegible]725	0.149	0.649
13.128	[illegible]7453	0.074	0.322
15.077	7925161	0.092	0.404
15.760	42928444	0.501	2.187
17.310	4197339	0.049	0.214
17.725	30486288	0.356	1.553
17.893	10339636	0.121	0.527
18.048	9924107	0.116	0.505
18.239	34576125	0.403	1.761
19.885	1140080553	13.305	58.070
20.23[illegible]	1963278058	22.911	100.000
20.388	114747435	1.339	5.845

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
20.735	396014951	4.621	20.171
21.069	76964275	0.898	3.920
21.593	211678932	2.470	10.782
21.910	157992826	1.844	8.047
22.115	107867502	1.259	5.494
22.302	96593679	1.127	4.920
24.056	51858646	0.605	2.641
24.311	94559977	1.104	4.816
24.978	136006512	1.587	6.928
25.455	58452866	0.682	2.977
25.650	56829877	0.663	2.895
25.938	45328226	0.529	2.309
26.358	95901695	1.119	4.885
26.976	35700684	0.417	1.818
27.160	27420393	0.320	1.397
27.496	230192488	2.686	11.725
27.706	65082688	0.760	3.315
28.196	79075966	0.923	4.028
28.369	33750458	0.394	1.719
29.793	7314431	0.085	0.373
30.651	12384558	0.145	0.631
31.134	508619835	5.936	25.907
31.544	31367955	0.366	1.598
31.737	345037129	4.027	17.575
31.888	38957251	0.455	1.984
32.204	31981791	0.373	1.629
32.374	162852128	1.900	8.295
32.566	52874565	0.617	2.693
32.723	138104414	1.612	7.034
33.080	138933784	1.621	7.077
33.312	128192081	1.496	6.529
33.524	296709585	3.463	15.113
33.948	74164746	0.865	3.778
34.326	52854560	0.617	2.692
34.759	24222641	0.283	1.234
35.227	6807583	0.079	0.347

Area Percent Report -- Sorted by Signal

Information from Data File:
File : C:\HPCHEM\1\DATA\EM31471D.D
Operator : Marti
Acquired : 8 May 95 1:02 pm using AcqMethod EM31492
Sample Name: thermolag 0395-37c
Misc Info : (2nd run)
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\EM31492.M

Retention Time	Area	Area %	Ratio %
39.568	29192820	0.341	1.487

Ion 55.00 (54.70 to 55.70): EM31471D.D
thermolag 0395-37c

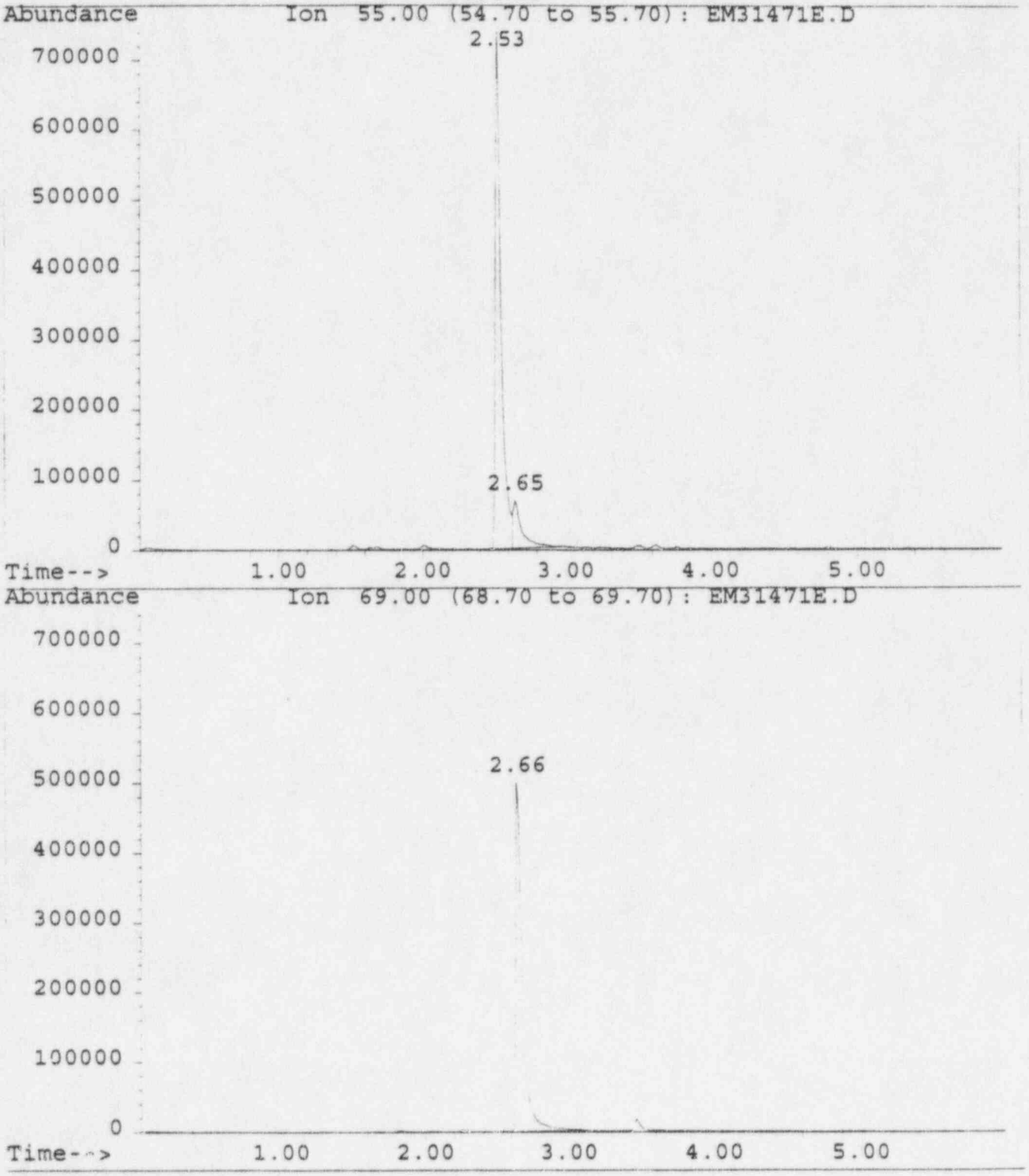
Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	2.577	BV	0.048	11671429	2.444	2.667
2	2.696	VV	0.079	1914898	2.667	2.920

Ion 69.00 (68.70 to 69.70): EM31471D.D
thermolag 0395-37c

Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	2.536	BV	0.058	483214	2.484	2.638
2	2.700	VV	0.052	9629230	2.638	3.109

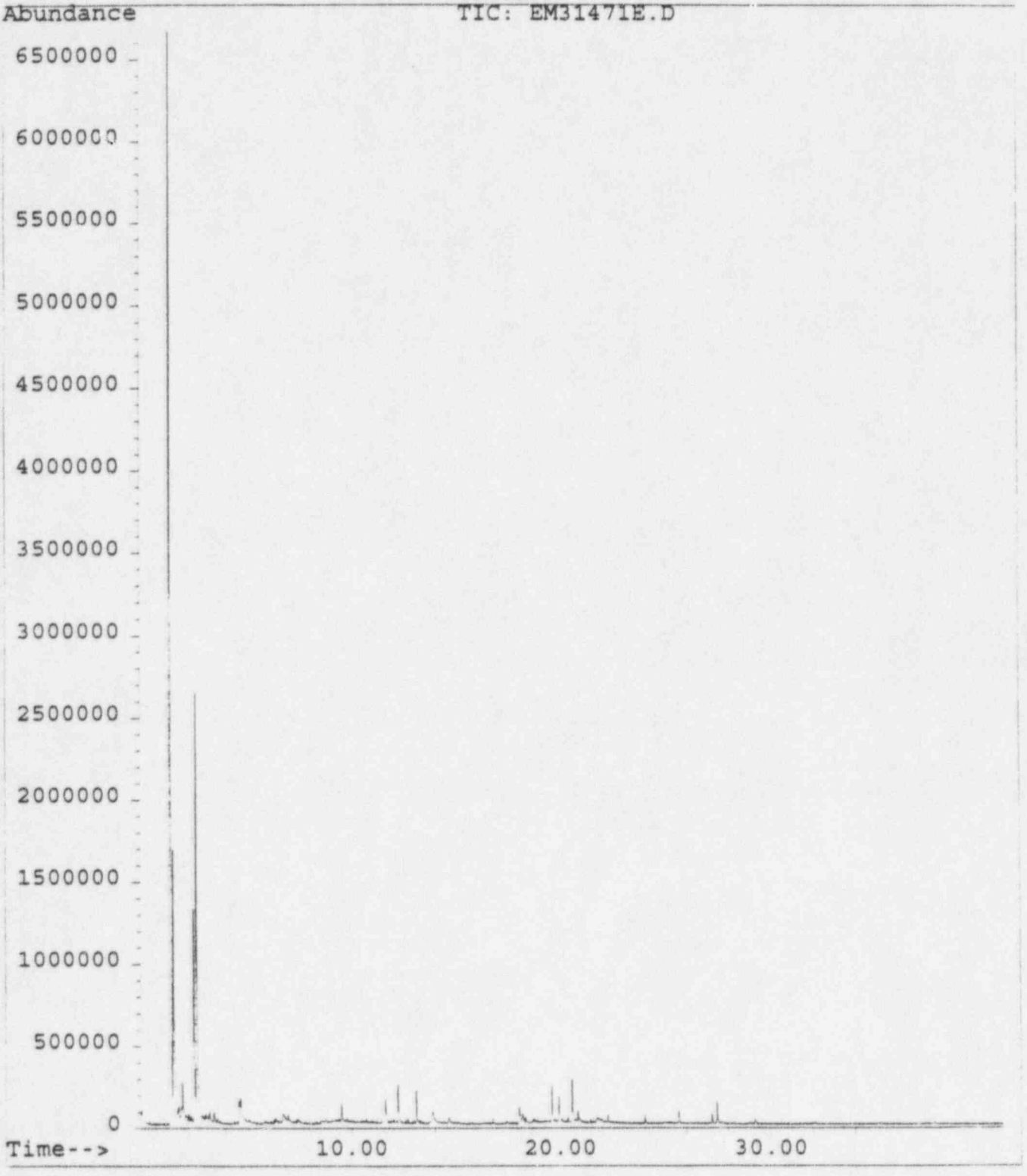
File : C:\HPCHEM\1\DATA\EM31471E.D
Operator : Marti
Acquired : 23 May 95 10:14 am using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: 0495-37b
Misc Info : 3 WHF 30 mg/kg
Vial Number: 1

FIGURE 7



File : C:\HPCHEM\1\DATA\EM31471E.D
Operator : Marti
Acquired : 23 May 95 10:14 am using AcqMethod EM31492
Instrument : 5972 - 33
Sample Name: 0495-37b
Misc Info : 3 ~~12~~ 23 May 95
Vial Number: 1 30 wtr

FIGURE 8



Library Searched : C:\DATABASE\NBS75K.L
Quality : 93
ID : Pyridine, 3-methyl-

SAMPLE 0395-37B

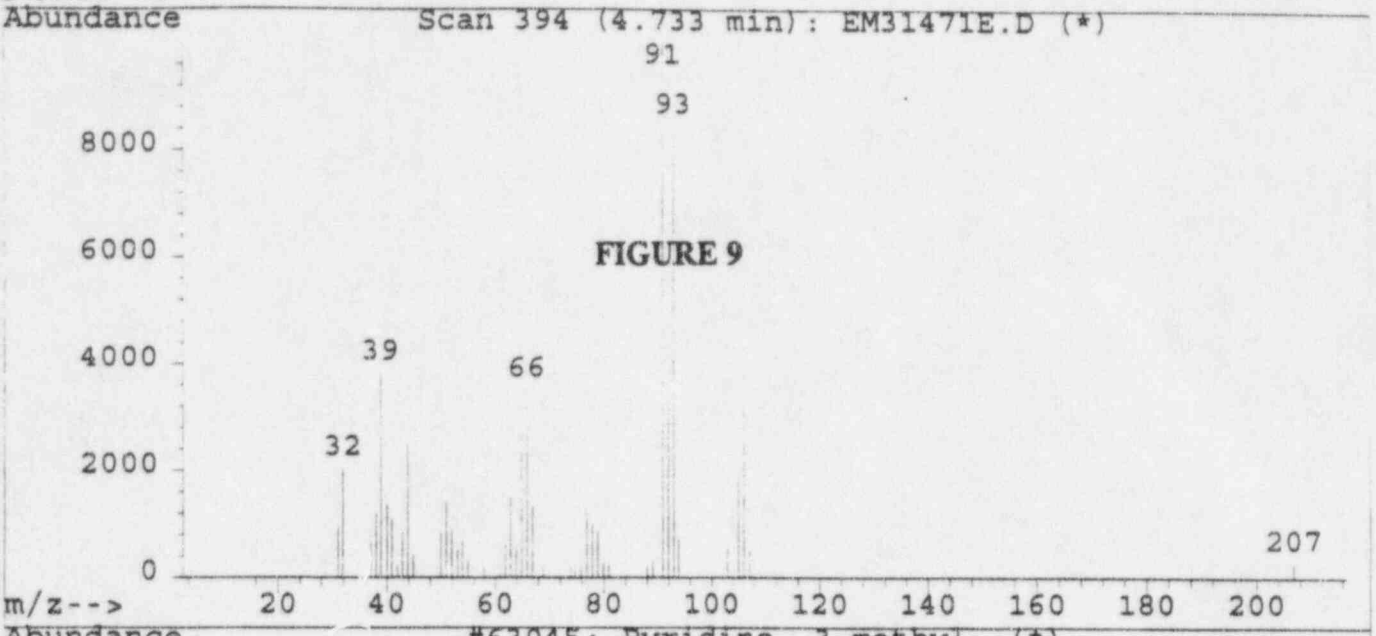
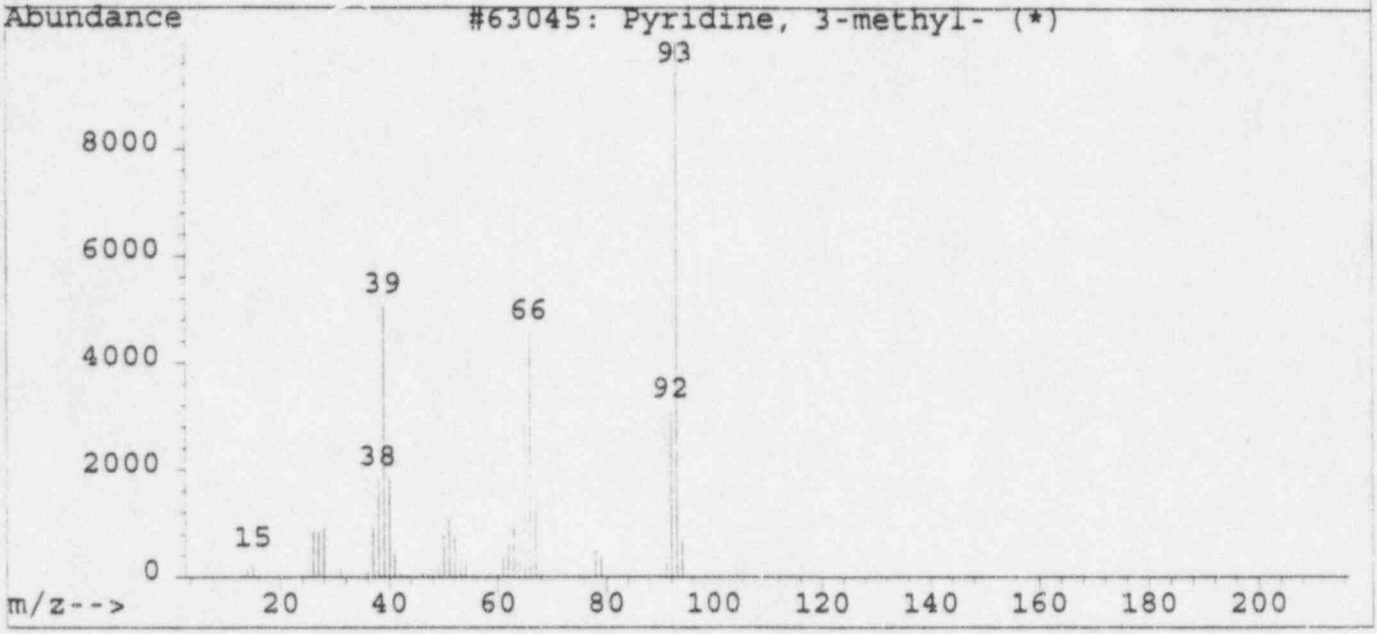


FIGURE 9



Library Searched : C:\DATABASE\NBS75K.L
Quality : 96
ID : Pyridine, 3-methyl-
SAMPLE 0395-37B

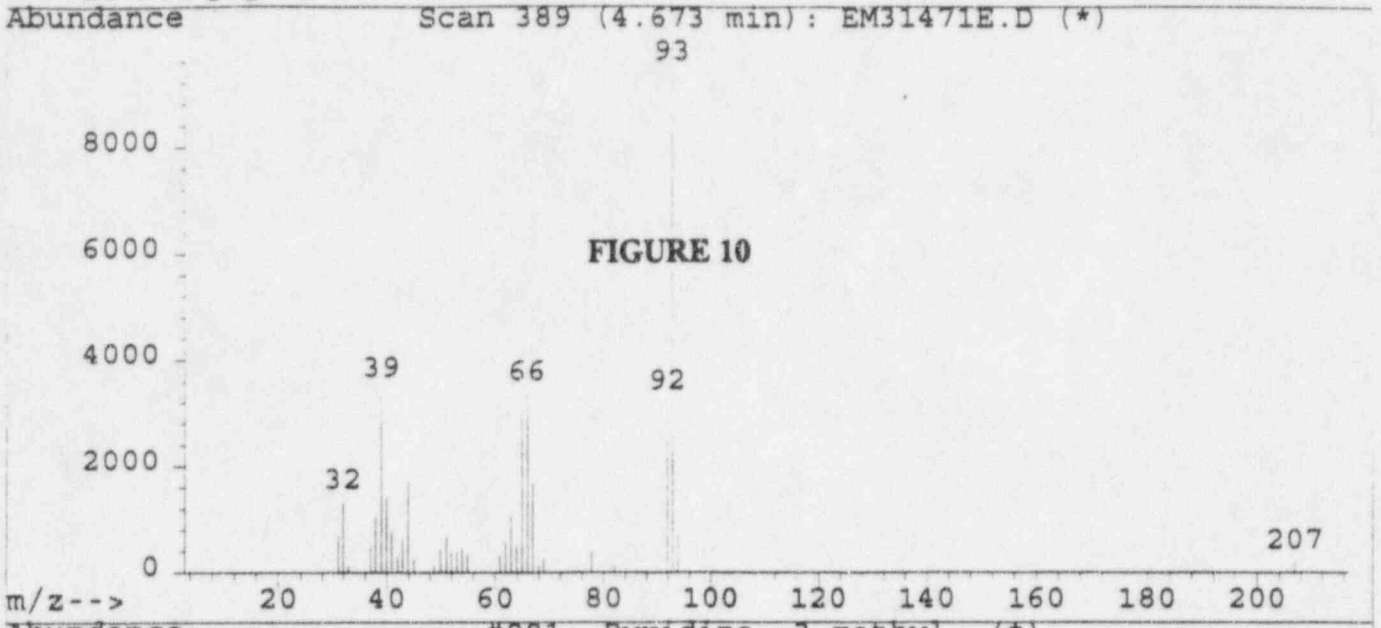
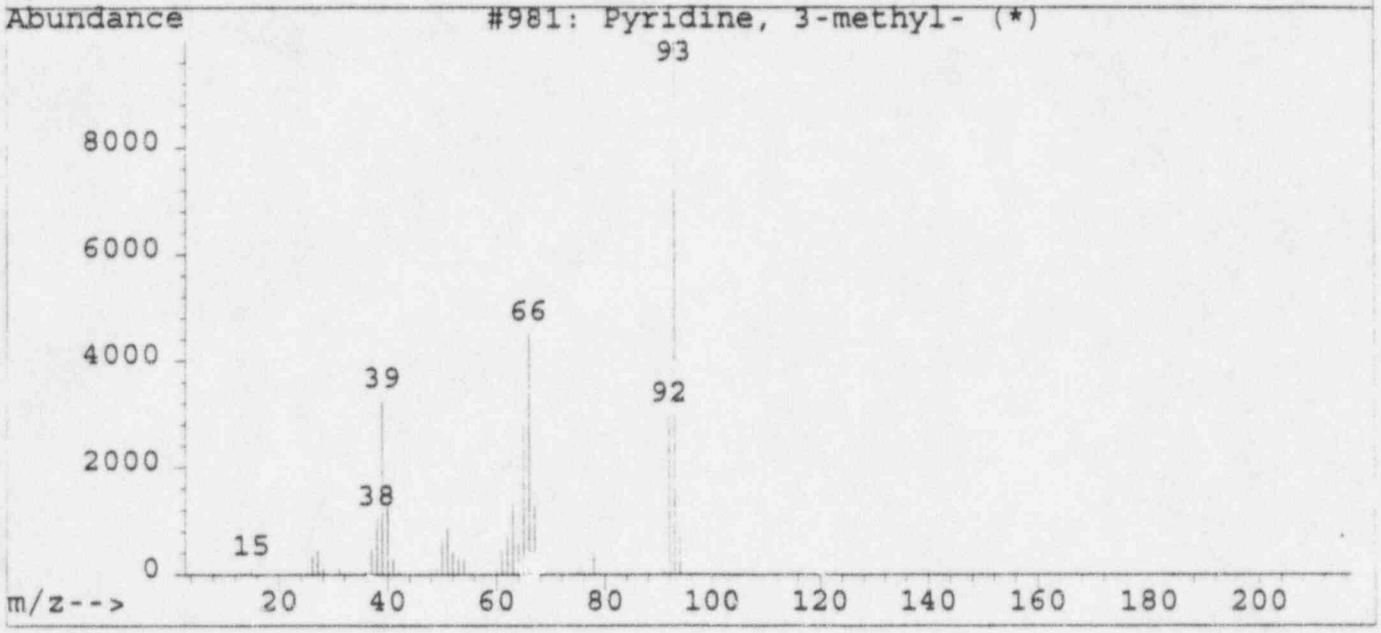


FIGURE 10



Library Searched : C:\DATABASE\NBS75K.L
Quality : 94
ID : Pyridine, 3,5-dimethyl-
SAMPLE 0395-37B

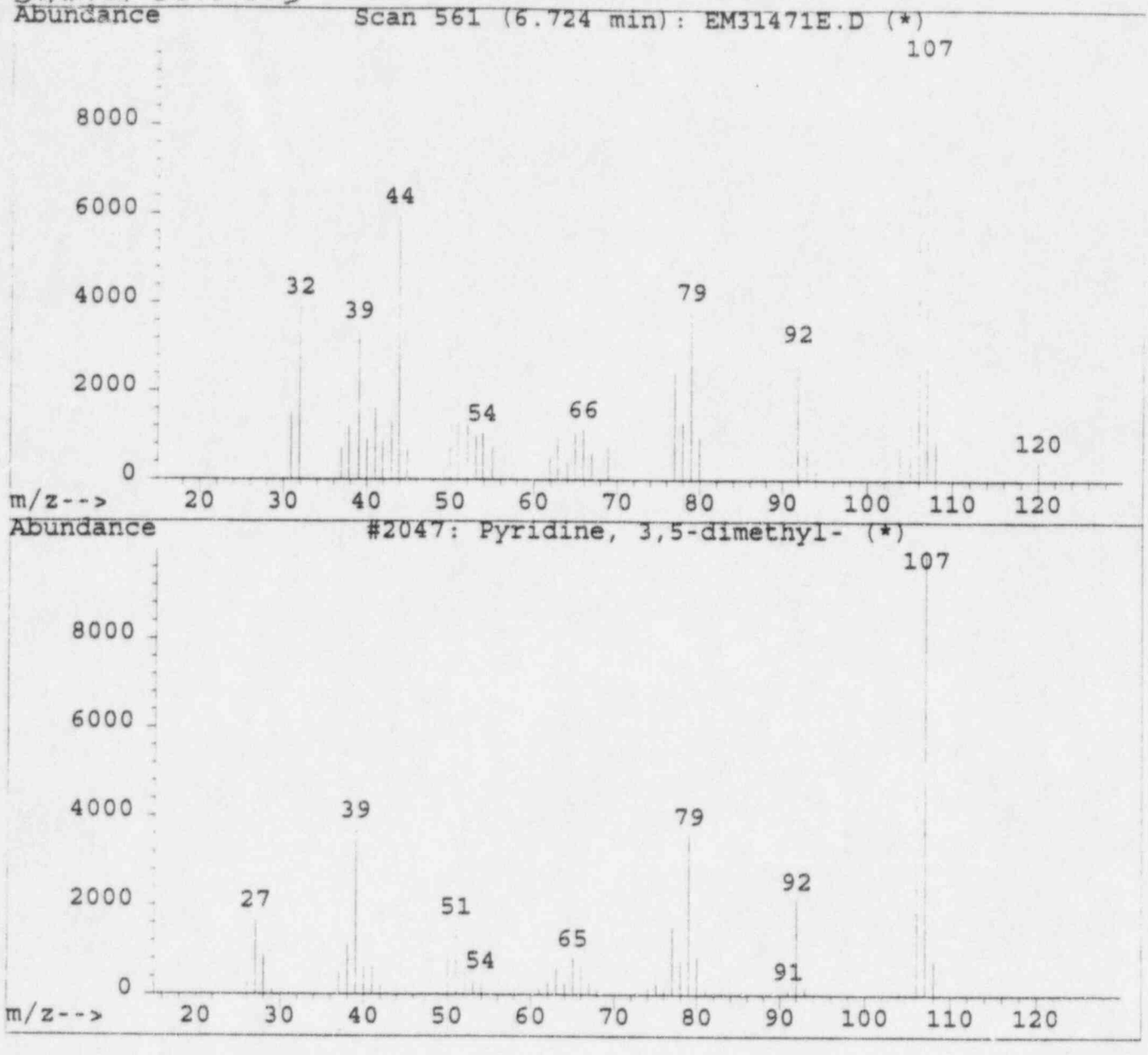


FIGURE 11

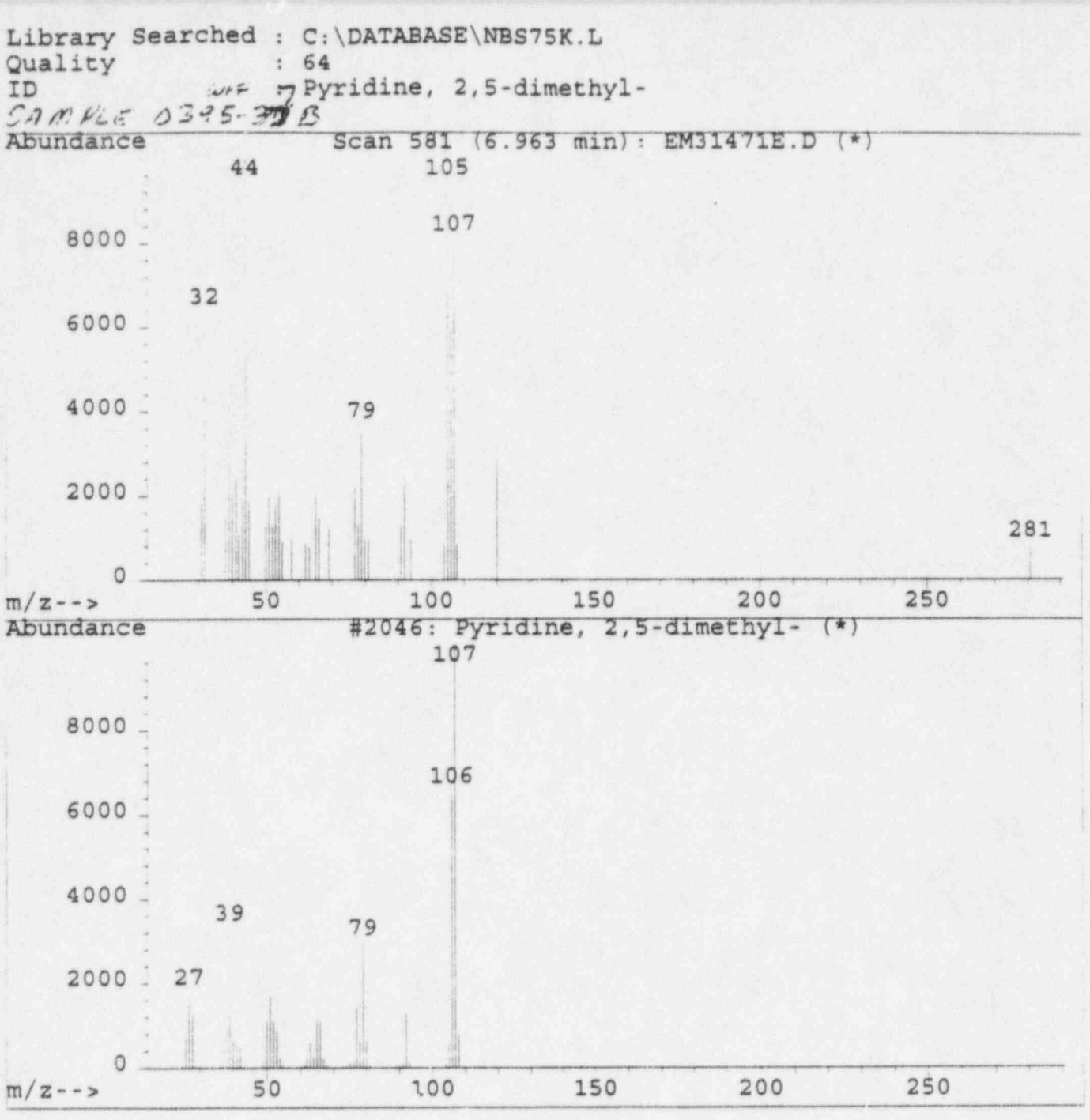

Library Searched : C:\DATABASE\NBS75K.L
Quality : 64
ID : Pyridine, 2,5-dimethyl-
SAMPLE 0395-3B
Abundance
Scan 581 (6.963 min): EM31471E.D (*)
44
105
107
8000
32
6000
4000
79
2000
281
0
m/z-->
50
100
150
200
250
Abundance
#2046: Pyridine, 2,5-dimethyl- (*)
107
8000
106
6000
4000
39
79
2000
27
0
m/z-->
50
100
150
200
250

FIGURE 12

Library Searched : C:\DATABASE\NBS75K.L
Quality : 68
ID : Pentanedioic acid, diethyl ester
SAMPLE 0395-372

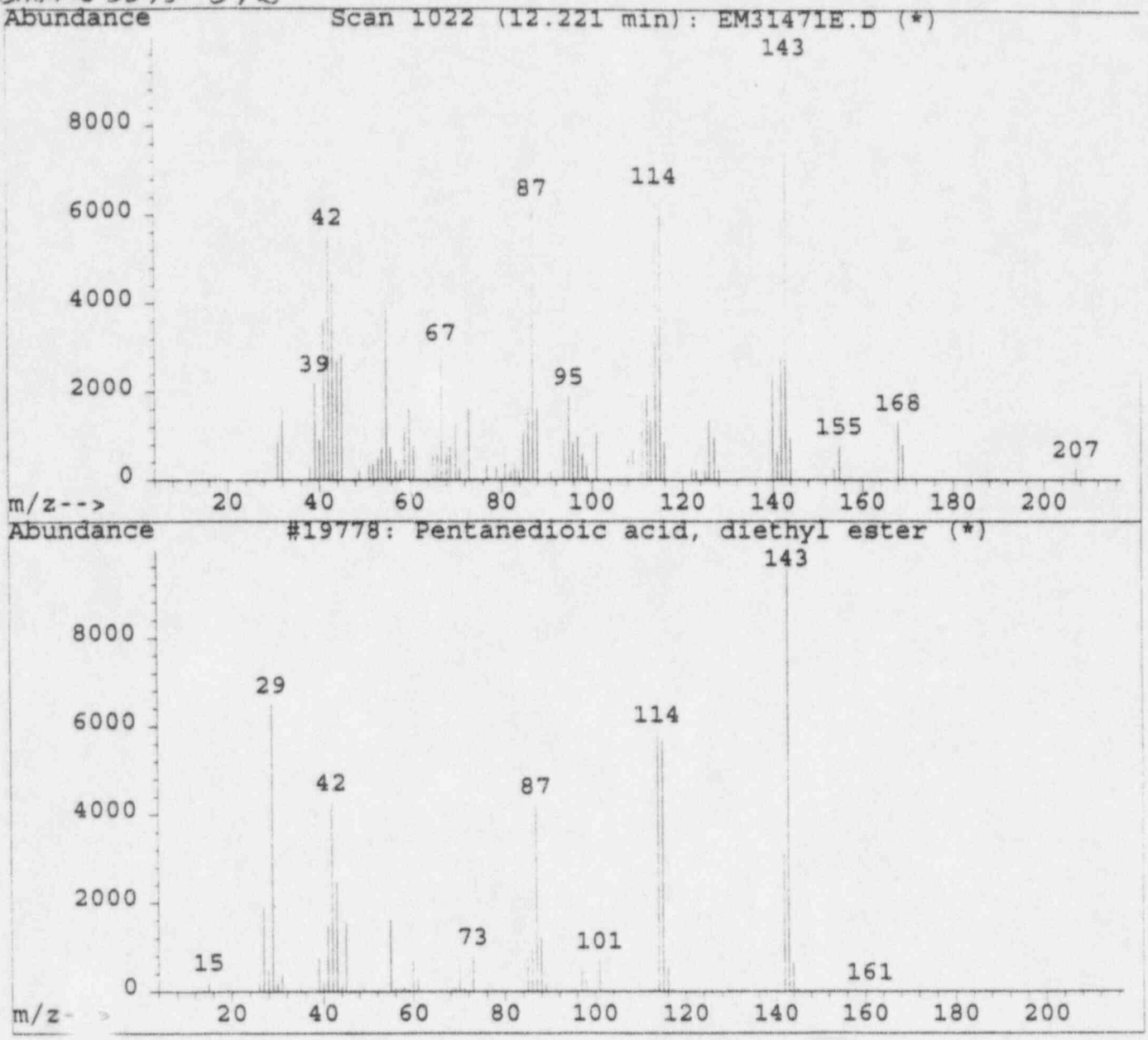


FIGURE 13

Library Searched : C:\DATABASE\NBS75K.L
Quality : 91
ID : 1H-Pyrrole, 2,3,4,5-tetramethyl-

SAMPLE 0375-373

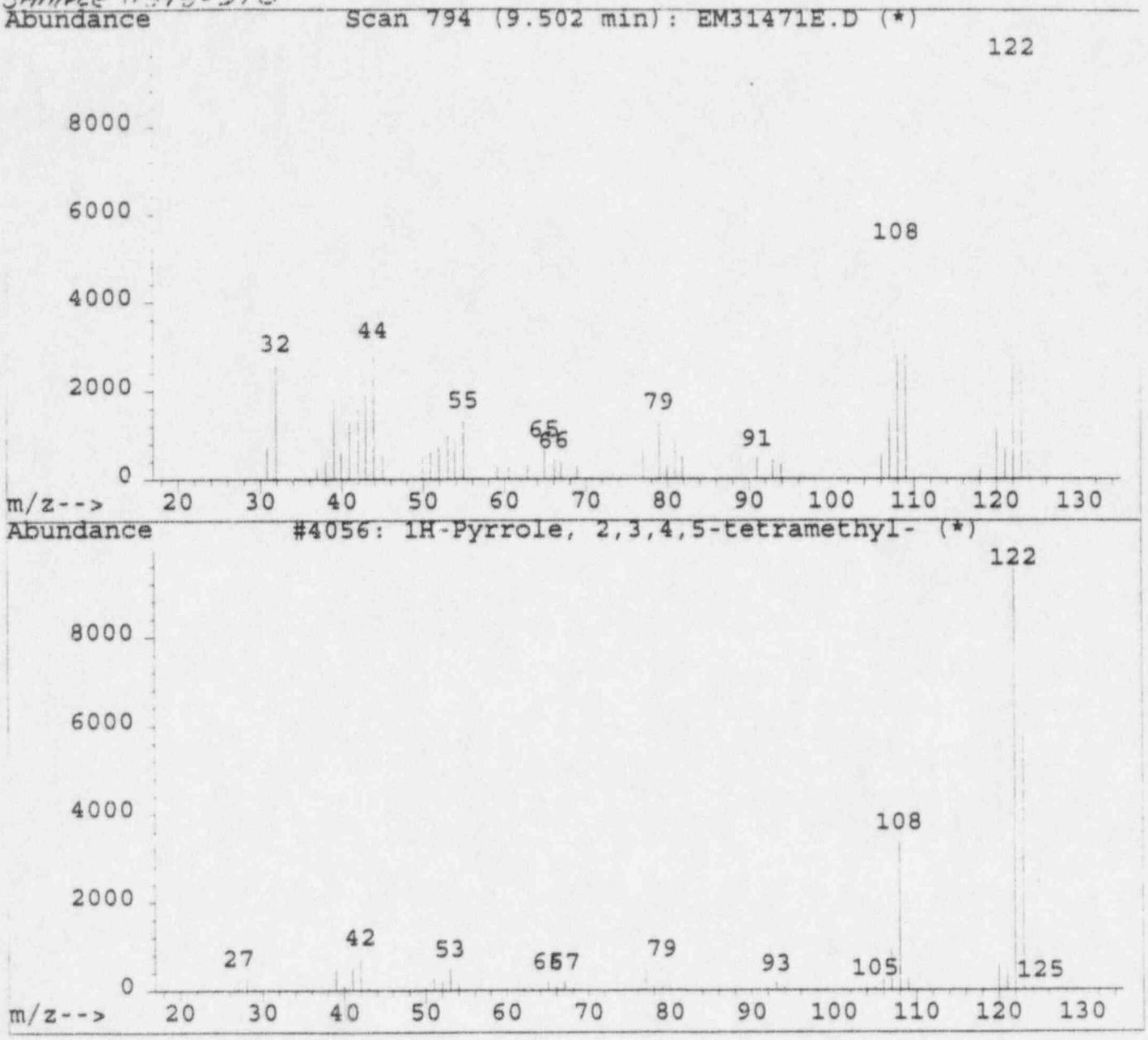


FIGURE 14

Library Searched : C:\DATABASE\NBS75K.L
Quality : 49
ID : Octicizer
SAMPLE 0395-37B

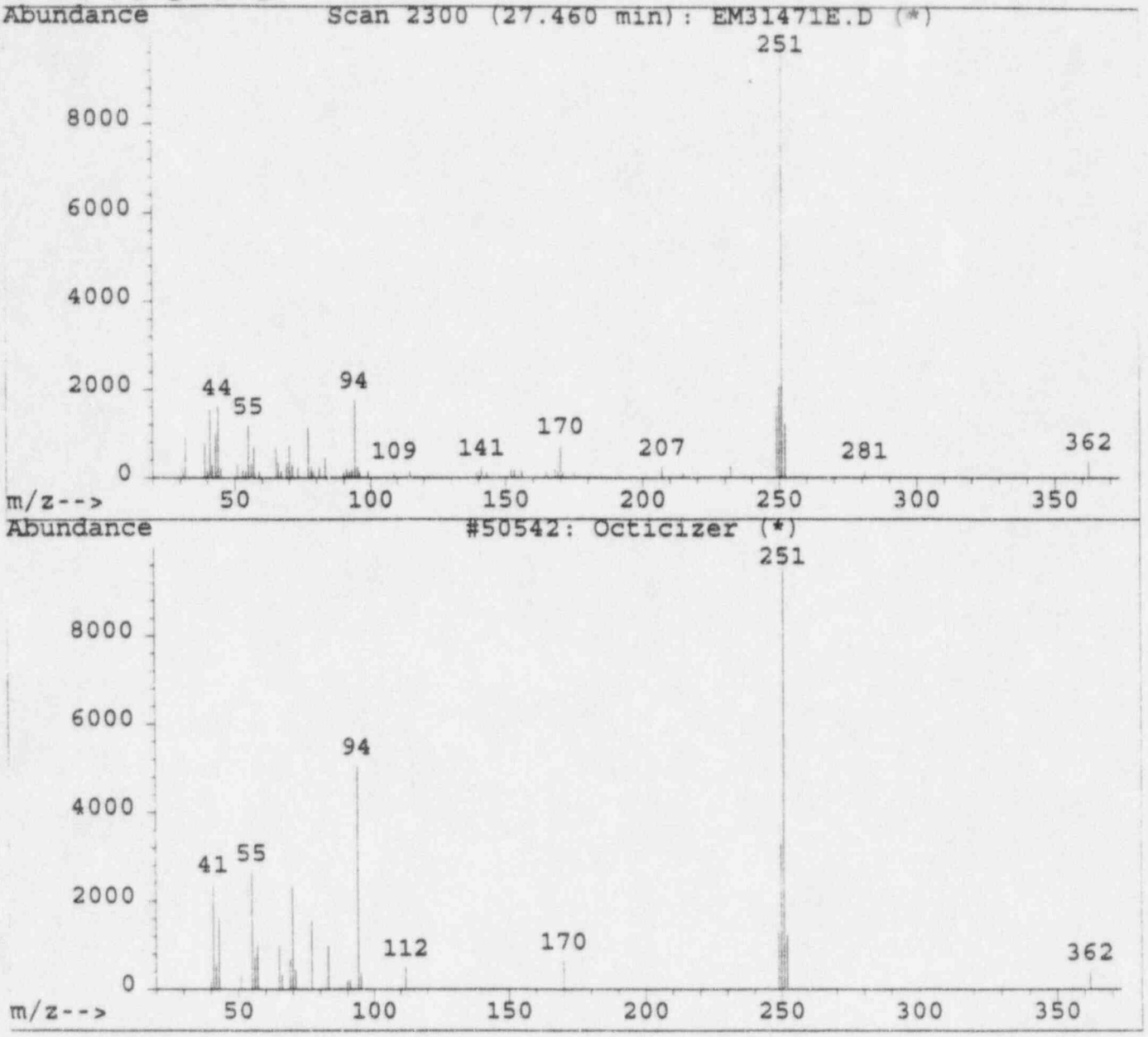


FIGURE 15

ATTACHMENT No. 3

UPDATED

GENERIC LETTER 86-10

EVALUATION OF

WATERFORD 3

THERMO-LAG APPLICATIONS