SITE INSPECTION REPORT
ORBIS PRODUCTS CORPORATION
55 VIRGINIA STREET
NEWARK, ESSEX COUNTY, NEW JERSEY

CERCLIS ID No.: NJD010910099

VOLUME III OF VIII

EPA Contract No.: 68-W-00-121
W.O. No.: 20103.001.001.1061.00
Document Control No.: SAT.20103.1061.353

August 2003

Prepared for:
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by:
Region II Site Assessment Team
Weston Solutions, Inc.
Edison, New Jersey 08837

253170

REFERENCE 14 (continued)

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D Vial: 31
Acq On : 12 Jul 2001 10:43 Operator: JC
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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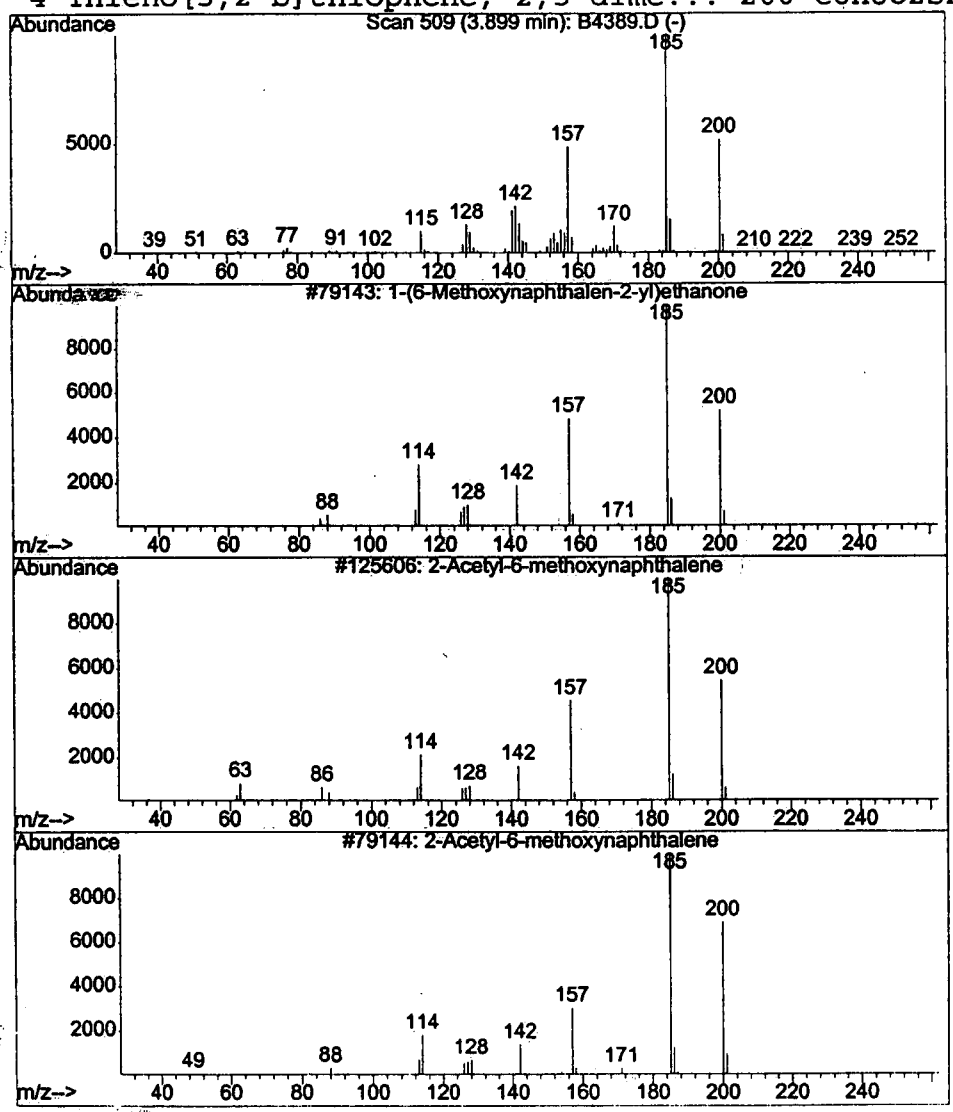
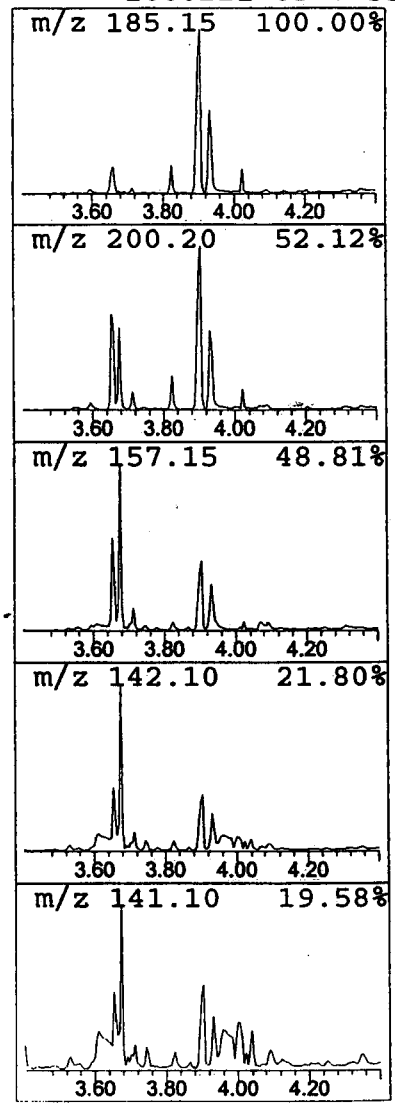
Peak Number 5 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.90	135.70 UG	2872570	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(6-Methoxynaphthalen-2-yl)etha...	200	C13H12O2	1000210-43-3	81
2	2-Acetyl-6-methoxynaphthalene	200	C13H12O2	003900-45-6	81
3	2-Acetyl-6-methoxynaphthalene	200	C13H12O2	003900-45-6	72
4	Thieno[3,2-b]thiophene, 2,5-dime...	200	C8H8O2S2	1000221-85-7	53





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1023

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D
Acq On : 12 Jul 2001 10:43
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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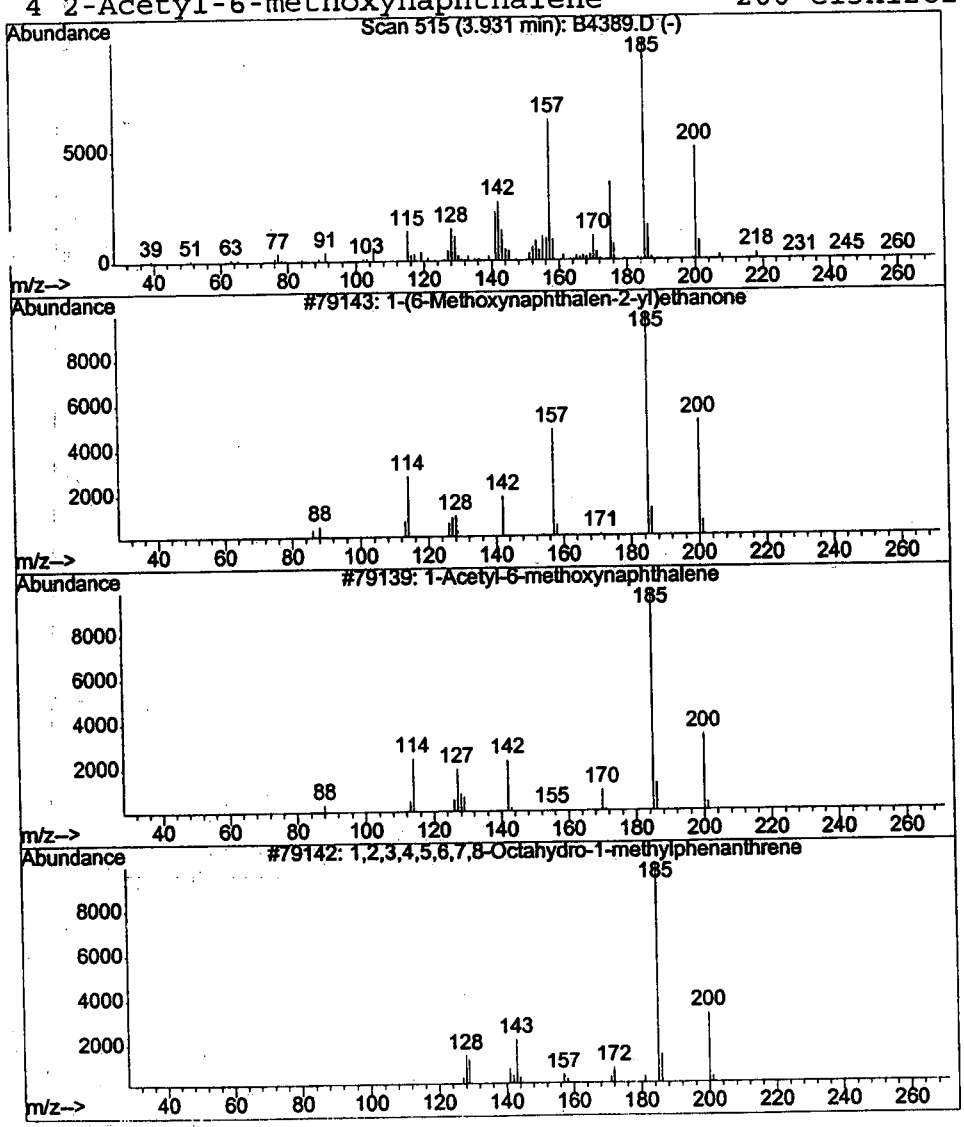
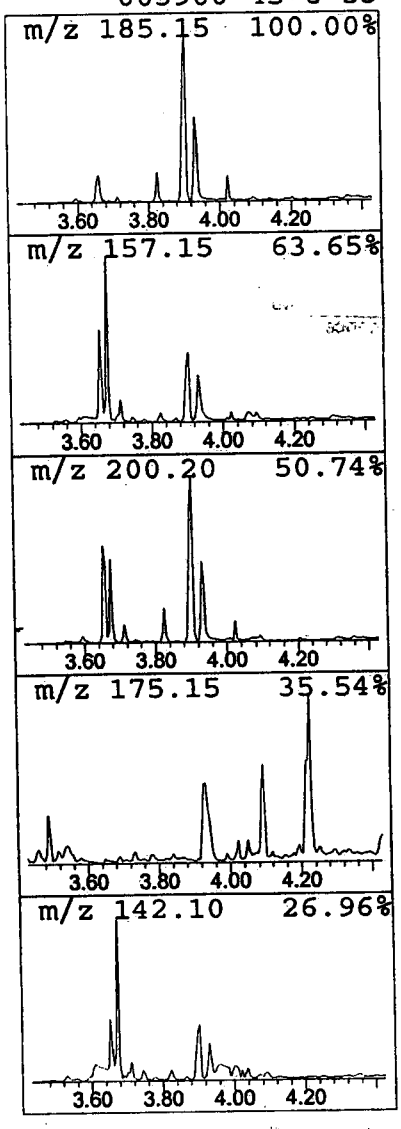
Peak Number 6 Unknown aromatic Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.93	99.72 UG	2110990	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(6-Methoxynaphthalen-2-yl)etha...	200	C13H12O2	1000210-43-3	76
2	1-Acetyl-6-methoxynaphthalene	200	C13H12O2	1000210-44-1	60
3	1,2,3,4,5,6,7,8-Octahydro-1-meth...	200	C15H20	1000080-19-4	55
4	2-Acetyl-6-methoxynaphthalene	200	C13H12O2	003900-45-6	53





1024

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D
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Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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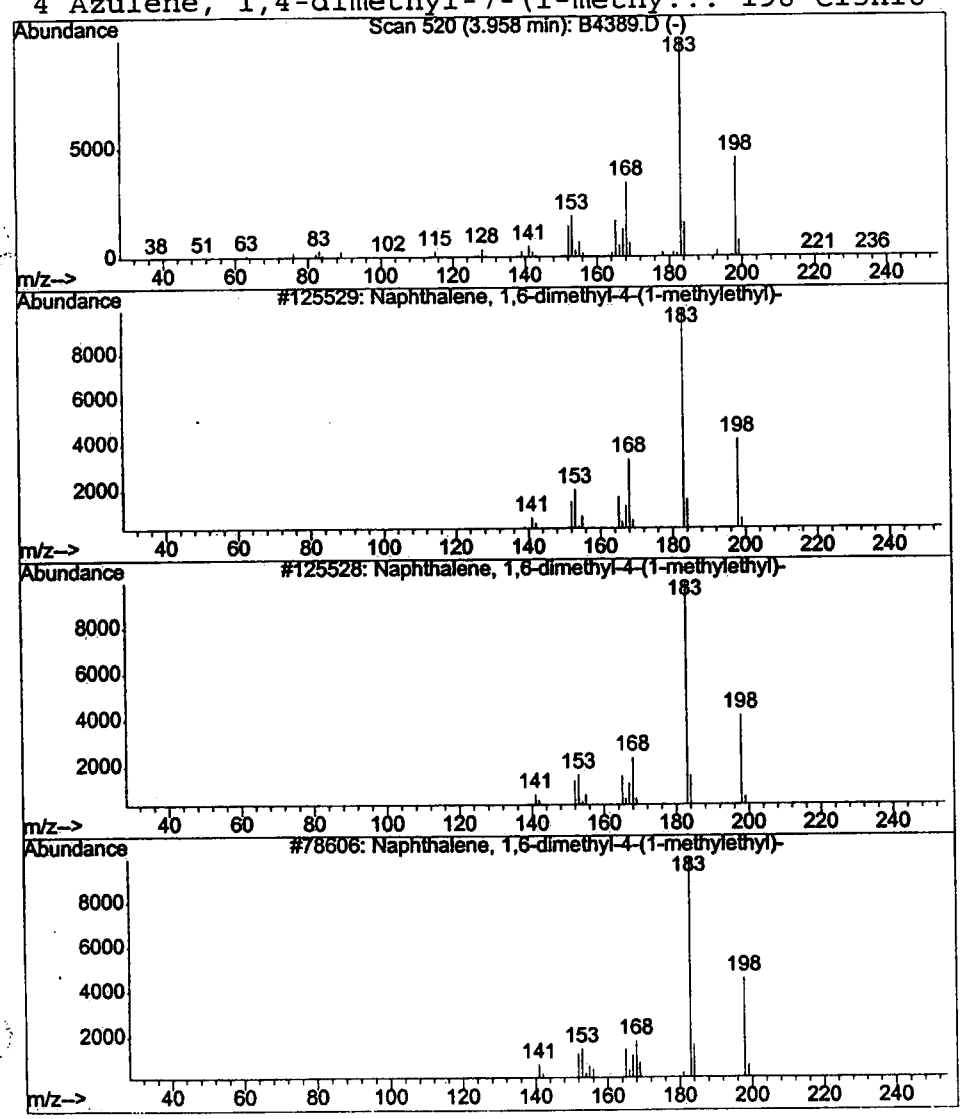
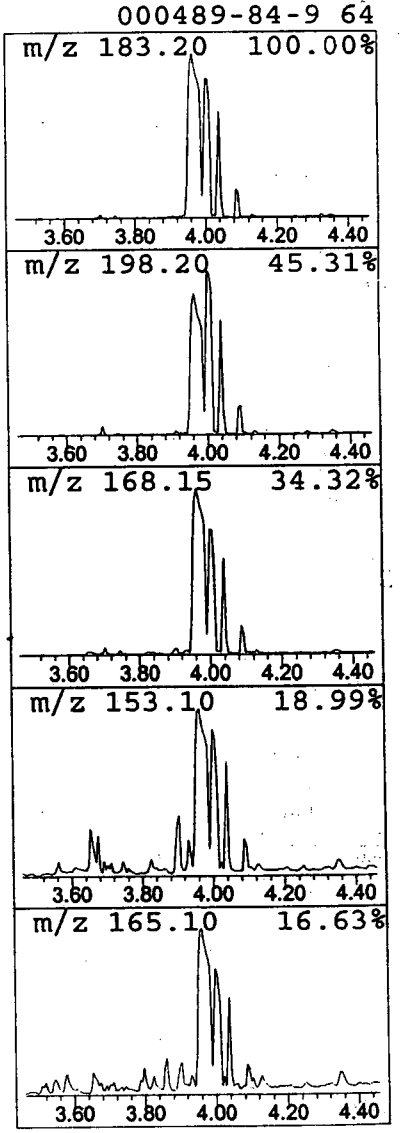
Peak Number 7 Substituted naphthalene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.96	265.32 UG	5616450	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	94
2	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	94
3	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	93
4	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	64





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Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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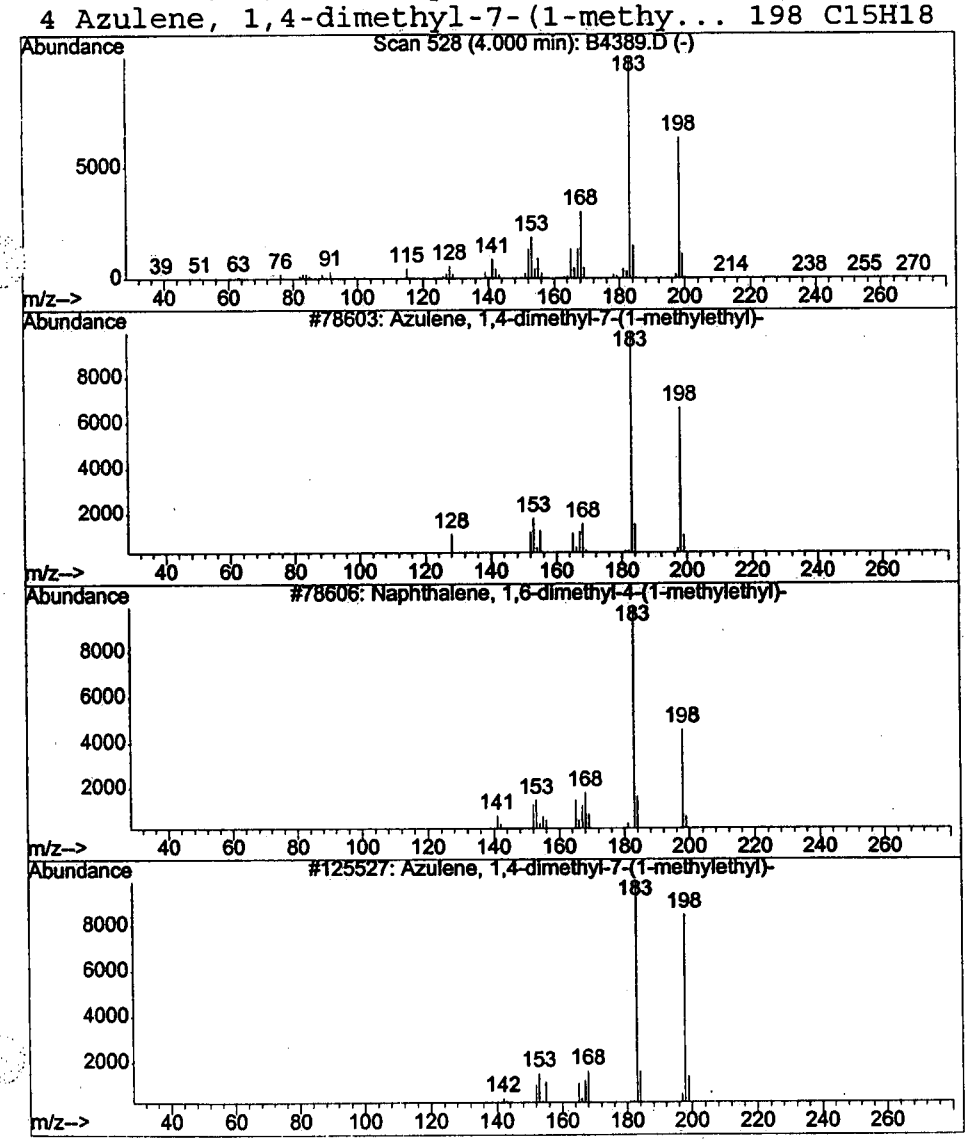
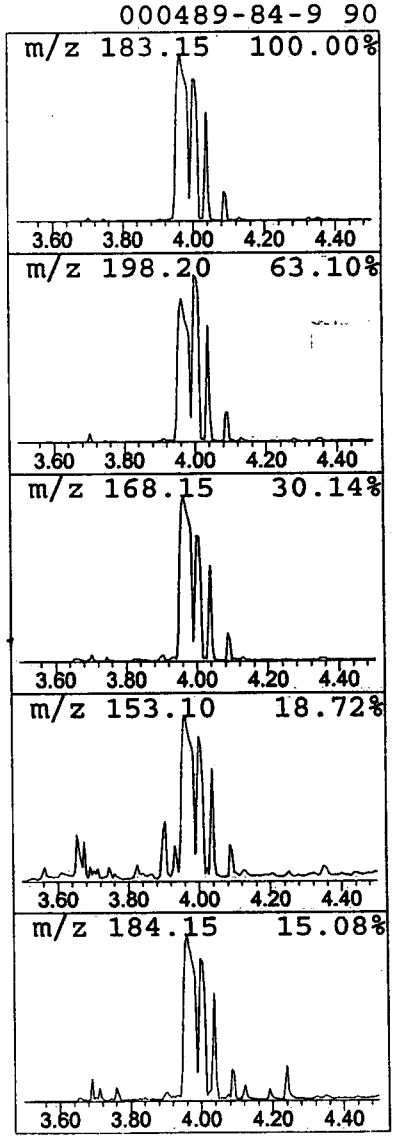
Peak Number 8 Substituted naphthalene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.00	235.16 UG	4977880	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	95
2	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	94
3	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	93
4	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	90





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D
Acq On : 12 Jul 2001 10:43
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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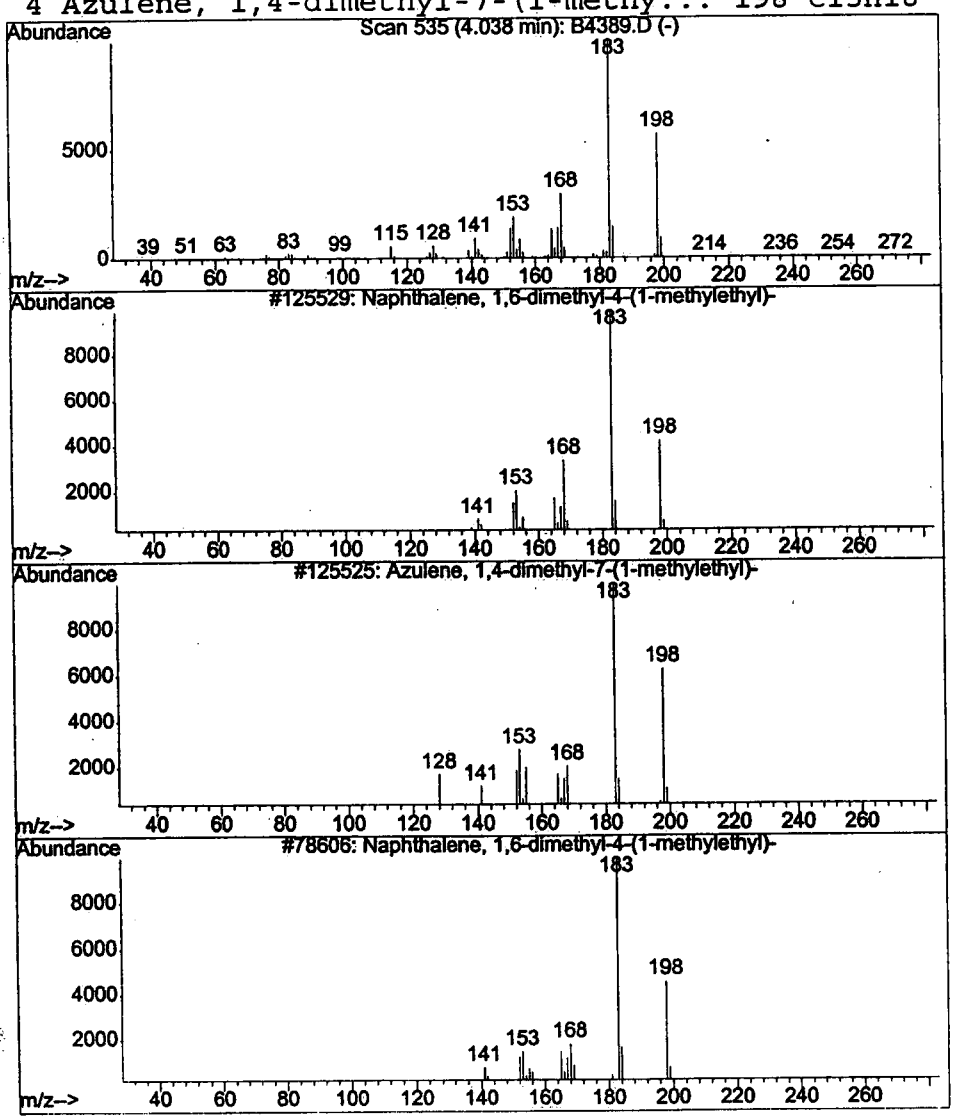
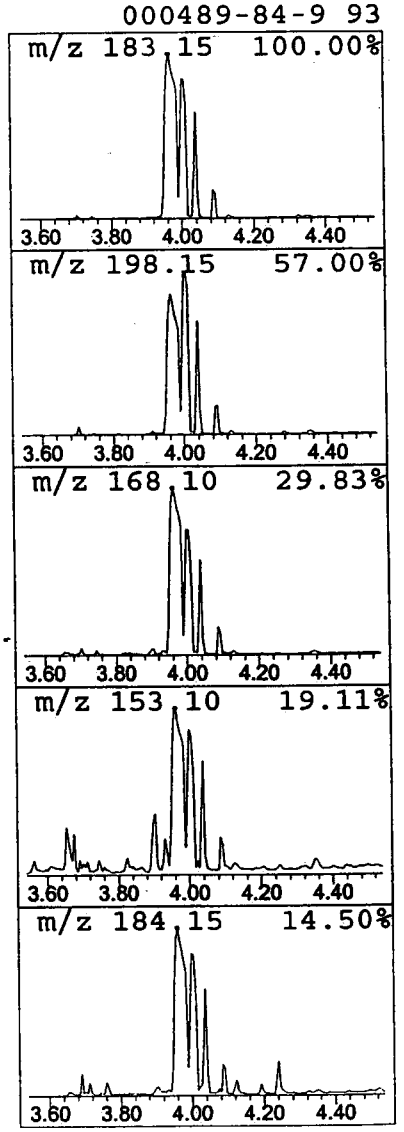
Peak Number 9 Substituted naphthalene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.04	103.33 UG	2187370	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	98
2	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	94
3	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	94
4	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	93





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Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D
Acq On : 12 Jul 2001 10:43
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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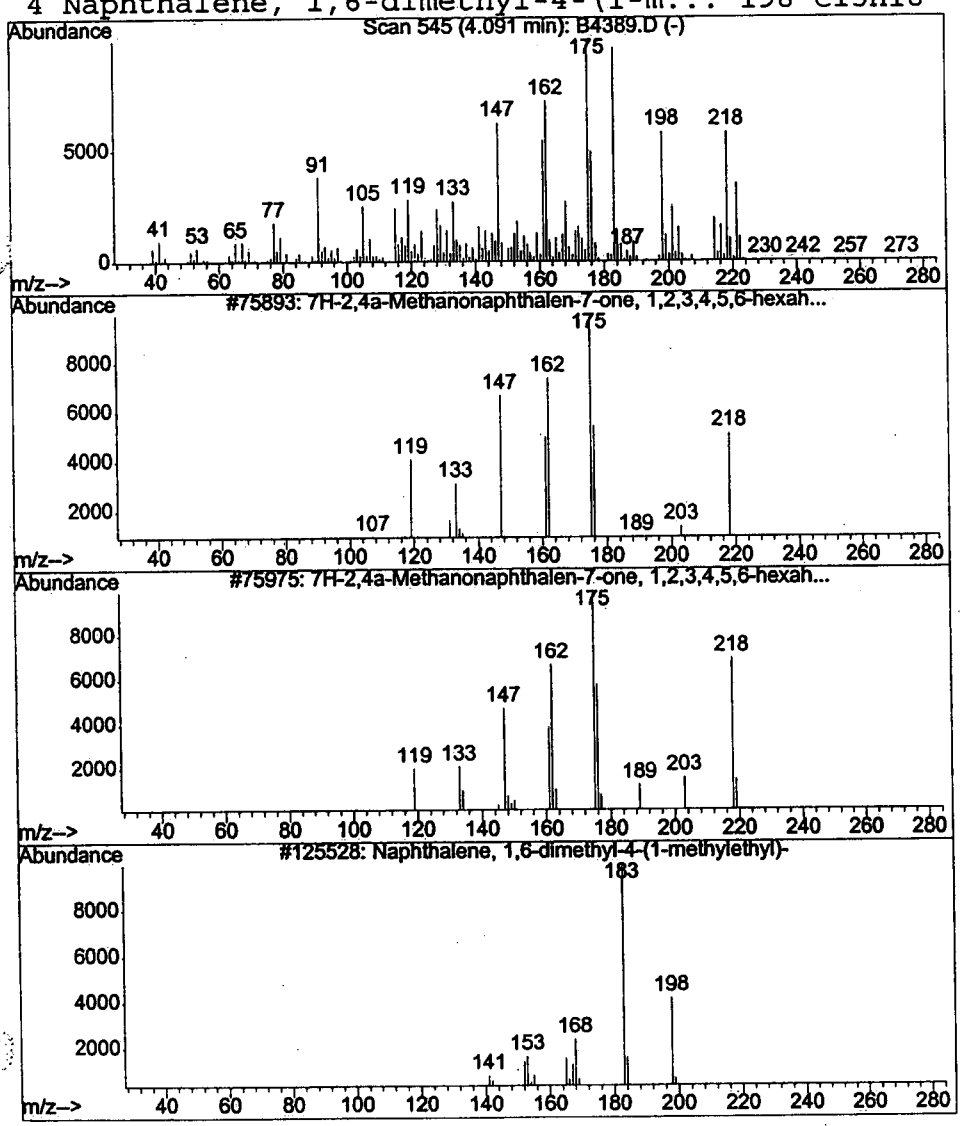
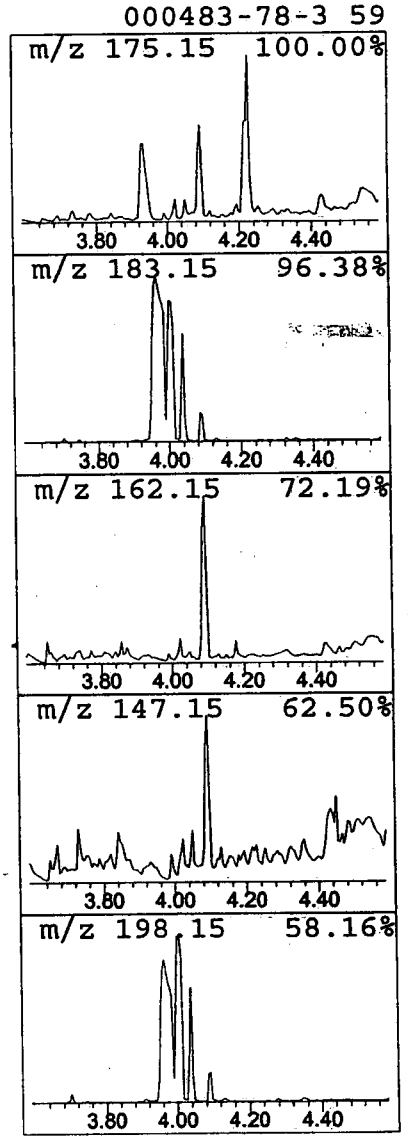
Peak Number 10 Substituted naphthalene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.09	105.34 UG	2229780	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7H-2,4a-Methanonaphthalen-7-one,...	218	C15H22O	026839-52-1	99
2	7H-2,4a-Methanonaphthalen-7-one,...	218	C15H22O	023747-14-0	92
3	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	91
4	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	59





1026

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D Vial: 31
Acq On : 12 Jul 2001 10:43 Operator: JC
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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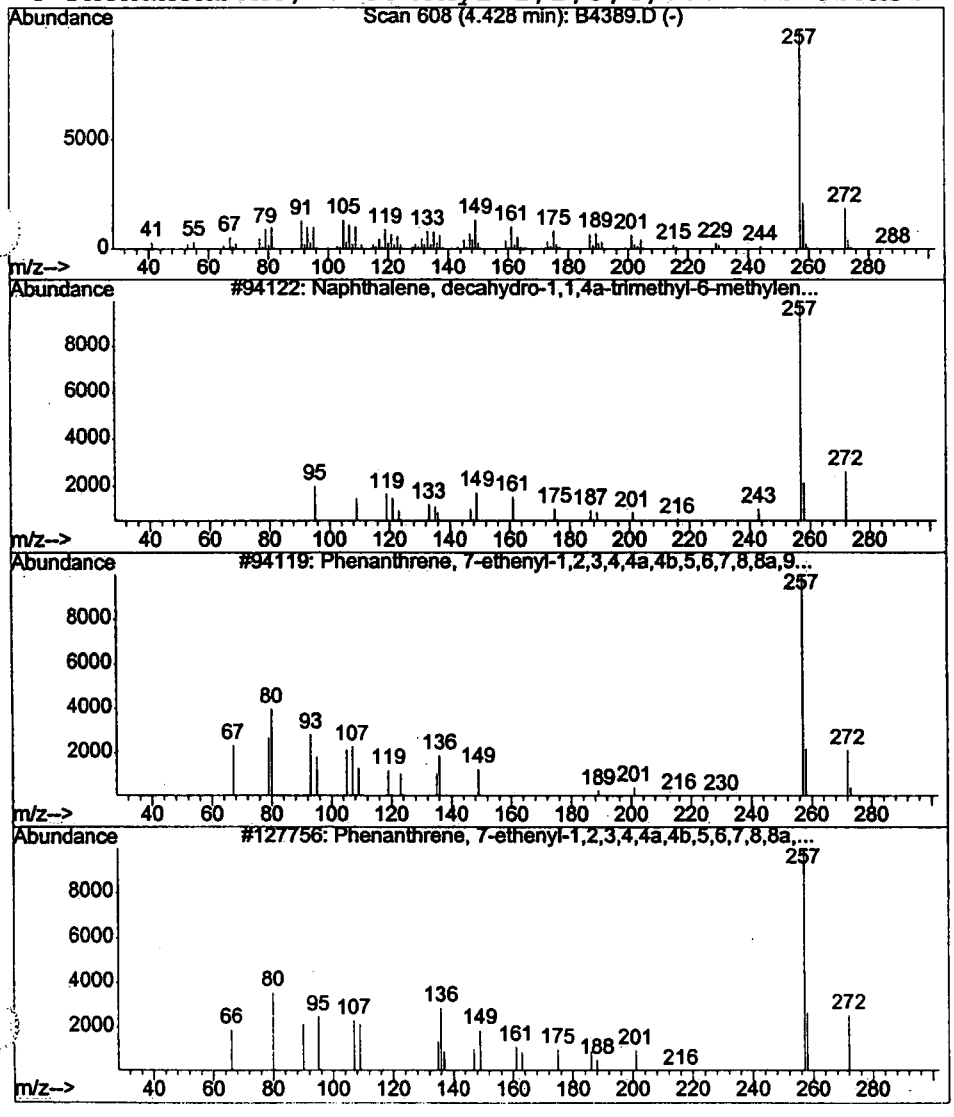
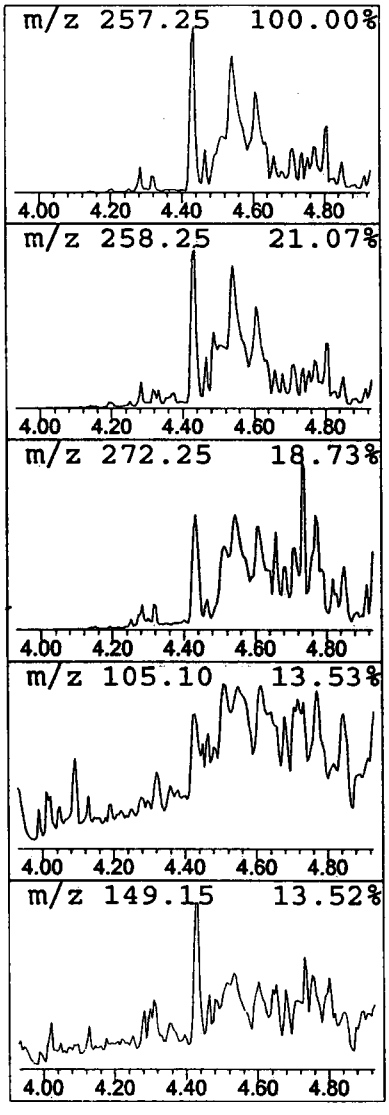
Peak Number 11 Substituted naphthalene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.43	212.16 UG	4491110	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	000511-02-4	95
2	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	001686-67-5	94
3	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	001686-67-5	93
4	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	001686-67-5	70





Data File : C:\MSDCHEM\1\DATA\07-12-01\B4389.D
Acq On : 12 Jul 2001 10:43
Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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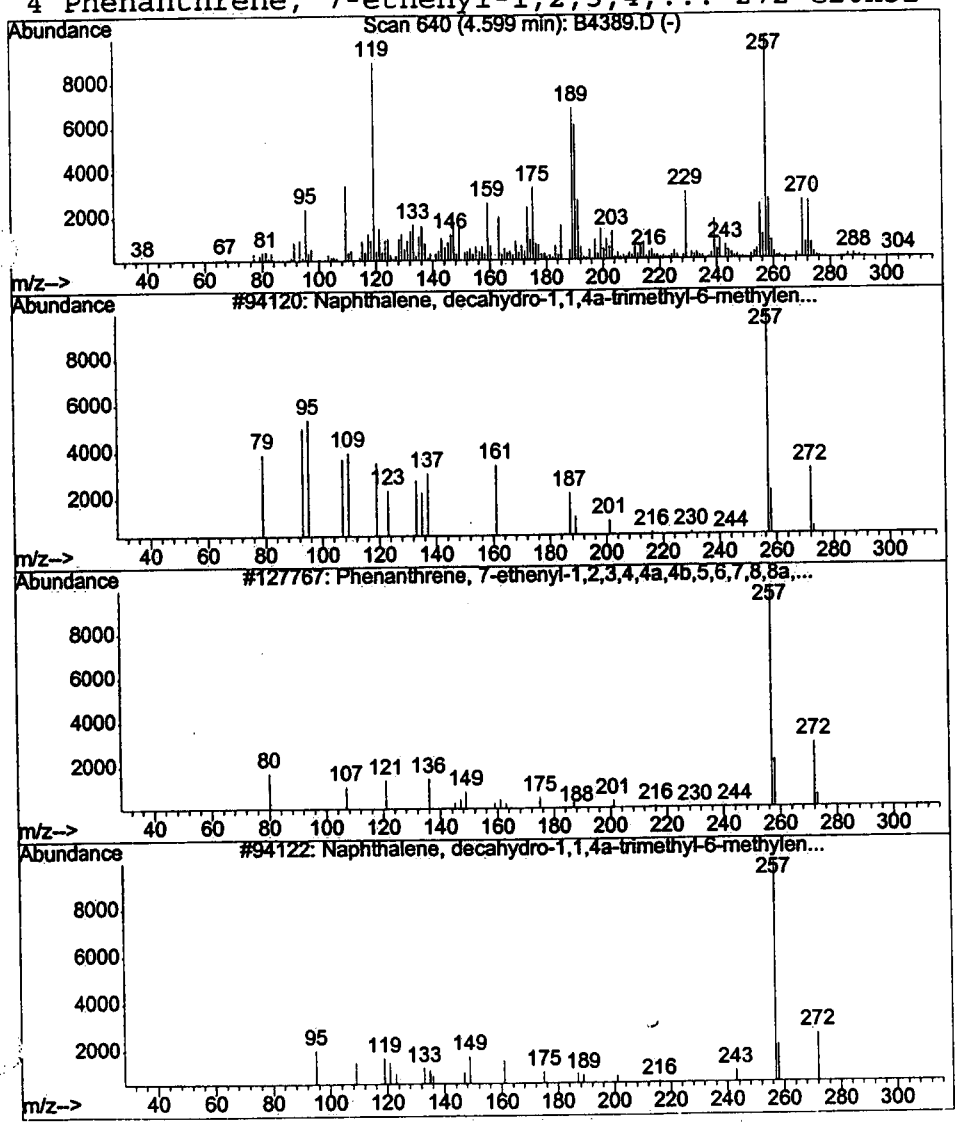
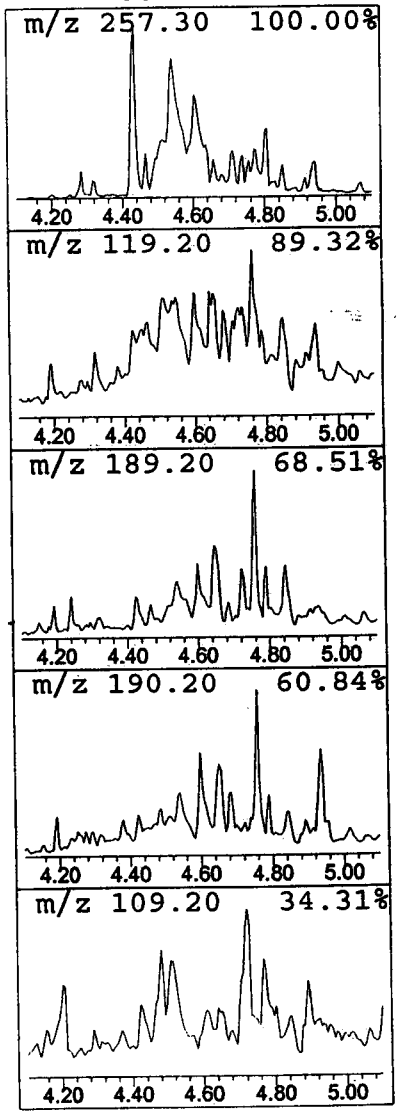
Peak Number 12 Substituted naphthalene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.60	128.01 UG	2709670	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	005957-33-5	76
2	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	001686-67-5	60
3	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	000511-02-4	58
4	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	055255-56-6	58





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Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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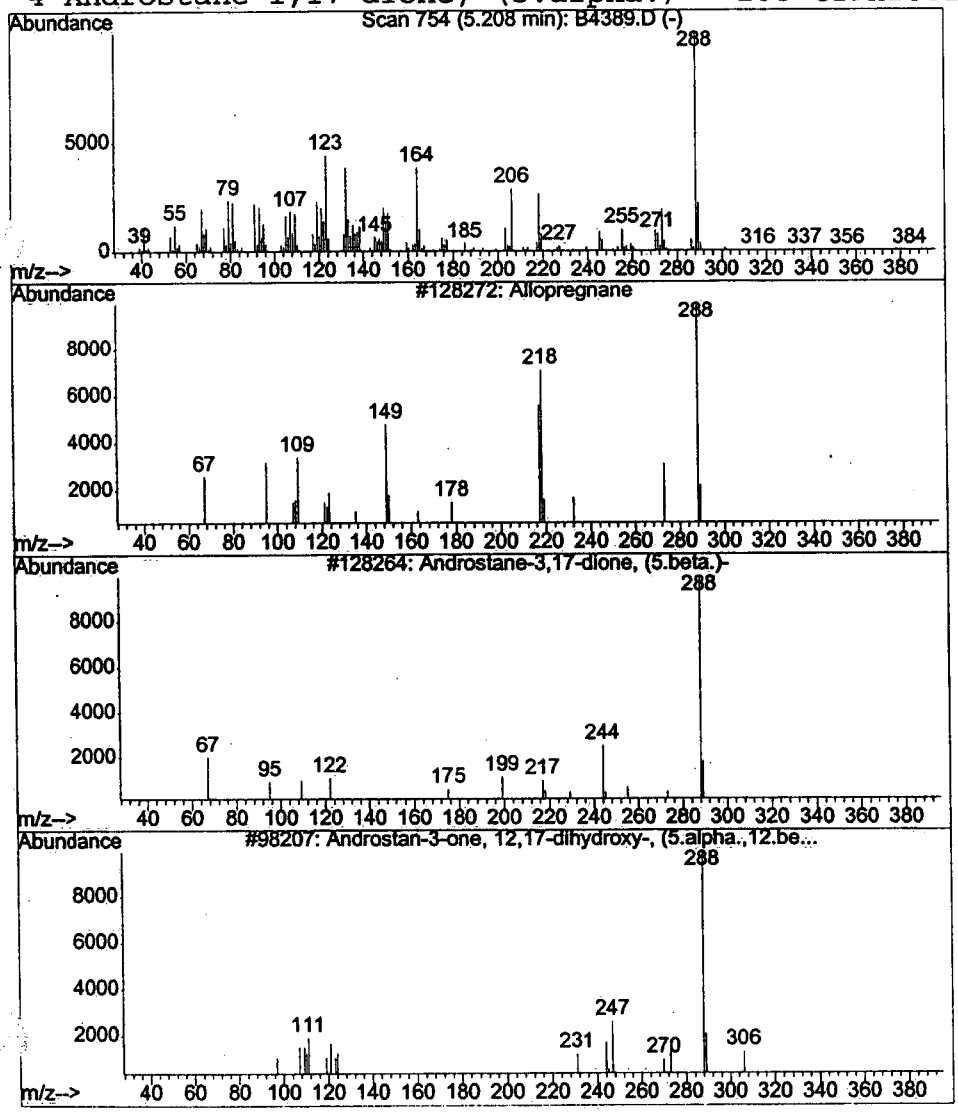
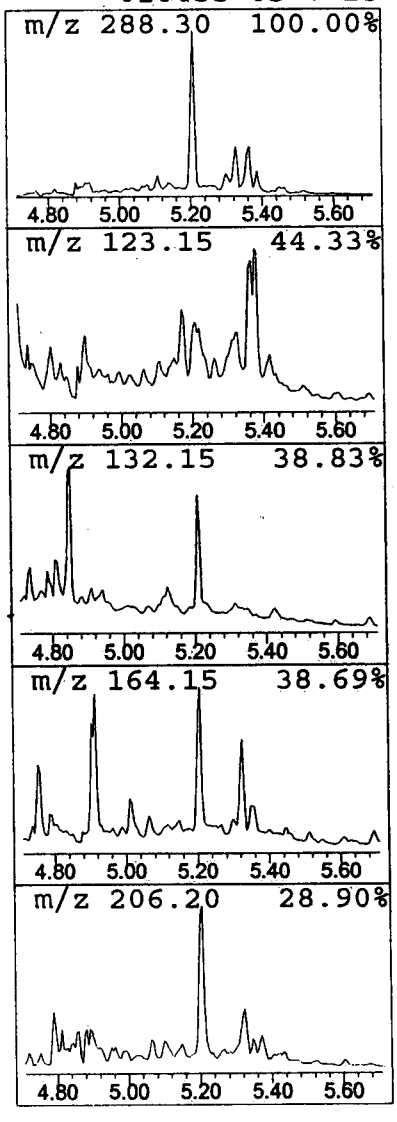
Peak Number 13 Unknown — Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.21	112.68 UG	1805300	Chrysene-d12	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Allopregnane	288	C21H36	000641-85-0	43
2	Androstane-3,17-dione, (5.beta.)-	288	C19H28O2	001229-12-5	30
3	Androstan-3-one, 12,17-dihydroxy...	306	C19H30O3	053608-27-8	27
4	Androstane-1,17-dione, (5.alpha.)-	288	C19H28O2	010455-05-7	25





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Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
S Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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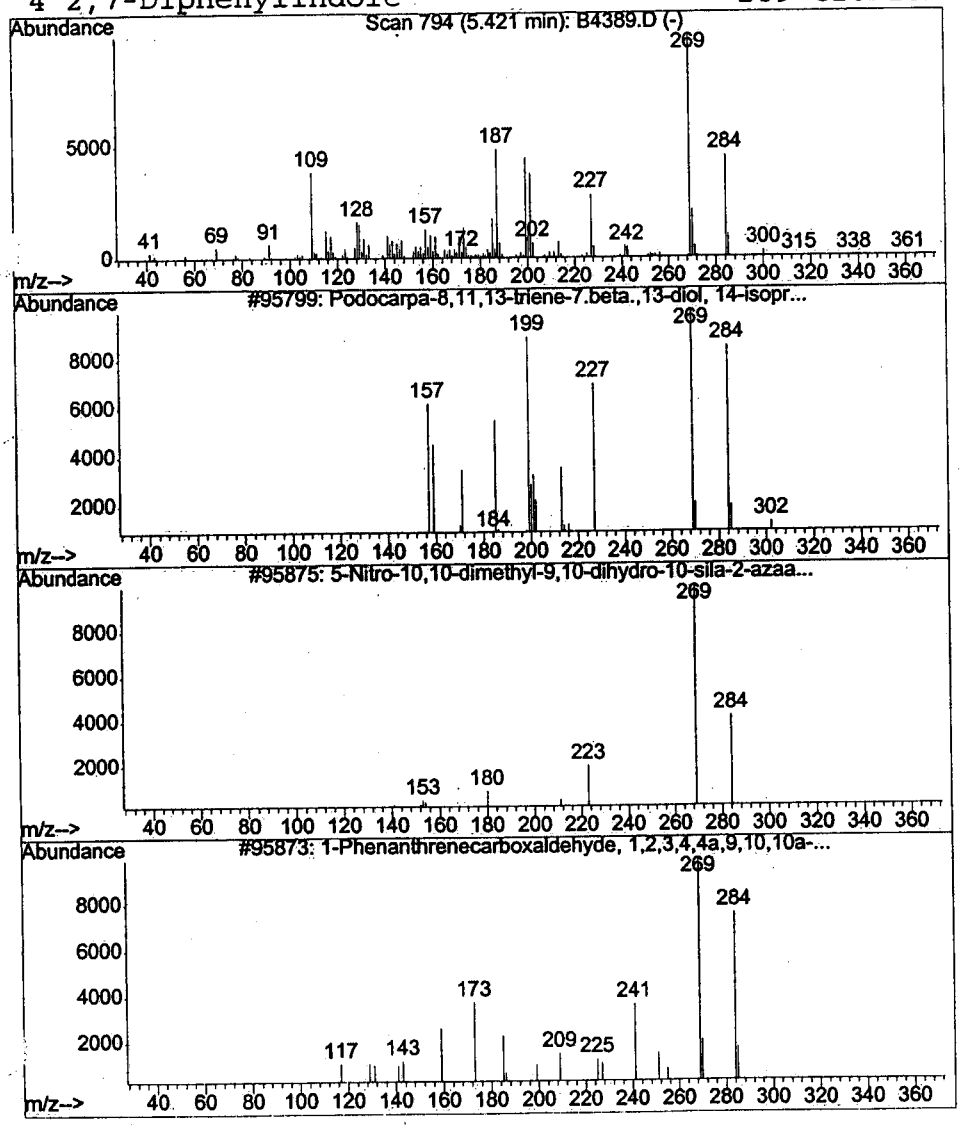
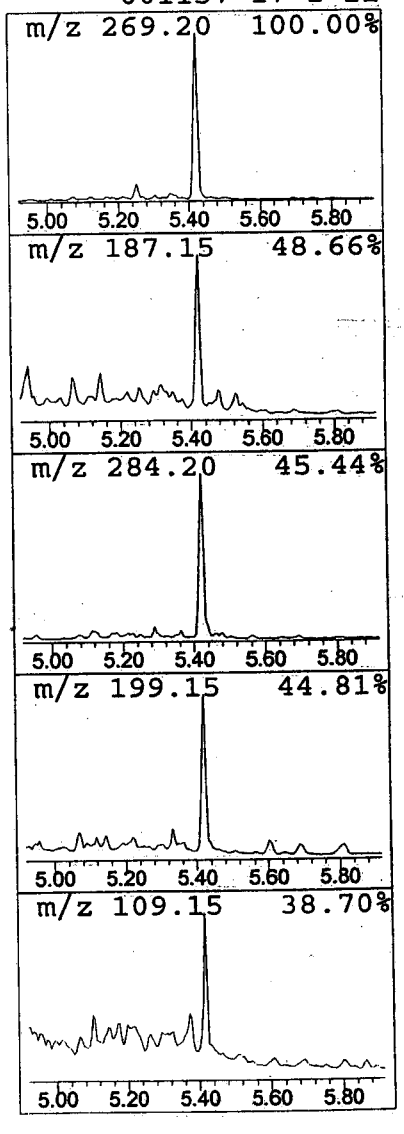
Peak Number 14 Unknown — Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.42	136.47 UG	2186440	Chrysene-d12	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Podocarpa-8,11,13-triene-7.beta....	302	C20H30O2	024338-19-0	38
2	5-Nitro-10,10-dimethyl-9,10-dihy...	284	C14H12N2O3Si	099506-33-9	27
3	1-Phenanthrenecarboxaldehyde, 1,...	284	C20H28O	013601-88-2	25
4	2,7-Diphenylindole	269	C20H15N	001157-17-1	22





0394

1032

Library Search Compound Report

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Sample : S-86A,4591-006,S,10.26g,15.2,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
Integration Params: LSCINT.P

Vial: 31
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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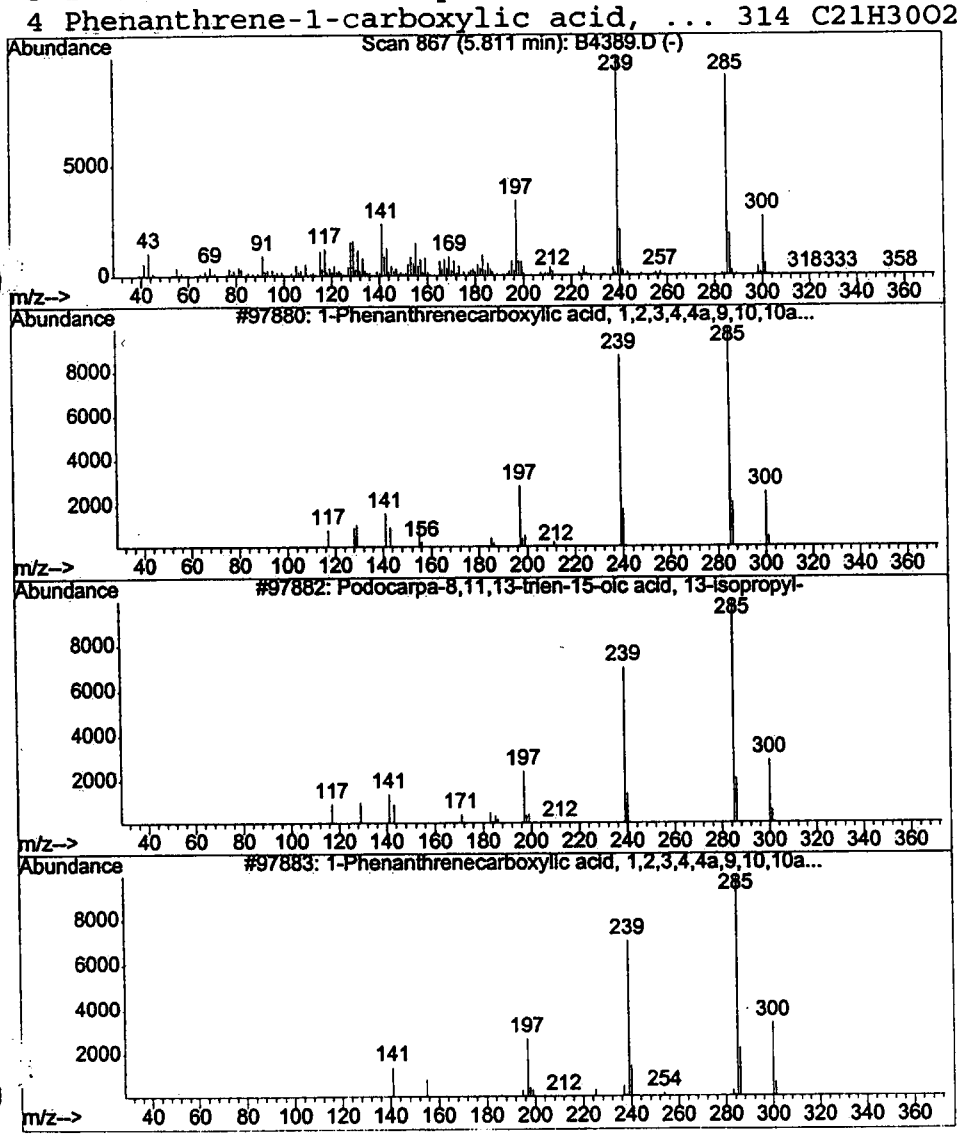
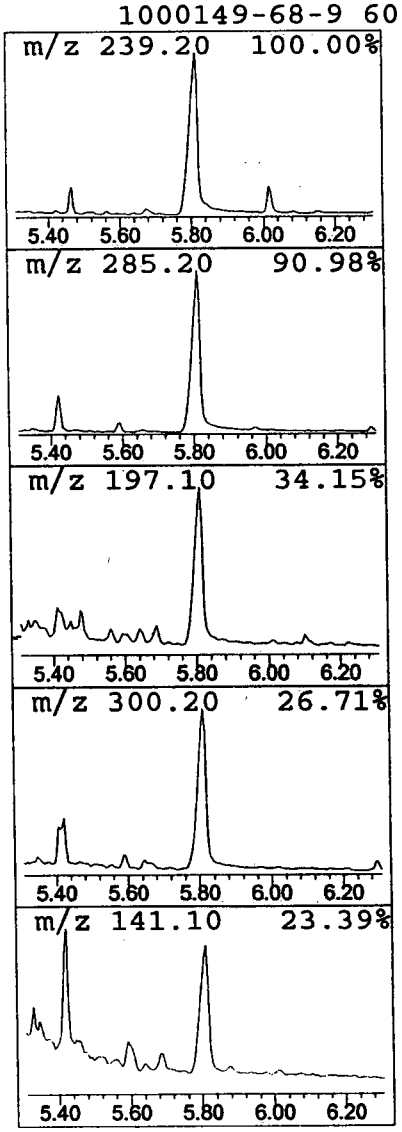
Peak Number 15 1-Phenanthrenecarboxylic ac... Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.81	125.77 UG	2015070	Chrysene-d12	6.01

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Phenanthrenecarboxylic acid, 1...	300	C20H28O2	001740-19-8	99
2	Podocarpa-8,11,13-trien-15-oic a...	300	C20H28O2	1000164-00-3	97
3	1-Phenanthrenecarboxylic acid, 1...	300	C20H28O2	005155-70-4	86
4	Phenanthrene-1-carboxylic acid, ...	314	C21H30O2	1000149-68-9	60





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1033

Quantitation Report (QT Reviewed)

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Sample : S-86B,4591-007,S,10.02g,10.8,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 12 11:24:44 2001 Quant Results File: BS1801.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration
DataAcq Meth : BS1801

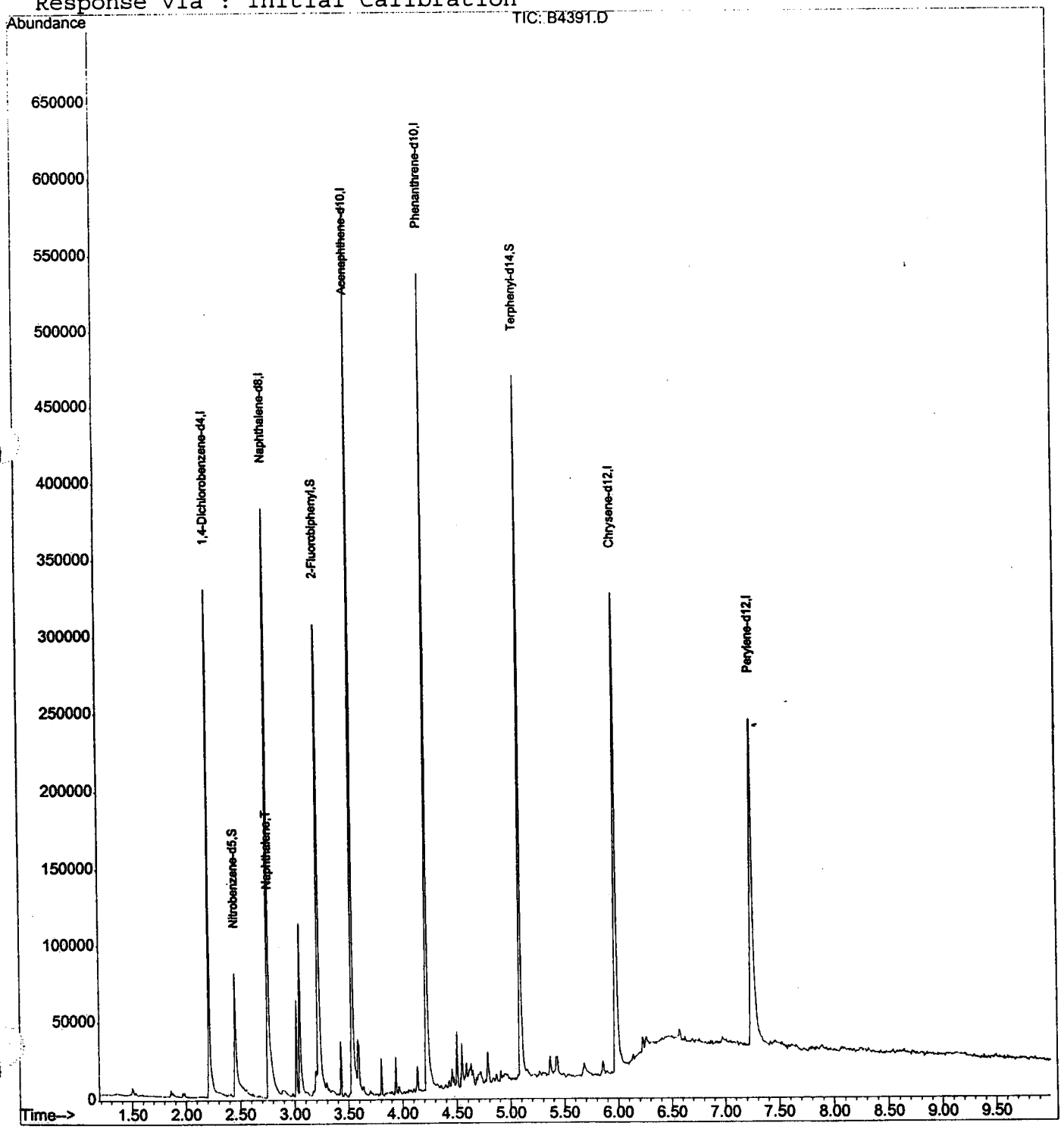
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.21	152	37800	40.00	UG	-0.01
22) Naphthalene-d8	2.75	136	171968	40.00	UG	-0.02
39) Acenaphthene-d10	3.53	164	101943	40.00	UG	-0.02
60) Phenanthrene-d10	4.22	188	169534	40.00	UG	-0.01
75) Chrysene-d12	5.98	240	136343	40.00	UG	0.00
84) Perylene-d12	7.24	264	146659	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 41 - 85		Recovery = 0.00%#			
6) Phenol-d5	2.21	99	273	0.19	UG	0.15
Spiked Amount 100.000	Range 43 - 102		Recovery = 0.19%#			
23) Nitrobenzene-d5	2.45	82	43438	30.44	UG	0.00
Spiked Amount 50.000	Range 43 - 87		Recovery = 60.88%			
43) 2-Fluorobiphenyl	3.22	172	101248	31.20	UG	-0.02
Spiked Amount 50.000	Range 40 - 97		Recovery = 62.40%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 60 - 128		Recovery = 0.00%#			
77) Terphenyl-d14	5.09	244	144271	39.14	UG	-0.02
Spiked Amount 50.000	Range 42 - 128		Recovery = 78.28%			
Target Compounds						Qvalue
33) Naphthalene	2.77	128	4640	1.09	UG	# 90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4391.D Vial: 32
Acq On : 12 Jul 2001 11:14 Operator: JC
Sample : S-86B,4591-007,S,10.02g,10.8,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 11:32 2001 Quant Results File: BS1801.RES

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4391.D
Acq On : 12 Jul 2001 11:14
Sample : S-86B,4591-007,S,10.02g,10.8,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
LS Integration Params: LSCINT.P

Vial: 32
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

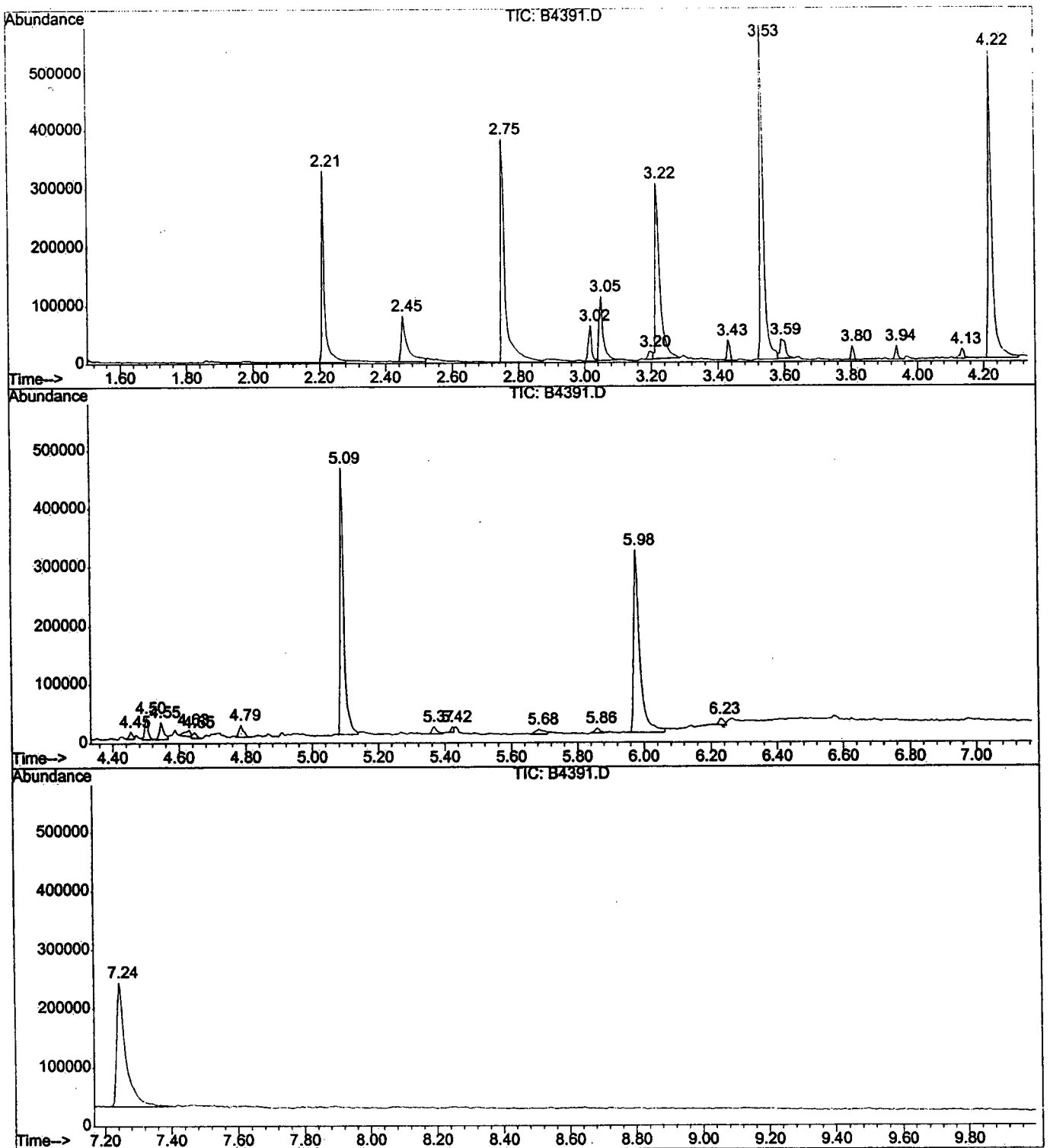
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.211	191	193	206	rBV	328890	198666	45.32%	5.823%
2	2.451	235	238	251	rBV	79844	98314	22.43%	2.882%
3	2.750	292	294	317	rBV3	382468	357516	81.55%	10.479%
4	3.017	341	344	348	rBV2	62570	41832	9.54%	1.226%
5	3.049	348	350	359	rVV	111009	95310	21.74%	2.794%
6	3.199	374	378	379	rBV	13947	14220	3.24%	0.417%
7	3.215	379	381	394	rVB	301853	302076	68.91%	8.854%
8	3.429	419	421	424	rVB	35499	20329	4.64%	0.596%
9	3.530	438	440	449	rBV	578013	438394	100.00%	12.850%
10	3.589	449	451	458	rVB2	33477	39961	9.12%	1.171%
11	3.803	489	491	494	rVB2	24243	13943	3.18%	0.409%
12	3.936	514	516	520	rBV	24767	14030	3.20%	0.411%
13	4.134	549	553	555	rBV	17579	13397	3.06%	0.393%
14	4.219	566	569	585	rBV	532336	429923	98.07%	12.601%
15	4.454	610	613	615	rBV	11956	8159	1.86%	0.239%
16	4.503	619	622	626	rVB	36452	26093	5.95%	0.765%
17	4.545	626	630	634	rBV4	29095	26625	6.07%	0.780%
18	4.631	640	646	647	rBV3	10139	12959	2.96%	0.380%
19	4.647	647	649	653	rVB4	10158	8006	1.83%	0.235%
20	4.786	672	675	680	rVB2	20214	18986	4.33%	0.556%
21	5.090	729	732	741	rBV	455416	379963	86.67%	11.137%
22	5.368	781	784	789	rBV2	12438	13609	3.10%	0.399%
23	5.421	792	794	795	rBV	9852	6541	1.49%	0.192%
24	5.683	838	843	848	rBV8	8754	15006	3.42%	0.440%
25	5.859	873	876	880	rVB2	8475	8509	1.94%	0.249%
26	5.977	895	898	914	rBV	310649	395215	90.15%	11.584%
27	6.228	943	945	948	rBV2	10188	10416	2.38%	0.305%
28	7.243	1131	1135	1164	rBV	211460	403685	92.08%	11.832%

Sum of corrected areas: 3411683

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-12-01\B4391.D
Operator : JC
Acquired : 12 Jul 2001 11:14 using AcqMethod BS1801
Instrument : MSD_B
Sample Name: S-86B,4591-007,S,10.02g,10.8,07/11/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,1
Vial Number: 32
Quant File :BS1801.RES (RTE Integrator)



1037

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4391.D
Acq On : 12 Jul 2001 11:14
Sample : S-86B,4591-007,S,10.02g,10.8,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
LS Integration Params: LSCINT.P

Vial: 32
Operator: JC
Inst : MSD_B
Multiplr: 1.00

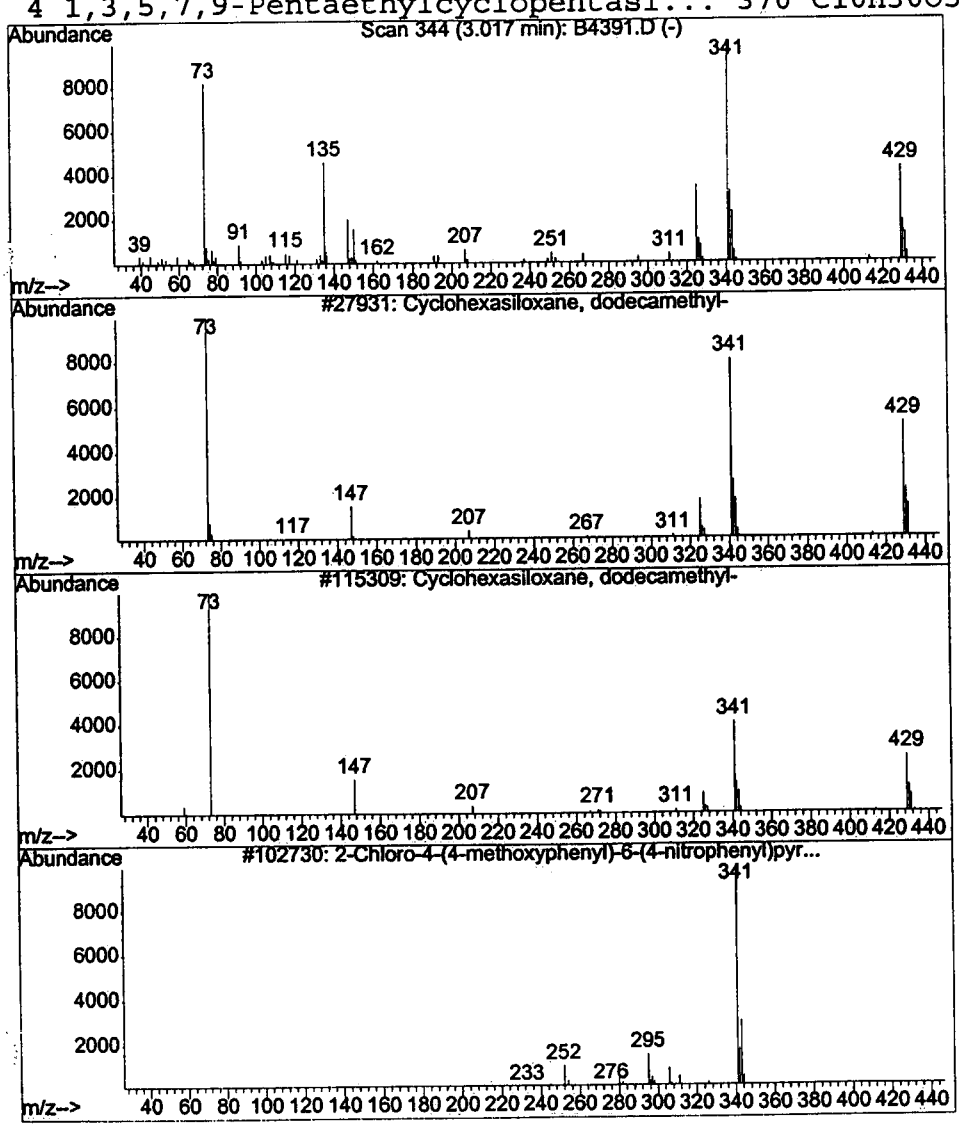
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

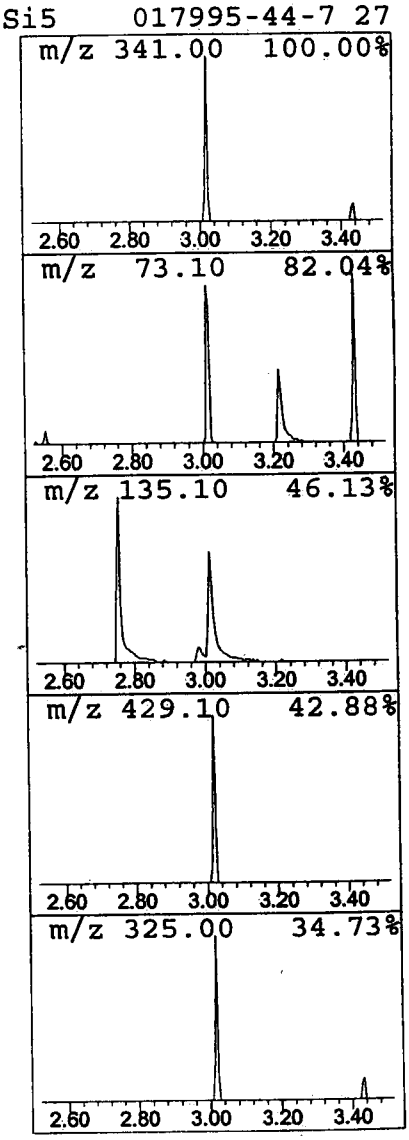
****

Peak Number 1 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.02	4.68 UG	41832	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	76
2	Cyclohexasiloxane, dodecamethyl-	444	C12H36O6Si6	000540-97-6	68
3	2-Chloro-4-(4-methoxyphenyl)-6-(...	341	C17H12ClN3O3	063673-76-7	35
4	1,3,5,7,9-Pentaethylcyclopentasi...	370	C10H30O5Si5	017995-44-7	27





10356

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4391.D Vial: 32
Acq On : 12 Jul 2001 11:14 Operator: JC
Sample : S-86B,4591-007,S,10.02g,10.8,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
ALS Integration Params: LSCINT.P

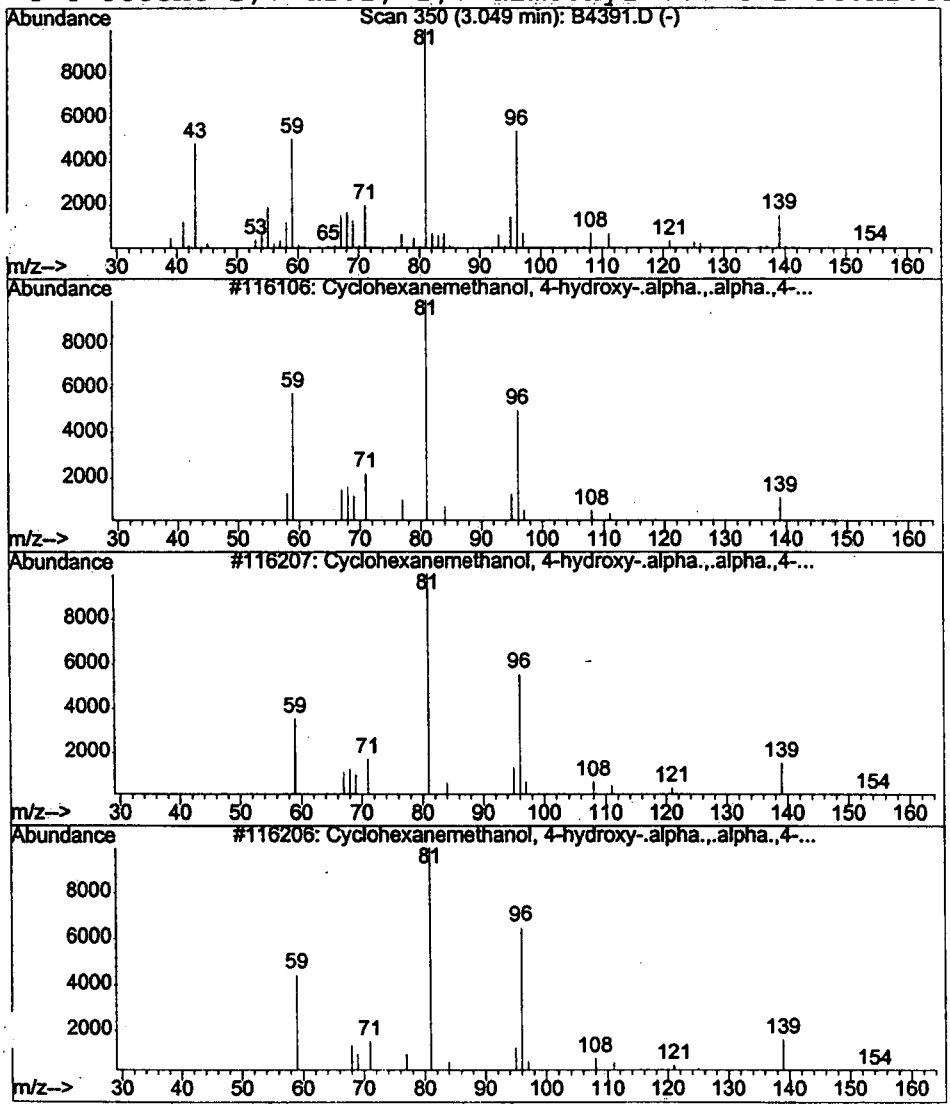
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

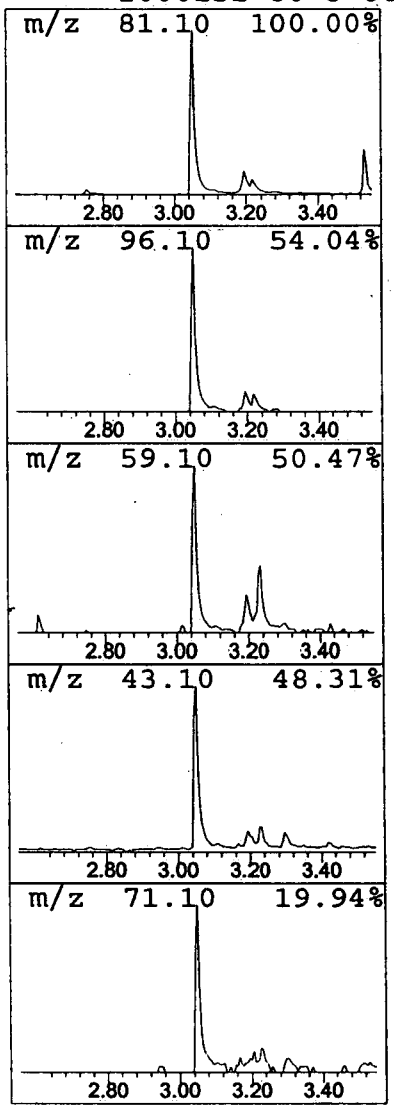
****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.05	10.66 UG	95310	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanemethanol, 4-hydroxy-....	172	C10H20O2	000080-53-5	91
2	Cyclohexanemethanol, 4-hydroxy-....	172	C10H20O2	000080-53-5	86
3	Cyclohexanemethanol, 4-hydroxy-....	172	C10H20O2	000080-53-5	80
4	4-Octene-2,7-diol, 2,7-dimethyl-...	172	C10H20O2	1000151-60-8	64





1039

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 12:43:19 2001 Quant Results File: BS1801.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration
DataAcq Meth : BS1801

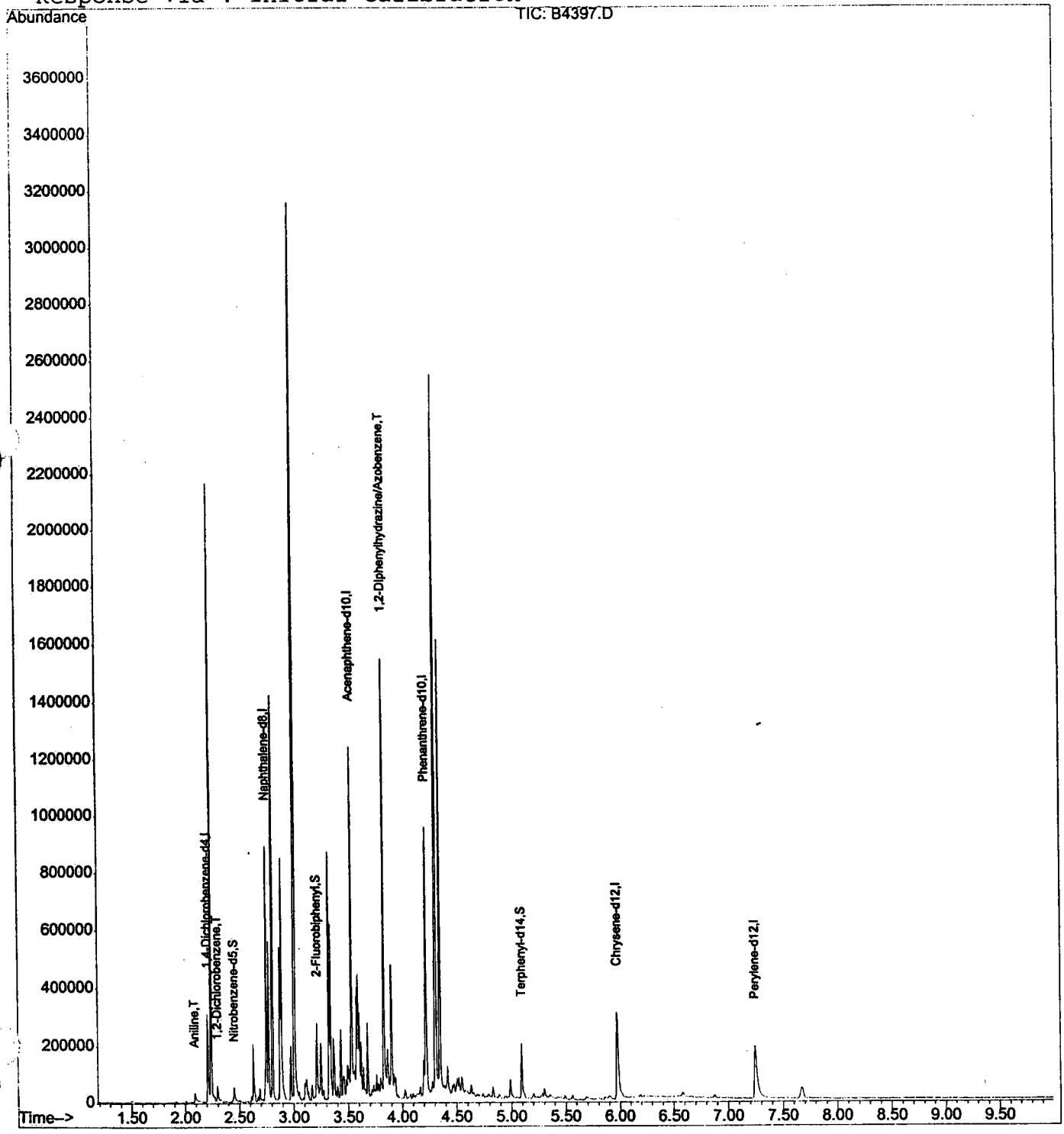
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.21	152	37858	40.00	UG	-0.01
22) Naphthalene-d8	2.75	136	192747	40.00	UG	-0.02
39) Acenaphthene-d10	3.53	164	108754	40.00	UG	-0.02
60) Phenanthrene-d10	4.22	188	179341	40.00	UG	-0.01
75) Chrysene-d12	5.97	240	131812	40.00	UG	-0.01
84) Perylene-d12	7.24	264	137077	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 41 - 85		Recovery = 0.00%#			
6) Phenol-d5	2.21	99	418	0.29	UG	0.14
Spiked Amount 100.000	Range 43 - 102		Recovery = 0.29%#			
23) Nitrobenzene-d5	2.45	82	17806	11.13	UG	0.00
Spiked Amount 50.000	Range 43 - 87		Recovery = 22.26%#			
43) 2-Fluorobiphenyl	3.22	172	49163	14.20	UG	-0.02
Spiked Amount 50.000	Range 40 - 97		Recovery = 28.40%#			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 60 - 128		Recovery = 0.00%#			
77) Terphenyl-d14	5.10	244	62854	17.64	UG	-0.01
Spiked Amount 50.000	Range 42 - 128		Recovery = 35.28%#			
Target Compounds						Qvalue
8) Aniline	2.09	66	4769	7.43	UG	# 11
14) 1,2-Dichlorobenzene	2.30	146	8913	6.55	UG	97
63) 1,2-Diphenylhydrazine/Azob	3.83	77	314202	98.33	UG	# 84

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 12:52 2001 Quant Results File: BS1801.RES

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration



1041

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
MS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

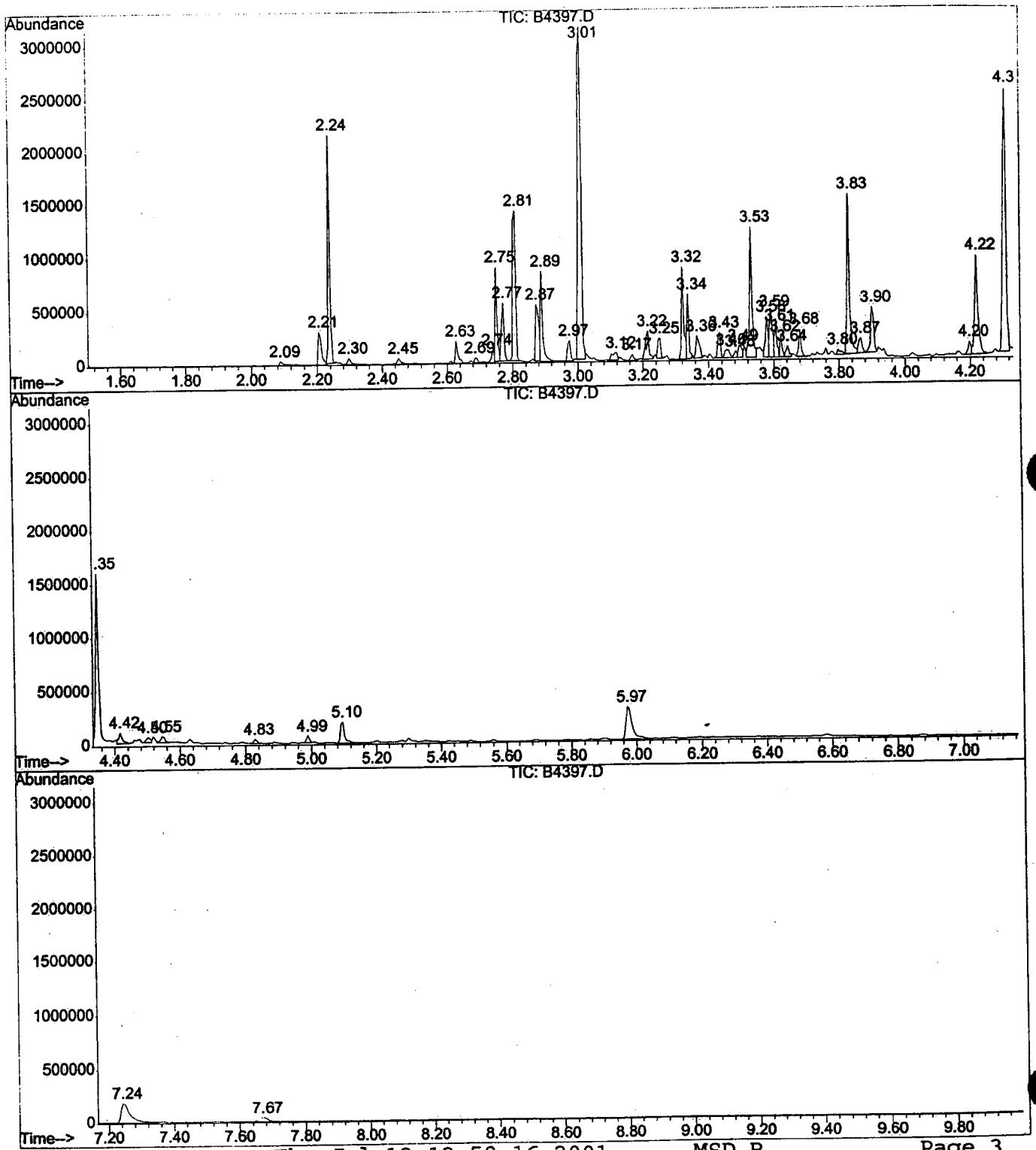
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.088	168	170	177	rBV2	34558	33270	1.46%	0.218%
2	2.205	190	192	196	rBV	306870	219275	9.61%	1.439%
3	2.237	196	198	201	rVB	2145569	859908	37.67%	5.645%
4	2.296	206	209	213	rBV3	57471	40407	1.77%	0.265%
5	2.451	233	238	246	rBV	55107	53570	2.35%	0.352%
6	2.627	269	271	276	rVB2	205245	119199	5.22%	0.782%
7	2.686	281	282	285	rBV	46463	31130	1.36%	0.204%
8	2.740	289	292	293	rBV	116465	80088	3.51%	0.526%
9	2.750	293	294	296	rVV	879978	361227	15.82%	2.371%
10	2.772	296	298	300	rVV	544551	298322	13.07%	1.958%
11	2.809	302	305	307	rVB	1403169	894330	39.18%	5.870%
12	2.873	316	317	319	rBV	528816	404059	17.70%	2.652%
13	2.889	319	320	331	rVB	843611	389291	17.05%	2.555%
14	2.975	333	336	338	rBV	192507	125811	5.51%	0.826%
15	3.012	340	343	345	rBV2	3134307	2282821	100.00%	14.985%
16	3.119	359	363	364	rBV2	69886	83167	3.64%	0.546%
17	3.167	370	372	375	rBV	54924	36577	1.60%	0.240%
18	3.215	378	381	384	rVV2	263022	204512	8.96%	1.342%
19	3.253	386	388	390	rVB	188154	121498	5.32%	0.798%
20	3.322	399	401	403	rBV	865057	442439	19.38%	2.904%
21	3.338	403	404	406	rVV	605360	226196	9.91%	1.485%
22	3.365	407	409	412	rVB3	205070	154967	6.79%	1.017%
23	3.434	419	422	423	rBV	237340	138636	6.07%	0.910%
24	3.456	423	426	429	rVV3	74377	80622	3.53%	0.529%
25	3.482	429	431	432	rVV	61182	40108	1.76%	0.263%
26	3.493	432	433	435	rVV2	113278	88712	3.89%	0.582%
27	3.530	437	440	443	rVV	1223022	692616	30.34%	4.546%
28	3.578	447	449	450	rVV2	380685	220969	9.68%	1.450%
29	3.589	450	451	453	rVV2	428833	286517	12.55%	1.881%
30	3.605	453	454	456	rVV	294288	147130	6.45%	0.966%
31	3.621	456	457	459	rVV	193527	88971	3.90%	0.584%

32	3.643	459	461	463	rVV2	103781	67378	2.95%	0.442%
33	3.680	466	468	471	rVB	259870	132940	5.82%	0.873%
34	3.797	488	490	494	rBV4	51912	44975	1.97%	0.295%
35	3.829	494	496	501	rVV	1504729	793627	34.77%	5.209%
	3.867	501	503	505	rVV3	140056	102883	4.51%	0.675%
	3.899	505	509	512	rVB2	425448	301027	13.19%	1.976%
38	4.198	561	565	566	rBV	128298	82954	3.63%	0.545%
39	4.219	566	569	576	rVB	930544	643302	28.18%	4.223%
40	4.310	582	586	588	rBV	2499613	1727596	75.68%	11.340%
41	4.348	590	593	596	rVB	1541351	847808	37.14%	5.565%
42	4.417	604	606	611	rVB	98679	72166	3.16%	0.474%
43	4.503	619	622	624	rBV3	48710	46994	2.06%	0.308%
44	4.545	627	630	634	rVB4	55858	48813	2.14%	0.320%
45	4.828	680	683	690	rVB2	39945	31748	1.39%	0.208%
46	4.989	711	713	715	rBV	64787	41556	1.82%	0.273%
47	5.096	730	733	740	rBV	195313	168811	7.39%	1.108%
48	5.972	894	897	911	rBV	303842	401309	17.58%	2.634%
49	7.243	1131	1135	1154	rBV	188128	358735	15.71%	2.355%
50	7.671	1209	1215	1223	rBV2	39932	73450	3.22%	0.482%

Sum of corrected areas: 15234417

File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Operator : JC
Acquired : 12 Jul 2001 12:33 using AcqMethod BS1801
Instrument : MSD_B
Sample Name: S-87,4591-008,S,10.44g,15.9,07/11/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,2
Vial Number: 33
Quant File :BS1801.RES (RTE Integrator)



1044

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
Integration Params: LSCINT.P

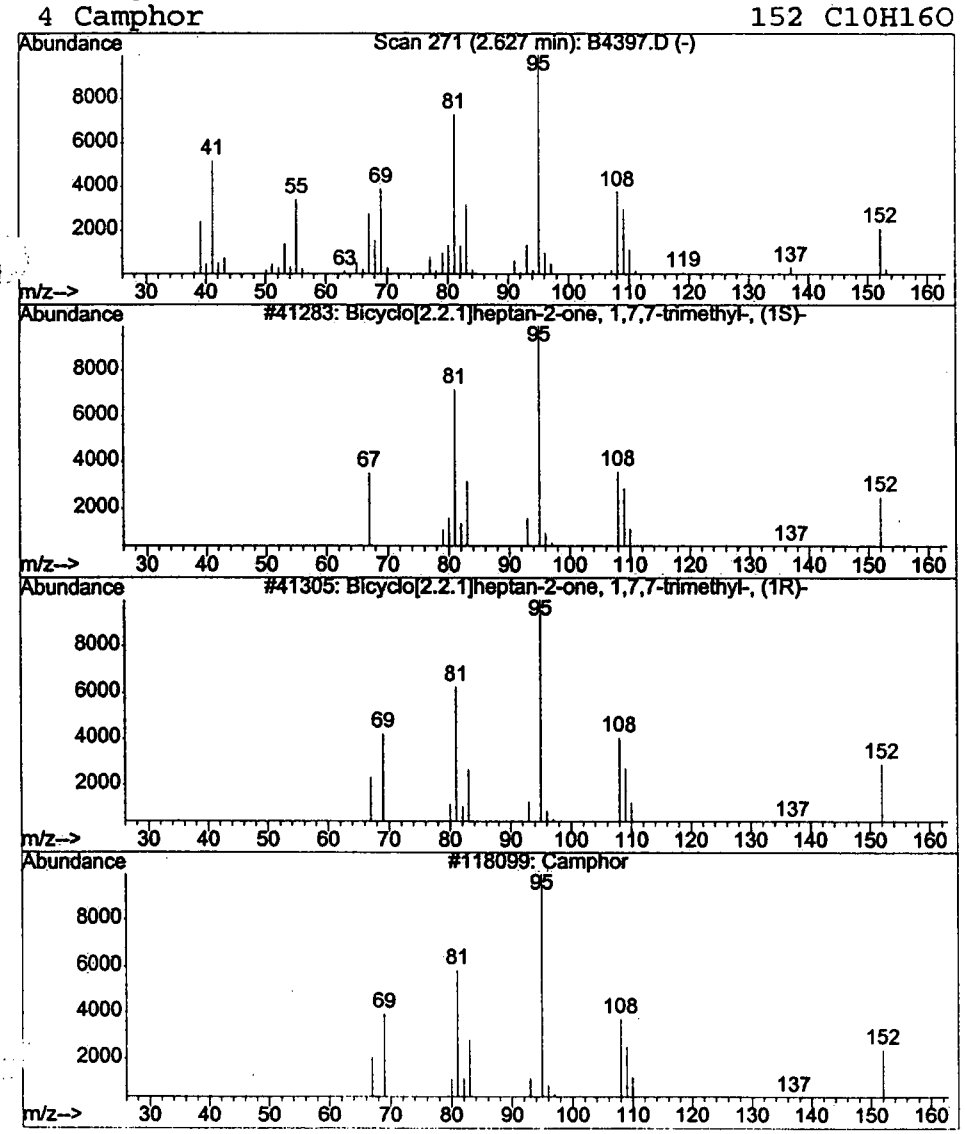
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

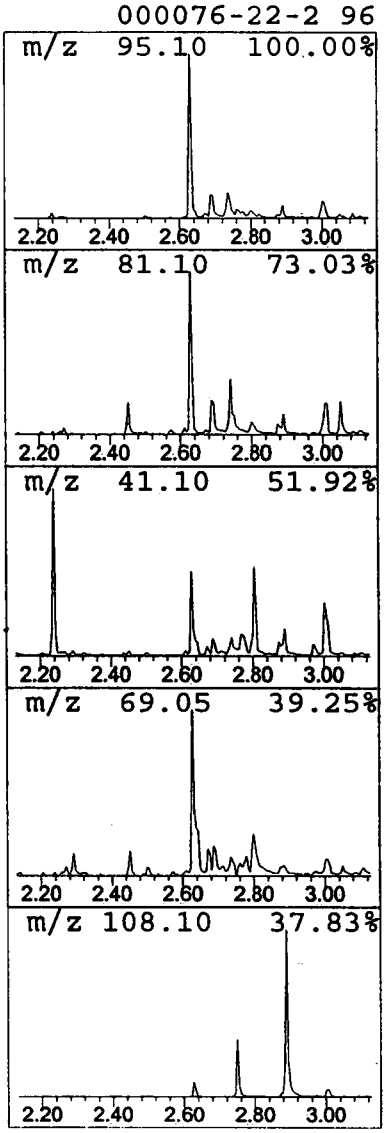
****

Peak Number 1 Unknown Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.63	13.20 UG	119199	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-48-2	98
2	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-49-3	97
3	Camphor	152	C10H16O	000076-22-2	97
4	Camphor	152	C10H16O	000076-22-2	96





1045

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
MS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

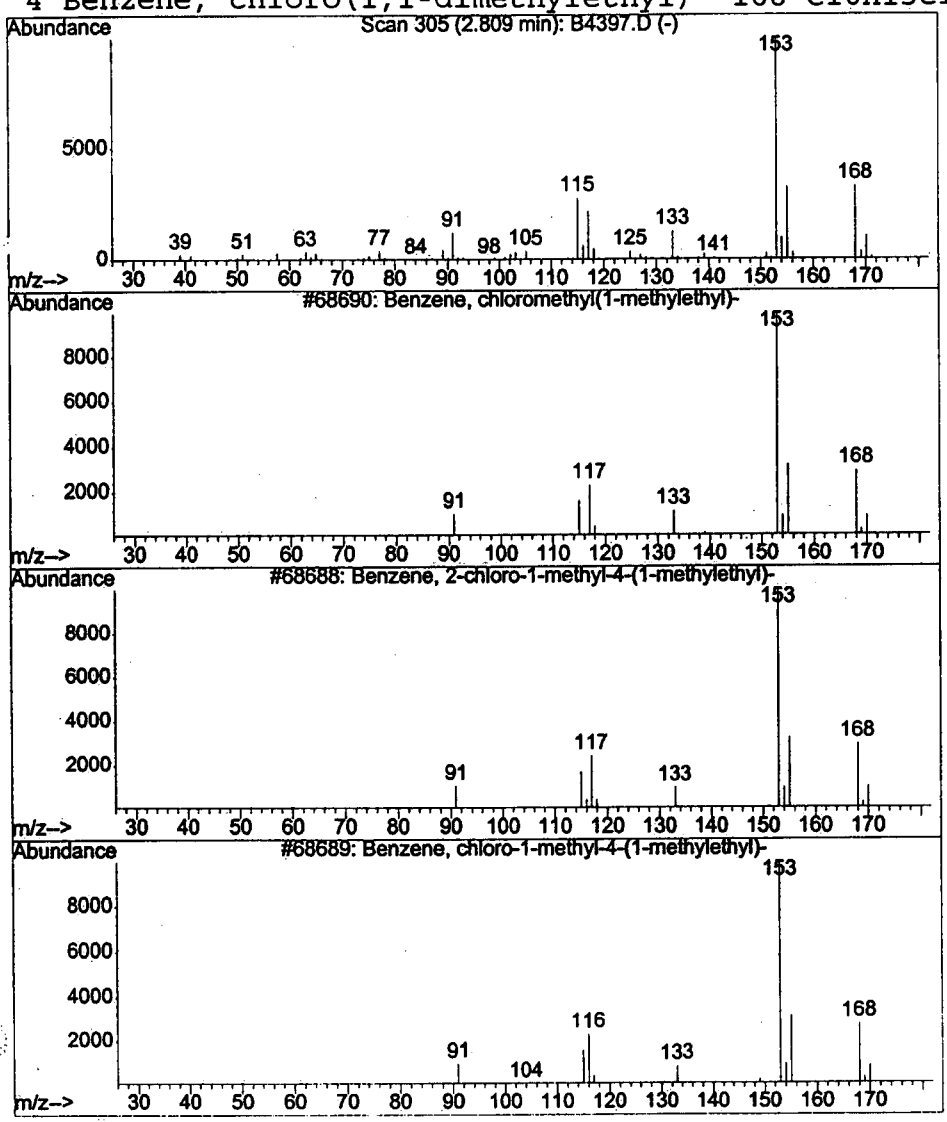
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

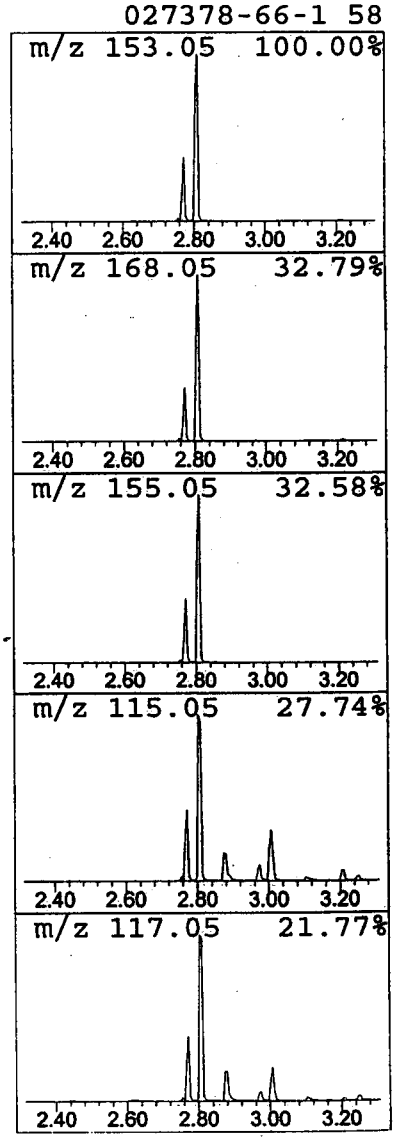
****

Peak Number 2 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.81	99.03 UG	894330	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, chloromethyl(1-methylet...	168	C10H13Cl	072403-13-5	96
2	Benzene, 2-chloro-1-methyl-4-(1-...	168	C10H13Cl	004395-79-3	96
3	Benzene, chloro-1-methyl-4-(1-me...	168	C10H13Cl	054411-19-7	87
4	Benzene, chloro(1,1-dimethylethyl)-	168	C10H13Cl	027378-66-1	58





1046

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

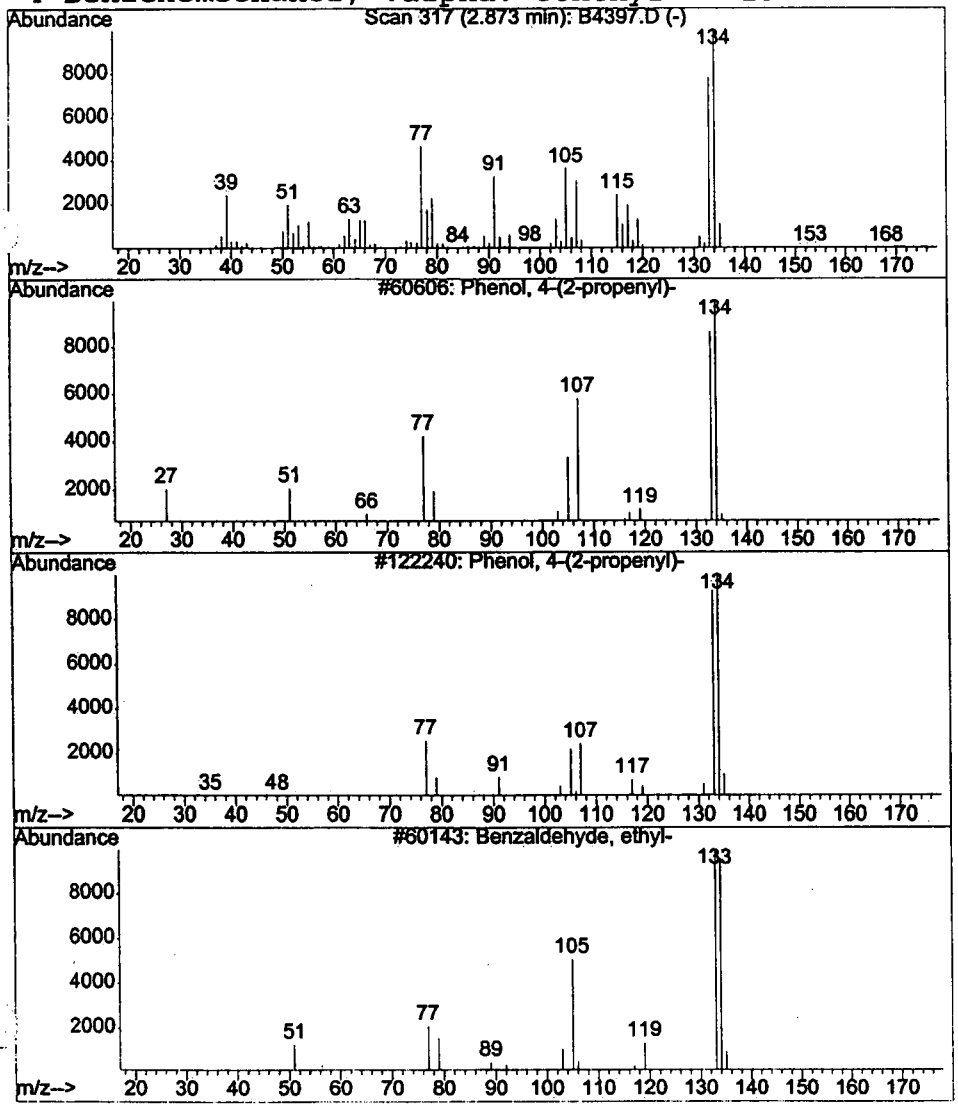
****

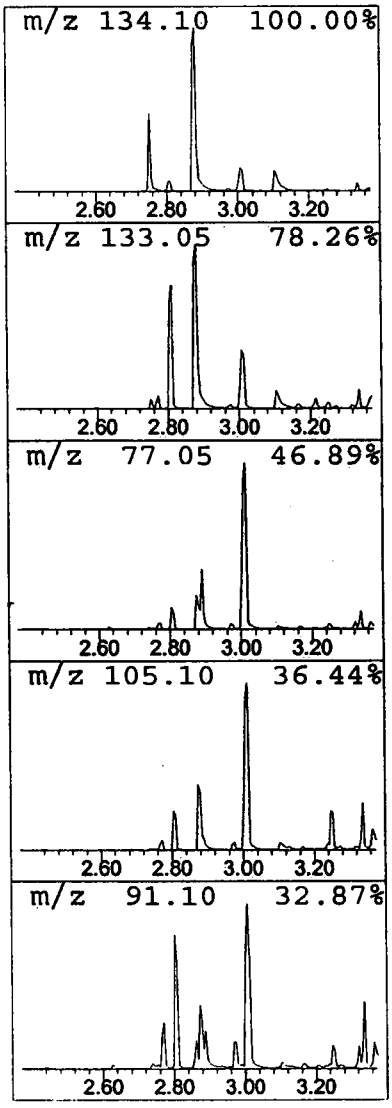
Peak Number 3 Phenol, 4-~~(2-~~propenyl)- Concentration Rank 5

Substituted JC

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.87	44.74 UG	404059	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 4-(2-propenyl)-	134	C9H10O	000501-92-8	90
2	Phenol, 4-(2-propenyl)-	134	C9H10O	000501-92-8	87
3	Benzaldehyde, ethyl-	134	C9H10O	053951-50-1	64
4	Benzenemethanol, .alpha.-ethenyl-	134	C9H10O	004393-06-0	59





1047

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
IS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

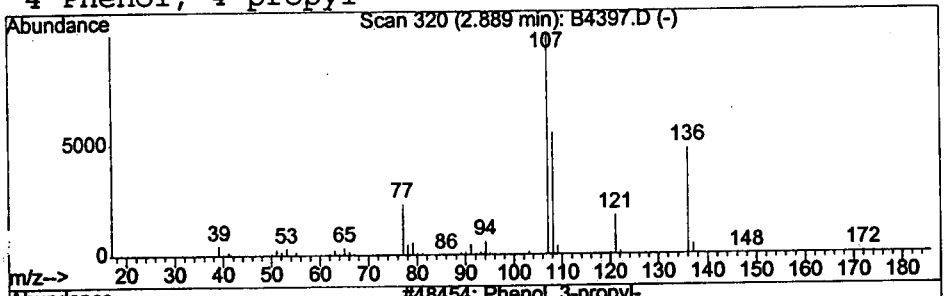
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

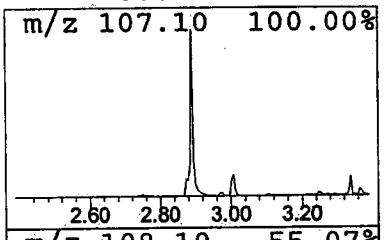
****

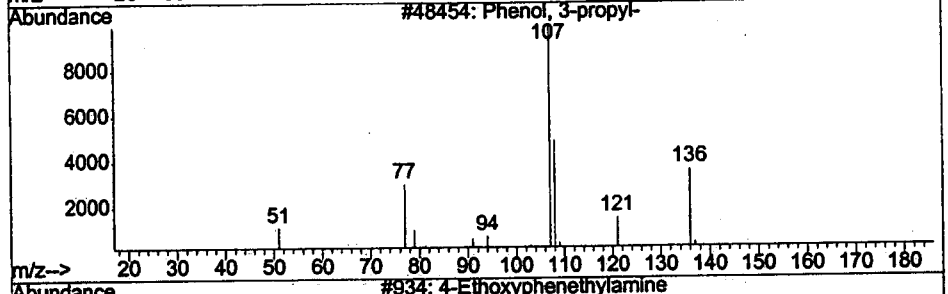
Peak Number 4 Phenol, 3-propyl- (substituted sc) Concentration Rank 6

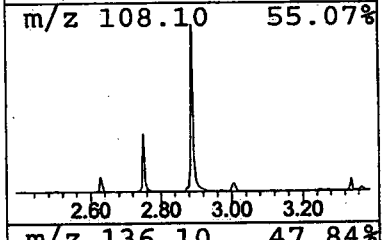
R.T.	EstConc	Area	Relative to ISTD	R.T.
2.89	43.11 UG	389291	Naphthalene-d8	2.75

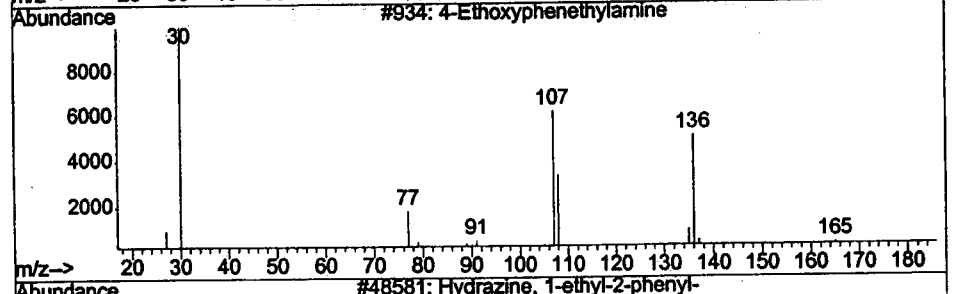
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 3-propyl-	136	C9H12O	000621-27-2	80
2	4-Ethoxyphenethylamine	165	C10H15NO	056370-30-0	64
3	Hydrazine, 1-ethyl-2-phenyl-	136	C8H12N2	000622-82-2	59
4	Phenol, 4-propyl-	136	C9H12O	000645-56-7	50

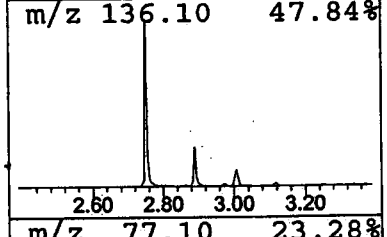


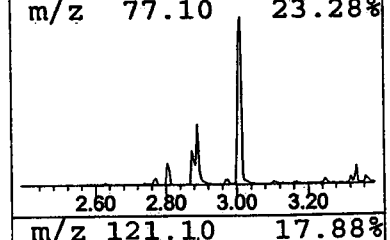


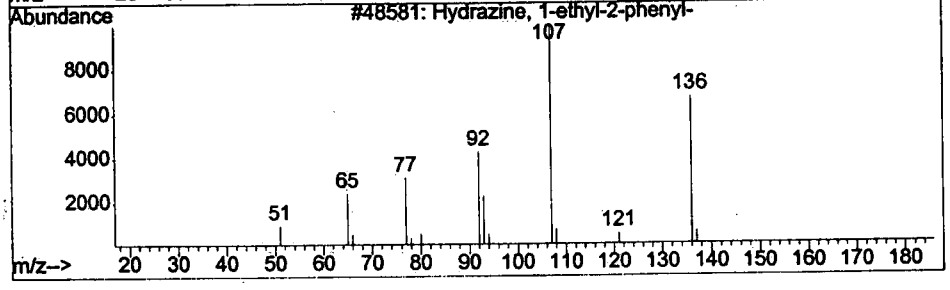


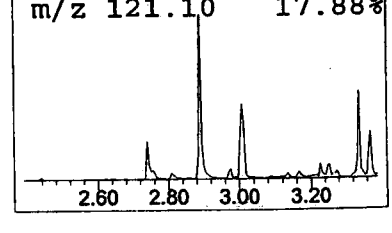












0010

10446

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

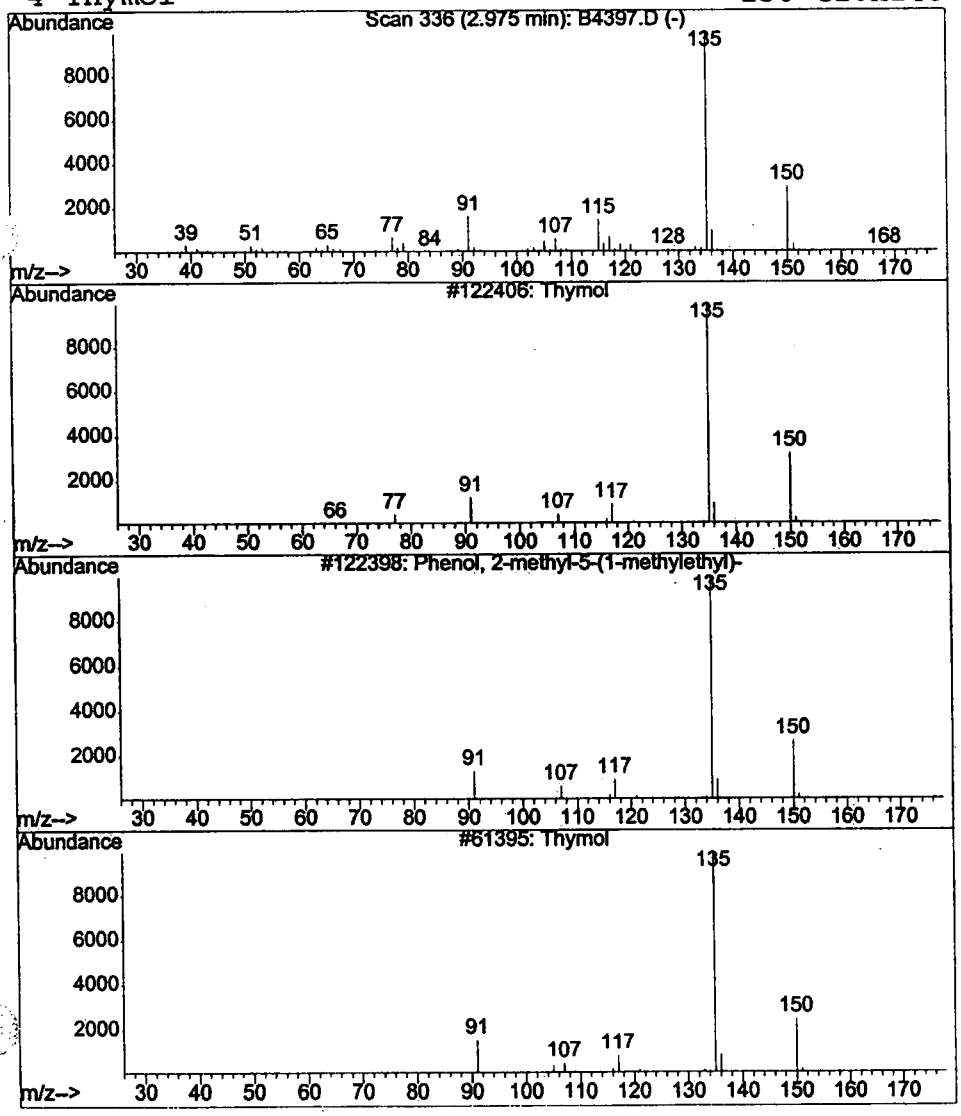
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

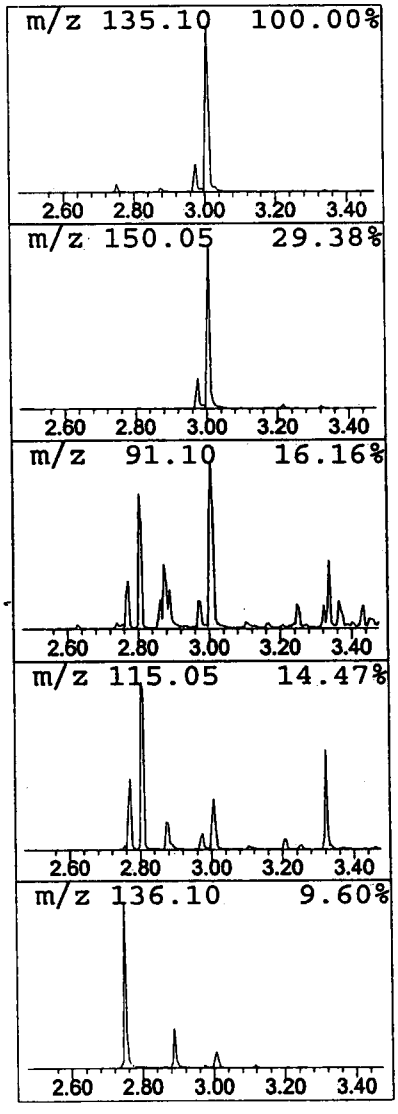
****

Peak Number 5 ~~Thymol~~ Phenol Substituted Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.97	13.93 UG	125811	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thymol	150	C10H14O	000089-83-8	91
2	Phenol, 2-methyl-5-(1-methylethyl)-	150	C10H14O	000499-75-2	87
3	Thymol	150	C10H14O	000089-83-8	87
4	Thymol	150	C10H14O	000089-83-8	83





1049

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
MS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

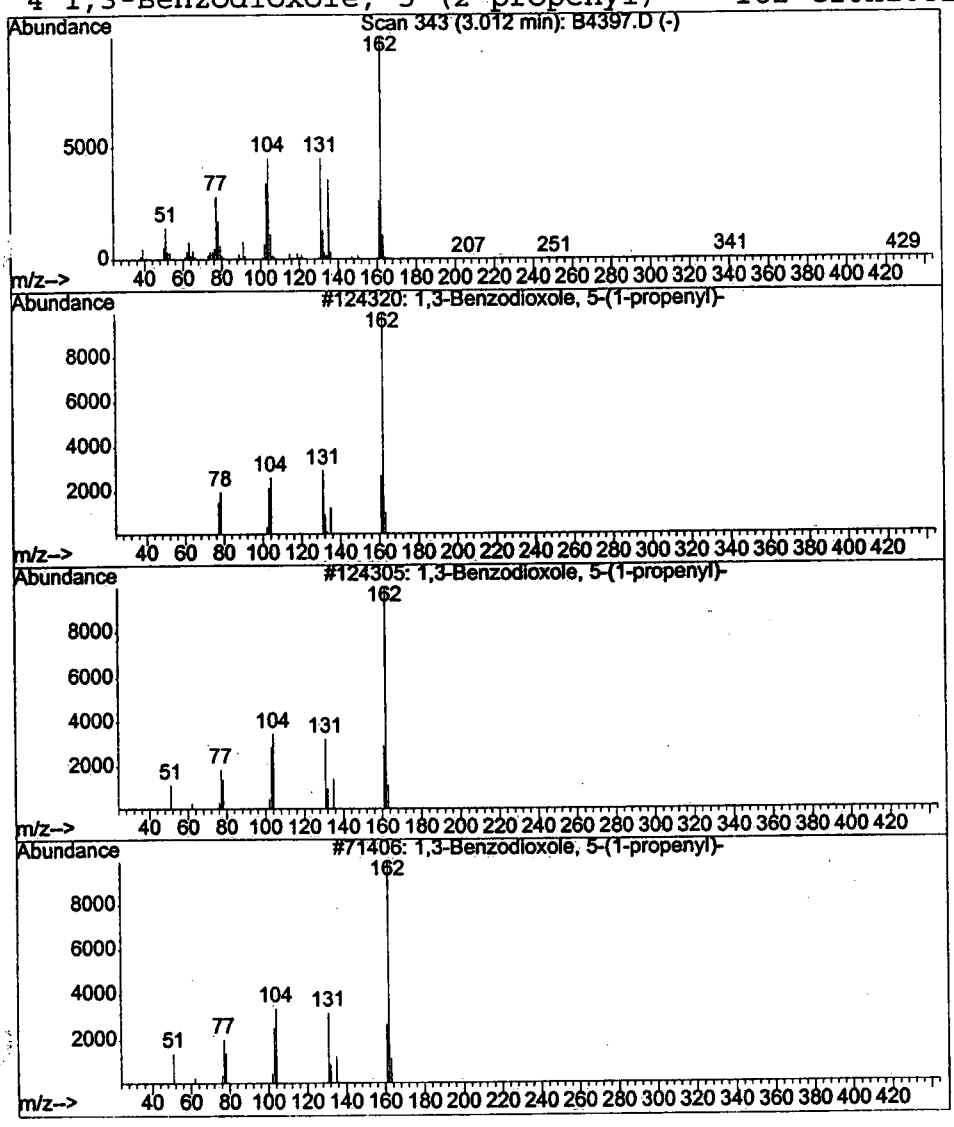
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

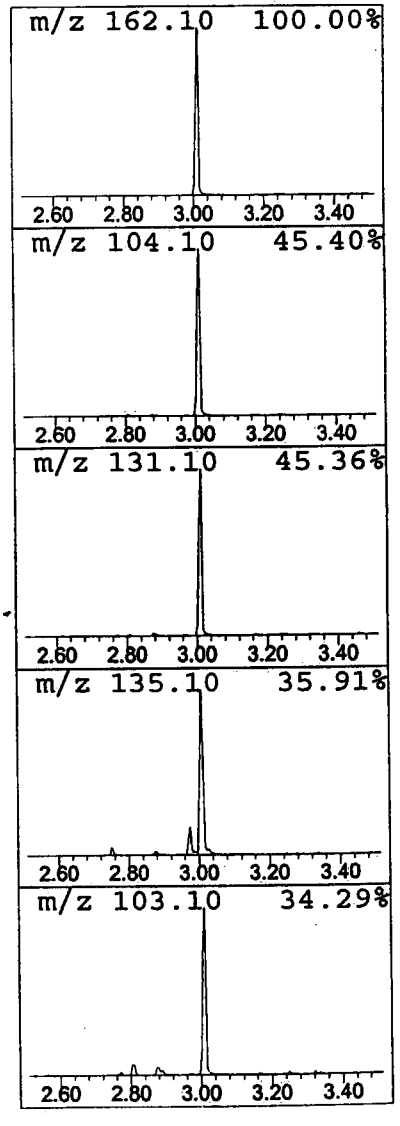
****

Peak Number 6 1,3-Benzodioxole, 5-(1-prop... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.01	252.79 UG	2282820	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Benzodioxole, 5-(1-propenyl)-	162	C10H10O2	000120-58-1	95
2	1,3-Benzodioxole, 5-(1-propenyl)-	162	C10H10O2	000120-58-1	94
3	1,3-Benzodioxole, 5-(1-propenyl)-	162	C10H10O2	000120-58-1	94
4	1,3-Benzodioxole, 5-(2-propenyl)-	162	C10H10O2	000094-59-7	94





0412

1050

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

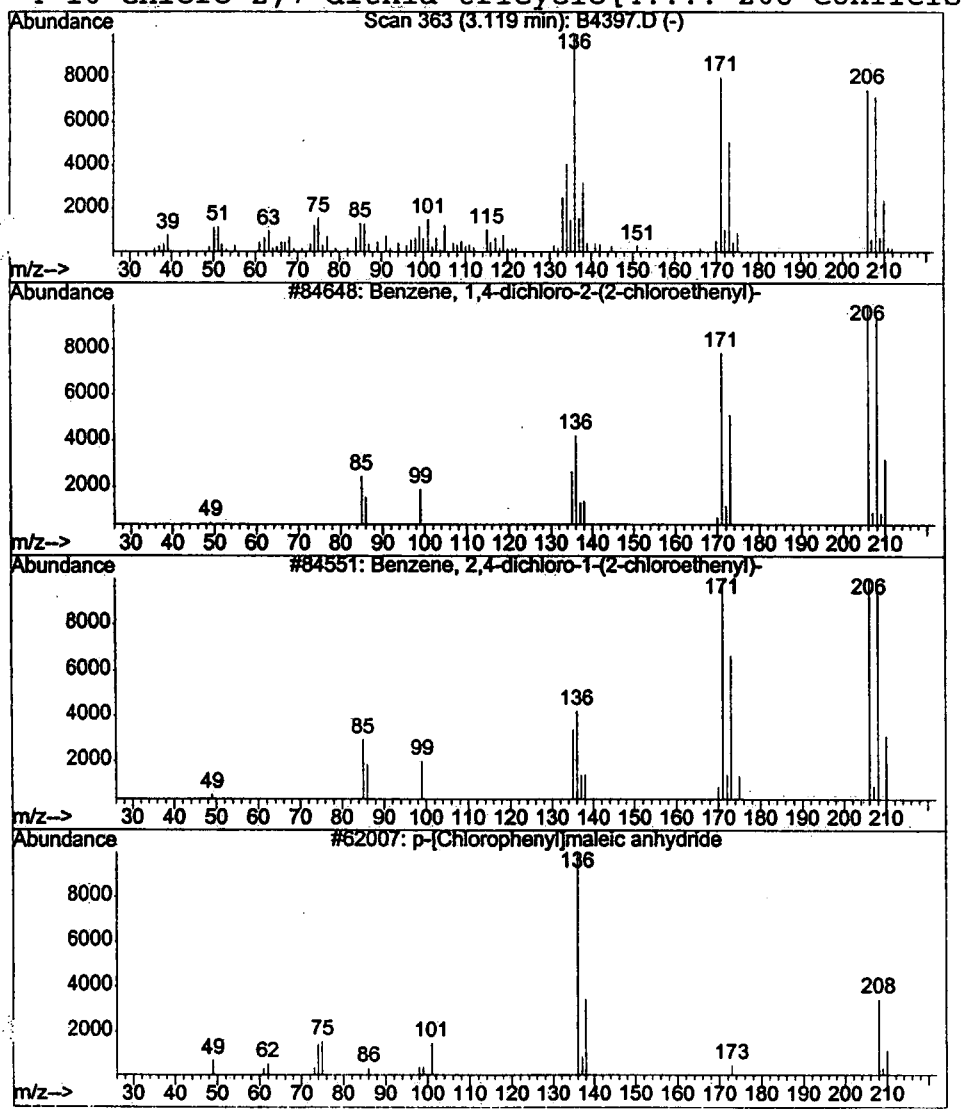
****

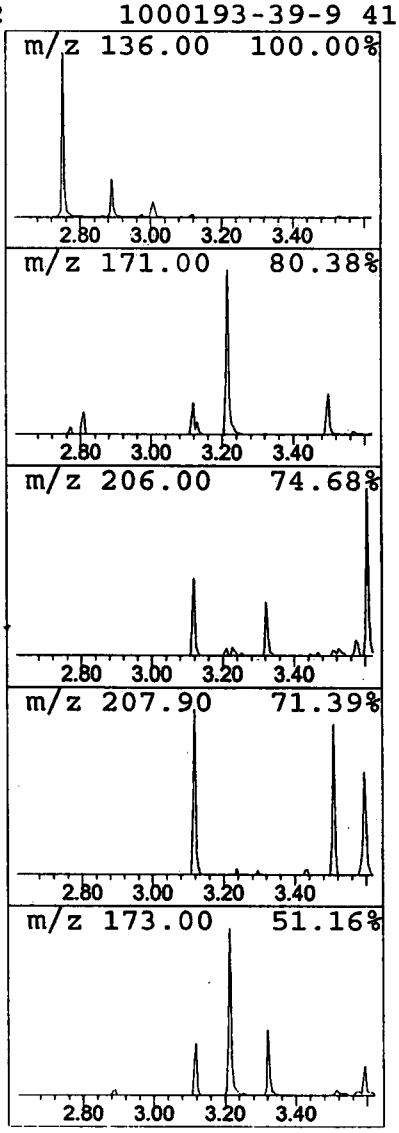
Peak Number 7 Benzene, 1,~~4-~~dichloro-2-(2-... Concentration Rank 13

Surrogate Ruled JC

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.12	9.21 UG	83167	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,4-dichloro-2-(2-chlor...	206	C8H5Cl3	054935-00-1	95
2	Benzene, 2,4-dichloro-1-(2-chlor...	206	C8H5Cl3	045892-47-5	53
3	p-[Chlorophenyl]maleic anhydride	208	C10H5ClO3	1000213-88-2	51
4	10-Chloro-2,7-dithia-tricyclo[4....	206	C8H11ClS2	1000193-39-9	41





1051

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
MS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

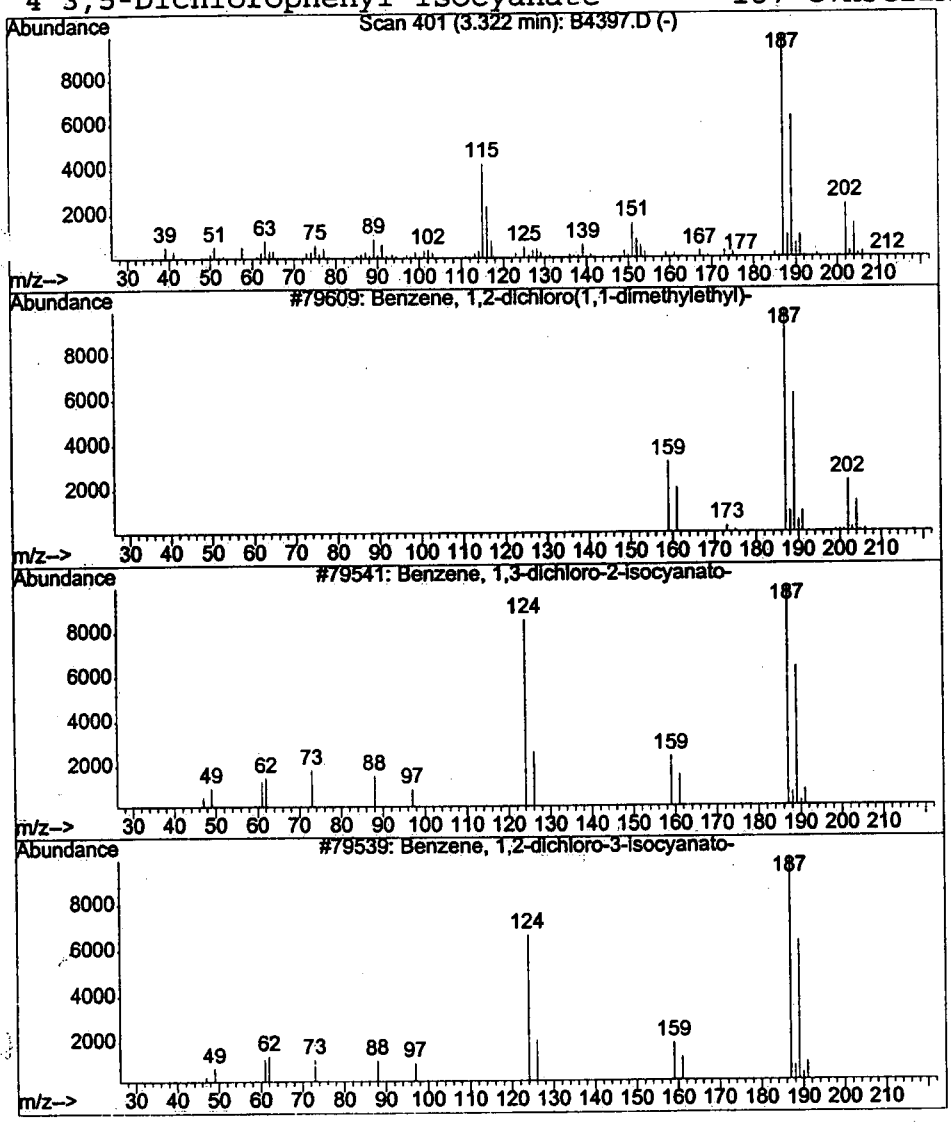
****

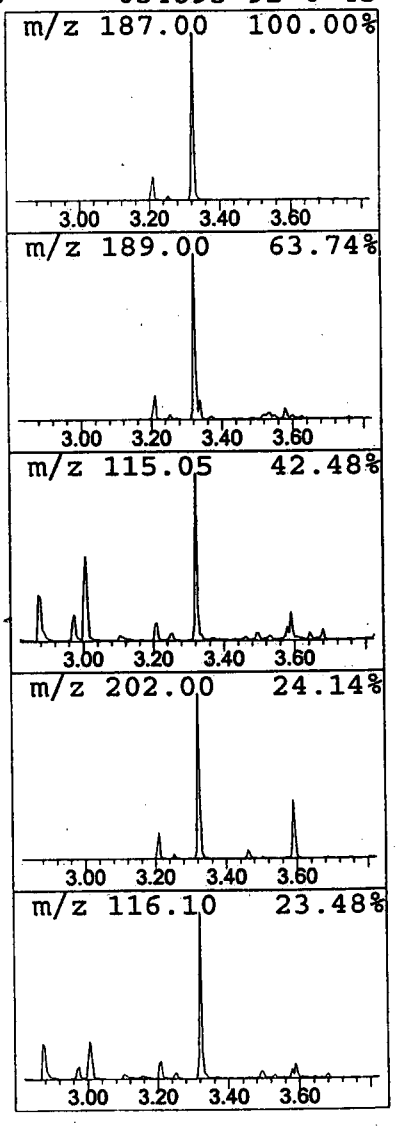
Peak Number 8 Benzene, 1,2-~~dichloro~~(1,1-d... Concentration Rank 7

substituted ic

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.32	25.55 UG	442439	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-dichloro(1,1-dimeth...	202	C10H12Cl2	054932-64-8	93
2	Benzene, 1,3-dichloro-2-isocyanato-	187	C7H3Cl2NO	039920-37-1	43
3	Benzene, 1,2-dichloro-3-isocyanato-	187	C7H3Cl2NO	041195-90-8	43
4	3,5-Dichlorophenyl isocyanate	187	C7H3Cl2NO	034893-92-0	43





1052

0414

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

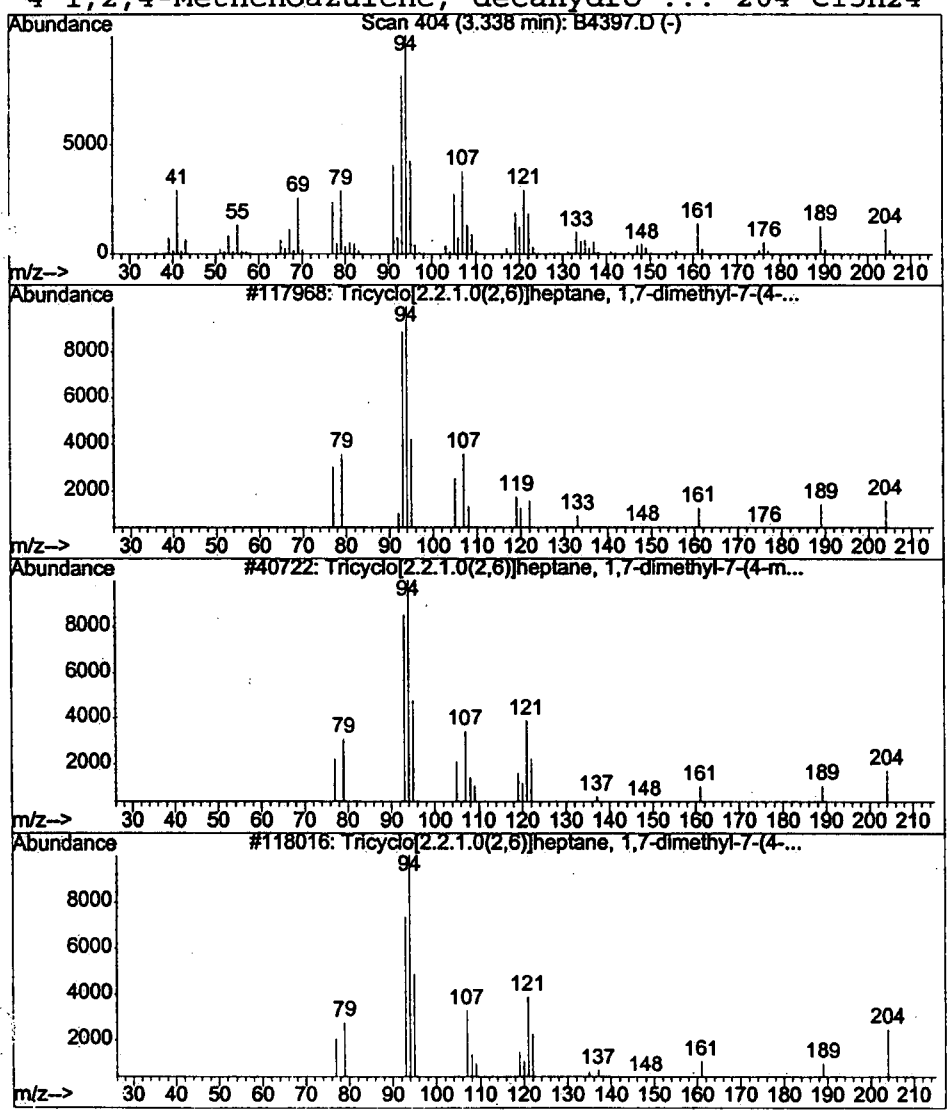
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

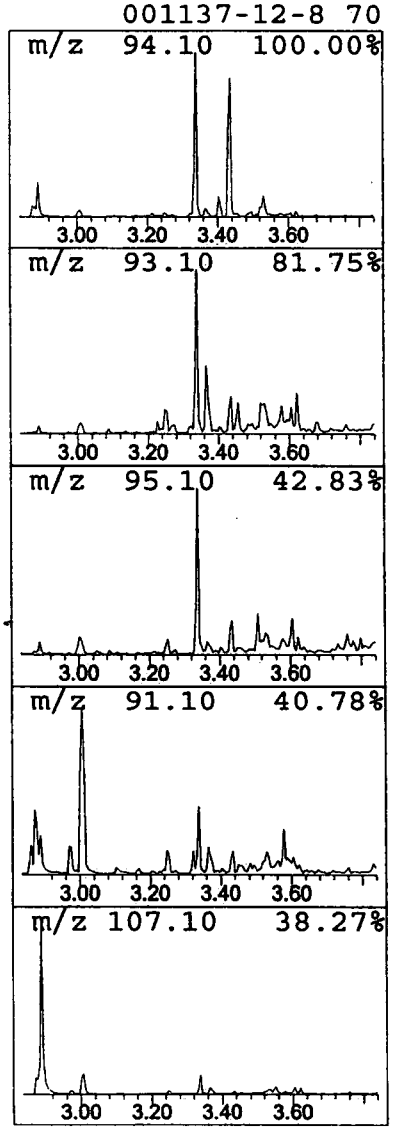
****

Peak Number 9 Tricyclo[2.2.1.0(2,6)]hepta... Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.34	13.06 UG	226196	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tricyclo[2.2.1.0(2,6)]heptane, 1...	204	C15H24	000512-61-8	99
2	Tricyclo[2.2.1.0(2,6)]heptane, 1...	204	C15H24	000512-61-8	98
3	Tricyclo[2.2.1.0(2,6)]heptane, 1...	204	C15H24	000512-61-8	98
4	1,2,4-Methenoazulene, decahydro-...	204	C15H24	001137-12-8	70





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

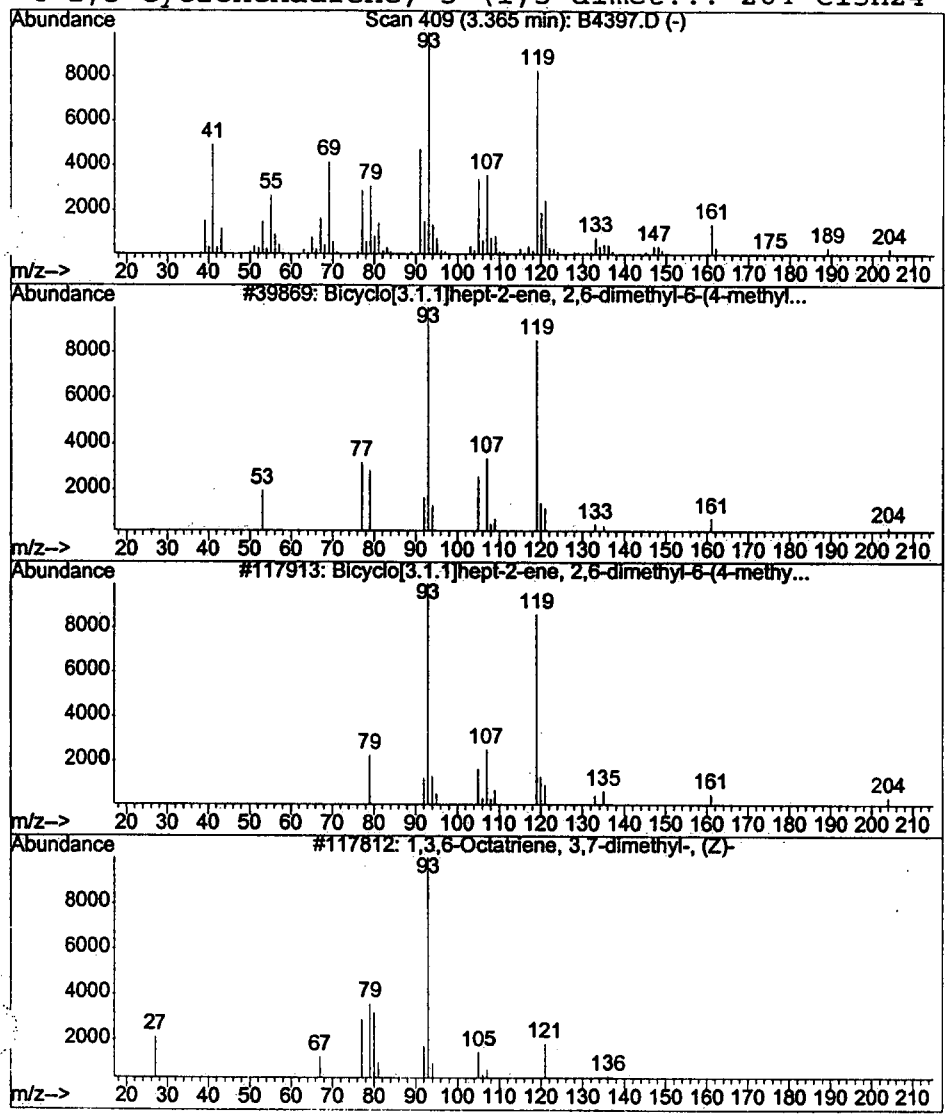
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

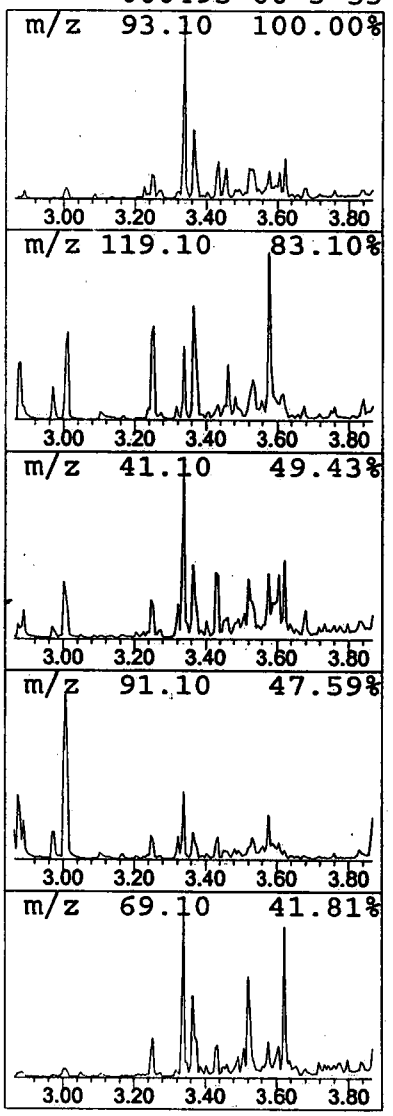
****

Peak Number 10 Bicyclo[3.1.1]hept-2-ene, 2... Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.36	8.95 UG	154967	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[3.1.1]hept-2-ene, 2,6-di...	204	C15H24	017699-05-7	96
2	Bicyclo[3.1.1]hept-2-ene, 2,6-di...	204	C15H24	017699-05-7	80
3	1,3,6-Octatriene, 3,7-dimethyl-,...	136	C10H16	003338-55-4	55
4	1,3-Cyclohexadiene, 5-(1,5-dimet...	204	C15H24	000495-60-3	53





1054

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D Vial: 33
Acq On : 12 Jul 2001 12:33 Operator: JC
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2 Multiplr: 1.00
LS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

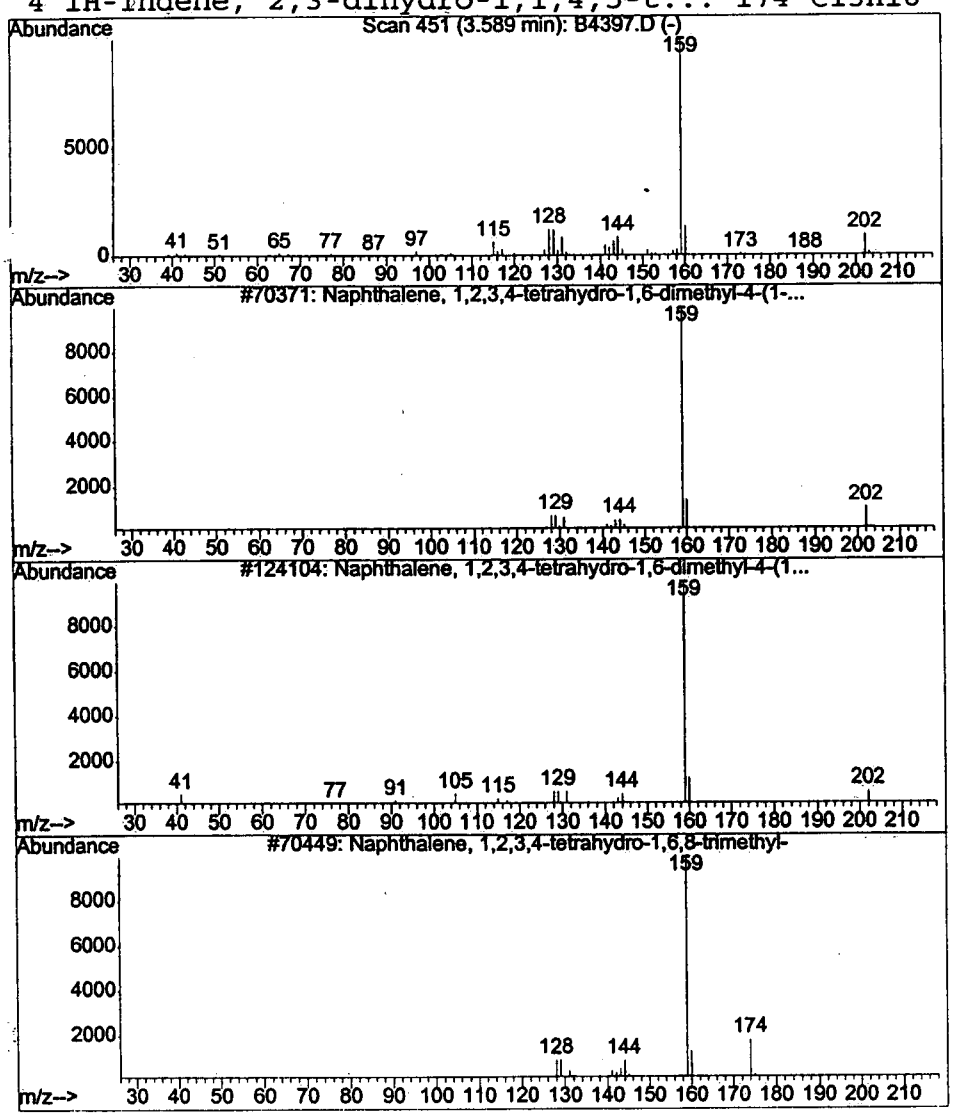
****

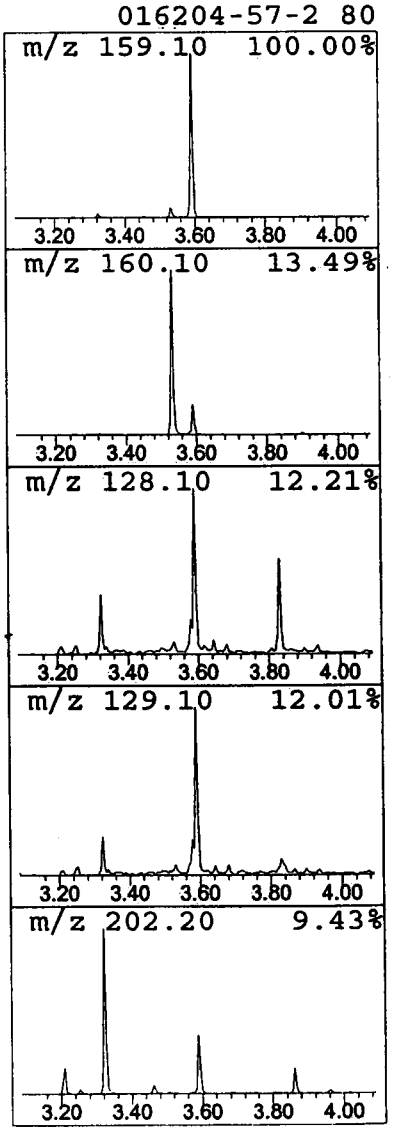
Peak Number 11 Naphthalene, 1,2,3,4-tetrah... Concentration Rank 9

Substituted 3c

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.59	16.55 UG	286517	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	91
3	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	030316-36-0	86
4	1H-Indene, 2,3-dihydro-1,1,4,5-t...	174	C13H18	016204-57-2	80





Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
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Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
MS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

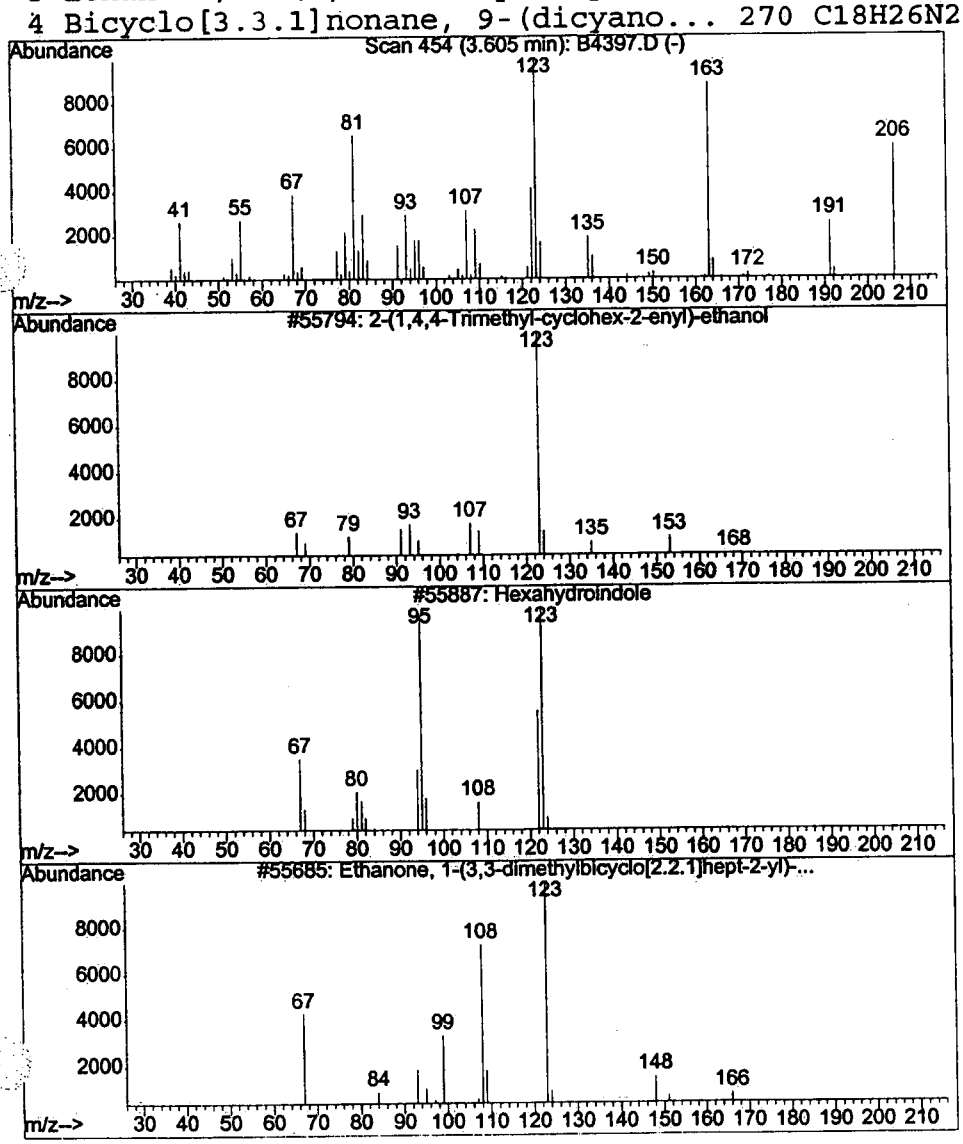
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

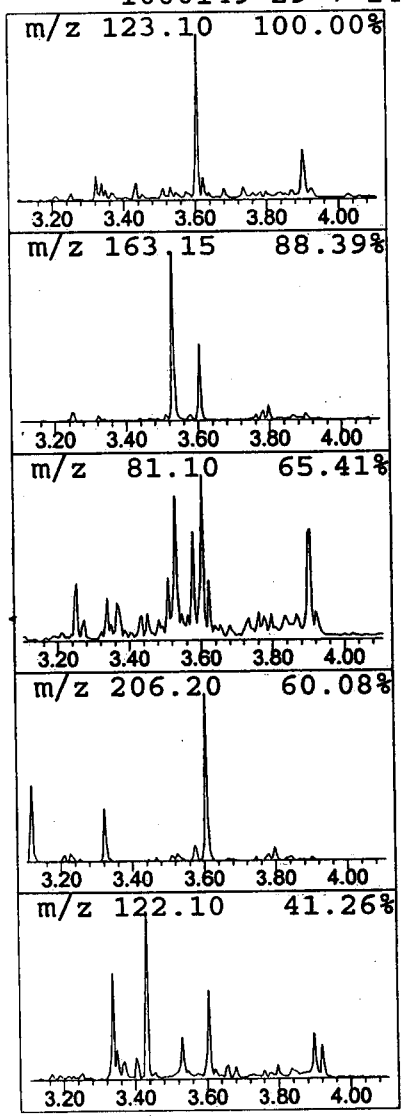
****

Peak Number 12 2-(1,4,4-Trimethyl-cyclohex... Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.61	8.50 UG	147130	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-(1,4,4-Trimethyl-cyclohex-2-en...	168	C11H20O	1000190-92-3	35
2	Hexahydroindole	123	C8H13N	1000131-02-3	27
3	Ethanone, 1-(3,3-dimethylbicyclo...	166	C11H18O	015780-34-4	16
4	Bicyclo[3.3.1]nonane, 9-(dicyano...	270	C18H26N2	1000149-29-7	14





1056

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
S Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

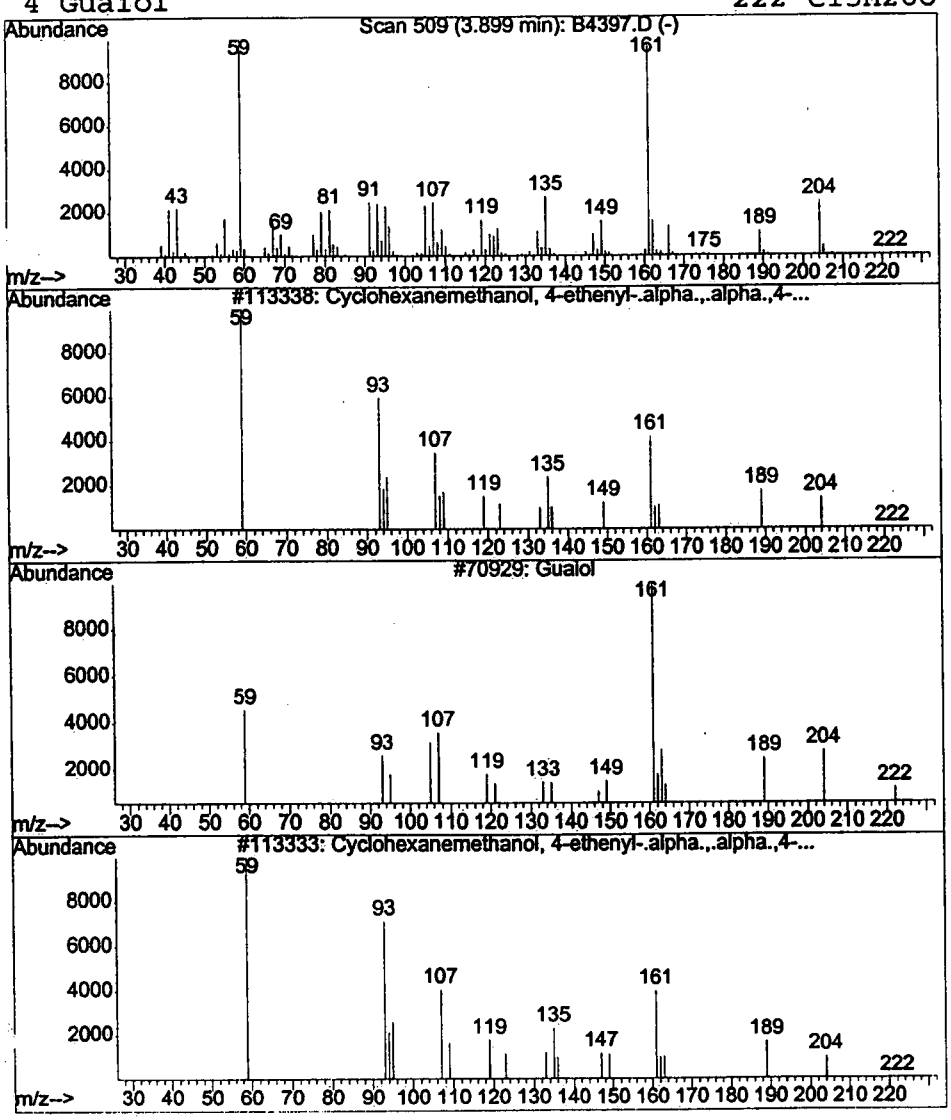
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

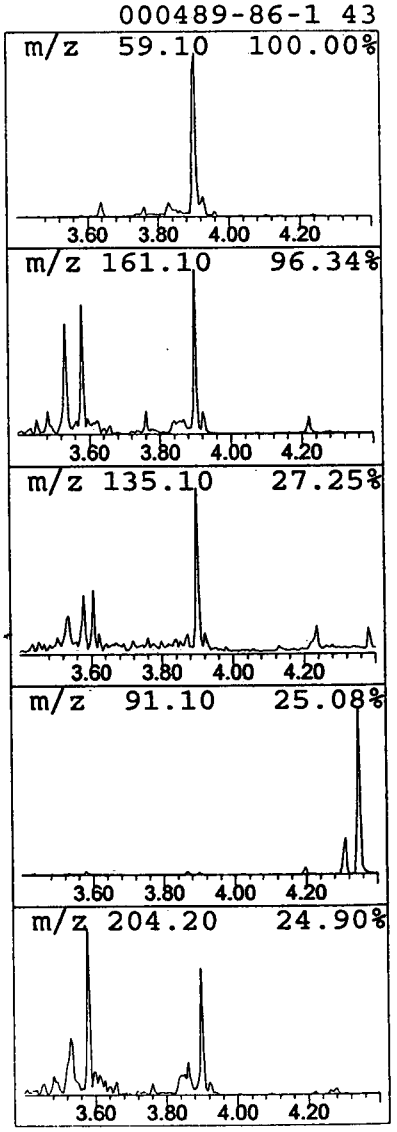
****

Peak Number 13 Cyclohexanemethanol, 4-ethe... Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.90	18.72 UG	301027	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanemethanol, 4-ethenyl-....	222	C15H26O	000639-99-6	58
2	Guaiol	222	C15H26O	000489-86-1	52
3	Cyclohexanemethanol, 4-ethenyl-....	222	C15H26O	000639-99-6	50
4	Guaiol	222	C15H26O	000489-86-1	43





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
ALS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

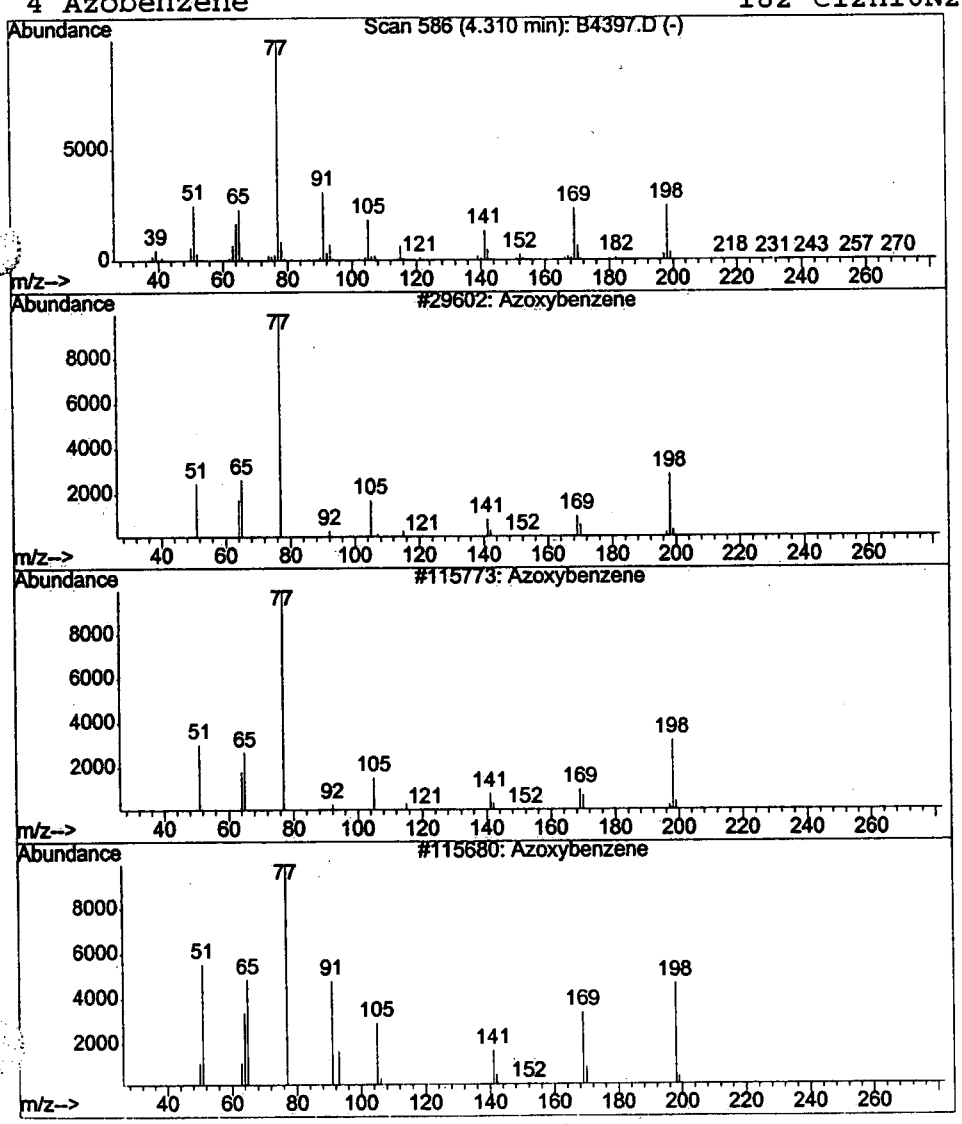
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

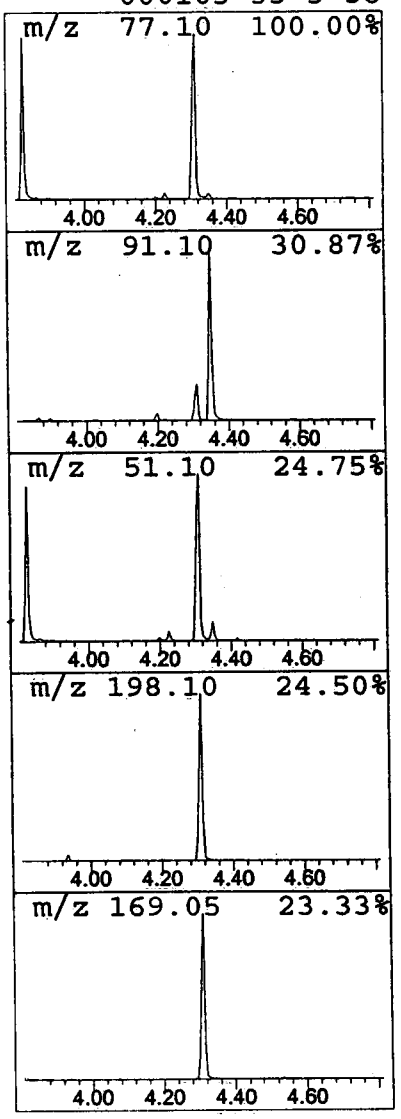
****

Peak Number 14 Azoxybenzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.31	107.42 UG	1727600	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Azoxybenzene	198	C12H10N2O	000495-48-7	97
2	Azoxybenzene	198	C12H10N2O	000495-48-7	95
3	Azoxybenzene	198	C12H10N2O	000495-48-7	86
4	Azobenzene	182	C12H10N2	000103-33-3	38





1056

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4397.D
Acq On : 12 Jul 2001 12:33
Sample : S-87,4591-008,S,10.44g,15.9,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,2
LS Integration Params: LSCINT.P

Vial: 33
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

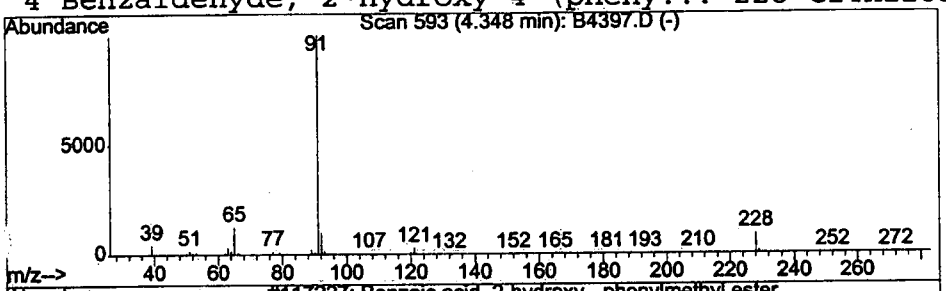
****

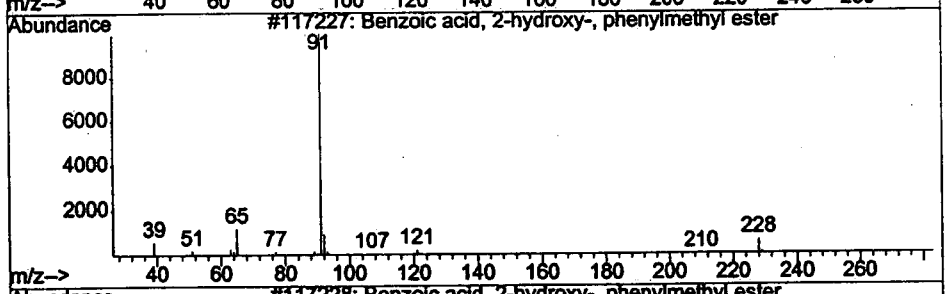
Peak Number 15 Benzoic acid, 2-hydroxy-, p... Concentration Rank 4

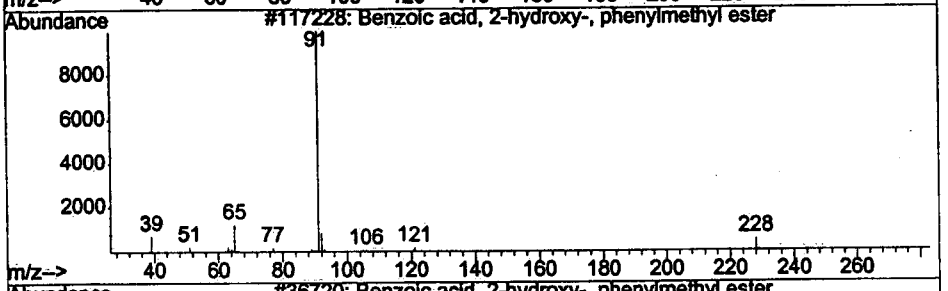
unknown aromatic #c

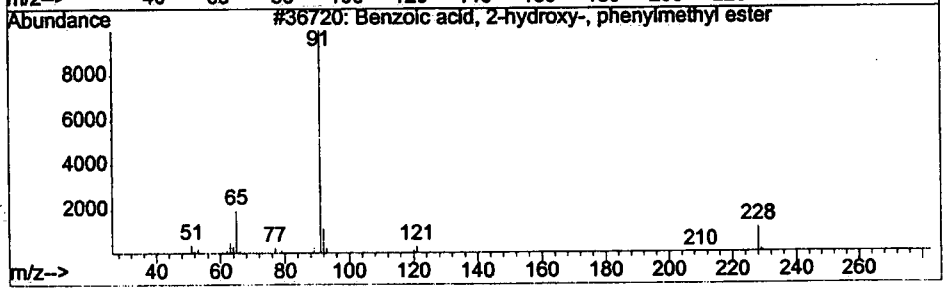
R.T.	EstConc	Area	Relative to ISTD	R.T.
4.35	52.72 UG	847808	Phenanthrene-d10	4.22

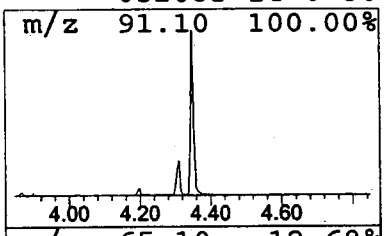
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-hydroxy-, phenyl...	228	C14H12O3	000118-58-1	91
2	Benzoic acid, 2-hydroxy-, phenyl...	228	C14H12O3	000118-58-1	87
3	Benzoic acid, 2-hydroxy-, phenyl...	228	C14H12O3	000118-58-1	81
4	Benzaldehyde, 2-hydroxy-4-(pheny...	228	C14H12O3	052085-14-0	80

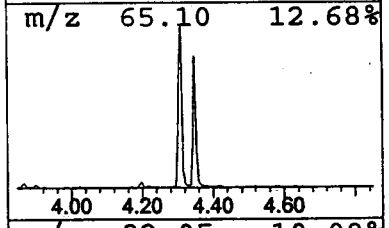


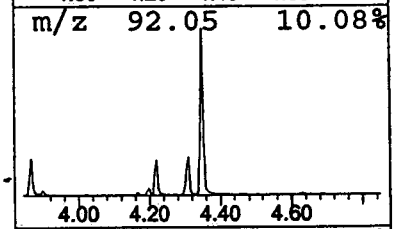


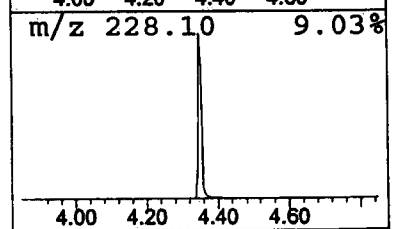


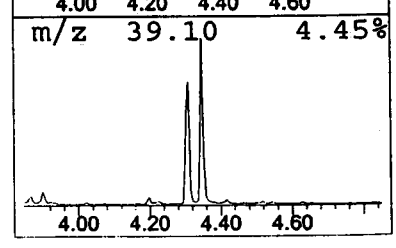












0401

1059

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D Vial: 34
Acq On : 12 Jul 2001 12:00 Operator: JC
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 12:17:12 2001 Quant Results File: BS1801.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration
DataAcq Meth : BS1801

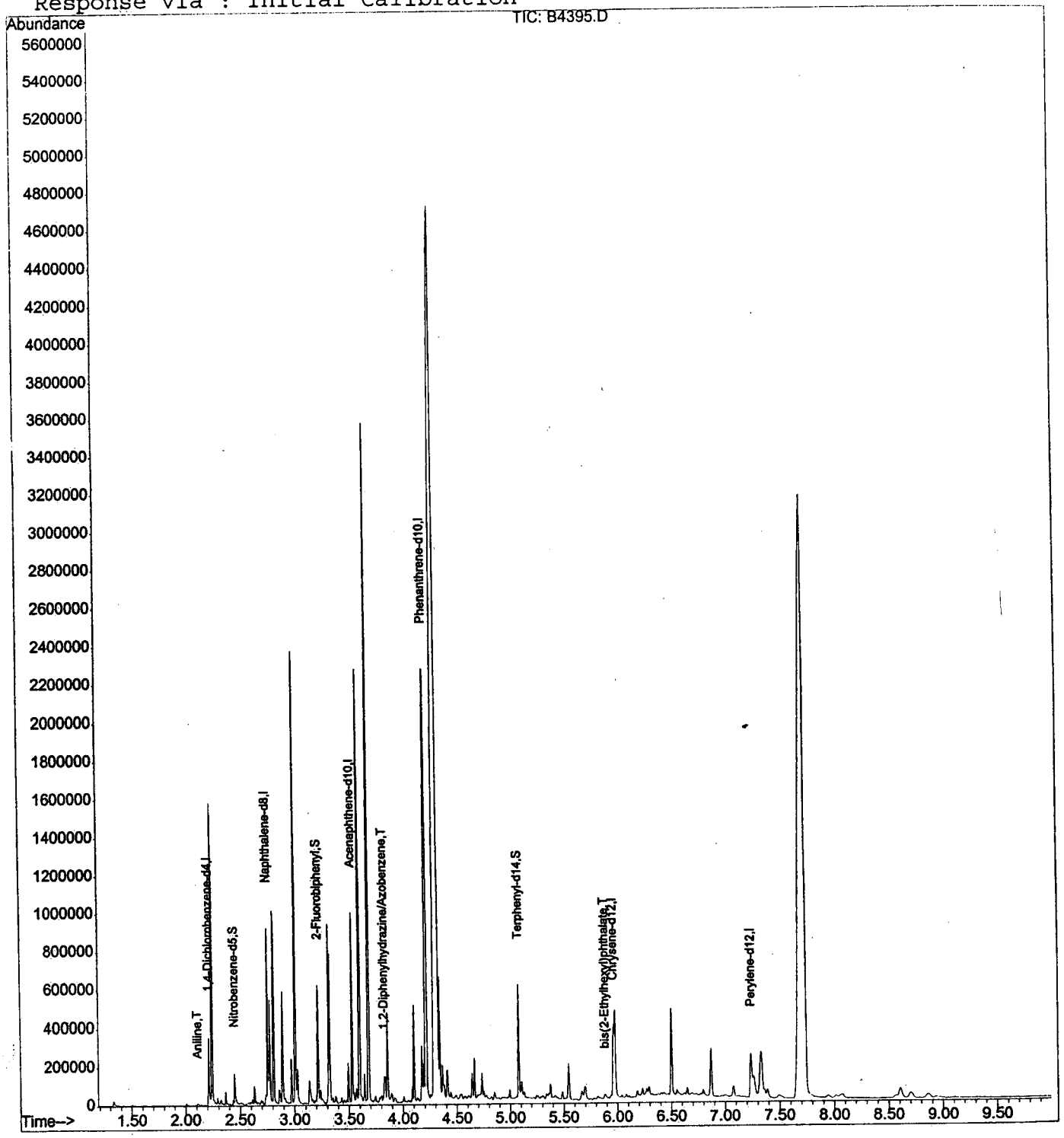
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.21	152	38117	40.00	UG	-0.01
22) Naphthalene-d8	2.75	136	204788	40.00	UG	-0.02
39) Acenaphthene-d10	3.53	164	115233	40.00	UG	-0.02
60) Phenanthrene-d10	4.20	188	204360	40.00	UG	-0.03
75) Chrysene-d12	5.96	240	139372	40.00	UG	-0.02
84) Perylene-d12	7.24	264	153463	40.00	UG	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 41 - 85		Recovery = 0.00%#			
6) Phenol-d5	2.21	99	379	0.26	UG	0.15
Spiked Amount 100.000	Range 43 - 102		Recovery = 0.26%#			
23) Nitrobenzene-d5	2.45	82	40525	23.85	UG	-0.01
Spiked Amount 50.000	Range 43 - 87		Recovery = 47.70%			
43) 2-Fluorobiphenyl	3.22	172	118320	32.25	UG	-0.02
Spiked Amount 50.000	Range 40 - 97		Recovery = 64.50%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 60 - 128		Recovery = 0.00%#			
77) Terphenyl-d14	5.08	244	148508	39.41	UG	-0.03
Spiked Amount 50.000	Range 42 - 128		Recovery = 78.82%			
Target Compounds						Qvalue
8) Aniline	2.10	66	1223	1.89	UG	# 18
63) 1,2-Diphenylhydrazine/Azob	3.82	77	32513	8.93	UG	# 87
83) bis(2-Ethylhexyl)phthalate	5.88	149	2557	0.98	UG	# 1

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D Vial: 34
Acq On : 12 Jul 2001 12:00 Operator: JC
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 12:18 2001 Quant Results File: BS1801.RES

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration



1061

0002

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
LS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

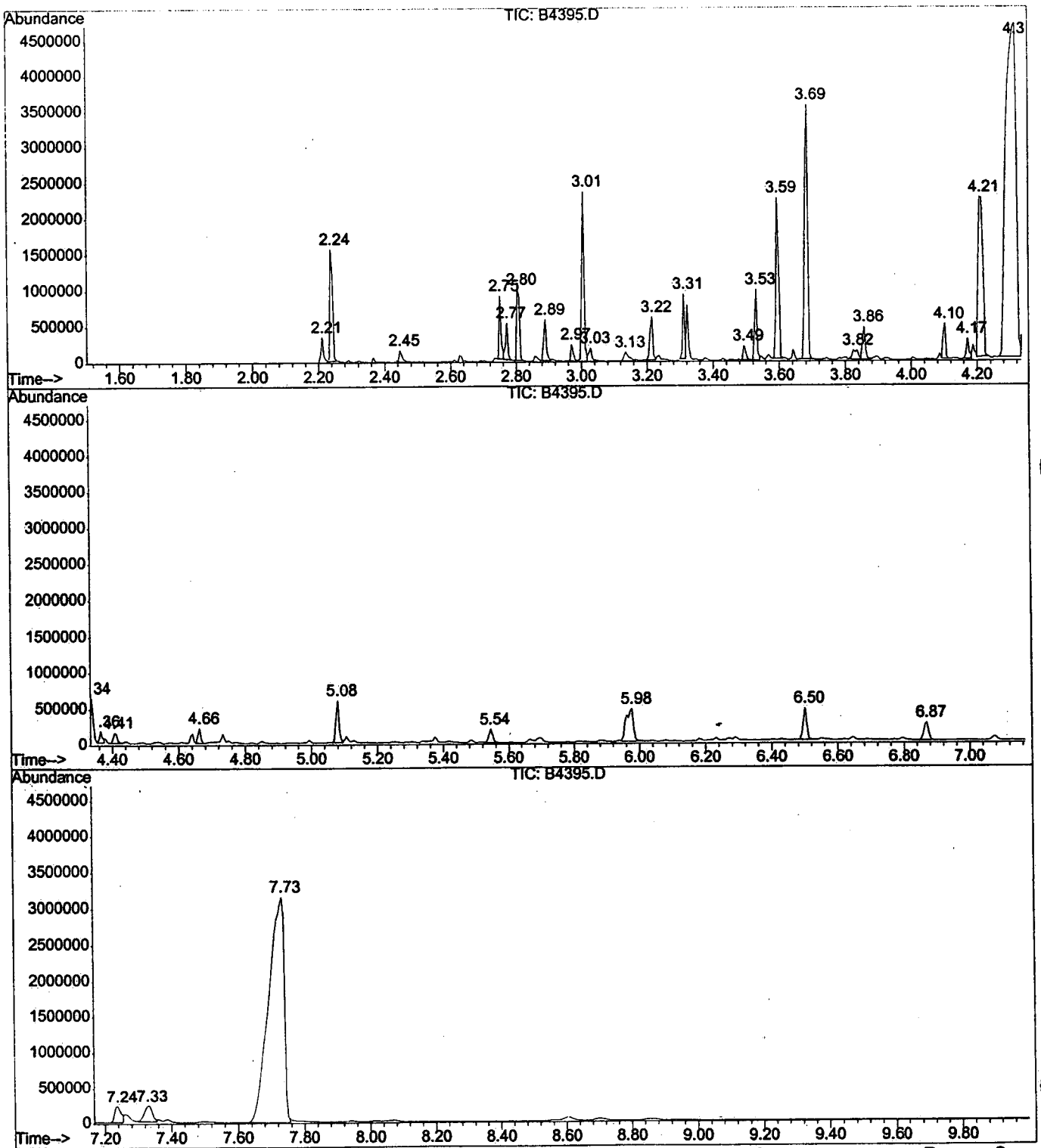
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.211	190	193	196	rBV	352613	200108	1.96%	0.557%
2	2.237	196	198	201	rVB	1554725	906238	8.88%	2.523%
3	2.446	236	237	246	rVB2	160165	106356	1.04%	0.296%
4	2.750	292	294	296	rBV	876792	376541	3.69%	1.049%
5	2.772	296	298	300	rVB	511670	236418	2.32%	0.658%
6	2.804	302	304	307	rBV	994256	621715	6.09%	1.731%
7	2.889	318	320	323	rBV	573372	326989	3.20%	0.911%
8	2.969	334	335	338	rBV	234041	118835	1.16%	0.331%
9	3.007	339	342	344	rVV	2365677	1195949	11.72%	3.330%
10	3.028	344	346	354	rVB	184443	127383	1.25%	0.355%
11	3.135	363	366	371	rBV2	122583	126228	1.24%	0.351%
12	3.215	377	381	383	rBV	602905	371891	3.64%	1.036%
13	3.311	397	399	400	rBV	906596	371223	3.64%	1.034%
14	3.493	431	433	437	rVB	205049	114647	1.12%	0.319%
15	3.530	437	440	442	rBV	988429	510001	5.00%	1.420%
16	3.594	449	452	455	rBV	2243700	1348591	13.21%	3.755%
17	3.685	465	469	471	rBV	3554316	2287200	22.41%	6.369%
18	3.824	492	495	499	rBV2	129821	148588	1.46%	0.414%
19	3.856	499	501	505	rVV	459150	284364	2.79%	0.792%
20	4.102	545	547	549	rVB	490304	278215	2.73%	0.775%
21	4.171	557	560	562	rBV	286679	163731	1.60%	0.456%
22	4.209	565	567	571	rVB2	2220058	2246757	22.01%	6.256%
23	4.316	578	587	590	rBV	4676224	10053133	98.49%	27.994%
24	4.337	590	591	594	rVV	615386	310495	3.04%	0.865%
25	4.364	594	596	598	rVV	162792	102709	1.01%	0.286%
26	4.406	602	604	609	rBV3	144078	117410	1.15%	0.327%
27	4.663	650	652	655	rVB	210516	118820	1.16%	0.331%
28	5.080	727	730	733	rBV	582896	367162	3.60%	1.022%
29	5.544	813	817	823	rVB	191733	161958	1.59%	0.451%
30	5.977	892	898	907	rVB2	452709	700688	6.86%	1.951%
31	6.501	992	996	1003	rVB	444718	344025	3.37%	0.958%

32	6.869	1060	1065	1073	rVB	252332	254383	2.49%	0.708%
33	7.238	1129	1134	1137	rBV	228304	322067	3.16%	0.897%
34	7.329	1145	1151	1156	rBV	225582	384170	3.76%	1.070%
35	7.735	1206	1227	1231	rBV	3159919	10207195	100.00%	28.423%

Sum of corrected areas: 35912183

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Operator : JC
Acquired : 12 Jul 2001 12:00 using AcqMethod BS1801
Instrument : MSD_B
Sample Name: S-88,4591-009,S,10.33g,12.3,07/11/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,1
Vial Number: 34
Quant File :BS1801.RES (RTE Integrator)



1064

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D Vial: 34
Acq On : 12 Jul 2001 12:00 Operator: JC
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

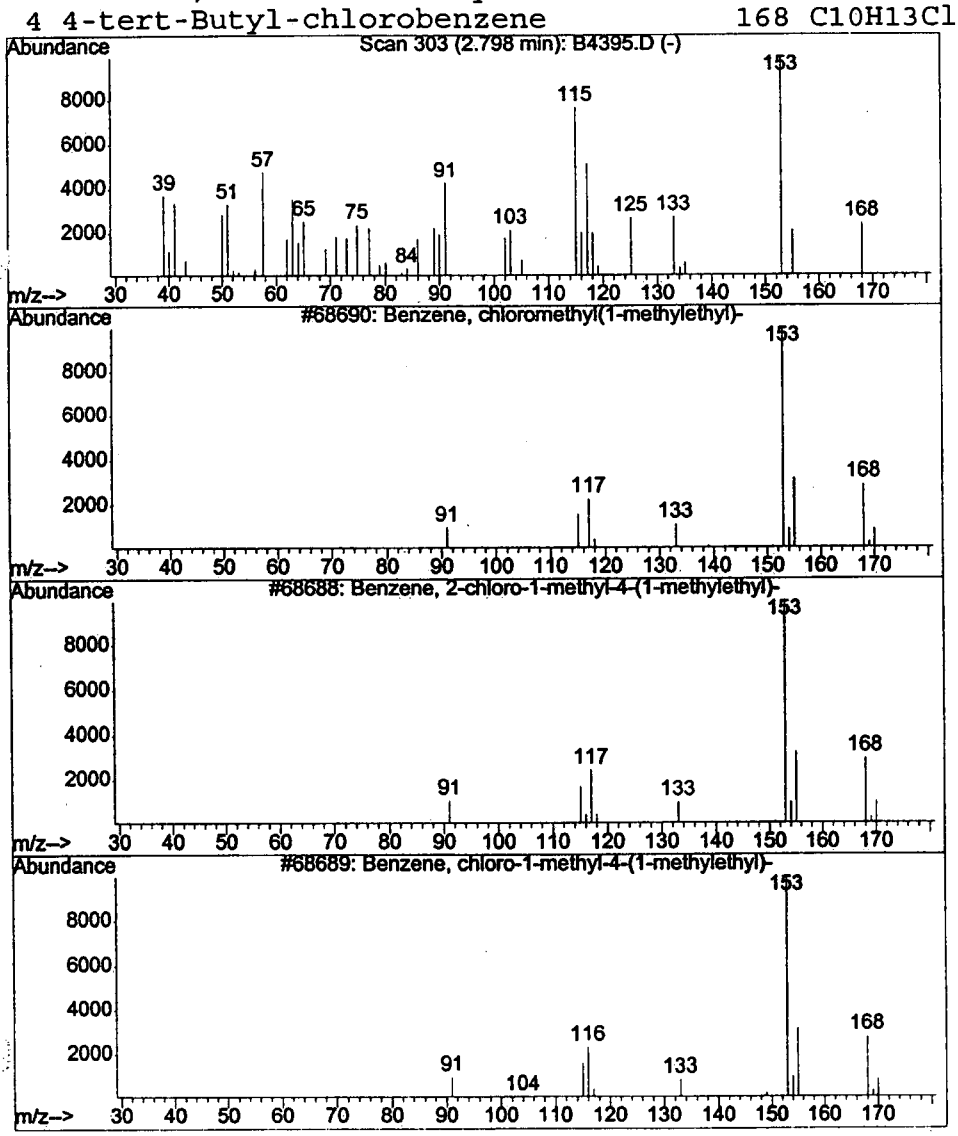
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

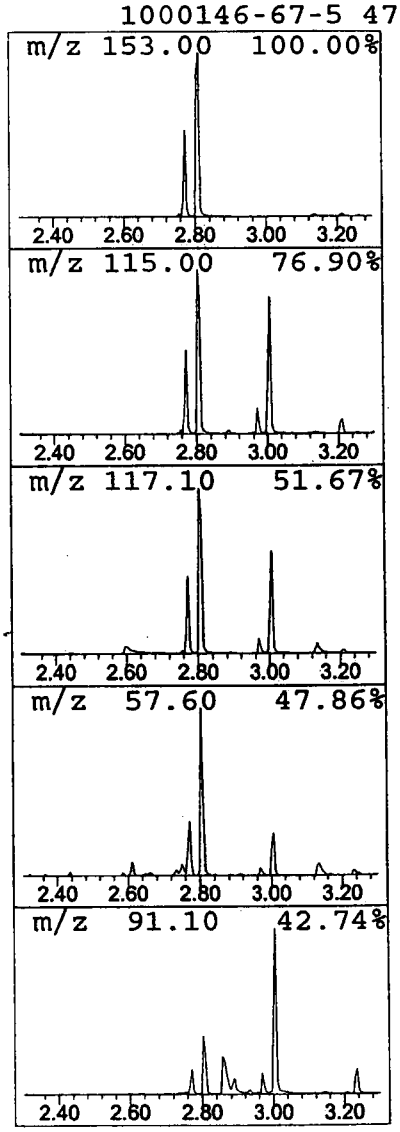
****

Peak Number 1 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.80	66.04 UG	621715	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, chloromethyl(1-methylet...	168	C10H13Cl	072403-13-5	95
2	Benzene, 2-chloro-1-methyl-4-(1-...	168	C10H13Cl	004395-79-3	94
3	Benzene, chloro-1-methyl-4-(1-me...	168	C10H13Cl	054411-19-7	62
4	4-tert-Butyl-chlorobenzene	168	C10H13Cl	1000146-67-5	47





1065

0407

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

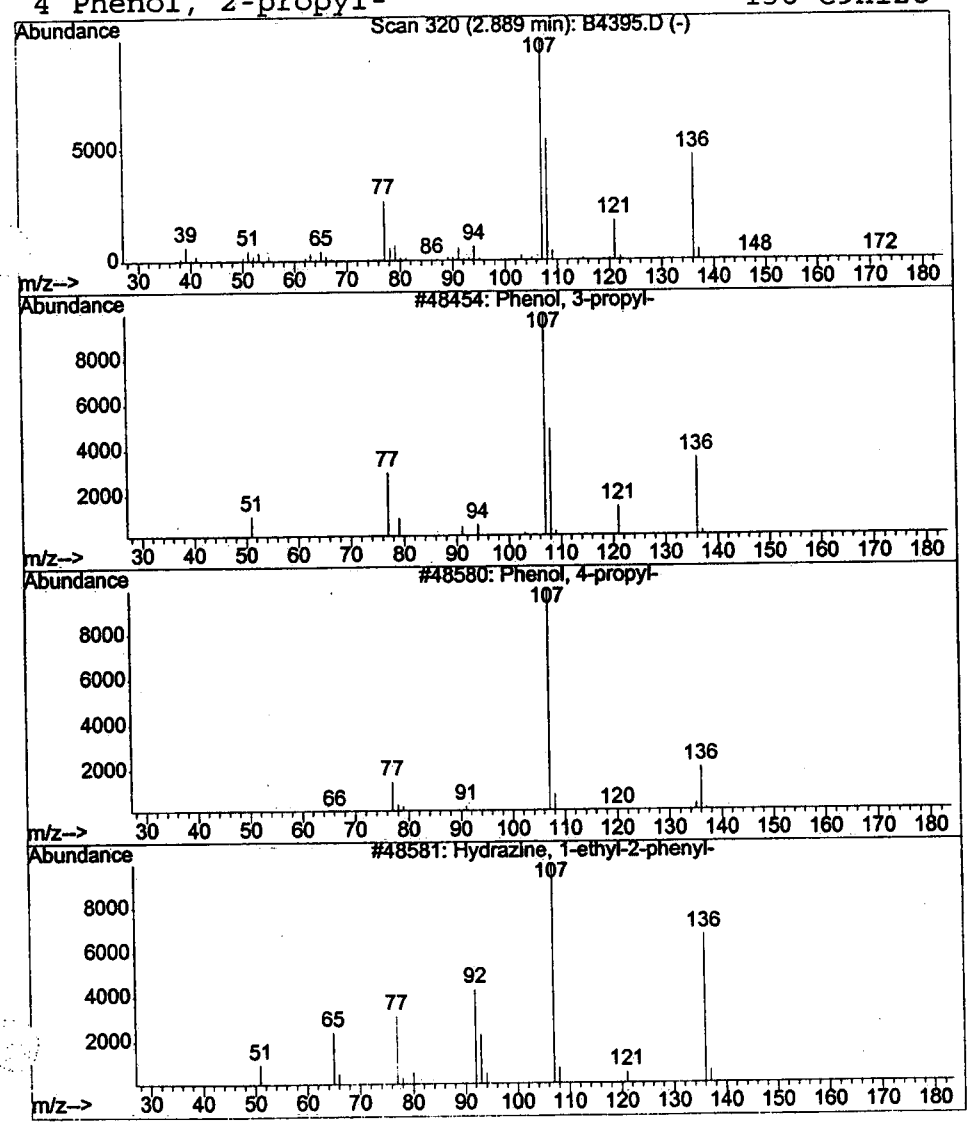
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

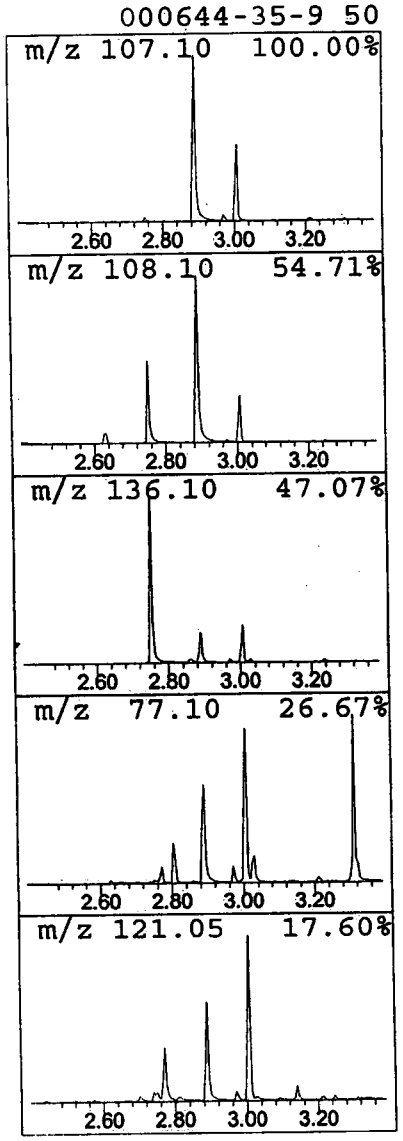
****

Peak Number 2 Substituted phenol Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.89	34.74 UG	326989	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 3-propyl-	136	C9H12O	000621-27-2	91
2	Phenol, 4-propyl-	136	C9H12O	000645-56-7	64
3	Hydrazine, 1-ethyl-2-phenyl-	136	C8H12N2	000622-82-2	59
4	Phenol, 2-propyl-	136	C9H12O	000644-35-9	50





1066

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

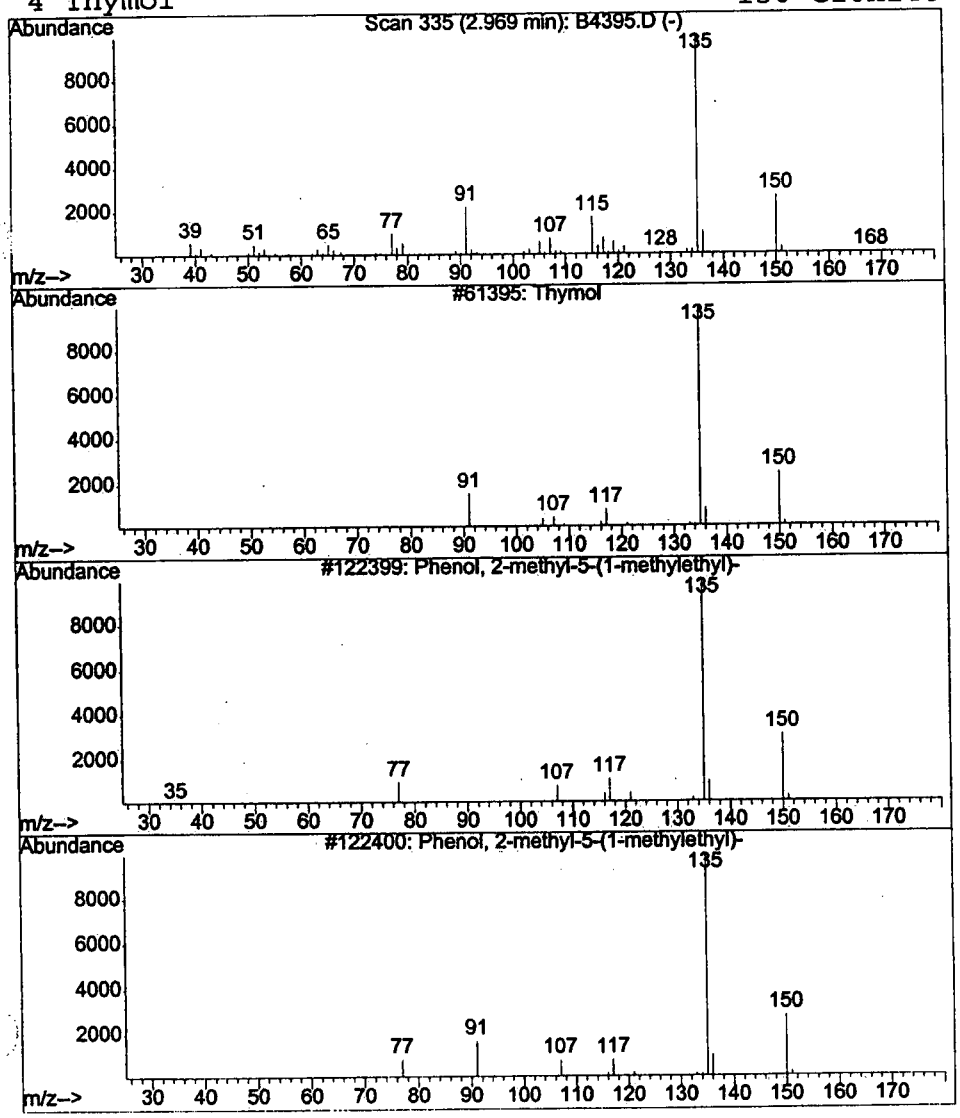
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

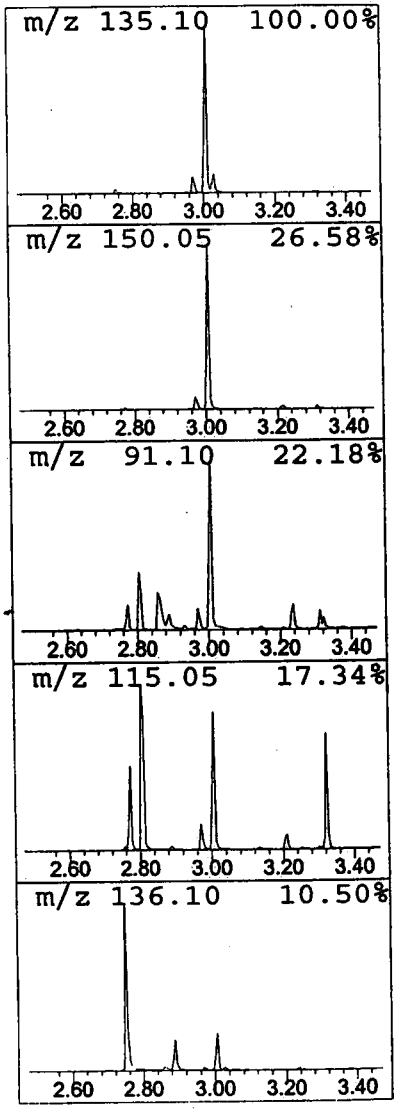
****

Peak Number 3 Substituted phenol Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.97	12.62 UG	118835	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thymol	150	C10H14O	000089-83-8	93
2	Phenol, 2-methyl-5-(1-methylethyl)-	150	C10H14O	000499-75-2	90
3	Phenol, 2-methyl-5-(1-methylethyl)-	150	C10H14O	000499-75-2	90
4	Thymol	150	C10H14O	000089-83-8	87





1067

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
LS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

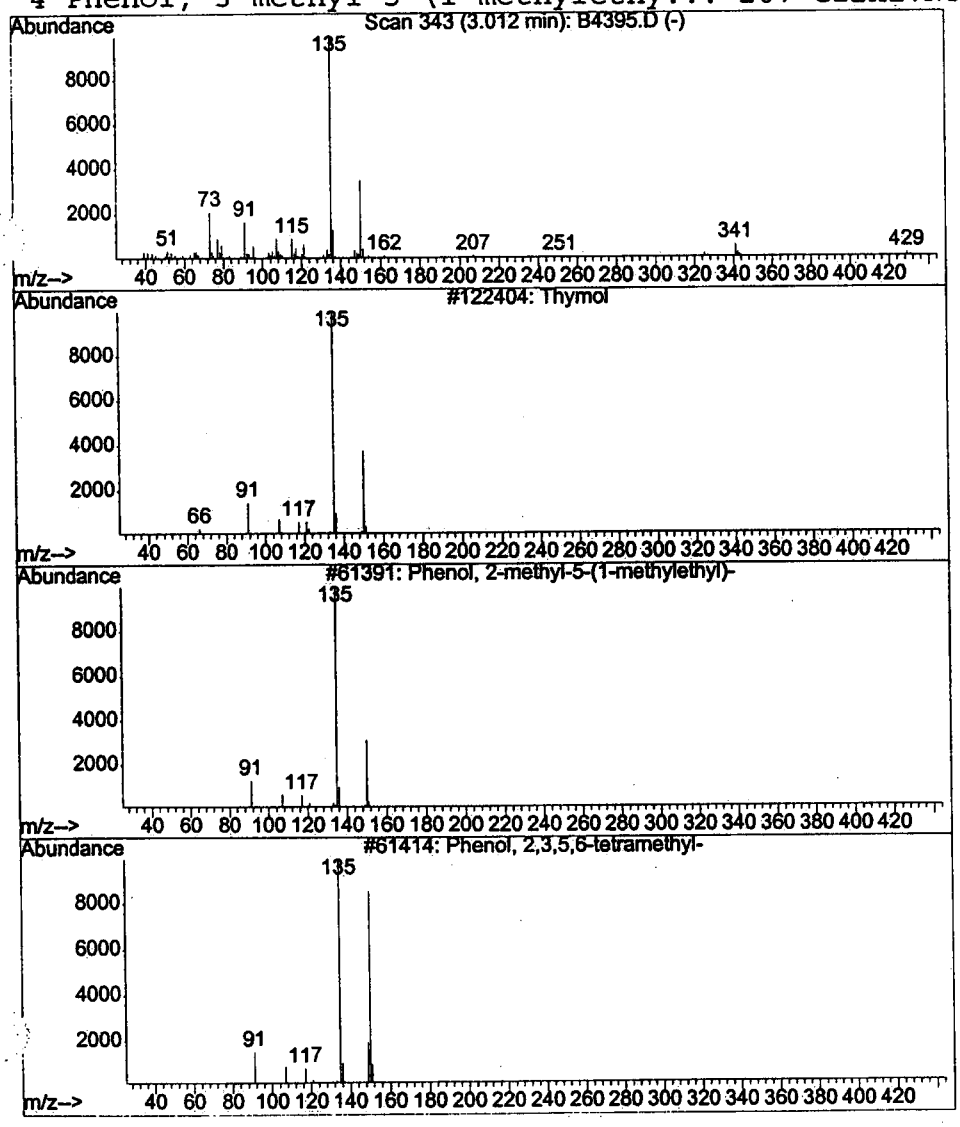
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

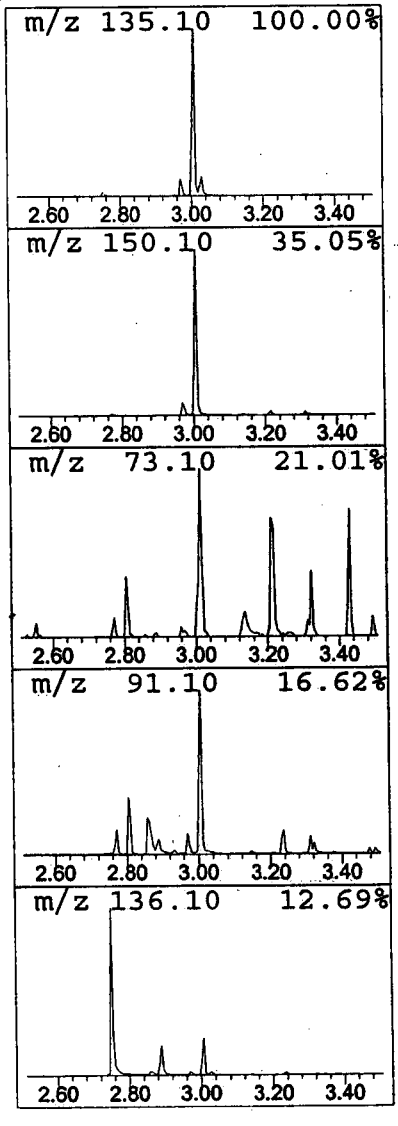
****

Peak Number 4 Substituted phenol Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.01	127.05 UG	1195950	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thymol	150	C10H14O	000089-83-8	90
2	Phenol, 2-methyl-5-(1-methylethyl)-	150	C10H14O	000499-75-2	87
3	Phenol, 2,3,5,6-tetramethyl-	150	C10H14O	000527-35-5	83
4	Phenol, 3-methyl-5-(1-methylethy...	207	C12H17NO2	002631-37-0	83





1066

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D Vial: 34
Acq On : 12 Jul 2001 12:00 Operator: JC
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

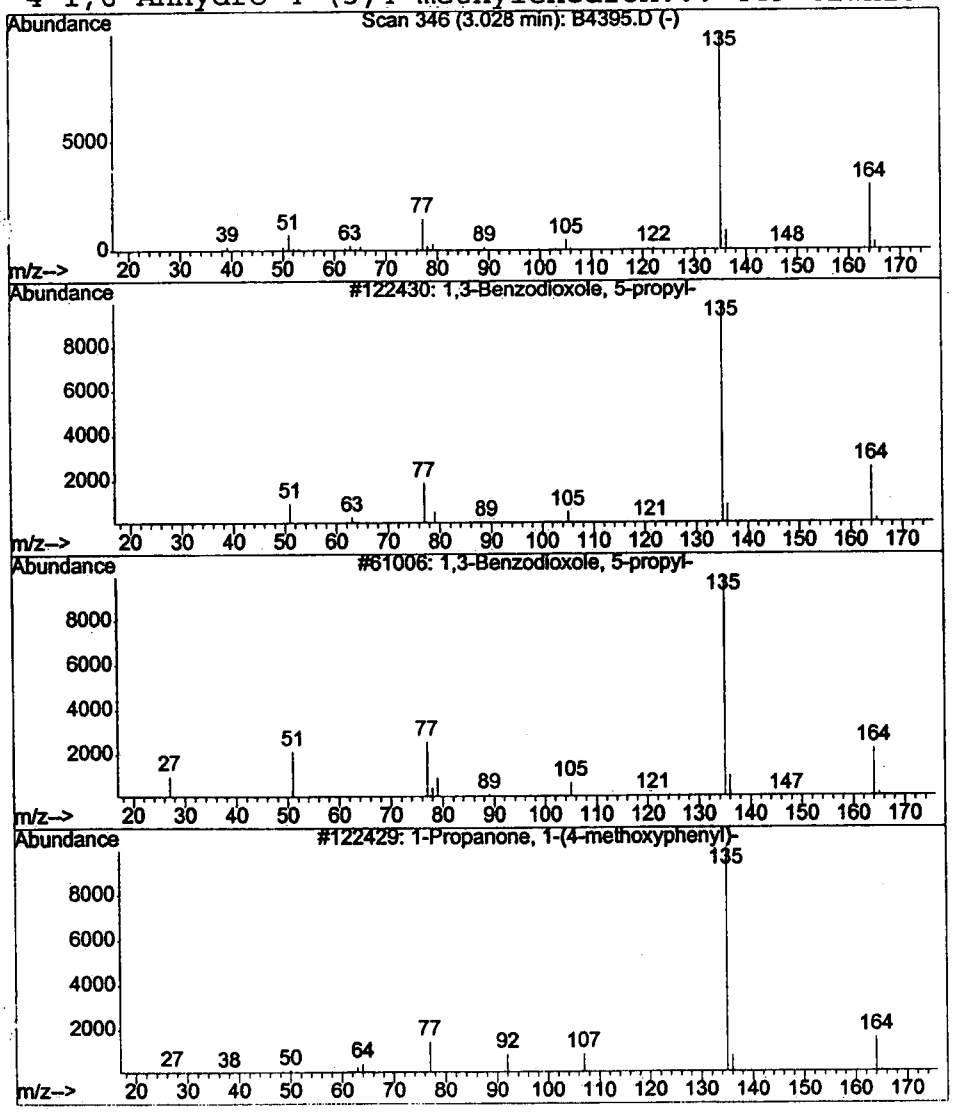
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

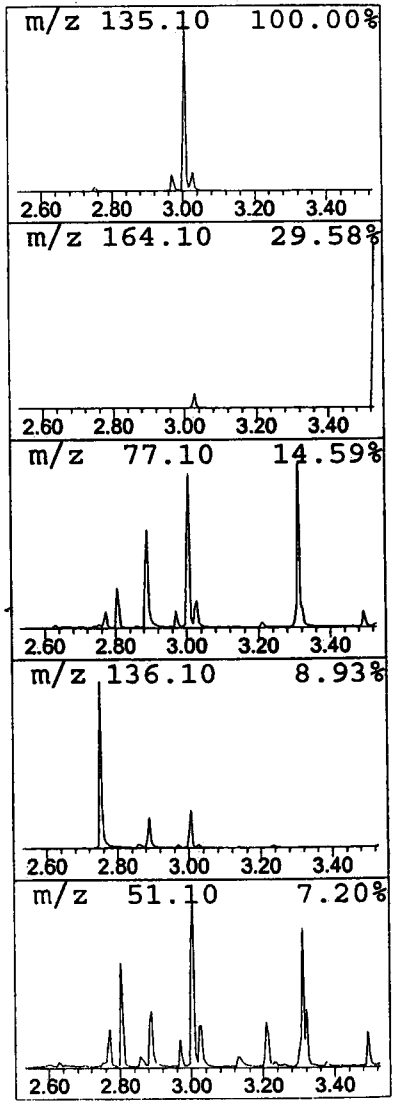
****

Peak Number 5 Unknown aromatic Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.03	13.53 UG	127383	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Benzodioxole, 5-propyl-	164	C10H12O2	000094-58-6	91
2	1,3-Benzodioxole, 5-propyl-	164	C10H12O2	000094-58-6	90
3	1-Propanone, 1-(4-methoxyphenyl)-	164	C10H12O2	000121-97-1	86
4	1,6-Anhydro-4-(3,4-methylenediox...	449	C21H23NO8S	1000223-59-0	59





0431

1069

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

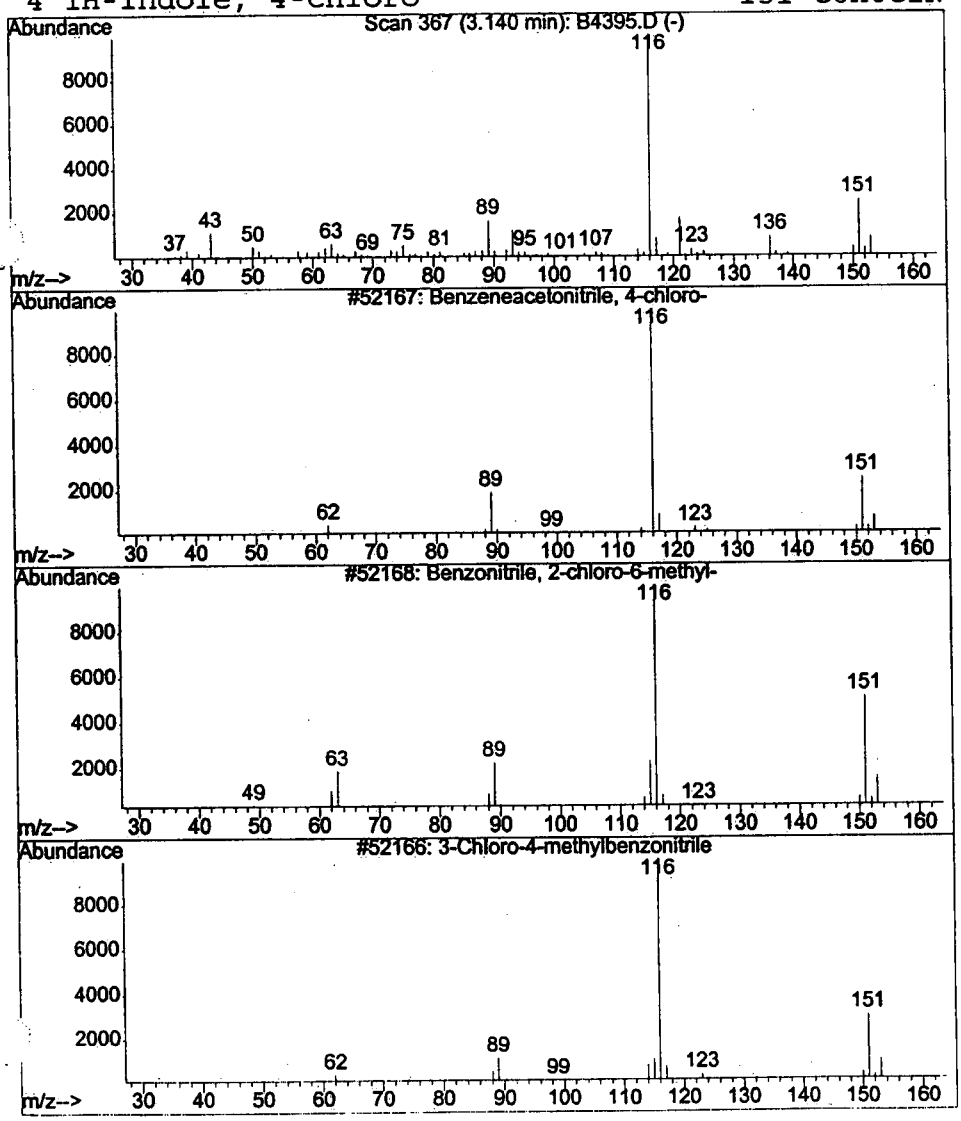
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

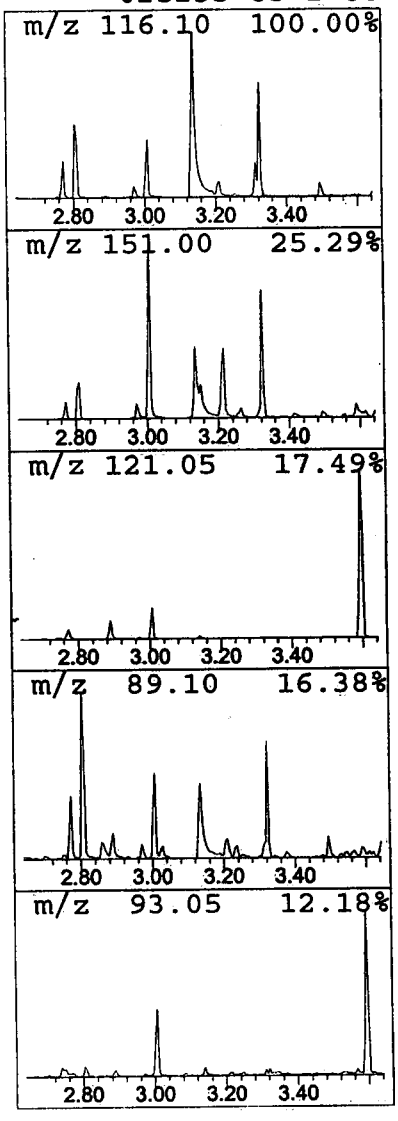
****

Peak Number 6 Unknown aromatic Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.14	13.41 UG	126228	Naphthalene-d8	2.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneacetonitrile, 4-chloro-	151	C8H6ClN	000140-53-4	96
2	Benzonitrile, 2-chloro-6-methyl-	151	C8H6ClN	006575-09-3	91
3	3-Chloro-4-methylbenzonitrile	151	C8H6ClN	021423-81-4	87
4	1H-Indole, 4-chloro-	151	C8H6ClN	025235-85-2	86





1070

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

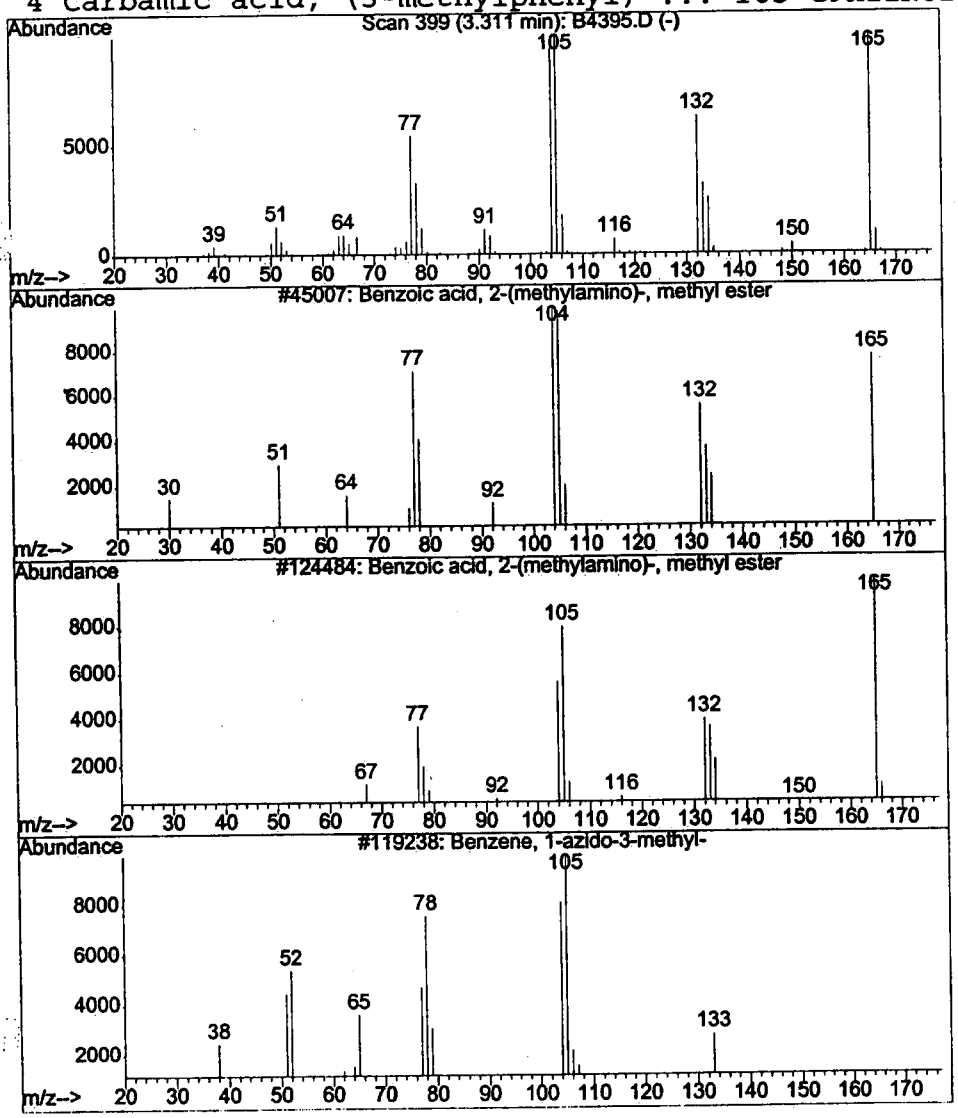
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

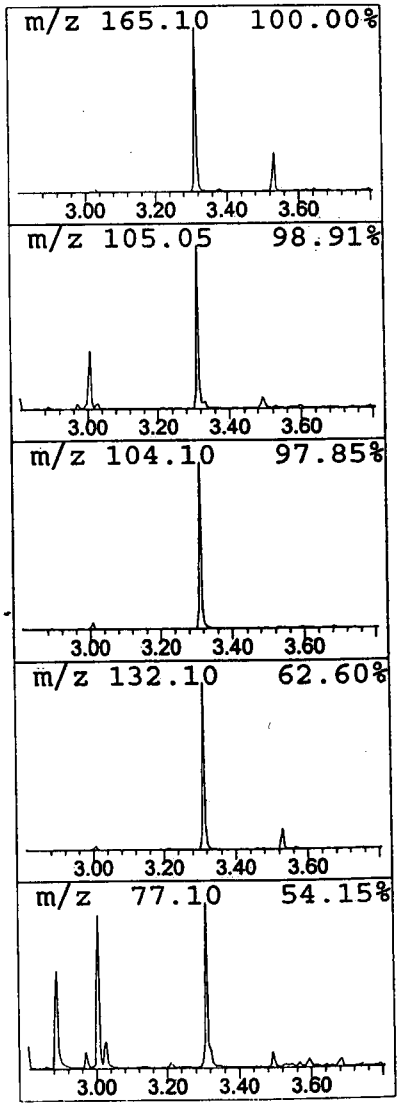
****

Peak Number 7 Substituted phenol Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.31	29.12 UG	371223	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-(methylamino)-, ...	165	C9H11NO2	000085-91-6	97
2	Benzoic acid, 2-(methylamino)-, ...	165	C9H11NO2	000085-91-6	94
3	Benzene, 1-azido-3-methyl-	133	C7H7N3	004113-72-8	38
4	Carbamic acid, (3-methylphenyl)-...	165	C9H11NO2	039076-18-1	38





1071

0433

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
isc : ENVTACT/ORBIS,07/06/01,07/07/01,1
S Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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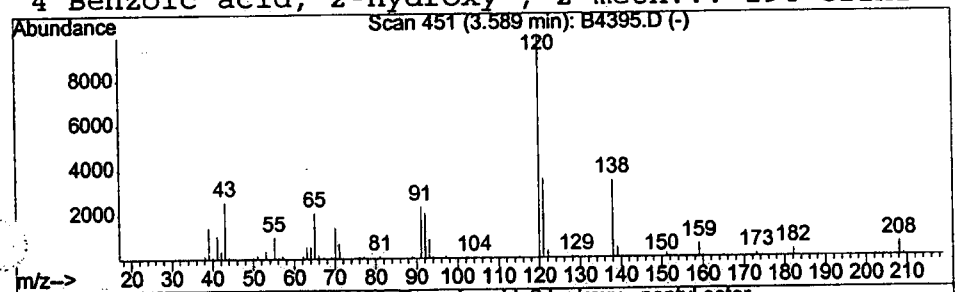
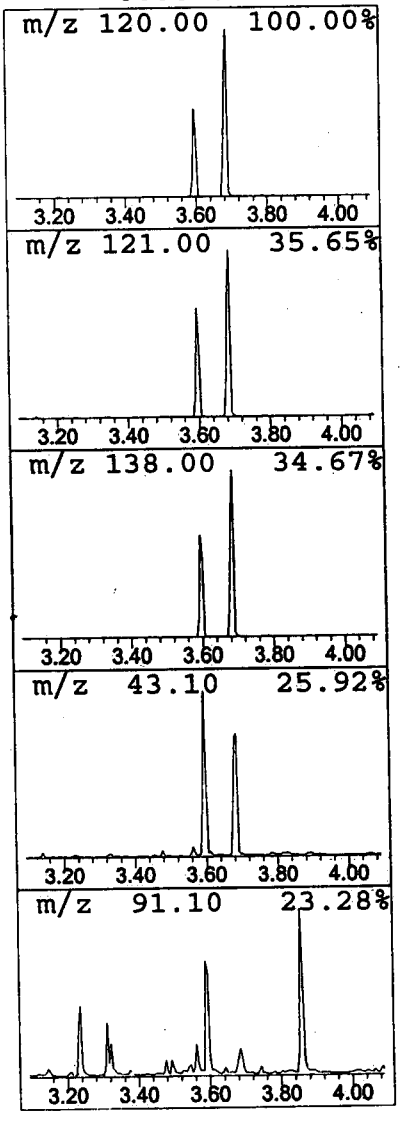
Peak Number 8 Substituted phenol Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.59	105.77 UG	1348590	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-hydroxy-, pentyl...	208	C12H16O3	002050-08-0	94
2	Benzoic acid, 2-hydroxy-, 3-meth...	208	C12H16O3	000087-20-7	94
3	Benzoic acid, 2-hydroxy-, pentyl...	208	C12H16O3	002050-08-0	91
4	Benzoic acid, 2-hydroxy-, 2-meth...	194	C11H14O3	000087-19-4	72





1072

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
IS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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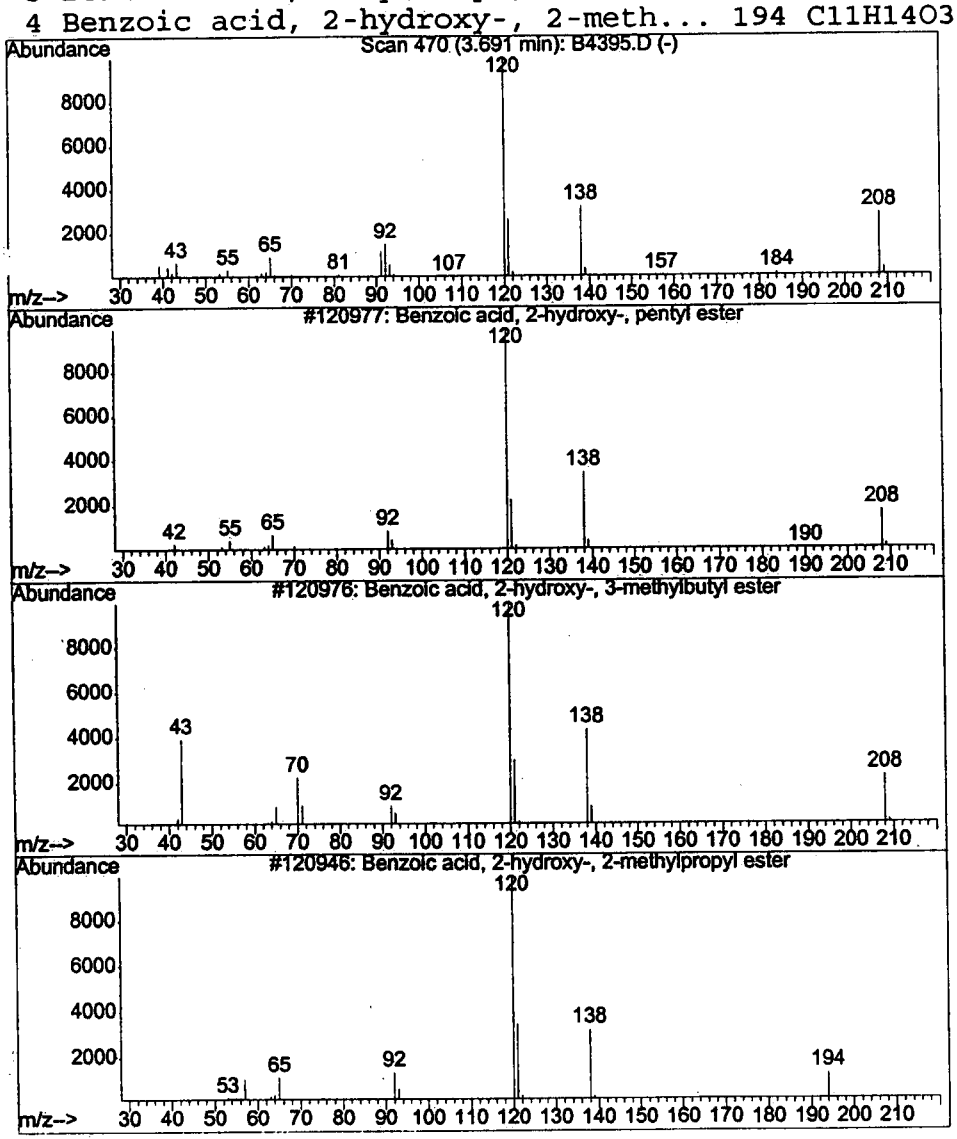
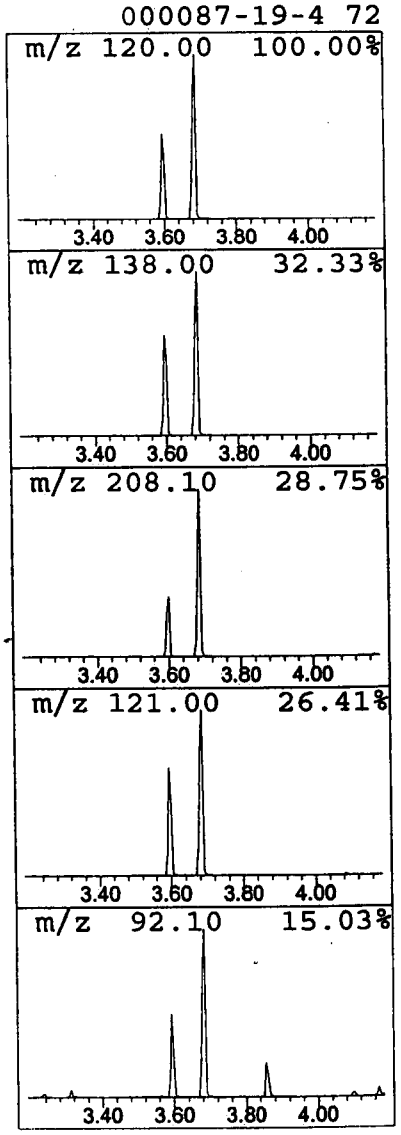
Peak Number 9 Substituted phenol Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.69	179.39 UG	2287200	Acenaphthene-d10	3.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-hydroxy-, pentyl...	208	C12H16O3	002050-08-0	91
2	Benzoic acid, 2-hydroxy-, 3-meth...	208	C12H16O3	000087-20-7	90
3	Benzoic acid, 2-hydroxy-, 2-meth...	194	C11H14O3	000087-19-4	72
4	Benzoic acid, 2-hydroxy-, 2-meth...	194	C11H14O3	000087-19-4	72





0435

1073

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
LS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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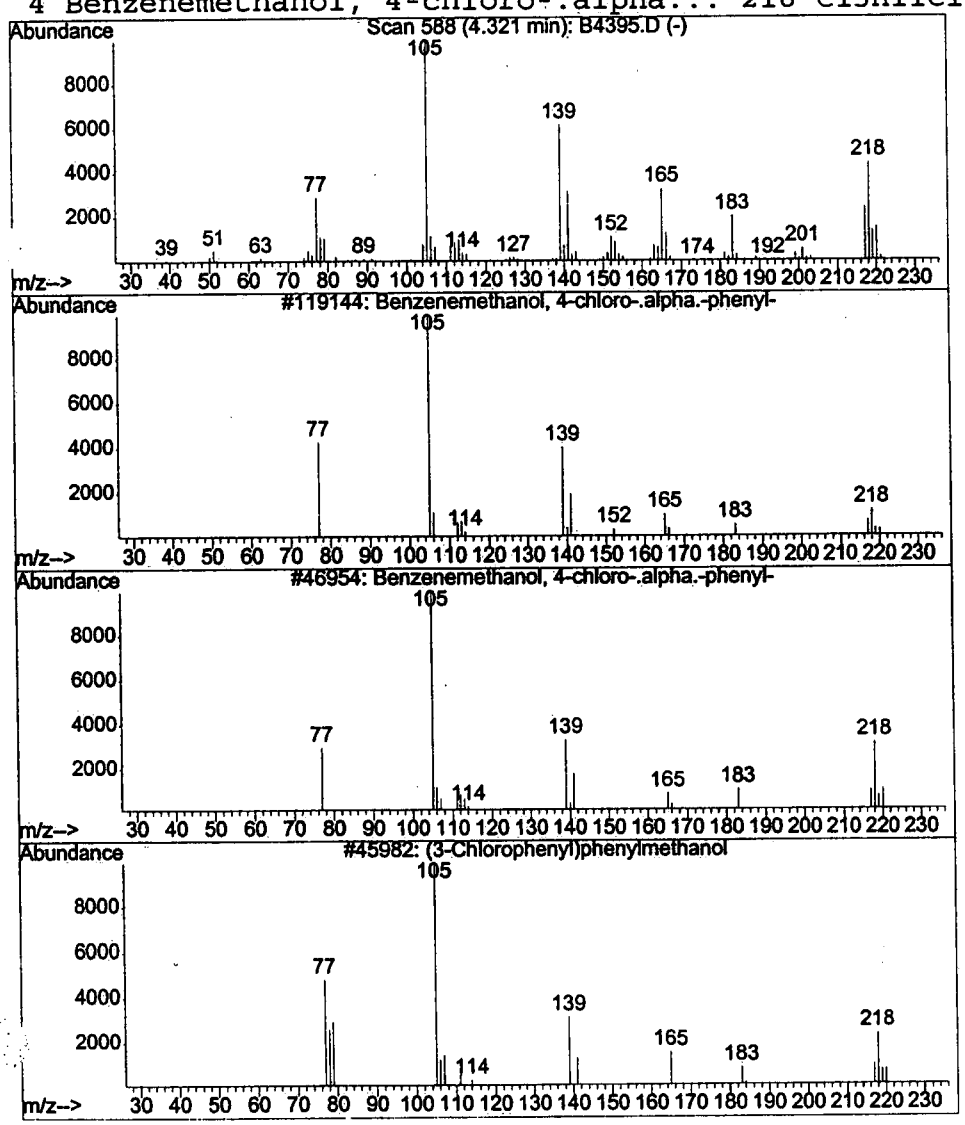
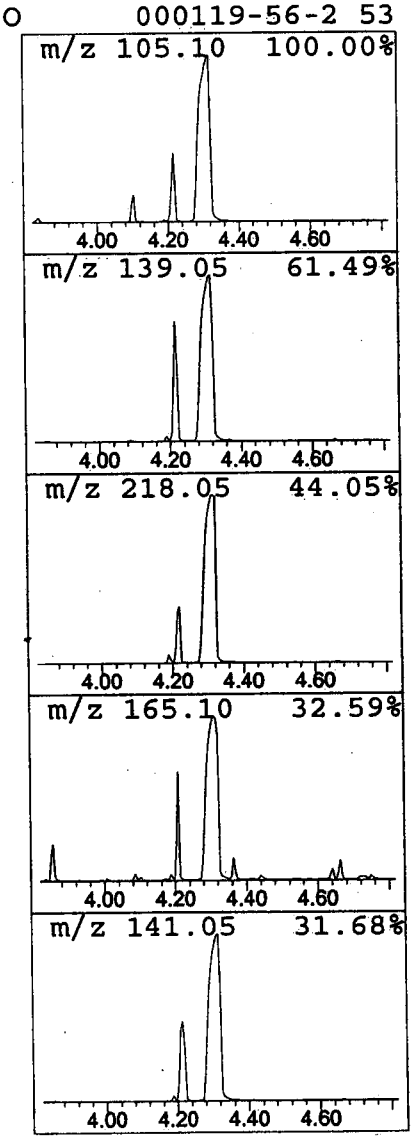
Peak Number 10 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.32	178.98 UG	10053100	Phenanthrene-d10	4.20

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenemethanol, 4-chloro-.alpha...	218	C13H11ClO	000119-56-2	97
2	Benzenemethanol, 4-chloro-.alpha...	218	C13H11ClO	000119-56-2	95
3	(3-Chlorophenyl)phenylmethanol	218	C13H11ClO	063012-03-3	89
4	Benzenemethanol, 4-chloro-.alpha...	218	C13H11ClO	000119-56-2	53





1074

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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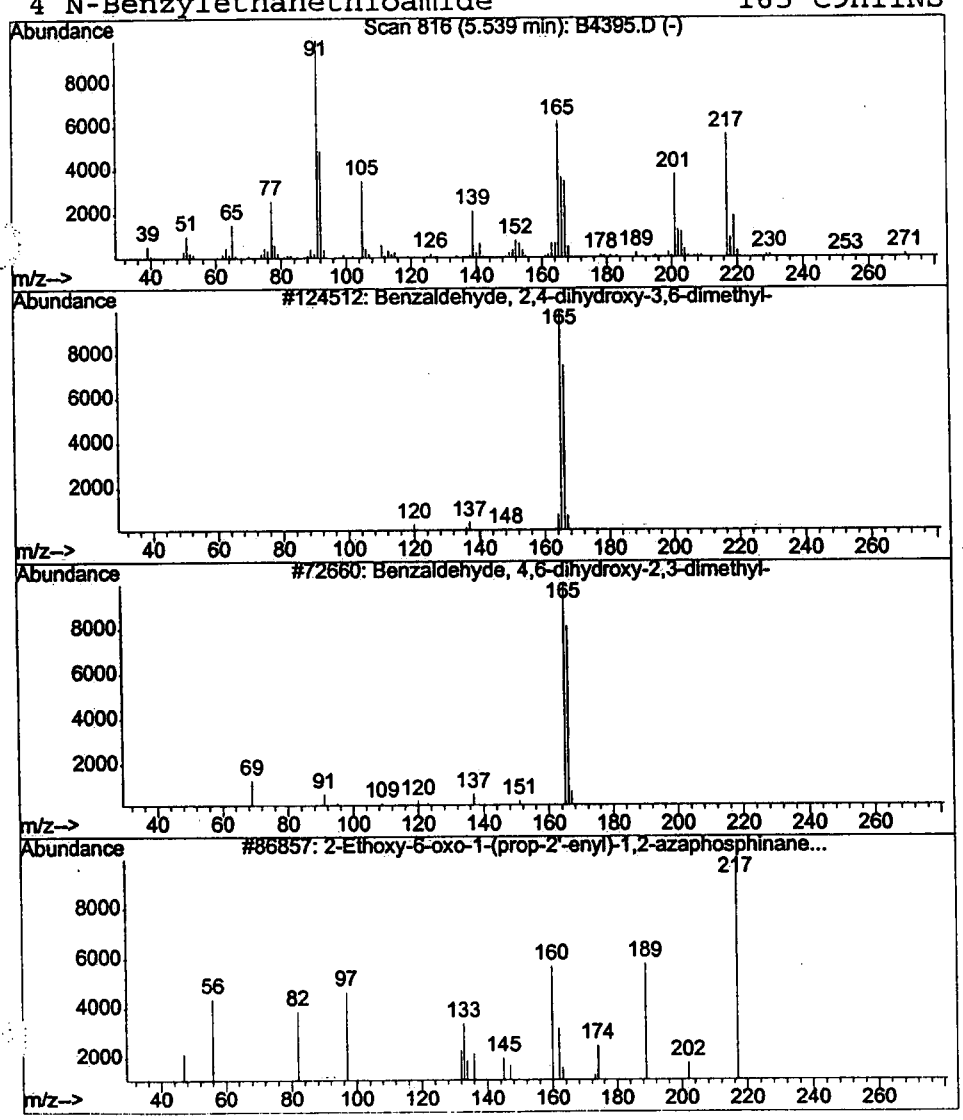
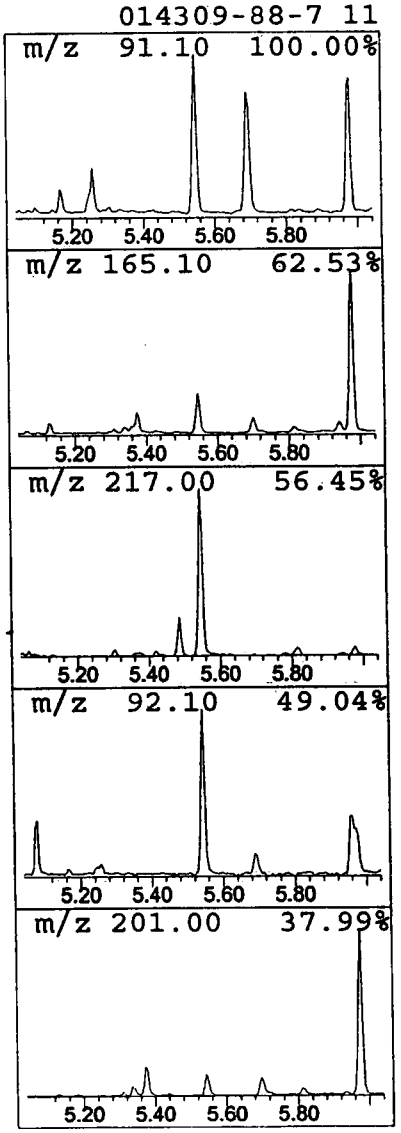
Peak Number 11 Unknown aromatic Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.54	9.25 UG	161958	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzaldehyde, 2,4-dihydroxy-3,6-...	166	C9H10O3	034883-14-2	14
2	Benzaldehyde, 4,6-dihydroxy-2,3-...	166	C9H10O3	002990-31-0	14
3	2-Ethoxy-6-oxo-1-(prop-2'-enyl)-...	217	C9H16NO3P	093939-01-6	11
4	N-Benzylethanethioamide	165	C9H11NS	014309-88-7	11





1075

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
IS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

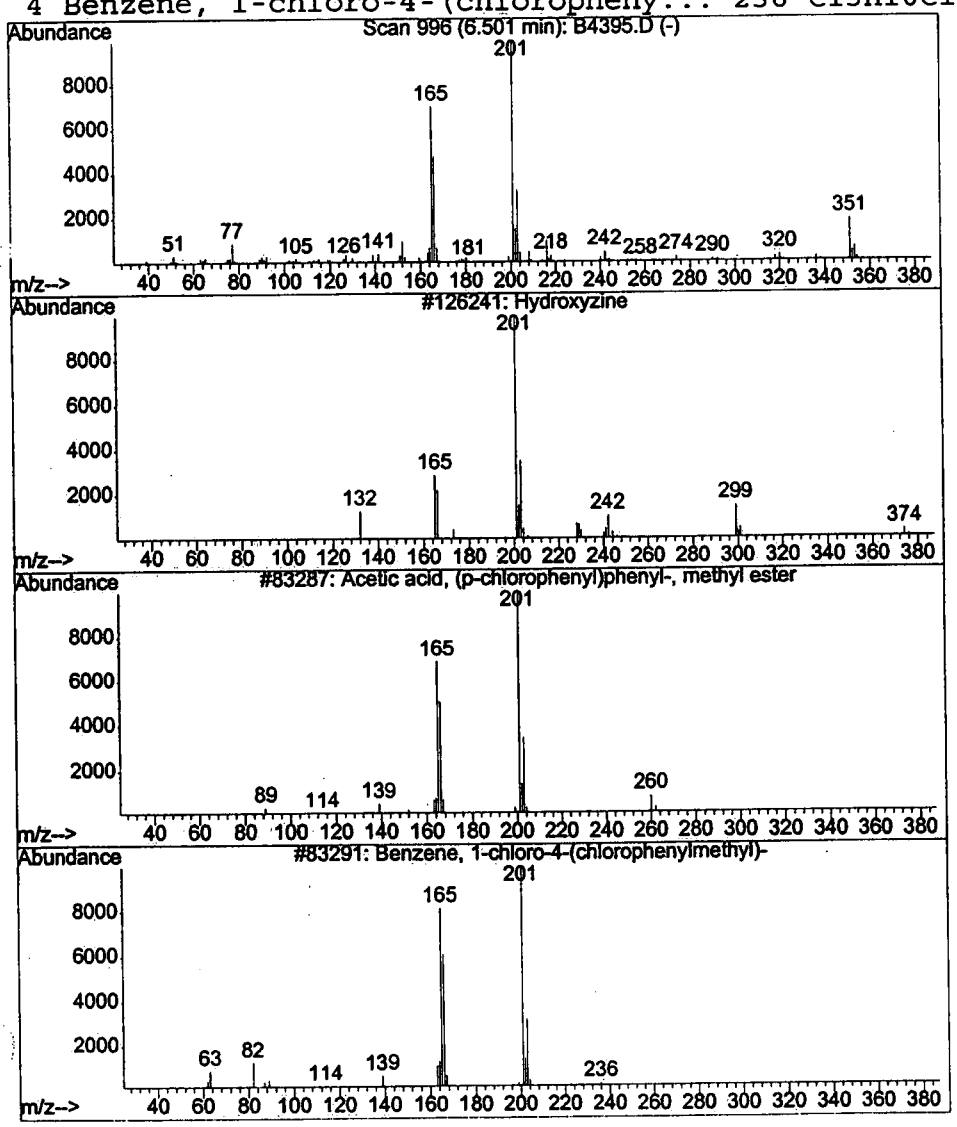
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

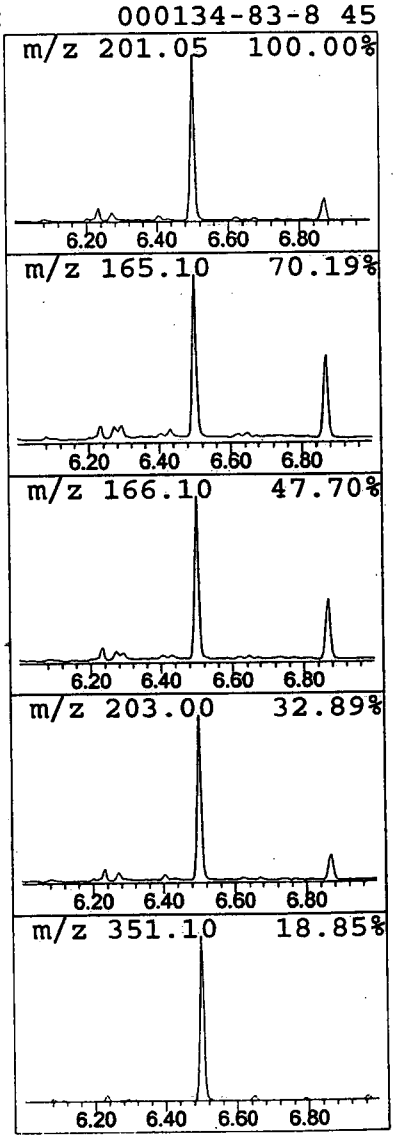
****

Peak Number 12 Unknown — Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.50	19.64 UG	344025	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydroxyzine	374	C21H27ClN2O2	000068-88-2	56
2	Acetic acid, (p-chlorophenyl)phe...	260	C15H13ClO2	005359-46-6	56
3	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	50
4	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	45





0438

1056

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D Vial: 34
Acq On : 12 Jul 2001 12:00 Operator: JC
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

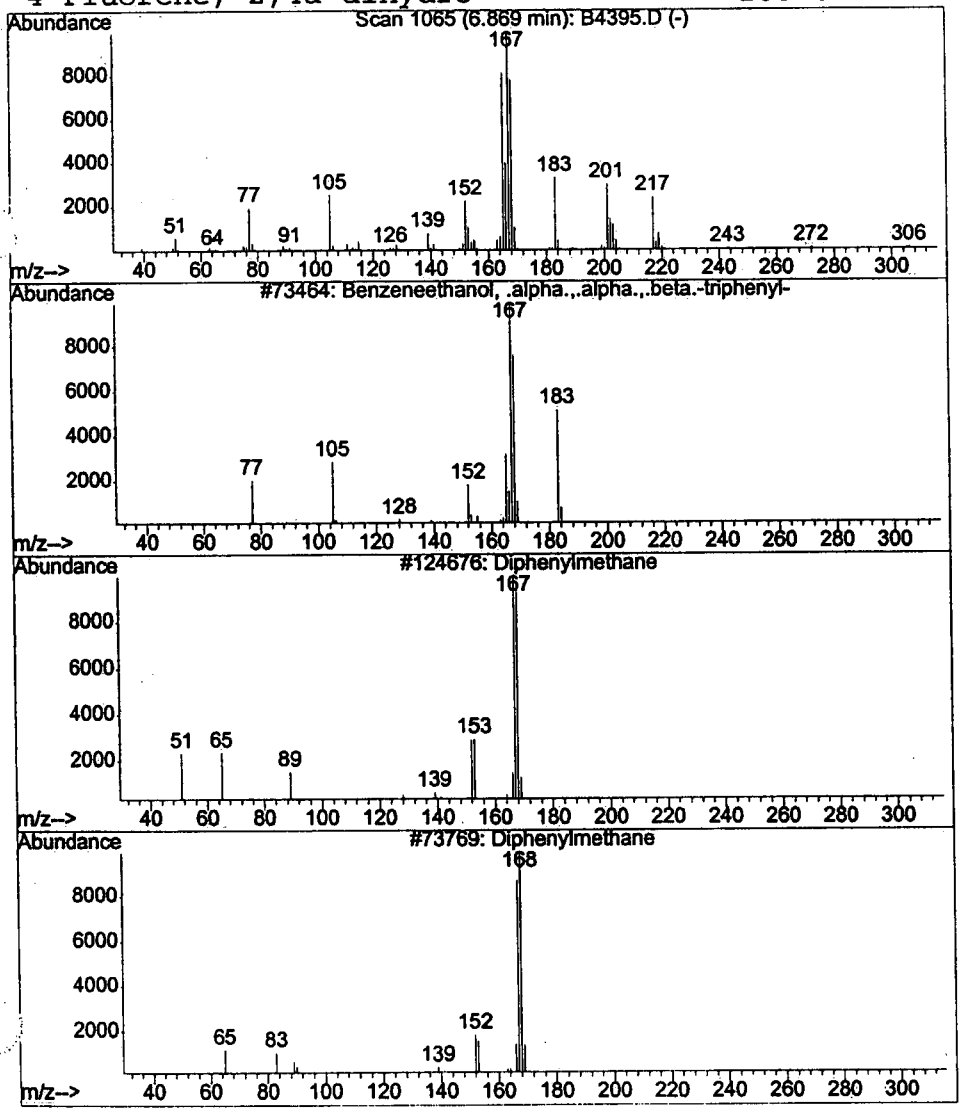
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

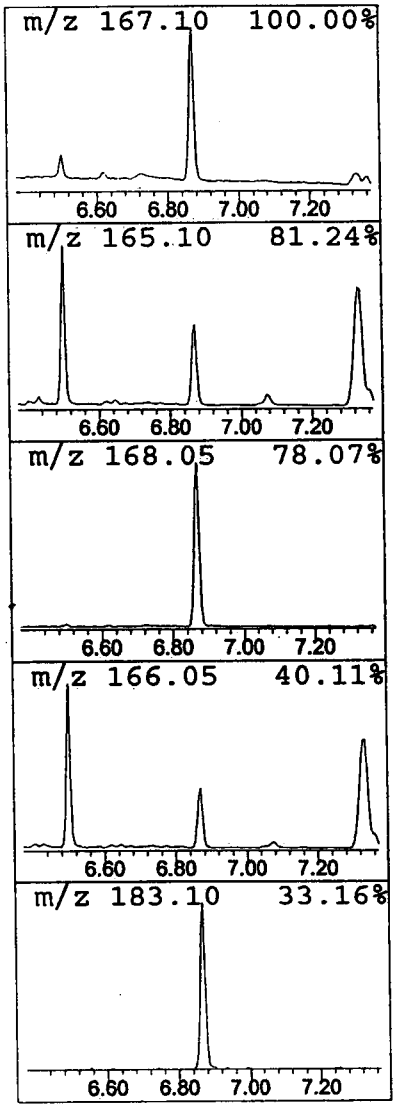
****

Peak Number 13 Unknown aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.87	31.59 UG	254383	Perylene-d12	7.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanol, .alpha.,.alpha.,...	350	C26H22O	000981-24-8	49
2	Diphenylmethane	168	C13H12	000101-81-5	45
3	Diphenylmethane	168	C13H12	000101-81-5	43
4	Fluorene, 2,4a-dihydro-	168	C13H12	059247-36-8	41





1077

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
Acq On : 12 Jul 2001 12:00
Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,1
MS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

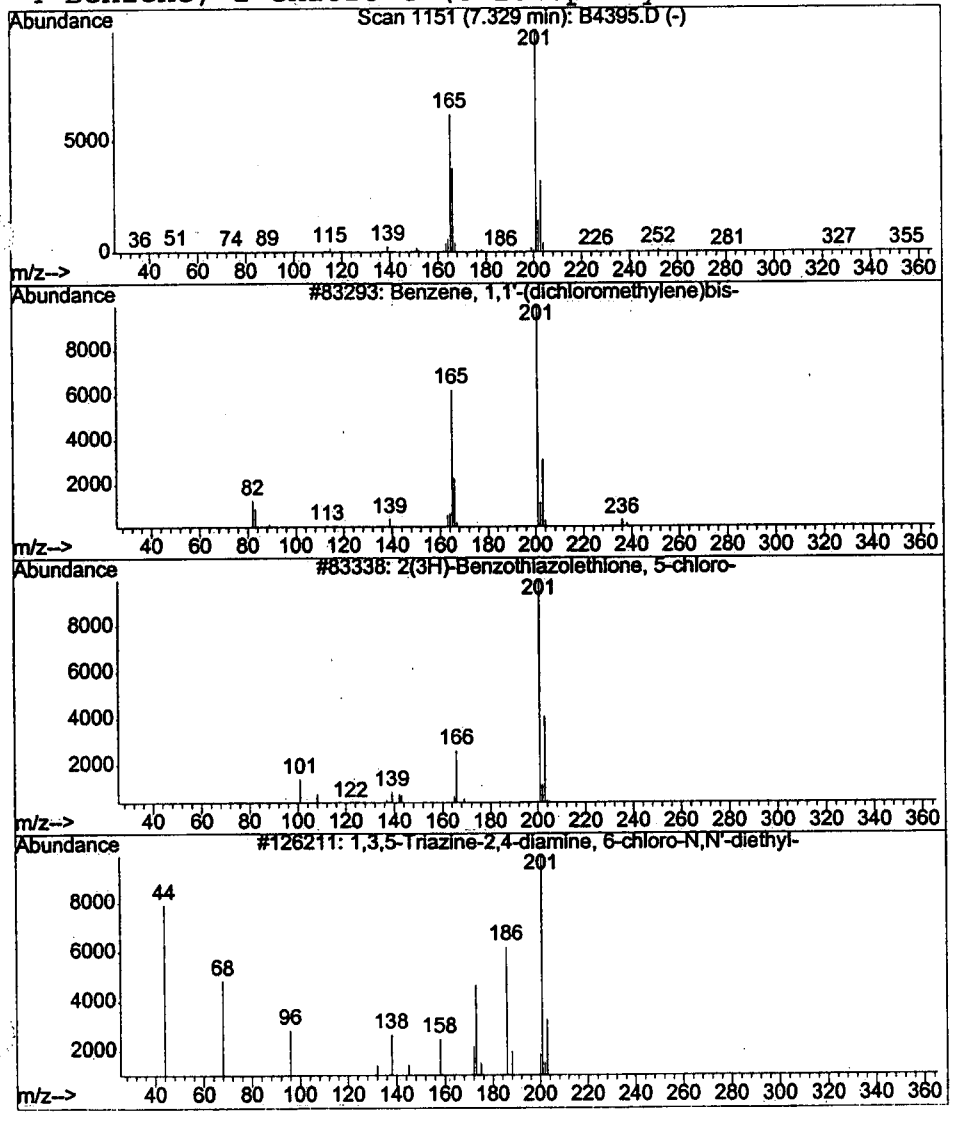
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

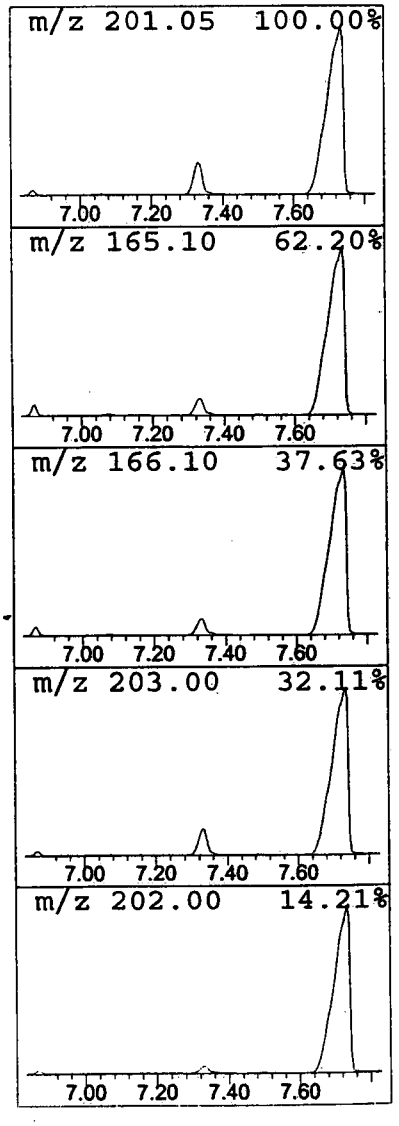
****

Peak Number 14 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.33	47.71 UG	384170	Perylene-d12	7.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-(dichloromethylene...	236	C13H10Cl2	002051-90-3	64
2	2(3H)-Benzothiazolethione, 5-chl...	201	C7H4ClNS2	005331-91-9	45
3	1,3,5-Triazine-2,4-diamine, 6-ch...	201	C7H12ClN5	000122-34-9	43
4	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	40





0440

1078

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4395.D
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Sample : S-88,4591-009,S,10.33g,12.3,07/11/01
sc : ENVTACT/ORBIS,07/06/01,07/07/01,1
IS Integration Params: LSCINT.P

Vial: 34
Operator: JC
Inst : MSD_B
Multiplr: 1.00

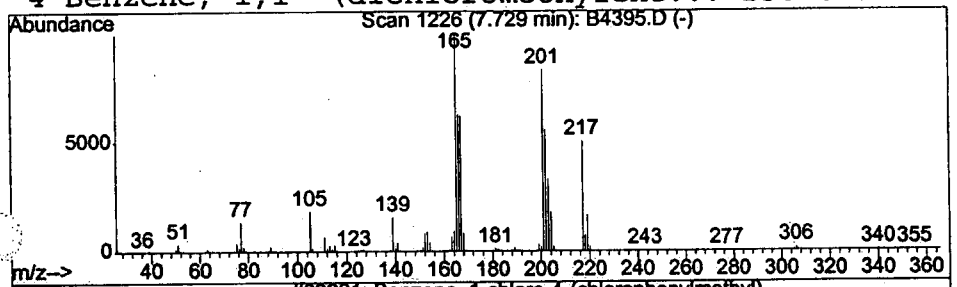
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

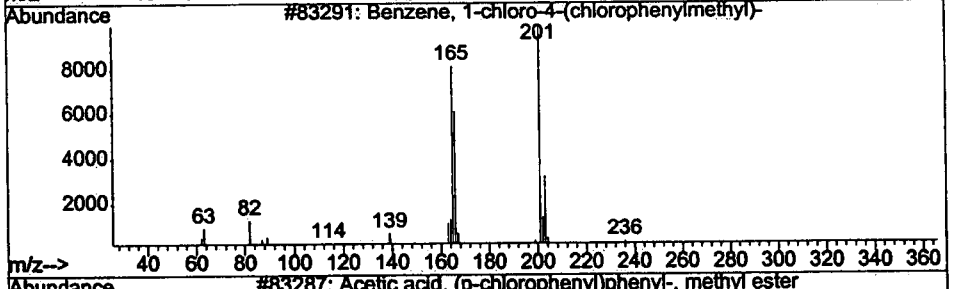
****

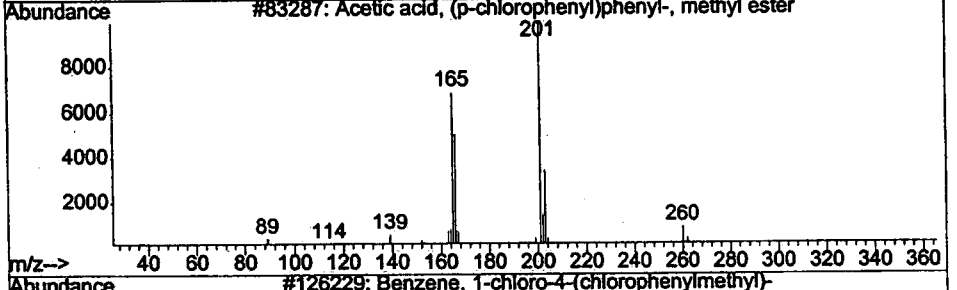
Peak Number 15 Unknown aromatic Concentration Rank 1

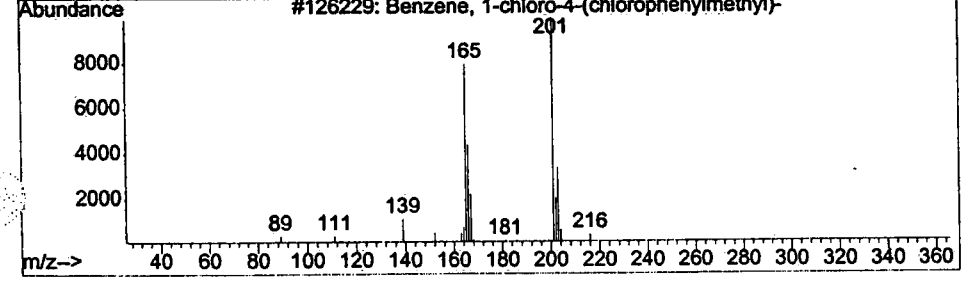
R.T.	EstConc	Area	Relative to ISTD	R.T.
7.73	1267.71 UG	10207200	Perylene-d12	7.24

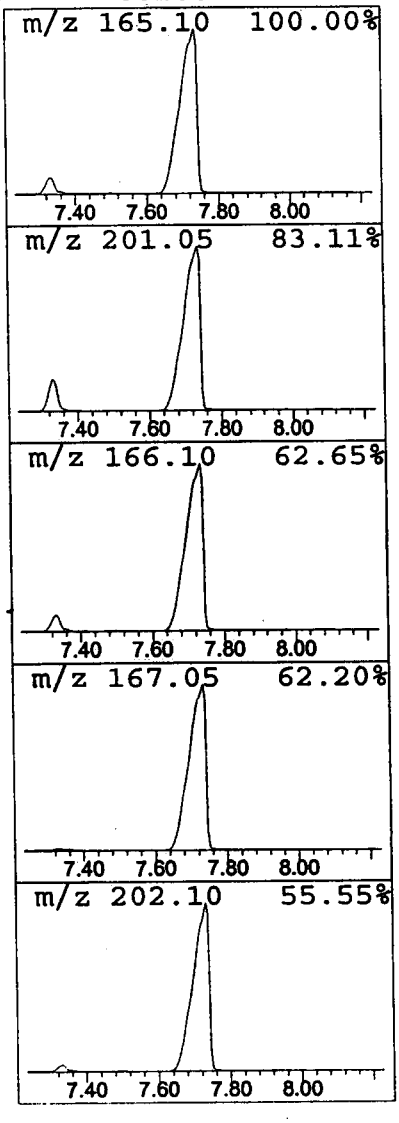
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	40
2	Acetic acid, (p-chlorophenyl)phe...	260	C15H13ClO2	005359-46-6	25
3	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	25
4	Benzene, 1,1'-(dichloromethylene...	236	C13H10Cl2	002051-90-3	25











1079

0447

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-11-01\B4353.D Vial: 4
Acq On : 11 Jul 2001 13:32 Operator: JC
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01 Inst : MSD_B
Misc : N/A,N/A,N/A,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 13:42:54 2001 Quant Results File: BS1801.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration
DataAcq Meth : BS1801

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.22	152	38326	40.00	UG	0.00
22) Naphthalene-d8	2.76	136	213124	40.00	UG	-0.01
39) Acenaphthene-d10	3.54	164	120991	40.00	UG	-0.01
60) Phenanthrene-d10	4.22	188	221828	40.00	UG	0.00
75) Chrysene-d12	6.00	240	177047	40.00	UG	0.02
84) Perylene-d12	7.25	264	142288	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	1.71	112	78498m	78.81	UG	0.00
Spiked Amount 100.000	Range 41 - 85		Recovery = 78.81%			
6) Phenol-d5	2.06	99	119960	81.96	UG	0.00
Spiked Amount 100.000	Range 43 - 102		Recovery = 81.96%			
23) Nitrobenzene-d5	2.45	82	69308	39.20	UG	0.00
Spiked Amount 50.000	Range 43 - 87		Recovery = 78.40%			
43) 2-Fluorobiphenyl	3.22	172	149037	38.69	UG	-0.01
Spiked Amount 50.000	Range 40 - 97		Recovery = 77.38%			
64) 2,4,6-Tribromophenol	3.90	330	63867	86.48	UG	0.00
Spiked Amount 100.000	Range 60 - 128		Recovery = 86.48%			
77) Terphenyl-d14	5.11	244	214584	44.83	UG	0.00
Spiked Amount 50.000	Range 42 - 128		Recovery = 89.66%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

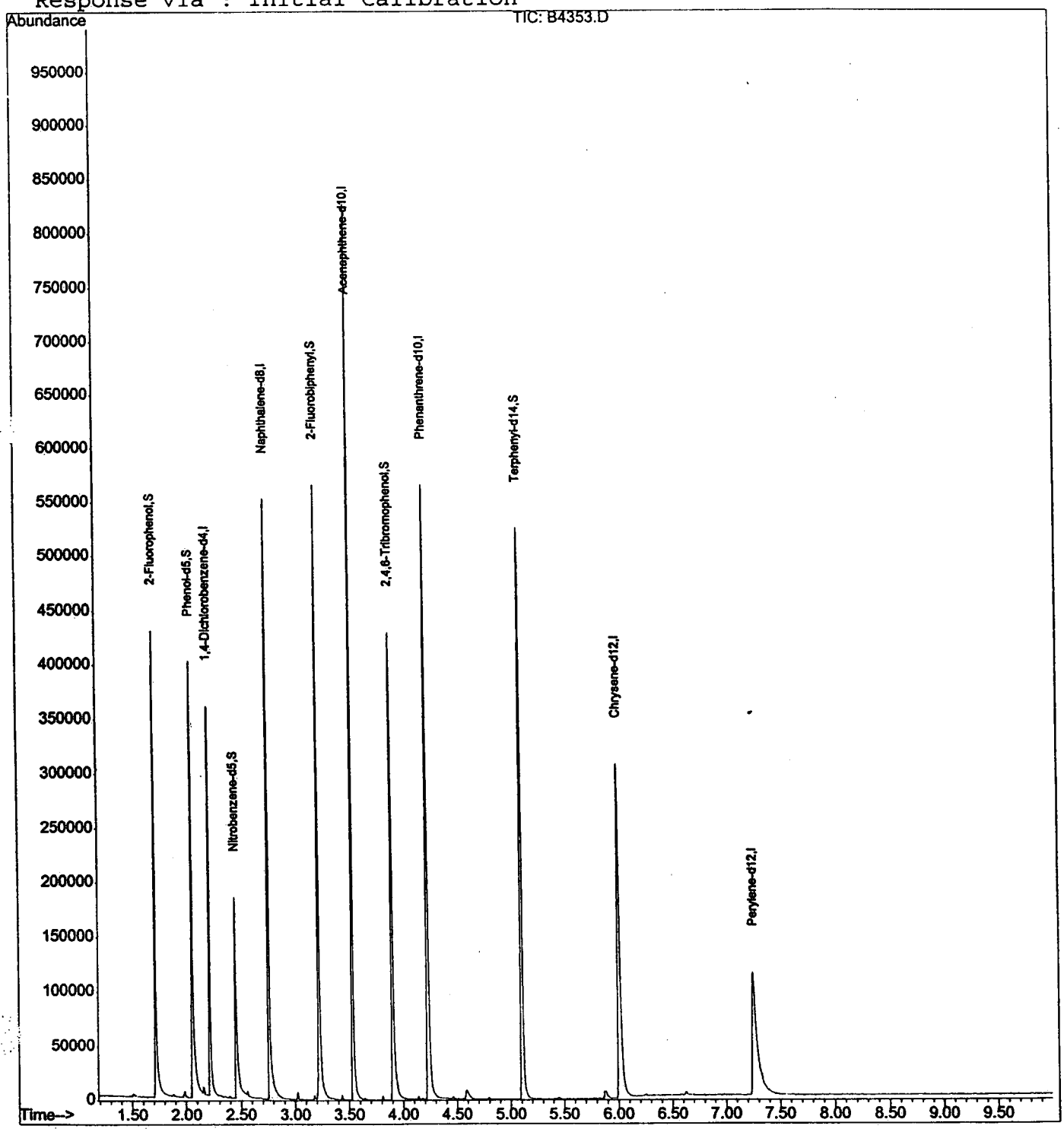
NAAO

10860

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-11-01\B4353.D Vial: 4
Acq On : 11 Jul 2001 13:32 Operator: JC
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01 Inst : MSD_B
Misc : N/A,N/A,N/A,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 13:44 2001 Quant Results File: BS1801.RES

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration



10981

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-11-01\B4353.D Vial: 4
Acq On : 11 Jul 2001 13:32 Operator: JC
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01 Inst : MSD_B
Misc : N/A,N/A,N/A,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

No Library Search Compounds Detected

****
B4353.D BS1801.M Wed Jul 11 13:45:42 2001 MSD_B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4382.D Vial: 27
Acq On : 12 Jul 2001 8:35 Operator: JC
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01 Inst : MSD_B
Misc : N/A,N/A,N/A,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 12 08:56:50 2001 Quant Results File: BS1801.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration
DataAcq Meth : BS1801

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.21	152	44514	40.00	UG	-0.01
22) Naphthalene-d8	2.75	136	234295	40.00	UG	-0.02
39) Acenaphthene-d10	3.53	164	140144	40.00	UG	-0.02
60) Phenanthrene-d10	4.22	188	256359	40.00	UG	-0.01
75) Chrysene-d12	5.98	240	212240	40.00	UG	0.00
84) Perylene-d12	7.25	264	173653	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	1.71	112	87941	76.01	UG	0.00
Spiked Amount 100.000	Range 41 - 85		Recovery = 76.01%			
6) Phenol-d5	2.06	99	122308	71.94	UG	0.00
Spiked Amount 100.000	Range 43 - 102		Recovery = 71.94%			
23) Nitrobenzene-d5	2.45	82	67977	34.97	UG	-0.01
Spiked Amount 50.000	Range 43 - 87		Recovery = 69.94%			
43) 2-Fluorobiphenyl	3.22	172	159075	35.65	UG	-0.02
Spiked Amount 50.000	Range 40 - 97		Recovery = 71.30%			
64) 2,4,6-Tribromophenol	3.90	330	70987	83.17	UG	-0.01
Spiked Amount 100.000	Range 60 - 128		Recovery = 83.17%			
77) Terphenyl-d14	5.09	244	249312	43.45	UG	-0.02
Spiked Amount 50.000	Range 42 - 128		Recovery = 86.90%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

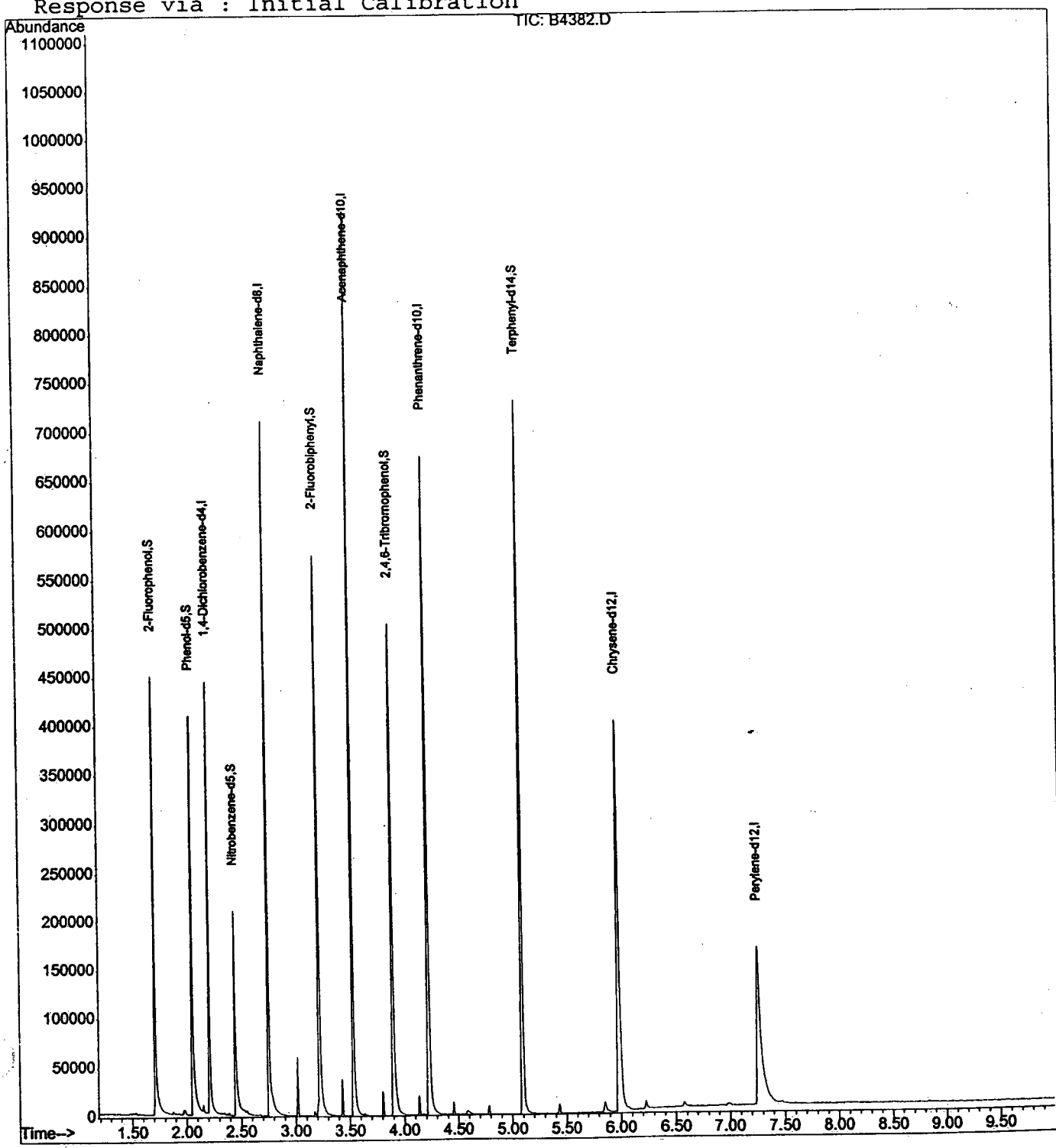
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4382.D
Acq On : 12 Jul 2001 8:35
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01
Misc : N/A,N/A,N/A,1
MS Integration Params: rteint.p
Quant Time: Jul 12 10:18 2001

Vial: 27
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Results File: BS1801.RES

Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jun 20 13:09:00 2001
Response via : Initial Calibration



10404

DAA

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-12-01\B4382.D
Acq On : 12 Jul 2001 8:35
Sample : .,Method-Blk,S,30.0g,0.0,07/11/01
Misc : N/A,N/A,N/A,1
MS Integration Params: LSCINT.P
Quant Method : C:\MSDCHEM\1\METHODS\BS1801.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

Vial: 27
Operator: JC
Inst : MSD_B
Multiplr: 1.00

No Library Search Compounds Detected

****
B4382.D BS1801.M Thu Jul 12 10:18:28 2001 MSD_B

PCB METHOD BLANK SUMMARY

Lab File ID: R5170.D

Instrument ID: GC-R

Date Extracted: 07/10/2001

Matrix: SOIL

Date Analyzed: 07/10/2001

Time Analyzed: 13:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SS-6A	4366-001	07/10/2001	13:30
SS-6B	4366-002	07/10/2001	13:56
SS-13A	4366-003	07/10/2001	14:22
SS-13B	4366-004	07/10/2001	14:49
SS-18A	4366-005	07/10/2001	15:15
SS-18B	4366-006	07/10/2001	15:41
SS-22A	4366-007	07/10/2001	16:07
SS-23A	4366-008	07/10/2001	16:34
SS-23B	4366-009	07/10/2001	17:00
SS-24A	4366-010	07/10/2001	17:26
SS-24B	4366-011	07/10/2001	17:52
SS-26A	4366-012	07/10/2001	18:19
SS-27A	4366-014	07/10/2001	19:11
SS-28A	4366-015	07/10/2001	19:38
SS-28B	4366-016	07/10/2001	20:04
PCB	4366-016-MS1	07/10/2001	20:30
PCB	4366-016-MSD1	07/10/2001	20:56
PCB	PBS0710-MS1	07/10/2001	21:22

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 0710-BLK1
Client ID: (4366)
Date Received: NA
Date Extracted: 07/10/2001
Date Analyzed: 07/10/2001
Data file: R5170.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.668
Aroclor-1221	ND		0.668
Aroclor-1232	ND		0.668
Aroclor-1242	ND		0.668
Aroclor-1248	ND		0.668
Aroclor-1254	ND		0.668
Aroclor-1260	ND		0.668

0449

1087

PCB METHOD BLANK SUMMARY

Lab File ID: R5257.D

Instrument ID: GC-R

Date Extracted: 07/12/2001

Matrix: SOIL

Date Analyzed: 07/12/2001

Time Analyzed: 16:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-94A	4590-004	07/12/2001	17:07
S-94B	4590-005	07/12/2001	17:33
SP-1	4582-001	07/12/2001	18:26
PCB	PBS0712-MS2	07/12/2001	18:52

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 0712-BLK2
Client ID: (4581..4590)
Date Received: NA
Date Extracted: 07/12/2001
Date Analyzed: 07/12/2001
Data file: R5257.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.668
Aroclor-1221	ND		0.668
Aroclor-1232	ND		0.668
Aroclor-1242	ND		0.668
Aroclor-1248	ND		0.668
Aroclor-1254	ND		0.668
Aroclor-1260	ND		0.668

1089

0451

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (1st): DB-5

Data File: R5197.D R5198.D R5199.D R5200.D R5201.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	50	100	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.68	4.68	4.68	4.68	4.67	4.68	4.61	4.75
Aroclor-1016 {2}	6.06	6.06	6.06	6.06	6.06	6.06	5.99	6.13
Aroclor-1016 {3}	7.01	7.01	7.01	7.01	7.01	7.01	6.94	7.08
Aroclor-1016 {4}	7.82	7.82	7.82	7.82	7.82	7.82	7.75	7.89
Aroclor-1016 {5}	8.26	8.27	8.27	8.27	8.27	8.27	8.20	8.34
Aroclor-1221			2.96				2.89	3.03
Aroclor-1221 {2}			4.35				4.28	4.42
Aroclor-1221 {3}			4.56				4.49	4.63
Aroclor-1221 {4}			4.68				4.61	4.75
Aroclor-1221 {5}			5.66				5.59	5.73
Aroclor-1232			4.68				4.61	4.75
Aroclor-1232 {2}			6.06				5.99	6.13
Aroclor-1232 {3}			7.01				6.94	7.08
Aroclor-1232 {4}			7.82				7.75	7.89
Aroclor-1232 {5}			8.61				8.54	8.68
Aroclor-1242			6.06				5.99	6.13
Aroclor-1242 {2}			7.82				7.75	7.89
Aroclor-1242 {3}			8.36				8.29	8.43
Aroclor-1242 {4}			9.52				9.45	9.59
Aroclor-1242 {5}			10.01				9.94	10.08
Aroclor-1248			6.76				6.69	6.83
Aroclor-1248 {2}			7.82				7.75	7.89
Aroclor-1248 {3}			8.36				8.29	8.43
Aroclor-1248 {4}			9.52				9.45	9.59
Aroclor-1248 {5}			10.01				9.94	10.08
Aroclor-1254			10.25				10.18	10.32
Aroclor-1254 {2}			11.05				10.98	11.12
Aroclor-1254 {3}			11.35				11.28	11.42
Aroclor-1254 {4}			12.17				12.10	12.24
Aroclor-1254 {5}			12.92				12.85	12.99
Aroclor-1260	13.75	13.75	13.75	13.75	13.75	13.75	13.68	13.82
Aroclor-1260 {2}	14.31	14.31	14.31	14.31	14.31	14.31	14.24	14.38
Aroclor-1260 {3}	15.93	15.93	15.93	15.93	15.93	15.93	15.86	16.00
Aroclor-1260 {4}	16.83	16.83	16.83	16.83	16.83	16.83	16.76	16.90
Aroclor-1260 {5}	18.86	18.86	18.86	18.86	18.86	18.86	18.79	18.93

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R5197.D R5198.D R5199.D R5200.D R5201.D

Compound	CALIBRATION FACTORS 50	100	500	1000	2000	MEAN	%RSD
Aroclor-1016	157129	165787	135760	139568	138793	147407	9.00
Aroclor-1016 {2}	229225	231291	186361	189047	189270	205039	11.25
Aroclor-1016 {3}	295641	308194	242923	246453	247445	268131	11.64
Aroclor-1016 {4}	146011	155266	127982	127425	126328	136603	9.69
Aroclor-1016 {5}	203109	211449	170735	170613	171528	185487	10.84
Aroclor-1221			66196				
Aroclor-1221 {2}			89780				
Aroclor-1221 {3}			76813				
Aroclor-1221 {4}			218846				
Aroclor-1221 {5}			52667				
Aroclor-1232			137694				
Aroclor-1232 {2}			81509				
Aroclor-1232 {3}			107454				
Aroclor-1232 {4}			57792				
Aroclor-1232 {5}			102743				
Aroclor-1242			154600				
Aroclor-1242 {2}			104103				
Aroclor-1242 {3}			125094				
Aroclor-1242 {4}			210651				
Aroclor-1242 {5}			191104				
Aroclor-1248			394345				
Aroclor-1248 {2}			148087				
Aroclor-1248 {3}			128713				
Aroclor-1248 {4}			352517				
Aroclor-1248 {5}			315099				
Aroclor-1254			343750				
Aroclor-1254 {2}			273096				
Aroclor-1254 {3}			499914				
Aroclor-1254 {4}			558957				
Aroclor-1254 {5}			253679				
Aroclor-1260	626164	663237	549190	561695	564383	592934	8.33
Aroclor-1260 {2}	383619	406539	317159	308733	311036	345417	13.36
Aroclor-1260 {3}	877964	886482	699670	688136	677231	765896	13.91
Aroclor-1260 {4}	415950	440833	380226	369101	358505	392923	8.76
Aroclor-1260 {5}	192138	186567	172911	164030	161054	175340	7.79
					Average %RSD		10.46

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R5197.C R5198.C R5199.C R5200.C R5201.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.94	4.94	4.94	4.94	4.94	4.94	4.87	5.01
Aroclor-1016 {2}	5.90	5.90	5.90	5.90	5.90	5.90	5.83	5.97
Aroclor-1016 {3}	7.07	7.07	7.07	7.07	7.07	7.07	7.00	7.14
Aroclor-1016 {4}	7.45	7.45	7.45	7.45	7.45	7.45	7.38	7.52
Aroclor-1016 {5}	7.73	7.73	7.73	7.73	7.73	7.73	7.66	7.80
Aroclor-1221			3.09				3.02	3.16
Aroclor-1221 {2}			4.48				4.41	4.55
Aroclor-1221 {3}			4.82				4.75	4.89
Aroclor-1221 {4}			4.94				4.87	5.01
Aroclor-1221 {5}			6.17				6.10	6.24
Aroclor-1232			4.94				4.87	5.01
Aroclor-1232 {2}			6.52				6.45	6.59
Aroclor-1232 {3}			7.45				7.38	7.52
Aroclor-1232 {4}			7.73				7.66	7.80
Aroclor-1232 {5}			8.79				8.72	8.86
Aroclor-1242			6.40				6.33	6.47
Aroclor-1242 {2}			7.73				7.66	7.80
Aroclor-1242 {3}			8.80				8.73	8.87
Aroclor-1242 {4}			10.02				9.95	10.09
Aroclor-1242 {5}			10.72				10.65	10.79
Aroclor-1248			7.07				7.00	7.14
Aroclor-1248 {2}			8.11				8.04	8.18
Aroclor-1248 {3}			8.79				8.72	8.86
Aroclor-1248 {4}			9.08				9.01	9.15
Aroclor-1248 {5}			9.66				9.59	9.73
Aroclor-1254			10.67				10.60	10.74
Aroclor-1254 {2}			11.70				11.63	11.77
Aroclor-1254 {3}			12.74				12.67	12.81
Aroclor-1254 {4}			13.24				13.17	13.31
Aroclor-1254 {5}			14.32				14.25	14.39
Aroclor-1260	13.24	13.24	13.24	13.24	13.24	13.24	13.17	13.31
Aroclor-1260 {2}	14.31	14.31	14.31	14.31	14.31	14.31	14.24	14.38
Aroclor-1260 {3}	15.52	15.52	15.52	15.52	15.52	15.52	15.45	15.59
Aroclor-1260 {4}	16.43	16.43	16.43	16.43	16.43	16.43	16.36	16.50
Aroclor-1260 {5}	19.52	19.52	19.52	19.52	19.52	19.52	19.45	19.59

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R5197.C R5198.C R5199.C R5200.C R5201.C

Compound	CALIBRATION FACTORS 50	100	500	1000	2000	MEAN	%RSD
Aroclor-1016	271044	269745	210013	209480	214129	234882	13.82
Aroclor-1016 {2}	558676	564799	422585	417987	421439	477097	16.21
Aroclor-1016 {3}	1154208	1177375	919848	933024	956662	1028223	12.31
Aroclor-1016 {4}	513583	524776	414282	398538	405130	451262	13.82
Aroclor-1016 {5}	306490	328208	257657	254755	252326	279887	12.54
Aroclor-1221			107640				
Aroclor-1221 {2}			141236				
Aroclor-1221 {3}			97046				
Aroclor-1221 {4}			337547				
Aroclor-1221 {5}			53865				
Aroclor-1232			214004				
Aroclor-1232 {2}			88390				
Aroclor-1232 {3}			178457				
Aroclor-1232 {4}			110044				
Aroclor-1232 {5}			202623				
Aroclor-1242			118039				
Aroclor-1242 {2}			271804				
Aroclor-1242 {3}			356286				
Aroclor-1242 {4}			330724				
Aroclor-1242 {5}			189603				
Aroclor-1248			609026				
Aroclor-1248 {2}			467826				
Aroclor-1248 {3}			490939				
Aroclor-1248 {4}			475108				
Aroclor-1248 {5}			294481				
Aroclor-1254			233907				
Aroclor-1254 {2}			178527				
Aroclor-1254 {3}			550359				
Aroclor-1254 {4}			391821				
Aroclor-1254 {5}			857077				
Aroclor-1260	933379	922580	687811	698126	678666	784113	16.78
Aroclor-1260 {2}	1176926	1184764	868828	884065	835678	990052	17.68
Aroclor-1260 {3}	712611	721694	547984	569638	562126	622810	13.89
Aroclor-1260 {4}	1540542	1581275	1231751	1295880	1302440	1390378	11.42
Aroclor-1260 {5}	623538	627239	464042	460846	462220	527577	16.93
					Average %RSD		14.54

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2001 **Instrument ID:** GC-R

Data File: R5246.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.67	4.60	4.74	147407	146082	0.90
Aroclor-1016 {2}	6.05	5.98	6.12	205039	196079	4.37
Aroclor-1016 {3}	7.00	6.93	7.07	268131	259705	3.14
Aroclor-1016 {4}	7.81	7.74	7.88	136603	134583	1.48
Aroclor-1016 {5}	8.26	8.19	8.33	185487	180747	2.56
Aroclor-1260	13.75	13.68	13.82	592934	602285	1.58
Aroclor-1260 {2}	14.30	14.23	14.37	345417	351226	1.68
Aroclor-1260 {3}	15.93	15.86	16.00	765896	745550	2.66
Aroclor-1260 {4}	16.83	16.76	16.90	392923	389201	0.95
Aroclor-1260 {5}	18.86	18.79	18.93	175340	173477	1.06
					Average %D	2.04

Data File: R5246.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.95	4.88	5.02	234882	226335	3.64
Aroclor-1016 {2}	5.91	5.84	5.98	477097	448680	5.96
Aroclor-1016 {3}	7.08	7.01	7.15	1028223	965777	6.07
Aroclor-1016 {4}	7.46	7.39	7.53	451262	429133	4.90
Aroclor-1016 {5}	7.74	7.67	7.81	279887	272920	2.49
Aroclor-1260	13.25	13.18	13.32	784113	713154	9.05
Aroclor-1260 {2}	14.32	14.25	14.39	990052	923326	6.74
Aroclor-1260 {3}	15.52	15.45	15.59	622810	583247	6.35
Aroclor-1260 {4}	16.43	16.36	16.50	1390378	1289772	7.24
Aroclor-1260 {5}	19.52	19.45	19.59	527577	497654	5.67
					Average %D	5.81

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2001 Instrument ID: GC-R

Data File: R5263.D GC Column (1st): DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.68	4.61	4.75	147407	157970	7.17
Aroclor-1016 {2}	6.06	5.99	6.13	205039	213271	4.01
Aroclor-1016 {3}	7.01	6.94	7.08	268131	283083	5.58
Aroclor-1016 {4}	7.82	7.75	7.89	136603	147308	7.84
Aroclor-1016 {5}	8.27	8.20	8.34	185487	197283	6.36
Aroclor-1260	13.76	13.69	13.83	592934	613997	3.55
Aroclor-1260 {2}	14.31	14.24	14.38	345417	362585	4.97
Aroclor-1260 {3}	15.93	15.86	16.00	765896	815531	6.48
Aroclor-1260 {4}	16.84	16.77	16.91	392923	438974	11.72
Aroclor-1260 {5}	18.87	18.80	18.94	175340	178711	1.92
					Average %D	5.96

Data File: R5263.C GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.94	4.87	5.01	234882	252772	7.62
Aroclor-1016 {2}	5.90	5.83	5.97	477097	503851	5.61
Aroclor-1016 {3}	7.07	7.00	7.14	1028223	1062592	3.34
Aroclor-1016 {4}	7.45	7.38	7.52	451262	478890	6.12
Aroclor-1016 {5}	7.73	7.66	7.80	279887	296760	6.03
Aroclor-1260	13.24	13.17	13.31	784113	796621	1.60
Aroclor-1260 {2}	14.32	14.25	14.39	990052	1005776	1.59
Aroclor-1260 {3}	15.52	15.45	15.59	622810	635975	2.11
Aroclor-1260 {4}	16.43	16.36	16.50	1390378	1391667	0.09
Aroclor-1260 {5}	19.52	19.45	19.59	527577	540689	2.49
					Average %D	3.66

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/12/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4615..4719)	0712-BLK1	SOIL	90		101		86		94	
WC	4615-001	SOIL	75		110		85		110	
I1-GP-25	4668-025	SOIL	80		115		85		110	
I1-GP-26	4668-026	SOIL	75		110		80		110	
WC-1	4687-001	SOIL	85		120		90		115	
SH-HUYLER-2	4719-001	SOIL	70		100		75		105	
SH-HUYLER-3	4719-002	SOIL	80		125		85		110	
SH-HUYLER-4	4719-003	SOIL	85		120		85		120	
SH-HUYLER-5	4719-004	SOIL	75		115		80		115	
PCB	PBS0712-MS1	SOIL	93		105		94		101	
(4581..4590)	0712-BLK2	SOIL	90		104		89		98	
S-94A	4590-004	SOIL	95		140		105		135	
S-94B	4590-005	SOIL	85		130		85		125	
SP-1	4582-001	SOIL	80		130		85		130	
PCB	PBS0712-MS2	SOIL	85		103		85		95	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4366-016-MSD1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	15.7	314 *	58 - 140
Aroclor-1260	5.0	0.0	5.5	110	56 - 161

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	14.9	* 298	5	14	58 - 140
Aroclor-1260	0.0	5.4	108	2	18	56 - 161

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __2___ out of __4__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0710-MS1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.1	102	58 - 140
Aroclor-1260	5.0	0.0	5.7	114	56 - 161

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0712-MS2

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.1	102	58 - 140
Aroclor-1260	5.0	0.0	6.0	120	56 - 161

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.93 **DCB 1** 20.94 **TCMX 2** 3.75 **DCB 2** 20.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4615..4719)	0712-BLK1	07/12/2001	12:12	3.93		20.94		3.75		20.86	
WC	4615-001	07/12/2001	12:39	3.93		20.95		3.75		20.86	
I1-GP-25	4668-025	07/12/2001	13:05	3.93		20.95		3.75		20.86	
I1-GP-26	4668-026	07/12/2001	13:31	3.93		20.95		3.75		20.86	
WC-1	4687-001	07/12/2001	14:03	3.92		20.95		3.76		20.86	
SH-HUYLER-2	4719-001	07/12/2001	14:29	3.93		20.95		3.75		20.86	
SH-HUYLER-3	4719-002	07/12/2001	14:56	3.93		20.95		3.75		20.86	
SH-HUYLER-4	4719-003	07/12/2001	15:22	3.93		20.95		3.75		20.86	
SH-HUYLER-5	4719-004	07/12/2001	15:48	3.93		20.95		3.75		20.86	
PCB	PBS0712-MS1	07/12/2001	16:15	3.93		20.95		3.75		20.86	
(4581..4590)	0712-BLK2	07/12/2001	16:41	3.93		20.95		3.75		20.86	
S-94A	4590-004	07/12/2001	17:07	3.93		20.95		3.75		20.86	
S-94B	4590-005	07/12/2001	17:33	3.93		20.95		3.75		20.86	
SP-1	4582-001	07/12/2001	18:26	3.93		20.95		3.75		20.86	
PCB	PBS0712-MS2	07/12/2001	18:52	3.93		20.95		3.75		20.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5258.D\ECD1B.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5258.D\ECD2A.CH
Acq On : 12 Jul 2001 17:07 Operator: MJ
Sample : S-94A,4590-004,S,30.2g,13.5,07/12/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 17:30:53 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	32298219	52414174	3.992	4.274m
Spiked Amount 205.000	Range 75 - 125			Recovery =	1.95%#	2.08%#
2) S DCB	20.95	20.86	34634168	56397029	5.767	5.612
Spiked Amount 205.000				Recovery =	2.81%	2.74%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

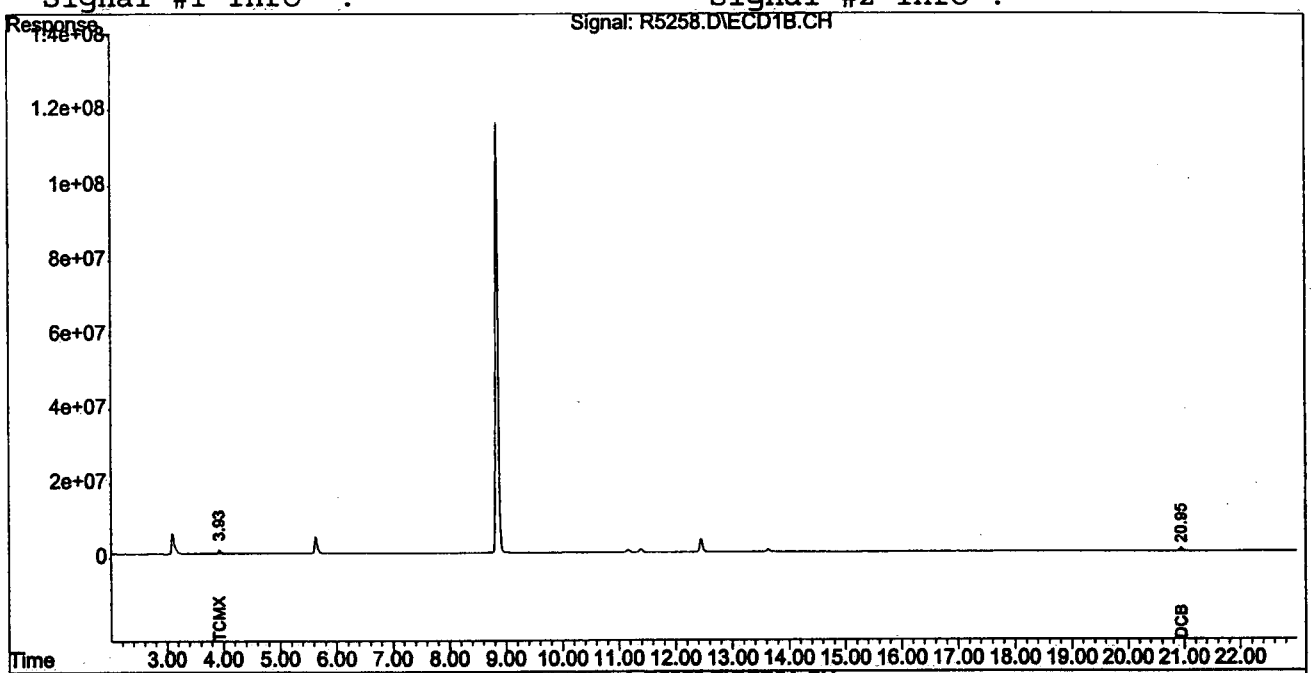
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

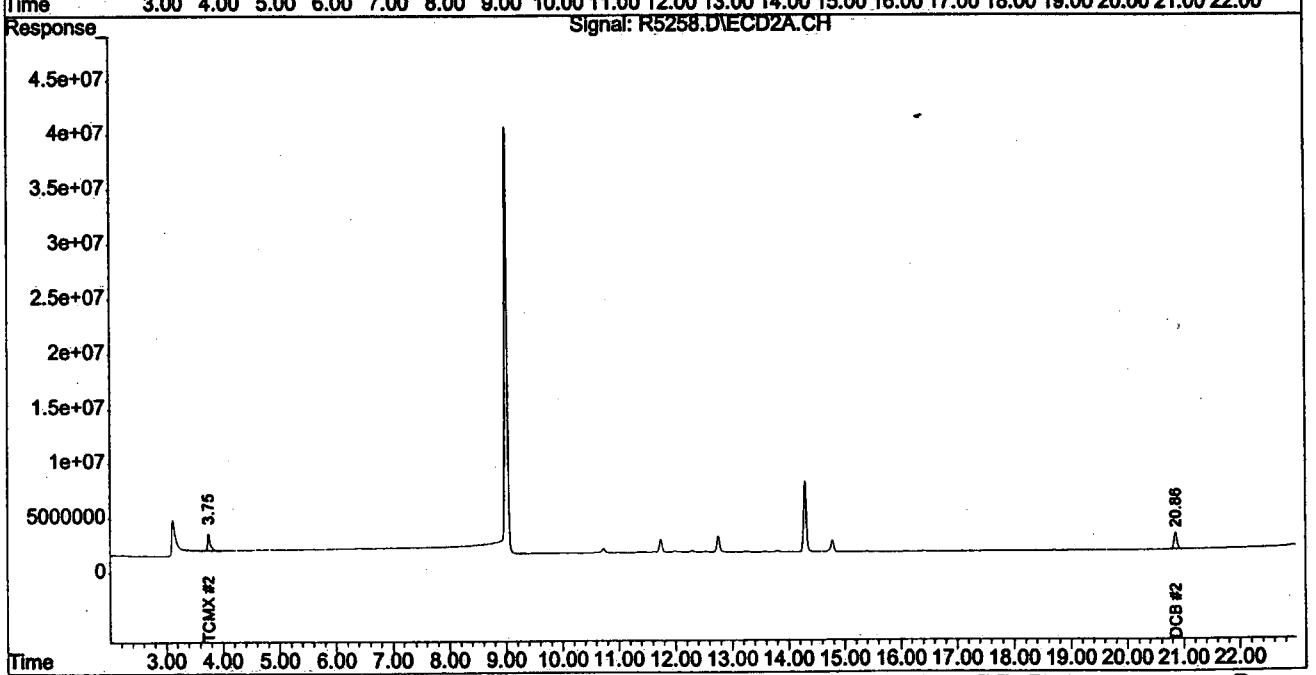
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5258.D\ECD1B.CH Vial: 13
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5258.D\ECD2A.CH
Acq On : 12 Jul 2001 17:07 Operator: MJ
Sample : S-94A,4590-004,S,30.2g,13.5,07/12/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 6:44 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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0464

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5259.D\ECD1B.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5259.D\ECD2A.CH
Acq On : 12 Jul 2001 17:33 Operator: MJ
Sample : S-94B,4590-005,S,30.2g,17.7,07/12/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 17:57:06 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	28949620	43445908	3.579	3.543
Spiked Amount 205.000	Range 75 - 125		Recovery =		1.75%#	1.73%#
2) S DCB	20.95	20.86	32390596	51919541	5.393	5.167
Spiked Amount 205.000			Recovery =		2.63%	2.52%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

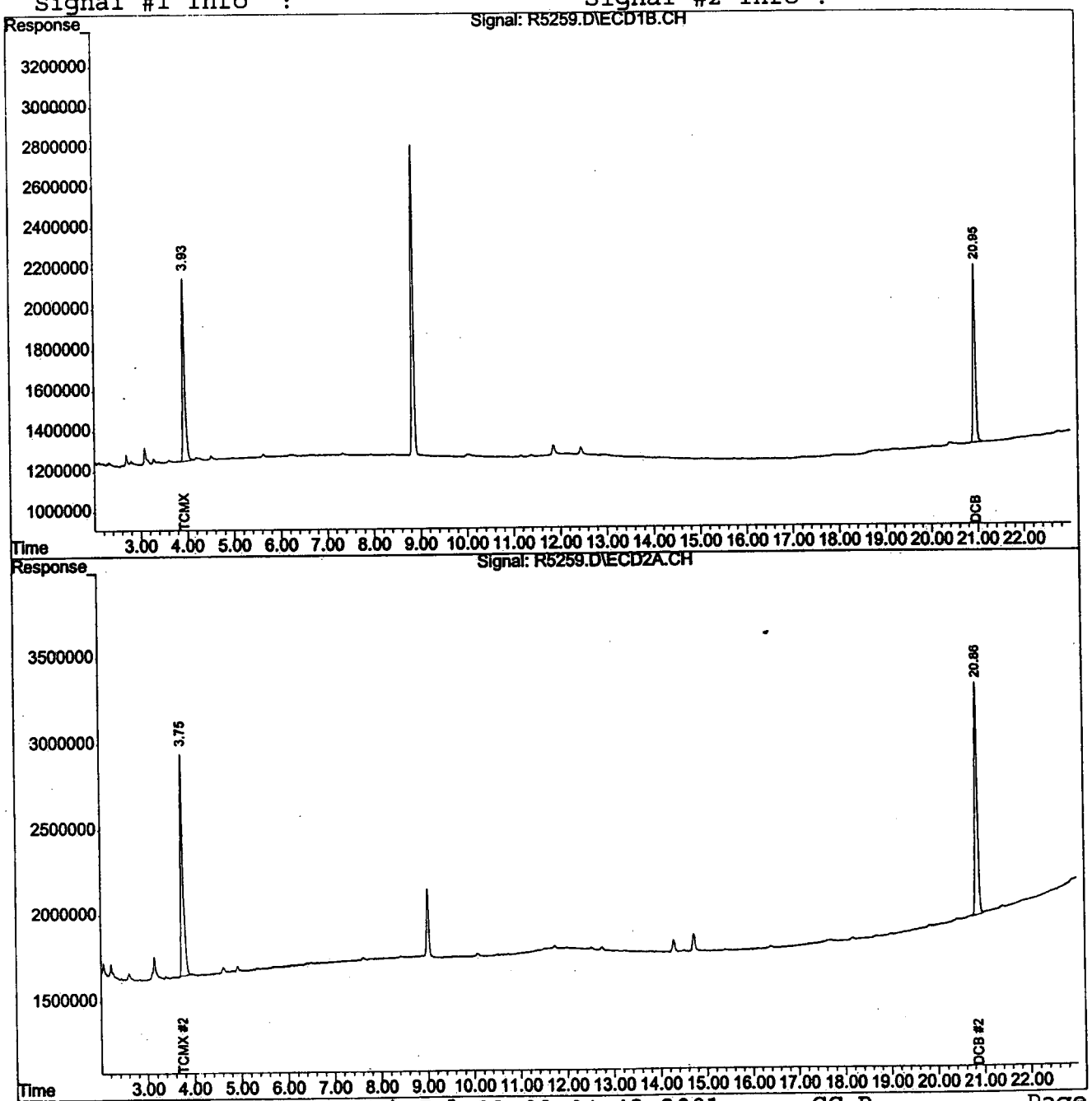
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5259.D\ECD1B.CH Vial: 14
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5259.D\ECD2A.CH
Acq On : 12 Jul 2001 17:33 Operator: MJ
Sample : S-94B,4590-005,S,30.2g,17.7,07/12/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 6:44 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1104

0466

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5257.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5257.D\ECD2A.CH
Acq On : 12 Jul 2001 16:41 Operator: MJ
Sample : (4581..4590),0712-BLK2,S,30.0g,0,07/12/0 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 17:04:31 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	1498.3E6	2236.3E6	185.204	182.359
Spiked Amount 205.000	Range 75 - 125			Recovery =	90.34%	88.96%
2) S DCB	20.95	20.86	1283.1E6	2026.4E6	213.633	201.659
Spiked Amount 205.000				Recovery =	104.21%	98.37%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1105

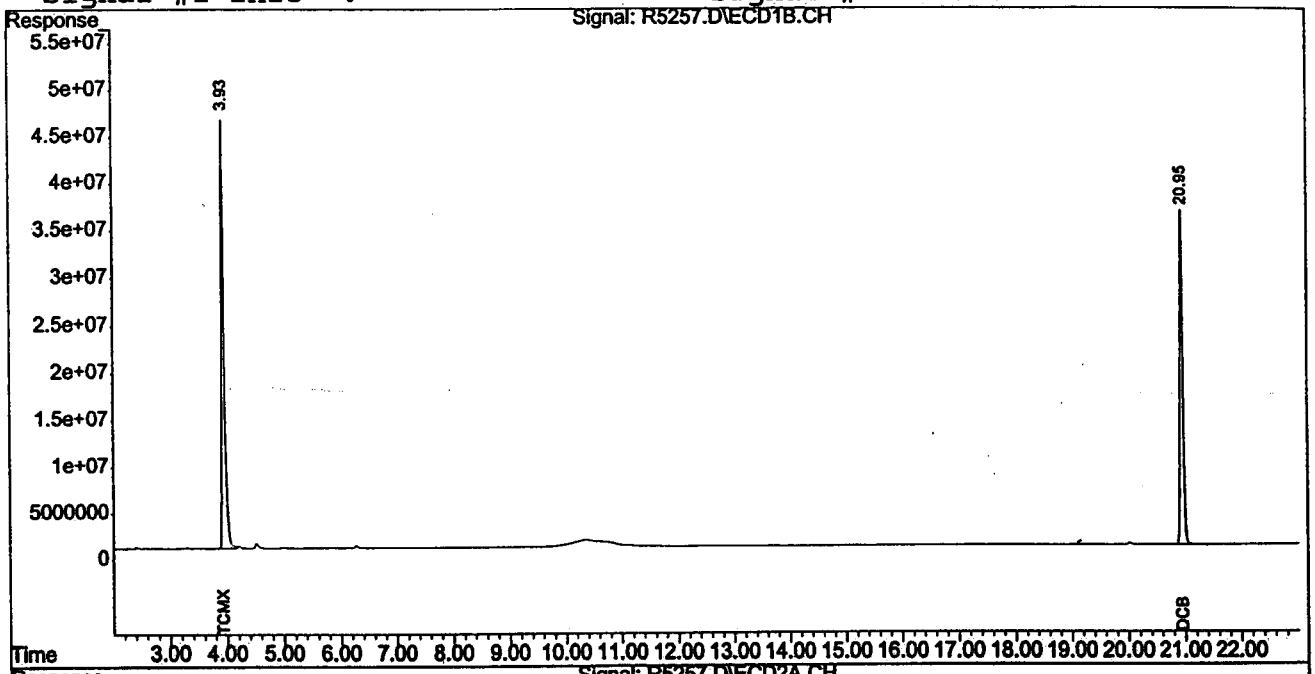
0467

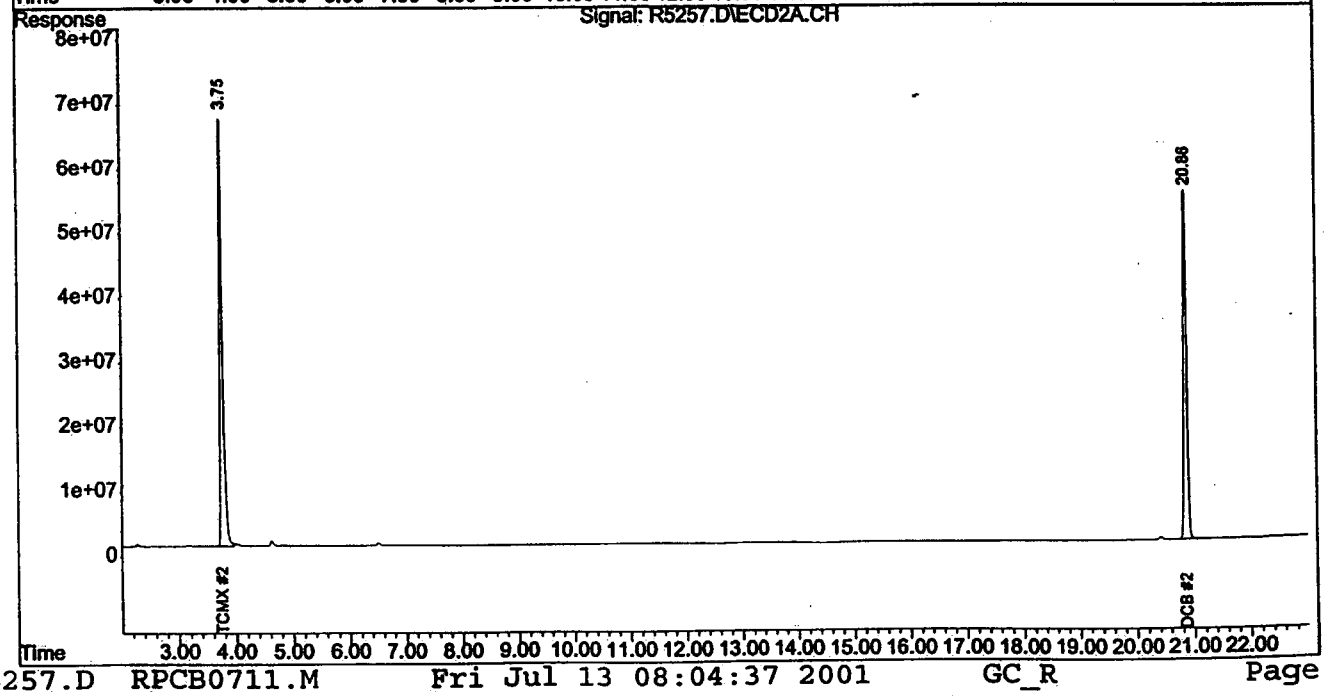
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5257.D\ECD1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5257.D\ECD2A.CH
Acq On : 12 Jul 2001 16:41 Operator: MJ
Sample : (4581..4590),0712-BLK2,S,30.0g,0,07/12/0 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 6:43 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1106

0468

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5246.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5246.D\ECD2A.CH
Acq On : 12 Jul 2001 11:46 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 12:09:53 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.77	824.0E6	1209.7E6	101.852	98.642
Spiked Amount 205.000	Range 75 - 125		Recovery =		49.68%#	48.12%#
2) S DCB	20.94	20.87	577.2E6	892.9E6	96.101	88.860
Spiked Amount 205.000			Recovery =		46.88%	43.35%
Target Compounds						
) L2 Aroclor-1016	4.67	4.95	73040785	113.2E6	495.503	481.806
4) L2 Aroclor-1016 {2}	6.05	5.91	98039368	224.3E6	478.151	470.219
5) L2 Aroclor-1016 {3}	7.00	7.08	129.9E6	482.9E6	484.287	469.634
6) L2 Aroclor-1016 {4}	7.81	7.46	67291334	214.6E6	492.607	475.481
7) L2 Aroclor-1016 {5}	8.26	7.74	90373589	136.5E6	487.223	484.868
Sum Aroclor-1016			458.6E6	1171.4E6	2437.770	2382.007
Average Aroclor-1016					487.554	476.401
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	13.75	13.25	301.1E6	356.6E6	507.885	454.752
34) L8 Aroclor-1260 {2}	14.30	14.32	175.6E6	461.7E6	508.408	466.302
) L8 Aroclor-1260 {3}	15.93	15.52	372.8E6	291.6E6	486.717	468.238
) L8 Aroclor-1260 {4}	16.83	16.43	194.6E6	644.9E6	495.264m	463.821
37) L8 Aroclor-1260 {5}	18.86	19.52	86738315	248.8E6	494.686m	478.660
Sum Aroclor-1260			1130.9E6	2003.6E6	2492.960	2331.772
Average Aroclor-1260					498.592	466.354

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1107

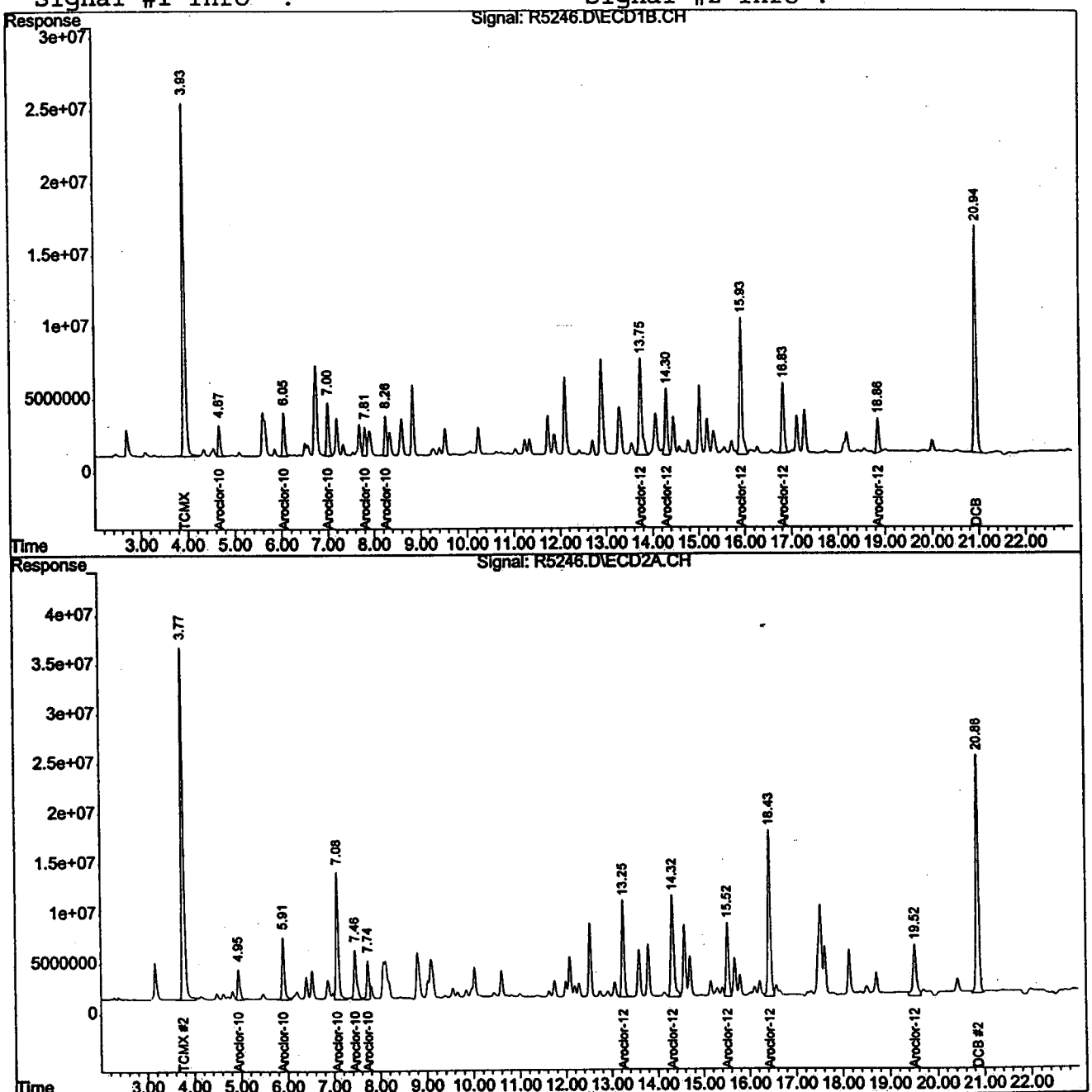
0469

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5246.D\ECD1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5246.D\ECD2A.CH
Acq On : 12 Jul 2001 11:46 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 12:40 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



0470

1106

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5263.D\ECD1B.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5263.D\ECD2A.CH
Acq On : 12 Jul 2001 19:18 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 12 19:42:02 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.93	3.76	886.8E6	1305.0E6	109.624	106.416
Spiked Amount 205.000		Range 75 - 125			Recovery =	53.48%#	51.91%#
2) S DCB		20.95	20.86	666.8E6	963.5E6	111.017	95.883
Spiked Amount 205.000					Recovery =	54.15%	46.77%
Target Compounds							
L2 Aroclor-1016		4.68	4.94	78984864	126.4E6	535.827	538.082
4) L2 Aroclor-1016	{2}	6.06	5.90	106.6E6	251.9E6	520.075	528.039
5) L2 Aroclor-1016	{3}	7.01	7.07	141.5E6	531.3E6	527.882	516.713
6) L2 Aroclor-1016	{4}	7.82	7.45	73654076	239.4E6	539.185	530.612
7) L2 Aroclor-1016	{5}	8.27	7.73	98641357	148.4E6	531.797	527.221m
Sum Aroclor-1016				499.5E6	1297.4E6	2654.766	2640.667
Average Aroclor-1016						530.953	528.133
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
Sum Aroclor-1254				0	0	N.D.	N.D.
Average Aroclor-1254						0.000	0.000
33) L8 Aroclor-1260		13.76	13.24	307.0E6	398.3E6	517.762	507.976
34) L8 Aroclor-1260	{2}	14.31	14.32	181.3E6	502.9E6	524.850	507.941
[illegible]) L8 Aroclor-1260	{3}	15.93	15.52	407.8E6	318.0E6	532.403	510.568
[illegible]) L8 Aroclor-1260	{4}	16.84	16.43	219.5E6	695.8E6	558.601m	500.464
37) L8 Aroclor-1260	{5}	18.87	19.52	89355484	270.3E6	509.612m	520.052
Sum Aroclor-1260				1204.9E6	2185.4E6	2643.229	2547.002
Average Aroclor-1260						528.646	509.400

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

0471

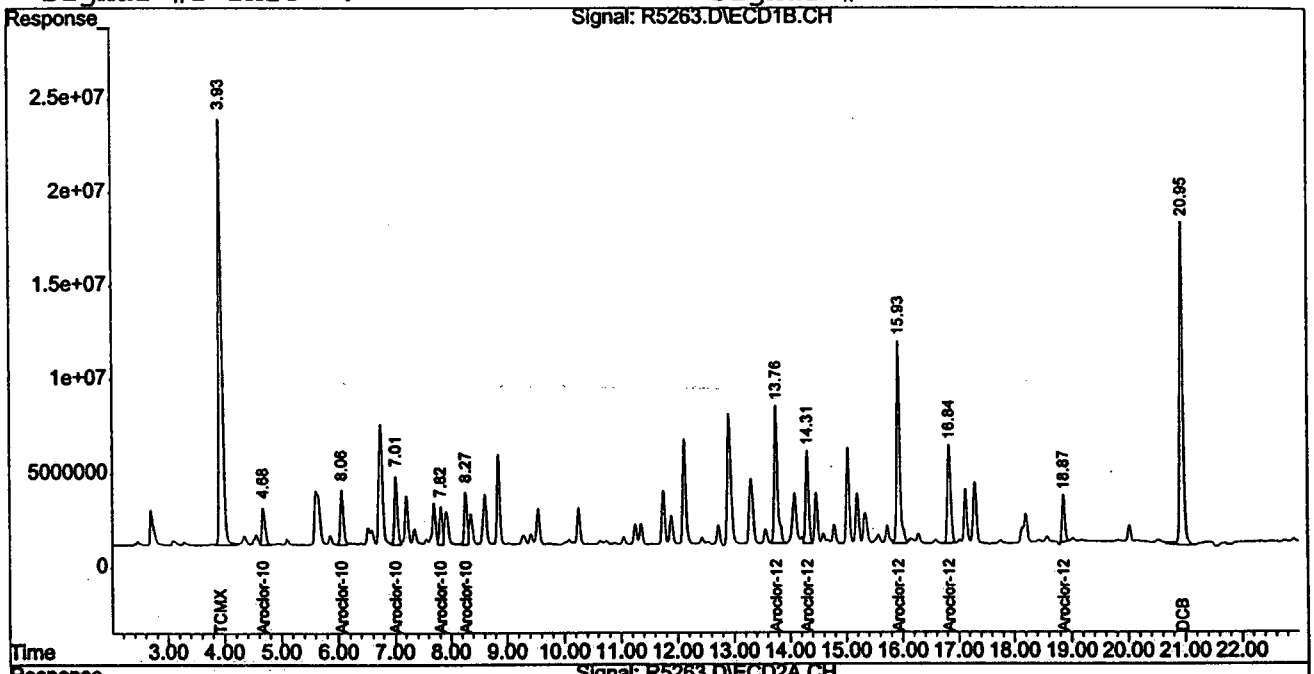
1109

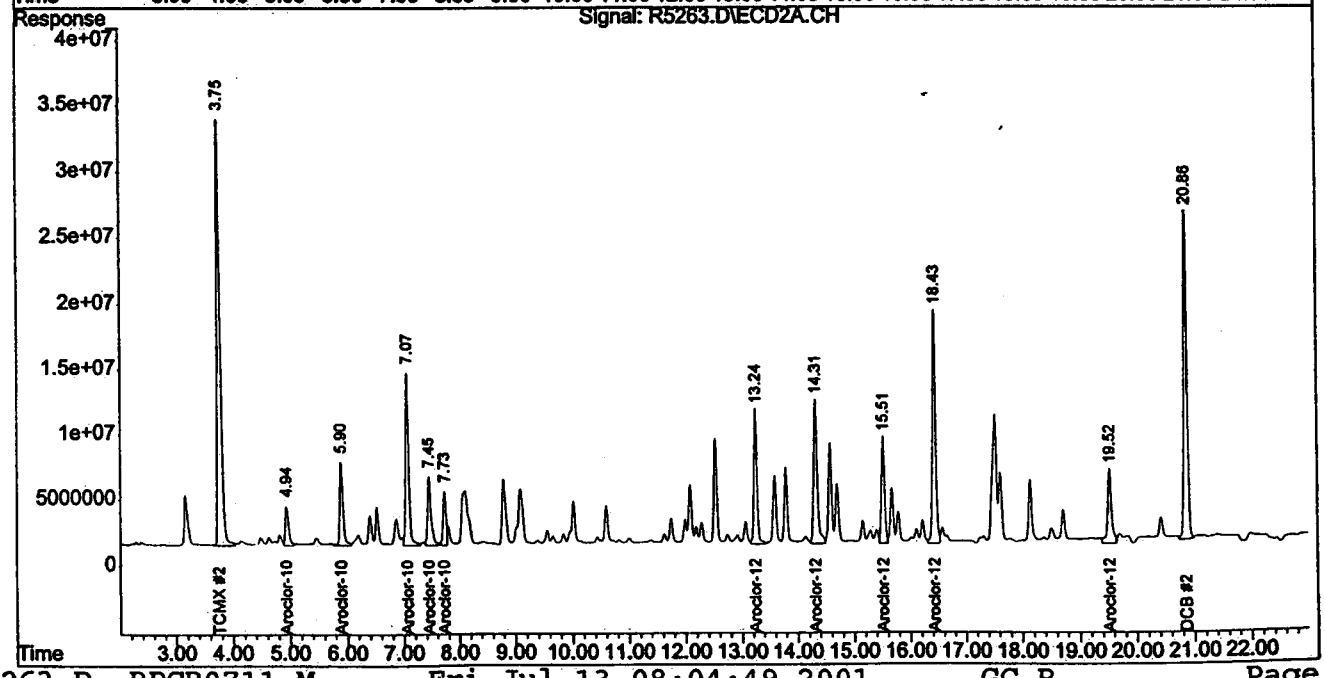
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-12-01\R5263.D\ECD1B.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\07-12-01\R5263.D\ECD2A.CH
Acq On : 12 Jul 2001 19:18 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 6:46 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0472

1110

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7343.D

Instrument ID: GC-W

Date Extracted: 07/05/2001

Matrix: SOIL

Date Analyzed: 07/05/2001

Time Analyzed: 23:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SS-1A	4303-001	07/06/2001	00:22
SS-1B	4303-002	07/06/2001	00:47
SS-2A	4303-003	07/06/2001	01:12
SS-2B	4303-004	07/06/2001	01:37
SS-3A	4303-005	07/06/2001	02:02
SS-3B	4303-006	07/06/2001	02:26
SS-4A	4303-007	07/06/2001	02:51
SS-4B	4303-008	07/06/2001	03:16
SS-5A	4303-009	07/06/2001	03:41
SS-5B	4303-010	07/06/2001	04:06
SS-7A	4303-011	07/06/2001	04:31
SS-7B	4303-012	07/06/2001	04:56
SS-8A	4303-013	07/06/2001	05:21
SS-8B	4303-014	07/06/2001	05:46
PEST	4303-006-MS3	07/06/2001	06:11
PEST	4303-006-MSD3	07/06/2001	06:36
PEST	PBS0705-MS3	07/06/2001	07:01

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0705-BK3
Client ID: (4303)
Date Received: NA
Date Extracted: 07/05/2001
Date Analyzed: 07/05/2001
Data file: W7343.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

1112

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7553.D

Instrument ID: GC-W

Date Extracted: 07/11/2001

Matrix: SOIL

Date Analyzed: 07/12/2001

Time Analyzed: 15:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SB_6-2	4472-025	07/12/2001	16:12
SB_6-3	4472-026	07/12/2001	16:37
SB_5.01-1	4472-027	07/12/2001	17:02
SB_11-1	4472-028	07/12/2001	17:27
SB_20-3	4472-029	07/12/2001	17:52
SB_20-4	4472-030	07/12/2001	18:17
SB_20-1	4472-031	07/12/2001	18:42
SB_20-2	4472-032	07/12/2001	19:07
SB_20-2D	4472-033	07/12/2001	19:32
PEST	4472-027-MS1	07/12/2001	19:57
PEST	4472-027-MSD1	07/12/2001	20:22
PEST	PBS0711-MS1	07/12/2001	20:47

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0711-BK1
Client ID: (4472.4591)
Date Received: NA
Date Extracted: 07/11/2001
Date Analyzed: 07/12/2001
Data file: W7553.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.000167
beta-BHC	ND		0.000167
gamma-BHC	ND		0.000167
delta-BHC	ND		0.000167
Heptachlor	ND		0.000167
Aldrin	ND		0.000167
Heptachlor epoxide	ND		0.000167
Endosulfan I	ND		0.000167
4,4'-DDE	ND		0.000167
Dieldrin	ND		0.000167
Endrin	ND		0.000167
Endosulfan II	ND		0.000167
4,4'-DDD	ND		0.000167
Endrin aldehyde	ND		0.000167
Endosulfan sulfate	ND		0.000167
4,4'-DDT	ND		0.000167
Chlordane	ND		0.000835
Toxaphene	ND		0.000835

1114

0476

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7588.D

Instrument ID: GC-W

Date Extracted: 07/12/2001

Matrix: SOIL

Date Analyzed: 07/13/2001

Time Analyzed: 07:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-84A	4591-003	07/13/2001	07:36
S-84B	4591-004	07/13/2001	08:01
S-85	4591-005	07/13/2001	08:26
S-86A	4591-006	07/13/2001	08:51
S-86B	4591-007	07/13/2001	09:16
S-87	4591-008	07/13/2001	09:41
S-88	4591-009	07/13/2001	10:06

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0712-BK1
Client ID: (4472.4591)
Date Received: NA
Date Extracted: 07/12/2001
Date Analyzed: 07/13/2001
Data file: W7588.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

1116

0478

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7606.D

Instrument ID: GC-W

Date Extracted: 07/12/2001

Matrix: SOIL

Date Analyzed: 07/13/2001

Time Analyzed: 14:52

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-90	4590-001	07/13/2001	15:17
S-91	4590-002	07/13/2001	15:42
S-93	4590-003	07/13/2001	16:07
S-94A	4590-004	07/13/2001	16:32
S-94B	4590-005	07/13/2001	16:57
S-92	4590-006	07/13/2001	17:22
PEST	PBS0712-MS2	07/13/2001	17:47

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0712-BK2
Client ID: (4590)
Date Received: NA
Date Extracted: 07/12/2001
Date Analyzed: 07/13/2001
Data file: W7606.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

1118

0480

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7701.D

Instrument ID: GC-W

Date Extracted: 07/17/2001

Matrix: SOIL

Date Analyzed: 07/18/2001

Time Analyzed: 23:35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-89	4591-010	07/19/2001	03:45
PEST	4591-010-MS1	07/19/2001	04:10
PEST	4591-010-MSD1	07/19/2001	04:35
PEST	PBS0717-MS1	07/19/2001	05:00

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0717-BK1
Client ID: (4833)
Date Received: NA
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: W7701.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

1120

0481

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W

GC Column (1st): DB-5

Data File: W7550.D W7549.D W7548.D W7547.D W7546.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	100	200	300	RT	FROM	TO
alpha-BHC	4.53	4.53	4.53	4.53	4.53	4.53	4.46	4.60
beta-BHC	5.03	5.03	5.03	5.03	5.03	5.03	4.96	5.10
gamma-BHC	5.16	5.16	5.16	5.16	5.15	5.16	5.09	5.23
delta-BHC	5.63	5.63	5.63	5.63	5.63	5.63	5.56	5.70
Heptachlor	6.73	6.73	6.73	6.73	6.72	6.73	6.66	6.80
Aldrin	7.54	7.54	7.54	7.54	7.54	7.54	7.47	7.61
Heptachlor epoxide	8.55	8.55	8.55	8.55	8.55	8.55	8.48	8.62
Endosulfan I	9.47	9.47	9.47	9.47	9.47	9.47	9.40	9.54
4,4'-DDE	10.24	10.24	10.24	10.24	10.24	10.24	10.17	10.31
Dieldrin	10.16	10.16	10.16	10.16	10.16	10.16	10.09	10.23
Endrin	10.72	10.72	10.72	10.72	10.71	10.72	10.65	10.79
Endosulfan II	10.97	10.97	10.97	10.97	10.97	10.97	10.90	11.04
4,4'-DDD	11.36	11.36	11.36	11.36	11.35	11.36	11.29	11.43
Endrin aldehyde	11.50	11.50	11.50	11.50	11.49	11.50	11.43	11.57
Endosulfan sulfate	12.15	12.15	12.15	12.15	12.15	12.15	12.08	12.22
4,4'-DDT	12.38	12.38	12.38	12.38	12.38	12.38	12.31	12.45
Endrin ketone	13.36	13.36	13.36	13.36	13.36	13.36	13.29	13.43
Methoxychlor	14.06	14.06	14.06	14.06	14.05	14.06	13.99	14.13
alpha-Chlordane	9.58	9.58	9.58	9.58	9.57	9.57	9.50	9.64
gamma-Chlordane	9.17	9.17	9.17	9.17	9.16	9.17	9.10	9.24
Chlordane 500 ppb			9.17				9.10	9.24
Chlordane {2}			9.36				9.29	9.43
Chlordane {3}			9.57				9.50	9.64
Chlordane {4}			9.72				9.65	9.79
Chlordane {5}			11.57				11.50	11.64
Toxaphene 500 ppb			13.16				13.09	13.23
Toxaphene {2}			13.29				13.22	13.36
Toxaphene {3}			13.57				13.50	13.64
Toxaphene {4}			14.03				13.96	14.10
Toxaphene {5}			14.54				14.47	14.61

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W

GC Column (1st): DB-5

Data File: W7550.D W7549.D W7548.D W7547.D W7546.D

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	35899780	40546995	41570626	41974038	41704110	40339110	6.30
beta-BHC	15303419	15061307	14987156	14952210	14780083	15016835	1.27
gamma-BHC	33489701	36941231	37400232	37715588	37394145	36588180	4.79
delta-BHC	29595950	33767323	34786965	35532197	35721184	33880724	7.42
Heptachlor	29743430	32155703	32252554	31935852	30860785	31389665	3.42
Aldrin	32454675	35366933	35271530	34664663	33615679	34274696	3.60
Heptachlor epoxide	30220561	31585240	31096114	29802440	28498172	30240505	3.97
Endosulfan I	28421095	29661129	29074059	27899586	26692089	28349592	4.02
4,4'-DDE	29112676	31841381	31928568	31398017	30503624	30956853	3.80
Dieldrin	29913589	32184172	31865463	30923285	29649495	30907201	3.66
Endrin	28863066	29802328	29310494	28310320	27332835	28723809	3.32
Endosulfan II	26773482	27873076	27469499	26477426	25435048	26805706	3.52
4,4'-DDD	23277034	25406715	25638562	25415634	24644357	24876460	3.90
Endrin aldehyde	22375409	21396111	21193774	19739280	18870107	20714936	6.74
Endosulfan sulfate	22374584	23509779	23345187	22705913	22132843	22813661	2.63
4,4'-DDT	17626484	20924417	22157859	22689328	23075672	21294752	10.36
Endrin ketone	31037190	31038156	30008047	28190294	26747791	29404296	6.41
Methoxychlor	9918830	10866206	10988086	10704037	10450857	10585603	4.00
alpha-Chlordane	30394463	32046337	32032240	31756768	30950662	31436094	2.33
gamma-Chlordane	30775350	33453956	33694507	33526154	32721313	32834256	3.68
Chlordane 500 ppb			3616750				
Chlordane {2}			796362				
Chlordane {3}			3567490				
Chlordane {4}			2088165				
Chlordane {5}			1002113				
Toxaphene 500 ppb			648074				
Toxaphene {2}			1025609				
Toxaphene {3}			468496				
Toxaphene {4}			480376				
Toxaphene {5}			571717				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W

GC Column (2nd): DB-1701P

Data File: W7550.C W7549.C W7548.C W7547.C W7546.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	100	200	300	RT	FROM	TO
alpha-BHC	5.57	5.57	5.57	5.57	5.58	5.57	5.50	5.64
beta-BHC	8.62	8.62	8.62	8.62	8.63	8.62	8.55	8.69
gamma-BHC	6.52	6.52	6.52	6.52	6.53	6.52	6.45	6.59
delta-BHC	9.19	9.19	9.19	9.19	9.19	9.19	9.12	9.26
Heptachlor	7.00	7.00	7.00	7.00	7.01	7.00	6.93	7.07
Aldrin	7.67	7.67	7.67	7.67	7.68	7.68	7.61	7.75
Heptachlor epoxide	9.51	9.51	9.51	9.51	9.52	9.51	9.44	9.58
Endosulfan I	10.20	10.20	10.20	10.20	10.21	10.20	10.13	10.27
4,4'-DDE	10.97	10.97	10.97	10.97	10.98	10.97	10.90	11.04
Dieldrin	11.23	11.23	11.23	11.24	11.24	11.24	11.17	11.31
Endrin	11.76	11.76	11.76	11.76	11.77	11.76	11.69	11.83
Endosulfan II	13.20	13.20	13.20	13.20	13.20	13.20	13.13	13.27
4,4'-DDD	13.20	13.20	13.20	13.20	13.20	13.20	13.13	13.27
Endrin aldehyde	14.34	14.34	14.34	14.34	14.34	14.34	14.27	14.41
Endosulfan sulfate	15.24	15.24	15.24	15.24	15.24	15.24	15.17	15.31
4,4'-DDT	13.65	13.65	13.65	13.65	13.66	13.65	13.58	13.72
Endrin ketone	16.27	16.27	16.27	16.27	16.27	16.27	16.20	16.34
Methoxychlor	15.52	15.52	15.52	15.52	15.52	15.52	15.45	15.59
alpha-Chlordane	10.59	10.59	10.59	10.59	10.60	10.59	10.52	10.66
gamma-Chlordane	10.44	10.43	10.44	10.44	10.44	10.44	10.37	10.51
Chlordane 500 ppb			8.36				8.29	8.43
Chlordane {2}			10.03				9.96	10.10
Chlordane {3}			10.43				10.36	10.50
Chlordane {4}			10.59				10.52	10.66
Chlordane {5}			10.65				10.58	10.72
Toxaphene 500 ppb			13.98				13.91	14.05
Toxaphene {2}			14.73				14.66	14.80
Toxaphene {3}			14.98				14.91	15.05
Toxaphene {4}			15.17				15.10	15.24
Toxaphene {5}			15.63				15.56	15.70

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W
GC Column (2nd): DB-1701P

Data File: W7550.C W7549.C W7548.C W7547.C W7546.C

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	9996610	11774540	12296384	12663677	12559997	11858242	9.24
beta-BHC	5270645	5023068	4985960	4976654	4920046	5035275	2.71
gamma-BHC	9363150	10773003	11151138	11516765	11423353	10845482	8.09
delta-BHC	8402554	9743383	10248951	10672545	10685067	9950500	9.52
Heptachlor	8522360	9342840	9638682	9924205	9804498	9446517	5.94
Aldrin	8990741	10031458	10298389	10497035	10292183	10021961	5.98
Heptachlor epoxide	8866762	9245931	9334916	9379427	9138507	9193109	2.22
Endosulfan I	8197251	8666468	8784316	8824827	8574689	8609510	2.91
4,4'-DDE	7942450	8976734	9333006	9558937	9420627	9046351	7.22
Dieldrin	8451941	9283588	9526434	9683766	9480245	9285195	5.25
Endrin	8247574	8985395	9168443	9264339	9119520	8957054	4.57
Endosulfan II	14777797	16142649	16275107	16257891	15771439	15844976	3.98
4,4'-DDD	14777797	16142649	16275107	16257891	15771439	15844976	3.98
Endrin aldehyde	5383708	5652183	5995669	6213095	6102165	5869364	5.85
Endosulfan sulfate	6345668	6773038	6902525	7013993	6963223	6799689	3.96
4,4'-DDT	3996347	5391426	5998544	6576492	6838242	5760210	19.67
Endrin ketone	8110019	8740394	8805640	8744231	8515015	8583060	3.34
Methoxychlor	2859388	3170417	3325102	3422373	3442163	3243888	7.41
alpha-Chlordane	8760069	9252411	9438365	9592446	9417041	9292066	3.45
gamma-Chlordane	8670023	9376753	9647292	9889213	9740747	9464806	5.09
Chlordane 500 ppb			178263				
Chlordane {2}			232532				
Chlordane {3}			1028630				
Chlordane {4}			921012				
Chlordane {5}			599256				
Toxaphene 500 ppb			284900				
Toxaphene {2}			206806				
Toxaphene {3}			268570				
Toxaphene {4}			159622				
Toxaphene {5}			127935				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7574.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	42731105	5.93
beta-BHC	5.03	4.96	5.10	15016835	15384208	2.45
gamma-BHC	5.16	5.09	5.23	36588180	38345897	4.80
delta-BHC	5.63	5.56	5.70	33880724	35940066	6.08
Heptachlor	6.73	6.66	6.80	31389665	32904112	4.82
Aldrin	7.54	7.47	7.61	34274696	36191603	5.59
Heptachlor epoxide	8.55	8.48	8.62	30240505	31948201	5.65
Endosulfan I	9.47	9.40	9.54	28349592	29825498	5.21
4,4'-DDE	10.24	10.17	10.31	30956853	32769611	5.86
Dieldrin	10.16	10.09	10.23	30907201	32720193	5.87
Endrin	10.72	10.65	10.79	28723809	29955525	4.29
Endosulfan II	10.97	10.90	11.04	26805706	28166178	5.08
4,4'-DDD	11.36	11.29	11.43	24876460	26330099	5.84
Endrin aldehyde	11.50	11.43	11.57	20714936	21950564	5.96
Endosulfan sulfate	12.15	12.08	12.22	22813661	24034110	5.35
4,4'-DDT	12.38	12.31	12.45	21294752	22420309	5.29
Endrin ketone	13.36	13.29	13.43	29404296	30689693	4.37
Methoxychlor	14.06	13.99	14.13	10585603	11062940	4.51
alpha-Chlordane	9.58	9.51	9.65	31436094	32873498	4.57
gamma-Chlordane	9.17	9.10	9.24	32834256	34633316	5.48
					Average %D	5.15
Chlordane 500 ppb	9.17	9.10	9.24	3616750	3735022	3.27
Chlordane {2}	9.37	9.30	9.44	796362	824925	3.59
Chlordane {3}	9.57	9.50	9.64	3567490	3666518	2.78
Chlordane {4}	9.72	9.65	9.79	2088165	2142667	2.61
Chlordane {5}	11.57	11.50	11.64	1002113	1020340	1.82
Toxaphene 500 ppb	13.16	13.09	13.23	648074	684716	5.65
Toxaphene {2}	13.29	13.22	13.36	1025609	1087715	6.06
Toxaphene {3}	13.57	13.50	13.64	468496	523469	11.73
Toxaphene {4}	14.03	13.96	14.10	480376	535688	11.51
Toxaphene {5}	14.54	14.47	14.61	571717	645434	12.89
					Average %D	6.19

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7574.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12480447	5.25
beta-BHC	8.62	8.55	8.69	5035275	5044951	0.19
gamma-BHC	6.52	6.45	6.59	10845482	11308572	4.27
delta-BHC	9.18	9.11	9.25	9950500	10461919	5.14
Heptachlor	7.00	6.93	7.07	9446517	9754872	3.26
Aldrin	7.67	7.60	7.74	10021961	10455627	4.33
Heptachlor epoxide	9.51	9.44	9.58	9193109	9459542	2.90
Endosulfan I	10.20	10.13	10.27	8609510	8911362	3.51
4,4'-DDE	10.97	10.90	11.04	9046351	9477118	4.76
Dieldrin	11.23	11.16	11.30	9285195	9683472	4.29
Endrin	11.76	11.69	11.83	8957054	9281935	3.63
Endosulfan II	13.20	13.13	13.27	15844976	16554908	4.48
4,4'-DDD	13.20	13.13	13.27	15844976	16554908	4.48
Endrin aldehyde	14.33	14.26	14.40	5869364	6156849	4.90
Endosulfan sulfate	15.23	15.16	15.30	6799689	7047333	3.64
4,4'-DDT	13.65	13.58	13.72	5760210	6032762	4.73
Endrin ketone	16.26	16.19	16.33	8583060	8976728	4.59
Methoxychlor	15.51	15.44	15.58	3243888	3364137	3.71
alpha-Chlordane	10.59	10.52	10.66	9292066	9577884	3.08
gamma-Chlordane	10.43	10.36	10.50	9464806	9791675	3.45
					Average %D	3.93
Chlordane 500 ppb	8.36	8.29	8.43	178263	183447	2.91
Chlordane {2}	10.03	9.96	10.10	232532	239614	3.05
Chlordane {3}	10.43	10.36	10.50	1028630	1057935	2.85
Chlordane {4}	10.59	10.52	10.66	921012	956190	3.82
Chlordane {5}	10.65	10.58	10.72	599256	609516	1.71
Toxaphene 500 ppb	13.98	13.91	14.05	284900	270972	4.89
Toxaphene {2}	14.73	14.66	14.80	206806	204152	1.28
Toxaphene {3}	14.98	14.91	15.05	268570	270535	0.73
Toxaphene {4}	15.17	15.10	15.24	159622	166738	4.46
Toxaphene {5}	15.62	15.55	15.69	127935	140288	9.66
					Average %D	3.54

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7596.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	41853191	3.75
beta-BHC	5.03	4.96	5.10	15016835	14945465	0.48
gamma-BHC	5.16	5.09	5.23	36588180	37750158	3.18
delta-BHC	5.63	5.56	5.70	33880724	35682764	5.32
Heptachlor	6.73	6.66	6.80	31389665	33107379	5.47
Aldrin	7.54	7.47	7.61	34274696	35311726	3.03
Heptachlor epoxide	8.55	8.48	8.62	30240505	31133435	2.95
Endosulfan I	9.47	9.40	9.54	28349592	28973057	2.20
4,4'-DDE	10.24	10.17	10.31	30956853	31706814	2.42
Dieldrin	10.16	10.09	10.23	30907201	31909332	3.24
Endrin	10.72	10.65	10.79	28723809	29543257	2.85
Endosulfan II	10.97	10.90	11.04	26805706	27045911	0.90
4,4'-DDD	11.36	11.29	11.43	24876460	26067443	4.79
Endrin aldehyde	11.50	11.43	11.57	20714936	21163301	2.16
Endosulfan sulfate	12.15	12.08	12.22	22813661	23011715	0.87
4,4'-DDT	12.38	12.31	12.45	21294752	21514523	1.03
Endrin ketone	13.36	13.29	13.43	29404296	29176484	0.77
Methoxychlor	14.06	13.99	14.13	10585603	10732266	1.39
alpha-Chlordane	9.57	9.50	9.64	31436094	31858286	1.34
gamma-Chlordane	9.17	9.10	9.24	32834256	33564445	2.22
					Average %D	2.52

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7596.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12349962	4.15
beta-BHC	8.62	8.55	8.69	5035275	5072751	0.74
gamma-BHC	6.52	6.45	6.59	10845482	11420108	5.30
delta-BHC	9.18	9.11	9.25	9950500	10817072	8.71
Heptachlor	7.00	6.93	7.07	9446517	9964093	5.48
Aldrin	7.67	7.60	7.74	10021961	10563591	5.40
Heptachlor epoxide	9.51	9.44	9.58	9193109	9566853	4.07
Endosulfan I	10.20	10.13	10.27	8609510	8960559	4.08
4,4'-DDE	10.97	10.90	11.04	9046351	9513898	5.17
Dieldrin	11.23	11.16	11.30	9285195	9780315	5.33
Endrin	11.76	11.69	11.83	8957054	9408703	5.04
Endosulfan II	13.20	13.13	13.27	15844976	16724574	5.55
4,4'-DDD	13.20	13.13	13.27	15844976	16724574	5.55
Endrin aldehyde	14.33	14.26	14.40	5869364	5865090	0.07
Endosulfan sulfate	15.23	15.16	15.30	6799689	7038256	3.51
4,4'-DDT	13.65	13.58	13.72	5760210	5917866	2.74
Endrin ketone	16.26	16.19	16.33	8583060	9201409	7.20
Methoxychlor	15.51	15.44	15.58	3243888	3278798	1.08
alpha-Chlordane	10.59	10.52	10.66	9292066	9652460	3.88
gamma-Chlordane	10.43	10.36	10.50	9464806	9890752	4.50
					Average %D	4.38

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7600.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	41285114	2.35
beta-BHC	5.03	4.96	5.10	15016835	14816486	1.33
gamma-BHC	5.16	5.09	5.23	36588180	37174316	1.60
delta-BHC	5.63	5.56	5.70	33880724	35459684	4.66
Heptachlor	6.73	6.66	6.80	31389665	32048650	2.10
Aldrin	7.54	7.47	7.61	34274696	34765461	1.43
Heptachlor epoxide	8.55	8.48	8.62	30240505	30627523	1.28
Endosulfan I	9.47	9.40	9.54	28349592	28664538	1.11
4,4'-DDE	10.24	10.17	10.31	30956853	31312420	1.15
Dieldrin	10.16	10.09	10.23	30907201	31485244	1.87
Endrin	10.72	10.65	10.79	28723809	29091832	1.28
Endosulfan II	10.97	10.90	11.04	26805706	26899823	0.35
4,4'-DDD	11.36	11.29	11.43	24876460	25953610	4.33
Endrin aldehyde	11.50	11.43	11.57	20714936	20735625	0.10
Endosulfan sulfate	12.15	12.08	12.22	22813661	23058842	1.07
4,4'-DDT	12.38	12.31	12.45	21294752	20704797	2.77
Endrin ketone	13.36	13.29	13.43	29404296	29190320	0.73
Methoxychlor	14.06	13.99	14.13	10585603	10372703	2.01
alpha-Chlordane	9.58	9.51	9.65	31436094	31479318	0.14
gamma-Chlordane	9.17	9.10	9.24	32834256	33129173	0.90
					Average %D	1.63
Chlordane 500 ppb	9.17	9.10	9.24	3616750	3596748	0.55
Chlordane {2}	9.37	9.30	9.44	796362	780513	1.99
Chlordane {3}	9.57	9.50	9.64	3567490	3534997	0.91
Chlordane {4}	9.72	9.65	9.79	2088165	2066593	1.03
Chlordane {5}	11.57	11.50	11.64	1002113	976349	2.57
Toxaphene 500 ppb	13.16	13.09	13.23	648074	573859	11.45
Toxaphene {2}	13.29	13.22	13.36	1025609	987737	3.69
Toxaphene {3}	13.58	13.51	13.65	468496	407544	13.01
Toxaphene {4}	14.04	13.97	14.11	480376	437894	8.84
Toxaphene {5}	14.54	14.47	14.61	571717	541828	5.23
					Average %D	4.93

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7600.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12404991	4.61
beta-BHC	8.62	8.55	8.69	5035275	5011582	0.47
gamma-BHC	6.52	6.45	6.59	10845482	11328698	4.46
delta-BHC	9.19	9.12	9.26	9950500	10677916	7.31
Heptachlor	7.00	6.93	7.07	9446517	9731241	3.01
Aldrin	7.67	7.60	7.74	10021961	10417973	3.95
Heptachlor epoxide	9.51	9.44	9.58	9193109	9403125	2.28
Endosulfan I	10.20	10.13	10.27	8609510	8837558	2.65
4,4'-DDE	10.97	10.90	11.04	9046351	9394140	3.84
Dieldrin	11.23	11.16	11.30	9285195	9632470	3.74
Endrin	11.76	11.69	11.83	8957054	9248883	3.26
Endosulfan II	13.20	13.13	13.27	15844976	16593430	4.72
4,4'-DDD	13.20	13.13	13.27	15844976	16593430	4.72
Endrin aldehyde	14.34	14.27	14.41	5869364	5952895	1.42
Endosulfan sulfate	15.24	15.17	15.31	6799689	7004971	3.02
4,4'-DDT	13.65	13.58	13.72	5760210	5636674	2.14
Endrin ketone	16.26	16.19	16.33	8583060	8802255	2.55
Methoxychlor	15.51	15.44	15.58	3243888	3148957	2.93
alpha-Chlordane	10.59	10.52	10.66	9292066	9510865	2.35
gamma-Chlordane	10.43	10.36	10.50	9464806	9727140	2.77
					Average %D	3.31
Chlordane 500 ppb	8.36	8.29	8.43	178263	180008	0.98
Chlordane {2}	10.03	9.96	10.10	232532	233794	0.54
Chlordane {3}	10.43	10.36	10.50	1028630	1041378	1.24
Chlordane {4}	10.59	10.52	10.66	921012	940193	2.08
Chlordane {5}	10.65	10.58	10.72	599256	600952	0.28
Toxaphene 500 ppb	13.98	13.91	14.05	284900	280469	1.56
Toxaphene {2}	14.73	14.66	14.80	206806	201896	2.37
Toxaphene {3}	14.98	14.91	15.05	268570	281663	4.88
Toxaphene {4}	15.17	15.10	15.24	159622	176384	10.50
Toxaphene {5}	15.63	15.56	15.70	127935	139849	9.31
					Average %D	3.37

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7623.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	42230872	4.69
beta-BHC	5.03	4.96	5.10	15016835	15167675	1.00
gamma-BHC	5.16	5.09	5.23	36588180	37988598	3.83
delta-BHC	5.63	5.56	5.70	33880724	35763485	5.56
Heptachlor	6.73	6.66	6.80	31389665	32548846	3.69
Aldrin	7.54	7.47	7.61	34274696	35884728	4.70
Heptachlor epoxide	8.55	8.48	8.62	30240505	31648484	4.66
Endosulfan I	9.47	9.40	9.54	28349592	29607303	4.44
4,4'-DDE	10.24	10.17	10.31	30956853	32445297	4.81
Dieldrin	10.16	10.09	10.23	30907201	32552664	5.32
Endrin	10.72	10.65	10.79	28723809	29513231	2.75
Endosulfan II	10.97	10.90	11.04	26805706	27958379	4.30
4,4'-DDD	11.36	11.29	11.43	24876460	26873119	8.03
Endrin aldehyde	11.50	11.43	11.57	20714936	21885233	5.65
Endosulfan sulfate	12.15	12.08	12.22	22813661	23809748	4.37
4,4'-DDT	12.38	12.31	12.45	21294752	20482265	3.82
Endrin ketone	13.36	13.29	13.43	29404296	30494419	3.71
Methoxychlor	14.06	13.99	14.13	10585603	10295536	2.74
alpha-Chlordane	9.57	9.50	9.64	31436094	32586596	3.66
gamma-Chlordane	9.17	9.10	9.24	32834256	34347002	4.61
					Average %D	4.32

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2001 **Instrument ID:** GC-W

Data File: W7623.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12474184	5.19
beta-BHC	8.62	8.55	8.69	5035275	5093458	1.16
gamma-BHC	6.52	6.45	6.59	10845482	11384890	4.97
delta-BHC	9.18	9.11	9.25	9950500	10619713	6.73
Heptachlor	7.00	6.93	7.07	9446517	9667366	2.34
Aldrin	7.67	7.60	7.74	10021961	10539848	5.17
Heptachlor epoxide	9.51	9.44	9.58	9193109	9538136	3.75
Endosulfan I	10.20	10.13	10.27	8609510	8962806	4.10
4,4'-DDE	10.97	10.90	11.04	9046351	9540383	5.46
Dieldrin	11.23	11.16	11.30	9285195	9764471	5.16
Endrin	11.76	11.69	11.83	8957054	9250647	3.28
Endosulfan II	13.20	13.13	13.27	15844976	16943215	6.93
4,4'-DDD	13.20	13.13	13.27	15844976	16943215	6.93
Endrin aldehyde	14.33	14.26	14.40	5869364	6184749	5.37
Endosulfan sulfate	15.23	15.16	15.30	6799689	7127744	4.82
4,4'-DDT	13.65	13.58	13.72	5760210	5509103	4.36
Endrin ketone	16.26	16.19	16.33	8583060	9061652	5.58
Methoxychlor	15.51	15.44	15.58	3243888	3178350	2.02
alpha-Chlordane	10.59	10.52	10.66	9292066	9658534	3.94
gamma-Chlordane	10.43	10.36	10.50	9464806	9879441	4.38
					Average %D	4.58

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/18/2001 **Instrument ID:** GC-W

Data File: W7698.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	43533505	7.92
beta-BHC	5.03	4.96	5.10	15016835	15537051	3.46
gamma-BHC	5.16	5.09	5.23	36588180	39218411	7.19
delta-BHC	5.63	5.56	5.70	33880724	37857157	11.74
Heptachlor	6.73	6.66	6.80	31389665	34635569	10.34
Aldrin	7.54	7.47	7.61	34274696	36452296	6.35
Heptachlor epoxide	8.55	8.48	8.62	30240505	32314725	6.86
Endosulfan I	9.47	9.40	9.54	28349592	30133122	6.29
4,4'-DDE	10.24	10.17	10.31	30956853	32648138	5.46
Dieldrin	10.16	10.09	10.23	30907201	33330138	7.84
Endrin	10.72	10.65	10.79	28723809	31104583	8.29
Endosulfan II	10.97	10.90	11.04	26805706	28455878	6.16
4,4'-DDD	11.36	11.29	11.43	24876460	27725058	11.45
Endrin aldehyde	11.50	11.43	11.57	20714936	22256140	7.44
Endosulfan sulfate	12.15	12.08	12.22	22813661	25076209	9.92
4,4'-DDT	12.38	12.31	12.45	21294752	22812488	7.13
Endrin ketone	13.36	13.29	13.43	29404296	30924588	5.17
Methoxychlor	14.06	13.99	14.13	10585603	11690789	10.44
alpha-Chlordane	9.57	9.50	9.64	31436094	33224350	5.69
gamma-Chlordane	9.17	9.10	9.24	32834256	35021797	6.66
					Average %D	7.59
Chlordane 500 ppb	9.17	9.10	9.24	3616750	3821614	5.66
Chlordane {2}	9.37	9.30	9.44	796362	832489	4.54
Chlordane {3}	9.57	9.50	9.64	3567490	3747626	5.05
Chlordane {4}	9.72	9.65	9.79	2088165	2201879	5.45
Chlordane {5}	11.57	11.50	11.64	1002113	1046733	4.45
Toxaphene 500 ppb	13.16	13.09	13.23	648074	609501	5.95
Toxaphene {2}	13.29	13.22	13.36	1025609	1033423	0.76
Toxaphene {3}	13.57	13.50	13.64	468496	394926	15.70
Toxaphene {4}	14.03	13.96	14.10	480376	446278	7.10
Toxaphene {5}	14.54	14.47	14.61	571717	532427	6.87
					Average %D	6.15

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/18/2001 **Instrument ID:** GC-W

Data File: W7698.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12360193	4.23
beta-BHC	8.62	8.55	8.69	5035275	4950458	1.68
gamma-BHC	6.52	6.45	6.59	10845482	11232515	3.57
delta-BHC	9.18	9.11	9.25	9950500	10716686	7.70
Heptachlor	7.00	6.93	7.07	9446517	9688974	2.57
Aldrin	7.67	7.60	7.74	10021961	10271101	2.49
Heptachlor epoxide	9.51	9.44	9.58	9193109	9319124	1.37
Endosulfan I	10.20	10.13	10.27	8609510	8738842	1.50
4,4'-DDE	10.97	10.90	11.04	9046351	9205731	1.76
Dieldrin	11.23	11.16	11.30	9285195	9499618	2.31
Endrin	11.76	11.69	11.83	8957054	9178565	2.47
Endosulfan II	13.20	13.13	13.27	15844976	16421239	3.64
4,4'-DDD	13.20	13.13	13.27	15844976	16421239	3.64
Endrin aldehyde	14.33	14.26	14.40	5869364	6013338	2.45
Endosulfan sulfate	15.23	15.16	15.30	6799689	7051091	3.70
4,4'-DDT	13.65	13.58	13.72	5760210	5610425	2.60
Endrin ketone	16.26	16.19	16.33	8583060	8580713	0.03
Methoxychlor	15.51	15.44	15.58	3243888	3167107	2.37
alpha-Chlordane	10.59	10.52	10.66	9292066	9415101	1.32
gamma-Chlordane	10.43	10.36	10.50	9464806	9633379	1.78
					Average %D	2.66
Chlordane 500 ppb	8.36	8.29	8.43	178263	183128	2.73
Chlordane {2}	10.03	9.96	10.10	232532	236824	1.85
Chlordane {3}	10.43	10.36	10.50	1028630	1053797	2.45
Chlordane {4}	10.59	10.52	10.66	921012	953344	3.51
Chlordane {5}	10.65	10.58	10.72	599256	602829	0.60
Toxaphene 500 ppb	13.98	13.91	14.05	284900	276135	3.08
Toxaphene {2}	14.73	14.66	14.80	206806	190572	7.85
Toxaphene {3}	14.98	14.91	15.05	268570	277580	3.36
Toxaphene {4}	15.17	15.10	15.24	159622	164490	3.05
Toxaphene {5}	15.62	15.55	15.69	127935	133811	4.59
					Average %D	3.31

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/19/2001 **Instrument ID:** GC-W

Data File: W7725.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	44914258	11.34
beta-BHC	5.03	4.96	5.10	15016835	15945235	6.18
gamma-BHC	5.15	5.08	5.22	36588180	40402450	10.42
delta-BHC	5.63	5.56	5.70	33880724	39295900	15.98
Heptachlor	6.73	6.66	6.80	31389665	35415738	12.83
Aldrin	7.54	7.47	7.61	34274696	37762381	10.18
Heptachlor epoxide	8.55	8.48	8.62	30240505	33288064	10.08
Endosulfan I	9.47	9.40	9.54	28349592	31038999	9.49
4,4'-DDE	10.24	10.17	10.31	30956853	33756544	9.04
Dieldrin	10.16	10.09	10.23	30907201	34171304	10.56
Endrin	10.71	10.64	10.78	28723809	31747264	10.53
Endosulfan II	10.97	10.90	11.04	26805706	29212673	8.98
4,4'-DDD	11.35	11.28	11.42	24876460	28316456	13.83
Endrin aldehyde	11.49	11.42	11.56	20714936	22607591	9.14
Endosulfan sulfate	12.15	12.08	12.22	22813661	25907365	13.56
4,4'-DDT	12.38	12.31	12.45	21294752	23337352	9.59
Endrin ketone	13.36	13.29	13.43	29404296	31758513	8.01
Methoxychlor	14.05	13.98	14.12	10585603	11735683	10.86
alpha-Chlordane	9.57	9.50	9.64	31436094	34256476	8.97
gamma-Chlordane	9.16	9.09	9.23	32834256	36108786	9.97
					Average %D	10.48

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/19/2001 **Instrument ID:** GC-W

Data File: W7725.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12810916	8.03
beta-BHC	8.62	8.55	8.69	5035275	5135384	1.99
gamma-BHC	6.52	6.45	6.59	10845482	11659585	7.51
delta-BHC	9.18	9.11	9.25	9950500	11240589	12.97
Heptachlor	7.00	6.93	7.07	9446517	10039353	6.28
Aldrin	7.67	7.60	7.74	10021961	10660870	6.38
Heptachlor epoxide	9.51	9.44	9.58	9193109	9657735	5.05
Endosulfan I	10.20	10.13	10.27	8609510	9064839	5.29
4,4'-DDE	10.97	10.90	11.04	9046351	9564554	5.73
Dieldrin	11.23	11.16	11.30	9285195	9861497	6.21
Endrin	11.76	11.69	11.83	8957054	9472423	5.75
Endosulfan II	13.20	13.13	13.27	15844976	16659859	5.14
4,4'-DDD	13.20	13.13	13.27	15844976	16659859	5.14
Endrin aldehyde	14.33	14.26	14.40	5869364	6281426	7.02
Endosulfan sulfate	15.23	15.16	15.30	6799689	7398282	8.80
4,4'-DDT	13.65	13.58	13.72	5760210	5960729	3.48
Endrin ketone	16.26	16.19	16.33	8583060	9015019	5.03
Methoxychlor	15.51	15.44	15.58	3243888	3308632	2.00
alpha-Chlordane	10.59	10.52	10.66	9292066	9797096	5.44
gamma-Chlordane	10.43	10.36	10.50	9464806	10021433	5.88
					Average %D	5.96

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/13/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4516.4719)	0712-BK1	SOIL	96		112		94		111	
S-1_N_30'	4516-001	SOIL	90		135		90		155	
S-1_S_30'	4516-002	SOIL	70		105		70		110	
S-1_E_30'	4516-003	SOIL	80		120		80		130	
WC-1	4687-001	SOIL	80		120		80		125	
SH-HUYLER-2	4719-001	SOIL	85		130		90		135	
SH-HUYLER-3	4719-002	SOIL	80		120		80		125	
SH-HUYLER-4	4719-003	SOIL	80		125		85		130	
SH-HUYLER-5	4719-004	SOIL	75		120		75		125	
PEST	PBS0712-MS1	SOIL	88		103		87		103	
(4472.4591)	0712-BK1	SOIL	87		103		85		102	
S-84A	4591-003	SOIL	80		115		75		130	
S-84B	4591-004	SOIL	40		110		65		120	
S-85	4591-005	SOIL	8495	*	55		120		185	*
S-86A	4591-006	SOIL	45		105		55		145	
S-86B	4591-007	SOIL	65		75		65		105	
S-87	4591-008	SOIL	1280	*	175		475	*	85	
S-88	4591-009	SOIL	80		120		75		130	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/13/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4627)	0713-BK1	SOIL	84		97		85		101	
MP-1/2/3/4	4627-001	SOIL	75		105		75		115	
PEST	PBS0713-MS1	SOIL	86		100		86		102	
(4590)	0712-BK2	SOIL	92		108		92		111	
S-90	4590-001	SOIL	80		120		85		130	
S-91	4590-002	SOIL	70		100		65		115	
S-93	4590-003	SOIL	75		95		70		110	
S-94A	4590-004	SOIL	80		110		80		125	
S-94B	4590-005	SOIL	75		110		75		120	
S-92	4590-006	SOIL	65		105		75		120	
PEST	PBS0712-MS2	SOIL	85		101		84		103	
(4540.4644)	0712-BK3	SOIL	93		111		91		112	
CS-1_5'	4540-001	SOIL	75		110		75		120	
CS-2_3'	4540-002	SOIL	75		105		75		130	
CS-3_1'	4540-003	SOIL	70		100		75		110	
CS-4_6"	4540-004	SOIL	70		105		75		115	
TOH-071001-01B	4644-002	SOIL	80		120		80		130	
TOH-071001-02	4644-003	SOIL	70		110		70		120	
PEST	PBS0712-MS3	SOIL	90		106		90		108	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/18/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4833)	0717-BK1	SOIL	92		105		88		102	
S-89	4591-010	SOIL	90		125		85		140	
PEST	4591-010-MS1	SOIL	76		116		76		119	
PEST	4591-010-MSD1	SOIL	78		109		79		113	
PEST	PBS0717-MS1	SOIL	94		102		90		102	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4472-027-MSD1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	98.8	99	44 - 149
Heptachlor	100.0	0.0	104.7	105	50 - 157
Aldrin	100.0	0.0	104.4	104	40 - 150
Dieldrin	100.0	0.0	107.6	108	56 - 134
Endrin	100.0	0.0	115.0	115	65 - 148
4,4'-DDT	100.0	0.0	165.4	165	42 - 175

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC	0.0	102.2	102	3	18	44 - 149
Heptachlor	0.0	107.3	107	2	18	50 - 157
Aldrin	0.0	104.0	104	0	18	40 - 150
Dieldrin	0.0	106.4	106	2	13	56 - 134
Endrin	0.0	114.1	114	1	14	65 - 148
4,4'-DDT	0.0	172.3	172	4	27	42 - 175

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4303-006-MSD3

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	93.6	94	44 - 149
Heptachlor	100.0	0.0	96.2	96	50 - 157
Aldrin	100.0	0.0	94.0	94	40 - 150
Dieldrin	100.0	0.0	92.7	93	56 - 134
Endrin	100.0	0.0	98.9	99	65 - 148
4,4'-DDT	100.0	0.0	101.3	101	42 - 175

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC	0.0	93.0	93	1	18	44 - 149
Heptachlor	0.0	96.8	97	1	18	50 - 157
Aldrin	0.0	93.1	93	1	18	40 - 150
Dieldrin	0.0	91.9	92	1	13	56 - 134
Endrin	0.0	98.4	98	1	14	65 - 148
4,4'-DDT	0.0	100.9	101	0	27	42 - 175

Column to be used to flag recovery and RPD values with an asterisk

***** Values outside of QC limits

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0712-MS2

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	99.9	100	44 - 149
Heptachlor	100.0	0.0	102.9	103	50 - 157
Aldrin	100.0	0.0	104.5	105	40 - 150
Dieldrin	100.0	0.0	102.2	102	56 - 134
Endrin	100.0	0.0	103.5	104	65 - 148
4,4'-DDT	100.0	0.0	93.7	94	42 - 175

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4591-010-MSD1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	105.6	106	44 - 149
Heptachlor	100.0	0.0	114.3	114	50 - 157
Aldrin	100.0	0.0	114.3	114	40 - 150
Dieldrin	100.0	0.0	116.2	116	56 - 134
Endrin	100.0	0.0	137.3	137	65 - 148
4,4'-DDT	100.0	0.0	130.8	131	42 - 175

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC	0.0	106.1	106	0	18	44 - 149
Heptachlor	0.0	115.0	115	1	18	50 - 157
Aldrin	0.0	108.7	109	4	18	40 - 150
Dieldrin	0.0	113.4	113	3	13	56 - 134
Endrin	0.0	138.1	138	1	14	65 - 148
4,4'-DDT	0.0	129.4	129	2	27	42 - 175

Column to be used to flag recovery and RPD values with an asterisk

***** Values outside of QC limits

NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0711-MS1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	108.0	108	44 - 149
Heptachlor	100.0	0.0	112.8	113	50 - 157
Aldrin	100.0	0.0	110.8	111	40 - 150
Dieldrin	100.0	0.0	107.9	108	56 - 134
Endrin	100.0	0.0	111.8	112	65 - 148
4,4'-DDT	100.0	0.0	109.7	110	42 - 175

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0717-MS1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	115.7	116	44 - 149
Heptachlor	100.0	0.0	121.5	122	50 - 157
Aldrin	100.0	0.0	118.0	118	40 - 150
Dieldrin	100.0	0.0	114.2	114	56 - 134
Endrin	100.0	0.0	120.9	121	65 - 148
4,4'-DDT	100.0	0.0	115.5	116	42 - 175

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.85 DCB 1 18.68 TCMX 2 3.68 DCB 2 18.61

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4516.4719)	0712-BK1	07/13/2001	02:36	3.85		18.68		3.68		18.61	
S-1_N_30'	4516-001	07/13/2001	03:01	3.85		18.67		3.68		18.61	
S-1_S_30'	4516-002	07/13/2001	03:26	3.85		18.68		3.68		18.61	
S-1_E_30'	4516-003	07/13/2001	03:51	3.85		18.67		3.68		18.61	
WC-1	4687-001	07/13/2001	04:16	3.85		18.68		3.68		18.62	
SH-HUYLER-2	4719-001	07/13/2001	04:41	3.85		18.68		3.68		18.62	
SH-HUYLER-3	4719-002	07/13/2001	05:06	3.85		18.68		3.68		18.61	
SH-HUYLER-4	4719-003	07/13/2001	05:31	3.85		18.68		3.68		18.62	
SH-HUYLER-5	4719-004	07/13/2001	05:56	3.85		18.68		3.68		18.61	
PEST	PBS0712-MS1	07/13/2001	06:21	3.85		18.67		3.68		18.61	
(4472.4591)	0712-BK1	07/13/2001	07:11	3.85		18.68		3.68		18.61	
S-84A	4591-003	07/13/2001	07:36	3.85		18.68		3.68		18.61	
S-84B	4591-004	07/13/2001	08:01	3.85		18.68		3.67		18.61	
S-85	4591-005	07/13/2001	08:26	3.84		18.68		3.68		18.60	
S-86A	4591-006	07/13/2001	08:51	3.85		18.67		3.68		18.61	
S-86B	4591-007	07/13/2001	09:16	3.85		18.68		3.68		18.61	
S-87	4591-008	07/13/2001	09:41	3.84		18.68		3.68		18.61	
S-88	4591-009	07/13/2001	10:06	3.85		18.68		3.68		18.61	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

1146

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.85 DCB 1 18.68 TCMX 2 3.68 DCB 2 18.62

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4627)	0713-BK1	07/13/2001	13:37	3.85		18.68		3.68		18.62	
MP-1/2/3/4	4627-001	07/13/2001	14:02	3.85		18.68		3.68		18.61	
PEST	PBS0713-MS1	07/13/2001	14:27	3.85		18.68		3.68		18.61	
(4590)	0712-BK2	07/13/2001	14:52	3.85		18.68		3.68		18.61	
S-90	4590-001	07/13/2001	15:17	3.85		18.68		3.68		18.61	
S-91	4590-002	07/13/2001	15:42	3.85		18.67		3.68		18.61	
S-93	4590-003	07/13/2001	16:07	3.85		18.68		3.68		18.61	
S-94A	4590-004	07/13/2001	16:32	3.85		18.68		3.68		18.61	
S-94B	4590-005	07/13/2001	16:57	3.85		18.68		3.68		18.61	
S-92	4590-006	07/13/2001	17:22	3.85		18.68		3.68		18.62	
PEST	PBS0712-MS2	07/13/2001	17:47	3.85		18.68		3.68		18.61	
(4540.4644)	0712-BK3	07/13/2001	18:37	3.85		18.68		3.68		18.62	
CS-1_5'	4540-001	07/13/2001	19:01	3.85		18.68		3.68		18.61	
CS-2_3'	4540-002	07/13/2001	19:27	3.85		18.68		3.68		18.62	
CS-3_1'	4540-003	07/13/2001	19:51	3.85		18.68		3.68		18.61	
CS-4_6"	4540-004	07/13/2001	20:16	3.85		18.68		3.68		18.62	
TOH-071001-01B	4644-002	07/13/2001	20:41	3.85		18.68		3.68		18.62	
TOH-071001-02	4644-003	07/13/2001	21:06	3.85		18.68		3.68		18.62	
PEST	PBS0712-MS3	07/13/2001	21:31	3.85		18.68		3.68		18.61	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.85 DCB 1 18.67 TCMX 2 3.68 DCB 2 18.61

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4833)	0717-BK1	07/18/2001	23:35	3.85		18.67		3.68		18.61	
S-89	4591-010	07/19/2001	03:45	3.85		18.67		3.68		18.61	
PEST	4591-010-MS1	07/19/2001	04:10	3.85		18.67		3.68		18.61	
PEST	4591-010-MSD1	07/19/2001	04:35	3.85		18.67		3.68		18.61	
PEST	PBS0717-MS1	07/19/2001	05:00	3.84		18.67		3.67		18.61	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7607.D\ECD1B.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7607.D\ECD2A.CH
Acq On : 7-13-01 15:17:26 Operator: LAG
Sample : S-90,4590-001,S,30.2g,17.6,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:04 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	78436832	26303117	1.628	1.712
Spiked Amount 100.000			Recovery =		1.63%	1.71%
2) S DCB	18.68	18.61	88786213	28006073	2.369	2.634
Spiked Amount 100.000			Recovery =		2.37%	2.63%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
rage Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7607.D WPTC0712.M Wed Jul 18 13:48:56 2001 GC_W Page 1

0511

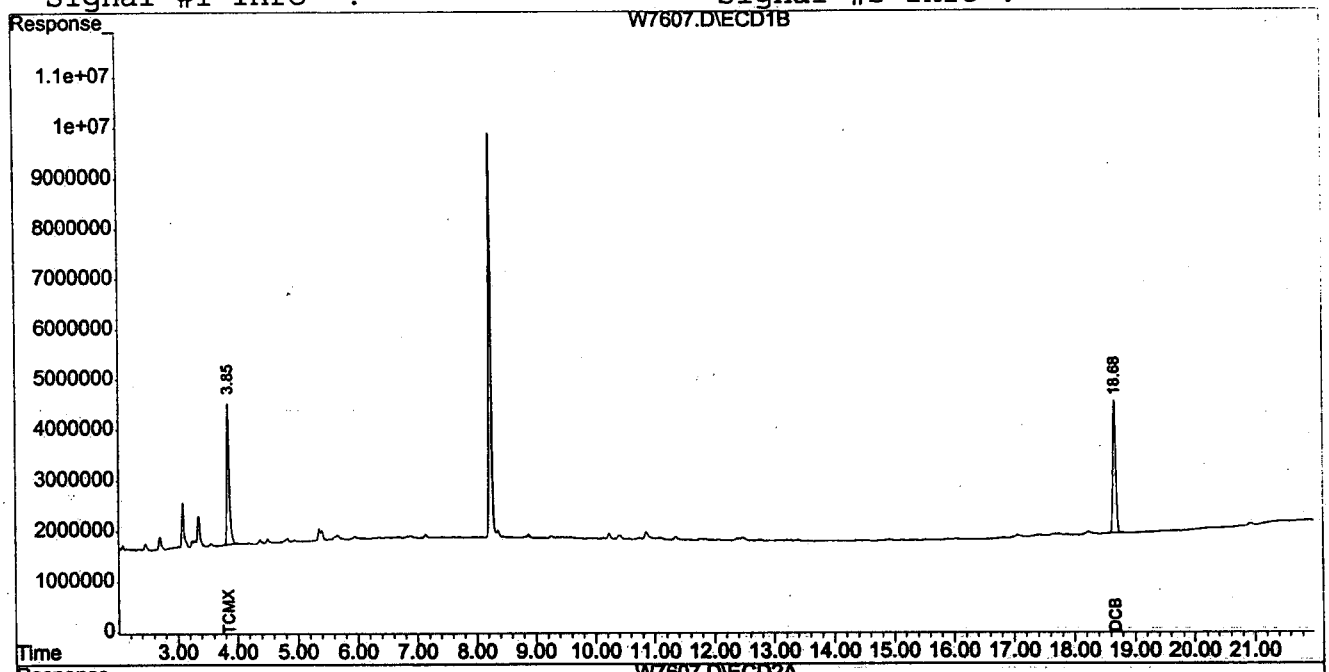
1149

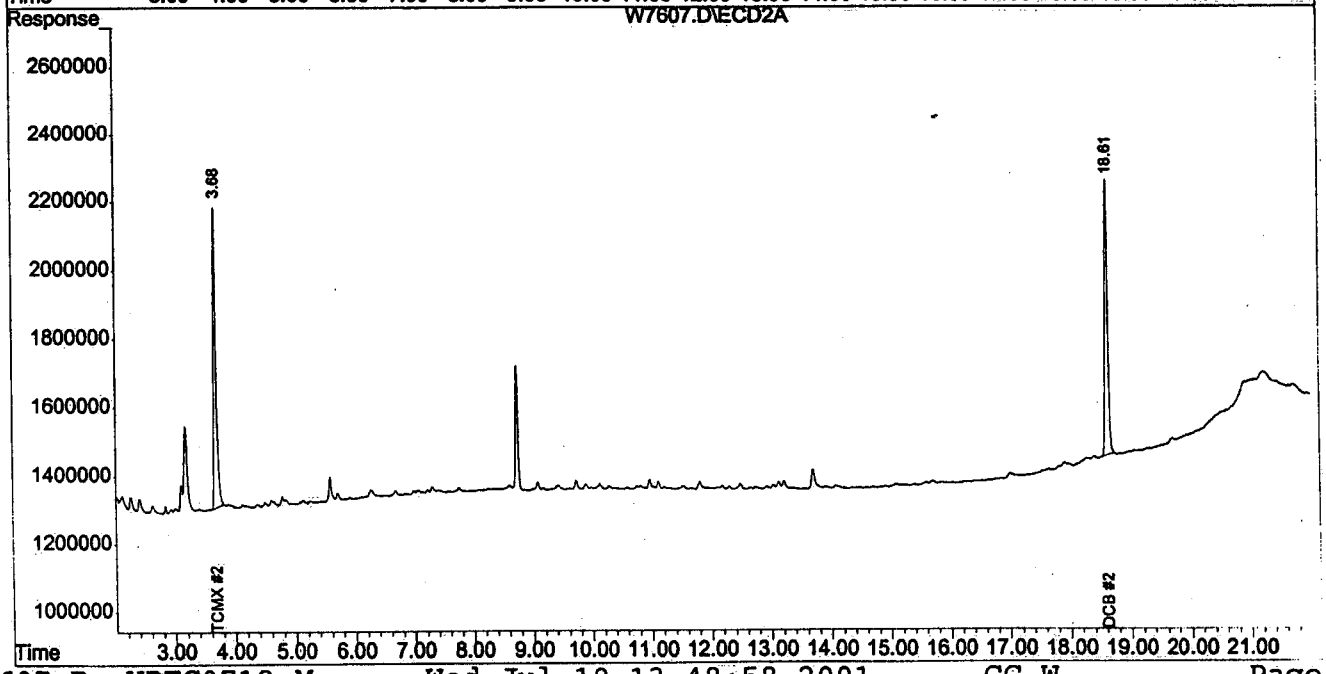
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7607.D\ECD1B.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7607.D\ECD2A.CH
Acq On : 7-13-01 15:17:26 Operator: LAG
Sample : S-90,4590-001,S,30.2g,17.6,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:04 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1150

0512

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7608.D\ECD1B.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7608.D\ECD2A.CH
Acq On : 7-13-01 15:42:25 Operator: LAG
Sample : S-91,4590-002,S,30.0g,16.3,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:05 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	68543360	20399053	1.422	1.327m
Spiked Amount 100.000			Recovery =		1.42%	1.33%
2) S DCB	18.67	18.61	75984159	24781798	2.027m	2.331m
Spiked Amount 100.000			Recovery =		2.03%	2.33%
Target Compounds						
15) T 4,4'-DDD	11.36	13.21	65963315	22841577	2.652m	2.850m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

$$\frac{\frac{2.652\ ng}{2\ \mu l} \times 10\ ml \times 50}{30\ g} \times 0.837$$

= 26

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7608.D WPTC0712.M Wed Jul 18 13:49:02 2001 GC_W Page 1

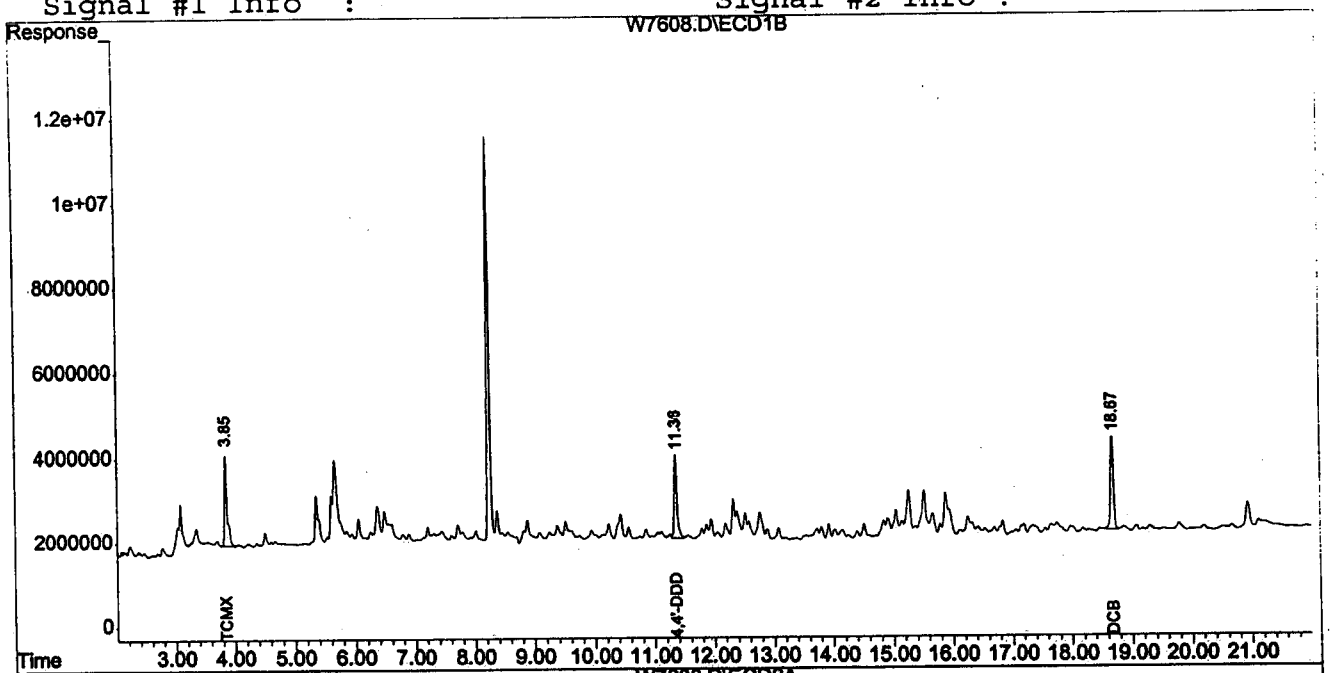
0513

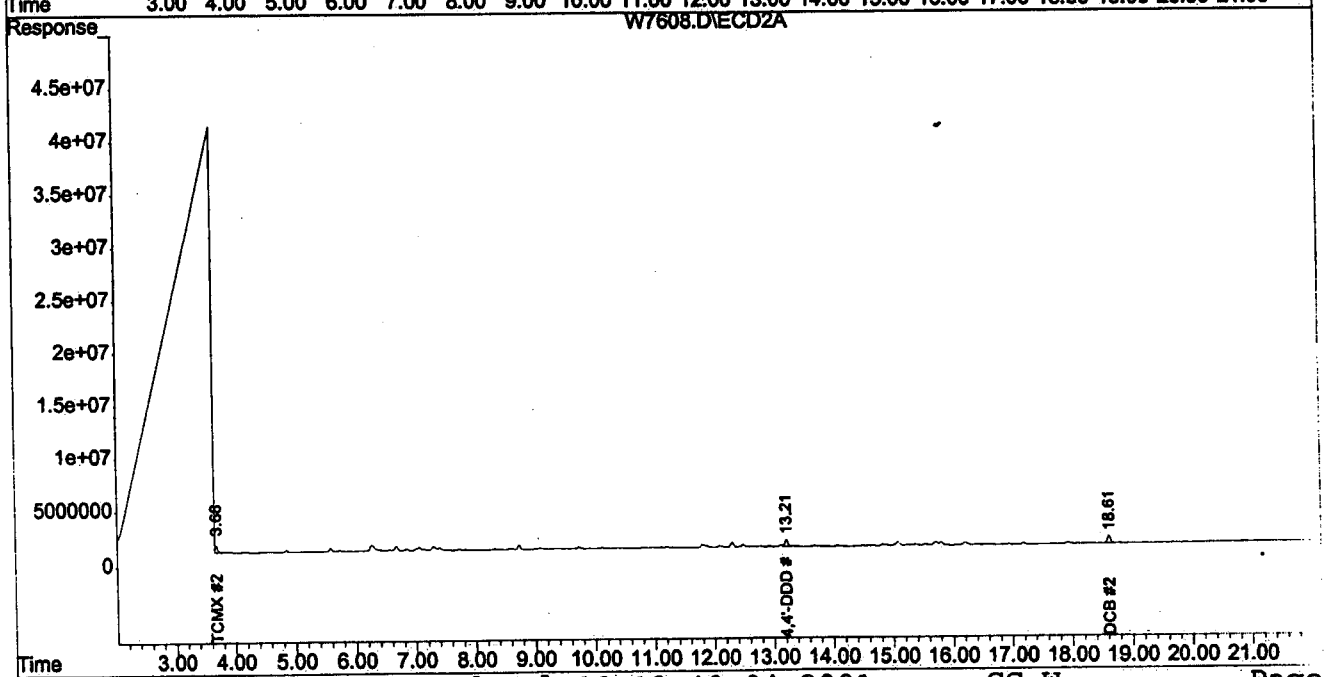
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7608.D\ECD1B.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7608.D\ECD2A.CH
Acq On : 7-13-01 15:42:25 Operator: LAG
Sample : S-91,4590-002,S,30.0g,16.3,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:05 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0514

1157

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7609.D\ECD1B.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7609.D\ECD2A.CH
Acq On : 7-13-01 16:07:20 Operator: LAG
Sample : S-93,4590-003,S,30.5g,23.1,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:05 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	70234886	21236694	1.457	1.382
Spiked Amount 100.000			Recovery	=	1.46%	1.38%
2) S DCB	18.68	18.61	71100566	22928402	1.897	2.156
Spiked Amount 100.000			Recovery	=	1.90%	2.16%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

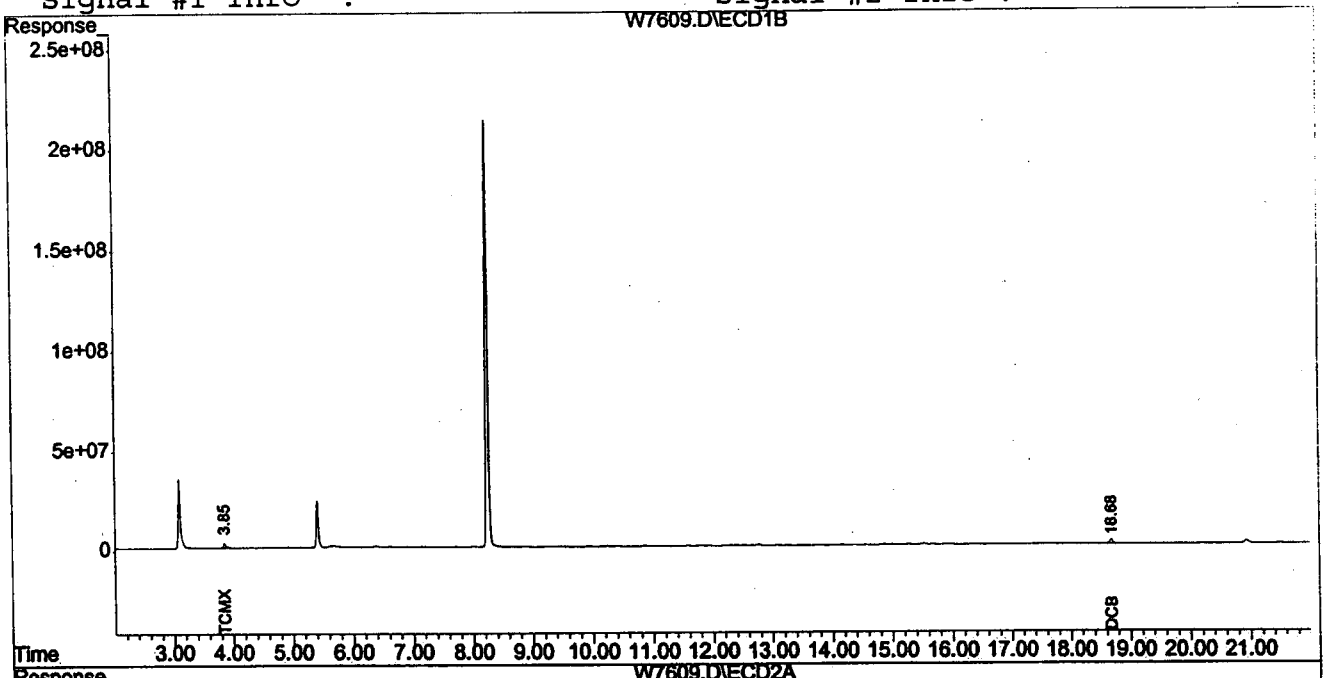
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7609.D WPTC0712.M Wed Jul 18 13:49:08 2001 GC_W Page 1

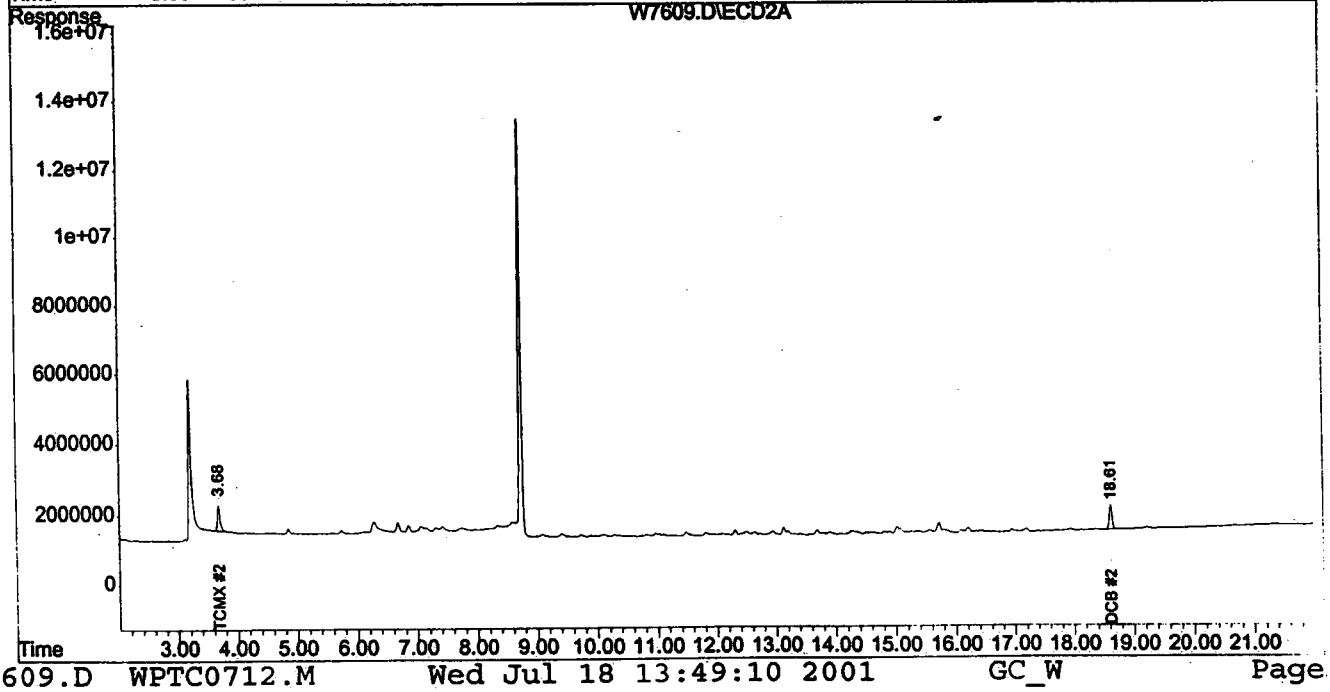
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7609.D\ECD1B.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7609.D\ECD2A.CH
Acq On : 7-13-01 16:07:20 Operator: LAG
Sample : S-93,4590-003,S,30.5g,23.1,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:05 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1154

0516

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7610.D\ECD1B.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7610.D\ECD2A.CH
Acq On : 7-13-01 16:32:15 Operator: LAG
Sample : S-94A,4590-004,S,30.2g,13.5,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	76869828	24444516	1.595	1.591
Spiked Amount 100.000			Recovery =		1.60%	1.59%
2) S DCB	18.68	18.61	83694286	26889640	2.233	2.529
Spiked Amount 100.000			Recovery =		2.23%	2.53%
Target Compounds						
11) T 4,4'-DDE	10.24	10.97	61180068	18709865	1.976	2.068m
T 4,4'-DDD	11.36	13.22	309.4E6	98549309	12.439	12.294m
18) T 4,4'-DDT	12.38	13.66	55287305	9973350	2.592	1.731m#
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

%D
4.5
=
40

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7610.D WPTC0712.M Wed Jul 18 13:49:15 2001 GC_W Page 1

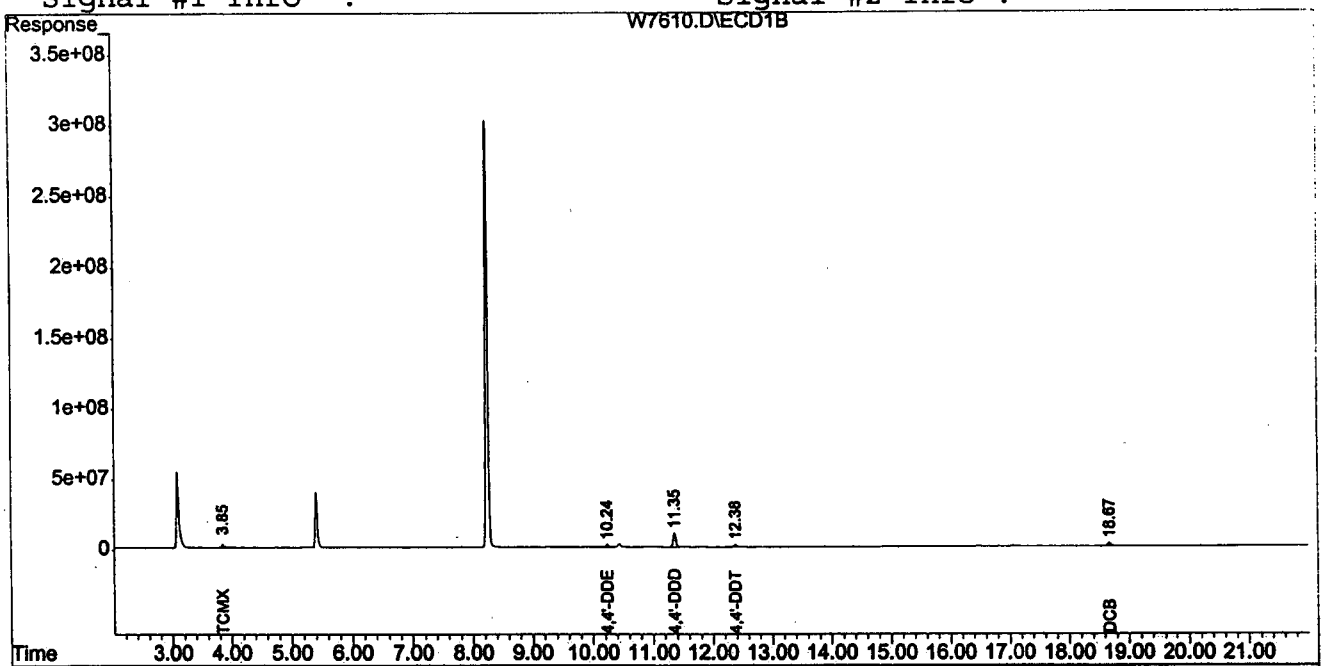
1155

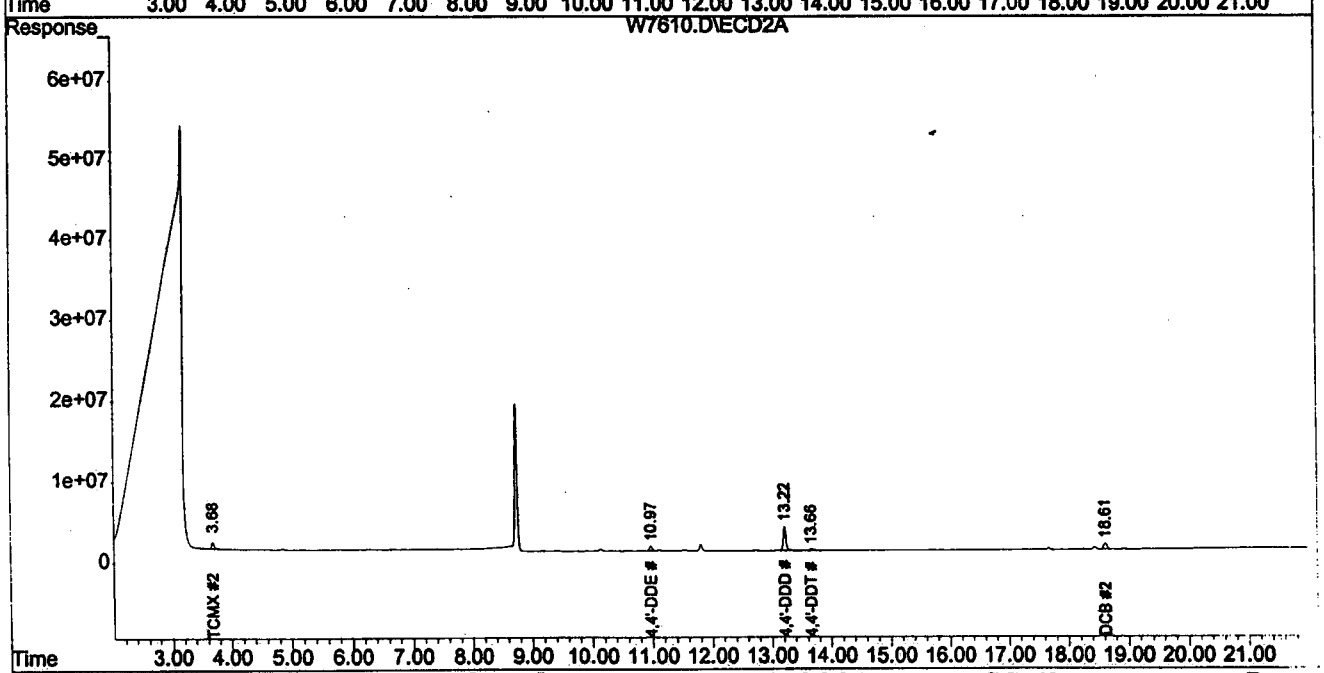
0517

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7610.D\ECD1B.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7610.D\ECD2A.CH
Acq On : 7-13-01 16:32:15 Operator: LAG
Sample : S-94A,4590-004,S,30.2g,13.5,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0518

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Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7611.D\ECD1B.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7611.D\ECD2A.CH
Acq On : 7-13-01 16:57:18 Operator: LAG
Sample : S-94B,4590-005,S,30.2g,17.7,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	70479859	23041339	1.462	1.499
Spiked Amount 100.000			Recovery =		1.46%	1.50%
2) S DCB	18.68	18.61	82330103	25956204	2.197	2.441
Spiked Amount 100.000			Recovery =		2.20%	2.44%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7611.D WPTC0712.M Wed Jul 18 13:49:21 2001 GC_W Page 1

0519

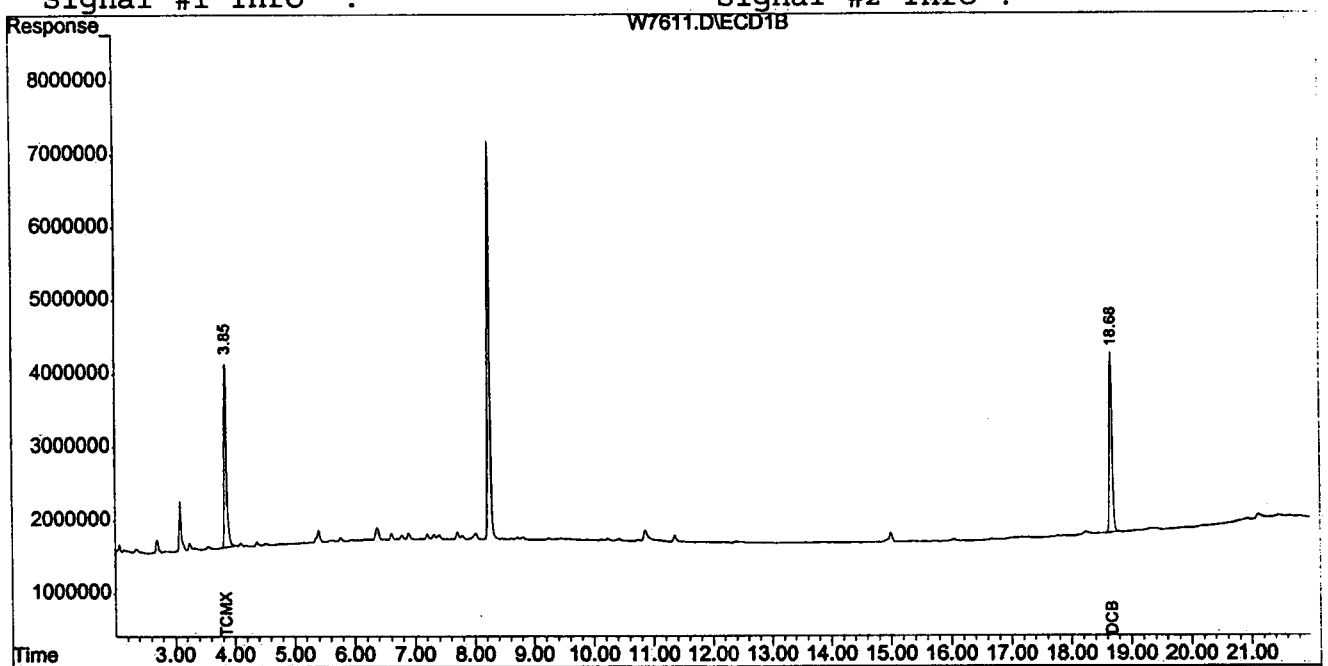
1157

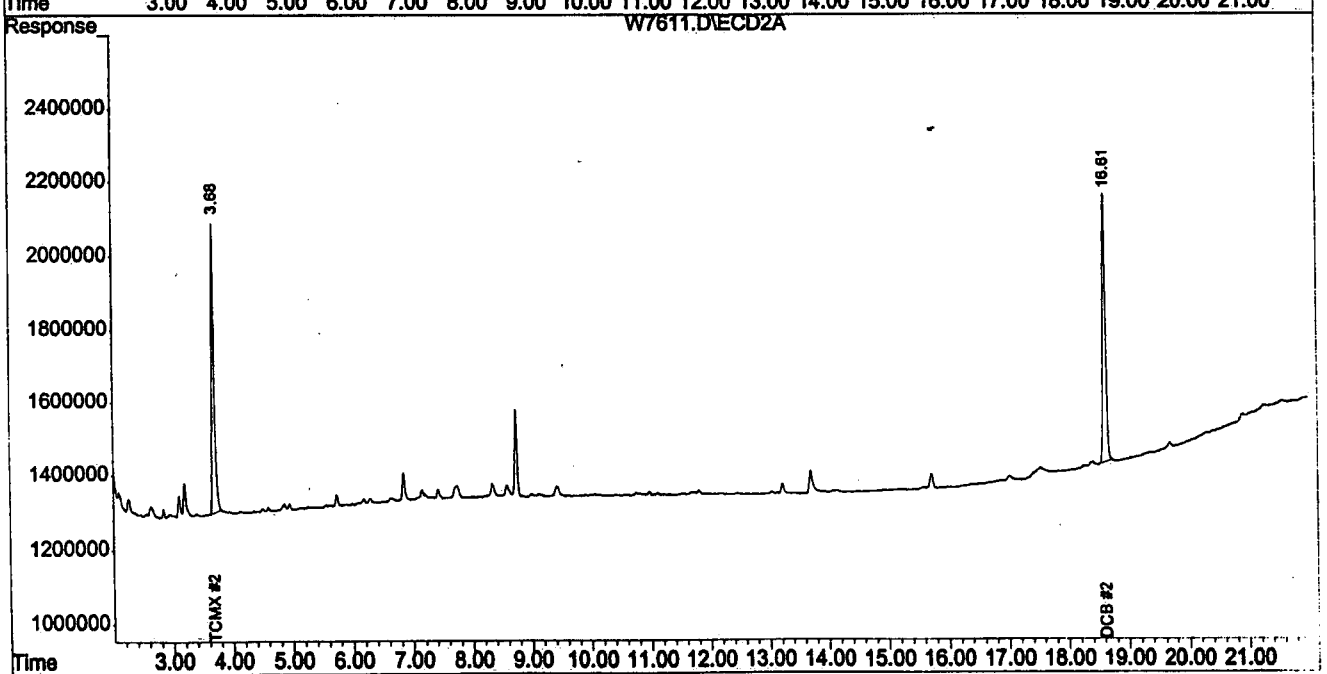
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7611.D\ECD1B.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7611.D\ECD2A.CH
Acq On : 7-13-01 16:57:18 Operator: LAG
Sample : S-94B,4590-005,S,30.2g,17.7,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7612.D\ECD1B.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7612.D\ECD2A.CH
Acq On : 7-13-01 17:22:14 Operator: LAG
Sample : S-92,4590-006,S,30.3g,17.2,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	62026783	23469978	1.287	1.527m
Spiked Amount 100.000			Recovery =		1.29%	1.53%
2) S DCB	18.68	18.62	80433200	25451574	2.146	2.394
Spiked Amount 100.000			Recovery =		2.15%	2.39%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

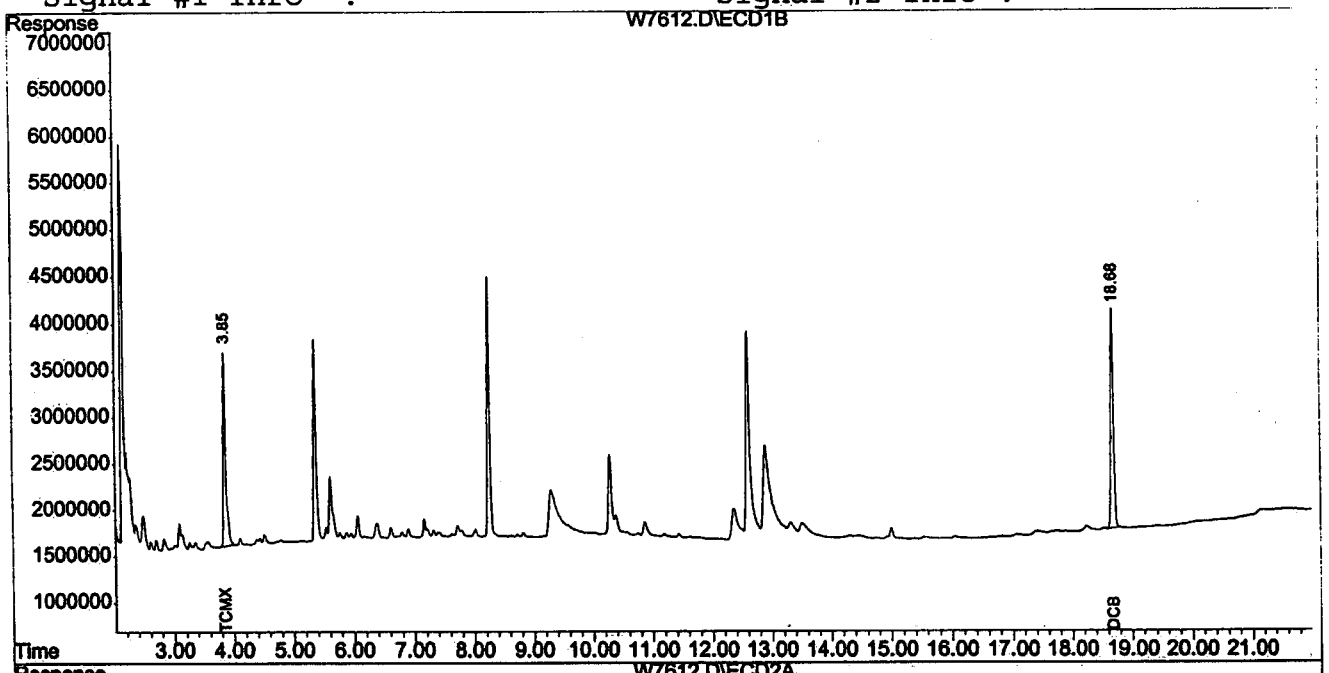
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

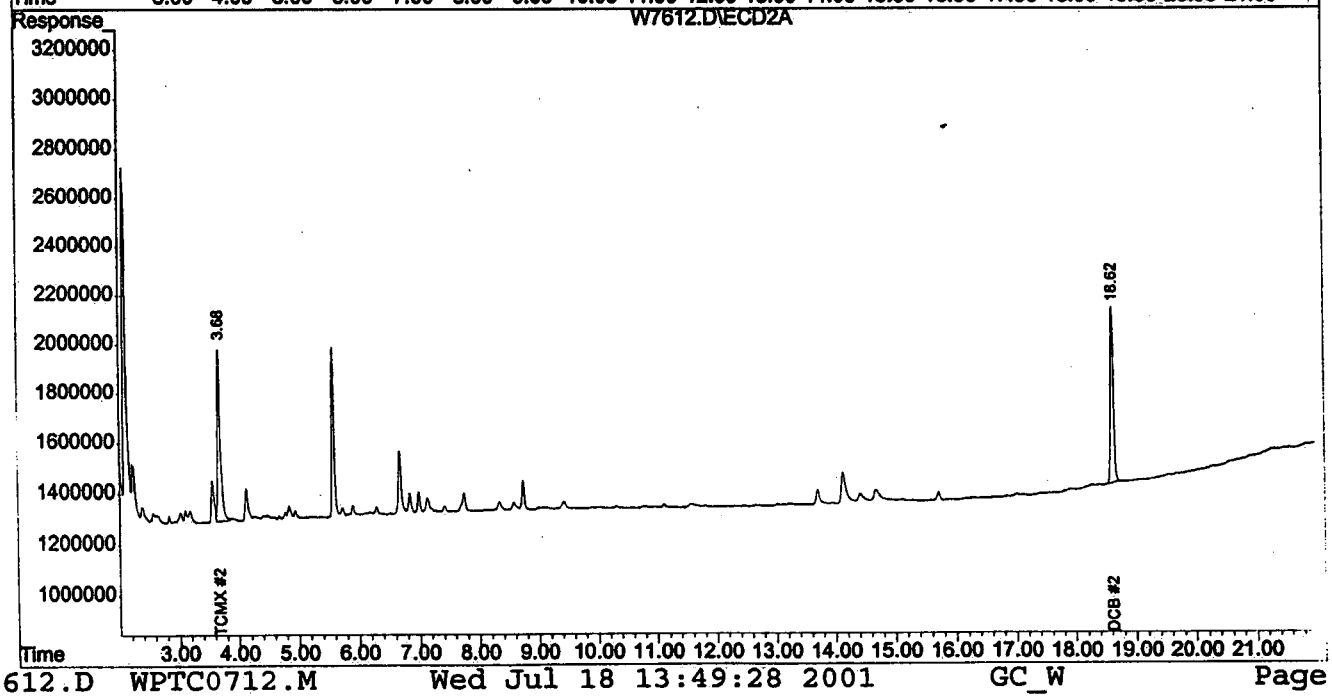
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7612.D\ECD1B.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7612.D\ECD2A.CH
Acq On : 7-13-01 17:22:14 Operator: LAG
Sample : S-92,4590-006,S,30.3g,17.2,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7589.D\ECD1B.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7589.D\ECD2A.CH
Acq On : 7-13-01 7:36:10 Operator: LAG
Sample : S-84A,4591-003,S,30.6g,17.0,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:14 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	78140448	22798320	1.621	1.484
Spiked Amount 100.000			Recovery =		1.62%	1.48%
2) S DCB	18.68	18.61	84900492	27544304	2.265	2.590
Spiked Amount 100.000			Recovery =		2.27%	2.59%
Target Compounds						
11) T 4,4'-DDE	10.24	10.96	39163834	9378255	1.265m	1.037m
T 4,4'-DDD	11.36	13.20	30335284	27162089	1.219m	3.389 #
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

%D
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(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7589.D WPTC0712.M Tue Jul 17 10:00:01 2001 GC_W Page 1

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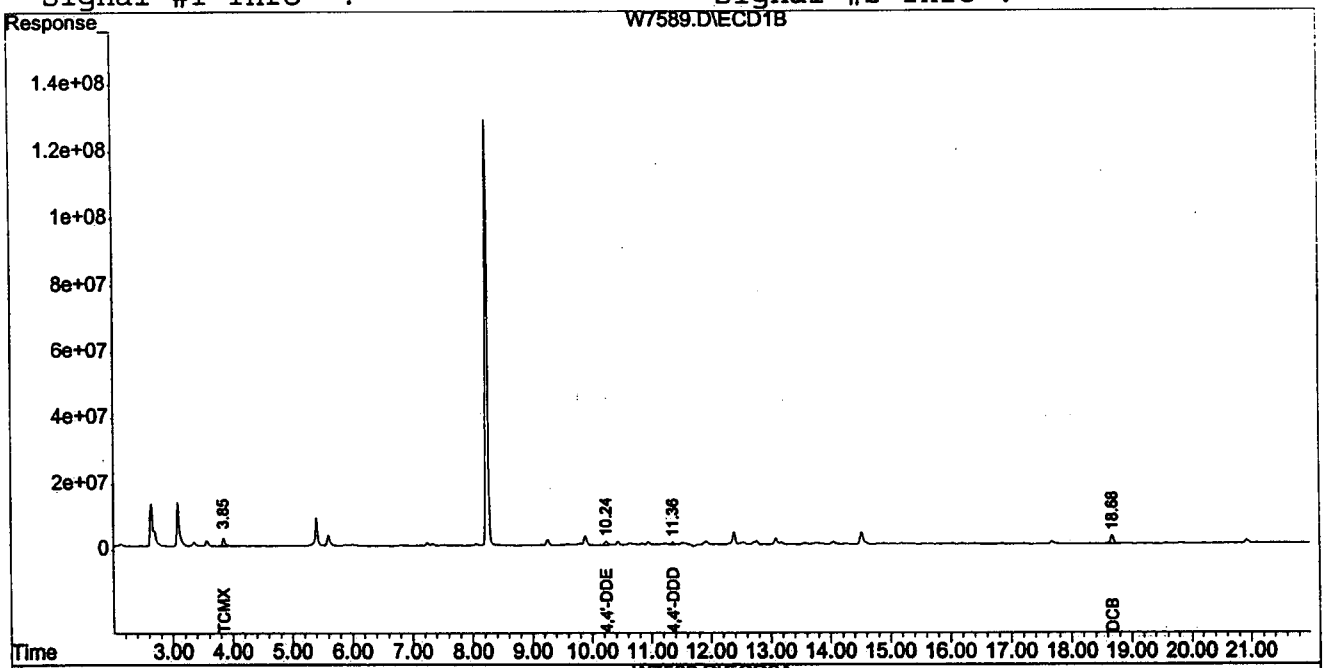
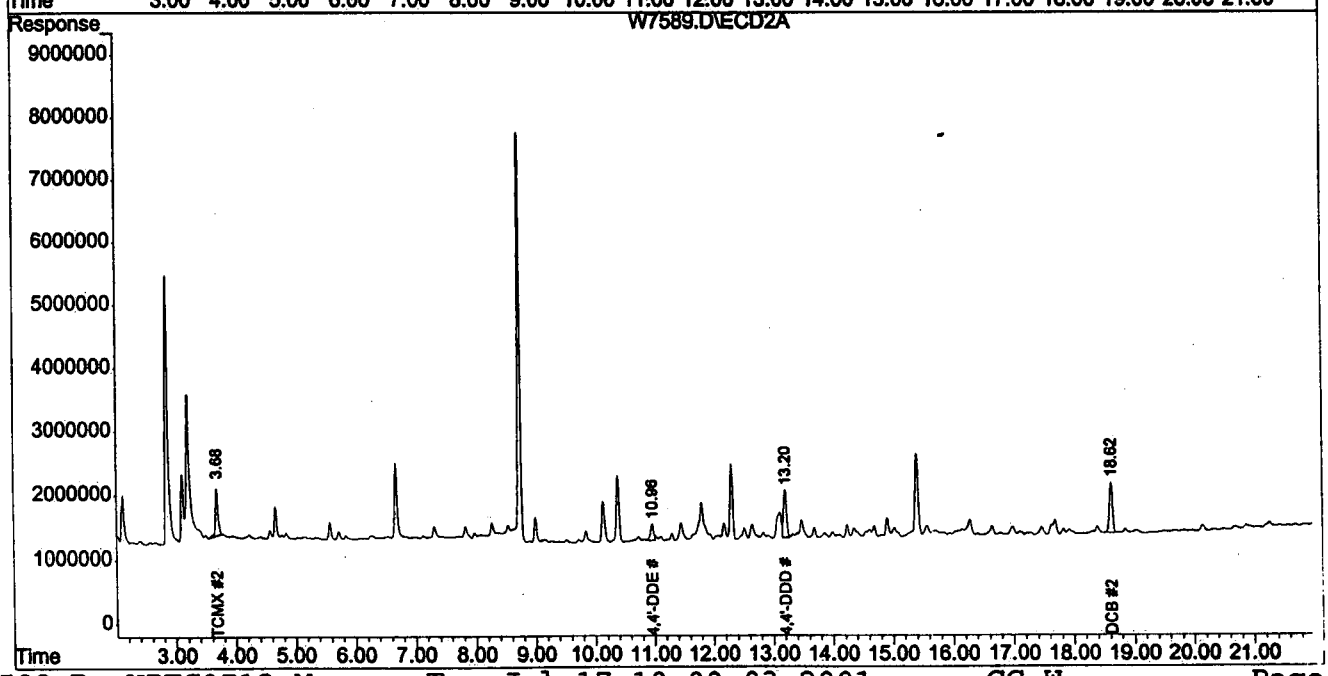
Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7589.D\ECD1B.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7589.D\ECD2A.CH
Acq On : 7-13-01 7:36:10 Operator: LAG
Sample : S-84A,4591-003,S,30.6g,17.0,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:14 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0524

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Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7590.D\ECD1B.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7590.D\ECD2A.CH
Acq On : 7-13-01 8:01:18 Operator: LAG
Sample : S-84B,4591-004,S,30.2g,18.9,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:15 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.67	39461535	19926580	0.819	1.297m#
Spiked Amount 100.000			Recovery =		0.82%	1.30%
2) S DCB	18.68	18.61	81921313	25026620	2.186	2.354
Spiked Amount 100.000			Recovery =		2.19%	2.35%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7590.D WPTC0712.M Tue Jul 17 10:00:07 2001 GC_W Page 1

0525

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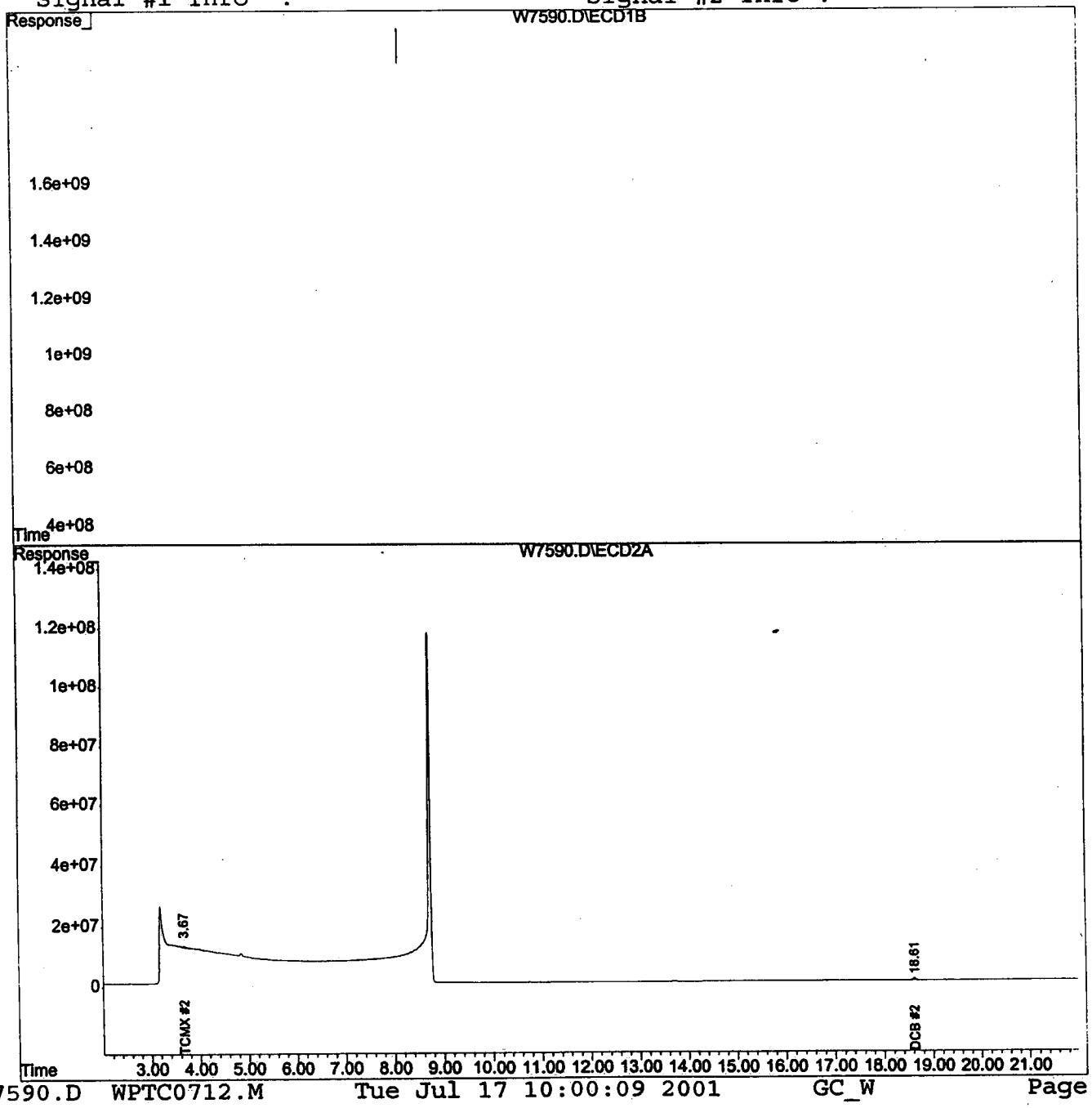
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7590.D\ECD1B.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7590.D\ECD2A.CH
Acq On : 7-13-01 8:01:18 Operator: LAG
Sample : S-84B,4591-004,S,30.2g,18.9,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:15 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



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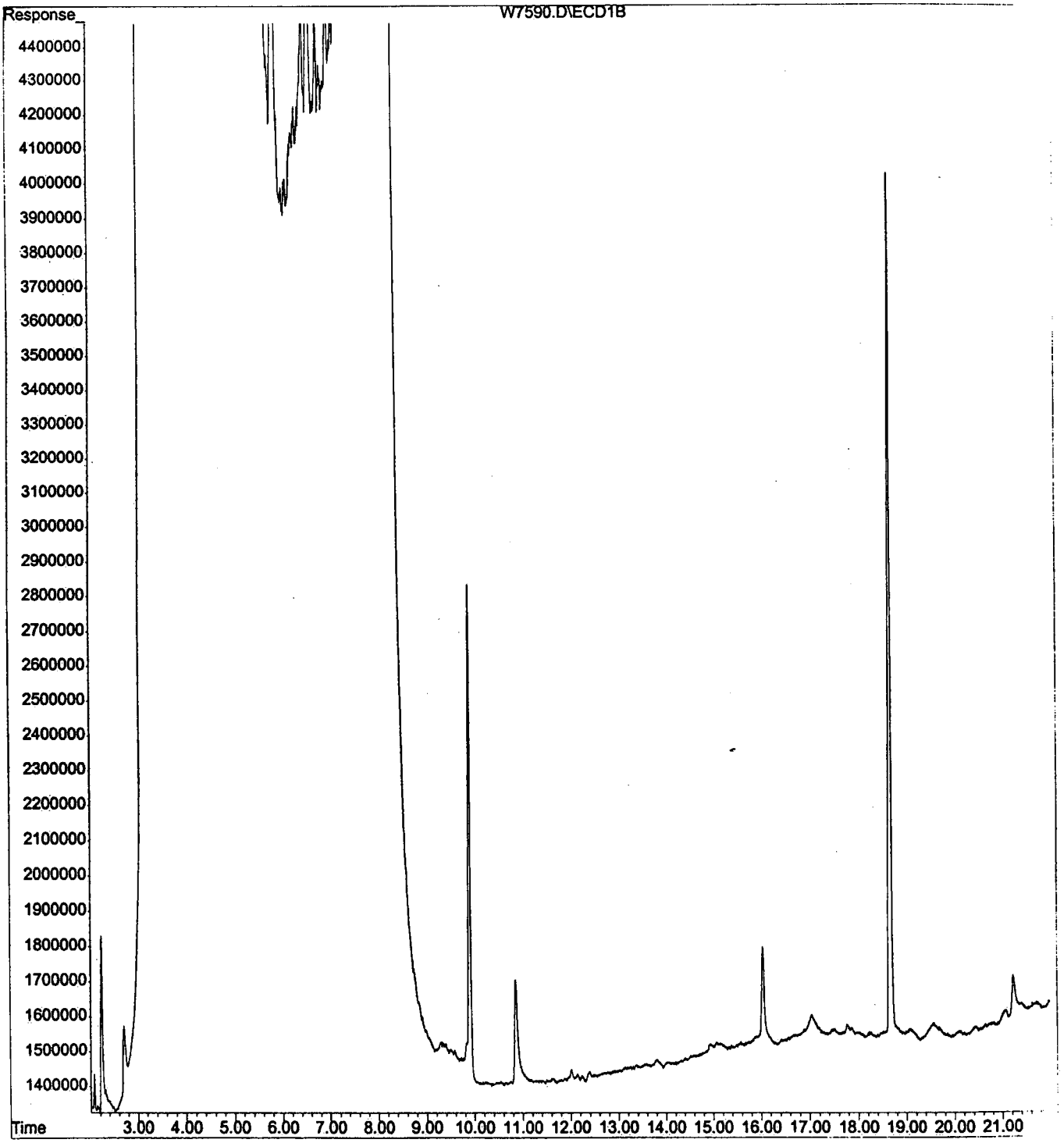
0526

File : C:\HPCHEM\1\DATA\07-12-01\W7590.D
Operator : LAG
Acquired : 7-13-01 8:01:18 using AcqMethod WPTC0710.M
Instrument : GC_W
Sample Name: S-84B,4591-004,S,30.2g,18.9,07/12/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,50
Vial Number: 46



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7591.D\ECD1B.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7591.D\ECD2A.CH
Acq On : 7-13-01 8:26:16 Operator: LAG
Sample : S-85,4591-005,S,30.6g,17.7,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:41 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.84	3.68	8189.9E6	36361095	169.936	2.366 #
Spiked Amount 100.000			Recovery	=	169.94%	2.37%
2) S DCB	18.68	18.60	41512292	39799675	1.108m	3.743m#
Spiked Amount 100.000			Recovery	=	1.11%	3.74%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

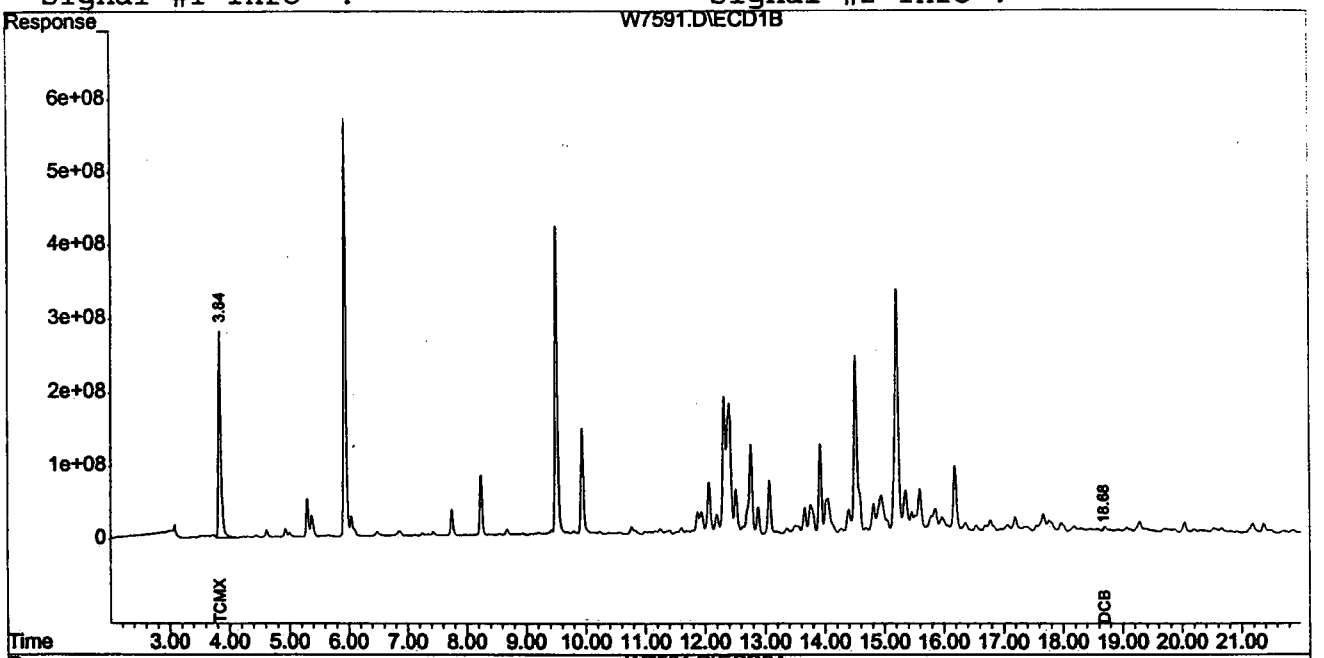
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7591.D WPTC0712.M Tue Jul 17 10:00:14 2001 GC_W Page 1

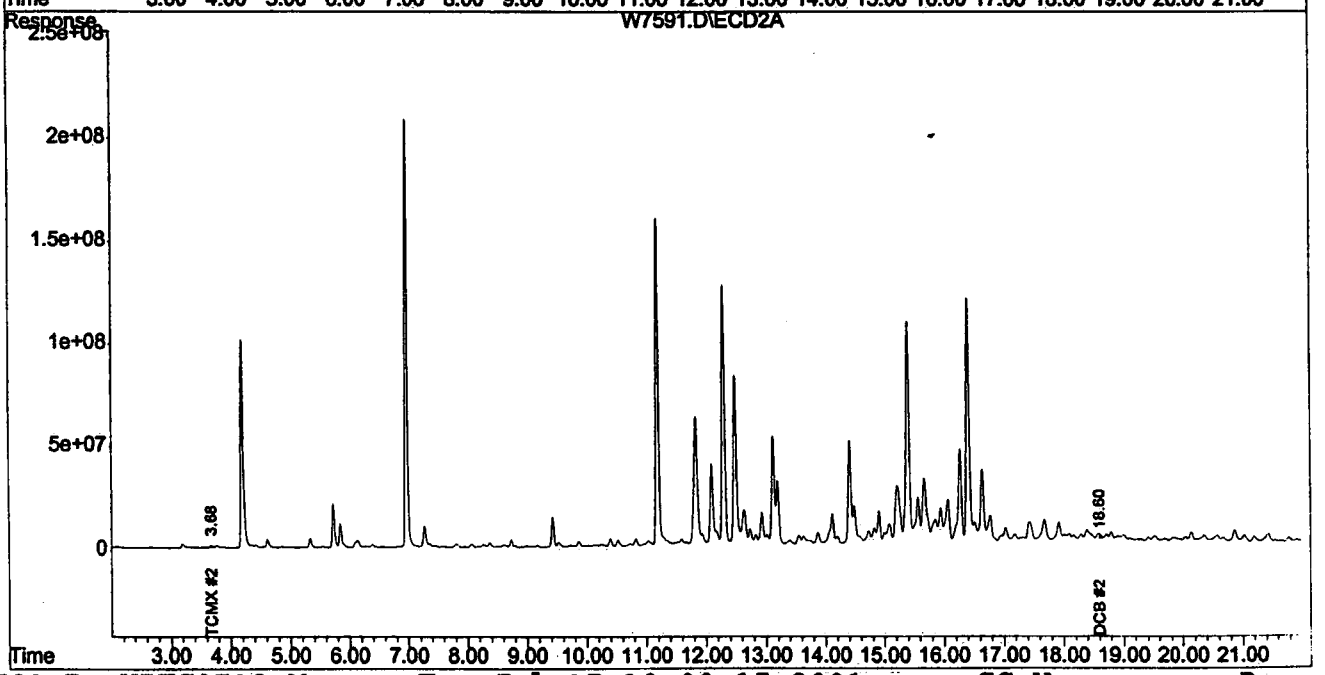
0528

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7591.D\ECD1B.CH Vial: 47
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7591.D\ECD2A.CH
Acq On : 7-13-01 8:26:16 Operator: LAG
Sample : S-85,4591-005,S,30.6g,17.7,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:41 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7592.D\ECD1B.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7592.D\ECD2A.CH
Acq On : 7-13-01 8:51:15 Operator: LAG
Sample : S-86A,4591-006,S,30.2g,15.2,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:22 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	41527056	17009883	0.862m	1.107m#
Spiked Amount 100.000			Recovery	=	0.86%	1.11%
2) S DCB	18.67	18.61	77285962	30565080	2.062m	2.875m#
Spiked Amount 100.000			Recovery	=	2.06%	2.88%
Target Compounds						
15) T 4,4'-DDD	11.36	13.21	118.0E6	40778225	4.743	5.087m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

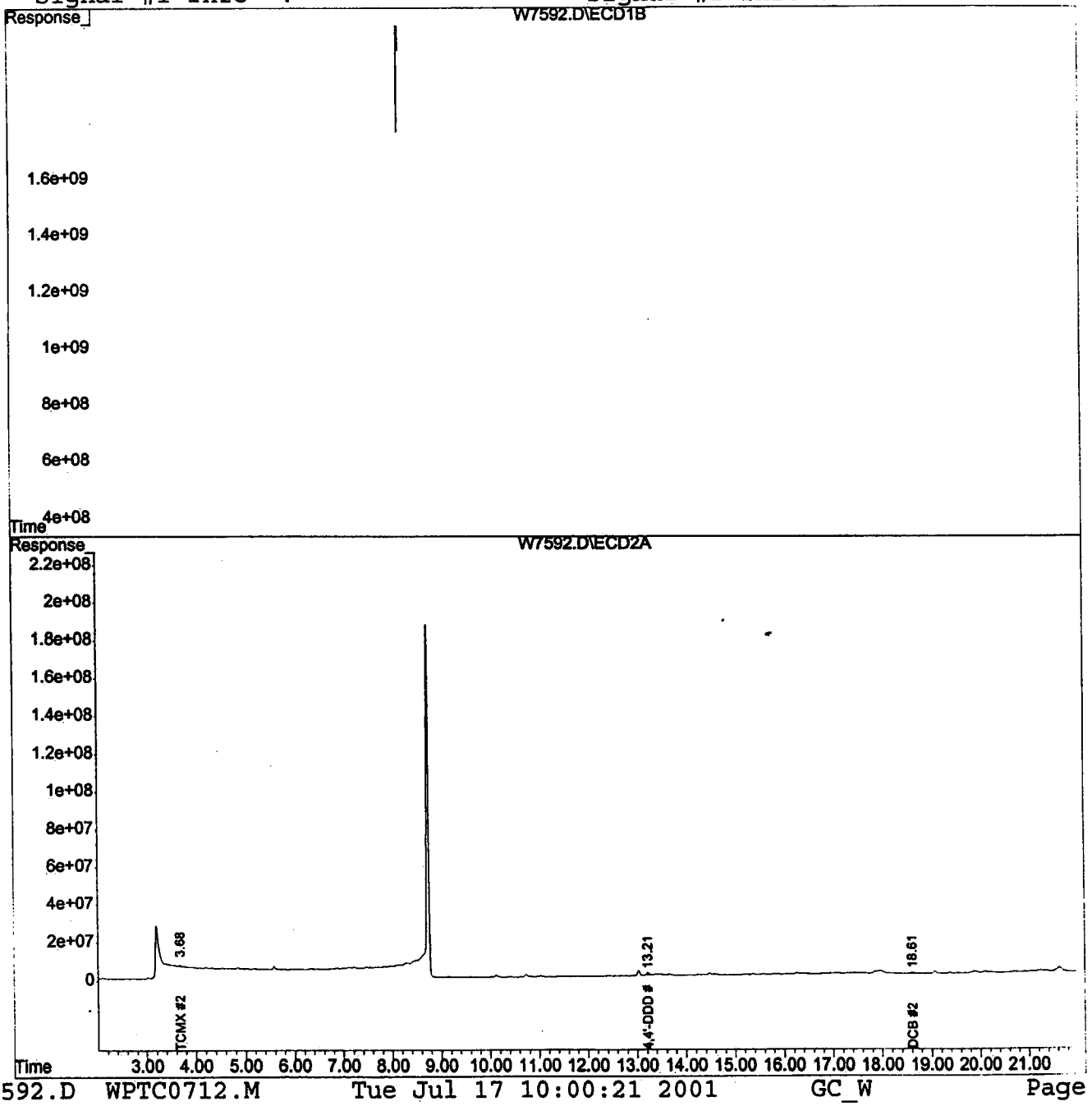
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7592.D WPTC0712.M Tue Jul 17 10:00:20 2001 GC_W Page 1

Quantitation Report (QT Reviewed)

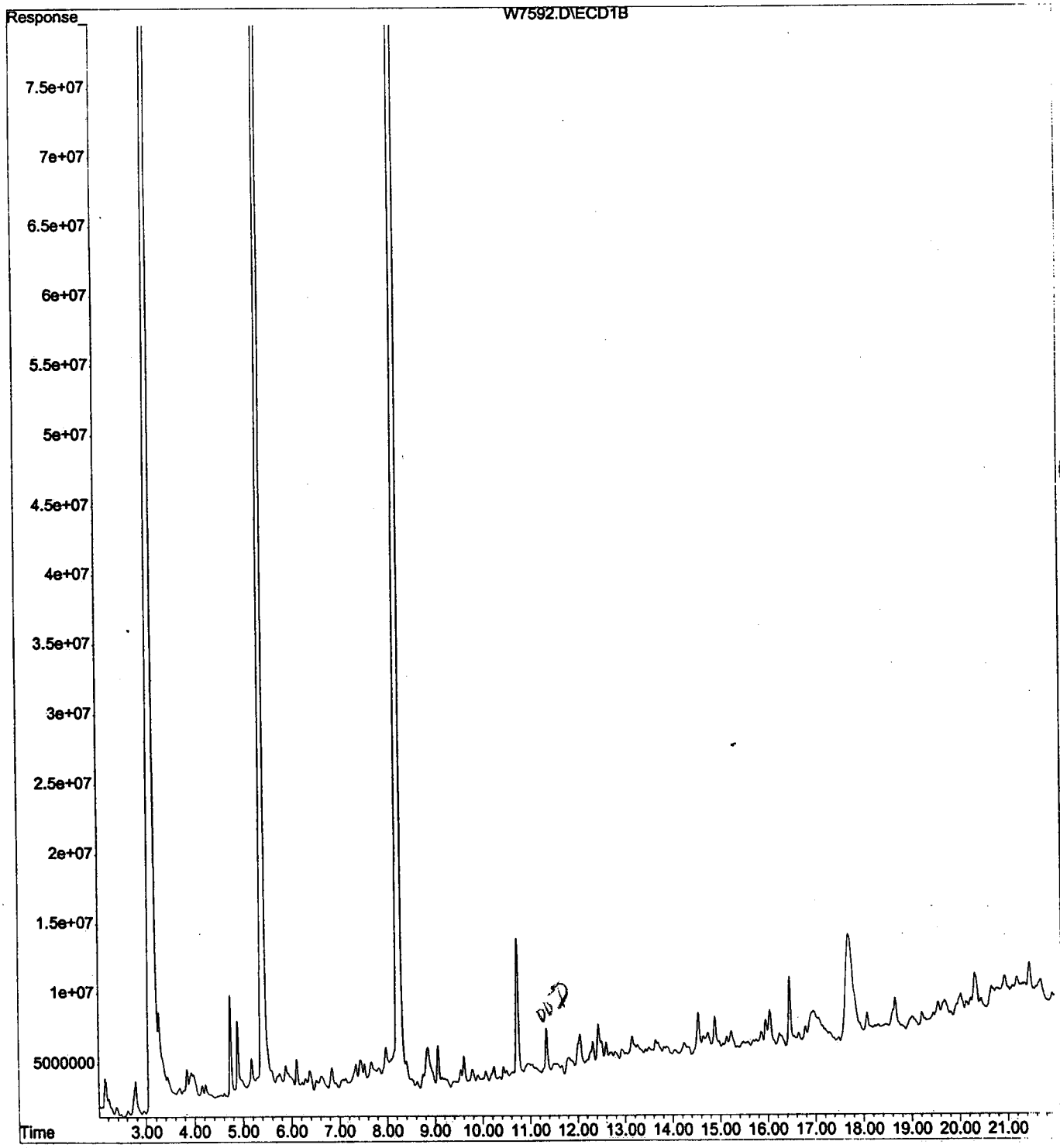
Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7592.D\ECD1B.CH Vial: 48
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7592.D\ECD2A.CH
Acq On : 7-13-01 8:51:15 Operator: LAG
Sample : S-86A,4591-006,S,30.2g,15.2,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:22 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



File : C:\HPCHEM\1\DATA\07-12-01\W7592.D
Operator : LAG
Acquired : 7-13-01 8:51:15 using AcqMethod WPTC0710.M
Instrument : GC_W
Sample Name: S-86A,4591-006,S,30.2g,15.2,07/12/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,50
Vial Number: 48



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7593.D\ECD1B.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7593.D\ECD2A.CH
Acq On : 7-13-01 9:16:23 Operator: LAG
Sample : S-86B,4591-007,S,30.3g,10.8,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:22 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	61688013	20503151	1.280	1.334
Spiked Amount 100.000			Recovery =		1.28%	1.33%
2) S DCB	18.68	18.61	56428402	22487076	1.506	2.115m#
Spiked Amount 100.000			Recovery =		1.51%	2.12%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7593.D WPTC0712.M Tue Jul 17 10:00:26 2001 GC_W Page 1

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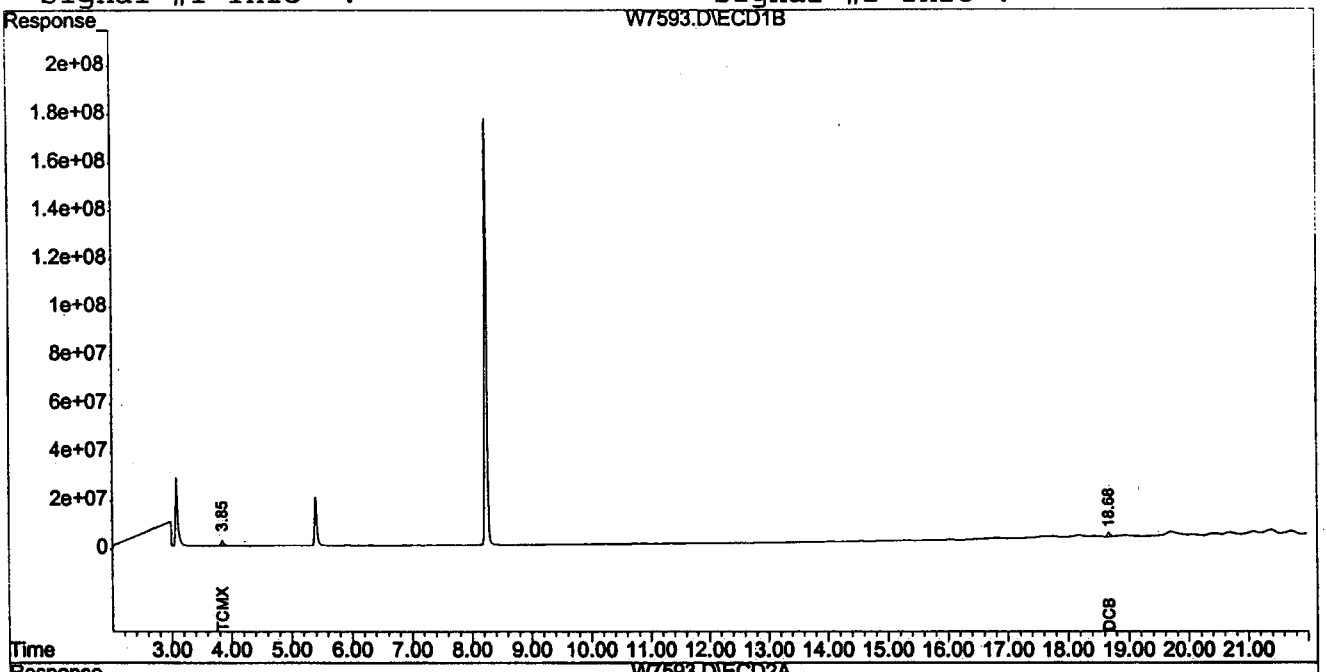
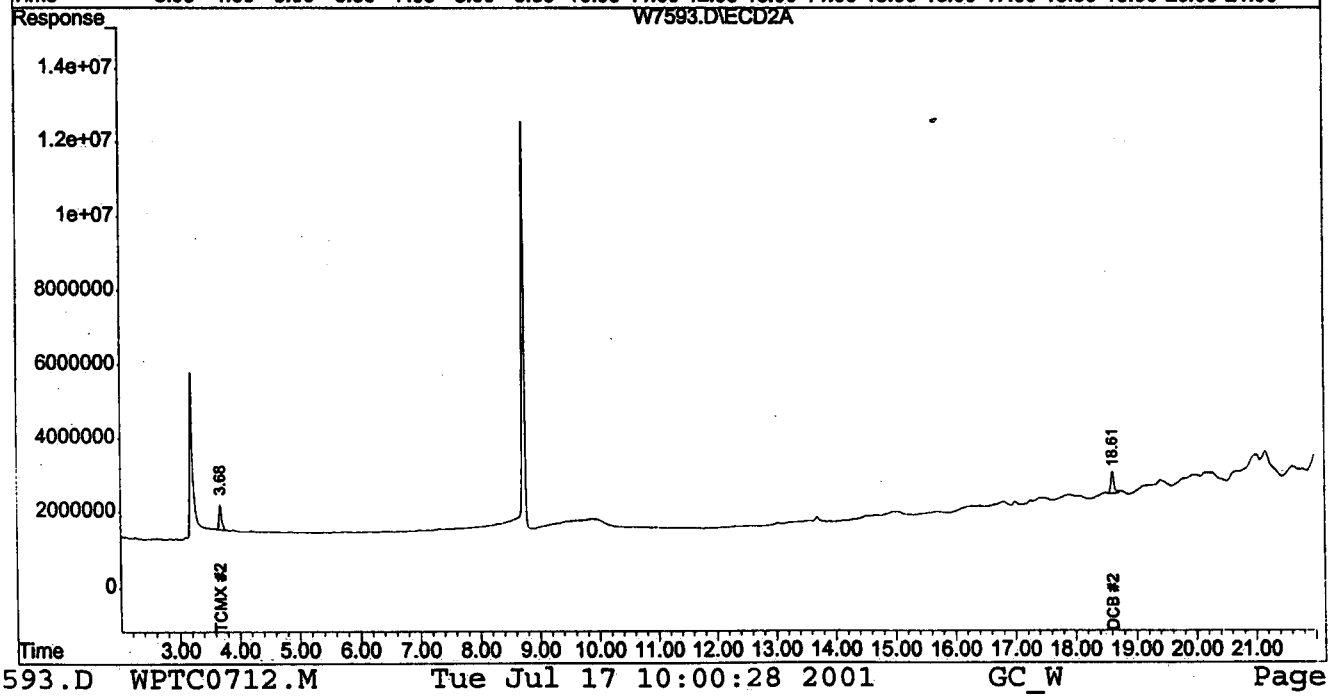
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7593.D\ECD1B.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7593.D\ECD2A.CH
Acq On : 7-13-01 9:16:23 Operator: LAG
Sample : S-86B,4591-007,S,30.3g,10.8,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:22 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0534

1177

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7594.D\ECD1B.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7594.D\ECD2A.CH
Acq On : 7-13-01 9:41:22 Operator: LAG
Sample : S-87,4591-008,S,30.5g,15.9,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:52 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.84	3.68	1234.6E6	146.5E6	25.617m	9.531m#
Spiked Amount 100.000			Recovery	=	25.62%	9.53%
2) S DCB	18.68	18.61	133.0E6	18301255	3.550m	1.721m#
Spiked Amount 100.000			Recovery	=	3.55%	1.72%
Target Compounds						
11) T 4,4'-DDE	10.24	10.97	960.3E6	208.5E6	31.022m	23.051m#
T 4,4'-DDD	11.36	13.21	2529.0E6	805.0E6	101.663m	100.427
13) T 4,4'-DDT	12.38	13.65	2542.7E6	845.3E6	119.201m	146.754
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

%D 29 21

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7594.D WPTC0712.M Tue Jul 17 10:00:32 2001 GC_W Page 1

0535

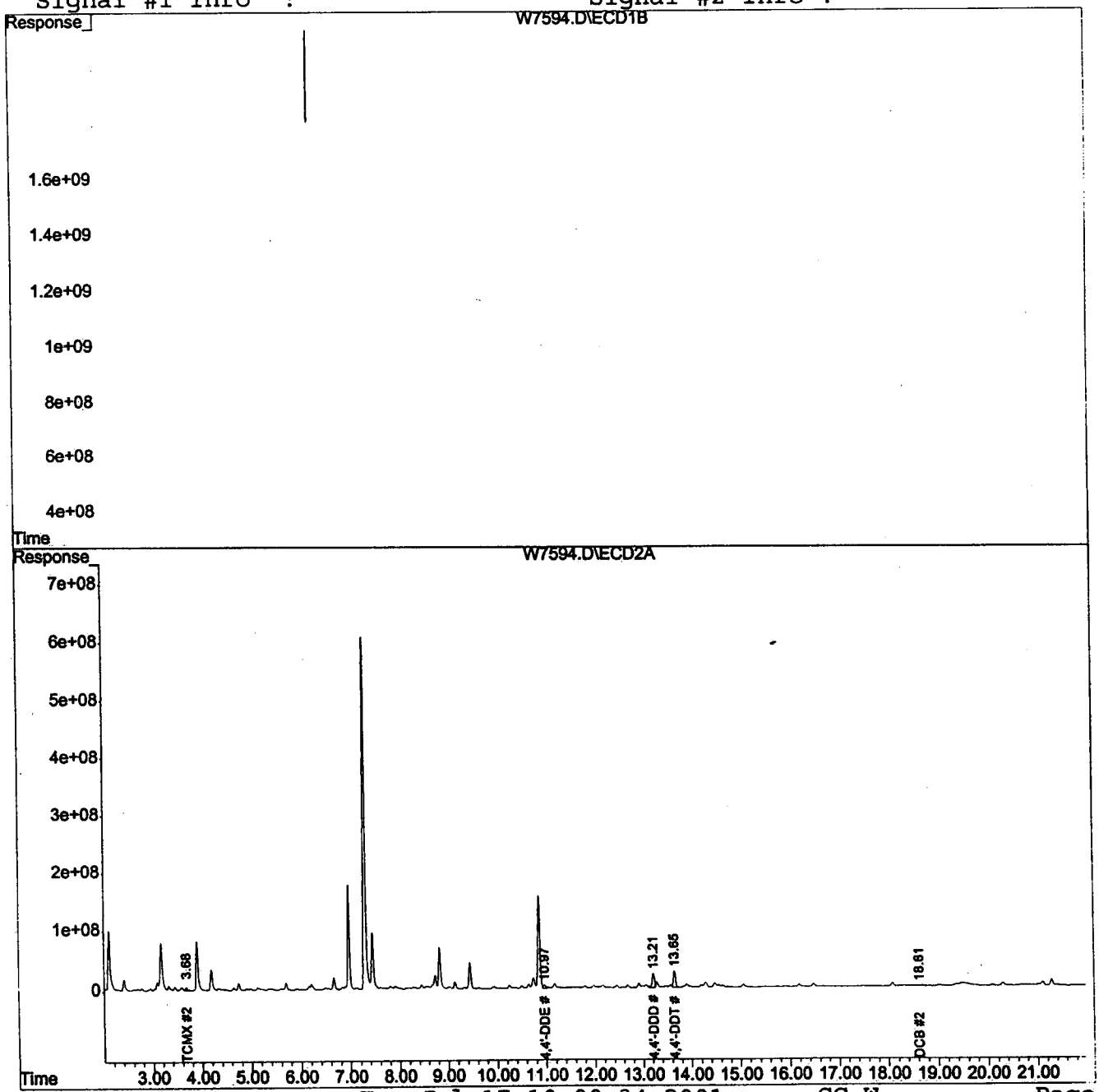
1173

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7594.D\ECD1B.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7594.D\ECD2A.CH
Acq On : 7-13-01 9:41:22 Operator: LAG
Sample : S-87,4591-008,S,30.5g,15.9,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:52 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

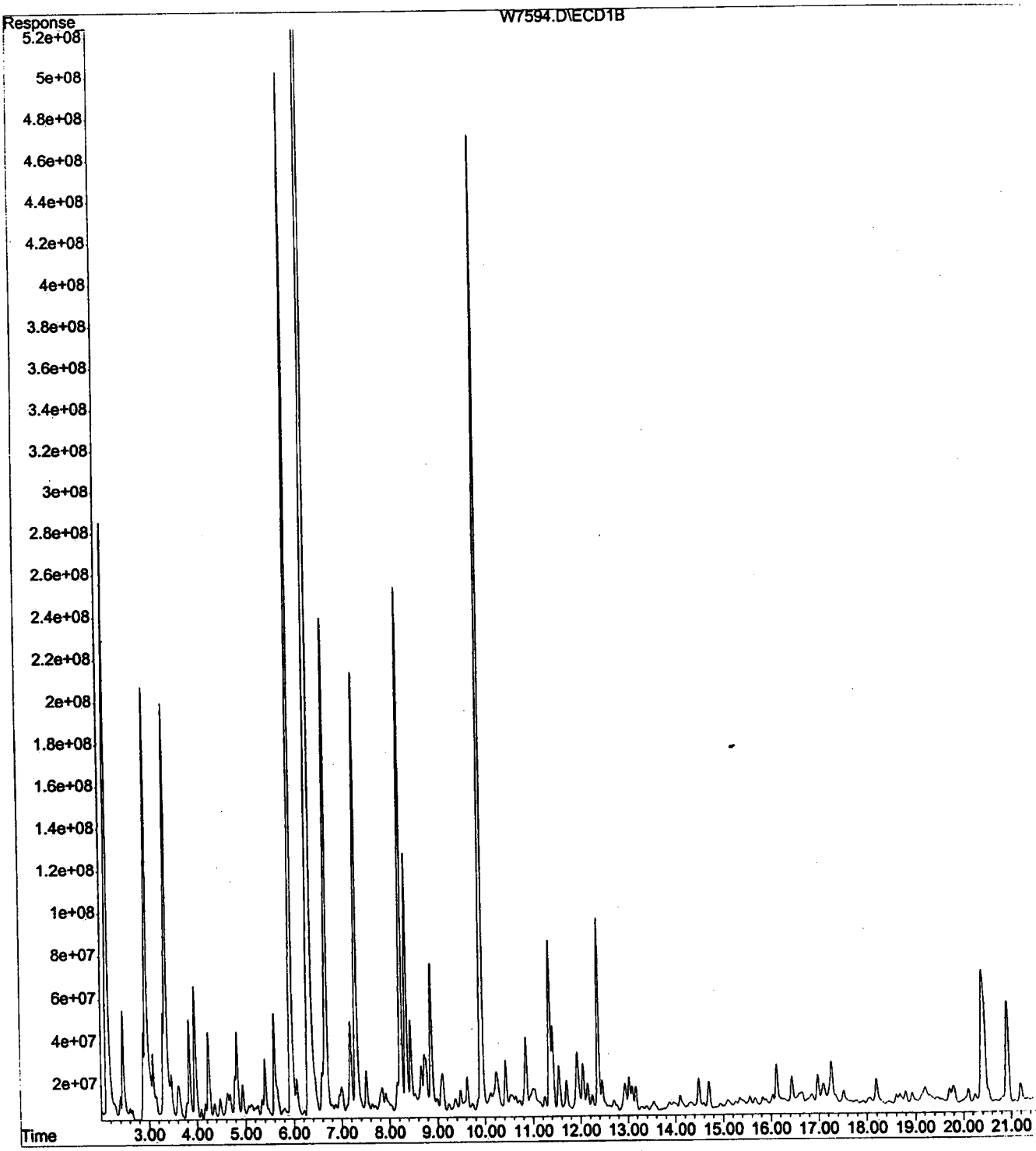
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



0536

1174

File : C:\HPCHEM\1\DATA\07-12-01\W7594.D
Operator : LAG
Acquired : 7-13-01 9:41:22 using AcqMethod WPTC0710.M
Instrument : GC_W
Sample Name: S-87,4591-008,S,30.5g,15.9,07/12/01
Misc Info : ENVTACT/ORBIS,07/06/01,07/07/01,50
Vial Number: 50



Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7595.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7595.D\ECD2A.CH
Acq On : 7-13-01 10:06:26 Operator: LAG
Sample : S-88,4591-009,S,30.4g,12.3,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:49 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

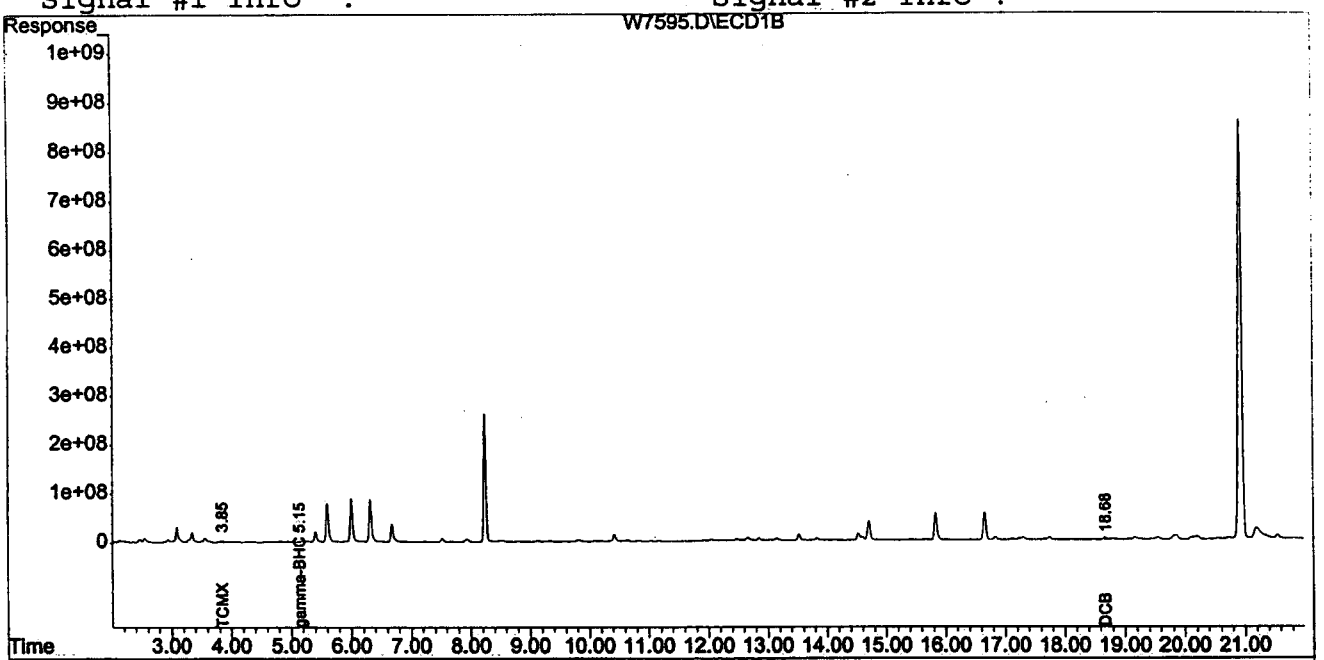
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	75555010	22957297	1.568m	1.494m
Spiked Amount 100.000			Recovery =		1.57%	1.49%
2) S DCB	18.68	18.61	90484108	27961581	2.414m	2.630m
Spiked Amount 100.000			Recovery =		2.41%	2.63%
Target Compounds						
5) T gamma-BHC	5.15	6.50	47459866	16666135	1.297	1.537m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

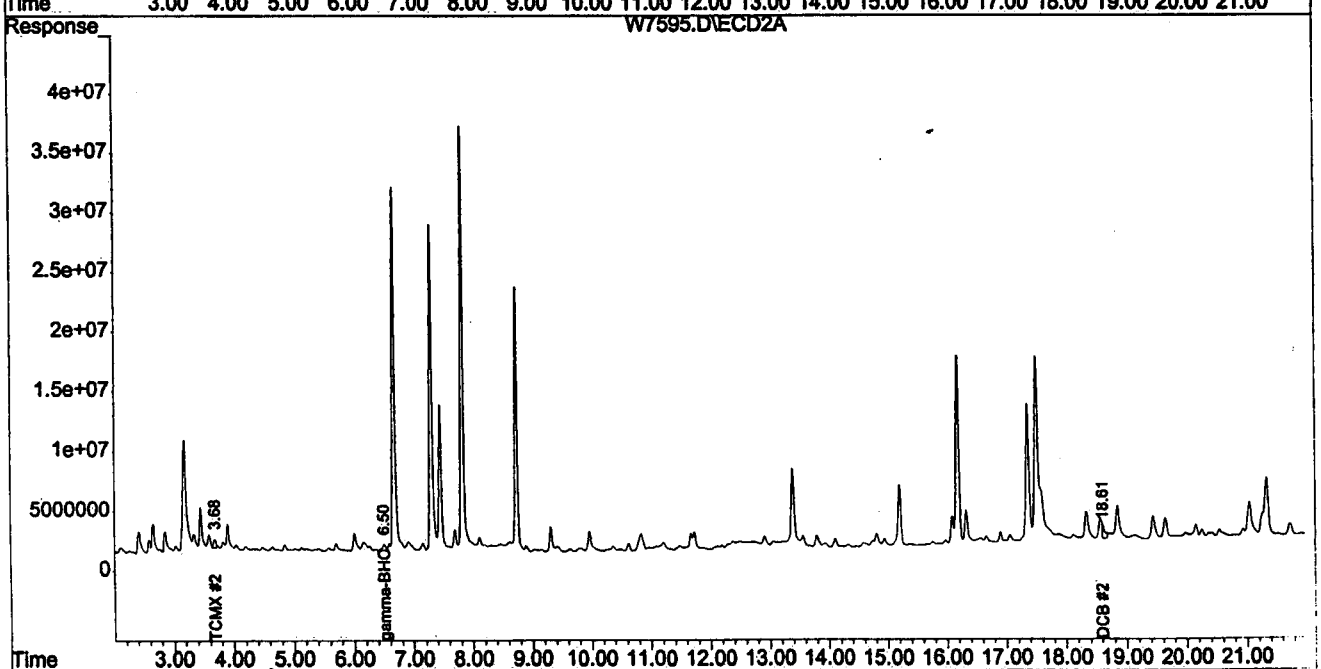
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7595.D WPTC0712.M Tue Jul 17 10:00:39 2001 GC_W Page 1

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7595.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7595.D\ECD2A.CH
Acq On : 7-13-01 10:06:26 Operator: LAG
Sample : S-88,4591-009,S,30.4g,12.3,07/12/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:49 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7711.D\ECD1B.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7711.D\ECD2A.CH
Acq On : 7-19-01 3:45:12 Operator: LAG
Sample : S-89,4591-010,S,30.3g,15.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:27 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	85408204	25627076	1.772	1.668
Spiked Amount 100.000			Recovery =		1.77%	1.67%
2) S DCB	18.67	18.61	92008110	29687373	2.455m	2.792m
Spiked Amount 100.000			Recovery =		2.46%	2.79%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7711.D WPTC0712.M Fri Jul 20 12:27:49 2001 GC_W Page 1

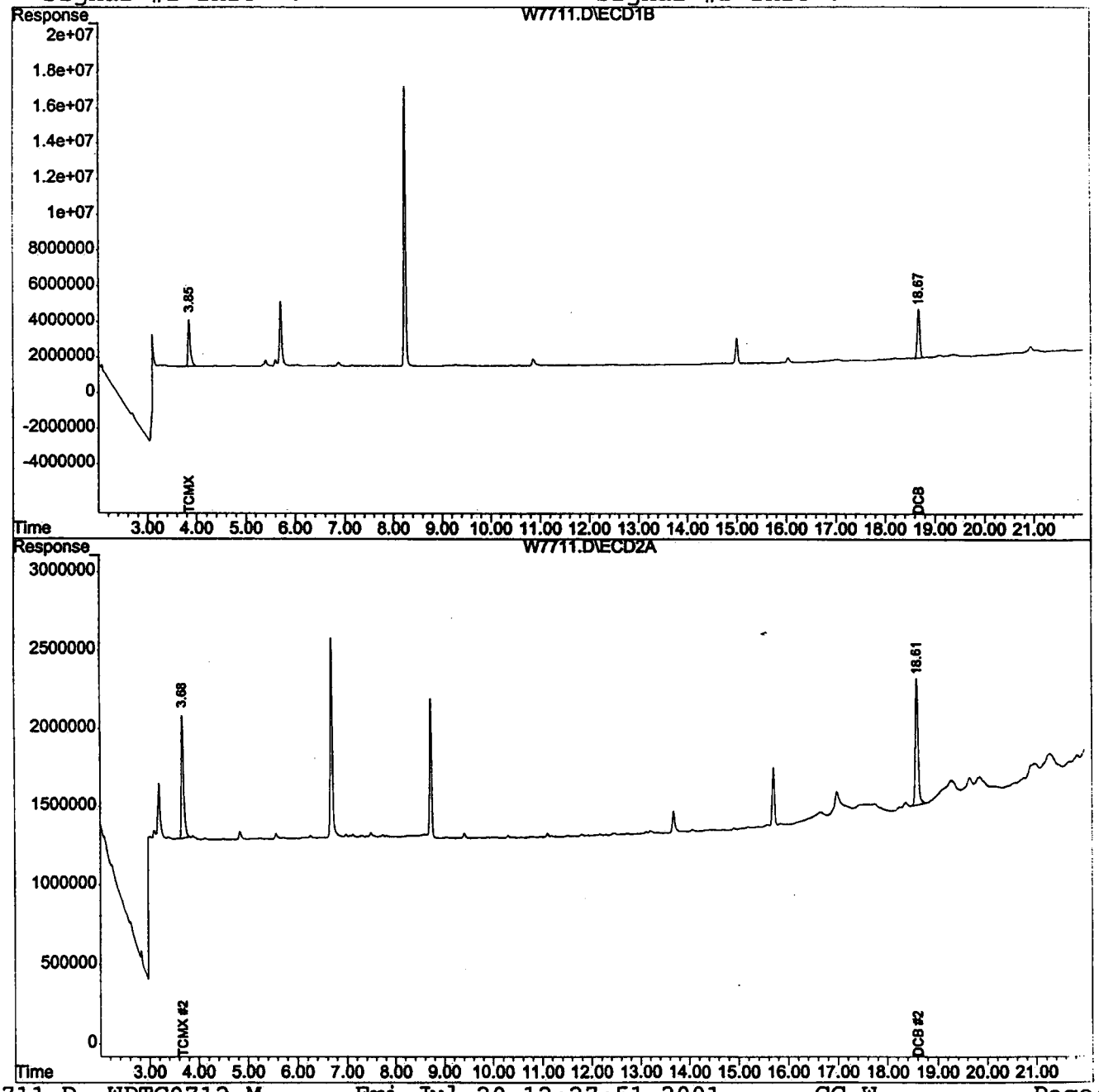
1174

0540

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7711.D\ECD1B.CH Vial: 37
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7711.D\ECD2A.CH
Acq On : 7-19-01 3:45:12 Operator: LAG
Sample : S-89,4591-010,S,30.3g,15.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/06/01,07/07/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:27 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7588.D\ECD1B.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7588.D\ECD2A.CH
Acq On : 7-13-01 7:11:07 Operator: LAG
Sample : (4472.4591),0712-BK1,30.0g,0.0,07/12/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:11 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	4186.3E6	1312.0E6	86.863	85.375
Spiked Amount 100.000			Recovery =		86.86%	85.38%
2) S DCB	18.68	18.61	3865.9E6	1086.1E6	103.144	102.145
Spiked Amount 100.000			Recovery =		103.14%	102.15%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7588.D WPTC0712.M Tue Jul 17 09:33:34 2001 GC_W Page 1

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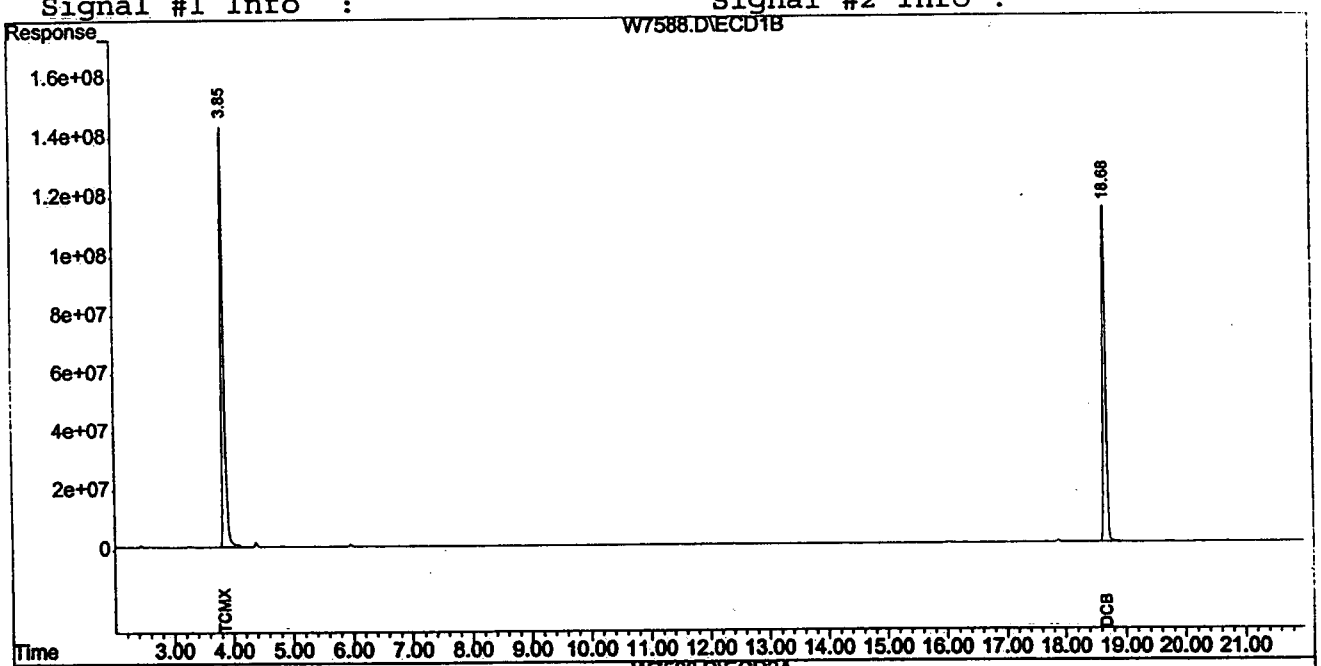
0542

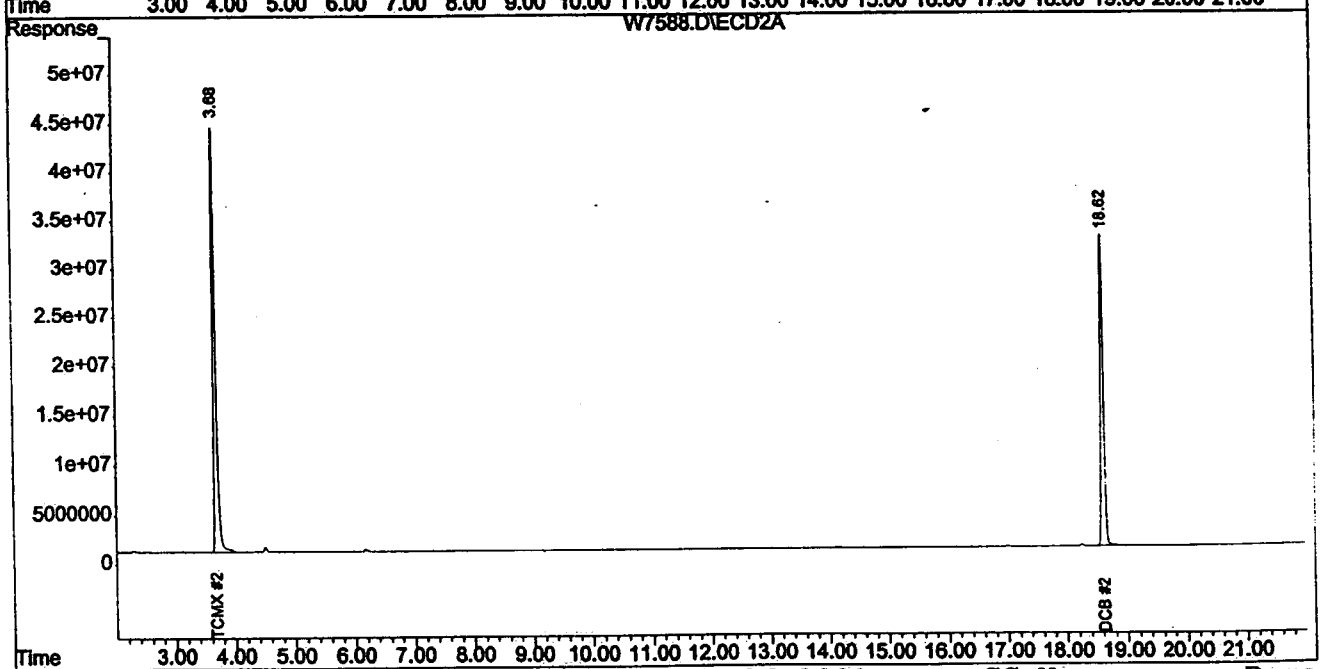
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7588.D\ECD1B.CH Vial: 44
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7588.D\ECD2A.CH
Acq On : 7-13-01 7:11:07 Operator: LAG
Sample : (4472.4591),0712-BK1,30.0g,0.0,07/12/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 9:11 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0543

1161

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7606.D\ECD1B.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7606.D\ECD2A.CH
Acq On : 7-13-01 14:52:32 Operator: LAG
Sample : (4590),0712-BK2,S,30.0g,0.0,07/12/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:04 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	4417.2E6	1414.5E6	91.654	92.043
Spiked Amount 100.000			Recovery	=	91.65%	92.04%
2) S DCB	18.68	18.61	4038.2E6	1175.1E6	107.741	110.510
Spiked Amount 100.000			Recovery	=	107.74%	110.51%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7606.D WPTC0712.M Wed Jul 18 13:48:50 2001 GC_W Page 1

1127

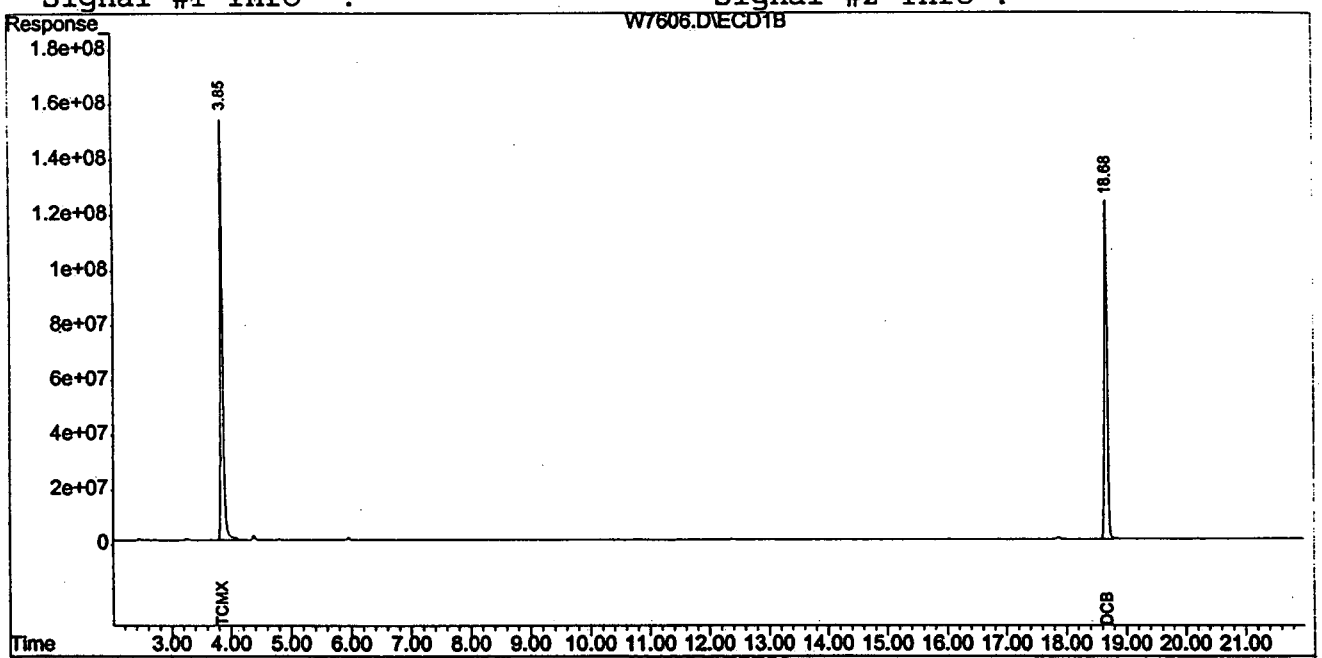
0544

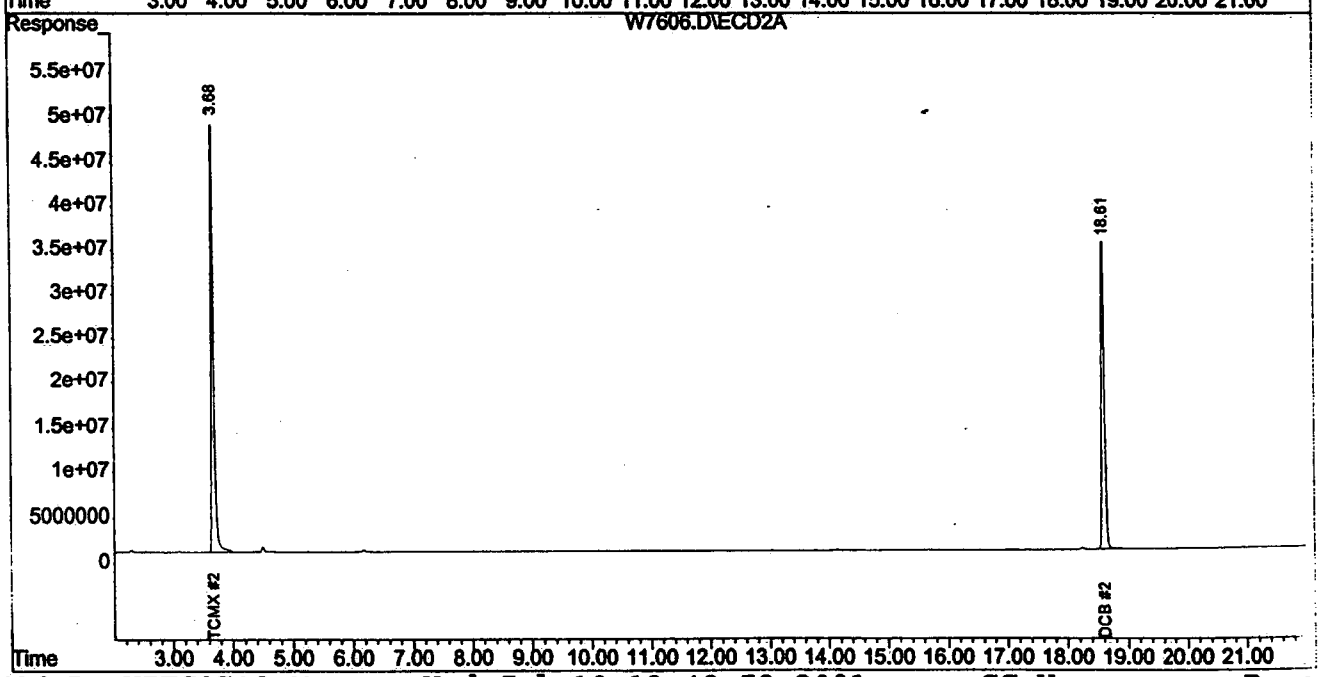
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7606.D\ECD1B.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7606.D\ECD2A.CH
Acq On : 7-13-01 14:52:32 Operator: LAG
Sample : (4590),0712-BK2,S,30.0g,0.0,07/12/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 13:04 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1143

0545

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD1B.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD2A.CH
Acq On : 7-18-01 23:35:59 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 11:58 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	4455.5E6	1353.2E6	92.448	88.055
Spiked Amount 100.000			Recovery	=	92.45%	88.06%
2) S DCB	18.67	18.61	3938.4E6	1085.9E6	105.078	102.121
Spiked Amount 100.000			Recovery	=	105.08%	102.12%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

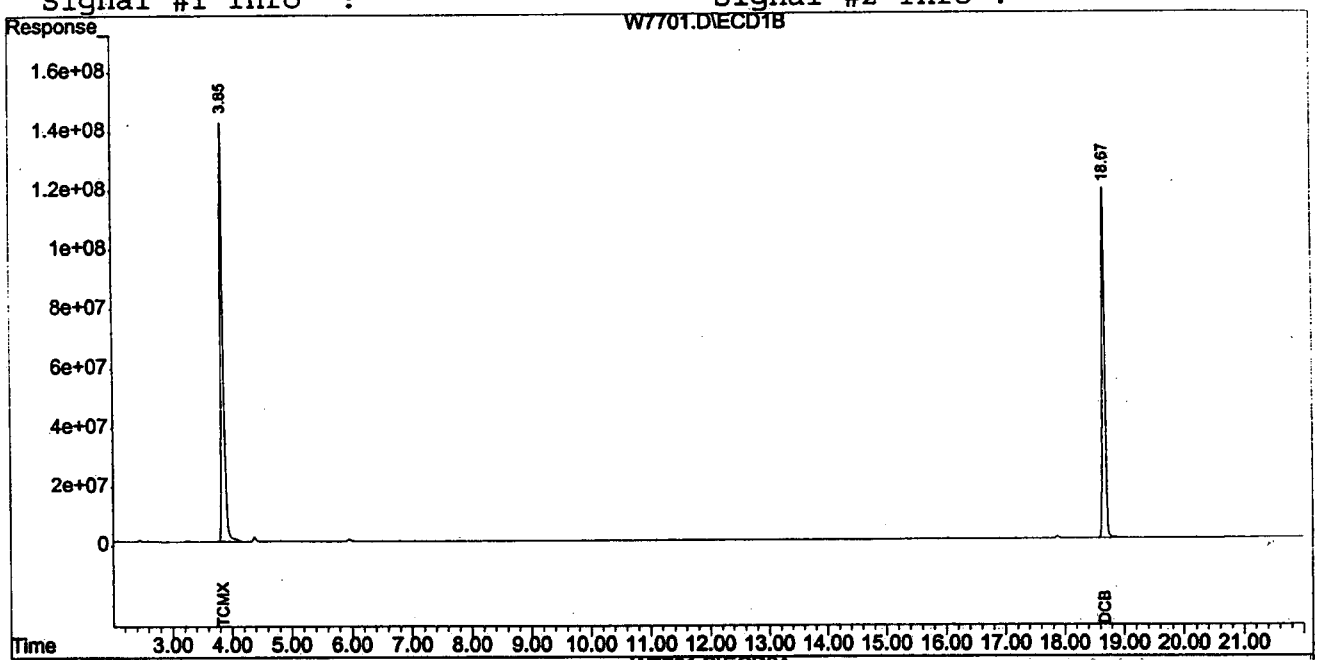
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

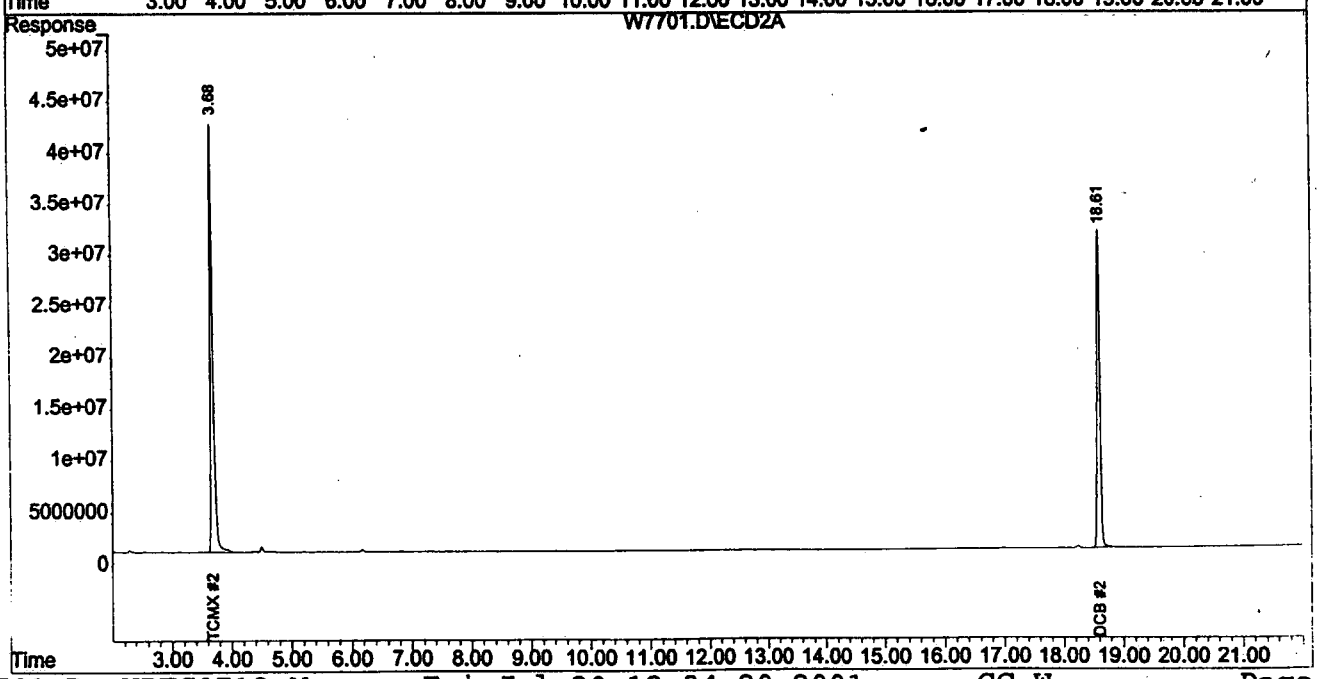
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD1B.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD2A.CH
Acq On : 7-18-01 23:35:59 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 11:58 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0547

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7574.D\ECD1B.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7574.D\ECD2A.CH
Acq On : 7-13-01 1:21:45 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 14:27 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	4984.1E6	1575.3E6	103.416	102.506	
Spiked Amount	100.000			Recovery	=	103.42%	102.51%	
2) S	DCB	18.68	18.61	3909.7E6	1091.0E6	104.311	102.600	
Spiked Amount	100.000			Recovery	=	104.31%	102.60%	
	Target Compounds							
T	alpha-BHC	4.53	5.57	4273.1E6	1248.0E6	105.930	105.247	
T	beta-BHC	5.03	8.62	1538.4E6	504.5E6	102.446	100.192	
5) T	gamma-BHC	5.16	6.52	3834.6E6	1130.9E6	104.804	104.270	
6) T	delta-BHC	5.63	9.18	3594.0E6	1046.2E6	106.078	105.140	
7) T	Heptachlor	6.73	7.00	3290.4E6	975.5E6	104.825	103.264	
8) T	Aldrin	7.54	7.67	3619.2E6	1045.6E6	105.593	104.327	
9) T	Heptachlor epoxi	8.55	9.51	3194.8E6	946.0E6	105.647	102.898	
10) T	Endosulfan I	9.47	10.20	2982.5E6	891.1E6	105.206	103.506	
11) T	4,4'-DDE	10.24	10.97	3277.0E6	947.7E6	105.856	104.762	
12) T	Dieldrin	10.16	11.23	3272.0E6	968.3E6	105.866	104.289	
13) T	Endrin	10.72	11.76	2995.6E6	928.2E6	104.288	103.627	
14) T	Endosulfan II	10.97	13.20	2816.6E6	1655.5E6	105.075	206.483	#
15) T	4,4'-DDD	11.36	13.20	2633.0E6	1655.5E6	105.843	206.529	#
16) T	Endrin aldehyde	11.50	14.33	2195.1E6	615.7E6	105.965	103.701	
17) T	Endosulfan sulfa	12.15	15.23	2403.4E6	704.7E6	105.350	102.930	
18) T	4,4'-DDT	12.38	13.65	2242.0E6	603.3E6	105.107	104.734	
19) T	Endrin ketone	13.36	16.26	3069.0E6	897.7E6	104.371	104.587	
20) T	Methoxychlor	14.06	15.51	1106.3E6	336.4E6	104.509	103.707	
21) T	alpha-Chlordane	9.58	10.59	3287.3E6	957.8E6	104.572	103.076	
22) T	gamma-Chlordane	9.17	10.43	3463.3E6	979.2E6	105.479	103.454	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

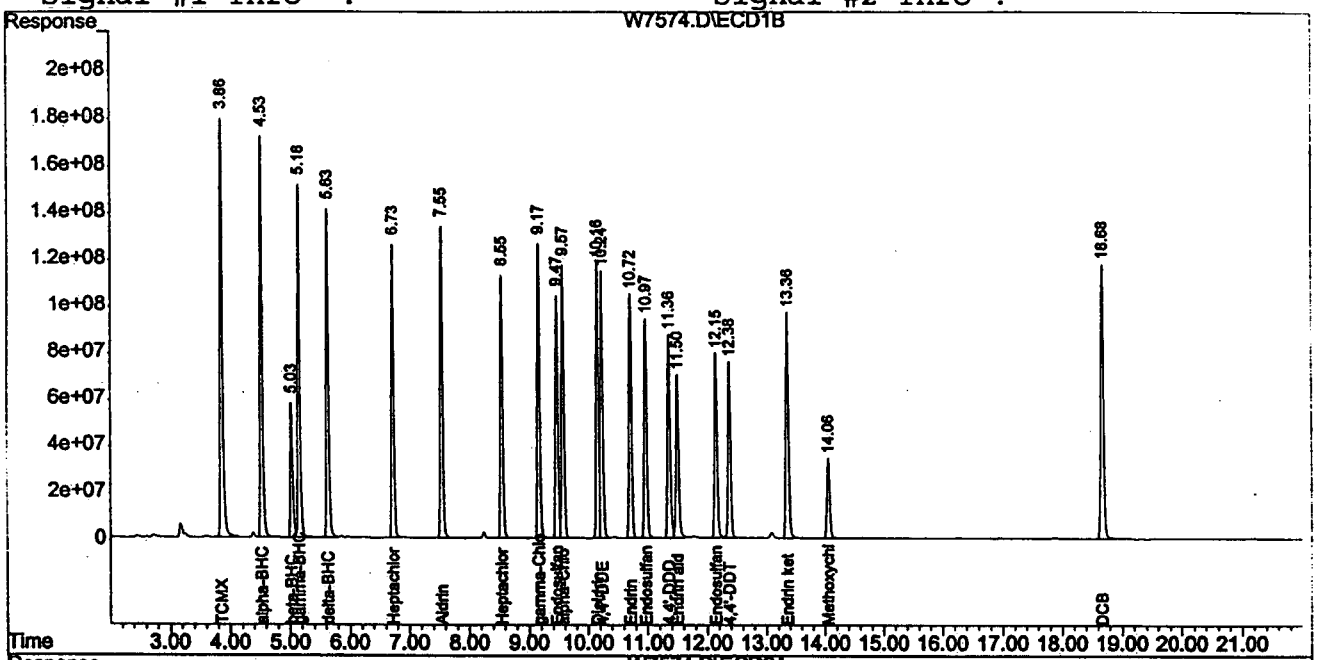
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

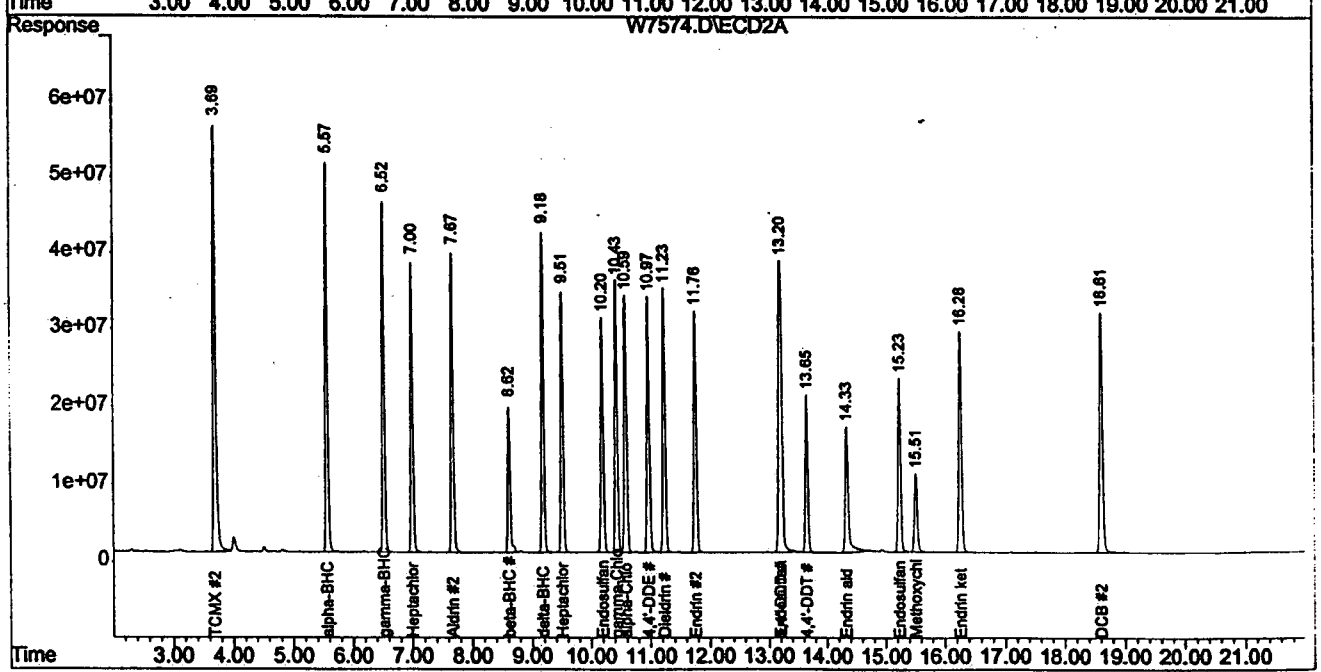
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7574.D\ECD1B.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7574.D\ECD2A.CH
Acq On : 7-13-01 1:21:45 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 14:27 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0549

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7596.D\ECD1B.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7596.D\ECD2A.CH
Acq On : 7-13-01 10:31:33 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 14:29 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	4862.3E6	1548.7E6	100.891	100.774	
Spiked Amount	100.000			Recovery	=	100.89%	100.77%	
2) S	DCB	18.68	18.61	3505.8E6	1071.3E6	93.535	100.752	
Spiked Amount	100.000			Recovery	=	93.53%	100.75%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4185.3E6	1235.0E6	103.753	104.147	
4) T	beta-BHC	5.03	8.62	1494.5E6	507.3E6	99.525	100.744	
5) T	gamma-BHC	5.16	6.52	3775.0E6	1142.0E6	103.176	105.298	
6) T	delta-BHC	5.63	9.18	3568.3E6	1081.7E6	105.319	108.709	
7) T	Heptachlor	6.73	7.00	3310.7E6	996.4E6	105.472	105.479	
8) T	Aldrin	7.54	7.67	3531.2E6	1056.4E6	103.026	105.404	
9) T	Heptachlor epoxi	8.55	9.51	3113.3E6	956.7E6	102.953	104.065	
10) T	Endosulfan I	9.47	10.20	2897.3E6	896.1E6	102.199	104.077	
11) T	4,4'-DDE	10.24	10.97	3170.7E6	951.4E6	102.423	105.168	
12) T	Dieldrin	10.16	11.23	3190.9E6	978.0E6	103.242	105.332	
13) T	Endrin	10.72	11.76	2954.3E6	940.9E6	102.853	105.042	
14) T	Endosulfan II	10.97	13.20	2704.6E6	1672.5E6	100.896	208.599	#
15) T	4,4'-DDD	11.36	13.20	2606.7E6	1672.5E6	104.788	208.646	#
16) T	Endrin aldehyde	11.50	14.33	2116.3E6	586.5E6	102.164	98.786	
17) T	Endosulfan sulfa	12.15	15.23	2301.2E6	703.8E6	100.868	102.798	
18) T	4,4'-DDT	12.38	13.65	2151.5E6	591.8E6	100.860	102.739	
19) T	Endrin ketone	13.36	16.26	2917.6E6	920.1E6	99.225	107.204	
20) T	Methoxychlor	14.06	15.51	1073.2E6	327.9E6	101.385	101.077	
21) T	alpha-Chlordane	9.57	10.59	3185.8E6	965.2E6	101.343	103.879	
22) T	gamma-Chlordane	9.17	10.43	3356.4E6	989.1E6	102.224	104.500	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

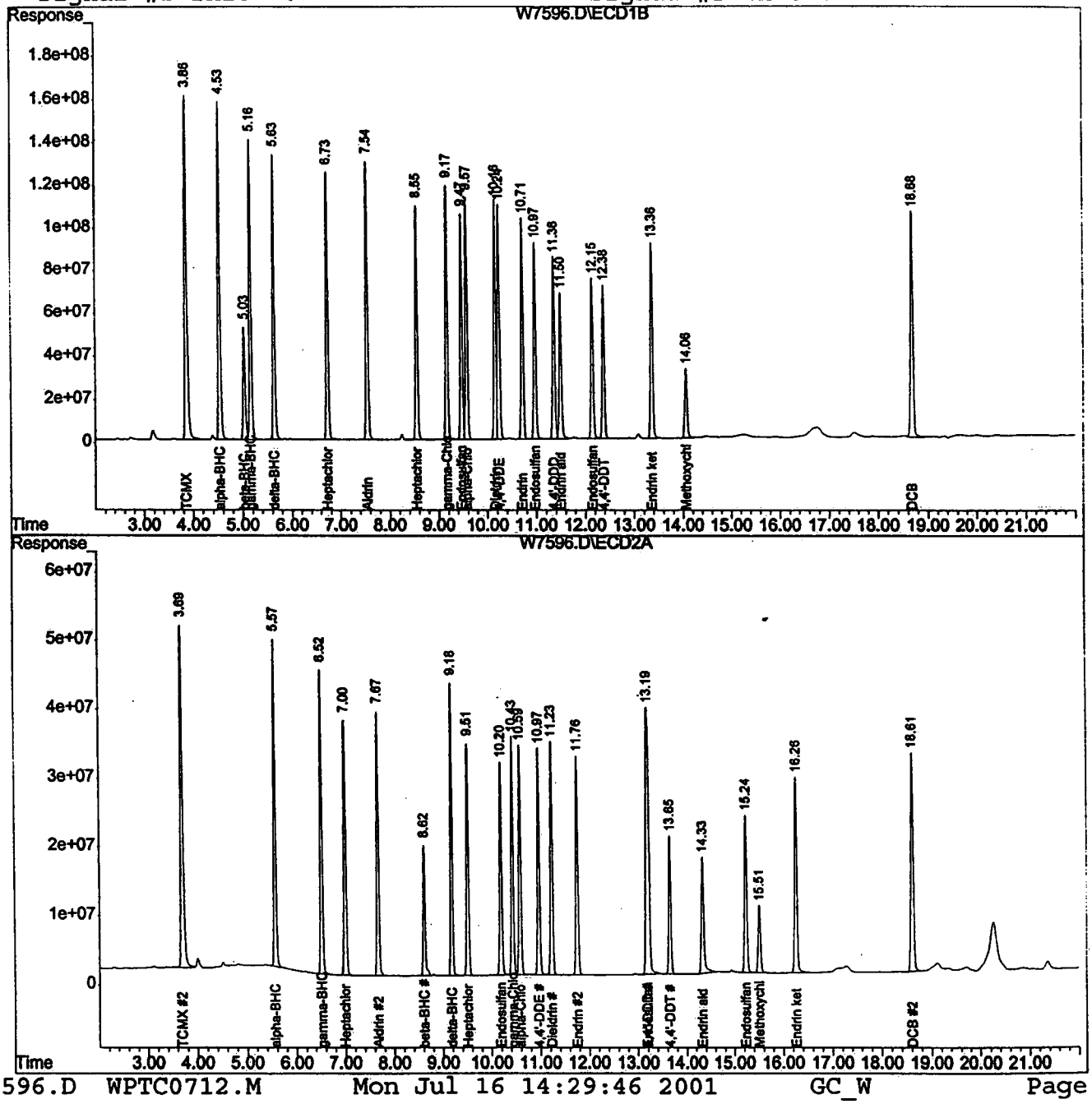
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7596.D\ECD1B.CH Vial: 52
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7596.D\ECD2A.CH
Acq On : 7-13-01 10:31:33 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 14:29 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7575.D\ECD1B.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7575.D\ECD2A.CH
Acq On : 7-13-01 1:46:47 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 10:14 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5405.0E6	1688.0E6	112.150	109.838
Spiked Amount 100.000			Recovery =		112.15%	109.84%
2) S DCB	18.67	18.61	4018.1E6	1132.8E6	107.205	106.537
Spiked Amount 100.000			Recovery =		107.21%	106.54%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	13.16	13.98	342.4E6	135.5E6	528.270	475.557
29) L2 Toxaphene {2}	13.29	14.73	543.9E6	102.1E6	530.277	493.584
30) L2 Toxaphene {3}	13.57	14.98	261.7E6	135.3E6	558.669	503.659
31) L2 Toxaphene {4}	14.03	15.17	267.8E6	83368814	557.571	522.289
32) L2 Toxaphene {5}	14.54	15.62	322.7E6	70144146	564.469m	548.278
Sum Toxaphene			1738.5E6	526.3E6	2739.256	2543.366
Average Toxaphene					547.851	508.673

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1190

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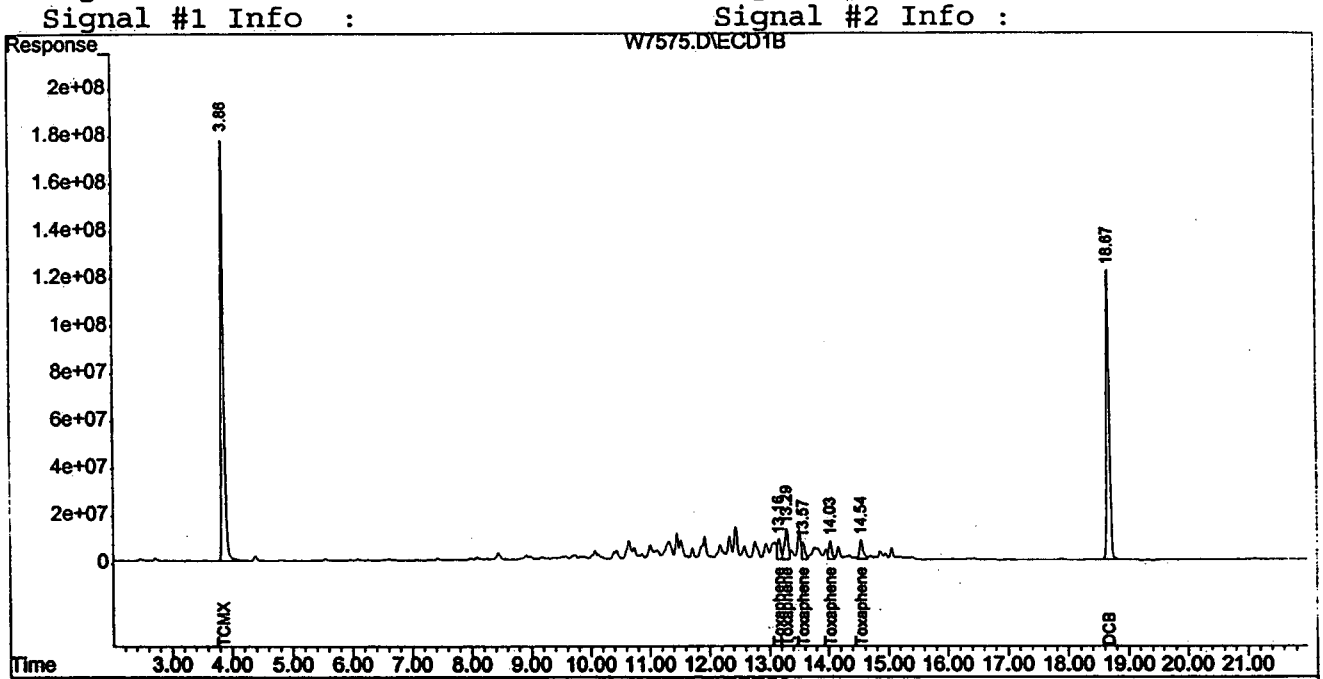
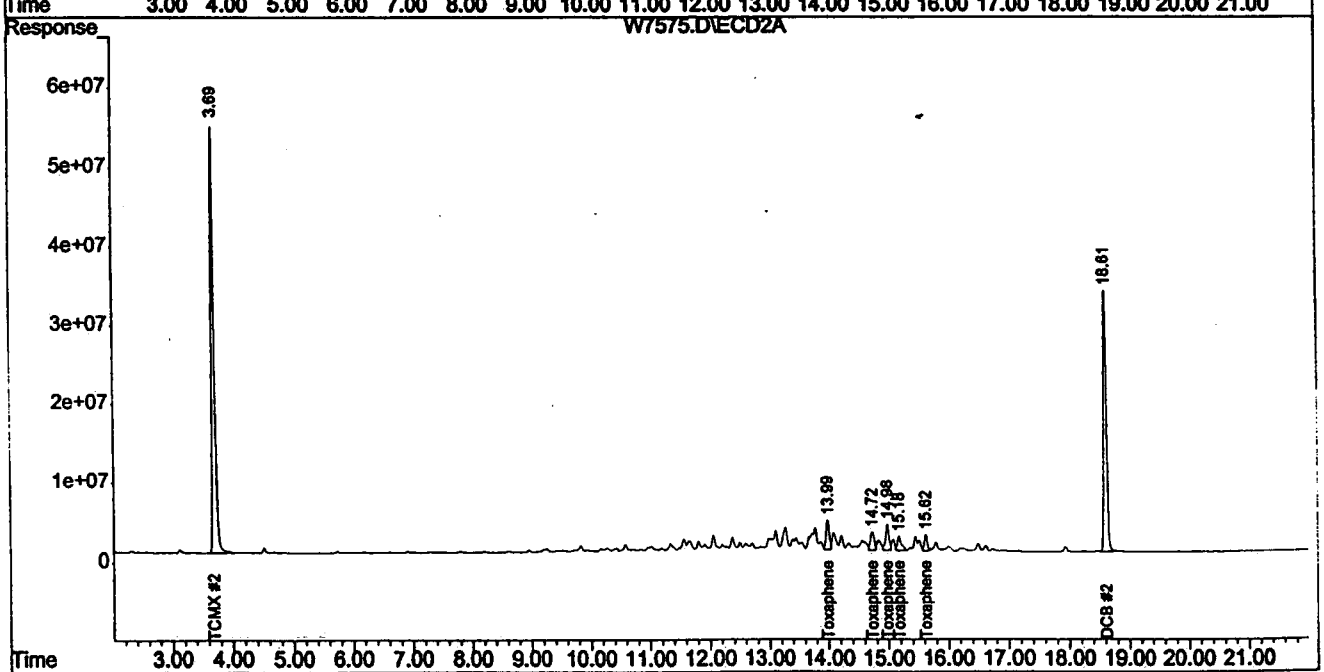
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7575.D\ECD1B.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7575.D\ECD2A.CH
Acq On : 7-13-01 1:46:47 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 10:14 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0553

1191

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7576.D\ECD1B.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7576.D\ECD2A.CH
Acq On : 7-13-01 2:11:36 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 10:15 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	4948.5E6	1595.7E6	102.679	103.837
Spiked Amount 100.000			Recovery	=	102.68%	103.84%
2) S DCB	18.68	18.62	3801.6E6	1065.5E6	101.428	100.203
Spiked Amount 100.000			Recovery	=	101.43%	100.20%
Target Compounds						
24) L1 Chlordane	9.17	8.36	1867.5E6	91723413	516.351	514.539
25) L1 Chlordane {2}	9.37	10.03	412.5E6	119.8E6	517.933	515.228
25) L1 Chlordane {3}	9.57	10.43	1833.3E6	529.0E6	513.879	514.244
26) L1 Chlordane {4}	9.72	10.59	1071.3E6	478.1E6	513.050	519.098
27) L1 Chlordane {5}	11.57	10.65	510.2E6	304.8E6	509.094	508.561
Sum Chlordane			5694.7E6	1523.4E6	2570.308	2571.670
Average Chlordane					514.062	514.334
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

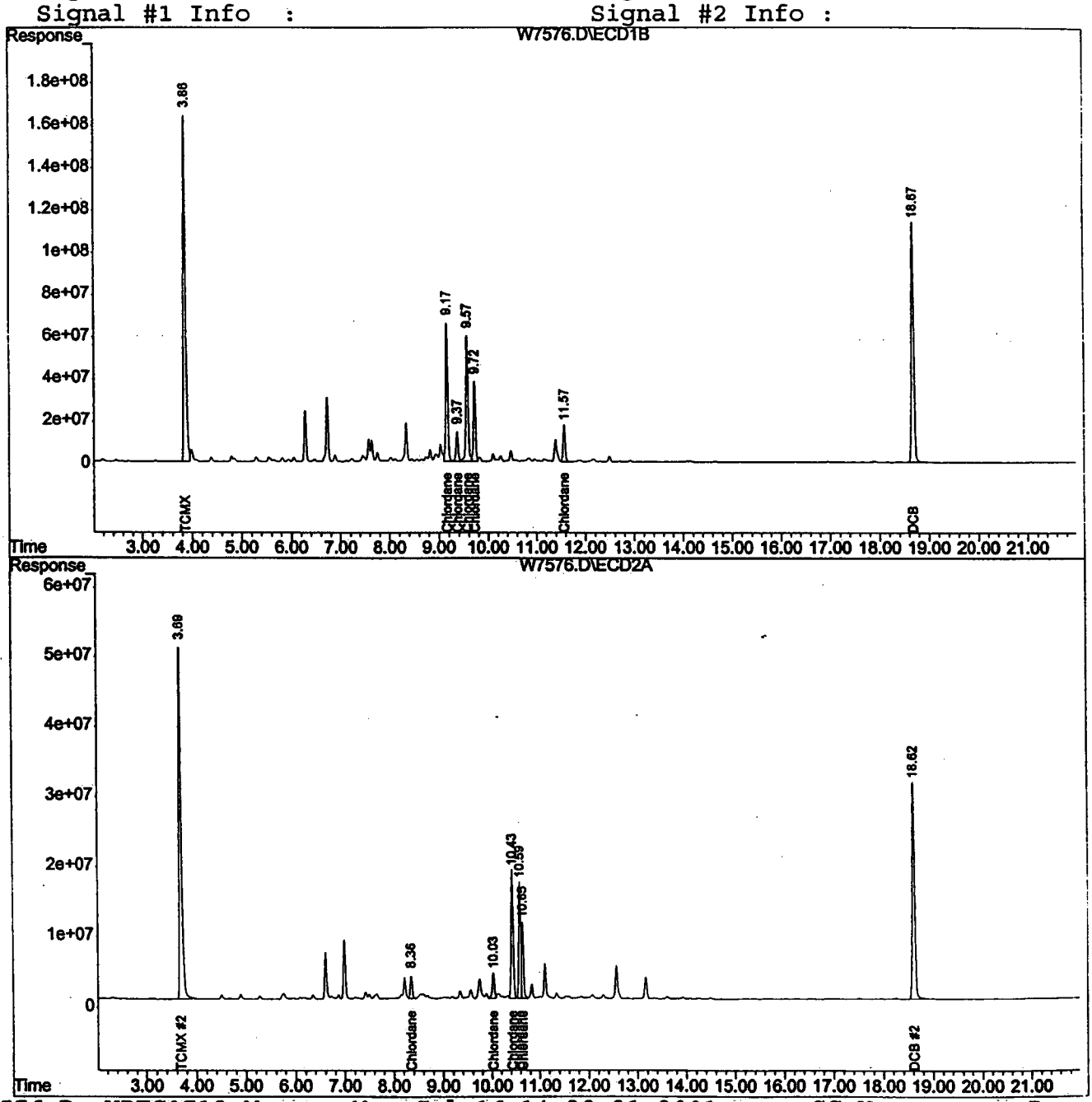
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7576.D WPTC0712.M Mon Jul 16 14:29:29 2001 GC_W Page 1

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-12-01\W7576.D\ECD1B.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\07-12-01\W7576.D\ECD2A.CH
Acq On : 7-13-01 2:11:36 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 13 10:15 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 09:50:01 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0710.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1193

0555

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7600.D\ECD1B.CH Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7600.D\ECD2A.CH
Acq On : 7-13-01 12:22:21 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 16:36 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	4791.0E6	1567.4E6	99.410	101.996	
Spiked Amount	100.000			Recovery	=	99.41%	102.00%	
2) S	DCB	18.68	18.62	3486.7E6	1059.6E6	93.026	99.651	
Spiked Amount	100.000			Recovery	=	93.03%	99.65%	
	Target Compounds							
4) T	alpha-BHC	4.53	5.57	4128.5E6	1240.5E6	102.345	104.611	
4) T	beta-BHC	5.03	8.62	1481.6E6	501.2E6	98.666	99.529	
5) T	gamma-BHC	5.16	6.52	3717.4E6	1132.9E6	101.602	104.455	
6) T	delta-BHC	5.63	9.19	3546.0E6	1067.8E6	104.660	107.310	
7) T	Heptachlor	6.73	7.00	3204.9E6	973.1E6	102.099	103.014	
8) T	Aldrin	7.54	7.67	3476.5E6	1041.8E6	101.432	103.951	
9) T	Heptachlor epoxi	8.55	9.51	3062.8E6	940.3E6	101.280	102.284	
10) T	Endosulfan I	9.47	10.20	2866.5E6	883.8E6	101.111	102.649	
11) T	4,4'-DDE	10.24	10.97	3131.2E6	939.4E6	101.149	103.845	
12) T	Dieldrin	10.16	11.23	3148.5E6	963.2E6	101.870	103.740	
13) T	Endrin	10.72	11.76	2909.2E6	924.9E6	101.281	103.258	
14) T	Endosulfan II	10.97	13.20	2690.0E6	1659.3E6	100.351	206.964	#
15) T	4,4'-DDD	11.36	13.20	2595.4E6	1659.3E6	104.330	207.009	#
16) T	Endrin aldehyde	11.50	14.34	2073.6E6	595.3E6	100.100	100.265	
17) T	Endosulfan sulfa	12.15	15.24	2305.9E6	700.5E6	101.075	102.312	
18) T	4,4'-DDT	12.38	13.65	2070.5E6	563.7E6	97.064	97.857	
19) T	Endrin ketone	13.36	16.26	2919.0E6	880.2E6	99.272	102.554	
20) T	Methoxychlor	14.06	15.51	1037.3E6	314.9E6	97.989	97.074	
21) T	alpha-Chlordane	9.58	10.59	3147.9E6	951.1E6	100.137	102.355	
22) T	gamma-Chlordane	9.17	10.43	3312.9E6	972.7E6	100.898	102.772	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

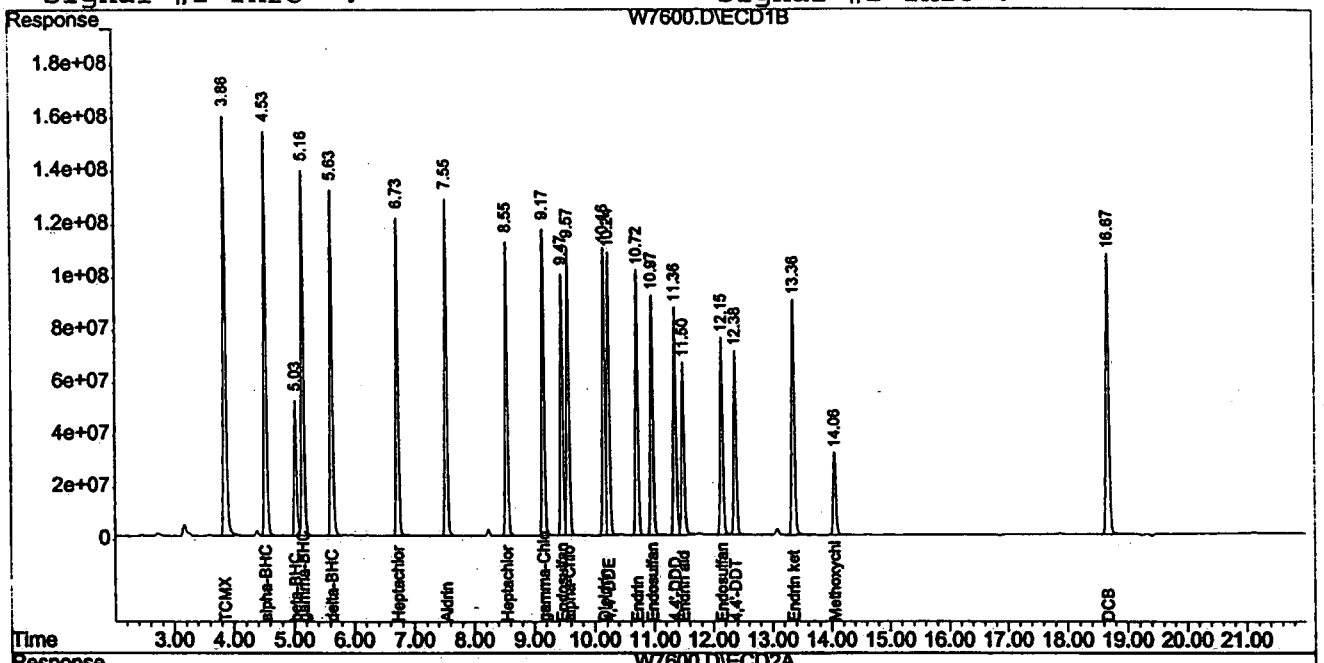
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

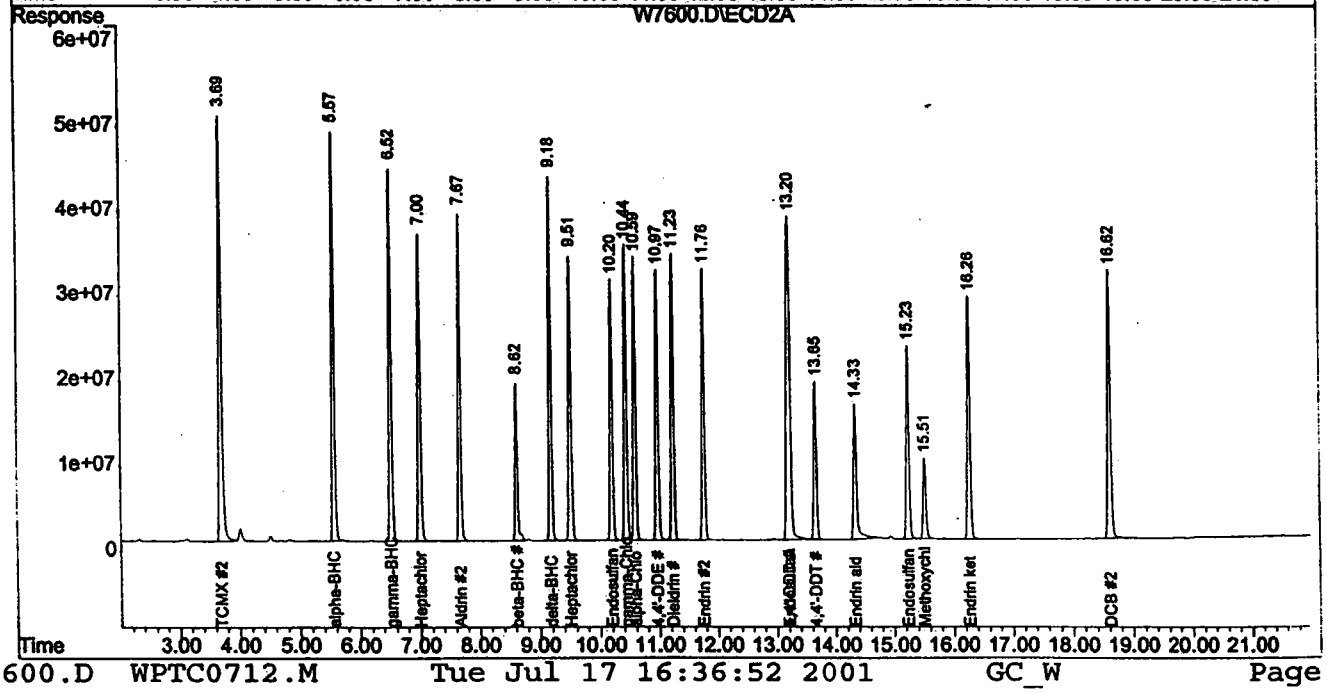
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7600.D\ECD1B.CH Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7600.D\ECD2A.CH
Acq On : 7-13-01 12:22:21 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 16:36 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1195

0557

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7623.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7623.D\ECD2A.CH
Acq On : 7-13-01 21:56:38 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 9:25 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	4935.6E6	1584.6E6	102.412	103.110	
Spiked Amount	100.000			Recovery	=	102.41%	103.11%	
2) S	DCB	18.68	18.61	3792.3E6	1100.0E6	101.181	103.448	
Spiked Amount	100.000			Recovery	=	101.18%	103.45%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4223.1E6	1247.4E6	104.690	105.194	
4) T	beta-BHC	5.03	8.62	1516.8E6	509.3E6	101.004	101.156	
5) T	gamma-BHC	5.16	6.52	3798.9E6	1138.5E6	103.828	104.974	
6) T	delta-BHC	5.63	9.18	3576.3E6	1062.0E6	105.557	106.725	
7) T	Heptachlor	6.73	7.00	3254.9E6	966.7E6	103.693	102.338	
8) T	Aldrin	7.54	7.67	3588.5E6	1054.0E6	104.697	105.168	
9) T	Heptachlor epoxi	8.55	9.51	3164.8E6	953.8E6	104.656	103.753	
10) T	Endosulfan I	9.47	10.20	2960.7E6	896.3E6	104.436	104.104	
11) T	4,4'-DDE	10.24	10.97	3244.5E6	954.0E6	104.808	105.461	
12) T	Dieldrin	10.16	11.23	3255.3E6	976.4E6	105.324	105.162	
13) T	Endrin	10.72	11.76	2951.3E6	925.1E6	102.748	103.278	
14) T	Endosulfan II	10.97	13.20	2795.8E6	1694.3E6	104.300	211.326	#
15) T	4,4'-DDD	11.36	13.20	2687.3E6	1694.3E6	108.026	211.373	#
16) T	Endrin aldehyde	11.50	14.33	2188.5E6	618.5E6	105.650	104.171	
17) T	Endosulfan sulfa	12.15	15.23	2381.0E6	712.8E6	104.366	104.105	
18) T	4,4'-DDT	12.38	13.65	2048.2E6	550.9E6	96.021	95.643	
19) T	Endrin ketone	13.36	16.26	3049.4E6	906.2E6	103.707	105.576	
20) T	Methoxychlor	14.06	15.51	1029.6E6	317.8E6	97.260	97.980	
21) T	alpha-Chlordane	9.57	10.59	3258.7E6	965.9E6	103.660	103.944	
22) T	gamma-Chlordane	9.17	10.43	3434.7E6	987.9E6	104.607	104.381	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

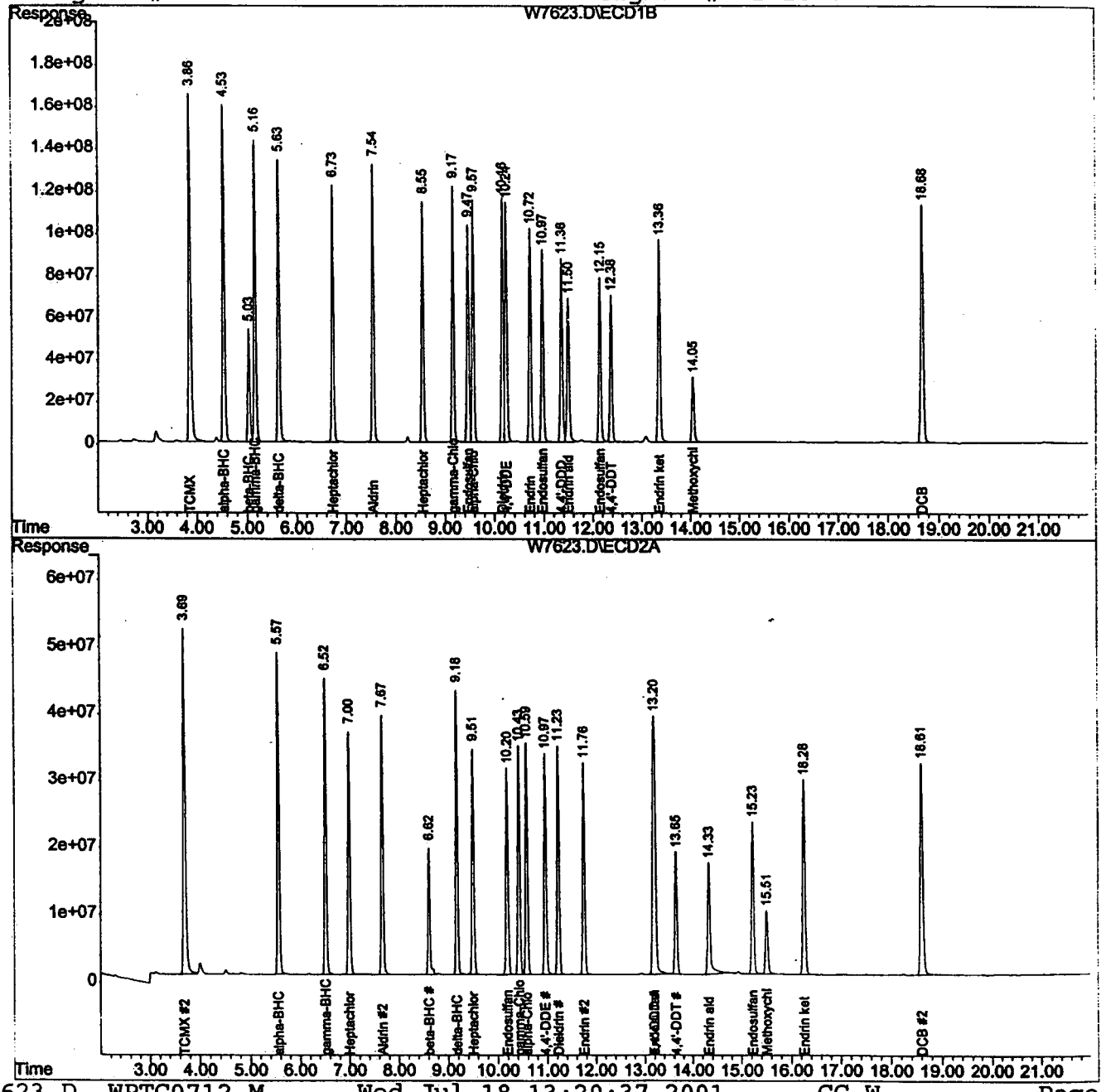
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7623.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7623.D\ECD2A.CH
Acq On : 7-13-01 21:56:38 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 16 9:25 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



0559

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7601.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7601.D\ECD2A.CH
Acq On : 7-13-01 12:47:22 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 16:59 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5101.6E6	1652.2E6	105.855	107.511
Spiked Amount 100.000			Recovery =		105.86%	107.51%
2) S DCB	18.68	18.61	3674.4E6	1105.5E6	98.034m	103.966m
Spiked Amount 100.000			Recovery =		98.03%	103.97%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	13.16	13.98	286.9E6	140.2E6	442.742	492.224
29) L2 Toxaphene {2}	13.29	14.73	493.9E6	100.9E6	481.536	488.129
30) L2 Toxaphene {3}	13.58	14.98	203.8E6	140.8E6	434.949m	524.376
31) L2 Toxaphene {4}	14.04	15.17	218.9E6	88191872	455.782	552.504
32) L2 Toxaphene {5}	14.54	15.63	270.9E6	69924667	473.860	546.562
Sum Toxaphene			1474.4E6	540.1E6	2288.870	2603.796
Average Toxaphene					457.774	520.759

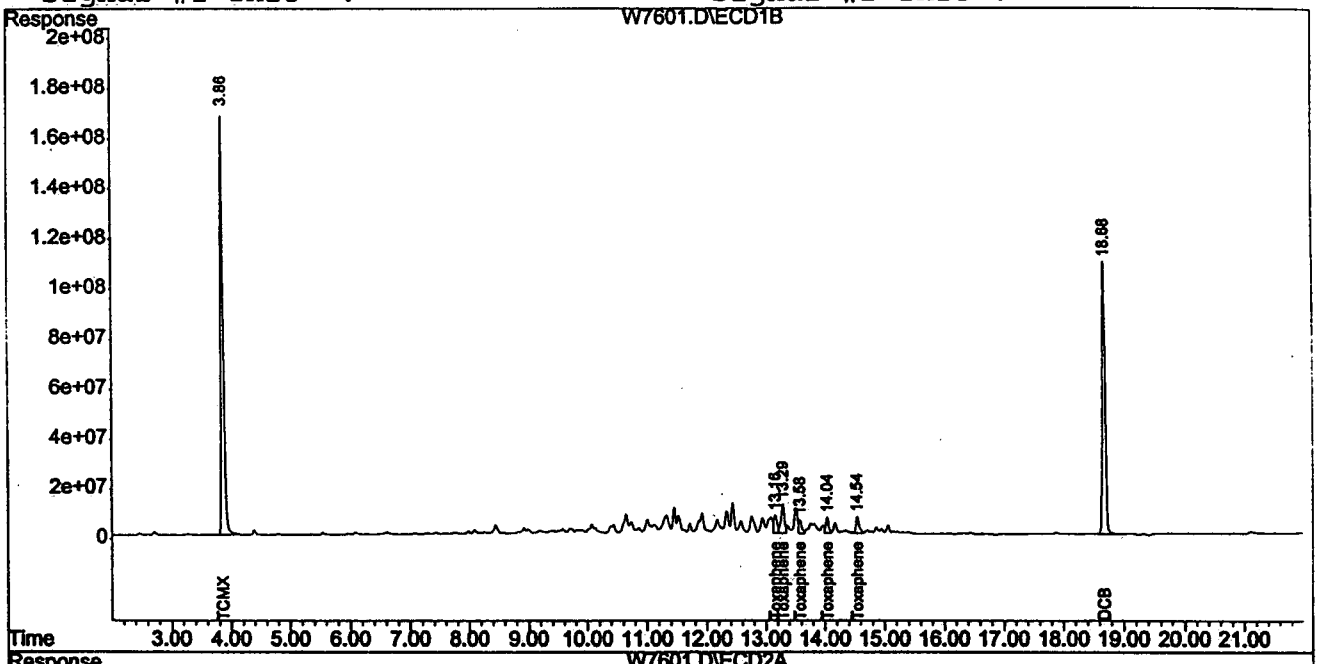
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7601.D WPTC0712.M Tue Jul 17 17:00:04 2001 GC_W

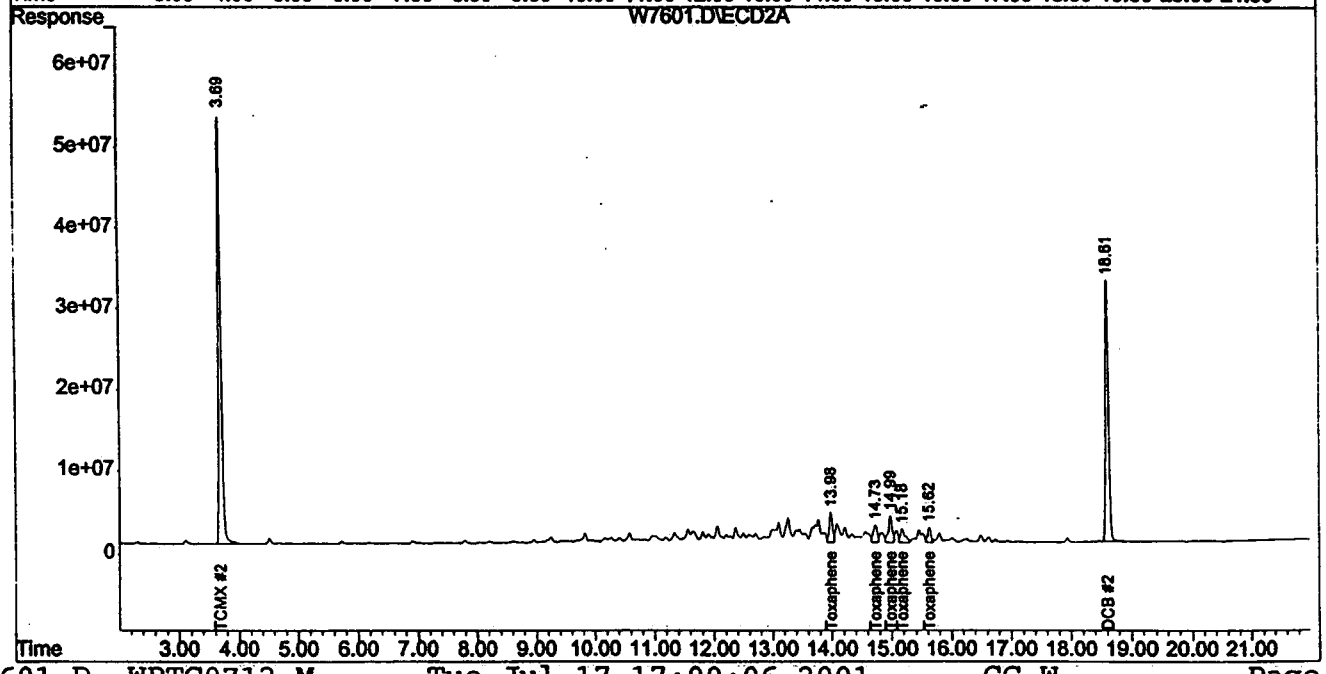
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7601.D\ECD1B.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7601.D\ECD2A.CH
Acq On : 7-13-01 12:47:22 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 16:59 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7602.D\ECD1B.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7602.D\ECD2A.CH
Acq On : 7-13-01 13:12:27 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 17:00 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	4739.1E6	1561.3E6	98.333	101.600
Spiked Amount 100.000			Recovery =		98.33%	101.60%
2) S DCB	18.68	18.62	3497.5E6	1042.4E6	93.315	98.031
Spiked Amount 100.000			Recovery =		93.31%	98.03%
Target Compounds						
24) L1 Chlordane	9.17	8.36	1798.4E6	90003962	497.235	504.893
25) L1 Chlordane {2}	9.37	10.03	390.3E6	116.9E6	490.049	502.713
25) L1 Chlordane {3}	9.57	10.43	1767.5E6	520.7E6	495.446	506.196
26) L1 Chlordane {4}	9.72	10.59	1033.3E6	470.1E6	494.835	510.413
27) L1 Chlordane {5}	11.57	10.65	488.2E6	300.5E6	487.145	501.415
Sum Chlordane			5477.6E6	1498.2E6	2464.709	2525.631
Average Chlordane					492.942	505.126
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7602.D WPTC0712.M Tue Jul 17 17:00:37 2001 GC_W Page 1

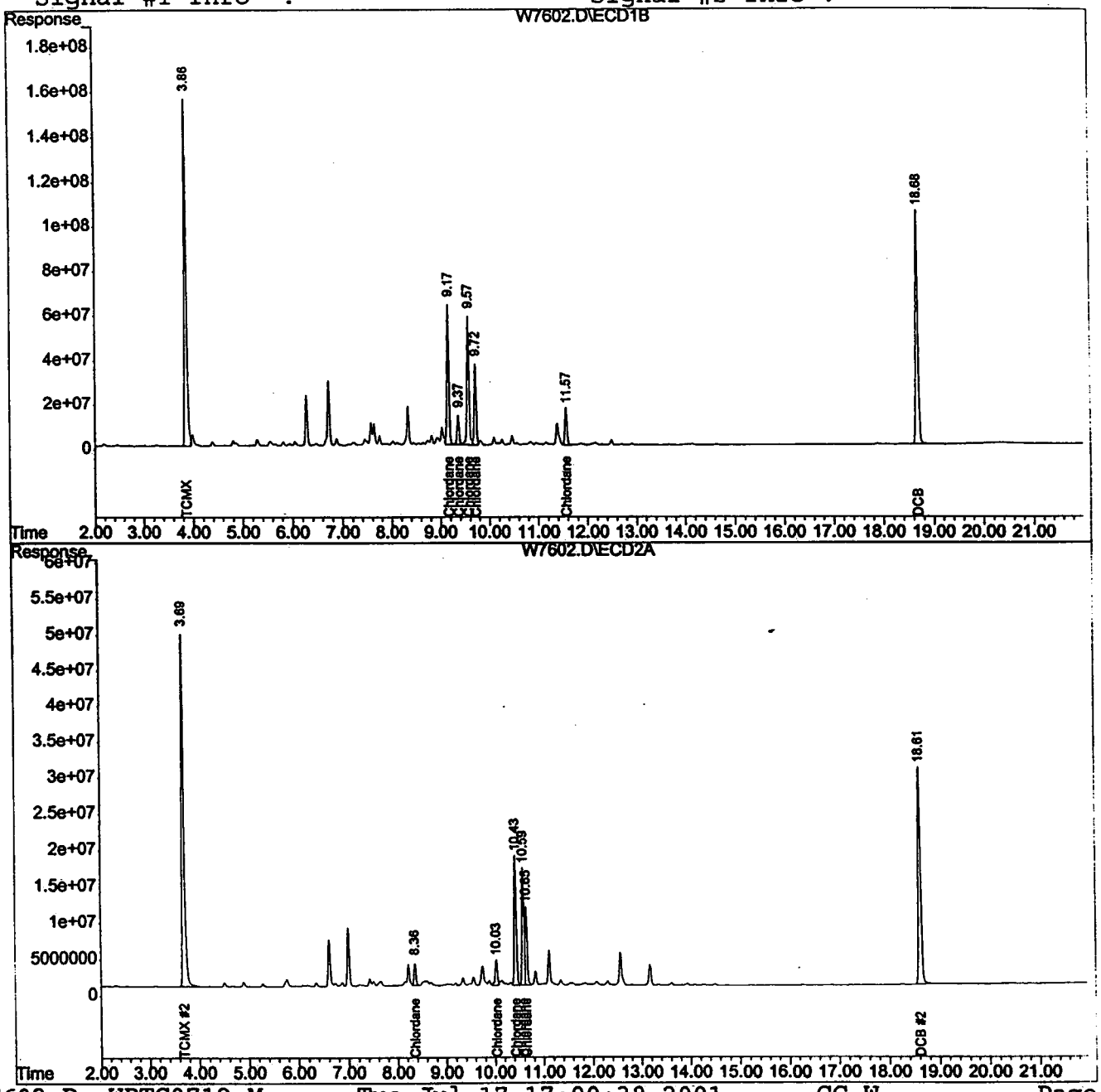
1700

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-13-01\W7602.D\ECD1B.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\07-13-01\W7602.D\ECD2A.CH
Acq On : 7-13-01 13:12:27 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 17:00 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



0563

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD1B.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD2A.CH
Acq On : 7-18-01 22:21:12 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:13 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	5063.4E6	1559.0E6	105.063	101.446	
Spiked Amount	100.000			Recovery	=	105.06%	101.45%	
2) S	DCB	18.67	18.61	3817.0E6	1040.4E6	101.839	97.842	
Spiked Amount	100.000			Recovery	=	101.84%	97.84%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4353.4E6	1236.0E6	107.919	104.233	
4) T	beta-BHC	5.03	8.62	1553.7E6	495.0E6	103.464	98.316	
5) T	gamma-BHC	5.16	6.52	3921.8E6	1123.3E6	107.189	103.569	
6) T	delta-BHC	5.63	9.18	3785.7E6	1071.7E6	111.737	107.700	
7) T	Heptachlor	6.73	7.00	3463.6E6	968.9E6	110.341	102.567	
8) T	Aldrin	7.54	7.67	3645.2E6	1027.1E6	106.353	102.486	
9) T	Heptachlor epoxi	8.55	9.51	3231.5E6	931.9E6	106.859	101.371	
10) T	Endosulfan I	9.47	10.20	3013.3E6	873.9E6	106.291	101.502	
11) T	4,4'-DDE	10.24	10.97	3264.8E6	920.6E6	105.463	101.762	
12) T	Dieldrin	10.16	11.23	3333.0E6	950.0E6	107.839	102.309	
13) T	Endrin	10.72	11.76	3110.5E6	917.9E6	108.289	102.473	
14) T	Endosulfan II	10.97	13.20	2845.6E6	1642.1E6	106.156	204.816	#
15) T	4,4'-DDD	11.36	13.20	2772.5E6	1642.1E6	111.451	204.861	#
16) T	Endrin aldehyde	11.50	14.33	2225.6E6	601.3E6	107.440	101.283	
17) T	Endosulfan sulfa	12.15	15.23	2507.6E6	705.1E6	109.918	102.985	
18) T	4,4'-DDT	12.38	13.65	2281.2E6	561.0E6	106.945	97.402	
19) T	Endrin ketone	13.36	16.26	3092.5E6	858.1E6	105.170	99.973	
20) T	Methoxychlor	14.06	15.51	1169.1E6	316.7E6	110.440	97.634	
21) T	alpha-Chlordane	9.57	10.59	3322.4E6	941.5E6	105.689	101.324	
22) T	gamma-Chlordane	9.17	10.43	3502.2E6	963.3E6	106.662	101.781	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

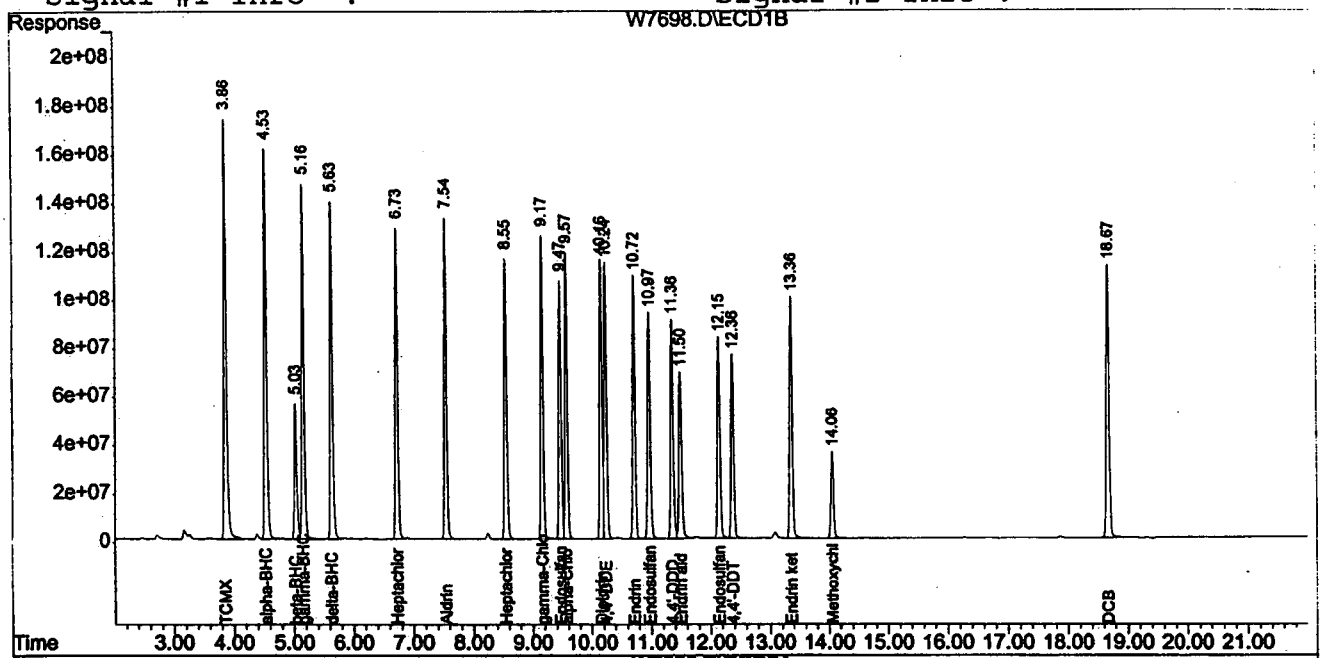
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

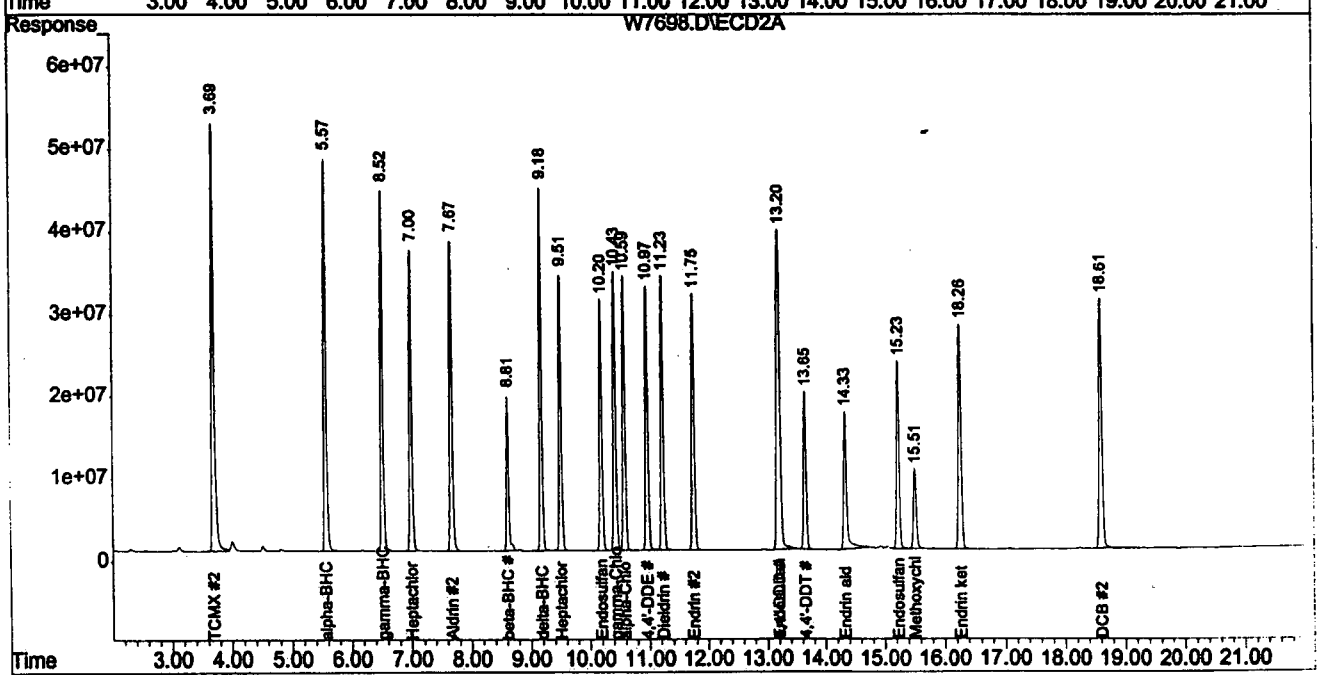
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD1B.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD2A.CH
Acq On : 7-18-01 22:21:12 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:13 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1703

0565

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD2A.CH
Acq On : 7-19-01 9:36:36 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:21 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	5223.7E6	1606.4E6	108.389	104.532	
Spiked Amount	100.000			Recovery	=	108.39%	104.53%	
2) S	DCB	18.67	18.61	3947.9E6	1098.7E6	105.331	103.330	
Spiked Amount	100.000			Recovery	=	105.33%	103.33%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4491.4E6	1281.1E6	111.342	108.034	
T	beta-BHC	5.03	8.62	1594.5E6	513.5E6	106.182	101.988	
5) T	gamma-BHC	5.15	6.52	4040.2E6	1166.0E6	110.425	107.506	
6) T	delta-BHC	5.63	9.18	3929.6E6	1124.1E6	115.983	112.965	
7) T	Heptachlor	6.73	7.00	3541.6E6	1003.9E6	112.826	106.276	
8) T	Aldrin	7.54	7.67	3776.2E6	1066.1E6	110.176	106.375	
9) T	Heptachlor epoxi	8.55	9.51	3328.8E6	965.8E6	110.078	105.054	
10) T	Endosulfan I	9.47	10.20	3103.9E6	906.5E6	109.487	105.289	
11) T	4,4'-DDE	10.24	10.97	3375.7E6	956.5E6	109.044	105.728	
12) T	Dieldrin	10.16	11.23	3417.1E6	986.1E6	110.561	106.207	
13) T	Endrin	10.71	11.76	3174.7E6	947.2E6	110.526	105.754	
14) T	Endosulfan II	10.97	13.20	2921.3E6	1666.0E6	108.979	207.792	#
15) T	4,4'-DDD	11.35	13.20	2831.6E6	1666.0E6	113.828	207.838	#
16) T	Endrin aldehyde	11.49	14.33	2260.8E6	628.1E6	109.137	105.799	
17) T	Endosulfan sulfa	12.15	15.23	2590.7E6	739.8E6	113.561	108.056	
18) T	4,4'-DDT	12.38	13.65	2333.7E6	596.1E6	109.406	103.483	
19) T	Endrin ketone	13.36	16.26	3175.9E6	901.5E6	108.006	105.033	
20) T	Methoxychlor	14.05	15.51	1173.6E6	330.9E6	110.865	101.996	
21) T	alpha-Chlordane	9.57	10.59	3425.6E6	979.7E6	108.972	105.435	
22) T	gamma-Chlordane	9.16	10.43	3610.9E6	1002.1E6	109.973	105.881	
Sum Chlordane				0	0	N.D.	N.D.	
Average Chlordane						0.000	0.000	
Sum Toxaphene				0	0	N.D.	N.D.	
Average Toxaphene						0.000	0.000	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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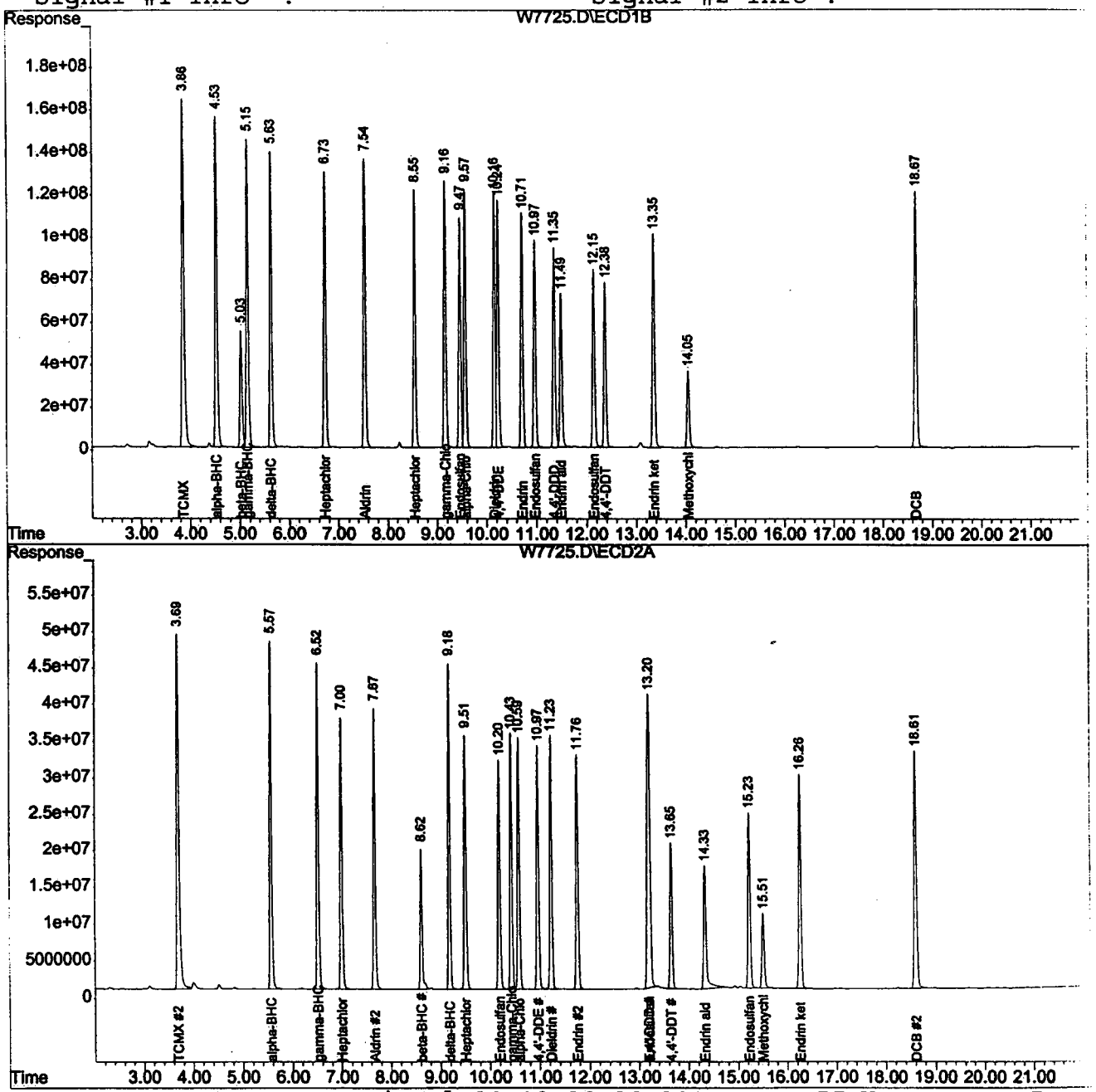
Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD2A.CH
Acq On : 7-19-01 9:36:36 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:21 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD2A.CH
Acq On : 7-18-01 22:46:05 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:16 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5403.0E6	1661.0E6	112.110	108.085
Spiked Amount 100.000			Recovery	=	112.11%	108.08%
2) S DCB	18.67	18.61	3991.5E6	1094.8E6	106.494m	102.963m
Spiked Amount 100.000			Recovery	=	106.49%	102.96%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	13.16	13.98	304.8E6	138.1E6	470.240	484.618
29) L2 Toxaphene {2}	13.29	14.73	516.7E6	95285796	503.809	460.749
30) L2 Toxaphene {3}	13.57	14.98	197.5E6	138.8E6	421.483	516.775
31) L2 Toxaphene {4}	14.03	15.17	223.1E6	82245153	464.509	515.249
32) L2 Toxaphene {5}	14.54	15.62	266.2E6	66905403	465.638	522.963
Sum Toxaphene			1508.3E6	521.3E6	2325.679	2500.354
Average Toxaphene					465.136	500.071

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

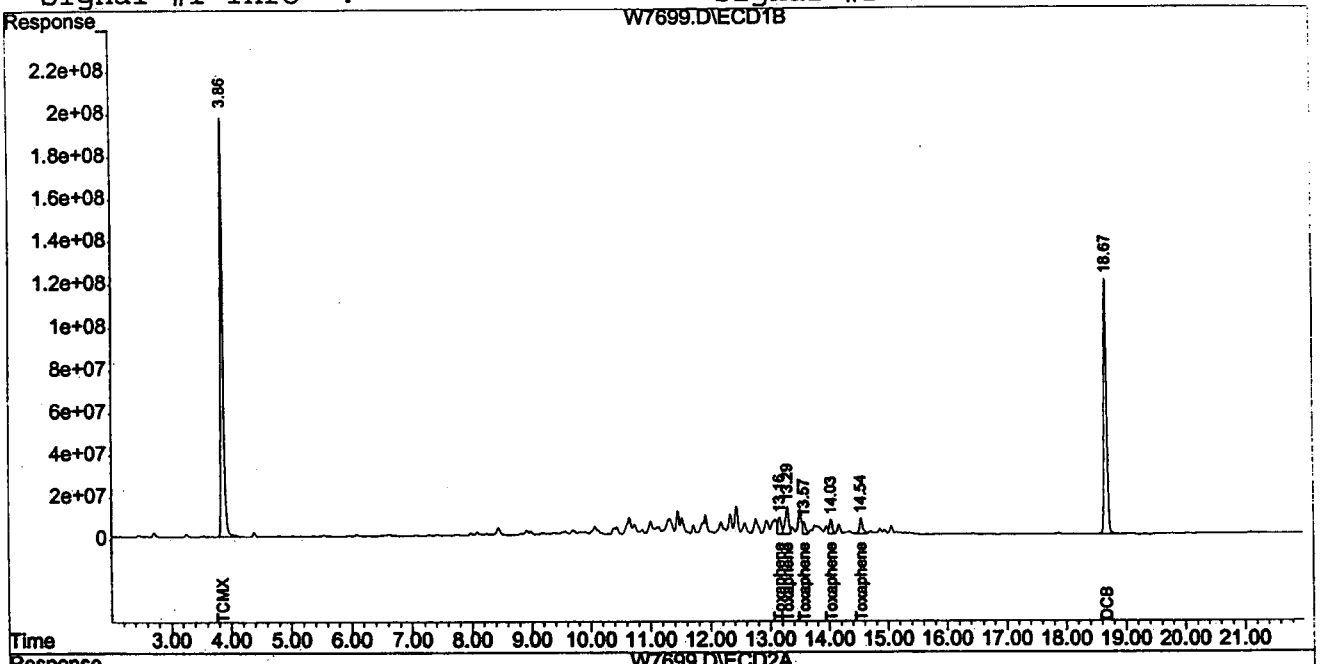
1706

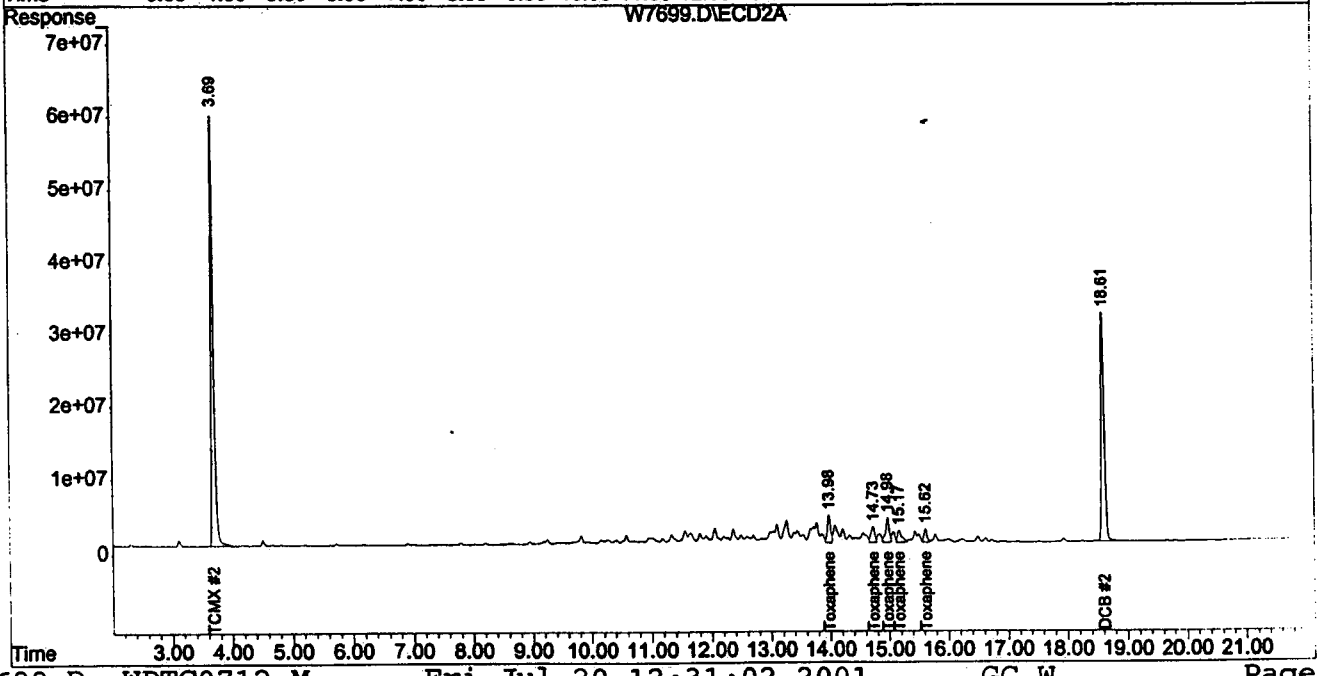
0568

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD2A.CH
Acq On : 7-18-01 22:46:05 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:16 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD1B.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD2A.CH
Acq On : 7-18-01 23:11:00 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:17 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

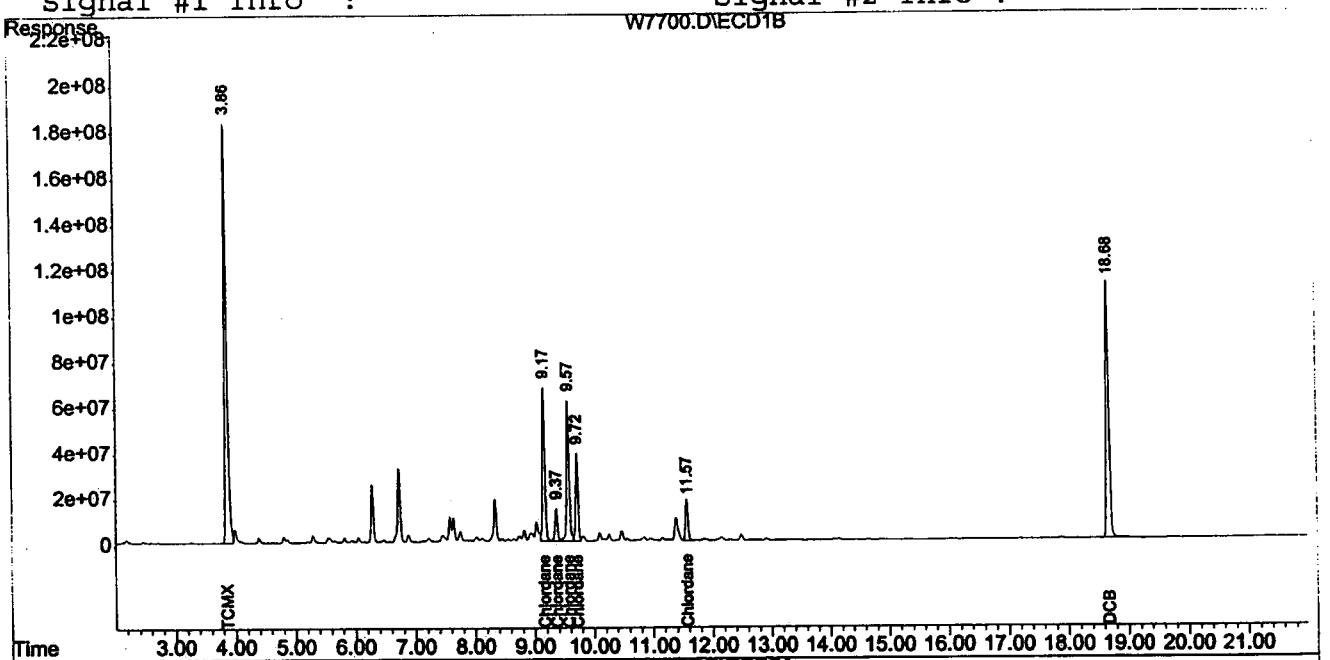
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5085.3E6	1586.7E6	105.518	103.250
Spiked Amount 100.000			Recovery	=	105.52%	103.25%
2) S DCB	18.68	18.61	3809.8E6	1046.7E6	101.648	98.439
Spiked Amount 100.000			Recovery	=	101.65%	98.44%
Target Compounds						
23) L1 Chlordane	9.17	8.36	1910.8E6	91563772	528.322	513.643
L1 Chlordane {2}	9.37	10.03	416.2E6	118.4E6	522.682	509.228
25) L1 Chlordane {3}	9.57	10.43	1873.8E6	526.9E6	525.247	512.233
26) L1 Chlordane {4}	9.72	10.59	1100.9E6	476.7E6	527.228	517.553
27) L1 Chlordane {5}	11.57	10.65	523.4E6	301.4E6	522.263	502.981
Sum Chlordane			5825.2E6	1515.0E6	2625.742	2555.639
Average Chlordane					525.148	511.128
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

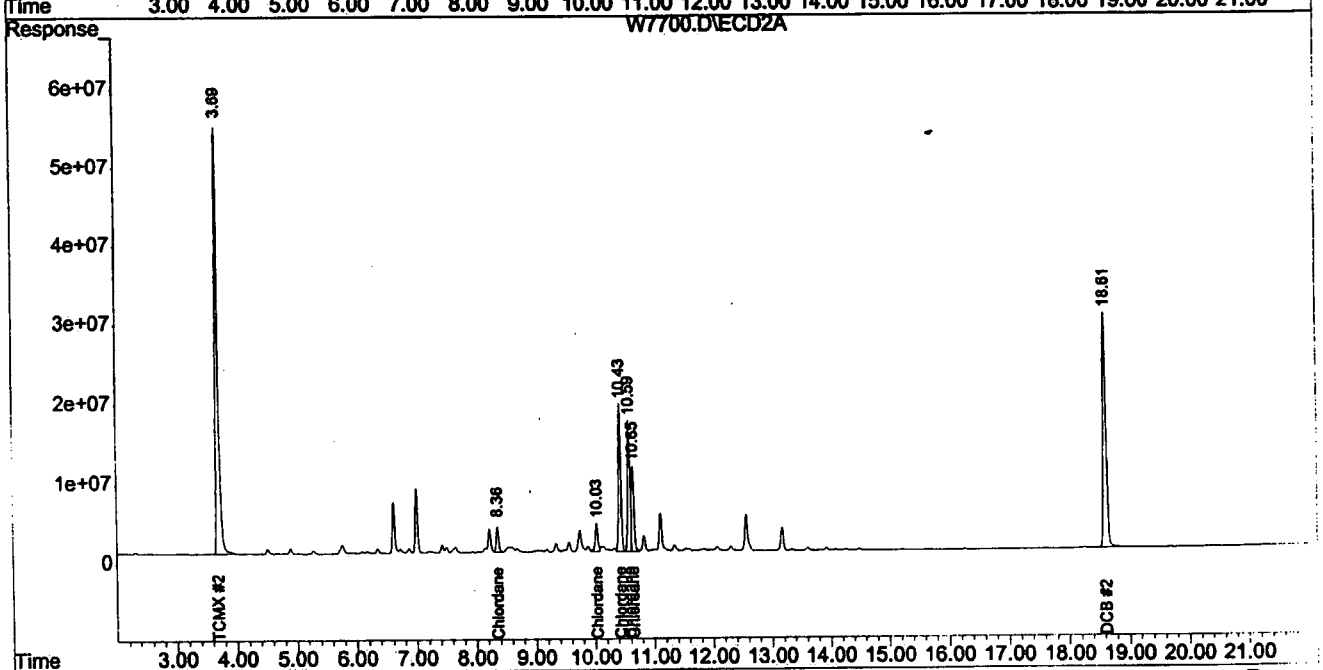
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7700.D WPTC0712.M Fri Jul 20 12:31:06 2001 GC_W Page 1

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD1B.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD2A.CH
Acq On : 7-18-01 23:11:00 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:17 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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1709

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

BLANK RESULTS SUMMARY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	INITIAL CALIBRATION	CONTINUING CALIBRATION 1	CONTINUING CALIBRATION 2	INST. MDL	REAGENT BLANK	MDL	IDL
Aluminum	ND	ND	ND	0.100	ND	2.00	
Antimony	ND	ND	ND	0.100	ND	2.00	
Arsenic	ND	ND	ND	0.010	ND	0.200	
Barium	ND	ND	ND	0.250	ND	5.00	
Beryllium	ND	ND	ND	0.010	ND	0.200	
Cadmium	ND	ND	ND	0.010	ND	0.200	
Calcium	ND	ND	ND	1.00	ND	20.0	
Chromium	ND	ND	ND	0.030	ND	0.600	
Cobalt	ND	ND	ND	0.020	ND	0.400	
Copper	ND	ND	ND	0.020	ND	0.400	
Iron	ND	ND	ND	0.150	ND	3.00	
Lead	ND	ND	ND	0.100	ND	2.00	
Magnesium	ND	ND	ND	1.00	ND	20.0	
Manganese	ND	ND	ND	0.020	ND	0.400	
Mercury	ND	ND	ND	0.00025	ND	0.013	
Nickel	ND	ND	ND	0.030	ND	0.600	
Potassium	ND	ND	ND	1.00	ND	20.0	
Selenium	ND	ND	ND	0.100	ND	2.00	
Silver	ND	ND	ND	0.020	ND	0.400	
Sodium	ND	ND	ND	1.00	ND	20.0	
Thallium	ND	ND	ND	0.004	ND	0.080	
Vanadium	ND	ND	ND	0.015	ND	0.300	
Zinc	ND	ND	ND	0.050	ND	1.00	

This QC Blank applies to the following samples:

4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Concentration/Units: ppb (µg/L)

ANALYTE	INITIAL CALIBRATION			CONTINUING CALIBRATION					MDL	IDL
	TRUE	FOUND	%R (1)	TRUE	FOUND	%R (1)	FOUND	%R (1)		
Aluminum	400	426	107	400	430	108	434	109	100	
Antimony	120	121	101	120	116	96.7	123	103	100	
Arsenic	20.0	19.4	97.0	20.0	19.2	96.0	19.7	98.5	10.0	
Barium	400	402	101	400	405	101	434	109	250	
Beryllium	10.0	10.5	105	10.0	10.7	107	10.8	108	10.0	
Cadmium	10.0	9.83	98.3	10.0	9.91	99.1	9.39	93.9	10.0	
Calcium	10000	9810	98.1	10000	9830	98.3	10800	108	1000	
Chromium	20.0	19.7	98.5	20.0	19.7	98.5	21.9	110	30.0	
Cobalt	100	102	102	100	101	101	106	106	20.0	
Copper	50.0	48.7	97.4	50.0	48.2	96.4	51.1	102	20.0	
Iron	200	198	99.0	200	185	92.5	214	107	150	
Lead	10.0	10.4	104	10.0	9.72	97.2	10.4	104	100	
Magnesium	10000	10600	106	10000	10700	107	10900	109	1000	
Manganese	30.0	30.1	100	30.0	27.4	91.3	30.0	100	20.0	
Mercury	5.00	5.40	108	5.00	5.00	100	5.30	106	0.250	
Nickel	80.0	78.0	97.5	80.0	77.1	96.4	80.7	101	30.0	
Potassium	10000	10400	104	10000	10500	105	10600	106	1000	
Selenium	10.0	10.6	106	10.0	10.3	103	10.2	102	100	
Silver	20.0	19.9	99.5	20.0	19.8	99.0	19.6	98.0	20.0	
Sodium	10000	10800	108	10000	10800	108	10700	107	1000	
Thallium	20.0	21.6	108	20.0	20.6	103	21.8	109	4.00	
Vanadium	100	99.1	99.1	100	104	104	102	102	15.0	
Zinc	40.0	42.3	106	40.0	42.4	106	43.7	109	50.0	

(1) Control Limits: Mercury 80-120, Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Aqueous Concentration/Units: ppb(ug/L)

ANALYTE / MASS	INITIAL			FINAL		
	SOL A	SOL AB	%R	SOL A	SOL AB	%R
Arsenic / 75	0.42	8.74	83.2	0.26	8.84	85.9
Cobalt / 59	0.00	10.1	101.0	0.19	10.8	106.1
Copper / 65	2.65	11.3	86.5	2.60	11.4	88.0
Manganese / 55	3.39	13.8	104.1	3.52	14.4	108.8
Nickel / 60	2.05	10.8	87.5	2.28	11.4	91.2
Zinc / 66	7.91	16.2	82.9	7.79	15.9	81.1

TRUE VALUE SOLN. B = 10 ppb

THERE ARE NO CONTROL LIMITS FOR SOLUTION AB

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SPIKE SAMPLE RECOVERY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	15100	14600	NC	244					70-130
Antimony	52.8	ND	108	48.8	57.6	ND	119	48.4	70-130
Arsenic	49.0	1.77	96.8	48.8	50.9	4.02	96.9	48.4	70-130
Barium	152	103	100	48.8					70-130
Beryllium	48.5	0.868	97.6	48.8	45.4	0.569	92.6	48.4	70-130
Cadmium	47.5	ND	97.3	48.8	45.7	ND	94.4	48.4	70-130
Calcium	2100	1820	115	244					70-130
Chromium	65.5	19.0	95.3	48.8	75.8	28.6	97.5	48.4	70-130
Cobalt	59.5	9.58	102	48.8					70-130
Copper	67.0	20.5	95.3	48.8	65.7	21.4	91.5	48.4	70-130
Iron	20200	19300	NC	244					70-130
Lead	63.1	9.70	109	48.8	64.4	12.7	107	48.4	70-130
Magnesium	6580	6270	127	244					70-130
Manganese	607	553	111	48.8					70-130
Mercury	0.316	ND	104	0.305	0.357	0.049	102	0.303	75-125
Nickel	68.5	20.7	98.0	48.8	60.1	15.8	91.5	48.4	70-130
Potassium	4080	3870	86.1	244					70-130
Selenium	49.2	ND	101	48.8	48.3	ND	99.8	48.4	70-130
Silver	51.1	ND	105	48.8	47.3	ND	97.7	48.4	70-130
Sodium	1300	1050	102	244					70-130
Thallium	53.2	ND	109	48.8	51.0	0.176	105	48.4	70-130
Vanadium	75.4	25.9	101	48.8					70-130
Zinc	101	57.9	88.3	48.8	82.7	39.8	88.6	48.4	70-130

SSR = Spike Sample Result
SA = Spike Added

SR = Sample Result
%R = Percent Recovery

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 4590-005

QC Sample 1 for following samples:
4590-04,05; 4591-03-09; 4594-01; 4615-01; 4643-01-08, 012,013,017-019,021-026; 4644-02,03; 4668-025,026; 4702-05,07,09-026; 4739-01,04,09-012; 4799-01-012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

QC Sample 2 4644-002

QC Sample 2 for following samples:
4590-04,05; 4591-03-09; 4594-01; 4615-01; 4643-01-08, 012,013,017-019,021-026; 4644-02,03; 4668-025,026; 4702-05,07,09-026; 4739-01,04,09-012; 4799-01-012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

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INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SPIKE SAMPLE RECOVERY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR3	SR3	%R3	SA3	SSR4	SR4	%R4	SA4	CONTROL LIMIT %R
Antimony	47.4	ND	105	45.2	50.8	ND	107	47.6	70-130
Arsenic	43.8	1.78	93.0	45.2	47.8	2.37	95.4	47.6	70-130
Lead	49.7	5.29	98.3	45.2	58.5	7.73	107	47.6	70-130
Nickel	64.3	26.8	83.0	45.2	60.3	15.1	95.0	47.6	70-130

SSR = Spike Sample Result
SA = Spike Added

SR = Sample Result
%R = Percent Recovery

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 3 4643-003

QC Sample 3 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

QC Sample 4 4702-015

QC Sample 4 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

DUPLICATE SAMPLE RECOVERY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	14600	14300	2.08				
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	1.77	1.67	5.81	20	4.02	4.00	0.499
Barium	20	103	99.9	3.06				
Beryllium	20	0.868	0.760	13.3	20	0.569	0.557	2.13
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	20	1820	1770	2.79				
Chromium	20	19.0	17.2	9.94	20	28.6	27.2	5.02
Cobalt	20	9.58	8.96	6.69				
Copper	20	20.5	19.1	7.07	20	21.4	21.7	1.39
Iron	20	19300	18100	6.42				
Lead	20	9.70	9.18	5.51	20	12.7	14.4	12.5
Magnesium	20	6270	6230	0.640				
Manganese	20	553	526	5.00				
Mercury	NA	ND	ND	NC	20	0.049	0.042	15.4
Nickel	20	20.7	19.6	5.46	20	15.8	15.4	2.56
Potassium	20	3870	3560	8.34				
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	1050	968	8.13				
Thallium	NA	ND	ND	NC	20	0.176	0.152	14.6
Vanadium	20	25.9	23.1	11.4				
Zinc	20	57.9	52.4	9.97	20	39.8	39.8	0

S1 = Sample 1
D1 = Duplicate 1

S2 = Sample 2
D2 = Duplicate 2

NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 1 4590-005

QC Sample 1 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

QC Sample 2 4644-002

QC Sample 2 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

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INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

DUPLICATE SAMPLE RECOVERY

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 3	S3	D3	RPD3	CONTROL LIMIT 4	S4	D4	RPD4
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	1.78	1.96	9.63	20	2.37	2.20	7.44
Lead	20	5.29	5.07	4.25	20	7.73	6.98	10.2
Nickel	20	26.8	23.9	11.4	20	15.1	14.7	2.68

S3 = Sample 3
D3 = Duplicate 3

S4 = Sample 4
D4 = Duplicate 4

NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 3 4643-003

QC Sample 3 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

QC Sample 4 4702-015

QC Sample 4 for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

ANALYTE	AQUEOUS (ug/L)			SOLID (mg/kg)			
	TRUE	FOUND	%R(1)	TRUE	FOUND	LIMITS	%R(2)
Aluminum				5760	5480	3750-7760	95.1
Antimony				26.2	7.80	D.L.-53.1	29.8
Arsenic				36.2	40.6	26.9-45.4	112
Barium				117	122	90.2-144	104
Beryllium				59.4	82.2	60.4-93.7	138
Cadmium				35.6	34.9	27.4-43.8	98.0
Calcium				1320	1320	989-1660	100
Chromium				108	109	79.2-137	101
Cobalt				67.2	65.9	53.4-80.9	98.1
Copper				63.7	67.3	52.2-75.2	106
Iron				7540	8380	4290-10800	111
Lead				52.4	47.5	37.3-67.6	90.6
Magnesium				1190	1400	815-1570	118
Manganese				151	163	128-189	108
Mercury				1.00	0.968	.614-1.39	96.8
Nickel				49.8	55.1	39-60.6	111
Potassium				2130	2220	1660-2600	104
Selenium				56.8	49.4	41-72.6	87.0
Silver				34.1	35.5	25.4-42.9	104
Sodium				487	557	354-911	114
Thallium				68.2	70.9	39-97.3	104
Vanadium				80.0	81.0	54.6-105	101
Zinc				151	155	117-185	103

(1) Control Limits = 90-110%
(2)Manufacture's Recomended Limits

Aqueous LCS Source: MV Laboratories

Solid LCS Source: Environmental Resource Associates: PriorityPollutnT/CLP Inorganics Soils

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SERIAL DILUTIONS & POST SPIKES

Lab Case Number: E01- 4590, 4591, 4594, 4615, 4643, 4644, 4668, 4702, 4739, 4799, 4816, 4829, 4830, 4811

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	14600	14500	0.687			
Antimony	ND			39.7	48.8	81.4
Arsenic	1.77	1.64	7.62			
Barium	103	104	0.966			
Beryllium	0.868			45.5	48.8	91.5
Cadmium	ND			45.2	48.8	92.6
Calcium	1820	1910	4.83			
Chromium	19.0	18.4	3.21			
Cobalt	9.58	9.43	1.58			
Copper	20.5	21.6	5.23			
Iron	19300	21300	9.85			
Lead	9.70	9.32	4.00			
Magnesium	6270	6490	3.45			
Manganese	553	568	2.68			
Mercury	ND			0.328	0.305	108
Nickel	20.7	22.2	6.99			
Potassium	3870	3740	3.42			
Selenium	ND			43.9	48.8	90.0
Silver	ND			49.3	48.8	101
Sodium	1050	1000	4.88			
Thallium	ND			52.1	48.8	107
Vanadium	25.9	26.3	1.53			
Zinc	57.9	60.2	3.90			

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75-125% Recovery

QC Sample : 4590-005

QC Sample for following samples:
4590-04,05; 4591-03~09; 4594-01; 4615-01; 4643-01~08, 012,013,017~019,021~026; 4644-02,03; 4668-025,026; 4702-05,07,09~026; 4739-01,04,09~012; 4799-01~012; 4816-01,02; 4829-01; 4830-01,02; 4811-01

1714

0580

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
7/13/01

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Aqueous
Units: A-mg/L

Batch ID: AP013-0062

Blank

Parameter	Method Blank	MDL	Analysis Date
Total Cyanide	ND	0.020	07/13/01

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Total Cyanide	4687-001S	14.7	14.6	1	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Total Cyanide	4687-001	ND	14.3	14.7	103	75 - 125

The above blank result applies to the follow samples E01-

4687-001	4540-002
4687-001D	4540-003
4687-001S	4540-004
4687-001SD	4590-004
4719-001	4590-005
4719-002	4644-002
4719-003	4644-003
4719-004	4627-001
4540-001	

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
7/9/01

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Soil **Batch ID:** AP024-0067
Units: S-mg/Kg

Blank

Parameter	Method Blank	MDL	Analysis Date
Total Recoverable Phenols	ND	2.50	07/09/01

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Total Recoverable Phenols	4357-006S	56.9	55.2	3	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Total Recoverable Phenols	4357-006	ND	59.4	56.9	95.8	75 - 125

The above blank result applies to the follow samples E01-

4357-006	4540-002
4357-006D	4540-003
4357-006S	4540-004
4357-006SD	4590-005
4540-001	4590-004

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Phone # (973) 361-4[illegible]
Fax # (973) 989-5288

INTEGRATED ANALYTI[illegible] LABORATORIES
CHAIN OF CU[illegible]ODY

2[illegible]lin Rd
Ra[illegible], NJ 07869

CLIENT & PROJECT

Company Name:	Envirotechnics Inc.
Address:	2517 Highway 35 Bldg. D, Suite 202 Manasquan, NJ 08736
Telephone #:	(732) 292-0100
Fax #:	(732) 292-2508
Project Name:	Orbis
Project Manager:	Chris Neuffer
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr (72 hr) 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk) Other:

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk) Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
SRP Disk**: (dbf) or wk1
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 2. NaOH 3. HNO_3 4. H_2SO_4 5. MeOH 6. Other

COOLER TEMP. 4 °C

SAMPLE MATRIX

W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

SAMPLE INFORMATION

Sample ID	Sample Description	Sampling Date	Time	am	pm	Matrix	# of Containers	Lab ID	8010	BN+15	PP Metals	Pesticides	PP+40	Comments
S-90		7/6/01	1:00		/	S	1	1				X		
S-91		7/6/01	1:10		/	S	1	2				X		
S-93		7/6/01	1:35		/	S	1	3				X		
S-94A		7/6/01	2:15		/	S	2	4	X	X	X	X	X	107741
S-94B		7/6/01	2:30		/	S	2	5	X	X	X	X	X	↓ 706
S-92		7/6/01	1:20		/	S	1	6				X		only PCB + pesticides
Trip Blank		7/5/01	—			A	1	7	X					107705

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time		Signature
Relinquished by:	[signature]	7/6/01	3:00	Received by:	[signature]
Relinquished by:	[signature]	7-6-01	4:10	Received by:	[signature] IAL Fridge
Relinquished by:	IAL Fridge	7/7/01	4:30	Received by:	[signature]
Relinquished by:				Received by:	
Relinquished by:				Received by:	

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Comments:

Lab Case #
HAZSITE
4590

PAGE: 2 OF 2

1221

0503

Phone # (973) 361-4252
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

273 Franklin Rd
Ran[illegible] NJ 07869

CLIENT & PROJECT

Company Name:	Enviro tactics
Address:	2517 Hwy 35
	Bld D Suite 202
	Manasquan NJ
	08736
Telephone #:	732-292-0100
Fax #:	732-292-2808
Project Name:	ORBIS 444
Project Manager:	Chris Neuffer
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr (72 hr) 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk) Other:

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk) Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
SRP Disk** (dbf) or wkl
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 3. HNO_3 2. NaOH 4. H_2SO_4 5. MeOH 6. Other

COOLER TEMP. 4 °C

SAMPLE MATRIX

W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

SAMPLE INFORMATION

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	VO+10	BN+15	PP+Metals	Pesticides	Comments
S-83A		7/6/01	8:10	/		S	2	1	X				107 710
S-83B			8:20	/			2	2	X				702
S-84A			8:50	/			2	3	X	X	X	X	704
S-84B			9:00	/			2	4	X	X	X	X	701
S-85			9:20				2	5	X	X	X	X	709
S-86A			9:45				2	6	X	X	X	X	↓ 698
S-86B			10:00				2	7	X	X	X	X	107 708
S-87			10:40				2	8	X	X	X	X	↓ 707
S-88			11:20				2	9	X	X	X	X	↓ 703
S-89			12:45				1	10				X	—

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time		Signature
Relinquished by:	[signature]	7/6/01	3:00	Received by:	[signature]
Relinquished by:	[signature]	7/6/01	8:10	Received by:	[signature] Fridge
Relinquished by:	[signature] Fridge	7/7/01	9:45	Received by:	[signature]
Relinquished by:				Received by:	
Relinquished by:				Received by:	

LAB COPIES - W[illegible] YELLOW; CLIENT COPY - PINK

Comments:

Lab Case #
HAZSITE
4591

PAGE: 1 OF 2

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4590

CHAIN OF CUSTODY

Case No.: E01-4590
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/07/01
Time Received: 16:30
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 23
Report Due: Jul 30

# of Containers	1	1	1	2	2	1
IAL ID #	4590-001	4590-002	4590-003	4590-004	4590-005	4590-006
Client ID #	S-90	S-91	S-93	S-94A	S-94B	S-92
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/06/01	07/06/01	07/06/01	07/06/01	07/06/01	07/06/01
Sample Time	13:00	13:10	13:35	14:15	14:30	13:20
Methanol Kit				√	√	
Balance Rent				√		
VO+15, PP MP				√	√	
Pesticides	√	√	√	√	√	√
PCB				√	√	
BNA + 25				√	√	
PP Metals-HIGH				√	√	
Cyanide, Total				√	√	
Phenols				√	√	
% Solids	√	√	√	√	√	√
Electronic Del.	√					

Comments: NOTE 1: PLEASE COMBINE REPORT W/ JOB #4591.

CHAIN OF CUSTODY

Case No.: E01-4590
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/07/01
Time Received: 16:30
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 23
Report Due: Jul 30

# of Containers	1
IAL ID #	4590-007
Client ID #	TRIP BLA
	NK
Matrix	Soil
Sample Date	07/05/01
Sample Time	:
Methanol Kit	√
VO + 10, PP MP	√

Comments: NOTE 1: PLEASE COMBINE REPORT W/ JOB #4591.

CHAIN OF CUSTODY

Case No.: E01-4591
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/07/01
Time Received: 16:45
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 23
Report Due: Jul 30

# of Containers	2	2	2	2	2	2
IAL ID #	4591-001	4591-002	4591-003	4591-004	4591-005	4591-006
Client ID #	S-83A	S-83B	S-84A	S-84B	S-85	S-86A
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/06/01	07/06/01	07/06/01	07/06/01	07/06/01	07/06/01
Sample Time	08:10	08:20	08:50	09:00	09:20	09:45
Methanol Kit	√	√	√	√	√	√
Balance Rent	√					
VO + 10, PP MP	√	√	√	√	√	√
Pesticides			√	√	√	√
BN + 15			√	√	√	√
PP Metals-HIGH			√	√	√	√
% Solids	√	√	√	√	√	√
Electronic Del.	√					

Comments: NOTE 1: PLEASE COMBINE REPORT W/ JOB #4590.

CHAIN OF CUSTODY

Case No.: E01-4591
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/07/01
Time Received: 16:45
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 23
Report Due: Jul 30

# of Containers	2	2	2	1
IAL ID #	4591-007	4591-008	4591-009	4591-010
Client ID #	S-86B	S-87	S-88	S-89
Matrix	Soil	Soil	Soil	Soil
Sample Date	07/06/01	07/06/01	07/06/01	07/06/01
Sample Time	10:00	10:40	11:20	12:45
Methanol Kit	√	√	√	
VO + 10, PP MP	√	√	√	
Pesticides	√	√	√	√
BN + 15	√	√	√	
PP Metals-HIGH	√	√	√	
% Solids	√	√	√	√

Comments: NOTE 1: PLEASE COMBINE REPORT W/ JOB #4590.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: 4590 CLIENT: ENVIROTACTICS Inc.

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

CHAIN OF CUSTODY: COMPLETE / INCOMPLETE Comments: _____

Sample Bottles Intact:	✓	Comments:
Sample Labels Intact/ Correct:	✓	
Sufficient Sample Volume:	✓	
Correct bottles/ preservative:	✓	
Samples received in holding time/ prep time:	✓	
Headspace/ bubbles in voa samples:	(✓)	
Samples to be subcontracted:	(✓)	
Preserved Sample pH checked: (Excluding voa samples)	(✓)	

KEY
✓ = YES
✗ = NO
(✓) = N/A

ADDITIONAL COMMENTS: _____

SAMPLE(S) VERIFIED BY: INITIAL BP DATE 7/7

CORRECTIVE ACTION REQUIRED: YES [ ] (SEE BELOW) NO [✓]

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT: _____

SUBCONTRACTED LAB: _____

DATE SHIPPED: _____

ADDITIONAL COMMENTS: _____

VERIFIED/TAKEN BY: INITIAL [signature] DATE _____

REV 10/00

12-27

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: 4591 CLIENT: ENVIRO TACTICS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

CHAIN OF CUSTODY: COMPLETE / INCOMPLETE Comments: _____

Sample Bottles Intact:	✓	Comments:
Sample Labels Intact/ Correct:	✓	
Sufficient Sample Volume:	✓	
Correct bottles/ preservative:	✓	
Samples received in holding time/ prep time:	✓	
Headspace/ bubbles in voa samples:	(✓)	
Samples to be subcontracted:	(✓)	
Preserved Sample pH checked: (Excluding voa samples)	(✓)	

KEY
✓ = YES
✗ = NO
(✓) = N/A

ADDITIONAL COMMENTS: _____

SAMPLE(S) VERIFIED BY: INITIAL BP DATE 7/7

CORRECTIVE ACTION REQUIRED: YES [ ] (SEE BELOW) NO [✓]

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT: _____

SUBCONTRACTED LAB: _____

DATE SHIPPED: _____

ADDITIONAL COMMENTS: _____

VERIFIED/TAKEN BY: INITIAL [ ] DATE [ ]

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-4590
Client : Envirotactics Inc.
Project : ORBIS - 444

			GC/MS V	EXTRACT DATE	EXTRACT TIME	EXTRACT INITIAL	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS INITIAL
Methanol Kit	4590-004	S					7/10		DM3
	4590-005	S							
	4590-007	S							
Balance Rent	4590-004	S							
VO+15, PP MP	4590-004	S							
	4590-005	S							
VO + 10, PP MP	4590-007	S							
			GC EX						
Pesticides	4590-001	S		7/12	900	EDM2	7.13	330	IC
	4590-002	S							
	4590-003	S							
	4590-004	S							
	4590-005	S							
	4590-006	S							
PCB	4590-004	S					7.16	900	M
	4590-005	S						"	
			GC/MS X						
BNA + 25	4590-004	S		7/11	700, 300	DL	7/11		JC
	4590-005	S							
			METALS						
PP Metals-HIGH	4590-004	S		7/16/01			9/16	1300	JC
	4590-005	S						"	
			WETCHEM						
Cyanide, Total	4590-004	S		7/12/01	1300	JD	7/12/01	1400	JD
	4590-005	S							
Phenols	4590-004	S		7/5	900	DM	7/9	1200	DM
	4590-005	S							
% Solids	4590-001	S		7/9		KC			
	4590-002	S							
	4590-003	S							
	4590-004	S							
	4590-005	S							
	4590-006	S							
			AIR						
Electronic Del.	4590-001	S							

REVIEW & APPROVAL: [signature]
REMARKS :

0590

Remedial Investigation Report & Remedial Action Workplan

Orbis Products Corporation
55 Virginia Street
Block 3773, Lots 15, 41, 43 and 53 Ref 14
Newark, Essex County, New Jersey
Case # 86-11-17-0100

Attachment 8 – 3 of 4

Integrated Analytical Laboratories, LLC.

273 Franklin Road
Randolph, N.J. 07869

Phone: 973 361-4252
Fax: 973 989-5288

ANALYTICAL DATA REPORT

for
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan,NJ 08736

Project: ORBIS - 444
Lab Case Number: E01-4833
Date Report Prepared: July 27, 2001

CLIENT SAMPLE ID	LABORATORY SAMPLE ID	CLIENT SAMPLE ID	LABORATORY SAMPLE ID
S-95A	4833-001	S-106	4833-016
S-95B	4833-002	S-107	4833-017
S-96A	4833-003	S-108	4833-018
S-96B	4833-004	S-109	4833-019
S-97	4833-005	S-110	4833-020
S-98A	4833-006	S-111A	4833-021
S-98B	4833-007	S-111B	4833-022
S-99	4833-008	S-112	4833-023
S-100	4833-009	S-113	4833-024
S-101	4833-010	S-114A	4833-025
S-102	4833-011	S-114B	4833-026
S-103A	4833-012	S-115	4833-027
S-103B	4833-013	S-116	4833-028
S-104	4833-014	S-117	4833-029
S-105	4833-015	TB	4833-030

All required protocols were followed during analyses. These data have been reviewed and accepted by

Michael H. Leftin, Ph.D.
Laboratory Director

The liability of Integrated Analytical Laboratories, LLC. is limited to the actual cost of the analyses performed.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received thirty (30) soil sample(s) from Envirotactics Inc. (Project: ORBIS - 444) on July 16, 2001 for the analysis of:

(29) Volatiles + 10
(9) Semivolatiles - BN + 15
(9) PCB's
(9) Pesticides
(5) PP Metals
(15) Total Petroleum Hydrocarbons
(5) Phenols

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/30/01
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E01-4833

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

QC Reviewed by

7/30/01
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E01 - 4833

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. BFB Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		NA
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

Organics Manager

7/27/01
Date

rev 12/00

0004

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS SEMIVOLATILE ANALYSIS

Lab Case Number: E01 - 4833

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. DFTPP Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series.		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank: a. B/N Fraction _____ b. Acid Fraction _____	✓	
7. Surrogate Recoveries Meet Criteria (if not met, list those compounds and their recoveries which fall outside the acceptable range) a. B/N Fraction _____ b. Acid Fraction _____		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) a. B/N Fraction _____ b. Acid Fraction _____		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed	✓	

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other

13. Comments:

_____

_____

Organics Manager

02/19/01
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S, PESTICIDES, HERBICIDES

Lab Case Number: E01 - 4833

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
	a. PCB's _____		
	b. Pesticides _____		
	c. Herbicides _____		
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
	a. PCB's _____		
	b. Pesticides _____		
	c. Herbicides _____		
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
	a. PCB's _____		
	b. Pesticides _____		
	c. Herbicides _____		
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample: _____		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample: _____		✓

Comments: _____

Organic Manager

7.24.01
Date

INTEGRATED ANALYTICAL LABORATORIES

METAL ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

Lab Case Number: E01 - 4833

	No	Yes
1. Calibration Summary Meet Criteria.		✓
2. ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3. Serial Dilution Summary Submitted (if applicable) / Meets Criteria		✓
4. Internal Standards Meet Criteria (if applicable)		✓
5. Laboratory Control Sample Summary Submitted (if applicable)/Meets Criteria		✓
6. Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8. Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

H. Falke-Jorgensen
Inorganics Manager

07/19/01
Date

INTEGRATED ANALYTICAL LABORATORIES

PHC ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

Lab Case Number: E01 - 4833

	No	Yes
1. Blank contamination If yes, list the sample and the concentration in each blank:	✓	
2. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)		✓
3. IR spectra submitted for all standards, blanks & samples (as required).		✓
4. Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.		NA
5. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
6. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓

Additional Comments: _____

JdelCamista
Dept. Supervisor

7-18-01
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-001			4833-002			4833-003			4833-004		
Client ID:	S-95A			S-95B			S-96A			S-96B		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	779		724	ND		775	ND		668	ND		732
Toluene	4610		724	ND		775	ND		668	ND		732
Chlorobenzene	507	J	724	ND		775	182	J	668	ND		732
TOTAL VO's:	5896	J		ND			182	J		ND		
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	5896	J		ND			182	J		ND		

Lab ID:	4833-005			4833-006			4833-007			4833-008		
Client ID:	S-97			S-98A			S-98B			S-99		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	ND		822	378	J	672	ND		1480	175	J	715
Toluene	ND		822	585000	D	15500	44000		1480	2540		715
Chlorobenzene	ND		822	5610		672	ND		1480	ND		715
Ethylbenzene	ND		822	6660		672	ND		1480	ND		715
Total Xylenes	ND		822	17100		672	ND		1480	ND		715
1,2-Dichlorobenzene	ND		822	16900		672	ND		1480	ND		715
TOTAL VO's:	ND			631648	J		44000			2715	J	
TOTAL TIC's:	ND			432300			26950			3190		
TOTAL VO's & TIC's:	ND			1063948	J		70950			5905	J	
General Analytical												
Total Petroleum Hydrocarbons (ppm)	~		~	305		25.0	ND		25.0	ND		25.0

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-009			4833-010			4833-011			4833-012		
Client ID:	S-100			S-101			S-102			S-103A		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	291	J	669	139	J	650	197	J	923	1000		820
Toluene	568		669	1700		650	3890		923	605		820
TOTAL VO's:	859	J		1839	J		4087	J		1605		
TOTAL TIC's:	2570			1990			27140			22610		
TOTAL VO's & TIC's:	3429	J		3829	J		31227	J		24215		
Semivolatiles - BN (ppb)												
TOTAL BN'S:	~			ND		111	ND		229	ND		118
TOTAL TIC's:	~		~	2612			130560			ND		
TOTAL BN'S & TIC's:	~		~	2612			130560			ND		
PCB's (ppb)												
Aroclor-1016	~		~	ND		38	ND		45.1	ND		40.9
Aroclor-1221	~		~	ND		38	ND		45.1	ND		40.9
Aroclor-1232	~		~	ND		38	ND		45.1	ND		40.9
Aroclor-1242	~		~	ND		38	ND		45.1	ND		40.9
Aroclor-1248	~		~	ND		38	ND		45.1	ND		40.9
Aroclor-1254	~		~	ND		38	173		45.1	ND		40.9
Aroclor-1260	~		~	ND		38	ND		45.1	ND		40.9
Metals (ppm)												
Antimony	~		~	ND		2.29	ND		2.72	ND		2.51
Arsenic	~		~	0.566		0.229	21.0		0.272	4.95		0.251
Beryllium	~		~	0.269		0.229	1.14		0.272	0.727		0.251
Cadmium	~		~	1.03		0.229	0.347		0.272	ND		0.251
Chromium	~		~	10.1		0.687	44.5		0.815	20.1		0.753
Copper	~		~	2.78		0.458	12.7		0.544	20.8		0.502
Lead	~		~	7.93		2.29	23.7		2.72	49.4		2.51
Mercury	~		~	ND		0.0143	0.0761		0.017	0.144		0.0155
Nickel	~		~	5.89		0.687	22.4		0.815	17.0		0.753
Selenium	~		~	ND		2.29	ND		2.72	ND		2.51
Silver	~		~	ND		0.564	ND		0.675	ND		0.622
Thallium	~		~	ND		0.0916	0.361		0.109	ND		0.100
Zinc	~		~	21.6		1.14	69.4		1.36	79.8		1.26
General Analytical												
Total Petroleum Hydrocarbons (ppm)	ND		25.0	ND		25.0	62.9		27.3	51.7		25.0

~ Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-013			4833-014			4833-015			4833-016		
Client ID:	S-103B			S-104			S-105			S-106		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	1540		850	~		~	375	J	690	ND		841
Toluene	3410		850	~		~	662		690	ND		841
Ethylbenzene	219	J	850	~		~	171	J	690	ND		841
Total Xylenes	ND		850	~		~	682	J	690	ND		841
TOTAL VO's:	5169	J		~			1890	J		ND		
TOTAL TIC's:	8850			~			61690			ND		
TOTAL VO's & TIC's:	14019	J		~			63580	J		ND		
Semivolatiles - BN (ppb)												
Naphthalene	ND		112	ND		108	167	J	208	ND		108
Acenaphthylene	ND		112	ND		108	683		208	ND		108
Acenaphthene	ND		112	ND		108	192	J	208	ND		108
Fluorene	ND		112	ND		108	232		208	ND		108
Phenanthrene	ND		112	ND		108	2160		208	101	J	108
Anthracene	ND		112	ND		108	597		208	ND		108
Carbazole	ND		112	ND		108	184	J	208	ND		108
Fluoranthene	ND		112	ND		108	3770		208	144		108
Pyrene	ND		112	ND		108	4570		208	159		108
Benzo[a]anthracene	ND		112	ND		108	2670		208	92.6	J	108
Chrysene	ND		112	ND		108	3350		208	103	J	108
bis(2-Ethylhexyl)phthalate	152		112	ND		108	527		208	66.6	J	108
Benzo[b]fluoranthene	ND		112	ND		108	2980		208	87.4	J	108
Benzo[k]fluoranthene	ND		112	ND		108	2250		208	ND		108
Benzo[a]pyrene	ND		112	ND		108	3360		208	96.7	J	108
Indeno[1,2,3-cd]pyrene	ND		112	ND		108	2500		208	ND		108
Dibenz[a,h]anthracene	ND		112	ND		108	733		208	ND		108
Benzo[g,h,i]perylene	ND		112	ND		108	3210		208	72.3	J	108
TOTAL BN'S:	152			ND			34135	J		922.6	J	
TOTAL TIC's:	276990			ND			47721			4789		
TOTAL BN'S & TIC's:	277142			ND			81856	J		5711.6	J	
PCB's (ppb)												
Aroclor-1016	ND		38.8	ND		37.7	ND		35.6	ND		37.6
Aroclor-1221	ND		38.8	ND		37.7	ND		35.6	ND		37.6
Aroclor-1232	ND		38.8	ND		37.7	ND		35.6	ND		37.6
Aroclor-1242	ND		38.8	ND		37.7	ND		35.6	ND		37.6
Aroclor-1248	ND		38.8	ND		37.7	ND		35.6	ND		37.6
Aroclor-1254	ND		38.8	132		37.7	2680		35.6	2030		37.6
Aroclor-1260	ND		38.8	ND		37.7	ND		35.6	ND		37.6

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

17dd

0011

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-013			4833-014			4833-015			4833-016		
Client ID:	S-103B			S-104			S-105			S-106		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (ppb)												
alpha-BHC	~		~	~		~	ND		8.91	ND		9.41
beta-BHC	~		~	~		~	ND		8.91	ND		9.41
gamma-BHC	~		~	~		~	ND		8.91	ND		9.41
delta-BHC	~		~	~		~	ND		8.91	ND		9.41
Heptachlor	~		~	~		~	ND		8.91	ND		9.41
Aldrin	~		~	~		~	ND		8.91	ND		9.41
Heptachlor epoxide	~		~	~		~	ND		8.91	ND		9.41
Endosulfan I	~		~	~		~	ND		8.91	ND		9.41
4,4'-DDE	~		~	~		~	1860		8.91	55.4		9.41
Dieldrin	~		~	~		~	ND		8.91	ND		9.41
Endrin	~		~	~		~	ND		8.91	ND		9.41
Endosulfan II	~		~	~		~	ND		8.91	ND		9.41
4,4'-DDD	~		~	~		~	2770	D	17.8	401		9.41
Endrin aldehyde	~		~	~		~	ND		8.91	ND		9.41
Endosulfan sulfate	~		~	~		~	ND		8.91	ND		9.41
4,4'-DDT	~		~	~		~	477		8.91	ND		9.41
Chlordane	~		~	~		~	ND		44.6	ND		47
Toxaphene	~		~	~		~	ND		44.6	ND		47
Metals (ppm)												
Antimony	ND		2.38	ND		2.27	~		~	~		~
Arsenic	1.57		0.238	0.475		0.227	~		~	~		~
Beryllium	0.779		0.238	0.327		0.227	~		~	~		~
Cadmium	ND		0.238	ND		0.227	~		~	~		~
Chromium	20.8		0.714	13.0		0.681	~		~	~		~
Copper	4.45		0.476	12.9		0.454	~		~	~		~
Lead	11.9		2.38	30.2		2.27	~		~	~		~
Mercury	0.0203		0.0149	0.0362		0.0142	~		~	~		~
Nickel	13.8		0.714	9.33		0.681	~		~	~		~
Selenium	ND		2.38	ND		2.27	~		~	~		~
Silver	ND		0.592	ND		0.567	~		~	~		~
Thallium	ND		0.0952	ND		0.0908	~		~	~		~
Zinc	35.1		1.19	48.4		1.14	~		~	~		~
General Analytical												
Total Petroleum Hydrocarbons (ppm)	1360		47.6	106		25.0	~		~	~		~

~ = Sample not analyzed for
D = The compound was reported from the Diluted analysis

SUMMARY REPORT

Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-017			4833-018			4833-019			4833-020		
Client ID:	S-107			S-108			S-109			S-110		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Chloroform	181	J	788	ND		714	ND		758	ND		850
Benzene	546	J	788	1220		714	ND		758	ND		850
Toluene	ND		788	5810		714	ND		758	ND		850
Chlorobenzene	ND		788	6380		714	ND		758	ND		850
Ethylbenzene	ND		788	317	J	714	ND		758	ND		850
Total Xylenes	ND		788	455	J	714	ND		758	ND		850
1,4-Dichlorobenzene	ND		788	1190		714	ND		758	ND		850
1,2-Dichlorobenzene	ND		788	7990		714	ND		758	ND		850
TOTAL VO's:	727	J		23362	J		ND			ND		
TOTAL TIC's:	ND			53030			2153			3230		
TOTAL VO's & TIC's:	727	J		76392	J		2153			3230		
Semivolatiles - BN (ppb)												
1,4-Dichlorobenzene	ND		210	338	J	470	~		~	~		~
1,2-Dichlorobenzene	ND		210	2240		470	~		~	~		~
[illegible]nanthrene	281		210	721		470	~		~	~		~
[illegible]oranthene	636		210	364	J	470	~		~	~		~
Pyrene	581		210	333	J	470	~		~	~		~
Benzo[a]anthracene	409		210	ND		470	~		~	~		~
Chrysene	428		210	651		470	~		~	~		~
Benzo[b]fluoranthene	307		210	ND		470	~		~	~		~
Benzo[k]fluoranthene	323		210	ND		470	~		~	~		~
Benzo[a]pyrene	377		210	ND		470	~		~	~		~
Indeno[1,2,3-cd]pyrene	221		210	ND		470	~		~	~		~
Benzo[g,h,i]perylene	264		210	ND		470	~		~	~		~
TOTAL BN'S:	3827			4647	J		~			~		
TOTAL TIC's:	8236			2137500			~		~	~		~
TOTAL BN'S & TIC's:	12063			2142147	J		~		~	~		~
PCB's (ppb)												
Aroclor-1016	ND		37.5	ND		38.3	~		~	~		~
Aroclor-1221	ND		37.5	ND		38.3	~		~	~		~
Aroclor-1232	ND		37.5	ND		38.3	~		~	~		~
Aroclor-1242	ND		37.5	ND		38.3	~		~	~		~
Aroclor-1248	ND		37.5	ND		38.3	~		~	~		~
Aroclor-1254	ND		37.5	2110		38.3	~		~	~		~
Aroclor-1260	ND		37.5	ND		38.3	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-017			4833-018			4833-019			4833-020		
Client ID:	S-107			S-108			S-109			S-110		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/12/2001			7/12/2001			7/12/2001			7/12/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (ppb)												
alpha-BHC	ND		9.37	ND		9.57	~		~	~		~
beta-BHC	ND		9.37	ND		9.57	~		~	~		~
gamma-BHC	ND		9.37	ND		9.57	~		~	~		~
delta-BHC	ND		9.37	ND		9.57	~		~	~		~
Heptachlor	ND		9.37	ND		9.57	~		~	~		~
Aldrin	ND		9.37	ND		9.57	~		~	~		~
Heptachlor epoxide	ND		9.37	ND		9.57	~		~	~		~
Endosulfan I	ND		9.37	ND		9.57	~		~	~		~
4,4'-DDE	425		9.37	232		9.57	~		~	~		~
Dieldrin	ND		9.37	ND		9.57	~		~	~		~
Endrin	ND		9.37	ND		9.57	~		~	~		~
Endosulfan II	ND		9.37	ND		9.57	~		~	~		~
4,4'-DDD	1250		9.37	1190		9.57	~		~	~		~
Endrin aldehyde	ND		9.37	ND		9.57	~		~	~		~
Endosulfan sulfate	ND		9.37	ND		9.57	~		~	~		~
4,4'-DDT	2650		9.37	451		9.57	~		~	~		~
Chlordane	ND		46.8	ND		47.8	~		~	~		~
Toxaphene	ND		46.8	ND		47.8	~		~	~		~

Lab ID:	4833-021			4833-022			4833-023			4833-024		
Client ID:	S-111A			S-111B			S-112			S-113		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/13/2001			7/13/2001			7/13/2001			7/13/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	120000		3730	8810		756	583	J	841	3760	J	7520
Toluene	143000		3730	5860		756	ND		841	244000		7520
Chlorobenzene	1710	J	3730	ND		756	ND		841	ND		7520
1,2-Dichlorobenzene	1020	J	3730	ND		756	ND		841	ND		7520
TOTAL VO's:	265730	J		14670			583	J		247760	J	
TOTAL TIC's:	807700			24220			9060			435400		
TOTAL VO's & TIC's:	1073430	J		38890			9643	J		683160	J	
General Analytical												
Total Petroleum Hydrocarbons (ppm)	~		~	~		~	~		~	88.0		25.0

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles are carried down through summation.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-025			4833-026			4833-027			4833-028		
Client ID:	S-114A			S-114B			S-115			S-116		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	7/13/2001			7/13/2001			7/13/2001			7/13/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	2900		768	14900		1680	122000		3870	13300		4160
Toluene	8640		768	39400		1680	1250	J	3870	164000		4160
Ethylbenzene	545	J	768	ND		1680	ND		3870	ND		4160
Total Xylenes	1490		768	ND		1680	ND		3870	ND		4160
1,4-Dichlorobenzene	1420		768	ND		1680	ND		3870	ND		4160
1,2-Dichlorobenzene	13400		768	420	J	1680	ND		3870	ND		4160
TOTAL VO's:	28395	J		54720	J		123250	J		177300		
TOTAL TIC's:	175800			21230			5180			37300		
TOTAL VO's & TIC's:	204195	J		75950	J		128430	J		214600		
Pesticides (ppb)												
alpha-BHC	ND		9.72	ND		9.45	ND		10.3	ND		9.52
beta-BHC	ND		9.72	ND		9.45	ND		10.3	ND		9.52
gamma-BHC	ND		9.72	ND		9.45	ND		10.3	ND		9.52
delta-BHC	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Heptachlor	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Aldrin	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Heptachlor epoxide	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Endosulfan I	ND		9.72	ND		9.45	ND		10.3	ND		9.52
4,4'-DDE	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Dieldrin	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Endrin	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Endosulfan II	ND		9.72	ND		9.45	ND		10.3	ND		9.52
4,4'-DDD	ND		9.72	ND		9.45	ND		10.3	14.9		9.52
Endrin aldehyde	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Endosulfan sulfate	ND		9.72	ND		9.45	ND		10.3	ND		9.52
4,4'-DDT	ND		9.72	ND		9.45	ND		10.3	ND		9.52
Chlordane	ND		48.6	ND		47.3	ND		51.4	ND		47.6
Toxaphene	ND		48.6	ND		47.3	ND		51.4	ND		47.6
General Analytical												
Phenol (ppm)	ND		2.92	ND		2.86	ND		3.09	ND		2.91
Total Petroleum Hydrocarbons (ppm)	133		25.0	115		25.0	ND		25.0	ND		25.0

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles are carried down through summation.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-4833

Lab ID:	4833-029			4833-030		
Client ID:	S-117			TB		
Matrix:	Soil			Soil		
Sampled Date:	7/13/2001			7/13/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)						
Benzene	17200		1560	ND		625
Toluene	33600		1560	ND		625
TOTAL VO's:	50800			ND		
TOTAL TIC's:	ND			ND		
TOTAL VO's & TIC's:	50800			ND		
Pesticides (ppb)	ND		9.8	~		~
General Analytical						
Phenol (ppm)	ND		2.96	~		~
Total Petroleum Hydrocarbons (ppm)	ND		25.0	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-001
Client ID: S-95A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0142.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8 10.4

Compound	Concentration	Q	MDL
Chloromethane	ND		724
Vinyl Chloride	ND		724
Bromomethane	ND		724
Chloroethane	ND		724
Trichlorofluoromethane	ND		724
Acrolein	~~ND~~	R	~~1450~~
1,1-Dichloroethene	ND		724
Methylene Chloride	ND		724
Acrylonitrile	~~ND~~	R	~~724~~
trans-1,2-Dichloroethene	ND		724
1,1-Dichloroethane	ND		724
Chloroform	ND		724
1,1,1-Trichloroethane	ND		724
Carbon Tetrachloride	ND		724
1,2-Dichloroethane(EDC)	ND		724
Benzene	779		724
Trichloroethene	ND		724
1,2-Dichloropropane	ND		724
Bromodichloromethane	ND		724
2-Chloroethylvinyl Ether	ND		724
cis-1,3-Dichloropropene	ND		724
Toluene	4610		724
trans-1,3-Dichloropropene	ND		724
1,1,2-Trichloroethane	ND		724
Tetrachloroethene	ND		724
Dibromochloromethane	ND		724
Chlorobenzene	507	J	724
Ethylbenzene	ND		724
Total Xylenes	ND		724
Bromoform	ND		724
1,1,2,2-Tetrachloroethane	ND		724
1,3-Dichlorobenzene	ND		724
1,4-Dichlorobenzene	ND		724
1,2-Dichlorobenzene	ND		724
Total Target Compounds:	5896	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-001
Client ID: S-95A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0142.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-002
Client ID: S-95B
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0143.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 21.3

10.2

Compound	Concentration	Q	MDL
Chloromethane	ND		775
Vinyl Chloride	ND		775
Bromomethane	ND		775
Chloroethane	ND		775
Trichlorofluoromethane	ND		775
Acrolein	~~ND~~	R	~~1550~~
1,1-Dichloroethene	ND		775
Methylene Chloride	ND		775
Acrylonitrile	~~ND~~	R	~~775~~
trans-1,2-Dichloroethene	ND		775
1,1-Dichloroethane	ND		775
Chloroform	ND		775
1,1,1-Trichloroethane	ND		775
Carbon Tetrachloride	ND		775
1,2-Dichloroethane(EDC)	ND		775
Benzene	ND		775
Trichloroethene	ND		775
1,2-Dichloropropane	ND		775
Bromodichloromethane	ND		775
2-Chloroethylvinyl Ether	ND		775
cis-1,3-Dichloropropene	ND		775
Toluene	ND		775
trans-1,3-Dichloropropene	ND		775
1,1,2-Trichloroethane	ND		775
Tetrachloroethene	ND		775
Dibromochloromethane	ND		775
Chlorobenzene	ND		775
Ethylbenzene	ND		775
Total Xylenes	ND		775
Bromoform	ND		775
1,1,2,2-Tetrachloroethane	ND		775
1,3-Dichlorobenzene	ND		775
1,4-Dichlorobenzene	ND		775
1,2-Dichlorobenzene	ND		775

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-002
Client ID: S-95B
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0143.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 21.3

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-003
Client ID: S-96A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0144.D

GC/MS Column: DB-624
Sample wt/vol: 0.044g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15

Compound	Concentration	Q	MDL
Chloromethane	ND		668
Vinyl Chloride	ND		668
Bromomethane	ND		668
Chloroethane	ND		668
Trichlorofluoromethane	ND		668
Acrolein	~~ND~~ R		~~1340~~
1,1-Dichloroethene	ND		668
Methylene Chloride	ND		668
Acrylonitrile	~~ND~~ R		~~668~~
trans-1,2-Dichloroethene	ND		668
1,1-Dichloroethane	ND		668
Chloroform	ND		668
1,1,1-Trichloroethane	ND		668
Carbon Tetrachloride	ND		668
1,2-Dichloroethane(EDC)	ND		668
Benzene	ND		668
Trichloroethene	ND		668
1,2-Dichloropropane	ND		668
Bromodichloromethane	ND		668
2-Chloroethylvinyl Ether	ND		668
cis-1,3-Dichloropropene	ND		668
Toluene	ND		668
trans-1,3-Dichloropropene	ND		668
1,1,2-Trichloroethane	ND		668
Tetrachloroethene	ND		668
Dibromochloromethane	ND		668
Chlorobenzene	182	J	668
Ethylbenzene	ND		668
Total Xylenes	ND		668
Bromoform	ND		668
1,1,2,2-Tetrachloroethane	ND		668
1,3-Dichlorobenzene	ND		668
1,4-Dichlorobenzene	ND		668
1,2-Dichlorobenzene	ND		668
Total Target Compounds:	182	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-003
Client ID: S-96A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0144.D

GC/MS Column: DB-624
Sample wt/vol: 0.044g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

1755

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-004
Client ID: S-96B
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0145.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 20.6

10.9

Compound	Concentration	Q	MDL
Chloromethane	ND		732
Vinyl Chloride	ND		732
Bromomethane	ND		732
Chloroethane	ND		732
Trichlorofluoromethane	ND		732
Acrolein	~~ND~~ R		~~1460~~
1,1-Dichloroethene	ND		732
Methylene Chloride	ND		732
Acrylonitrile	~~ND~~ R		~~732~~
trans-1,2-Dichloroethene	ND		732
1,1-Dichloroethane	ND		732
Chloroform	ND		732
1,1,1-Trichloroethane	ND		732
Carbon Tetrachloride	ND		732
1,2-Dichloroethane(EDC)	ND		732
Benzene	ND		732
Trichloroethene	ND		732
1,2-Dichloropropane	ND		732
Bromodichloromethane	ND		732
2-Chloroethylvinyl Ether	ND		732
cis-1,3-Dichloropropene	ND		732
Toluene	ND		732
trans-1,3-Dichloropropene	ND		732
1,1,2-Trichloroethane	ND		732
Tetrachloroethene	ND		732
Dibromochloromethane	ND		732
Chlorobenzene	ND		732
Ethylbenzene	ND		732
Total Xylenes	ND		732
Bromoform	ND		732
1,1,2,2-Tetrachloroethane	ND		732
1,3-Dichlorobenzene	ND		732
1,4-Dichlorobenzene	ND		732
1,2-Dichlorobenzene	ND		732

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-004
Client ID: S-96B
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0145.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 20.6

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-005
Client ID: S-97A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0146.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.8

9.2

Compound	Concentration	Q	MDL
Chloromethane	ND		822
Vinyl Chloride	ND		822
Bromomethane	ND		822
Chloroethane	ND		822
Trichlorofluoromethane	ND		822
Acrolein	~~ND~~	R	~~1640~~
1,1-Dichloroethene	ND		822
Methylene Chloride	ND		822
Acrylonitrile	~~ND~~	R	~~822~~
trans-1,2-Dichloroethene	ND		822
1,1-Dichloroethane	ND		822
Chloroform	ND		822
1,1,1-Trichloroethane	ND		822
Carbon Tetrachloride	ND		822
1,2-Dichloroethane(EDC)	ND		822
Benzene	ND		822
Trichloroethene	ND		822
1,2-Dichloropropane	ND		822
Bromodichloromethane	ND		822
2-Chloroethylvinyl Ether	ND		822
cis-1,3-Dichloropropene	ND		822
Toluene	ND		822
trans-1,3-Dichloropropene	ND		822
1,1,2-Trichloroethane	ND		822
Tetrachloroethene	ND		822
Dibromochloromethane	ND		822
Chlorobenzene	ND		822
Ethylbenzene	ND		822
Total Xylenes	ND		822
Bromoform	ND		822
1,1,2,2-Tetrachloroethane	ND		822
1,3-Dichlorobenzene	ND		822
1,4-Dichlorobenzene	ND		822
1,2-Dichlorobenzene	ND		822

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-005
Client ID: S-97A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0146.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.8

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-006
Client ID: ~~S-97B~~ S-98A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0147.D

GC/MS Column: DB-624
Sample wt/vol: 0.046g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.1

11.6

Compound	Concentration	Q	MDL
Chloromethane	ND		672
Vinyl Chloride	ND		672
Bromomethane	ND		672
Chloroethane	ND		672
Trichlorofluoromethane	ND		672
Acrolein	~~ND~~ R		~~1340~~
1,1-Dichloroethene	ND		672
Methylene Chloride	ND		672
Acrylonitrile	~~ND~~ R		~~672~~
trans-1,2-Dichloroethene	ND		672
1,1-Dichloroethane	ND		672
Chloroform	ND		672
1,1,1-Trichloroethane	ND		672
Carbon Tetrachloride	ND		672
1,2-Dichloroethane(EDC)	ND		672
Benzene	378	J	672
Trichloroethene	ND		672
1,2-Dichloropropane	ND		672
Bromodichloromethane	ND		672
2-Chloroethylvinyl Ether	ND		672
cis-1,3-Dichloropropene	ND		672
Toluene	504000* ~~344000~~	~~E~~	672
trans-1,3-Dichloropropene	ND		672
1,1,2-Trichloroethane	ND		672
Tetrachloroethene	ND		672
Dibromochloromethane	ND		672
Chlorobenzene	5610		672
Ethylbenzene	6660		672
Total Xylenes	17100 ✓		672
Bromoform	ND		672
1,1,2,2-Tetrachloroethane	ND		672
1,3-Dichlorobenzene	ND		672
1,4-Dichlorobenzene	ND		672
1,2-Dichlorobenzene	16900 ✓		672
	FROM 1:20 DILUTION		
Total Target Compounds:	390648	JE	

1360

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-006
Client ID: S-98A DL
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1687.D

GC/MS Column: DB-624
Sample wt/vol: 0.002g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 20
% Moisture: 19.1

11.6

Compound	Concentration	Q	MDL
Chloromethane	ND		15500
Vinyl Chloride	ND		15500
Bromomethane	ND		15500 UJ
Chloroethane	ND		15500 UJ
Trichlorofluoromethane	ND		15500
Acrolein	~~ND~~ R		~~30900~~
1,1-Dichloroethene	ND		15500
Methylene Chloride	ND		15500
Acrylonitrile	ND		15500
trans-1,2-Dichloroethene	ND		15500
1,1-Dichloroethane	ND		15500
Chloroform	ND		15500
1,1,1-Trichloroethane	ND		15500
Carbon Tetrachloride	ND		15500
1,2-Dichloroethane(EDC)	ND		15500
Benzene	ND		15500
Trichloroethene	ND		15500
1,2-Dichloropropane	ND		15500
Bromodichloromethane	ND		15500
2-Chloroethylvinyl Ether	ND		15500
cis-1,3-Dichloropropene	ND		15500
Toluene	~~585000~~ 504000		15500
trans-1,3-Dichloropropene	ND		15500
1,1,2-Trichloroethane	ND		15500
Tetrachloroethene	ND		15500
Dibromochloromethane	ND		15500
Chlorobenzene	5310	J	15500
Ethylbenzene	5680	J	15500
Total Xylenes	14500	J	15500
Bromoform	ND		15500
1,1,2,2-Tetrachloroethane	ND		15500
1,3-Dichlorobenzene	ND		15500
1,4-Dichlorobenzene	ND		15500
1,2-Dichlorobenzene	14300	J	15500
Total Target Compounds:	624790	J	

0007

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-006
Client ID: ~~S-97B~~ S-98A
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Date File: I0147.D

GC/MS Column: DB-624
Sample wt/vol: 0.046g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.1

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	40400	17.52
	Unknown aromatic	22400	18.01
	Unknown cyclic hydrocarbon	18100	18.46
	Unknown	26800	18.71
	Unknown cyclic hydrocarbon	138000	19.61
	Unknown aromatic	127000	19.79
	Unknown	11700	20.01
	Unknown	12000	20.46
	Unknown hydrocarbon	22900	24.39
	Unknown	13000	24.90

Total TICs = 432300

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-007
Client ID: S-98B
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1688.D

GC/MS Column: DB-624
Sample wt/vol: 0.02g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: (2)
% Moisture: 15.8

10.2

Compound	Concentration	Q	MDL
Chloromethane	ND		1480
Vinyl Chloride	ND		1480
Bromomethane	ND		1480 UJ
Chloroethane	ND		1480 UJ
Trichlorofluoromethane	ND		1480
Acrolein	~~ND~~ R		~~2970~~
1,1-Dichloroethene	ND		1480
Methylene Chloride	ND		1480
Acrylonitrile	ND		1480
trans-1,2-Dichloroethene	ND		1480
1,1-Dichloroethane	ND		1480
Chloroform	ND		1480
1,1,1-Trichloroethane	ND		1480
Carbon Tetrachloride	ND		1480
1,2-Dichloroethane(EDC)	ND		1480
Benzene	ND		1480
Trichloroethene	ND		1480
1,2-Dichloropropane	ND		1480
Bromodichloromethane	ND		1480
2-Chloroethylvinyl Ether	ND		1480
cis-1,3-Dichloropropene	ND		1480
Toluene	44000		1480
trans-1,3-Dichloropropene	ND		1480
1,1,2-Trichloroethane	ND		1480
Tetrachloroethene	ND		1480
Dibromochloromethane	ND		1480
Chlorobenzene	ND		1480
Ethylbenzene	ND		1480
Total Xylenes	ND		1480
Bromoform	ND		1480
1,1,2,2-Tetrachloroethane	ND		1480
1,3-Dichlorobenzene	ND		1480
1,4-Dichlorobenzene	ND		1480
1,2-Dichlorobenzene	ND		1480

Total Target Compounds: 44000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-007
Client ID: S-98B
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1688.D

GC/MS Column: DB-624
Sample wt/vol: 0.02g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 2
% Moisture: 15.8

CAS #	Compound	Estimated Concentration	Retention Time
	~~Unknown alkane~~ Hexane	1630 NJ	4.96
	Substituted benzene	2640	11.79
	Unknown	7330	12.59
	Unknown aliphatic	1960	13.16
	Unknown hydrocarbon	8820	13.30
	Unknown aliphatic	1990	13.77
	Unknown cyclic hydrocarbon	2580	16.10

Total TICs = 26950

1764

0030

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-008
Client ID: ~~S-98B~~ S-99
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Data file: I0149.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 18.7

Compound	Concentration	Q	MDL (10.6)
Chloromethane	ND		715
Vinyl Chloride	ND		715
Bromomethane	ND		715
Chloroethane	ND		715
Trichlorofluoromethane	ND		715
Acrolein	~~ND~~ R		~~1430~~
1,1-Dichloroethene	ND		715
Methylene Chloride	ND		715
Acrylonitrile	~~ND~~ R		~~715~~
trans-1,2-Dichloroethene	ND		715
1,1-Dichloroethane	ND		715
Chloroform	ND		715
1,1,1-Trichloroethane	ND		715
Carbon Tetrachloride	ND		715
1,2-Dichloroethane(EDC)	ND		715
Benzene	175	J	715
Trichloroethene	ND		715
1,2-Dichloropropane	ND		715
Bromodichloromethane	ND		715
2-Chloroethylvinyl Ether	ND		715
cis-1,3-Dichloropropene	ND		715
Toluene	2540		715
trans-1,3-Dichloropropene	ND		715
1,1,2-Trichloroethane	ND		715
Tetrachloroethene	ND		715
Dibromochloromethane	ND		715
Chlorobenzene	ND		715
Ethylbenzene	ND		715
Total Xylenes	ND		715
Bromoform	ND		715
1,1,2,2-Tetrachloroethane	ND		715
1,3-Dichlorobenzene	ND		715
1,4-Dichlorobenzene	ND		715
1,2-Dichlorobenzene	ND		715

Total Target Compounds: 2715 J

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-008
Client ID: ~~S-98B~~ S-99
Date Received: 07/16/2001
Date Analyzed: 07/17/2001
Date File: I0149.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 18.7

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown cyclic hydrocarbon	1100	19.58
	Substituted benzene	1000	19.82
	Unknown aromatic	1090	24.33

Total TICs = 3190

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-009
Client ID: S-100
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0150.D

GC/MS Column: DB-624
Sample wt/vol: 0.042g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11

10.5

Compound	Concentration	Q	MDL
Chloromethane	ND		669
Vinyl Chloride	ND		669
Bromomethane	ND		669
Chloroethane	ND		669
Trichlorofluoromethane	ND		669
Acrolein	~~ND~~ R		~~1340~~
1,1-Dichloroethene	ND		669
Methylene Chloride	ND		669
Acrylonitrile	~~ND~~ R		~~669~~
trans-1,2-Dichloroethene	ND		669
1,1-Dichloroethane	ND		669
Chloroform	ND		669
1,1,1-Trichloroethane	ND		669
Carbon Tetrachloride	ND		669
1,2-Dichloroethane(EDC)	ND		669
Benzene	291	J	669
Trichloroethene	ND		669
1,2-Dichloropropane	ND		669
Bromodichloromethane	ND		669
2-Chloroethylvinyl Ether	ND		669
cis-1,3-Dichloropropene	ND		669
Toluene	568		669
trans-1,3-Dichloropropene	ND		669
1,1,2-Trichloroethane	ND		669
Tetrachloroethene	ND		669
Dibromochloromethane	ND		669
Chlorobenzene	ND		669
Ethylbenzene	ND		669
Total Xylenes	ND		669
Bromoform	ND		669
1,1,2,2-Tetrachloroethane	ND		669
1,3-Dichlorobenzene	ND		669
1,4-Dichlorobenzene	ND		669
1,2-Dichlorobenzene	ND		669
Total Target Compounds:	859	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-009
Client ID: S-100
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0150.D

GC/MS Column: DB-624
Sample wt/vol: 0.042g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	2570	24.41

Total TICs = 2570

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0151.D

GC/MS Column: DB-624
Sample wt/vol: 0.044g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

10.9

Compound	Concentration	Q	MDL
Chloromethane	ND		650
Vinyl Chloride	ND		650
Bromomethane	ND		650
Chloroethane	ND		650
Trichlorofluoromethane	ND		650
Acrolein	~~ND~~ R		~~1300~~
1,1-Dichloroethene	ND		650
Methylene Chloride	ND		650
Acrylonitrile	~~ND~~ R		~~650~~
trans-1,2-Dichloroethene	ND		650
1,1-Dichloroethane	ND		650
Chloroform	ND		650
1,1,1-Trichloroethane	ND		650
Carbon Tetrachloride	ND		650
1,2-Dichloroethane(EDC)	ND		650
Benzene	139	J	650
Trichloroethene	ND		650
1,2-Dichloropropane	ND		650
Bromodichloromethane	ND		650
2-Chloroethylvinyl Ether	ND		650
cis-1,3-Dichloropropene	ND		650
Toluene	1700		650
trans-1,3-Dichloropropene	ND		650
1,1,2-Trichloroethane	ND		650
Tetrachloroethene	ND		650
Dibromochloromethane	ND		650
Chlorobenzene	ND		650
Ethylbenzene	ND		650
Total Xylenes	ND		650
Bromoform	ND		650
1,1,2,2-Tetrachloroethane	ND		650
1,3-Dichlorobenzene	ND		650
1,4-Dichlorobenzene	ND		650
1,2-Dichlorobenzene	ND		650
Total Target Compounds:	1839	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0151.D

GC/MS Column: DB-624
Sample wt/vol: 0.044g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	1990	24.42

Total TICs = 1990

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0152.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 26.8

9.3

Compound	Concentration	Q	MDL
Chloromethane	ND		923
Vinyl Chloride	ND		923
Bromomethane	ND		923
Chloroethane	ND		923
Trichlorofluoromethane	ND		923
Acrolein	~~ND~~ R		~~1850~~
1,1-Dichloroethene	ND		923
Methylene Chloride	ND		923
Acrylonitrile	~~ND~~ R		~~923~~
trans-1,2-Dichloroethene	ND		923
1,1-Dichloroethane	ND		923
Chloroform	ND		923
1,1,1-Trichloroethane	ND		923
Carbon Tetrachloride	ND		923
1,2-Dichloroethane(EDC)	ND		923
Benzene	197	J	923
Trichloroethene	ND		923
1,2-Dichloropropane	ND		923
Bromodichloromethane	ND		923
2-Chloroethylvinyl Ether	ND		923
cis-1,3-Dichloropropene	ND		923
Toluene	3890		923
trans-1,3-Dichloropropene	ND		923
1,1,2-Trichloroethane	ND		923
Tetrachloroethene	ND		923
Dibromochloromethane	ND		923
Chlorobenzene	ND		923
Ethylbenzene	ND		923
Total Xylenes	ND		923
Bromoform	ND		923
1,1,2,2-Tetrachloroethane	ND		923
1,3-Dichlorobenzene	ND		923
1,4-Dichlorobenzene	ND		923
1,2-Dichlorobenzene	ND		923
Total Target Compounds:	4087	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0152.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 26.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown cyclic hydrocarbon	2470	18.49
	Unknown hydrocarbon	4080	18.74
	Substituted benzene	1810	19.76
	Substituted benzene	2380	19.85
	Unknown aliphatic	12100	20.81
	Unknown cyclic hydrocarbon	1480	21.98
	Unknown	1140	22.71
	Unknown alkane	1680	22.84

Total TICs = 27140

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0153.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.8

9.6

Compound	Concentration	Q	MDL
Chloromethane	ND		820
Vinyl Chloride	ND		820
Bromomethane	ND		820
Chloroethane	ND		820
Trichlorofluoromethane	ND		820
Acrolein	~~ND~~ R		~~1640~~
1,1-Dichloroethene	ND		820
Methylene Chloride	ND		820
Acrylonitrile	~~ND~~ R		~~820~~
trans-1,2-Dichloroethene	ND		820
1,1-Dichloroethane	ND		820
Chloroform	ND		820
1,1,1-Trichloroethane	ND		820
Carbon Tetrachloride	ND		820
1,2-Dichloroethane(EDC)	ND		820
Benzene	~~1000~~ 990		820
Trichloroethene	ND		820
1,2-Dichloropropane	ND		820
Bromodichloromethane	ND		820
2-Chloroethylvinyl Ether	ND		820
cis-1,3-Dichloropropene	ND		820
Toluene	605		820
trans-1,3-Dichloropropene	ND		820
1,1,2-Trichloroethane	ND		820
Tetrachloroethene	ND		820
Dibromochloromethane	ND		820
Chlorobenzene	ND		820
Ethylbenzene	ND		820
Total Xylenes	ND		820
Bromoform	ND		820
1,1,2,2-Tetrachloroethane	ND		820
1,3-Dichlorobenzene	ND		820
1,4-Dichlorobenzene	ND		820
1,2-Dichlorobenzene	ND		820

Total Target Compounds: 1605

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0153.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aromatic	4920	16.86
	Unknown	7830	18.93
	Unknown	1070	23.41
	Unknown ~~aromatic~~ PAH	6530	24.98
	Unknown	2260	26.43

Total TICs = 22610

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0154.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16

Compound	Concentration	Q	MDL
Chloromethane	ND		850
Vinyl Chloride	ND		850
Bromomethane	ND		850
Chloroethane	ND		850
Trichlorofluoromethane	ND		850
Acrolein	~~ND~~ R		~~1700~~
1,1-Dichloroethene	ND		850
Methylene Chloride	ND		850
Acrylonitrile	~~ND~~ R		~~850~~
trans-1,2-Dichloroethene	ND		850
1,1-Dichloroethane	ND		850
Chloroform	ND		850
1,1,1-Trichloroethane	ND		850
Carbon Tetrachloride	ND		850
1,2-Dichloroethane(EDC)	ND		850
Benzene	1540		850
Trichloroethene	ND		850
1,2-Dichloropropane	ND		850
Bromodichloromethane	ND		850
2-Chloroethylvinyl Ether	ND		850
cis-1,3-Dichloropropene	ND		850
Toluene	3410		850
trans-1,3-Dichloropropene	ND		850
1,1,2-Trichloroethane	ND		850
Tetrachloroethene	ND		850
Dibromochloromethane	ND		850
Chlorobenzene	ND		850
Ethylbenzene	219	J	850
Total Xylenes	ND		850
Bromoform	ND		850
1,1,2,2-Tetrachloroethane	ND		850
1,3-Dichlorobenzene	ND		850
1,4-Dichlorobenzene	ND		850
1,2-Dichlorobenzene	ND		850
Total Target Compounds:	5169	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0154.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown ~~aromatic~~ PAH	6840	24.96
	Unknown	2010	26.38

Total TICs = 8850

0042

1771

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0156.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 7.1

9.8

Compound	Concentration	Q	MDL
Chloromethane	ND		690
Vinyl Chloride	ND		690
Bromomethane	ND		690
Chloroethane	ND		690
Trichlorofluoromethane	ND		690
~~Acrolein~~	~~ND~~ R		~~1380~~
1,1-Dichloroethene	ND		690
Methylene Chloride	ND		690
Acrylonitrile	~~ND~~ R		~~690~~
trans-1,2-Dichloroethene	ND		690
1,1-Dichloroethane	ND		690
Chloroform	ND		690
1,1,1-Trichloroethane	ND		690
Carbon Tetrachloride	ND		690
1,2-Dichloroethane(EDC)	ND		690
Benzene	375	J	690
Trichloroethene	ND		690
1,2-Dichloropropane	ND		690
Bromodichloromethane	ND		690
2-Chloroethylvinyl Ether	ND		690
cis-1,3-Dichloropropene	ND		690
Toluene	662		690
trans-1,3-Dichloropropene	ND		690
1,1,2-Trichloroethane	ND		690
Tetrachloroethene	ND		690
Dibromochloromethane	ND		690
Chlorobenzene	ND		690
Ethylbenzene	171	J	690
Total Xylenes	682	J	690
Bromoform	ND		690
1,1,2,2-Tetrachloroethane	ND		690
1,3-Dichlorobenzene	ND		690
1,4-Dichlorobenzene	ND		690
1,2-Dichlorobenzene	ND		690
Total Target Compounds:	1890	J	

0043

1777

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0156.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 7.1

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	1200	18.42
	Unknown	1950	20.87
	Unknown cyclic hydrocarbon	5290	21.83
	Unknown	48700	22.71
	Unknown	4550	24.70

Total TICs = 61690

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0166.D

GC/MS Column: DB-624
Sample wt/vol: 0.034g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	MDL
Chloromethane	ND		841
Vinyl Chloride	ND		841
Bromomethane	ND		841
Chloroethane	ND		841
Trichlorofluoromethane	ND		841
Acrolein	~~ND~~	R	~~1680~~
1,1-Dichloroethene	ND		841
Methylene Chloride	ND		841
Acrylonitrile	~~ND~~	R	~~841~~
trans-1,2-Dichloroethene	ND		841
1,1-Dichloroethane	ND		841
Chloroform	ND		841
1,1,1-Trichloroethane	ND		841
Carbon Tetrachloride	ND		841
1,2-Dichloroethane(EDC)	ND		841
Benzene	ND		841
Trichloroethene	ND		841
1,2-Dichloropropane	ND		841
Bromodichloromethane	ND		841
2-Chloroethylvinyl Ether	ND		841
cis-1,3-Dichloropropene	ND		841
Toluene	ND		841
trans-1,3-Dichloropropene	ND		841
1,1,2-Trichloroethane	ND		841
Tetrachloroethene	ND		841
Dibromochloromethane	ND		841
Chlorobenzene	ND		841
Ethylbenzene	ND		841
Total Xylenes	ND		841
Bromoform	ND		841
1,1,2,2-Tetrachloroethane	ND		841
1,3-Dichlorobenzene	ND		841
1,4-Dichlorobenzene	ND		841
1,2-Dichlorobenzene	ND		841

8.6

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0166.D

GC/MS Column: DB-624
Sample wt/vol: 0.034g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0167.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

Compound	Concentration	Q	MDL (9.0)
Chloromethane	ND		788
Vinyl Chloride	ND		788
Bromomethane	ND		788
Chloroethane	ND		788
Trichlorofluoromethane	ND		788
Acrolein	~~ND~~ R		~~1580~~
1,1-Dichloroethene	ND		788
Methylene Chloride	ND		788
Acrylonitrile	~~ND~~ R		~~788~~
trans-1,2-Dichloroethene	ND		788
1,1-Dichloroethane	ND		788
Chloroform	181	J	788
1,1,1-Trichloroethane	ND		788
Carbon Tetrachloride	ND		788
1,2-Dichloroethane(EDC)	ND		788
Benzene	546	J	788
Trichloroethene	ND		788
1,2-Dichloropropane	ND		788
Bromodichloromethane	ND		788
2-Chloroethylvinyl Ether	ND		788
cis-1,3-Dichloropropene	ND		788
Toluene	ND		788
trans-1,3-Dichloropropene	ND		788
1,1,2-Trichloroethane	ND		788
Tetrachloroethene	ND		788
Dibromochloromethane	ND		788
Chlorobenzene	ND		788
Ethylbenzene	ND		788
Total Xylenes	ND		788
Bromoform	ND		788
1,1,2,2-Tetrachloroethane	ND		788
1,3-Dichlorobenzene	ND		788
1,4-Dichlorobenzene	ND		788
1,2-Dichlorobenzene	ND		788
Total Target Compounds:	727	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0167.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0168.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.6

10.2

Compound	Concentration	Q	MDL
Chloromethane	ND		714
Vinyl Chloride	ND		714
Bromomethane	ND		714
Chloroethane	ND		714
Trichlorofluoromethane	ND		714
Acrolein	~~ND~~ R		~~1430~~
1,1-Dichloroethene	ND		714
Methylene Chloride	ND		714
Acrylonitrile	~~ND~~ R		~~714~~
trans-1,2-Dichloroethene	ND		714
1,1-Dichloroethane	ND		714
Chloroform	ND		714
1,1,1-Trichloroethane	ND		714
Carbon Tetrachloride	ND		714
1,2-Dichloroethane(EDC)	ND		714
Benzene	1220		714
Trichloroethene	ND		714
1,2-Dichloropropane	ND		714
Bromodichloromethane	ND		714
2-Chloroethylvinyl Ether	ND		714
cis-1,3-Dichloropropene	ND		714
Toluene	5810		714
trans-1,3-Dichloropropene	ND		714
1,1,2-Trichloroethane	ND		714
Tetrachloroethene	ND		714
Dibromochloromethane	ND		714
Chlorobenzene	6380		714
Ethylbenzene	317	J	714
Total Xylenes	455	J	714
Bromoform	ND		714
1,1,2,2-Tetrachloroethane	ND		714
1,3-Dichlorobenzene	ND		714
1,4-Dichlorobenzene	1190		714
1,2-Dichlorobenzene	7990		714
Total Target Compounds:	23362	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0168.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.6

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	18600	18.54
	Substituted benzene	10800	18.73
	Unknown aliphatic	10900	19.67
	Unknown aliphatic	10800	20.59
	Substituted benzene	1930	22.48

Total TICs = 53030

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-019
Client ID: S-109
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0169.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.5

Compound	Concentration	Q	MDL 9.9
Chloromethane	ND		758
Vinyl Chloride	ND		758
Bromomethane	ND		758
Chloroethane	ND		758
Trichlorofluoromethane	ND		758
Acrolein	~~ND~~	R	~~1520~~
1,1-Dichloroethene	ND		758
Methylene Chloride	ND		758
Acrylonitrile	~~ND~~	R	~~758~~
trans-1,2-Dichloroethene	ND		758
1,1-Dichloroethane	ND		758
Chloroform	ND		758
1,1,1-Trichloroethane	ND		758
Carbon Tetrachloride	ND		758
1,2-Dichloroethane(EDC)	ND		758
Benzene	ND		758
Trichloroethene	ND		758
1,2-Dichloropropane	ND		758
Bromodichloromethane	ND		758
2-Chloroethylvinyl Ether	ND		758
cis-1,3-Dichloropropene	ND		758
Toluene	ND		758
trans-1,3-Dichloropropene	ND		758
1,1,2-Trichloroethane	ND		758
Tetrachloroethene	ND		758
Dibromochloromethane	ND		758
Chlorobenzene	ND		758
Ethylbenzene	ND		758
Total Xylenes	ND		758
Bromoform	ND		758
1,1,2,2-Tetrachloroethane	ND		758
1,3-Dichlorobenzene	ND		758
1,4-Dichlorobenzene	ND		758
1,2-Dichlorobenzene	ND		758

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-019
Client ID: S-109
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0169.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.5

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aliphatic	773	19.69
	~~Substituted benzene~~ Bibenzyl	1380	26.27

Total TICs = 2153

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-020
Client ID: S-110
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0170.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16

8.8

Compound	Concentration	Q	MDL
Chloromethane	ND		850
Vinyl Chloride	ND		850
Bromomethane	ND		850
Chloroethane	ND		850
Trichlorofluoromethane	ND		850
Acrolein	~~ND~~ R		~~1700~~
1,1-Dichloroethene	ND		850
Methylene Chloride	ND		850
Acrylonitrile	~~ND~~ R		~~850~~
trans-1,2-Dichloroethene	ND		850
1,1-Dichloroethane	ND		850
Chloroform	ND		850
1,1,1-Trichloroethane	ND		850
Carbon Tetrachloride	ND		850
1,2-Dichloroethane(EDC)	ND		850
Benzene	ND		850
Trichloroethene	ND		850
1,2-Dichloropropane	ND		850
Bromodichloromethane	ND		850
2-Chloroethylvinyl Ether	ND		850
cis-1,3-Dichloropropene	ND		850
Toluene	ND		850
trans-1,3-Dichloropropene	ND		850
1,1,2-Trichloroethane	ND		850
Tetrachloroethene	ND		850
Dibromochloromethane	ND		850
Chlorobenzene	ND		850
Ethylbenzene	ND		850
Total Xylenes	ND		850
Bromoform	ND		850
1,1,2,2-Tetrachloroethane	ND		850
1,3-Dichlorobenzene	ND		850
1,4-Dichlorobenzene	ND		850
1,2-Dichlorobenzene	ND		850

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-020
Client ID: S-110
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0170.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16

CAS #	Compound	Estimated Concentration	Retention Time
	~~Substituted benzene~~ Bibenzyl	3230	26.20

Total TICs = 3230

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-021
Client ID: S-111A
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1689.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-~~ug~~/Kg (ppb)
Dilution Factor: 5
% Moisture: 16.3

Compound	Concentration	Q	MDL
Chloromethane	ND		3730
Vinyl Chloride	ND		3730
Bromomethane	ND		3730 UJ
Chloroethane	ND		3730 UJ
Trichlorofluoromethane	ND		3730
Acrolein	~~ND~~ R		~~7470~~
1,1-Dichloroethene	ND		3730
Methylene Chloride	ND		3730
Acrylonitrile	ND		3730
trans-1,2-Dichloroethene	ND		3730
1,1-Dichloroethane	ND		3730
Chloroform	ND		3730
1,1,1-Trichloroethane	ND		3730
Carbon Tetrachloride	ND		3730
1,2-Dichloroethane(EDC)	ND		3730
Benzene	120000		3730
Trichloroethene	ND		3730
1,2-Dichloropropane	ND		3730
Bromodichloromethane	ND		3730
2-Chloroethylvinyl Ether	ND		3730
cis-1,3-Dichloropropene	ND		3730
Toluene	143000		3730
trans-1,3-Dichloropropene	ND		3730
1,1,2-Trichloroethane	ND		3730
Tetrachloroethene	ND		3730
Dibromochloromethane	ND		3730
Chlorobenzene	1710	J	3730
Ethylbenzene	ND		3730
Total Xylenes	ND		3730
Bromoform	ND		3730
1,1,2,2-Tetrachloroethane	ND		3730
1,3-Dichlorobenzene	ND		3730
1,4-Dichlorobenzene	ND		3730
1,2-Dichlorobenzene	1020	J	3730
Total Target Compounds:	265730	J	

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-021
Client ID: S-111A
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1689.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 16.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	16700	12.57
	Unknown hydrocarbon	791000	13.31

Total TICs = 807700

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-022
Client ID: S-111B
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0172.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.3

Compound	Concentration	Q	MDL
Chloromethane	ND		756
Vinyl Chloride	ND		756
Bromomethane	ND		756
Chloroethane	ND		756
Trichlorofluoromethane	ND		756
Acrolein	~~ND~~	R	~~1510~~
1,1-Dichloroethene	ND		756
Methylene Chloride	ND		756
Acrylonitrile	~~ND~~	R	~~756~~
trans-1,2-Dichloroethene	ND		756
1,1-Dichloroethane	ND		756
Chloroform	ND		756
1,1,1-Trichloroethane	ND		756
Carbon Tetrachloride	ND		756
1,2-Dichloroethane(EDC)	ND		756
Benzene	8810		756
Trichloroethene	ND		756
1,2-Dichloropropane	ND		756
Bromodichloromethane	ND		756
2-Chloroethylvinyl Ether	ND		756
cis-1,3-Dichloropropene	ND		756
Toluene	5860		756
trans-1,3-Dichloropropene	ND		756
1,1,2-Trichloroethane	ND		756
Tetrachloroethene	ND		756
Dibromochloromethane	ND		756
Chlorobenzene	ND		756
Ethylbenzene	ND		756
Total Xylenes	ND		756
Bromoform	ND		756
1,1,2,2-Tetrachloroethane	ND		756
1,3-Dichlorobenzene	ND		756
1,4-Dichlorobenzene	ND		756
1,2-Dichlorobenzene	ND		756

Total Target Compounds: 14670

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-022
Client ID: S-111B
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0172.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	16800	19.88
	~~Substituted benzene~~ Bibenzyl	7420	26.11

Total TICs = 24220

0058

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-023
Client ID: S-112
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0173.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.1

8.8

Compound	Concentration	Q	MDL
Chloromethane	ND		841
Vinyl Chloride	ND		841
Bromomethane	ND		841
Chloroethane	ND		841
Trichlorofluoromethane	ND		841
Acrolein	~~ND~~ R		~~1680~~
1,1-Dichloroethene	ND		841
Methylene Chloride	ND		841
Acrylonitrile	~~ND~~ R		~~841~~
trans-1,2-Dichloroethene	ND		841
1,1-Dichloroethane	ND		841
Chloroform	ND		841
1,1,1-Trichloroethane	ND		841
Carbon Tetrachloride	ND		841
1,2-Dichloroethane(EDC)	ND		841
Benzene	583	J	841
Trichloroethene	ND		841
1,2-Dichloropropane	ND		841
Bromodichloromethane	ND		841
2-Chloroethylvinyl Ether	ND		841
cis-1,3-Dichloropropene	ND		841
Toluene	ND		841
trans-1,3-Dichloropropene	ND		841
1,1,2-Trichloroethane	ND		841
Tetrachloroethene	ND		841
Dibromochloromethane	ND		841
Chlorobenzene	ND		841
Ethylbenzene	ND		841
Total Xylenes	ND		841
Bromoform	ND		841
1,1,2,2-Tetrachloroethane	ND		841
1,3-Dichlorobenzene	ND		841
1,4-Dichlorobenzene	ND		841
1,2-Dichlorobenzene	ND		841
Total Target Compounds:	583	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-023
Client ID: S-112
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0173.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.1

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	3050	19.87
	~~Substituted benzene~~ Dibenzyl	6010	26.10

Total TICs = 9060

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-024
Client ID: S-113
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1690.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 10
% Moisture: 16.9

Compound	Concentration	Q	MDL
Chloromethane	ND		7520
Vinyl Chloride	ND		7520
Bromomethane	ND		7520 UJ
Chloroethane	ND		7520 UJ
Trichlorofluoromethane	ND		7520
Acrolein	~~ND~~ R		~~15000~~
1,1-Dichloroethene	ND		7520
Methylene Chloride	ND		7520
Acrylonitrile	ND		7520
trans-1,2-Dichloroethene	ND		7520
1,1-Dichloroethane	ND		7520
Chloroform	ND		7520
1,1,1-Trichloroethane	ND		7520
Carbon Tetrachloride	ND		7520
1,2-Dichloroethane(EDC)	ND		7520
Benzene	3760	J	7520
Trichloroethene	ND		7520
1,2-Dichloropropane	ND		7520
Bromodichloromethane	ND		7520
2-Chloroethylvinyl Ether	ND		7520
cis-1,3-Dichloropropene	ND		7520
Toluene	244000		7520
trans-1,3-Dichloropropene	ND		7520
1,1,2-Trichloroethane	ND		7520
Tetrachloroethene	ND		7520
Dibromochloromethane	ND		7520
Chlorobenzene	ND		7520
Ethylbenzene	ND		7520
Total Xylenes	ND		7520
Bromoform	ND		7520
1,1,2,2-Tetrachloroethane	ND		7520
1,3-Dichlorobenzene	ND		7520
1,4-Dichlorobenzene	ND		7520
1,2-Dichlorobenzene	ND		7520
Total Target Compounds:	247760	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-024
Client ID: S-113
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1690.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 10
% Moisture: 16.9

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown hydrocarbon	87400	13.30
	Substituted benzene	348000	13.36

Total TICs = 435400

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-025
Client ID: S-114A
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Data file: I0175.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.3

Compound	Concentration	Q	MDL 9.6
Chloromethane	ND		768
Vinyl Chloride	ND		768
Bromomethane	ND		768
Chloroethane	ND		768
Trichlorofluoromethane	ND		768
Acrolein	~~ND~~ R		~~1540~~
1,1-Dichloroethene	ND		768
Methylene Chloride	ND		768
Acrylonitrile	~~ND~~ R		~~768~~
trans-1,2-Dichloroethene	ND		768
1,1-Dichloroethane	ND		768
Chloroform	ND		768
1,1,1-Trichloroethane	ND		768
Carbon Tetrachloride	ND		768
1,2-Dichloroethane(EDC)	ND		768
Benzene	2900		768
Trichloroethene	ND		768
1,2-Dichloropropane	ND		768
Bromodichloromethane	ND		768
2-Chloroethylvinyl Ether	ND		768
cis-1,3-Dichloropropene	ND		768
Toluene	8640		768
trans-1,3-Dichloropropene	ND		768
1,1,2-Trichloroethane	ND		768
Tetrachloroethene	ND		768
Dibromochloromethane	ND		768
Chlorobenzene	ND		768
Ethylbenzene	545	J	768
Total Xylenes	1490		768
Bromoform	ND		768
1,1,2,2-Tetrachloroethane	ND		768
1,3-Dichlorobenzene	ND		768
1,4-Dichlorobenzene	1420		768
1,2-Dichlorobenzene	13400		768
Total Target Compounds:	28395	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-025
Client ID: S-114A
Date Received: 07/16/2001
Date Analyzed: 07/18/2001
Date File: I0175.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	4360	10.71
	Unknown cyclic hydrocarbon	18200	11.67
	Substituted benzene	2470	17.63
	Unknown	122000	19.89
	Unknown cyclic hydrocarbon	2010	21.18
	Unknown	9890	23.48
	Unknown	4480	24.51
	Unknown	3900	24.66
	Unknown cyclic hydrocarbon	3590	25.03
	~~Substituted benzene~~ Bibenzyl	4900	26.13

Total TICs = 175800

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-026
Client ID: S-114B
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1691.D

GC/MS Column: DB-624
Sample wt/vol: 0.017g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 2
% Moisture: 12.7

8.6

Compound	Concentration	Q	MDL
Chloromethane	ND		1680
Vinyl Chloride	ND		1680
Bromomethane	ND		1680 UJ
Chloroethane	ND		1680 UJ
Trichlorofluoromethane	ND		1680
Acrolein	~~ND~~ R		~~3370~~
1,1-Dichloroethene	ND		1680
Methylene Chloride	ND		1680
Acrylonitrile	ND		1680
trans-1,2-Dichloroethene	ND		1680
1,1-Dichloroethane	ND		1680
Chloroform	ND		1680
1,1,1-Trichloroethane	ND		1680
Carbon Tetrachloride	ND		1680
1,2-Dichloroethane(EDC)	ND		1680
Benzene	14900		1680
Trichloroethene	ND		1680
1,2-Dichloropropane	ND		1680
Bromodichloromethane	ND		1680
2-Chloroethylvinyl Ether	ND		1680
cis-1,3-Dichloropropene	ND		1680
Toluene	39400		1680
trans-1,3-Dichloropropene	ND		1680
1,1,2-Trichloroethane	ND		1680
Tetrachloroethene	ND		1680
Dibromochloromethane	ND		1680
Chlorobenzene	ND		1680
Ethylbenzene	ND		1680
Total Xylenes	ND		1680
Bromoform	ND		1680
1,1,2,2-Tetrachloroethane	ND		1680
1,3-Dichlorobenzene	ND		1680
1,4-Dichlorobenzene	ND		1680
1,2-Dichlorobenzene	420	J	1680
Total Target Compounds:	54720	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-026
Client ID: S-114B
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1691.D

GC/MS Column: DB-624
Sample wt/vol: 0.017g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 12.7

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	2190	6.60
	Unknown alkane	3470	7.09
	Unknown cyclic hydrocarbon	7180	7.75
	Unknown hydrocarbon	8390	13.30

Total TICs = 21230

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-027
Client ID: S-115
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1692.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 19.2

9.7

Compound	Concentration	Q	MDL
Chloromethane	ND		3870
Vinyl Chloride	ND		3870
Bromomethane	ND		3870 UJ
Chloroethane	ND		3870 UJ
Trichlorofluoromethane	ND		3870
Acrolein	~~ND~~ R		~~7740~~
1,1-Dichloroethene	ND		3870
Methylene Chloride	ND		3870
Acrylonitrile	ND		3870
trans-1,2-Dichloroethene	ND		3870
1,1-Dichloroethane	ND		3870
Chloroform	ND		3870
1,1,1-Trichloroethane	ND		3870
Carbon Tetrachloride	ND		3870
1,2-Dichloroethane(EDC)	ND		3870
Benzene	122000		3870
Trichloroethene	ND		3870
1,2-Dichloropropane	ND		3870
Bromodichloromethane	ND		3870
2-Chloroethylvinyl Ether	ND		3870
cis-1,3-Dichloropropene	ND		3870
Toluene	1250	J	3870
trans-1,3-Dichloropropene	ND		3870
1,1,2-Trichloroethane	ND		3870
Tetrachloroethene	ND		3870
Dibromochloromethane	ND		3870
Chlorobenzene	ND		3870
Ethylbenzene	ND		3870
Total Xylenes	ND		3870
Bromoform	ND		3870
1,1,2,2-Tetrachloroethane	ND		3870
1,3-Dichlorobenzene	ND		3870
1,4-Dichlorobenzene	ND		3870
1,2-Dichlorobenzene	ND		3870

Total Target Compounds: 123250 J

13m1

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-027
Client ID: S-115
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1692.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 5
% Moisture: 19.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown hydrocarbon	5180	13.30

Total TICs = 5180

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-028
Client ID: S-116
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Data file: J1693.D

GC/MS Column: DB-624
Sample wt/vol: 0.007g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 14.2

8.2

Compound	Concentration	Q	MDL
Chloromethane	ND		4160
Vinyl Chloride	ND		4160
Bromomethane	ND		4160 UJ
Chloroethane	ND		4160 UJ
Trichlorofluoromethane	ND		4160
Acrolein	~~ND~~ R		~~8330~~
1,1-Dichloroethene	ND		4160
Methylene Chloride	ND		4160
Acrylonitrile	ND		4160
trans-1,2-Dichloroethene	ND		4160
1,1-Dichloroethane	ND		4160
Chloroform	ND		4160
1,1,1-Trichloroethane	ND		4160
Carbon Tetrachloride	ND		4160
1,2-Dichloroethane(EDC)	ND		4160
Benzene	13300		4160
Trichloroethene	ND		4160
1,2-Dichloropropane	ND		4160
Bromodichloromethane	ND		4160
2-Chloroethylvinyl Ether	ND		4160
cis-1,3-Dichloropropene	ND		4160
Toluene	164000		4160
trans-1,3-Dichloropropene	ND		4160
1,1,2-Trichloroethane	ND		4160
Tetrachloroethene	ND		4160
Dibromochloromethane	ND		4160
Chlorobenzene	ND		4160
Ethylbenzene	ND		4160
Total Xylenes	ND		4160
Bromoform	ND		4160
1,1,2,2-Tetrachloroethane	ND		4160
1,3-Dichlorobenzene	ND		4160
1,4-Dichlorobenzene	ND		4160
1,2-Dichlorobenzene	ND		4160

Total Target Compounds: 177300

MMEC

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-028
Client ID: S-116
Date Received: 07/16/2001
Date Analyzed: 07/23/2001
Date File: J1693.D

GC/MS Column: DB-624
Sample wt/vol: 0.007g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 14.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	6910	6.61
	Unknown alkane	9990	7.10
	Unknown cyclic hydrocarbon	20400	7.75

Total TICs = 37300

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-029
Client ID: S-117
Date Received: 07/16/2001
Date Analyzed: 07/24/2001
Data file: J1728.D

GC/MS Column: DB-624
Sample wt/vol: 0.019g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 2
% Moisture: 15.5

9.3

Compound	Concentration	Q	MDL
Chloromethane	ND		1560
Vinyl Chloride	ND		1560
Bromomethane	ND		1560 UJ
Chloroethane	ND		1560 UJ
Trichlorofluoromethane	ND		1560
Acrolein	~~ND~~	R	~~3110~~
1,1-Dichloroethene	ND		1560
Methylene Chloride	ND		1560
Acrylonitrile	ND		1560
trans-1,2-Dichloroethene	ND		1560
1,1-Dichloroethane	ND		1560
Chloroform	ND		1560
1,1,1-Trichloroethane	ND		1560
Carbon Tetrachloride	ND		1560
1,2-Dichloroethane(EDC)	ND		1560
Benzene	17200		1560
Trichloroethene	ND		1560 UJ
1,2-Dichloropropane	ND		1560
Bromodichloromethane	ND		1560
2-Chloroethylvinyl Ether	ND		1560
cis-1,3-Dichloropropene	ND		1560
Toluene	33600		1560
trans-1,3-Dichloropropene	ND		1560
1,1,2-Trichloroethane	ND		1560
Tetrachloroethene	ND		1560
Dibromochloromethane	ND		1560
Chlorobenzene	ND		1560
Ethylbenzene	ND		1560
Total Xylenes	ND		1560
Bromoform	ND		1560
1,1,2,2-Tetrachloroethane	ND		1560
1,3-Dichlorobenzene	ND		1560
1,4-Dichlorobenzene	ND		1560
1,2-Dichlorobenzene	ND		1560

Total Target Compounds: 50800

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-029
Client ID: S-117
Date Received: 07/16/2001
Date Analyzed: 07/24/2001
Date File: J1728.D

GC/MS Column: DB-624
Sample wt/vol: 0.019g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-030
Client ID: TB
Date Received: 07/16/2001
Date Analyzed: 07/26/2001
Data file: I0436.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

10

Compound	Concentration	Q	MDL
Chloromethane	ND		625
Vinyl Chloride	ND		625
Bromomethane	ND		625
Chloroethane	ND		625
Trichlorofluoromethane	ND		625
Acrolein	~~ND~~ R		~~1250~~
1,1-Dichloroethene	ND		625
Methylene Chloride	ND		625
Acrylonitrile	~~ND~~ R		~~625~~
trans-1,2-Dichloroethene	ND		625
1,1-Dichloroethane	ND		625
Chloroform	ND		625
1,1,1-Trichloroethane	ND		625
Carbon Tetrachloride	ND		625
1,2-Dichloroethane(EDC)	ND		625
Benzene	ND		625
Trichloroethene	ND		625
1,2-Dichloropropane	ND		625
Bromodichloromethane	ND		625
2-Chloroethylvinyl Ether	ND		625
cis-1,3-Dichloropropene	ND		625
Toluene	ND		625
trans-1,3-Dichloropropene	ND		625
1,1,2-Trichloroethane	ND		625
Tetrachloroethene	ND		625
Dibromochloromethane	ND		625
Chlorobenzene	ND		625
Ethylbenzene	ND		625
Total Xylenes	ND		625
Bromoform	ND		625
1,1,2,2-Tetrachloroethane	ND		625
1,3-Dichlorobenzene	ND		625
1,4-Dichlorobenzene	ND		625
1,2-Dichlorobenzene	ND		625

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-030
Client ID: TB
Date Received: 07/16/2001
Date Analyzed: 07/26/2001
Data file: I0436.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4521.D

GC/MS Column: DB-5
Sample wt/vol: 10.29g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		111
Aniline	ND		111
bis(2-Chloroethyl)ether	ND		111
1,3-Dichlorobenzene	ND		111
1,4-Dichlorobenzene	ND		111
Benzyl alcohol	ND		111
1,2-Dichlorobenzene	ND		111
bis(2-chloroisopropyl)ether	ND		111
N-Nitroso-di-n-propylamine	ND		111
Hexachloroethane	ND		111
Nitrobenzene	ND		111
Isophorone	ND		111
bis(2-Chloroethoxy)methane	ND		111
1,2,4-Trichlorobenzene	ND		111
Naphthalene	ND		111
4-Chloroaniline	ND		111
Hexachlorobutadiene	ND		111
2-Methylnaphthalene	ND		111
Hexachlorocyclopentadiene	ND		111 UJ
2-Chloronaphthalene	ND		111
2-Nitroaniline	ND		111
Dimethylphthalate	ND		111
2,6-Dinitrotoluene	ND		111
Acenaphthylene	ND		111

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4521.D

GC/MS Column: DB-5
Sample wt/vol: 10.29g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		111
Acenaphthene	ND		111
2,4-Dinitrotoluene	ND		111
Dibenzofuran	ND		111
Diethylphthalate	ND		111
Fluorene	ND		111
4-Chlorophenyl-phenylether	ND		111 UJ
4-Nitroaniline	ND		111 UJ
N-Nitrosodiphenylamine	ND		111
1,2-Diphenylhydrazine/Azobenzene	ND		111
4-Bromophenyl-phenylether	ND		111 UJ
Hexachlorobenzene	ND		111
Phenanthrene	ND		111
Anthracene	ND		111
Carbazole	ND		111
Di-n-butylphthalate	ND		111
Fluoranthene	ND		111
Benzidine	ND		111 UJ
Pyrene	ND		111
3,3'-Dimethylbenzidine	ND		111
Butylbenzylphthalate	ND		111
3,3'-Dichlorobenzidine	ND		111
Benzo[a]anthracene	ND		111
Chrysene	ND		111
bis(2-Ethylhexyl)phthalate	ND		111
Di-n-octylphthalate	ND		111
Benzo[b]fluoranthene	ND		111
Benzo[k]fluoranthene	ND		111
Benzo[a]pyrene	ND		111
Indeno[1,2,3-cd]pyrene	ND		111
Dibenz[a,h]anthracene	ND		111
Benzo[g,h,i]perylene	ND		111

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4521.D

GC/MS Column: DB-5
Sample wt/vol: 10.29g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted naphthalene	978	3.64
	Unknown	867	4.52
	Unknown	767	4.60

Total TICs = 2612

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4522.D

GC/MS Column: DB-5
Sample wt/vol: 5.97g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 26.8

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		229
Aniline	ND		229
bis(2-Chloroethyl)ether	ND		229
1,3-Dichlorobenzene	ND		229
1,4-Dichlorobenzene	ND		229
Benzyl alcohol	ND		229
1,2-Dichlorobenzene	ND		229
bis(2-chloroisopropyl)ether	ND		229
N-Nitroso-di-n-propylamine	ND		229
Hexachloroethane	ND		229
Nitrobenzene	ND		229
Isophorone	ND		229
bis(2-Chloroethoxy)methane	ND		229
1,2,4-Trichlorobenzene	ND		229
Naphthalene	ND		229
4-Chloroaniline	ND		229
Hexachlorobutadiene	ND		229
2-Methylnaphthalene	ND		229
Hexachlorocyclopentadiene	ND		229 UJ
2-Chloronaphthalene	ND		229
2-Nitroaniline	ND		229
Dimethylphthalate	ND		229
2,6-Dinitrotoluene	ND		229
Acenaphthylene	ND		229

1217

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4522.D

GC/MS Column: DB-5
Sample wt/vol: 5.97g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 26.8

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		229
Acenaphthene	ND		229
2,4-Dinitrotoluene	ND		229
Dibenzofuran	ND		229
Diethylphthalate	ND		229
Fluorene	ND		229
4-Chlorophenyl-phenylether	ND		229 UJ
4-Nitroaniline	ND		229 UJ
N-Nitrosodiphenylamine	ND		229
1,2-Diphenylhydrazine/Azobenzene	ND		229
4-Bromophenyl-phenylether	ND		229 UJ
Hexachlorobenzene	ND		229
Phenanthrene	ND		229
Anthracene	ND		229
Carbazole	ND		229
Di-n-butylphthalate	ND		229
Fluoranthene	ND		229
Benzidine	ND		229 UJ
Pyrene	ND		229
3,3'-Dimethylbenzidine	ND		229
Butylbenzylphthalate	ND		229
3,3'-Dichlorobenzidine	ND		229
Benzo[a]anthracene	ND		229
Chrysene	ND		229
bis(2-Ethylhexyl)phthalate	ND		229
Di-n-octylphthalate	ND		229
Benzo[b]fluoranthene	ND		229
Benzo[k]fluoranthene	ND		229
Benzo[a]pyrene	ND		229
Indeno[1,2,3-cd]pyrene	ND		229
Dibenz[a,h]anthracene	ND		229
Benzo[g,h,i]perylene	ND		229

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4522.D

GC/MS Column: DB-5
Sample wt/vol: 5.97g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 26.8

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted naphthalene	1760	3.38
	Substituted benzene	3250	3.42
	Substituted naphthalene	60700	3.64
	Unknown aromatic	1100	3.66
	Substituted naphthalene	17600	3.97
	Substituted naphthalene	2290	4.43
	Unknown alkane	1830	4.50
	Unknown aromatic	11100	4.53
	Unknown aromatic	9400	4.58
	Unknown aromatic	5840	4.62
	Unknown aromatic	6820	4.64
	Unknown aromatic	5720	4.66
	Unknown aromatic	1620	4.68
	Substituted biphenyl	1530	4.91

Total TICs = 130560

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4523.D

GC/MS Column: DB-5
Sample wt/vol: 10.56g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.8

Compound	Concentration	Q	MDL	
N-Nitrosodimethylamine	ND		118	
Aniline	ND		118	
bis(2-Chloroethyl)ether	ND		118	
1,3-Dichlorobenzene	ND		118	
1,4-Dichlorobenzene	ND		118	
Benzyl alcohol	ND		118	
1,2-Dichlorobenzene	ND		118	
bis(2-chloroisopropyl)ether	ND		118	
N-Nitroso-di-n-propylamine	ND		118	
Hexachloroethane	ND		118	
Nitrobenzene	ND		118	
Isophorone	ND		118	
bis(2-Chloroethoxy)methane	ND		118	
1,2,4-Trichlorobenzene	ND		118	
Naphthalene	ND		118	
4-Chloroaniline	ND		118	
Hexachlorobutadiene	ND		118	
2-Methylnaphthalene	ND		118	
Hexachlorocyclopentadiene	ND		118	UJ
2-Chloronaphthalene	ND		118	
2-Nitroaniline	ND		118	
Dimethylphthalate	ND		118	
2,6-Dinitrotoluene	ND		118	
Acenaphthylene	ND		118	

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4523.D

GC/MS Column: DB-5
Sample wt/vol: 10.56g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.8

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		118
Acenaphthene	ND		118
2,4-Dinitrotoluene	ND		118
Dibenzofuran	ND		118
Diethylphthalate	ND		118
Fluorene	ND		118
4-Chlorophenyl-phenylether	ND		118 UJ
4-Nitroaniline	ND		118 UJ
N-Nitrosodiphenylamine	ND		118
1,2-Diphenylhydrazine/Azobenzene	ND		118
4-Bromophenyl-phenylether	ND		118 UJ
Hexachlorobenzene	ND		118
Phenanthrene	ND		118
Anthracene	ND		118
Carbazole	ND		118
Di-n-butylphthalate	ND		118
Fluoranthene	ND		118
Benzidine	ND		118 UJ
Pyrene	ND		118
3,3'-Dimethylbenzidine	ND		118
Butylbenzylphthalate	ND		118
3,3'-Dichlorobenzidine	ND		118
Benzo[a]anthracene	ND		118
Chrysene	ND		118
bis(2-Ethylhexyl)phthalate	ND		118
Di-n-octylphthalate	ND		118
Benzo[b]fluoranthene	ND		118
Benzo[k]fluoranthene	ND		118
Benzo[a]pyrene	ND		118
Indeno[1,2,3-cd]pyrene	ND		118
Dibenz[a,h]anthracene	ND		118
Benzo[g,h,i]perylene	ND		118

Total Target Compounds: 0

0082

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4523.D

GC/MS Column: DB-5
Sample wt/vol: 10.56g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.8

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4524.D

GC/MS Column: DB-5
Sample wt/vol: 10.60g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	MDL	
N-Nitrosodimethylamine	ND		112	
Aniline	ND		112	
bis(2-Chloroethyl)ether	ND		112	
1,3-Dichlorobenzene	ND		112	
1,4-Dichlorobenzene	ND		112	
Benzyl alcohol	ND		112	
1,2-Dichlorobenzene	ND		112	
bis(2-chloroisopropyl)ether	ND		112	
N-Nitroso-di-n-propylamine	ND		112	
Hexachloroethane	ND		112	
Nitrobenzene	ND		112	
Isophorone	ND		112	
bis(2-Chloroethoxy)methane	ND		112	
1,2,4-Trichlorobenzene	ND		112	
Naphthalene	ND		112	
4-Chloroaniline	ND		112	
Hexachlorobutadiene	ND		112	
2-Methylnaphthalene	ND		112	
Hexachlorocyclopentadiene	ND		112	UJ
2-Chloronaphthalene	ND		112	
2-Nitroaniline	ND		112	
Dimethylphthalate	ND		112	
2,6-Dinitrotoluene	ND		112	
Acenaphthylene	ND		112	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4524.D

GC/MS Column: DB-5
Sample wt/vol: 10.60g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.0

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		112
Acenaphthene	ND		112
2,4-Dinitrotoluene	ND		112
Dibenzofuran	ND		112
Diethylphthalate	ND		112
Fluorene	ND		112
4-Chlorophenyl-phenylether	ND		112 UJ
4-Nitroaniline	ND		112 UJ
N-Nitrosodiphenylamine	ND		112
1,2-Diphenylhydrazine/Azobenzene	ND		112
4-Bromophenyl-phenylether	ND		112 UJ
Hexachlorobenzene	ND		112
Phenanthrene	ND		112
Anthracene	ND		112
Carbazole	ND		112
Di-n-butylphthalate	ND		112
Fluoranthene	ND		112
Benzidine	ND		112 UJ
Pyrene	ND		112
3,3'-Dimethylbenzidine	ND		112
Butylbenzylphthalate	ND		112
3,3'-Dichlorobenzidine	ND		112
Benzo[a]anthracene	ND		112
Chrysene	ND		112
bis(2-Ethylhexyl)phthalate	152		112
Di-n-octylphthalate	ND		112
Benzo[b]fluoranthene	ND		112
Benzo[k]fluoranthene	ND		112
Benzo[a]pyrene	ND		112
Indeno[1,2,3-cd]pyrene	ND		112
Dibenz[a,h]anthracene	ND		112
Benzo[g,h,i]perylene	ND		112

Total Target Compounds: 152

0085

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4524.D

GC/MS Column: DB-5
Sample wt/vol: 10.60g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	7520	3.90
	Unknown alkane	7040	3.95
	Substituted naphthalene	5570	3.96
	Unknown	8730	4.31
	Unknown	15600	4.37
	Unknown	8390	4.42
	Unknown alkane	31800	4.49
	Unknown	7630	4.51
	Unknown	9650	4.53
	Unknown alkane	18200	4.56
	Unknown alkane	4670	4.58
	Unknown	7990	4.63
	Substituted naphthalene	90500	3.57
	Substituted naphthalene	39800	3.64
	Unknown	13900	3.66

Total TICs = 276990

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-014
Client ID: S-104
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4525.D

GC/MS Column: DB-5
Sample wt/vol: 10.54g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		108
Aniline	ND		108
bis(2-Chloroethyl)ether	ND		108
1,3-Dichlorobenzene	ND		108
1,4-Dichlorobenzene	ND		108
Benzyl alcohol	ND		108
1,2-Dichlorobenzene	ND		108
bis(2-chloroisopropyl)ether	ND		108
N-Nitroso-di-n-propylamine	ND		108
Hexachloroethane	ND		108
Nitrobenzene	ND		108
Isophorone	ND		108
bis(2-Chloroethoxy)methane	ND		108
1,2,4-Trichlorobenzene	ND		108
Naphthalene	ND		108
4-Chloroaniline	ND		108
Hexachlorobutadiene	ND		108
2-Methylnaphthalene	ND		108
Hexachlorocyclopentadiene	ND		108 UJ
2-Chloronaphthalene	ND		108
2-Nitroaniline	ND		108
Dimethylphthalate	ND		108
2,6-Dinitrotoluene	ND		108
Acenaphthylene	ND		108

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0087

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-014
Client ID: S-104
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4525.D

GC/MS Column: DB-5
Sample wt/vol: 10.54g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		108
Acenaphthene	ND		108
2,4-Dinitrotoluene	ND		108
Dibenzofuran	ND		108
Diethylphthalate	ND		108
Fluorene	ND		108
4-Chlorophenyl-phenylether	ND		108 UJ
4-Nitroaniline	ND		108 UJ
N-Nitrosodiphenylamine	ND		108
1,2-Diphenylhydrazine/Azobenzene	ND		108
4-Bromophenyl-phenylether	ND		108 UJ
Hexachlorobenzene	ND		108
Phenanthrene	ND		108
Anthracene	ND		108
Carbazole	ND		108
Di-n-butylphthalate	ND		108
Fluoranthene	ND		108
Benzidine	ND		108 UJ
Pyrene	ND		108
3,3'-Dimethylbenzidine	ND		108
Butylbenzylphthalate	ND		108
3,3'-Dichlorobenzidine	ND		108
Benzo[a]anthracene	ND		108
Chrysene	ND		108
bis(2-Ethylhexyl)phthalate	ND		108
Di-n-octylphthalate	ND		108
Benzo[b]fluoranthene	ND		108
Benzo[k]fluoranthene	ND		108
Benzo[a]pyrene	ND		108
Indeno[1,2,3-cd]pyrene	ND		108
Dibenz[a,h]anthracene	ND		108
Benzo[g,h,i]perylene	ND		108

Total Target Compounds: 0

0088

1377

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-014
Client ID: S-104
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4525.D

GC/MS Column: DB-5
Sample wt/vol: 10.54g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4526.D

GC/MS Column: DB-5
Sample wt/vol: 5.17g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 7.10

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		208
Aniline	ND		208
bis(2-Chloroethyl)ether	ND		208
1,3-Dichlorobenzene	ND		208
1,4-Dichlorobenzene	ND		208
Benzyl alcohol	ND		208
1,2-Dichlorobenzene	ND		208
bis(2-chloroisopropyl)ether	ND		208
N-Nitroso-di-n-propylamine	ND		208
Hexachloroethane	ND		208
Nitrobenzene	ND		208
Isophorone	ND		208
bis(2-Chloroethoxy)methane	ND		208
1,2,4-Trichlorobenzene	ND		208
Naphthalene	167	J	208
4-Chloroaniline	ND		208
Hexachlorobutadiene	ND		208
2-Methylnaphthalene	ND		208
Hexachlorocyclopentadiene	ND		208 UJ
2-Chloronaphthalene	ND		208
2-Nitroaniline	ND		208
Dimethylphthalate	ND		208
2,6-Dinitrotoluene	ND		208
Acenaphthylene	683		208

1324

0090

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4526.D

GC/MS Column: DB-5
Sample wt/vol: 5.17g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 7.10

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		208
Acenaphthene	192	J	208
2,4-Dinitrotoluene	ND		208
Dibenzofuran	ND		208
Diethylphthalate	ND		208
Fluorene	232		208
4-Chlorophenyl-phenylether	ND		208 UJ
4-Nitroaniline	ND		208 UJ
N-Nitrosodiphenylamine	ND		208
1,2-Diphenylhydrazine/Azobenzene	ND		208
4-Bromophenyl-phenylether	ND		208 UJ
Hexachlorobenzene	ND		208
Phenanthrene	2160		208
Anthracene	597		208
Carbazole	184	J	208
Di-n-butylphthalate	ND		208
Fluoranthene	3770		208
Benzidine	ND		208 UJ
Pyrene	4570		208
3,3'-Dimethylbenzidine	ND		208
Butylbenzylphthalate	ND		208
3,3'-Dichlorobenzidine	ND		208
Benzo[a]anthracene	2670		208
Chrysene	3350		208
bis(2-Ethylhexyl)phthalate	527		208
Di-n-octylphthalate	ND		208
Benzo[b]fluoranthene	2980		208
Benzo[k]fluoranthene	2250		208
Benzo[a]pyrene	3360		208
Indeno[1,2,3-cd]pyrene	2500		208
Dibenz[a,h]anthracene	733		208
Benzo[g,h,i]perylene	3210		208
Total Target Compounds:	34135	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4526.D

GC/MS Column: DB-5
Sample wt/vol: 5.17g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 7.10

CAS #	Compound	Estimated Concentration	Retention Time
000100-52-7	Benzaldehyde	1060	2.10
000140-29-4	Benzyl nitrile	895	2.64
	Unknown alkane	1960	3.33
	Unknown aromatic	1080	3.69
	Substituted benzene	916	4.06
	Unknown	2940	4.56
	Substituted benzene	5850	4.67
000072-54-8	1,1-Dichloro-2,2-bis(p-chloropheny	2890	5.28
	Substituted benzene	20800	5.34
	Unknown	1100	5.36
	Unknown	1420	6.13
	Unknown alkane	2060	6.28
	Unknown ~~aromatic~~ PAH	2420	7.07
	Unknown	1020	7.69
	Unknown	1310	8.02

Total TICs = 47721

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4527.D

GC/MS Column: DB-5
Sample wt/vol: 10.61g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		108
Aniline	ND		108
bis(2-Chloroethyl)ether	ND		108
1,3-Dichlorobenzene	ND		108
1,4-Dichlorobenzene	ND		108
Benzyl alcohol	ND		108
1,2-Dichlorobenzene	ND		108
bis(2-chloroisopropyl)ether	ND		108
N-Nitroso-di-n-propylamine	ND		108
Hexachloroethane	ND		108
Nitrobenzene	ND		108
Isophorone	ND		108
bis(2-Chloroethoxy)methane	ND		108
1,2,4-Trichlorobenzene	ND		108
Naphthalene	ND		108
4-Chloroaniline	ND		108
Hexachlorobutadiene	ND		108
2-Methylnaphthalene	ND		108
Hexachlorocyclopentadiene	ND		108 UJ
2-Chloronaphthalene	ND		108
2-Nitroaniline	ND		108
Dimethylphthalate	ND		108
2,6-Dinitrotoluene	ND		108
Acenaphthylene	ND		108

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4527.D

GC/MS Column: DB-5
Sample wt/vol: 10.61g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		108
Acenaphthene	ND		108
2,4-Dinitrotoluene	ND		108
Dibenzofuran	ND		108
Diethylphthalate	ND		108
Fluorene	ND		108
4-Chlorophenyl-phenylether	ND		108 UJ
4-Nitroaniline	ND		108 UJ
N-Nitrosodiphenylamine	ND		108
1,2-Diphenylhydrazine/Azobenzene	ND		108
4-Bromophenyl-phenylether	ND		108 UJ
Hexachlorobenzene	ND		108
Phenanthrene	101	J	108
Anthracene	ND		108
Carbazole	ND		108
Di-n-butylphthalate	ND		108
Fluoranthene	144		108
Benzidine	ND		108 UJ
Pyrene	159		108
3,3'-Dimethylbenzidine	ND		108
Butylbenzylphthalate	ND		108
3,3'-Dichlorobenzidine	ND		108
Benzo[a]anthracene	92.6	J	108
Chrysene	103	J	108
bis(2-Ethylhexyl)phthalate	66.6	J	108
Di-n-octylphthalate	ND		108
Benzo[b]fluoranthene	87.4	J	108
Benzo[k]fluoranthene	ND		108
Benzo[a]pyrene	96.7	J	108
Indeno[1,2,3-cd]pyrene	ND		108
Dibenz[a,h]anthracene	ND		108
Benzo[g,h,i]perylene	72.3	J	108
Total Target Compounds:	922.6	J	

1328

0094

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4527.D

GC/MS Column: DB-5
Sample wt/vol: 10.61g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.6

CAS #	Compound	Estimated Concentration	Retention Time
000101-84-8	Diphenyl ether	981	3.35
000072-54-8	~~Unknown~~ 1,1-Dichloro-2,2-bis(p-chlorophenyl	2600	5.29
	Unknown	539	6.28
	Unknown	669	8.35

Total TICs = 4789

0095

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4528.D

GC/MS Column: DB-5
Sample wt/vol: 5.41g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		210
Aniline	ND		210
bis(2-Chloroethyl)ether	ND		210
1,3-Dichlorobenzene	ND		210
1,4-Dichlorobenzene	ND		210
Benzyl alcohol	ND		210
1,2-Dichlorobenzene	ND		210
bis(2-chloroisopropyl)ether	ND		210
N-Nitroso-di-n-propylamine	ND		210
Hexachloroethane	ND		210
Nitrobenzene	ND		210
Isophorone	ND		210
bis(2-Chloroethoxy)methane	ND		210
1,2,4-Trichlorobenzene	ND		210
Naphthalene	ND		210
4-Chloroaniline	ND		210
Hexachlorobutadiene	ND		210
2-Methylnaphthalene	ND		210
Hexachlorocyclopentadiene	ND		210 UJ
2-Chloronaphthalene	ND		210
2-Nitroaniline	ND		210
Dimethylphthalate	ND		210
2,6-Dinitrotoluene	ND		210
Acenaphthylene	ND		210

1330

0096

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4528.D

GC/MS Column: DB-5
Sample wt/vol: 5.41g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		210
Acenaphthene	ND		210
2,4-Dinitrotoluene	ND		210
Dibenzofuran	ND		210
Diethylphthalate	ND		210
Fluorene	ND		210
4-Chlorophenyl-phenylether	ND		210 UJ
4-Nitroaniline	ND		210 UJ
N-Nitrosodiphenylamine	ND		210
1,2-Diphenylhydrazine/Azobenzene	ND		210
4-Bromophenyl-phenylether	ND		210 UJ
Hexachlorobenzene	ND		210
Phenanthrene	281		210
Anthracene	ND		210
Carbazole	ND		210
Di-n-butylphthalate	ND		210
Fluoranthene	636		210
Benzidine	ND		210
Pyrene	581		210
3,3'-Dimethylbenzidine	ND		210
Butylbenzylphthalate	ND		210
3,3'-Dichlorobenzidine	ND		210
Benzo[a]anthracene	409		210
Chrysene	428		210
bis(2-Ethylhexyl)phthalate	ND		210
Di-n-octylphthalate	ND		210
Benzo[b]fluoranthene	307		210
Benzo[k]fluoranthene	323		210
Benzo[a]pyrene	377		210
Indeno[1,2,3-cd]pyrene	221		210
Dibenz[a,h]anthracene	ND		210
Benzo[g,h,i]perylene	264		210

Total Target Compounds: 3827

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4528.D

GC/MS Column: DB-5
Sample wt/vol: 5.41g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 11.9

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	2220	3.94
	Unknown	2010	4.55
000072-54-8	1,1-Dichloro-2,2-bis(p-chloropheny	986	5.28
	Unknown aromatic	2010	5.62
	Unknown	1010	5.72

Total TICs = 8236

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4529.D

GC/MS Column: DB-5
Sample wt/vol: 2.49g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.6

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		470
Aniline	ND		470
bis(2-Chloroethyl)ether	ND		470
1,3-Dichlorobenzene	ND		470
1,4-Dichlorobenzene	338	J	470
Benzyl alcohol	ND		470
1,2-Dichlorobenzene	2240		470
bis(2-chloroisopropyl)ether	ND		470
N-Nitroso-di-n-propylamine	ND		470
Hexachloroethane	ND		470
Nitrobenzene	ND		470
Isophorone	ND		470
bis(2-Chloroethoxy)methane	ND		470
1,2,4-Trichlorobenzene	ND		470
Naphthalene	ND		470
4-Chloroaniline	ND		470
Hexachlorobutadiene	ND		470
2-Methylnaphthalene	ND		470
Hexachlorocyclopentadiene	ND		470 UJ
2-Chloronaphthalene	ND		470
2-Nitroaniline	ND		470
Dimethylphthalate	ND		470
2,6-Dinitrotoluene	ND		470
Acenaphthylene	ND		470

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4529.D

GC/MS Column: DB-5
Sample wt/vol: 2.49g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.6

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		470
Acenaphthene	ND		470
2,4-Dinitrotoluene	ND		470
Dibenzofuran	ND		470
Diethylphthalate	ND		470
Fluorene	ND		470
4-Chlorophenyl-phenylether	ND		470 UJ
4-Nitroaniline	ND		470 UJ
N-Nitrosodiphenylamine	ND		470
1,2-Diphenylhydrazine/Azobenzene	ND		470
4-Bromophenyl-phenylether	ND		470 UJ
Hexachlorobenzene	ND		470
Phenanthrene	721		470
Anthracene	ND		470
Carbazole	ND		470
Di-n-butylphthalate	ND		470
Fluoranthene	364	J	470
Benzidine	ND		470 UJ
Pyrene	333	J	470
3,3'-Dimethylbenzidine	ND		470
Butylbenzylphthalate	ND		470
3,3'-Dichlorobenzidine	ND		470
Benzo[a]anthracene	ND		470
Chrysene	651		470
bis(2-Ethylhexyl)phthalate	ND		470
Di-n-octylphthalate	ND		470
Benzo[b]fluoranthene	ND		470
Benzo[k]fluoranthene	ND		470
Benzo[a]pyrene	ND		470
Indeno[1,2,3-cd]pyrene	ND		470
Dibenz[a,h]anthracene	ND		470
Benzo[g,h,i]perylene	ND		470
Total Target Compounds:	4647	J	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Date File: B4529.D

GC/MS Column: DB-5
Sample wt/vol: 2.49g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.6

CAS #	Compound	Estimated Concentration	Retention Time
000100-52-7	Benzaldehyde	18200	2.10
000103-29-7	Bibenzyl	516000	3.66
000119-61-9	Benzophenone	15800	3.87
	Substituted benzene	298000	3.92
000538-74-9	Benzene, 1,1'-[thiobis(methylene)]	1090000	4.34
000620-40-6	Benzenemethanamine, N,N-bis(phenyl	17900	5.34
	Substituted benzene	15100	5.53
	Substituted benzene	70400	5.76
	Unknown aromatic	24700	6.68
	Substituted benzene	13800	7.78
	Substituted benzene	39400	8.06
	Substituted benzene	18200	9.17

Total TICs = 2137500

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5376.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 12.6

Compound	Concentration	Q	MDL
Aroclor-1016	ND		38
Aroclor-1221	ND		38
Aroclor-1232	ND		38
Aroclor-1242	ND		38
Aroclor-1248	ND		38
Aroclor-1254	ND		38
Aroclor-1260	ND		38

0102

1336

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5377.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.3g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 26.8

Compound	Concentration	Q	MDL
Aroclor-1016	ND		45.1
Aroclor-1221	ND		45.1
Aroclor-1232	ND		45.1
Aroclor-1242	ND		45.1
Aroclor-1248	ND		45.1
Aroclor-1254	173	JN	45.1
Aroclor-1260	ND		45.1

0103

1337

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5378.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.5g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 19.8

Compound	Concentration	Q	MDL
Aroclor-1016	ND		40.9
Aroclor-1221	ND		40.9
Aroclor-1232	ND		40.9
Aroclor-1242	ND		40.9
Aroclor-1248	ND		40.9
Aroclor-1254	ND		40.9
Aroclor-1260	ND		40.9

0104

1338

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5379.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.7g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 16.0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		38.8
Aroclor-1221	ND		38.8
Aroclor-1232	ND		38.8
Aroclor-1242	ND		38.8
Aroclor-1248	ND		38.8
Aroclor-1254	ND		38.8
Aroclor-1260	ND		38.8

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-014
Client ID: S-104
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5380.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 11.9

Compound	Concentration	Q	MDL
Aroclor-1016	ND		37.7
Aroclor-1221	ND		37.7
Aroclor-1232	ND		37.7
Aroclor-1242	ND		37.7
Aroclor-1248	ND		37.7
Aroclor-1254	132	JN	37.7
Aroclor-1260	ND		37.7

0106

1340

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: R5422.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.2g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 7.1

Compound	Concentration	Q	MDL
Aroclor-1016	ND		35.6
Aroclor-1221	ND		35.6
Aroclor-1232	ND		35.6
Aroclor-1242	ND		35.6
Aroclor-1248	ND		35.6
Aroclor-1254	~~2680~~	R	~~35.6~~
Aroclor-1260	ND		35.6

0107

1341

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5382.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.4g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 12.6

Compound	Concentration	Q	MDL
Aroclor-1016	ND		37.6
Aroclor-1221	ND		37.6
Aroclor-1232	ND		37.6
Aroclor-1242	ND		37.6
Aroclor-1248	ND		37.6
Aroclor-1254	2030	J	37.6
Aroclor-1260	ND		37.6

0108

1342

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: R5423.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.3g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 11.9

Compound	Concentration	Q	MDL
Aroclor-1016	ND		37.5
Aroclor-1221	ND		37.5
Aroclor-1232	ND		37.5
Aroclor-1242	ND		37.5
Aroclor-1248	ND		37.5
Aroclor-1254	ND		37.5
Aroclor-1260	ND		37.5

1343

010

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: R5424.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.6g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 14.6

Compound	Concentration	Q	MDL
Aroclor-1016	ND		38.3
Aroclor-1221	ND		38.3
Aroclor-1232	ND		38.3
Aroclor-1242	ND		38.3
Aroclor-1248	ND		38.3
Aroclor-1254	~~2110~~	R	~~38.3~~
Aroclor-1260	ND		38.3

0110

1344

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-015
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7702.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.2g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 7.1

Compound	Concentration	Q	MDL
alpha-BHC	ND		8.91
beta-BHC	ND		8.91
gamma-BHC	ND		8.91
delta-BHC	ND		8.91
Heptachlor	ND		8.91
Aldrin	ND		8.91
Heptachlor epoxide	ND		8.91
Endosulfan I	ND		8.91
4,4'-DDE	1860		8.91
Dieldrin	ND		8.91
Endrin	ND		8.91
Endosulfan II	ND		8.91
4,4'-DDD	2770* ~~3220~~	~~E~~	8.91
Endrin aldehyde	ND		8.91
Endosulfan sulfate	ND		8.91
4,4'-DDT	477		8.91
Chlordane	ND		44.6
Toxaphene	ND		44.6

* FROM 1:100 DILUTION

1345

0111

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

USE ORIGINAL DATA

Lab ID: 4833-015DIL
Client ID: S-105
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/24/2001
Data file: W7829.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.2g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 100
% Moisture: 7.1

Compound	Concentration	Q	MDL
alpha-BHC	ND		17.8
beta-BHC	ND		17.8
gamma-BHC	ND		17.8
delta-BHC	ND		17.8
Heptachlor	ND		17.8
Aldrin	ND		17.8
Heptachlor epoxide	ND		17.8
Endosulfan I	ND		17.8
4,4'-DDE	1590		17.8
Dieldrin	ND		17.8
Endrin	ND		17.8
Endosulfan II	ND		17.8
4,4'-DDD	2770		17.8
Endrin aldehyde	ND		17.8
Endosulfan sulfate	ND		17.8
4,4'-DDT	392		17.8
Chlordane	ND		89.1
Toxaphene	ND		89.1

0112

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-016
Client ID: S-106
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7703.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.4g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 12.6

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.41
beta-BHC	ND		9.41
gamma-BHC	ND		9.41
delta-BHC	ND		9.41
Heptachlor	ND		9.41
Aldrin	ND		9.41
Heptachlor epoxide	ND		9.41
Endosulfan I	ND		9.41
4,4'-DDE	55.4	J	9.41
Dieldrin	ND		9.41
Endrin	ND		9.41
Endosulfan II	ND		9.41
4,4'-DDD	401		9.41
Endrin aldehyde	ND		9.41
Endosulfan sulfate	ND		9.41
4,4'-DDT	ND		9.41
Chlordane	ND		47
Toxaphene	ND		47

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1347

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-017
Client ID: S-107
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7704.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.3g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 11.9

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.37
beta-BHC	ND		9.37
gamma-BHC	ND		9.37
delta-BHC	ND		9.37
Heptachlor	ND		9.37
Aldrin	ND		9.37
Heptachlor epoxide	ND		9.37
Endosulfan I	ND		9.37
4,4'-DDE	425		9.37
Dieldrin	ND		9.37
Endrin	ND		9.37
Endosulfan II	ND		9.37
4,4'-DDD	1250		9.37
Endrin aldehyde	ND		9.37
Endosulfan sulfate	ND		9.37
4,4'-DDT	2650		9.37
Chlordane	ND		46.8
Toxaphene	ND		46.8

1348

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-018
Client ID: S-108
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7705.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.6g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 14.6

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.57
beta-BHC	ND		9.57
gamma-BHC	ND		9.57
delta-BHC	ND		9.57
Heptachlor	ND		9.57
Aldrin	ND		9.57
Heptachlor epoxide	ND		9.57
Endosulfan I	ND		9.57
4,4'-DDE	232	J	9.57
Dieldrin	ND		9.57
Endrin	ND		9.57
Endosulfan II	ND		9.57
4,4'-DDD	1190	J	9.57
Endrin aldehyde	ND		9.57
Endosulfan sulfate	ND		9.57
4,4'-DDT	451	JN	9.57
Chlordane	ND		47.8
Toxaphene	ND		47.8

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-025
Client ID: S-114A
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7706.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 14.3

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.72
beta-BHC	ND		9.72
gamma-BHC	ND		9.72
delta-BHC	ND		9.72
Heptachlor	ND		9.72
Aldrin	ND		9.72
Heptachlor epoxide	ND		9.72
Endosulfan I	ND		9.72
4,4'-DDE	ND		9.72
Dieldrin	ND		9.72
Endrin	ND		9.72
Endosulfan II	ND		9.72
4,4'-DDD	ND		9.72
Endrin aldehyde	ND		9.72
Endosulfan sulfate	ND		9.72
4,4'-DDT	ND		9.72
Chlordane	ND		48.6
Toxaphene	ND		48.6

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-026
Client ID: S-114B
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7707.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.3g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 12.7

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.45
beta-BHC	ND		9.45
gamma-BHC	ND		9.45
delta-BHC	ND		9.45
Heptachlor	ND		9.45
Aldrin	ND		9.45
Heptachlor epoxide	ND		9.45
Endosulfan I	ND		9.45
4,4'-DDE	ND		9.45
Dieldrin	ND		9.45
Endrin	ND		9.45
Endosulfan II	ND		9.45
4,4'-DDD	ND		9.45
Endrin aldehyde	ND		9.45
Endosulfan sulfate	ND		9.45
4,4'-DDT	ND		9.45
Chlordane	ND		47.3
Toxaphene	ND		47.3

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-027
Client ID: S-115
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7708.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 19.2

Compound	Concentration	Q	MDL
alpha-BHC	ND		10.3
beta-BHC	ND		10.3
gamma-BHC	ND		10.3
delta-BHC	ND		10.3
Heptachlor	ND		10.3
Aldrin	ND		10.3
Heptachlor epoxide	ND		10.3
Endosulfan I	ND		10.3
4,4'-DDE	ND		10.3
Dieldrin	ND		10.3
Endrin	ND		10.3
Endosulfan II	ND		10.3
4,4'-DDD	ND		10.3
Endrin aldehyde	ND		10.3
Endosulfan sulfate	ND		10.3
4,4'-DDT	ND		10.3
Chlordane	ND		51.4
Toxaphene	ND		51.4

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-028
Client ID: S-116
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7709.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.6g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 14.2

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.52
beta-BHC	ND		9.52
gamma-BHC	ND		9.52
delta-BHC	ND		9.52
Heptachlor	ND		9.52
Aldrin	ND		9.52
Heptachlor epoxide	ND		9.52
Endosulfan I	ND		9.52
4,4'-DDE	ND		9.52
Dieldrin	ND		9.52
Endrin	ND		9.52
Endosulfan II	ND		9.52
4,4'-DDD	14.9		9.52
Endrin aldehyde	ND		9.52
Endosulfan sulfate	ND		9.52
4,4'-DDT	ND		9.52
Chlordane	ND		47.6
Toxaphene	ND		47.6

0119

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INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-029
Client ID: S-117
Date Received: 07/16/2001
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7710.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.2g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 15.5

Compound	Concentration	Q	MDL
alpha-BHC	ND		9.8
beta-BHC	ND		9.8
gamma-BHC	ND		9.8
delta-BHC	ND		9.8
Heptachlor	ND		9.8
Aldrin	ND		9.8
Heptachlor epoxide	ND		9.8
Endosulfan I	ND		9.8
4,4'-DDE	ND		9.8
Dieldrin	ND		9.8
Endrin	ND		9.8
Endosulfan II	ND		9.8
4,4'-DDD	ND		9.8
Endrin aldehyde	ND		9.8
Endosulfan sulfate	ND		9.8
4,4'-DDT	ND		9.8
Chlordane	ND		49
Toxaphene	ND		49

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-010
Client ID: S-101
Date Received: 7/16/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 12.6
Batch #: 170

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	2.29	07/18/01	6020
Arsenic	0.566		1	0.229	07/18/01	6020
Beryllium	0.269		1	0.229	07/18/01	6020
Cadmium	1.03		1	0.229	07/18/01	6020
Chromium	10.1		1	0.687	07/18/01	6020
Copper	2.78		1	0.458	07/18/01	6020
Lead	7.93		1	2.29	07/18/01	6020
Mercury	ND		1	0.0143	07/18/01	7471 A
Nickel	5.89		1	0.687	07/18/01	6020
Selenium	ND		1	2.29	07/18/01	6020
Silver	ND		1	0.564	07/18/01	6020
Thallium	ND		1	0.0916	07/18/01	6020
Zinc	21.6		1	1.14	07/18/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-011
Client ID: S-102
Date Received: 7/16/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 26.8
Batch #: 170

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	2.72	07/18/01	6020
Arsenic	21.0		1	0.272	07/18/01	6020
Beryllium	1.14		1	0.272	07/18/01	6020
Cadmium	0.347		1	0.272	07/18/01	6020
Chromium	44.5		1	0.815	07/18/01	6020
Copper	12.7		1	0.544	07/18/01	6020
Lead	23.7		1	2.72	07/18/01	6020
Mercury	0.0761		1	0.017	07/18/01	7471 A
Nickel	22.4		1	0.815	07/18/01	6020
Selenium	ND		1	2.72	07/18/01	6020
Silver	ND		1	0.675	07/18/01	6020
Thallium	0.361		1	0.109	07/18/01	6020
Zinc	69.4		1	1.36	07/18/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-012
Client ID: S-103A
Date Received: 7/16/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 19.8
Batch #: 170

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	2.51	07/18/01	6020
Arsenic	4.95		1	0.251	07/18/01	6020
Beryllium	0.727		1	0.251	07/18/01	6020
Cadmium	ND		1	0.251	07/18/01	6020
Chromium	20.1		1	0.753	07/18/01	6020
Copper	20.8		1	0.502	07/18/01	6020
Lead	49.4		1	2.51	07/18/01	6020
Mercury	0.144		1	0.0155	07/18/01	7471 A
Nickel	17.0		1	0.753	07/18/01	6020
Selenium	ND		1	2.51	07/18/01	6020
Silver	ND		1	0.622	07/18/01	6020
Thallium	ND		1	0.100	07/18/01	6020
Zinc	79.8		1	1.26	07/18/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-013
Client ID: S-103B
Date Received: 7/16/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 16
Batch #: 170

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	2.38	07/18/01	6020
Arsenic	1.57		1	0.238	07/18/01	6020
Beryllium	0.779		1	0.238	07/18/01	6020
Cadmium	ND		1	0.238	07/18/01	6020
Chromium	20.8		1	0.714	07/18/01	6020
Copper	4.45		1	0.476	07/18/01	6020
Lead	11.9		1	2.38	07/18/01	6020
Mercury	0.0203		1	0.0149	07/18/01	7471 A
Nickel	13.8		1	0.714	07/18/01	6020
Selenium	ND		1	2.38	07/18/01	6020
Silver	ND		1	0.592	07/18/01	6020
Thallium	ND		1	0.0952	07/18/01	6020
Zinc	35.1		1	1.19	07/18/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS

Lab ID: 4833-014
Client ID: S-104
Date Received: 7/16/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 11.9
Batch #: 170

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Antimony	ND		1	2.27	07/18/01	6020
Arsenic	0.475		1	0.227	07/18/01	6020
Beryllium	0.327		1	0.227	07/18/01	6020
Cadmium	ND		1	0.227	07/18/01	6020
Chromium	13.0		1	0.681	07/18/01	6020
Copper	12.9		1	0.454	07/18/01	6020
Lead	30.2		1	2.27	07/18/01	6020
Mercury	0.0362		1	0.0142	07/18/01	7471 A
Nickel	9.33		1	0.681	07/18/01	6020
Selenium	ND		1	2.27	07/18/01	6020
Silver	ND		1	0.567	07/18/01	6020
Thallium	ND		1	0.0908	07/18/01	6020
Zinc	48.4		1	1.14	07/18/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Total Recoverable Phenols

Client/Project: ENVTACT/ORBIS

Date Received: 7/16/01

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solids	Date Analyzed
4833-025	S-114A	ND		1	S-mg/Kg	2.92	85.7	07/16/2001
4833-026	S-114B	ND		1	S-mg/Kg	2.86	87.3	07/16/2001
4833-027	S-115	ND		1	S-mg/Kg	3.09	80.8	07/16/2001
4833-028	S-116	ND		1	S-mg/Kg	2.91	85.8	07/16/2001
4833-029	S-117	ND		1	S-mg/Kg	2.96	84.5	07/16/2001

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: ENVTACT/ORBIS

Date Received: 7/16/01

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solid	Date Analyzed
4833-006	S-98A	305		1	Soil-mg/kg	25.0	80.9	07/18/2001
4833-007	S-98B	ND		1	Soil-mg/kg	25.0	84.2	07/18/2001
4833-008	S-99	ND		1	Soil-mg/kg	25.0	81.3	07/18/2001
4833-009	S-100	ND		1	Soil-mg/kg	25.0	89.0	07/18/2001
4833-010	S-101	ND		1	Soil-mg/kg	25.0	87.4	07/18/2001
4833-011	S-102	62.9		1	Soil-mg/kg	27.3	73.2	07/18/2001
4833-012	S-103A	51.7		1	Soil-mg/kg	25.0	80.2	07/18/2001
4833-013	S-103B	1360		2	Soil-mg/kg	47.6	84.0	07/18/2001
4833-014	S-104	106		1	Soil-mg/kg	25.0	88.1	07/18/2001
4833-024	S-113	88.0		1	Soil-mg/kg	25.0	83.1	07/18/2001
4833-025	S-114A	133		1	Soil-mg/kg	25.0	85.7	07/18/2001
4833-026	S-114B	115		1	Soil-mg/kg	25.0	87.3	07/18/2001
4833-027	S-115	ND		1	Soil-mg/kg	25.0	80.8	07/18/2001
4833-028	S-116	ND		1	Soil-mg/kg	25.0	85.8	07/18/2001
4833-029	S-117	ND		1	Soil-mg/kg	25.0	84.5	07/18/2001

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METHODOLOGY SUMMARY

Analytical Parameter	Aqueous Samples Method #	Soil/Other Samples Method #
Volatiles + 10	NA	EPA 8260B
Semivolatiles - BN + 15	NA	EPA 8270C
PCB's	NA	EPA 8082
Pesticides	NA	EPA 8081A
P.P. Metals	NA	EPA 6020
Metals (Mercury)	NA	EPA 7471A
Metals (Silver)	NA	EPA 7760A
Total Petroleum Hydrocarbons	NA	EPA 418.1 M
Phenols	NA	EPA 9066

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0093.D

BFB Injection Date: 07/16/2001

Inst ID: MSD_I

BFB Injection Time: 15:42

m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	25.9		
75	30.0 - 60.0% of mass 95	56.9		
95	Base peak, 100% relative abundance	100.0		
96	5.0 - 9.0% of mass 95	7.4		
173	Less than 2.0% of mass 174	0.3	(0.4	)1
174	Great than 50.0% of mass 95	80.7		
175	5.0 - 9.0% of mass 174	6.5	(8.1	)1
176	95.0 - 101.0% of mass 174	78.0	(96.7	)1
177	5.0 - 9.0% of mass 176	5.8	(7.4	)2
	1-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0094.D	07/16/2001	16:07
200	200_PPB_STD	I0095.D	07/16/2001	16:40
150	150_PPB_STD	I0096.D	07/16/2001	17:14
50	50_PPB_STD	I0097.D	07/16/2001	17:47
20	20_PPB_STD	I0098.D	07/16/2001	18:21
N/A	METHOD_BLK	I0099.D	07/16/2001	18:54
LCS	BLK_SPK	I0100.D	07/16/2001	19:28
SBRP-5_4-6'	4739-001	I0101.D	07/16/2001	20:01
MS	4739-001MS	I0102.D	07/16/2001	20:35
MSD	4739-001MSD	I0103.D	07/16/2001	21:08
SBRP-6_5-7'	4739-004	I0104.D	07/16/2001	21:42
SBRP-6D_5-7'	4739-005	I0105.D	07/16/2001	22:16
TB-1	4739-006	I0106.D	07/16/2001	22:49
SBDS-12_4-6'	4702-005	I0107.D	07/16/2001	23:23
SBDS-12_6-8'	4702-007	I0108.D	07/16/2001	23:56
TB-1	4702-008	I0109.D	07/17/2001	0:29
STRP-1_5-7'	4794-010	I0110.D	07/17/2001	1:03
STRP-2_5-7'	4794-011	I0111.D	07/17/2001	1:37
STRP-3_6-8'	4794-012	I0112.D	07/17/2001	2:11
TB-1	4794-013	I0113.D	07/17/2001	2:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0093.D BFB Injection Date : 07/16/200

Inst ID: MSD I BFB Injection Time: 15:42

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.9			
75	30.0 - 60.0% of mass 95	56.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.3	(	0.4	)1
174	Great than 50.0% of mass 95	80.7			
175	5.0 - 9.0% of mass 174	6.5	(	8.1	)1
176	95.0 - 101.0% of mass 174	78.0	(	96.7	)1
177	5.0 - 9.0% of mass 176	5.8	(	7.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TOH-071001-01A	4644-001	I0114.D	07/17/2001	3:18

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0137.D

BFB Injection Date: 07/17/2001

Inst ID: MSD I

BFB Injection Time: 17:23

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.3			
75	30.0 - 60.0% of mass 95	57.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.1			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	81.1			
175	5.0 - 9.0% of mass 174	6.2	(	7.7	)1
176	95.0 - 101.0% of mass 174	80.0	(	98.6	)1
177	5.0 - 9.0% of mass 176	5.3	(	6.6	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0138.D	07/17/2001	17:36
N/A	METHOD_BLK	I0140.D	07/17/2001	18:44
LCS	BLK_SPK	I0141.D	07/17/2001	19:18
S-95A	4833-001	I0142.D	07/17/2001	19:52
S-95B	4833-002	I0143.D	07/17/2001	20:26
S-96A	4833-003	I0144.D	07/17/2001	21:00
S-96B	4833-004	I0145.D	07/17/2001	21:33
S-97A	4833-005	I0146.D	07/17/2001	22:07
~~S-97B~~ 98A	4833-006	I0147.D	07/17/2001	22:41
~~S-98B~~ 99	4833-008	I0149.D	07/17/2001	23:50
S-100	4833-009	I0150.D	07/18/2001	0:24
S-101	4833-010	I0151.D	07/18/2001	0:58
S-102	4833-011	I0152.D	07/18/2001	1:32
S-103A	4833-012	I0153.D	07/18/2001	2:05
S-103B	4833-013	I0154.D	07/18/2001	2:39
~~S-104~~	~~4833-014~~	~~I0155.D~~	~~07/18/2001~~	~~3:13~~
S-105	4833-015	I0156.D	07/18/2001	3:47
MS	4833-015MS	I0157.D	07/18/2001	4:21
MSD	4833-015MSD	I0158.D	07/18/2001	4:55

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0160.D

BFB Injection Date: 07/18/2001

Inst ID: MSD_I

BFB Injection Time: 5:52

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	26.5	
75	30.0 - 60.0% of mass 95	58.8	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.6	
173	Less than 2.0% of mass 174	0.0 (0.0)1	
174	Great than 50.0% of mass 95	82.8	
175	5.0 - 9.0% of mass 174	6.0 (7.3)1	
176	95.0 - 101.0% of mass 174	80.6 (97.3)1	
177	5.0 - 9.0% of mass 176	5.2 (6.4)2	

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0162.D	07/18/2001	6:53
N/A	METHOD_BLK	I0164.D	07/18/2001	8:01
LCS	BLK_SPK	I0165.D	07/18/2001	8:34
S-106	4833-016	I0166.D	07/18/2001	9:07
S-107	4833-017	I0167.D	07/18/2001	9:40
S-108	4833-018	I0168.D	07/18/2001	10:14
S-109	4833-019	I0169.D	07/18/2001	10:46
S-110	4833-020	I0170.D	07/18/2001	11:19
S-111B	4833-022	I0172.D	07/18/2001	12:26
S-112	4833-023	I0173.D	07/18/2001	12:59
S-114A	4833-025	I0175.D	07/18/2001	14:06

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0430.D BFB Injection Date: 07/26/2001

Inst ID: MSD I BFB Injection Time: 12:30

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.2			
75	30.0 - 60.0% of mass 95	59.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	1.1	(	1.5	)1
174	Great than 50.0% of mass 95	71.6			
175	5.0 - 9.0% of mass 174	5.9	(	8.2	)1
176	95.0 - 101.0% of mass 174	71.7	(	100.2	)1
177	5.0 - 9.0% of mass 176	6.0	(	8.3	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0431.D	07/26/2001	12:45
N/A	METHOD_BLK	I0433.D	07/26/2001	13:57
LCS	BLK_SPK	I0434.D	07/26/2001	14:34
TRIP_BLANK	4859-001	I0435.D	07/26/2001	15:11
TB	4833-030	I0436.D	07/26/2001	15:47
TB	5073-023	I0437.D	07/26/2001	16:24
TP-10_3-3.5	5073-019	I0438.D	07/26/2001	17:00
TP-8_3-3.5	5073-015	I0439.D	07/26/2001	17:37
TP-12_6-6.5	5074-002	I0440.D	07/26/2001	18:14
TP-1_6-6.5	5073-002	I0441.D	07/26/2001	18:50
TP-2_6-6.5	5073-004	I0442.D	07/26/2001	19:27
TP-3_6-6.5	5073-006	I0443.D	07/26/2001	20:03
TP-4_6-6.5	5073-008	I0444.D	07/26/2001	20:40
TP-5_6-6.5	5073-010	I0445.D	07/26/2001	21:16
TP-7_6-6.5	5073-014	I0447.D	07/26/2001	22:30
TP-8_6-6.5	5073-016	I0448.D	07/26/2001	23:07
TP-9_6-6.5	5073-018	I0449.D	07/26/2001	23:44
MS	5073-018MS	I0450.D	07/27/2001	0:21
MSD	5073-018MSD	I0451.D	07/27/2001	0:57

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1622.D

BFB Injection Date: 07/22/2001

Inst ID: MSD_J

BFB Injection Time: 10:13

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	21.6	
75	30.0 - 60.0% of mass 95	38.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.4 (0.5)1	
174	Great than 50.0% of mass 95	71.3	
175	5.0 - 9.0% of mass 174	5.4 (7.6)1	
176	95.0 - 101.0% of mass 174	68.0 (95.4)1	
177	5.0 - 9.0% of mass 176	4.6 (6.7)2	
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J1623.D	07/22/2001	10:40
50PPB	STD-50PPB	J1625.D	07/22/2001	11:37
150PPB	STD-150PPB	J1626.D	07/22/2001	12:04
200PPB	STD-200PPB	J1627.D	07/22/2001	12:32
20PPB	STD-20PPB	J1629.D	07/22/2001	13:27
N/A	METHOD-BLK	J1631.D	07/22/2001	14:26
LCS	BLK-SPK	J1632.D	07/22/2001	14:54
D-3__6.5-7	4894-004DIL	J1633.D	07/22/2001	15:21
D-9__6-6.5	4894-012DIL	J1634.D	07/22/2001	15:49
B-1__11'	4828-002	J1635.D	07/22/2001	16:17
OENJ5A-NCCSW-	4896-005	J1636.D	07/22/2001	16:44
OENJ5B-NSSCW-0	4896-010	J1637.D	07/22/2001	17:12
CF-1	4940-001	J1638.D	07/22/2001	17:40
CF-2	4940-002	J1639.D	07/22/2001	18:07
AOC35-A	4950-001	J1640.D	07/22/2001	18:35
AOC35-B	4950-002	J1641.D	07/22/2001	19:03
AOC35-C	4950-003	J1642.D	07/22/2001	19:30
071301-TB	4796-008	J1643.D	07/22/2001	19:58
LPE-1	4796-001	J1644.D	07/22/2001	20:25
LPE-3	4796-003	J1645.D	07/22/2001	20:53

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1622.D

BFB Injection Date : 07/22/200

Inst ID: MSD_J

BFB Injection Time: 10:13

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.6			
75	30.0 - 60.0% of mass 95	38.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	Great than 50.0% of mass 95	71.3			
175	5.0 - 9.0% of mass 174	5.4	(	7.6	)1
176	95.0 - 101.0% of mass 174	68.0	(	95.4	)1
177	5.0 - 9.0% of mass 176	4.6	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MS	4940-001MS	J1646.D	07/22/2001	21:21
MSD	4940-001MSD	J1647.D	07/22/2001	21:48

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1675.D

BFB Injection Date: 07/23/2001

Inst ID: MSD J

BFB Injection Time: 12:35

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	20.9	
75	30.0 - 60.0% of mass 95	38.1	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.9	
173	Less than 2.0% of mass 174	0.3	(0.4)1
174	Great than 50.0% of mass 95	72.3	
175	5.0 - 9.0% of mass 174	5.0	(6.9)1
176	95.0 - 101.0% of mass 174	69.9	(96.7)1
177	5.0 - 9.0% of mass 176	4.8	(6.8)2
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J1676.D	07/23/2001	13:03
N/A	METHOD-BLK	J1679.D	07/23/2001	14:26
LCS	BLK-SPK	J1680.D	07/23/2001	14:53
MW-9	4949-001	J1681.D	07/23/2001	15:21
MW-10	4949-002	J1682.D	07/23/2001	15:49
MW-13	4949-005	J1683.D	07/23/2001	16:17
MW-14	4949-006	J1684.D	07/23/2001	16:44
CWM-3A	4949-007	J1685.D	07/23/2001	17:12
S-98ADL	4833-006	J1687.D	07/23/2001	18:08
S-98B	4833-007	J1688.D	07/23/2001	18:36
S-111A	4833-021	J1689.D	07/23/2001	19:03
S-113	4833-024	J1690.D	07/23/2001	19:31
S-114B	4833-026	J1691.D	07/23/2001	19:58
S-115	4833-027	J1692.D	07/23/2001	20:26
S-116	4833-028	J1693.D	07/23/2001	20:53
TB-1	4798-001	J1694.D	07/23/2001	21:21
SS1-2	4798-003	J1695.D	07/23/2001	21:49
ULPX-1	4942-001	J1696.D	07/23/2001	22:16
ULPX-2	4942-002	J1697.D	07/23/2001	22:44
ULPX-5	4942-005	J1698.D	07/23/2001	23:11

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1675.D

BFB Injection Date : 07/23/200

Inst ID: MSD_J

BFB Injection Time: 12:35

m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	20.9		
75	30.0 - 60.0% of mass 95	38.1		
95	Base peak, 100% relative abundance	100.0		
96	5.0 - 9.0% of mass 95	6.9		
173	Less than 2.0% of mass 174	0.3	(0.4	)1
174	Great than 50.0% of mass 95	72.3		
175	5.0 - 9.0% of mass 174	5.0	(6.9	)1
176	95.0 - 101.0% of mass 174	69.9	(96.7	)1
177	5.0 - 9.0% of mass 176	4.8	(6.8	)2
	1-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MS	4949-001MS	J1699.D	07/23/2001	23:39
MSD	4949-001MSD	J1700.D	07/24/2001	0:06

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1703.D

BFB Injection Date: 07/24/2001

Inst ID: MSD_J

BFB Injection Time: 1:29

m/z	Ion Abudance Criteria	%Relative Abundance		
50	15 - 40.0% of mass 95	20.7		
75	30.0 - 60.0% of mass 95	39.0		
95	Base peak, 100% relative abundance	100.0		
96	5.0 - 9.0% of mass 95	7.1		
173	Less than 2.0% of mass 174	0.5	(0.7	)1
174	Great than 50.0% of mass 95	71.3		
175	5.0 - 9.0% of mass 174	4.8	(6.8	)1
176	95.0 - 101.0% of mass 174	69.3	(97.2	)1
177	5.0 - 9.0% of mass 176	4.5	(6.5	)2
	1-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J1704.D	07/24/2001	1:57
N/A	METHOD-BLK	J1708.D	07/24/2001	3:47
N/A	METHOD-BLK	J1709.D	07/24/2001	4:15
CC-FB-10	4953-014	J1710.D	07/24/2001	4:42
CC-TB-11	4953-015	J1711.D	07/24/2001	5:10
FB	4888-006	J1712.D	07/24/2001	5:37
TB	4888-007	J1713.D	07/24/2001	6:05
RV-1	4888-001	J1714.D	07/24/2001	6:32
RV-2	4888-002	J1715.D	07/24/2001	6:59
RV-3	4888-003	J1716.D	07/24/2001	7:27
RV-4	4888-004	J1717.D	07/24/2001	7:55
RV-5	4888-005	J1718.D	07/24/2001	8:23
TRIP	4918-006	J1719.D	07/24/2001	8:51
PX-1	4918-001	J1720.D	07/24/2001	9:18
PX-2	4918-002	J1721.D	07/24/2001	9:46
PX-3	4918-003	J1722.D	07/24/2001	10:13
PX-4	4918-004	J1723.D	07/24/2001	10:41
PX-5	4918-005	J1724.D	07/24/2001	11:08
LCS	BLK-SPK	J1725.D	07/24/2001	11:35
MS	4888-001MS	J1726.D	07/24/2001	12:03

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1703.D BFB Injection Date : 07/24/200

Inst ID: MSD_J BFB Injection Time: 1:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.7			
75	30.0 - 60.0% of mass 95	39.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.1			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	71.3			
175	5.0 - 9.0% of mass 174	4.8	(	6.8	)1
176	95.0 - 101.0% of mass 174	69.3	(	97.2	)1
177	5.0 - 9.0% of mass 176	4.5	(	6.5	)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MSD	4888-001MSD	J1727.D	07/24/2001	12:31
S-117	4833-029	J1728.D	07/24/2001	12:58

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0140.D Instrument ID: MSD I

Date Analyzed: 07/17/2001 Time Analyzed: 18:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	07/17/2001	19:18
S-95A	4833-001	07/17/2001	19:52
S-95B	4833-002	07/17/2001	20:26
S-96A	4833-003	07/17/2001	21:00
S-96B	4833-004	07/17/2001	21:33
S-97A	4833-005	07/17/2001	22:07
S-97B	4833-006	07/17/2001	22:41
S-98B	4833-008	07/17/2001	23:50
S-100	4833-009	07/18/2001	0:24
S-101	4833-010	07/18/2001	0:58
S-102	4833-011	07/18/2001	1:32
S-103A	4833-012	07/18/2001	2:05
S-103B	4833-013	07/18/2001	2:39
S-104	4833-014	07/18/2001	3:13
S-105	4833-015	07/18/2001	3:47
MS	4833-015MS	07/18/2001	4:21
MSD	4833-015MSD	07/18/2001	4:55

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/17/2001
Data file: I0140.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/17/2001
Data file: I0140.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0164.D

Instrument ID: MSD_I

Date Analyzed: 07/18/2001

Time Analyzed: 08:01

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	07/18/2001	8:34
S-106	4833-016	07/18/2001	9:07
S-107	4833-017	07/18/2001	9:40
S-108	4833-018	07/18/2001	10:14
S-109	4833-019	07/18/2001	10:46
S-110	4833-020	07/18/2001	11:19
S-111B	4833-022	07/18/2001	12:26
S-112	4833-023	07/18/2001	12:59
S-114A	4833-025	07/18/2001	14:06

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/18/2001
Data file: I0164.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/18/2001
Data file: I0164.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0433.D

Instrument ID: MSD_I

Date Analyzed: 07/26/2001

Time Analyzed: 13:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	07/26/2001	14:34
TRIP_BLANK	4859-001	07/26/2001	15:11
TB	4833-030	07/26/2001	15:47
TB	5073-023	07/26/2001	16:24
TP-10_3-3.5	5073-019	07/26/2001	17:00
TP-8_3-3.5	5073-015	07/26/2001	17:37
TP-12_6-6.5	5074-002	07/26/2001	18:14
TP-1_6-6.5	5073-002	07/26/2001	18:50
TP-2_6-6.5	5073-004	07/26/2001	19:27
TP-3_6-6.5	5073-006	07/26/2001	20:03
TP-4_6-6.5	5073-008	07/26/2001	20:40
TP-5_6-6.5	5073-010	07/26/2001	21:16
TP-7_6-6.5	5073-014	07/26/2001	22:30
TP-8_6-6.5	5073-016	07/26/2001	23:07
TP-9_6-6.5	5073-018	07/26/2001	23:44
MS	5073-018MS	07/27/2001	0:21
MSD	5073-018MSD	07/27/2001	0:57

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/26/2001
Data file: I0433.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 07/26/2001
Data file: I0433.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J1679.D

Instrument ID: MSD_J

Date Analyzed: 07/23/2001

Time Analyzed: 14:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK-SPK	07/23/2001	14:53
MW-9	4949-001	07/23/2001	15:21
MW-10	4949-002	07/23/2001	15:49
MW-13	4949-005	07/23/2001	16:17
MW-14	4949-006	07/23/2001	16:44
CWM-3A	4949-007	07/23/2001	17:12
S-98A	4833-006	07/23/2001	18:08
S-98B	4833-007	07/23/2001	18:36
S-111A	4833-021	07/23/2001	19:03
S-113	4833-024	07/23/2001	19:31
S-114B	4833-026	07/23/2001	19:58
S-115	4833-027	07/23/2001	20:26
S-116	4833-028	07/23/2001	20:53
TB-1	4798-001	07/23/2001	21:21
SS1-2	4798-003	07/23/2001	21:49
ULPX-1	4942-001	07/23/2001	22:16
ULPX-2	4942-002	07/23/2001	22:44
ULPX-5	4942-005	07/23/2001	23:11
MS	4949-001MS	07/23/2001	23:39
MSD	4949-001MSD	07/24/2001	0:06

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 07/23/2001
Data file: J1679.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 07/23/2001
Data file: J1679.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J1709.D Instrument ID: MSD J

Date Analyzed: 07/24/2001 Time Analyzed: 04:15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
CC-FB-10	4953-014	07/24/2001	4:42
CC-TB-11	4953-015	07/24/2001	5:10
FB	4888-006	07/24/2001	5:37
TB	4888-007	07/24/2001	6:05
RV-1	4888-001	07/24/2001	6:32
RV-2	4888-002	07/24/2001	6:59
RV-3	4888-003	07/24/2001	7:27
RV-4	4888-004	07/24/2001	7:55
RV-5	4888-005	07/24/2001	8:23
TRIP	4918-006	07/24/2001	8:51
PX-1	4918-001	07/24/2001	9:18
PX-2	4918-002	07/24/2001	9:46
PX-3	4918-003	07/24/2001	10:13
PX-4	4918-004	07/24/2001	10:41
PX-5	4918-005	07/24/2001	11:08
LCS	BLK-SPK	07/24/2001	11:35
MS	4888-001MS	07/24/2001	12:03
MSD	4888-001MSD	07/24/2001	12:31
S-117	4833-029	07/24/2001	12:58

FORM 4

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 07/24/2001
Data file: J1708.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 07/24/2001
Data file: J1708.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Response Factor Report 5970 - In

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration

Calibration Files
20 =I0098.D 50 =I0097.D 100 =I0094.D
150 =I0096.D 200 =I0095.D

		Compound	20	50	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluorometha	0.256	0.283	0.226	0.252	0.224	0.248	9.69
3)	P	Chloromethane	0.168	0.179	0.158	0.159	0.161	0.165	5.36
4)	C	Vinyl Chloride	0.169	0.187	0.162	0.178	0.177	0.174	5.51
5)	T	Bromomethane	0.218	0.219	0.207	0.226	0.234	0.221	4.57
6)	T	Chloroethane	0.123	0.135	0.124	0.109	0.108	0.120	9.45
7)	T	Trichlorofluoromethan	0.500	0.546	0.453	0.487	0.460	0.489	7.58
8)	T	Acrolein	0.006	0.006	0.006	0.008	0.007	0.007	11.94
9)	MC	1,1-Dichloroethene	0.216	0.240	0.216	0.218	0.216	0.221	4.76
10)	T	Acetone	0.071	0.068	0.113	0.060	0.059	0.074	30.16
11)	T	Carbon Disulfide	0.549	0.607	0.557	0.576	0.574	0.573	3.93
12)	T	Vinyl Acetate	0.968	1.059	0.828	0.983	0.951	0.958	8.71
13)	T	Methylene Chloride	0.259	0.280	0.250	0.255	0.266	0.262	4.47
14)	T	Acrylonitrile	0.033	0.035	0.039	0.045	0.039	0.038	11.86
15)	T	t-Butyl Alcohol(TBA)	0.023	0.024	0.016	0.020	0.020	0.021	14.45
16)	T	trans-1,2-Dichloroeth	0.273	0.293	0.271	0.265	0.270	0.275	3.83
17)	T	Methyl-t-Butyl Ether(	0.687	0.738	0.607	0.646	0.653	0.666	7.38
18)	P	1,1-Dichloroethane	0.518	0.563	0.499	0.505	0.501	0.517	5.16
19)	T	Diisopropyl Ether(DIP	1.044	1.105	0.996	1.011	0.985	1.028	4.70
20)	T	cis-1,2-Dichloroethen	0.295	0.309	0.288	0.289	0.275	0.291	4.30
21)	T	2,2-Dichloropropane	0.472	0.515	0.424	0.476	0.468	0.471	6.89
22)	T	2-Butanone(MEK)	0.097	0.104	0.080	0.093	0.094	0.093	9.34
23)	T	Bromochloromethane	0.219	0.224	0.197	0.201	0.197	0.208	6.28
25)	C	Chloroform	0.633	0.662	0.602	0.606	0.604	0.622	4.22
26)	T	1,1,1-Trichloroethane	0.532	0.558	0.518	0.517	0.505	0.526	3.87
27)	T	Carbon Tetrachloride	0.437	0.488	0.437	0.439	0.426	0.445	5.42
28)	T	1,1-Dichloropropene	0.368	0.401	0.364	0.368	0.351	0.370	5.04
29)	T	1,2-Dichloroethane(ED	0.465	0.485	0.427	0.434	0.427	0.448	5.87
30)	S	1,2-Dichloroethane-d4	0.424	0.438	0.437	0.460	0.483	0.448	5.22
31)	I	1,4-Difluorobenzene	----------ISTD----------						
32)	M	Benzene	0.690	0.743	0.669	0.665	0.660	0.685	5.01
33)	M	Trichloroethene	0.383	0.391	0.365	0.356	0.353	0.370	4.56
34)	C	1,2-Dichloropropane	0.342	0.357	0.314	0.324	0.309	0.329	6.04
35)	T	Dibromomethane	0.367	0.356	0.299	0.325	0.308	0.331	8.91
37)	T	Bromodichloromethane	0.644	0.672	0.617	0.639	0.630	0.640	3.23
38)	T	2-Chloroethylvinyl Et	0.188	0.204	0.157	0.182	0.185	0.183	9.13
39)	T	cis-1,3-Dichloroprope	0.502	0.526	0.477	0.488	0.481	0.495	4.04
40)	T	4-Methyl-2-pentanone(	0.281	0.317	0.229	0.282	0.271	0.276	11.41
41)	S	Toluene-d8	0.837	0.818	0.792	0.832	0.832	0.822	2.24
42)	MC	Toluene	0.488	0.504	0.469	0.460	0.460	0.476	4.05
43)	T	trans-1,3-Dichloropro	0.459	0.488	0.416	0.454	0.454	0.454	5.57
44)	T	1,1,2-Trichloroethane	0.288	0.282	0.240	0.258	0.250	0.264	7.81
45)	T	Tetrachloroethene	0.395	0.408	0.372	0.367	0.347	0.378	6.39
46)	T	1,3-Dichloropropane	0.479	0.495	0.432	0.439	0.430	0.455	6.55
47)	T	2-Hexanone	0.196	0.210	0.156	0.185	0.183	0.186	10.67
48)	T	Dibromochloromethane	0.505	0.556	0.468	0.505	0.527	0.512	6.33
49)	T	1,2-Dibromoethane(EDB	0.426	0.460	0.379	0.422	0.415	0.420	6.91

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50)	I	Chlorobenzene-d5	----------ISTD----------						
51)	MP	Chlorobenzene	0.794	0.979	0.873	0.883	0.875	0.881	7.48
52)	T	1,1,1,2-Tetrachloroet	0.463	0.569	0.514	0.513	0.521	0.516	7.31
53)	C	Ethylbenzene	1.141	1.374	1.181	1.255	1.198	1.230	7.36
54)	T	m,p-Xylene	0.415	0.527	0.476	0.474	0.469	0.472	8.43
55)	T	o-Xylene	0.430	0.525	0.462	0.471	0.460	0.470	7.42
[illegible])	T	Styrene	0.716	0.912	0.804	0.819	0.819	0.814	8.56
57)	P	Bromoform	0.427	0.586	0.467	0.540	0.537	0.511	12.46
58)	T	Isopropylbenzene	1.038	1.288	1.149	1.190	1.148	1.163	7.75
59)	S	Bromofluorobenzene	0.932	1.031	1.016	1.038	1.022	1.008	4.28
60)	P	1,1,2,2-Tetrachloroet	0.525	0.656	0.500	0.590	0.590	0.573	10.70
61)	T	Bromobenzene	0.438	0.549	0.491	0.499	0.481	0.492	8.06
62)	T	1,2,3-Trichloropropan	0.435	0.519	0.403	0.462	0.445	0.453	9.41
63)	T	n-Propylbenzene	1.207	1.509	1.277	1.365	1.276	1.327	8.76
64)	T	2-Chlorotoluene	0.926	1.109	0.973	1.009	1.035	1.011	6.76
65)	T	1,3,5-Trimethylbenzen	0.864	1.099	0.930	0.977	0.969	0.968	8.86
66)	T	4-Chlorotoluene	1.083	1.320	1.160	1.171	1.152	1.177	7.38
67)	T	tert-Butylbenzene	0.788	0.978	0.886	0.910	0.860	0.885	7.86
68)	T	1,2,4-Trimethylbenzen	0.910	1.156	0.991	1.012	0.999	1.014	8.81
69)	T	sec-Butylbenzene	0.898	1.167	0.985	1.015	1.008	1.015	9.58
70)	T	1,3-Dichlorobenzene	0.732	0.855	0.710	0.754	0.731	0.756	7.59
71)	T	4-Isopropyltoluene	0.769	0.977	0.830	0.845	0.810	0.846	9.27
72)	T	1,4-Dichlorobenzene	0.732	0.875	0.749	0.797	0.789	0.788	7.04
73)	T	n-Butylbenzene	0.743	0.947	0.793	0.834	0.832	0.830	9.06
74)	T	1,2-Dichlorobenzene	0.653	0.801	0.666	0.744	0.694	0.712	8.55
75)	T	1,2-Dibromo-3-chlorop	0.096	0.130	0.084	0.117	0.115	0.109	16.78
76)	T	1,2,4-Trichlorobenzen	0.309	0.377	0.230	0.311	0.311	0.308	17.01
77)	T	Hexachlorobutadiene	0.198	0.170	0.121	0.129	0.125	0.149	22.87
78)	T	Naphthalene	0.555	0.669	0.369	0.537	0.529	0.532	20.09
79)	T	1,2,3-Trichlorobenzen	0.261	0.321	0.147	0.237	0.217	0.236	26.75
80)	T	1,1,2-Trichloro-1,2,2	0.523	0.662	0.523	0.568	0.519	0.559	10.97
[illegible])	T	Methyl Acetate	0.215	0.267	0.193	0.233	0.238	0.229	12.04
82)	T	Cyclohexane	0.264	0.336	0.266	0.295	0.261	0.284	11.28
83)	T	Methylcyclohexane	0.249	0.294	0.228	0.258	0.218	0.250	11.91

(#) = Out of Range

IME0716.M Tue Jul 17 11:00:17 2001 MSD_I

Instrument ID:	**MSD_I**
Method ID:	**IME0716.M**
Date:	**07/17/2001**

Average %RSD = **9.71**

Refer to SW846 Method 8000B Section 7.5.1.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0138.D Vial: 1
Acq On : 17 Jul 2001 17:36 Operator: DP
Sample : 100,100_PPB_STD,W,5.0mL,100 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
IS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	94	-0.03
2	T	Dichlorodifluoromethane	0.248	0.218	12.1	90	-0.03
3	P	Chloromethane	0.165	0.170	-3.0	101	-0.06
4	C	Vinyl Chloride	0.174	0.175	-0.6	101	-0.04
5	T	Bromomethane	0.221	0.228	-3.2	103	-0.07
6	T	Chloroethane	0.120	0.130	-8.3	99	-0.06
7	T	Trichlorofluoromethane	0.489	0.474	3.1	98	-0.06
8	T	Acrolein	0.007	0.006	14.3	85	-0.08
9	MC	1,1-Dichloroethene	0.221	0.209	5.4	91	-0.08
10	T	Acetone	0.074	0.061	17.6	50	-0.07
11	T	Carbon Disulfide	0.573	0.534	6.8	90	-0.08
12	T	Vinyl Acetate	0.958	1.022	-6.7	116	-0.07
13	T	Methylene Chloride	0.262	0.257	1.9	96	-0.07
14	T	Acrylonitrile	0.038	0.046	-21.1	110	-0.07
15	T	t-Butyl Alcohol(TBA)	0.021	0.020	4.8	115	-0.04
16	T	trans-1,2-Dichloroethene	0.275	0.275	0.0	95	-0.07
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.694	-4.2	107	-0.07
18	P	1,1-Dichloroethane	0.517	0.516	0.2	97	-0.07
19	T	Diisopropyl Ether(DIPE)	1.028	1.064	-3.5	100	-0.04
20	T	cis-1,2-Dichloroethene	0.291	0.287	1.4	94	-0.06
21	T	2,2-Dichloropropane	0.471	0.501	-6.4	111	-0.05
22	T	2-Butanone(MEK)	0.093	0.100	-7.5	118	-0.05
23	T	Bromochloromethane	0.208	0.211	-1.4	100	-0.06
25	C	Chloroform	0.622	0.638	-2.6	99	-0.06
26	T	1,1,1-Trichloroethane	0.526	0.542	-3.0	98	-0.05
27	T	Carbon Tetrachloride	0.445	0.459	-3.1	98	-0.05
28	T	1,1-Dichloropropene	0.370	0.377	-1.9	97	-0.05
29	T	1,2-Dichloroethane(EDC)	0.448	0.473	-5.6	104	-0.05
30	S	1,2-Dichloroethane-d4	0.448	0.455	-1.6	98	-0.05
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	86	-0.05
32	M	Benzene	0.685	0.732	-6.9	94	-0.05
33	M	Trichloroethene	0.370	0.381	-3.0	89	-0.05
34	C	1,2-Dichloropropane	0.329	0.352	-7.0	96	-0.05
35	T	Dibromomethane	0.331	0.357	-7.9	103	-0.05
37	T	Bromodichloromethane	0.640	0.696	-8.7	97	-0.05
38	T	2-Chloroethylvinyl Ether	0.183	0.203	-10.9	111	-0.05
39	T	cis-1,3-Dichloropropene	0.495	0.543	-9.7	98	-0.05
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.305	-10.5	114	-0.04
41	S	Toluene-d8	0.822	0.852	-3.6	92	-0.04
42	MC	Toluene	0.476	0.504	-5.9	92	-0.04
43	T	trans-1,3-Dichloropropene	0.454	0.501	-10.4	103	-0.04
44	T	1,1,2-Trichloroethane	0.264	0.282	-6.8	101	-0.04
45	T	Tetrachloroethene	0.378	0.397	-5.0	92	-0.03
46	T	1,3-Dichloropropane	0.455	0.501	-10.1	100	-0.04

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47	T	2-Hexanone	0.186	0.214	-15.1	117	-0.05
48	T	Dibromochloromethane	0.512	0.567	-10.7	104	-0.05
49	T	1,2-Dibromoethane(EDB)	0.420	0.466	-11.0	106	-0.05
50	I	Chlorobenzene-d5	1.000	1.000	0.0	88	-0.03
51	MP	Chlorobenzene	0.881	0.928	-5.3	94	-0.03
52	T	1,1,1,2-Tetrachloroethane	0.516	0.574	-11.2	98	-0.04
53	C	Ethylbenzene	1.230	1.335	-8.5	100	-0.02
54	T	m,p-Xylene	0.472	0.492	-4.2	91	-0.02
55	T	o-Xylene	0.470	0.507	-7.9	97	-0.02
56	T	Styrene	0.814	0.864	-6.1	95	-0.02
57	P	Bromoform	0.511	0.571	-11.7	108	-0.04
58	T	Isopropylbenzene	1.163	1.262	-8.5	97	-0.04
59	S	Bromofluorobenzene	1.008	1.045	-3.7	91	-0.04
60	P	1,1,2,2-Tetrachloroethane	0.573	0.639	-11.5	113	-0.04
61	T	Bromobenzene	0.492	0.553	-12.4	99	-0.02
62	T	1,2,3-Trichloropropane	0.453	0.515	-13.7	112	-0.02
63	T	n-Propylbenzene	1.327	1.412	-6.4	97	-0.02
64	T	2-Chlorotoluene	1.011	1.108	-9.6	100	-0.04
65	T	1,3,5-Trimethylbenzene	0.968	1.052	-8.7	100	-0.02
66	T	4-Chlorotoluene	1.177	1.296	-10.1	98	-0.04
67	T	tert-Butylbenzene	0.885	0.945	-6.8	94	-0.03
68	T	1,2,4-Trimethylbenzene	1.014	1.127	-11.1	100	-0.03
69	T	sec-Butylbenzene	1.015	1.099	-8.3	98	-0.03
70	T	1,3-Dichlorobenzene	0.756	0.791	-4.6	98	-0.04
71	T	4-Isopropyltoluene	0.846	0.929	-9.8	99	-0.05
72	T	1,4-Dichlorobenzene	0.788	0.883	-12.1	104	-0.05
73	T	n-Butylbenzene	0.830	0.914	-10.1	102	-0.05
74	T	1,2-Dichlorobenzene	0.712	0.779	-9.4	103	-0.03
75	T	1,2-Dibromo-3-chloropropane	0.109	0.124	-13.8	130	-0.05
76	T	1,2,4-Trichlorobenzene	0.308	0.317	-2.9	122	-0.04
77	T	Hexachlorobutadiene	0.149	0.149	0.0	108	-0.05
78	T	Naphthalene	0.532	0.535	-0.6	127	-0.05
79	T	1,2,3-Trichlorobenzene	0.236	0.206	12.7	123	-0.06
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.529	5.4	89	-0.07
81	T	Methyl Acetate	0.229	0.258	-12.7	118	-0.06
82	T	Cyclohexane	0.284	0.282	0.7	93	-0.05
83	T	Methylcyclohexane	0.250	0.237	5.2	92	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Sun Jul 22 12:52:59 2001 MSD_I

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0162.D Vial: 25
Acq On : 18 Jul 2001 6:53 Operator: DP
Sample : 100,100_PPB_STD,W,5.0mL,100 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	90	-0.07
2	T	Dichlorodifluoromethane	0.248	0.166	33.1	66	-0.04
3	P	Chloromethane	0.165	0.166	-0.6	95	-0.07
4	C	Vinyl Chloride	0.174	0.169	2.9	95	-0.06
5	T	Bromomethane	0.221	0.220	0.5	96	-0.08
6	T	Chloroethane	0.120	0.129	-7.5	94	-0.07
7	T	Trichlorofluoromethane	0.489	0.427	12.7	85	-0.10
8	T	Acrolein	0.007	0.006	14.3	84	-0.10
9	MC	1,1-Dichloroethene	0.221	0.209	5.4	87	-0.10
10	T	Acetone	0.074	0.075	-1.4	60	-0.09
11	T	Carbon Disulfide	0.573	0.581	-1.4	94	-0.09
12	T	Vinyl Acetate	0.958	0.651	32.0	71	-0.06
13	T	Methylene Chloride	0.262	0.264	-0.8	95	-0.09
14	T	Acrylonitrile	0.038	0.050	-31.6	115	-0.08
15	T	t-Butyl Alcohol(TBA)	0.021	0.024	-14.3	133	-0.09
16	T	trans-1,2-Dichloroethene	0.275	0.278	-1.1	93	-0.08
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.735	-10.4	109	-0.09
18	P	1,1-Dichloroethane	0.517	0.547	-5.8	99	-0.09
19	T	Diisopropyl Ether(DIPE)	1.028	1.098	-6.8	100	-0.06
20	T	cis-1,2-Dichloroethene	0.291	0.291	0.0	91	-0.07
21	T	2,2-Dichloropropane	0.471	0.284	39.7	60	-0.07
22	T	2-Butanone(MEK)	0.093	0.114	-22.6	128	-0.07
23	T	Bromochloromethane	0.208	0.211	-1.4	97	-0.08
25	C	Chloroform	0.622	0.626	-0.6	94	-0.08
26	T	1,1,1-Trichloroethane	0.526	0.519	1.3	91	-0.08
27	T	Carbon Tetrachloride	0.445	0.433	2.7	90	-0.07
28	T	1,1-Dichloropropene	0.370	0.361	2.4	90	-0.07
29	T	1,2-Dichloroethane(EDC)	0.448	0.483	-7.8	102	-0.08
30	S	1,2-Dichloroethane-d4	0.448	0.461	-2.9	95	-0.08
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	-0.07
32	M	Benzene	0.685	0.682	0.4	92	-0.08
33	M	Trichloroethene	0.370	0.411	-11.1	101	-0.09
34	C	1,2-Dichloropropane	0.329	0.327	0.6	94	-0.08
35	T	Dibromomethane	0.331	0.337	-1.8	101	-0.09
37	T	Bromodichloromethane	0.640	0.634	0.9	92	-0.07
38	T	2-Chloroethylvinyl Ether	0.183	0.197	-7.7	113	-0.07
39	T	cis-1,3-Dichloropropene	0.495	0.456	7.9	86	-0.07
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.311	-12.7	122	-0.06
41	S	Toluene-d8	0.822	0.812	1.2	92	-0.07
42	MC	Toluene	0.476	0.470	1.3	90	-0.08
43	T	trans-1,3-Dichloropropene	0.454	0.431	5.1	93	-0.07
44	T	1,1,2-Trichloroethane	0.264	0.268	-1.5	100	-0.06
45	T	Tetrachloroethene	0.378	0.351	7.1	85	-0.08
46	T	1,3-Dichloropropane	0.455	0.463	-1.8	96	-0.06

47	T	2-Hexanone	0.188	0.211	-12.1	121	0.07
48	T	Dibromochloromethane	0.512	0.534	-4.3	103	-0.07
49	T	1,2-Dibromoethane(EDB)	0.420	0.446	-6.2	106	-0.07
50	I	Chlorobenzene-d5	1.000	1.000	0.0	86	-0.06
51	MP	Chlorobenzene	0.881	0.940	-6.7	93	-0.06
52	T	1,1,1,2-Tetrachloroethane	0.516	0.548	-6.2	92	-0.06
53	C	Ethylbenzene	1.230	1.286	-4.6	94	-0.06
54	T	m,p-Xylene	0.472	0.480	-1.7	87	-0.07
55	T	o-Xylene	0.470	0.498	-6.0	93	-0.06
56	T	Styrene	0.814	0.863	-6.0	93	-0.06
57	P	Bromoform	0.511	0.584	-14.3	108	-0.07
58	T	Isopropylbenzene	1.163	1.182	-1.6	89	-0.07
59	S	Bromofluorobenzene	1.008	1.083	-7.4	92	-0.08
60	P	1,1,2,2-Tetrachloroethane	0.573	0.522	8.9	90	-0.07
61	T	Bromobenzene	0.492	0.533	-8.3	94	-0.07
62	T	1,2,3-Trichloropropane	0.453	0.515	-13.7	110	-0.05
63	T	n-Propylbenzene	1.327	1.339	-0.9	90	-0.05
64	T	2-Chlorotoluene	1.011	1.088	-7.6	96	-0.07
65	T	1,3,5-Trimethylbenzene	0.968	1.010	-4.3	94	-0.06
66	T	4-Chlorotoluene	1.177	1.223	-3.9	91	-0.07
67	T	tert-Butylbenzene	0.885	0.897	-1.4	87	-0.07
68	T	1,2,4-Trimethylbenzene	1.014	1.051	-3.6	92	-0.05
69	T	sec-Butylbenzene	1.015	1.000	1.5	88	-0.06
70	T	1,3-Dichlorobenzene	0.756	0.817	-8.1	99	0.09
71	T	4-Isopropyltoluene	0.846	0.847	-0.1	88	-0.06
72	T	1,4-Dichlorobenzene	0.788	0.829	-5.2	95	-0.08
73	T	n-Butylbenzene	0.830	0.793	4.5	86	-0.07
74	T	1,2-Dichlorobenzene	0.712	0.757	-6.3	98	-0.07
75	T	1,2-Dibromo-3-chloropropane	0.109	0.131	-20.2	135	-0.06
76	T	1,2,4-Trichlorobenzene	0.308	0.330	-7.1	124	-0.06
77	T	Hexachlorobutadiene	0.149	0.125	16.1	89	-0.07
78	T	Naphthalene	0.532	0.577	-8.5	135	-0.07
79	T	1,2,3-Trichlorobenzene	0.236	0.240	-1.7	141	-0.07
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.415	25.8	68	-0.07
81	T	Methyl Acetate	0.229	0.291	-27.1	130	-0.09
82	T	Cyclohexane	0.284	0.231	18.7	75	-0.08
83	T	Methylcyclohexane	0.250	0.181	27.6	68	-0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Sun Jul 22 12:43:35 2001 MSD_I

Data File : C:\HPCHEM\1\DATA\07-26-01\I0431.D Vial: 1
Acq On : 26 Jul 2001 12:45 Operator: DP
Sample : 100,100_PPB_STD,S,5mL,100 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
IS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	83	-0.03
2	T	Dichlorodifluoromethane	0.248	0.282	-13.7	104	-0.01
3	P	Chloromethane	0.165	0.185	-12.1	98	-0.04
4	C	Vinyl Chloride	0.174	0.176	-1.1	91	-0.03
5	T	Bromomethane	0.221	0.203	8.1	82	-0.04
6	T	Chloroethane	0.120	0.129	-7.5	87	-0.02
7	T	Trichlorofluoromethane	0.489	0.513	-4.9	94	-0.04
8	T	Acrolein	0.007	0.008	-14.3	104	-0.05
9	MC	1,1-Dichloroethene	0.221	0.214	3.2	83	-0.04
10	T	Acetone	0.074	0.069	6.8	51	-0.02
11	T	Carbon Disulfide	0.573	0.546	4.7	82	-0.04
12	T	Vinyl Acetate	0.958	1.001	-4.5	101	-0.06
13	T	Methylene Chloride	0.262	0.250	4.6	83	-0.04
14	T	Acrylonitrile	0.038	0.039	-2.6	84	-0.03
15	T	t-Butyl Alcohol(TBA)	0.021	0.018	14.3	93	-0.04
16	T	trans-1,2-Dichloroethene	0.275	0.263	4.4	81	-0.03
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.654	1.8	90	-0.04
18	P	1,1-Dichloroethane	0.517	0.520	-0.6	87	-0.04
19	T	Diisopropyl Ether(DIPE)	1.028	1.033	-0.5	86	-0.02
20	T	cis-1,2-Dichloroethene	0.291	0.284	2.4	82	-0.05
21	T	2,2-Dichloropropane	0.471	0.503	-6.8	99	-0.05
22	T	2-Butanone(MEK)	0.093	0.087	6.5	91	-0.03
23	T	Bromochloromethane	0.208	0.201	3.4	85	-0.06
25	C	Chloroform	0.622	0.624	-0.3	87	-0.06
26	T	1,1,1-Trichloroethane	0.526	0.536	-1.9	86	-0.05
27	T	Carbon Tetrachloride	0.445	0.453	-1.8	86	-0.04
28	T	1,1-Dichloropropene	0.370	0.377	-1.9	86	-0.05
29	T	1,2-Dichloroethane(EDC)	0.448	0.458	-2.2	89	-0.06
30	S	1,2-Dichloroethane-d4	0.448	0.445	0.7	85	-0.06
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	82	-0.07
32	M	Benzene	0.685	0.663	3.2	81	-0.06
33	M	Trichloroethene	0.370	0.363	1.9	82	-0.07
34	C	1,2-Dichloropropane	0.329	0.323	1.8	85	-0.07
35	T	Dibromomethane	0.331	0.322	2.7	89	-0.07
37	T	Bromodichloromethane	0.640	0.639	0.2	85	-0.07
38	T	2-Chloroethylvinyl Ether	0.183	0.177	3.3	93	-0.08
39	T	cis-1,3-Dichloropropene	0.495	0.504	-1.8	87	-0.07
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.278	-0.7	100	-0.06
41	S	Toluene-d8	0.822	0.795	3.3	83	-0.06
42	MC	Toluene	0.476	0.470	1.3	82	-0.08
43	T	trans-1,3-Dichloropropene	0.454	0.455	-0.2	90	-0.08
44	T	1,1,2-Trichloroethane	0.264	0.248	6.1	85	-0.06
45	T	Tetrachloroethene	0.378	0.374	1.1	83	-0.07
46	T	1,3-Dichloropropane	0.455	0.447	1.8	85	-0.07

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47	T	2-Hexanone	0.188	0.170	1.5	91	0.07
48	T	Dibromochloromethane	0.512	0.504	1.6	88	-0.07
49	T	1,2-Dibromoethane(EDB)	0.420	0.393	6.4	85	-0.08
50	I	Chlorobenzene-d5	1.000	1.000	0.0	79	-0.06
51	MP	Chlorobenzene	0.881	0.888	-0.8	80	-0.06
52	T	1,1,1,2-Tetrachloroethane	0.516	0.546	-5.8	83	-0.06
53	C	Ethylbenzene	1.230	1.318	-7.2	88	-0.08
54	T	m,p-Xylene	0.472	0.466	1.3	77	-0.07
55	T	o-Xylene	0.470	0.496	-5.5	84	-0.06
56	T	Styrene	0.814	0.825	-1.4	81	-0.06
57	P	Bromoform	0.511	0.526	-2.9	88	-0.08
58	T	Isopropylbenzene	1.163	1.141	1.9	78	-0.08
59	S	Bromofluorobenzene	1.008	1.035	-2.7	80	-0.07
60	P	1,1,2,2-Tetrachloroethane	0.573	0.576	-0.5	90	-0.07
61	T	Bromobenzene	0.492	0.512	-4.1	82	-0.06
62	T	1,2,3-Trichloropropane	0.453	0.455	-0.4	89	-0.07
63	T	n-Propylbenzene	1.327	1.355	-2.1	83	-0.06
64	T	2-Chlorotoluene	1.011	1.049	-3.8	85	-0.06
65	T	1,3,5-Trimethylbenzene	0.968	1.003	-3.6	85	-0.06
66	T	4-Chlorotoluene	1.177	1.253	-6.5	85	-0.07
67	T	tert-Butylbenzene	0.885	0.919	-3.8	81	-0.07
68	T	1,2,4-Trimethylbenzene	1.014	1.034	-2.0	82	-0.06
69	T	sec-Butylbenzene	1.015	1.011	0.4	81	-0.07
70	T	1,3-Dichlorobenzene	0.756	0.711	6.0	79	-0.07
71	T	4-Isopropyltoluene	0.846	0.852	-0.7	81	-0.07
72	T	1,4-Dichlorobenzene	0.788	0.818	-3.8	86	-0.07
73	T	n-Butylbenzene	0.830	0.819	1.3	81	-0.07
74	T	1,2-Dichlorobenzene	0.712	0.682	4.2	80	-0.07
75	T	1,2-Dibromo-3-chloropropane	0.109	0.092	15.6	86	-0.08
76	T	1,2,4-Trichlorobenzene	0.308	0.228	26.0	78	-0.06
77	T	Hexachlorobutadiene	0.149	0.132	11.4	86	-0.09
78	T	Naphthalene	0.532	0.533	-0.2	113	-0.07
79	T	1,2,3-Trichlorobenzene	0.236	0.194	17.8	103	-0.06
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.598	-7.0	90	-0.04
81	T	Methyl Acetate	0.229	0.238	-3.9	97	-0.04
82	T	Cyclohexane	0.284	0.308	-8.5	91	-0.05
83	T	Methylcyclohexane	0.250	0.263	-5.2	91	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Fri Jul 27 11:40:40 2001 MSD_I

Response Factor Report MSD_J

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration

Calibration Files
20 =J1629.D 100 =J1623.D 50 =J1625.D
150 =J1626.D 200 =J1627.D

		Compound	20	100	50	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------		
2)	T	Dichlorodifluoromet	0.267	0.322	0.327	0.307	0.294	0.304	8.05
3)	P	Chloromethane	0.657	0.671	0.677	0.655	0.649	0.662	1.78
4)	C	Vinyl Chloride	0.545	0.555	0.562	0.538	0.534	0.547	2.14
5)	T	Bromomethane	0.347	0.229	0.305	0.184	0.149	0.243	33.90
6)	T	Chloroethane	0.332	0.288	0.325	0.248	0.215	0.282	17.69
7)	T	Trichlorofluorometh	0.396	0.448	0.446	0.438	0.426	0.431	4.98
8)	T	Acrolein	0.043	0.041	0.044	0.044	0.044	0.043	3.60
9)	MC	1,1-Dichloroethene	0.482	0.454	0.466	0.444	0.439	0.457	3.81
10)	T	Acetone	0.153	0.142	0.156	0.141	0.139	0.146	5.25
11)	T	Carbon Disulfide	1.348	1.337	1.376	1.303	1.271	1.327	3.09
12)	T	Vinyl Acetate	2.109	2.139	2.238	2.117	2.046	2.130	3.26
13)	T	Methylene Chloride	0.576	0.524	0.557	0.519	0.507	0.537	5.36
14)	T	Acrylonitrile	0.224	0.210	0.228	0.227	0.229	0.224	3.47
15)	T	t-Butyl Alcohol(TBA	0.066	0.060	0.065	0.061	0.060	0.063	4.36
16)	T	trans-1,2-Dichloroe	0.454	0.447	0.472	0.447	0.443	0.452	2.59
17)	T	Methyl-t-Butyl Ethe	1.252	1.228	1.298	1.221	1.205	1.241	2.91
18)	P	1,1-Dichloroethane	0.894	0.887	0.926	0.863	0.850	0.884	3.33
19)	T	Diisopropyl Ether(D	2.176	2.134	2.236	2.049	2.003	2.120	4.44
20)	T	cis-1,2-Dichloroeth	0.505	0.495	0.517	0.488	0.483	0.498	2.74
21)	T	2,2-Dichloropropane	0.299	0.302	0.312	0.279	0.268	0.292	6.14
22)	T	2-Butanone(MEK)	0.313	0.302	0.319	0.303	0.301	0.308	2.56
23)	T	Bromochloromethane	0.245	0.238	0.250	0.235	0.233	0.240	3.05
25)	C	Chloroform	0.648	0.654	0.678	0.638	0.630	0.650	2.82
26)	T	1,1,1-Trichloroetha	0.416	0.438	0.444	0.422	0.416	0.427	3.04
27)	T	Carbon Tetrachlorid	0.321	0.368	0.362	0.360	0.363	0.355	5.44
28)	T	1,1-Dichloropropene	0.478	0.506	0.516	0.496	0.497	0.498	2.83
29)	T	1,2-Dichloroethane(	0.570	0.557	0.583	0.547	0.539	0.559	3.11
30)	S	1,2-Dichloroethane-	0.401	0.390	0.393	0.384	0.378	0.389	2.22
31)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------		
32)	M	Benzene	1.329	1.245	1.282	1.243	1.252	1.270	2.88
33)	M	Trichloroethene	0.287	0.271	0.275	0.269	0.273	0.275	2.46
34)	C	1,2-Dichloropropane	0.373	0.377	0.389	0.372	0.367	0.375	2.19
35)	T	Dibromomethane	0.157	0.159	0.168	0.159	0.159	0.161	2.63
37)	T	Bromodichloromethan	0.302	0.317	0.321	0.316	0.318	0.315	2.27
38)	T	2-Chloroethylvinyl	0.258	0.260	0.272	0.262	0.259	0.262	2.22
39)	T	cis-1,3-Dichloropro	0.485	0.500	0.514	0.498	0.493	0.498	2.10
40)	T	4-Methyl-2-pentanon	0.424	0.422	0.443	0.427	0.421	0.427	2.08
41)	S	Toluene-d8	0.989	1.007	0.990	0.999	0.997	0.996	0.72
42)	MC	Toluene	0.811	0.768	0.783	0.771	0.777	0.782	2.21
43)	T	trans-1,3-Dichlorop	0.411	0.426	0.440	0.427	0.426	0.426	2.38
44)	T	1,1,2-Trichloroetha	0.221	0.223	0.230	0.222	0.223	0.224	1.60
45)	T	Tetrachloroethene	0.218	0.236	0.238	0.238	0.245	0.235	4.25
46)	T	1,3-Dichloropropane	0.470	0.481	0.500	0.484	0.485	0.484	2.26
47)	T	2-Hexanone	0.293	0.292	0.308	0.299	0.296	0.298	2.15
48)	T	Dibromochloromethan	0.229	0.252	0.251	0.259	0.265	0.251	5.39
49)	T	1,2-Dibromoethane(E	0.264	0.264	0.273	0.265	0.268	0.267	1.54

			ISTD						
50)	I	Chlorobenzene-d5							
51)	MP	Chlorobenzene	1.115	1.006	1.052	1.018	1.025	1.043	4.20
52)	T	1,1,1,2-Tetrachloro	0.285	0.295	0.306	0.302	0.306	0.299	2.99
53)	C	Ethylbenzene	1.518	1.565	1.609	1.595	1.612	1.580	2.50
54)	T	m,p-Xylene	0.631	0.653	0.671	0.671	0.666	0.658	2.59
55)	T	o-Xylene	0.649	0.662	0.682	0.678	0.685	0.671	2.27
56)	T	Styrene	1.156	1.189	1.220	1.211	1.228	1.201	2.41
57)	P	Bromoform	0.146	0.169	0.167	0.180	0.188	0.170	9.39
58)	T	Isopropylbenzene	1.212	1.281	1.297	1.324	1.375	1.298	4.59
59)	S	Bromofluorobenzene	0.614	0.616	0.608	0.628	0.640	0.621	2.06
60)	P	1,1,2,2-Tetrachloro	0.402	0.397	0.418	0.421	0.429	0.413	3.24
61)	T	Bromobenzene	0.376	0.383	0.390	0.402	0.417	0.394	4.06
62)	T	1,2,3-Trichloroprop	0.352	0.342	0.364	0.359	0.367	0.357	2.80
63)	T	n-Propylbenzene	1.436	1.526	1.520	1.583	1.650	1.543	5.15
64)	T	2-Chlorotoluene	0.986	1.006	1.029	1.048	1.088	1.031	3.81
65)	T	1,3,5-Trimethylbenz	1.029	1.093	1.082	1.173	1.210	1.118	6.52
66)	T	4-Chlorotoluene	1.147	1.177	1.187	1.231	1.274	1.203	4.15
67)	T	tert-Butylbenzene	0.791	0.857	0.848	0.921	0.960	0.876	7.53
68)	T	1,2,4-Trimethylbenz	1.115	1.177	1.162	1.258	1.301	1.203	6.29
69)	T	sec-Butylbenzene	1.059	1.145	1.114	1.227	1.269	1.163	7.31
70)	T	1,3-Dichlorobenzene	0.652	0.673	0.678	0.719	0.744	0.693	5.40
71)	T	4-Isopropyltoluene	0.946	1.035	1.000	1.103	1.125	1.042	7.07
72)	T	1,4-Dichlorobenzene	0.678	0.694	0.694	0.746	0.761	0.715	5.11
73)	T	n-Butylbenzene	0.491	0.519	0.509	0.544	0.548	0.522	4.62
74)	T	1,2-Dichlorobenzene	0.654	0.673	0.670	0.716	0.729	0.688	4.70
75)	T	1,2-Dibromo-3-chlor	0.044	0.046	0.047	0.049	0.049	0.047	5.07
76)	T	1,2,4-Trichlorobenz	0.281	0.212	0.249	0.239	0.244	0.245	10.17
77)	T	Hexachlorobutadiene	0.122	0.093	0.103	0.098	0.101	0.103	10.57
78)	T	Naphthalene	0.826	0.547	0.700	0.658	0.694	0.685	14.57
79)	T	1,2,3-Trichlorobenz	0.220	0.115	0.154	0.141	0.148	0.156	25.16
80)	T	1,1,2-Trichloro-1,2	0.219	0.233	0.235	0.219	0.208	0.223	5.02
81)	T	Methyl acetate	0.273	0.247	0.268	0.251	0.244	0.257	5.07
82)	T	Cyclohexane	0.662	0.708	0.722	0.678	0.653	0.685	4.33
83)	T	Methyl cyclohexane	0.279	0.301	0.315	0.292	0.275	0.292	5.64

(#) = Out of Range

JME0722.M Sun Jul 22 14:01:22 2001 MSD_J

Instrument ID: MSD_J
Method ID: JME0722.M
Date: 07/22/2001

Average %RSD = 5.08

Refer to SW846 Method 8000B Section 7.5.1.

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1676.D
Acq On : 23 Jul 2001 13:03
Sample : 100PPB,STD-100PPB,W,5mL,100
Misc :
S Integration Params: LSCINT.P

Vial: 2
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	100	0.00
2	T	Dichlorodifluoromethane	0.304	0.297	2.3	92	0.00
3	P	Chloromethane	0.662	0.613	7.4	92	0.00
4	C	Vinyl Chloride	0.547	0.523	4.4	95	-0.01
5	T	Bromomethane	0.243	0.200	17.7	87	-0.01
6	T	Chloroethane	0.282	0.252	10.6	88	-0.01
7	T	Trichlorofluoromethane	0.431	0.440	-2.1	99	-0.01
8	T	Acrolein	0.043	0.039	9.3	97	-0.01
9	MC	1,1-Dichloroethene	0.457	0.437	4.4	97	-0.01
10	T	Acetone	0.146	0.136	6.8	97	0.00
11	T	Carbon Disulfide	1.327	1.251	5.7	94	-0.01
12	T	Vinyl Acetate	2.130	2.037	4.4	96	0.00
13	T	Methylene Chloride	0.537	0.506	5.8	97	-0.02
14	T	Acrylonitrile	0.224	0.222	0.9	106	0.00
15	T	t-Butyl Alcohol(TBA)	0.063	0.064	-1.6	106	0.00
16	T	trans-1,2-Dichloroethene	0.452	0.456	-0.9	103	0.00
17	T	Methyl-t-Butyl Ether(MTBE)	1.241	1.303	-5.0	107	0.00
18	P	1,1-Dichloroethane	0.884	0.881	0.3	100	0.00
19	T	Diisopropyl Ether(DIPE)	2.120	2.082	1.8	98	0.00
20	T	cis-1,2-Dichloroethene	0.498	0.511	-2.6	104	0.00
21	T	2,2-Dichloropropane	0.292	0.303	-3.8	101	0.00
22	T	2-Butanone(MEK)	0.308	0.312	-1.3	103	-0.01
23	T	Bromochloromethane	0.240	0.245	-2.1	103	0.00
25	C	Chloroform	0.650	0.661	-1.7	101	0.00
26	T	1,1,1-Trichloroethane	0.427	0.428	-0.2	98	0.00
27	T	Carbon Tetrachloride	0.355	0.333	6.2	91	0.00
28	T	1,1-Dichloropropene	0.498	0.513	-3.0	102	-0.01
29	T	1,2-Dichloroethane(EDC)	0.559	0.559	0.0	101	-0.01
30	S	1,2-Dichloroethane-d4	0.389	0.377	3.1	97	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
32	M	Benzene	1.270	1.298	-2.2	104	0.00
33	M	Trichloroethene	0.275	0.281	-2.2	103	0.00
34	C	1,2-Dichloropropane	0.375	0.385	-2.7	102	0.00
35	T	Dibromomethane	0.161	0.166	-3.1	104	0.00
37	T	Bromodichloromethane	0.315	0.309	1.9	97	0.00
38	T	2-Chloroethylvinyl Ether	0.262	0.273	-4.2	105	0.00
39	T	cis-1,3-Dichloropropene	0.498	0.511	-2.6	102	0.00
40	T	4-Methyl-2-pentanone(MIBK)	0.427	0.435	-1.9	103	0.00
41	S	Toluene-d8	0.996	1.008	-1.2	100	0.01
42	MC	Toluene	0.782	0.799	-2.2	104	0.00
43	T	trans-1,3-Dichloropropene	0.426	0.431	-1.2	101	0.00
44	T	1,1,2-Trichloroethane	0.224	0.235	-4.9	105	0.00
45	T	Tetrachloroethene	0.235	0.242	-3.0	102	0.00
46	T	1,3-Dichloropropane	0.484	0.505	-4.3	105	0.00

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47	T	2-Hexanone	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
48	T	Dibromochloromethane	0.251	0.244	2.8	97	0.00
49	T	1,2-Dibromoethane(EDB)	0.267	0.275	-3.0	104	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
51	MP	Chlorobenzene	1.043	1.052	-0.9	104	0.00
52	T	1,1,1,2-Tetrachloroethane	0.299	0.294	1.7	99	0.00
53	C	Ethylbenzene	1.580	1.631	-3.2	104	0.00
54	T	m,p-Xylene	0.658	0.697	-5.9	106	0.00
55	T	o-Xylene	0.671	0.698	-4.0	105	0.00
56	T	Styrene	1.201	1.244	-3.6	104	0.00
57	P	Bromoform	0.170	0.159	6.5	93	0.00
58	T	Isopropylbenzene	1.298	1.317	-1.5	102	0.00
59	S	Bromofluorobenzene	0.621	0.612	1.4	99	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.425	-2.9	106	0.00
61	T	Bromobenzene	0.394	0.396	-0.5	103	0.00
62	T	1,2,3-Trichloropropane	0.357	0.366	-2.5	106	0.00
63	T	n-Propylbenzene	1.543	1.565	-1.4	102	0.00
64	T	2-Chlorotoluene	1.031	1.040	-0.9	103	0.00
65	T	1,3,5-Trimethylbenzene	1.118	1.116	0.2	101	0.00
66	T	4-Chlorotoluene	1.203	1.209	-0.5	102	0.00
67	T	tert-Butylbenzene	0.876	0.866	1.1	100	0.00
68	T	1,2,4-Trimethylbenzene	1.203	1.203	0.0	102	0.00
69	T	sec-Butylbenzene	1.163	1.158	0.4	100	0.00
70	T	1,3-Dichlorobenzene	0.693	0.693	0.0	102	0.00
71	T	4-Isopropyltoluene	1.042	1.041	0.1	100	0.00
72	T	1,4-Dichlorobenzene	0.715	0.725	-1.4	104	0.00
73	T	n-Butylbenzene	0.522	0.526	-0.8	101	0.00
74	T	1,2-Dichlorobenzene	0.688	0.702	-2.0	104	0.00
75	T	1,2-Dibromo-3-chloropropane	0.047	0.048	-2.1	105	0.00
76	T	1,2,4-Trichlorobenzene	0.245	0.246	-0.4	116	0.00
77	T	Hexachlorobutadiene	0.103	0.094	8.7	100	0.00
78	T	Naphthalene	0.685	0.694	-1.3	126	0.00
79	T	1,2,3-Trichlorobenzene	0.156	0.145	7.1	126	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.229	-2.7	97	-0.01
81	T	Methyl acetate	0.257	0.243	5.4	98	-0.01
82	T	Cyclohexane	0.685	0.674	1.6	95	0.00
83	T	Methyl cyclohexane	0.292	0.292	0.0	97	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

J0126.D JME0722.M Mon Jul 23 13:25:33 2001 MSD_J

1402

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1704.D Vial: 30
Acq On : 24 Jul 2001 1:57 Operator: XINGFANG WANG
Sample : 100PPB,STD-100PPB,W,5ml,100 Inst : MSD_J
Misc : Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	0.304	0.235	22.7	71	0.00
3	P	Chloromethane	0.662	0.639	3.5	92	0.00
4	C	Vinyl Chloride	0.547	0.542	0.9	95	-0.01
5	T	Bromomethane	0.243	0.222	8.6	94	0.00
6	T	Chloroethane	0.282	0.281	0.4	94	-0.01
7	T	Trichlorofluoromethane	0.431	0.383	11.1	83	-0.01
8	T	Acrolein	0.043	0.025	41.9	59	-0.01
9	MC	1,1-Dichloroethene	0.457	0.457	0.0	97	0.00
10	T	Acetone	0.146	0.153	-4.8	105	-0.01
11	T	Carbon Disulfide	1.327	1.311	1.2	95	-0.01
12	T	Vinyl Acetate	2.130	1.398	34.4	63	0.02
13	T	Methylene Chloride	0.537	0.544	-1.3	101	-0.02
	T	Acrylonitrile	0.224	0.230	-2.7	106	0.00
15	T	t-Butyl Alcohol(TBA)	0.063	0.061	3.2	98	0.00
16	T	trans-1,2-Dichloroethene	0.452	0.444	1.8	96	0.00
17	T	Methyl-t-Butyl Ether(MTBE)	1.241	1.244	-0.2	98	0.00
18	P	1,1-Dichloroethane	0.884	0.859	2.8	94	0.00
19	T	Diisopropyl Ether(DIPE)	2.120	2.010	5.2	91	0.00
20	T	cis-1,2-Dichloroethene	0.498	0.493	1.0	97	0.00
21	T	2,2-Dichloropropane	0.292	0.195	33.2	63	0.00
22	T	2-Butanone(MEK)	0.308	0.301	2.3	97	-0.01
23	T	Bromochloromethane	0.240	0.236	1.7	96	0.00
25	C	Chloroform	0.650	0.640	1.5	95	0.00
26	T	1,1,1-Trichloroethane	0.427	0.403	5.6	89	0.00
27	T	Carbon Tetrachloride	0.355	0.298	16.1	79	0.00
28	T	1,1-Dichloropropene	0.498	0.481	3.4	92	-0.01
29	T	1,2-Dichloroethane(EDC)	0.559	0.545	2.5	95	-0.01
30	S	1,2-Dichloroethane-d4	0.389	0.393	-1.0	97	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
32	M	Benzene	1.270	1.275	-0.4	101	0.00
33	M	Trichloroethene	0.275	0.335	-21.8	121	0.00
34	C	1,2-Dichloropropane	0.375	0.366	2.4	95	0.00
35	T	Dibromomethane	0.161	0.157	2.5	97	0.00
37	T	Bromodichloromethane	0.315	0.292	7.3	91	0.00
38	T	2-Chloroethylvinyl Ether	0.262	0.259	1.1	98	0.00
39	T	cis-1,3-Dichloropropene	0.498	0.450	9.6	89	-0.01
40	T	4-Methyl-2-pentanone(MIBK)	0.427	0.408	4.4	95	0.00
41	S	Toluene-d8	0.996	1.013	-1.7	99	0.00
42	MC	Toluene	0.782	0.776	0.8	100	0.00
43	T	trans-1,3-Dichloropropene	0.426	0.377	11.5	87	0.00
44	T	1,1,2-Trichloroethane	0.224	0.223	0.4	99	0.00
45	T	Tetrachloroethene	0.235	0.220	6.4	92	0.00
46	T	1,3-Dichloropropane	0.484	0.481	0.6	99	0.00

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47	T	2-Hexanone	0.298	0.281	5.7	95	0.00
48	T	Dibromochloromethane	0.251	0.222	11.6	87	0.00
49	T	1,2-Dibromoethane(EDB)	0.267	0.258	3.4	96	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
51	MP	Chlorobenzene	1.043	1.016	2.6	99	0.00
52	T	1,1,1,2-Tetrachloroethane	0.299	0.270	9.7	90	0.00
53	C	Ethylbenzene	1.580	1.513	4.2	95	0.00
54	T	m,p-Xylene	0.658	0.641	2.6	97	0.00
55	T	o-Xylene	0.671	0.648	3.4	96	0.00
56	T	Styrene	1.201	1.171	2.5	97	0.00
57	P	Bromoform	0.170	0.141	17.1	82	0.00
58	T	Isopropylbenzene	1.298	1.214	6.5	93	0.00
59	S	Bromofluorobenzene	0.621	0.607	2.3	97	0.00
60	P	1,1,2,2-Tetrachloroethane	0.413	0.341	17.4	84	0.00
61	T	Bromobenzene	0.394	0.369	6.3	95	0.00
62	T	1,2,3-Trichloropropane	0.357	0.344	3.6	99	0.00
63	T	n-Propylbenzene	1.543	1.429	7.4	92	0.00
64	T	2-Chlorotoluene	1.031	0.971	5.8	95	0.00
65	T	1,3,5-Trimethylbenzene	1.118	1.031	7.8	93	0.00
66	T	4-Chlorotoluene	1.203	1.134	5.7	95	0.00
67	T	tert-Butylbenzene	0.876	0.799	8.8	92	0.00
68	T	1,2,4-Trimethylbenzene	1.203	1.113	7.5	93	0.00
69	T	sec-Butylbenzene	1.163	1.051	9.6	90	0.00
70	T	1,3-Dichlorobenzene	0.693	0.644	7.1	94	0.00
71	T	4-Isopropyltoluene	1.042	0.939	9.9	89	0.00
72	T	1,4-Dichlorobenzene	0.715	0.670	6.3	95	0.00
73	T	n-Butylbenzene	0.522	0.469	10.2	89	0.00
74	T	1,2-Dichlorobenzene	0.688	0.648	5.8	95	0.00
75	T	1,2-Dibromo-3-chloropropane	0.047	0.042	10.6	91	0.00
76	T	1,2,4-Trichlorobenzene	0.245	0.202	17.6	94	0.00
77	T	Hexachlorobutadiene	0.103	0.074	28.2	79	0.00
78	T	Naphthalene	0.685	0.574	16.2	103	0.00
79	T	1,2,3-Trichlorobenzene	0.156	0.117	25.0	101	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.223	0.188	15.7	79	0.00
81	T	Methyl acetate	0.257	0.253	1.6	101	-0.01
82	T	Cyclohexane	0.685	0.563	17.8	78	0.00
83	T	Methyl cyclohexane	0.292	0.237	18.8	77	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

J0126.D JME0722.M Tue Jul 24 09:15:10 2001 MSD_J

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/17/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0140.D	96	100	100
BLK_SPK	SOIL	I0141.D	96	101	102
4833-001	MEOH	I0142.D	79	76	72
4833-002	MEOH	I0143.D	76	76	72
4833-003	MEOH	I0144.D	77	72	71
4833-004	MEOH	I0145.D	79	80	75
4833-005	MEOH	I0146.D	74	73	72
4833-006	MEOH	I0147.D	85	88	77
4833-008	MEOH	I0149.D	77	78	70
4833-009	MEOH	I0150.D	90	91	85
4833-010	MEOH	I0151.D	91	89	86
4833-011	MEOH	I0152.D	73	76	72
4833-012	MEOH	I0153.D	76	77	72
4833-013	MEOH	I0154.D	77	76	72
4833-014	MEOH	I0155.D	91	86	93
4833-015	MEOH	I0156.D	92	87	82
4833-015MS	MEOH	I0157.D	92	89	81
4833-015MSD	MEOH	I0158.D	96	95	89

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/18/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0164.D	96	101	101
BLK_SPK	SOIL	I0165.D	93	102	107
4833-016	MEOH	I0166.D	74	77	72
4833-017	MEOH	I0167.D	73	77	71
4833-018	MEOH	I0168.D	75	77	68
4833-019	MEOH	I0169.D	75	79	75
4833-020	MEOH	I0170.D	77	81	75
4833-022	MEOH	I0172.D	73	80	74
4833-023	MEOH	I0173.D	76	81	76
4833-025	MEOH	I0175.D	78	82	77

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/26/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0433.D	90	99	100
BLK_SPK	SOIL	I0434.D	92	99	97
4859-001	MEOH	I0435.D	76	80	77
4833-030	MEOH	I0436.D	83	88	83
5073-023	MEOH	I0437.D	83	89	85
5073-019	MEOH	I0438.D	78	84	78
5073-015	MEOH	I0439.D	70	72	76
5074-002	MEOH	I0440.D	70	70	70
5073-002	MEOH	I0441.D	75	79	80
5073-004	MEOH	I0442.D	77	83	81
5073-006	MEOH	I0443.D	79	80	82
5073-008	MEOH	I0444.D	82	85	85
5073-010	MEOH	I0445.D	80	80	83
5073-014	MEOH	I0447.D	78	80	82
5073-016	MEOH	I0448.D	80	81	83
5073-018	MEOH	I0449.D	79	82	83
5073-018MS	MEOH	I0450.D	74	80	80
5073-018MSD	MEOH	I0451.D	76	80	81

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/23/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	J1679.D	107	105	102
BLK-SPK	MEOH	J1680.D	105	101	99
4949-001	MEOH	J1681.D	108	92	76
4949-002	MEOH	J1682.D	103	84	71
4949-005	MEOH	J1683.D	103	88	71
4949-006	MEOH	J1684.D	106	89	72
4949-007	MEOH	J1685.D	120	101	81
4833-006	MEOH	J1687.D	100	80	80
4833-007	MEOH	J1688.D	124	104	84
4833-021	MEOH	J1689.D	115	90	80
4833-024	MEOH	J1690.D	120	100	80
4833-026	MEOH	J1691.D	114	92	74
4833-027	MEOH	J1692.D	110	85	70
4833-028	MEOH	J1693.D	120	95	80
4798-001	MEOH	J1694.D	122	86	75
4798-003	MEOH	J1695.D	113	80	63
4942-001	MEOH	J1696.D	120	105	90
4942-002	MEOH	J1697.D	120	100	85
4942-005	MEOH	J1698.D	116	100	80
4949-001MS	MEOH	J1699.D	115	96	79
4949-001MSD	MEOH	J1700.D	118	98	81

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	57-130	43-133
SMC2 = Toluene-d8	50 ppb	27-142	39-137
SMC3 = Bromofluorobenzene	50 ppb	23-127	23-145

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/24/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	AQUEOUS	J1709.D	103	101	97
4953-014	AQUEOUS	J1710.D	103	101	97
4953-015	AQUEOUS	J1711.D	105	101	98
4888-006	AQUEOUS	J1712.D	103	101	97
4888-007	MEOH	J1713.D	112	95	75
4888-001	MEOH	J1714.D	108	88	69
4888-002	MEOH	J1715.D	110	92	70
4888-003	MEOH	J1716.D	119	97	74
4888-004	MEOH	J1717.D	117	95	75
4888-005	MEOH	J1718.D	112	89	72
4918-006	MEOH	J1719.D	112	87	71
4918-001	MEOH	J1720.D	112	85	69
4918-002	MEOH	J1721.D	118	79	71
4918-003	MEOH	J1722.D	115	80	70
4918-004	MEOH	J1723.D	118	84	72
4918-005	MEOH	J1724.D	117	86	71
BLK-SPK	MEOH	J1725.D	124	94	76
4888-001MS	MEOH	J1726.D	129	97	79
4888-001MSD	MEOH	J1727.D	128	100	81
4833-029	MEOH	J1728.D	120	100	80

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	57-130	43-133
SMC2 = Toluene-d8	50 ppb	27-142	39-137
SMC3 = Bromofluorobenzene	50 ppb	23-127	23-145

Column to be used to flag recovery values

FORM 2

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4833-015

Batch No.: IM0153

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	45.9	92	48 - 149
Benzene	50.0	2.7	53.5	102	59 - 149
Trichloroethene	50.0	0.0	49.2	98	55 - 143
Toluene	50.0	4.8	57.0	104	54 - 150
Chlorobenzene	50.0	0.0	50.3	101	55 - 144

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	46.1		92	0	17	48 - 149
Benzene	2.7	53.3		101	1	15	59 - 149
Trichloroethene	0.0	49.5		99	1	15	55 - 143
Toluene	4.8	54.5		99	5	16	54 - 150
Chlorobenzene	0.0	50.6		101	0	15	55 - 144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

0176

1410

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 5073-018

Batch No.: IM0166

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	43.0	86	48 - 149
Benzene	50.0	0.0	45.1	90	59 - 149
Trichloroethene	50.0	0.0	44.3	89	55 - 143
Toluene	50.0	0.0	44.8	90	54 - 150
Chlorobenzene	50.0	0.0	45.1	90	55 - 144

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	48.3		97	12	17	48 - 149
Benzene	0.0	50.9		102	13	15	59 - 149
Trichloroethene	0.0	49.3		99	11	15	55 - 143
Toluene	0.0	50.5		101	12	16	54 - 150
Chlorobenzene	0.0	49.9		100	11	15	55 - 144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4949-001

Batch No.: JM0170

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	48.3	97	56 - 120
Benzene	50.0	0.0	48.4	97	64 - 126
Trichloroethene	50.0	0.0	47.3	95	66 - 120
Toluene	50.0	0.0	48.9	98	65 - 122
Chlorobenzene	50.0	0.0	41.6	83	68 - 120

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	51.8	104	7	11	56 - 120
Benzene	0.0	51.7	103	6	10	64 - 126
Trichloroethene	0.0	50.5	101	6	9	66 - 120
Toluene	0.0	51.9	104	6	9	65 - 122
Chlorobenzene	0.0	44.4	89	7	9	68 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

1412

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4888-001

Batch No.: JM0171

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	59.6	119	56 - 120
Benzene	50.0	0.0	54.7	109	64 - 126
Trichloroethene	50.0	0.0	52.8	106	66 - 120
Toluene	50.0	0.0	51.7	103	65 - 122
Chlorobenzene	50.0	0.0	45.9	92	68 - 120

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	59.9	120	1	11	56 - 120
Benzene	0.0	55.6	111	2	10	64 - 126
Trichloroethene	0.0	53.7	107	1	9	66 - 120
Toluene	0.0	52.9	106	3	9	65 - 122
Chlorobenzene	0.0	46.6	93	1	9	68 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0094.D

Date Analyzed: 07/16/2001

Instrument ID: MSD_I

Time Analyzed: 16:07

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	2456627		9.66		2395573		10.87		1728694		15.80	
	UPPER LIMIT	4913254		10.16		4791146		11.37		3457388		16.30	
	LOWER LIMIT	1228313.5		9.16		1197786.5		10.37		864347		15.30	
	LAB SAMPLE ID												
01	200_PPB_STD	2332724		9.65		2240926		10.86		1616140		15.79	
02	150_PPB_STD	2376955		9.63		2306485		10.85		1656149		15.78	
03	50_PPB_STD	2404604		9.64		2317686		10.85		1663772		15.78	
04	20_PPB_STD	2364608		9.64		2247397		10.86		1876145		15.79	
05	METHOD_BLK	2322218		9.66		2174438		10.86		1607116		15.80	
06	BLK_SPK	2318488		9.66		2219915		10.86		1648183		15.79	
07	4739-001	2263591		9.62		2198758		10.84		1616395		15.80	
08	4739-001MS	2323801		9.61		2204021		10.83		1695570		15.77	
09	4739-001MSD	2331186		9.61		2252084		10.81		1701165		15.77	
10	4739-004	2310545		9.60		2227500		10.81		1620548		15.76	
11	4739-005	2322111		9.61		2246116		10.82		1680452		15.76	
12	4739-006	2355234		9.60		2261396		10.81		1633345		15.75	
13	4702-005	2288502		9.62		2217957		10.83		1637127		15.77	
14	4702-007	2216486		9.63		2203054		10.83		1626437		15.77	
15	4702-008	2242769		9.63		2187673		10.83		1604963		15.79	
16	4794-010	2299458		9.62		2190070		10.83		1657666		15.77	
17	4794-011	2317402		9.60		2225517		10.81		1602526		15.76	
18	4794-012	2298571		9.59		2201939		10.81		1637831		15.77	
19	4794-013	2310523		9.60		2172330		10.80		1655535		15.75	
20	4644-001	2265231		9.61		2177357		10.81		1643786		15.76	
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0138.D

Date Analyzed: 07/17/2001

Instrument ID: MSD_I

Time Analyzed: 17:36

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	2302905		9.63		2058688		10.83		1522668		15.77	
	UPPER LIMIT	4605810		10.13		4117376		11.33		3045336		16.27	
	LOWER LIMIT	1151452.5		9.13		1029344		10.33		761334		15.27	
	LAB SAMPLE ID												
01	METHOD_BLK	2262634		9.58		2144307		10.79		1577208		15.73	
02	BLK_SPK	2295937		9.57		2143272		10.78		1559249		15.73	
03	4833-001	2164547		9.55		2146006		10.77		1633308		15.71	
04	4833-002	2117133		9.57		2074920		10.78		1560237		15.73	
05	4833-003	2092774		9.59		2180599		10.79		1554879		15.73	
06	4833-004	2163414		9.57		2087074		10.80		1534226		15.74	
07	4833-005	2214085		9.57		2125905		10.79		1528434		15.74	
08	4833-006	2222126		9.54		2113938		10.76		1624773		15.71	
09	4833-008	2276665		9.54		2183705		10.76		1711157		15.70	
10	4833-009	2291231		9.55		2202110		10.77		1652170		15.71	
11	4833-010	2313265		9.55		2242134		10.76		1633987		15.70	
12	4833-011	2198730		9.54		2151738		10.76		1596794		15.73	
13	4833-012	2217384		9.56		2111647		10.79		1578256		15.74	
14	4833-013	2241431		9.57		2134552		10.78		1600022		15.72	
15	4833-014	2190534		9.57		2175848		10.80		1579142		15.74	
16	4833-015	2241043		9.56		2217284		10.78		1657238		15.71	
17	4833-015MS	2235998		9.55		2199322		10.76		1650218		15.71	
18	4833-015MSD	2289153		9.56		2194019		10.78		1635783		15.71	
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

1415

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0162.D

Instrument ID: MSD_I

Date Analyzed: 07/18/2001

Time Analyzed: 6:53

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	2220269	9.59	2154349	10.80	1491424	15.74
	UPPER LIMIT	4440538	10.09	4308698	11.30	2982848	16.24
	LOWER LIMIT	1110134.5	9.09	1077174.5	10.30	745712	15.24
	LAB SAMPLE ID						
01	METHOD_BLK	2319738	9.62	2172334	10.82	1527850	15.77
02	BLK_SPK	2146627	9.68	2022944	10.90	1417948	15.84
03	4833-016	2025652	9.68	1965555	10.89	1467786	15.84
04	4833-017	2187748	9.66	2065333	10.87	1464848	15.82
05	4833-018	2160434	9.66	2062155	10.87	1522045	15.82
06	4833-019	2064125	9.70	1955132	10.91	1431656	15.85
07	4833-020	2009414	9.71	1947660	10.91	1494822	15.85
08	4833-022	2176001	9.67	2099511	10.89	1512702	15.84
09	4833-023	2183568	9.67	2100824	10.87	1547514	15.82
10	4833-025	2188913	9.65	2087452	10.88	1550583	15.83
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

0180

1416

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0431.D

Date Analyzed: 07/26/2001

Instrument ID: MSD_I

Time Analyzed: 12:45

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	2048124		9.63		1969901		10.81		1357608		15.74	
	UPPER LIMIT	4096248		10.13		3939802		11.31		2715216		16.24	
	LOWER LIMIT	1024062		9.13		984950.5		10.31		678804		15.24	
	LAB SAMPLE ID												
01	METHOD_BLK	2033189		9.63		1861639		10.82		1349114		15.74	
02	BLK_SPK	1993025		9.62		1887285		10.82		1359486		15.74	
03	4859-001	1965704		9.59		1889558		10.80		1352282		15.73	
04	4833-030	1955806		9.60		1863655		10.79		1291380		15.73	
05	5073-023	1933962		9.59		1802591		10.80		1331778		15.72	
06	5073-019	1903067		9.61		1767012		10.81		1309370		15.74	
07	5073-015	1958823		9.63		1819200		10.84		1247145		15.76	
08	5074-002	1887969		9.62		1853352		10.82		1231821		15.73	
09	5073-002	2056778		9.60		1852272		10.80		1295089		15.74	
10	5073-004	1888967		9.58		1777300		10.78		1321596		15.73	
11	5073-006	1903636		9.60		1849954		10.80		1324452		15.73	
12	5073-008	1850158		9.58		1763849		10.79		1293142		15.73	
13	5073-010	1884821		9.59		1798949		10.80		1287103		15.72	
14	5073-014	1983588		9.58		1868313		10.80		1363714		15.71	
15	5073-016	2031101		9.57		1922868		10.77		1374311		15.72	
16	5073-018	1954200		9.58		1887025		10.79		1348797		15.72	
17	5073-018MS	1978948		9.58		1869168		10.78		1369134		15.72	
18	5073-018MSD	1936268		9.58		1851375		10.78		1328108		15.73	
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J1623.D

Date Analyzed: 07/22/2001

Instrument ID: MSD_J

Time Analyzed: 10:40

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	530422		6.39		829817		7.22		697818		10.58	
	UPPER LIMIT	1060844		6.89		1659634		7.72		1395636		11.08	
	LOWER LIMIT	265211		5.89		414908.5		6.72		348909		10.08	
	LAB SAMPLE ID												
01	STD-50PPB	530518		6.39		833253		7.22		685300		10.58	
02	STD-150PPB	530810		6.39		818742		7.22		690742		10.58	
03	STD-200PPB	540444		6.39		829389		7.22		709013		10.58	
04	STD-20PPB	518062		6.40		819507		7.22		669359		10.58	
05	METHOD-BLK	481887		6.39		767831		7.22		632208		10.58	
06	BLK-SPK	476511		6.39		762028		7.22		626961		10.58	
07	4894-004DIL	359093		6.39		606752		7.22		567241		10.58	
08	4894-012DIL	344581		6.39		591023		7.22		562875		10.58	
09	4828-002	317834		6.39		551802		7.22		520477		10.58	
10	4896-005	318529		6.39		552871		7.22		526672		10.58	
11	4896-010	306664		6.39		535741		7.22		510571		10.58	
12	4940-001	309918		6.39		534225		7.22		504813		10.58	
13	4940-002	304078		6.39		527282		7.22		502755		10.58	
14	4950-001	297844		6.39		520030		7.22		490913		10.58	
15	4950-002	300181		6.39		522618		7.22		499347		10.58	
16	4950-003	335630		6.39		586485		7.22		563924		10.58	
17	4796-008	362269		6.39		623334		7.22		591196		10.58	
18	4796-001	359559		6.39		616275		7.22		584793		10.58	
19	4796-003	388273		6.39		661473		7.22		629234		10.58	
20	4940-001MS	395947		6.39		672346		7.22		650363		10.58	
21	4940-001MSD	403210		6.39		684441		7.22		668555		10.58	
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

0184

14/18

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J1676.D

Date Analyzed: 07/23/2001

Instrument ID: MSD_J

Time Analyzed: 13:03

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	532488		6.39		827823		7.22		693326		10.58	
	UPPER LIMIT	1064976		6.89		1655646		7.72		1386652		11.08	
	LOWER LIMIT	266244		5.89		413911.5		6.72		346663		10.08	
	LAB SAMPLE ID												
01	METHOD-BLK	495456		6.39		798835		7.22		654615		10.58	
02	BLK-SPK	506902		6.39		817451		7.22		677093		10.58	
03	4949-001	383424		6.39		658044		7.22		621528		10.58	
04	4949-002	379562		6.39		650443		7.22		618401		10.58	
05	4949-005	375201		6.39		643775		7.22		613291		10.58	
06	4949-006	369061		6.39		633017		7.22		604062		10.58	
07	4949-007	359110		6.39		624218		7.22		594759		10.58	
08	4833-006	353288		6.40		608333		7.22		575958		10.58	
09	4833-007	350085		6.39		606152		7.22		578879		10.58	
10	4833-021	348734		6.39		603818		7.22		579265		10.58	
11	4833-024	356248		6.39		619451		7.22		586620		10.58	
12	4833-026	344546		6.39		593102		7.22		567892		10.58	
13	4833-027	330594		6.39		573306		7.22		554167		10.58	
14	4833-028	318744		6.39		553501		7.22		536869		10.58	
15	4798-001	307154		6.39		536711		7.22		514076		10.58	
16	4798-003	312373		6.39		547490		7.22		525129		10.58	
17	4942-001	347933		6.39		608757		7.22		577353		10.58	
18	4942-002	381681		6.39		663030		7.22		627712		10.58	
19	4942-005	385464		6.39		659678		7.22		636549		10.58	
20	4949-001MS	376713		6.39		649335		7.22		631562		10.58	
21	4949-001MSD	377670		6.39		650743		7.22		630026		10.58	
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J1704.D

Date Analyzed: 07/24/2001

Instrument ID: MSD_J

Time Analyzed: 1:57

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	513940		6.39		817169		7.22		686784		10.58	
	UPPER LIMIT	1027880		6.89		1634338		7.72		1373568		11.08	
	LOWER LIMIT	256970		5.89		408584.5		6.72		343392		10.08	
	LAB SAMPLE ID												
01	METHOD-BLK	492942		6.39		801196		7.22		665698		10.58	
02	METHOD-BLK	505670		6.39		815952		7.22		682043		10.58	
03	4953-014	499498		6.40		805242		7.22		676328		10.58	
04	4953-015	490103		6.39		802255		7.22		662413		10.58	
05	4888-006	485919		6.39		788676		7.22		660985		10.58	
06	4888-007	371008		6.39		636766		7.22		607900		10.58	
07	4888-001	361875		6.39		627921		7.22		599750		10.58	
08	4888-002	355299		6.39		614853		7.22		594365		10.58	
09	4888-003	346444		6.39		600498		7.22		575784		10.58	
10	4888-004	342750		6.39		594475		7.22		570770		10.58	
11	4888-005	329269		6.39		578013		7.22		548035		10.58	
12	4918-006	326077		6.39		571196		7.22		544258		10.58	
13	4918-001	325281		6.39		567797		7.22		546298		10.58	
14	4918-002	320800		6.39		562992		7.22		540107		10.58	
15	4918-003	309434		6.39		549924		7.22		525291		10.58	
16	4918-004	304446		6.39		538454		7.22		515215		10.58	
17	4918-005	305290		6.39		531426		7.22		508909		10.58	
18	BLK-SPK	290162		6.39		515495		7.22		496672		10.58	
19	4888-001MS	281285		6.39		500673		7.22		481015		10.58	
20	4888-001MSD	267580		6.39		476843		7.22		459074		10.58	
21	4833-029	263555		6.39		471053		7.22		452325		10.58	
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE METHANOL PRESERVATION CONTAINER SUMMARY

Sample ID	Client ID	Bottle ID	Date Prepared	Inital Wgt.(g)	Final Wgt.(g)	Sample Wgt.(g)	MeOH Lot #	Surrogate Lot #
4833-001	S-95A	107982	7/10/01	103.5	113.9	10.4	CC226	LS200
4833-002	S-95B	107977	7/10/01	103.8	114.0	10.2	CC226	LS200
4833-003	S-96A	107981	7/10/01	103.8	114.8	11.0	CC226	LS200
4833-004	S-96B	107975	7/10/01	104.1	114.9	10.9	CC226	LS200
4833-005	S-97	107976	7/10/01	104.6	113.8	9.2	CC226	LS200
4833-006	S-98A	107969	7/10/01	102.3	113.8	11.6	CC226	LS200
4833-007	S-98B	107970	7/10/01	103.2	113.4	10.2	CC226	LS200
4833-008	S-99	107983	7/10/01	103.3	114.0	10.6	CC226	LS200
4833-009	S-100	107971	7/10/01	103.4	113.9	10.5	CC226	LS200
4833-010	S-101	107972	7/10/01	103.5	114.4	10.9	CC226	LS200
4833-011	S-102	107984	7/10/01	102.6	111.9	9.3	CC226	LS200
4833-012	S-103A	107978	7/10/01	103.4	113.1	9.6	CC226	LS200
4833-013	S-103B	107980	7/10/01	103.5	112.4	8.8	CC226	LS200
4833-014 ?	S-104	107974	7/10/01	103.6	114.4	10.8	CC226	LS200
4833-015	S-105	107973	7/10/01	103.5	113.3	9.8	CC226	LS200
4833-016	S-106	107985	7/10/01	103.5	112.0	8.6	CC226	LS200
4833-017	S-107	107979	7/10/01	103.5	112.5	9.0	CC226	LS200
4833-018	S-108	107960	7/10/01	103.4	113.6	10.2	cc019	ls200
4833-019	S-109	107966	7/10/01	103.5	113.5	9.9	cc019	ls200
4833-020	S-110	107967	7/10/01	103.7	112.5	8.8	cc019	ls200
4833-021	S-111A	107948	7/10/01	103.7	114.1	10.4	cc019	ls200
4833-022	S-111B	107968	7/10/01	103.4	111.1	10 7.8 *	cc019	ls200
4833-023	S-112	107961	7/10/01	103.6	112.4	8.8	cc019	ls200
4833-024	S-113	107962	7/10/01	104.2	114.2	10.0	cc019	ls200
4833-025	S-114A	107950	7/10/01	104.1	113.7	9.6	cc019	ls200
4833-026	S-114B	107949	7/10/01	103.7	111.0	8.6 7.3 *	cc019	ls200
4833-027	S-115	107956	7/10/01	103.6	111.6	9.7 7.9 *	cc019	ls200
4833-028	S-116	107955	7/10/01	103.6	111.8	8.2	cc019	ls200
4833-029	S-117	107959	7/10/01	103.8	113.1	9.3	cc019	ls200
4833-030	TB	107954	7/10/01	103.7	113.7	10.0	cc019	ls200

Limits : Sample Weight = 8 to 12 grams, * = Outside limits

Sample weight is reported on a wet weight basis

VOLATILE METHANOL PRESERVATION CONTAINER SUMMARY

Sample ID	Client ID	Bottle ID	Date Prepared	Inital Wgt.(g)	Final Wgt.(g)	Sample Wgt.(g)	MeOH Lot #	Surrogate Lot #

Comments : low MeOH weight for Sample #022, 026, 027, no weight on the bag
As per Chris N. 022 = 10.0g, 026 = 8.6g, 027 = 9.7g 7/26/01

Sample weight is reported on a wet weight basis

Data File : C:\HPCHEM\1\DATA\07-17-01\I0142.D Vial: 5
Acq On : 17 Jul 2001 19:52 Operator: DP
Sample : S-95A,4833-001,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:56 2001 Quant Results File: IME0716.RES

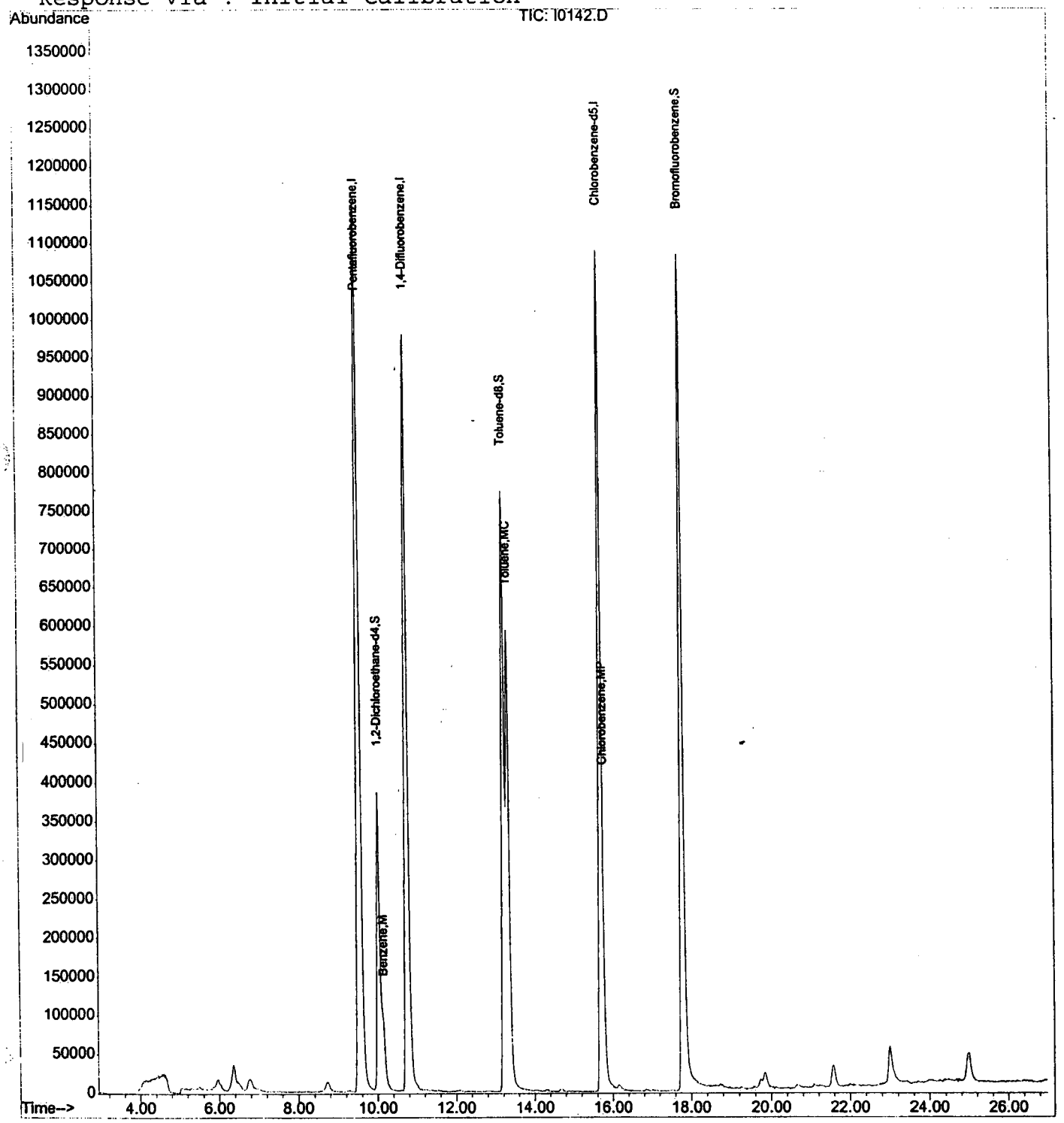
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.55	168	2164547	50.00	UG		-0.11
31) 1,4-Difluorobenzene	10.77	114	2146006	50.00	UG		-0.10
50) Chlorobenzene-d5	15.71	117	1633308	50.00	UG		-0.09
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.03	65	769778	39.67	UG		-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 79.34%				
41) Toluene-d8	13.23	98	1337104	37.89	UG		-0.10
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.78%				
59) Bromofluorobenzene	17.79	95	1189155	36.12	UG		-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.24%				
Target Compounds							Qvalue
32) Benzene	10.15	78	158277	5.38	UG		99
42) Toluene	13.34	92	651269	31.85	UG		97
51) Chlorobenzene	15.77	112	100717	3.50	UG	#	72

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\07-17-01\I0142.D Vial: 5
Acq On : 17 Jul 2001 19:52 Operator: DP
Sample : S-95A,4833-001,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:56 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1424

Data File : C:\HPCHEM\1\DATA\07-17-01\I0142.D Vial: 5
Acq On : 17 Jul 2001 19:52 Operator: DP
Sample : S-95A,4833-001,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

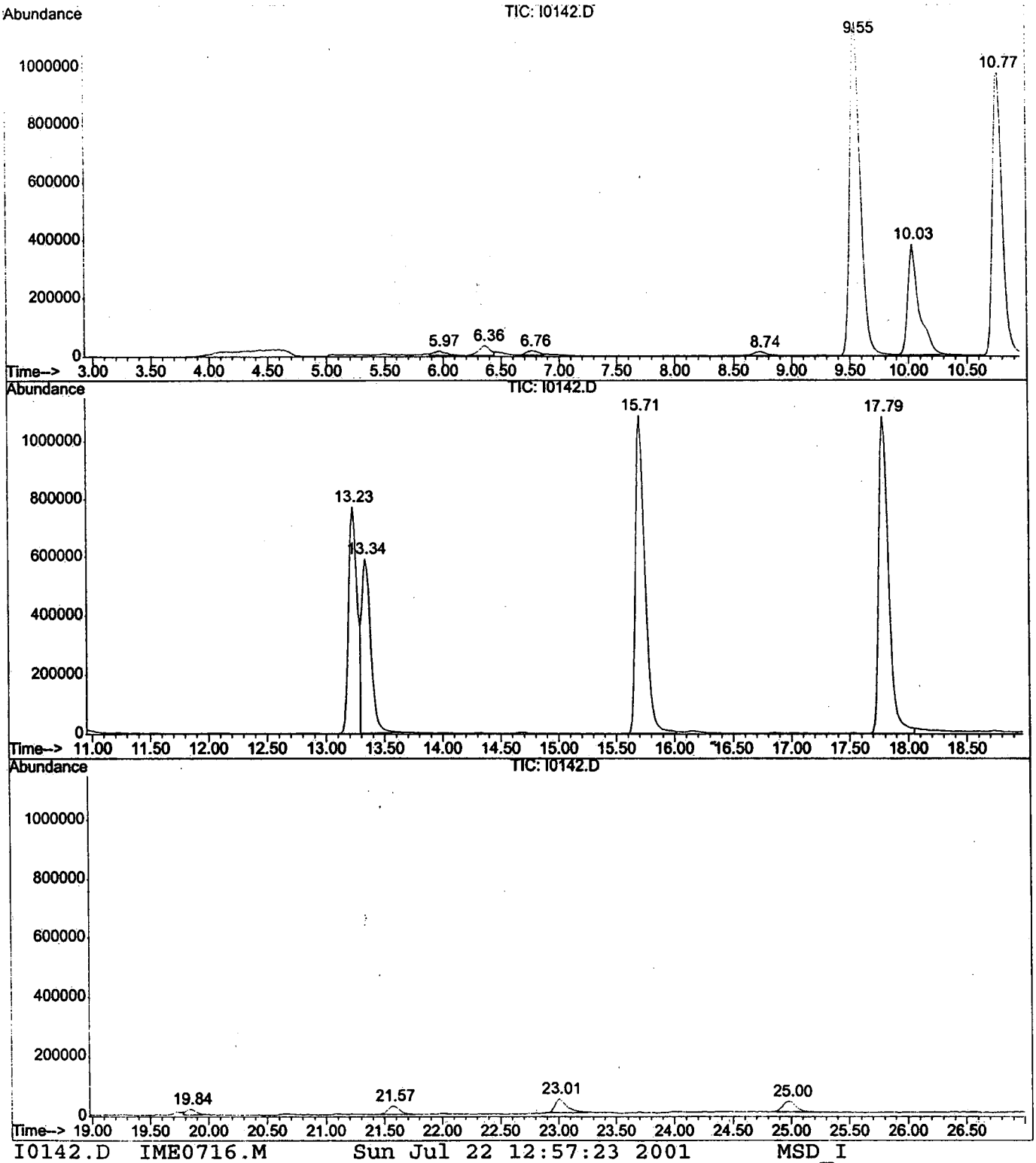
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.973	199	205	215	rVB	15333	103833	1.43%	0.285%
2	6.360	219	230	235	rBV	34305	227115	3.13%	0.623%
3	6.761	248	256	263	rBV2	14883	110961	1.53%	0.305%
4	8.736	376	384	394	rVB3	12751	95045	1.31%	0.261%
5	9.555	428	437	460	rBV	1151053	7246095	100.00%	19.892%
6	10.030	460	468	488	rVV2	382905	2526686	34.87%	6.936%
7	10.768	508	516	534	rBV	977289	5775435	79.70%	15.854%
8	13.231	667	676	680	rBV	774462	4085082	56.38%	11.214%
9	13.336	680	683	704	rVB	590039	3134101	43.25%	8.604%
10	15.709	829	837	857	rBV	1088033	6085457	83.98%	16.705%
11	17.790	964	972	989	rBV	1082741	6114566	84.38%	16.785%
12	19.844	1101	1105	1112	rVB3	19216	112012	1.55%	0.307%
13	21.573	1209	1217	1229	rBV	28687	204225	2.82%	0.561%
14	23.009	1304	1310	1325	rBV2	46613	325420	4.49%	0.893%
15	24.997	1430	1439	1449	rVB2	35924	281966	3.89%	0.774%

Sum of corrected areas: 36427999

I0142.D IME0716.M Sun Jul 22 12:57:23 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0142.D
Operator : DP
Acquired : 17 Jul 2001 19:52 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-95A,4833-001,M,0.041g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 5
Quant File :IME0716.RES (RTE Integrator)



I0142.D IME0716.M Sun Jul 22 12:57:23 2001 MSD_I

0199

1426

Data File : C:\HPCHEM\1\DATA\07-17-01\I0143.D
Acq On : 17 Jul 2001 20:26
Sample : S-95B,4833-002,M,0.041g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 12:58 2001

Vial: 6
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

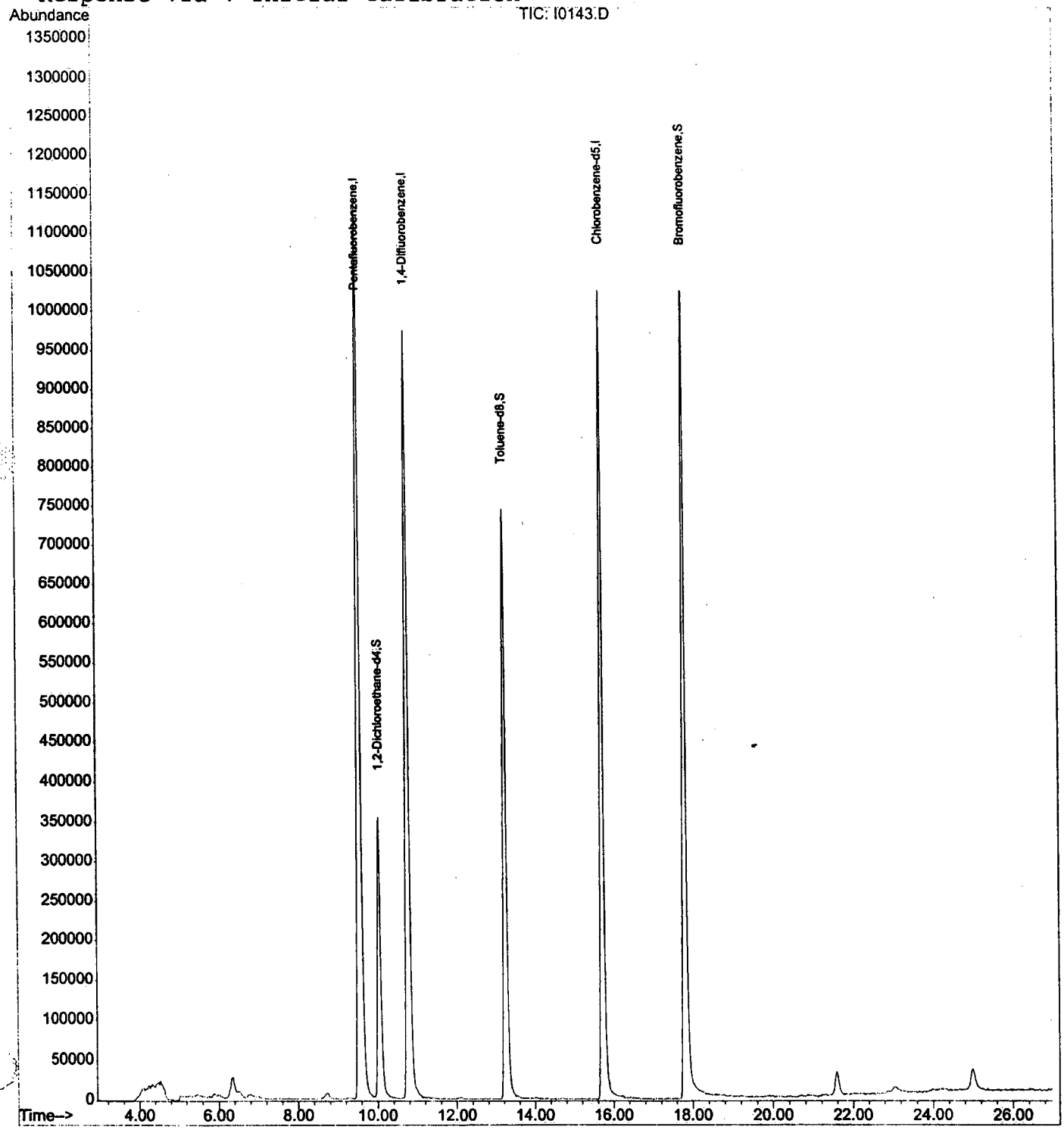
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	2117133	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.78	114	2074920	50.00	UG	-0.09
50) Chlorobenzene-d5	15.73	117	1560237	50.00	UG	-0.07
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.06	65	721688	38.02	UG	-0.09
Spiked Amount 50.000	Range 36 - 115		Recovery = 76.04%			
41) Toluene-d8	13.24	98	1299370	38.08	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 76.16%			
59) Bromofluorobenzene	17.80	95	1124710	35.76	UG	-0.08
Spiked Amount 50.000	Range 47 - 115		Recovery = 71.52%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\07-17-01\I0143.D Vial: 6
Acq On : 17 Jul 2001 20:26 Operator: DP
Sample : S-95B,4833-002,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:58 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1428

N194

Data File : C:\HPCHEM\1\DATA\07-17-01\I0143.D Vial: 6
Acq On : 17 Jul 2001 20:26 Operator: DP
Sample : S-95B,4833-002,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

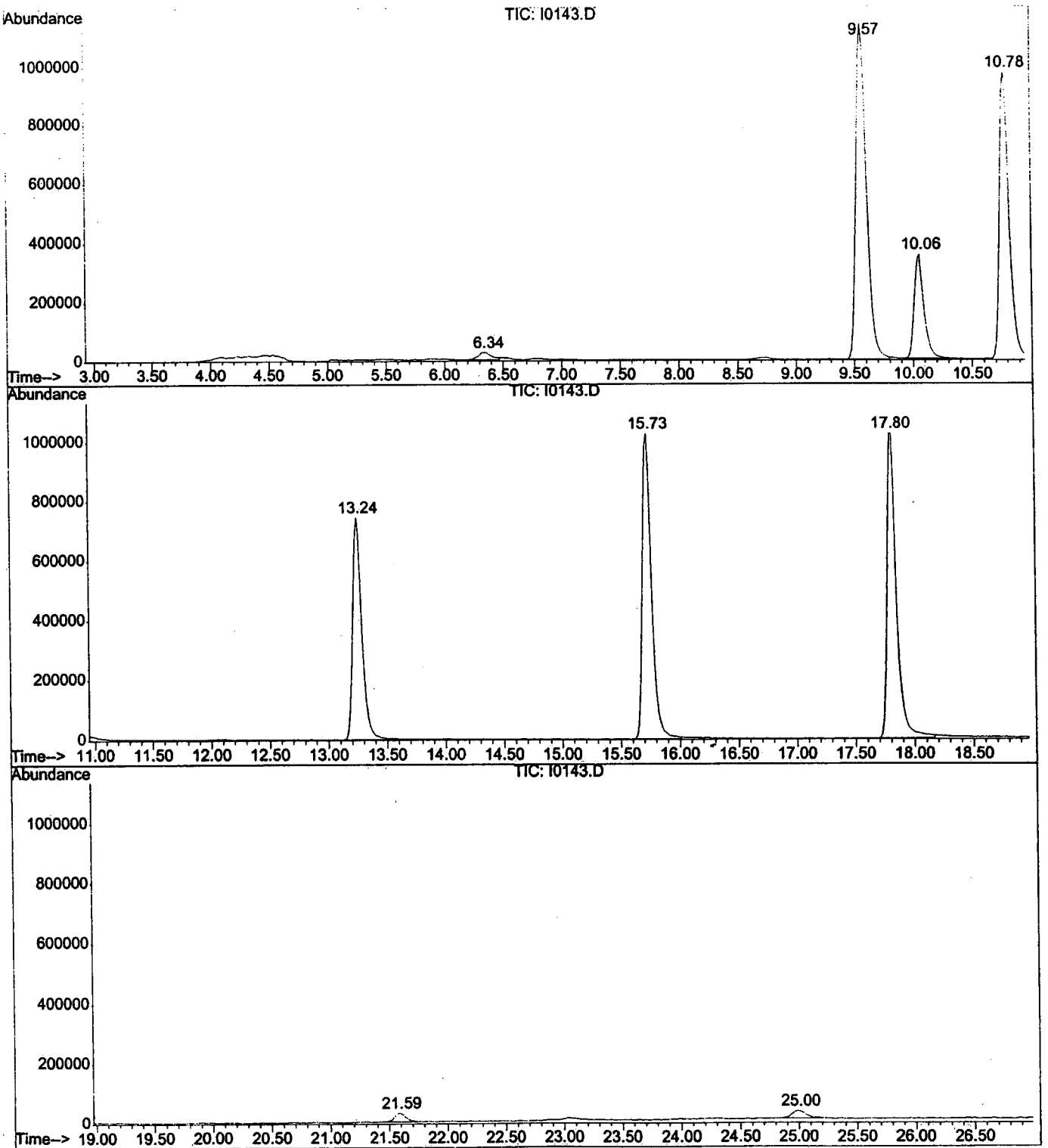
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.343	220	229	237	rBV2	25342	203081	2.89%	0.661%
2	9.566	429	438	453	rBV	1137997	7026705	100.00%	22.886%
3	10.055	462	470	487	rVB	352705	1990735	28.33%	6.484%
4	10.778	509	517	535	rBV	972361	5609630	79.83%	18.271%
5	13.244	669	677	694	rBV	744445	4063957	57.84%	13.236%
6	15.728	830	838	856	rBV	1026309	5536607	78.79%	18.033%
7	17.797	965	972	996	rBV	1024200	5866045	83.48%	19.106%
8	21.586	1210	1218	1228	rBV	29399	195636	2.78%	0.637%
9	24.998	1430	1439	1452	rVB	25720	210774	3.00%	0.686%

Sum of corrected areas: 30703170

I0143.D IME0716.M Sun Jul 22 12:58:51 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0143.D
Operator : DP
Acquired : 17 Jul 2001 20:26 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-95B,4833-002,M,0.041g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 6
Quant File :IME0716.RES (RTE Integrator)



I0143.D IME0716.M Sun Jul 22 12:58:51 2001 MSD_I

1430

Data File : C:\HPCHEM\1\DATA\07-17-01\I0144.D Vial: 7
Acq On : 17 Jul 2001 21:00 Operator: DP
Sample : S-96A,4833-003,M,0.044g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:00 2001 Quant Results File: IME0716.RES

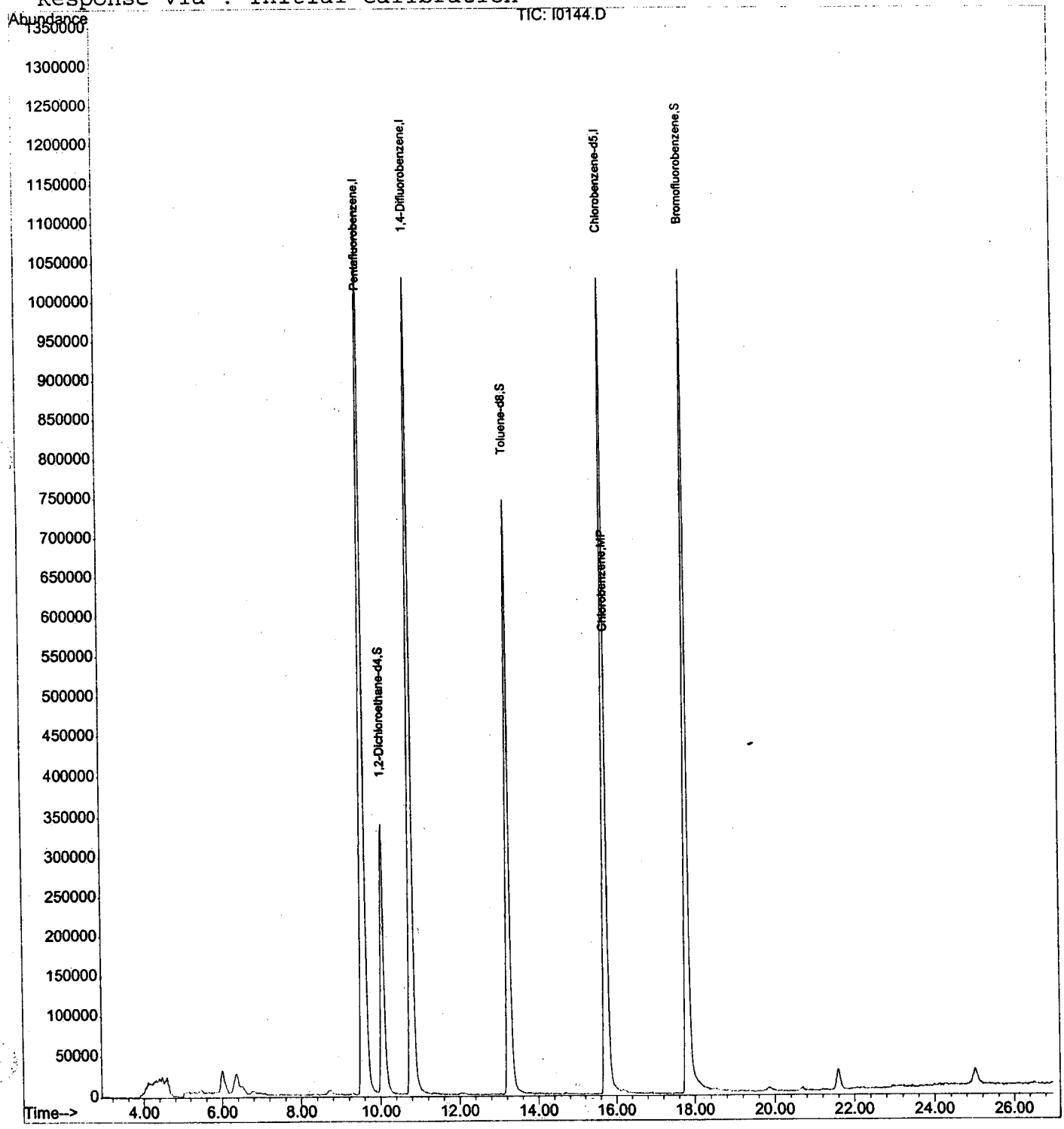
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.59	168	2092774	50.00	UG	-0.08
31) 1,4-Difluorobenzene	10.79	114	2180599	50.00	UG	-0.08
50) Chlorobenzene-d5	15.73	117	1554879	50.00	UG	-0.07
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.06	65	726242	38.71	UG	-0.09
Spiked Amount 50.000	Range 36 - 115		Recovery = 77.42%			
41) Toluene-d8	13.25	98	1297102	36.17	UG	-0.07
Spiked Amount 50.000	Range 35 - 117		Recovery = 72.34%			
59) Bromofluorobenzene	17.81	95	1118140	35.68	UG	-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 71.36%			
Target Compounds						Qvalue
51) Chlorobenzene	15.77	112	37276	1.36	UG	# 71

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\07-17-01\I0144.D Vial: 7
Acq On : 17 Jul 2001 21:00 Operator: DP
Sample : S-96A,4833-003,M,0.044g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:00 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0192

1432

Data File : C:\HPCHEM\1\DATA\07-17-01\I0144.D Vial: 7
Acq On : 17 Jul 2001 21:00 Operator: DP
Sample : S-96A,4833-003,M,0.044g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.594	113	115	122	rVB4	21037	75719	1.08%	0.243%
2	6.008	202	208	219	rVB	28319	197235	2.81%	0.633%
3	6.362	219	231	236	rBV2	24654	189191	2.70%	0.608%
4	9.570	430	439	457	rBV	1124175	7012820	100.00%	22.520%
5	10.059	463	471	488	rVB	336607	2025685	28.89%	6.505%
6	10.791	511	519	536	rBV	1027970	5841751	83.30%	18.759%
7	13.253	671	679	696	rBV	745313	4120929	58.76%	13.233%
8	15.727	833	840	865	rBV	1027690	5643179	80.47%	18.122%
9	17.806	968	975	994	rBV	1037479	5747142	81.95%	18.455%
10	21.602	1214	1222	1232	rBV	24645	159321	2.27%	0.512%
11	25.015	1436	1443	1451	rBV	17836	127698	1.82%	0.410%

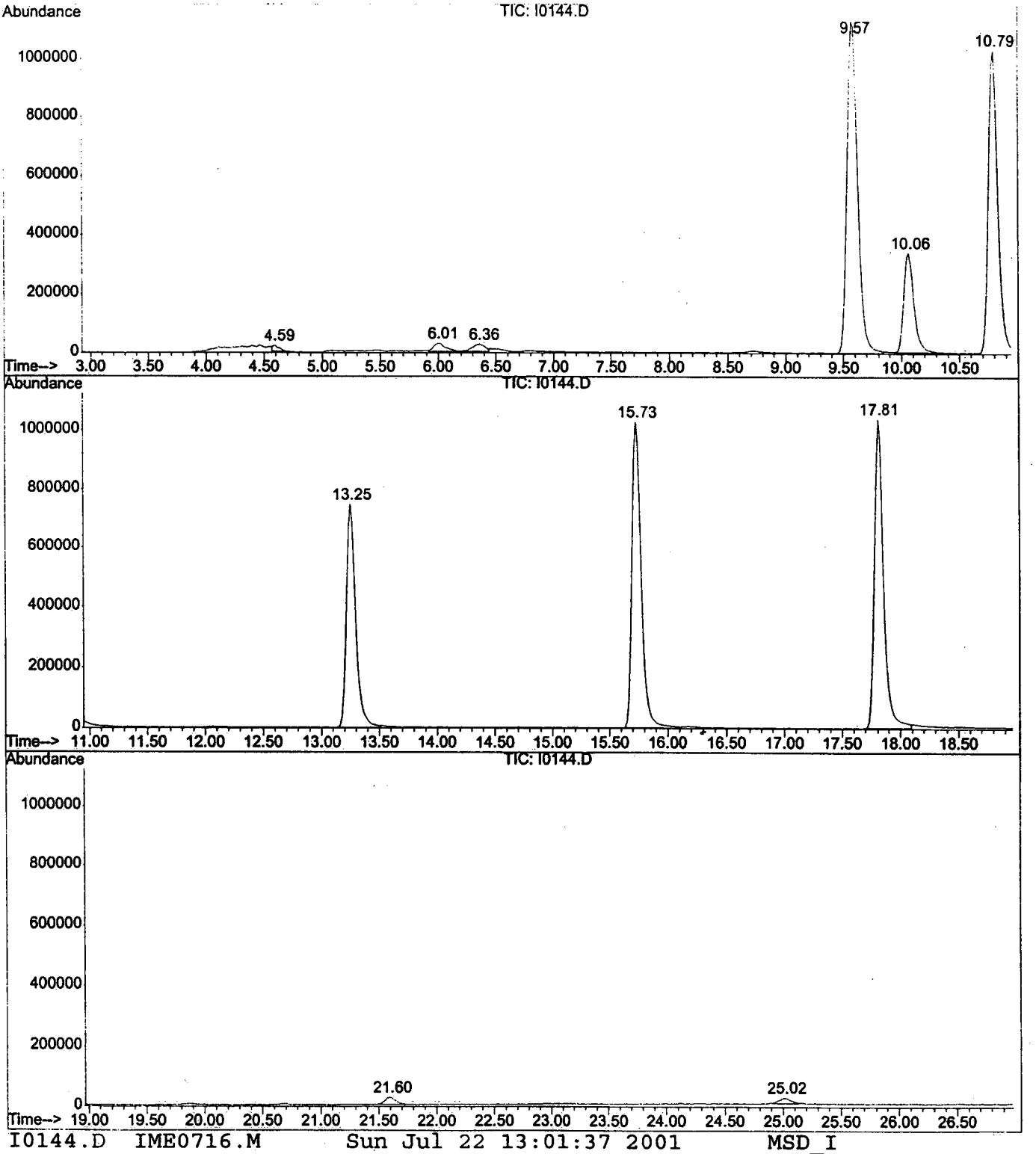
Sum of corrected areas: 31140670

I0144.D IME0716.M Sun Jul 22 13:01:36 2001 MSD_I

1433

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0144.D
Operator : DP
Acquired : 17 Jul 2001 21:00 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-96A,4833-003,M,0.044g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 7
Quant File :IME0716.RES (RTE Integrator)



I0144.D IME0716.M Sun Jul 22 13:01:37 2001 MSD_I

1434

Data File : C:\HPCHEM\1\DATA\07-17-01\I0145.D Vial: 8
Acq On : 17 Jul 2001 21:33 Operator: DP
Sample : S-96B,4833-004,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 22 13:02 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	2163414	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.80	114	2087074	50.00	UG	-0.08
50) Chlorobenzene-d5	15.74	117	1534226	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	770096	39.71	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 79.42%			
41) Toluene-d8	13.26	98	1371448	39.96	UG	-0.06
Spiked Amount 50.000	Range 35 - 117		Recovery = 79.92%			
59) Bromofluorobenzene	17.82	95	1162121	37.58	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 75.16%			

Target Compounds Qvalue

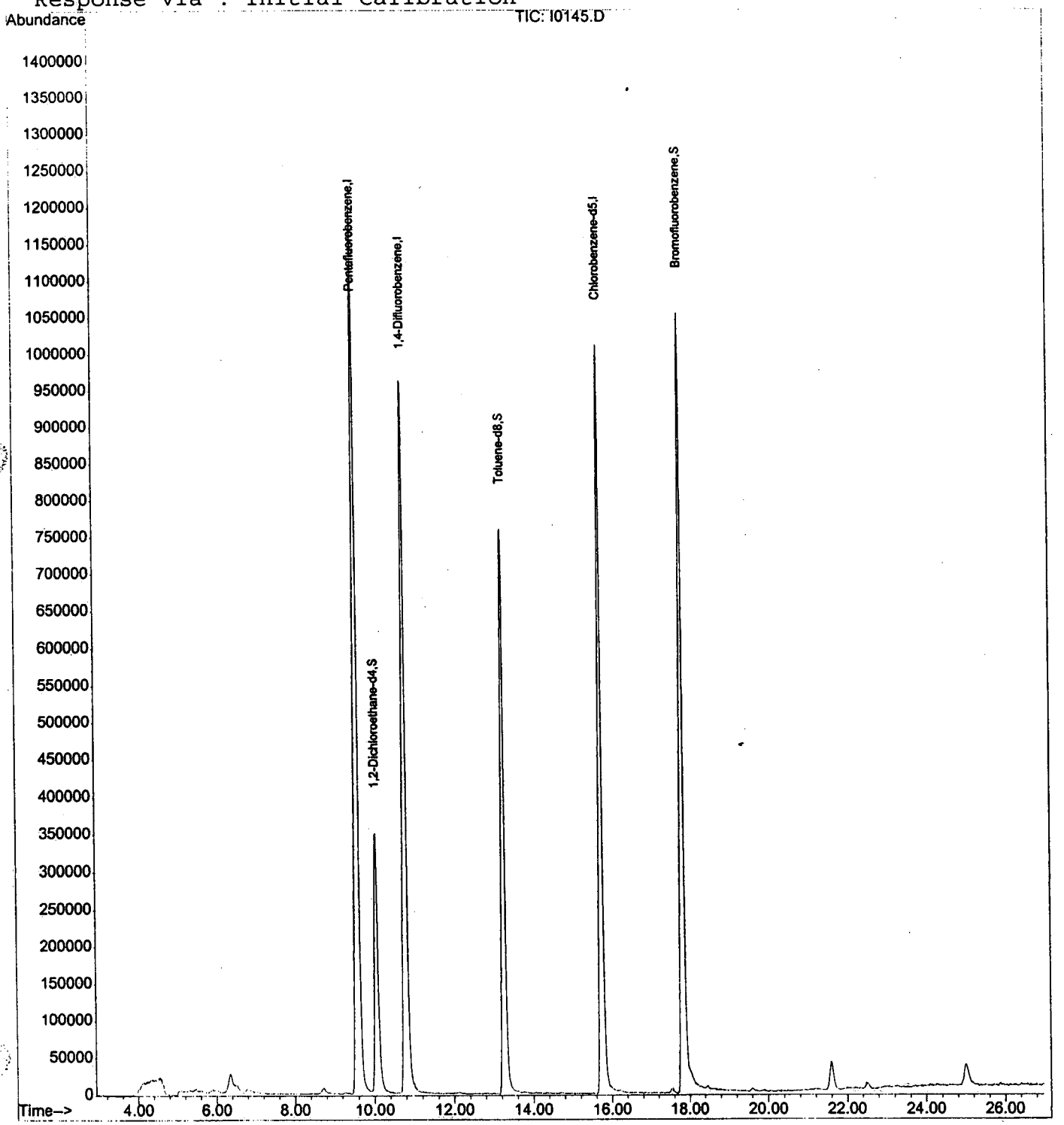
(#) = qualifier out of range (m) = manual integration

0201

1435

Data File : C:\HPCHEM\1\DATA\07-17-01\I0145.D Vial: 8
Acq On : 17 Jul 2001 21:33 Operator: DP
Sample : S-96B,4833-004,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:02 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1436

Data File : C:\HPCHEM\1\DATA\07-17-01\I0145.D Vial: 8
Acq On : 17 Jul 2001 21:33 Operator: DP
Sample : S-96B,4833-004,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

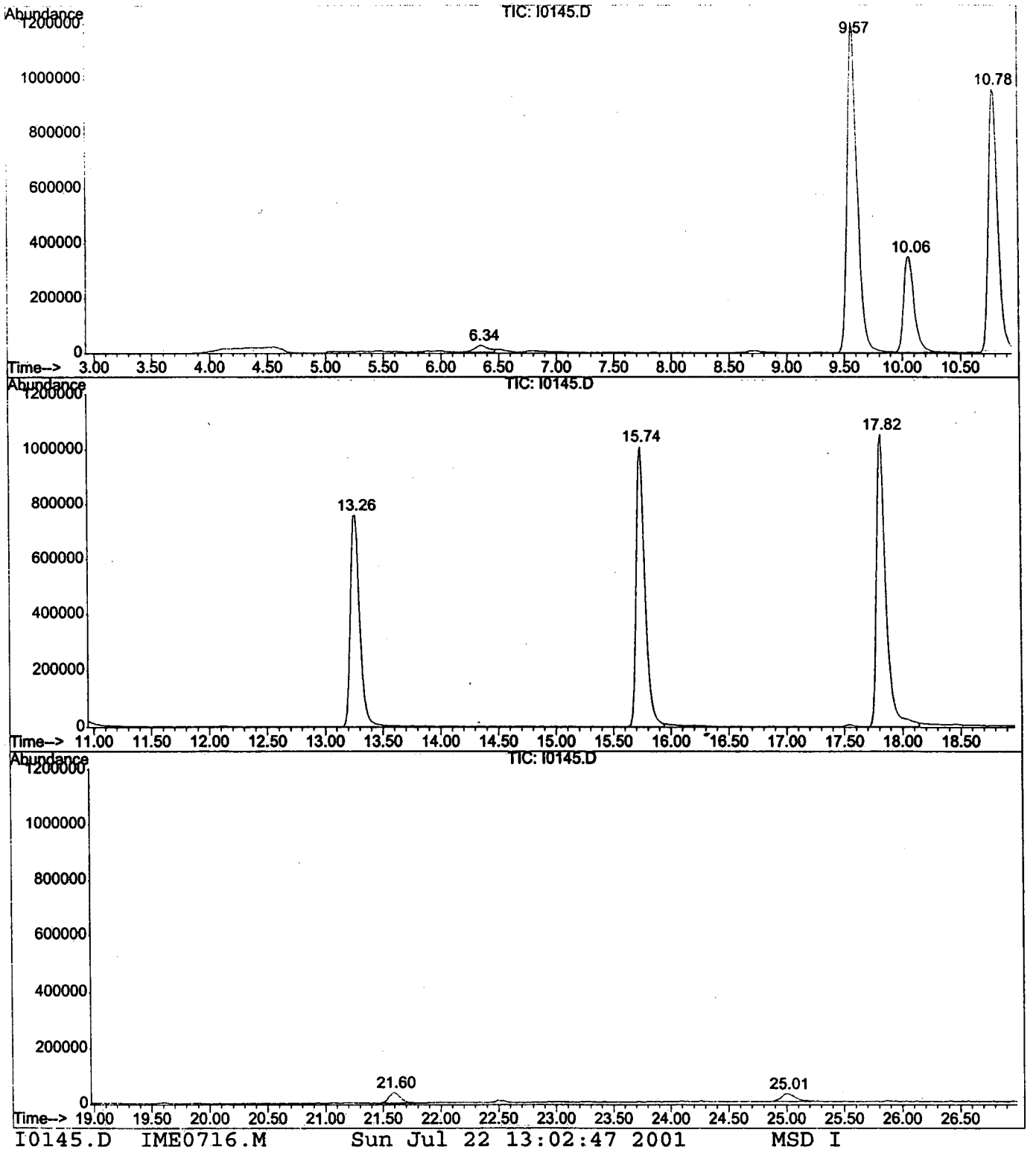
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.341	219	229	237	rBV2	25465	208315	2.88%	0.661%
2	9.568	428	438	462	rBV	1203996	7225469	100.00%	22.940%
3	10.061	462	470	491	rVB	347639	2181599	30.19%	6.926%
4	10.783	509	517	538	rBV	960025	5630079	77.92%	17.875%
5	13.264	670	678	699	rBV	759229	4273513	59.15%	13.568%
6	15.742	830	839	852	rBV	1010592	5369603	74.31%	17.048%
7	17.821	966	974	995	rBV	1053485	6095101	84.36%	19.351%
8	21.595	1211	1219	1232	rBV	39102	270928	3.75%	0.860%
9	25.005	1431	1440	1453	rBV2	28245	243154	3.37%	0.772%

Sum of corrected areas: 31497761

I0145.D IME0716.M Sun Jul 22 13:02:46 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0145.D
Operator : DP
Acquired : 17 Jul 2001 21:33 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-96B,4833-004,M,0.043g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 8
Quant File :IME0716.RES (RTE Integrator)



I0145.D IME0716.M Sun Jul 22 13:02:47 2001 MSD_I

0004

1438

Data File : C:\HPCHEM\1\DATA\07-17-01\I0146.D Vial: 9
Acq On : 17 Jul 2001 22:07 Operator: DP
Sample : S-97X,4833-005,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:03 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

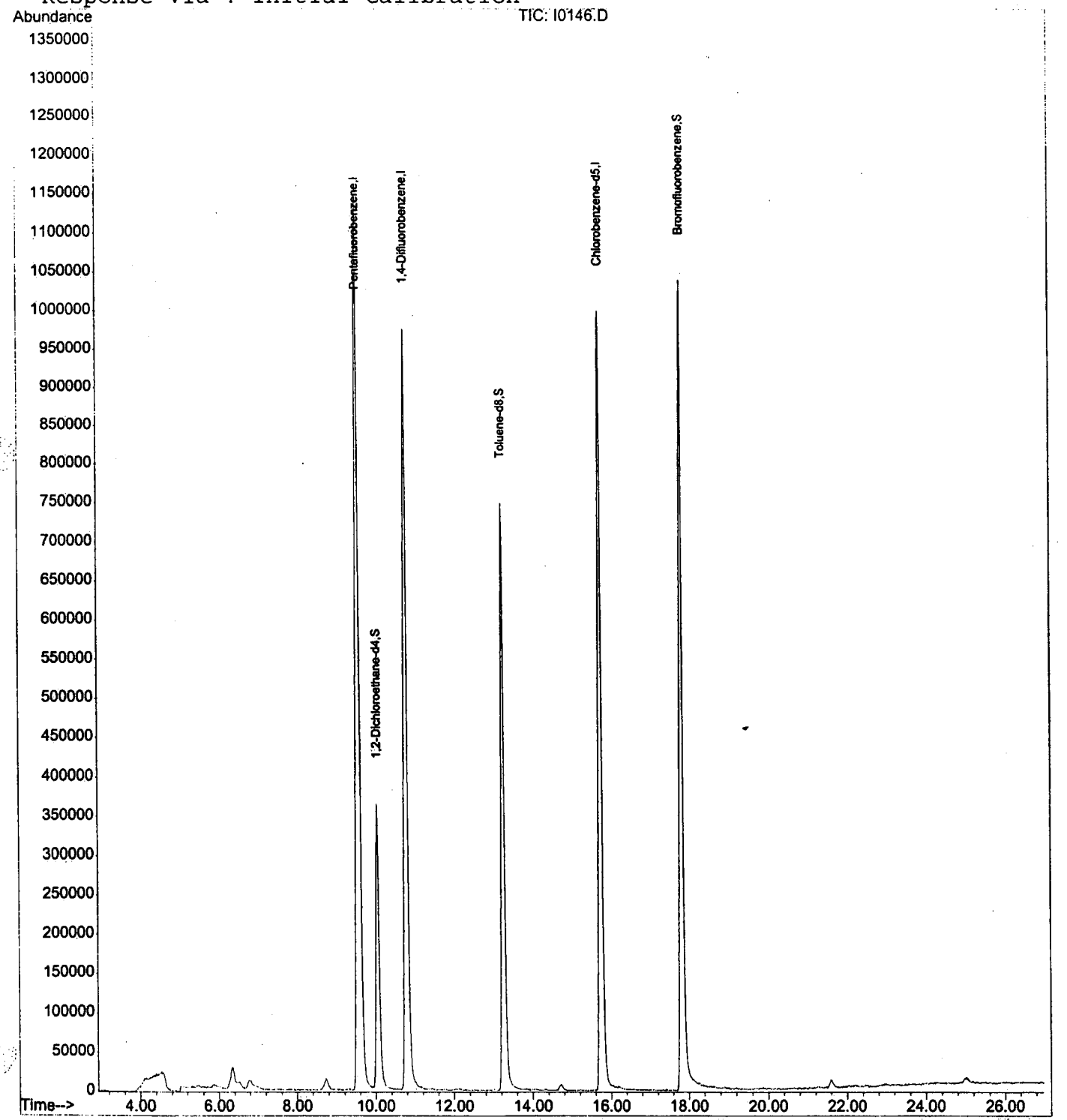
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	2214085	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.79	114	2125905	50.00	UG	-0.09
50) Chlorobenzene-d5	15.74	117	1528434	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	731879	36.87	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 73.74%			
41) Toluene-d8	13.25	98	1284319	36.74	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 73.48%			
59) Bromofluorobenzene	17.82	95	1110998	36.06	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.12%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0146.D Vial: 9
Acq On : 17 Jul 2001 22:07 Operator: DP
Sample : S-97A,4833-005,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:03 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1440

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0146.D
Acq On : 17 Jul 2001 22:07
Sample : S-97A,4833-005,M,0.037g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 9
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 3 % of largest Peak
Start Thrs: 1
Max Peaks: 100
Stop Thrs : 1
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

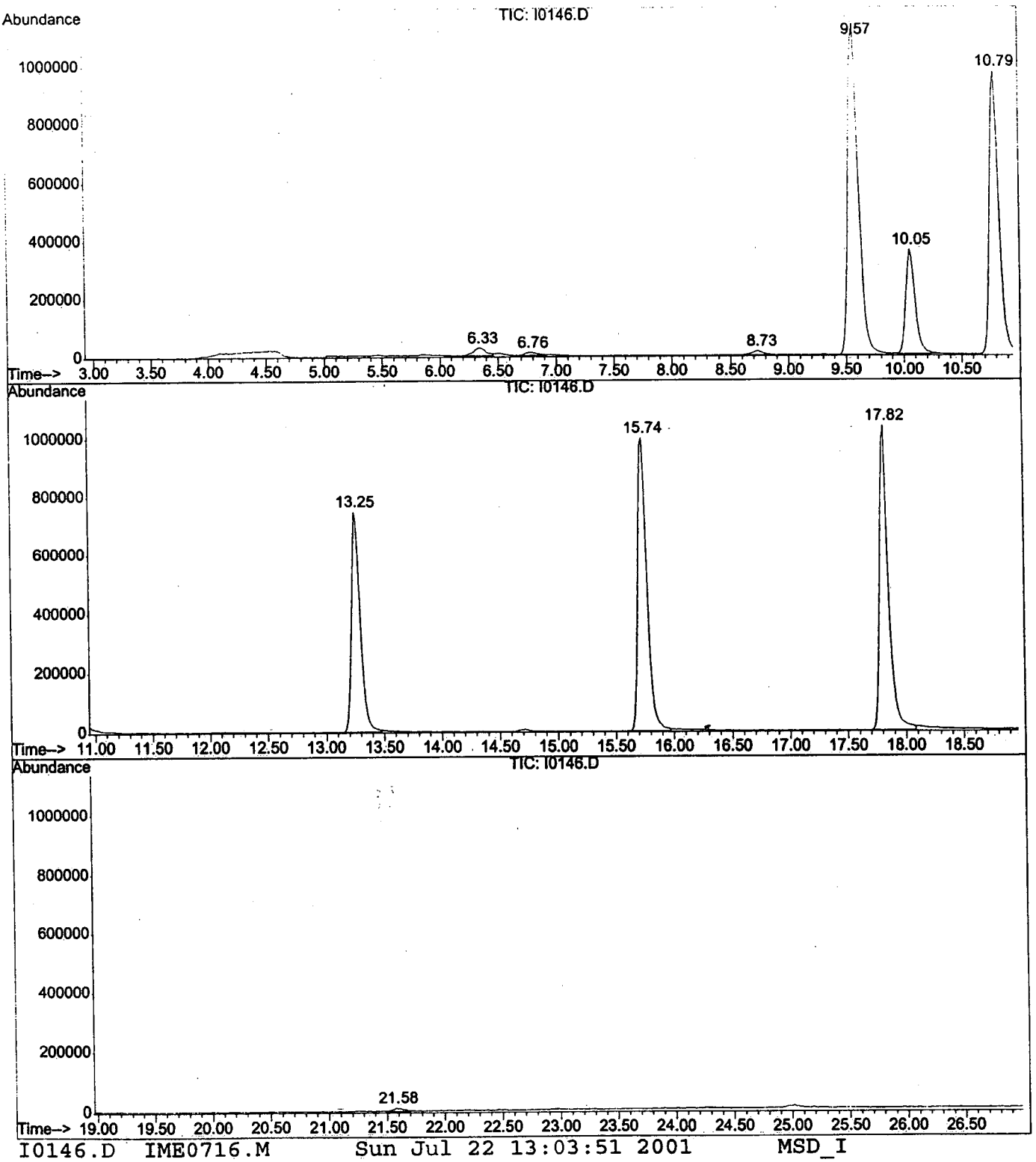
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.335	219	229	237	rBV2	27348	215107	2.95%	0.701%
2	6.764	251	257	267	rBV3	10431	77066	1.06%	0.251%
3	8.732	376	385	393	rBV2	14885	94072	1.29%	0.306%
4	9.575	431	440	461	rBV	1138771	7294518	100.00%	23.766%
5	10.050	464	471	487	rVB	361022	2022650	27.73%	6.590%
6	10.788	510	519	539	rBV	974091	5767269	79.06%	18.790%
7	13.250	672	679	694	rBV	747537	3995669	54.78%	13.018%
8	15.740	833	841	856	rBV	998096	5432731	74.48%	17.700%
9	17.820	967	976	993	rBV	1038310	5718938	78.40%	18.633%
10	21.578	1214	1220	1228	rBV2	11502	74631	1.02%	0.243%

Sum of corrected areas: 30692651

I0146.D IME0716.M Sun Jul 22 13:03:51 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0146.D
Operator : DP
Acquired : 17 Jul 2001 22:07 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-97A,4833-005,M,0.037g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 9
Quant File :IME0716.RES (RTE Integrator)



I0146.D IME0716.M Sun Jul 22 13:03:51 2001 MSD_I

1442

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D Vial: 10
Acq On : 17 Jul 2001 22:41 Operator: DP
Sample : S-9814,4833-006,M,0.046g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:05 2001 Quant Results File: IME0716.RE

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.54	168	2222126	50.00	UG	-0.12
31) 1,4-Difluorobenzene	10.76	114	2113938	50.00	UG	-0.11
50) Chlorobenzene-d5	15.71	117	1624773	50.00	UG	-0.09
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.03	65	848163	42.58	UG	-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 85.16%			
41) Toluene-d8	13.24	98	1533909	44.12	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery = 88.24%			
59) Bromofluorobenzene	17.79	95	1253328	38.27	UG	-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 76.54%			
Target Compounds						Qvalue
32) Benzene	10.15	78	81541	2.81	UG	# 89
42) Toluene	13.37	92	51589148	2561.31	UG	# 22
51) Chlorobenzene	15.75	112	1195530	41.77	UG	# 7[illegible]
53) Ethylbenzene	15.95	91	1980367	49.56	UG	1[illegible]
54) m,p-Xylene	16.14	106	1501438	97.89	UG	100
55) o-Xylene	16.85	106	453968	29.75	UG	99
74) 1,2-Dichlorobenzene	20.62	146	2906147	125.69	UG	# 84

127.64

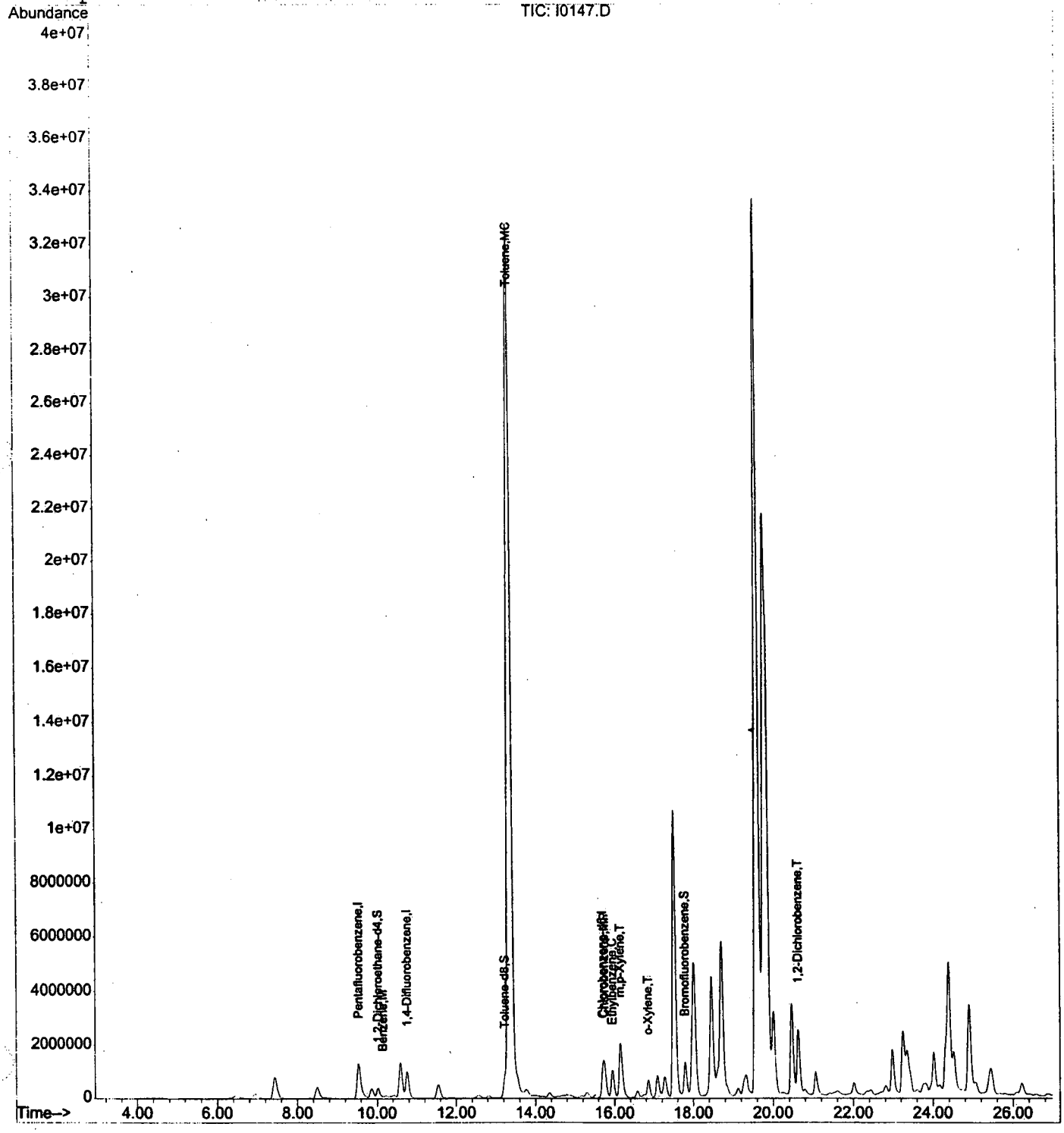
(#) = qualifier out of range (m) = manual integration

98A

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D Vial: 10
Acq On : 17 Jul 2001 22:41 Operator: DP
Sample : S-97B,4833-006,M,0.046g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:05 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1444

0011

98A

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D Vial: 10
Acq On : 17 Jul 2001 22:41 Operator: DP
Sample : S-97B,4833-006,M,0.046g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.436	290	300	316	rBV	799732	5751245	2.36%	0.566%
2	8.516	359	370	393	rVB	428178	3290079	1.35%	0.324%
3	9.543	428	437	451	rBV	1313533	9075196	3.73%	0.893%
4	10.595	499	506	512	rBV	1289550	7327316	3.01%	0.721%
5	10.762	512	517	537	rVB	1003510	5875437	2.41%	0.578%
6	11.545	558	568	582	rBV	523718	3539044	1.45%	0.348%
7	13.360	669	686	708	rBV2	32763048	243450518	100.00%	23.958%
8	15.724	834	842	851	rVV2	1399891	9696585	3.98%	0.954%
9	15.949	851	857	864	rVV	1030142	5450973	2.24%	0.536%
10	16.144	864	870	886	rVB	2053936	12210278	5.02%	1.202%
11	16.855	912	917	926	rVB	646918	3271155	1.34%	0.322%
12	17.083	926	932	938	rBV	827633	4273029	1.76%	0.421%
13	17.264	938	944	953	rVV	753483	4535369	1.86%	0.446%
14	17.519	953	961	973	rVV2	10665992	58325607	23.96%	5.740%
15	17.788	973	979	985	rVV	1298575	6648078	2.73%	0.654%
16	18.012	985	994	1007	rVB3	4991268	32301159	13.27%	3.179%
17	18.460	1013	1024	1031	rBV	4433072	26118338	10.73%	2.570%
18	18.715	1031	1041	1059	rVB	5749838	38707261	15.90%	3.809%
19	19.326	1073	1082	1091	rVV3	730194	5447649	2.24%	0.536%
20	19.609	1091	1101	1107	rVV3	33578785	198460557	81.52%	19.530%
21	19.788	1107	1113	1124	rVV2	21625932	183194557	75.25%	18.028%
22	20.013	1124	1128	1139	rVB	3089560	16894876	6.94%	1.663%
23	20.460	1151	1158	1165	rBV	3388085	17297538	7.11%	1.702%
24	20.624	1165	1169	1177	rVV	2423157	12360025	5.08%	1.216%
25	21.058	1192	1198	1215	rVB2	895967	5164367	2.12%	0.508%
26	22.015	1256	1262	1276	rVB	435561	2634892	1.08%	0.259%
27	22.987	1321	1327	1338	rVB	1645617	8487404	3.49%	0.835%
28	23.257	1338	1345	1349	rBV	2335453	13504102	5.55%	1.329%
29	23.811	1373	1382	1387	rBV3	342886	2809183	1.15%	0.276%
30	24.021	1387	1396	1403	rBV2	1447010	8277010	3.40%	0.815%
31	24.394	1410	1421	1427	rBV3	4736133	33006166	13.56%	3.248%

1445

0212

32	24.903	1448	1455	1463	rBV2	3241371	18791769	7.72%	1.849%
33	25.442	1482	1491	1501	rVB4	970354	7467999	3.07%	0.735%
34	26.221	1537	1543	1551	rVB2	419414	2524326	1.04%	0.248%

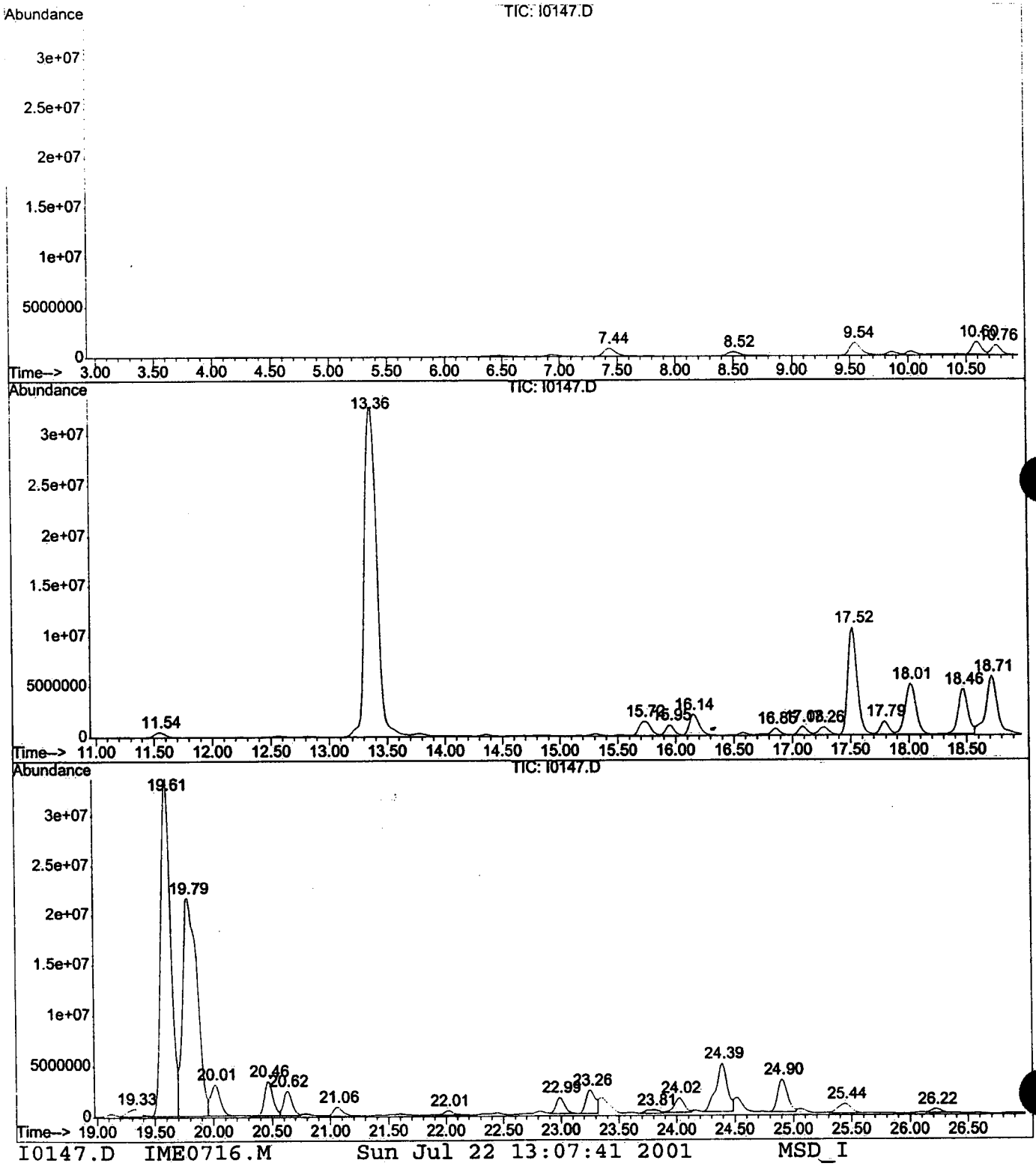
Sum of corrected areas: 1016169087

f0147.D IME0716.M Sun Jul 22 13:07:40 2001 MSD_I

LSC Report - Integrated Chromatogram

98A

File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Operator : DP
Acquired : 17 Jul 2001 22:41 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-97B, 4833-006,M,0.046g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 10
Quant File :IME0716.RES (RTE Integrator)



I0147.D IME0716.M Sun Jul 22 13:07:41 2001 MSD_I

1447

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

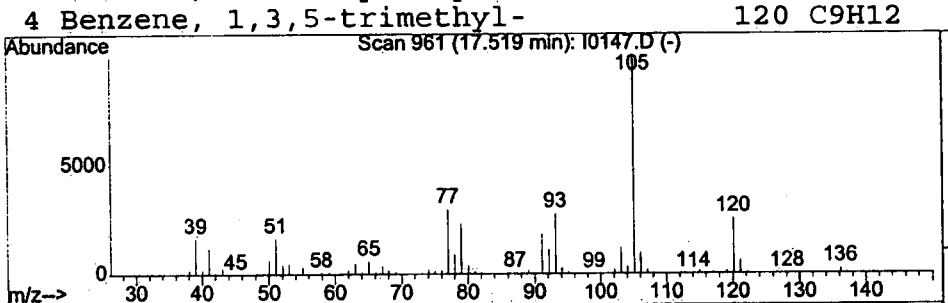
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

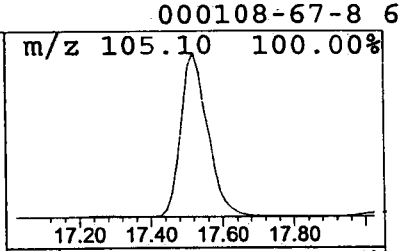
****

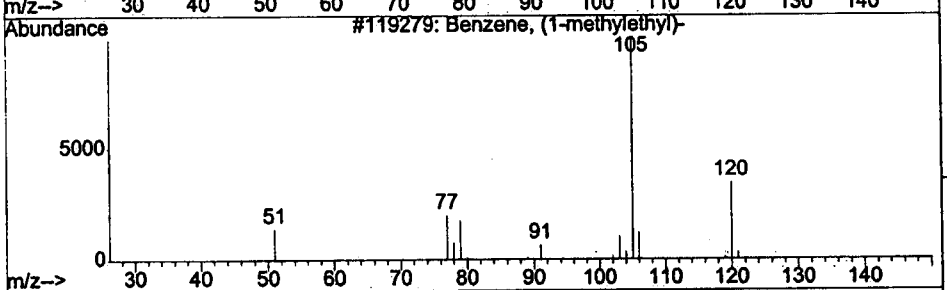
Peak Number 1 Substituted benzene Concentration Rank 3

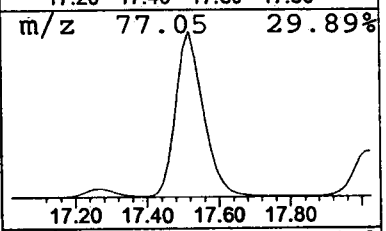
R.T.	EstConc	Area	Relative to ISTD	R.T.
17.52	300.75 UG	58325600	Chlorobenzene-d5	15.71

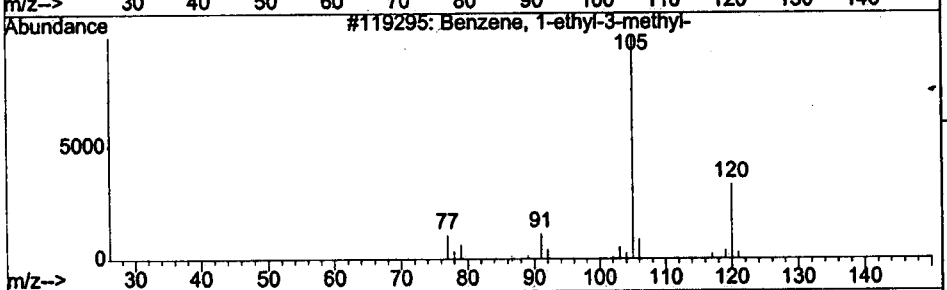
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	76
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	74
3	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	70
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	68

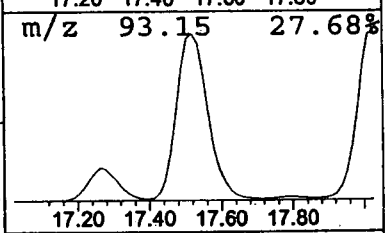


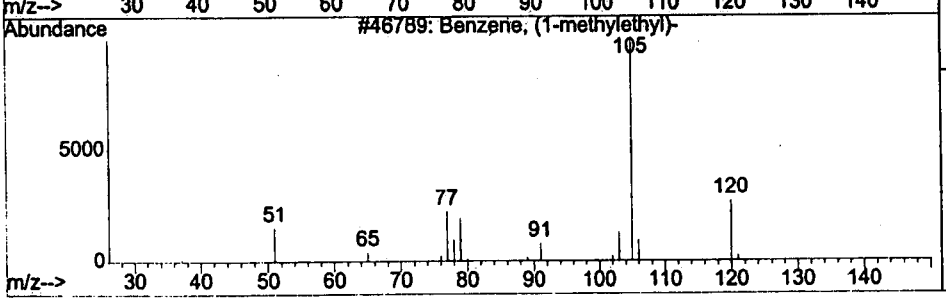


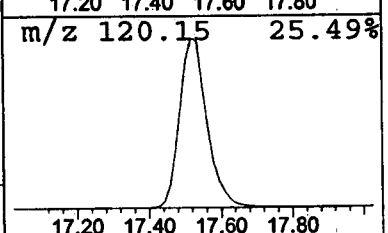


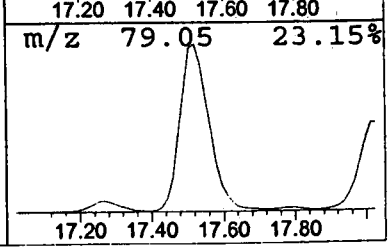












0215

1448

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

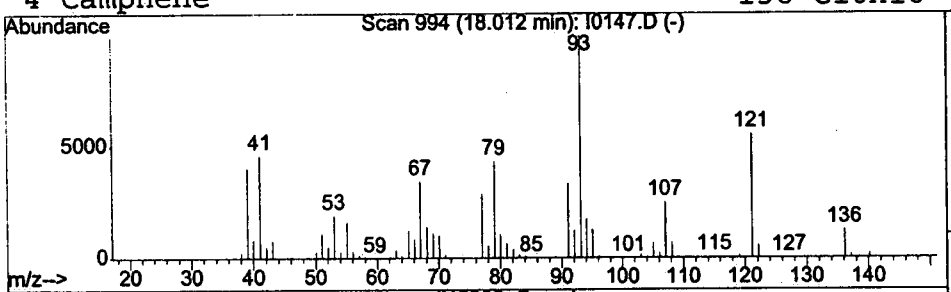
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

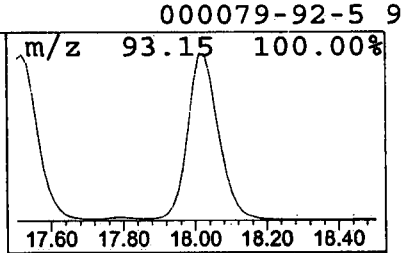
****

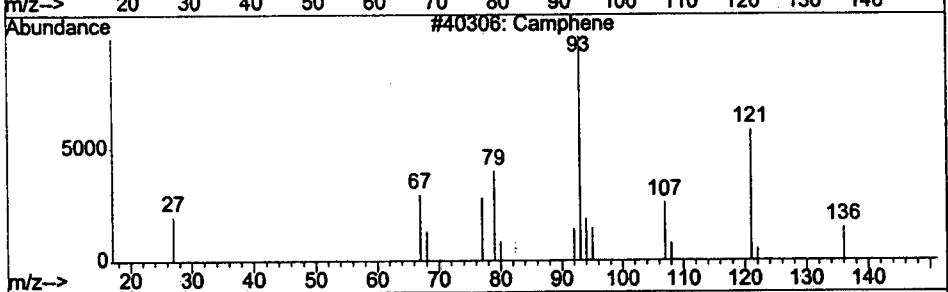
Peak Number 2 Unknown aromatic Concentration Rank 6

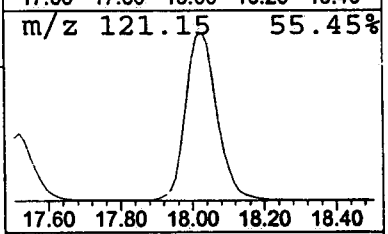
R.T.	EstConc	Area	Relative to ISTD	R.T.
18.01	166.56 UG	32301200	Chlorobenzene-d5	15.71

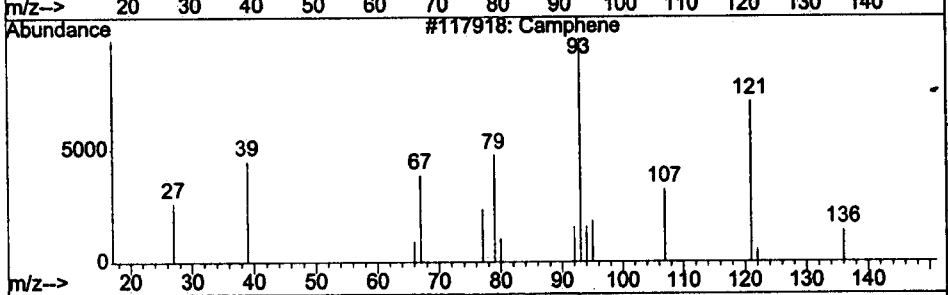
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	97
2	Camphene	136	C10H16	000079-92-5	96
3	Camphene	136	C10H16	000079-92-5	94
4	Camphene	136	C10H16	000079-92-5	91

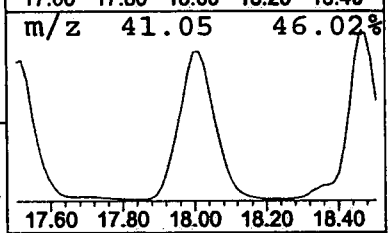


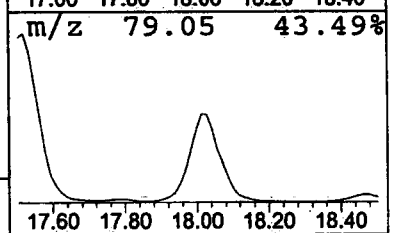


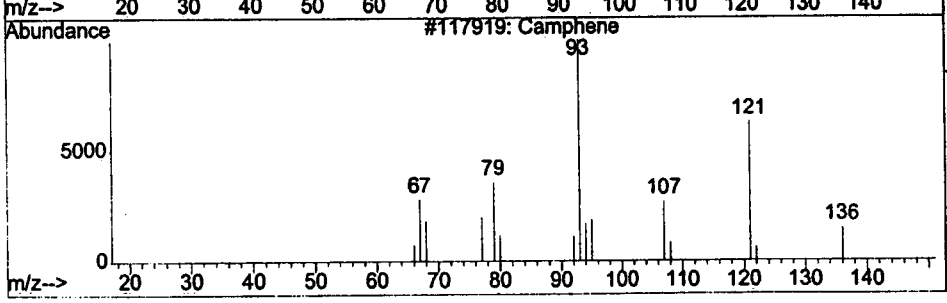


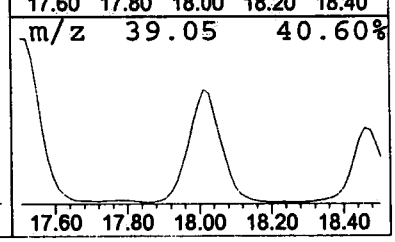












0716

1449

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

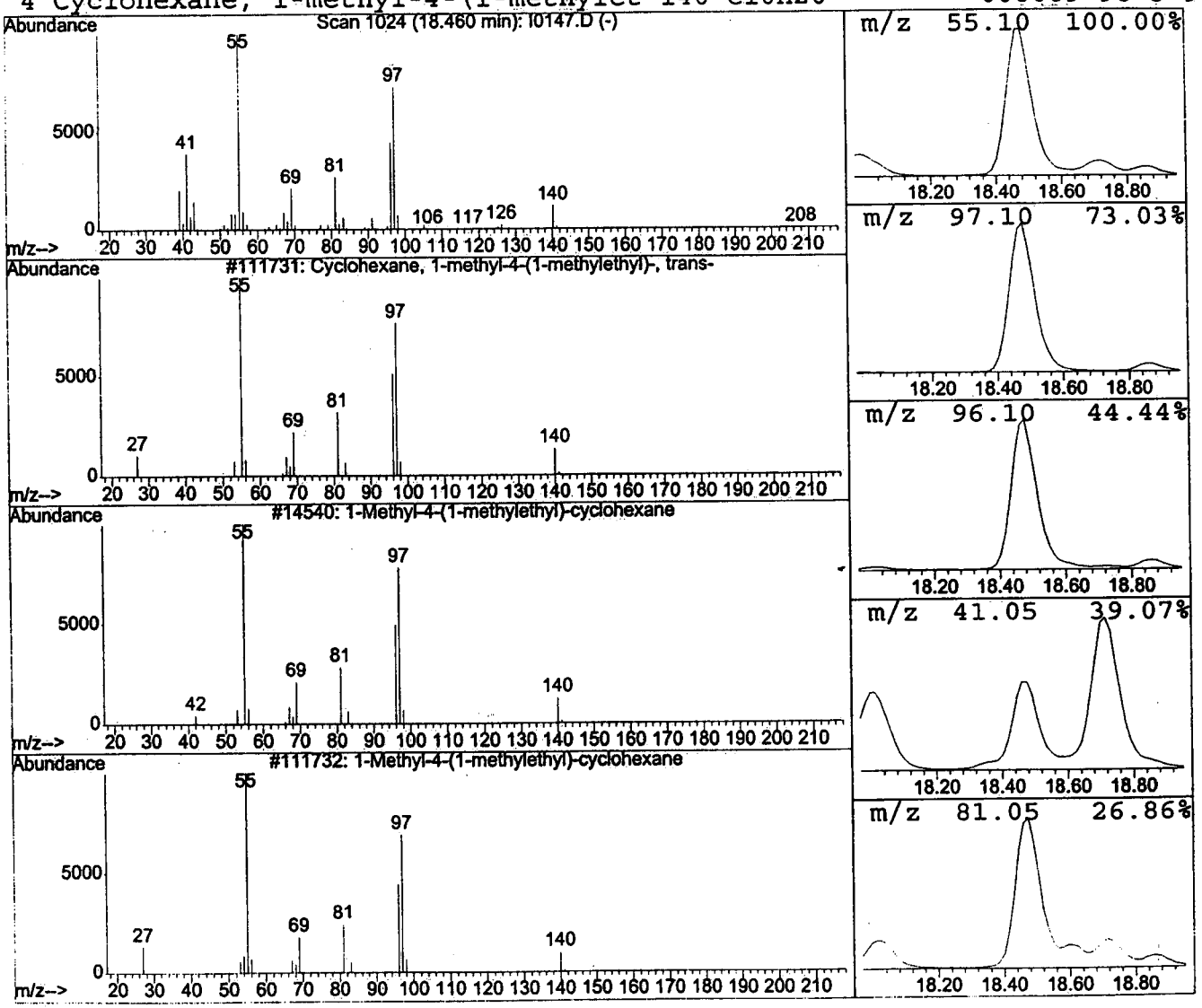
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.46	134.68 UG	26118300	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	001678-82-6	97
2	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	97
3	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	95
4	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	006069-98-3	94



0217

1450

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

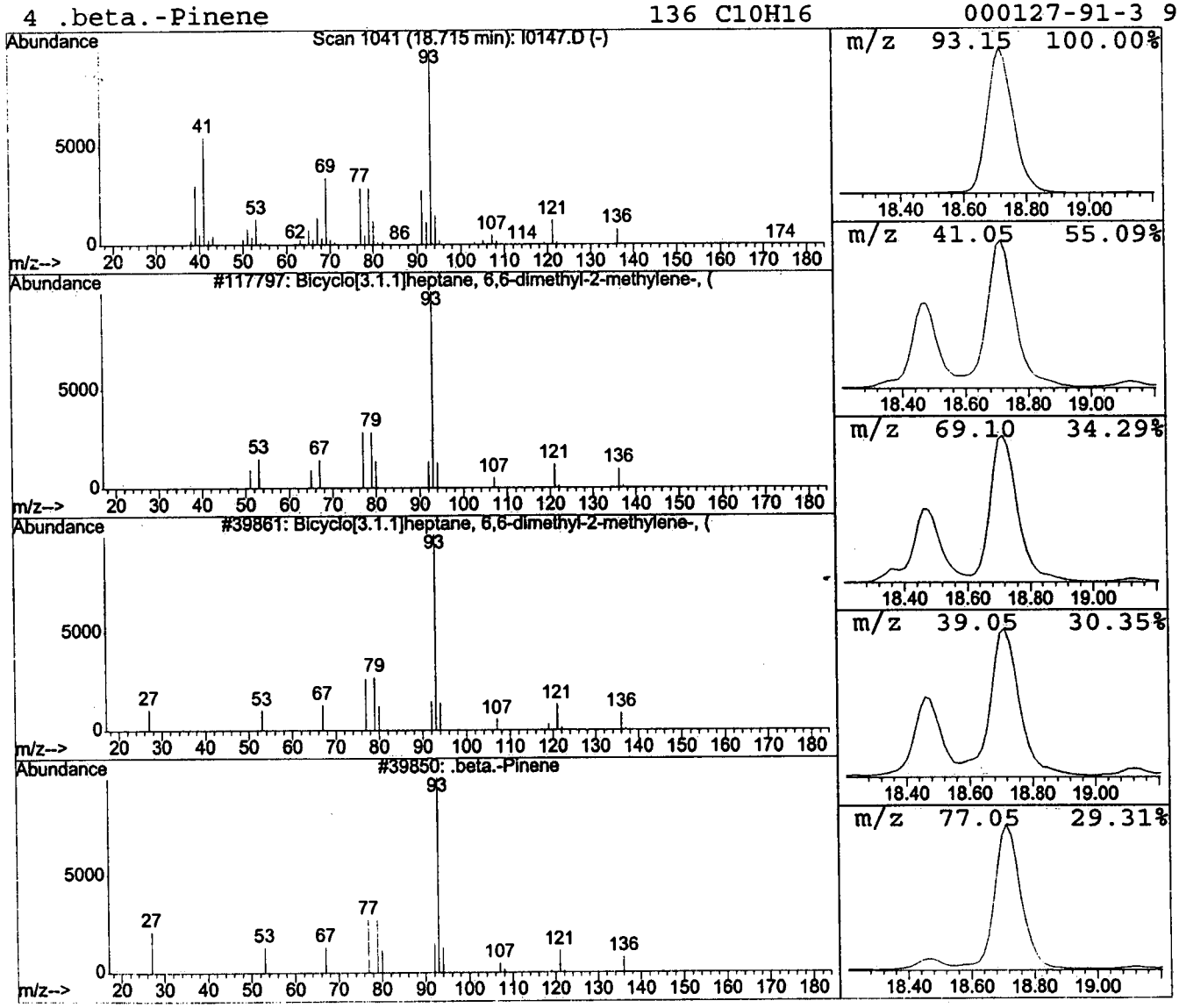
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown — Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.71	199.59 UG	38707300	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[3.1.1]heptane, 6,6-dimethyl	136	C10H16	018172-67-3	97
2	Bicyclo[3.1.1]heptane, 6,6-dimethyl	136	C10H16	018172-67-3	97
3	.beta.-Pinene	136	C10H16	000127-91-3	95
4	.beta.-Pinene	136	C10H16	000127-91-3	95



1451

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

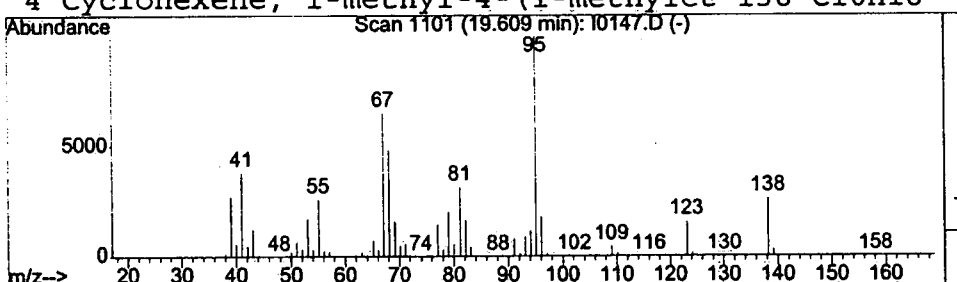
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

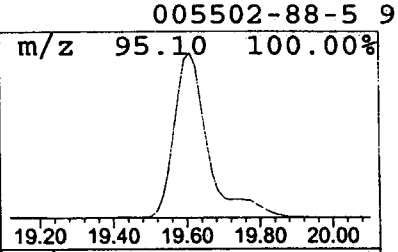
****

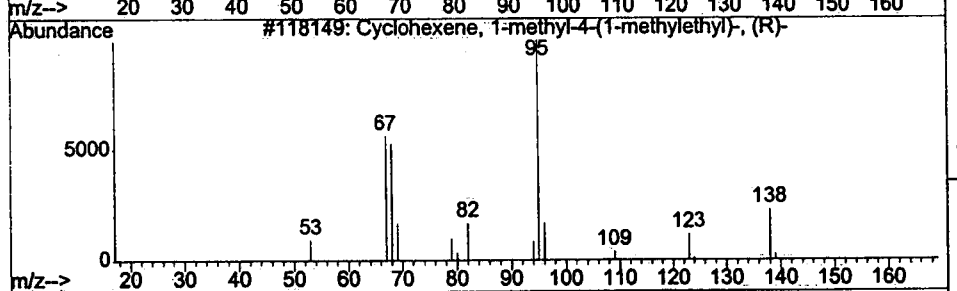
Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 1

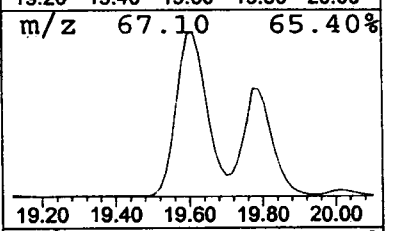
R.T.	EstConc	Area	Relative to ISTD	R.T.
19.61	1023.35 UG	198461000	Chlorobenzene-d5	15.71

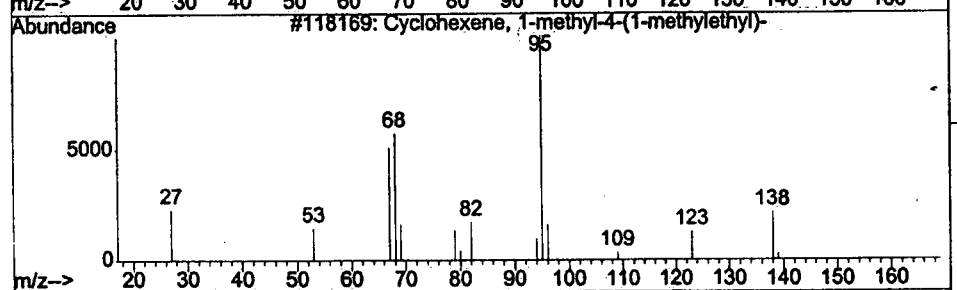
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	96
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	95
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	95
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	94

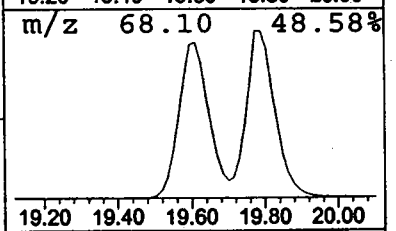


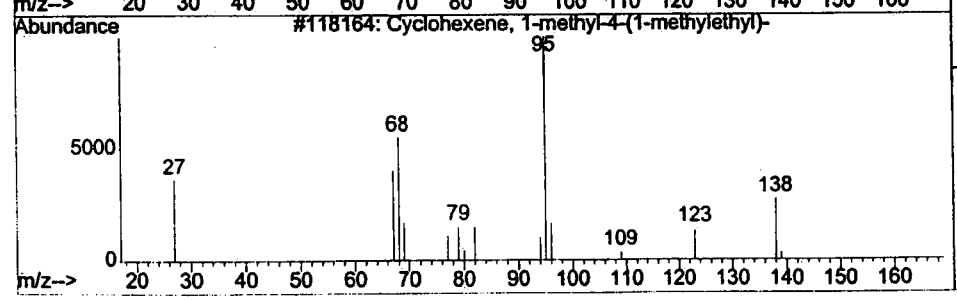


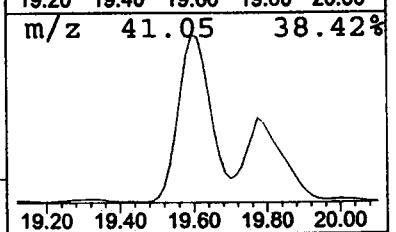


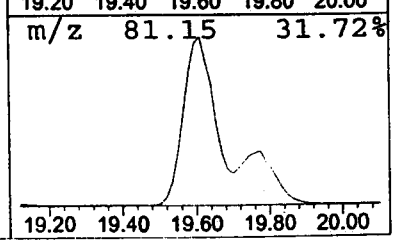












1452

0219

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D Vial: 10
Acq On : 17 Jul 2001 22:41 Operator: DP
Sample : S-97B,4833-006,M,0.046g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

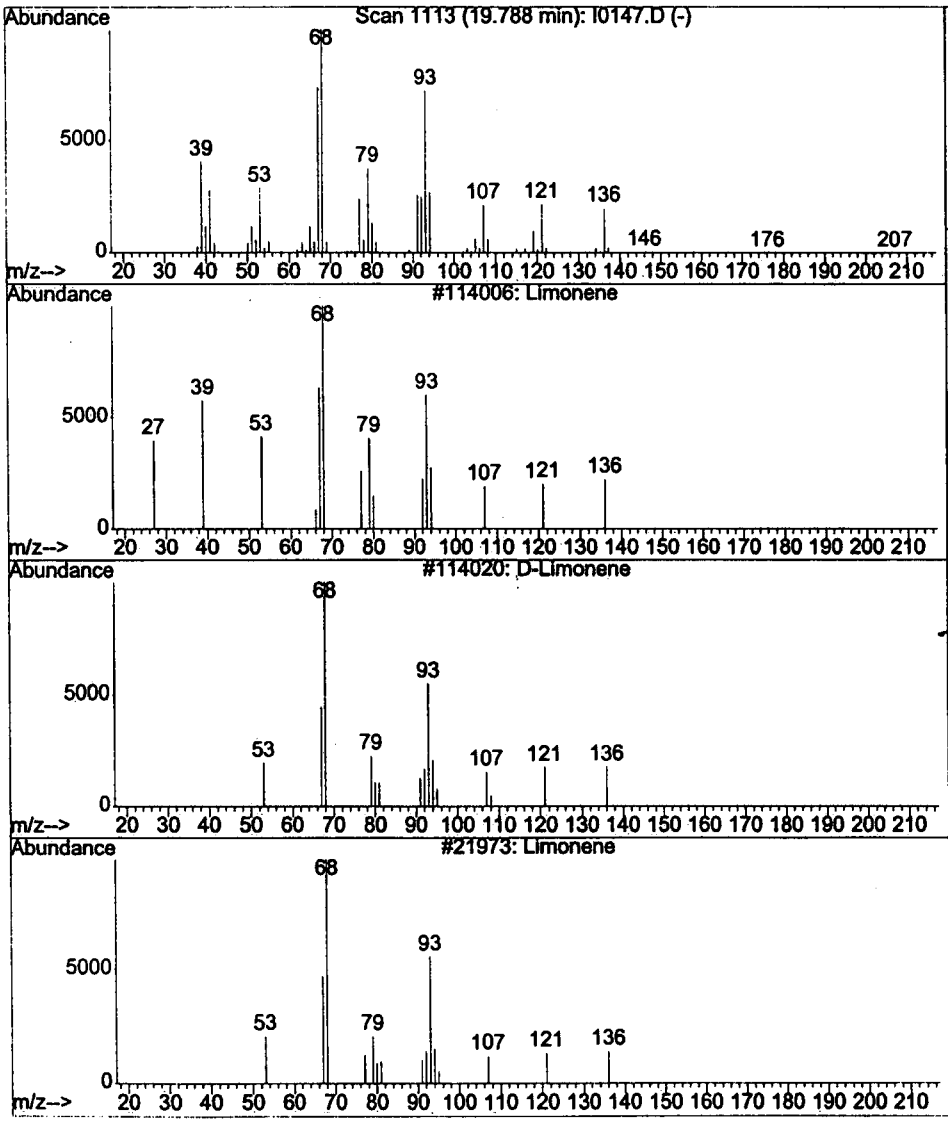
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

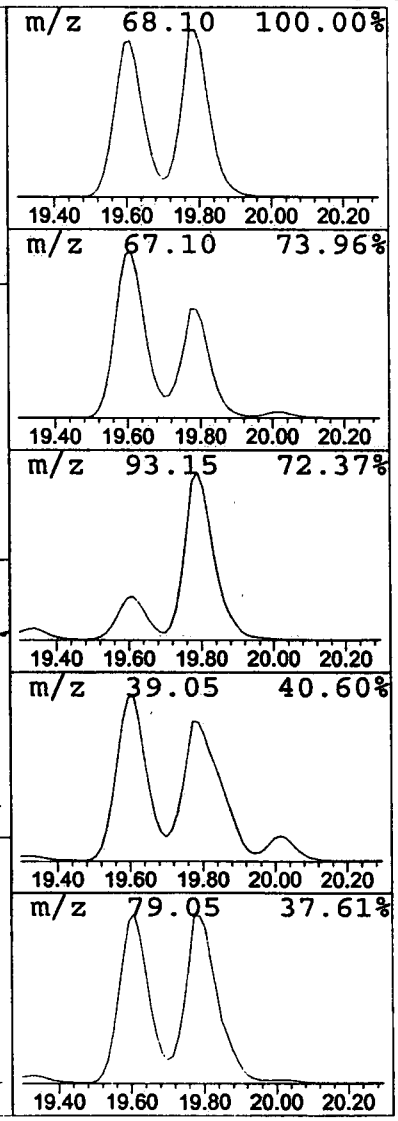
****

Peak Number 6 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.79	944.63 UG	183195000	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Limonene	136	C10H16	000138-86-3	94
2	D-Limonene	136	C10H16	005989-27-5	91
3	Limonene	136	C10H16	000138-86-3	86
4	D-Limonene	136	C10H16	005989-27-5	81





1453

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

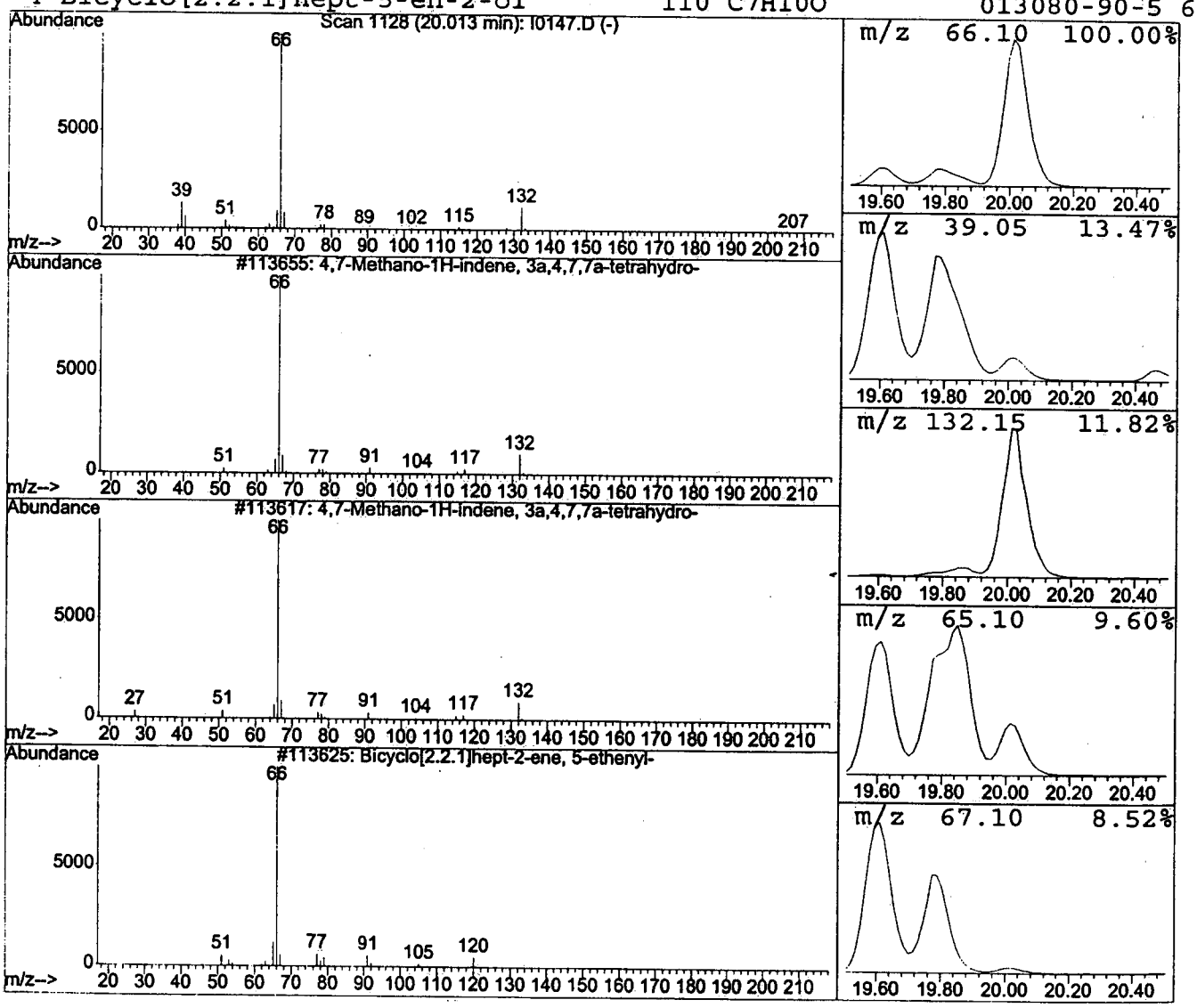
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Unknown — Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.01	87.12 UG	16894900	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,7-Methano-1H-indene, 3a,4,7,7a-te	132	C10H12	000077-73-6	90
2	4,7-Methano-1H-indene, 3a,4,7,7a-te	132	C10H12	000077-73-6	90
3	Bicyclo[2.2.1]hept-2-ene, 5-ethenyl	120	C9H12	003048-64-4	74
4	Bicyclo[2.2.1]hept-5-en-2-ol	110	C7H10O	013080-90-5	64



1454

0221

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

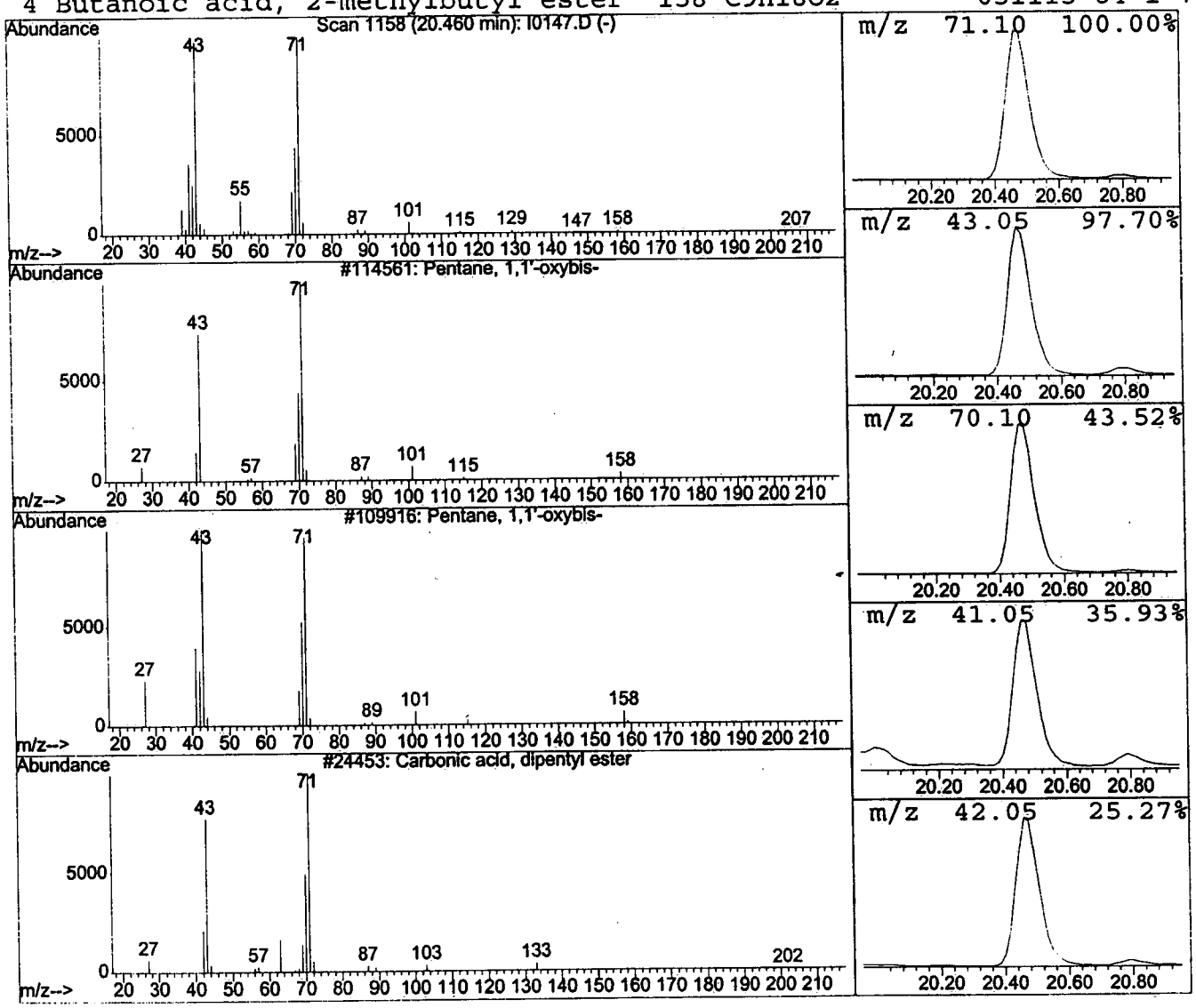
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown — Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.46	89.19 UG	17297500	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
2	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
3	Carbonic acid, dipentyl ester	202	C11H22O3	002050-94-4	83
4	Butanoic acid, 2-methylbutyl ester	158	C9H18O2	051115-64-1	74



0222

1455

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D Vial: 10
Acq On : 17 Jul 2001 22:41 Operator: DP
Sample : S-97B,4833-006,M,0.046g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

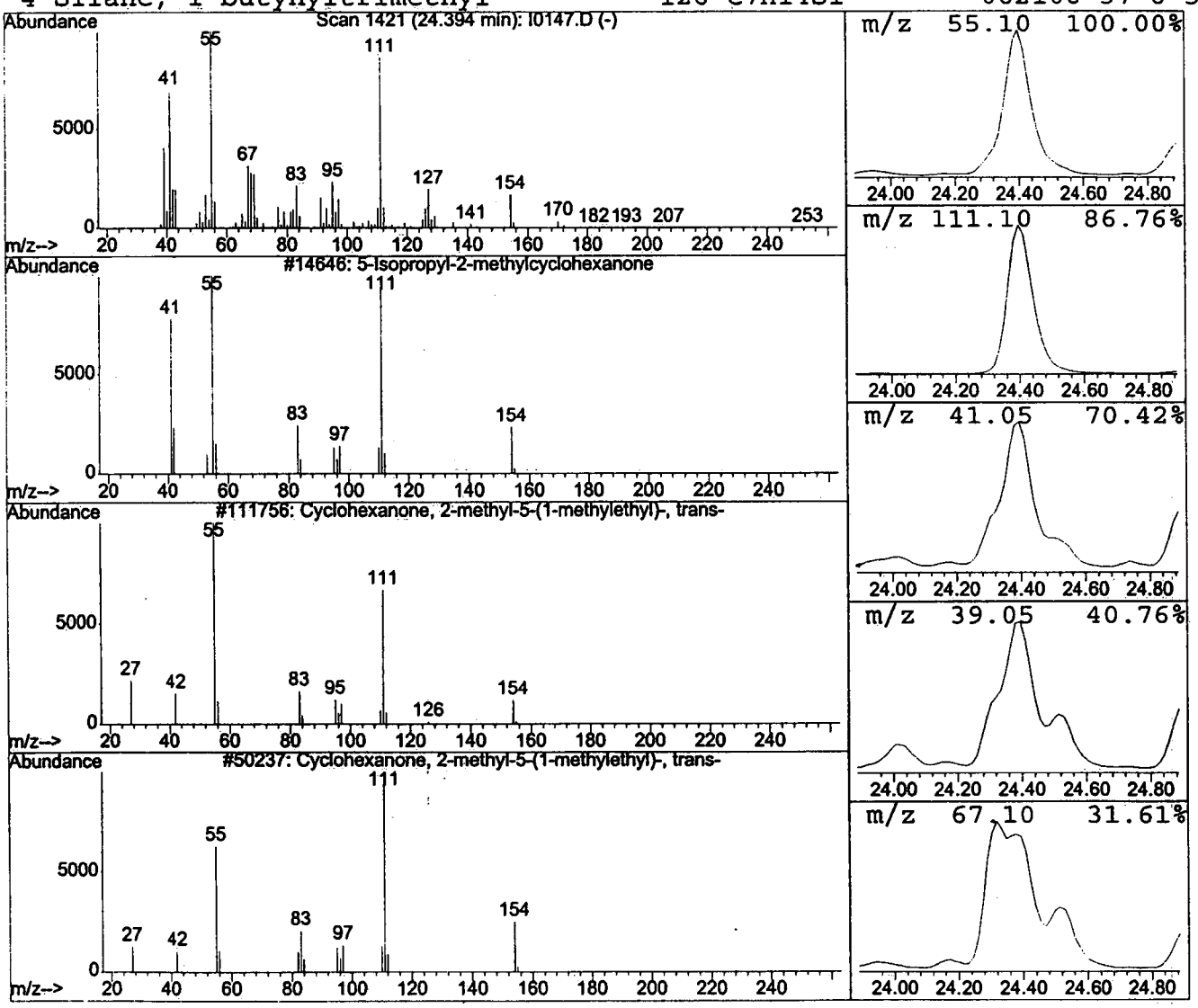
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 9 Unknown hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.39	170.19 UG	33006200	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Isopropyl-2-methylcyclohexanone	154	C10H18O	1000210-27-9	96
2	Cyclohexanone, 2-methyl-5-(1-methyl	154	C10H18O	000499-70-7	93
3	Cyclohexanone, 2-methyl-5-(1-methyl	154	C10H18O	000499-70-7	76
4	Silane, 1-butynyltrimethyl-	126	C7H14Si	062108-37-6	50



1456

Data File : C:\HPCHEM\1\DATA\07-17-01\I0147.D
Acq On : 17 Jul 2001 22:41
Sample : S-97B,4833-006,M,0.046g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 10
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

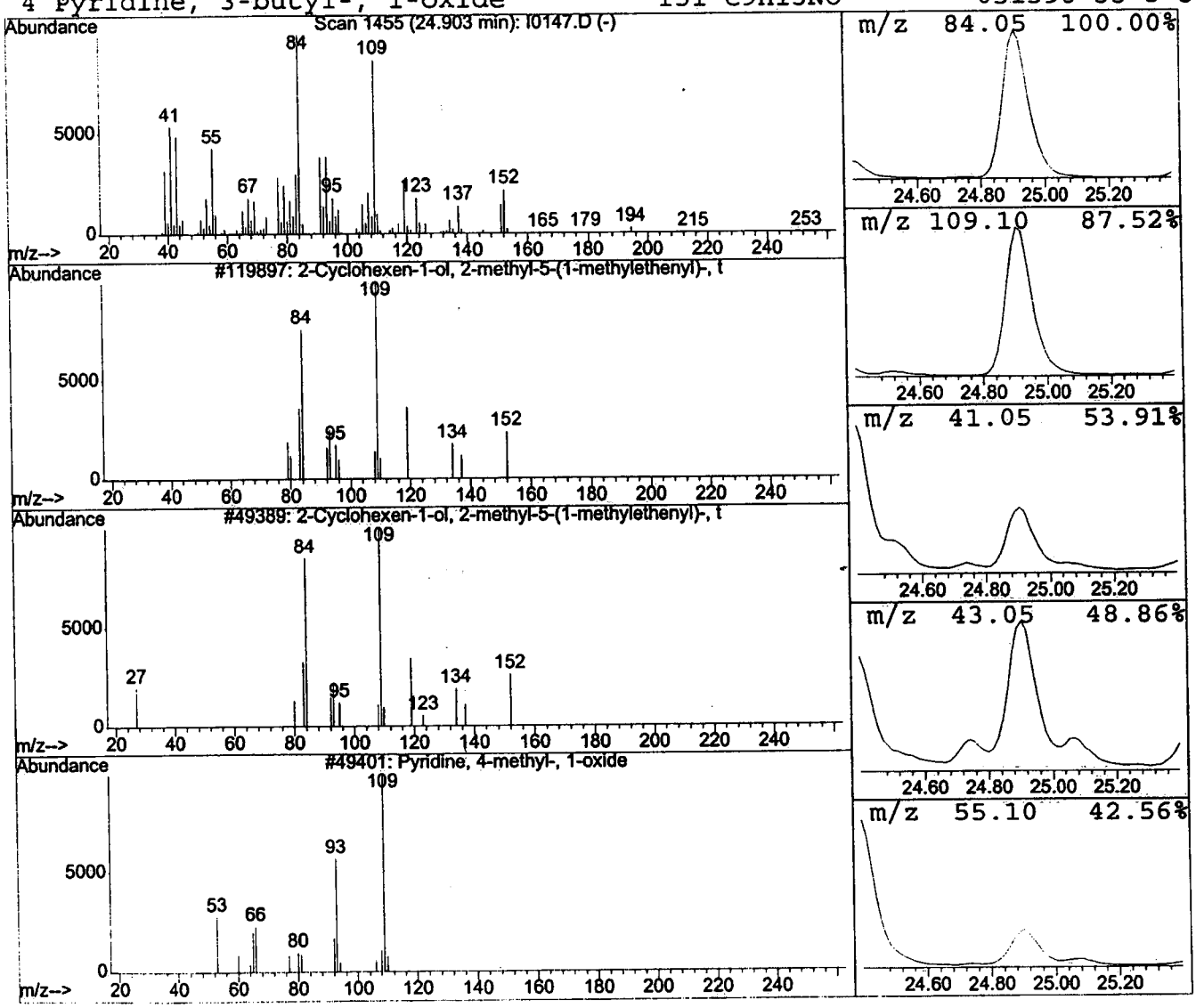
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 10 Unknown — Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.90	96.90 UG	18791800	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	60
2	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	52
3	Pyridine, 4-methyl-, 1-oxide	109	C6H7NO	001003-67-4	42
4	Pyridine, 3-butyl-, 1-oxide	151	C9H13NO	031396-33-5	38



1457

0224

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1687.D
Acq On : 23 Jul 2001 18:08
Sample : S-98A,4833-006,M,0.002g,19.1
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,20 DL
MS Integration Params: LSCINT.P
Quant Time: Jul 23 18:28:16 2001

Vial: 13
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00
Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

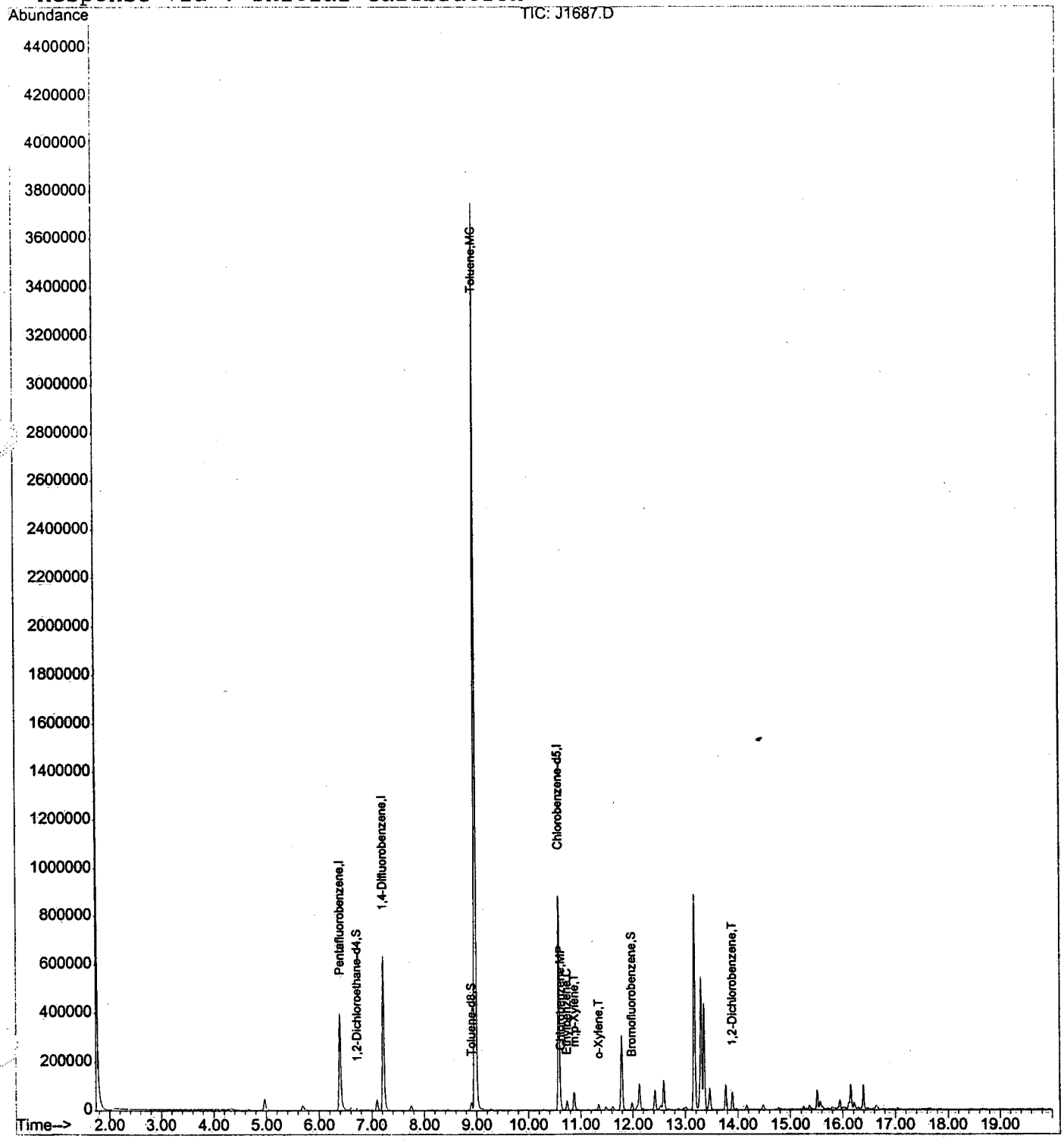
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.40	168	353288	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.22	114	608333	50.00	UG		0.00
50) Chlorobenzene-d5	10.58	117	575958	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	7081m	2.58	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 5.16%#				
41) Toluene-d8	8.90	98	26281	2.17	UG		0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 4.34%#				
59) Bromofluorobenzene	11.98	95	13898	1.94	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 3.88%#				
Target Compounds							Qvalue
42) Toluene	8.98	92	1800827	189.30	UG		100
51) Chlorobenzene	10.62	112	20632	1.72	UG	#	74
53) Ethylbenzene	10.74	91	33455	1.84	UG		98
54) m,p-Xylene	10.88	106	27782	3.66	UG		86
55) o-Xylene	11.36	106	7907	1.02	UG		89
74) 1,2-Dichlorobenzene	13.90	146	36597	4.62	UG	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1687.D Vial: 13
Acq On : 23 Jul 2001 18:08 Operator: XINGFANG WAN
Sample : S-98A,4833-006,M,0.002g,19.1 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,20 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:24 2001 Quant Results File: JME0722.R

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1459

0226

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1687.D
Acq On : 23 Jul 2001 18:08
Sample : S-98A,4833-006,M,0.002g,19.1
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,20
MS Integration Params: LSCINT.P

Vial: 13
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

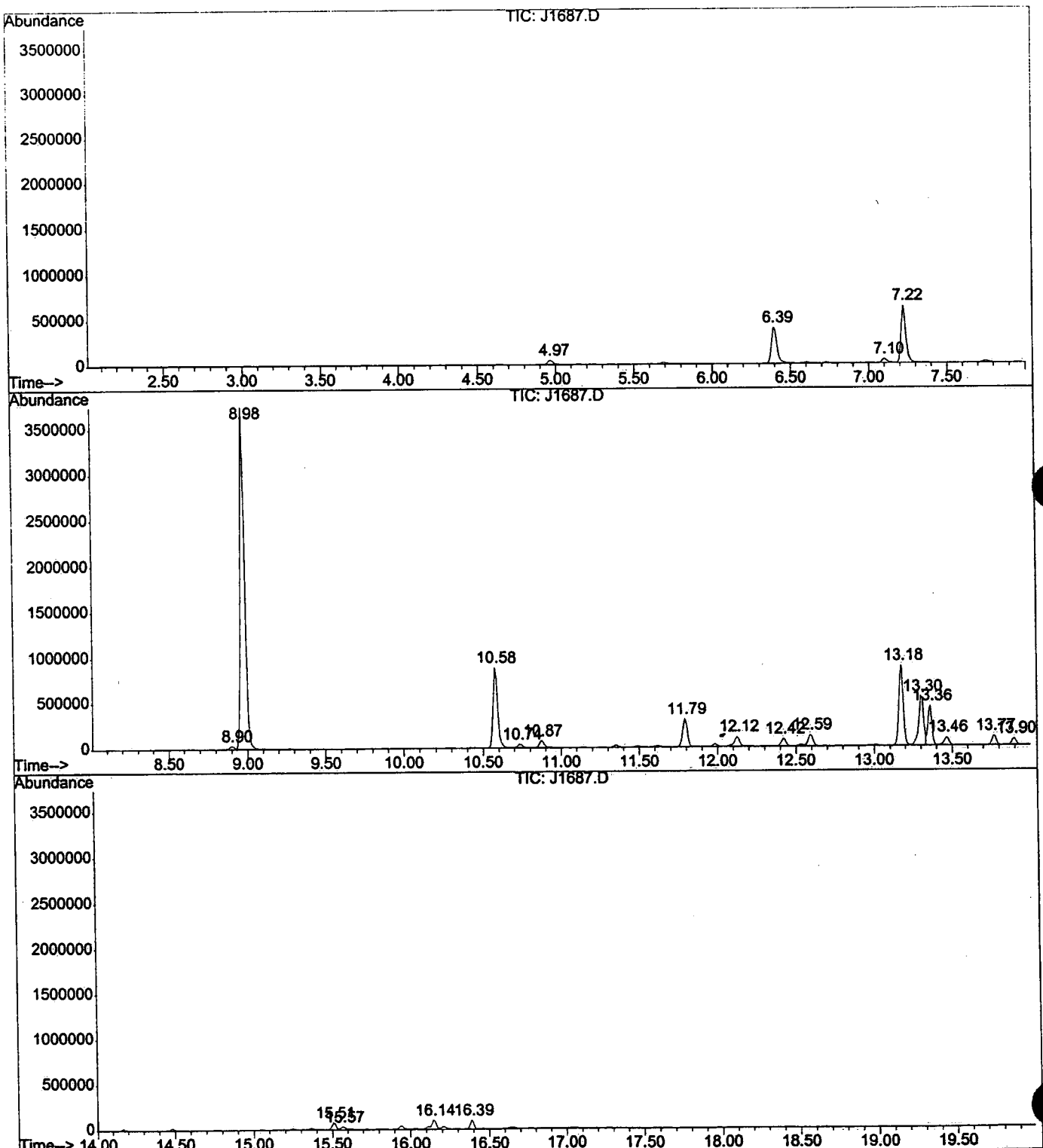
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.965	314	320	336	rBV	49105	130747	1.82%	0.721%
2	6.393	454	461	476	rBV	399448	973152	13.55%	5.369%
3	7.102	526	531	538	rBV	46176	104984	1.46%	0.579%
4	7.224	538	543	563	rVB	634737	1363164	18.99%	7.521%
5	8.905	700	709	711	rBV	34567	76226	1.06%	0.421%
6	8.975	711	716	727	rVB	3744841	7180085	100.00%	39.615%
7	10.575	867	874	886	rBV	886144	1779969	24.79%	9.821%
8	10.737	886	890	896	rVV	40055	80013	1.11%	0.441%
9	10.869	898	903	916	rVB	75043	165508	2.31%	0.913%
10	11.791	987	994	1003	rBV2	308277	641862	8.94%	3.541%
11	12.125	1019	1027	1032	rBV2	109391	257149	3.58%	1.419%
12	12.418	1047	1056	1061	rBV2	82649	176617	2.46%	0.974%
13	12.590	1070	1073	1079	rVB	123688	257693	3.59%	1.422%
14	13.178	1124	1131	1137	rBV2	888828	1810140	25.21%	9.987%
15	13.299	1137	1143	1146	rVV	546224	1175477	16.37%	6.486%
16	13.360	1146	1149	1154	rVV	436697	792969	11.04%	4.375%
17	13.461	1154	1159	1165	rVB	91238	195853	2.73%	1.081%
18	13.765	1182	1189	1197	rBV	103752	198466	2.76%	1.095%
19	13.897	1197	1202	1207	rVB	74143	143051	1.99%	0.789%
20	15.507	1357	1361	1364	rBV	79505	139739	1.95%	0.771%
21	15.568	1364	1367	1377	rVB4	33154	88411	1.23%	0.488%
22	16.145	1416	1424	1428	rBV3	101661	226017	3.15%	1.247%
23	16.388	1442	1448	1452	rBV	101552	167220	2.33%	0.923%

Sum of corrected areas: 18124512

File : C:\MSDCHEM\1\DATA\07-23-01\J1687.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 18:08 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-98A,4833-006,M,0.002g,19.1
Misc Info : ENVTACT/ORBIS,7/12/01,7/16/01,20
Vial Number: 13
Quant File :JME0722.RES (RTE Integrator)



0002

1461

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D Vial: 14
Acq On : 23 Jul 2001 18:36 Operator: XINGFANG WANG
Sample : S-98B,4833-007,M,0.02g,15.8 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2 Multiplr: 1.00
IS Integration Params: LSCINT.P
Quant Time: Jul 23 18:56:10 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

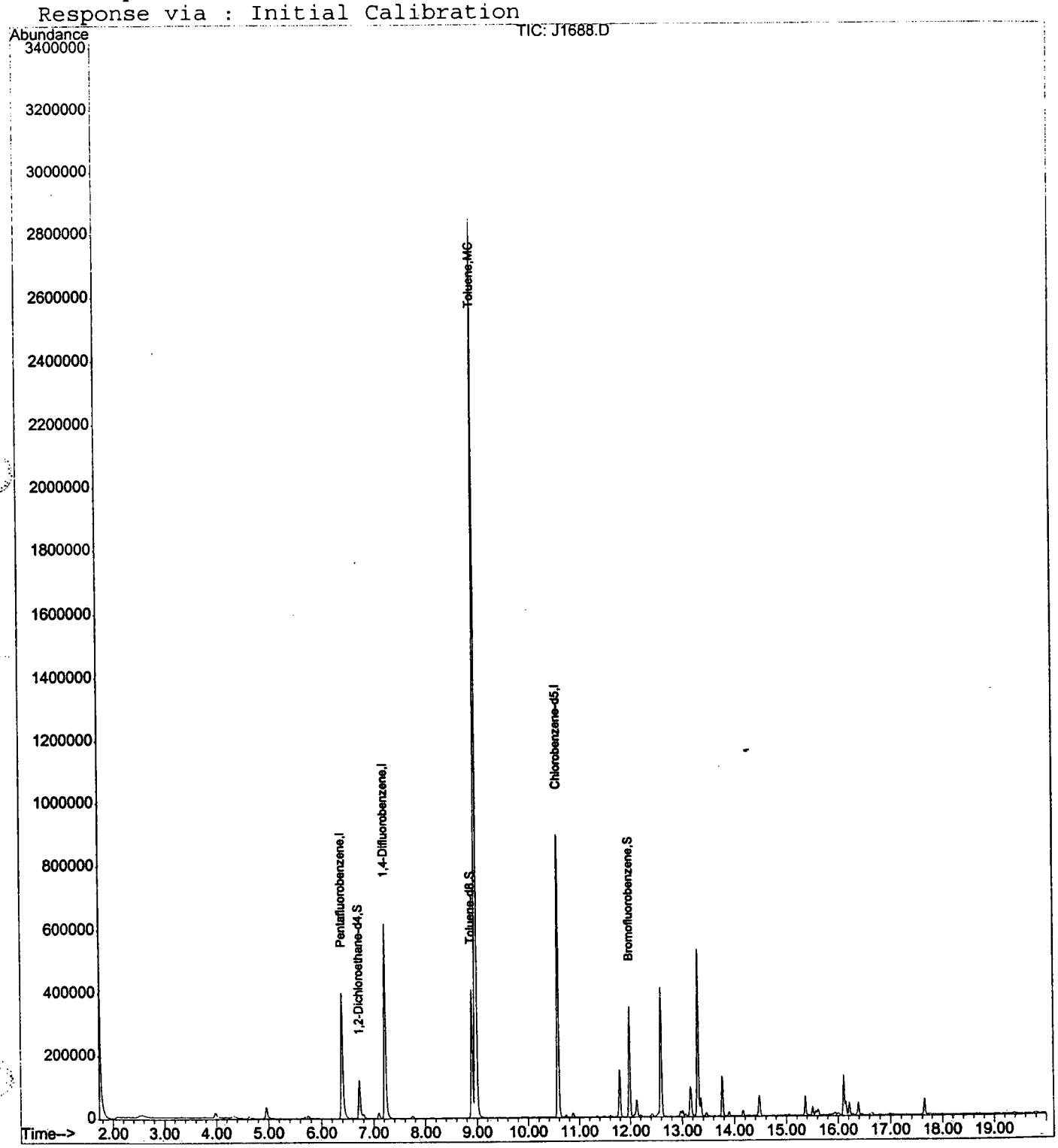
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	350085	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	606152	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	578879	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	84945	31.18	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 62.36%			
41) Toluene-d8	8.89	98	313059	25.92	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 51.84%			
59) Bromofluorobenzene	11.98	95	150446	20.92	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 41.84%			
Target Compounds						Qvalue
42) Toluene	8.98	92	1403785	148.09	UG	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D Vial: 14
Acq On : 23 Jul 2001 18:36 Operator: XINGFANG WAN
Sample : S-98B,4833-007,M,0.02g,15.8 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:27 2001 Quant Results File: JME0722.RE

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1463

0230

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D Vial: 14
Acq On : 23 Jul 2001 18:36 Operator: XINGFANG WANG
Sample : S-98B,4833-007,M,0.02g,15.8 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

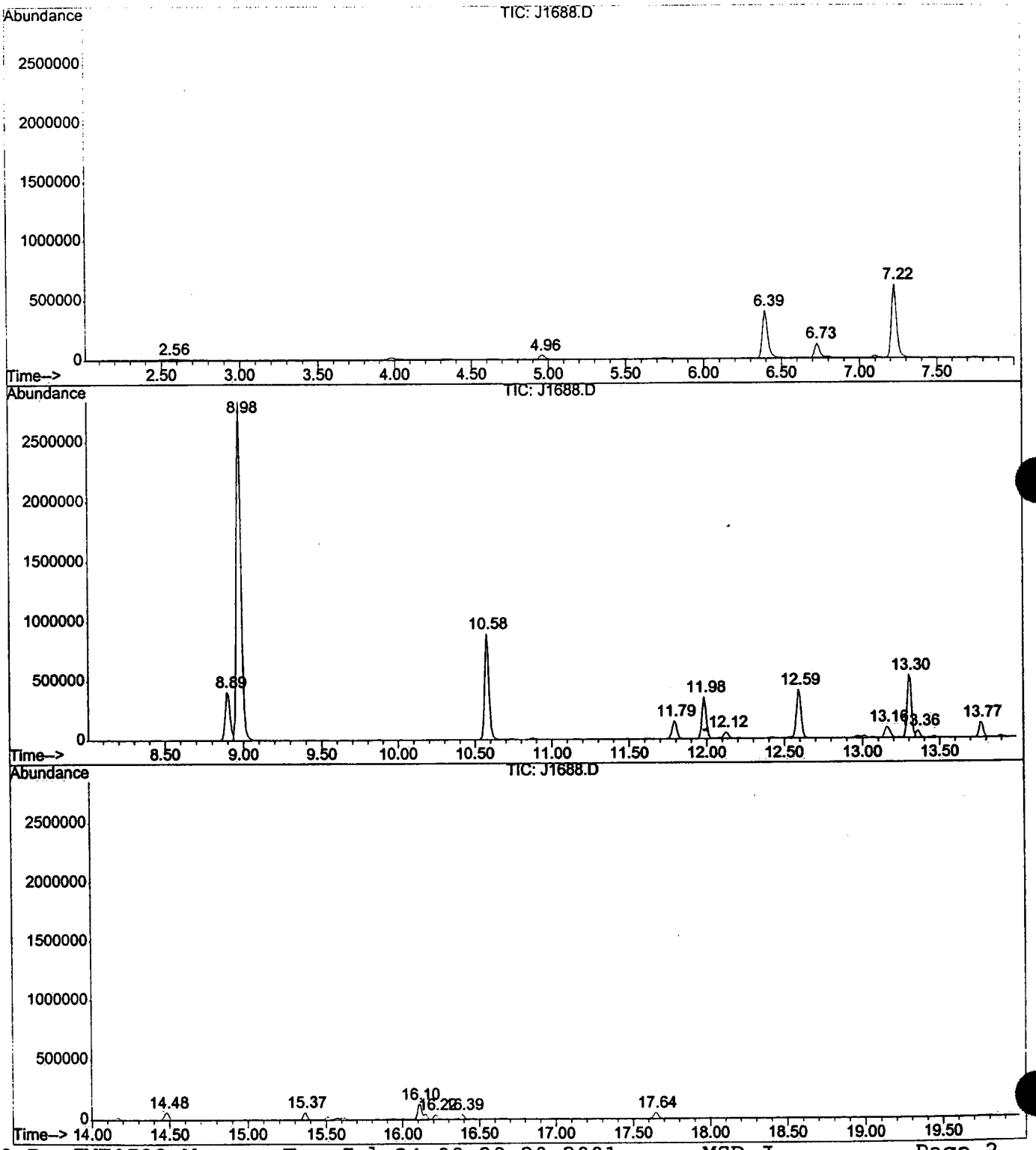
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.555	74	82	101	rVB4	6861	56907	1.01%	0.369%
2	4.955	313	319	342	rVB	36387	104151	1.84%	0.676%
3	6.393	455	461	477	rBV	400908	955086	16.90%	6.201%
4	6.727	489	494	499	rBV	122930	277767	4.92%	1.803%
5	7.223	537	543	563	rVB	619160	1363480	24.13%	8.853%
6	8.894	700	708	712	rBV	409905	879383	15.56%	5.710%
7	8.975	712	716	734	rVB	2848451	5651162	100.00%	36.692%
8	10.575	865	874	885	rBV	896344	1746719	30.91%	11.341%
9	11.790	986	994	1002	rBV2	151940	311774	5.52%	2.024%
10	11.983	1006	1013	1019	rBV	353454	650317	11.51%	4.222%
11	12.125	1019	1027	1031	rVB	53888	124488	2.20%	0.808%
12	12.590	1060	1073	1081	rBV	412263	863675	15.28%	5.608%
13	13.157	1124	1129	1135	rBV2	94217	231370	4.09%	1.502%
14	13.299	1138	1143	1147	rVV	532111	1037240	18.35%	6.735%
15	13.360	1147	1149	1154	rVV	59693	97368	1.72%	0.632%
16	13.765	1181	1189	1196	rBV	128990	235028	4.16%	1.526%
17	14.484	1253	1260	1266	rVB	65351	143017	2.53%	0.929%
18	15.365	1343	1347	1357	rVB	63811	110847	1.96%	0.720%
19	16.104	1415	1420	1428	rBV2	127296	303271	5.37%	1.969%
20	16.216	1428	1431	1435	rVB2	40003	68667	1.22%	0.446%
21	16.388	1441	1448	1453	rBV	41242	78463	1.39%	0.509%
22	17.643	1560	1572	1579	rBV	52273	111515	1.97%	0.724%

Sum of corrected areas: 15401695

File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 18:36 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-98B,4833-007,M,0.02g,15.8
Misc Info : ENVTACT/ORBIS,7/12/01,7/16/01,2
Vial Number: 14
Quant File :JME0722.RES (RTE Integrator)



1465

0232

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
Acq On : 23 Jul 2001 18:36
Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
S Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

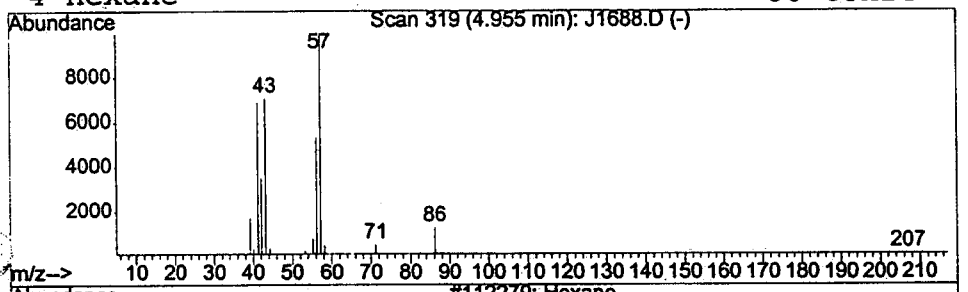
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

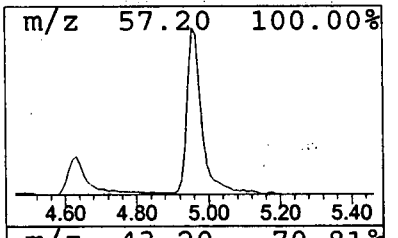
****

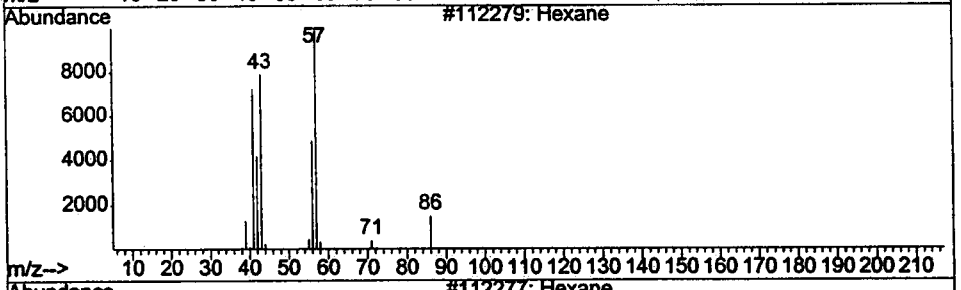
Peak Number 1 Unknown alkane Concentration Rank 7

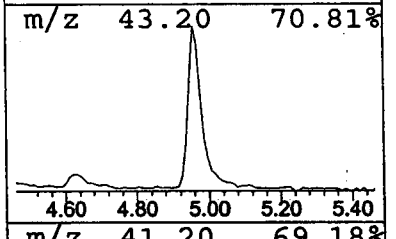
R.T.	EstConc	Area	Relative to ISTD	R.T.
4.96	5.45 UG	104151	Pentafluorobenzene	6.39

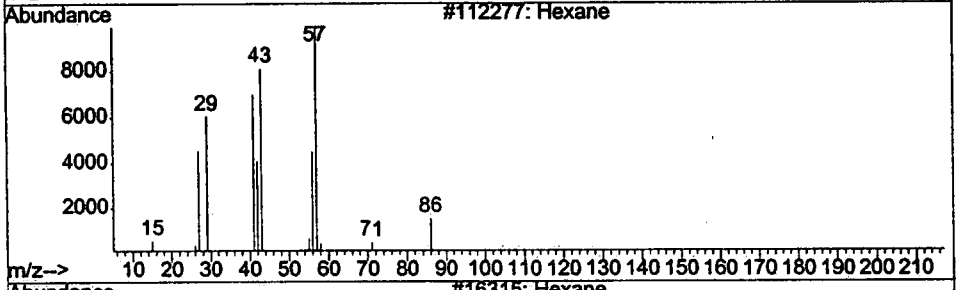
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane	86	C6H14	000110-54-3	91
2	Hexane	86	C6H14	000110-54-3	90
3	Hexane	86	C6H14	000110-54-3	90
4	Hexane	86	C6H14	000110-54-3	72

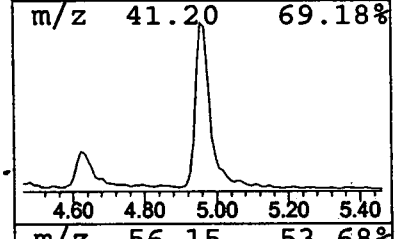


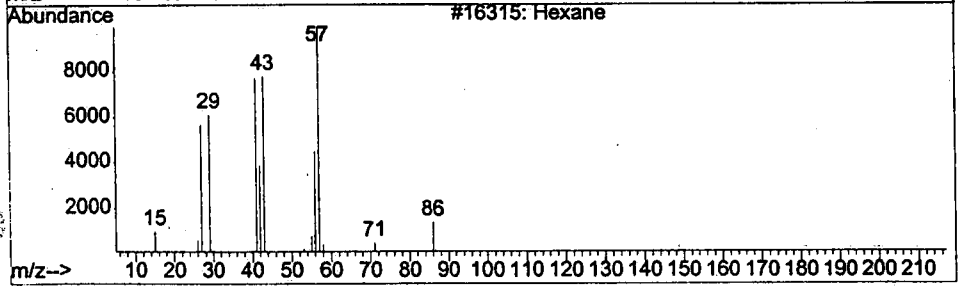


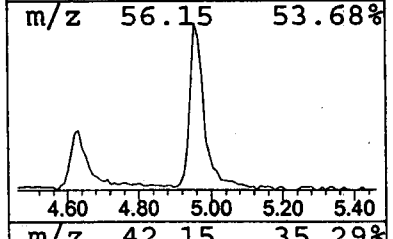


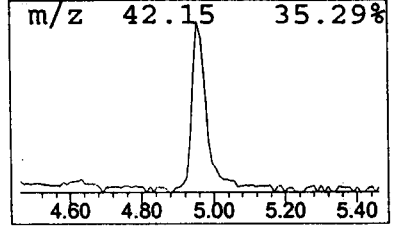












1466

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
Acq On : 23 Jul 2001 18:36
Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
MS Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

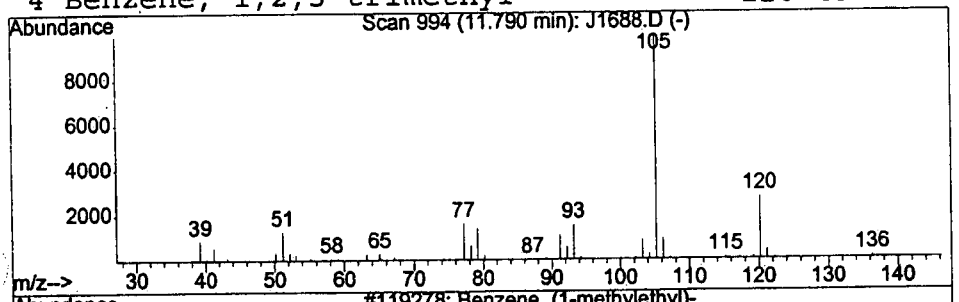
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

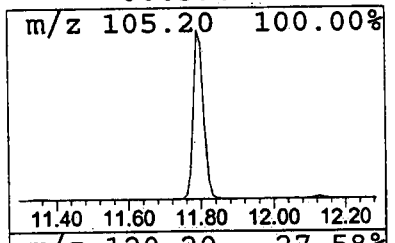
****

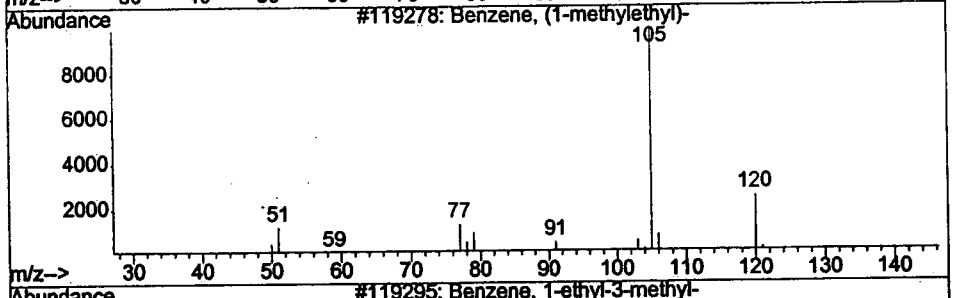
Peak Number 2 Substituted benzene Concentration Rank 3

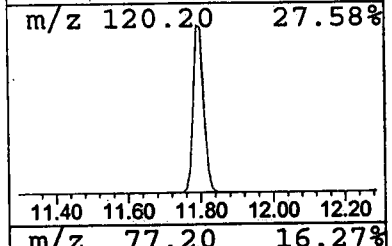
R.T.	EstConc	Area	Relative to ISTD	R.T.
11.79	8.92 UG	311774	Chlorobenzene-d5	10.58

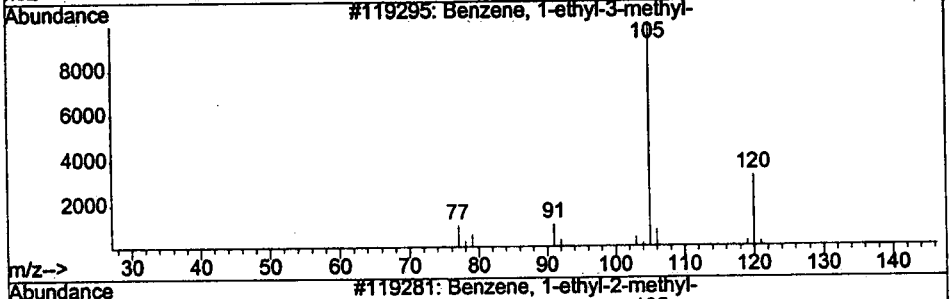
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	87
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	87
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	87
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	83

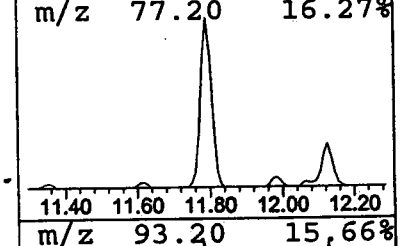


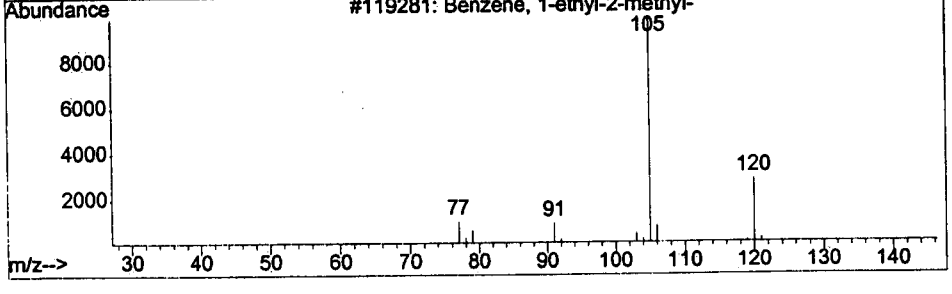


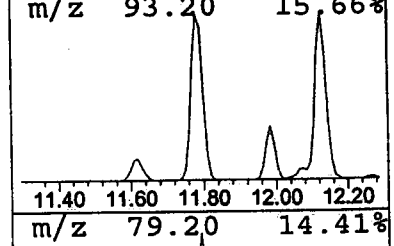


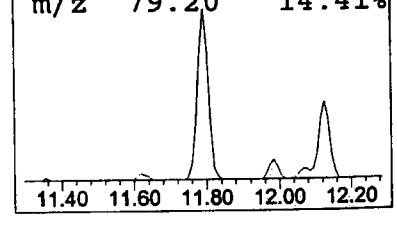












Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
Acq On : 23 Jul 2001 18:36
Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

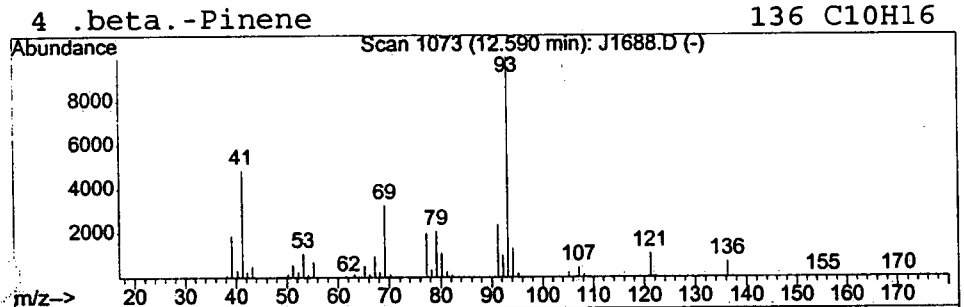
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

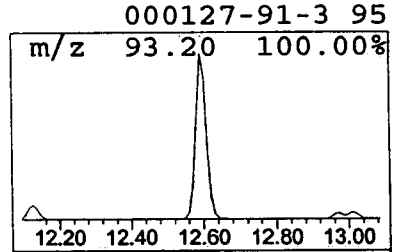
****

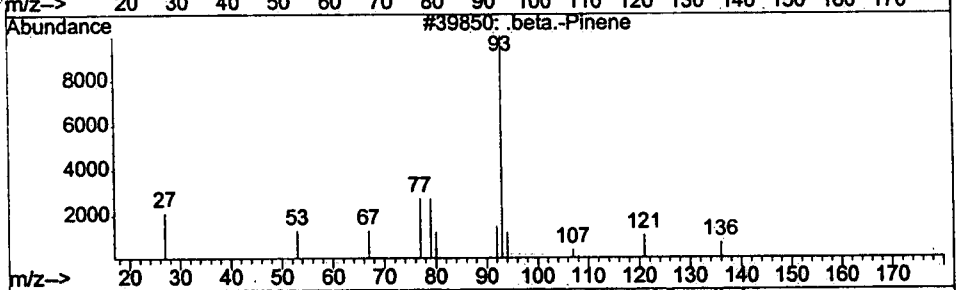
Peak Number 3 Unknown — Concentration Rank 2

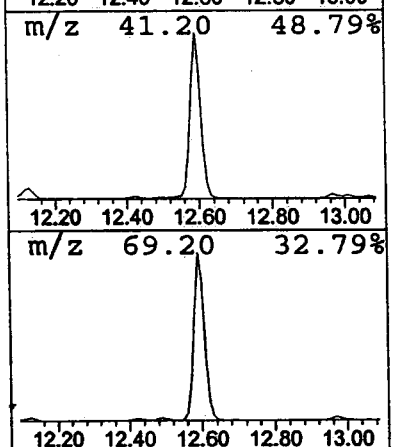
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.59	24.72 UG	863675	Chlorobenzene-d5	10.58

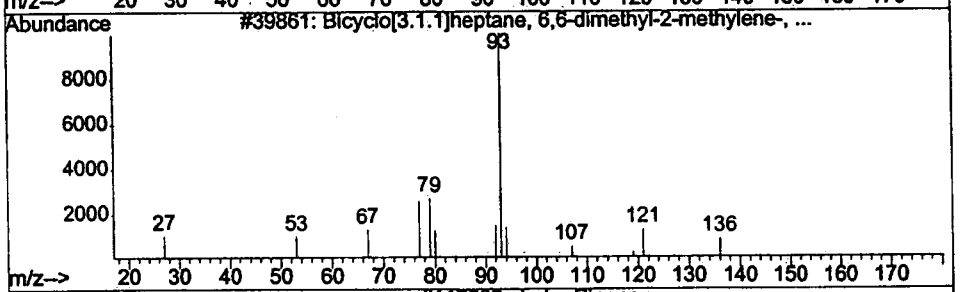
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.-Pinene	136	C10H16	000127-91-3	97
2	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	97
3	.beta.-Pinene	136	C10H16	000127-91-3	97
4	.beta.-Pinene	136	C10H16	000127-91-3	95

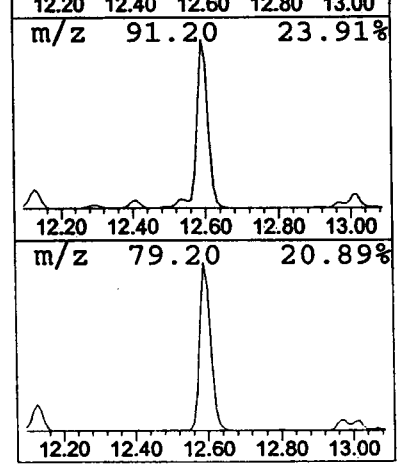


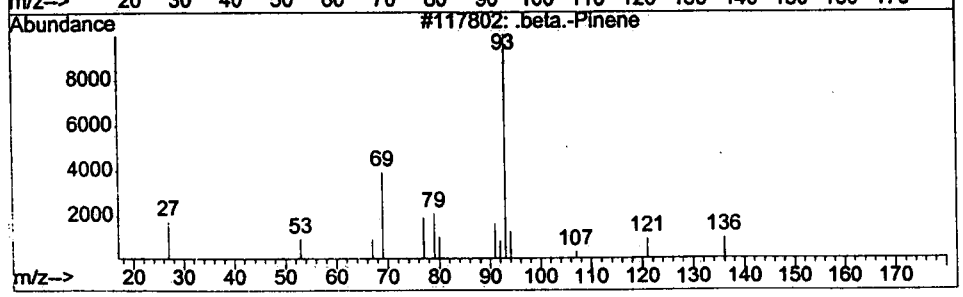












1468

0025

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
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Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
S Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

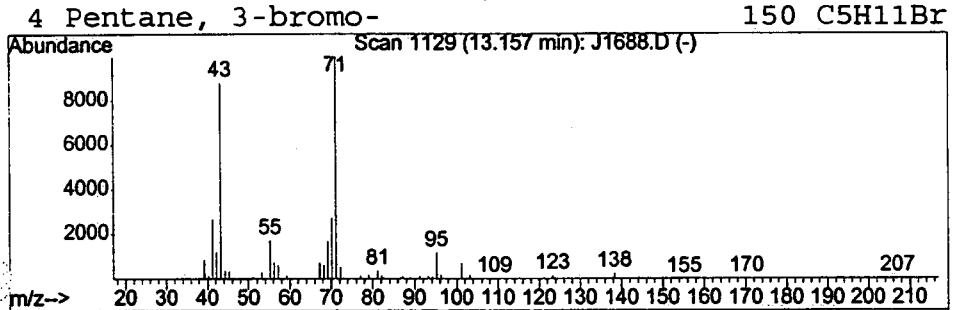
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

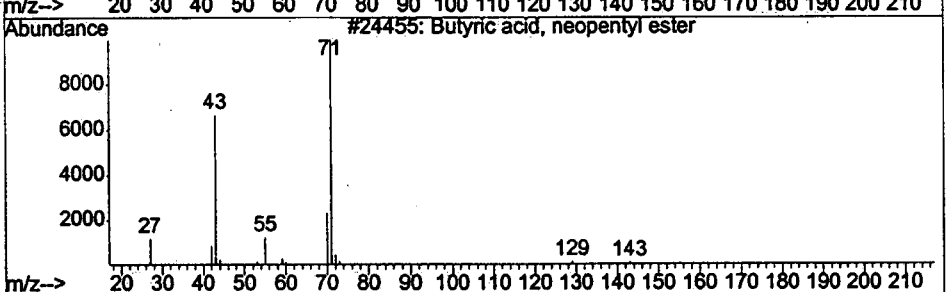
****

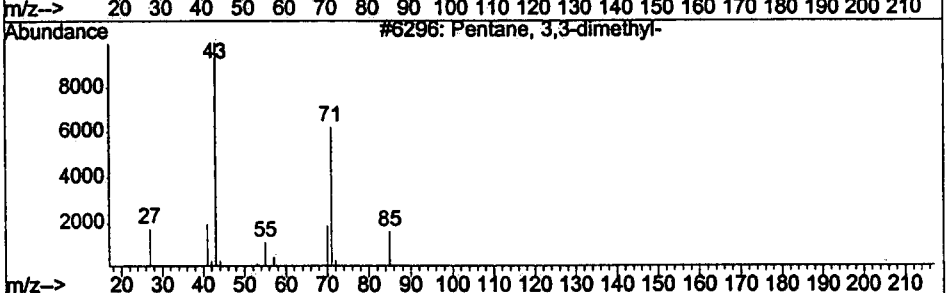
Peak Number 4 Unknown aliphatic Concentration Rank 6

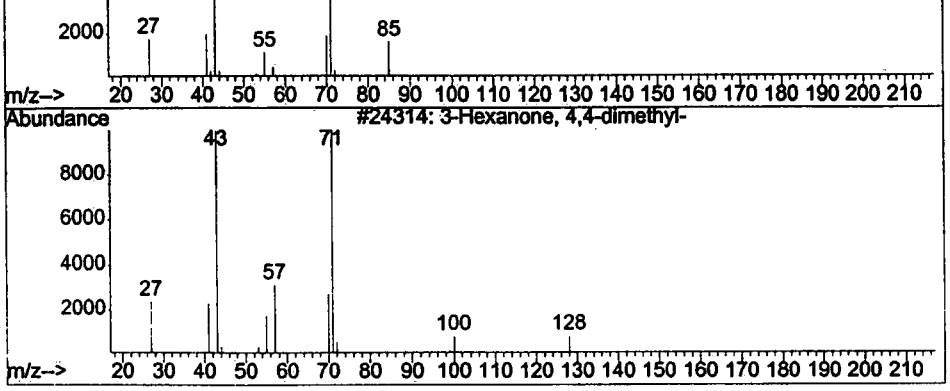
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.16	6.62 UG	231370	Chlorobenzene-d5	10.58

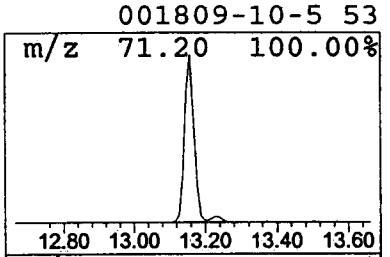
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butyric acid, neopentyl ester	158	C9H18O2	002050-00-2	64
2	Pentane, 3,3-dimethyl-	100	C7H16	000562-49-2	59
3	3-Hexanone, 4,4-dimethyl-	128	C8H16O	019550-14-2	59
4	Pentane, 3-bromo-	150	C5H11Br	001809-10-5	53

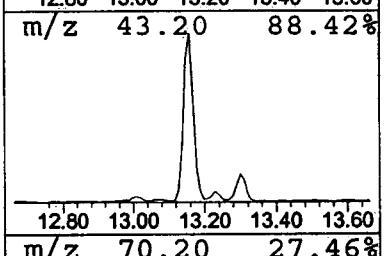


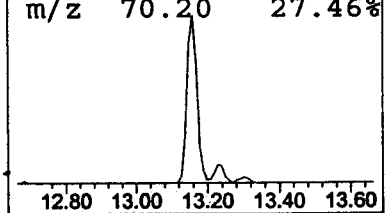


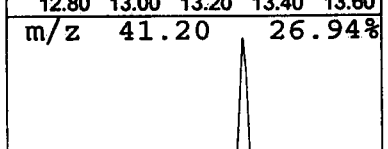


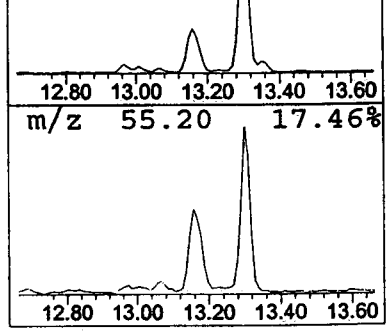












0236

1469

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D Vial: 14
Acq On : 23 Jul 2001 18:36 Operator: XINGFANG WANG
Sample : S-98B,4833-007,M,0.02g,15.8 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2 Multiplr: 1.00
S Integration Params: LSCINT.P

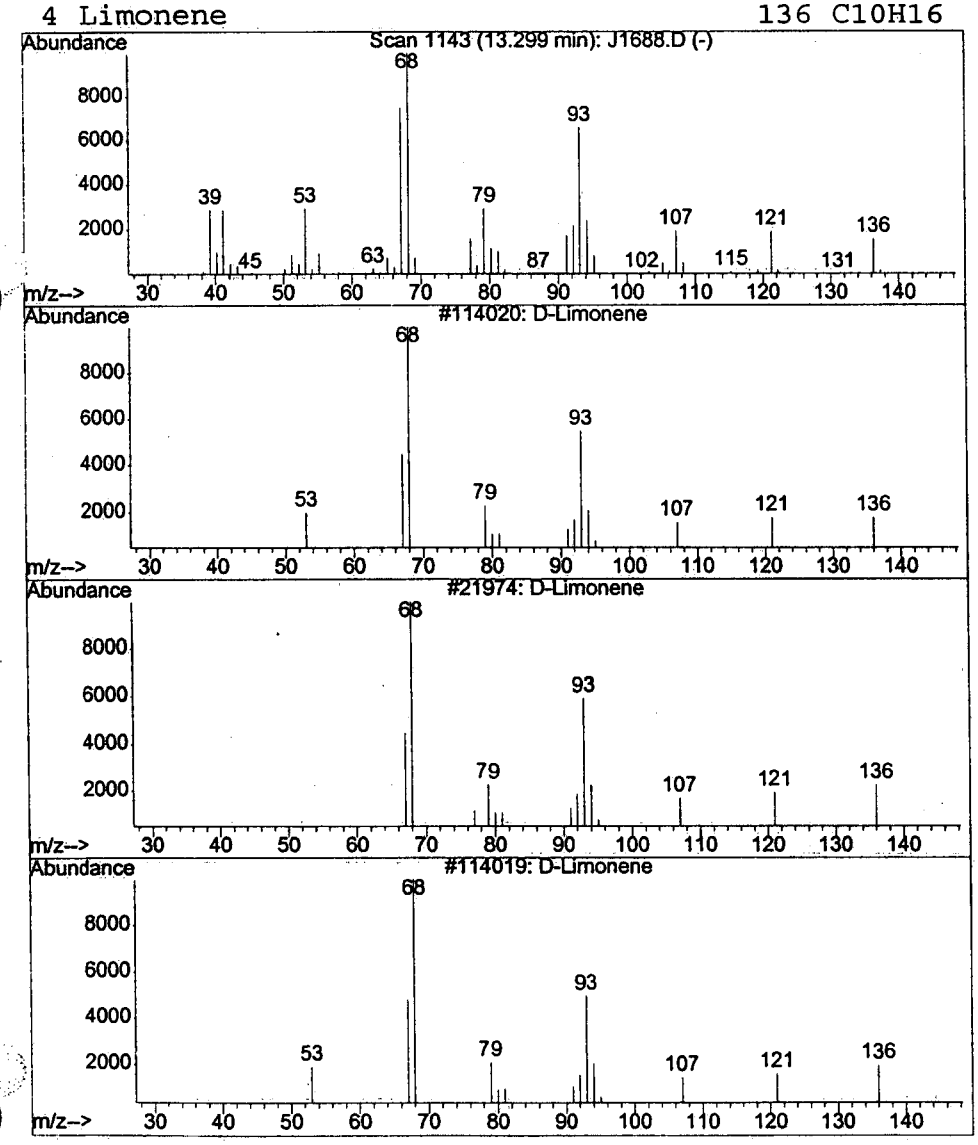
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

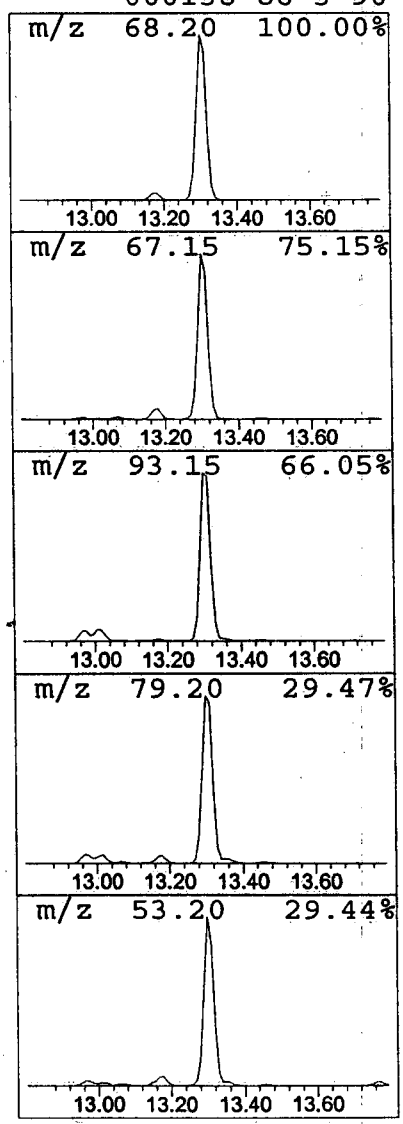
****

Peak Number 5 Unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	29.69 UG	1037240	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	95
3	D-Limonene	136	C10H16	005989-27-5	91
4	Limonene	136	C10H16	000138-86-3	90





0237

1470

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1688.D
Acq On : 23 Jul 2001 18:36
Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

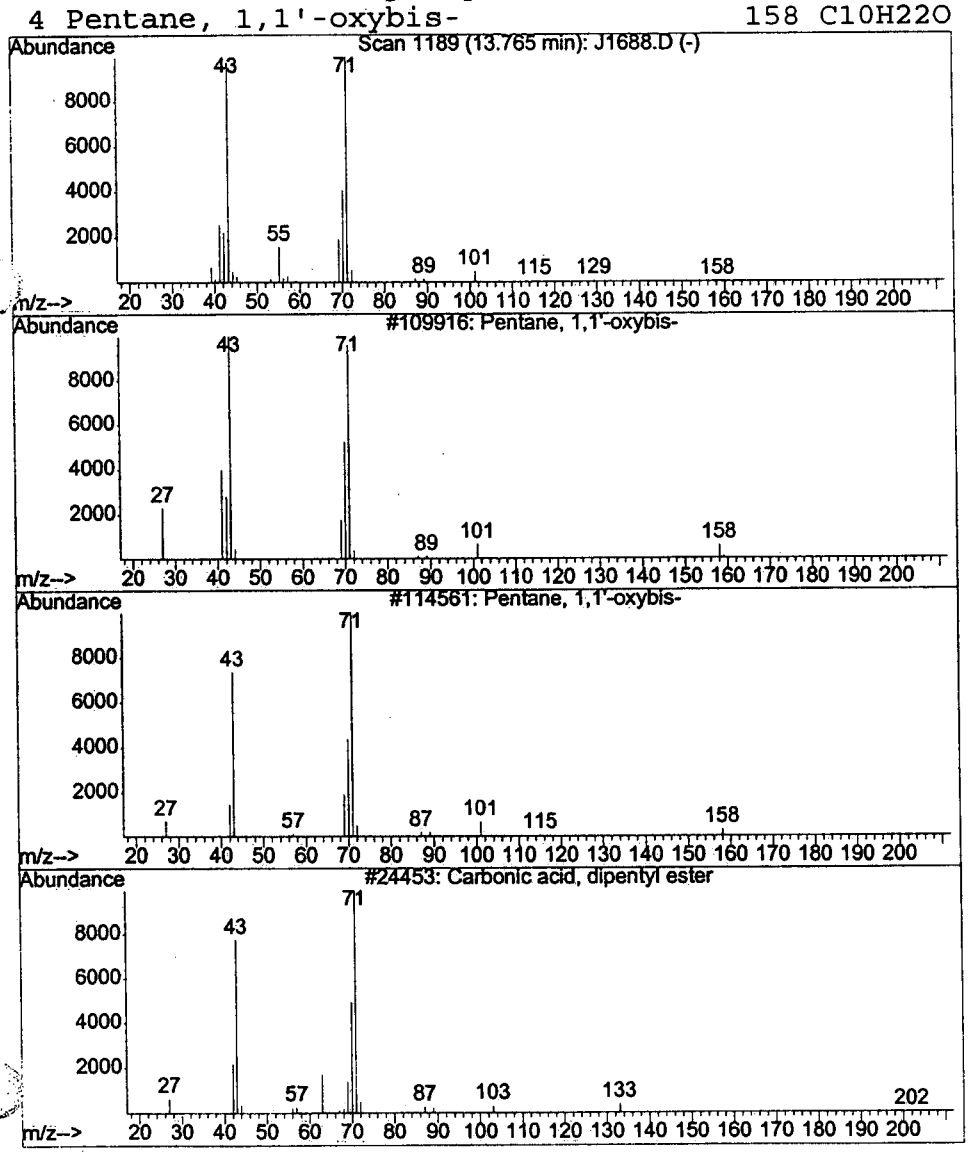
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

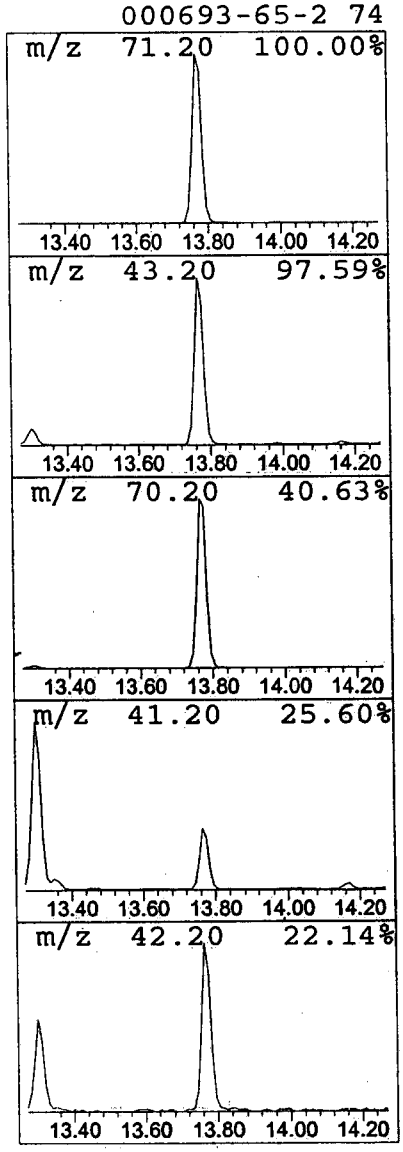
****

Peak Number 6 Unknown aliphatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.77	6.73 UG	235028	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
2	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
3	Carbonic acid, dipentyl ester	202	C11H22O3	002050-94-4	83
4	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	74





0099

1471

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Sample : S-98B,4833-007,M,0.02g,15.8
Misc : ENVTACT/ORBIS,7/12/01,7/16/01,2
S Integration Params: LSCINT.P

Vial: 14
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

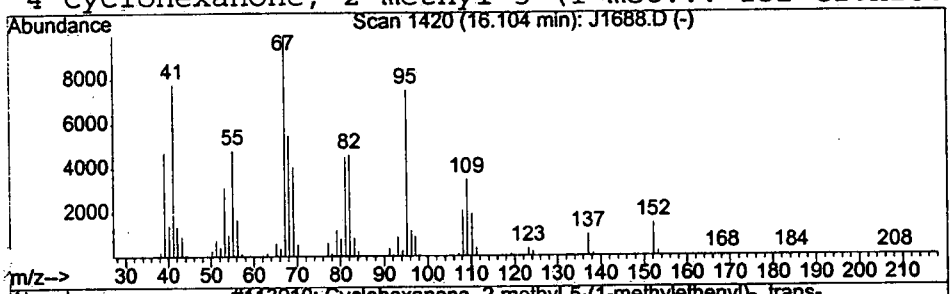
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

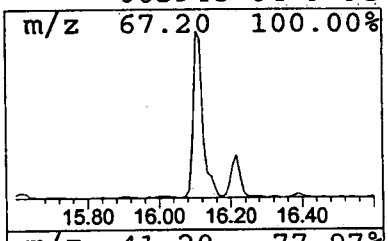
****

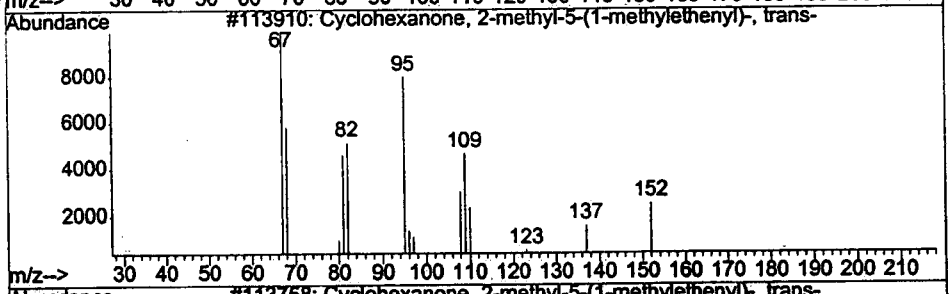
Peak Number 7 Unknown cyclic hydrocarbon Concentration Rank 4

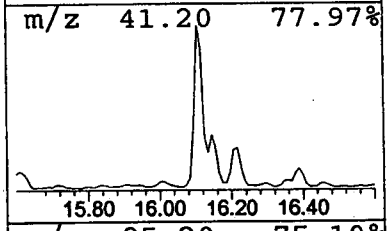
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.10	8.68 UG	303271	Chlorobenzene-d5	10.58

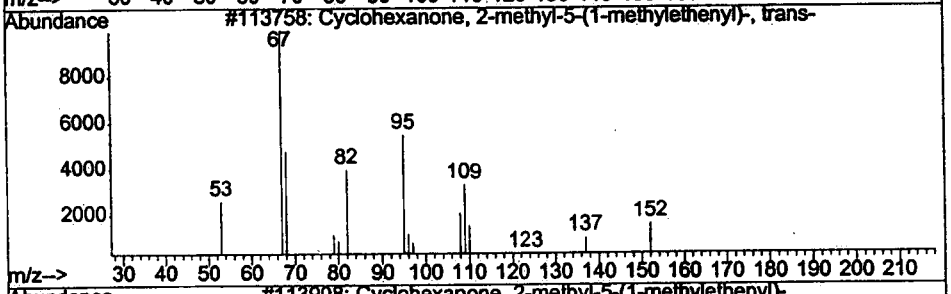
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 2-methyl-5-(1-met...	152	C10H16O	005948-04-9	98
2	Cyclohexanone, 2-methyl-5-(1-met...	152	C10H16O	005948-04-9	98
3	Cyclohexanone, 2-methyl-5-(1-met...	152	C10H16O	007764-50-3	97
4	Cyclohexanone, 2-methyl-5-(1-met...	152	C10H16O	005948-04-9	95

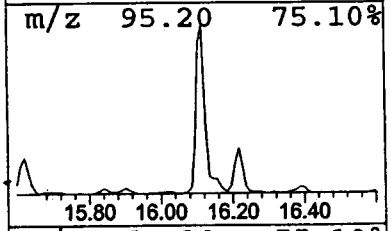


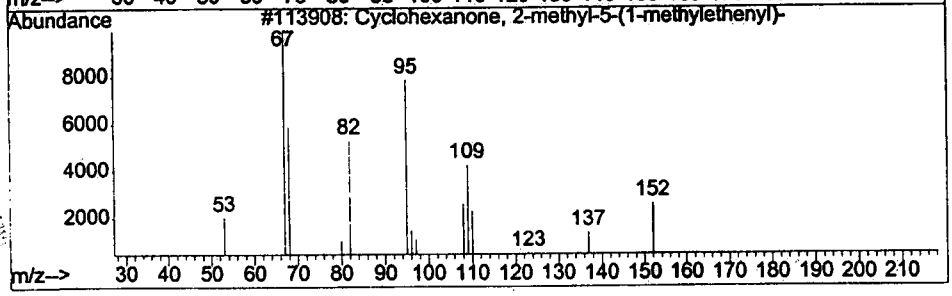


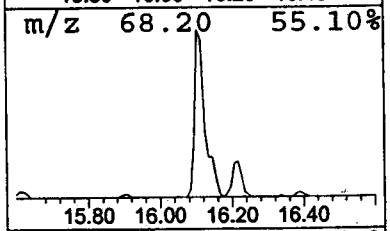


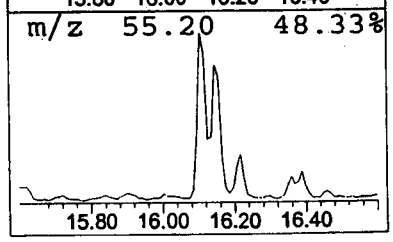












0239

1472

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D Vial: 12
Acq On : 17 Jul 2001 23:50 Operator: DP
Sample : S-98B,4833-008,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
RTE Integration Params: rteint.p
Quant Time: Jul 22 13:08 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.54	168	2276665	50.00	UG	-0.12
31) 1,4-Difluorobenzene	10.76	114	2183705	50.00	UG	-0.12
50) Chlorobenzene-d5	15.70	117	1711157	50.00	UG	-0.10
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.03	65	780912	38.26	UG	-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 76.52%			
41) Toluene-d8	13.22	98	1408917	39.23	UG	-0.10
Spiked Amount 50.000	Range 35 - 117		Recovery = 78.46%			
59) Bromofluorobenzene	17.79	95	1213242	35.17	UG	-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 70.34%			
Target Compounds						Qvalue
32) Benzene	10.14	78	36553	1.22	UG	# 97
42) Toluene	13.34	92	369138	17.74	UG	96

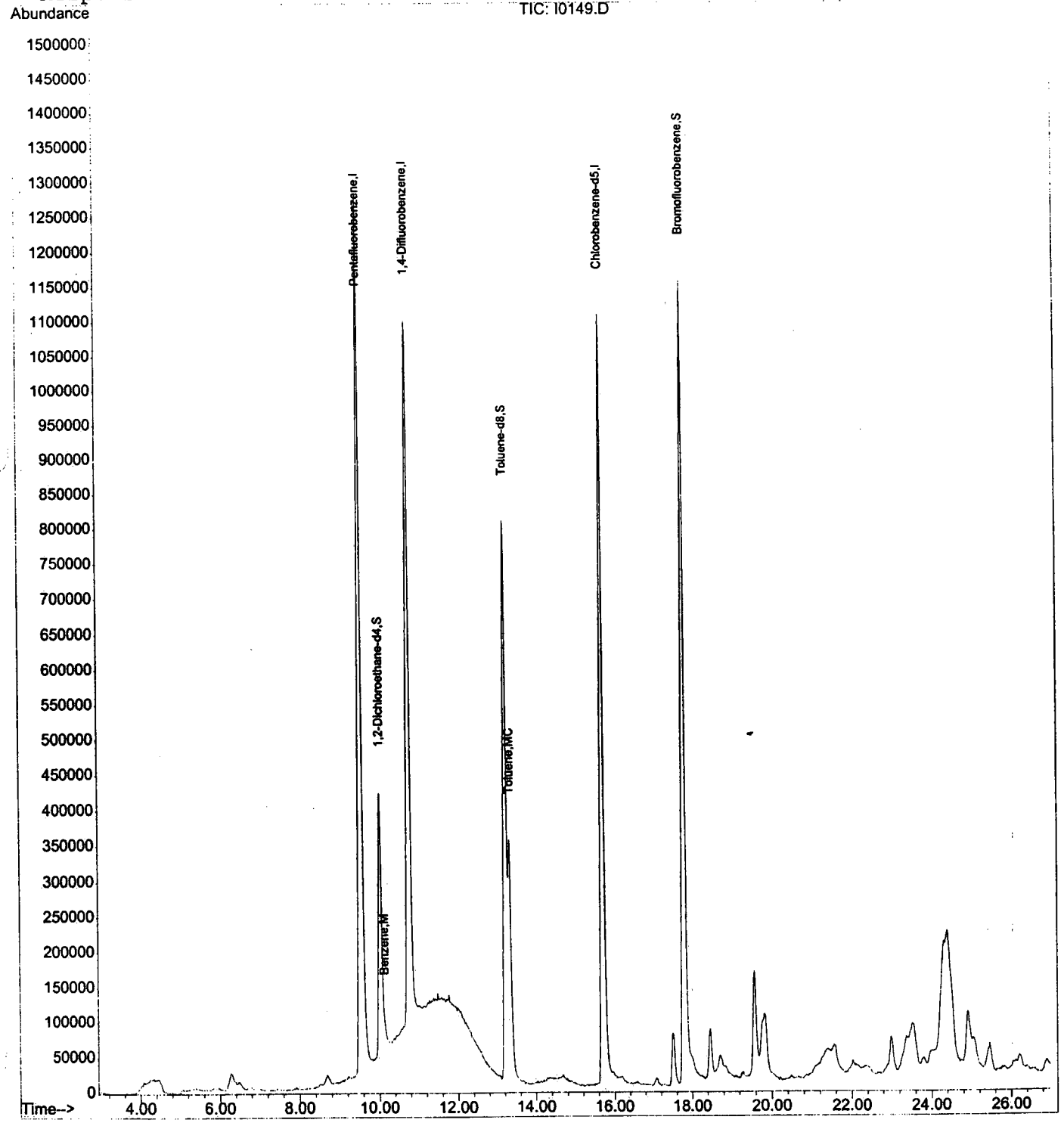
(#) = qualifier out of range (m) = manual integration

99

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D
Acq On : 17 Jul 2001 23:50
Sample : S-98B,4833-008,M,0.043g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 13:08 2001

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1474

0241

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D
Acq On : 17 Jul 2001 23:50
Sample : S-98B,4833-008,M,0.043g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
LS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

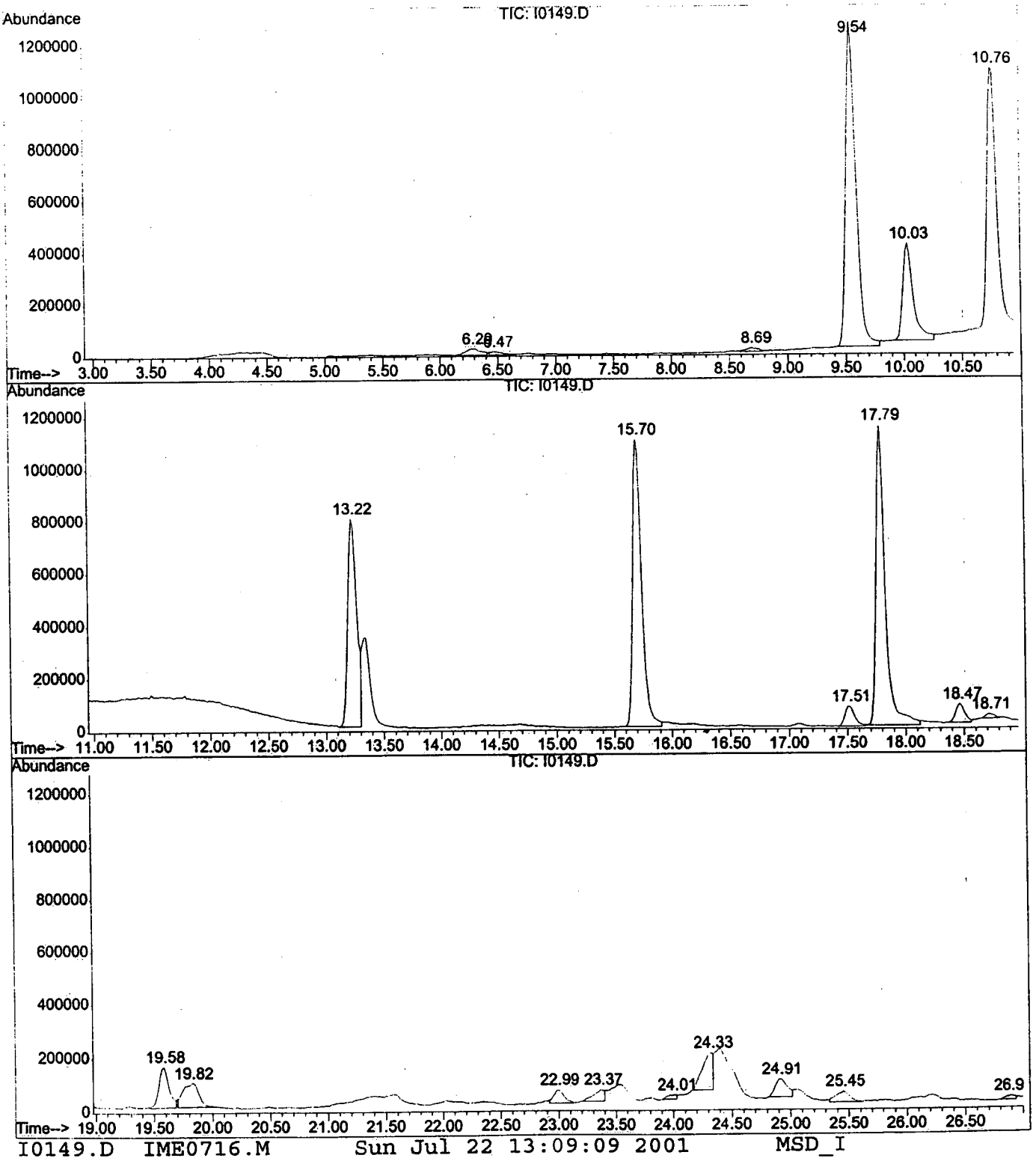
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.288	214	225	233	rBV2	24218	231395	3.05%	0.606%
2	6.471	234	237	249	rVV5	12276	85564	1.13%	0.224%
3	8.691	374	381	387	rVV	15125	94961	1.25%	0.249%
4	9.545	429	437	453	rBV	1251570	7577496	100.00%	19.853%
5	10.030	462	469	484	rBV	374936	2342936	30.92%	6.139%
6	10.757	510	517	532	rBV	1005973	5959639	78.65%	15.615%
7	13.224	673	680	685	rBV	792539	4275449	56.42%	11.202%
8	15.699	834	841	855	rBV	1096927	5933118	78.30%	15.545%
9	17.514	952	959	968	rBV2	75808	438333	5.78%	1.148%
10	17.788	969	977	999	rBV	1146104	6527860	86.15%	17.103%
11	18.469	1015	1022	1028	rBV2	69752	373875	4.93%	0.980%
12	18.714	1034	1038	1044	rBV4	17744	89556	1.18%	0.235%
13	19.582	1087	1095	1102	rVV	151142	914274	12.07%	2.395%
14	19.823	1103	1111	1124	rVB3	86271	828012	10.93%	2.169%
15	22.992	1315	1320	1329	rVB2	49396	300103	3.96%	0.786%
16	23.371	1334	1345	1347	rBV8	43284	293274	3.87%	0.768%
17	24.015	1381	1388	1389	rBV6	15803	91982	1.21%	0.241%
18	24.328	1398	1409	1410	rBV6	139057	904395	11.94%	2.370%
19	24.911	1441	1448	1455	rBV5	68124	493773	6.52%	1.294%
20	25.453	1476	1484	1495	rVB8	40807	322771	4.26%	0.846%
21	26.896	1573	1579	1582	rBV5	15503	88516	1.17%	0.232%

Sum of corrected areas: 38167282

I0149.D IME0716.M Sun Jul 22 13:09:09 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0149.D
Operator : DP
Acquired : 17 Jul 2001 23:50 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-98B,4833-008,M,0.043g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 12
Quant File :IME0716.RES (RTE Integrator)



I0149.D IME0716.M Sun Jul 22 13:09:09 2001 MSD_I

0243

1476

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D
Acq On : 17 Jul 2001 23:50
Sample : S-98B,4833-008,M,0.043g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

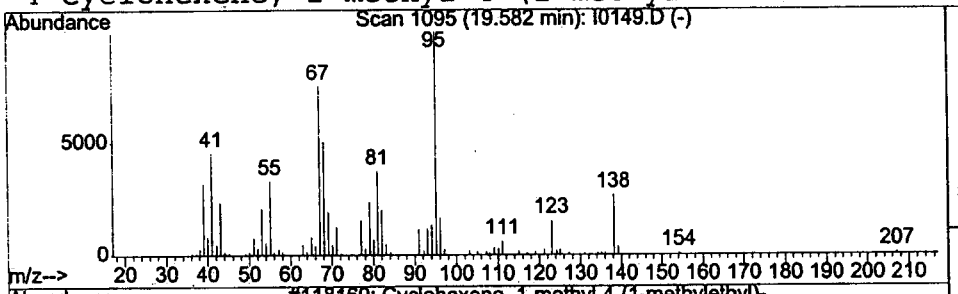
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

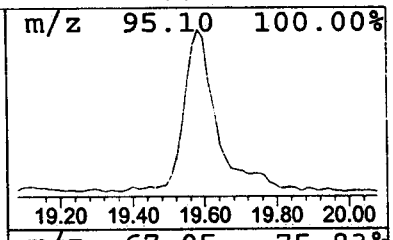
****

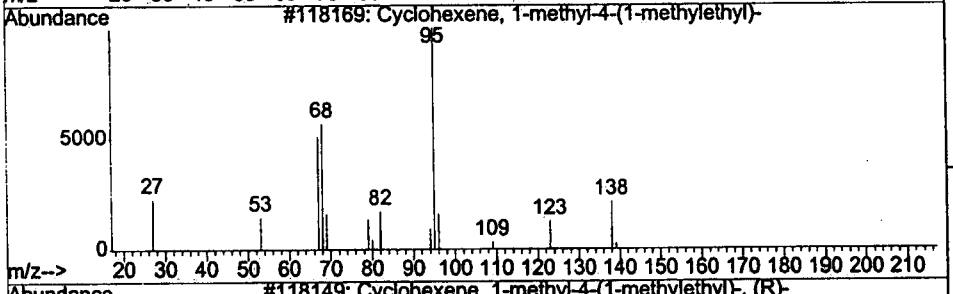
Peak Number 1 Unknown cyclic hydrocarbon Concentration Rank 1

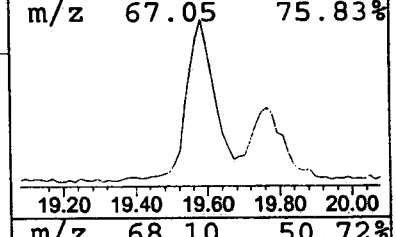
R.T.	EstConc	Area	Relative to ISTD	R.T.
19.58	7.70 UG	914274	Chlorobenzene-d5	15.70

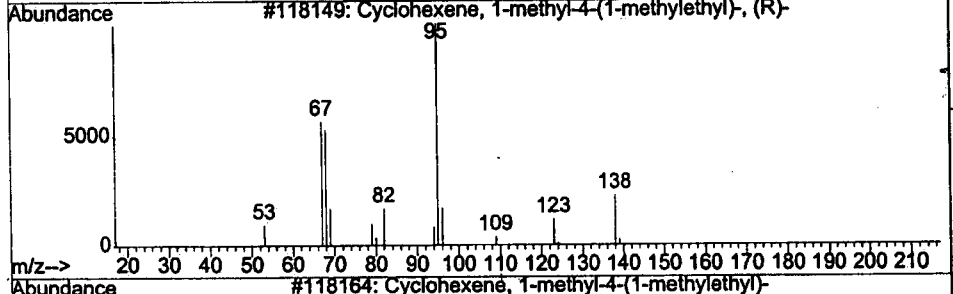
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	93
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	93
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	92
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	83

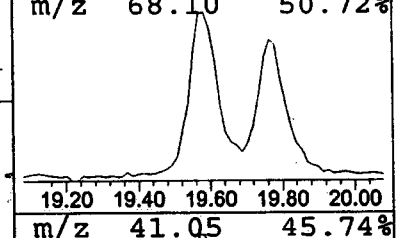


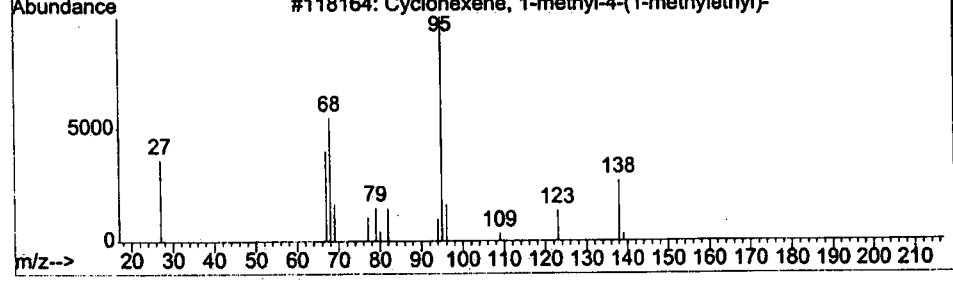


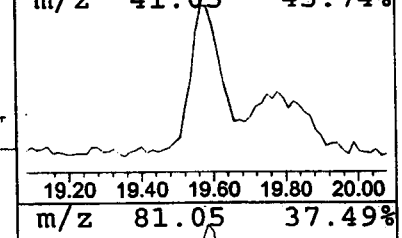


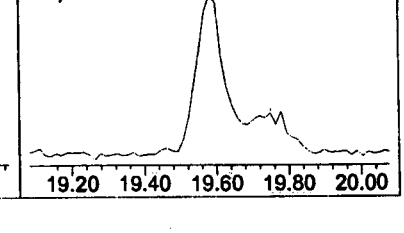












0244

1477

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D Vial: 12
Acq On : 17 Jul 2001 23:50 Operator: DP
Sample : S-98B,4833-008,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

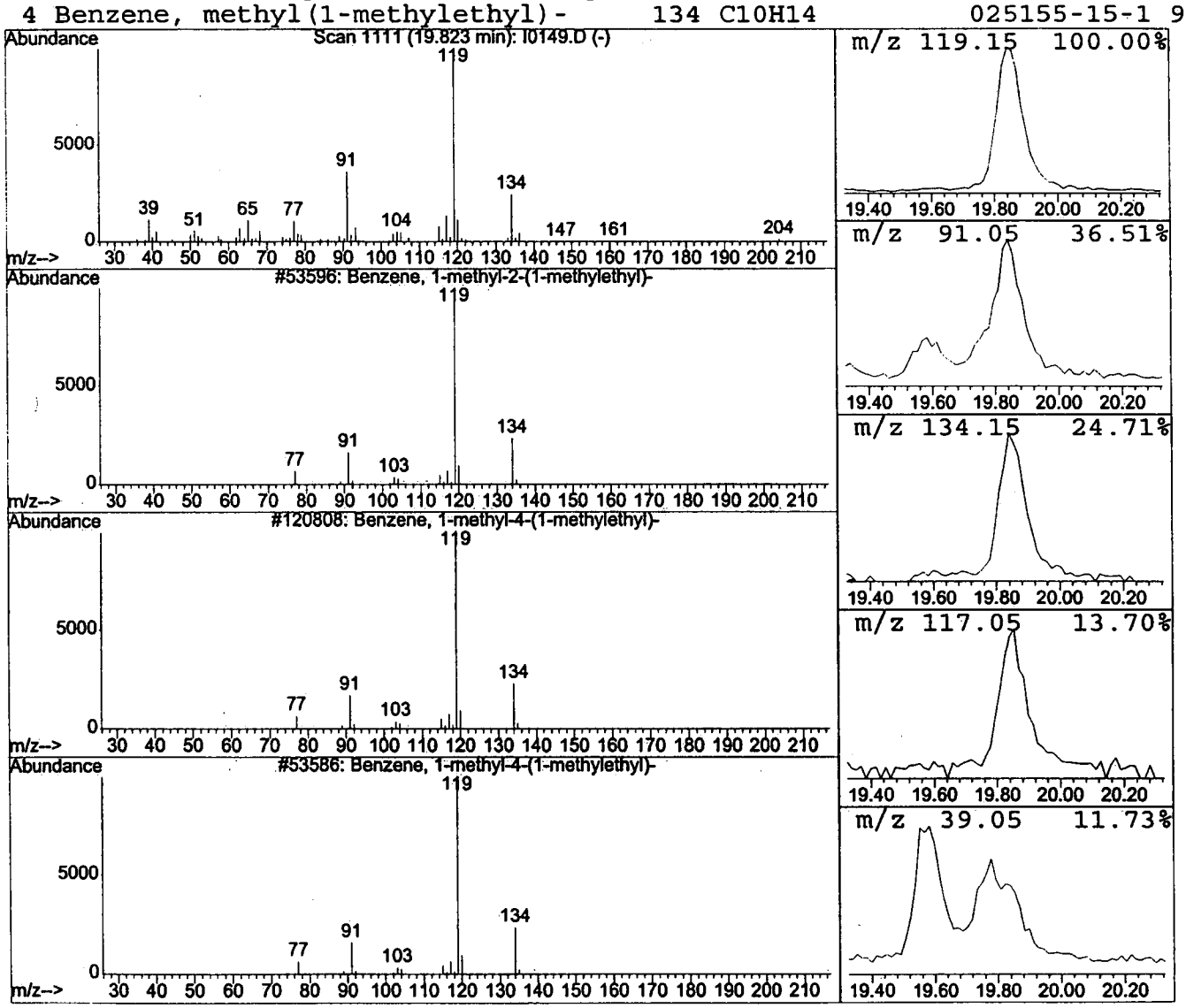
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.82	6.98 UG	828012	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	90
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	90
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	90
4	Benzene, methyl(1-methylethyl)-	134	C10H14	025155-15-1	90



0245

1478

Data File : C:\HPCHEM\1\DATA\07-17-01\I0149.D
Acq On : 17 Jul 2001 23:50
Sample : S-98B,4833-008,M,0.043g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

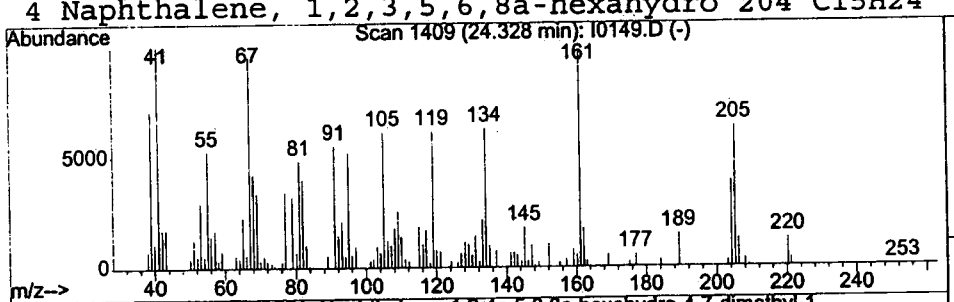
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

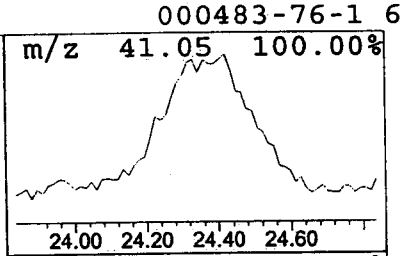
****

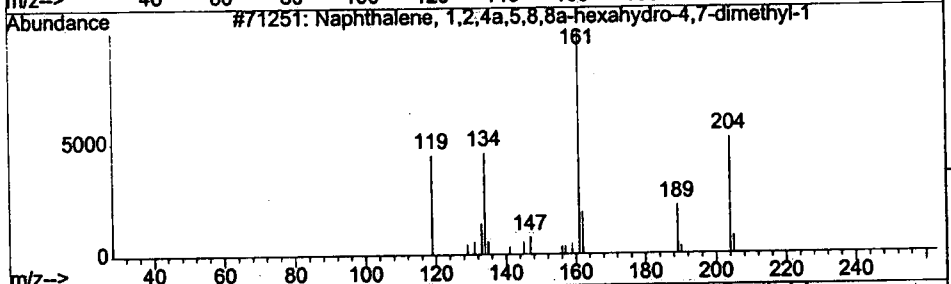
Peak Number 3 Unknown aromatic Concentration Rank 2

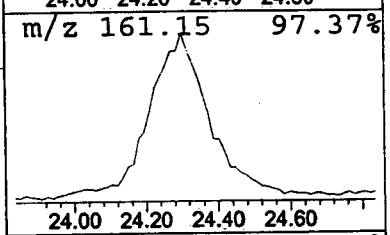
R.T.	EstConc	Area	Relative to ISTD	R.T.
24.33	7.62 UG	904395	Chlorobenzene-d5	15.70

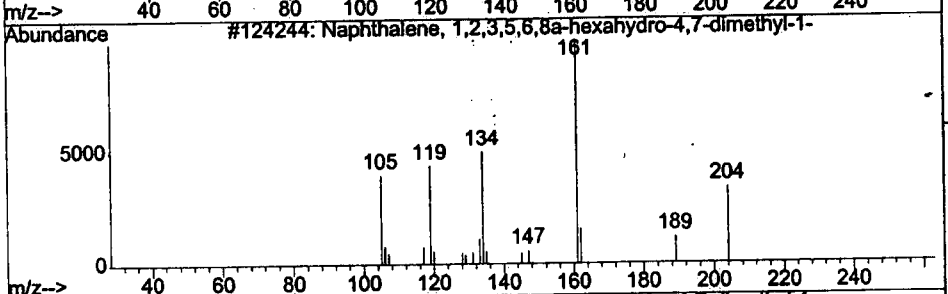
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,4a,5,8,8a-hexahydr	204	C15H24	000523-47-7	90
2	Naphthalene, 1,2,3,5,6,8a-hexahydro	204	C15H24	000483-76-1	89
3	Naphthalene, 1,2,3,5,6,8a-hexahydro	204	C15H24	000483-76-1	86
4	Naphthalene, 1,2,3,5,6,8a-hexahydro	204	C15H24	000483-76-1	64

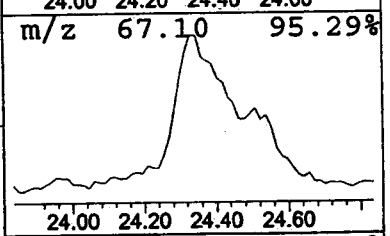


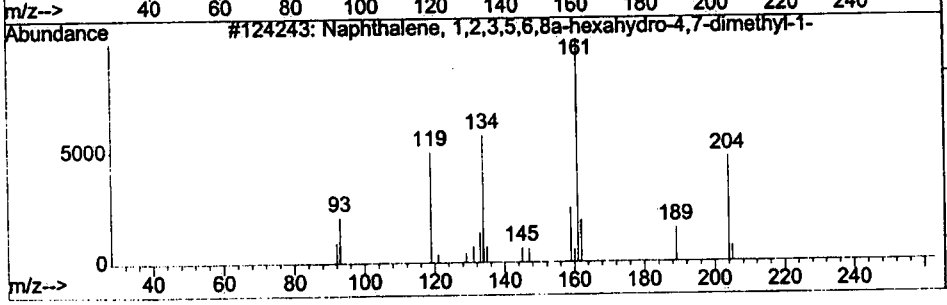


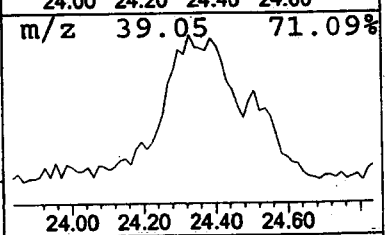


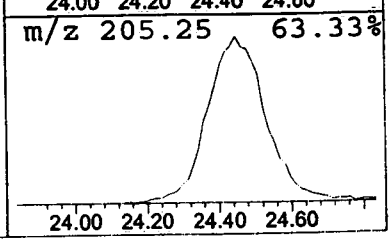












0246

1479

Data File : C:\HPCHEM\1\DATA\07-17-01\I0150.D Vial: 13
Acq On : 18 Jul 2001 00:24 Operator: DP
Sample : S-1004833-009,M,0.042g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

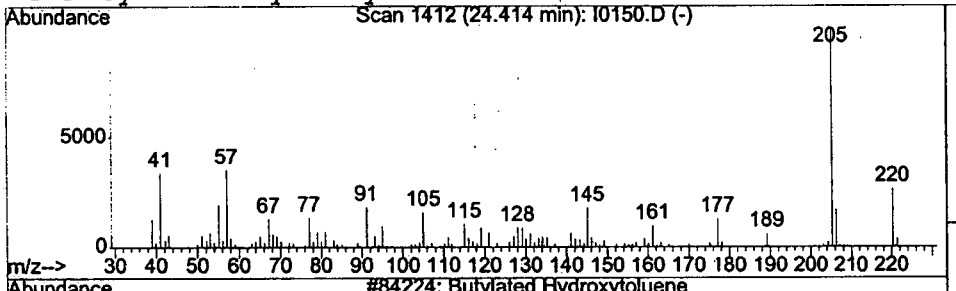
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

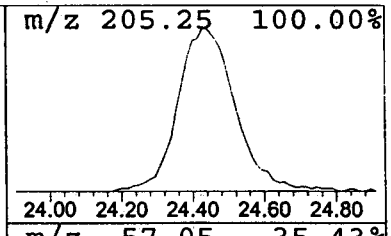
****

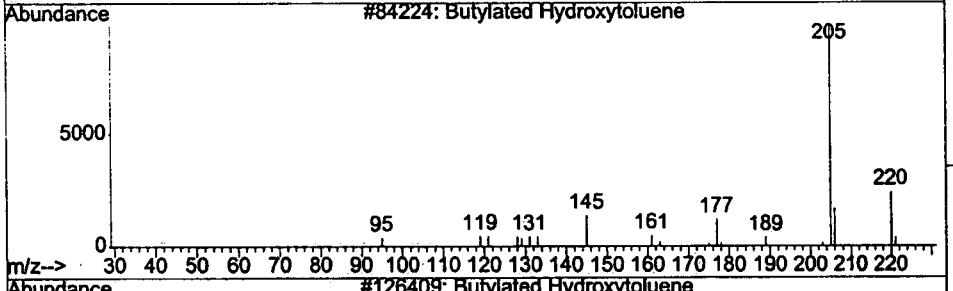
Peak Number 1 Unknown aromatic Concentration Rank 1

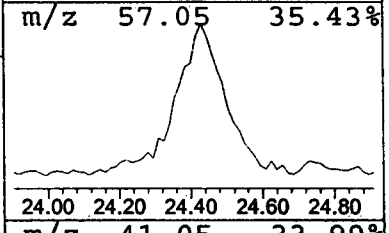
R.T.	EstConc	Area	Relative to ISTD	R.T.
24.41	19.18 UG	2211560	Chlorobenzene-d5	15.71

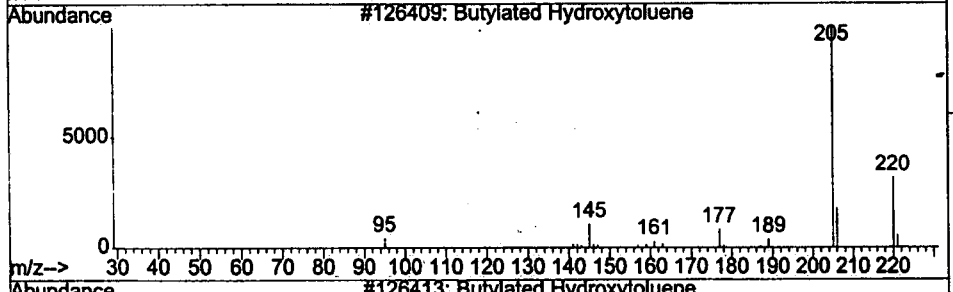
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	97
2	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	95
3	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	90
4	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	76

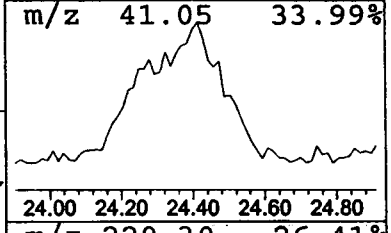


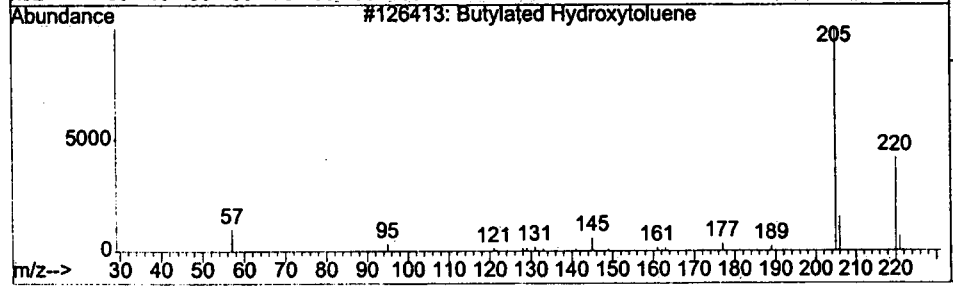


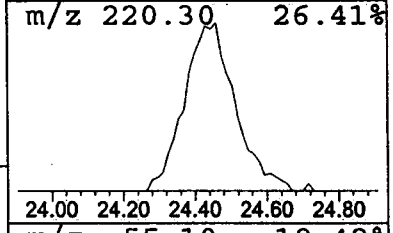


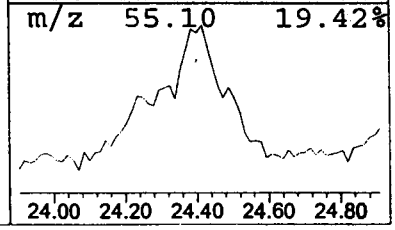












0051

1480

Data File : C:\HPCHEM\1\DATA\07-17-01\I0151.D
Acq On : 18 Jul 2001 00:58
Sample : S-101,4833-010,M,0.044g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 13:11 2001

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

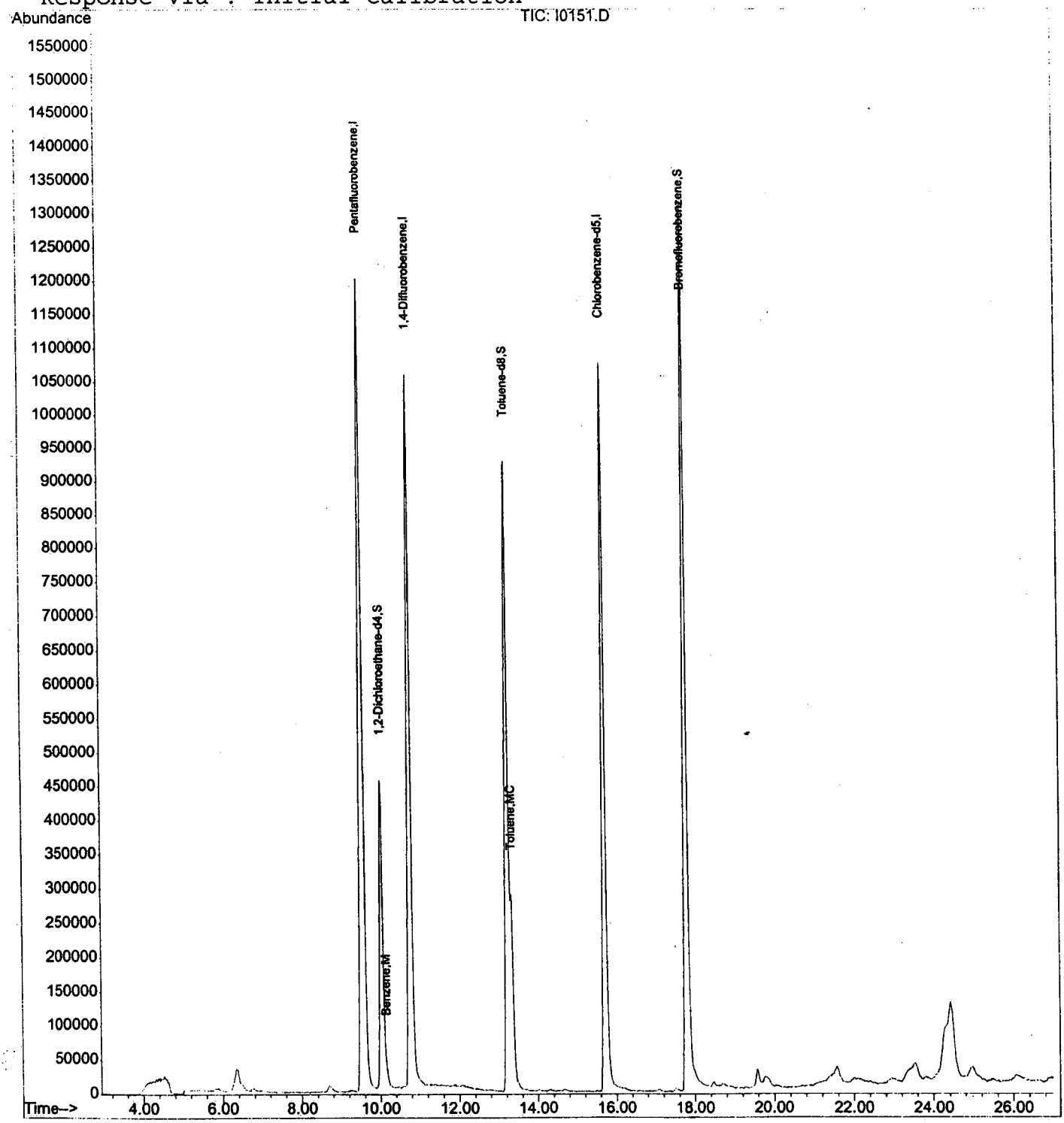
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.55	168	2313265	50.00	UG	-0.11
31) 1,4-Difluorobenzene	10.76	114	2242134	50.00	UG	-0.11
50) Chlorobenzene-d5	15.70	117	1633987	50.00	UG	-0.10
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.03	65	943877	45.52	UG	-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 91.04%			
41) Toluene-d8	13.24	98	1637800	44.42	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery = 88.84%			
59) Bromofluorobenzene	17.78	95	1410289	42.82	UG	-0.10
Spiked Amount 50.000	Range 47 - 115		Recovery = 85.64%			
Target Compounds						Qvalue
32) Benzene	10.15	78	32965	1.07	UG	99
42) Toluene	13.34	92	279341	13.08	UG	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\07-17-01\I0151.D Vial: 14
Acq On : 18 Jul 2001 00:58 Operator: DP
Sample : S-101,4833-010,M,0.044g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:11 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1482

0253

Data File : C:\HPCHEM\1\DATA\07-17-01\I0150.D Vial: 13
Acq On : 18 Jul 2001 00:24 Operator: DP
Sample : S-100,4833-009,M,0.042g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 22 13:10 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

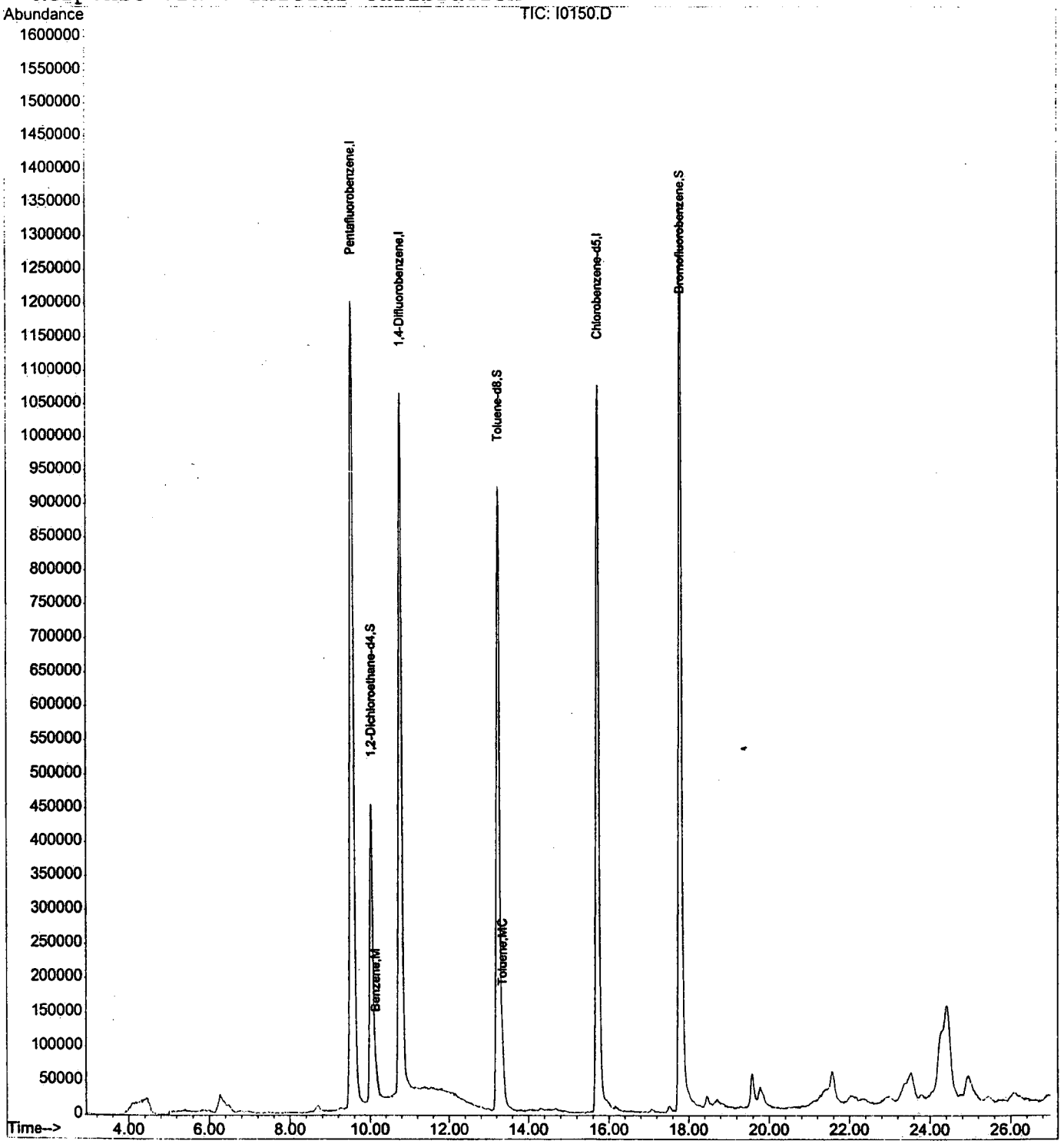
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.55	168	2291231	50.00	UG	-0.11
31) 1,4-Difluorobenzene	10.77	114	2202110	50.00	UG	-0.11
50) Chlorobenzene-d5	15.71	117	1652170	50.00	UG	-0.09
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.03	65	924544	45.01	UG	-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 90.02%			
41) Toluene-d8	13.23	98	1648392	45.52	UG	-0.10
Spiked Amount 50.000	Range 35 - 117		Recovery = 91.04%			
59) Bromofluorobenzene	17.79	95	1419829	42.63	UG	-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 85.26%			
Target Compounds						Qvalue
32) Benzene	10.14	78	65638	2.17	UG	98
42) Toluene	13.35	92	89100	4.25	UG	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0150.D Vial: 13
Acq On : 18 Jul 2001 00:24 Operator: DP
Sample : S-100,4833-009,M,0.042g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:10 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



14/84

0248

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0150.D Vial: 13
Acq On : 18 Jul 2001 00:24 Operator: DP
Sample : S-100,4833-009,M,0.042g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

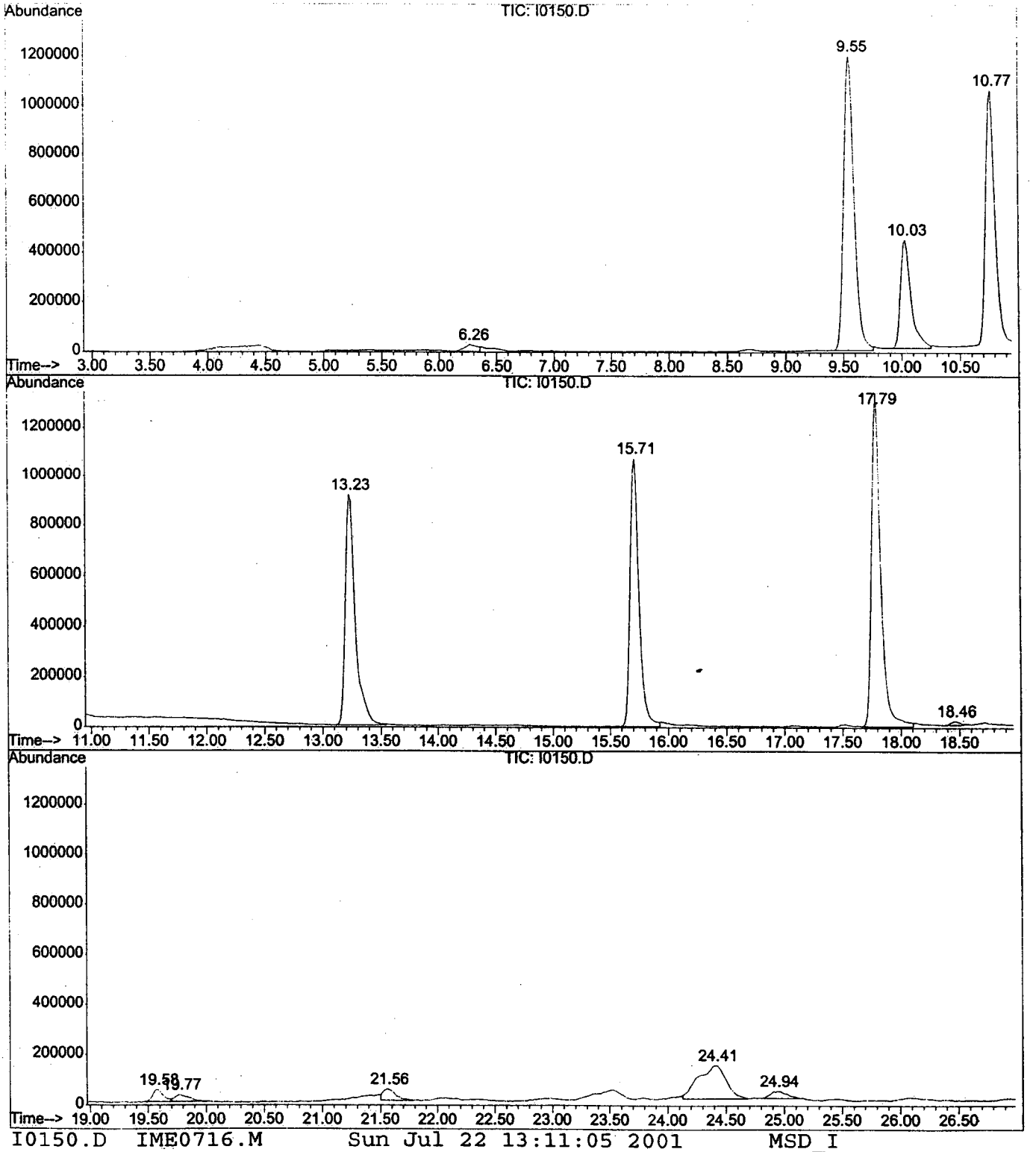
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.264	215	224	230	rBV	26845	200325	2.68%	0.519%
2	9.546	428	437	451	rBV	1194179	7480328	100.00%	19.389%
3	10.033	461	469	483	rBV	438245	2771938	37.06%	7.185%
4	10.766	509	517	537	rBV	1035141	5934477	79.33%	15.382%
5	13.227	671	679	700	rBV	918341	5509423	73.65%	14.281%
6	15.713	833	841	855	rBV	1074433	5764844	77.07%	14.943%
7	17.787	968	976	997	rBV	1343809	7472422	99.89%	19.369%
8	18.459	1015	1020	1025	rBV2	14767	75688	1.01%	0.196%
9	19.577	1086	1093	1101	rBV5	48458	311718	4.17%	0.808%
10	19.773	1101	1106	1121	rVB8	27875	229021	3.06%	0.594%
11	21.562	1219	1223	1238	rVB	46939	343298	4.59%	0.890%
12	24.414	1393	1412	1430	rVB10	133078	2211559	29.57%	5.732%
13	24.940	1439	1447	1460	rVB2	28647	274668	3.67%	0.712%

Sum of corrected areas: 38579709

I0150.D IME0716.M Sun Jul 22 13:11:05 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0150.D
Operator : DP
Acquired : 18 Jul 2001 00:24 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-100,4833-009,M,0.042g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 13
Quant File :IME0716.RES (RTE Integrator)



I0150.D IME0716.M Sun Jul 22 13:11:05 2001 MSD_I

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0151.D Vial: 14
Acq On : 18 Jul 2001 00:58 Operator: DP
Sample : S-101,4833-010,M,0.044g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

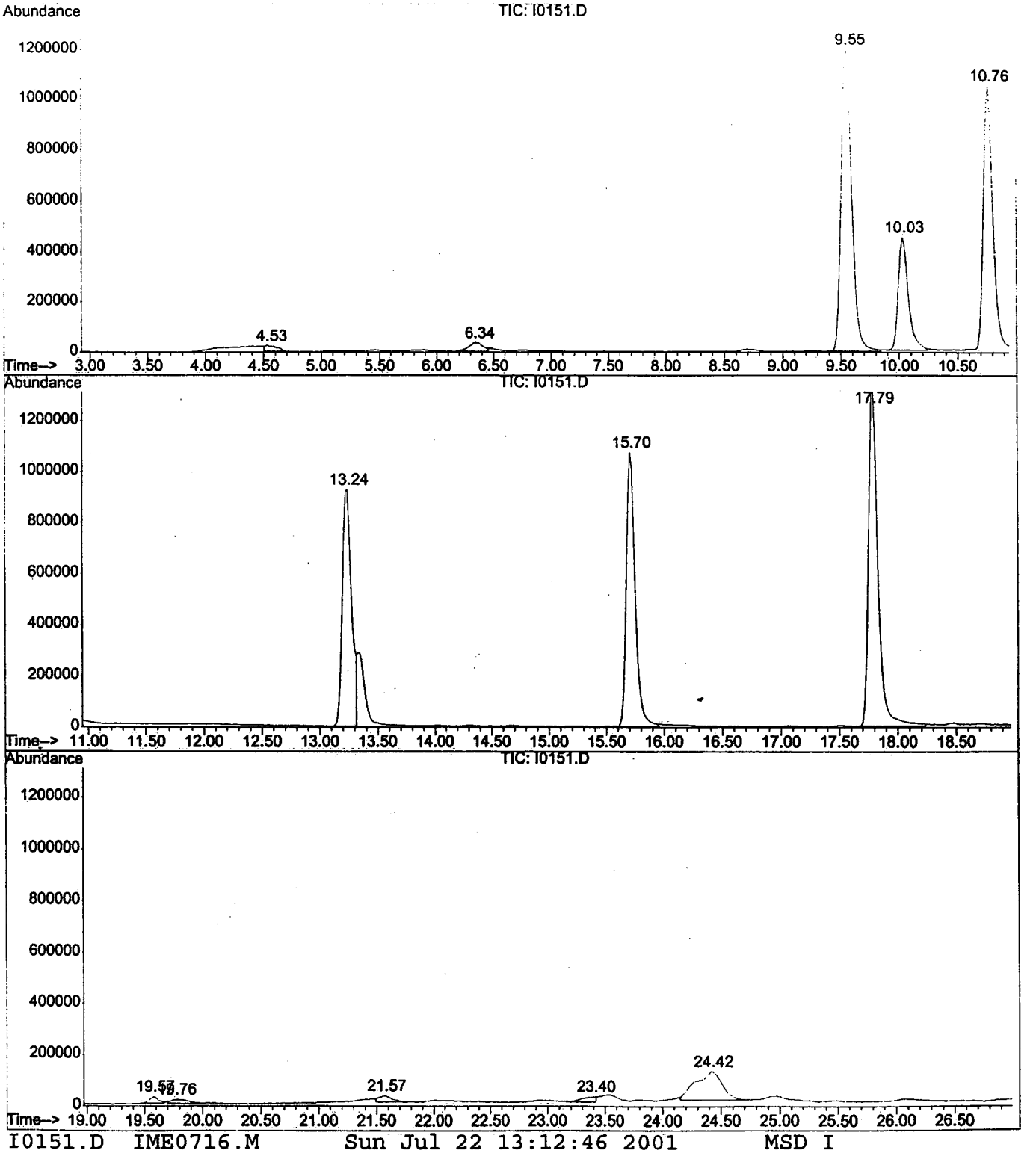
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.531	108	110	121	rVB10	24238	159610	2.09%	0.425%
2	6.342	218	229	236	rBV2	33997	293786	3.84%	0.783%
3	9.549	428	437	456	rBV	1199704	7650316	100.00%	20.389%
4	10.026	459	468	482	rBV	451497	2674404	34.96%	7.128%
5	10.764	508	516	534	rVV	1049309	5996442	78.38%	15.981%
6	13.239	668	677	682	rBV	926174	5116942	66.89%	13.637%
7	15.704	830	837	853	rBV	1074221	5690338	74.38%	15.165%
8	17.792	965	973	1002	rBV	1311789	7547765	98.66%	20.116%
9	19.574	1083	1089	1095	rBV3	25213	138242	1.81%	0.368%
10	19.760	1097	1101	1116	rVB3	15323	156004	2.04%	0.416%
11	21.569	1214	1219	1232	rVB	23600	179641	2.35%	0.479%
12	23.403	1325	1339	1340	rBV	20417	172438	2.25%	0.460%
13	24.419	1388	1406	1424	rVB5	111747	1745690	22.82%	4.652%

Sum of corrected areas: 37521618

I0151.D IME0716.M Sun Jul 22 13:12:46 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0151.D
Operator : DP
Acquired : 18 Jul 2001 00:58 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-101,4833-010,M,0.044g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 14
Quant File :IME0716.RES (RTE Integrator)



I0151.D IME0716.M Sun Jul 22 13:12:46 2001 MSD_I

1486

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0151.D
Acq On : 18 Jul 2001 00:58
Sample : S-101,4833-010,M,0.044g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

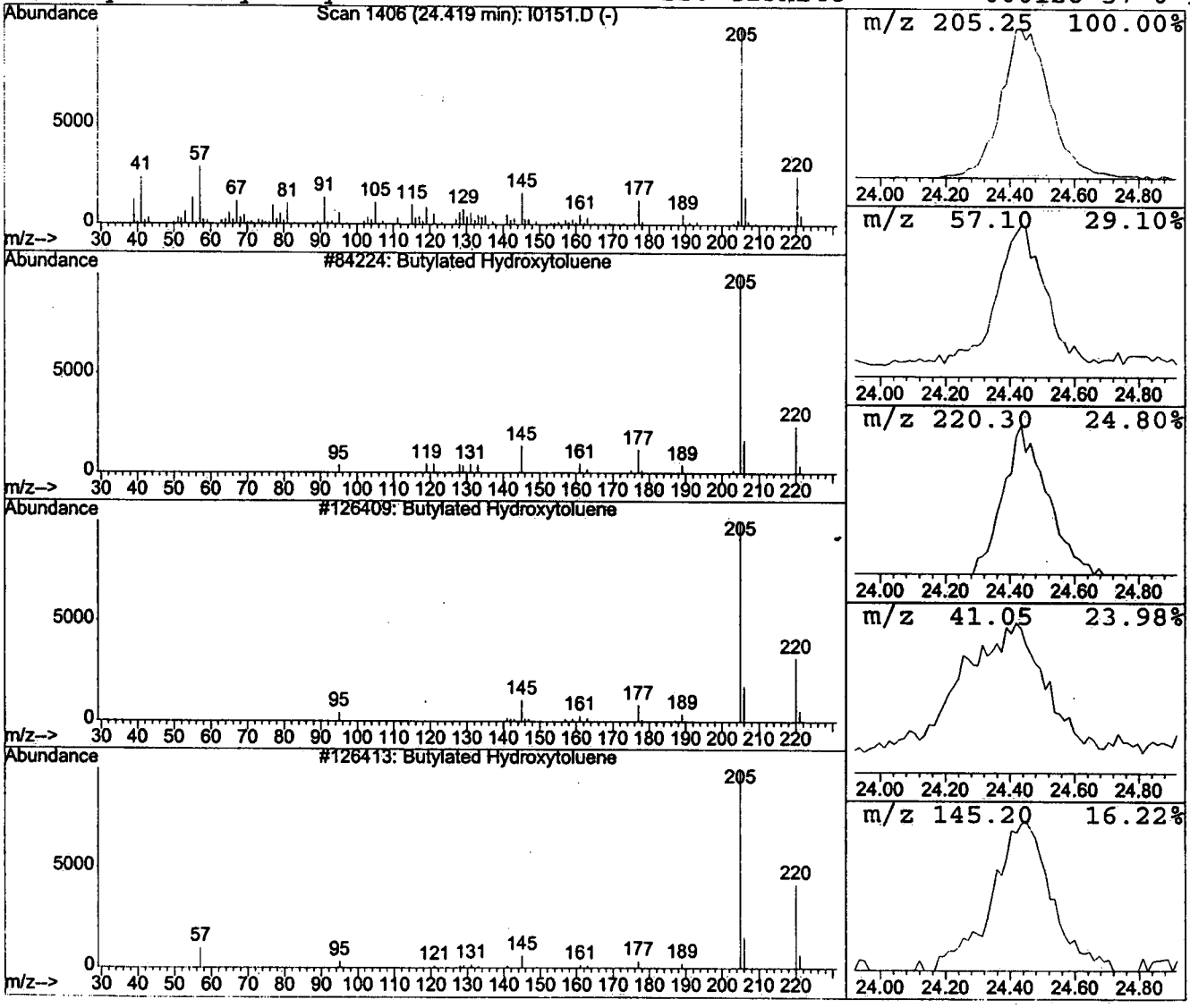
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.42	15.34 UG	1745690	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	96
2	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	95
3	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	94
4	Butylated Hydroxytoluene	220	C15H24O	000128-37-0	90



1489

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:13 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

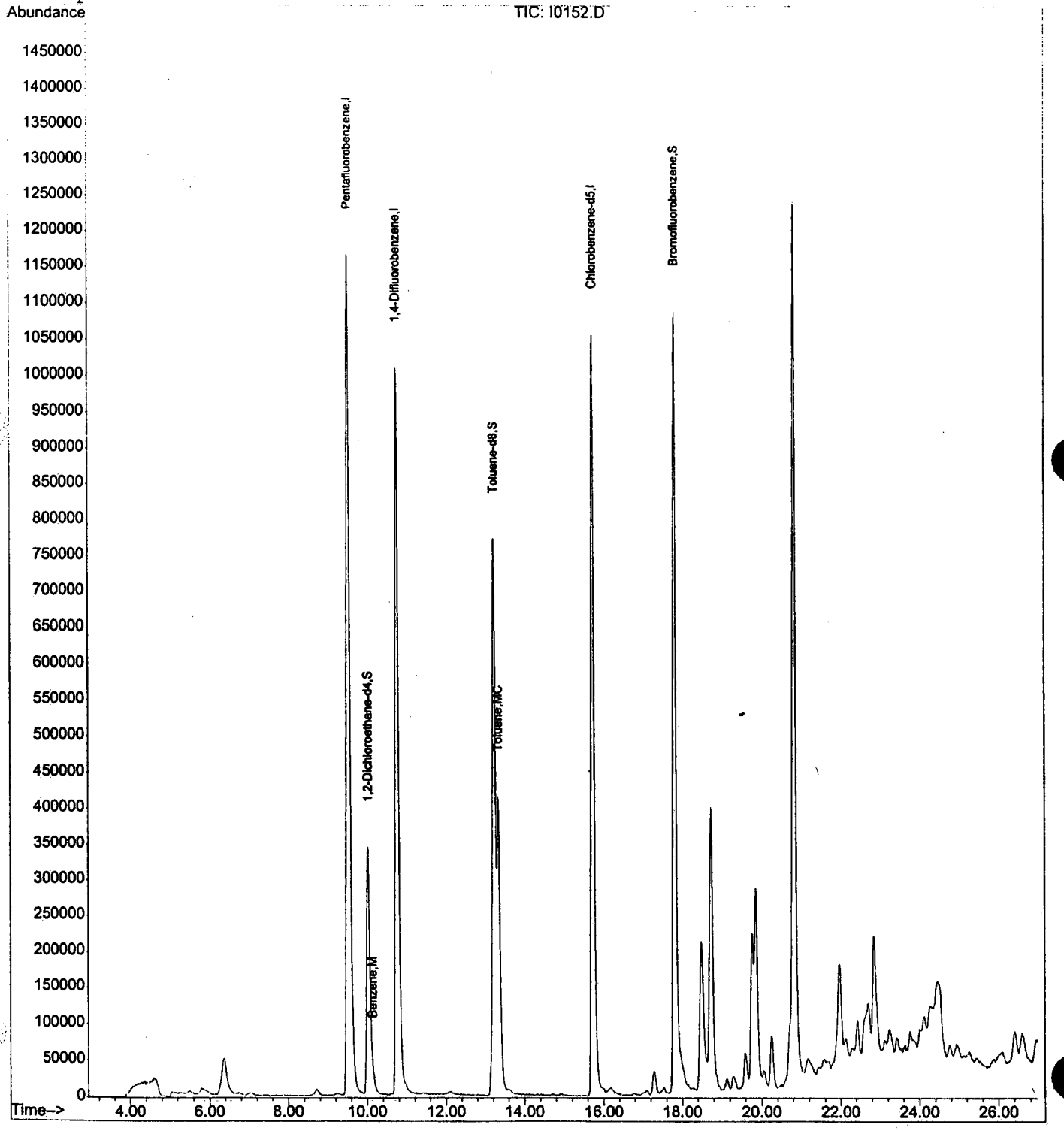
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.54	168	2198730	50.00	UG	-0.12
31) 1,4-Difluorobenzene	10.76	114	2151738	50.00	UG	-0.12
50) Chlorobenzene-d5	15.73	117	1596794	50.00	UG	-0.07
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.03	65	718108	36.43	UG	-0.12
Spiked Amount 50.000	Range 36 - 115		Recovery = 72.86%			
41) Toluene-d8	13.24	98	1338336	37.82	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.64%			
59) Bromofluorobenzene	17.81	95	1152988	35.82	UG	-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 71.64%			
Target Compounds						Qvalue
32) Benzene	10.14	78	31488	1.07	UG	99
42) Toluene	13.34	92	432270	21.08	UG	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:13 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1491

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

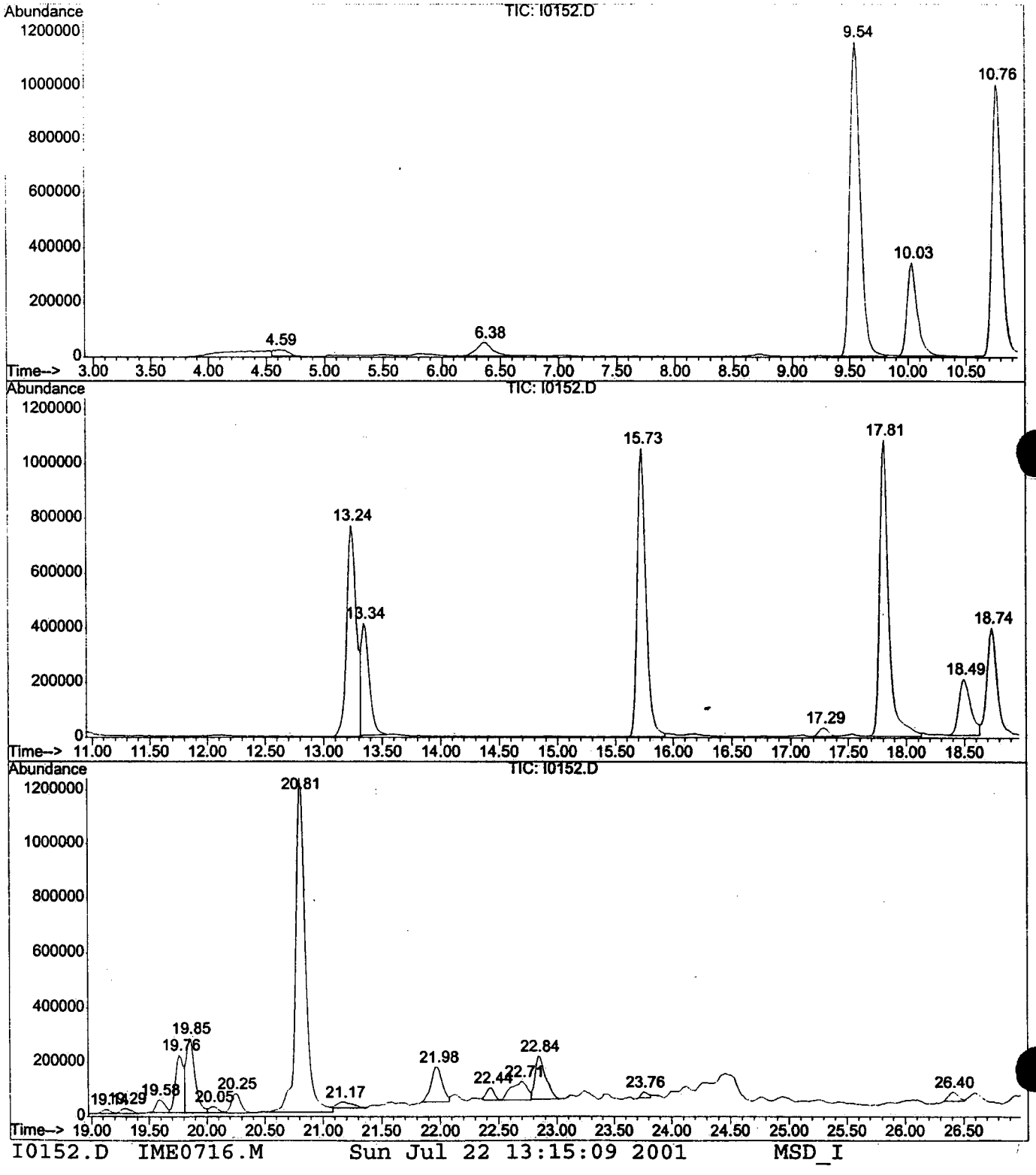
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.590	111	114	128	rVB9	24043	203206	2.79%	0.391%
2	6.380	218	231	247	rBV2	49763	484301	6.64%	0.931%
3	9.543	427	436	454	rBV	1163806	7292009	100.00%	14.014%
4	10.033	460	468	490	rVB	341901	2085441	28.60%	4.008%
5	10.757	508	515	535	rBV	1004985	5795995	79.48%	11.139%
6	13.237	665	676	681	rBV2	771208	4470611	61.31%	8.592%
7	13.342	681	683	696	rVB	408084	1882849	25.82%	3.618%
8	15.728	830	838	851	rBV	1054516	5527182	75.80%	10.622%
9	17.286	932	939	947	rBV2	33005	199153	2.73%	0.383%
10	17.808	963	973	994	rBV	1083035	6172733	84.65%	11.863%
11	18.494	1009	1018	1027	rBV3	205962	1482735	20.33%	2.850%
12	18.736	1027	1034	1050	rVB2	393029	2441017	33.48%	4.691%
13	19.137	1054	1060	1065	rBV4	14821	74047	1.02%	0.142%
14	19.291	1065	1070	1077	rVV4	17524	104231	1.43%	0.200%
15	19.582	1084	1089	1095	rBV4	46184	250495	3.44%	0.481%
16	19.763	1095	1101	1104	rVV2	212039	1083975	14.87%	2.083%
17	19.852	1104	1107	1117	rVV	274693	1428337	19.59%	2.745%
18	20.048	1117	1120	1127	rVV3	22765	123602	1.70%	0.238%
19	20.246	1127	1133	1143	rVB2	71702	401404	5.50%	0.771%
20	20.810	1152	1170	1188	rBV	1229011	7268011	99.67%	13.968%
21	21.174	1188	1194	1207	rVB8	21312	190370	2.61%	0.366%
22	21.975	1238	1247	1254	rBV4	130345	884922	12.14%	1.701%
23	22.438	1273	1278	1284	rVB	45748	208554	2.86%	0.401%
24	22.707	1284	1296	1301	rBV	68879	681154	9.34%	1.309%
25	22.842	1301	1305	1317	rVB2	159511	1008869	13.84%	1.939%
26	23.757	1363	1366	1370	rBV6	22369	91053	1.25%	0.175%
27	26.402	1538	1543	1550	rBV5	33680	198625	2.72%	0.382%

Sum of corrected areas: 52034881

I0152.D IME0716.M Sun Jul 22 13:15:09 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0152.D
Operator : DP
Acquired : 18 Jul 2001 1:32 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-102,4833-011,M,0.037g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 15
Quant File :IME0716.RES (RTE Integrator)



I0152.D IME0716.M Sun Jul 22 13:15:09 2001 MSD_I

1493

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

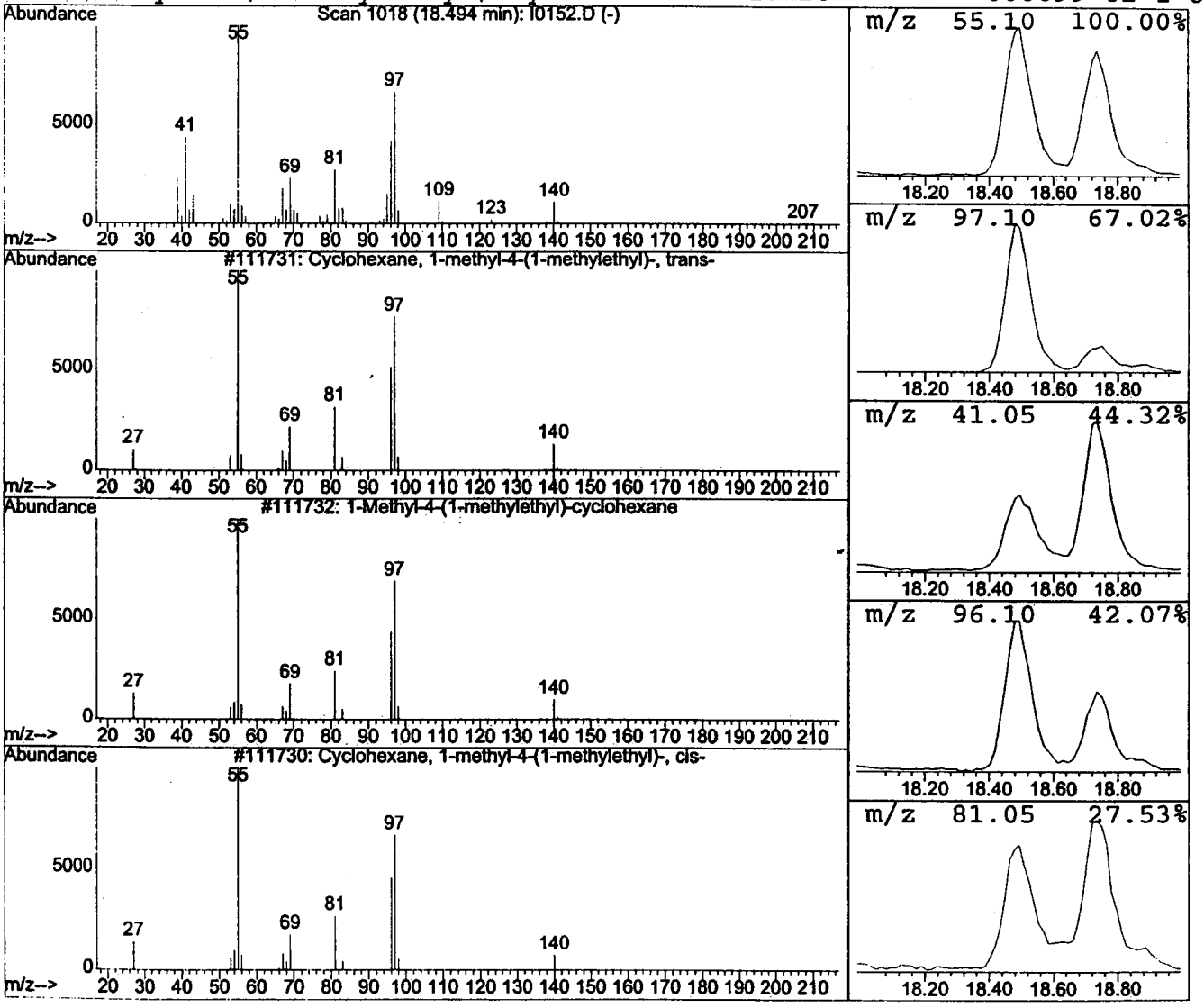
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.49	13.41 UG	1482740	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	001678-82-6	93
2	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	87
3	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	006069-98-3	87
4	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	87



1494

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

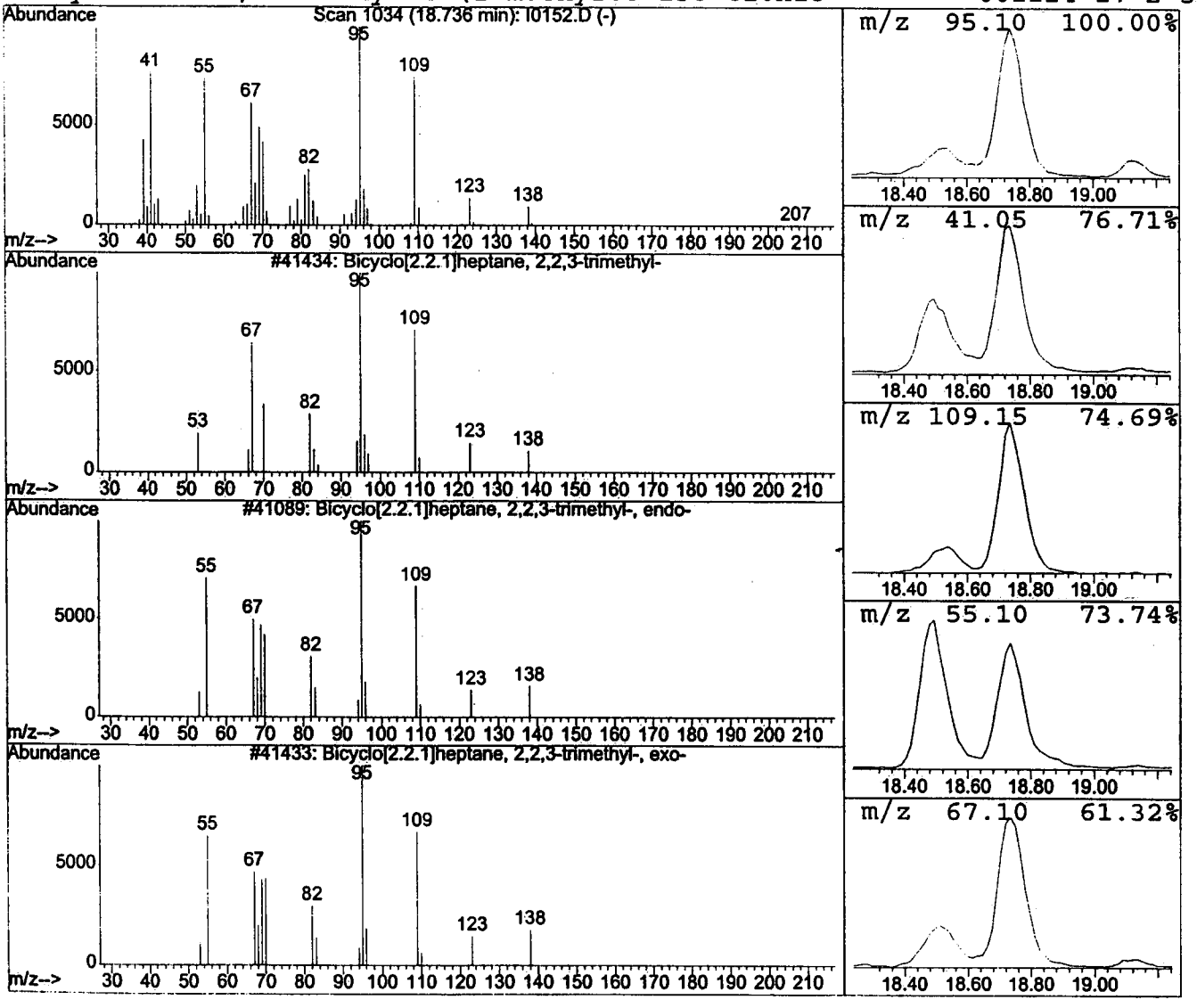
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.74	22.08 UG	2441020	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptane, 2,2,3-trimet	138	C10H18	000473-19-8	98
2	Bicyclo[2.2.1]heptane, 2,2,3-trimet	138	C10H18	020536-40-7	91
3	Bicyclo[2.2.1]heptane, 2,2,3-trimet	138	C10H18	020536-41-8	91
4	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	53



1495

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

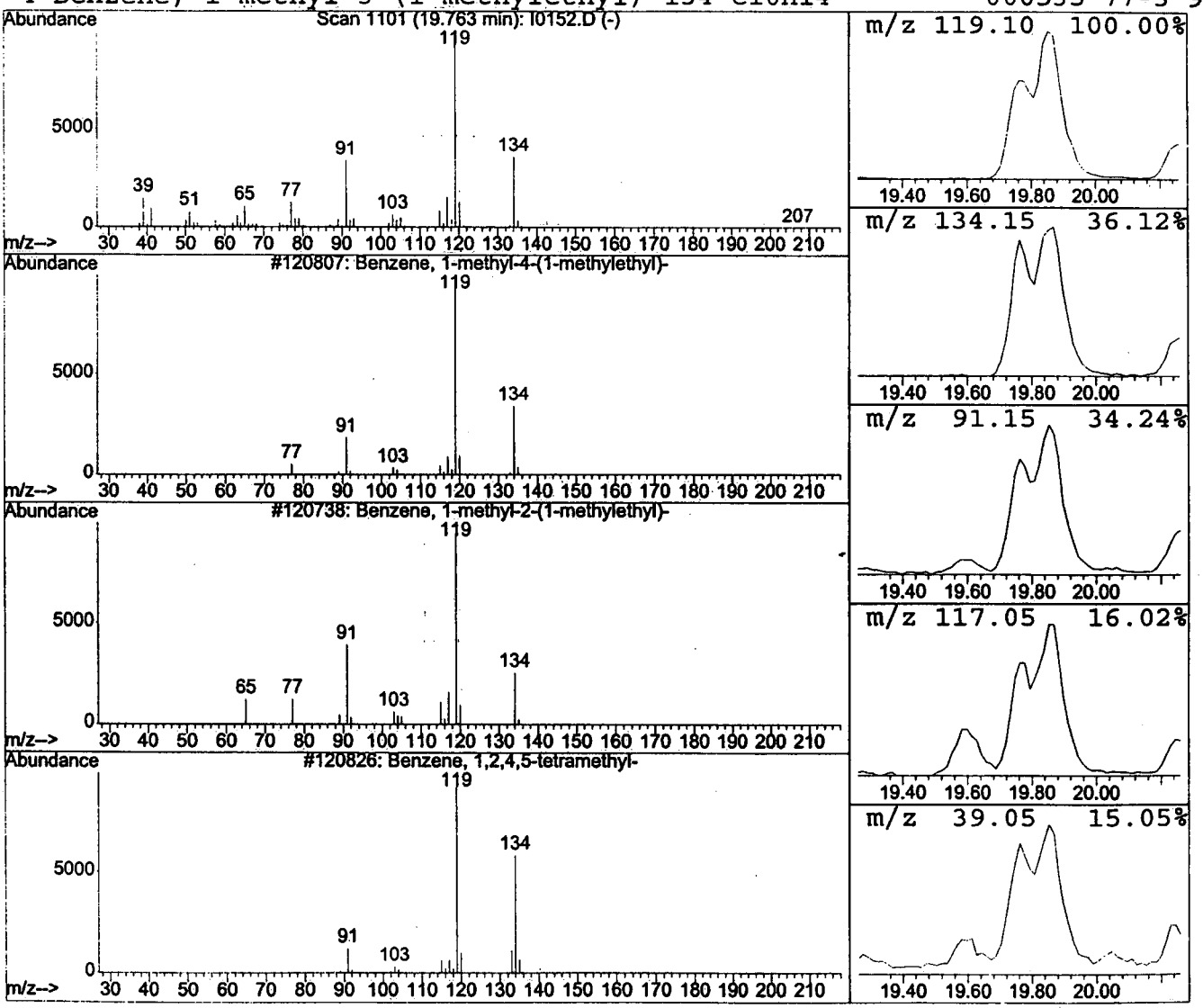
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.76	9.81 UG	1083980	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	95
2	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	95
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	94



1496

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

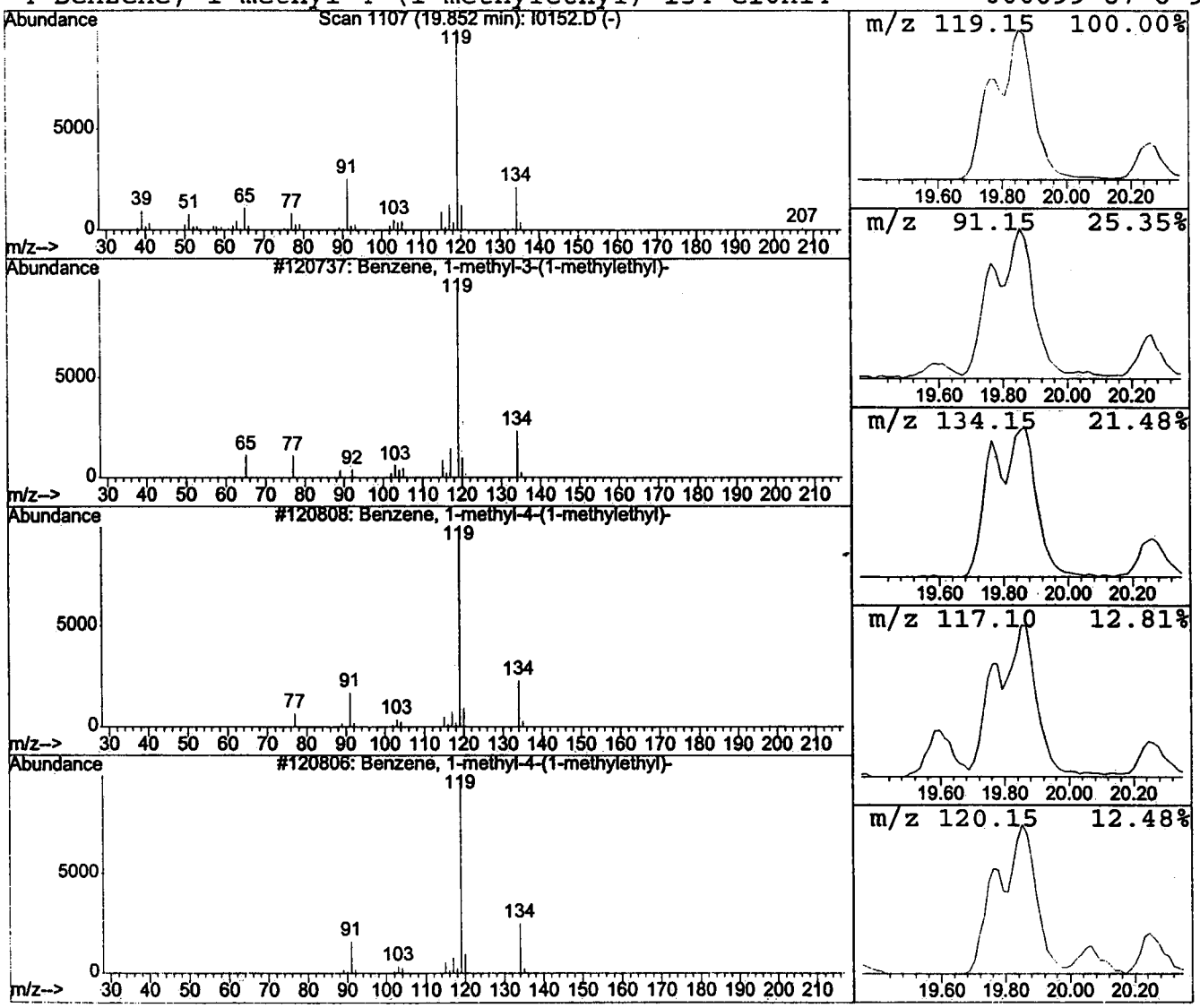
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.85	12.92 UG	1428340	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	91
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	90
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	90
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	90



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

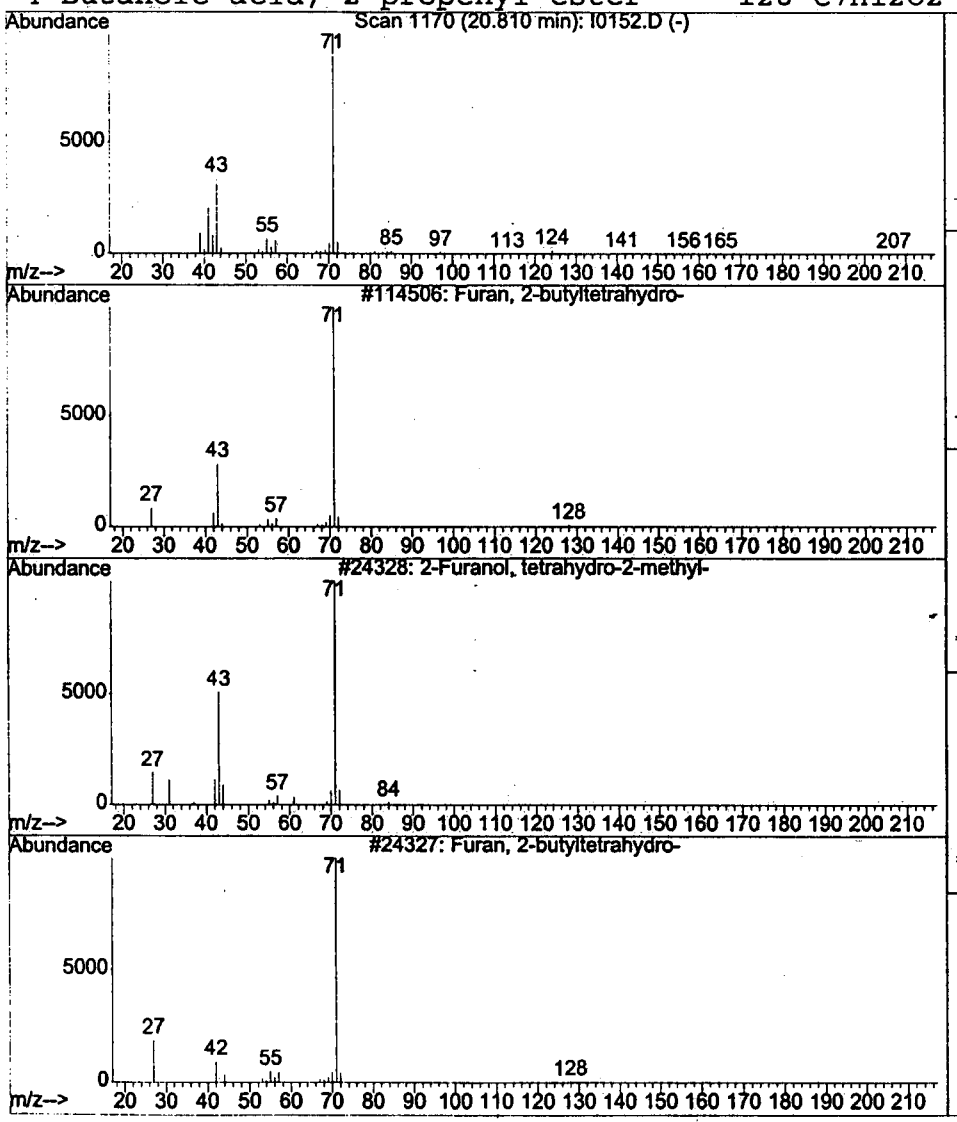
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown aliphatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.81	65.75 UG	7268010	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, 2-butyltetrahydro-	128	C8H16O	001004-29-1	78
2	2-Furanol, tetrahydro-2-methyl-	102	C5H10O2	007326-46-7	78
3	Furan, 2-butyltetrahydro-	128	C8H16O	001004-29-1	78
4	Butanoic acid, 2-propenyl ester	128	C7H12O2	002051-78-7	72



1498

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

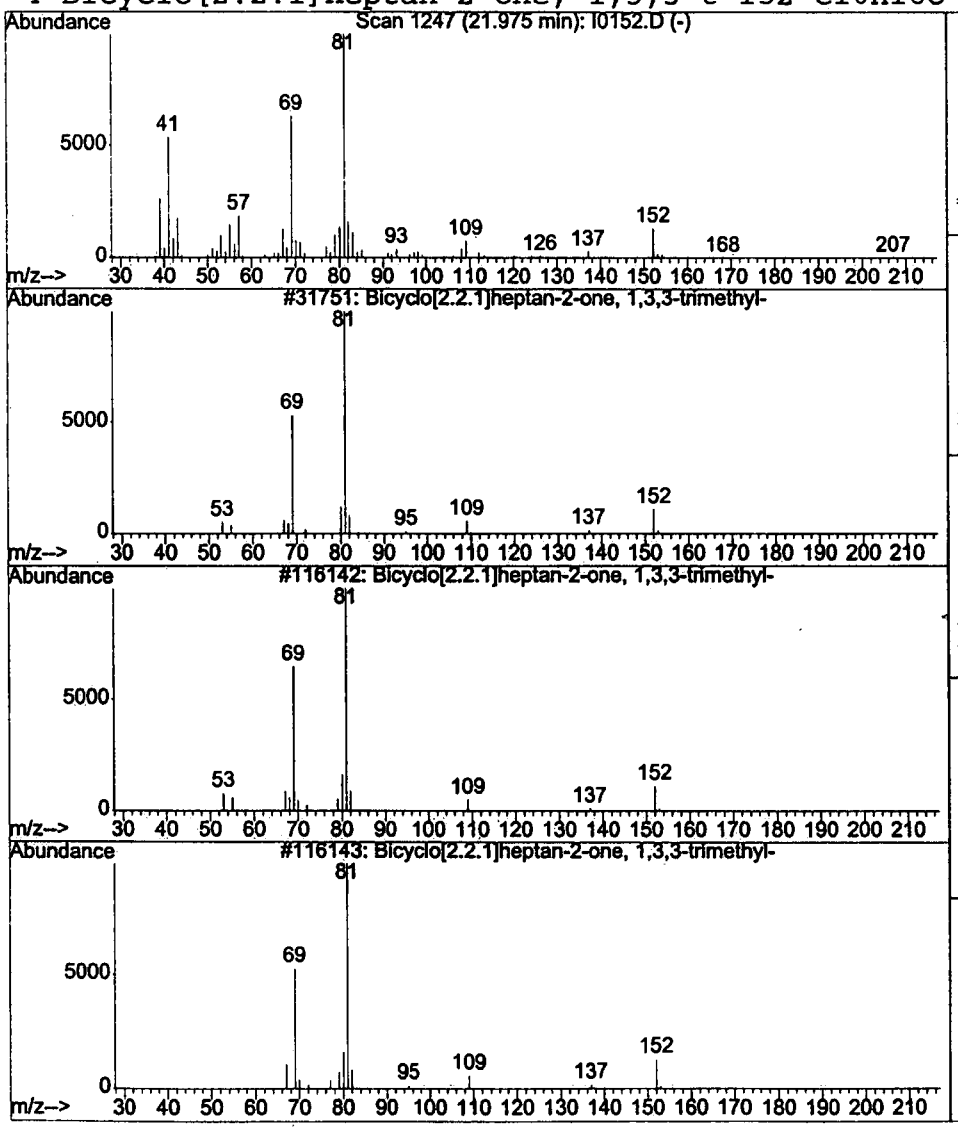
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

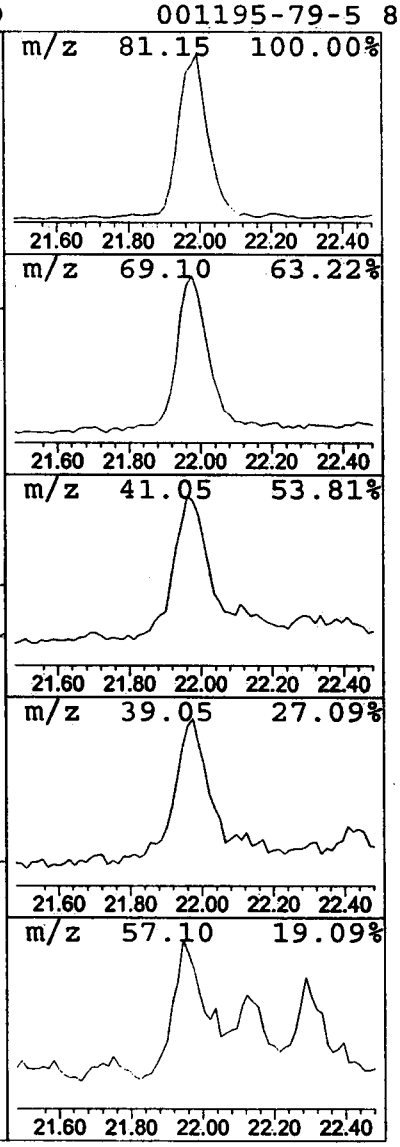
****

Peak Number 6 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.98	8.01 UG	884922	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	004695-62-9	81
2	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	81
3	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	81
4	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	80





1499

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

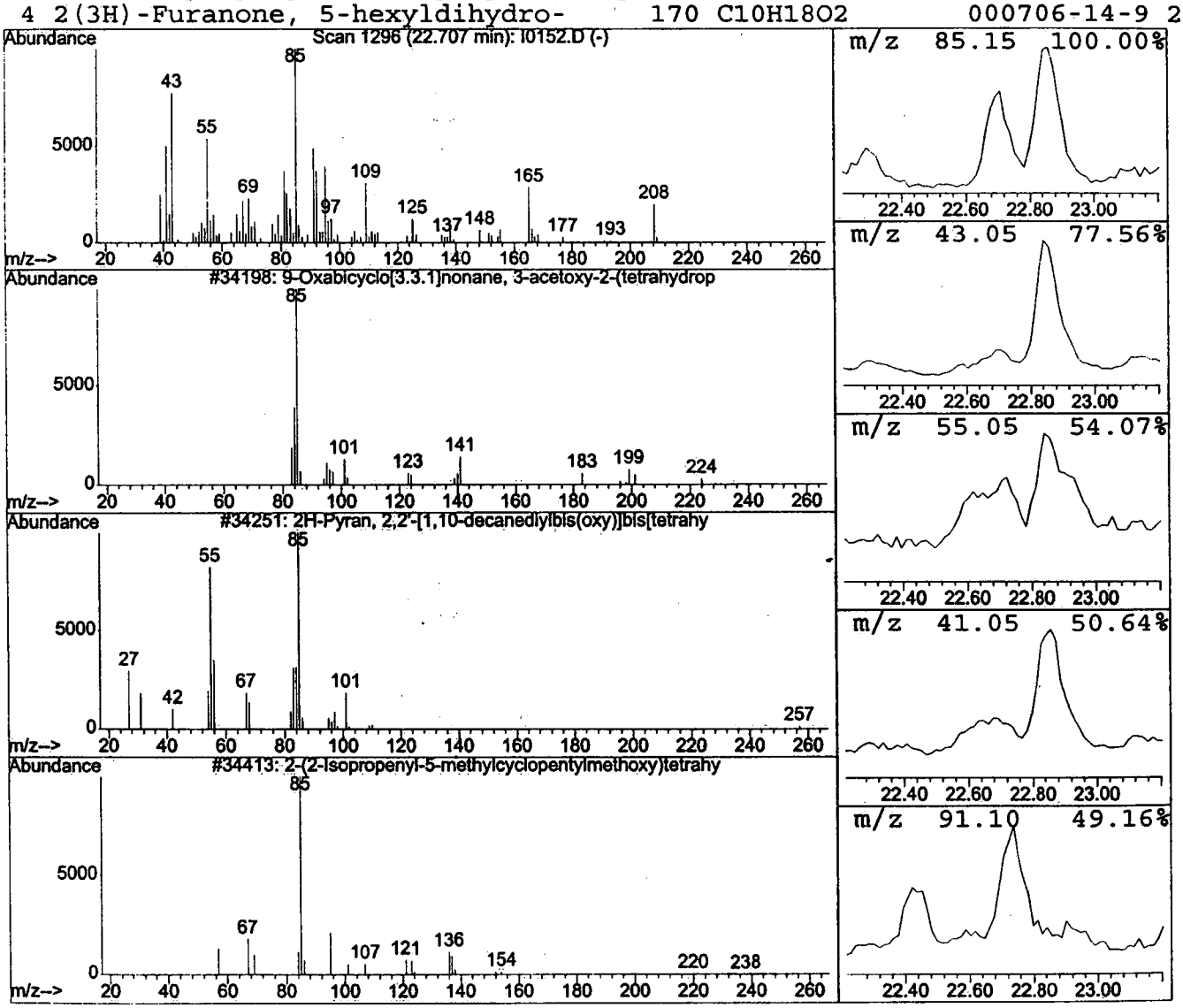
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.71	6.16 UG	681154	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Oxabicyclo[3.3.1]nonane, 3-acetox	284	C15H24O5	1000197-17-0	38
2	2H-Pyran, 2,2'-[1,10-decanediylbis(	342	C20H38O4	056599-49-6	35
3	2-(2-Isopropenyl-5-methylcyclopenty	238	C15H26O2	1000194-46-9	27
4	2(3H)-Furanone, 5-hexyldihydro-	170	C10H18O2	000706-14-9	27



1500

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0152.D Vial: 15
Acq On : 18 Jul 2001 1:32 Operator: DP
Sample : S-102,4833-011,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

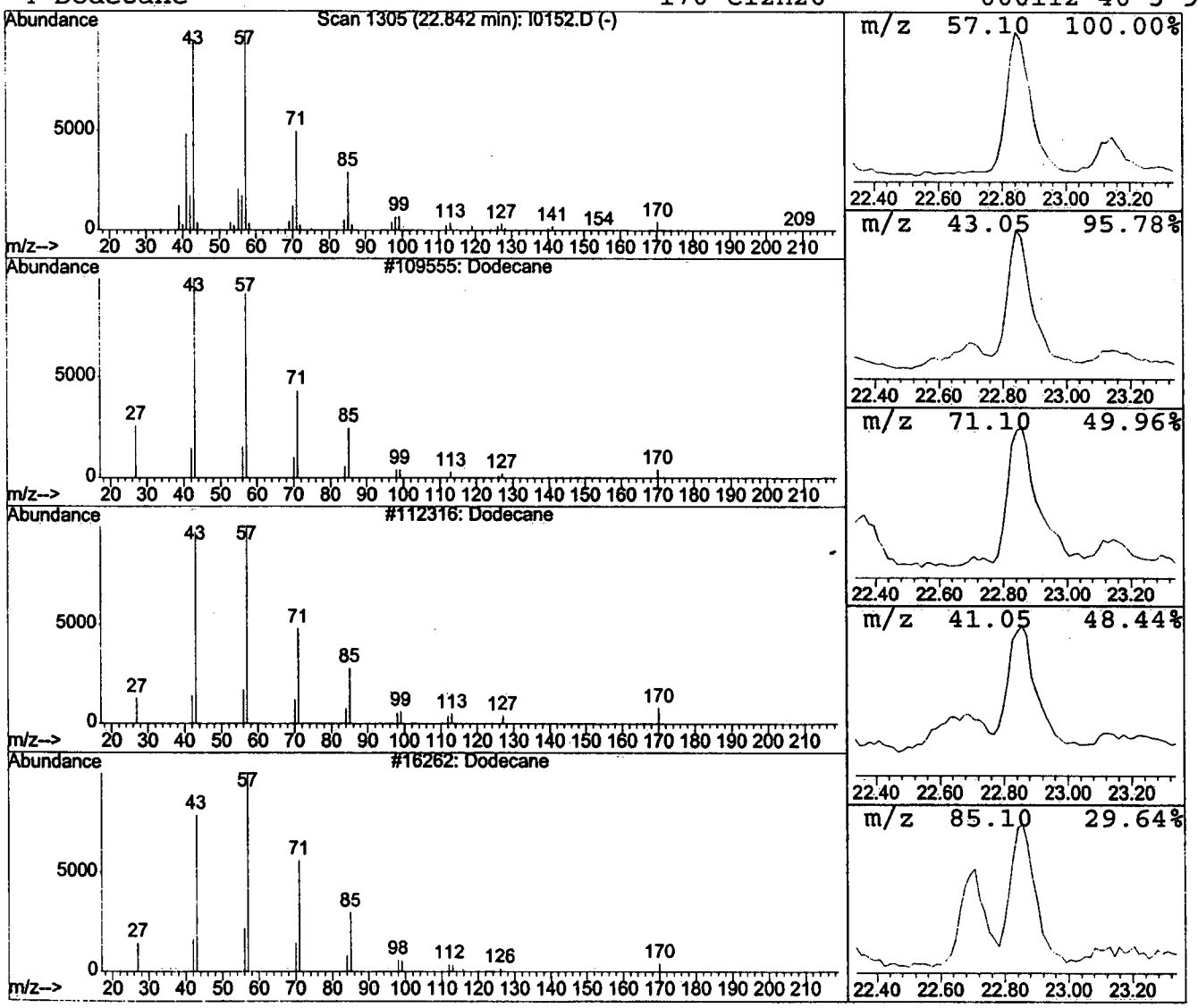
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.84	9.13 UG	1008870	Chlorobenzene-d5	15.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	95
2	Dodecane	170	C12H26	000112-40-3	94
3	Dodecane	170	C12H26	000112-40-3	93
4	Dodecane	170	C12H26	000112-40-3	91



1501

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D Vial: 16
Acq On : 18 Jul 2001 2:05 Operator: DP
Sample : S-103A,4833-012,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:16 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

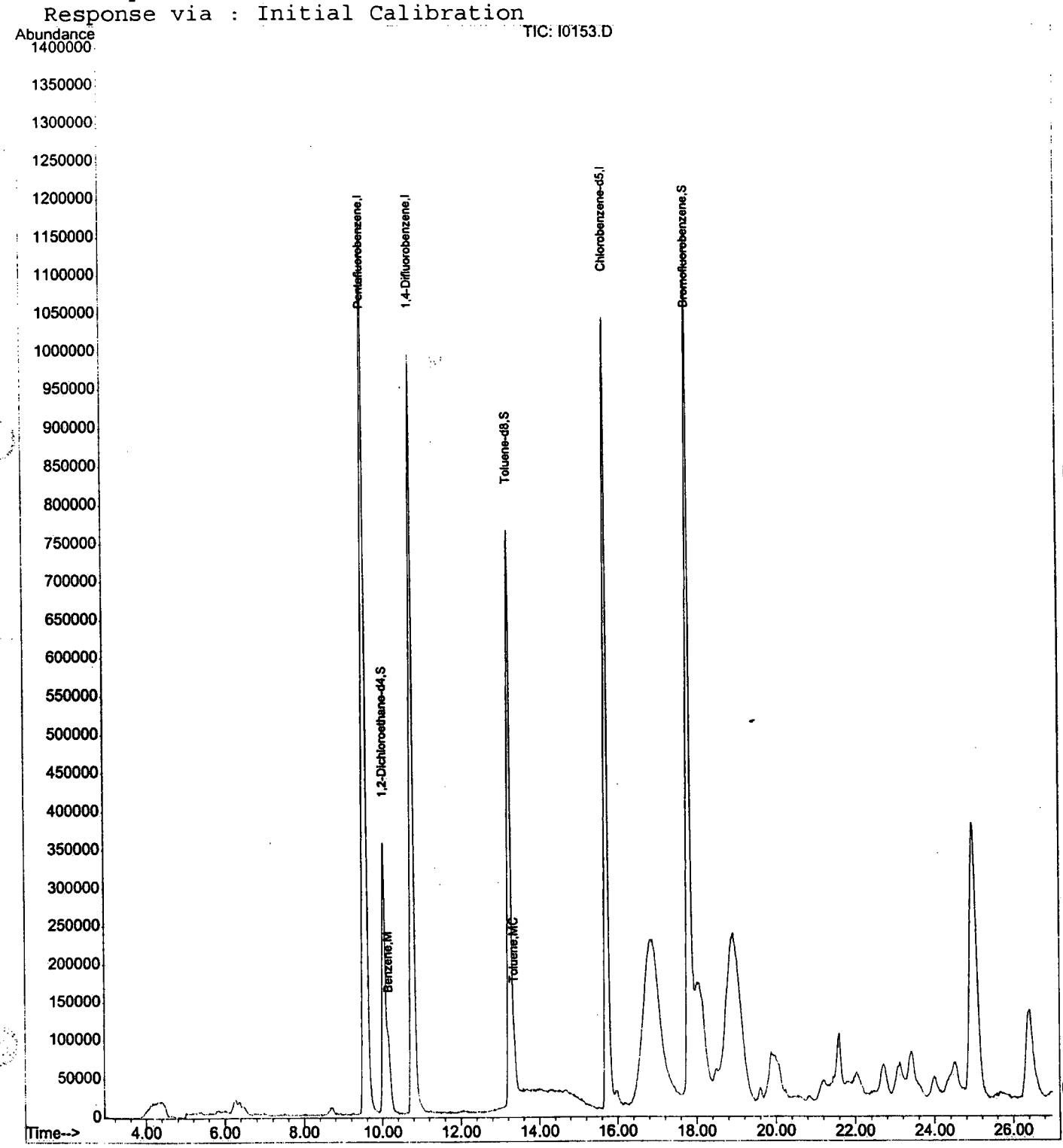
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.56	168	2217384	50.00	UG	-0.10
31) 1,4-Difluorobenzene	10.79	114	2111647	50.00	UG	-0.09
50) Chlorobenzene-d5	15.74	117	1578256	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	757695	38.12	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 76.24%			
41) Toluene-d8	13.26	98	1340855	38.61	UG	-0.07
Spiked Amount 50.000	Range 35 - 117		Recovery = 77.22%			
59) Bromofluorobenzene	17.81	95	1148530	36.10	UG	-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.20%			
Target Compounds						Qvalue
32) Benzene	10.17	78	176596	6.10	UG	99
42) Toluene	13.36	92	74205	3.69	UG	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D Vial: 16
Acq On : 18 Jul 2001 2:05 Operator: DP
Sample : S-103A,4833-012,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:16 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1503

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D
Acq On : 18 Jul 2001 2:05
Sample : S-103A,4833-012,M,0.038g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 3 % of largest Peak
Start Thrs: 1
Max Peaks: 100
Stop Thrs : 1
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

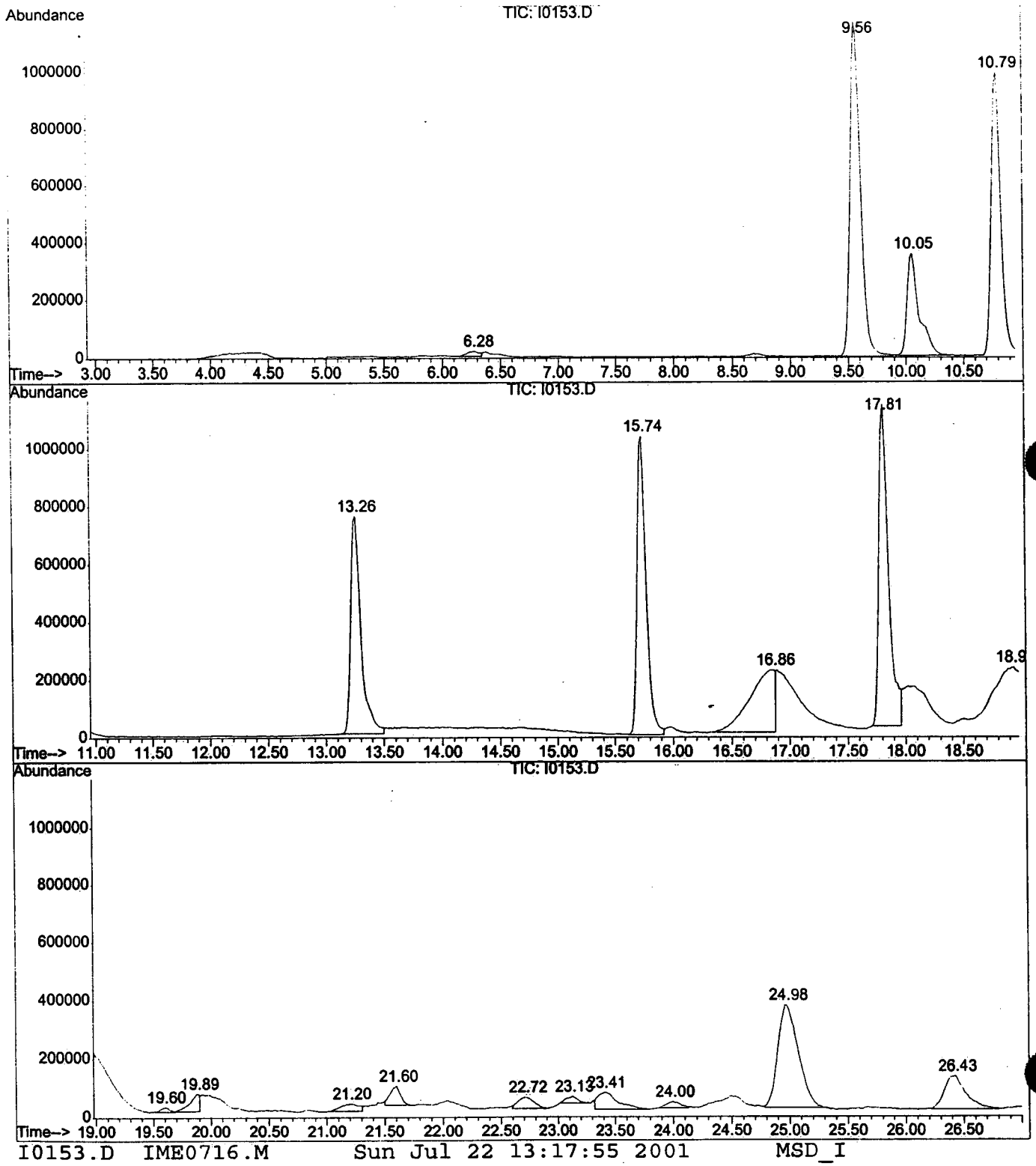
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.278	215	224	228	rBV	17533	132771	1.78%	0.269%
2	9.559	426	437	458	rBV	1169241	7452130	100.00%	15.092%
3	10.050	460	469	490	rVV2	353076	2557837	34.32%	5.180%
4	10.785	509	517	538	rBV	991475	5750174	77.16%	11.645%
5	13.259	670	678	694	rBV	753022	4585837	61.54%	9.287%
6	15.736	833	841	853	rBV	1036016	5492835	73.71%	11.124%
7	16.860	881	915	916	rBV6	214259	3297564	44.25%	6.678%
8	17.811	971	978	988	rBV	1116623	6406705	85.97%	12.975%
9	18.933	1036	1053	1088	rVB9	220104	5237184	70.28%	10.606%
10	19.597	1092	1097	1103	rBV7	16006	87338	1.17%	0.177%
11	19.885	1103	1116	1117	rBV9	59784	366033	4.91%	0.741%
12	21.202	1191	1203	1210	rBV9	25249	279071	3.74%	0.565%
13	21.604	1223	1230	1239	rVB	65975	413889	5.55%	0.838%
14	22.720	1296	1304	1316	rVB	39369	376905	5.06%	0.763%
15	23.126	1324	1331	1339	rVB9	23583	154801	2.08%	0.314%
16	23.409	1344	1350	1375	rVB9	58911	718059	9.64%	1.454%
17	23.999	1381	1389	1398	rBV10	22064	180233	2.42%	0.365%
18	24.976	1441	1454	1475	rVB	354040	4373060	58.68%	8.856%
19	26.432	1536	1550	1575	rBV3	114552	1515678	20.34%	3.070%

Sum of corrected areas: 49378104

I0153.D IME0716.M Sun Jul 22 13:17:55 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0153.D
Operator : DP
Acquired : 18 Jul 2001 2:05 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-103A,4833-012,M,0.038g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 16
Quant File :IME0716.RES (RTE Integrator)



I0153.D IME0716.M Sun Jul 22 13:17:55 2001 MSD_I

1505

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D Vial: 16
Acq On : 18 Jul 2001 2:05 Operator: DP
Sample : S-103A,4833-012,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

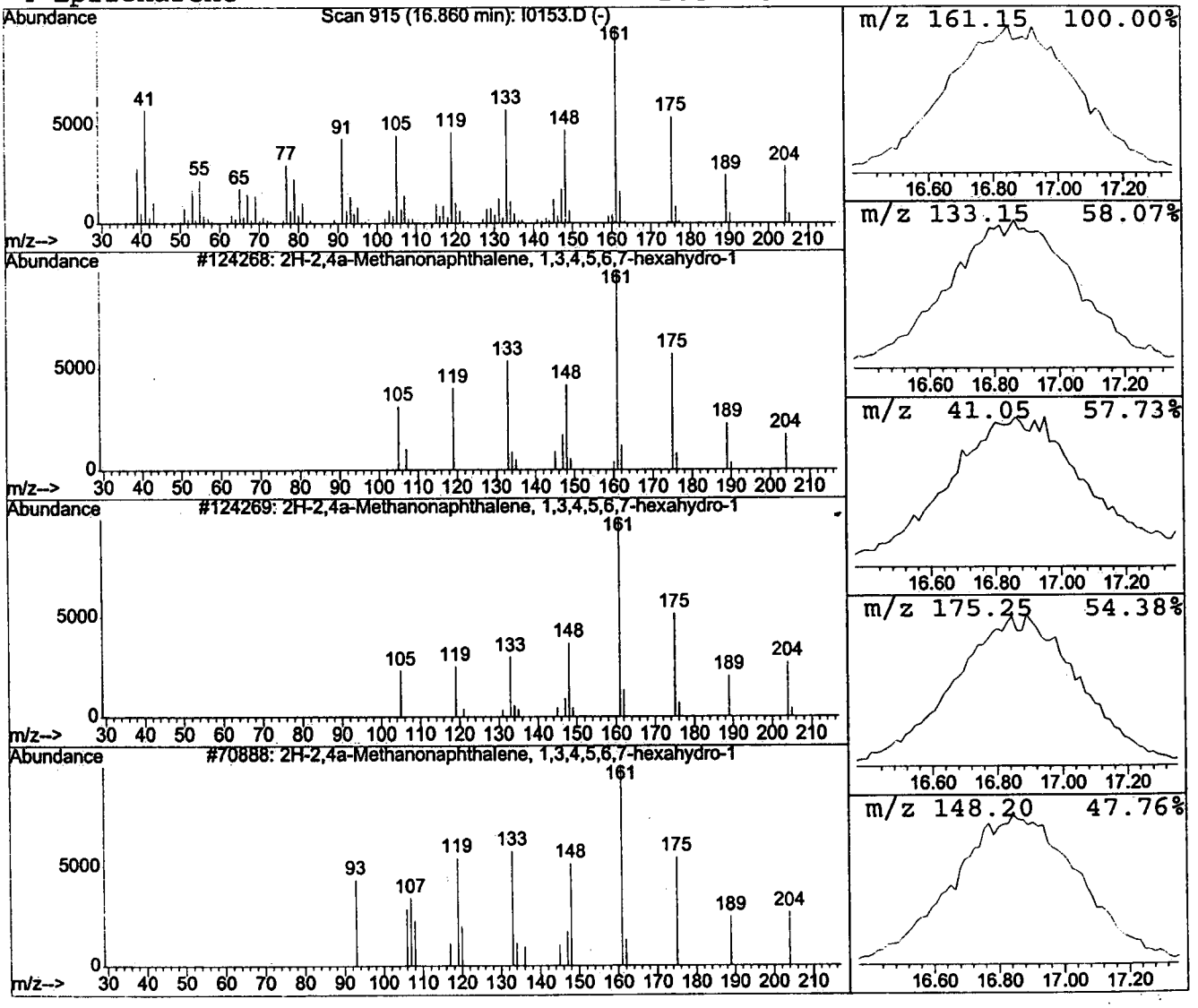
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.86	30.02 UG	3297560	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2H-2,4a-Methanonaphthalene, 1,3,4,5	204	C15H24	001135-66-6	98
2	2H-2,4a-Methanonaphthalene, 1,3,4,5	204	C15H24	001135-66-6	97
3	2H-2,4a-Methanonaphthalene, 1,3,4,5	204	C15H24	001135-66-6	94
4	Epizonarene	204	C15H24	1000156-10-7	83



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D
Acq On : 18 Jul 2001 2:05
Sample : S-103A,4833-012,M,0.038g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

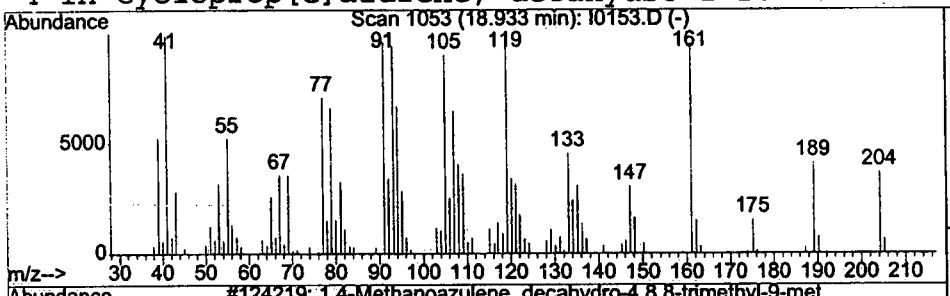
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

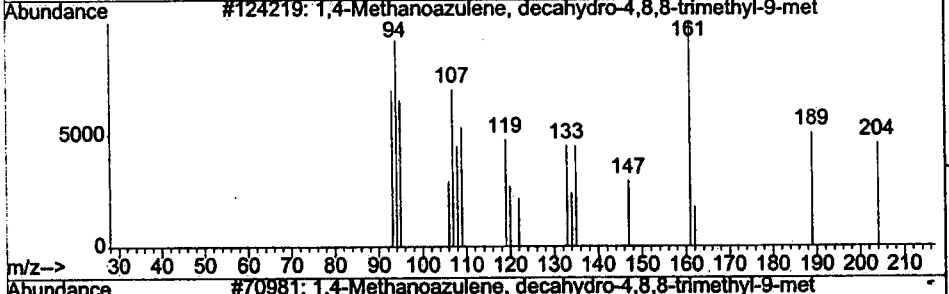
****

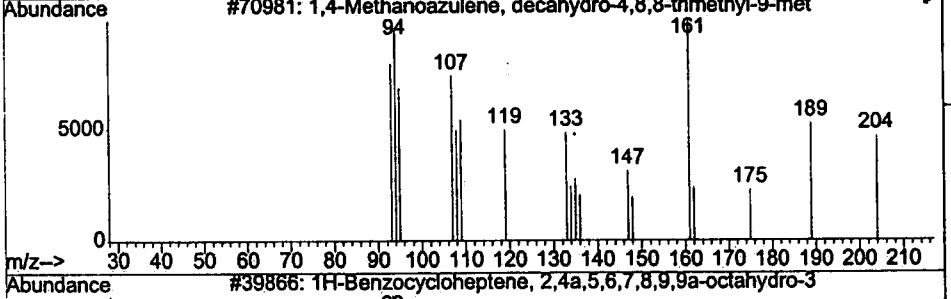
Peak Number 2 Unknown — Concentration Rank 1

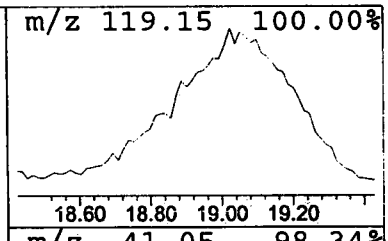
R.T.	EstConc	Area	Relative to ISTD	R.T.
18.93	47.67 UG	5237180	Chlorobenzene-d5	15.74

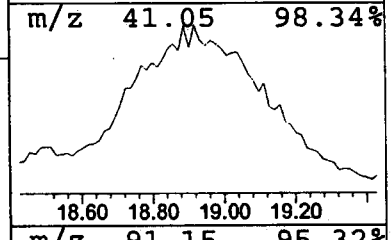
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Methanoazulene, decahydro-4,8,8	204	C15H24	000475-20-7	95
2	1,4-Methanoazulene, decahydro-4,8,8	204	C15H24	000475-20-7	94
3	1H-Benzocycloheptene, 2,4a,5,6,7,8,	204	C15H24	003853-83-6	92
4	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	000489-39-4	92

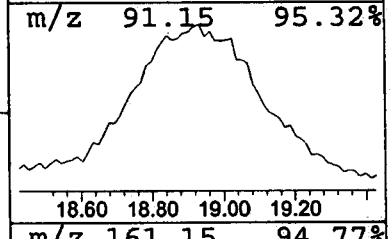


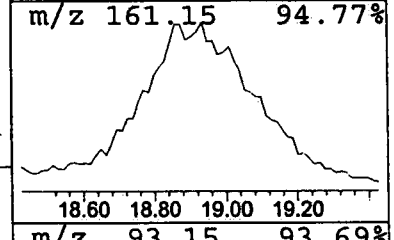


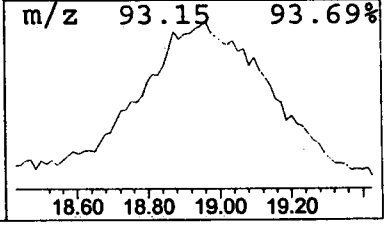












1507

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D Vial: 16
Acq On : 18 Jul 2001 2:05 Operator: DP
Sample : S-103A,4833-012,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

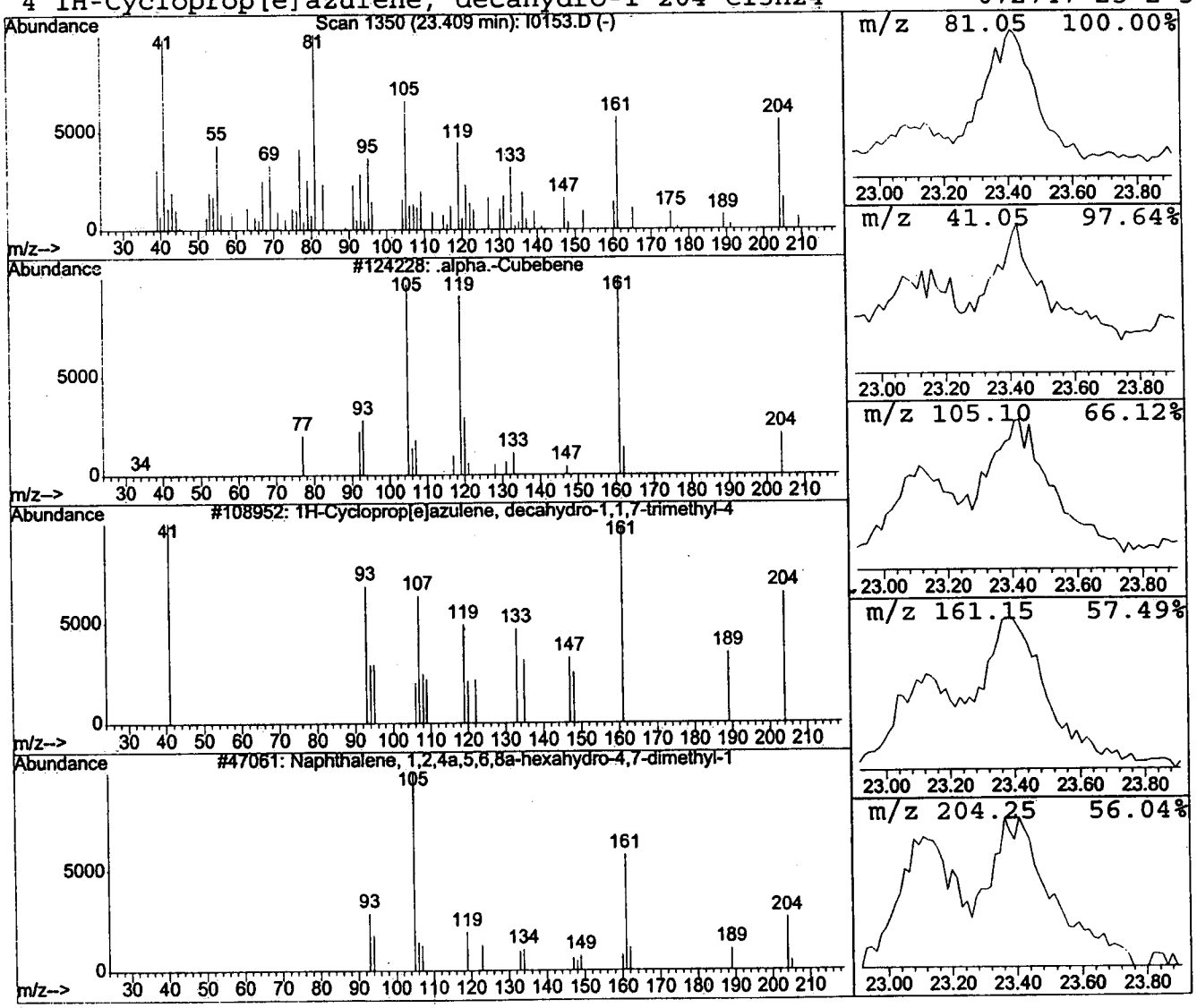
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.41	6.54 UG	718059	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Cubebene	204	C15H24	017699-14-8	50
2	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	000489-39-4	38
3	Naphthalene, 1,2,4a,5,6,8a-hexahydr	204	C15H24	017627-24-6	35
4	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	072747-25-2	30



0275

1508

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D
Acq On : 18 Jul 2001 2:05
Sample : S-103A,4833-012,M,0.038g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

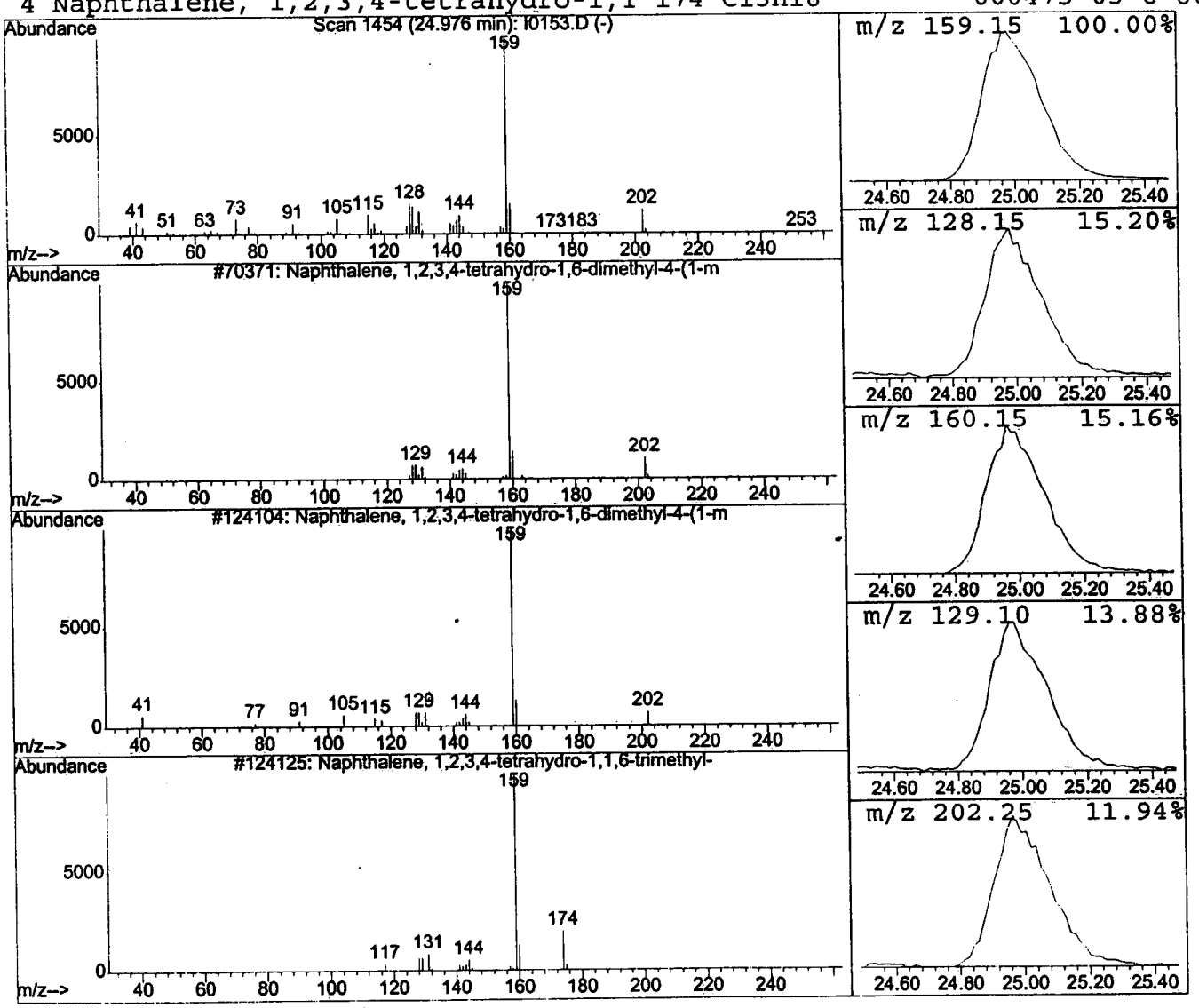
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.98	39.81 UG	4373060	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1,6	202	C15H22	000483-77-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-1,6	202	C15H22	000483-77-2	95
3	Naphthalene, 1,2,3,4-tetrahydro-1,1	174	C13H18	000475-03-6	80
4	Naphthalene, 1,2,3,4-tetrahydro-1,1	174	C13H18	000475-03-6	80



1509

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0153.D
Acq On : 18 Jul 2001 2:05
Sample : S-103A,4833-012,M,0.038g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

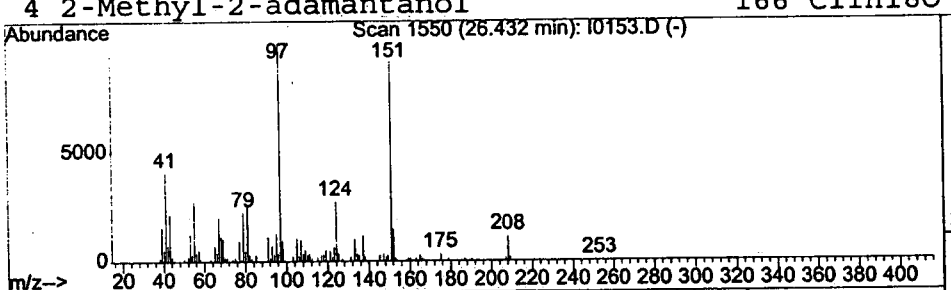
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

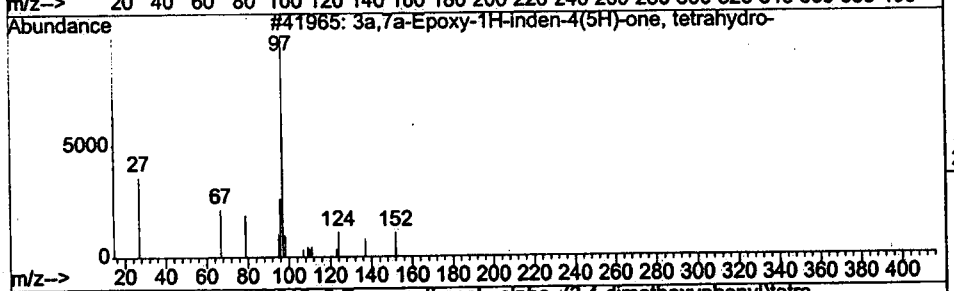
****

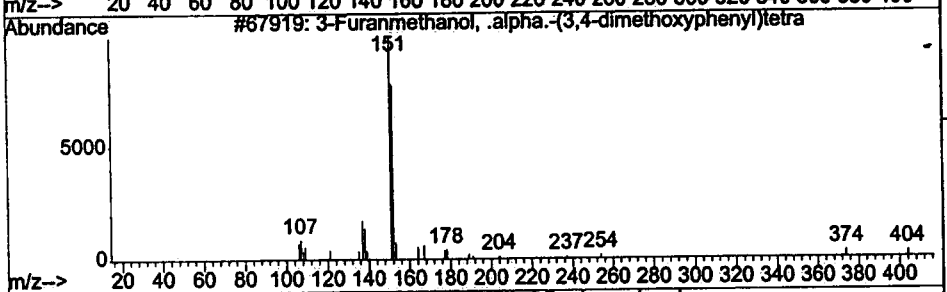
Peak Number 5 Unknown — Concentration Rank 4

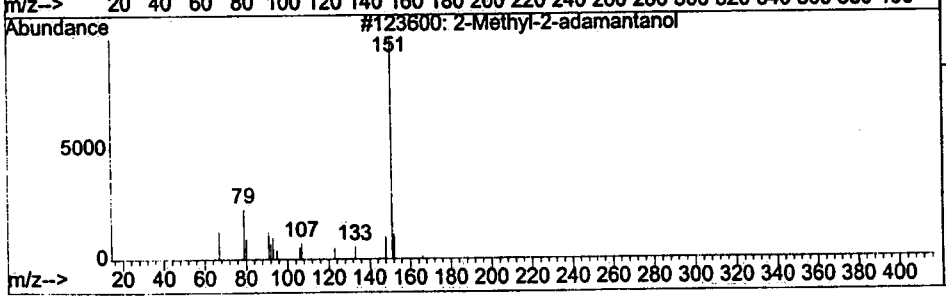
R.T.	EstConc	Area	Relative to ISTD	R.T.
26.43	13.80 UG	1515680	Chlorobenzene-d5	15.74

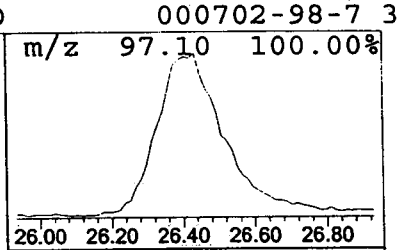
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3a,7a-Epoxy-1H-inden-4(5H)-one, tet	152	C9H12O2	039746-31-1	45
2	3-Furanmethanol, .alpha.-(3,4-dimet	404	C22H28O7	010569-16-1	40
3	2-Methyl-2-adamantanol	166	C11H18O	000702-98-7	38
4	2-Methyl-2-adamantanol	166	C11H18O	000702-98-7	38

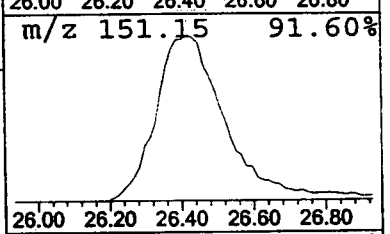


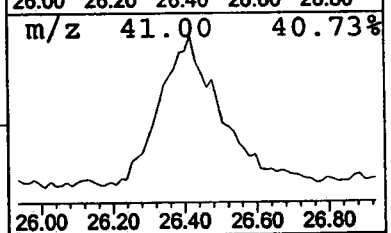


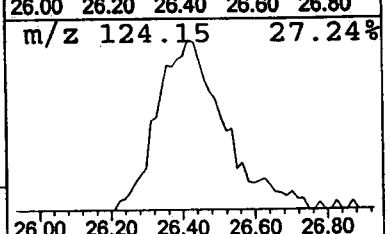


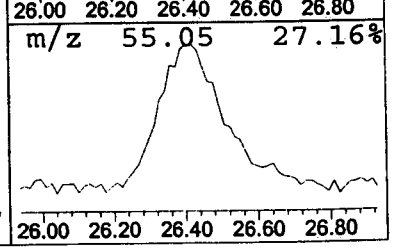












1510

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0154.D Vial: 17
Acq On : 18 Jul 2001 2:39 Operator: DP
Sample : S-103B,4833-013,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:28 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

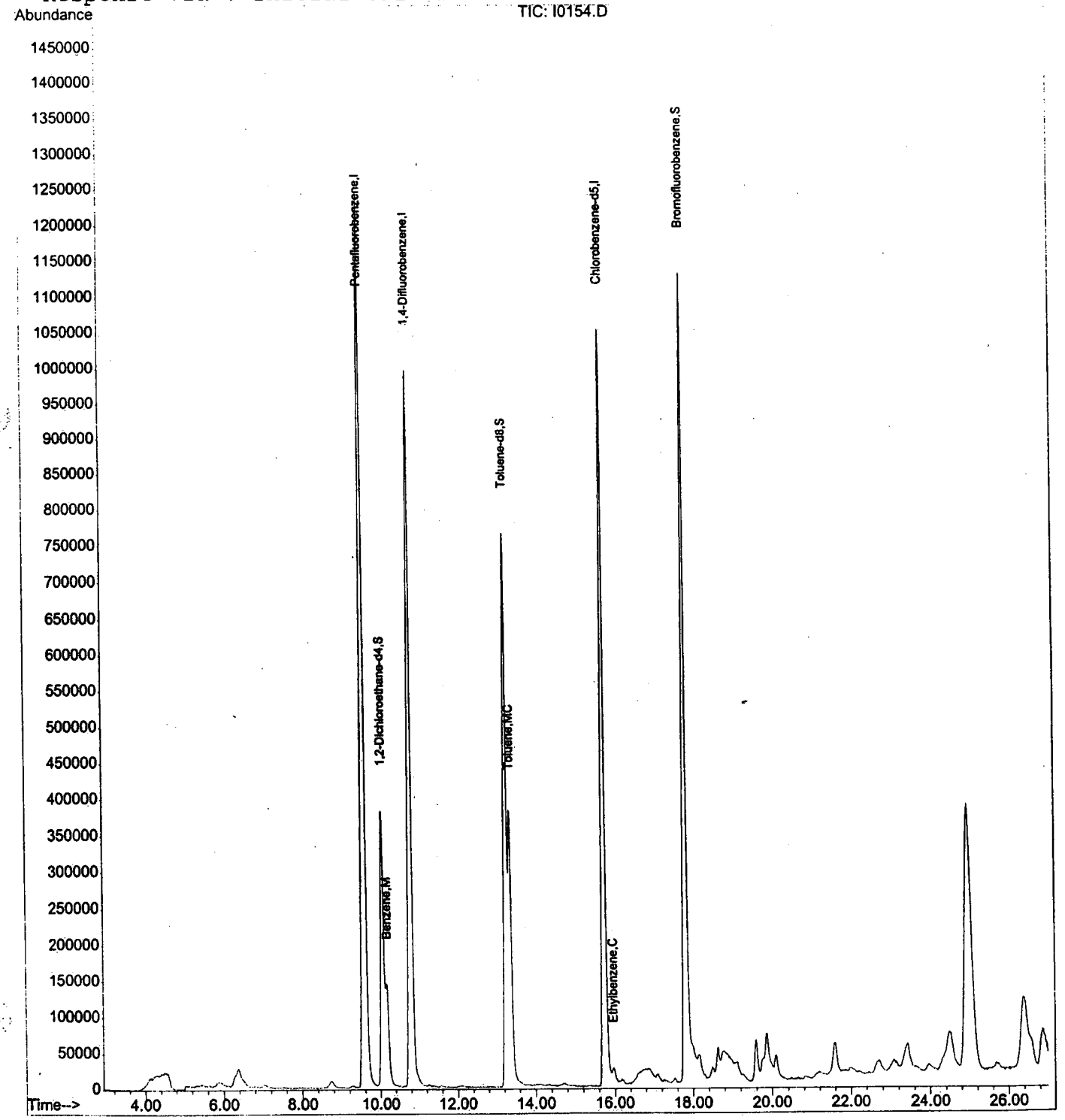
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	2241431	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.78	114	2134552	50.00	UG	-0.09
50) Chlorobenzene-d5	15.72	117	1600022	50.00	UG	-0.08
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	778530	38.75	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 77.50%			
41) Toluene-d8	13.25	98	1325465	37.76	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.52%			
59) Bromofluorobenzene	17.80	95	1158267	35.91	UG	-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 71.82%			
Target Compounds						Qvalue
32) Benzene	10.17	78	264303	9.03	UG	100
42) Toluene	13.37	92	407206	20.02	UG	96
53) Ethylbenzene	15.97	91	50772	1.29	UG	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0154.D Vial: 17
Acq On : 18 Jul 2001 2:39 Operator: DP
Sample : S-103B,4833-013,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:28 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1512

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0154.D Vial: 17
Acq On : 18 Jul 2001 2:39 Operator: DP
Sample : S-103B,4833-013,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

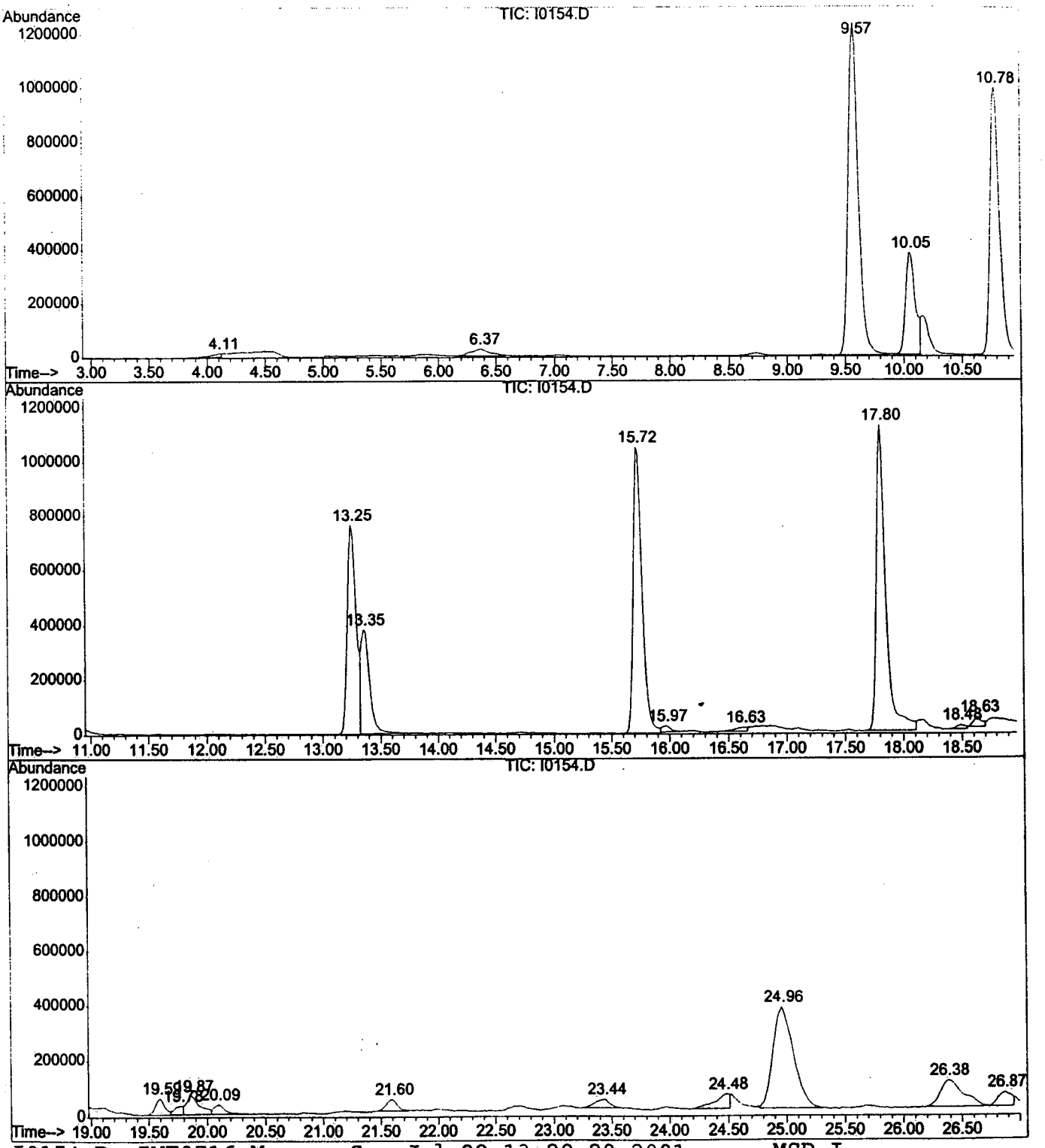
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.107	69	81	82	rBV6	13943	77062	1.04%	0.181%
2	6.368	217	231	245	rBV4	25379	289036	3.88%	0.679%
3	9.571	430	439	459	rBV	1234814	7443540	100.00%	17.482%
4	10.047	461	470	476	rBV	378929	2186032	29.37%	5.134%
5	10.782	509	518	540	rBV	993326	5760703	77.39%	13.529%
6	13.246	670	678	683	rBV2	764180	4113684	55.27%	9.661%
7	13.353	683	685	707	rVB	379631	1878148	25.23%	4.411%
8	15.720	832	839	852	rBV	1049923	5532816	74.33%	12.994%
9	15.966	852	855	863	rVB	21175	112556	1.51%	0.264%
10	16.629	886	898	900	rBV8	14510	107073	1.44%	0.251%
11	17.804	967	975	995	rBV	1122338	6374780	85.64%	14.972%
12	18.483	1015	1020	1024	rBV4	15410	78125	1.05%	0.183%
13	18.635	1024	1030	1034	rBV3	35087	174906	2.35%	0.411%
14	19.595	1085	1093	1099	rBV4	58392	336448	4.52%	0.790%
15	19.777	1099	1105	1106	rVV5	30835	163199	2.19%	0.383%
16	19.869	1106	1111	1122	rVV	65016	538128	7.23%	1.264%
17	20.094	1122	1126	1141	rVB5	33673	222616	2.99%	0.523%
18	21.598	1216	1224	1233	rVB	41304	281003	3.78%	0.660%
19	23.440	1334	1346	1353	rBV9	31704	273456	3.67%	0.642%
20	24.482	1397	1415	1417	rBV6	51886	469858	6.31%	1.103%
21	24.961	1434	1447	1470	rVB2	365843	4445985	59.73%	10.442%
22	26.376	1530	1541	1565	rVB8	94284	1303132	17.51%	3.060%
23	26.870	1565	1574	1579	rBV6	50826	416815	5.60%	0.979%

Sum of corrected areas: 42579101

I0154.D IME0716.M Sun Jul 22 13:29:28 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0154.D
Operator : DP
Acquired : 18 Jul 2001 2:39 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-103B,4833-013,M,0.035g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 17
Quant File :IME0716.RES (RTE Integrator)



I0154.D IME0716.M Sun Jul 22 13:29:28 2001 MSD_I

1514

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0154.D
Acq On : 18 Jul 2001 2:39
Sample : S-103B,4833-013,M,0.035g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

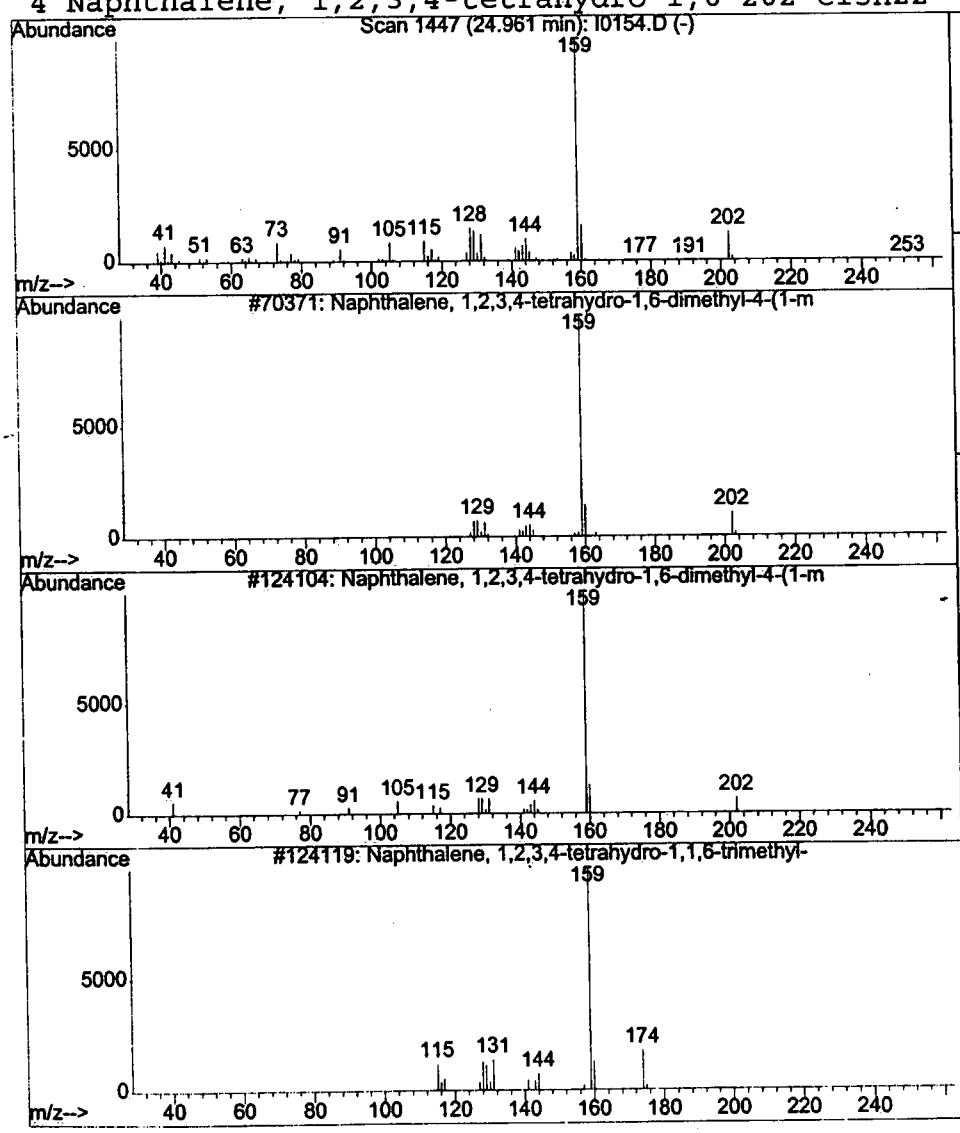
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

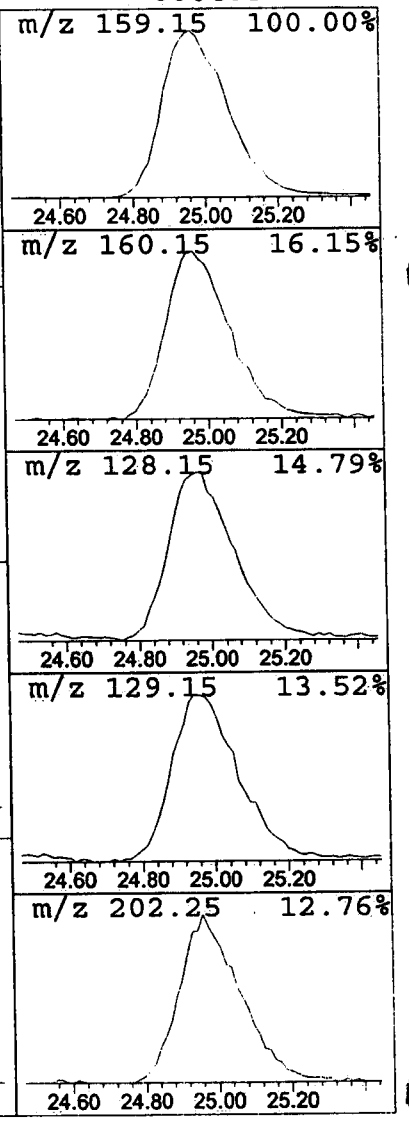
****

Peak Number 1 Unknown aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.96	40.18 UG	4445990	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-1,6	202	C15H22	000483-77-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-1,6	202	C15H22	000483-77-2	95
3	Naphthalene, 1,2,3,4-tetrahydro-1,1	174	C13H18	000475-03-6	86
4	Naphthalene, 1,2,3,4-tetrahydro-1,6	202	C15H22	000483-77-2	80





Data File : C:\HPCHEM\1\DATA\07-17-01\I0154.D Vial: 17
Acq On : 18 Jul 2001 2:39 Operator: DP
Sample : S-103B,4833-013,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

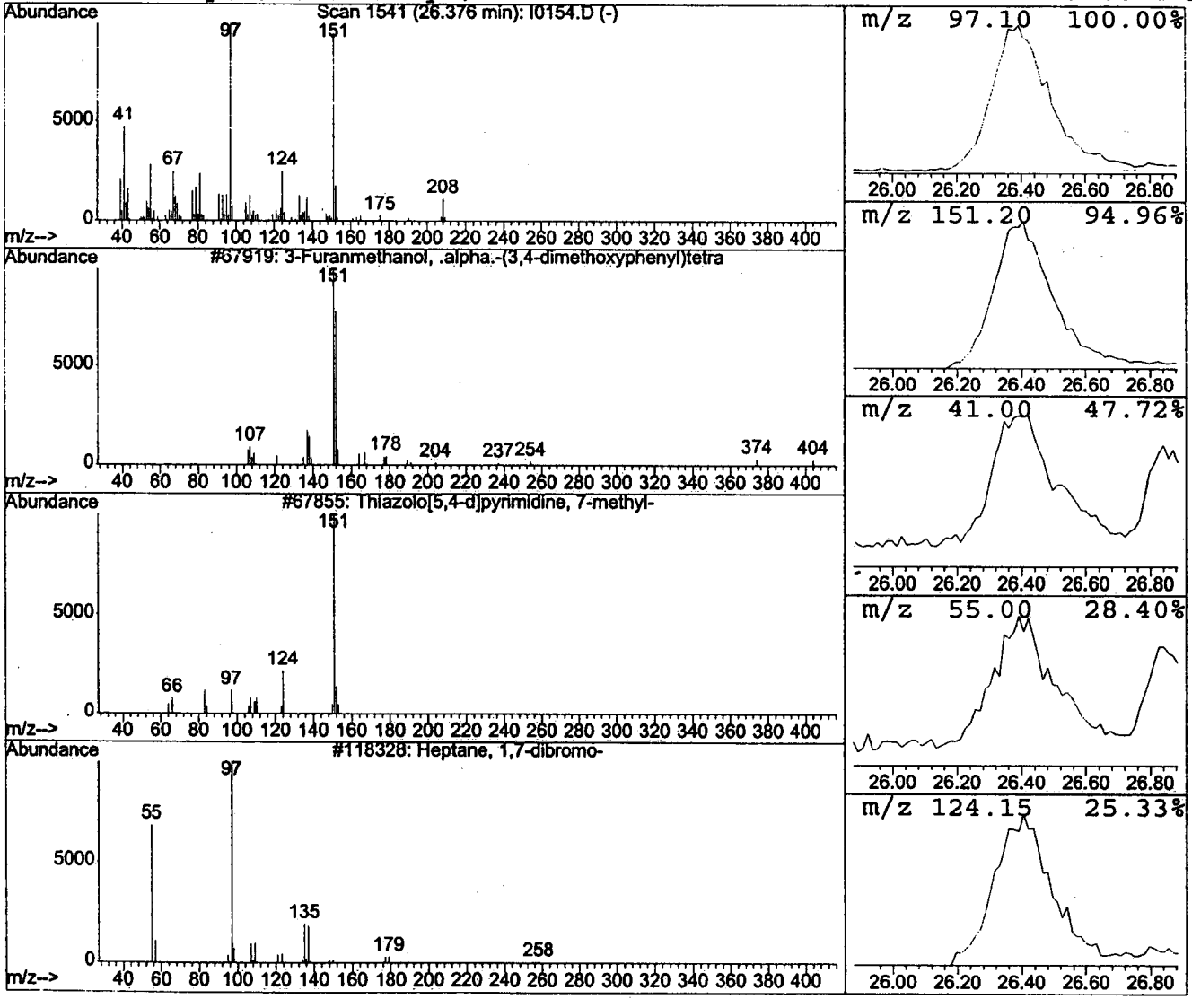
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.38	11.78 UG	1303130	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Furanmethanol, .alpha.-(3,4-dimet	404	C22H28O7	010569-16-1	40
2	Thiazolo[5,4-d]pyrimidine, 7-methyl	151	C6H5N3S	013316-06-8	38
3	Heptane, 1,7-dibromo-	256	C7H14Br2	004549-31-9	27
4	Benzaldehyde, 3-methoxy-, oxime	151	C8H9NO2	038489-80-4	27



0002

1516

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:30 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	2190534	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.80	114	2175848	50.00	UG	-0.07
50) Chlorobenzene-d5	15.74	117	1579142	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.06	65	892918	45.47	UG	-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 90.94%			
41) Toluene-d8	13.25	98	1533441	42.86	UG	-0.07
Spiked Amount 50.000	Range 35 - 117		Recovery = 85.72%			
59) Bromofluorobenzene	17.82	95	1484837	46.65	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 93.30%			

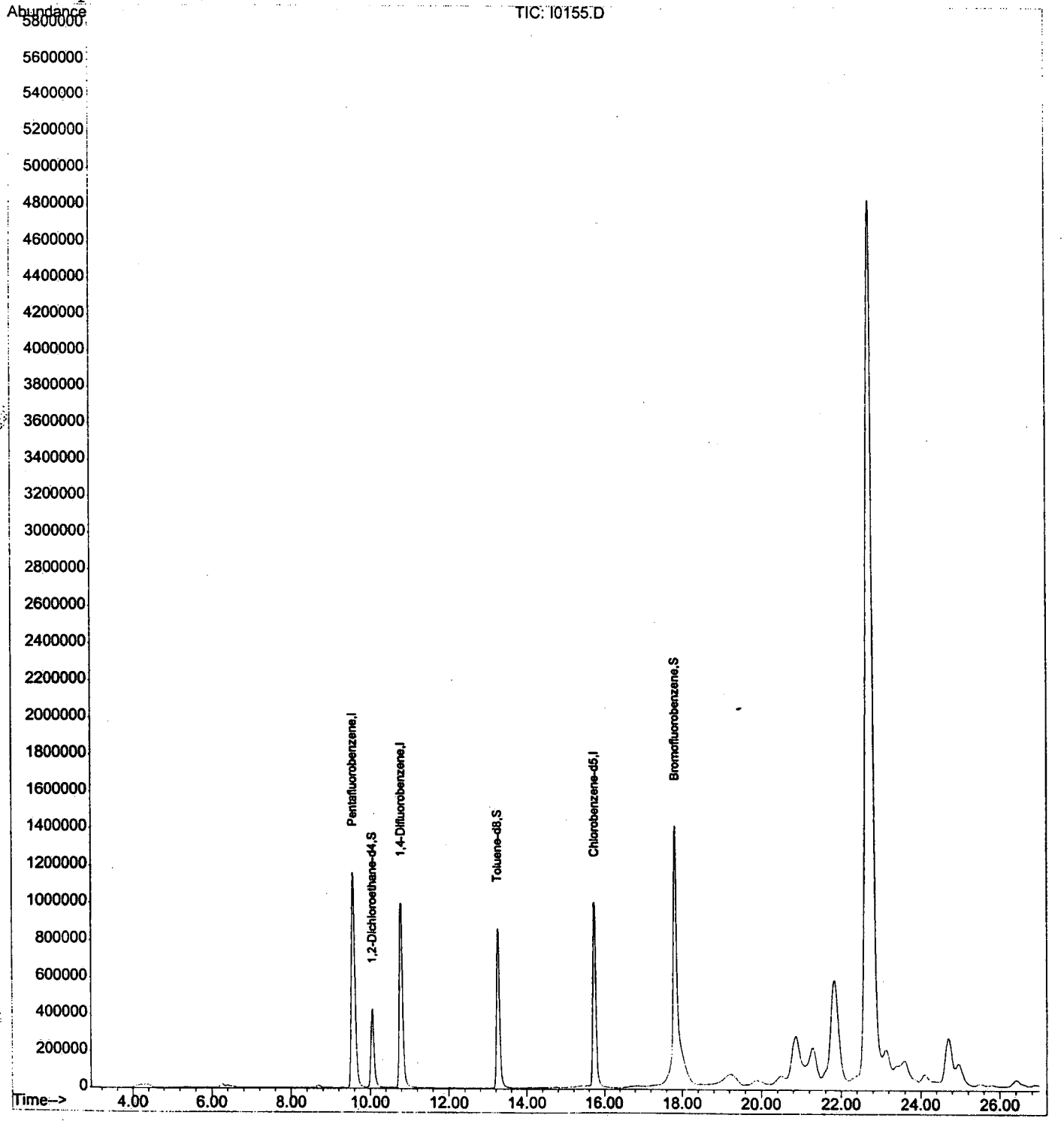
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:30 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1518

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

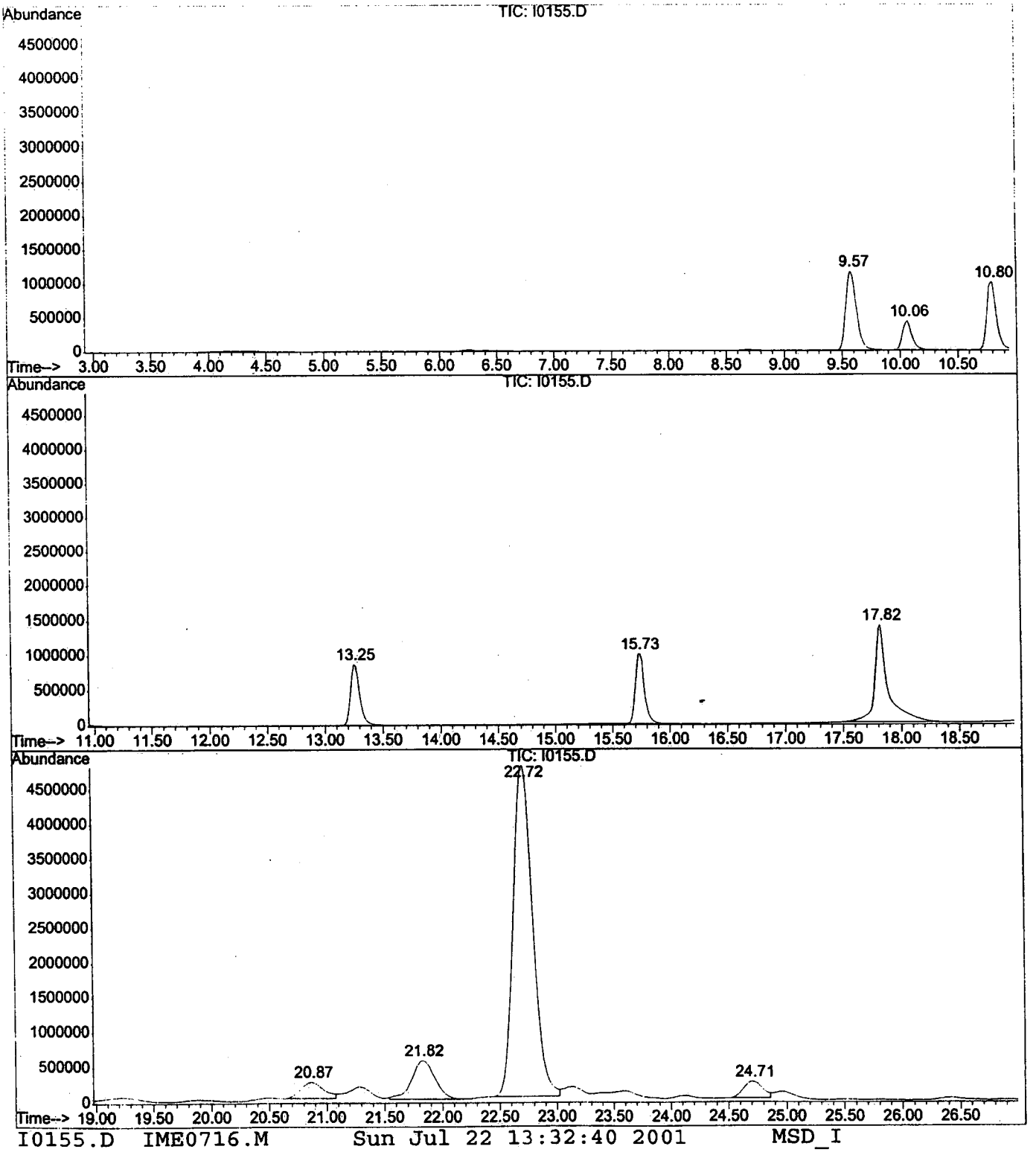
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.572	427	438	452	rBV	1165697	7296075	12.96%	6.815%
2	10.064	462	470	483	rBV	426761	2386265	4.24%	2.229%
3	10.800	509	518	540	rBV	999448	5905464	10.49%	5.516%
4	13.252	670	677	698	rBV	870635	4864476	8.64%	4.544%
5	15.727	832	838	854	rVB	997265	5419854	9.63%	5.062%
6	17.815	953	974	1010	rVB	1395454	11323836	20.12%	10.577%
7	20.869	1161	1176	1190	rBV4	231102	3226804	5.73%	3.014%
8	21.825	1221	1240	1262	rVB5	546659	7652982	13.60%	7.148%
9	22.723	1282	1300	1320	rBV	4758935	56277050	100.00%	52.566%
10	24.712	1420	1433	1443	rBV7	234987	2707553	4.81%	2.529%

Sum of corrected areas: 107060359

I0155.D IME0716.M Sun Jul 22 13:32:40 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0155.D
Operator : DP
Acquired : 18 Jul 2001 3:13 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-104,4833-014,M,0.043g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 18
Quant File :IME0716.RES (RTE Integrator)



I0155.D IME0716.M Sun Jul 22 13:32:40 2001 MSD_I

1520

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

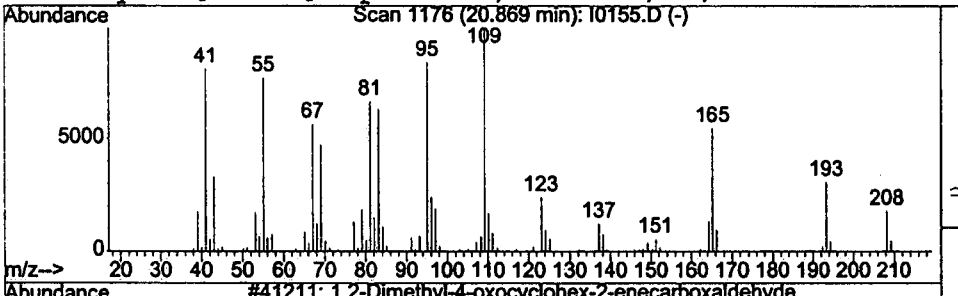
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

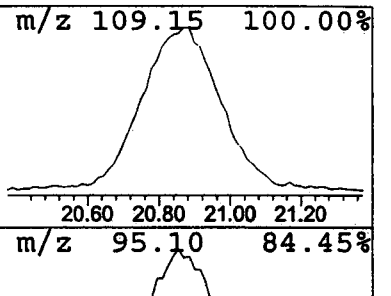
****

Peak Number 1 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.87	29.77 UG	3226800	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Dimethyl-4-oxocyclohex-2-enecar	152	C9H12O2	1000187-01-2	41
2	Cyclohexene, 3,3,5-trimethyl-	124	C9H16	000503-45-7	38
3	Hexane, 1-(isopropylidenecyclopropy	166	C12H22	024524-53-6	30
4	Bicyclo[2.2.1]heptane-2,3-dione, 1,	166	C10H14O2	010334-26-6	30





1521

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

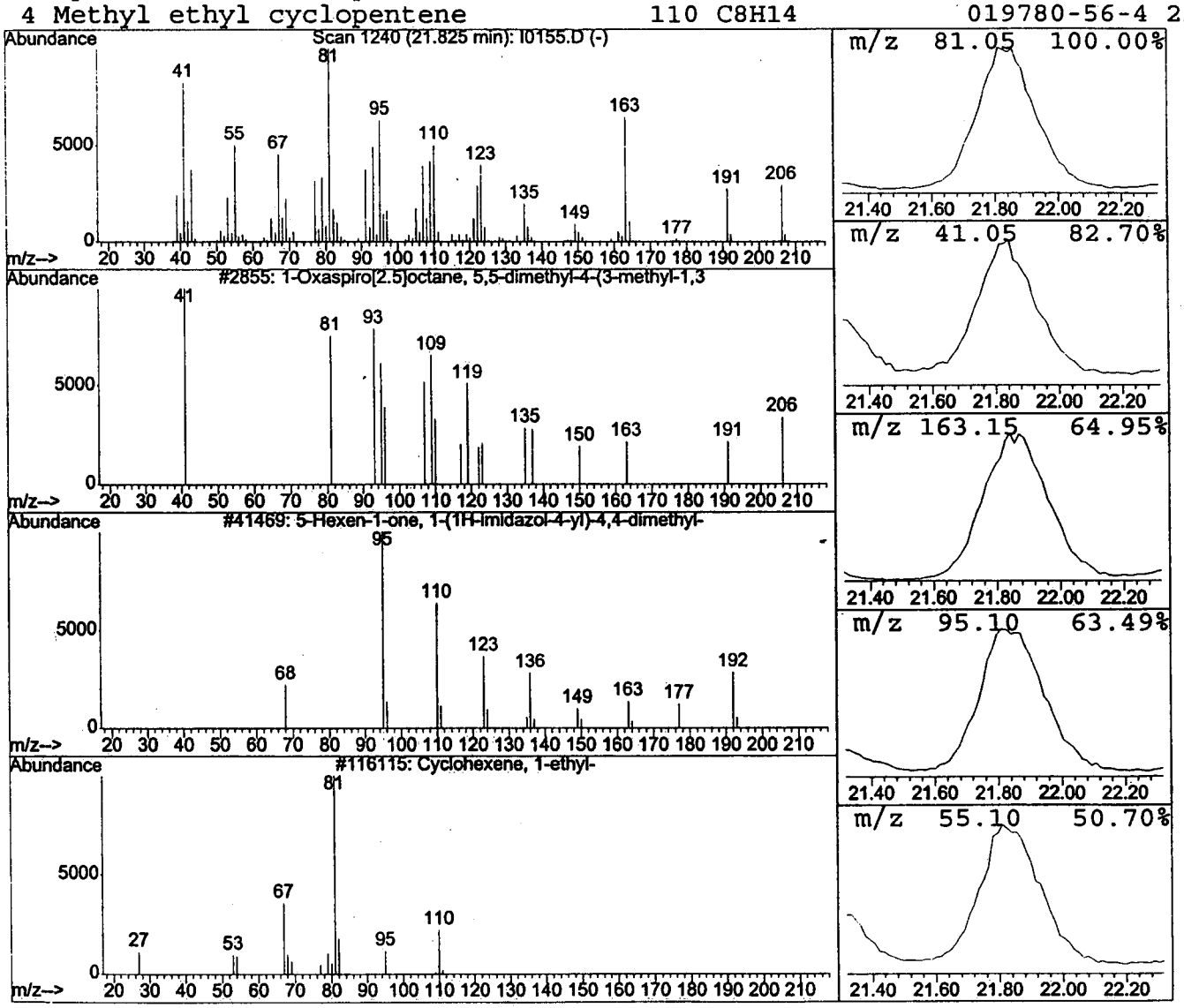
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.82	70.60 UG	7652980	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Oxaspiro[2.5]octane, 5,5-dimethyl	206	C14H22O	1000195-92-1	46
2	5-Hexen-1-one, 1-(1H-imidazol-4-yl)	192	C11H16N2O	069393-41-5	30
3	Cyclohexene, 1-ethyl-	110	C8H14	001453-24-3	22
4	Methyl ethyl cyclopentene	110	C8H14	019780-56-4	22



1522

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

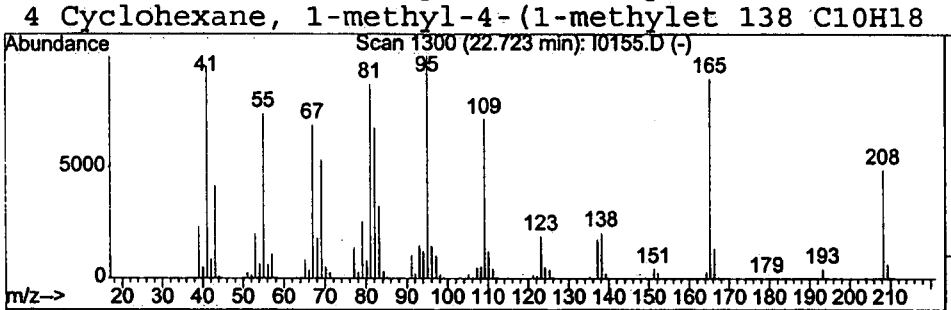
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

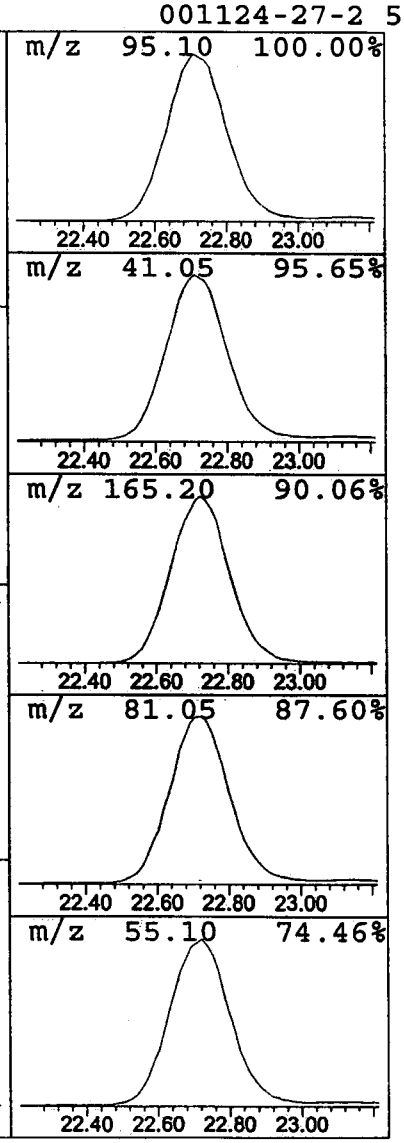
****

Peak Number 3 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.72	519.17 UG	56277100	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	10.alpha.-Eremophilane	208	C15H28	003242-05-5	94
2	Naphthalene, decahydro-1,8a-dimethy	208	C15H28	015404-63-4	94
3	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	70
4	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	55





1523

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0155.D Vial: 18
Acq On : 18 Jul 2001 3:13 Operator: DP
Sample : S-104,4833-014,M,0.043g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

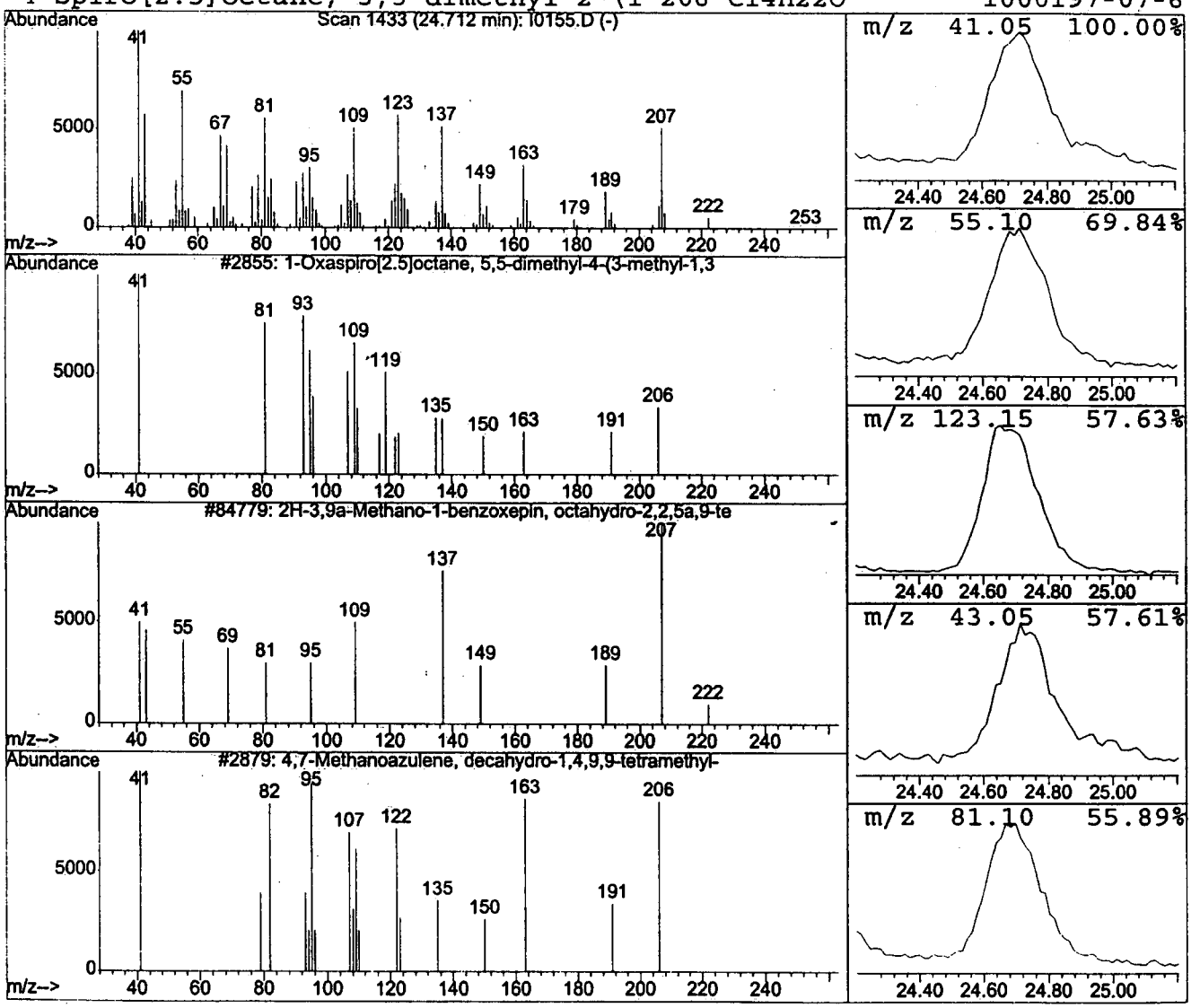
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.71	24.98 UG	2707550	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Oxaspiro[2.5]octane, 5,5-dimethyl	206	C14H22O	1000195-92-1	35
2	2H-3,9a-Methano-1-benzoxepin, octah	222	C15H26O	005956-09-2	35
3	4,7-Methanoazulene, decahydro-1,4,9	206	C15H26	020478-88-0	30
4	Spiro[2.5]octane, 3,3-dimethyl-2-(1	206	C14H22O	1000197-07-6	30



1524

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D Vial: 19
Acq On : 18 Jul 2001 3:47 Operator: DP
Sample : S-105,4833-015,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:33 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.56	168	2241043	50.00	UG	-0.10
31) 1,4-Difluorobenzene	10.78	114	2217284	50.00	UG	-0.10
50) Chlorobenzene-d5	15.71	117	1657238	50.00	UG	-0.09
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.04	65	925371	46.06	UG	-0.11
Spiked Amount 50.000	Range 36 - 115		Recovery = 92.12%			
41) Toluene-d8	13.24	98	1585046	43.47	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery = 86.94%			
59) Bromofluorobenzene	17.80	95	1371392	41.05	UG	-0.08
Spiked Amount 50.000	Range 47 - 115		Recovery = 82.10%			
Target Compounds						Qvalue
32) Benzene	10.16	78	82563	2.72	UG	99
42) Toluene	13.34	92	101399	4.80	UG	99
53) Ethylbenzene	15.96	91	50361	1.24	UG	100
54) m,p-Xylene	16.16	106	48604	3.11	UG	100
55) o-Xylene	16.88	106	28584	1.84	UG	100

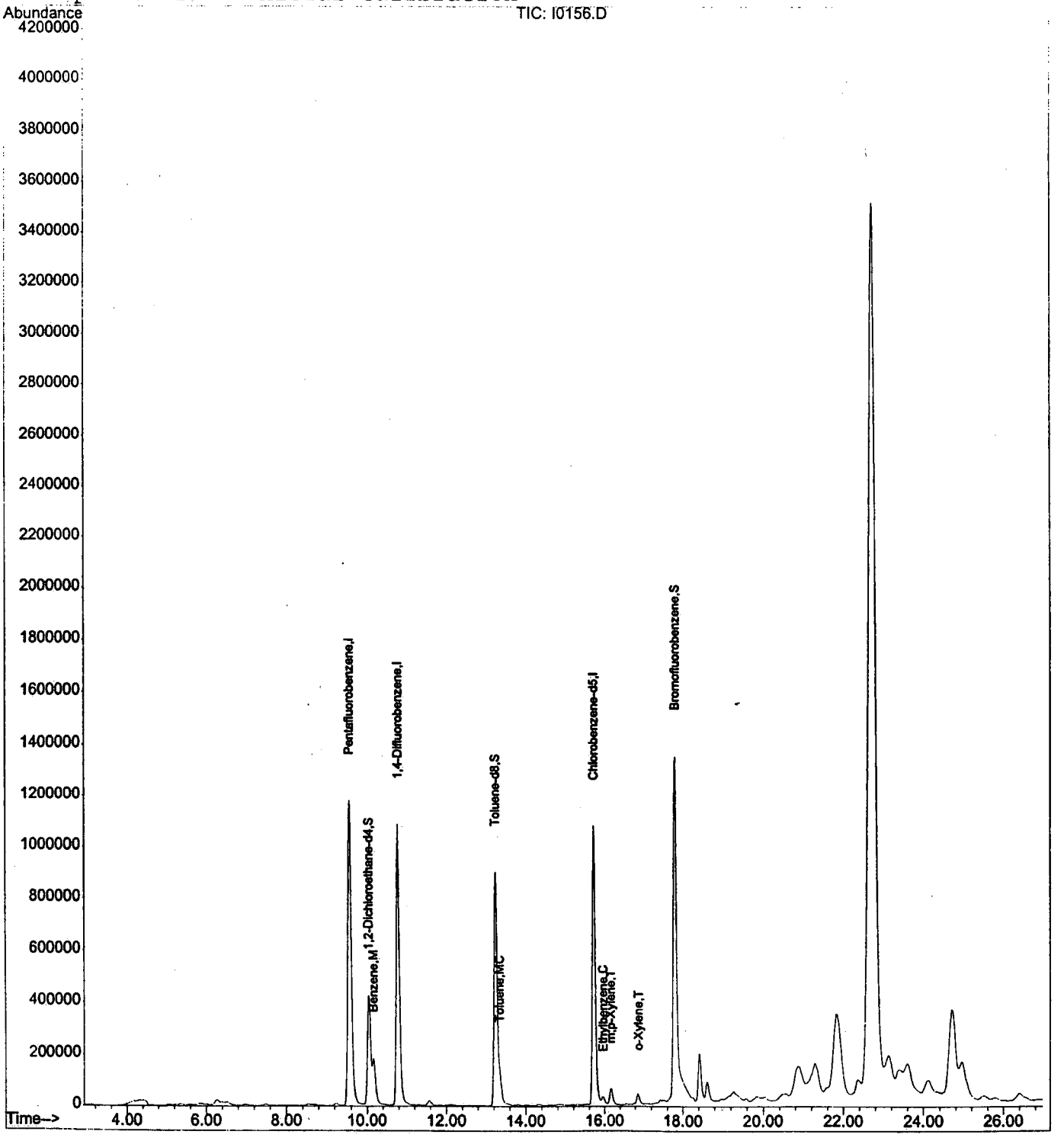
>4.95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D Vial: 19
Acq On : 18 Jul 2001 3:47 Operator: DP
Sample : S-105,4833-015,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 13:33 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1526

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D Vial: 19
Acq On : 18 Jul 2001 3:47 Operator: DP
Sample : S-105,4833-015,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

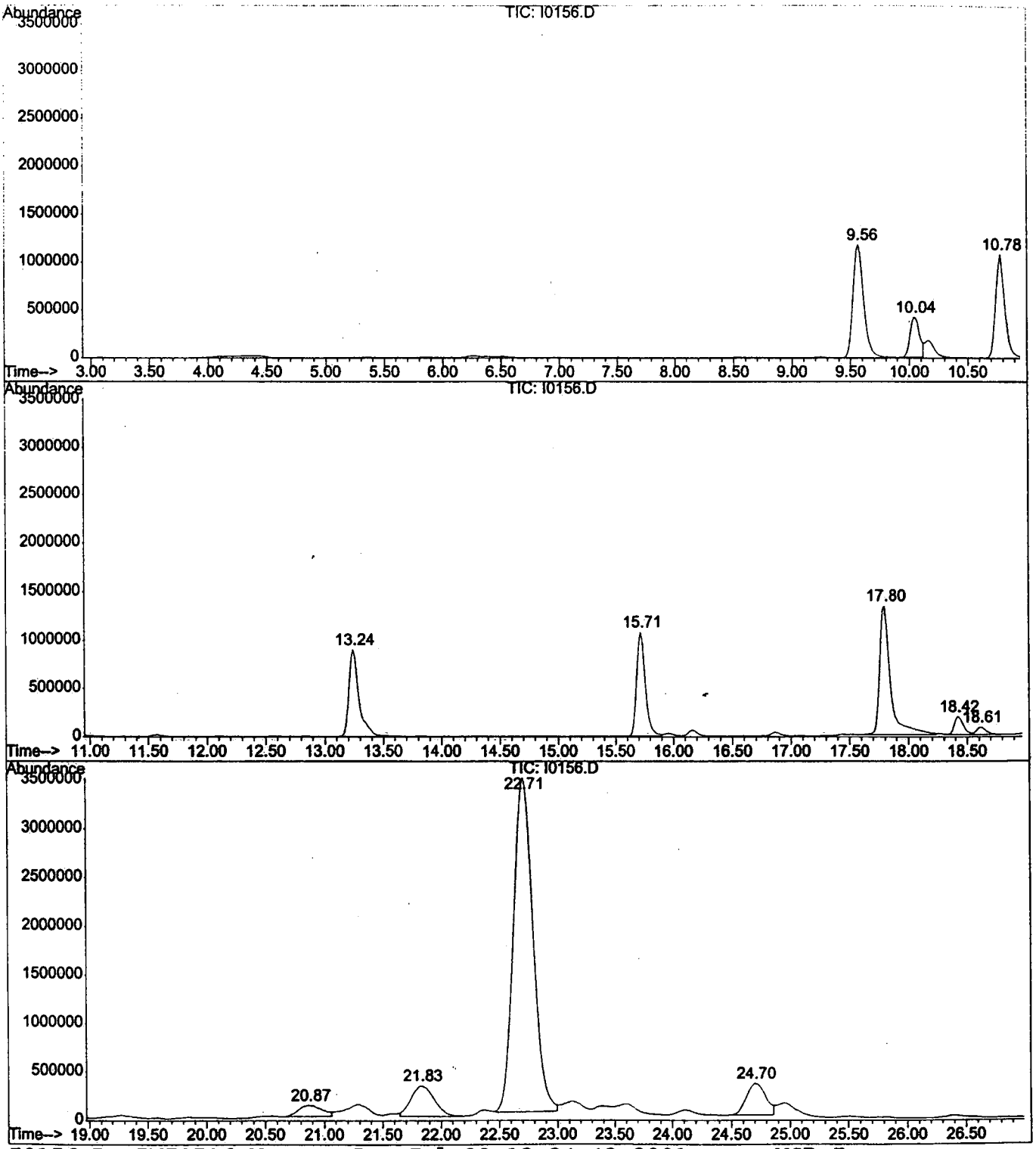
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.564	428	437	452	rBV	1180634	7443458	18.69%	8.635%
2	10.039	461	468	473	rBV	417559	2359101	5.92%	2.737%
3	10.776	508	516	529	rBV	1084238	5866482	14.73%	6.806%
4	13.240	664	676	700	rBV2	902840	5499031	13.81%	6.379%
5	15.713	830	837	849	rBV	1078976	5646036	14.18%	6.550%
6	17.798	961	973	1002	rBV	1331943	8492259	21.33%	9.852%
7	18.416	1008	1014	1022	rBV2	186101	985839	2.48%	1.144%
8	18.610	1022	1027	1039	rVB	75970	441893	1.11%	0.513%
9	20.868	1163	1176	1189	rBV7	113130	1593824	4.00%	1.849%
10	21.827	1228	1240	1264	rVB5	314434	4326646	10.86%	5.019%
11	22.710	1283	1299	1318	rVV2	3431163	39822006	100.00%	46.196%
12	24.696	1419	1432	1443	rBV5	321872	3725205	9.35%	4.321%

Sum of corrected areas: 86201780

I0156.D IME0716.M Sun Jul 22 13:34:43 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0156.D
Operator : DP
Acquired : 18 Jul 2001 3:47 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-105,4833-015,M,0.039g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 19
Quant File :IME0716.RES (RTE Integrator)



I0156.D IME0716.M Sun Jul 22 13:34:43 2001 MSD_I

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D
Acq On : 18 Jul 2001 3:47
Sample : S-105,4833-015,M,0.039g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

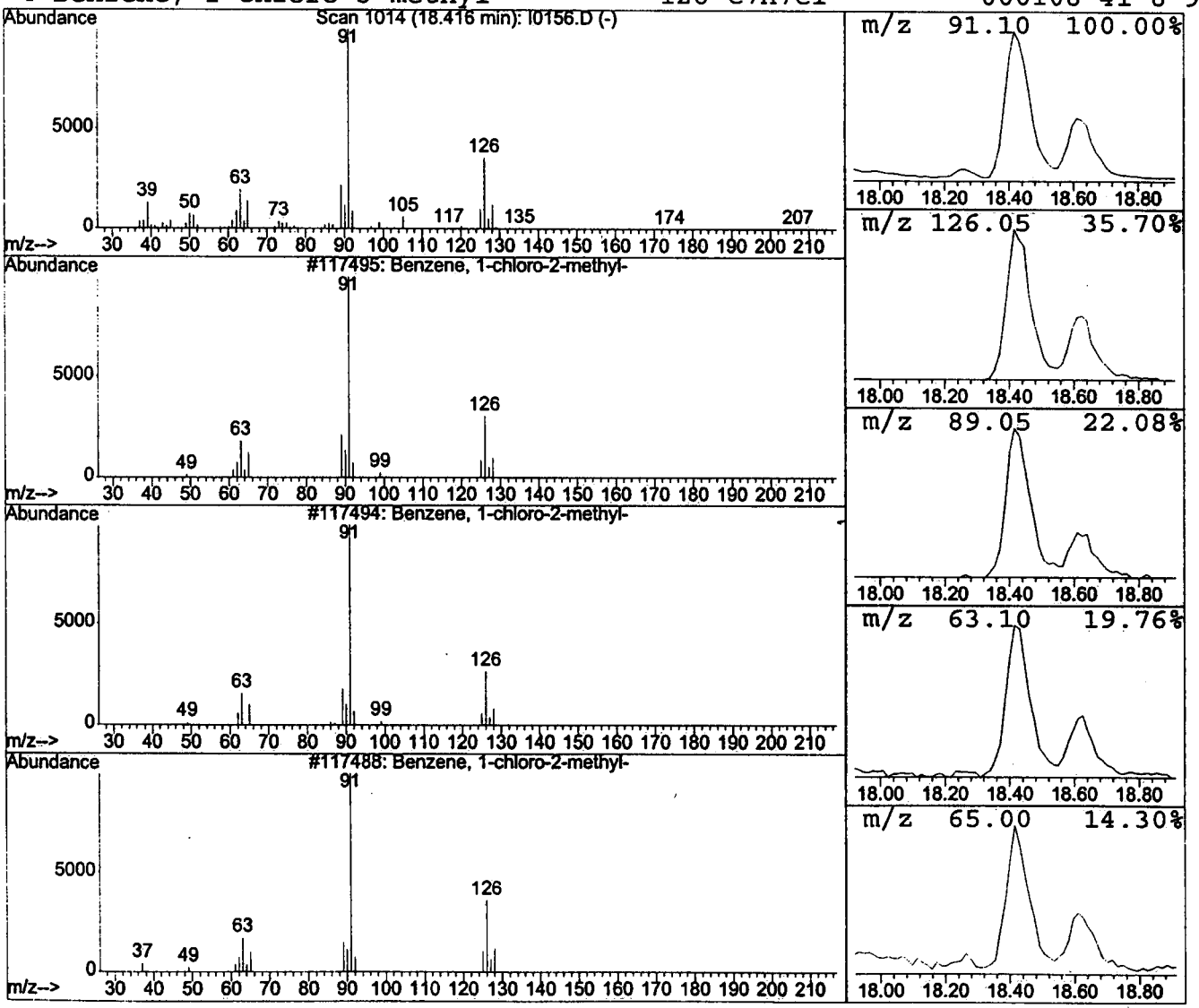
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.42	8.73 UG	985839	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
2	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
3	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	95
4	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	93



1529

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D
Acq On : 18 Jul 2001 3:47
Sample : S-105,4833-015,M,0.039g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

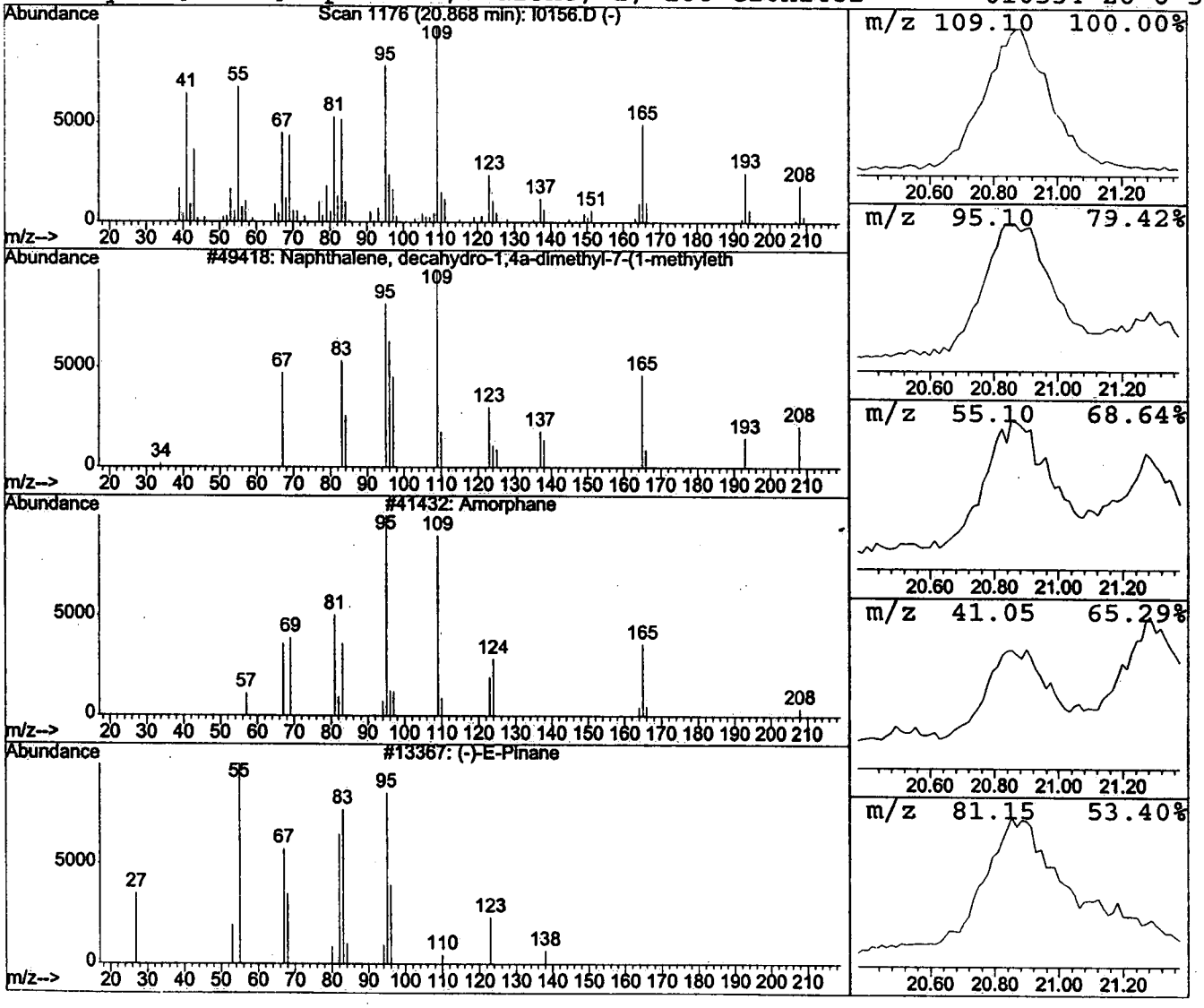
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.87	14.11 UG	1593820	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-1,4a-dimethy	208	C15H28	030824-81-8	91
2	Amorphane	208	C15H28	034315-85-0	52
3	(-)-E-Pinane	138	C10H18	033626-25-4	38
4	Bicyclo[2.2.1]heptane-2,3-dione, 1,	166	C10H14O2	010334-26-6	30



1530

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D
Acq On : 18 Jul 2001 3:47
Sample : S-105,4833-015,M,0.039g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

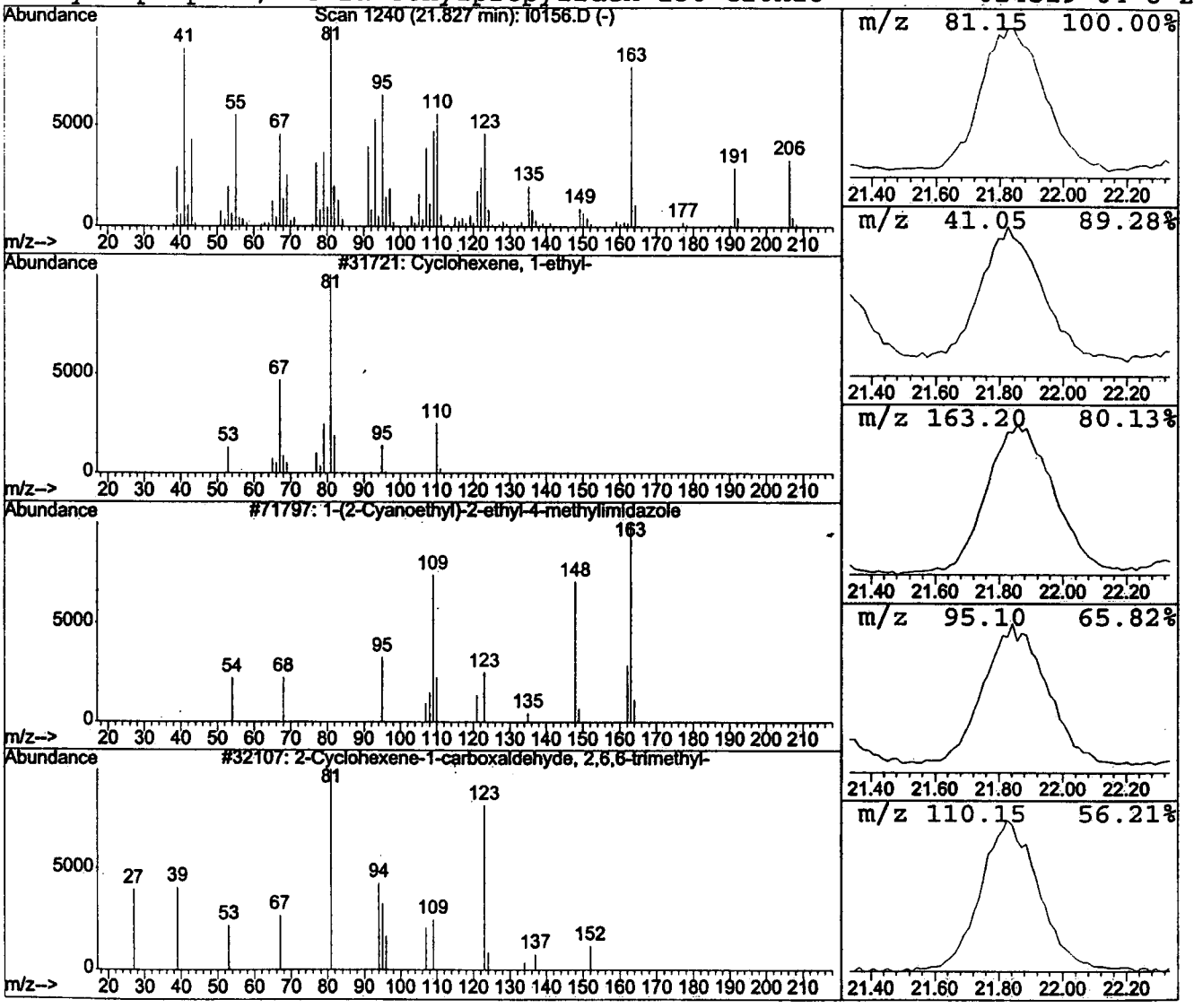
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.83	38.32 UG	4326650	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-ethyl-	110	C8H14	001453-24-3	35
2	1-(2-Cyanoethyl)-2-ethyl-4-methylim	163	C9H13N3	023996-25-0	30
3	2-Cyclohexene-1-carboxaldehyde, 2,6	152	C10H16O	000432-24-6	22
4	Cyclopropane, tetramethylpropyliden	138	C10H18	024519-04-8	22



1531

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D Vial: 19
Acq On : 18 Jul 2001 3:47 Operator: DP
Sample : S-105,4833-015,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

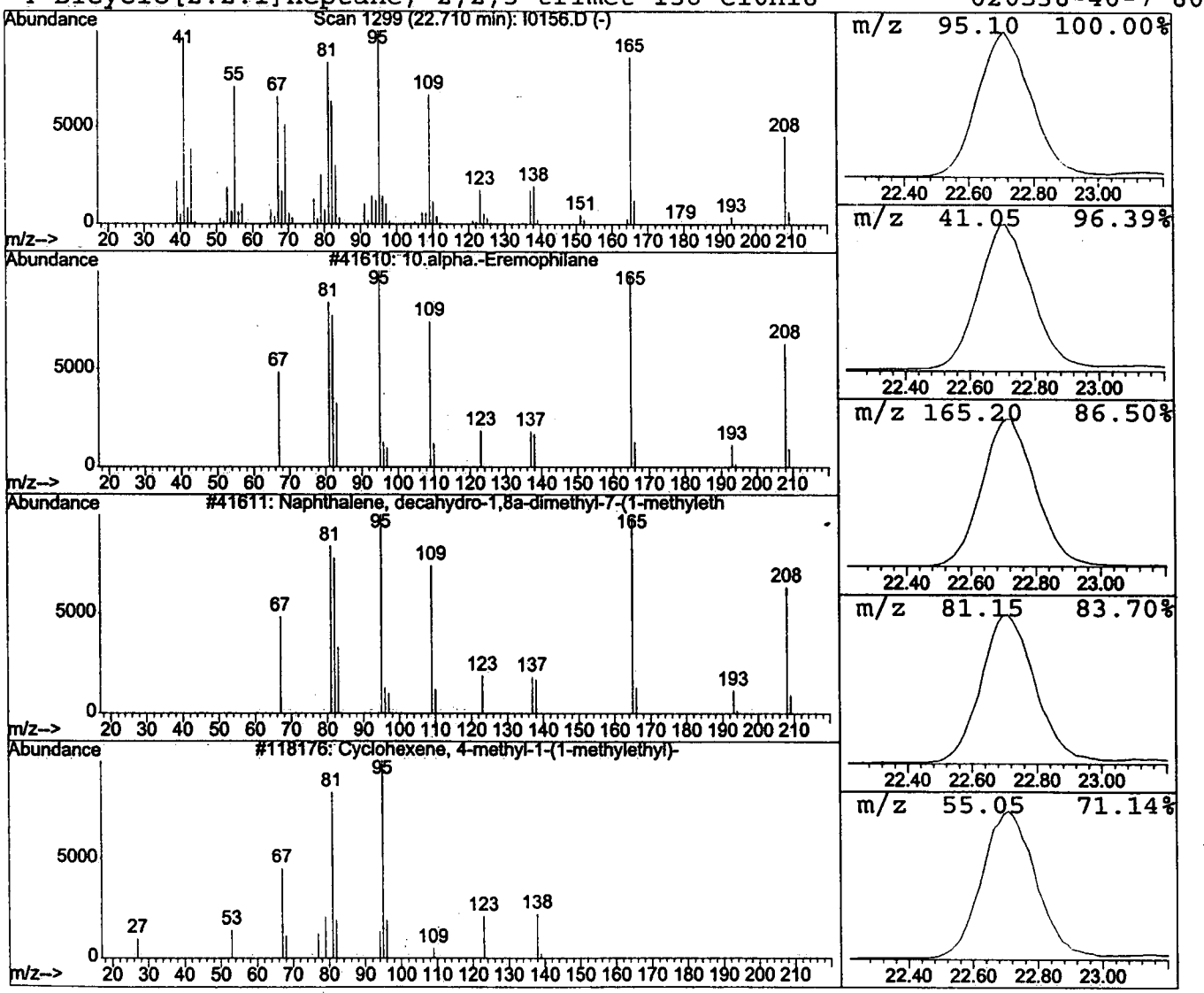
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.71	352.65 UG	39822000	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	10.alpha.-Eremophilane	208	C15H28	003242-05-5	94
2	Naphthalene, decahydro-1,8a-dimethy	208	C15H28	015404-63-4	94
3	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	70
4	Bicyclo[2.2.1]heptane, 2,2,3-trimet	138	C10H18	020536-40-7	60



1532

Data File : C:\HPCHEM\1\DATA\07-17-01\I0156.D
Acq On : 18 Jul 2001 3:47
Sample : S-105,4833-015,M,0.039g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

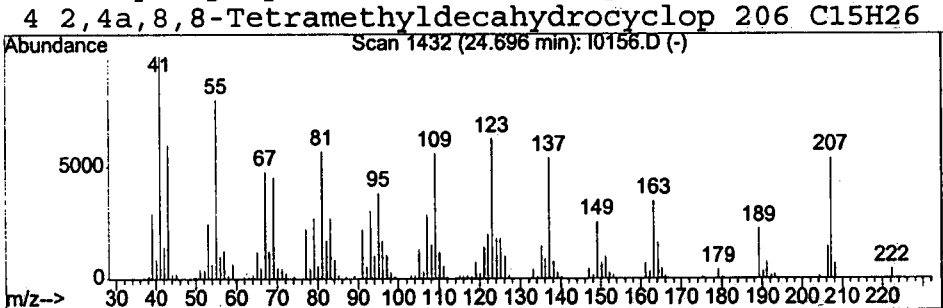
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

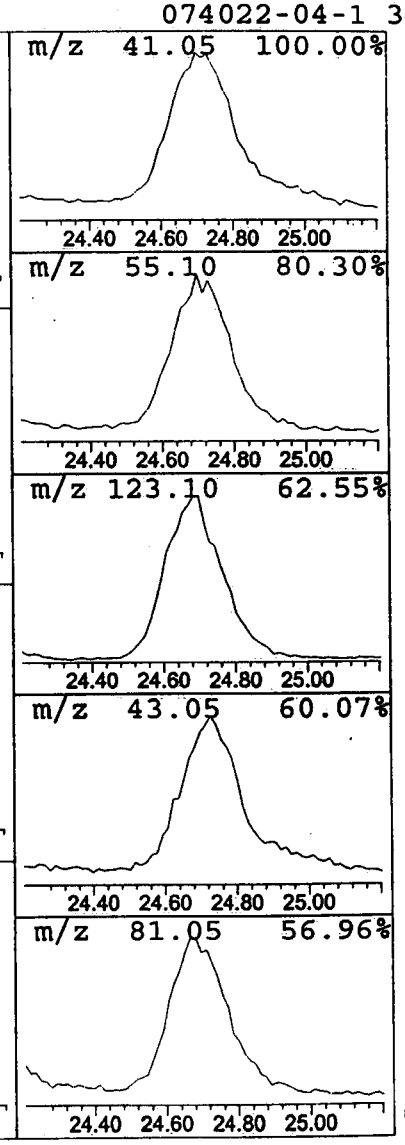
****

Peak Number 5 Unknown — Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.70	32.99 UG	3725210	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2H-3,9a-Methano-1-benzoxepin, octah	222	C15H26O	005956-09-2	64
2	2,3,3-Trimethyl-2-(3-methyl-buta-1,	206	C14H22O	1000193-60-6	38
3	1H-Cycloprop[e]azulene, decahydro-1	206	C15H26	028580-43-0	38
4	2,4a,8,8-Tetramethyldecahydrocyclop	206	C15H26	074022-04-1	30





1533

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0166.D Vial: 29
Acq On : 18 Jul 2001 9:07 Operator: DP
Sample : S-106,4833-016,M,0.034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:49 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.68	168	2025652	50.00	UG	0.02
31) 1,4-Difluorobenzene	10.89	114	1965555	50.00	UG	0.02
50) Chlorobenzene-d5	15.84	117	1467786	50.00	UG	0.04
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.15	65	675897	37.22	UG	0.00
Spiked Amount 50.000	Range 36 - 115		Recovery = 74.44%			
41) Toluene-d8	13.36	98	1249898	38.67	UG	0.03
Spiked Amount 50.000	Range 35 - 117		Recovery = 77.34%			
59) Bromofluorobenzene	17.91	95	1068520	36.11	UG	0.03
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.22%			

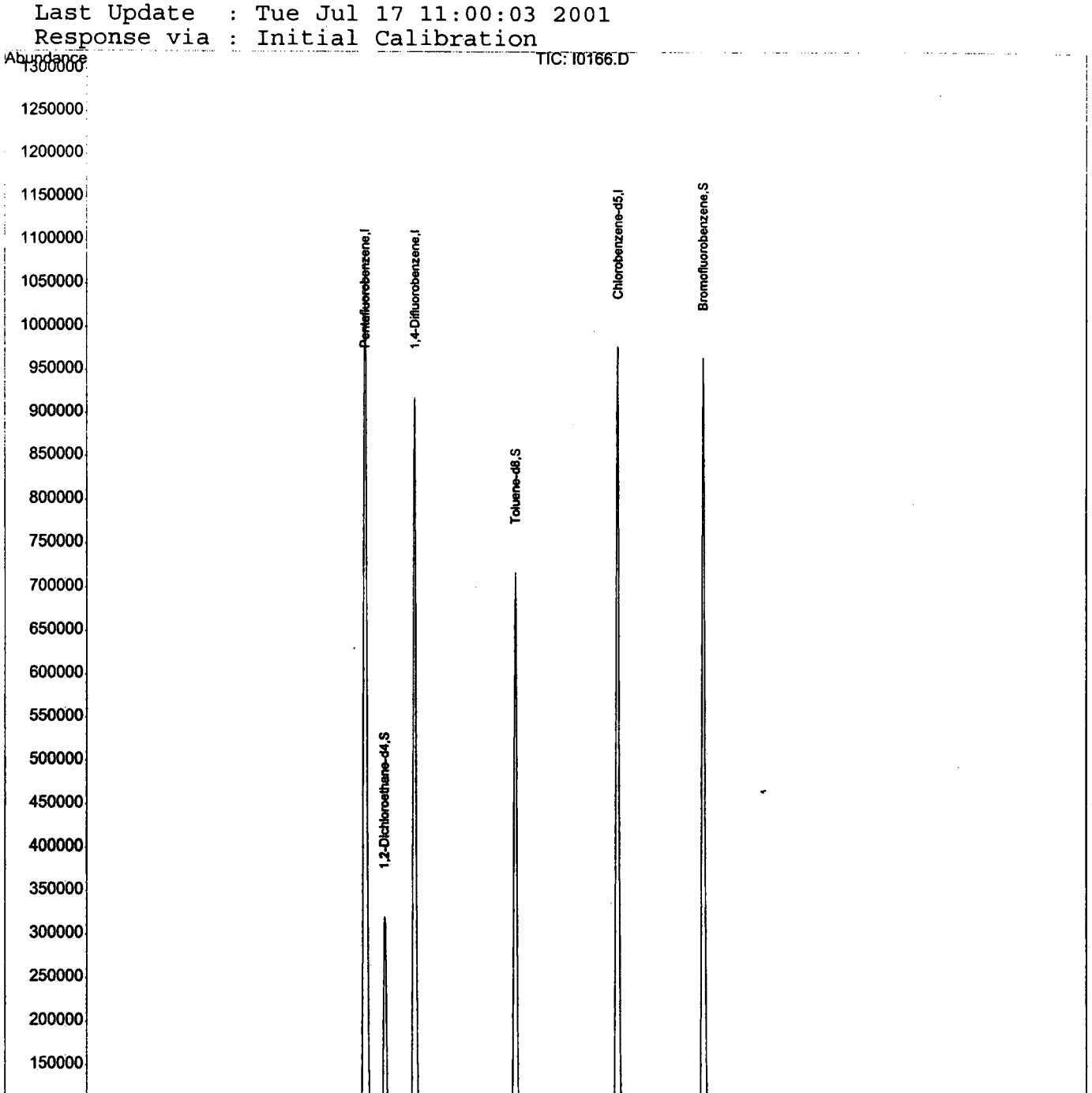
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0166.D Vial: 29
Acq On : 18 Jul 2001 9:07 Operator: DP
Sample : S-106,4833-016,M,0.034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:49 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1535

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0166.D Vial: 29
Acq On : 18 Jul 2001 9:07 Operator: DP
Sample : S-106,4833-016,M,0.034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

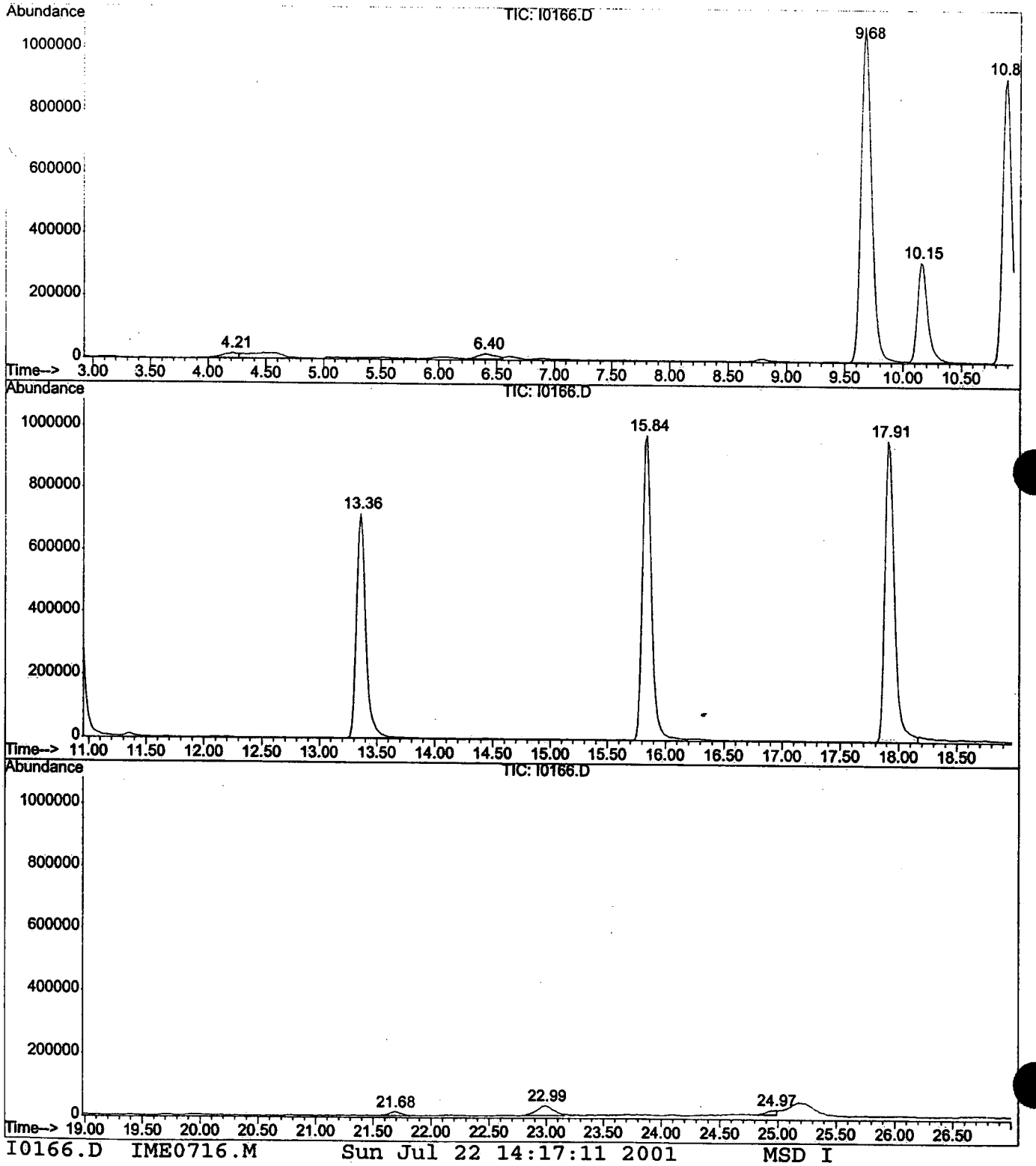
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.210	71	88	92	rBV9	16568	162105	2.41%	0.548%
2	6.396	222	232	242	rBV2	16118	162388	2.42%	0.549%
3	9.676	436	445	466	rBV	1081805	6723935	100.00%	22.745%
4	10.154	469	476	498	rVB	318429	1930445	28.71%	6.530%
5	10.893	516	524	541	rBV	917611	5334741	79.34%	18.046%
6	13.356	676	684	704	rBV	716685	4013325	59.69%	13.576%
7	15.839	837	845	867	rBV	977260	5269262	78.37%	17.825%
8	17.908	972	979	996	rBV	963867	5455249	81.13%	18.454%
9	21.678	1216	1224	1234	rVB	12866	91411	1.36%	0.309%
10	22.990	1297	1309	1320	rBV6	32516	331026	4.92%	1.120%
11	24.974	1428	1438	1439	rBV8	15409	87919	1.31%	0.297%

Sum of corrected areas: 29561806

I0166.D IME0716.M Sun Jul 22 14:17:10 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0166.D
Operator : DP
Acquired : 18 Jul 2001 9:07 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-106,4833-016,M,0.034g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 29
Quant File :IME0716.RES (RTE Integrator)



I0166.D IME0716.M Sun Jul 22 14:17:11 2001 MSD_I

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0167.D Vial: 30
Acq On : 18 Jul 2001 9:40 Operator: DP
Sample : S-107,4833-017,M,0.036g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:18 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.66	168	2187748	50.00	UG	0.00
31) 1,4-Difluorobenzene	10.87	114	2065333	50.00	UG	0.00
50) Chlorobenzene-d5	15.82	117	1464848	50.00	UG	0.02
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.13	65	716919	36.55	UG	-0.01
Spiked Amount 50.000	Range 36 - 115		Recovery = 73.10%			
41) Toluene-d8	13.35	98	1302968	38.36	UG	0.03
Spiked Amount 50.000	Range 35 - 117		Recovery = 76.72%			
59) Bromofluorobenzene	17.90	95	1041696	35.28	UG	0.02
Spiked Amount 50.000	Range 47 - 115		Recovery = 70.56%			
Target Compounds						Qvalue
25) Chloroform	9.32	83	31187	1.15	UG	98
32) Benzene	10.25	78	98080	3.46	UG	100

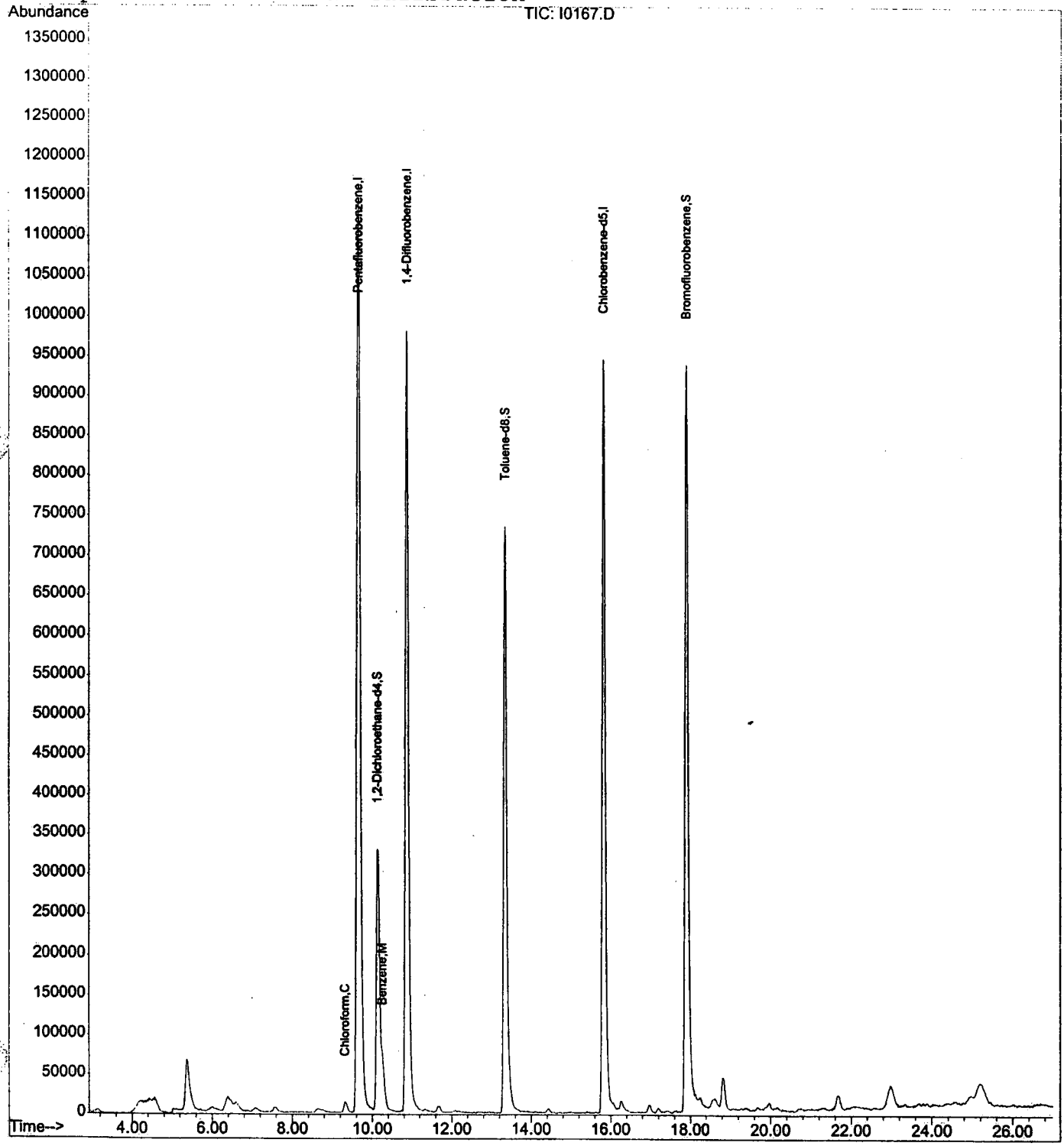
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0167.D
Acq On : 18 Jul 2001 9:40
Sample : S-107,4833-017,M,0.036g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:18 2001

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1539

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0167.D Vial: 30
Acq On : 18 Jul 2001 9:40 Operator: DP
Sample : S-107,4833-017,M,0.036g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

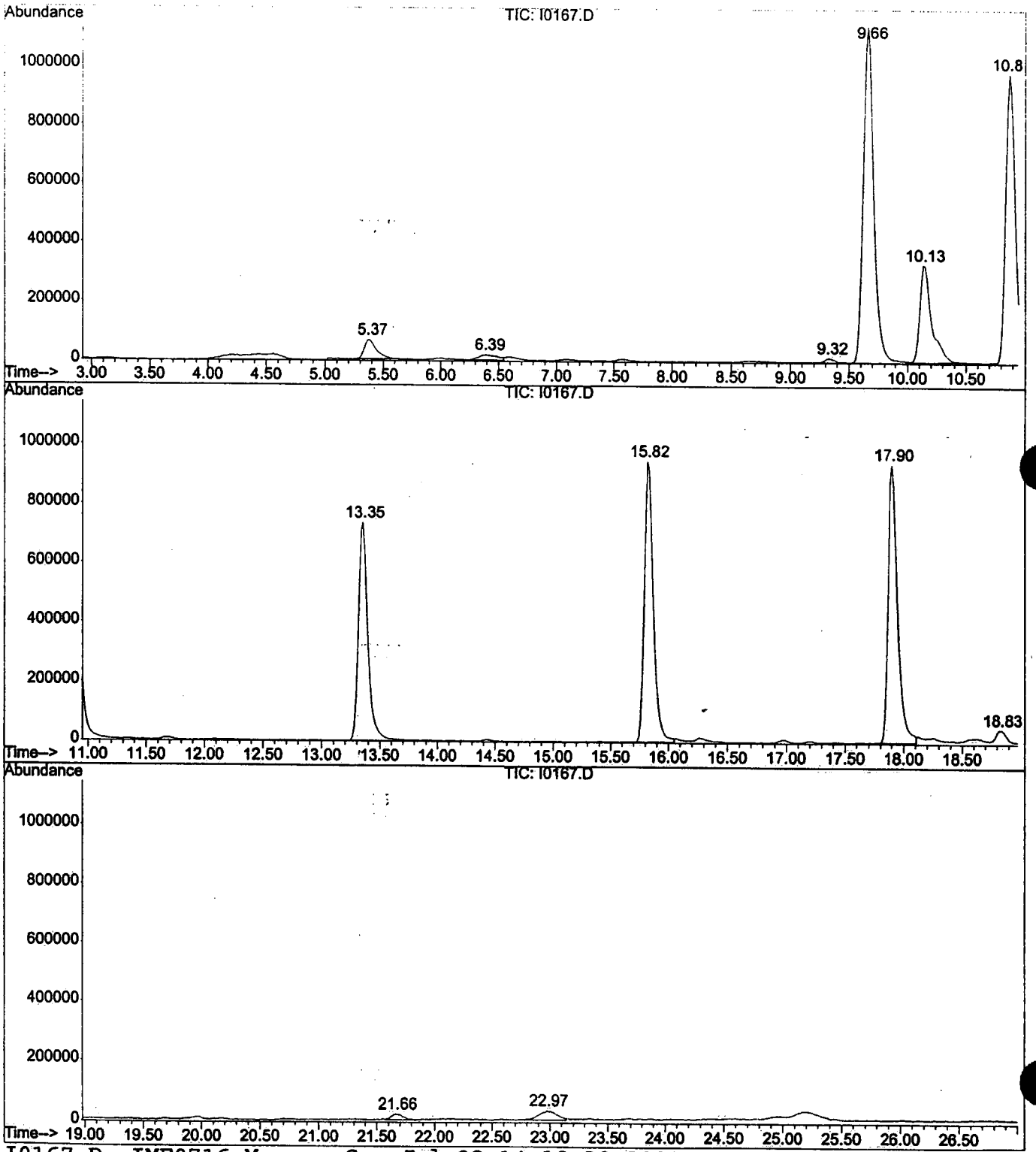
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.372	158	166	181	rBV	64435	473811	6.54%	1.514%
2	6.391	222	232	242	rBV3	18051	191897	2.65%	0.613%
3	9.321	416	422	433	rVB	13894	83674	1.15%	0.267%
4	9.660	433	444	468	rBV	1141643	7248610	100.00%	23.157%
5	10.133	468	475	499	rVB3	327636	2293186	31.64%	7.326%
6	10.873	516	523	550	rBV	979128	5620961	77.55%	17.957%
7	13.353	674	684	704	rBV2	735398	4213274	58.13%	13.460%
8	15.820	837	844	859	rBV	945241	5155538	71.12%	16.470%
9	17.898	972	979	993	rBV	936850	5297770	73.09%	16.925%
10	18.828	1034	1040	1052	rVB5	41175	263764	3.64%	0.843%
11	21.662	1218	1224	1236	rVB	18223	133100	1.84%	0.425%
12	22.973	1296	1309	1320	rBV7	30219	326065	4.50%	1.042%

Sum of corrected areas: 31301650

I0167.D IME0716.M Sun Jul 22 14:18:30 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0167.D
Operator : DP
Acquired : 18 Jul 2001 9:40 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-107,4833-017,M,0.036g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 30
Quant File :IME0716.RES (RTE Integrator)



I0167.D IME0716.M Sun Jul 22 14:18:30 2001 MSD_I

1541

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:19 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.66	168	2160434	50.00	UG		0.00
31) 1,4-Difluorobenzene	10.87	114	2062155	50.00	UG		0.00
50) Chlorobenzene-d5	15.82	117	1522045	50.00	UG		0.02
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.14	65	726160	37.49	UG		0.00
Spiked Amount 50.000	Range 36 - 115		Recovery = 74.98%				
41) Toluene-d8	13.34	98	1299436	38.32	UG		0.01
Spiked Amount 50.000	Range 35 - 117		Recovery = 76.64%				
59) Bromofluorobenzene	17.90	95	1050226	34.23	UG		0.02
Spiked Amount 50.000	Range 47 - 115		Recovery = 68.46%				
Target Compounds							Qvalue
32) Benzene	10.26	78	241607	8.55	UG		100
42) Toluene	13.45	92	799335	40.68	UG		99
51) Chlorobenzene	15.88	112	1197727	44.67	UG	#	72
53) Ethylbenzene	16.06	91	83106	2.22	UG		99
54) m,p-Xylene	16.27	106	36593	2.55	UG		99
72) 1,4-Dichlorobenzene	20.07	146	200006	8.33	UG	#	72
74) 1,2-Dichlorobenzene	20.77	146	1212087	55.96	UG		99

(#) = qualifier out of range (m) = manual integration

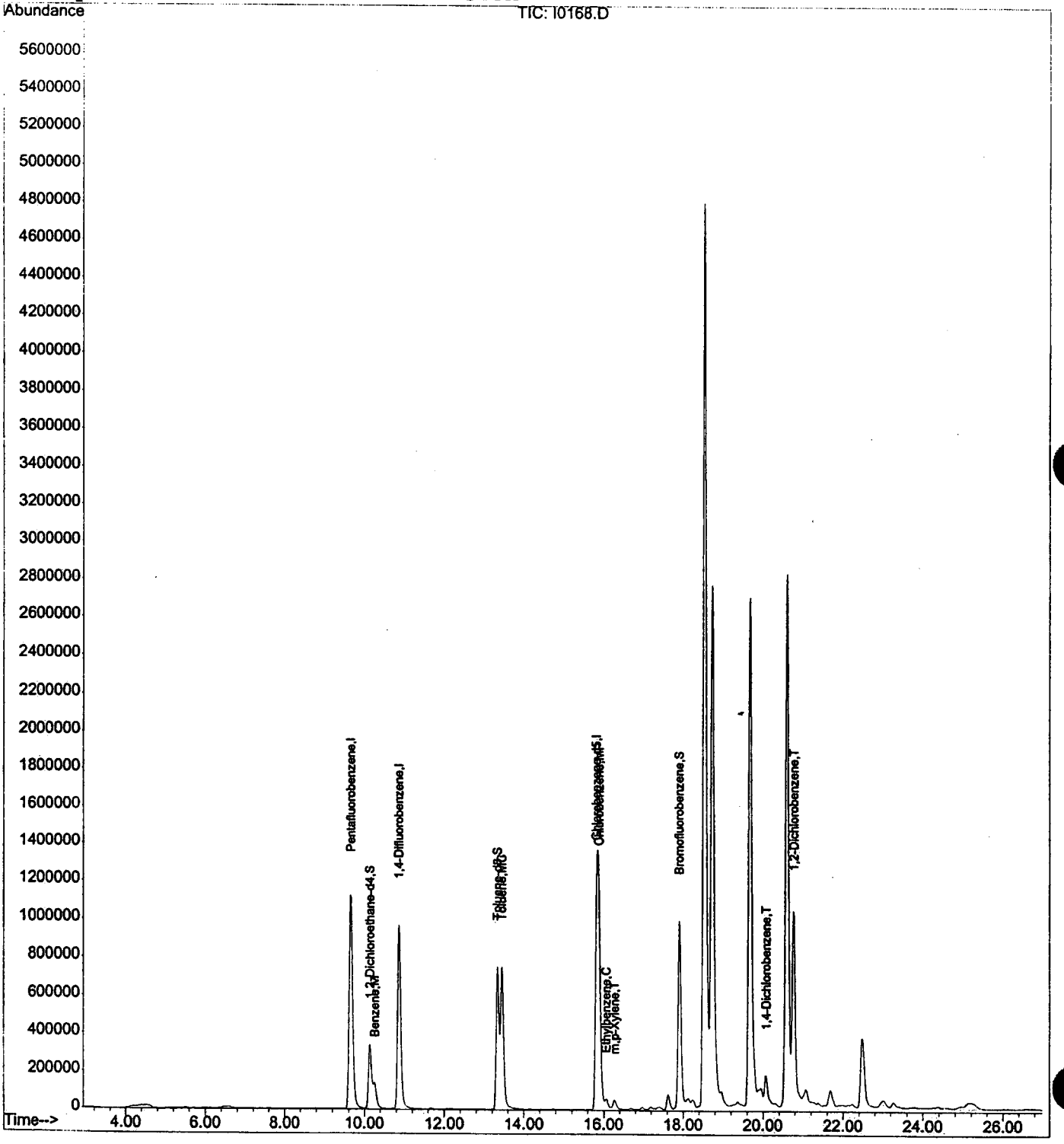
Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D
Acq On : 18 Jul 2001 10:14
Sample : S-108,4833-018,M,0.041g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:19 2001

Vial: 31
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1543

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

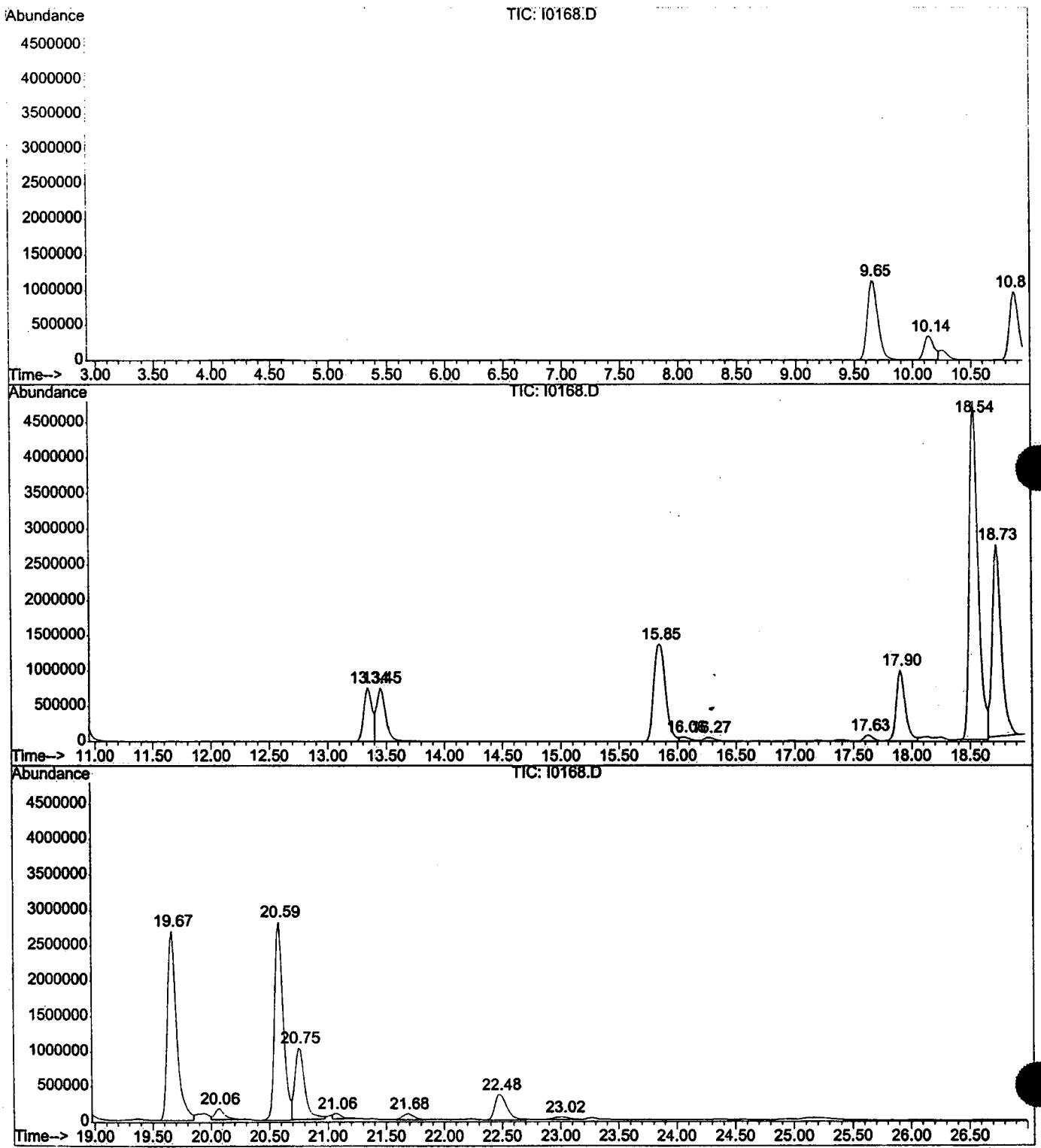
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.650	433	443	466	rBV	1125992	7173322	28.16%	6.025%
2	10.141	468	475	480	rBV	338291	1976039	7.76%	1.660%
3	10.866	515	522	542	rBV	967635	5589065	21.94%	4.694%
4	13.341	676	683	687	rBV2	757052	3973292	15.60%	3.337%
5	13.448	687	690	711	rVB	750984	3842544	15.08%	3.227%
6	15.848	837	846	857	rBV2	1372592	9752137	38.28%	8.191%
7	16.059	857	860	868	rVV	58025	318409	1.25%	0.267%
8	16.273	868	874	881	rVB	48532	281739	1.11%	0.237%
9	17.625	954	962	970	rBV2	83147	452325	1.78%	0.380%
10	17.901	970	980	990	rBV	993243	5349070	21.00%	4.493%
11	18.535	1014	1022	1030	rBV	4783167	25472673	100.00%	21.395%
12	18.729	1030	1035	1048	rVB	2694719	14718243	57.78%	12.362%
13	19.670	1089	1097	1109	rBV	2684792	14901273	58.50%	12.516%
14	20.060	1119	1123	1135	rVB	151875	863755	3.39%	0.725%
15	20.588	1148	1158	1165	rBV	2813099	14695310	57.69%	12.343%
16	20.752	1165	1169	1184	rVV	1021675	5791294	22.74%	4.864%
17	21.064	1188	1190	1202	rVB3	70408	344433	1.35%	0.289%
18	21.683	1224	1231	1241	rVB	85150	580482	2.28%	0.488%
19	22.479	1276	1284	1299	rBV	366140	2635023	10.34%	2.213%
20	23.023	1310	1320	1330	rVB	38039	346759	1.36%	0.291%

Sum of corrected areas: 119057187

I0168.D IME0716.M Sun Jul 22 14:20:22 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0168.D
Operator : DP
Acquired : 18 Jul 2001 10:14 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-108,4833-018,M,0.041g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 31
Quant File :IME0716.RES (RTE Integrator)



I0168.D IME0716.M Sun Jul 22 14:20:22 2001 MSD_I

1545

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

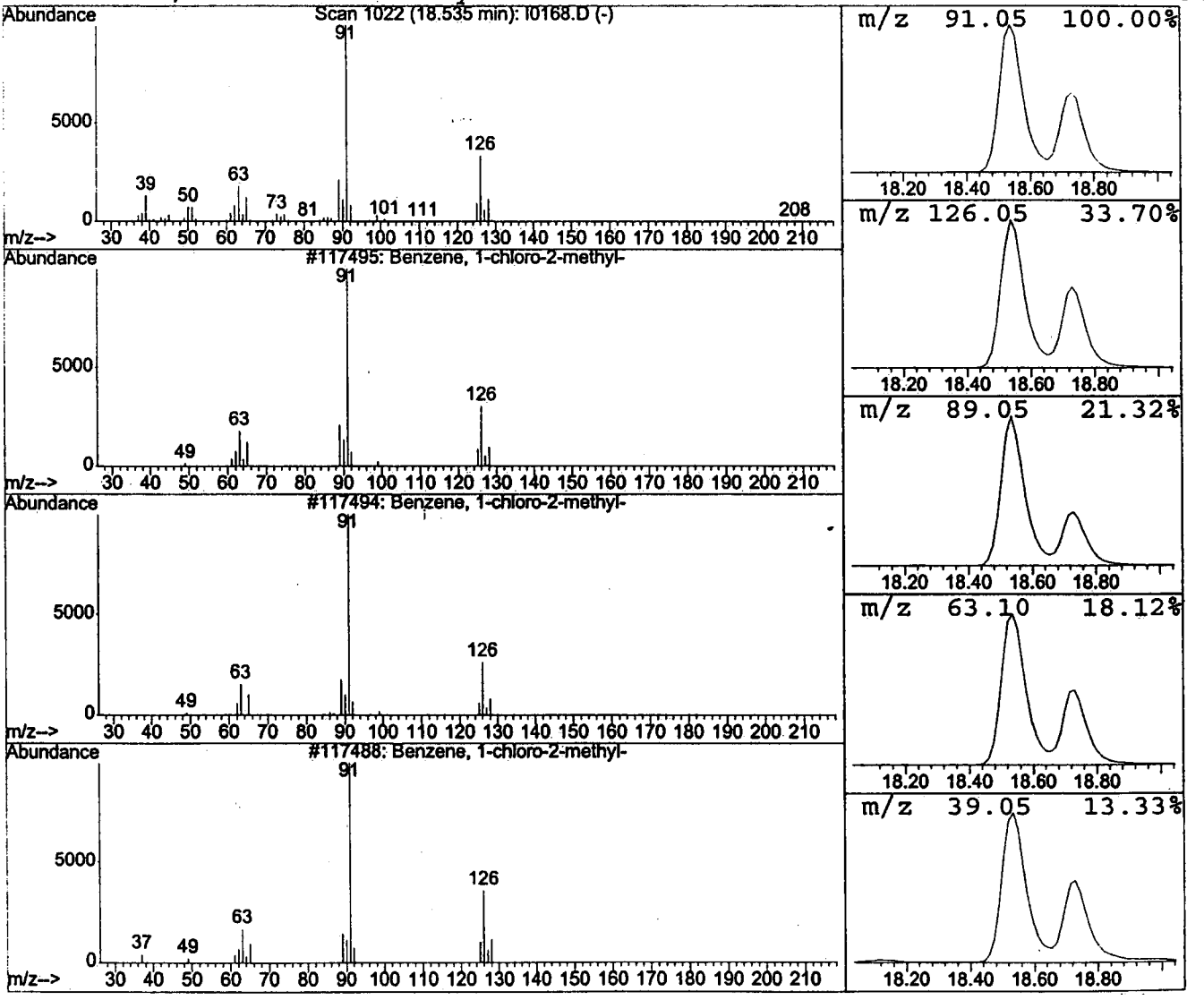
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.54	130.60 UG	25472700	Chlorobenzene-d5	15.82

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
2	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
3	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	95
4	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	94



1546

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

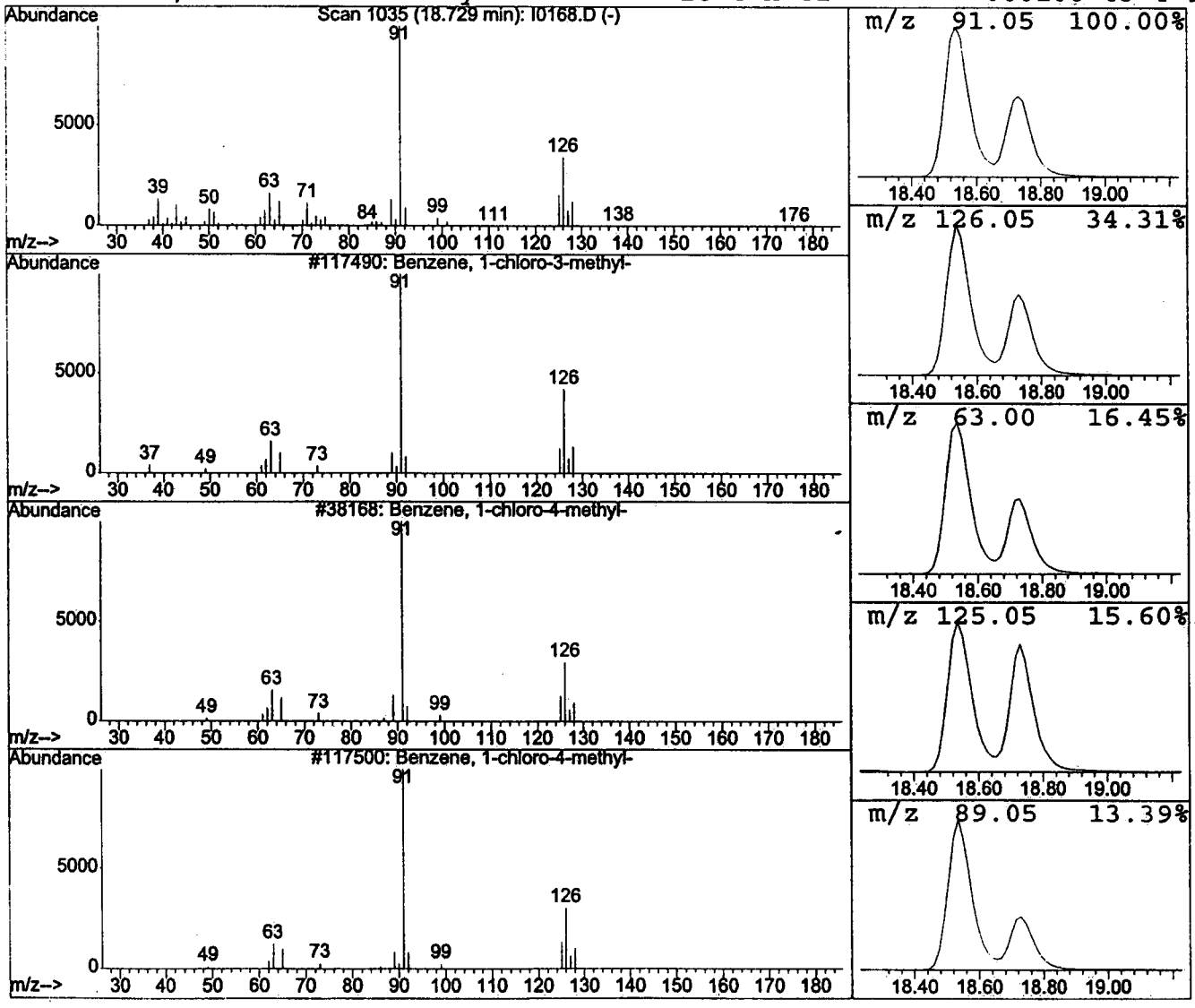
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.73	75.46 UG	14718200	Chlorobenzene-d5	15.82

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-3-methyl-	126	C7H7Cl	000108-41-8	96
2	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	96
3	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	96
4	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	96



1547

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

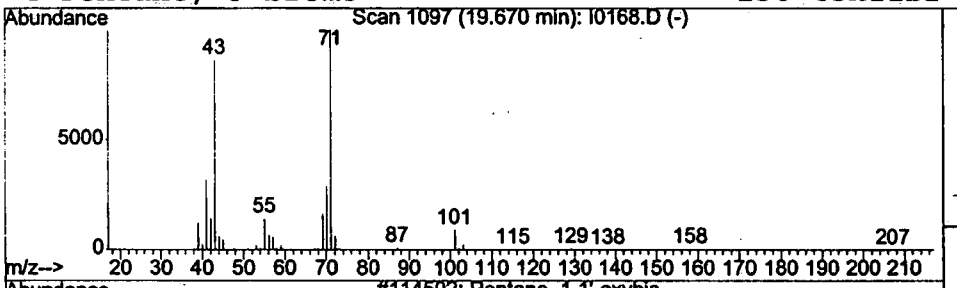
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

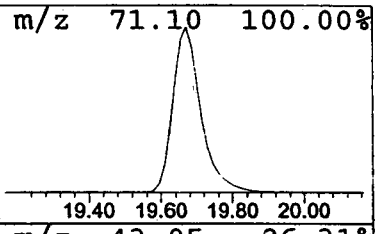
****

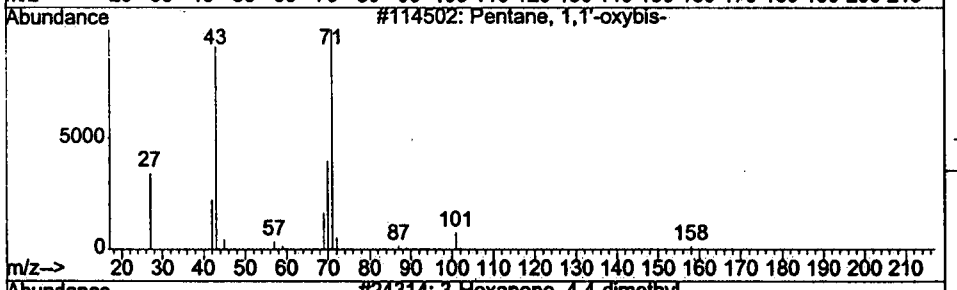
Peak Number 3 Unknown aliphatic Concentration Rank 2

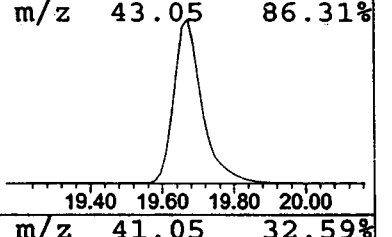
R.T.	EstConc	Area	Relative to ISTD	R.T.
19.67	76.40 UG	14901300	Chlorobenzene-d5	15.82

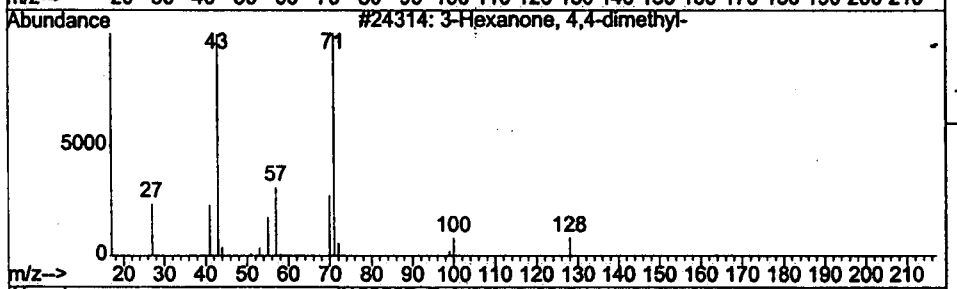
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	86
2	3-Hexanone, 4,4-dimethyl-	128	C8H16O	019550-14-2	64
3	Butanoic acid, 2-propenyl ester	128	C7H12O2	002051-78-7	53
4	Pentane, 3-bromo-	150	C5H11Br	001809-10-5	53

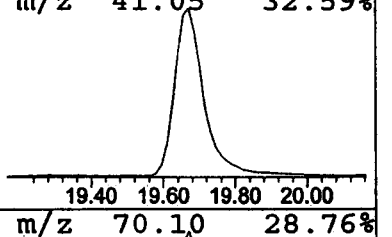


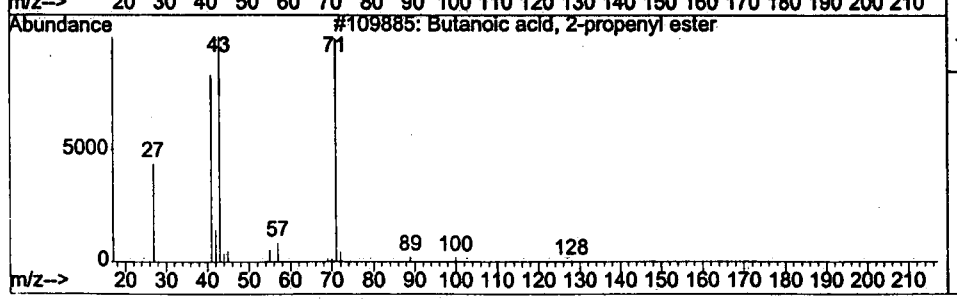


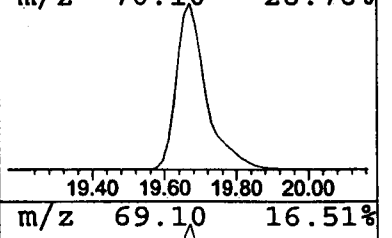


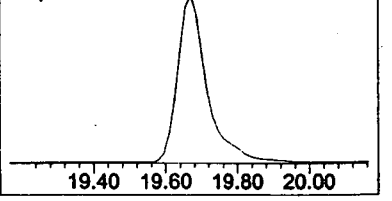












1548

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

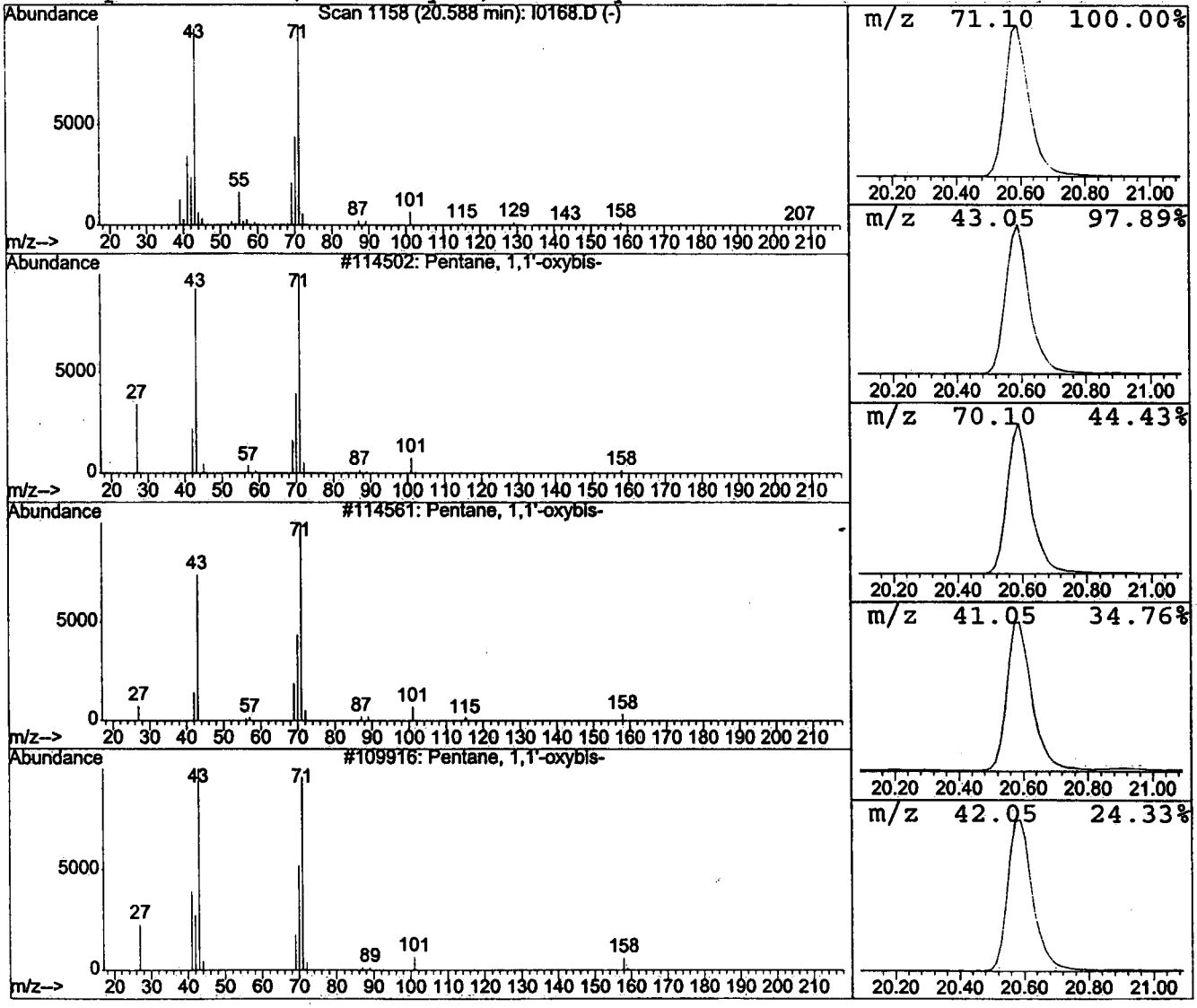
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown aliphatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.59	75.34 UG	14695300	Chlorobenzene-d5	15.82

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	91
2	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
3	Pentane, 1,1'-oxybis-	158	C10H22O	000693-65-2	83
4	Propanoic acid, 2-methyl-, 3-methyl	158	C9H18O2	002050-01-3	78



1549

Data File : C:\HPCHEM\1\DATA\07-17-01\I0168.D Vial: 31
Acq On : 18 Jul 2001 10:14 Operator: DP
Sample : S-108,4833-018,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

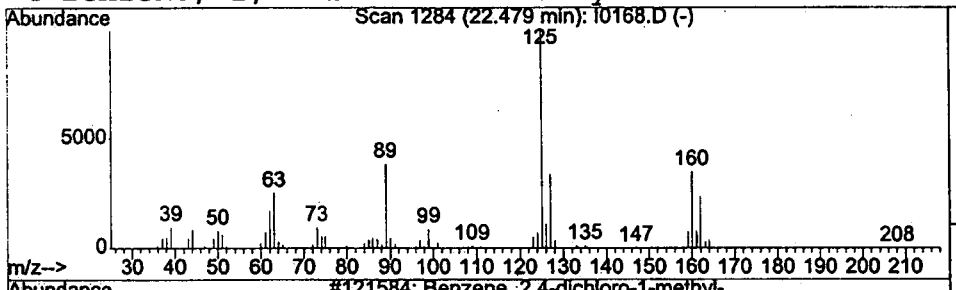
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

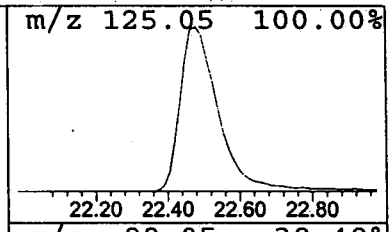
****

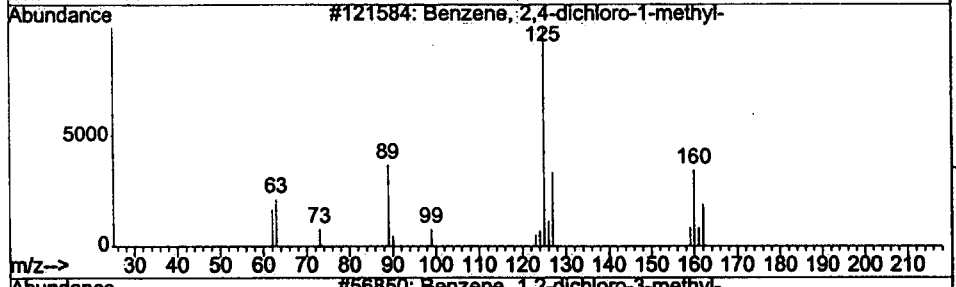
Peak Number 5 Substituted benzene Concentration Rank 5

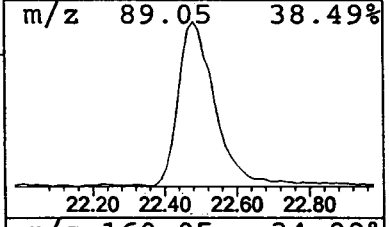
R.T.	EstConc	Area	Relative to ISTD	R.T.
22.48	13.51 UG	2635020	Chlorobenzene-d5	15.82

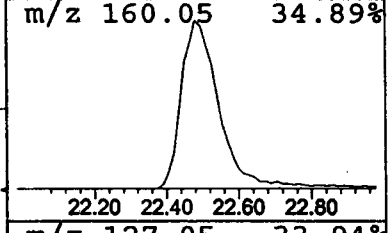
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dichloro-1-methyl-	160	C7H6Cl2	000095-73-8	98
2	Benzene, 1,2-dichloro-3-methyl-	160	C7H6Cl2	032768-54-0	98
3	Benzene, 1,3-dichloro-2-methyl-	160	C7H6Cl2	000118-69-4	98
4	Benzene, 1,3-dichloro-2-methyl-	160	C7H6Cl2	000118-69-4	96

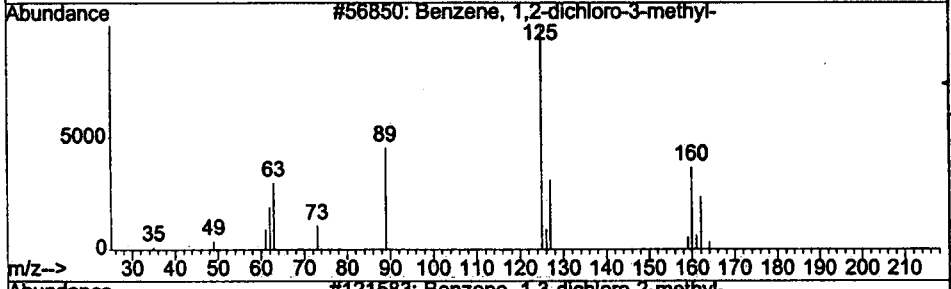


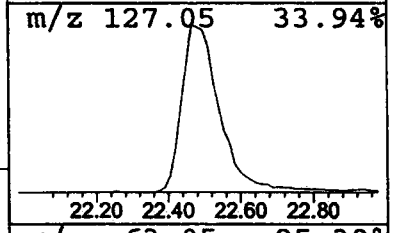


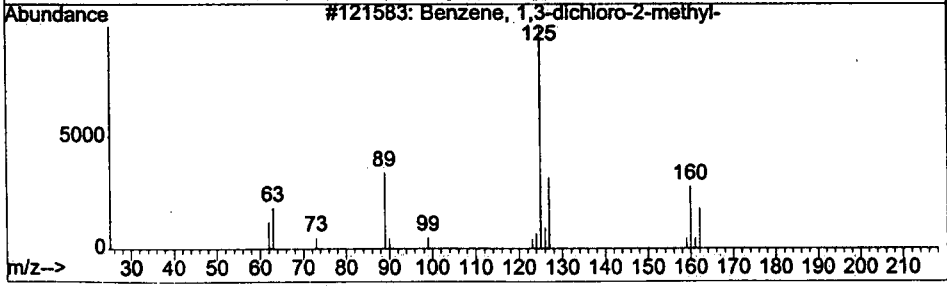


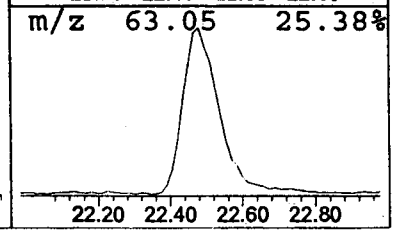












0317

1550

Data File : C:\HPCHEM\1\DATA\07-17-01\I0169.D Vial: 32
Acq On : 18 Jul 2001 10:46 Operator: DP
Sample : S-109,4833-019,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:21 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

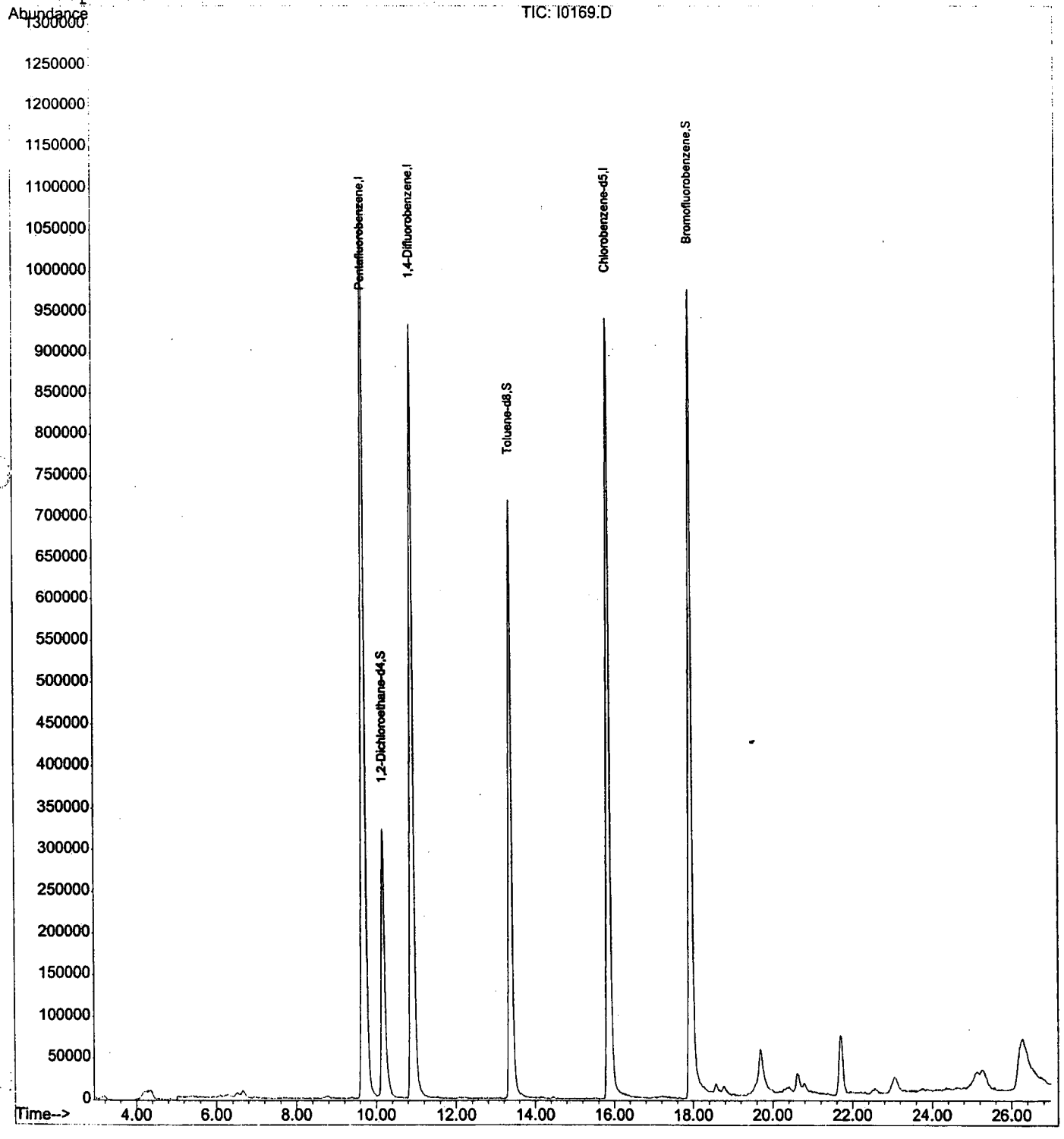
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.70	168	2064125	50.00	UG	0.04
31) 1,4-Difluorobenzene	10.91	114	1955132	50.00	UG	0.04
50) Chlorobenzene-d5	15.85	117	1431656	50.00	UG	0.05
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.17	65	691484	37.37	UG	0.02
Spiked Amount 50.000	Range 36 - 115		Recovery = 74.74%			
41) Toluene-d8	13.38	98	1273967	39.62	UG	0.05
Spiked Amount 50.000	Range 35 - 117		Recovery = 79.24%			
59) Bromofluorobenzene	17.93	95	1079479	37.41	UG	0.05
Spiked Amount 50.000	Range 47 - 115		Recovery = 74.82%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\07-17-01\I0169.D Vial: 32
Acq On : 18 Jul 2001 10:46 Operator: DP
Sample : S-109,4833-019,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:21 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1552

0319

Data File : C:\HPCHEM\1\DATA\07-17-01\I0169.D Vial: 32
Acq On : 18 Jul 2001 10:46 Operator: DP
Sample : S-109,4833-019,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

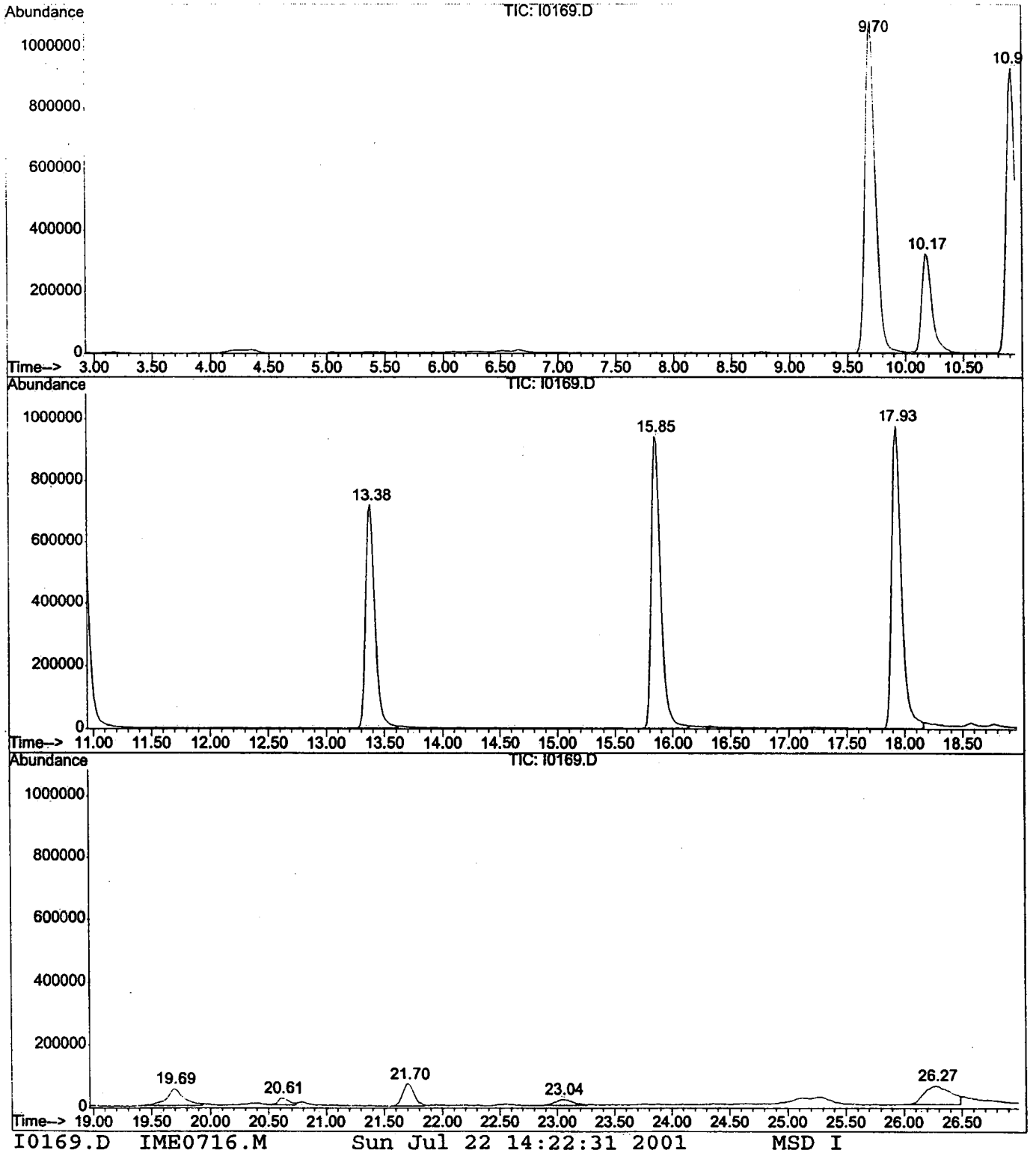
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.700	435	446	466	rBV	1082706	6836072	100.00%	21.738%
2	10.172	470	477	497	rVB	322143	1985330	29.04%	6.313%
3	10.911	517	525	554	rBV	933817	5372099	78.58%	17.083%
4	13.381	676	685	700	rBV2	719035	4020921	58.82%	12.786%
5	15.847	838	845	864	rBV	941105	5341564	78.14%	16.985%
6	17.930	973	980	995	rBV	976266	5530071	80.90%	17.585%
7	19.689	1078	1094	1110	rBV3	53494	543324	7.95%	1.728%
8	20.612	1148	1154	1162	rBV3	22150	147827	2.16%	0.470%
9	21.704	1216	1225	1234	rBV	71362	493307	7.22%	1.569%
10	23.042	1302	1312	1326	rBV10	19165	205775	3.01%	0.654%
11	26.274	1507	1522	1536	rBV2	59977	971592	14.21%	3.090%

Sum of corrected areas: 31447882

I0169.D IME0716.M Sun Jul 22 14:22:31 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0169.D
Operator : DP
Acquired : 18 Jul 2001 10:46 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-109,4833-019,M,0.040g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 32
Quant File :IME0716.RES (RTE Integrator)



I0169.D IME0716.M Sun Jul 22 14:22:31 2001 MSD_I

0321

1554

Data File : C:\HPCHEM\1\DATA\07-17-01\I0169.D Vial: 32
Acq On : 18 Jul 2001 10:46 Operator: DP
Sample : S-109,4833-019,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

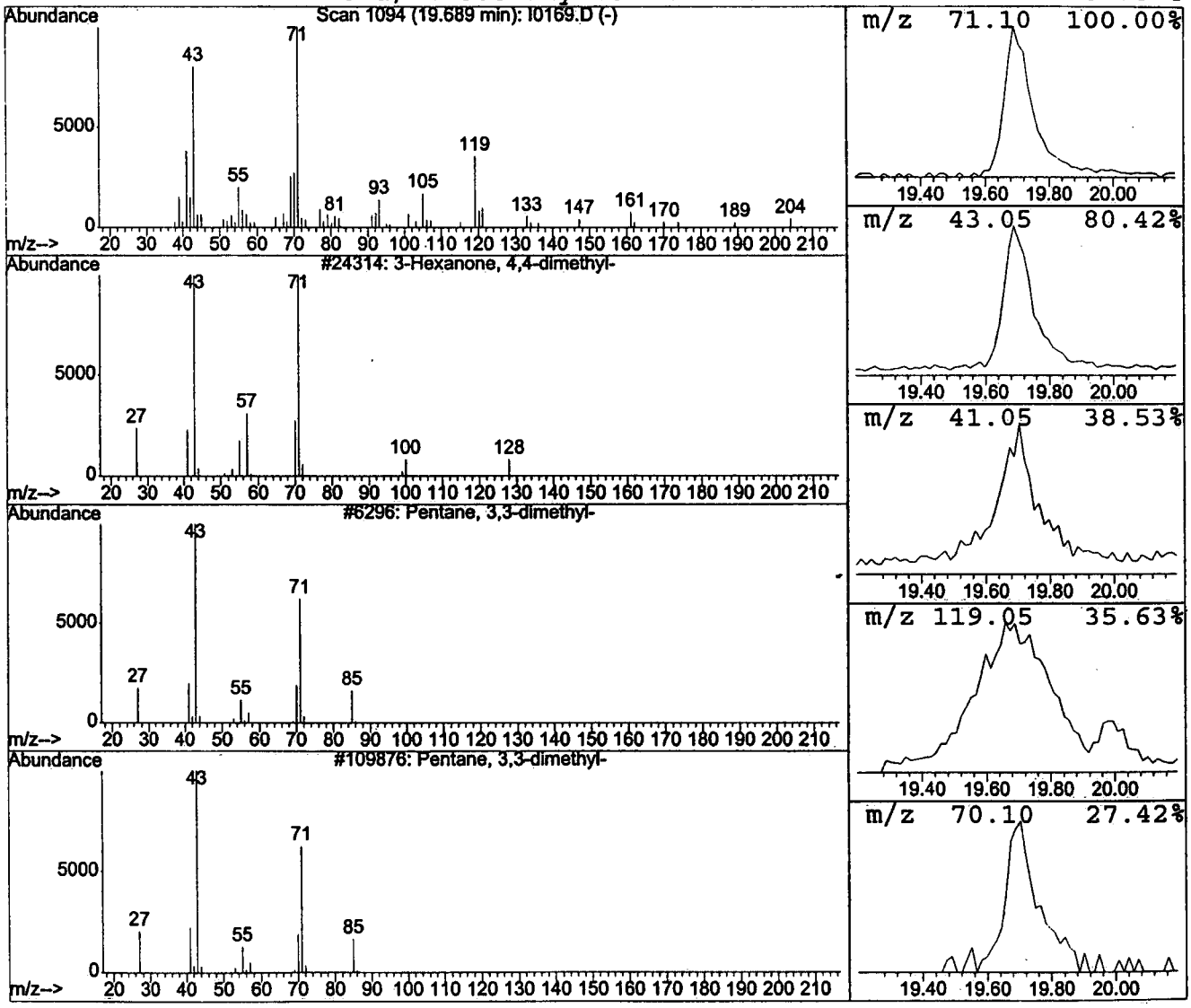
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown aliphatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.69	5.09 UG	543324	Chlorobenzene-d5	15.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hexanone, 4,4-dimethyl-	128	C8H16O	019550-14-2	47
2	Pentane, 3,3-dimethyl-	100	C7H16	000562-49-2	47
3	Pentane, 3,3-dimethyl-	100	C7H16	000562-49-2	47
4	Trifluoroacetic acid, 2-tetrahydrof	198	C7H9F3O3	1000216-78-4	38



032

1555

Data File : C:\HPCHEM\1\DATA\07-17-01\I0169.D Vial: 32
Acq On : 18 Jul 2001 10:46 Operator: DP
Sample : S-109,4833-019,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

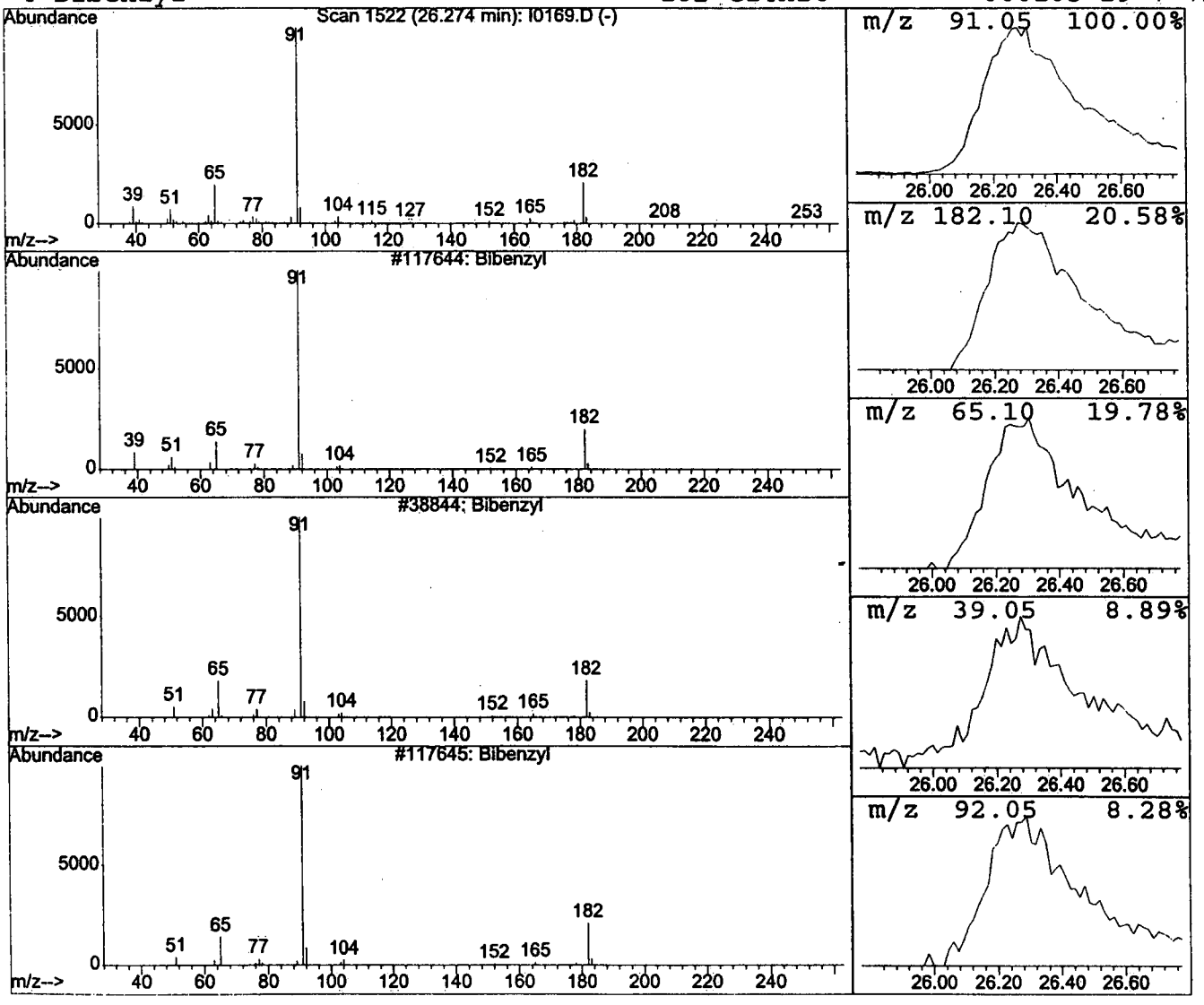
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.27	9.09 UG	971592	Chlorobenzene-d5	15.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	94
2	Bibenzyl	182	C14H14	000103-29-7	94
3	Bibenzyl	182	C14H14	000103-29-7	81
4	Bibenzyl	182	C14H14	000103-29-7	72



0323

1556

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0170.D Vial: 33
Acq On : 18 Jul 2001 11:19 Operator: DP
Sample : S-110,4833-020,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/12/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:23 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.71	168	2009414	50.00	UG	0.05
31) 1,4-Difluorobenzene	10.91	114	1947660	50.00	UG	0.03
50) Chlorobenzene-d5	15.85	117	1494822	50.00	UG	0.05
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.18	65	692334	38.43	UG	0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 76.86%			
41) Toluene-d8	13.37	98	1291890	40.34	UG	0.04
Spiked Amount 50.000	Range 35 - 117		Recovery = 80.68%			
59) Bromofluorobenzene	17.91	95	1133818	37.63	UG	0.03
Spiked Amount 50.000	Range 47 - 115		Recovery = 75.26%			

Target Compounds Qvalue

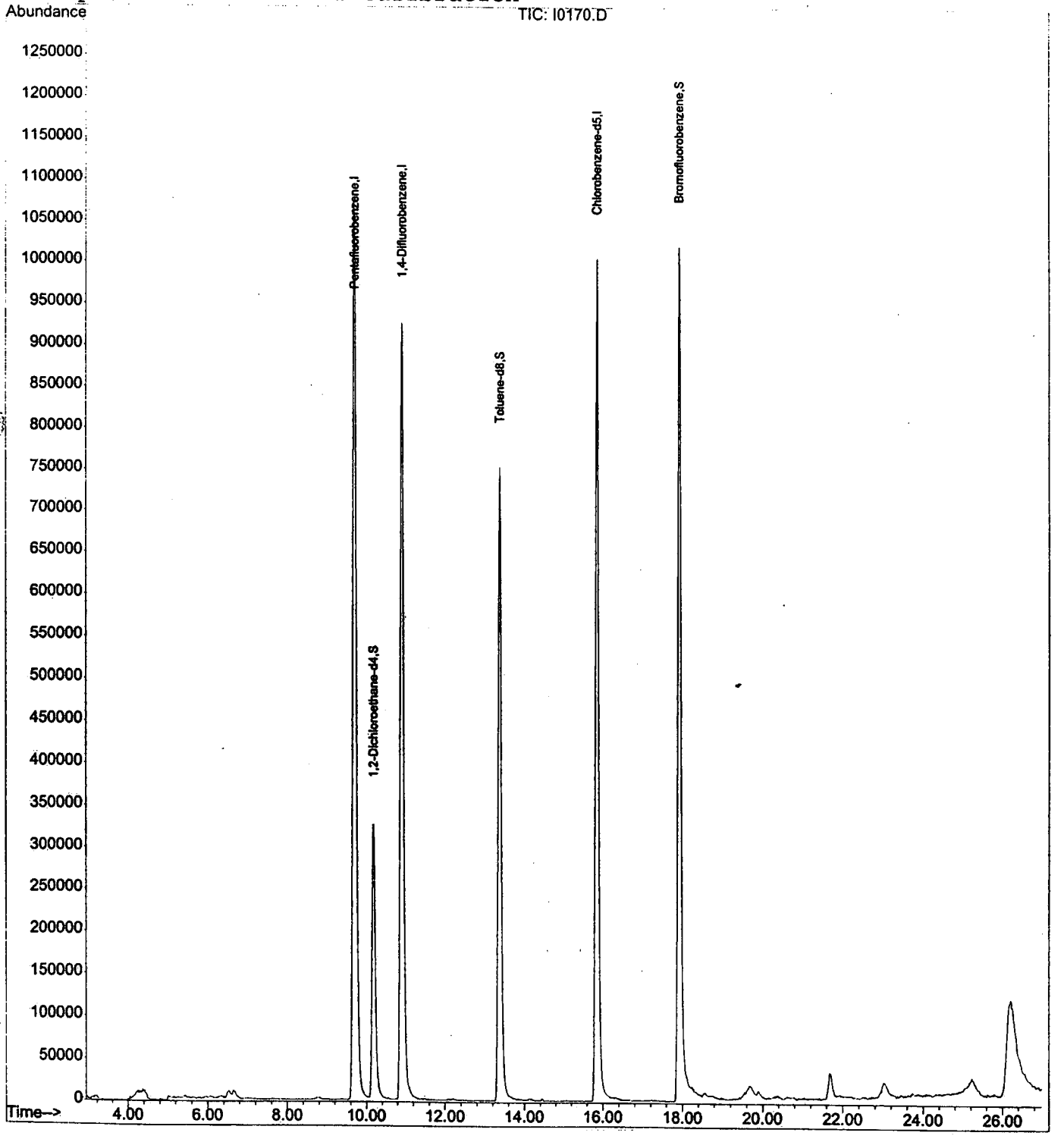
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0170.D
Acq On : 18 Jul 2001 11:19
Sample : S-110,4833-020,M,0.035g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:23 2001

Vial: 33
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1558

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0170.D
Acq On : 18 Jul 2001 11:19
Sample : S-110,4833-020,M,0.035g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 33
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

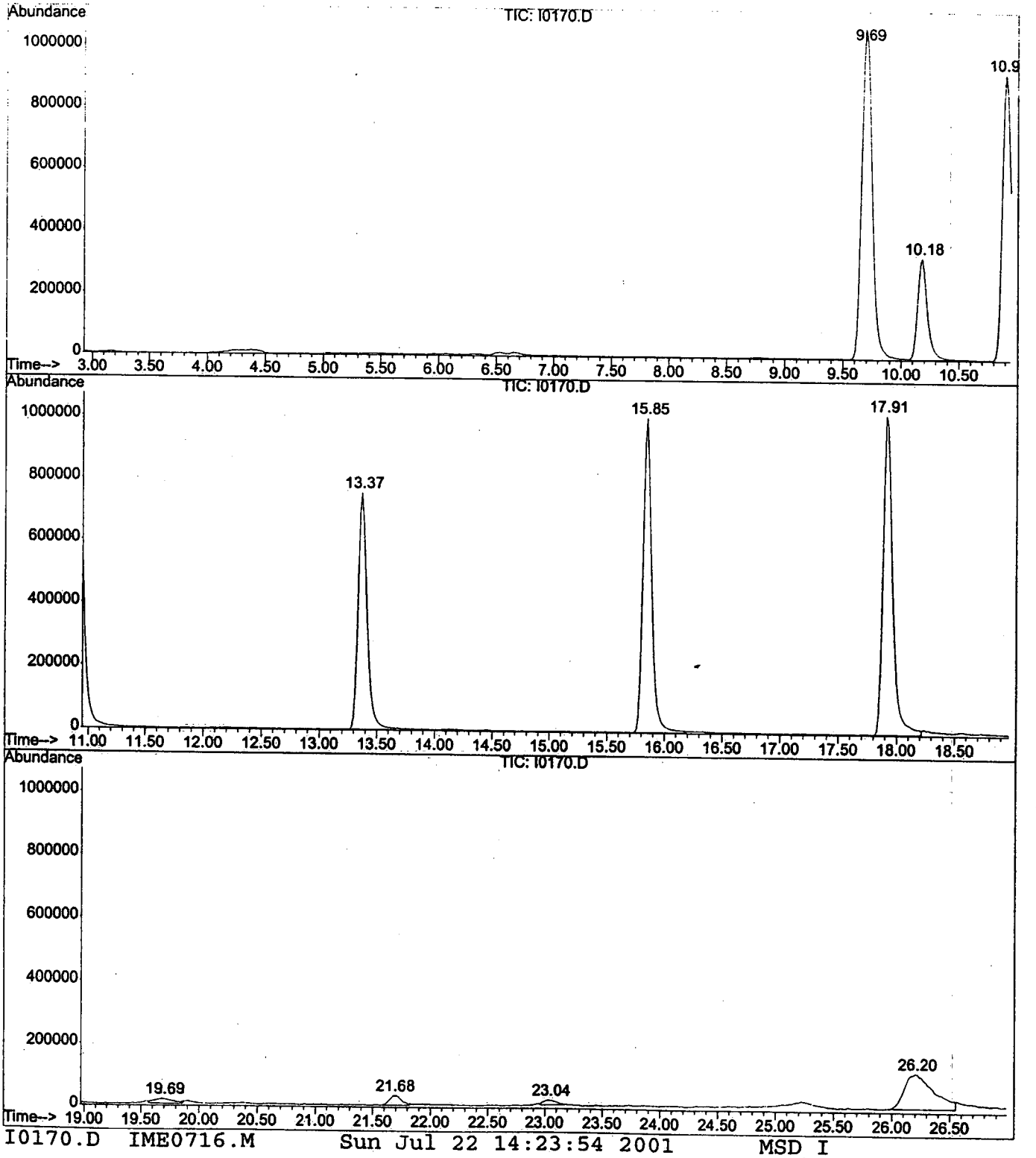
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.694	435	446	466	rBV	1072962	6687320	100.00%	21.061%
2	10.183	470	478	500	rVB	326215	1950854	29.17%	6.144%
3	10.906	517	525	544	rBV	924230	5313577	79.46%	16.735%
4	13.372	677	685	704	rBV	751541	4105123	61.39%	12.929%
5	15.846	838	846	868	rBV	1002994	5302924	79.30%	16.701%
6	17.906	973	980	1000	rBV	1018060	5854713	87.55%	18.439%
7	19.689	1088	1096	1107	rVV	15598	176420	2.64%	0.556%
8	21.679	1219	1225	1234	rBV	31091	223524	3.34%	0.704%
9	23.037	1308	1313	1322	rVB	15039	118939	1.78%	0.375%
10	26.203	1504	1519	1542	rBV2	112844	2018355	30.18%	6.357%

Sum of corrected areas: 31751749

I0170.D IME0716.M Sun Jul 22 14:23:54 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0170.D
Operator : DP
Acquired : 18 Jul 2001 11:19 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-110,4833-020,M,0.035g
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01
Vial Number: 33
Quant File :IME0716.RES (RTE Integrator)



I0170.D IME0716.M Sun Jul 22 14:23:54 2001 MSD_I

1560

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0170.D
Acq On : 18 Jul 2001 11:19
Sample : S-110,4833-020,M,0.035g
Misc : ENVTACT/ORBIS,07/12/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 33
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

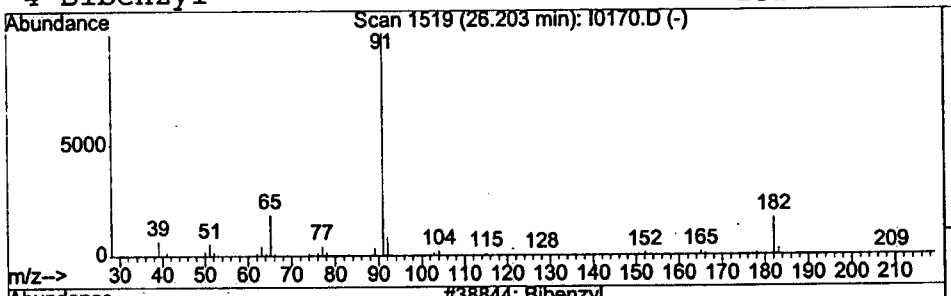
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

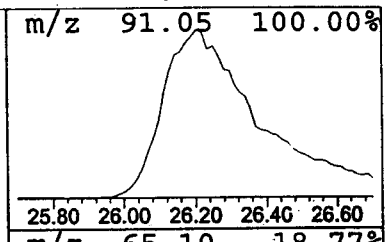
****

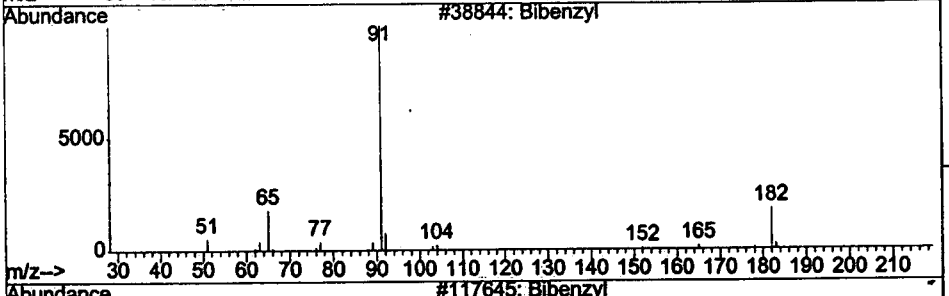
Peak Number 1 Substituted benzene Concentration Rank 1

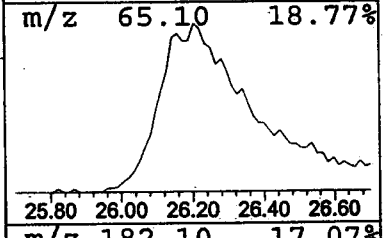
R.T.	EstConc	Area	Relative to ISTD	R.T.
26.20	19.03 UG	2018360	Chlorobenzene-d5	15.85

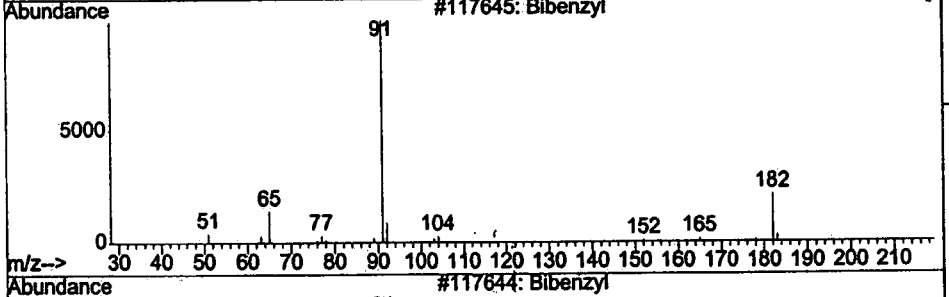
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	97
2	Bibenzyl	182	C14H14	000103-29-7	91
3	Bibenzyl	182	C14H14	000103-29-7	87
4	Bibenzyl	182	C14H14	000103-29-7	87

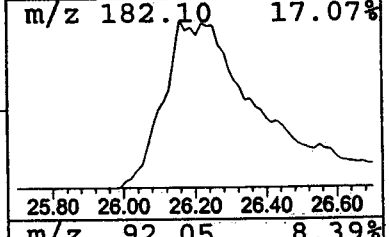


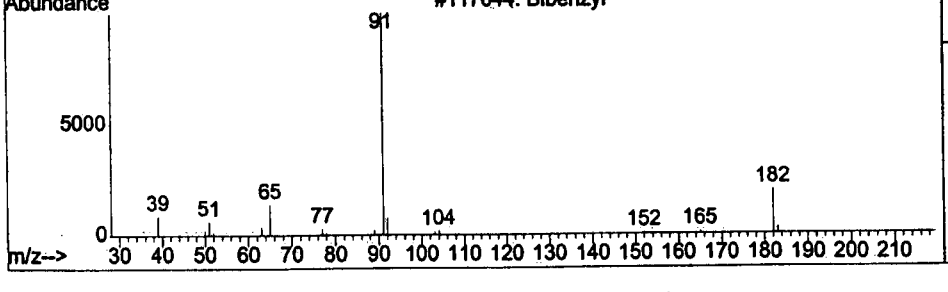


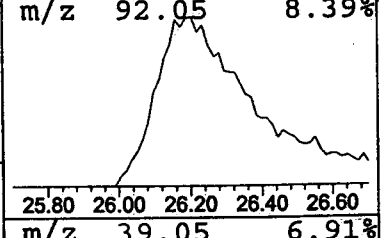


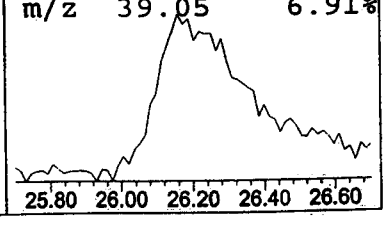












1561

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D Vial: 15
Acq On : 23 Jul 2001 19:03 Operator: XINGFANG WANG
Sample : S-111A,4833-021,M,0.008g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 19:23:43 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	348734	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	603818	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	579265	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	31301	11.53	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 23.06%#			
41) Toluene-d8	8.89	98	111250	9.25	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 18.50%#			
59) Bromofluorobenzene	11.98	95	55831	7.76	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 15.52%#			
Target Compounds						Qvalue
32) Benzene	6.80	78	2461650	160.48	UG	100
42) Toluene	8.98	92	1809580	191.64	UG	100
51) Chlorobenzene	10.62	112	27625	2.29	UG	# 74
74) 1,2-Dichlorobenzene	13.90	146	10873	1.36	UG	# 83

1562

(#) = qualifier out of range (m) = manual integration

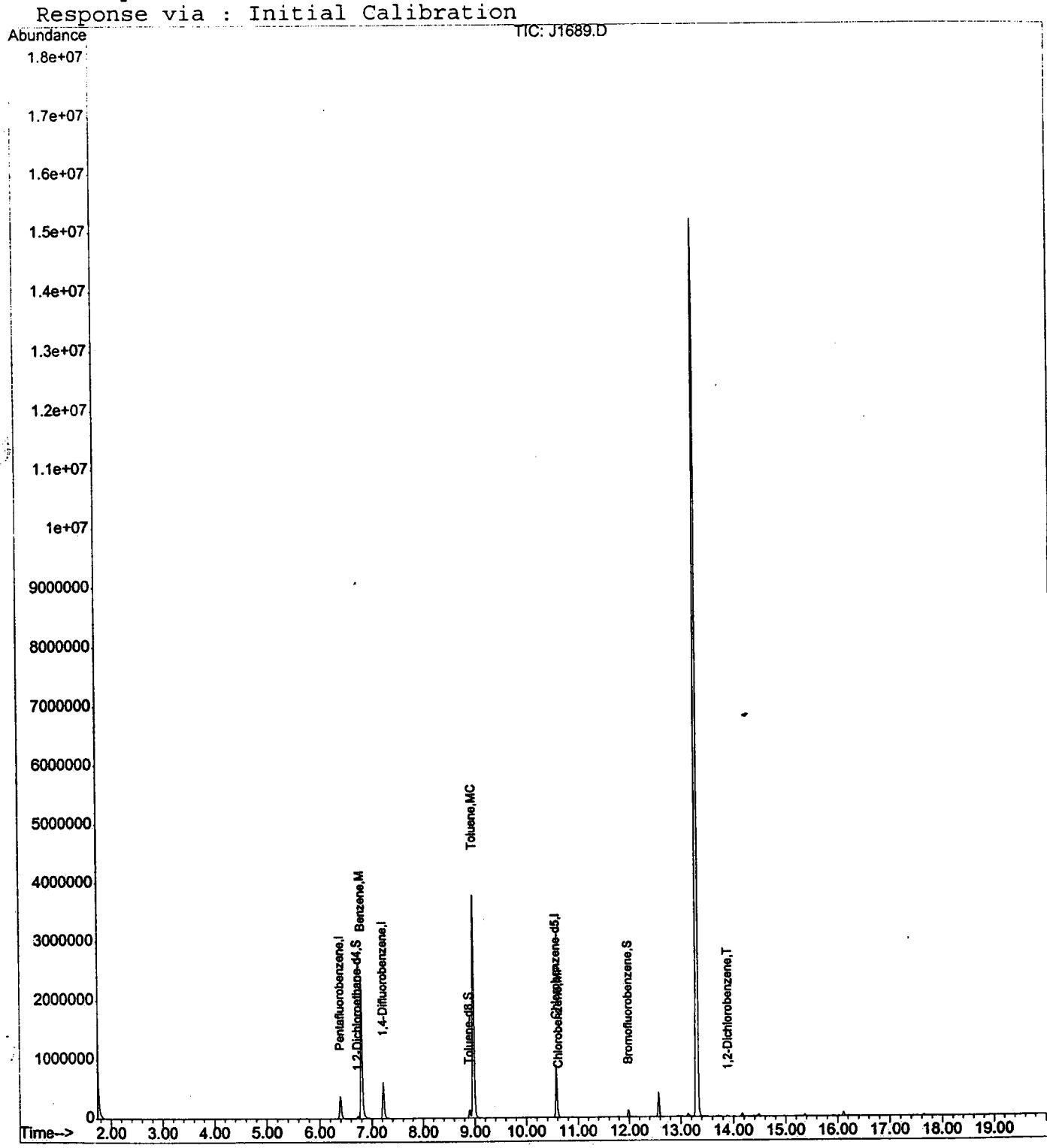
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D
Acq On : 23 Jul 2001 19:03
Sample : S-111A,4833-021,M,0.008g,16.3
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:31 2001

Vial: 15
Operator: XINGFANG WAN
Inst : MSD_J
Multiplr: 1.00

Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1563

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D Vial: 15
Acq On : 23 Jul 2001 19:03 Operator: XINGFANG WANG
Sample : S-111A,4833-021,M,0.008g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

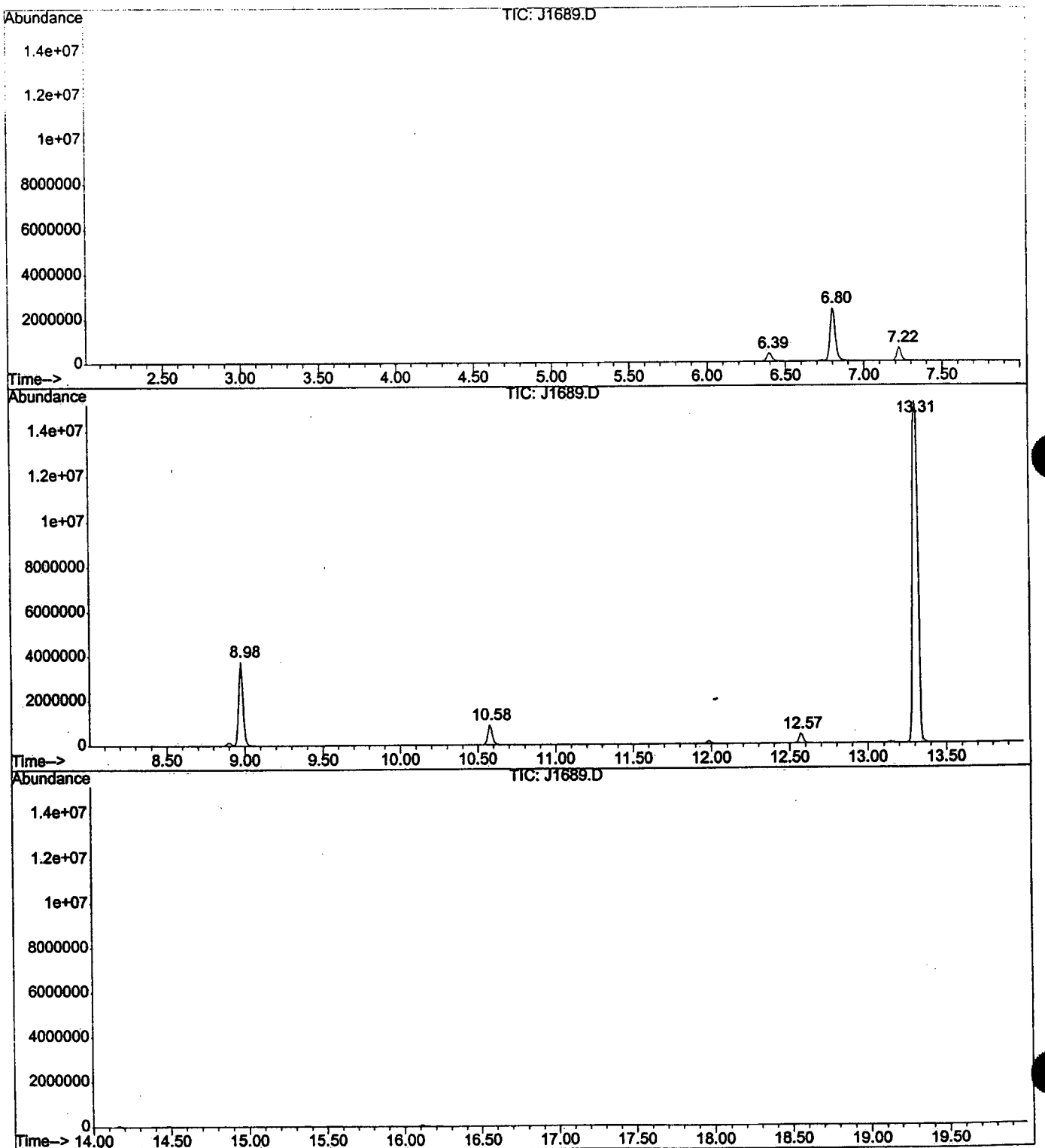
Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.393	454	461	479	rBV	391969	945012	2.48%	1.690%
2	6.798	496	501	527	rVB	2397954	5530304	14.48%	9.893%
3	7.223	537	543	565	rVB	627263	1355212	3.55%	2.424%
4	8.975	711	716	738	rVB	3783227	7281959	19.07%	13.026%
5	10.575	867	874	886	rBV	896527	1801431	4.72%	3.222%
6	12.570	1062	1071	1080	rBV	437404	806575	2.11%	1.443%
7	13.309	1135	1144	1153	rBV	15214691	38182091	100.00%	68.301%

Sum of corrected areas: 55902584

1564

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 19:03 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-111A,4833-021,M,0.008g,16.3
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,5
Vial Number: 15
Quant File :JME0722.RES (RTE Integrator)



1565

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D Vial: 15
Acq On : 23 Jul 2001 19:03 Operator: XINGFANG WANG
Sample : S-111A,4833-021,M,0.008g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P

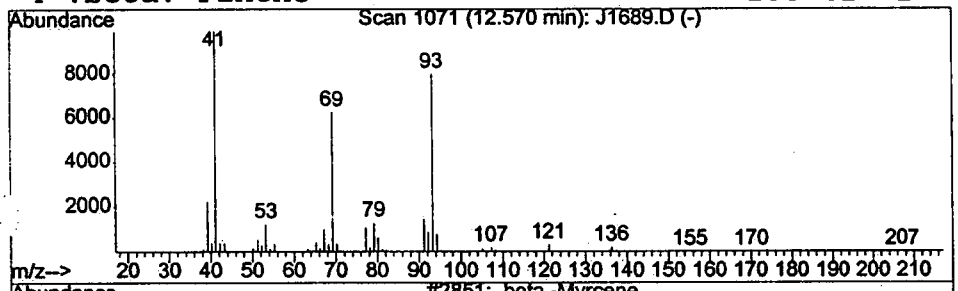
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

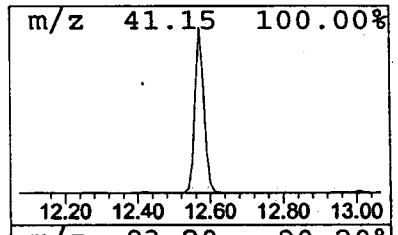
****

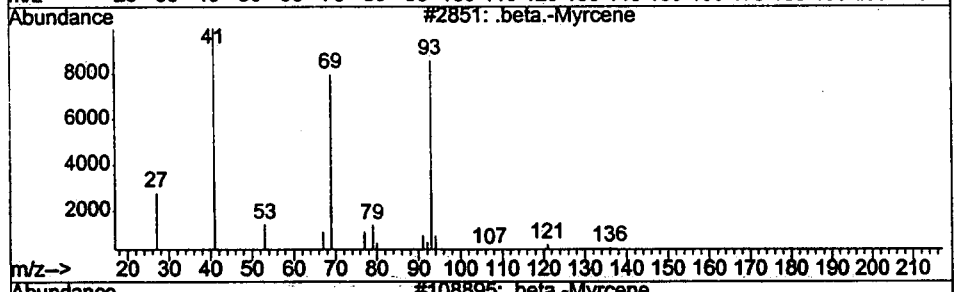
Peak Number 1 Unknown Concentration Rank 2

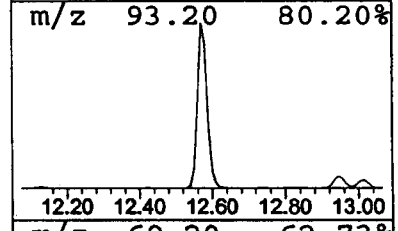
R.T.	EstConc	Area	Relative to ISTD	R.T.
12.57	22.39 UG	806575	Chlorobenzene-d5	10.58

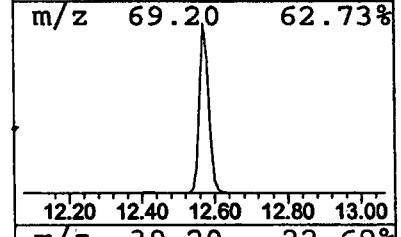
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.-Myrcene	136	C10H16	000123-35-3	91
2	.beta.-Myrcene	136	C10H16	000123-35-3	90
3	Bicyclo[3.1.0]hex-2-ene, 4-methy...	136	C10H16	028634-89-1	74
4	.beta.-Pinene	136	C10H16	000127-91-3	53

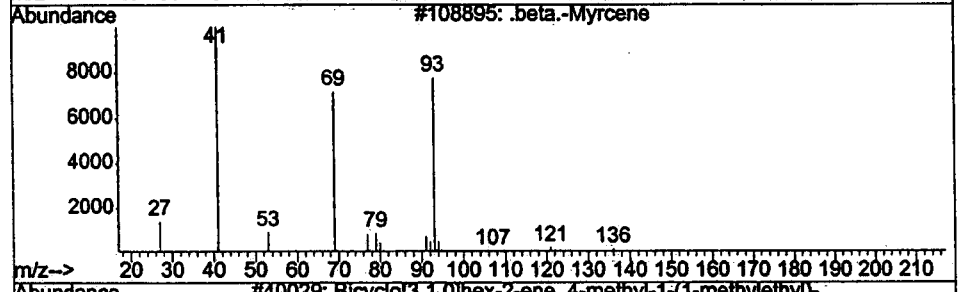


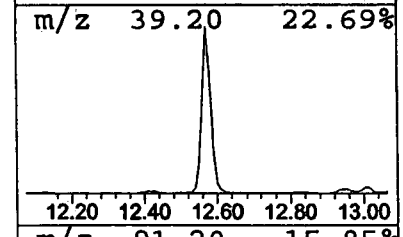


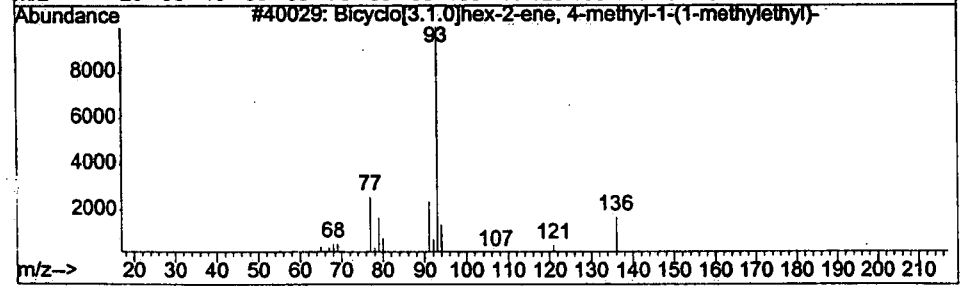


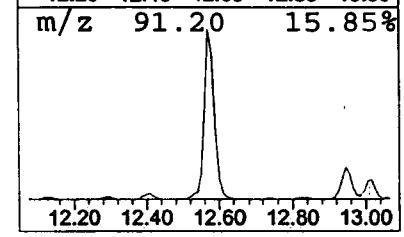












Data File : C:\MSDCHEM\1\DATA\07-23-01\J1689.D
Acq On : 23 Jul 2001 19:03
Sample : S-111A,4833-021,M,0.008g,16.3
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 15
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

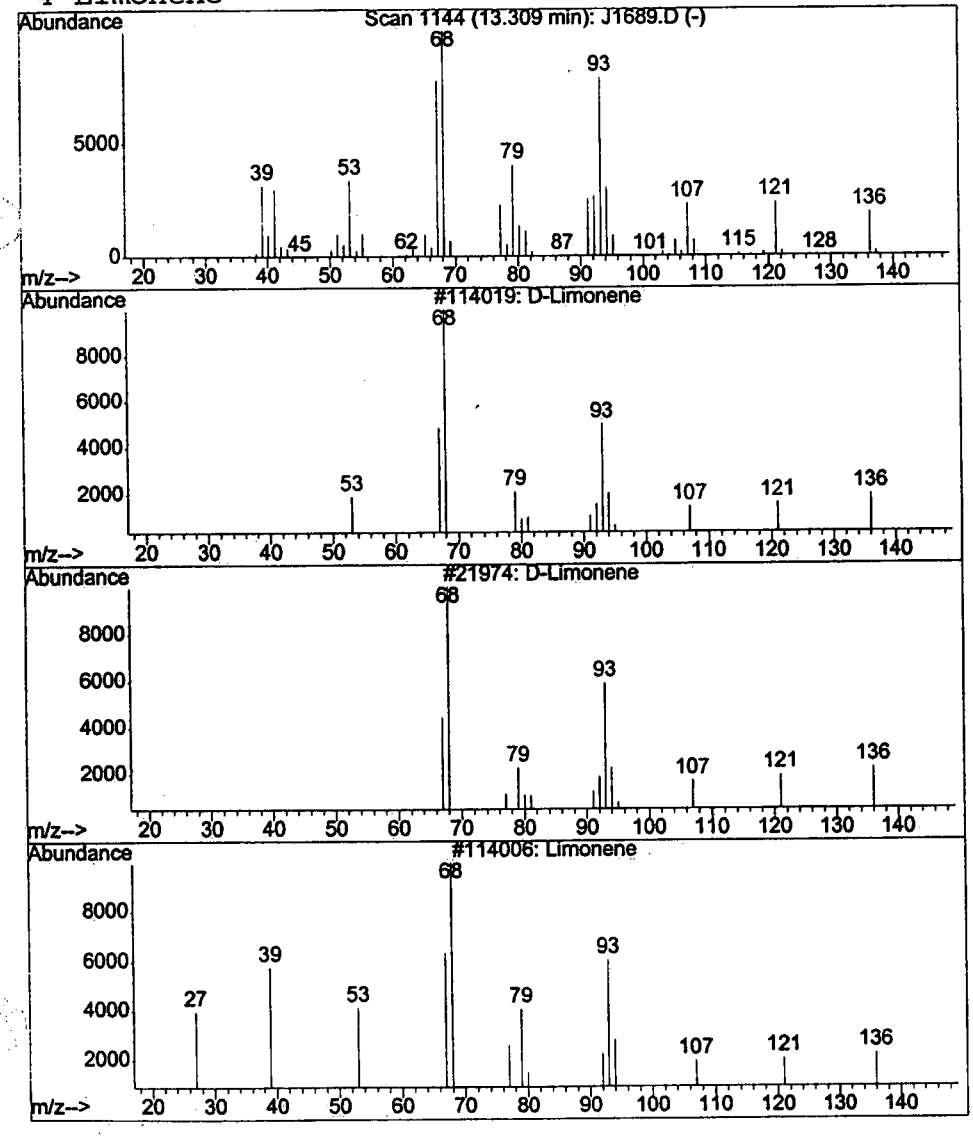
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

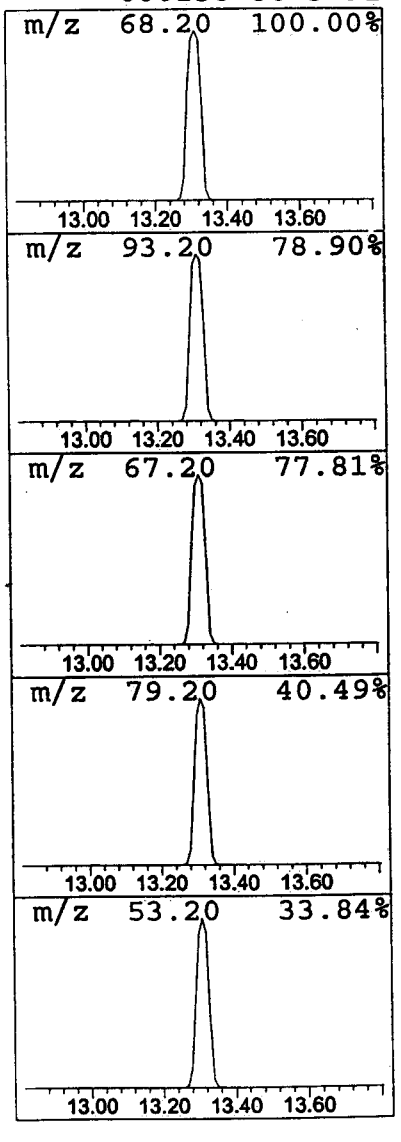
****

Peak Number 2 Unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	1059.77 UG	38182100	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	93
2	D-Limonene	136	C10H16	005989-27-5	93
3	Limonene	136	C10H16	000138-86-3	93
4	Limonene	136	C10H16	000138-86-3	91





1567

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0172.D Vial: 35
Acq On : 18 Jul 2001 12:26 Operator: DP
Sample : S-111B,4833-022,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 14:27 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.67	168	2176001	50.00	UG	0.00
31) 1,4-Difluorobenzene	10.89	114	2099511	50.00	UG	0.01
50) Chlorobenzene-d5	15.84	117	1512702	50.00	UG	0.04
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.15	65	715837	36.70	UG	0.00
Spiked Amount 50.000	Range 36 - 115		Recovery = 73.40%			
41) Toluene-d8	13.35	98	1387541	40.19	UG	0.02
Spiked Amount 50.000	Range 35 - 117		Recovery = 80.38%			
59) Bromofluorobenzene	17.90	95	1132938	37.16	UG	0.03
Spiked Amount 50.000	Range 47 - 115		Recovery = 74.32%			
Target Compounds						Qvalue
32) Benzene	10.27	78	1676836	58.27	UG	100
42) Toluene	13.47	92	775155	38.75	UG	98

(#) = qualifier out of range (m) = manual integration

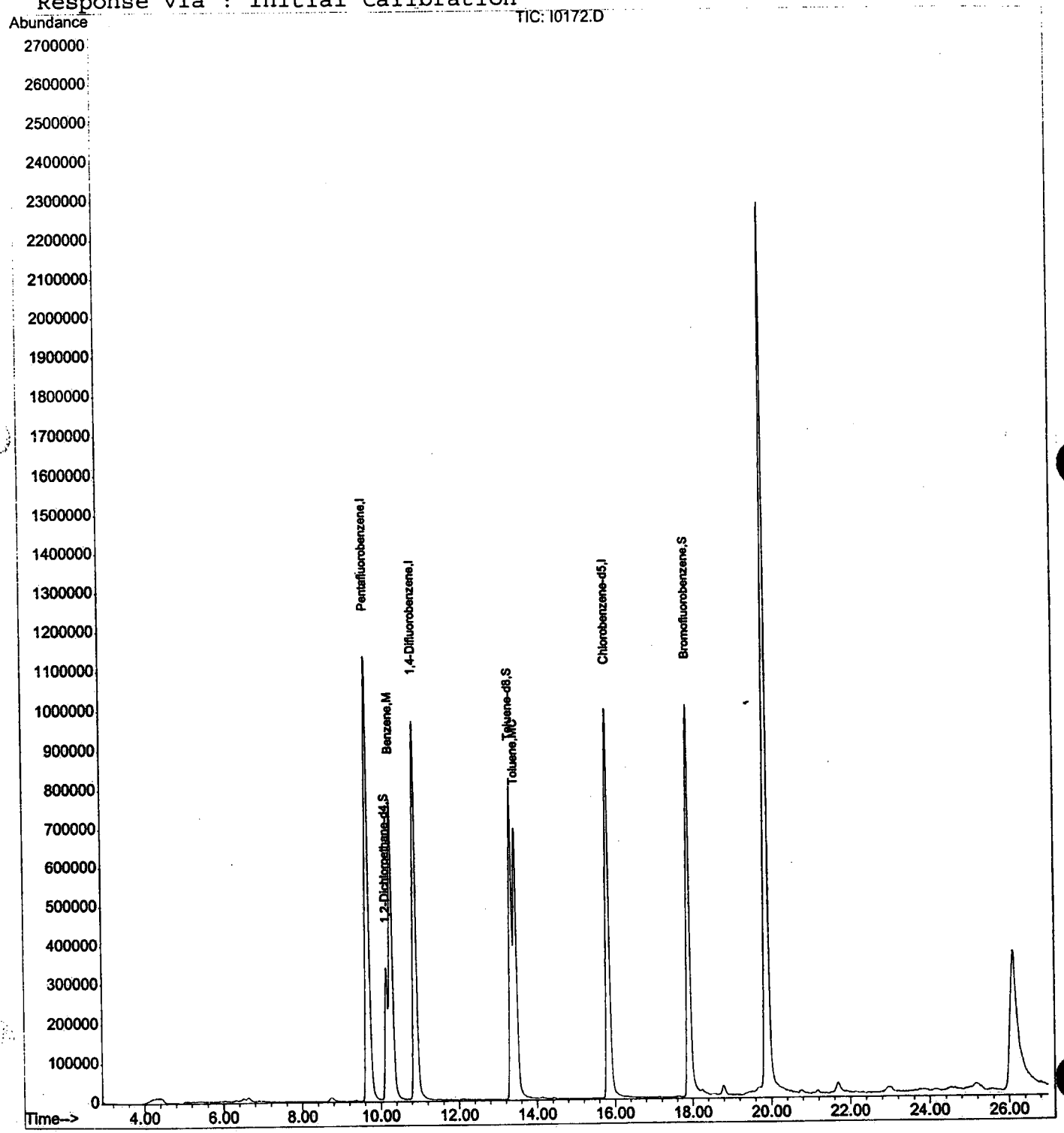
Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0172.D
Acq On : 18 Jul 2001 12:26
Sample : S-111B,4833-022,M,0.040g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:27 2001

Vial: 35
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1569

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0172.D Vial: 35
Acq On : 18 Jul 2001 12:26 Operator: DP
Sample : S-111B,4833-022,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

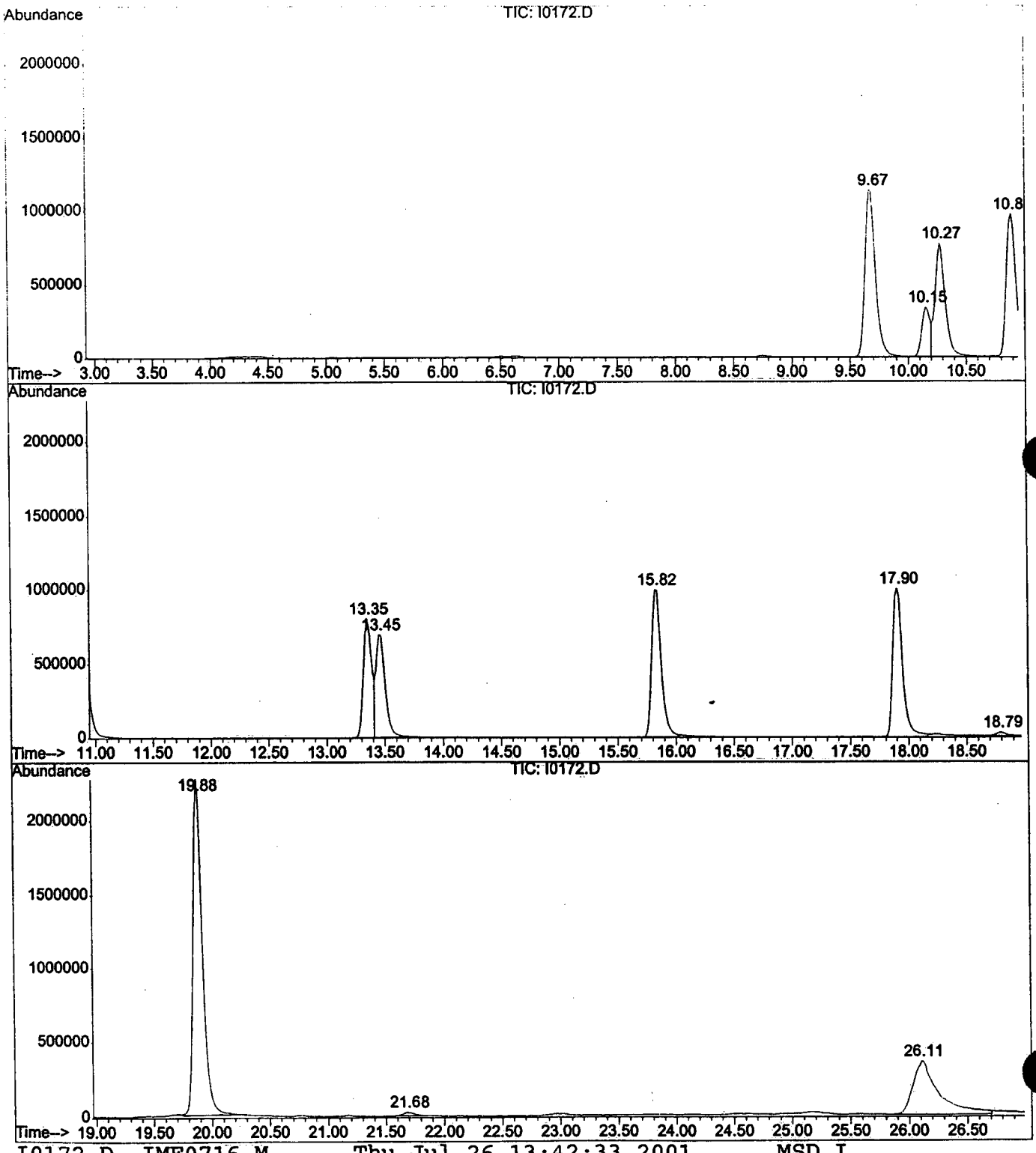
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.667	436	445	464	rBV	1132979	7082027	56.93%	12.508%
2	10.152	470	477	480	rBV	334937	1691675	13.60%	2.988%
3	10.274	480	485	508	rVB	767293	4668598	37.53%	8.246%
4	10.887	517	525	543	rBV	965244	5618946	45.17%	9.924%
5	13.349	677	685	689	rBV	800311	4105083	33.00%	7.250%
6	13.454	689	692	710	rVB	688749	3748832	30.13%	6.621%
7	15.823	839	846	859	rBV	993516	5602731	45.04%	9.896%
8	17.904	972	981	998	rBV2	1001035	5862453	47.12%	10.354%
9	18.793	1034	1039	1047	rVB2	24245	133385	1.07%	0.236%
10	19.880	1101	1110	1133	rVV	2263643	12440365	100.00%	21.972%
11	21.685	1222	1228	1239	rBV	24414	164205	1.32%	0.290%
12	26.109	1501	1518	1558	rBV	358055	5500457	44.21%	9.715%

Sum of corrected areas: 56618757

I0172.D IME0716.M Thu Jul 26 13:42:33 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0172.D
Operator : DP
Acquired : 18 Jul 2001 12:26 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-111B,4833-022,M,0.040g
Misc Info : ENVTACT/ORBIS,07/13/01,07/16/01
Vial Number: 35
Quant File :IME0716.RES (RTE Integrator)



I0172.D IME0716.M Thu Jul 26 13:42:33 2001 MSD_I

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0172.D
Acq On : 18 Jul 2001 12:26
Sample : S-111B,4833-022,M,0.040g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 35
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

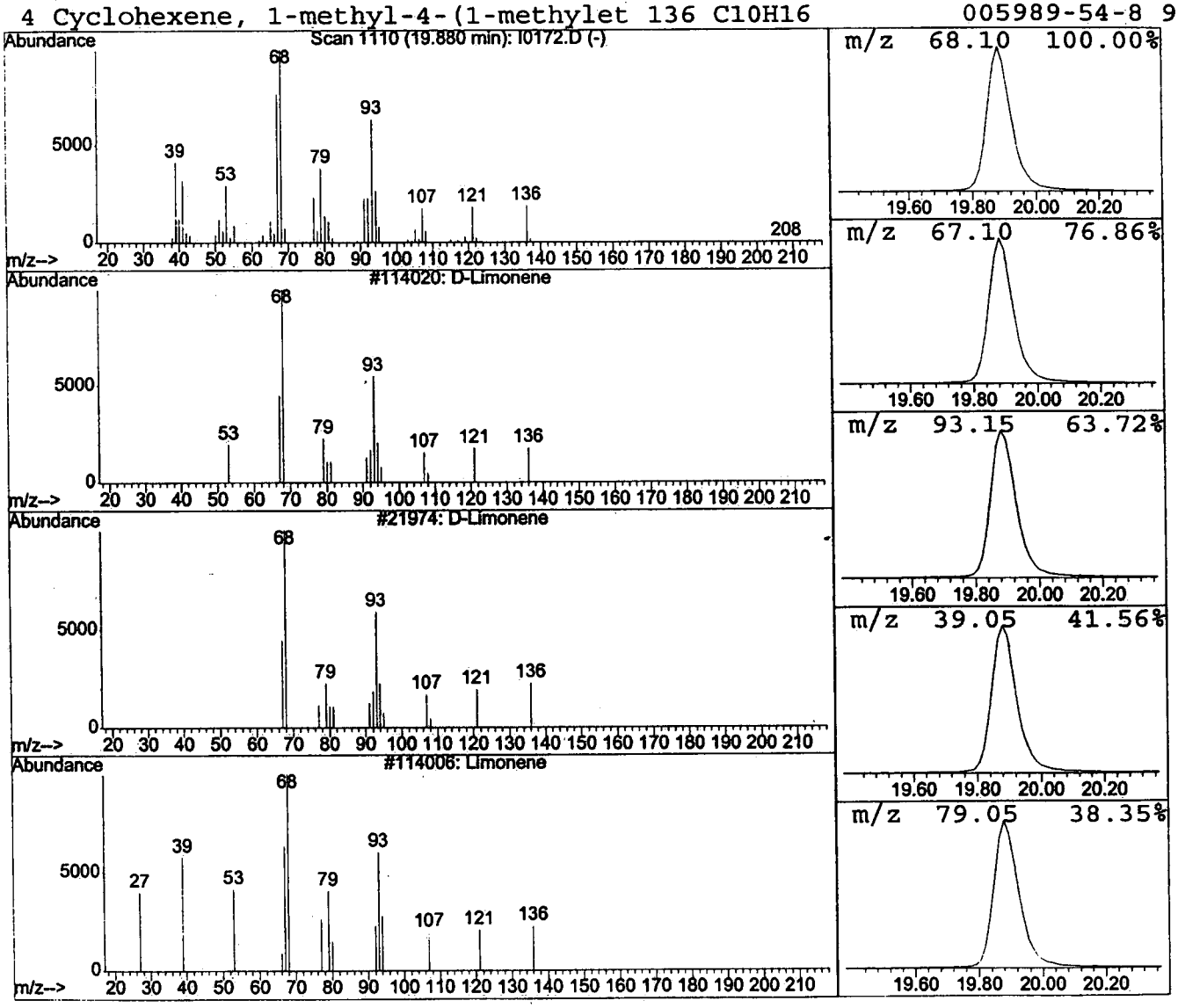
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.88	111.02 UG	12440400	Chlorobenzene-d5	15.84

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	94
3	Limonene	136	C10H16	000138-86-3	94
4	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	005989-54-8	90



1572

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0172.D
Acq On : 18 Jul 2001 12:26
Sample : S-111B,4833-022,M,0.040g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 35
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

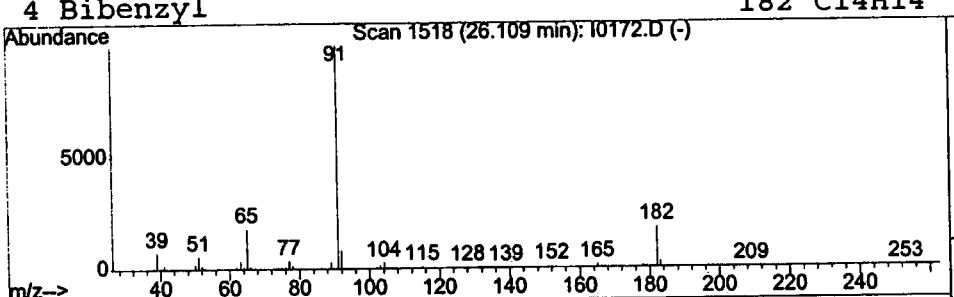
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

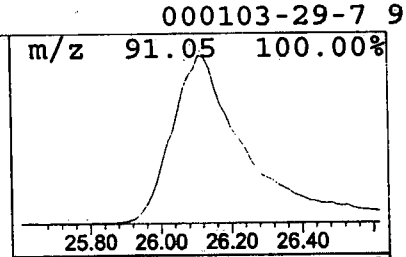
****

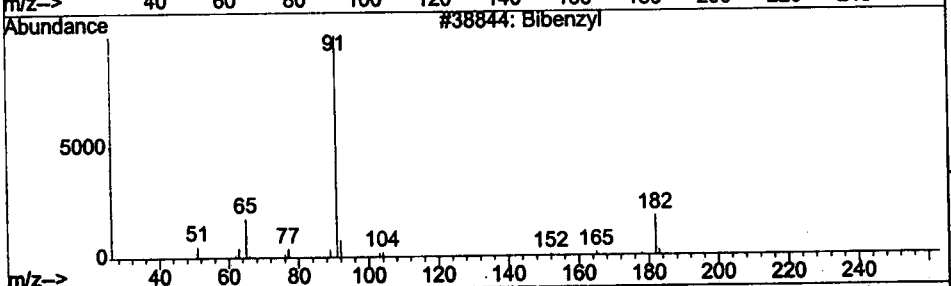
Peak Number 2 Substituted benzene Concentration Rank 2

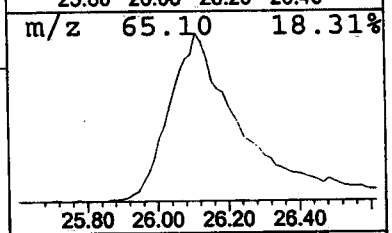
R.T.	EstConc	Area	Relative to ISTD	R.T.
26.11	49.09 UG	5500460	Chlorobenzene-d5	15.84

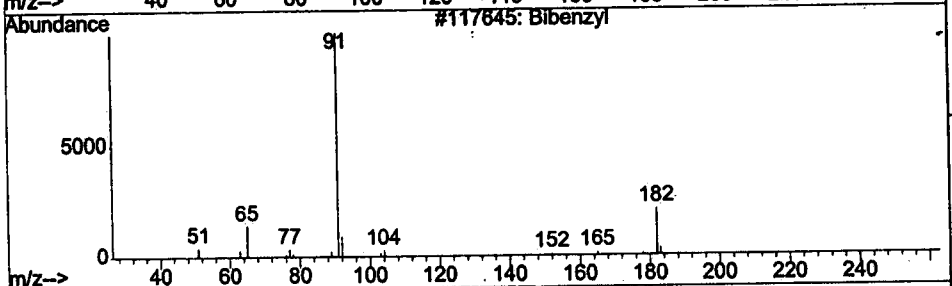
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	97
2	Bibenzyl	182	C14H14	000103-29-7	94
3	Bibenzyl	182	C14H14	000103-29-7	93
4	Bibenzyl	182	C14H14	000103-29-7	90

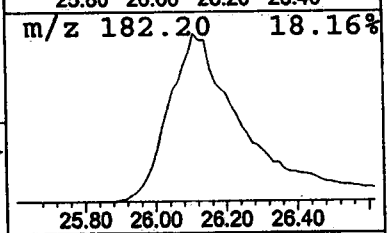


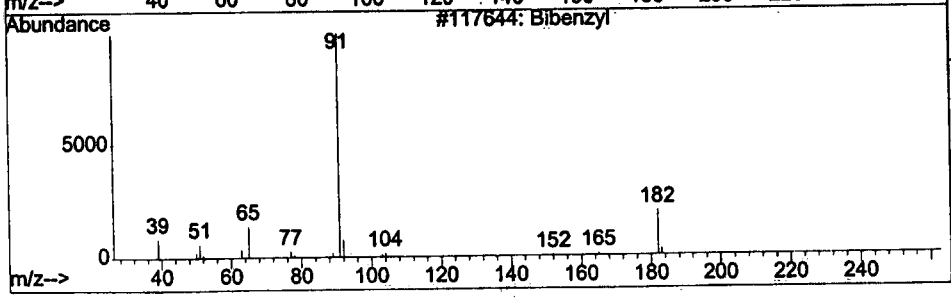


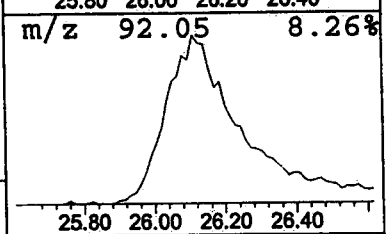


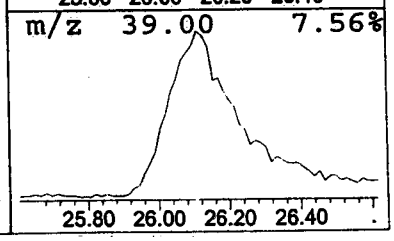












1573

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0173.D
Acq On : 18 Jul 2001 12:59
Sample : S-112,4833-023,M,0.035g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:29 2001

Vial: 36
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.67	168	2183568	50.00	UG	0.01
31) 1,4-Difluorobenzene	10.87	114	2100824	50.00	UG	0.00
50) Chlorobenzene-d5	15.82	117	1547514	50.00	UG	0.02
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.14	65	740318	37.82	UG	-0.01
Spiked Amount 50.000	Range 36 - 115		Recovery = 75.64%			
41) Toluene-d8	13.34	98	1403391	40.62	UG	0.01
Spiked Amount 50.000	Range 35 - 117		Recovery = 81.24%			
59) Bromofluorobenzene	17.90	95	1183575	37.94	UG	0.02
Spiked Amount 50.000	Range 47 - 115		Recovery = 75.88%			
Target Compounds						Qvalue
32) Benzene	10.27	78	99749	3.46	UG	100

(#) = qualifier out of range (m) = manual integration

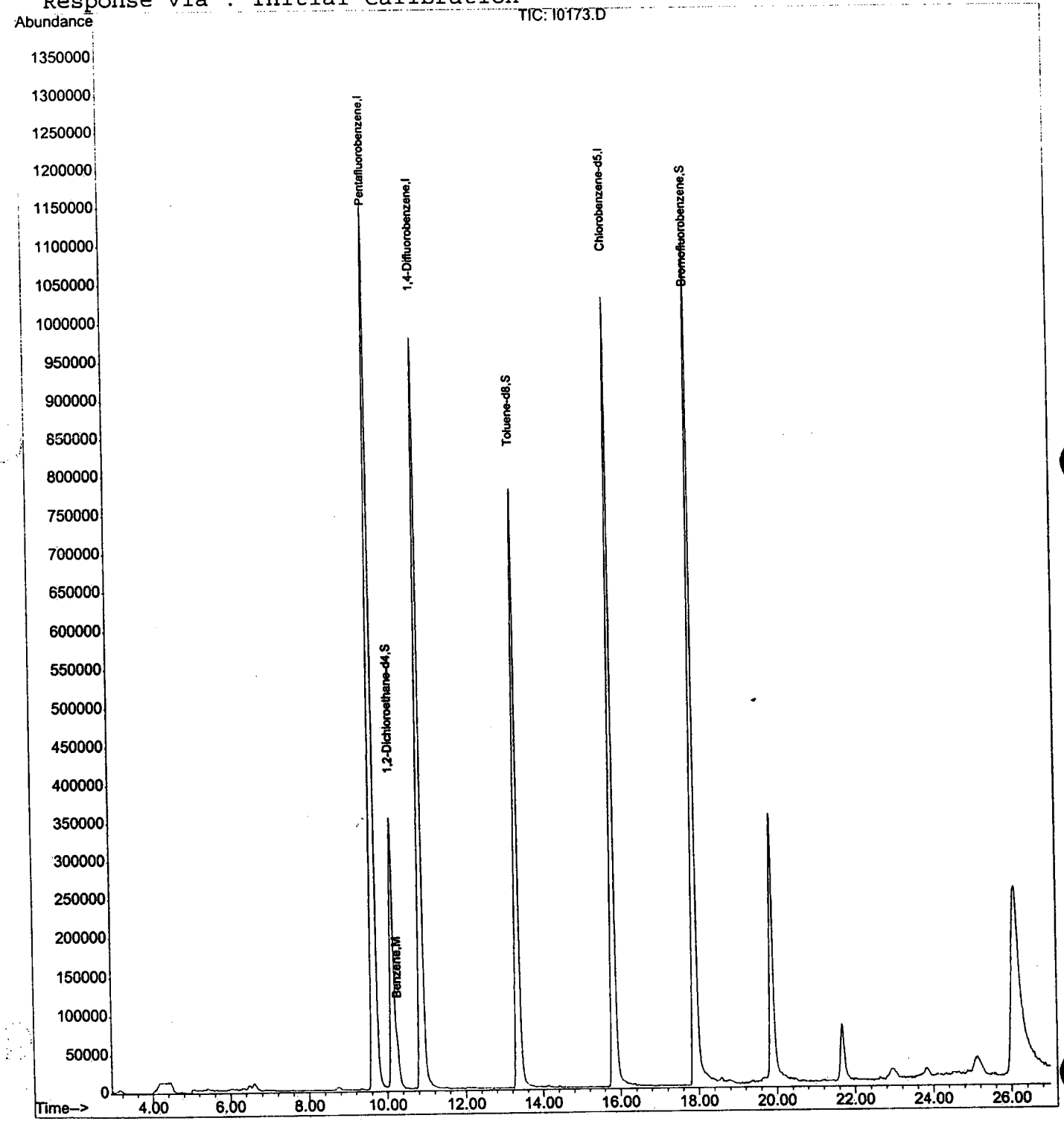
Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0173.D
Acq On : 18 Jul 2001 12:59
Sample : S-112,4833-023,M,0.035g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:29 2001

Vial: 36
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1575

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0173.D
Acq On : 18 Jul 2001 12:59
Sample : S-112,4833-023,M,0.035g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 36
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

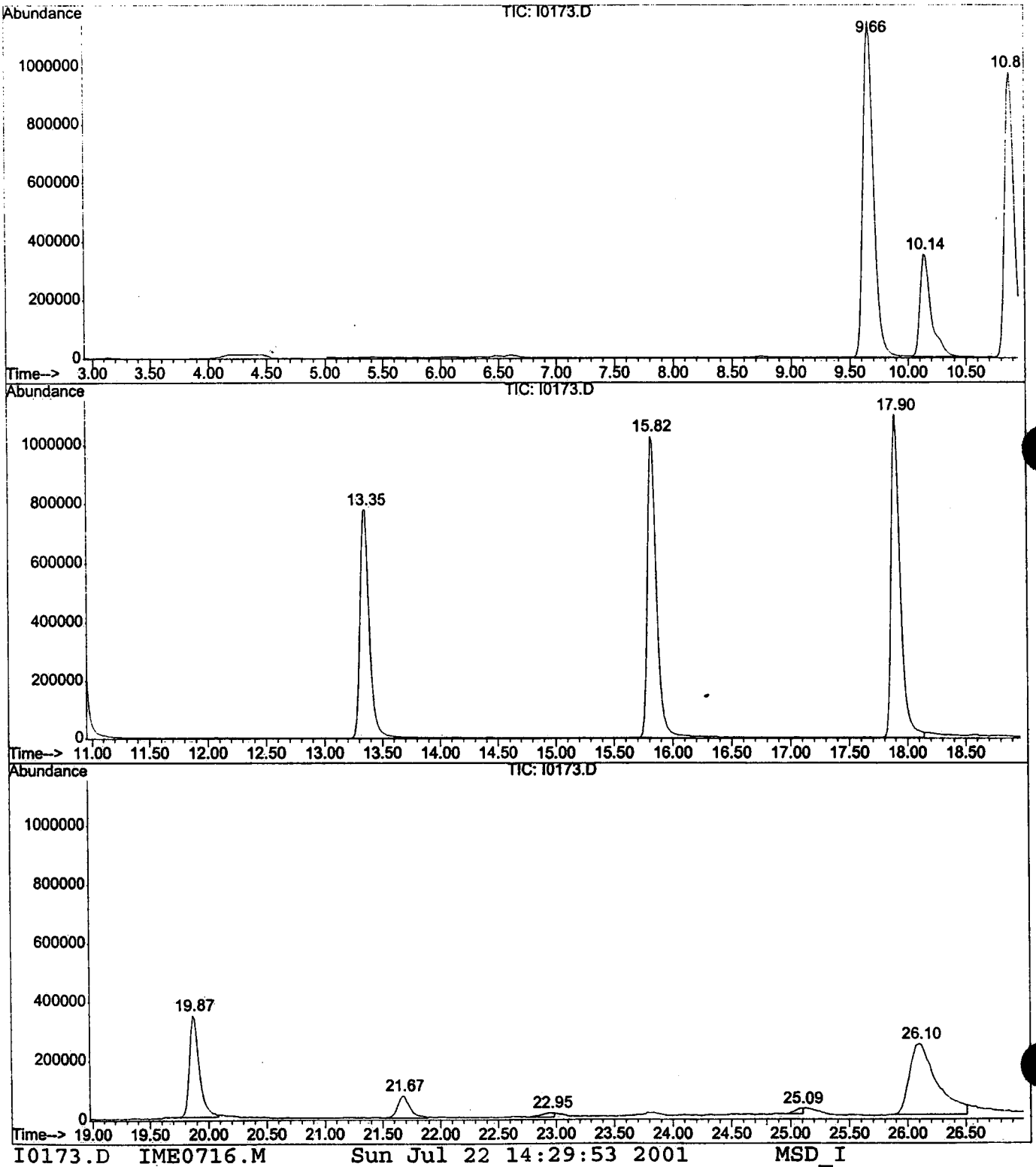
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.659	433	443	461	rBV	1154133	7184097	100.00%	18.936%
2	10.136	467	474	495	rVB2	351478	2333776	32.49%	6.151%
3	10.875	513	522	544	rBV	977502	5729249	79.75%	15.101%
4	13.353	675	683	705	rBV	778579	4438534	61.78%	11.699%
5	15.818	836	843	867	rBV	1027431	5515280	76.77%	14.537%
6	17.896	971	978	994	rBV	1101226	6042649	84.11%	15.927%
7	19.870	1098	1106	1120	rBV	343679	2000047	27.84%	5.272%
8	21.675	1211	1223	1237	rBV	74738	559448	7.79%	1.475%
9	22.952	1294	1306	1308	rBV9	14643	112183	1.56%	0.296%
10	25.092	1438	1445	1446	rBV2	18920	89171	1.24%	0.235%
11	26.103	1497	1511	1538	rBV2	241979	3935271	54.78%	10.372%

Sum of corrected areas: 37939705

I0173.D IME0716.M Sun Jul 22 14:29:53 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0173.D
Operator : DP
Acquired : 18 Jul 2001 12:59 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-112,4833-023,M,0.035g
Misc Info : ENVTACT/ORBIS,07/13/01,07/16/01
Vial Number: 36
Quant File :IME0716.RES (RTE Integrator)



I0173.D IME0716.M Sun Jul 22 14:29:53 2001 MSD_I

1577

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0173.D Vial: 36
Acq On : 18 Jul 2001 12:59 Operator: DP
Sample : S-112,4833-023,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

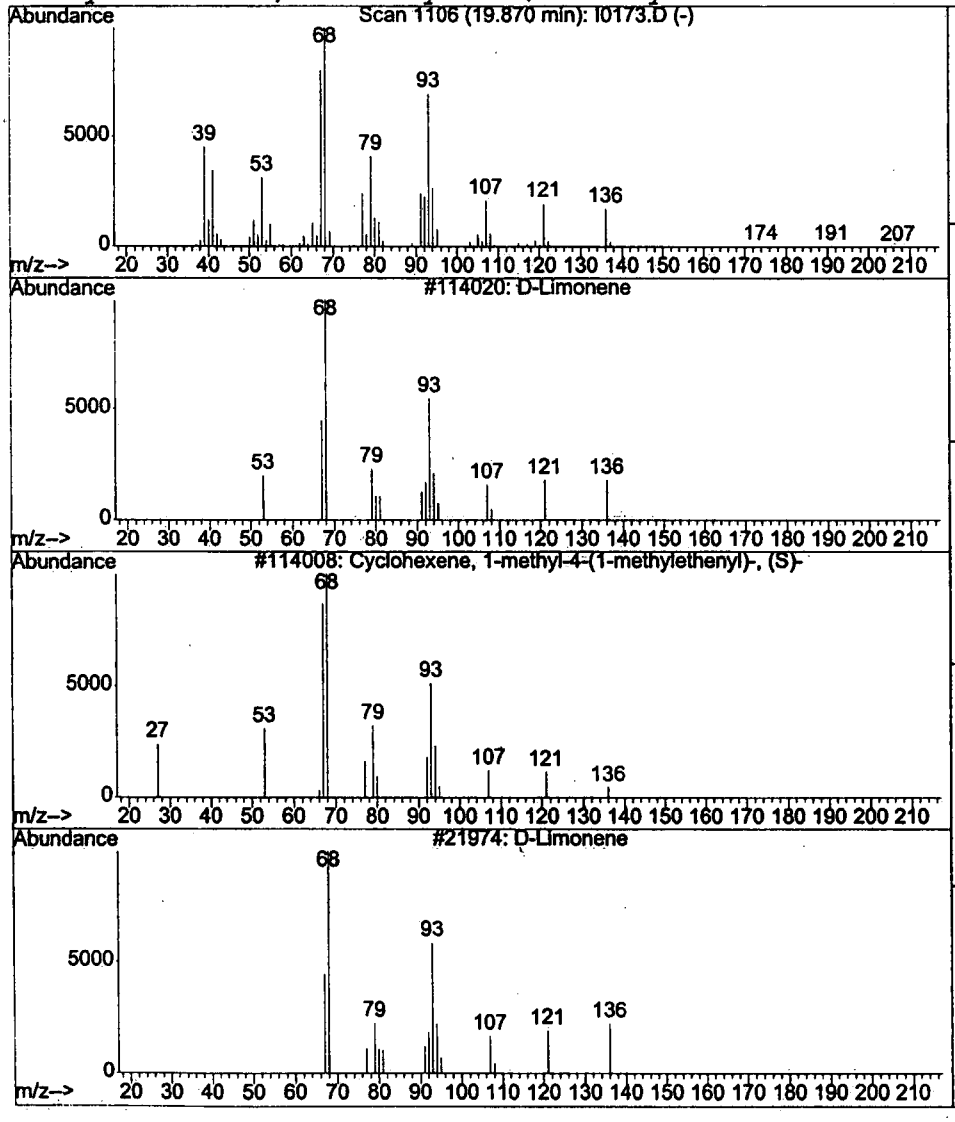
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.87	18.13 UG	2000050	Chlorobenzene-d5	15.82

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	005989-54-8	86
3	D-Limonene	136	C10H16	005989-27-5	81
4	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	007705-14-8	76



0245

1578

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0173.D Vial: 36
Acq On : 18 Jul 2001 12:59 Operator: DP
Sample : S-112,4833-023,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

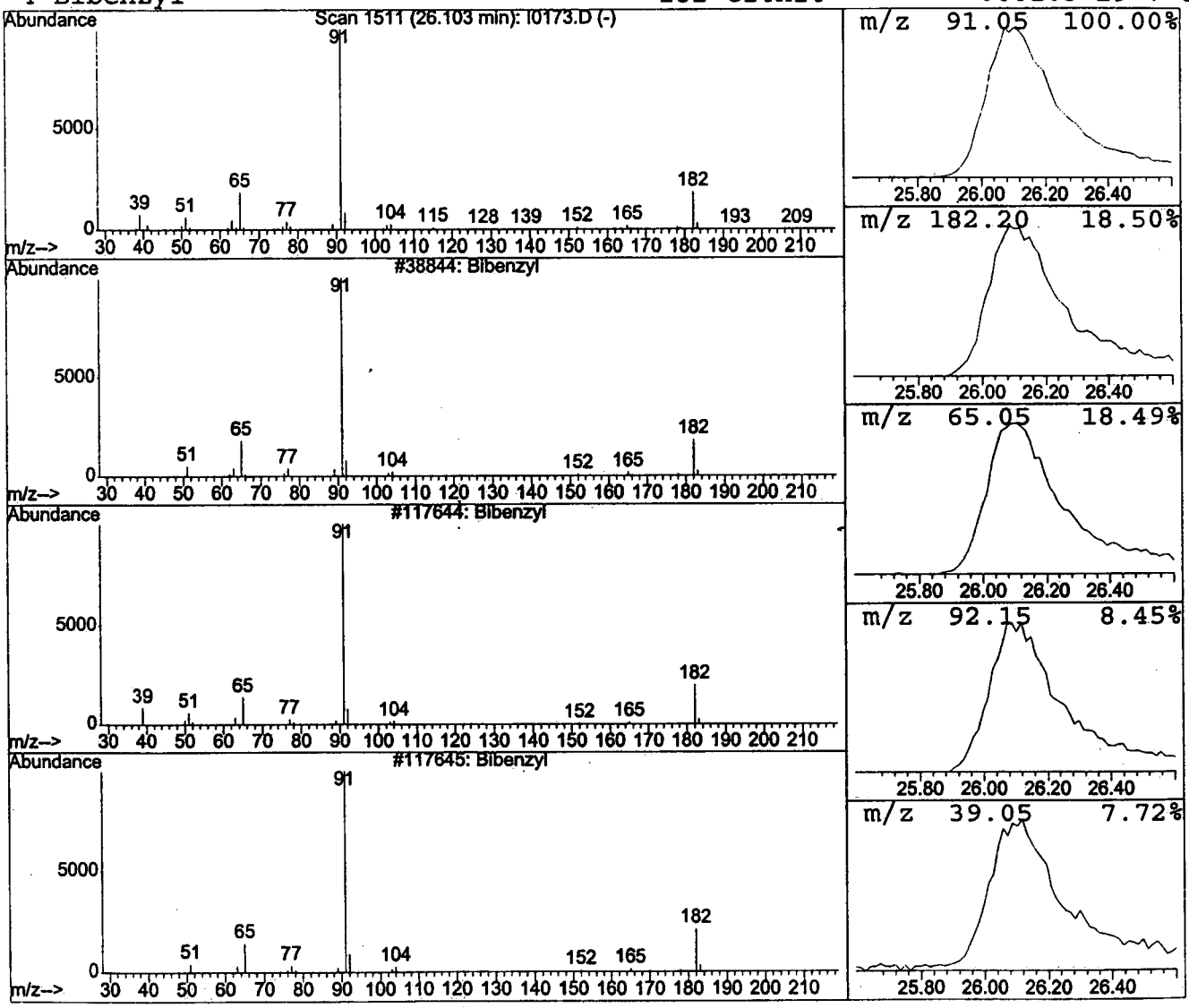
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.10	35.68 UG	3935270	Chlorobenzene-d5	15.82

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	97
2	Bibenzyl	182	C14H14	000103-29-7	94
3	Bibenzyl	182	C14H14	000103-29-7	94
4	Bibenzyl	182	C14H14	000103-29-7	87



1579

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D Vial: 16
Acq On : 23 Jul 2001 19:31 Operator: XINGFANG WANG
Sample : S-113,4833-024,M,0.004g,16.9 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 19:51:15 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	356248	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	619451	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	586620	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	16997	6.13	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 12.26%#			
41) Toluene-d8	8.89	98	62970	5.10	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 10.20%#			
59) Bromofluorobenzene	11.98	95	30181	4.14	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 8.28%#			
Target Compounds						Qvalue
32) Benzene	6.80	78	39316	2.50	UG	100
42) Toluene	8.98	92	1574228	162.51	UG	100

(#) = qualifier out of range (m) = manual integration

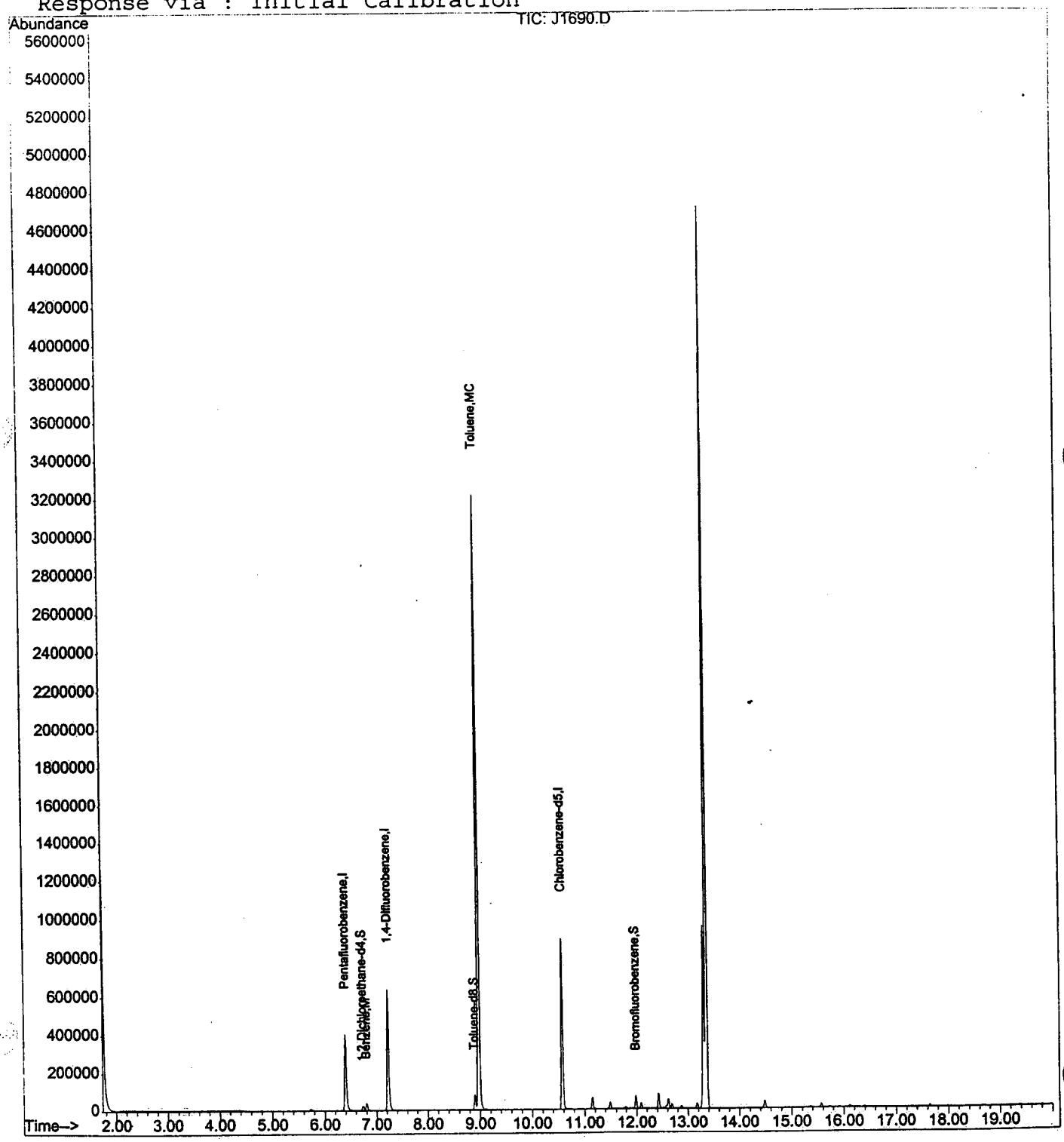
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D
Acq On : 23 Jul 2001 19:31
Sample : S-113,4833-024,M,0.004g,16.9
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,10
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:32 2001

Vial: 16
Operator: XINGFANG WAN
Inst : MSD_J
Multiplr: 1.00

Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1581

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D
Acq On : 23 Jul 2001 19:31
Sample : S-113,4833-024,M,0.004g,16.9
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,10
MS Integration Params: LSCINT.P

Vial: 16
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

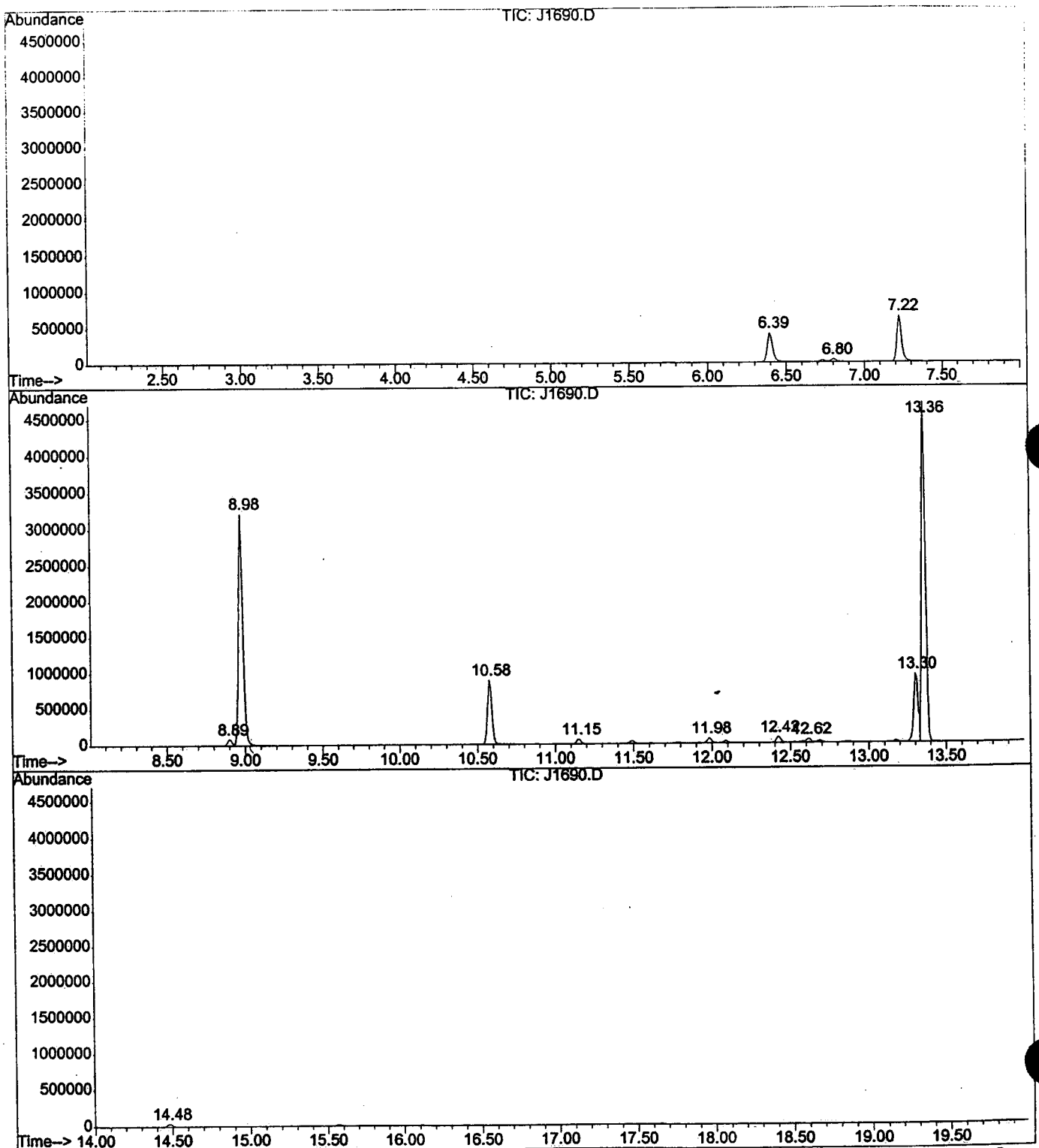
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.393	454	461	483	rBV	405437	961300	11.83%	4.473%
2	6.798	498	501	511	rVB	38063	88960	1.10%	0.414%
3	7.224	536	543	563	rBV	637746	1384425	17.04%	6.442%
4	8.894	701	708	711	rBV	81148	169809	2.09%	0.790%
5	8.975	711	716	748	rVB	3216757	6346805	78.14%	29.533%
6	10.575	866	874	896	rBV	894378	1754125	21.60%	8.162%
7	11.153	923	931	942	rBV	64406	129339	1.59%	0.602%
8	11.983	1009	1013	1018	rVV	69484	127862	1.57%	0.595%
9	12.418	1049	1056	1062	rBV	80641	163579	2.01%	0.761%
10	12.621	1068	1076	1079	rVV2	48401	118869	1.46%	0.553%
11	13.299	1135	1143	1146	rVV	954799	2038135	25.09%	9.484%
12	13.360	1146	1149	1161	rVB	4713058	8122789	100.00%	37.797%
13	14.484	1253	1260	1267	rVB	39667	84301	1.04%	0.392%

Sum of corrected areas: 21490298

File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 19:31 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-113,4833-024,M,0.004g,16.9
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,10
Vial Number: 16
Quant File :JME0722.RES (RTE Integrator)



1583

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D Vial: 16
Acq On : 23 Jul 2001 19:31 Operator: XINGFANG WANG
Sample : S-113,4833-024,M,0.004g,16.9 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

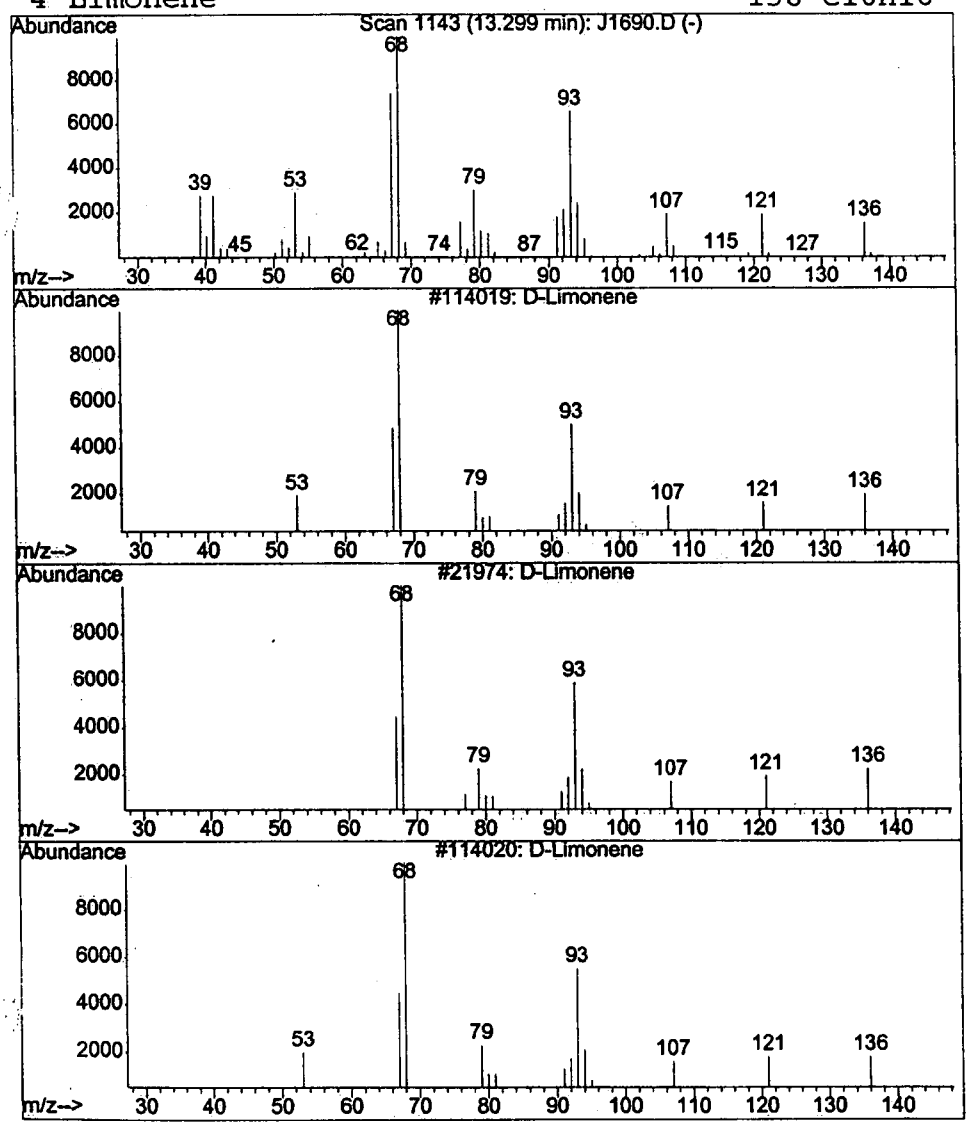
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

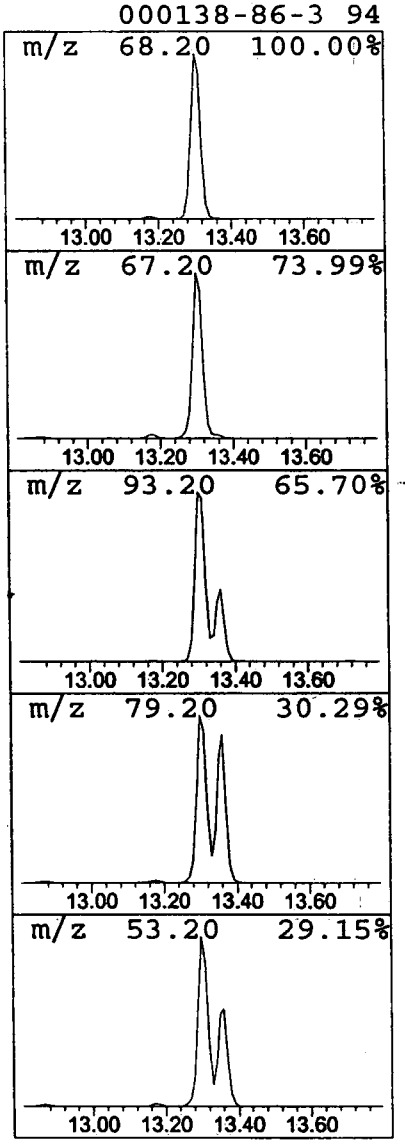
****

Peak Number 1 Unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	58.10 UG	2038140	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	95
3	D-Limonene	136	C10H16	005989-27-5	94
4	Limonene	136	C10H16	000138-86-3	94





1584

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1690.D
Acq On : 23 Jul 2001 19:31
Sample : S-113,4833-024,M,0.004g,16.9
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,10
MS Integration Params: LSCINT.P

Vial: 16
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

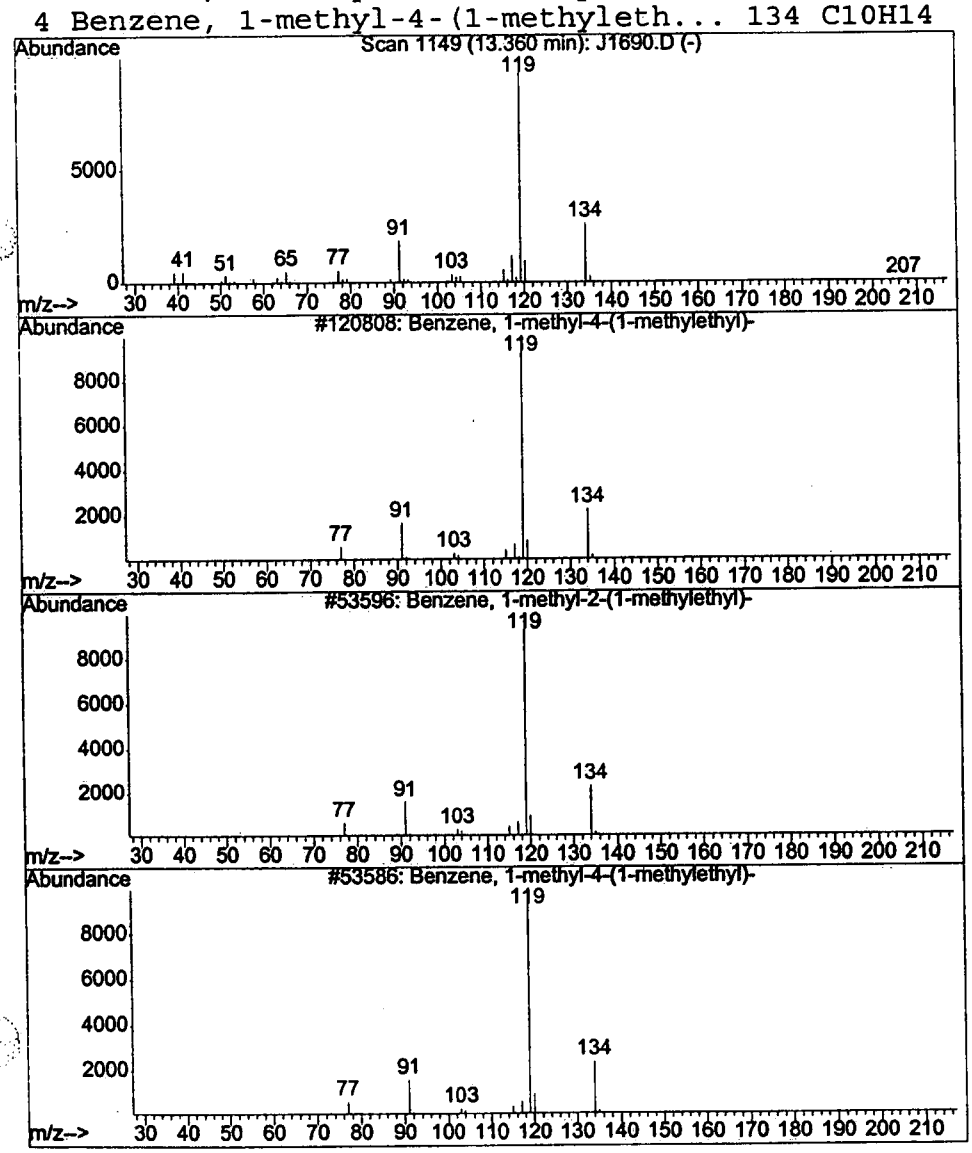
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

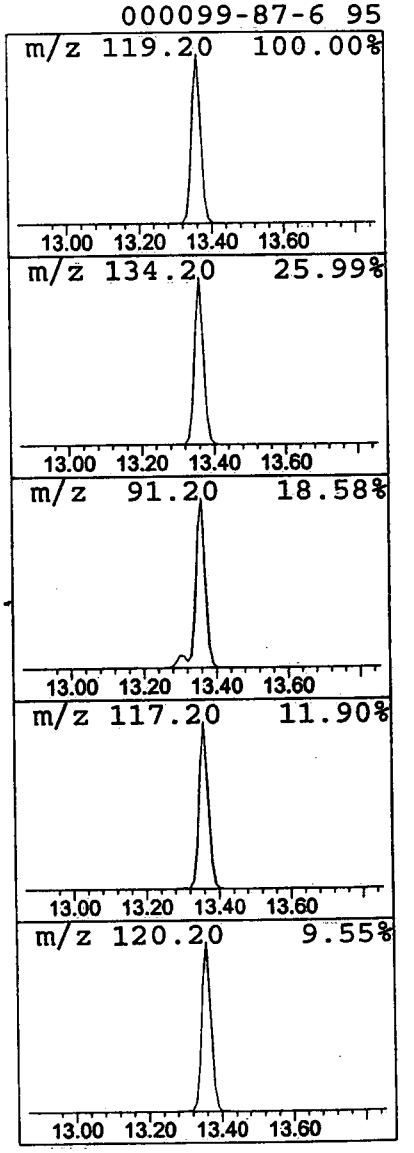
****

Peak Number 2 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	231.53 UG	8122790	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	97
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	97
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95





1585

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:32 2001

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.65	168	2188913	50.00	UG	0.00
31) 1,4-Difluorobenzene	10.88	114	2087452	50.00	UG	0.00
50) Chlorobenzene-d5	15.83	117	1550583	50.00	UG	0.03
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.14	65	765706	39.02	UG	-0.01
Spiked Amount 50.000	Range 36 - 115		Recovery = 78.04%			
41) Toluene-d8	13.34	98	1401328	40.82	UG	0.01
Spiked Amount 50.000	Range 35 - 117		Recovery = 81.64%			
59) Bromofluorobenzene	17.90	95	1204834	38.55	UG	0.03
Spiked Amount 50.000	Range 47 - 115		Recovery = 77.10%			
Target Compounds						Qvalue
32) Benzene	10.26	78	540843	18.90	UG	99
42) Toluene	13.46	92	1118681	56.25	UG	100
53) Ethylbenzene	16.06	91	135352	3.55	UG	99
54) m,p-Xylene	16.26	106	106555	7.28	UG	99
55) o-Xylene	16.97	106	35191	2.42	UG	98
72) 1,4-Dichlorobenzene	20.07	146	226335	9.26	UG #	86
74) 1,2-Dichlorobenzene	20.76	146	1919249	86.98	UG	100

> 9.7

(#) = qualifier out of range (m) = manual integration

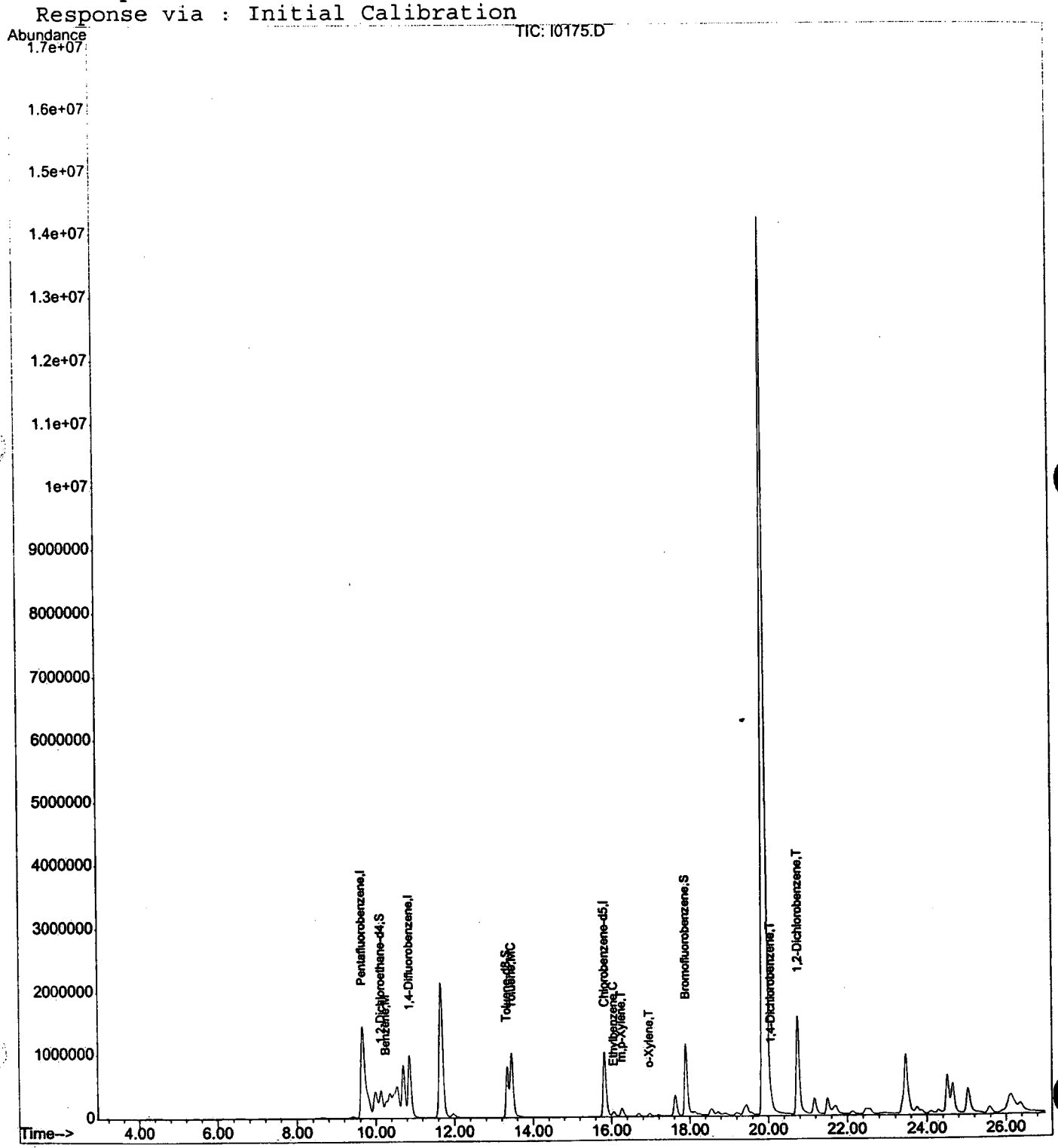
Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 22 14:32 2001

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1587

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

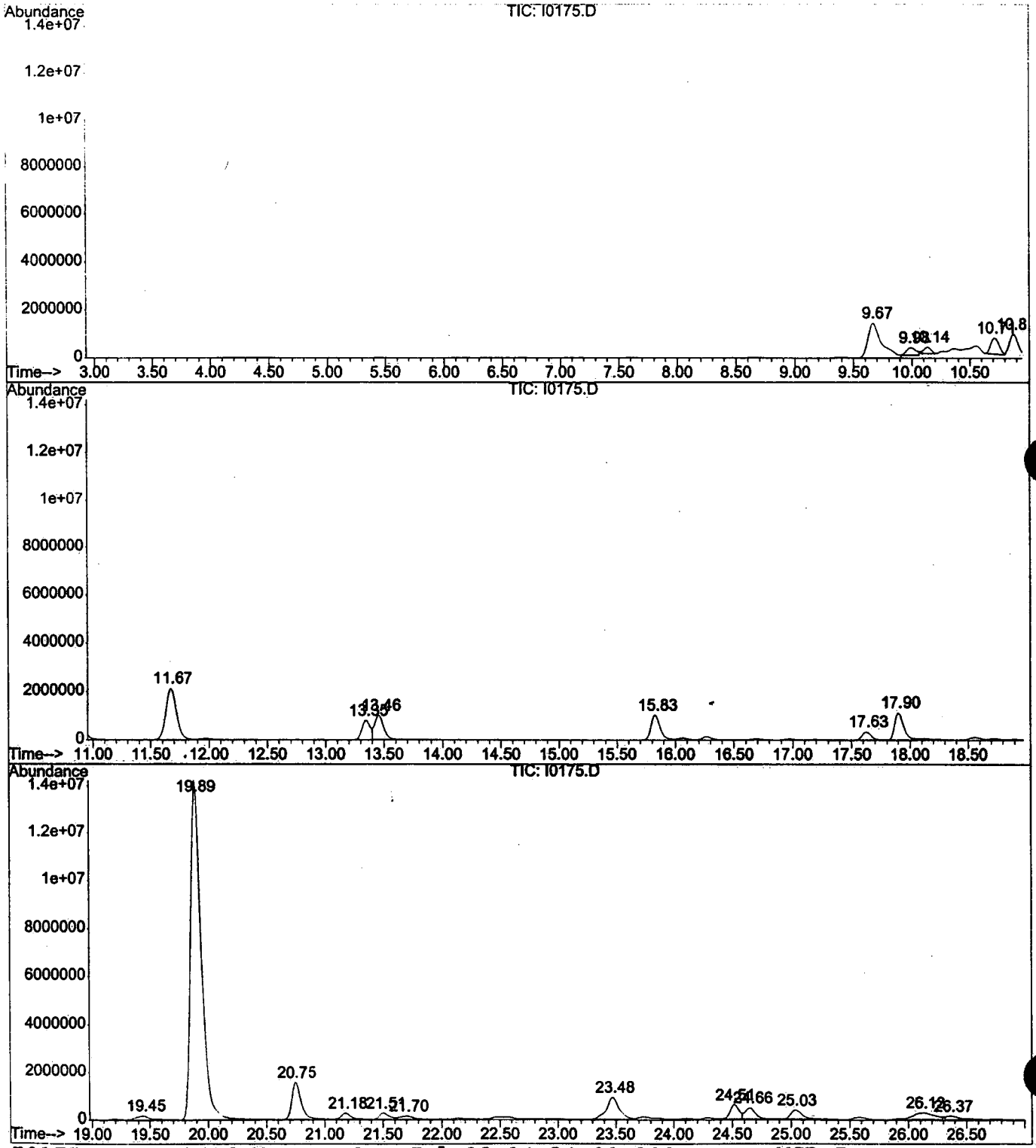
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.667	435	444	460	rBV4	1452785	12132711	13.55%	6.562%
2	9.984	460	465	470	rBV	313306	1856322	2.07%	1.004%
3	10.137	471	475	480	rVB	268325	1127479	1.26%	0.610%
4	10.711	508	513	519	rBV	656088	3269379	3.65%	1.768%
5	10.878	519	524	548	rVB	988205	5762486	6.44%	3.117%
6	11.672	565	576	590	rBV	2147815	13686379	15.29%	7.402%
7	13.352	677	685	688	rBV	805504	4207175	4.70%	2.275%
8	13.460	688	692	702	rVB	998554	5210186	5.82%	2.818%
9	15.832	837	846	857	rBV	1027961	5618381	6.28%	3.039%
10	17.627	956	963	974	rVB	339405	1813127	2.03%	0.981%
11	17.902	974	981	992	rBV	1136329	6142437	6.86%	3.322%
12	19.449	1073	1083	1089	rBV4	164773	1217057	1.36%	0.658%
13	19.889	1103	1112	1140	rBV2	14216836	89519877	100.00%	48.416%
14	20.745	1162	1169	1191	rBV	1557432	8750176	9.77%	4.732%
15	21.180	1191	1198	1213	rVB	261649	1473244	1.65%	0.797%
16	21.509	1213	1220	1226	rBV	258540	1460843	1.63%	0.790%
17	21.703	1227	1233	1248	rVB3	134564	1019013	1.14%	0.551%
18	23.477	1336	1350	1362	rBV4	942042	7238851	8.09%	3.915%
19	24.509	1413	1419	1424	rVV	599948	3279366	3.66%	1.774%
20	24.658	1424	1429	1446	rVB	476822	2853177	3.19%	1.543%
21	25.033	1446	1454	1469	rBV3	392962	2632631	2.94%	1.424%
22	26.131	1514	1527	1538	rVV2	284037	3586004	4.01%	1.939%
23	26.370	1539	1543	1558	rVB6	137866	1042845	1.16%	0.564%

Sum of corrected areas: 184899146

I0175.D IME0716.M Sun Jul 22 14:33:59 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Operator : DP
Acquired : 18 Jul 2001 14:06 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-114A,4833-025,M,0.038g
Misc Info : ENVTACT/ORBIS,07/13/01,07/16/01
Vial Number: 38
Quant File :IME0716.RES (RTE Integrator)



I0175.D IME0716.M Sun Jul 22 14:34:00 2001 MSD_I

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

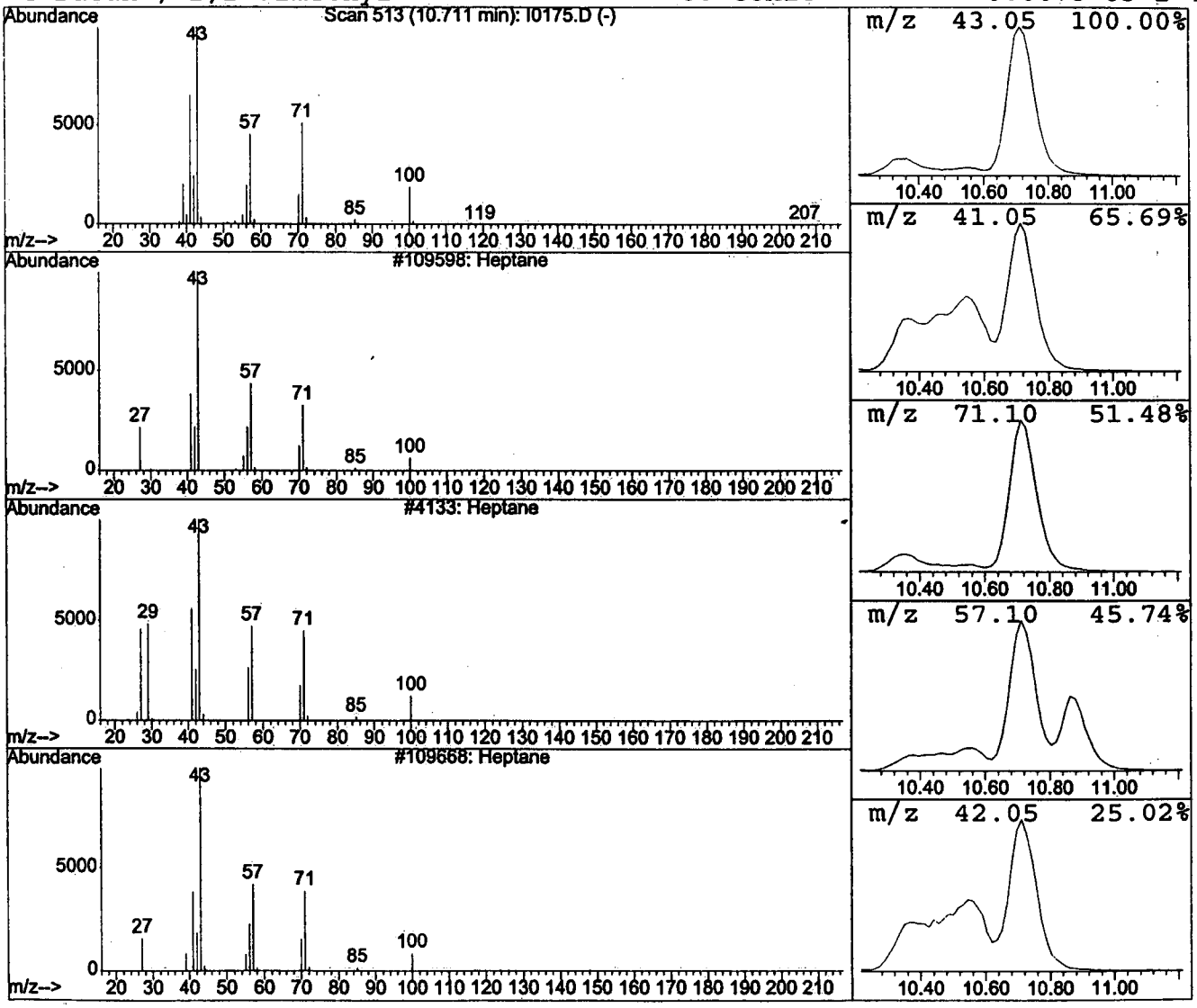
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.71	28.37 UG	3269380	1,4-Difluorobenzene	10.88

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	59
2	Heptane	100	C7H16	000142-82-5	53
3	Heptane	100	C7H16	000142-82-5	50
4	Butane, 2,2-dimethyl-	86	C6H14	000075-83-2	47



1590

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

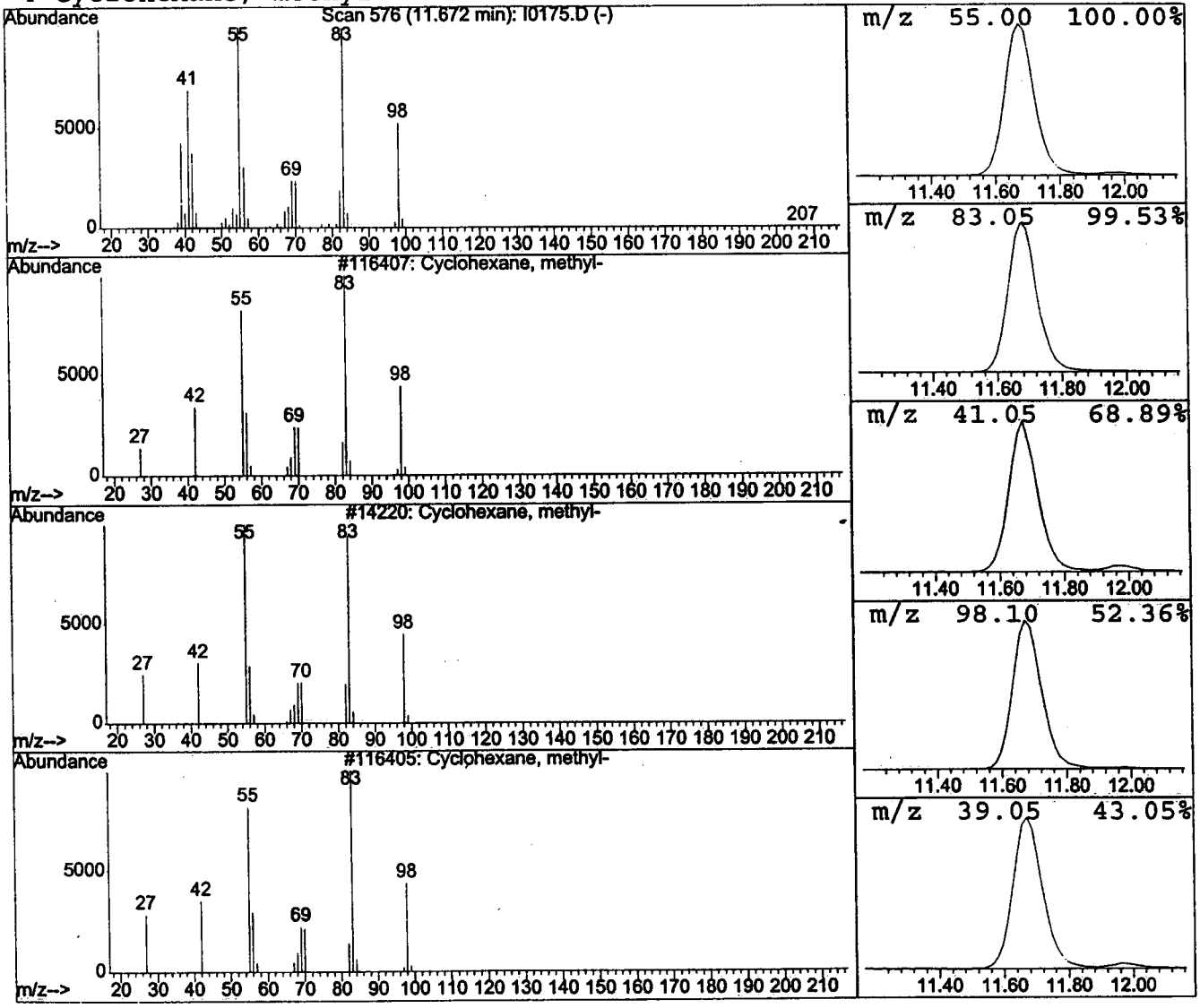
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.67	118.75 UG	13686400	1,4-Difluorobenzene	10.88

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	93



1591

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

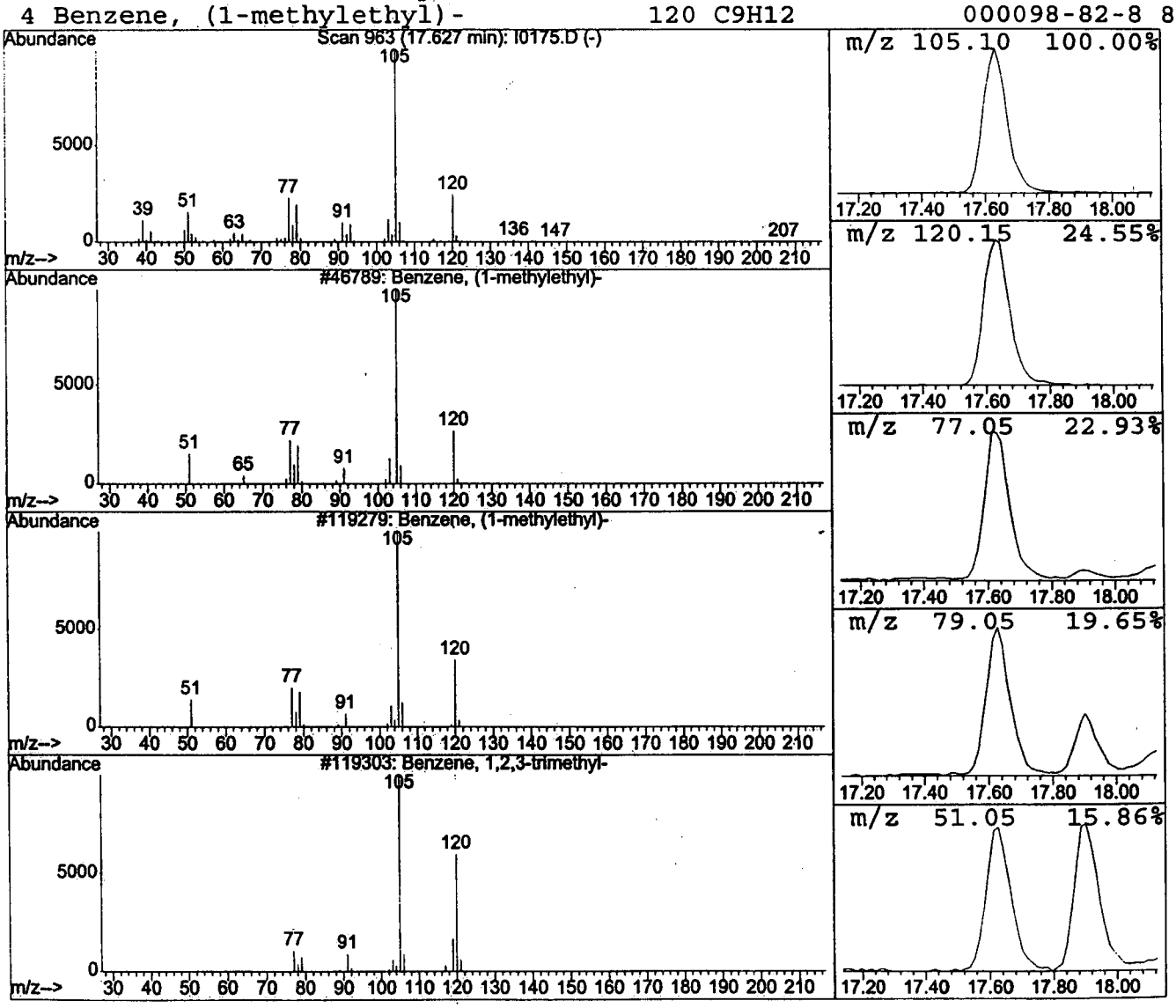
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Substituted benzene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.63	16.14 UG	1813130	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	95
2	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	93
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	90
4	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	87



1592

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

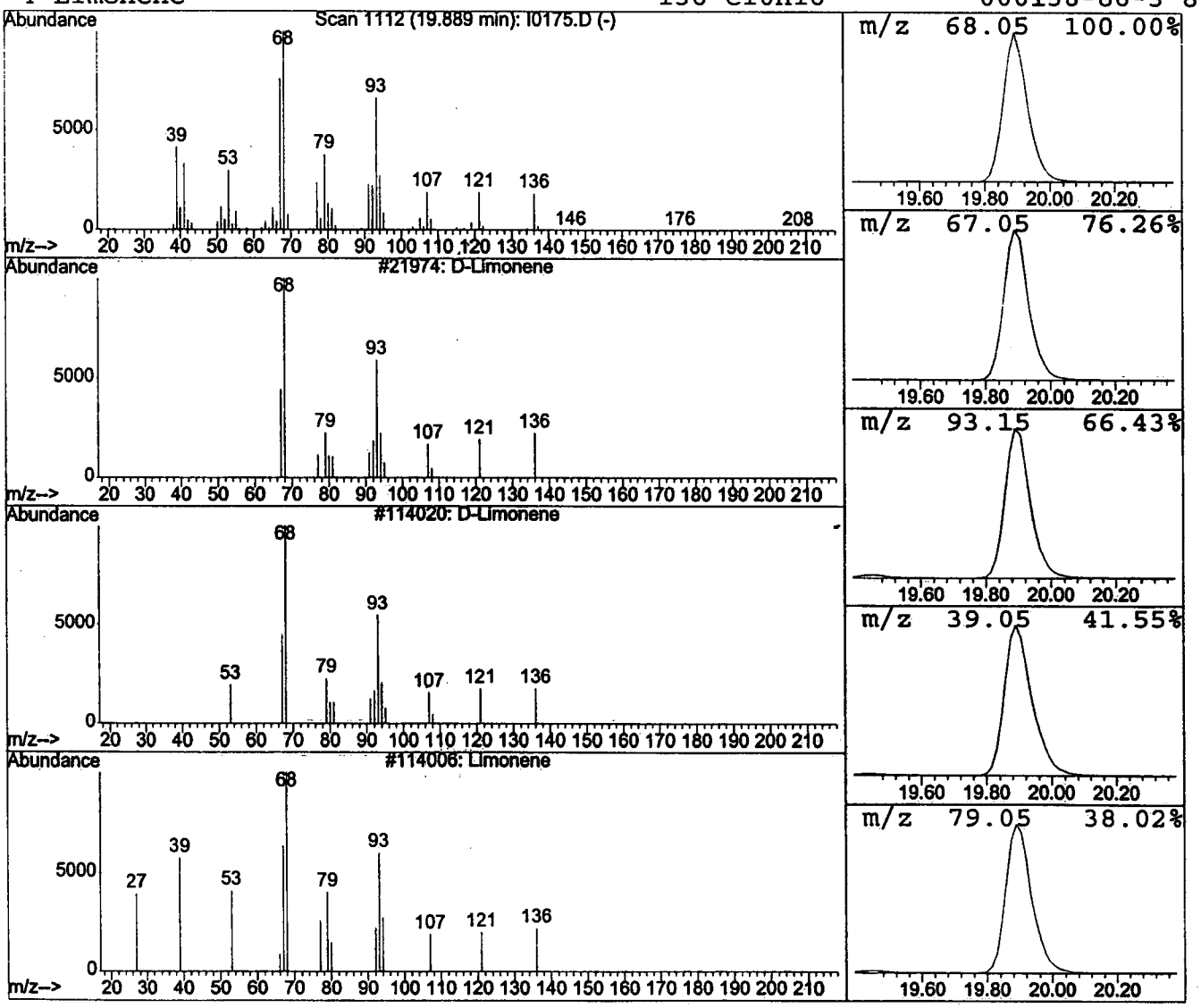
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.89	796.67 UG	89519900	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	D-Limonene	136	C10H16	005989-27-5	94
3	Limonene	136	C10H16	000138-86-3	94
4	Limonene	136	C10H16	000138-86-3	89



1393

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

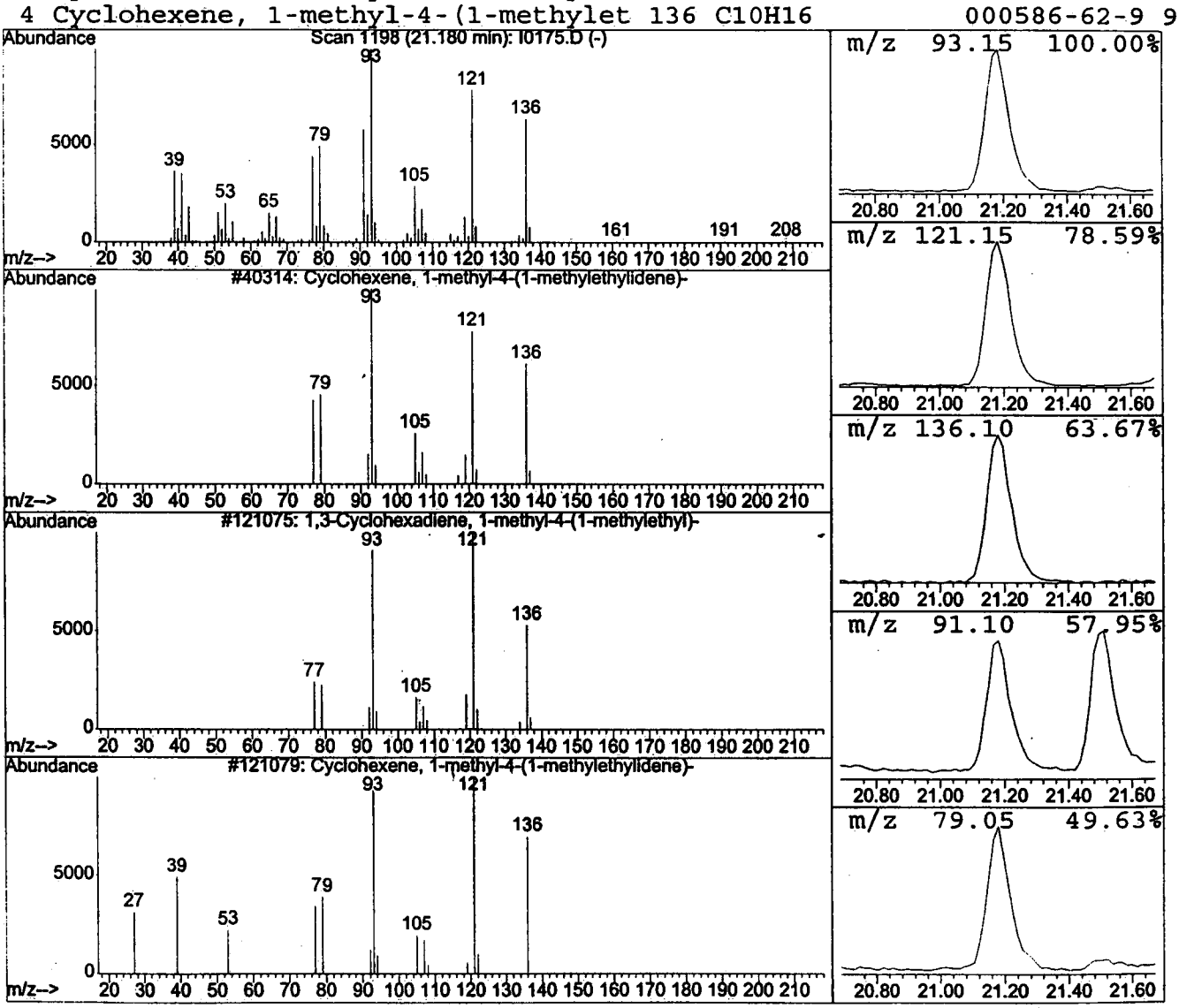
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.18	13.11 UG	1473240	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	98
2	1,3-Cyclohexadiene, 1-methyl-4-(1-m	136	C10H16	000099-86-5	97
3	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	95
4	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	95



1594

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

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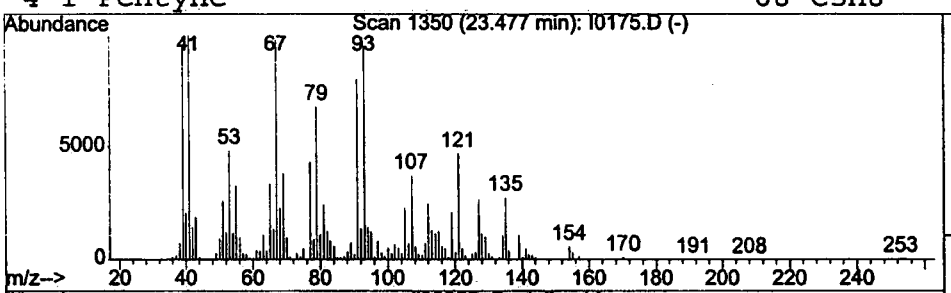
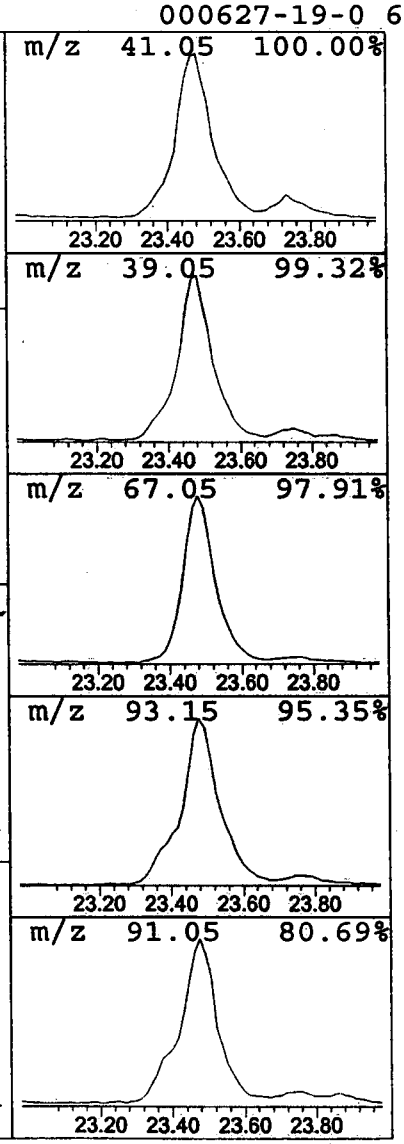
Peak Number 6 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.48	64.42 UG	7238850	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Santolina triene	136	C10H16	002153-66-4	83
2	Spiro { 6,6-dimethyl-2,3-diazobicyc	136	C8H12N2	1000222-13-0	68
3	Spiropentane	68	C5H8	000157-40-4	64
4	1-Pentyne	68	C5H8	000627-19-0	64





1595

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D Vial: 38
Acq On : 18 Jul 2001 14:06 Operator: DP
Sample : S-114A,4833-025,M,0.038g Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

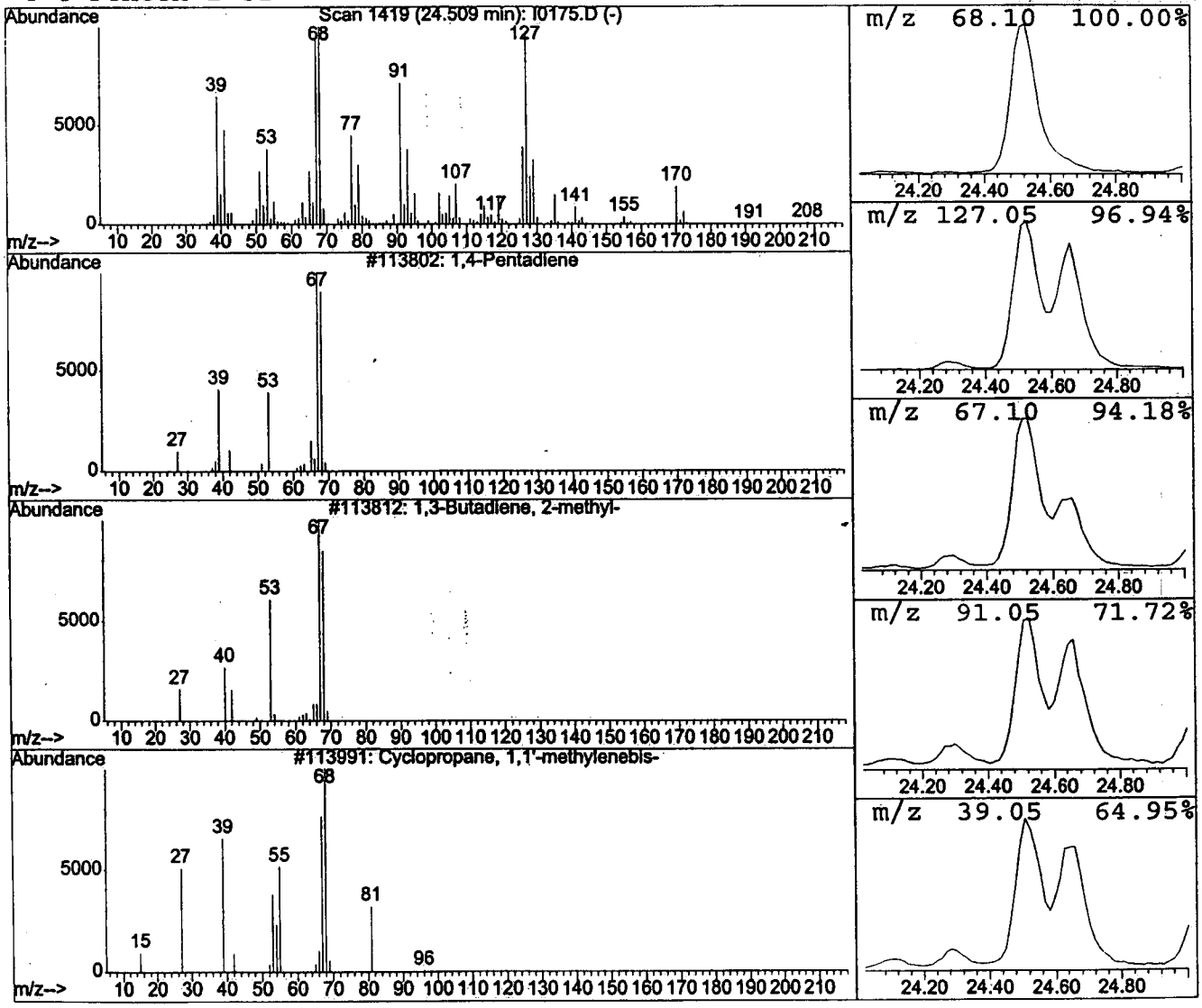
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Unknown Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.51	29.18 UG	3279370	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Pentadiene	68	C5H8	000591-93-5	46
2	1,3-Butadiene, 2-methyl-	68	C5H8	000078-79-5	43
3	Cyclopropane, 1,1'-methylenebis-	96	C7H12	005685-47-2	43
4	4-Penten-1-ol	86	C5H10O	000821-09-0	43



1596

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

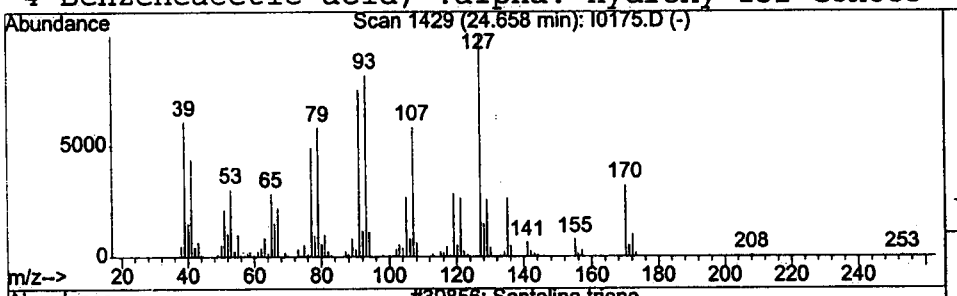
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

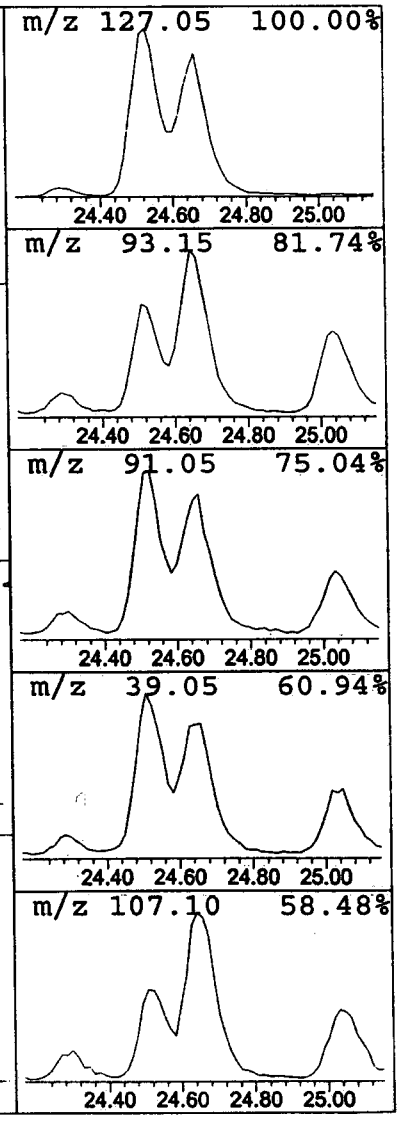
****

Peak Number 8 Unknown — Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.66	25.39 UG	2853180	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Santolina triene	136	C10H16	002153-66-4	38
2	Pyridine, 2-butyl-	135	C9H13N	005058-19-5	35
3	1-Nonen-3-yne	122	C9H14	057223-18-4	18
4	Benzeneacetic acid, .alpha.-hydroxy	152	C8H8O3	000611-72-3	18





1597

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

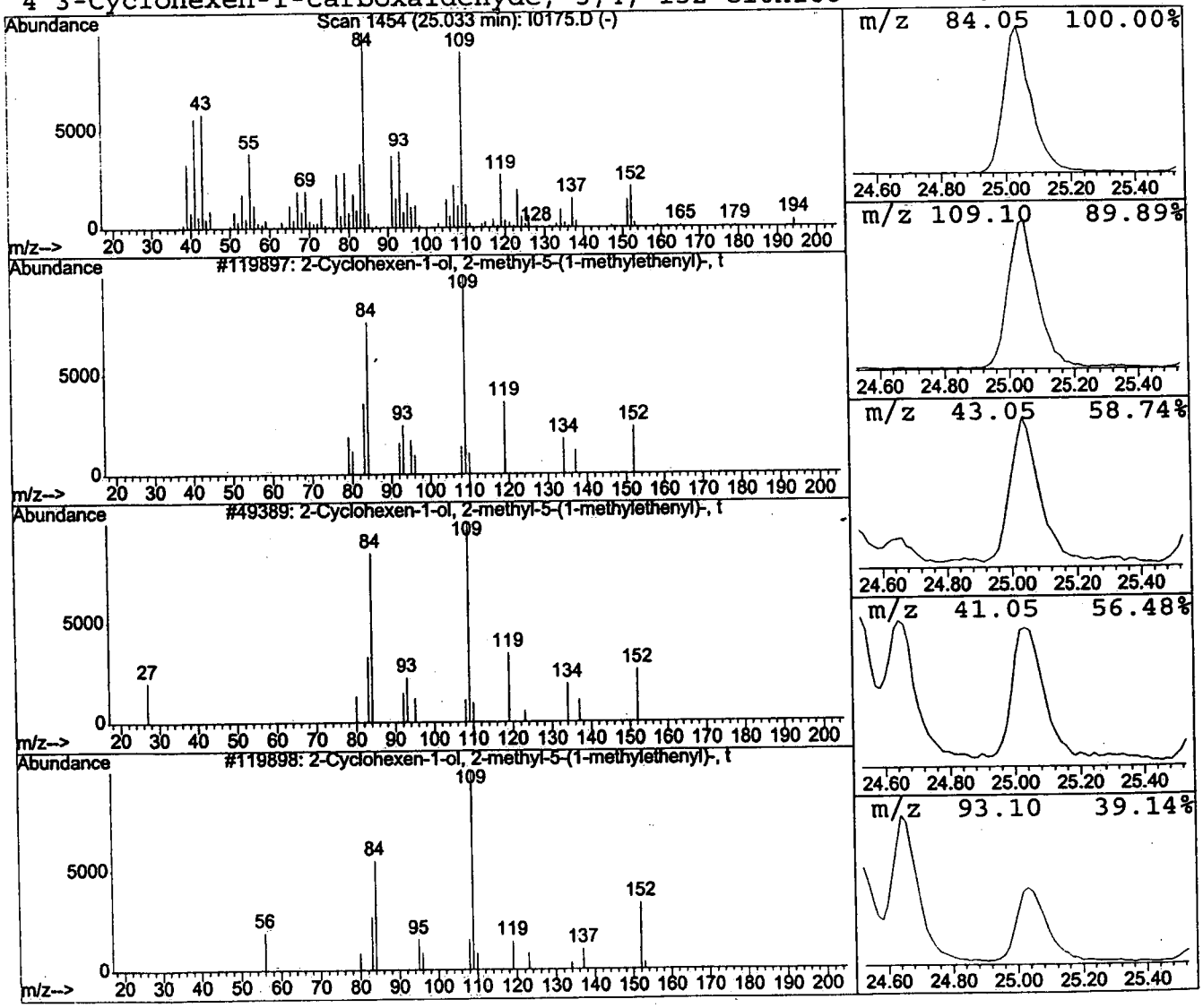
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 9 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.03	23.43 UG	2632630	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	64
2	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	49
3	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	38
4	3-Cyclohexen-1-carboxaldehyde, 3,4,	152	C10H16O	1000131-99-6	38



1598

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0175.D
Acq On : 18 Jul 2001 14:06
Sample : S-114A,4833-025,M,0.038g
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 38
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

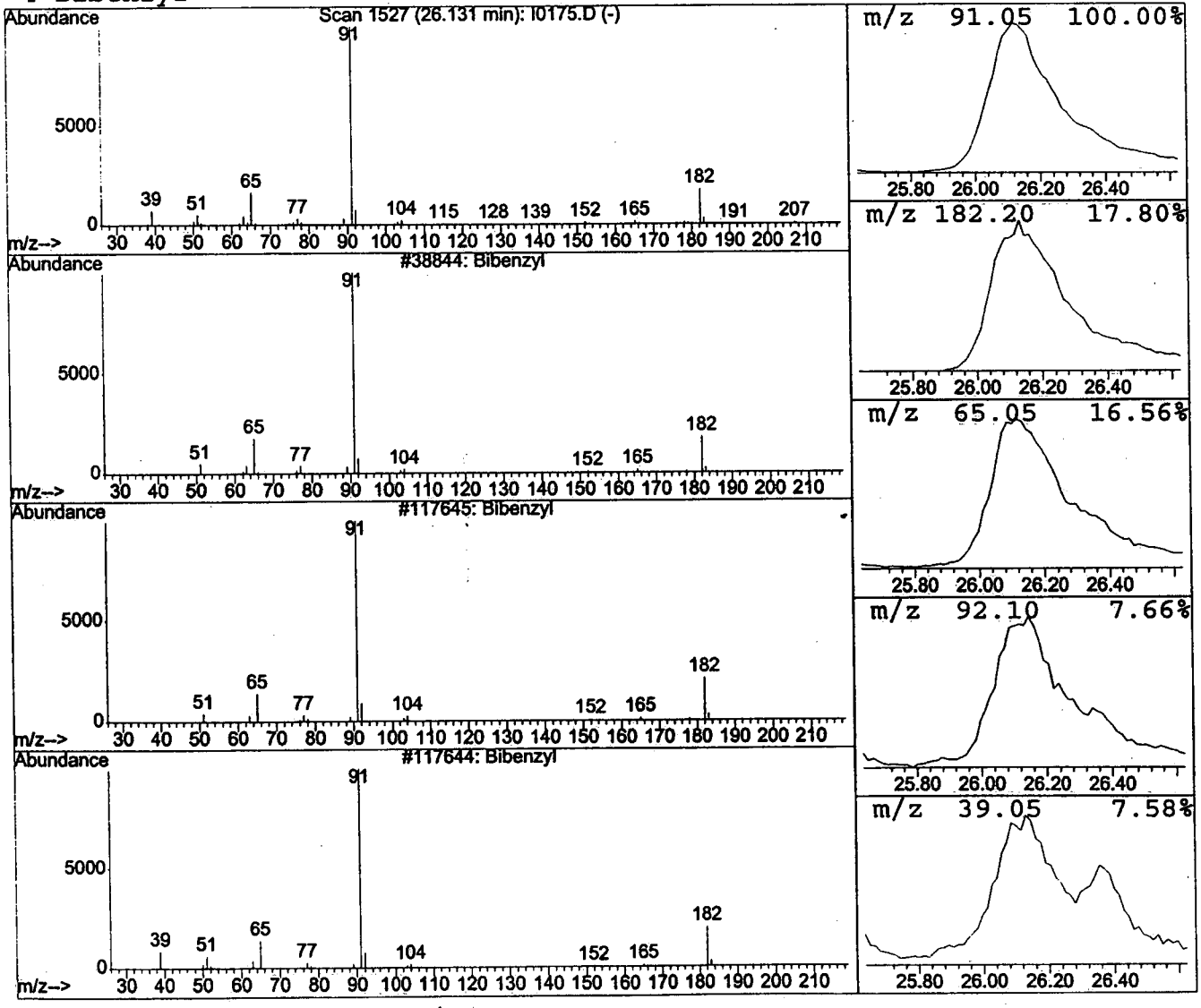
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 10 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.13	31.91 UG	3586000	Chlorobenzene-d5	15.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	97
2	Bibenzyl	182	C14H14	000103-29-7	97
3	Bibenzyl	182	C14H14	000103-29-7	93
4	Bibenzyl	182	C14H14	000103-29-7	91



1599

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WANG
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 20:18:46 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

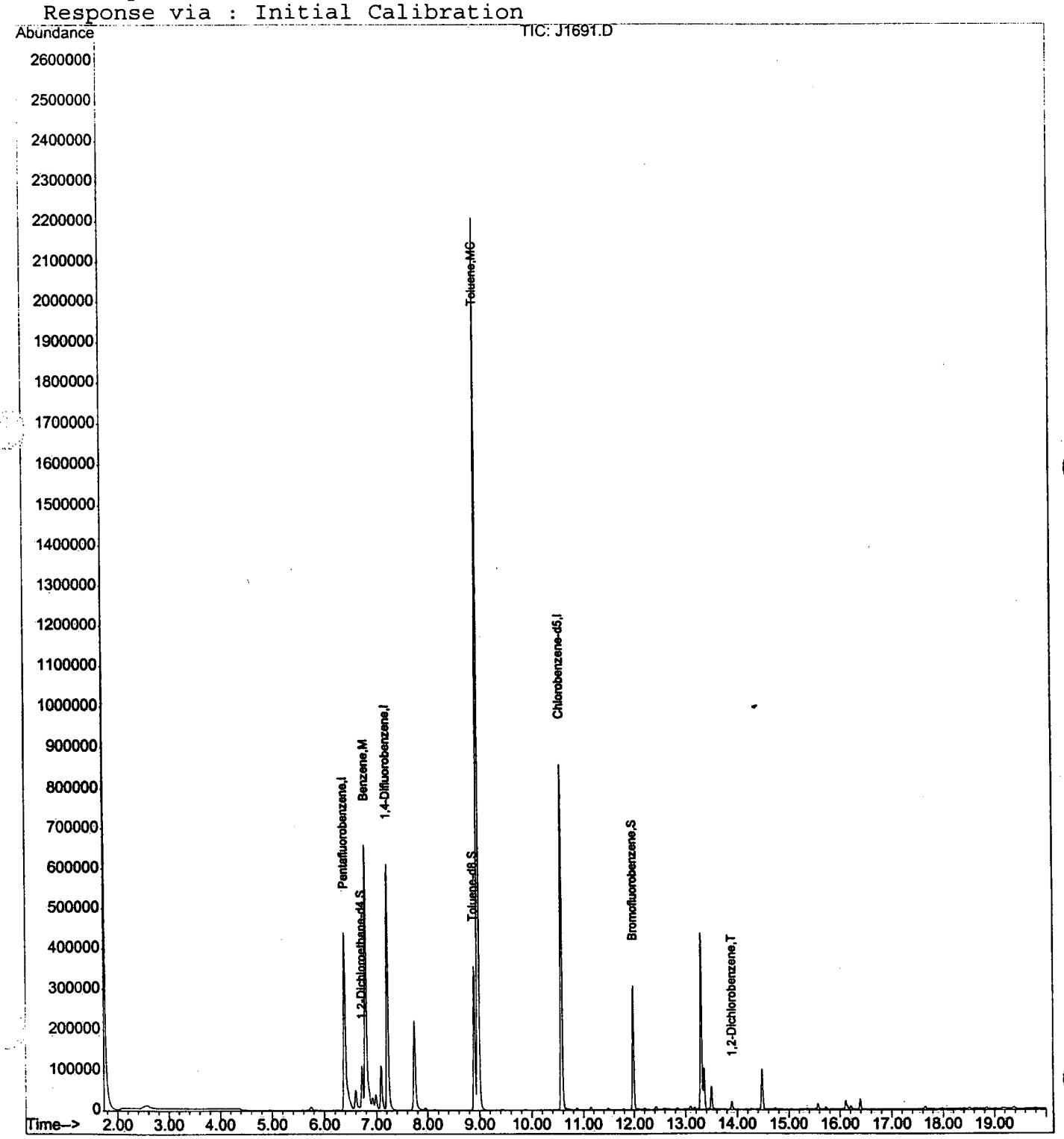
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.39	168	344546	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.22	114	593102	50.00	UG		0.00
50) Chlorobenzene-d5	10.58	117	567892	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	76000	28.34	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 56.68%				
41) Toluene-d8	8.89	98	270595	22.90	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 45.80%				
59) Bromofluorobenzene	11.98	95	131257	18.61	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 37.22%				
Target Compounds							Qvalue
32) Benzene	6.80	78	666913	44.26	UG		100
42) Toluene	8.98	92	1084075	116.88	UG		100
74) 1,2-Dichlorobenzene	13.90	146	9740	1.25	UG	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WAN
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:34 2001 Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1601

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D
Acq On : 23 Jul 2001 19:58
Sample : S-114B,4833-026,M,0.015g,12.7
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2
MS Integration Params: LSCINT.P

Vial: 17
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

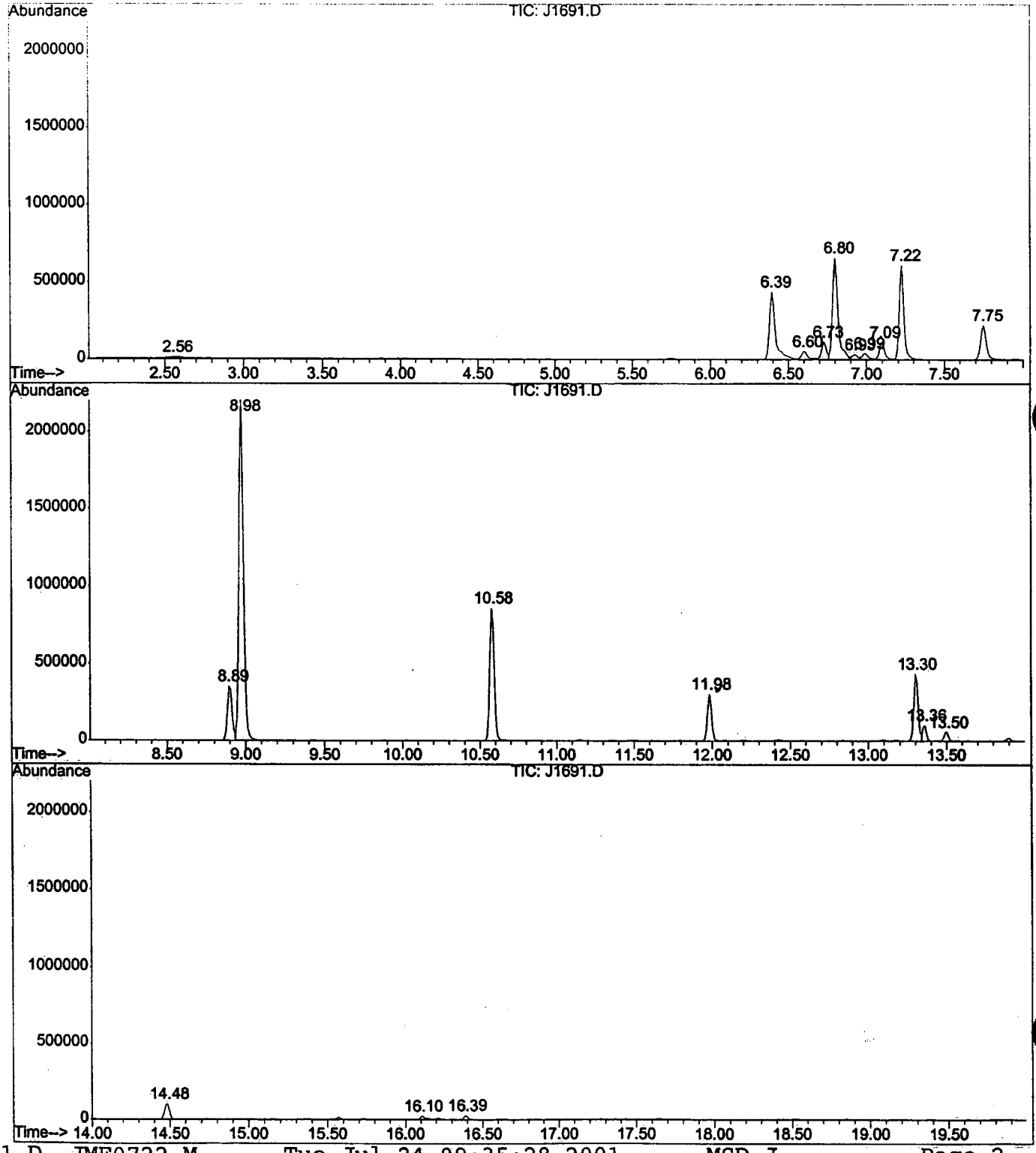
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.555	71	82	101	rBV4	7875	71348	1.62%	0.491%
2	6.393	455	461	477	rBV	437567	1177067	26.74%	8.102%
3	6.596	477	481	489	rVV	50931	152335	3.46%	1.048%
4	6.727	489	494	497	rVV	112712	257751	5.85%	1.774%
5	6.798	497	501	510	rVV	657912	1609607	36.56%	11.079%
6	6.930	511	514	517	rVV	30948	80866	1.84%	0.557%
7	6.990	517	520	526	rVV	39846	106828	2.43%	0.735%
8	7.092	526	530	538	rVV	111171	276918	6.29%	1.906%
9	7.223	538	543	563	rVB	609923	1346529	30.59%	9.268%
10	7.750	586	595	611	rBV	221067	572317	13.00%	3.939%
11	8.894	701	708	712	rBV	354232	759462	17.25%	5.227%
12	8.975	712	716	739	rVB	2208308	4402389	100.00%	30.301%
13	10.575	867	874	887	rBV	857249	1703886	38.70%	11.728%
14	11.983	1002	1013	1020	rBV	305678	572844	13.01%	3.943%
15	13.299	1137	1143	1147	rBV	436075	846901	19.24%	5.829%
16	13.360	1147	1149	1154	rVB	103892	163021	3.70%	1.122%
17	13.502	1159	1163	1171	rVB	59154	111757	2.54%	0.769%
18	14.484	1253	1260	1268	rBV	102511	217228	4.93%	1.495%
19	16.104	1417	1420	1427	rVB3	22096	52693	1.20%	0.363%
20	16.388	1443	1448	1453	rVB	26549	47173	1.07%	0.325%

Sum of corrected areas: 14528920

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 19:58 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-114B,4833-026,M,0.015g,12.7
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,2
Vial Number: 17
Quant File :JME0722.RES (RTE Integrator)



1603

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WANG
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

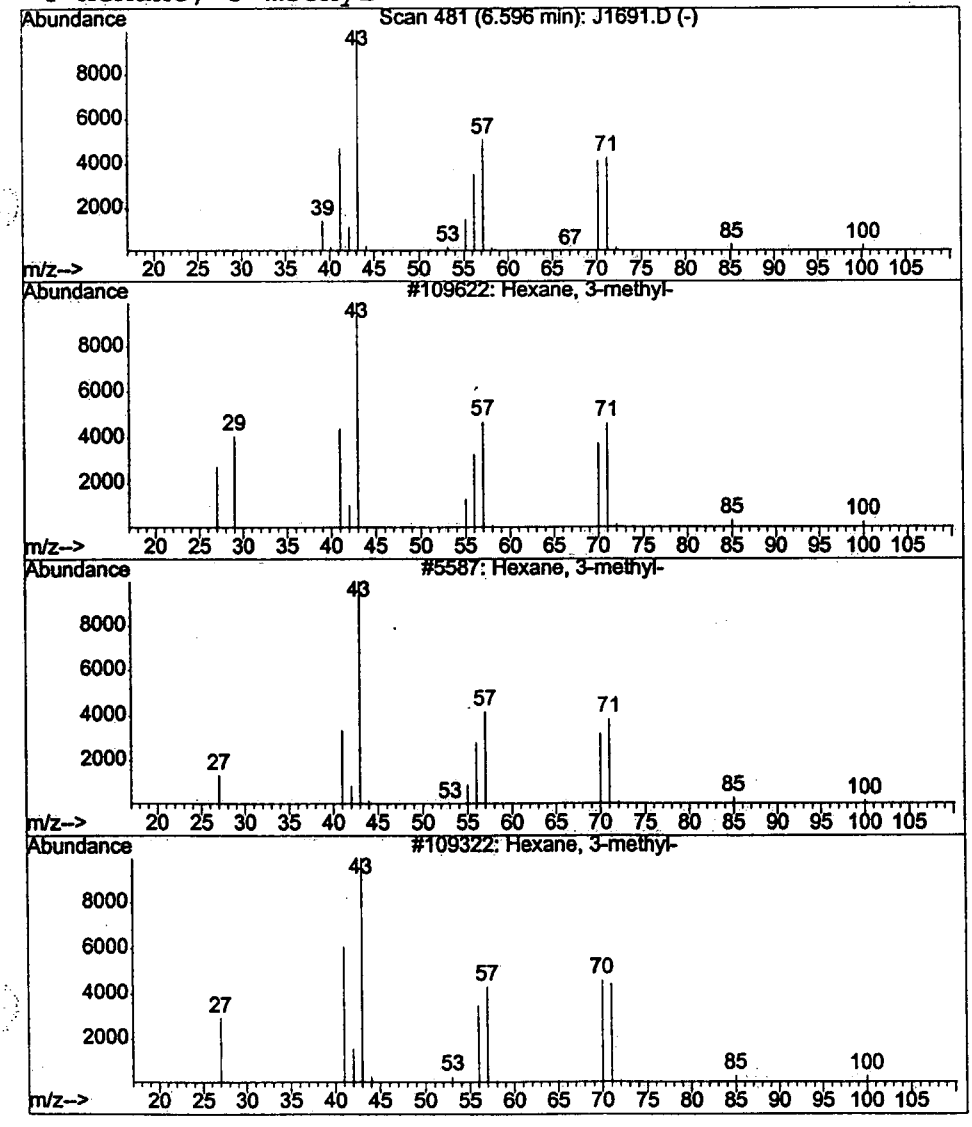
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

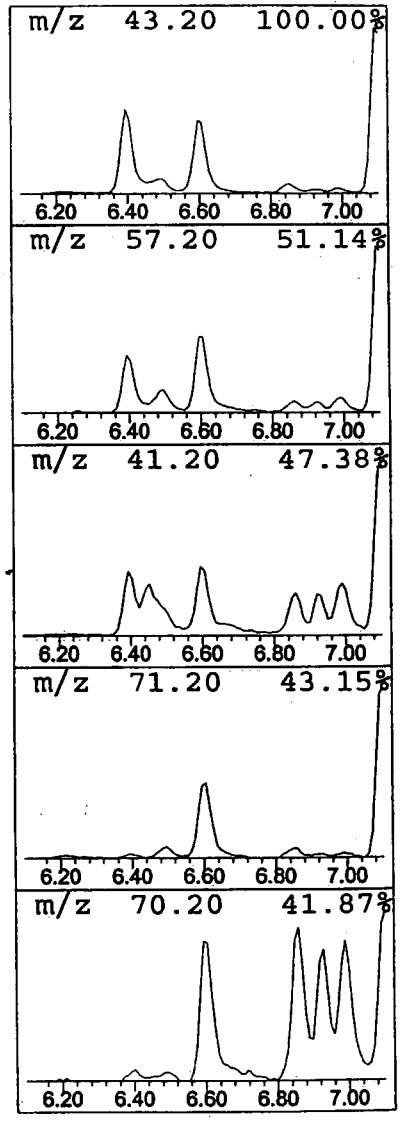
****

Peak Number 1 Unknown alkane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.60	6.47 UG	152335	Pentafluorobenzene	6.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	94
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	91
3	Hexane, 3-methyl-	100	C7H16	000589-34-4	87
4	Hexane, 3-methyl-	100	C7H16	000589-34-4	87





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WANG
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

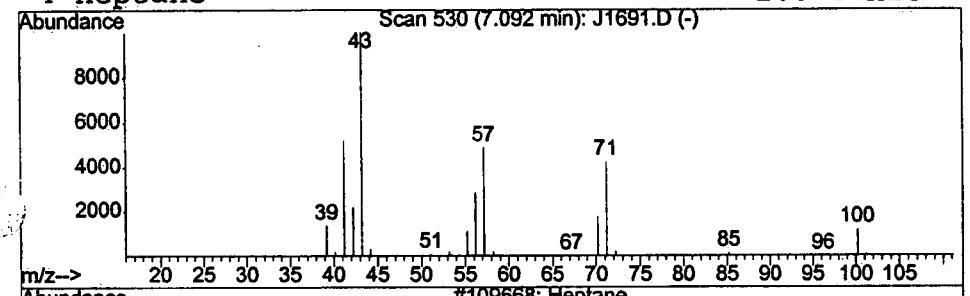
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

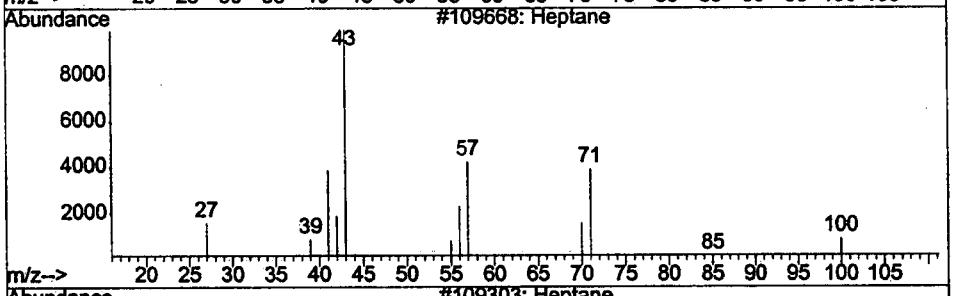
****

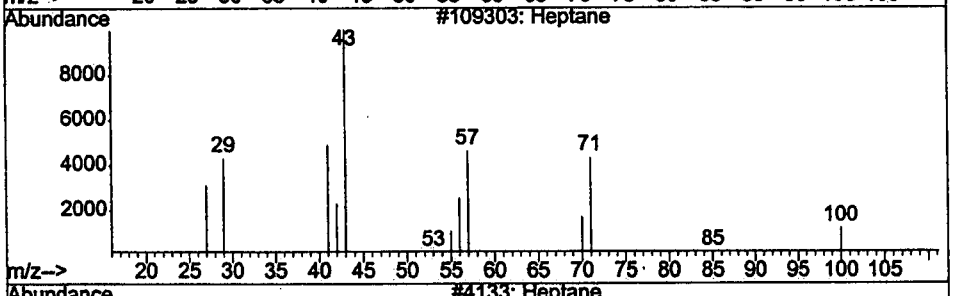
Peak Number 2 Unknown alkane Concentration Rank 3

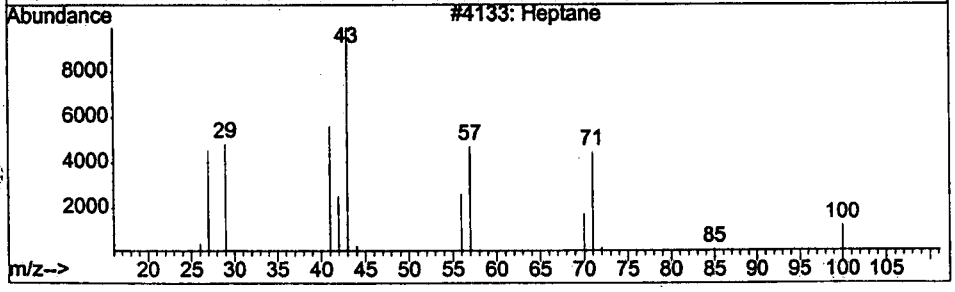
R.T.	EstConc	Area	Relative to ISTD	R.T.
7.09	10.28 UG	276918	1,4-Difluorobenzene	7.22

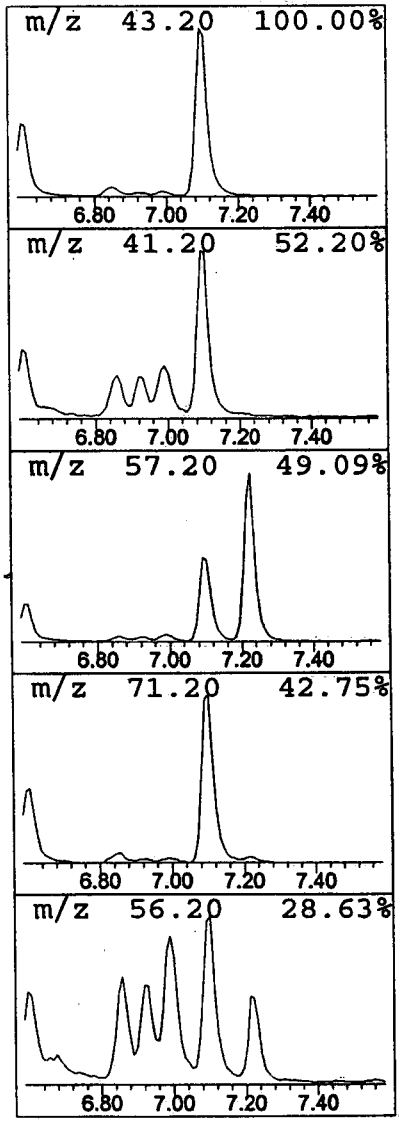
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	95
2	Heptane	100	C7H16	000142-82-5	94
3	Heptane	100	C7H16	000142-82-5	91
4	Heptane	100	C7H16	000142-82-5	91











Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WANG
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

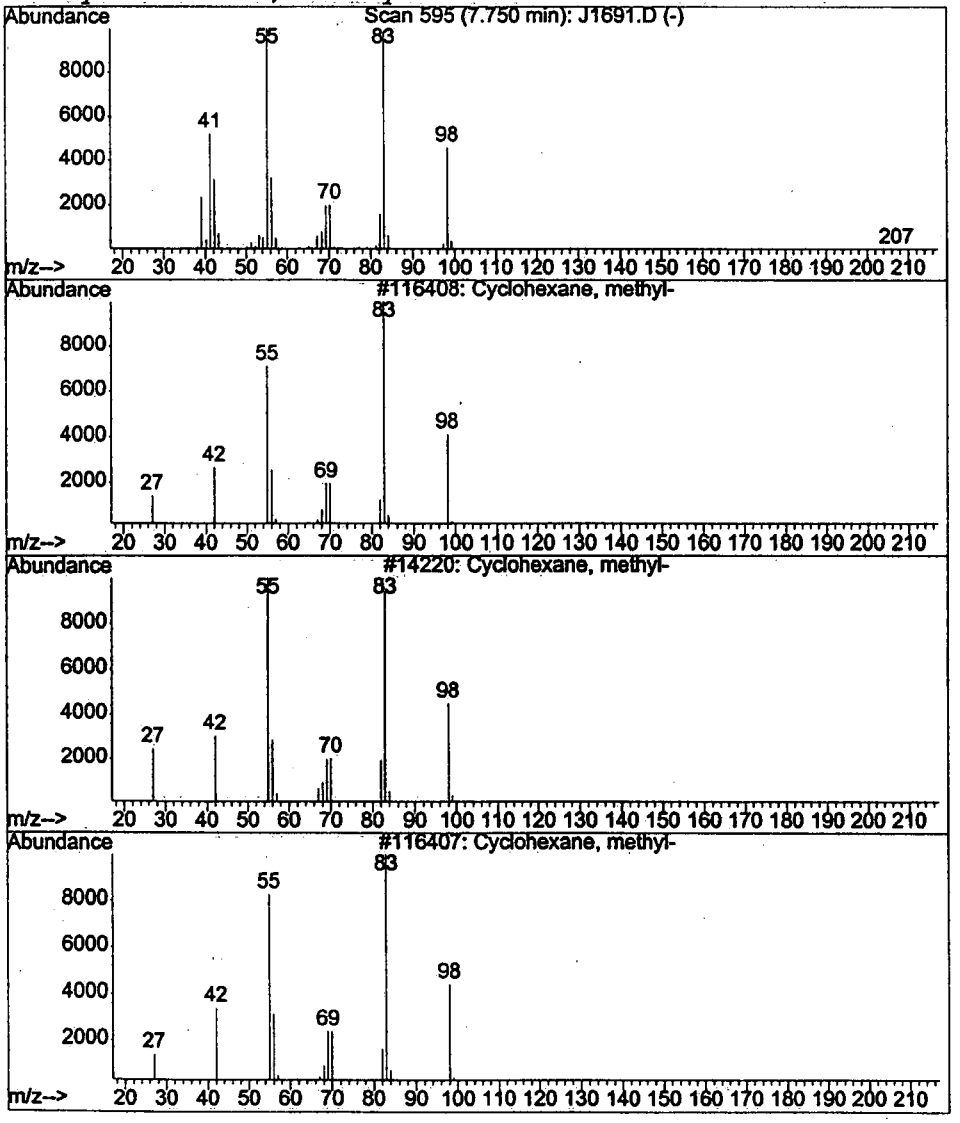
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

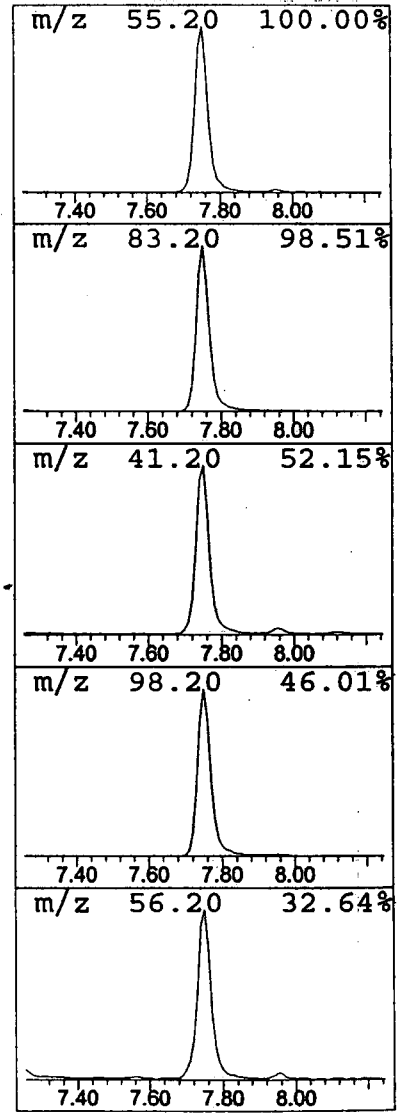
****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	21.25 UG	572317	1,4-Difluorobenzene	7.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	97
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	97
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	96





1606

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1691.D Vial: 17
Acq On : 23 Jul 2001 19:58 Operator: XINGFANG WANG
Sample : S-114B,4833-026,M,0.015g,12.7 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P

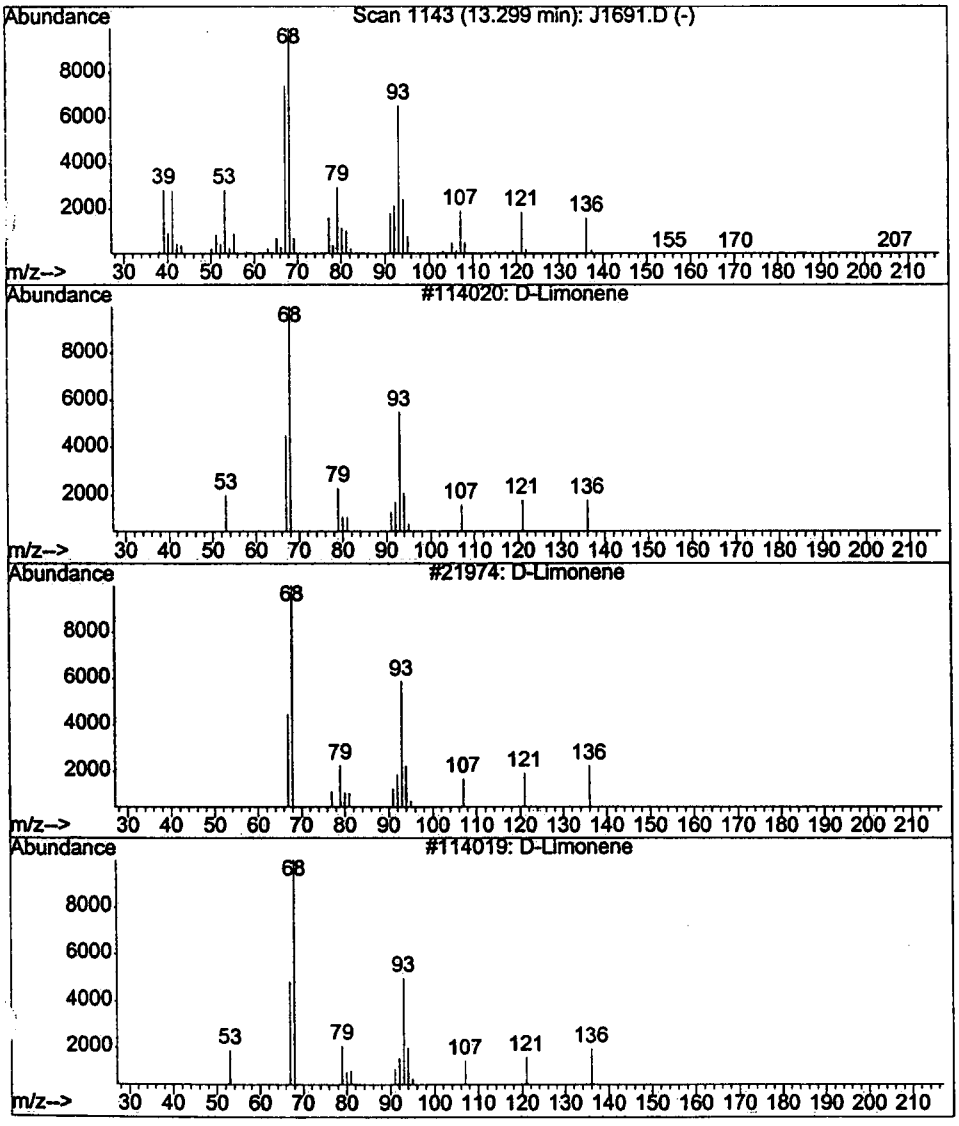
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

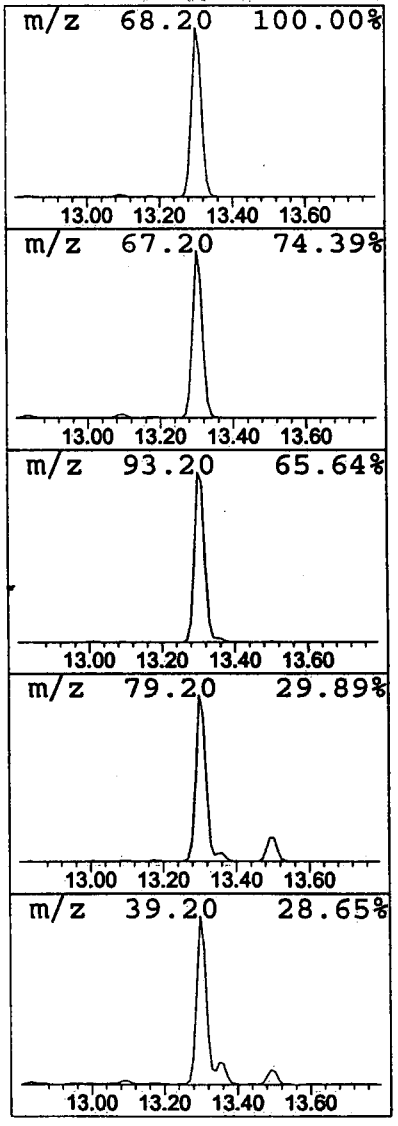
****

Peak Number 4 Unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	24.85 UG	846901	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	95
3	D-Limonene	136	C10H16	005989-27-5	91
4	Limonene	136	C10H16	000138-86-3	91





Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1692.D Vial: 18
Acq On : 23 Jul 2001 20:26 Operator: XINGFANG WANG
Sample : S-115,4833-027,M,0.006g,19.2 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 20:46:21 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

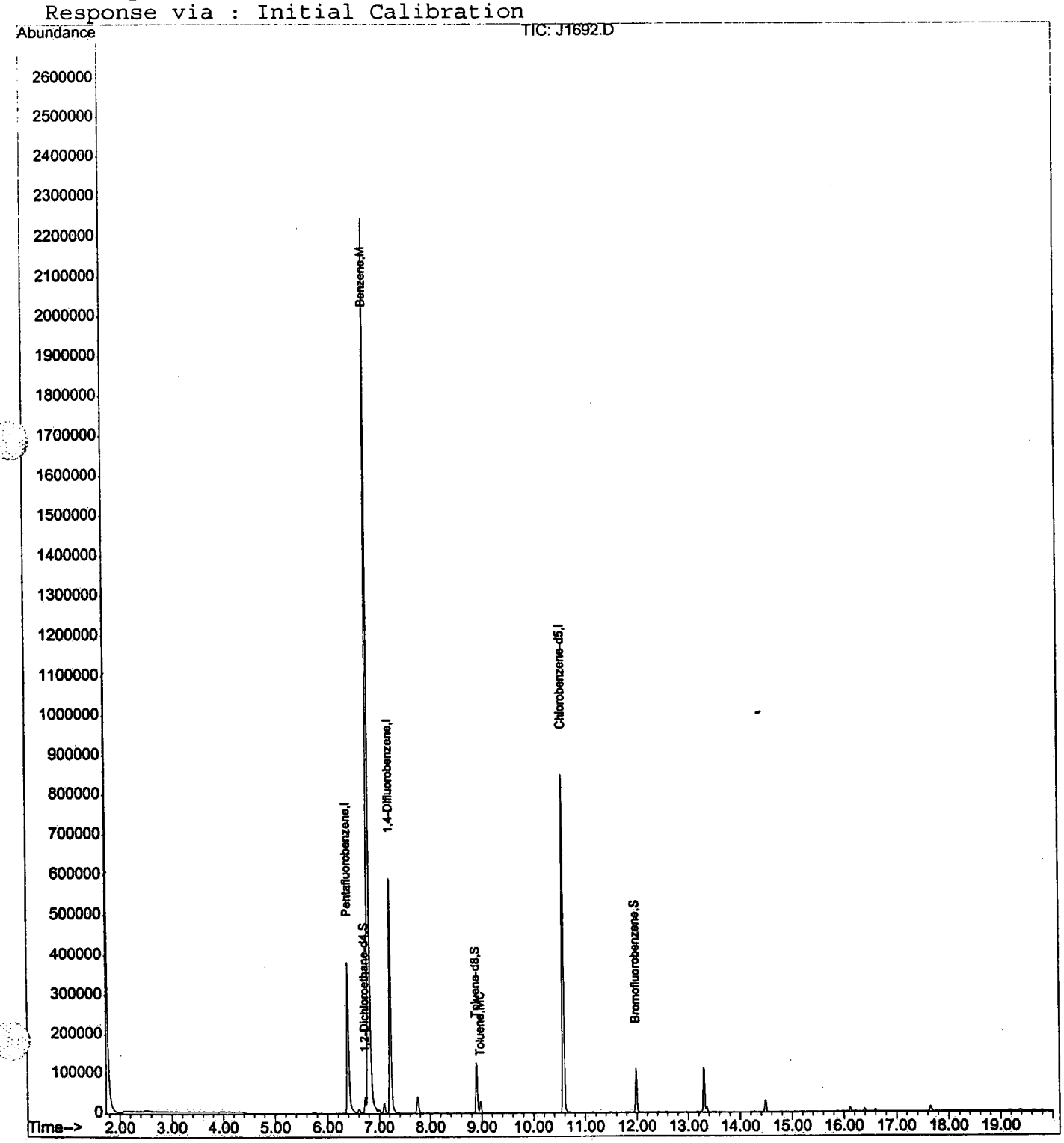
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	330594	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	573306	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	554167	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	28492	11.07	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 22.14%#			
41) Toluene-d8	8.89	98	99700	8.73	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 17.46%#			
59) Bromofluorobenzene	11.98	95	49397	7.18	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 14.36%#			
Target Compounds						Qvalue
32) Benzene	6.80	78	2301372	158.02	UG	100
42) Toluene	8.98	92	14471	1.61	UG	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1692.D Vial: 18
Acq On : 23 Jul 2001 20:26 Operator: XINGFANG WAN
Sample : S-115,4833-027,M,0.006g,19.2 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:36 2001 Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1609

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1692.D
Acq On : 23 Jul 2001 20:26
Sample : S-115,4833-027,M,0.006g,19.2
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 18
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

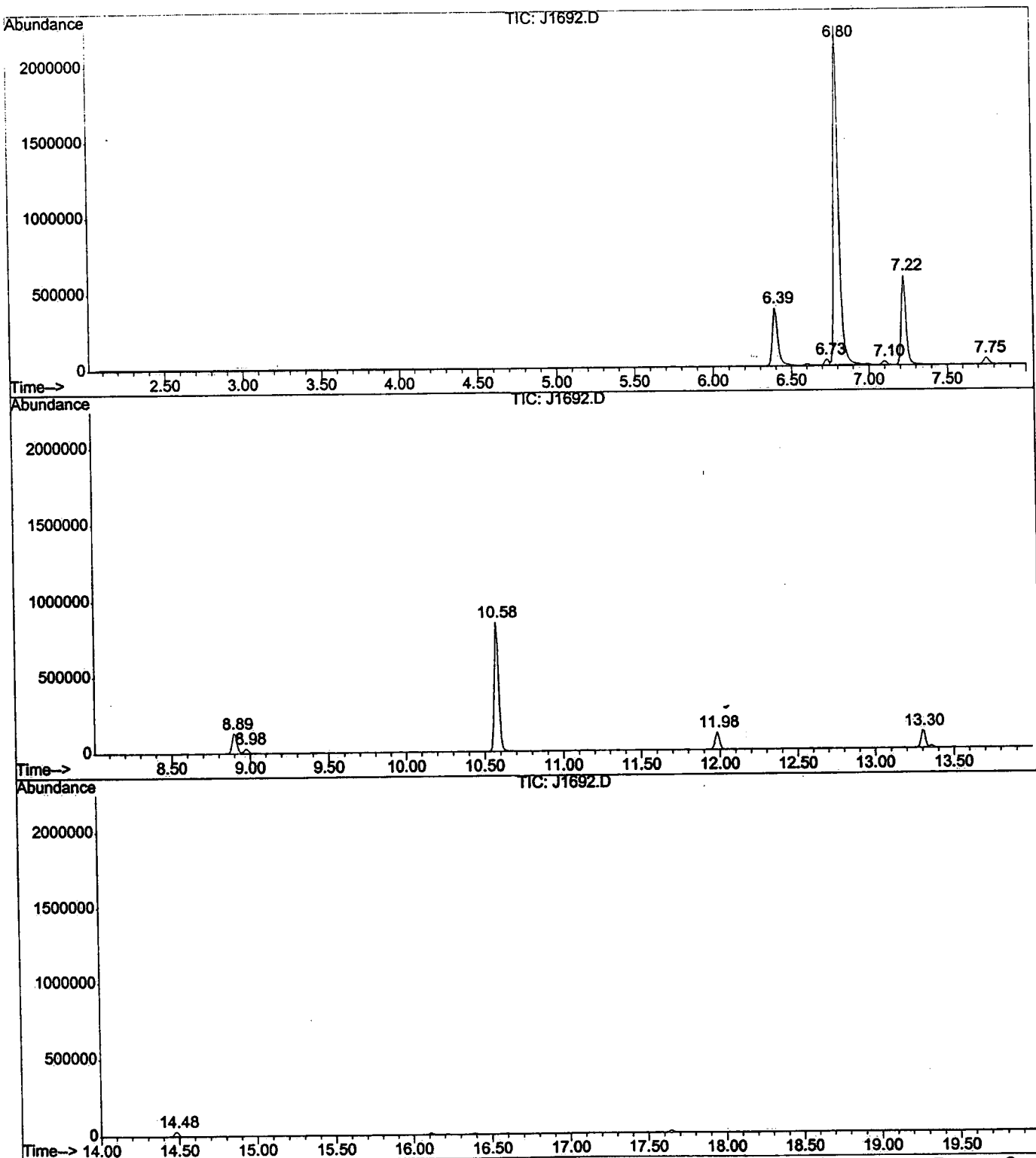
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.393	455	461	478	rBV	382696	946220	18.22%	9.294%
2	6.727	490	494	496	rBV	39673	80389	1.55%	0.790%
3	6.798	496	501	517	rVB	2242041	5194375	100.00%	51.023%
4	7.102	526	531	537	rBV	24985	56014	1.08%	0.550%
5	7.223	538	543	562	rVB	590225	1296602	24.96%	12.736%
6	7.750	587	595	606	rBV2	43519	111332	2.14%	1.094%
7	8.894	700	708	713	rBV	127803	280014	5.39%	2.751%
8	8.975	713	716	728	rVB	30593	61542	1.18%	0.605%
9	10.575	867	874	896	rBV	849921	1654393	31.85%	16.251%
10	11.983	1003	1013	1020	rBV	113571	213074	4.10%	2.093%
11	13.299	1138	1143	1147	rBV	113078	220500	4.24%	2.166%
12	14.484	1253	1260	1265	rBV	30892	65986	1.27%	0.648%

Sum of corrected areas: 10180441

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1692.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 20:26 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-115,4833-027,M,0.006g,19.2
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,5
Vial Number: 18
Quant File :JME0722.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1692.D
Acq On : 23 Jul 2001 20:26
Sample : S-115,4833-027,M,0.006g,19.2
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 18
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

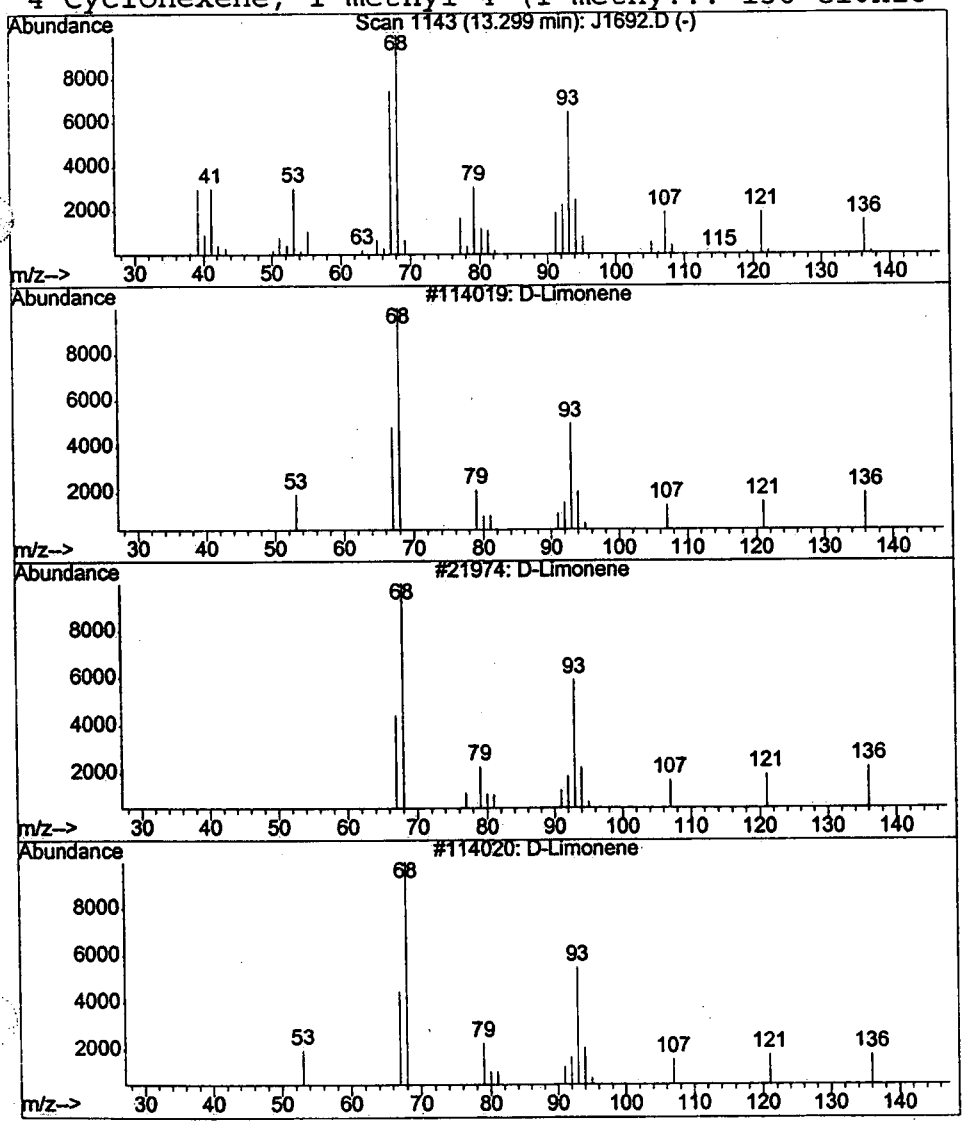
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

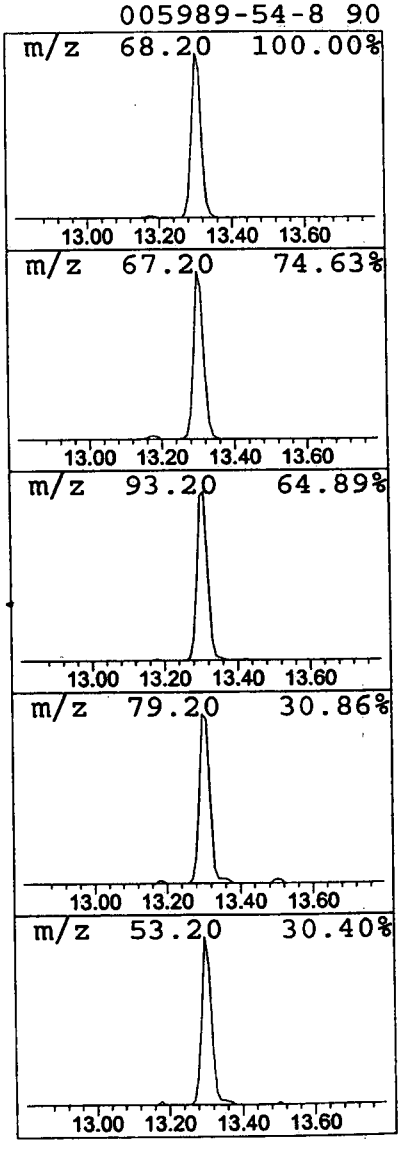
****

Peak Number 1 Unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	6.66 UG	220500	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	95
3	D-Limonene	136	C10H16	005989-27-5	91
4	Cyclohexene, 1-methyl-4-(1-methy...	136	C10H16	005989-54-8	90





Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D Vial: 19
Acq On : 23 Jul 2001 20:53 Operator: XINGFANG WANG
Sample : S-116,4833-028,M,0.007g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 21:13:58 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

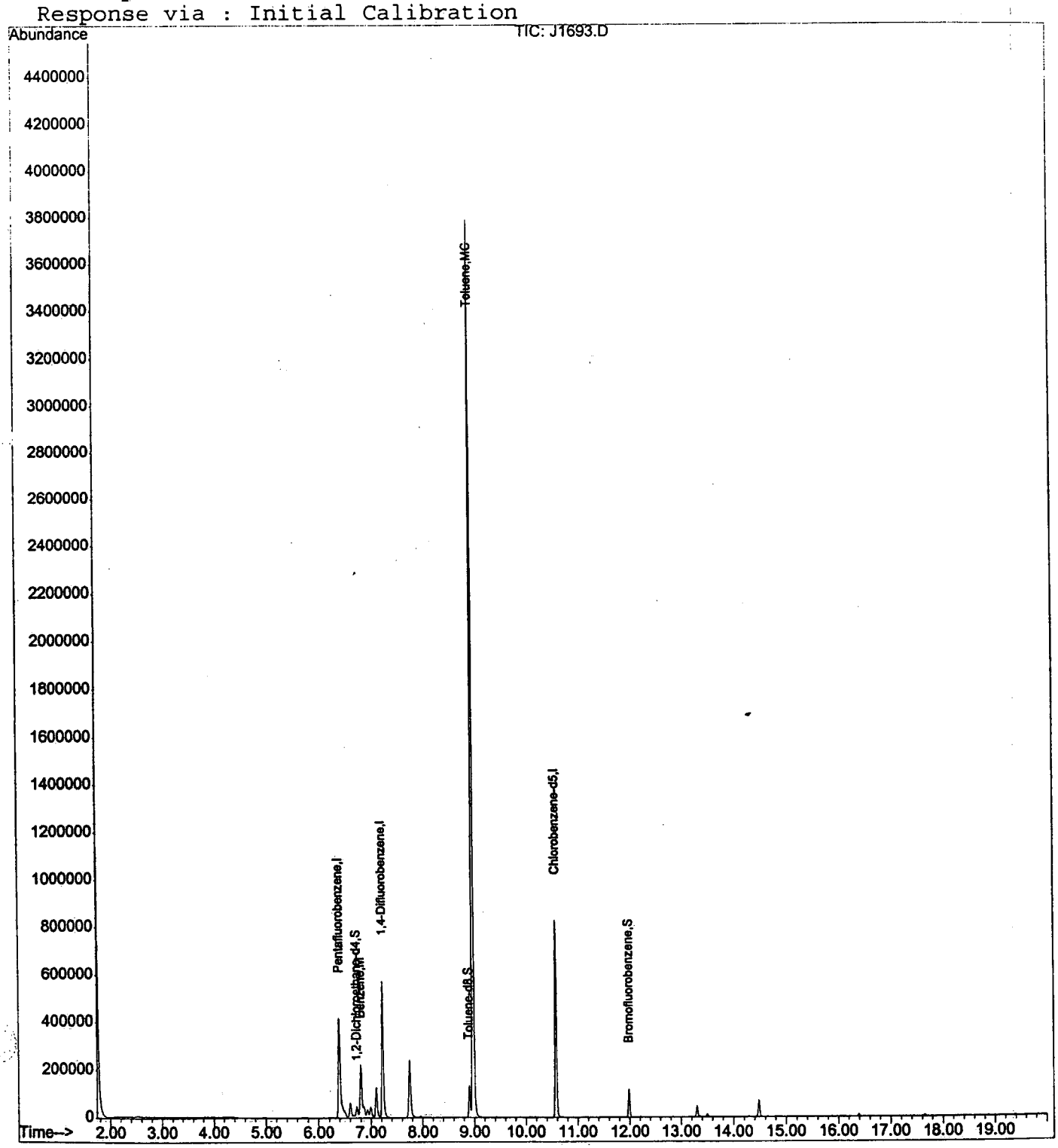
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	318744	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	553501	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	536869	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	30040	12.11	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 24.22%#			
41) Toluene-d8	8.89	98	103943	9.42	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 18.84%#			
59) Bromofluorobenzene	11.98	95	51955	7.79	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 15.58%#			
Target Compounds						Qvalue
32) Benzene	6.80	78	225159	16.01	UG	100
42) Toluene	8.98	92	1709898m	197.55	UG	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D Vial: 19
Acq On : 23 Jul 2001 20:53 Operator: XINGFANG WAN
Sample : S-116,4833-028,M,0.007g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:39 2001 Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1614

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D
Acq On : 23 Jul 2001 20:53
Sample : S-116,4833-028,M,0.007g,14.2
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 19
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 1 % of largest Peak
Start Thrs: 0.2
Max Peaks: 100
Stop Thrs : 0
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

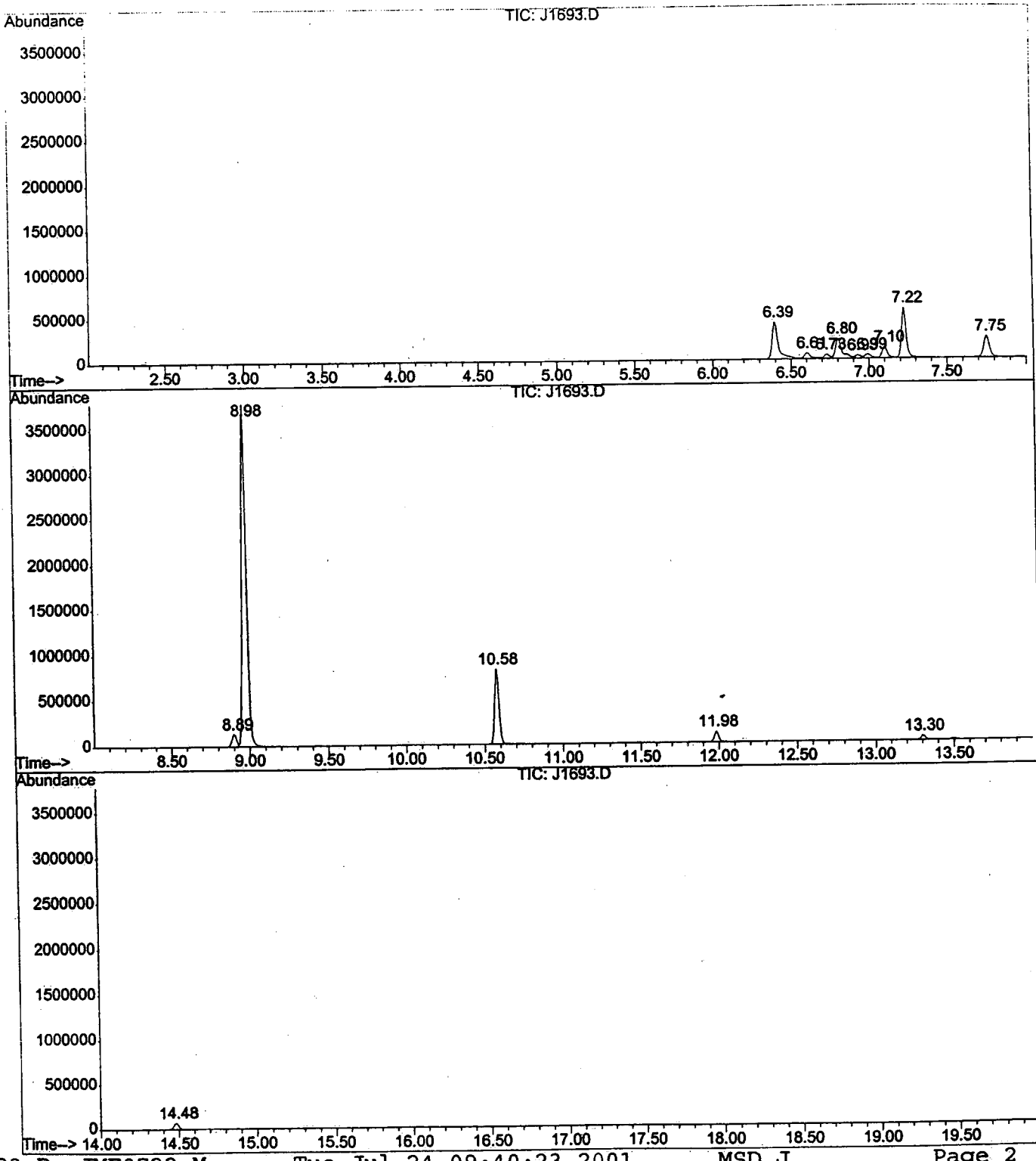
Signal : TIC

Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.393	455	461	477	rBV	418209	1138241	15.41%	8.016%
2	6.606	477	482	490	rVV	63279	188214	2.55%	1.325%
3	6.727	490	494	497	rVV	47579	110786	1.50%	0.780%
4	6.798	497	501	511	rVV	225412	627744	8.50%	4.421%
5	6.930	511	514	517	rVV	34272	85698	1.16%	0.603%
6	6.991	517	520	526	rVV	45069	120177	1.63%	0.846%
7	7.102	526	531	538	rVV	127776	303170	4.11%	2.135%
8	7.224	538	543	569	rVB	572973	1267444	17.16%	8.925%
9	7.750	586	595	609	rBV	242983	621128	8.41%	4.374%
10	8.894	700	708	711	rBV	134558	283296	3.84%	1.995%
11	8.975	711	716	738	rVB	3791771	7384594	100.00%	52.003%
12	10.575	866	874	894	rVB	826730	1602333	21.70%	11.284%
13	11.983	1008	1013	1023	rBV	118659	223142	3.02%	1.571%
14	13.299	1137	1143	1147	rBV	47137	91193	1.23%	0.642%
15	14.484	1254	1260	1269	rBV	71058	153148	2.07%	1.078%

Sum of corrected areas: 14200308

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 20:53 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-116,4833-028,M,0.007g,14.2
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,5
Vial Number: 19
Quant File :JME0722.RES (RTE Integrator)



1616

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D Vial: 19
Acq On : 23 Jul 2001 20:53 Operator: XINGFANG WANG
Sample : S-116,4833-028,M,0.007g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P

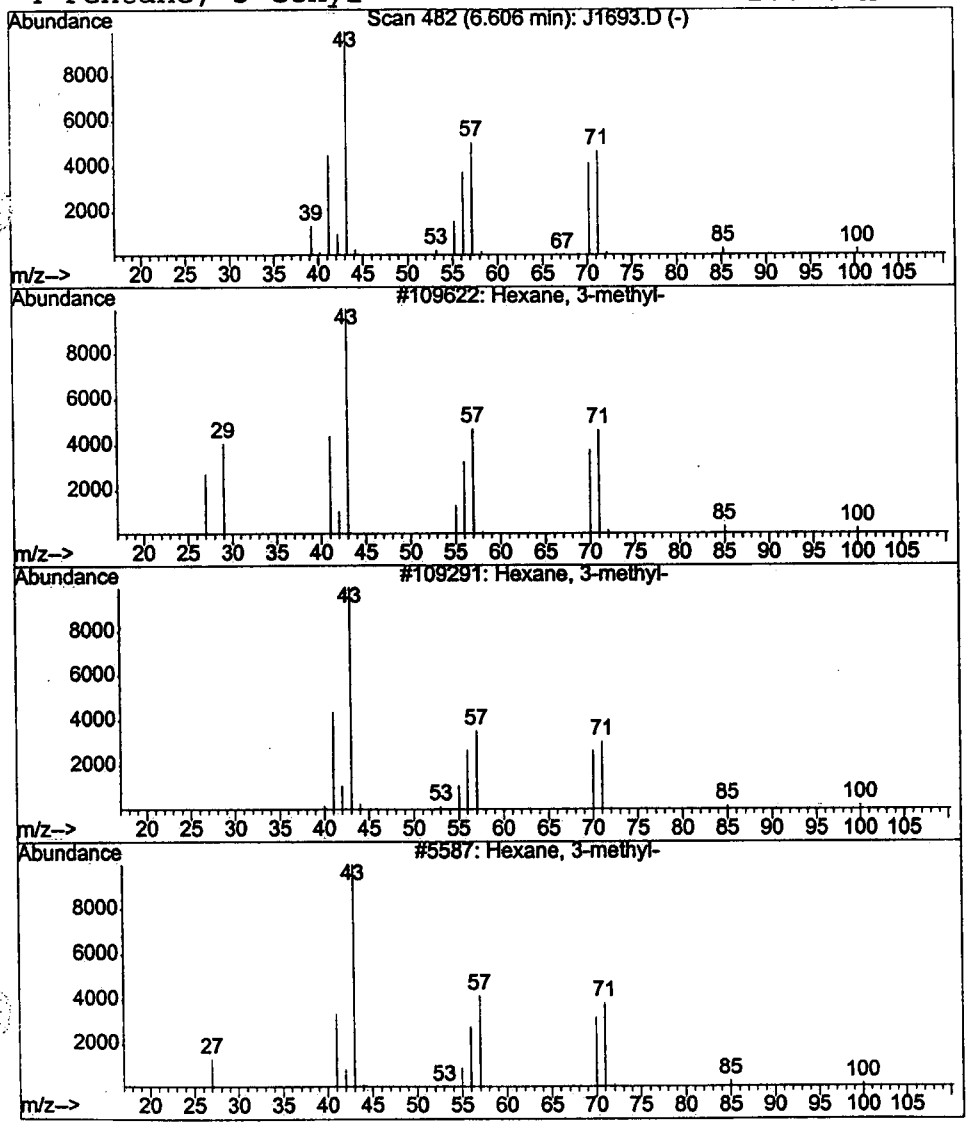
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

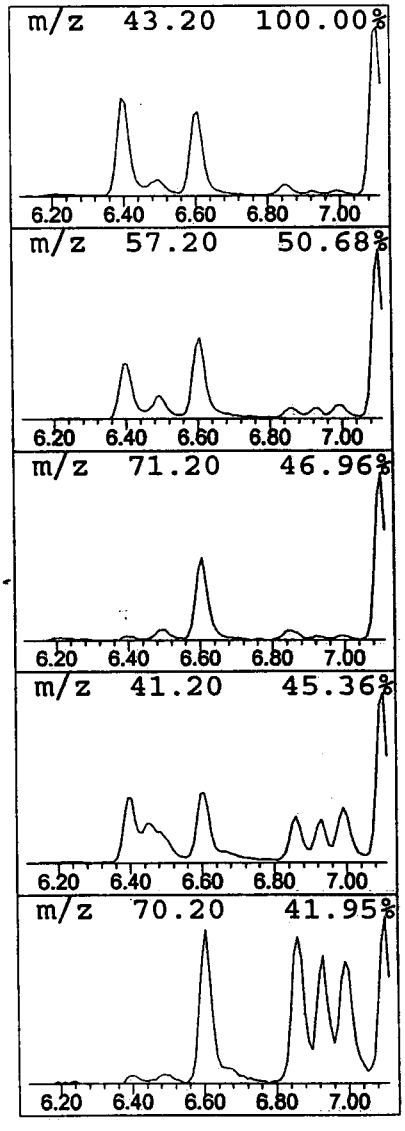
****

Peak Number 1 Unknown alkane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.61	8.27 UG	188214	Pentafluorobenzene	6.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	94
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	91
3	Hexane, 3-methyl-	100	C7H16	000589-34-4	91
4	Pentane, 3-ethyl-	100	C7H16	000617-78-7	72





1617

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D
Acq On : 23 Jul 2001 20:53
Sample : S-116,4833-028,M,0.007g,14.2
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 19
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

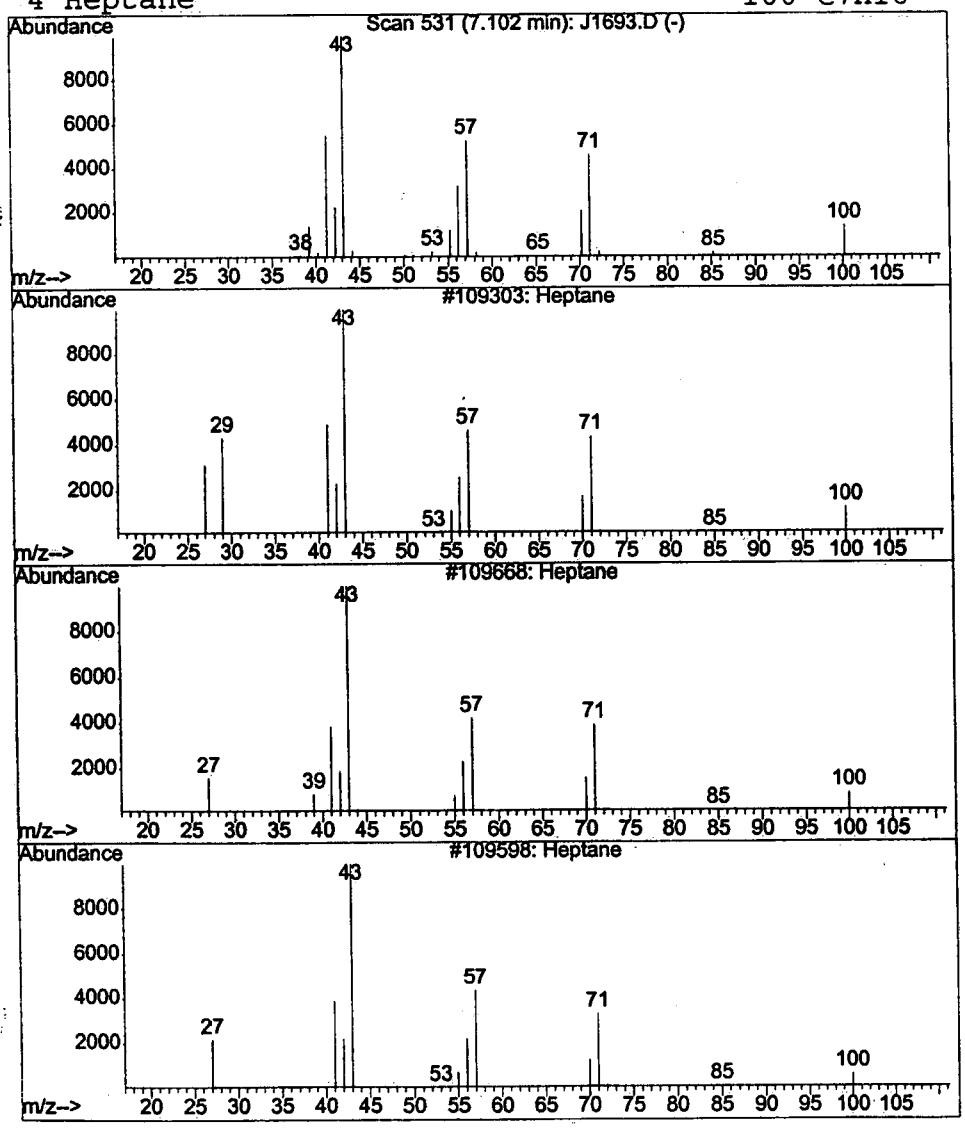
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

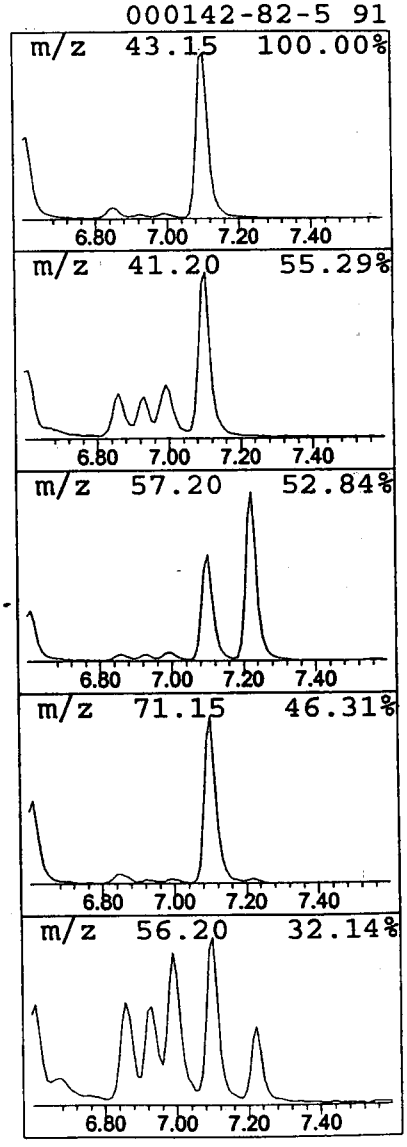
****

Peak Number 2 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.10	11.96 UG	303170	1,4-Difluorobenzene	7.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	94
2	Heptane	100	C7H16	000142-82-5	91
3	Heptane	100	C7H16	000142-82-5	91
4	Heptane	100	C7H16	000142-82-5	91





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1693.D
Acq On : 23 Jul 2001 20:53
Sample : S-116,4833-028,M,0.007g,14.2
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,5
MS Integration Params: LSCINT.P

Vial: 19
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

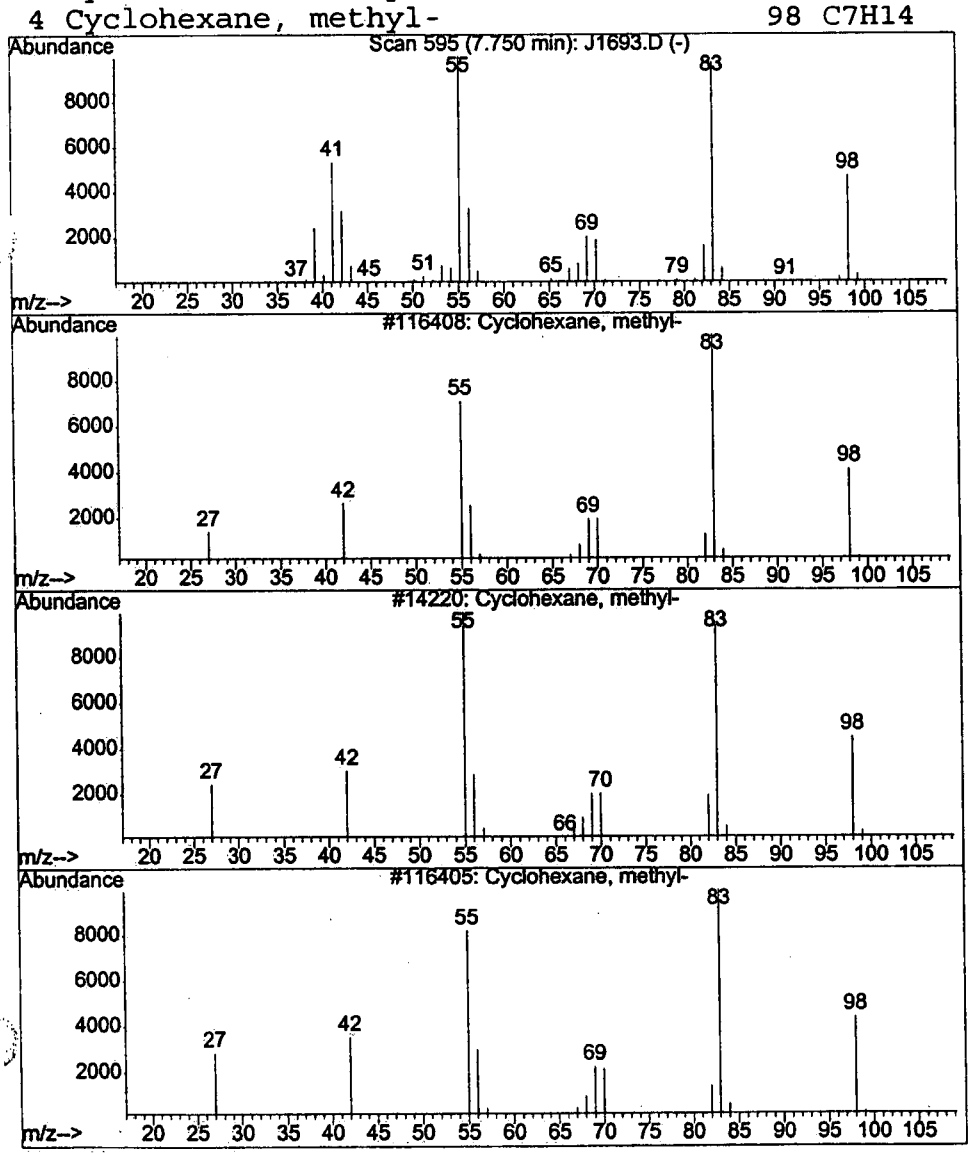
Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

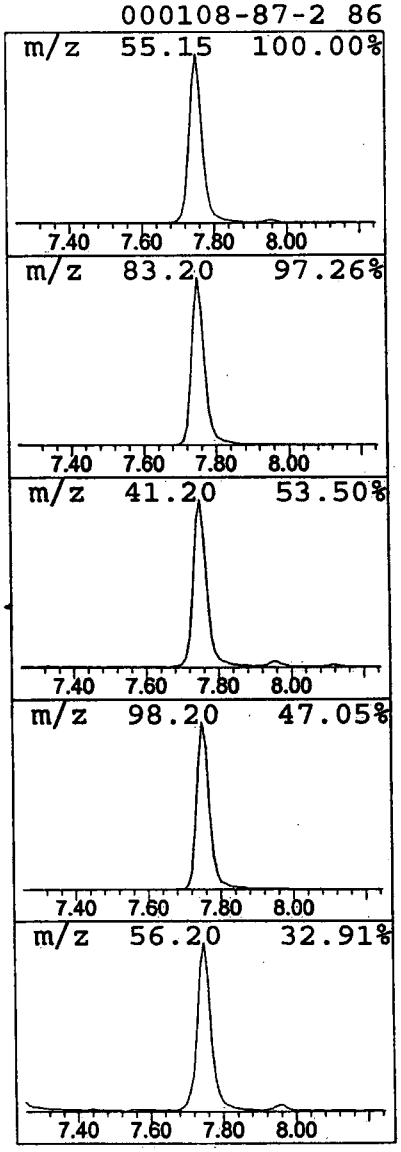
****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.75	24.50 UG	621128	1,4-Difluorobenzene	7.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	97
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	97
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	86





1210

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1728.D Vial: 54
Acq On : 24 Jul 2001 12:58 Operator: XINGFANG WANG
Sample : S-117,4833-029,M,0.019g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 13:18:50 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	263555	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	471053	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	452325	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	61053m	29.76	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 59.52%			
41) Toluene-d8	8.89	98	233346	24.86	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 49.72%			
59) Bromofluorobenzene	11.98	95	111280	19.81	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 39.62%			
Target Compounds						Qvalue
32) Benzene	6.80	78	660727	55.22	UG	100
42) Toluene	8.98	92	793574	107.73	UG	100

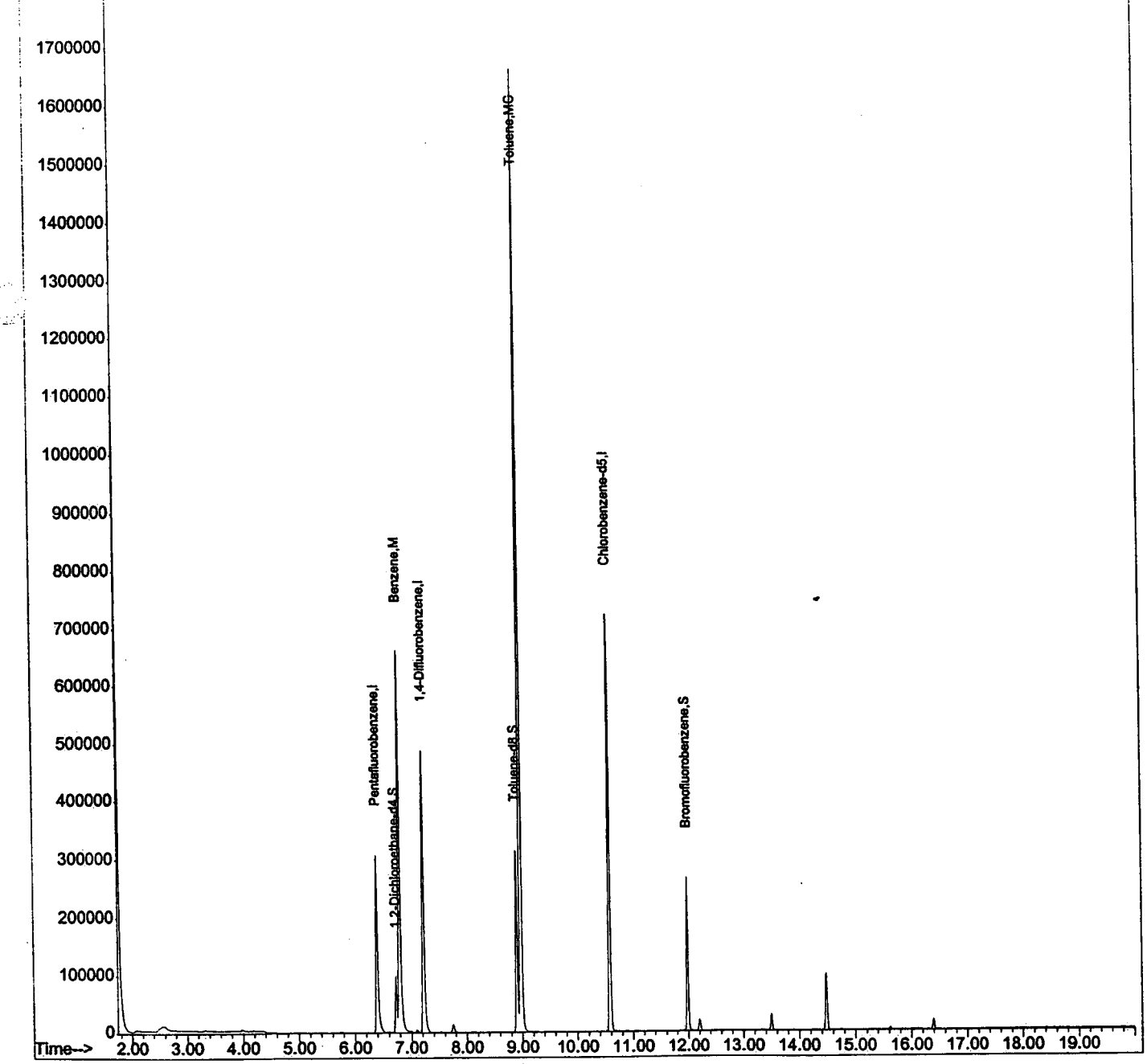
(#) = qualifier out of range (m) = manual integration

16703

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1728.D Vial: 54
Acq On : 24 Jul 2001 12:58 Operator: XINGFANG WAN
Sample : S-117,4833-029,M,0.019g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 13:32 2001 Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1621

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1728.D
Acq On : 24 Jul 2001 12:58
Sample : S-117,4833-029,M,0.019g,15.5
Misc : ENVTACT/ORBIS,7/13/01,7/16/01,2
MS Integration Params: LSCINT.P

Vial: 54
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 1 % of largest Peak
Start Thrs: 0.2
Max Peaks: 100
Stop Thrs : 0
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

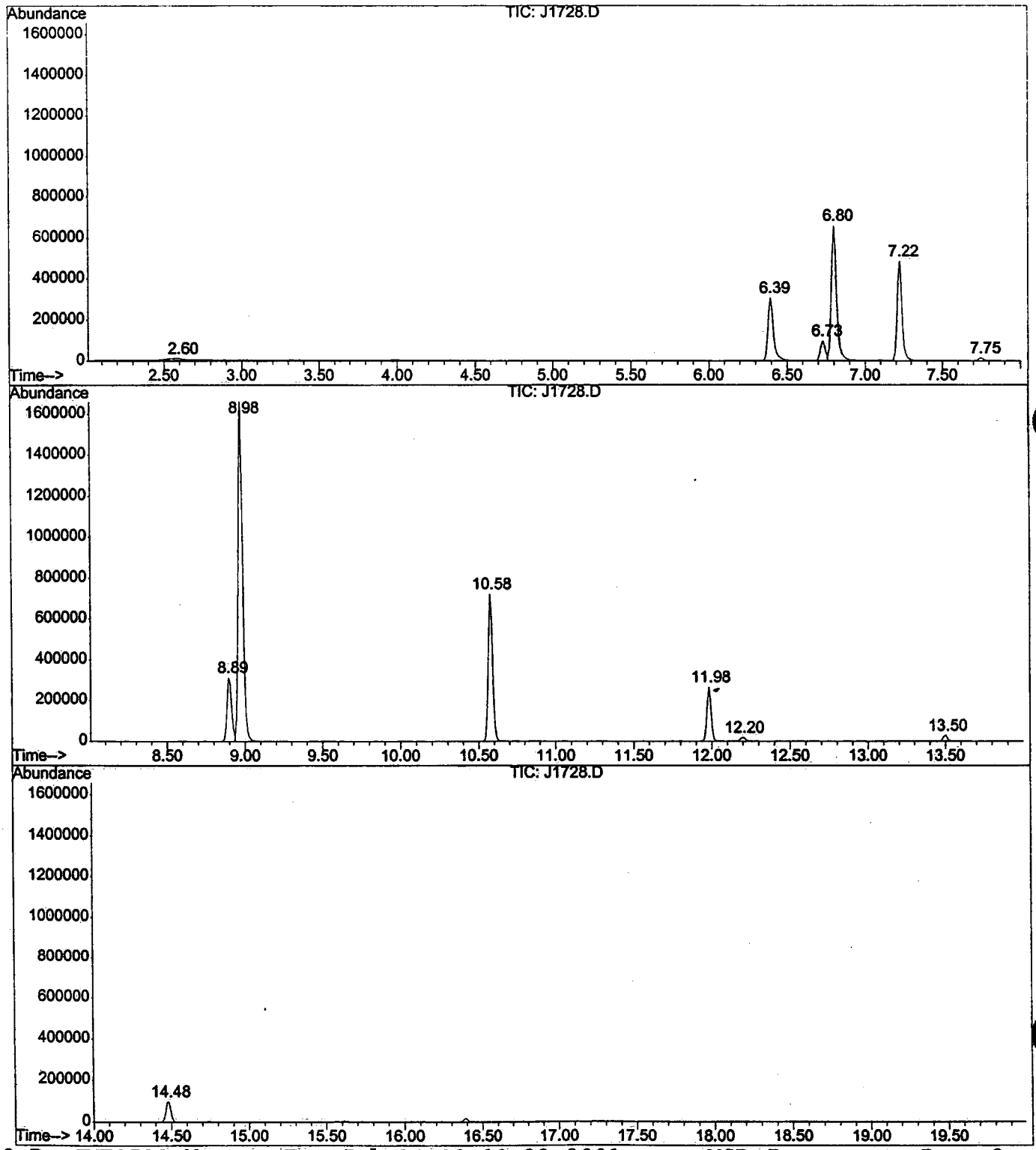
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.596	69	86	99	rBV4	9126	85792	2.61%	0.871%
2	6.393	455	461	478	rBV	306806	754318	22.98%	7.655%
3	6.727	486	494	497	rBV	97435	212275	6.47%	2.154%
4	6.798	497	501	517	rVB	659749	1544872	47.07%	15.678%
5	7.224	537	543	566	rVB	486974	1083892	33.02%	11.000%
6	7.750	587	595	609	rBV	14195	37529	1.14%	0.381%
7	8.894	702	708	712	rBV	313248	659323	20.09%	6.691%
8	8.975	712	716	736	rVB	1660523	3282049	100.00%	33.308%
9	10.575	866	874	887	rBV	722056	1386446	42.24%	14.070%
10	11.983	1006	1013	1025	rBV	265783	488525	14.88%	4.958%
11	12.196	1029	1034	1041	rBV	19153	43097	1.31%	0.437%
12	13.502	1157	1163	1173	rVB	28264	54287	1.65%	0.551%
13	14.484	1253	1260	1267	rVB	98944	221245	6.74%	2.245%

Sum of corrected areas: 9853650

1677

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1728.D
Operator : XINGFANG WANG
Acquired : 24 Jul 2001 12:58 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: S-117,4833-029,M,0.019g,15.5
Misc Info : ENVTACT/ORBIS,7/13/01,7/16/01,2
Vial Number: 54
Quant File :JME0722.RES (RTE Integrator)



1673

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-26-01\I0436.D Vial: 6
Acq On : 26 Jul 2001 15:47 Operator: DP
Sample : TB,4833-030,MB,0.04g,0.0 Inst : 5970 - In
Misc : ENVTACT/ORBIS,07/13/01,07/16/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 11:37 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.60	168	1955806	50.00	UG	-0.06
31) 1,4-Difluorobenzene	10.79	114	1863655	50.00	UG	-0.08
50) Chlorobenzene-d5	15.73	117	1291380	50.00	UG	-0.07
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.06	65	729976	41.63	UG	-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 83.26%			
41) Toluene-d8	13.25	98	1341043	43.76	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 87.52%			
59) Bromofluorobenzene	17.80	95	1084138	41.65	UG	-0.08
Spiked Amount 50.000	Range 47 - 115		Recovery = 83.30%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

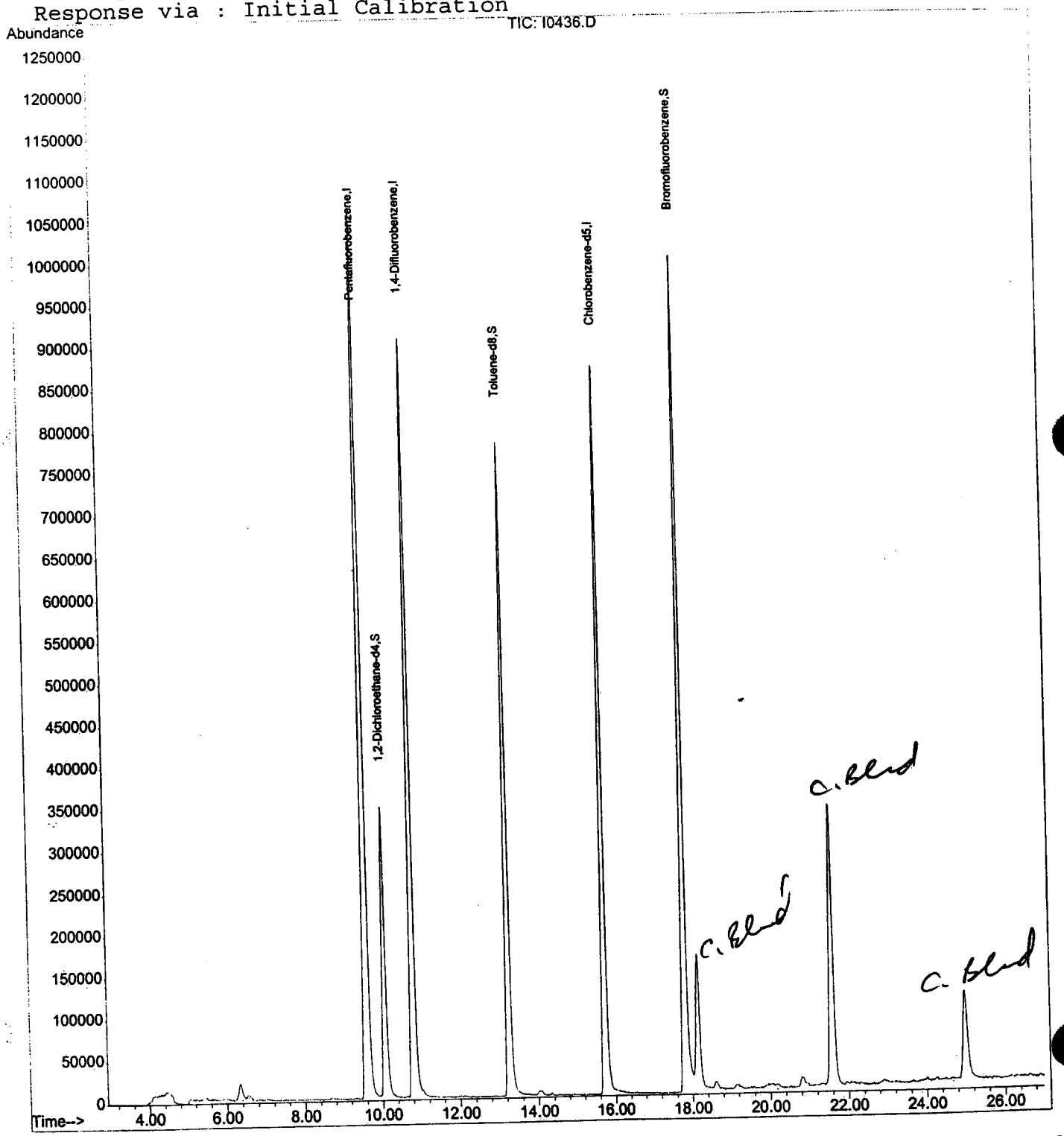
Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-26-01\I0436.D
Acq On : 26 Jul 2001 15:47
Sample : TB,4833-030,MB,0.04g,0.0
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: rteint.p
Quant Time: Jul 27 11:37 2001

Vial: 6
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1625

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-26-01\I0436.D
Acq On : 26 Jul 2001 15:47
Sample : TB,4833-030,MB,0.04g,0.0
Misc : ENVTACT/ORBIS,07/13/01,07/16/01
MS Integration Params: LSCINT.P

Vial: 6
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

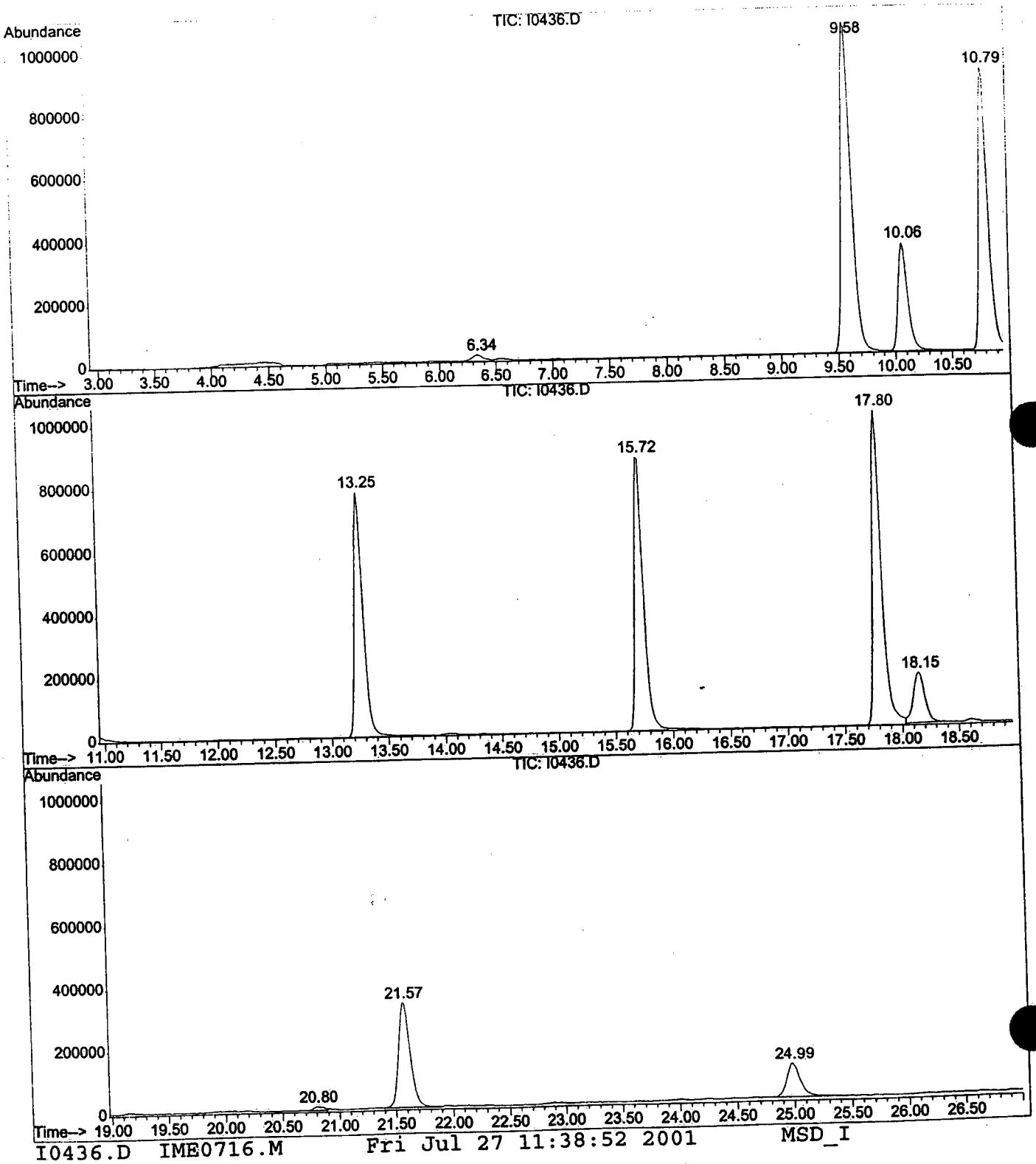
Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.341	217	228	237	rBV	19961	150581	2.28%	0.462%
2	9.584	430	438	458	rBV	1058354	6599629	100.00%	20.245%
3	10.064	462	469	489	rVB	346844	2004968	30.38%	6.150%
4	10.791	509	516	530	rBV	905442	5079551	76.97%	15.582%
5	13.249	667	675	696	rBV	779690	4188688	63.47%	12.849%
6	15.718	828	835	850	rBV	870064	4569836	69.24%	14.018%
7	17.797	963	970	985	rBV	1000378	5508174	83.46%	16.897%
8	18.151	985	993	1005	rVB2	160410	1153467	17.48%	3.538%
9	20.796	1158	1164	1170	rBV5	11989	79766	1.21%	0.245%
10	21.570	1202	1214	1235	rVB	335588	2397110	36.32%	7.353%
11	24.987	1426	1436	1457	rVB2	106454	867496	13.14%	2.661%

Sum of corrected areas: 32599266

I0436.D IME0716.M Fri Jul 27 11:38:52 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-26-01\I0436.D
Operator : DP
Acquired : 26 Jul 2001 15:47 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: TB,4833-030,MB,0.04g,0.0
Misc Info : ENVTACT/ORBIS,07/13/01,07/16/01
Vial Number: 6
Quant File :IME0716.RES (RTE Integrator)



I0436.D IME0716.M Fri Jul 27 11:38:52 2001 MSD_I

1627

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0140.D Vial: 3
Acq On : 17 Jul 2001 18:44 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:54 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.58	168	2262634	50.00	UG	-0.08
31) 1,4-Difluorobenzene	10.79	114	2144307	50.00	UG	-0.08
50) Chlorobenzene-d5	15.73	117	1577208	50.00	UG	-0.07
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	973498	47.99	UG	-0.09
Spiked Amount 50.000	Range 36 - 115		Recovery = 95.98%			
41) Toluene-d8	13.25	98	1758257	49.86	UG	-0.07
Spiked Amount 50.000	Range 35 - 117		Recovery = 99.72%			
59) Bromofluorobenzene	17.80	95	1594858	50.16	UG	-0.08
Spiked Amount 50.000	Range 47 - 115		Recovery = 100.32%			

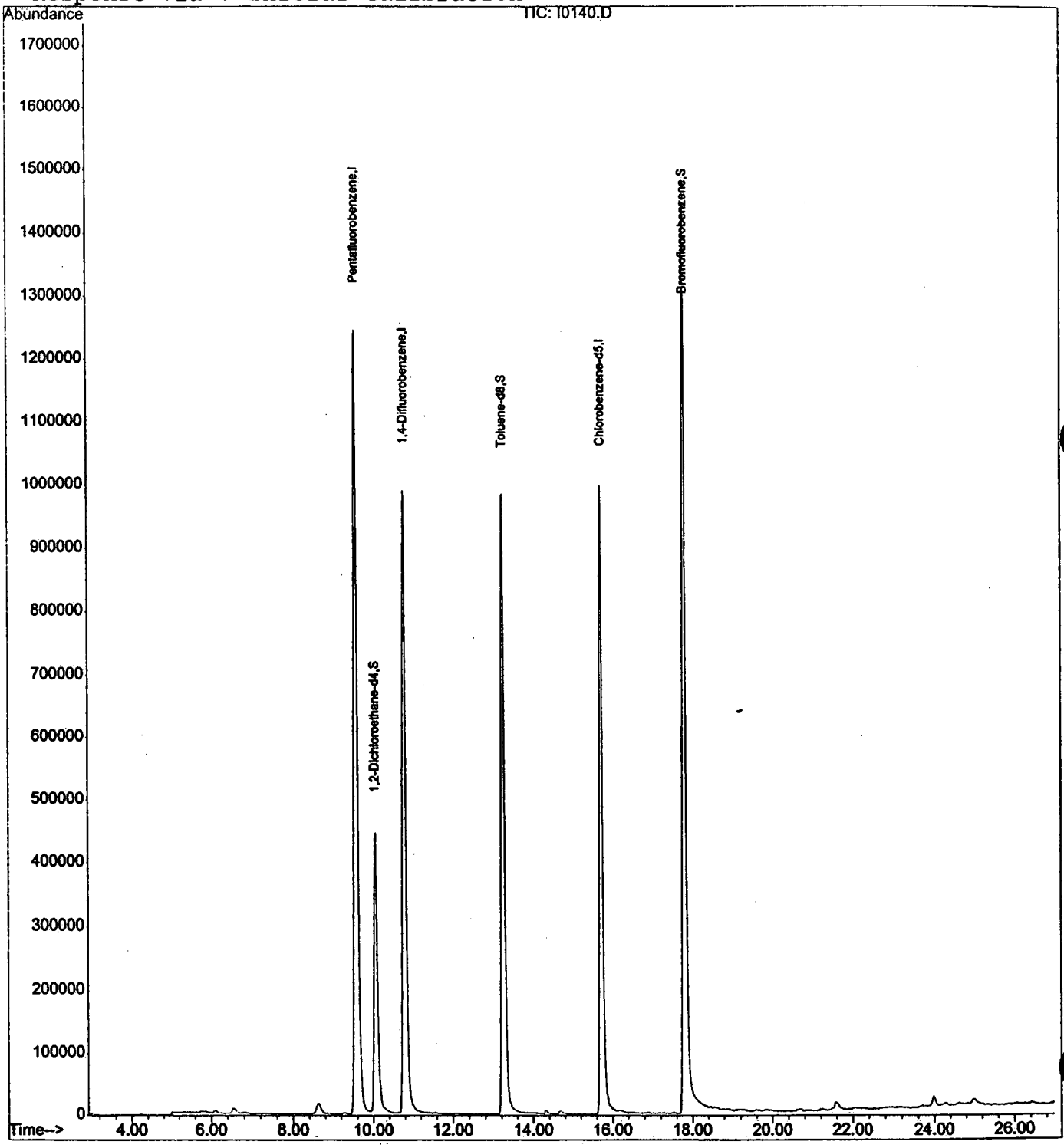
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0140.D Vial: 3
Acq On : 17 Jul 2001 18:44 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - I
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:54 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1629

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0140.D Vial: 3
Acq On : 17 Jul 2001 18:44 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

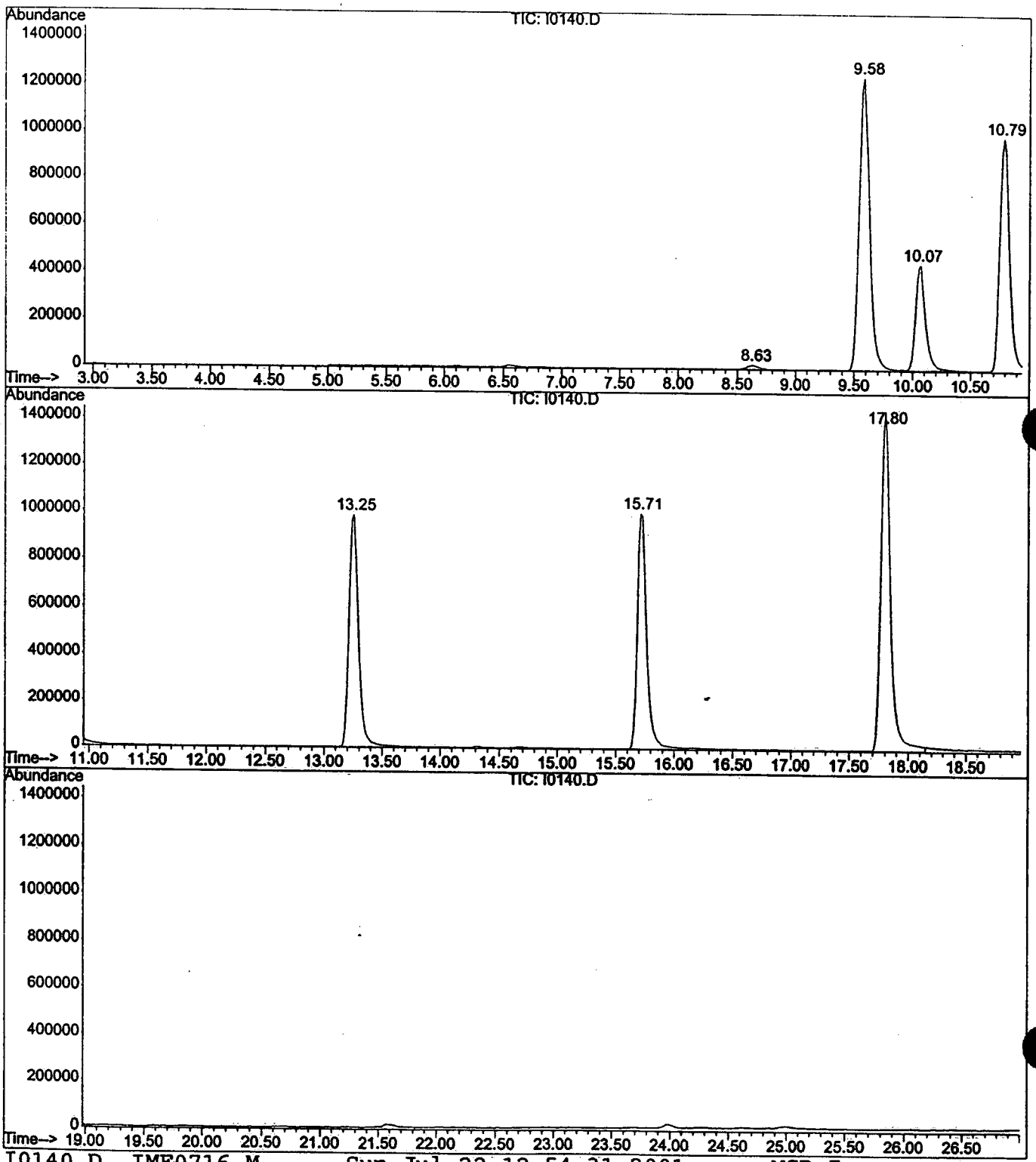
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.626	369	376	386	rVB2	16533	114046	1.37%	0.320%
2	9.582	429	438	458	rBV	1245278	7567428	90.76%	21.232%
3	10.068	462	470	493	rVB	443146	2668615	32.01%	7.487%
4	10.790	509	517	538	rBV	987910	5776906	69.28%	16.208%
5	13.253	668	677	699	rBV	984253	5575274	66.87%	15.642%
6	15.712	829	837	863	rBV	997755	5602055	67.19%	15.717%
7	17.799	965	973	996	rBV2	1444125	8338053	100.00%	23.394%

Sum of corrected areas: 35642377

I0140.D IME0716.M Sun Jul 22 12:54:30 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0140.D
Operator : DP
Acquired : 17 Jul 2001 18:44 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 3
Quant File :IME0716.RES (RTE Integrator)



I0140.D IME0716.M Sun Jul 22 12:54:31 2001 MSD_I

1631

Quantitation Report (LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\07-17-01\I0164.D Vial: 27
Acq On : 18 Jul 2001 8:01 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:46 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.62	168	2319738	50.00	UG	-0.04
31) 1,4-Difluorobenzene	10.82	114	2172334	50.00	UG	-0.06
50) Chlorobenzene-d5	15.77	117	1527850	50.00	UG	-0.03
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.10	65	998959	48.04	UG	-0.05
Spiked Amount 50.000	Range 36 - 115		Recovery = 96.08%			
41) Toluene-d8	13.29	98	1803017	50.47	UG	-0.03
Spiked Amount 50.000	Range 35 - 117		Recovery = 100.94%			
59) Bromofluorobenzene	17.85	95	1558246	50.60	UG	-0.03
Spiked Amount 50.000	Range 47 - 115		Recovery = 101.20%			

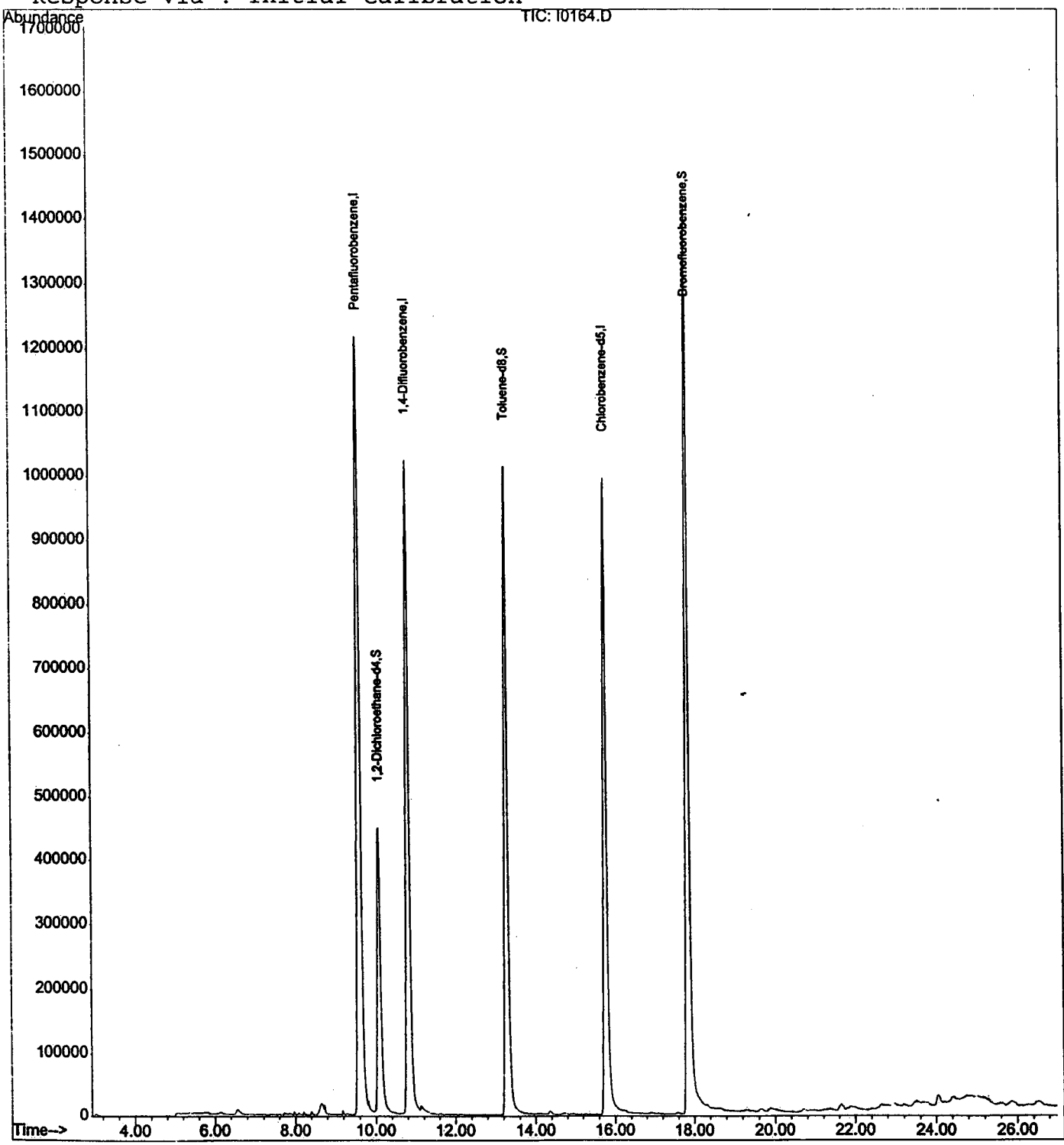
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0164.D Vial: 27
Acq On : 18 Jul 2001 8:01 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 22 12:46 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1633

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-17-01\I0164.D Vial: 27
Acq On : 18 Jul 2001 8:01 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

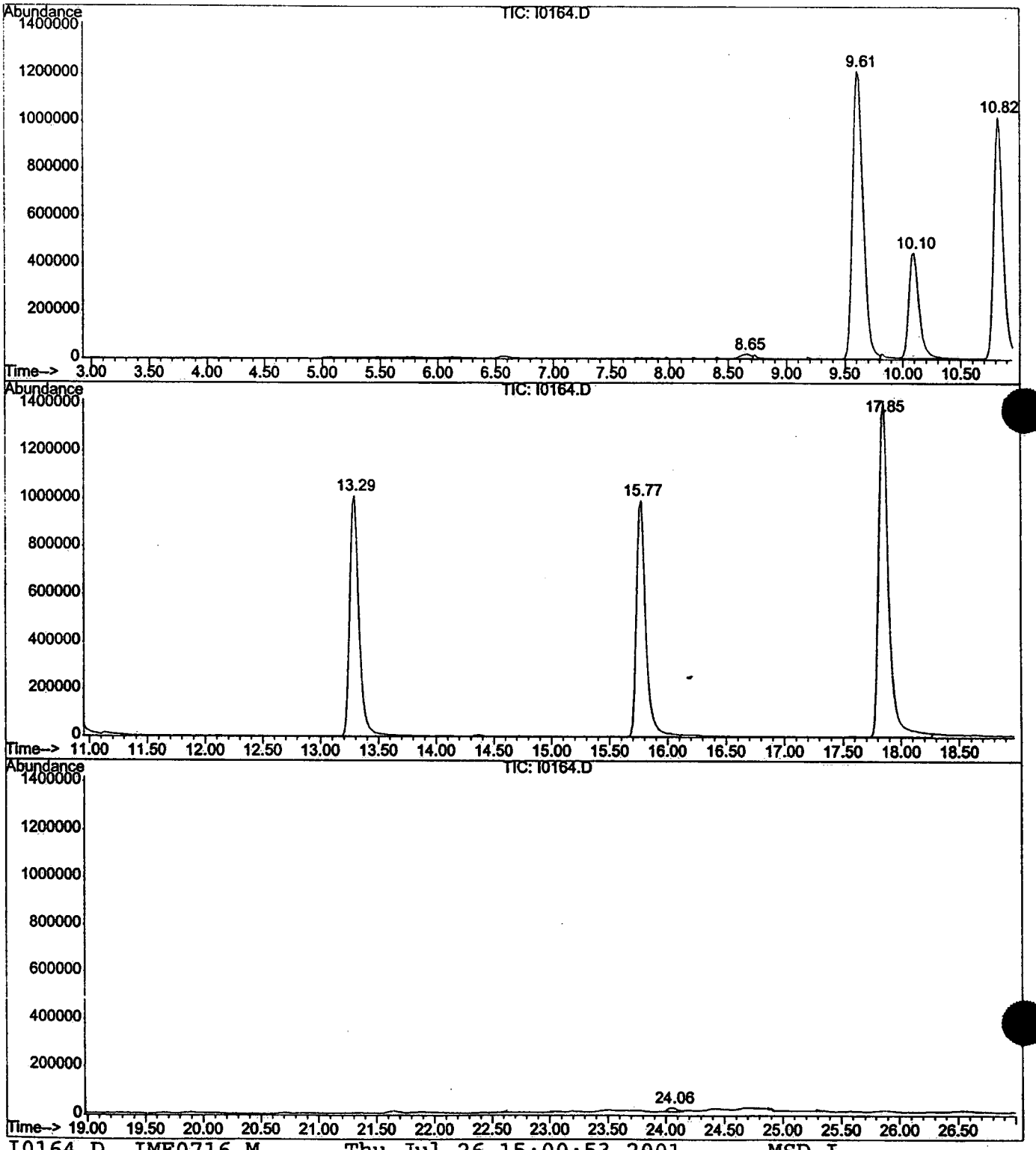
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.650	368	378	382	rBV	18584	119646	1.44%	0.310%
2	9.606	431	440	453	rBV	1216615	7669010	92.24%	19.848%
3	10.096	464	472	492	rVB	445983	2703558	32.52%	6.997%
4	10.818	511	519	538	rBV	1020149	5871638	70.62%	15.197%
5	13.293	672	680	701	rBV	1013562	5648359	67.94%	14.619%
6	15.773	833	841	863	rBV	994875	5537644	66.60%	14.332%
7	17.851	968	976	1003	rBV	1417662	8314221	100.00%	21.518%
8	24.058	1373	1379	1385	rBV7	16428	102280	1.23%	0.265%

Sum of corrected areas: 36018037

I0164.D IME0716.M Thu Jul 26 15:40:27 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-17-01\I0164.D
Operator : DP
Acquired : 18 Jul 2001 8:01 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 27
Quant File :IME0716.RES (RTE Integrator)



I0164.D IME0716.M Thu Jul 26 15:00:53 2001 MSD_I

1635

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-26-01\I0433.D Vial: 3
Acq On : 26 Jul 2001 13:57 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 11:43 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.63	168	2033189	50.00	UG	-0.03
31) 1,4-Difluorobenzene	10.82	114	1861639	50.00	UG	-0.05
50) Chlorobenzene-d5	15.74	117	1349114	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.10	65	816870	44.82	UG	-0.05
Spiked Amount 50.000	Range 36 - 115		Recovery = 89.64%			
41) Toluene-d8	13.27	98	1507770	49.25	UG	-0.06
Spiked Amount 50.000	Range 35 - 117		Recovery = 98.50%			
59) Bromofluorobenzene	17.82	95	1354544	49.81	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 99.62%			

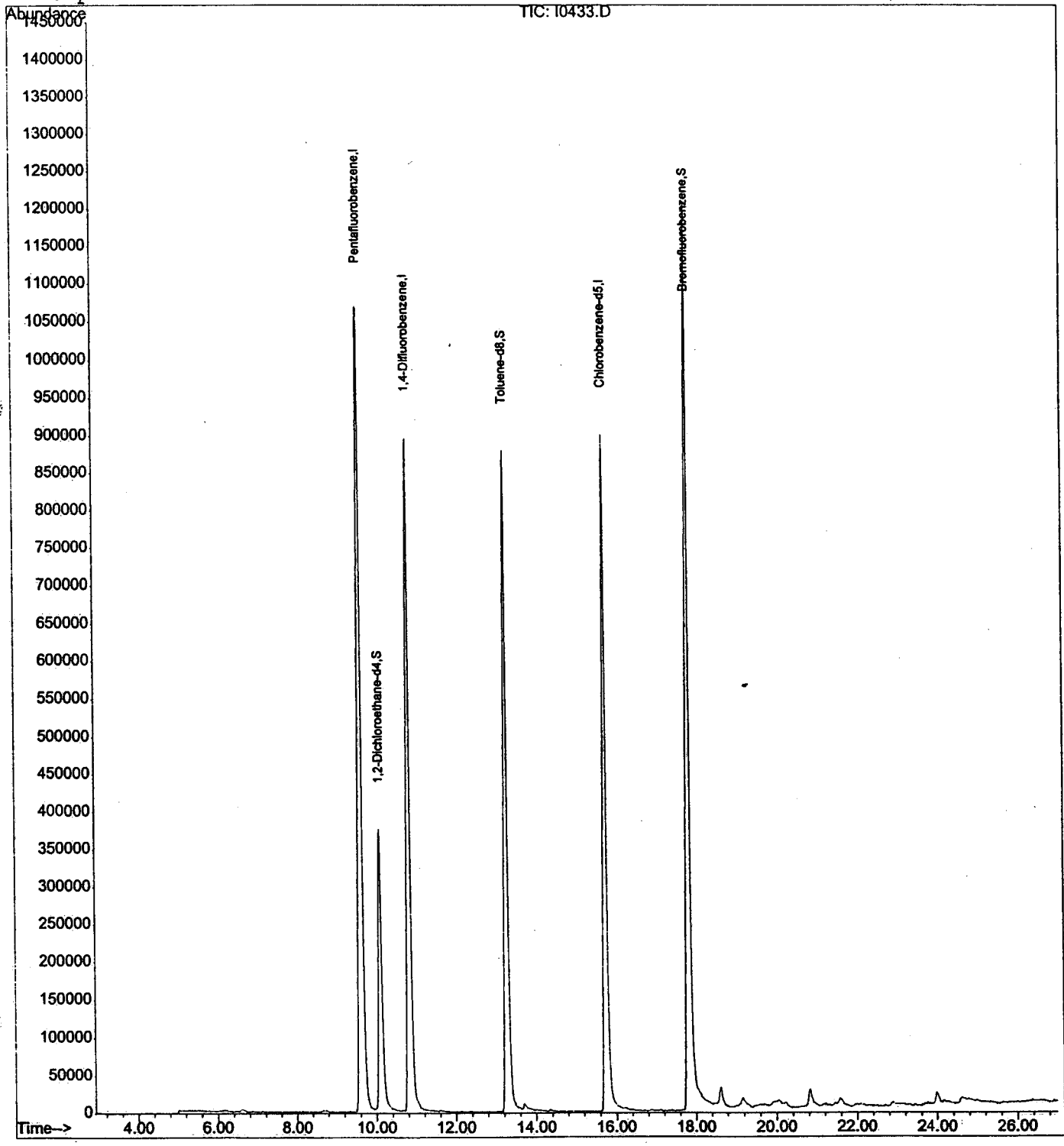
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\07-26-01\I0433.D Vial: 3
Acq On : 26 Jul 2001 13:57 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 27 11:43 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



1637

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\07-26-01\I0433.D Vial: 3
Acq On : 26 Jul 2001 13:57 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

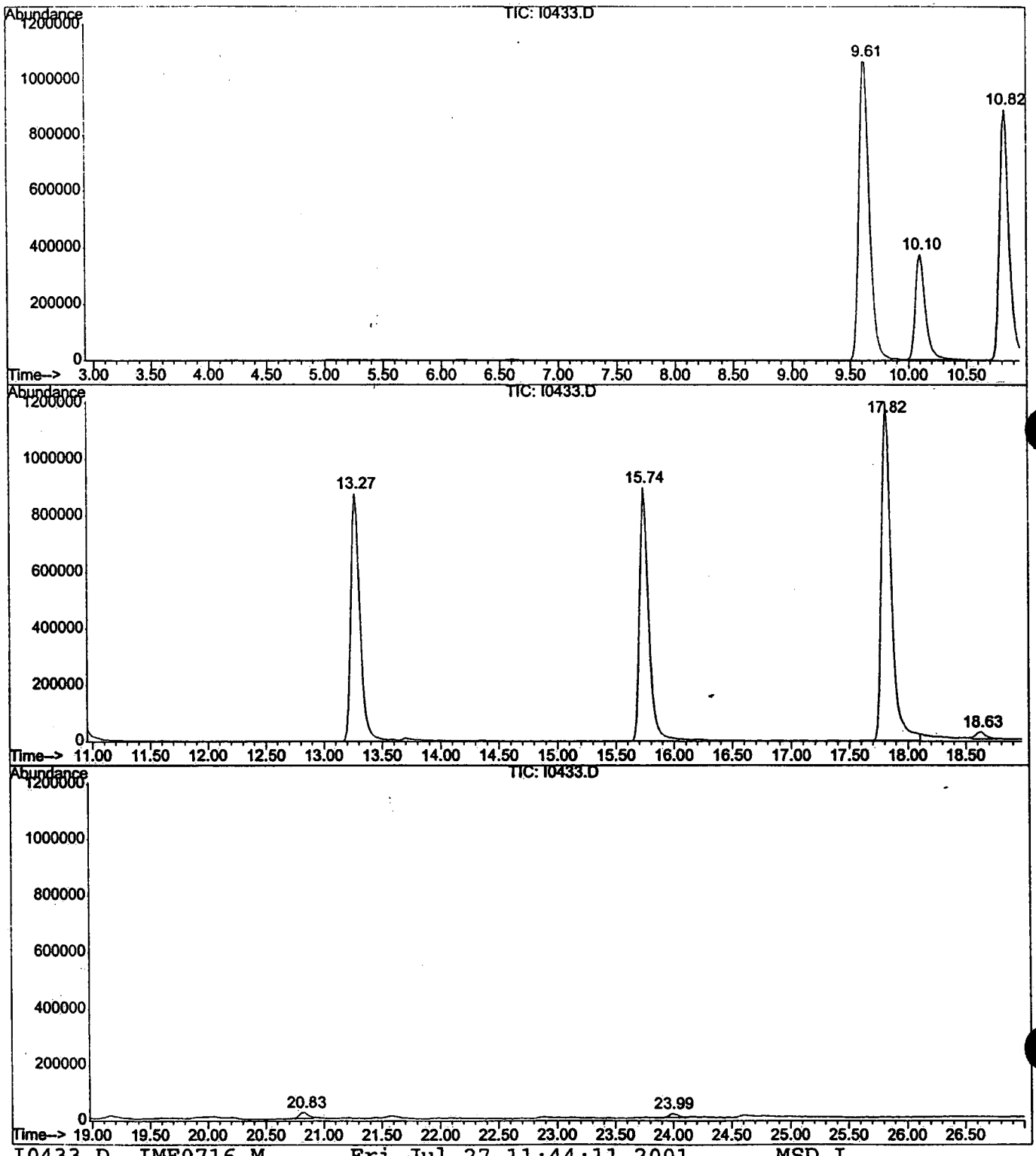
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.611	429	440	456	rBV	1068677	6717422	96.02%	21.710%
2	10.099	461	472	491	rVV	373035	2226922	31.83%	7.197%
3	10.823	510	519	537	rBV	893708	5124527	73.25%	16.562%
4	13.271	670	678	696	rBV	879151	4719945	67.47%	15.254%
5	15.738	831	838	858	rBV	899688	4808455	68.73%	15.540%
6	17.816	965	973	992	rBV	1205099	6996118	100.00%	22.611%
7	18.628	1021	1026	1035	rVB3	26147	145806	2.08%	0.471%
8	20.834	1162	1169	1174	rBV2	22564	127045	1.82%	0.411%
9	23.987	1369	1373	1381	rBV6	15241	75365	1.08%	0.244%

Sum of corrected areas: 30941605

I0433.D IME0716.M Fri Jul 27 11:44:11 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\07-26-01\I0433.D
Operator : DP
Acquired : 26 Jul 2001 13:57 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 3
Quant File :IME0716.RES (RTE Integrator)



I0433.D IME0716.M Fri Jul 27 11:44:11 2001 MSD_I

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1679.D Vial: 5
Acq On : 23 Jul 2001 14:26 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 14:46:10 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	495456	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	798835	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	654615	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	205958	53.41	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 106.82%			
41) Toluene-d8	8.89	98	832019	52.27	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 104.54%			
59) Bromofluorobenzene	11.98	95	415981	51.16	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.32%			

Target Compounds Qvalue

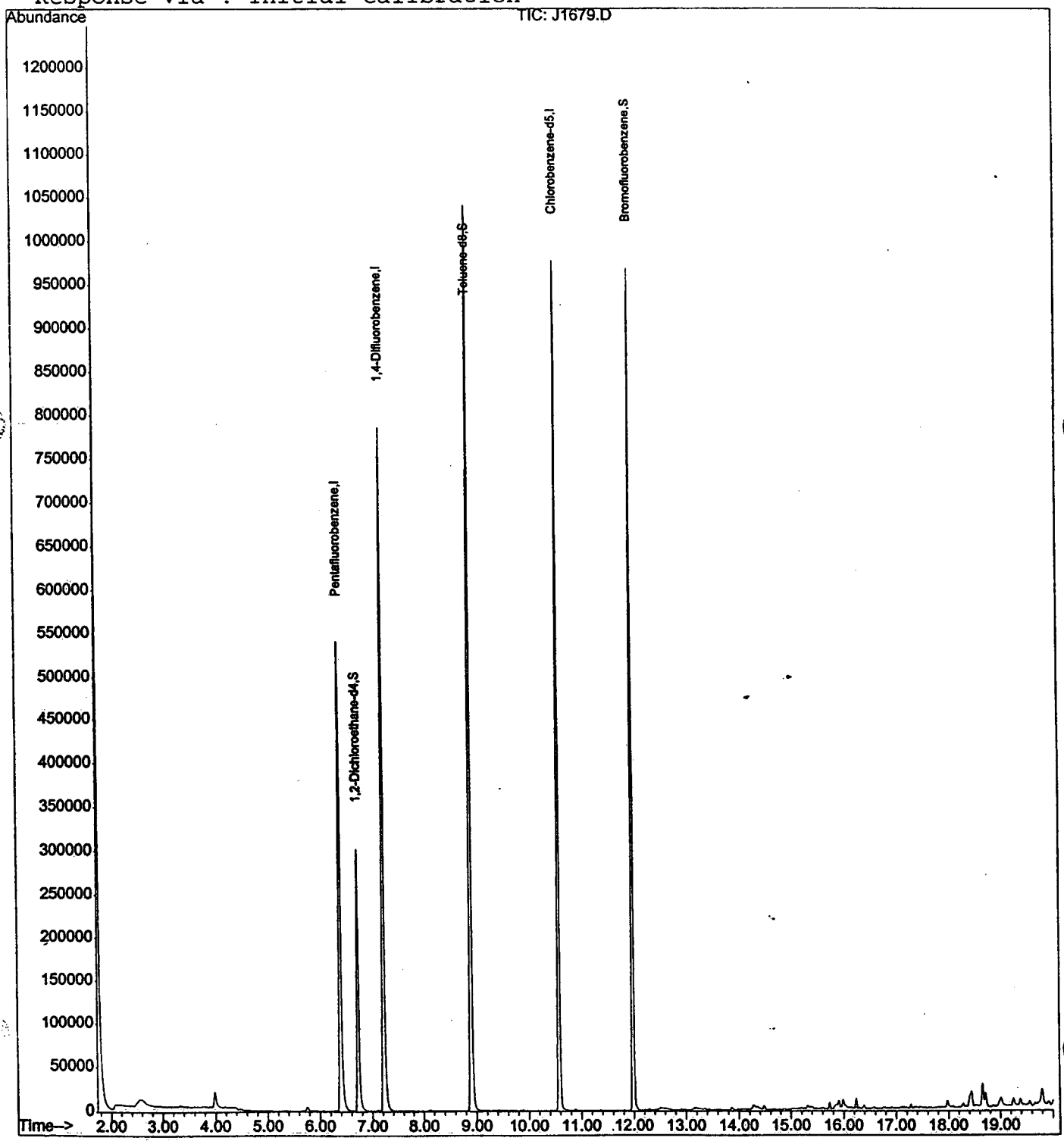
(#) = qualifier out of range (m) = manual integration

1640

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1679.D Vial: 5
Acq On : 23 Jul 2001 14:26 Operator: XINGFANG WAN
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 23 14:50 2001 Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1641

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1679.D
Acq On : 23 Jul 2001 14:26
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
MS Integration Params: LSCINT.P

Vial: 5
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 1 % of largest Peak
Start Thrs: 0.2
Max Peaks: 100
Stop Thrs : 0
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

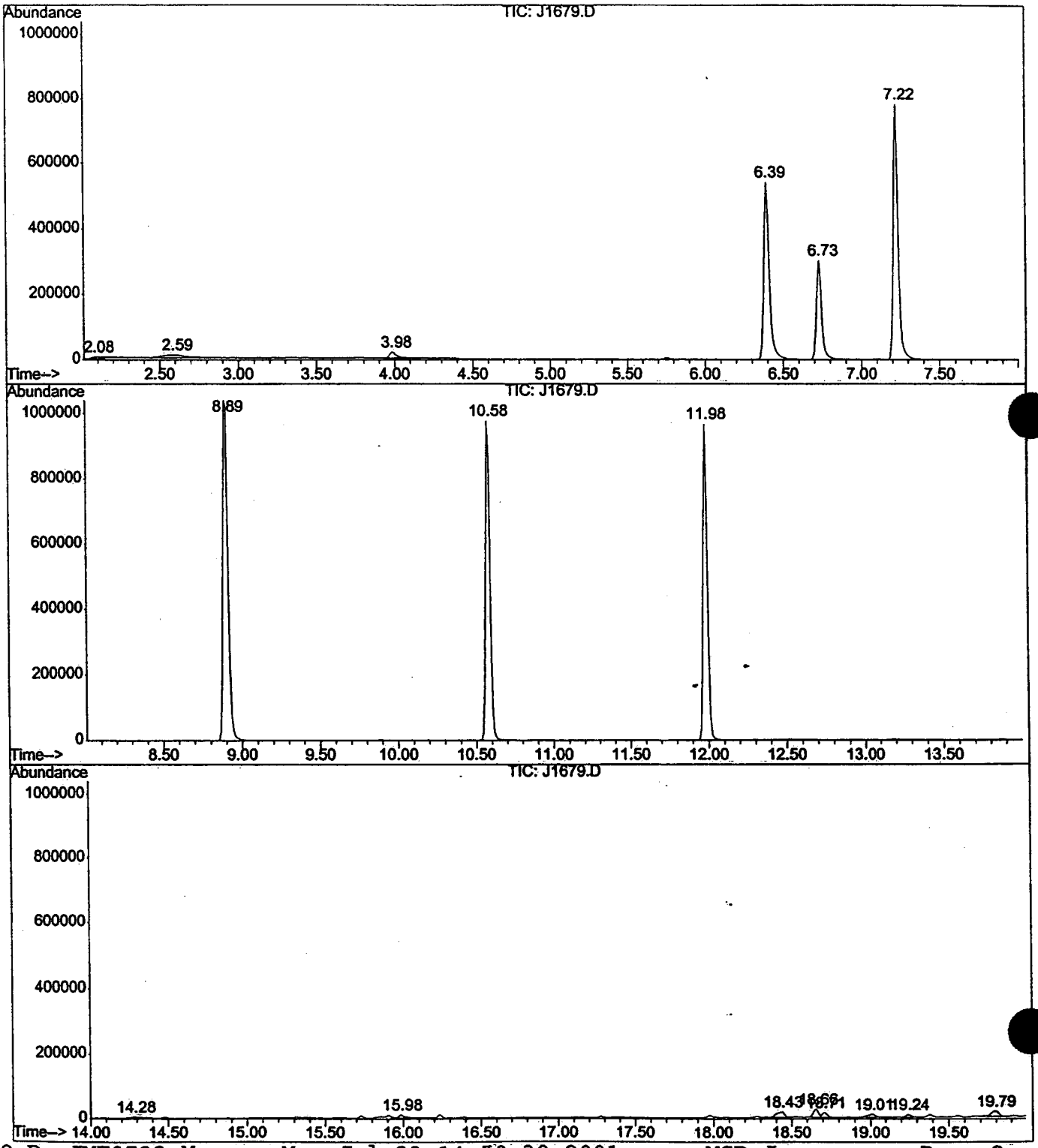
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.079	31	35	41	rBV8	4891	23834	1.04%	0.232%
2	2.586	71	85	112	rBV3	8123	89629	3.92%	0.874%
3	3.983	218	223	239	rVB	17855	56649	2.48%	0.552%
4	6.393	455	461	484	rVV	540133	1311500	57.37%	12.788%
5	6.727	486	494	515	rVB	302449	696844	30.48%	6.795%
6	7.223	536	543	564	rVB	785521	1755508	76.79%	17.117%
7	8.894	699	708	724	rBV	1040372	2286075	100.00%	22.291%
8	10.575	868	874	888	rBV	976909	1899839	83.10%	18.525%
9	11.983	1006	1013	1026	rBV	967825	1782451	77.97%	17.380%
10	14.281	1231	1240	1255	rBV7	5065	32689	1.43%	0.319%
11	15.983	1404	1408	1417	rVB	9887	27552	1.21%	0.269%
12	18.433	1643	1650	1655	rBV2	18087	65710	2.87%	0.641%
13	18.656	1666	1672	1675	rBV	25650	59636	2.61%	0.581%
14	18.707	1675	1677	1684	rVB	16264	34956	1.53%	0.341%
15	19.010	1700	1707	1720	rBV4	9552	42548	1.86%	0.415%
16	19.243	1726	1730	1739	rBV3	8766	24014	1.05%	0.234%
17	19.790	1775	1784	1793	rBV2	17009	66371	2.90%	0.647%

Sum of corrected areas: 10255805

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1679.D
Operator : XINGFANG WANG
Acquired : 23 Jul 2001 14:26 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: N/A,METHOD-BLK,S,0.1g,0
Misc Info :
Vial Number: 5
Quant File :JME0722.RES (RTE Integrator)



ICV3

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1708.D Vial: 34
Acq On : 24 Jul 2001 3:47 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 24 04:07:50 2001 Quant Results File: JME0722.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration
DataAcq Meth : JME0722

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	492942	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	801196	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	665698	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	206971	53.95	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 107.90%			
41) Toluene-d8	8.89	98	843567	52.84	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 105.68%			
59) Bromofluorobenzene	11.98	95	421970	51.03	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 102.06%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

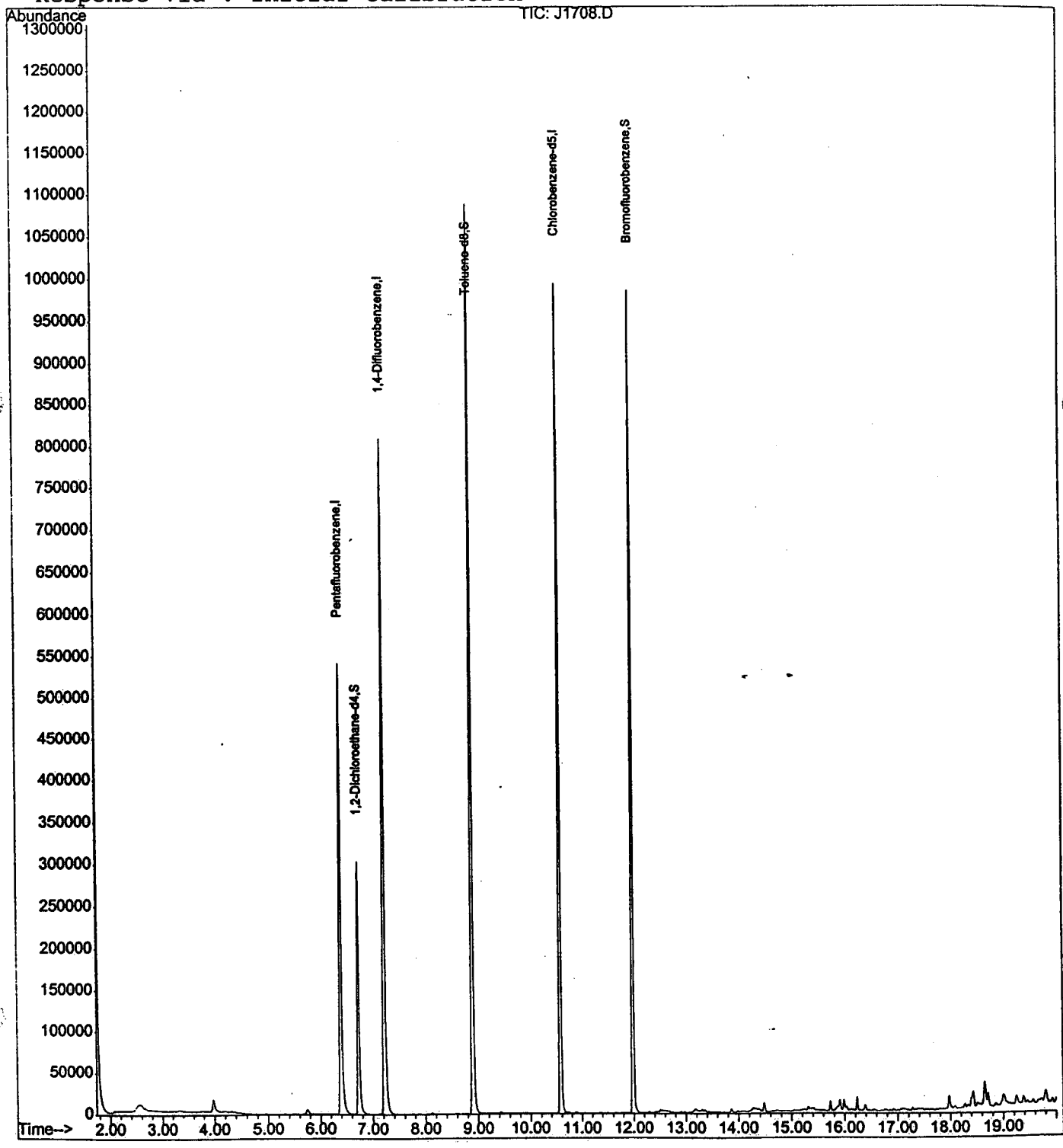
1644

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1708.D
Acq On : 24 Jul 2001 3:47
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
MS Integration Params: LSCINT.P
Quant Time: Jul 24 9:18 2001

Vial: 34
Operator: XINGFANG
Inst : MSD_J
Multiplr: 1.00
Quant Results File: JME0722.RES

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Sun Jul 22 14:01:03 2001
Response via : Initial Calibration



1645

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-23-01\J1708.D Vial: 34
Acq On : 24 Jul 2001 3:47 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0722.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

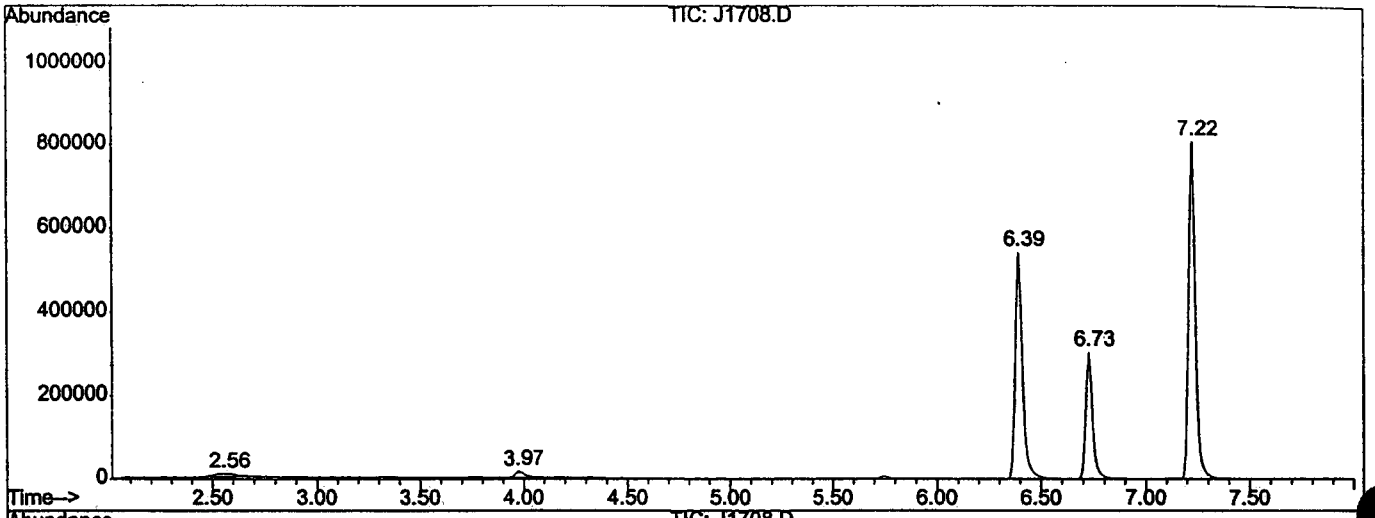
Signal : TIC

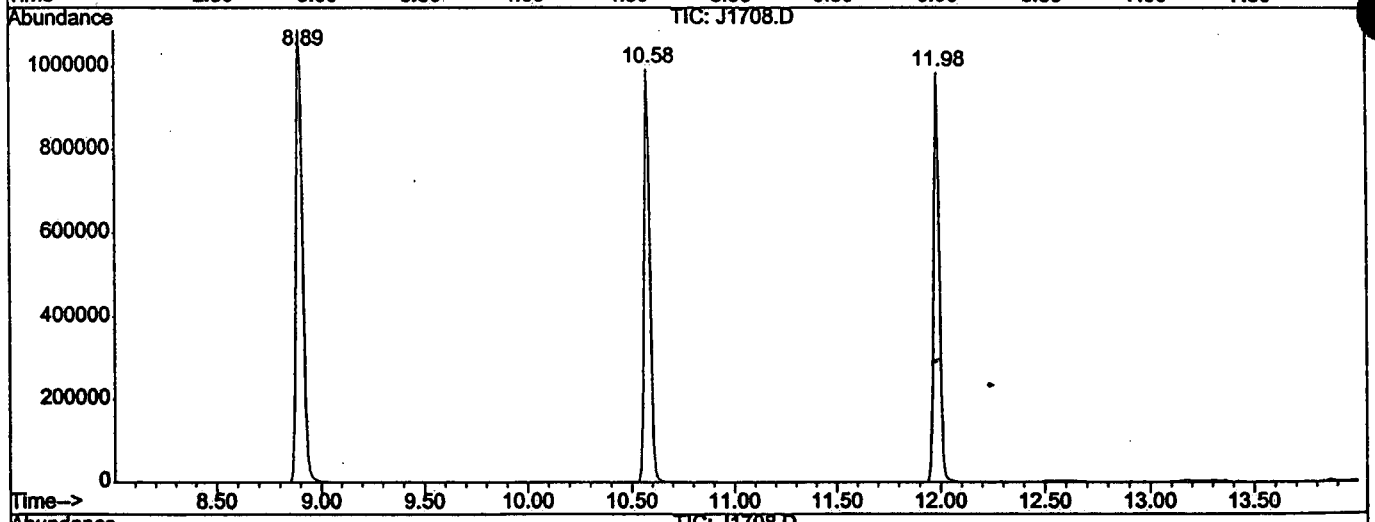
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.555	71	82	98	rBV6	7768	64572	2.80%	0.621%
2	3.973	217	222	235	rVB	14913	48074	2.08%	0.462%
3	6.393	455	461	488	rVB	541845	1304977	56.52%	12.549%
4	6.727	488	494	514	rBV	303733	691498	29.95%	6.650%
5	7.223	536	543	563	rBV	808987	1754423	75.98%	16.871%
6	8.894	702	708	723	rBV	1088472	2308978	100.00%	22.204%
7	10.575	867	874	887	rBV	994184	1921741	83.23%	18.480%
8	11.983	1006	1013	1029	rBV	985525	1802032	78.04%	17.329%
9	14.281	1230	1240	1247	rBV8	4879	28123	1.22%	0.270%
10	14.484	1255	1260	1265	rVB	10922	25263	1.09%	0.243%
11	15.902	1389	1400	1405	rBV5	13462	48376	2.10%	0.465%
12	16.236	1429	1433	1437	rVB	16939	28156	1.22%	0.271%
13	17.977	1597	1605	1612	rBV2	16405	41740	1.81%	0.401%
14	18.433	1643	1650	1655	rVB2	18361	59366	2.57%	0.571%
15	18.656	1666	1672	1675	rVV	30387	80336	3.48%	0.773%
16	18.707	1675	1677	1685	rVB	16911	36709	1.59%	0.353%
17	19.010	1699	1707	1716	rBV6	12927	55916	2.42%	0.538%
18	19.243	1726	1730	1739	rBV5	10076	29084	1.26%	0.280%
19	19.375	1740	1743	1748	rBV2	8922	23354	1.01%	0.225%
20	19.800	1780	1785	1790	rVB2	14885	46166	2.00%	0.444%

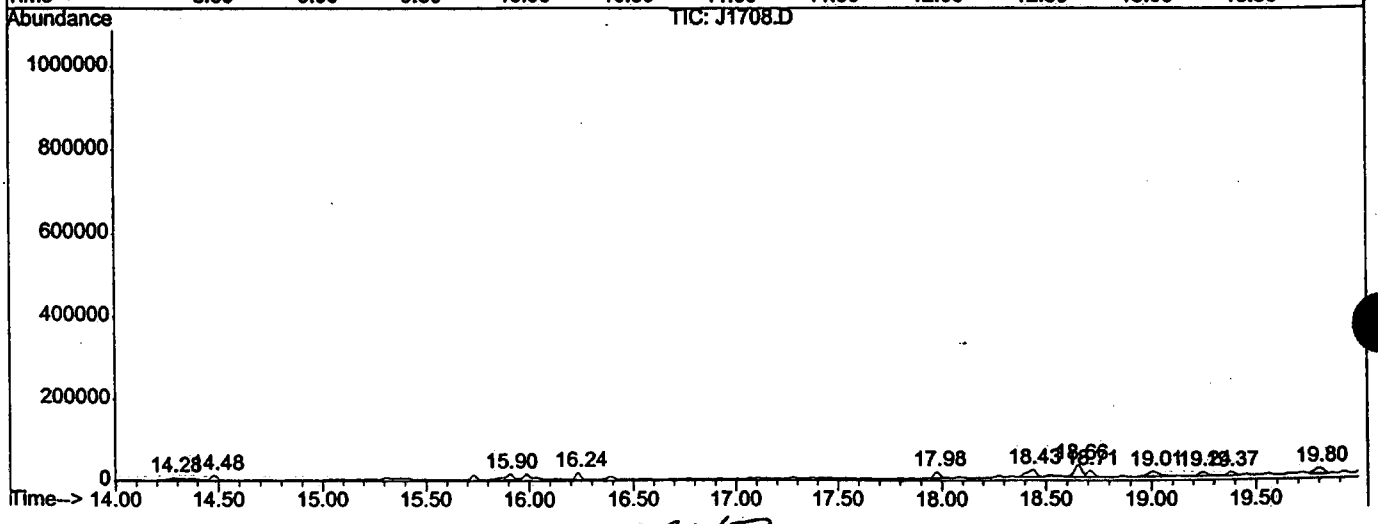
Sum of corrected areas: 10398884

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-23-01\J1708.D
Operator : XINGFANG WANG
Acquired : 24 Jul 2001 3:47 using AcqMethod JME0722
Instrument : MSD_J
Sample Name: N/A,METHOD-BLK,S,0.1g,0
Misc Info :
Vial Number: 34
Quant File :JME0722.RES (RTE Integrator)







SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B4500.D DFTPP Injection Date : 07/18/2001

Inst ID: MSDB DFTPP Injection Time: 05:35

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	44.6			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	46.9			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	58.0			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.1			
275	10.0 - 30.0% of mass 198	23.4			
365	Greater than 1.0% of mass 198	3.7			
441	Present, but less than mass 443	10.80	(	70.4	)3
442	40.0 - 100.0% of mass 198	78.7			
443	17.0 - 23.0% of mass 442	15.3	(	19.5	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
.	80-BNA-STD-INJ-F	B4502.D	07/18/2001	05:58
.	50-BNA-STD-INJ-F	B4503.D	07/18/2001	06:14
.	20-BNA-STD-INJ-F	B4504.D	07/18/2001	06:29
.	120-BNA-STD-INJ	B4505.D	07/18/2001	06:45
.	160-BNA-STD-INJ	B4506.D	07/18/2001	07:00
.	80-OLMO4-STD-IN	B4507.D	07/18/2001	07:15
.	50-OLMO4-STD-IN	B4508.D	07/18/2001	07:31
.	20-OLMO4-STD-IN	B4509.D	07/18/2001	07:46
.	120-OLMO4-STD-	B4510.D	07/18/2001	08:02
.	160-OLMO4-STD-	B4511.D	07/18/2001	08:17

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B4512.D DFTPP Injection Date : 07/18/2001

Inst ID: MSDB DFTPP Injection Time: 08:30

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.6			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	44.5			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	53.9			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.3			
275	10.0 - 30.0% of mass 198	26.7			
365	Greater than 1.0% of mass 198	4.4			
441	Present, but less than mass 443	14.04	(	70.0	)3
442	40.0 - 100.0% of mass 198	96.9			
443	17.0 - 23.0% of mass 442	20.1	(	20.7	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
.	80-BNA-STD-INJ-F	B4513.D	07/18/2001	08:39
.	80-OLMO4-STD-IN	B4514.D	07/18/2001	08:54
.	Method-Blank	B4515.D	07/18/2001	09:09
STRP-1_5-7'	4794-010	B4516.D	07/18/2001	09:25
STRP-2_5-7'	4794-011	B4517.D	07/18/2001	09:41
STRP-3_6-8'	4794-012	B4518.D	07/18/2001	09:56
STRP-1_5-	4794-010MS	B4519.D	07/18/2001	10:12
STRP-1_5-	4794-010MSD	B4520.D	07/18/2001	10:32
S-101	4833-010	B4521.D	07/18/2001	10:47
S-102	4833-011	B4522.D	07/18/2001	11:03
S-103A	4833-012	B4523.D	07/18/2001	11:18
S-103B	4833-013	B4524.D	07/18/2001	11:34
S-104	4833-014	B4525.D	07/18/2001	11:49
S-105	4833-015	B4526.D	07/18/2001	12:05
S-106	4833-016	B4527.D	07/18/2001	12:21
S-107	4833-017	B4528.D	07/18/2001	12:36
S-108	4833-018	B4529.D	07/18/2001	12:52
4337-B12S	4841-001	B4530.D	07/18/2001	13:07
4337-B15S	4841-002	B4531.D	07/18/2001	13:23
K-GP-2	4668-002	B4532.D	07/18/2001	13:39
L-GP-18	4668-018	B4533.D	07/18/2001	13:55
WP-GP-20	4668-020	B4534.D	07/18/2001	14:10
I1-GP-25	4668-025	B4535.D	07/18/2001	14:26

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B4512.D DFTPP Injection Date : 07/18/2001

Inst ID: MSDB DFTPP Injection Time: 08:30

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.6			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	44.5			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	53.9			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.3			
275	10.0 - 30.0% of mass 198	26.7			
365	Greater than 1.0% of mass 198	4.4			
441	Present, but less than mass 443	14.0	(	70.0	)3
442	40.0 - 100.0% of mass 198	96.9			
443	17.0 - 23.0% of mass 442	20.1	(	20.7	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
I1-GP-26	4668-026	B4536.D	07/18/2001	14:42
KEESHON-#1	4811-001	B4537.D	07/18/2001	14:57
.	Method-Blank	B4538.D	07/18/2001	15:13
SS-1(GW-4)	4823-001	B4539.D	07/18/2001	15:29
G-GP-30	4697-002	B4540.D	07/18/2001	15:44
G-GP-32	4697-004	B4541.D	07/18/2001	16:00
G-GP-35	4697-007	B4542.D	07/18/2001	16:16
G-GP-36	4697-008	B4543.D	07/18/2001	16:31
CC-C80_3'	4856-001	B4544.D	07/18/2001	16:47
CC-C80_7'	4856-002	B4545.D	07/18/2001	17:02
CC-C80D_7'	4856-003	B4546.D	07/18/2001	17:18
CC-C81_3'	4856-004	B4547.D	07/18/2001	17:33
CC-C81_7'	4856-005	B4548.D	07/18/2001	17:49
CC-C82_3'	4856-006	B4549.D	07/18/2001	18:04
CC-C82_7'	4856-007	B4550.D	07/18/2001	18:20
CC-MW-20-1_5-	4857-001	B4551.D	07/18/2001	18:35
CC-MW-20-2_7-	4857-002	B4552.D	07/18/2001	18:51
CC-MW-9-1_8-9	4857-003	B4553.D	07/18/2001	19:06
CC-MW-20-1_	4857-001MS	B4554.D	07/18/2001	19:21
CC-MW-20-1	4857-001MSD	B4555.D	07/18/2001	19:37
CC-MW-17-1_7-	4897-001	B4556.D	07/18/2001	19:53
CC-MW-16-1_6-	4897-002	B4557.D	07/18/2001	20:08

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B4512.D DFTPP Injection Date : 07/18/2001

Inst ID: MSDB DFTPP Injection Time: 08:30

m/z	Ion Abudance Criteria	%Relative Abundance			
51	30.0 - 60.0% of mass 198	41.6			
68	Less than 2.0% of mass 69	0.0	(	0.0	)1
69	Mass 69 relative abundance	44.5			
70	Less than 2.0% of mass 69	0.0	(	0.0	)1
127	40.0 - 60.0% of mass 198	53.9			
197	Less than 1.0% of mass 198	0.0			
198	Base peak, 100% relative abundance	100.0			
199	5.0 - 9.0% of mass 198	7.3			
275	10.0 - 30.0% of mass 198	26.7			
365	Greater than 1.0% of mass 198	4.4			
441	Present, but less than mass 443	14.04	(	70.0	)3
442	40.0 - 100.0% of mass 198	96.9			
443	17.0 - 23.0% of mass 442	20.1	(	20.7	)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CC-MW-21-1_6-	4897-003	B4558.D	07/18/2001	20:23
LIFT-1A	4790-001	B4559.D	07/18/2001	20:39
PILE	4621-003	B4560.D	07/18/2001	20:54

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B4515.D

Instrument ID: MSDB

Date Extracted: 07/17/01

Matrix: SOIL

Date Analyzed: 07/18/2001

Time Analyzed: 09:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
STRP-1_5-7'	4794-010	07/18/2001	09:25
STRP-2_5-7'	4794-011	07/18/2001	09:41
STRP-3_6-8'	4794-012	07/18/2001	09:56
STRP-1_5-	4794-010MS	07/18/2001	10:12
STRP-1_5-	4794-010MSD	07/18/2001	10:32
S-101	4833-010	07/18/2001	10:47
S-102	4833-011	07/18/2001	11:03
S-103A	4833-012	07/18/2001	11:18
S-103B	4833-013	07/18/2001	11:34
S-104	4833-014	07/18/2001	11:49
S-105	4833-015	07/18/2001	12:05
S-106	4833-016	07/18/2001	12:21
S-107	4833-017	07/18/2001	12:36
S-108	4833-018	07/18/2001	12:52
4337-B12S	4841-001	07/18/2001	13:07
4337-B15S	4841-002	07/18/2001	13:23
K-GP-2	4668-002	07/18/2001	13:39
L-GP-18	4668-018	07/18/2001	13:55
WP-GP-20	4668-020	07/18/2001	14:10
I1-GP-25	4668-025	07/18/2001	14:26
I1-GP-26	4668-026	07/18/2001	14:42
KEESHON-#1	4811-001	07/18/2001	14:57

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method-Blank
Client ID: .
Date Received: N/A
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4515.D

GC/MS Column: DB-5
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
N-Nitrosodimethylamine	ND		33.3
Benzaldehyde	ND		33.3
Phenol	ND		33.3
Aniline	ND		33.3
bis(2-Chloroethyl)ether	ND		33.3
2-Chlorophenol	ND		33.3
1,3-Dichlorobenzene	ND		33.3
1,4-Dichlorobenzene	ND		33.3
Benzyl alcohol	ND		33.3
1,2-Dichlorobenzene	ND		33.3
2-Methylphenol	ND		33.3
bis(2-chloroisopropyl)ether	ND		33.3
4-Methylphenol	ND		33.3
N-Nitroso-di-n-propylamine	ND		33.3
Acetophenone	ND		33.3
Hexachloroethane	ND		33.3
Nitrobenzene	ND		33.3
Isophorone	ND		33.3
2-Nitrophenol	ND		33.3
2,4-Dimethylphenol	ND		33.3
bis(2-Chloroethoxy)methane	ND		33.3
Benzoic acid	ND		33.3
2,4-Dichlorophenol	ND		33.3
1,2,4-Trichlorobenzene	ND		33.3
Naphthalene	ND		33.3
4-Chloroaniline	ND		33.3
Hexachlorobutadiene	ND		33.3
Caprolactam	ND		33.3
4-Chloro-3-methylphenol	ND		33.3
2-Methylnaphthalene	ND		33.3
Hexachlorocyclopentadiene	ND		33.3
2,4,6-Trichlorophenol	ND		33.3
2,4,5-Trichlorophenol	ND		33.3
1-1'-Biphenyl	ND		33.3
2-Chloronaphthalene	ND		33.3
2-Nitroaniline	ND		33.3
Dimethylphthalate	ND		33.3
2,6-Dinitrotoluene	ND		33.3
Acenaphthylene	ND		33.3

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Client/Project: N/A

Lab ID: Method-Blank
Client ID: .
Date Received: N/A
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4515.D

GC/MS Column: DB-5
Sample wt/vol: 30.0g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
3-Nitroaniline	ND		33.3
Acenaphthene	ND		33.3
2,4-Dinitrophenol	ND		33.3
4-Nitrophenol	ND		33.3
2,4-Dinitrotoluene	ND		33.3
Dibenzofuran	ND		33.3
Diethylphthalate	ND		33.3
Fluorene	ND		33.3
4-Chlorophenyl-phenylether	ND		33.3
4-Nitroaniline	ND		33.3
4,6-Dinitro-2-methylphenol	ND		33.3
N-Nitrosodiphenylamine	ND		33.3
1,2-Diphenylhydrazine/Azobenzene	ND		33.3
4-Bromophenyl-phenylether	ND		33.3
Hexachlorobenzene	ND		33.3
Atrazine	ND		33.3
Pentachlorophenol	ND		33.3
Phenanthrene	ND		33.3
Anthracene	ND		33.3
Carbazole	ND		33.3
Di-n-butylphthalate	ND		33.3
Fluoranthene	ND		33.3
Benzidine	ND		33.3
Pyrene	ND		33.3
3,3'-Dimethylbenzidine	ND		33.3
Butylbenzylphthalate	ND		33.3
3,3'-Dichlorobenzidine	ND		33.3
Benzo[a]anthracene	ND		33.3
Chrysene	ND		33.3
bis(2-Ethylhexyl)phthalate	ND		33.3
Di-n-octylphthalate	ND		33.3
Benzo[b]fluoranthene	ND		33.3
Benzo[k]fluoranthene	ND		33.3
Benzo[a]pyrene	ND		33.3
Indeno[1,2,3-cd]pyrene	ND		33.3
Dibenz[a,h]anthracene	ND		33.3
Benzo[g,h,i]perylene	ND		33.3

Total Target Compounds: 0

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INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: Method-Blank
Client ID: .
Date Received: N/A
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: B4515.D

GC/MS Column: DB-5
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

1655

Response Factor Report MSD_B

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration

Calibration Files
160 =B4506.D 80 =B4502.D 50 =B4503.D
20 =B4504.D 120 =B4505.D

		Compound	160	80	50	20	120	AvgRF	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD						
2)	T	N-Nitrosodimethylam	0.790	0.743	0.636	0.793	0.747	0.742	8.54
3)	T	Pyridine	0.784	0.802	0.781	0.926	0.883	0.835	7.87
4)	S	2-Fluorophenol	1.340	1.225	1.121	1.455	1.352	1.299	9.89
5)	T	Benzaldehyde	1.183	0.848	0.831	1.204	1.185	1.050	18.33
6)	S	Phenol-d5	1.556	1.569	1.336	1.627	1.601	1.538	7.55
7)	MC	Phenol	1.466	1.385	1.529	1.515	1.651	1.509	6.44
8)	T	Aniline	0.706	0.683	0.626	0.769	0.698	0.696	7.33
9)	T	bis(2-Chloroethyl)e	0.863	0.919	0.815	1.043	0.886	0.905	9.48
10)	M	2-Chlorophenol	1.359	1.164	1.077	1.261	1.214	1.215	8.67
11)	T	1,3-Dichlorobenzene	1.546	1.638	1.368	1.417	1.648	1.523	8.34
12)	MC	1,4-Dichlorobenzene	1.887	1.404	1.404	1.710	1.579	1.597	12.97
13)	T	Benzyl alcohol	0.789	0.765	0.663	0.761	0.799	0.755	7.13
14)	T	1,2-Dichlorobenzene	1.562	1.509	1.384	1.405	1.494	1.471	5.06
15)	T	2-Methylphenol	1.283	1.247	1.129	1.332	1.287	1.255	6.12
16)	T	bis(2-chloroisoprop	1.385	1.493	1.488	1.804	1.449	1.524	10.66
17)	T	4-Methylphenol	1.329	1.098	1.146	1.276	1.209	1.211	7.72
18)	MP	N-Nitroso-di-n-prop	0.796	0.819	0.748	0.941	0.924	0.846	9.90
19)	T	Acetophenone	1.707	1.618	1.605	1.760	1.714	1.681	3.96
20)	T	2-Aminotoluene +4-A	2.147	2.149	1.980	2.125	2.070	2.094	3.41
21)	T	Hexachloroethane	0.611	0.542	0.498	0.585	0.567	0.560	7.71
22)	I	Naphthalene-d8	ISTD						
23)	S	Nitrobenzene-d5	0.435	0.370	0.327	0.340	0.412	0.377	12.22
24)	T	Nitrobenzene	0.381	0.342	0.330	0.359	0.307	0.344	8.21
25)	T	Isophorone	0.622	0.629	0.585	0.617	0.641	0.619	3.39
26)	TC	2-Nitrophenol	0.189	0.192	0.151	0.160	0.194	0.177	11.55
27)	T	2,4-Dimethylphenol	0.354	0.353	0.299	0.319	0.354	0.336	7.59
28)	T	bis(2-Chloroethoxy)	0.425	0.394	0.379	0.383	0.379	0.392	4.98
29)	T	Benzoic acid	0.136	0.152	0.142	0.123	0.146	0.140	8.02
30)	T	2,4-Dimethylaniline	0.381	0.377	0.379	0.331	0.394	0.373	6.45
31)	TC	2,4-Dichlorophenol	0.316	0.287	0.247	0.246	0.313	0.282	12.08
32)	M	1,2,4-Trichlorobenz	0.377	0.314	0.304	0.289	0.335	0.324	10.54
33)	T	Naphthalene	1.190	1.067	1.098	0.976	1.113	1.089	7.11
34)	T	4-Chloroaniline	0.566	0.560	0.506	0.507	0.639	0.556	9.80
35)	TC	Hexachlorobutadiene	0.237	0.209	0.180	0.166	0.247	0.208	16.93
36)	T	Caprolactam	0.115	0.111	0.115	0.122	0.123	0.117	4.40
37)	MC	4-Chloro-3-methylph	0.273	0.262	0.245	0.263	0.269	0.262	4.05
38)	T	2-Methylnaphthalene	0.771	0.773	0.730	0.654	0.701	0.726	6.89
39)	I	Acenaphthene-d10	ISTD						
40)	TP	Hexachlorocyclopent	0.623	0.467	0.342	0.343	0.564	0.468	27.22
41)	TC	2,4,6-Trichlorophen	0.434	0.337	0.295	0.322	0.392	0.356	15.76
42)	T	2,4,5-Trichlorophen	0.459	0.378	0.348	0.320	0.436	0.388	14.99
43)	S	2-Fluorobiphenyl	1.373	1.252	1.281	1.330	1.392	1.326	4.47
44)	T	1-1'-Biphenyl	1.737	1.423	1.513	1.331	1.718	1.544	11.60
45)	T	2-Chloronaphthalene	1.427	1.093	1.067	0.993	1.236	1.163	14.77
46)	T	2-Nitroaniline	0.282	0.270	0.245	0.251	0.318	0.273	10.68

48)	T	2,6-Dinitrotoluene	0.275	0.207	0.221	0.206	0.263	0.235	13.72
49)	T	Acenaphthylene	2.106	1.780	1.583	1.683	2.084	1.847	12.81
50)	T	3-Nitroaniline	0.355	0.362	0.279	0.314	0.378	0.337	12.04
51)	MC	Acenaphthene	1.351	1.081	1.099	0.975	1.147	1.131	12.24
52)	T	2,4-Dinitrophenol	0.120	0.091	0.088	0.077	0.128	0.101	21.84
53)	MP	4-Nitrophenol	0.176	0.173	0.160	0.173	0.209	0.178	10.37
54)	M	2,4-Dinitrotoluene	0.297	0.245	0.239	0.237	0.314	0.267	13.63
55)	T	Dibenzofuran	1.684	1.619	1.435	1.451	1.891	1.616	11.58
56)	T	Diethylphthalate	1.403	1.218	1.034	1.141	1.336	1.226	12.07
57)	T	Fluorene	1.449	1.267	1.201	1.075	1.481	1.295	13.19
58)	T	4-Chlorophenyl-phen	0.789	0.671	0.491	0.517	0.672	0.628	19.64
59)	T	4-Nitroaniline	0.345	0.283	0.235	0.225	0.367	0.291	21.85
60)	I	Phenanthrene-d10	ISTD						
61)	T	4,6-Dinitro-2-methy	0.110	0.079	0.071	0.064	0.090	0.083	21.65
62)	TC	N-Nitrosodiphenylam	0.573	0.507	0.436	0.479	0.513	0.502	10.00
63)	T	1,2-Diphenylhydrazi	0.814	0.825	0.691	0.799	0.841	0.794	7.48
64)	S	2,4,6-Tribromopheno	0.154	0.148	0.138	0.151	0.153	0.149	4.51
65)	T	4-Bromophenyl-pheny	0.264	0.234	0.194	0.198	0.269	0.232	15.33
66)	T	Hexachlorobenzene	0.316	0.292	0.253	0.245	0.316	0.284	11.93
67)	T	Atrazine	0.184	0.160	0.111	0.172	0.195	0.164	19.71
68)	MC	Pentachlorophenol	0.156	0.125	0.115	0.119	0.140	0.131	13.06
69)	T	Phenanthrene	1.084	1.014	0.948	0.936	1.063	1.009	6.58
70)	T	Anthracene	1.187	1.012	0.907	0.938	1.046	1.018	10.76
71)	T	Carbazole	1.024	0.883	0.813	0.864	0.987	0.914	9.63
72)	T	Di-n-butylphthalate	1.183	1.081	1.008	1.046	1.126	1.089	6.27
73)	TC	Fluoranthene	0.997	0.885	0.833	0.875	0.996	0.917	8.17
74)	T	Benzidine	0.248	0.191	0.119	0.201	0.242	0.200	25.91
75)	I	Chrysene-d12	ISTD						
76)	M	Pyrene	1.522	1.437	1.354	1.382	1.402	1.420	4.56
77)	S	Terphenyl-d14	1.098	1.140	1.117	1.279	1.089	1.144	6.78
78)	T	3,3'-Dimethylbenzid	0.145	0.164	0.173	0.172	0.129	0.157	12.09
79)	T	Butylbenzylphthalat	0.657	0.609	0.574	0.582	0.609	0.606	5.36
80)	T	3,3'-Dichlorobenzid	0.339	0.307	0.329	0.369	0.307	0.330	7.88
81)	T	Benzo[a]anthracene	1.163	1.069	0.994	1.052	1.065	1.069	5.68
82)	T	Chrysene	1.054	0.958	0.970	0.952	0.989	0.984	4.19
83)	T	bis(2-Ethylhexyl)ph	0.910	0.847	0.774	0.794	0.851	0.835	6.40
84)	I	Perylene-d12	ISTD						
85)	TC	Di-n-octylphthalate	1.224	1.275	1.290	1.255	1.201	1.249	2.91
86)	T	Benzo[b]fluoranthen	1.210	1.020	1.155	1.118	1.145	1.130	6.19
87)	T	Benzo[k]fluoranthen	0.957	1.049	0.950	0.903	0.876	0.947	7.01
88)	TC	Benzo[a]pyrene	0.997	0.931	0.949	0.897	0.930	0.941	3.89
89)	T	Indeno[1,2,3-cd]pyr	1.342	1.210	1.204	1.099	1.249	1.221	7.19
90)	T	Dibenz[a,h]anthrace	1.126	1.015	0.995	0.911	1.052	1.020	7.69
91)	T	Benzo[g,h,i]perylen	1.067	0.998	1.004	0.907	1.009	0.997	5.78

(#) = Out of Range

BS2001.M Wed Jul 18 08:29:18 2001 MSD_B

Instrument ID:	**MSD_B**
Method ID:	**BS2001.M**
Date:	**07/18/2001**

Average %RSD = 10.21

Refer to SW846 Method 8000B Section 7.5.1.

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4513.D Vial: 2
Acq On : 18 Jul 2001 8:39 Operator: JC
Sample : .,80-BNA-STD-INJ-FOR-07/18/01 Inst : MSD_B
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Multiple Level Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00
2	T	N-Nitrosodimethylamine	0.742	0.738	0.5	88	0.00
3	T	Pyridine	0.835	0.923	-10.5	103	0.00
4	S	2-Fluorophenol	1.299	1.385	-6.6	101	0.00
5	T	Benzaldehyde	1.050	0.971	7.5	101	0.00
6	S	Phenol-d5	1.538	1.587	-3.2	90	0.00
7	MC	Phenol	1.509	1.463	3.0	94	0.00
8	T	Aniline	0.696	0.728	-4.6	95	0.00
9	T	bis(2-Chloroethyl)ether	0.905	0.980	-8.3	95	0.00
10	M	2-Chlorophenol	1.215	1.166	4.0	89	0.00
11	T	1,3-Dichlorobenzene	1.523	1.527	-0.3	83	0.00
12	MC	1,4-Dichlorobenzene	1.597	1.472	7.8	93	0.00
13	T	Benzyl alcohol	0.755	0.727	3.7	85	0.00
[illegible]	T	1,2-Dichlorobenzene	1.471	1.525	-3.7	90	0.00
[illegible]	T	2-Methylphenol	1.255	1.261	-0.5	90	0.00
16	T	bis(2-chloroisopropyl)ether	1.524	1.676	-10.0	100	0.00
17	T	4-Methylphenol	1.211	1.107	8.6	90	0.00
18	MP	N-Nitroso-di-n-propylamine	0.846	0.896	-5.9	97	0.01
19	T	Acetophenone	1.681	1.650	1.8	91	0.00
20	T	2-Aminotoluene +4-Aminotolu	2.094	2.097	-0.1	87	0.00
21	T	Hexachloroethane	0.560	0.546	2.5	90	0.00
22	I	Naphthalene-d8	1.000	1.000	0.0	90	0.00
23	S	Nitrobenzene-d5	0.377	0.370	1.9	90	0.00
24	T	Nitrobenzene	0.344	0.375	-9.0	98	0.00
25	T	Isophorone	0.619	0.668	-7.9	95	0.01
26	TC	2-Nitrophenol	0.177	0.181	-2.3	85	0.00
27	T	2,4-Dimethylphenol	0.336	0.354	-5.4	90	0.00
28	T	bis(2-Chloroethoxy)methane	0.392	0.411	-4.8	94	0.00
29	T	Benzoic acid	0.140	0.146	-4.3	86	0.02
30	T	2,4-Dimethylaniline	0.373	0.362	2.9	86	0.00
31	TC	2,4-Dichlorophenol	0.282	0.259	8.2	81	0.00
32	M	1,2,4-Trichlorobenzene	0.324	0.319	1.5	91	0.00
33	T	Naphthalene	1.089	1.061	2.6	89	0.00
34	T	4-Chloroaniline	0.556	0.541	2.7	86	0.00
35	TC	Hexachlorobutadiene	0.208	0.205	1.4	88	0.00
36	T	Caprolactam	0.117	0.119	-1.7	96	0.02
37	MC	4-Chloro-3-methylphenol	0.262	0.276	-5.3	94	0.00
38	T	2-Methylnaphthalene	0.726	0.813	-12.0	94	0.00
39	I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00
40	TP	Hexachlorocyclopentadiene	0.468	0.445	4.9	84	0.00
41	TC	2,4,6-Trichlorophenol	0.356	0.350	1.7	92	0.00
42	T	2,4,5-Trichlorophenol	0.388	0.370	4.6	86	0.00
43	S	2-Fluorobiphenyl	1.326	1.325	0.1	93	0.00
44	T	1-1'-Biphenyl	1.544	1.475	4.5	91	0.00

46	T	2-Nitroaniline	0.273	0.277	-1.5	91	0.00
47	T	Dimethylphthalate	1.160	1.226	-5.7	93	0.00
48	T	2,6-Dinitrotoluene	0.235	0.211	10.2	90	0.00
49	T	Acenaphthylene	1.847	1.940	-5.0	96	0.00
50	T	3-Nitroaniline	0.337	0.349	-3.6	85	0.00
51	MC	Acenaphthene	1.131	1.081	4.4	88	0.00
52	T	2,4-Dinitrophenol	0.101	0.092	8.9	89	0.00
53	MP	4-Nitrophenol	0.178	0.179	-0.6	92	0.00
54	M	2,4-Dinitrotoluene	0.267	0.267	0.0	96	0.01
55	T	Dibenzofuran	1.616	1.718	-6.3	94	0.00
56	T	Diethylphthalate	1.226	1.165	5.0	84	0.00
57	T	Fluorene	1.295	1.255	3.1	87	0.00
58	T	4-Chlorophenyl-phenylether	0.628	0.680	-8.3	89	0.01
59	T	4-Nitroaniline	0.291	0.295	-1.4	92	0.02
60	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.02
61	T	4,6-Dinitro-2-methylphenol	0.083	0.075	9.6	86	0.02
62	TC	N-Nitrosodiphenylamine	0.502	0.493	1.8	89	0.01
63	T	1,2-Diphenylhydrazine/Azobe	0.794	0.860	-8.3	95	0.01
64	S	2,4,6-Tribromophenol	0.149	0.135	9.4	83	0.01
65	T	4-Bromophenyl-phenylether	0.232	0.220	5.2	86	0.02
66	T	Hexachlorobenzene	0.284	0.275	3.2	86	0.02
67	T	Atrazine	0.164	0.160	2.4	91	0.02
68	MC	Pentachlorophenol	0.131	0.133	-1.5	97	0.02
69	T	Phenanthrene	1.009	0.996	1.3	90	0.02
70	T	Anthracene	1.018	0.949	6.8	86	0.02
71	T	Carbazole	0.914	0.892	2.4	92	0.03
72	T	Di-n-butylphthalate	1.089	1.045	4.0	88	0.02
73	TC	Fluoranthene	0.917	0.915	0.2	94	0.02
74	T	Benzidine	0.200	0.196	2.0	94	0.02
75	I	Chrysene-d12	1.000	1.000	0.0	97	0.02
76	M	Pyrene	1.420	1.400	1.4	95	0.02
77	S	Terphenyl-d14	1.144	1.052	8.0	90	0.02
78	T	3,3'-Dimethylbenzidine	0.157	0.148	5.7	88	0.01
79	T	Butylbenzylphthalate	0.606	0.583	3.8	93	0.02
80	T	3,3'-Dichlorobenzidine	0.330	0.303	8.2	96	0.03
81	T	Benzo[a]anthracene	1.069	1.040	2.7	95	0.03
82	T	Chrysene	0.984	0.963	2.1	98	0.02
83	T	bis(2-Ethylhexyl)phthalate	0.835	0.825	1.2	95	0.02
84	I	Perylene-d12	1.000	1.000	0.0	101	0.01
85	TC	Di-n-octylphthalate	1.249	1.203	3.7	96	0.02
86	T	Benzo[b]fluoranthene	1.130	1.020	9.7	101	0.02
87	T	Benzo[k]fluoranthene	0.947	1.008	-6.4	97	0.02
88	TC	Benzo[a]pyrene	0.941	0.918	2.4	100	0.02
89	T	Indeno[1,2,3-cd]pyrene	1.221	1.249	-2.3	105	0.03
90	T	Dibenz[a,h]anthracene	1.020	1.036	-1.6	104	0.03
91	T	Benzo[g,h,i]perylene	0.997	1.026	-2.9	104	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

B4502.D BS2001.M Wed Jul 18 09:38:41 2001 MSD_B

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/18/2001

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method-Blank	SOIL	B4515.D	76	92	73	74	76	103
4794-010	SOIL	B4516.D	66	82	59	59	73	87
4794-011	SOIL	B4517.D	56	75	54	65	70	101
4794-012	SOIL	B4518.D	60	78	59	60	62	95
4794-010MS	SOIL	B4519.D	62	74	56	71	71	92
4794-010MSD	SOIL	B4520.D	59	66	54	62	66	90
4833-010	SOIL	B4521.D	N/A	N/A	64	70	N/A	86
4833-011	SOIL	B4522.D	N/A	N/A	66	71	N/A	82
4833-012	SOIL	B4523.D	N/A	N/A	63	74	N/A	86
4833-013	SOIL	B4524.D	N/A	N/A	65	62	N/A	78
4833-014	SOIL	B4525.D	N/A	N/A	62	74	N/A	91
4833-015	SOIL	B4526.D	N/A	N/A	67	76	N/A	85
4833-016	SOIL	B4527.D	N/A	N/A	61	75	N/A	86
4833-017	SOIL	B4528.D	N/A	N/A	62	72	N/A	80
4833-018	SOIL	B4529.D	N/A	N/A	63	79	N/A	73
4841-001	SOIL	B4530.D	N/A	N/A	59	71	N/A	76
4841-002	SOIL	B4531.D	N/A	N/A	57	78	N/A	79
4668-002	SOIL	B4532.D	N/A	N/A	55	58	N/A	81
4668-018	SOIL	B4533.D	N/A	N/A	60	63	N/A	85
4668-020	SOIL	B4534.D	N/A	N/A	63	70	N/A	85
4668-025	SOIL	B4535.D	N/A	N/A	66	70	N/A	78
4668-026	SOIL	B4536.D	N/A	N/A	72	78	N/A	82
4811-001	SOIL	B4537.D	N/A	N/A	65	67	N/A	80

	Soil	Aqueous
S1 (2FP) = 2-Fluorophenol	28-100	47-93
S2 (PHL) = Phenol-d5	28-102	46-110
S3 (NBZ) = Nitrobenzene-d5	35-101	42-120
S4 (FBP) = 2-Fluorobiphenyl	37-103	55-109
S5 (TBP) = 2,4,6-Tribromophenol	44-121	46-119
S6 (TPH) = Terphenyl-d14	40-120	66-118

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

DO NOT NEED

Date Analyzed: 07/18/2001

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
Method-Blank	SOIL	B4538.D	71	94	78	81	79	86
4823-001	SOIL	B4539.D	59	80	62	66	72	70
4697-002	SOIL	B4540.D	N/A	N/A	63	73	N/A	79
4697-004	SOIL	B4541.D	N/A	N/A	63	76	N/A	77
4697-007	SOIL	B4542.D	N/A	N/A	68	69	N/A	77
4697-008	SOIL	B4543.D	N/A	N/A	60	69	N/A	73
4856-001	SOIL	B4544.D	N/A	N/A	63	75	N/A	75
4856-002	SOIL	B4545.D	N/A	N/A	63	69	N/A	72
4856-003	SOIL	B4546.D	N/A	N/A	67	72	N/A	74
4856-004	SOIL	B4547.D	N/A	N/A	62	73	N/A	70
4856-005	SOIL	B4548.D	N/A	N/A	65	94	N/A	71
4856-006	SOIL	B4549.D	N/A	N/A	63	72	N/A	69
4856-007	SOIL	B4550.D	N/A	N/A	68	79	N/A	67
4857-001	SOIL	B4551.D	N/A	N/A	59	69	N/A	67
4857-002	SOIL	B4552.D	N/A	N/A	76	103	N/A	73
4857-003	SOIL	B4553.D	N/A	N/A	54	69	N/A	72
4857-001MS	SOIL	B4554.D	55	67	61	74	62	72
4857-001MSD	SOIL	B4555.D	56	68	62	68	69	71
4897-001	SOIL	B4556.D	N/A	N/A	58	73	N/A	71
4897-002	SOIL	B4557.D	N/A	N/A	59	70	N/A	65
4897-003	SOIL	B4558.D	N/A	N/A	49	64	N/A	70

	Soil	Aqueous
S1 (2FP) = 2-Fluorophenol	28-100	47-93
S2 (PHL) = Phenol-d5	28-102	46-110
S3 (NBZ) = Nitrobenzene-d5	35-101	42-120
S4 (FBP) = 2-Fluorobiphenyl	37-103	55-109
S5 (TBP) = 2,4,6-Tribromophenol	44-121	46-119
S6 (TPH) = Terphenyl-d14	40-120	66-118

* Column to be used to flag recovery values

SOIL SEMIVOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4794-010 Batch No.: B071701S

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	100.0	0.0	65.0	65	26 - 90
2-Chlorophenol	100.0	0.0	70.7	71	25 - 102
1,4-Dichlorobenzene	50.0	0.0	32.5	65	28 - 104
N-Nitroso-di-n-propylamine	50.0	0.0	36.6	73	41 - 126
1,2,4-Trichlorobenzene	50.0	0.0	28.5	57	38 - 107
4-Chloro-3-methylphenol	100.0	0.0	79.8	80	26 - 103
Acenaphthene	50.0	0.0	35.8	72	31 - 137
4-Nitrophenol	100.0	0.0	70.7	71	11 - 114
2,4-Dinitrotoluene	50.0	0.0	30.8	62	28 - 89
Pentachlorophenol	100.0	0.0	81.9	82	17 - 109
Pyrene	50.0	0.0	40.9	82	35 - 142

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.0	72.4	72	10	42	26 - 90
2-Chlorophenol	0.0	59.7	60	17	40	25 - 102
1,4-Dichlorobenzene	0.0	26.9	54	18	28	28 - 104
N-Nitroso-di-n-propylamine	0.0	33.3	67	9	38	41 - 126
1,2,4-Trichlorobenzene	0.0	26.0	52	9	28	38 - 107
4-Chloro-3-methylphenol	0.0	76.9	77	4	42	26 - 103
Acenaphthene	0.0	32.3	65	10	31	31 - 137
4-Nitrophenol	0.0	73.9	74	4	50	11 - 114
2,4-Dinitrotoluene	0.0	29.4	59	5	38	28 - 89
Pentachlorophenol	0.0	83.6	84	2	50	17 - 109
Pyrene	0.0	40.8	82	0	31	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __11__ outside limits

Spike Recovery: __0___ out of __22__ outside limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4502.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 05:58

	40UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	51713		2.29		173328		2.82		93871		3.57	
	UPPER LIMIT	103426		2.79		346656		3.32		187742		4.07	
	LOWER LIMIT	25857		1.79		86664		2.32		46936		3.07	
	LAB SAMPLE ID												
01	50-BNA-STD-INJ-FOR	57846		2.29		194691		2.82		107871		3.57	
02	20-BNA-STD-INJ-FOR	45260		2.29		173313		2.82		95801		3.57	
03	120-BNA-STD-INJ-FO	44138		2.29		150247		2.83		79130		3.57	
04	160-BNA-STD-INJ-FO	44848		2.29		154332		2.83		78368		3.57	
05	80-OLMO4-STD-INJ-F	45727		2.28		184095		2.82		103045		3.57	
06	50-OLMO4-STD-INJ-F	44991		2.28		183857		2.82		103656		3.57	
07	20-OLMO4-STD-INJ-F	50461		2.29		198277		2.82		113431		3.57	
08	120-OLMO4-STD-INJ	43625		2.29		171021		2.82		98333		3.57	
09	160-OLMO4-STD-INJ	48887		2.29		191615		2.82		108472		3.57	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4502.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 05:58

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	153012	4.22	96457	5.94	90451	7.17
	UPPER LIMIT	306024	4.72	192914	6.44	180902	7.67
	LOWER LIMIT	76506	3.72	48229	5.44	45226	6.67
	LAB SAMPLE ID						
01	50-BNA-STD-INJ-FOR	169961	4.21	104565	5.93	91473	7.16
02	20-BNA-STD-INJ-FOR	146253	4.21	94380	5.93	87843	7.16
03	120-BNA-STD-INJ-FO	131218	4.22	92805	5.93	95570	7.17
04	160-BNA-STD-INJ-FO	128412	4.23	86767	5.95	94964	7.18
05	80-OLMO4-STD-INJ-F	176418	4.21	108053	5.94	97007	7.15
06	50-OLMO4-STD-INJ-F	156956	4.22	104038	5.93	92959	7.16
07	20-OLMO4-STD-INJ-F	175502	4.22	109969	5.93	94359	7.16
08	120-OLMO4-STD-INJ	156700	4.23	101349	5.93	88192	7.17
09	160-OLMO4-STD-INJ	163205	4.23	106499	5.94	91729	7.17
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	46059	2.29	155334	2.82	82832	3.57
	UPPER LIMIT	92118	2.79	310668	3.32	165664	4.07
	LOWER LIMIT	23030	1.79	77667	2.32	41416	3.07
	LAB SAMPLE ID						
01	80-OLMO4-STD-INJ-F	45513	2.28	178707	2.82	101051	3.58
02	Method-Blank	41564	2.28	160911	2.81	93186	3.57
03	4794-010	42774	2.28	163938	2.81	95319	3.57
04	4794-011	42991	2.28	164583	2.81	84462	3.57
05	4794-012	41410	2.28	153428	2.81	90941	3.57
06	4794-010MS	44131	2.29	168813	2.82	89321	3.58
07	4794-010MSD	40637	2.28	155548	2.82	82983	3.58
08	4833-010	41463	2.28	157003	2.81	86716	3.58
09	4833-011	43269	2.28	154570	2.81	83430	3.57
10	4833-012	45071	2.28	165848	2.81	89281	3.58
11	4833-013	43493	2.28	156699	2.81	92235	3.57
12	4833-014	43109	2.28	160668	2.81	87190	3.58
13	4833-015	41609	2.28	151471	2.81	79545	3.57
14	4833-016	41848	2.28	154925	2.82	79779	3.58
15	4833-017	38673	2.28	146528	2.82	76915	3.57
16	4833-018	41869	2.28	148199	2.82	72003	3.57
17	4841-001	40602	2.28	148724	2.82	76269	3.57
18	4841-002	41356	2.28	164440	2.82	75764	3.58
19	4668-002	40870	2.28	151248	2.82	83559	3.57
20	4668-018	39962	2.28	148924	2.82	85981	3.58
21	4668-020	36172	2.28	135258	2.81	70966	3.57
22	4668-025	37726	2.28	137955	2.81	77598	3.58

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	46059	2.29	155334	2.82	82832	3.57
	UPPER LIMIT	92118	2.79	310668	3.32	165664	4.07
	LOWER LIMIT	23030	1.79	77667	2.32	41416	3.07
	LAB SAMPLE ID						
01	4668-026	39798	2.28	143718	2.81	78871	3.58
02	4811-001	36687	2.28	134148	2.81	76101	3.57
03	Method-Blank	34658	2.28	126165	2.81	67610	3.57
04	4823-001	36934	2.28	135081	2.81	75229	3.57
05	4697-002	39302	2.28	142410	2.81	74778	3.57
06	4697-004	40376	2.28	144254	2.81	72274	3.57
07	4697-007	40242	2.28	147396	2.81	83749	3.57
08	4697-008	45042	2.28	160586	2.81	83945	3.57
09	4856-001	41440	2.28	150682	2.81	74229	3.57
10	4856-002	43721	2.28	153138	2.81	73893	3.57
11	4856-003	41634	2.28	146210	2.81	70539	3.57
12	4856-004	41794	2.28	152872	2.81	77520	3.57
13	4856-005	39522	2.28	173526	2.82	85180	3.58
14	4856-006	39956	2.28	147128	2.81	72701	3.57
15	4856-007	40323	2.28	173034	2.82	87158	3.58
16	4857-001	41990	2.28	146336	2.81	69889	3.57
17	4857-002	53537	2.29	184165	2.83	78735	3.58
18	4857-003	38904	2.28	133640	2.81	68151	3.57
19	4857-001MS	38466	2.28	138780	2.81	66749	3.57
20	4857-001MSD	40312	2.28	142604	2.81	68689	3.57
21	4897-001	39630	2.28	144488	2.81	75192	3.57
22	4897-002	39585	2.28	144158	2.81	72191	3.57

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	40UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	46059	2.29	155334	2.82	82832	3.57
	UPPER LIMIT	92118	2.79	310668	3.32	165664	4.07
	LOWER LIMIT	23030	1.79	77667	2.32	41416	3.07
	LAB SAMPLE ID						
01	4897-003	40366	2.28	150260	2.81	74814	3.57
02	4790-001	39837	2.28	139484	2.81	77701	3.57
03	4621-003	38848	2.28	138501	2.81	66521	3.57
04							
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20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	40UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	139563	4.24	94001	5.95	91749	7.17
	UPPER LIMIT	279126	4.74	188002	6.45	183498	7.67
	LOWER LIMIT	69782	3.74	47001	5.45	45875	6.67
	LAB SAMPLE ID						
01	80-OLMO4-STD-INJ-F	153987	4.25	100969	5.96	93269	7.18
02	Method-Blank	138535	4.22	86904	5.93	80467	7.16
03	4794-010	140657	4.24	92582	5.97	83930	7.16
04	4794-011	144983	4.25	88516	5.95	80449	7.17
05	4794-012	140401	4.24	84713	5.94	76623	7.17
06	4794-010MS	139543	4.26	90680	5.98	81097	7.18
07	4794-010MSD	130047	4.26	84745	5.96	77333	7.19
08	4833-010	126282	4.26	84352	5.96	80827	7.18
09	4833-011	119162	4.24	84739	5.94	85354	7.17
10	4833-012	134754	4.26	88470	5.96	86906	7.19
11	4833-013	125245	4.22	70341	5.93	78058	7.17
12	4833-014	141338	4.25	88725	5.96	92202	7.18
13	4833-015	115261	4.24	73874	5.94	85996	7.18
14	4833-016	122956	4.25	83160	5.96	96341	7.18
15	4833-017	109905	4.24	76444	5.94	89347	7.17
16	4833-018	103296	4.25	80606	5.96	85542	7.18
17	4841-001	113844	4.24	86062	5.94	98692	7.17
18	4841-002	105837	4.26	73573	5.98	84493	7.18
19	4668-002	122035	4.24	87567	5.95	98916	7.17
20	4668-018	127267	4.25	86416	5.96	99799	7.18
21	4668-020	114657	4.25	84969	5.96	95298	7.18
22	4668-025	111969	4.25	83669	5.95	92062	7.18

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	50UG/L	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	139563	4.24	94001	5.95	91749	7.17
	UPPER LIMIT	279126	4.74	188002	6.45	183498	7.67
	LOWER LIMIT	69782	3.74	47001	5.45	45875	6.67
	LAB SAMPLE ID						
01	4668-026	119273	4.25	87278	5.95	95017	7.18
02	4811-001	109175	4.24	82809	5.96	93414	7.16
03	Method-Blank	107530	4.25	82379	5.95	92503	7.17
04	4823-001	109492	4.23	89314	5.96	100516	7.16
05	4697-002	115032	4.22	89287	5.94	99324	7.15
06	4697-004	121650	4.21	90426	5.92	100502	7.15
07	4697-007	124747	4.22	90136	5.93	98726	7.16
08	4697-008	128442	4.22	93542	5.93	103132	7.16
09	4856-001	112863	4.22	89350	5.92	99590	7.16
10	4856-002	115921	4.22	92409	5.92	104132	7.15
11	4856-003	113727	4.21	91182	5.94	102079	7.14
12	4856-004	128260	4.22	93580	5.92	104474	7.15
13	4856-005	95766	4.20	92885	5.91	107911	7.15
14	4856-006	113242	4.21	89087	5.91	99266	7.15
15	4856-007	96795	4.21	89875	5.92	107323	7.15
16	4857-001	109376	4.21	92235	5.91	106954	7.15
17	4857-002	88800	4.21	84516	5.91	105282	7.15
18	4857-003	110056	4.20	88520	5.91	103066	7.15
19	4857-001MS	105774	4.22	86558	5.93	102132	7.15
20	4857-001MSD	109019	4.21	90585	5.91	107788	7.15
21	4897-001	119332	4.21	93662	5.92	106456	7.15
22	4897-002	107042	4.2	89779	5.91	104476	7.15

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B4513.D

Date Analyzed: 07/18/2001

Instrument ID: MSDB

Time Analyzed: 08:39

	40UG/L	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	139563		4.24		94001		5.95		91749		7.17	
	UPPER LIMIT	279126		4.74		188002		6.45		183498		7.67	
	LOWER LIMIT	69782		3.74		47001		5.45		45875		6.67	
	LAB SAMPLE ID												
01	4897-003	110081		4.21		90831		5.91		104351		7.15	
02	4790-001	123414		4.21		81679		5.91		91387		7.15	
03	4621-003	98073		4.22		80465		5.93		90118		7.17	
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21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 10:57:39 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	41463	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	157003	40.00	UG	0.00
39) Acenaphthene-d10	3.58	164	86716	40.00	UG	0.00
60) Phenanthrene-d10	4.26	188	126282	40.00	UG	0.04
75) Chrysene-d12	5.96	240	84352	40.00	UG	0.03
84) Perylene-d12	7.18	264	80827	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	1.77	112	267	0.20	UG	0.00
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.20%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.00%#			
23) Nitrobenzene-d5	2.51	82	47421	32.07	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 64.14%			
43) 2-Fluorobiphenyl	3.26	172	100483	34.96	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 69.92%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.12	244	103974	43.08	UG	0.04
Spiked Amount 50.000	Range 40 - 120		Recovery = 86.16%			

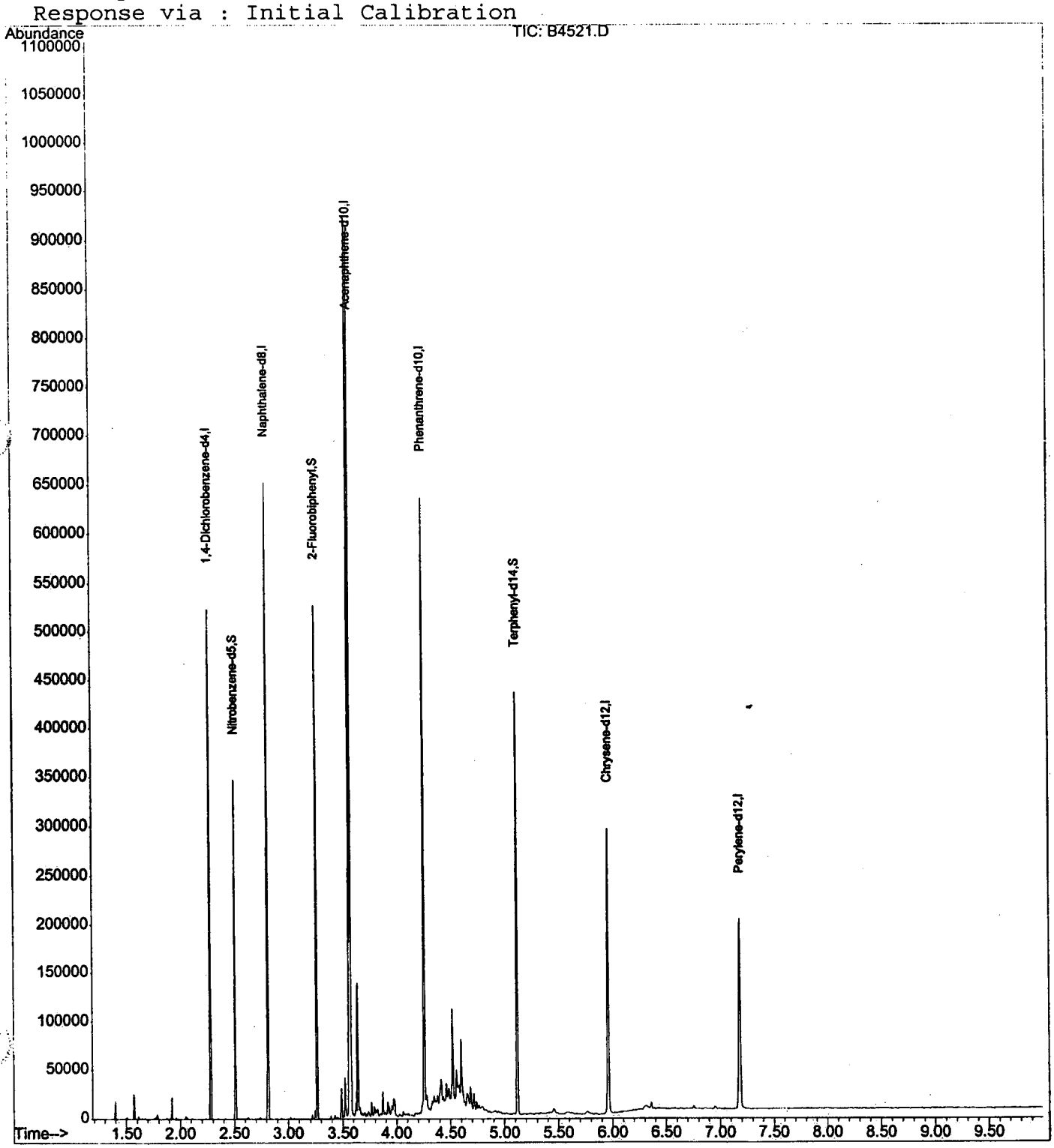
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:09 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1673

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.399	39	41	42	rBV	18526	8916	2.31%	0.269%
2	1.570	71	73	75	rBB	25787	12355	3.20%	0.373%
3	1.922	137	139	141	rVB	22818	8884	2.30%	0.268%
4	2.280	204	206	209	rBB	523547	253895	65.72%	7.668%
5	2.510	246	249	251	rBV	347870	140281	36.31%	4.237%
6	2.814	304	306	309	rVB	652297	327408	84.74%	9.888%
7	3.263	388	390	393	rVB	527475	291708	75.50%	8.810%
8	3.487	429	432	434	rBV	31148	16882	4.37%	0.510%
9	3.519	436	438	444	rVV2	40125	23897	6.19%	0.722%
10	3.562	444	446	447	rVV	916986	386346	100.00%	11.668%
11	3.578	447	449	451	rVV	898613	380231	98.42%	11.484%
12	3.626	455	458	459	rBV	14294	9291	2.40%	0.281%
13	3.642	459	461	463	rVV	131260	83472	21.61%	2.521%
14	3.765	482	484	487	rBV2	14949	9178	2.38%	0.277%
15	3.872	502	504	506	rBV	24178	11825	3.06%	0.357%
16	3.915	510	512	514	rBV	13306	9565	2.48%	0.289%
17	3.974	521	523	527	rVB2	17193	17749	4.59%	0.536%
18	4.257	573	576	578	rBV	622076	322564	83.49%	9.742%
19	4.278	578	580	584	rVB2	14251	12827	3.32%	0.387%
20	4.412	601	605	607	rBV2	24870	27383	7.09%	0.827%
21	4.460	612	614	616	rBV2	17440	10839	2.81%	0.327%
22	4.481	616	618	621	rVB2	10921	8768	2.27%	0.265%
23	4.519	621	625	628	rBV2	93614	62873	16.27%	1.899%
24	4.556	629	632	633	rBV	29734	19099	4.94%	0.577%
25	4.599	638	640	645	rVV2	70199	55631	14.40%	1.680%
26	4.652	648	650	655	rVV4	15361	22198	5.75%	0.670%
27	4.684	655	656	660	rVV	22624	14441	3.74%	0.436%
28	4.716	660	662	665	rVB3	16611	11332	2.93%	0.342%
29	5.117	734	737	740	rBV	433134	281202	72.79%	8.493%
30	5.961	890	895	903	rVB	293156	246465	63.79%	7.444%
31	6.319	954	962	967	rBV9	4034	10175	2.63%	0.307%

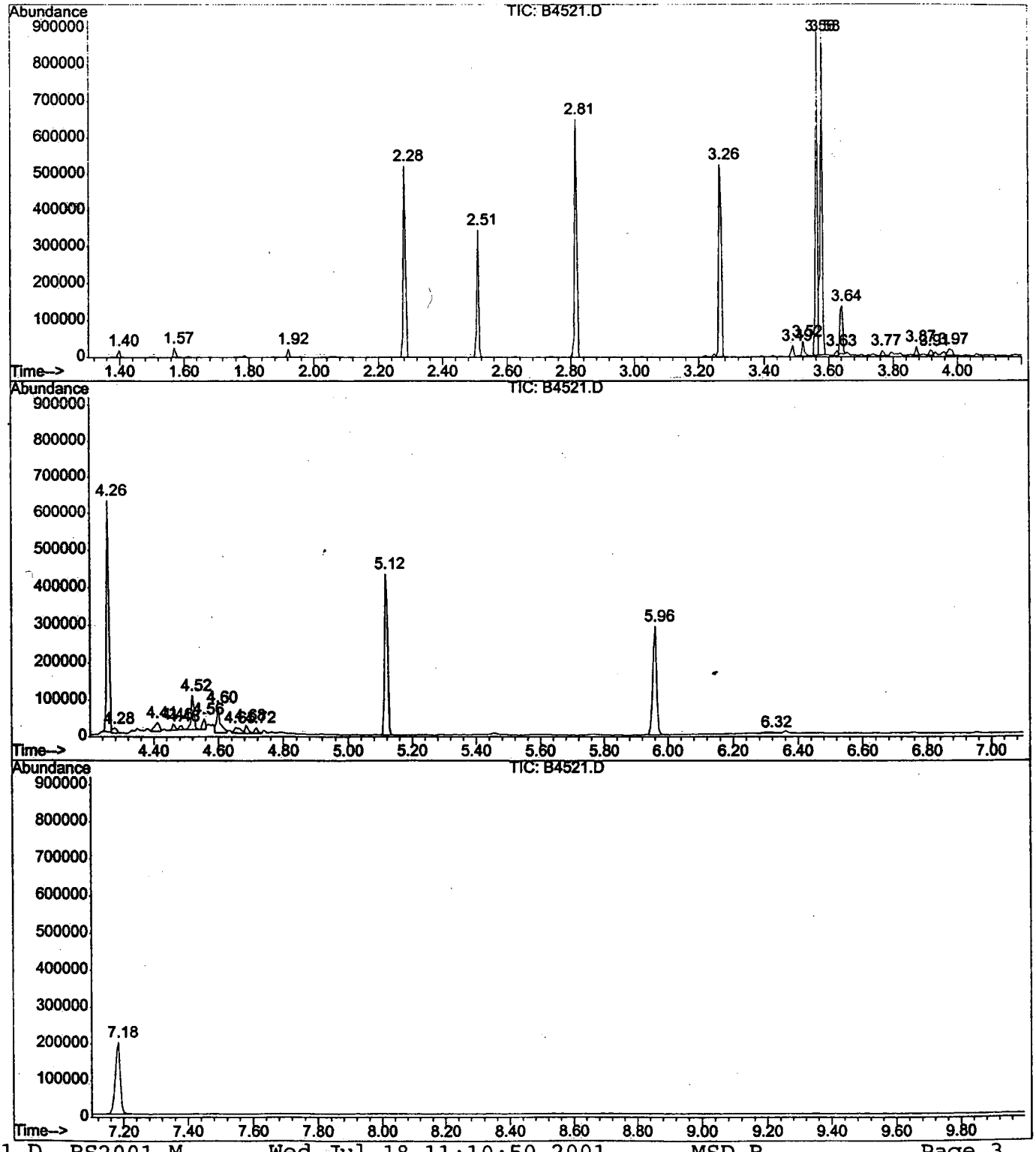
1674

2	7.184	1117	1124	1130	rBV	196276	213411	55.24%	6.445%

Sum of corrected areas: 3311091

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D
Operator : JC
Acquired : 18 Jul 2001 10:47 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-101,4833-010,S,10.29g,12.6,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 10
Quant File :BS2001.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

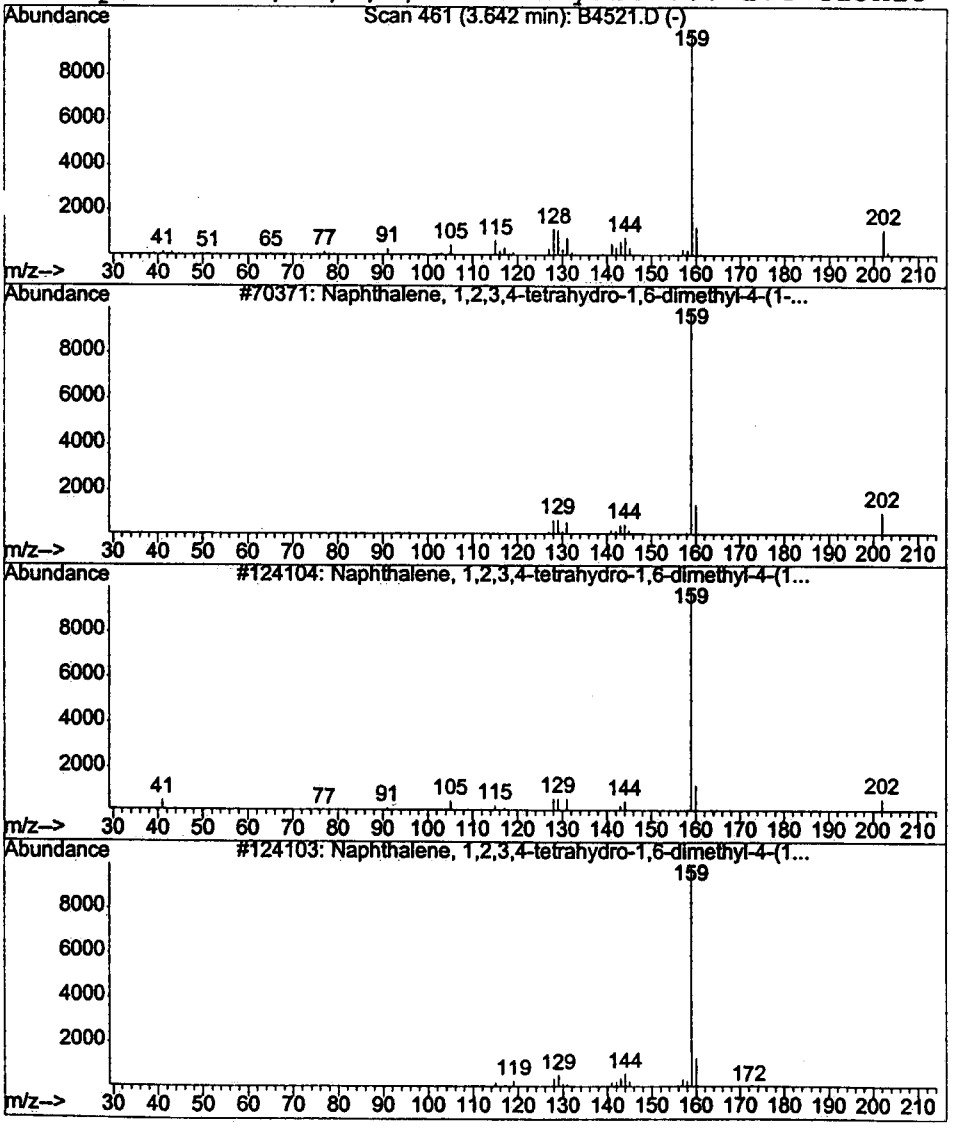
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

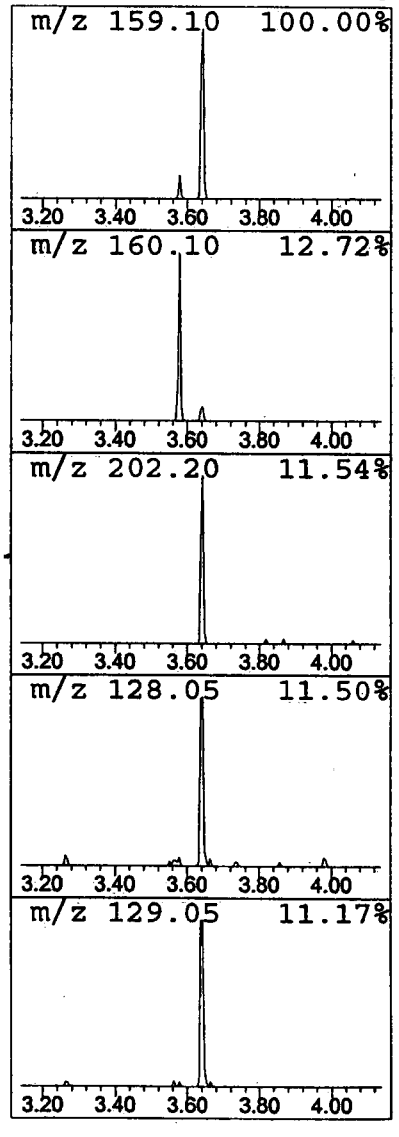
****

Peak Number 1 Substituted naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.64	8.78 UG	83472	Acenaphthene-d10	3.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	94
3	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	86
4	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	000475-03-6	86





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

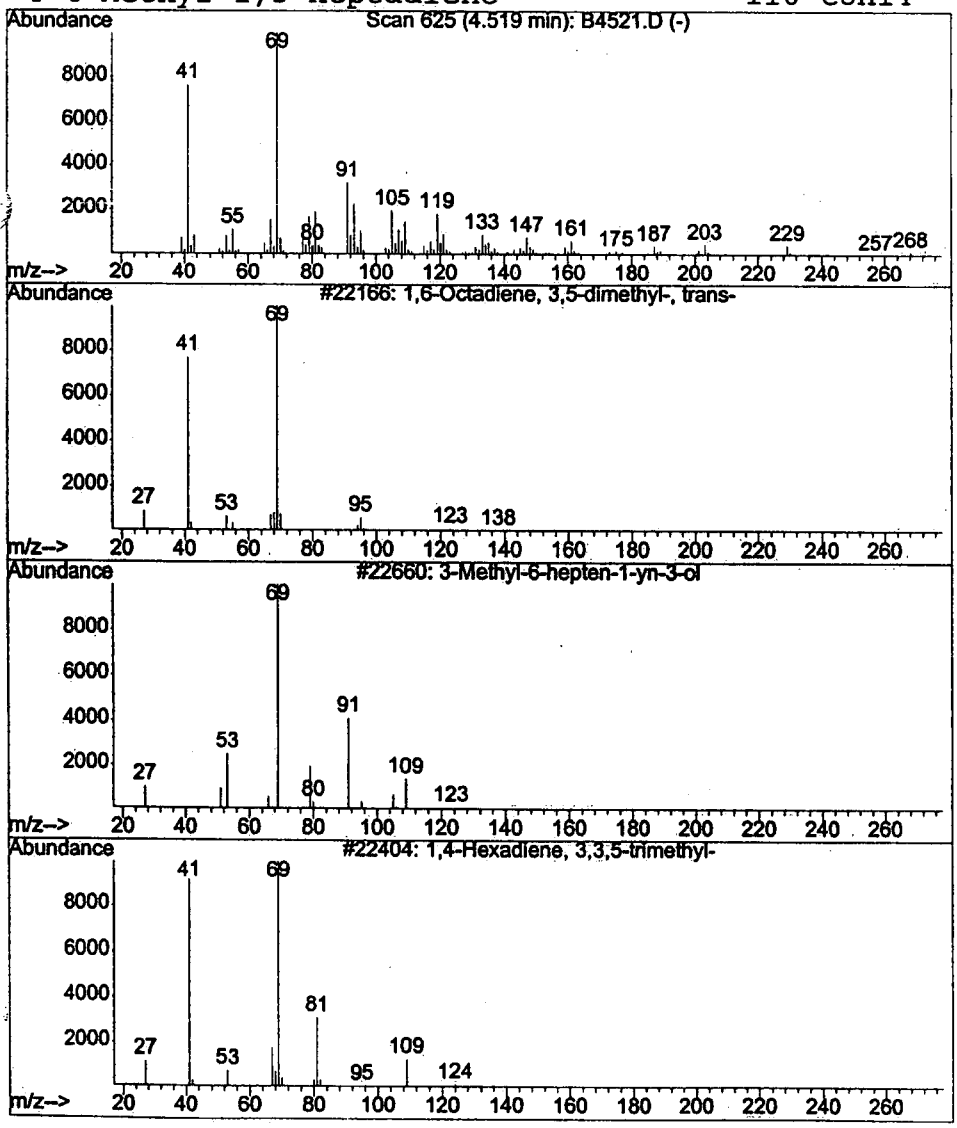
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

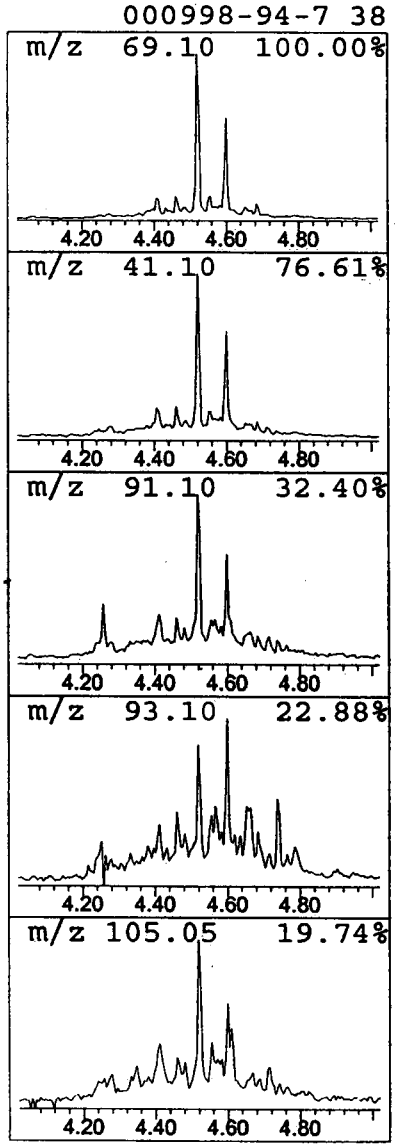
****

Peak Number 2 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.52	7.80 UG	62873	Phenanthrene-d10	4.26

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,6-Octadiene, 3,5-dimethyl-, tr...	138	C10H18	074630-87-8	43
2	3-Methyl-6-hepten-1-yn-3-ol	124	C8H12O	051193-99-8	43
3	1,4-Hexadiene, 3,3,5-trimethyl-	124	C9H16	074753-00-7	38
4	4-Methyl-1,5-Heptadiene	110	C8H14	000998-94-7	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4521.D Vial: 10
Acq On : 18 Jul 2001 10:47 Operator: JC
Sample : S-101,4833-010,S,10.29g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

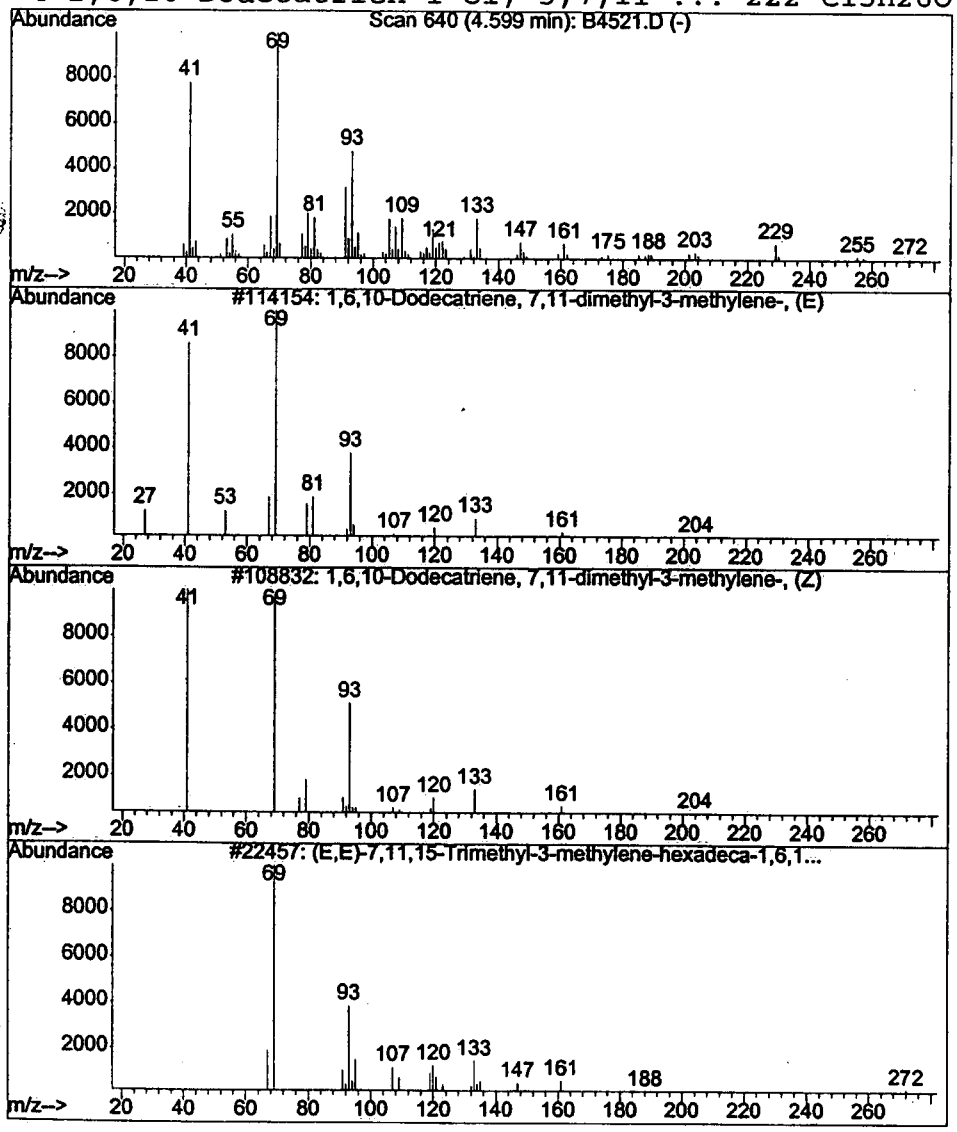
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

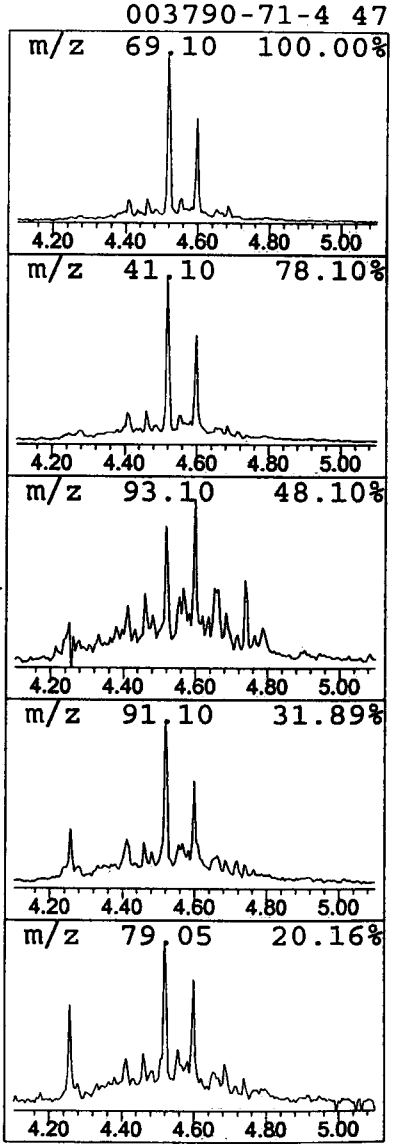
****

Peak Number 3 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.60	6.90 UG	55631	Phenanthrene-d10	4.26

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,6,10-Dodecatriene, 7,11-dimeth...	204	C15H24	018794-84-8	72
2	1,6,10-Dodecatriene, 7,11-dimeth...	204	C15H24	028973-97-9	72
3	(E,E)-7,11,15-Trimethyl-3-methyl...	272	C20H32	070901-63-2	64
4	2,6,10-Dodecatrien-1-ol, 3,7,11-...	222	C15H26O	003790-71-4	47





Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
isc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:13:20 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	43269	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	154570	40.00	UG	0.00
39) Acenaphthene-d10	3.57	164	83430	40.00	UG	0.00
60) Phenanthrene-d10	4.24	188	119162	40.00	UG	0.03
75) Chrysene-d12	5.94	240	84739	40.00	UG	0.01
84) Perylene-d12	7.17	264	85354	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.00%#			
23) Nitrobenzene-d5	2.51	82	48206	33.11	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 66.22%			
43) 2-Fluorobiphenyl	3.26	172	97619	35.31	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 70.62%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.10	244	99002	40.83	UG ✓	0.02
Spiked Amount 50.000	Range 40 - 120		Recovery = 81.66%			

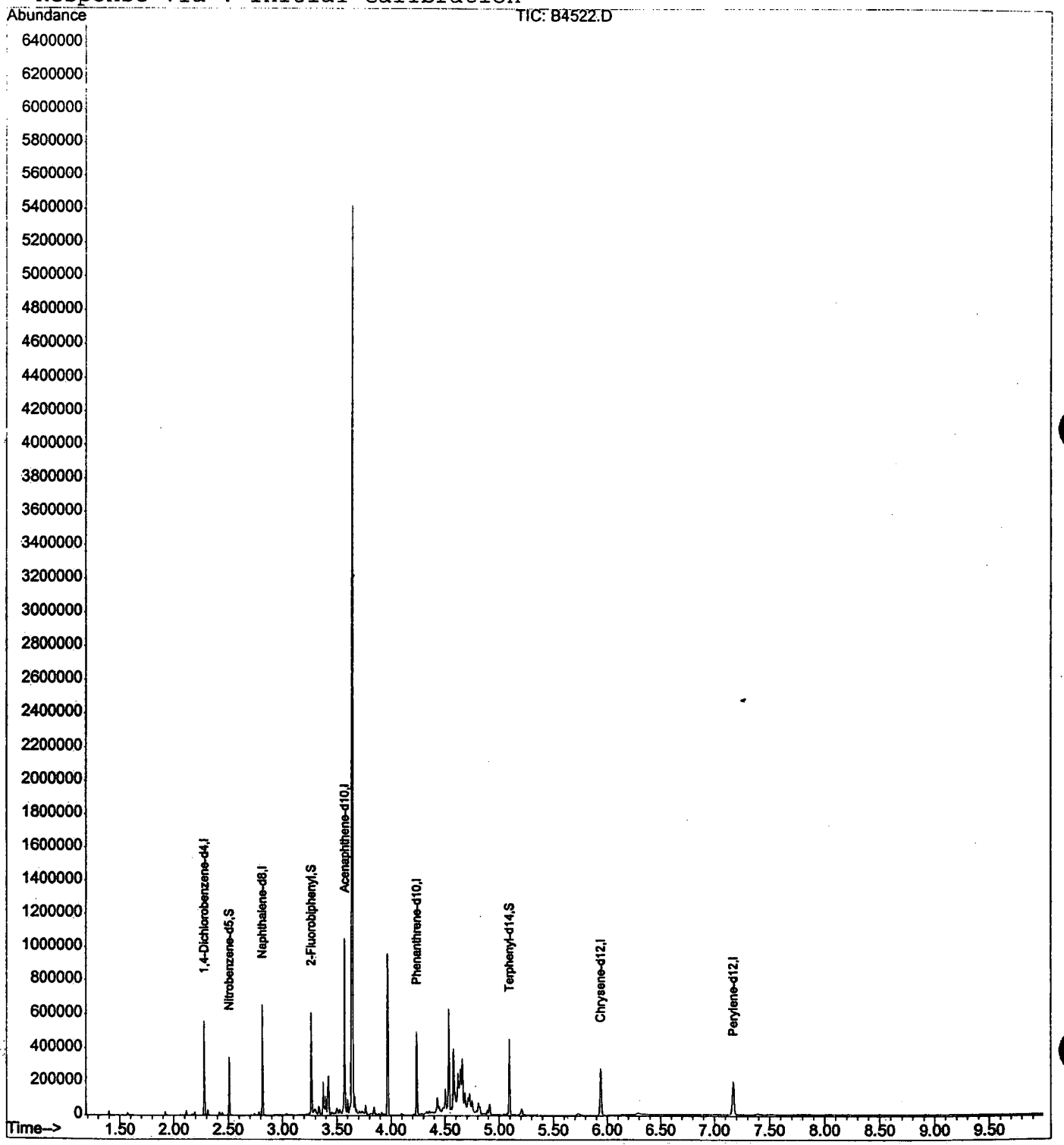
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:16 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1281

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

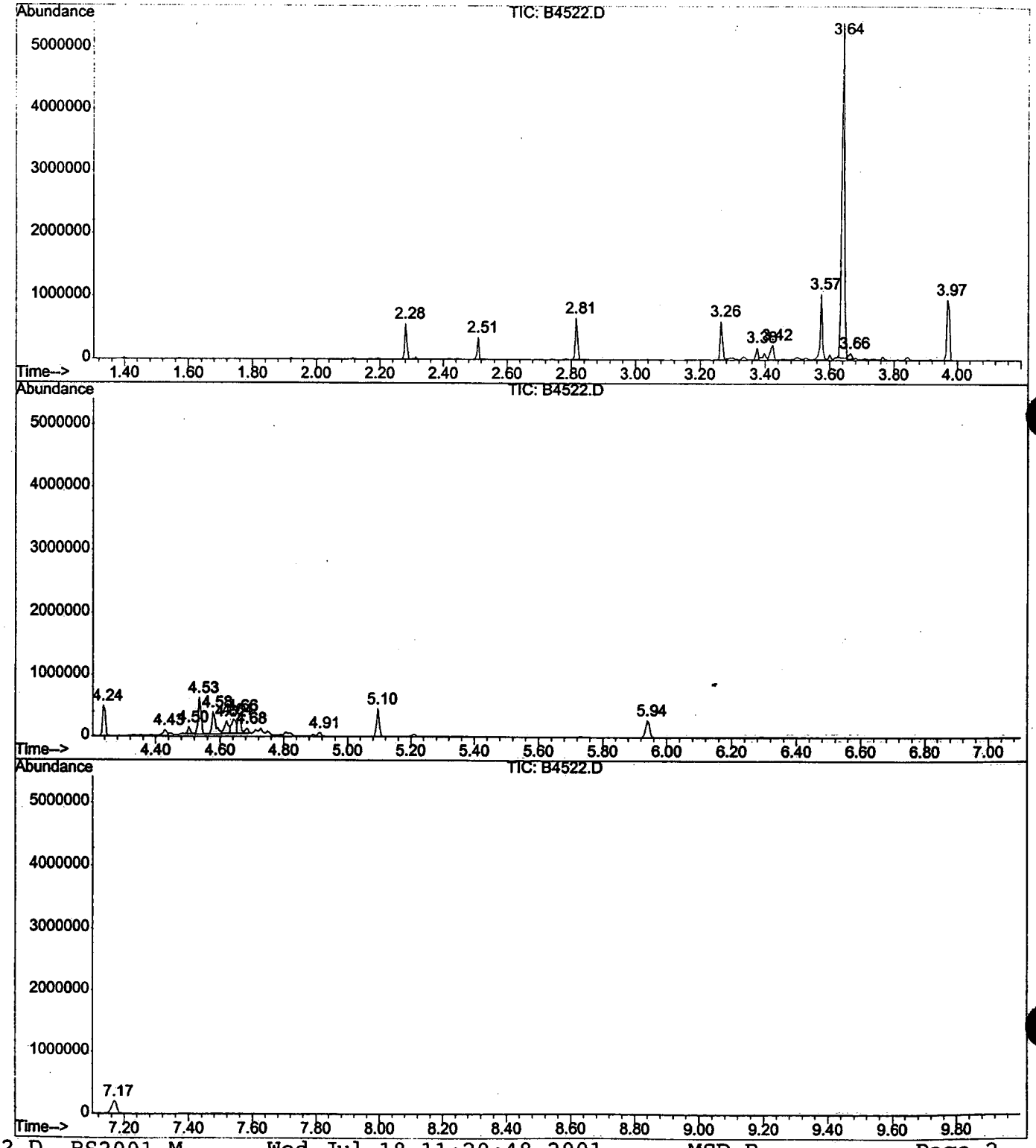
Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.280	204	206	208	rBV	566339	264878	8.14%	3.185%
2	2.510	246	249	251	rBV	351508	145493	4.47%	1.750%
3	2.815	304	306	309	rVB	657288	324519	9.97%	3.902%
4	3.263	388	390	393	rBV	608241	307277	9.44%	3.695%
5	3.375	409	411	412	rBV	196939	94767	2.91%	1.140%
6	3.424	417	420	422	rVB	230687	174035	5.35%	2.093%
7	3.573	442	448	451	rBV	1044196	491174	15.09%	5.906%
8	3.643	457	461	463	rVV	5380175	3255182	100.00%	39.144%
9	3.664	463	465	467	rVB3	92644	58444	1.80%	0.703%
10	3.968	520	522	525	rVB	957565	593105	18.22%	7.132%
11	4.236	570	572	575	rBV	496752	309475	9.51%	3.721%
12	4.428	604	608	610	rBV3	94752	77452	2.38%	0.931%
13	4.503	620	622	624	rBV2	118575	61673	1.89%	0.742%
14	4.535	625	628	631	rVB	601217	376078	11.55%	4.522%
15	4.577	633	636	641	rBV2	362852	318335	9.78%	3.828%
16	4.620	641	644	646	rVV	206879	197586	6.07%	2.376%
17	4.642	646	648	650	rVV2	231092	230478	7.08%	2.772%
18	4.658	650	651	654	rVV2	294890	193093	5.93%	2.322%
19	4.684	654	656	659	rVB	84988	55164	1.69%	0.663%
20	4.914	696	699	703	rVB2	66499	52157	1.60%	0.627%
21	5.096	730	733	736	rBV	455078	268463	8.25%	3.228%
22	5.940	887	891	895	rBV	281417	243340	7.48%	2.926%
23	7.168	1115	1121	1129	rBV	197784	223787	6.87%	2.691%

Sum of corrected areas: 8315955

1682

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D
Operator : JC
Acquired : 18 Jul 2001 11:03 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-102,4833-011,S,5.97g,26.8,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 11
Quant File :BS2001.RES (RTE Integrator)



1 of 3

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

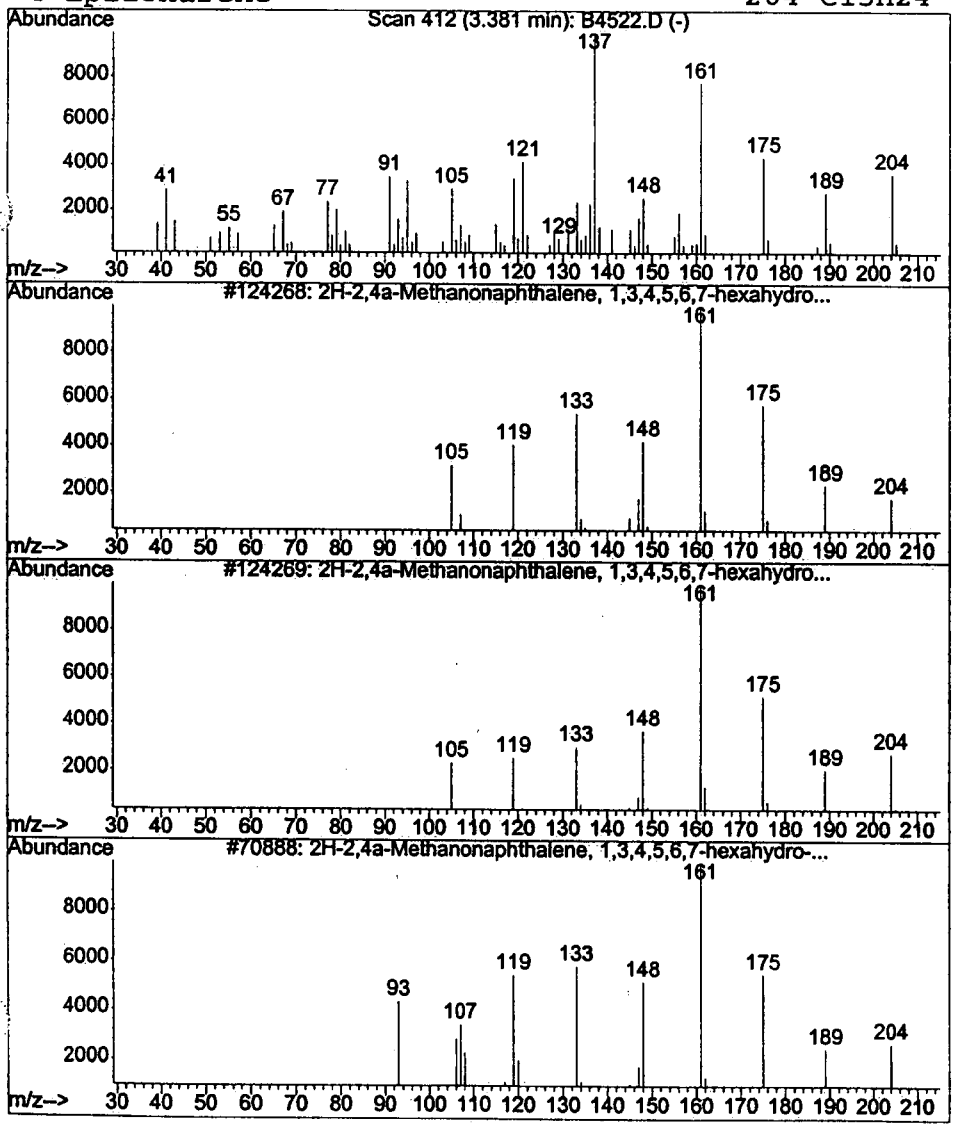
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

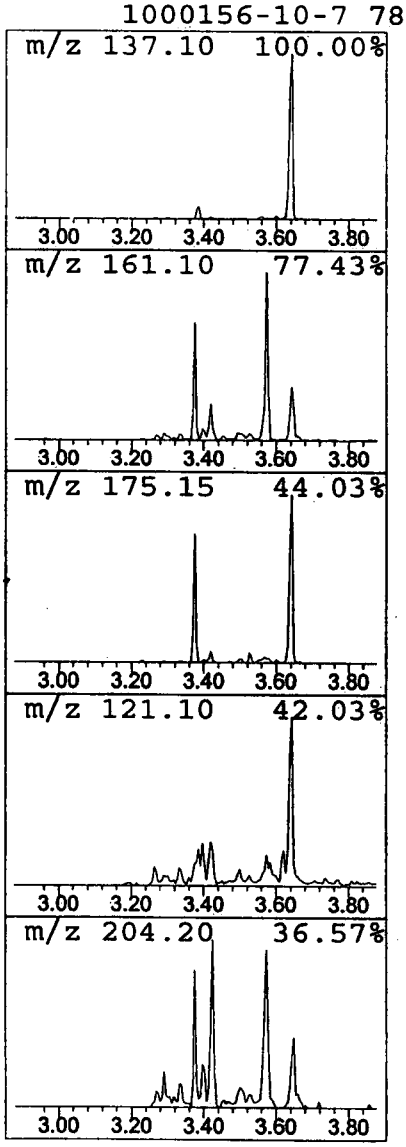
****

Peak Number 1 Substituted naphthalene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.38	7.72 UG	94767	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2H-2,4a-Methanonaphthalene, 1,3,...	204	C15H24	001135-66-6	98
2	2H-2,4a-Methanonaphthalene, 1,3,...	204	C15H24	001135-66-6	97
3	2H-2,4a-Methanonaphthalene, 1,3,...	204	C15H24	001135-66-6	91
4	Epizonarene	204	C15H24	1000156-10-7	78





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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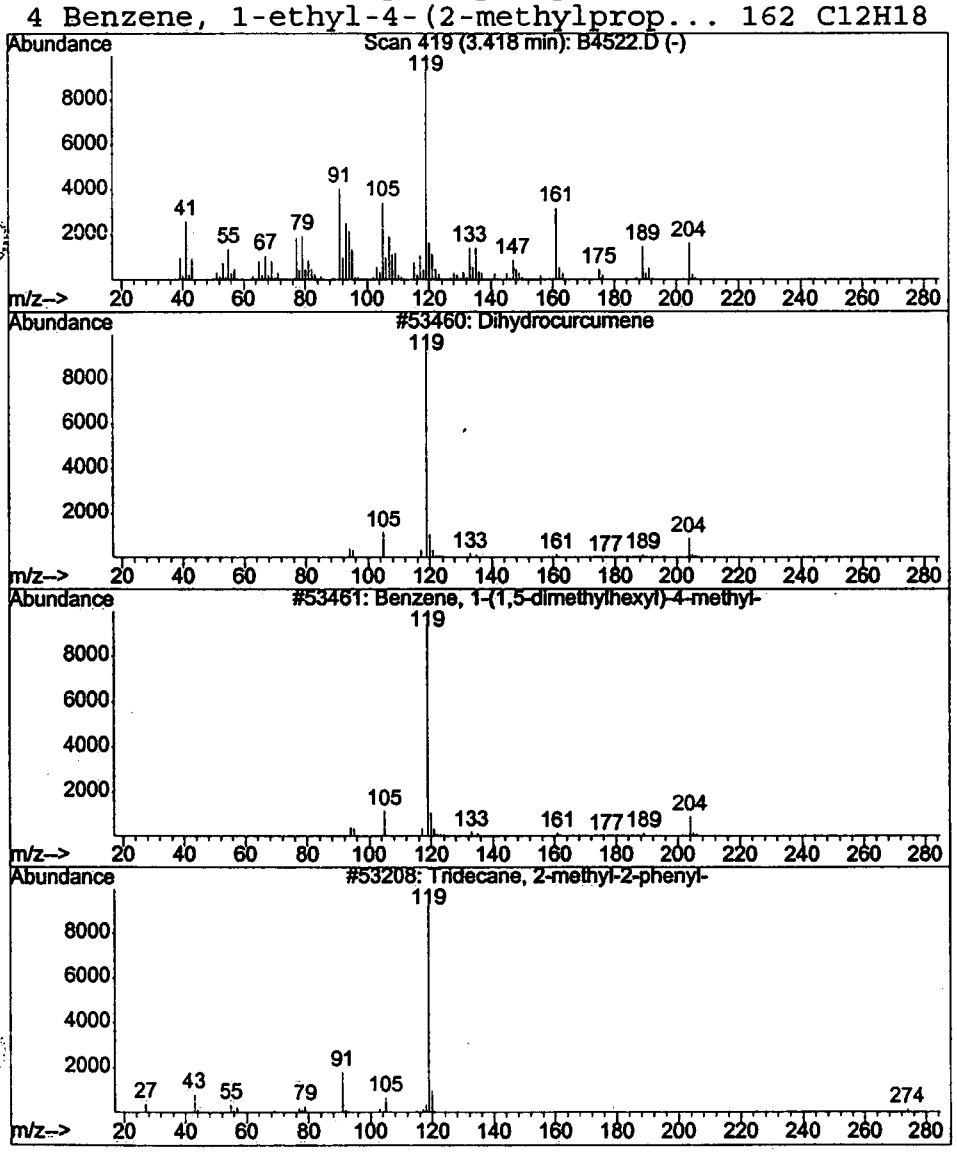
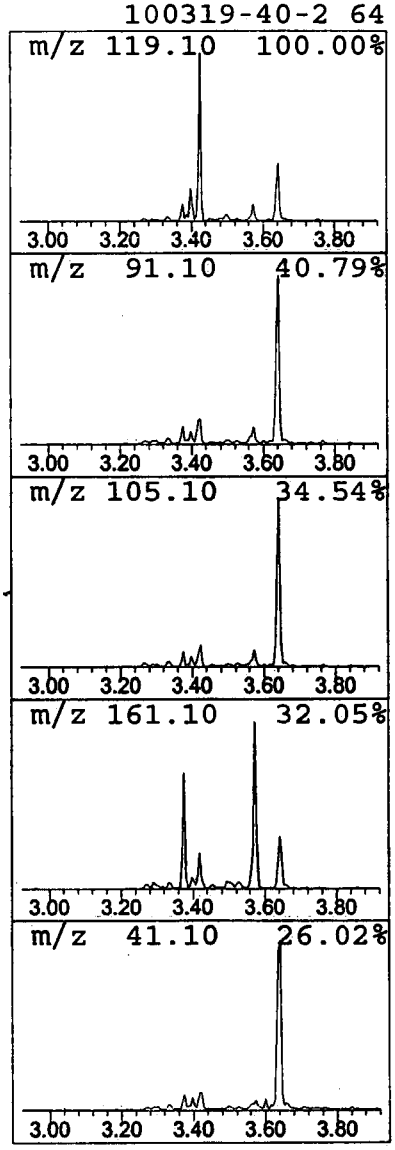
Peak Number 2 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.42	14.17 UG	174035	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dihydrocurcumene	204	C15H24	1000156-14-4	80
2	Benzene, 1-(1,5-dimethylhexyl)-4...	204	C15H24	001461-02-5	80
3	Tridecane, 2-methyl-2-phenyl-	274	C20H34	027854-41-7	64
4	Benzene, 1-ethyl-4-(2-methylprop...	162	C12H18	100319-40-2	64





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
isc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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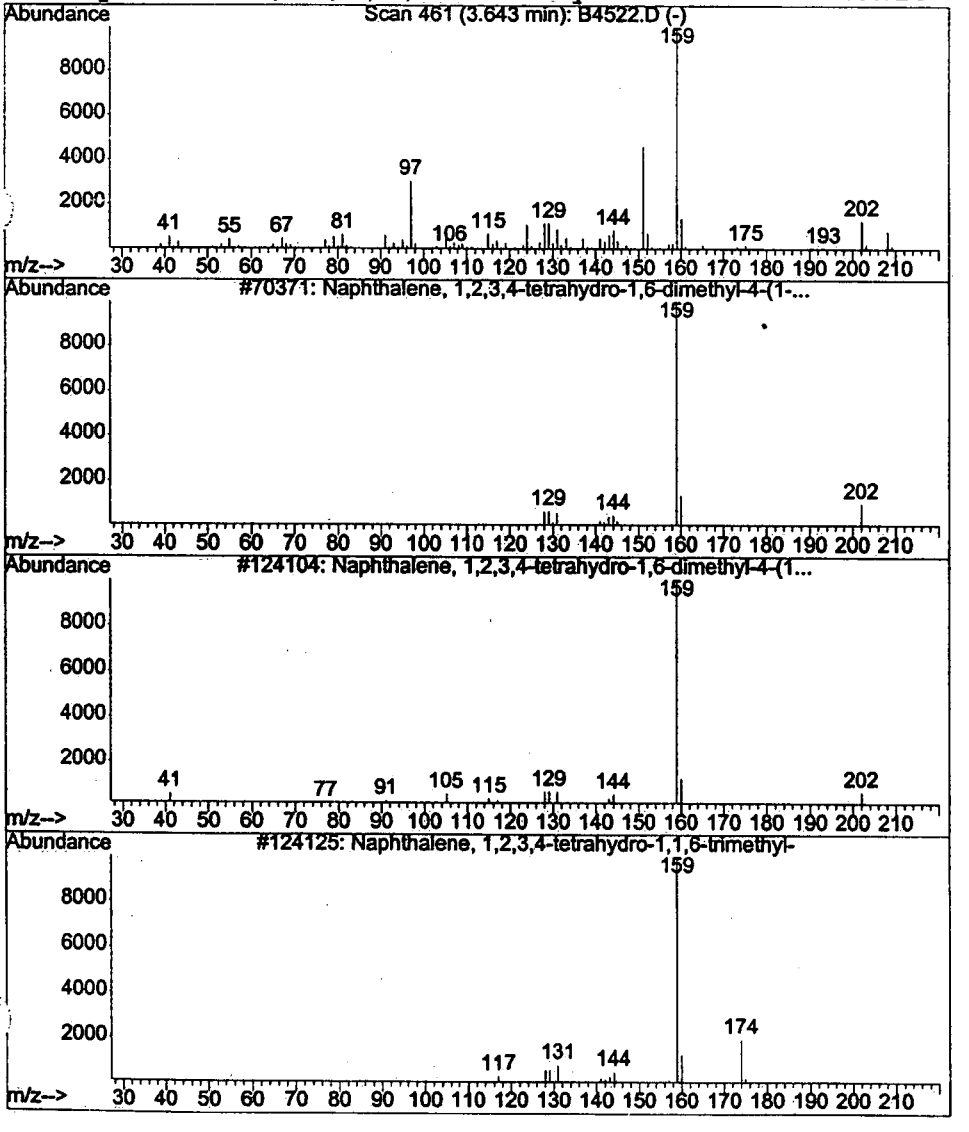
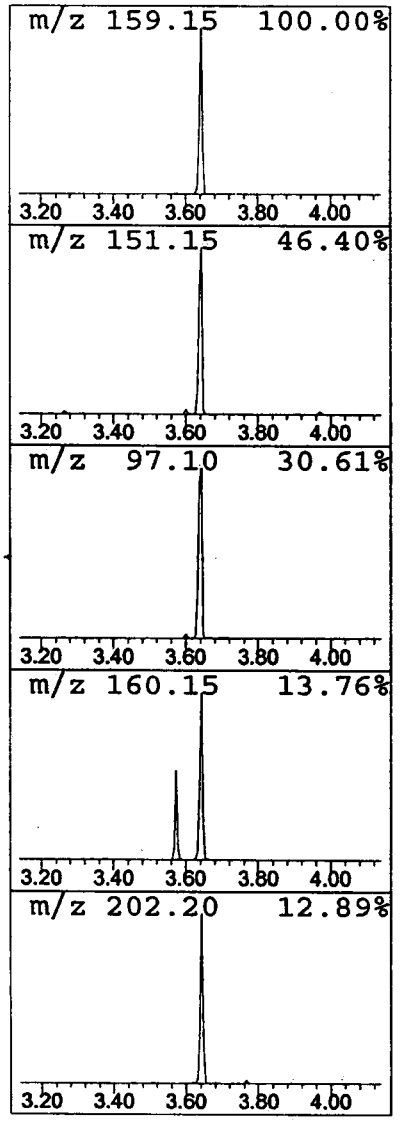
Peak Number 3 Substituted naphthalene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.64	265.09 UG	3255180	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	95
2	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	91
3	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	000475-03-6	46
4	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	021693-51-6	46





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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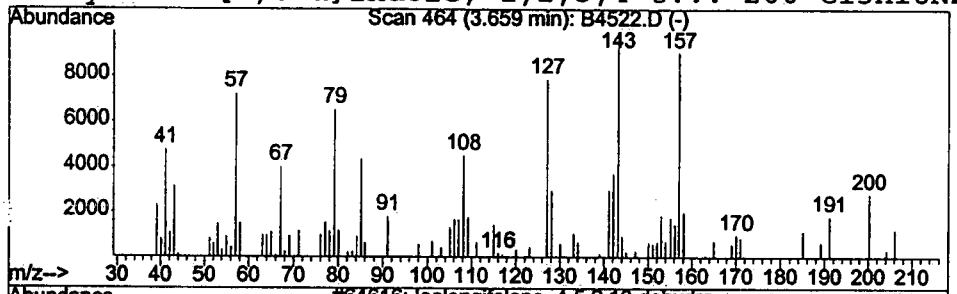
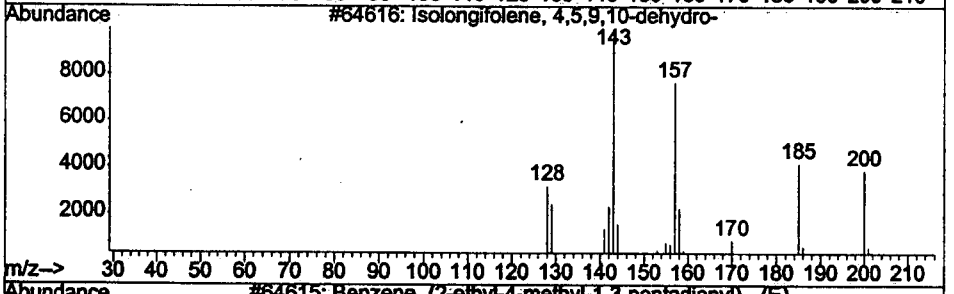
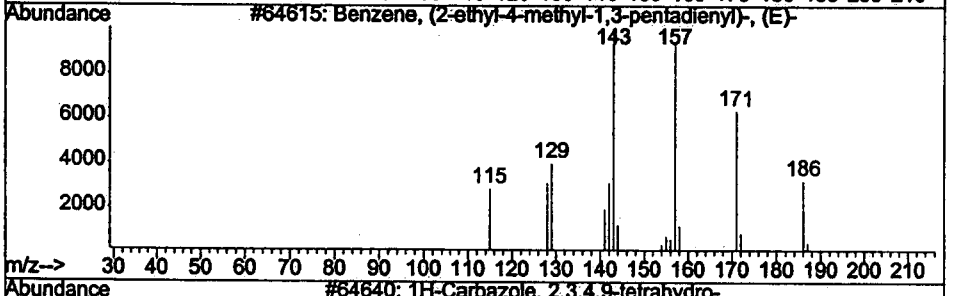
Peak Number 4 Unknown aromatic Concentration Rank 14

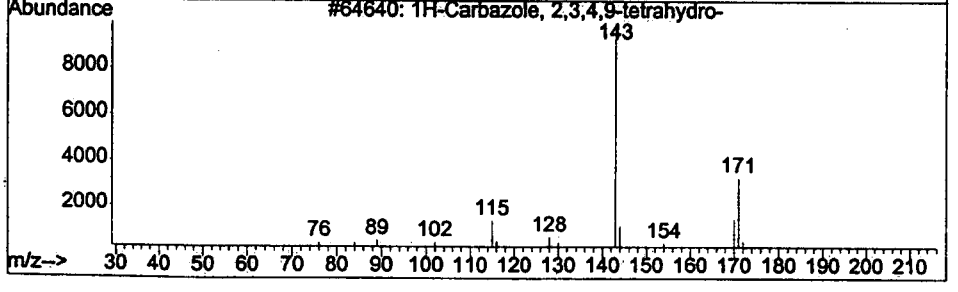
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.66	4.76 UG	58444	Acenaphthene-d10	3.57

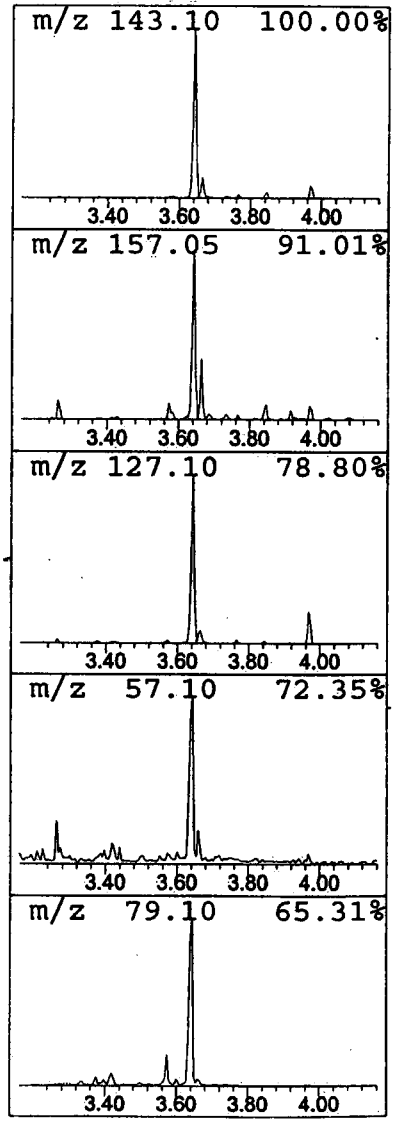
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isolongifolene, 4,5,9,10-dehydro-	200	C15H20	1000151-55-0	58
2	Benzene, (2-ethyl-4-methyl-1,3-p...	186	C14H18	074663-67-5	52
3	1H-Carbazole, 2,3,4,9-tetrahydro-	171	C12H13N	000942-01-8	35
4	Pyrimido[1,6-a]indole, 1,2,3,4-t...	200	C13H16N2	022106-07-6	27











Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

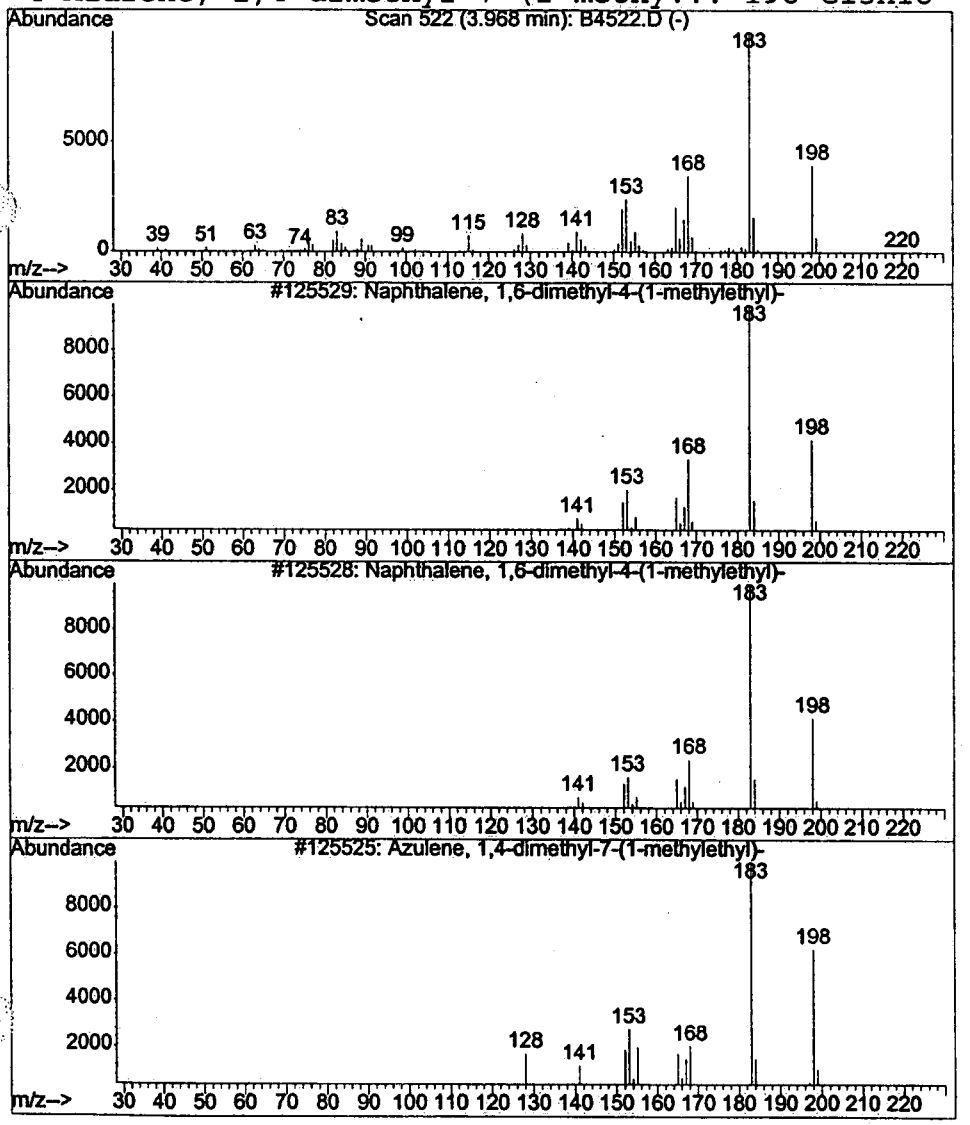
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

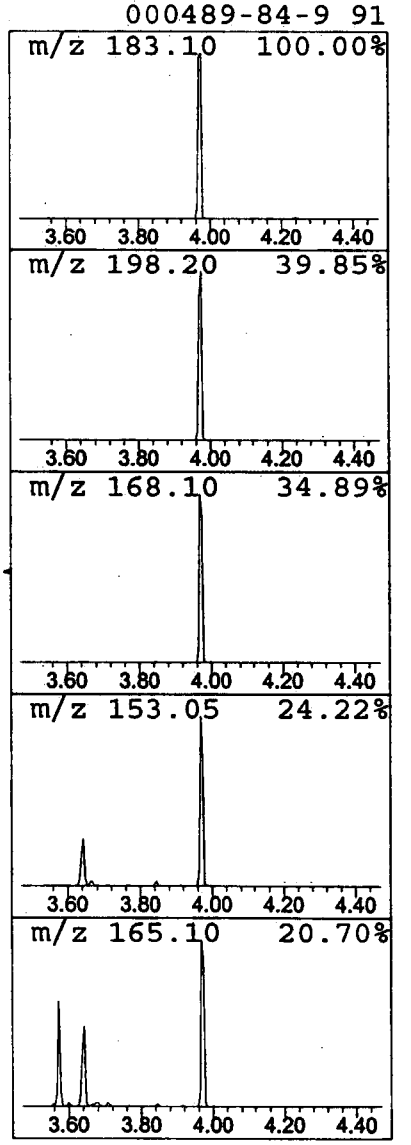
****

Peak Number 5 Substituted naphthalene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.97	76.66 UG	593105	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	99
2	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	93
3	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	93
4	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	91





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

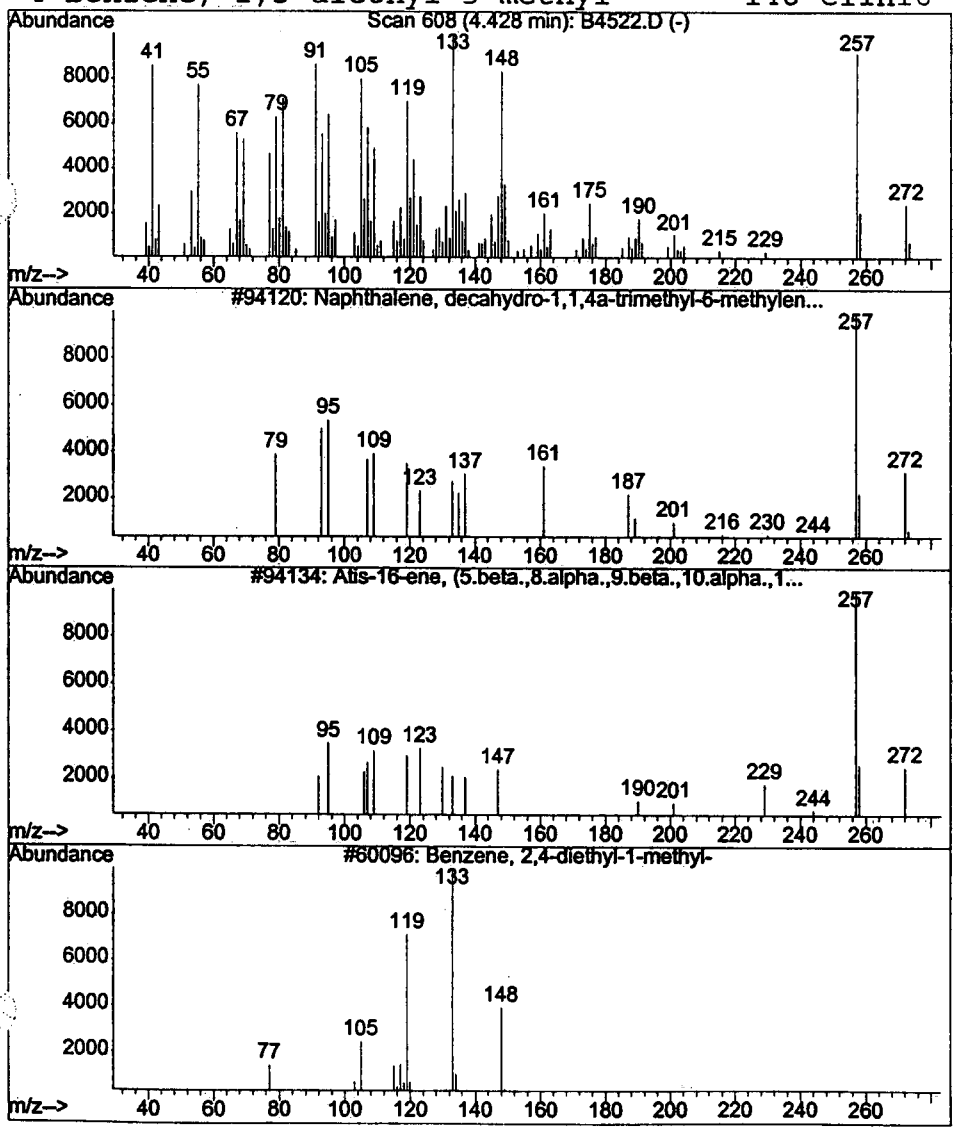
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

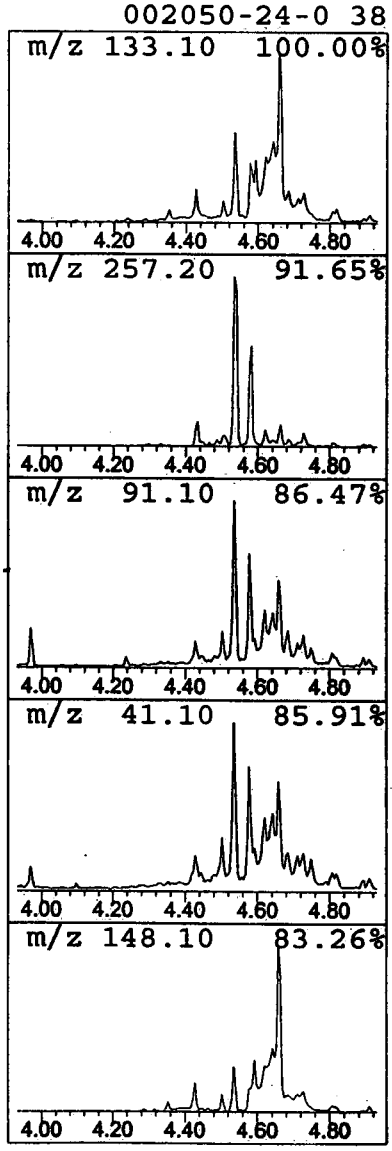
****

Peak Number 6 Substituted naphthalene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.43	10.01 UG	77452	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	005957-33-5	70
2	Atis-16-ene, (5.beta.,8.alpha.,9...	272	C20H32	020230-48-2	62
3	Benzene, 2,4-diethyl-1-methyl-	148	C11H16	001758-85-6	42
4	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

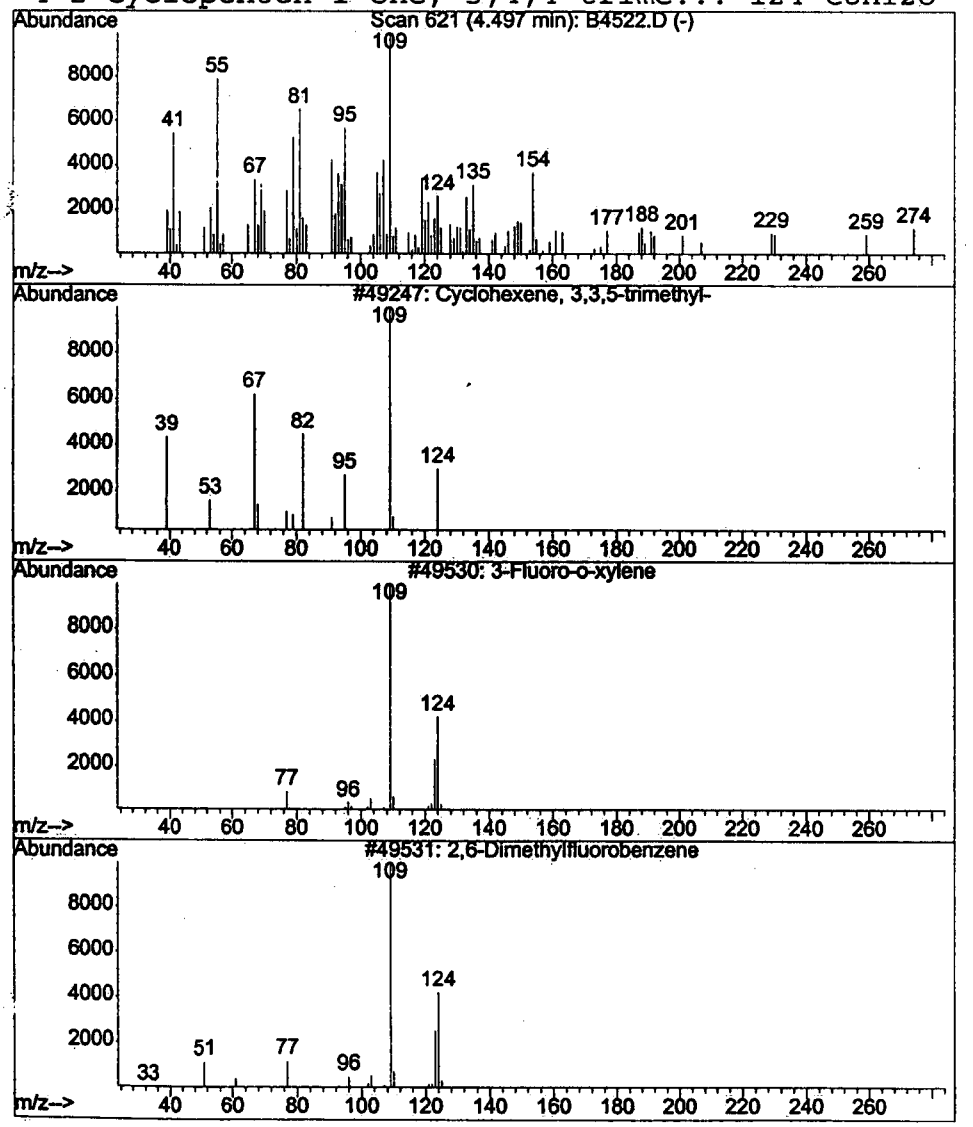
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

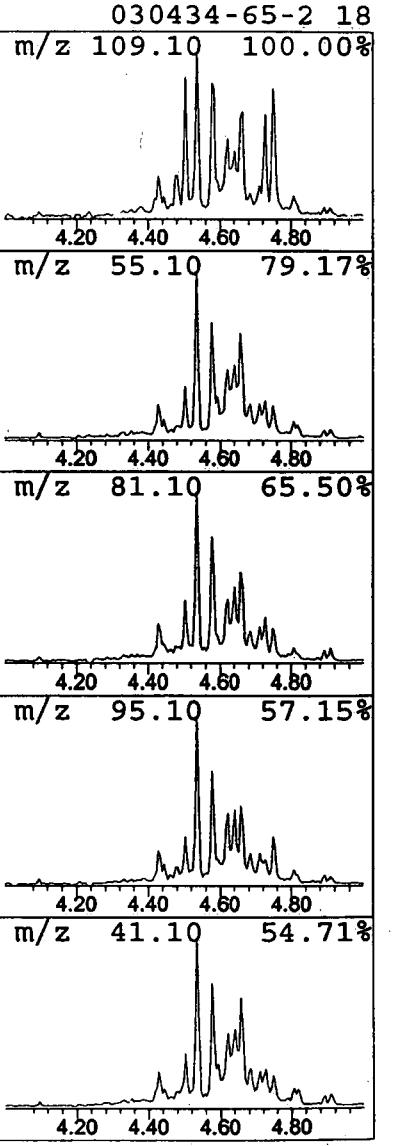
****

Peak Number 7 Unknown alkane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.50	7.97 UG	61673	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3,3,5-trimethyl-	124	C9H16	000503-45-7	22
2	3-Fluoro-o-xylene	124	C8H9F	000443-82-3	18
3	2,6-Dimethylfluorobenzene	124	C8H9F	000443-88-9	18
4	2-Cyclopenten-1-one, 3,4,4-trime...	124	C8H12O	030434-65-2	18





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

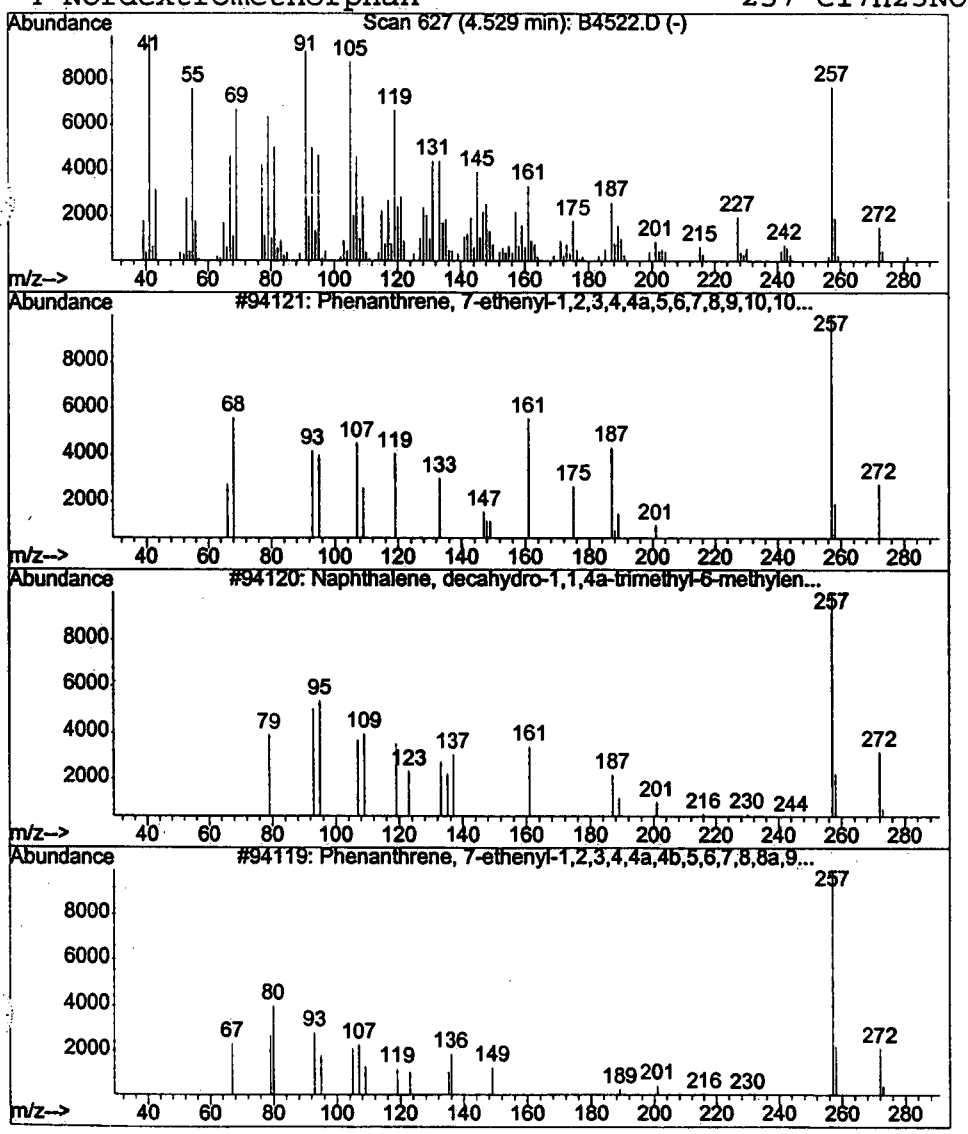
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

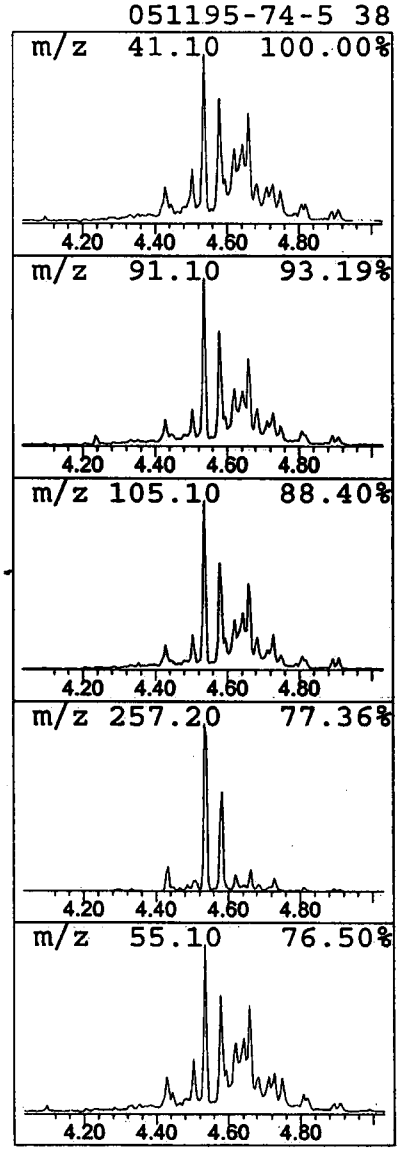
****

Peak Number 8 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.53	48.61 UG	376078	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	055255-56-6	83
2	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	005957-33-5	74
3	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	001686-67-5	43
4	Nordextromethorphan	257	C17H23NO	051195-74-5	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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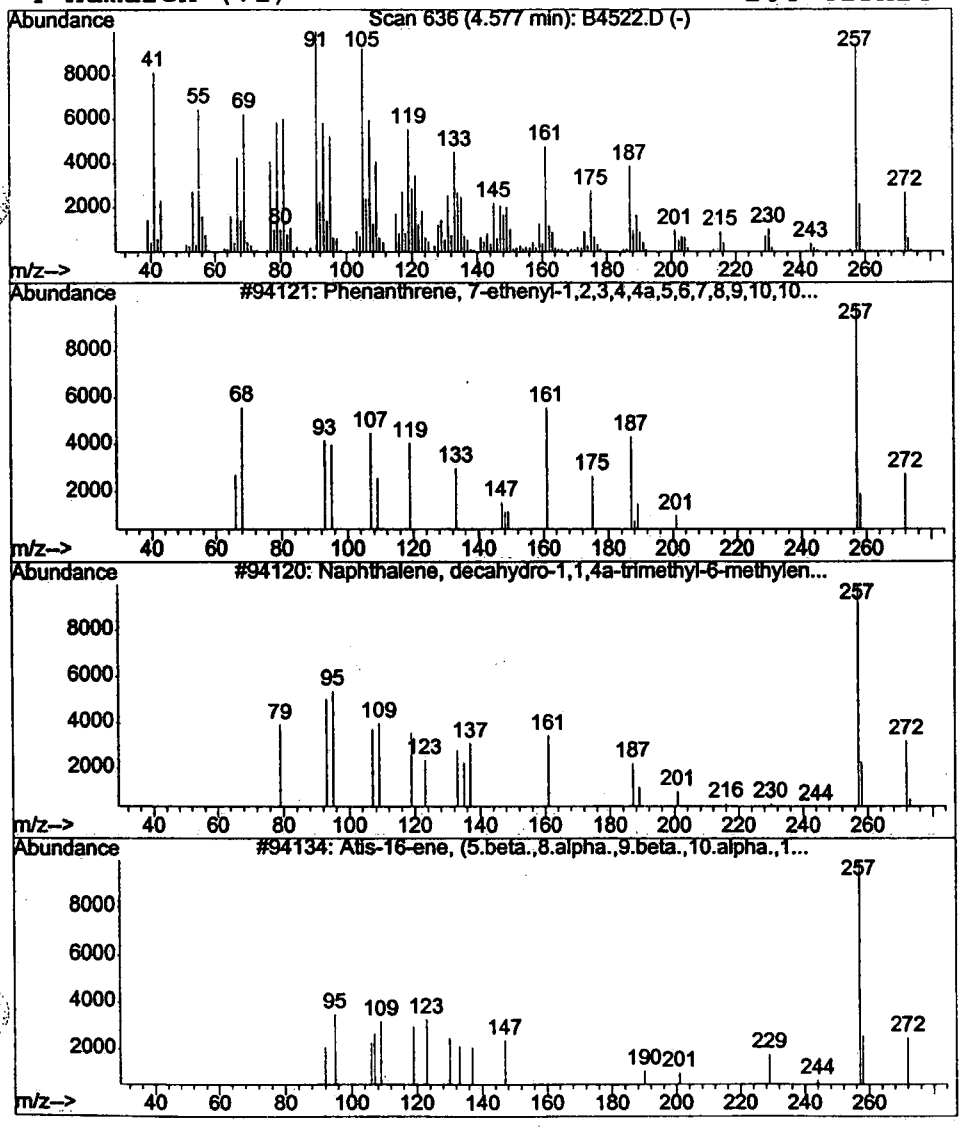
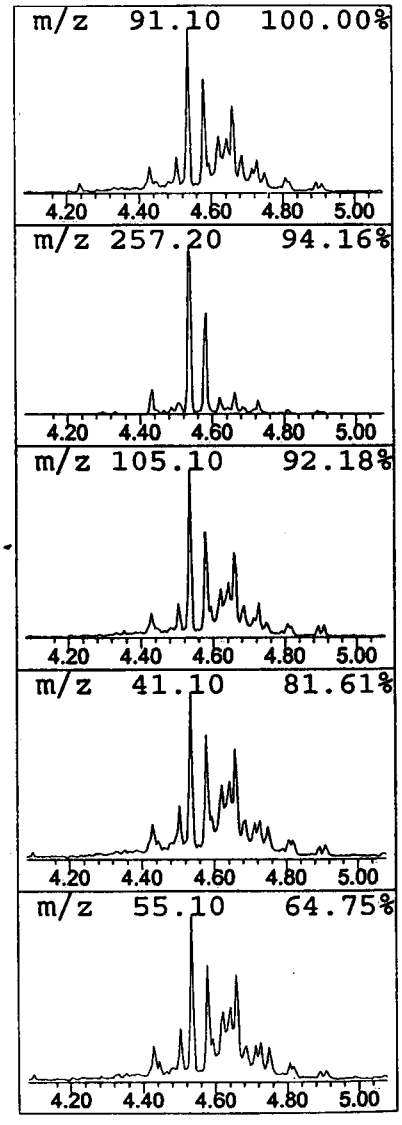
Peak Number 9 Unknown aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.58	41.15 UG	318335	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 7-ethenyl-1,2,3,4,...	272	C20H32	055255-56-6	90
2	Naphthalene, decahydro-1,1,4a-tr...	272	C20H32	005957-33-5	86
3	Atis-16-ene, (5.beta.,8.alpha.,9...	272	C20H32	020230-48-2	45
4	Humulen-(v1)	204	C15H24	1000159-39-4	42





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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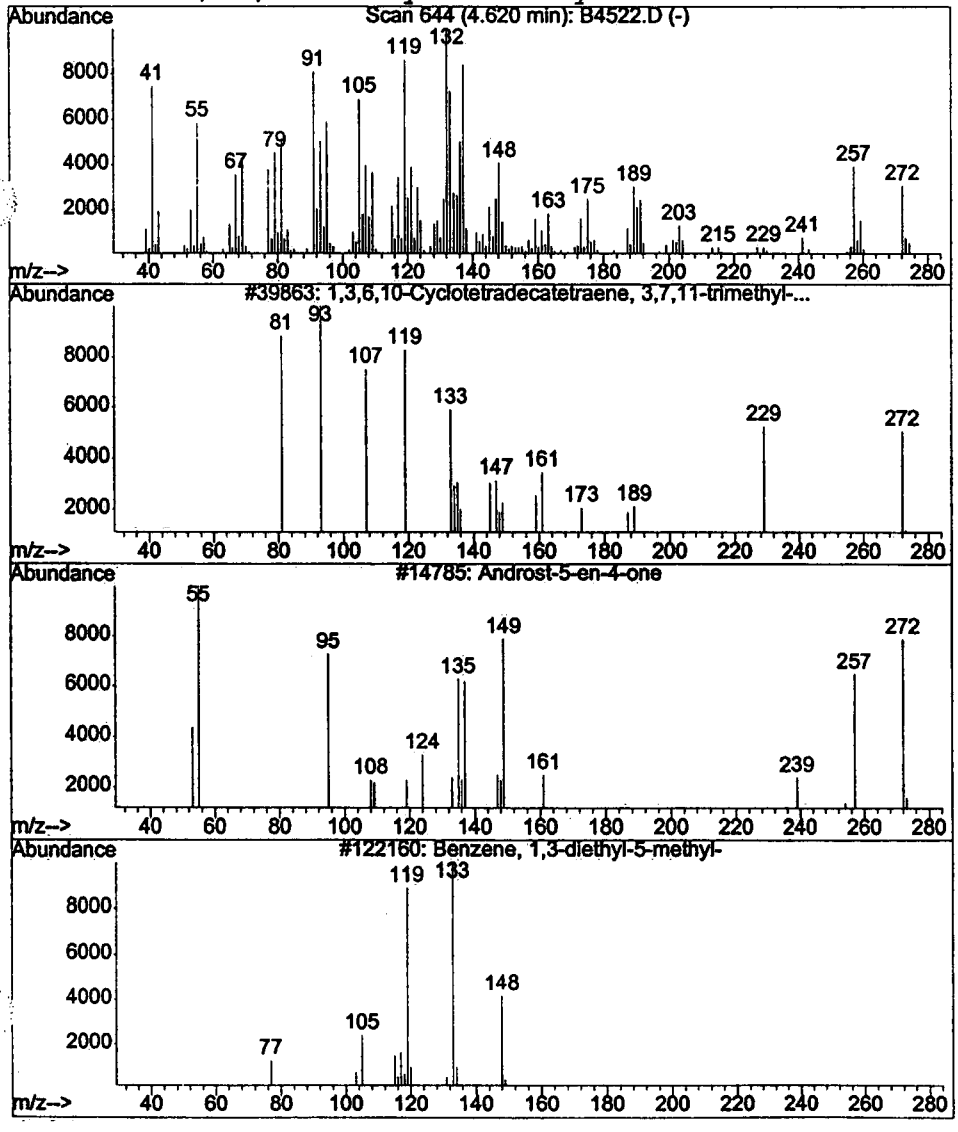
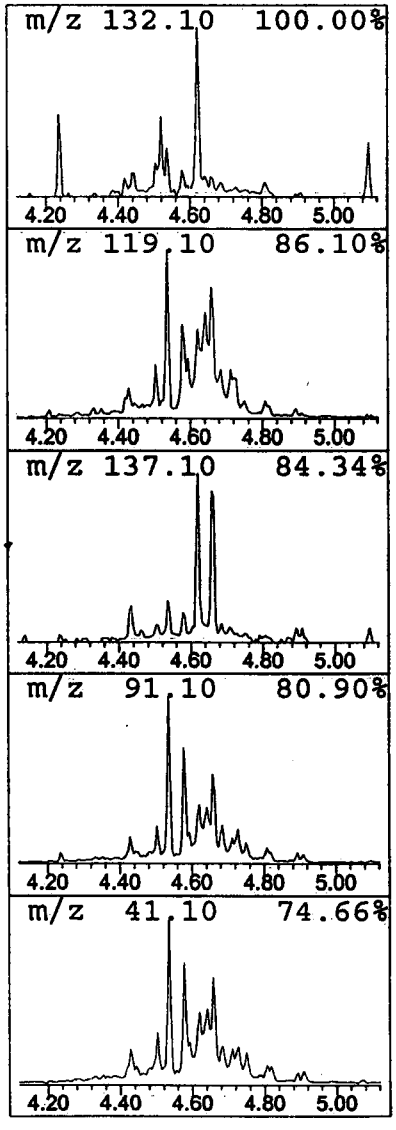
Peak Number 10 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.62	25.54 UG	197586	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,6,10-Cyclotetradecatetraene,...	272	C20H32	001898-13-1	45
2	Androst-5-en-4-one	272	C19H28O	013583-72-7	25
3	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	18
4	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	18





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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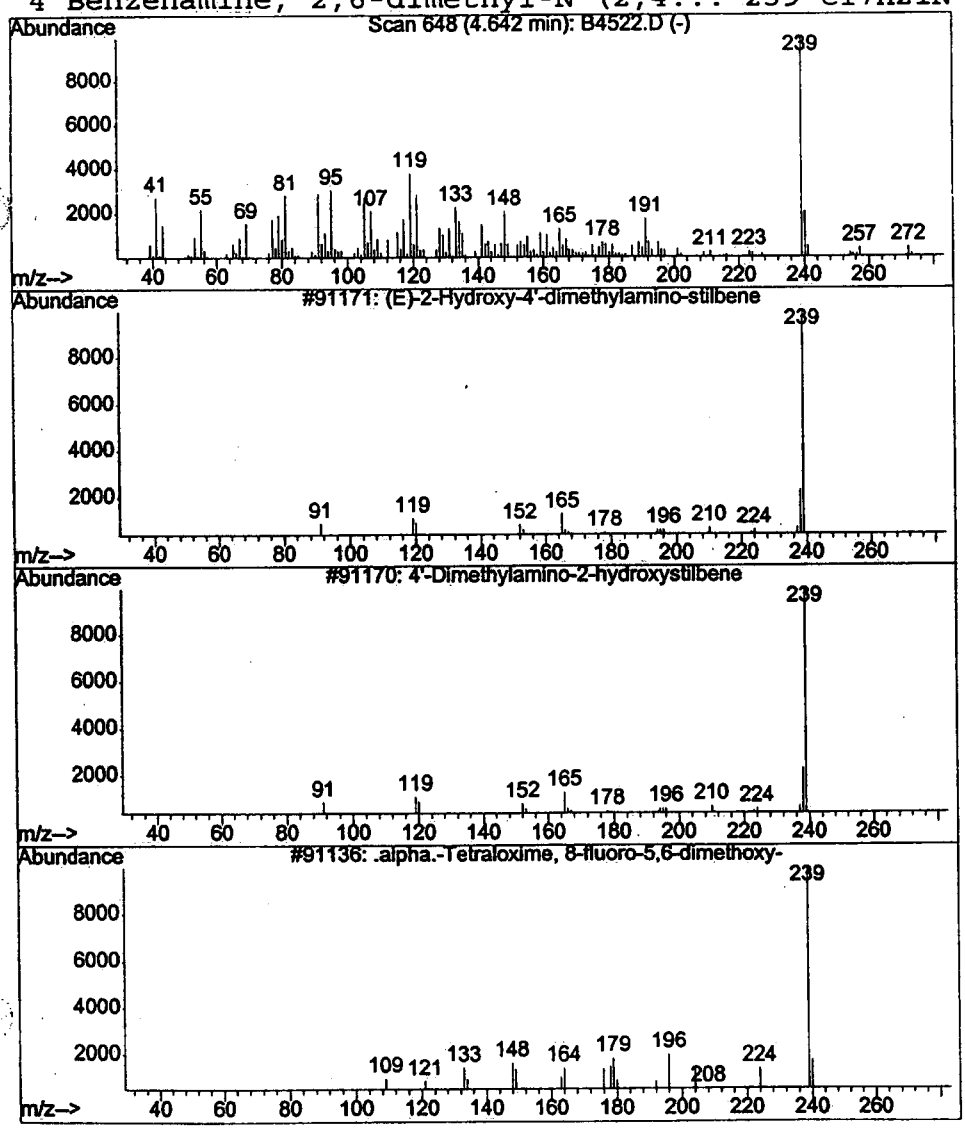
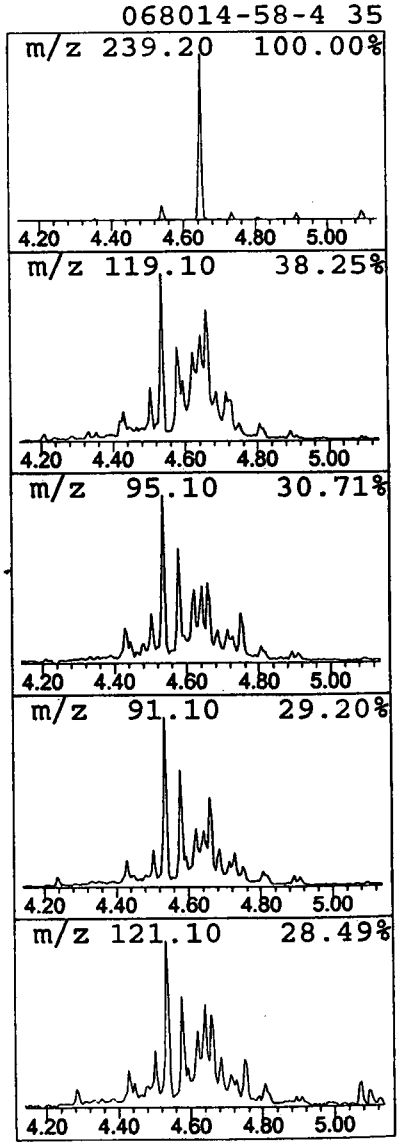
Peak Number 11 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	29.79 UG	230478	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(E)-2-Hydroxy-4'-dimethylamino-s...	239	C16H17NO	1000148-08-3	38
2	4'-Dimethylamino-2-hydroxystilbene	239	C16H17NO	1000148-08-2	38
3	.alpha.-Tetraloxime, 8-fluoro-5,...	239	C12H14FNO3	1000125-88-0	37
4	Benzenamine, 2,6-dimethyl-N-(2,4...	239	C17H21N	068014-58-4	35





169d

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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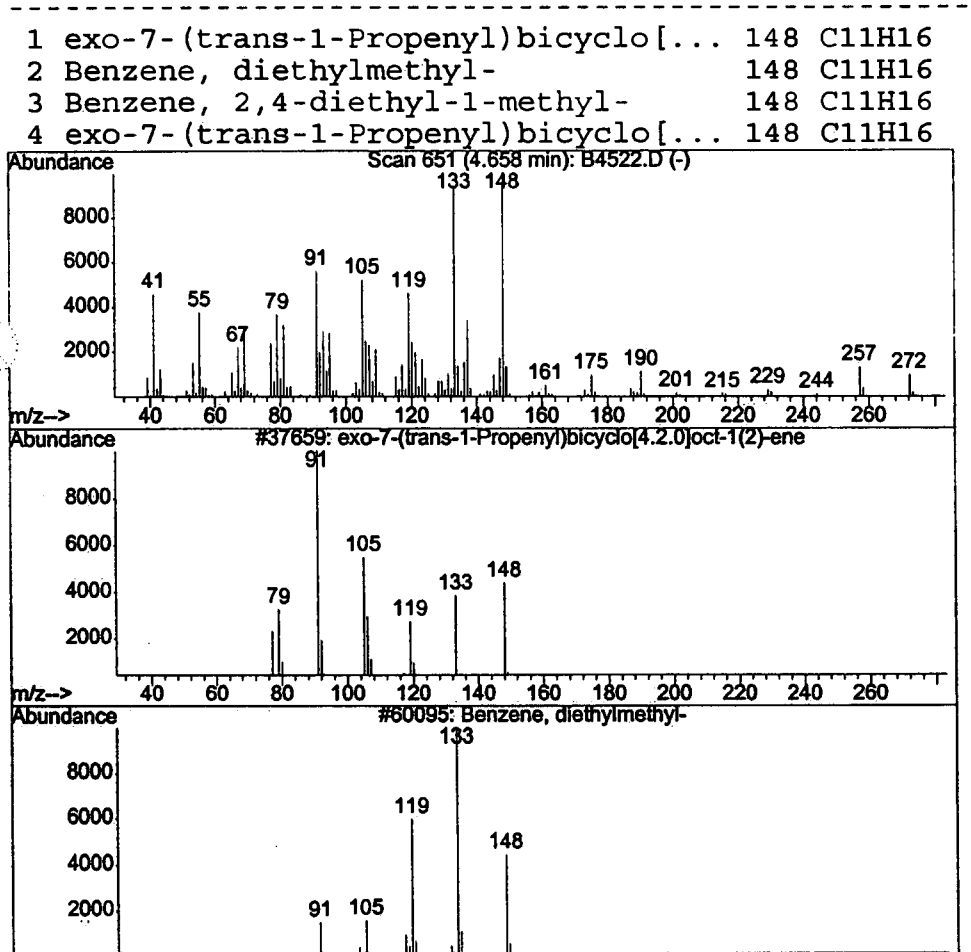
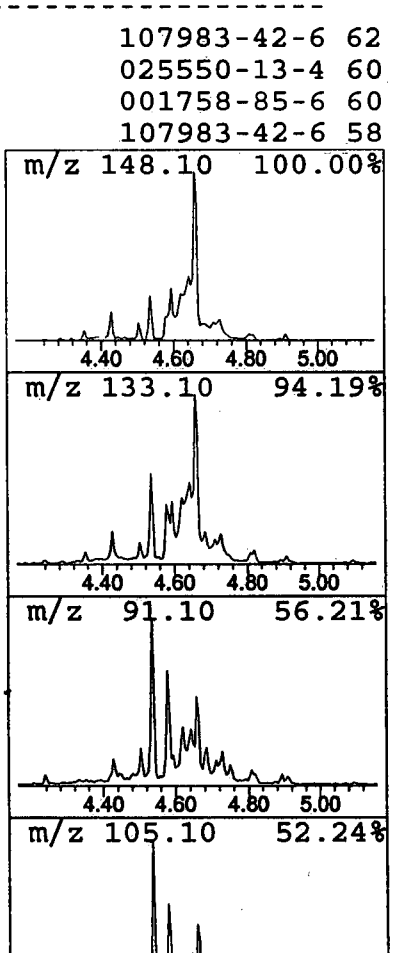
Peak Number 12 Unknown aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.66	24.96 UG	193093	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	exo-7-(trans-1-Propenyl)bicyclo[...	148	C11H16	107983-42-6	62
2	Benzene, diethylmethyl-	148	C11H16	025550-13-4	60
3	Benzene, 2,4-diethyl-1-methyl-	148	C11H16	001758-85-6	60
4	exo-7-(trans-1-Propenyl)bicyclo[...	148	C11H16	107983-42-6	58





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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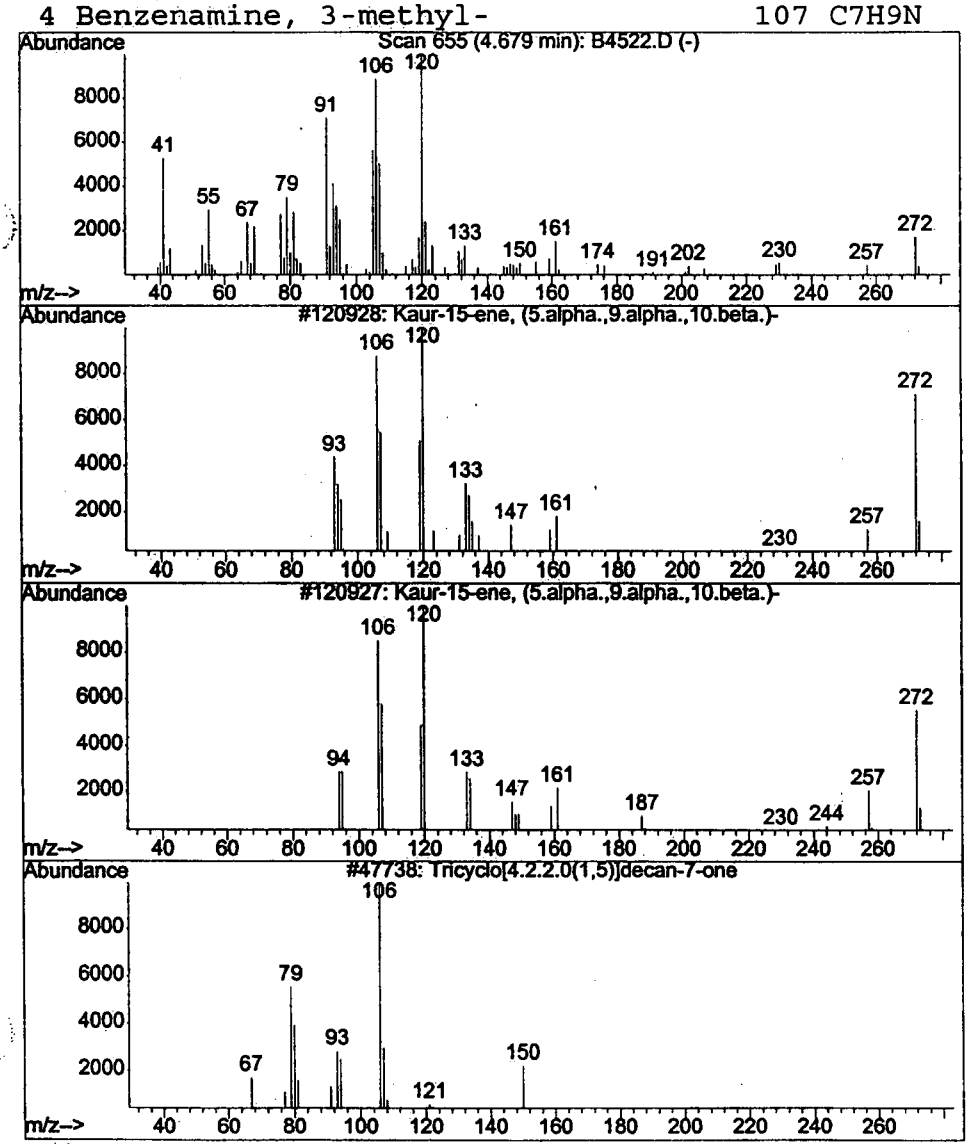
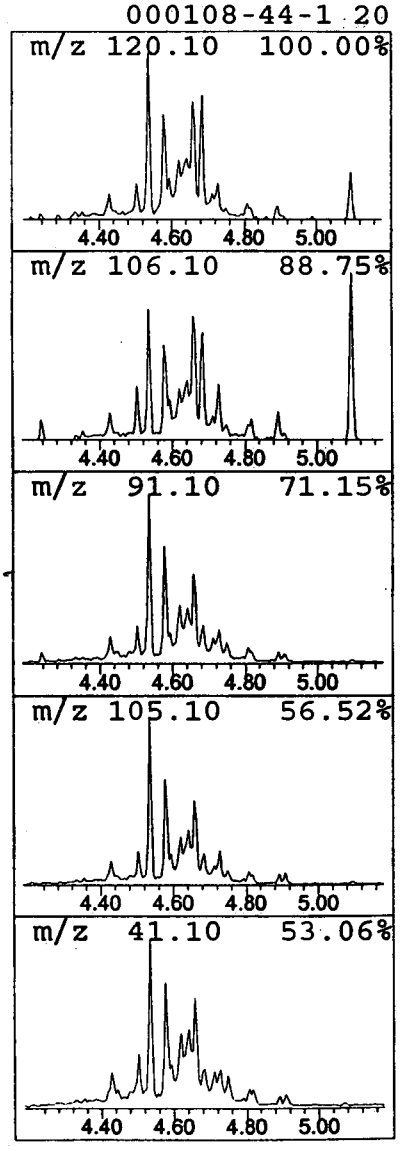
Peak Number 13 Unknown aromatic Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.68	7.13 UG	55164	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Kaur-15-ene, (5.alpha.,9.alpha.,...	272	C20H32	000511-85-3	94
2	Kaur-15-ene, (5.alpha.,9.alpha.,...	272	C20H32	000511-85-3	90
3	Tricyclo[4.2.2.0(1,5)]decan-7-one	150	C10H14O	1000191-63-4	22
4	Benzenamine, 3-methyl-	107	C7H9N	000108-44-1	20





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4522.D Vial: 11
Acq On : 18 Jul 2001 11:03 Operator: JC
Sample : S-102,4833-011,S,5.97g,26.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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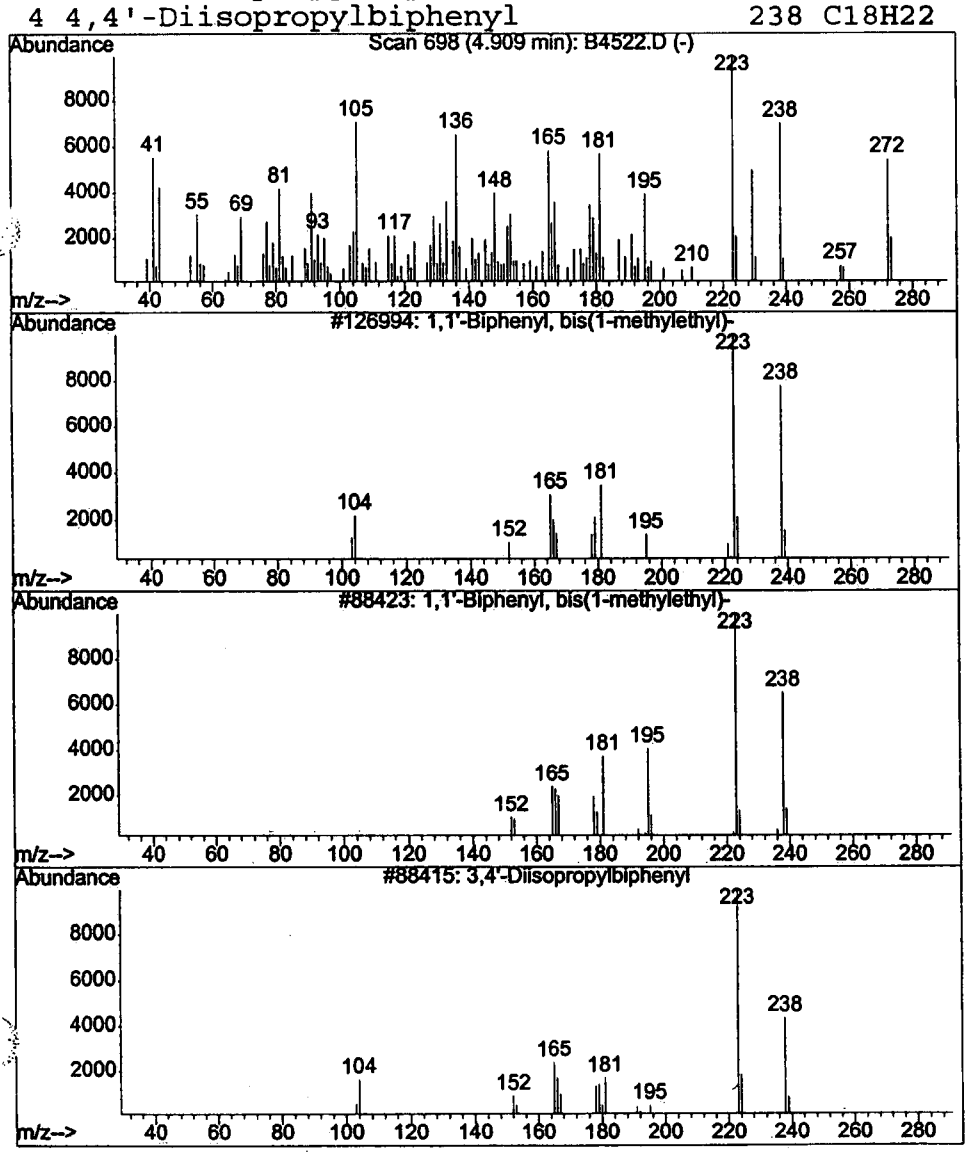
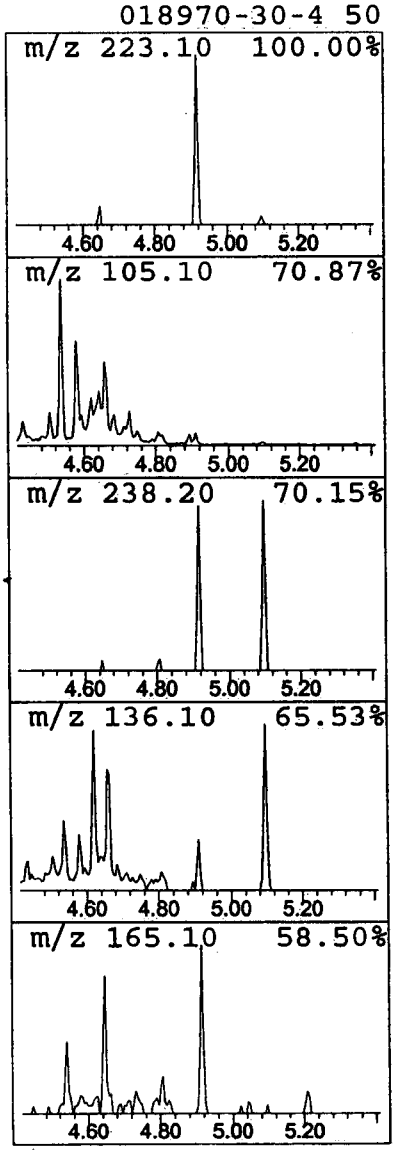
Peak Number 14 Substituted biphenyl Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.91	6.74 UG	52157	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1'-Biphenyl, bis(1-methylethyl)-	238	C18H22	069009-90-1	90
2	1,1'-Biphenyl, bis(1-methylethyl)-	238	C18H22	069009-90-1	87
3	3,4'-Diisopropylbiphenyl	238	C18H22	061434-46-6	50
4	4,4'-Diisopropylbiphenyl	238	C18H22	018970-30-4	50





Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4523.D Vial: 12
Acq On : 18 Jul 2001 11:18 Operator: JC
Sample : S-103A,4833-012,S,10.56g,19.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:28:56 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	45071	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	165848	40.00	UG	0.00
39) Acenaphthene-d10	3.58	164	89281	40.00	UG	0.00
60) Phenanthrene-d10	4.26	188	134754	40.00	UG	0.05
75) Chrysene-d12	5.96	240	88470	40.00	UG	0.03
84) Perylene-d12	7.19	264	86906	40.00	UG	0.03
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery =	0.00%#		
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 102		Recovery =	0.00%#		
23) Nitrobenzene-d5	2.51	82	49021	31.38	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery =	62.76%		
43) 2-Fluorobiphenyl	3.27	172	109876	37.13	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery =	74.26%		
64) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery =	0.00%#		
77) Terphenyl-d14	5.12	244	108278	42.78	UG	0.05
Spiked Amount 50.000	Range 40 - 120		Recovery =	85.56%		

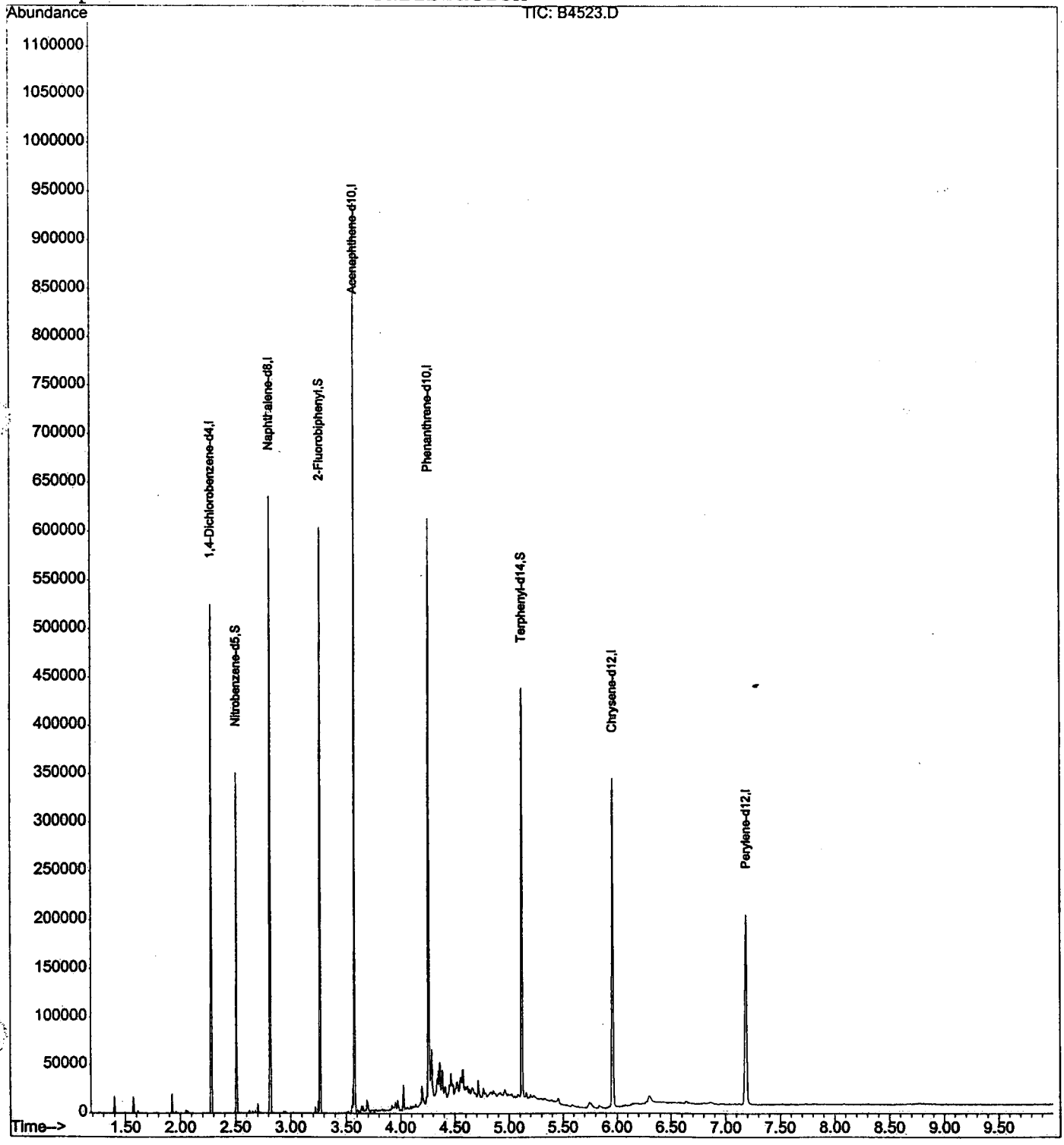
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4523.D Vial: 12
Acq On : 18 Jul 2001 11:18 Operator: JC
Sample : S-103A,4833-012,S,10.56g,19.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:31 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4523.D Vial: 12
Acq On : 18 Jul 2001 11:18 Operator: JC
Sample : S-103A,4833-012,S,10.56g,19.8,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

No Library Search Compounds Detected

****
B4523.D BS2001.M Wed Jul 18 11:31:32 2001 MSD_B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:44:20 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	43493	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	156699	40.00	UG	0.00
39) Acenaphthene-d10	3.57	164	92235	40.00	UG	0.00
60) Phenanthrene-d10	4.22	188	125245	40.00	UG	0.01
75) Chrysene-d12	5.93	240	70341	40.00	UG	0.00
84) Perylene-d12	7.17	264	78058	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.00%#			
23) Nitrobenzene-d5	2.51	82	47918	32.47	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 64.94%			
43) 2-Fluorobiphenyl	3.26	172	94754	31.00	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 62.00%			
64) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.08	244	78648	39.08	UG	0.01
Spiked Amount 50.000	Range 40 - 120		Recovery = 78.16%			
Target Compounds						Qvalue
83) bis(2-Ethylhexyl)phthalate	5.90	149	1983	1.35	UG	# 66

(#) = qualifier out of range (m) = manual integration

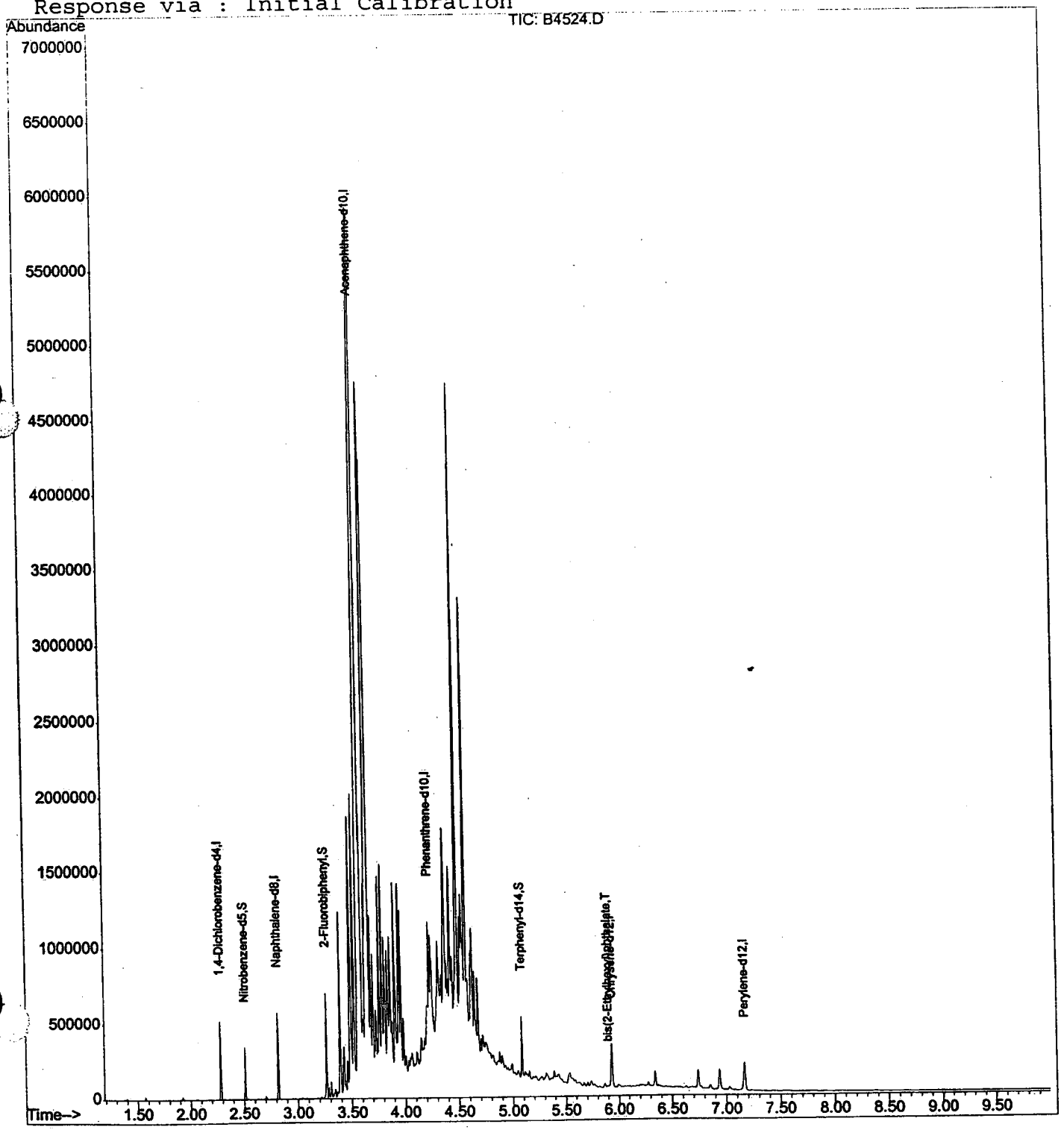
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Acq On : 18 Jul 2001 11:34
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
MS Integration Params: rteint.p
Quant Time: Jul 18 11:51 2001

Vial: 13
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Acq On : 18 Jul 2001 11:34
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
MS Integration Params: LSCINT.P

Vial: 13
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.280	204	206	209	rBV	525292	260227	2.46%	0.548%
2	2.510	246	249	251	rBV	350662	139897	1.32%	0.295%
3	2.814	304	306	309	rVB	577688	323724	3.05%	0.682%
4	3.263	385	390	392	rBV	704273	337825	3.19%	0.711%
5	3.391	411	414	417	rBV	1204015	611963	5.77%	1.289%
6	3.429	417	421	423	rBV2	310381	278398	2.63%	0.586%
7	3.461	425	427	428	rBV	196205	127899	1.21%	0.269%
8	3.488	429	432	436	rVV2	1799976	1514905	14.29%	3.190%
9	3.520	436	438	442	rVV	1934726	1327832	12.53%	2.796%
10	3.573	442	448	453	rVV4	5814573	10598011	100.00%	22.318%
11	3.610	453	455	457	rVV2	416349	472040	4.45%	0.994%
12	3.626	457	458	459	rVV	1296367	721196	6.81%	1.519%
13	3.642	459	461	463	rVV	4622505	4657635	43.95%	9.809%
14	3.680	467	468	470	rVV	1065010	589219	5.56%	1.241%
15	3.701	470	472	474	rVV2	806302	557487	5.26%	1.174%
16	3.728	476	477	481	rVV4	425602	403096	3.80%	0.849%
17	3.760	481	483	486	rVV	1295418	790656	7.46%	1.665%
18	3.787	486	488	490	rVV	1364326	873130	8.24%	1.839%
19	3.808	490	492	495	rVV3	874125	726131	6.85%	1.529%
20	3.835	495	497	500	rVV3	778065	718317	6.78%	1.513%
21	3.861	500	502	505	rVV3	859356	686919	6.48%	1.447%
22	3.883	505	506	508	rVV	298942	121095	1.14%	0.255%
23	3.904	508	510	515	rVV3	1197070	881218	8.31%	1.856%
24	3.947	515	518	519	rVV	1181609	825022	7.78%	1.737%
25	3.963	519	521	523	rVV2	997189	652975	6.16%	1.375%
26	3.984	523	525	527	rVB	321979	146544	1.38%	0.309%
27	4.150	553	556	558	rBV3	167438	163488	1.54%	0.344%
28	4.214	564	568	569	rBV3	264457	356751	3.37%	0.751%
29	4.225	569	570	572	rVV2	814682	526255	4.97%	1.108%
30	4.241	572	573	580	rVV5	726869	878089	8.29%	1.849%
31	4.310	581	586	589	rVV3	687718	1021977	9.64%	2.152%

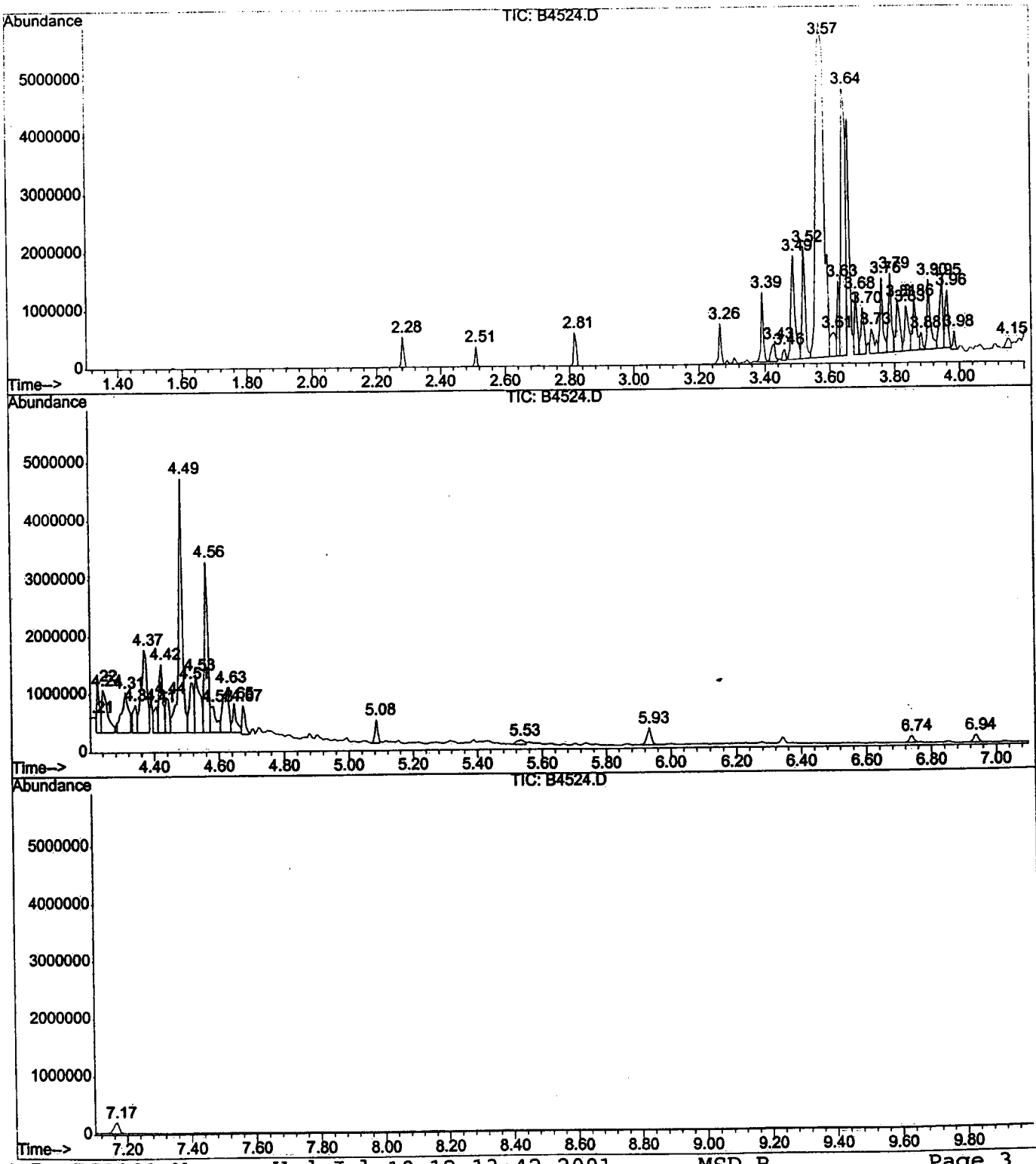
1703

2	4.342	590	592	593	rVV	473177	372230	3.51%	0.784%
3	4.369	593	597	600	rVV3	1439135	1826198	17.23%	3.846%
	4.406	602	604	605	rVV	445244	373375	3.52%	0.786%
	4.422	605	607	609	rVV	1185852	982225	9.27%	2.068%
	4.438	609	610	612	rVV2	593399	453569	4.28%	0.955%
7	4.487	612	619	622	rVV	4394275	3725918	35.16%	7.846%
8	4.513	622	624	626	rVV2	856090	892801	8.42%	1.880%
9	4.529	626	627	631	rVV3	1003190	1129895	10.66%	2.379%
0	4.561	631	633	635	rVV	2962532	2127340	20.07%	4.480%
1	4.583	635	637	641	rVV2	452624	547541	5.17%	1.153%
2	4.625	641	645	647	rVV	784116	935169	8.82%	1.969%
3	4.647	647	649	653	rVV	501855	392914	3.71%	0.827%
4	4.673	653	654	658	rVB	492870	320656	3.03%	0.675%
5	5.085	728	731	733	rBV	406669	244451	2.31%	0.515%
6	5.534	810	815	818	rBV3	72817	123214	1.16%	0.259%
7	5.934	885	890	895	rVB	292066	266627	2.52%	0.561%
8	6.741	1037	1041	1044	rBV	120183	115142	1.09%	0.242%
9	6.939	1074	1078	1085	rVB	135785	142088	1.34%	0.299%
0	7.168	1115	1121	1128	rVB	187897	224252	2.12%	0.472%

Sum of corrected areas: 47485526

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Operator : JC
Acquired : 18 Jul 2001 11:34 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 13
Quant File :BS2001.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

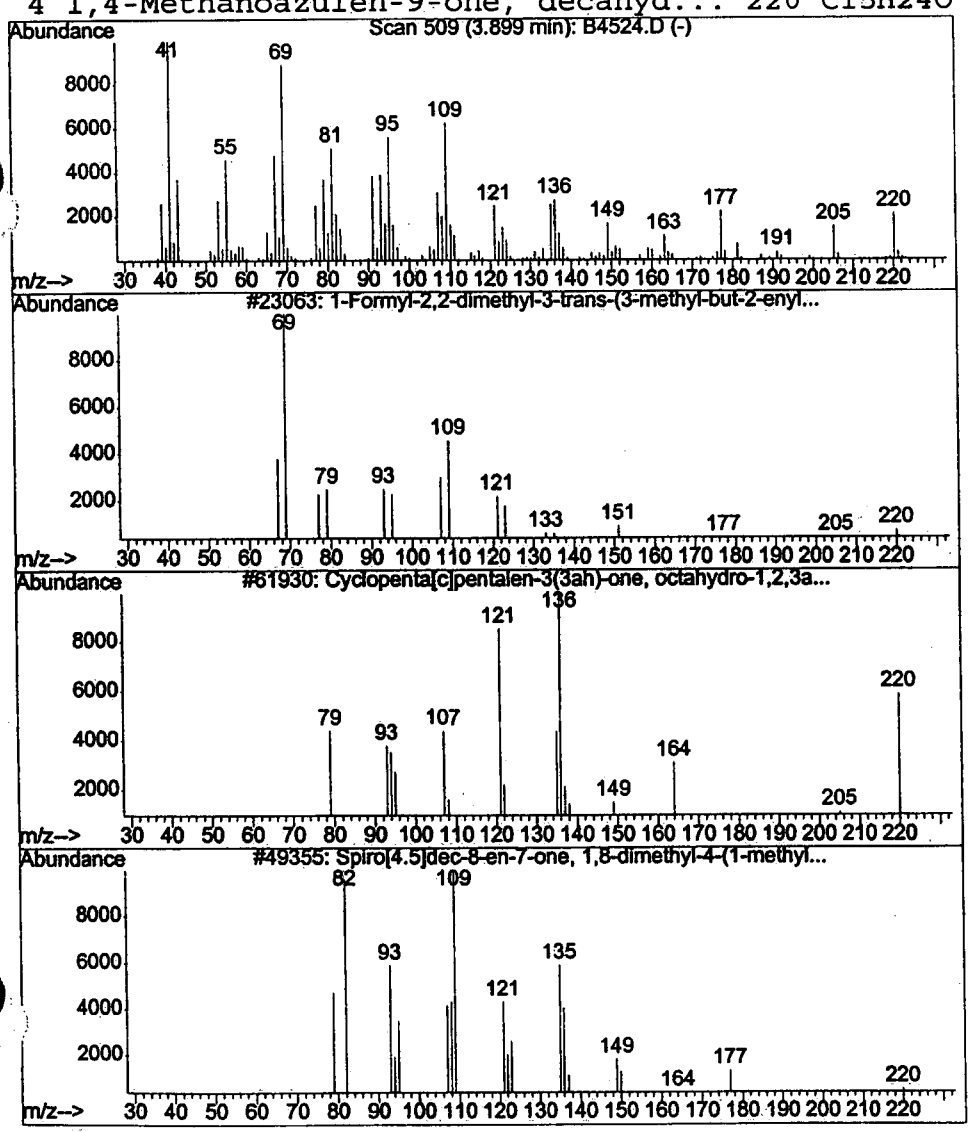
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

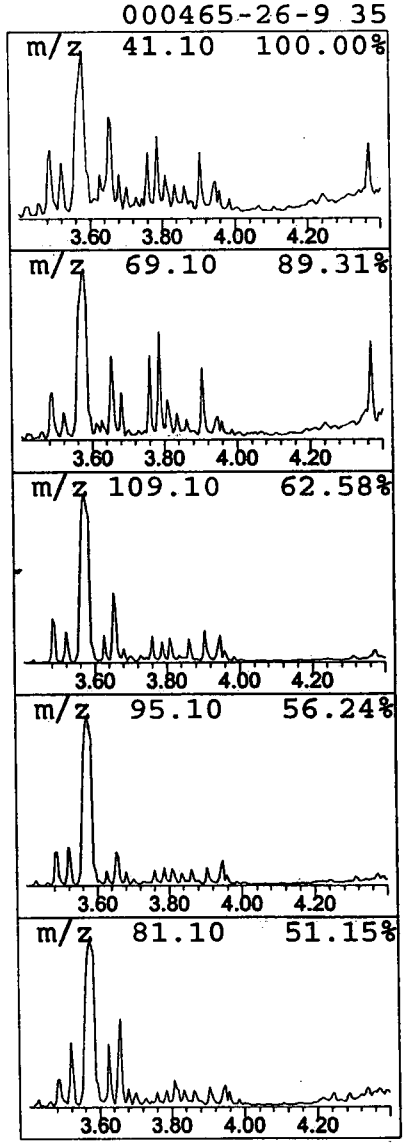
****

Peak Number 1 Unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.90	66.98 UG	881218	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Formyl-2,2-dimethyl-3-trans-(3...	220	C15H24O	1000144-09-7	45
2	Cyclopenta[c]pentalen-3(3ah)-one...	220	C15H24O	120052-69-9	38
3	Spiro[4.5]dec-8-en-7-one, 1,8-di...	220	C15H24O	039510-36-6	35
4	1,4-Methanoazulen-9-one, decahyd...	220	C15H24O	000465-26-9	35





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Acq On : 18 Jul 2001 11:34
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
MS Integration Params: LSCINT.P

Vial: 13
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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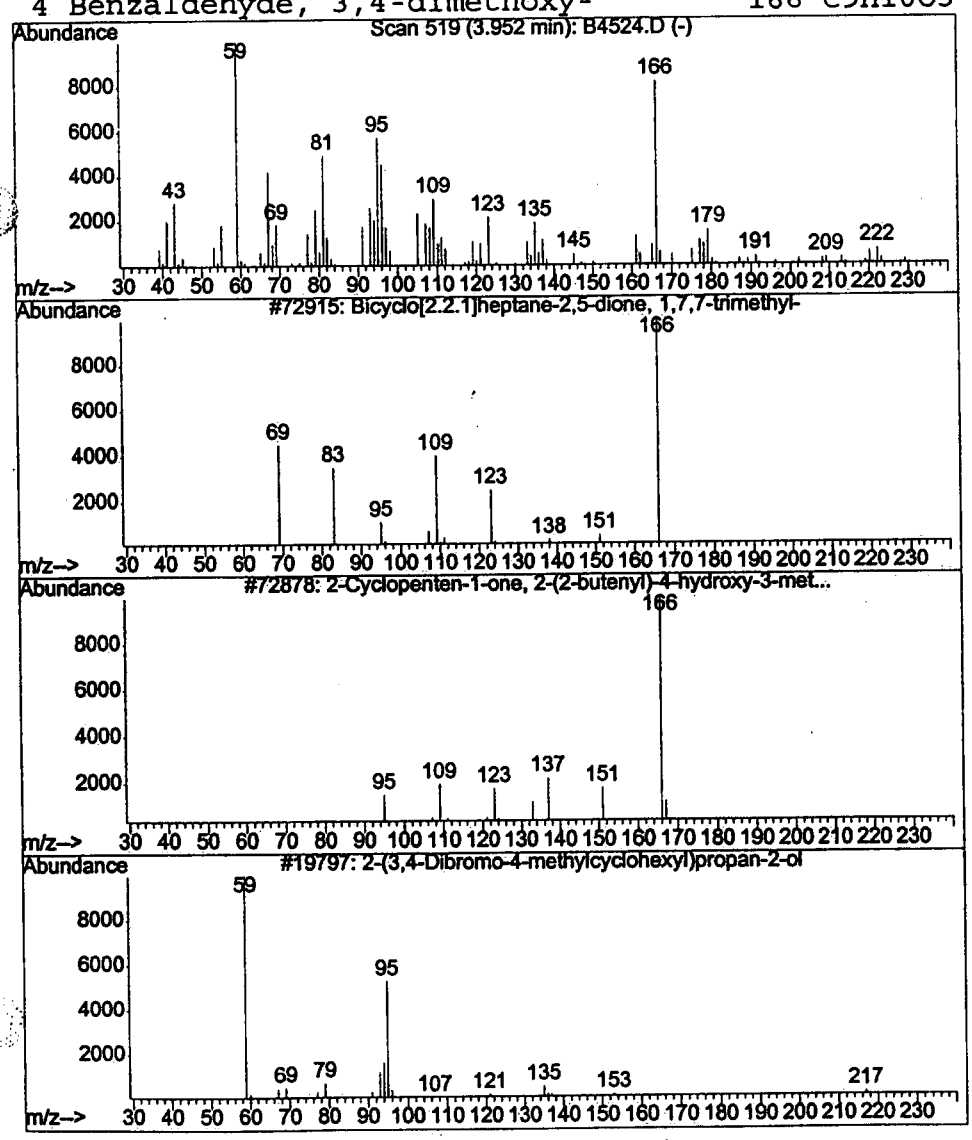
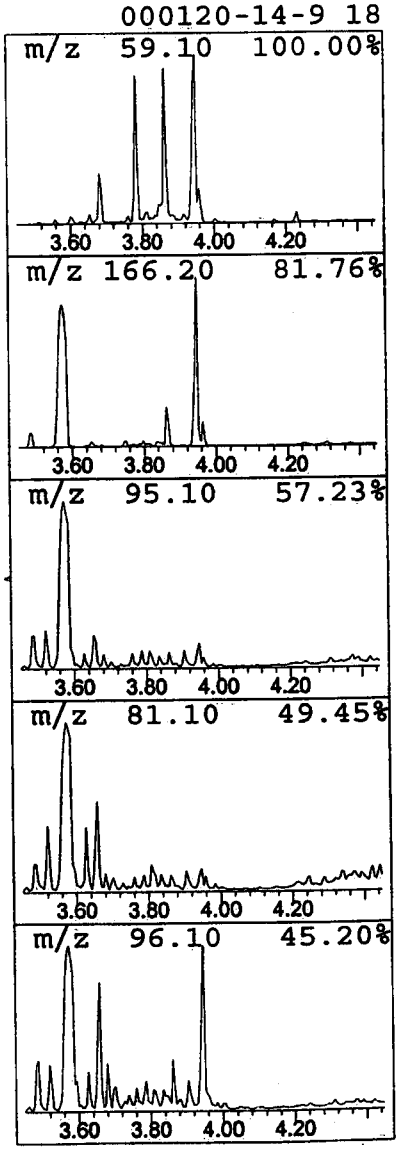
Peak Number 2 Unknown alkane — Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.95	62.71 UG	825022	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[2.2.1]heptane-2,5-dione,...	166	C10H14O2	004230-32-4	27
2	2-Cyclopenten-1-one, 2-(2-buteny...	166	C10H14O2	017190-74-8	25
3	2-(3,4-Dibromo-4-methylcyclohexy...	312	C10H18Br2O	110202-13-6	22
4	Benzaldehyde, 3,4-dimethoxy-	166	C9H10O3	000120-14-9	18





1707

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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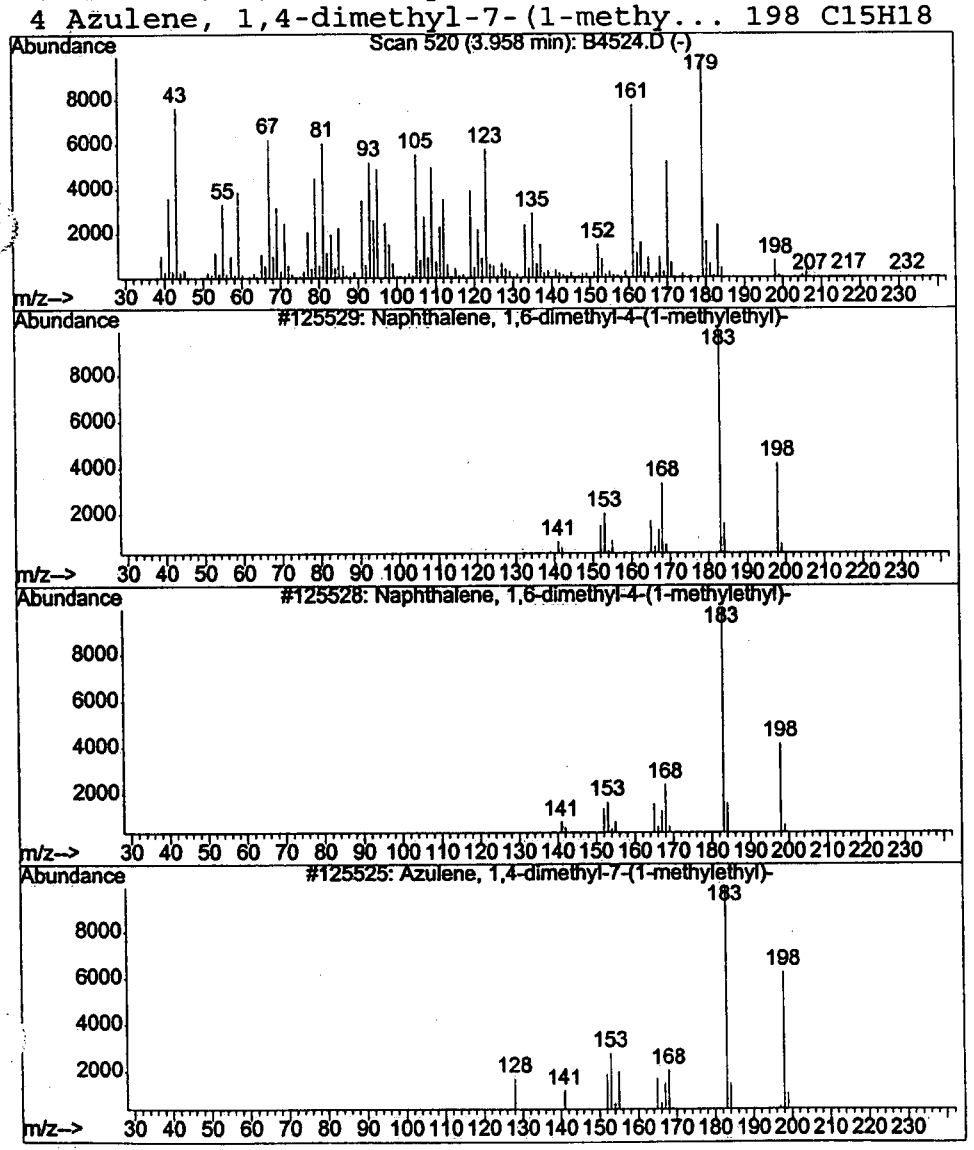
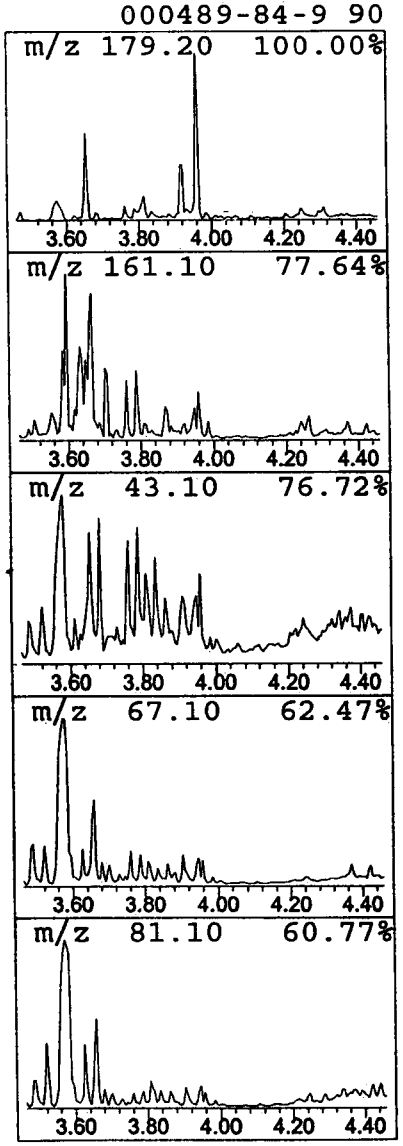
Peak Number 3 Substituted naphthalene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.96	49.63 UG	652975	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	95
2	Naphthalene, 1,6-dimethyl-4-(1-m...	198	C15H18	000483-78-3	93
3	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	93
4	Azulene, 1,4-dimethyl-7-(1-methy...	198	C15H18	000489-84-9	90





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Acq On : 18 Jul 2001 11:34
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
MS Integration Params: LSCINT.P

Vial: 13
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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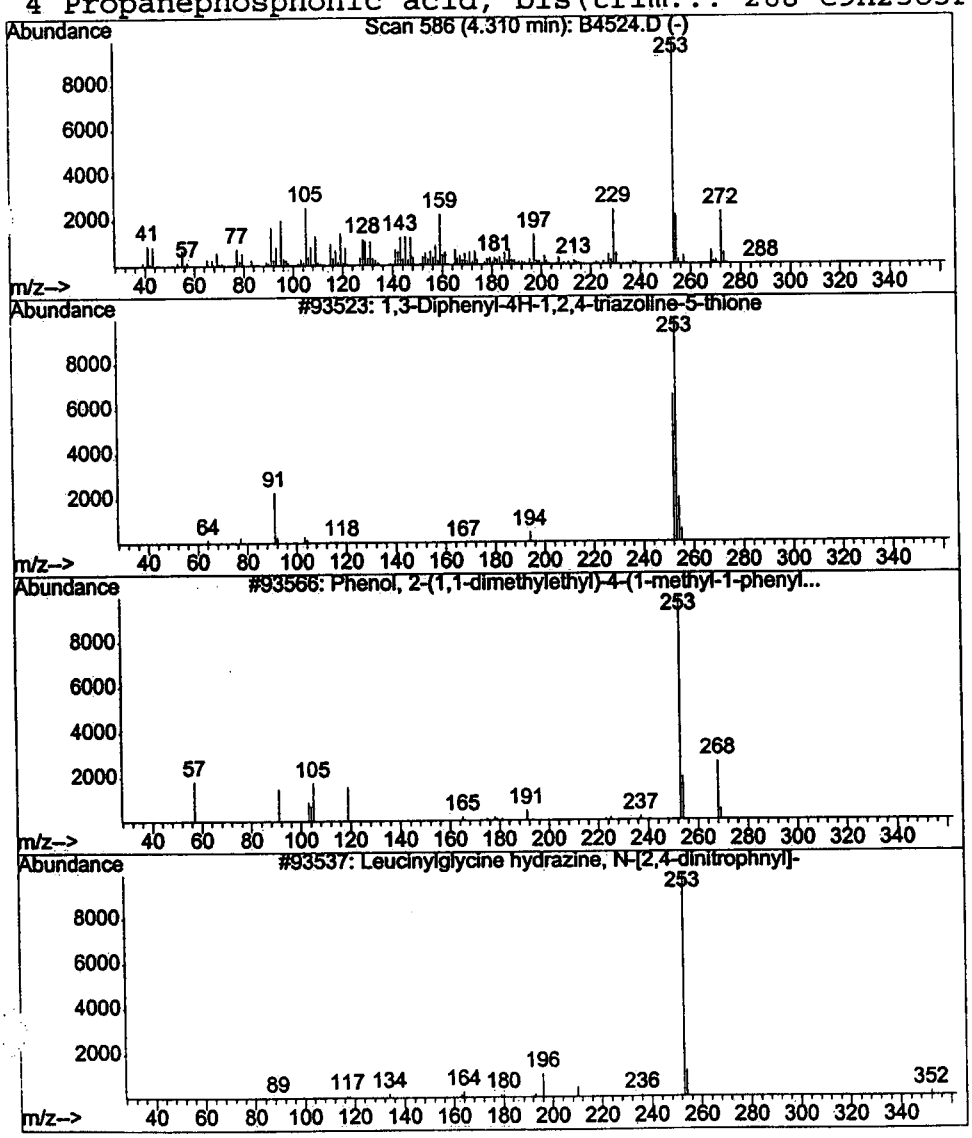
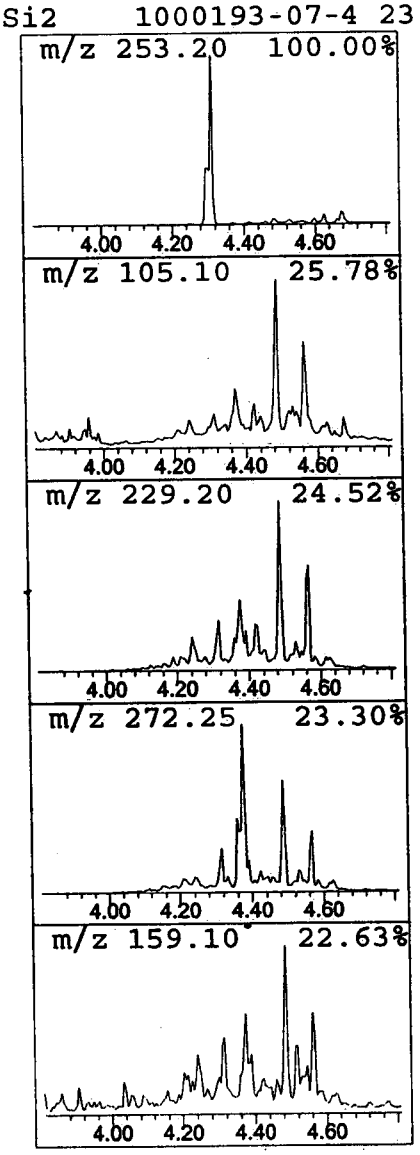
Peak Number 4 Unknown — Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.31	77.68 UG	1021980	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Diphenyl-4H-1,2,4-triazoline...	253	C14H11N3S	005055-73-2	35
2	Phenol, 2-(1,1-dimethylethyl)-4-...	268	C19H24O	056187-92-9	25
3	Leucinylglycine hydrazine, N-[2,...	368	C14H20N6O6	1000131-15-6	25
4	Propanephosphonic acid, bis(trim...	268	C9H25O3PSi2	1000193-07-4	23





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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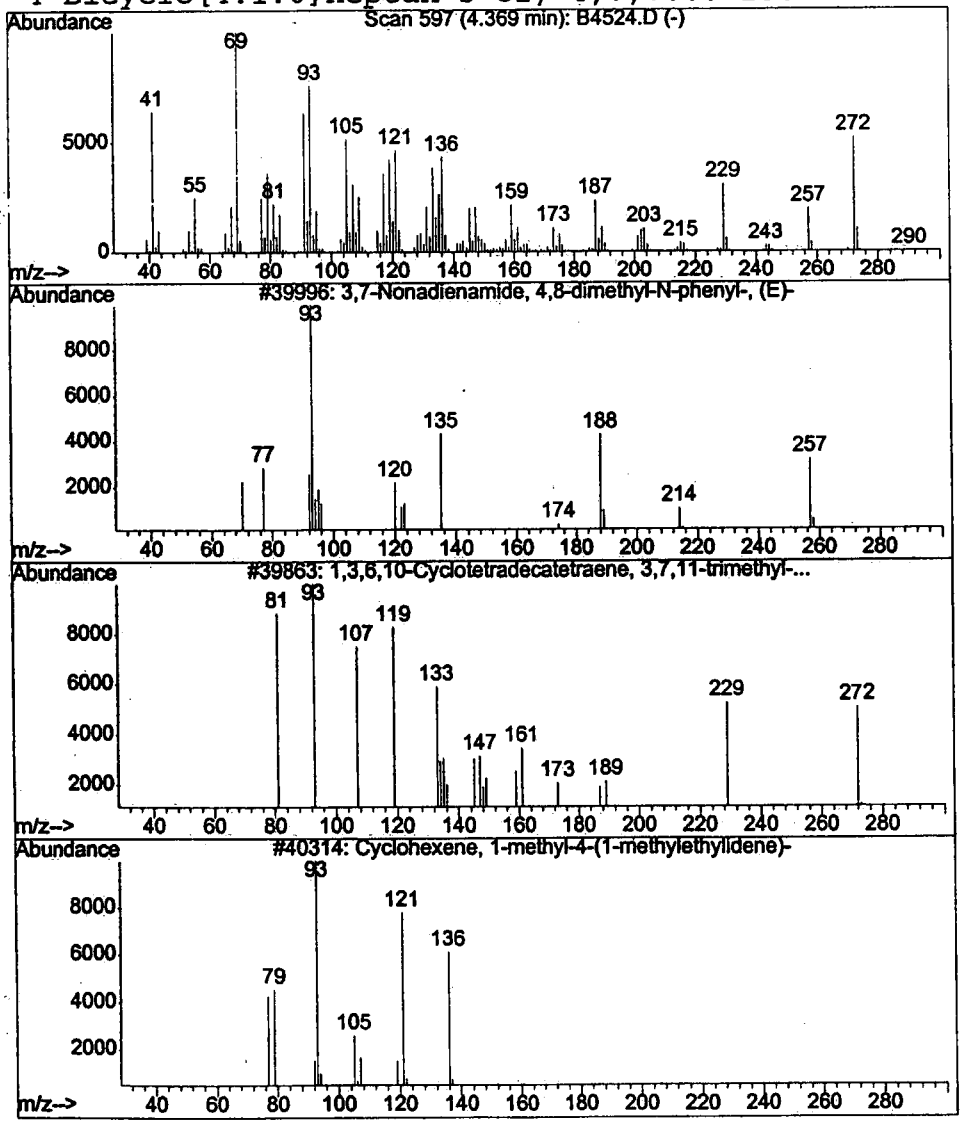
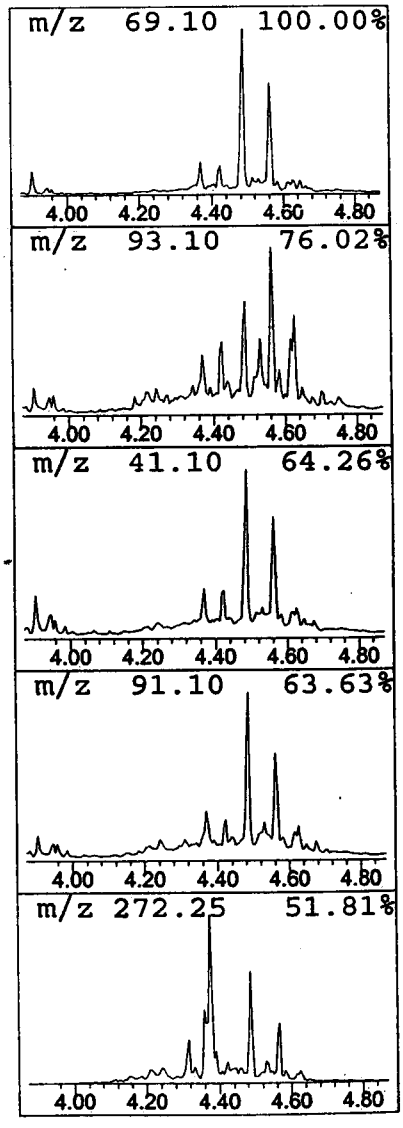
Peak Number 5 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.37	138.81 UG	1826200	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,7-Nonadienamide, 4,8-dimethyl-...	257	C17H23NO	104476-99-5	45
2	1,3,6,10-Cyclotetradecatetraene,...	272	C20H32	001898-13-1	38
3	Cyclohexene, 1-methyl-4-(1-methy...	136	C10H16	000586-62-9	35
4	Bicyclo[4.1.0]heptan-3-ol, 4,7,7...	154	C10H18O	038748-96-8	35





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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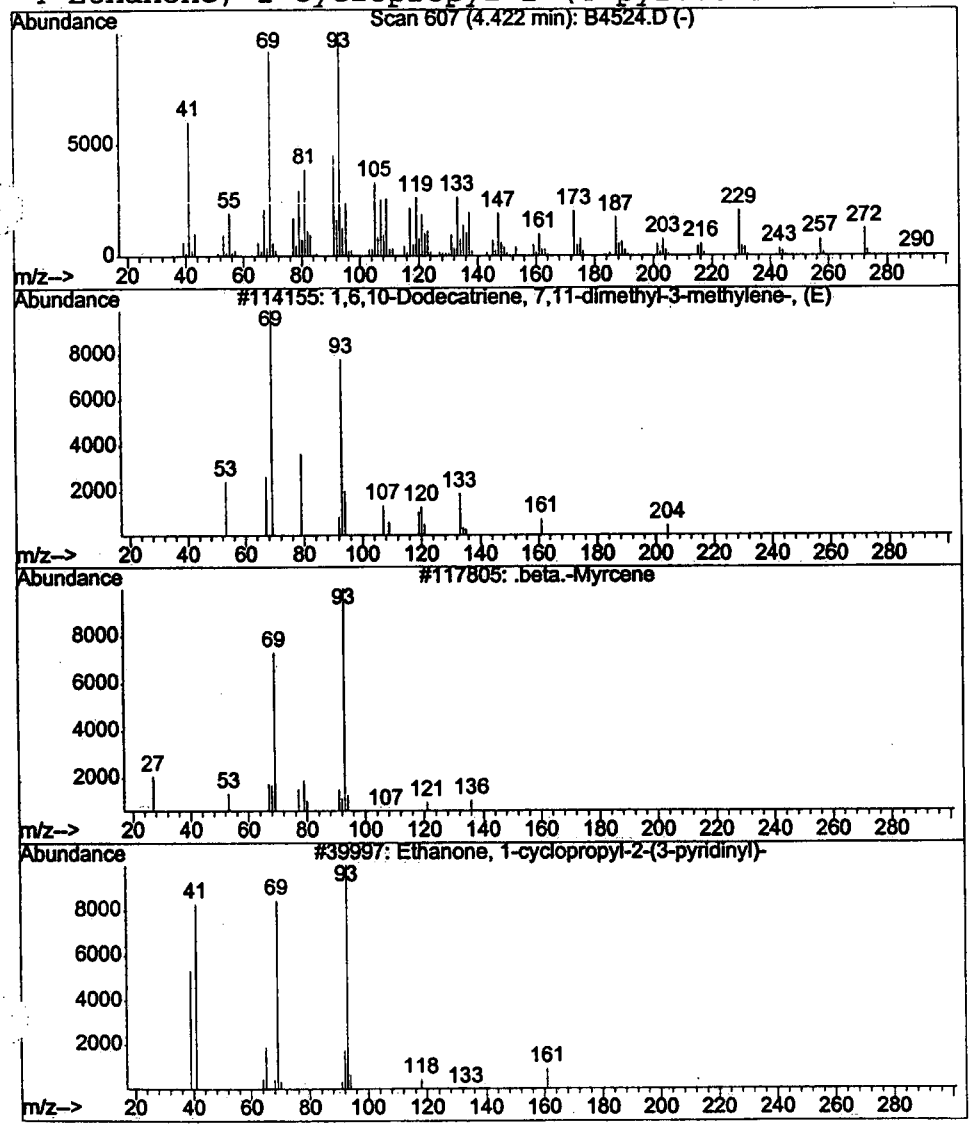
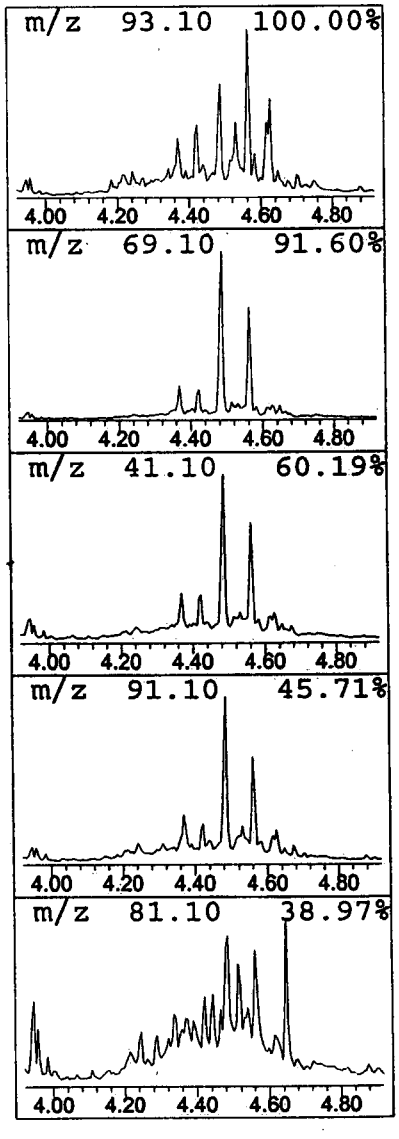
Peak Number 6 Unknown Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.42	74.66 UG	982225	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,6,10-Dodecatriene, 7,11-dimeth...	204	C15H24	018794-84-8	49
2	.beta.-Myrcene	136	C10H16	000123-35-3	43
3	Ethanone, 1-cyclopropyl-2-(3-pyr...	161	C10H11NO	057276-33-2	43
4	Ethanone, 1-cyclopropyl-2-(4-pyr...	161	C10H11NO	006580-95-6	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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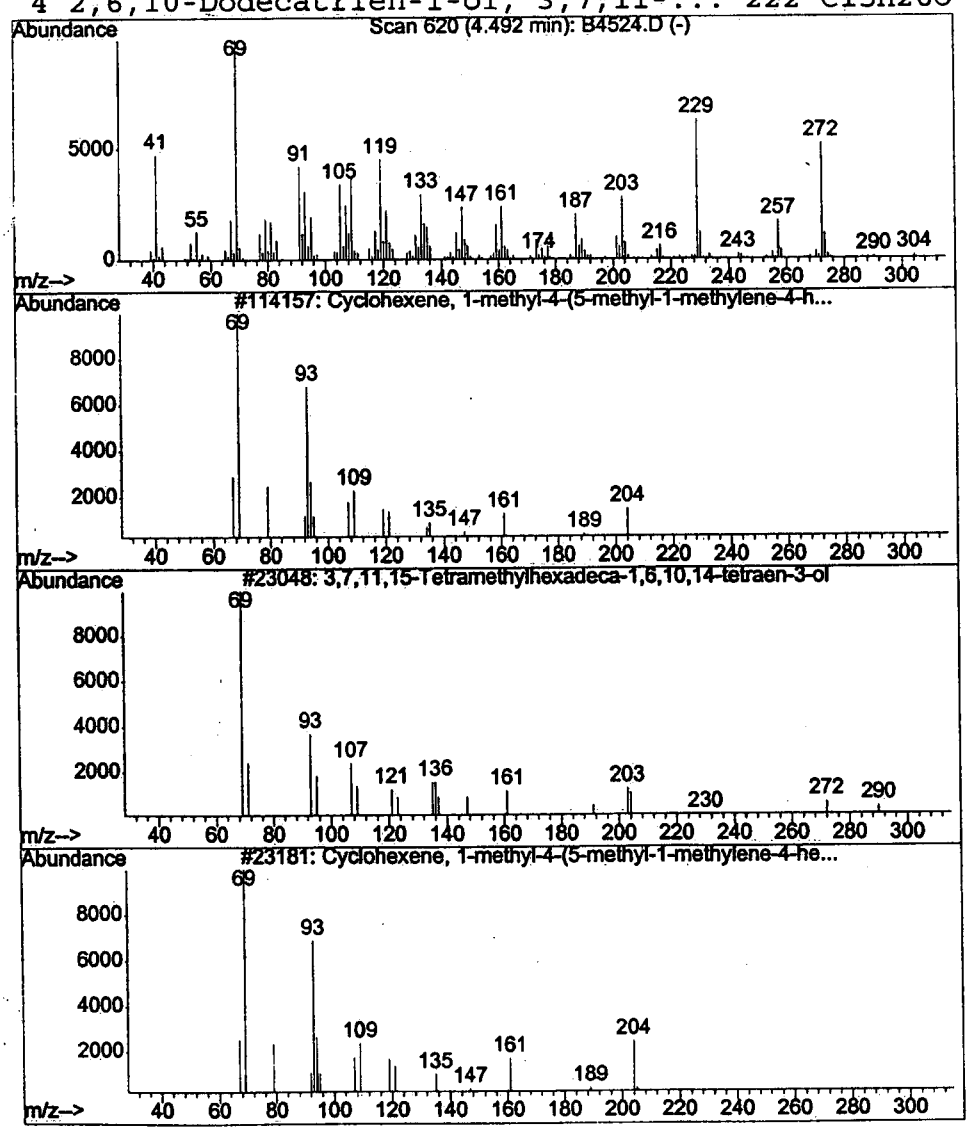
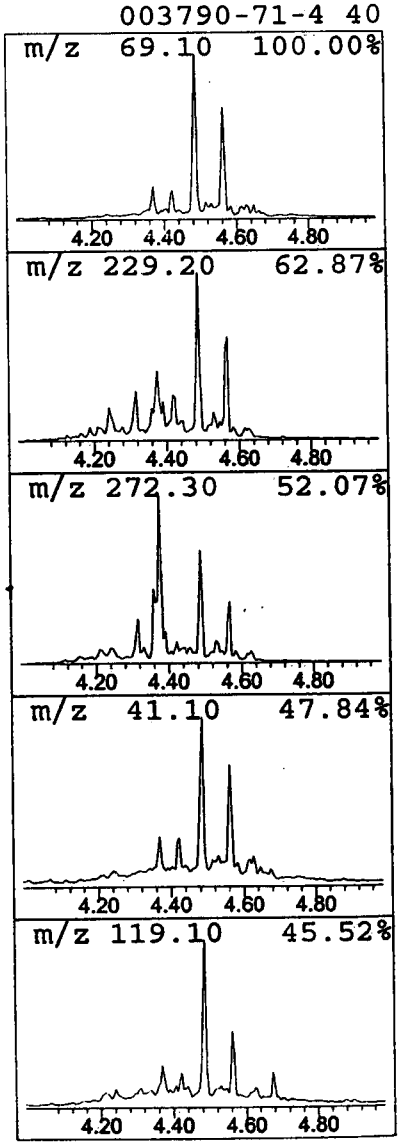
Peak Number 7 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.49	283.20 UG	3725920	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(5-methy...	204	C15H24	000495-61-4	50
2	3,7,11,15-Tetramethylhexadeca-1,...	290	C20H34O	068931-30-6	42
3	Cyclohexene, 1-methyl-4-(5-methy...	204	C15H24	000495-61-4	40
4	2,6,10-Dodecatrien-1-ol, 3,7,11-...	222	C15H26O	003790-71-4	40





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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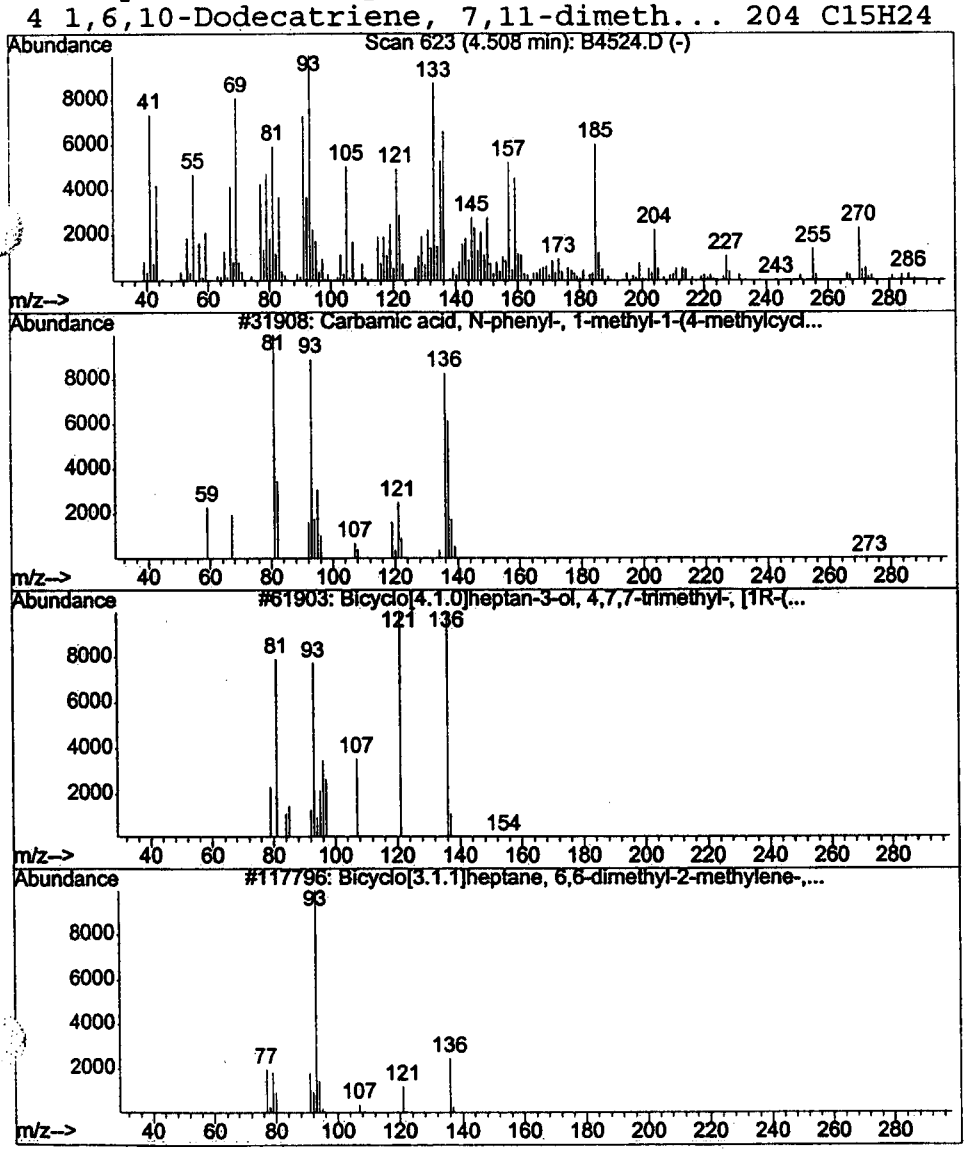
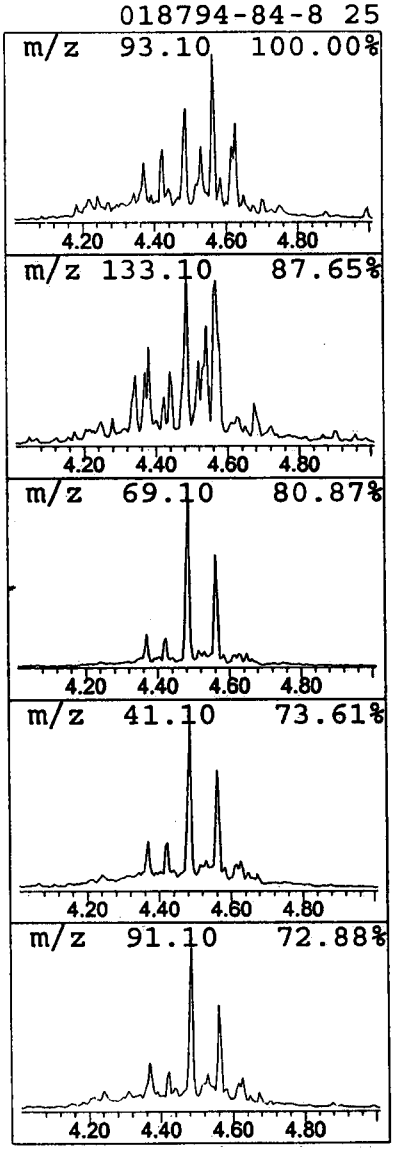
Peak Number 8 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.51	67.86 UG	892801	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbamic acid, N-phenyl-, 1-meth...	273	C17H23NO2	1000192-99-5	49
2	Bicyclo[4.1.0]heptan-3-ol, 4,7,7...	154	C10H18O	004017-89-4	38
3	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	25
4	1,6,10-Dodecatriene, 7,11-dimeth...	204	C15H24	018794-84-8	25





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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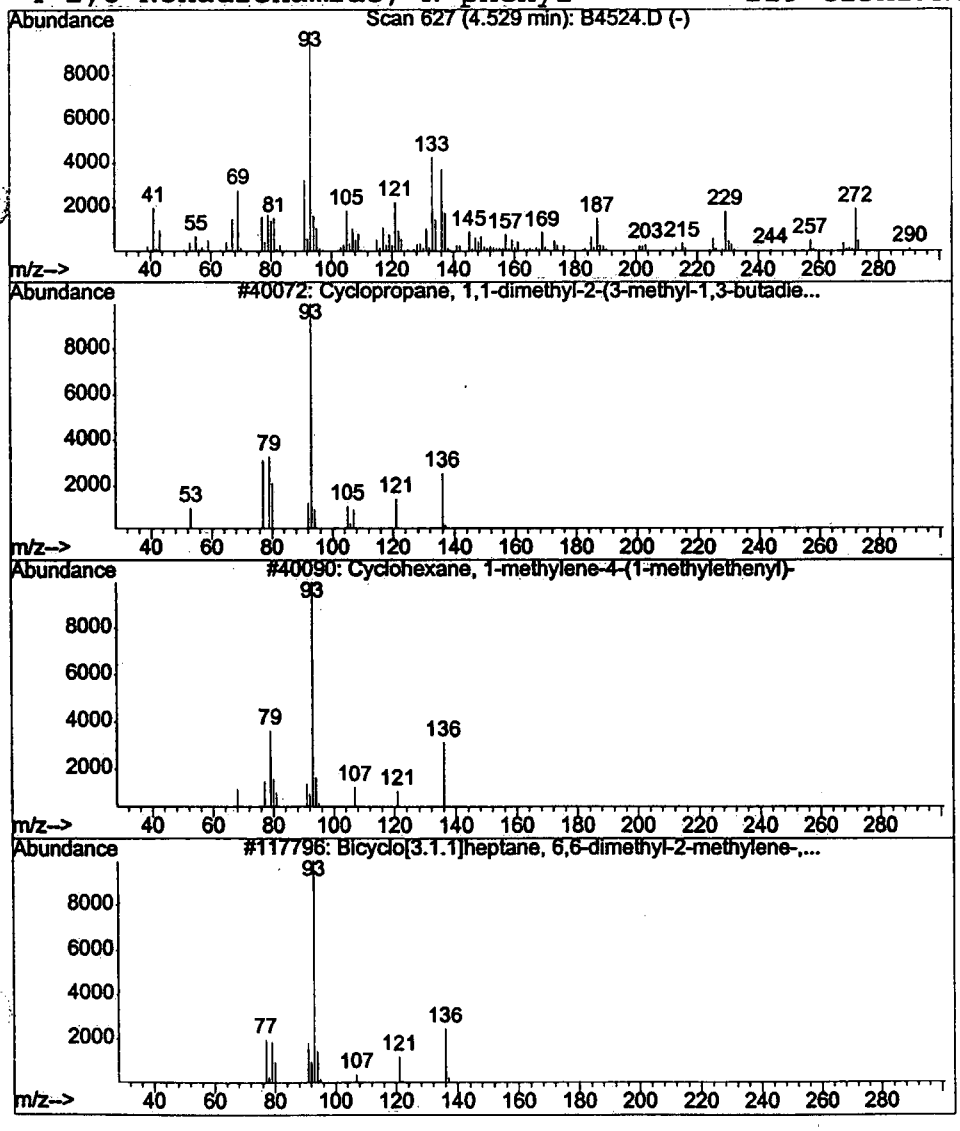
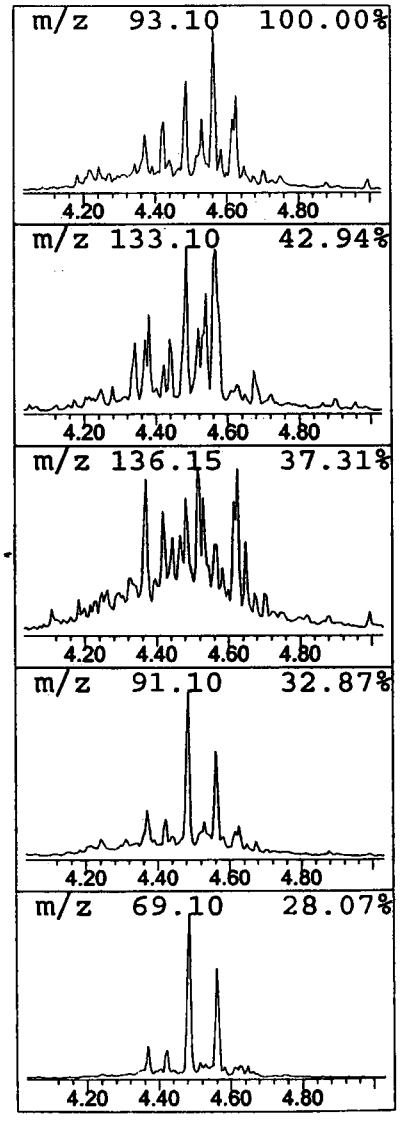
Peak Number 9 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.53	85.88 UG	1129900	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopropane, 1,1-dimethyl-2-(3-...	136	C10H16	068998-21-0	45
2	Cyclohexane, 1-methylene-4-(1-me...	136	C10H16	000499-97-8	45
3	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	43
4	2,8-Nonadienamide, N-phenyl-	229	C15H19NO	128039-94-1	43





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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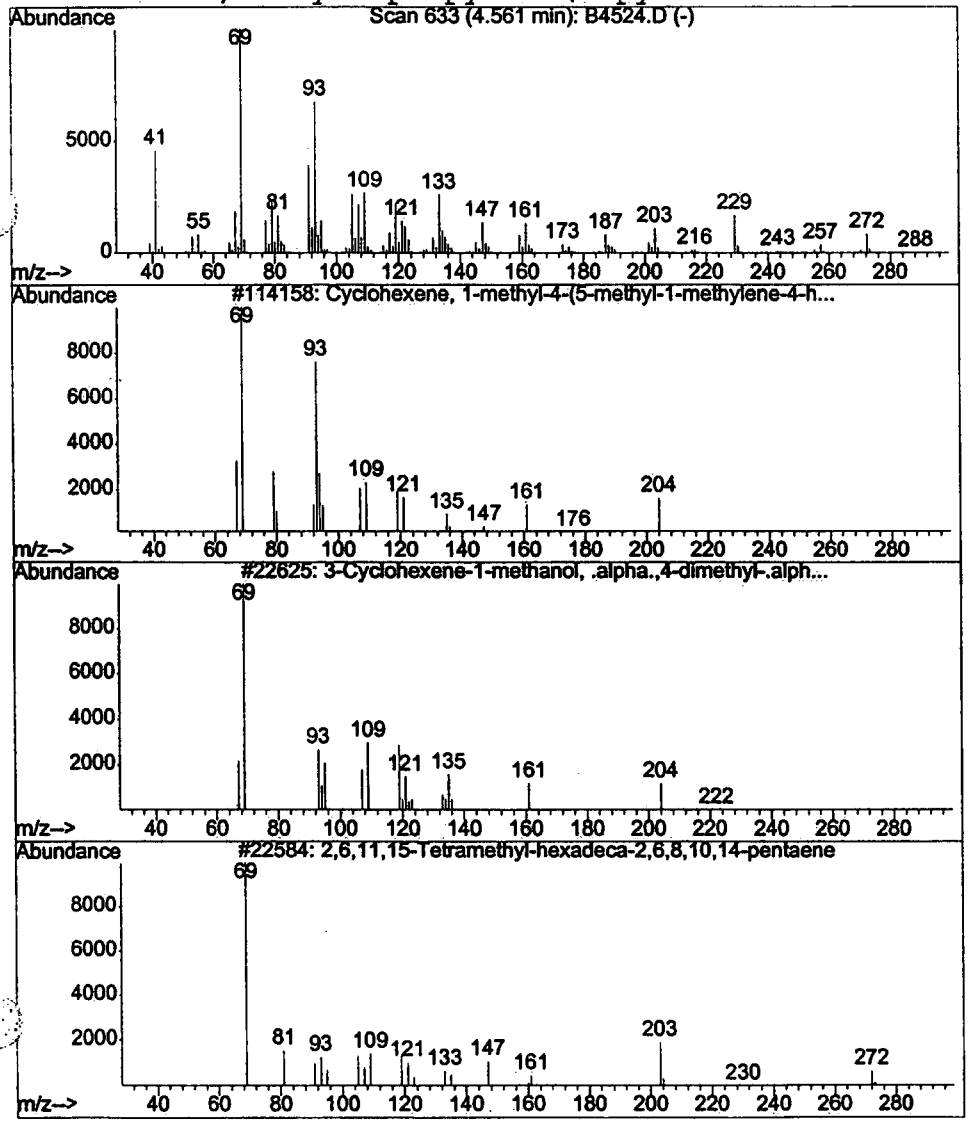
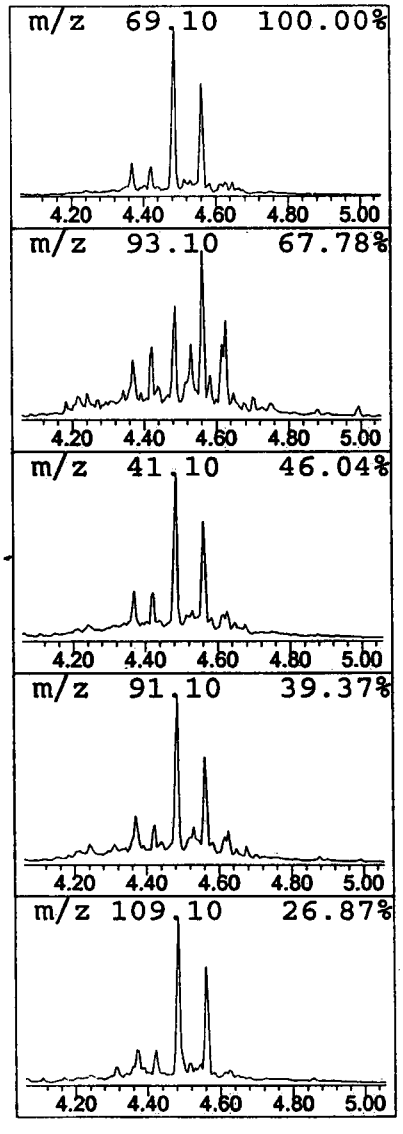
Peak Number 10 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.56	161.70 UG	2127340	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(5-methy...	204	C15H24	000495-61-4	53
2	3-Cyclohexene-1-methanol, .alpha...	222	C15H26O	023178-88-3	49
3	2,6,11,15-Tetramethyl-hexadeca-2...	272	C20H32	038259-79-9	49
4	Ethanone, 1-cyclopropyl-2-(4-pyr...	161	C10H11NO	006580-95-6	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

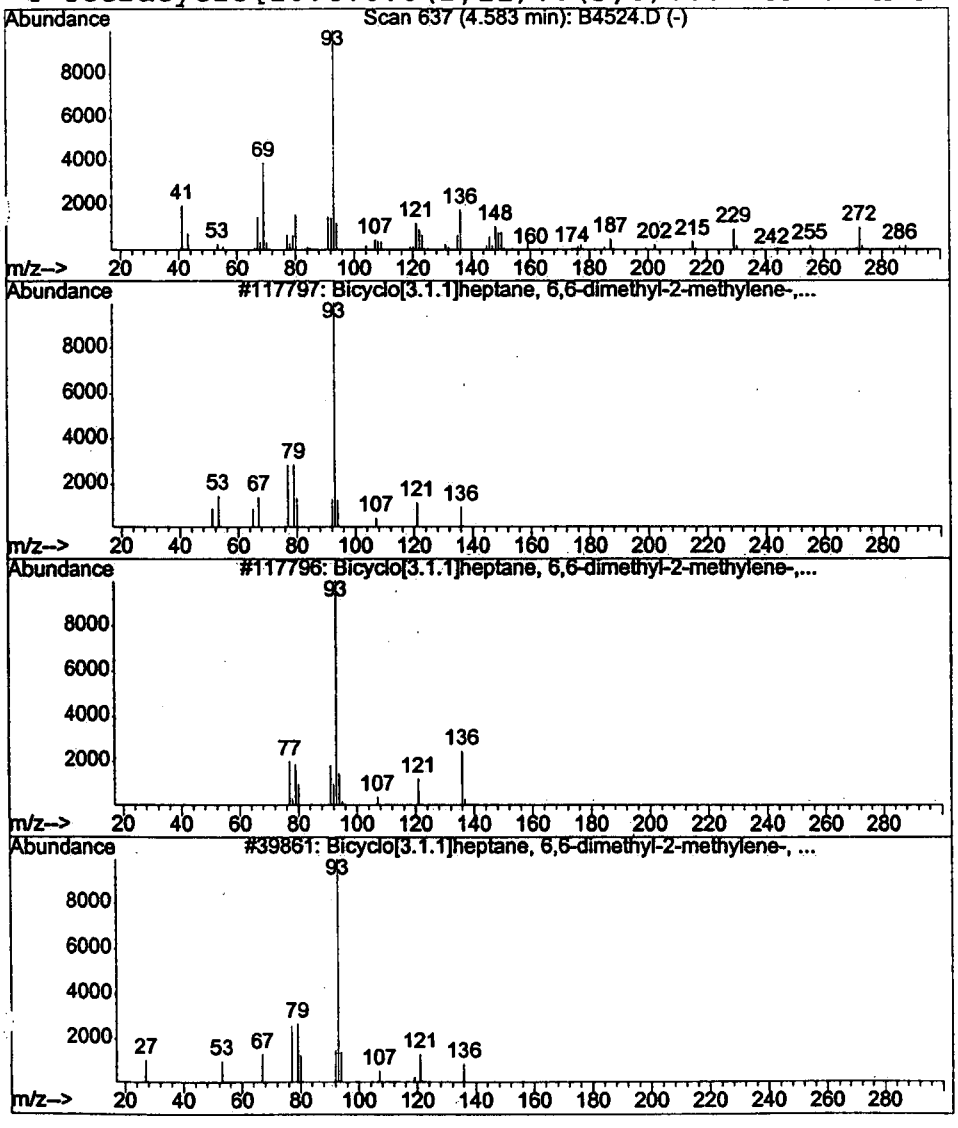
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

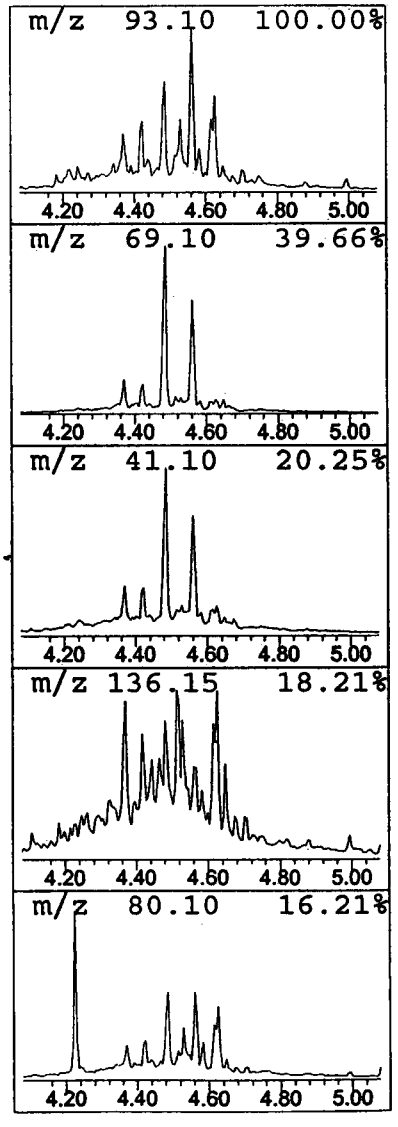
****

Peak Number 11 Unknown alkane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.58	41.62 UG	547541	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	64
2	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	64
3	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	59
4	Tetracyclo[10.4.0.0(2,11).0(3,8)...	289	C21H23N	1000157-71-4	58





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

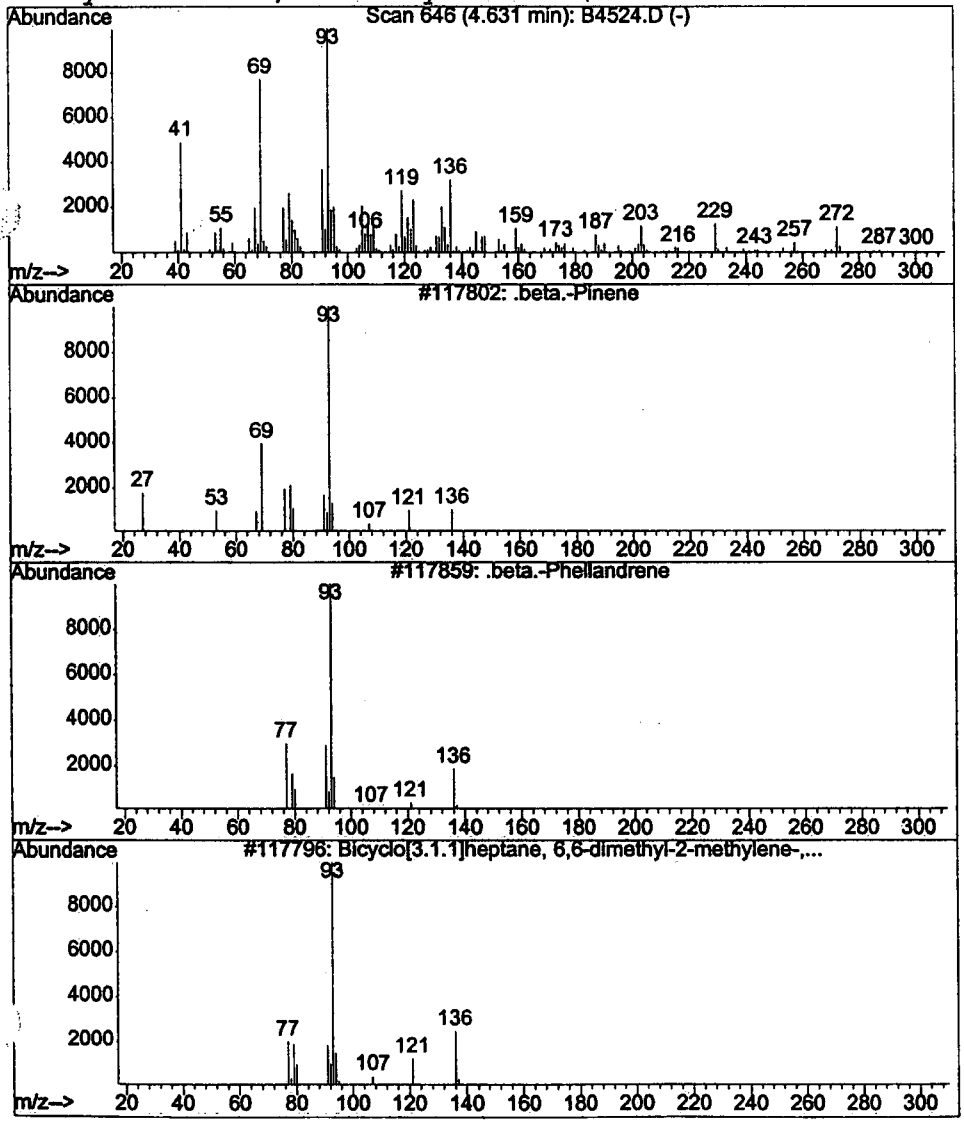
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

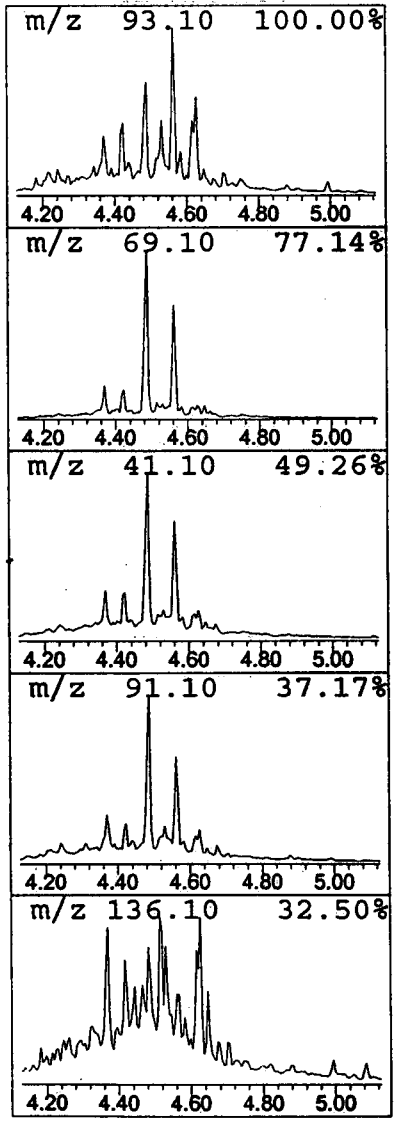
****

Peak Number 12 Unknown Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.63	71.08 UG	935169	Phenanthrene-d10	4.22

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.-Pinene	136	C10H16	000127-91-3	76
2	.beta.-Phellandrene	136	C10H16	000555-10-2	68
3	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	68
4	Cyclohexene, 4-methylene-1-(1-me...	136	C10H16	000099-84-3	59





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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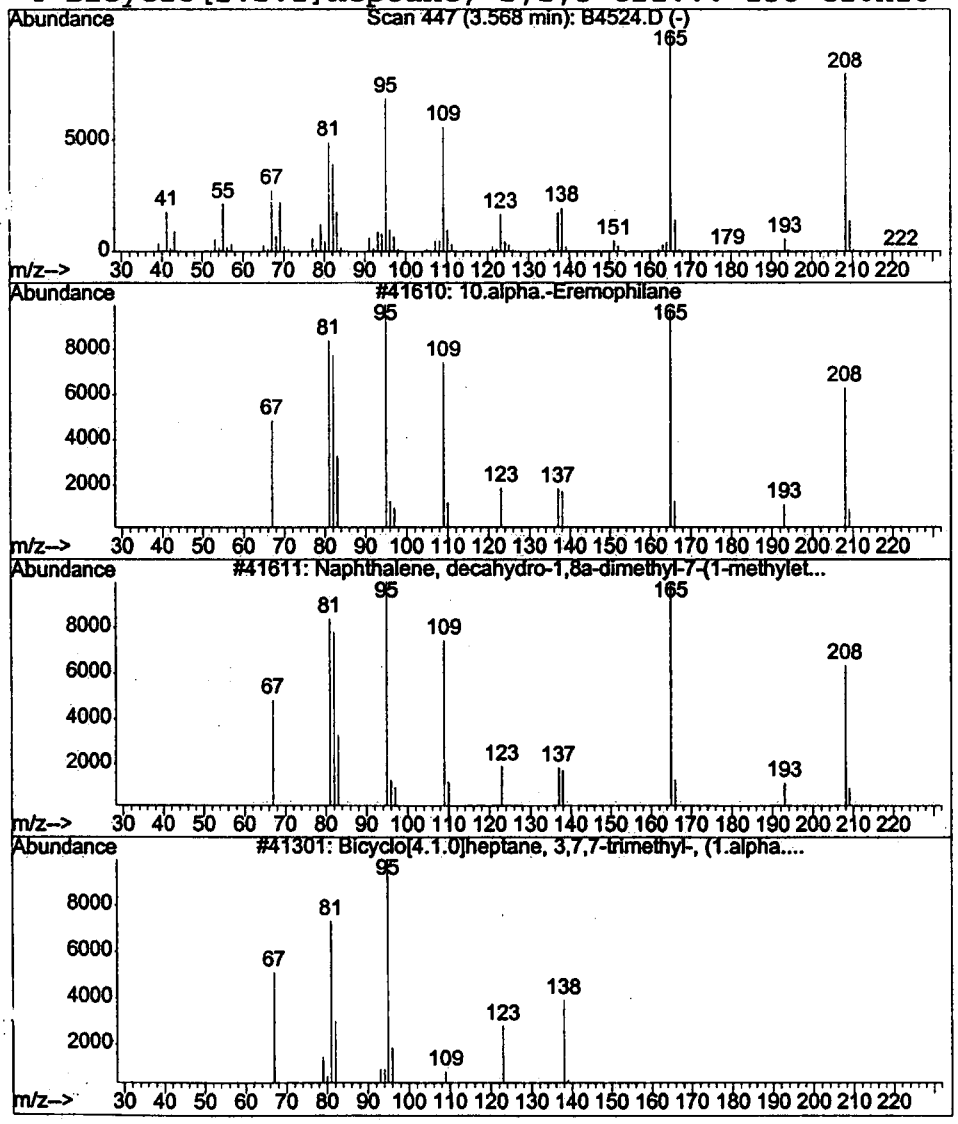
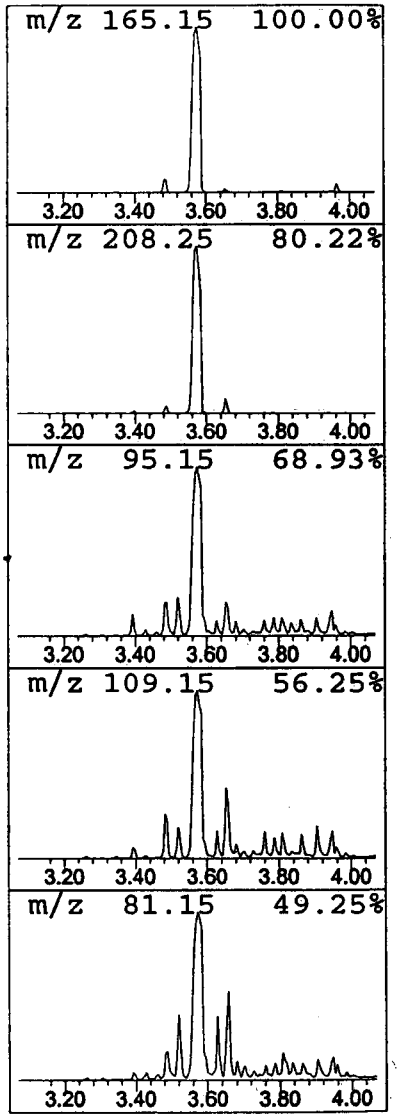
Peak Number 13 Substituted naphthalene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.57	~~520.00~~ 805.5 UG	10598000	~~Acenaphthene-d10~~ Phenanthrene d10	~~3.57~~ 4.22. JC

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	10.alpha.-Eremophilane	208	C15H28	003242-05-5	95
2	Naphthalene, decahydro-1,8a-dime...	208	C15H28	015404-63-4	95
3	Bicyclo[4.1.0]heptane, 3,7,7-tri...	138	C10H18	018968-23-5	53
4	Bicyclo[2.2.1]heptane, 2,2,3-tri...	138	C10H18	020536-40-7	38





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

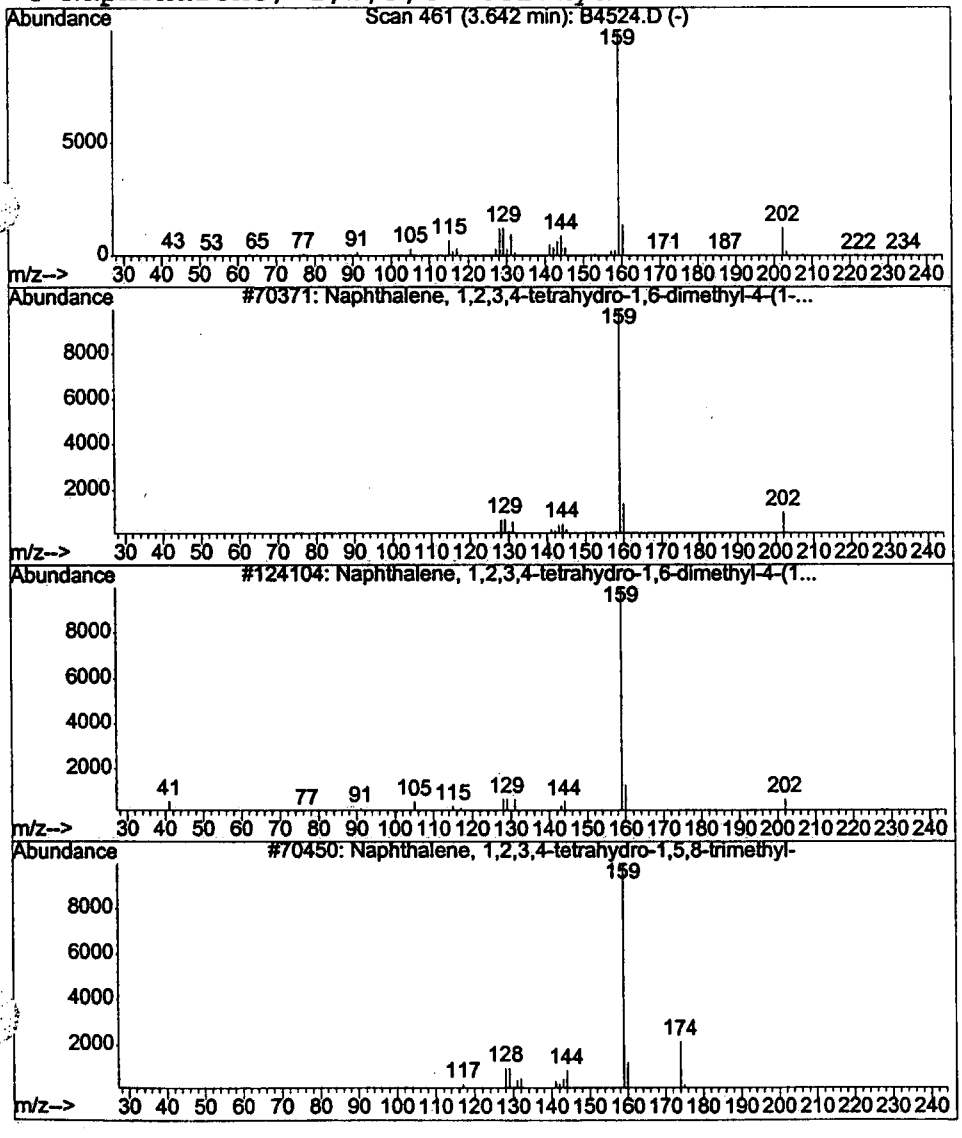
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

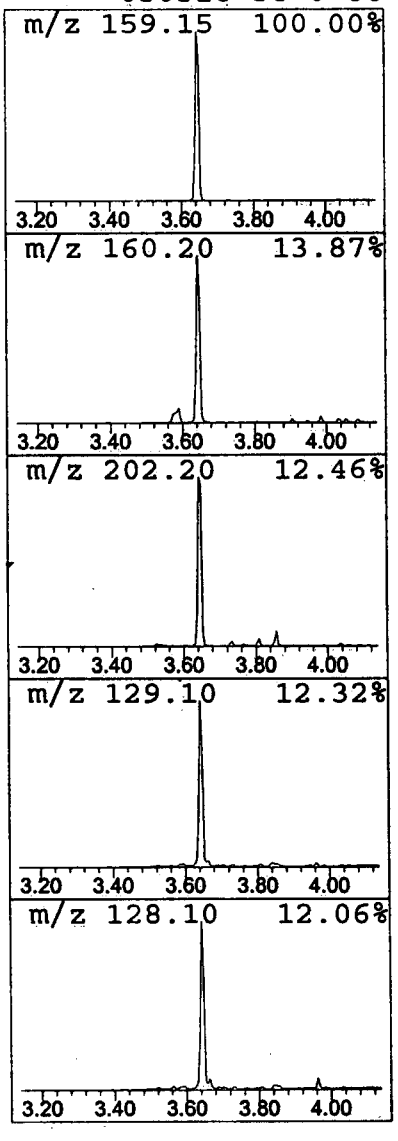
****

Peak Number 14 Substituted naphthalene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.64	~~228~~ 354.02 UG	4657640	~~Acenaphthene-d10~~ Phenanthrene d10	3.57 4.22 JC

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	97
2	Naphthalene, 1,2,3,4-tetrahydro-...	202	C15H22	000483-77-2	97
3	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	021693-51-6	86
4	Naphthalene, 1,2,3,4-tetrahydro-...	174	C13H18	030316-36-0	86





Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D Vial: 13
Acq On : 18 Jul 2001 11:34 Operator: JC
Sample : S-103B,4833-013,S,10.60g,16.0,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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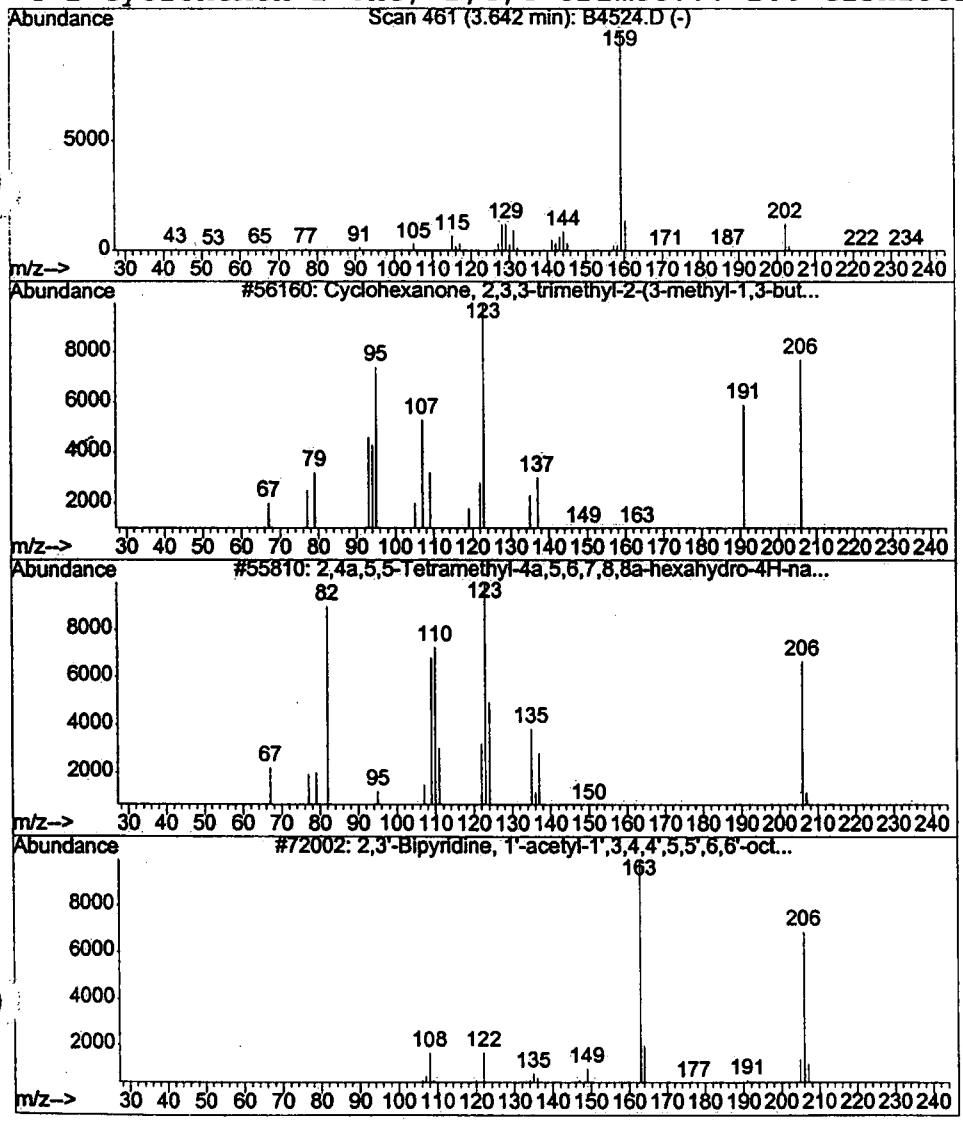
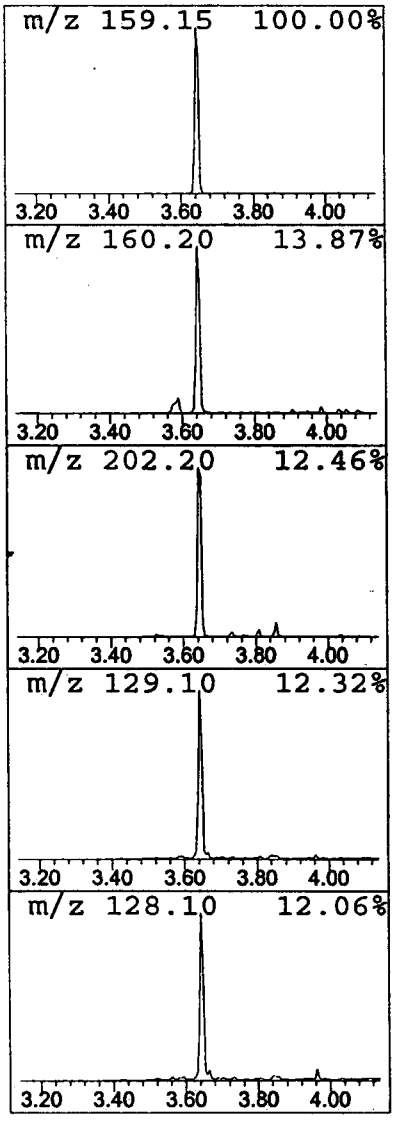
Peak Number 15 Unknown Concentration Rank 17

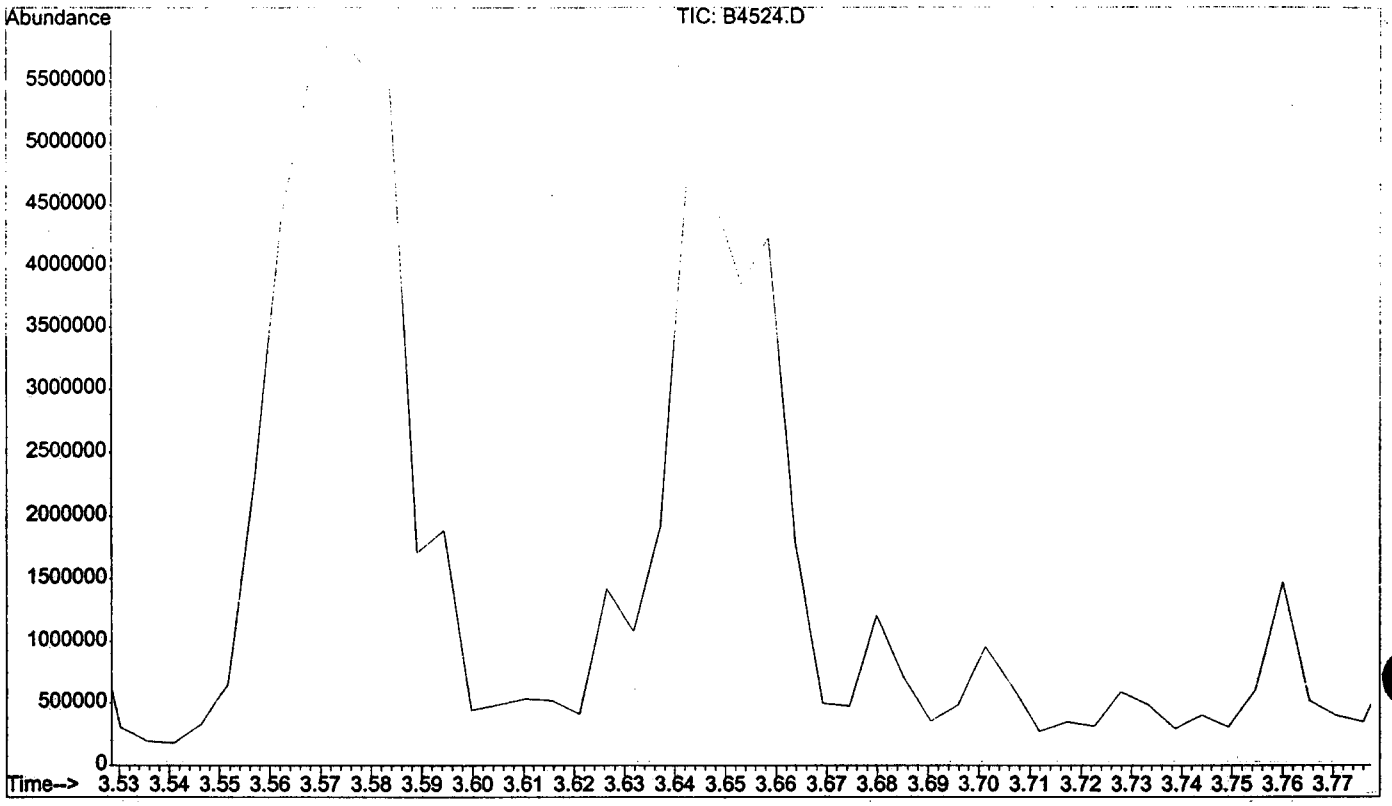
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.66	~~79.80~~ UG	~~4657640~~	~~Acenaphthene-d10~~	~~3.57~~
	123.53	1625262	Phenanthrene d10	4.22 JC

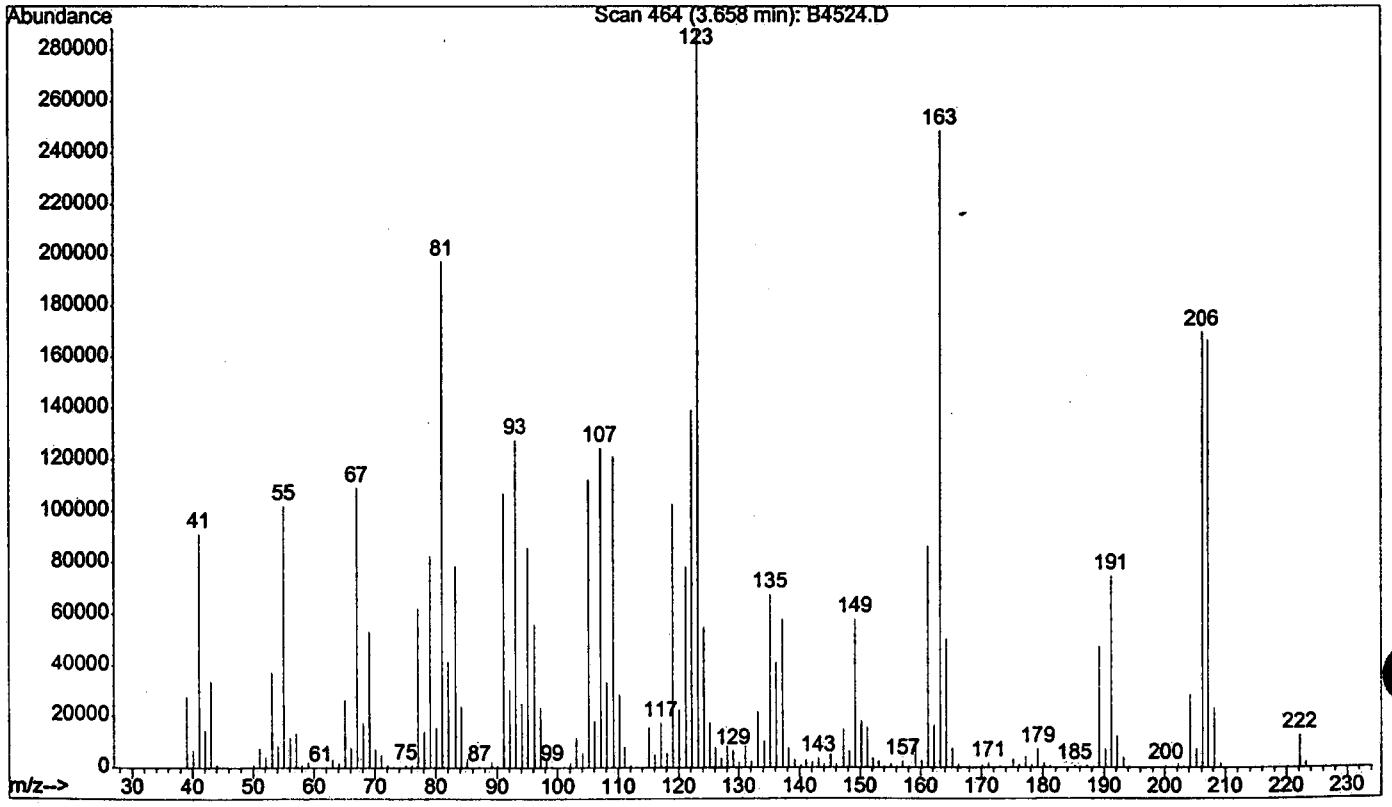
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanone, 2,3,3-trimethyl-2...	206	C14H22O	069296-91-9	38
2	2,4a,5,5-Tetramethyl-4a,5,6,7,8,...	206	C14H22O	1000195-46-0	25
3	2,3'-Bipyridine, 1'-acetyl-1',3,...	206	C12H18N2O	052195-93-4	25
4	2-Cyclohexen-1-one, 2,4,4-trimet...	206	C13H18O2	027185-77-9	22



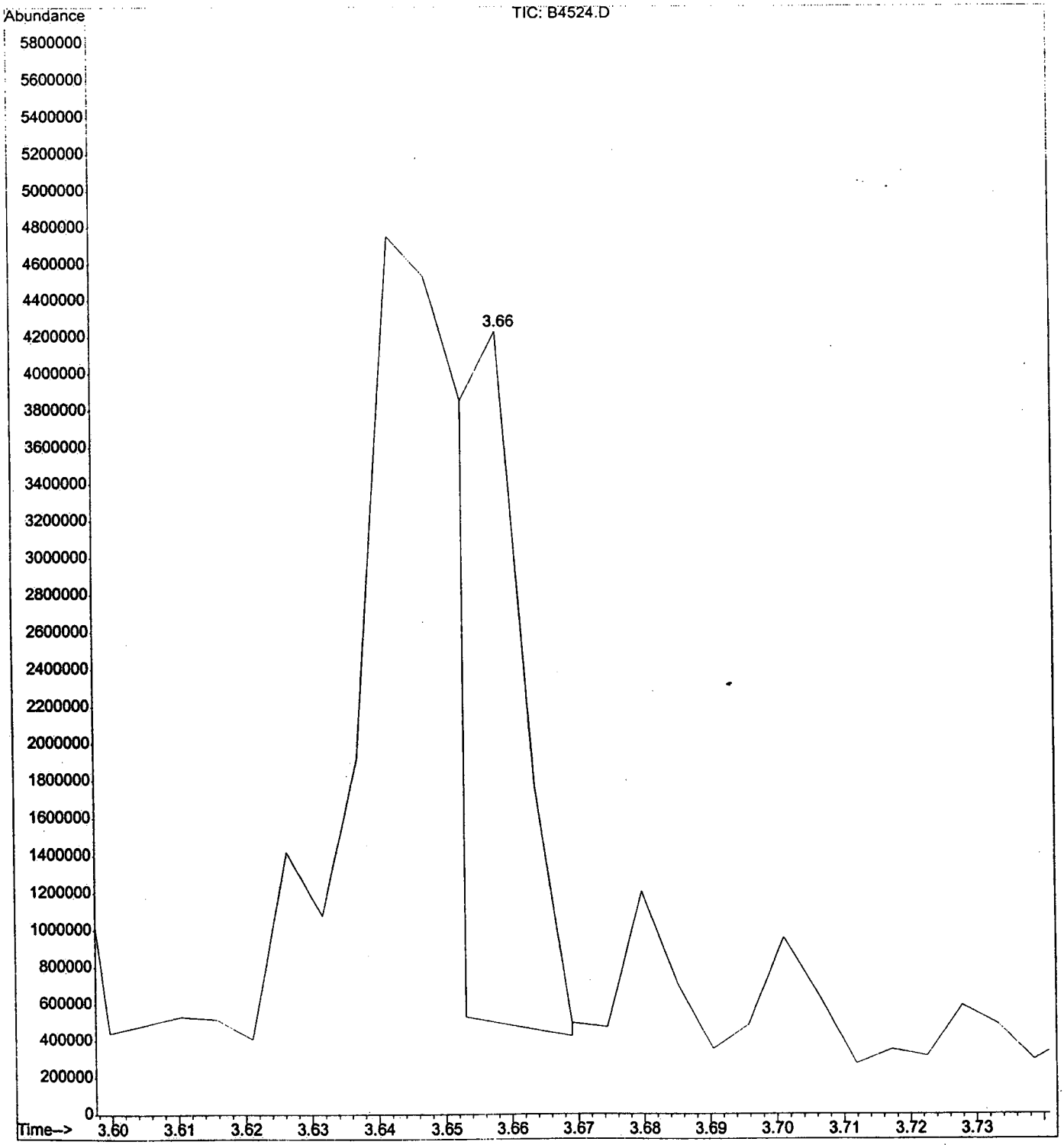


File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Operator : JC
Acquired : 18 Jul 2001 11:34 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 13





File : C:\MSDCHEM\1\DATA\07-18-01\B4524.D
Operator : JC
Acquired : 18 Jul 2001 11:34 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-103B,4833-013,S,10.60g,16.0,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 13



1	3.658	rm	0.016		1625262	3.653	3.669

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4525.D Vial: 14
Acq On : 18 Jul 2001 11:49 Operator: JC
Sample : S-104,4833-014,S,10.54g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 11:59:59 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	43109	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	160668	40.00	UG	0.00
39) Acenaphthene-d10	3.58	164	87190	40.00	UG	0.00
60) Phenanthrene-d10	4.25	188	141338	40.00	UG	0.04
75) Chrysene-d12	5.96	240	88725	40.00	UG	0.03
84) Perylene-d12	7.18	264	92202	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#			
6) Phenol-d5	2.11	99	54	0.03	UG	0.00
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.03%#			
23) Nitrobenzene-d5	2.51	82	46788	30.92	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 61.84%			
43) 2-Fluorobiphenyl	3.27	172	106371	36.81	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 73.62%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.11	244	115780	45.61	UG	0.04
Spiked Amount 50.000	Range 40 - 120		Recovery = 91.22%			

Target Compounds Qvalue

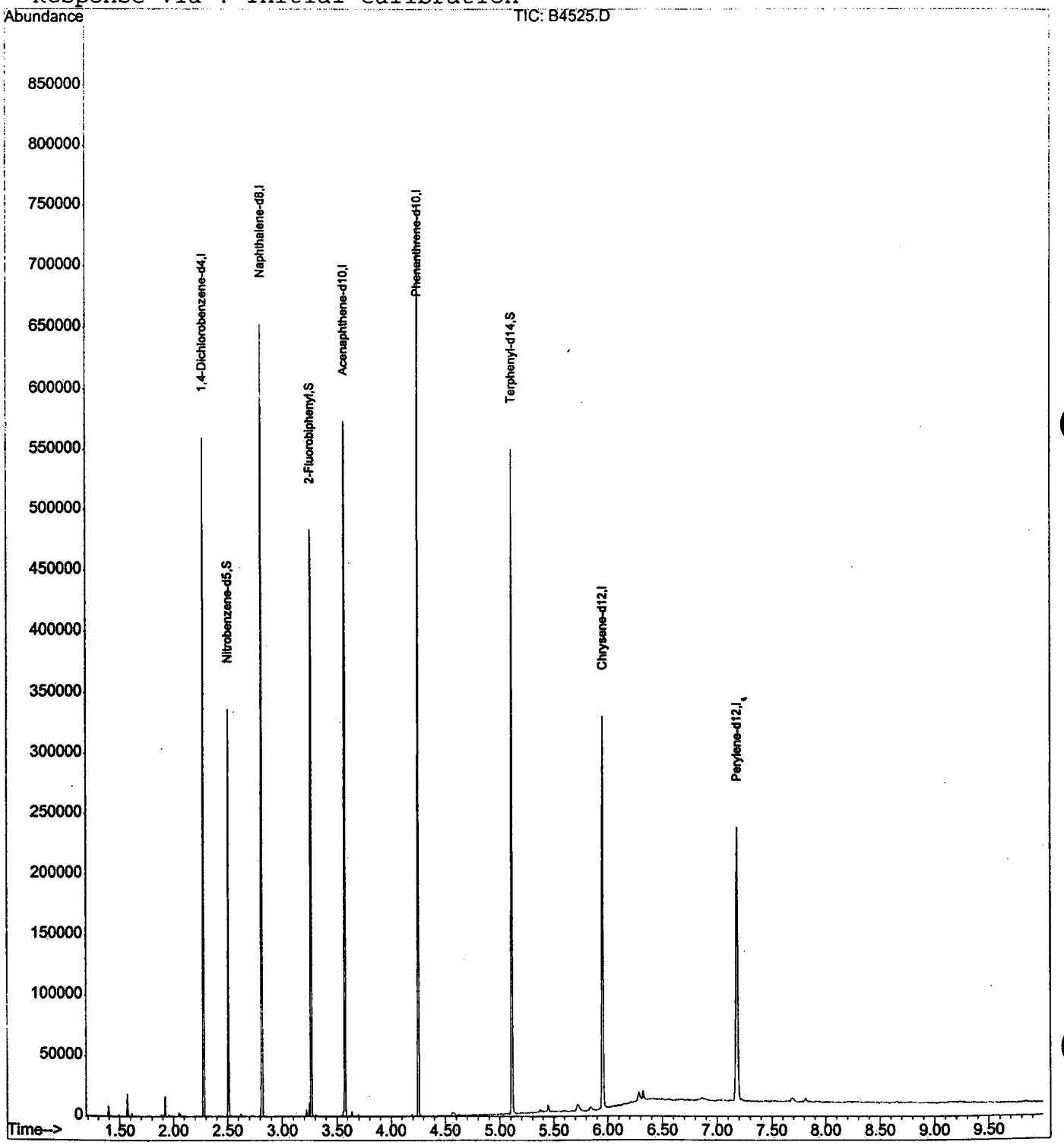
(#) = qualifier out of range (m) = manual integration

1776

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4525.D Vial: 14
Acq On : 18 Jul 2001 11:49 Operator: JC
Sample : S-104,4833-014,S,10.54g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 12:18 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1775

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4525.D Vial: 14
Acq On : 18 Jul 2001 11:49 Operator: JC
Sample : S-104,4833-014,S,10.54g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

No Library Search Compounds Detected

****
B4525.D BS2001.M Wed Jul 18 12:20:31 2001 MSD_B

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 18 12:15:42 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

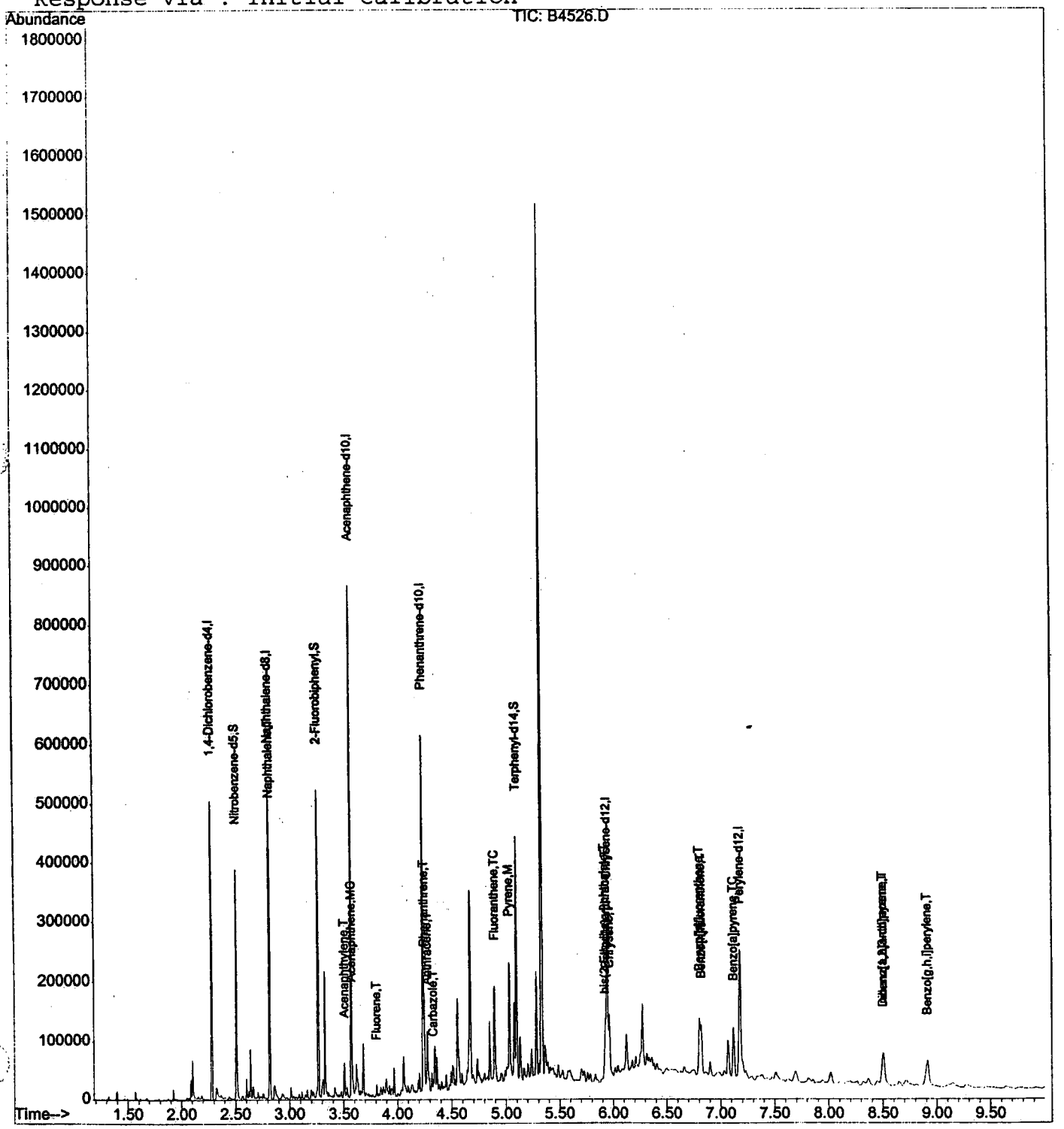
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	41609	40.00	UG		0.00
22) Naphthalene-d8	2.81	136	151471	40.00	UG		0.00
39) Acenaphthene-d10	3.57	164	79545	40.00	UG		0.00
60) Phenanthrene-d10	4.24	188	115261	40.00	UG		0.03
75) Chrysene-d12	5.94	240	73874	40.00	UG		0.02
84) Perylene-d12	7.18	264	85996	40.00	UG		0.02
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0	0.00	UG		
Spiked Amount 100.000	Range 28 - 100		Recovery =	0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG		
Spiked Amount 100.000	Range 28 - 102		Recovery =	0.00%#			
23) Nitrobenzene-d5	2.51	82	47749	33.47	UG		0.00
Spiked Amount 50.000	Range 35 - 101		Recovery =	66.94%			
43) 2-Fluorobiphenyl	3.26	172	100437	38.10	UG		0.00
Spiked Amount 50.000	Range 37 - 103		Recovery =	76.20%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG		
Spiked Amount 100.000	Range 44 - 121		Recovery =	0.00%#			
77) Terphenyl-d14	5.10	244	89791	42.48	UG		0.03
Spiked Amount 50.000	Range 40 - 120		Recovery =	84.96%			
Target Compounds							Qvalue
33) Naphthalene	2.83	128	3307	0.80	UG		97
49) Acenaphthylene	3.51	152	12041	3.28	UG		98
51) Acenaphthene	3.58	153	2073	0.92	UG		98
57) Fluorene	3.81	166	2865	1.11	UG	#	84
69) Phenanthrene	4.25	178	30184	10.38	UG		98
70) Anthracene	4.27	178	8408	2.87	UG		99
71) Carbazole	4.33	167	2330	0.88	UG	#	51
73) Fluoranthene	4.90	202	47891	18.12	UG		97
76) Pyrene	5.04	202	57600	21.97	UG		96
81) Benzo[a]anthracene	5.93	228	25301	12.82	UG	#	86
82) Chrysene	5.97	228	29282	16.10	UG		96
83) bis(2-Ethylhexyl)phthalate	5.92	149	3907	2.53	UG	#	82
86) Benzo[b]fluoranthene	6.81	252	34769m	14.32	UG		
87) Benzo[k]fluoranthene	6.82	252	21991m	10.80	UG		
88) Benzo[a]pyrene	7.12	252	32619	16.13	UG	#	94
89) Indeno[1,2,3-cd]pyrene	8.51	276	31536m	12.02	UG		
90) Dibenz[a,h]anthracene	8.51	278	7717	3.52	UG	#	64
91) Benzo[g,h,i]perylene	8.91	276	33026	15.41	UG	#	73

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 12:20 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



0105

172

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

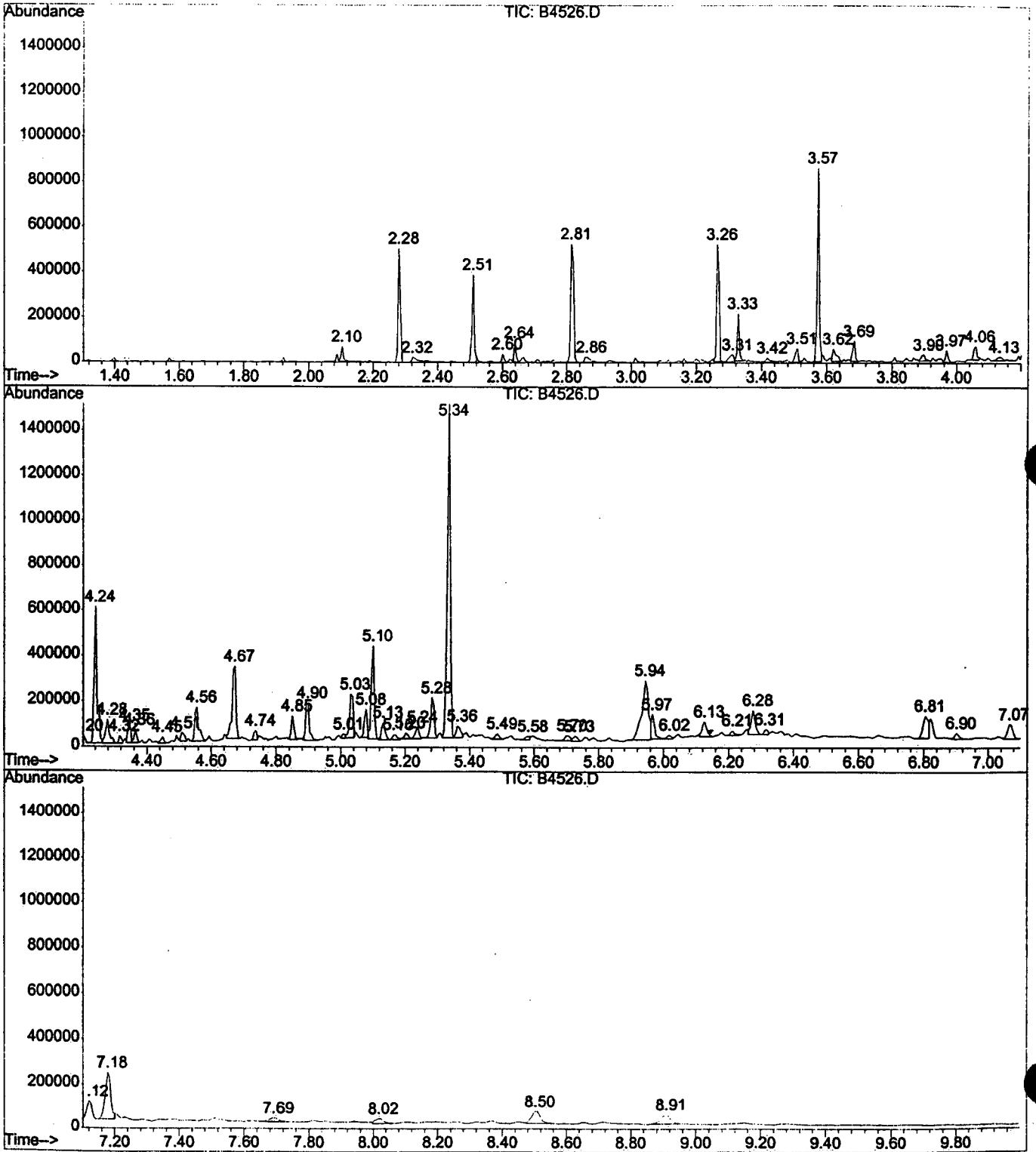
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.104	171	173	177	rVB	65730	32429	3.47%	0.499%
2	2.280	204	206	209	rBV	504318	252657	27.07%	3.887%
3	2.323	211	214	220	rBV	21956	28139	3.01%	0.433%
4	2.510	246	249	251	rBV2	387801	185498	19.87%	2.854%
5	2.601	264	266	268	rBV	36341	16418	1.76%	0.253%
6	2.638	272	273	275	rVB	85153	34599	3.71%	0.532%
7	2.814	304	306	309	rVB	523674	322734	34.57%	4.965%
8	2.862	312	315	323	rVB2	23357	29345	3.14%	0.451%
9	3.263	388	390	393	rVB	518334	290495	31.12%	4.469%
10	3.311	395	399	400	rBV2	30987	32235	3.45%	0.496%
11	3.327	400	402	405	rVV	208391	87118	9.33%	1.340%
12	3.418	417	419	425	rBV3	17690	16159	1.73%	0.249%
13	3.509	433	436	438	rBV	60229	37585	4.03%	0.578%
14	3.573	445	448	450	rBV	860678	372007	39.85%	5.723%
15	3.621	456	457	462	rVB2	54709	43031	4.61%	0.662%
16	3.685	467	469	471	rVB	90018	48507	5.20%	0.746%
17	3.899	506	509	513	rVB3	26996	24189	2.59%	0.372%
18	3.968	520	522	525	rVB	50594	25436	2.72%	0.391%
19	4.059	537	539	541	rBV	60468	42079	4.51%	0.647%
20	4.134	549	553	556	rBV3	14204	16418	1.76%	0.253%
21	4.203	565	566	568	rVB	33196	16115	1.73%	0.248%
22	4.241	570	573	577	rVV2	600579	382517	40.98%	5.885%
23	4.278	577	580	585	rVB4	103887	87639	9.39%	1.348%
24	4.316	585	587	589	rBV	32781	21113	2.26%	0.325%
25	4.348	591	593	594	rVV	75905	48686	5.22%	0.749%
26	4.364	594	596	598	rVB	56879	31401	3.36%	0.483%
27	4.449	609	612	614	rVB	28060	18288	1.96%	0.281%
28	4.508	622	623	626	rVB2	35066	28788	3.08%	0.443%
29	4.556	629	632	637	rBV2	148503	134455	14.40%	2.069%
30	4.673	649	654	657	rVB2	316498	268517	28.77%	4.131%
31	4.738	663	666	667	rBV	41262	27395	2.93%	0.421%

32	4.850	685	687	690	rBV	102595	60754	6.51%	0.935%
33	4.898	693	696	702	rVB	162434	132382	14.18%	2.037%
34	5.010	715	717	718	rBV	17611	14435	1.55%	0.222%
35	5.031	718	721	723	rVV	192065	145128	15.55%	2.233%
36	5.079	727	730	731	rVV	122654	78757	8.44%	1.212%
37	5.101	731	734	737	rVB	408461	258177	27.66%	3.972%
38	5.133	737	740	744	rVB2	75475	59914	6.42%	0.922%
39	5.165	744	746	750	rBV3	21420	23381	2.50%	0.360%
40	5.202	751	753	756	rVB	24471	17879	1.92%	0.275%
41	5.240	756	760	762	rBV	49997	39413	4.22%	0.606%
42	5.282	765	768	771	rBV2	175452	129939	13.92%	1.999%
43	5.336	774	778	781	rVB	1475963	933454	100.00%	14.361%
44	5.363	781	783	786	rBV2	50131	49883	5.34%	0.767%
45	5.485	803	806	809	rVB4	23227	18502	1.98%	0.285%
46	5.582	820	824	825	rBV4	14870	16675	1.79%	0.257%
47	5.705	843	847	849	rBV3	21309	25416	2.72%	0.391%
48	5.726	849	851	854	rVB	19111	17711	1.90%	0.272%
49	5.945	884	892	895	rBV2	259607	374014	40.07%	5.754%
50	5.966	895	896	903	rVB	105904	66796	7.16%	1.028%
51	6.020	903	906	908	rBV2	15656	15653	1.68%	0.241%
52	6.127	923	926	930	rVB2	64303	63134	6.76%	0.971%
53	6.212	939	942	946	rBV3	20989	17871	1.91%	0.275%
54	6.276	951	954	958	rVB2	105065	92736	9.93%	1.427%
55	6.314	959	961	963	rBV	21310	17725	1.90%	0.273%
56	6.805	1049	1053	1055	rBV	96134	114381	12.25%	1.760%
57	6.901	1068	1071	1075	rVB	24968	23736	2.54%	0.365%
58	7.067	1098	1102	1108	rVB	61942	73882	7.91%	1.137%
59	7.120	1108	1112	1116	rVB	84028	91647	9.82%	1.410%
60	7.179	1118	1123	1127	rBV	212210	255906	27.41%	3.937%
61	7.692	1214	1219	1225	rVB5	17553	31422	3.37%	0.483%
62	8.018	1276	1280	1290	rVB8	22364	40647	4.35%	0.625%
63	8.504	1365	1371	1381	rVB	55557	107750	11.54%	1.658%
64	8.910	1439	1447	1455	rVB	43020	89026	9.54%	1.370%

Sum of corrected areas: 6500118

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D
Operator : JC
Acquired : 18 Jul 2001 12:05 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-105,4833-015,S,5.17g,7.10,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 15
Quant File :BS2001.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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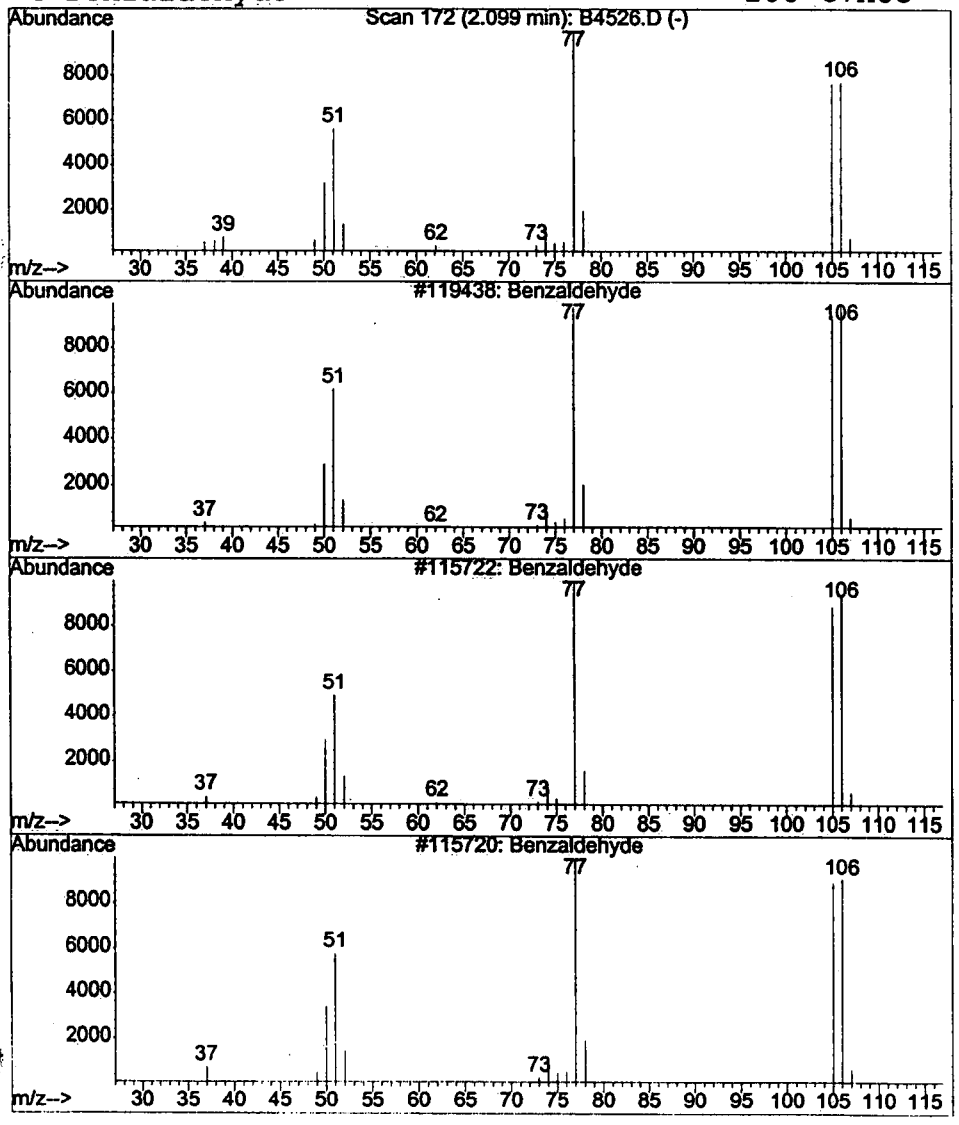
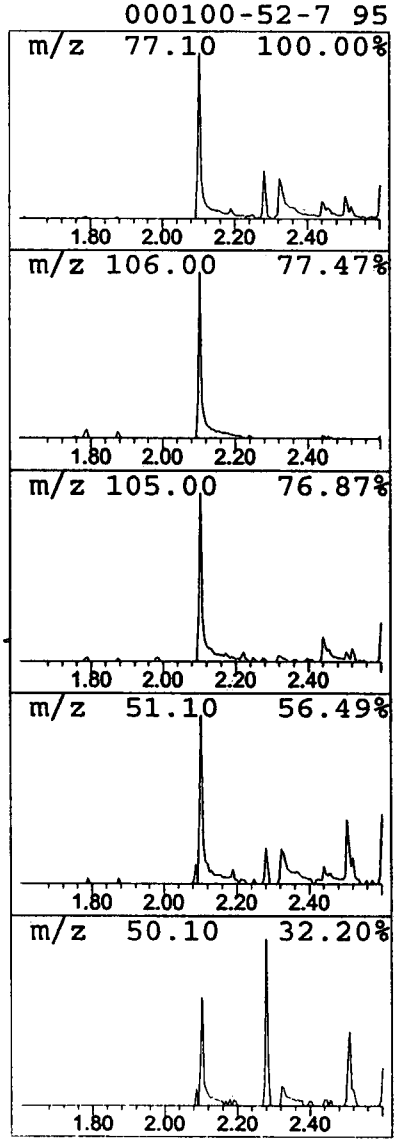
Peak Number 1 Benzaldehyde Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.10	5.13 UG	32429	1,4-Dichlorobenzene-d4	2.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzaldehyde	106	C7H6O	000100-52-7	97
2	Benzaldehyde	106	C7H6O	000100-52-7	96
3	Benzaldehyde	106	C7H6O	000100-52-7	95
4	Benzaldehyde	106	C7H6O	000100-52-7	95





1732

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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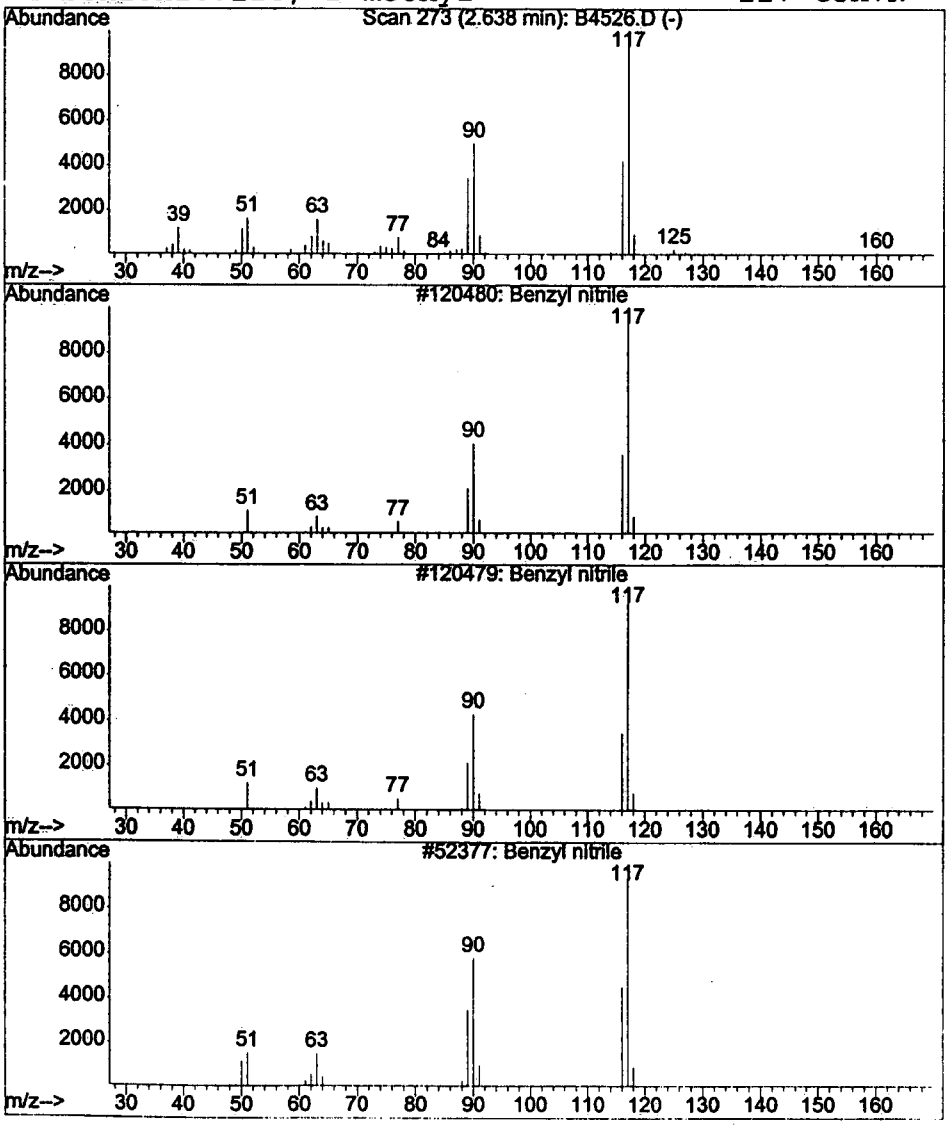
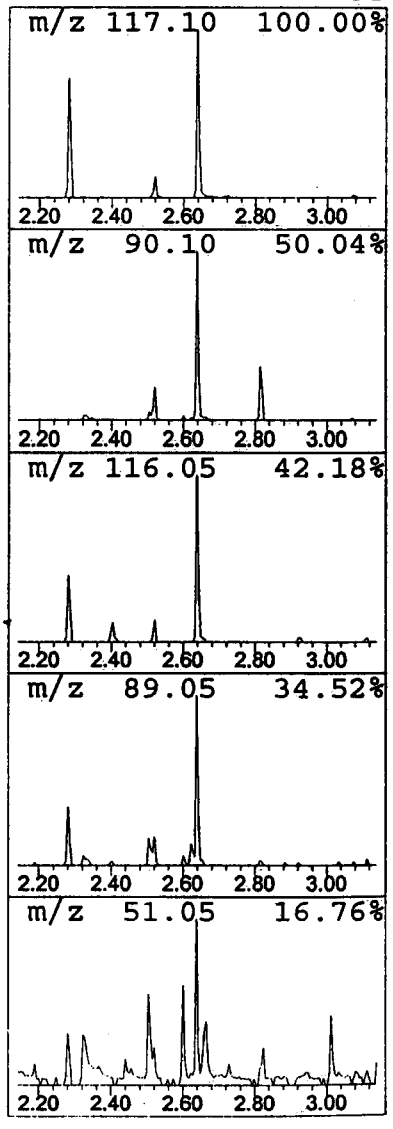
Peak Number 2 Benzyl nitrile Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.64	4.29 UG	34599	Naphthalene-d8	2.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzyl nitrile	117	C8H7N	000140-29-4	97
2	Benzyl nitrile	117	C8H7N	000140-29-4	97
3	Benzyl nitrile	117	C8H7N	000140-29-4	97
4	Benzonitrile, 2-methyl-	117	C8H7N	000529-19-1	95





1733

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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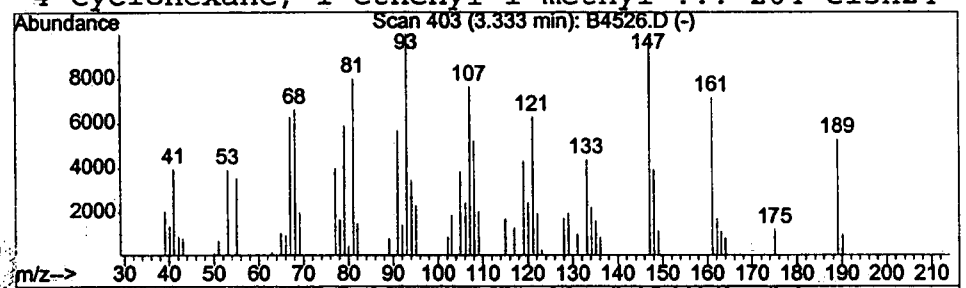
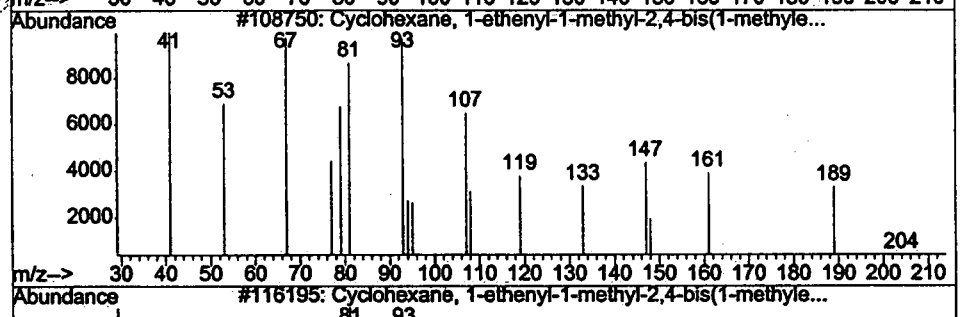
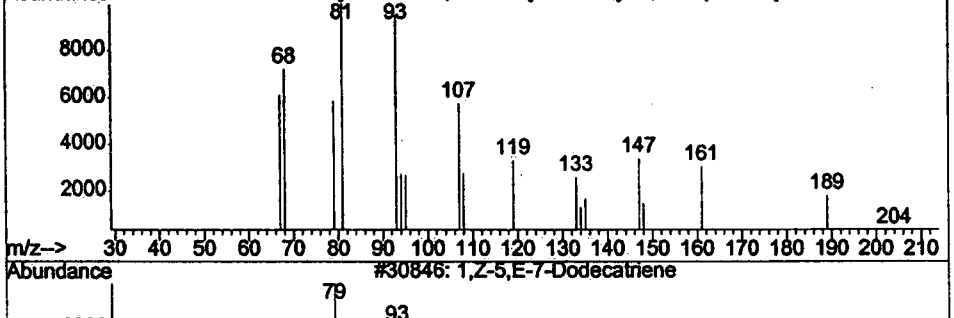
Peak Number 3 Unknown alkane Concentration Rank 7

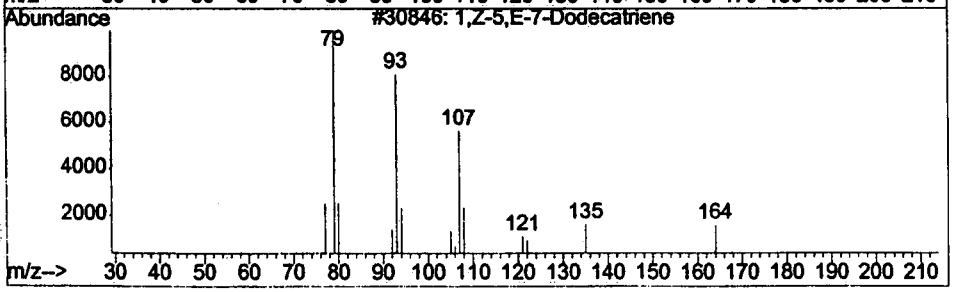
R.T.	EstConc	Area	Relative to ISTD	R.T.
3.33	9.37 UG	87118	Acenaphthene-d10	3.57

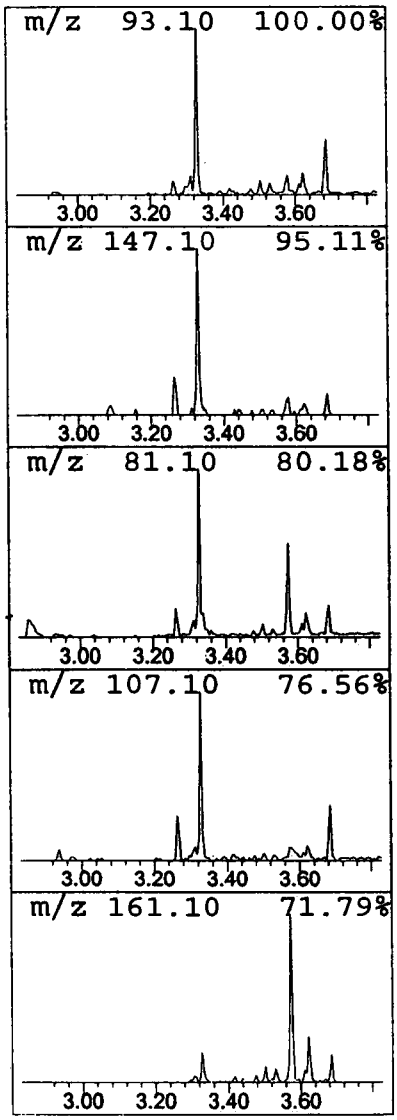
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-ethenyl-1-methyl-...	204	C15H24	000515-13-9	98
2	Cyclohexane, 1-ethenyl-1-methyl-...	204	C15H24	000515-13-9	64
3	1,Z-5,E-7-Dodecatriene	164	C12H20	083085-83-0	56
4	Cyclohexane, 1-ethenyl-1-methyl-...	204	C15H24	000515-13-9	53











1734

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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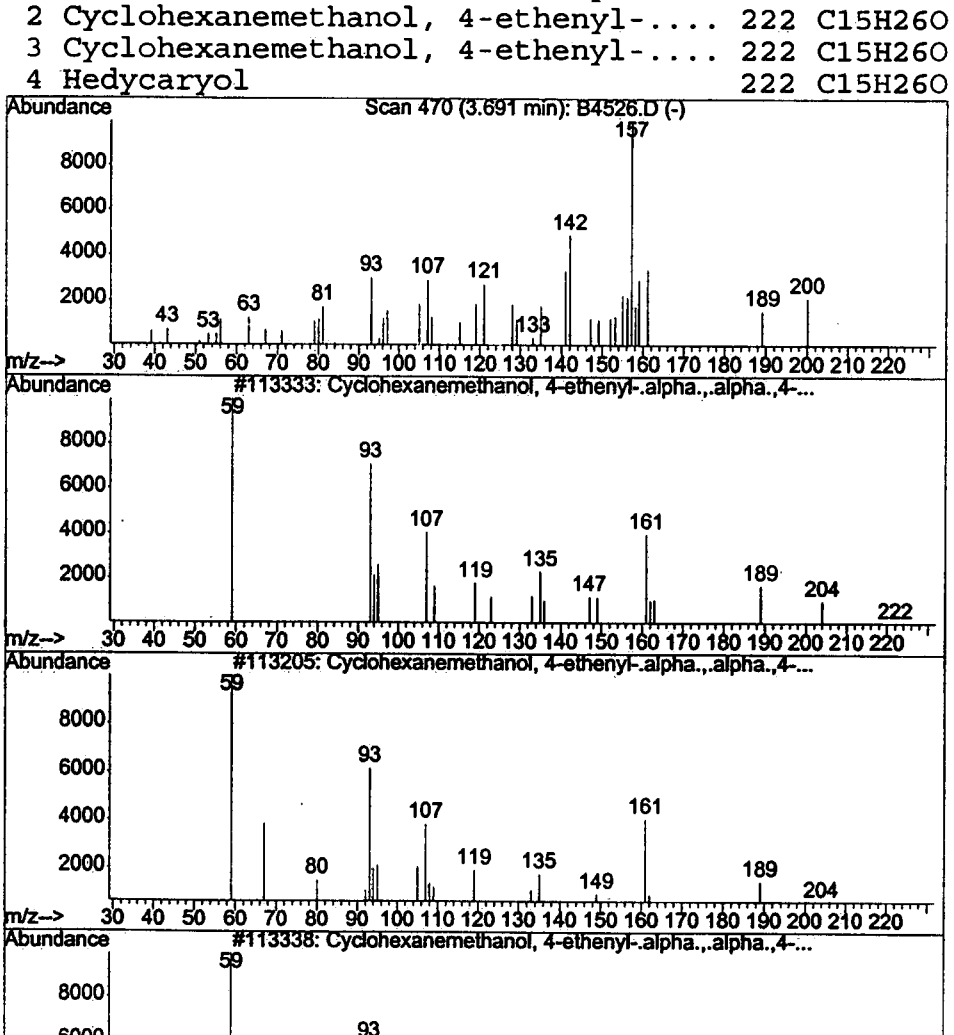
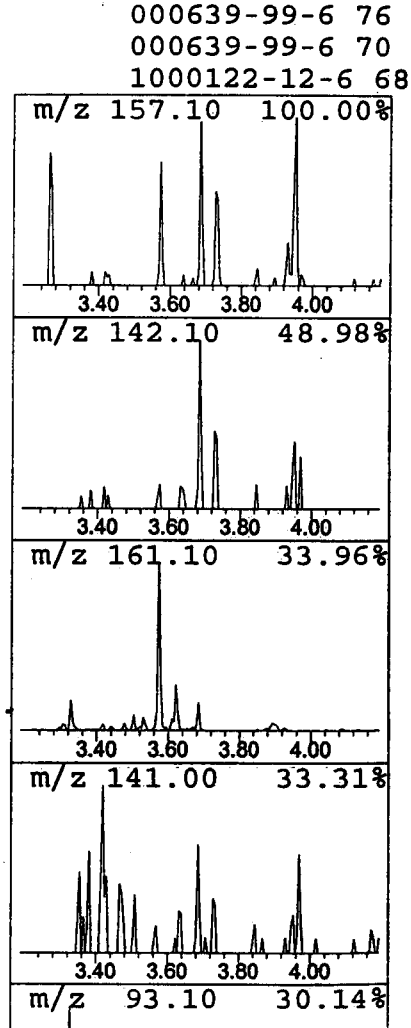
Peak Number 4 Unknown aromatic Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.69	5.22 UG	48507	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexanemethanol, 4-ethenyl-....	222	C15H26O	000639-99-6	90
2	Cyclohexanemethanol, 4-ethenyl-....	222	C15H26O	000639-99-6	76
3	Cyclohexanemethanol, 4-ethenyl-....	222	C15H26O	000639-99-6	70
4	Hedycaryol	222	C15H26O	1000122-12-6	68





Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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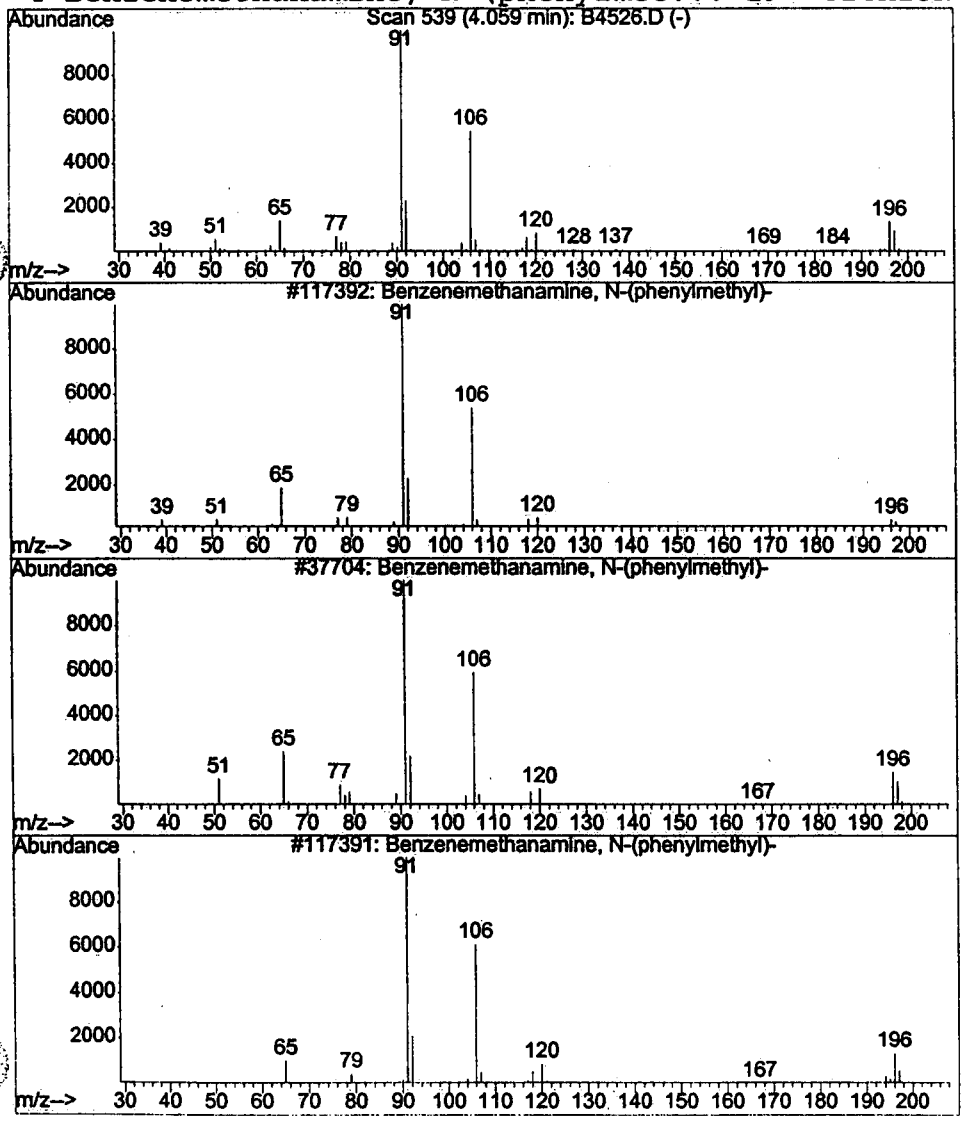
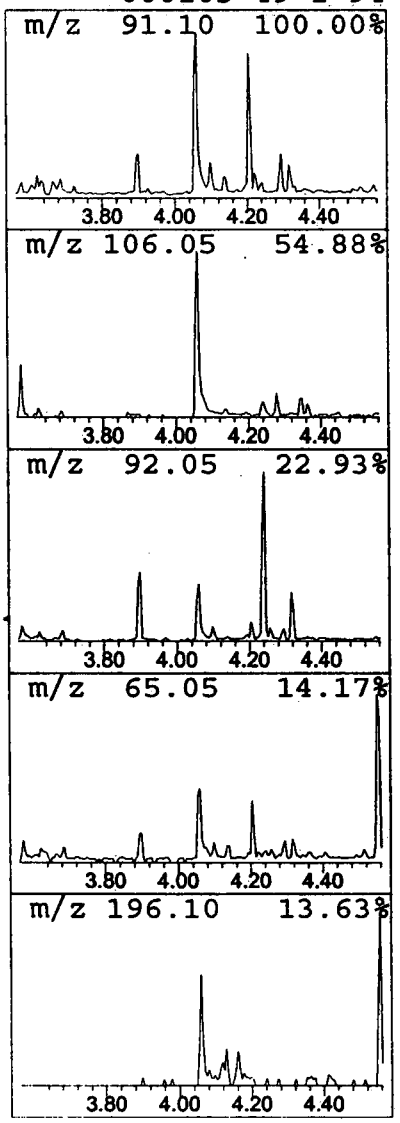
Peak Number 5 Substituted benzene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.06	4.40 UG	42079	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenemethanamine, N-(phenylmet...	197	C14H15N	000103-49-1	97
2	Benzenemethanamine, N-(phenylmet...	197	C14H15N	000103-49-1	96
3	Benzenemethanamine, N-(phenylmet...	197	C14H15N	000103-49-1	94
4	Benzenemethanamine, N-(phenylmet...	197	C14H15N	000103-49-1	94





1736

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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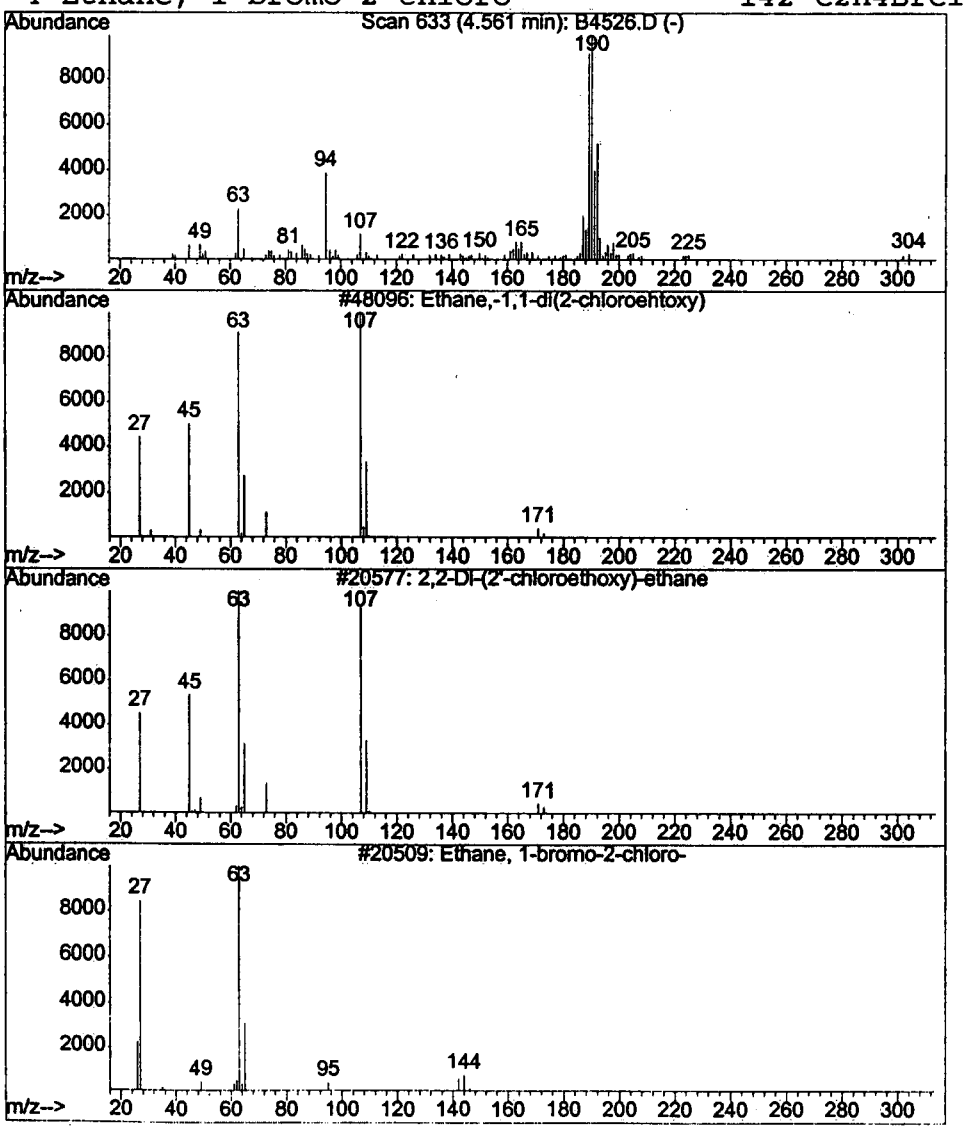
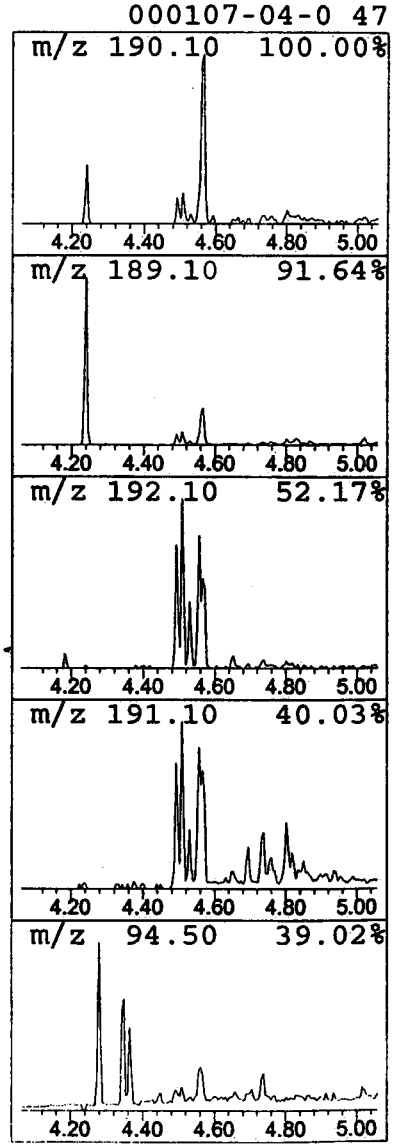
Peak Number 6 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.56	14.06 UG	134455	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane,-1,1-di(2-chloroehtoxy)	186	C6H12Cl2O2	1000221-88-2	53
2	2,2-Di-(2'-chloroethoxy)-ethane	186	C6H12Cl2O2	1000222-25-5	50
3	Ethane, 1-bromo-2-chloro-	142	C2H4BrCl	000107-04-0	47
4	Ethane, 1-bromo-2-chloro-	142	C2H4BrCl	000107-04-0	47





1737

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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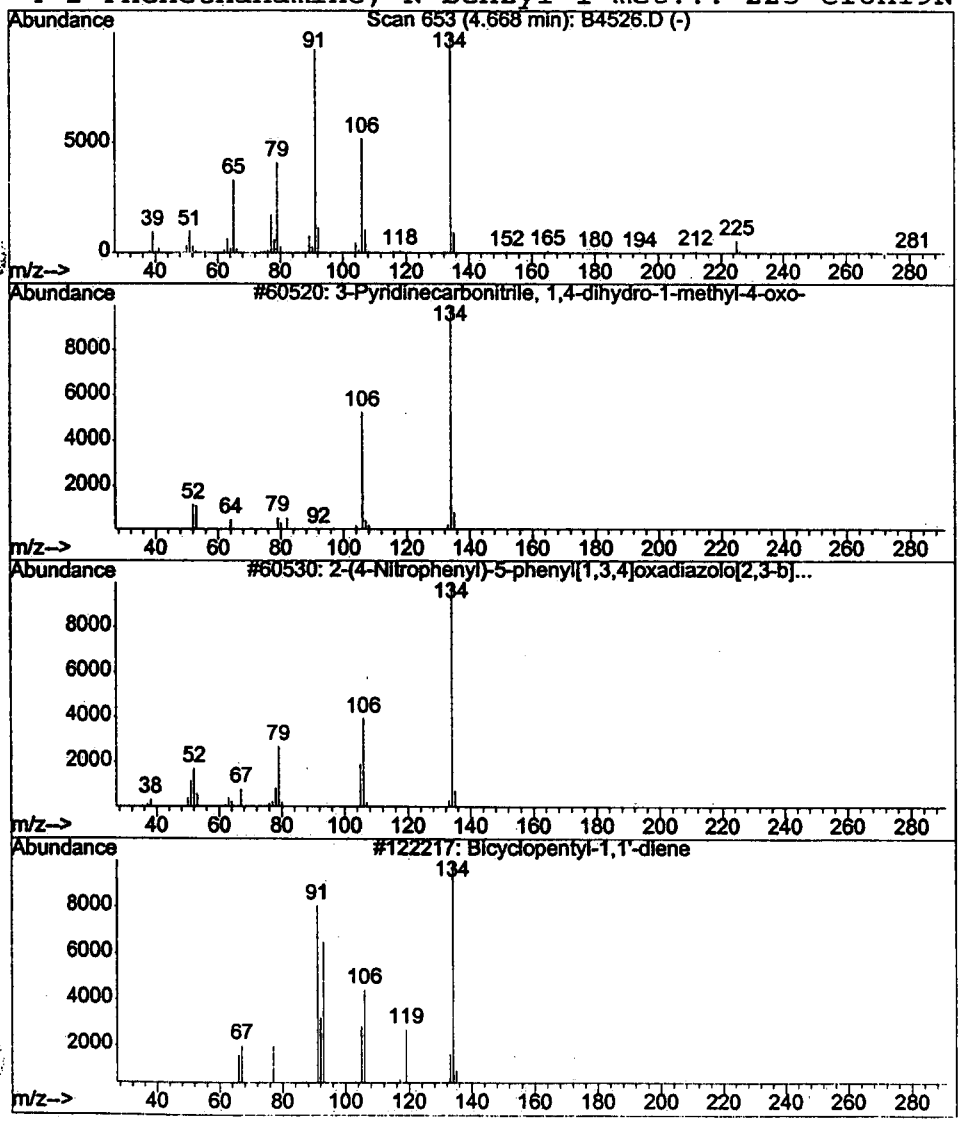
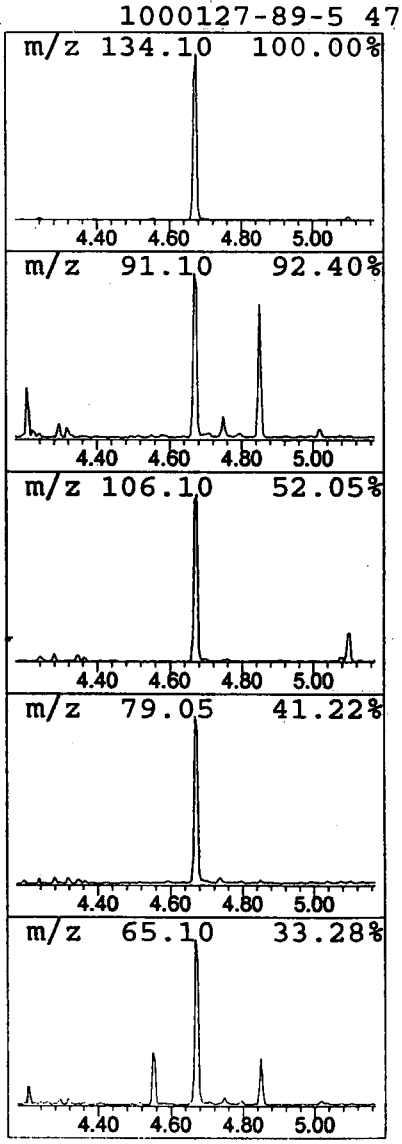
Peak Number 7 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.67	28.08 UG	268517	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pyridinecarbonitrile, 1,4-dihy...	134	C7H6N2O	000767-98-6	53
2	2-(4-Nitrophenyl)-5-phenyl[1,3,4...	383	C21H13N5O3	1000223-27-2	53
3	Bicyclopentyl-1,1'-diene	134	C10H14	000934-02-1	50
4	2-Phenethanamine, N-benzyl-1-met...	225	C16H19N	1000127-89-5	47





1736

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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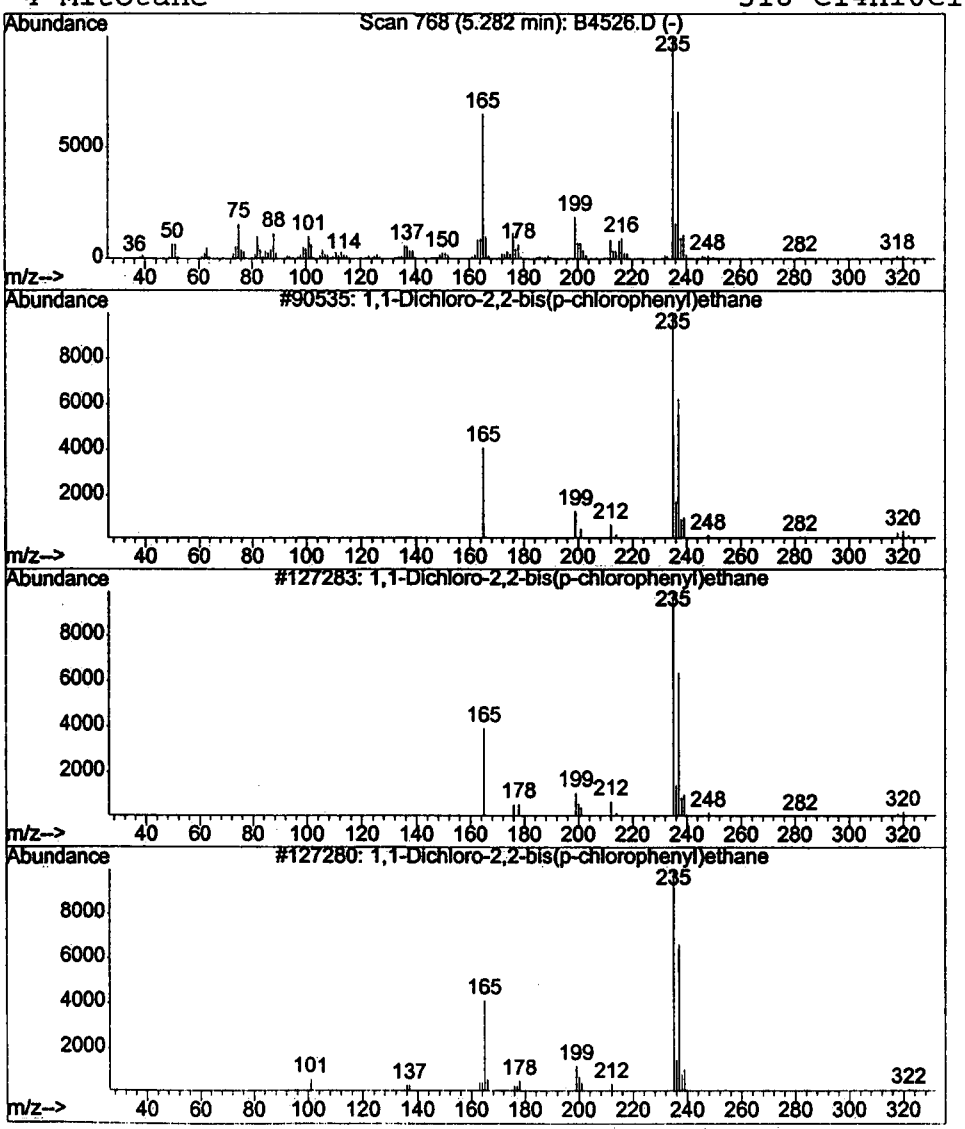
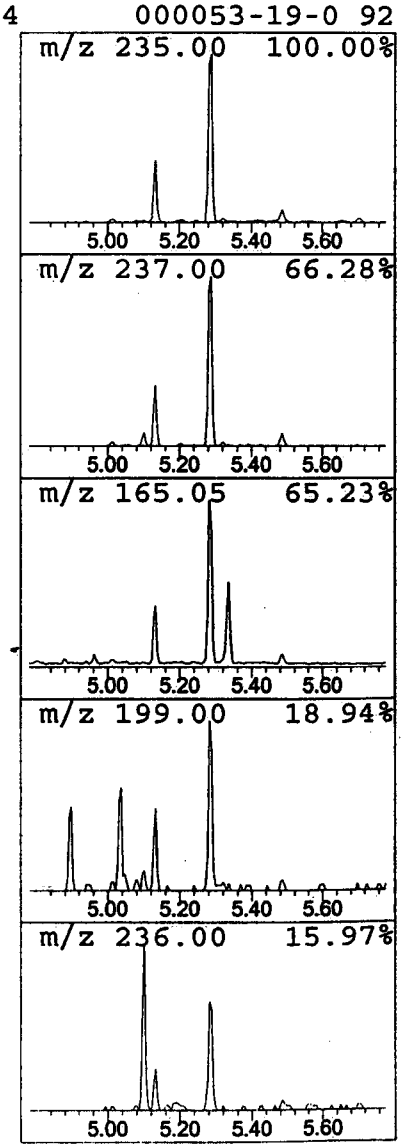
Peak Number 8 1,1-Dichloro-2,2-bis(p-chlo... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.28	13.90 UG	129939	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	99
2	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	95
3	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	95
4	Mitotane	318	C14H10Cl4	000053-19-0	92





0506

1739

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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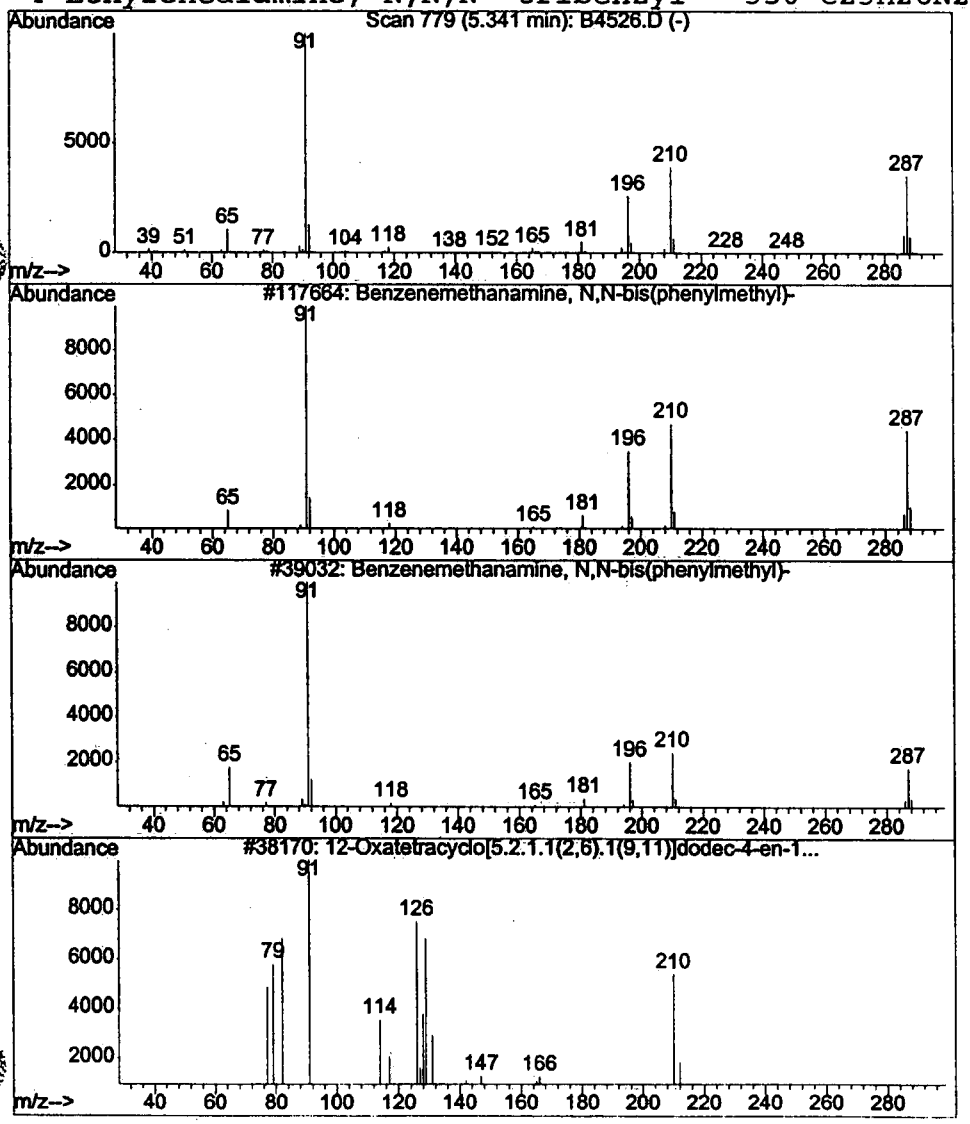
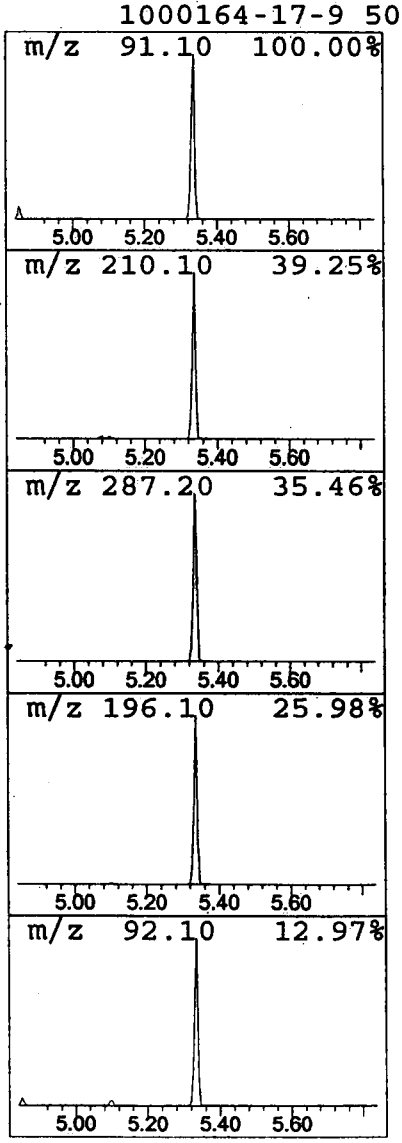
Peak Number 9 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	99.83 UG	933454	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenemethanamine, N,N-bis(phen...	287	C21H21N	000620-40-6	97
2	Benzenemethanamine, N,N-bis(phen...	287	C21H21N	000620-40-6	96
3	12-Oxatetracyclo[5.2.1.1(2,6).1(...	210	C11H11ClO2	1000191-06-4	74
4	Ethylenediamine, N,N,N'-tribenzyl-	330	C23H26N2	1000164-17-9	50





1740

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

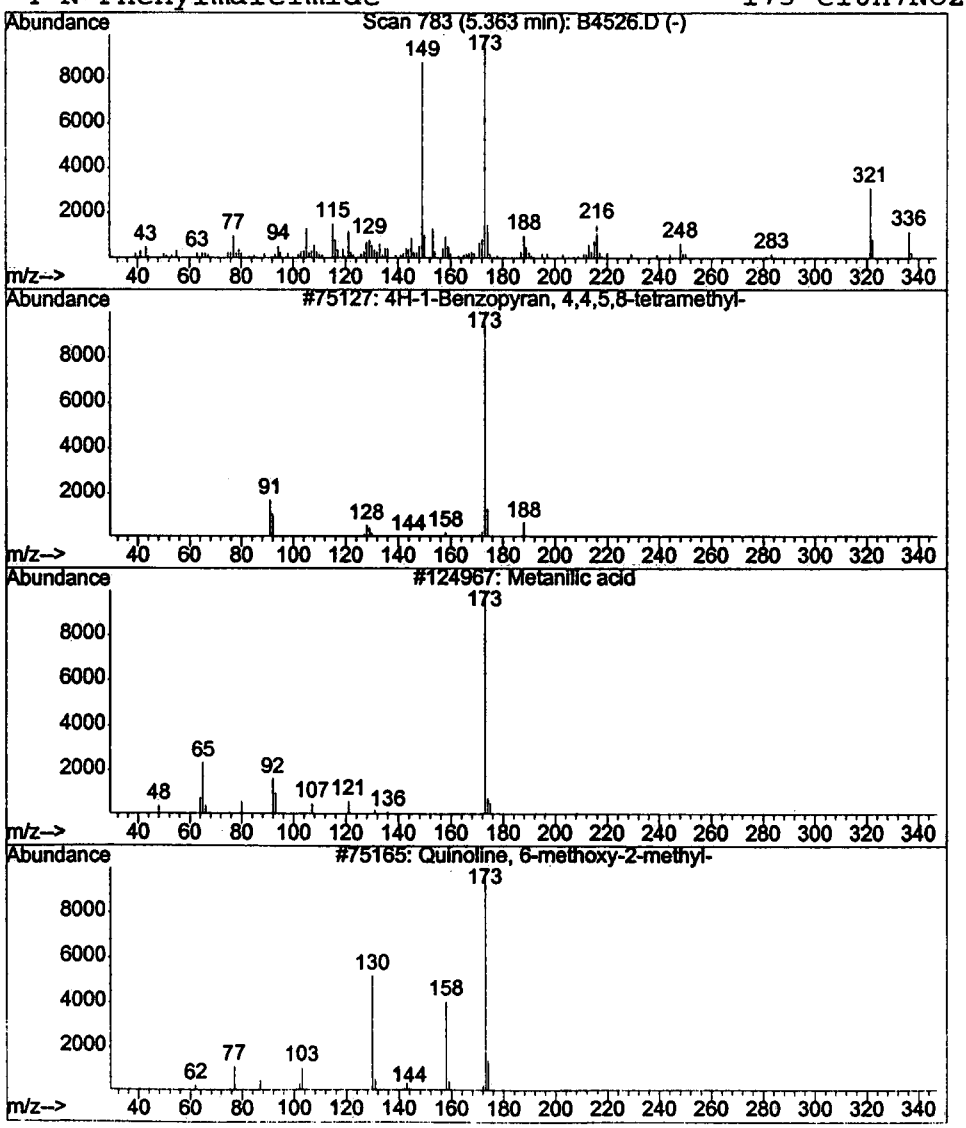
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

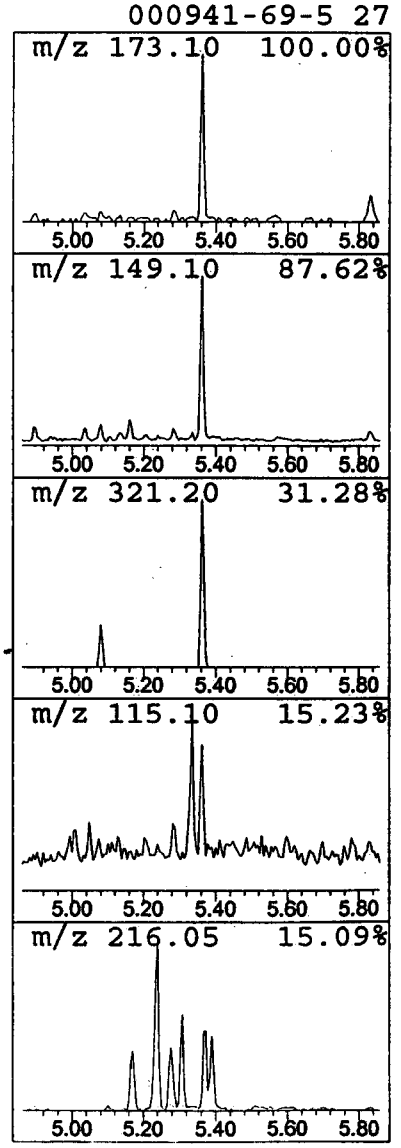
****

Peak Number 10 Unknown Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.36	5.33 UG	49883	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-1-Benzopyran, 4,4,5,8-tetrame...	188	C13H16O	082391-06-8	30
2	Metanilic acid	173	C6H7NO3S	000121-47-1	27
3	Quinoline, 6-methoxy-2-methyl-	173	C11H11NO	001078-28-0	27
4	N-Phenylmaleimide	173	C10H7NO2	000941-69-5	27





1741

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P

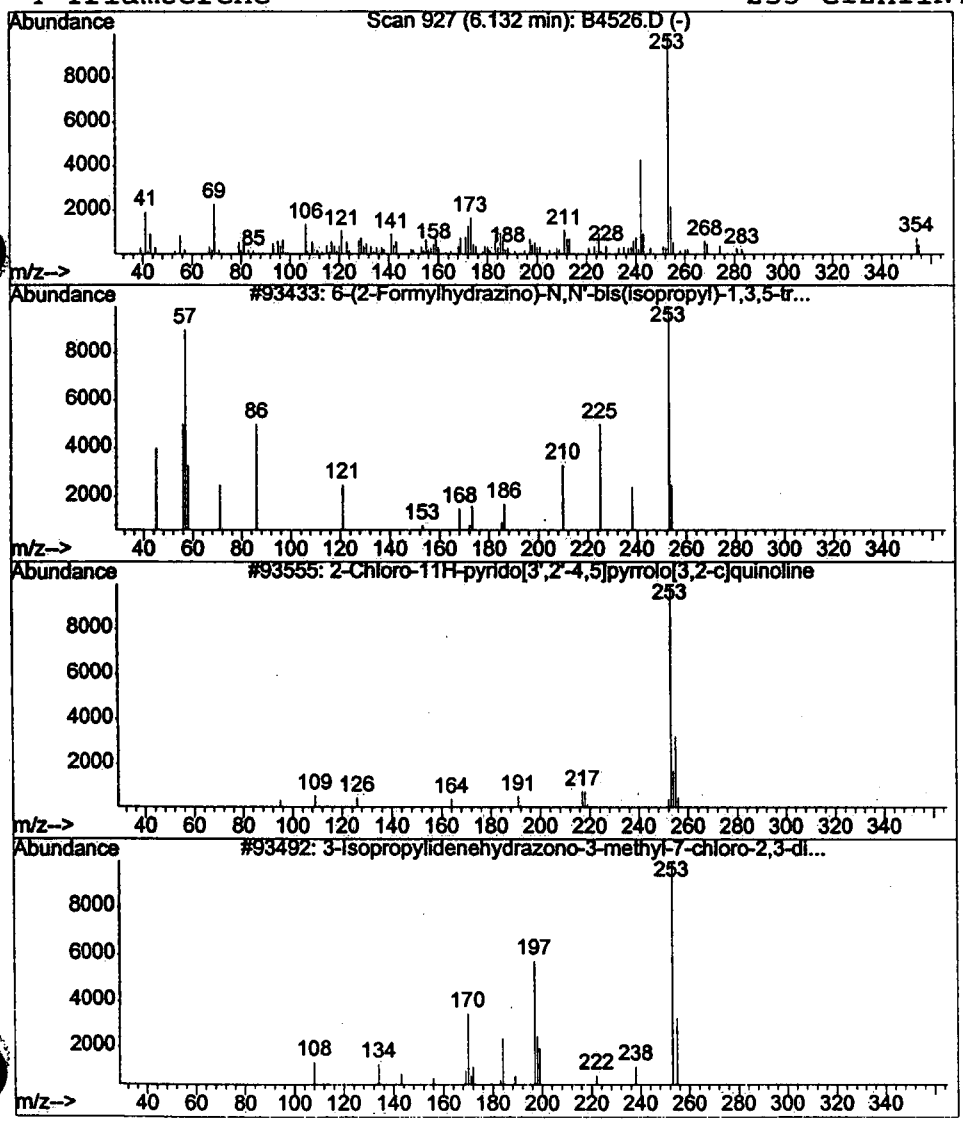
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

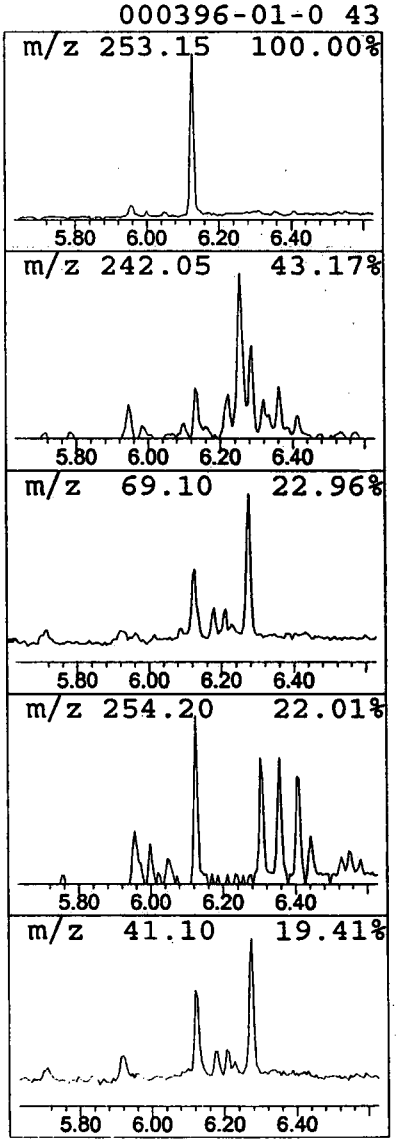
****

Peak Number 11 Unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.13	6.75 UG	63134	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	6-(2-Formylhydrazino)-N,N'-bis(i...	253	C10H19N7O	084305-82-8	52
2	2-Chloro-11H-pyrido[3',2'-4,5]py...	253	C14H8ClN3	1000212-59-3	49
3	3-Isopropylidenehydrazono-3-meth...	253	C11H12ClN3S	1000148-26-2	46
4	Triamterene	253	C12H11N7	000396-01-0	43





1742

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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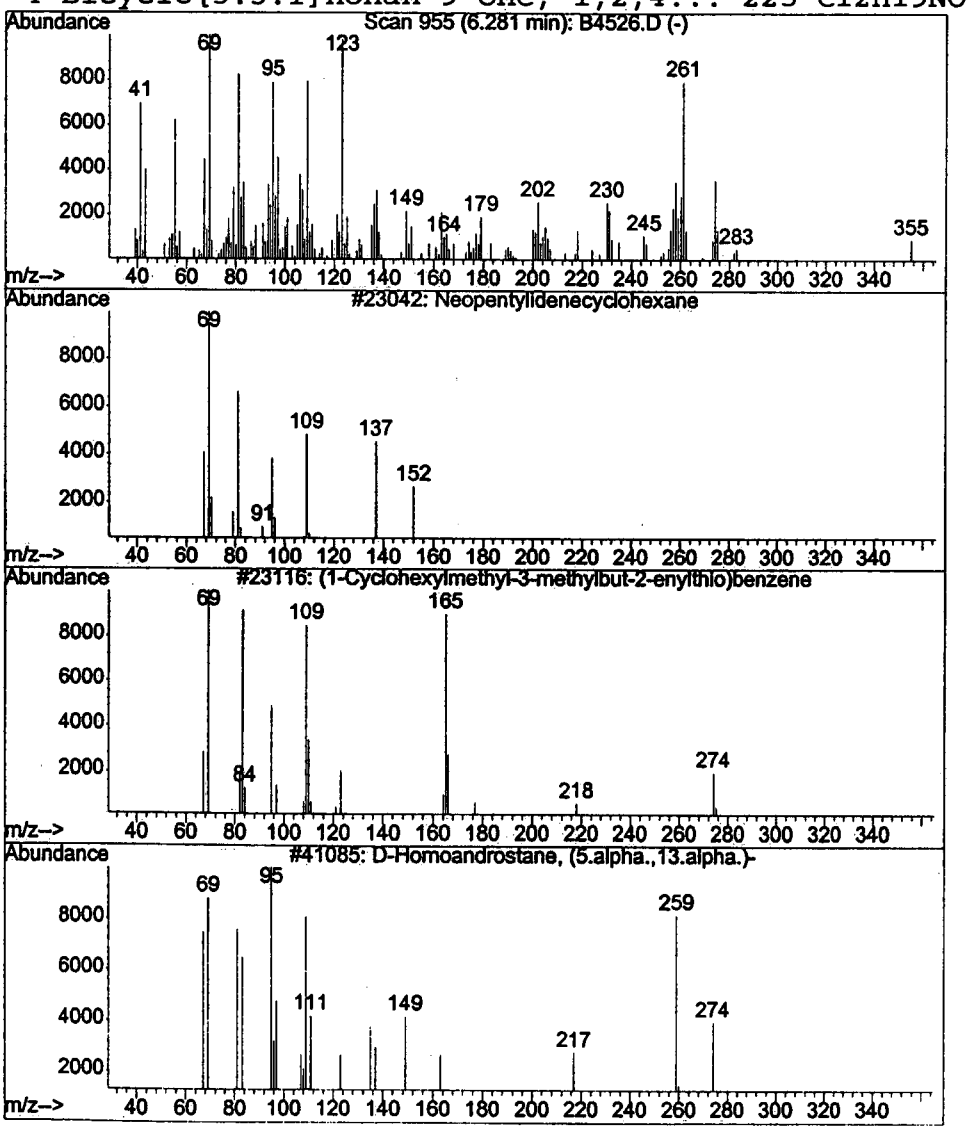
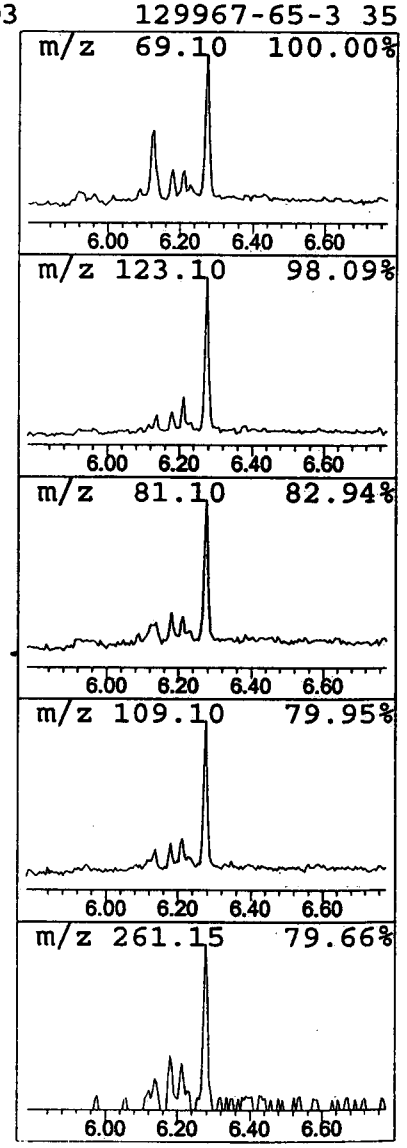
Peak Number 12 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.28	9.92 UG	92736	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Neopentylidenecyclohexane	152	C11H20	039546-80-0	47
2	(1-Cyclohexylmethyl-3-methylbut-...	274	C18H26S	1000191-26-0	46
3	D-Homoandrostane, (5.alpha.,13.a...	274	C20H34	054482-31-4	41
4	Bicyclo[3.3.1]nonan-9-one, 1,2,4...	225	C12H19NO3	129967-65-3	35





0510

1743

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

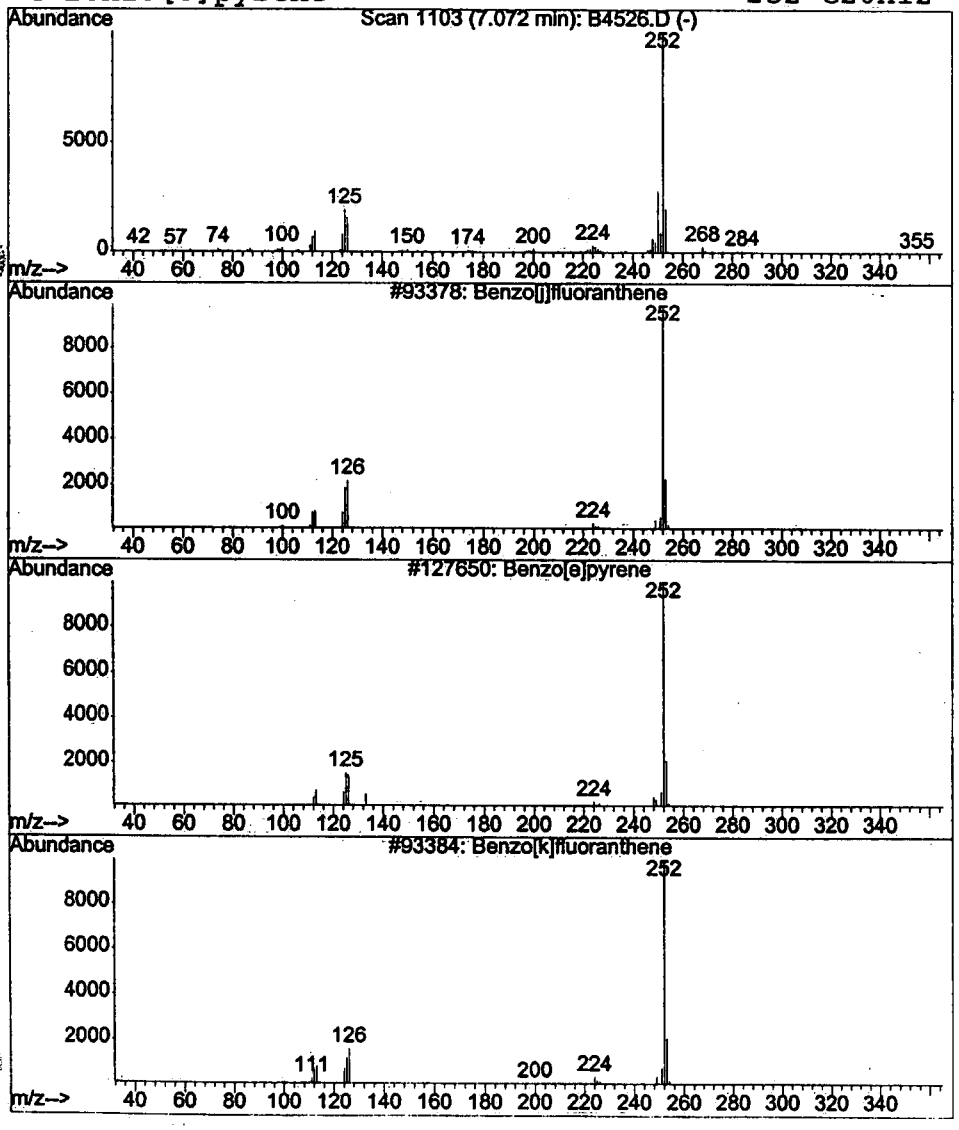
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

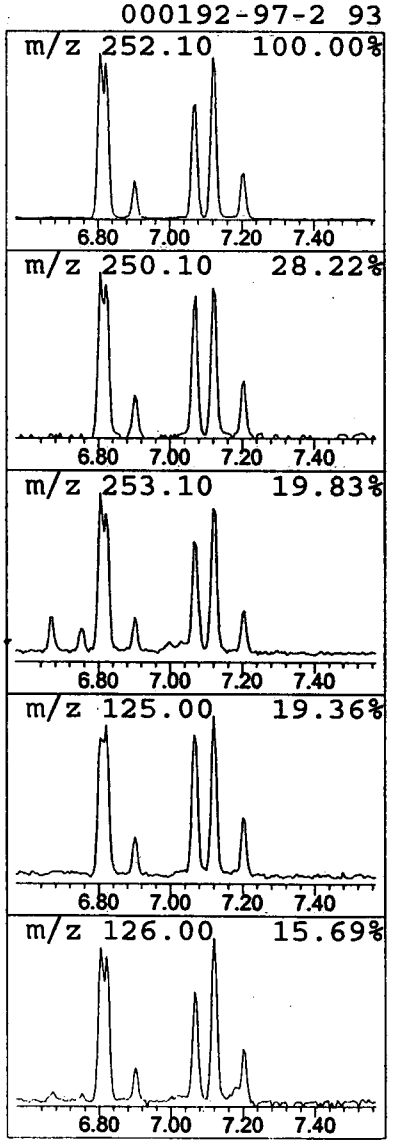
****

Peak Number 13 Unknown aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.07	11.55 UG	73882	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzo[j]fluoranthene	252	C20H12	000205-82-3	94
2	Benzo[e]pyrene	252	C20H12	000192-97-2	94
3	Benzo[k]fluoranthene	252	C20H12	000207-08-9	93
4	Benzo[e]pyrene	252	C20H12	000192-97-2	93





1744

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

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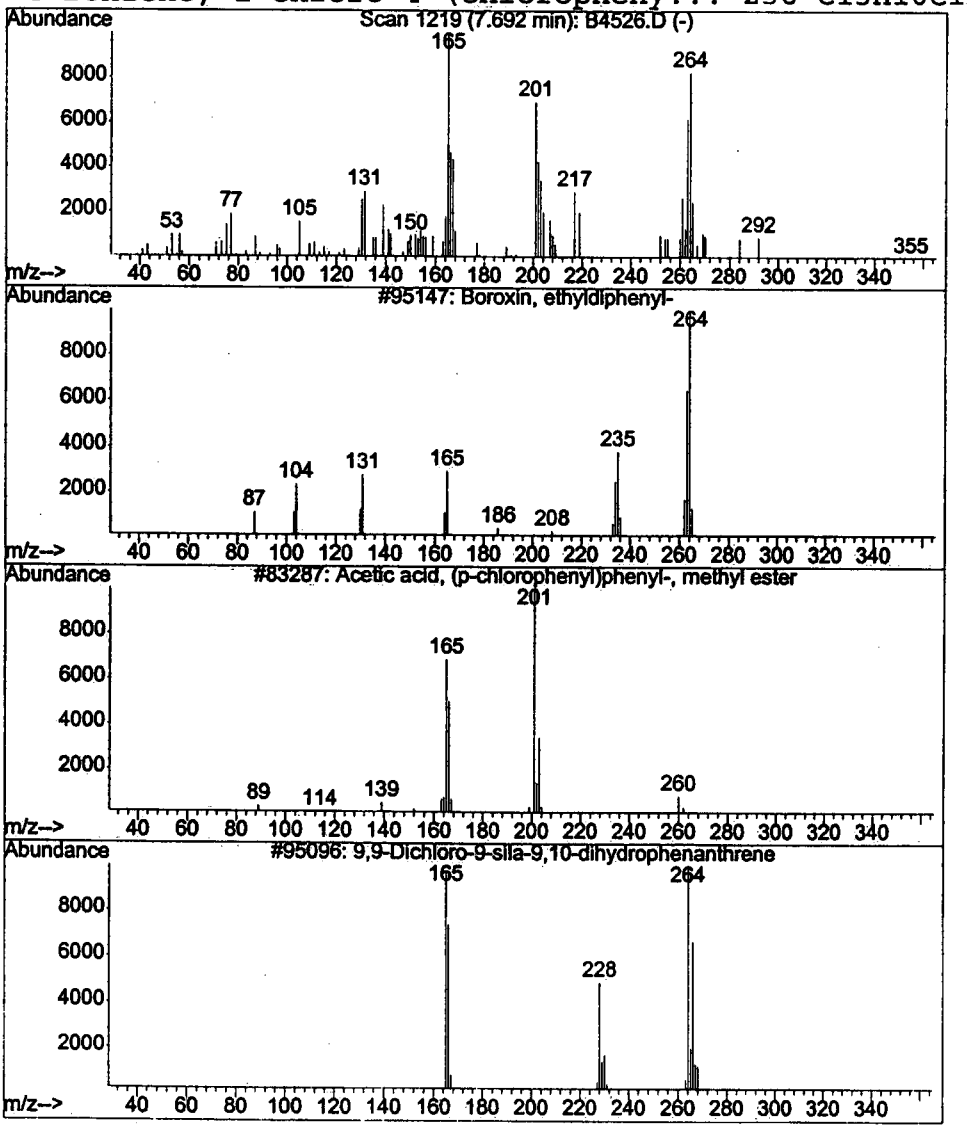
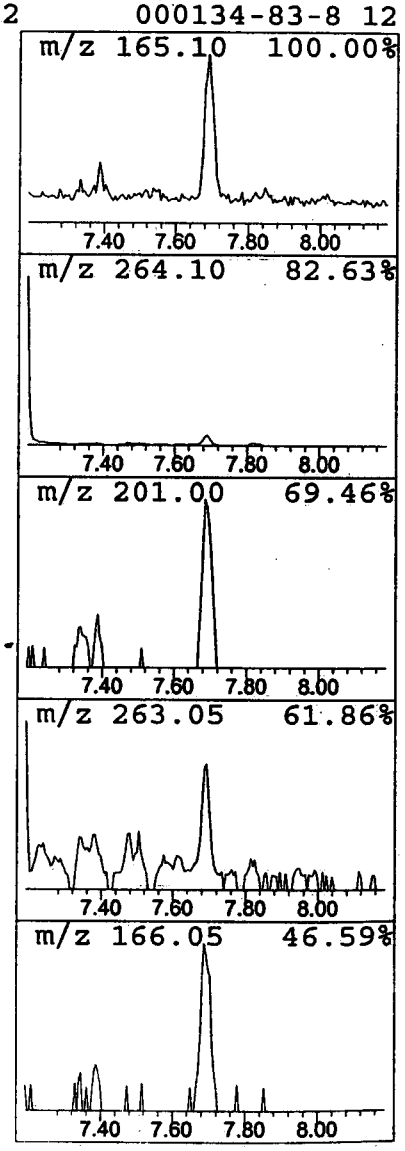
Peak Number 14 Unknown Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.69	4.91 UG	31422	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Boroxin, ethyldiphenyl-	264	C14H15B3O3	1000151-82-0	25
2	Acetic acid, (p-chlorophenyl)phe...	260	C15H13ClO2	005359-46-6	18
3	9,9-Dichloro-9-sila-9,10-dihydro...	264	C13H10Cl2Si	076470-26-3	17
4	Benzene, 1-chloro-4-(chloropheny...	236	C13H10Cl2	000134-83-8	12





1745

0512

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4526.D Vial: 15
Acq On : 18 Jul 2001 12:05 Operator: JC
Sample : S-105,4833-015,S,5.17g,7.10,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

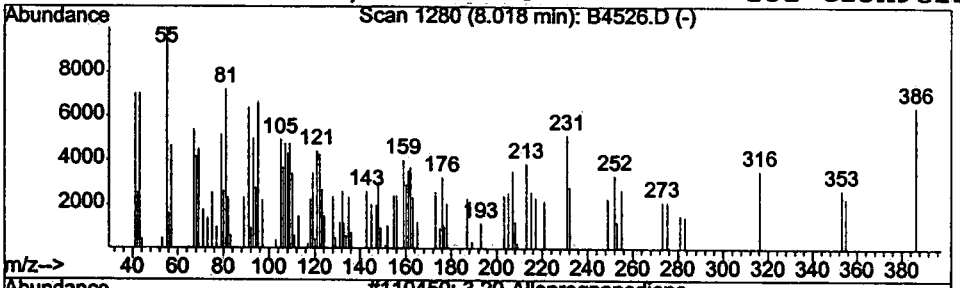
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

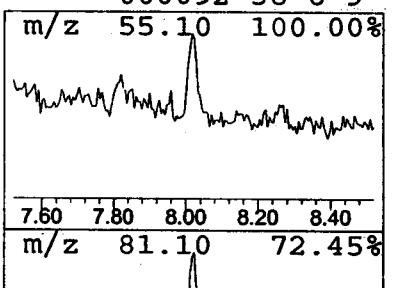
****

Peak Number 15 Unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.02	6.35 UG	40647	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,20-Allopregnanedione	316	C21H32O2	000566-65-4	14
2	3,20-Allopregnanedione	316	C21H32O2	000566-65-4	10
3	3,20-Allopregnanedione	316	C21H32O2	000566-65-4	10
4	9H-Thioxanthene, 2-chloro-	232	C13H9ClS	000092-38-6	9





1746

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D Vial: 16
Acq On : 18 Jul 2001 12:21 Operator: JC
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 18 12:31:20 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	41848	40.00	UG		0.00
22) Naphthalene-d8	2.82	136	154925	40.00	UG		0.00
39) Acenaphthene-d10	3.58	164	79779	40.00	UG		0.00
60) Phenanthrene-d10	4.25	188	122956	40.00	UG		0.03
75) Chrysene-d12	5.96	240	83160	40.00	UG		0.03
84) Perylene-d12	7.18	264	96341	40.00	UG		0.02
System Monitoring Compounds							
4) 2-Fluorophenol	0.00	112	0	0.00	UG		
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#				
6) Phenol-d5	2.28	99	528	0.33	UG		0.17
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.33%#				
23) Nitrobenzene-d5	2.51	82	44628	30.58	UG		0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 61.16%				
43) 2-Fluorobiphenyl	3.27	172	99703	37.71	UG		0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 75.42%				
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG		
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#				
77) Terphenyl-d14	5.11	244	102430	43.05	UG		0.03
Spiked Amount 50.000	Range 40 - 120		Recovery = 86.10%				
Target Compounds							Qvalue
69) Phenanthrene	4.26	178	2901	0.94	UG		95
73) Fluoranthene	4.90	202	3765	1.34	UG		100
76) Pyrene	5.04	202	4340	1.47	UG	#	94
81) Benzo[a]anthracene	5.93	228	1908m	0.86	UG		
82) Chrysene	5.97	228	1951	0.95	UG		97
83) bis(2-Ethylhexyl)phthalate	5.92	149	1073	0.62	UG	#	80
86) Benzo[b]fluoranthene	6.81	252	2206m	0.81	UG		
88) Benzo[a]pyrene	7.12	252	2032	0.90	UG	#	64
91) Benzo[g,h,i]perylene	8.89	276	1610	0.67	UG	#	98

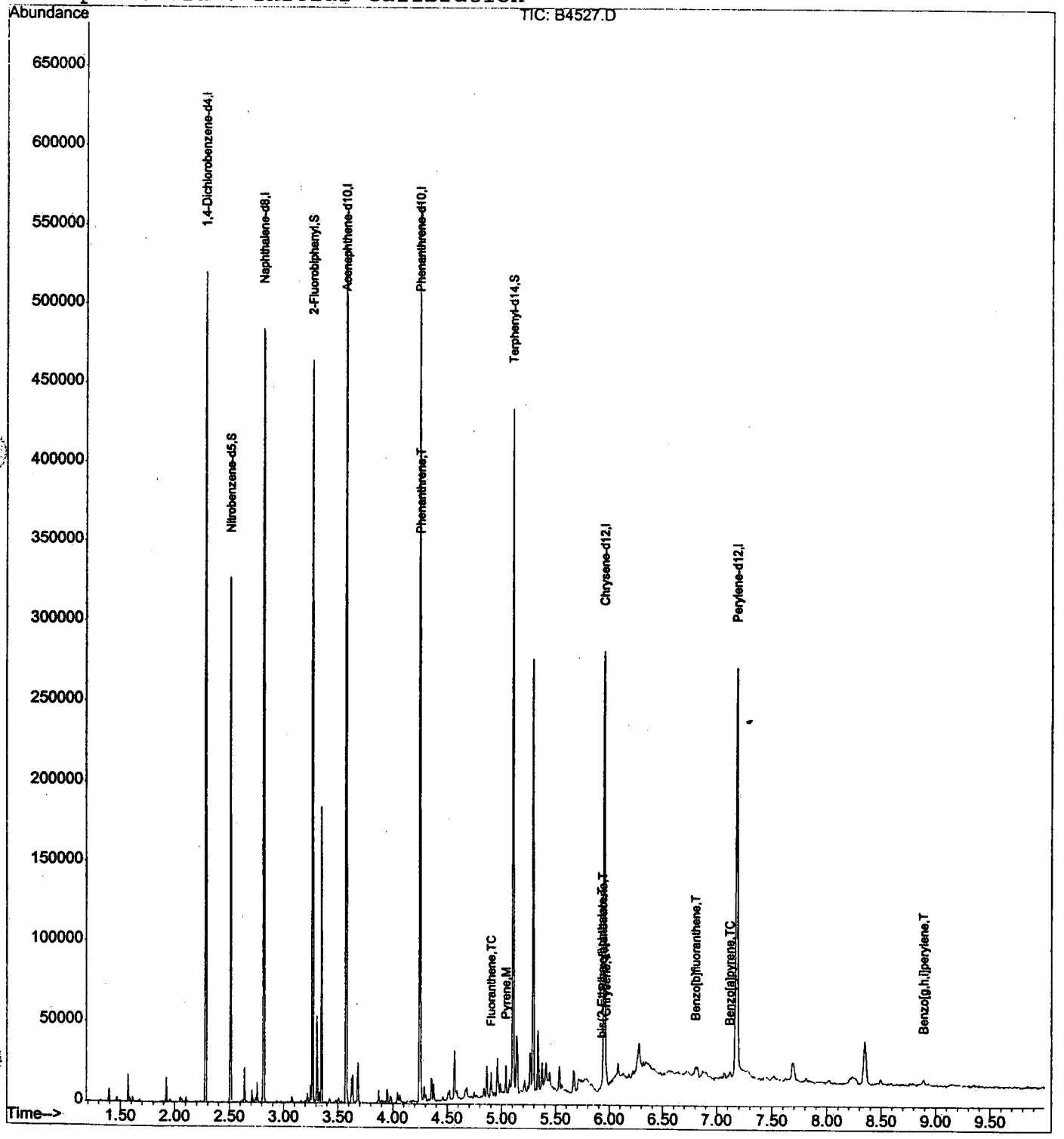
(#) = qualifier out of range (m) = manual integration
B4527.D BS2001.M Wed Jul 18 12:34:21 2001 MSD_B

0514

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D Vial: 16
Acq On : 18 Jul 2001 12:21 Operator: JC
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 12:34 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1748

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D
Acq On : 18 Jul 2001 12:21
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
IS Integration Params: LSCINT.P

Vial: 16
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

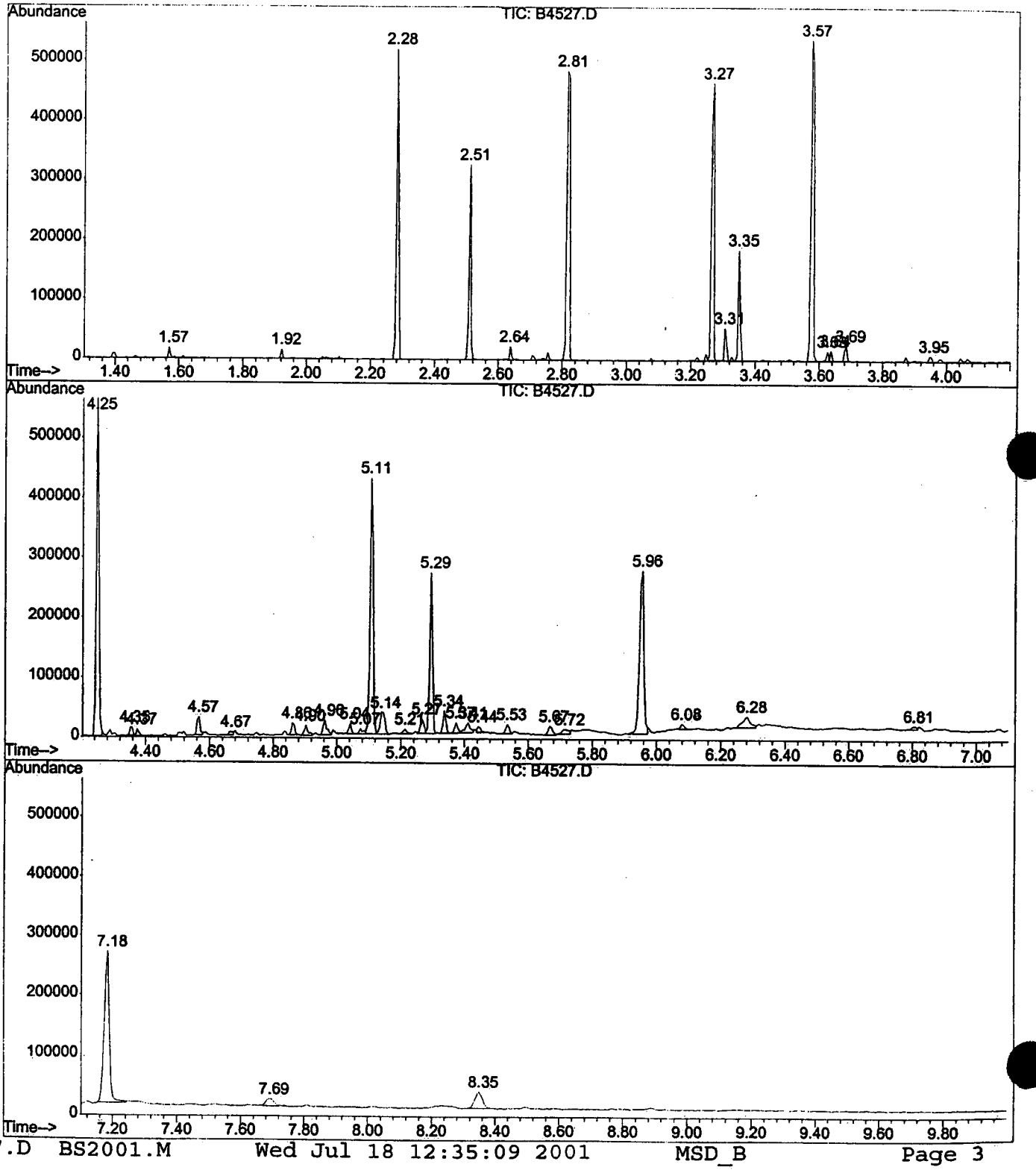
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.570	71	73	75	rBV	17697	7338	2.13%	0.233%
2	1.922	137	139	141	rBB	15536	5968	1.74%	0.189%
3	2.280	204	206	209	rBV	520324	250911	72.99%	7.966%
4	2.510	246	249	251	rBV	326867	132360	38.51%	4.202%
5	2.638	272	273	275	rVB	21846	8360	2.43%	0.265%
6	2.815	304	306	309	rVB	484127	316255	92.00%	10.041%
7	3.269	388	391	393	rVB	463848	280433	81.58%	8.903%
8	3.306	396	398	400	rVV	53211	25149	7.32%	0.798%
9	3.349	404	406	409	rVB	184754	78030	22.70%	2.477%
10	3.573	446	448	451	rBV	538429	343743	100.00%	10.913%
11	3.627	456	458	459	rVV	15327	7677	2.23%	0.244%
12	3.637	459	460	462	rVB	17085	5998	1.74%	0.190%
13	3.685	466	469	471	rVB	24499	14188	4.13%	0.450%
14	3.947	516	518	521	rVB2	8527	5473	1.59%	0.174%
15	4.246	572	574	577	rBV	563516	317700	92.42%	10.087%
16	4.353	592	594	596	rBV	13560	8853	2.58%	0.281%
17	4.374	596	598	603	rVB	11319	6637	1.93%	0.211%
18	4.567	631	634	636	rBV2	30340	21603	6.28%	0.686%
19	4.668	649	653	654	rBV3	5689	5720	1.66%	0.182%
20	4.861	687	689	692	rBV2	19754	13704	3.99%	0.435%
21	4.903	694	697	701	rBV	16262	13003	3.78%	0.413%
22	4.962	705	708	712	rBV	24269	19627	5.71%	0.623%
23	5.042	721	723	727	rVB	17259	9265	2.70%	0.294%
24	5.074	727	729	732	rVV2	8537	7855	2.29%	0.249%
25	5.106	732	735	738	rVV	428161	283230	82.40%	8.992%
26	5.138	738	741	745	rVB2	35947	37422	10.89%	1.188%
27	5.213	752	755	759	rBV3	7724	6338	1.84%	0.201%
28	5.267	762	765	767	rVV2	24063	19122	5.56%	0.607%
29	5.293	767	770	773	rVB	269005	155942	45.37%	4.951%
30	5.336	775	778	781	rBV	37705	23263	6.77%	0.739%
31	5.373	782	785	787	rBV3	17021	12390	3.60%	0.393%

32	5.411	787	792	795	rVV5	16035	18225	5.30%	0.579%
33	5.443	797	798	803	rVB2	9497	6705	1.95%	0.213%
34	5.534	812	815	818	rBV	15089	11267	3.28%	0.358%
35	5.667	837	840	844	rBV	14024	13727	3.99%	0.436%
36	5.715	846	849	852	rBV4	7105	11171	3.25%	0.355%
37	5.956	886	894	897	rBV	272561	258947	75.33%	8.221%
38	6.079	915	917	922	rVB4	8136	6285	1.83%	0.200%
39	6.282	948	955	960	rBV7	18125	32272	9.39%	1.025%
40	6.805	1050	1053	1055	rBV3	4840	5789	1.68%	0.184%
41	7.184	1118	1124	1135	rBV	252435	278575	81.04%	8.844%
42	7.692	1215	1219	1224	rVB3	11273	19763	5.75%	0.627%
43	8.349	1336	1342	1349	rVB	26623	43466	12.64%	1.380%

Sum of corrected areas: 3149749

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D
Operator : JC
Acquired : 18 Jul 2001 12:21 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-106,4833-016,S,10.61g,12.6,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 16
Quant File :BS2001.RES (RTE Integrator)



1751

0518

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D
Acq On : 18 Jul 2001 12:21
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
S Integration Params: LSCINT.P

Vial: 16
Operator: JC
Inst : MSD_B
Multiplr: 1.00

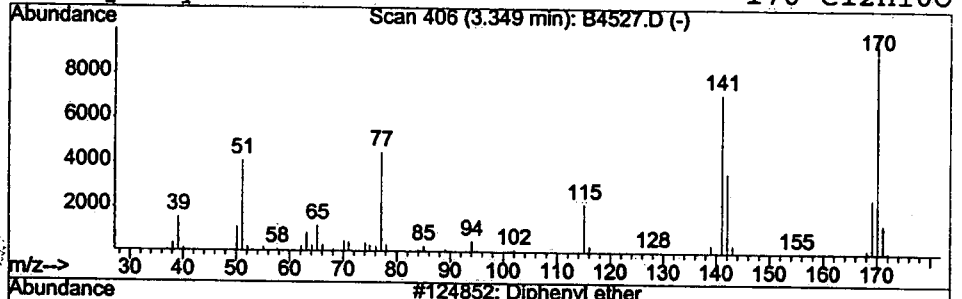
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

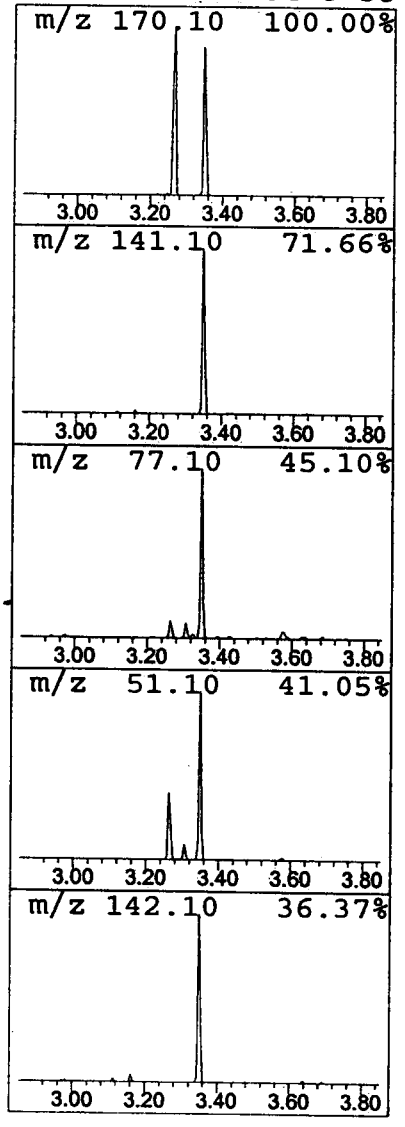
****

Peak Number 1 Diphenyl ether Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.35	9.08 UG	78030	Acenaphthene-d10	3.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Diphenyl ether	170	C12H10O	000101-84-8	87
2	Diphenyl ether	170	C12H10O	000101-84-8	81
3	Diphenyl ether	170	C12H10O	000101-84-8	76
4	Diphenyl ether	170	C12H10O	000101-84-8	58





1752

0519

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D
Acq On : 18 Jul 2001 12:21
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1
MS Integration Params: LSCINT.P

Vial: 16
Operator: JC
Inst : MSD_B
Multiplr: 1.00

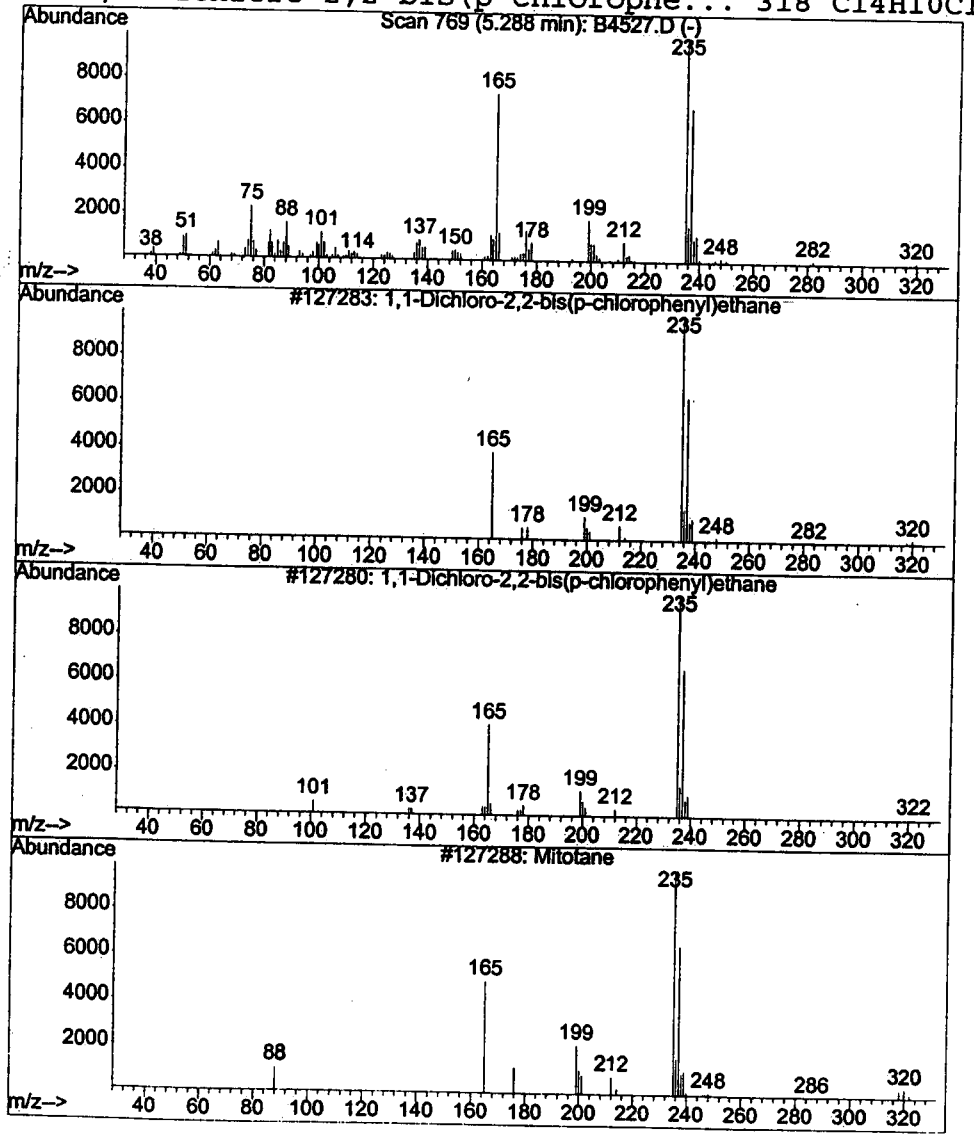
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

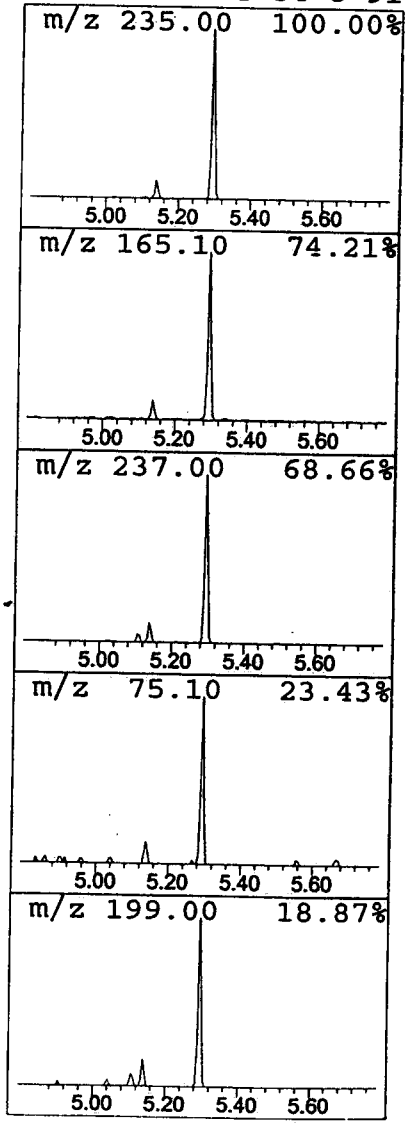
****

Peak Number 2 Unknown — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.29	24.09 UG	155942	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	95
2	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	94
3	Mitotane	318	C14H10Cl4	000053-19-0	93
4	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	91





1753

0520

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D Vial: 16
Acq On : 18 Jul 2001 12:21 Operator: JC
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

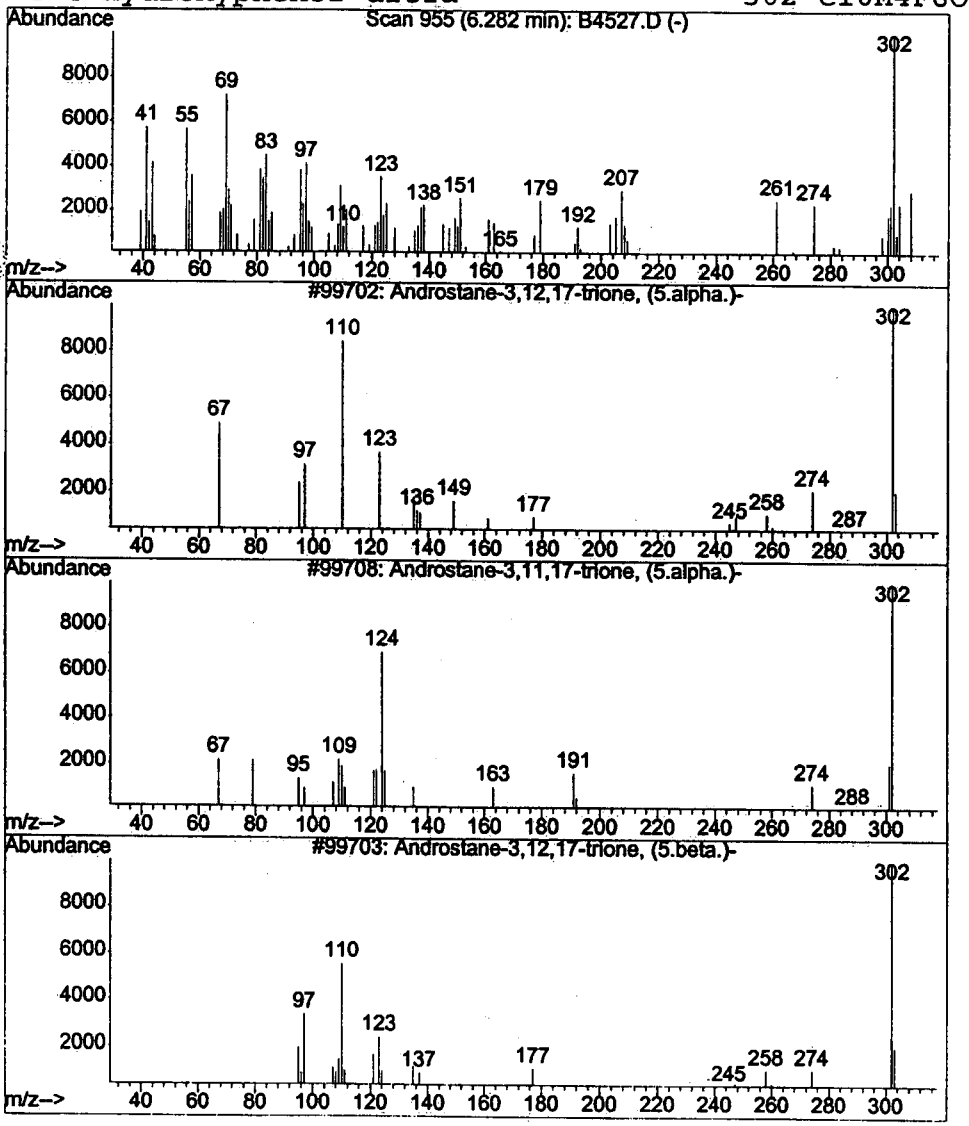
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

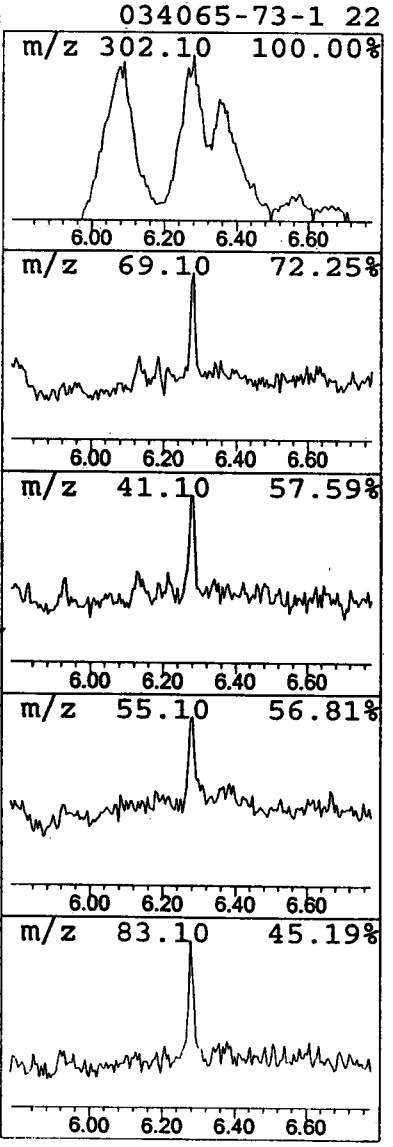
****

Peak Number 3 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.28	4.99 UG	32272	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Androstane-3,12,17-trione, (5.al...	302	C19H26O3	004171-01-1	55
2	Androstane-3,11,17-trione, (5.al...	302	C19H26O3	001482-70-8	38
3	Androstane-3,12,17-trione, (5.be...	302	C19H26O3	053604-37-8	32
4	4-Hydroxyphenol ditfa	302	C10H4F6O4	034065-73-1	22





1754

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4527.D Vial: 16
Acq On : 18 Jul 2001 12:21 Operator: JC
Sample : S-106,4833-016,S,10.61g,12.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

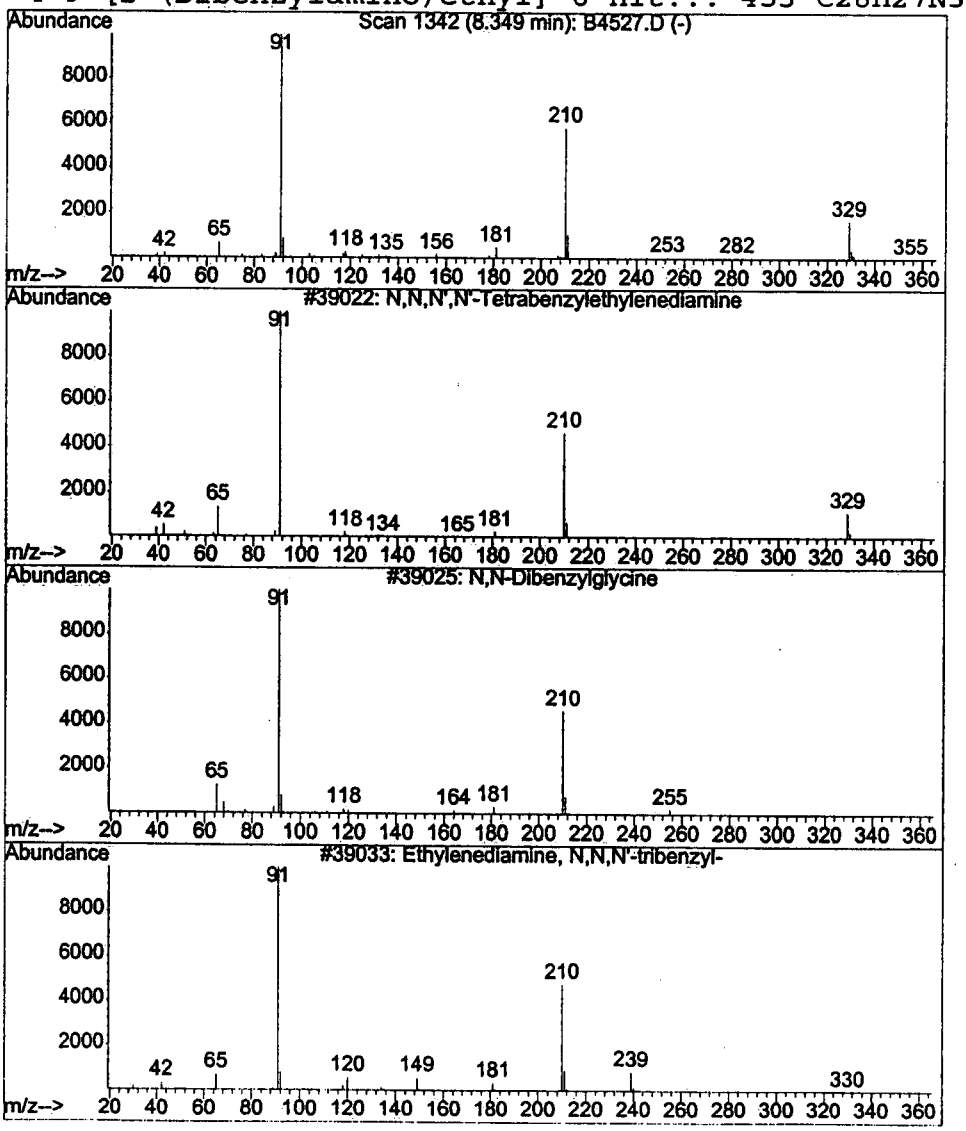
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

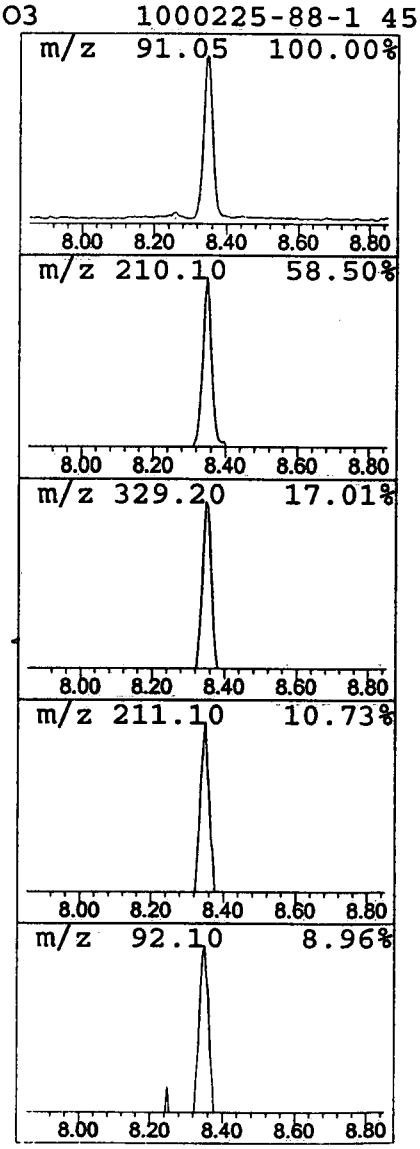
****

Peak Number 4 Unknown Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.35	6.24 UG	43466	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N,N,N',N'-Tetrabenzylethylenedia...	420	C30H32N2	1000224-92-8	72
2	N,N-Dibenzylglycine	255	C16H17NO2	017360-47-3	59
3	Ethylenediamine, N,N,N'-tribenzyl-	330	C23H26N2	1000164-17-9	45
4	9-[2-(Dibenzylamino)ethyl]-6-nit...	453	C28H27N3O3	1000225-88-1	45





1755

0522

Tentatively Identified Compound (LSC) summary

Operator ID: JC Date Acquired: 18 Jul 2001 12:21
Data File: C:\MSDCHEM\1\DATA\07-18-01\B4527.D
Name: S-106,4833-016,S,10.61g,12.6,07/17/01
Misc: ENVTACT/ORBIS,07/12/01,07/16/01,1
Method: C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title: BNA CALIBRATION METHOD
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name		RT	EstConc	Units	Response	#	RT	Resp	Conc
Diphenyl ether						3.35		9.1	000101-84-8
78030	3	3.58	343743	40.0					
Unknown						5.29		24.1	
155942	5	5.96	258947	40.0					
Unknown						6.28		5.0	
32272	5	5.96	258947	40.0					
Unknown						8.35		6.2	
43466	6	7.18	278575	40.0					

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: rteint.p
Quant Time: Jul 18 12:46:43 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

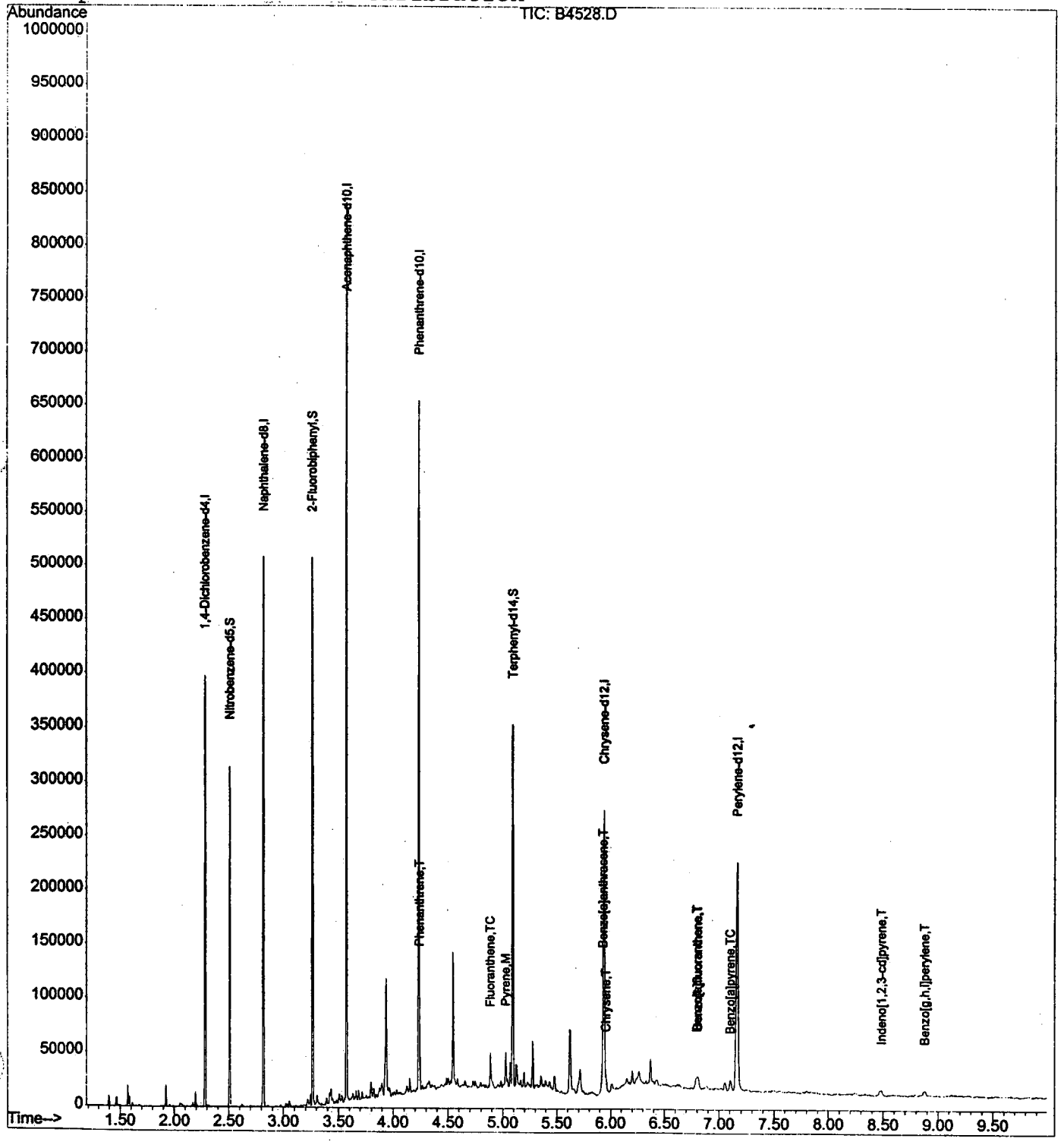
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	38673	40.00	UG	0.00
22) Naphthalene-d8	2.82	136	146528	40.00	UG	0.00
39) Acenaphthene-d10	3.57	164	76915	40.00	UG	0.00
60) Phenanthrene-d10	4.24	188	109905	40.00	UG	0.02
75) Chrysene-d12	5.94	240	76444	40.00	UG	0.01
84) Perylene-d12	7.17	264	89347	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#			
6) Phenol-d5	2.28	99	483	0.32	UG	0.17
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.32%#			
23) Nitrobenzene-d5	2.51	82	42767	30.99	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 61.98%			
43) 2-Fluorobiphenyl	3.26	172	91239	35.79	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 71.58%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.10	244	87418	39.97	UG	0.02
Spiked Amount 50.000	Range 40 - 120		Recovery = 79.94%			
Target Compounds						Qvalue
69) Phenanthrene	4.25	178	3709	1.34	UG	# 82
73) Fluoranthene	4.89	202	7635	3.03	UG	100
76) Pyrene	5.03	202	7513	2.77	UG	97
81) Benzo[a]anthracene	5.92	228	3980	1.95	UG	# 79
82) Chrysene	5.96	228	3834	2.04	UG	# 89
86) Benzo[b]fluoranthene	6.79	252	3695m	1.46	UG	
87) Benzo[k]fluoranthene	6.81	252	3254m	1.54	UG	
88) Benzo[a]pyrene	7.10	252	3776	1.80	UG	# 85
89) Indeno[1,2,3-cd]pyrene	8.48	276	2877	1.06	UG	# 69
91) Benzo[g,h,i]perylene	8.88	276	2806	1.26	UG	# 77

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 13:10 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1758

0525

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

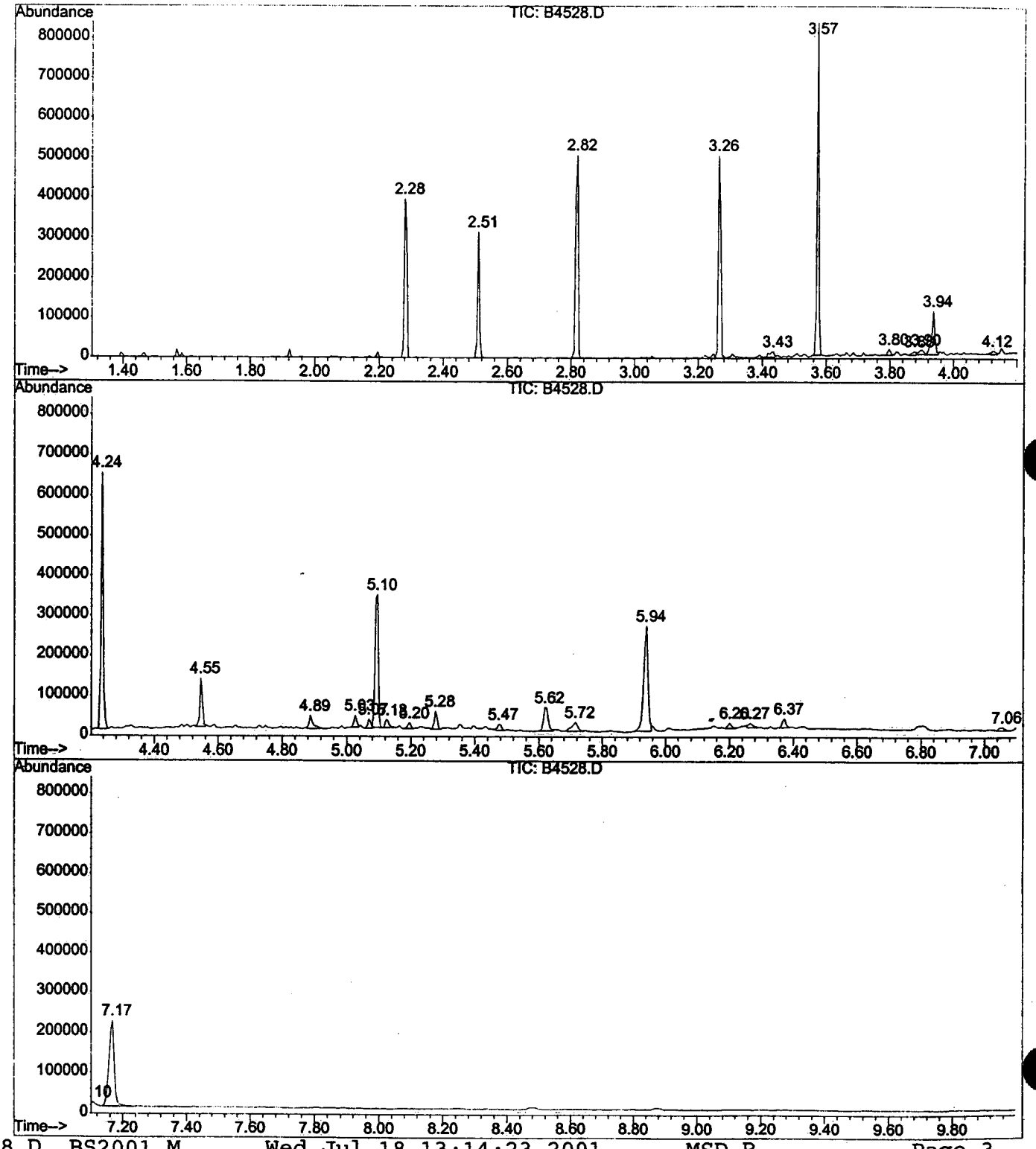
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.280	204	206	209	rVB	397382	230982	69.80%	8.387%
2	2.510	247	249	252	rVB	313935	126602	38.26%	4.597%
3	2.820	304	307	309	rVB	507978	300596	90.83%	10.915%
4	3.263	388	390	393	rBV	506782	266696	80.59%	9.684%
5	3.434	417	422	423	rBV3	13744	15021	4.54%	0.545%
6	3.573	446	448	450	rBV	831937	330931	100.00%	12.016%
7	3.797	488	490	492	rBV	15011	10096	3.05%	0.367%
8	3.877	501	505	506	rBV3	8762	8244	2.49%	0.299%
9	3.899	506	509	512	rVB3	11670	11828	3.57%	0.429%
10	3.936	512	516	519	rBV2	108666	77148	23.31%	2.801%
11	4.123	547	551	554	rBV4	7603	8381	2.53%	0.304%
12	4.235	569	572	576	rVB	638674	290718	87.85%	10.556%
13	4.545	627	630	633	rBV	121265	69632	21.04%	2.528%
14	4.887	692	694	702	rVB	32478	26283	7.94%	0.954%
15	5.026	718	720	722	rBV	29689	18033	5.45%	0.655%
16	5.069	725	728	730	rBV2	22636	15053	4.55%	0.547%
17	5.096	730	733	735	rVB	332800	241561	72.99%	8.771%
18	5.128	735	739	742	rBV2	19159	15630	4.72%	0.568%
19	5.197	749	752	754	rVB	14416	9861	2.98%	0.358%
20	5.277	764	767	770	rVB	44622	28885	8.73%	1.049%
21	5.475	802	804	807	rVB	14186	12147	3.67%	0.441%
22	5.619	828	831	836	rBV	58173	58742	17.75%	2.133%
23	5.715	843	849	854	rBV4	21866	29219	8.83%	1.061%
24	5.940	884	891	894	rBV	261158	245881	74.30%	8.928%
25	6.201	937	940	944	rBV	12673	10870	3.28%	0.395%
26	6.265	950	952	957	rVB5	10480	10033	3.03%	0.364%
27	6.372	969	972	975	rBV	22065	17527	5.30%	0.636%
28	7.056	1097	1100	1104	rVB	7180	8386	2.53%	0.304%
29	7.104	1106	1109	1114	rVB2	9872	11906	3.60%	0.432%
30	7.168	1115	1121	1133	rVB	211523	247174	74.69%	8.975%

Sum of corrected areas: 2754066

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D
Operator : JC
Acquired : 18 Jul 2001 12:36 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-107,4833-017,S,5.41g,11.9,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 17
Quant File :BS2001.RES (RTE Integrator)



1761

0528

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

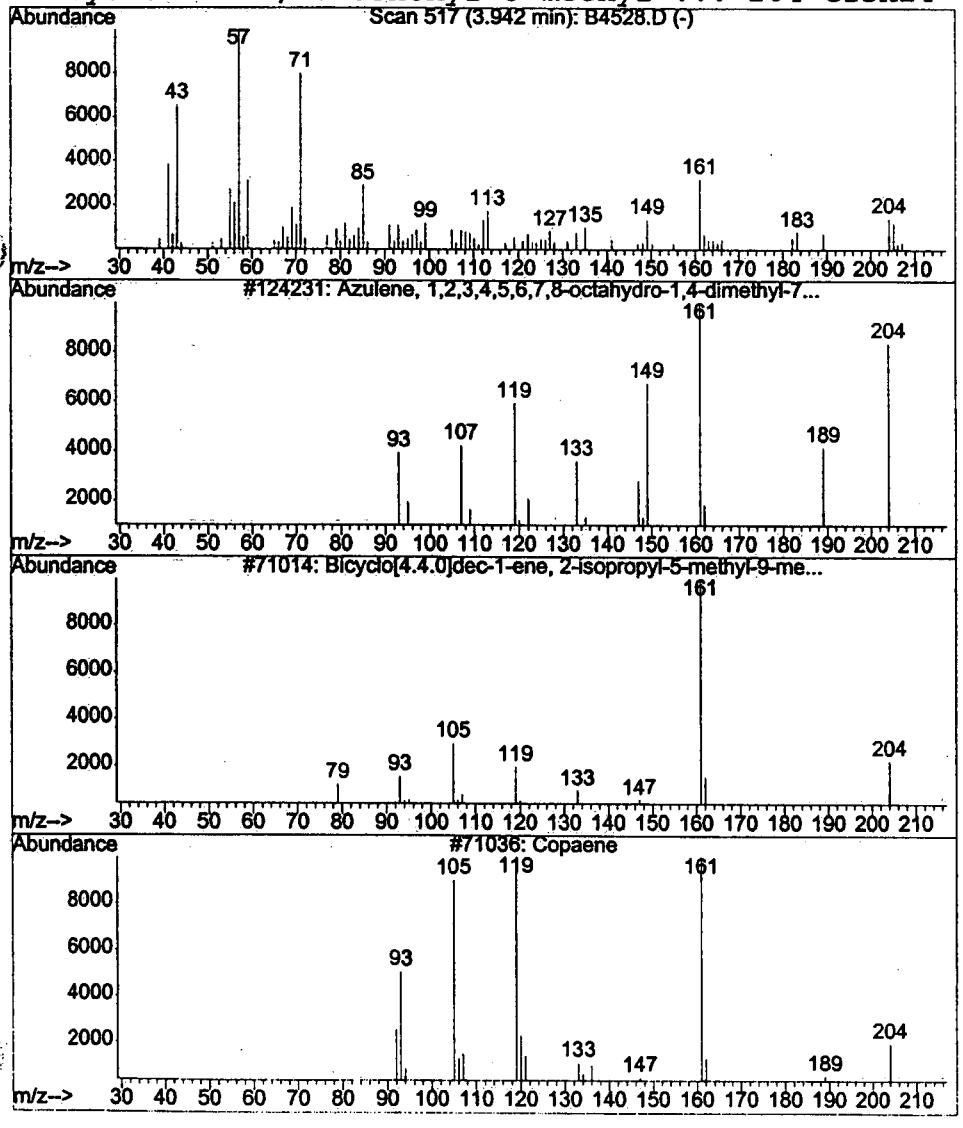
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

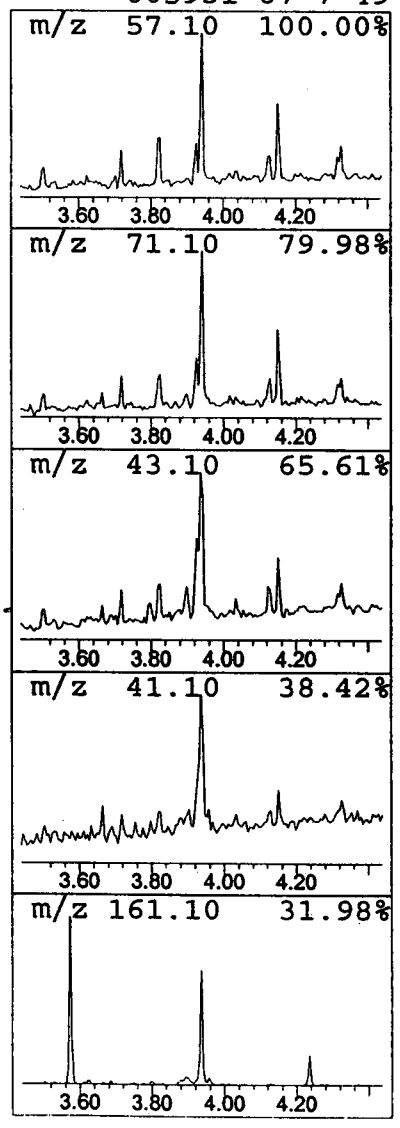
****

Peak Number 1 Unknown alkane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.94	10.61 UG	77148	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Azulene, 1,2,3,4,5,6,7,8-octahyd...	204	C15H24	000088-84-6	80
2	Bicyclo[4.4.0]dec-1-ene, 2-isopr...	204	C15H24	1000149-59-3	55
3	Copaene	204	C15H24	003856-25-5	53
4	Cyclohexene, 6-ethenyl-6-methyl-...	204	C15H24	005951-67-7	49





1762

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
1S Integration Params: LSCINT.P

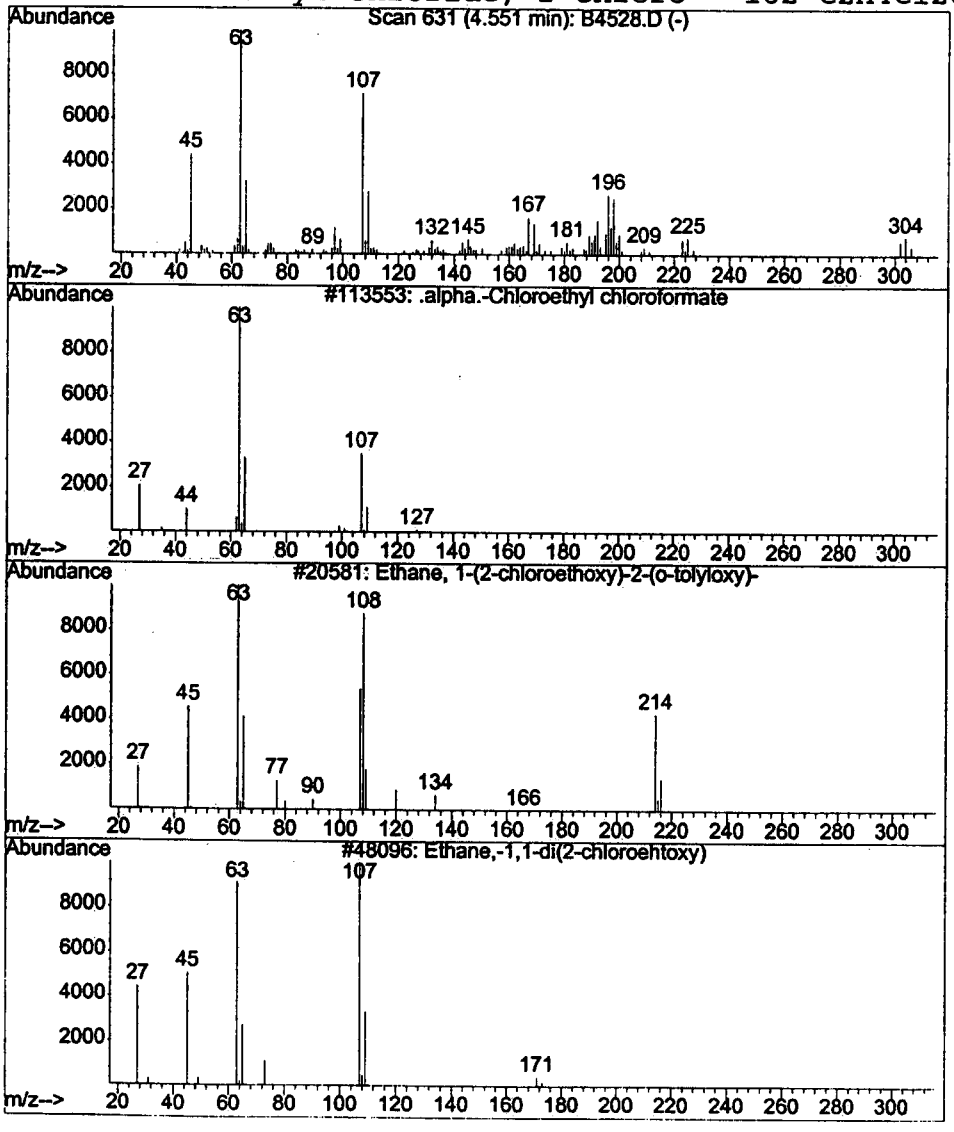
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

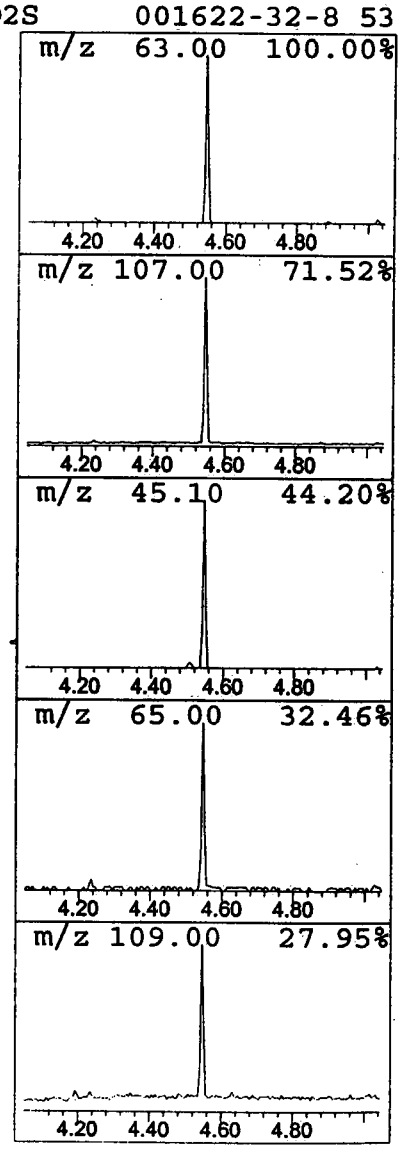
****

Peak Number 2 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.55	9.58 UG	69632	Phenanthrene-d10	4.24

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Chloroethyl chloroformate	142	C3H4Cl2O2	050893-53-3	72
2	Ethane, 1-(2-chloroethoxy)-2-(o-...	214	C11H15ClO2	021120-80-9	64
3	Ethane,-1,1-di(2-chloroehtoxy)	186	C6H12Cl2O2	1000221-88-2	56
4	Ethanesulfonyl chloride, 2-chloro-	162	C2H4Cl2O2S	001622-32-8	53





1763

0530

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

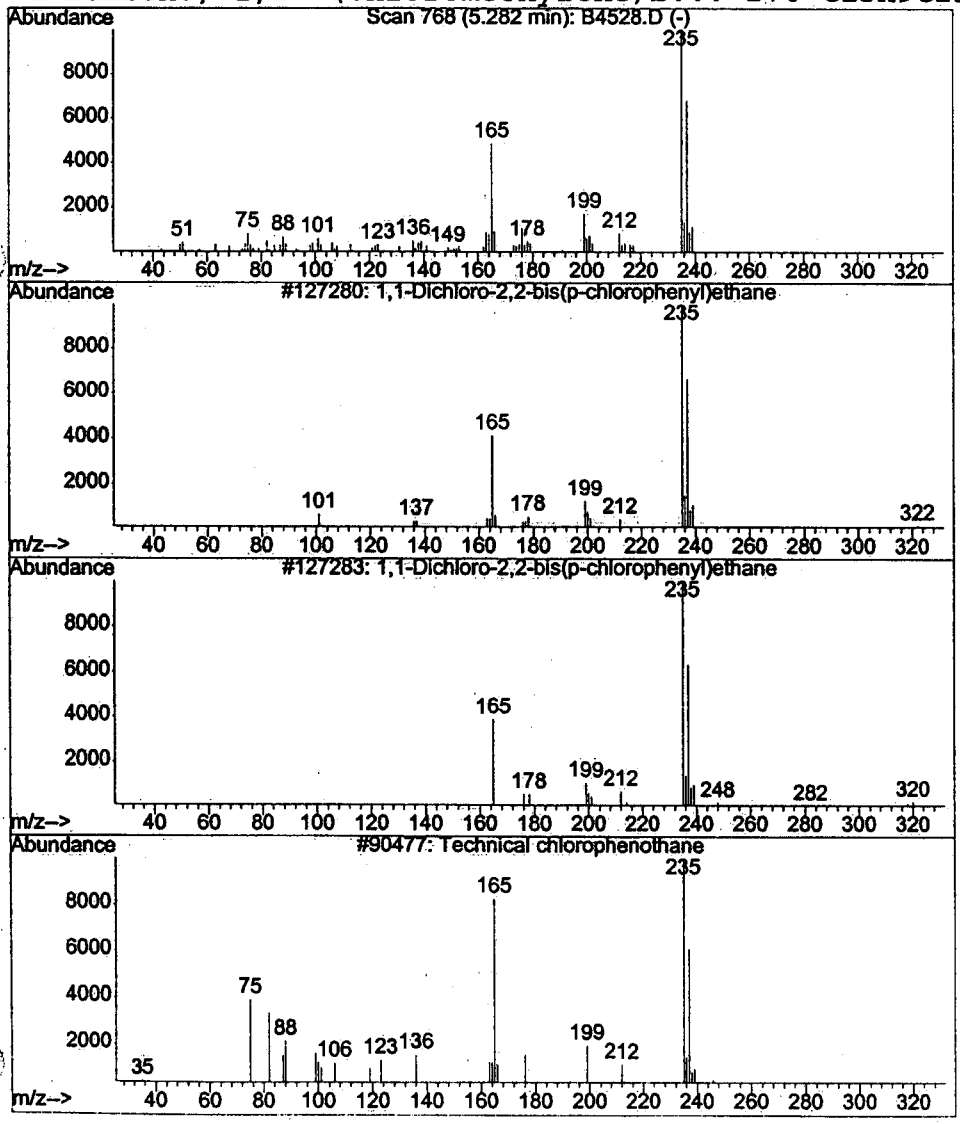
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

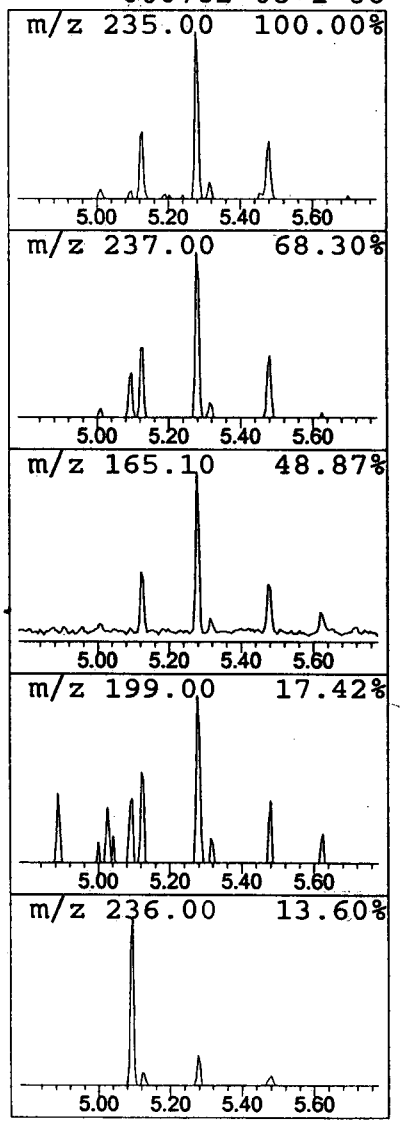
****

Peak Number 3 1,1-Dichloro-2,2-bis(p-chlo... Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.28	4.70 UG	28885	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	91
2	1,1-Dichloro-2,2-bis(p-chlorophe...	318	C14H10Cl4	000072-54-8	91
3	Technical chlorophenothane	704	C28H18Cl10	008017-34-3	90
4	Benzene, 1,1'-(chloromethylene)b...	270	C13H9Cl3	000782-08-1	86





1764

0531

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

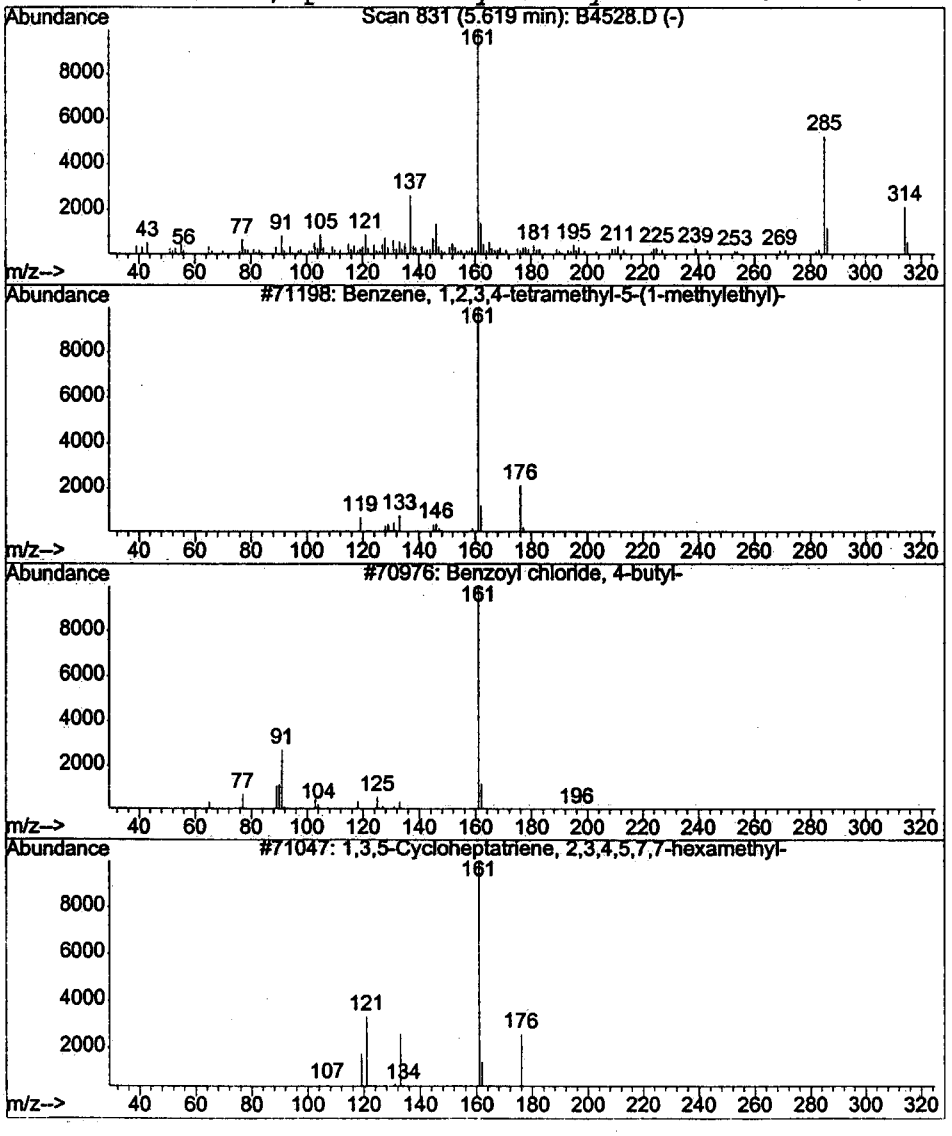
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

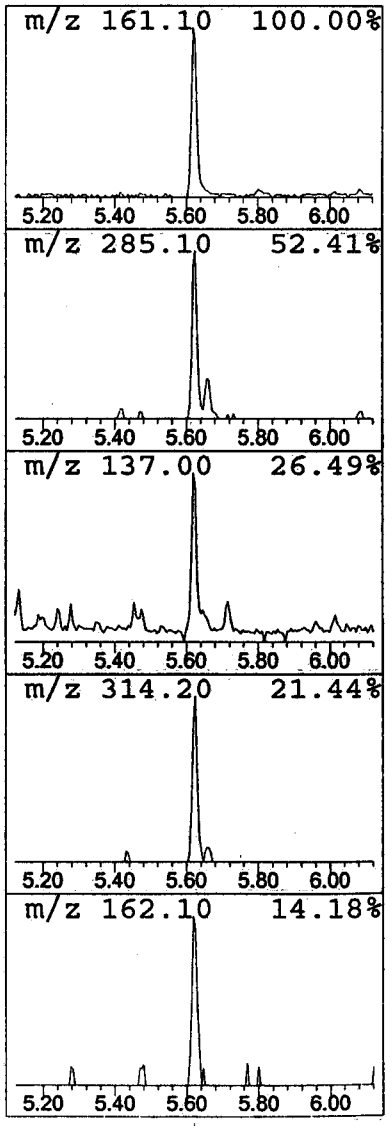
****

Peak Number 4 Unknown aromatic Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.62	9.56 UG	58742	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-5-(...	176	C13H20	061142-67-4	46
2	Benzoyl chloride, 4-butyl-	196	C11H13ClO	028788-62-7	42
3	1,3,5-Cycloheptatriene, 2,3,4,5,...	176	C13H20	074779-68-3	38
4	Lactic acid, pentamethylbenzyl e...	250	C15H22O3	019405-32-4	35





1765

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4528.D Vial: 17
Acq On : 18 Jul 2001 12:36 Operator: JC
Sample : S-107,4833-017,S,5.41g,11.9,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

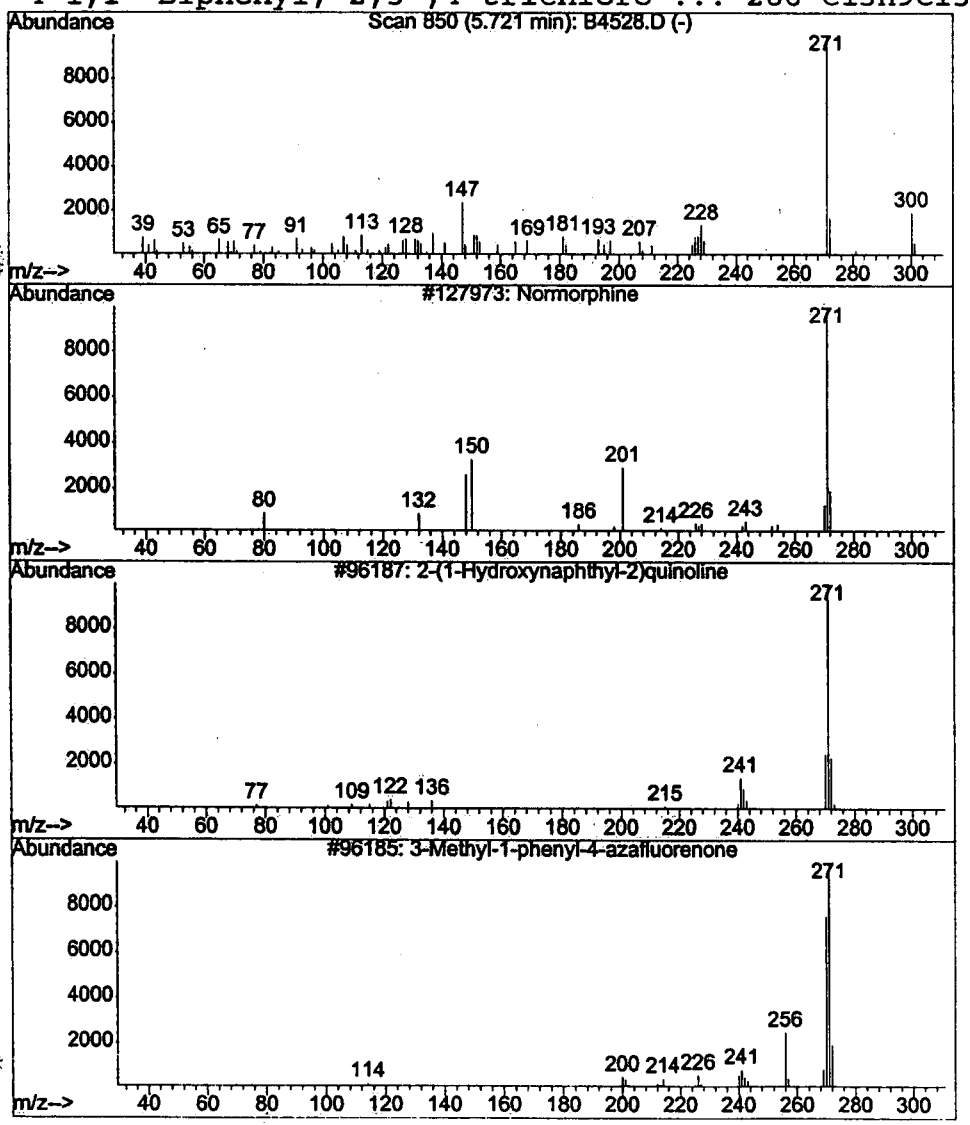
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

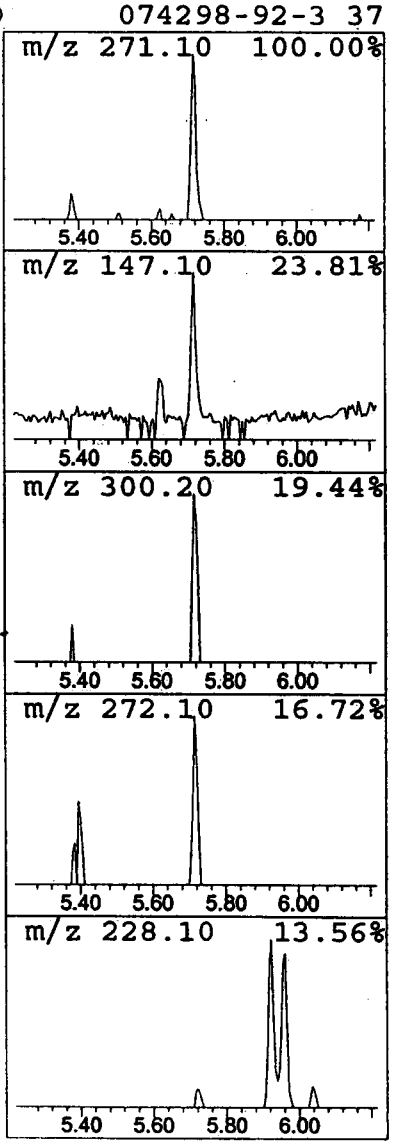
****

Peak Number 5 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.72	4.75 UG	29219	Chrysene-d12	5.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Normorphine	271	C16H17NO3	000466-97-7	47
2	2-(1-Hydroxynaphthyl-2)quinoline	271	C19H13NO	024641-28-9	46
3	3-Methyl-1-phenyl-4-azafluorenone	271	C19H13NO	1000216-53-2	37
4	1,1'-Biphenyl, 2,3',4-trichloro-...	286	C13H9Cl3O	074298-92-3	37





1766

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 13:02:19 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

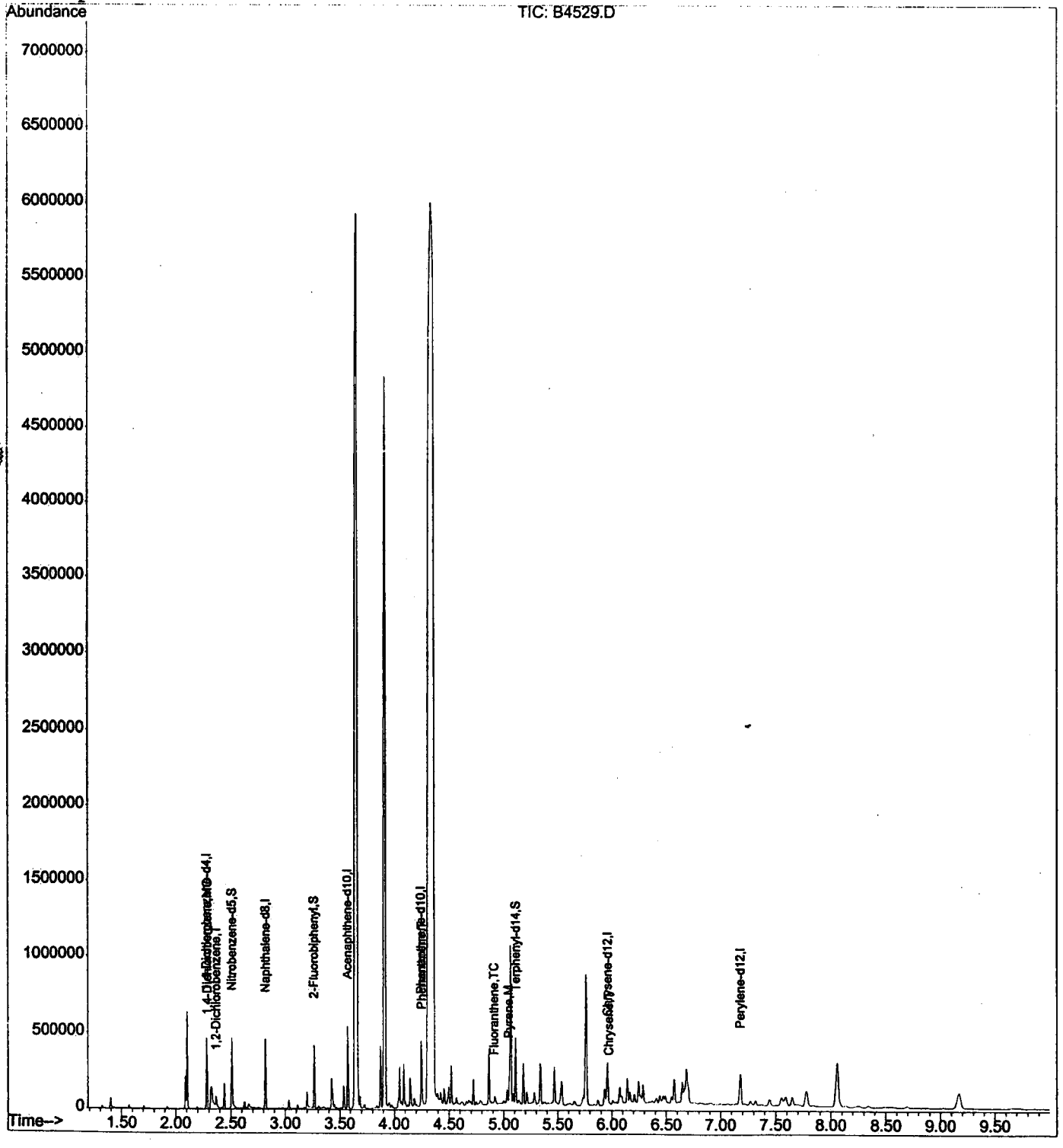
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	41869	40.00	UG	0.00
22) Naphthalene-d8	2.82	136	148199	40.00	UG	0.00
39) Acenaphthene-d10	3.57	164	72003	40.00	UG	0.00
60) Phenanthrene-d10	4.25	188	103296	40.00	UG	0.03
75) Chrysene-d12	5.96	240	80606	40.00	UG	0.03
84) Perylene-d12	7.18	264	85542	40.00	UG	0.02
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 28 - 102		Recovery = 0.00%#			
23) Nitrobenzene-d5	2.51	82	44156	31.63	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 63.26%			
43) 2-Fluorobiphenyl	3.27	172	93966	39.38	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 78.76%			
64) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 44 - 121		Recovery = 0.00%#			
77) Terphenyl-d14	5.11	244	84135	36.48	UG	0.04
Spiked Amount 50.000	Range 40 - 120		Recovery = 72.96%			
Target Compounds						Qvalue
12) 1,4-Dichlorobenzene	2.29	146	1200m	0.72	UG	
14) 1,2-Dichlorobenzene	2.37	146	7348	4.77	UG	96
69) Phenanthrene	4.26	178	3998	1.53	UG	99
73) Fluoranthene	4.91	202	1832	0.77	UG	100
76) Pyrene	5.04	202	2026m	0.71	UG	
82) Chrysene	5.98	228	2745	1.38	UG	# 92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 13:13 2001 Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1768

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.104	171	173	175	rVB	634762	259699	1.51%	0.695%
2	2.280	204	206	209	rBV2	471888	269056	1.56%	0.720%
3	2.323	210	214	220	rBV2	144858	206440	1.20%	0.553%
4	2.510	246	249	260	rBV	473103	287460	1.67%	0.770%
5	2.820	304	307	309	rVB	461788	306040	1.77%	0.819%
6	3.263	388	390	393	rVB	418763	266985	1.55%	0.715%
7	3.573	446	448	451	rBV	544799	317571	1.84%	0.850%
8	3.664	458	465	467	rBV	5900373	8710354	50.50%	23.324%
9	3.872	501	504	507	rBV	412046	266634	1.55%	0.714%
10	3.920	507	513	515	rBV	4825691	4729452	27.42%	12.664%
11	4.246	571	574	577	rBV	434067	298198	1.73%	0.798%
12	4.342	582	592	595	rBV3	5955690	17248354	100.00%	46.186%
13	4.866	687	690	692	rBV	367952	240613	1.39%	0.644%
14	5.064	723	727	730	rVV	1022612	768710	4.46%	2.058%
15	5.112	733	736	739	rVB	432699	242051	1.40%	0.648%
16	5.336	773	778	782	rBV	272728	213282	1.24%	0.571%
17	5.534	809	815	822	rVB	162673	180164	1.04%	0.482%
18	5.763	854	858	863	rVB	857832	838124	4.86%	2.244%
19	5.961	892	895	898	rVB	272109	223770	1.30%	0.599%
20	6.682	1028	1030	1039	rVB2	226950	316348	1.83%	0.847%
21	7.179	1118	1123	1128	rVB	200382	241204	1.40%	0.646%
22	7.777	1228	1235	1241	rBV	102005	176786	1.02%	0.473%
23	8.061	1279	1288	1298	rBV	292041	505470	2.93%	1.354%
24	9.172	1487	1496	1505	rVB	98670	232572	1.35%	0.623%

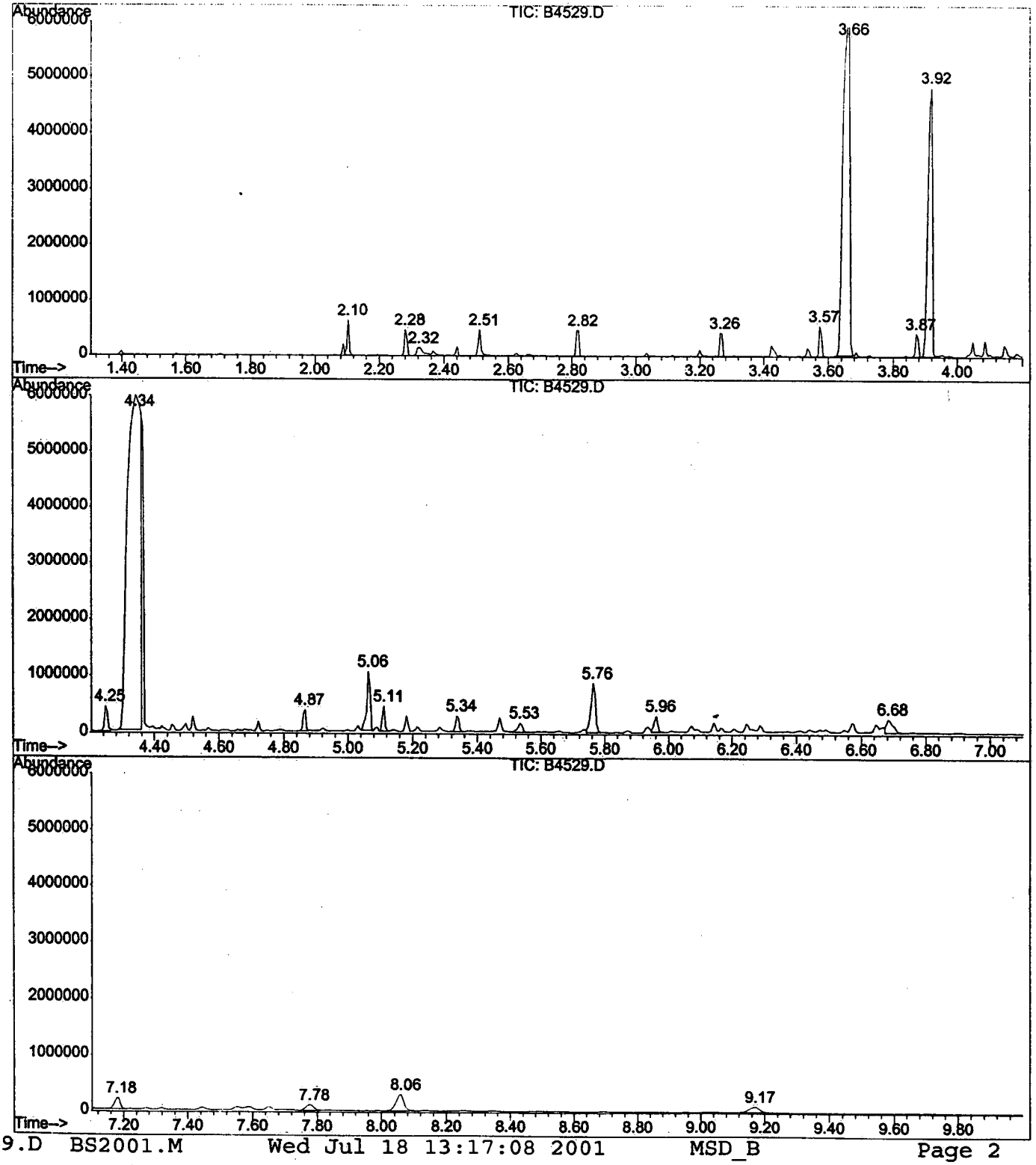
Sum of corrected areas: 37345337

1769

0536

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D
Operator : JC
Acquired : 18 Jul 2001 12:52 using AcqMethod BS2001
Instrument : MSD_B
Sample Name: S-108,4833-018,S,2.49g,14.6,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,1
Vial Number: 18
Quant File :BS2001.RES (RTE Integrator)



1770

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

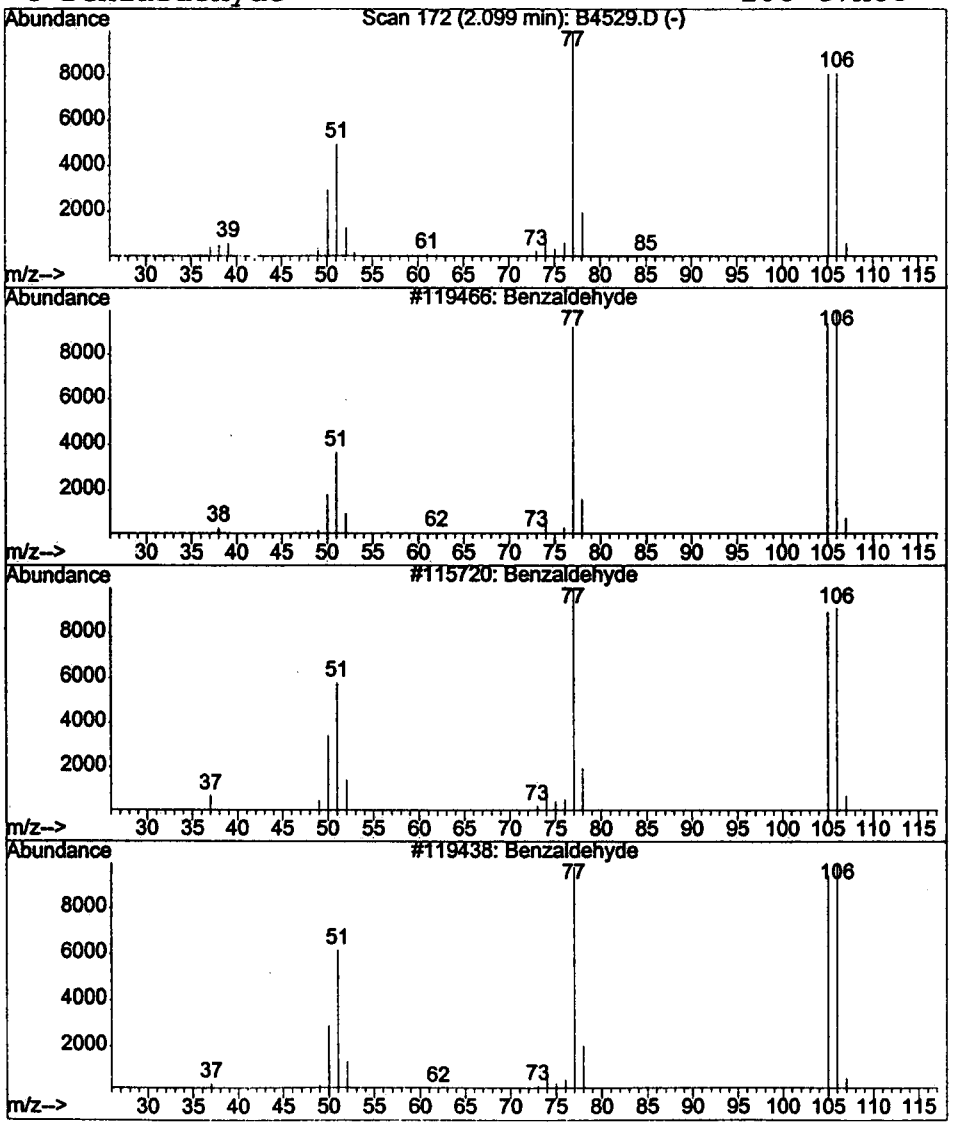
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

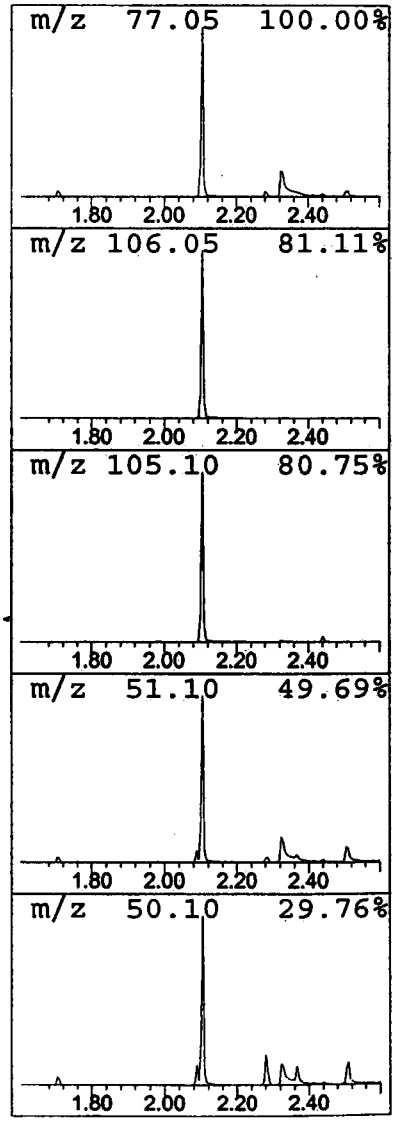
****

Peak Number 1 Benzaldehyde Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.10	38.61 UG	259699	1,4-Dichlorobenzene-d4	2.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzaldehyde	106	C7H6O	000100-52-7	97
2	Benzaldehyde	106	C7H6O	000100-52-7	96
3	Benzaldehyde	106	C7H6O	000100-52-7	96
4	Benzaldehyde	106	C7H6O	000100-52-7	95





1771

0538

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

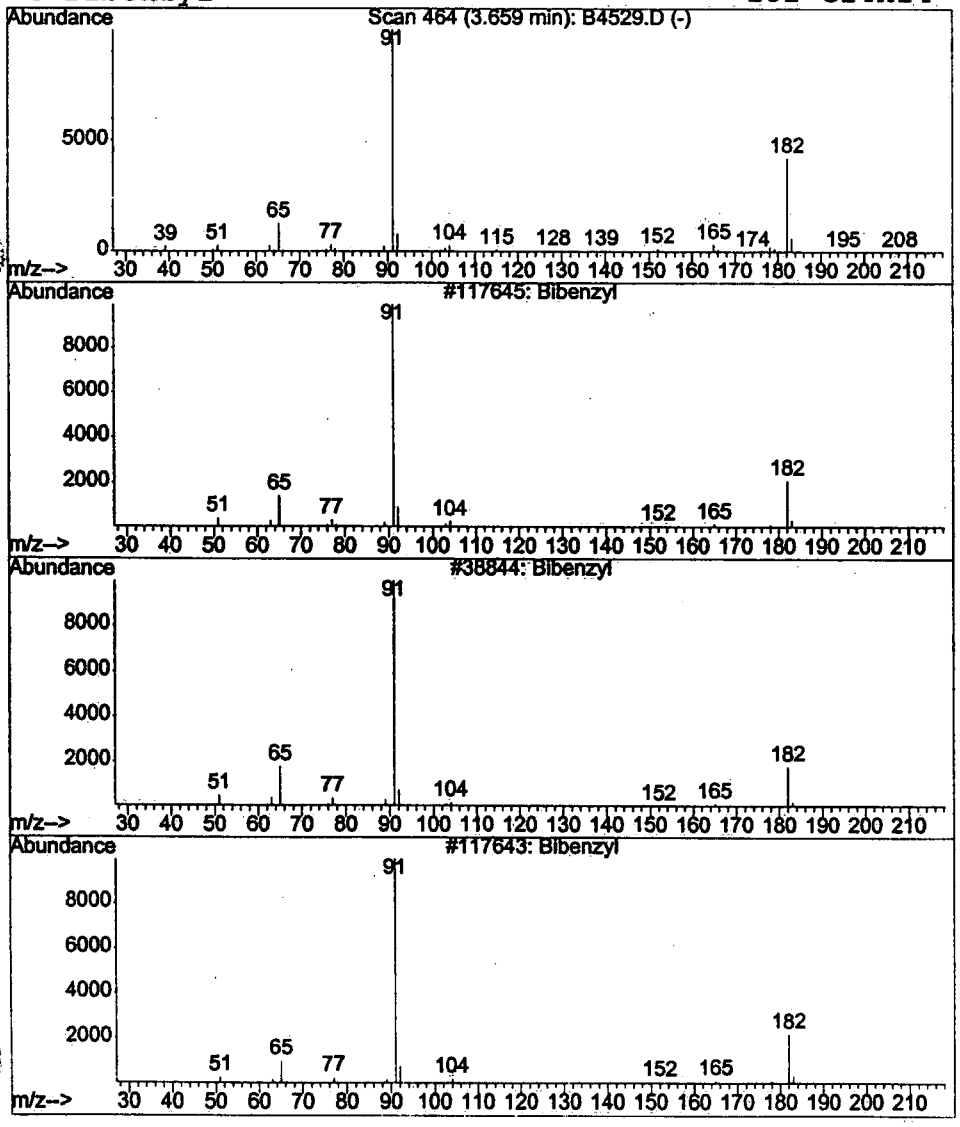
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

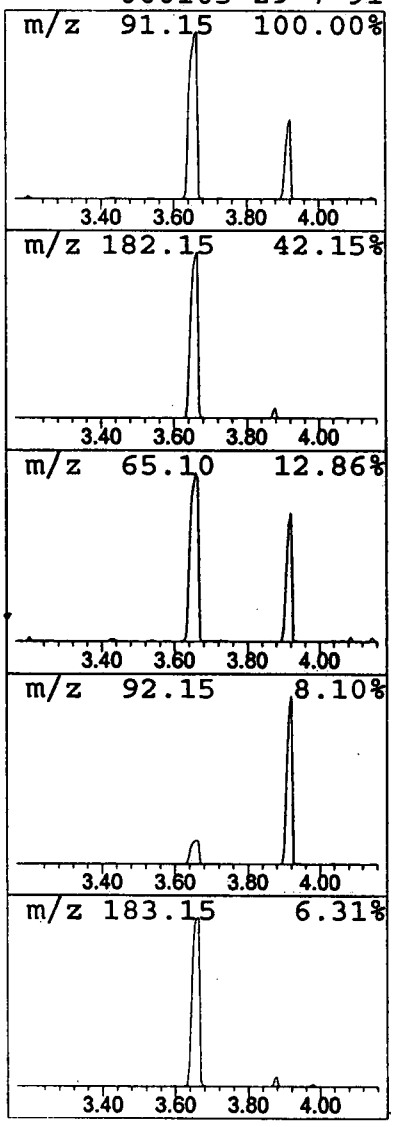
****

Peak Number 2 Bibenzyl Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.66	1097.12 UG	8710350	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bibenzyl	182	C14H14	000103-29-7	94
2	Bibenzyl	182	C14H14	000103-29-7	93
3	Bibenzyl	182	C14H14	000103-29-7	91
4	Bibenzyl	182	C14H14	000103-29-7	91





1777

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

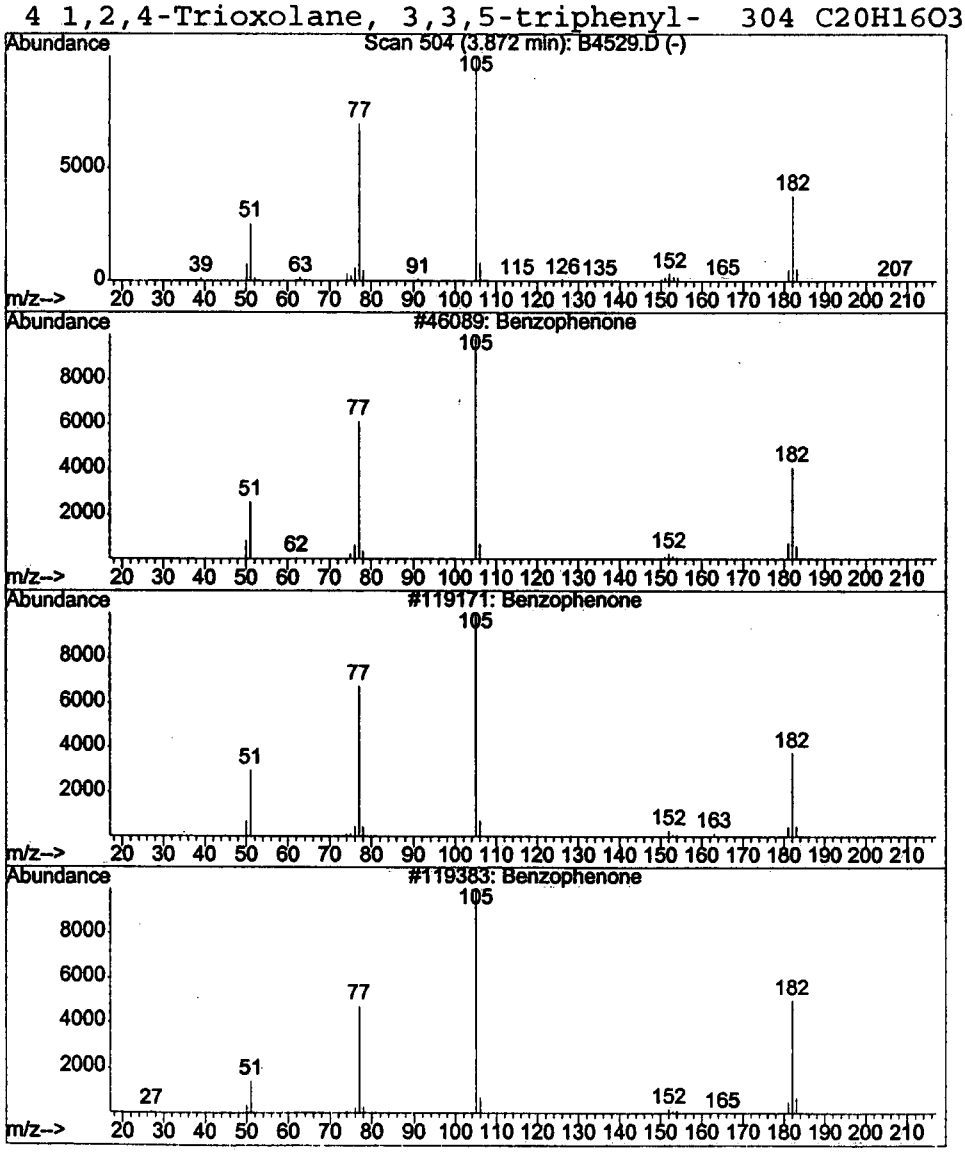
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

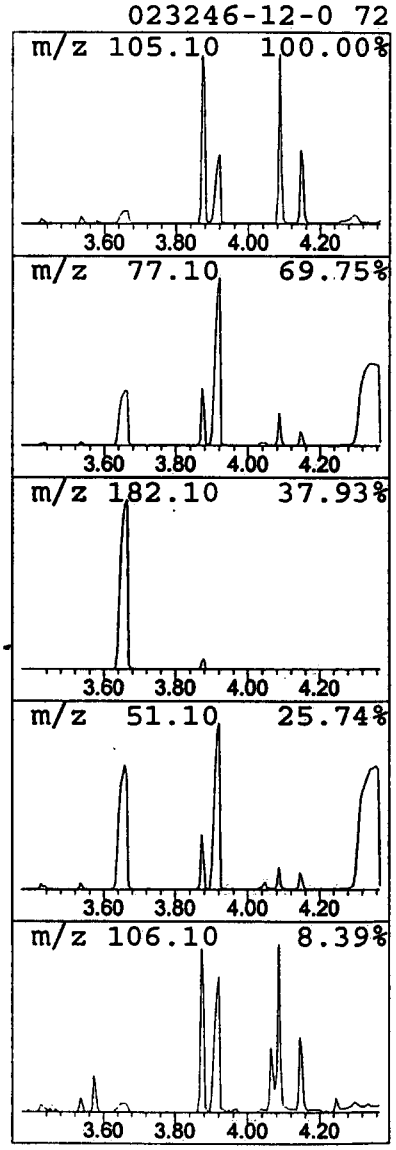
****

Peak Number 3 Benzophenone Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.87	33.58 UG	266634	Acenaphthene-d10	3.57

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzophenone	182	C13H10O	000119-61-9	97
2	Benzophenone	182	C13H10O	000119-61-9	97
3	Benzophenone	182	C13H10O	000119-61-9	91
4	1,2,4-Trioxolane, 3,3,5-triphenyl-	304	C20H16O3	023246-12-0	72





1773

0540

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

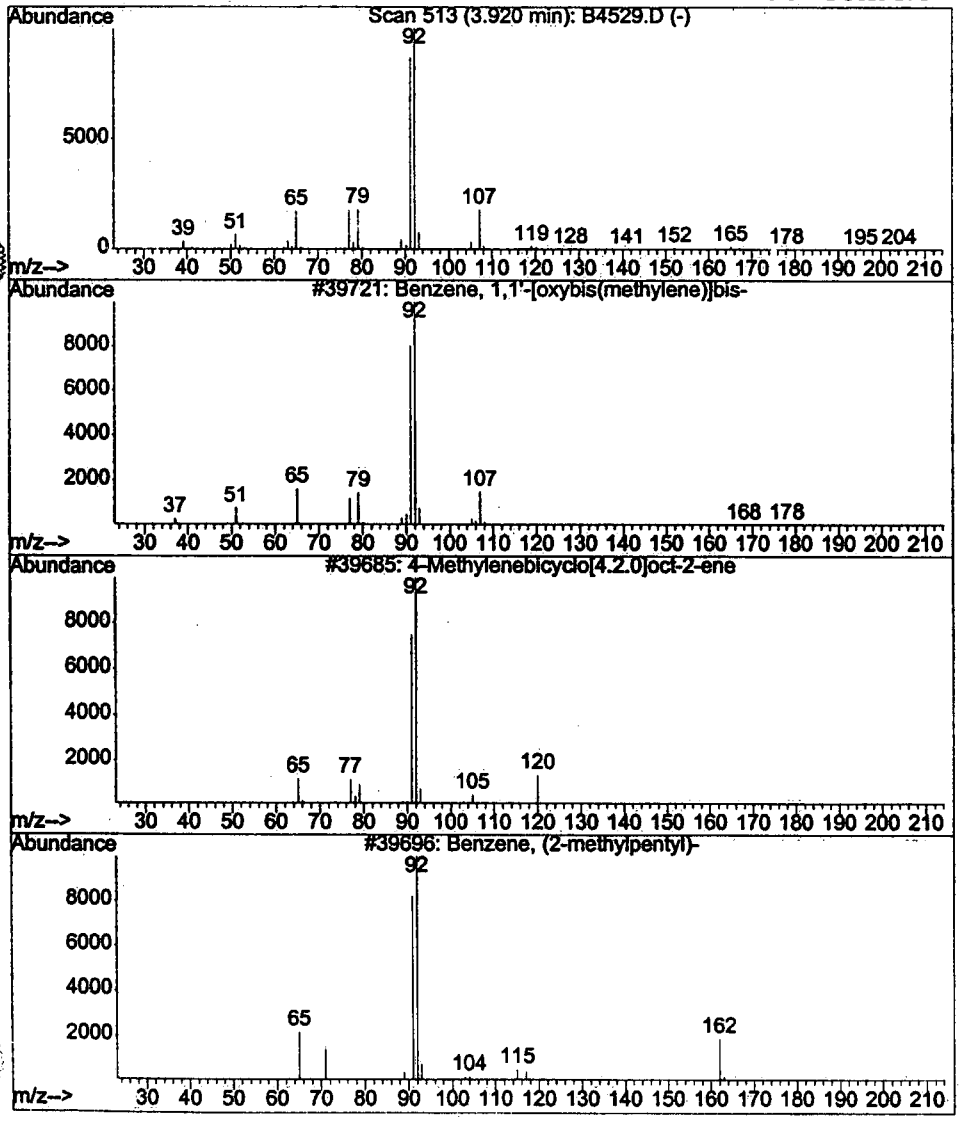
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

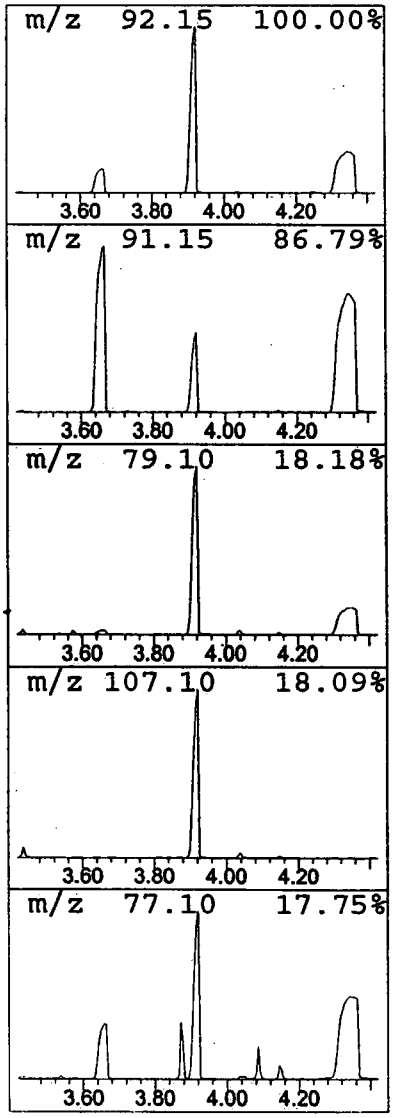
****

Peak Number 4 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.92	634.40 UG	4729450	Phenanthrene-d10	4.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-[oxybis(methylene)...	198	C14H14O	000103-50-4	83
2	4-Methylenebicyclo[4.2.0]oct-2-ene	120	C9H12	1000211-19-9	72
3	Benzene, (2-methylpentyl)-	162	C12H18	039916-61-5	59
4	Benzeneacetamide	135	C8H9NO	000103-81-1	59





1774

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
1S Integration Params: LSCINT.P

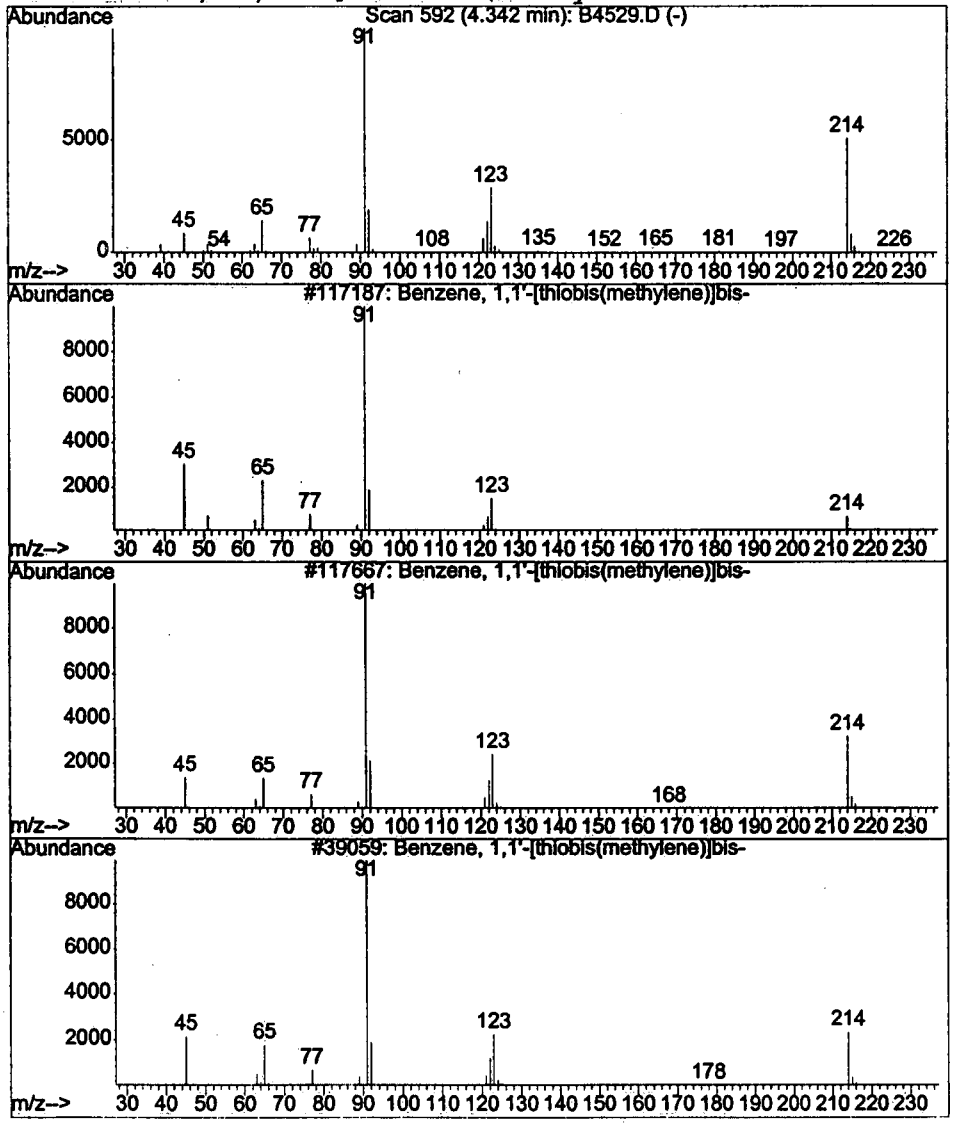
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

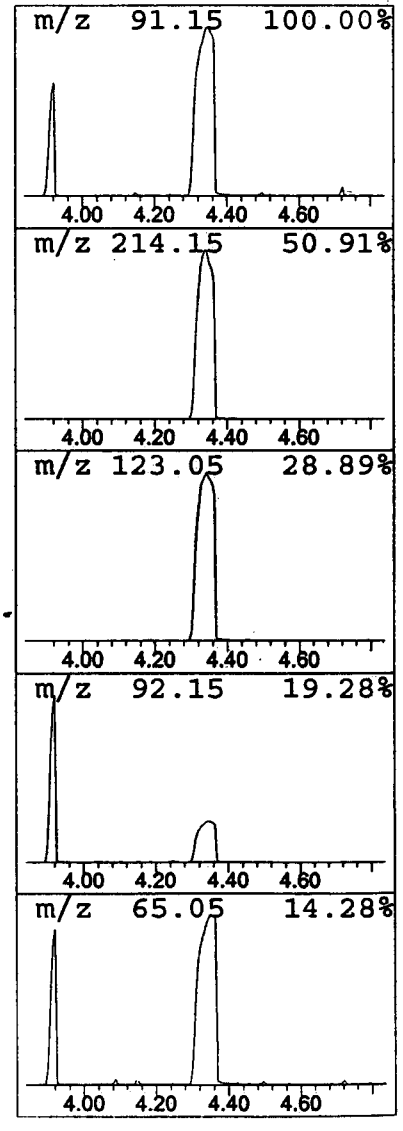
****

Peak Number 5 Benzene, 1,1'-[thiobis(meth... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.34	2313.68 UG	17248400	Phenanthrene-d10	4.25

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-[thiobis(methylene...	214	C14H14S	000538-74-9	97
2	Benzene, 1,1'-[thiobis(methylene...	214	C14H14S	000538-74-9	95
3	Benzene, 1,1'-[thiobis(methylene...	214	C14H14S	000538-74-9	94
4	Benzene, 1,1'-[thiobis(methylene...	214	C14H14S	000538-74-9	91





1775

0542

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

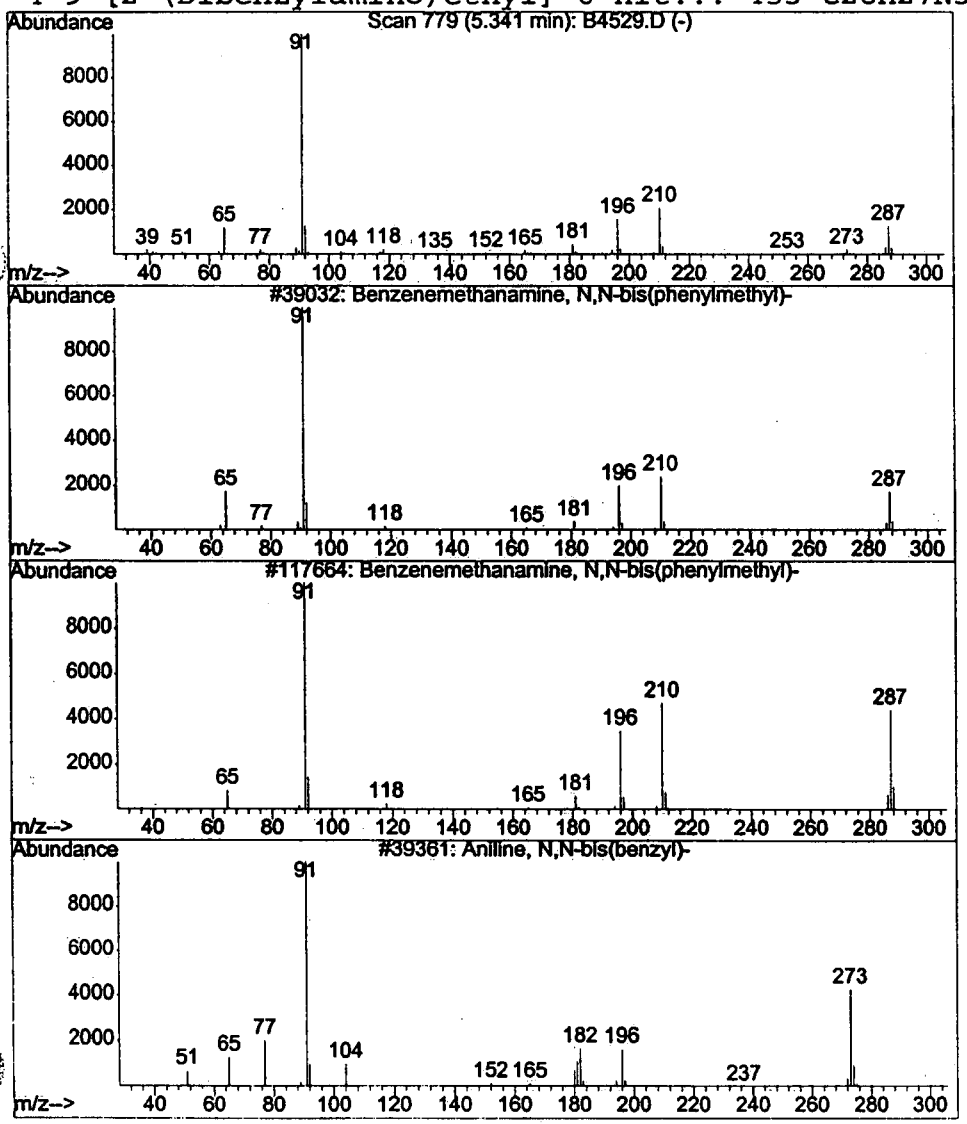
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

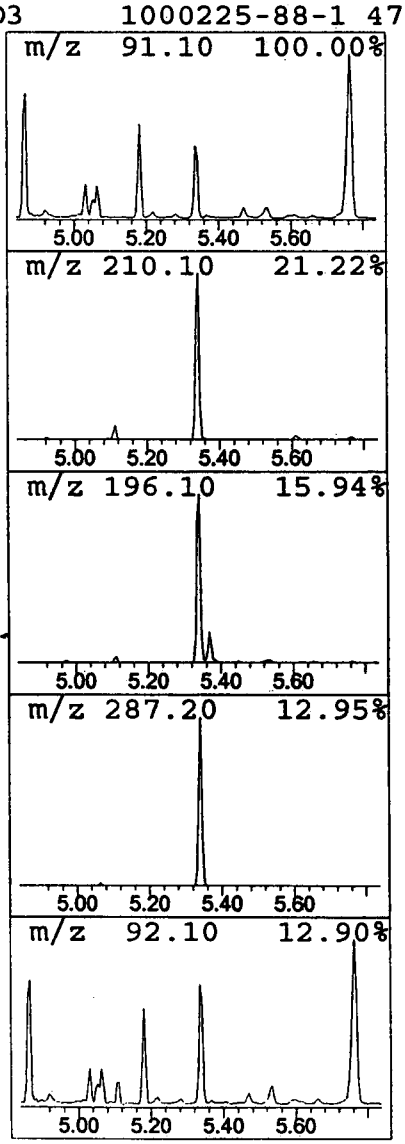
****

Peak Number 6 Benzenemethanamine, N,N-bis... Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	38.13 UG	213282	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzenemethanamine, N,N-bis(phen...	287	C21H21N	000620-40-6	93
2	Benzenemethanamine, N,N-bis(phen...	287	C21H21N	000620-40-6	91
3	Aniline, N,N-bis(benzyl)-	273	C20H19N	1000152-70-9	52
4	9-[2-(Dibenzylamino)ethyl]-6-nit...	453	C28H27N3O3	1000225-88-1	47





1776

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

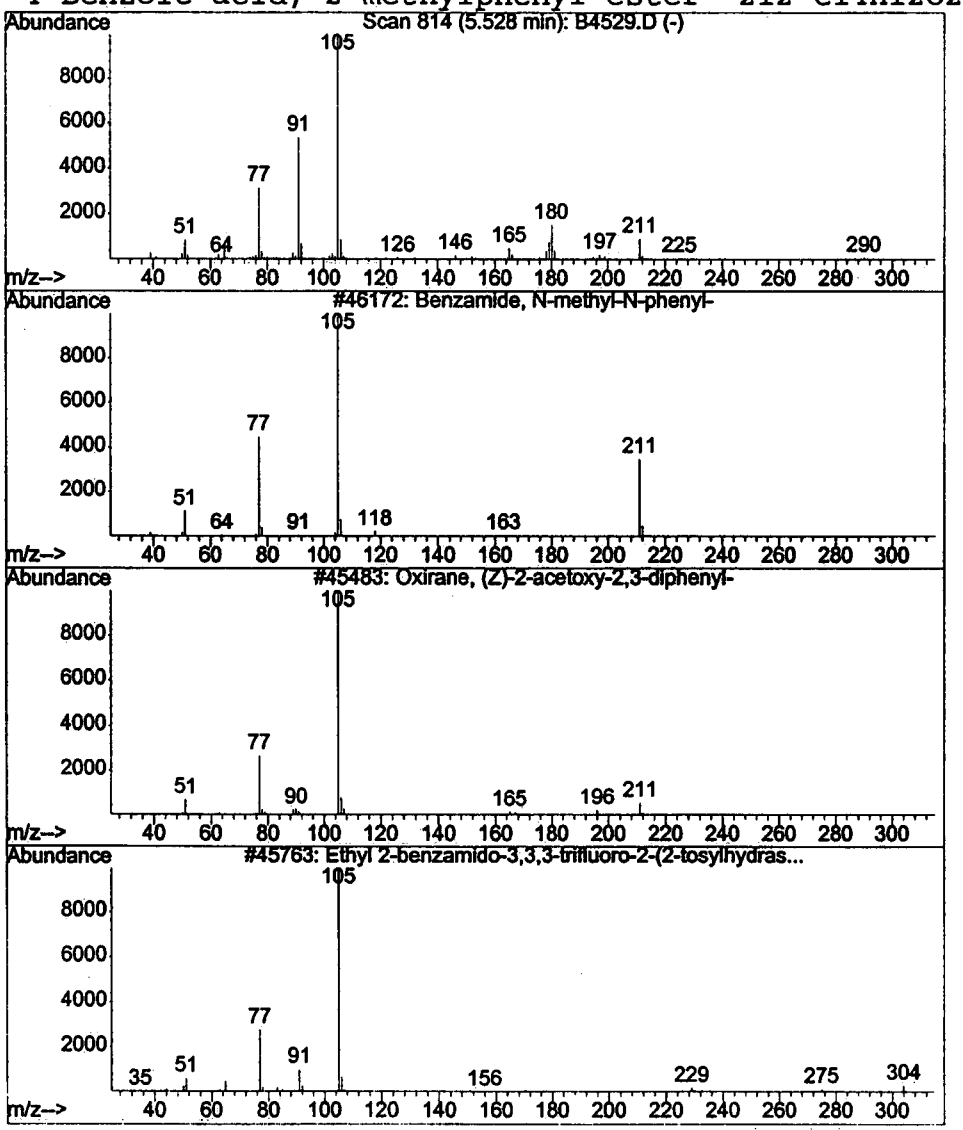
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

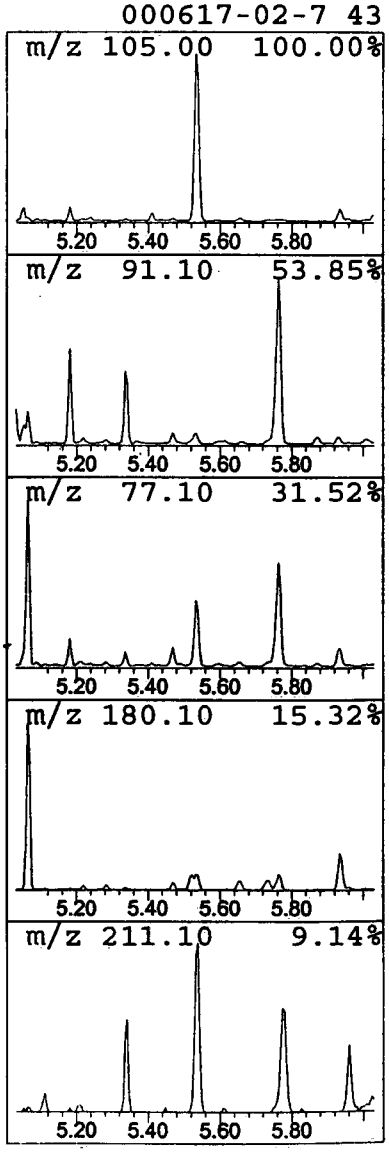
****

Peak Number 7 Substituted benzene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.53	32.21 UG	180164	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N-methyl-N-phenyl-	211	C14H13NO	001934-92-5	53
2	Oxirane, (Z)-2-acetoxy-2,3-diphe...	254	C16H14O3	135455-96-8	53
3	Ethyl 2-benzamido-3,3,3-trifluor...	459	C19H20F3N3O5S	1000224-15-5	47
4	Benzoic acid, 2-methylphenyl ester	212	C14H12O2	000617-02-7	43





1777

0544

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P

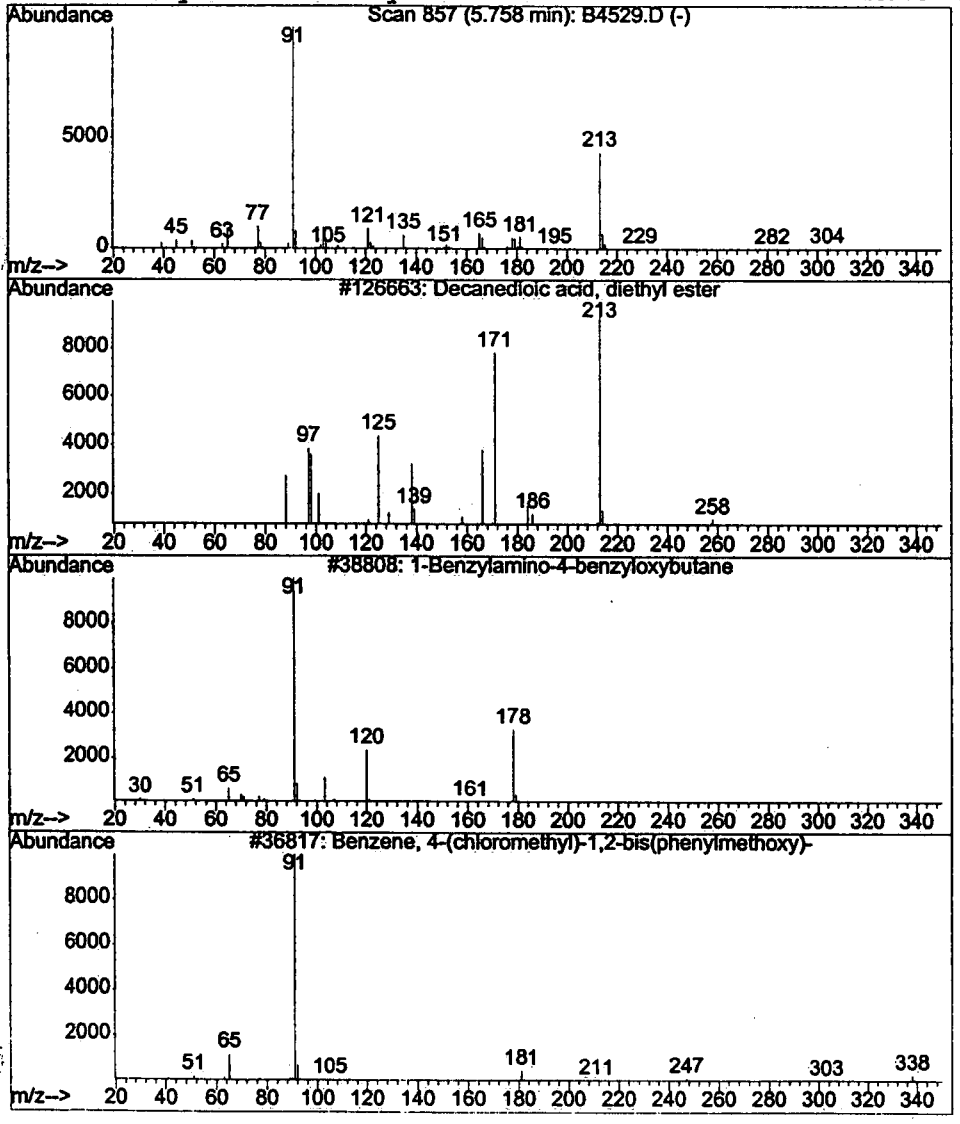
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

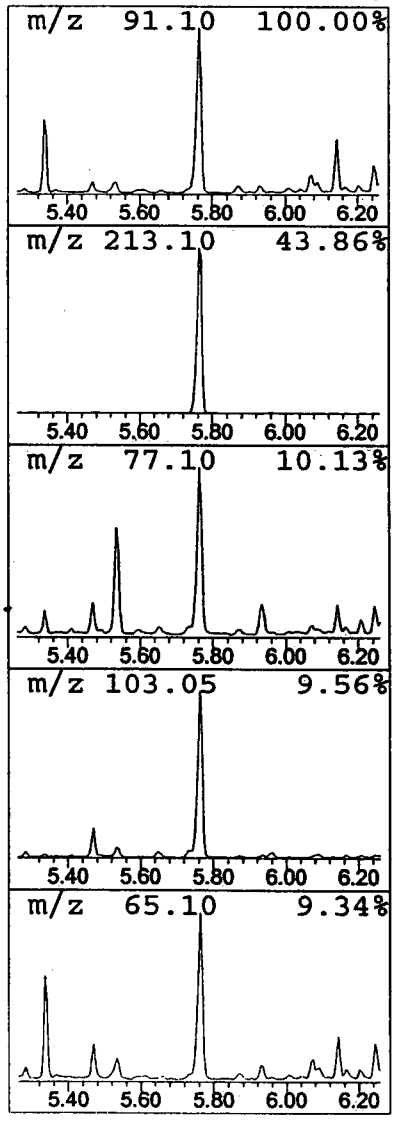
****

Peak Number 8 Substituted benzene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.76	149.82 UG	838124	Chrysene-d12	5.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decanedioic acid, diethyl ester	258	C14H26O4	000110-40-7	32
2	1-Benzylamino-4-benzyloxybutane	269	C18H23NO	1000144-86-6	10
3	Benzene, 4-(chloromethyl)-1,2-bi...	338	C21H19ClO2	001699-59-8	10
4	N-Benzyl-4-methoxyaniline	213	C14H15NO	1000136-79-2	9





1778

PROJECT NOTE **REGION II SITE ASSESSMENT TEAM**

To: Orbis Products File **Date:** 24 April 2003 **Page:** 1 of 1

W.O. No.: 20103.001.001.1061.00

From: Scott Snyder, Region II SAT

Subject: Page Numbering Error

This Project Note is inserted into Reference No. 14 to acknowledge a pagination error occurring from pages 1779 through 1788 in the laboratory data package.

Signature _____

Scott Snyder

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

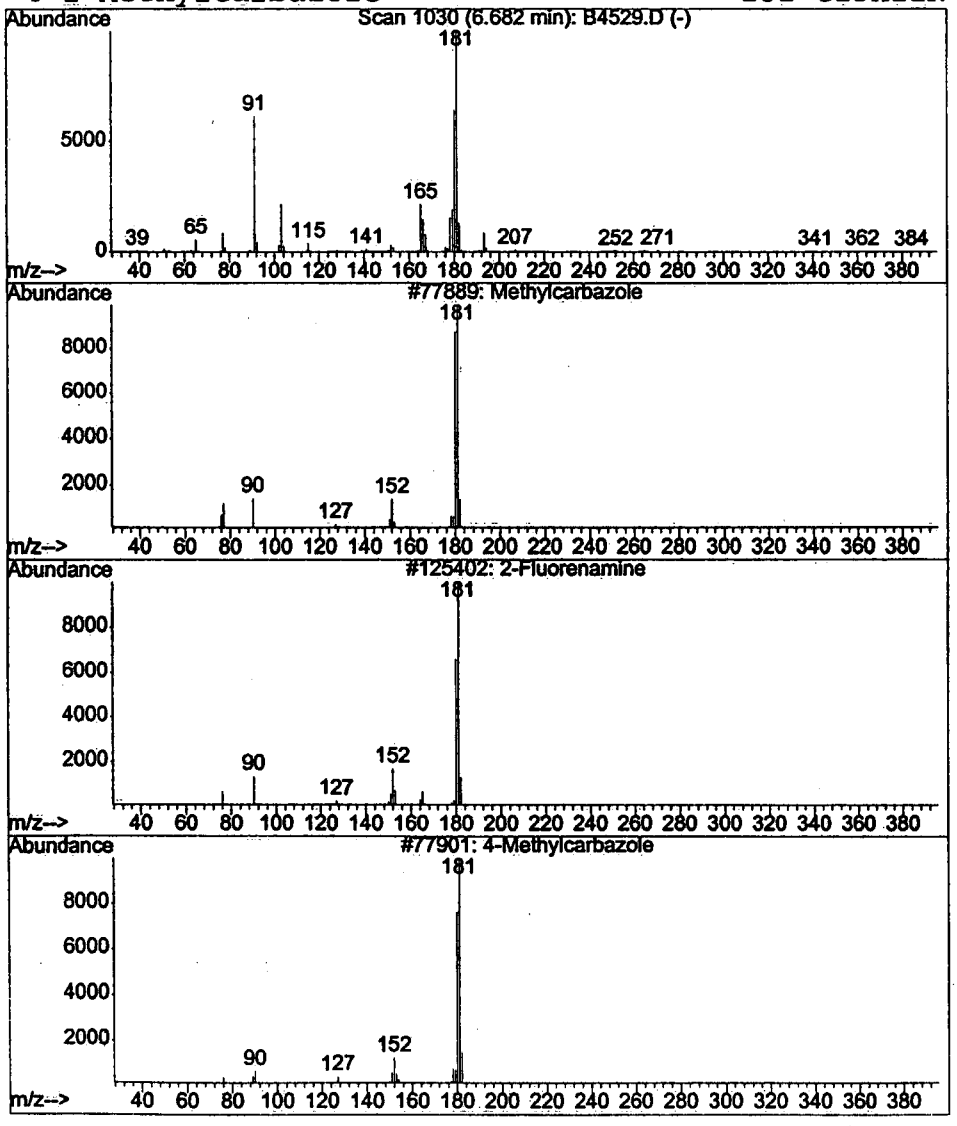
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

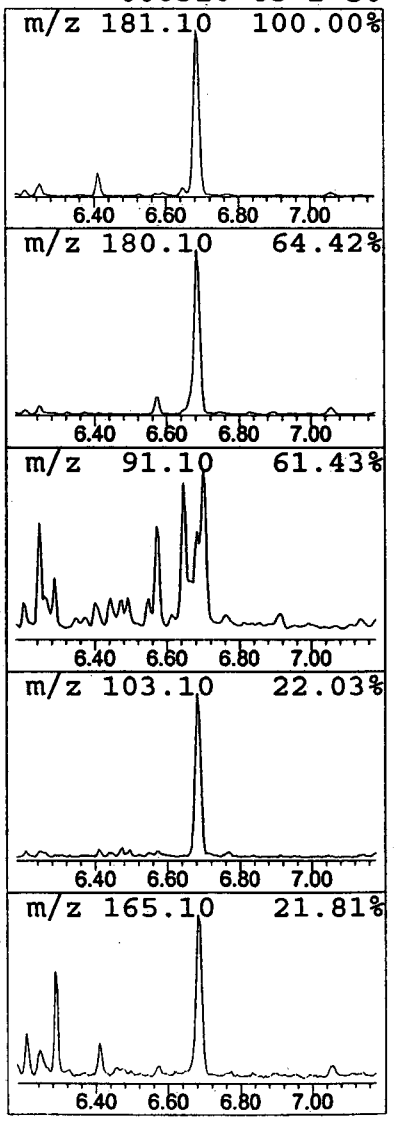
****

Peak Number 9 Unknown aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.68	52.46 UG	316348	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methylcarbazole	181	C13H11N	027323-29-1	52
2	2-Fluorenamine	181	C13H11N	000153-78-6	52
3	4-Methylcarbazole	181	C13H11N	003770-48-7	50
4	1-Methylcarbazole	181	C13H11N	006510-65-2	50





1789

0546

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

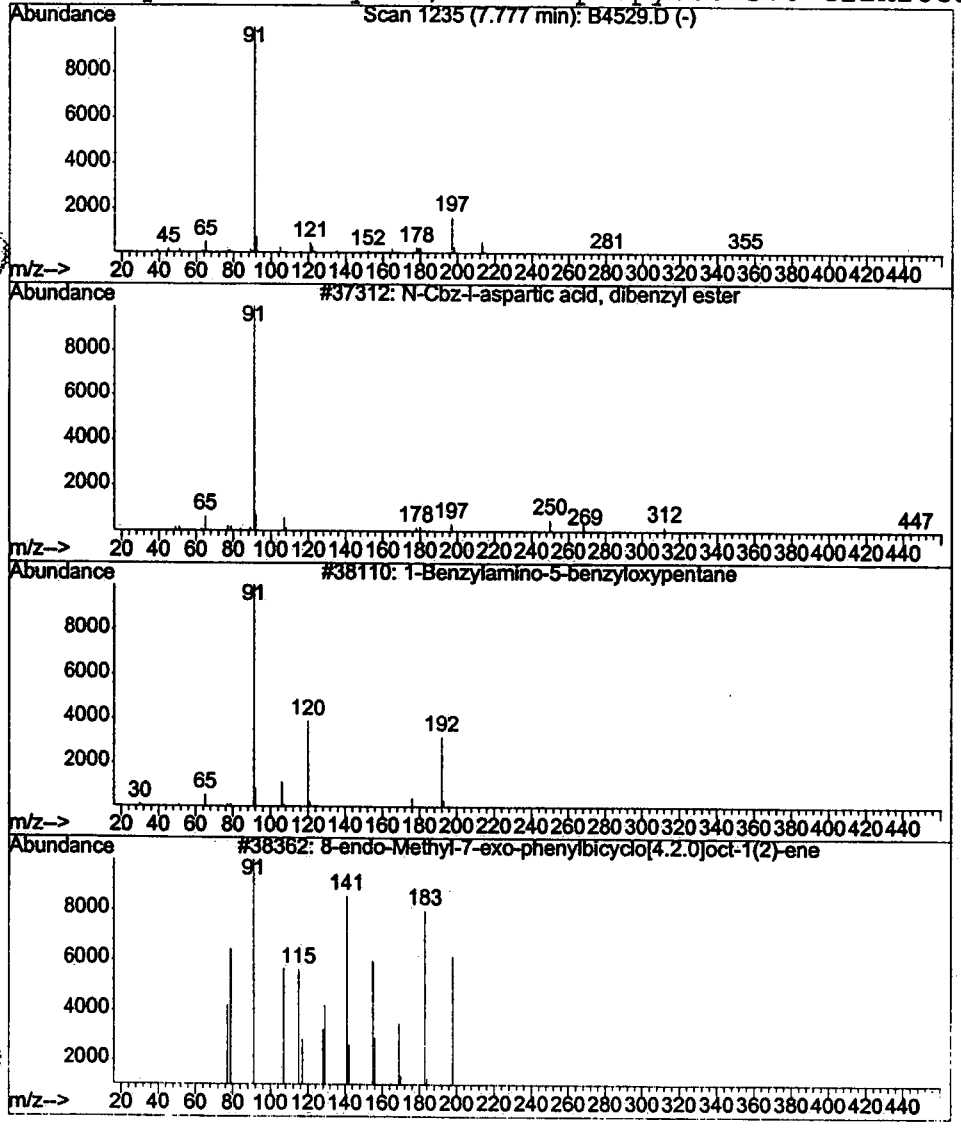
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

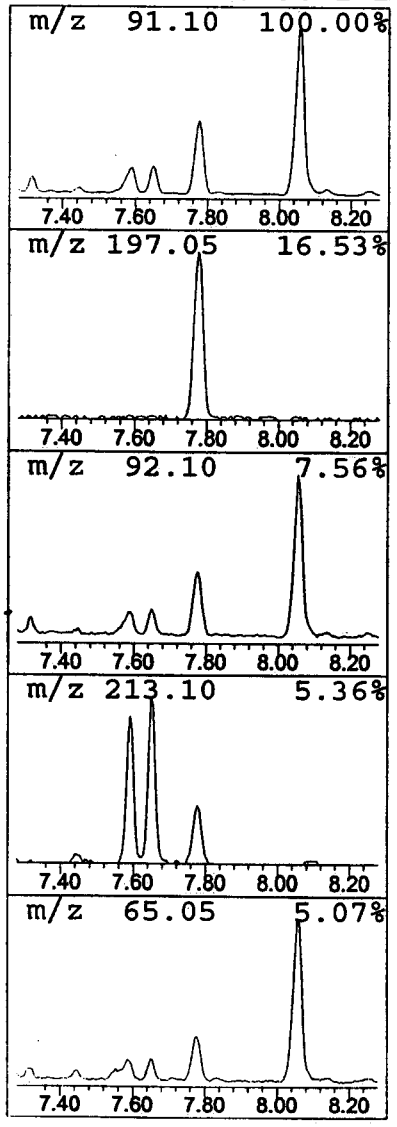
****

Peak Number 10 Substituted benzene Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.78	29.32 UG	176786	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	N-Cbz-l-aspartic acid, dibenzyl ...	447	C26H25NO6	1000132-79-4	35
2	1-Benzylamino-5-benzyloxypentane	283	C19H25NO	1000144-87-7	23
3	8-endo-Methyl-7-exo-phenylbicycl...	198	C15H18	1000200-99-8	22
4	Benzyl 2-O-benzyl-3,4-O-isopropy...	370	C22H26O5	1000129-90-1	17





1790

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

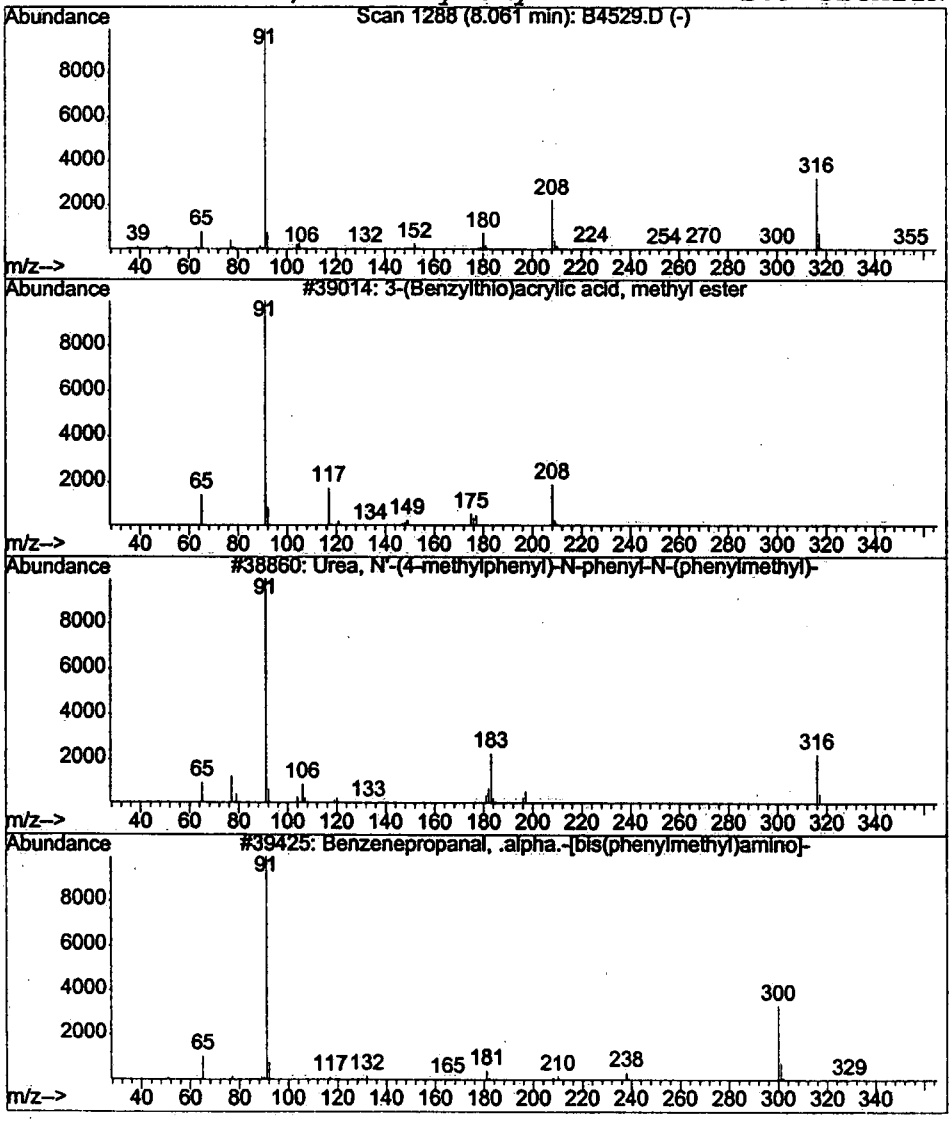
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

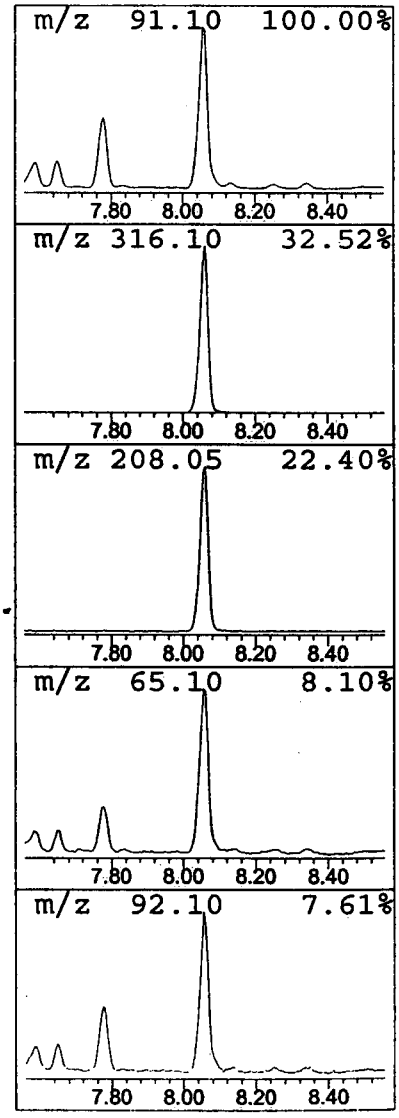
****

Peak Number 11 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.06	83.82 UG	505470	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(Benzylthio)acrylic acid, meth...	208	C11H12O2S	1000192-96-8	47
2	Urea, N'-(4-methylphenyl)-N-phen...	316	C21H20N2O	035113-69-0	38
3	Benzenepropanal, .alpha.-[bis(ph...	329	C23H23NO	136370-73-5	10
4	Benzonitrile, 3-benzyloxy-	209	C14H11NO	061147-43-1	10





1791

0548

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4529.D Vial: 18
Acq On : 18 Jul 2001 12:52 Operator: JC
Sample : S-108,4833-018,S,2.49g,14.6,07/17/01 Inst : MSD_B
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

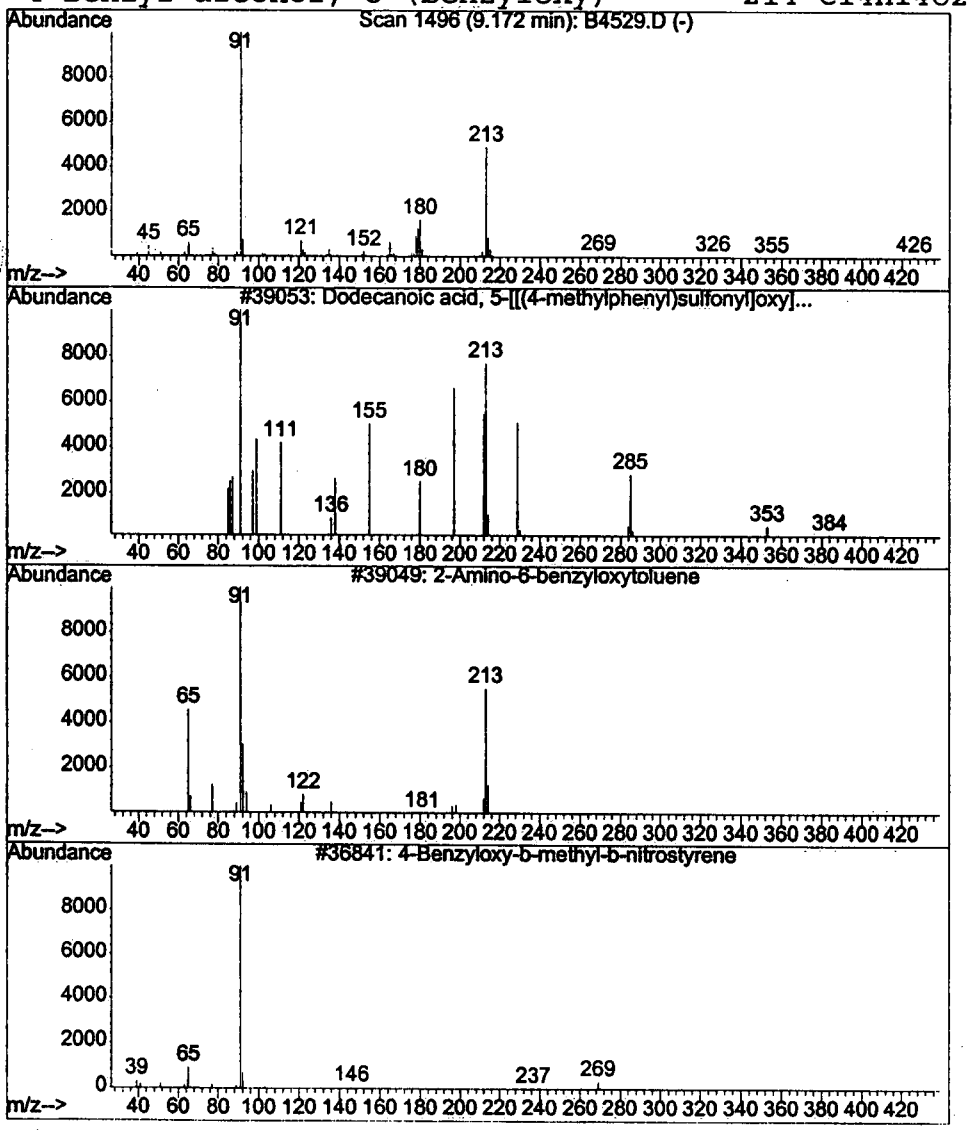
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

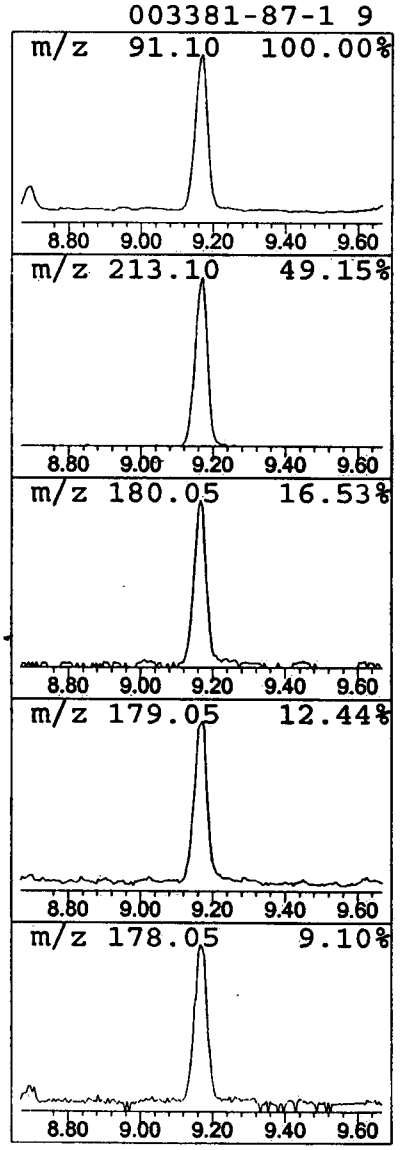
****

Peak Number 12 Substituted benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.17	38.57 UG	232572	Perylene-d12	7.18

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecanoic acid, 5-[[(4-methylph...	384	C20H32O5S	042550-38-9	43
2	2-Amino-6-benzyloxytoluene	213	C14H15NO	065361-82-2	28
3	4-Benzyloxy-b-methyl-b-nitrostyrene	269	C16H15NO3	007176-38-7	10
4	Benzyl alcohol, o-(benzyloxy)-	214	C14H14O2	003381-87-1	9





1792

Tentatively Identified Compound (LSC) summary

Operator ID: JC Date Acquired: 18 Jul 2001 12:52
Data File: C:\MSDCHEM\1\DATA\07-18-01\B4529.D
Name: S-108,4833-018,S,2.49g,14.6,07/17/01
Misc: ENVTACT/ORBIS,07/12/01,07/16/01,1
Method: C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title: BNA CALIBRATION METHOD
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name		RT	EstConc	Units	Response	#	RT	Resp	Conc
Benzaldehyde						2.10	38.6	000100-52-7	
259699	1	2.28	269056	40.0					
Bibenzyl						3.66	1097.1	000103-29-7	
8710350	3	3.57	317571	40.0					
Benzophenone						3.87	33.6	000119-61-9	
266634	3	3.57	317571	40.0					
Substituted benzene						3.92	634.4		
4729450	4	4.25	298198	40.0					
Benzene, 1,1'-[thiobis(methylene)]						4.34	2313.7	000538-74-9	
17248400	4	4.25	298198	40.0					
Benzenemethanamine, N,N-bis(phenyl						5.34	38.1	000620-40-6	
213282	5	5.96	223770	40.0					
Substituted benzene						5.53	32.2		
180164	5	5.96	223770	40.0					
Substituted benzene						5.76	149.8		
838124	5	5.96	223770	40.0					
Unknown aromatic						6.68	52.5		
316348	6	7.18	241204	40.0					
bstituted benzene						7.78	29.3		
176786	6	7.18	241204	40.0					
Substituted benzene						8.06	83.8		
505470	6	7.18	241204	40.0					
Substituted benzene						9.17	38.6		
232572	6	7.18	241204	40.0					

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4515.D Vial: 4
Acq On : 18 Jul 2001 9:09 Operator: JC
Sample : .,Method-Blank,S,30.0g,0.0,07/17/01 Inst : MSD_B
Misc : N/A,N/A,N/A,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 18 09:20:03 2001 Quant Results File: BS2001.RES

Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration
DataAcq Meth : BS2001

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.28	152	41564	40.00	UG	0.00
22) Naphthalene-d8	2.81	136	160911	40.00	UG	0.00
39) Acenaphthene-d10	3.57	164	93186	40.00	UG	0.00
60) Phenanthrene-d10	4.22	188	138535	40.00	UG	0.01
75) Chrysene-d12	5.93	240	86904	40.00	UG	0.00
84) Perylene-d12	7.16	264	80467	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	1.78	112	101929	75.54	UG	0.00
Spiked Amount 100.000	Range 28 - 100		Recovery = 75.54%			
6) Phenol-d5	2.11	99	146990	91.98	UG	0.00
Spiked Amount 100.000	Range 28 - 102		Recovery = 91.98%			
23) Nitrobenzene-d5	2.51	82	55141	36.38	UG	0.00
Spiked Amount 50.000	Range 35 - 101		Recovery = 72.76%			
43) 2-Fluorobiphenyl	3.26	172	114567	37.10	UG	0.00
Spiked Amount 50.000	Range 37 - 103		Recovery = 74.20%			
64) 2,4,6-Tribromophenol	3.91	330	39095	75.82	UG	0.00
Spiked Amount 100.000	Range 44 - 121		Recovery = 75.82%			
77) Terphenyl-d14	5.08	244	128621	51.73	UG	0.01
Spiked Amount 50.000	Range 40 - 120		Recovery = 103.46%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
B4515.D BS2001.M Wed Jul 18 09:43:45 2001 MSD_B Page 1

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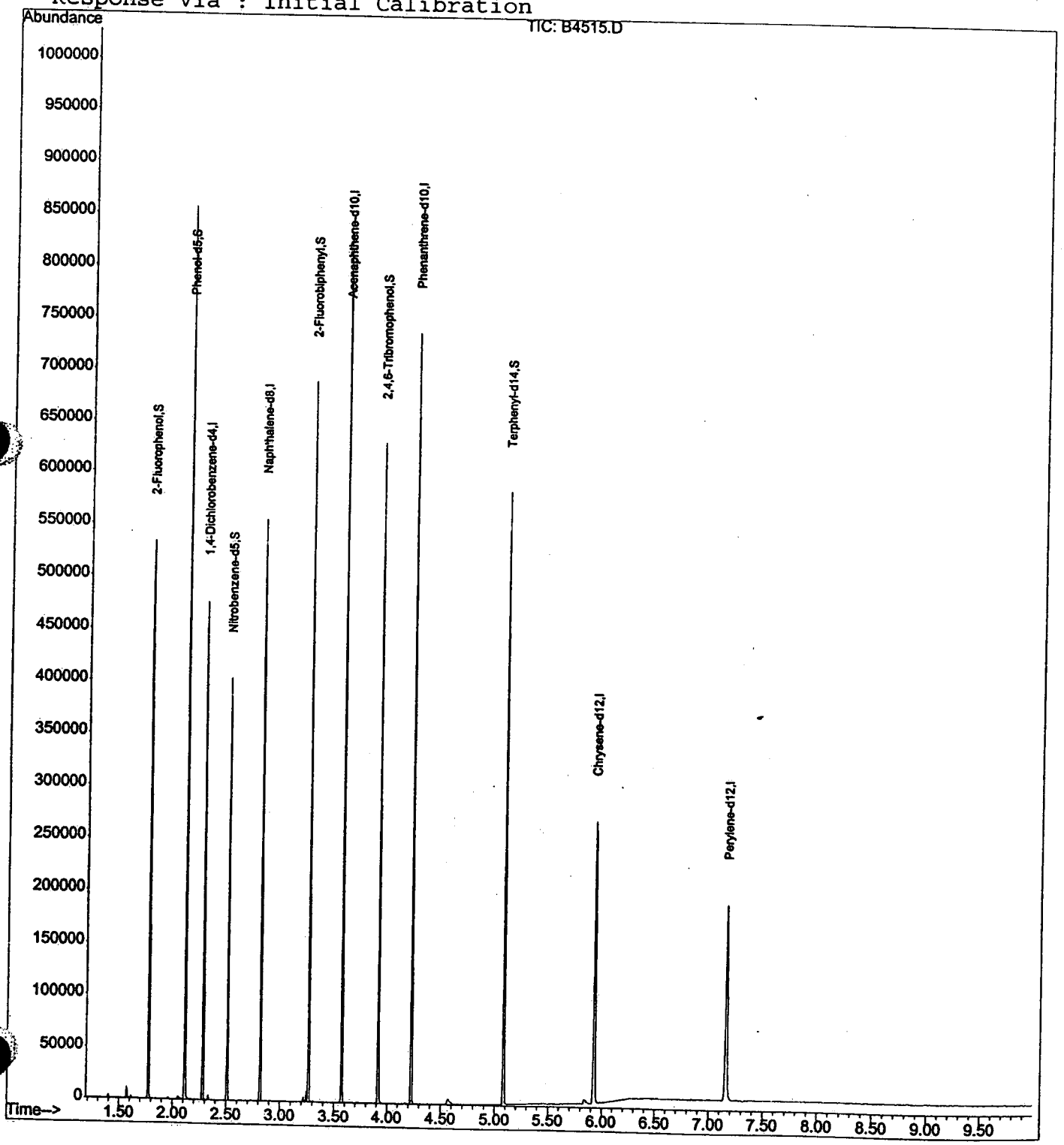
Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4515.D
Acq On : 18 Jul 2001 9:09
Sample : .,Method-Blank,S,30.0g,0.0,07/17/01
Misc : N/A,N/A,N/A,1
MS Integration Params: rteint.p
Quant Time: Jul 18 9:40 2001

Vial: 4
Operator: JC
Inst : MSD_B
Multiplr: 1.00

Quant Results File: BS2001.RES

Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Last Update : Wed Jul 18 08:29:02 2001
Response via : Initial Calibration



1795

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\07-18-01\B4515.D
Acq On : 18 Jul 2001 9:09
Sample : .,Method-Blank,S,30.0g,0.0,07/17/01
Misc : N/A,N/A,N/A,1
IS Integration Params: LSCINT.P
Quant Method : C:\MSDCHEM\1\METHODS\BS2001.M (RTE Integrator)
Title : BNA CALIBRATION METHOD
Library : C:\DATABASE\NIST98.L

Vial: 4
Operator: JC
Inst : MSD_B
Multiplr: 1.00

No Library Search Compounds Detected

****

B4515.D BS2001.M Wed Jul 18 09:46:14 2001 MSD_B

PCB METHOD BLANK SUMMARY

Lab File ID: R5375.D

Instrument ID: GC-R

Date Extracted: 07/17/2001

Matrix: SOIL

Date Analyzed: 07/17/2001

Time Analyzed: 13:05

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-101	4833-010	07/17/2001	13:32
S-102	4833-011	07/17/2001	13:58
S-103A	4833-012	07/17/2001	14:24
S-103B	4833-013	07/17/2001	14:51
S-104	4833-014	07/17/2001	15:17
S-106	4833-016	07/17/2001	16:09
D-GP-32	4697-004	07/17/2001	17:55
D-GP-35	4697-007	07/17/2001	18:21
CON_#1	4863-001	07/17/2001	19:13
PCB	4697-007-MS1	07/17/2001	19:39
PCB	4697-007-MSD1	07/17/2001	20:06
PCB	PBS0717-MS1	07/17/2001	20:32
KEESHON_#1	4811-001	07/18/2001	09:15
S-105	4833-015	07/18/2001	09:42
S-107	4833-017	07/18/2001	10:08
S-108	4833-018	07/18/2001	10:34
IEWCO_101	4832-001	07/18/2001	11:01

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Client/Project: NA

Lab ID: 0717-BLK1
Client ID: (4697..4863)
Date Received: NA
Date Extracted: 07/17/2001
Date Analyzed: 07/17/2001
Data file: R5375.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Aroclor-1016	ND		0.668
Aroclor-1221	ND		0.668
Aroclor-1232	ND		0.668
Aroclor-1242	ND		0.668
Aroclor-1248	ND		0.668
Aroclor-1254	ND		0.668
Aroclor-1260	ND		0.668

1798

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (1st): DB-5

Data File: R5197.D R5198.D R5199.D R5200.D R5201.D

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	50	100	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.68	4.68	4.68	4.68	4.67	4.68	4.61	4.75
Aroclor-1016 {2}	6.06	6.06	6.06	6.06	6.06	6.06	5.99	6.13
Aroclor-1016 {3}	7.01	7.01	7.01	7.01	7.01	7.01	6.94	7.08
Aroclor-1016 {4}	7.82	7.82	7.82	7.82	7.82	7.82	7.75	7.89
Aroclor-1016 {5}	8.26	8.27	8.27	8.27	8.27	8.27	8.20	8.34
Aroclor-1221			2.96				2.89	3.03
Aroclor-1221 {2}			4.35				4.28	4.42
Aroclor-1221 {3}			4.56				4.49	4.63
Aroclor-1221 {4}			4.68				4.61	4.75
Aroclor-1221 {5}			5.66				5.59	5.73
Aroclor-1232			4.68				4.61	4.75
Aroclor-1232 {2}			6.06				5.99	6.13
Aroclor-1232 {3}			7.01				6.94	7.08
Aroclor-1232 {4}			7.82				7.75	7.89
Aroclor-1232 {5}			8.61				8.54	8.68
Aroclor-1242			6.06				5.99	6.13
Aroclor-1242 {2}			7.82				7.75	7.89
Aroclor-1242 {3}			8.36				8.29	8.43
Aroclor-1242 {4}			9.52				9.45	9.59
Aroclor-1242 {5}			10.01				9.94	10.08
Aroclor-1248			6.76				6.69	6.83
Aroclor-1248 {2}			7.82				7.75	7.89
Aroclor-1248 {3}			8.36				8.29	8.43
Aroclor-1248 {4}			9.52				9.45	9.59
Aroclor-1248 {5}			10.01				9.94	10.08
Aroclor-1254			10.25				10.18	10.32
Aroclor-1254 {2}			11.05				10.98	11.12
Aroclor-1254 {3}			11.35				11.28	11.42
Aroclor-1254 {4}			12.17				12.10	12.24
Aroclor-1254 {5}			12.92				12.85	12.99
Aroclor-1260	13.75	13.75	13.75	13.75	13.75	13.75	13.68	13.82
Aroclor-1260 {2}	14.31	14.31	14.31	14.31	14.31	14.31	14.24	14.38
Aroclor-1260 {3}	15.93	15.93	15.93	15.93	15.93	15.93	15.86	16.00
Aroclor-1260 {4}	16.83	16.83	16.83	16.83	16.83	16.83	16.76	16.90
Aroclor-1260 {5}	18.86	18.86	18.86	18.86	18.86	18.86	18.79	18.93

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001 **Instrument ID:** GC-R
GC Column (1st): DB-5

Data File: R5197.D R5198.D R5199.D R5200.D R5201.D

Compound	CALIBRATION FACTORS 50	100	500	1000	2000	MEAN	%RSD
Aroclor-1016	157129	165787	135760	139568	138793	147407	9.00
Aroclor-1016 {2}	229225	231291	186361	189047	189270	205039	11.25
Aroclor-1016 {3}	295641	308194	242923	246453	247445	268131	11.64
Aroclor-1016 {4}	146011	155266	127982	127425	126328	136603	9.69
Aroclor-1016 {5}	203109	211449	170735	170613	171528	185487	10.84
Aroclor-1221			66196				
Aroclor-1221 {2}			89780				
Aroclor-1221 {3}			76813				
Aroclor-1221 {4}			218846				
Aroclor-1221 {5}			52667				
Aroclor-1232			137694				
Aroclor-1232 {2}			81509				
Aroclor-1232 {3}			107454				
Aroclor-1232 {4}			57792				
Aroclor-1232 {5}			102743				
Aroclor-1242			154600				
Aroclor-1242 {2}			104103				
Aroclor-1242 {3}			125094				
Aroclor-1242 {4}			210651				
Aroclor-1242 {5}			191104				
Aroclor-1248			394345				
Aroclor-1248 {2}			148087				
Aroclor-1248 {3}			128713				
Aroclor-1248 {4}			352517				
Aroclor-1248 {5}			315099				
Aroclor-1254			343750				
Aroclor-1254 {2}			273096				
Aroclor-1254 {3}			499914				
Aroclor-1254 {4}			558957				
Aroclor-1254 {5}			253679				
Aroclor-1260	626164	663237	549190	561695	564383	592934	8.33
Aroclor-1260 {2}	383619	406539	317159	308733	311036	345417	13.36
Aroclor-1260 {3}	877964	886482	699670	688136	677231	765896	13.91
Aroclor-1260 {4}	415950	440833	380226	369101	358505	392923	8.76
Aroclor-1260 {5}	192138	186567	172911	164030	161054	175340	7.79
					Average %RSD		10.46

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R5197.C R5198.C R5199.C R5200.C R5201.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	50	100	500	1000	2000	RT	FROM	TO
Aroclor-1016	4.94	4.94	4.94	4.94	4.94	4.94	4.87	5.01
Aroclor-1016 {2}	5.90	5.90	5.90	5.90	5.90	5.90	5.83	5.97
Aroclor-1016 {3}	7.07	7.07	7.07	7.07	7.07	7.07	7.00	7.14
Aroclor-1016 {4}	7.45	7.45	7.45	7.45	7.45	7.45	7.38	7.52
Aroclor-1016 {5}	7.73	7.73	7.73	7.73	7.73	7.73	7.66	7.80
Aroclor-1221			3.09				3.02	3.16
Aroclor-1221 {2}			4.48				4.41	4.55
Aroclor-1221 {3}			4.82				4.75	4.89
Aroclor-1221 {4}			4.94				4.87	5.01
Aroclor-1221 {5}			6.17				6.10	6.24
Aroclor-1232			4.94				4.87	5.01
Aroclor-1232 {2}			6.52				6.45	6.59
Aroclor-1232 {3}			7.45				7.38	7.52
Aroclor-1232 {4}			7.73				7.66	7.80
Aroclor-1232 {5}			8.79				8.72	8.86
Aroclor-1242			6.40				6.33	6.47
Aroclor-1242 {2}			7.73				7.66	7.80
Aroclor-1242 {3}			8.80				8.73	8.87
Aroclor-1242 {4}			10.02				9.95	10.09
Aroclor-1242 {5}			10.72				10.65	10.79
Aroclor-1248			7.07				7.00	7.14
Aroclor-1248 {2}			8.11				8.04	8.18
Aroclor-1248 {3}			8.79				8.72	8.86
Aroclor-1248 {4}			9.08				9.01	9.15
Aroclor-1248 {5}			9.66				9.59	9.73
Aroclor-1254			10.67				10.60	10.74
Aroclor-1254 {2}			11.70				11.63	11.77
Aroclor-1254 {3}			12.74				12.67	12.81
Aroclor-1254 {4}			13.24				13.17	13.31
Aroclor-1254 {5}			14.32				14.25	14.39
Aroclor-1260	13.24	13.24	13.24	13.24	13.24	13.24	13.17	13.31
Aroclor-1260 {2}	14.31	14.31	14.31	14.31	14.31	14.31	14.24	14.38
Aroclor-1260 {3}	15.52	15.52	15.52	15.52	15.52	15.52	15.45	15.59
Aroclor-1260 {4}	16.43	16.43	16.43	16.43	16.43	16.43	16.36	16.50
Aroclor-1260 {5}	19.52	19.52	19.52	19.52	19.52	19.52	19.45	19.59

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/11/2001

Instrument ID: GC-R

GC Column (2nd): DB-1701P

Data File: R5197.C R5198.C R5199.C R5200.C R5201.C

Compound	CALIBRATION FACTORS 50	100	500	1000	2000	MEAN	%RSD
Aroclor-1016	271044	269745	210013	209480	214129	234882	13.82
Aroclor-1016 {2}	558676	564799	422585	417987	421439	477097	16.21
Aroclor-1016 {3}	1154208	1177375	919848	933024	956662	1028223	12.31
Aroclor-1016 {4}	513583	524776	414282	398538	405130	451262	13.82
Aroclor-1016 {5}	306490	328208	257657	254755	252326	279887	12.54
Aroclor-1221			107640				
Aroclor-1221 {2}			141236				
Aroclor-1221 {3}			97046				
Aroclor-1221 {4}			337547				
Aroclor-1221 {5}			53865				
Aroclor-1232			214004				
Aroclor-1232 {2}			88390				
Aroclor-1232 {3}			178457				
Aroclor-1232 {4}			110044				
Aroclor-1232 {5}			202623				
Aroclor-1242			118039				
Aroclor-1242 {2}			271804				
Aroclor-1242 {3}			356286				
Aroclor-1242 {4}			330724				
Aroclor-1242 {5}			189603				
Aroclor-1248			609026				
Aroclor-1248 {2}			467826				
Aroclor-1248 {3}			490939				
Aroclor-1248 {4}			475108				
Aroclor-1248 {5}			294481				
Aroclor-1254			233907				
Aroclor-1254 {2}			178527				
Aroclor-1254 {3}			550359				
Aroclor-1254 {4}			391821				
Aroclor-1254 {5}			857077				
Aroclor-1260	933379	922580	687811	698126	678666	784113	16.78
Aroclor-1260 {2}	1176926	1184764	868828	884065	835678	990052	17.68
Aroclor-1260 {3}	712611	721694	547984	569638	562126	622810	13.89
Aroclor-1260 {4}	1540542	1581275	1231751	1295880	1302440	1390378	11.42
Aroclor-1260 {5}	623538	627239	464042	460846	462220	527577	16.93
					Average %RSD		14.54

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/17/2001 **Instrument ID:** GC-R

Data File: R5374.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.67	4.60	4.74	147407	149481	1.41
Aroclor-1016 {2}	6.06	5.99	6.13	205039	197607	3.62
Aroclor-1016 {3}	7.01	6.94	7.08	268131	258928	3.43
Aroclor-1016 {4}	7.82	7.75	7.89	136603	133973	1.92
Aroclor-1016 {5}	8.27	8.20	8.34	185487	180135	2.89
Aroclor-1260	13.75	13.68	13.82	592934	580653	2.07
Aroclor-1260 {2}	14.31	14.24	14.38	345417	336749	2.51
Aroclor-1260 {3}	15.93	15.86	16.00	765896	751543	1.87
Aroclor-1260 {4}	16.83	16.76	16.90	392923	384498	2.14
Aroclor-1260 {5}	18.87	18.80	18.94	175340	173511	1.04
					Average %D	2.29

Data File: R5374.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.94	4.87	5.01	234882	233497	0.59
Aroclor-1016 {2}	5.90	5.83	5.97	477097	443861	6.97
Aroclor-1016 {3}	7.07	7.00	7.14	1028223	958074	6.82
Aroclor-1016 {4}	7.45	7.38	7.52	451262	427491	5.27
Aroclor-1016 {5}	7.72	7.65	7.79	279887	275601	1.53
Aroclor-1260	13.24	13.17	13.31	784113	701401	10.55
Aroclor-1260 {2}	14.31	14.24	14.38	990052	878043	11.31
Aroclor-1260 {3}	15.51	15.44	15.58	622810	563062	9.59
Aroclor-1260 {4}	16.42	16.35	16.49	1390378	1276490	8.19
Aroclor-1260 {5}	19.51	19.44	19.58	527577	478075	9.38
					Average %D	7.02

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/17/2001 Instrument ID: GC-R

Data File: R5393.D GC Column (1st): DB-5

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	4.68	4.61	4.75	147407	147119	0.20
Aroclor-1016 {2}	6.06	5.99	6.13	205039	196765	4.04
Aroclor-1016 {3}	7.01	6.94	7.08	268131	259863	3.08
Aroclor-1016 {4}	7.82	7.75	7.89	136603	135474	0.83
Aroclor-1016 {5}	8.27	8.20	8.34	185487	181771	2.00
Aroclor-1260	13.76	13.69	13.83	592934	584923	1.35
Aroclor-1260 {2}	14.31	14.24	14.38	345417	340009	1.57
Aroclor-1260 {3}	15.94	15.87	16.01	765896	763753	0.28
Aroclor-1260 {4}	16.84	16.77	16.91	392923	417895	6.36
Aroclor-1260 {5}	18.87	18.80	18.94	175340	176059	0.41
					Average %D	2.01

Data File: R5393.C GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	4.94	4.87	5.01	234882	233067	0.77
Aroclor-1016 {2}	5.90	5.83	5.97	477097	456508	4.32
Aroclor-1016 {3}	7.07	7.00	7.14	1028223	1006619	2.10
Aroclor-1016 {4}	7.45	7.38	7.52	451262	447975	0.73
Aroclor-1016 {5}	7.73	7.66	7.80	279887	288600	3.11
Aroclor-1260	13.24	13.17	13.31	784113	758748	3.23
Aroclor-1260 {2}	14.31	14.24	14.38	990052	959444	3.09
Aroclor-1260 {3}	15.51	15.44	15.58	622810	611021	1.89
Aroclor-1260 {4}	16.42	16.35	16.49	1390378	1347940	3.05
Aroclor-1260 {5}	19.51	19.44	19.58	527577	516161	2.16
					Average %D	2.45

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/18/2001 **Instrument ID:** GC-R

Data File: R5419.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.68	4.61	4.75	147407	141296	4.15
Aroclor-1016 {2}	6.06	5.99	6.13	205039	189637	7.51
Aroclor-1016 {3}	7.01	6.94	7.08	268131	250749	6.48
Aroclor-1016 {4}	7.82	7.75	7.89	136603	131251	3.92
Aroclor-1016 {5}	8.27	8.20	8.34	185487	174867	5.73
Aroclor-1260	13.76	13.69	13.83	592934	567207	4.34
Aroclor-1260 {2}	14.31	14.24	14.38	345417	326909	5.36
Aroclor-1260 {3}	15.93	15.86	16.00	765896	725136	5.32
Aroclor-1260 {4}	16.84	16.77	16.91	392923	367152	6.56
Aroclor-1260 {5}	18.87	18.80	18.94	175340	175681	0.19
					Average %D	4.96

Data File: R5419.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.94	4.87	5.01	234882	225150	4.14
Aroclor-1016 {2}	5.90	5.83	5.97	477097	440245	7.72
Aroclor-1016 {3}	7.07	7.00	7.14	1028223	969168	5.74
Aroclor-1016 {4}	7.45	7.38	7.52	451262	432758	4.10
Aroclor-1016 {5}	7.72	7.65	7.79	279887	270875	3.22
Aroclor-1260	13.24	13.17	13.31	784113	738793	5.78
Aroclor-1260 {2}	14.31	14.24	14.38	990052	906446	8.44
Aroclor-1260 {3}	15.51	15.44	15.58	622810	596520	4.22
Aroclor-1260 {4}	16.42	16.35	16.49	1390378	1309917	5.79
Aroclor-1260 {5}	19.51	19.44	19.58	527577	448010	15.08
					Average %D	6.42

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/18/2001 Instrument ID: GC-R

Data File: R5427.D GC Column (1st): DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.67	4.60	4.74	147407	147928	0.35
Aroclor-1016 {2}	6.06	5.99	6.13	205039	212295	3.54
Aroclor-1016 {3}	7.01	6.94	7.08	268131	276392	3.08
Aroclor-1016 {4}	7.82	7.75	7.89	136603	147020	7.63
Aroclor-1016 {5}	8.27	8.20	8.34	185487	194301	4.75
Aroclor-1260	13.76	13.69	13.83	592934	604609	1.97
Aroclor-1260 {2}	14.31	14.24	14.38	345417	346902	0.43
Aroclor-1260 {3}	15.94	15.87	16.01	765896	775365	1.24
Aroclor-1260 {4}	16.84	16.77	16.91	392923	407072	3.60
Aroclor-1260 {5}	18.87	18.80	18.94	175340	183139	4.45
					Average %D	3.10

Data File: R5427.C GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	4.94	4.87	5.01	234882	251896	7.24
Aroclor-1016 {2}	5.90	5.83	5.97	477097	488008	2.29
Aroclor-1016 {3}	7.07	7.00	7.14	1028223	1078602	4.90
Aroclor-1016 {4}	7.45	7.38	7.52	451262	475434	5.36
Aroclor-1016 {5}	7.72	7.65	7.79	279887	293034	4.70
Aroclor-1260	13.24	13.17	13.31	784113	753637	3.89
Aroclor-1260 {2}	14.31	14.24	14.38	990052	974428	1.58
Aroclor-1260 {3}	15.51	15.44	15.58	622810	602035	3.34
Aroclor-1260 {4}	16.42	16.35	16.49	1390378	1352607	2.72
Aroclor-1260 {5}	19.51	19.44	19.58	527577	510877	3.17
					Average %D	3.92

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/17/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4697..4863)	0717-BLK1	SOIL	85		95		82		89	
S-101	4833-010	SOIL	70		105		75		110	
S-102	4833-011	SOIL	75		100		70		105	
S-103A	4833-012	SOIL	80		110		65		95	
S-103B	4833-013	SOIL	90		110		90		115	
S-104	4833-014	SOIL	75		100		80		110	
S-106	4833-016	SOIL	70		100		70		105	
D-GP-32	4697-004	SOIL	75		105		75		110	
D-GP-35	4697-007	SOIL	75		125		80		115	
CON_#1	4863-001	SOIL	70		105		75		105	
PCB	4697-007-MS1	SOIL	83		105		83		103	
PCB	4697-007-MSD1	SOIL	87		107		86		104	
PCB	PBS0717-MS1	SOIL	79		88		77		84	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/17/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
KEESHON_#1	4811-001	SOIL	75		125		85		125	
S-105	4833-015	SOIL	80		125		90		120	
S-107	4833-017	SOIL	80		140		95		120	
S-108	4833-018	SOIL	75		105		80		120	
IEWCO_101	4832-001	SOIL	85		145		95		115	
SEPTIC-1	4752-001	AQUEOUS	59		59		58		66	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

 # Column to be used to flag recovery values
*** Values outside of QC limits**
D Surrogate diluted out
M Matrix interference

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4697-007-MSD1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.6	112	58 - 140
Aroclor-1260	5.0	0.0	6.7	134	56 - 161

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	5.6	112	0	14	58 - 140
Aroclor-1260	0.0	6.9	138	3	18	56 - 161

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0717-MS1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	5.0	0.0	5.4	108	58 - 140
Aroclor-1260	5.0	0.0	6.2	124	56 - 161

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.93 DCB 1 20.95 TCMX 2 3.75 DCB 2 20.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4697..4863)	0717-BLK1	07/17/2001	13:05	3.93		20.95		3.75		20.86	
S-101	4833-010	07/17/2001	13:32	3.93		20.95		3.75		20.86	
S-102	4833-011	07/17/2001	13:58	3.93		20.95		3.75		20.86	
S-103A	4833-012	07/17/2001	14:24	3.93		20.95		3.75		20.86	
S-103B	4833-013	07/17/2001	14:51	3.93		20.95		3.75		20.86	
S-104	4833-014	07/17/2001	15:17	3.93		20.95		3.75		20.86	
S-106	4833-016	07/17/2001	16:09	3.93		20.95		3.75		20.86	
D-GP-32	4697-004	07/17/2001	17:55	3.93		20.95		3.75		20.86	
D-GP-35	4697-007	07/17/2001	18:21	3.93		20.95		3.75		20.86	
CON_#1	4863-001	07/17/2001	19:13	3.93		20.95		3.75		20.86	
PCB	4697-007-MS1	07/17/2001	19:39	3.93		20.95		3.75		20.86	
PCB	4697-007-MSD1	07/17/2001	20:06	3.93		20.95		3.75		20.86	
PCB	PBS0717-MS1	07/17/2001	20:32	3.93		20.95		3.75		20.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.93 DCB 1 20.95 TCMX 2 3.75 DCB 2 20.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
KEESHON_#1	4811-001	07/18/2001	09:15	3.93		20.95		3.75		20.85	
S-105	4833-015	07/18/2001	09:42	3.93		20.95		3.75		20.85	
S-107	4833-017	07/18/2001	10:08	3.93		20.95		3.75		20.86	
S-108	4833-018	07/18/2001	10:34	3.93		20.95		3.75		20.86	
IEWCO_101	4832-001	07/18/2001	11:01	3.93		20.95		3.75		20.86	
SEPTIC-1	4752-001	07/18/2001	11:27	3.93		20.98		3.75		20.87	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

Column to be used to flag recovery values
***** Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5376.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5376.D\ECD2A.CH
Acq On : 17 Jul 2001 13:32 Operator: MJ
Sample : S-101,4833-010,S,30.1g,12.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 13:55:28 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	23866056	37765764	2.950	3.080
Spiked Amount 205.000	Range 75 - 125		Recovery =		1.44%#	1.50%#
2) S DCB	20.95	20.86	25754352	44610528	4.288	4.439
Spiked Amount 205.000			Recovery =		2.09%	2.17%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

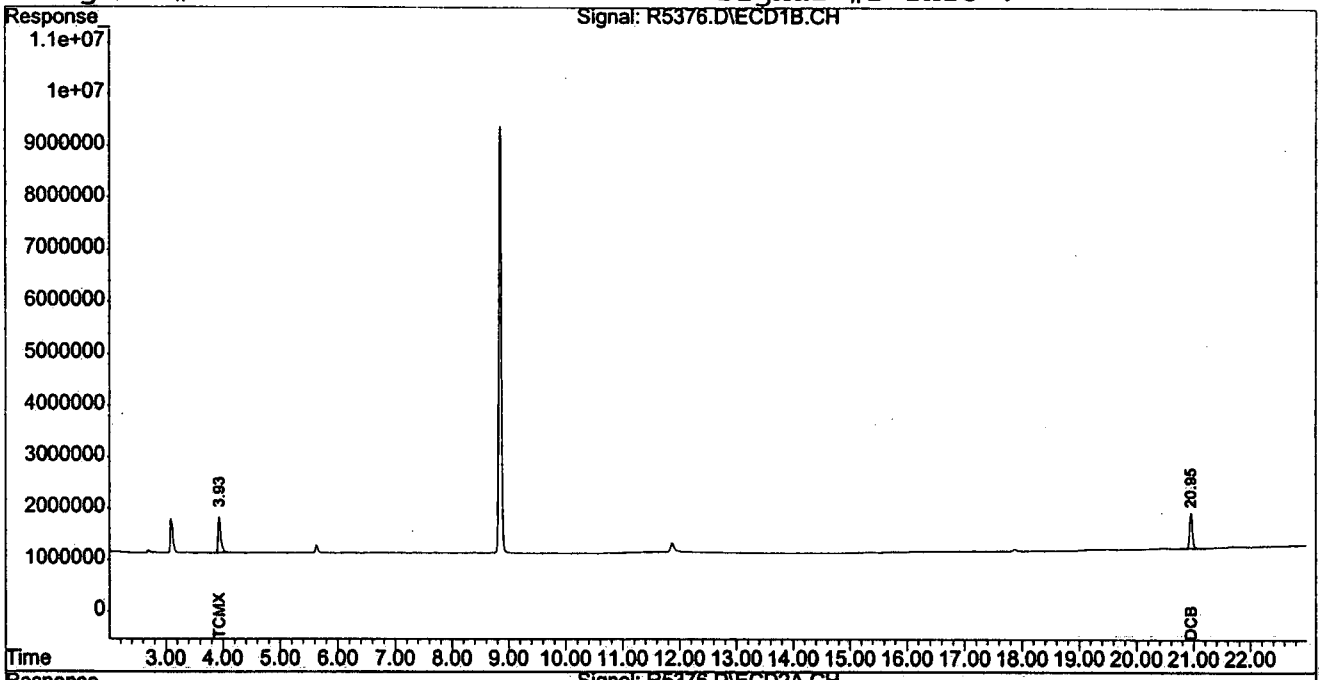
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

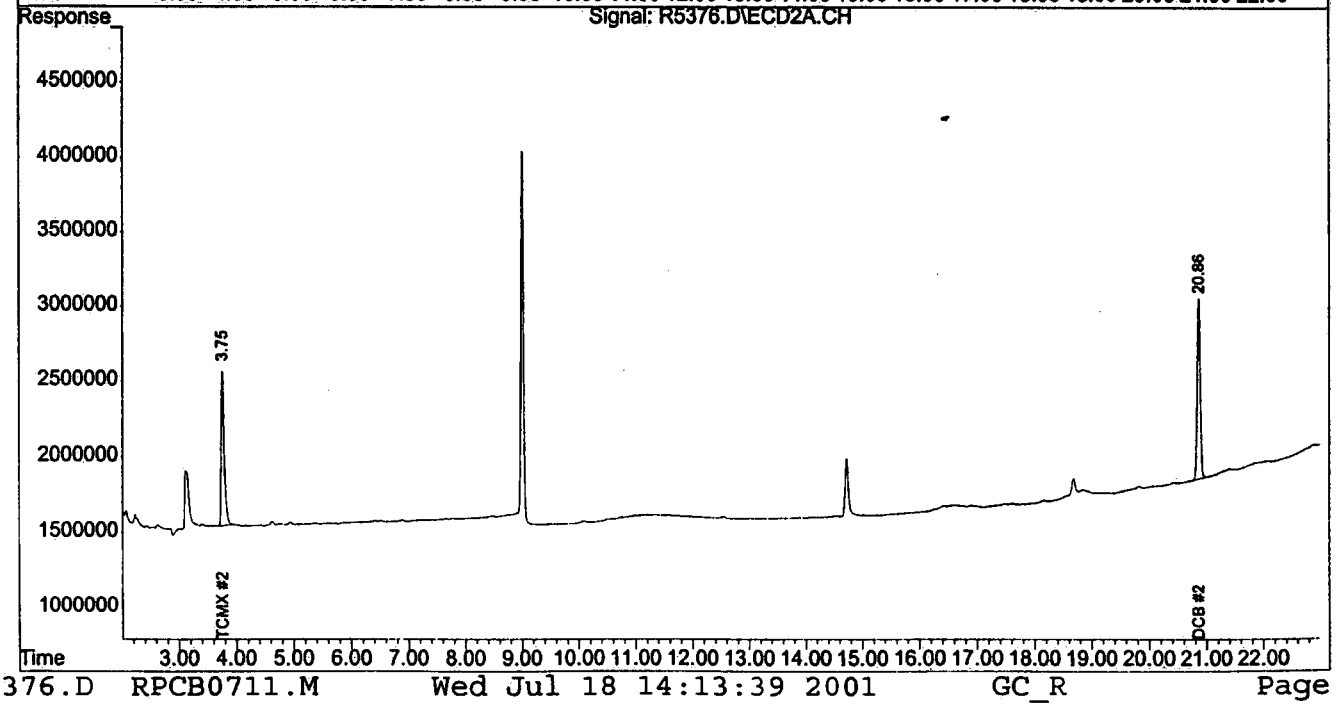
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5376.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5376.D\ECD2A.CH
Acq On : 17 Jul 2001 13:32 Operator: MJ
Sample : S-101,4833-010,S,30.1g,12.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:49 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1814

0571

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5377.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5377.D\ECD2A.CH
Acq On : 17 Jul 2001 13:58 Operator: MJ
Sample : S-102,4833-011,S,30.3g,26.8,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 14:21:45 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
System Monitoring Compounds								
1) S TCMX		3.93	3.75	25625089	35840129	3.168	2.923m	
Spiked Amount	205.000	Range 75 - 125		Recovery =		1.55%#	1.43%#	
2) S DCB		20.95	20.86	25186848	43346484	4.194	4.314	
Spiked Amount	205.000			Recovery =		2.05%	2.10%	
Target Compounds								
Sum Aroclor-1016				0	0	N.D.	N.D.	
Average Aroclor-1016						0.000	0.000	
Sum Aroclor-1221				0	0	N.D.	N.D.	
Average Aroclor-1221						0.000	0.000	
Sum Aroclor-1232				0	0	N.D.	N.D.	
Average Aroclor-1232						0.000	0.000	
Sum Aroclor-1242				0	0	N.D.	N.D.	
Average Aroclor-1242						0.000	0.000	
Sum Aroclor-1248				0	0	N.D.	N.D.	
Average Aroclor-1248						0.000	0.000	
28) L7 Aroclor-1254		10.25	10.67	5110879	5569149	14.868	23.809	#
29) L7 Aroclor-1254	{2}	11.05	11.70	2785013	2917732	10.198	16.343	#
30) L7 Aroclor-1254	{3}	11.36	12.74	7130301	10606818	14.263	19.273	#
31) L7 Aroclor-1254	{4}	12.18	13.24	10149232	9296965	18.157	23.728	#
32) L7 Aroclor-1254	{5}	12.92	14.31	4917298	16319987	19.384m	19.041	
Sum Aroclor-1254				30092725	44710651	76.870	102.194	
Average Aroclor-1254						15.374	20.439	28%
Sum Aroclor-1260				0	0	N.D.	N.D.	
Average Aroclor-1260						0.000	0.000	

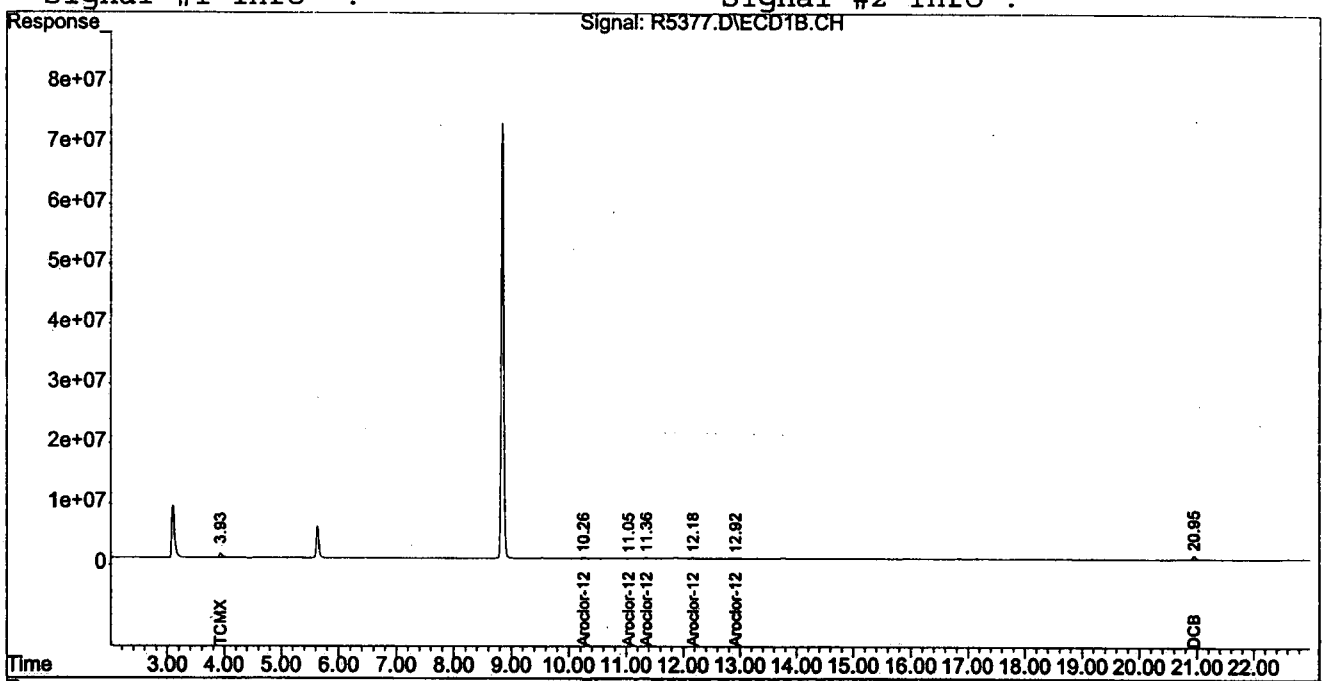
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

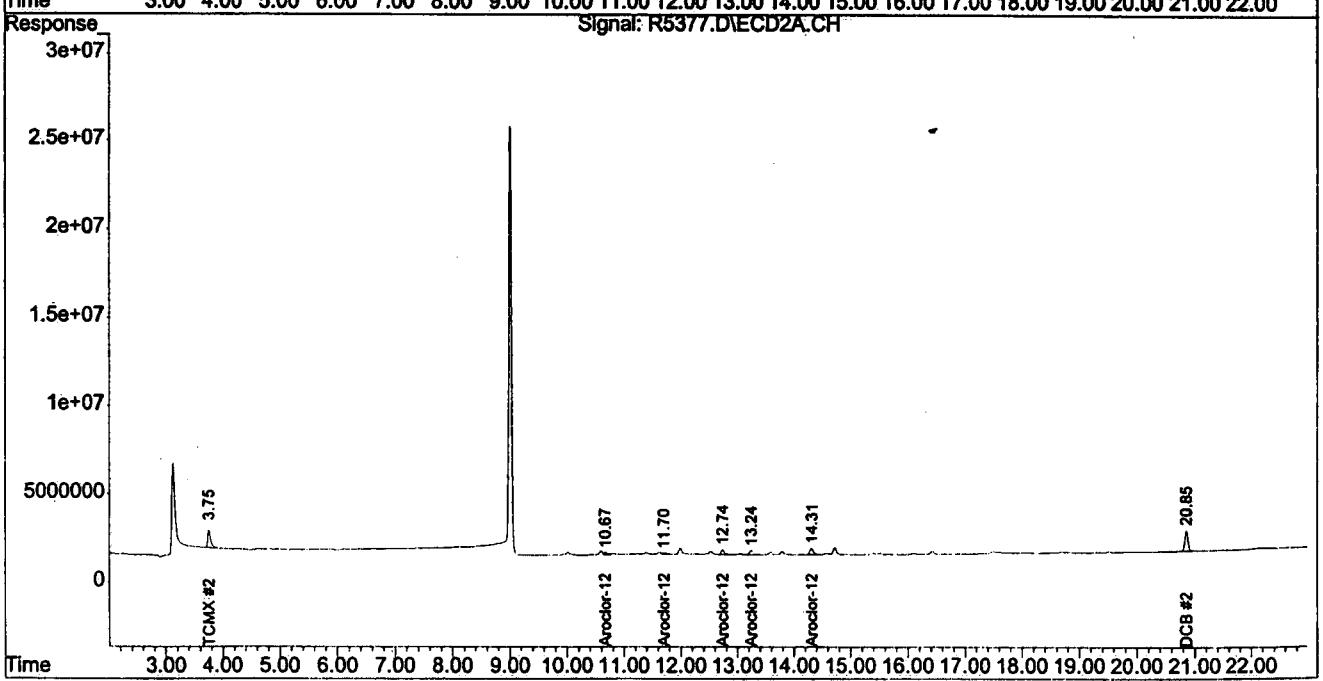
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5377.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5377.D\ECD2A.CH
Acq On : 17 Jul 2001 13:58 Operator: MJ
Sample : S-102,4833-011,S,30.3g,26.8,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:53 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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0572

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5378.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5378.D\ECD2A.CH
Acq On : 17 Jul 2001 14:24 Operator: MJ
Sample : S-103A,4833-012,S,30.5g,19.8,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 14:48:01 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	26472905	31530573	3.272	2.571m
Spiked Amount 205.000	Range 75 - 125			Recovery =	1.60%#	1.25%#
2) S DCB	20.95	20.86	27036125	38690776	4.502	3.850
Spiked Amount 205.000				Recovery =	2.20%	1.88%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

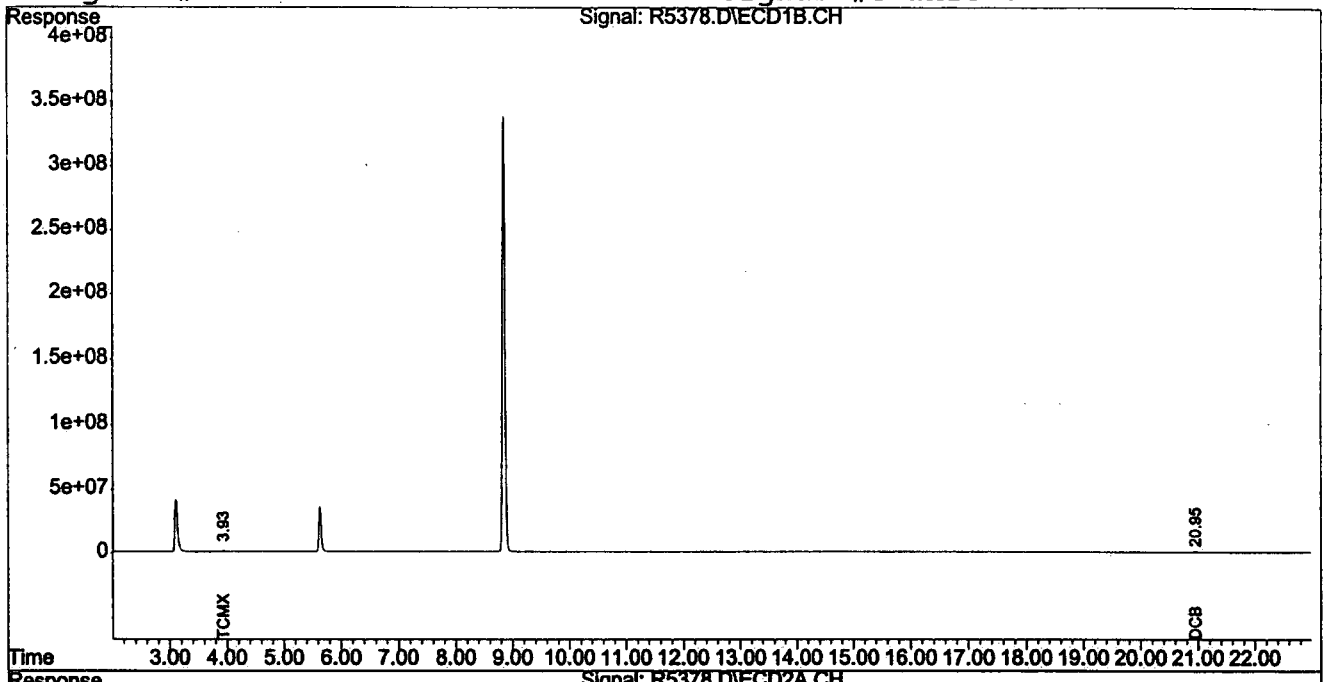
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

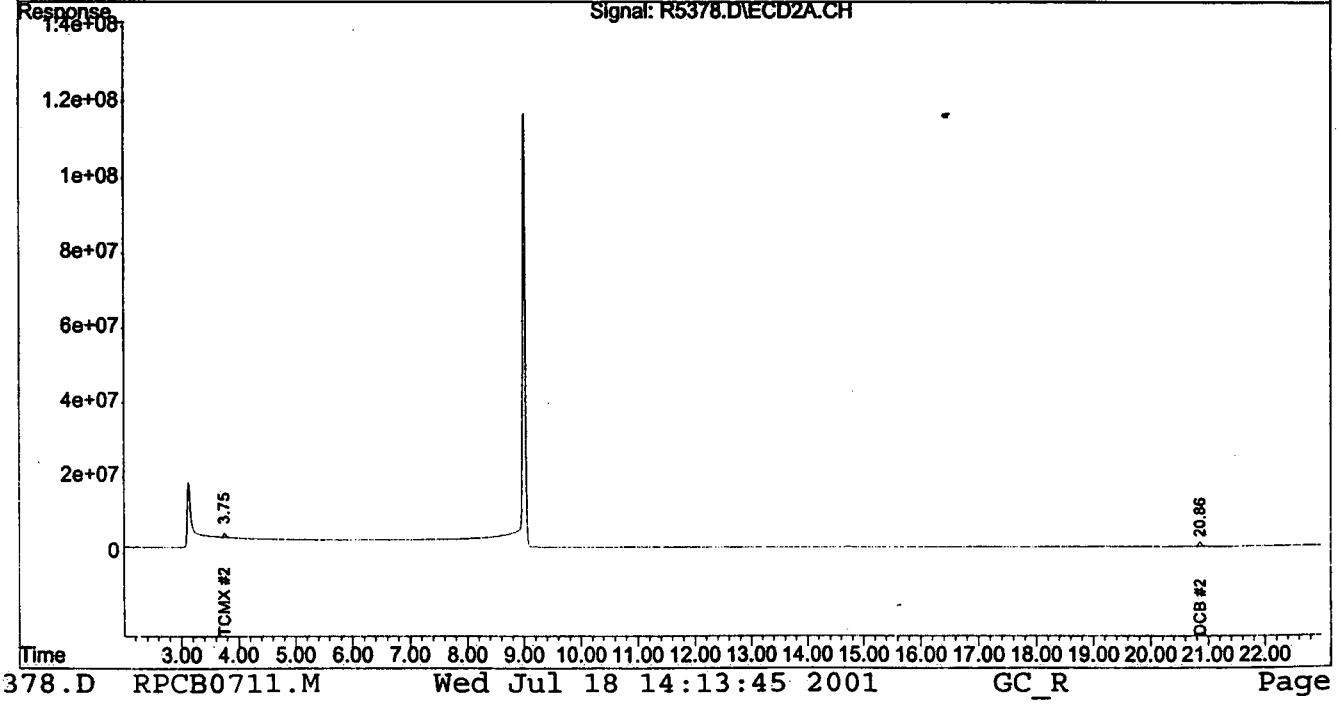
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5378.D\ECD1B.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5378.D\ECD2A.CH
Acq On : 17 Jul 2001 14:24 Operator: MJ
Sample : S-103A,4833-012,S,30.5g,19.8,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:53 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0575

1414

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5379.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5379.D\ECD2A.CH
Acq On : 17 Jul 2001 14:51 Operator: MJ
Sample : S-103B,4833-013,S,30.7g,16.0,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 15:14:21 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	29814452	45072308	3.685	3.675
Spiked Amount 205.000	Range 75 - 125		Recovery =		1.80%#	1.79%#
2) S DCB	20.95	20.86	26855611	47105448	4.471	4.688
Spiked Amount 205.000			Recovery =		2.18%	2.29%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

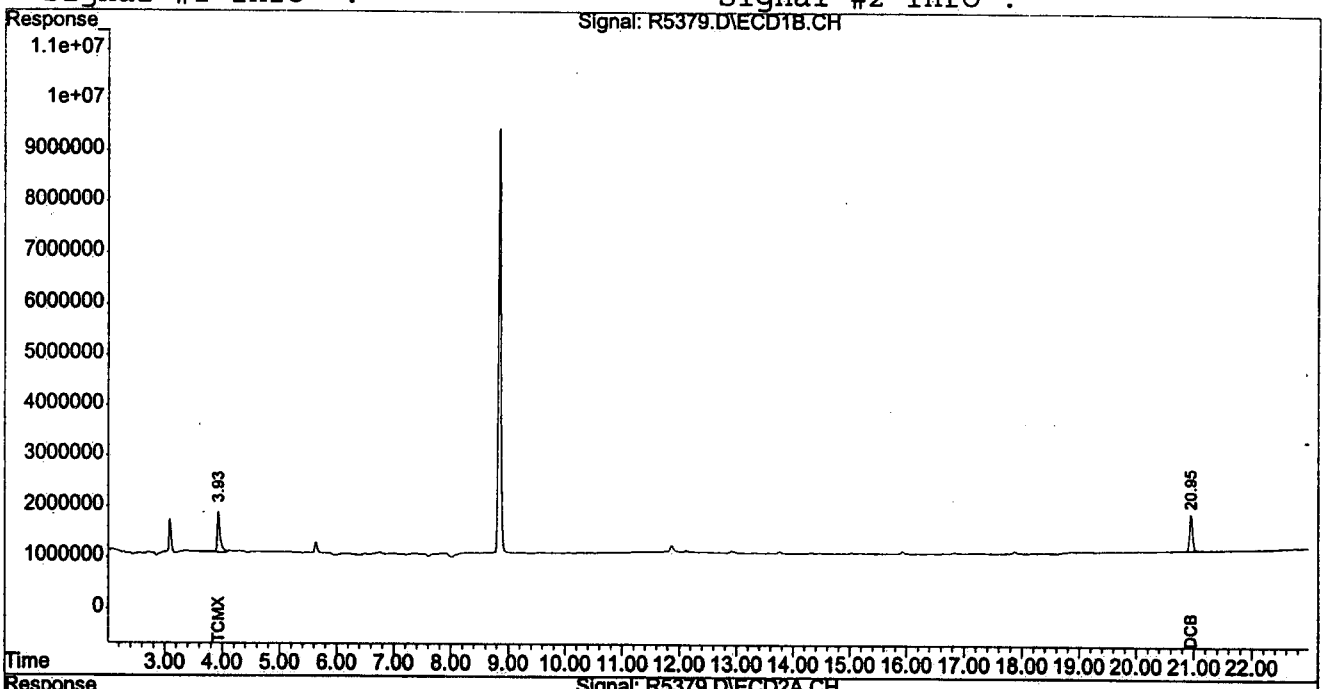
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

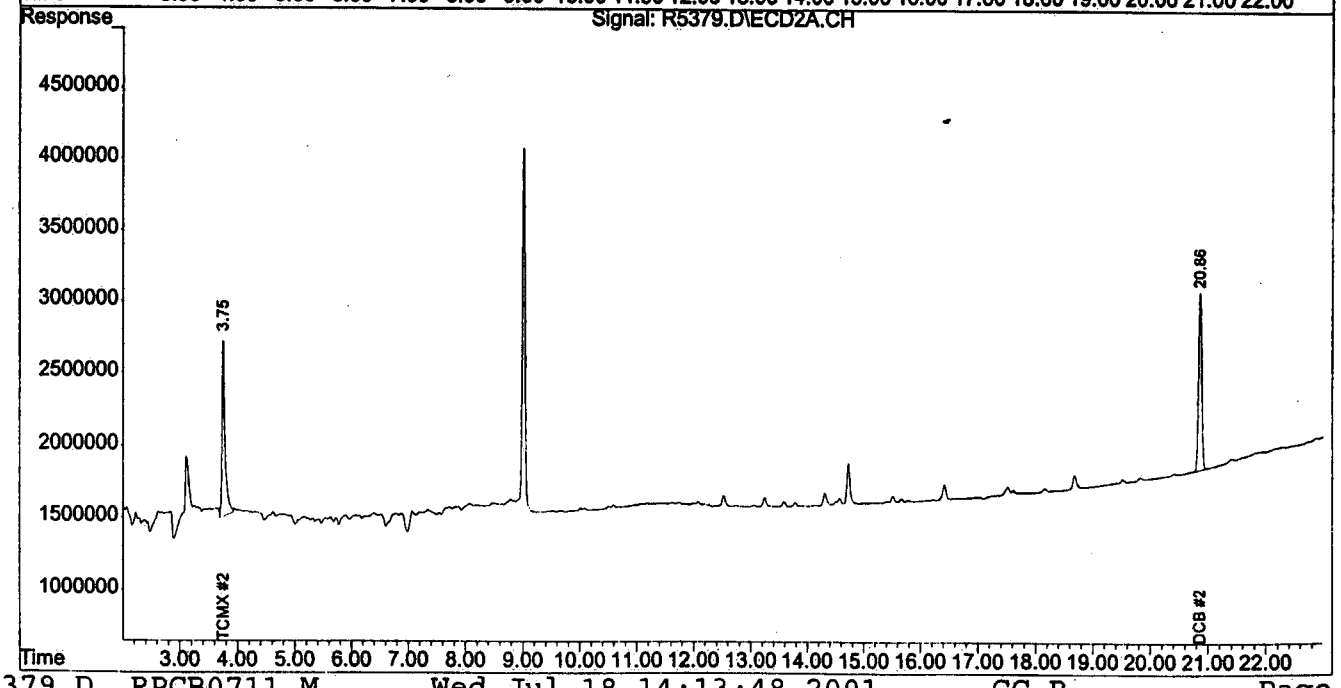
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5379.D\ECD1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5379.D\ECD2A.CH
Acq On : 17 Jul 2001 14:51 Operator: MJ
Sample : S-103B,4833-013,S,30.7g,16.0,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:54 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1870

0577

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5380.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5380.D\ECD2A.CH
Acq On : 17 Jul 2001 15:17 Operator: MJ
Sample : S-104,4833-014,S,30.1g,11.9,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 15:40:39 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.93	3.75	24850472	41183380	3.072	3.358
Spiked Amount 205.000		Range 75 - 125			Recovery =	1.50%#	1.64%#
2) S DCB		20.95	20.86	24800704	45938445	4.129	4.572
Spiked Amount 205.000					Recovery =	2.01%	2.23%
Target Compounds							
Sum Aroclor-1016				0	0	N.D.	N.D.
erage Aroclor-1016						0.000	0.000
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
28) L7 Aroclor-1254		10.26	10.68	3619149	3853895	10.528	16.476 #
29) L7 Aroclor-1254	{2}	11.05	11.74	2194255	15606682	8.035	87.419 #
30) L7 Aroclor-1254	{3}	11.36	12.75	8295769	7530901	16.594	13.684
31) L7 Aroclor-1254	{4}	12.13	13.24	5285516	6378660	9.456	16.280 #
32) L7 Aroclor-1254	{5}	12.92	14.31	6464152	18280227	25.482	21.329
Sum Aroclor-1254				25858841	51650364	70.095	155.187
Average Aroclor-1254						14.019	31.037
Sum Aroclor-1260				0	0	N.D.	N.D.
Average Aroclor-1260						0.000	0.000

75

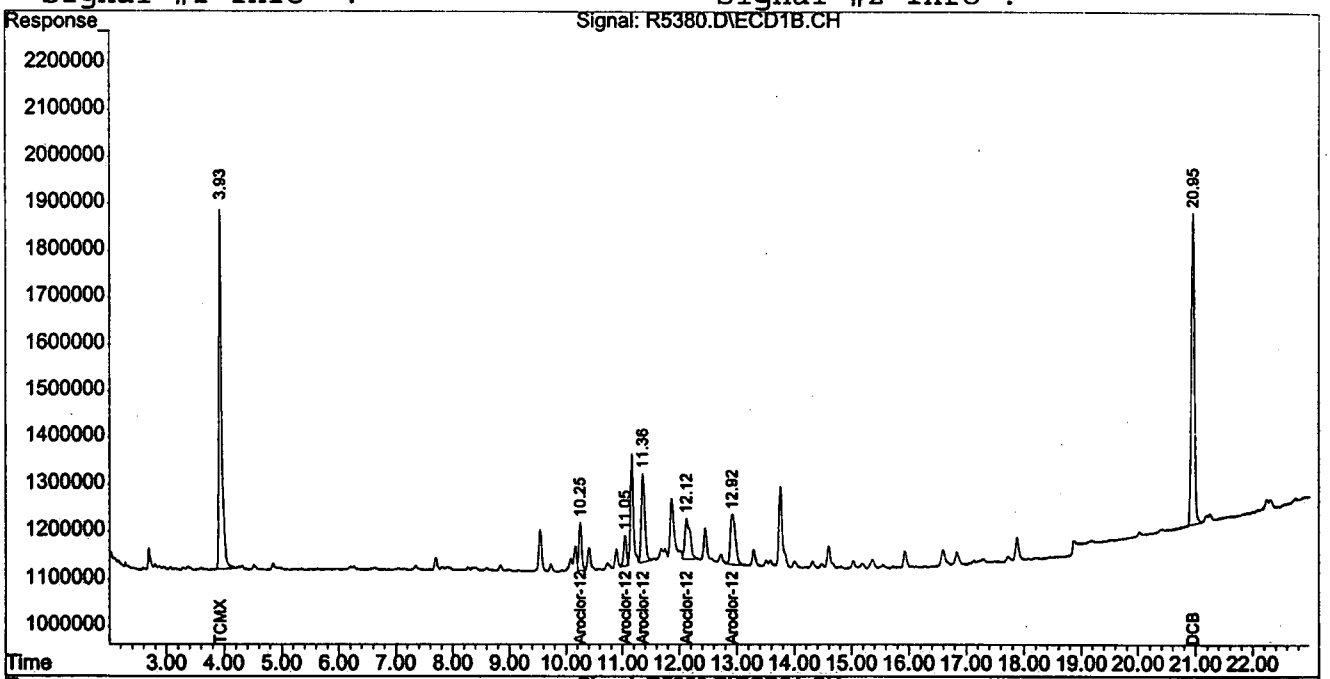
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

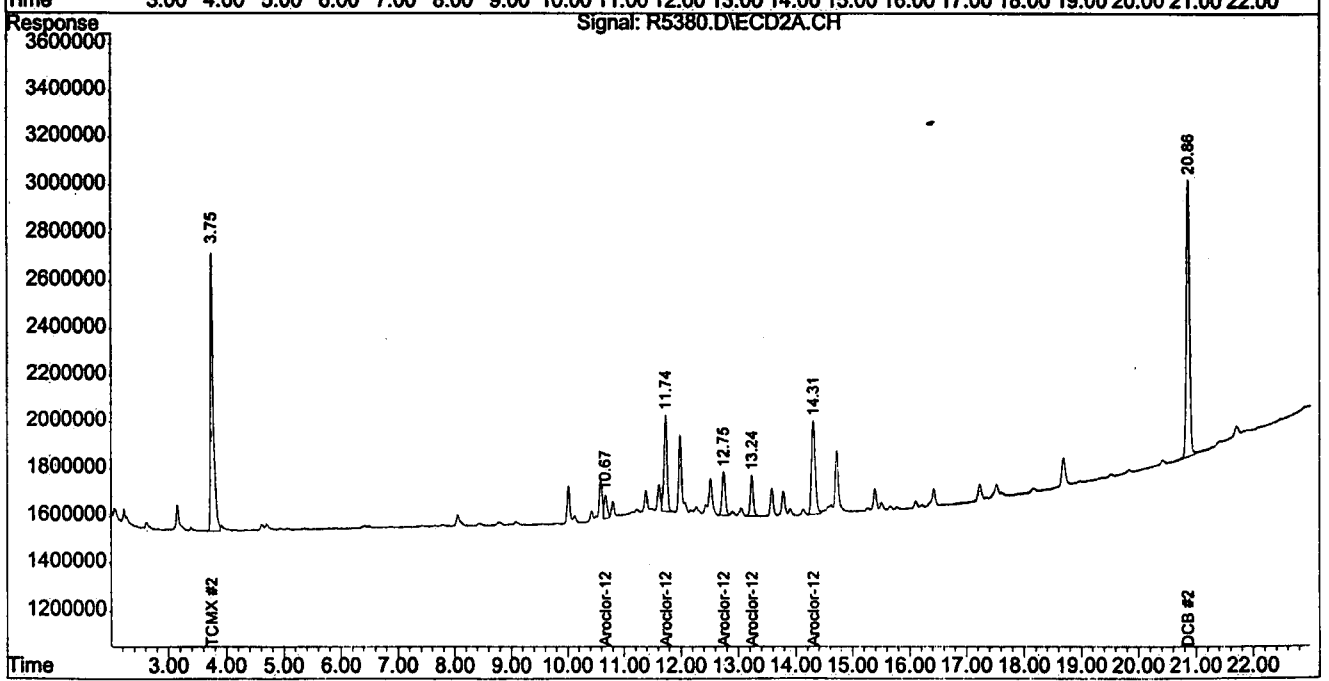
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5380.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5380.D\ECD2A.CH
Acq On : 17 Jul 2001 15:17 Operator: MJ
Sample : S-104,4833-014,S,30.1g,11.9,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:56 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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0570

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5422.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5422.D\ECD2A.CH
Acq On : 18 Jul 2001 9:42 Operator: MJ
Sample : S-105,4833-015,S,30.2g,7.1,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 10:05:33 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.93	3.75	26381156	46035141	3.261	3.754
Spiked Amount 205.000		Range 75 - 125		Recovery =		1.59%#	1.83%#
2) S DCB		20.95	20.85	30841851	49640901	5.135	4.940
Spiked Amount 205.000				Recovery =		2.50%	2.41%
Target Compounds							
Sum Aroclor-1016				0	0	N.D.	N.D.
Average Aroclor-1016						0.000	0.000
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
28) L7 Aroclor-1254		10.25	10.73	95598181	396.3E6	278.104	1694.082 #
29) L7 Aroclor-1254	{2}	11.05	11.74	74621654	3347.5E6	273.243	18750.410 #
30) L7 Aroclor-1254	{3}	0.00	12.76	0	1174.4E6	N.D. d	2133.817 #
31) L7 Aroclor-1254	{4}	12.18	13.24	165.0E6	141.1E6	295.269	360.018
32) L7 Aroclor-1254	{5}	12.92	14.29	90755600	5039.4E6	357.757m	5879.807m#
Sum Aroclor-1254				426.0E6	10098.6E6	1204.373	~~28818.134~~
Average Aroclor-1254						301.093	5763.627
Sum Aroclor-1260				0	0	N.D.	N.D.
Average Aroclor-1260						0.000	0.000

180%

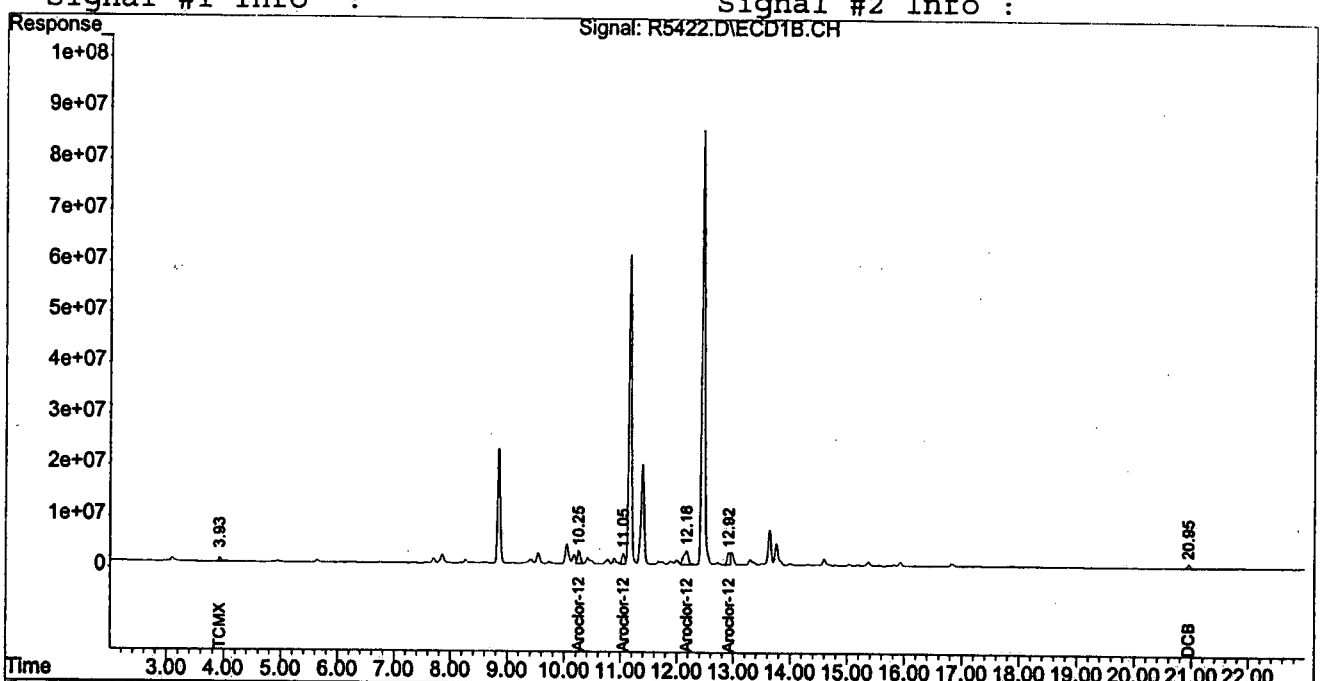
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

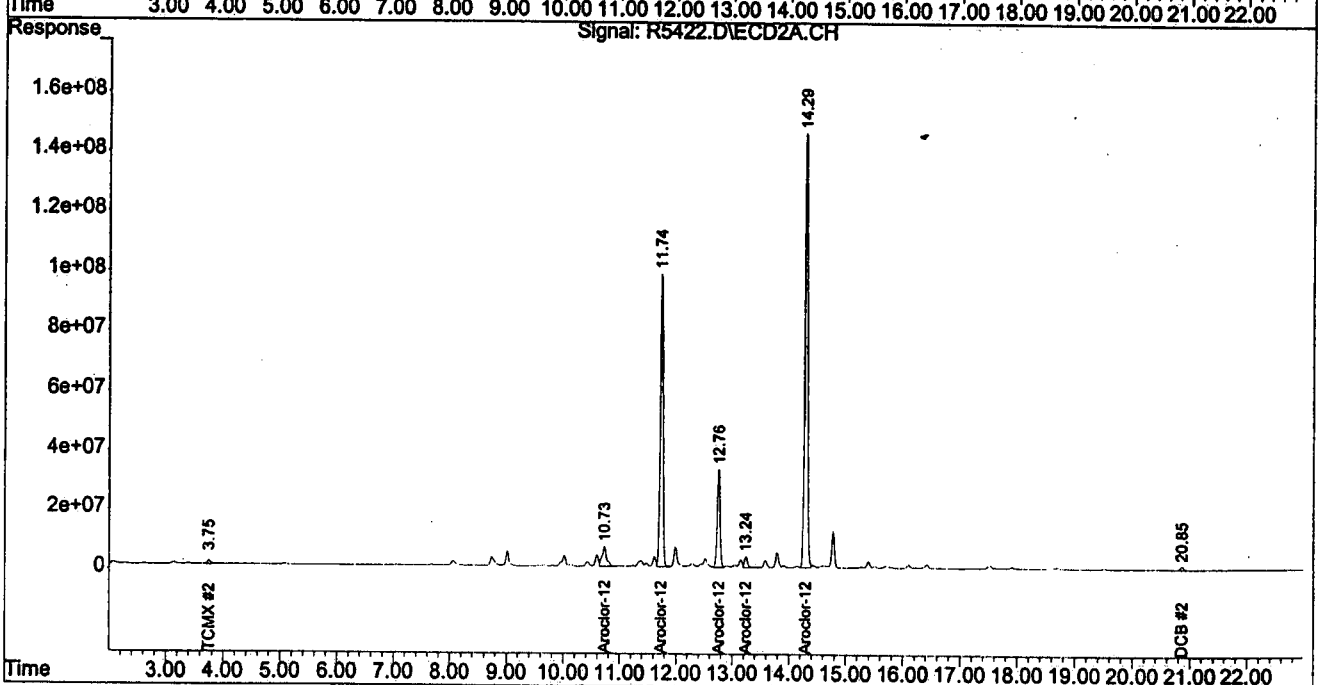
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5422.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5422.D\ECD2A.CH
Acq On : 18 Jul 2001 9:42 Operator: MJ
Sample : S-105,4833-015,S,30.2g,7.1,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 10:40 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1874

0581

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5382.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5382.D\ECD2A.CH
Acq On : 17 Jul 2001 16:09 Operator: MJ
Sample : S-106,4833-016,S,30.4g,12.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 16:33:22 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.93	3.75	22508536	35878590	2.782	2.926
Spiked Amount	205.000	Range 75 - 125		Recovery =		1.36%#	1.43%#
2) S DCB		20.95	20.86	25122138	44026526	4.183	4.381
Spiked Amount	205.000			Recovery =		2.04%	2.14%
Target Compounds							
Sum Aroclor-1016				0	0	N.D.	N.D.
Average Aroclor-1016						0.000	0.000
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
28) L7 Aroclor-1254		10.25	10.67	67835227	48604824	197.339	207.796m
29) L7 Aroclor-1254	{2}	11.05	11.74	53994817	108.0E6	197.714	604.891 #
30) L7 Aroclor-1254	{3}	11.36	12.75	151.6E6	216.1E6	303.337m	392.691 #
31) L7 Aroclor-1254	{4}	12.18	13.24	92946633	85787949	166.286m	218.947 #
32) L7 Aroclor-1254	{5}	12.92	14.29	54204107	699.4E6	213.672	816.055 #
Sum Aroclor-1254				420.6E6	1157.9E6	1078.347	2240.379
Average Aroclor-1254						215.669	448.076
Sum Aroclor-1260				0	0	N.D.	N.D.
Average Aroclor-1260						0.000	0.000

70%

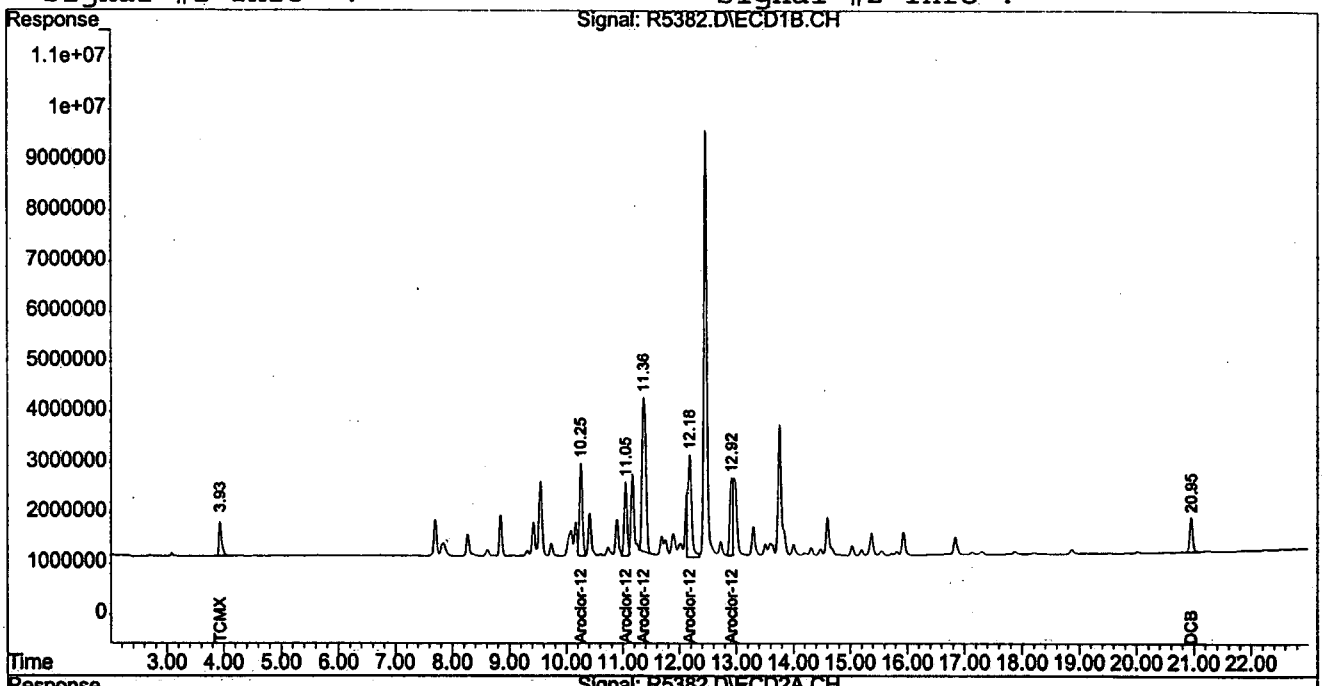
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

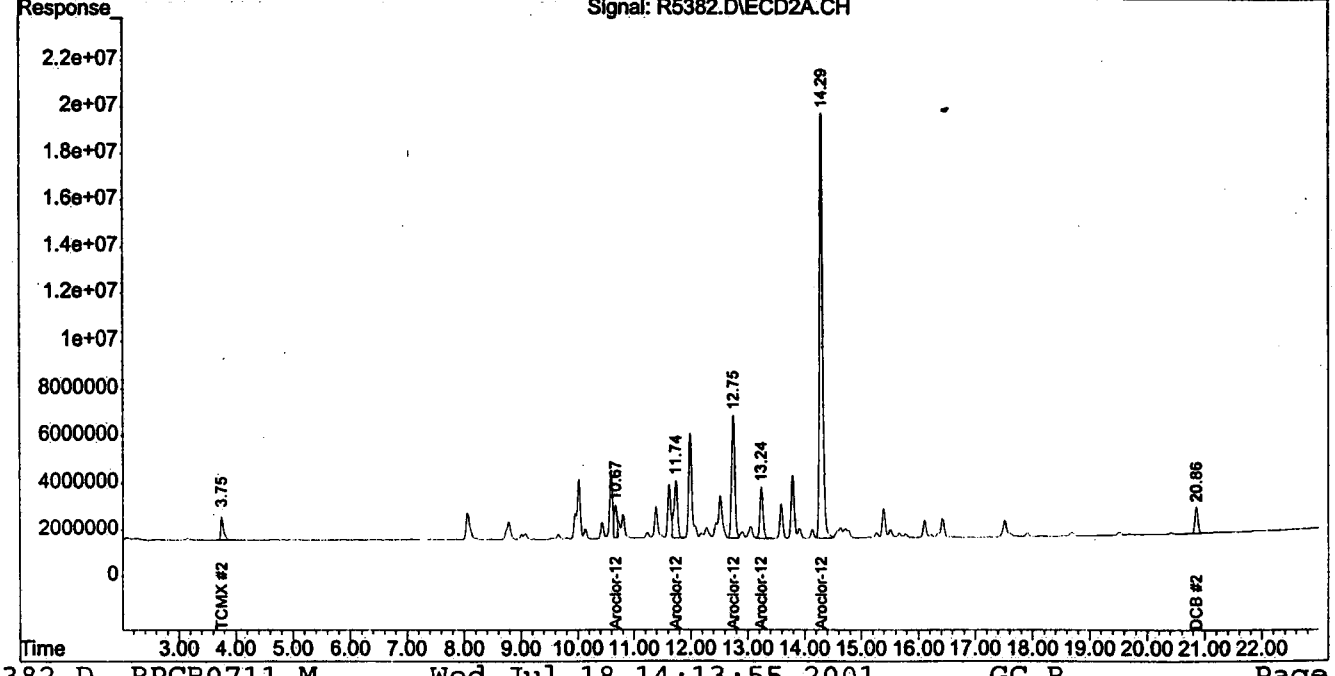
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5382.D\ECD1B.CH Vial: 10
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5382.D\ECD2A.CH
Acq On : 17 Jul 2001 16:09 Operator: MJ
Sample : S-106,4833-016,S,30.4g,12.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 7:02 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





0583

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5423.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5423.D\ECD2A.CH
Acq On : 18 Jul 2001 10:08 Operator: MJ
Sample : S-107,4833-017,S,30.3g,11.9,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 10:31:46 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	27288396	46781303	3.373	3.815
Spiked Amount 205.000	Range 75 - 125		Recovery =		1.65%#	1.86%#
2) S DCB	20.95	20.86	33916256	49601780	5.647	4.936
Spiked Amount 205.000			Recovery =		2.75%	2.41%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
R5423.D RPCB0711.M Wed Jul 18 13:55:23 2001 GC_R Page 1

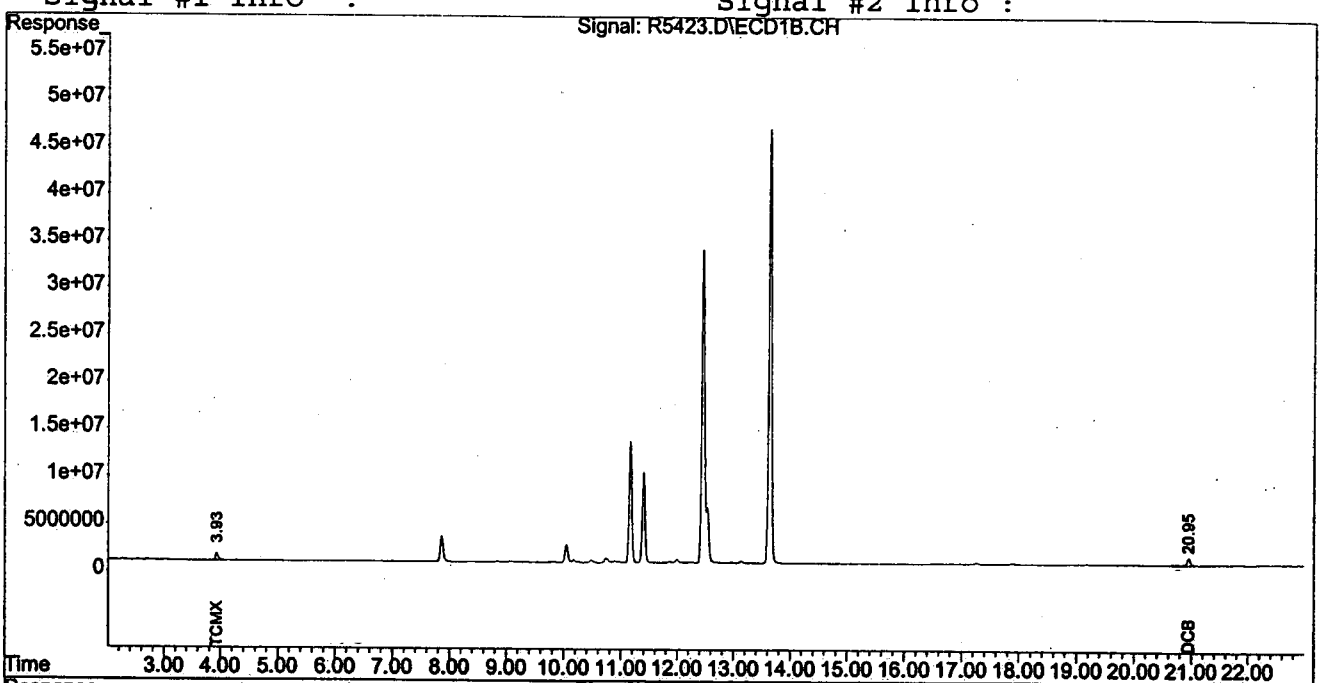
0584

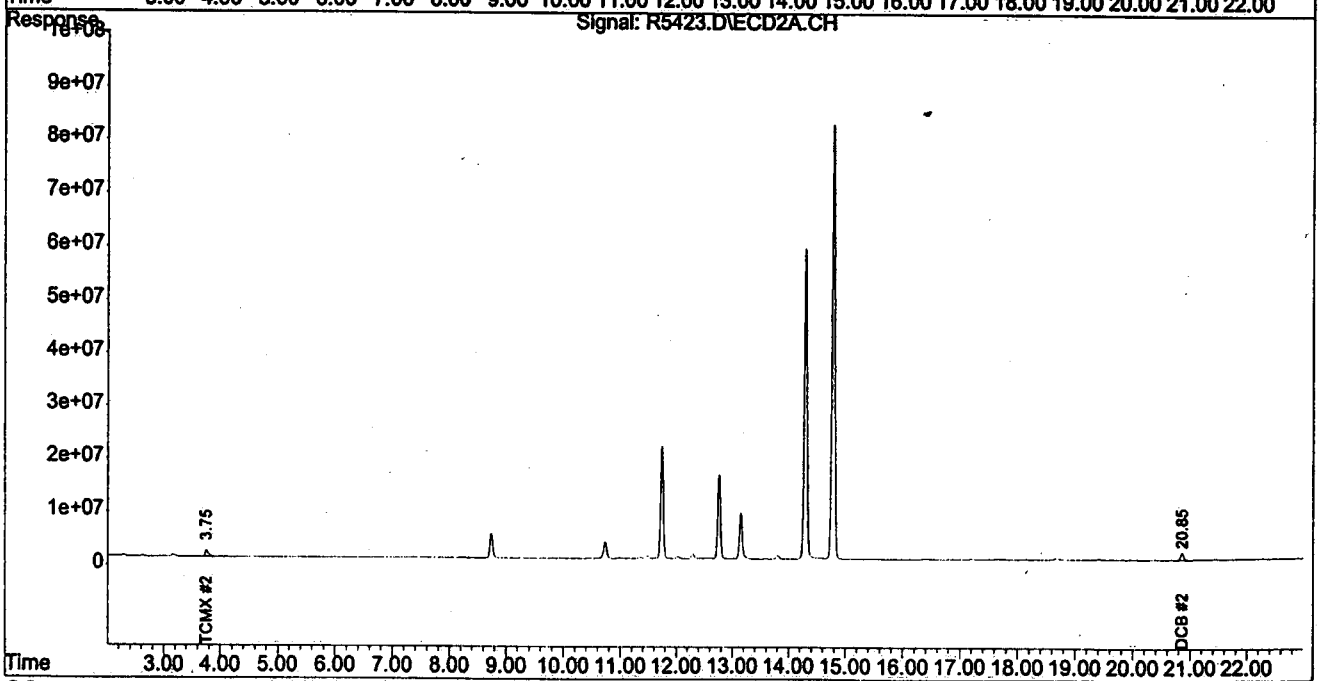
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5423.D\ECD1B.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5423.D\ECD2A.CH
Acq On : 18 Jul 2001 10:08 Operator: MJ
Sample : S-107,4833-017,S,30.3g,11.9,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 10:41 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1478

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5424.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5424.D\ECD2A.CH
Acq On : 18 Jul 2001 10:34 Operator: MJ
Sample : S-108,4833-018,S,30.6g,14.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 10:58:12 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	25663933	38975866	3.172m	3.178m
Spiked Amount 205.000	Range 75 - 125		Recovery =		1.55%#	1.55%#
2) S DCB	20.95	20.86	25470790	48638767	4.241m	4.840m
Spiked Amount 205.000			Recovery =		2.07%	2.36%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
28) L7 Aroclor-1254	10.26	10.68	73302582	49486380	213.244	211.565
29) L7 Aroclor-1254 {2}	11.05	11.74	56472364	347.0E6	206.786	1943.439 #
30) L7 Aroclor-1254 {3}	0.00	12.76	0	486.7E6	N.D. d	884.286 #
31) L7 Aroclor-1254 {4}	12.18	13.24	134.9E6	134.5E6	241.293	343.338 #
32) L7 Aroclor-1254 {5}	12.92	14.29	56451505	1672.4E6	222.531	1951.331m#
Sum Aroclor-1254			321.1E6	2690.1E6	883.854	5333.959
Average Aroclor-1254					220.963	1066.792
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

131%

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1870

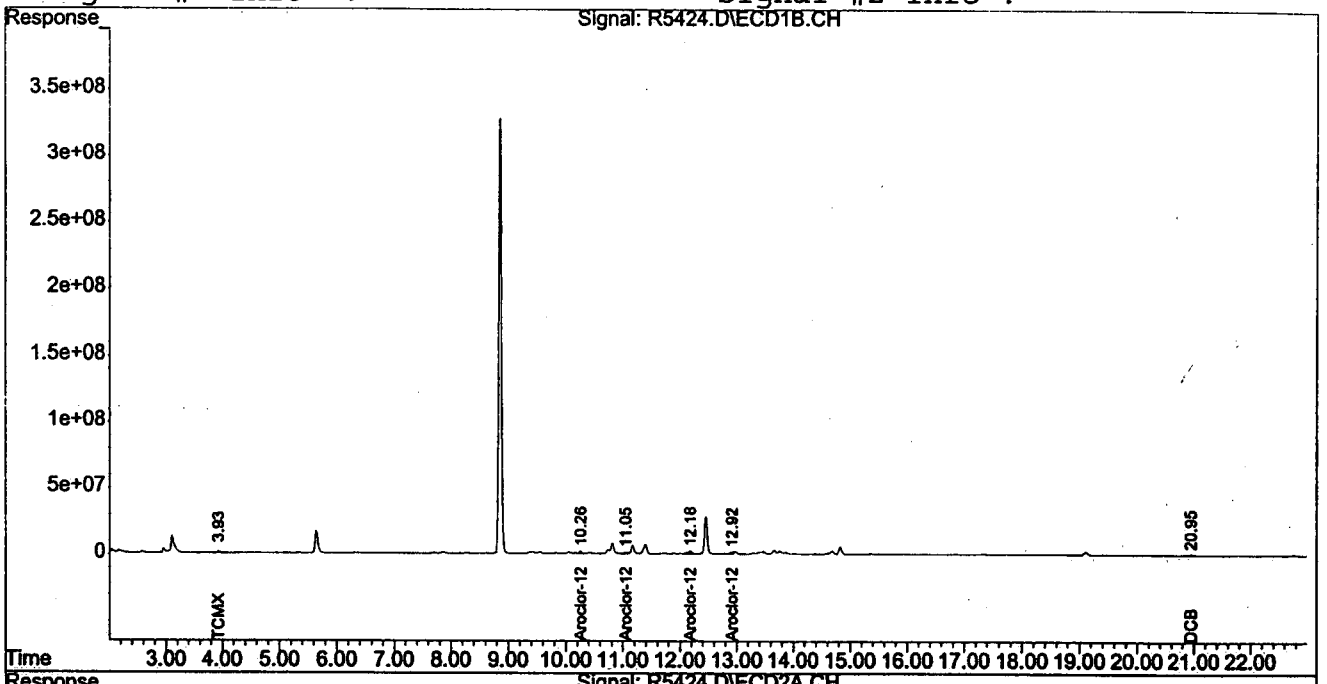
0582

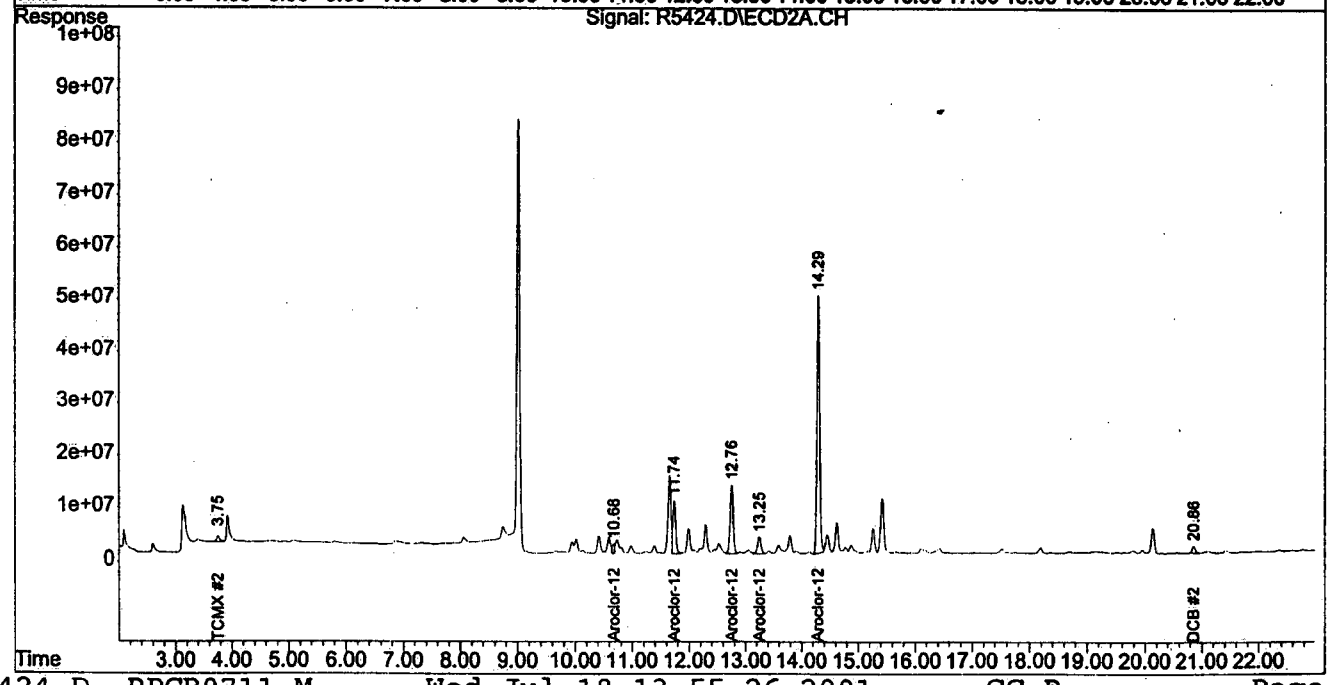
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5424.D\ECD1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5424.D\ECD2A.CH
Acq On : 18 Jul 2001 10:34 Operator: MJ
Sample : S-108,4833-018,S,30.6g,14.6,07/17/01 Inst : GC_R
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 12:09 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1930

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5375.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5375.D\ECD2A.CH
Acq On : 17 Jul 2001 13:05 Operator: MJ
Sample : (4697..4863),0717-BLK1,S,30.0g,0,07/17/0 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 13:29:04 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	1411.8E6	2066.8E6	174.513	168.534
Spiked Amount 205.000	Range 75 - 125		Recovery =		85.13%	82.21%
2) S DCB	20.95	20.86	1173.6E6	1823.6E6	195.412	181.477
Spiked Amount 205.000			Recovery =		95.32%	88.53%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

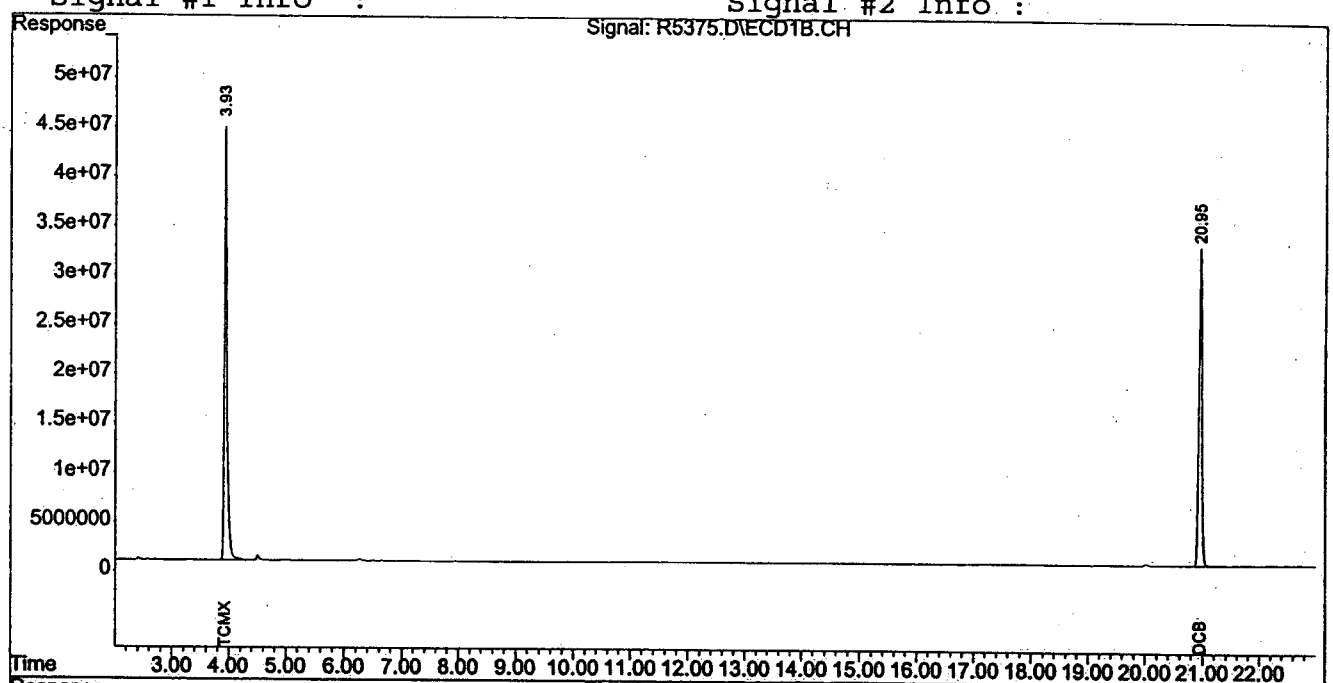
1021

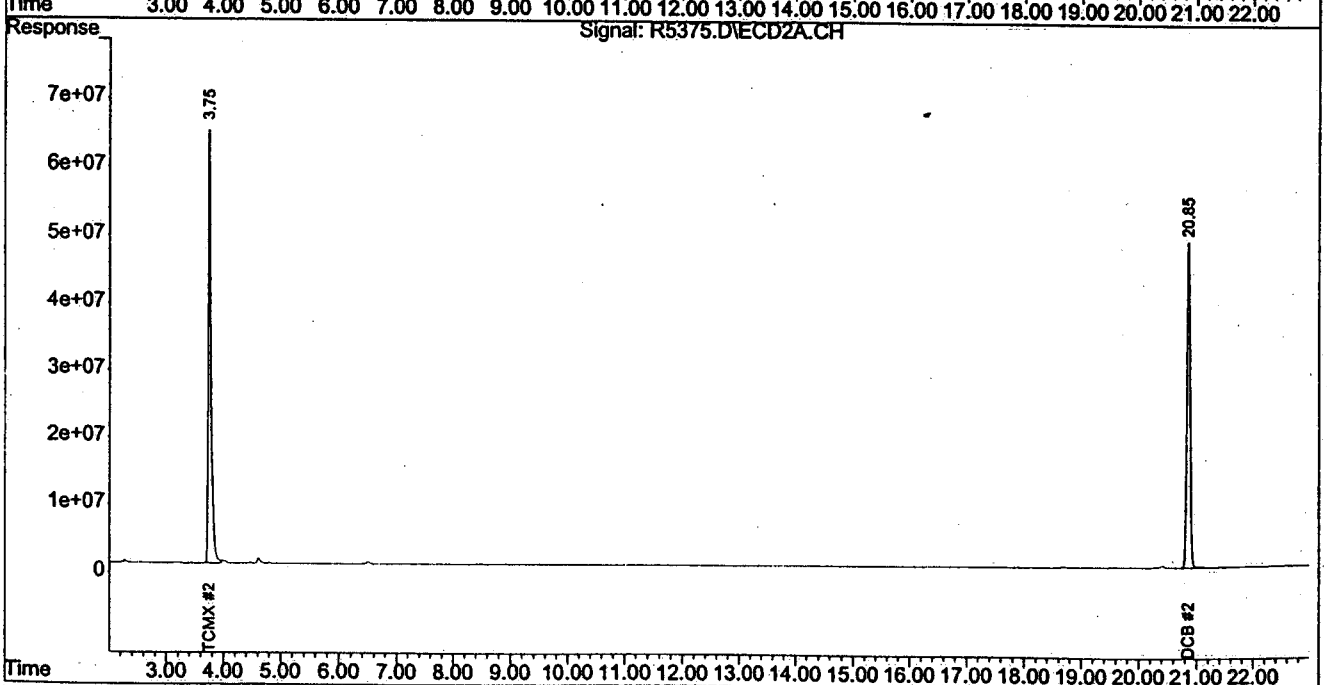
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5375.D\ECD1B.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5375.D\ECD2A.CH
Acq On : 17 Jul 2001 13:05 Operator: MJ
Sample : (4697..4863),0717-BLK1,S,30.0g,0,07/17/0 Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:49 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1827

0500

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5374.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5374.D\ECD2A.CH
Acq On : 17 Jul 2001 12:39 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 13:02:48 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	808.0E6	1179.2E6	99.877	96.154
Spiked Amount 205.000	Range 75 - 125		Recovery =		48.72%#	46.90%#
2) S DCB	20.95	20.86	547.3E6	896.6E6	91.120	89.229
Spiked Amount 205.000			Recovery =		44.45%	43.53%
Target Compounds						
3) L2 Aroclor-1016	4.67	4.94	74740530	116.7E6	507.034	497.051
4) L2 Aroclor-1016 {2}	6.06	5.90	98803619	221.9E6	481.878	465.168
5) L2 Aroclor-1016 {3}	7.01	7.07	129.5E6	479.0E6	482.838	465.888
6) L2 Aroclor-1016 {4}	7.82	7.45	66986500	213.7E6	490.375	473.662
7) L2 Aroclor-1016 {5}	8.27	7.72	90067277	137.8E6	485.572	489.630m
Sum Aroclor-1016			460.1E6	1169.3E6	2447.696	2391.399
Average Aroclor-1016					489.539	478.280
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	13.75	13.24	290.3E6	350.7E6	489.644	447.258
34) L8 Aroclor-1260 {2}	14.31	14.31	168.4E6	439.0E6	487.453	443.433
35) L8 Aroclor-1260 {3}	15.93	15.51	375.8E6	281.5E6	490.630	452.033
36) L8 Aroclor-1260 {4}	16.83	16.42	192.2E6	638.2E6	489.279	459.044
37) L8 Aroclor-1260 {5}	18.87	19.51	86755454	239.0E6	494.783	459.828m
Sum Aroclor-1260			1113.5E6	1948.5E6	2451.788	2261.597
Average Aroclor-1260					490.358	452.319

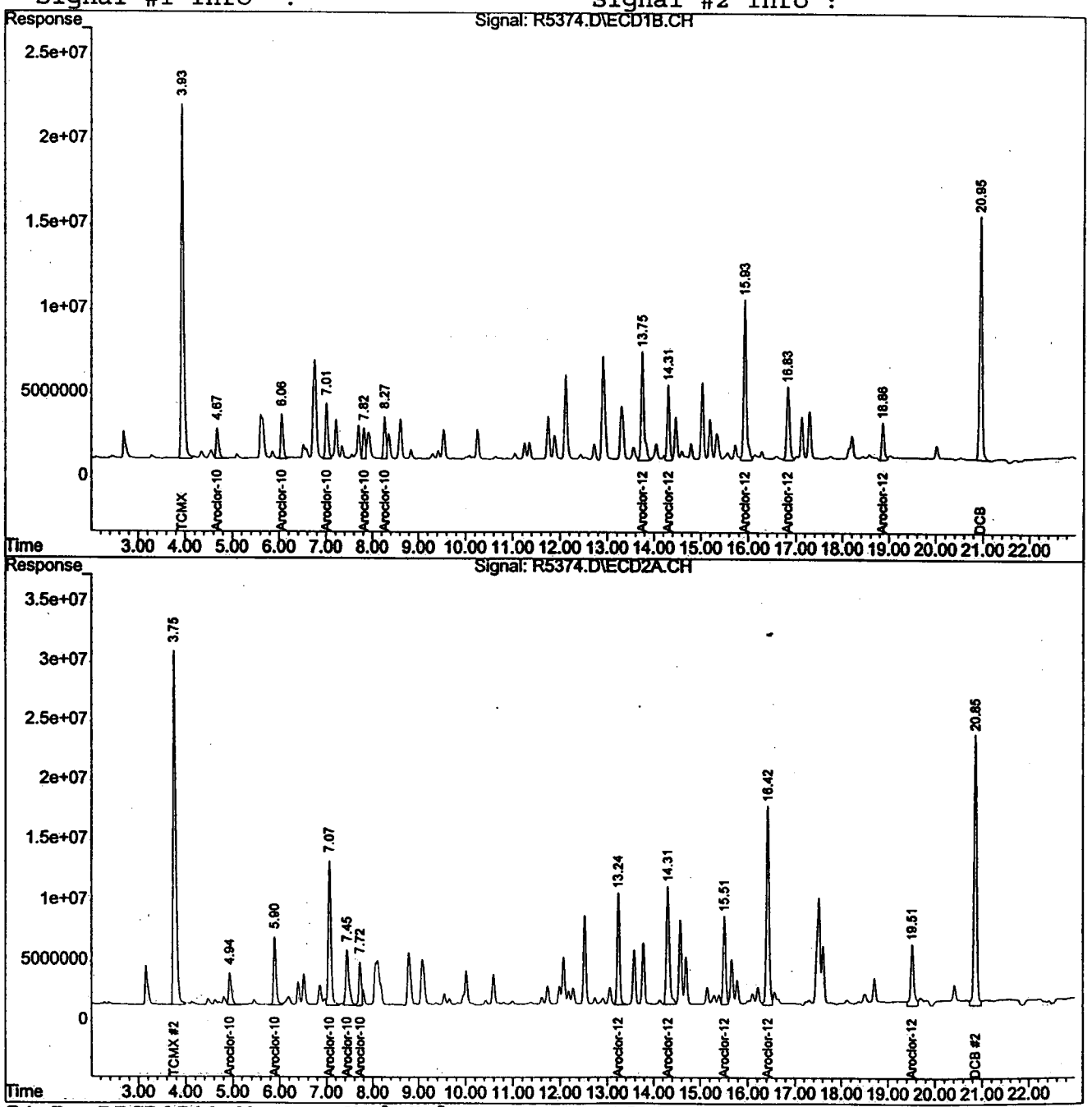
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5374.D\ECD1B.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5374.D\ECD2A.CH
Acq On : 17 Jul 2001 12:39 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 6:48 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1934

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5393.D\ECD1B.CH Vial: 21
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5393.D\ECD2A.CH
Acq On : 17 Jul 2001 20:58 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 17 21:22:07 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.93	3.75	812.4E6	1255.5E6	100.421	102.377
Spiked Amount 205.000		Range 75 - 125		Recovery =		48.99%#	49.94%#
2) S DCB		20.95	20.86	574.5E6	950.7E6	95.653	94.611
Spiked Amount 205.000				Recovery =		46.66%	46.15%
Target Compounds							
3) L2 Aroclor-1016		4.68	4.94	73559553	116.5E6	499.022	496.135
4) L2 Aroclor-1016	{2}	6.06	5.90	98382352	228.3E6	479.823	478.423
5) L2 Aroclor-1016	{3}	7.01	7.07	129.9E6	503.3E6	484.582	489.494
6) L2 Aroclor-1016	{4}	7.82	7.45	67736978	224.0E6	495.869	496.358
7) L2 Aroclor-1016	{5}	8.27	7.73	90885725	144.3E6	489.984	512.725m
Sum Aroclor-1016				460.5E6	1216.4E6	2449.280	2473.135
Average Aroclor-1016						489.856	494.627
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
Sum Aroclor-1254				0	0	N.D.	N.D.
Average Aroclor-1254						0.000	0.000
33) L8 Aroclor-1260		13.76	13.24	292.5E6	379.4E6	493.245	483.826
34) L8 Aroclor-1260	{2}	14.31	14.31	170.0E6	479.7E6	492.172	484.542
35) L8 Aroclor-1260	{3}	15.94	15.51	381.9E6	305.5E6	498.601	490.535
36) L8 Aroclor-1260	{4}	16.84	16.42	208.9E6	674.0E6	531.777	484.739
37) L8 Aroclor-1260	{5}	18.87	19.51	88029679	258.1E6	502.051	496.460
Sum Aroclor-1260				1141.3E6	2096.7E6	2517.845	2440.102
Average Aroclor-1260						503.569	488.020

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

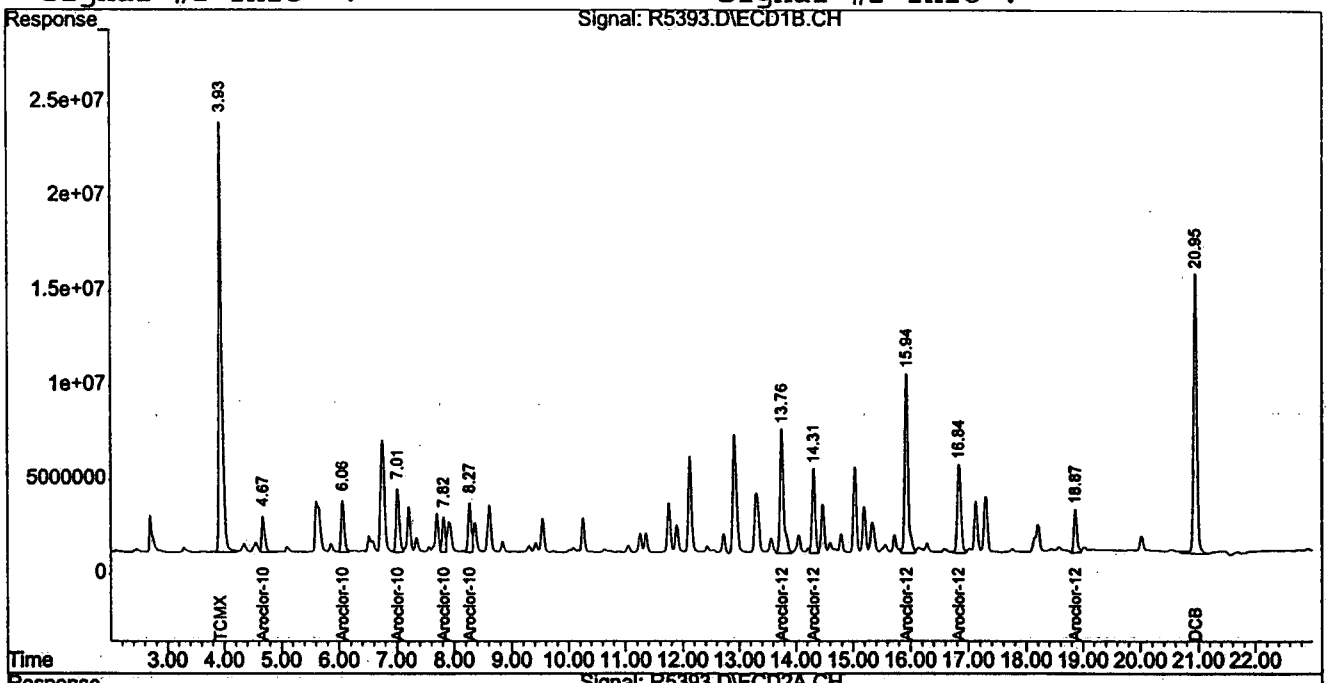
1625

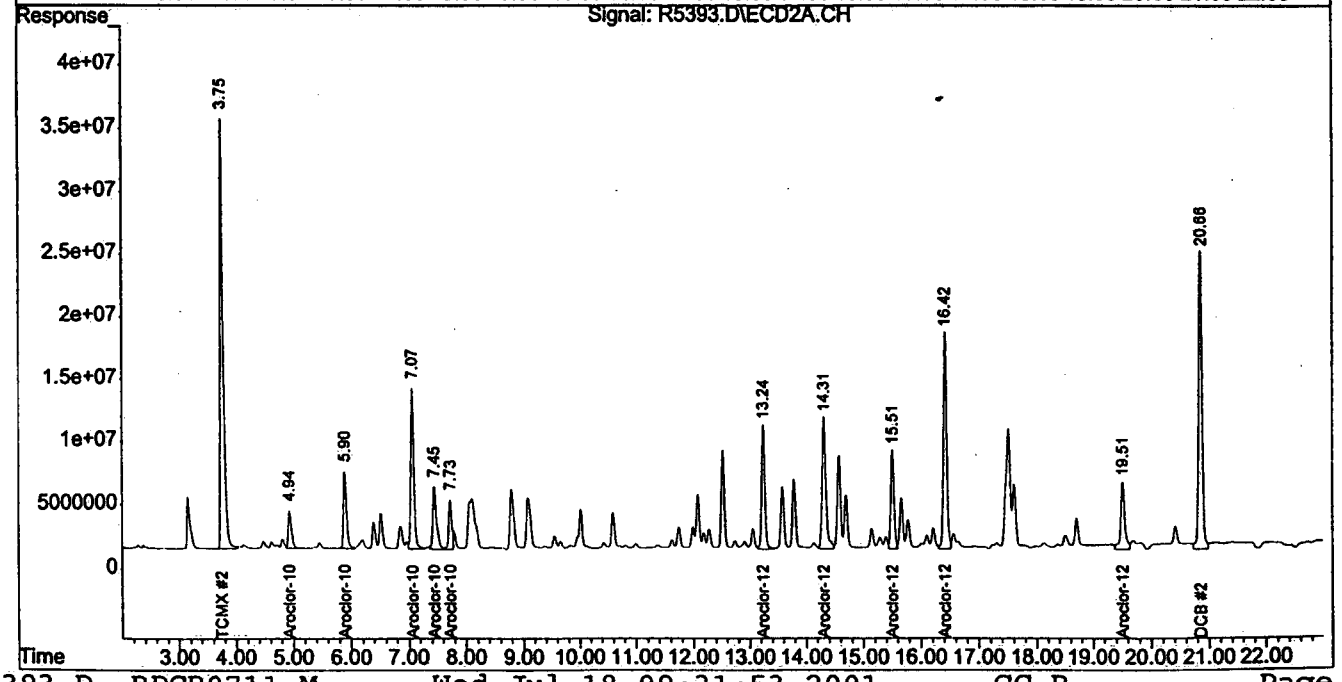
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5393.D\ECD1B.CH Vial: 21
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5393.D\ECD2A.CH
Acq On : 17 Jul 2001 20:58 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 7:08 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1521

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5419.D\ECD1B.CH Vial: 47
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5419.D\ECD2A.CH
Acq On : 18 Jul 2001 8:23 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 08:46:39 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.94	3.76	790.6E6	1215.4E6	97.732	99.109
Spiked Amount 205.000	Range 75 - 125		Recovery =		47.67%#	48.35%#
2) S DCB	20.95	20.85	541.9E6	934.9E6	90.222	93.036
Spiked Amount 205.000			Recovery =		44.01%	45.38%
Target Compounds						
3) L2 Aroclor-1016	4.68	4.94	70648067	112.6E6	479.271	479.284
4) L2 Aroclor-1016 {2}	6.06	5.90	94818413	220.1E6	462.442	461.379
5) L2 Aroclor-1016 {3}	7.01	7.07	125.4E6	484.6E6	467.587	471.283
6) L2 Aroclor-1016 {4}	7.82	7.45	65625274	216.4E6	480.410	479.498
7) L2 Aroclor-1016 {5}	8.27	7.72	87433331	135.4E6	471.372	481.235
Sum Aroclor-1016			443.9E6	1169.1E6	2361.082	2372.678
Average Aroclor-1016					472.216	474.536
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	13.76	13.24	283.6E6	369.4E6	478.306	471.101
34) L8 Aroclor-1260 {2}	14.31	14.31	163.5E6	453.2E6	473.209	457.777
35) L8 Aroclor-1260 {3}	15.93	15.51	362.6E6	298.3E6	473.390	478.893
36) L8 Aroclor-1260 {4}	16.84	16.42	183.6E6	655.0E6	467.206	471.065
37) L8 Aroclor-1260 {5}	18.87	19.51	87840280	224.0E6	500.970	430.910m
Sum Aroclor-1260			1081.0E6	1999.8E6	2393.081	2309.747
Average Aroclor-1260					478.616	461.949

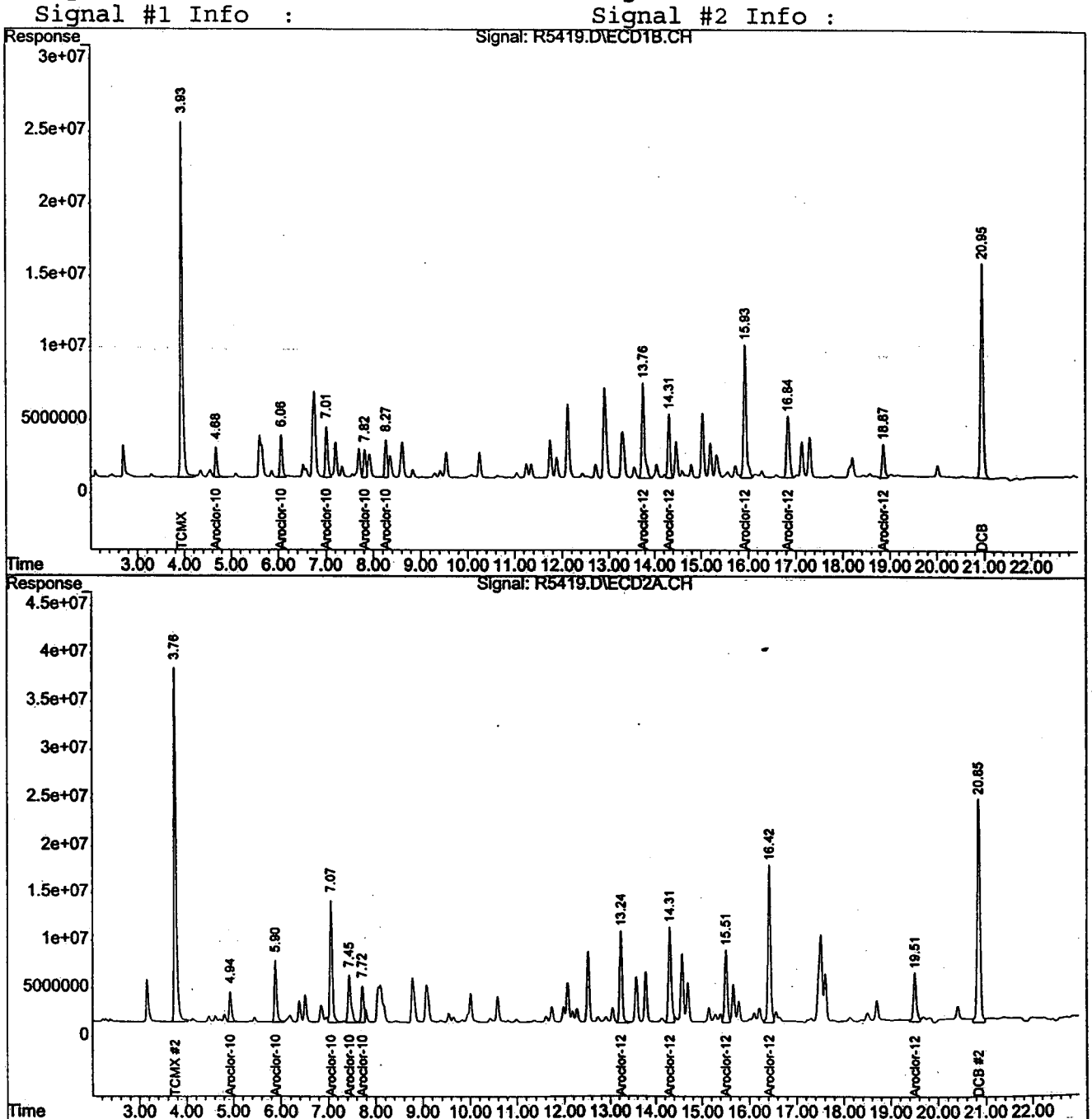
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5419.D\ECD1B.CH Vial: 47
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5419.D\ECD2A.CH
Acq On : 18 Jul 2001 8:23 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 9:13 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



0595

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5427.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5427.D\ECD2A.CH
Acq On : 18 Jul 2001 11:53 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 12:17:05 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.93	3.75	898.8E6	1365.2E6	111.104	111.323
Spiked Amount 205.000	Range 75 - 125		Recovery =		54.20%#	54.30%#
2) S DCB	20.95	20.86	594.5E6	986.0E6	98.989	98.118
Spiked Amount 205.000			Recovery =		48.29%	47.86%
Target Compounds						
3) L2 Aroclor-1016	4.67	4.94	73963814	125.9E6	501.764m	536.217
4) L2 Aroclor-1016 {2}	6.06	5.90	106.1E6	244.0E6	517.696m	511.435
5) L2 Aroclor-1016 {3}	7.01	7.07	138.2E6	539.3E6	515.405m	524.498
6) L2 Aroclor-1016 {4}	7.82	7.45	73509842	237.7E6	538.129m	526.783
7) L2 Aroclor-1016 {5}	8.27	7.72	97150624	146.5E6	523.760m	520.603m
Sum Aroclor-1016			489.0E6	1293.5E6	2596.754	2619.535
Average Aroclor-1016					519.351	523.907
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	13.76	13.24	302.3E6	376.8E6	509.846	480.567
34) L8 Aroclor-1260 {2}	14.31	14.31	173.5E6	487.2E6	502.149	492.109
35) L8 Aroclor-1260 {3}	15.94	15.51	387.7E6	301.0E6	506.181	483.321
36) L8 Aroclor-1260 {4}	16.84	16.42	203.5E6	676.3E6	518.005	486.417
37) L8 Aroclor-1260 {5}	18.87	19.51	91569493	255.4E6	522.239m	491.378
Sum Aroclor-1260			1158.5E6	2096.8E6	2558.420	2433.793
Average Aroclor-1260					511.684	486.759

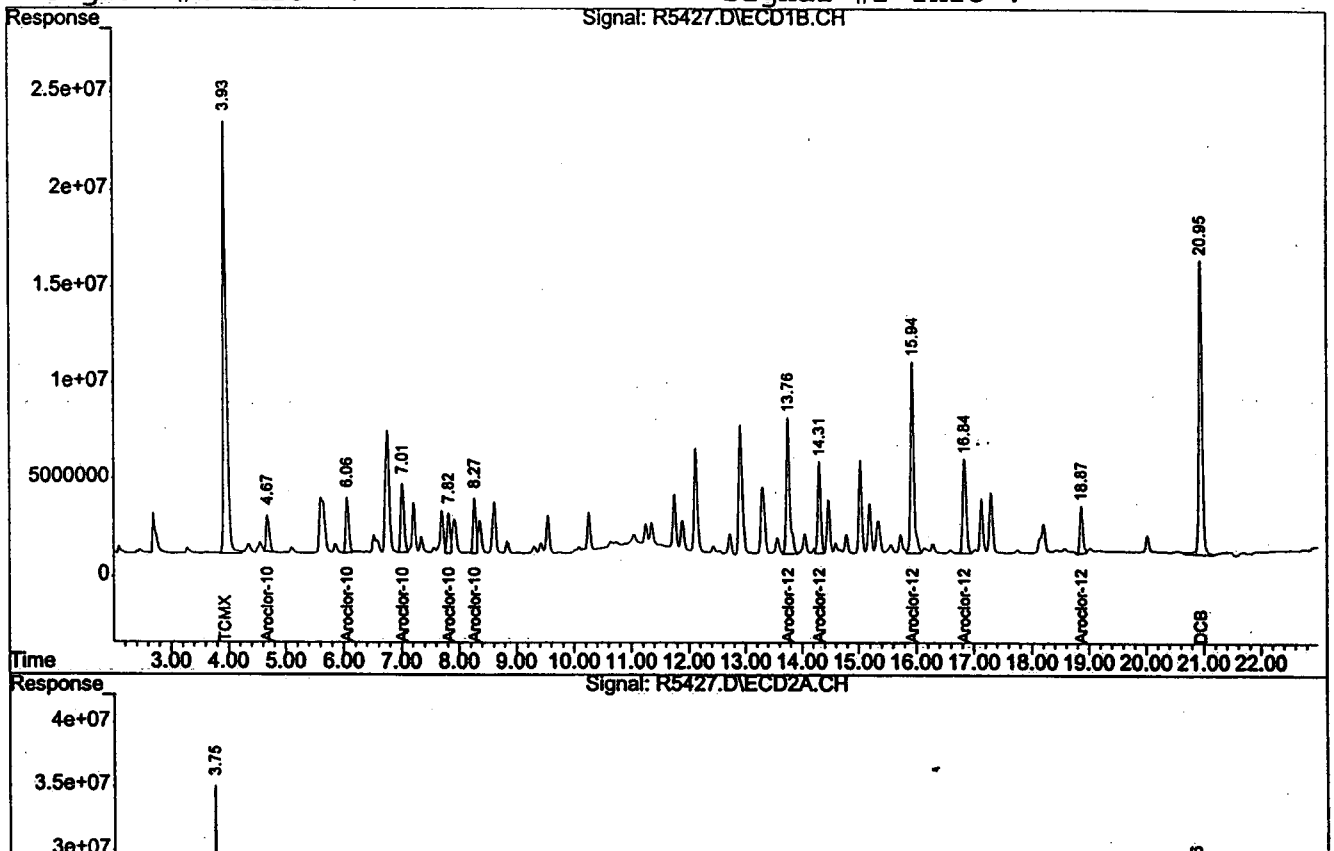
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

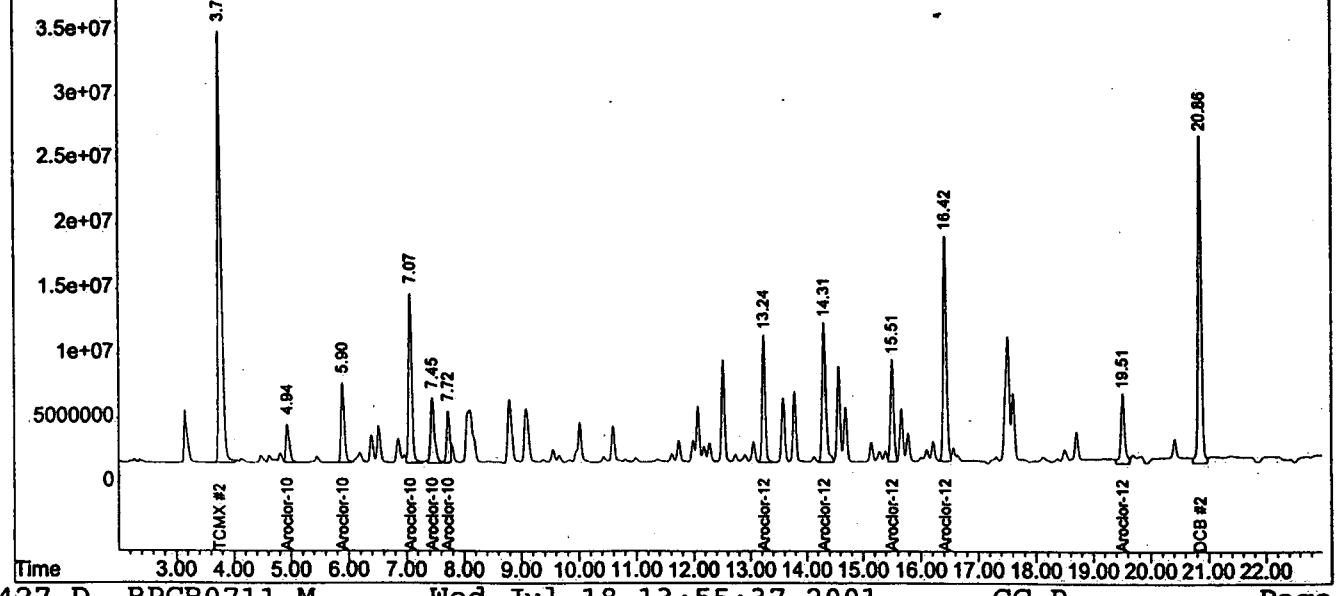
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-17-01\R5427.D\ECD1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\07-17-01\R5427.D\ECD2A.CH
Acq On : 18 Jul 2001 11:53 Operator: MJ
Sample : 8082_C_IAS1473,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 18 12:20 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-11-01\R5196.D\ECD1B.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\07-11-01\R5196.D\ECD2A.CH
Acq On : 11 Jul 2001 00:26 Operator: MJ
Sample : 8082_1254_IAS1470,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 11 07:05:49 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Initial Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound		RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds							
1) S TCMX		3.94	3.76	766.0E6	1129.4E6	94.691	92.098
Spiked Amount 205.000		Range 75 - 125		Recovery =		46.19%#	44.93%#
2) S DCB		20.95	20.86	575.7E6	889.0E6	95.858	88.467
Spiked Amount 205.000				Recovery =		46.76%	43.15%
Target Compounds							
Sum Aroclor-1016				0	0	N.D.	N.D.
Average Aroclor-1016						0.000	0.000
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
28) L7 Aroclor-1254		10.25	10.67	171.9E6	117.0E6	500.000	500.000
29) L7 Aroclor-1254	{2}	11.05	11.70	136.5E6	89263677	500.000	500.000
30) L7 Aroclor-1254	{3}	11.35	12.74	250.0E6	275.2E6	500.000	500.000
31) L7 Aroclor-1254	{4}	12.17	13.24	279.5E6	195.9E6	500.000	500.000
32) L7 Aroclor-1254	{5}	12.92	14.32	126.8E6	428.5E6	500.000	500.000
Sum Aroclor-1254				964.7E6	1105.8E6	2500.000	2500.000
Average Aroclor-1254						500.000	500.000
Sum Aroclor-1260				0	0	N.D.	N.D.
Average Aroclor-1260						0.000	0.000

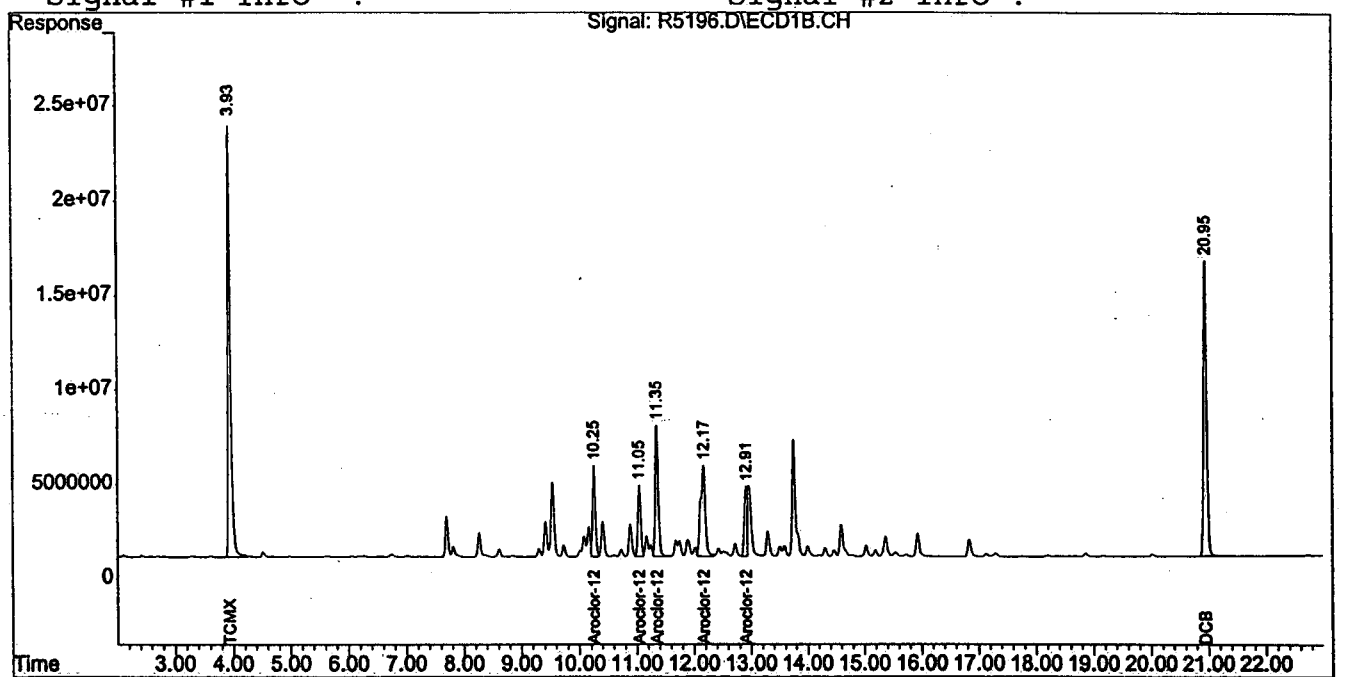
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

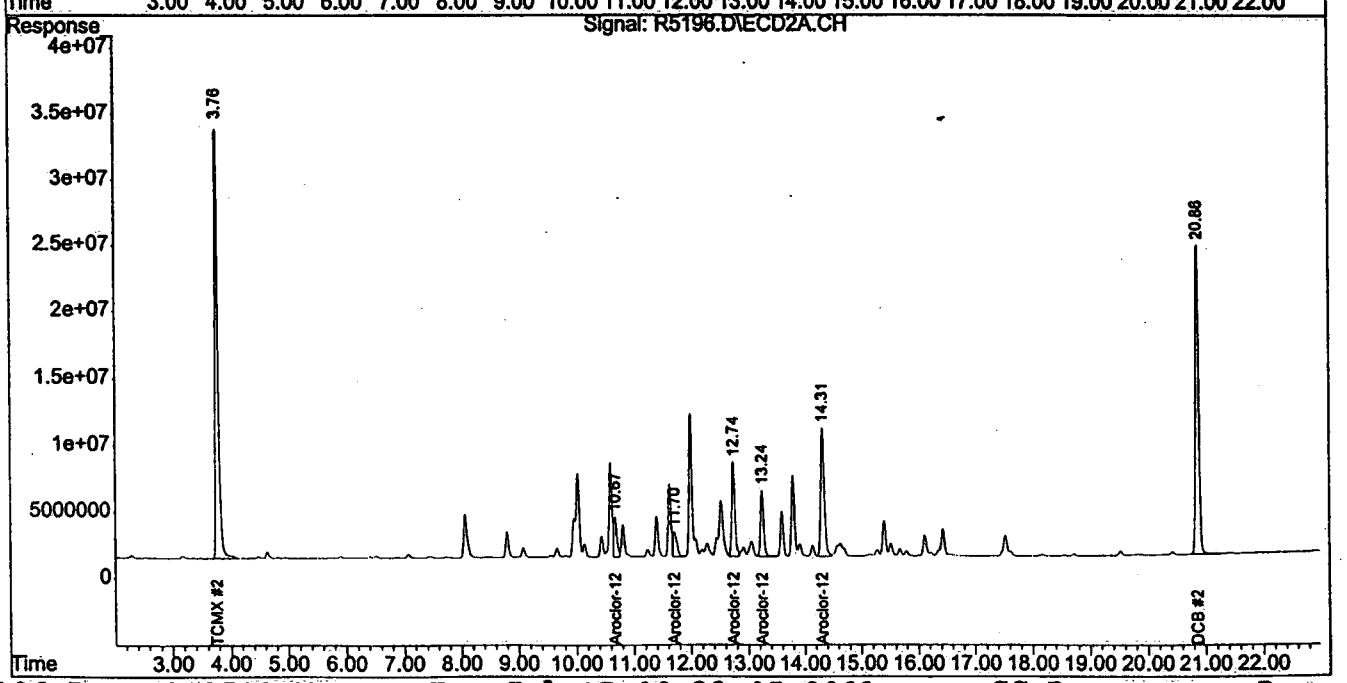
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\07-11-01\R5196.D\ECD1B.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\07-11-01\R5196.D\ECD2A.CH
Acq On : 11 Jul 2001 00:26 Operator: MJ
Sample : 8082_1254_IAS1470,0.5_PPM Inst : GC_R
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 11 7:07 2001 Quant Results File: RPCB0711.RES

Quant Method : C:\MSDCHEM\1\METHODS\RPCB0711.M (Chemstation Integrator)
Title :
Last Update : Wed Jul 11 07:01:06 2001
Response via : Multiple Level Calibration
DataAcq Meth : RPCB0711.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1447

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7701.D

Instrument ID: GC-W

Date Extracted: 07/17/2001

Matrix: SOIL

Date Analyzed: 07/18/2001

Time Analyzed: 23:35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-105	4833-015	07/19/2001	00:00
S-106	4833-016	07/19/2001	00:25
S-107	4833-017	07/19/2001	00:50
S-108	4833-018	07/19/2001	01:15
S-114A	4833-025	07/19/2001	01:40
S-114B	4833-026	07/19/2001	02:05
S-115	4833-027	07/19/2001	02:30
S-116	4833-028	07/19/2001	02:55
S-117	4833-029	07/19/2001	03:20
S-89	4591-010	07/19/2001	03:45
PEST	4591-010-MS1	07/19/2001	04:10
PEST	4591-010-MSD1	07/19/2001	04:35
PEST	PBS0717-MS1	07/19/2001	05:00

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0717-BK1
Client ID: (4833)
Date Received: NA
Date Extracted: 07/17/2001
Date Analyzed: 07/18/2001
Data file: W7701.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

1844

0601

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: W7828.D

Instrument ID: GC-W

Date Extracted: 07/17/2001

Matrix: SOIL

Date Analyzed: 07/24/2001

Time Analyzed: 00:40

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
S-105	4833-015DIL	07/24/2001	01:05

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0717-BK1
Client ID: (4833)
Date Received: NA
Date Extracted: 07/17/2001
Date Analyzed: 07/24/2001
Data file: W7828.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.0g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		0.167
beta-BHC	ND		0.167
gamma-BHC	ND		0.167
delta-BHC	ND		0.167
Heptachlor	ND		0.167
Aldrin	ND		0.167
Heptachlor epoxide	ND		0.167
Endosulfan I	ND		0.167
4,4'-DDE	ND		0.167
Dieldrin	ND		0.167
Endrin	ND		0.167
Endosulfan II	ND		0.167
4,4'-DDD	ND		0.167
Endrin aldehyde	ND		0.167
Endosulfan sulfate	ND		0.167
4,4'-DDT	ND		0.167
Chlordane	ND		0.835
Toxaphene	ND		0.835

0503

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001

Instrument ID: GC-W

GC Column (1st): DB-5

Data File: W7550.D W7549.D W7548.D W7547.D W7546.D

Compound	RT OF STANDARDS 10	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	4.53	4.53	4.53	4.53	4.53	4.53	4.46	4.60
beta-BHC	5.03	5.03	5.03	5.03	5.03	5.03	4.96	5.10
gamma-BHC	5.16	5.16	5.16	5.16	5.15	5.16	5.09	5.23
delta-BHC	5.63	5.63	5.63	5.63	5.63	5.63	5.56	5.70
Heptachlor	6.73	6.73	6.73	6.73	6.72	6.73	6.66	6.80
Aldrin	7.54	7.54	7.54	7.54	7.54	7.54	7.47	7.61
Heptachlor epoxide	8.55	8.55	8.55	8.55	8.55	8.55	8.48	8.62
Endosulfan I	9.47	9.47	9.47	9.47	9.47	9.47	9.40	9.54
4,4'-DDE	10.24	10.24	10.24	10.24	10.24	10.24	10.17	10.31
Dieldrin	10.16	10.16	10.16	10.16	10.16	10.16	10.09	10.23
Endrin	10.72	10.72	10.72	10.72	10.71	10.72	10.65	10.79
Endosulfan II	10.97	10.97	10.97	10.97	10.97	10.97	10.90	11.04
4,4'-DDD	11.36	11.36	11.36	11.36	11.35	11.36	11.29	11.43
Endrin aldehyde	11.50	11.50	11.50	11.50	11.49	11.50	11.43	11.57
Endosulfan sulfate	12.15	12.15	12.15	12.15	12.15	12.15	12.08	12.22
4,4'-DDT	12.38	12.38	12.38	12.38	12.38	12.38	12.31	12.45
Endrin ketone	13.36	13.36	13.36	13.36	13.36	13.36	13.29	13.43
Methoxychlor	14.06	14.06	14.06	14.06	14.05	14.06	13.99	14.13
alpha-Chlordane	9.58	9.58	9.58	9.58	9.57	9.57	9.50	9.64
gamma-Chlordane	9.17	9.17	9.17	9.17	9.16	9.17	9.10	9.24
Chlordane 500 ppb			9.17				9.10	9.24
Chlordane {2}			9.36				9.29	9.43
Chlordane {3}			9.57				9.50	9.64
Chlordane {4}			9.72				9.65	9.79
Chlordane {5}			11.57				11.50	11.64
Toxaphene 500 ppb			13.16				13.09	13.23
Toxaphene {2}			13.29				13.22	13.36
Toxaphene {3}			13.57				13.50	13.64
Toxaphene {4}			14.03				13.96	14.10
Toxaphene {5}			14.54				14.47	14.61

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Client/Project: NA

Lab ID: 0717-BK2
Client ID: (4752.4815)
Date Received: NA
Date Extracted: 07/17/2001
Date Analyzed: 07/19/2001
Data file: W7716.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.2g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
alpha-BHC	ND		3.85
beta-BHC	ND		3.85
gamma-BHC	ND		3.85
delta-BHC	ND		3.85
Heptachlor	ND		3.85
Aldrin	ND		3.85
Heptachlor epoxide	ND		3.85
Endosulfan I	ND		3.85
4,4'-DDE	ND		3.85
Dieldrin	ND		3.85
Endrin	ND		3.85
Endosulfan II	ND		3.85
4,4'-DDD	ND		3.85
Endrin aldehyde	ND		3.85
Endosulfan sulfate	ND		3.85
4,4'-DDT	ND		3.85
Chlordane	ND		19.2
Toxaphene	ND		19.2

7/19/01

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W
GC Column (1st): DB-5

Data File: W7550.D W7549.D W7548.D W7547.D W7546.D

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	35899780	40546995	41570626	41974038	41704110	40339110	6.30
beta-BHC	15303419	15061307	14987156	14952210	14780083	15016835	1.27
gamma-BHC	33489701	36941231	37400232	37715588	37394145	36588180	4.79
delta-BHC	29595950	33767323	34786965	35532197	35721184	33880724	7.42
Heptachlor	29743430	32155703	32252554	31935852	30860785	31389665	3.42
Aldrin	32454675	35366933	35271530	34664663	33615679	34274696	3.60
Heptachlor epoxide	30220561	31585240	31096114	29802440	28498172	30240505	3.97
Endosulfan I	28421095	29661129	29074059	27899586	26692089	28349592	4.02
4,4'-DDE	29112676	31841381	31928568	31398017	30503624	30956853	3.80
Dieldrin	29913589	32184172	31865463	30923285	29649495	30907201	3.66
Endrin	28863066	29802328	29310494	28310320	27332835	28723809	3.32
Endosulfan II	26773482	27873076	27469499	26477426	25435048	26805706	3.52
4,4'-DDD	23277034	25406715	25638562	25415634	24644357	24876460	3.90
Endrin aldehyde	22375409	21396111	21193774	19739280	18870107	20714936	6.74
Endosulfan sulfate	22374584	23509779	23345187	22705913	22132843	22813661	2.63
4,4'-DDT	17626484	20924417	22157859	22689328	23075672	21294752	10.36
Endrin ketone	31037190	31038156	30008047	28190294	26747791	29404296	6.41
Methoxychlor	9918830	10866206	10988086	10704037	10450857	10585603	4.00
alpha-Chlordane	30394463	32046337	32032240	31756768	30950662	31436094	2.33
gamma-Chlordane	30775350	33453956	33694507	33526154	32721313	32834256	3.68
Chlordane 500 ppb			3616750				
Chlordane {2}			796362				
Chlordane {3}			3567490				
Chlordane {4}			2088165				
Chlordane {5}			1002113				
Toxaphene 500 ppb			648074				
Toxaphene {2}			1025609				
Toxaphene {3}			468496				
Toxaphene {4}			480376				
Toxaphene {5}			571717				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W

GC Column (2nd): DB-1701P

Data File: W7550.C W7549.C W7548.C W7547.C W7546.C

Compound	RT OF STANDARDS					MEAN	RT WINDOW	
	10	50	100	200	300	RT	FROM	TO
alpha-BHC	5.57	5.57	5.57	5.57	5.58	5.57	5.50	5.64
beta-BHC	8.62	8.62	8.62	8.62	8.63	8.62	8.55	8.69
gamma-BHC	6.52	6.52	6.52	6.52	6.53	6.52	6.45	6.59
delta-BHC	9.19	9.19	9.19	9.19	9.19	9.19	9.12	9.26
Heptachlor	7.00	7.00	7.00	7.00	7.01	7.00	6.93	7.07
Aldrin	7.67	7.67	7.67	7.67	7.68	7.68	7.61	7.75
Heptachlor epoxide	9.51	9.51	9.51	9.51	9.52	9.51	9.44	9.58
Endosulfan I	10.20	10.20	10.20	10.20	10.21	10.20	10.13	10.27
4,4'-DDE	10.97	10.97	10.97	10.97	10.98	10.97	10.90	11.04
Dieldrin	11.23	11.23	11.23	11.24	11.24	11.24	11.17	11.31
Endrin	11.76	11.76	11.76	11.76	11.77	11.76	11.69	11.83
Endosulfan II	13.20	13.20	13.20	13.20	13.20	13.20	13.13	13.27
4,4'-DDD	13.20	13.20	13.20	13.20	13.20	13.20	13.13	13.27
Endrin aldehyde	14.34	14.34	14.34	14.34	14.34	14.34	14.27	14.41
Endosulfan sulfate	15.24	15.24	15.24	15.24	15.24	15.24	15.17	15.31
4,4'-DDT	13.65	13.65	13.65	13.65	13.66	13.65	13.58	13.72
Endrin ketone	16.27	16.27	16.27	16.27	16.27	16.27	16.20	16.34
Methoxychlor	15.52	15.52	15.52	15.52	15.52	15.52	15.45	15.59
alpha-Chlordane	10.59	10.59	10.59	10.59	10.60	10.59	10.52	10.66
gamma-Chlordane	10.44	10.43	10.44	10.44	10.44	10.44	10.37	10.51
Chlordane 500 ppb			8.36				8.29	8.43
Chlordane {2}			10.03				9.96	10.10
Chlordane {3}			10.43				10.36	10.50
Chlordane {4}			10.59				10.52	10.66
Chlordane {5}			10.65				10.58	10.72
Toxaphene 500 ppb			13.98				13.91	14.05
Toxaphene {2}			14.73				14.66	14.80
Toxaphene {3}			14.98				14.91	15.05
Toxaphene {4}			15.17				15.10	15.24
Toxaphene {5}			15.63				15.56	15.70

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/12/2001 **Instrument ID:** GC-W
GC Column (2nd): DB-1701P

Data File: W7550.C W7549.C W7548.C W7547.C W7546.C

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	9996610	11774540	12296384	12663677	12559997	11858242	9.24
beta-BHC	5270645	5023068	4985960	4976654	4920046	5035275	2.71
gamma-BHC	9363150	10773003	11151138	11516765	11423353	10845482	8.09
delta-BHC	8402554	9743383	10248951	10672545	10685067	9950500	9.52
Heptachlor	8522360	9342840	9638682	9924205	9804498	9446517	5.94
Aldrin	8990741	10031458	10298389	10497035	10292183	10021961	5.98
Heptachlor epoxide	8866762	9245931	9334916	9379427	9138507	9193109	2.22
Endosulfan I	8197251	8666468	8784316	8824827	8574689	8609510	2.91
4,4'-DDE	7942450	8976734	9333006	9558937	9420627	9046351	7.22
Dieldrin	8451941	9283588	9526434	9683766	9480245	9285195	5.25
Endrin	8247574	8985395	9168443	9264339	9119520	8957054	4.57
Endosulfan II	14777797	16142649	16275107	16257891	15771439	15844976	3.98
4,4'-DDD	14777797	16142649	16275107	16257891	15771439	15844976	3.98
Endrin aldehyde	5383708	5652183	5995669	6213095	6102165	5869364	5.85
Endosulfan sulfate	6345668	6773038	6902525	7013993	6963223	6799689	3.96
4,4'-DDT	3996347	5391426	5998544	6576492	6838242	5760210	19.67
Endrin ketone	8110019	8740394	8805640	8744231	8515015	8583060	3.34
Methoxychlor	2859388	3170417	3325102	3422373	3442163	3243888	7.41
alpha-Chlordane	8760069	9252411	9438365	9592446	9417041	9292066	3.45
gamma-Chlordane	8670023	9376753	9647292	9889213	9740747	9464806	5.09
Chlordane 500 ppb			178263				
Chlordane {2}			232532				
Chlordane {3}			1028630				
Chlordane {4}			921012				
Chlordane {5}			599256				
Toxaphene 500 ppb			284900				
Toxaphene {2}			206806				
Toxaphene {3}			268570				
Toxaphene {4}			159622				
Toxaphene {5}			127935				

0608

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/18/2001 **Instrument ID:** GC-W

Data File: W7698.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	43533505	7.92
beta-BHC	5.03	4.96	5.10	15016835	15537051	3.46
gamma-BHC	5.16	5.09	5.23	36588180	39218411	7.19
delta-BHC	5.63	5.56	5.70	33880724	37857157	11.74
Heptachlor	6.73	6.66	6.80	31389665	34635569	10.34
Aldrin	7.54	7.47	7.61	34274696	36452296	6.35
Heptachlor epoxide	8.55	8.48	8.62	30240505	32314725	6.86
Endosulfan I	9.47	9.40	9.54	28349592	30133122	6.29
4,4'-DDE	10.24	10.17	10.31	30956853	32648138	5.46
Dieldrin	10.16	10.09	10.23	30907201	33330138	7.84
Endrin	10.72	10.65	10.79	28723809	31104583	8.29
Endosulfan II	10.97	10.90	11.04	26805706	28455878	6.16
4,4'-DDD	11.36	11.29	11.43	24876460	27725058	11.45
Endrin aldehyde	11.50	11.43	11.57	20714936	22256140	7.44
Endosulfan sulfate	12.15	12.08	12.22	22813661	25076209	9.92
4,4'-DDT	12.38	12.31	12.45	21294752	22812488	7.13
Endrin ketone	13.36	13.29	13.43	29404296	30924588	5.17
Methoxychlor	14.06	13.99	14.13	10585603	11690789	10.44
alpha-Chlordane	9.57	9.50	9.64	31436094	33224350	5.69
gamma-Chlordane	9.17	9.10	9.24	32834256	35021797	6.66
					Average %D	7.59
Chlordane 500 ppb	9.17	9.10	9.24	3616750	3821614	5.66
Chlordane {2}	9.37	9.30	9.44	796362	832489	4.54
Chlordane {3}	9.57	9.50	9.64	3567490	3747626	5.05
Chlordane {4}	9.72	9.65	9.79	2088165	2201879	5.45
Chlordane {5}	11.57	11.50	11.64	1002113	1046733	4.45
Toxaphene 500 ppb	13.16	13.09	13.23	648074	609501	5.95
Toxaphene {2}	13.29	13.22	13.36	1025609	1033423	0.76
Toxaphene {3}	13.57	13.50	13.64	468496	394926	15.70
Toxaphene {4}	14.03	13.96	14.10	480376	446278	7.10
Toxaphene {5}	14.54	14.47	14.61	571717	532427	6.87
					Average %D	6.15

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/18/2001 **Instrument ID:** GC-W

Data File: W7698.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12360193	4.23
beta-BHC	8.62	8.55	8.69	5035275	4950458	1.68
gamma-BHC	6.52	6.45	6.59	10845482	11232515	3.57
delta-BHC	9.18	9.11	9.25	9950500	10716686	7.70
Heptachlor	7.00	6.93	7.07	9446517	9688974	2.57
Aldrin	7.67	7.60	7.74	10021961	10271101	2.49
Heptachlor epoxide	9.51	9.44	9.58	9193109	9319124	1.37
Endosulfan I	10.20	10.13	10.27	8609510	8738842	1.50
4,4'-DDE	10.97	10.90	11.04	9046351	9205731	1.76
Dieldrin	11.23	11.16	11.30	9285195	9499618	2.31
Endrin	11.76	11.69	11.83	8957054	9178565	2.47
Endosulfan II	13.20	13.13	13.27	15844976	16421239	3.64
4,4'-DDD	13.20	13.13	13.27	15844976	16421239	3.64
Endrin aldehyde	14.33	14.26	14.40	5869364	6013338	2.45
Endosulfan sulfate	15.23	15.16	15.30	6799689	7051091	3.70
4,4'-DDT	13.65	13.58	13.72	5760210	5610425	2.60
Endrin ketone	16.26	16.19	16.33	8583060	8580713	0.03
Methoxychlor	15.51	15.44	15.58	3243888	3167107	2.37
alpha-Chlordane	10.59	10.52	10.66	9292066	9415101	1.32
gamma-Chlordane	10.43	10.36	10.50	9464806	9633379	1.78
					Average %D	2.66
Chlordane 500 ppb	8.36	8.29	8.43	178263	183128	2.73
Chlordane {2}	10.03	9.96	10.10	232532	236824	1.85
Chlordane {3}	10.43	10.36	10.50	1028630	1053797	2.45
Chlordane {4}	10.59	10.52	10.66	921012	953344	3.51
Chlordane {5}	10.65	10.58	10.72	599256	602829	0.60
Toxaphene 500 ppb	13.98	13.91	14.05	284900	276135	3.08
Toxaphene {2}	14.73	14.66	14.80	206806	190572	7.85
Toxaphene {3}	14.98	14.91	15.05	268570	277580	3.36
Toxaphene {4}	15.17	15.10	15.24	159622	164490	3.05
Toxaphene {5}	15.62	15.55	15.69	127935	133811	4.59
					Average %D	3.31

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/19/2001 **Instrument ID:** GC-W

Data File: W7725.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	40339110	44914258	11.34
beta-BHC	5.03	4.96	5.10	15016835	15945235	6.18
gamma-BHC	5.15	5.08	5.22	36588180	40402450	10.42
delta-BHC	5.63	5.56	5.70	33880724	39295900	15.98
Heptachlor	6.73	6.66	6.80	31389665	35415738	12.83
Aldrin	7.54	7.47	7.61	34274696	37762381	10.18
Heptachlor epoxide	8.55	8.48	8.62	30240505	33288064	10.08
Endosulfan I	9.47	9.40	9.54	28349592	31038999	9.49
4,4'-DDE	10.24	10.17	10.31	30956853	33756544	9.04
Dieldrin	10.16	10.09	10.23	30907201	34171304	10.56
Endrin	10.71	10.64	10.78	28723809	31747264	10.53
Endosulfan II	10.97	10.90	11.04	26805706	29212673	8.98
4,4'-DDD	11.35	11.28	11.42	24876460	28316456	13.83
Endrin aldehyde	11.49	11.42	11.56	20714936	22607591	9.14
Endosulfan sulfate	12.15	12.08	12.22	22813661	25907365	13.56
4,4'-DDT	12.38	12.31	12.45	21294752	23337352	9.59
Endrin ketone	13.36	13.29	13.43	29404296	31758513	8.01
Methoxychlor	14.05	13.98	14.12	10585603	11735683	10.86
alpha-Chlordane	9.57	9.50	9.64	31436094	34256476	8.97
gamma-Chlordane	9.16	9.09	9.23	32834256	36108786	9.97
					Average %D	10.48

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/19/2001 **Instrument ID:** GC-W

Data File: W7725.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11858242	12810916	8.03
beta-BHC	8.62	8.55	8.69	5035275	5135384	1.99
gamma-BHC	6.52	6.45	6.59	10845482	11659585	7.51
delta-BHC	9.18	9.11	9.25	9950500	11240589	12.97
Heptachlor	7.00	6.93	7.07	9446517	10039353	6.28
Aldrin	7.67	7.60	7.74	10021961	10660870	6.38
Heptachlor epoxide	9.51	9.44	9.58	9193109	9657735	5.05
Endosulfan I	10.20	10.13	10.27	8609510	9064839	5.29
4,4'-DDE	10.97	10.90	11.04	9046351	9564554	5.73
Dieldrin	11.23	11.16	11.30	9285195	9861497	6.21
Endrin	11.76	11.69	11.83	8957054	9472423	5.75
Endosulfan II	13.20	13.13	13.27	15844976	16659859	5.14
4,4'-DDD	13.20	13.13	13.27	15844976	16659859	5.14
Endrin aldehyde	14.33	14.26	14.40	5869364	6281426	7.02
Endosulfan sulfate	15.23	15.16	15.30	6799689	7398282	8.80
4,4'-DDT	13.65	13.58	13.72	5760210	5960729	3.48
Endrin ketone	16.26	16.19	16.33	8583060	9015019	5.03
Methoxychlor	15.51	15.44	15.58	3243888	3308632	2.00
alpha-Chlordane	10.59	10.52	10.66	9292066	9797096	5.44
gamma-Chlordane	10.43	10.36	10.50	9464806	10021433	5.88
					Average %D	5.96

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/23/2001 **Instrument ID:** GC-W

GC Column (1st): DB-5

Data File: W7815.D W7814.D W7813.D W7812.D W7811.D

Compound	RT OF STANDARDS 10	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	4.53	4.53	4.53	4.54	4.53	4.53	4.46	4.60
beta-BHC	5.03	5.03	5.03	5.03	5.03	5.03	4.96	5.10
gamma-BHC	5.16	5.16	5.16	5.16	5.16	5.16	5.09	5.23
delta-BHC	5.63	5.63	5.63	5.64	5.63	5.63	5.56	5.70
Heptachlor	6.73	6.73	6.73	6.73	6.73	6.73	6.66	6.80
Aldrin	7.54	7.54	7.54	7.55	7.54	7.54	7.47	7.61
Heptachlor epoxide	8.55	8.55	8.55	8.55	8.55	8.55	8.48	8.62
Endosulfan I	9.47	9.47	9.47	9.47	9.47	9.47	9.40	9.54
4,4'-DDE	10.24	10.24	10.24	10.24	10.24	10.24	10.17	10.31
Dieldrin	10.16	10.16	10.16	10.16	10.16	10.16	10.09	10.23
Endrin	10.72	10.72	10.72	10.72	10.72	10.72	10.65	10.79
Endosulfan II	10.97	10.97	10.97	10.97	10.97	10.97	10.90	11.04
4,4'-DDD	11.36	11.35	11.36	11.36	11.36	11.36	11.29	11.43
Endrin aldehyde	11.50	11.50	11.49	11.50	11.49	11.50	11.43	11.57
Endosulfan sulfate	12.15	12.15	12.15	12.15	12.15	12.15	12.08	12.22
4,4'-DDT	12.38	12.38	12.38	12.38	12.38	12.38	12.31	12.45
Endrin ketone	13.36	13.36	13.36	13.36	13.36	13.36	13.29	13.43
Methoxychlor	14.06	14.06	14.05	14.06	14.05	14.06	13.99	14.13
alpha-Chlordane	9.57	9.58	9.57	9.58	9.57	9.57	9.50	9.64
gamma-Chlordane	9.17	9.17	9.17	9.17	9.17	9.17	9.10	9.24
Chlordane 500 ppb			9.17				9.10	9.24
Chlordane {2}			9.37				9.30	9.44
Chlordane {3}			9.57				9.50	9.64
Chlordane {4}			9.72				9.65	9.79
Chlordane {5}			11.57				11.50	11.64
Toxaphene 500 ppb			13.16				13.09	13.23
Toxaphene {2}			13.29				13.22	13.36
Toxaphene {3}			13.57				13.50	13.64
Toxaphene {4}			14.03				13.96	14.10
Toxaphene {5}			14.54				14.47	14.61

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/23/2001

Instrument ID: GC-W

GC Column (1st): DB-5

Data File: W7815.D W7814.D W7813.D W7812.D W7811.D

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	38428319	43644209	44606105	45881552	44071653	43326368	6.61
beta-BHC	16284150	16025697	15878267	16207694	15450438	15969249	2.07
gamma-BHC	35777532	39716522	40045920	41141706	39374119	39211160	5.18
delta-BHC	32211339	37202244	38370481	40132119	38469605	37277158	8.10
Heptachlor	30983084	33733021	33672205	34100681	32018164	32901431	4.07
Aldrin	34796331	38162570	37955719	37830275	35917282	36932435	4.05
Heptachlor epoxide	32102029	33869095	33090770	32242086	30092116	32279219	4.38
Endosulfan I	30275612	31773820	30997231	30294526	28176216	30303481	4.42
4,4'-DDE	30970776	34233074	34325220	34764406	32904959	33439687	4.62
Dieldrin	31576102	34359802	33728146	33120836	31022812	32761539	4.33
Endrin	29400494	31050263	30361276	29990846	28035876	29767751	3.82
Endosulfan II	28433616	29787252	29250667	28724692	26885447	28616335	3.83
4,4'-DDD	24280620	26863320	26959350	27516535	26151807	26354326	4.77
Endrin aldehyde	23781109	22630112	22536508	21386697	19821350	22031155	6.80
Endosulfan sulfate	24611995	26028949	25708598	25555497	24005725	25182153	3.35
4,4'-DDT	18002623	21482876	22595476	23899375	23119693	21820009	10.58
Endrin ketone	32478899	32957356	31716495	30345475	28222084	31144062	6.13
Methoxychlor	9931471	11036391	11116882	11071777	10409962	10713297	4.89
alpha-Chlordane	32422276	34458225	34395072	34702561	33094432	33814513	2.96
gamma-Chlordane	32702464	36011117	36129706	36628085	34953628	35285000	4.44
Chlordane 500 ppb			3943533				
Chlordane {2}			869625				
Chlordane {3}			3865260				
Chlordane {4}			2263363				
Chlordane {5}			1064000				
Toxaphene 500 ppb			590572				
Toxaphene {2}			940134				
Toxaphene {3}			420087				
Toxaphene {4}			429302				
Toxaphene {5}			512835				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/23/2001

Instrument ID: GC-W

GC Column (2nd): DB-1701P

Data File: W7815.C W7814.C W7813.C W7812.C W7811.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	10	50	100	200	300	RT	FROM	TO
alpha-BHC	5.56	5.57	5.57	5.57	5.57	5.57	5.50	5.64
beta-BHC	8.61	8.61	8.61	8.61	8.61	8.61	8.54	8.68
gamma-BHC	6.52	6.52	6.52	6.52	6.52	6.52	6.45	6.59
delta-BHC	9.18	9.18	9.18	9.18	9.18	9.18	9.11	9.25
Heptachlor	7.00	7.00	7.00	7.00	7.00	7.00	6.93	7.07
Aldrin	7.67	7.67	7.67	7.67	7.67	7.67	7.60	7.74
Heptachlor epoxide	9.51	9.51	9.51	9.51	9.51	9.51	9.44	9.58
Endosulfan I	10.19	10.19	10.19	10.20	10.19	10.19	10.12	10.26
4,4'-DDE	10.97	10.97	10.97	10.97	10.97	10.97	10.90	11.04
Dieldrin	11.23	11.23	11.23	11.23	11.23	11.23	11.16	11.30
Endrin	11.75	11.75	11.75	11.75	11.76	11.75	11.68	11.82
Endosulfan II	13.19	13.19	13.19	13.19	13.20	13.19	13.12	13.26
4,4'-DDD	13.19	13.19	13.19	13.19	13.20	13.19	13.12	13.26
Endrin aldehyde	14.33	14.33	14.33	14.33	14.33	14.33	14.26	14.40
Endosulfan sulfate	15.23	15.23	15.23	15.23	15.23	15.23	15.16	15.30
4,4'-DDT	13.65	13.65	13.65	13.65	13.65	13.65	13.58	13.72
Endrin ketone	16.26	16.26	16.26	16.26	16.26	16.26	16.19	16.33
Methoxychlor	15.51	15.51	15.51	15.51	15.51	15.51	15.44	15.58
alpha-Chlordane	10.58	10.58	10.58	10.58	10.58	10.58	10.51	10.65
gamma-Chlordane	10.43	10.43	10.43	10.43	10.43	10.43	10.36	10.50
Chlordane 500 ppb			8.36				8.29	8.43
Chlordane {2}			10.03				9.96	10.10
Chlordane {3}			10.43				10.36	10.50
Chlordane {4}			10.58				10.51	10.65
Chlordane {5}			10.64				10.57	10.71
Toxaphene 500 ppb			13.98				13.91	14.05
Toxaphene {2}			14.73				14.66	14.80
Toxaphene {3}			14.98				14.91	15.05
Toxaphene {4}			15.17				15.10	15.24
Toxaphene {5}			15.62				15.55	15.69

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/23/2001 **Instrument ID:** GC-W

GC Column (2nd): DB-1701P

Data File: W7815.C W7814.C W7813.C W7812.C W7811.C

Compound	CALIBRATION FACTORS 10	50	100	200	300	MEAN	%RSD
alpha-BHC	9928931	11687744	12081267	12809687	12447105	11790947	9.51
beta-BHC	5312121	4980866	4895039	4796303	4833092	4963484	4.17
gamma-BHC	9250754	10667010	11029104	11645845	11288346	10776212	8.58
delta-BHC	8662141	9954005	10444400	11151228	10786040	10199563	9.47
Heptachlor	8280855	9048847	9343115	9810592	9480178	9192717	6.29
Aldrin	9005989	9991046	10249005	10608858	10282283	10027436	6.10
Heptachlor epoxide	8513951	9122962	9187423	9383520	9036638	9048899	3.59
Endosulfan I	8130681	8506073	8666170	8812288	8499993	8523041	2.99
4,4'-DDE	7904260	8883264	9207488	9666948	9368384	9006069	7.53
Dieldrin	8412911	9181207	9407050	9725549	9385274	9222398	5.34
Endrin	7915546	8658171	8777221	9119924	8804057	8654984	5.17
Endosulfan II	14706660	16038215	16098621	16188816	15523312	15711125	3.94
4,4'-DDD	14706660	16038215	16098621	16188816	15523312	15711125	3.94
Endrin aldehyde	5238226	5573988	5980807	6271702	6065365	5826018	7.12
Endosulfan sulfate	6536384	6833252	6951925	7217008	7032145	6914143	3.66
4,4'-DDT	3644453	5019758	5456910	6125204	6167306	5282726	19.57
Endrin ketone	7942722	8486187	8522565	8636437	8319081	8381399	3.23
Methoxychlor	2484984	2877482	3044153	3202994	3145607	2951044	9.77
alpha-Chlordane	8730817	9181643	9318985	9655121	9361742	9249662	3.65
gamma-Chlordane	8629252	9294173	9530005	9961941	9679113	9418897	5.35
Chlordane 500 ppb			181173				
Chlordane {2}			237018				
Chlordane {3}			1043182				
Chlordane {4}			935460				
Chlordane {5}			607953				
Toxaphene 500 ppb			215967				
Toxaphene {2}			156218				
Toxaphene {3}			215924				
Toxaphene {4}			120731				
Toxaphene {5}			95945				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/24/2001 **Instrument ID:** GC-W

Data File: W7830.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	4.53	4.46	4.60	43326368	44833039	3.48
beta-BHC	5.03	4.96	5.10	15969249	15890838	0.49
gamma-BHC	5.16	5.09	5.23	39211160	40234126	2.61
delta-BHC	5.63	5.56	5.70	37277158	38535017	3.37
Heptachlor	6.73	6.66	6.80	32901431	34305543	4.27
Aldrin	7.54	7.47	7.61	36932435	37893914	2.60
Heptachlor epoxide	8.55	8.48	8.62	32279219	33081228	2.48
Endosulfan I	9.47	9.40	9.54	30303481	30858885	1.83
4,4'-DDE	10.24	10.17	10.31	33439687	33953495	1.54
Dieldrin	10.16	10.09	10.23	32761539	33497640	2.25
Endrin	10.72	10.65	10.79	29767751	30410331	2.16
Endosulfan II	10.97	10.90	11.04	28616335	28859236	0.85
4,4'-DDD	11.36	11.29	11.43	26354326	26908671	2.10
Endrin aldehyde	11.50	11.43	11.57	22031155	22279591	1.13
Endosulfan sulfate	12.15	12.08	12.22	25182153	25374015	0.76
4,4'-DDT	12.38	12.31	12.45	21820009	22229154	1.88
Endrin ketone	13.36	13.29	13.43	31144062	31178241	0.11
Methoxychlor	14.06	13.99	14.13	10713297	10949013	2.20
alpha-Chlordane	9.57	9.50	9.64	33814513	34155335	1.01
gamma-Chlordane	9.17	9.10	9.24	35285000	35976553	1.96
					Average %D	1.95

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/24/2001 **Instrument ID:** GC-W

Data File: W7830.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	5.57	5.50	5.64	11790947	12473535	5.79
beta-BHC	8.61	8.54	8.68	4963484	5016314	1.06
gamma-BHC	6.52	6.45	6.59	10776212	11351702	5.34
delta-BHC	9.18	9.11	9.25	10199563	10769388	5.59
Heptachlor	7.00	6.93	7.07	9192717	9657046	5.05
Aldrin	7.67	7.60	7.74	10027436	10539620	5.11
Heptachlor epoxide	9.51	9.44	9.58	9048899	9467311	4.62
Endosulfan I	10.19	10.12	10.26	8523041	8845803	3.79
4,4'-DDE	10.97	10.90	11.04	9006069	9442559	4.85
Dieldrin	11.23	11.16	11.30	9222398	9678943	4.95
Endrin	11.75	11.68	11.82	8654984	9099376	5.13
Endosulfan II	13.20	13.13	13.27	15711125	16544363	5.30
4,4'-DDD	13.20	13.13	13.27	15711125	16544363	5.30
Endrin aldehyde	14.33	14.26	14.40	5826018	6035862	3.60
Endosulfan sulfate	15.23	15.16	15.30	6914143	7113718	2.89
4,4'-DDT	13.65	13.58	13.72	5282726	5546022	4.98
Endrin ketone	16.26	16.19	16.33	8381399	8707270	3.89
Methoxychlor	15.51	15.44	15.58	2951044	3036657	2.90
alpha-Chlordane	10.58	10.51	10.65	9249662	9593774	3.72
gamma-Chlordane	10.43	10.36	10.50	9418897	9812744	4.18
					Average %D	4.40

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/18/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4833)	0717-BK1	SOIL	92		105		88		102	
S-105	4833-015	SOIL	85		210	*	90		160	
S-106	4833-016	SOIL	80		125		80		135	
S-107	4833-017	SOIL	70		130		85		145	
S-108	4833-018	SOIL	60		M 86		115		M 206	
S-114A	4833-025	SOIL	85		95		80		M 1626	
S-114B	4833-026	SOIL	75		120		80		110	
S-115	4833-027	SOIL	75		130		60		135	
S-116	4833-028	SOIL	85		115		70		120	
S-117	4833-029	SOIL	75		120		75		130	
S-89	4591-010	SOIL	90		125		85		140	
PEST	4591-010-MS1	SOIL	76		116		76		119	
PEST	4591-010-MSD1	SOIL	78		109		79		113	
PEST	PBS0717-MS1	SOIL	94		102		90		102	
(4752.4815)	0717-BK2	SOIL	97		111		94		109	
B-1_3-3.5'	4752-003	SOIL	96		106		92		104	
B-2_3-3.5'	4752-004	SOIL	100		110		96		108	
B-3_4-5.5'	4752-005	SOIL	91		96		87		94	
PEST	4752-010-MS2	SOIL	76		71		73		72	
PEST	4752-010-MSD2	SOIL	92		95		89		95	
PEST	PBS0717-MS2	SOIL	103		118		99		116	

Surrogate QC Limits

	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/23/2001

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
(4922.4940)	0720-BK1	SOIL	101		119		101		119	
CNBC-13	4922-001	SOIL	100		116		101		117	
CNBC-14	4922-002	SOIL	100		114		100		116	
CF-1	4940-001	SOIL	99		113		100		116	
CF-2	4940-002	SOIL	94		110		94		112	
PEST	PBS0720-MS1	SOIL	102		117		102		120	
(4752.4922)	0723-BK1	SOIL	83		114		83		116	
SLUDGE-1	4752-002	SOIL	105		160		110		180	*
PEST	PBS0723-MS1	SOIL	87		106		87		109	
(4833)	0717-BK1	SOIL	103		122		103		125	
S-105	4833-015DIL	SOIL	D		D		D		D	

Surrogate QC Limits

	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	39-147	39-151
DCB = Decachlorobiphenyl	33-179	30-150

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PESTICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 4591-010-MSD1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	105.6	106	44 - 149
Heptachlor	100.0	0.0	114.3	114	50 - 157
Aldrin	100.0	0.0	114.3	114	40 - 150
Dieldrin	100.0	0.0	116.2	116	56 - 134
Endrin	100.0	0.0	137.3	137	65 - 148
4,4'-DDT	100.0	0.0	130.8	131	42 - 175

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC	0.0	106.1	106	0	18	44 - 149
Heptachlor	0.0	115.0	115	1	18	50 - 157
Aldrin	0.0	108.7	109	4	18	40 - 150
Dieldrin	0.0	113.4	113	3	13	56 - 134
Endrin	0.0	138.1	138	1	14	65 - 148
4,4'-DDT	0.0	129.4	129	2	27	42 - 175

Column to be used to flag recovery and RPD values with an asterisk -
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __6__ outside limits

Spike Recovery: __0___ out of __12__ outside limits

SOIL PESTICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: PBS0717-MS1

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC	100.0	0.0	115.7	116	44 - 149
Heptachlor	100.0	0.0	121.5	122	50 - 157
Aldrin	100.0	0.0	118.0	118	40 - 150
Dieldrin	100.0	0.0	114.2	114	56 - 134
Endrin	100.0	0.0	120.9	121	65 - 148
4,4'-DDT	100.0	0.0	115.5	116	42 - 175

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __6__ outside limits

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.85 DCB 1 18.67 TCMX 2 3.68 DCB 2 18.61

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4833)	0717-BK1	07/18/2001	23:35	3.85		18.67		3.68		18.61	
S-105	4833-015	07/19/2001	00:00	3.85		18.67		3.68		18.61	
S-106	4833-016	07/19/2001	00:25	3.85		18.67		3.68		18.61	
S-107	4833-017	07/19/2001	00:50	3.85		18.67		3.67		18.61	
S-108	4833-018	07/19/2001	01:15	3.84		M		3.67		M	
S-114A	4833-025	07/19/2001	01:40	3.85		18.67		3.68		M	
S-114B	4833-026	07/19/2001	02:05	3.85		18.67		3.68		18.61	
S-115	4833-027	07/19/2001	02:30	3.85		18.67		3.68		18.61	
S-116	4833-028	07/19/2001	02:55	3.85		18.68		3.68		18.61	
S-117	4833-029	07/19/2001	03:20	3.85		18.68		3.68		18.61	
S-89	4591-010	07/19/2001	03:45	3.85		18.67		3.68		18.61	
PEST	4591-010-MS1	07/19/2001	04:10	3.85		18.67		3.68		18.61	
PEST	4591-010-MSD1	07/19/2001	04:35	3.85		18.67		3.68		18.61	
PEST	PBS0717-MS1	07/19/2001	05:00	3.84		18.67		3.67		18.61	
(4752.4815)	0717-BK2	07/19/2001	05:50	3.85		18.67		3.68		18.61	
B-1_3-3.5'	4752-003	07/19/2001	06:39	3.85		18.67		3.68		18.61	
B-2_3-3.5'	4752-004	07/19/2001	07:04	3.84		18.67		3.67		18.61	
B-3_4-5.5'	4752-005	07/19/2001	07:29	3.84		18.67		3.67		18.61	
PEST	4752-010-MS2	07/19/2001	07:54	3.85		18.67		3.68		18.61	
PEST	4752-010-MSD2	07/19/2001	08:19	3.85		18.67		3.68		18.61	
PEST	PBS0717-MS2	07/19/2001	08:44	3.85		18.67		3.68		18.61	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.85 DCB 1 18.68 TCMX 2 3.68 DCB 2 18.61

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
(4922.4940)	0720-BK1	07/23/2001	20:31	3.85		18.68		3.68		18.61	
CNBC-13	4922-001	07/23/2001	20:56	3.85		18.67		3.68		18.61	
CNBC-14	4922-002	07/23/2001	21:21	3.85		18.68		3.68		18.61	
CF-1	4940-001	07/23/2001	21:46	3.85		18.67		3.68		18.61	
CF-2	4940-002	07/23/2001	22:11	3.85		18.67		3.68		18.61	
PEST	PBS0720-MS1	07/23/2001	22:36	3.85		18.67		3.68		18.61	
(4752.4922)	0723-BK1	07/23/2001	23:01	3.85		18.67		3.68		18.61	
SLUDGE-1	4752-002	07/23/2001	23:26	3.84		18.67		3.67		18.61	
PEST	PBS0723-MS1	07/24/2001	00:15	3.85		18.68		3.68		18.61	
(4833)	0717-BK1	07/24/2001	00:40	3.85		18.67		3.68		18.61	
S-105	4833-015DIL	07/24/2001	01:05	D		D		D		D	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.05 Minutes)

DCB = Decachlorobiphenyl (± 0.05 Minutes)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7702.D\ECD1B.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7702.D\ECD2A.CH
Acq On : 7-19-01 00:00:55 Operator: LAG
Sample : S-105,4833-015,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 9:59 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	79756039	27231243	1.655	1.772m
Spiked Amount 100.000			Recovery =		1.65%	1.77%
2) S DCB	18.67	18.61	158.8E6	33803524	4.236m	3.179
Spiked Amount 100.000			Recovery =		4.24%	3.18%
Target Compounds						
11) T 4,4'-DDE	10.24	10.97	6116.4E6	1891.1E6	197.578	209.044
15) T 4,4'-DDD	11.35	13.21	8988.7E6	2753.9E6	361.334	343.558
T 4,4'-DDT	12.37	13.65	1083.3E6	308.3E6	50.785	53.522
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7702.D WPTC0712.M Mon Jul 23 10:18:24 2001 GC_W Page 1

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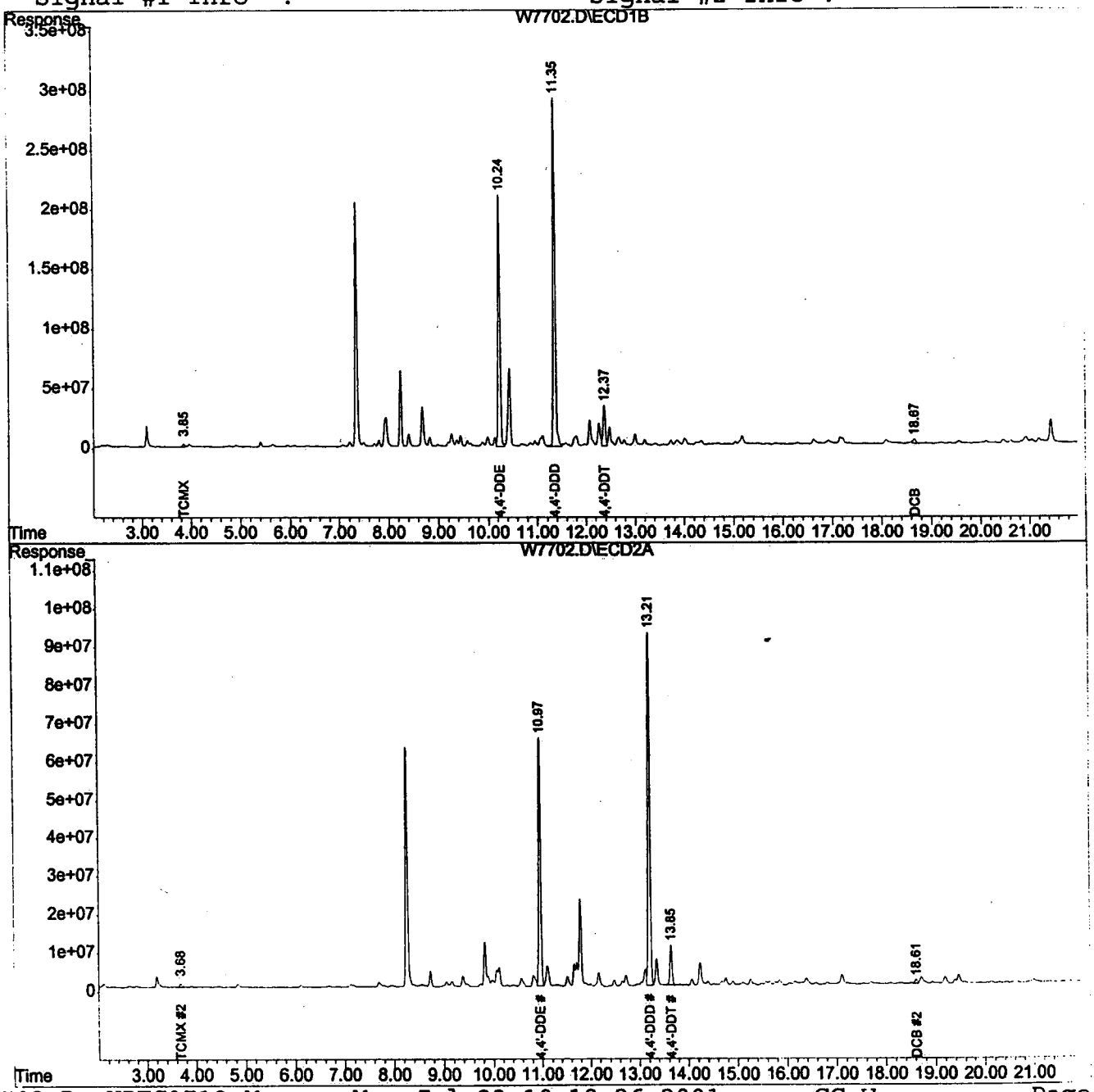
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7702.D\ECD1B.CH Vial: 28
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7702.D\ECD2A.CH
Acq On : 7-19-01 00:00:55 Operator: LAG
Sample : S-105,4833-015,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 9:59 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1869

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-23-01\W7829.D\ECD1B.CH Vial: 34
Acq On : 7-24-01 1:05:51 Operator: LAG
Sample : S-105,4833-015DIL,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,100 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\07-23-01\W7829.D\ECD2A.CH Vial: 34
Acq On : 7-24-01 1:05:51 Operator: LAG
Sample : S-105,4833-015DIL,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,100 Multiplr: 1.00
IntFile : events2.e
Quant Time: Jul 24 9:27 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
	Target Compounds						
11)	T 4,4'-DDE	10.24	10.97	2888.8E6	802.9E6	86.388	89.149
)	T 4,4'-DDD	11.35	13.21	4097.9E6	1150.2E6	155.493	146.412
13)	T 4,4'-DDT	12.37	13.65	480.4E6	113.3E6	22.017	21.451
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7829.D WPTC0723.M Tue Jul 24 13:59:35 2001 GC_W Page 1

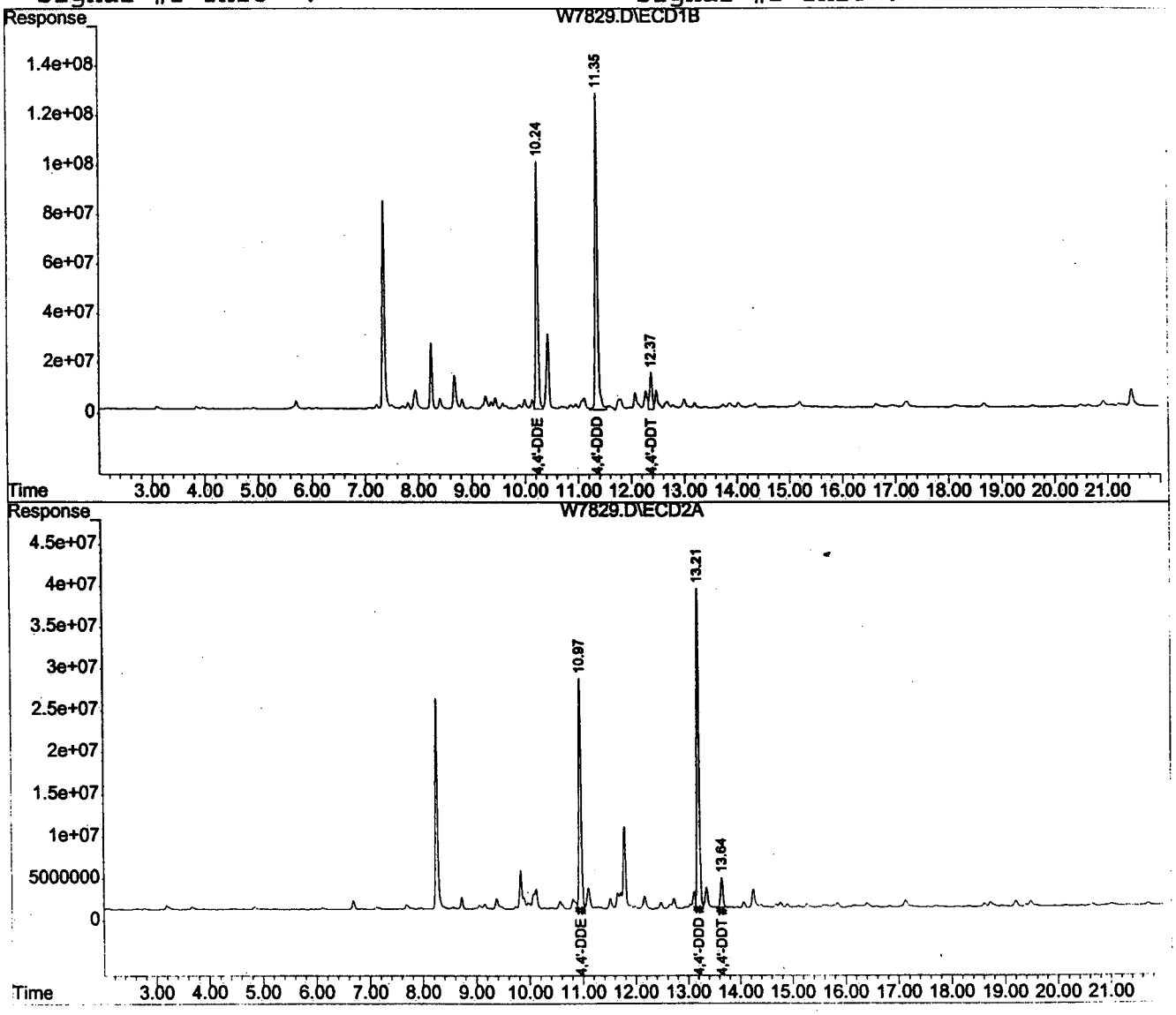
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\07-23-01\W7829.D\ECD1B.CH Vial: 34
Acq On : 7-24-01 1:05:51 Operator: LAG
Sample : S-105,4833-015DIL,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,100 Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\07-23-01\W7829.D\ECD2A.CH Vial: 34
Acq On : 7-24-01 1:05:51 Operator: LAG
Sample : S-105,4833-015DIL,S,30.2g,7.1,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,100 Multiplr: 1.00
IntFile : events2.e
Quant Time: Jul 24 9:27 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1871

NE98

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7703.D\ECD1B.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7703.D\ECD2A.CH
Acq On : 7-19-01 00:25:47 Operator: LAG
Sample : S-106,4833-016,S,30.4g,12.6,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:02 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	75845896	24329976	1.574m	1.583m
Spiked Amount 100.000			Recovery =		1.57%	1.58%
2) S DCB	18.67	18.61	93425679	28762936	2.493m	2.705m
Spiked Amount 100.000			Recovery =		2.49%	2.71%
Target Compounds						
11) T 4,4'-DDE	10.24	10.97	182.2E6	40683023	5.886	4.497m
15) T 4,4'-DDD	11.36	13.21	1059.3E6	299.6E6	42.584	37.379m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

27%

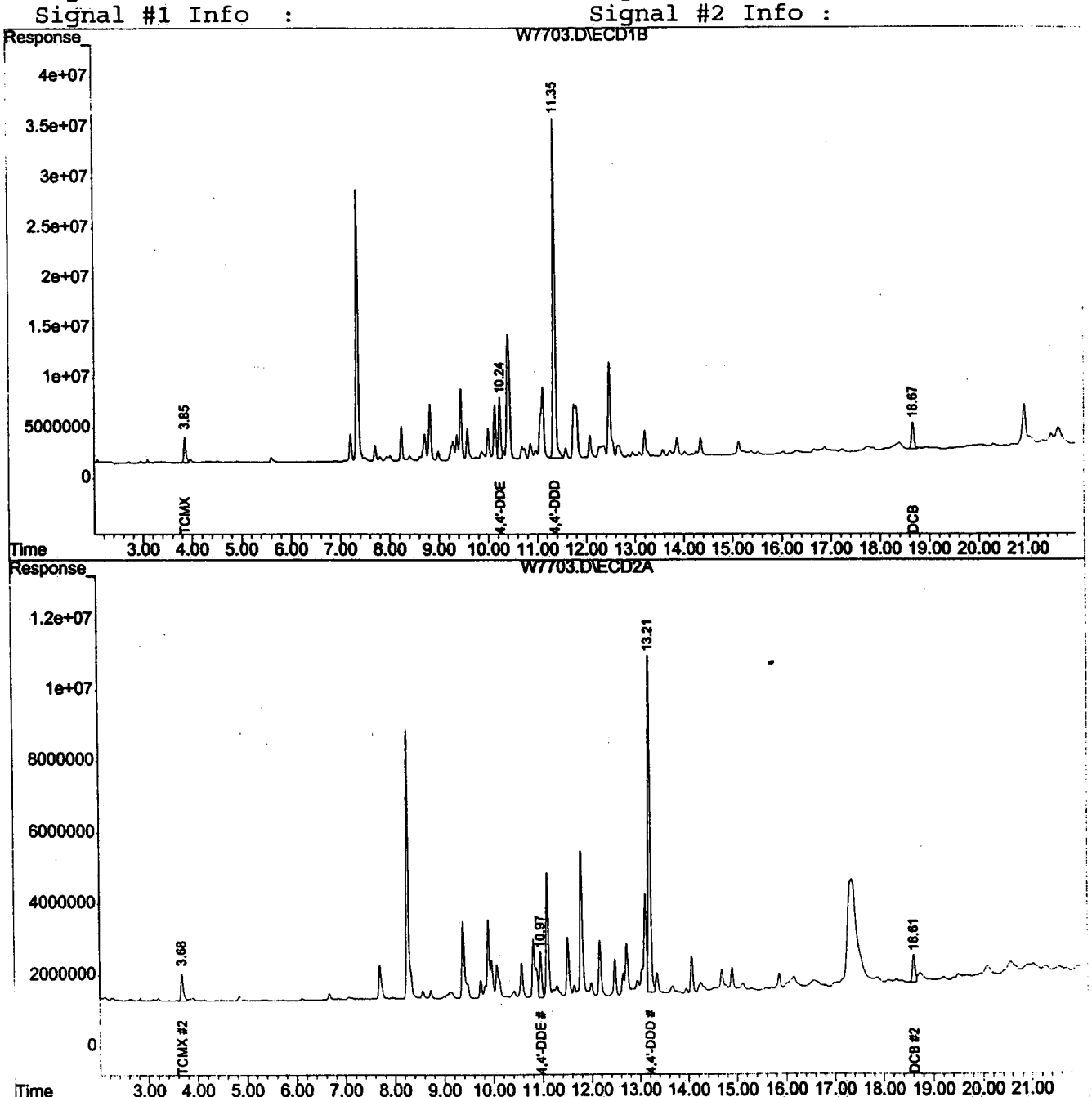
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7703.D\ECD1B.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7703.D\ECD2A.CH
Acq On : 7-19-01 00:25:47 Operator: LAG
Sample : S-106,4833-016,S,30.4g,12.6,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:02 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1873

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7704.D\ECD1B.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7704.D\ECD2A.CH
Acq On : 7-19-01 00:50:50 Operator: LAG
Sample : S-107,4833-017,S,30.3g,11.9,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:03 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.67	67867438	26754670	1.408	1.741m
Spiked Amount 100.000			Recovery =		1.41%	1.74%
2) S DCB	18.67	18.61	96011221	31117028	2.562	2.926m
Spiked Amount 100.000			Recovery =		2.56%	2.93%
Target Compounds						
11) T 4,4'-DDE	10.24	10.97	1406.4E6	410.0E6	45.432	45.318m
15) T 4,4'-DDD	11.35	13.21	3323.7E6	1051.4E6	133.607	131.169m
T 4,4'-DDT	12.38	13.65	5849.3E6	1630.0E6	274.218	282.977
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

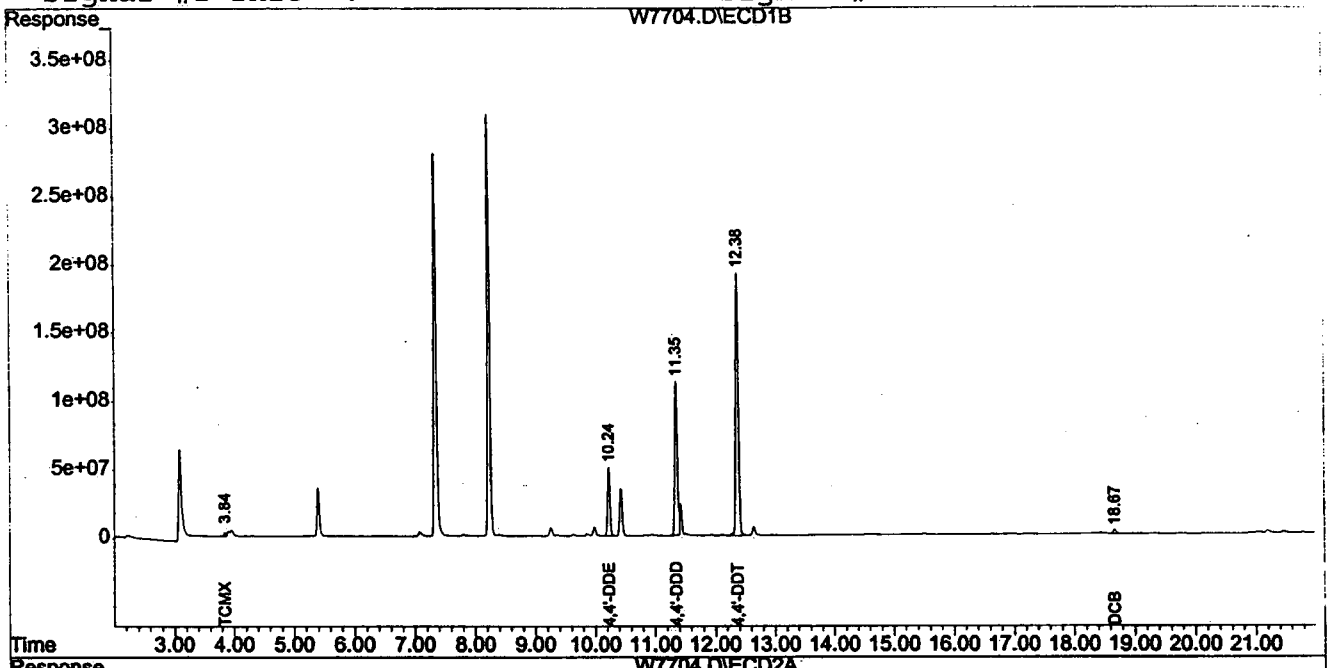
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

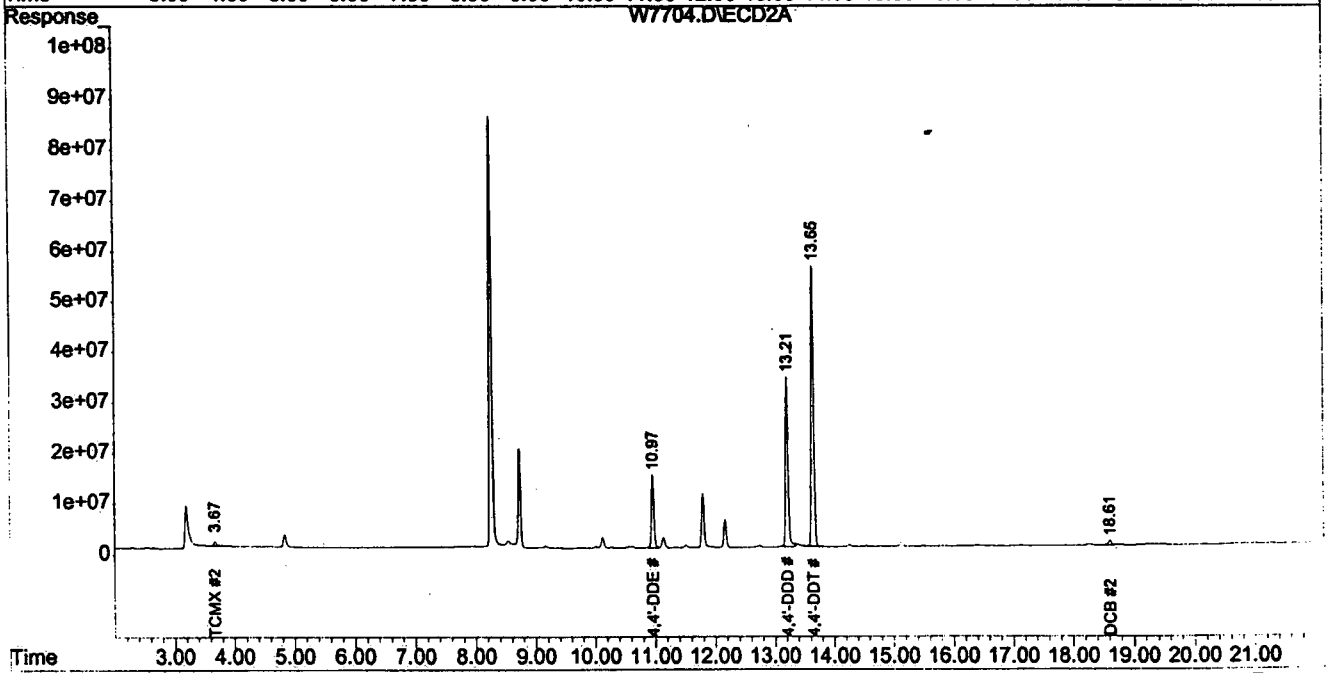
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7704.D\ECD1B.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7704.D\ECD2A.CH
Acq On : 7-19-01 00:50:50 Operator: LAG
Sample : S-107,4833-017,S,30.3g,11.9,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:03 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1875

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7705.D\ECD1B.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7705.D\ECD2A.CH
Acq On : 7-19-01 1:15:40 Operator: LAG
Sample : S-108,4833-018,S,30.6g,14.6,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:05 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.84	3.67	56192130	35206315	1.166m	2.291m#
Spiked Amount 100.000			Recovery =		1.17%	2.29%
2) S DCB	18.68	18.61	289.1E6	43664765	7.714m	4.106m#
Spiked Amount 100.000			Recovery =		7.71%	4.11%
Target Compounds						
11) T 4,4'-DDE	10.23	10.96	597.3E6	219.9E6	19.294	24.303 #
15) T 4,4'-DDD	11.35	13.21	3073.3E6	994.2E6	123.540	124.033
T 4,4'-DDT	12.39	13.64	471.7E6	271.4E6	22.115	47.123 #
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7705.D WPTC0712.M Mon Jul 23 10:18:43 2001 GC_W Page 1

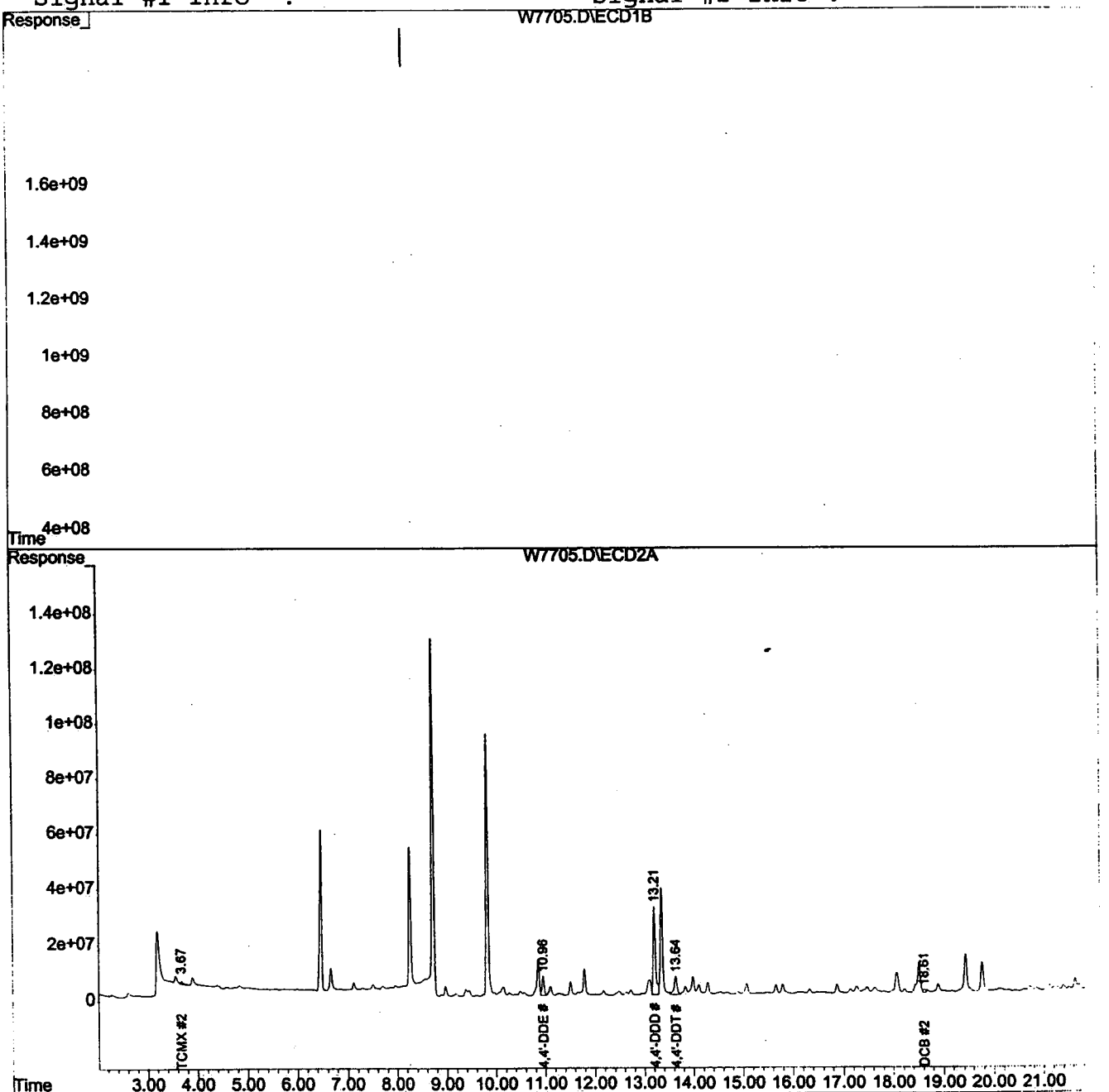
1871

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7705.D\ECD1B.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7705.D\ECD2A.CH
Acq On : 7-19-01 1:15:40 Operator: LAG
Sample : S-108,4833-018,S,30.6g,14.6,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:05 2001 Quant Results File: WPTC0712.RES

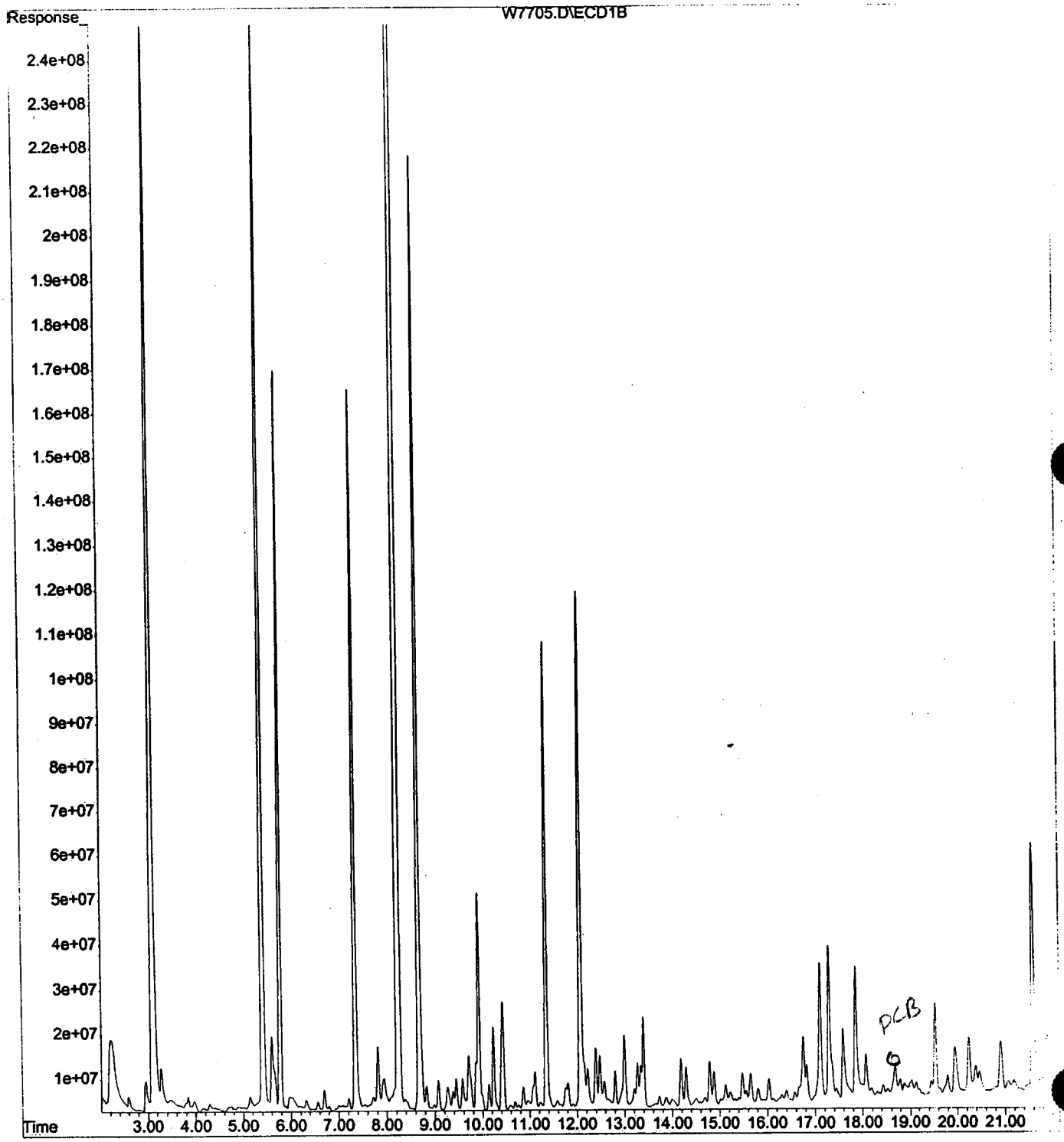
Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1877

File : C:\HPCHEM\1\DATA\07-18-01\W7705.D
Operator : LAG
Acquired : 7-19-01 1:15:40 using AcqMethod WPTC0712.M
Instrument : GC_W
Sample Name: S-108,4833-018,S,30.6g,14.6,07/17/01
Misc Info : ENVTACT/ORBIS,07/12/01,07/16/01,50
Vial Number: 31



1878

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7706.D\ECD1B.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7706.D\ECD2A.CH
Acq On : 7-19-01 1:40:35 Operator: LAG
Sample : S-114A,4833-025,S,30.0g,14.3,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	82131564	24010696	1.704	1.562
Spiked Amount 100.000			Recovery	=	1.70%	1.56%
2) S DCB	18.67	18.62	70300060	133.2E6	1.876m	12.524 #
Spiked Amount 100.000			Recovery	=	1.88%	12.52%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

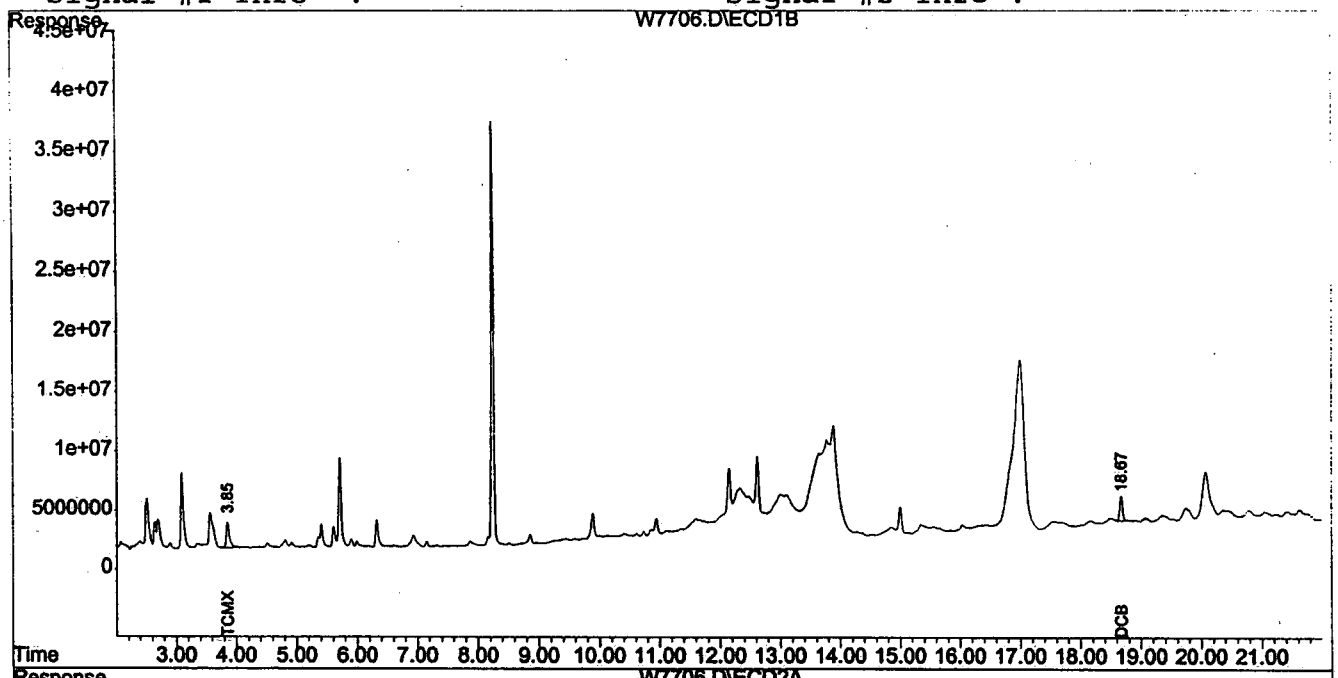
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7706.D WPTC0712.M Mon Jul 23 10:18:49 2001 GC_W Page 1

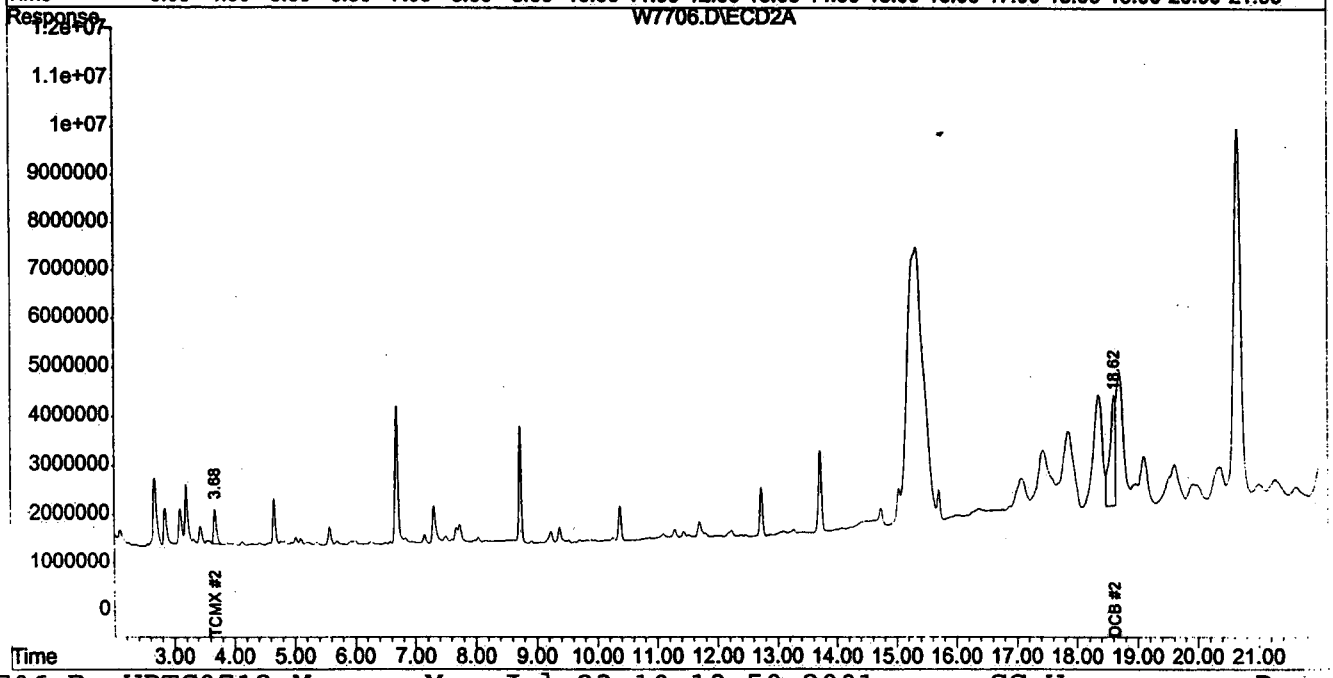
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7706.D\ECD1B.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7706.D\ECD2A.CH
Acq On : 7-19-01 1:40:35 Operator: LAG
Sample : S-114A,4833-025,S,30.0g,14.3,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:06 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1880

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7707.D\ECD1B.CH Vial: 33
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7707.D\ECD2A.CH
Acq On : 7-19-01 2:05:37 Operator: LAG
Sample : S-114B,4833-026,S,30.3g,12.7,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	73257829	24344616	1.520	1.584
Spiked Amount 100.000			Recovery =		1.52%	1.58%
2) S DCB	18.67	18.61	89071368	23707238	2.376	2.230
Spiked Amount 100.000			Recovery =		2.38%	2.23%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7707.D WPTC0712.M Mon Jul 23 10:18:55 2001 GC_W Page 1

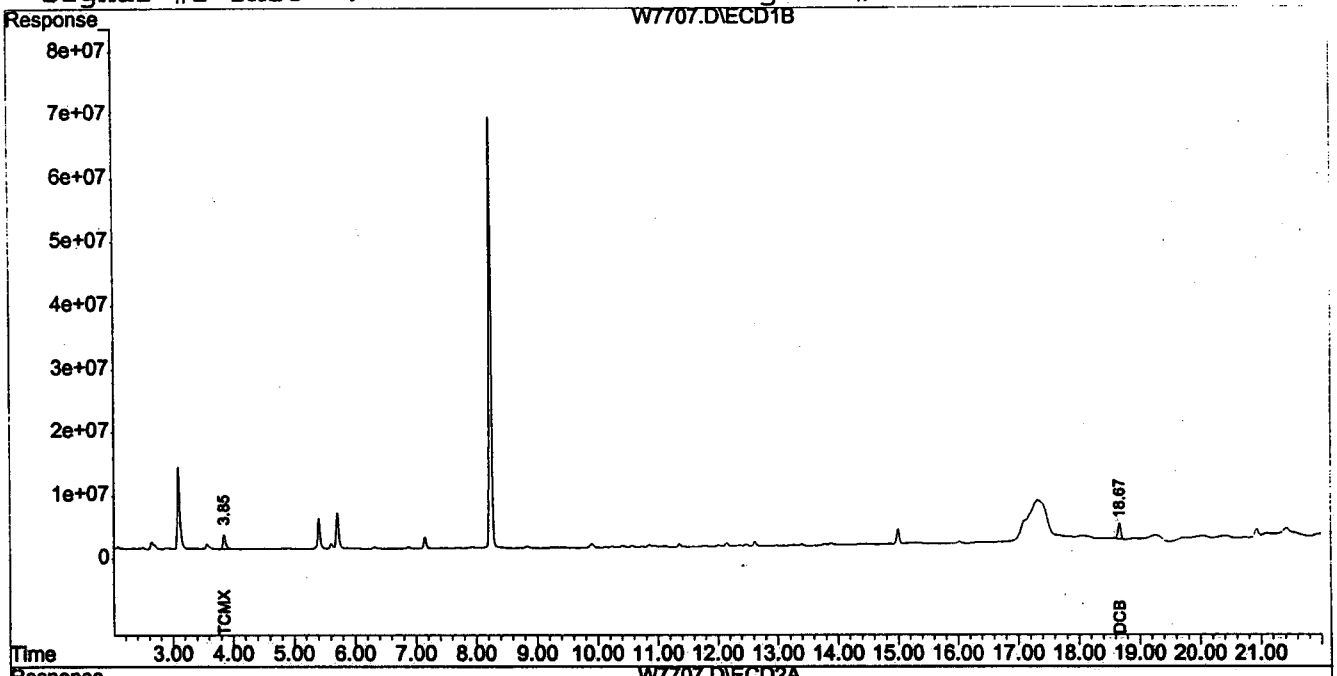
1481

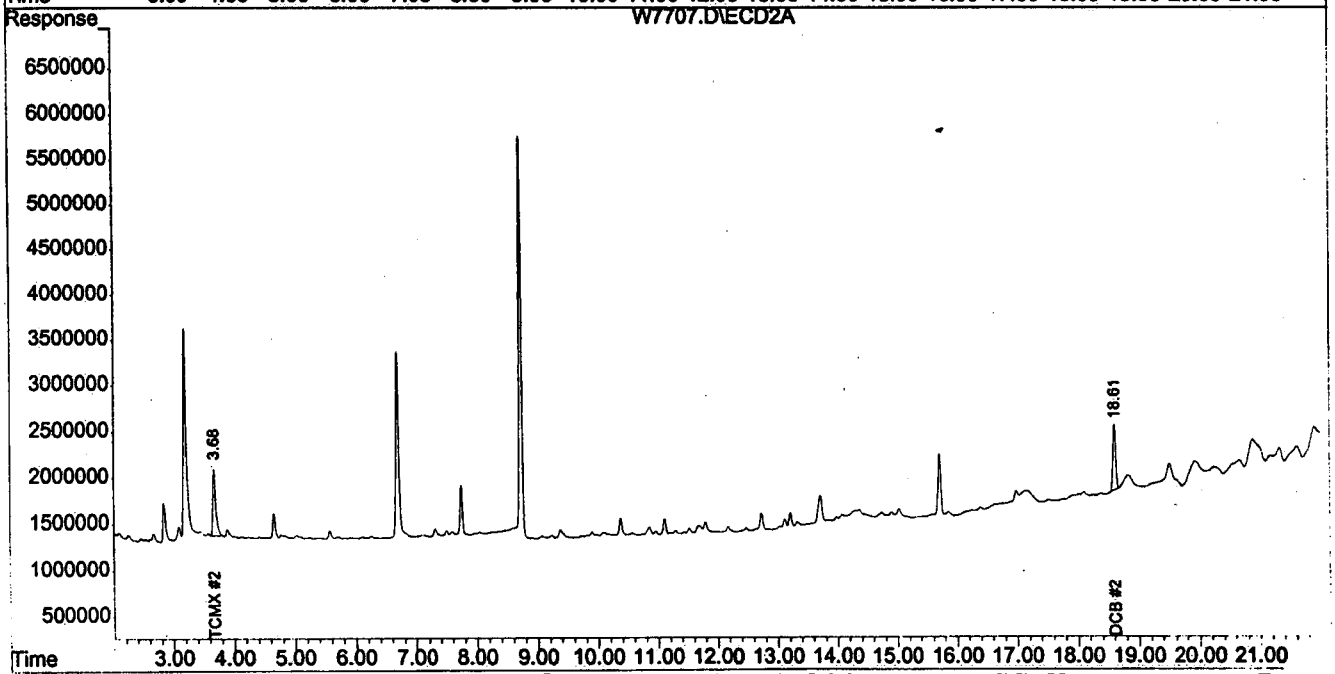
0290

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7707.D\ECD1B.CH Vial: 33
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7707.D\ECD2A.CH
Acq On : 7-19-01 2:05:37 Operator: LAG
Sample : S-114B,4833-026,S,30.3g,12.7,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1887

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7708.D\ECD1B.CH Vial: 34
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7708.D\ECD2A.CH
Acq On : 7-19-01 2:30:31 Operator: LAG
Sample : S-115,4833-027,S,30.1g,19.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	72414158	18662804	1.503	1.214m
Spiked Amount 100.000			Recovery	=	1.50%	1.21%
2) S DCB	18.67	18.61	95659424	28830768	2.552	2.711
Spiked Amount 100.000			Recovery	=	2.55%	2.71%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

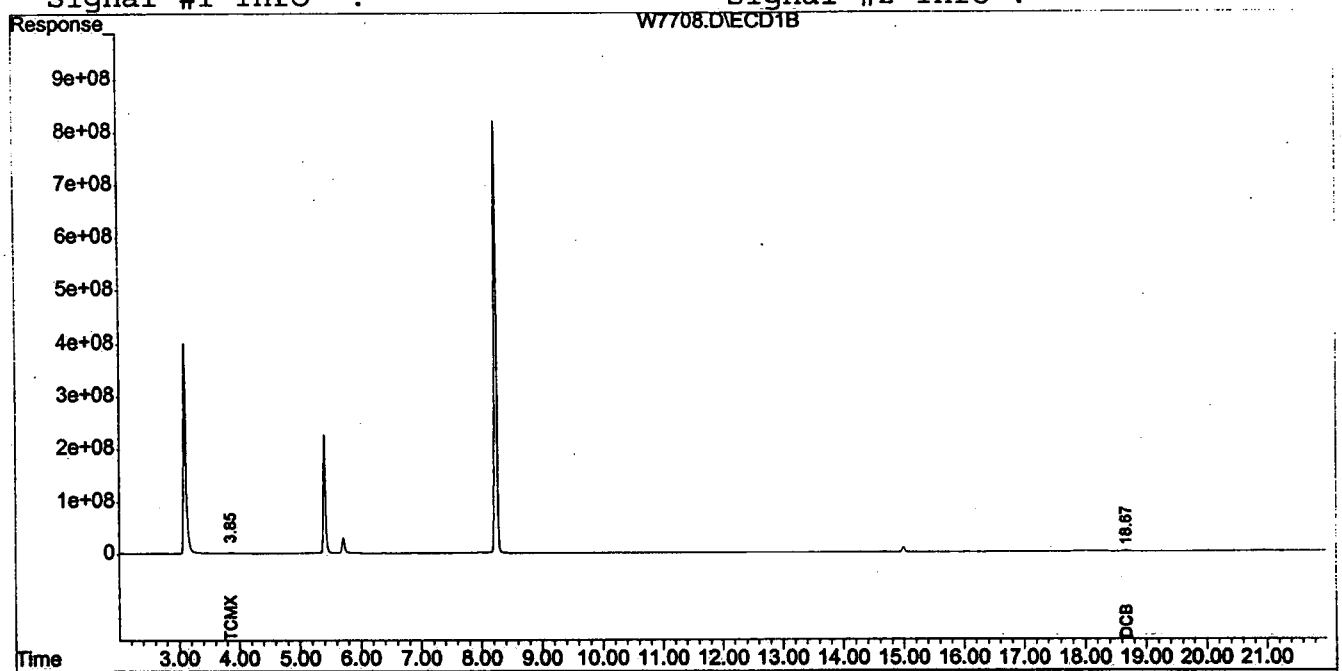
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7708.D WPTC0712.M Mon Jul 23 10:19:01 2001 GC_W Page 1

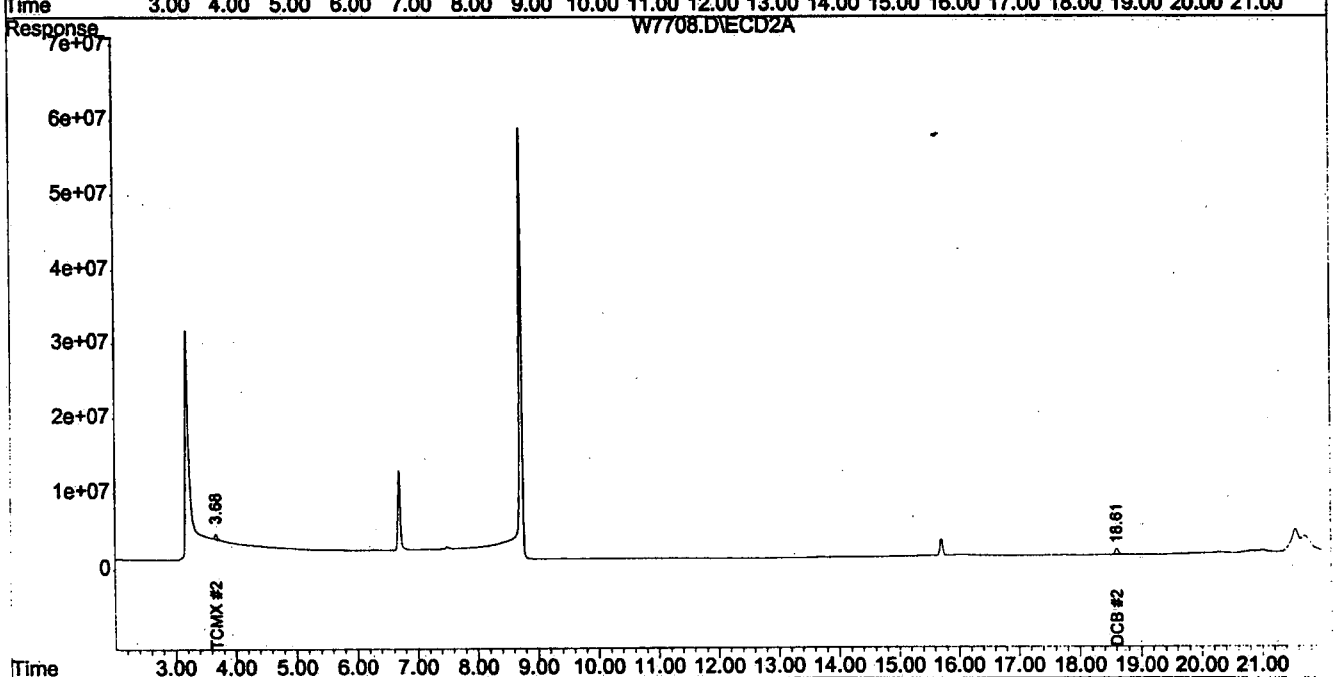
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7708.D\ECD1B.CH Vial: 34
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7708.D\ECD2A.CH
Acq On : 7-19-01 2:30:31 Operator: LAG
Sample : S-115,4833-027,S,30.1g,19.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:07 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1884

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7709.D\ECD1B.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7709.D\ECD2A.CH
Acq On : 7-19-01 2:55:22 Operator: LAG
Sample : S-116,4833-028,S,30.6g,14.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:08 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	82344028	21879410	1.709	1.424
Spiked Amount 100.000			Recovery =		1.71%	1.42%
2) S DCB	18.68	18.61	86234267	25217149	2.301m	2.372
Spiked Amount 100.000			Recovery =		2.30%	2.37%
Target Compounds						
15) T 4,4'-DDD	11.36	13.21	38790737	11810344	1.559	1.473m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7709.D WPTC0712.M Mon Jul 23 10:19:07 2001 GC_W Page 1

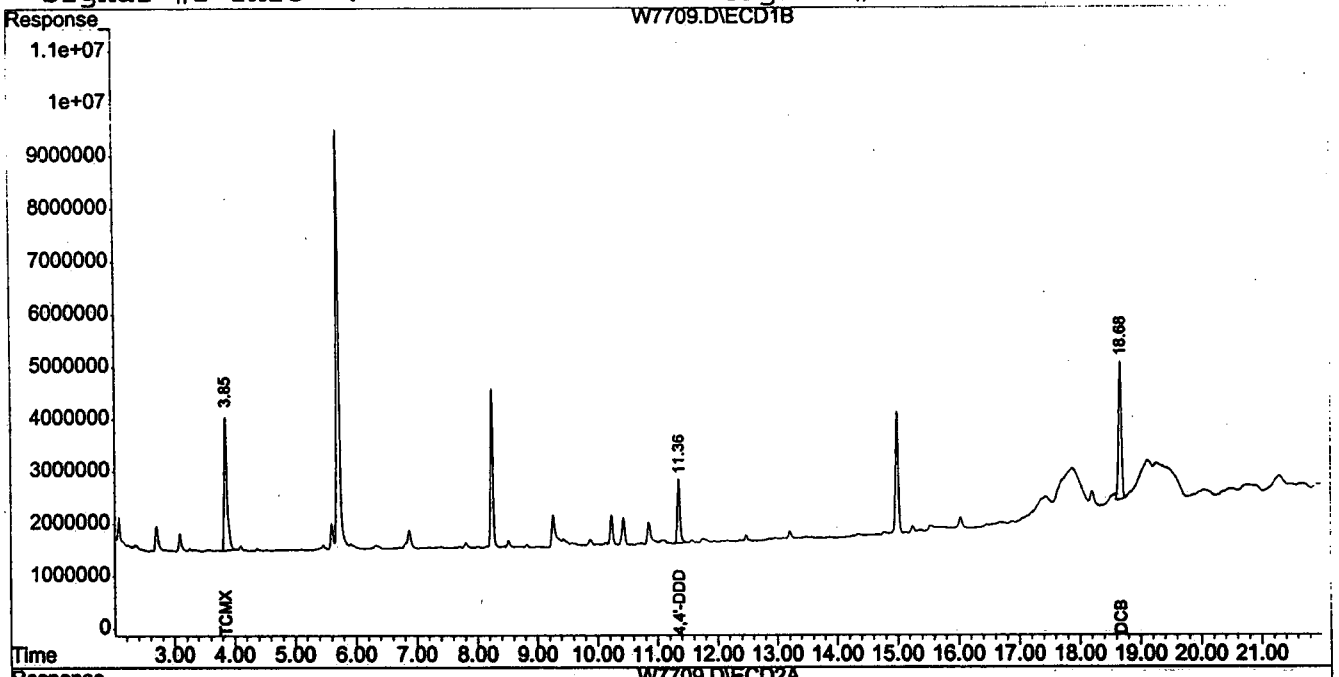
0443

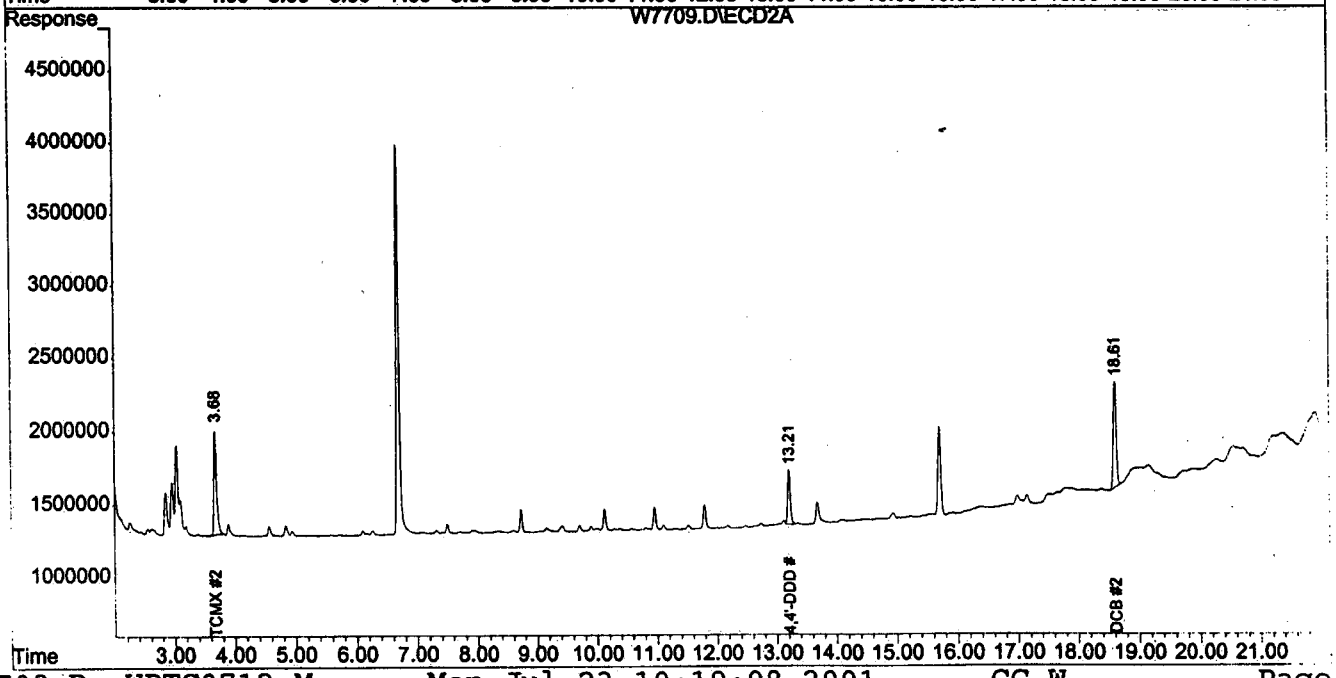
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7709.D\ECD1B.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7709.D\ECD2A.CH
Acq On : 7-19-01 2:55:22 Operator: LAG
Sample : S-116,4833-028,S,30.6g,14.2,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:08 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1886

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7710.D\ECD1B.CH Vial: 36
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7710.D\ECD2A.CH
Acq On : 7-19-01 3:20:22 Operator: LAG
Sample : S-117,4833-029,S,30.2g,15.5,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:08 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	74033221	23142000	1.536	1.506
Spiked Amount 100.000			Recovery =		1.54%	1.51%
2) S DCB	18.68	18.61	91422369	28096594	2.439	2.642
Spiked Amount 100.000			Recovery =		2.44%	2.64%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7710.D WPTC0712.M Mon Jul 23 10:19:12 2001 GC_W Page 1

1887

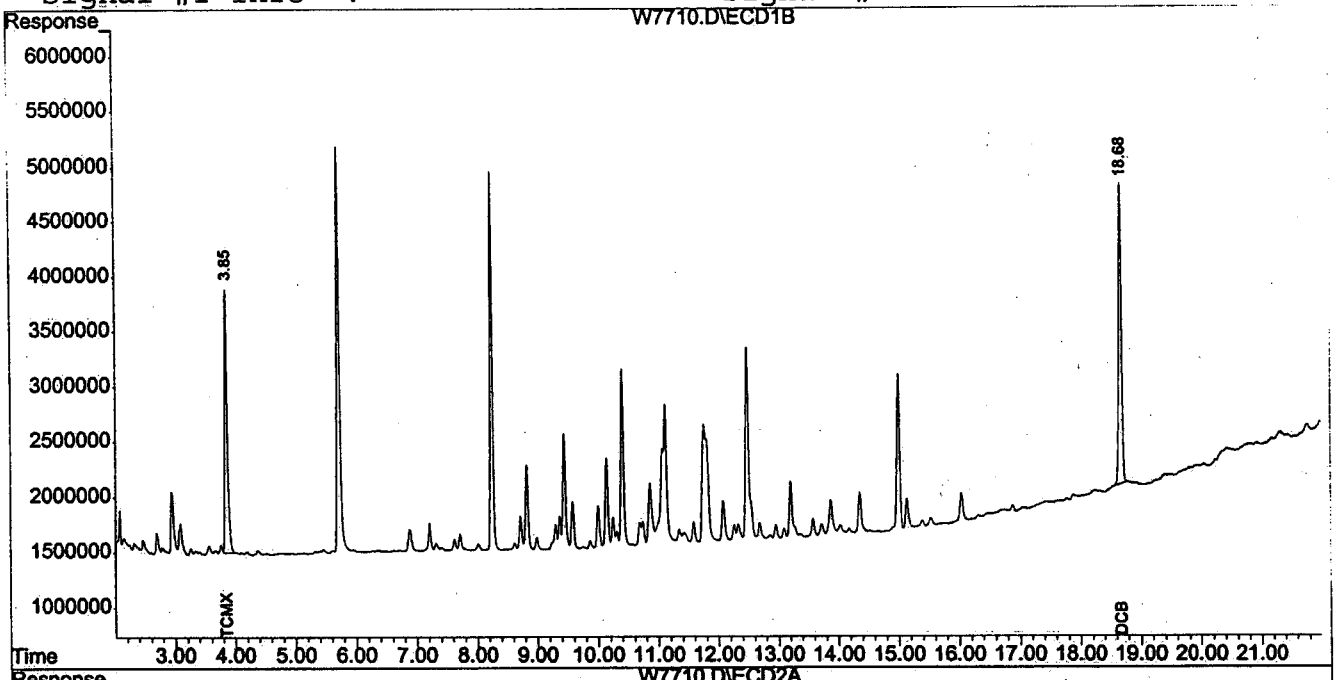
0645

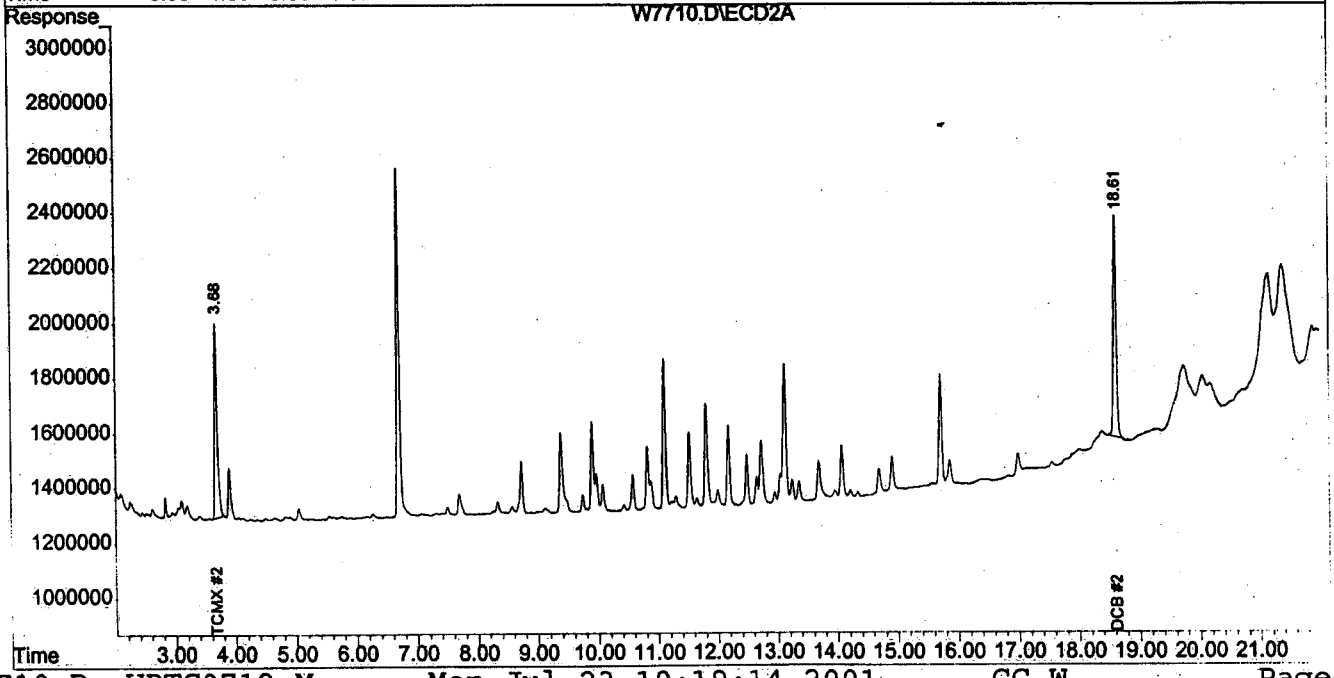
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7710.D\ECD1B.CH Vial: 36
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7710.D\ECD2A.CH
Acq On : 7-19-01 3:20:22 Operator: LAG
Sample : S-117,4833-029,S,30.2g,15.5,07/17/01 Inst : GC_W
Misc : ENVTACT/ORBIS,07/12/01,07/16/01,50 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 10:08 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1888

Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD1B.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD2A.CH
Acq On : 7-18-01 23:35:59 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 9:26 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	4455.5E6	1353.2E6	92.448	88.055
Spiked Amount 100.000			Recovery	=	92.45%	88.06%
2) S DCB	18.67	18.61	3938.4E6	1085.9E6	105.078	102.121
Spiked Amount 100.000			Recovery	=	105.08%	102.12%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7701.D WPTC0712.M Mon Jul 23 10:18:03 2001 GC_W Page 1

1889

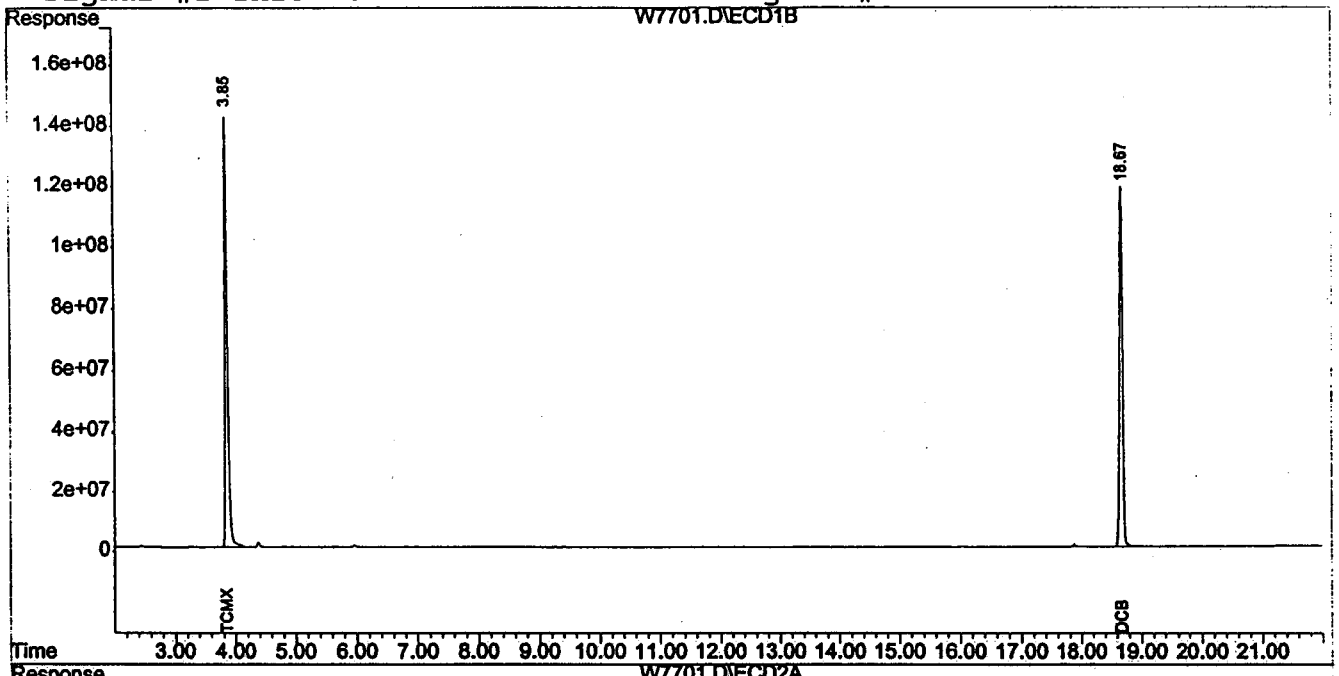
0647

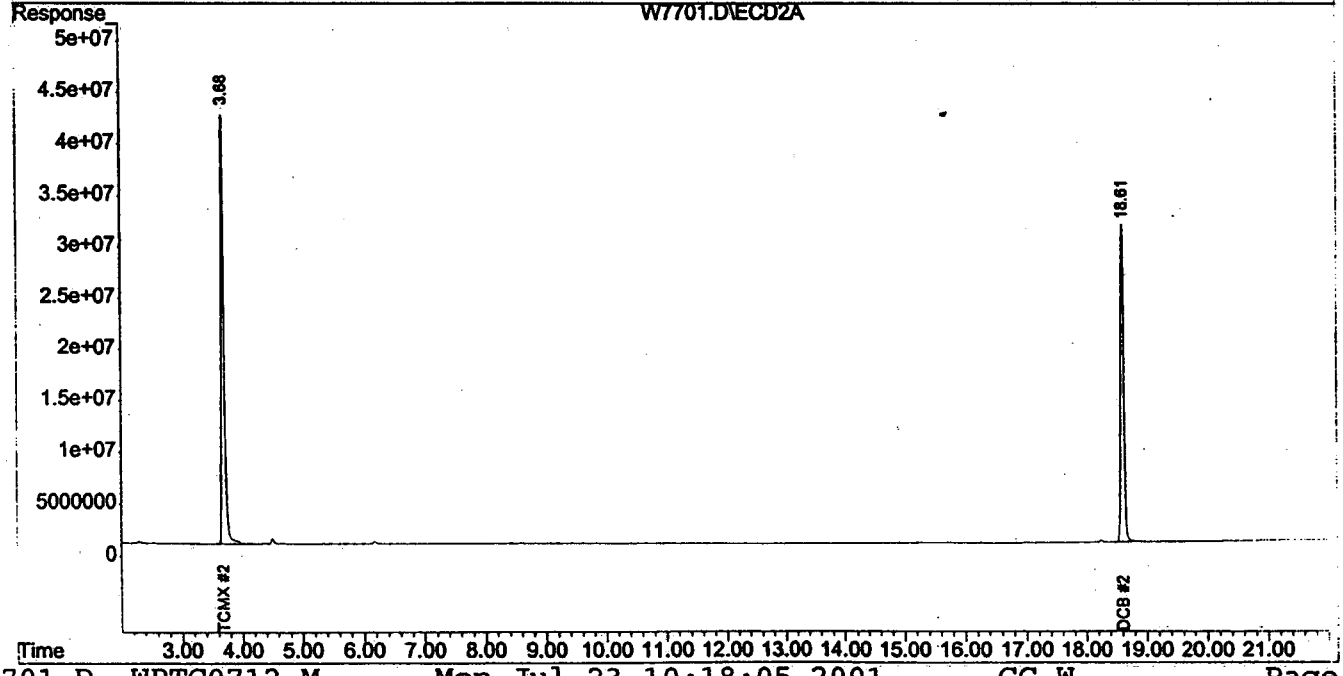
Quantitation Report (Not Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD1B.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7701.D\ECD2A.CH
Acq On : 7-18-01 23:35:59 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 23 9:26 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1890

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7828.D\ECD1B.CH Vial: 33
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7828.D\ECD2A.CH
Acq On : 7-24-01 00:40:57 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 13:58 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.85	3.68	5368.3E6	1576.7E6	102.835	102.773
Spiked Amount 100.000			Recovery =		102.83%	102.77%
2) S DCB	18.67	18.61	4906.8E6	1306.4E6	122.391	125.144
Spiked Amount 100.000			Recovery =		122.39%	125.14%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7828.D WPTC0723.M Tue Jul 24 13:59:29 2001 GC_W Page 1

1891

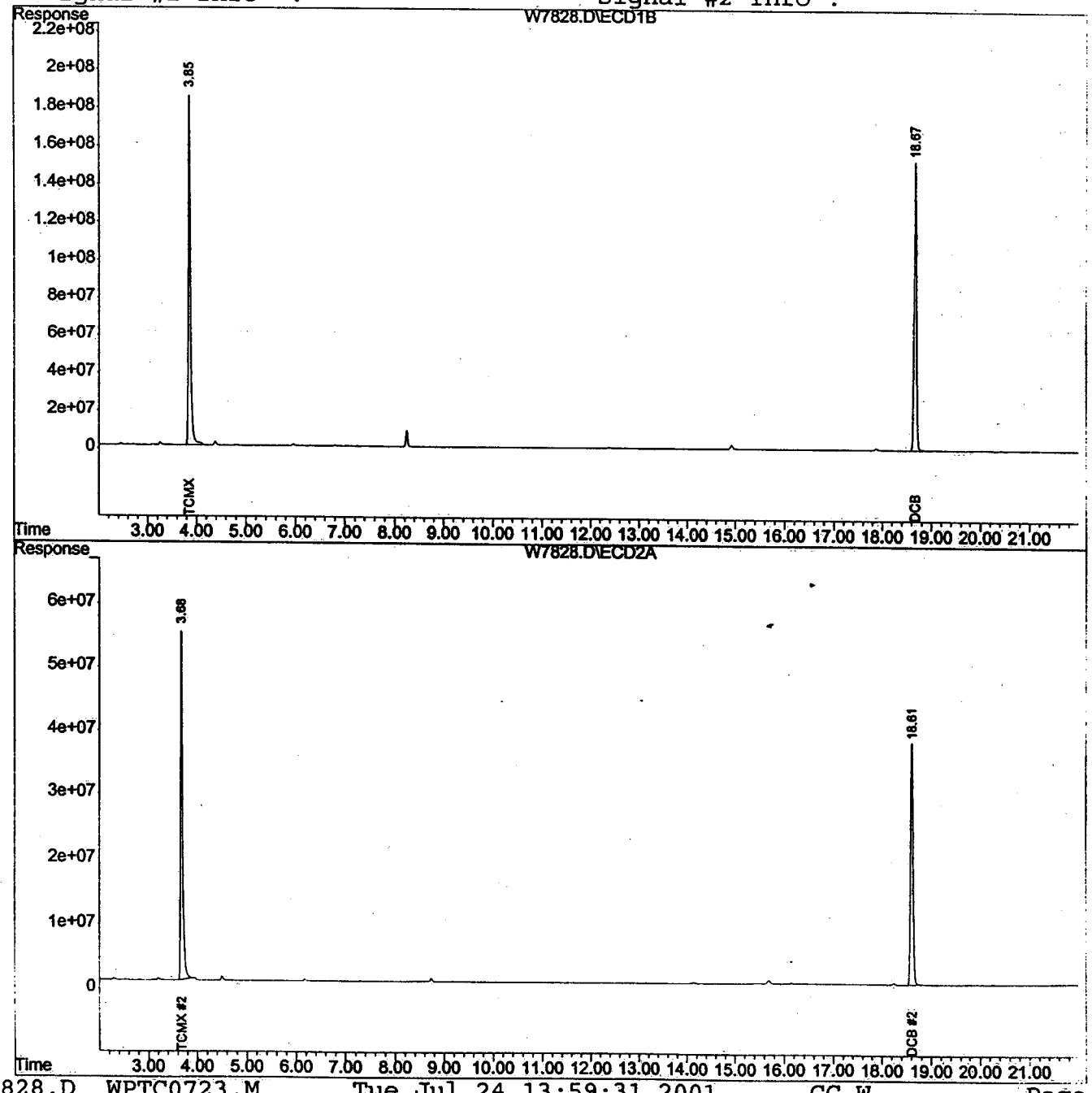
0449

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7828.D\ECD1B.CH Vial: 33
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7828.D\ECD2A.CH
Acq On : 7-24-01 00:40:57 Operator: LAG
Sample : (4833),0717-BK1,S,30.0g,0.0,07/17/01 Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 13:58 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1892

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD1B.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD2A.CH
Acq On : 7-18-01 22:21:12 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:13 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

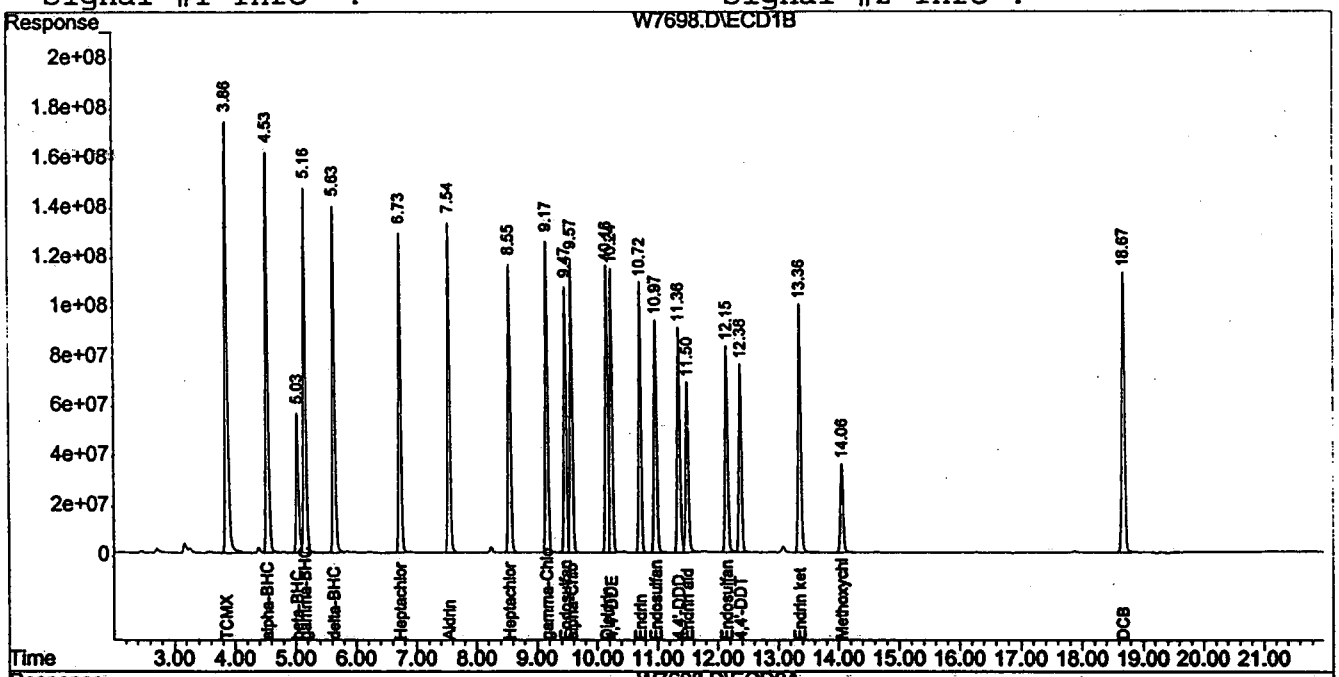
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	5063.4E6	1559.0E6	105.063	101.446	
Spiked Amount	100.000			Recovery	=	105.06%	101.45%	
2) S	DCB	18.67	18.61	3817.0E6	1040.4E6	101.839	97.842	
Spiked Amount	100.000			Recovery	=	101.84%	97.84%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4353.4E6	1236.0E6	107.919	104.233	
4) T	beta-BHC	5.03	8.62	1553.7E6	495.0E6	103.464	98.316	
5) T	gamma-BHC	5.16	6.52	3921.8E6	1123.3E6	107.189	103.569	
6) T	delta-BHC	5.63	9.18	3785.7E6	1071.7E6	111.737	107.700	
7) T	Heptachlor	6.73	7.00	3463.6E6	968.9E6	110.341	102.567	
8) T	Aldrin	7.54	7.67	3645.2E6	1027.1E6	106.353	102.486	
9) T	Heptachlor epoxi	8.55	9.51	3231.5E6	931.9E6	106.859	101.371	
10) T	Endosulfan I	9.47	10.20	3013.3E6	873.9E6	106.291	101.502	
11) T	4,4'-DDE	10.24	10.97	3264.8E6	920.6E6	105.463	101.762	
12) T	Dieldrin	10.16	11.23	3333.0E6	950.0E6	107.839	102.309	
13) T	Endrin	10.72	11.76	3110.5E6	917.9E6	108.289	102.473	
14) T	Endosulfan II	10.97	13.20	2845.6E6	1642.1E6	106.156	204.816	#
15) T	4,4'-DDD	11.36	13.20	2772.5E6	1642.1E6	111.451	204.861	#
16) T	Endrin aldehyde	11.50	14.33	2225.6E6	601.3E6	107.440	101.283	
17) T	Endosulfan sulfa	12.15	15.23	2507.6E6	705.1E6	109.918	102.985	
18) T	4,4'-DDT	12.38	13.65	2281.2E6	561.0E6	106.945	97.402	
19) T	Endrin ketone	13.36	16.26	3092.5E6	858.1E6	105.170	99.973	
20) T	Methoxychlor	14.06	15.51	1169.1E6	316.7E6	110.440	97.634	
21) T	alpha-Chlordane	9.57	10.59	3322.4E6	941.5E6	105.689	101.324	
22) T	gamma-Chlordane	9.17	10.43	3502.2E6	963.3E6	106.662	101.781	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

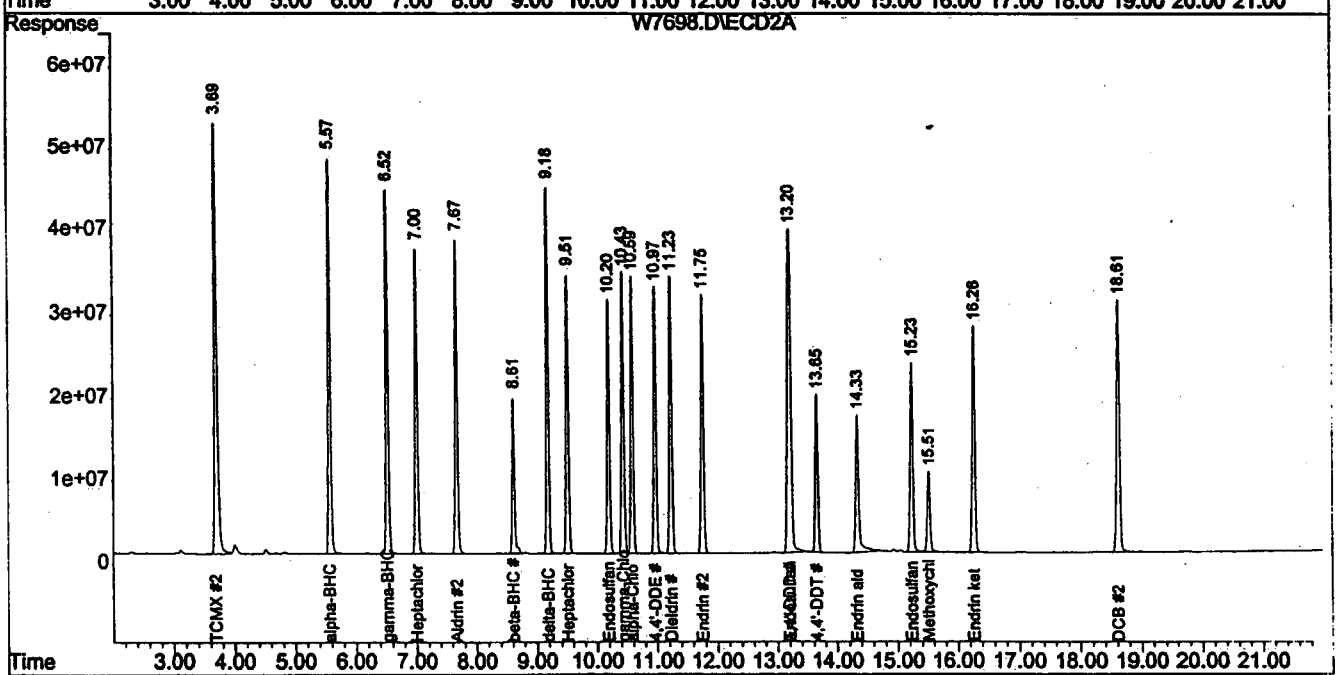
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD1B.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7698.D\ECD2A.CH
Acq On : 7-18-01 22:21:12 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:13 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1894

0650

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD2A.CH
Acq On : 7-19-01 9:36:36 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:21 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

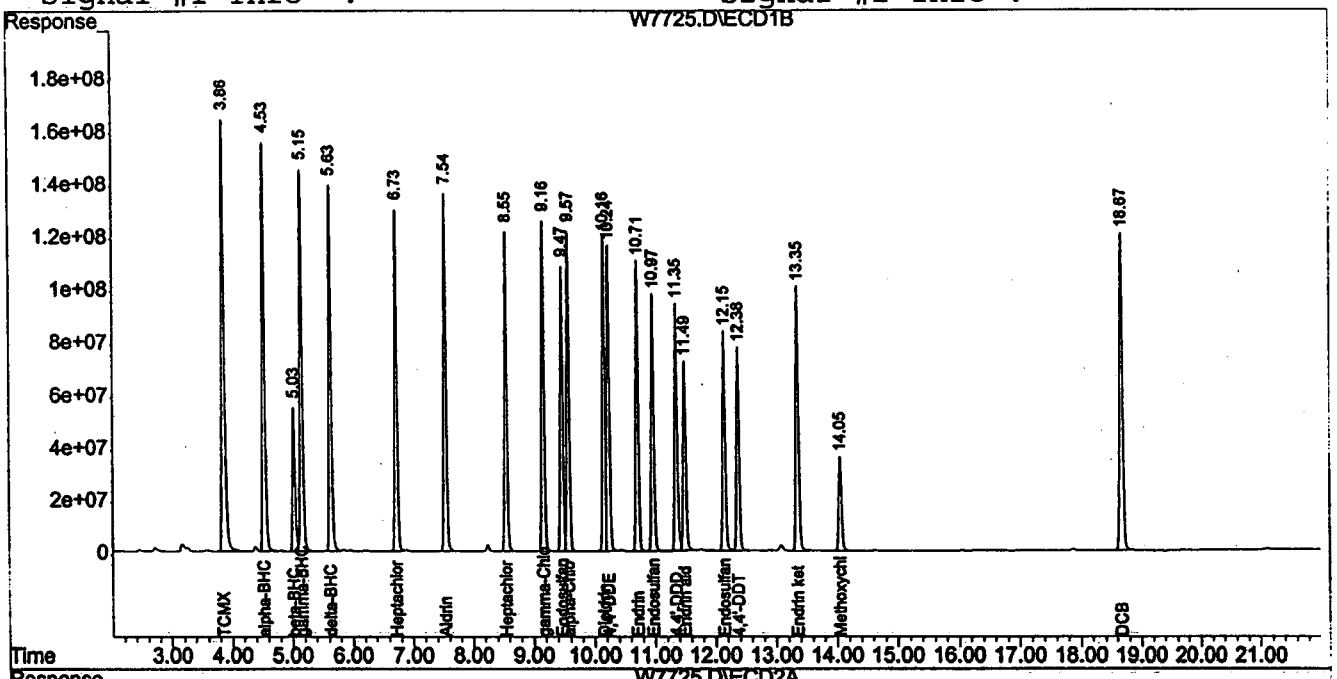
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
		System Monitoring Compounds							
1)	S	TCMX	3.86	3.69	5223.7E6	1606.4E6	108.389	104.532	
		Spiked Amount 100.000			Recovery	=	108.39%	104.53%	
2)	S	DCB	18.67	18.61	3947.9E6	1098.7E6	105.331	103.330	
		Spiked Amount 100.000			Recovery	=	105.33%	103.33%	
		Target Compounds							
3)	T	alpha-BHC	4.53	5.57	4491.4E6	1281.1E6	111.342	108.034	
4)	T	beta-BHC	5.03	8.62	1594.5E6	513.5E6	106.182	101.988	
5)	T	gamma-BHC	5.15	6.52	4040.2E6	1166.0E6	110.425	107.506	
6)	T	delta-BHC	5.63	9.18	3929.6E6	1124.1E6	115.983	112.965	
7)	T	Heptachlor	6.73	7.00	3541.6E6	1003.9E6	112.826	106.276	
8)	T	Aldrin	7.54	7.67	3776.2E6	1066.1E6	110.176	106.375	
9)	T	Heptachlor epoxi	8.55	9.51	3328.8E6	965.8E6	110.078	105.054	
10)	T	Endosulfan I	9.47	10.20	3103.9E6	906.5E6	109.487	105.289	
11)	T	4,4'-DDE	10.24	10.97	3375.7E6	956.5E6	109.044	105.728	
12)	T	Dieldrin	10.16	11.23	3417.1E6	986.1E6	110.561	106.207	
13)	T	Endrin	10.71	11.76	3174.7E6	947.2E6	110.526	105.754	
14)	T	Endosulfan II	10.97	13.20	2921.3E6	1666.0E6	108.979	207.792	#
15)	T	4,4'-DDD	11.35	13.20	2831.6E6	1666.0E6	113.828	207.838	#
16)	T	Endrin aldehyde	11.49	14.33	2260.8E6	628.1E6	109.137	105.799	
17)	T	Endosulfan sulfa	12.15	15.23	2590.7E6	739.8E6	113.561	108.056	
18)	T	4,4'-DDT	12.38	13.65	2333.7E6	596.1E6	109.406	103.483	
19)	T	Endrin ketone	13.36	16.26	3175.9E6	901.5E6	108.006	105.033	
20)	T	Methoxychlor	14.05	15.51	1173.6E6	330.9E6	110.865	101.996	
21)	T	alpha-Chlordane	9.57	10.59	3425.6E6	979.7E6	108.972	105.435	
22)	T	gamma-Chlordane	9.16	10.43	3610.9E6	1002.1E6	109.973	105.881	
		Sum Chlordane			0	0	N.D.	N.D.	
		Average Chlordane					0.000	0.000	
		Sum Toxaphene			0	0	N.D.	N.D.	
		Average Toxaphene					0.000	0.000	

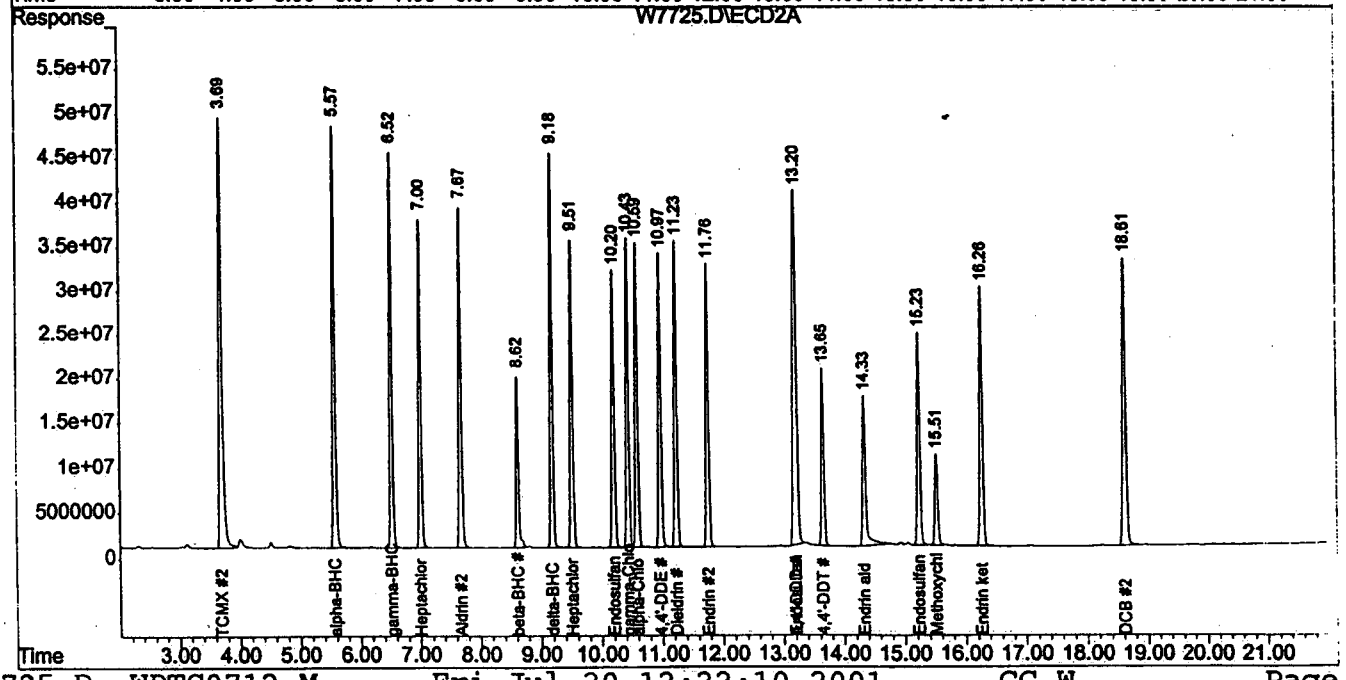
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD1B.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7725.D\ECD2A.CH
Acq On : 7-19-01 9:36:36 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:21 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1896

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD2A.CH
Acq On : 7-18-01 22:46:05 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:16 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5403.0E6	1661.0E6	112.110	108.085
Spiked Amount 100.000			Recovery	=	112.11%	108.08%
2) S DCB	18.67	18.61	3991.5E6	1094.8E6	106.494m	102.963m
Spiked Amount 100.000			Recovery	=	106.49%	102.96%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	13.16	13.98	304.8E6	138.1E6	470.240	484.618
29) L2 Toxaphene (2)	13.29	14.73	516.7E6	95285796	503.809	460.749
30) L2 Toxaphene (3)	13.57	14.98	197.5E6	138.8E6	421.483	516.775
31) L2 Toxaphene (4)	14.03	15.17	223.1E6	82245153	464.509	515.249
32) L2 Toxaphene (5)	14.54	15.62	266.2E6	66905403	465.638	522.963
Sum Toxaphene			1508.3E6	521.3E6	2325.679	2500.354
Average Toxaphene					465.136	500.071

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
W7699.D WPTC0712.M Fri Jul 20 12:17:26 2001 GC_W Page 1

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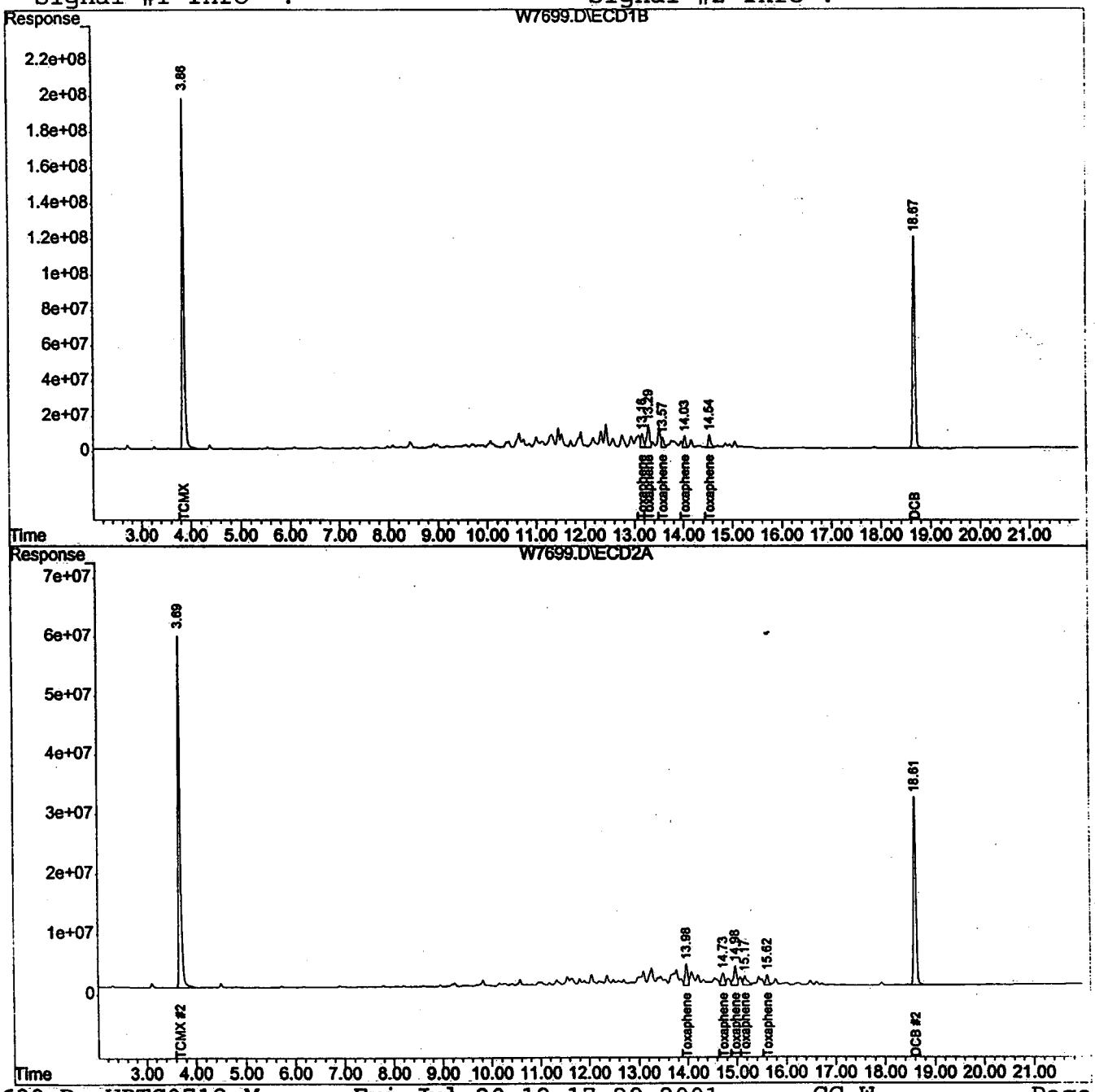
Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD1B.CH Vial: 25
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7699.D\ECD2A.CH
Acq On : 7-18-01 22:46:05 Operator: LAG
Sample : TOX_C_IAS_1490,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:16 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1898

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD1B.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD2A.CH
Acq On : 7-18-01 23:11:00 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:17 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5085.3E6	1586.7E6	105.518	103.250
Spiked Amount 100.000			Recovery	=	105.52%	103.25%
2) S DCB	18.68	18.61	3809.8E6	1046.7E6	101.648	98.439
Spiked Amount 100.000			Recovery	=	101.65%	98.44%
Target Compounds						
23) L1 Chlordane	9.17	8.36	1910.8E6	91563772	528.322	513.643
24) L1 Chlordane {2}	9.37	10.03	416.2E6	118.4E6	522.682	509.228
25) L1 Chlordane {3}	9.57	10.43	1873.8E6	526.9E6	525.247	512.233
26) L1 Chlordane {4}	9.72	10.59	1100.9E6	476.7E6	527.228	517.553
27) L1 Chlordane {5}	11.57	10.65	523.4E6	301.4E6	522.263	502.981
Sum Chlordane			5825.2E6	1515.0E6	2625.742	2555.639
Average Chlordane					525.148	511.128
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

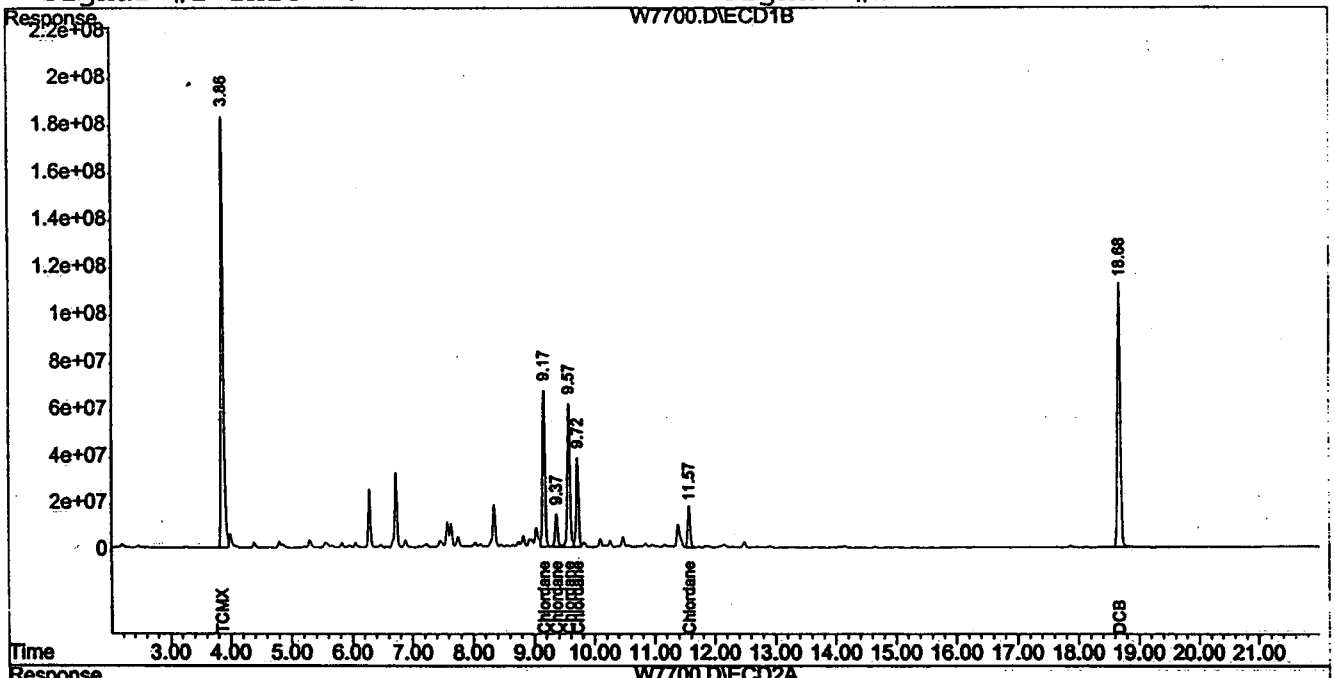
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

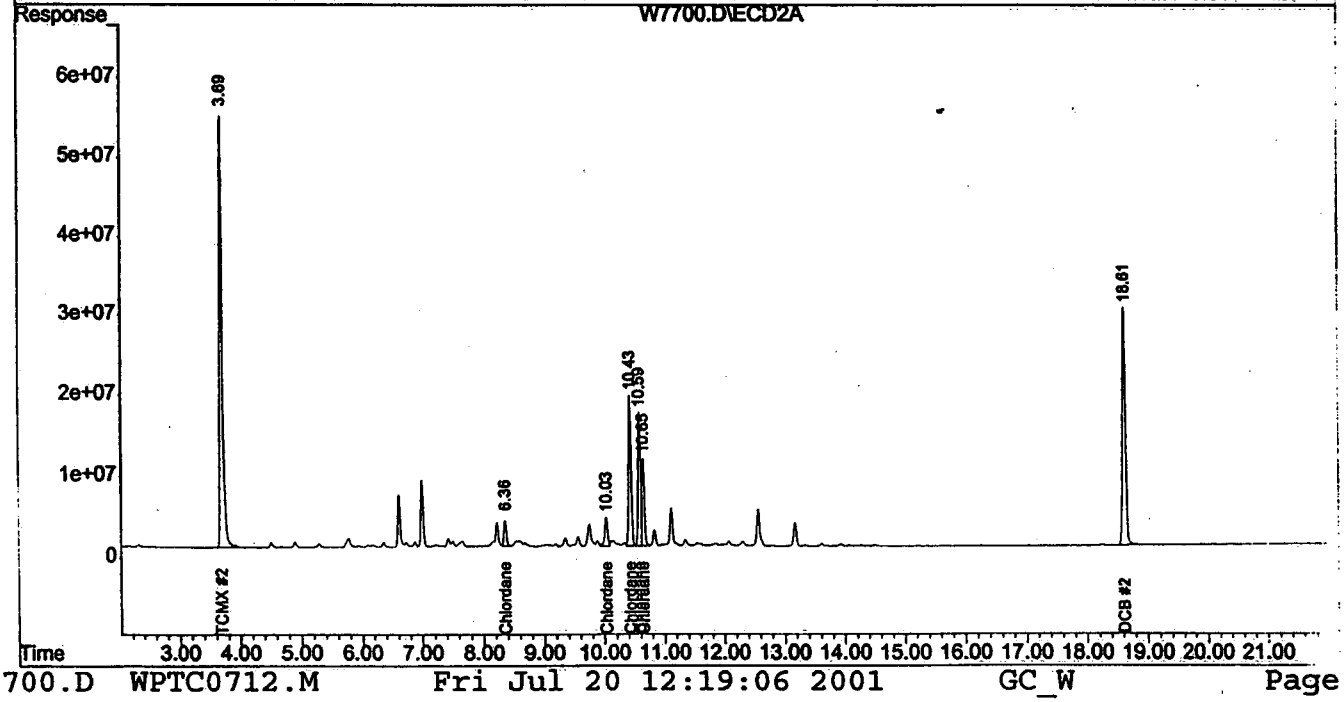
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD1B.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\07-18-01\W7700.D\ECD2A.CH
Acq On : 7-18-01 23:11:00 Operator: LAG
Sample : CHLOR_C_IAS_1491,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 20 12:17 2001 Quant Results File: WPTC0712.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0712.M (Chemstation Integrator)
Title :
Last Update : Fri Jul 13 10:11:13 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0712.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1900

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7813.D\ECD1B.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7813.D\ECD2A.CH
Acq On : 7-23-01 18:27:02 Operator: LAG
Sample : PEST_L3_IAS_1531,100PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:14 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:13:50 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	5260.1E6	1545.0E6	105.927	100.717	
Spiked Amount	100.000			Recovery	=	105.93%	100.72%	
2) S	DCB	18.67	18.61	4015.1E6	1037.4E6	109.880	101.048	
Spiked Amount	100.000			Recovery	=	109.88%	101.05%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4460.6E6	1208.1E6	107.758	103.622	
4) T	beta-BHC	5.03	8.61	1587.8E6	489.5E6	103.801	100.532	
5) T	gamma-BHC	5.16	6.52	4004.6E6	1102.9E6	106.663	103.455	
6) T	delta-BHC	5.63	9.18	3837.0E6	1044.4E6	108.599	105.105	
7) T	Heptachlor	6.73	7.00	3367.2E6	934.3E6	103.870	101.372	
8) T	Aldrin	7.54	7.67	3795.6E6	1024.9E6	109.195	104.266	
9) T	Heptachlor epoxi	8.55	9.51	3309.1E6	918.7E6	107.514	101.978	
10) T	Endosulfan I	9.47	10.19	3099.7E6	866.6E6	107.864	102.846	
11) T	4,4'-DDE	10.24	10.97	3432.5E6	920.7E6	109.758	104.555	
12) T	Dieldrin	10.16	11.23	3372.8E6	940.7E6	108.228	103.495	
13) T	Endrin	10.72	11.75	3036.1E6	877.7E6	104.967	101.395	
14) T	Endosulfan II	10.97	13.19	2925.1E6	1609.9E6	107.907	207.704	#
15) T	4,4'-DDD	11.36	13.19	2695.9E6	1609.9E6	104.954	207.704	#
16) T	Endrin aldehyde	11.49	14.33	2253.7E6	598.1E6	106.743	104.855	
17) T	Endosulfan sulfa	12.15	15.23	2570.9E6	695.2E6	108.283	102.614	
18) T	4,4'-DDT	12.38	13.65	2259.5E6	545.7E6	107.692	104.325	
19) T	Endrin ketone	13.36	16.26	3171.6E6	852.3E6	108.612	104.864	
20) T	Methoxychlor	14.05	15.51	1111.7E6	304.4E6	104.989	104.911	
21) T	alpha-Chlordane	9.57	10.58	3439.5E6	931.9E6	107.565	102.259	
22) T	gamma-Chlordane	9.17	10.43	3613.0E6	953.0E6	108.150	102.646	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1901

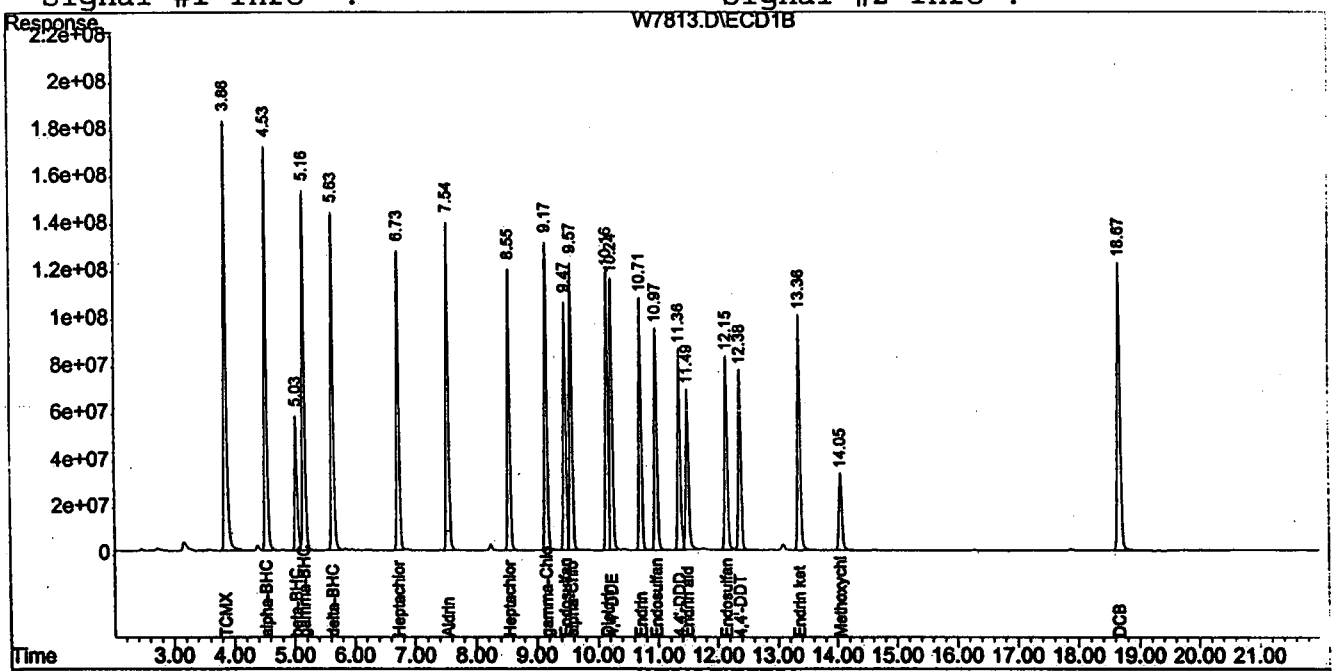
0459

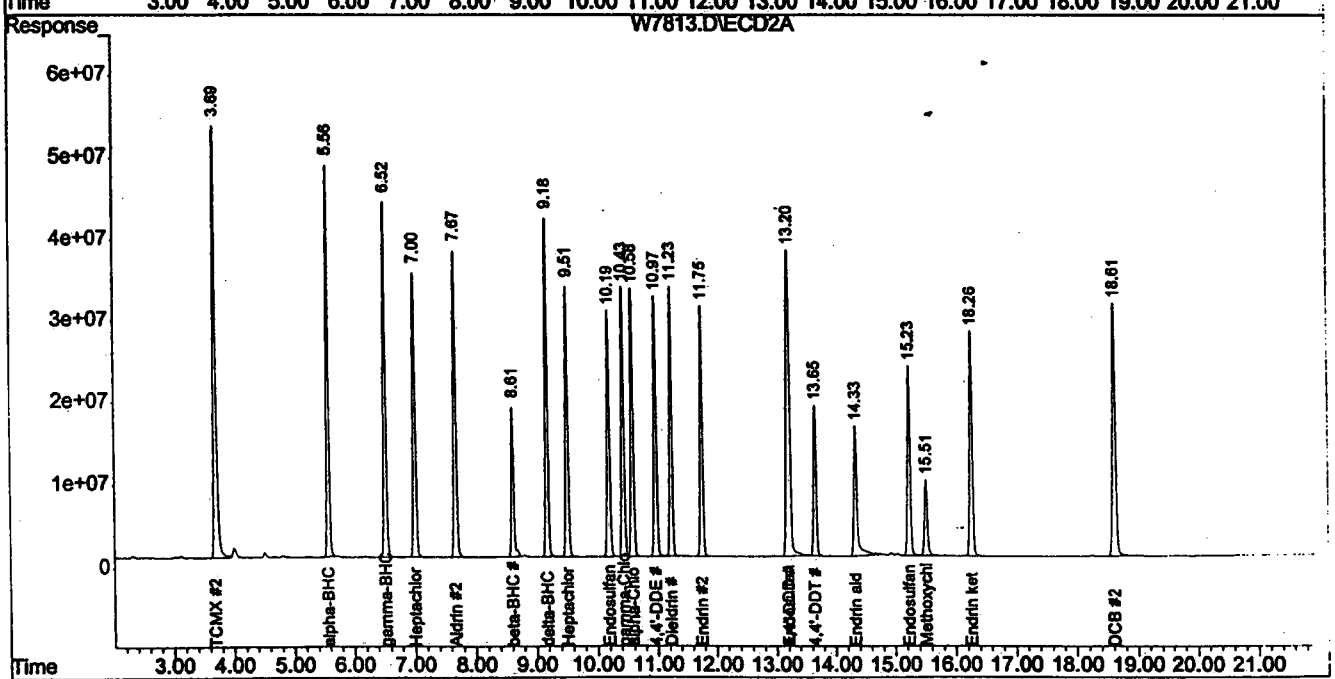
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7813.D\ECD1B.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7813.D\ECD2A.CH
Acq On : 7-23-01 18:27:02 Operator: LAG
Sample : PEST_L3_IAS_1531,100PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:14 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:13:50 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





19077

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7830.D\ECD1B.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7830.D\ECD2A.CH
Acq On : 7-24-01 1:30:43 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:27 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
	System Monitoring Compounds							
1) S	TCMX	3.86	3.69	5276.7E6	1585.7E6	101.080	103.364	
Spiked Amount	100.000			Recovery	=	101.08%	103.36%	
2) S	DCB	18.68	18.61	3884.9E6	1064.3E6	96.901	101.948	
Spiked Amount	100.000			Recovery	=	96.90%	101.95%	
	Target Compounds							
3) T	alpha-BHC	4.53	5.57	4483.3E6	1247.4E6	103.477	105.789	
4) T	beta-BHC	5.03	8.61	1589.1E6	501.6E6	99.509	101.064	
5) T	gamma-BHC	5.16	6.52	4023.4E6	1135.2E6	102.609	105.340	
6) T	delta-BHC	5.63	9.18	3853.5E6	1076.9E6	103.374	105.587	
7) T	Heptachlor	6.73	7.00	3430.6E6	965.7E6	104.268	105.051	
8) T	Aldrin	7.54	7.67	3789.4E6	1054.0E6	102.603	105.108	
9) T	Heptachlor epoxi	8.55	9.51	3308.1E6	946.7E6	102.485	104.624	
10) T	Endosulfan I	9.47	10.19	3085.9E6	884.6E6	101.833	103.787	
11) T	4,4'-DDE	10.24	10.97	3395.3E6	944.3E6	101.537	104.847	
12) T	Dieldrin	10.16	11.23	3349.8E6	967.9E6	102.247	104.950	
13) T	Endrin	10.72	11.75	3041.0E6	909.9E6	102.159	105.135	
14) T	Endosulfan II	10.97	13.20	2885.9E6	1654.4E6	100.849	210.607	#
15) T	4,4'-DDD	11.36	13.20	2690.9E6	1654.4E6	102.103	210.607	#
16) T	Endrin aldehyde	11.50	14.33	2228.0E6	603.6E6	101.128	103.602	
17) T	Endosulfan sulfa	12.15	15.23	2537.4E6	711.4E6	100.762	102.886	
18) T	4,4'-DDT	12.38	13.65	2222.9E6	554.6E6	101.875	104.984	
19) T	Endrin ketone	13.36	16.26	3117.8E6	870.7E6	100.110	103.888	
20) T	Methoxychlor	14.06	15.51	1094.9E6	303.7E6	102.200	102.901	
21) T	alpha-Chlordane	9.57	10.58	3415.5E6	959.4E6	101.008	103.720	
22) T	gamma-Chlordane	9.17	10.43	3597.7E6	981.3E6	101.960	104.181	
Sum	Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	
Sum	Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

19/23

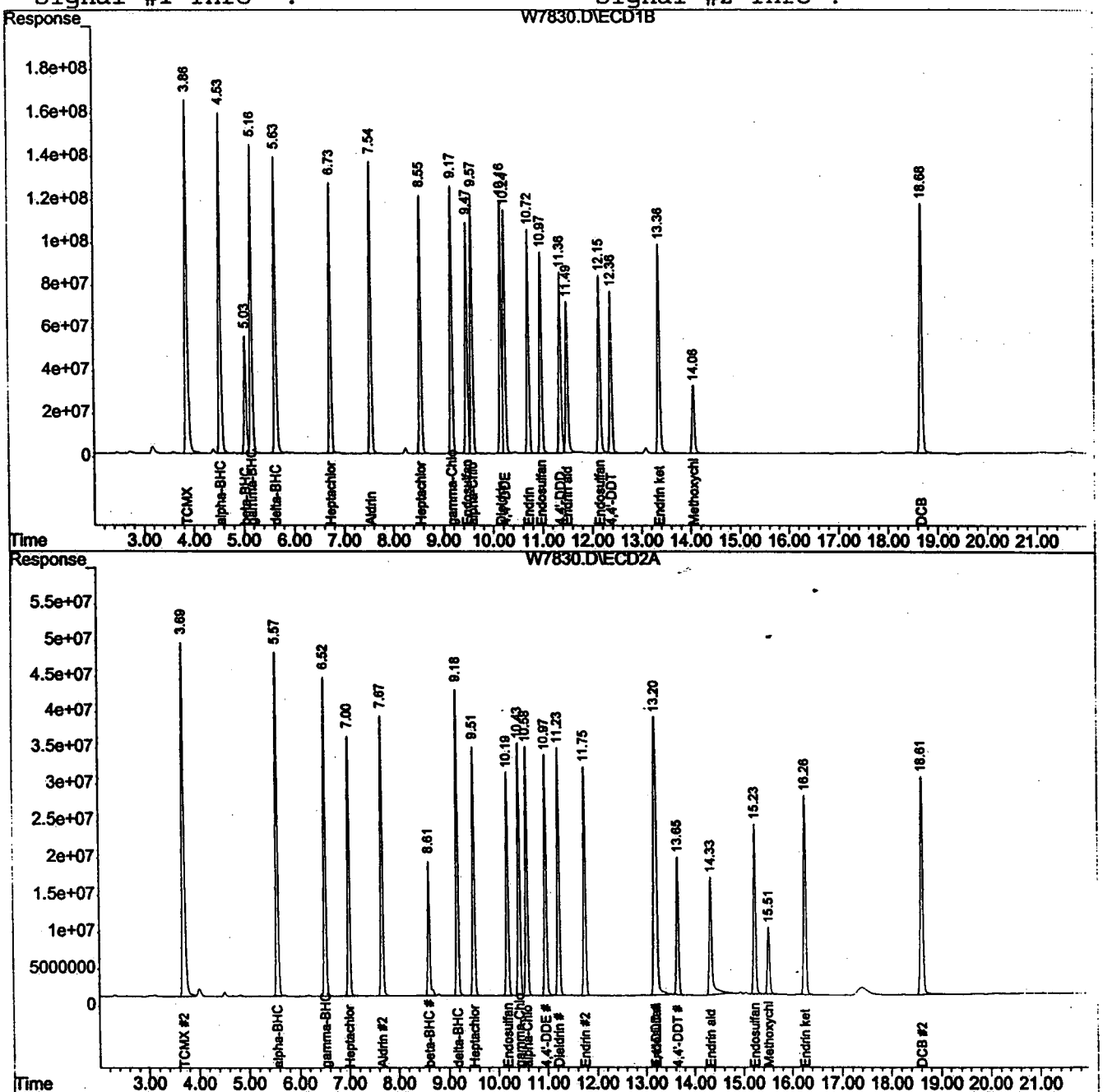
0661

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7830.D\ECD1B.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7830.D\ECD2A.CH
Acq On : 7-24-01 1:30:43 Operator: LAG
Sample : PEST_C_IAS_1531,100_PPB Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:27 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:22:41 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



1904

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7816.D\ECD1B.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7816.D\ECD2A.CH
Acq On : 7-23-01 19:41:50 Operator: LAG
Sample : TOX_IAS_1533,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:21 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:20:45 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5609.2E6	1653.0E6	107.449	107.750
Spiked Amount 100.000			Recovery =		107.45%	107.75%
2) S DCB	18.67	18.61	3002.6E6	782.5E6	74.894	74.954
Spiked Amount 100.000			Recovery =		74.89%	74.95%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
28) L2 Toxaphene	13.16	13.98	295.3E6	108.0E6	556.542	531.893
29) L2 Toxaphene {2}	13.29	14.73	470.1E6	78108843	530.527	553.074
30) L2 Toxaphene {3}	13.57	14.98	210.0E6	108.0E6	568.003	535.285
31) L2 Toxaphene {4}	14.03	15.17	214.7E6	60365383	547.803	559.173
32) L2 Toxaphene {5}	14.54	15.62	256.4E6	47972485	539.520	544.594
Sum Toxaphene			1446.5E6	402.4E6	2742.396	2724.020
Average Toxaphene					548.479	544.804

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

1905

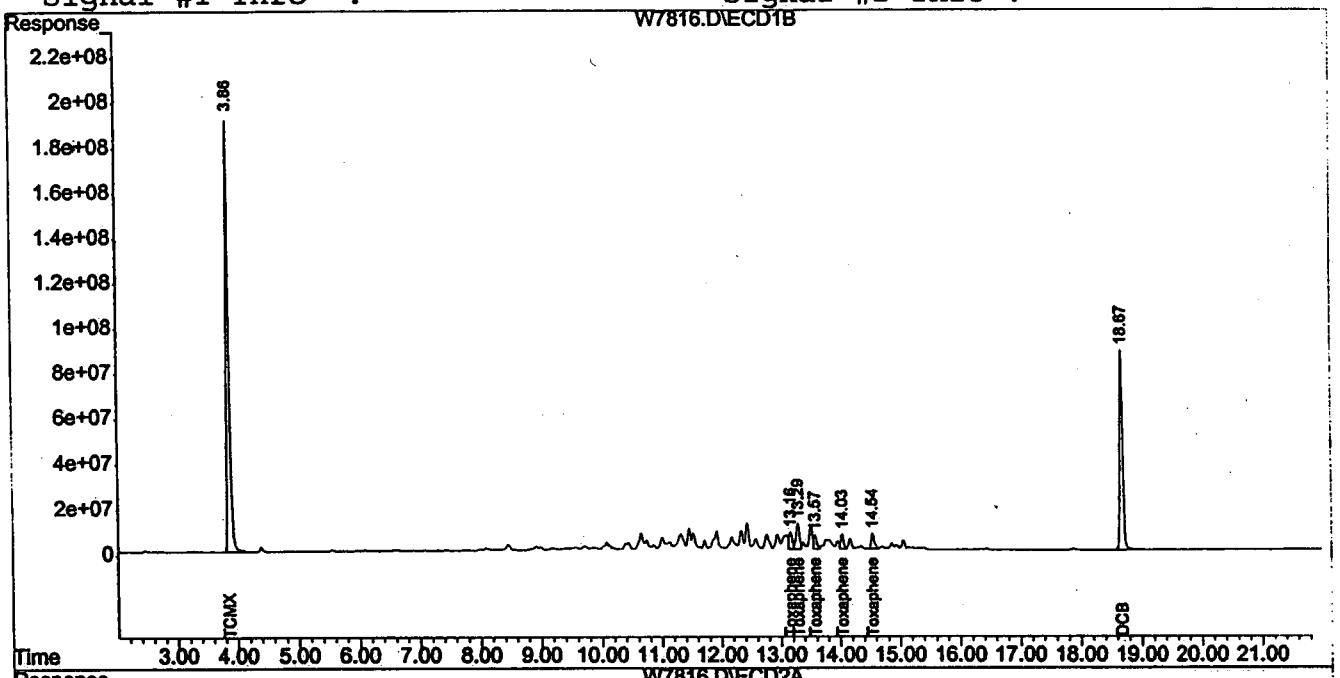
0662

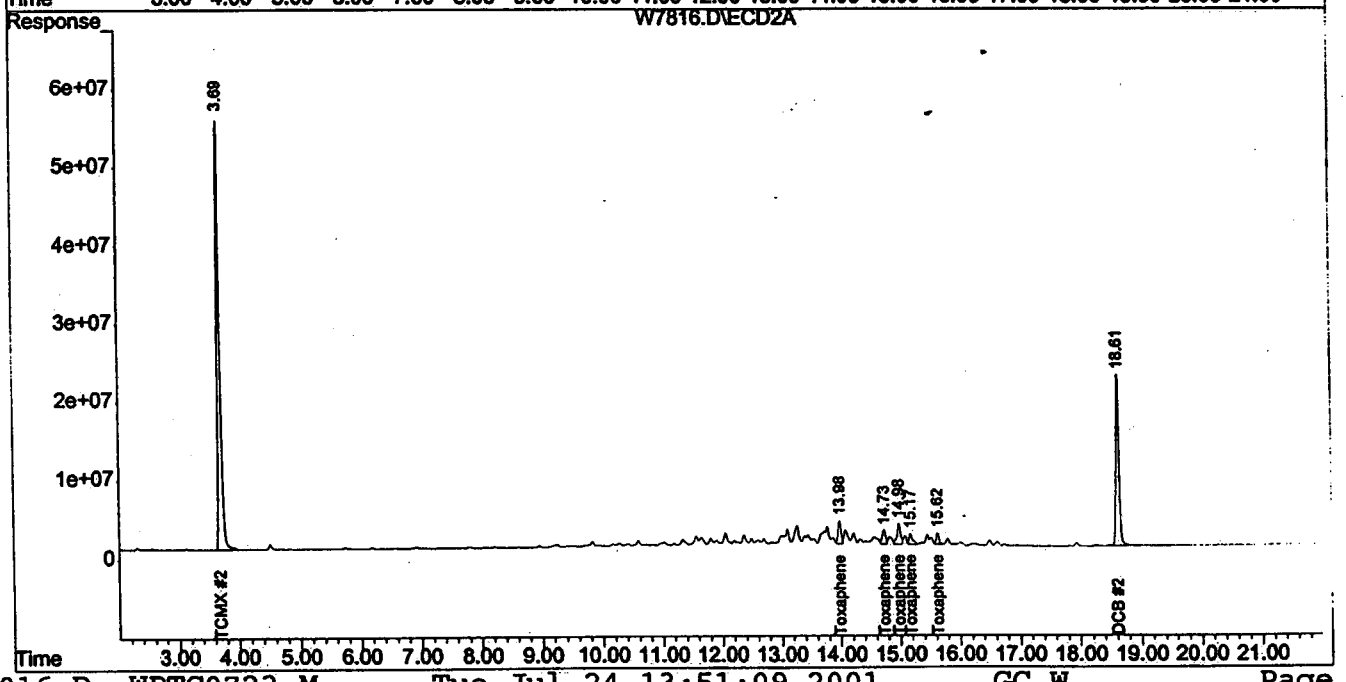
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7816.D\ECD1B.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7816.D\ECD2A.CH
Acq On : 7-23-01 19:41:50 Operator: LAG
Sample : TOX_IAS_1533,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:21 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:20:45 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1906

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7817.D\ECD1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7817.D\ECD2A.CH
Acq On : 7-23-01 20:06:45 Operator: LAG
Sample : CHLOR_IAS_1534,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:22 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:21:33 2001
Response via : Initial Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	3.86	3.69	5217.5E6	1572.9E6	98.627	101.105
Spiked Amount 100.000			Recovery =		98.63%	101.11%
2) S DCB	18.68	18.61	2904.4E6	757.6E6	76.300	76.300
Spiked Amount 100.000			Recovery =		76.30%	76.30%
Target Compounds						
23) L1 Chlordane	9.17	8.36	1971.8E6	90586275	509.644	519.283
24) L1 Chlordane {2}	9.37	10.03	434.8E6	118.5E6	495.008	522.099
25) L1 Chlordane {3}	9.57	10.43	1932.6E6	521.6E6	506.824	515.450
26) L1 Chlordane {4}	9.72	10.58	1131.7E6	467.7E6	512.088	511.727
27) L1 Chlordane {5}	11.57	10.64	532.0E6	304.0E6	512.654	522.307
Sum Chlordane			6002.9E6	1502.4E6	2536.218	2590.866
Average Chlordane					507.244	518.173
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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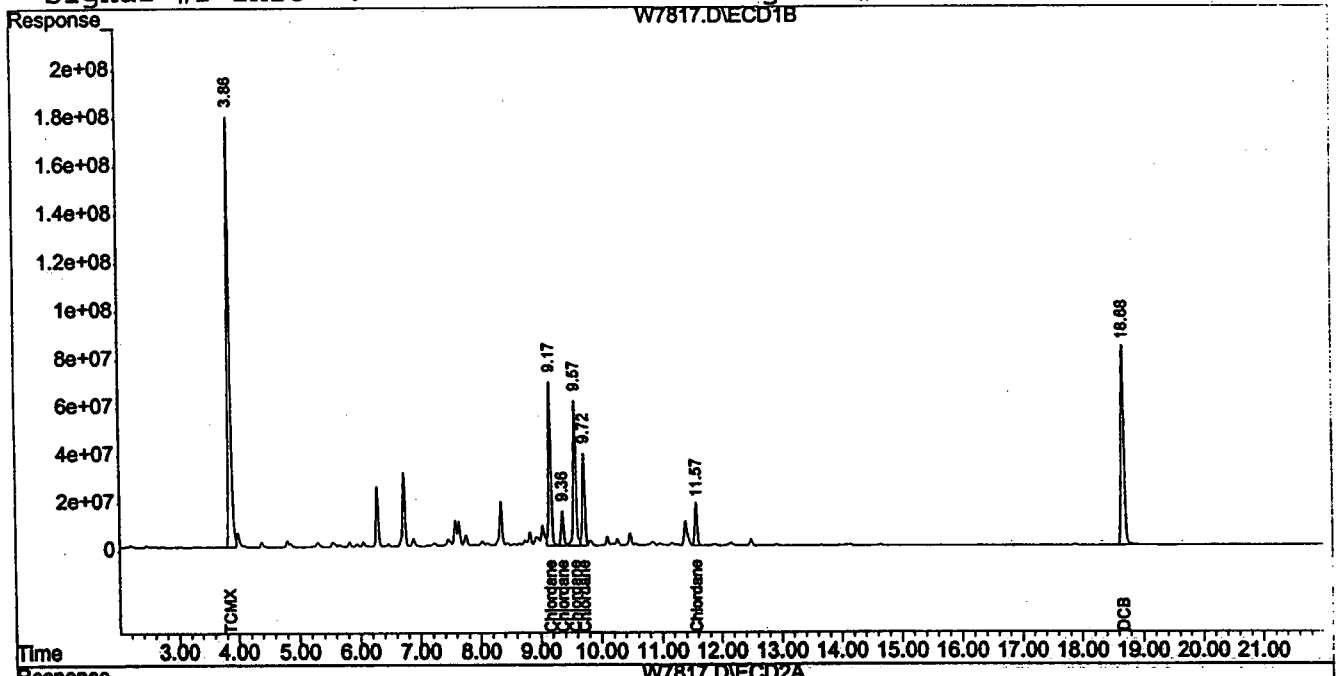
1907

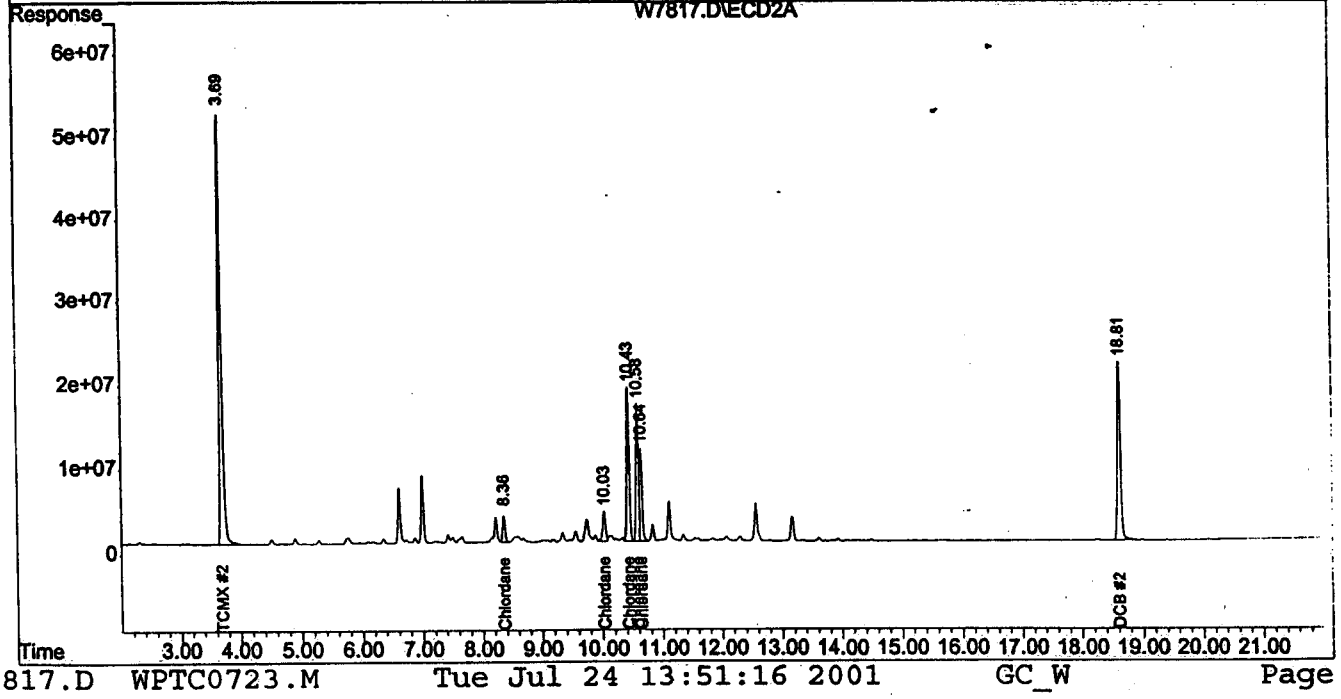
Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\07-23-01\W7817.D\ECD1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\07-23-01\W7817.D\ECD2A.CH
Acq On : 7-23-01 20:06:45 Operator: LAG
Sample : CHLOR_IAS_1534,0.5_PPM Inst : GC_W
Misc : NA,NA,NA,1 Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 24 9:22 2001 Quant Results File: WPTC0723.RES

Quant Method : C:\HPCHEM\1\METHODS\WPTC0723.M (Chemstation Integrator)
Title :
Last Update : Tue Jul 24 09:21:33 2001
Response via : Multiple Level Calibration
DataAcq Meth : WPTC0720.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1908

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

BLANK RESULTS SUMMARY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil ntration/Units: ppm (mg/kg)

ANALY	INITIAL ALIBRATI	NTINUING CALIBRATI 1	2	INST. MDL	REAGENT BLANK	MDL	IDL
Aluminu	ND	ND	ND	0.100	ND	2.00	
Antimon	ND	ND	ND	0.100	ND	2.00	
Arsenic	ND	ND	ND	0.010	ND	0.200	
Barium	ND	ND	ND	0.250	ND	5.00	
Berylliu	ND	ND	ND	0.010	ND	0.200	
Cadmium	ND	ND	ND	0.010	ND	0.200	
Calcium	ND	ND	ND	1.00	ND	20.0	
Chromiu	ND	ND	ND	0.030	ND	0.600	
Cobalt	ND	ND	ND	0.020	ND	0.400	
Copper	ND	ND	ND	0.020	ND	0.400	
Iron	ND	ND	ND	0.150	ND	3.00	
Lead	ND	ND	ND	0.100	ND	2.00	
Magnesiu	ND	ND	ND	1.00	ND	20.0	
Mangane	ND	ND	ND	0.020	ND	0.400	
Mercury	ND	ND	ND	0.00025	ND	0.013	
Nickel	ND	ND	ND	0.030	ND	0.600	
Potassiu	ND	ND	ND	1.00	ND	20.0	
Selenium	ND	ND	ND	0.100	ND	2.00	
Silver	ND	ND	ND	0.020	ND	0.400	
Sodium	ND	ND	ND	1.00	ND	20.0	
Thallium	ND	ND	ND	0.004	ND	0.080	
Vanadiu	ND	ND	ND	0.015	ND	0.300	
Zinc	ND	ND	ND	0.050	ND	1.00	

This QC Blank applies to the following samples:

4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

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INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Concentration/Units: ppb (µg/L)

	INITIAL CALIBRATIO			CONTINUING CALIBRATION						
ANALY	TRUE	OUN	%R (1)	TRUE	OUN	%R (1)	FOUN	%R (1)	MDL	IDL
Aluminu	400	390	97.5	400	416	104	366	91.5	100	
Antimony	120	122	102	120	113	94.2	112	93.3	100	
Arsenic	20.0	18.9	94.5	20.0	19.5	97.5	19.6	98.0	10.0	
Barium	400	407	102	400	397	99.3	398	99.5	250	
Beryllium	10.0	10.2	102	10.0	10.2	102	9.67	96.7	10.0	
Cadmium	10.0	9.70	97.0	10.0	10.1	101	9.64	96.4	10.0	
Calcium	10000	9880	98.8	10000	10200	102	10300	103	1000	
Chromiu	20.0	20.2	101	20.0	20.2	101	21.4	107	30.0	
Cobalt	100	97.7	97.7	100	99.9	99.9	99.2	99.2	20.0	
Copper	50.0	47.0	94.0	50.0	48.1	96.2	48.3	96.6	20.0	
Iron	200	190	95.0	200	200	100	201	101	150	
Lead	10.0	10.2	102	10.0	10.1	101	10.1	101	100	
Magnesiu	10000	10400	104	10000	10700	107	9000	90.0	1000	
Mangane	30.0	29.1	97.0	30.0	28.8	96.0	28.3	94.3	20.0	
Mercury	5.00	5.20	104	5.00	5.30	106	4.70	94.0	0.250	
Nickel	80.0	77.0	96.3	80.0	78.3	97.9	77.9	97.4	30.0	
Potassiu	10000	10400	104	10000	10900	109	10800	108	1000	
Selenium	10.0	10.4	104	10.0	10.7	107	10.3	103	100	
Silver	20.0	19.5	97.5	20.0	20.0	100	19.8	99.0	20.0	
Sodium	10000	10900	109	10000	11000	110	9230	92.3	1000	
Thallium	20.0	20.1	101	20.0	20.4	102	20.4	102	4.00	
Vanadiu	100	103	103	100	104	104	105	105	15.0	
Zinc	40.0	40.3	101	40.0	41.8	105	41.6	104	50.0	

(1) Control Limits: Mercury 80-120, Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Aqueous Concentration/Units: ppb(ug/L)

ANALYTE / MASS	INITIAL			FINAL		
	SOL A	SOL AB	%R	SOL A	SOL AB	%R
Arsenic / 75	0.54	9.44	89.0	0.54	9.47	89.3
Cobalt / 59	0.26	10.7	104.4	0.31	10.7	103.9
Copper / 65	2.59	11.7	91.1	2.39	11.4	90.1
Manganese / 55	3.39	13.9	105.1	1.72	12.2	104.8
Nickel / 60	1.91	11.1	91.9	1.93	11.2	92.7
Zinc / 66	10.50	19.6	91.0	10.20	19.1	89.0

TRUE VALUE SOLN. B = 10 ppb

THERE ARE NO CONTROL LIMITS FOR SOLUTION AB

METALS QUALITY CONTROL

SPIKE SAMPLE RECOVERY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	10200	8810	NC	220					70-130
Antimony	48.0	ND	109	44.0	48.6	ND	116	42.0	70-130
Arsenic	48.9	2.88	105	44.0	46.6	2.81	104	42.0	70-130
Barium	100	52.9	107	44.0					70-130
Beryllium	45.8	0.555	103	44.0	38.8	0.233	91.8	42.0	70-130
Cadmium	45.6	0.439	103	44.0	42.5	ND	101	42.0	70-130
Calcium	16300	15000	NC	220					70-130
Chromium	197	143	123	44.0	54.7	11.8	102	42.0	70-130
Cobalt	257	199	NC	44.0					70-130
Copper	70.2	26.0	100	44.0	43.9	2.29	99.1	42.0	70-130
Iron	18200	16600	NC	220					70-130
Lead	76.6	27.2	112	44.0	49.0	3.53	108	42.0	70-130
Magnesium	6620	5780	NC	220					70-130
Manganese	463	381	NC	44.0					70-130
Mercury	0.359	0.092	97.1	0.275	0.265	ND	101	0.262	75-125
Nickel	559	486	NC	44.0	45.9	4.93	97.5	42.0	70-130
Potassium	1500	1190	NC	220					70-130
Selenium	48.0	ND	109	44.0	45.6	ND	109	42.0	70-130
Silver	45.4	ND	103	44.0	42.7	ND	102	42.0	70-130
Sodium	622	355	121	220					70-130
Thallium	46.1	ND	105	44.0	42.9	ND	102	42.0	70-130
Vanadium	67.4	19.7	108	44.0					70-130
Zinc	103	57.0	105	44.0	62.5	20.8	99.3	42.0	70-130

SSR = Spike Sample Result
SA = Spike Added

SR = Sample Result
%R = Percent Recover

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 4858-010

QC Sample 1 for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

QC Sample 2 4752-008

QC Sample 2 for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

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INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SPIKE SAMPLE RECOVERY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR3	SR3	%R3	SA3	SSR4	SR4	%R4	SA4	CONTROL LIMIT %R
Arsenic	52.9	5.33	99.9	47.6					70-130
Chromium	98.2	50.6	100	47.6					70-130
Nickel	113	69.2	92.0	47.6					70-130

SSR = Spike Sample Result
SA = Spike Added

SR = Sample Result
%R = Percent Recov

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 3 4858-001

QC Sample 3 for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

QC Sample 4 _____

QC Sample 4 for following samples:

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

DUPLICATE SAMPLE RECOVERY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil oncentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	8810	9330	5.73				
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	2.88	3.10	7.36	20	2.81	2.82	0.355
Barium	20	52.9	53.1	0.377				
Beryllium	20	0.555	0.574	3.37	20	0.233	0.253	8.23
Cadmium	20	0.439	0.458	4.24	NA	ND	ND	NC
Calcium	20	15000	16800	11.3				
Chromium	20	143	152	6.10	20	11.8	12.0	1.68
Cobalt	20	199	213	6.80				
Copper	20	26.0	28.7	9.87	20	2.29	2.38	3.85
Iron	20	16600	17300	4.13				
Lead	20	27.2	27.3	0.367	20	3.53	3.63	2.79
Magnesium	20	5780	6260	7.97				
Manganese	20	381	393	3.10				
Mercury	20	0.092	0.090	2.20	NA	ND	ND	NC
Nickel	20	486	524	7.52	20	4.93	5.05	2.40
Potassium	20	1190	1240	4.12				
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	355	372	4.68				
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	20	19.7	22.1	11.5				
Zinc	20	57.0	64.3	12.0	20	20.8	20.7	0.482

S1 = Sample 1
D1 = Duplicate 1

S2 = Sample 2
D2 = Duplicate 2

NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 1 4858-010

QC Sample 1 for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

QC Sample 2 4752-008

QC Sample 2 for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

0579

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

DUPLICATE SAMPLE RECOVERY

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil oncentration/Units: ppm (mg/kg)

ANALY	CONTROL LIMIT 3	S3	D3	RPD3	CONTROL LIMIT 4	S4	D4	RPD4
Arsenic	20	5.33	5.40	1.30				
Chromiu	20	50.6	49.0	3.21				
Nickel	20	69.2	65.7	5.19				

S3 = Sample 3
D3 = Duplicate 3

S4 = Sample 4
D4 = Duplicate 4

NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 3 4858-001

QC Sample 3 for following samples:

4697-04,07; 4752-02~010; 4794-010~012,014, 016,018,020,022,023; 4833-010~014; 4841-02; 4854-01~012; 4858-01~04,06,08,09,010,012,013; 4861-01

QC Sample 4 _____

QC Sample 4 for following samples:

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

ANALYTE	AQUEOUS (ug/L)			SOLID (mg/kg)			
	TRUE	FOUN	%R(1)	TRUE	FOUN	LIMITS	%R(2)
Aluminum				5760	5480	3750-7760	95.1
Antimony				26.2	7.80	D.L.-53.1	29.8
Arsenic				36.2	40.6	26.9-45.4	112
Barium				117	122	90.2-144	104
Beryllium				59.4	82.2	60.4-93.7	138
Cadmium				35.6	34.9	27.4-43.8	98.0
Calcium				1320	1320	989-1660	100
Chromium				108	109	79.2-137	101
Cobalt				67.2	65.9	53.4-80.9	98.1
Copper				63.7	67.3	52.2-75.2	106
Iron				7540	8380	4290-10800	111
Lead				52.4	47.5	37.3-67.6	90.6
Magnesium				1190	1400	815-1570	118
Manganese				151	163	128-189	108
Mercury				1.00	0.968	.614-1.39	96.8
Nickel				49.8	55.1	39-60.6	111
Potassium				2130	2220	1660-2600	104
Selenium				56.8	49.4	41-72.6	87.0
Silver				34.1	35.5	25.4-42.9	104
Sodium				487	557	354-911	114
Thallium				68.2	70.9	39-97.3	104
Vanadium				80.0	81.0	54.6-105	101
Zinc				151	155	117-185	103

(1) Control Limits = 90-110%

(2)Manufacture's Recomended Limits

Aqueous LCS Source: MV Laboratories

Solid LCS Source: Environmental Resource Associates; PriorityPollutnT/CLP Inorga

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SERIAL DILUTIONS & POST SPIKES

Lab Case Number: E01- 4697, 4752, 4794, 4833, 4841, 4854, 4858, 4861

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	8810	9390	6.37			
Antimony	ND			36.4	44.0	82.7
Arsenic	2.88	3.00	4.08			
Barium	52.9	54.4	2.80			
Beryllium	0.555			41.5	44.0	93.1
Cadmium	0.439			43.8	44.0	98.5
Calcium	15000	15700	4.56			
Chromium	143	150	4.78			
Cobalt	199	206	3.46			
Copper	26.0	23.7	9.26			
Iron	16600	17300	4.13			
Lead	27.2	26.9	1.11			
Magnesium	5780	6160	6.37			
Manganese	381	400	4.87			
Mercury	0.092	0.092	0			
Nickel	486	520	6.76			
Potassium	1190	1210	1.67			
Selenium	ND			43.0	44.0	97.7
Silver	ND			42.3	44.0	96.1
Sodium	355	343	3.44			
Thallium	ND			43.5	44.0	98.9
Vanadium	19.7	21.2	7.33			
Zinc	57.0	55.5	2.67			

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample : 4858-010

QC Sample for following samples:
4697-04,07; 4752-02~010; 4794-010~012,014,
016,018,020,022,023; 4833-010~014; 4841-02;
4854-01~012; 4858-01~04,06,08,09,010,012,013;
4861-01

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
7/17/01

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix: Soil **Batch ID:** AP024-0073
Units: S-mg/Kg

Blank

Parameter	Method Blank	MDL	Analysis Date
Total Recoverable Phenols	ND	2.50	07/16/01

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
Total Recoverable Phenols	4752-003S	47.4	47.3	0	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
Total Recoverable Phenols	4752-003	ND	53.9	47.4	87.9	75 - 125

The above blank result applies to the follow samples E01-

4752-003	4752-008
4752-003D	4752-009
4752-003S	4752-010
4752-003SD	4833-025
4752-002	4833-026
4752-004	4833-027
4752-005	4833-028
4752-006	4833-029
4752-007	

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
7/18/01

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix Soil
Units: S-mg/kg

Batch ID: AP040-0272

Blank

Parameter	Method Blank	MDL	Analysis Date
TPHC	ND	25.0	07/18/01

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
TPHC	4830-001	ND	ND	NC	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
TPHC	4830-001	ND	585	704	120	75 - 125

The above blank results applies to the following samples E01

LCS-001-0718
4863-001
4830-001
4830-001D
4830-001S
4830-002
4833-006
4833-007
4833-008
4833-009
4833-010
4833-011
4833-012
4833-013
4833-014
4833-024
4833-025
4833-026
4833-027
4833-028
4833-029

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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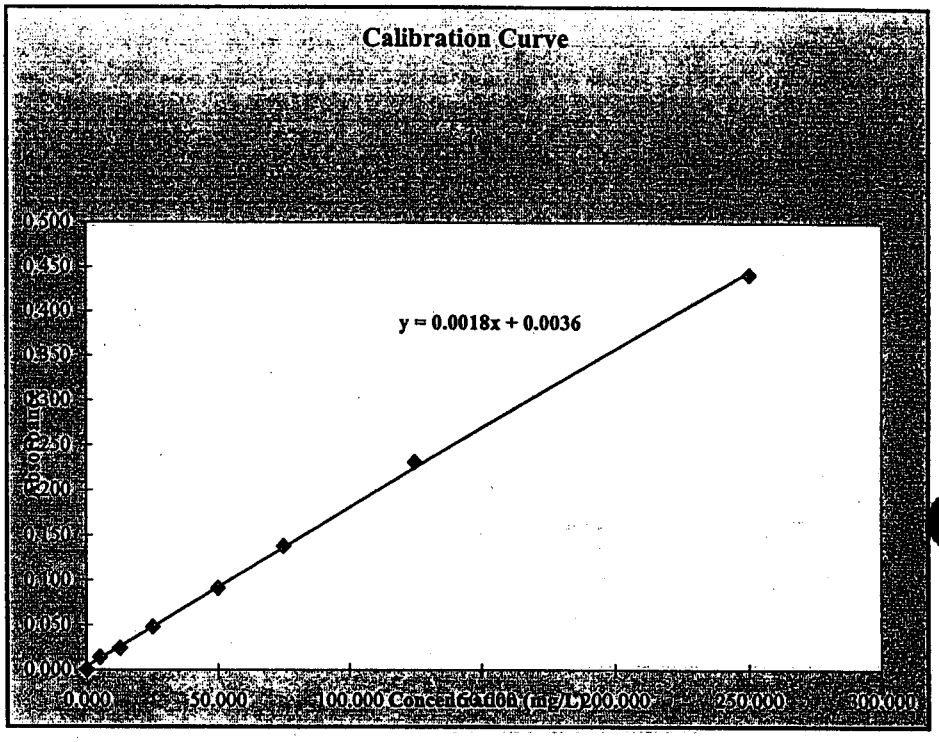
Integrated Analytical Laboratories

TPH

Date:	27-Apr-01
Method:	418.1
Matrix:	S/A
Analyst:	EDC

Conc.	Abs.
0.000	0.000
5.000	0.014
12.500	0.024
25.000	0.048
50.000	0.091
75.000	0.138
125.000	0.231
250.000	0.442

R^2=	0.999756609
Slope=	0.00177
Intercept=	0.00364



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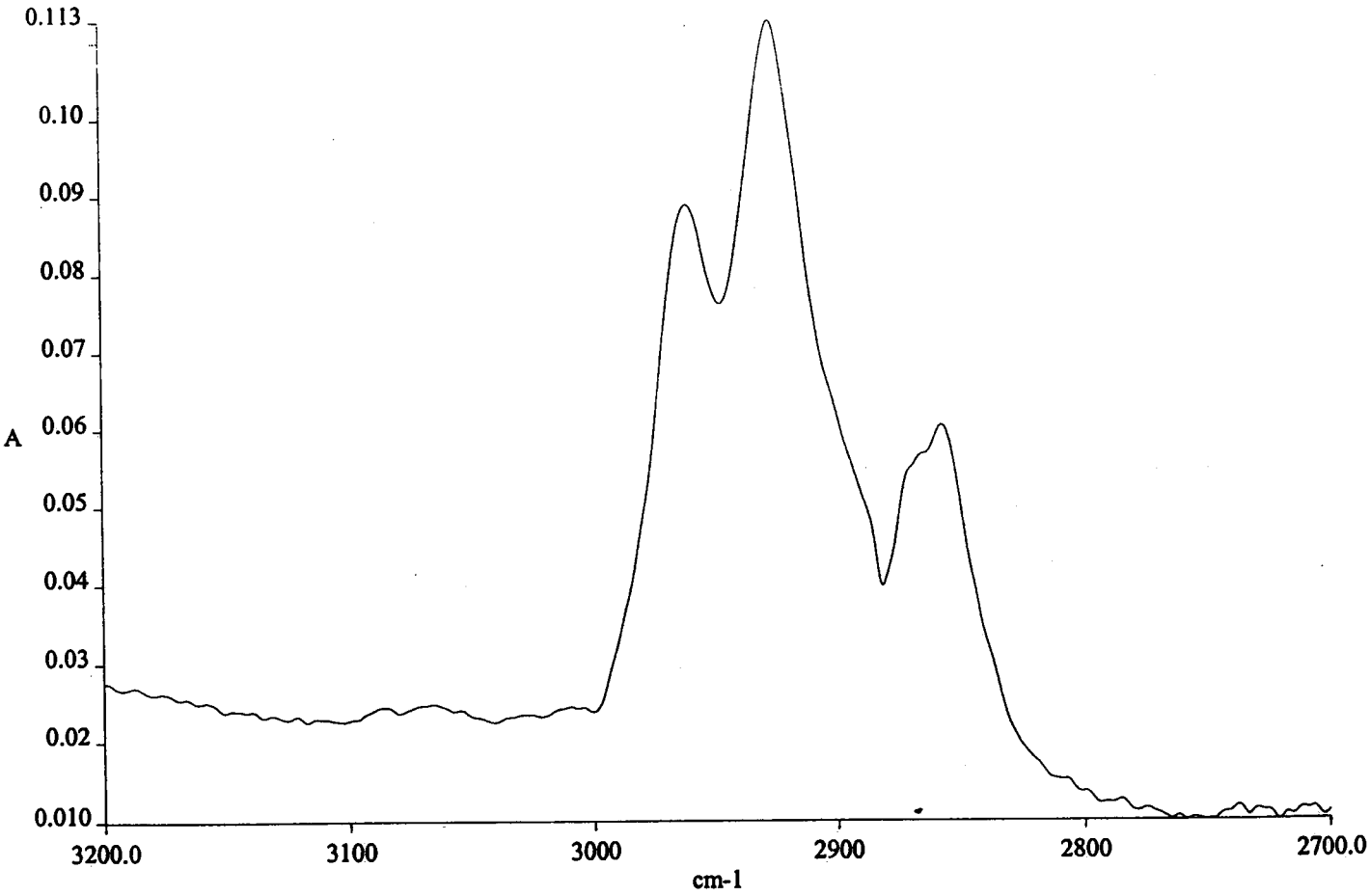

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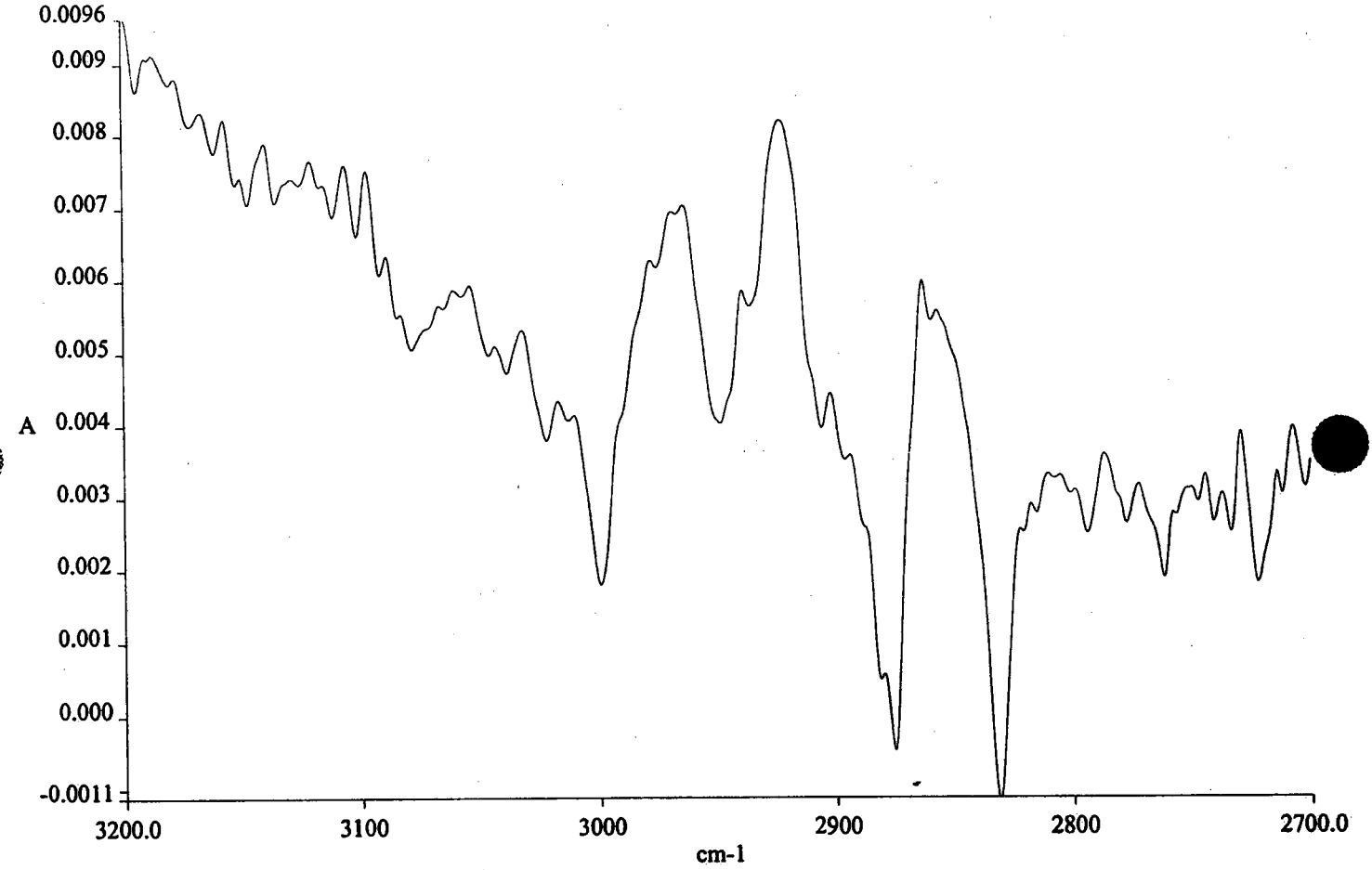

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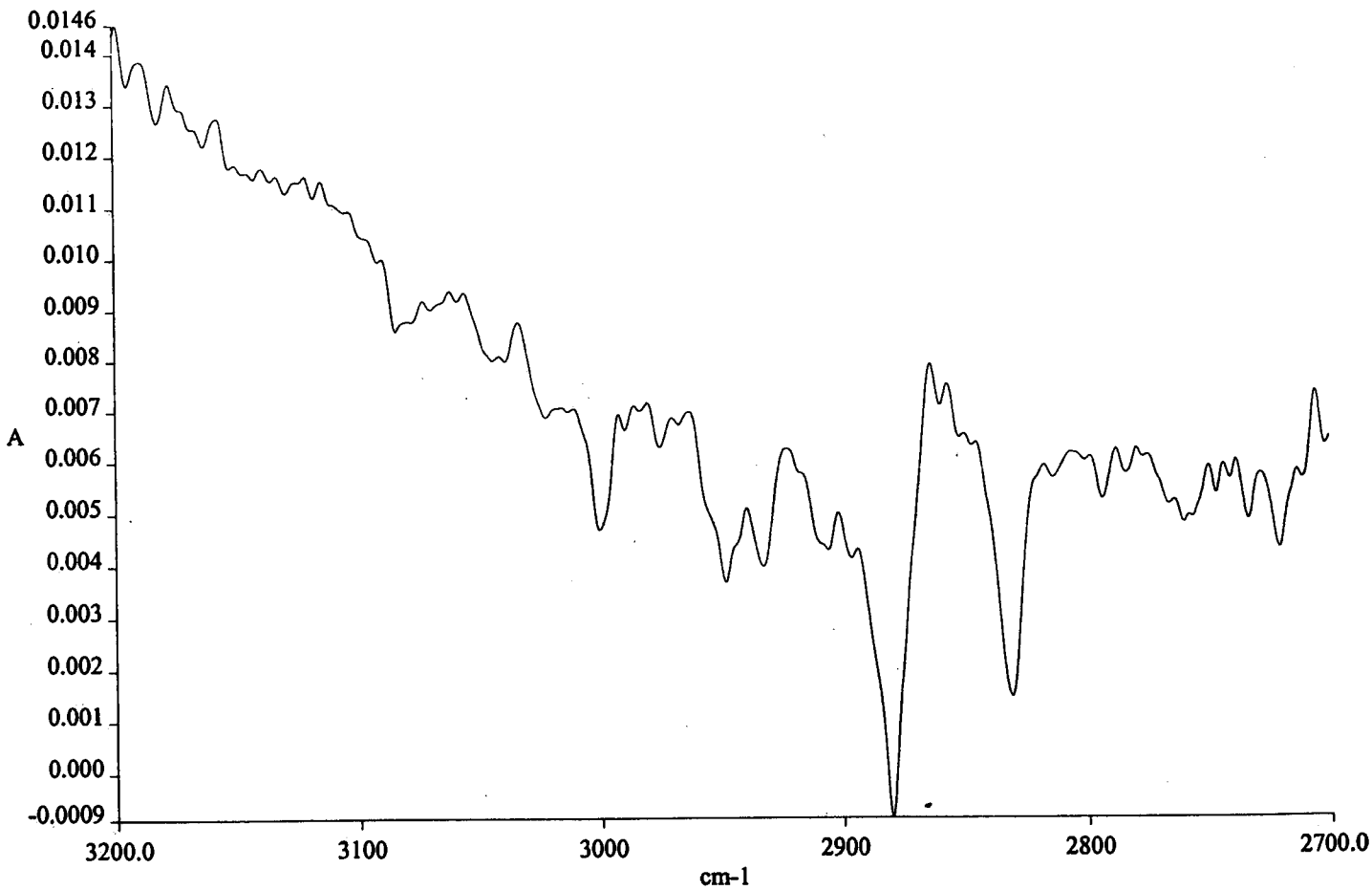

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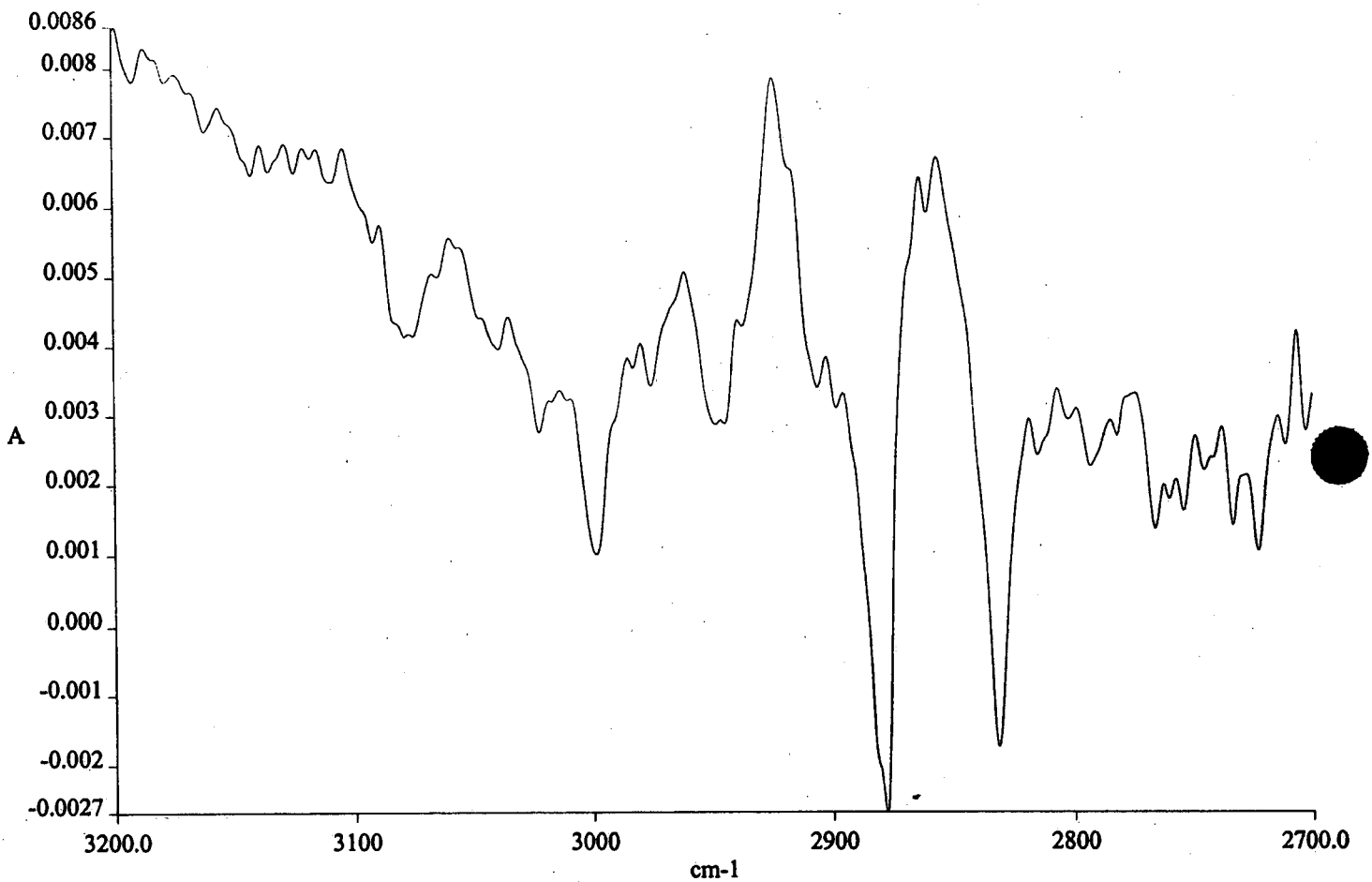

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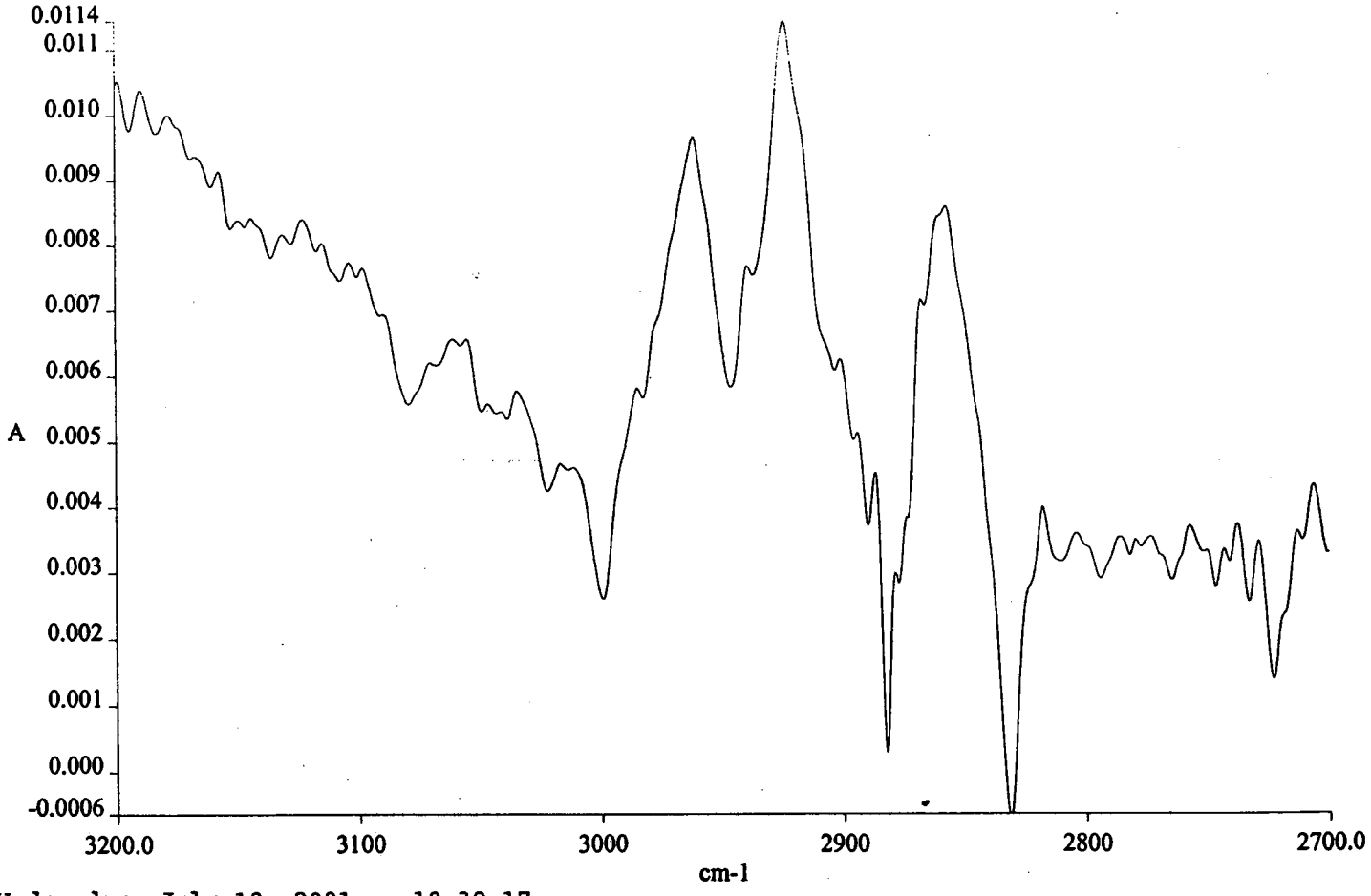

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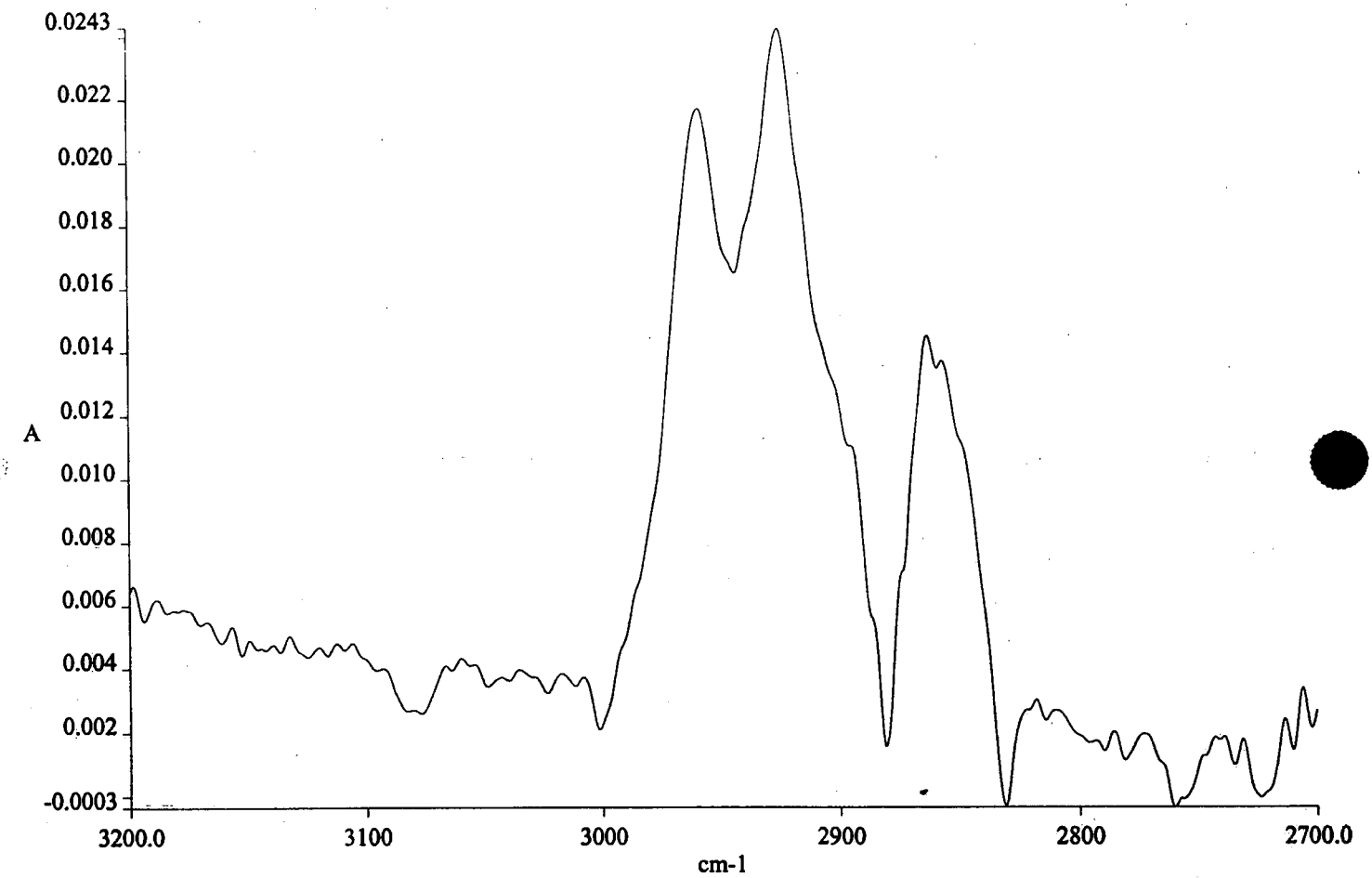

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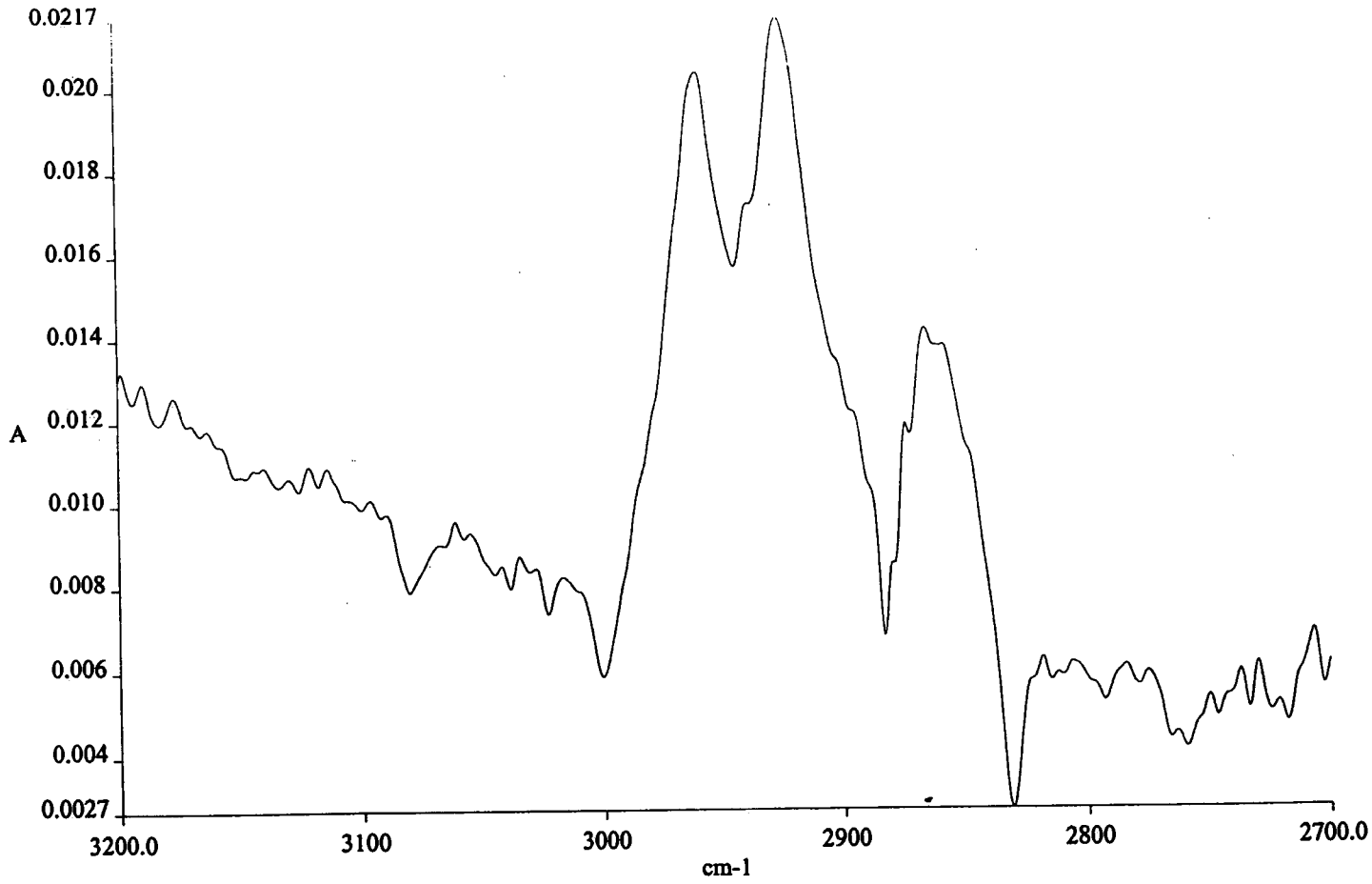

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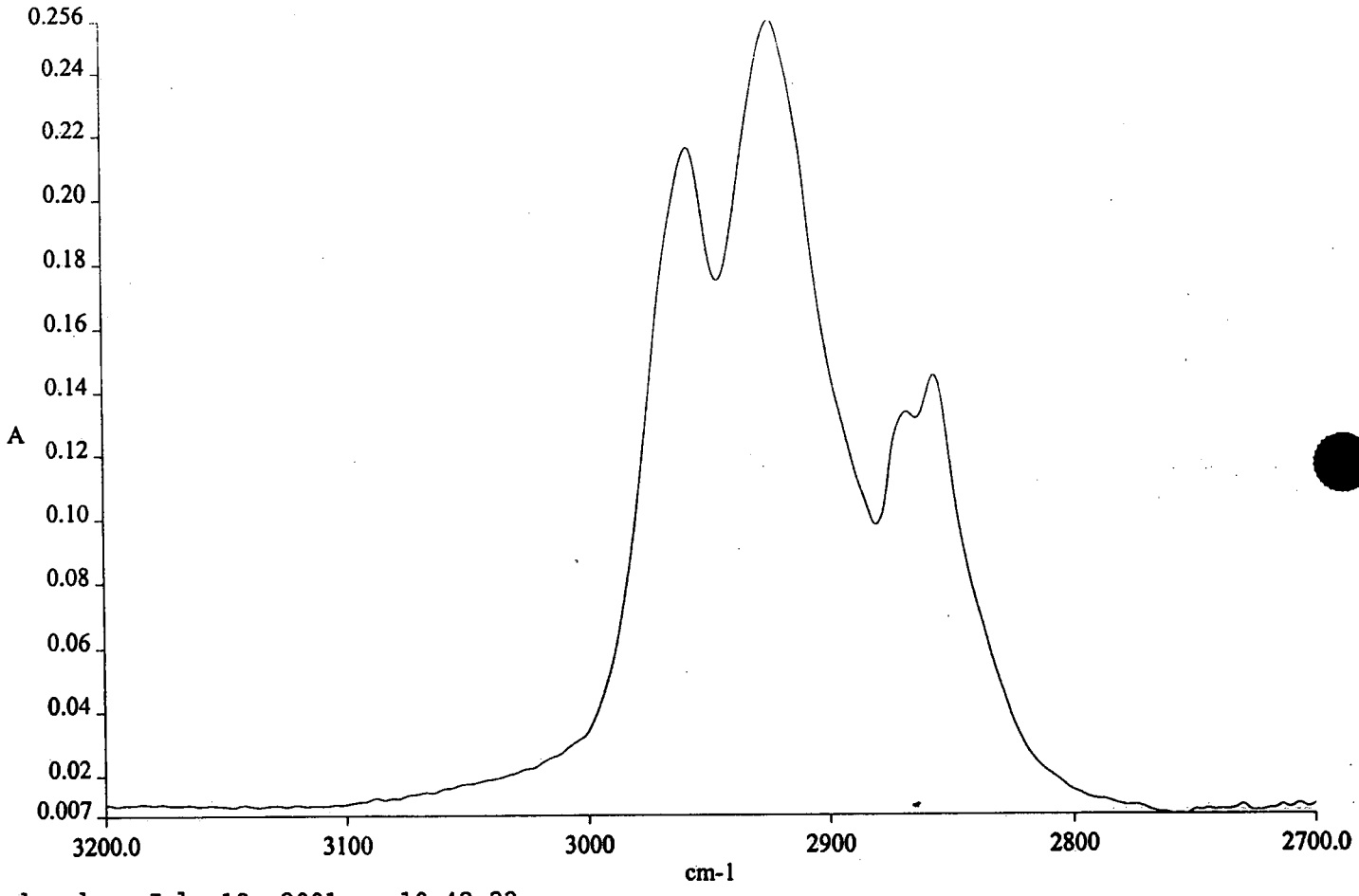

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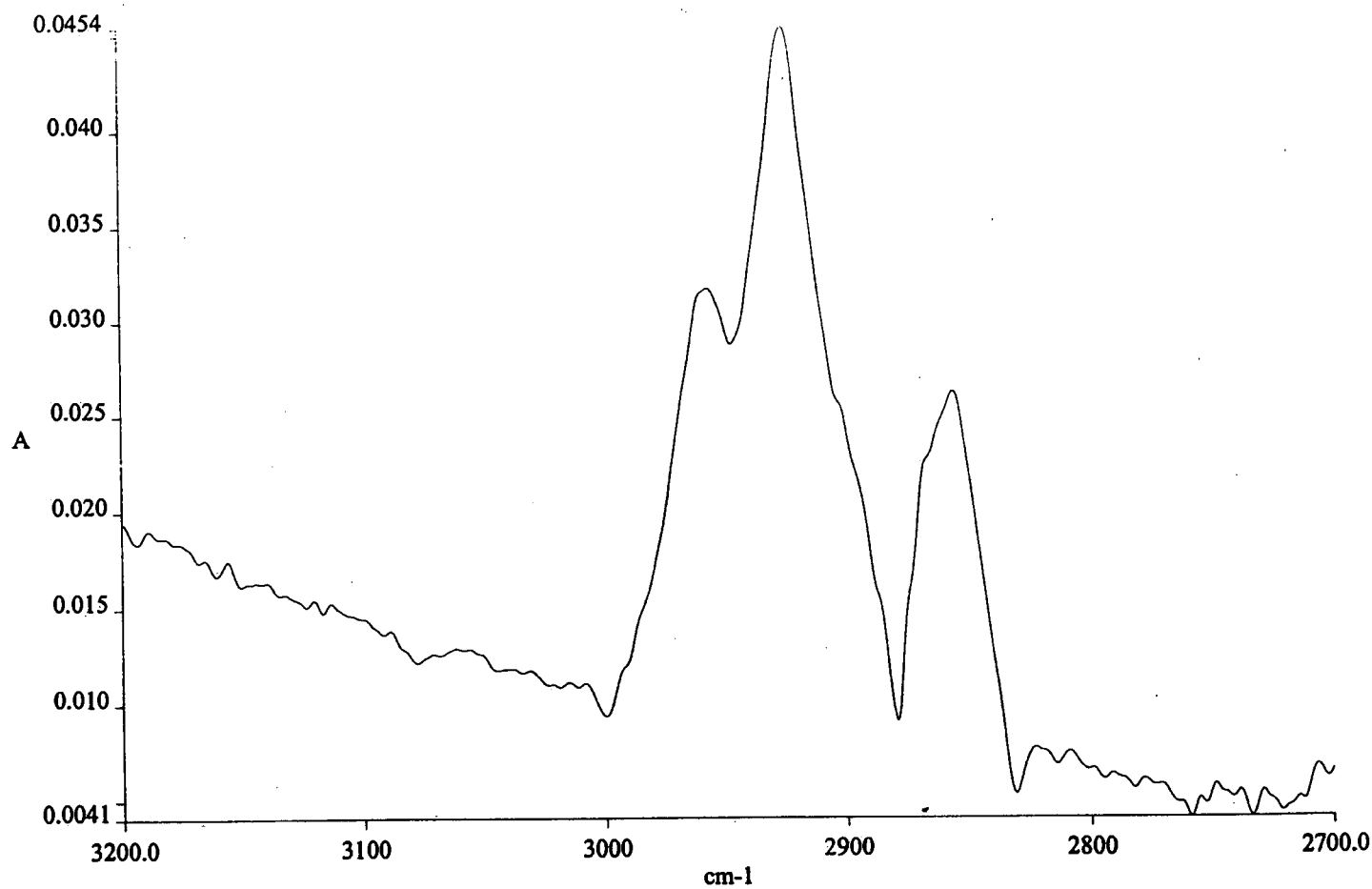

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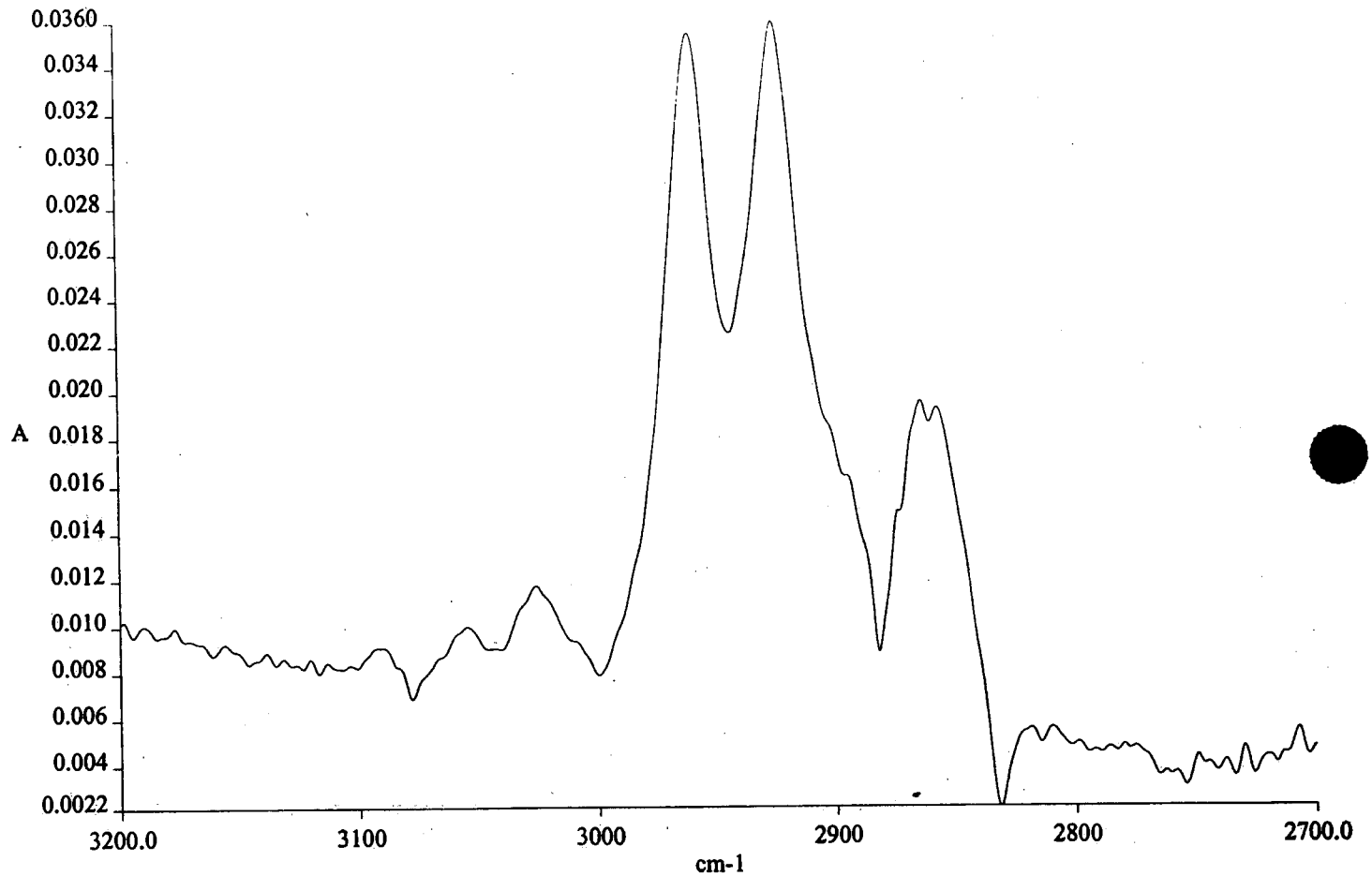

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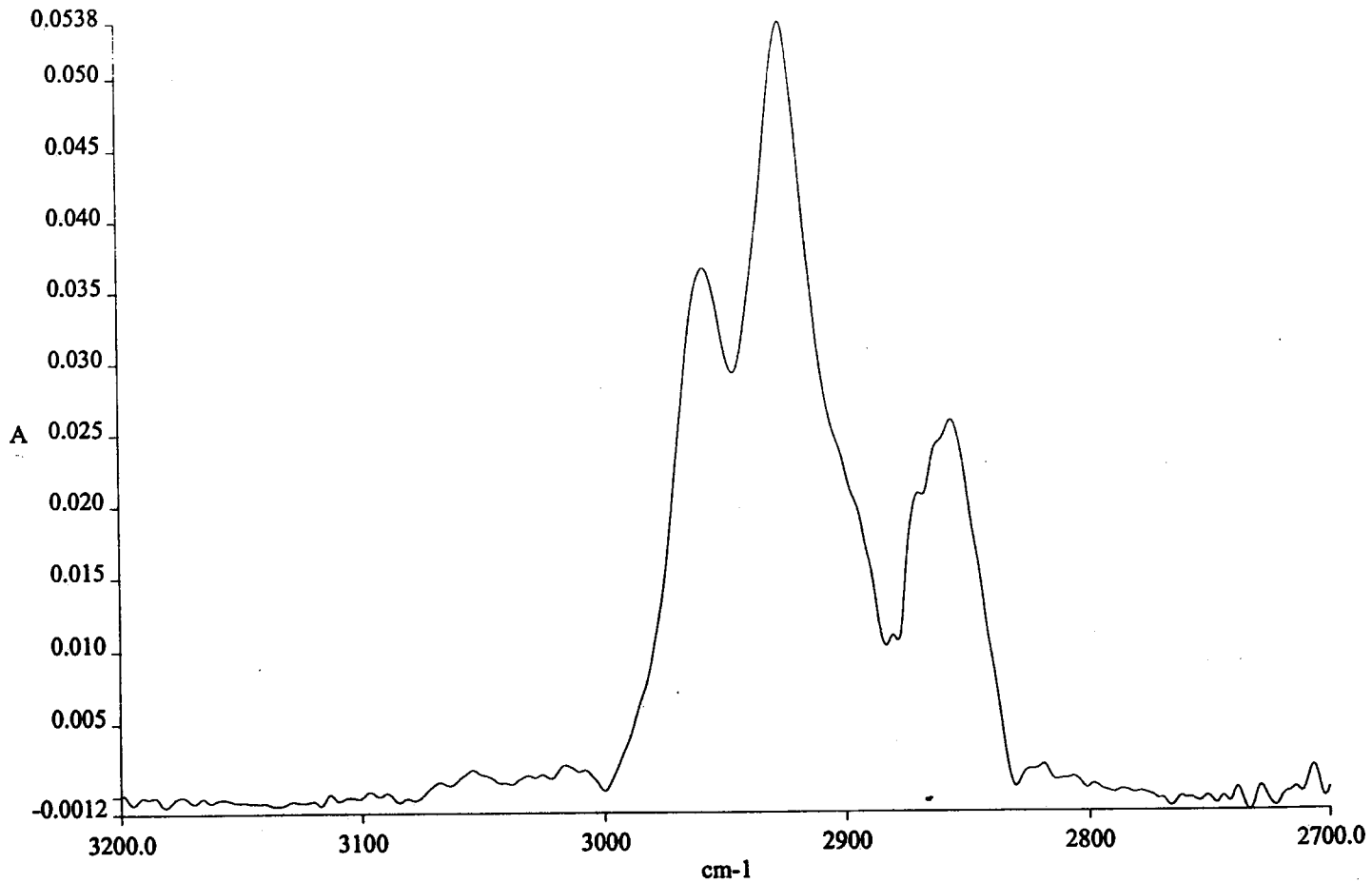

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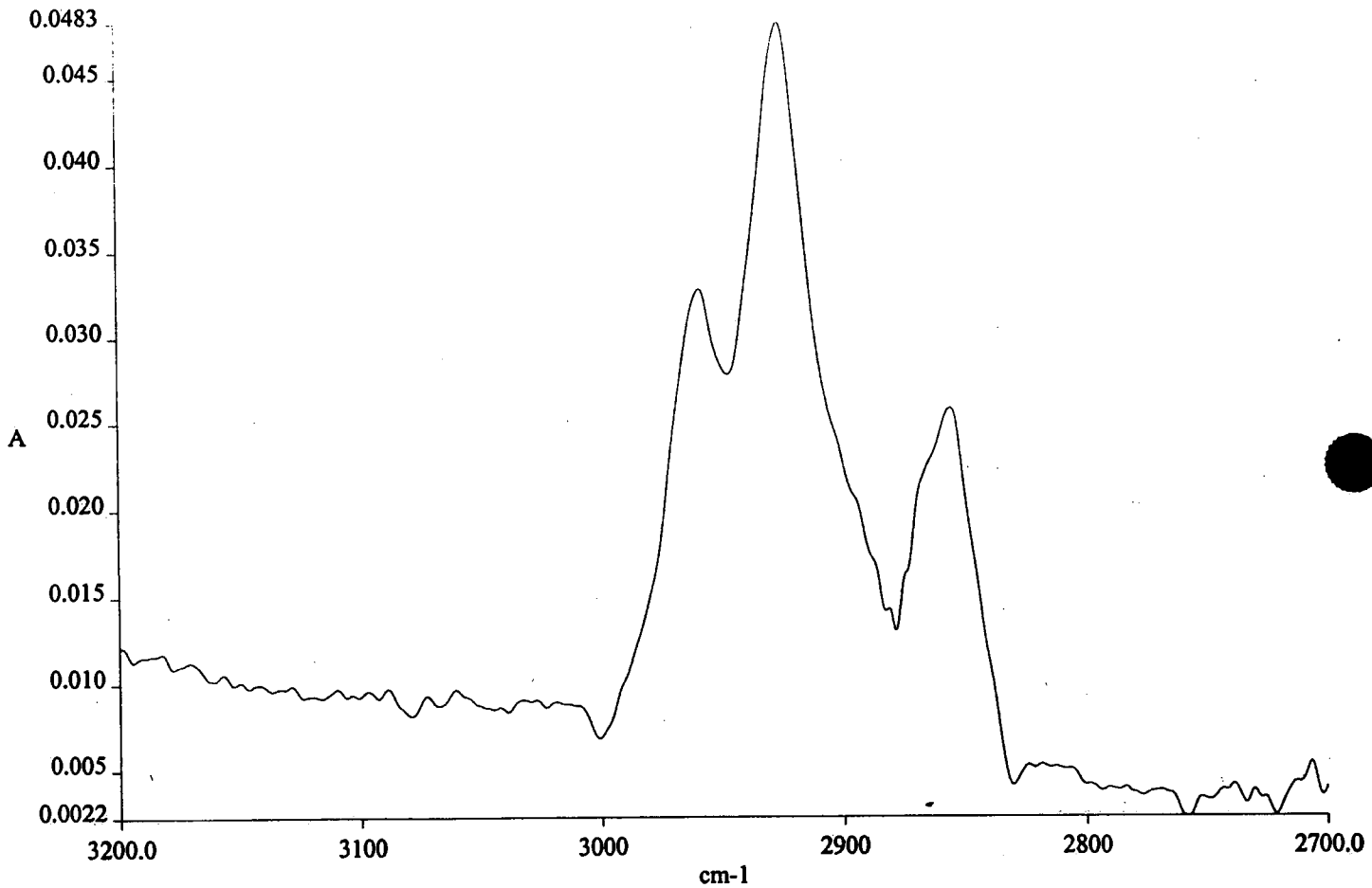

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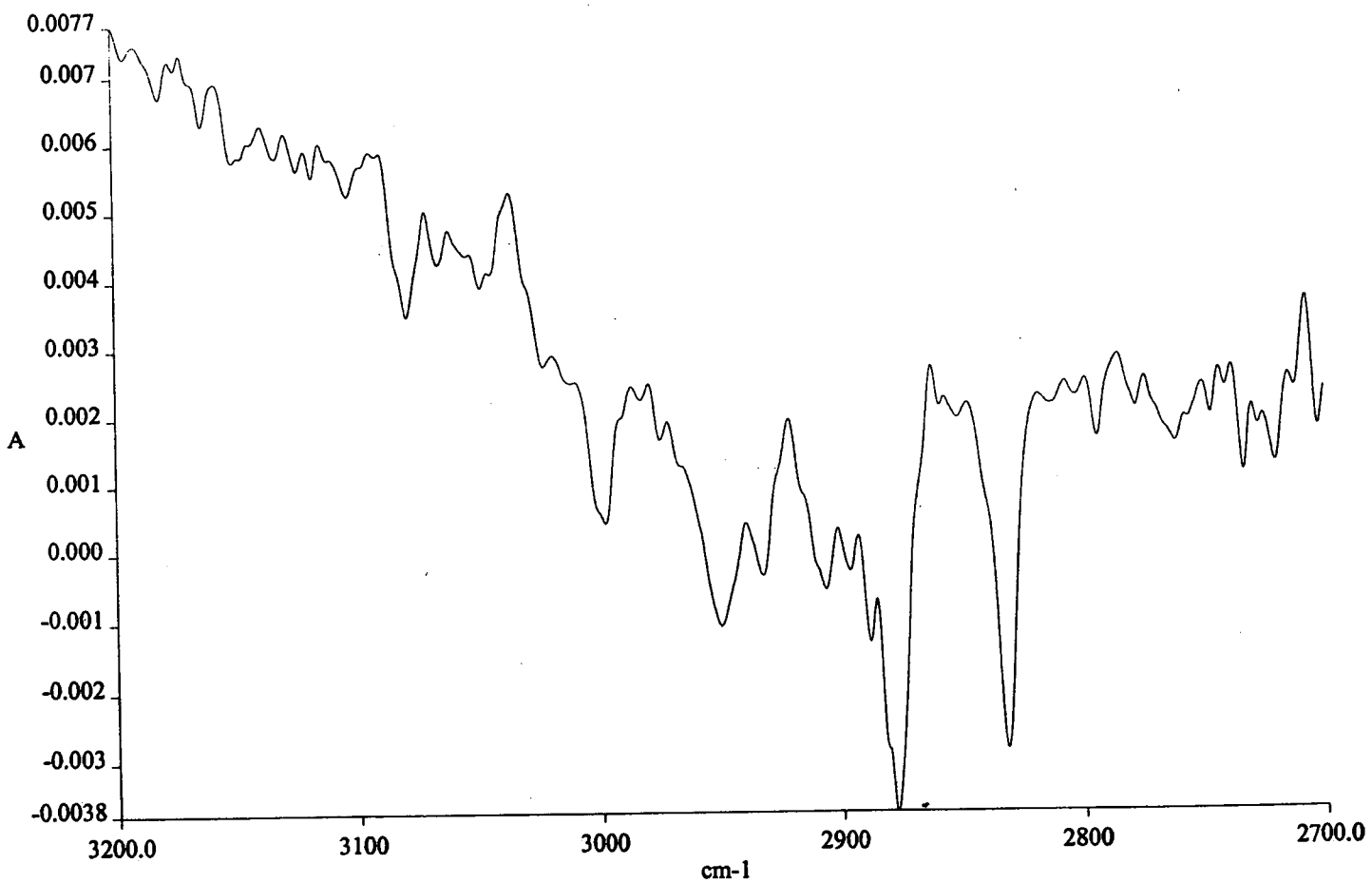

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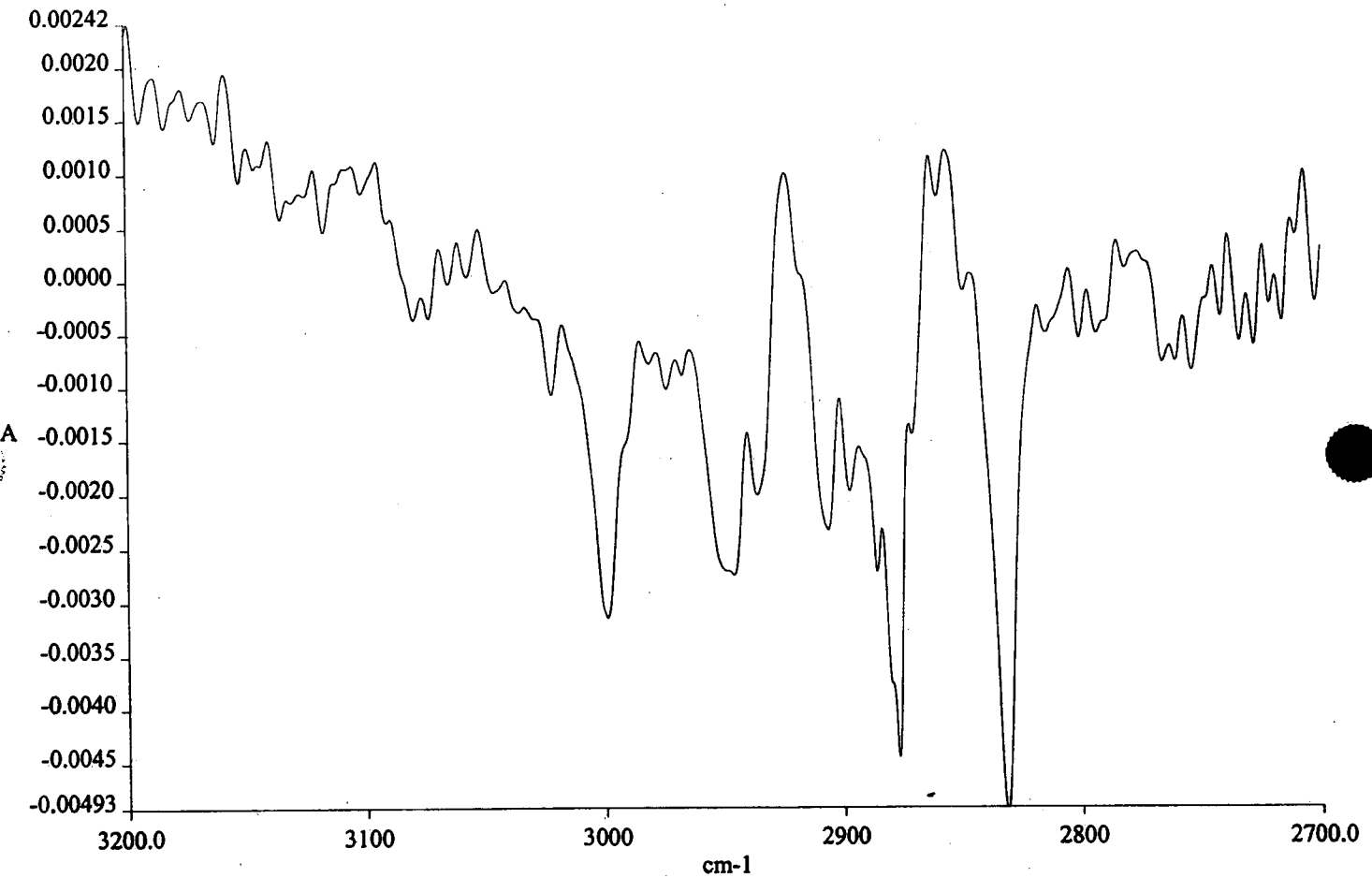

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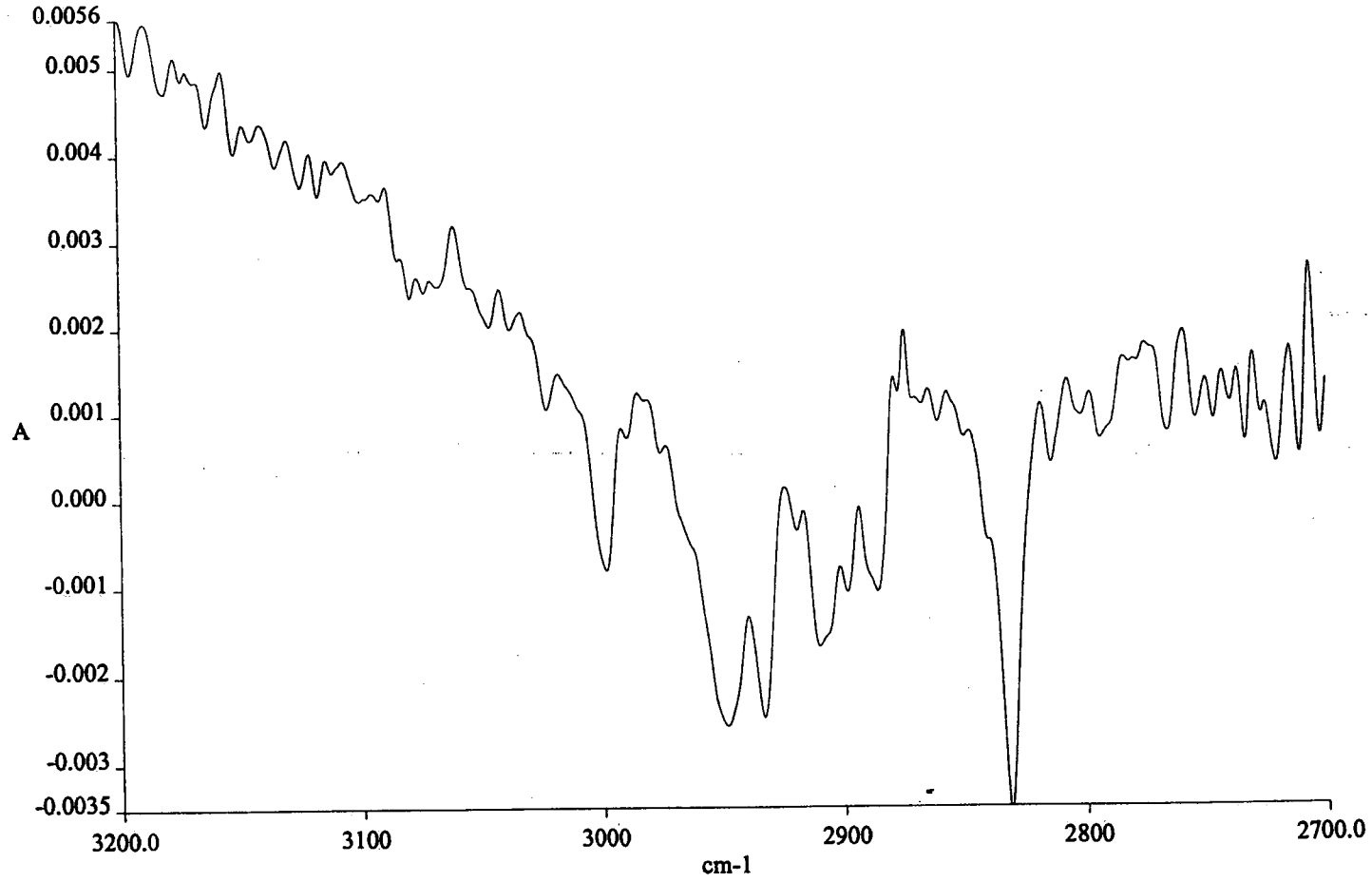

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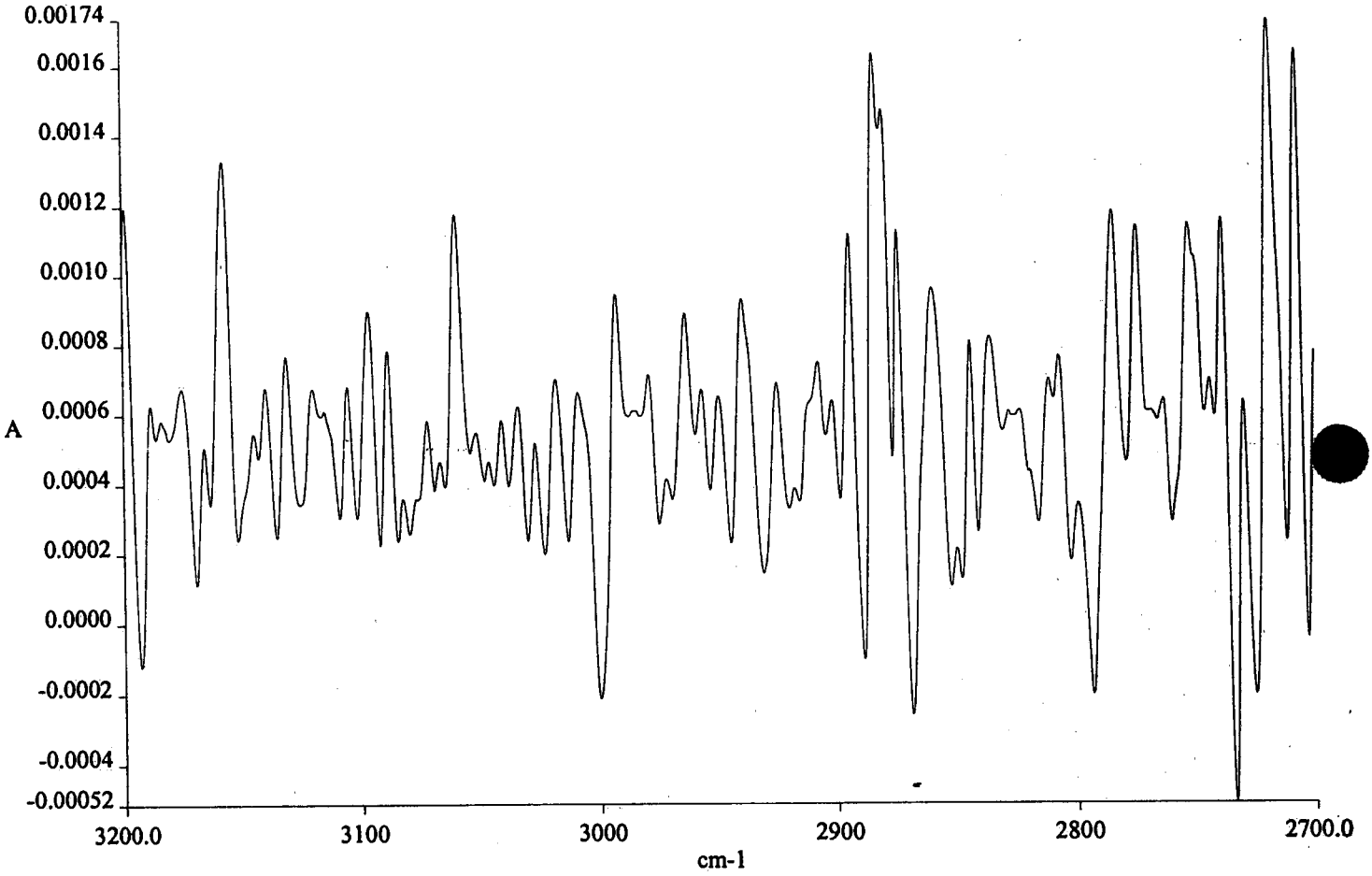

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Phone # (973) 361-
Fax # (973) 989-52

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

klin Rd
ndolph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTACTICS INC
Address:	2517 HWY 35
	BLD D-202
	MANASQUAN NJ
	08736
Telephone #:	732-292-0100
Fax #:	732-292-2808
Project Name:	ORBIS
Project Manager:	CHRIS NEUFFER
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr **72 hr** 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* **2 wk** Other:

Hard Copy
72 hr* 1 wk* 2 wk* **3 wk** Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
Reduced
Regulatory
SRP Disk: dbf or wkl**
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 2. NaOH 3. HNO_3 4. H_2SO_4 5. MeOH 6. Other

COOLER TEMP. 4 °C

SAMPLE INFORMATION

SAMPLE MATRIX: W - Waste, SL - Sludge, A - Aqueous, O - Oil, X - Other, S - Soil, GW - Groundwater, SOL - Solid

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	VOTIO	TPH	BNTN	PP Metals	PCBS						Comments
S-95A		7/12/01	9:00	✓		S	2	01	✓										107982
S-95B			8:50	✓		S		2	✓										107977
S-96A			9:20	✓				3	✓										107981
S-96B			9:30	✓				4	✓										107975
S-97			9:40	✓				5	✓										107976
S-98A			10:30	✓				6	✓	✓									107969
S-98B			10:45	✓				7	✓	✓									107970
S-99			12:20		✓			8	✓	✓									107983
S-100			12:45		✓			9	✓	✓									107971
S-101			1:10		✓			10	✓	✓	✓	✓	✓						107972

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time		Signature
Relinquished by:	[signature]	7/13/01	4:00	Received by:	[signature]
Relinquished by:	[signature]	7/13/01	7:30	Received by:	IAC Judge
Relinquished by:	IAC Judge	7/16/01	800	Received by:	Paul Cerniso
Relinquished by:				Received by:	
Relinquished by:				Received by:	

Comments:

Lab Case # 4833

PAGE: OF 3

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

1927

0694

Phone # (973) 361-4252
Fax # (973) 989-

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

173 Franklin Rd
Randolph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTACTICS INC.
Address:	2517 HWY 35
	BLD D - 207
	MANASQUAN NJ
	08736
Telephone #:	732-292-0100
Fax #:	732-292-2808
Project Name:	ORRIS
Project Manager:	CHRIS NEUFFER
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr (72 hr) 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk*) Other:

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk*) Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
SRP Disk**: (dbf or WK1)
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 2. NaOH 3. HNO_3 4. H_2SO_4 5. MeOH 6. Other

COOLER TEMP. 4 °C

SAMPLE MATRIX

W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

SAMPLE INFORMATION

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	TPH	VOA's	BNA's	PCB's	PP Metals	Pesticides	Comments
S-102		7/12/01	1:20		✓	S	2	11	✓	✓	✓	✓	✓		107984
S-103A			1:40		✓			12	✓	✓	✓	✓	✓		107978
S-103B			1:45		✓			13	✓	✓	✓	✓	✓		107980
S-104			2:00		✓			14	✓		✓	✓	✓		107974
S-105			2:15		✓			15		✓	✓	✓		✓	107973
S-106			2:25		✓			16		✓	✓	✓		✓	107985
S-107			2:35		✓			17		✓	✓	✓		✓	107979
S-108			2:55		✓			18		✓	✓	✓		✓	107960
S-109			3:15		✓			19		✓					107966
S-110			3:35		✓			20		✓					107967

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time	Signature
Relinquished by:		7/12/01	4:00	Received by:
Relinquished by:		7/13/01	7:30	Received by: IAC fridge
Relinquished by:	IAC fridge	7/16/01	800	Received by: Gail Comista
Relinquished by:				Received by:
Relinquished by:				Received by:

Comments:

Lab Case # 4833

PAGE: 2 OF 3

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

1928

0590

Phone # (973) 361-[redacted]
Fax # (973) 989-52[redacted]

INTEGRATED ANALYT[redacted]L LABORATORIES
CHAIN OF [redacted]STODY

[redacted]lin Rd
[redacted]ph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTACTICS INC
Address:	2517 HWY 35
	BLDG - 202
	MANASQUAN NJ 08736
Telephone #:	732-292-[redacted]0/00
Fax #:	732-292-2808
Project Name:	ORBIS
Project Manager:	CHRIS NEUPPER
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC

24 hr* 48 hr 72 hr 1 wk NA Other:

Verbal/Fax

24 hr* 48 hr* 72 hr* 1 wk* 2 wk Other:

Hard Copy

72 hr* 1 wk* 2 wk* 3 wk Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
Reduced
Regulatory
SRP Disk**: dbf or wk1
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 2. NaOH 3. HNO_3 4. H_2SO_4 5. MeOH 6. Other

COOLER TEMP 4 °C

SAMPLE MATRIX

W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

SAMPLE INFORMATION

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	TPH	VOA's	Pesticides	Phenol	Comments
S-111 A		7/12/01	9:30			S	2	21		✓			107847
S-111B			9:45					22		✓			107868
S-112			10:15					23		✓			107861
S-113			11:00					24	✓	✓			107862
S-114A			12:55	✓				25	✓	✓	✓	✓	107850
S-114B			12:10					26	✓	✓	✓	✓	107849
S-115			2:25		✓			27	✓	✓	✓	✓	107856
S-116			2:45		✓			28	✓	✓	✓	✓	107855
S-117			3:50		✓			29	✓	✓	✓	✓	107859
TB	TRIP BLANK						1	30		✓			107854

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time		Signature
Relinquished by:		7/12/01	4:00	Received by:	
Relinquished by:		7/13/01	7:30	Received by:	IAC Judge
Relinquished by:	IAC Judge	7/16/01	8:00	Received by:	Paul Coinata
Relinquished by:				Received by:	
Relinquished by:				Received by:	

Comments:

Lab Case # 4833

PAGE: 3 OF 3

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

1929

CHAIN OF CUSTODY

Case No.: E01-4833
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/16/01
Time Received: 08:00
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 30
Report Due: Aug 6

# of Containers	2	2	2	2	2	2
IAL ID #	4833-001	4833-002	4833-003	4833-004	4833-005	4833-006
Client ID #	S-95A	S-95B	S-96A	S-96B	S-97	S-98A
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01
Sample Time	09:00	08:50	09:20	09:30	09:40	10:30
Methanol Kit	√	√	√	√	√	√
Balance Rent	√					
VO + 10, PP MP	√	√	√	√	√	√
TPHC						√
% Solids	√	√	√	√	√	√
Electronic Del.	√					

Comments: NOTE 1: VO METH RECEIVED FOR SAMPLE #14. AS PER CHRIS N., DO NOT ANALYZE. 7/17/01 (ES)

CHAIN OF CUSTODY

Case No.: E01-4833
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/16/01
Time Received: 08:00
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 30
Report Due: Aug 6

# of Containers	2	2	2	2	2	2
IAL ID #	4833-007	4833-008	4833-009	4833-010	4833-011	4833-012
Client ID #	S-98B	S-99	S-100	S-101	S-102	S-103A
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01
Sample Time	10:45	12:20	12:45	13:10	13:20	13:40
Methanol Kit	√	√	√	√	√	√
VO + 10, PP MP	√	√	√	√	√	√
PCB				√	√	√
BN + 15				√	√	√
PP Metals-HIGH				√	√	√
TPHC	√	√	√	√	√	√
% Solids	√	√	√	√	√	√

Comments: NOTE 1: VO METH RECEIVED FOR SAMPLE #14. AS PER CHRIS N., DO NOT ANALYZE. 7/17/01 (ES)

0698

CHAIN OF CUSTODY

Case No.: E01-4833
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/16/01
Time Received: 08:00
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 30
Report Due: Aug 6

# of Containers	2	2	2	2	2	2
IAL ID #	4833-013	4833-014	4833-015	4833-016	4833-017	4833-018
Client ID #	S-103B	S-104	S-105	S-106	S-107	S-108
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01	07/12/01
Sample Time	13:45	14:00	14:15	14:25	14:35	14:55
Methanol Kit	√	√	√	√	√	√
VO + 10, PP MP	√	C	√	√	√	√
Pesticides			√	√	√	√
PCB	√	√	√	√	√	√
BN + 15	√	√	√	√	√	√
PP Metals-HIGH	√	√				
TPHC	√	√				
% Solids	√	√	√	√	√	√

Comments: NOTE 1: VO METH RECEIVED FOR SAMPLE #14. AS PER CHRIS N., DO NOT ANALYZE. 7/17/01 (ES)

CHAIN OF CUSTODY

Case No.: E01-4833
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 07/16/01
Time Received: 08:00
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Jul 30
Report Due: Aug 6

# of Containers	2	2	2	2	2	2
IAL ID #	4833-019	4833-020	4833-021	4833-022	4833-023	4833-024
Client ID #	S-109	S-110	S-111A	S-111B	S-112	S-113
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/12/01	07/12/01	07/13/01	07/13/01	07/13/01	07/13/01
Sample Time	15:15	15:35	09:30	09:45	10:15	11:00
Methanol Kit	√	√	√	√	√	√
VO + 10, PP MP	√	√	√	√	√	√
TPHC						√
% Solids	√	√	√	√	√	√

Comments: NOTE 1: VO METH RECEIVED FOR SAMPLE #14. AS PER CHRIS N., DO NOT ANALYZE. 7/17/01 (ES)

CHAIN OF CUSTODY

Case No.: E01-4833
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS

P.O. #: _____

Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736

Date Received: 07/16/01
Time Received: 08:00
Report Format: Reduced

Verbal Due: Jul 30
Report Due: Aug 6

# of Containers	2	2	2	2	2	1
IAL ID #	4833-025	4833-026	4833-027	4833-028	4833-029	4833-030
Client ID #	S-114A	S-114B	S-115	S-116	S-117	TB
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	07/13/01	07/13/01	07/13/01	07/13/01	07/13/01	07/13/01
Sample Time	11:55	12:10	14:25	14:45	15:50	:
Methanol Kit	√	√	√	√	√	√
VO + 10, PP MP	√	√	√	√	√	√
Pesticides	√	√	√	√	√	
Phenols	√	√	√	√	√	
TPHC	√	√	√	√	√	
% Solids	√	√	√	√	√	

Comments: NOTE 1: VO METH RECEIVED FOR SAMPLE #14. AS PER CHRIS N., DO NOT ANALYZE. 7/17/01 (ES)

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: 4833 CLIENT: ENVIROTACTICS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

CHAIN OF CUSTODY: COMPLETE / INCOMPLETE Comments: _____

Sample Bottles Intact:	✓	Comments:
Sample Labels Intact/ Correct:	✓	
Sufficient Sample Volume:	✓	
Correct bottles/ preservative:	✓	
Samples received in holding time/ prep time:	✓	
Headspace/ bubbles in voa samples:	✗	
Samples to be subcontracted:	(✓)	
Preserved Sample pH checked: (Excluding voa samples)	(✓)	

KEY
✓ = YES
✗ = NO
(✓) = N/A

ADDITIONAL COMMENTS: _____

SAMPLE(S) VERIFIED BY: INITIAL AR DATE 7/16/01

CORRECTIVE ACTION REQUIRED: YES [ ] (SEE BELOW) NO [✓]

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT: _____

SUBCONTRACTED LAB: _____

DATE SHIPPED: _____

ADDITIONAL COMMENTS: _____

VERIFIED/TAKEN BY: INITIAL [ ] DATE [ ]

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-4833
Client : Envirotactics Inc.
Project : ORBIS - 444

	GC/MS V		EXTRACT			ANALYSIS		
			DATE	TIME	INITIAL	DATE	TIME	INITIAL
Methanol Kit	4833-001	S				7/17		DLC
	4833-002	S						
	4833-003	S						
	4833-004	S						
	4833-005	S						
	4833-006	S						
	4833-007	S						
	4833-008	S						
	4833-009	S						
	4833-010	S						
	4833-011	S						
	4833-012	S						
	4833-013	S						
	4833-014	S						
	4833-015	S						
	4833-016	S						
	4833-017	S						
	4833-018	S						
	4833-019	S						
	4833-020	S						
	4833-021	S						
	4833-022	S						
	4833-023	S						
	4833-024	S						
	4833-025	S						
	4833-026	S						
	4833-027	S						
	4833-028	S						
	4833-029	S						
	4833-030	S						
Balance Rent	4833-001	S						
VO + 10, PP MP	4833-001	S						
	4833-002	S						
	4833-003	S						
	4833-004	S						
	4833-005	S						
	4833-006	S						
	4833-007	S						
	4833-008	S						
	4833-009	S						
	4833-010	S						
	4833-011	S						
	4833-012	S						
	4833-013	S						
	4833	S						
	4833-015	S						
	4833-016	S						

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-4833
Client : Envirotactics Inc.
Project : ORBIS - 444

	GC/MS V		EXTRACT DATE	EXTRACT TIME	EXTRACT INITIAL	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS INITIAL
VO + 10, PP MP	4833-017	S				7/17		DJC
	4833-018	S						
	4833-019	S						
	4833-020	S						
	4833-021	S						
	4833-022	S						
	4833-023	S						
	4833-024	S						
	4833-025	S						
	4833-026	S						
	4833-027	S						
	4833-028	S						
	4833-029	S						
	4833-030	S						
	GC EX							
Pesticides	4833-015	S	7/17	900	EDM2	7.19	100	LG
	4833-016	S						
	4833-017	S						
	4833-018	S						
	4833-025	S						
	4833-026	S						
	4833-027	S						
	4833-028	S						
	4833-029	S						
PCB	4833-010	S				7.17	400	MY
	4833-011	S						
	4833-012	S						
	4833-013	S						
	4833-014	S						
	4833-015	S						
	4833-016	S						
	4833-017	S						
	4833-018	S						
	GC/MS X							
BN + 15	4833-010	S	7/17	700.30	DL	7/17	1:00	CH
	4833-011	S						
	4833-012	S						
	4833-013	S						
	4833-014	S						
	4833-015	S						
	4833-016	S						
	4833-017	S						
	4833-018	S						
	METALS							
PP Metals-HIGH	4833-010	S	7/18/0,	[illegible]	[illegible]	7/18	12:00	[illegible]

1947

0704

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-4833
Client : Envirotactics Inc.
Project : ORBIS - 444

			METALS	EXTRACT DATE	EXTRACT TIME	EXTRACT INITIAL	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS INITIAL
PP Metals-HIGH	4833-011	S		7/18/01		DA	7/18	1200	JK
	4833-012	S							
	4833-013	S							
	4833-014	S							
			WETCHEM						
Phenols	4833-025	S		7/13	900	DM	7/16	1200	DM
	4833-026	S							
	4833-027	S							
	4833-028	S							
	4833-029	S							
TPHC	4833-006	S		7/17	1300	HH	7/18	1035	GK
	4833-007	S							
	4833-008	S							
	4833-009	S							
	4833-010	S							
	4833-011	S							
	4833-012	S							
	4833-013	S							
	4833-014	S							
	4833-024	S							
	4833-025	S							
	4833-026	S							
	4833-027	S							
	4833-028	S							
	4833-029	S							
% Solids	4833-001	S		7/16		KC			
	4833-002	S							
	4833-003	S							
	4833-004	S							
	4833-005	S							
	4833-006	S							
	4833-007	S							
	4833-008	S							
	4833-009	S							
	4833-010	S							
	4833-011	S							
	4833-012	S							
	4833-013	S							
	4833-014	S							
	4833-015	S							
	4833-016	S							
	4833-017	S							
	4833-018	S							
	4833-019	S							
	4833-020	S							
	4833-021	S							

1948

0705

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-4833
Client : Envirotactics Inc.
Project : ORBIS - 444

	WETCHEM		EXTRACT			ANALYSIS		
			DATE	TIME	INITIAL	DATE	TIME	INITIAL
% Solids	4833-022	S	7/16		KC			
	4833-023	S						
	4833-024	S						
	4833-025	S						
	4833-026	S						
	4833-027	S						
	4833-028	S						
	4833-029	S						
	AIR							
Electronic Del.	4833-001	S	—			—		

REVIEW & APPROVAL: [signature]
REMARKS :

Remedial Investigation Report & Remedial Action Workplan

Orbis Products Corporation Ref 14
55 Virginia Street
Block 3773, Lots 15, 41, 43 and 53
Newark, Essex County, New Jersey
Case # 86-11-17-0100

Attachment 8 – 4 of 4

Integrated Analytical Labs

Integrated Analytical Laboratories, LLC.

273 Franklin Road
Randolph, N.J. 07869

Phone: 973 361-4252
Fax: 973 989-5288

ANALYTICAL DATA REPORT

for

Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan,NJ 08736

Project: ORBIS - 444
Lab Case Number: E01-5281
Date Report Prepared: August 13, 2001

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
S-118	5281-001
S-119	5281-002
S-120	5281-003
S-121	5281-004
S-122A	5281-005
S-122B	5281-006
S-123	5281-007
S-124A	5281-008
S-124B	5281-009
S-125	5281-010
S-126	5281-011
S-127	5281-012
S-128	5281-013
S-129	5281-014
S-130	5281-015

All required protocols were followed during analyses. These data have been reviewed and accepted by

Michael Leftin RR
Michael H. Leftin, Ph.D.
Laboratory Director

The liability of Integrated Analytical Laboratories, LLC. is limited to the actual cost of the analyses performed.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

0001

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received fifteen (15) soil sample(s) from Envirotactics Inc. (Project: ORBIS - 444) on August 2, 2001 for the analysis of:

(15) Volatiles + 10
(4) Total Petroleum Hydrocarbons

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

8/14/01
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E01-5281

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

QC Reviewed by

8/14/01
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E01 - 528

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. BFB Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		NA
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
✓	✓		

13. Comments:

Organics Manager

8/13/01
Date

rev 12/00

INTEGRATED ANALYTICAL LABORATORIES

PHC ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

Lab Case Number: E01 - 5281

	No	Yes
1. Blank contamination If yes, list the sample and the concentration in each blank:	✓	
2. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)		✓
3. IR spectra submitted for all standards, blanks & samples (as required).		✓
4. Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.		NA
5. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
6. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓

Additional Comments: _____

Dept. Supervisor

8-3-01
Date

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-5281

Lab ID:	5281-001			5281-002			5281-003			5281-004		
Client ID:	S-118			S-119			S-120			S-121		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	8/2/2001			8/2/2001			8/2/2001			8/2/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Methylene Chloride	ND		9800	ND		761	488	J	742	ND		801
Chloroform	4570	J	9800	ND		761	121000	D	7420	ND		801
Benzene	161000		9800	10400		761	91500	D	7420	22300		801
Toluene	222000		9800	17700		761	245000	D	7420	10900		801
Tetrachloroethene	ND		9800	ND		761	462	J	742	ND		801
Chlorobenzene	ND		9800	ND		761	2200		742	ND		801
Total Xylenes	ND		9800	ND		761	419	J	742	ND		801
1,3-Dichlorobenzene	ND		9800	ND		761	10700		742	ND		801
1,4-Dichlorobenzene	35000		9800	ND		761	34200	D	7420	237		801
1,2-Dichlorobenzene	350000		9800	1920		761	570000	D	297000	3580		801
TOTAL VO's:	772570	J		30020			1075969	J		37017		
TOTAL TIC's:	33900			10472			304080			22685		
TOTAL VO's & TIC's:	806470	J		40492			1380049	J		59702		

Lab ID:	5281-005			5281-006			5281-007			5281-008		
Client ID:	S-122A			S-122B			S-123			S-124A		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	8/2/2001			8/2/2001			8/2/2001			8/2/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Chloroform	711		892	ND		3640	ND		746	ND		7760
1,2-Dichloroethane(EDC)	ND		892	1800	J	3640	ND		746	ND		7760
Benzene	12000		892	86500		3640	3370		746	577000	D	38800
Toluene	7700		892	8110		3640	9850		746	1430000	D	38800
Ethylbenzene	1020		892	2710	J	3640	ND		746	ND		7760
Total Xylenes	ND		892	1950	J	3640	ND		746	2370		7760
1,2-Dichlorobenzene	1000		892	1540		3640	1020		746	ND		7760
TOTAL VO's:	22431			102610	J		14240			2009370		
TOTAL TIC's:	330980			1356700			47436			505500		
TOTAL VO's & TIC's:	353411			1459310	J		61676			2514870		

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E01-5281

Lab ID:	5281-009			5281-010			5281-011			5281-012		
Client ID:	S-124B			S-125			S-126			S-127		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	8/2/2001			8/2/2001			8/2/2001			8/2/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	286000	D	14800	5660		832	24100		806	2120		827
Trichloroethene	162	J	758	ND		832	ND		806	ND		827
Toluene	315000	D	14800	509		832	848		806	13200		827
Ethylbenzene	215	J	758	ND		832	ND		806	ND		827
Total Xylenes	377		758	ND		832	ND		806	ND		827
1,2-Dichlorobenzene	1480		758	260		832	ND		806	ND		827
TOTAL VO's:	603234	J		6429			24948			15320		
TOTAL TIC's:	54000			2999			1290			ND		
TOTAL VO's & TIC's:	657234	J		9428			26238			15320		
General Analytical												
Total Petroleum Hydrocarbons (ppm)	~			~			~			ND		25.0

Lab ID:	5281-013			5281-014			5281-015		
Client ID:	S-128			S-129			S-130		
Matrix:	Soil			Soil			Soil		
Sampled Date:	8/2/2001			8/2/2001			8/2/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)									
Benzene	14300		4450	128000		10900	1940		730
Toluene	645000	D	25900	354000	D	33800	ND		730
Chlorobenzene	4900		4450	ND		10900	ND		730
Ethylbenzene	3260	J	4450	12600		10900	ND		730
Total Xylenes	8100		4450	ND		10900	ND		730
1,2-Dichlorobenzene	7720		4450	ND		10900	ND		730
TOTAL VO's:	683280	J		494600			1940		
TOTAL TIC's:	1809900			715300			3299		
TOTAL VO's & TIC's:	2493180	J		1209900			5239		
General Analytical									
Total Petroleum Hydrocarbons (ppm)	1260		49.8	16000		594	ND		25.0

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-001
Client ID: S-118
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0606.D

GC/MS Column: DB-624
Sample wt/vol: 0.003g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 10
% Moisture: 15

8.7

Compound	Concentration	Q	MDL
Chloromethane	ND		9800
Vinyl Chloride	ND		9800
Bromomethane	ND		9800
Chloroethane	ND		9800
Trichlorofluoromethane	ND		9800
Acrolein	~~ND~~ R		~~19600~~
1,1-Dichloroethene	ND		9800
Methylene Chloride	ND		9800
Acrylonitrile	~~ND~~ R		~~9800~~
trans-1,2-Dichloroethene	ND		9800
1,1-Dichloroethane	ND		9800
Chloroform	4570	J	9800
1,1,1-Trichloroethane	ND		9800
Carbon Tetrachloride	ND		9800
1,2-Dichloroethane(EDC)	ND		9800
Benzene	161000		9800
Trichloroethene	ND		9800
1,2-Dichloropropane	ND		9800
Bromodichloromethane	ND		9800
2-Chloroethylvinyl Ether	ND		9800
cis-1,3-Dichloropropene	ND		9800
Toluene	222000		9800
trans-1,3-Dichloropropene	ND		9800
1,1,2-Trichloroethane	ND		9800
Tetrachloroethene	ND		9800
Dibromochloromethane	ND		9800
Chlorobenzene	ND		9800
Ethylbenzene	ND		9800
Total Xylenes	ND		9800
Bromoform	ND		9800
1,1,2,2-Tetrachloroethane	ND		9800
1,3-Dichlorobenzene	ND		9800
1,4-Dichlorobenzene	35000		9800
1,2-Dichlorobenzene	350000		9800
Total Target Compounds:	772570	J	

0008

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-001
Client ID: S-118
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Date File: I0606.D

GC/MS Column: DB-624
Sample wt/vol: 0.003g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 10
% Moisture: 15

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	33900	19.89

Total TICs = 33900

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-002
Client ID: S-119
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0573.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8

Compound	Concentration	Q	MDL 9.8
Chloromethane	ND		761
Vinyl Chloride	ND		761
Bromomethane	ND		761
Chloroethane	ND		761
Trichlorofluoromethane	ND		761 UJ
Acrolein	~~ND~~ R		~~1520~~
1,1-Dichloroethene	ND		761
Methylene Chloride	ND		761
Acrylonitrile	~~ND~~ R		~~761~~
trans-1,2-Dichloroethene	ND		761
1,1-Dichloroethane	ND		761
Chloroform	ND		761
1,1,1-Trichloroethane	ND		761
Carbon Tetrachloride	ND		761
1,2-Dichloroethane(EDC)	ND		761
Benzene	10400		761
Trichloroethene	ND		761
1,2-Dichloropropane	ND		761
Bromodichloromethane	ND		761
2-Chloroethylvinyl Ether	ND		761
cis-1,3-Dichloropropene	ND		761
Toluene	17700		761
trans-1,3-Dichloropropene	ND		761
1,1,2-Trichloroethane	ND		761
Tetrachloroethene	ND		761
Dibromochloromethane	ND		761
Chlorobenzene	ND		761
Ethylbenzene	ND		761
Total Xylenes	ND		761
Bromoform	ND		761
1,1,2,2-Tetrachloroethane	ND		761
1,3-Dichlorobenzene	ND		761
1,4-Dichlorobenzene	ND		761
1,2-Dichlorobenzene	1920		761

Total Target Compounds: 30020

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-002
Client ID: S-119
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0573.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown cyclic hydrocarbon	2340	18.06
	Substituted benzene	3730	19.88
	Unknown	792	23.64
	Unknown alkane	3610	25.99

Total TICs = 10472

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-003
Client ID: S-120
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0574.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8

Compound	Concentration	Q	MDL
Chloromethane	ND		742
Vinyl Chloride	ND		742
Bromomethane	ND		742
Chloroethane	ND		742
Trichlorofluoromethane	ND		742 UJ
Acrolein	~~ND~~ R		~~1480~~
1,1-Dichloroethene	ND		742
Methylene Chloride	488	J	742
Acrylonitrile	~~ND~~ R		~~742~~
trans-1,2-Dichloroethene	ND		742
1,1-Dichloroethane	ND		742
Chloroform	~~126000~~ 121000*	~~E~~	742
1,1,1-Trichloroethane	ND		742
Carbon Tetrachloride	ND		742
1,2-Dichloroethane(EDC)	ND		742
Benzene	~~95400~~ 91500*	~~E~~	742
Trichloroethene	ND		742
1,2-Dichloropropane	ND		742
Bromodichloromethane	ND		742
2-Chloroethylvinyl Ether	ND		742
cis-1,3-Dichloropropene	ND		742
Toluene	~~262000~~ 245000*	~~E~~	742
trans-1,3-Dichloropropene	ND		742
1,1,2-Trichloroethane	ND		742
Tetrachloroethene	462	J	742
Dibromochloromethane	ND		742
Chlorobenzene	2200		742
Ethylbenzene	ND		742
Total Xylenes	419	J	742
Bromoform	ND		742
1,1,2,2-Tetrachloroethane	ND		742
1,3-Dichlorobenzene	10700		742
1,4-Dichlorobenzene	~~35200~~ 34200*	~~E~~	742
1,2-Dichlorobenzene	~~383000~~ 428000**	~~E~~	742
Total Target Compounds:	915869	JE	

* FROM 1:10 DILUTION

** FROM 1:300 DILUTION

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTAC/ORBIS USE ORIGINAL DATA

Lab ID: 5281-003DIL
Client ID: S-120
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0607.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 10
% Moisture: 15.8

10

Compound	Concentration	Q	MDL
Chloromethane	ND		7420
Vinyl Chloride	ND		7420
Bromomethane	ND		7420
Chloroethane	ND		7420
Trichlorofluoromethane	ND		7420
Acrolein	~~ND~~ R		~~14800~~
1,1-Dichloroethene	ND		7420
Methylene Chloride	ND		7420
Acrylonitrile	~~ND~~ R		~~7420~~
trans-1,2-Dichloroethene	ND		7420
1,1-Dichloroethane	ND		7420
Chloroform	121000		7420
1,1,1-Trichloroethane	ND		7420
Carbon Tetrachloride	ND		7420
1,2-Dichloroethane(EDC)	ND		7420
Benzene	91500		7420
Trichloroethene	ND		7420
1,2-Dichloropropane	ND		7420
Bromodichloromethane	ND		7420
2-Chloroethylvinyl Ether	ND		7420
cis-1,3-Dichloropropene	ND		7420
Toluene	245000		7420
trans-1,3-Dichloropropene	ND		7420
1,1,2-Trichloroethane	ND		7420
Tetrachloroethene	ND		7420
Dibromochloromethane	ND		7420
Chlorobenzene	ND		7420
Ethylbenzene	ND		7420
Total Xylenes	ND		7420
Bromoform	ND		7420
1,1,2,2-Tetrachloroethane	ND		7420
1,3-Dichlorobenzene	9580		7420
1,4-Dichlorobenzene	34200		7420
1,2-Dichlorobenzene	433000	E	7420
Total Target Compounds:	934280	E	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-003DIL
Client ID: S-120
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0616.D

GC/MS Column: DB-624
Sample wt/vol: 0.0001g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 300
% Moisture: 15.8

10

Compound	Concentration	Q	MDL
Chloromethane	ND		297000
Vinyl Chloride	ND		297000
Bromomethane	ND		297000
Chloroethane	ND		297000
Trichlorofluoromethane	ND		297000
Acrolein	~~ND~~	R	~~594000~~
1,1-Dichloroethene	ND		297000
Methylene Chloride	ND		297000
Acrylonitrile	~~ND~~	R	~~297000~~
trans-1,2-Dichloroethene	ND		297000
1,1-Dichloroethane	ND		297000
Chloroform	171000		297000
1,1,1-Trichloroethane	ND		297000
Carbon Tetrachloride	ND		297000
1,2-Dichloroethane(EDC)	ND		297000
Benzene	128000		297000
Trichloroethene	ND		297000
1,2-Dichloropropane	ND		297000
Bromodichloromethane	ND		297000
2-Chloroethylvinyl Ether	ND		297000
cis-1,3-Dichloropropene	ND		297000
Toluene	318000		297000
trans-1,3-Dichloropropene	ND		297000
1,1,2-Trichloroethane	ND		297000
Tetrachloroethene	ND		297000
Dibromochloromethane	ND		297000
Chlorobenzene	ND		297000
Ethylbenzene	ND		297000
Total Xylenes	ND		297000
Bromoform	ND		297000
1,1,2,2-Tetrachloroethane	ND		297000
1,3-Dichlorobenzene	ND		297000
1,4-Dichlorobenzene	ND		297000
1,2-Dichlorobenzene	~~570000~~ 428000		297000

Total Target Compounds: 1187000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-003
Client ID: S-120
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0574.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	6130	7.58
	Unknown cyclic hydrocarbon	3580	11.63
	Unknown cyclic hydrocarbon	3270	17.55
	Unknown alkane	10300	18.01
	Unknown cyclic hydrocarbon	19100	19.16
	Unknown cyclic hydrocarbon	5050	19.57
	Substituted benzene	247000	19.91
	Unknown cyclic hydrocarbon	3860	21.10
	Unknown alkane	5790	25.96

Total TICs = 304080

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-004
Client ID: S-121
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0575.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.6

9.2

Compound	Concentration	Q	MDL
Chloromethane	ND		801
Vinyl Chloride	ND		801
Bromomethane	ND		801
Chloroethane	ND		801
Trichlorofluoromethane	ND		801 UJ
Acrolein	~~ND~~	R	~~1600~~
1,1-Dichloroethene	ND		801
Methylene Chloride	ND		801
Acrylonitrile	~~ND~~	R	~~801~~
trans-1,2-Dichloroethene	ND		801
1,1-Dichloroethane	ND		801
Chloroform	ND		801
1,1,1-Trichloroethane	ND		801
Carbon Tetrachloride	ND		801
1,2-Dichloroethane(EDC)	ND		801
Benzene	22300		801
Trichloroethene	ND		801
1,2-Dichloropropane	ND		801
Bromodichloromethane	ND		801
2-Chloroethylvinyl Ether	ND		801
cis-1,3-Dichloropropene	ND		801
Toluene	10900		801
trans-1,3-Dichloropropene	ND		801
1,1,2-Trichloroethane	ND		801
Tetrachloroethene	ND		801
Dibromochloromethane	ND		801
Chlorobenzene	ND		801
Ethylbenzene	ND		801
Total Xylenes	ND		801
Bromoform	ND		801
1,1,2,2-Tetrachloroethane	ND		801
1,3-Dichlorobenzene	ND		801
1,4-Dichlorobenzene	237		801
1,2-Dichlorobenzene	3580		801

Total Target Compounds: 37017

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-004
Client ID: S-121
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0575.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.6

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	3890	17.67
	Unknown	1780	18.02
	Unknown cyclic hydrocarbon	945	19.15
	Substituted benzene	8470	19.87
	Substituted benzene	1060	20.07
	~~Column/Septa bleed~~		~~21.61~~ R
	Unknown	1340	23.61
	~~Column/Septa bleed~~		~~25.05~~ R
	Unknown	1090	25.55
	Unknown alkane	4110	25.96

Total TICs = 22685

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-005
Client ID: S-122A
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0576.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.9

8.7

Compound	Concentration	Q	MDL
Chloromethane	ND		892
Vinyl Chloride	ND		892
Bromomethane	ND		892
Chloroethane	ND		892
Trichlorofluoromethane	ND		892 UJ
Acrolein	~~ND~~ R		~~1780~~
1,1-Dichloroethene	ND		892
Methylene Chloride	ND		892
Acrylonitrile	~~ND~~ R		~~892~~
trans-1,2-Dichloroethene	ND		892
1,1-Dichloroethane	ND		892
Chloroform	711		892
1,1,1-Trichloroethane	ND		892
Carbon Tetrachloride	ND		892
1,2-Dichloroethane(EDC)	ND		892
Benzene	12000		892
Trichloroethene	ND		892
1,2-Dichloropropane	ND		892
Bromodichloromethane	ND		892
2-Chloroethylvinyl Ether	ND		892
cis-1,3-Dichloropropene	ND		892
Toluene	7700		892
trans-1,3-Dichloropropene	ND		892
1,1,2-Trichloroethane	ND		892
Tetrachloroethene	ND		892
Dibromochloromethane	ND		892
Chlorobenzene	ND		892
Ethylbenzene	1020		892
Total Xylenes	ND		892
Bromoform	ND		892
1,1,2,2-Tetrachloroethane	ND		892
1,3-Dichlorobenzene	ND		892
1,4-Dichlorobenzene	ND		892
1,2-Dichlorobenzene	1000		892

Total Target Compounds: 22431

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-005
Client ID: S-122A
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0576.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.9

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	8260	16.60
	Unknown alkane	8440	17.98
	Unknown cyclic hydrocarbon	3480	18.49
	Unknown cyclic hydrocarbon	9310	18.76
	Unknown cyclic hydrocarbon	50500	19.14
	Unknown cyclic hydrocarbon	8990	19.61
	Substituted benzene	242000	19.88

Total TICs = 330980

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-006
Client ID: S-122B
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0608.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 14.2

10,3

Compound	Concentration	Q	MDL
Chloromethane	ND		3640
Vinyl Chloride	ND		3640
Bromomethane	ND		3640
Chloroethane	ND		3640
Trichlorofluoromethane	ND		3640
Acrolein	~~ND~~ R		~~7280~~
1,1-Dichloroethene	ND		3640
Methylene Chloride	ND		3640
Acrylonitrile	~~ND~~ R		~~3640~~
trans-1,2-Dichloroethene	ND		3640
1,1-Dichloroethane	ND		3640
Chloroform	ND		3640
1,1,1-Trichloroethane	ND		3640
Carbon Tetrachloride	ND		3640
1,2-Dichloroethane(EDC)	1800	J	3640
Benzene	86500		3640
Trichloroethene	ND		3640
1,2-Dichloropropane	ND		3640
Bromodichloromethane	ND		3640
2-Chloroethylvinyl Ether	ND		3640
cis-1,3-Dichloropropene	ND		3640
Toluene	8110		3640
trans-1,3-Dichloropropene	ND		3640
1,1,2-Trichloroethane	ND		3640
Tetrachloroethene	ND		3640
Dibromochloromethane	ND		3640
Chlorobenzene	ND		3640
Ethylbenzene	2710	J	3640
Total Xylenes	1950	J	3640
Bromoform	ND		3640
1,1,2,2-Tetrachloroethane	ND		3640
1,3-Dichlorobenzene	ND		3640
1,4-Dichlorobenzene	ND		3640
1,2-Dichlorobenzene	1540		3640
Total Target Compounds:	102610	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-006
Client ID: S-122B
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Date File: I0608.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 5
% Moisture: 14.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	28500	16.61
	Unknown cyclic hydrocarbon	29700	18.79
	Unknown cyclic hydrocarbon	219000	19.16
	Unknown cyclic hydrocarbon	29500	19.78
	Substituted benzene	1050000	19.90

Total TICs = 1356700

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-007
Client ID: S-123
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0578.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.2

10.1

Compound	Concentration	Q	MDL
Chloromethane	ND		746
Vinyl Chloride	ND		746
Bromomethane	ND		746
Chloroethane	ND		746
Trichlorofluoromethane	ND		746 UJ
Acrolein	~~ND~~ R		~~1490~~
1,1-Dichloroethene	ND		746
Methylene Chloride	ND		746
Acrylonitrile	~~ND~~ R		~~746~~
trans-1,2-Dichloroethene	ND		746
1,1-Dichloroethane	ND		746
Chloroform	ND		746
1,1,1-Trichloroethane	ND		746
Carbon Tetrachloride	ND		746
1,2-Dichloroethane(EDC)	ND		746
Benzene	3370		746
Trichloroethene	ND		746
1,2-Dichloropropane	ND		746
Bromodichloromethane	ND		746
2-Chloroethylvinyl Ether	ND		746
cis-1,3-Dichloropropene	ND		746
Toluene	9850		746
trans-1,3-Dichloropropene	ND		746
1,1,2-Trichloroethane	ND		746
Tetrachloroethene	ND		746
Dibromochloromethane	ND		746
Chlorobenzene	ND		746
Ethylbenzene	ND		746
Total Xylenes	ND		746
Bromoform	ND		746
1,1,2,2-Tetrachloroethane	ND		746
1,3-Dichlorobenzene	ND		746
1,4-Dichlorobenzene	ND		746
1,2-Dichlorobenzene	1020		746

Total Target Compounds: 14240

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-007
Client ID: S-123
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0578.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.2

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	1890	16.59
	Substituted benzene	1510	17.64
	Unknown alkane	2010	17.97
	Unknown cyclic hydrocarbon	776	18.75
	Unknown cyclic hydrocarbon	5670	19.13
	Substituted benzene	9460	19.85
	Substituted benzene	23200	20.06
	Unknown	2920	23.48

Total TICs = 47436

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-008
Client ID: S-124A
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0579.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 10
% Moisture: 19.5

10.6

Compound	Concentration	Q	MDL
Chloromethane	ND		7760
Vinyl Chloride	ND		7760
Bromomethane	ND		7760
Chloroethane	ND		7760
Trichlorofluoromethane	ND		7760 UJ
Acrolein	~~ND~~ R		~~15500~~
1,1-Dichloroethene	ND		7760
Methylene Chloride	ND		7760
Acrylonitrile	~~ND~~ R		~~7760~~
trans-1,2-Dichloroethene	ND		7760
1,1-Dichloroethane	ND		7760
Chloroform	ND		7760
1,1,1-Trichloroethane	ND		7760
Carbon Tetrachloride	ND		7760
1,2-Dichloroethane(EDC)	ND		7760
Benzene	~~489000~~ 577000*	~~E~~	7760
Trichloroethene	ND		7760
1,2-Dichloropropane	ND		7760
Bromodichloromethane	ND		7760
2-Chloroethylvinyl Ether	ND		7760
cis-1,3-Dichloropropene	ND		7760
Toluene	~~1290000~~ 1430000*	~~E~~	7760
trans-1,3-Dichloropropene	ND		7760
1,1,2-Trichloroethane	ND		7760
Tetrachloroethene	ND		7760
Dibromochloromethane	ND		7760
Chlorobenzene	ND		7760
Ethylbenzene	ND		7760
Total Xylenes	2370		7760
Bromoform	ND		7760
1,1,2,2-Tetrachloroethane	ND		7760
1,3-Dichlorobenzene	ND		7760
1,4-Dichlorobenzene	ND		7760
1,2-Dichlorobenzene	ND		7760

* FROM 1:50 DILUTION

Total Target Compounds: 1781370 E

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-008DIL
Client ID: S-124A
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0617.D

GC/MS Column: DB-624
Sample wt/vol: 0.0008g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 19.5

10.6

Compound	Concentration	Q	MDL
Chloromethane	ND		38800
Vinyl Chloride	ND		38800
Bromomethane	ND		38800
Chloroethane	ND		38800
Trichlorofluoromethane	ND		38800
Acrolein	~~ND~~	R	~~77600~~
1,1-Dichloroethene	ND		38800
Methylene Chloride	ND		38800
Acrylonitrile	~~ND~~	R	~~38800~~
trans-1,2-Dichloroethene	ND		38800
1,1-Dichloroethane	ND		38800
Chloroform	ND		38800
1,1,1-Trichloroethane	ND		38800
Carbon Tetrachloride	ND		38800
1,2-Dichloroethane(EDC)	ND		38800
Benzene	577000	-	38800
Trichloroethene	ND		38800
1,2-Dichloropropane	ND		38800
Bromodichloromethane	ND		38800
2-Chloroethylvinyl Ether	ND		38800
cis-1,3-Dichloropropene	ND		38800
Toluene	1430000	-	38800
trans-1,3-Dichloropropene	ND		38800
1,1,2-Trichloroethane	ND		38800
Tetrachloroethene	ND		38800
Dibromochloromethane	ND		38800
Chlorobenzene	ND		38800
Ethylbenzene	ND		38800
Total Xylenes	ND		38800
Bromoform	ND		38800
1,1,2,2-Tetrachloroethane	ND		38800
1,3-Dichlorobenzene	ND		38800
1,4-Dichlorobenzene	ND		38800
1,2-Dichlorobenzene	ND		38800

Total Target Compounds: 2007000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-008
Client ID: S-124A
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0579.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 10
% Moisture: 19.5

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	22200	9.95
	Unknown alkane	25300	10.51
	Unknown alkane	72000	10.66
	Unknown cyclic hydrocarbon	255000	11.62
	Unknown cyclic hydrocarbon	10900	19.13
	Substituted benzene	26900	19.84
	Unknown	46900	20.82
	Unknown	46300	23.49

Total TICs = 505500

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-009
Client ID: S-124B
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0580.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.4

9.7

Compound	Concentration	Q	MDL
Chloromethane	ND		758
Vinyl Chloride	ND		758
Bromomethane	ND		758
Chloroethane	ND		758
Trichlorofluoromethane	ND		758 UJ
Acrolein	~~ND~~ R		~~1520~~
1,1-Dichloroethene	ND		758
Methylene Chloride	ND		758
Acrylonitrile	~~ND~~ R		~~758~~
trans-1,2-Dichloroethene	ND		758
1,1-Dichloroethane	ND		758
Chloroform	ND		758
1,1,1-Trichloroethane	ND		758
Carbon Tetrachloride	ND		758
1,2-Dichloroethane(EDC)	ND		758
Benzene	~~294000~~ 286000*	~~E~~	758
Trichloroethene	162	J	758
1,2-Dichloropropane	ND		758
Bromodichloromethane	ND		758
2-Chloroethylvinyl Ether	ND		758
cis-1,3-Dichloropropene	ND		758
Toluene	~~355000~~ 315000*	~~E~~	758
trans-1,3-Dichloropropene	ND		758
1,1,2-Trichloroethane	ND		758
Tetrachloroethene	ND		758
Dibromochloromethane	ND		758
Chlorobenzene	ND		758
Ethylbenzene	215	J	758
Total Xylenes	377		758
Bromoform	ND		758
1,1,2,2-Tetrachloroethane	ND		758
1,3-Dichlorobenzene	ND		758
1,4-Dichlorobenzene	ND		758
1,2-Dichlorobenzene	1480		758

* FROM 1:20 DILUTION

Total Target Compounds: 651234 JE

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-009DIL
Client ID: S-124B
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0618.D

GC/MS Column: DB-624
Sample wt/vol: 0.002g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 20
% Moisture: 15.4

9.1

Compound	Concentration	Q	MDL
Chloromethane	ND		14800
Vinyl Chloride	ND		14800
Bromomethane	ND		14800
Chloroethane	ND		14800
Trichlorofluoromethane	ND		14800
Acrolein	~~ND~~	R	~~29600~~
1,1-Dichloroethene	ND		14800
Methylene Chloride	ND		14800
Acrylonitrile	~~ND~~	R	~~14800~~
trans-1,2-Dichloroethene	ND		14800
1,1-Dichloroethane	ND		14800
Chloroform	ND		14800
1,1,1-Trichloroethane	ND		14800
Carbon Tetrachloride	ND		14800
1,2-Dichloroethane(EDC)	ND		14800
Benzene	286000		14800
Trichloroethene	ND		14800
1,2-Dichloropropane	ND		14800
Bromodichloromethane	ND		14800
2-Chloroethylvinyl Ether	ND		14800
cis-1,3-Dichloropropene	ND		14800
Toluene	315000		14800
trans-1,3-Dichloropropene	ND		14800
1,1,2-Trichloroethane	ND		14800
Tetrachloroethene	ND		14800
Dibromochloromethane	ND		14800
Chlorobenzene	ND		14800
Ethylbenzene	ND		14800
Total Xylenes	ND		14800
Bromoform	ND		14800
1,1,2,2-Tetrachloroethane	ND		14800
1,3-Dichlorobenzene	ND		14800
1,4-Dichlorobenzene	ND		14800
1,2-Dichlorobenzene	ND		14800

Total Target Compounds: 601000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-009
Client ID: S-124B
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0580.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	2590	9.92
	Unknown alkane	12100	10.64
	Unknown cyclic hydrocarbon	30900	11.60
	Substituted benzene	8410	20.05
	Column/Septa bleed		23.48

Total TICs = 54000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-010
Client ID: S-125
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Data file: I0581.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 18.8 9.3

Compound	Concentration	Q	MDL
Chloromethane	ND		832
Vinyl Chloride	ND		832
Bromomethane	ND		832
Chloroethane	ND		832
Trichlorofluoromethane	ND		832 UJ
Acrolein	~~ND~~	R	~~1660~~
1,1-Dichloroethene	ND		832
Methylene Chloride	ND		832
Acrylonitrile	~~ND~~	R	~~832~~
trans-1,2-Dichloroethene	ND		832
1,1-Dichloroethane	ND		832
Chloroform	ND		832
1,1,1-Trichloroethane	ND		832
Carbon Tetrachloride	ND		832
1,2-Dichloroethane(EDC)	ND		832
Benzene	5660		832
Trichloroethene	ND		832
1,2-Dichloropropane	ND		832
Bromodichloromethane	ND		832
2-Chloroethylvinyl Ether	ND		832
cis-1,3-Dichloropropene	ND		832
Toluene	509		832
trans-1,3-Dichloropropene	ND		832
1,1,2-Trichloroethane	ND		832
Tetrachloroethene	ND		832
Dibromochloromethane	ND		832
Chlorobenzene	ND		832
Ethylbenzene	ND		832
Total Xylenes	ND		832
Bromoform	ND		832
1,1,2,2-Tetrachloroethane	ND		832
1,3-Dichlorobenzene	ND		832
1,4-Dichlorobenzene	ND		832
1,2-Dichlorobenzene	260		832

Total Target Compounds: 6429

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-010
Client ID: S-125
Date Received: 08/02/2001
Date Analyzed: 08/03/2001
Date File: I0581.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 18.8

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	849	19.83
	Unknown	2150	23.47

Total TICs = 2999

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-011
Client ID: S-126
Date Received: 08/02/2001
Date Analyzed: 08/09/2001
Data file: I0686.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.8

Compound	Concentration	Q	MDL
Chloromethane	ND		806
Vinyl Chloride	ND		806
Bromomethane	ND		806
Chloroethane	ND		806 UJ
Trichlorofluoromethane	ND		806
Acrolein	~~ND~~	R	~~1610~~
1,1-Dichloroethene	ND		806
Methylene Chloride	ND		806
Acrylonitrile	~~ND~~	R	~~806~~
trans-1,2-Dichloroethene	ND		806
1,1-Dichloroethane	ND		806
Chloroform	ND		806
1,1,1-Trichloroethane	ND		806
Carbon Tetrachloride	ND		806
1,2-Dichloroethane(EDC)	ND		806
Benzene	24100		806
Trichloroethene	ND		806 UJ
1,2-Dichloropropane	ND		806
Bromodichloromethane	ND		806
2-Chloroethylvinyl Ether	ND		806
cis-1,3-Dichloropropene	ND		806
Toluene	848		806
trans-1,3-Dichloropropene	ND		806
1,1,2-Trichloroethane	ND		806
Tetrachloroethene	ND		806
Dibromochloromethane	ND		806
Chlorobenzene	ND		806
Ethylbenzene	ND		806
Total Xylenes	ND		806
Bromoform	ND		806
1,1,2,2-Tetrachloroethane	ND		806 UJ
1,3-Dichlorobenzene	ND		806
1,4-Dichlorobenzene	ND		806
1,2-Dichlorobenzene	ND		806

Total Target Compounds: 24948

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-011
Client ID: S-126
Date Received: 08/02/2001
Date Analyzed: 08/09/2001
Date File: I0686.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.8

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	1290	17.48

Total TICs = 1290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-012
Client ID: S-127
Date Received: 08/02/2001
Date Analyzed: 08/09/2001
Data file: I0687.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16 9.0

Compound	Concentration	Q	MDL
Chloromethane	ND		827
Vinyl Chloride	ND		827
Bromomethane	ND		827
Chloroethane	ND		827 UJ
Trichlorofluoromethane	ND		827
Acrolein	~~ND~~ R		~~1650~~
1,1-Dichloroethene	ND		827
Methylene Chloride	ND		827
Acrylonitrile	~~ND~~ R		~~827~~
trans-1,2-Dichloroethene	ND		827
1,1-Dichloroethane	ND		827
Chloroform	ND		827
1,1,1-Trichloroethane	ND		827
Carbon Tetrachloride	ND		827
1,2-Dichloroethane(EDC)	ND		827
Benzene	2120		827
Trichloroethene	ND		827 UJ
1,2-Dichloropropane	ND		827
Bromodichloromethane	ND		827
2-Chloroethylvinyl Ether	ND		827
cis-1,3-Dichloropropene	ND		827
Toluene	13200		827
trans-1,3-Dichloropropene	ND		827
1,1,2-Trichloroethane	ND		827
Tetrachloroethene	ND		827
Dibromochloromethane	ND		827
Chlorobenzene	ND		827
Ethylbenzene	ND		827
Total Xylenes	ND		827
Bromoform	ND		827
1,1,2,2-Tetrachloroethane	ND		827 UJ
1,3-Dichlorobenzene	ND		827
1,4-Dichlorobenzene	ND		827
1,2-Dichlorobenzene	ND		827

Total Target Compounds: 15320

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-012
Client ID: S-127
Date Received: 08/02/2001
Date Analyzed: 08/09/2001
Date File: I0687.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-013
Client ID: S-128
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Data file: I0591.D

GC/MS Column: DB-624
Sample wt/vol: 0.007g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 19.7

9,2

Compound	Concentration	Q	MDL
Chloromethane	ND		4450
Vinyl Chloride	ND		4450
Bromomethane	ND		4450
Chloroethane	ND		4450
Trichlorofluoromethane	ND		4450
Acrolein	~~ND~~ R		~~8900~~
1,1-Dichloroethene	ND		4450
Methylene Chloride	ND		4450
Acrylonitrile	~~ND~~ R		~~4450~~
trans-1,2-Dichloroethene	ND		4450
1,1-Dichloroethane	ND		4450
Chloroform	ND		4450
1,1,1-Trichloroethane	ND		4450
Carbon Tetrachloride	ND		4450
1,2-Dichloroethane(EDC)	ND		4450
Benzene	14300		4450
Trichloroethene	ND		4450
1,2-Dichloropropane	ND		4450
Bromodichloromethane	ND		4450
2-Chloroethylvinyl Ether	ND		4450
cis-1,3-Dichloropropene	ND		4450
Toluene	~~645000~~ 630000*	~~E~~	4450
trans-1,3-Dichloropropene	ND		4450
1,1,2-Trichloroethane	ND		4450
Tetrachloroethene	ND		4450
Dibromochloromethane	ND		4450
Chlorobenzene	4900		4450
Ethylbenzene	3260	J	4450
Total Xylenes	~~8100~~ 7700		4450
Bromoform	ND		4450
1,1,2,2-Tetrachloroethane	ND		4450
1,3-Dichlorobenzene	ND		4450
1,4-Dichlorobenzene	ND		4450
1,2-Dichlorobenzene	7720		4450
Total Target Compounds:	683280	JE	

* FROM 1:30 DILUTION

1987

0036

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-013DIL
Client ID: S-128
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0619.D

GC/MS Column: DB-624
Sample wt/vol: 0.0012g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: ~~30~~ 9.2
% Moisture: 19.7

Compound	Concentration	Q	MDL
Chloromethane	ND		25900
Vinyl Chloride	ND		25900
Bromomethane	ND		25900
Chloroethane	ND		25900
Trichlorofluoromethane	ND		25900
Acrolein	~~ND~~	R	~~51900~~
1,1-Dichloroethene	ND		25900
Methylene Chloride	ND		25900
Acrylonitrile	~~ND~~	R	~~25900~~
trans-1,2-Dichloroethene	ND		25900
1,1-Dichloroethane	ND		25900
Chloroform	ND		25900
1,1,1-Trichloroethane	ND		25900
Carbon Tetrachloride	ND		25900
1,2-Dichloroethane(EDC)	ND		25900
Benzene	14300		25900
Trichloroethene	ND		25900
1,2-Dichloropropane	ND		25900
Bromodichloromethane	ND		25900
2-Chloroethylvinyl Ether	ND		25900
cis-1,3-Dichloropropene	ND		25900
Toluene	~~645000~~ 630000		25900
trans-1,3-Dichloropropene	ND		25900
1,1,2-Trichloroethane	ND		25900
Tetrachloroethene	ND		25900
Dibromochloromethane	ND		25900
Chlorobenzene	ND		25900
Ethylbenzene	ND		25900
Total Xylenes	ND		25900
Bromoform	ND		25900
1,1,2,2-Tetrachloroethane	ND		25900
1,3-Dichlorobenzene	ND		25900
1,4-Dichlorobenzene	ND		25900
1,2-Dichlorobenzene	6830		25900

Total Target Compounds: 666130

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-013
Client ID: S-128
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Date File: I0591.D

GC/MS Column: DB-624
Sample wt/vol: 0.007g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 5
% Moisture: 19.7

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown cyclic hydrocarbon	44700	17.50
	Unknown cyclic hydrocarbon	14800	18.01
	Substituted benzene	43500	18.42
	Unknown cyclic hydrocarbon	57400	18.70
	Unknown cyclic hydrocarbon	225000	19.57
	Unknown cyclic hydrocarbon	1380000	19.78
	Unknown alkane	30300	20.57
	Unknown alkane	14200	24.75

Total TICs = 1809900

1989

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-014
Client ID: S-129
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Data file: I0592.D

GC/MS Column: DB-624
Sample wt/vol: 0.0034g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 10
% Moisture: 32.7

8.14

Compound	Concentration	Q	MDL
Chloromethane	ND		10900
Vinyl Chloride	ND		10900
Bromomethane	ND		10900
Chloroethane	ND		10900
Trichlorofluoromethane	ND		10900
Acrolein	~~ND~~	R	~~21900~~
1,1-Dichloroethene	ND		10900
Methylene Chloride	ND		10900
Acrylonitrile	~~ND~~	R	~~10900~~
trans-1,2-Dichloroethene	ND		10900
1,1-Dichloroethane	ND		10900
Chloroform	ND		10900
1,1,1-Trichloroethane	ND		10900
Carbon Tetrachloride	ND		10900
1,2-Dichloroethane(EDC)	ND		10900
Benzene	128000		10900
Trichloroethene	ND		10900
1,2-Dichloropropane	ND		10900
Bromodichloromethane	ND		10900
2-Chloroethylvinyl Ether	ND		10900
cis-1,3-Dichloropropene	ND		10900
Toluene	~~963000~~ 354000*	~~E~~	10900
trans-1,3-Dichloropropene	ND		10900
1,1,2-Trichloroethane	ND		10900
Tetrachloroethene	ND		10900
Dibromochloromethane	ND		10900
Chlorobenzene	ND		10900
Ethylbenzene	12600		10900
Total Xylenes	ND		10900
Bromoform	ND		10900
1,1,2,2-Tetrachloroethane	ND		10900
1,3-Dichlorobenzene	ND		10900
1,4-Dichlorobenzene	ND		10900
1,2-Dichlorobenzene	ND		10900

* FROM 1:30 DILUTION

Total Target Compounds: 1103600 E

1990

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTAC/ORBIS

Lab ID: 5281-014DIL
Client ID: S-129
Date Received: 08/02/2001
Date Analyzed: 08/05/2001
Data file: I0620.D

GC/MS Column: DB-624
Sample wt/vol: 0.0011g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 30
% Moisture: 32.7

Compound	Concentration	Q	MDL
Chloromethane	ND		33800
Vinyl Chloride	ND		33800
Bromomethane	ND		33800
Chloroethane	ND		33800
Trichlorofluoromethane	ND		33800
Acrolein	~~ND~~	R	~~67500~~
1,1-Dichloroethene	ND		33800
Methylene Chloride	ND		33800
Acrylonitrile	~~ND~~	R	~~33800~~
trans-1,2-Dichloroethene	ND		33800
1,1-Dichloroethane	ND		33800
Chloroform	ND		33800
1,1,1-Trichloroethane	ND		33800
Carbon Tetrachloride	ND		33800
1,2-Dichloroethane(EDC)	ND		33800
Benzene	43000		33800
Trichloroethene	ND		33800
1,2-Dichloropropane	ND		33800
Bromodichloromethane	ND		33800
2-Chloroethylvinyl Ether	ND		33800
cis-1,3-Dichloropropene	ND		33800
Toluene	354000		33800
trans-1,3-Dichloropropene	ND		33800
1,1,2-Trichloroethane	ND		33800
Tetrachloroethene	ND		33800
Dibromochloromethane	ND		33800
Chlorobenzene	ND		33800
Ethylbenzene	ND		33800
Total Xylenes	ND		33800
Bromoform	ND		33800
1,1,2,2-Tetrachloroethane	ND		33800
1,3-Dichlorobenzene	ND		33800
1,4-Dichlorobenzene	ND		33800
1,2-Dichlorobenzene	ND		33800

Total Target Compounds: 397000

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-014
Client ID: S-129
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Date File: I0592.D

GC/MS Column: DB-624
Sample wt/vol: 0.0034g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 10
% Moisture: 32.7

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	19200	17.49
	Unknown cyclic hydrocarbon	25300	17.99
	Unknown cyclic hydrocarbon	11800	18.72
	Unknown cyclic hydrocarbon	25300	19.56
	Substituted benzene	562000	19.83
000112-40-3	Dodecane	15300	22.84
	Substituted benzene	12500	24.04
000629-50-5	Tridecane	11100	24.77
	Unknown	21000	24.94
	Unknown	11800	25.87

Total TICs = 715300

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-015
Client ID: S-130
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Data file: I0593.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.5

Compound	Concentration	Q	MDL
Chloromethane	ND		730
Vinyl Chloride	ND		730
Bromomethane	ND		730
Chloroethane	ND		730
Trichlorofluoromethane	ND		730
Acrolein	~~ND~~	R	~~1460~~
1,1-Dichloroethene	ND		730
Methylene Chloride	ND		730
Acrylonitrile	~~ND~~	R	~~730~~
trans-1,2-Dichloroethene	ND		730
1,1-Dichloroethane	ND		730
Chloroform	ND		730
1,1,1-Trichloroethane	ND		730
Carbon Tetrachloride	ND		730
1,2-Dichloroethane(EDC)	ND		730
Benzene	1940		730
Trichloroethene	ND		730
1,2-Dichloropropane	ND		730
Bromodichloromethane	ND		730
2-Chloroethylvinyl Ether	ND		730
cis-1,3-Dichloropropene	ND		730
Toluene	ND		730
trans-1,3-Dichloropropene	ND		730
1,1,2-Trichloroethane	ND		730
Tetrachloroethene	ND		730
Dibromochloromethane	ND		730
Chlorobenzene	ND		730
Ethylbenzene	ND		730
Total Xylenes	ND		730
Bromoform	ND		730
1,1,2,2-Tetrachloroethane	ND		730
1,3-Dichlorobenzene	ND		730
1,4-Dichlorobenzene	ND		730
1,2-Dichlorobenzene	ND		730

10.3

Total Target Compounds: 1940

1993

0047

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 5281-015
Client ID: S-130
Date Received: 08/02/2001
Date Analyzed: 08/04/2001
Date File: I0593.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.5

CAS #	Compound	Estimated Concentration	Retention Time
	Substituted benzene	2540	19.83
	Unknown cyclic hydrocarbon	759	23.43

Total TICs = 3299

1994

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: ENVTACT/ORBIS

Date Received: 8/2/01

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Moist	Date Analyzed
5281-012	S-127	ND		1	Soil-mg/Kg	25.0	16.0	8/3/01
5281-013	S-128	1260		2	Soil-mg/Kg	49.8	19.7	8/3/01
5281-014	S-129	16000		20	Soil-mg/Kg	594	32.7	8/3/01
5281-015	S-130	ND		1	Soil-mg/Kg	25.0	16.5	8/3/01

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METHODOLOGY SUMMARY

Analytical Parameter	Aqueous Samples Method #	Soil/Other Samples Method #
Volatiles + 10	NA	EPA 8260B
Total Petroleum Hydrocarbons	NA	EPA 418.1 M

1996

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0093.D

BFB Injection Date: 07/16/2001

Inst ID: MSD_I

BFB Injection Time: 15:42

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.9			
75	30.0 - 60.0% of mass 95	56.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.3	(	0.4	)1
174	Great than 50.0% of mass 95	80.7			
175	5.0 - 9.0% of mass 174	6.5	(	8.1	)1
176	95.0 - 101.0% of mass 174	78.0	(	96.7	)1
177	5.0 - 9.0% of mass 176	5.8	(	7.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0094.D	07/16/2001	16:07
200	200_PPB_STD	I0095.D	07/16/2001	16:40
150	150_PPB_STD	I0096.D	07/16/2001	17:14
50	50_PPB_STD	I0097.D	07/16/2001	17:47
20	20_PPB_STD	I0098.D	07/16/2001	18:21
N/A	METHOD_BLK	I0099.D	07/16/2001	18:54
LCS	BLK_SPK	I0100.D	07/16/2001	19:28
SBRP-5_4-6'	4739-001	I0101.D	07/16/2001	20:01
MS	4739-001MS	I0102.D	07/16/2001	20:35
MSD	4739-001MSD	I0103.D	07/16/2001	21:08
SBRP-6_5-7'	4739-004	I0104.D	07/16/2001	21:42
SBRP-6D_5-7'	4739-005	I0105.D	07/16/2001	22:16
TB-1	4739-006	I0106.D	07/16/2001	22:49
SBDS-12_4-6'	4702-005	I0107.D	07/16/2001	23:23
SBDS-12_6-8'	4702-007	I0108.D	07/16/2001	23:56
TB-1	4702-008	I0109.D	07/17/2001	0:29
STRP-1_5-7'	4794-010	I0110.D	07/17/2001	1:03
STRP-2_5-7'	4794-011	I0111.D	07/17/2001	1:37
STRP-3_6-8'	4794-012	I0112.D	07/17/2001	2:11
TB-1	4794-013	I0113.D	07/17/2001	2:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0093.D

BFB Injection Date : 07/16/200

Inst ID: MSD I

BFB Injection Time: 15:42

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	25.9			
75	30.0 - 60.0% of mass 95	56.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.3	(	0.4	)1
174	Great than 50.0% of mass 95	80.7			
175	5.0 - 9.0% of mass 174	6.5	(	8.1	)1
176	95.0 - 101.0% of mass 174	78.0	(	96.7	)1
177	5.0 - 9.0% of mass 176	5.8	(	7.4	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TOH-071001-01A	4644-001	I0114.D	07/17/2001	3:18

1998

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0562.D

BFB Injection Date: 08/03/2001

Inst ID: MSD_I

BFB Injection Time: 9:19

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	24.0	
75	30.0 - 60.0% of mass 95	53.7	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.0	
173	Less than 2.0% of mass 174	0.0 (0.0)1	
174	Great than 50.0% of mass 95	85.8	
175	5.0 - 9.0% of mass 174	6.5 (7.6)1	
176	95.0 - 101.0% of mass 174	84.4 (98.4)1	
177	5.0 - 9.0% of mass 176	5.9 (7.0)2	
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0563.D	08/03/2001	9:35
N/A	METHOD_BLK	I0565.D	08/03/2001	10:48
LCS	BLK_SPK	I0566.D	08/03/2001	11:25
SS-9	5262-001	I0567.D	08/03/2001	12:02
SS-10	5262-002	I0568.D	08/03/2001	12:39
SS-11	5262-003	I0569.D	08/03/2001	13:35
MS	5262-003MS	I0570.D	08/03/2001	14:12
MSD	5262-003MSD	I0571.D	08/03/2001	14:48
S-119	5281-002	I0573.D	08/03/2001	16:01
S-120	5281-003	I0574.D	08/03/2001	16:37
S-121	5281-004	I0575.D	08/03/2001	17:14
S-122A	5281-005	I0576.D	08/03/2001	17:51
S-123	5281-007	I0578.D	08/03/2001	19:04
S-124A	5281-008	I0579.D	08/03/2001	19:41
S-124B	5281-009	I0580.D	08/03/2001	20:18
S-125	5281-010	I0581.D	08/03/2001	20:56

1999

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0584.D

BFB Injection Date: 08/04/2001

Inst ID: MSD_I

BFB Injection Time: 22:38

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	29.1	
75	30.0 - 60.0% of mass 95	58.3	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	8.0	
173	Less than 2.0% of mass 174	0.0 (0.0)1	
174	Great than 50.0% of mass 95	70.4	
175	5.0 - 9.0% of mass 174	5.3 (7.5)1	
176	95.0 - 101.0% of mass 174	70.6 (100.3)1	
177	5.0 - 9.0% of mass 176	5.6 (7.9)2	
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0587.D	08/04/2001	0:11
N/A	METHOD_BLK	I0589.D	08/04/2001	1:25
LCS	BLK_SPK	I0590.D	08/04/2001	2:02
S-128	5281-013	I0591.D	08/04/2001	2:39
S-129	5281-014	I0592.D	08/04/2001	3:16
S-130	5281-015	I0593.D	08/04/2001	3:52
S4-T2B	5294-001	I0594.D	08/04/2001	4:29
S3-T1B	5294-003	I0595.D	08/04/2001	5:07
S4-T1B	5294-004	I0596.D	08/04/2001	5:44
S3-T2B	5294-005	I0597.D	08/04/2001	6:21
TRIP_BLANK	5294-006	I0598.D	08/04/2001	6:58
MS	5294-005MS	I0599.D	08/04/2001	7:34
MSD	5294-005MSD	I0600.D	08/04/2001	8:11

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0601.D

BFB Injection Date: 08/05/2001

Inst ID: MSD I

BFB Injection Time: 10:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.9			
75	30.0 - 60.0% of mass 95	48.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	8.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	74.3			
175	5.0 - 9.0% of mass 174	5.6	(	7.6	)1
176	95.0 - 101.0% of mass 174	71.9	(	96.8	)1
177	5.0 - 9.0% of mass 176	5.9	(	8.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0602.D	08/05/2001	10:43
N/A	METHOD_BLK	I0604.D	08/05/2001	11:55
LCS	BLK_SPK	I0605.D	08/05/2001	12:32
S-118	5281-001	I0606.D	08/05/2001	13:08
S-120	5281-003DIL	I0607.D	08/05/2001	13:44
S-122B	5281-006	I0608.D	08/05/2001	14:20
N/A	SS239	I0613.D	08/05/2001	17:21
N/A	SS240	I0614.D	08/05/2001	17:57
N/A	SS241	I0615.D	08/05/2001	18:33
S-120	5281-003DIL	I0616.D	08/05/2001	19:09
S-124A	5281-008DIL	I0617.D	08/05/2001	19:45
S-124B	5281-009DIL	I0618.D	08/05/2001	20:22
S-128	5281-013DIL	I0619.D	08/05/2001	20:58
S-129	5281-014DIL	I0620.D	08/05/2001	21:35

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I0669.D

BFB Injection Date: 08/08/2001

Inst ID: MSD_I

BFB Injection Time: 22:44

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	25.6	
75	30.0 - 60.0% of mass 95	54.3	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.4	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	Great than 50.0% of mass 95	84.1	
175	5.0 - 9.0% of mass 174	6.0	(7.1)1
176	95.0 - 101.0% of mass 174	83.4	(99.2)1
177	5.0 - 9.0% of mass 176	6.3	(7.5)2
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I0671.D	08/08/2001	23:47
N/A	METHOD_BLK	I0673.D	08/09/2001	0:58
LCS	BLK_SPK	I0674.D	08/09/2001	1:34
MT_HOPE_WC	5415-001	I0675.D	08/09/2001	2:10
SS-1	5188-001	I0678.D	08/09/2001	3:57
SS-15	5449-001	I0679.D	08/09/2001	4:33
SS-16	5449-002	I0680.D	08/09/2001	5:09
SS-17	5449-003	I0681.D	08/09/2001	5:45
SS-18	5449-004	I0682.D	08/09/2001	6:20
SS-19	5449-005	I0683.D	08/09/2001	6:56
SS-20	5449-006	I0684.D	08/09/2001	7:32
5B911.5_10.5-12	5189-039	I0685.D	08/09/2001	8:08
S-126	5281-011	I0686.D	08/09/2001	8:45
S-127	5281-012	I0687.D	08/09/2001	9:21

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0565.D Instrument ID: MSD_I

Date Analyzed: 08/03/2001 Time Analyzed: 10:48

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	08/03/2001	11:25
SS-9	5262-001	08/03/2001	12:02
SS-10	5262-002	08/03/2001	12:39
SS-11	5262-003	08/03/2001	13:35
MS	5262-003MS	08/03/2001	14:12
MSD	5262-003MSD	08/03/2001	14:48
S-119	5281-002	08/03/2001	16:01
S-120	5281-003	08/03/2001	16:37
S-121	5281-004	08/03/2001	17:14
S-122A	5281-005	08/03/2001	17:51
S-123	5281-007	08/03/2001	19:04
S-124A	5281-008	08/03/2001	19:41
S-124B	5281-009	08/03/2001	20:18
S-125	5281-010	08/03/2001	20:56

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/03/2001
Data file: I0565.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

2004

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/03/2001
Data file: I0565.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

2005

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0589.D

Instrument ID: MSD_I

Date Analyzed: 08/04/2001

Time Analyzed: 01:25

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	08/04/2001	2:02
S-128	5281-013	08/04/2001	2:39
S-129	5281-014	08/04/2001	3:16
S-130	5281-015	08/04/2001	3:52
S4-T2B	5294-001	08/04/2001	4:29
S3-T1B	5294-003	08/04/2001	5:07
S4-T1B	5294-004	08/04/2001	5:44
S3-T2B	5294-005	08/04/2001	6:21
TRIP_BLANK	5294-006	08/04/2001	6:58
MS	5294-005MS	08/04/2001	7:34
MSD	5294-005MSD	08/04/2001	8:11

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/04/2001
Data file: I0589.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

2007

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/04/2001
Data file: I0589.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0604.D

Instrument ID: MSD_I

Date Analyzed: 08/05/2001

Time Analyzed: 11:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	08/05/2001	12:32
S-118	5281-001	08/05/2001	13:08
S-120	5281-003DIL	08/05/2001	13:44
S-122B	5281-006	08/05/2001	14:20
N/A	SS239	08/05/2001	17:21
N/A	SS240	08/05/2001	17:57
N/A	SS241	08/05/2001	18:33
S-120	5281-003DIL	08/05/2001	19:09
S-124A	5281-008DIL	08/05/2001	19:45
S-124B	5281-009DIL	08/05/2001	20:22
S-128	5281-013DIL	08/05/2001	20:58
S-129	5281-014DIL	08/05/2001	21:35

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/05/2001
Data file: I0604.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/05/2001
Data file: I0604.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

VOLATILE METHOD BLANK SUMMARY

Lab File ID: I0673.D Instrument ID: MSD_I

Date Analyzed: 08/09/2001 Time Analyzed: 00:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK_SPK	08/09/2001	1:34
MT_HOPE_WC	5415-001	08/09/2001	2:10
SS-1	5188-001	08/09/2001	3:57
SS-15	5449-001	08/09/2001	4:33
SS-16	5449-002	08/09/2001	5:09
SS-17	5449-003	08/09/2001	5:45
SS-18	5449-004	08/09/2001	6:20
SS-19	5449-005	08/09/2001	6:56
SS-20	5449-006	08/09/2001	7:32
5B911.5_10.5-12	5189-039	08/09/2001	8:08
S-126	5281-011	08/09/2001	8:45
S-127	5281-012	08/09/2001	9:21

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/09/2001
Data file: I0673.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

Compound	Concentration	Q	MDL
Chloromethane	ND		5
Vinyl Chloride	ND		5
Bromomethane	ND		5
Chloroethane	ND		5
Trichlorofluoromethane	ND		5
Acrolein	ND		10
1,1-Dichloroethene	ND		5
Methylene Chloride	ND		5
Acrylonitrile	ND		5
trans-1,2-Dichloroethene	ND		5
1,1-Dichloroethane	ND		5
Chloroform	ND		5
1,1,1-Trichloroethane	ND		5
Carbon Tetrachloride	ND		5
1,2-Dichloroethane(EDC)	ND		5
Benzene	ND		5
Trichloroethene	ND		5
1,2-Dichloropropane	ND		5
Bromodichloromethane	ND		5
2-Chloroethylvinyl Ether	ND		5
cis-1,3-Dichloropropene	ND		5
Toluene	ND		5
trans-1,3-Dichloropropene	ND		5
1,1,2-Trichloroethane	ND		5
Tetrachloroethene	ND		5
Dibromochloromethane	ND		5
Chlorobenzene	ND		5
Ethylbenzene	ND		5
Total Xylenes	ND		5
Bromoform	ND		5
1,1,2,2-Tetrachloroethane	ND		5
1,3-Dichlorobenzene	ND		5
1,4-Dichlorobenzene	ND		5
1,2-Dichlorobenzene	ND		5

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: N/A

Lab ID: METHOD_BLK
Client ID: N/A
Date Received: N/A
Date Analyzed: 08/09/2001
Data file: I0673.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0.0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

Response Factor Report 5970 - In

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration

Calibration Files
20 =I0098.D 50 =I0097.D 100 =I0094.D
150 =I0096.D 200 =I0095.D

		Compound	20	50	100	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluorometha	0.256	0.283	0.226	0.252	0.224	0.248	9.69
3)	P	Chloromethane	0.168	0.179	0.158	0.159	0.161	0.165	5.36
4)	C	Vinyl Chloride	0.169	0.187	0.162	0.178	0.177	0.174	5.51
5)	T	Bromomethane	0.218	0.219	0.207	0.226	0.234	0.221	4.57
6)	T	Chloroethane	0.123	0.135	0.124	0.109	0.108	0.120	9.45
7)	T	Trichlorofluoromethan	0.500	0.546	0.453	0.487	0.460	0.489	7.58
8)	T	Acrolein	0.006	0.006	0.006	0.008	0.007	0.007	11.94
9)	MC	1,1-Dichloroethene	0.216	0.240	0.216	0.218	0.216	0.221	4.76
10)	T	Acetone	0.071	0.068	0.113	0.060	0.059	0.074	30.16
11)	T	Carbon Disulfide	0.549	0.607	0.557	0.576	0.574	0.573	3.93
12)	T	Vinyl Acetate	0.968	1.059	0.828	0.983	0.951	0.958	8.71
13)	T	Methylene Chloride	0.259	0.280	0.250	0.255	0.266	0.262	4.47
14)	T	Acrylonitrile	0.033	0.035	0.039	0.045	0.039	0.038	11.86
15)	T	t-Butyl Alcohol(TBA)	0.023	0.024	0.016	0.020	0.020	0.021	14.45
16)	T	trans-1,2-Dichloroeth	0.273	0.293	0.271	0.265	0.270	0.275	3.83
17)	T	Methyl-t-Butyl Ether(	0.687	0.738	0.607	0.646	0.653	0.666	7.38
18)	P	1,1-Dichloroethane	0.518	0.563	0.499	0.505	0.501	0.517	5.16
19)	T	Diisopropyl Ether(DIP	1.044	1.105	0.996	1.011	0.985	1.028	4.70
20)	T	cis-1,2-Dichloroethen	0.295	0.309	0.288	0.289	0.275	0.291	4.30
21)	T	2,2-Dichloropropane	0.472	0.515	0.424	0.476	0.468	0.471	6.89
22)	T	2-Butanone(MEK)	0.097	0.104	0.080	0.093	0.094	0.093	9.34
23)	T	Bromochloromethane	0.219	0.224	0.197	0.201	0.197	0.208	6.28
25)	C	Chloroform	0.633	0.662	0.602	0.606	0.604	0.622	4.22
26)	T	1,1,1-Trichloroethane	0.532	0.558	0.518	0.517	0.505	0.526	3.87
27)	T	Carbon Tetrachloride	0.437	0.488	0.437	0.439	0.426	0.445	5.42
28)	T	1,1-Dichloropropene	0.368	0.401	0.364	0.368	0.351	0.370	5.04
29)	T	1,2-Dichloroethane(ED	0.465	0.485	0.427	0.434	0.427	0.448	5.87
30)	S	1,2-Dichloroethane-d4	0.424	0.438	0.437	0.460	0.483	0.448	5.22
31)	I	1,4-Difluorobenzene	----------ISTD----------						
32)	M	Benzene	0.690	0.743	0.669	0.665	0.660	0.685	5.01
33)	M	Trichloroethene	0.383	0.391	0.365	0.356	0.353	0.370	4.56
34)	C	1,2-Dichloropropane	0.342	0.357	0.314	0.324	0.309	0.329	6.04
35)	T	Dibromomethane	0.367	0.356	0.299	0.325	0.308	0.331	8.91
37)	T	Bromodichloromethane	0.644	0.672	0.617	0.639	0.630	0.640	3.23
38)	T	2-Chloroethylvinyl Et	0.188	0.204	0.157	0.182	0.185	0.183	9.13
39)	T	cis-1,3-Dichloroprope	0.502	0.526	0.477	0.488	0.481	0.495	4.04
40)	T	4-Methyl-2-pentanone(	0.281	0.317	0.229	0.282	0.271	0.276	11.41
41)	S	Toluene-d8	0.837	0.818	0.792	0.832	0.832	0.822	2.24
42)	MC	Toluene	0.488	0.504	0.469	0.460	0.460	0.476	4.05
43)	T	trans-1,3-Dichloropro	0.459	0.488	0.416	0.454	0.454	0.454	5.57
44)	T	1,1,2-Trichloroethane	0.288	0.282	0.240	0.258	0.250	0.264	7.81
45)	T	Tetrachloroethene	0.395	0.408	0.372	0.367	0.347	0.378	6.39
46)	T	1,3-Dichloropropane	0.479	0.495	0.432	0.439	0.430	0.455	6.55
47)	T	2-Hexanone	0.196	0.210	0.156	0.185	0.183	0.186	10.67
48)	T	Dibromochloromethane	0.505	0.556	0.468	0.505	0.527	0.512	6.33
49)	T	1,2-Dibromoethane(EDB	0.426	0.460	0.379	0.422	0.415	0.420	6.91

2015

			ISTD						
50)	I	Chlorobenzene-d5							
51)	MP	Chlorobenzene	0.794	0.979	0.873	0.883	0.875	0.881	7.48
52)	T	1,1,1,2-Tetrachloroet	0.463	0.569	0.514	0.513	0.521	0.516	7.31
53)	C	Ethylbenzene	1.141	1.374	1.181	1.255	1.198	1.230	7.36
54)	T	m,p-Xylene	0.415	0.527	0.476	0.474	0.469	0.472	8.43
55)	T	o-Xylene	0.430	0.525	0.462	0.471	0.460	0.470	7.42
56)	T	Styrene	0.716	0.912	0.804	0.819	0.819	0.814	8.56
57)	P	Bromoform	0.427	0.586	0.467	0.540	0.537	0.511	12.46
58)	T	Isopropylbenzene	1.038	1.288	1.149	1.190	1.148	1.163	7.75
59)	S	Bromofluorobenzene	0.932	1.031	1.016	1.038	1.022	1.008	4.28
60)	P	1,1,2,2-Tetrachloroet	0.525	0.656	0.500	0.590	0.590	0.573	10.70
61)	T	Bromobenzene	0.438	0.549	0.491	0.499	0.481	0.492	8.06
62)	T	1,2,3-Trichloropropan	0.435	0.519	0.403	0.462	0.445	0.453	9.41
63)	T	n-Propylbenzene	1.207	1.509	1.277	1.365	1.276	1.327	8.76
64)	T	2-Chlorotoluene	0.926	1.109	0.973	1.009	1.035	1.011	6.76
65)	T	1,3,5-Trimethylbenzen	0.864	1.099	0.930	0.977	0.969	0.968	8.86
66)	T	4-Chlorotoluene	1.083	1.320	1.160	1.171	1.152	1.177	7.38
67)	T	tert-Butylbenzene	0.788	0.978	0.886	0.910	0.860	0.885	7.86
68)	T	1,2,4-Trimethylbenzen	0.910	1.156	0.991	1.012	0.999	1.014	8.81
69)	T	sec-Butylbenzene	0.898	1.167	0.985	1.015	1.008	1.015	9.58
70)	T	1,3-Dichlorobenzene	0.732	0.855	0.710	0.754	0.731	0.756	7.59
71)	T	4-Isopropyltoluene	0.769	0.977	0.830	0.845	0.810	0.846	9.27
72)	T	1,4-Dichlorobenzene	0.732	0.875	0.749	0.797	0.789	0.788	7.04
73)	T	n-Butylbenzene	0.743	0.947	0.793	0.834	0.832	0.830	9.06
74)	T	1,2-Dichlorobenzene	0.653	0.801	0.666	0.744	0.694	0.712	8.55
75)	T	1,2-Dibromo-3-chlorop	0.096	0.130	0.084	0.117	0.115	0.109	16.78
76)	T	1,2,4-Trichlorobenzen	0.309	0.377	0.230	0.311	0.311	0.308	17.01
77)	T	Hexachlorobutadiene	0.198	0.170	0.121	0.129	0.125	0.149	22.87
78)	T	Naphthalene	0.555	0.669	0.369	0.537	0.529	0.532	20.09
79)	T	1,2,3-Trichlorobenzen	0.261	0.321	0.147	0.237	0.217	0.236	26.75
80)	T	1,1,2-Trichloro-1,2,2	0.523	0.662	0.523	0.568	0.519	0.559	10.97
81)	T	Methyl Acetate	0.215	0.267	0.193	0.233	0.238	0.229	12.04
82)	T	Cyclohexane	0.264	0.336	0.266	0.295	0.261	0.284	11.28
83)	T	Methylcyclohexane	0.249	0.294	0.228	0.258	0.218	0.250	11.91

(#) = Out of Range

IME0716.M Tue Jul 17 11:00:17 2001 MSD_I

Instrument ID: MSD_I
Method ID: IME0716.M
Date: 07/17/2001

Average %RSD = 9.71

Refer to SW846 Method 8000B Section 7.5.1.

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0563.D
Acq On : 3 Aug 2001 9:35
Sample : 100,100_PPB_STD,S,5mL,100
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p

Vial: 1
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	78	-0.04
2	T	Dichlorodifluoromethane	0.248	0.251	-1.2	86	-0.01
3	P	Chloromethane	0.165	0.170	-3.0	84	-0.04
4	C	Vinyl Chloride	0.174	0.188	-8.0	91	-0.03
5	T	Bromomethane	0.221	0.216	2.3	81	-0.02
6	T	Chloroethane	0.120	0.139	-15.8	88	-0.04
7	T	Trichlorofluoromethane	0.489	0.605	-23.7	104	-0.03
8	T	Acrolein	0.007	0.008	-14.3	102	-0.05
9	MC	1,1-Dichloroethene	0.221	0.244	-10.4	88	-0.03
10	T	Acetone	0.074	0.088	-18.9	61	-0.02
11	T	Carbon Disulfide	0.573	0.618	-7.9	87	-0.05
12	T	Vinyl Acetate	0.958	0.968	-1.0	91	-0.02
13	T	Methylene Chloride	0.262	0.272	-3.8	85	-0.03
14	T	Acrylonitrile	0.038	0.039	-2.6	77	-0.03
15	T	t-Butyl Alcohol(TBA)	0.021	0.020	4.8	97	-0.03
16	T	trans-1,2-Dichloroethene	0.275	0.302	-9.8	87	-0.03
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.672	-0.9	86	-0.03
18	P	1,1-Dichloroethane	0.517	0.574	-11.0	90	-0.03
19	T	Diisopropyl Ether(DIPE)	1.028	1.084	-5.4	85	-0.02
20	T	cis-1,2-Dichloroethene	0.291	0.315	-8.2	85	-0.04
21	T	2,2-Dichloropropane	0.471	0.550	-16.8	101	-0.02
22	T	2-Butanone(MEK)	0.093	0.090	3.2	88	-0.04
23	T	Bromochloromethane	0.208	0.210	-1.0	83	-0.04
25	C	Chloroform	0.622	0.650	-4.5	84	-0.04
26	T	1,1,1-Trichloroethane	0.526	0.604	-14.8	91	-0.04
27	T	Carbon Tetrachloride	0.445	0.512	-15.1	91	-0.02
28	T	1,1-Dichloropropene	0.370	0.413	-11.6	88	-0.04
29	T	1,2-Dichloroethane(EDC)	0.448	0.469	-4.7	86	-0.05
30	S	1,2-Dichloroethane-d4	0.448	0.432	3.6	77	-0.05
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	78	-0.05
32	M	Benzene	0.685	0.720	-5.1	84	-0.05
33	M	Trichloroethene	0.370	0.391	-5.7	83	-0.06
34	C	1,2-Dichloropropane	0.329	0.334	-1.5	83	-0.05
35	T	Dibromomethane	0.331	0.322	2.7	83	-0.05
37	T	Bromodichloromethane	0.640	0.655	-2.3	82	-0.06
38	T	2-Chloroethylvinyl Ether	0.183	0.185	-1.1	91	-0.06
39	T	cis-1,3-Dichloropropene	0.495	0.512	-3.4	83	-0.06
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.255	7.6	86	-0.04
41	S	Toluene-d8	0.822	0.790	3.9	77	-0.04
42	MC	Toluene	0.476	0.496	-4.2	82	-0.06
43	T	trans-1,3-Dichloropropene	0.454	0.458	-0.9	85	-0.06
44	T	1,1,2-Trichloroethane	0.264	0.249	5.7	80	-0.06
45	T	Tetrachloroethene	0.378	0.417	-10.3	87	-0.05
46	T	1,3-Dichloropropane	0.455	0.449	1.3	81	-0.06

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47	T	2-Hexanone	0.186	0.171	8.1	85	-0.07
48	T	Dibromochloromethane	0.512	0.526	-2.7	87	-0.07
49	T	1,2-Dibromoethane(EDB)	0.420	0.401	4.5	82	-0.06
50	I	Chlorobenzene-d5	1.000	1.000	0.0	80	-0.06
51	MP	Chlorobenzene	0.881	0.894	-1.5	82	-0.06
52	T	1,1,1,2-Tetrachloroethane	0.516	0.534	-3.5	83	-0.06
53	C	Ethylbenzene	1.230	1.329	-8.0	90	-0.07
54	T	m,p-Xylene	0.472	0.487	-3.2	82	-0.07
55	T	o-Xylene	0.470	0.490	-4.3	85	-0.06
56	T	Styrene	0.814	0.823	-1.1	82	-0.06
57	P	Bromoform	0.511	0.519	-1.6	89	-0.06
58	T	Isopropylbenzene	1.163	1.230	-5.8	86	-0.06
59	S	Bromofluorobenzene	1.008	1.015	-0.7	80	-0.08
60	P	1,1,2,2-Tetrachloroethane	0.573	0.539	5.9	86	-0.06
61	T	Bromobenzene	0.492	0.526	-6.9	86	-0.06
62	T	1,2,3-Trichloropropane	0.453	0.432	4.6	86	-0.06
63	T	n-Propylbenzene	1.327	1.443	-8.7	90	-0.06
64	T	2-Chlorotoluene	1.011	1.025	-1.4	84	-0.06
65	T	1,3,5-Trimethylbenzene	0.968	1.000	-3.3	86	-0.06
66	T	4-Chlorotoluene	1.177	1.238	-5.2	85	-0.06
67	T	tert-Butylbenzene	0.885	0.968	-9.4	87	-0.07
68	T	1,2,4-Trimethylbenzene	1.014	1.047	-3.3	85	-0.05
69	T	sec-Butylbenzene	1.015	1.083	-6.7	88	-0.07
70	T	1,3-Dichlorobenzene	0.756	0.806	-6.6	91	0.11
71	T	4-Isopropyltoluene	0.846	0.919	-8.6	89	-0.06
72	T	1,4-Dichlorobenzene	0.788	0.822	-4.3	88	-0.06
73	T	n-Butylbenzene	0.830	0.884	-6.5	89	-0.06
74	T	1,2-Dichlorobenzene	0.712	0.704	1.1	85	-0.06
75	T	1,2-Dibromo-3-chloropropane	0.109	0.090	17.4	85	-0.05
76	T	1,2,4-Trichlorobenzene	0.308	0.219	28.9	76	-0.03
77	T	Hexachlorobutadiene	0.149	0.137	8.1	90	-0.05
78	T	Naphthalene	0.532	0.497	6.6	108	-0.02
79	T	1,2,3-Trichlorobenzene	0.236	0.186	21.2	101	-0.03
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.672	-20.2	103	-0.02
81	T	Methyl Acetate	0.229	0.241	-5.2	100	-0.03
82	T	Cyclohexane	0.284	0.336	-18.3	101	-0.05
83	T	Methylcyclohexane	0.250	0.292	-16.8	102	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Tue Aug 07 11:03:42 2001 MSD_I

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0587.D
Acq On : 4 Aug 2001 00:11
Sample : 100,100_PPB_STD,S,5mL,100
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p

Vial: 25
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	79	-0.09
2	T	Dichlorodifluoromethane	0.248	0.214	13.7	75	-0.04
3	P	Chloromethane	0.165	0.159	3.6	80	-0.07
4	C	Vinyl Chloride	0.174	0.170	2.3	84	-0.06
5	T	Bromomethane	0.221	0.206	6.8	79	-0.08
6	T	Chloroethane	0.120	0.126	-5.0	81	-0.07
7	T	Trichlorofluoromethane	0.489	0.469	4.1	82	-0.08
8	T	Acrolein	0.007	0.008	-14.3	99	-0.10
9	MC	1,1-Dichloroethene	0.221	0.221	0.0	81	-0.08
10	T	Acetone	0.074	0.080	-8.1	56	0.45
11	T	Carbon Disulfide	0.573	0.530	7.5	75	-0.10
12	T	Vinyl Acetate	0.958	0.697	27.2	67	-0.05
13	T	Methylene Chloride	0.262	0.256	2.3	81	-0.10
14	T	Acrylonitrile	0.038	0.037	2.6	76	-0.08
15	T	t-Butyl Alcohol(TBA)	0.021	0.022	-4.8	106	-0.08
16	T	trans-1,2-Dichloroethene	0.275	0.275	0.0	80	-0.08
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.698	-4.8	91	-0.08
18	P	1,1-Dichloroethane	0.517	0.536	-3.7	85	-0.08
19	T	Diisopropyl Ether(DIPE)	1.028	1.042	-1.4	83	-0.07
20	T	cis-1,2-Dichloroethene	0.291	0.289	0.7	80	-0.09
21	T	2,2-Dichloropropane	0.471	0.332	29.5	62	-0.09
22	T	2-Butanone(MEK)	0.093	0.105	-12.9	104	-0.08
23	T	Bromochloromethane	0.208	0.208	0.0	84	-0.10
25	C	Chloroform	0.622	0.646	-3.9	85	-0.10
26	T	1,1,1-Trichloroethane	0.526	0.556	-5.7	85	-0.09
27	T	Carbon Tetrachloride	0.445	0.474	-6.5	86	-0.09
28	T	1,1-Dichloropropene	0.370	0.384	-3.8	84	-0.10
29	T	1,2-Dichloroethane(EDC)	0.448	0.466	-4.0	87	-0.09
30	S	1,2-Dichloroethane-d4	0.448	0.454	-1.3	82	-0.09
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	-0.10
32	M	Benzene	0.685	0.691	-0.9	81	-0.09
33	M	Trichloroethene	0.370	0.409	-10.5	88	-0.11
34	C	1,2-Dichloropropane	0.329	0.331	-0.6	83	-0.10
35	T	Dibromomethane	0.331	0.336	-1.5	88	-0.11
37	T	Bromodichloromethane	0.640	0.659	-3.0	84	-0.11
38	T	2-Chloroethylvinyl Ether	0.183	0.194	-6.0	97	-0.11
39	T	cis-1,3-Dichloropropene	0.495	0.467	5.7	77	-0.11
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.291	-5.4	100	-0.10
41	S	Toluene-d8	0.822	0.810	1.5	80	-0.10
42	MC	Toluene	0.476	0.481	-1.1	81	-0.11
43	T	trans-1,3-Dichloropropene	0.454	0.432	4.8	82	-0.11
44	T	1,1,2-Trichloroethane	0.264	0.264	0.0	86	-0.11
45	T	Tetrachloroethene	0.378	0.377	0.3	80	-0.11
46	T	1,3-Dichloropropane	0.455	0.462	-1.5	84	-0.11

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47	T	2-Hexanone	0.186	0.199	-7.0	100	-0.11
48	T	Dibromochloromethane	0.512	0.528	-3.1	89	-0.10
49	T	1,2-Dibromoethane(EDB)	0.420	0.427	-1.7	89	-0.12
50	I	Chlorobenzene-d5	1.000	1.000	0.0	81	-0.10
51	MP	Chlorobenzene	0.881	0.876	0.6	81	-0.10
52	T	1,1,1,2-Tetrachloroethane	0.516	0.517	-0.2	81	-0.10
53	C	Ethylbenzene	1.230	1.241	-0.9	85	-0.10
54	T	m,p-Xylene	0.472	0.460	2.5	78	-0.11
55	T	o-Xylene	0.470	0.465	1.1	81	-0.10
56	T	Styrene	0.814	0.787	3.3	79	-0.10
57	P	Bromoform	0.511	0.525	-2.7	91	-0.10
58	T	Isopropylbenzene	1.163	1.150	1.1	81	-0.11
59	S	Bromofluorobenzene	1.008	1.027	-1.9	81	-0.11
60	P	1,1,2,2-Tetrachloroethane	0.573	0.507	11.5	82	-0.10
61	T	Bromobenzene	0.492	0.489	0.6	80	-0.10
62	T	1,2,3-Trichloropropane	0.453	0.456	-0.7	91	-0.10
63	T	n-Propylbenzene	1.327	1.326	0.1	84	-0.10
64	T	2-Chlorotoluene	1.011	1.158	-14.5	96	0.09
65	T	1,3,5-Trimethylbenzene	0.968	0.947	2.2	82	-0.09
66	T	4-Chlorotoluene	1.177	1.164	1.1	81	-0.11
67	T	tert-Butylbenzene	0.885	0.886	-0.1	81	-0.10
68	T	1,2,4-Trimethylbenzene	1.014	0.970	4.3	79	-0.10
69	T	sec-Butylbenzene	1.015	0.973	4.1	80	-0.10
70	T	1,3-Dichlorobenzene	0.756	0.753	0.4	86	0.06
71	T	4-Isopropyltoluene	0.846	0.842	0.5	82	-0.11
72	T	1,4-Dichlorobenzene	0.788	0.770	2.3	83	-0.11
73	T	n-Butylbenzene	0.830	0.780	6.0	79	-0.10
74	T	1,2-Dichlorobenzene	0.712	0.704	1.1	85	-0.09
75	T	1,2-Dibromo-3-chloropropane	0.109	0.107	1.8	102	-0.09
76	T	1,2,4-Trichlorobenzene	0.308	0.248	19.5	87	-0.06
77	T	Hexachlorobutadiene	0.149	0.120	19.5	80	-0.08
78	T	Naphthalene	0.532	0.471	11.5	103	-0.06
79	T	1,2,3-Trichlorobenzene	0.236	0.191	19.1	104	-0.08
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.452	19.1	70	-0.08
81	T	Methyl Acetate	0.229	0.256	-11.8	107	-0.08
82	T	Cyclohexane	0.284	0.255	10.2	77	-0.10
83	T	Methylcyclohexane	0.250	0.202	19.2	71	-0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Tue Aug 07 11:45:55 2001 MSD_I

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0602.D
Acq On : 5 Aug 2001 10:43
Sample : 100,100_PPB_STD,S,5mL,100
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p

Vial: 1
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	78	-0.03
2	T	Dichlorodifluoromethane	0.248	0.220	11.3	76	-0.01
3	P	Chloromethane	0.165	0.150	9.1	74	-0.04
4	C	Vinyl Chloride	0.174	0.168	3.4	81	-0.03
5	T	Bromomethane	0.221	0.199	10.0	75	-0.02
6	T	Chloroethane	0.120	0.126	-5.0	79	0.00
7	T	Trichlorofluoromethane	0.489	0.546	-11.7	94	-0.02
8	T	Acrolein	0.007	0.007	0.0	88	-0.03
9	MC	1,1-Dichloroethene	0.221	0.258	-16.7	93	-0.03
10	T	Acetone	0.074	0.077	-4.1	53	-0.02
11	T	Carbon Disulfide	0.573	0.575	-0.3	80	-0.03
12	T	Vinyl Acetate	0.958	0.891	7.0	84	-0.02
13	T	Methylene Chloride	0.262	0.246	6.1	77	-0.03
14	T	Acrylonitrile	0.038	0.034	10.5	68	-0.02
15	T	t-Butyl Alcohol(TBA)	0.021	0.018	14.3	87	-0.03
16	T	trans-1,2-Dichloroethene	0.275	0.280	-1.8	80	-0.02
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.626	6.0	80	-0.02
18	P	1,1-Dichloroethane	0.517	0.517	0.0	81	-0.03
19	T	Diisopropyl Ether(DIPE)	1.028	0.999	2.8	78	-0.02
20	T	cis-1,2-Dichloroethene	0.291	0.289	0.7	78	-0.04
21	T	2,2-Dichloropropane	0.471	0.497	-5.5	91	-0.03
22	T	2-Butanone(MEK)	0.093	0.088	5.4	86	-0.03
23	T	Bromochloromethane	0.208	0.197	5.3	78	-0.04
25	C	Chloroform	0.622	0.628	-1.0	81	-0.05
26	T	1,1,1-Trichloroethane	0.526	0.558	-6.1	84	-0.03
27	T	Carbon Tetrachloride	0.445	0.475	-6.7	85	-0.03
28	T	1,1-Dichloropropene	0.370	0.398	-7.6	85	-0.05
29	T	1,2-Dichloroethane(EDC)	0.448	0.440	1.8	80	-0.04
30	S	1,2-Dichloroethane-d4	0.448	0.426	4.9	76	-0.05
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	80	-0.05
32	M	Benzene	0.685	0.662	3.4	79	-0.04
33	M	Trichloroethene	0.370	0.369	0.3	81	-0.06
34	C	1,2-Dichloropropane	0.329	0.312	5.2	80	-0.05
35	T	Dibromomethane	0.331	0.296	10.6	79	-0.06
37	T	Bromodichloromethane	0.640	0.603	5.8	78	-0.06
38	T	2-Chloroethylvinyl Ether	0.183	0.164	10.4	84	-0.06
39	T	cis-1,3-Dichloropropene	0.495	0.470	5.1	79	-0.06
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.244	11.6	85	-0.04
41	S	Toluene-d8	0.822	0.803	2.3	81	-0.04
42	MC	Toluene	0.476	0.452	5.0	77	-0.06
43	T	trans-1,3-Dichloropropene	0.454	0.416	8.4	80	-0.06
44	T	1,1,2-Trichloroethane	0.264	0.225	14.8	75	-0.06
45	T	Tetrachloroethene	0.378	0.388	-2.6	84	-0.06
46	T	1,3-Dichloropropane	0.455	0.425	6.6	79	-0.06

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2022

47	T	2-Hexanone	0.186	0.165	11.3	85	-0.06
48	T	Dibromochloromethane	0.512	0.478	6.6	82	-0.06
49	T	1,2-Dibromoethane(EDB)	0.420	0.370	11.9	78	-0.06
50	I	Chlorobenzene-d5	1.000	1.000	0.0	82	-0.06
51	MP	Chlorobenzene	0.881	0.840	4.7	79	-0.05
52	T	1,1,1,2-Tetrachloroethane	0.516	0.491	4.8	79	-0.05
53	C	Ethylbenzene	1.230	1.238	-0.7	86	-0.06
54	T	m,p-Xylene	0.472	0.432	8.5	75	-0.05
55	T	o-Xylene	0.470	0.467	0.6	83	-0.04
56	T	Styrene	0.814	0.785	3.6	80	-0.04
57	P	Bromoform	0.511	0.461	9.8	81	-0.05
58	T	Isopropylbenzene	1.163	1.049	9.8	75	-0.05
59	S	Bromofluorobenzene	1.008	0.982	2.6	79	-0.05
60	P	1,1,2,2-Tetrachloroethane	0.573	0.479	16.4	79	-0.04
61	T	Bromobenzene	0.492	0.451	8.3	75	-0.04
62	T	1,2,3-Trichloropropane	0.453	0.383	15.5	78	-0.04
63	T	n-Propylbenzene	1.327	1.260	5.0	81	-0.03
64	T	2-Chlorotoluene	1.011	0.935	7.5	79	-0.03
65	T	1,3,5-Trimethylbenzene	0.968	0.932	3.7	82	-0.03
66	T	4-Chlorotoluene	1.177	1.137	3.4	81	-0.05
67	T	tert-Butylbenzene	0.885	0.848	4.2	79	-0.04
68	T	1,2,4-Trimethylbenzene	1.014	0.914	9.9	76	-0.03
69	T	sec-Butylbenzene	1.015	0.942	7.2	79	-0.04
70	T	1,3-Dichlorobenzene	0.756	0.655	13.4	76	-0.04
71	T	4-Isopropyltoluene	0.846	0.829	2.0	82	-0.04
72	T	1,4-Dichlorobenzene	0.788	0.720	8.6	79	-0.04
73	T	n-Butylbenzene	0.830	0.761	8.3	79	-0.04
74	T	1,2-Dichlorobenzene	0.712	0.619	13.1	76	-0.02
75	T	1,2-Dibromo-3-chloropropane	0.109	0.078	28.4	77	-0.03
76	T	1,2,4-Trichlorobenzene	0.308	0.293	4.9	105	0.00
77	T	Hexachlorobutadiene	0.149	0.111	25.5	75	-0.01
78	T	Naphthalene	0.532	0.431	19.0	96	0.00
79	T	1,2,3-Trichlorobenzene	0.236	0.170	28.0	95	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.613	-9.7	96	-0.02
81	T	Methyl Acetate	0.229	0.200	12.7	85	-0.01
82	T	Cyclohexane	0.284	0.315	-10.9	97	-0.04
83	T	Methylcyclohexane	0.250	0.268	-7.2	97	-0.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Tue Aug 07 12:22:15 2001 MSD_I

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0671.D
Acq On : 8 Aug 2001 23:47
Sample : 100,100_PPB_STD,S,5mL,100
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p

Vial: 25
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	69	-0.05
2	T	Dichlorodifluoromethane	0.248	0.244	1.6	74	-0.02
3	P	Chloromethane	0.165	0.189	-14.5	82	-0.03
4	C	Vinyl Chloride	0.174	0.198	-13.8	84	-0.02
5	T	Bromomethane	0.221	0.236	-6.8	78	-0.03
6	T	Chloroethane	0.120	0.151	-25.8	84	-0.01
7	T	Trichlorofluoromethane	0.489	0.521	-6.5	79	0.00
8	T	Acrolein	0.007	0.007	0.0	74	-0.03
9	MC	1,1-Dichloroethene	0.221	0.244	-10.4	77	-0.02
10	T	Acetone	0.074	0.083	-12.2	50	-0.02
11	T	Carbon Disulfide	0.573	0.648	-13.1	80	-0.03
12	T	Vinyl Acetate	0.958	0.699	27.0	58	-0.02
13	T	Methylene Chloride	0.262	0.287	-9.5	79	-0.02
14	T	Acrylonitrile	0.038	0.034	10.5	60	-0.02
15	T	t-Butyl Alcohol(TBA)	0.021	0.019	9.5	82	-0.04
16	T	trans-1,2-Dichloroethene	0.275	0.310	-12.7	79	-0.03
17	T	Methyl-t-Butyl Ether(MTBE)	0.666	0.729	-9.5	82	-0.04
18	P	1,1-Dichloroethane	0.517	0.598	-15.7	82	-0.04
19	T	Diisopropyl Ether(DIPE)	1.028	1.199	-16.6	83	-0.02
20	T	cis-1,2-Dichloroethene	0.291	0.328	-12.7	78	-0.05
21	T	2,2-Dichloropropane	0.471	0.440	6.6	71	-0.03
22	T	2-Butanone(MEK)	0.093	0.104	-11.8	89	-0.04
23	T	Bromochloromethane	0.208	0.222	-6.7	77	-0.06
25	C	Chloroform	0.622	0.722	-16.1	82	-0.06
26	T	1,1,1-Trichloroethane	0.526	0.590	-12.2	78	-0.05
27	T	Carbon Tetrachloride	0.445	0.487	-9.4	76	-0.05
28	T	1,1-Dichloropropene	0.370	0.423	-14.3	80	-0.06
29	T	1,2-Dichloroethane(EDC)	0.448	0.514	-14.7	83	-0.07
30	S	1,2-Dichloroethane-d4	0.448	0.445	0.7	70	-0.07
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	70	-0.07
32	M	Benzene	0.685	0.744	-8.6	78	-0.07
33	M	Trichloroethene	0.370	0.457	-23.5	88	-0.09
34	C	1,2-Dichloropropane	0.329	0.357	-8.5	80	-0.09
35	T	Dibromomethane	0.331	0.340	-2.7	80	-0.08
37	T	Bromodichloromethane	0.640	0.693	-8.3	79	-0.09
38	T	2-Chloroethylvinyl Ether	0.183	0.186	-1.6	83	-0.09
39	T	cis-1,3-Dichloropropene	0.495	0.511	-3.2	75	-0.10
40	T	4-Methyl-2-pentanone(MIBK)	0.276	0.274	0.7	84	-0.09
41	S	Toluene-d8	0.822	0.828	-0.7	74	-0.09
42	MC	Toluene	0.476	0.513	-7.8	77	-0.10
43	T	trans-1,3-Dichloropropene	0.454	0.463	-2.0	78	-0.11
44	T	1,1,2-Trichloroethane	0.264	0.270	-2.3	79	-0.09
45	T	Tetrachloroethene	0.378	0.398	-5.3	75	-0.10
46	T	1,3-Dichloropropane	0.455	0.476	-4.6	78	-0.11

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2024

47	T	2-Hexanone	0.186	0.181	2.7	81	-0.11
48	T	Dibromochloromethane	0.512	0.548	-7.0	82	-0.10
49	T	1,2-Dibromoethane(EDB)	0.420	0.439	-4.5	82	-0.11
50	I	Chlorobenzene-d5	1.000	1.000	0.0	77	-0.09
51	MP	Chlorobenzene	0.881	0.885	-0.5	78	-0.10
52	T	1,1,1,2-Tetrachloroethane	0.516	0.514	0.4	77	-0.10
53	C	Ethylbenzene	1.230	1.284	-4.4	84	-0.11
54	T	m,p-Xylene	0.472	0.468	0.8	76	-0.10
55	T	o-Xylene	0.470	0.485	-3.2	81	-0.09
56	T	Styrene	0.814	0.816	-0.2	78	-0.09
57	P	Bromoform	0.511	0.493	3.5	81	-0.10
58	T	Isopropylbenzene	1.163	1.139	2.1	76	-0.10
59	S	Bromofluorobenzene	1.008	0.993	1.5	75	-0.11
60	P	1,1,2,2-Tetrachloroethane	0.573	0.412	28.1	63	-0.10
61	T	Bromobenzene	0.492	0.468	4.9	73	-0.10
62	T	1,2,3-Trichloropropane	0.453	0.414	8.6	79	-0.10
63	T	n-Propylbenzene	1.327	1.311	1.2	79	-0.08
64	T	2-Chlorotoluene	1.011	1.013	-0.2	80	-0.08
65	T	1,3,5-Trimethylbenzene	0.968	0.937	3.2	77	-0.09
66	T	4-Chlorotoluene	1.177	1.161	1.4	77	-0.09
67	T	tert-Butylbenzene	0.885	0.867	2.0	75	-0.10
68	T	1,2,4-Trimethylbenzene	1.014	0.968	4.5	75	-0.08
69	T	sec-Butylbenzene	1.015	0.993	2.2	78	-0.09
70	T	1,3-Dichlorobenzene	0.756	0.748	1.1	81	0.07
71	T	4-Isopropyltoluene	0.846	0.842	0.5	78	-0.10
72	T	1,4-Dichlorobenzene	0.788	0.766	2.8	79	-0.10
73	T	n-Butylbenzene	0.830	0.811	2.3	79	-0.09
74	T	1,2-Dichlorobenzene	0.712	0.700	1.7	81	-0.07
75	T	1,2-Dibromo-3-chloropropane	0.109	0.087	20.2	80	-0.08
76	T	1,2,4-Trichlorobenzene	0.308	0.252	18.2	85	-0.05
77	T	Hexachlorobutadiene	0.149	0.128	14.1	81	-0.06
78	T	Naphthalene	0.532	0.414	22.2	86	-0.06
79	T	1,2,3-Trichlorobenzene	0.236	0.191	19.1	100	-0.04
80	T	1,1,2-Trichloro-1,2,2-trifl	0.559	0.478	14.5	70	0.00
81	T	Methyl Acetate	0.229	0.219	4.4	87	-0.02
82	T	Cyclohexane	0.284	0.256	9.9	74	-0.06
83	T	Methylcyclohexane	0.250	0.212	15.2	71	-0.07

(#) = Out of Range SPCC's out = 0 CCC's out = 0

I0094.D IME0716.M Fri Aug 10 16:48:17 2001 MSD_I

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/03/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0565.D	87	96	99
BLK_SPK	SOIL	I0566.D	87	97	99
5262-001	SOIL	I0567.D	70	75	73
5262-002	SOIL	I0568.D	71	73	71
5262-003	SOIL	I0569.D	72	77	73
5262-003MS	MEOH	I0570.D	75	80	77
5262-003MSD	MEOH	I0571.D	76	83	78
5281-002	MEOH	I0573.D	72	75	73
5281-003	MEOH	I0574.D	82	77	81
5281-004	MEOH	I0575.D	72	75	74
5281-005	MEOH	I0576.D	74	76	73
5281-007	MEOH	I0578.D	72	76	74
5281-008	MEOH	I0579.D	70	80	70
5281-009	MEOH	I0580.D	79	78	72
5281-010	MEOH	I0581.D	71	78	73

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/04/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0589.D	88	101	100
BLK_SPK	SOIL	I0590.D	94	104	105
5281-013	MEOH	I0591.D	60	60	55
5281-014	MEOH	I0592.D	70	70	70
5281-015	MEOH	I0593.D	70	73	70
5294-001	MEOH	I0594.D	79	80	77
5294-003	MEOH	I0595.D	75	77	75
5294-004	MEOH	I0596.D	73	76	74
5294-005	MEOH	I0597.D	75	80	76
5294-006	MEOH	I0598.D	81	83	79
5294-005MS	MEOH	I0599.D	82	87	76
5294-005MSD	MEOH	I0600.D	80	84	81

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/05/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0604.D	84	95	96
BLK_SPK	SOIL	I0605.D	88	97	92
5281-001	MEOH	I0606.D	80	80	90
5281-003DIL	MEOH	I0607.D	80	70	80
5281-006	MEOH	I0608.D	85	85	90
SS239	MEOH	I0613.D	86	90	80
SS240	MEOH	I0614.D	84	88	82
SS241	MEOH	I0615.D	86	91	82
5281-003DIL	MEOH	I0616.D	N/A	N/A	N/A
5281-008DIL	MEOH	I0617.D	N/A	N/A	N/A
5281-009DIL	MEOH	I0618.D	N/A	N/A	N/A
5281-013DIL	MEOH	I0619.D	N/A	N/A	N/A
5281-014DIL	MEOH	I0620.D	N/A	N/A	N/A

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/09/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD_BLK	SOIL	I0673.D	89	100	100
BLK_SPK	SOIL	I0674.D	88	99	101
5415-001	SOIL	I0675.D	86	101	104
5188-001	MEOH	I0678.D	74	74	66
5449-001	MEOH	I0679.D	78	76	70
5449-002	MEOH	I0680.D	76	72	68
5449-003	MEOH	I0681.D	79	77	71
5449-004	MEOH	I0682.D	77	77	73
5449-005	MEOH	I0683.D	76	77	68
5449-006	MEOH	I0684.D	81	77	70
5189-039	MEOH	I0685.D	77	83	71
5281-011	MEOH	I0686.D	74	83	72
5281-012	MEOH	I0687.D	75	81	70

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	49-120	61-102
SMC2 = Toluene-d8	50 ppb	43-132	47-114
SMC3 = Bromofluorobenzene	50 ppb	40-129	51-108

Column to be used to flag recovery values

FORM 2

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 5262-003

Batch No.: IM0172

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	50.8	102	48 - 149
Benzene	50.0	0.0	54.1	108	59 - 149
Trichloroethene	50.0	0.0	50.5	101	55 - 143
Toluene	50.0	0.0	54.2	108	54 - 150
Chlorobenzene	50.0	0.0	50.0	100	55 - 144

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	50.8	102	0	17	48 - 149
Benzene	0.0	54.1	108	0	15	59 - 149
Trichloroethene	0.0	50.5	101	0	15	55 - 143
Toluene	0.0	54.2	108	0	16	54 - 150
Chlorobenzene	0.0	50.0	100	0	15	55 - 144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 5294-005

Batch No.: IM0173

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	50.8	102	48 - 149
Benzene	50.0	0.0	54.1	108	59 - 149
Trichloroethene	50.0	0.0	50.5	101	55 - 143
Toluene	50.0	0.0	54.2	108	54 - 150
Chlorobenzene	50.0	0.0	50.0	100	55 - 144

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	50.8	102	0	17	48 - 149
Benzene	0.0	54.1	108	0	15	59 - 149
Trichloroethene	0.0	50.5	101	0	15	55 - 143
Toluene	0.0	54.2	108	0	16	54 - 150
Chlorobenzene	0.0	50.0	100	0	15	55 - 144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0094.D

Date Analyzed: 07/16/2001

Instrument ID: MSD_I

Time Analyzed: 16:07

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	2456627		9.66		2395573		10.87		1728694		15.80	
	UPPER LIMIT	4913254		10.16		4791146		11.37		3457388		16.30	
	LOWER LIMIT	1228313.5		9.16		1197786.5		10.37		864347		15.30	
	LAB SAMPLE ID												
01	200_PPB_STD	2332724		9.65		2240926		10.86		1616140		15.79	
02	150_PPB_STD	2376955		9.63		2306485		10.85		1656149		15.78	
03	50_PPB_STD	2404604		9.64		2317686		10.85		1663772		15.78	
04	20_PPB_STD	2364608		9.64		2247397		10.86		1876145		15.79	
05	METHOD_BLK	2322218		9.66		2174438		10.86		1607116		15.80	
06	BLK_SPK	2318488		9.66		2219915		10.86		1648183		15.79	
07	4739-001	2263591		9.62		2198758		10.84		1616395		15.80	
08	4739-001MS	2323801		9.61		2204021		10.83		1695570		15.77	
09	4739-001MSD	2331186		9.61		2252084		10.81		1701165		15.77	
10	4739-004	2310545		9.60		2227500		10.81		1620548		15.76	
11	4739-005	2322111		9.61		2246116		10.82		1680452		15.76	
12	4739-006	2355234		9.60		2261396		10.81		1633345		15.75	
13	4702-005	2288502		9.62		2217957		10.83		1637127		15.77	
14	4702-007	2216486		9.63		2203054		10.83		1626437		15.77	
15	4702-008	2242769		9.63		2187673		10.83		1604963		15.79	
16	4794-010	2299458		9.62		2190070		10.83		1657666		15.77	
17	4794-011	2317402		9.60		2225517		10.81		1602526		15.76	
18	4794-012	2298571		9.59		2201939		10.81		1637831		15.77	
19	4794-013	2310523		9.60		2172330		10.80		1655535		15.75	
20	4644-001	2265231		9.61		2177357		10.81		1643786		15.76	
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0563.D

Date Analyzed: 08/03/2001

Instrument ID: MSD_I

Time Analyzed: 9:35

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1914170	9.62	1858817	10.83	1384440	15.74
	UPPER LIMIT	3828340	10.12	3717634	11.33	2768880	16.24
	LOWER LIMIT	957085	9.12	929408.5	10.33	692220	15.24
	LAB SAMPLE ID						
01	METHOD_BLK	1906814	9.63	1888405	10.82	1405037	15.74
02	BLK_SPK	1906420	9.63	1882876	10.82	1395768	15.73
03	5262-001	1884068	9.62	1804603	10.81	1337066	15.73
04	5262-002	1803307	9.61	1804093	10.81	1337272	15.74
05	5262-003	1840433	9.59	1748129	10.79	1298605	15.73
06	5262-003MS	1813230	9.61	1789913	10.82	1321679	15.75
07	5262-003MSD	1804015	9.63	1734894	10.84	1284974	15.76
08	5281-002	1777445	9.63	1757209	10.84	1288483	15.75
09	5281-003	1743295	9.64	1683421	10.83	1287755	15.75
10	5281-004	1805744	9.63	1762452	10.83	1324029	15.75
11	5281-005	1783653	9.62	1777321	10.83	1317846	15.74
12	5281-007	1949612	9.59	1910124	10.81	1367902	15.72
13	5281-008	1840290	9.62	1820945	10.82	1361730	15.72
14	5281-009	1875244	9.61	1865655	10.79	1459103	15.71
15	5281-010	1942066	9.59	1886068	10.79	1402397	15.71
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0587.D

Date Analyzed: 08/04/2001

Instrument ID: MSD_I

Time Analyzed: 0:11

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1947643	9.57	1884100	10.77	1392878	15.70
	UPPER LIMIT	3895286	10.07	3768200	11.27	2785756	16.20
	LOWER LIMIT	973821.5	9.07	942050	10.27	696439	15.20
	LAB SAMPLE ID						
01	METHOD_BLK	1937252	9.60	1817083	10.79	1397228	15.70
02	BLK_SPK	1899241	9.60	1805889	10.78	1386309	15.70
03	5281-013	1820959	9.58	1796233	10.79	1334024	15.69
04	5281-014	1856501	9.57	1789928	10.78	1370815	15.70
05	5281-015	1884010	9.56	1882218	10.77	1407700	15.69
06	5294-001	1912503	9.56	1913750	10.78	1421631	15.69
07	5294-003	1958363	9.56	1887753	10.77	1387490	15.70
08	5294-004	1926178	9.56	1866027	10.76	1367549	15.69
09	5294-005	1883454	9.57	1829208	10.77	1366046	15.69
10	5294-006	1893915	9.55	1825055	10.77	1343578	15.70
11	5294-005MS	1859806	9.57	1811636	10.78	1459707	15.69
12	5294-005MSD	1882888	9.58	1850823	10.77	1333432	15.70
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0602.D

Date Analyzed: 08/05/2001

Instrument ID: MSD_I

Time Analyzed: 10:43

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1914192	9.63	1918762	10.83	1421119	15.74
	UPPER LIMIT	3828384	10.13	3837524	11.33	2842238	16.24
	LOWER LIMIT	957096	9.13	959381	10.33	710559.5	15.24
	LAB SAMPLE ID						
01	METHOD_BLK	1912832	9.64	1831143	10.84	1366828	15.76
02	BLK_SPK	1900202	9.64	1865051	10.85	1433314	15.75
03	5281-001	1798765	9.64	1702023	10.83	1269477	15.75
04	5281-003DIL	1715997	9.63	1711226	10.84	1298523	15.74
05	5281-006	1654906	9.63	1676876	10.83	1236087	15.74
06	SS239	1716587	9.62	1672914	10.82	1279225	15.75
07	SS240	1711363	9.62	1711793	10.83	1299117	15.75
08	SS241	1736270	9.62	1701601	10.83	1300957	15.74
09	5281-003DIL	1676188	9.64	1733101	10.85	1217135	15.76
10	5281-008DIL	1704281	9.65	1719001	10.86	1228472	15.76
11	5281-009DIL	1639965	9.65	1682438	10.83	1245481	15.74
12	5281-013DIL	1688313	9.62	1677970	10.82	1266277	15.73
13	5281-014DIL	1657692	9.64	1660929	10.82	1243799	15.73
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): I0671.D

Date Analyzed: 08/08/2001

Instrument ID: MSD_I

Time Analyzed: 23:47

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	1685523		9.61		1685391		10.80		1329814		15.71	
	UPPER LIMIT	3371046		10.11		3370782		11.30		2659628		16.21	
	LOWER LIMIT	842761.5		9.11		842695.5		10.30		664907		15.21	
	LAB SAMPLE ID												
01	METHOD_BLK	1712137		9.63		1708448		10.81		1353343		15.71	
02	BLK_SPK	1691228		9.62		1719326		10.81		1362505		15.70	
03	5415-001	1764501		9.60		1764858		10.81		1380499		15.69	
04	5188-001	1694534		9.60		1764630		10.80		1382653		15.69	
05	5449-001	1756043		9.60		1741697		10.80		1365996		15.69	
06	5449-002	1740370		9.62		1743497		10.80		1373866		15.70	
07	5449-003	1704555		9.62		1737311		10.80		1348553		15.70	
08	5449-004	1689804		9.61		1736971		10.81		1332170		15.70	
09	5449-005	1807592		9.59		1796497		10.79		1434286		15.70	
10	5449-006	1778006		9.59		1828790		10.79		1440351		15.69	
11	5189-039	1810911		9.59		1815454		10.79		1456437		15.67	
12	5281-011	1794902		9.58		1786987		10.79		1446055		15.68	
13	5281-012	1839598		9.58		1847006		10.77		1466744		15.67	
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE METHANOL PRESERVATION CONTAINER SUMMARY

Sample ID	Client ID	Bottle ID	Date Prepared	Inital Wgt.(g)	Final Wgt.(g)	Sample Wgt.(g)	MeOH Lot #	Surrogate Lot #
5281-001	S-118	108773	7/31/01	103.6	112.3	8.7	cc226	ls200
5281-002	S-119	108779	7/31/01	104.0	113.8	9.8	cc226	ls200
5281-003	S-120	108772	7/31/01	104.1	114.2	10.0	cc226	ls200
5281-004	S-121	108778	7/31/01	105.1	114.3	9.2	cc226	ls200
5281-005	S-122A	108776	7/31/01	104.1	112.9	8.7	cc226	ls200
5281-006	S-122B	108777	7/31/01	104.2	114.5	10.3	cc226	ls200
5281-007	S-123	108771	7/31/01	104.4	114.4	10.1	cc226	ls200
5281-008	S-124A	108764	7/31/01	103.8	114.4	10.6	cc226	ls200
5281-009	S-124B	108770	7/31/01	104.9	114.5	9.7	cc226	ls200
5281-010	S-125	108765	7/31/01	103.9	113.3	9.3	cc226	ls200
5281-011	S-126	108766	7/31/01	103.9	113.0	9.1	cc226	ls200
5281-012	S-127	108774	7/31/01	103.9	112.9	9.0	cc226	ls200
5281-013	S-128	108775	7/31/01	105.2	114.4	9.2	cc226	ls200
5281-014	S-129	108768	7/31/01	104.5	112.9	8.4	cc226	ls200
5281-015	S-130	108769	7/31/01	104.1	114.4	10.3	cc226	ls200

Limits : Sample Weight = 8 to 12 grams, * = Outside limits

Comments : _____

_____

_____

Sample weight is reported on a wet weight basis

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0606.D
Acq On : 5 Aug 2001 13:08
Sample : S-118,5281-001,M,0.003g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10
MS Integration Params: rteint.p
Quant Time: Aug 7 13:55 2001

Vial: 5
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.64	168	1798765	50.00	UG	-0.02
31) 1,4-Difluorobenzene	10.83	114	1702023	50.00	UG	-0.04
50) Chlorobenzene-d5	15.75	117	1269477	50.00	UG	-0.05
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.12	65	65271	4.05	UG	-0.03
Spiked Amount 50.000	Range 36 - 115		Recovery =	8.10%#		
41) Toluene-d8	13.29	98	117365	4.19	UG	-0.04
Spiked Amount 50.000	Range 35 - 117		Recovery =	8.38%#		
59) Bromofluorobenzene	17.82	95	114906	4.49	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery =	8.98%#		
Target Compounds						Qvalue
25) Chloroform	9.30	83	52161	2.33	UG	100
32) Benzene	10.24	78	1910769	81.90	UG	100
42) Toluene	13.39	92	1836139	113.22	UG	99
72) 1,4-Dichlorobenzene	20.00	146	356791	17.83	UG #	85
74) 1,2-Dichlorobenzene	20.69	146	3221400	178.31	UG	100

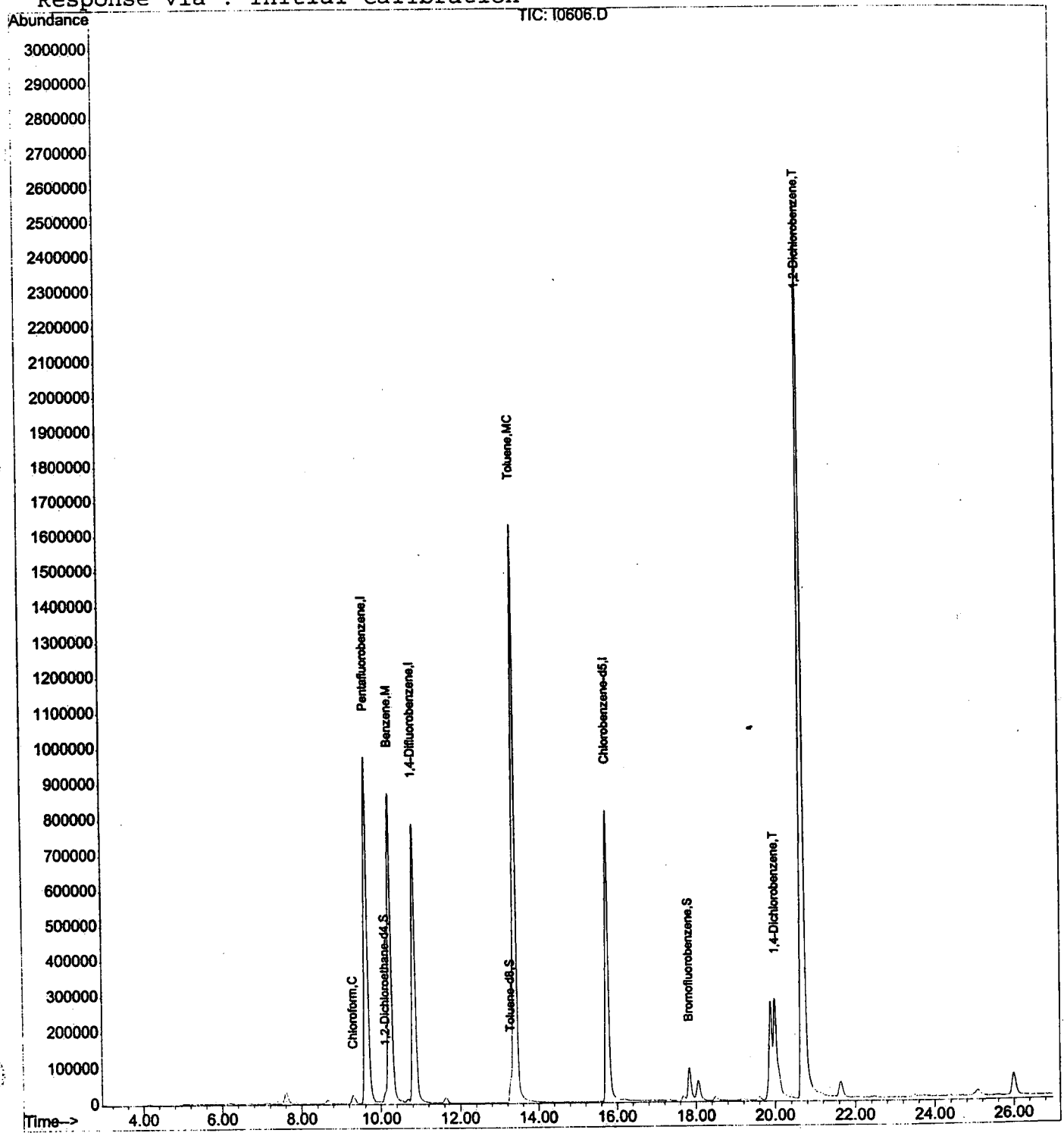
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0606.D
Acq On : 5 Aug 2001 13:08
Sample : S-118,5281-001,M,0.003g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10
MS Integration Params: rteint.p
Quant Time: Aug 7 13:55 2001

Vial: 5
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



ONRE

2039

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0606.D
Acq On : 5 Aug 2001 13:08
Sample : S-118,5281-001,M,0.003g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10
IS Integration Params: LSCINT.P

Vial: 5
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

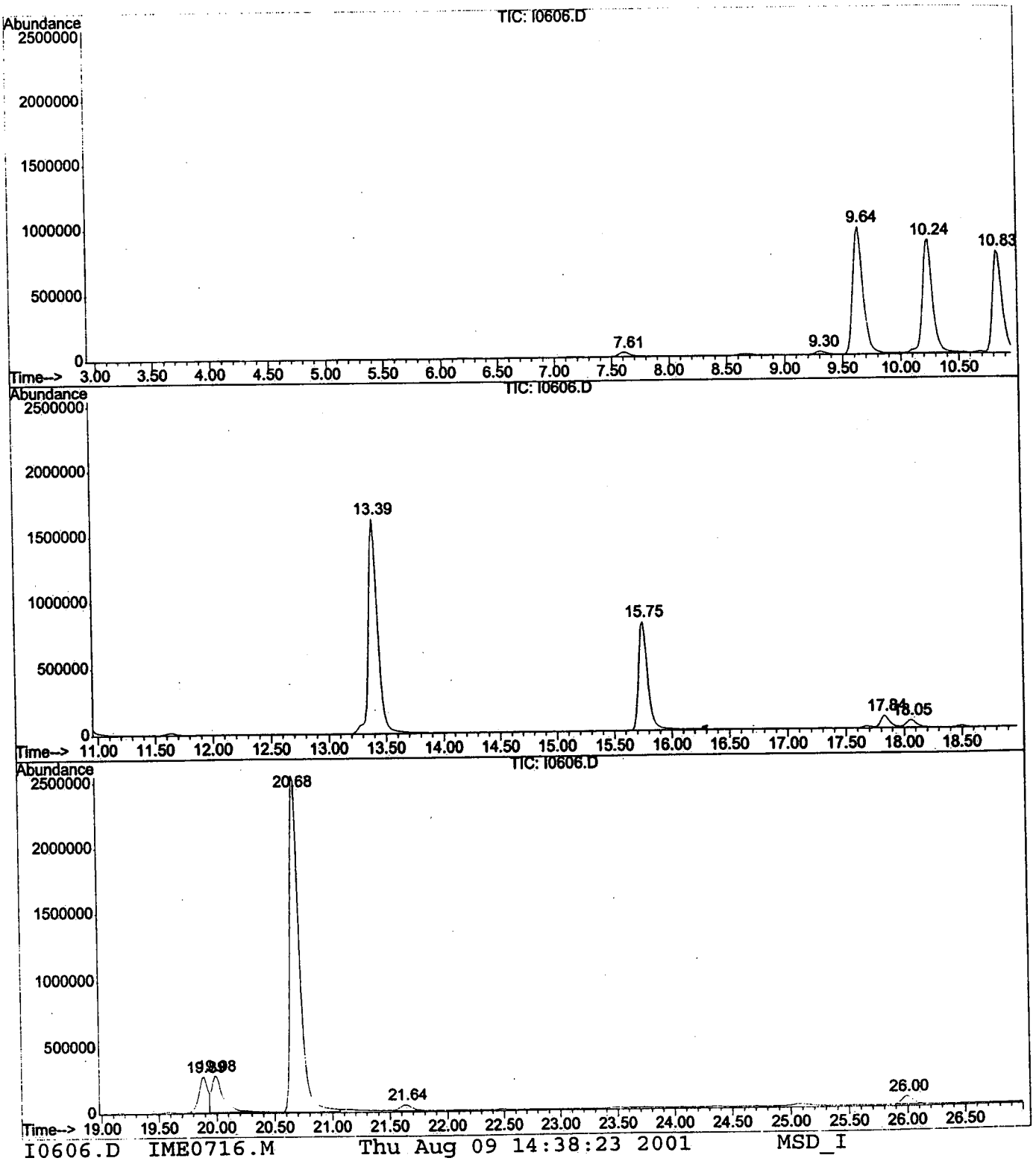
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.615	302	311	323	rBV	33413	235679	1.62%	0.480%
2	9.302	414	420	430	rBV	25385	147132	1.01%	0.299%
3	9.638	433	442	456	rBV	974763	5926063	40.81%	12.062%
4	10.240	467	481	495	rBV	868774	5221028	35.95%	10.627%
5	10.829	512	519	542	rVB	783255	4508761	31.05%	9.177%
6	13.395	672	685	709	rBV	1630949	8966725	61.75%	18.251%
7	15.752	830	838	862	rBV	819464	4516142	31.10%	9.192%
8	17.835	967	973	981	rVV	93159	532848	3.67%	1.085%
9	18.052	981	987	1003	rVB2	58117	380082	2.62%	0.774%
10	19.893	1094	1106	1109	rBV	276862	1559593	10.74%	3.174%
11	19.985	1109	1112	1135	rVB2	278380	1877041	12.93%	3.821%
12	20.679	1150	1157	1182	rBV	2546621	14521649	100.00%	29.558%
13	21.637	1212	1219	1229	rVB	44937	304648	2.10%	0.620%
14	25.996	1493	1501	1511	rBV3	63909	431593	2.97%	0.878%

Sum of corrected areas: 49128984

I0606.D IME0716.M Thu Aug 09 14:38:23 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-06-01\I0606.D
Operator : DP
Acquired : 5 Aug 2001 13:08 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-118,5281-001,M,0.003g
Misc Info : ENVTAC/ORBIS,08/02/01,08/02/01,10
Vial Number: 5
Quant File :IME0716.RES (RTE Integrator)



I0606.D IME0716.M Thu Aug 09 14:38:23 2001 MSD_I

0090

2041

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0606.D
Acq On : 5 Aug 2001 13:08
Sample : S-118,5281-001,M,0.003g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 5
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

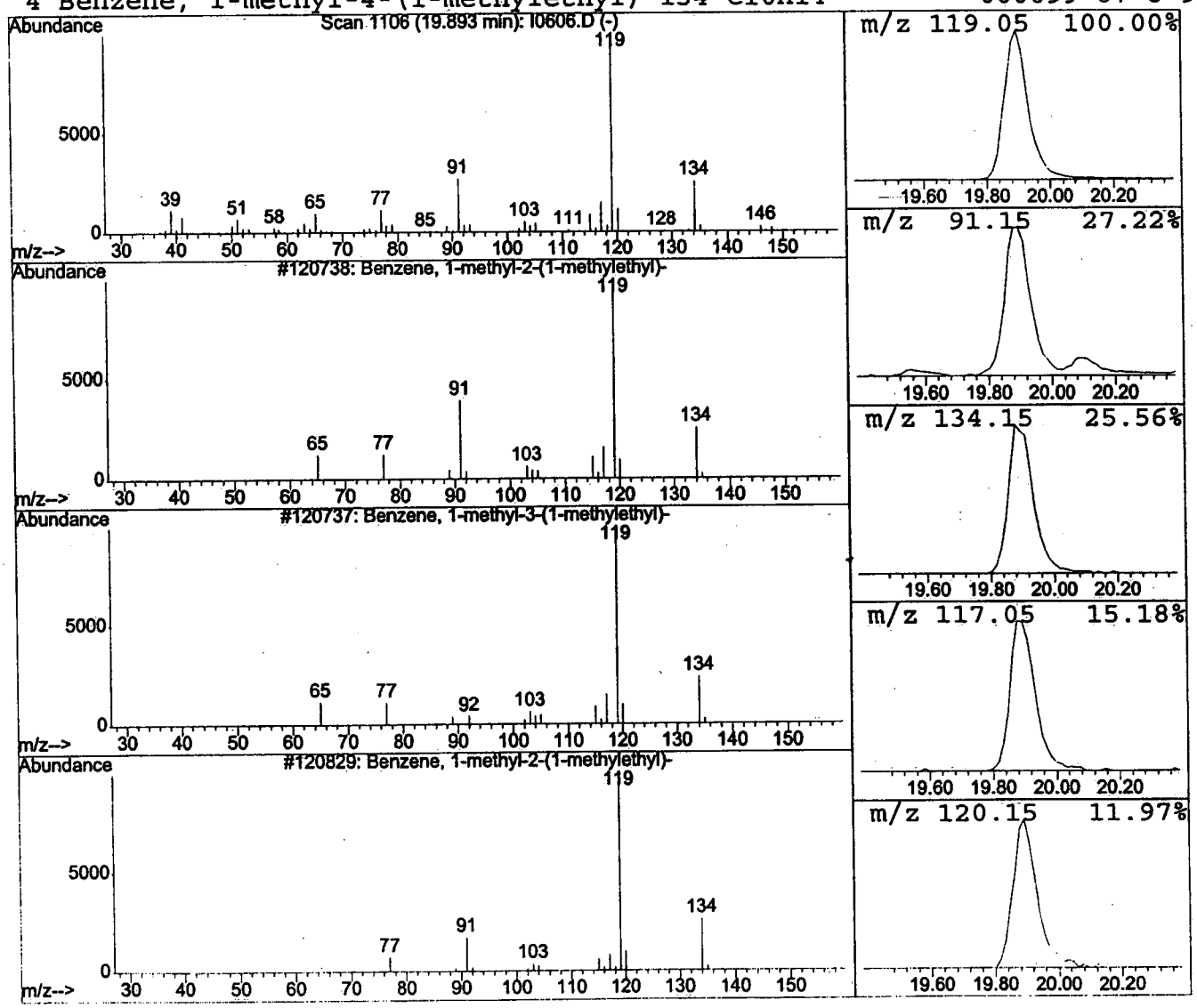
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.89	17.27 UG	1559590	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	96
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	93



2042

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D Vial: 11
Acq On : 3 Aug 2001 16:01 Operator: DP
Sample : S-119,5281-002,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:32 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

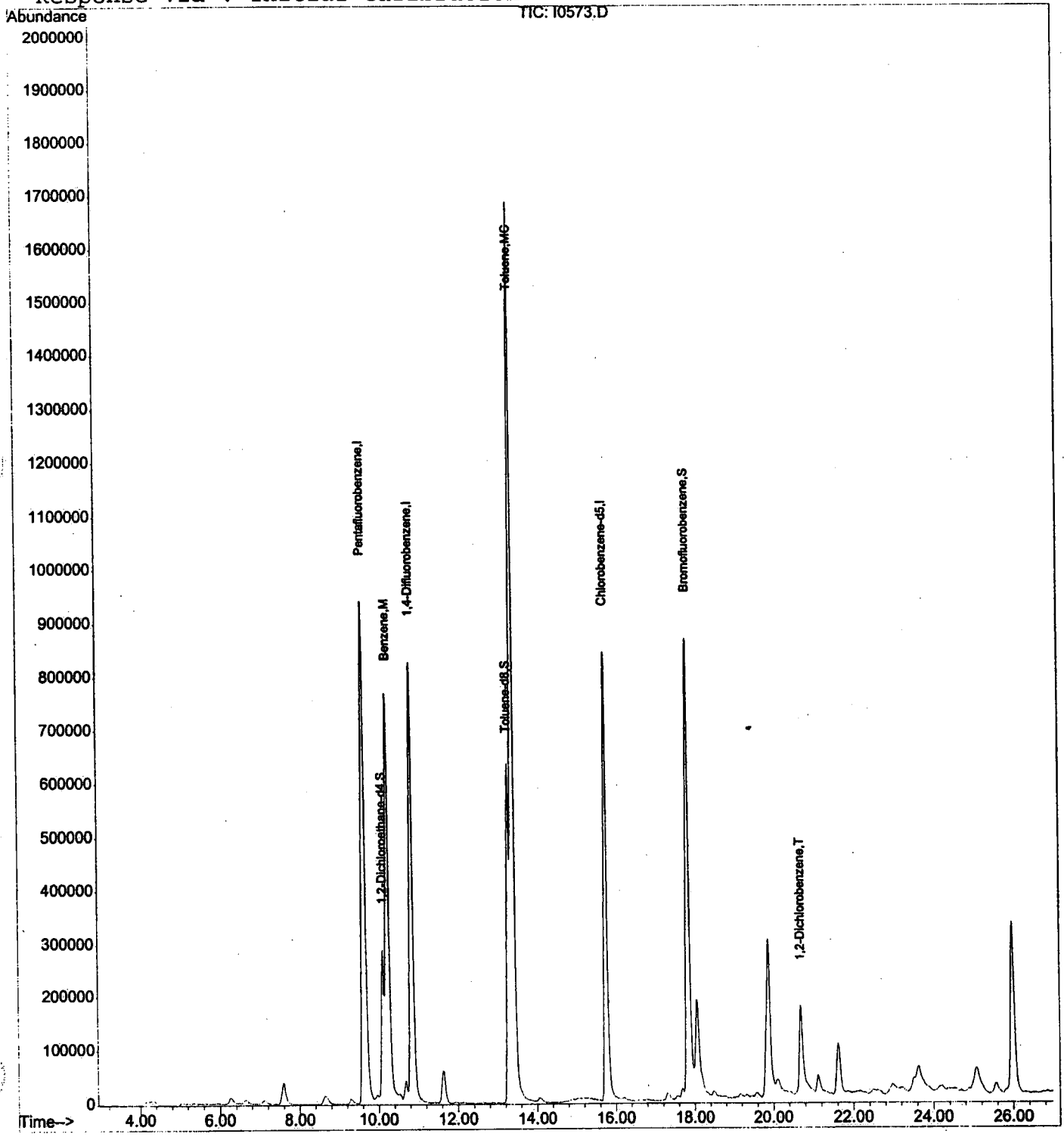
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.63	168	1777445	50.00	UG		-0.03
31) 1,4-Difluorobenzene	10.84	114	1757209	50.00	UG		-0.04
50) Chlorobenzene-d5	15.75	117	1288483	50.00	UG		-0.05
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.12	65	575941	36.15	UG		-0.03
Spiked Amount 50.000	Range 36 - 115		Recovery = 72.30%				
41) Toluene-d8	13.28	98	1089409	37.70	UG		-0.05
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.40%				
59) Bromofluorobenzene	17.83	95	952336	36.67	UG		-0.04
Spiked Amount 50.000	Range 47 - 115		Recovery = 73.34%				
Target Compounds							Qvalue
32) Benzene	10.24	78	1638045	68.01	UG		100
42) Toluene	13.40	92	1942964	116.05	UG		98
74) 1,2-Dichlorobenzene	20.69	146	231237	12.61	UG	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D Vial: 11
Acq On : 3 Aug 2001 16:01 Operator: DP
Sample : S-119,5281-002,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:32 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2044

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D
Acq On : 3 Aug 2001 16:01
Sample : S-119,5281-002,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 11
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

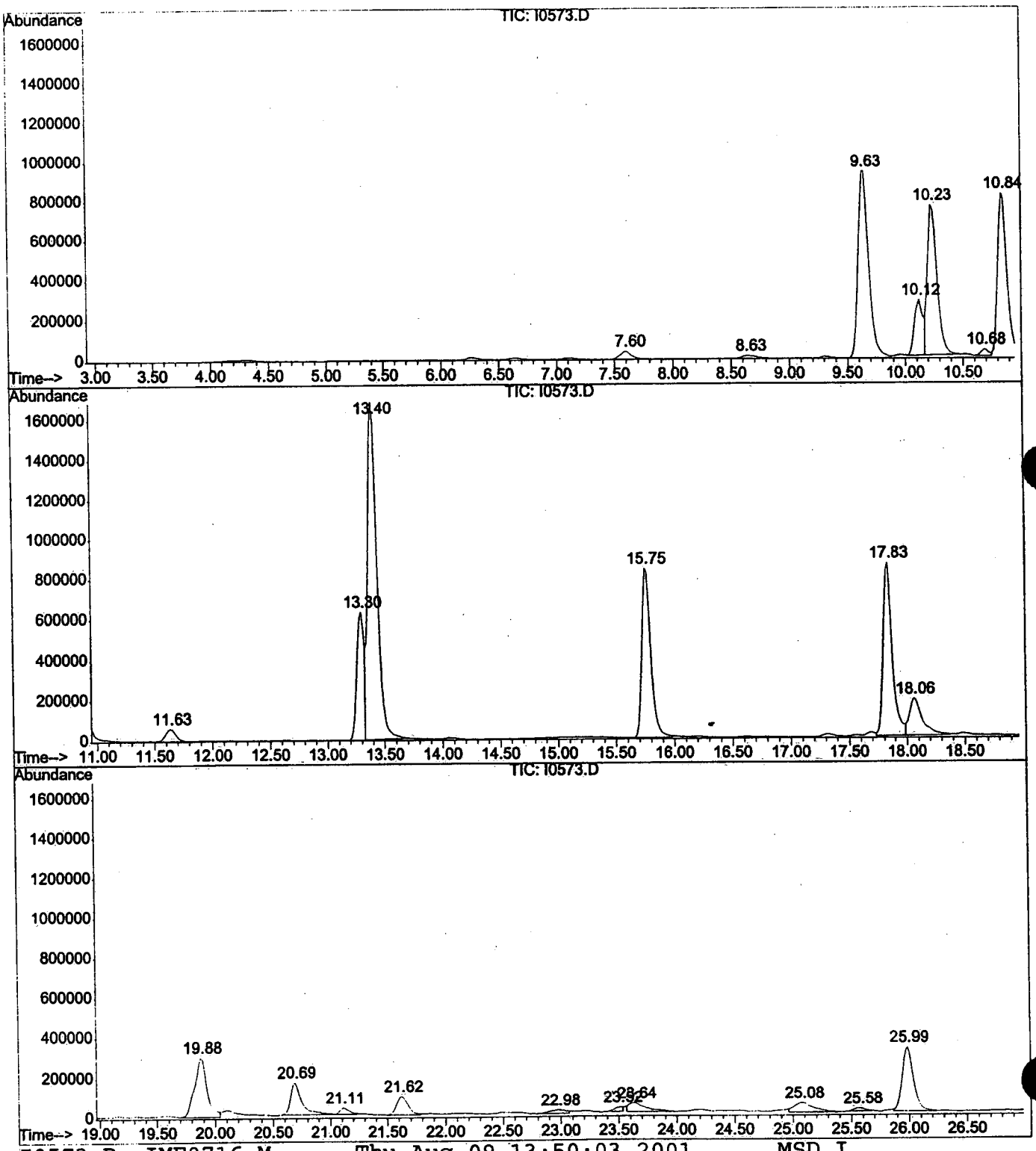
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.599	300	310	325	rBV2	39498	266290	2.82%	0.552%
2	8.635	370	377	392	rBV7	15400	131260	1.39%	0.272%
3	9.630	433	442	458	rBV	939835	6018701	63.80%	12.480%
4	10.120	467	474	477	rVV	277172	1430668	15.17%	2.966%
5	10.225	477	481	498	rVB	751558	4312939	45.72%	8.943%
6	10.684	506	511	515	rBV	33732	158905	1.68%	0.329%
7	10.837	515	521	536	rVB	817239	4596034	48.72%	9.530%
8	11.633	564	573	584	rVB2	60783	384884	4.08%	0.798%
9	13.295	671	681	683	rBV	634066	2926790	31.03%	6.069%
10	13.401	683	688	709	rVB	1683042	9433515	100.00%	19.560%
11	15.750	833	841	856	rBV	840162	4556599	48.30%	9.448%
12	17.834	970	977	987	rVV	861267	4801266	50.90%	9.955%
13	18.058	987	992	1013	rVV	181766	1403535	14.88%	2.910%
14	19.877	1099	1111	1122	rBV3	297919	2231858	23.66%	4.628%
15	20.690	1157	1165	1188	rBV	163401	1139546	12.08%	2.363%
16	21.110	1188	1193	1201	rBV2	32853	176058	1.87%	0.365%
17	21.623	1219	1227	1238	rBV	95500	647920	6.87%	1.343%
18	22.979	1307	1317	1323	rBV	18228	169913	1.80%	0.352%
19	23.520	1345	1353	1354	rBV8	23399	119003	1.26%	0.247%
20	23.640	1356	1361	1384	rVB7	46025	470196	4.98%	0.975%
21	25.082	1449	1457	1478	rVB2	49876	575845	6.10%	1.194%
22	25.581	1483	1490	1496	rBV6	17064	112629	1.19%	0.234%
23	25.988	1509	1517	1534	rVB	321255	2163524	22.93%	4.486%

Sum of corrected areas: 48227878

I0573.D IME0716.M Thu Aug 09 13:50:03 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0573.D
Operator : DP
Acquired : 3 Aug 2001 16:01 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-119,5281-002,M,0.039g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 11
Quant File :IME0716.RES (RTE Integrator)



I0573.D IME0716.M Thu Aug 09 13:50:03 2001 MSD_I

2046

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D
Acq On : 3 Aug 2001 16:01
Sample : S-119,5281-002,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 11
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

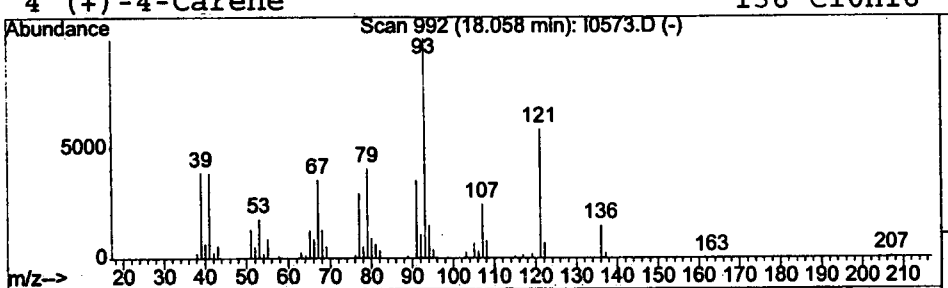
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

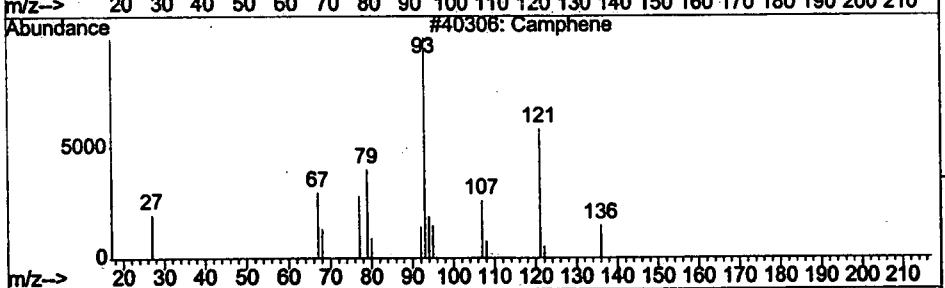
****

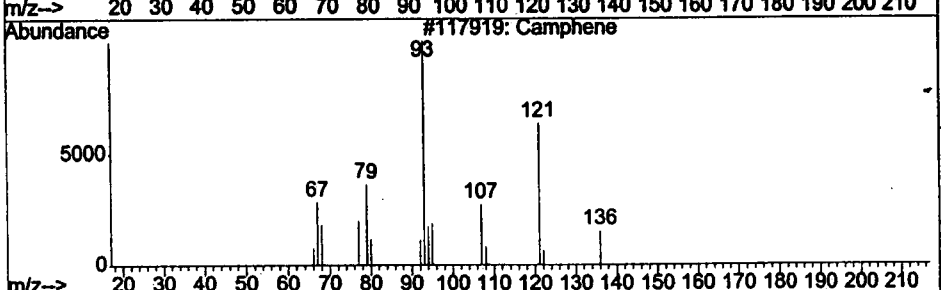
Peak Number 1 Unknown cyclic hydrocarbon Concentration Rank 3

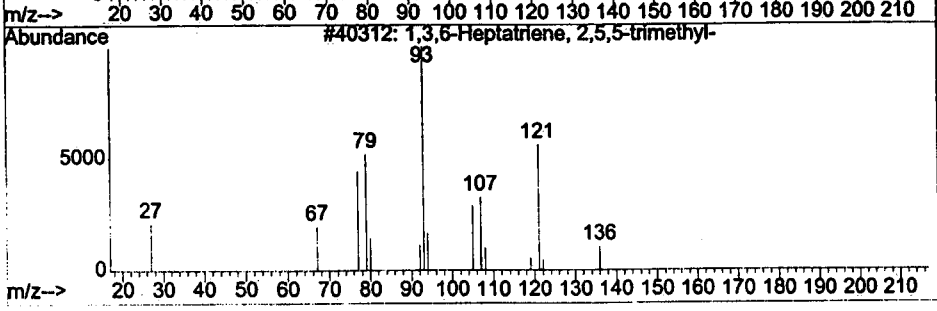
R.T.	EstConc	Area	Relative to ISTD	R.T.
18.06	15.40 UG	1403540	Chlorobenzene-d5	15.75

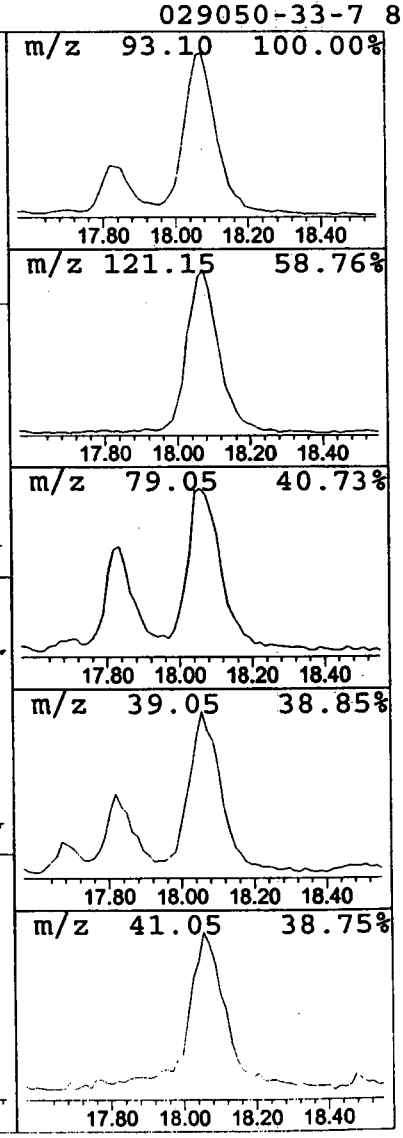
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	94
2	Camphene	136	C10H16	000079-92-5	93
3	1,3,6-Heptatriene, 2,5,5-trimethyl-	136	C10H16	029548-02-5	91
4	(+)-4-Carene	136	C10H16	029050-33-7	83











0096

7047

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D
Acq On : 3 Aug 2001 16:01
Sample : S-119,5281-002,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 11
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

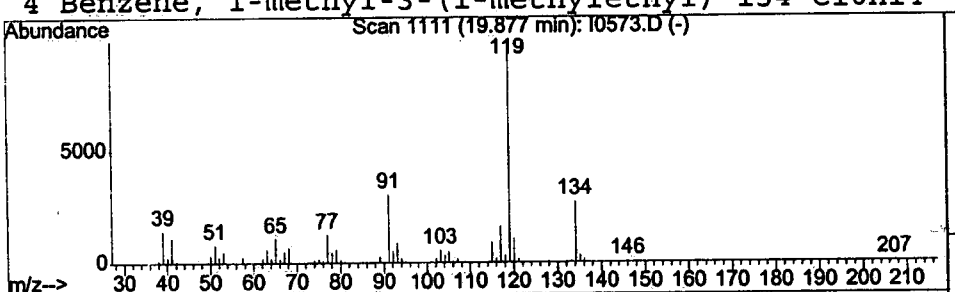
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

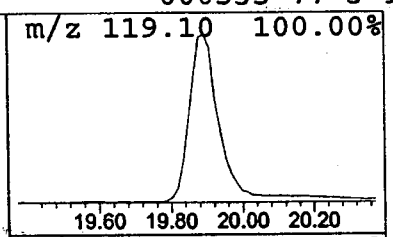
****

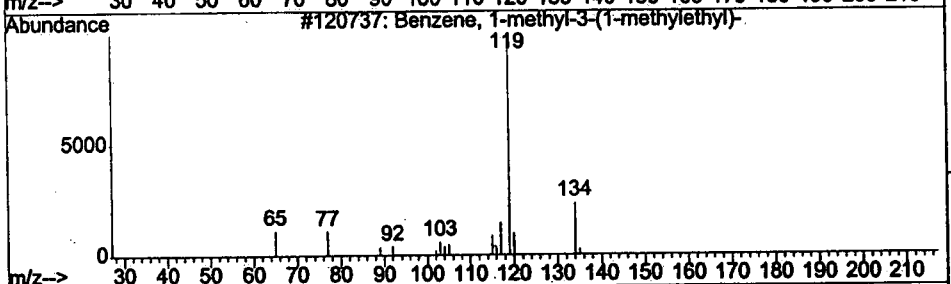
Peak Number 2 Substituted benzene Concentration Rank 1

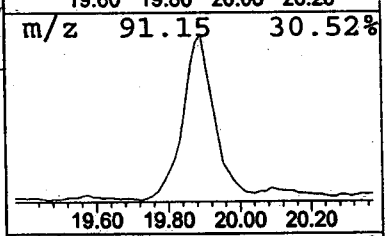
R.T.	EstConc	Area	Relative to ISTD	R.T.
19.88	24.49 UG	2231860	Chlorobenzene-d5	15.75

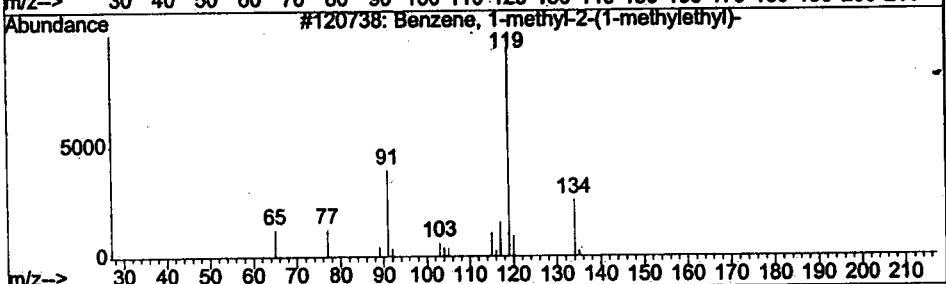
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
2	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	95
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	93

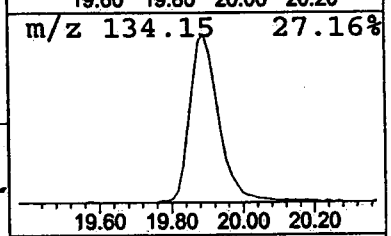


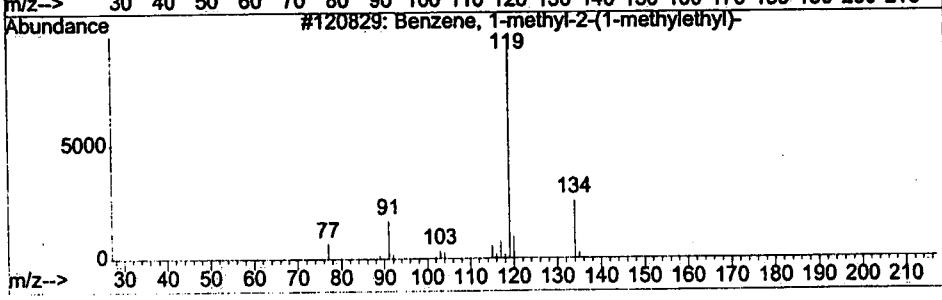


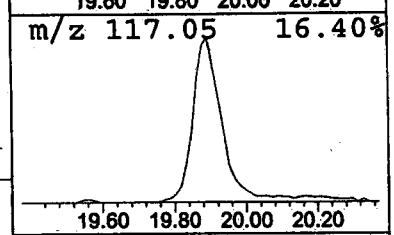


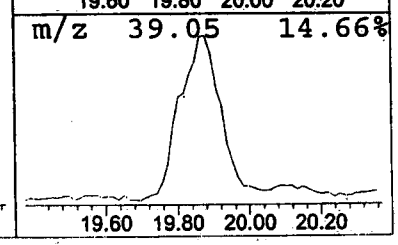












7046

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D
Acq On : 3 Aug 2001 16:01
Sample : S-119,5281-002,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 11
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

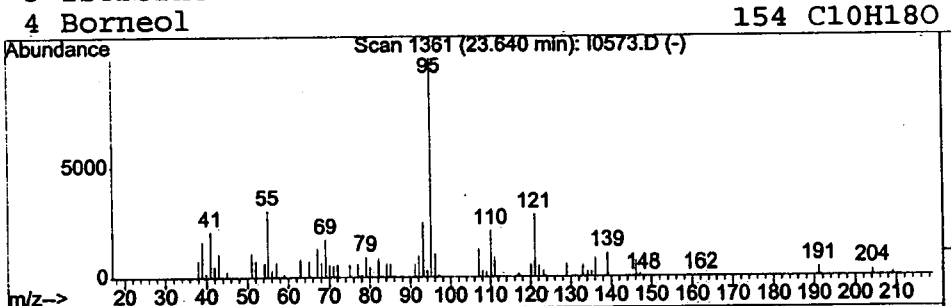
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

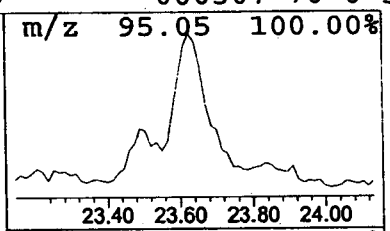
****

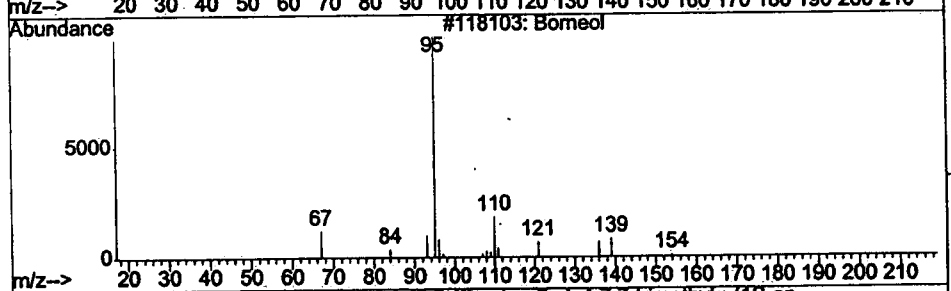
Peak Number 3 Unknown Concentration Rank 6

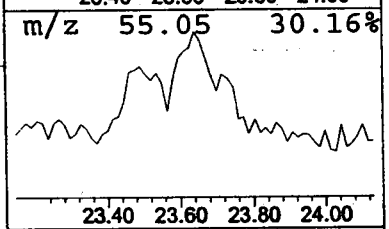
R.T.	EstConc	Area	Relative to ISTD	R.T.
23.64	5.16 UG	470196	Chlorobenzene-d5	15.75

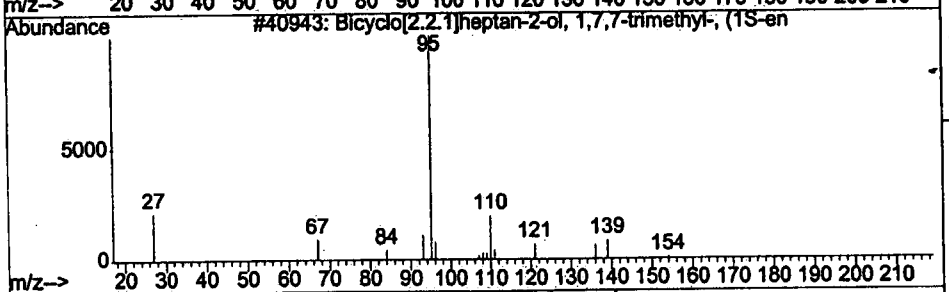
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Borneol	154	C10H18O	010385-78-1	59
2	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-tr	154	C10H18O	000464-45-9	59
3	Isoborneol	154	C10H18O	000124-76-5	59
4	Borneol	154	C10H18O	000507-70-0	59

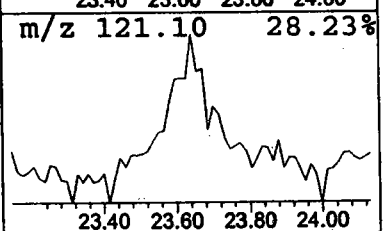


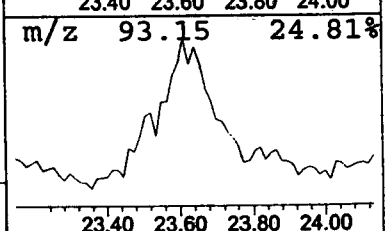


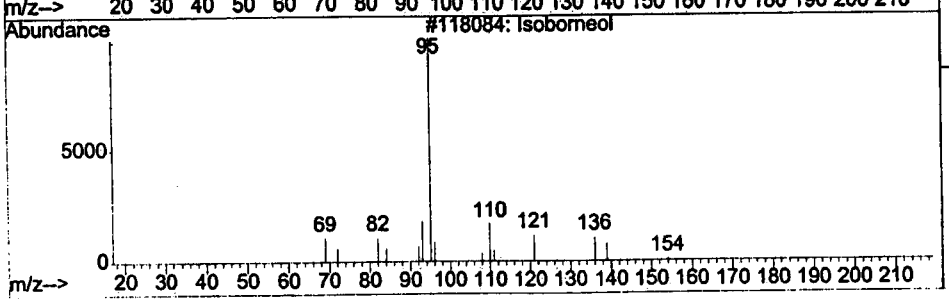


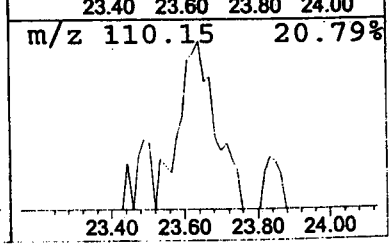












0098

2049

Data File : C:\HPCHEM\1\DATA\08-03-01\I0573.D Vial: 11
Acq On : 3 Aug 2001 16:01 Operator: DP
Sample : S-119,5281-002,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

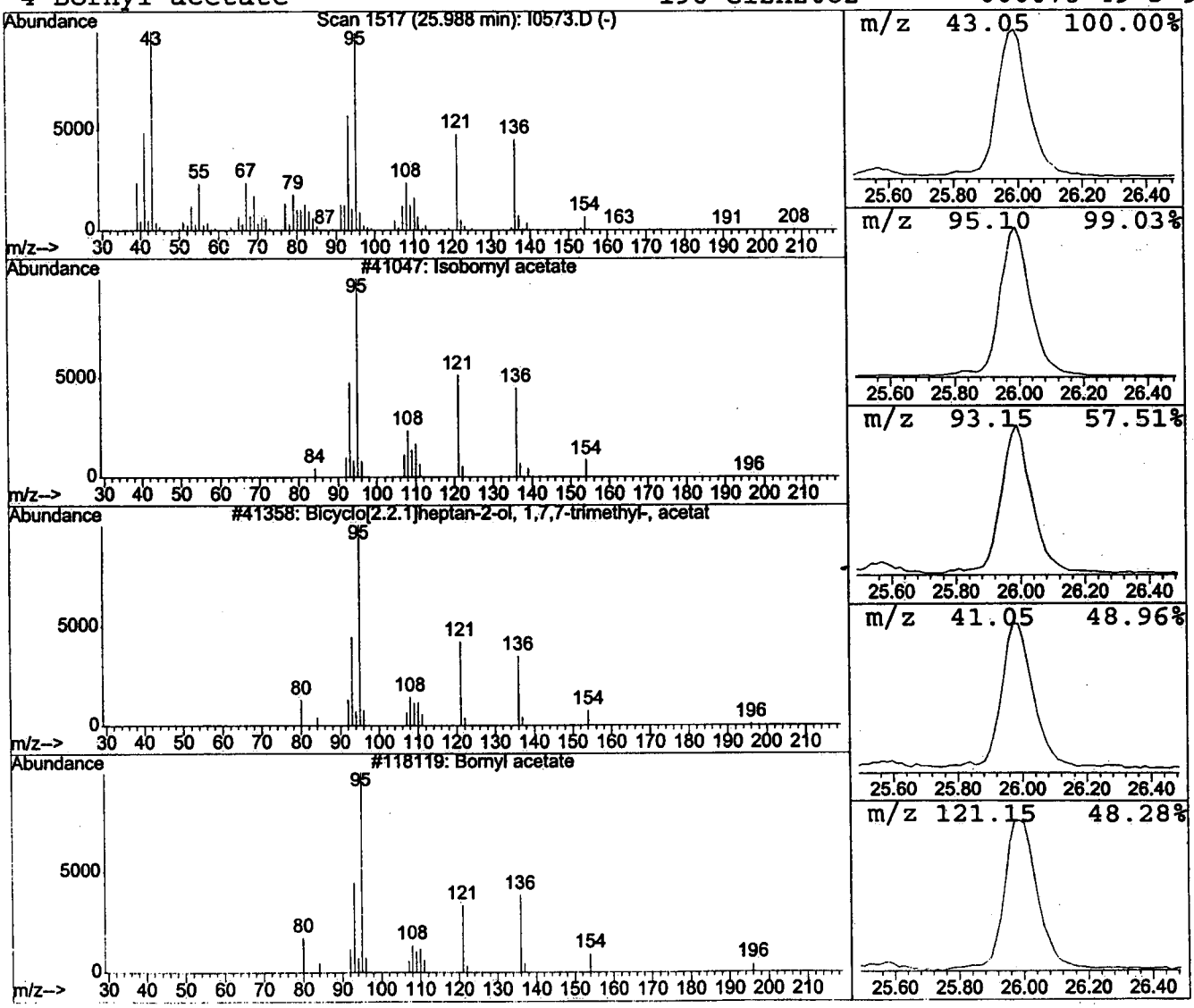
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.99	23.74 UG	2163520	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobornyl acetate	196	C12H20O2	000125-12-2	91
2	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-tr	196	C12H20O2	005655-61-8	91
3	Bornyl acetate	196	C12H20O2	000076-49-3	91
4	Bornyl acetate	196	C12H20O2	000076-49-3	91



0095

2050

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D Vial: 12
Acq On : 3 Aug 2001 16:37 Operator: DP
Sample : S-120,5281-003,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 13:55 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

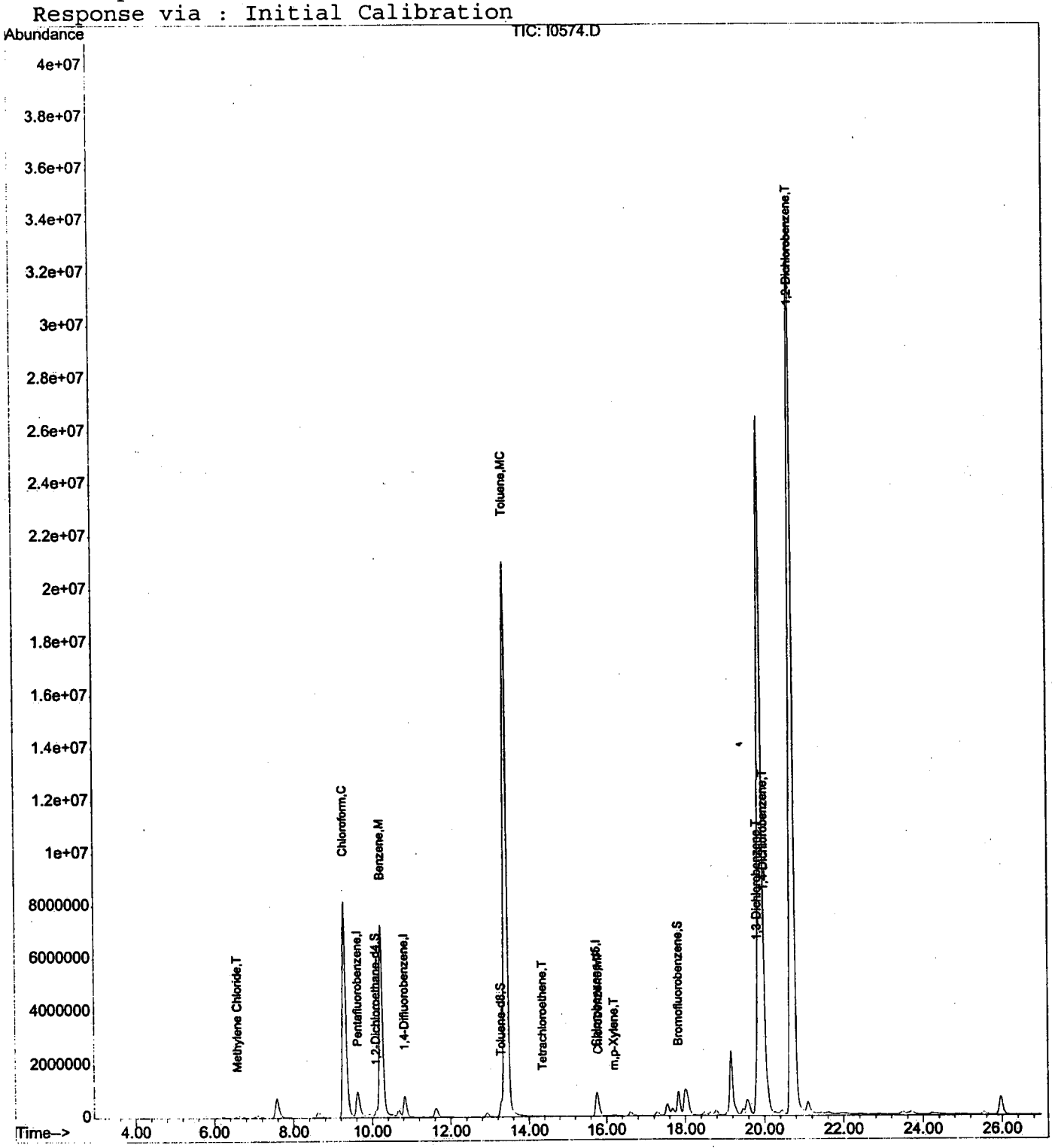
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.64	168	1743295	50.00	UG	-0.02
31) 1,4-Difluorobenzene	10.83	114	1683421	50.00	UG	-0.04
50) Chlorobenzene-d5	15.75	117	1287755	50.00	UG	-0.05
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.10	65	639934	40.95	UG	-0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 81.90%			
41) Toluene-d8	13.29	98	1065860	38.50	UG	-0.03
Spiked Amount 50.000	Range 35 - 117		Recovery = 77.00%			
59) Bromofluorobenzene	17.82	95	1045115	40.26	UG	-0.05
Spiked Amount 50.000	Range 47 - 115		Recovery = 80.52%			
Target Compounds						Qvalue
13) Methylene Chloride	6.59	84	30069	3.29	UG	# 48
25) Chloroform	9.30	83	18380167	848.20	UG	99
32) Benzene	10.23	78	14823948	642.42	UG	100
42) Toluene	13.42	92	28314834	1765.30	UG	90
45) Tetrachloroethene	14.36	166	39599	3.12	UG	# 79
51) Chlorobenzene	15.80	112	336064	14.81	UG	# 72
54) m,p-Xylene	16.20	106	34289	2.82	UG	98
70) 1,3-Dichlorobenzene	19.83	146	1404460	72.10	UG	# 86
72) 1,4-Dichlorobenzene	20.00	146	4819453	237.38	UG	# 86
74) 1,2-Dichlorobenzene	20.72	146	47272364	2579.50	UG	# 73

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D Vial: 12
Acq On : 3 Aug 2001 16:37 Operator: DP
Sample : S-120,5281-003,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 13:55 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2052

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

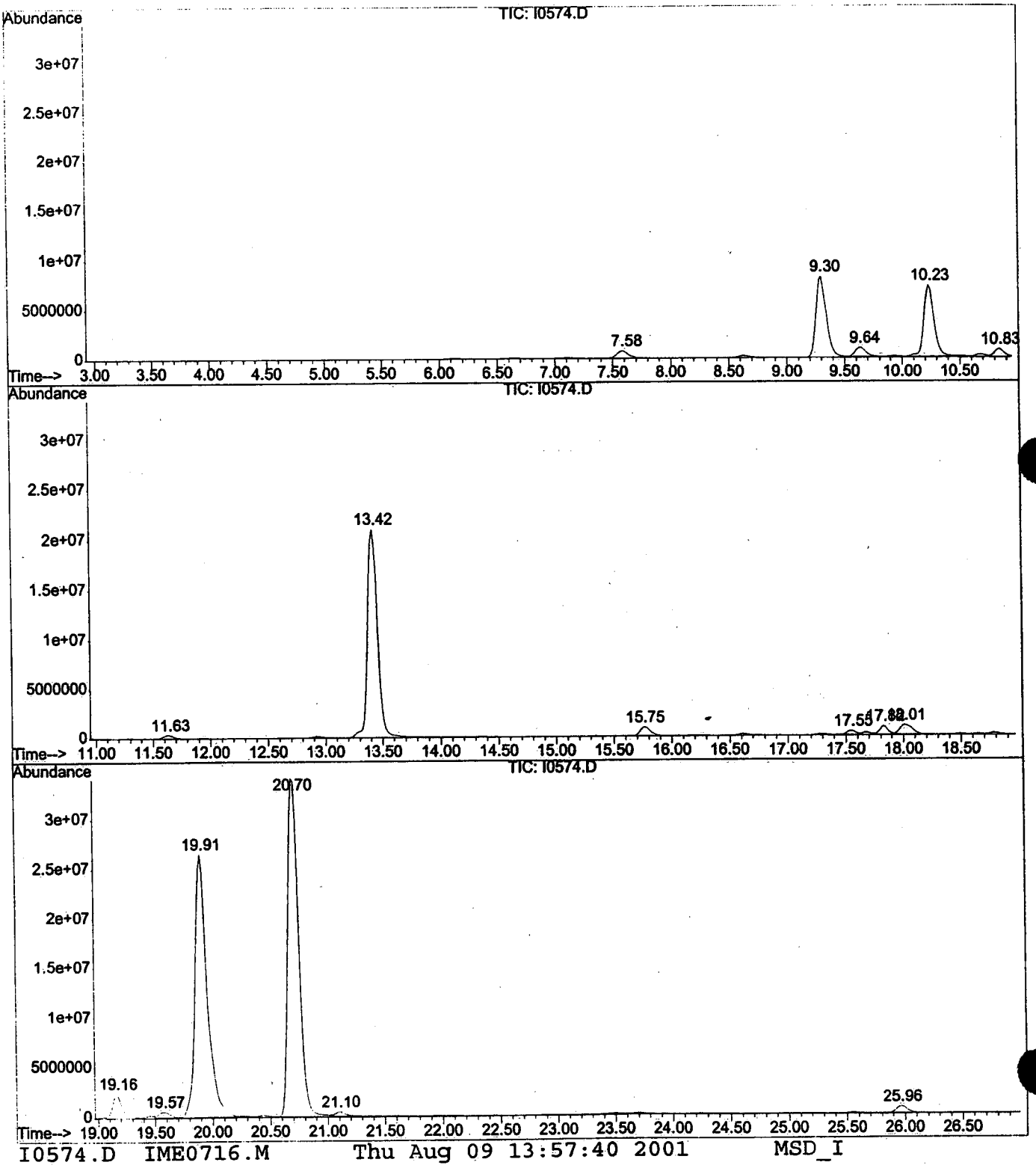
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.584	297	308	328	rBV	769670	5256269	2.33%	0.742%
2	9.298	409	419	433	rBV	8160957	50051604	22.22%	7.063%
3	9.637	433	441	453	rVV	953776	6356167	2.82%	0.897%
4	10.228	466	479	495	rBV	7191406	43820914	19.46%	6.184%
5	10.833	513	518	542	rVB	824283	4707917	2.09%	0.664%
6	11.635	561	570	583	rVB	352460	2273626	1.01%	0.321%
7	13.416	668	685	723	rBV	21029462	128370990	57.00%	18.116%
8	15.751	829	836	849	rBV2	921144	5851085	2.60%	0.826%
9	17.547	945	952	957	rBV2	447421	2570831	1.14%	0.363%
10	17.824	965	970	976	rVV	931269	4828978	2.14%	0.681%
11	18.007	976	982	1002	rVB4	1020233	8157458	3.62%	1.151%
12	19.160	1044	1057	1071	rBV2	2459360	15036840	6.68%	2.122%
13	19.572	1079	1084	1093	rVV4	572027	3979438	1.77%	0.562%
14	19.905	1093	1106	1136	rVV2	26494635	194546818	86.38%	27.454%
15	20.704	1150	1159	1180	rBV	34020450	225210062	100.00%	31.781%
16	21.095	1180	1185	1203	rVB2	450842	3045476	1.35%	0.430%
17	25.962	1498	1507	1523	rBV	683435	4558116	2.02%	0.643%

Sum of corrected areas: 708622589

I0574.D IME0716.M Thu Aug 09 13:57:40 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Operator : DP
Acquired : 3 Aug 2001 16:37 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-120,5281-003,M,0.040g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 12
Quant File :IME0716.RES (RTE Integrator)



I0574.D IME0716.M Thu Aug 09 13:57:40 2001 MSD_I

7.054

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

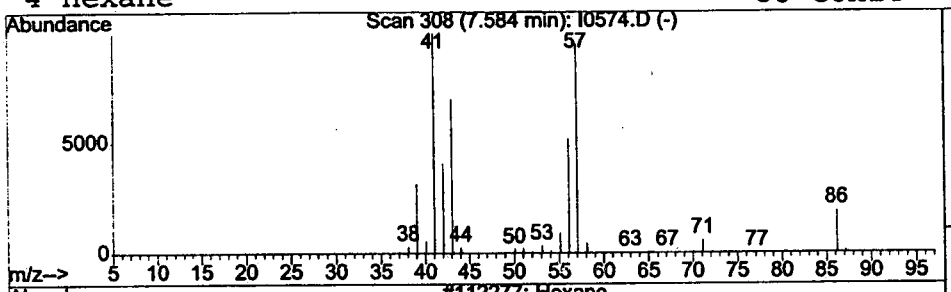
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

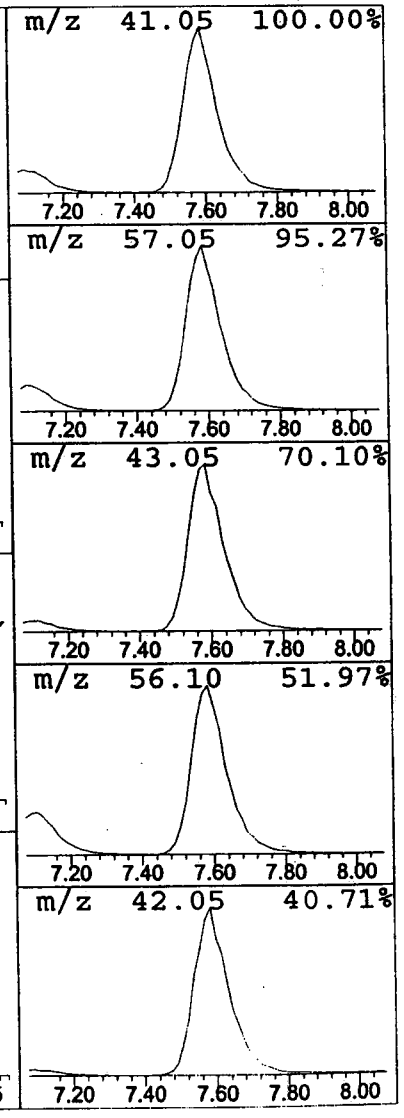
****

Peak Number 1 Unknown alkane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.58	41.35 UG	5256270	Pentafluorobenzene	9.64

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane	86	C6H14	000110-54-3	86
2	Hexane	86	C6H14	000110-54-3	86
3	Hexane	86	C6H14	000110-54-3	72
4	Hexane	86	C6H14	000110-54-3	72





0104

7055

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

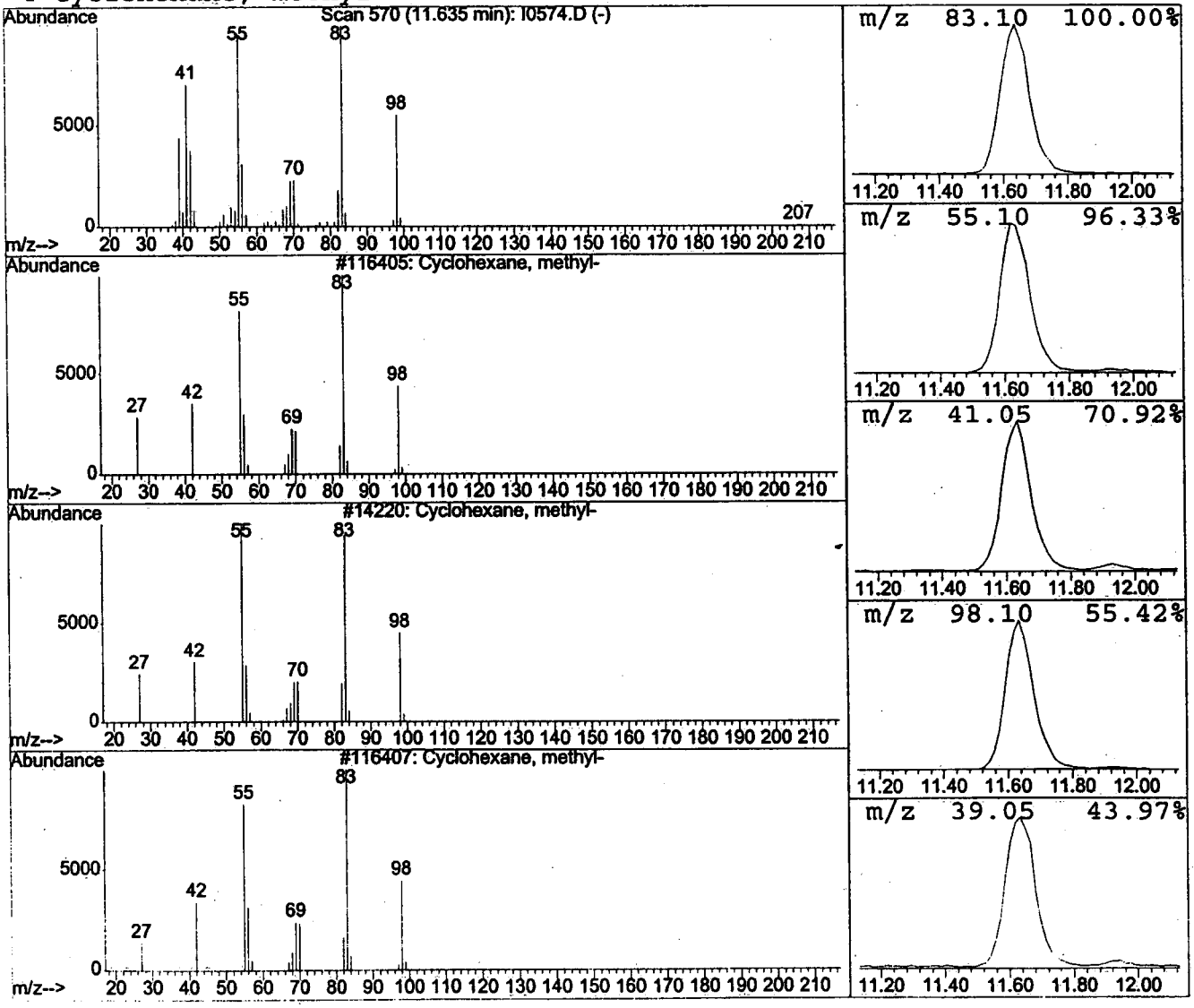
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.63	24.15 UG	2273630	1,4-Difluorobenzene	10.83

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	95



2056

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

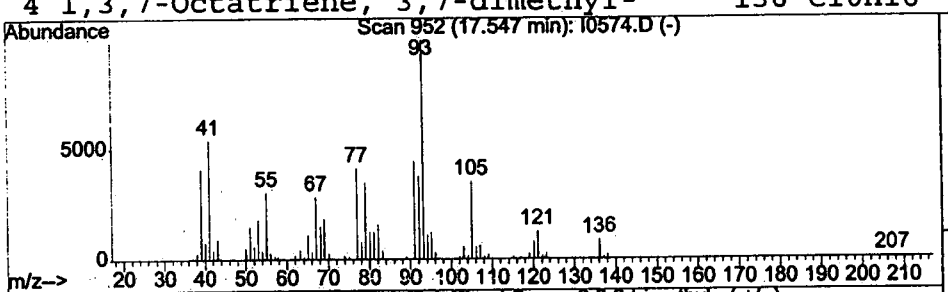
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

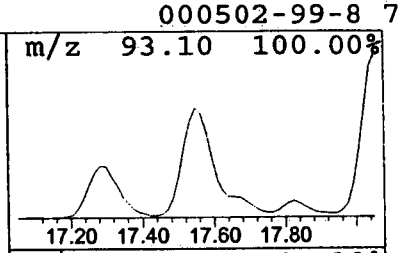
****

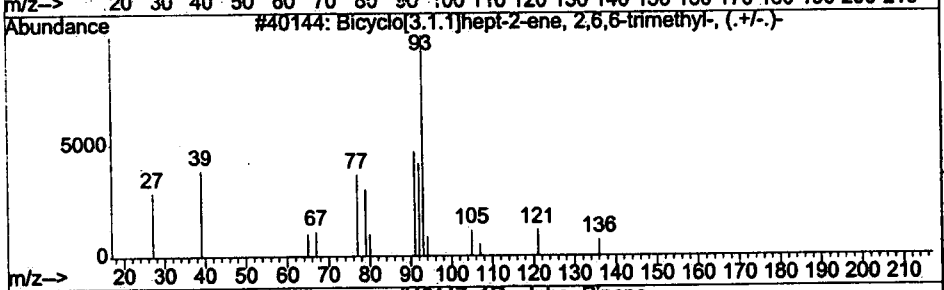
Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 9

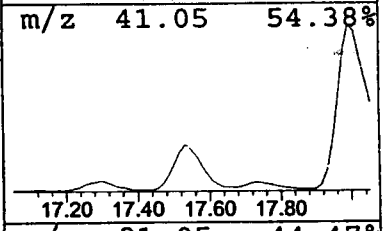
R.T.	EstConc	Area	Relative to ISTD	R.T.
17.55	21.97 UG	2570830	Chlorobenzene-d5	15.75

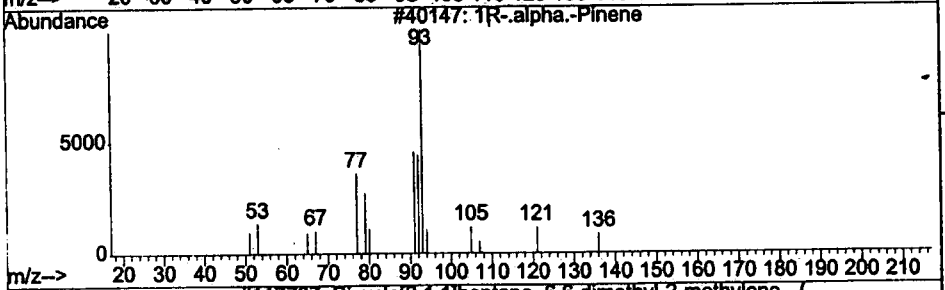
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[3.1.1]hept-2-ene, 2,6,6-tri	136	C10H16	002437-95-8	95
2	1R-.alpha.-Pinene	136	C10H16	007785-70-8	93
3	Bicyclo[3.1.1]heptane, 6,6-dimethyl	136	C10H16	018172-67-3	92
4	1,3,7-Octatriene, 3,7-dimethyl-	136	C10H16	000502-99-8	76

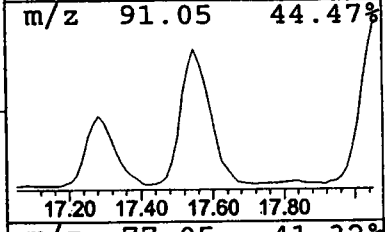


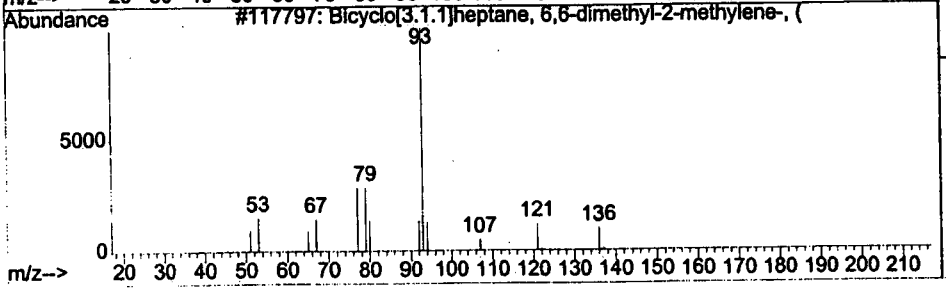


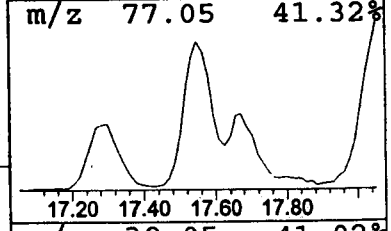


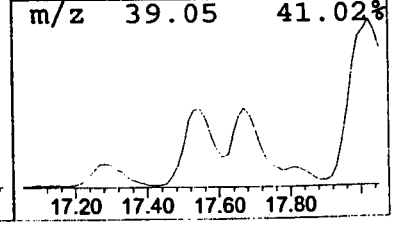












0106

2057

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

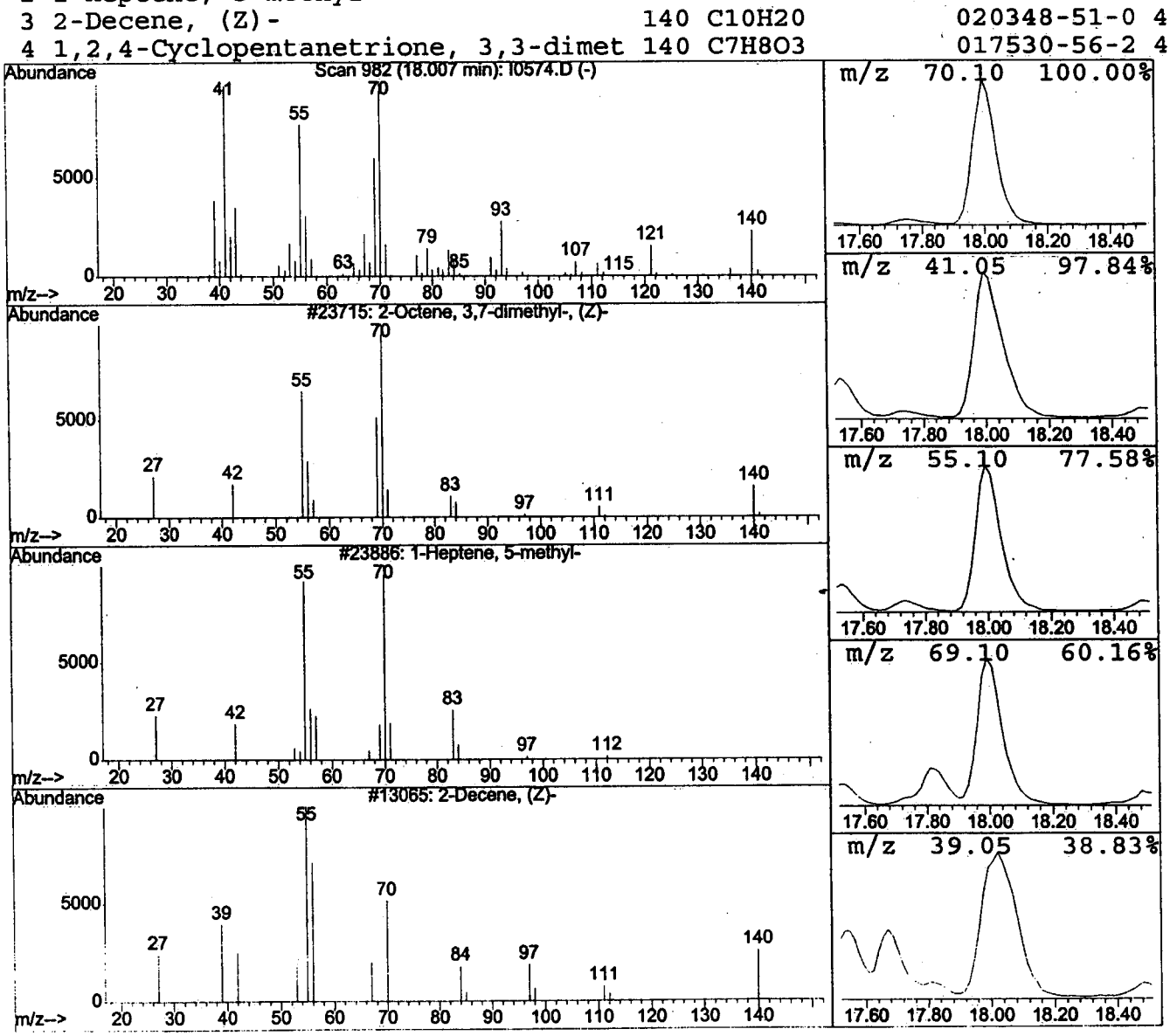
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown alkane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.01	69.71 UG	8157460	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octene, 3,7-dimethyl-, (Z)-	140	C10H20	006874-32-4	93
2	1-Heptene, 5-methyl-	112	C8H16	013151-04-7	53
3	2-Decene, (Z)-	140	C10H20	020348-51-0	49
4	1,2,4-Cyclopentanetrione, 3,3-dimet	140	C7H8O3	017530-56-2	47



2056

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

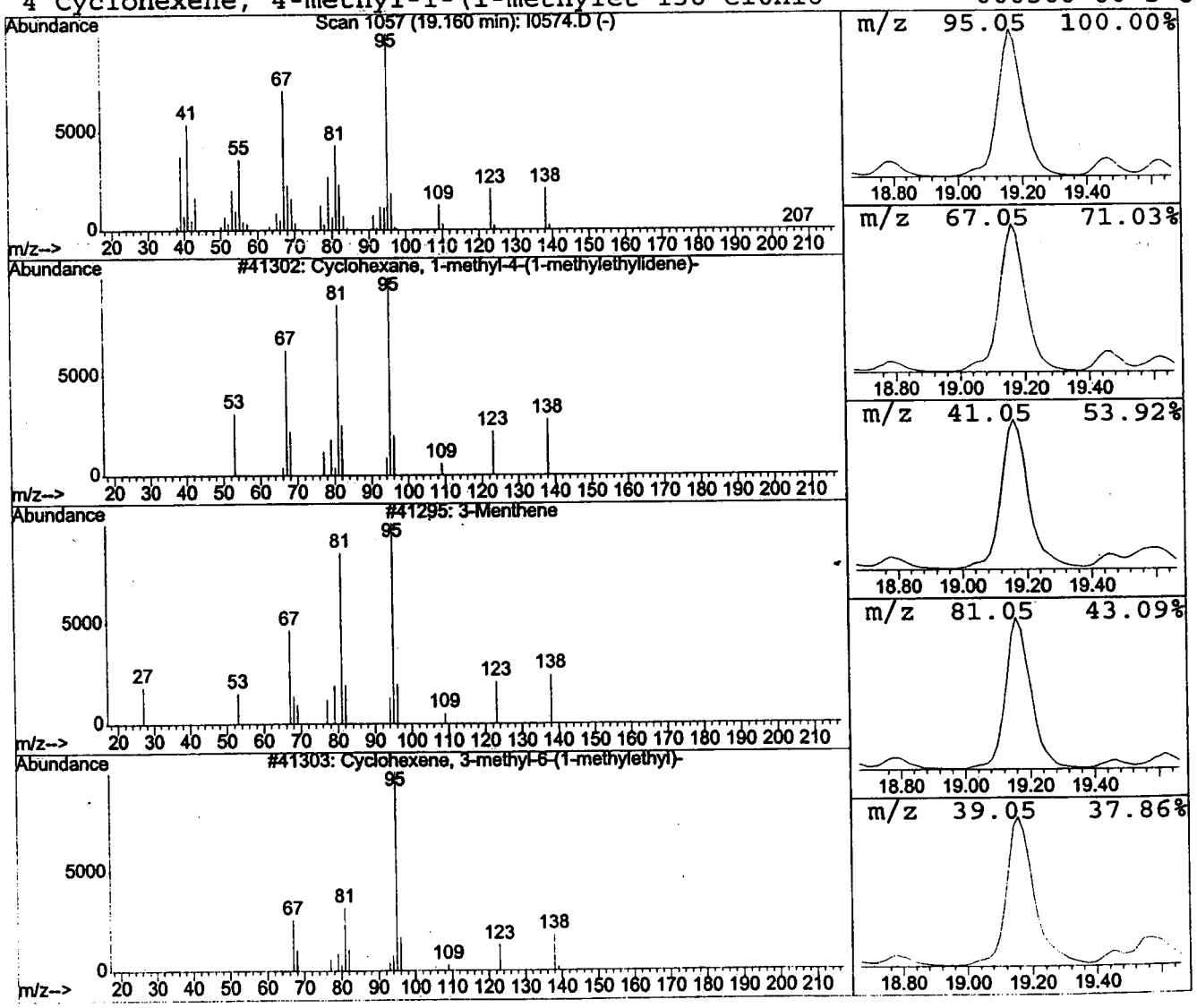
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.16	128.50 UG	15036800	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	93
2	3-Menthene	138	C10H18	1000118-83-1	87
3	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	87
4	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	87



0108

2059

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D
Acq On : 3 Aug 2001 16:37
Sample : S-120,5281-003,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 12
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

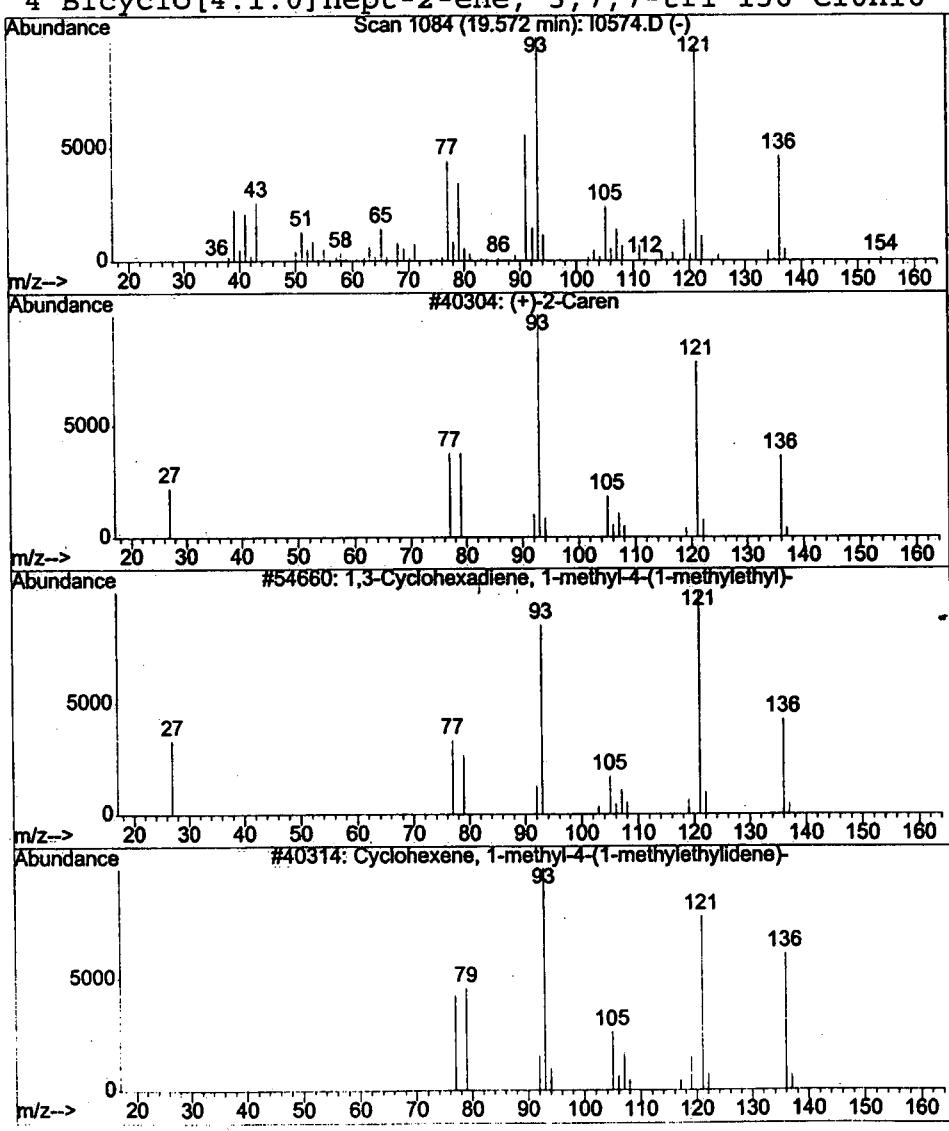
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

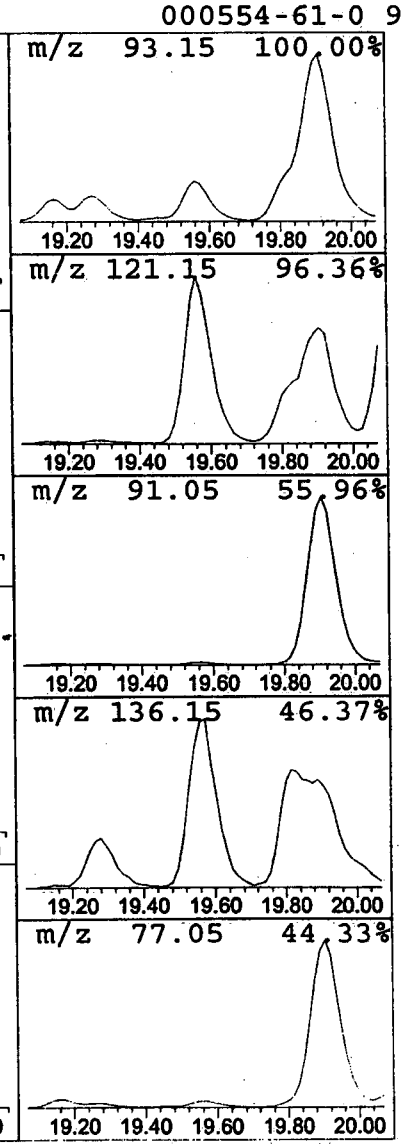
****

Peak Number 6 Unknown cyclic hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.57	34.01 UG	3979440	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(+)-2-Caren	136	C10H16	1000149-94-6	97
2	1,3-Cyclohexadiene, 1-methyl-4-(1-m	136	C10H16	000099-86-5	96
3	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	96
4	Bicyclo[4.1.0]hept-2-ene, 3,7,7-tri	136	C10H16	000554-61-0	95





2060

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D Vial: 12
Acq On : 3 Aug 2001 16:37 Operator: DP
Sample : S-120,5281-003,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

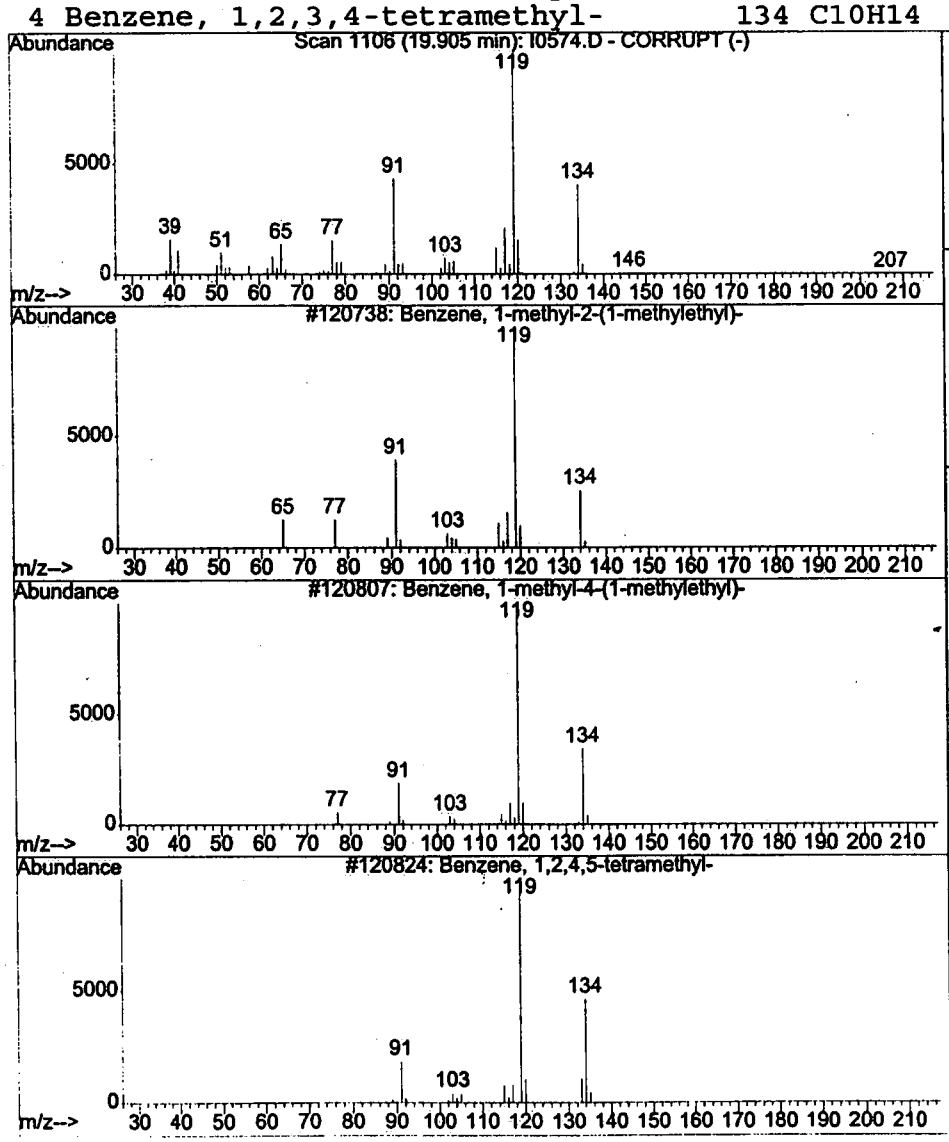
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

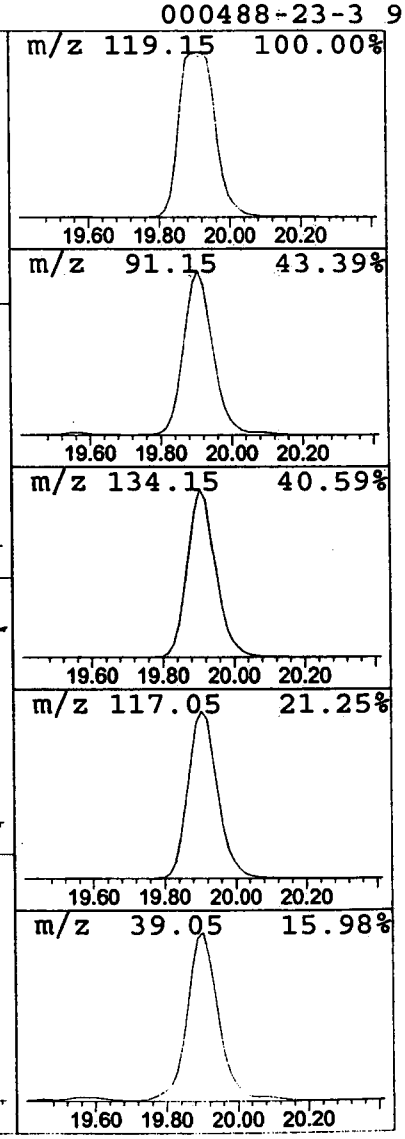
****

Peak Number 7 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.91	1662.48 UG	194547000	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	93
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	93
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93





2061

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D Vial: 12
Acq On : 3 Aug 2001 16:37 Operator: DP
Sample : S-120,5281-003,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

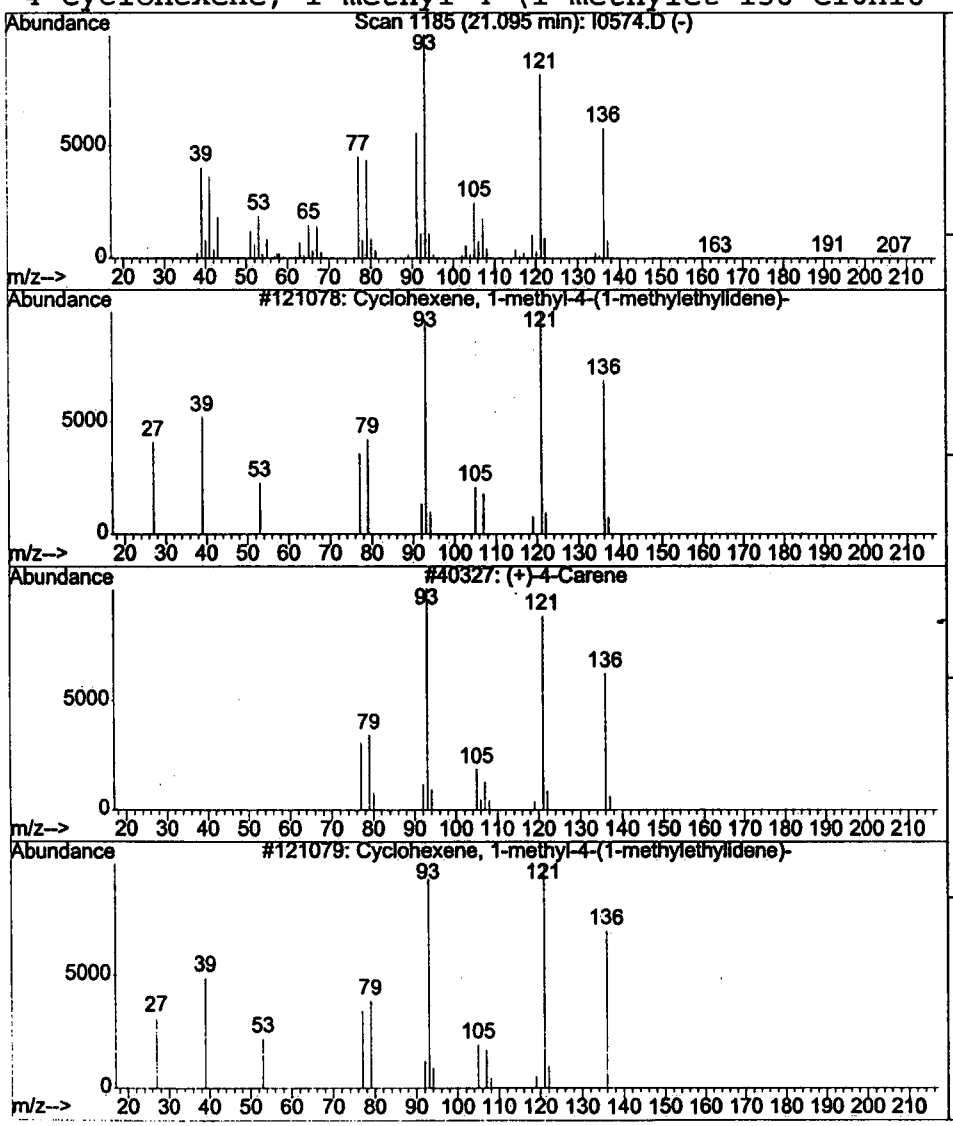
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.10	26.02 UG	3045480	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	96
2	(+)-4-Carene	136	C10H16	029050-33-7	96
3	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	95
4	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	000586-62-9	94



0111

2062

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0574.D Vial: 12
Acq On : 3 Aug 2001 16:37 Operator: DP
Sample : S-120,5281-003,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

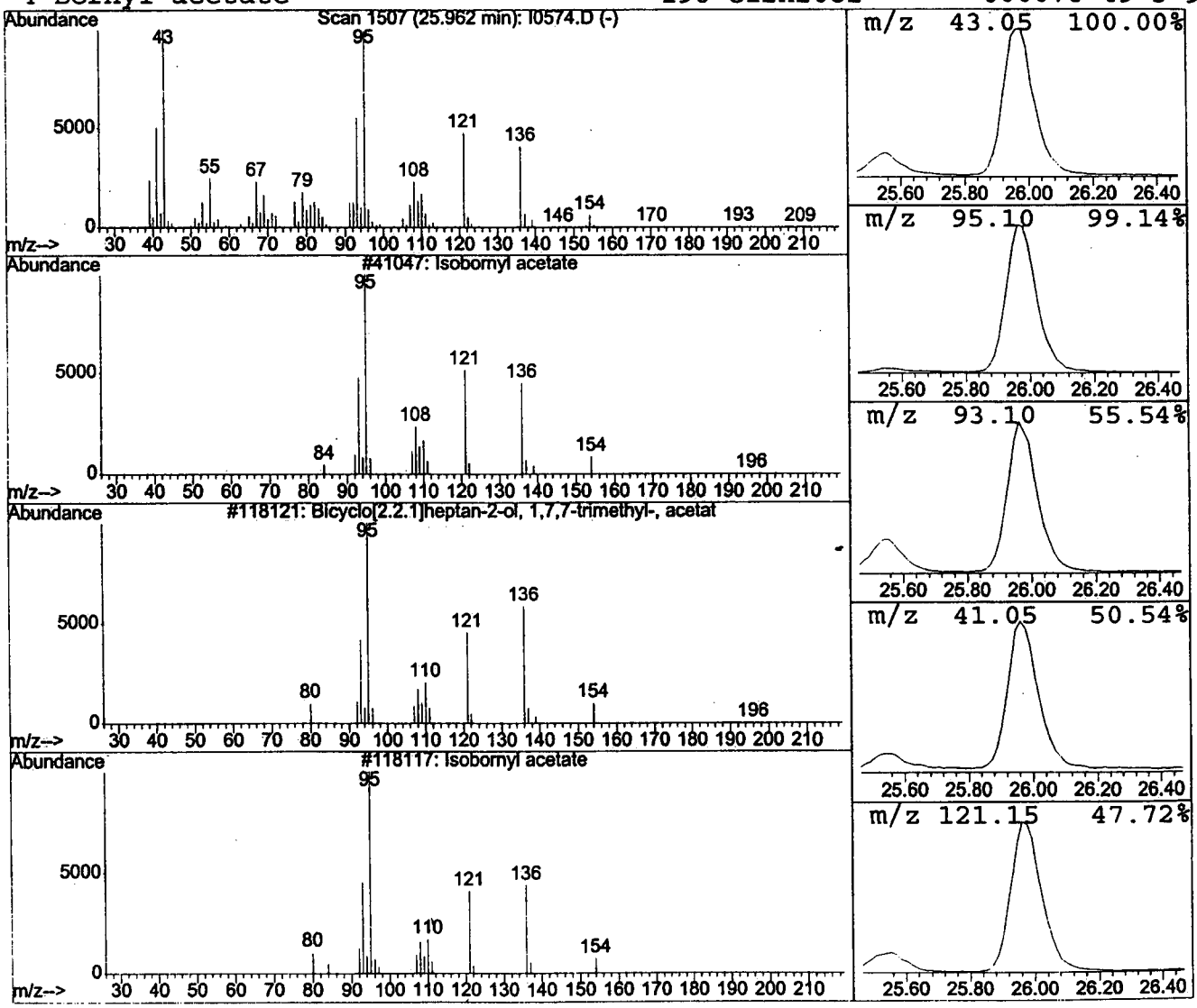
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 9 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.96	38.95 UG	4558120	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobornyl acetate	196	C12H20O2	000125-12-2	98
2	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-tr	196	C12H20O2	005655-61-8	93
3	Isobornyl acetate	196	C12H20O2	000125-12-2	91
4	Bornyl acetate	196	C12H20O2	000076-49-3	91



0112

2063

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0607.D Vial: 6
Acq On : 5 Aug 2001 13:44 Operator: DP
Sample : S-120,5281-003DIL,M,0.004g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
'S Integration Params: rteint.p
Quant Time: Aug 9 14:49 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.63	168	1715997	50.00	UG		-0.03
31) 1,4-Difluorobenzene	10.84	114	1711226	50.00	UG		-0.03
50) Chlorobenzene-d5	15.74	117	1298523	50.00	UG		-0.06
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.11	65	64367	4.18	UG		-0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 8.36%#				
41) Toluene-d8	13.28	98	103434	3.68	UG		-0.05
Spiked Amount 50.000	Range 35 - 117		Recovery = 7.36%#				
59) Bromofluorobenzene	17.82	95	104377	3.99	UG		-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 7.98%#				
Target Compounds							Qvalue
25) Chloroform	9.29	83	1732916	81.24	UG		99
32) Benzene	10.24	78	1445564	61.63	UG		100
42) Toluene	13.39	92	2685658	164.72	UG		98
70) 1,3-Dichlorobenzene	19.84	146	126793	6.46	UG	#	86
72) 1,4-Dichlorobenzene	19.99	146	472051	23.06	UG	#	86
74) 1,2-Dichlorobenzene	20.68	146	5390820	291.72	UGE	#	84

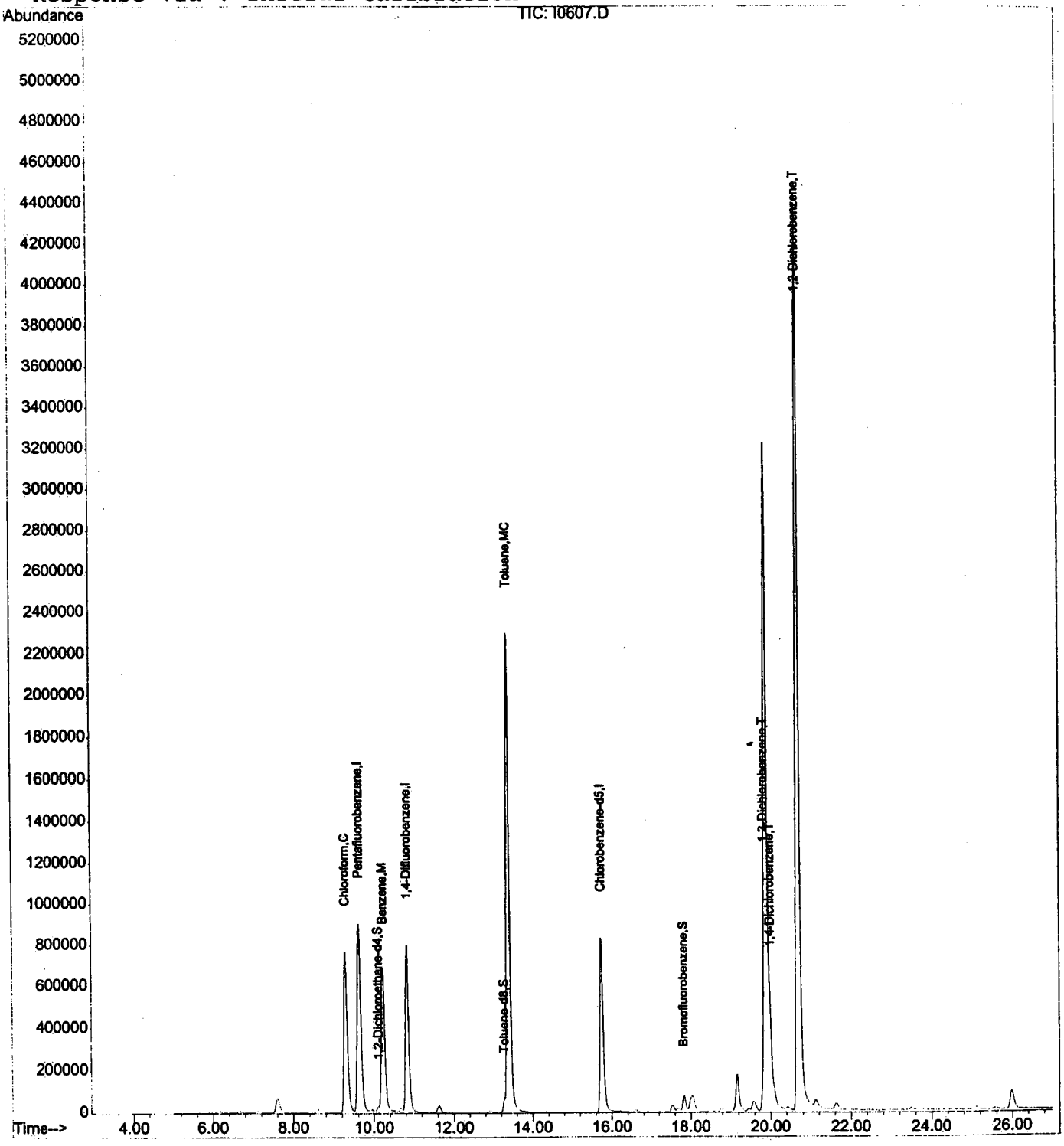
(#) = qualifier out of range (m) = manual integration

2064

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0607.D Vial: 6
Acq On : 5 Aug 2001 13:44 Operator: DP
Sample : S-120,5281-003DIL,M,0.004g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:49 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0114

2065

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0616.D Vial: 15
Acq On : 5 Aug 2001 19:09 Operator: DP
Sample : S-120,5281-003DIL,M,0.0001g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,300 Multiplr: 1.00
S Integration Params: rteint.p
Quant Time: Aug 9 14:42 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.64	168	1676188	50.00	UG		-0.02
31) 1,4-Difluorobenzene	10.85	114	1733101	50.00	UG		-0.02
50) Chlorobenzene-d5	15.76	117	1217135	50.00	UG		-0.04
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.14	65	2106	0.14	UG		0.00
Spiked Amount 50.000	Range 36 - 115		Recovery = 0.28%#				
41) Toluene-d8	13.28	98	5151m	0.18	UG		-0.05
Spiked Amount 50.000	Range 35 - 117		Recovery = 0.36%#				
59) Bromofluorobenzene	17.87	95	5631	0.23	UG		0.00
Spiked Amount 50.000	Range 47 - 115		Recovery = 0.46%#				
Target Compounds							Qvalue
25) Chloroform	9.31	83	59825	2.87	UG		98
32) Benzene	10.25	78	51045	2.15	UG		99
42) Toluene	13.42	92	88549	5.36	UG		99
72) 1,4-Dichlorobenzene	20.02	146	15896m	0.83	UG		
74) 1,2-Dichlorobenzene	20.72	146	166246	9.60	UG	#	84

$$\frac{9.6 \times 25\,\text{mL} \times 50 \times 300}{10\,\text{g} \times .842} =$$

(#) = qualifier out of range (m) = manual integration

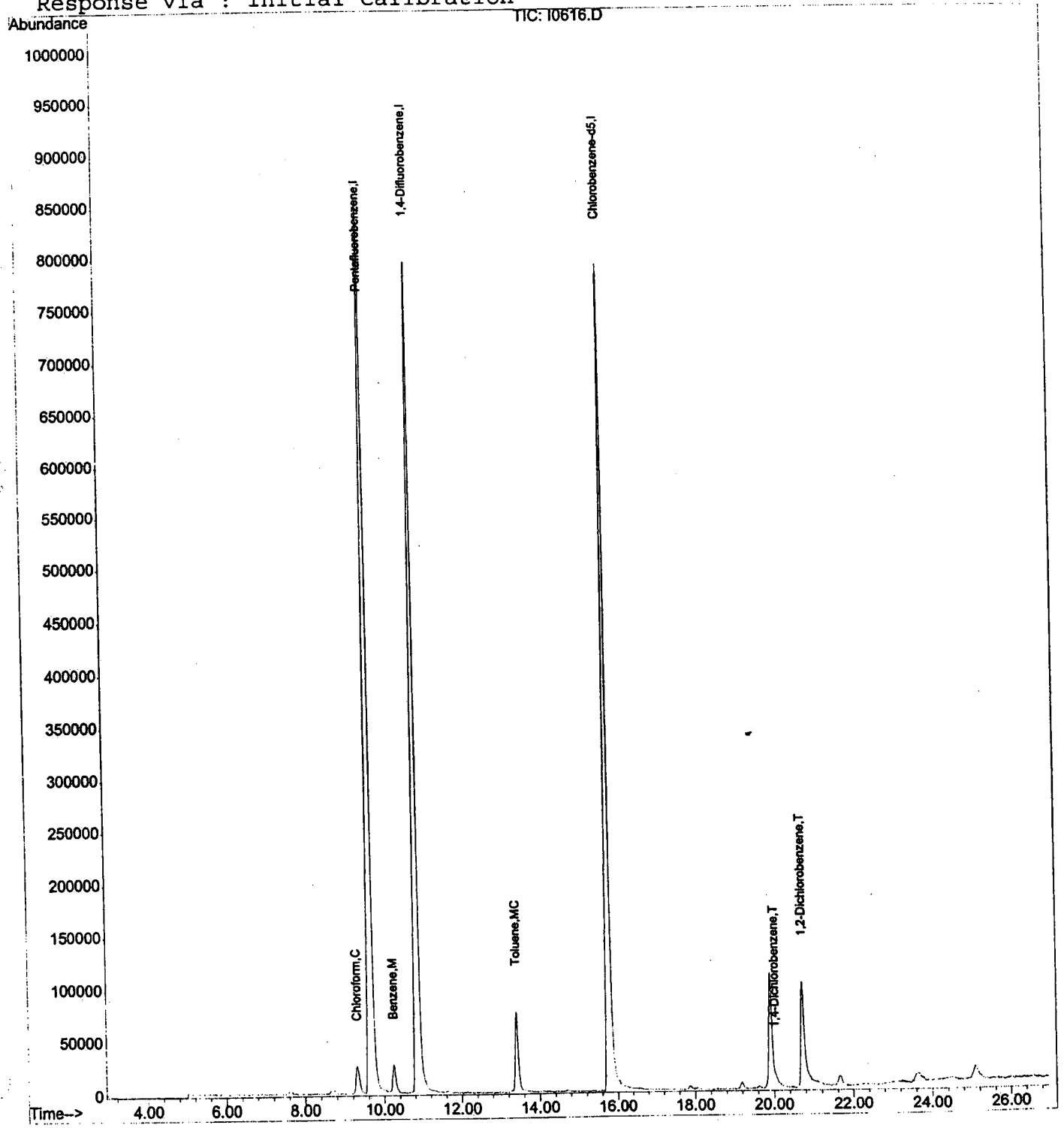
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0616.D
Acq On : 5 Aug 2001 19:09
Sample : S-120,5281-003DIL,M,0.0001g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,300
MS Integration Params: rteint.p
Quant Time: Aug 9 14:42 2001

Vial: 15
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0116

2067

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:42 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.63	168	1805744	50.00	UG		-0.03
31) 1,4-Difluorobenzene	10.83	114	1762452	50.00	UG		-0.04
50) Chlorobenzene-d5	15.75	117	1324029	50.00	UG		-0.05
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.11	65	581007	35.89	UG		-0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 71.78%				
41) Toluene-d8	13.29	98	1088553	37.56	UG		-0.04
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.12%				
59) Bromofluorobenzene	17.81	95	983621	36.86	UG		-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 73.72%				
Target Compounds							Qvalue
32) Benzene	10.23	78	3362007	139.16	UG		100
42) Toluene	13.40	92	1142702	68.05	UG		99
72) 1,4-Dichlorobenzene	19.98	146	30853	1.48	UG	#	83
74) 1,2-Dichlorobenzene	20.67	146	421490	22.37	UG	#	85

(#) = qualifier out of range (m) = manual integration

2066

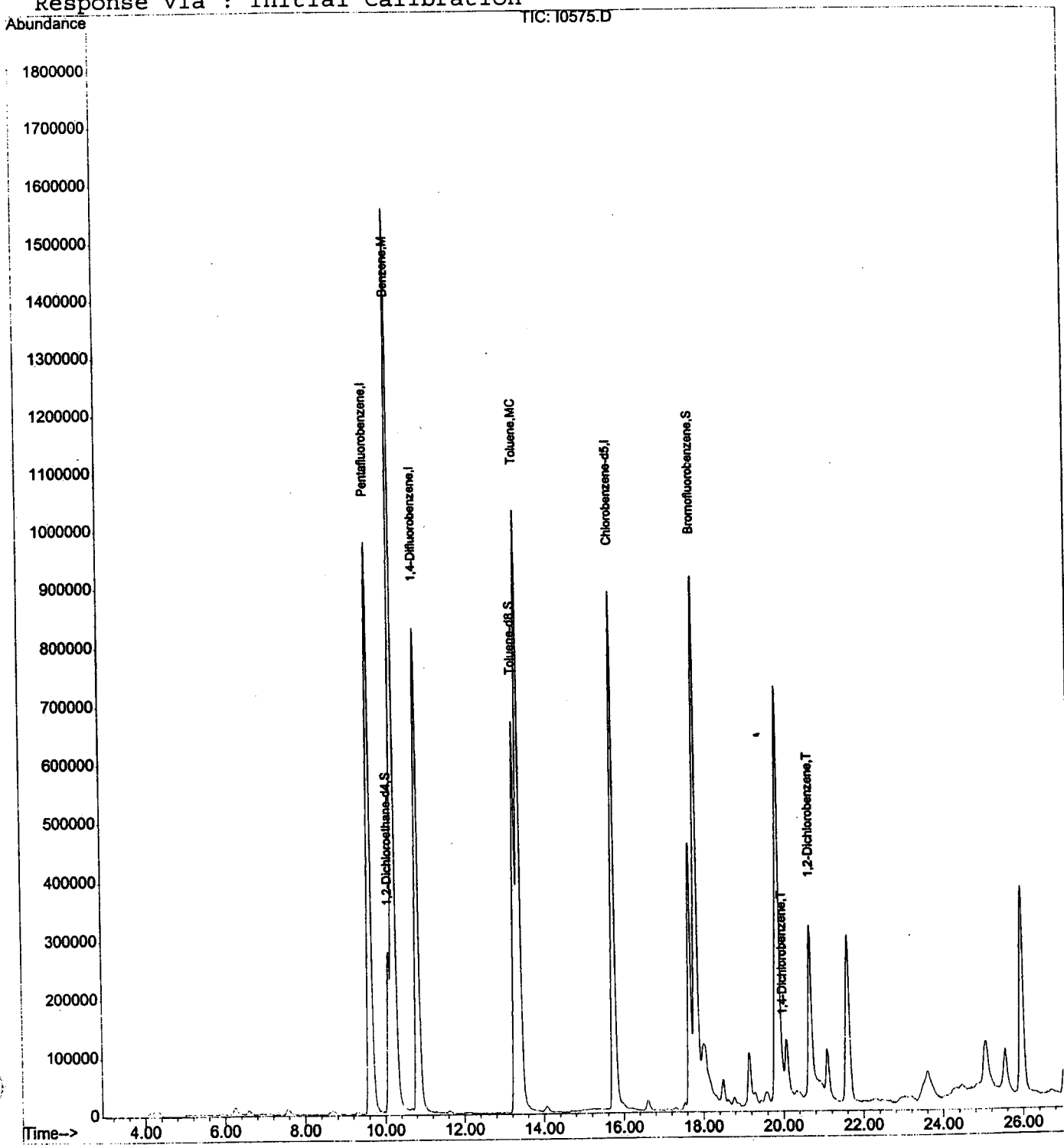
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 7 13:42 2001

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2069

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.628	432	441	457	rBV	978153	6024255	65.15%	10.342%
2	10.105	465	472	474	rBV	276517	1305196	14.12%	2.241%
3	10.211	474	479	505	rVB	1554122	9246556	100.00%	15.874%
4	10.828	512	519	540	rVB	827037	4713368	50.97%	8.092%
5	13.291	672	679	682	rBV	668300	3205960	34.67%	5.504%
6	13.397	682	686	705	rVB	1027173	5483974	59.31%	9.415%
7	15.750	832	839	863	rBV	884099	4636202	50.14%	7.959%
8	16.614	888	895	901	rBV3	17580	99844	1.08%	0.171%
9	17.673	957	964	968	rVV	451697	2257783	24.42%	3.876%
10	17.826	968	974	982	rVV	901829	5086800	55.01%	8.733%
11	18.022	982	987	1006	rVB7	94015	1033274	11.17%	1.774%
12	18.506	1013	1019	1025	rVB	38261	192536	2.08%	0.331%
13	19.148	1052	1061	1068	rBV	93086	547130	5.92%	0.939%
14	19.577	1083	1089	1096	rVB6	18717	115399	1.25%	0.198%
15	19.865	1096	1108	1118	rBV2	710072	4907313	53.07%	8.425%
16	20.075	1118	1122	1134	rVB	97437	616087	6.66%	1.058%
17	20.668	1153	1161	1172	rBV	294607	1816012	19.64%	3.118%
18	21.089	1185	1189	1201	rVB	86767	491032	5.31%	0.843%
19	21.609	1214	1223	1236	rBV	286955	1945754	21.04%	3.340%
20	23.614	1335	1354	1368	rBV	52409	775925	8.39%	1.332%
21	25.055	1442	1449	1466	rVB2	81138	744159	8.05%	1.278%
22	25.551	1474	1482	1497	rVB4	78748	626169	6.77%	1.075%
23	25.959	1501	1509	1524	rVV	353715	2378597	25.72%	4.083%

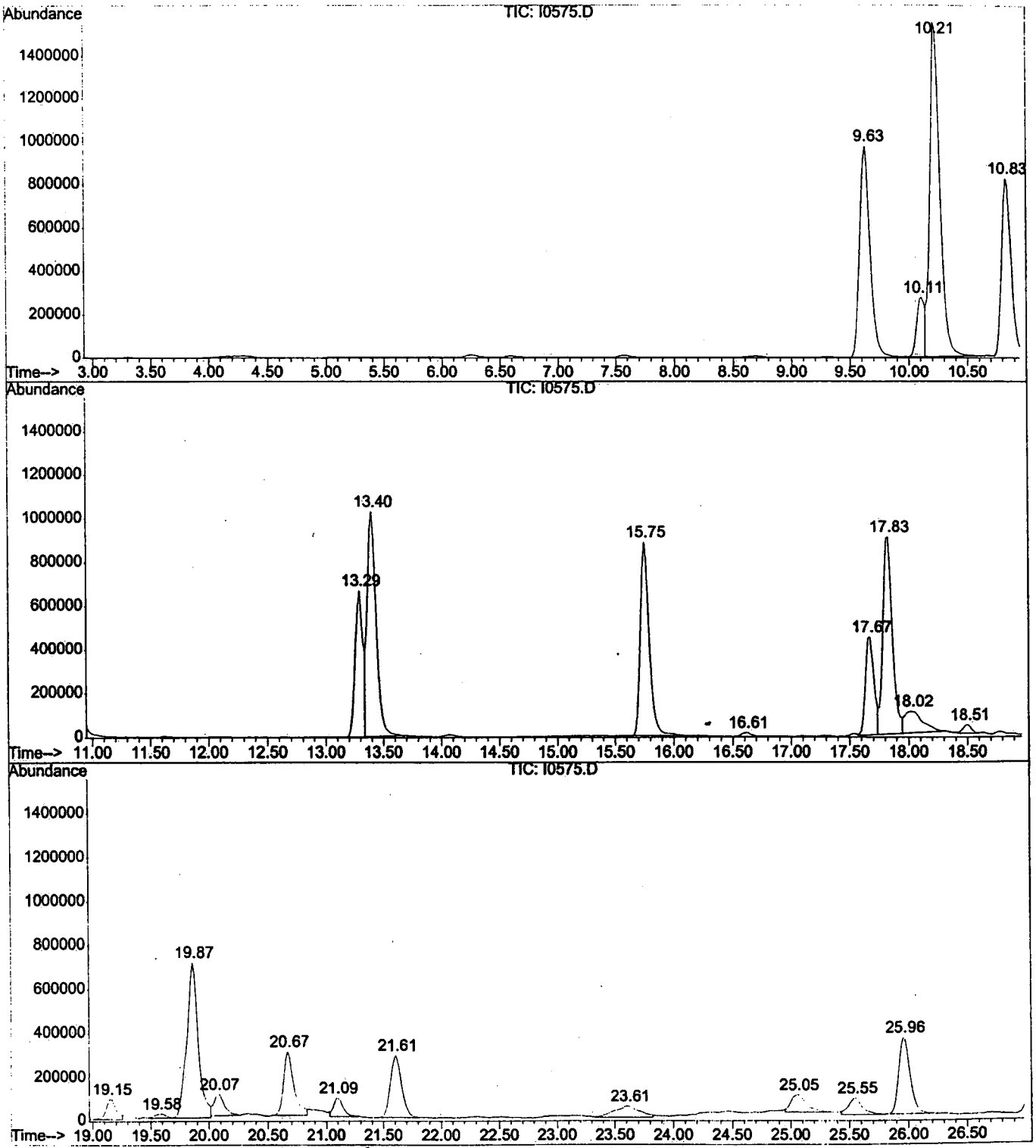
Sum of corrected areas: 58249325

I0575.D IME0716.M Thu Aug 09 14:01:41 2001 MSD_I

2070

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Operator : DP
Acquired : 3 Aug 2001 17:14 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-121,5281-004,M,0.037g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 13
Quant File :IME0716.RES (RTE Integrator)



I0575.D IME0716.M Thu Aug 09 14:01:42 2001 MSD_I

2071

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

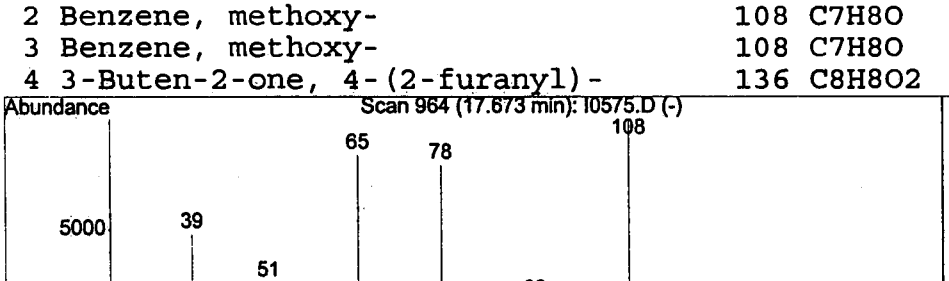
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

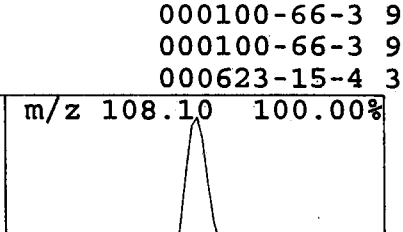
****

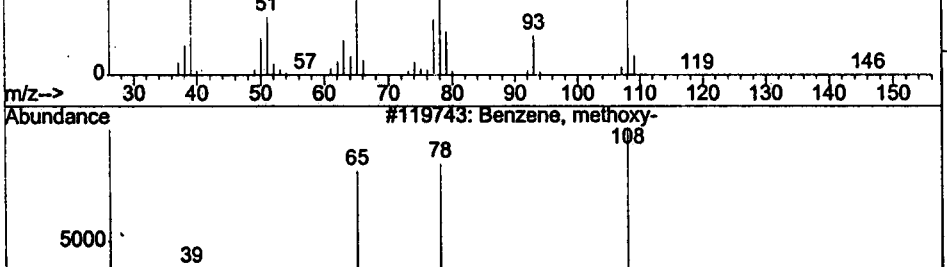
Peak Number 1 Substituted benzene Concentration Rank 3

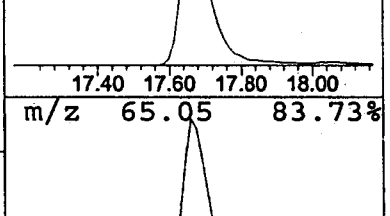
R.T.	EstConc	Area	Relative to ISTD	R.T.
17.67	24.35 UG	2257780	Chlorobenzene-d5	15.75

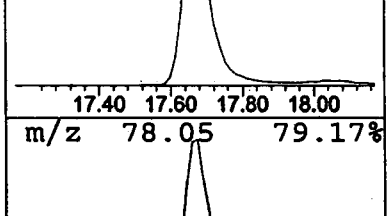
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, methoxy-	108	C7H8O	000100-66-3	98
2	Benzene, methoxy-	108	C7H8O	000100-66-3	98
3	Benzene, methoxy-	108	C7H8O	000100-66-3	94
4	3-Buten-2-one, 4-(2-furanyl)-	136	C8H8O2	000623-15-4	35

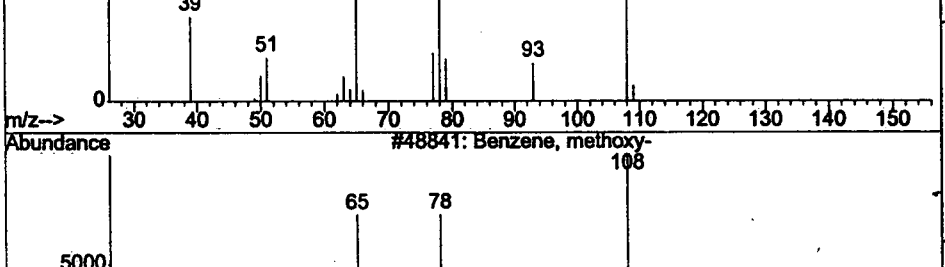


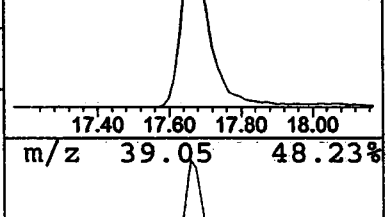


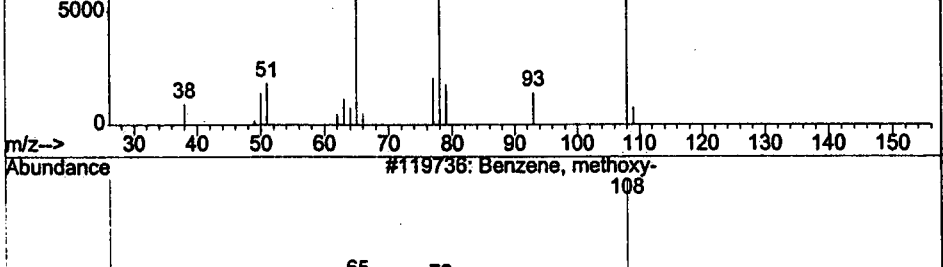


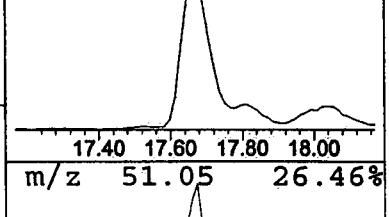












0171

2077

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

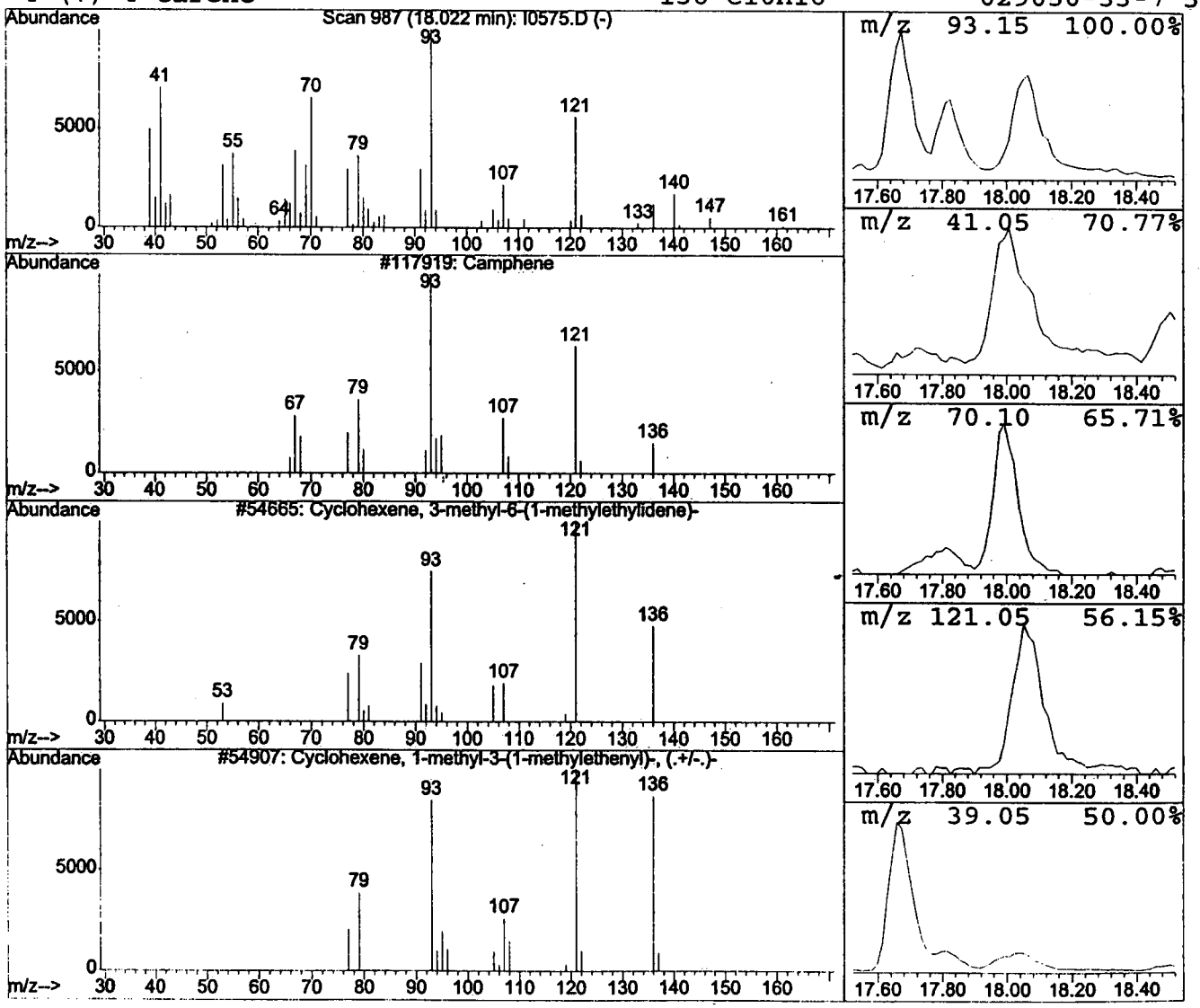
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.02	11.14 UG	1033270	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	64
2	Cyclohexene, 3-methyl-6-(1-methylet	136	C10H16	000586-63-0	60
3	Cyclohexene, 1-methyl-3-(1-methylet	136	C10H16	000499-03-6	60
4	(+)-4-Carene	136	C10H16	029050-33-7	53



0122

2073

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

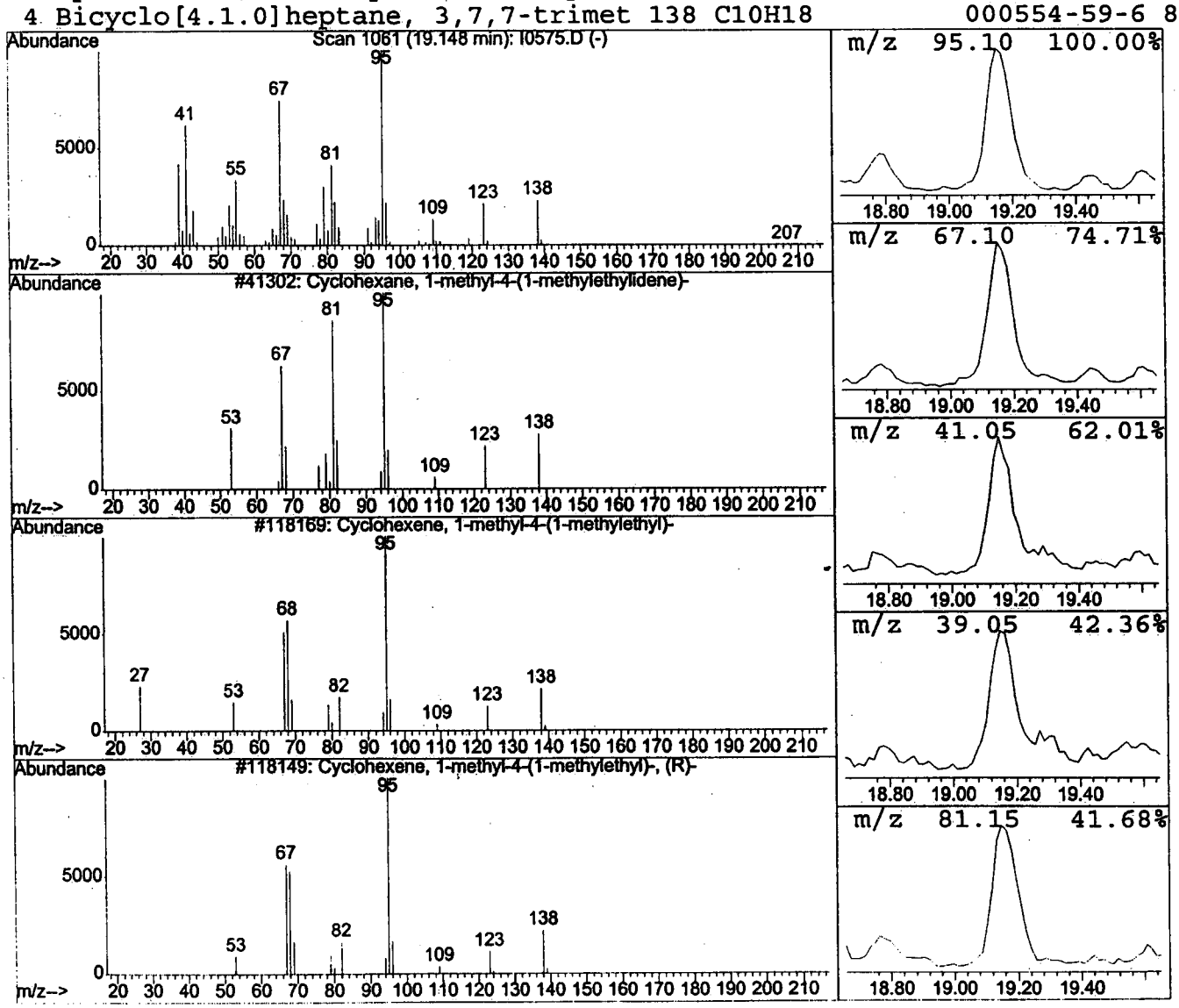
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.15	5.90 UG	547130	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	94
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	87
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	87
4	Bicyclo[4.1.0]heptane, 3,7,7-trimet	138	C10H18	000554-59-6	83



7/774

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

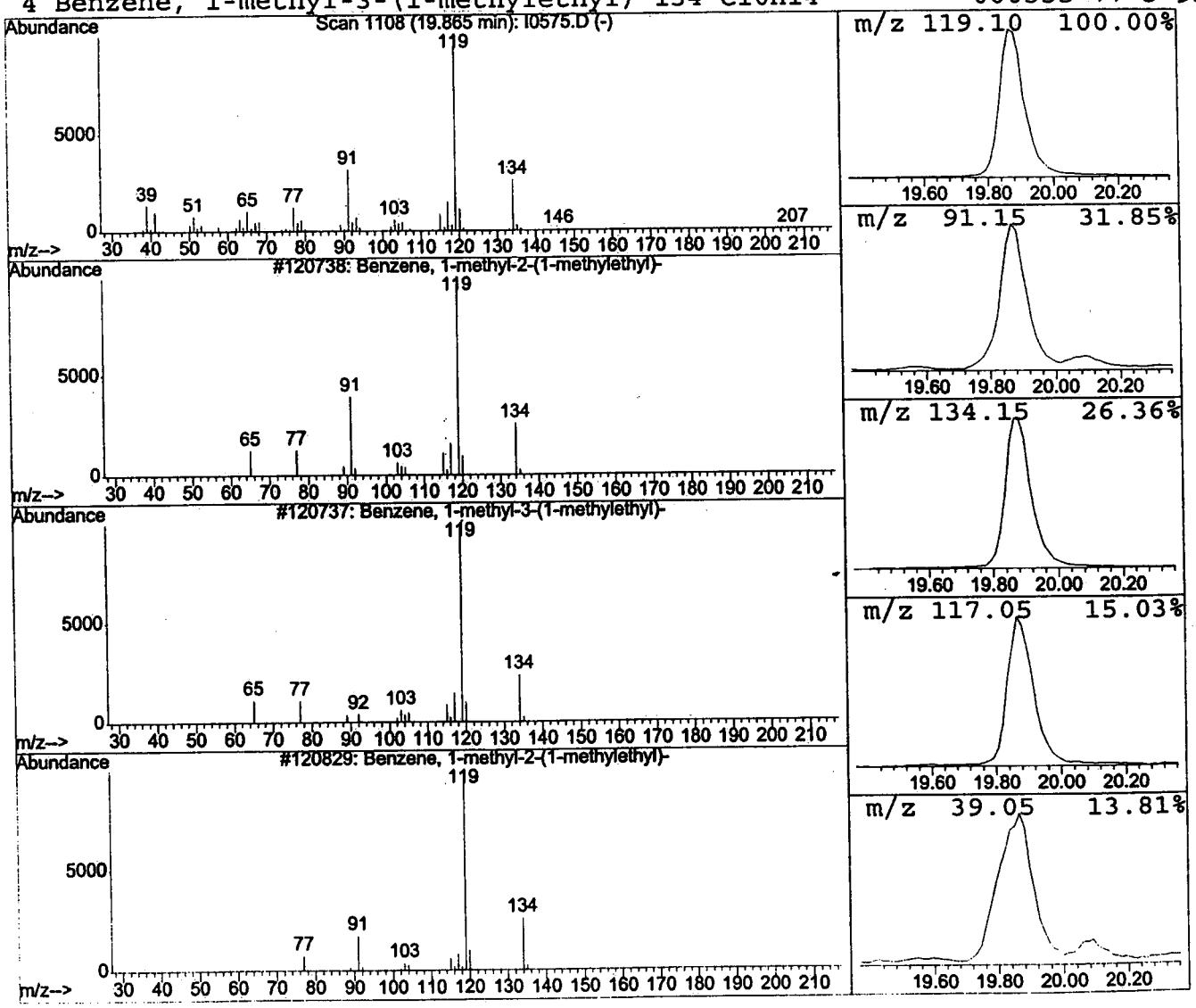
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.87	52.92 UG	4907310	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	96
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	93



0124

2075

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

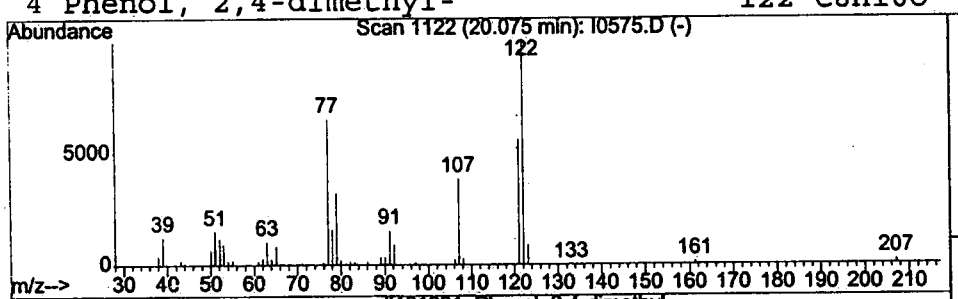
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

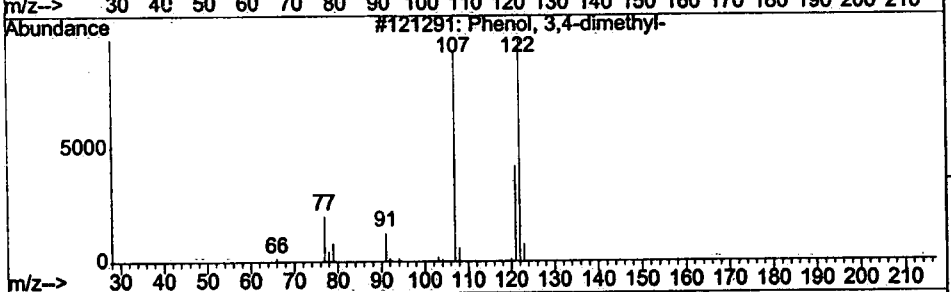
****

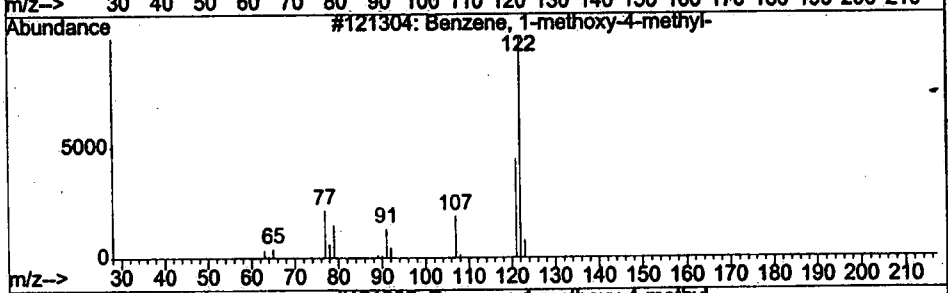
Peak Number 5 Substituted benzene Concentration Rank 9

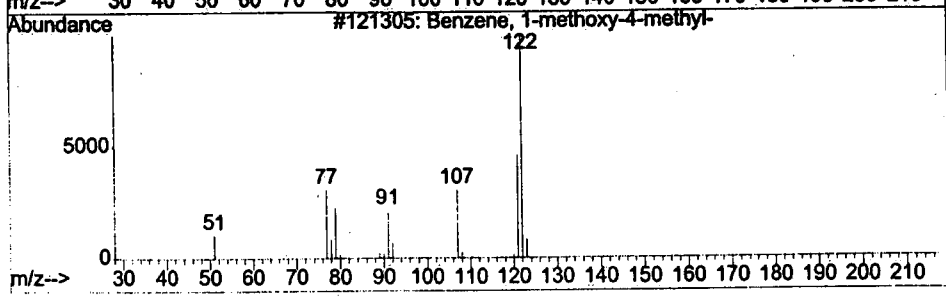
R.T.	EstConc	Area	Relative to ISTD	R.T.
20.07	6.64 UG	616087	Chlorobenzene-d5	15.75

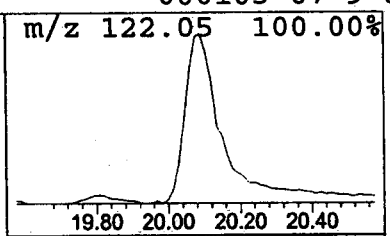
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenol, 3,4-dimethyl-	122	C8H10O	000095-65-8	87
2	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	87
3	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	87
4	Phenol, 2,4-dimethyl-	122	C8H10O	000105-67-9	86

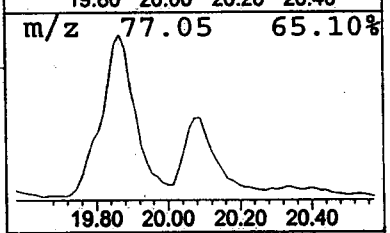


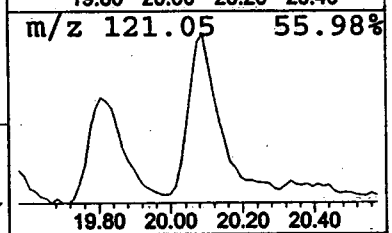


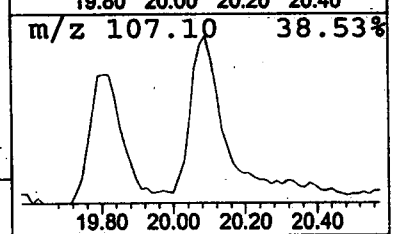


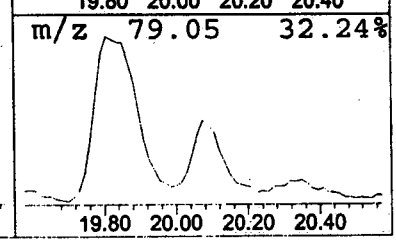












0125

2076

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

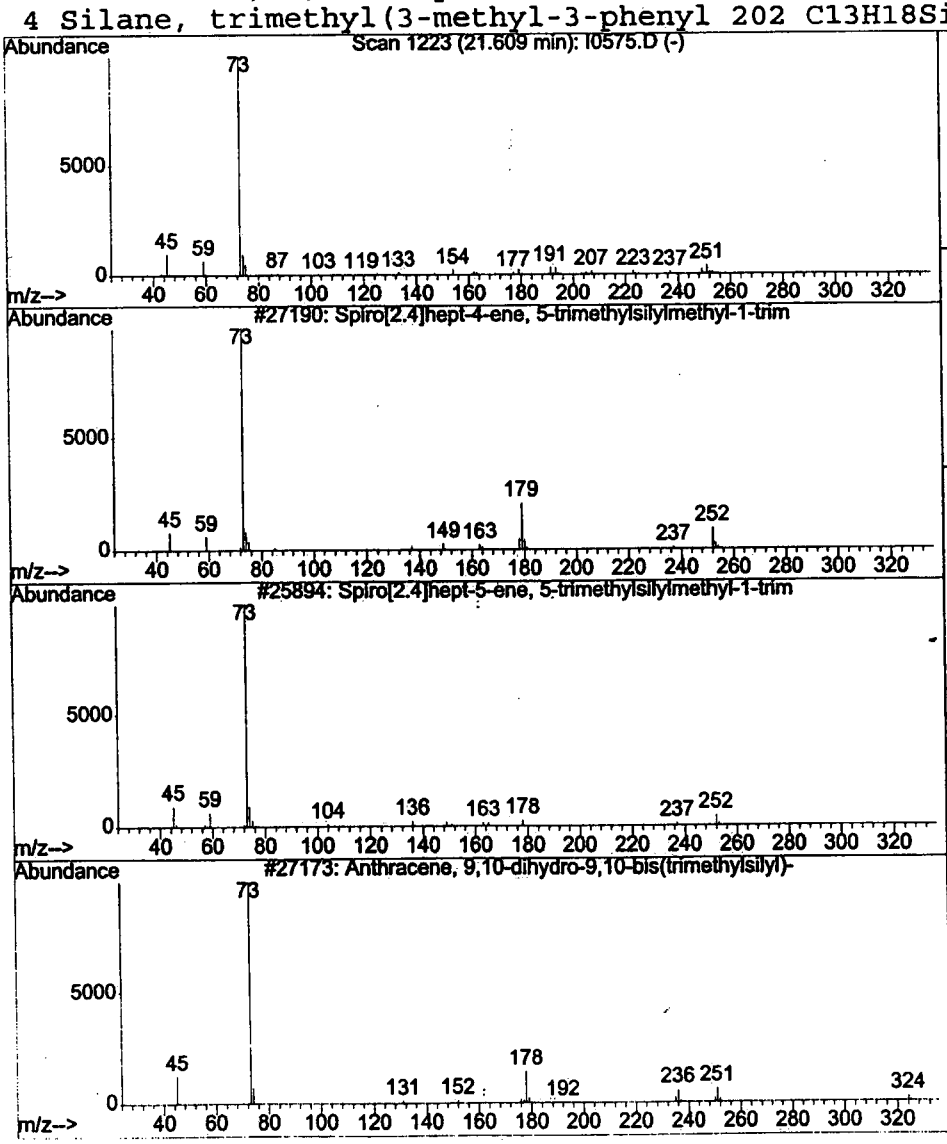
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 6 Column/Septa bleed Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.61	20.98 UG	1945750	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Spiro[2.4]hept-4-ene, 5-trimethylsi	252	C14H28Si2	1000153-97-0	53
2	Spiro[2.4]hept-5-ene, 5-trimethylsi	252	C14H28Si2	1000153-96-9	53
3	Anthracene, 9,10-dihydro-9,10-bis(t	324	C20H28Si2	018586-37-3	45
4	Silane, trimethyl(3-methyl-3-phenyl	202	C13H18Si	128889-54-3	40



0126

2077

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

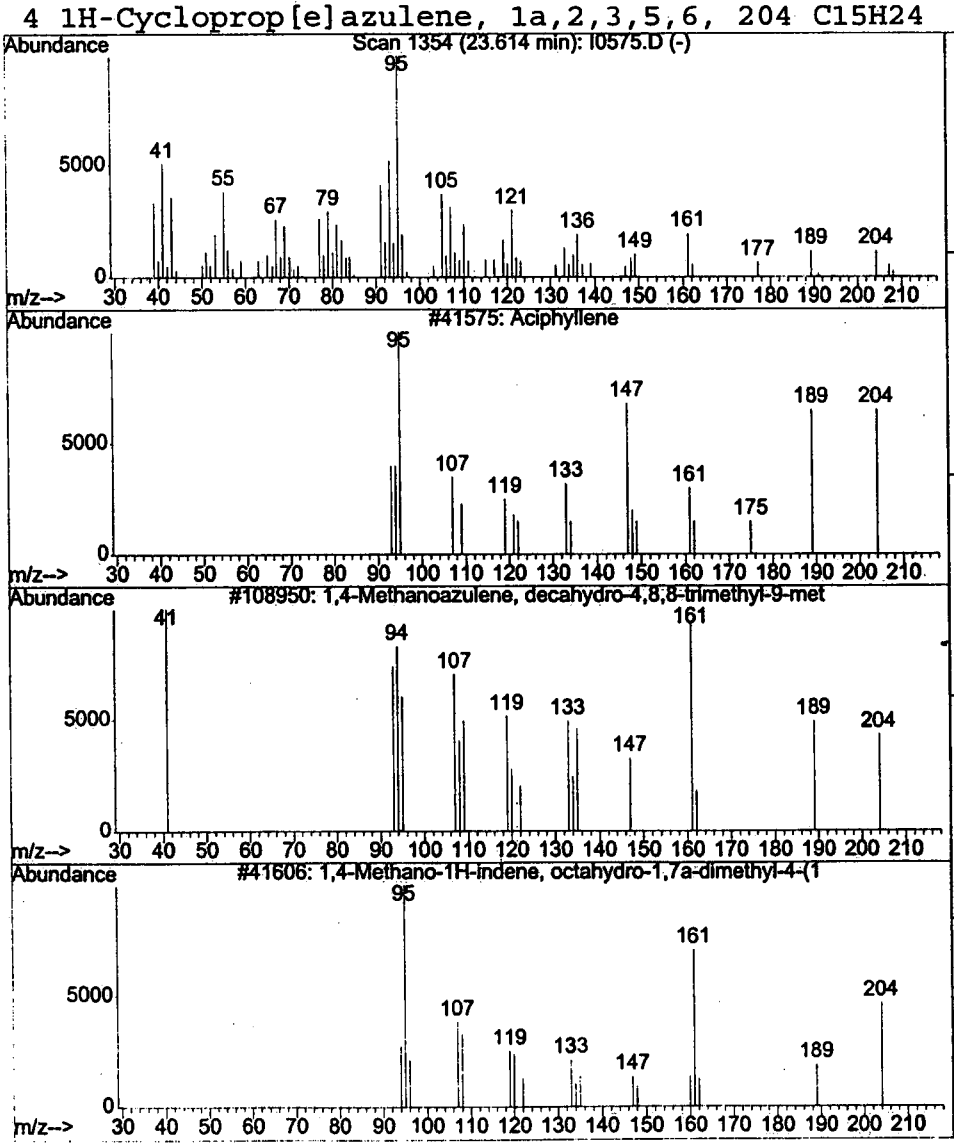
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Unknown Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.61	8.37 UG	775925	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Aciphyllene	204	C15H24	087745-31-1	64
2	1,4-Methanoazulene, decahydro-4,8,8	204	C15H24	000475-20-7	56
3	1,4-Methano-1H-indene, octahydro-1,	204	C15H24	087064-18-4	49
4	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	38



2076

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

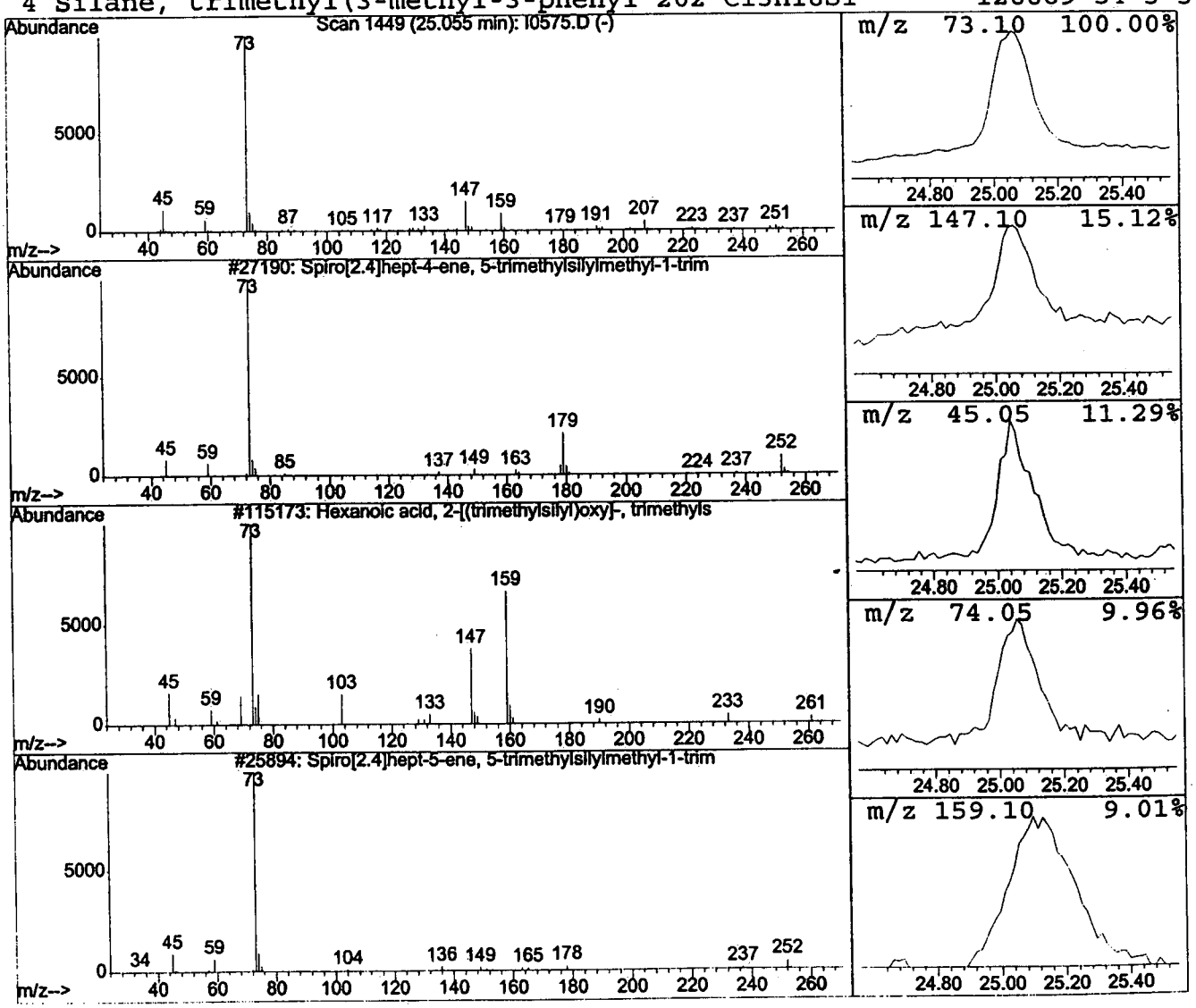
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Column/Septa bleed Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.05	8.03 UG	744159	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Spiro[2.4]hept-4-ene, 5-trimethylsi	252	C14H28Si2	1000153-97-0	43
2	Hexanoic acid, 2-[(trimethylsilyl)o	276	C12H28O3Si2	054890-07-2	40
3	Spiro[2.4]hept-5-ene, 5-trimethylsi	252	C14H28Si2	1000153-96-9	37
4	Silane, trimethyl(3-methyl-3-phenyl	202	C13H18Si	128889-54-3	37



0128

2079

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D
Acq On : 3 Aug 2001 17:14
Sample : S-121,5281-004,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 13
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

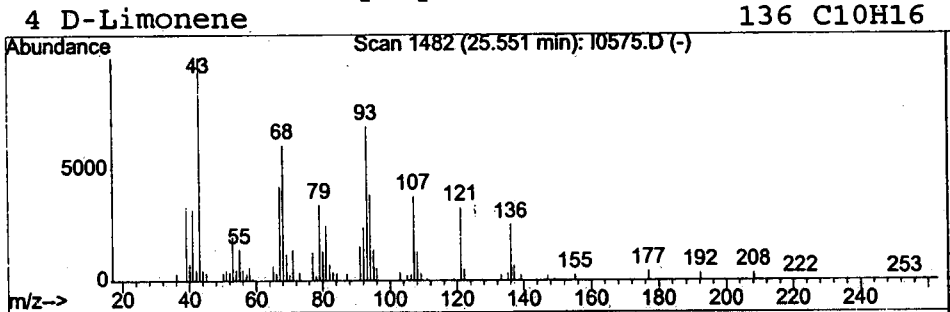
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

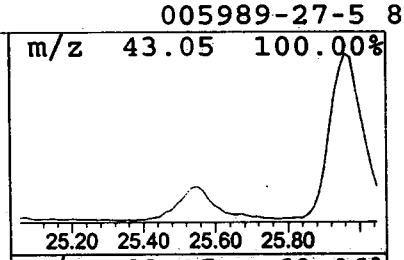
****

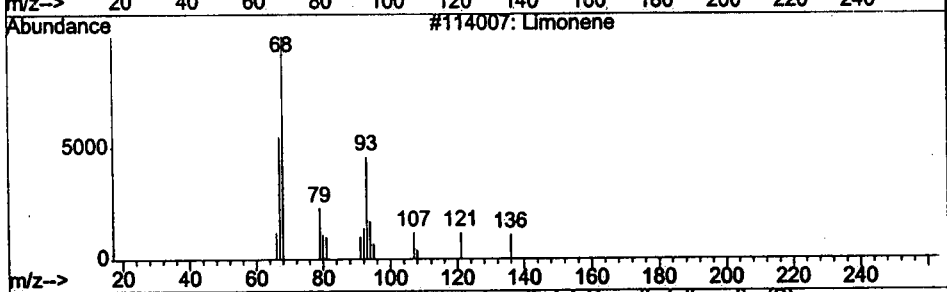
Peak Number 9 Unknown Concentration Rank 8

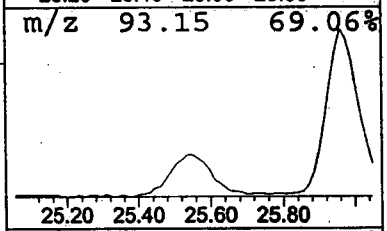
R.T.	EstConc	Area	Relative to ISTD	R.T.
25.55	6.75 UG	626169	Chlorobenzene-d5	15.75

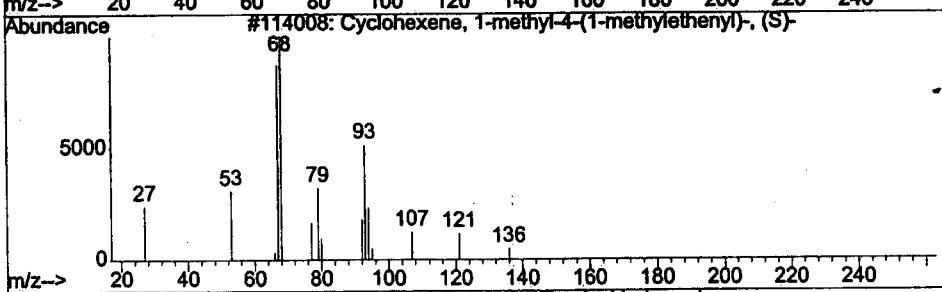
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Limonene	136	C10H16	000138-86-3	94
2	Cyclohexene, 1-methyl-4-(1-methylet	136	C10H16	005989-54-8	93
3	trans-.beta.-Terpinyl butanoate	224	C14H24O2	002153-28-8	90
4	D-Limonene	136	C10H16	005989-27-5	87

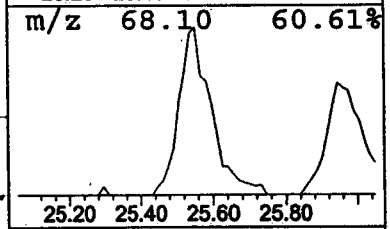


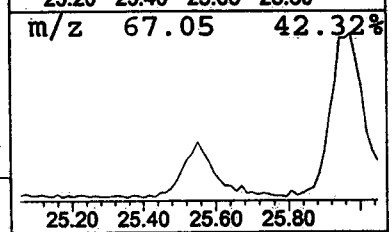


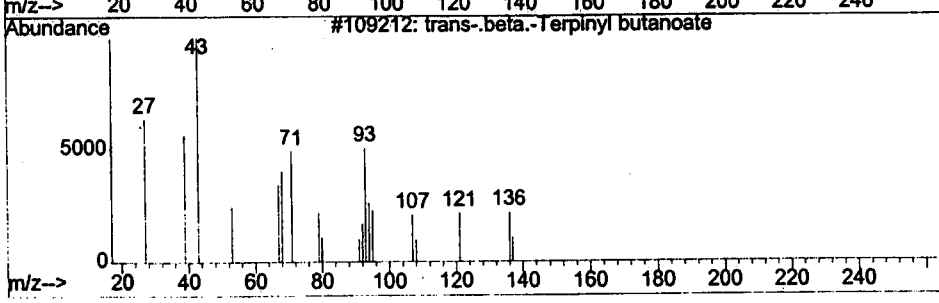


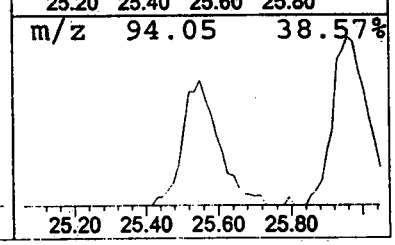












0125

2060

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0575.D Vial: 13
Acq On : 3 Aug 2001 17:14 Operator: DP
Sample : S-121,5281-004,M,0.037g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

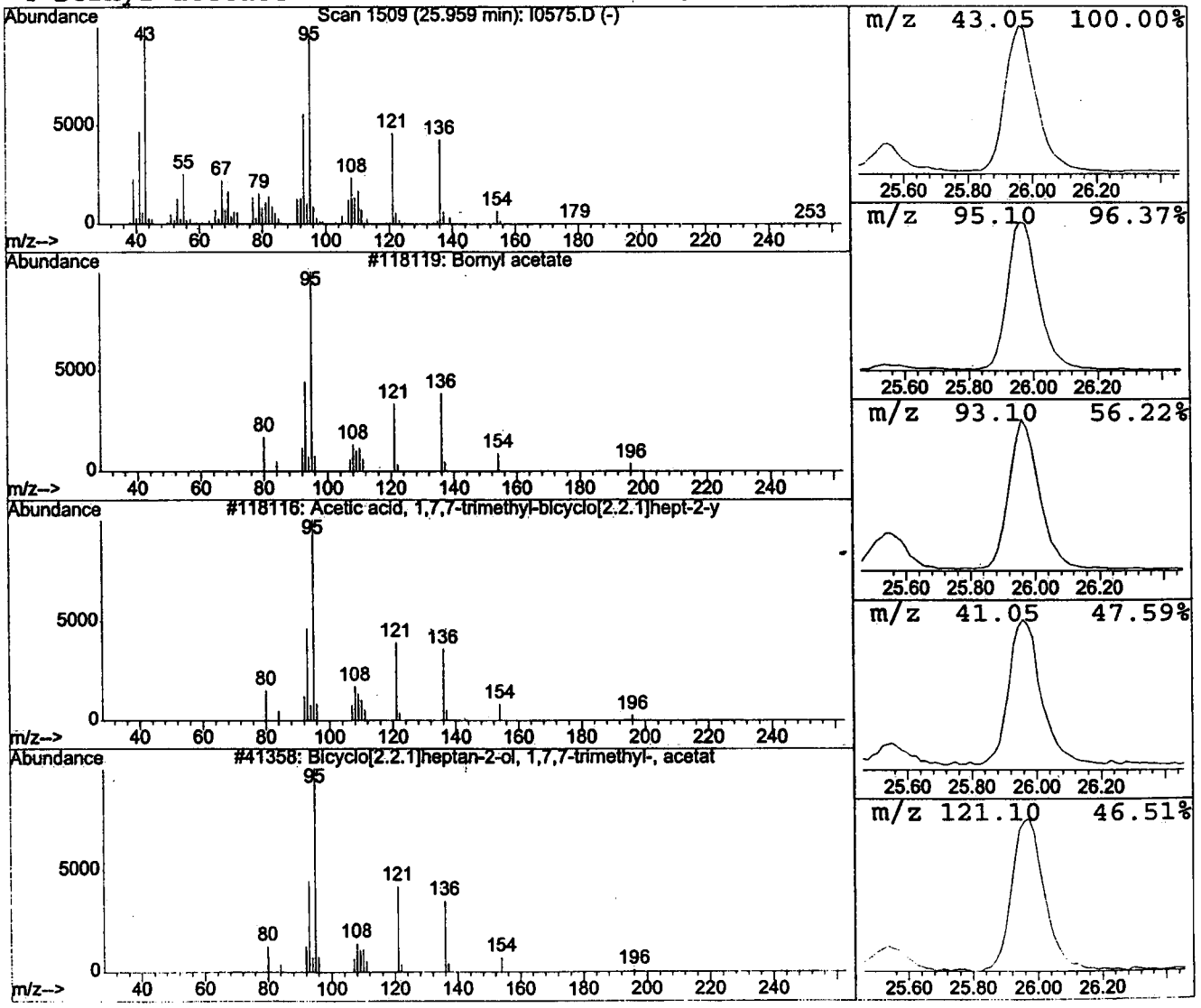
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 10 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.96	25.65 UG	2378600	Chlorobenzene-d5	15.75

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bornyl acetate	196	C12H20O2	000076-49-3	91
2	Acetic acid, 1,7,7-trimethyl-bicycl	196	C12H20O2	092618-89-8	91
3	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-tr	196	C12H20O2	005655-61-8	91
4	Bornyl acetate	196	C12H20O2	000076-49-3	91



0130

2061

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D Vial: 14
Acq On : 3 Aug 2001 17:51 Operator: DP
Sample : S-122A,5281-005,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:46 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.62	168	1783653	50.00	UG	-0.04
31) 1,4-Difluorobenzene	10.83	114	1777321	50.00	UG	-0.05
50) Chlorobenzene-d5	15.74	117	1317846	50.00	UG	-0.05
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.09	65	588584	36.81	UG	-0.06
Spiked Amount 50.000	Range 36 - 115		Recovery = 73.62%			
41) Toluene-d8	13.27	98	1117208	38.22	UG	-0.06
Spiked Amount 50.000	Range 35 - 117		Recovery = 76.44%			
59) Bromofluorobenzene	17.81	95	974610	36.69	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 73.38%			
Target Compounds						Qvalue
25) Chloroform	9.28	83	88337	3.98	UG	99
32) Benzene	10.21	78	1642806	67.43	UG	100
42) Toluene	13.39	92	730785	43.15	UG	97
53) Ethylbenzene	15.97	91	186112	5.74	UG	99
74) 1,2-Dichlorobenzene	20.66	146	105462	5.62	UG #	84

(#) = qualifier out of range (m) = manual integration

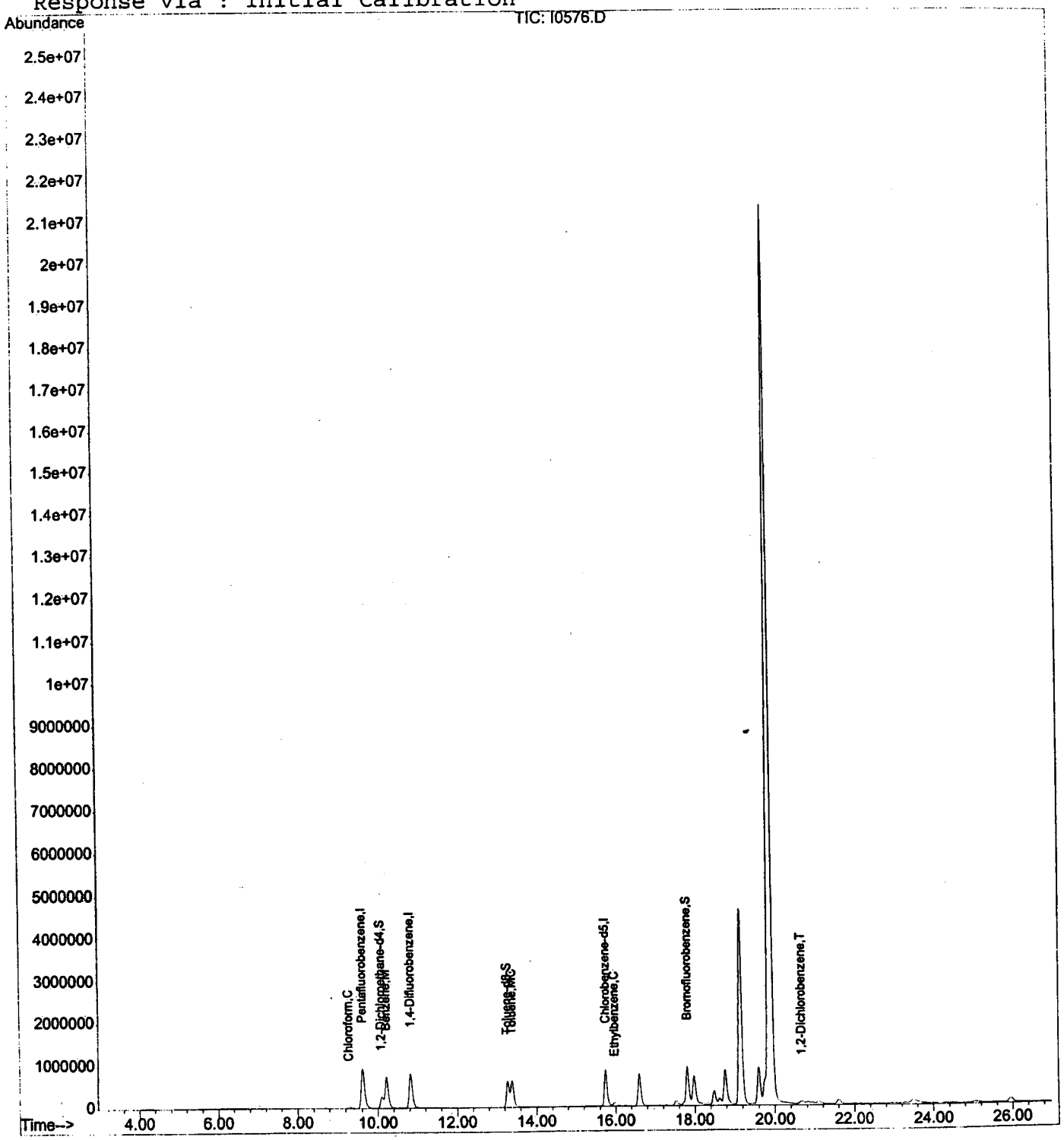
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 7 13:46 2001

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D Vial: 14
Acq On : 3 Aug 2001 17:51 Operator: DP
Sample : S-122A,5281-005,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

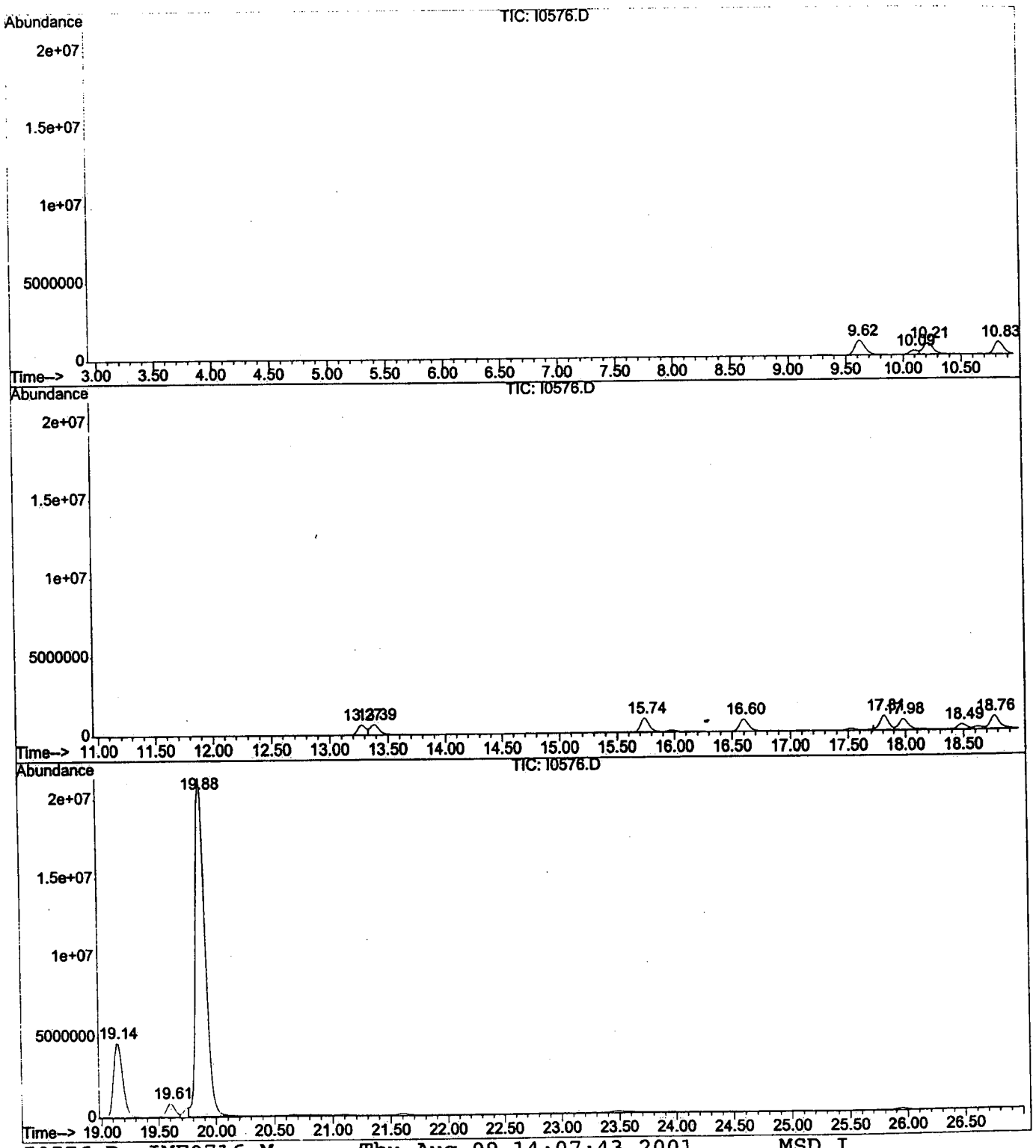
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.616	432	440	459	rBV	943447	6061809	4.92%	3.002%
2	10.093	465	471	474	rBV	275395	1404313	1.14%	0.695%
3	10.215	474	479	497	rVB	750053	4442857	3.60%	2.200%
4	10.828	511	519	542	rVB	821760	4796568	3.89%	2.375%
5	13.268	670	677	681	rBV	635896	3263468	2.65%	1.616%
6	13.390	681	685	704	rVB	643924	3541980	2.87%	1.754%
7	15.745	830	838	848	rBV	862819	4548900	3.69%	2.253%
8	16.602	885	894	909	rBV	770163	4207852	3.41%	2.084%
9	17.812	961	973	979	rVV	924451	5207302	4.22%	2.579%
10	17.976	979	984	1007	rVV	700798	4304487	3.49%	2.132%
11	18.490	1011	1018	1023	rVV	333298	1772803	1.44%	0.878%
12	18.761	1031	1036	1050	rVB	828703	4751497	3.85%	2.353%
13	19.139	1051	1061	1077	rBV	4623467	25747788	20.88%	12.750%
14	19.608	1084	1092	1097	rBV	873335	4589121	3.72%	2.273%
15	19.877	1102	1110	1130	rVB	21318032	123294933	100.00%	61.057%

Sum of corrected areas: 201935678

I0576.D IME0716.M Thu Aug 09 14:07:43 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Operator : DP
Acquired : 3 Aug 2001 17:51 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-122A,5281-005,M,0.035g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 14
Quant File :IME0716.RES (RTE Integrator)



I0576.D IME0716.M Thu Aug 09 14:07:43 2001 MSD_I

01724

2085

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

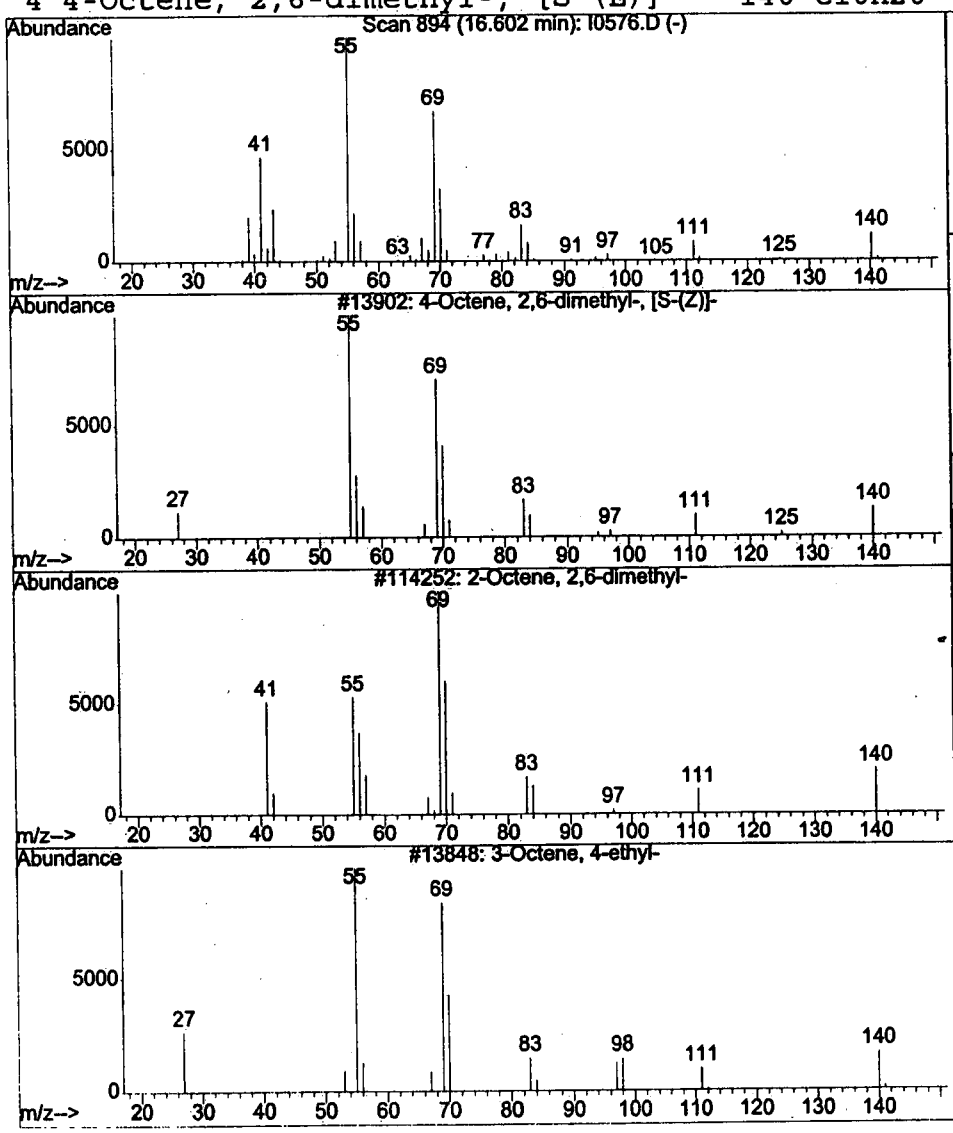
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.60	46.25 UG	4207850	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140	C10H20	062960-77-4	91
2	2-Octene, 2,6-dimethyl-	140	C10H20	004057-42-5	81
3	3-Octene, 4-ethyl-	140	C10H20	053966-51-1	74
4	4-Octene, 2,6-dimethyl-, [S-(E)]-	140	C10H20	062960-76-3	72



0135

20486

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

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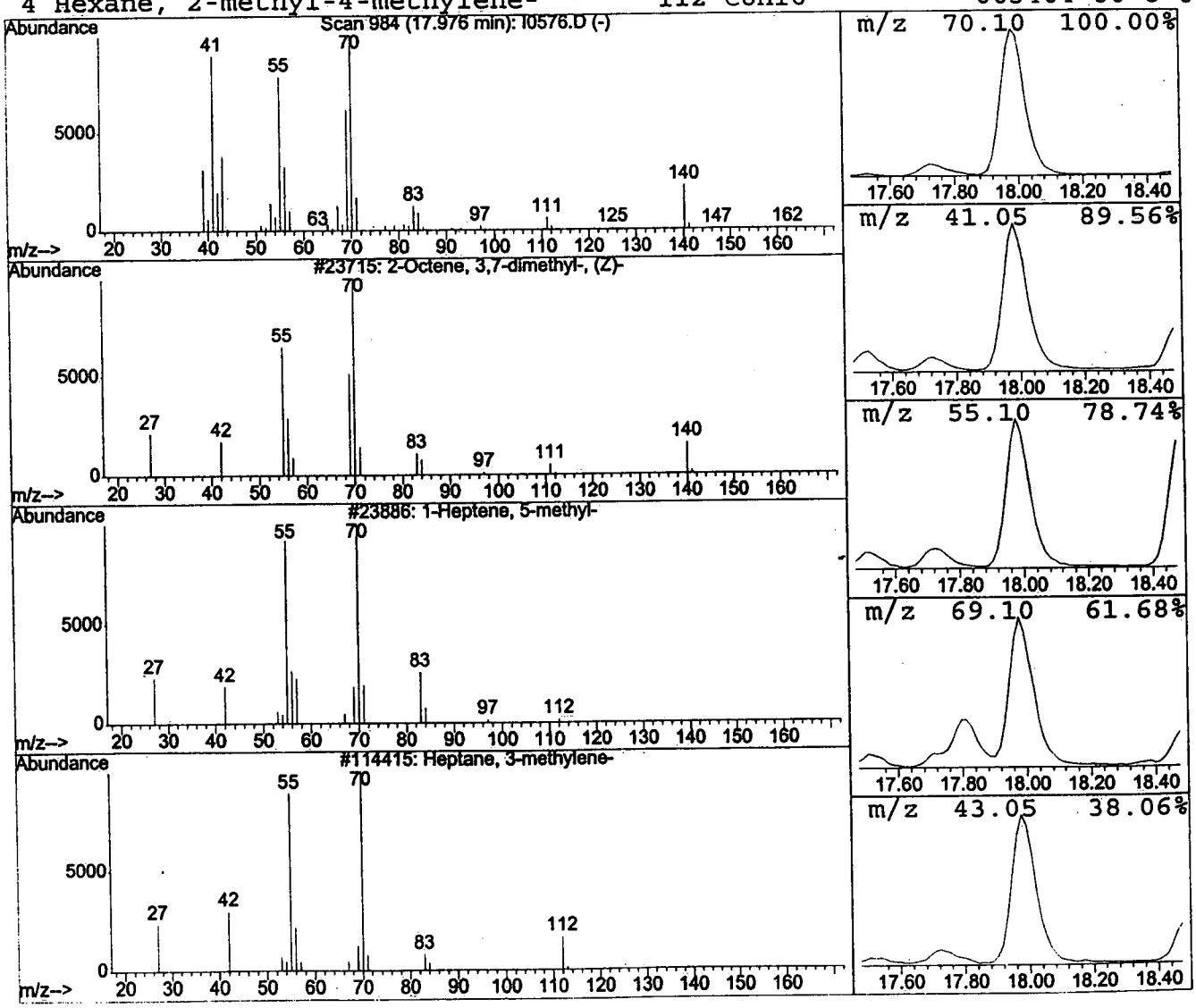
Peak Number 2 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.98	47.31 UG	4304490	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octene, 3,7-dimethyl-, (Z)-	140	C10H20	006874-32-4	97
2	1-Heptene, 5-methyl-	112	C8H16	013151-04-7	74
3	Heptane, 3-methylene-	112	C8H16	001632-16-2	64
4	Hexane, 2-methyl-4-methylene-	112	C8H16	003404-80-6	64



01136

2067

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D Vial: 14
Acq On : 3 Aug 2001 17:51 Operator: DP
Sample : S-122A,5281-005,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

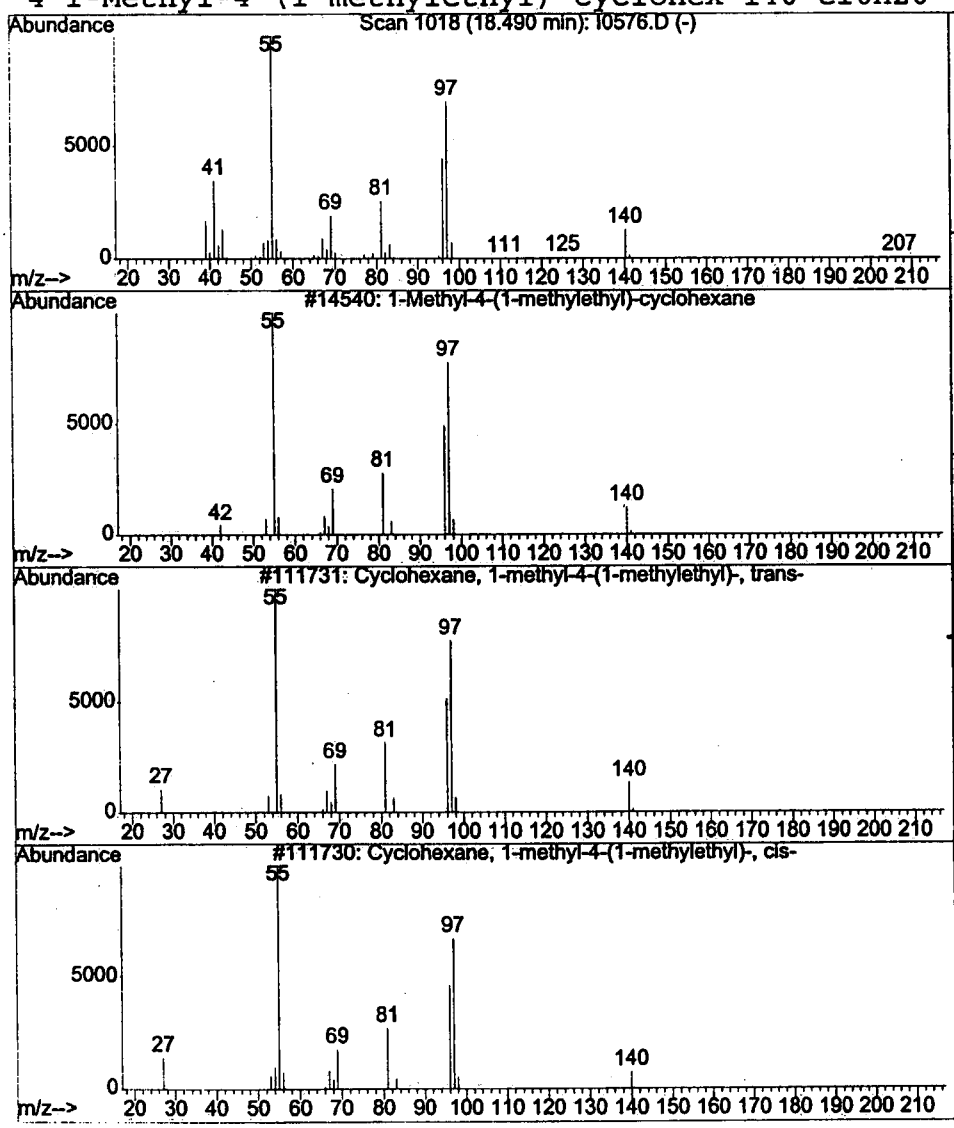
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.49	19.49 UG	1772800	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	97
2	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	001678-82-6	97
3	Cyclohexane, 1-methyl-4-(1-methylet	140	C10H20	006069-98-3	95
4	1-Methyl-4-(1-methylethyl)-cyclohex	140	C10H20	000099-82-1	95



0137

20466

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

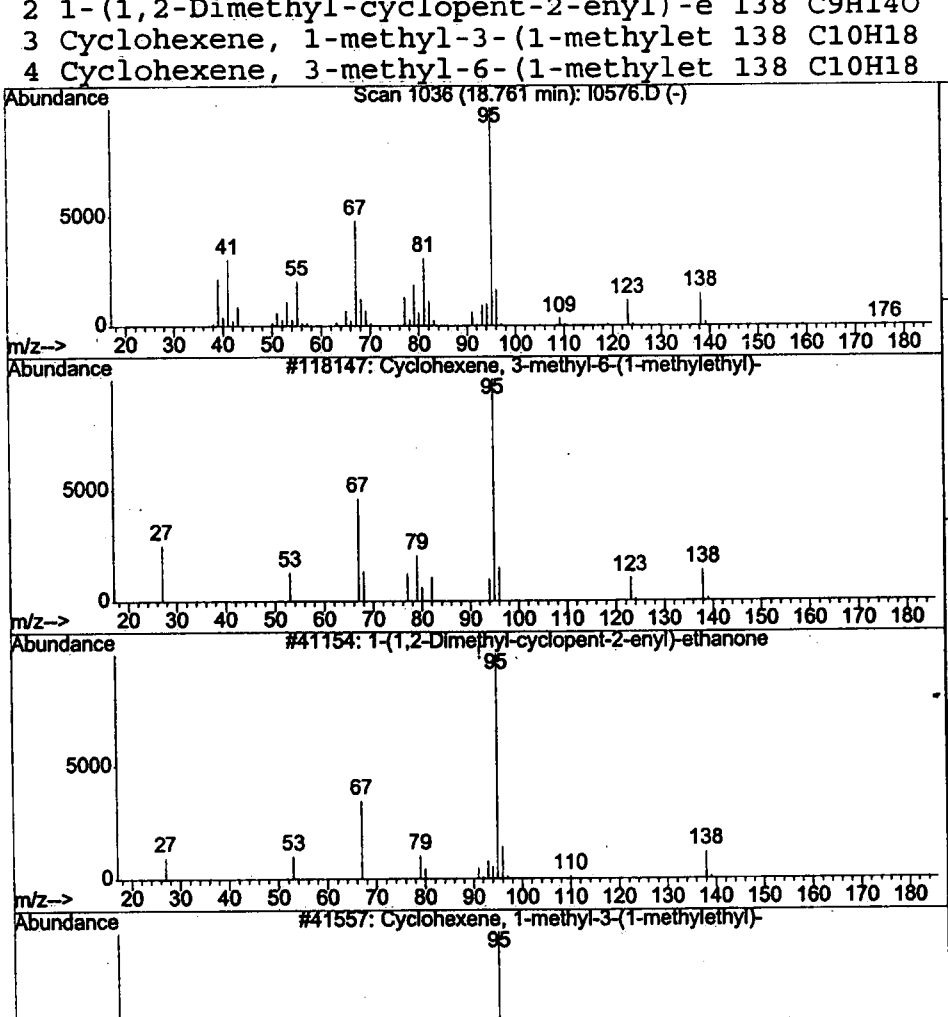
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

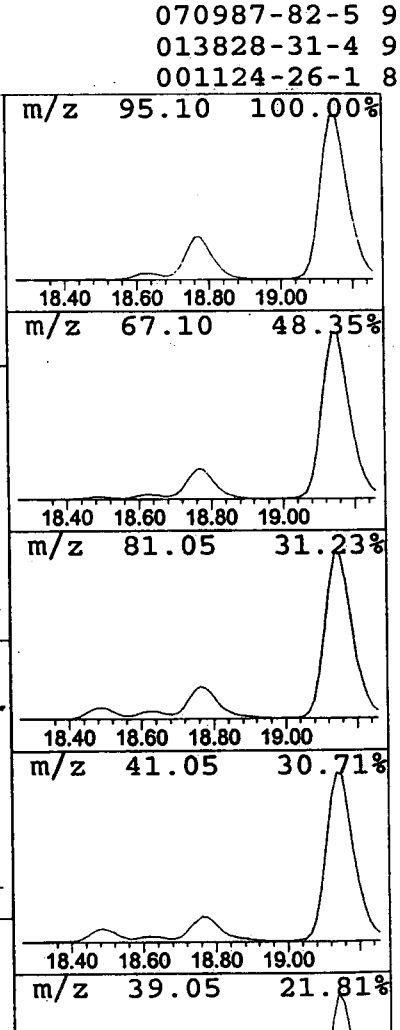
****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.76	52.23 UG	4751500	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	96
2	1-(1,2-Dimethyl-cyclopent-2-enyl)-e	138	C9H14O	070987-82-5	93
3	Cyclohexene, 1-methyl-3-(1-methylet	138	C10H18	013828-31-4	90
4	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	001124-26-1	87





0138

2089

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

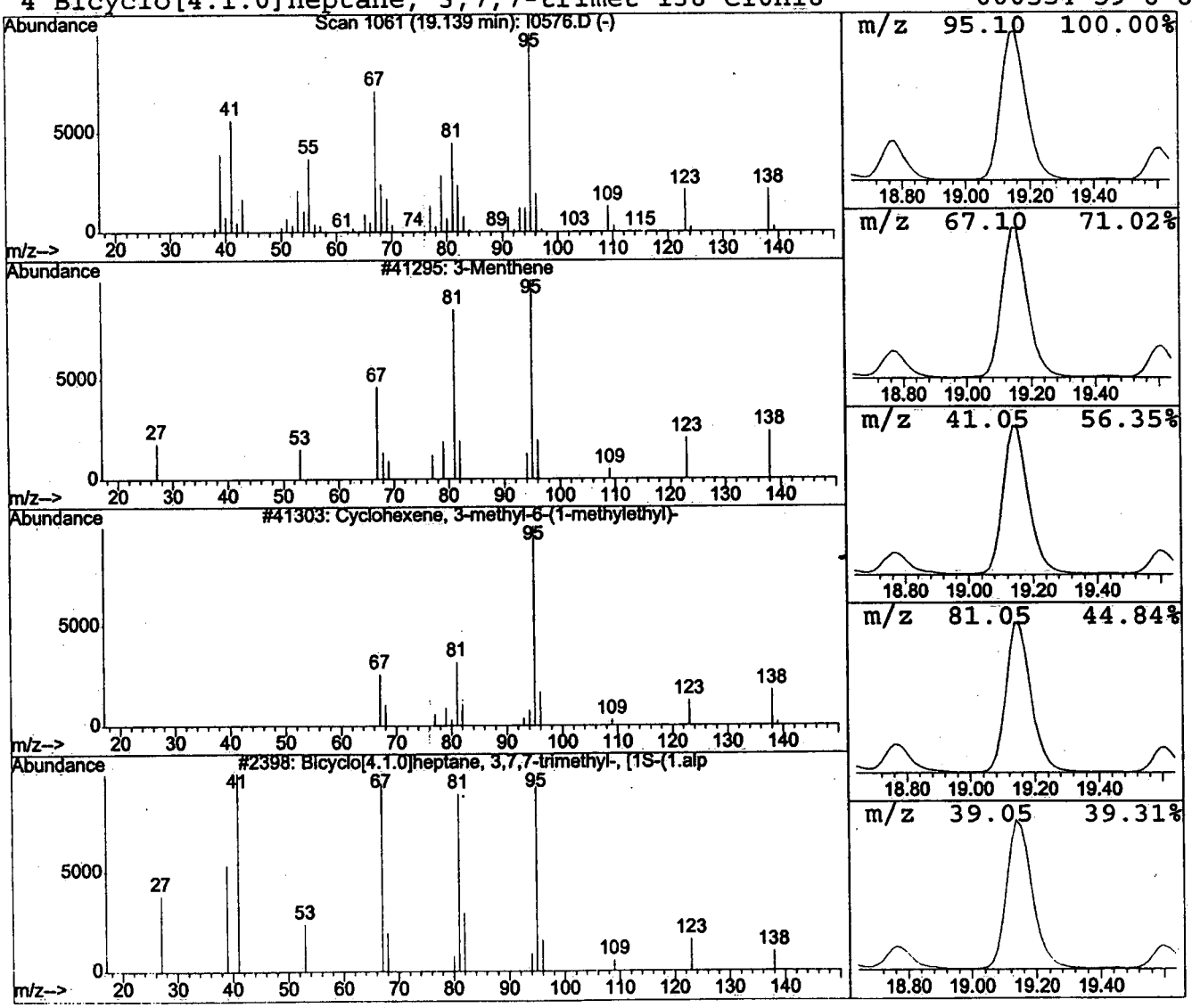
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.14	283.01 UG	25747800	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Menthene	138	C10H18	1000118-83-1	87
2	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	87
3	Bicyclo[4.1.0]heptane, 3,7,7-trimet	138	C10H18	006069-97-2	87
4	Bicyclo[4.1.0]heptane, 3,7,7-trimet	138	C10H18	000554-59-6	87



2090

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D Vial: 14
Acq On : 3 Aug 2001 17:51 Operator: DP
Sample : S-122A,5281-005,M,0.035g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

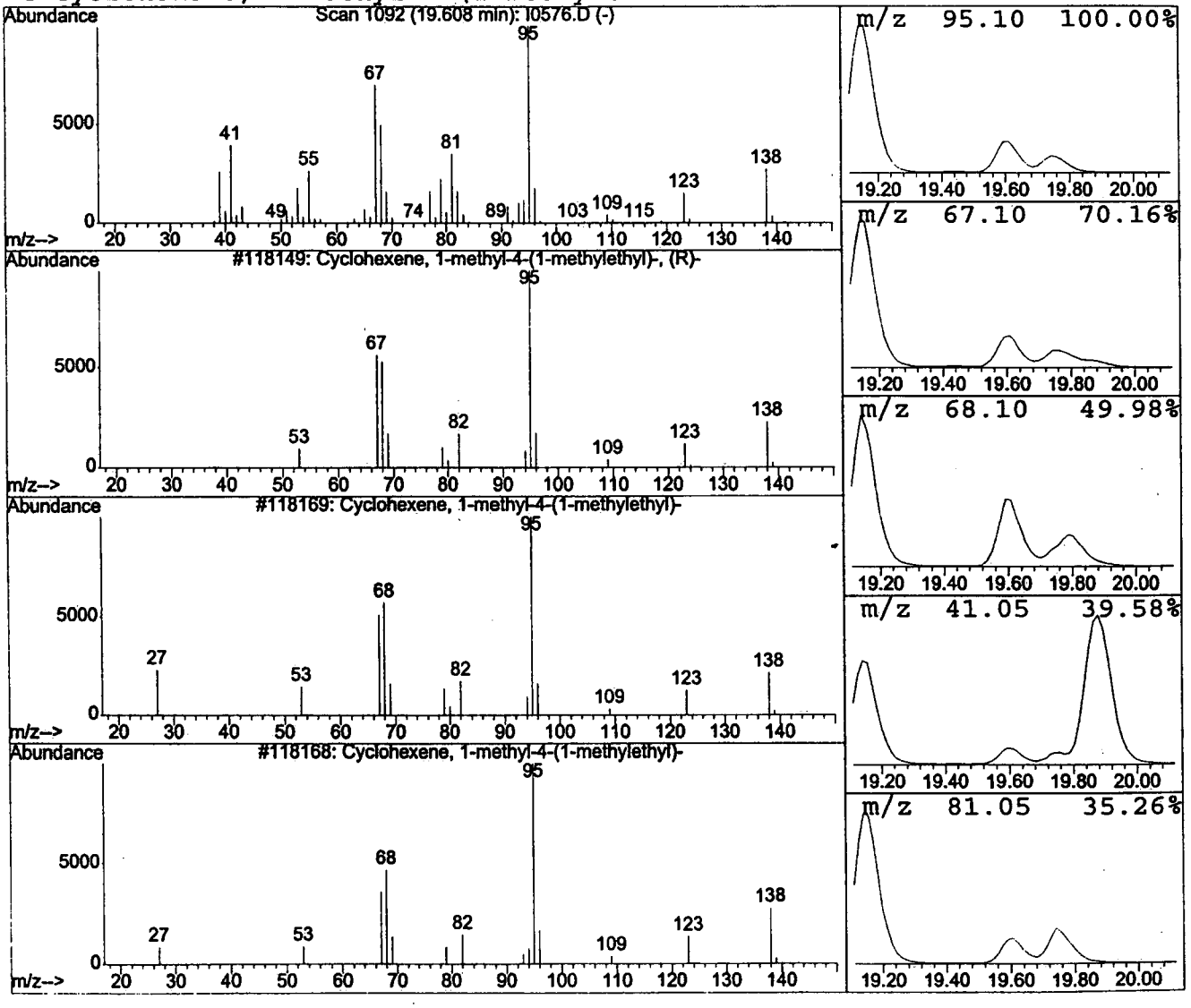
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 6 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.61	50.44 UG	4589120	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	96
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	95
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	94
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	93



0140

2091

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0576.D
Acq On : 3 Aug 2001 17:51
Sample : S-122A,5281-005,M,0.035g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 14
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

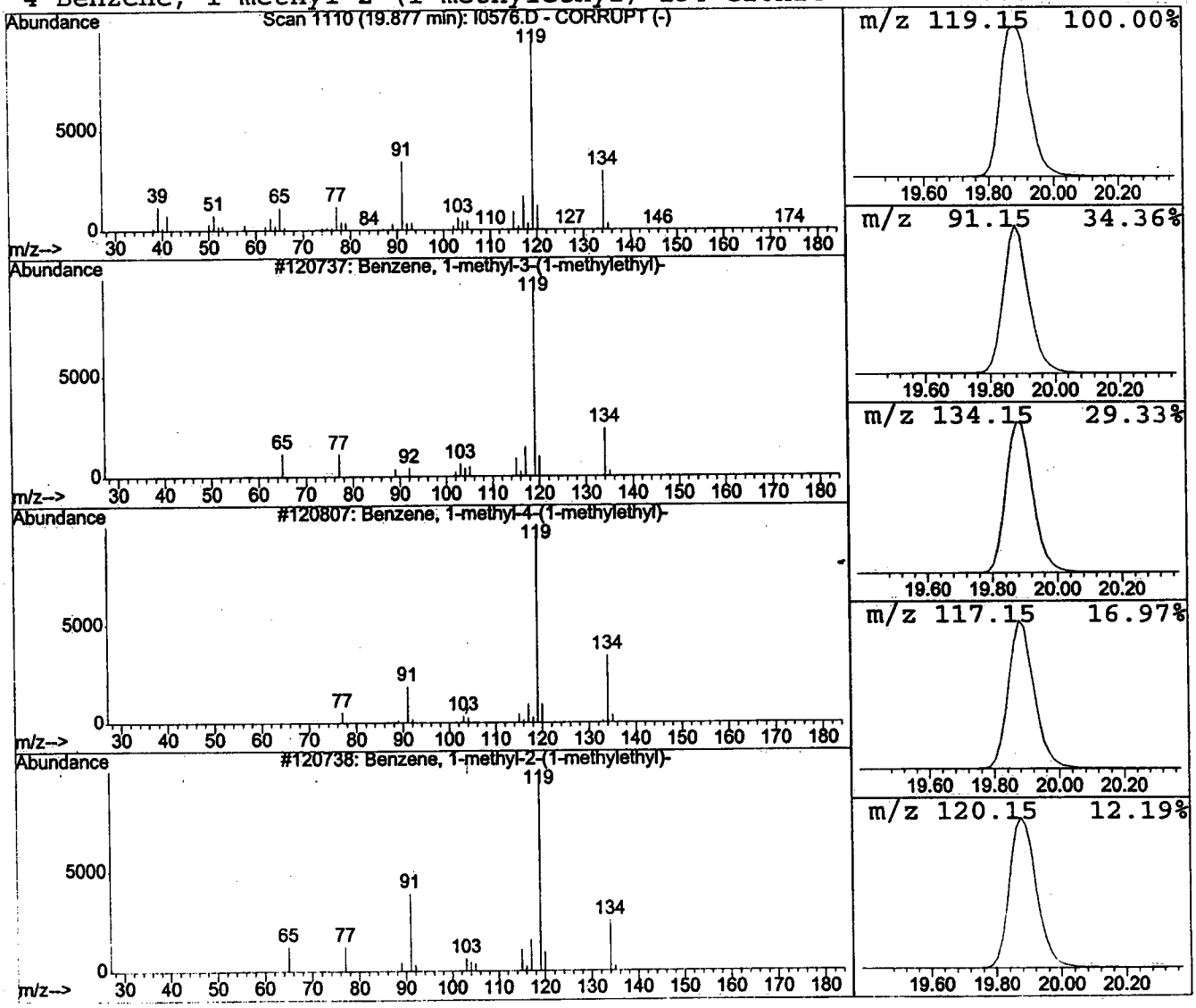
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.88	1355.22 UG	123295000	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	95
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	95
4	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94



0147

2092

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: rteint.p
Quant Time: Aug 7 13:20 2001

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.63	168	1654906	50.00	UG	-0.03
31) 1,4-Difluorobenzene	10.83	114	1676876	50.00	UG	-0.04
50) Chlorobenzene-d5	15.74	117	1236087	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.11	65	128043	8.63	UG	-0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 17.26%#			
41) Toluene-d8	13.28	98	234114	8.49	UG	-0.04
Spiked Amount 50.000	Range 35 - 117		Recovery = 16.98%#			
59) Bromofluorobenzene	17.82	95	220971	8.87	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 17.74%#			
Target Compounds						Qvalue
29) 1,2-Dichloroethane(EDC)	10.23	62	36635	2.47	UG	# 59
32) Benzene	10.23	78	2730792	118.81	UG	100
42) Toluene	13.39	92	177800	11.13	UG	99
53) Ethylbenzene	15.97	91	113027	3.72	UG	99
54) m,p-Xylene	15.97	106	31299	2.68	UG	# 4
74) 1,2-Dichlorobenzene	20.69	146	37206	2.12	UG	97

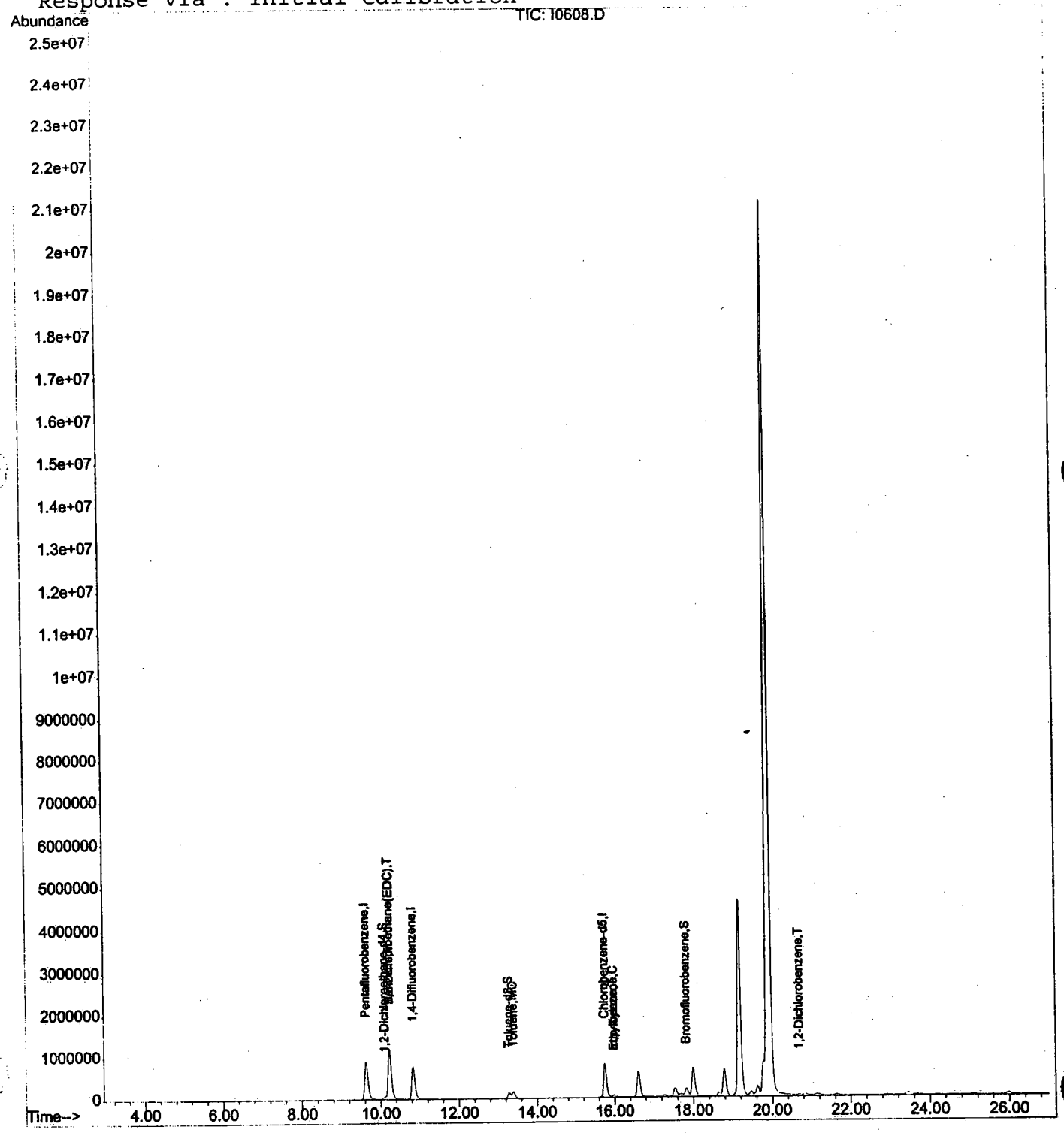
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: rteint.p
Quant Time: Aug 7 13:20 2001

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RE

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0147

2094

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 3 % of largest Peak
Start Thrs: 1
Max Peaks: 100
Stop Thrs : 1
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

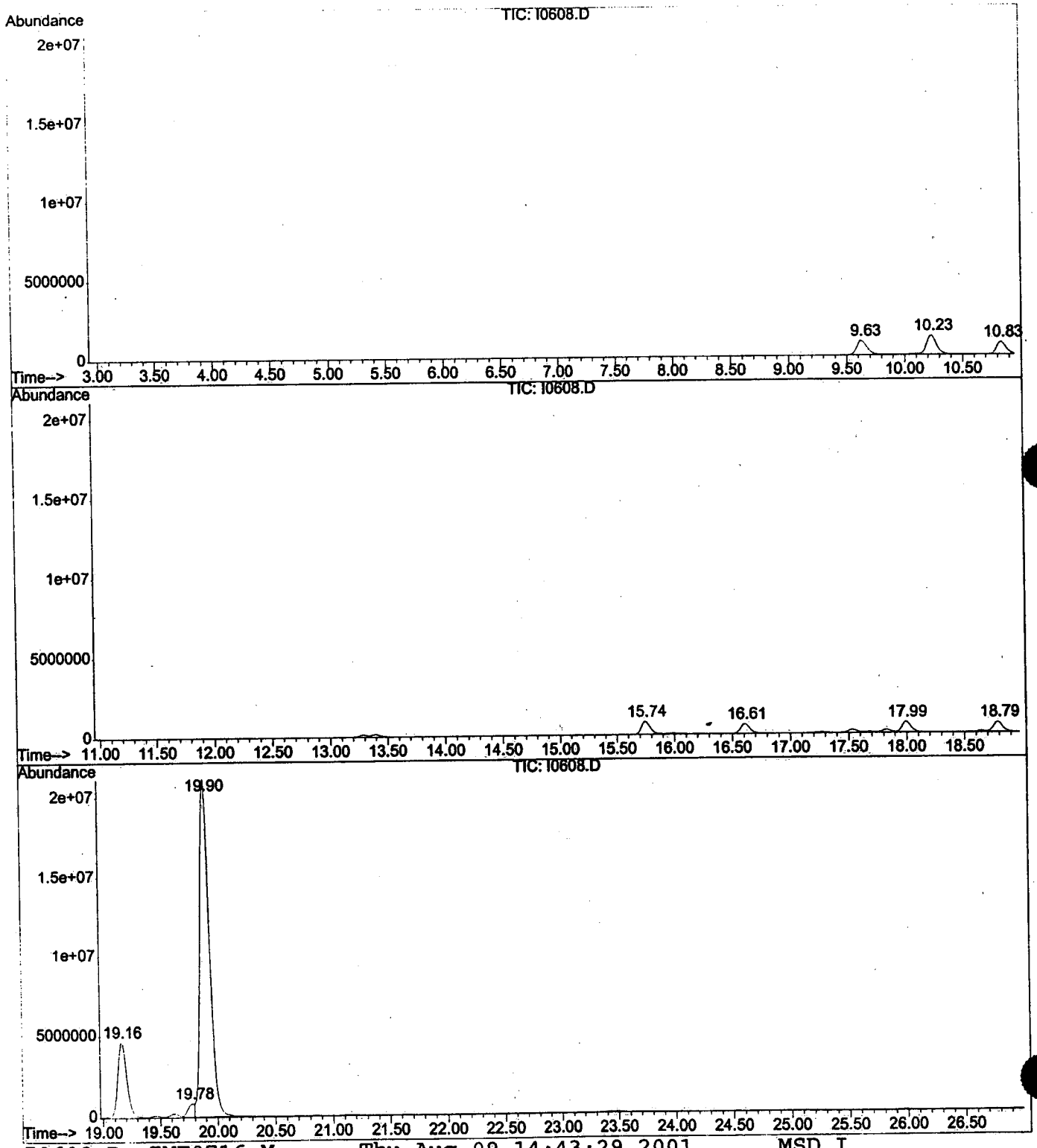
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.629	432	441	464	rBV	890585	5550993	4.46%	2.977%
2	10.232	464	480	507	rVV	1199816	7509749	6.03%	4.028%
3	10.835	511	519	541	rVB	775538	4506335	3.62%	2.417%
4	15.742	830	837	848	rBV	812632	4312727	3.46%	2.313%
5	16.609	885	893	909	rBV	611468	3369880	2.71%	1.808%
6	17.989	977	982	999	rVB	683441	3783615	3.04%	2.029%
7	18.788	1028	1034	1046	rVB	646358	3519273	2.83%	1.888%
8	19.158	1046	1058	1073	rBV	4638062	25896549	20.80%	13.890%
9	19.782	1093	1099	1100	rVV	810077	3489072	2.80%	1.871%
10	19.902	1100	1107	1138	rVB	21115651	124497162	100.00%	66.778%

Sum of corrected areas: 186435355

I0608.D IME0716.M Thu Aug 09 14:43:29 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Operator : DP
Acquired : 5 Aug 2001 14:20 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-122B,5281-006,M,0.008g
Misc Info : ENVTAC/ORBIS,08/02/01,08/02/01,5
Vial Number: 7
Quant File :IME0716.RES (RTE Integrator)



I0608.D IME0716.M Thu Aug 09 14:43:29 2001 MSD_I

7096

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

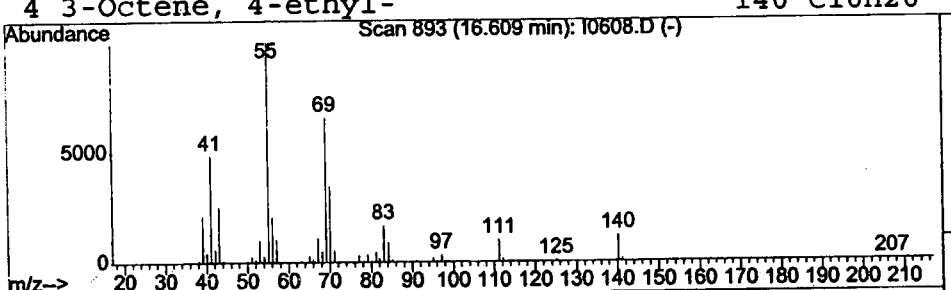
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

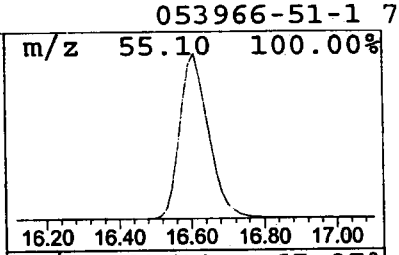
****

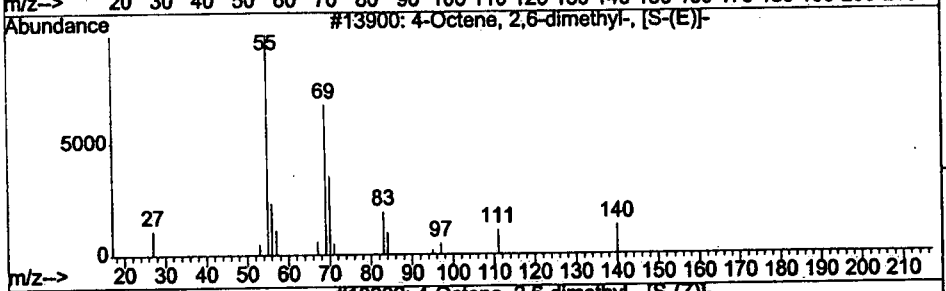
Peak Number 1 Unknown alkane Concentration Rank 5

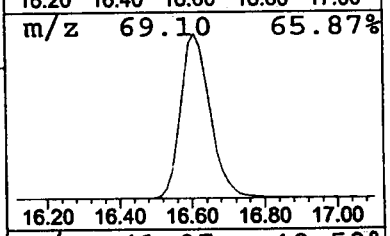
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.61	39.07 UG	3369880	Chlorobenzene-d5	15.74

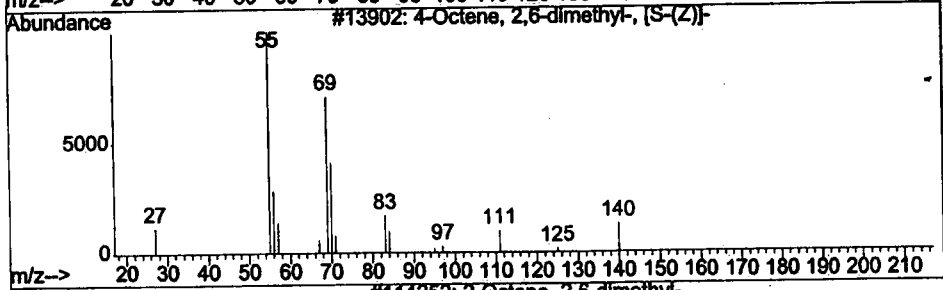
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Octene, 2,6-dimethyl-, [S-(E)]-	140	C10H20	062960-76-3	94
2	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140	C10H20	062960-77-4	94
3	2-Octene, 2,6-dimethyl-	140	C10H20	004057-42-5	81
4	3-Octene, 4-ethyl-	140	C10H20	053966-51-1	74

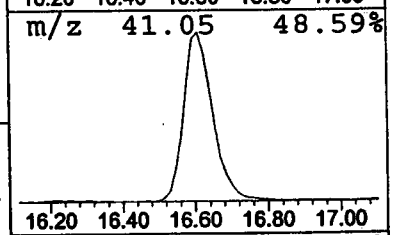


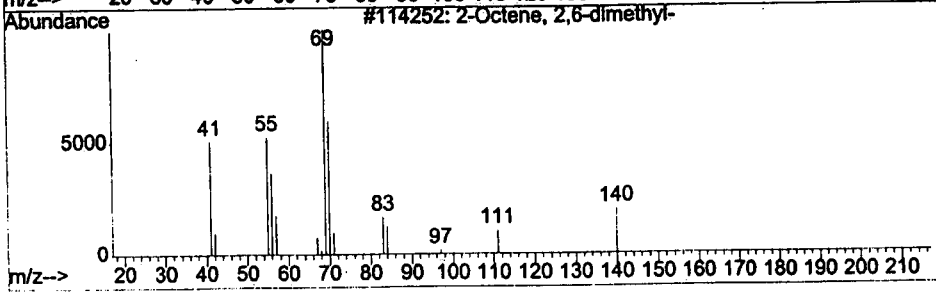


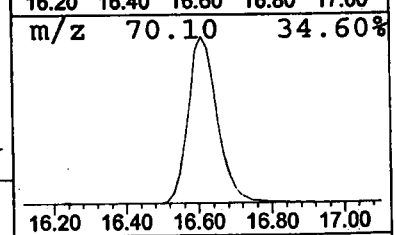


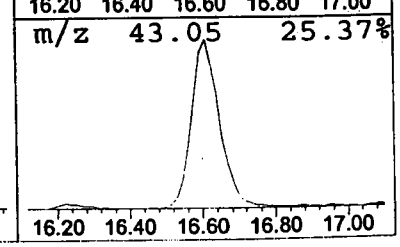












0146

2097

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

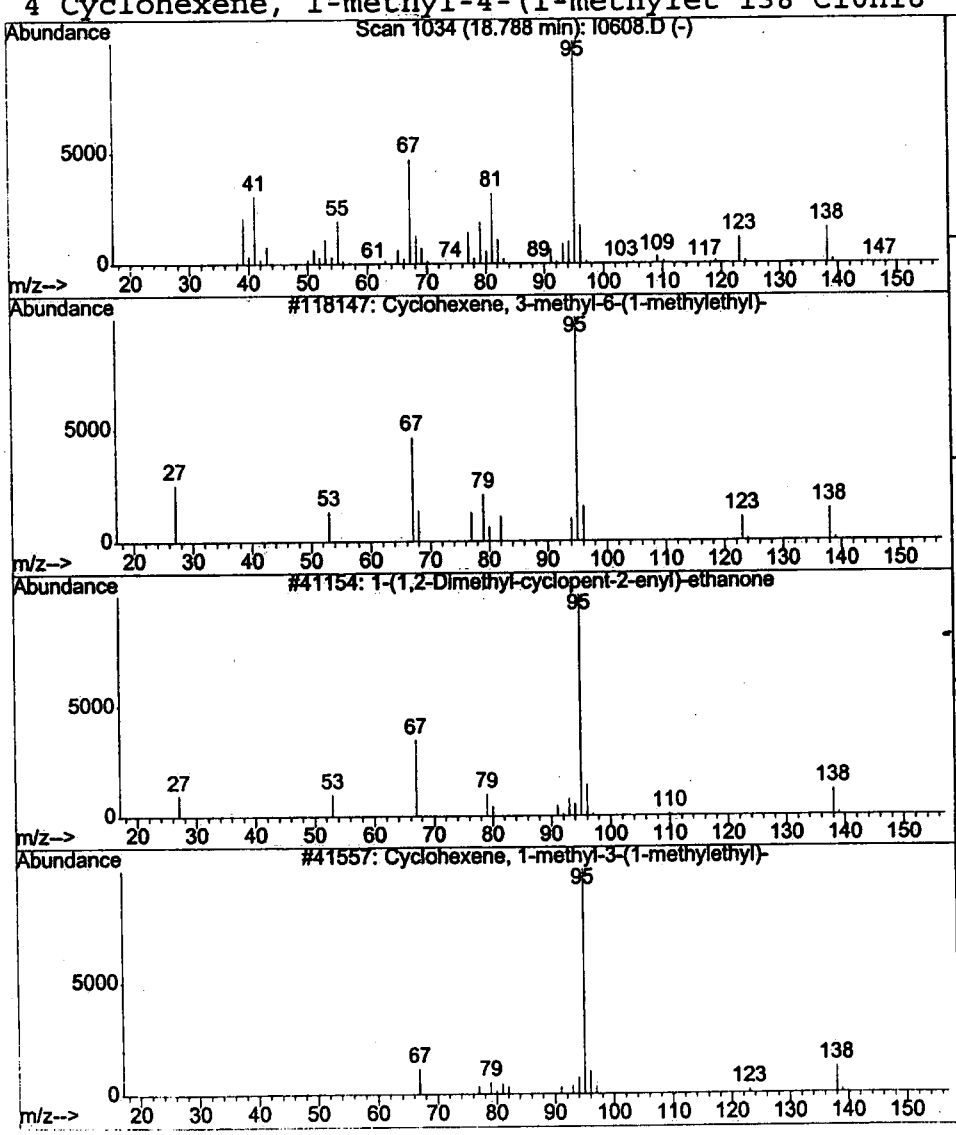
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

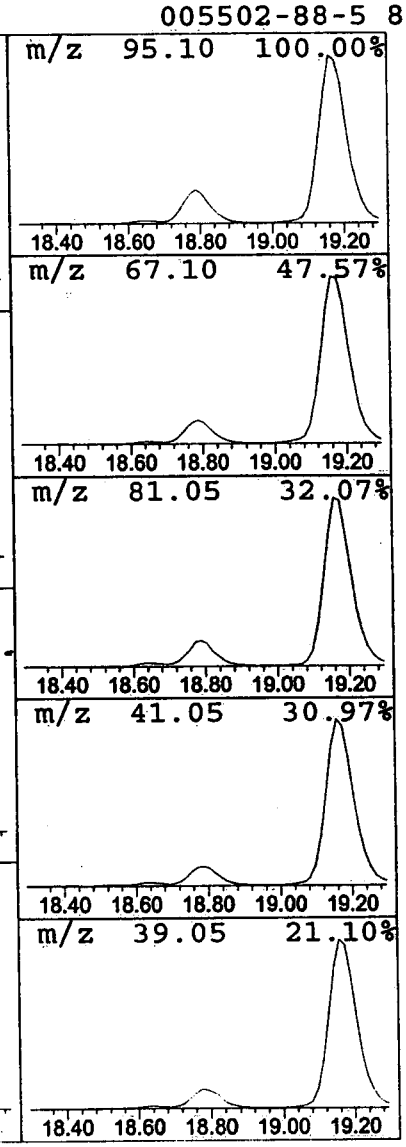
****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.79	40.80 UG	3519270	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	96
2	1-(1,2-Dimethyl-cyclopent-2-enyl)-e	138	C9H14O	070987-82-5	93
3	Cyclohexene, 1-methyl-3-(1-methylet	138	C10H18	013828-31-4	91
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	87





0147

2098

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

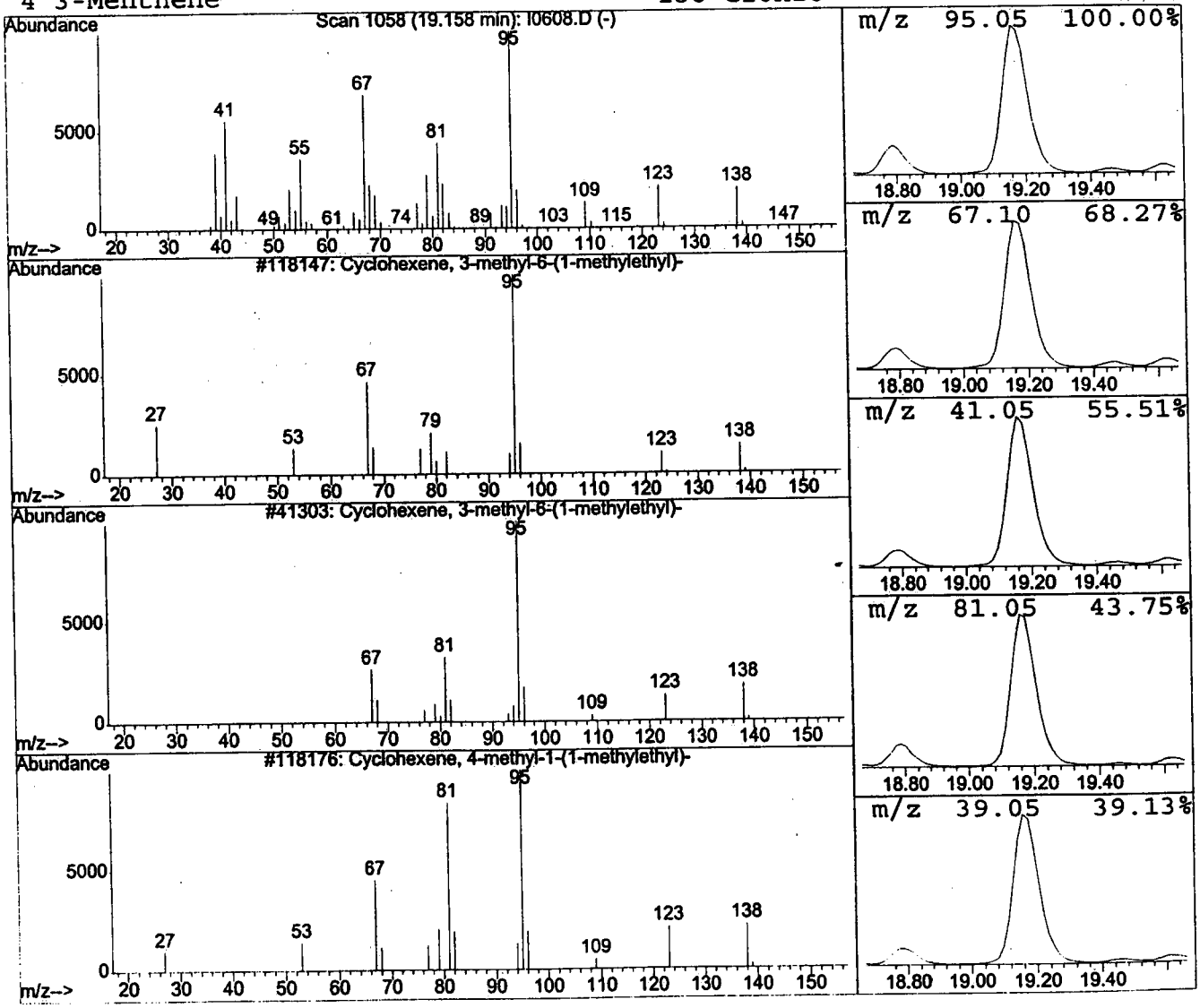
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.16	300.23 UG	25896500	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	87
2	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	87
3	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	87
4	3-Menthene	138	C10H18	1000118-83-1	87



0148

2099

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

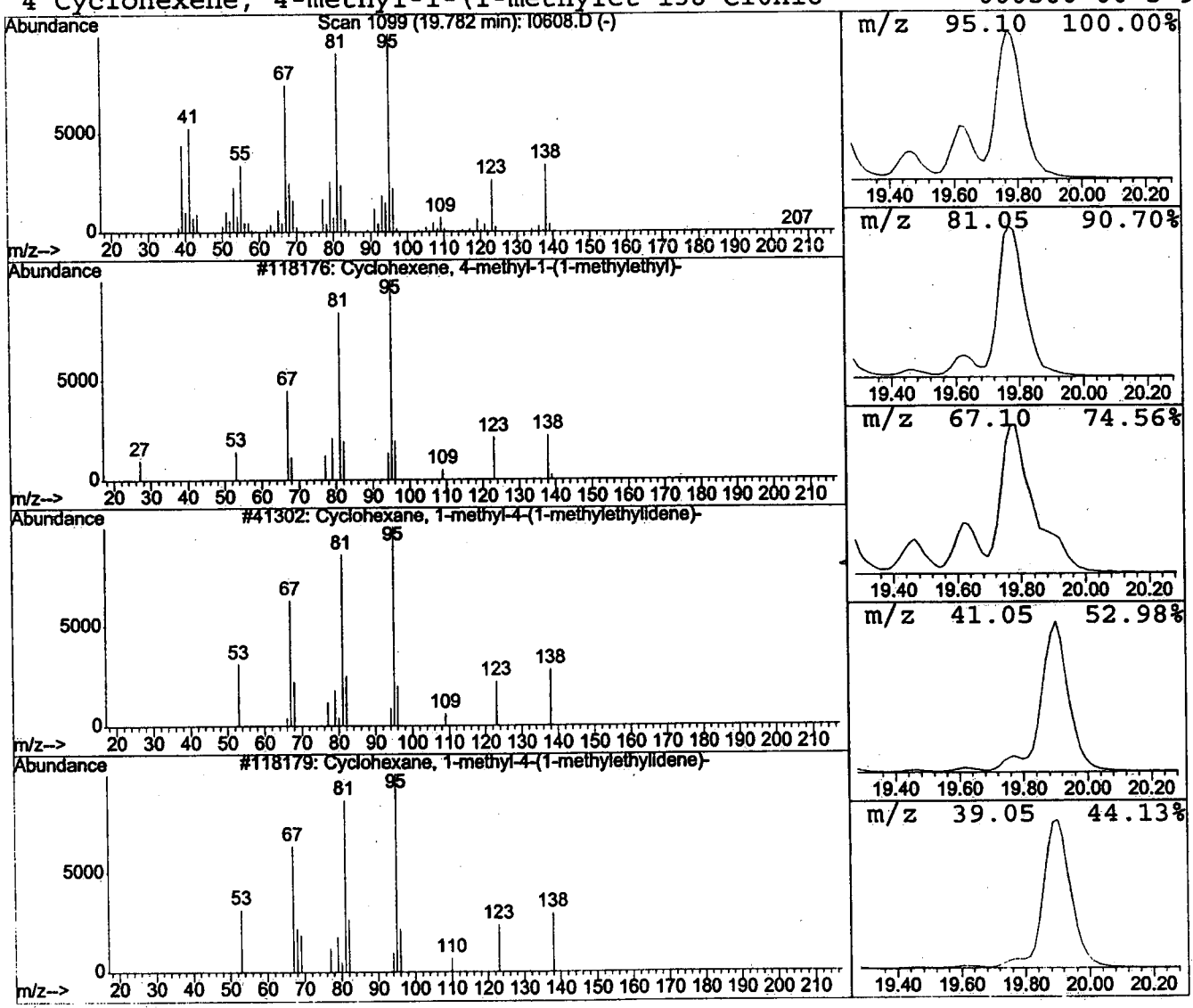
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.78	40.45 UG	3489070	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	95
2	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	95
3	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	94
4	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	93



2100

Data File : C:\HPCHEM\1\DATA\08-06-01\I0608.D
Acq On : 5 Aug 2001 14:20
Sample : S-122B,5281-006,M,0.008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 7
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

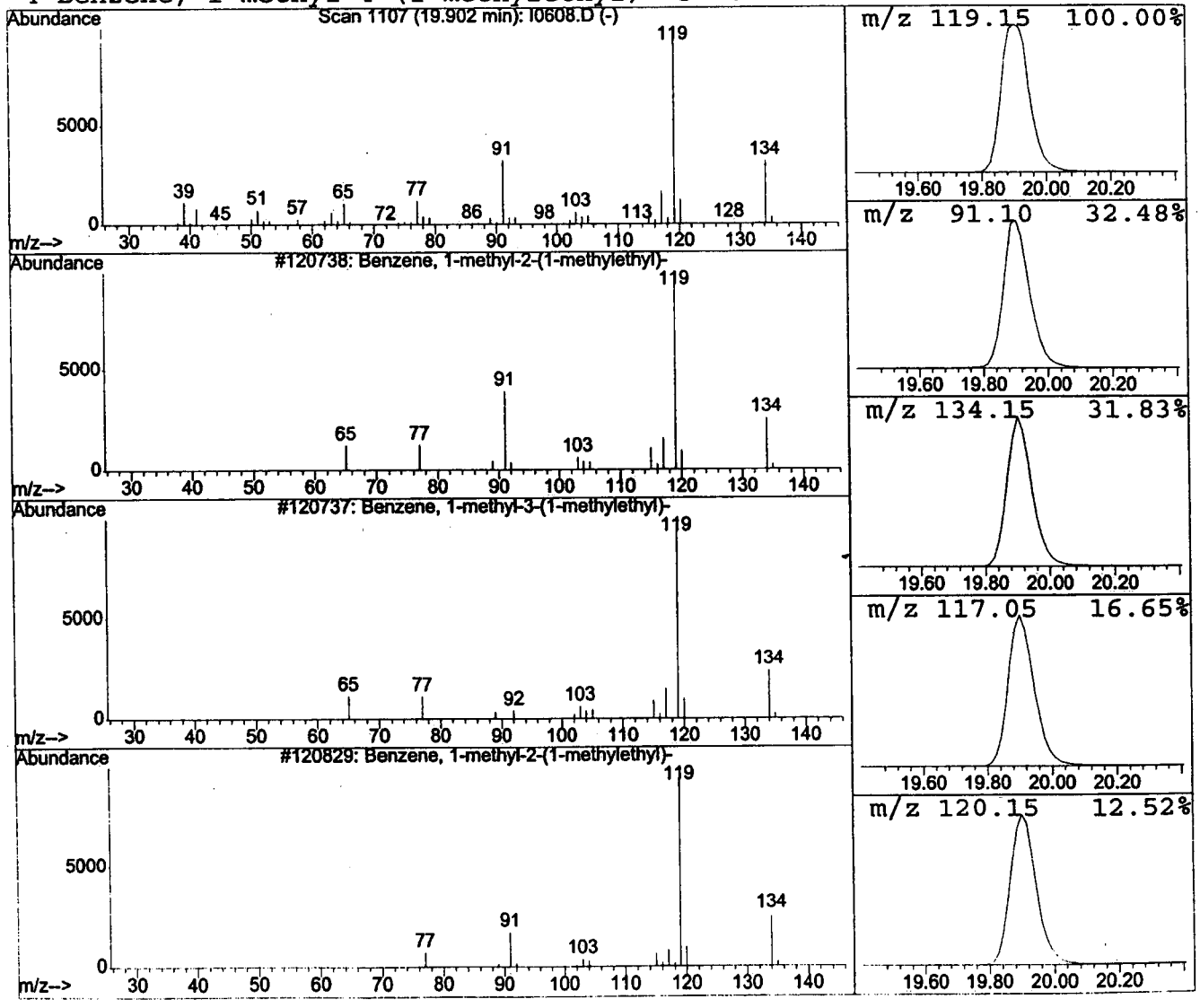
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.90	1443.37 UG	124497000	Chlorobenzene-d5	15.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	95
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	95
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	94



0150

2101

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D Vial: 16
Acq On : 3 Aug 2001 19:04 Operator: DP
Sample : S-123,5281-007,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:08 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.59	168	1949612	50.00	UG	-0.07
31) 1,4-Difluorobenzene	10.81	114	1910124	50.00	UG	-0.07
50) Chlorobenzene-d5	15.72	117	1367902	50.00	UG	-0.08
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.07	65	625947	35.81	UG	-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 71.62%			
41) Toluene-d8	13.25	98	1187787	37.81	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 75.62%			
59) Bromofluorobenzene	17.79	95	1016818	36.88	UG	-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 73.76%			
Target Compounds						Qvalue
32) Benzene	10.19	78	591580	22.59	UG	100
42) Toluene	13.37	92	1201493	66.02	UG	99
74) 1,2-Dichlorobenzene	20.64	146	133402	6.85	UG	# 79

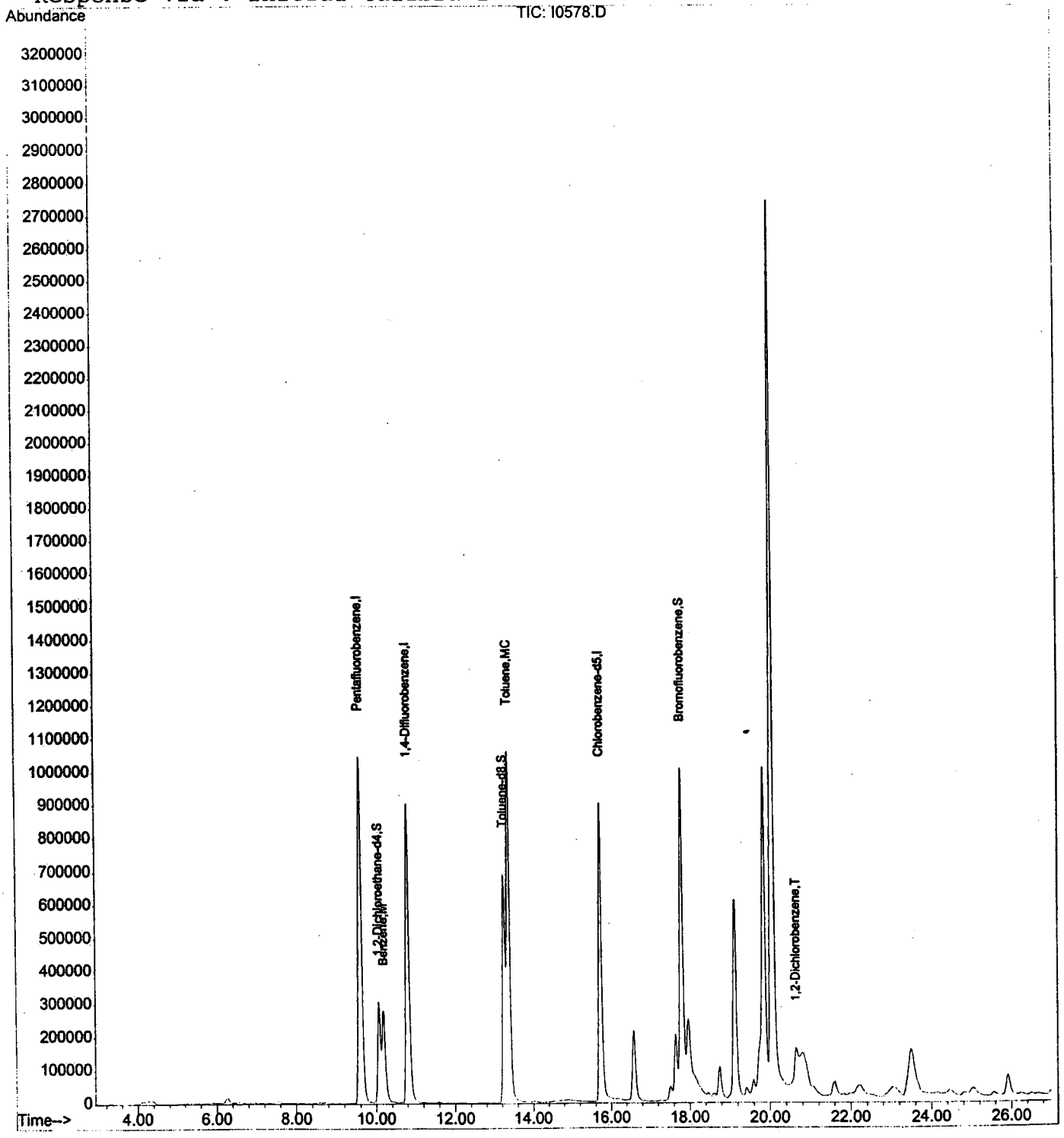
(#) = qualifier out of range (m) = manual integration

2102

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D Vial: 16
Acq On : 3 Aug 2001 19:04 Operator: DP
Sample : S-123,5281-007,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:08 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0152

2103

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

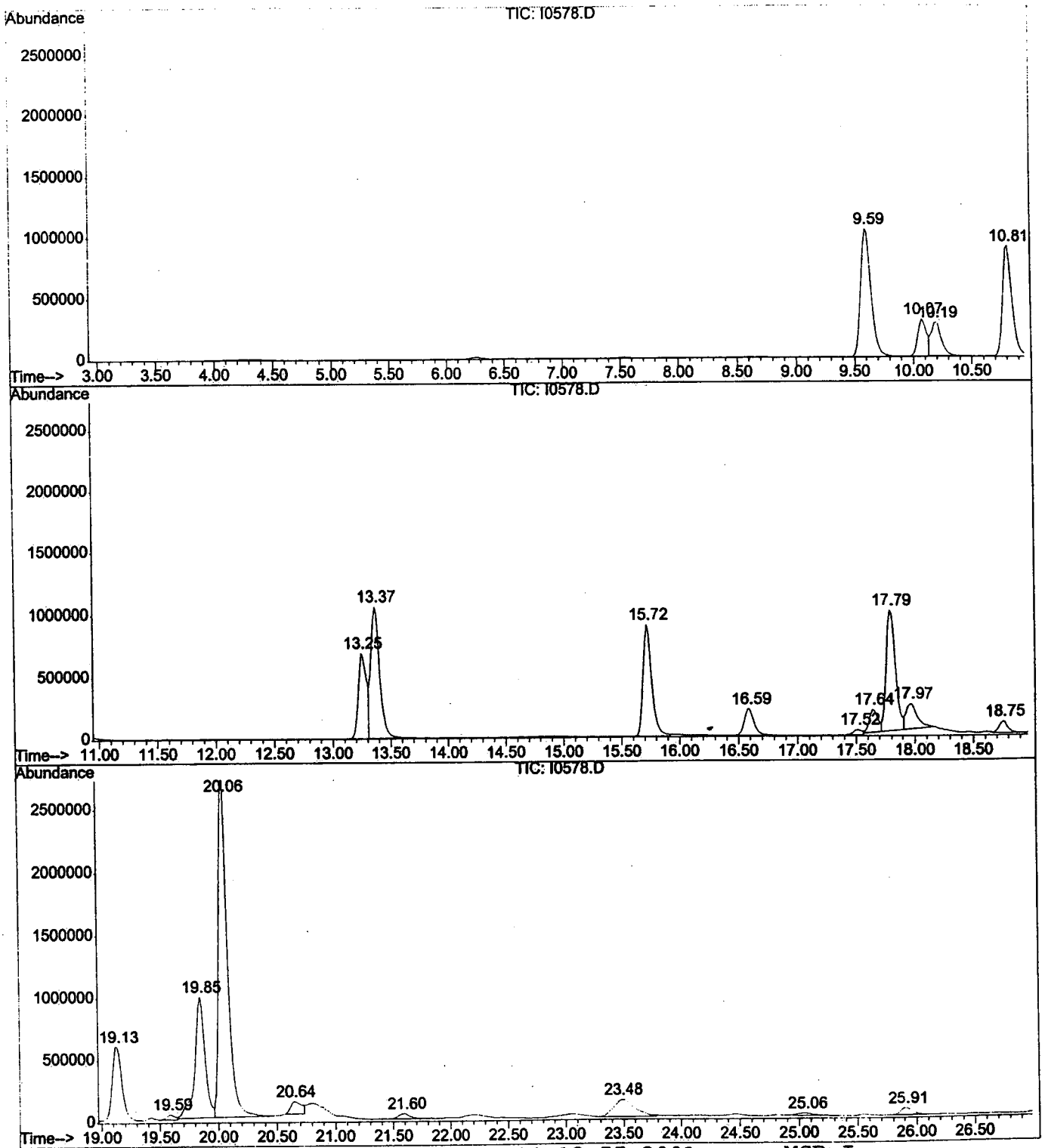
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.592	431	439	458	rBV	1045672	6461935	44.11%	9.816%
2	10.070	462	470	474	rBV	305813	1598924	10.91%	2.429%
3	10.193	474	478	489	rVB2	273432	1616263	11.03%	2.455%
4	10.807	510	518	537	rBV	901349	5076011	34.65%	7.711%
5	13.246	666	676	680	rBV	691381	3525753	24.07%	5.356%
6	13.366	680	684	703	rVB	1055857	5674908	38.74%	8.621%
7	15.719	830	837	850	rBV	899241	4711842	32.16%	7.158%
8	16.593	886	894	907	rVB	211669	1195890	8.16%	1.817%
9	17.516	946	954	957	rBV4	42678	222112	1.52%	0.337%
10	17.638	957	962	967	rVV	185466	956409	6.53%	1.453%
11	17.788	967	972	980	rVV	968709	5234886	35.73%	7.952%
12	17.967	980	984	997	rVB	191706	1271190	8.68%	1.931%
13	18.754	1030	1036	1045	rVB2	94254	485888	3.32%	0.738%
14	19.135	1049	1061	1074	rBV2	600855	3577348	24.42%	5.434%
15	19.589	1085	1091	1095	rBV2	42931	202810	1.38%	0.308%
16	19.847	1095	1108	1116	rVV	970252	5970170	40.75%	9.069%
17	20.055	1116	1122	1149	rVB	2696816	14649910	100.00%	22.254%
18	20.644	1156	1161	1167	rBV	99995	685123	4.68%	1.041%
19	21.600	1216	1224	1233	rBV	43586	295379	2.02%	0.449%
20	23.482	1336	1348	1368	rBV8	142123	1847247	12.61%	2.806%
21	25.057	1445	1452	1462	rVB3	19911	168820	1.15%	0.256%
22	25.910	1501	1508	1520	rBV5	59003	401024	2.74%	0.609%

Sum of corrected areas: 65829842

I0578.D IME0716.M Thu Aug 09 14:12:54 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Operator : DP
Acquired : 3 Aug 2001 19:04 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-123,5281-007,M,0.040g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 16
Quant File :IME0716.RES (RTE Integrator)



I0578.D IME0716.M Thu Aug 09 14:12:55 2001 MSD_I

0154

2105

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D Vial: 16
Acq On : 3 Aug 2001 19:04 Operator: DP
Sample : S-123,5281-007,M,0.040g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

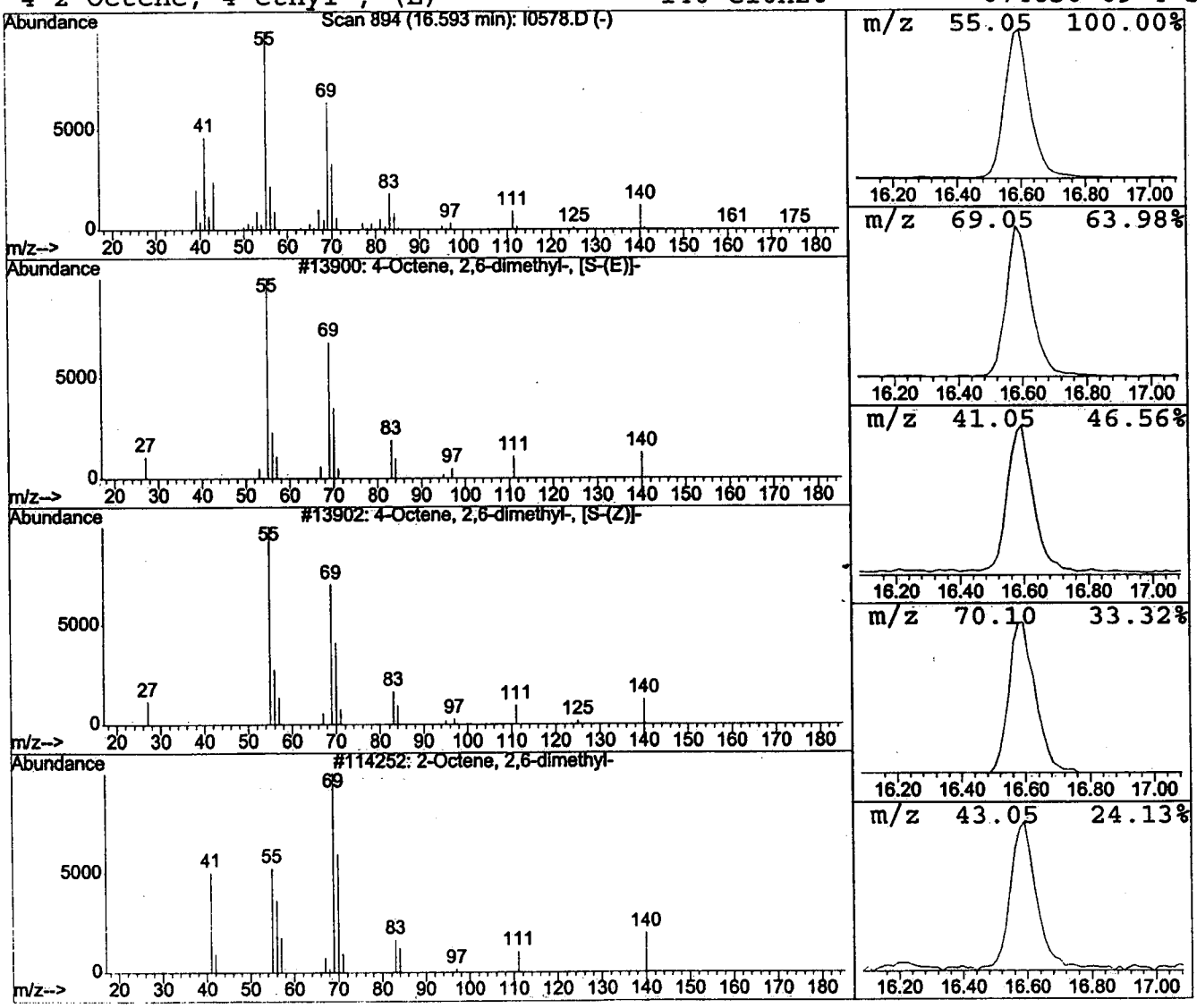
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown alkane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.59	12.69 UG	1195890	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Octene, 2,6-dimethyl-, [S-(E)]-	140	C10H20	062960-76-3	94
2	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140	C10H20	062960-77-4	87
3	2-Octene, 2,6-dimethyl-	140	C10H20	004057-42-5	81
4	2-Octene, 4-ethyl-, (E)-	140	C10H20	074630-09-4	58



0155

2106

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

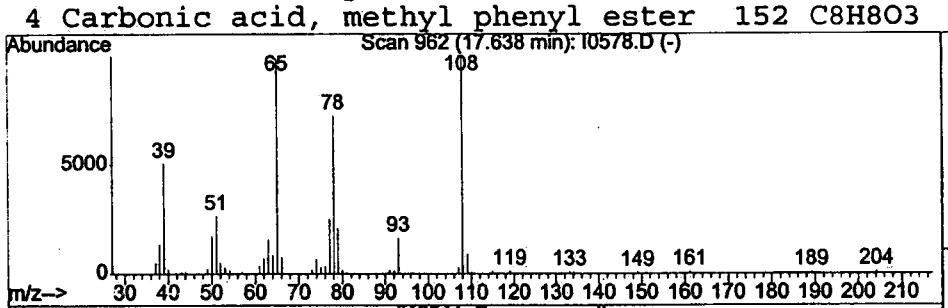
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

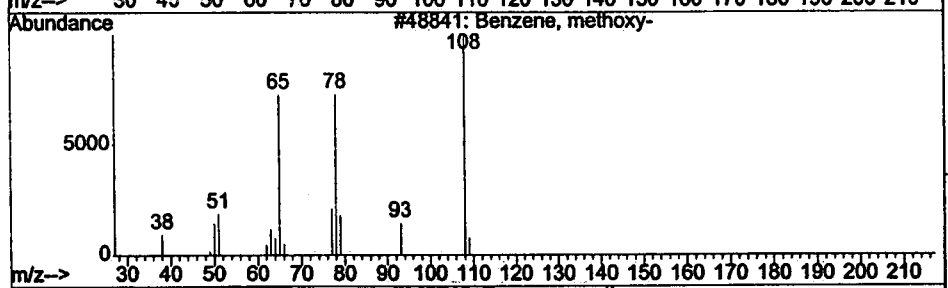
****

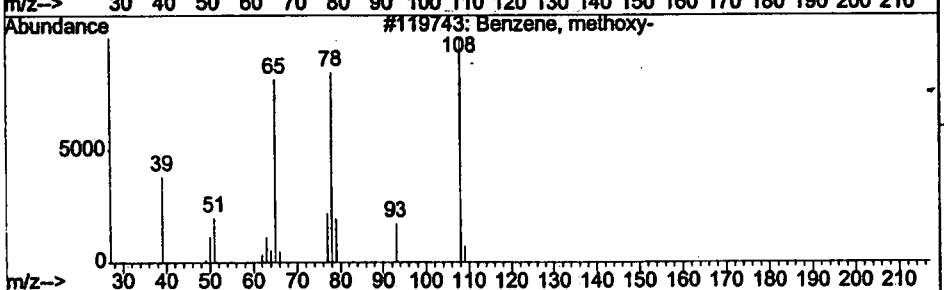
Peak Number 2 Substituted benzene Concentration Rank 7

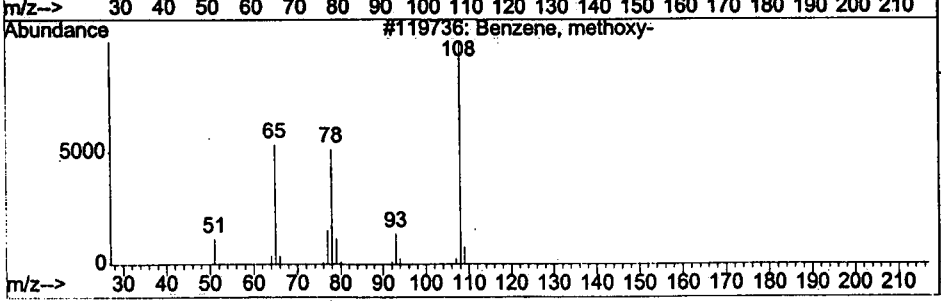
R.T.	EstConc	Area	Relative to ISTD	R.T.
17.64	10.15 UG	956409	Chlorobenzene-d5	15.72

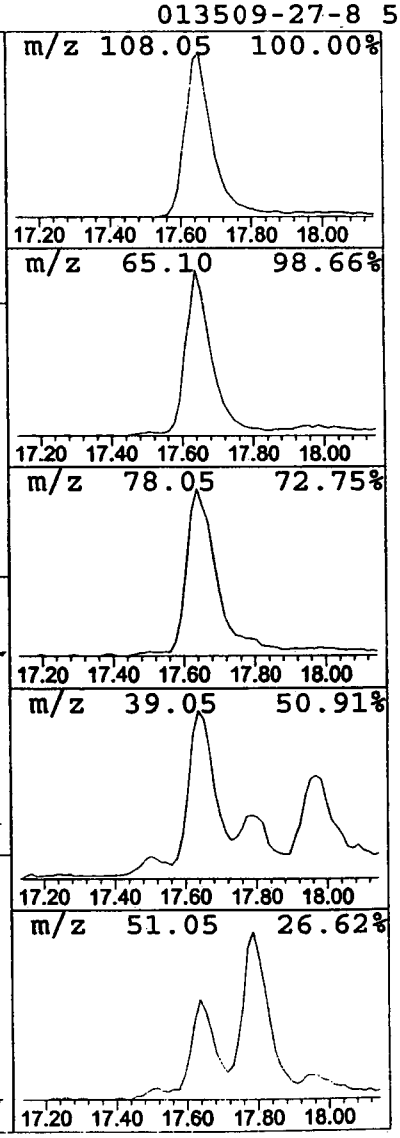
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, methoxy-	108	C7H8O	000100-66-3	98
2	Benzene, methoxy-	108	C7H8O	000100-66-3	96
3	Benzene, methoxy-	108	C7H8O	000100-66-3	93
4	Carbonic acid, methyl phenyl ester	152	C8H8O3	013509-27-8	50











0156

2107

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

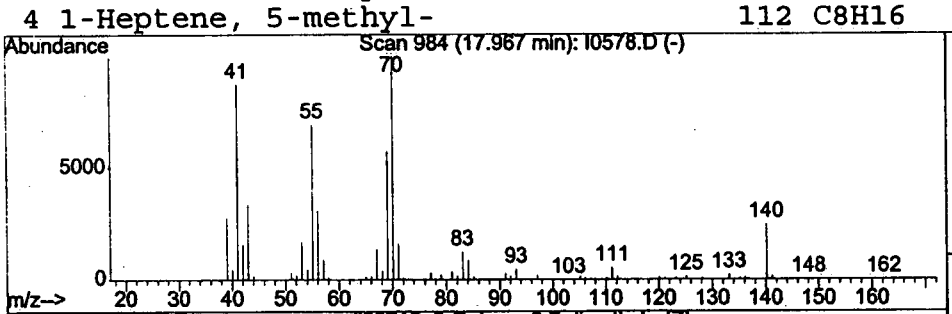
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

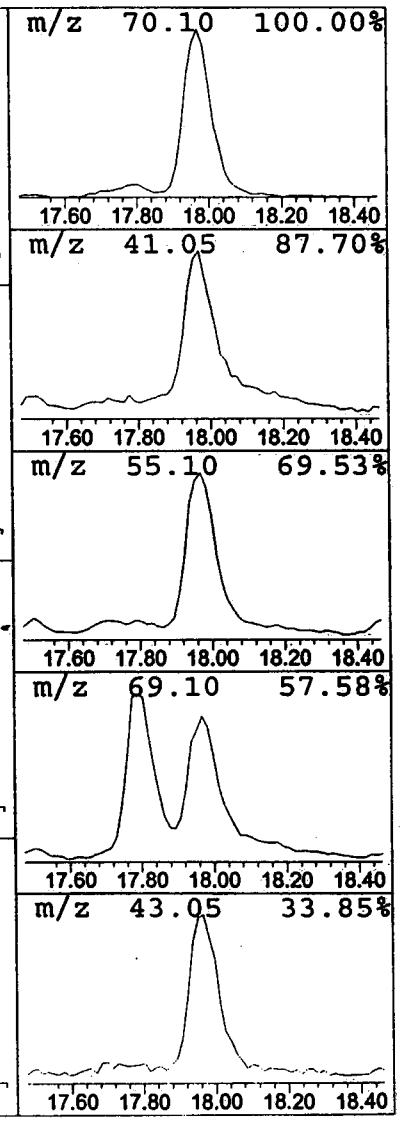
****

Peak Number 3 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.97	13.49 UG	1271190	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octene, 3,7-dimethyl-, (Z)-	140	C10H20	006874-32-4	90
2	3,7-Dimethyl-3-octyl methylphosphon	238	C11H24FO2P	1000216-71-7	72
3	2-Nonene, 3-methyl-, (E)-	140	C10H20	017003-99-5	64
4	1-Heptene, 5-methyl-	112	C8H16	013151-04-7	64





0157

2108

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

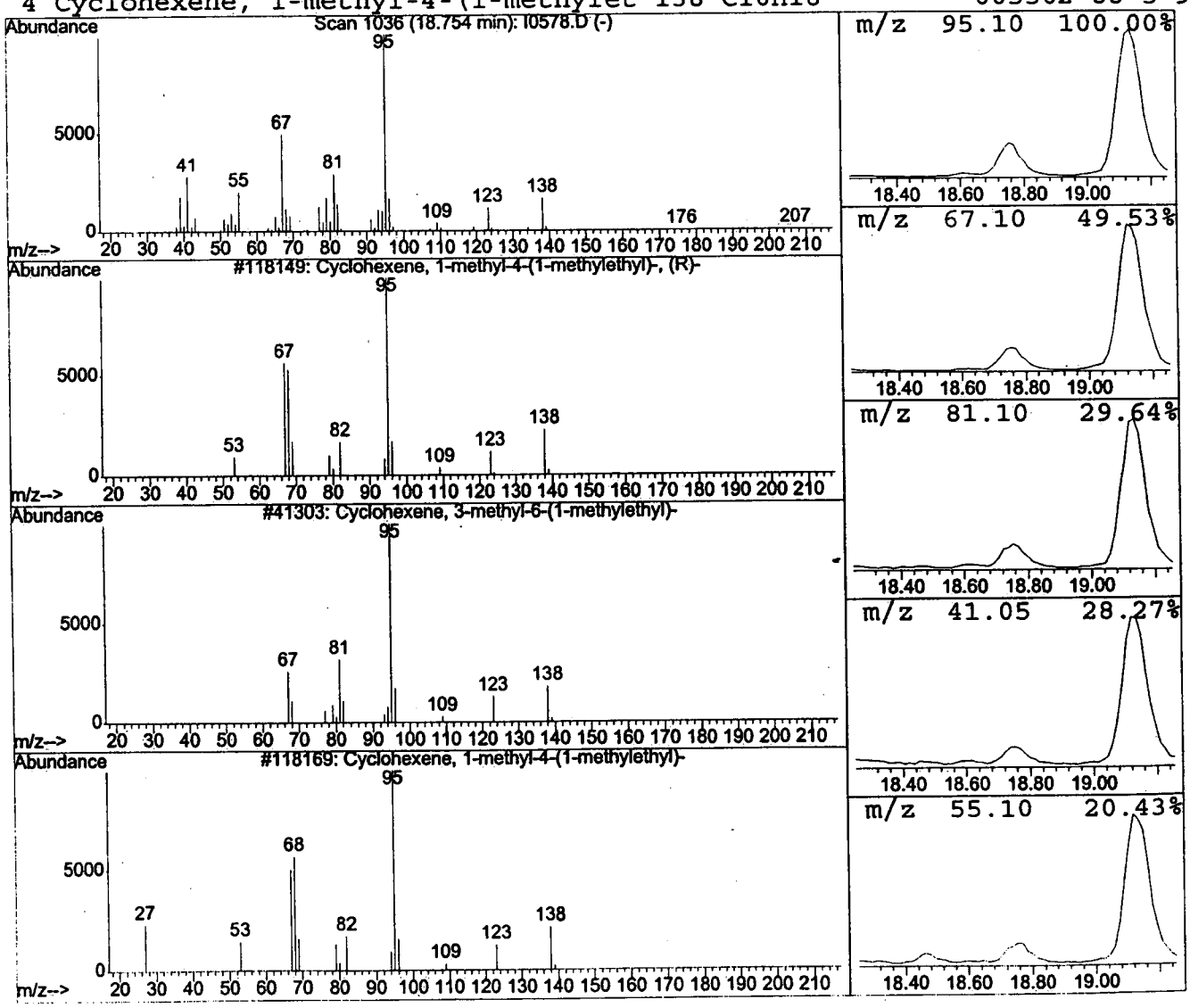
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.75	5.16 UG	485888	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	94
2	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	93
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	91
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	90



0158

2109

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

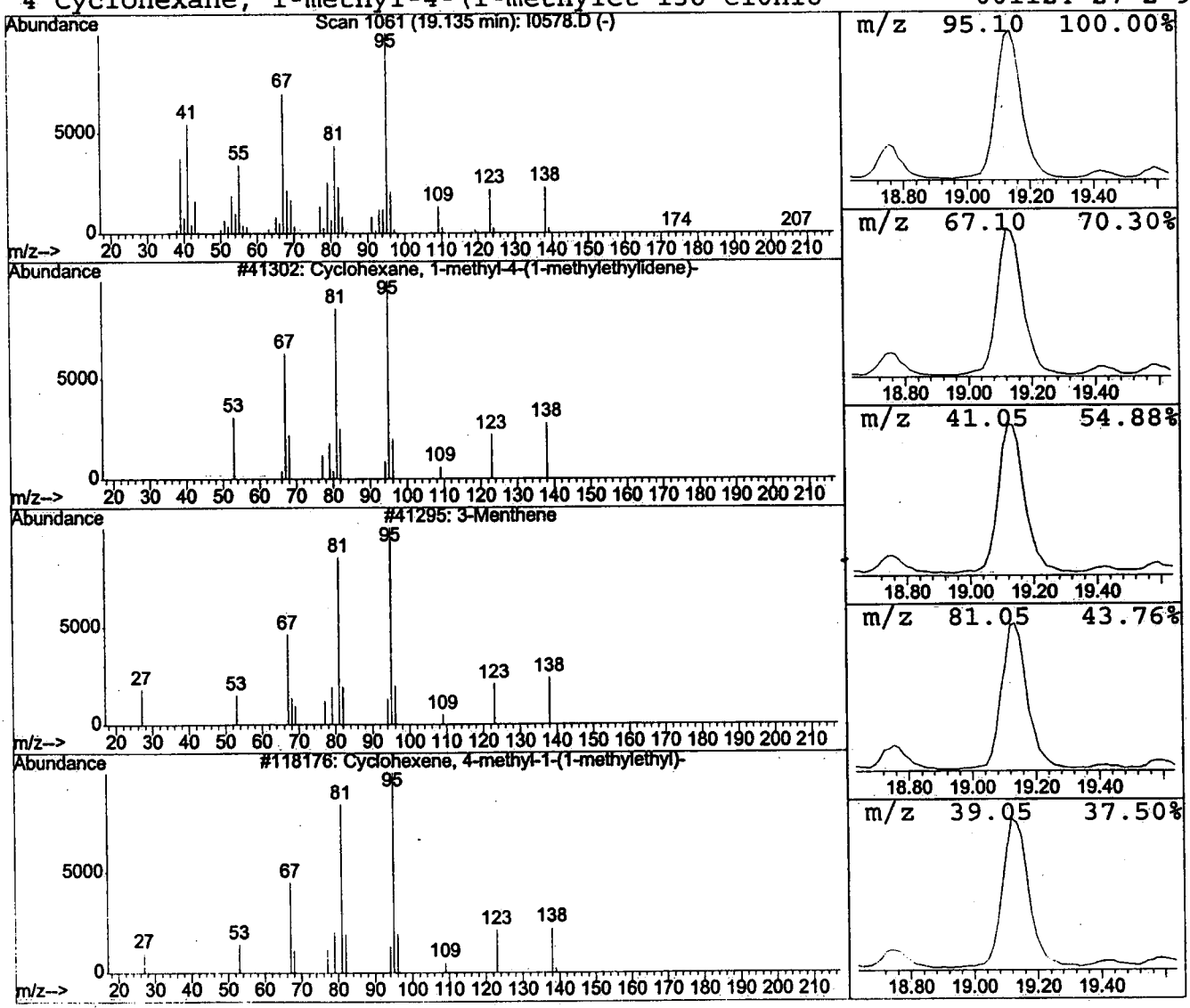
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.13	37.96 UG	3577350	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	94
2	3-Menthene	138	C10H18	1000118-83-1	94
3	Cyclohexene, 4-methyl-1-(1-methylet	138	C10H18	000500-00-5	94
4	Cyclohexane, 1-methyl-4-(1-methylet	138	C10H18	001124-27-2	90



0159

2110

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

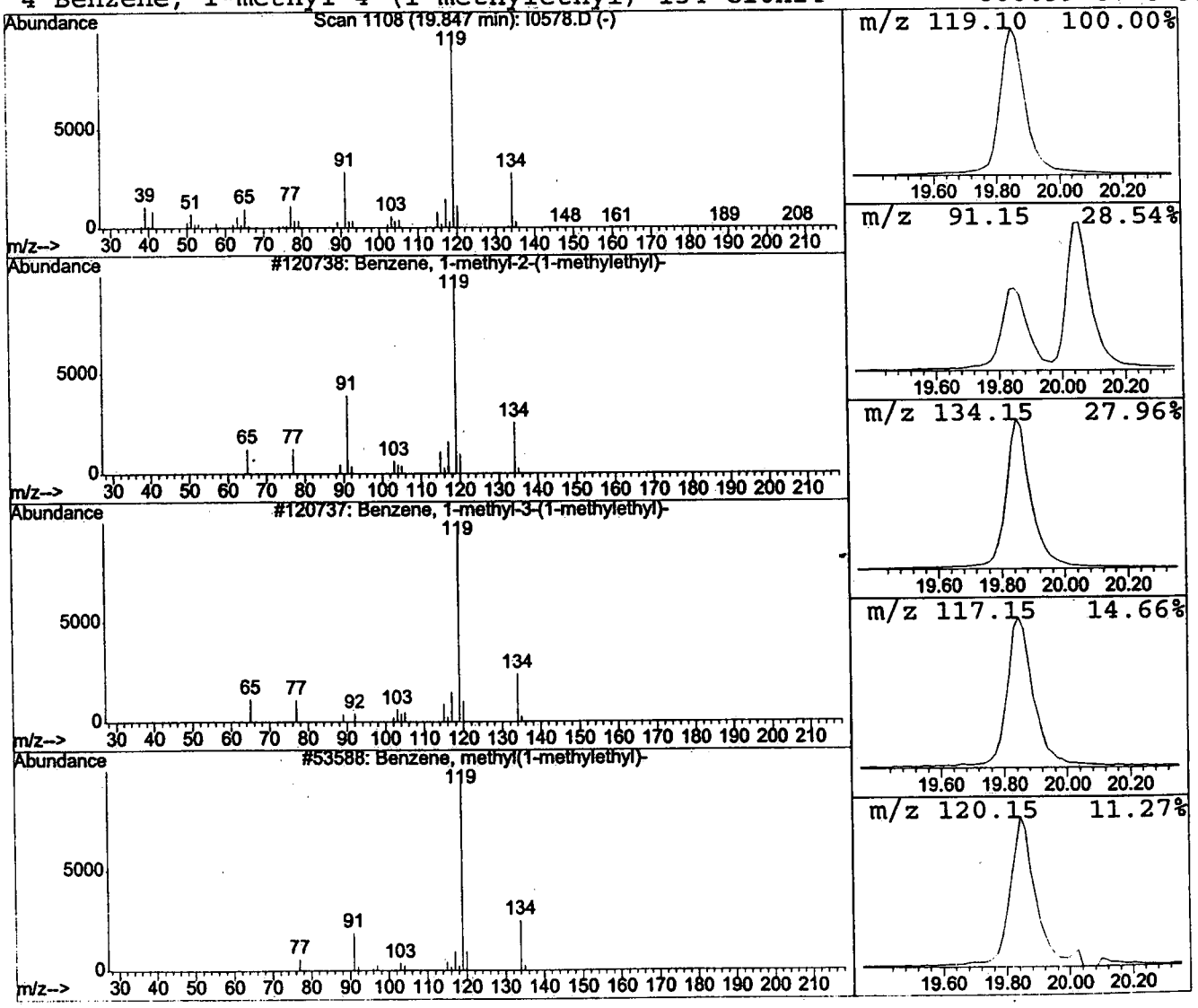
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 6 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.85	63.35 UG	5970170	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	96
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	94
3	Benzene, methyl(1-methylethyl)-	134	C10H14	025155-15-1	93
4	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	93



0160

2111

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

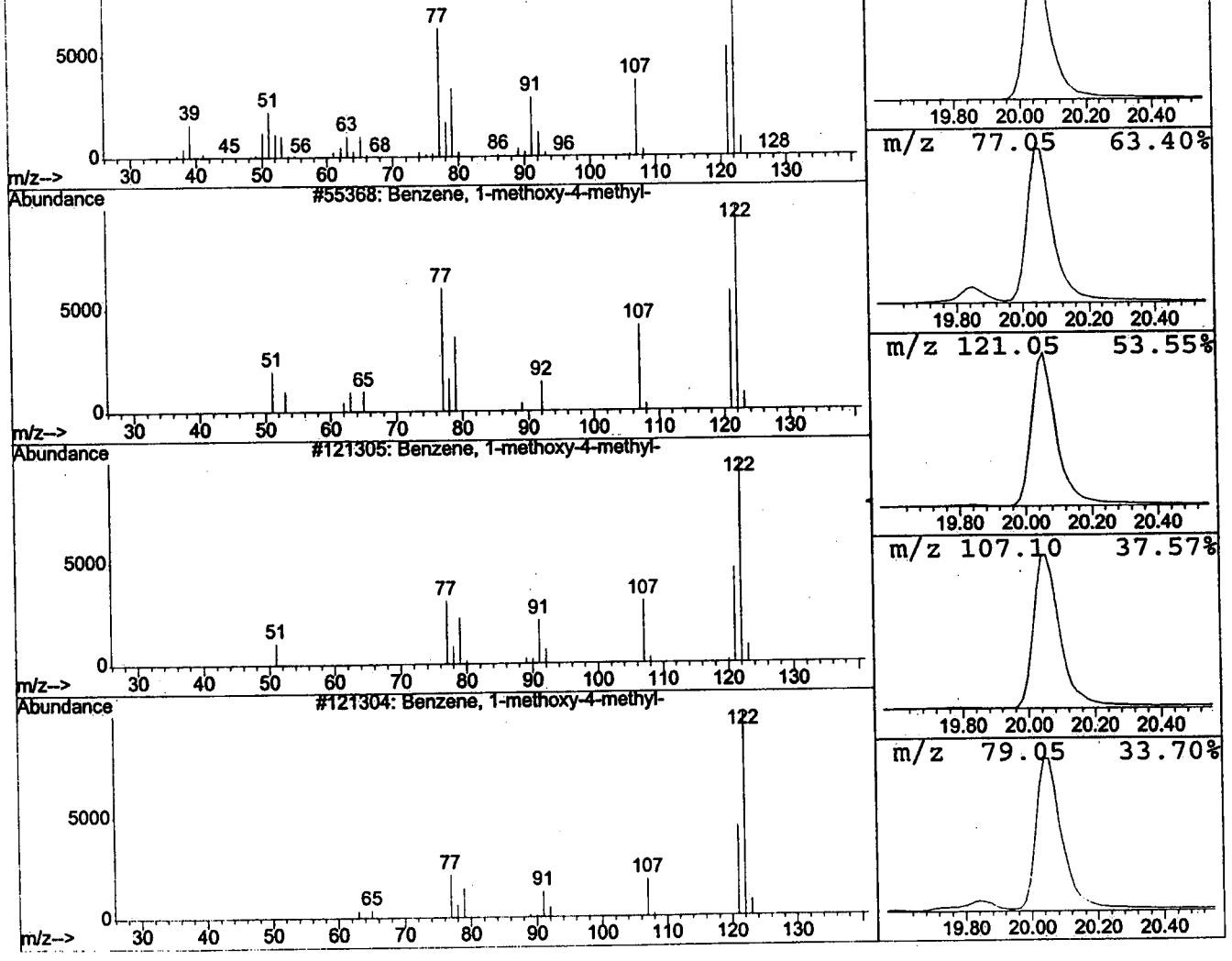
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.06	155.46 UG	14649900	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	98
2	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	95
3	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	95
4	1,3,5-Cycloheptatriene, 1-methoxy-	122	C8H10O	001728-32-1	86



0161

2112

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0578.D
Acq On : 3 Aug 2001 19:04
Sample : S-123,5281-007,M,0.040g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

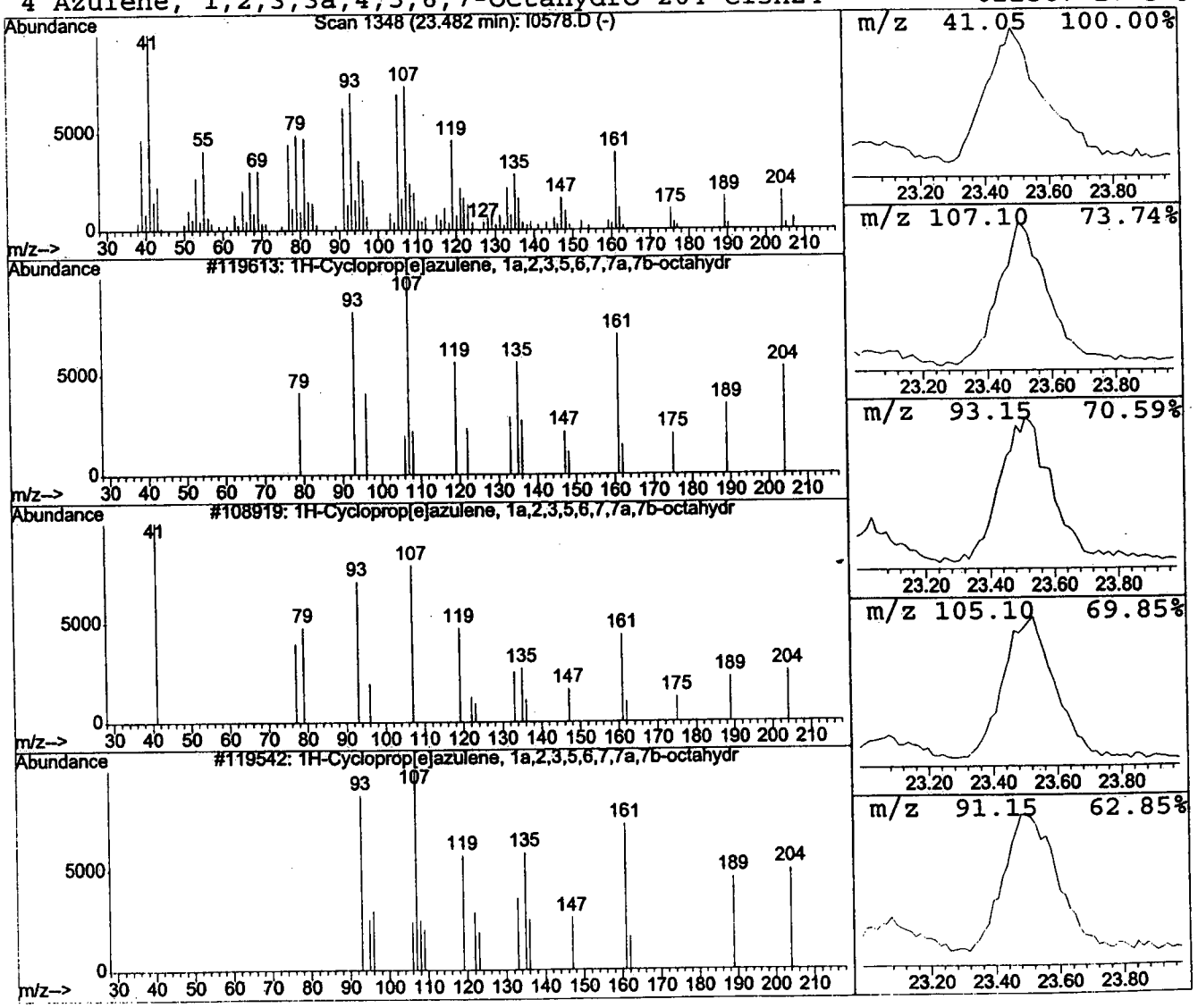
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown — Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.48	19.60 UG	1847250	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	99
2	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	99
3	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	98
4	Azulene, 1,2,3,3a,4,5,6,7-octahydro	204	C15H24	022567-17-5	90



0162

2113

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: rteint.p
Quant Time: Aug 9 14:15 2001

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.62	168	1840290	50.00	UG	-0.04
31) 1,4-Difluorobenzene	10.82	114	1820945	50.00	UG	-0.05
50) Chlorobenzene-d5	15.72	117	1361730	50.00	UG	-0.08
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.09	65	54763	3.32	UG	-0.06
Spiked Amount 50.000	Range 36 - 115		Recovery = 6.64%#			
41) Toluene-d8	13.26	98	114577	3.83	UG	-0.06
Spiked Amount 50.000	Range 35 - 117		Recovery = 7.66%#			
59) Bromofluorobenzene	17.80	95	101979	3.72	UG	-0.08
Spiked Amount 50.000	Range 47 - 115		Recovery = 7.44%#			
Target Compounds						Qvalue
32) Benzene	10.21	78	7864246	315.07	UG	100
42) Toluene	13.38	92	14405565	830.29	UG	97
54) m,p-Xylene	16.16	106	19606	1.53	UG	99

(#) = qualifier out of range (m) = manual integration

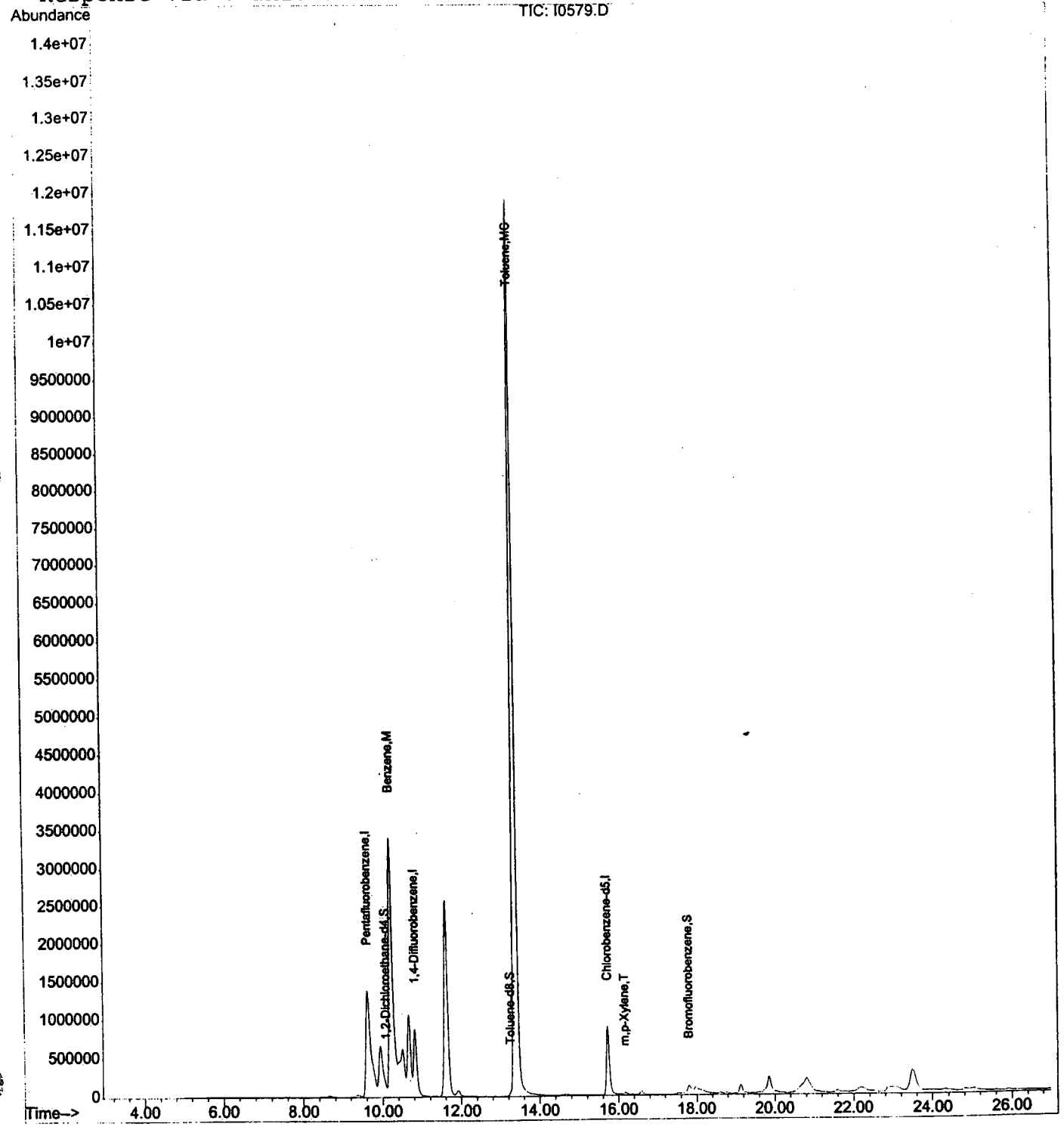
2114

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: rteint.p
Quant Time: Aug 9 14:15 2001

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0164

2115

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D Vial: 17
Acq On : 3 Aug 2001 19:41 Operator: DP
Sample : S-124A,5281-008,M,0.004g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

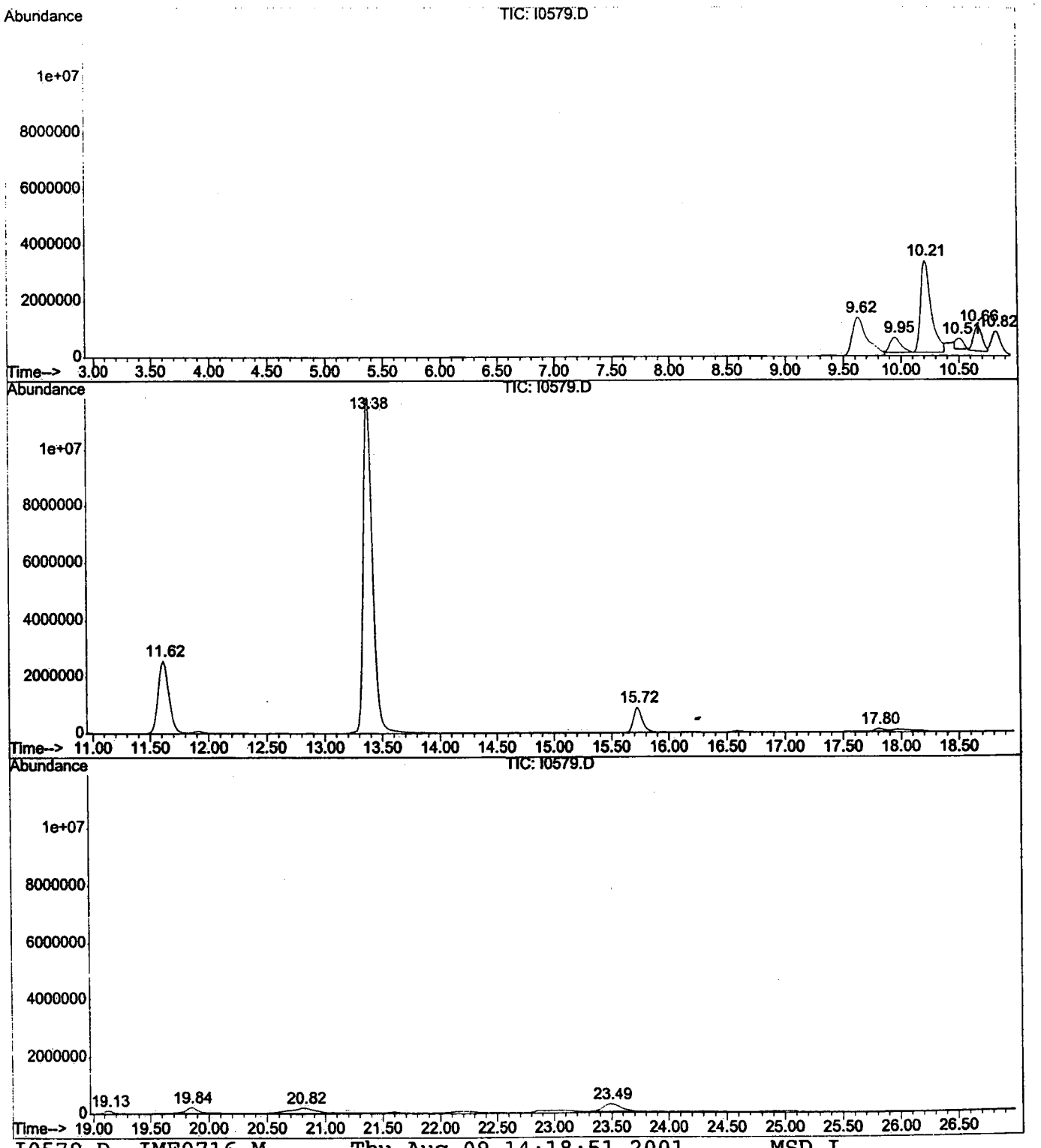
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.620	432	441	457	rBV4	1380732	12349342	18.67%	8.568%
2	9.950	457	463	473	rVB	539229	3537540	5.35%	2.454%
3	10.207	473	480	491	rBV	3278945	20902547	31.61%	14.503%
4	10.506	497	500	505	rVB2	378535	1634631	2.47%	1.134%
5	10.657	505	510	516	rVV	889209	4638668	7.01%	3.218%
6	10.822	516	521	538	rVB	861619	5001965	7.56%	3.470%
7	11.615	562	573	587	rBV	2569303	16443267	24.87%	11.409%
8	13.383	674	688	715	rBV	11906374	66127881	100.00%	45.881%
9	15.724	833	841	855	rBV	888726	4774623	7.22%	3.313%
10	17.801	968	977	984	rBV	99503	670459	1.01%	0.465%
11	19.131	1056	1065	1080	rBV2	111489	670915	1.01%	0.465%
12	19.844	1100	1112	1135	rVB	210528	1648965	2.49%	1.144%
13	20.817	1151	1177	1193	rBV7	188530	2882904	4.36%	2.000%
14	23.491	1343	1355	1373	rVB6	271044	2845205	4.30%	1.974%

Sum of corrected areas: 144128912

I0579.D IME0716.M Thu Aug 09 14:18:51 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Operator : DP
Acquired : 3 Aug 2001 19:41 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-124A,5281-008,M,0.004g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01,10
Vial Number: 17
Quant File :IME0716.RES (RTE Integrator)



I0579.D IME0716.M Thu Aug 09 14:18:51 2001 MSD_I

0166

217

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D Vial: 17
Acq On : 3 Aug 2001 19:41 Operator: DP
Sample : S-124A,5281-008,M,0.004g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

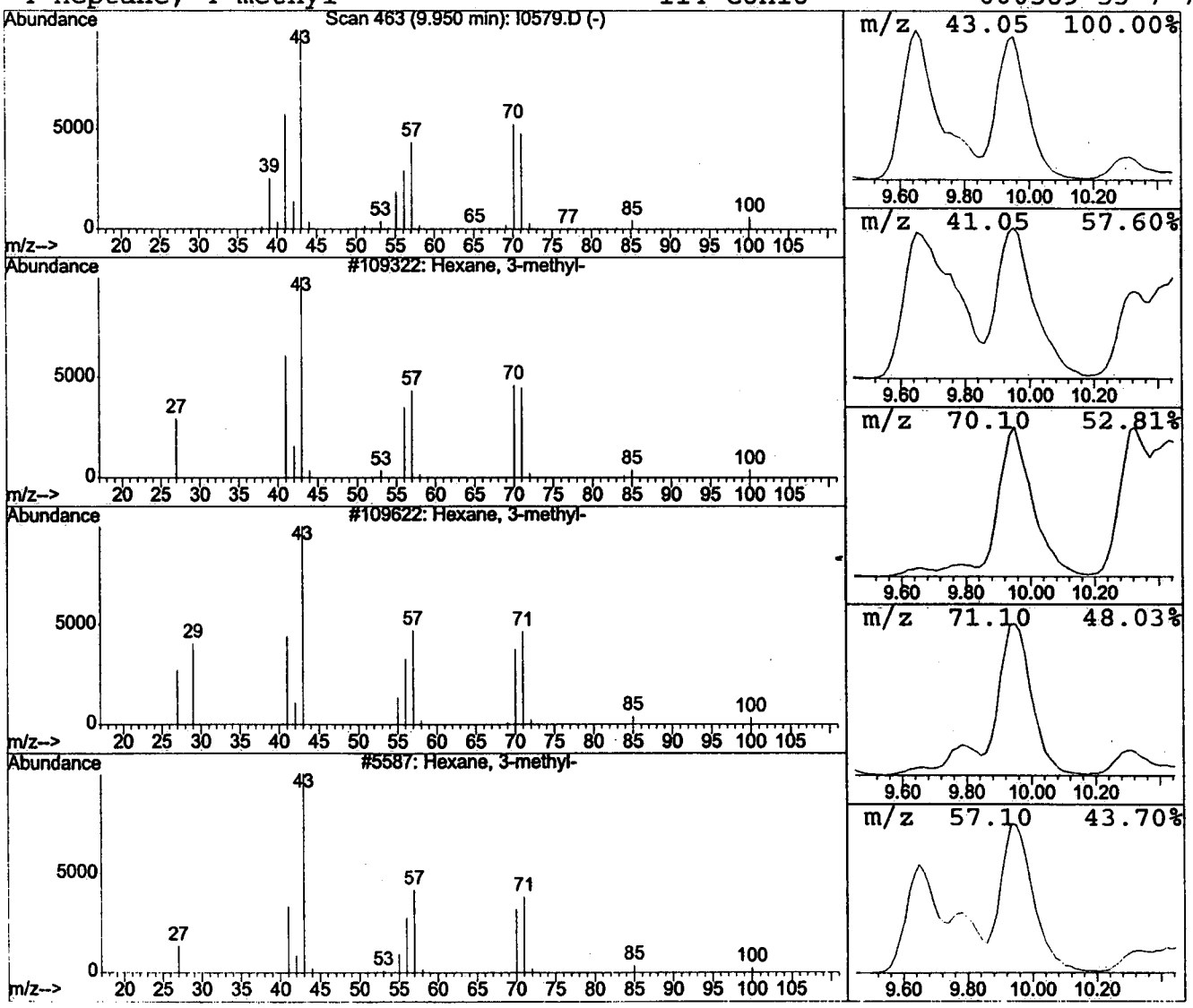
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown alkane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.95	14.32 UG	3537540	Pentafluorobenzene	9.62

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	94
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	87
3	Hexane, 3-methyl-	100	C7H16	000589-34-4	72
4	Heptane, 4-methyl-	114	C8H18	000589-53-7	72



2146

0167

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

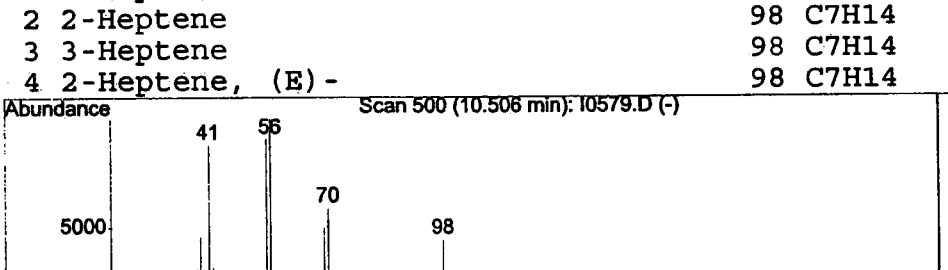
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

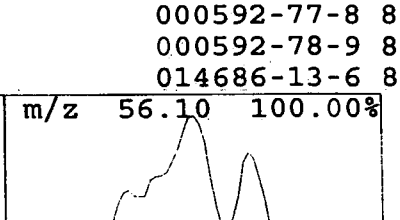
****

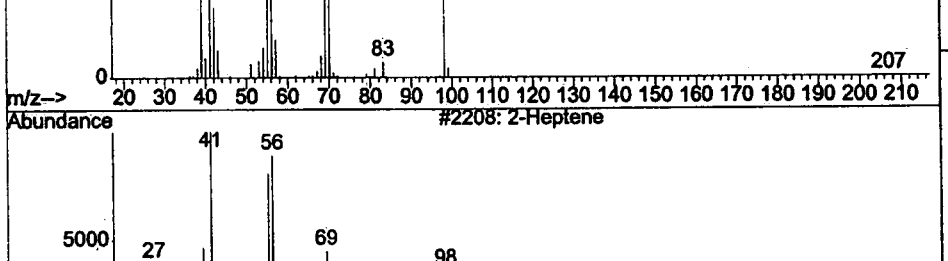
Peak Number 2 Unknown alkane Concentration Rank 6

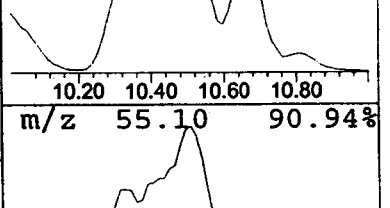
R.T.	EstConc	Area	Relative to ISTD	R.T.
10.51	16.34 UG	1634630	1,4-Difluorobenzene	10.82

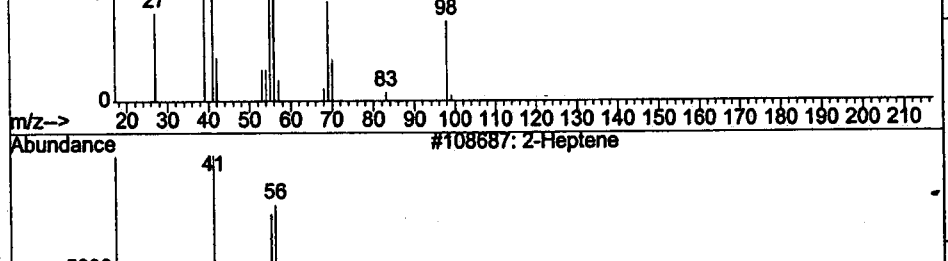
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptene	98	C7H14	000592-77-8	87
2	2-Heptene	98	C7H14	000592-77-8	83
3	3-Heptene	98	C7H14	000592-78-9	83
4	2-Heptene, (E)-	98	C7H14	014686-13-6	81

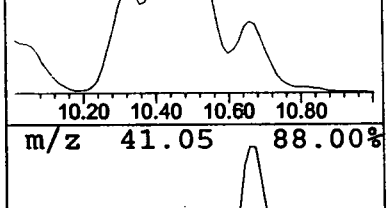


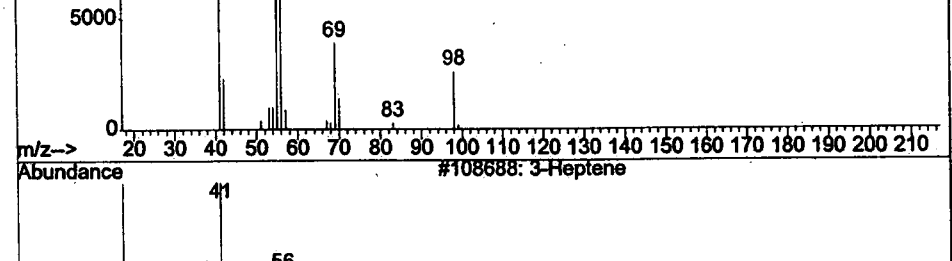


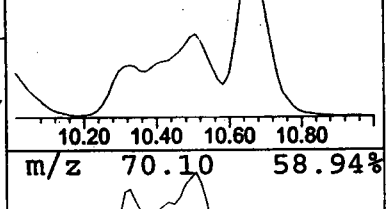


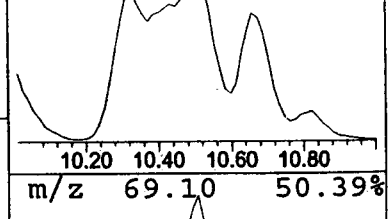












0168

2119

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

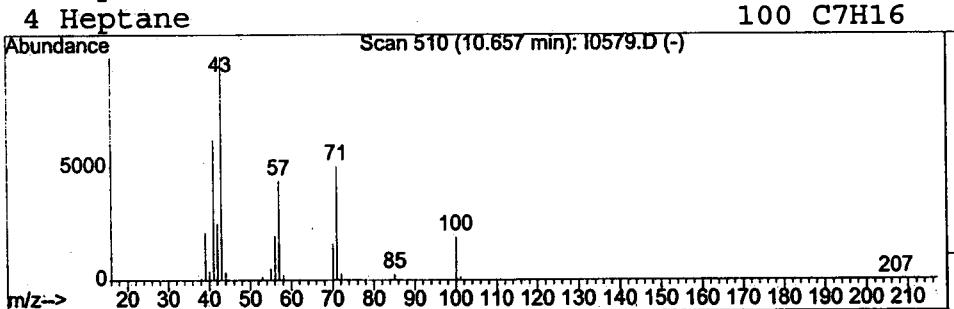
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

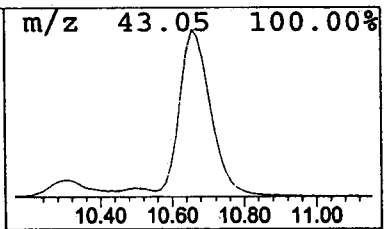
****

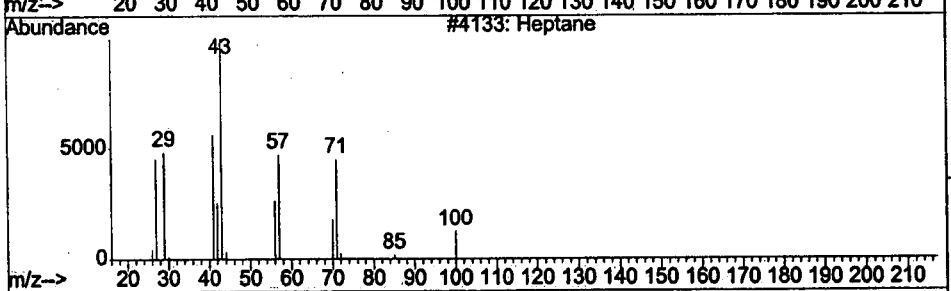
Peak Number 3 Unknown alkane Concentration Rank 2

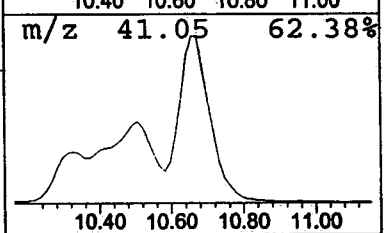
R.T.	EstConc	Area	Relative to ISTD	R.T.
10.66	46.37 UG	4638670	1,4-Difluorobenzene	10.82

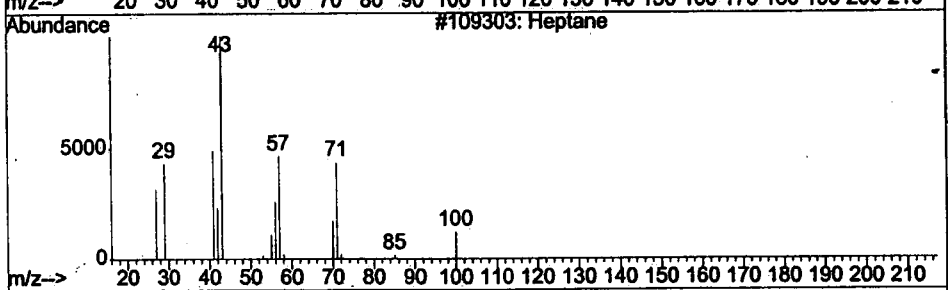
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	78
2	Heptane	100	C7H16	000142-82-5	78
3	Heptane	100	C7H16	000142-82-5	59
4	Heptane	100	C7H16	000142-82-5	45

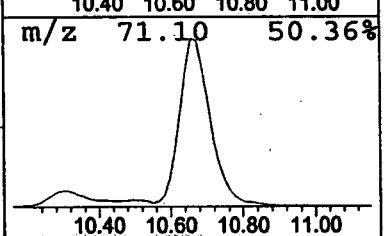


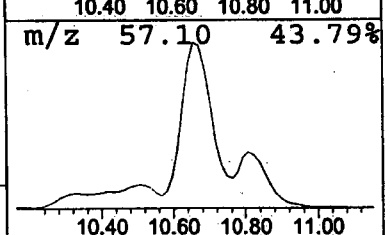


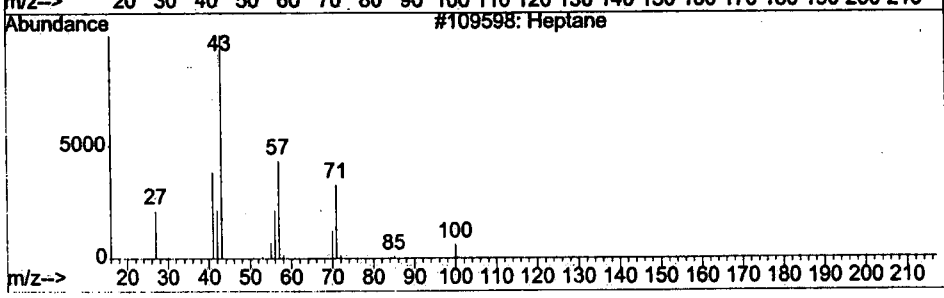


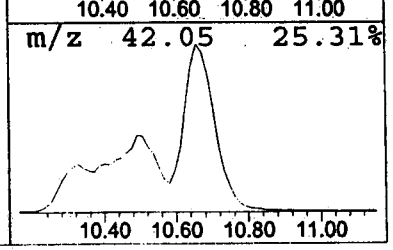












0165

7120

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

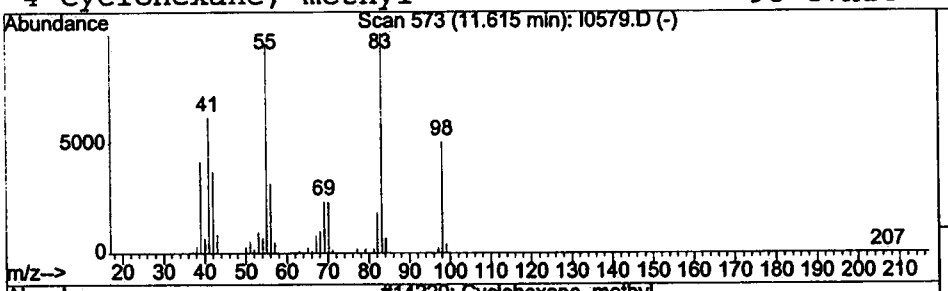
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

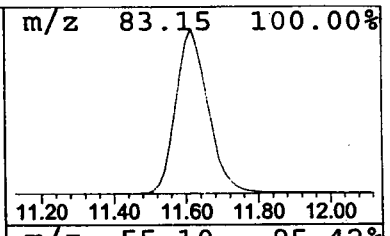
****

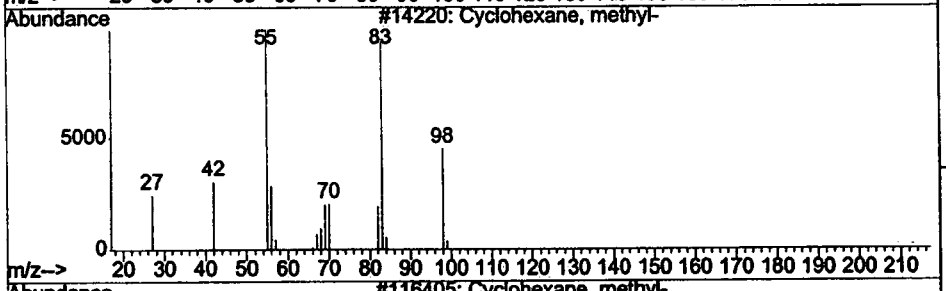
Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 1

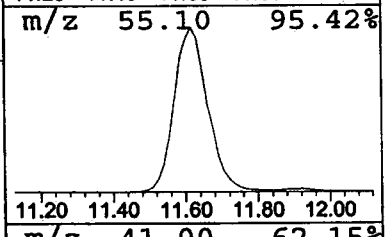
R.T.	EstConc	Area	Relative to ISTD	R.T.
11.62	164.37 UG	16443300	1,4-Difluorobenzene	10.82

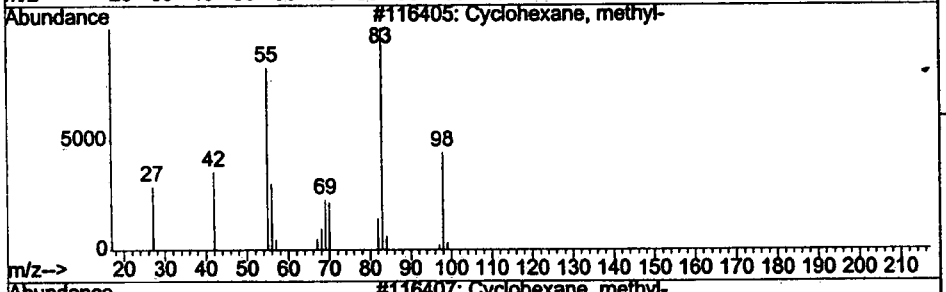
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	95

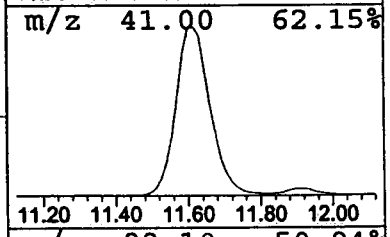


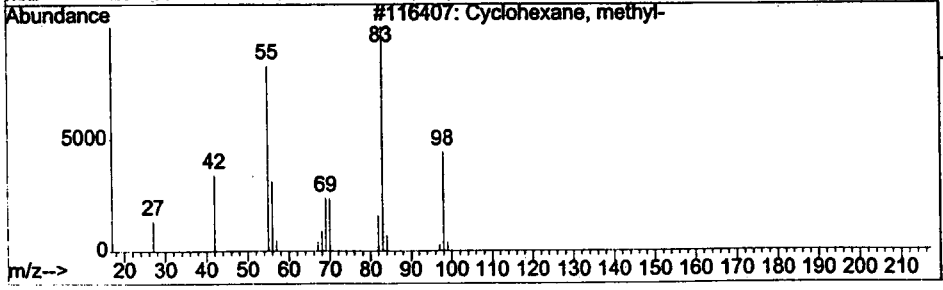


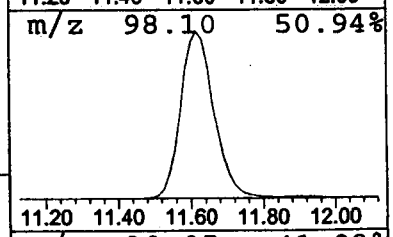


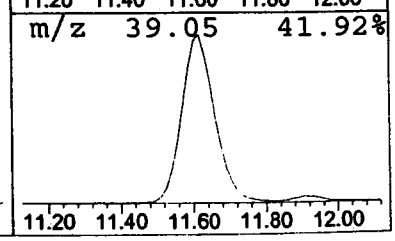












0170

2121

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

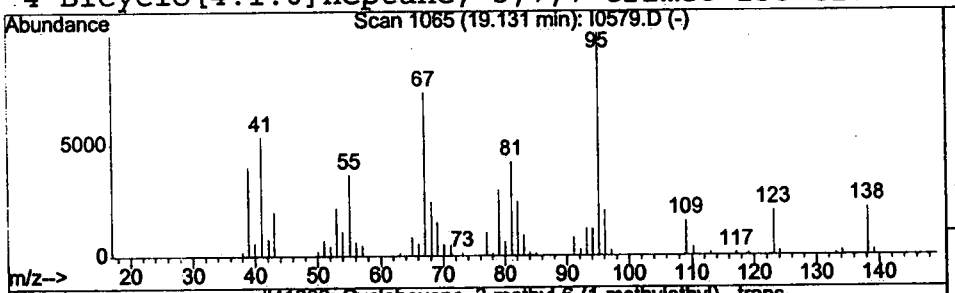
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

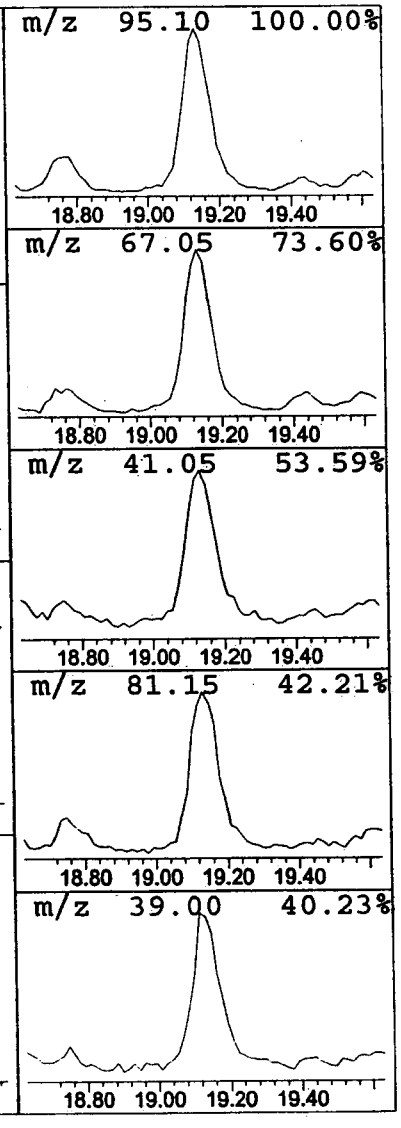
****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.13	7.03 UG	670915	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	001124-26-1	87
2	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	83
3	Bicyclo[4.1.0]heptane, 3,7,7-trimet	138	C10H18	006069-97-2	83
4	Bicyclo[4.1.0]heptane, 3,7,7-trimet	138	C10H18	000554-59-6	83





0171

2122

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

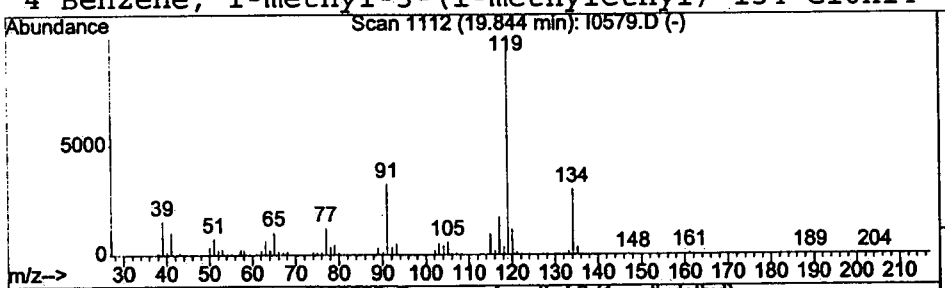
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

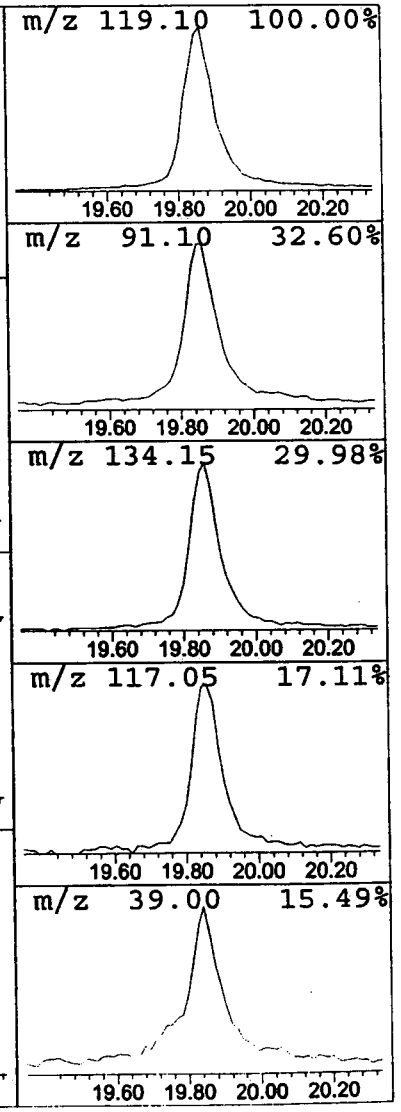
****

Peak Number 6 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.84	17.27 UG	1648970	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	94
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	94
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	94





0172

2123

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

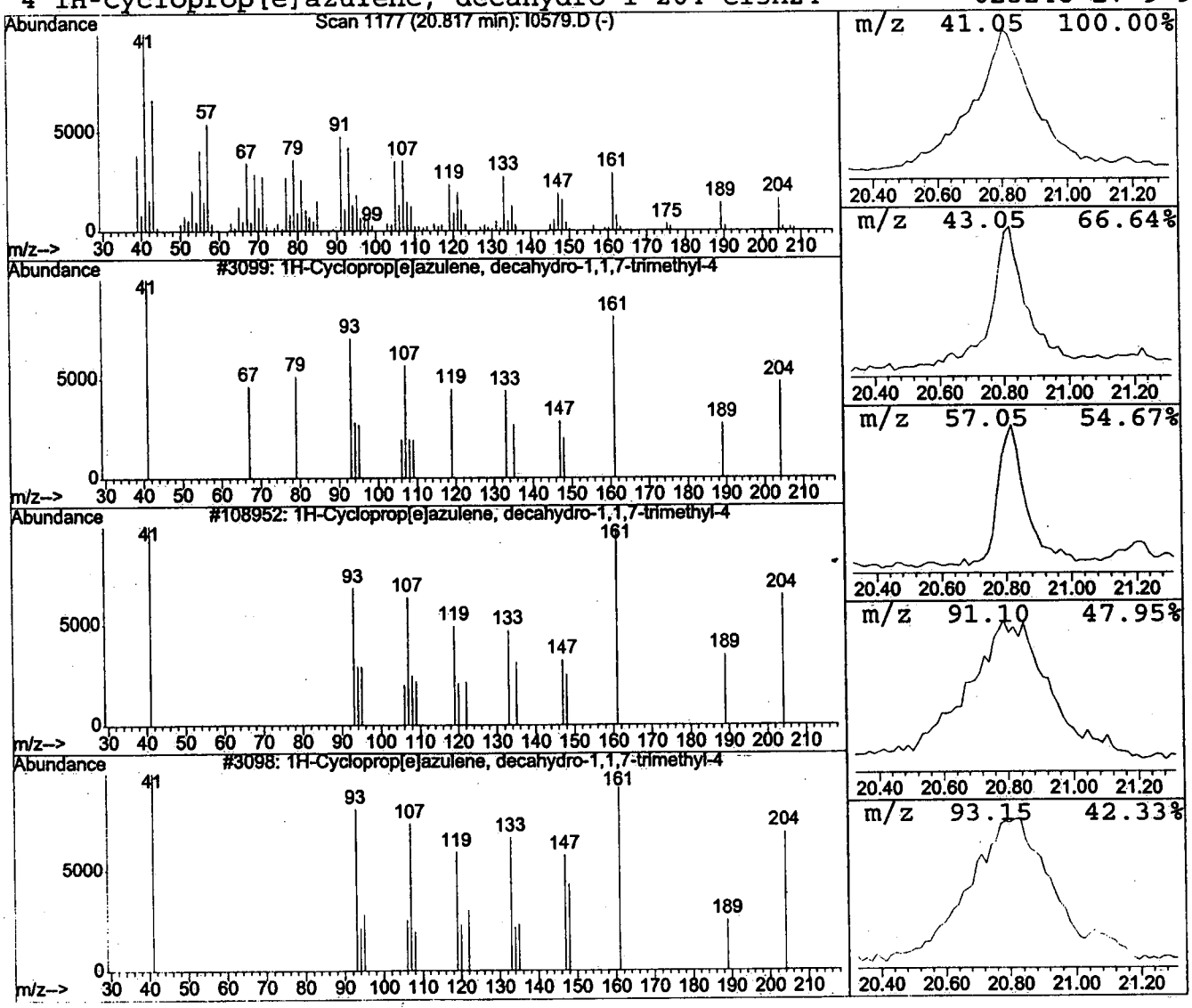
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Unknown — Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.82	30.19 UG	2882900	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	072747-25-2	98
2	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	000489-39-4	97
3	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	000489-39-4	95
4	1H-Cycloprop[e]azulene, decahydro-1	204	C15H24	025246-27-9	95



017

7.124

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0579.D
Acq On : 3 Aug 2001 19:41
Sample : S-124A,5281-008,M,0.004g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

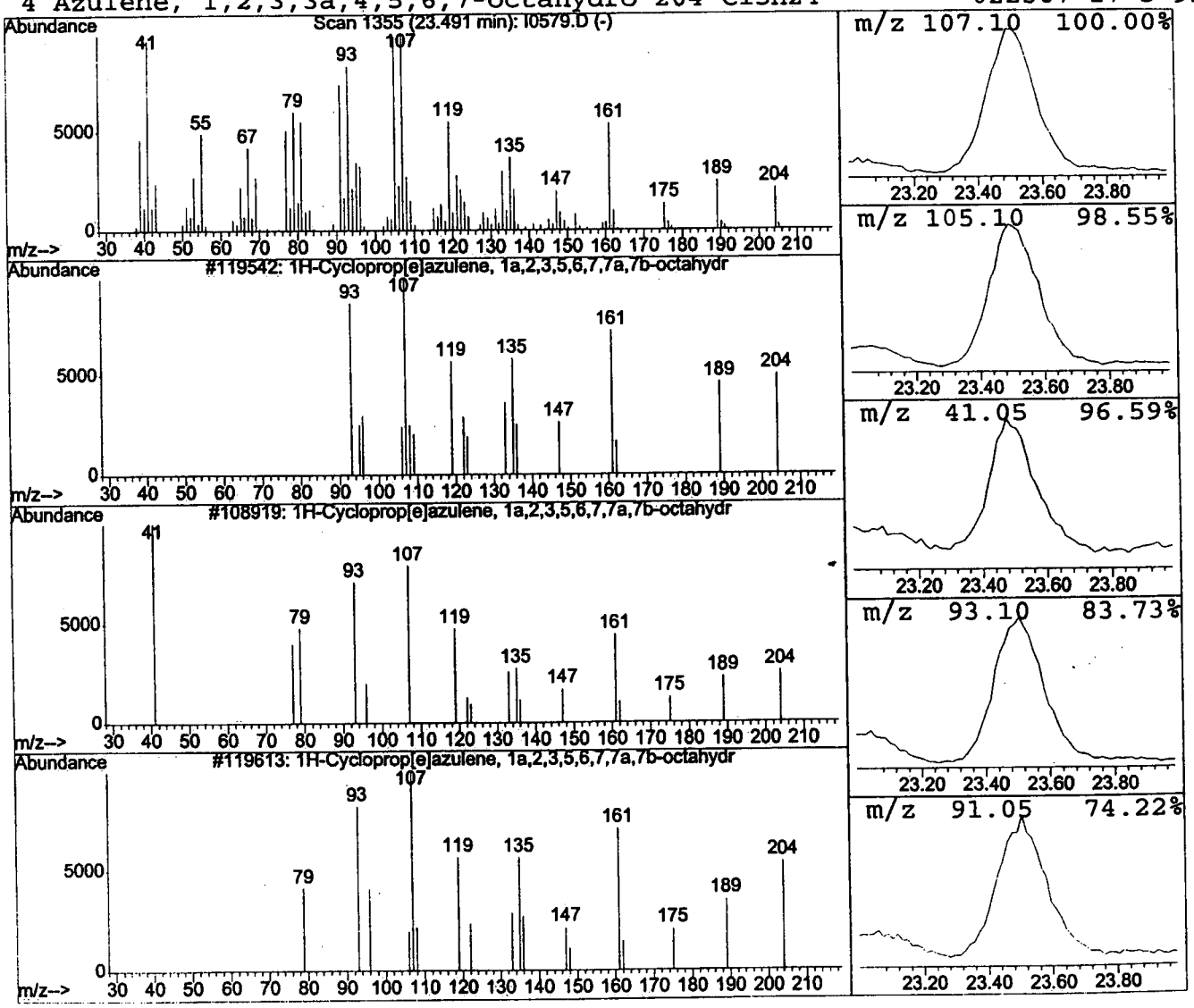
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown — Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.49	29.80 UG	2845210	Chlorobenzene-d5	15.72

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	99
2	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	97
3	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	95
4	Azulene, 1,2,3,3a,4,5,6,7-octahydro	204	C15H24	022567-17-5	95



0174

2125

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0617.D
Acq On : 5 Aug 2001 19:45
Sample : S-124A,5281-008DIL,M,0.0008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,50
MS Integration Params: rteint.p
Quant Time: Aug 9 14:55 2001

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.65	168	1704281	50.00	UG	0.00
31) 1,4-Difluorobenzene	10.86	114	1719001	50.00	UG	-0.02
50) Chlorobenzene-d5	15.76	117	1228472	50.00	UG	-0.04
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.12	65	20746	1.36	UG	-0.03
Spiked Amount 50.000	Range 36 - 115		Recovery =	2.72%#		
41) Toluene-d8	13.30	98	21569	0.76	UG	-0.02
Spiked Amount 50.000	Range 35 - 117		Recovery =	1.52%#		
59) Bromofluorobenzene	17.85	95	16970	0.69	UG	-0.02
Spiked Amount 50.000	Range 47 - 115		Recovery =	1.38%#		
Target Compounds						Qvalue
32) Benzene	10.24	78	1749881	74.26	UG	100
42) Toluene	13.41	92	3018481	184.29	UG	98

(#) = qualifier out of range (m) = manual integration

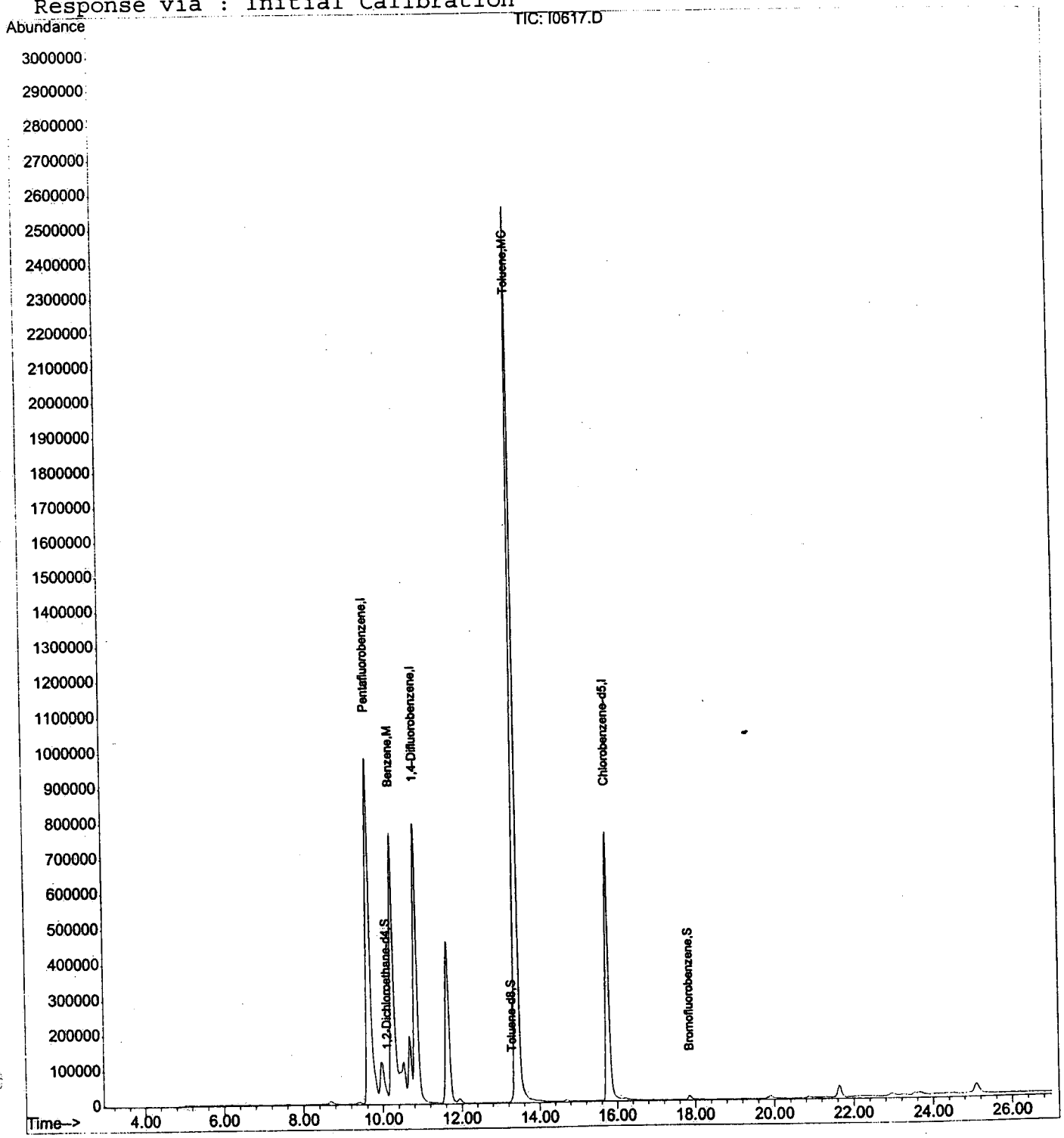
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0617.D
Acq On : 5 Aug 2001 19:45
Sample : S-124A,5281-008DIL,M,0.0008g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,50
MS Integration Params: rteint.p
Quant Time: Aug 9 14:55 2001

Vial: 16
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0176

2177

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D Vial: 18
Acq On : 3 Aug 2001 20:18 Operator: DP
Sample : S-124B,5281-009,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:20 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

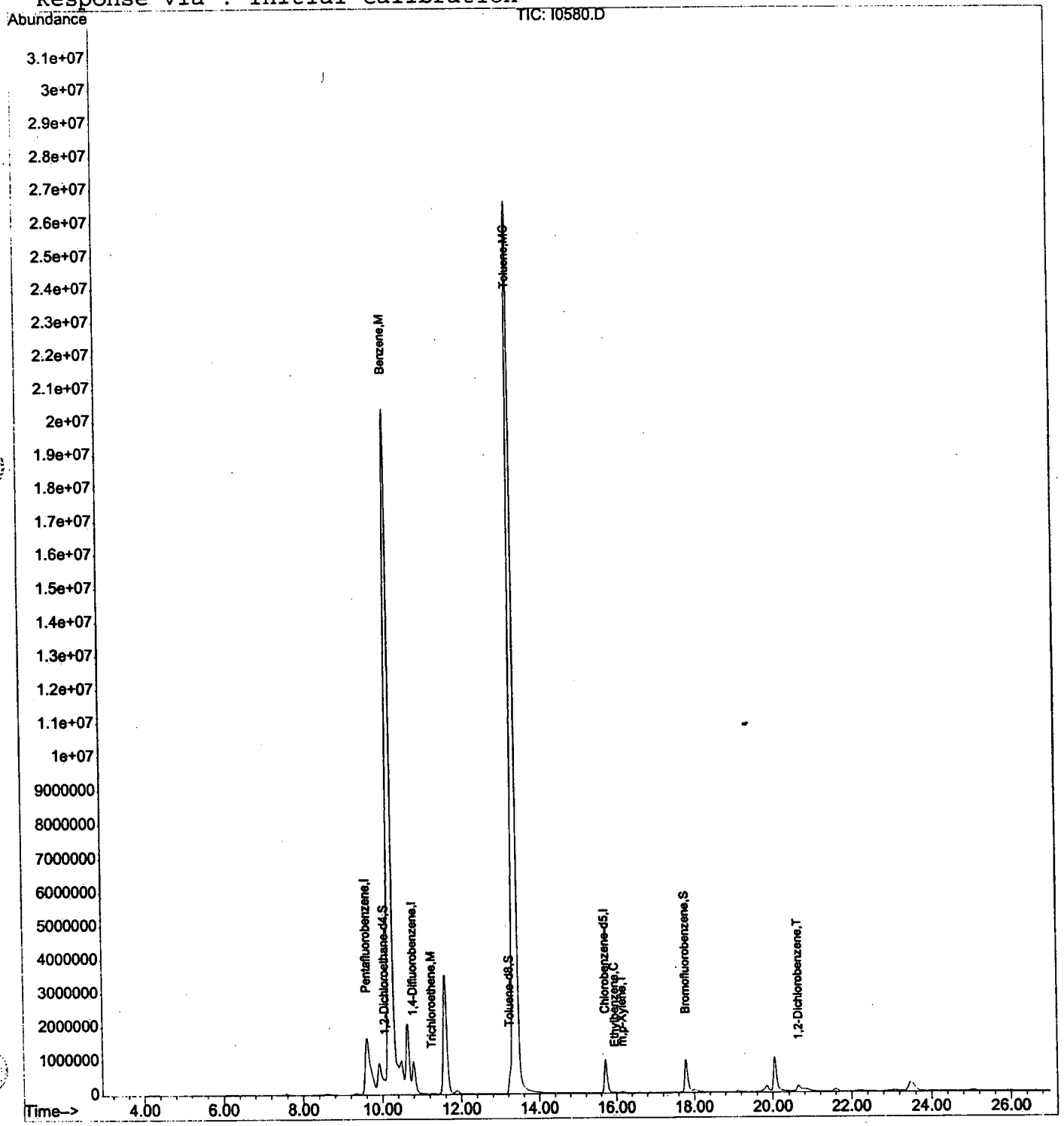
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.61	168	1875244	50.00	UG		-0.05
31) 1,4-Difluorobenzene	10.79	114	1865655	50.00	UG		-0.08
50) Chlorobenzene-d5	15.71	117	1459103	50.00	UG		-0.09
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.07	65	668049	39.74	UG		-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 79.48%				
41) Toluene-d8	13.25	98	1200024	39.11	UG		-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 78.22%				
59) Bromofluorobenzene	17.79	95	1059635	36.03	UG		-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.06%				
Target Compounds							Qvalue
32) Benzene	10.19	78	49586405	1939.01	UG		99
33) Trichloroethene	11.26	95	14762	1.07	UG		99
42) Toluene	13.38	92	41585196	2339.40	UG	#	22
53) Ethylbenzene	15.96	91	50874	1.42	UG		99
54) m,p-Xylene	16.16	106	34231	2.49	UG		92
74) 1,2-Dichlorobenzene	20.65	146	202595	9.76	UG	#	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D Vial: 18
Acq On : 3 Aug 2001 20:18 Operator: DP
Sample : S-124B,5281-009,M,0.039g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:20 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0170

2129

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.607	432	441	456	rBV4	1681338	15785269	8.61%	3.977%
2	9.921	456	462	473	rBV3	720667	5391568	2.94%	1.358%
3	10.205	473	481	496	rBV	19964104	135802898	74.07%	34.218%
4	10.642	504	510	516	rVV2	1718880	9007712	4.91%	2.270%
5	10.792	516	520	545	rVB	970019	5652849	3.08%	1.424%
6	11.598	561	573	587	rBV	3560630	23049420	12.57%	5.808%
7	13.382	672	689	729	rBV2	26631930	183339362	100.00%	46.195%
8	15.713	834	841	853	rBV	1015936	5089221	2.78%	1.282%
9	17.789	969	976	986	rBV	976323	5279616	2.88%	1.330%
10	20.053	1118	1125	1141	rVV	1027180	5645880	3.08%	1.423%
11	23.483	1341	1353	1372	rBV5	269517	2835375	1.55%	0.714%

Sum of corrected areas: 396879170

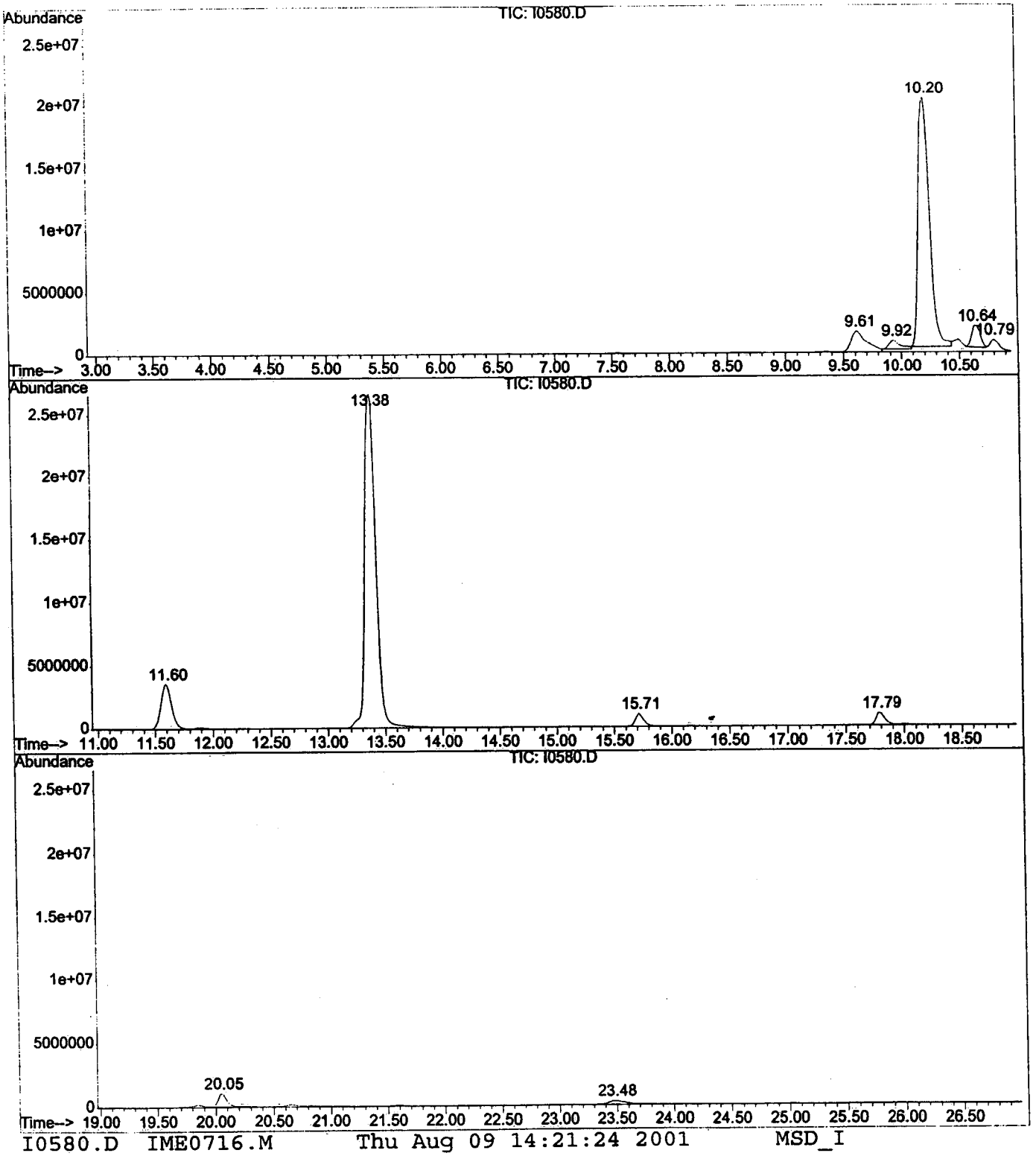
I0580.D IME0716.M Thu Aug 09 14:21:24 2001 MSD_I

0179

2130

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Operator : DP
Acquired : 3 Aug 2001 20:18 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-124B,5281-009,M,0.039g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 18
Quant File :IME0716.RES (RTE Integrator)



I0580.D IME0716.M Thu Aug 09 14:21:24 2001 MSD_I

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

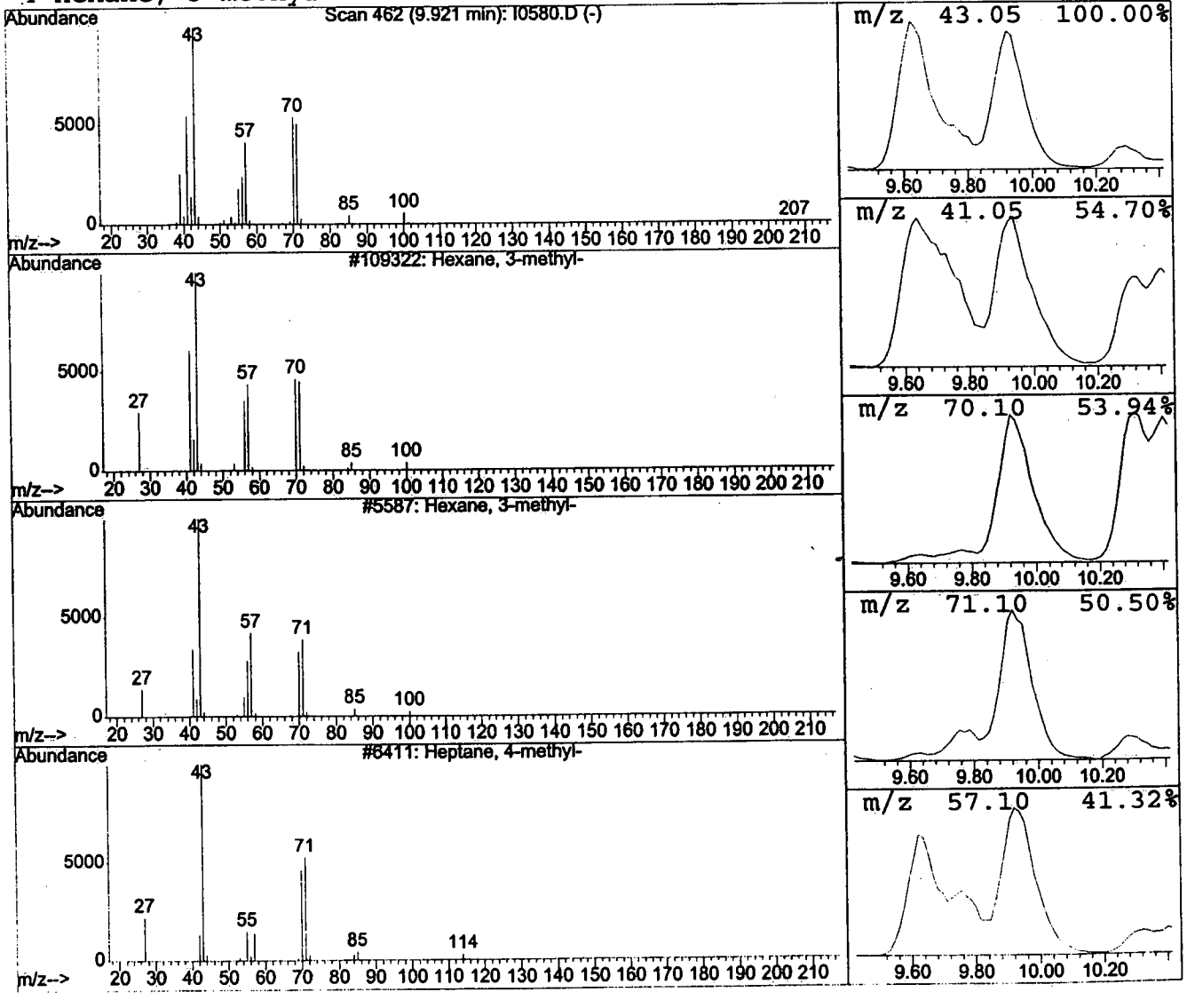
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown alkane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.92	17.08 UG	5391570	Pentafluorobenzene	9.61

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 3-methyl-	100	C7H16	000589-34-4	87
2	Hexane, 3-methyl-	100	C7H16	000589-34-4	80
3	Heptane, 4-methyl-	114	C8H18	000589-53-7	72
4	Hexane, 3-methyl-	100	C7H16	000589-34-4	68



0181

2132

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

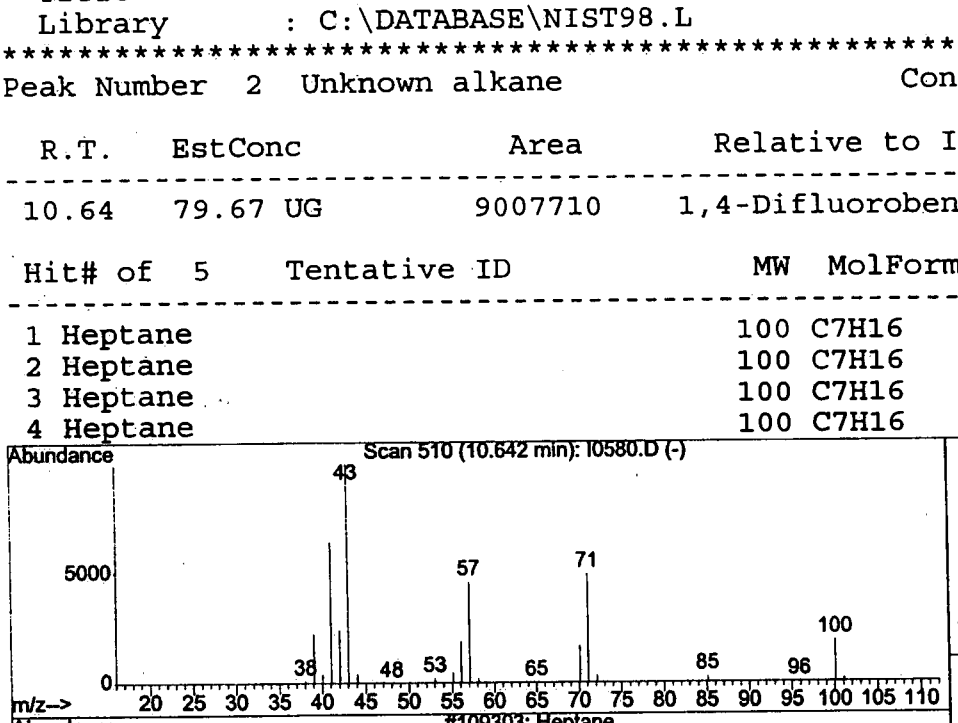
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

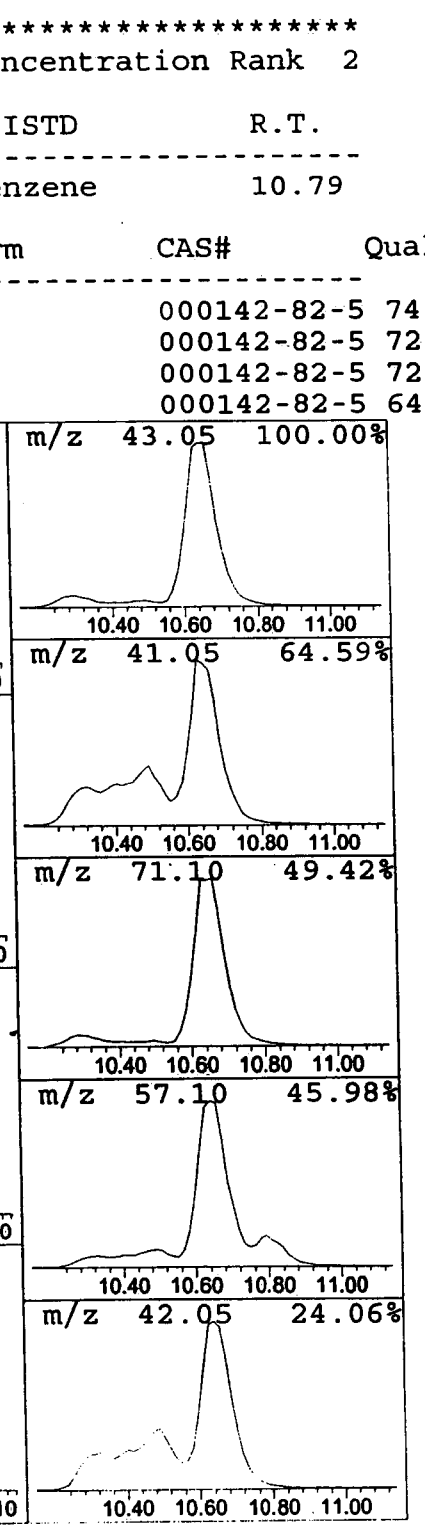
****

Peak Number 2 Unknown alkane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.64	79.67 UG	9007710	1,4-Difluorobenzene	10.79

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane	100	C7H16	000142-82-5	74
2	Heptane	100	C7H16	000142-82-5	72
3	Heptane	100	C7H16	000142-82-5	72
4	Heptane	100	C7H16	000142-82-5	64





2133

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

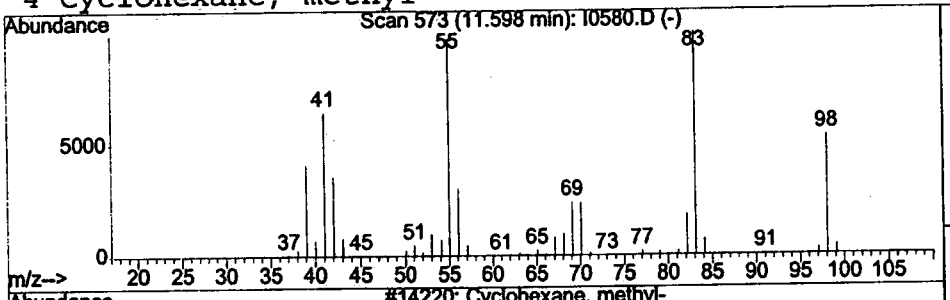
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

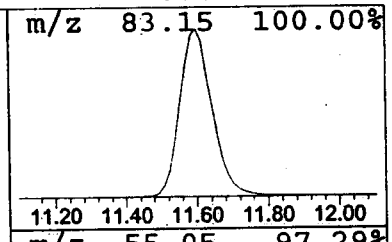
****

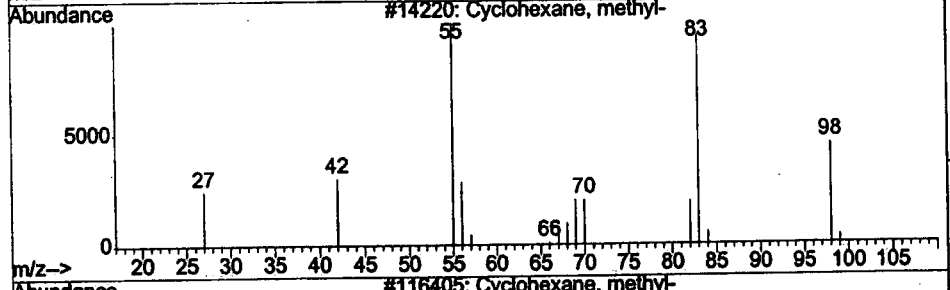
Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 1

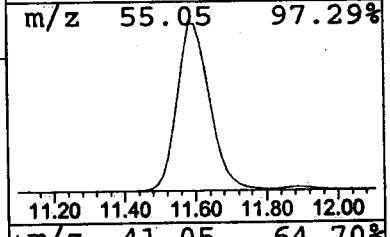
R.T.	EstConc	Area	Relative to ISTD	R.T.
11.60	203.87 UG	23049400	1,4-Difluorobenzene	10.79

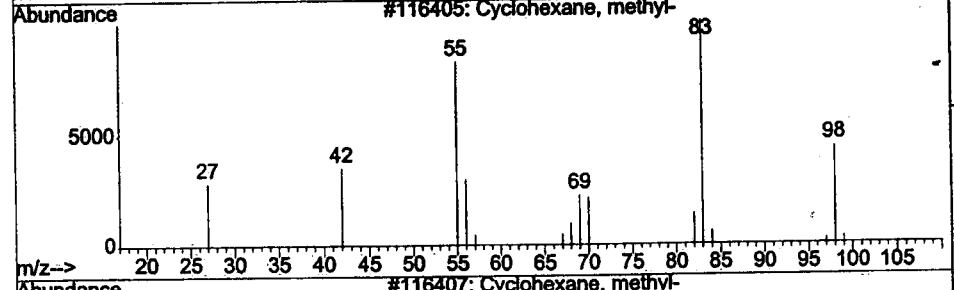
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
2	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
3	Cyclohexane, methyl-	98	C7H14	000108-87-2	96
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	95

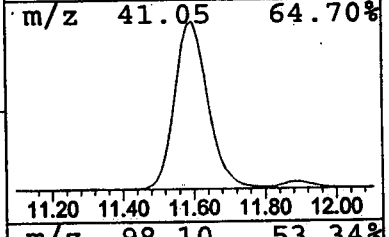


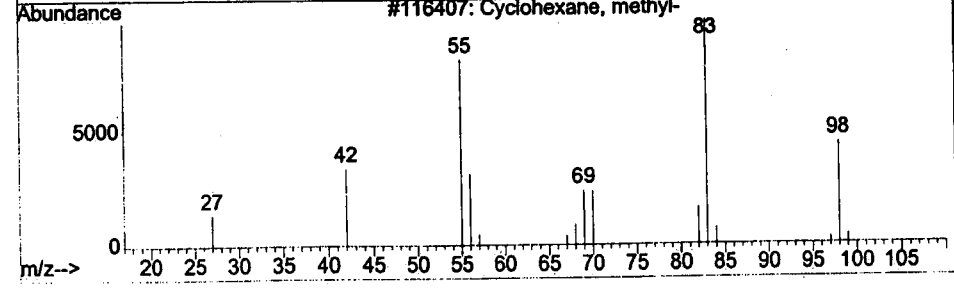


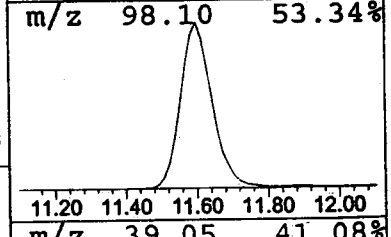


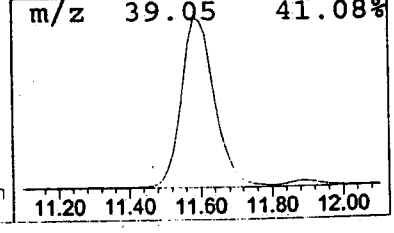












0183

2134

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

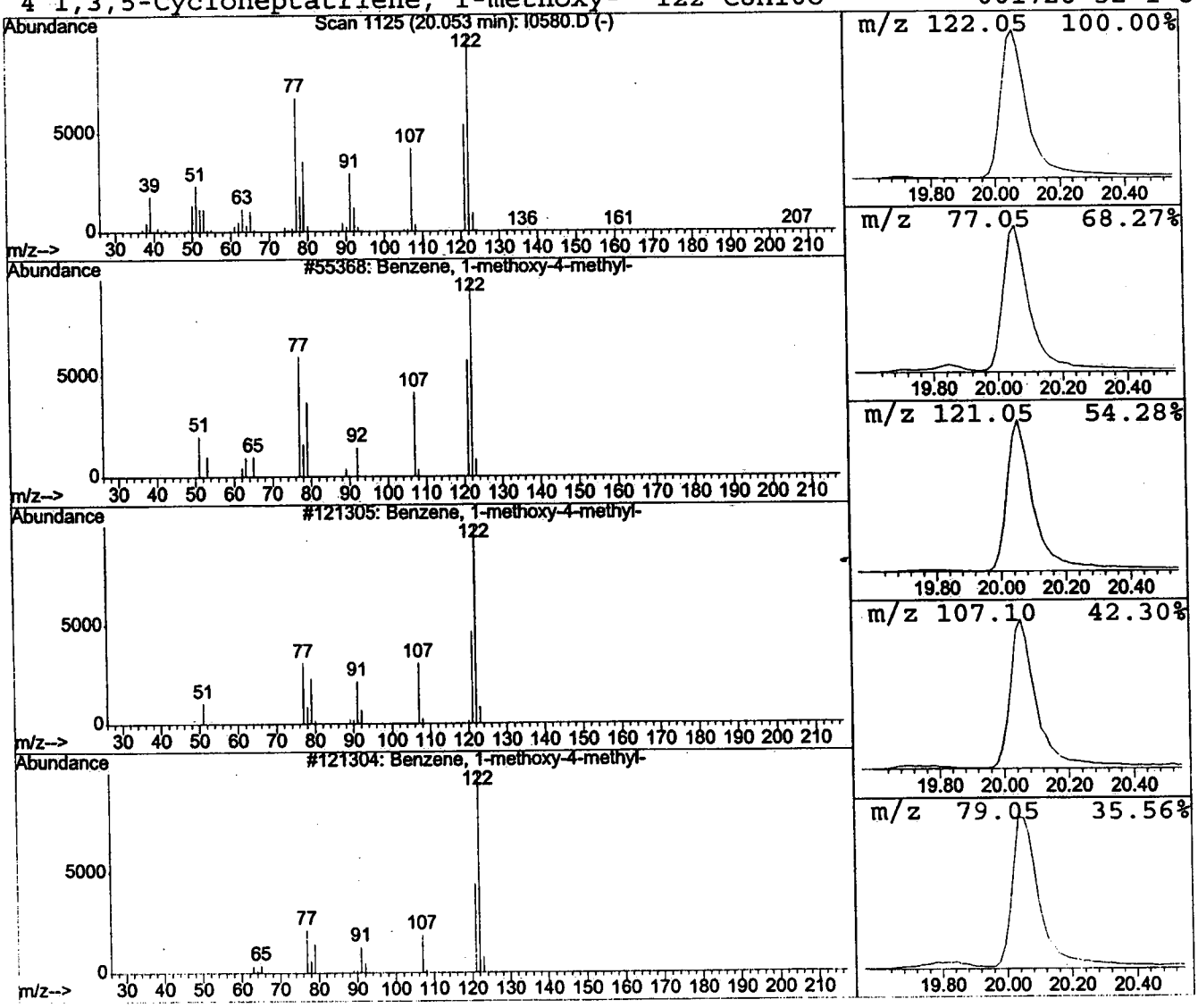
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.05	55.47 UG	5645880	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	98
2	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	96
3	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	96
4	1,3,5-Cycloheptatriene, 1-methoxy-	122	C8H10O	001728-32-1	87



2135

Data File : C:\HPCHEM\1\DATA\08-03-01\I0580.D
Acq On : 3 Aug 2001 20:18
Sample : S-124B,5281-009,M,0.039g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 18
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

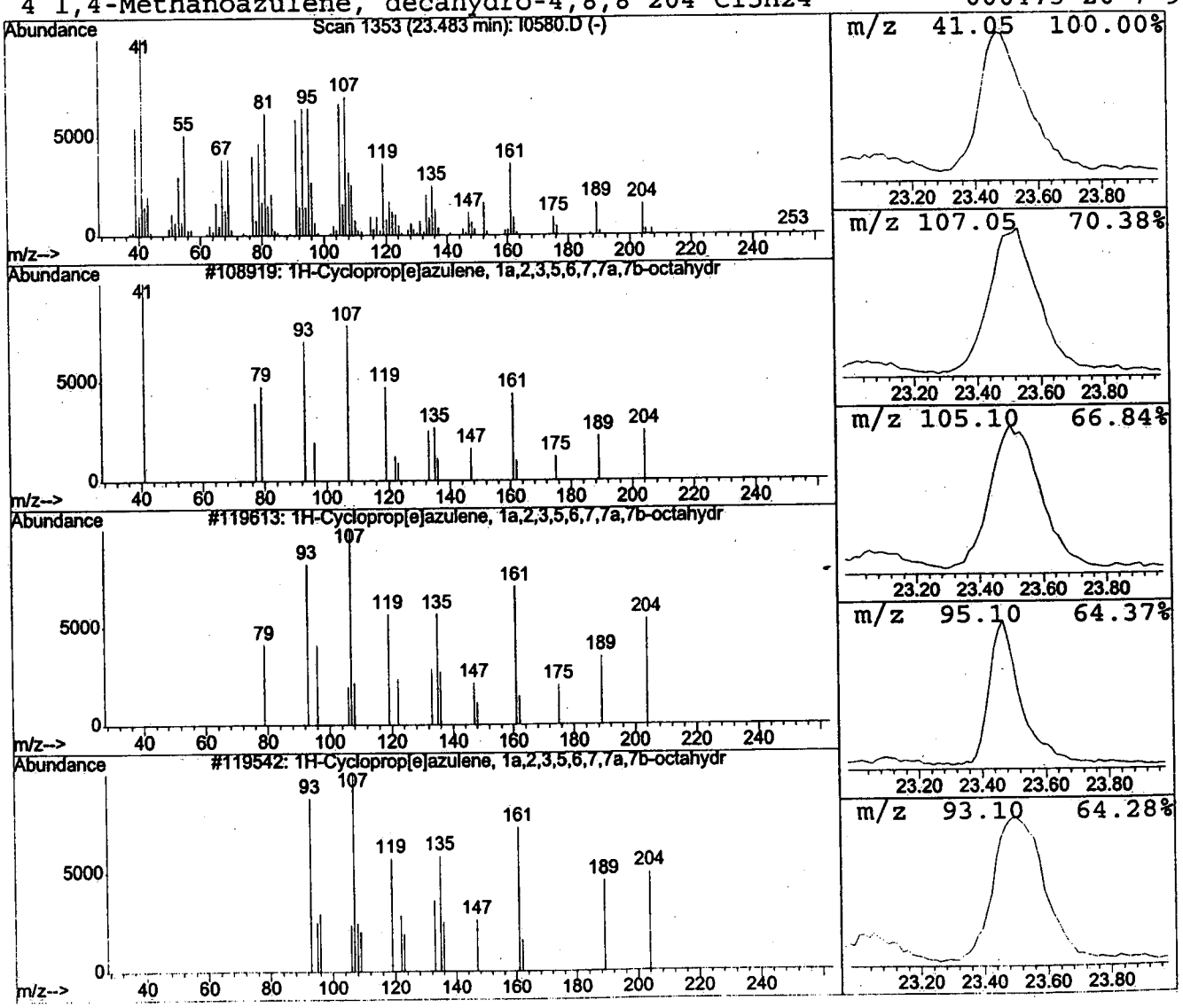
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Column/Septa bleed Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.48	27.86 UG	2835380	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	99
2	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	97
3	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	95
4	1,4-Methanoazulene, decahydro-4,8,8	204	C15H24	000475-20-7	91



0785

2136

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0618.D
Acq On : 5 Aug 2001 20:22
Sample : S-124B,5281-009DIL,M,0.002g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,20
MS Integration Params: rteint.p
Quant Time: Aug 9 14:56 2001

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.65	168	1639965	50.00	UG	0.00
31) 1,4-Difluorobenzene	10.83	114	1682438	50.00	UG	-0.04
50) Chlorobenzene-d5	15.74	117	1245481	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.11	65	23152	1.57	UG	-0.04
Spiked Amount 50.000	Range 36 - 115		Recovery = 3.14%#			
41) Toluene-d8	13.28	98	42609	1.54	UG	-0.04
Spiked Amount 50.000	Range 35 - 117		Recovery = 3.08%#			
59) Bromofluorobenzene	17.83	95	35421	1.41	UG	-0.05
Spiked Amount 50.000	Range 47 - 115		Recovery = 2.82%#			
Target Compounds						Qvalue
32) Benzene	10.24	78	2232926	96.82	UG	100
42) Toluene	13.39	92	1707198	106.50	UG	98

(#) = qualifier out of range (m) = manual integration

2137

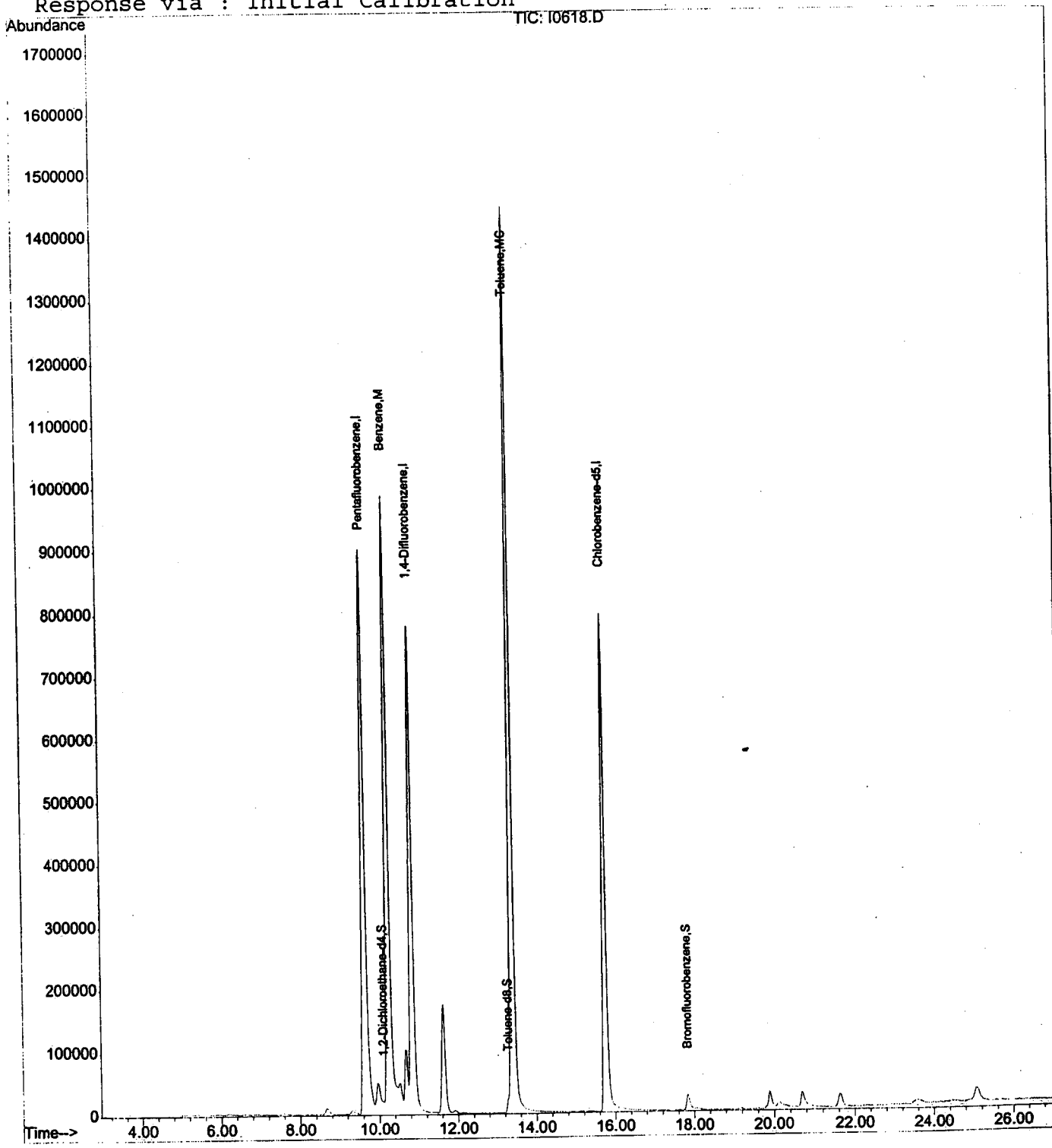
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0618.D
Acq On : 5 Aug 2001 20:22
Sample : S-124B,5281-009DIL,M,0.002g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,20
MS Integration Params: rteint.p
Quant Time: Aug 9 14:56 2001

Vial: 17
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RE

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0187

2136

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Acq On : 3 Aug 2001 20:56
Sample : S-125,5281-010,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 7 11:35 2001

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.59	168	1942066	50.00	UG	-0.07
31) 1,4-Difluorobenzene	10.79	114	1886068	50.00	UG	-0.08
50) Chlorobenzene-d5	15.71	117	1402397	50.00	UG	-0.09
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	620501	35.64	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 71.28%			
41) Toluene-d8	13.24	98	1207234	38.92	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 77.84%			
59) Bromofluorobenzene	17.78	95	1032796	36.54	UG	-0.10
Spiked Amount 50.000	Range 47 - 115		Recovery = 73.08%			
Target Compounds						Qvalue
32) Benzene	10.17	78	879293	34.01	UG	100
42) Toluene	13.35	92	54931	3.06	UG	91
74) 1,2-Dichlorobenzene	20.65	146	31197	1.56	UG #	81

(#) = qualifier out of range (m) = manual integration

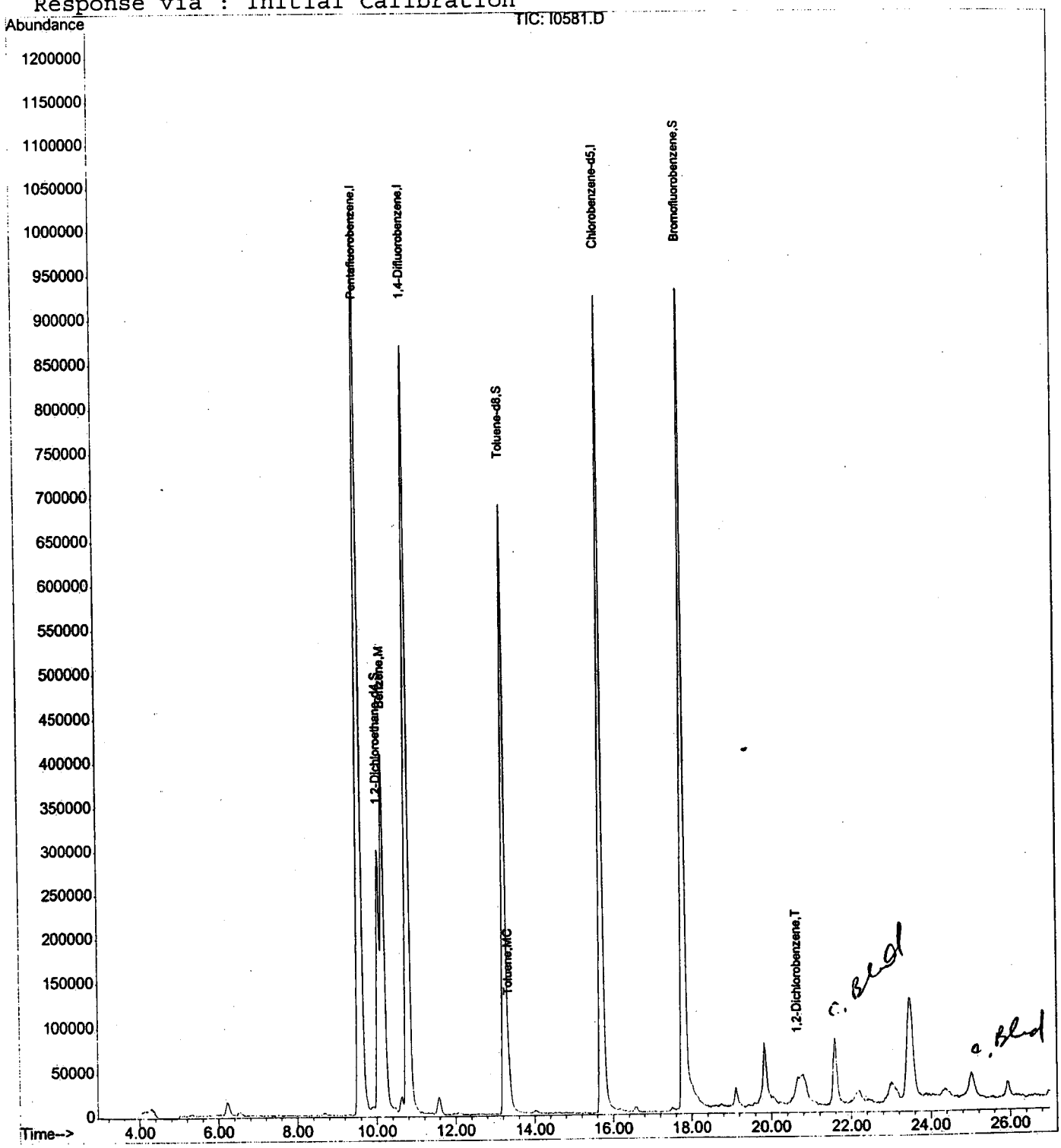
2139

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Acq On : 3 Aug 2001 20:56
Sample : S-125,5281-010,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 7 11:35 2001

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0189

2140

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Acq On : 3 Aug 2001 20:56
Sample : S-125,5281-010,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

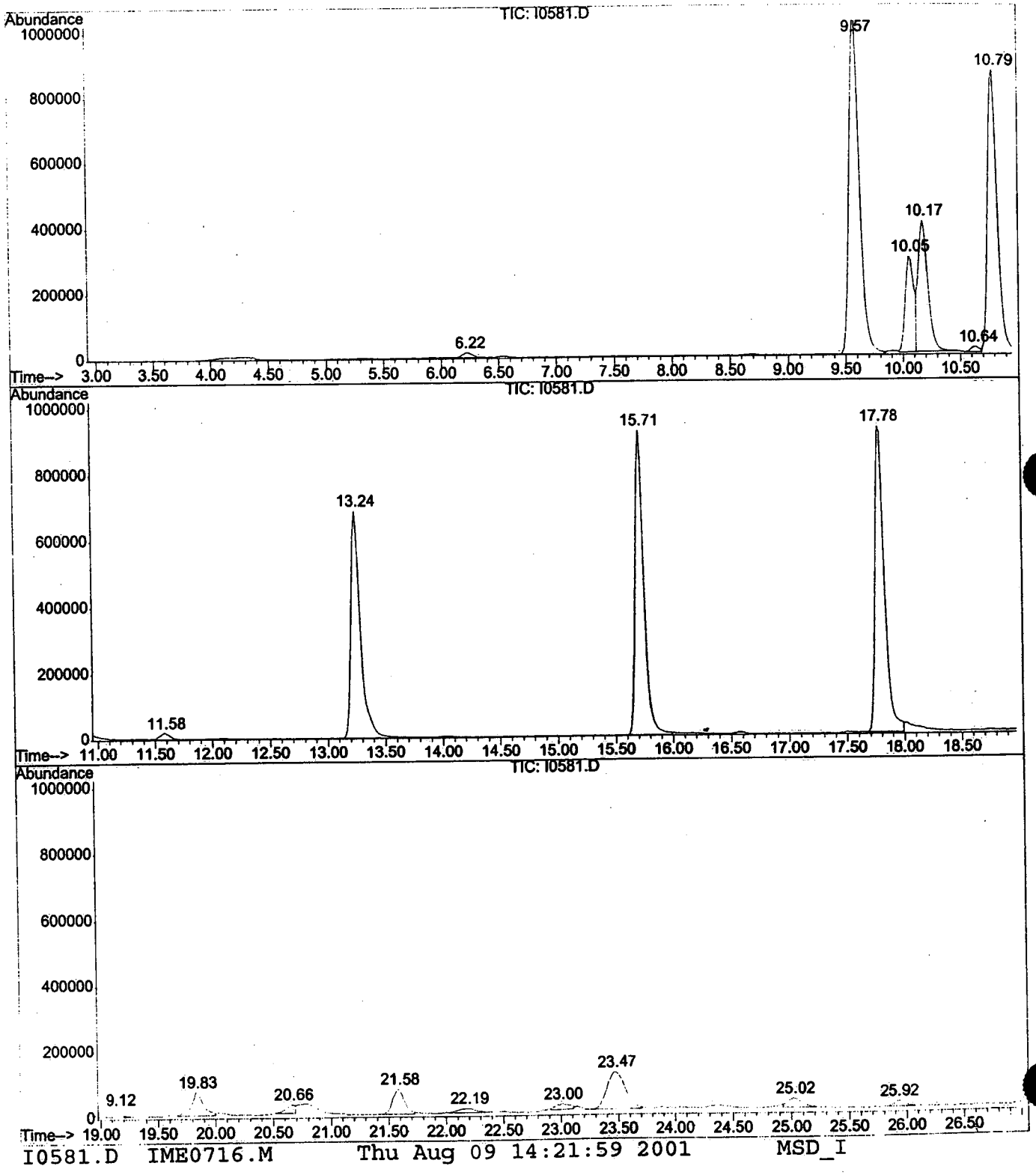
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.218	214	220	232	rVB	14974	93903	1.45%	0.284%
2	9.573	429	438	455	rBV	1023396	6456318	100.00%	19.510%
3	10.052	463	469	473	rVV	294432	1604972	24.86%	4.850%
4	10.174	473	477	493	rVB	400519	2331755	36.12%	7.046%
5	10.639	500	507	510	rBV2	17220	89366	1.38%	0.270%
6	10.791	510	517	537	rVB	866983	5058216	78.35%	15.285%
7	11.577	562	568	577	rVB3	19793	118314	1.83%	0.358%
8	13.244	668	676	701	rBV	688814	4001625	61.98%	12.093%
9	15.710	827	836	854	rBV	923793	4863942	75.34%	14.698%
10	17.778	962	970	984	rBV	927881	5311679	82.27%	16.051%
11	19.119	1052	1057	1066	rVB3	20978	109782	1.70%	0.332%
12	19.830	1092	1103	1114	rVV	69359	498271	7.72%	1.506%
13	20.660	1148	1157	1159	rBV5	25360	143370	2.22%	0.433%
14	21.584	1207	1217	1226	rBV	75455	535431	8.29%	1.618%
15	22.186	1246	1256	1266	rVB10	12320	130589	2.02%	0.395%
16	23.004	1303	1309	1316	rVV9	16581	145709	2.26%	0.440%
17	23.474	1327	1340	1355	rBV6	112007	1256331	19.46%	3.797%
18	25.019	1435	1441	1454	rVB3	28052	235939	3.65%	0.713%
19	25.917	1495	1500	1511	rVB6	16757	106118	1.64%	0.321%

Sum of corrected areas: 33091630

I0581.D IME0716.M Thu Aug 09 14:21:58 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Operator : DP
Acquired : 3 Aug 2001 20:56 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-125,5281-010,M,0.037g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 19
Quant File :IME0716.RES (RTE Integrator)



I0581.D IME0716.M Thu Aug 09 14:21:59 2001 MSD_I

0191

2142

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Acq On : 3 Aug 2001 20:56
Sample : S-125,5281-010,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

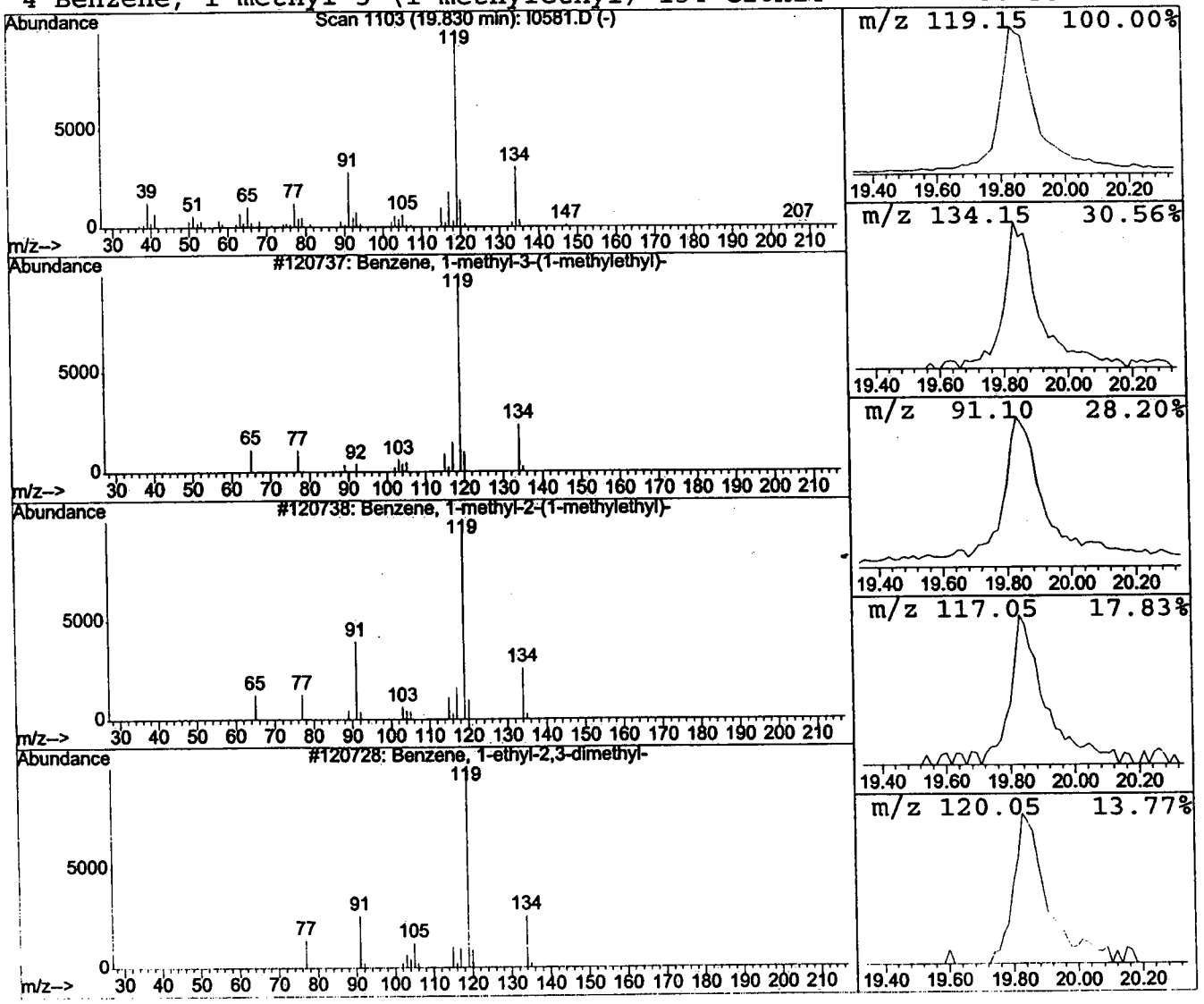
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.83	5.12 UG	498271	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
2	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94
3	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	94
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	93



2143

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0581.D
Acq On : 3 Aug 2001 20:56
Sample : S-125,5281-010,M,0.037g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

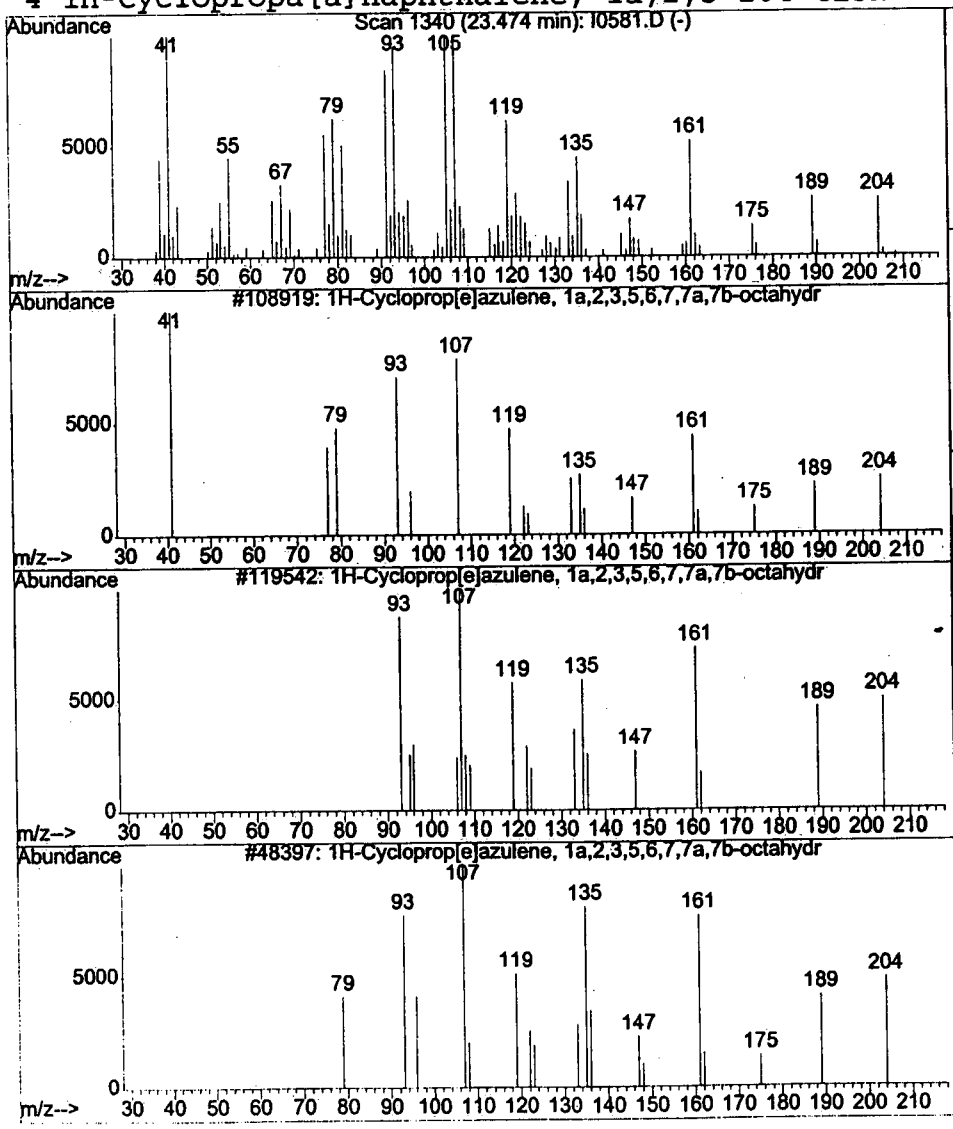
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

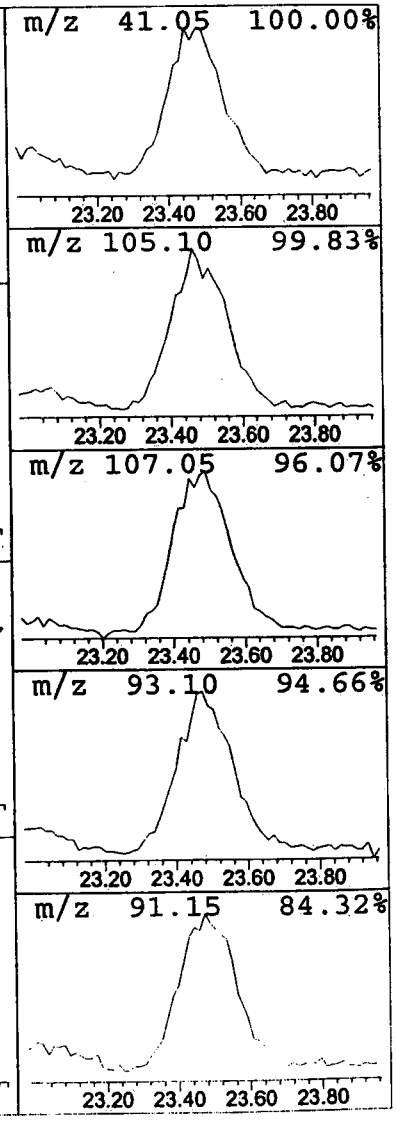
****

Peak Number 2 Unknown — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.47	12.91 UG	1256330	Chlorobenzene-d5	15.71

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	99
2	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	97
3	1H-Cycloprop[e]azulene, 1a,2,3,5,6,	204	C15H24	021747-46-6	97
4	1H-Cyclopropa[a]naphthalene, 1a,2,3	204	C15H24	017334-55-3	91





0193

2144

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-09-01\I0686.D Vial: 40
Acq On : 9 Aug 2001 8:45 Operator: DP
Sample : S-126,5281-011,S,0.036g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 10 15:02 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.58	168	1794902	50.00	UG	-0.08
31) 1,4-Difluorobenzene	10.79	114	1786987	50.00	UG	-0.08
50) Chlorobenzene-d5	15.68	117	1446055	50.00	UG	-0.12
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.06	65	599201	37.24	UG	-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 74.48%			
41) Toluene-d8	13.22	98	1216294	41.39	UG	-0.11
Spiked Amount 50.000	Range 35 - 117		Recovery = 82.78%			
59) Bromofluorobenzene	17.76	95	1054671	36.18	UG	-0.12
Spiked Amount 50.000	Range 47 - 115		Recovery = 72.36%			
Target Compounds						Qvalue
32) Benzene	10.18	78	3659273	149.39	UG	100
42) Toluene	13.34	92	89606	5.26	UG	97

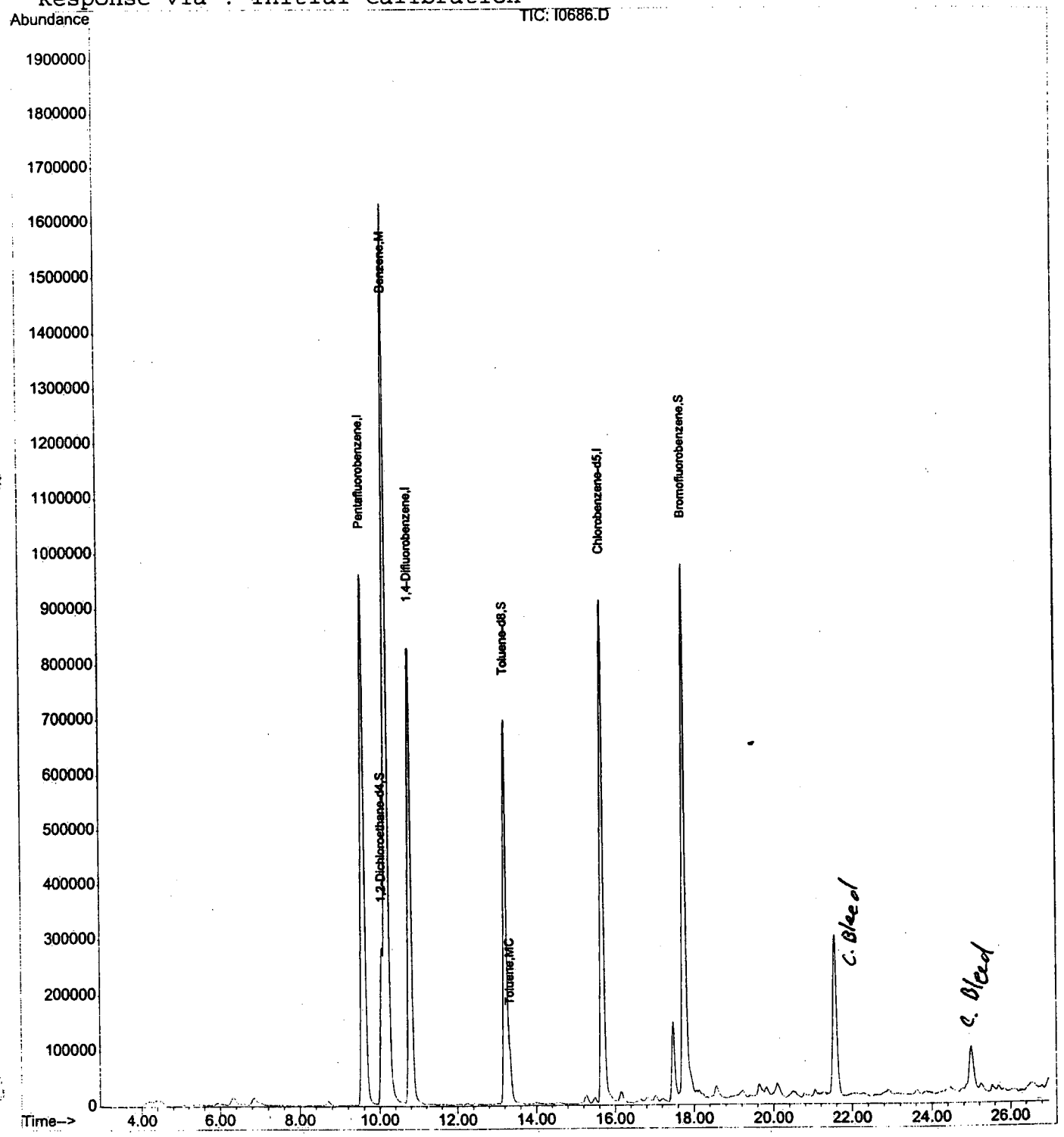
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0686.D
Acq On : 9 Aug 2001 8:45
Sample : S-126,5281-011,S,0.036g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 10 15:02 2001

Vial: 40
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RE

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0195

2146

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0686.D Vial: 40
Acq On : 9 Aug 2001 8:45 Operator: DP
Sample : S-126,5281-011,S,0.036g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

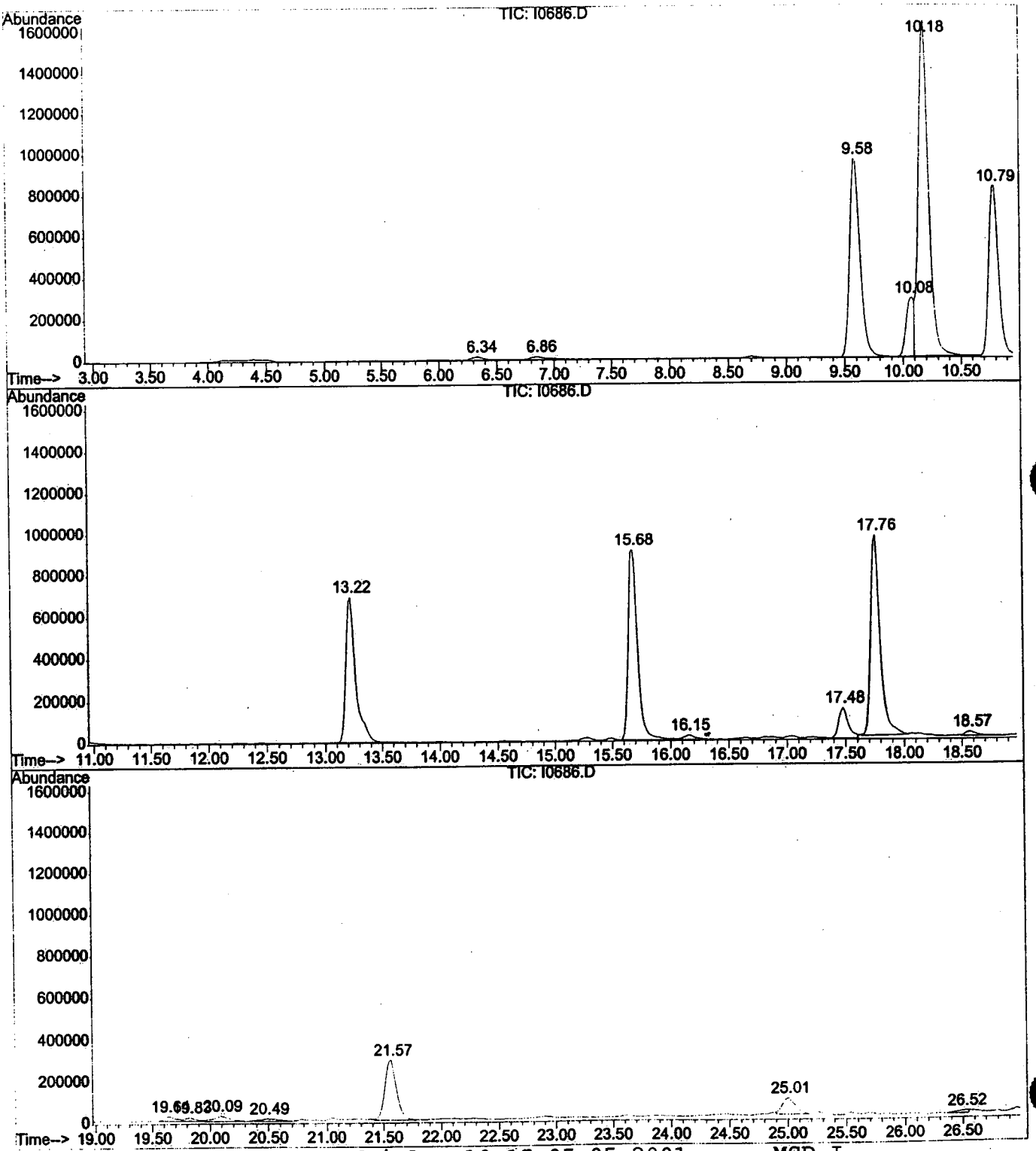
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.336	221	231	238	rBV	14997	109357	1.12%	0.266%
2	6.855	255	265	272	rBV	13889	110908	1.13%	0.269%
3	9.581	436	444	467	rBV	959847	5925795	60.54%	14.396%
4	10.079	468	477	478	rVV	281038	1332411	13.61%	3.237%
5	10.185	478	484	511	rVB	1628296	9788762	100.00%	23.780%
6	10.790	516	524	546	rVB	824730	4818573	49.23%	11.706%
7	13.221	676	684	703	rBV	693279	4121263	42.10%	10.012%
8	15.678	839	846	866	rBV	909054	5030960	51.40%	12.222%
9	16.152	871	877	888	rVB4	21388	149119	1.52%	0.362%
10	17.479	955	963	971	rBV	145418	809884	8.27%	1.967%
11	17.756	973	981	999	rVV	957776	5470939	55.89%	13.291%
12	18.572	1029	1034	1045	rVB4	21219	139241	1.42%	0.338%
13	19.640	1098	1103	1111	rBV4	21098	145098	1.48%	0.352%
14	19.825	1111	1115	1123	rVV4	16631	99353	1.01%	0.241%
15	20.089	1123	1132	1146	rVB3	26946	234825	2.40%	0.570%
16	20.490	1151	1158	1172	rVB3	11771	118953	1.22%	0.289%
17	21.567	1218	1228	1242	rVB	290747	2054731	20.99%	4.992%
18	25.005	1444	1451	1462	rVB	78967	596004	6.09%	1.448%
19	26.518	1539	1549	1551	rBV	14908	107983	1.10%	0.262%

Sum of corrected areas: 41164159

I0686.D IME0716.M Fri Aug 10 15:05:05 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-09-01\I0686.D
Operator : DP
Acquired : 9 Aug 2001 8:45 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-126,5281-011,S,0.036g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 40
Quant File :IME0716.RES (RTE Integrator)



I0686.D IME0716.M Fri Aug 10 15:05:05 2001 MSD_I

0197

2146

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0686.D
Acq On : 9 Aug 2001 8:45
Sample : S-126,5281-011,S,0.036g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 40
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

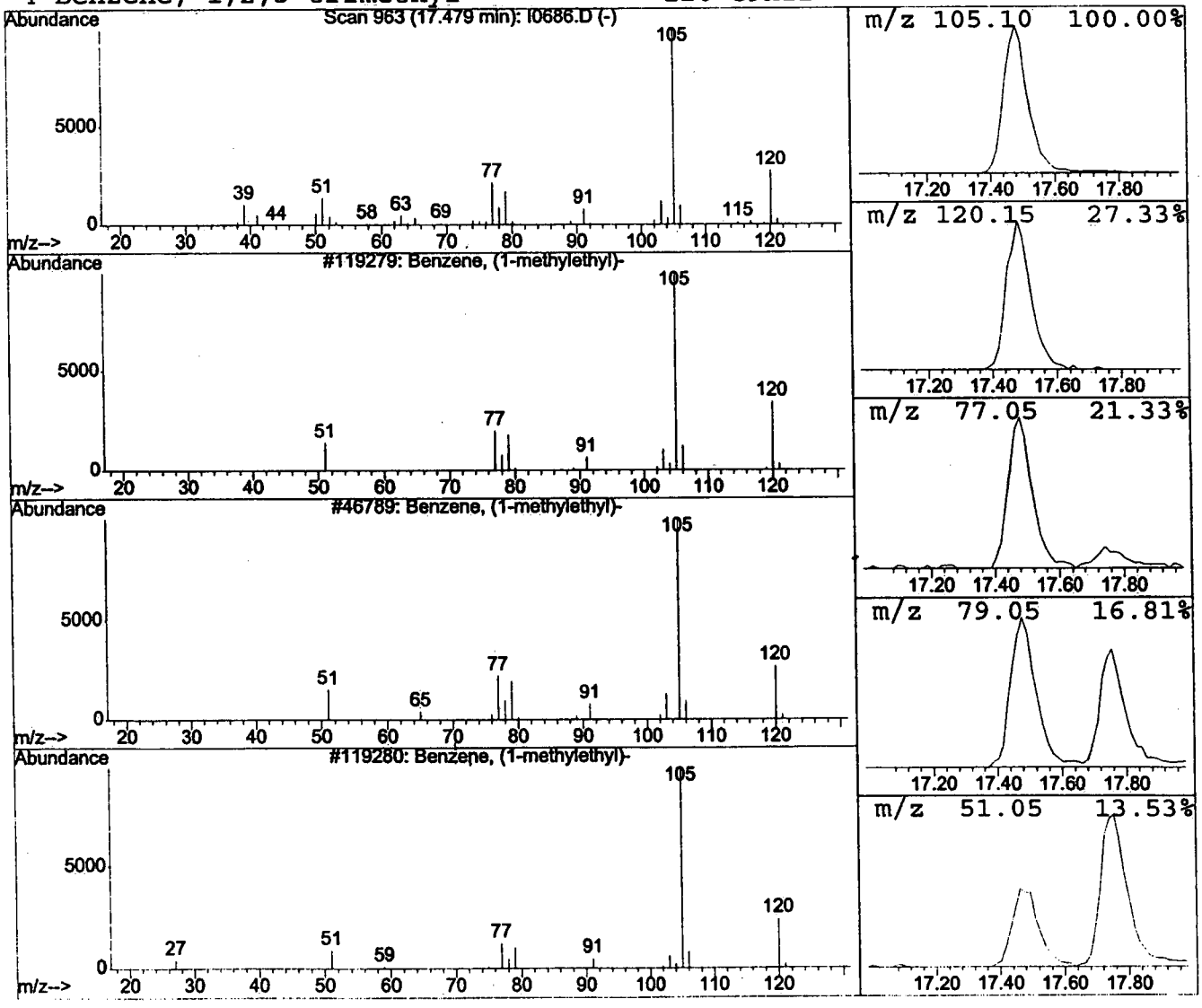
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.48	8.05 UG	809884	Chlorobenzene-d5	15.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	97
2	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	93
3	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	91
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91



2149

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-09-01\I0687.D
Acq On : 9 Aug 2001 9:21
Sample : S-127,5281-012,S,0.036g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 10 15:03 2001

Vial: 41
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.58	168	1839598	50.00	UG	-0.08
31) 1,4-Difluorobenzene	10.77	114	1847006	50.00	UG	-0.10
50) Chlorobenzene-d5	15.67	117	1466744	50.00	UG	-0.13
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	615951	37.35	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 74.70%			
41) Toluene-d8	13.21	98	1230540	40.51	UG	-0.11
Spiked Amount 50.000	Range 35 - 117		Recovery = 81.02%			
59) Bromofluorobenzene	17.76	95	1036604	35.06	UG	-0.12
Spiked Amount 50.000	Range 47 - 115		Recovery = 70.12%			
Target Compounds						Qvalue
32) Benzene	10.17	78	324654	12.82	UG	100
42) Toluene	13.32	92	1405048	79.84	UG	98

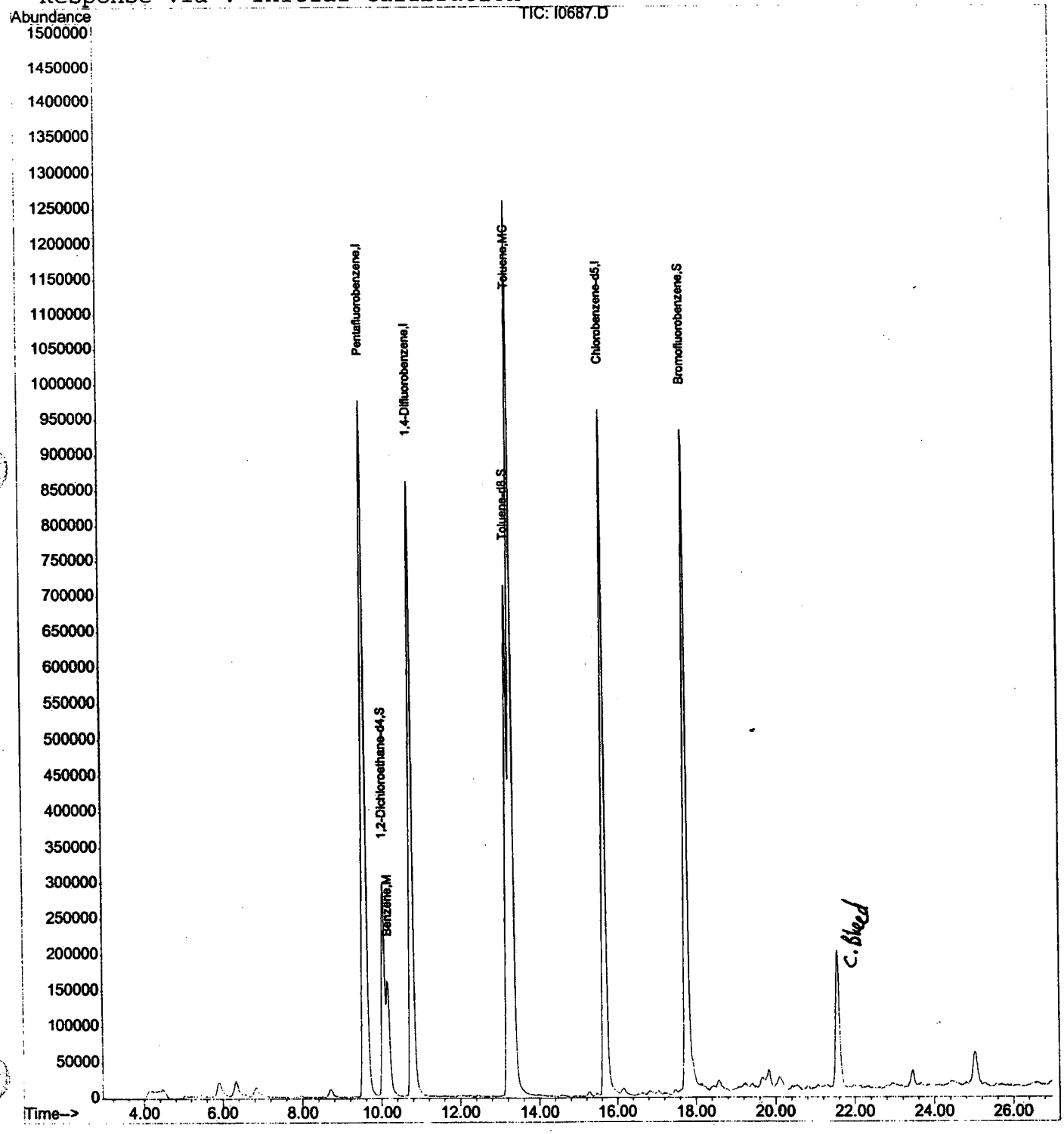
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0687.D
Acq On : 9 Aug 2001 9:21
Sample : S-127,5281-012,S,0.036g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 10 15:03 2001

Vial: 41
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2151

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0687.D Vial: 41
Acq On : 9 Aug 2001 9:21 Operator: DP
Sample : S-127,5281-012,S,0.036g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.466	102	105	114	rVB7	11824	78802	1.16%	0.213%
2	5.908	191	200	214	rBV	19776	183244	2.70%	0.494%
3	6.326	217	227	240	rBV	21770	167676	2.47%	0.452%
4	6.837	251	260	266	rBV	13361	92414	1.36%	0.249%
5	8.699	374	381	391	rBV	11086	82732	1.22%	0.223%
6	9.575	429	438	455	rBV	975367	6023904	88.73%	16.248%
7	10.049	462	469	474	rBV	294188	1698121	25.01%	4.580%
8	10.157	474	476	495	rVB2	160903	889501	13.10%	2.399%
9	10.772	508	516	538	rVB	859448	4922549	72.51%	13.277%
10	13.215	667	675	678	rBV	711563	3540471	52.15%	9.549%
11	13.320	678	682	710	rVB	1256762	6788776	100.00%	18.311%
12	15.670	828	835	850	rBV	959824	5015069	73.87%	13.527%
13	17.755	963	971	994	rBV	924950	5379633	79.24%	14.510%
14	19.670	1091	1096	1101	rBV5	12294	80191	1.18%	0.216%
15	19.820	1103	1106	1116	rVB2	24597	126591	1.86%	0.341%
16	20.094	1116	1124	1138	rVB5	19187	192781	2.84%	0.520%
17	21.575	1212	1221	1233	rVB	190445	1281585	18.88%	3.457%
18	23.451	1336	1344	1352	rBV7	23791	149939	2.21%	0.404%
19	25.021	1441	1448	1460	rVB2	47456	381308	5.62%	1.028%

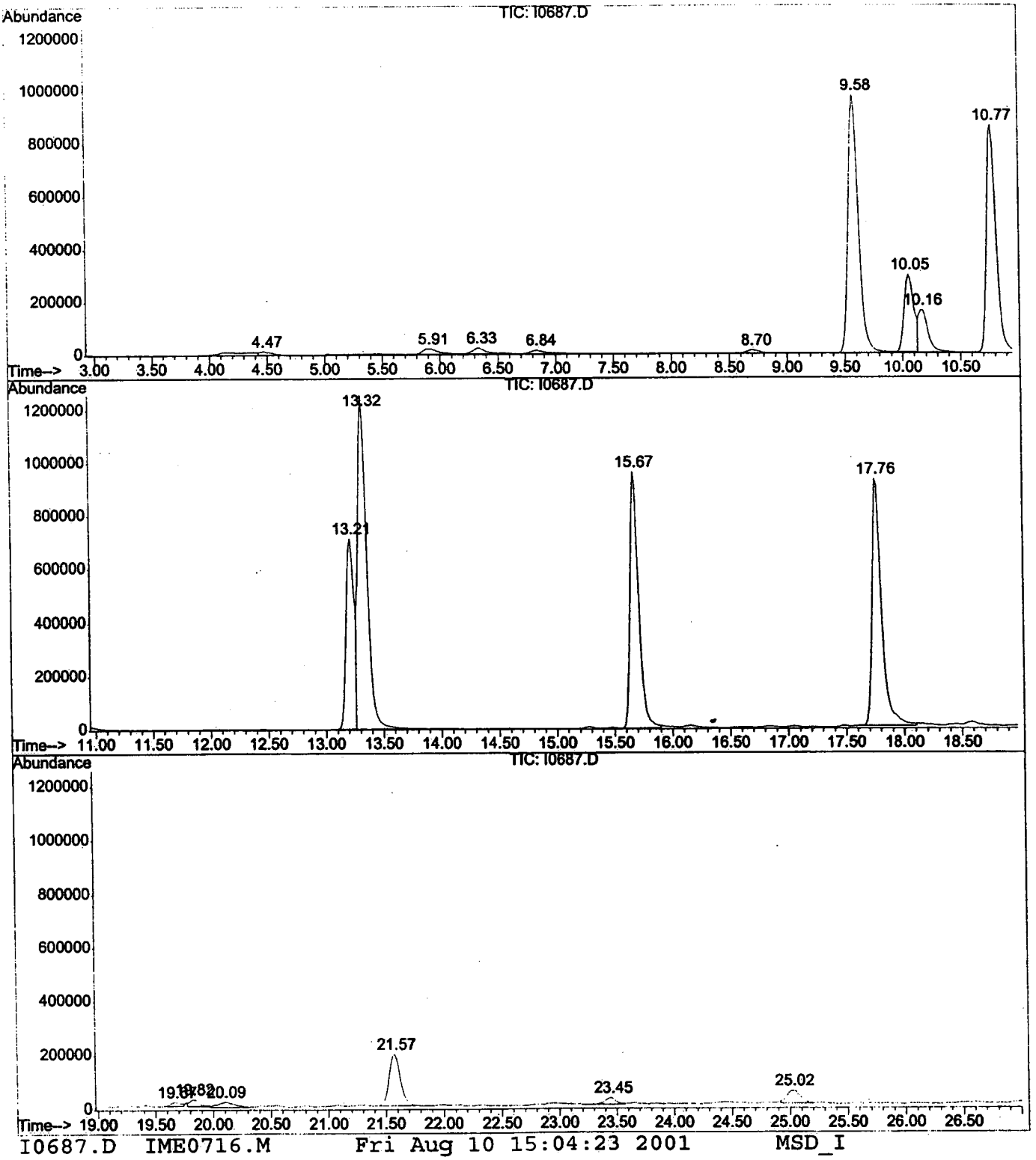
Sum of corrected areas: 37075287

I0687.D IME0716.M Fri Aug 10 15:04:22 2001 MSD_I

0201

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-09-01\I0687.D
Operator : DP
Acquired : 9 Aug 2001 9:21 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-127,5281-012,S,0.036g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 41
Quant File :IME0716.RES (RTE Integrator)



I0687.D IME0716.M Fri Aug 10 15:04:23 2001 MSD_I

2153

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D Vial: 29
Acq On : 4 Aug 2001 2:39 Operator: DP
Sample : S-128,5281-013,M,0.007g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 15:02 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

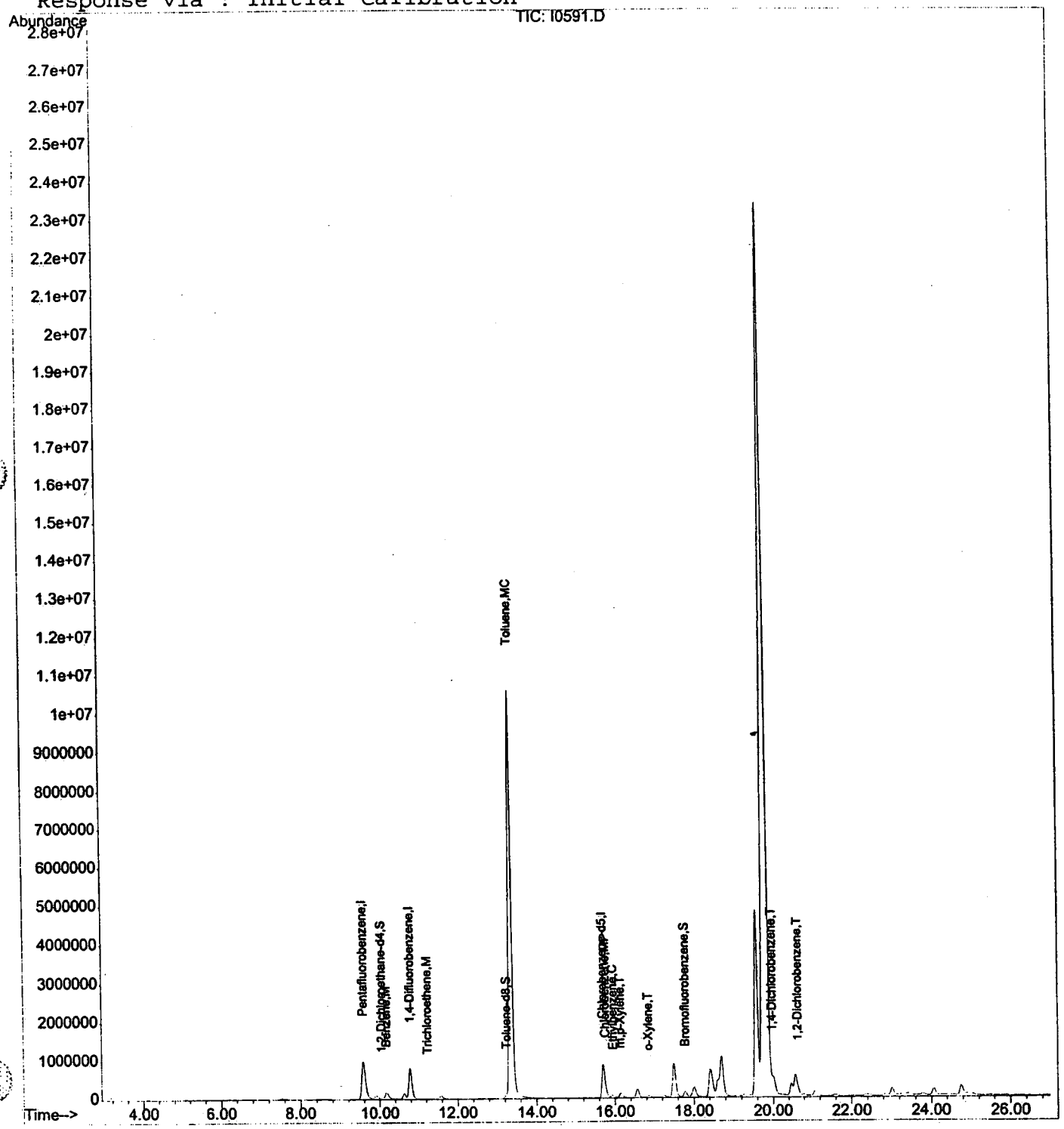
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.58	168	1820959	50.00	UG		-0.08
31) 1,4-Difluorobenzene	10.79	114	1796233	50.00	UG		-0.09
50) Chlorobenzene-d5	15.69	117	1334024	50.00	UG		-0.10
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.05	65	99419	6.09	UG		-0.09
Spiked Amount 50.000	Range 36 - 115		Recovery = 12.18%#				
41) Toluene-d8	13.25	98	179942	6.09	UG		-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 12.18%#				
59) Bromofluorobenzene	17.78	95	147525	5.49	UG		-0.09
Spiked Amount 50.000	Range 47 - 115		Recovery = 10.98%#				
Target Compounds							Qvalue
32) Benzene	10.18	78	396825	16.12	UG		100
33) Trichloroethene	11.23	95	8128	0.61	UG		99
42) Toluene	13.35	92	12408658	725.03	UG		98
51) Chlorobenzene	15.75	112	129508	5.51	UG	#	72
53) Ethylbenzene	15.95	91	120249	3.67	UG		99
54) m,p-Xylene	16.14	106	91976	7.30	UG	>9.10	94
55) o-Xylene	16.86	106	22548	1.80	UG		94
72) 1,4-Dichlorobenzene	19.98	146	18972	0.90	UG	#	60
74) 1,2-Dichlorobenzene	20.63	146	164812	8.68	UG	#	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D Vial: 29
Acq On : 4 Aug 2001 2:39 Operator: DP
Sample : S-128,5281-013,M,0.007g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 15:02 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2155

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.580	430	439	455	rBV	1003900	6628034	4.16%	2.335%
2	10.787	512	518	540	rVB	822428	4858025	3.05%	1.712%
3	13.352	670	685	711	rBV	10602176	58328079	36.61%	20.553%
4	15.695	831	838	850	rBV	889814	5121349	3.21%	1.805%
5	17.499	948	956	968	rBV2	903931	5157091	3.24%	1.817%
6	18.009	981	990	1002	rVB2	258578	1695347	1.06%	0.597%
7	18.418	1008	1017	1025	rBV2	733759	5006957	3.14%	1.764%
8	18.701	1031	1036	1053	rVB	1077230	6610745	4.15%	2.329%
9	19.572	1086	1094	1100	rBV2	4801109	25926557	16.27%	9.136%
10	19.781	1100	1108	1121	rVB4	22909233	159331334	100.00%	56.143%
11	20.574	1156	1161	1172	rVB2	543105	3492733	2.19%	1.231%
12	24.747	1434	1440	1449	rBV2	260648	1639843	1.03%	0.578%

Sum of corrected areas: 283796094

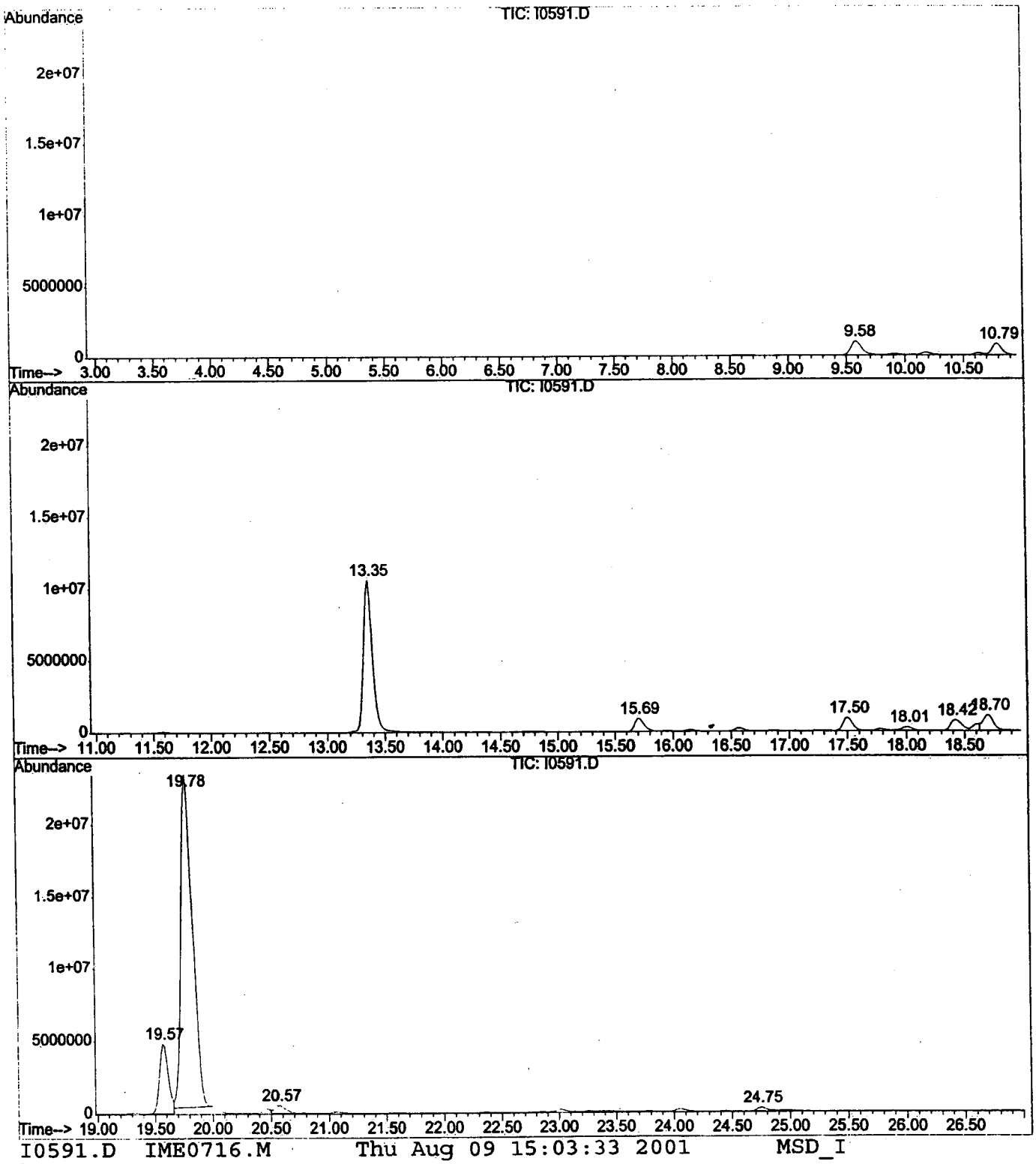
I0591.D IME0716.M Thu Aug 09 15:03:33 2001 MSD_I

0205

2156

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Operator : DP
Acquired : 4 Aug 2001 2:39 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-128,5281-013,M,0.007g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01,5
Vial Number: 29
Quant File :IME0716.RES (RTE Integrator)



I0591.D IME0716.M Thu Aug 09 15:03:33 2001 MSD_I

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

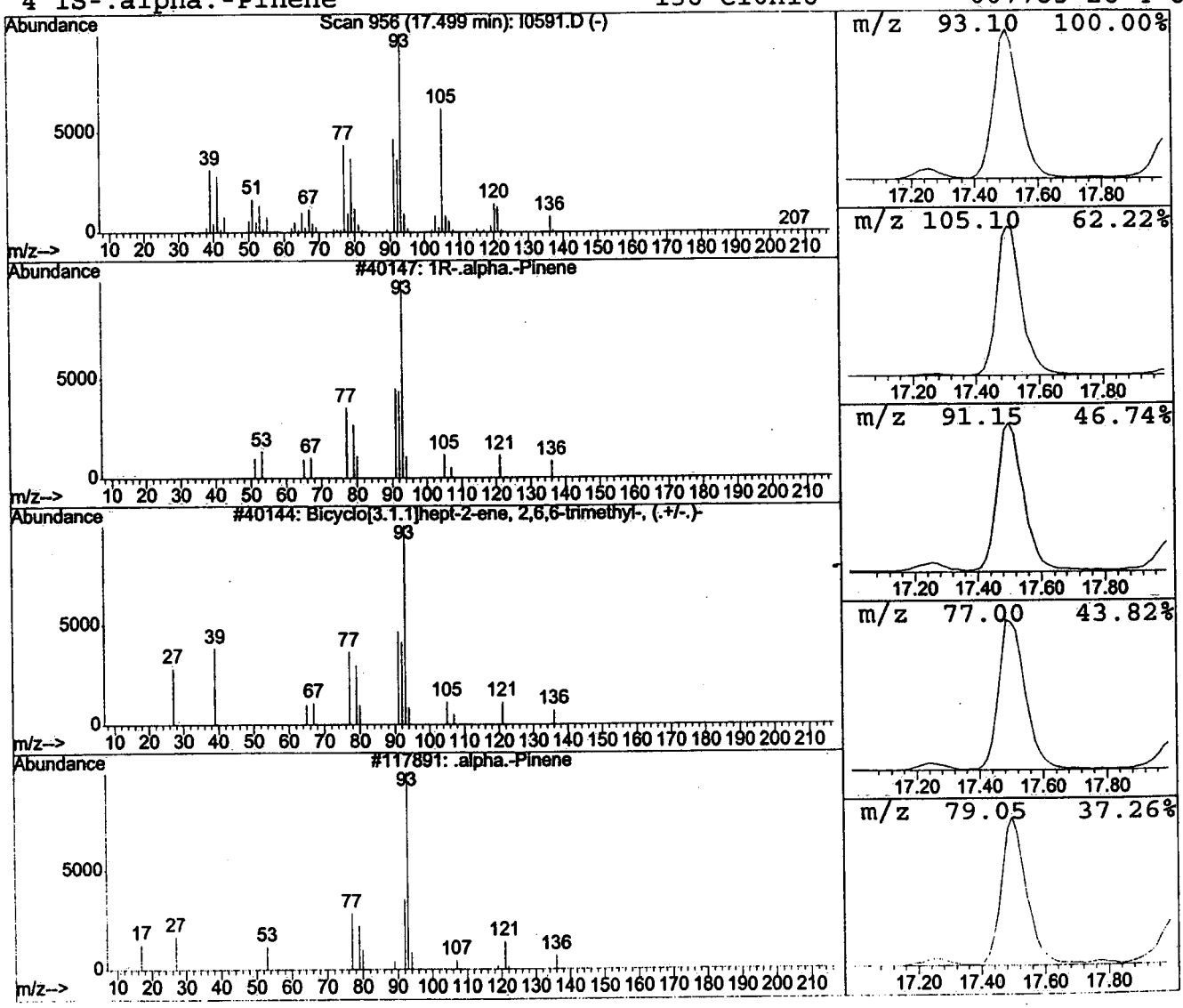
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.50	50.35 UG	5157090	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1R-.alpha.-Pinene	136	C10H16	007785-70-8	97
2	Bicyclo[3.1.1]hept-2-ene, 2,6,6-tri	136	C10H16	002437-95-8	95
3	.alpha.-Pinene	136	C10H16	000080-56-8	87
4	1S-.alpha.-Pinene	136	C10H16	007785-26-4	81



0207

2158

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

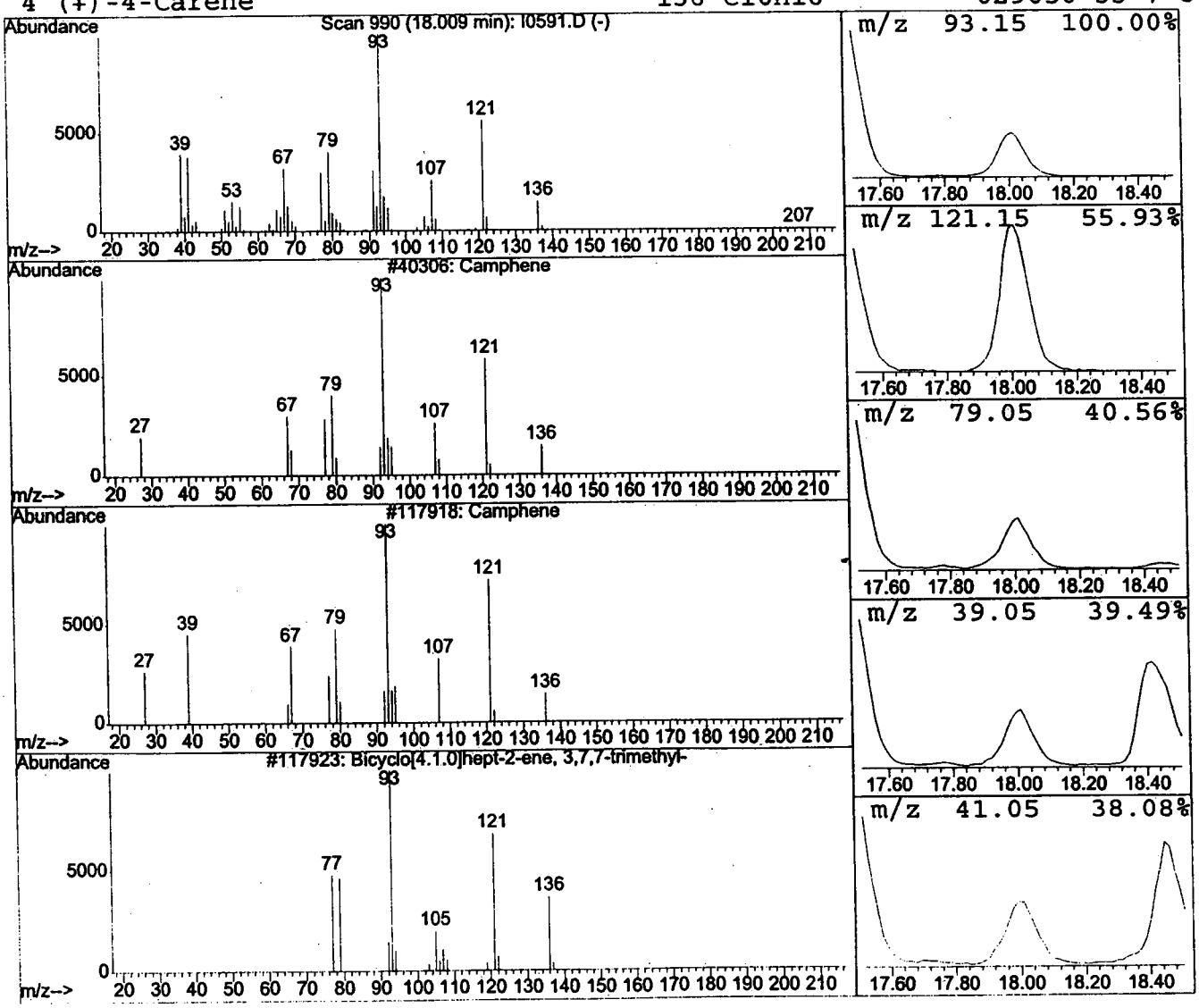
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.01	16.55 UG	1695350	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	97
2	Camphene	136	C10H16	000079-92-5	90
3	Bicyclo[4.1.0]hept-2-ene, 3,7,7-tri	136	C10H16	000554-61-0	87
4	(+)-4-Carene	136	C10H16	029050-33-7	87



7139

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

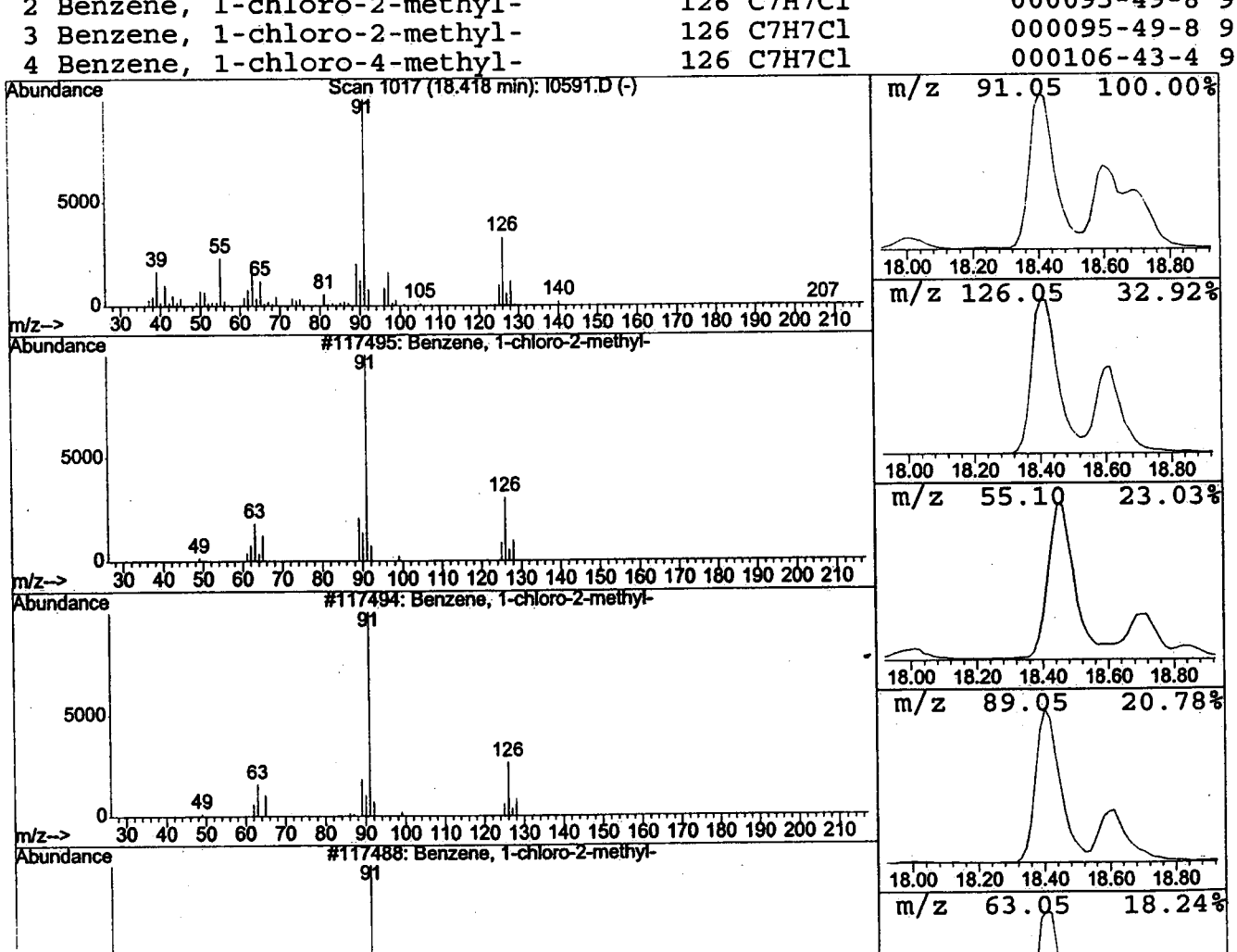
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.42	48.88 UG	5006960	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
2	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
3	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	95
4	Benzene, 1-chloro-4-methyl-	126	C7H7Cl	000106-43-4	95



0209

2160

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D Vial: 29
Acq On : 4 Aug 2001 2:39 Operator: DP
Sample : S-128,5281-013,M,0.007g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P

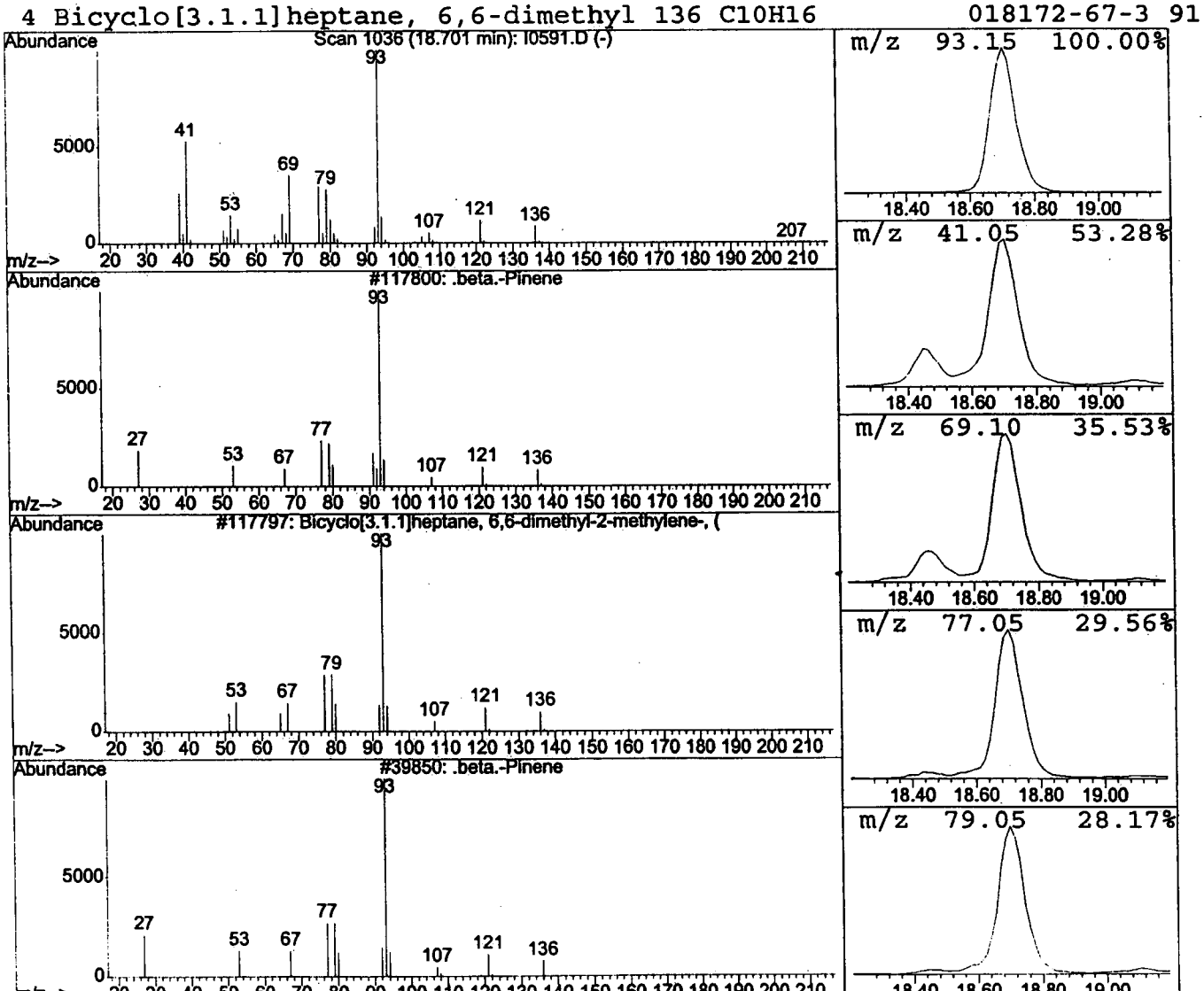
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	64.54 UG	6610750	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.beta.-Pinene	136	C10H16	000127-91-3	97
2	Bicyclo[3.1.1]heptane, 6,6-dimethyl	136	C10H16	018172-67-3	94
3	.beta.-Pinene	136	C10H16	000127-91-3	94
4	Bicyclo[3.1.1]heptane, 6,6-dimethyl	136	C10H16	018172-67-3	91



7161

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

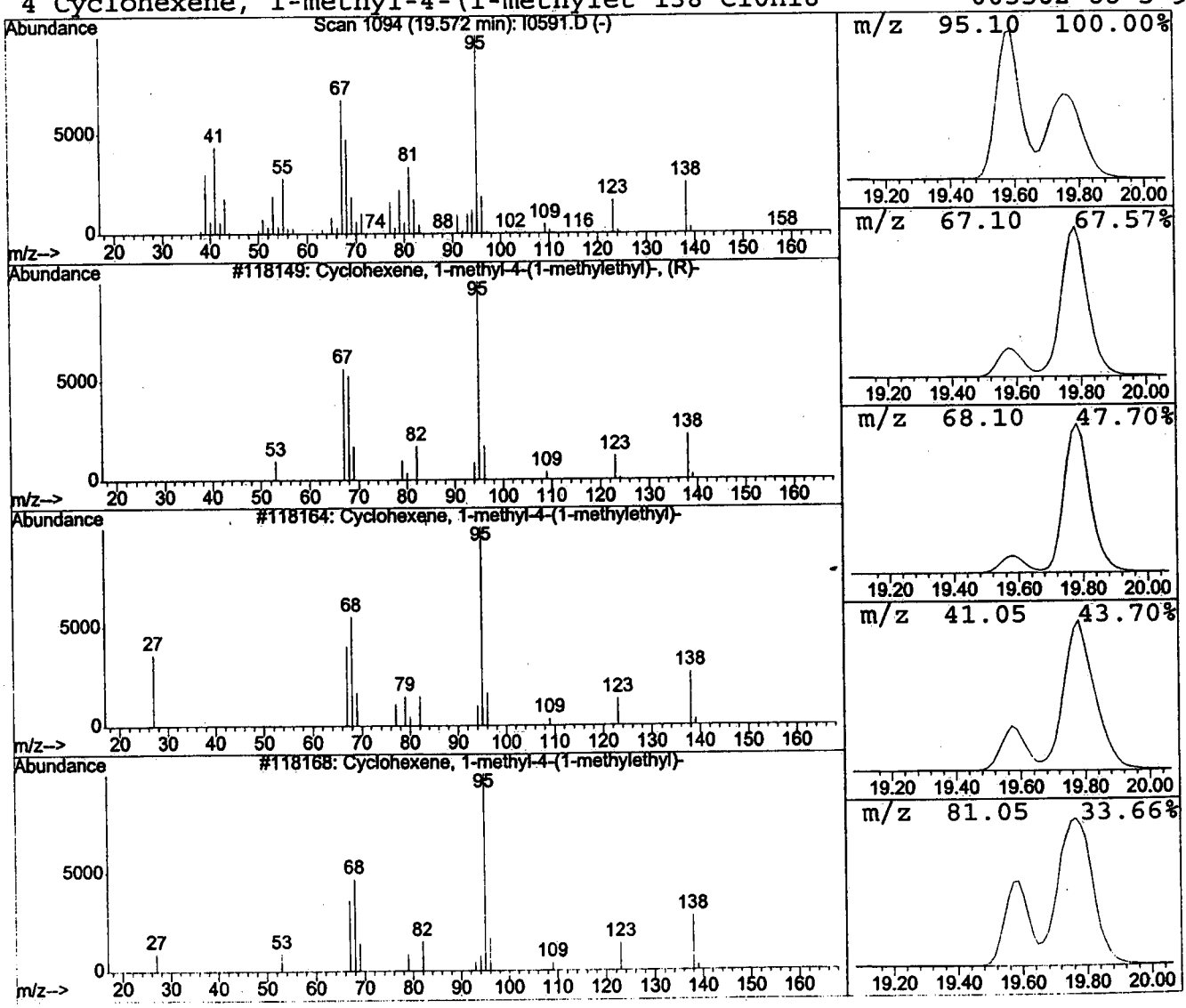
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 5 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.57	253.12 UG	25926600	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	94
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	93
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	93
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	90



0277

2162

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D Vial: 29
Acq On : 4 Aug 2001 2:39 Operator: DP
Sample : S-128,5281-013,M,0.007g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P

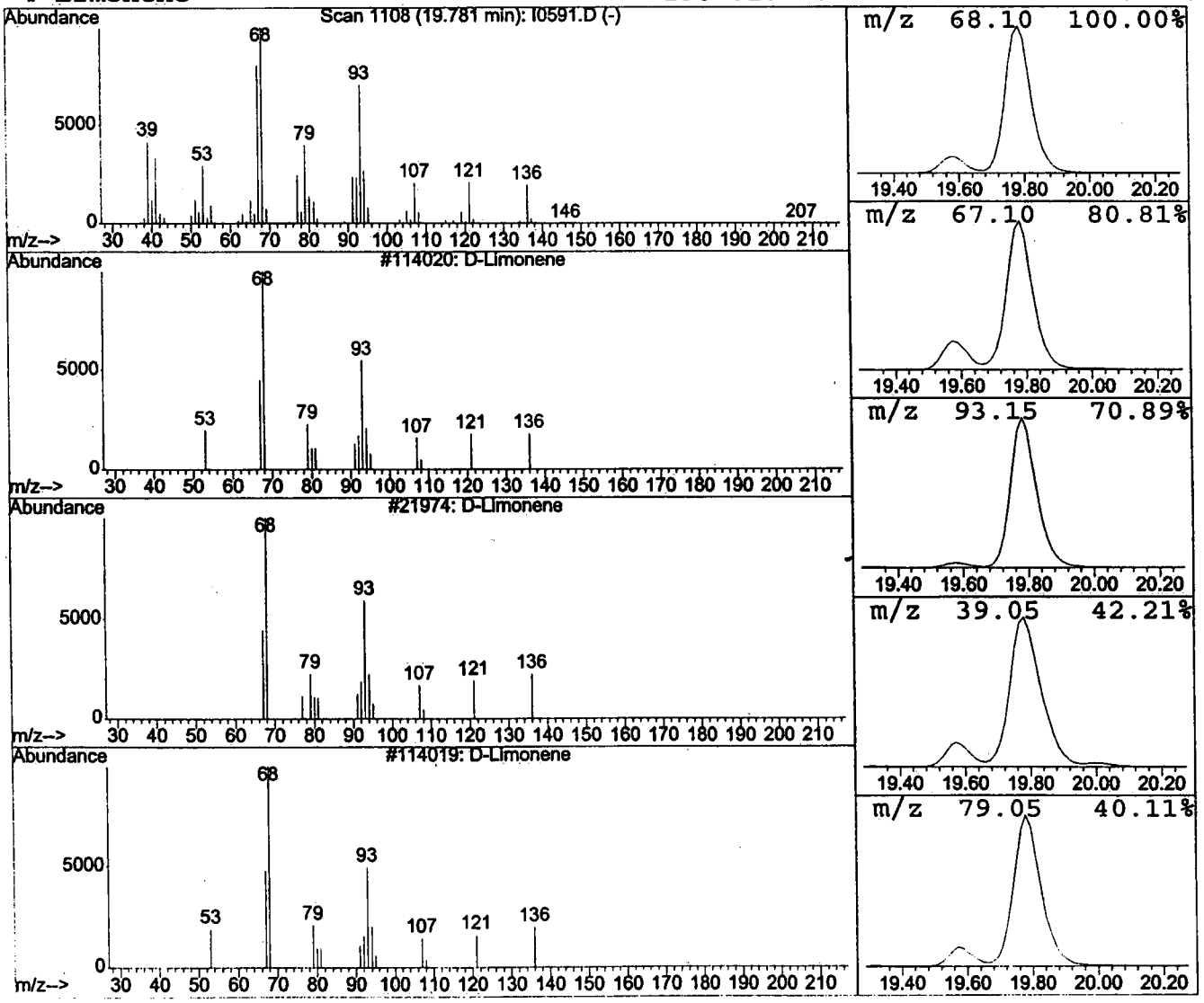
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 6 Unknown cyclic hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.78	1555.56 UG	159331000	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	95
2	D-Limonene	136	C10H16	005989-27-5	94
3	D-Limonene	136	C10H16	005989-27-5	94
4	Limonene	136	C10H16	000138-86-3	94



0717

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

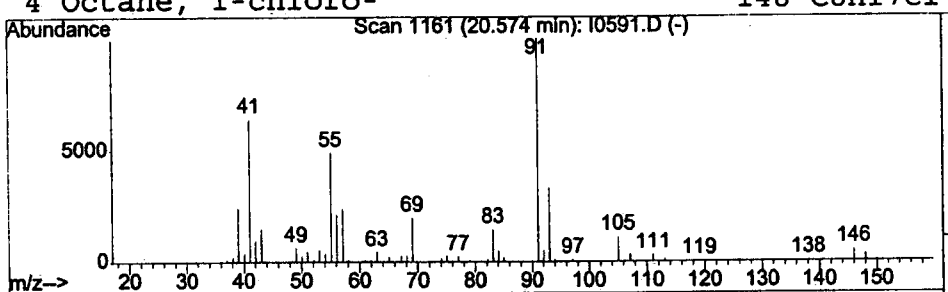
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

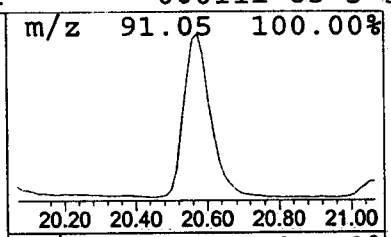
****

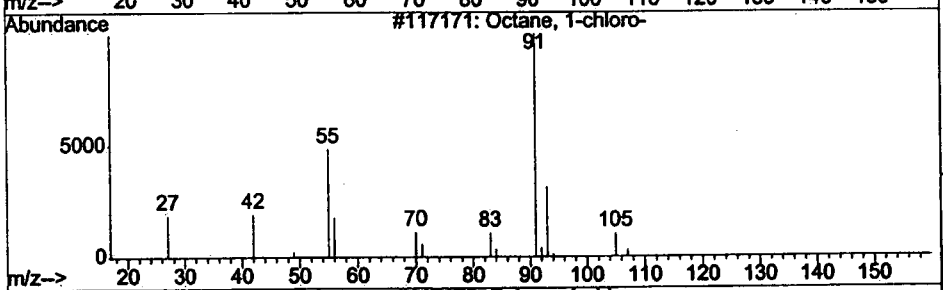
Peak Number 7 Unknown alkane Concentration Rank 6

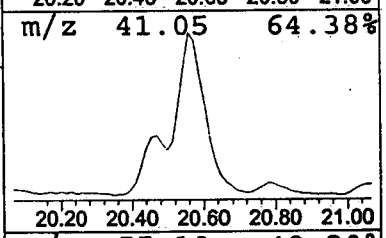
R.T.	EstConc	Area	Relative to ISTD	R.T.
20.57	34.10 UG	3492730	Chlorobenzene-d5	15.69

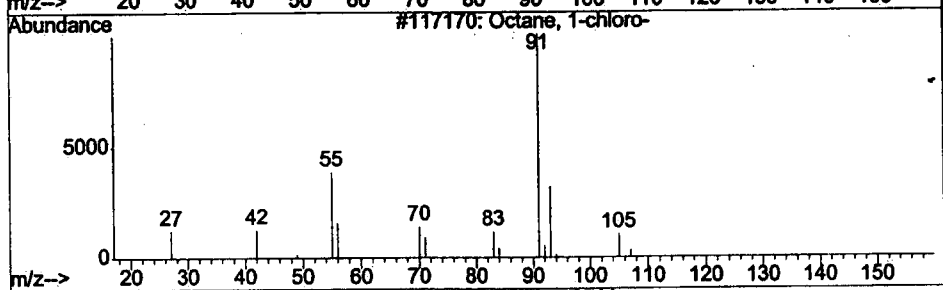
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octane, 1-chloro-	148	C8H17Cl	000111-85-3	78
2	Octane, 1-chloro-	148	C8H17Cl	000111-85-3	78
3	Octane, 1-chloro-	148	C8H17Cl	000111-85-3	64
4	Octane, 1-chloro-	148	C8H17Cl	000111-85-3	56

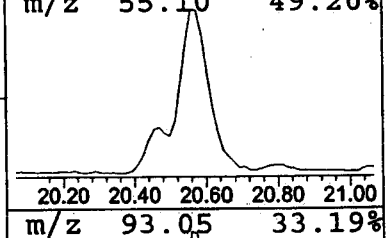


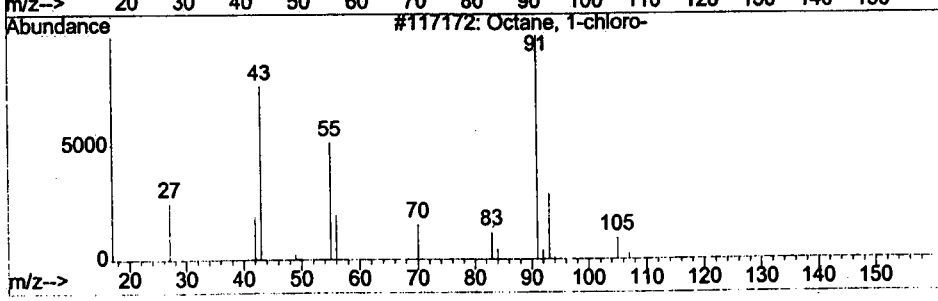


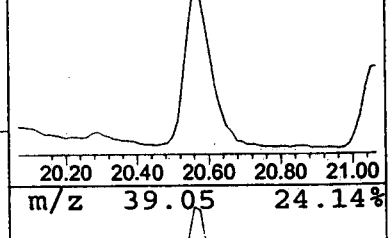


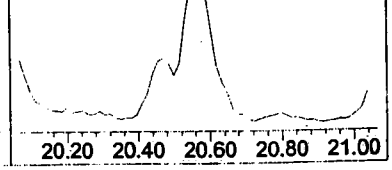












0213

21KH

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0591.D
Acq On : 4 Aug 2001 2:39
Sample : S-128,5281-013,M,0.007g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,5
MS Integration Params: LSCINT.P

Vial: 29
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

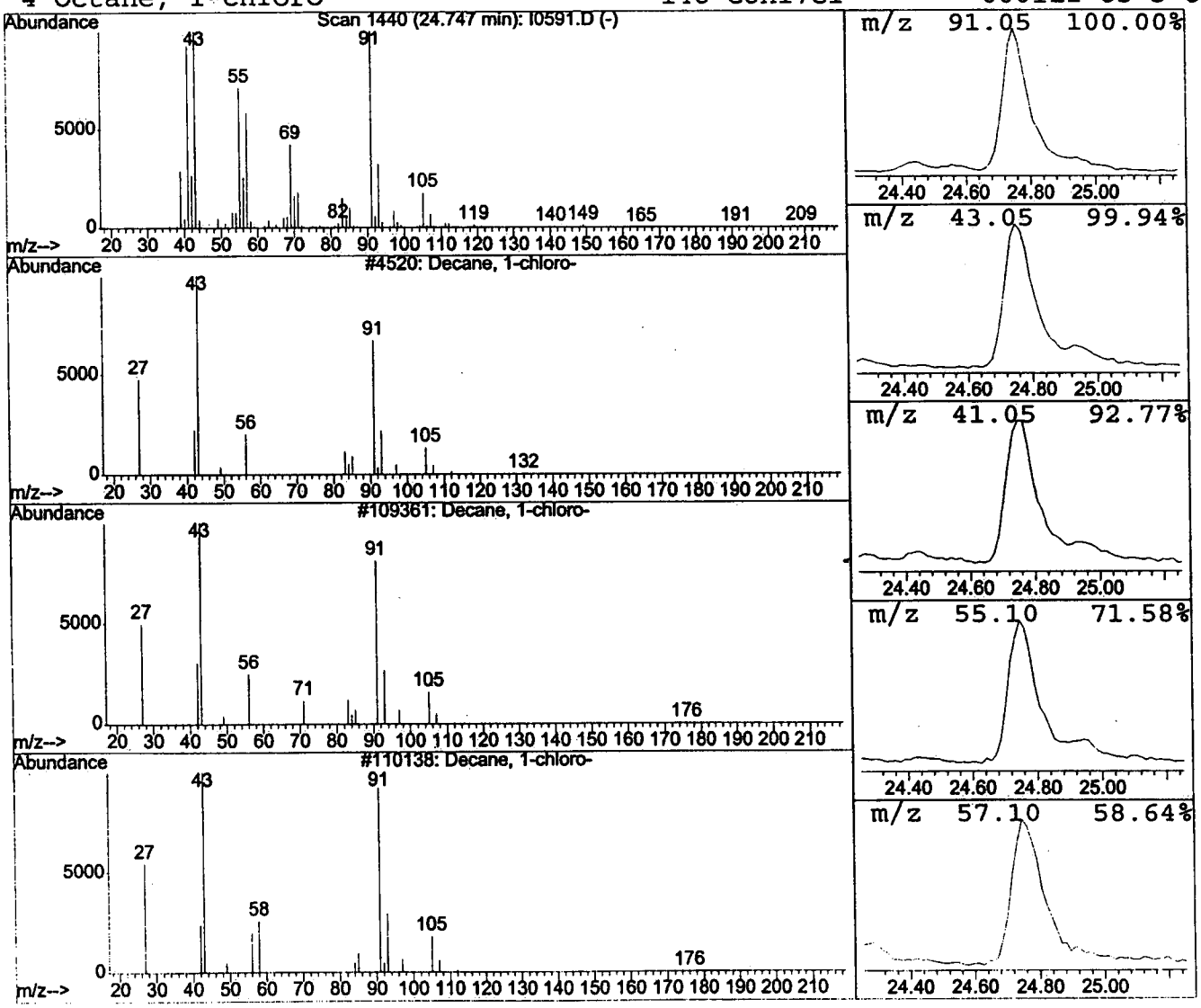
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Unknown alkane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.75	16.01 UG	1639840	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 1-chloro-	176	C10H21Cl	001002-69-3	91
2	Decane, 1-chloro-	176	C10H21Cl	001002-69-3	90
3	Decane, 1-chloro-	176	C10H21Cl	001002-69-3	90
4	Octane, 1-chloro-	148	C8H17Cl	000111-85-3	80



2165

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0619.D Vial: 18
Acq On : 5 Aug 2001 20:58 Operator: DP
Sample : S-128,5281-013DIL,M,0.0012g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,30 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:27 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

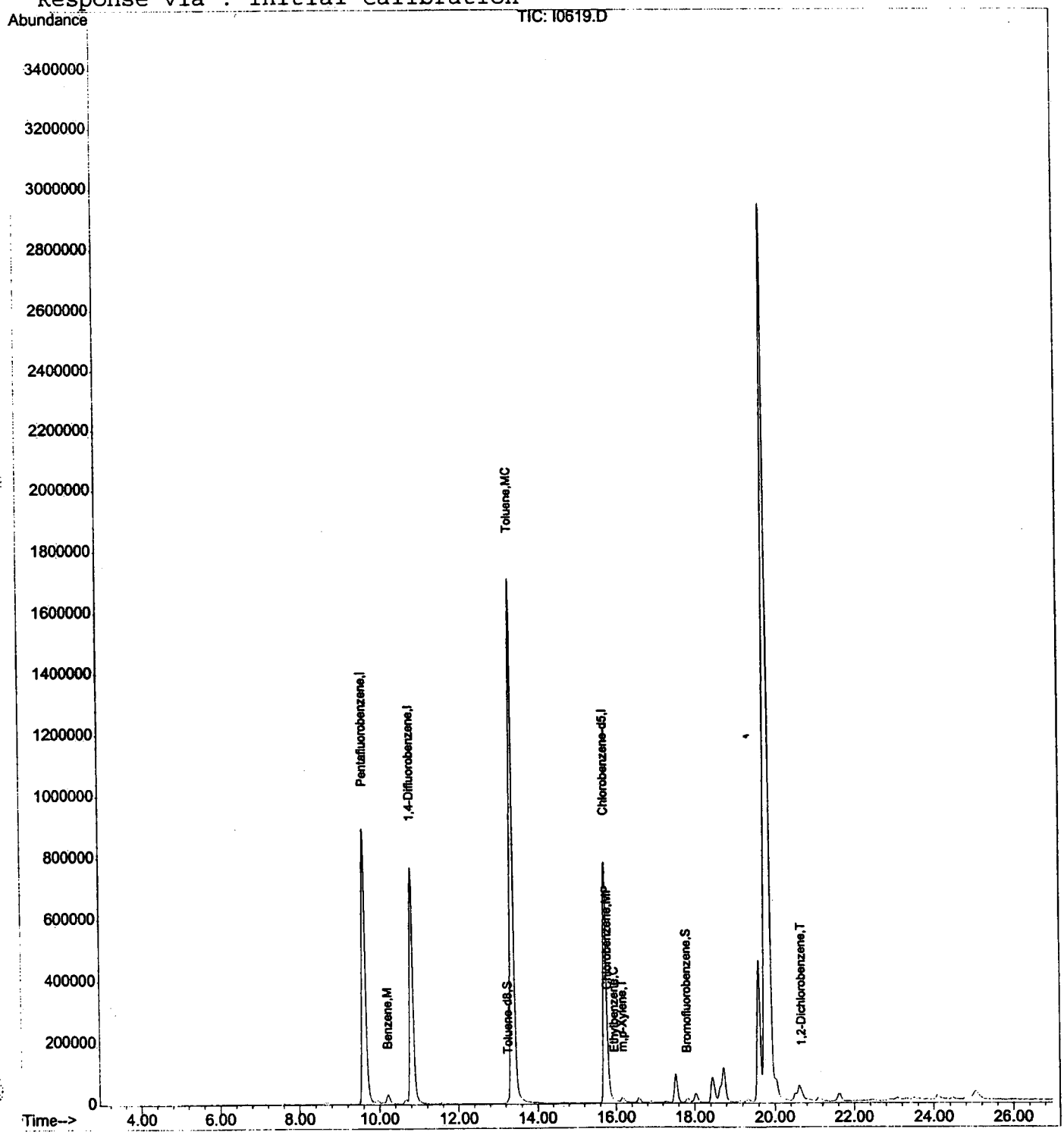
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.62	168	1688313	50.00	UG		-0.04
31) 1,4-Difluorobenzene	10.82	114	1677970	50.00	UG		-0.06
50) Chlorobenzene-d5	15.73	117	1266277	50.00	UG		-0.07
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	UG		
Spiked Amount 50.000	Range 36 - 115		Recovery = 0.00%#				
41) Toluene-d8	13.26	98	21264	0.77	UG		-0.06
Spiked Amount 50.000	Range 35 - 117		Recovery = 1.54%#				
59) Bromofluorobenzene	17.81	95	18802	0.74	UG		-0.07
Spiked Amount 50.000	Range 47 - 115		Recovery = 1.48%#				
Target Compounds							Qvalue
32) Benzene	10.22	78	63331	2.75	UG		100
42) Toluene	13.37	92	1986765	124.27	UG		99
51) Chlorobenzene	15.79	112	18647	0.84	UG	#	71
53) Ethylbenzene	15.96	91	20465	0.66	UG		98
54) m,p-Xylene	16.17	106	11308	0.95	UG		88
74) 1,2-Dichlorobenzene	20.67	146	23722	1.32	UG	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0619.D Vial: 18
Acq On : 5 Aug 2001 20:58 Operator: DP
Sample : S-128,5281-013DIL,M,0.0012g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,30 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 13:27 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0716

2167

Quantitation Report (QT/LSC Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 15:04 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.57	168	1856501	50.00	UG	-0.09
31) 1,4-Difluorobenzene	10.78	114	1789928	50.00	UG	-0.10
50) Chlorobenzene-d5	15.70	117	1370815	50.00	UG	-0.10
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.04	65	61038	3.67	UG	-0.11
Spiked Amount 50.000	Range 36 - 115		Recovery =	7.34%#		
41) Toluene-d8	13.24	98	107725	3.66	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery =	7.32%#		
59) Bromofluorobenzene	17.78	95	90596	3.28	UG	-0.10
Spiked Amount 50.000	Range 47 - 115		Recovery =	6.56%#		
Target Compounds						Qvalue
32) Benzene	10.16	78	1440829	58.73	UG	100
42) Toluene	13.34	92	7515158	440.66	UG	97
53) Ethylbenzene	15.94	91	193672	5.75	UG	99

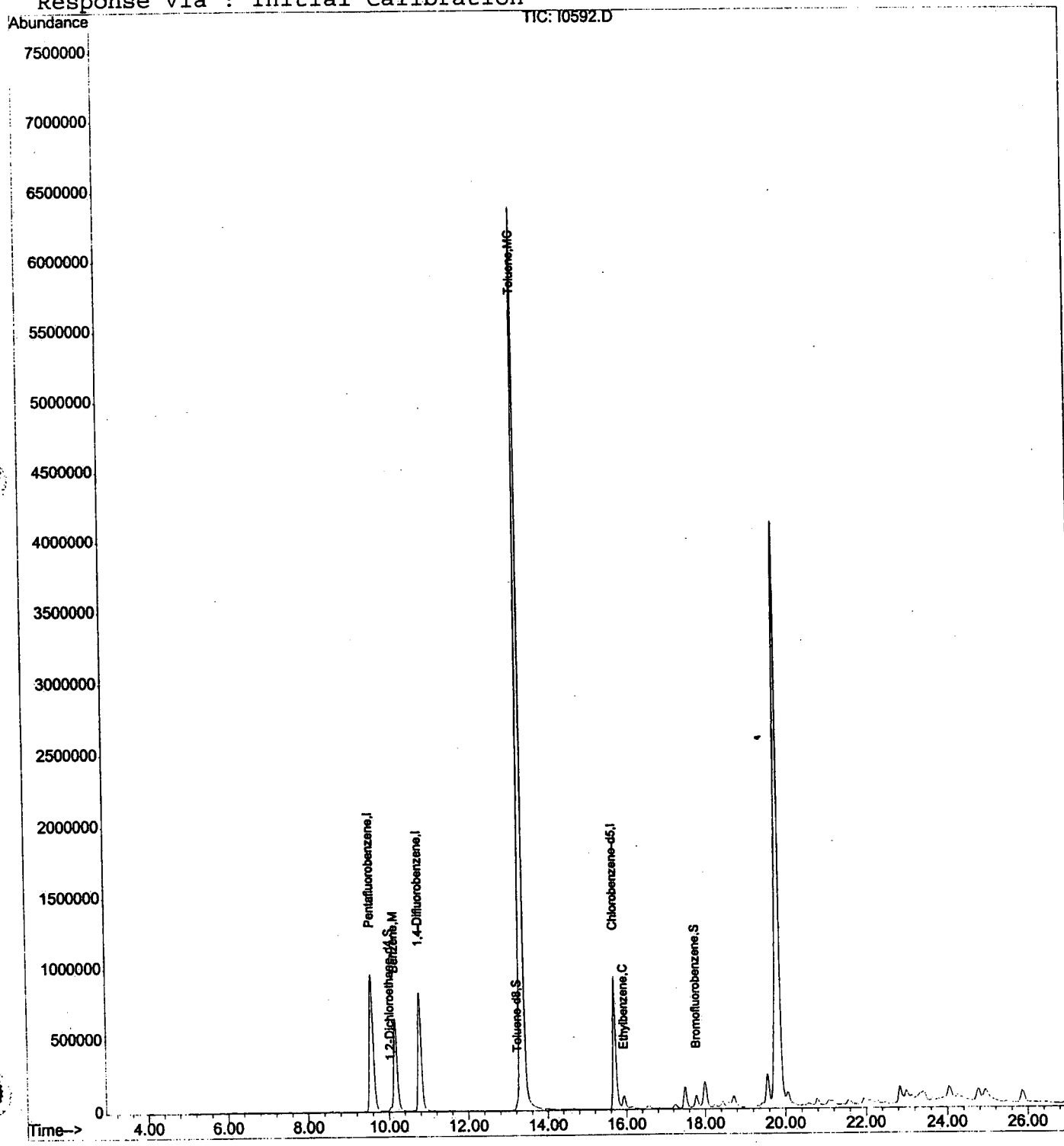
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Acq On : 4 Aug 2001 3:16
Sample : S-129,5281-014,M,0.0034g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: rteint.p
Quant Time: Aug 9 15:04 2001

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0718

2169

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 1 Max Peaks: 100
Stop Thrs : 1 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.568	429	438	457	rBV	965773	6161448	17.56%	7.066%
2	10.162	471	477	491	rVB	638680	3755254	10.70%	4.307%
3	10.777	510	517	534	rBV	826633	4785687	13.64%	5.488%
4	13.343	670	684	707	rBV	6388143	35084234	100.00%	40.235%
5	15.698	829	837	848	rBV	932197	4774996	13.61%	5.476%
6	15.941	848	853	861	rVV	90100	521946	1.49%	0.599%
7	17.491	947	954	964	rBV2	150655	845041	2.41%	0.969%
8	17.780	967	973	979	rVV2	85917	439370	1.25%	0.504%
9	17.993	979	987	998	rVB	176576	1110602	3.17%	1.274%
10	18.724	1030	1035	1048	rVB3	79947	519757	1.48%	0.596%
11	19.562	1084	1090	1096	rVV2	209033	1111787	3.17%	1.275%
12	19.832	1096	1108	1119	rVV	4093417	24559466	70.00%	28.165%
13	20.056	1120	1123	1131	rVB2	76512	393500	1.12%	0.451%
14	22.844	1302	1308	1314	rBV	116241	670473	1.91%	0.769%
15	24.041	1383	1388	1398	rVB5	82571	542463	1.55%	0.622%
16	24.772	1430	1437	1442	rBV4	78294	485677	1.38%	0.557%
17	24.937	1444	1448	1473	rVB4	85984	919635	2.62%	1.055%
18	25.868	1503	1510	1520	rBV6	81199	517534	1.48%	0.594%

Sum of corrected areas: 87198870

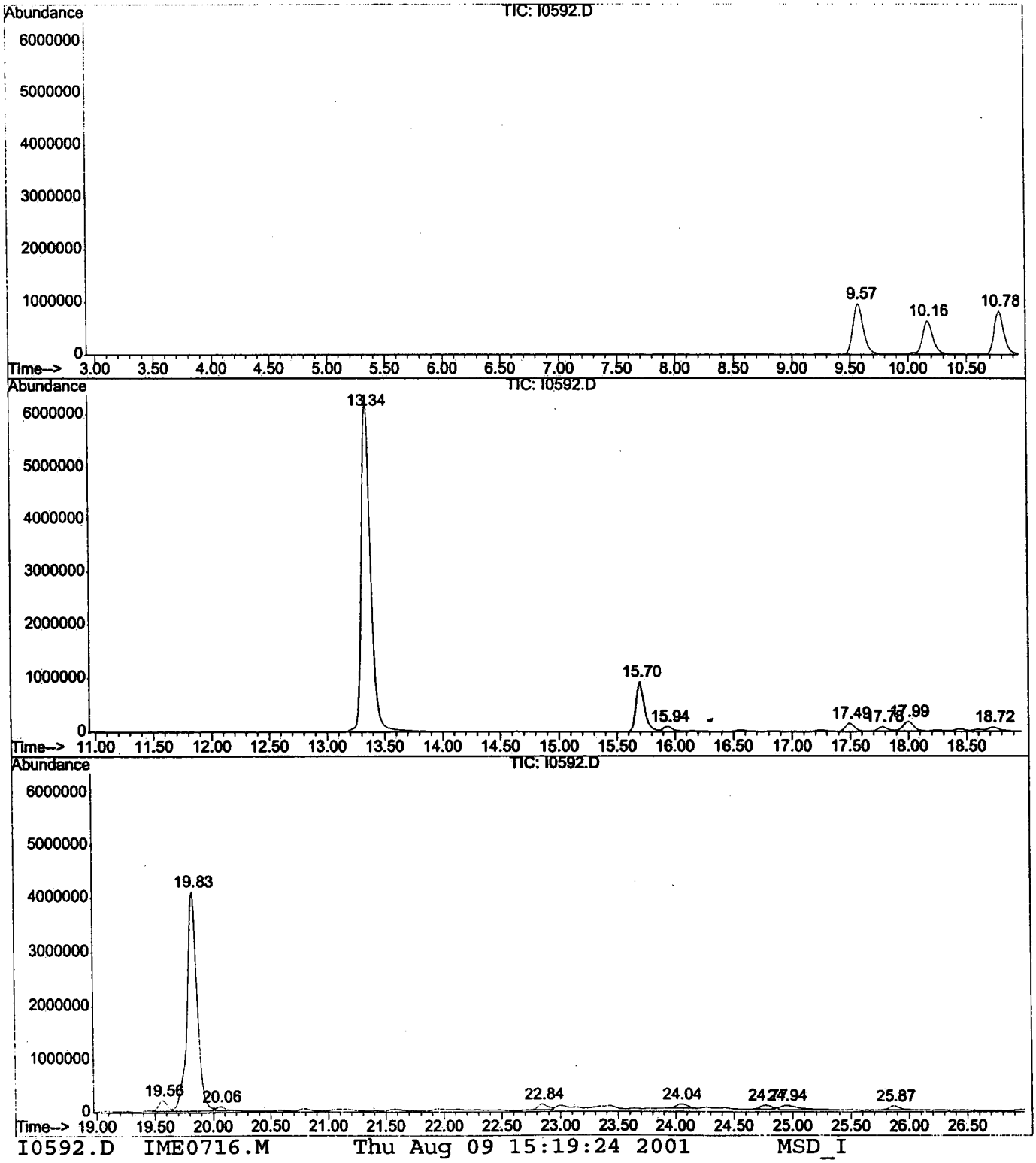
I0592.D IME0716.M Thu Aug 09 15:19:23 2001 MSD_I

0219

2170

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Operator : DP
Acquired : 4 Aug 2001 3:16 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-129,5281-014,M,0.0034g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01,10
Vial Number: 30
Quant File :IME0716.RES (RTE Integrator)



I0592.D IME0716.M Thu Aug 09 15:19:24 2001 MSD_I

0220

271

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Acq On : 4 Aug 2001 3:16
Sample : S-129,5281-014,M,0.0034g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

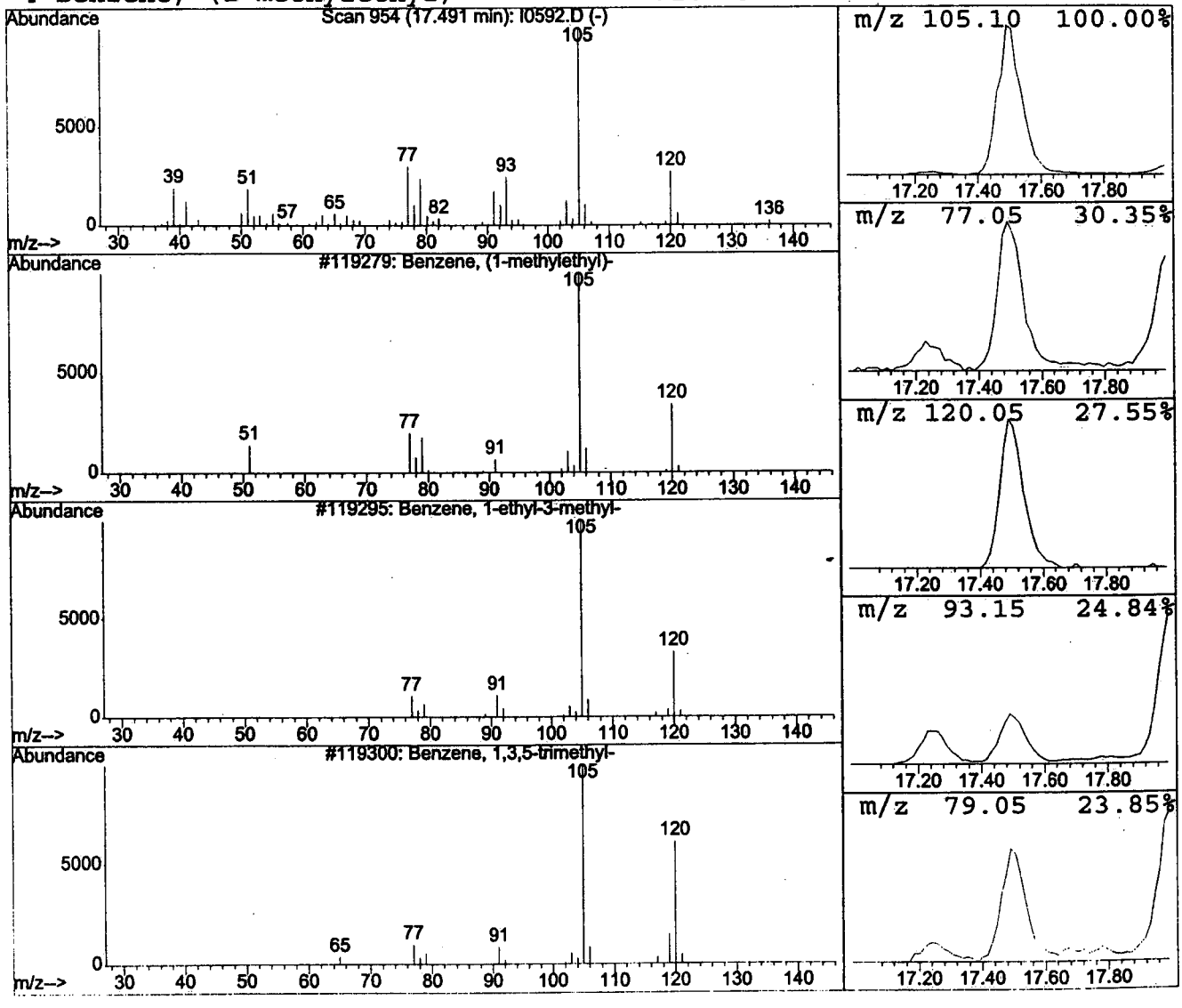
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.49	8.85 UG	845041	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	76
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	74
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	72
4	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	70



0221

2172

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

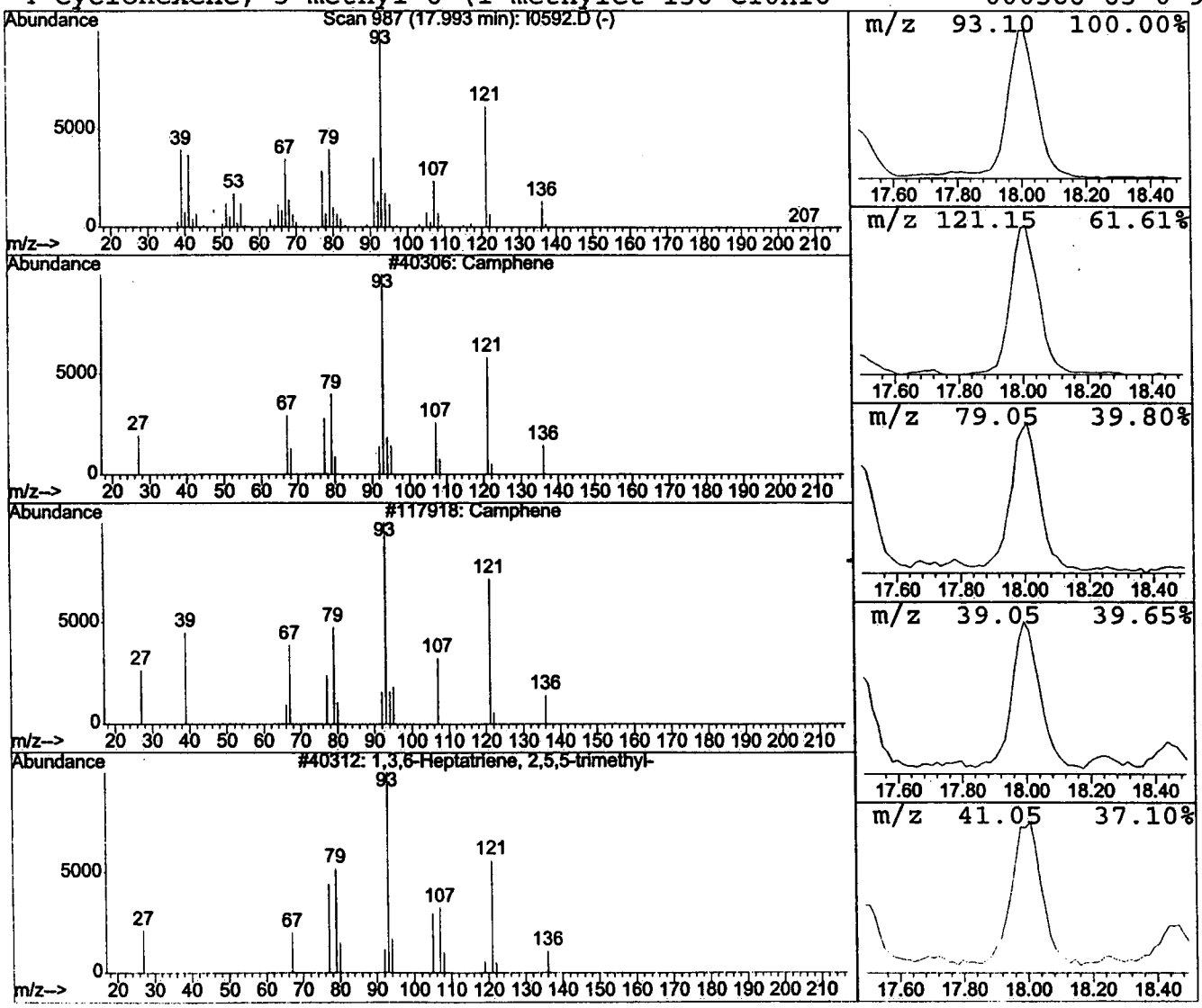
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.99	11.63 UG	1110600	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	97
2	Camphene	136	C10H16	000079-92-5	94
3	1,3,6-Heptatriene, 2,5,5-trimethyl-	136	C10H16	029548-02-5	91
4	Cyclohexene, 3-methyl-6-(1-methylet	136	C10H16	000586-63-0	91



0222

2173

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

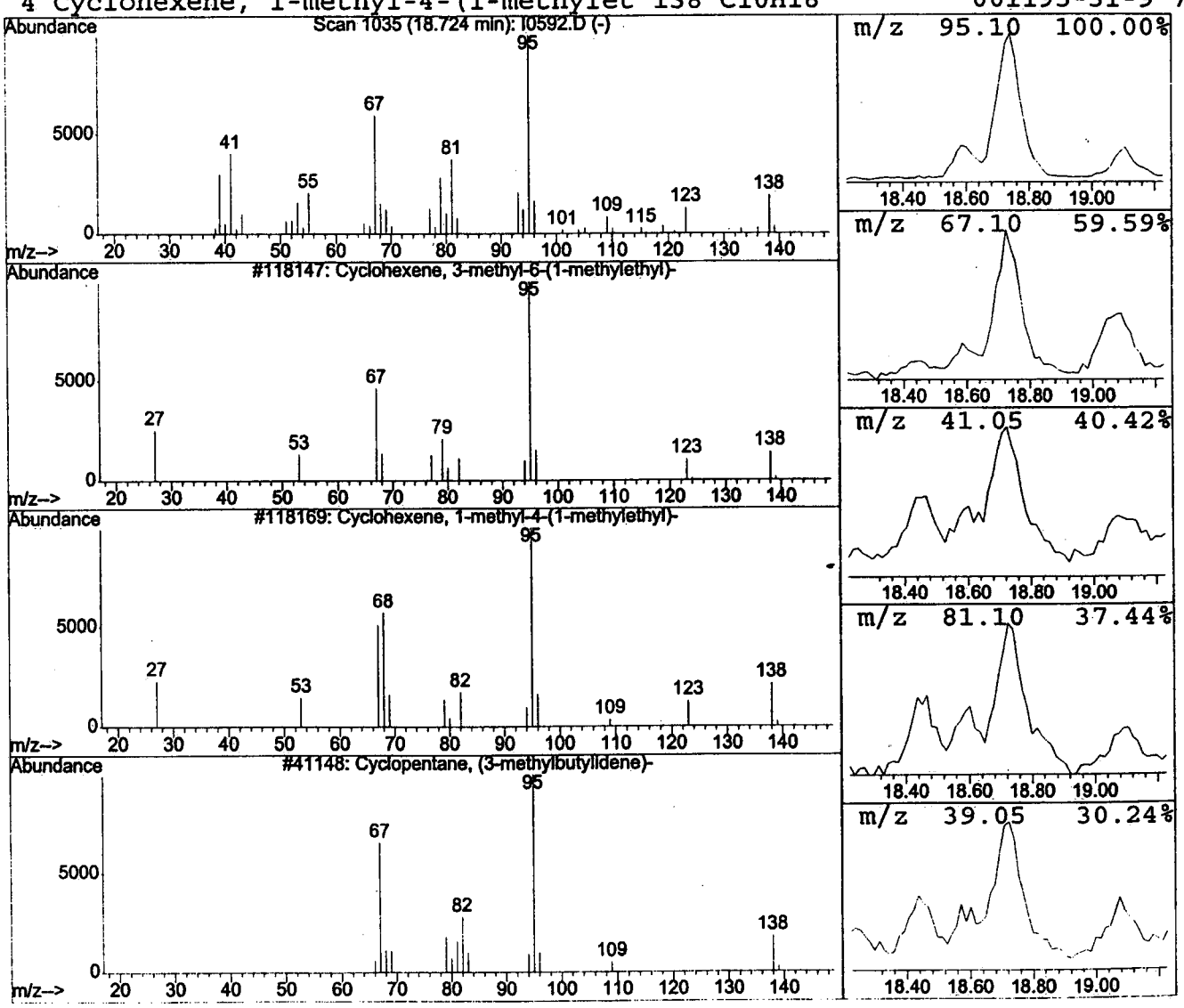
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.72	5.44 UG	519757	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 3-methyl-6-(1-methylet	138	C10H18	005256-65-5	93
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	83
3	Cyclopentane, (3-methylbutylidene)-	138	C10H18	053366-51-1	81
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	74



0223

2174

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

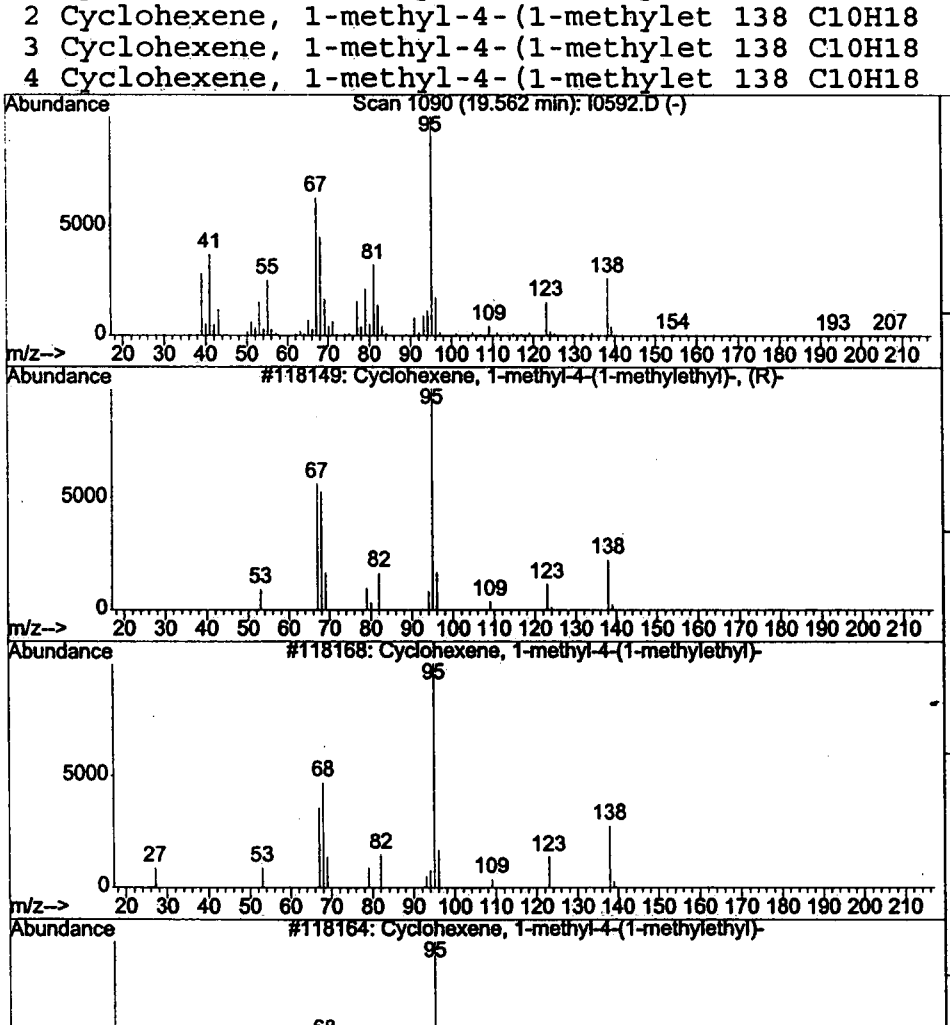
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

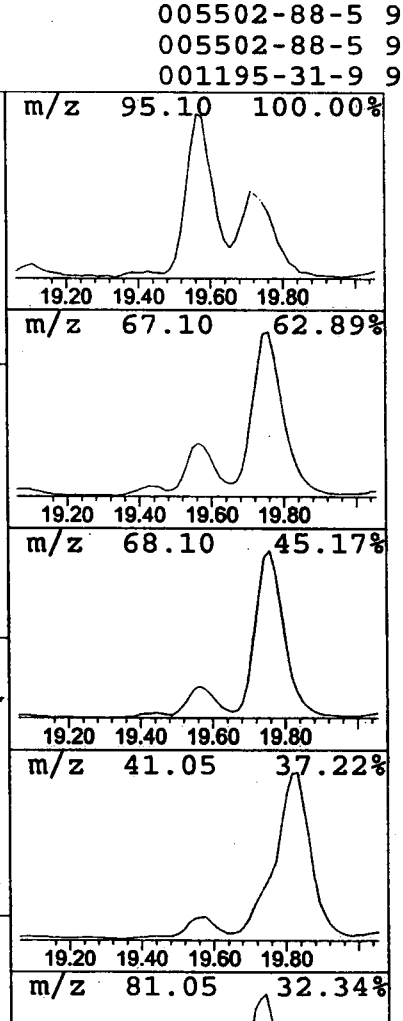
****

Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.56	11.64 UG	1111790	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	95
2	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	94
3	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	005502-88-5	93
4	Cyclohexene, 1-methyl-4-(1-methylet	138	C10H18	001195-31-9	90





Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Acq On : 4 Aug 2001 3:16
Sample : S-129,5281-014,M,0.0034g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

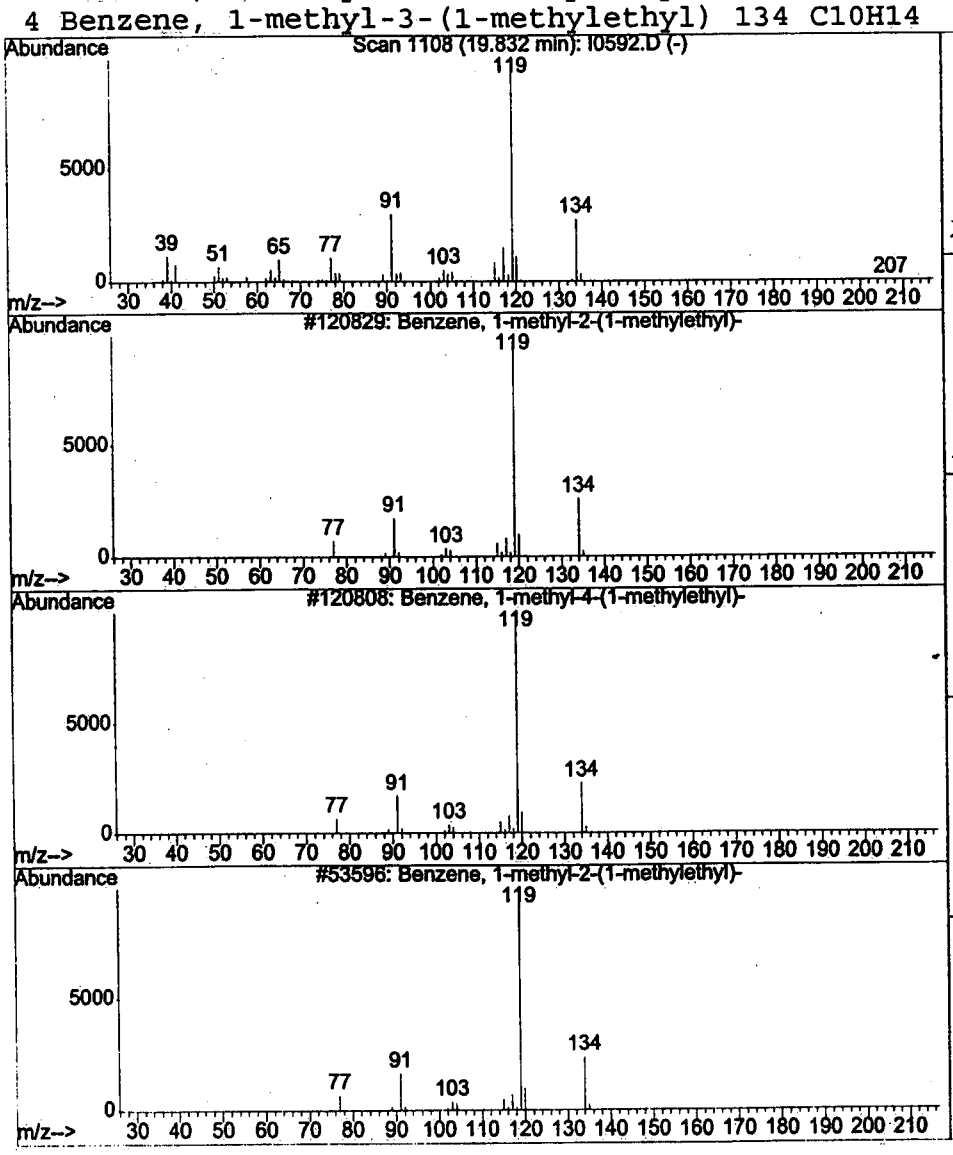
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

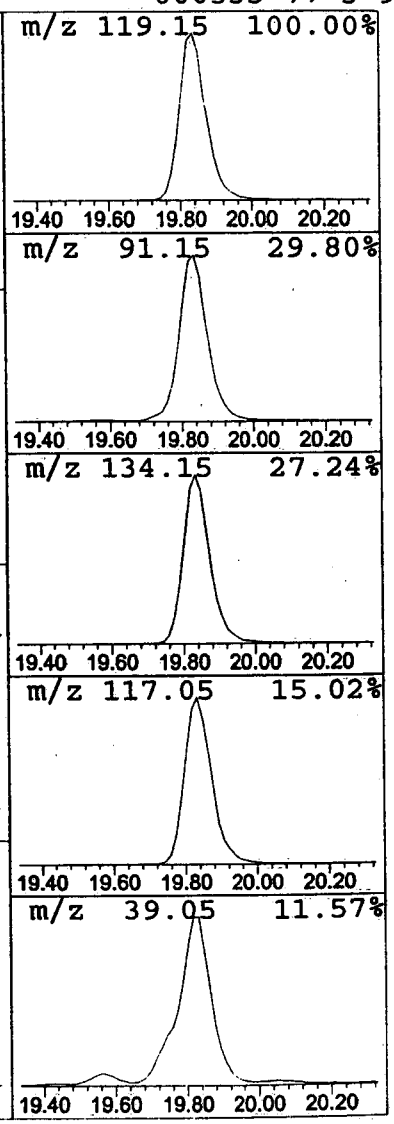
****

Peak Number 5 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.83	257.17 UG	24559500	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	93
2	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	93
3	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	93
4	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	91





0225

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Acq On : 4 Aug 2001 3:16
Sample : S-129,5281-014,M,0.0034g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

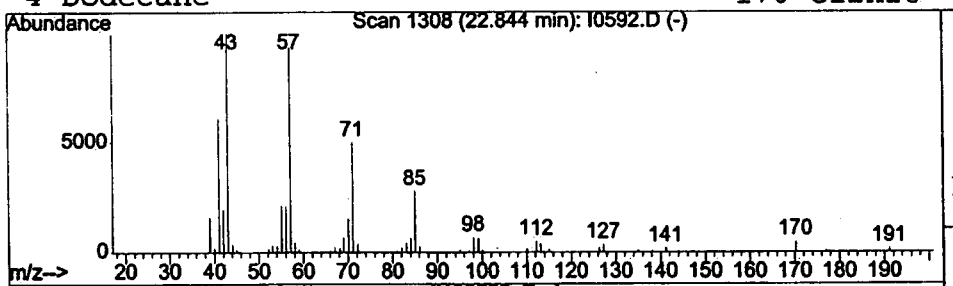
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

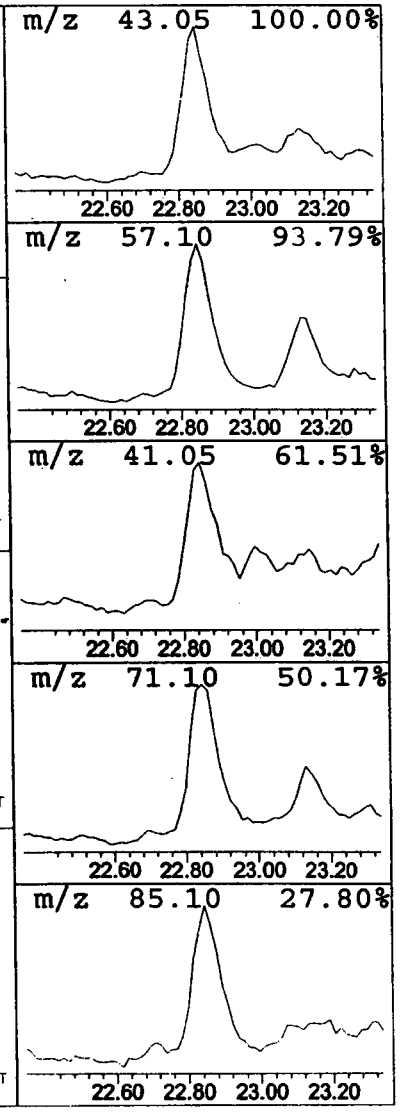
****

Peak Number 6 Dodecane — Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
22.84	7.02 UG	670473	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	97
2	Dodecane	170	C12H26	000112-40-3	95
3	Dodecane	170	C12H26	000112-40-3	93
4	Dodecane	170	C12H26	000112-40-3	93





0226

2177

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D
Acq On : 4 Aug 2001 3:16
Sample : S-129,5281-014,M,0.0034g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10
MS Integration Params: LSCINT.P

Vial: 30
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

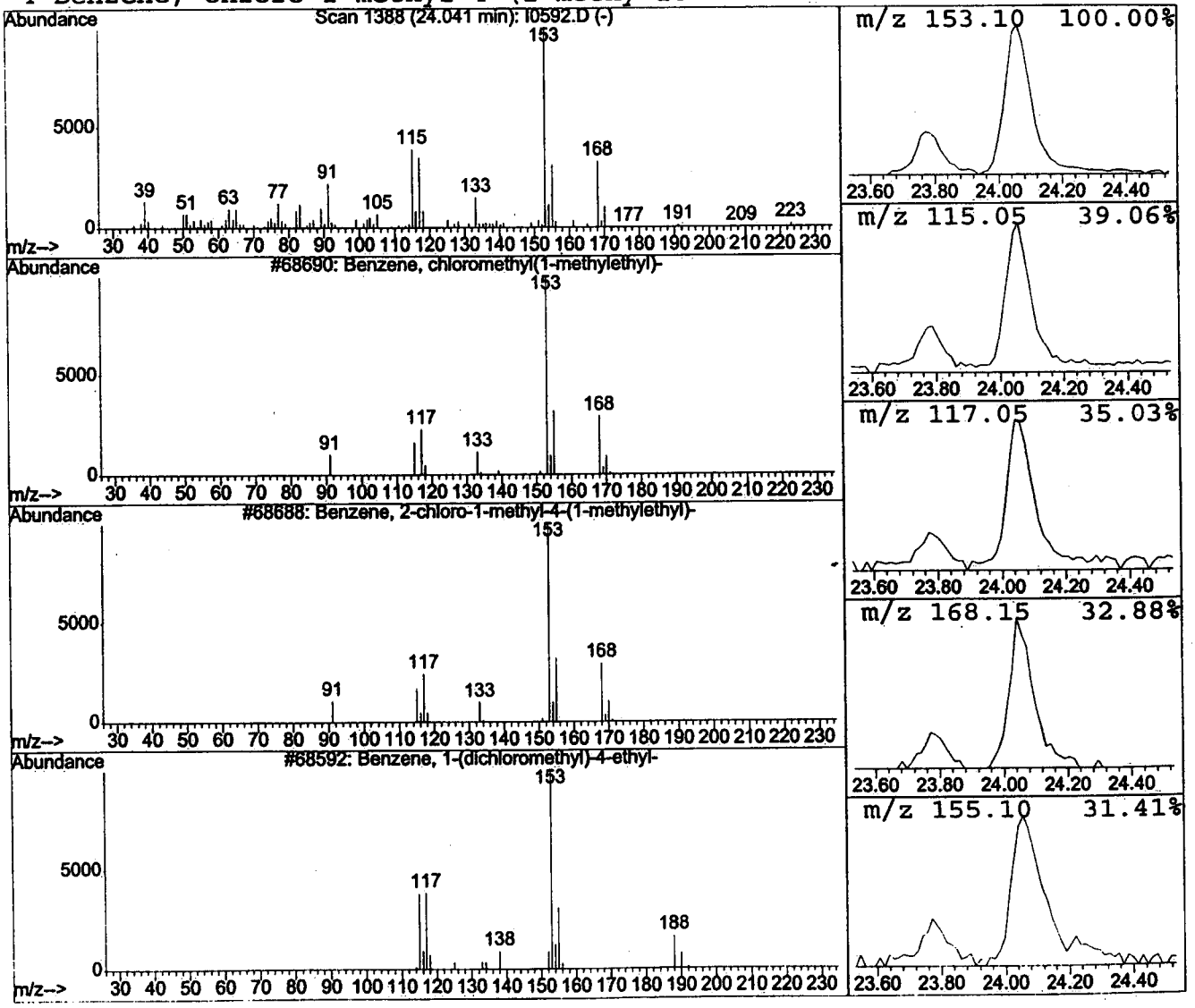
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Substituted benzene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.04	5.68 UG	542463	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, chloromethyl(1-methylethyl	168	C10H13Cl	072403-13-5	93
2	Benzene, 2-chloro-1-methyl-4-(1-met	168	C10H13Cl	004395-79-3	91
3	Benzene, 1-(dichloromethyl)-4-ethyl	188	C9H10Cl2	054789-29-6	59
4	Benzene, chloro-1-methyl-4-(1-methy	168	C10H13Cl	054411-19-7	58



0227

2178

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

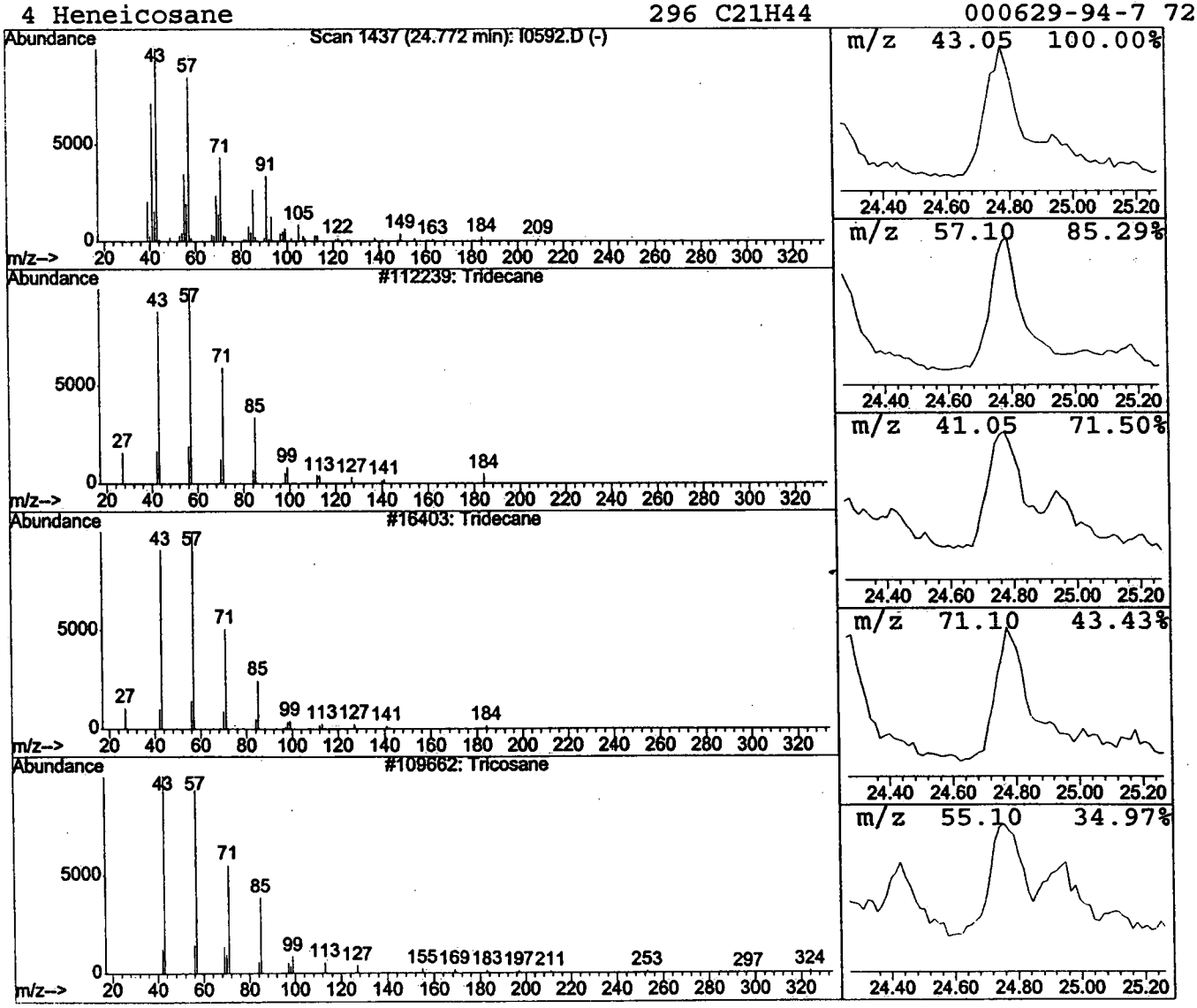
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 8 Tridecane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.77	5.09 UG	485677	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	87
2	Tridecane	184	C13H28	000629-50-5	76
3	Tricosane	324	C23H48	000638-67-5	72
4	Heneicosane	296	C21H44	000629-94-7	72



0228

279

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

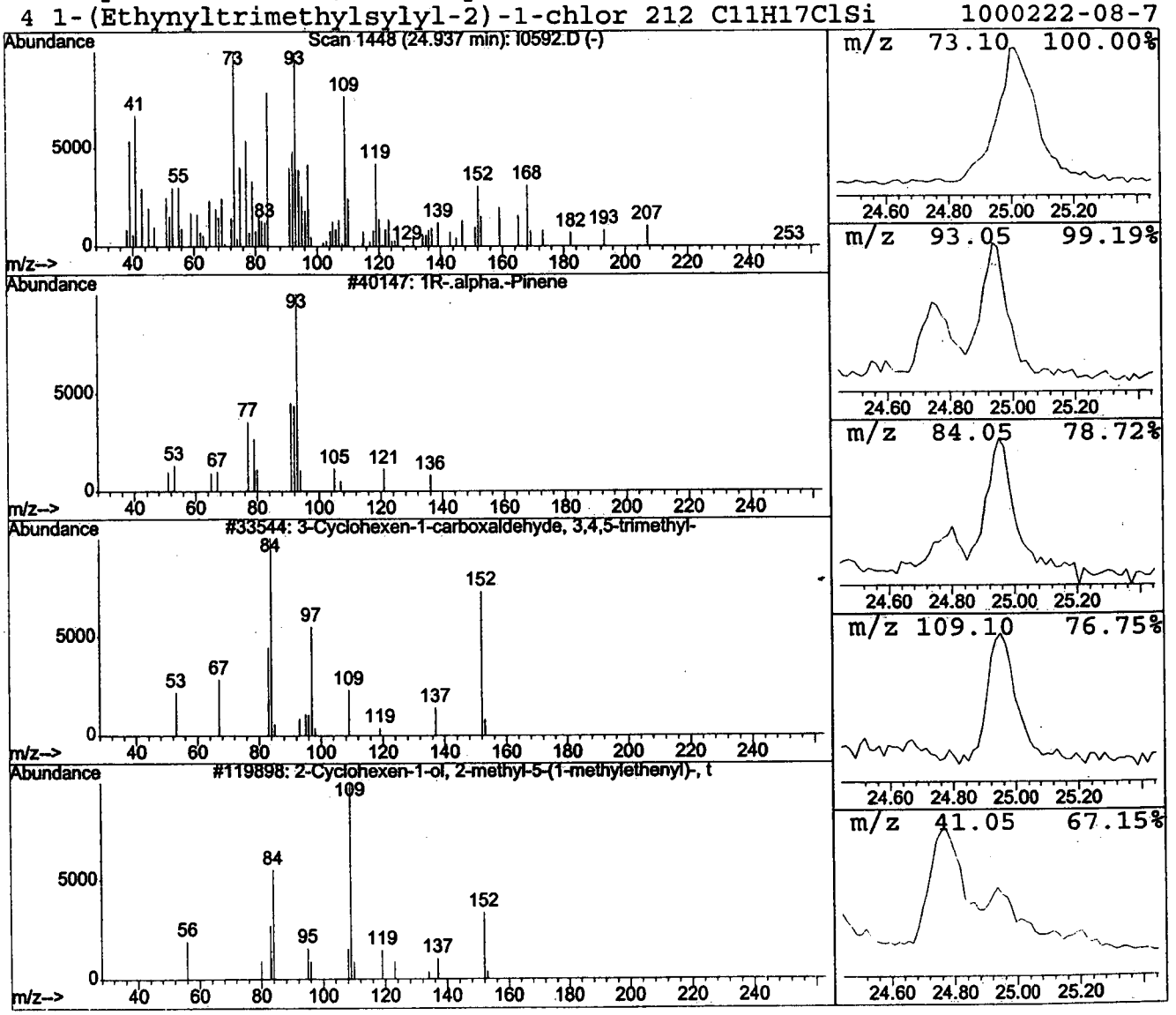
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 9 Unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.94	9.63 UG	919635	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1R-.alpha.-Pinene	136	C10H16	007785-70-8	25
2	3-Cyclohexen-1-carboxaldehyde, 3,4,	152	C10H16O	1000131-99-6	22
3	2-Cyclohexen-1-ol, 2-methyl-5-(1-me	152	C10H16O	001197-07-5	14
4	1-(Ethynyltrimethylsylyl-2)-1-chlor	212	C11H17ClSi	1000222-08-7	14



0229

2160

Data File : C:\HPCHEM\1\DATA\08-03-01\I0592.D Vial: 30
Acq On : 4 Aug 2001 3:16 Operator: DP
Sample : S-129,5281-014,M,0.0034g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01,10 Multiplr: 1.00
MS Integration Params: LSCINT.P

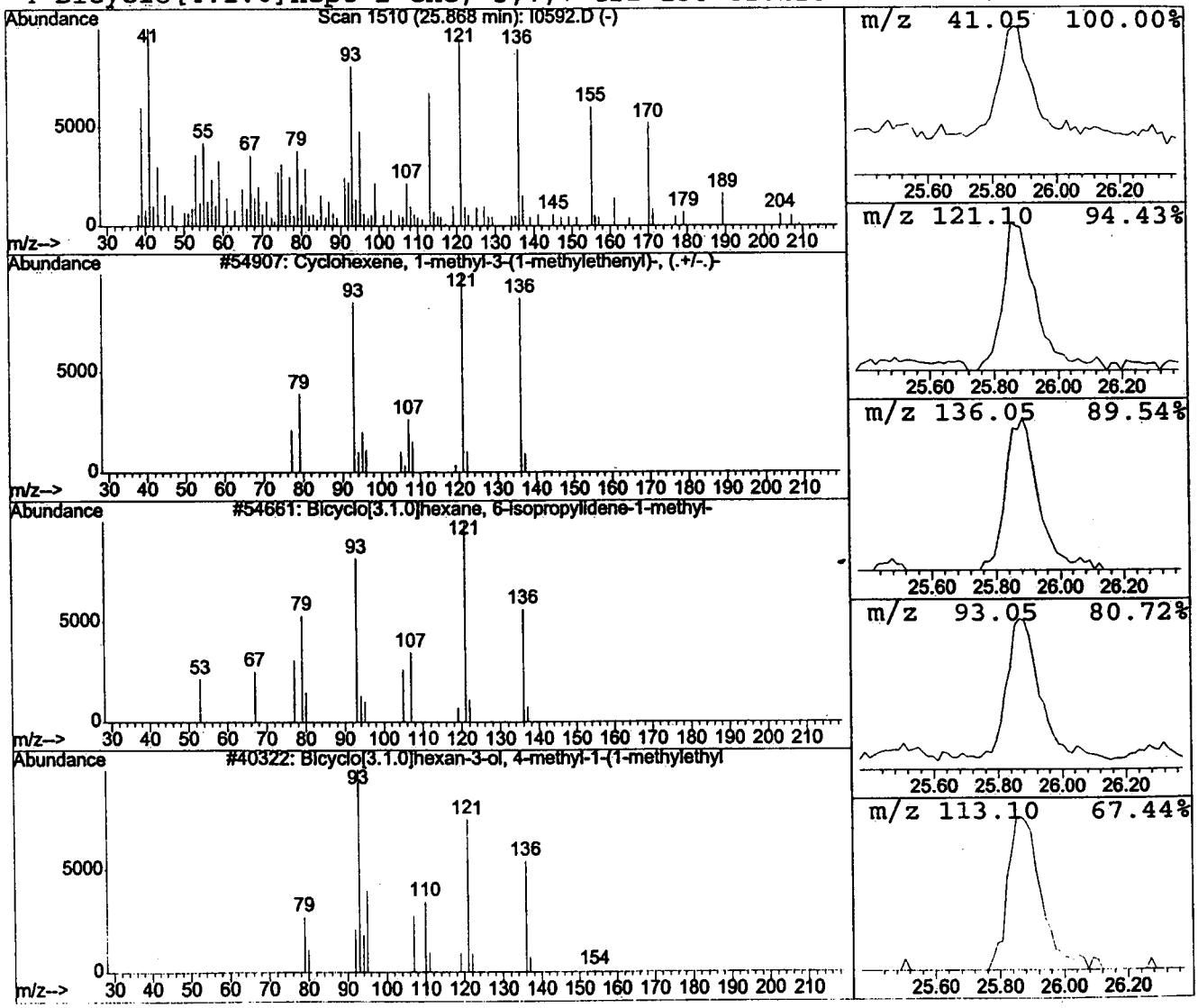
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 10 Unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.87	5.42 UG	517534	Chlorobenzene-d5	15.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-3-(1-methylet	136	C10H16	000499-03-6	70
2	Bicyclo[3.1.0]hexane, 6-isopropylid	136	C10H16	024524-57-0	66
3	Bicyclo[3.1.0]hexan-3-ol, 4-methyl-	154	C10H18O	031187-53-8	58
4	Bicyclo[4.1.0]hept-2-ene, 3,7,7-tri	136	C10H16	000554-61-0	55



0230

2141

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0620.D Vial: 19
Acq On : 5 Aug 2001 21:35 Operator: DP
Sample : S-129,5281-014DIL,M,0.0011g Inst : 5970 - In
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,30 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 14:01 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	9.64	168	1657692	50.00	UG		-0.02
31) 1,4-Difluorobenzene	10.82	114	1660929	50.00	UG		-0.05
50) Chlorobenzene-d5	15.73	117	1243799	50.00	UG		-0.06
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	10.10	65	5210	0.35	UG		-0.05
Spiked Amount 50.000	Range 36 - 115		Recovery = 0.70%#				
41) Toluene-d8	13.30	98	9957	0.36	UG		-0.03
Spiked Amount 50.000	Range 35 - 117		Recovery = 0.72%#				
59) Bromofluorobenzene	17.83	95	7889	0.31	UG		-0.05
Spiked Amount 50.000	Range 47 - 115		Recovery = 0.62%#				
Target Compounds							Qvalue
32) Benzene	10.24	78	144884	6.36	UG		100
36) 1,4-Dioxane	13.39	88	1706	0.63	UG	#	97
42) Toluene	13.39	92	829676	52.43	UG		98
53) Ethylbenzene	15.98	91	18711	0.61	UG		99
58) Isopropylbenzene	17.54	105	19701	0.68	UG		98

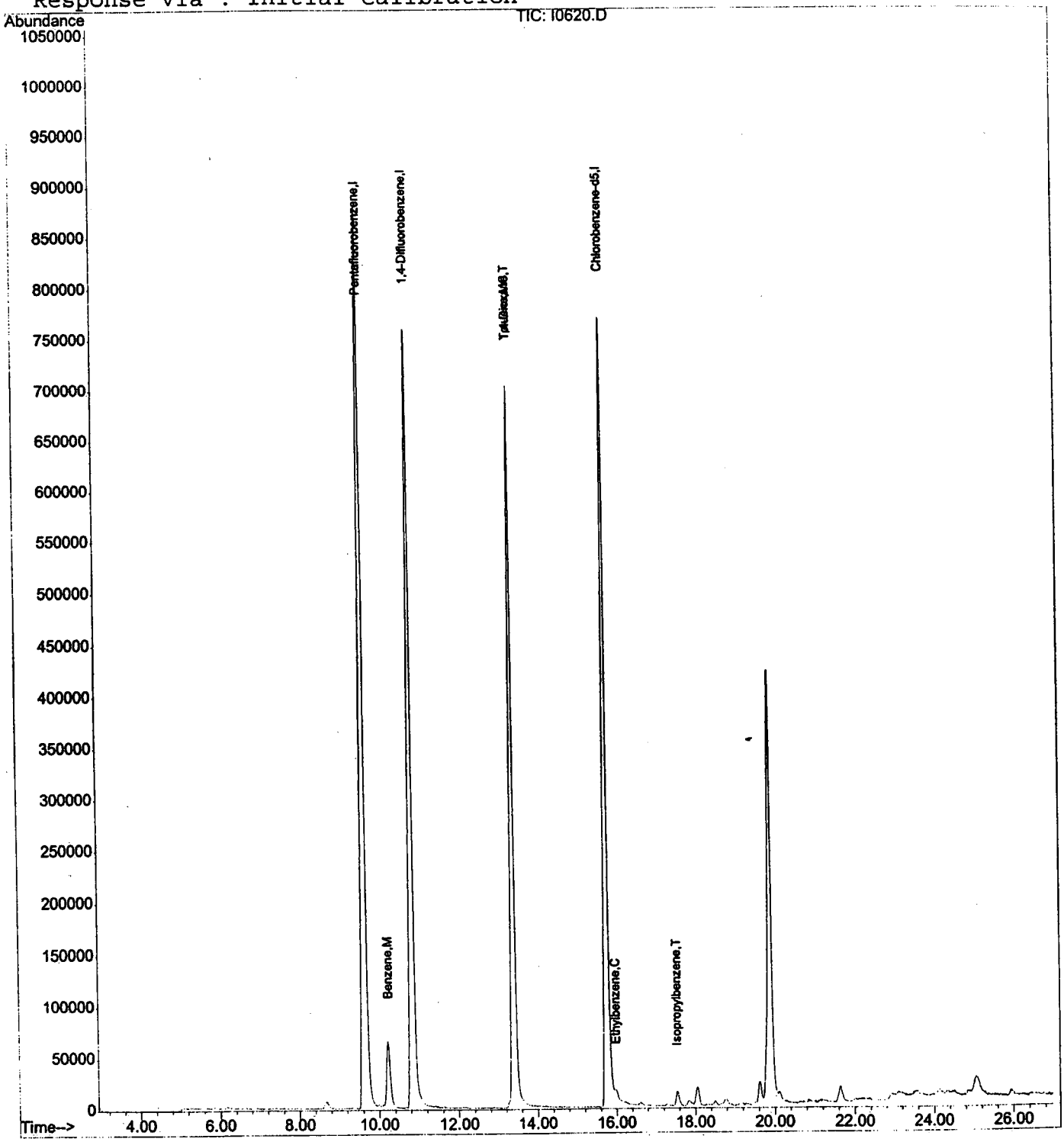
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0620.D
Acq On : 5 Aug 2001 21:35
Sample : S-129,5281-014DIL,M,0.0011g
Misc : ENVTAC/ORBIS,08/02/01,08/02/01,30
MS Integration Params: rteint.p
Quant Time: Aug 7 14:01 2001

Vial: 19
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



2183

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0593.D Vial: 31
Acq On : 4 Aug 2001 3:52 Operator: DP
Sample : S-130,5281-015,M,0.041g Inst : 5970 - In
Misc : ENVTACT/ORBIS,08/02/01,08/02/01 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:55 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.56	168	1884010	50.00	UG	-0.10
31) 1,4-Difluorobenzene	10.77	114	1882218	50.00	UG	-0.11
50) Chlorobenzene-d5	15.69	117	1407700	50.00	UG	-0.11
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.05	65	594870	35.22	UG	-0.10
Spiked Amount 50.000	Range 36 - 115		Recovery = 70.44%			
41) Toluene-d8	13.23	98	1124519	36.33	UG	-0.10
Spiked Amount 50.000	Range 35 - 117		Recovery = 72.66%			
59) Bromofluorobenzene	17.76	95	993145	35.00	UG	-0.11
Spiked Amount 50.000	Range 47 - 115		Recovery = 70.00%			
Target Compounds						Qvalue
32) Benzene	10.16	78	342587	13.28	UG	100

(#) = qualifier out of range (m) = manual integration
I0593.D IME0716.M Tue Aug 07 13:52:23 2001 MSD_I Page 1

0737

2104

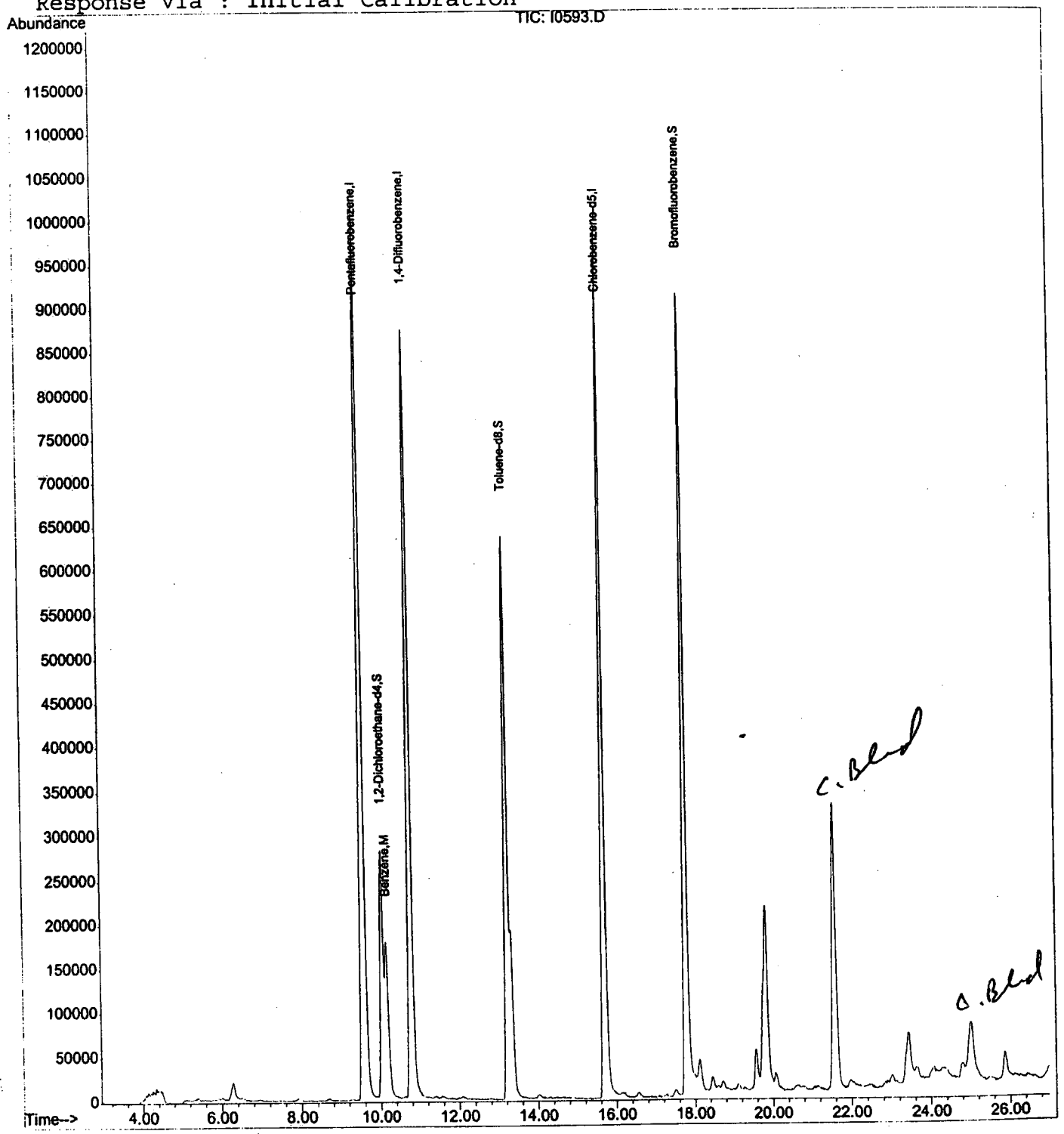
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0593.D
Acq On : 4 Aug 2001 3:52
Sample : S-130,5281-015,M,0.041g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: rteint.p
Quant Time: Aug 7 11:55 2001

Vial: 31
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0233

2185

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0593.D
Acq On : 4 Aug 2001 3:52
Sample : S-130,5281-015,M,0.041g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 31
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

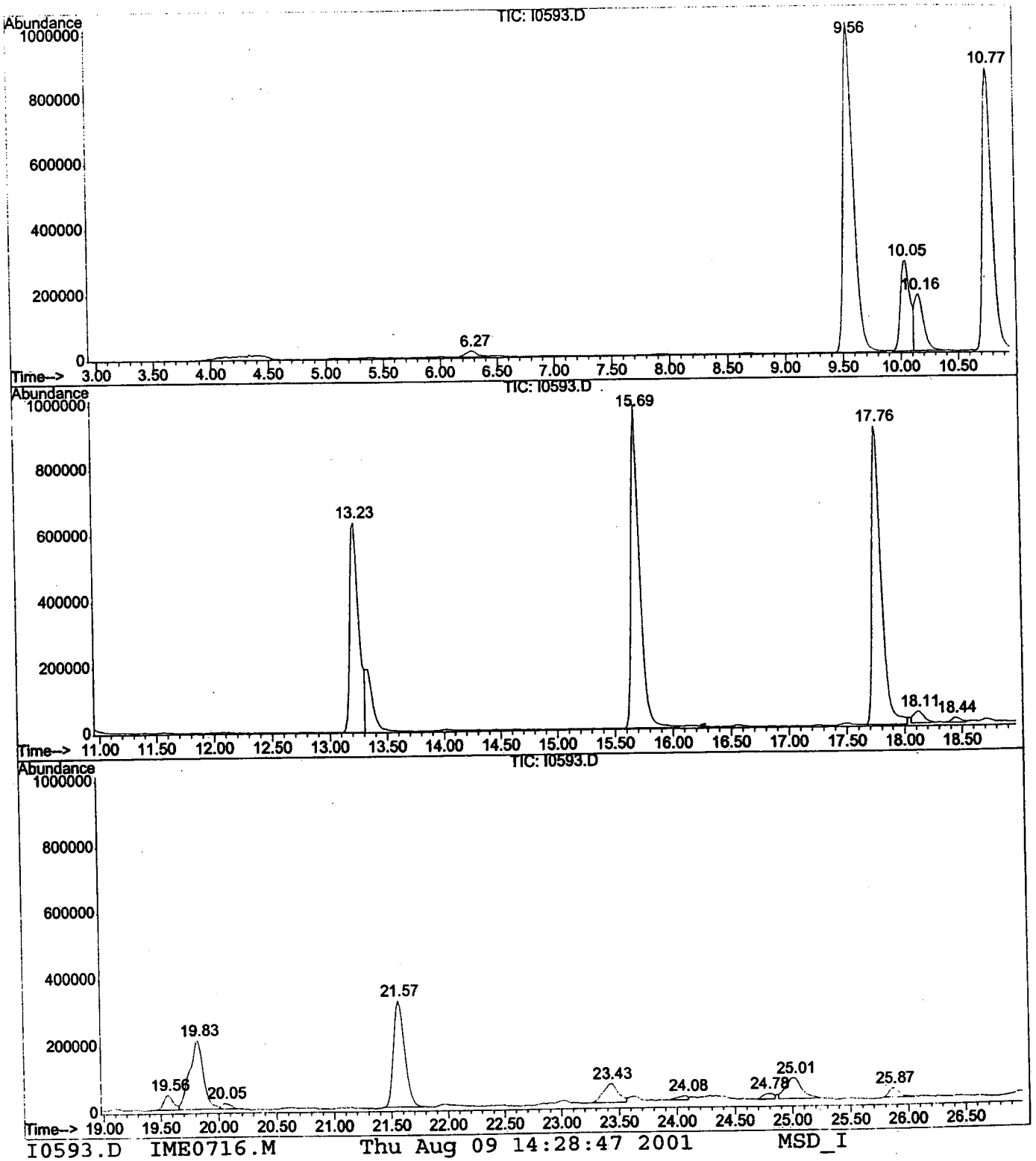
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.275	216	224	234	rVV	19745	136519	2.19%	0.405%
2	9.556	428	437	457	rBV	1015281	6246972	100.00%	18.555%
3	10.047	461	469	473	rVV	279293	1630692	26.10%	4.843%
4	10.155	473	476	491	rVB2	175399	955408	15.29%	2.838%
5	10.767	508	516	539	rBV	871394	5068924	81.14%	15.056%
6	13.227	668	676	681	rBV	635600	3518056	56.32%	10.449%
7	15.693	828	836	859	rBV	985260	4958419	79.37%	14.727%
8	17.763	963	970	987	rBV	909963	5103333	81.69%	15.158%
9	18.115	989	993	1003	rVB4	35542	227400	3.64%	0.675%
10	18.438	1008	1014	1020	rBV4	15702	90433	1.45%	0.269%
11	19.565	1081	1087	1093	rBV4	43709	251519	4.03%	0.747%
12	19.825	1093	1104	1116	rVV3	206119	1725806	27.63%	5.126%
13	20.053	1116	1119	1126	rVB6	16549	85649	1.37%	0.254%
14	21.567	1208	1217	1231	rBV	320268	2179967	34.90%	6.475%
15	23.427	1328	1338	1347	rBV4	56691	513125	8.21%	1.524%
16	24.081	1372	1381	1382	rBV7	12285	72182	1.16%	0.214%
17	24.784	1421	1427	1431	rBV5	16693	114888	1.84%	0.341%
18	25.012	1433	1442	1457	rVB	62421	609311	9.75%	1.810%
19	25.868	1492	1498	1510	rBV9	28615	179283	2.87%	0.533%

Sum of corrected areas: 33667886

I0593.D IME0716.M Thu Aug 09 14:28:46 2001 MSD_I

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0593.D
Operator : DP
Acquired : 4 Aug 2001 3:52 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: S-130,5281-015,M,0.041g
Misc Info : ENVTACT/ORBIS,08/02/01,08/02/01
Vial Number: 31
Quant File :IME0716.RES (RTE Integrator)



I0593.D IME0716.M Thu Aug 09 14:28:47 2001 MSD_I

0235

2167

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0593.D
Acq On : 4 Aug 2001 3:52
Sample : S-130,5281-015,M,0.041g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 31
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

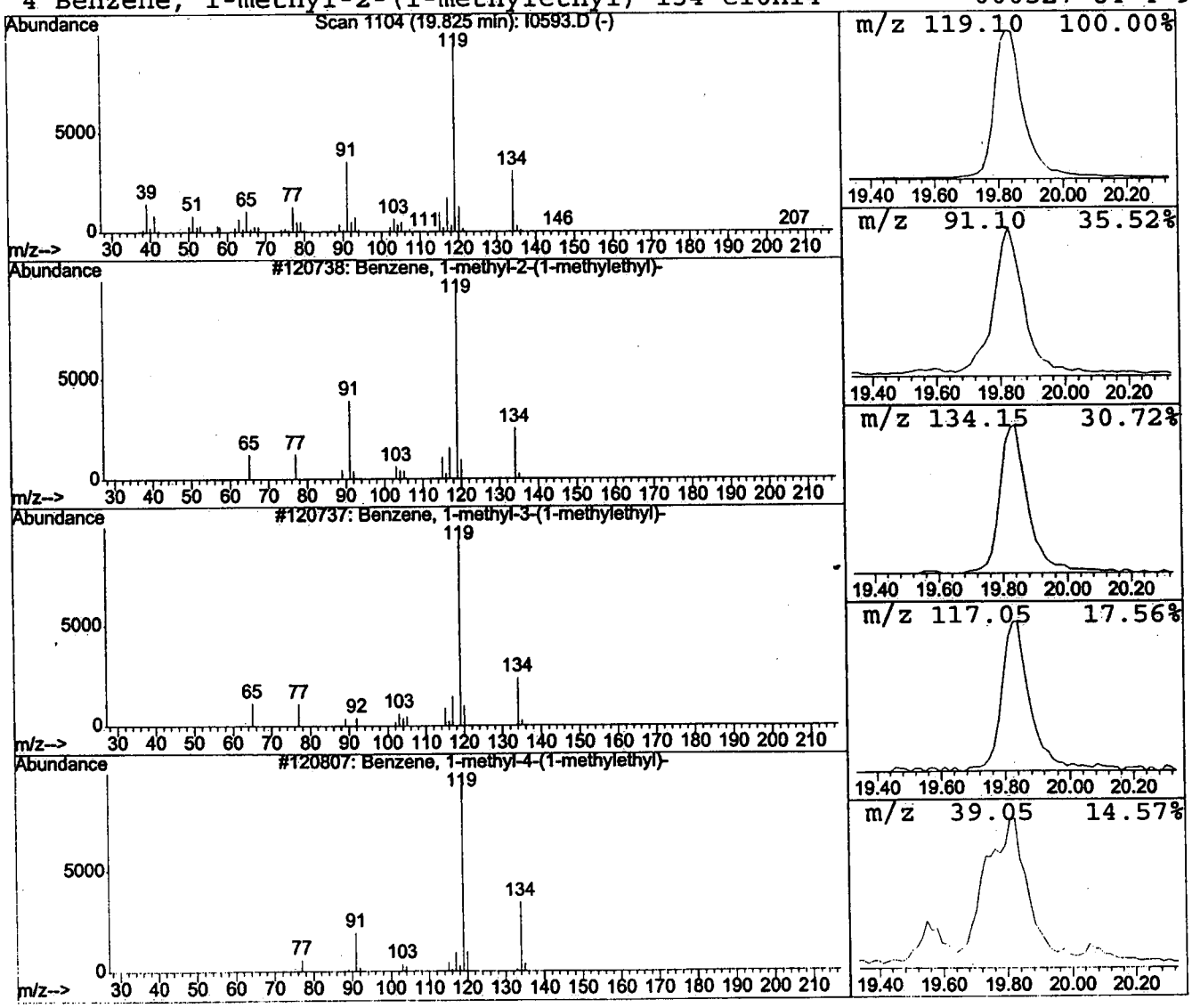
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.83	17.40 UG	1725810	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	96
2	Benzene, 1-methyl-3-(1-methylethyl)	134	C10H14	000535-77-3	96
3	Benzene, 1-methyl-4-(1-methylethyl)	134	C10H14	000099-87-6	94
4	Benzene, 1-methyl-2-(1-methylethyl)	134	C10H14	000527-84-4	94



0726

2166

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0593.D
Acq On : 4 Aug 2001 3:52
Sample : S-130,5281-015,M,0.041g
Misc : ENVTACT/ORBIS,08/02/01,08/02/01
MS Integration Params: LSCINT.P

Vial: 31
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

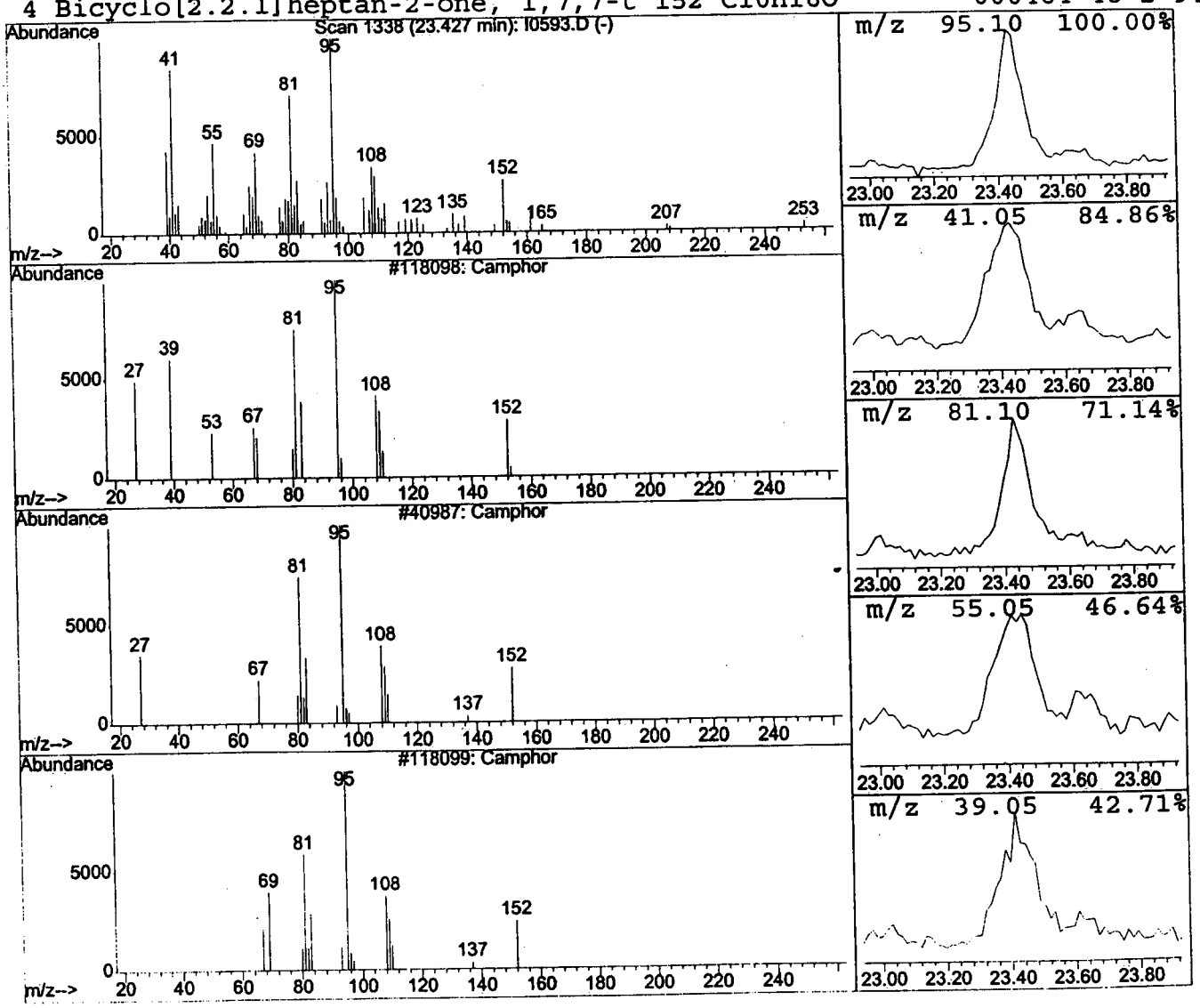
Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

****

Peak Number 2 Unknown cyclic hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.43	5.17 UG	513125	Chlorobenzene-d5	15.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphor	152	C10H16O	000076-22-2	96
2	Camphor	152	C10H16O	000076-22-2	96
3	Camphor	152	C10H16O	000076-22-2	95
4	Bicyclo[2.2.1]heptan-2-one, 1,7,7-t	152	C10H16O	000464-48-2	94



0237

2169

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0565.D Vial: 3
Acq On : 3 Aug 2001 10:48 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:04 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.63	168	1906814	50.00	UG	-0.03
31) 1,4-Difluorobenzene	10.82	114	1888405	50.00	UG	-0.05
50) Chlorobenzene-d5	15.74	117	1405037	50.00	UG	-0.06
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.10	65	744021	43.53	UG	-0.05
Spiked Amount 50.000	Range 36 - 115		Recovery = 87.06%			
41) Toluene-d8	13.28	98	1493237	48.09	UG	-0.05
Spiked Amount 50.000	Range 35 - 117		Recovery = 96.18%			
59) Bromofluorobenzene	17.82	95	1399109	49.40	UG	-0.06
Spiked Amount 50.000	Range 47 - 115		Recovery = 98.80%			

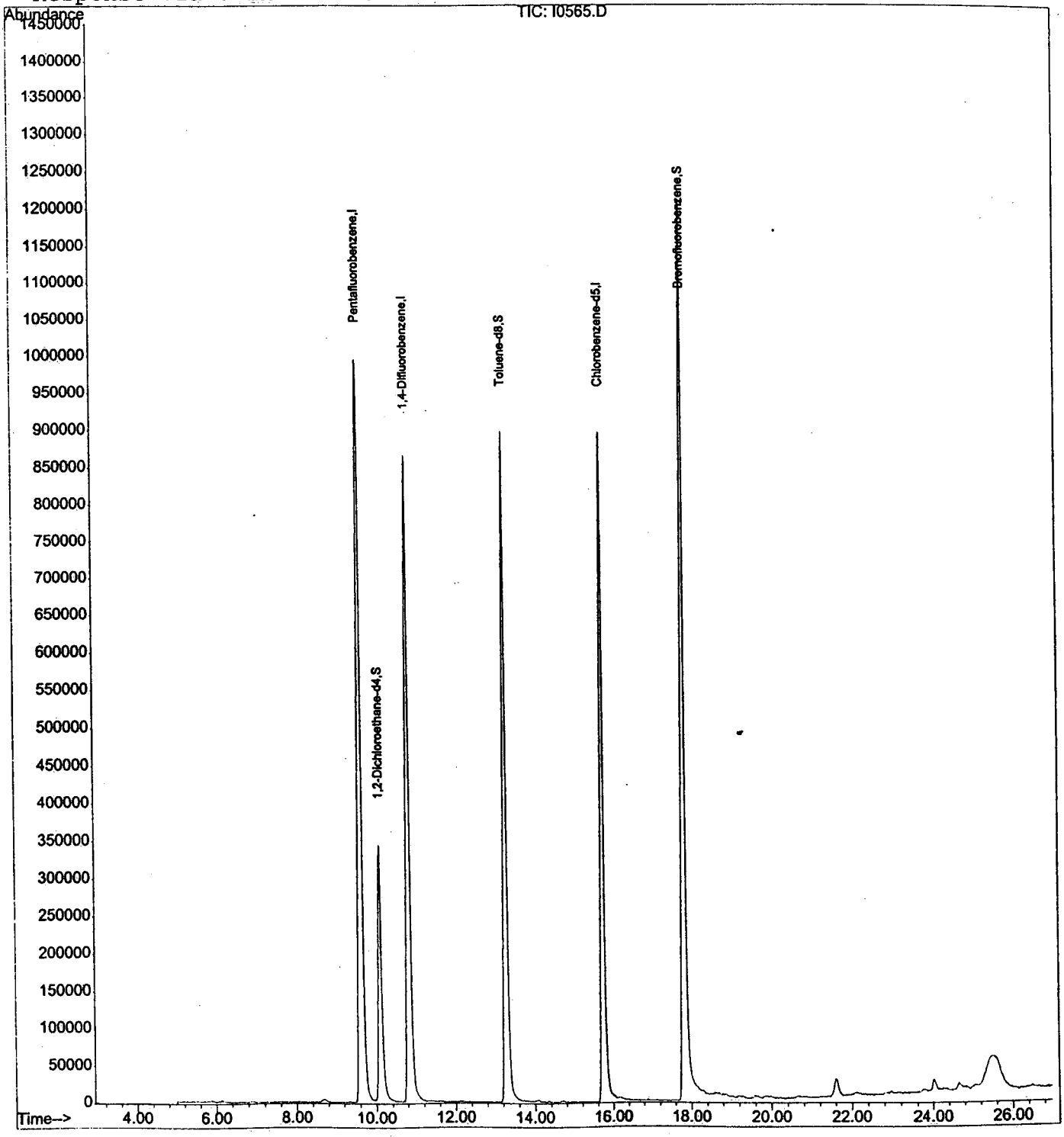
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0565.D Vial: 3
Acq On : 3 Aug 2001 10:48 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:04 2001 Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0239

2191

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0565.D
Acq On : 3 Aug 2001 10:48
Sample : N/A,METHOD_BLK,S,0.1g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: LSCINT.P

Vial: 3
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.613	432	440	461	rBV	993328	6277312	87.49%	20.660%
2	10.101	464	472	490	rVV	340522	2049205	28.56%	6.744%
3	10.824	511	519	542	rBV	864316	5072945	70.71%	16.696%
4	13.275	670	678	697	rBV	896067	4685827	65.31%	15.422%
5	15.736	830	838	852	rBV	894586	4846140	67.54%	15.949%
6	17.816	965	973	993	rBV	1208126	7174703	100.00%	23.613%
7	21.595	1209	1218	1230	rBV	24589	201121	2.80%	0.662%
8	24.016	1371	1375	1382	rBV6	15182	77041	1.07%	0.254%

Sum of corrected areas: 30384294

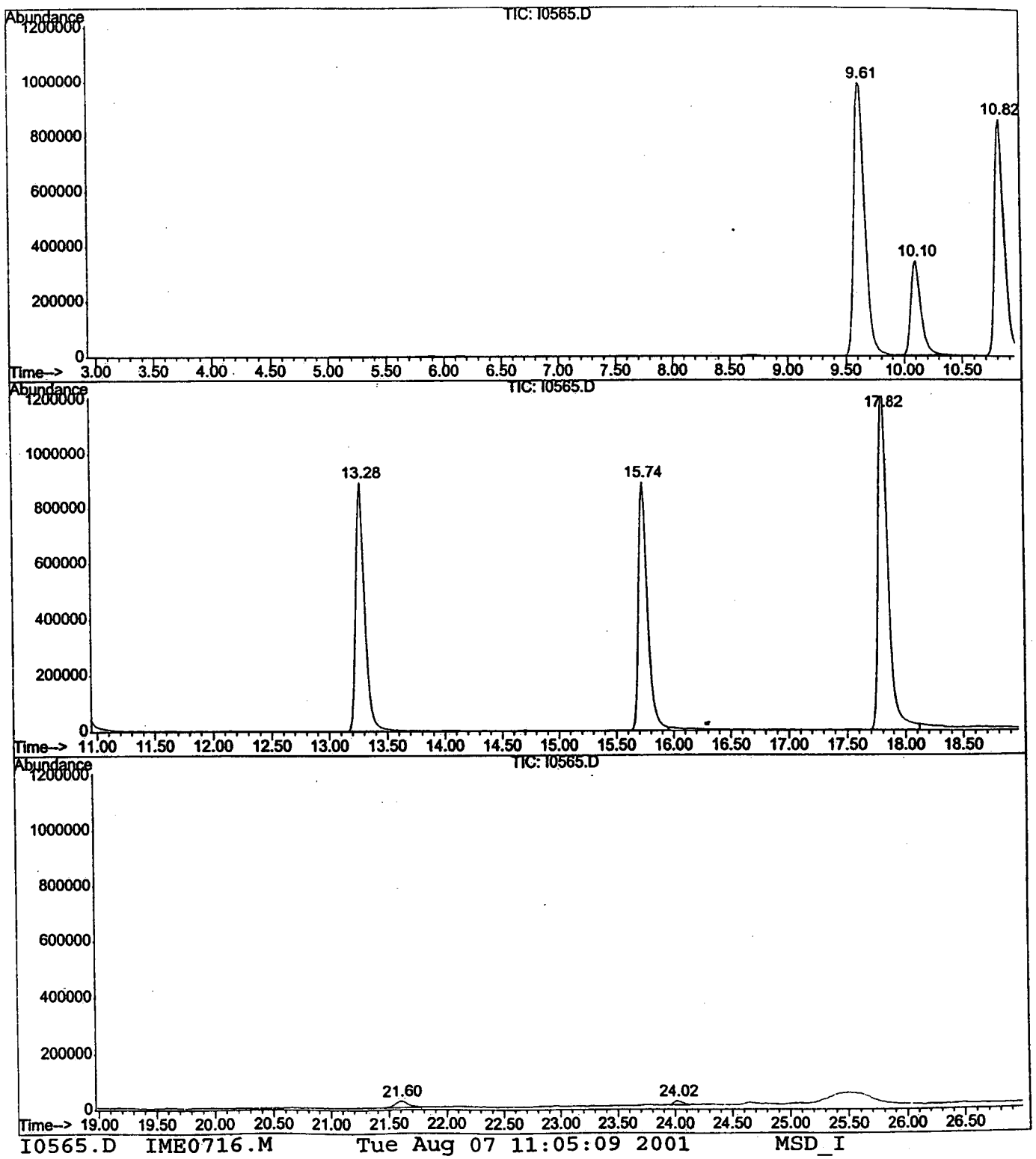
I0565.D IME0716.M Tue Aug 07 11:05:08 2001 MSD_I

0240

2192

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0565.D
Operator : DP
Acquired : 3 Aug 2001 10:48 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 3
Quant File :IME0716.RES (RTE Integrator)



I0565.D IME0716.M Tue Aug 07 11:05:09 2001 MSD_I

0241

2193

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-03-01\I0589.D Vial: 27
Acq On : 4 Aug 2001 1:25 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 7 11:48 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.60	168	1937252	50.00	UG	-0.06
31) 1,4-Difluorobenzene	10.79	114	1817083	50.00	UG	-0.08
50) Chlorobenzene-d5	15.70	117	1397228	50.00	UG	-0.10
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.07	65	767121	44.17	UG	-0.08
Spiked Amount 50.000	Range 36 - 115		Recovery = 88.34%			
41) Toluene-d8	13.24	98	1507430	50.45	UG	-0.09
Spiked Amount 50.000	Range 35 - 117		Recovery = 100.90%			
59) Bromofluorobenzene	17.78	95	1401928	49.78	UG	-0.10
Spiked Amount 50.000	Range 47 - 115		Recovery = 99.56%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

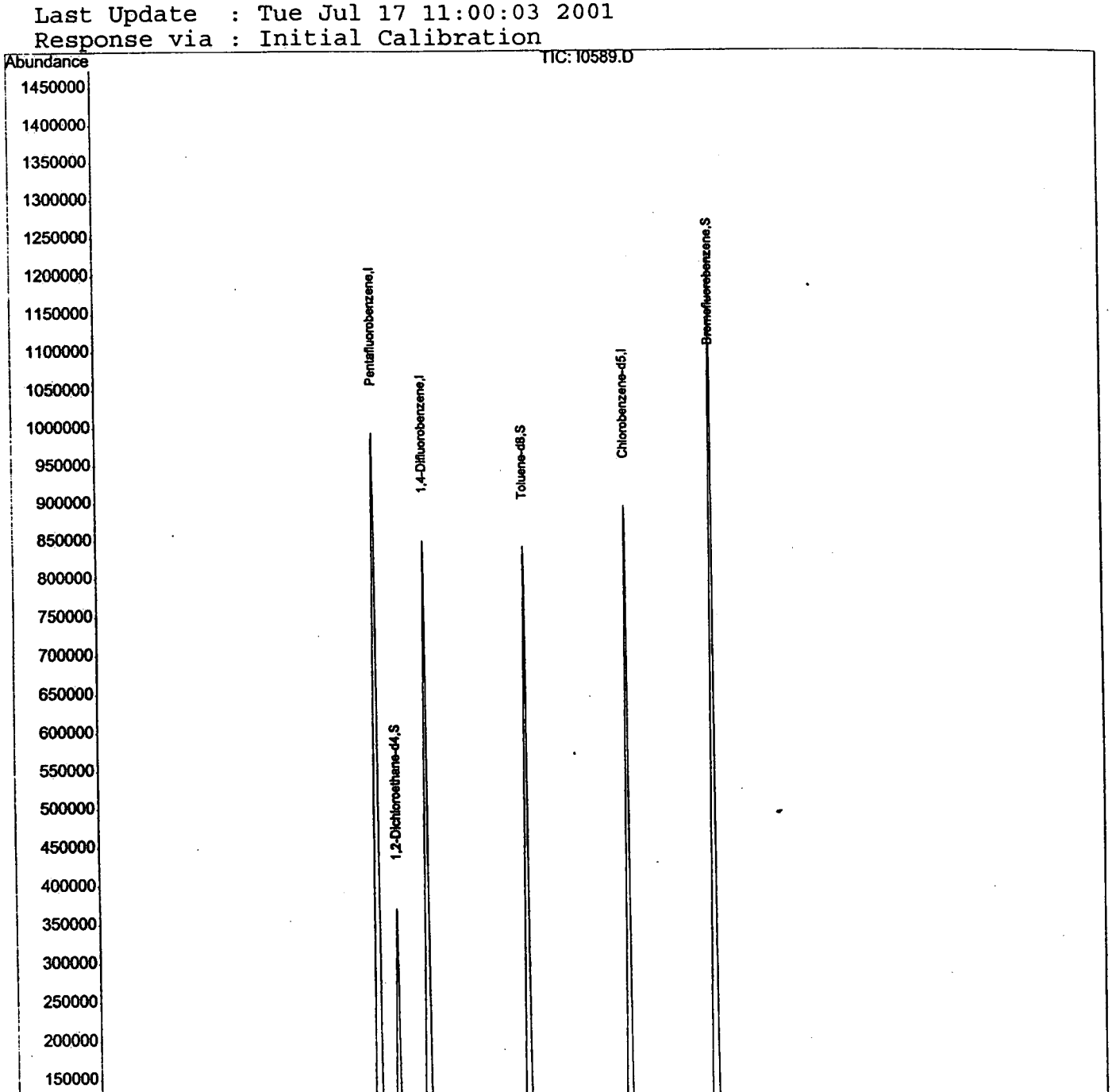
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0589.D
Acq On : 4 Aug 2001 1:25
Sample : N/A,METHOD_BLK,S,0.1g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p
Quant Time: Aug 7 11:48 2001

Vial: 27
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0243

7195

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-03-01\I0589.D
Acq On : 4 Aug 2001 1:25
Sample : N/A,METHOD_BLK,S,0.1g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: LSCINT.P

Vial: 27
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 1
Stop Thrs : 1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.599	430	440	458	rBV	992027	6383964	87.40%	20.665%
2	10.072	464	471	492	rVB	366537	2104852	28.82%	6.814%
3	10.794	510	518	538	rBV	847112	4896985	67.04%	15.852%
4	13.241	669	677	702	rBV	840449	4711534	64.51%	15.251%
5	15.701	830	837	857	rBV	893741	4932423	67.53%	15.966%
6	17.775	964	972	994	rBV	1225857	7304031	100.00%	23.643%
7	19.849	1099	1107	1113	rBV2	17945	124928	1.71%	0.404%
8	21.588	1213	1220	1227	rBV	18546	123093	1.69%	0.398%
9	23.481	1333	1343	1344	rBV6	15521	95107	1.30%	0.308%
10	24.003	1372	1377	1385	rBV7	15655	91855	1.26%	0.297%
11	24.999	1435	1443	1454	rBV2	12998	123579	1.69%	0.400%

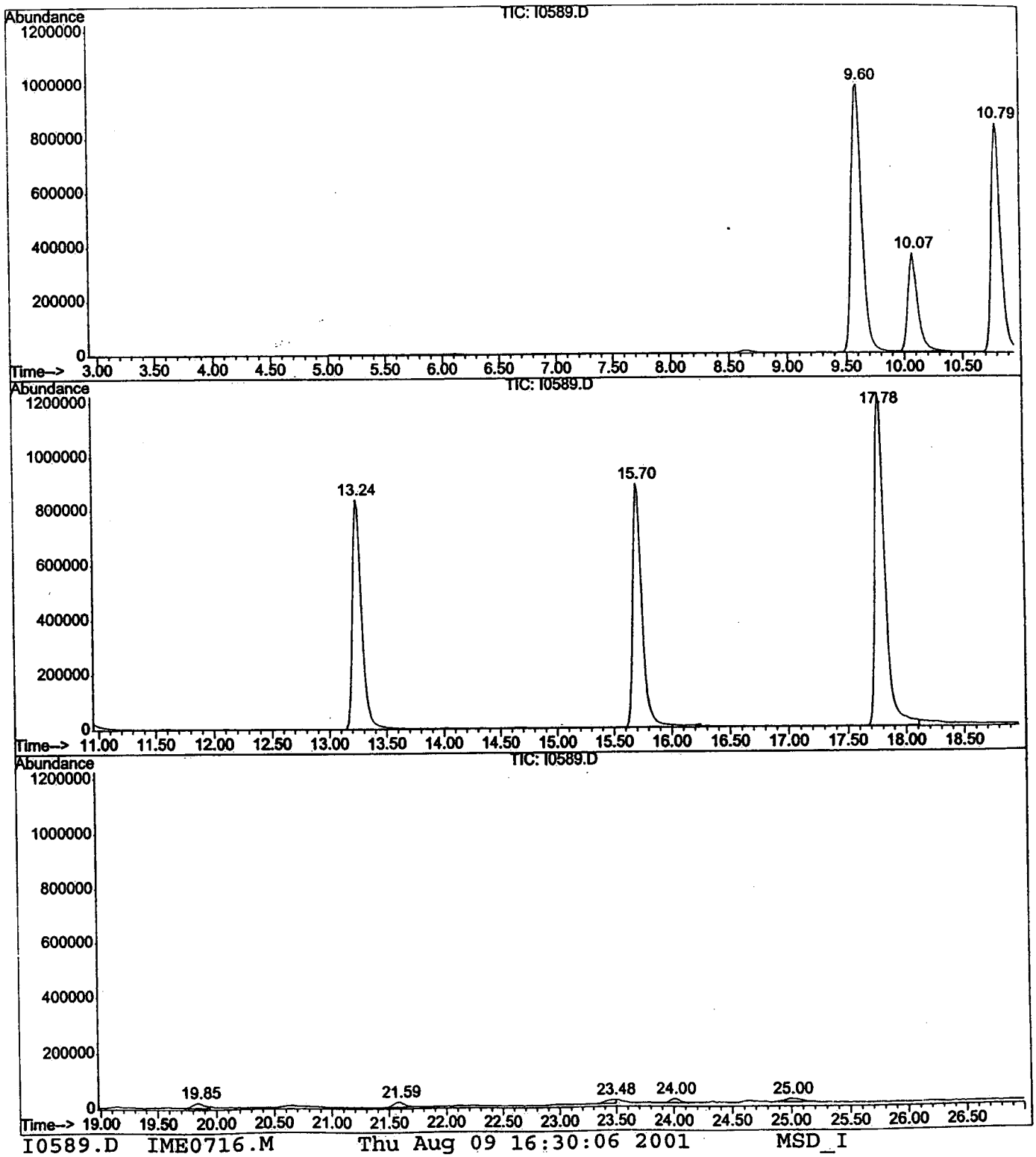
Sum of corrected areas: 30892351

I0589.D IME0716.M Thu Aug 09 16:30:05 2001 MSD_I

0744

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-03-01\I0589.D
Operator : DP
Acquired : 4 Aug 2001 1:25 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 27
Quant File :IME0716.RES (RTE Integrator)



I0589.D IME0716.M Thu Aug 09 16:30:06 2001 MSD_I

0245

2197

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-06-01\I0604.D Vial: 3
Acq On : 5 Aug 2001 11:55 Operator: DP
Sample : N/A,METHOD_BLK,S,0.1g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 9 14:35 2001 Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.64	168	1912832	50.00	UG	-0.02
31) 1,4-Difluorobenzene	10.84	114	1831143	50.00	UG	-0.03
50) Chlorobenzene-d5	15.76	117	1366828	50.00	UG	-0.04
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.12	65	721982	42.10	UG	-0.03
Spiked Amount 50.000	Range 36 - 115		Recovery = 84.20%			
41) Toluene-d8	13.29	98	1437763	47.75	UG	-0.04
Spiked Amount 50.000	Range 35 - 117		Recovery = 95.50%			
59) Bromofluorobenzene	17.83	95	1328312	48.21	UG	-0.04
Spiked Amount 50.000	Range 47 - 115		Recovery = 96.42%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
I0604.D IME0716.M Thu Aug 09 14:36:00 2001 MSD_I

7.198

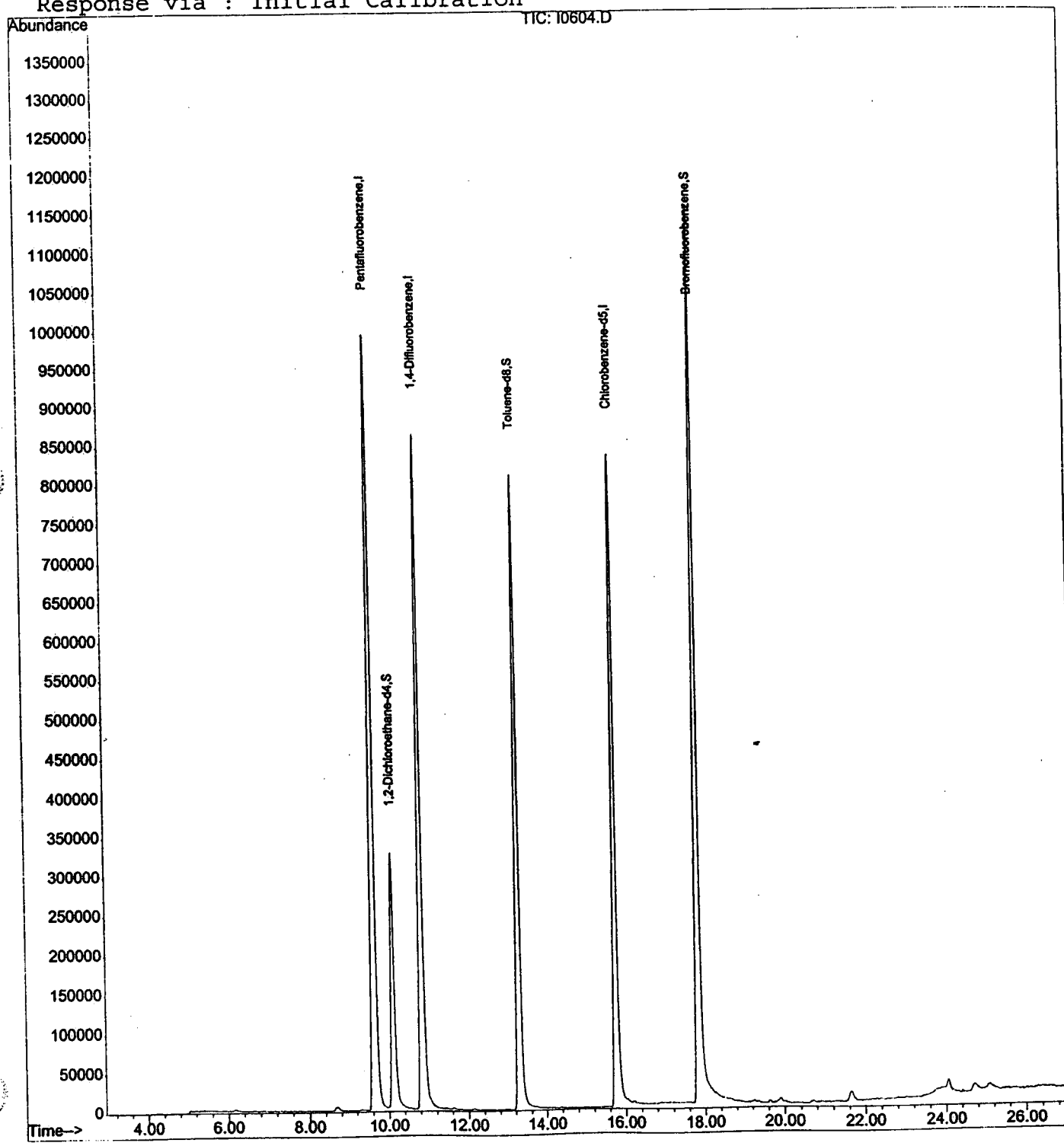
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0604.D
Acq On : 5 Aug 2001 11:55
Sample : N/A,METHOD_BLK,S,0.1g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p
Quant Time: Aug 9 14:35 2001

Vial: 3
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0247

2199

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-06-01\I0604.D
Acq On : 5 Aug 2001 11:55
Sample : N/A,METHOD_BLK,S,0.1g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: LSCINT.P

Vial: 3
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.627	434	442	459	rBV	993423	6261497	91.84%	21.355%
2	10.119	466	474	493	rBV	326114	1968024	28.87%	6.712%
3	10.844	513	521	541	rBV	862493	4896320	71.82%	16.699%
4	13.287	672	679	695	rBV	810144	4473183	65.61%	15.256%
5	15.759	831	839	855	rBV	834096	4736423	69.47%	16.154%
6	17.832	965	973	993	rBV	1150922	6817550	100.00%	23.252%
7	21.649	1213	1220	1225	rBV3	13223	92279	1.35%	0.315%
8	24.076	1372	1377	1382	rVB7	14384	75404	1.11%	0.257%

Sum of corrected areas: 29320680

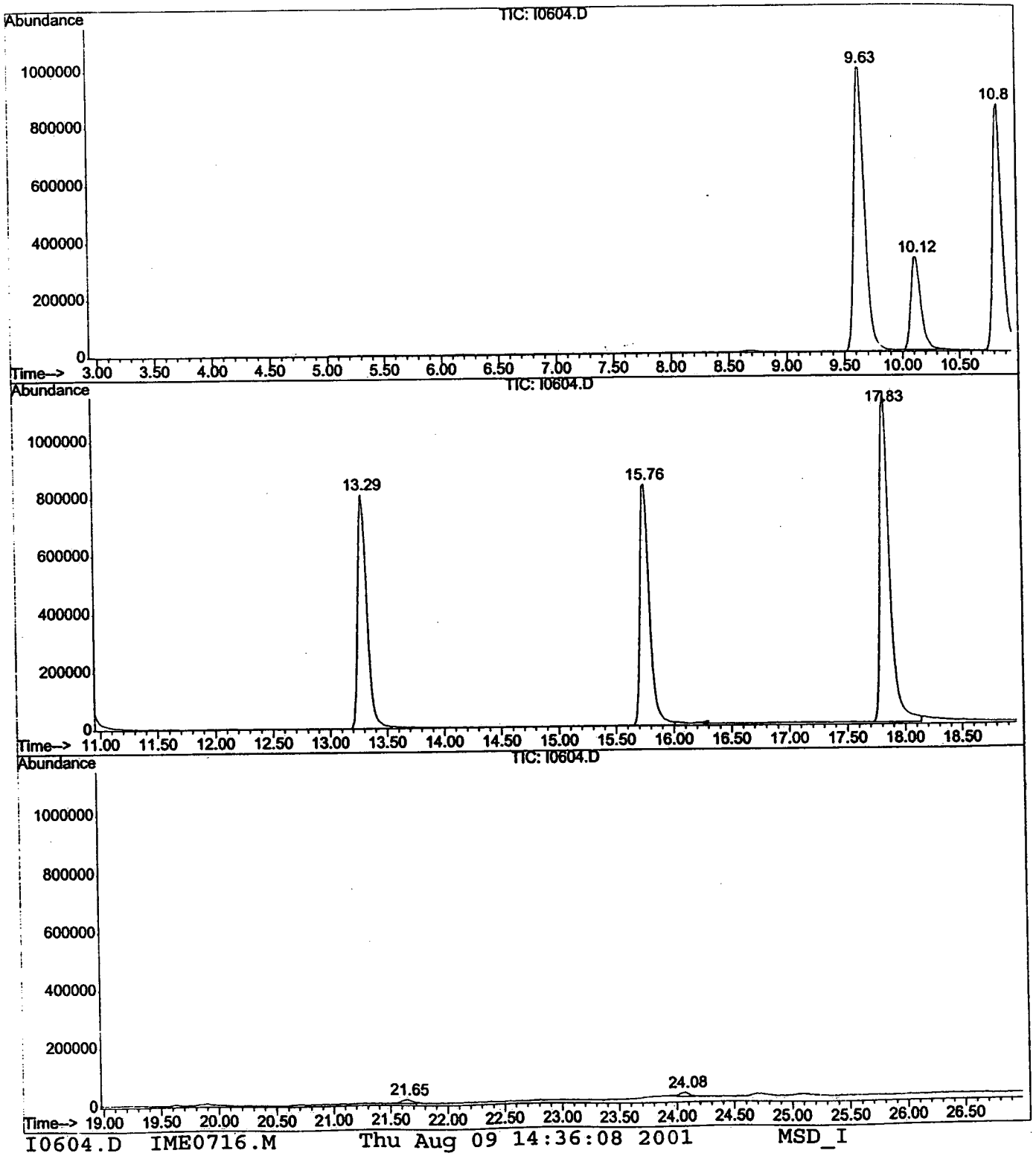
I0604.D IME0716.M Thu Aug 09 14:36:07 2001 MSD_I

0748

2200

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-06-01\I0604.D
Operator : DP
Acquired : 5 Aug 2001 11:55 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,0.1g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 3
Quant File :IME0716.RES (RTE Integrator)



I0604.D IME0716.M Thu Aug 09 14:36:08 2001 MSD_I

0249

2201

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\08-09-01\I0673.D
Acq On : 9 Aug 2001 00:58
Sample : N/A,METHOD_BLK,S,5g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p
Quant Time: Aug 10 16:49 2001

Vial: 27
Operator: DP
Inst : 5970 - In
Multiplr: 1.00
Quant Results File: IME0716.RES

Quant Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration
DataAcq Meth : VOAI

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	9.63	168	1712137	50.00	UG	-0.03
31) 1,4-Difluorobenzene	10.81	114	1708448	50.00	UG	-0.06
50) Chlorobenzene-d5	15.71	117	1353343	50.00	UG	-0.09
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	10.09	65	679277	44.26	UG	-0.06
Spiked Amount 50.000	Range 36 - 115		Recovery = 88.52%			
41) Toluene-d8	13.25	98	1402639	49.93	UG	-0.08
Spiked Amount 50.000	Range 35 - 117		Recovery = 99.86%			
59) Bromofluorobenzene	17.78	95	1364637	50.02	UG	-0.10
Spiked Amount 50.000	Range 47 - 115		Recovery = 100.04%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

7.7.07

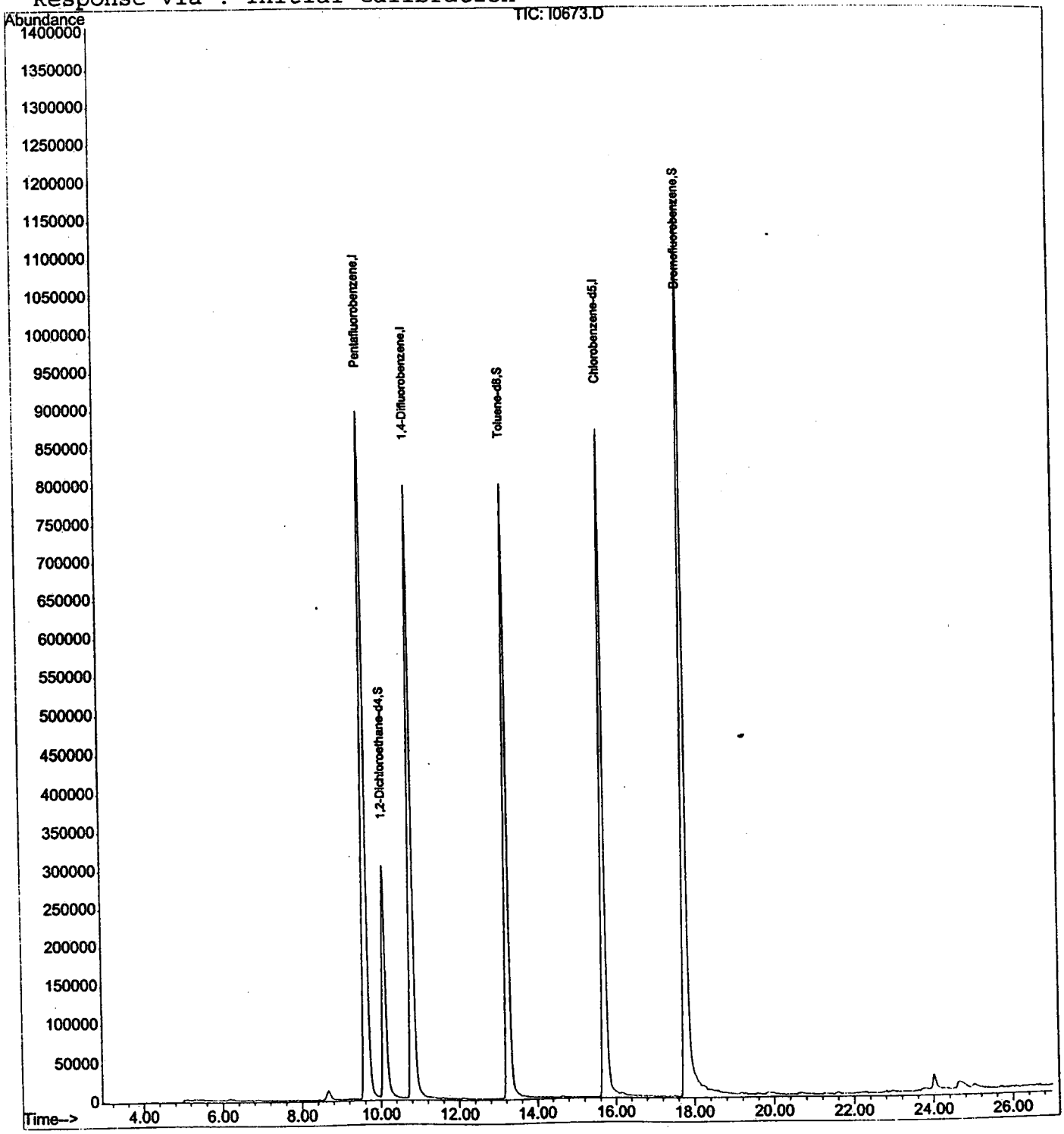
Quantitation Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0673.D
Acq On : 9 Aug 2001 00:58
Sample : N/A,METHOD_BLK,S,5g,0.0
Misc : N/A,N/A,N/A
MS Integration Params: rteint.p
Quant Time: Aug 10 16:49 2001

Vial: 27
Operator: DP
Inst : 5970 - In
Multiplr: 1.00

Quant Results File: IME0716.RES

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 17 11:00:03 2001
Response via : Initial Calibration



0251

2203

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\08-09-01\I0673.D Vial: 27
Acq On : 9 Aug 2001 00:58 Operator: DP
Sample : N/A,METHOD_BLK,S,5g,0.0 Inst : 5970 - In
Misc : N/A,N/A,N/A Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\HPCHEM\1\METHODS\IME0716.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.670	373	383	392	rBV2	12459	85250	1.20%	0.297%
2	9.610	436	445	465	rBV	898165	5672403	80.16%	19.777%
3	10.093	470	477	495	rBV	303040	1852805	26.18%	6.460%
4	10.814	516	524	545	rBV	798071	4606854	65.10%	16.062%
5	13.248	676	684	707	rBV	800328	4407480	62.28%	15.367%
6	15.709	838	846	871	rBV	872080	4798848	67.81%	16.731%
7	17.780	974	982	1008	rBV	1171234	7076551	100.00%	24.672%
8	24.022	1387	1393	1400	rBV5	18721	97169	1.37%	0.339%
9	24.660	1429	1435	1443	rBV7	8836	85015	1.20%	0.296%

Sum of corrected areas: 28682375

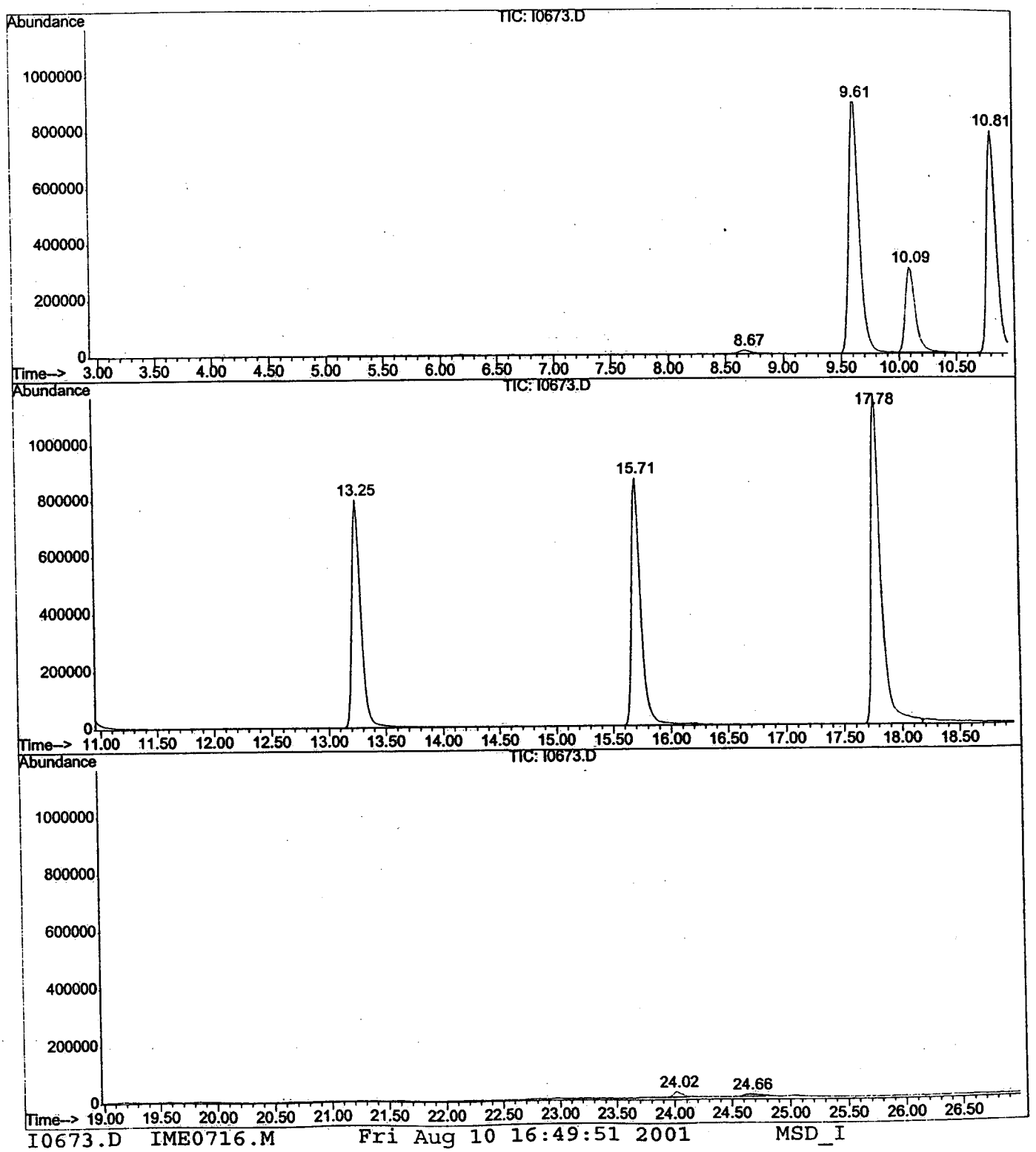
I0673.D IME0716.M Fri Aug 10 16:49:51 2001 MSD_I

0757

7704

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\08-09-01\I0673.D
Operator : DP
Acquired : 9 Aug 2001 00:58 using AcqMethod VOAI
Instrument : 5970 - In
Sample Name: N/A,METHOD_BLK,S,5g,0.0
Misc Info : N/A,N/A,N/A
Vial Number: 27
Quant File :IME0716.RES (RTE Integrator)



I0673.D IME0716.M Fri Aug 10 16:49:51 2001 MSD_I

0253

2205

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869
8/3/01

Certified for NJDEP, NY(DOH)
NJ ID#14751
NY ID#11402

General Chemistry Quality Control

Matrix Soil **Batch ID: AP040-0313**
Units: S-mg/kg

Blank

Parameter	Method Blank	MDL	Analysis Date
TPHC	ND	25.0	08/03/01

Duplicate Recovery

Parameter	QC Sample	Result	Duplicate Result	RPD	RPD Limits
TPHC	5276-005	ND	ND	NC	20

Spike Recovery

Parameter	QC Sample	Result	Spike Added	Spike Result	%Spike Recovery	%Rec. Limits
TPHC	5276-005	ND	585	507	86.6	75 - 125

The above blank results applies to the following samples E01

LCS-004-0803
5276-005
5276-005D
5276-005S
5275-001
5275-002
5278-002
5278-003
5277-001
5277-002
5277-003
5277-004
5277-005
5277-006
5276-001
5276-002
5276-003
5276-004
5276-006
5281-012
5281-013
5281-014
5281-015

++ = No Flash - Sample boiled at 100C
NA = Not Applicable
ND = Not Detected
NC = Non calculable RPD due to value less than the detection limit
No = Does Not Ignite
Yes = Sample Ignites

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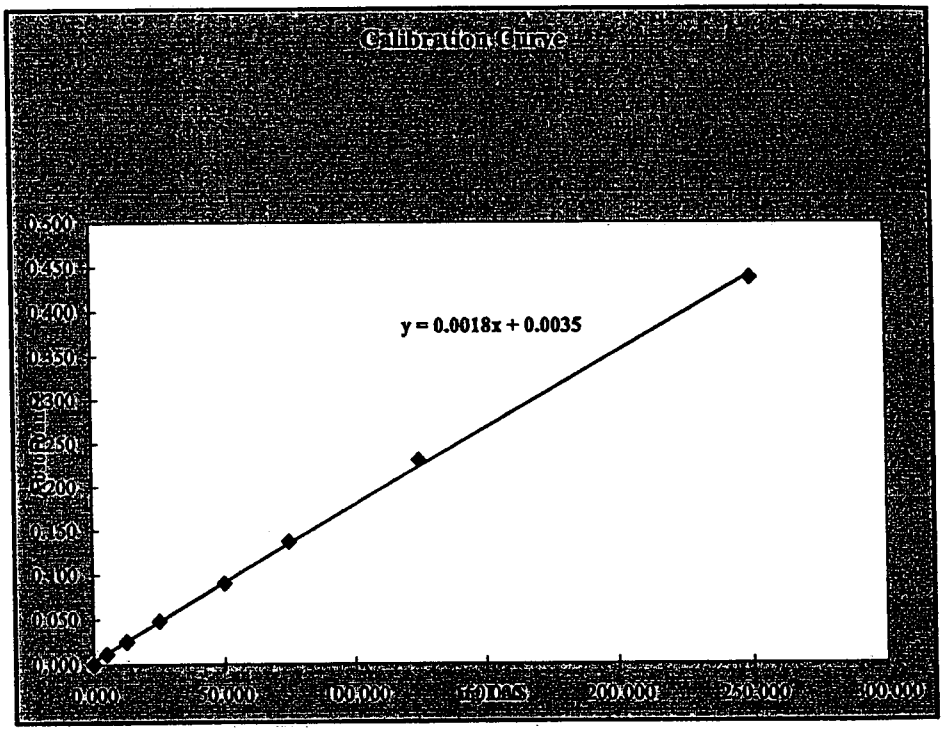
Integrated Analytical Laboratories

TPH

Date:	**26-Jul-01**
Method:	**418.1**
Matrix:	**S/A**
Analyst:	**EDC**

ug	Abs.
0.000	0.000
5.000	0.011
12.500	0.025
25.000	0.048
50.000	0.090
75.000	0.137
125.000	0.230
250.000	0.437

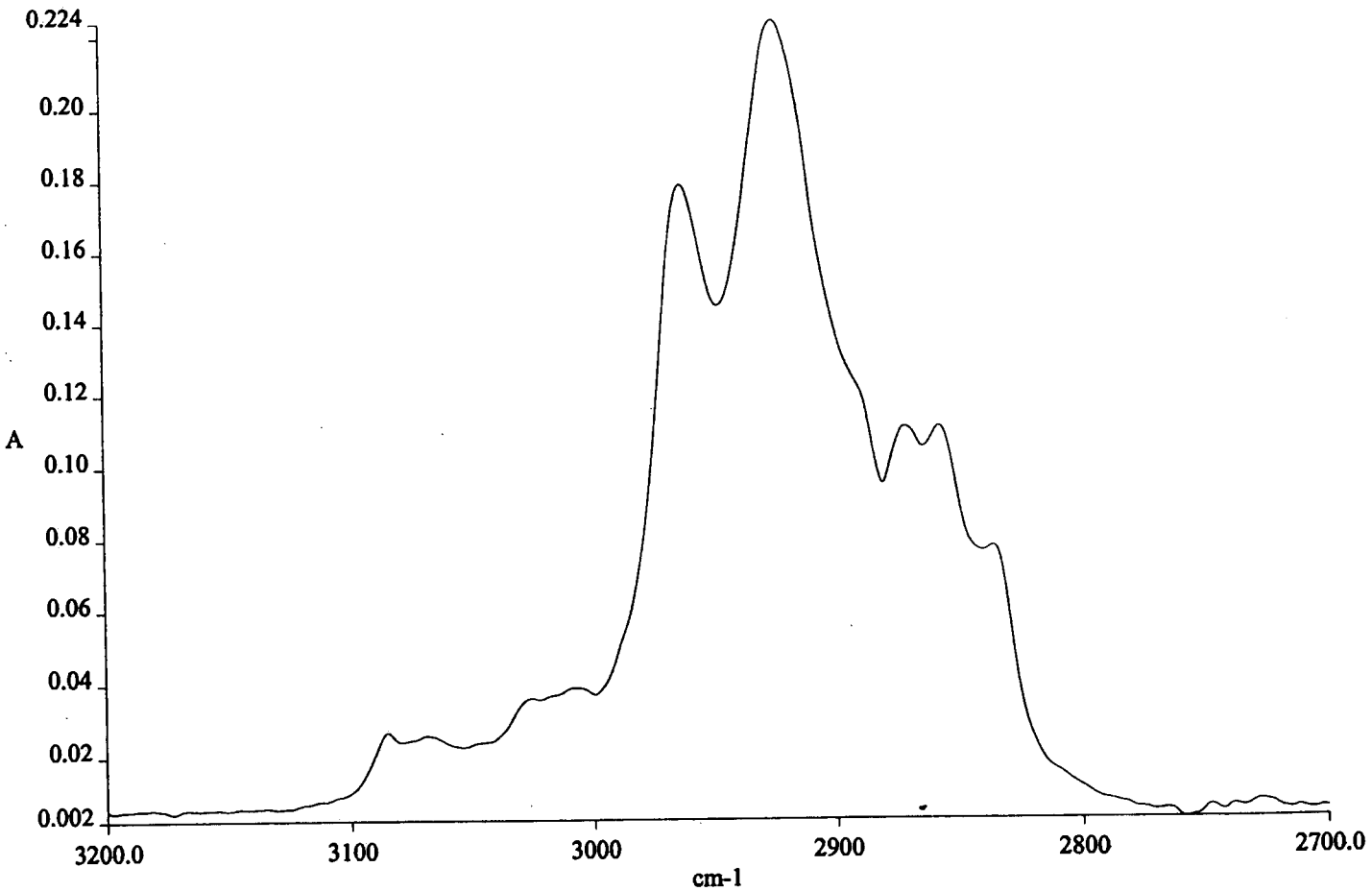
R^2=	0.999686985
Slope=	0.00175
Intercept=	0.00351



Comments:

2207

Friday, August 03, 2001; 15:42:59 ,
C:\PEL_DATA\SPECTRA\5281-012.SP, 2 scans, 4 cm-1
b-0803-4.sp



Friday, August 03, 2001; 15:44:22 ,
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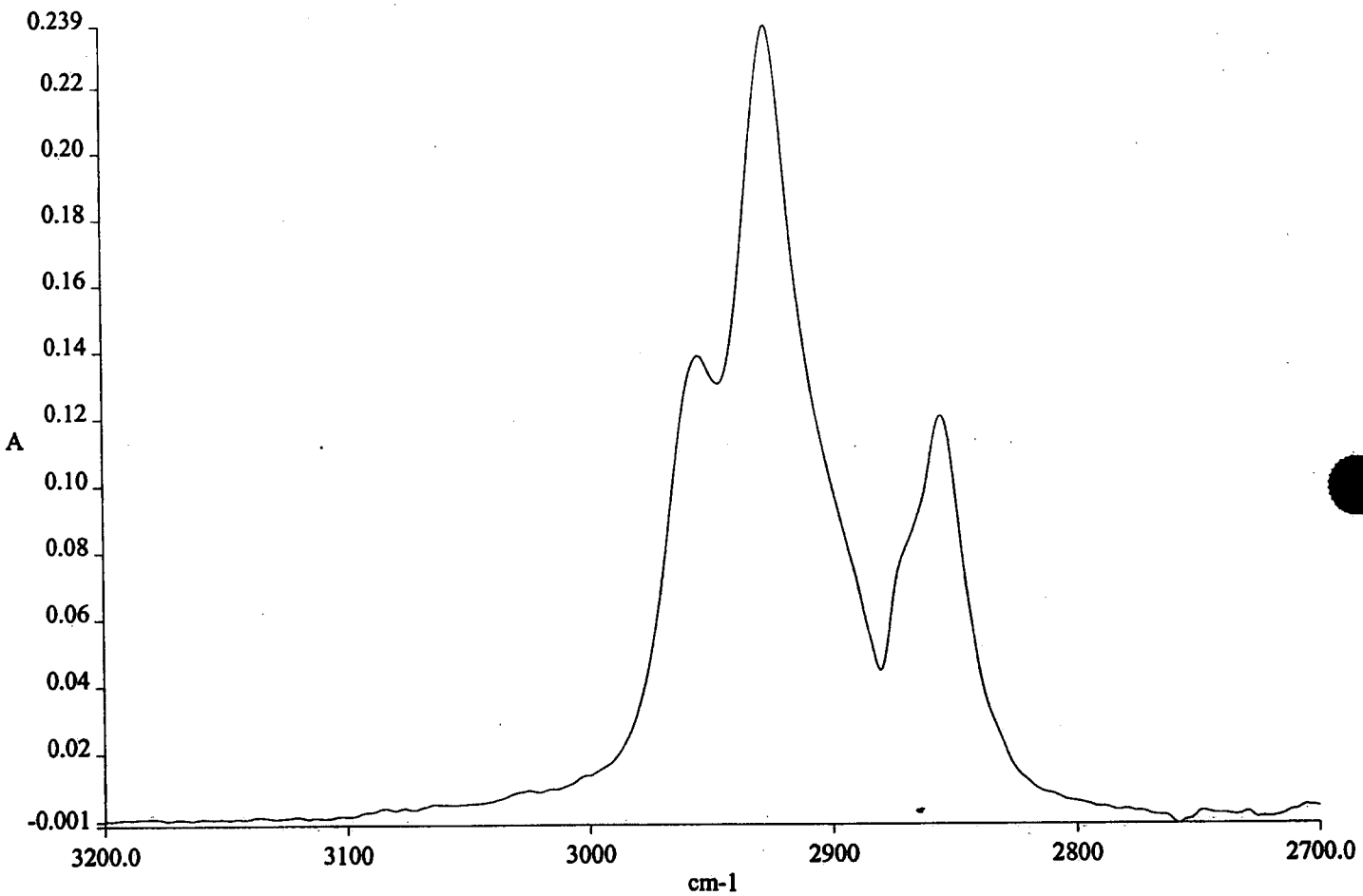
b-0803-4.sp



Friday, August 03, 2001; 15:45:55 ,
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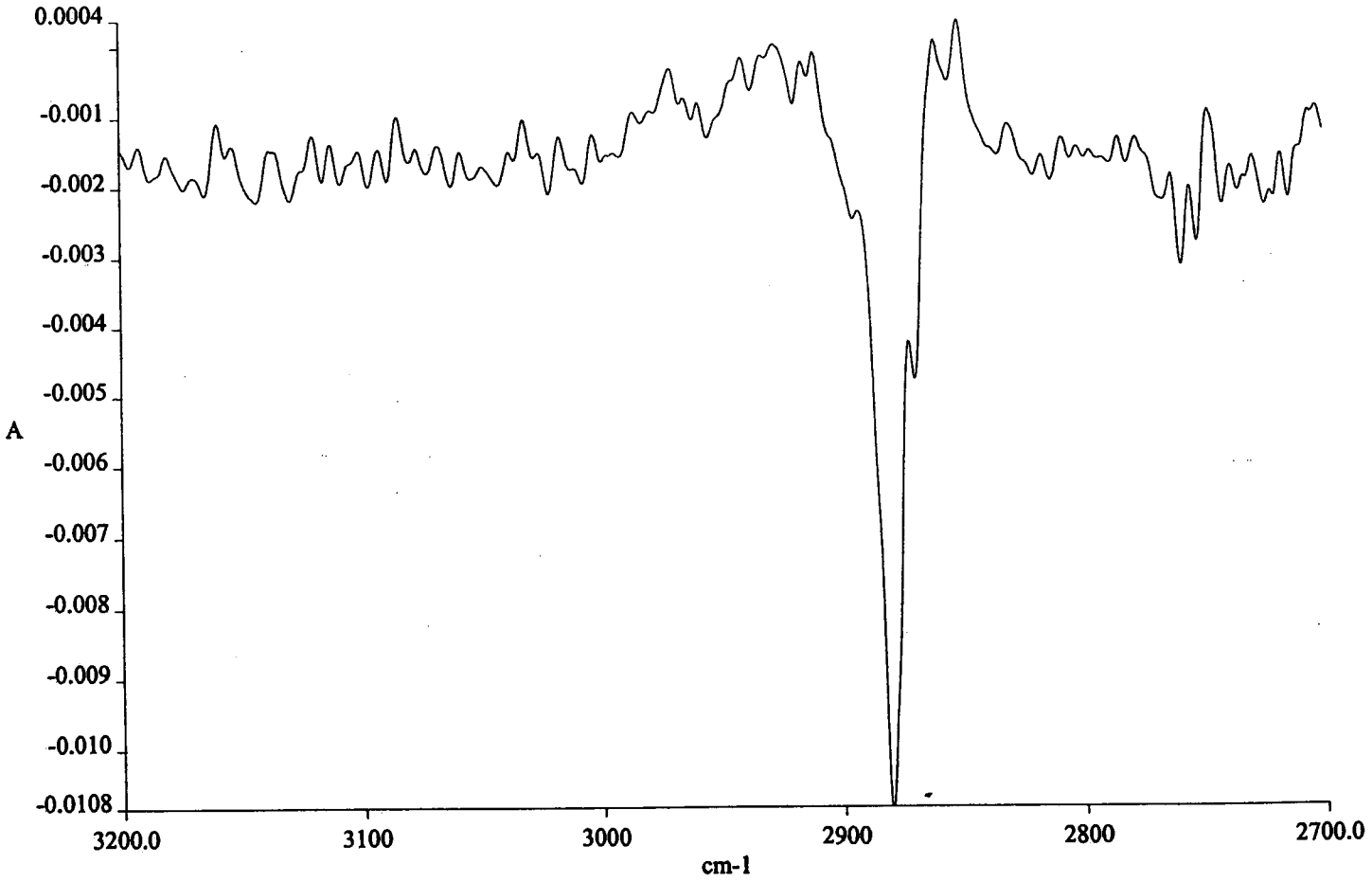
b-0803-4.sp



Friday, August 03, 2001; 15:46:31 ,
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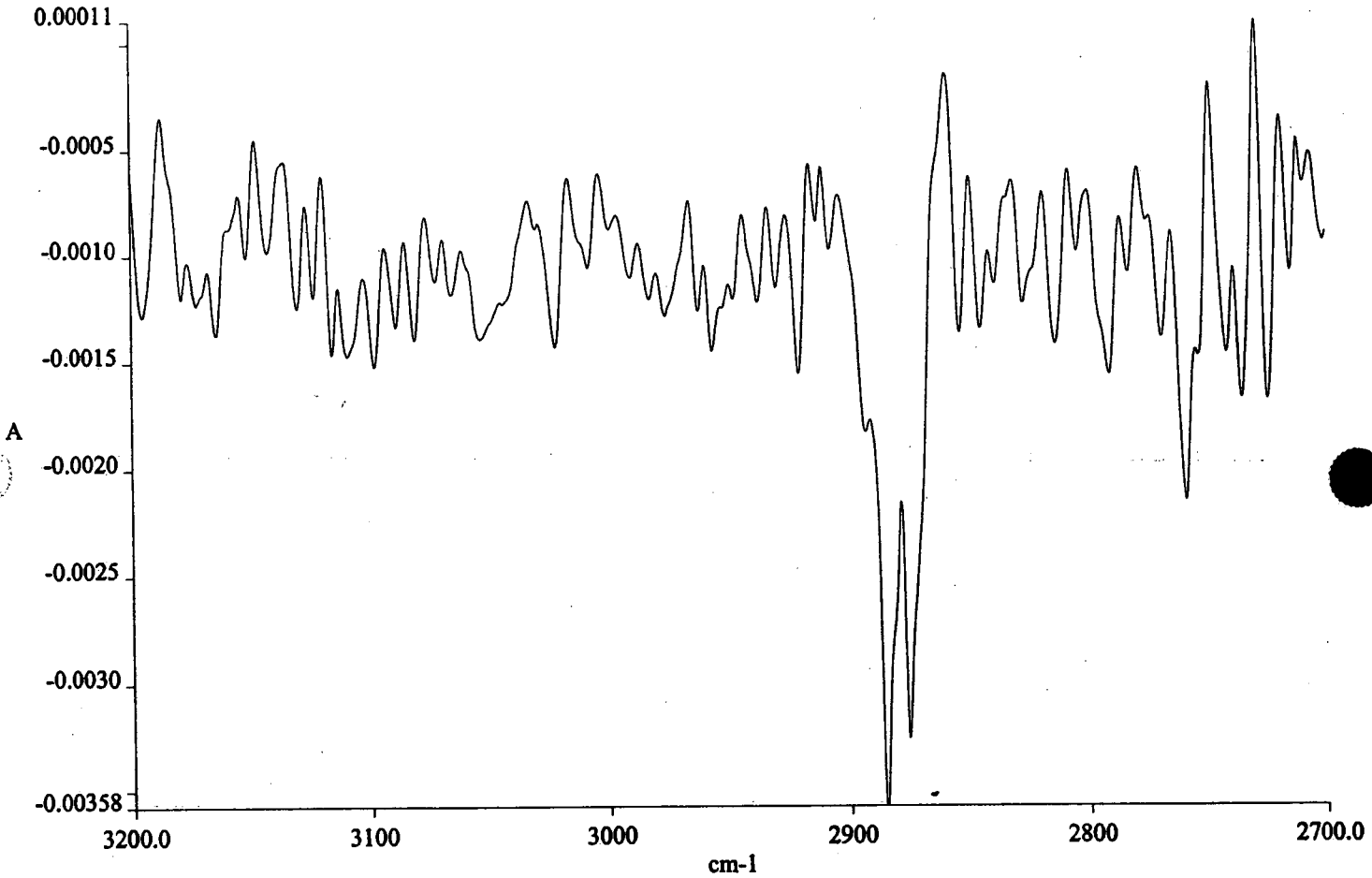
b-0803-4.sp



Friday, August 03, 2001; 15:32:00 ,
C:\PEL_DATA\SPECTRA\BLANK\B-0803-4.SP, 2 scans, 4 cm-1

Phone # (973) 361-[redacted]
Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES
CHAIN OF CUSTODY

[redacted]nklin Rd
Randolph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTACTICS
Address:	2517 HWY 35
	BLDG 1 SUITE 202
	MANASQUAN NJ
	08736
Telephone #:	732-292-0100
Fax #:	732-292-2808
Project Name:	ORBIS
Project Manager:	CHRIS NEUFFER
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr (72 hr) 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk*) Other:

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk) Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
(SRP Disk**: dbf or wkl)
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	VOA's									Comments
S-118		8/2/01	8:40			S	2	01	✓									108773
S-119			8:55					2	✓									75
S-120			9:10					3	✓									72
S-121			9:30					4	✓									78
S-122A			10:05					5	✓									76
S-122B			9:55					6	✓									77
S-123			10:50					7	✓									71
S-124A			11:20					8	✓									64
S-124B			11:25					9	✓									70
S-125			12:35	✓				10	✓									65

Preservatives: 1. HCL 3. HNO_3 2. NaOH 4. H_2SO_4 (5. MeOH) 6. Other

COOLER TEMP 5 °C

SAMPLE MATRIX
W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

SAMPLE INFORMATION

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time	Signature
Relinquished by:		8/2/01	3:05	Received by:
Relinquished by:		8/2/01	4:30	Received by: Paul Cannistra
Relinquished by:				Received by:
Relinquished by:				Received by:
Relinquished by:				Received by:

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Comments:

Lab Case #
5281

PAGE: 1 OF 2

Phone # (973) 361-
Fax # (973) 989-5288

INTEGRATED ANALY[illegible]AL LABORATORIES
CHAIN OF CUSTODY

Franklin Rd
[illegible]dolph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTALTICS
Address:	2517 HWY 35
	BLD D SUITE 202
	MANASQUAN NJ 08736
Telephone #:	732-292-0100
Fax #:	732-292-2868
Project Name:	ORBIS
Project Manager:	CHRIS NEUFFER
Reference ID#:	444 PO#:

REPORTING

Fax to:	
Fax #:	
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr (72 hr) 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk) Other:

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk) Other:

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
(SRP Disk**: dbf or wk1)
Other:

** Circle format required

ANALYTICAL PARAMETERS / PRESERVATIVES

SAMPLE MATRIX
W - Waste SL - Sludge A - Aqueous
O - Oil X - Other S - Soil
GW - Groundwater SOL - Solid

Preservatives
1. HCL 3. HNO_3
2. NaOH 4. H_2SO_4
(5. MeOH) 6. Other

COOLER TEMP 5 °C

SAMPLE INFORMATION

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	V0810	TPH									Comments
S-126		8/2/01	12:45			S	2	11	✓										108766
S-127		8/2/01	1:30				2	12	✓	✓									79
S-128		8/2/01	2:00				2	13	✓	✓									75
S-129		8/2/01	2:30				2	14	✓	✓									38
S-130		8/2/01	2:50				2	15	✓	✓									69
~~[illegible]~~	~~[illegible]~~	~~8/2/01~~				~~[illegible]~~			~~[illegible]~~										

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected
LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

Signature	Date	Time	Signature
Relinquished by: [signature]	8/2/01	3:05	Received by: [signature]
Relinquished by: [signature]	8/2/01	4:30	Received by: Paul Cornist
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

Lab Case #
5281

PAGE: 2 OF 2

LAB COPIES - [illegible]E & YELLOW; CLIENT COPY - PINK

2214

CHAIN OF CUSTODY

Case No.: E01-5281
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 08/02/2001
Time Received: 16:30
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Aug 16
Report Due: Aug 23

# of Containers	2	2	2	2	2	2
IAL ID #	5281-001	5281-002	5281-003	5281-004	5281-005	5281-006
Client ID #	S-118	S-119	S-120	S-121	S-122A	S-122B
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	08/02/2001	08/02/2001	08/02/2001	08/02/2001	08/02/2001	08/02/2001
Sample Time	08:40	08:55	09:10	09:30	10:05	09:55
Methanol Kit	√	√	√	√	√	√
Balance Rent	√					
VO + 10, PP MP	√	√	√	√	√	√
% Solids	√	√	√	√	√	√
Electronic Del.	√					

Comments: NOTE 1: TPHC ON 72 HR TAT. RESULTS DUE 8/7/01.

CHAIN OF CUSTODY

Case No.: E01-5281
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 08/02/2001
Time Received: 16:30
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Aug 16
Report Due: Aug 23

# of Containers	2	2	2	2	2	2
IAL ID #	5281-007	5281-008	5281-009	5281-010	5281-011	5281-012
Client ID #	S-123	S-124A	S-124B	S-125	S-126	S-127
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	08/02/2001	08/02/2001	08/02/2001	08/02/2001	08/02/2001	08/02/2001
Sample Time	10:50	11:20	11:25	12:35	12:45	13:30
Methanol Kit	√	√	√	√	√	√
VO + 10, PP MP	√	√	√	√	√	√
% Solids	√	√	√	√	√	√
TPHC-72 Hour						√

Comments: NOTE 1: TPHC ON 72 HR TAT. RESULTS DUE 8/7/01.

CHAIN OF CUSTODY

Case No.: E01-5281
Project : ORBIS - 444
Client/Project: ENVTACT/ORBIS
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 08/02/2001
Time Received: 16:30
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Aug 16
Report Due: Aug 23

# of Containers	2	2	2
IAL ID #	5281-013	5281-014	5281-015
Client ID #	S-128	S-129	S-130
Matrix	Soil	Soil	Soil
Sample Date	08/02/2001	08/02/2001	08/02/2001
Sample Time	14:00	14:30	14:50
Methanol Kit	√	√	√
VO + 10, PP MP	√	√	√
% Solids	√	√	√
TPHC-72 Hour	√	√	√

Comments: NOTE 1: TPHC ON 72 HR TAT. RESULTS DUE 8/7/01.

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: 5281 CLIENT: ENVIROTACTICS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

CHAIN OF CUSTODY: COMPLETE / INCOMPLETE Comments: _____

		Comments:
Sample Bottles Intact:	✓	
Sample Labels Intact/ Correct:	✓	
Sufficient Sample Volume:	✓	
Correct bottles/ preservative:	✓	
Samples received in holding time/ prep time:	✓	
Headspace/ bubbles in voa samples:	X	
Samples to be subcontracted:	(✓)	
Preserved Sample pH checked: (Excluding voa samples)	(✓)	

KEY
✓ = YES
X = NO
(✓) = N/A

ADDITIONAL COMMENTS: _____

SAMPLE(S) VERIFIED BY: INITIAL AR DATE 8/2/01

CORRECTIVE ACTION REQUIRED: YES [ ] (SEE BELOW) NO [✓]

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT: _____

SUBCONTRACTED LAB: _____

DATE SHIPPED: _____

ADDITIONAL COMMENTS: _____

VERIFIED/TAKEN BY: INITIAL [signature] DATE _____

REV 10/00

0255

7.2.16

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-5281
Client : Envirotactics Inc.
Project : ORBIS - 444

	GC/MS V		EXTRACT			ANALYSIS		
			DATE	TIME	INITIAL	DATE	TIME	INITIAL
Methanol Kit	5281-001	S				8/3		NA
	5281-002	S						
	5281-003	S						
	5281-004	S						
	5281-005	S						
	5281-006	S						
	5281-007	S						
	5281-008	S						
	5281-009	S						
	5281-010	S						
	5281-011	S						
	5281-012	S						
	5281-013	S						
	5281-014	S						
	5281-015	S						
Balance Rent	5281-001	S						
VO + 10, PP MP	5281-001	S						
	5281-002	S						
	5281-003	S						
	5281-004	S						
	5281-005	S						
	5281-006	S						
	5281-007	S						
	5281-008	S						
	5281-009	S						
	5281-010	S						
	5281-011	S						
	5281-012	S						
	5281-013	S						
	5281-014	S						
	5281-015	S						

	WETCHEM			
% Solids	5281-001	S	8/3	KC
	5281-002	S		
	5281-003	S		
	5281-004	S		
	5281-005	S		
	5281-006	S		
	5281-007	S		
	5281-008	S		
	5281-009	S		
	5281-010	S		
	5281-011	S		
	5281-012	S		
	5281-013	S		
	5281-014	S		

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-5281
Client : Envirotactics Inc.
Project : ORBIS - 444

	WETCHEM		EXTRACT			ANALYSIS		
			DATE	TIME	INITIAL	DATE	TIME	INITIAL
% Solids	5281-015	S	8/13		KC			
TPHC-72 Hour	5281-012	S	8/13	945	RS	8/13	1530	EK
	5281-013	S		↓			↓	
	5281-014	S						
	5281-015	S						
	AIR							
Electronic Del.	5281-001	S	—			—		

REVIEW & APPROVAL: [signature]
REMARKS :

Integrated Analytical Labs

Integrated Analytical Laboratories, LLC.

273 Franklin Road
Randolph, N.J. 07869

Phone: 973 361-4252
Fax: 973 989-5288

ANALYTICAL DATA REPORT

for

Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan,NJ 08736

Project: ORBIS - NEWARK - 444
Lab Case Number: E01-5690
Date Report Prepared: August 24, 2001

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
S-131	5690-001
S-132	5690-002
S-133	5690-003
S-134	5690-004
S-135	5690-005
S-136	5690-006
S-137	5690-007
S-138	5690-008
S-139A	5690-009
S-139B	5690-010

All required protocols were followed during analyses. These data have been reviewed and accepted by

Michael H. Leftin, Ph.D.
Laboratory Director

The liability of Integrated Analytical Laboratories, LLC. is limited to the actual cost of the analyses performed.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received ten (10) soil sample(s) from Envirotactics Inc. (Project: ORBIS - NEWARK - 444) on August 17, 2001 for the analysis of:

(10) Volatiles + 10
(3) Metals (Arsenic & Lead)

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

8/29/01
Date

0002

2224

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E01-5690

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

Cindy Nguyen
QC Reviewed by

8/29/01
Date

0003

2225

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E01 - 5690

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. BFB Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
If not met, were the calculations checked and the results qualified as "estimated"?		na
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		NA
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
✓			

13. Comments:

Organics Manager

8/22/01
Date

0004

rev 01/01

2226

INTEGRATED ANALYTICAL LABORATORIES

METAL ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY

Lab Case Number: E01 - 5690

	No	Yes
1. Calibration Summary Meet Criteria.		✓
2. ICP Interference Check Sample Results Meets Criteria (if applicable)		✓
3. Serial Dilution Summary Submitted (if applicable) / Meets Criteria		✓
4. Internal Standards Meet Criteria (if applicable)		✓
5. Laboratory Control Sample Summary Submitted (if applicable)/Meets Criteria		✓
6. Blank Contamination: If yes, list compounds and concentrations in each blank:	✓	
7. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).		✓
8. Extraction Holding Time Met. If not, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not, list number of days exceeded for each sample:		✓

Additional Comments:

H. Falke-Jorgensen
Inorganics Manager

08/21/01
Date

rev 01/01

0005

7227

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: Envirotactics Inc.
Project: ORBIS - NEWARK - 444
Lab Case No.: E01-5690

Lab ID:	5690-001			5690-002			5690-003			5690-004		
Client ID:	S-131			S-132			S-133			S-134		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	8/16/2001			8/16/2001			8/16/2001			8/16/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	ND		879	ND		711	197	J	901	674	J	855
Toluene	ND		879	ND		711	ND		901	744	J	855
TOTAL VO's:	ND			ND			197	J		1418	J	
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	ND			ND			197	J		1418	J	
Metals (ppm)												
Arsenic	~			~			1.30		1.18	2.70		1.19
Lead	~			~			12.3		0.590	11.7		0.595

Lab ID:	5690-005			5690-006			5690-007			5690-008		
Client ID:	S-135			S-136			S-137			S-138		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	8/16/2001			8/16/2001			8/16/2001			8/16/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	ND		778	ND		745	ND		792	13900		813
Toluene	ND		778	152	J	745	ND		792	ND		813
TOTAL VO's:	ND			152	J		ND			13900		
TOTAL TIC's:	ND			ND			ND			28400		
TOTAL VO's & TIC's:	ND			152	J		ND			42300		
Metals (ppm)												
Arsenic	6.41		1.25	~			~			~		
Lead	14.5		0.625	~			~			~		

Lab ID:	5690-009			5690-010		
Client ID:	S-139A			S-139B		
Matrix:	Soil			Soil		
Sampled Date:	8/16/2001			8/16/2001		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)						
Benzene	304000	D	14800	38900	D	4270
Toluene	113000	D	14800	7080		830
Chlorobenzene	7930		657	ND		830
Ethylbenzene	609	J	657	ND		830
Total Xylenes	328	J	657	ND		830
TOTAL VO's:	425867	J		45980		
TOTAL TIC's:	587300			109260		
TOTAL VO's & TIC's:	1013167	J		155240		

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
All qualifiers on individual Volatiles are carried down through summation.

0006

22296

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

S.4

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-001
Client ID: S-131
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2407.D

GC/MS Column: DB-624
Sample wt/vol: 0.034g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.3

Compound	Concentration	Q	MDL
Chloromethane	ND		879
Vinyl Chloride	ND		879
Bromomethane	ND		879 UJ
Chloroethane	ND		879 UJ
Trichlorofluoromethane	ND		879
Acrolein	~~ND~~	R	~~1760~~
1,1-Dichloroethene	ND		879
Methylene Chloride	ND		879
Acrylonitrile	ND		879
trans-1,2-Dichloroethene	ND		879
1,1-Dichloroethane	ND		879
Chloroform	ND		879
1,1,1-Trichloroethane	ND		879
Carbon Tetrachloride	ND		879
1,2-Dichloroethane(EDC)	ND		879
Benzene	ND		879
Trichloroethene	ND		879
1,2-Dichloropropane	ND		879
Bromodichloromethane	ND		879
2-Chloroethylvinyl Ether	ND		879
cis-1,3-Dichloropropene	ND		879
Toluene	ND		879
trans-1,3-Dichloropropene	ND		879
1,1,2-Trichloroethane	ND		879
Tetrachloroethene	ND		879
Dibromochloromethane	ND		879
Chlorobenzene	ND		879
Ethylbenzene	ND		879
Total Xylenes	ND		879
Bromoform	ND		879 UJ
1,1,2,2-Tetrachloroethane	ND		879
1,3-Dichlorobenzene	ND		879
1,4-Dichlorobenzene	ND		879
1,2-Dichlorobenzene	ND		879

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-001
Client ID: S-131
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2407.D

GC/MS Column: DB-624
Sample wt/vol: 0.034g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.3

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

2230

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-002
Client ID: S-132
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2408.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.2

Compound	Concentration	Q	MDL
Chloromethane	ND		711
Vinyl Chloride	ND		711
Bromomethane	ND		711 UJ
Chloroethane	ND		711 UJ
Trichlorofluoromethane	ND		711
Acrolein	~~ND~~	R	~~1420~~
1,1-Dichloroethene	ND		711
Methylene Chloride	ND		711
Acrylonitrile	ND		711
trans-1,2-Dichloroethene	ND		711
1,1-Dichloroethane	ND		711
Chloroform	ND		711
1,1,1-Trichloroethane	ND		711
Carbon Tetrachloride	ND		711
1,2-Dichloroethane(EDC)	ND		711
Benzene	ND		711
Trichloroethene	ND		711
1,2-Dichloropropane	ND		711
Bromodichloromethane	ND		711
2-Chloroethylvinyl Ether	ND		711
cis-1,3-Dichloropropene	ND		711
Toluene	ND		711
trans-1,3-Dichloropropene	ND		711
1,1,2-Trichloroethane	ND		711
Tetrachloroethene	ND		711
Dibromochloromethane	ND		711
Chlorobenzene	ND		711
Ethylbenzene	ND		711
Total Xylenes	ND		711
Bromoform	ND		711 UJ
1,1,2,2-Tetrachloroethane	ND		711
1,3-Dichlorobenzene	ND		711
1,4-Dichlorobenzene	ND		711
1,2-Dichlorobenzene	ND		711

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-002
Client ID: S-132
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2408.D

GC/MS Column: DB-624
Sample wt/vol: 0.041g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.2

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-003
Client ID: S-133
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2409.D

GC/MS Column: DB-624
Sample wt/vol: 0.033g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.9

Compound	Concentration	Q	MDL
Chloromethane	ND		901
Vinyl Chloride	ND		901
Bromomethane	ND		901 UJ
Chloroethane	ND		901 UJ
Trichlorofluoromethane	ND		901
Acrolein	~~ND~~ R		~~1800~~
1,1-Dichloroethene	ND		901
Methylene Chloride	ND		901
Acrylonitrile	ND		901
trans-1,2-Dichloroethene	ND		901
1,1-Dichloroethane	ND		901
Chloroform	ND		901
1,1,1-Trichloroethane	ND		901
Carbon Tetrachloride	ND		901
1,2-Dichloroethane(EDC)	ND		901
Benzene	197	J	901
Trichloroethene	ND		901
1,2-Dichloropropane	ND		901
Bromodichloromethane	ND		901
2-Chloroethylvinyl Ether	ND		901
cis-1,3-Dichloropropene	ND		901
Toluene	ND		901
trans-1,3-Dichloropropene	ND		901
1,1,2-Trichloroethane	ND		901
Tetrachloroethene	ND		901
Dibromochloromethane	ND		901
Chlorobenzene	ND		901
Ethylbenzene	ND		901
Total Xylenes	ND		901
Bromoform	ND		901 UJ
1,1,2,2-Tetrachloroethane	ND		901
1,3-Dichlorobenzene	ND		901
1,4-Dichlorobenzene	ND		901
1,2-Dichlorobenzene	ND		901

Total Target Compounds: 197 J

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-003
Client ID: S-133
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2409.D

GC/MS Column: DB-624
Sample wt/vol: 0.033g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.9

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

2234

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-004
Client ID: S-134
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2410.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.5

8.7

Compound	Concentration	Q	MDL
Chloromethane	ND		855
Vinyl Chloride	ND		855
Bromomethane	ND		855 UJ
Chloroethane	ND		855 UJ
Trichlorofluoromethane	ND		855
Acrolein	~~ND~~ R		~~1710~~
1,1-Dichloroethene	ND		855
Methylene Chloride	ND		855
Acrylonitrile	ND		855
trans-1,2-Dichloroethene	ND		855
1,1-Dichloroethane	ND		855
Chloroform	ND		855
1,1,1-Trichloroethane	ND		855
Carbon Tetrachloride	ND		855
1,2-Dichloroethane(EDC)	ND		855
Benzene	674	J	855
Trichloroethene	ND		855
1,2-Dichloropropane	ND		855
Bromodichloromethane	ND		855
2-Chloroethylvinyl Ether	ND		855
cis-1,3-Dichloropropene	ND		855
Toluene	744	J	855
trans-1,3-Dichloropropene	ND		855
1,1,2-Trichloroethane	ND		855
Tetrachloroethene	ND		855
Dibromochloromethane	ND		855
Chlorobenzene	ND		855
Ethylbenzene	ND		855
Total Xylenes	ND		855
Bromoform	ND		855 UJ
1,1,2,2-Tetrachloroethane	ND		855
1,3-Dichlorobenzene	ND		855
1,4-Dichlorobenzene	ND		855
1,2-Dichlorobenzene	ND		855
Total Target Compounds:	1418	J	

0013

2235

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-004
Client ID: S-134
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2410.D

GC/MS Column: DB-624
Sample wt/vol: 0.035g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.5

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

2236

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-005
Client ID: S-135
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2411.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.7

10

Compound	Concentration	Q	MDL
Chloromethane	ND		778
Vinyl Chloride	ND		778
Bromomethane	ND		778 UJ
Chloroethane	ND		778 UJ
Trichlorofluoromethane	ND		778
Acrolein	~~ND~~ R		~~1560~~
1,1-Dichloroethene	ND		778
Methylene Chloride	ND		778
Acrylonitrile	ND		778
trans-1,2-Dichloroethene	ND		778
1,1-Dichloroethane	ND		778
Chloroform	ND		778
1,1,1-Trichloroethane	ND		778
Carbon Tetrachloride	ND		778
1,2-Dichloroethane(EDC)	ND		778
Benzene	ND		778
Trichloroethene	ND		778
1,2-Dichloropropane	ND		778
Bromodichloromethane	ND		778
2-Chloroethylvinyl Ether	ND		778
cis-1,3-Dichloropropene	ND		778
Toluene	ND		778
trans-1,3-Dichloropropene	ND		778
1,1,2-Trichloroethane	ND		778
Tetrachloroethene	ND		778
Dibromochloromethane	ND		778
Chlorobenzene	ND		778
Ethylbenzene	ND		778
Total Xylenes	ND		778
Bromoform	ND		778 UJ
1,1,2,2-Tetrachloroethane	ND		778
1,3-Dichlorobenzene	ND		778
1,4-Dichlorobenzene	ND		778
1,2-Dichlorobenzene	ND		778

Total Target Compounds: 0

0015

2227

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-005
Client ID: S-135
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2411.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 19.7

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

7734

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-006
Client ID: S-136
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2412.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.1

Compound	Concentration	Q	MDL
Chloromethane	ND		745
Vinyl Chloride	ND		745
Bromomethane	ND		745 UJ
Chloroethane	ND		745 UJ
Trichlorofluoromethane	ND		745
Acrolein	~~ND~~ R		~~1490~~
1,1-Dichloroethene	ND		745
Methylene Chloride	ND		745
Acrylonitrile	ND		745
trans-1,2-Dichloroethene	ND		745
1,1-Dichloroethane	ND		745
Chloroform	ND		745
1,1,1-Trichloroethane	ND		745
Carbon Tetrachloride	ND		745
1,2-Dichloroethane(EDC)	ND		745
Benzene	ND		745
Trichloroethene	ND		745
1,2-Dichloropropane	ND		745
Bromodichloromethane	ND		745
2-Chloroethylvinyl Ether	ND		745
cis-1,3-Dichloropropene	ND		745
Toluene	152	J	745
trans-1,3-Dichloropropene	ND		745
1,1,2-Trichloroethane	ND		745
Tetrachloroethene	ND		745
Dibromochloromethane	ND		745
Chlorobenzene	ND		745
Ethylbenzene	ND		745
Total Xylenes	ND		745
Bromoform	ND		745 UJ
1,1,2,2-Tetrachloroethane	ND		745
1,3-Dichlorobenzene	ND		745
1,4-Dichlorobenzene	ND		745
1,2-Dichlorobenzene	ND		745
Total Target Compounds:	152	J	

10.1

0017

2239

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-006
Client ID: S-136
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2412.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.1

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

J2412

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-007
Client ID: S-137
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2413.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.3

8.9

Compound	Concentration	Q	MDL
Chloromethane	ND		792
Vinyl Chloride	ND		792
Bromomethane	ND		792 UJ
Chloroethane	ND		792 UJ
Trichlorofluoromethane	ND		792
Acrolein	~~ND~~	R	~~1580~~
1,1-Dichloroethene	ND		792
Methylene Chloride	ND		792
Acrylonitrile	ND		792
trans-1,2-Dichloroethene	ND		792
1,1-Dichloroethane	ND		792
Chloroform	ND		792
1,1,1-Trichloroethane	ND		792
Carbon Tetrachloride	ND		792
1,2-Dichloroethane(EDC)	ND		792
Benzene	ND		792
Trichloroethene	ND		792
1,2-Dichloropropane	ND		792
Bromodichloromethane	ND		792
2-Chloroethylvinyl Ether	ND		792
cis-1,3-Dichloropropene	ND		792
Toluene	ND		792
trans-1,3-Dichloropropene	ND		792
1,1,2-Trichloroethane	ND		792
Tetrachloroethene	ND		792
Dibromochloromethane	ND		792
Chlorobenzene	ND		792
Ethylbenzene	ND		792
Total Xylenes	ND		792
Bromoform	ND		792 UJ
1,1,2,2-Tetrachloroethane	ND		792
1,3-Dichlorobenzene	ND		792
1,4-Dichlorobenzene	ND		792
1,2-Dichlorobenzene	ND		792

Total Target Compounds: 0

0019

2241

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-007
Client ID: S-137
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2413.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.3

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-008
Client ID: S-138
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2414.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.9

Compound	Concentration	Q	MDL
Chloromethane	ND		813
Vinyl Chloride	ND		813
Bromomethane	ND		813 UJ
Chloroethane	ND		813 UJ
Trichlorofluoromethane	ND		813
Acrolein	~~ND~~	R	~~1630~~
1,1-Dichloroethene	ND		813
Methylene Chloride	ND		813
Acrylonitrile	ND		813
trans-1,2-Dichloroethene	ND		813
1,1-Dichloroethane	ND		813
Chloroform	ND		813
1,1,1-Trichloroethane	ND		813
Carbon Tetrachloride	ND		813
1,2-Dichloroethane(EDC)	ND		813
Benzene	13900		813
Trichloroethene	ND		813
1,2-Dichloropropane	ND		813
Bromodichloromethane	ND		813
2-Chloroethylvinyl Ether	ND		813
cis-1,3-Dichloropropene	ND		813
Toluene	ND		813
trans-1,3-Dichloropropene	ND		813
1,1,2-Trichloroethane	ND		813
Tetrachloroethene	ND		813
Dibromochloromethane	ND		813
Chlorobenzene	ND		813
Ethylbenzene	ND		813
Total Xylenes	ND		813
Bromoform	ND		813 UJ
1,1,2,2-Tetrachloroethane	ND		813
1,3-Dichlorobenzene	ND		813
1,4-Dichlorobenzene	ND		813
1,2-Dichlorobenzene	ND		813

Total Target Compounds: 13900

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-008
Client ID: S-138
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2414.D

GC/MS Column: DB-624
Sample wt/vol: 0.037g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.9

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	28400	13.30

Total TICs = 28400

77244

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-009
Client ID: S-139A
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2415.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.5

Compound	Concentration	Q	MDL
Chloromethane	ND		657
Vinyl Chloride	ND		657
Bromomethane	ND		657 UJ
Chloroethane	ND		657 UJ
Trichlorofluoromethane	ND		657
Acrolein	~~ND~~ R		~~1310~~
1,1-Dichloroethene	ND		657
Methylene Chloride	ND		657
Acrylonitrile	ND		657
trans-1,2-Dichloroethene	ND		657
1,1-Dichloroethane	ND		657
Chloroform	ND		657
1,1,1-Trichloroethane	ND		657
Carbon Tetrachloride	ND		657
1,2-Dichloroethane(EDC)	ND		657
Benzene	~~347000~~ 267000*	~~E~~	657
Trichloroethene	ND		657
1,2-Dichloropropane	ND		657
Bromodichloromethane	ND		657
2-Chloroethylvinyl Ether	ND		657
cis-1,3-Dichloropropene	ND		657
Toluene	~~165000~~ 99200*	~~E~~	657
trans-1,3-Dichloropropene	ND		657
1,1,2-Trichloroethane	ND		657
Tetrachloroethene	ND		657
Dibromochloromethane	ND		657
Chlorobenzene	7930		657
Ethylbenzene	609	J	657
Total Xylenes	328	J	657
Bromoform	ND		657 UJ
1,1,2,2-Tetrachloroethane	ND		657
1,3-Dichlorobenzene	ND		657
1,4-Dichlorobenzene	ND		657
1,2-Dichlorobenzene	ND		657

* FROM 1:20 DILUTION

Total Target Compounds: 520867 JE

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-009DIL
Client ID: S-139A
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2445.D

GC/MS Column: DB-624
Sample wt/vol: 0.002g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 20
% Moisture: 15.5

11.4

Compound	Concentration	Q	MDL
Chloromethane	ND		14800
Vinyl Chloride	ND		14800
Bromomethane	ND		14800 UJ
Chloroethane	ND		14800 UJ
Trichlorofluoromethane	ND		14800 UJ
Acrolein	~~ND~~ R		~~29600~~
1,1-Dichloroethene	ND		14800
Methylene Chloride	ND		14800
Acrylonitrile	ND		14800
trans-1,2-Dichloroethene	ND		14800
1,1-Dichloroethane	ND		14800
Chloroform	ND		14800
1,1,1-Trichloroethane	ND		14800 UJ
Carbon Tetrachloride	ND		14800 UJ
1,2-Dichloroethane(EDC)	ND		14800 UJ
Benzene	~~304000~~ 267000		14800
Trichloroethene	ND		14800
1,2-Dichloropropane	ND		14800
Bromodichloromethane	ND		14800
2-Chloroethylvinyl Ether	ND		14800
cis-1,3-Dichloropropene	ND		14800
Toluene	~~113000~~ 99200		14800
trans-1,3-Dichloropropene	ND		14800
1,1,2-Trichloroethane	ND		14800
Tetrachloroethene	ND		14800
Dibromochloromethane	ND		14800
Chlorobenzene	7970	J	14800
Ethylbenzene	ND		14800
Total Xylenes	ND		14800
Bromoform	ND		14800 UJ
1,1,2,2-Tetrachloroethane	ND		14800
1,3-Dichlorobenzene	ND		14800
1,4-Dichlorobenzene	ND		14800
1,2-Dichlorobenzene	ND		14800

Total Target Compounds: 424970 J

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-009
Client ID: S-139A
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2415.D

GC/MS Column: DB-624
Sample wt/vol: 0.045g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.5

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown aliphatic	18800	11.15
	Substituted benzene	13100	11.79
	Substituted benzene	2800	12.41
	Unknown cyclic hydrocarbon	81600	13.19
	Unknown	268000	13.33
	Substituted benzene	203000	13.39

Total TICs = 587300

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-010
Client ID: S-139B
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2416.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.3

9.1

Compound	Concentration	Q	MDL
Chloromethane	ND		830
Vinyl Chloride	ND		830
Bromomethane	ND		830 UJ
Chloroethane	ND		830 UJ
Trichlorofluoromethane	ND		830
Acrolein	~~ND~~	R	~~1660~~
1,1-Dichloroethene	ND		830
Methylene Chloride	ND		830
Acrylonitrile	ND		830
trans-1,2-Dichloroethene	ND		830
1,1-Dichloroethane	ND		830
Chloroform	ND		830
1,1,1-Trichloroethane	ND		830
Carbon Tetrachloride	ND		830
1,2-Dichloroethane(EDC)	ND		830
Benzene	~~50000~~ 38908 *	E	830
Trichloroethene	ND		830
1,2-Dichloropropane	ND		830
Bromodichloromethane	ND		830
2-Chloroethylvinyl Ether	ND		830
cis-1,3-Dichloropropene	ND		830
Toluene	7080		830
trans-1,3-Dichloropropene	ND		830
1,1,2-Trichloroethane	ND		830
Tetrachloroethene	ND		830
Dibromochloromethane	ND		830
Chlorobenzene	ND		830
Ethylbenzene	ND		830
Total Xylenes	ND		830
Bromoform	ND		830 UJ
1,1,2,2-Tetrachloroethane	ND		830
1,3-Dichlorobenzene	ND		830
1,4-Dichlorobenzene	ND		830
1,2-Dichlorobenzene	ND		830
Total Target Compounds:	57080	E	

* FROM 1:5 DILUTION

0026

22446

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-010DIL
Client ID: S-139B
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Data file: J2446.D

GC/MS Column: DB-624
Sample wt/vol: 0.007g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 16.3

Compound	Concentration	Q	MDL
Chloromethane	ND		4270
Vinyl Chloride	ND		4270
Bromomethane	ND		4270 UJ
Chloroethane	ND		4270 UJ
Trichlorofluoromethane	ND		4270 UJ
Acrolein	~~ND~~ R		~~8530~~
1,1-Dichloroethene	ND		4270
Methylene Chloride	ND		4270
Acrylonitrile	ND		4270
trans-1,2-Dichloroethene	ND		4270
1,1-Dichloroethane	ND		4270
Chloroform	ND		4270
1,1,1-Trichloroethane	ND		4270 UJ
Carbon Tetrachloride	ND		4270 UJ
1,2-Dichloroethane(EDC)	ND		4270 UJ
Benzene	38900		4270
Trichloroethene	ND		4270
1,2-Dichloropropane	ND		4270
Bromodichloromethane	ND		4270
2-Chloroethylvinyl Ether	ND		4270
cis-1,3-Dichloropropene	ND		4270
Toluene	5750		4270
trans-1,3-Dichloropropene	ND		4270
1,1,2-Trichloroethane	ND		4270
Tetrachloroethene	ND		4270
Dibromochloromethane	ND		4270
Chlorobenzene	ND		4270
Ethylbenzene	ND		4270
Total Xylenes	ND		4270
Bromoform	ND		4270 UJ
1,1,2,2-Tetrachloroethane	ND		4270
1,3-Dichlorobenzene	ND		4270
1,4-Dichlorobenzene	ND		4270
1,2-Dichlorobenzene	ND		4270

Total Target Compounds: 44650

0027

7249

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-010
Client ID: S-139B
Date Received: 08/17/2001
Date Analyzed: 08/21/2001
Date File: J2416.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 16.3

CAS #	Compound	Estimated Concentration	Retention Time
000067-64-1	Acetone	1690	3.77
	Unknown aliphatic	1790	11.15
	Unknown cyclic hydrocarbon	7380	13.18
	Unknown	37300	13.31
	Substituted benzene	61100	13.36

Total TICs = 109260

2250

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-003
Client ID: S-133
Date Received: 8/17/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 15.9
Batch #: 202

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Arsenic	1.30		1	1.18	08/21/01	6020
Lead	12.3		1	0.590	08/21/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-004
Client ID: S-134
Date Received: 8/17/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 16.5
Batch #: 202

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Arsenic	2.70		1	1.19	08/21/01	6020
Lead	11.7		1	0.595	08/21/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: ENVTACT/ORBIS - NEWARK

Lab ID: 5690-005
Client ID: S-135
Date Received: 8/17/01
Matrix-Units: Soil mg/Kg (ppm)
% Moisture: 19.7
Batch #: 202

Compound	Result	Q	DF	MDL	Date Analyzed	Method
Arsenic	6.41		1	1.25	08/21/01	6020
Lead	14.5		1	0.625	08/21/01	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METHODOLOGY SUMMARY

Analytical Parameter	Aqueous Samples Method #	Soil/Other Samples Method #
Volatiles + 10	NA	EPA 8260B
Metals	NA	EPA 6020

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J1880.D BFB Injection Date: 07/30/2001

Inst ID: MSD_J BFB Injection Time: 16:10

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	23.4	
75	30.0 - 60.0% of mass 95	43.5	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.2	
173	Less than 2.0% of mass 174	0.4	(0.6)1
174	Great than 50.0% of mass 95	71.2	
175	5.0 - 9.0% of mass 174	5.2	(7.3)1
176	95.0 - 101.0% of mass 174	68.4	(96.0)1
177	5.0 - 9.0% of mass 176	4.9	(7.1)2
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
20PPB	STD-20PPB	J1881.D	07/30/2001	16:38
50PPB	STD-50PPB	J1882.D	07/30/2001	17:06
100PPB	STD-100PPB	J1883.D	07/30/2001	17:33
150PPB	STD-150PPB	J1884.D	07/30/2001	18:01
200PPB	STD-200PPB	J1885.D	07/30/2001	18:28
N/A	METHOD-BLK	J1889.D	07/30/2001	20:18
PCB-1	5136-001	J1890.D	07/30/2001	20:46
PCB-2	5136-002	J1891.D	07/30/2001	21:14
PCE-1	5136-003	J1892.D	07/30/2001	21:41
NAP-3	5136-004	J1893.D	07/30/2001	22:08
MT._HOPE_WC	5043-001	J1894.D	07/30/2001	22:36
CONPILE	5092-008	J1895.D	07/30/2001	23:04
MT._HOPE_WC	5117-001	J1896.D	07/30/2001	23:32
LSTOCK-1	5129-001	J1897.D	07/30/2001	23:59
WC-01	5165-001	J1898.D	07/31/2001	0:27
WC-01	5163-001	J1899.D	07/31/2001	0:54
LCS	BLK-SPK	J1900.D	07/31/2001	1:22
MS	5136-001MS	J1901.D	07/31/2001	1:49
MSD	5136-001MSD	J1902.D	07/31/2001	2:16

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2398.D BFB Injection Date: 08/20/2001

Inst ID: MSD_J BFB Injection Time: 22:39

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.7			
75	30.0 - 60.0% of mass 95	45.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.2	(	7.3	)1
176	95.0 - 101.0% of mass 174	67.2	(	95.2	)1
177	5.0 - 9.0% of mass 176	4.8	(	7.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J2400.D	08/20/2001	23:34
N/A	METHOD-BLK	J2403.D	08/21/2001	0:57
N/A	METHOD-BLK	J2404.D	08/21/2001	1:24
TB-TB-OCCC-0816	5659-001	J2405.D	08/21/2001	1:52
TBTB-NCC-081701	5706-001	J2406.D	08/21/2001	2:19
S-131	5690-001	J2407.D	08/21/2001	2:47
S-132	5690-002	J2408.D	08/21/2001	3:14
S-133	5690-003	J2409.D	08/21/2001	3:41
S-134	5690-004	J2410.D	08/21/2001	4:09
S-135	5690-005	J2411.D	08/21/2001	4:36
S-136	5690-006	J2412.D	08/21/2001	5:04
S-137	5690-007	J2413.D	08/21/2001	5:31
S-138	5690-008	J2414.D	08/21/2001	5:59
S-139A	5690-009	J2415.D	08/21/2001	6:27
S-139B	5690-010	J2416.D	08/21/2001	6:54
LCS	BLK-SPK	J2417.D	08/21/2001	7:22
MS	WATER-MS	J2418.D	08/21/2001	7:50
MSD	WATER-MSD	J2419.D	08/21/2001	8:17
MS	5690-001MS	J2420.D	08/21/2001	8:45
MSD	5690-001MSD	J2421.D	08/21/2001	9:12

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2398.D

BFB Injection Date : 08/20/200

Inst ID: MSD_J

BFB Injection Time: 22:39

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	24.7			
75	30.0 - 60.0% of mass 95	45.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.4			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	Great than 50.0% of mass 95	70.6			
175	5.0 - 9.0% of mass 174	5.2	(	7.3	)1
176	95.0 - 101.0% of mass 174	67.2	(	95.2	)1
177	5.0 - 9.0% of mass 176	4.8	(	7.2	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TB-TB-OCCC-0816	5659-001DUP	J2422.D	08/21/2001	9:40
TBTB-NCC-081701	5706-001DUP	J2423.D	08/21/2001	10:08

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: J2424.D

BFB Injection Date: 08/21/2001

Inst ID: MSD_J

BFB Injection Time: 11:19

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	26.6			
75	30.0 - 60.0% of mass 95	46.2			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.0			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	71.3			
175	5.0 - 9.0% of mass 174	5.1	(	7.1	)1
176	95.0 - 101.0% of mass 174	70.0	(	98.2	)1
177	5.0 - 9.0% of mass 176	5.0	(	7.1	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100PPB	STD-100PPB	J2426.D	08/21/2001	12:14
N/A	METHOD-BLK	J2429.D	08/21/2001	13:36
LCS	BLK-SPK	J2430.D	08/21/2001	14:04
PE-4A	5730-001	J2431.D	08/21/2001	14:31
E-2A	5730-002	J2432.D	08/21/2001	14:59
E-6A	5730-003	J2433.D	08/21/2001	15:27
S-1	5730-004	J2434.D	08/21/2001	15:54
PE-5A	5730-005	J2435.D	08/21/2001	16:22
PE-6A	5730-006	J2436.D	08/21/2001	16:50
E-4A	5730-007	J2437.D	08/21/2001	17:17
S-4	5730-010	J2440.D	08/21/2001	18:40
E-8A	5730-012	J2442.D	08/21/2001	19:36
S-7	5730-014	J2444.D	08/21/2001	20:31
S-139A	5690-009DIL	J2445.D	08/21/2001	20:59
S-139B	5690-010DIL	J2446.D	08/21/2001	21:27
MS	5730-001MS	J2449.D	08/21/2001	22:49
MSD	5730-001MSD	J2450.D	08/21/2001	23:17

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J2404.D

Instrument ID: MSD_J

Date Analyzed: 08/21/2001

Time Analyzed: 01:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TB-TB-OCCC-081601	5659-001	08/21/2001	1:52
TBTB-NCC-081701	5706-001	08/21/2001	2:19
S-131	5690-001	08/21/2001	2:47
S-132	5690-002	08/21/2001	3:14
S-133	5690-003	08/21/2001	3:41
S-134	5690-004	08/21/2001	4:09
S-135	5690-005	08/21/2001	4:36
S-136	5690-006	08/21/2001	5:04
S-137	5690-007	08/21/2001	5:31
S-138	5690-008	08/21/2001	5:59
S-139A	5690-009	08/21/2001	6:27
S-139B	5690-010	08/21/2001	6:54
LCS	BLK-SPK	08/21/2001	7:22
MS	WATER-MS	08/21/2001	7:50
MSD	WATER-MSD	08/21/2001	8:17
MS	5690-001MS	08/21/2001	8:45
MSD	5690-001MSD	08/21/2001	9:12
TB-TB-OCCC-081	5659-001DUP	08/21/2001	9:40
TBTB-NCC-08170	5706-001DUP	08/21/2001	10:08

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 08/21/2001
Data file: J2403.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

0038

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 08/21/2001
Data file: J2403.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

2.7G-1

VOLATILE METHOD BLANK SUMMARY

Lab File ID: J2429.D

Instrument ID: MSD_J

Date Analyzed: 08/21/2001

Time Analyzed: 13:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
LCS	BLK-SPK	08/21/2001	14:04
PE-4A	5730-001	08/21/2001	14:31
E-2A	5730-002	08/21/2001	14:59
E-6A	5730-003	08/21/2001	15:27
S-1	5730-004	08/21/2001	15:54
PE-5A	5730-005	08/21/2001	16:22
PE-6A	5730-006	08/21/2001	16:50
E-4A	5730-007	08/21/2001	17:17
S-4	5730-010	08/21/2001	18:40
E-8A	5730-012	08/21/2001	19:36
S-7	5730-014	08/21/2001	20:31
S-139A	5690-009DIL	08/21/2001	20:59
S-139B	5690-010DIL	08/21/2001	21:27
MS	5730-001MS	08/21/2001	22:49
MSD	5730-001MSD	08/21/2001	23:17

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 08/21/2001
Data file: J2429.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		250
Vinyl Chloride	ND		250
Bromomethane	ND		250
Chloroethane	ND		250
Trichlorofluoromethane	ND		250
Acrolein	ND		500
1,1-Dichloroethene	ND		250
Methylene Chloride	ND		250
Acrylonitrile	ND		250
trans-1,2-Dichloroethene	ND		250
1,1-Dichloroethane	ND		250
Chloroform	ND		250
1,1,1-Trichloroethane	ND		250
Carbon Tetrachloride	ND		250
1,2-Dichloroethane(EDC)	ND		250
Benzene	ND		250
Trichloroethene	ND		250
1,2-Dichloropropane	ND		250
Bromodichloromethane	ND		250
2-Chloroethylvinyl Ether	ND		250
cis-1,3-Dichloropropene	ND		250
Toluene	ND		250
trans-1,3-Dichloropropene	ND		250
1,1,2-Trichloroethane	ND		250
Tetrachloroethene	ND		250
Dibromochloromethane	ND		250
Chlorobenzene	ND		250
Ethylbenzene	ND		250
Total Xylenes	ND		250
Bromoform	ND		250
1,1,2,2-Tetrachloroethane	ND		250
1,3-Dichlorobenzene	ND		250
1,4-Dichlorobenzene	ND		250
1,2-Dichlorobenzene	ND		250

Total Target Compounds: 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Client/Project:

Lab ID: METHOD-BLK
Client ID: N/A
Date Received:
Date Analyzed: 08/21/2001
Data file: J2429.D

GC/MS Column: DB-624
Sample wt/vol: 0.1g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 50
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

0042

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Response Factor Report MSD_J

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration

Calibration Files
20 =J1881.D 100 =J1883.D 50 =J1882.D
150 =J1884.D 200 =J1885.D

		Compound	20	100	50	150	200	Avg	%RSD
1)	I	Pentafluorobenzene	ISTD						
2)	T	Dichlorodifluoromet	0.240	0.287	0.285	0.257	0.239	0.262	8.99
3)	P	Chloromethane	1.044	1.029	1.038	0.985	0.917	1.002	5.31
4)	C	Vinyl Chloride	0.894	0.945	0.985	0.879	0.833	0.907	6.49
5)	T	Bromomethane	0.558	0.496	0.573	0.385	0.253	0.453	29.62
6)	T	Chloroethane	0.547	0.565	0.598	0.499	0.394	0.521	15.22
7)	T	Trichlorofluorometh	0.448	0.611	0.579	0.625	0.614	0.575	12.74
8)	T	Acrolein	0.036	0.039	0.040	0.040	0.036	0.038	4.74
9)	MC	1,1-Dichloroethene	0.723	0.733	0.747	0.693	0.680	0.715	3.90
10)	T	Acetone	0.249	0.241	0.250	0.239	0.221	0.240	4.83
11)	T	Carbon Disulfide	1.984	2.090	2.146	1.987	1.889	2.019	4.97
12)	T	Vinyl Acetate	2.105	2.151	2.207	2.116	2.063	2.128	2.54
13)	T	Methylene Chloride	0.768	0.771	0.815	0.704	0.718	0.755	5.93
14)	T	Acrylonitrile	0.181	0.200	0.195	0.204	0.196	0.195	4.38
15)	T	t-Butyl Alcohol(TBA	0.057	0.059	0.061	0.062	0.058	0.059	3.00
16)	T	trans-1,2-Dichloroe	0.439	0.469	0.473	0.456	0.451	0.458	2.96
17)	T	Methyl-t-Butyl Ethe	1.261	1.312	1.306	1.311	1.306	1.299	1.66
18)	P	1,1-Dichloroethane	0.915	0.933	0.957	0.906	0.890	0.920	2.81
19)	T	Diisopropyl Ether(D	2.155	2.231	2.272	2.207	2.181	2.209	2.04
20)	T	cis-1,2-Dichloroeth	0.503	0.528	0.543	0.514	0.507	0.519	3.18
21)	T	2,2-Dichloropropane	0.311	0.335	0.350	0.319	0.318	0.327	4.87
22)	T	2-Butanone(MEK)	0.299	0.301	0.304	0.310	0.296	0.302	1.75
23)	T	Bromochloromethane	0.247	0.243	0.250	0.242	0.237	0.244	1.98
25)	C	Chloroform	0.738	0.765	0.777	0.757	0.742	0.756	2.16
26)	T	1,1,1-Trichloroetha	0.432	0.490	0.500	0.472	0.490	0.477	5.67
27)	T	Carbon Tetrachlorid	0.305	0.409	0.395	0.411	0.437	0.391	12.97
28)	T	1,1-Dichloropropene	0.500	0.551	0.568	0.547	0.538	0.541	4.72
29)	T	1,2-Dichloroethane(	0.664	0.690	0.696	0.703	0.700	0.691	2.26
30)	S	1,2-Dichloroethane-	0.588	0.566	0.566	0.569	0.562	0.570	1.77
31)	I	1,4-Difluorobenzene	ISTD						
32)	M	Benzene	1.334	1.276	1.299	1.284	1.282	1.295	1.81
33)	M	Trichloroethene	0.290	0.290	0.290	0.290	0.293	0.290	0.43
34)	C	1,2-Dichloropropane	0.361	0.376	0.381	0.377	0.376	0.374	2.03
35)	T	Dibromomethane	0.165	0.174	0.175	0.177	0.176	0.173	2.73
37)	T	Bromodichloromethan	0.305	0.352	0.340	0.360	0.366	0.345	7.08
38)	T	2-Chloroethylvinyl	0.235	0.251	0.252	0.256	0.253	0.250	3.28
39)	T	cis-1,3-Dichloropro	0.464	0.509	0.507	0.516	0.518	0.503	4.46
40)	T	4-Methyl-2-pentanon	0.375	0.396	0.395	0.415	0.408	0.398	3.83
41)	S	Toluene-d8	1.035	1.040	1.028	1.045	1.047	1.039	0.74
42)	MC	Toluene	0.811	0.792	0.801	0.804	0.819	0.805	1.26
43)	T	trans-1,3-Dichlorop	0.400	0.450	0.442	0.464	0.470	0.445	6.18
44)	T	1,1,2-Trichloroetha	0.228	0.234	0.238	0.239	0.234	0.234	1.81
45)	T	Tetrachloroethene	0.202	0.238	0.236	0.247	0.255	0.235	8.49
46)	T	1,3-Dichloropropane	0.484	0.512	0.507	0.530	0.532	0.513	3.77
47)	T	2-Hexanone	0.256	0.271	0.270	0.286	0.280	0.273	4.26
48)	T	Dibromochloromethan	0.208	0.264	0.247	0.282	0.290	0.258	12.60
49)	T	1,2-Dibromoethane(E	0.259	0.275	0.273	0.281	0.280	0.274	3.17

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			ISTD						
50)	I	Chlorobenzene-d5							
51)	MP	Chlorobenzene	1.074	1.032	1.046	1.050	1.053	1.051	1.44
52)	T	1,1,1,2-Tetrachloro	0.262	0.313	0.301	0.326	0.334	0.307	9.19
53)	C	Ethylbenzene	1.487	1.643	1.651	1.694	1.706	1.636	5.36
54)	T	m,p-Xylene	0.596	0.688	0.670	0.721	0.750	0.685	8.54
55)	T	o-Xylene	0.611	0.708	0.683	0.753	0.779	0.707	9.23
56)	T	Styrene	1.098	1.275	1.232	1.356	1.408	1.274	9.40
57)	P	Bromoform	0.121	0.169	0.152	0.187	0.195	0.165	18.02
58)	T	Isopropylbenzene	1.167	1.339	1.321	1.427	1.472	1.345	8.74
59)	S	Bromofluorobenzene	0.581	0.598	0.582	0.621	0.631	0.603	3.73
60)	P	1,1,2,2-Tetrachloro	0.395	0.411	0.411	0.438	0.435	0.418	4.32
61)	T	Bromobenzene	0.358	0.397	0.389	0.422	0.438	0.401	7.70
62)	T	1,2,3-Trichloroprop	0.349	0.366	0.362	0.387	0.384	0.369	4.34
63)	T	n-Propylbenzene	1.426	1.617	1.601	1.724	1.778	1.629	8.31
64)	T	2-Chlorotoluene	0.975	1.101	1.077	1.167	1.204	1.105	8.03
65)	T	1,3,5-Trimethylbenz	0.990	1.182	1.113	1.310	1.370	1.193	12.76
66)	T	4-Chlorotoluene	1.154	1.309	1.265	1.411	1.471	1.322	9.41
67)	T	tert-Butylbenzene	0.746	0.904	0.846	1.000	1.033	0.906	12.82
68)	T	1,2,4-Trimethylbenz	1.081	1.286	1.225	1.410	1.459	1.292	11.66
69)	T	sec-Butylbenzene	0.988	1.220	1.149	1.330	1.360	1.209	12.40
70)	T	1,3-Dichlorobenzene	0.625	0.720	0.688	0.780	0.807	0.724	10.03
71)	T	4-Isopropyltoluene	0.875	1.102	1.025	1.200	1.229	1.086	13.20
72)	T	1,4-Dichlorobenzene	0.658	0.745	0.710	0.805	0.831	0.750	9.37
73)	T	n-Butylbenzene	0.440	0.564	0.530	0.599	0.601	0.547	12.19
74)	T	1,2-Dichlorobenzene	0.635	0.726	0.685	0.789	0.799	0.727	9.53
75)	T	1,2-Dibromo-3-chlor	0.037	0.048	0.044	0.053	0.051	0.047	13.40
76)	T	1,2,4-Trichlorobenz	0.196	0.223	0.216	0.242	0.245	0.224	8.83
77)	T	Hexachlorobutadiene	0.085	0.102	0.097	0.106	0.107	0.099	9.16
78)	T	Naphthalene	0.486	0.599	0.554	0.662	0.665	0.593	12.78
79)	T	1,2,3-Trichlorobenz	0.107	0.129	0.121	0.147	0.149	0.131	13.70
80)	T	1,1,2-Trichloro-1,2	0.326	0.395	0.423	0.339	0.378	0.372	10.71
81)	T	Methyl acetate	0.453	0.448	0.465	0.451	0.426	0.449	3.16
82)	T	Cyclohexane	0.571	0.650	0.687	0.595	0.609	0.622	7.40
83)	T	Methyl cyclohexane	0.244	0.295	0.304	0.280	0.285	0.282	8.08

(#) = Out of Range

JME0730.M Tue Jul 31 09:21:14 2001 MSD_J

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Instrument ID: MSD_J
Method ID: JME0730.M
Date: 07/31/2001

Average %RSD = 7.09

Refer to SW846 Method 8000B Section 7.5.1.

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2400.D
Acq On : 20 Aug 2001 23:34
Sample : 100PPB,STD-100PPB,W,5ml,100
Misc : BARCO/A._SMITH,8/6/01,8/6/01,1
IS Integration Params: LSCINT.P

Vial: 30
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	76	0.01
2	T	Dichlorodifluoromethane	0.262	0.170	35.1	45	0.00
3	P	Chloromethane	1.002	0.872	13.0	65	0.00
4	C	Vinyl Chloride	0.907	0.775	14.6	63	0.00
5	T	Bromomethane	0.453	0.517	-14.1	80	0.00
6	T	Chloroethane	0.521	0.544	-4.4	74	-0.01
7	T	Trichlorofluoromethane	0.575	0.609	-5.9	76	-0.01
8	T	Acrolein	0.038	0.041	-7.9	79	0.00
9	MC	1,1-Dichloroethene	0.715	0.645	9.8	67	-0.01
10	T	Acetone	0.240	0.290	-20.8	92	0.00
11	T	Carbon Disulfide	2.019	1.859	7.9	68	0.00
12	T	Vinyl Acetate	2.128	2.109	0.9	75	0.02
13	T	Methylene Chloride	0.755	0.752	0.4	75	-0.01
14	T	Acrylonitrile	0.195	0.235	-20.5	90	0.00
15	T	t-Butyl Alcohol(TBA)	0.059	0.065	-10.2	85	0.00
16	T	trans-1,2-Dichloroethene	0.458	0.529	-15.5	86	0.00
17	T	Methyl-t-Butyl Ether(MTBE)	1.299	1.514	-16.6	88	0.00
18	P	1,1-Dichloroethane	0.920	1.056	-14.8	86	0.00
19	T	Diisopropyl Ether(DIPE)	2.209	2.611	-18.2	89	0.00
20	T	cis-1,2-Dichloroethene	0.519	0.614	-18.3	89	0.00
21	T	2,2-Dichloropropane	0.327	0.294	10.1	67	0.00
22	T	2-Butanone(MEK)	0.302	0.359	-18.9	91	-0.01
23	T	Bromochloromethane	0.244	0.299	-22.5	94	0.00
25	C	Chloroform	0.756	0.906	-19.8	91	0.00
26	T	1,1,1-Trichloroethane	0.477	0.569	-19.3	89	0.00
27	T	Carbon Tetrachloride	0.391	0.437	-11.8	82	0.00
28	T	1,1-Dichloropropene	0.541	0.621	-14.8	86	0.01
29	T	1,2-Dichloroethane(EDC)	0.691	0.809	-17.1	90	0.00
30	S	1,2-Dichloroethane-d4	0.570	0.634	-11.2	86	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
32	M	Benzene	1.295	1.246	3.8	90	0.01
33	M	Trichloroethene	0.290	0.298	-2.8	94	0.00
34	C	1,2-Dichloropropane	0.374	0.362	3.2	88	0.00
35	T	Dibromomethane	0.173	0.171	1.2	90	0.00
37	T	Bromodichloromethane	0.345	0.343	0.6	89	0.00
38	T	2-Chloroethylvinyl Ether	0.250	0.240	4.0	88	0.00
39	T	cis-1,3-Dichloropropene	0.503	0.471	6.4	85	0.00
40	T	4-Methyl-2-pentanone(MIBK)	0.398	0.402	-1.0	93	0.00
41	S	Toluene-d8	1.039	1.039	0.0	92	0.01
42	MC	Toluene	0.805	0.787	2.2	91	0.00
43	T	trans-1,3-Dichloropropene	0.445	0.419	5.8	85	0.00
44	T	1,1,2-Trichloroethane	0.234	0.235	-0.4	92	0.00
45	T	Tetrachloroethene	0.235	0.237	-0.9	92	0.01
46	T	1,3-Dichloropropane	0.513	0.501	2.3	90	0.00

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47	T	2-Hexanone	0.273	0.273	0.0	92	0.00
48	T	Dibromochloromethane	0.258	0.256	0.8	89	0.00
49	T	1,2-Dibromoethane(EDB)	0.274	0.271	1.1	90	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.01
51	MP	Chlorobenzene	1.051	0.960	8.7	93	0.00
52	T	1,1,1,2-Tetrachloroethane	0.307	0.283	7.8	91	0.00
53	C	Ethylbenzene	1.636	1.472	10.0	90	0.00
54	T	m,p-Xylene	0.685	0.609	11.1	89	0.00
55	T	o-Xylene	0.707	0.632	10.6	89	0.00
56	T	Styrene	1.274	1.133	11.1	89	0.00
57	P	Bromoform	0.165	0.148	10.3	88	0.00
58	T	Isopropylbenzene	1.345	1.205	10.4	90	0.01
59	S	Bromofluorobenzene	0.603	0.519	13.9	87	0.00
60	P	1,1,2,2-Tetrachloroethane	0.418	0.351	16.0	85	0.00
61	T	Bromobenzene	0.401	0.373	7.0	94	0.00
62	T	1,2,3-Trichloropropane	0.369	0.327	11.4	90	0.00
63	T	n-Propylbenzene	1.629	1.445	11.3	89	0.00
64	T	2-Chlorotoluene	1.105	0.974	11.9	88	0.00
65	T	1,3,5-Trimethylbenzene	1.193	1.040	12.8	88	0.00
66	T	4-Chlorotoluene	1.322	1.163	12.0	89	0.00
67	T	tert-Butylbenzene	0.906	0.802	11.5	89	0.00
68	T	1,2,4-Trimethylbenzene	1.292	1.138	11.9	89	0.01
69	T	sec-Butylbenzene	1.209	1.075	11.1	88	0.01
70	T	1,3-Dichlorobenzene	0.724	0.662	8.6	92	0.00
71	T	4-Isopropyltoluene	1.086	0.978	9.9	89	0.00
72	T	1,4-Dichlorobenzene	0.750	0.688	8.3	92	0.00
73	T	n-Butylbenzene	0.547	0.494	9.7	88	0.00
74	T	1,2-Dichlorobenzene	0.727	0.675	7.2	93	0.00
75	T	1,2-Dibromo-3-chloropropane	0.047	0.040	14.9	84	0.00
76	T	1,2,4-Trichlorobenzene	0.224	0.194	13.4	87	0.00
77	T	Hexachlorobutadiene	0.099	0.092	7.1	90	0.00
78	T	Naphthalene	0.593	0.518	12.6	87	0.00
79	T	1,2,3-Trichlorobenzene	0.131	0.116	11.5	90	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.372	0.266	28.5	67	-0.01
81	T	Methyl acetate	0.449	0.360	19.8	80	0.00
82	T	Cyclohexane	0.622	0.456	26.7	70	0.00
83	T	Methyl cyclohexane	0.282	0.220	22.0	75	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

J0126.D JME0730.M Tue Aug 21 09:04:42 2001 MSD_J

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2426.D
Acq On : 21 Aug 2001 12:14
Sample : 100PPB,STD-100PPB,W,5ml,100
Misc :
IS Integration Params: LSCINT.P

Vial: 3
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 35% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	59	0.00
2	T	Dichlorodifluoromethane	0.262	0.210	19.8	43	0.00
3	P	Chloromethane	1.002	0.897	10.5	52	0.00
4	C	Vinyl Chloride	0.907	0.803	11.5	50	0.00
5	T	Bromomethane	0.453	0.528	-16.6	63	0.00
6	T	Chloroethane	0.521	0.548	-5.2	57	0.00
7	T	Trichlorofluoromethane	0.575	0.695	-20.9	67	0.00
8	T	Acrolein	0.038	0.041	-7.9	62	0.00
9	MC	1,1-Dichloroethene	0.715	0.647	9.5	52	0.00
10	T	Acetone	0.240	0.295	-22.9	73	0.00
11	T	Carbon Disulfide	2.019	1.816	10.1	51	0.00
12	T	Vinyl Acetate	2.128	2.663	-25.1	73	0.00
13	T	Methylene Chloride	0.755	0.740	2.0	57	0.00
14	T	Acrylonitrile	0.195	0.220	-12.8	65	0.00
15	T	t-Butyl Alcohol(TBA)	0.059	0.064	-8.5	65	0.00
16	T	trans-1,2-Dichloroethene	0.458	0.515	-12.4	65	0.00
17	T	Methyl-t-Butyl Ether(MTBE)	1.299	1.516	-16.7	68	0.00
18	P	1,1-Dichloroethane	0.920	1.062	-15.4	67	0.00
19	T	Diisopropyl Ether(DIPE)	2.209	2.718	-23.0	72	0.00
20	T	cis-1,2-Dichloroethene	0.519	0.618	-19.1	69	0.00
21	T	2,2-Dichloropropane	0.327	0.397	-21.4	70	0.00
22	T	2-Butanone(MEK)	0.302	0.367	-21.5	72	0.00
23	T	Bromochloromethane	0.244	0.293	-20.1	71	0.00
25	C	Chloroform	0.756	0.893	-18.1	69	0.00
26	T	1,1,1-Trichloroethane	0.477	0.588	-23.3	71	0.00
27	T	Carbon Tetrachloride	0.391	0.481	-23.0	70	0.00
28	T	1,1-Dichloropropene	0.541	0.657	-21.4	71	0.00
29	T	1,2-Dichloroethane(EDC)	0.691	0.857	-24.0	74	0.00
30	S	1,2-Dichloroethane-d4	0.570	0.649	-13.9	68	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	71	0.00
32	M	Benzene	1.295	1.261	2.6	70	0.00
33	M	Trichloroethene	0.290	0.285	1.7	70	0.00
34	C	1,2-Dichloropropane	0.374	0.375	-0.3	71	0.00
35	T	Dibromomethane	0.173	0.178	-2.9	73	0.00
37	T	Bromodichloromethane	0.345	0.364	-5.5	74	0.00
38	T	2-Chloroethylvinyl Ether	0.250	0.251	-0.4	71	0.00
39	T	cis-1,3-Dichloropropene	0.503	0.518	-3.0	72	0.00
40	T	4-Methyl-2-pentanone(MIBK)	0.398	0.415	-4.3	74	0.00
41	S	Toluene-d8	1.039	1.055	-1.5	72	0.01
42	MC	Toluene	0.805	0.802	0.4	72	0.00
43	T	trans-1,3-Dichloropropene	0.445	0.465	-4.5	73	0.00
44	T	1,1,2-Trichloroethane	0.234	0.244	-4.3	74	0.00
45	T	Tetrachloroethene	0.235	0.247	-5.1	74	0.01
46	T	1,3-Dichloropropane	0.513	0.530	-3.3	74	0.00

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47	T	2-Hexanone	0.273	0.284	-4.0	74	0.00
48	T	Dibromochloromethane	0.258	0.275	-6.6	74	0.00
49	T	1,2-Dibromoethane(EDB)	0.274	0.280	-2.2	72	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
51	MP	Chlorobenzene	1.051	0.950	9.6	73	0.00
52	T	1,1,1,2-Tetrachloroethane	0.307	0.290	5.5	74	0.00
53	C	Ethylbenzene	1.636	1.507	7.9	73	0.00
54	T	m,p-Xylene	0.685	0.614	10.4	71	0.00
55	T	o-Xylene	0.707	0.638	9.8	72	0.00
56	T	Styrene	1.274	1.155	9.3	72	0.00
57	P	Bromoform	0.165	0.157	4.8	74	0.00
58	T	Isopropylbenzene	1.345	1.244	7.5	74	0.01
59	S	Bromofluorobenzene	0.603	0.531	11.9	71	0.00
60	P	1,1,2,2-Tetrachloroethane	0.418	0.383	8.4	74	0.00
61	T	Bromobenzene	0.401	0.378	5.7	76	0.00
62	T	1,2,3-Trichloropropane	0.369	0.337	8.7	73	0.00
63	T	n-Propylbenzene	1.629	1.519	6.8	75	0.00
64	T	2-Chlorotoluene	1.105	1.017	8.0	74	0.00
65	T	1,3,5-Trimethylbenzene	1.193	1.082	9.3	73	0.00
66	T	4-Chlorotoluene	1.322	1.209	8.5	74	0.00
67	T	tert-Butylbenzene	0.906	0.845	6.7	75	0.00
68	T	1,2,4-Trimethylbenzene	1.292	1.191	7.8	74	0.01
69	T	sec-Butylbenzene	1.209	1.174	2.9	77	0.01
70	T	1,3-Dichlorobenzene	0.724	0.684	5.5	76	0.00
71	T	4-Isopropyltoluene	1.086	1.064	2.0	77	0.00
72	T	1,4-Dichlorobenzene	0.750	0.709	5.5	76	0.00
73	T	n-Butylbenzene	0.547	0.541	1.1	76	0.00
74	T	1,2-Dichlorobenzene	0.727	0.687	5.5	75	0.00
75	T	1,2-Dibromo-3-chloropropane	0.047	0.041	12.8	68	0.00
76	T	1,2,4-Trichlorobenzene	0.224	0.198	11.6	71	0.00
77	T	Hexachlorobutadiene	0.099	0.100	-1.0	78	0.00
78	T	Naphthalene	0.593	0.523	11.8	70	0.00
79	T	1,2,3-Trichlorobenzene	0.131	0.121	7.6	75	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.372	0.275	26.1	56	0.00
81	T	Methyl acetate	0.449	0.363	19.2	65	0.00
82	T	Cyclohexane	0.622	0.505	18.8	62	0.00
83	T	Methyl cyclohexane	0.282	0.250	11.3	68	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

J0126.D JME0730.M Tue Aug 21 12:53:29 2001 MSD_J

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VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/21/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	AQUEOUS	J2404.D	120	100	83
5659-001	AQUEOUS	J2405.D	118	99	83
5706-001	AQUEOUS	J2406.D	122	98	82
5690-001	MEOH	J2407.D	99	87	73
5690-002	MEOH	J2408.D	94	81	68
5690-003	MEOH	J2409.D	100	87	73
5690-004	MEOH	J2410.D	97	86	73
5690-005	MEOH	J2411.D	100	85	70
5690-006	MEOH	J2412.D	104	88	74
5690-007	MEOH	J2413.D	101	86	73
5690-008	MEOH	J2414.D	104	86	73
5690-009	MEOH	J2415.D	103	86	82
5690-010	MEOH	J2416.D	95	83	72
BLK-SPK	MEOH	J2417.D	124	100	83
WATER-MS	AQUEOUS	J2418.D	124	100	82
WATER-MSD	AQUEOUS	J2419.D	125	100	82
5690-001MS	MEOH	J2420.D	126	101	82
5690-001MSD	MEOH	J2421.D	126	100	82
5659-001DUP	AQUEOUS	J2422.D	128	100	83
5706-001DUP	AQUEOUS	J2423.D	127	100	82

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	57-130	43-133
SMC2 = Toluene-d8	50 ppb	27-142	39-137
SMC3 = Bromofluorobenzene	50 ppb	23-127	23-145

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 08/21/2001

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
METHOD-BLK	SOIL	J2429.D	124	102	82
BLK-SPK	MEOH	J2430.D	126	101	81
5730-001	MEOH	J2431.D	92	79	71
5730-002	MEOH	J2432.D	94	75	63
5730-003	MEOH	J2433.D	87	75	63
5730-004	MEOH	J2434.D	86	75	68
5730-005	MEOH	J2435.D	94	77	66
5730-006	MEOH	J2436.D	99	81	71
5730-007	MEOH	J2437.D	98	82	68
5730-010	MEOH	J2440.D	84	108	93
5730-012	MEOH	J2442.D	88	89	79
5730-014	MEOH	J2444.D	90	89	78
5690-009DIL	MEOH	J2445.D	80	80	80
5690-010DIL	MEOH	J2446.D	85	75	70
5730-001MS	MEOH	J2449.D	105	99	85
5730-001MSD	MEOH	J2450.D	105	96	83

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	57-130	43-133
SMC2 = Toluene-d8	50 ppb	27-142	39-137
SMC3 = Bromofluorobenzene	50 ppb	23-127	23-145

Column to be used to flag recovery values

MEOH VOLATILE MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

WRONG SAMPLE

Matrix spike Lab sample ID: 5730-007

Batch No.: JM0198

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	40.7	81	56 - 120
Benzene	50.0	0.0	41.7	83	64 - 126
Trichloroethene	50.0	0.0	40.7	81	66 - 120
Toluene	50.0	0.0	41.9	84	65 - 122
Chlorobenzene	50.0	0.0	39.8	80	68 - 120

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	0.0	41.1	82	1	11	56 - 120
Benzene	0.0	42.0	84	1	10	64 - 126
Trichloroethene	0.0	40.9	82	1	9	66 - 120
Toluene	0.0	42.0	84	0	9	65 - 122
Chlorobenzene	0.0	40.4	81	1	9	68 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __5__ outside limits

Spike Recovery: __0___ out of __10__ outside limits

0052

7774

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J1883.D

Date Analyzed: 07/30/2001

Instrument ID: MSD_J

Time Analyzed: 17:33

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	296055	6.39	484019	7.22	411574	10.57
	UPPER LIMIT	592110	6.89	968038	7.72	823148	11.07
	LOWER LIMIT	148027.5	5.89	242009.5	6.72	205787	10.07
	LAB SAMPLE ID						
01	STD-20PPB	296396	6.39	499657	7.22	423988	10.58
02	STD-50PPB	304034	6.39	504705	7.22	424163	10.57
03	STD-150PPB	302724	6.39	484589	7.22	419863	10.57
04	STD-200PPB	309212	6.39	488756	7.22	430297	10.58
05	METHOD-BLK	273688	6.39	463093	7.22	389834	10.57
06	5136-001	280498	6.39	466915	7.22	391785	10.57
07	5136-002	281999	6.39	476047	7.22	396097	10.58
08	5136-003	282736	6.39	475122	7.22	399271	10.57
09	5136-004	281418	6.39	473849	7.22	402207	10.58
10	5043-001	297485	6.39	496519	7.22	424667	10.57
11	5092-008	363553	6.39	602535	7.22	515486	10.58
12	5117-001	405587	6.39	659414	7.22	558985	10.57
13	5129-001	421172	6.39	685832	7.22	573878	10.58
14	5165-001	430977	6.39	699101	7.22	586695	10.57
15	5163-001	430410	6.39	701195	7.22	621337	10.57
16	BLK-SPK	431781	6.39	730862	7.22	613297	10.57
17	5136-001MS	436745	6.39	710237	7.22	594809	10.58
18	5136-001MSD	433558	6.39	706623	7.22	595467	10.57
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J2400.D

Date Analyzed: 08/20/2001

Instrument ID: MSD_J

Time Analyzed: 23:34

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	226163	6.40	443874	7.22	411814	10.59
	UPPER LIMIT	452326	6.90	887748	7.72	823628	11.09
	LOWER LIMIT	113081.5	5.90	221937	6.72	205907	10.09
	LAB SAMPLE ID						
01	METHOD-BLK	204980	6.39	419479	7.22	382387	10.58
02	METHOD-BLK	198214	6.40	408269	7.22	378267	10.59
03	5659-001	192959	6.40	398010	7.22	362595	10.59
04	5706-001	185591	6.40	388007	7.22	353821	10.59
05	5690-001	172601	6.39	345125	7.22	325804	10.58
06	5690-002	181388	6.39	364503	7.22	347234	10.58
07	5690-003	173901	6.39	346450	7.22	329997	10.58
08	5690-004	174145	6.39	350740	7.22	333182	10.58
09	5690-005	169509	6.39	344160	7.22	326185	10.58
10	5690-006	167801	6.39	337520	7.22	323994	10.58
11	5690-007	168866	6.39	343314	7.22	326258	10.58
12	5690-008	165620	6.39	338068	7.22	322367	10.58
13	5690-009	167955	6.39	360851	7.22	362221	10.58
14	5690-010	189811	6.39	388353	7.22	366170	10.58
15	BLK-SPK	191925	6.40	415249	7.22	383967	10.59
16	WATER-MS	184013	6.40	396903	7.22	367738	10.59
17	WATER-MSD	179296	6.40	384608	7.22	355188	10.58
18	5690-001MS	173257	6.40	369865	7.22	343194	10.59
19	5690-001MSD	168358	6.40	361167	7.22	334671	10.59
20	5659-001DUP	164320	6.40	350518	7.22	323885	10.57
21	5706-001DUP	159429	6.40	340084	7.22	316834	10.59
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): J2426.D

Date Analyzed: 08/21/2001

Instrument ID: MSD_J

Time Analyzed: 12:14

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	175481	6.39	343559	7.22	328267	10.58
	UPPER LIMIT	350962	6.89	687118	7.72	656534	11.08
	LOWER LIMIT	87740.5	5.89	171779.5	6.72	164133.5	10.08
	LAB SAMPLE ID						
01	METHOD-BLK	158905	6.39	329535	7.22	305241	10.58
02	BLK-SPK	155038	6.40	326152	7.22	310577	10.58
03	5730-001	152528	6.39	303390	7.22	284768	10.58
04	5730-002	149577	6.39	300748	7.22	284051	10.58
05	5730-003	157838	6.39	313932	7.22	297654	10.58
06	5730-004	153641	6.39	310144	7.22	293771	10.58
07	5730-005	151967	6.39	309916	7.22	287320	10.58
08	5730-006	144654	6.39	294543	7.22	278487	10.58
09	5730-007	142708	6.39	292294	7.22	277284	10.58
10	5730-010	312938	6.39	574514	7.22	565055	10.58
11	5730-012	321667	6.39	607351	7.22	571623	10.58
12	5730-014	313420	6.39	595411	7.22	554966	10.58
13	5690-009DIL	312932	6.39	600709	7.22	559584	10.58
14	5690-010DIL	314489	6.39	604861	7.22	562273	10.58
15	5730-001MS	347144	6.39	680220	7.22	630847	10.58
16	5730-001MSD	333619	6.39	669134	7.22	610409	10.58
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE METHANOL PRESERVATION CONTAINER SUMMARY

Sample ID	Client ID	Bottle ID	Date Prepared	Inital Wgt.(g)	Final Wgt.(g)	Sample Wgt.(g)	MeOH Lot #	Surrogate Lot #
5690-001	S-131	109283	8/15/01	108.1	116.5	8.4	cc226	ls200
5690-002	S-132	109298	8/15/01	108.2	118.5	10.3	cc226	ls200
5690-003	S-133	109297	8/15/01	108.4	116.7	8.3	cc226	ls200
5690-004	S-134	109292	8/15/01	108.0	116.7	8.7	cc226	ls200
5690-005	S-135	109291	8/15/01	108.7	118.7	10.0	cc226	ls200
5690-006	S-136	109286	8/15/01	108.2	118.3	10.1	cc226	ls200
5690-007	S-137	109290	8/15/01	108.3	117.2	8.9	cc226	ls200
5690-008	S-138	109296	8/15/01	108.3	117.5	9.2	cc226	ls200
5690-009	S-139A	109295	8/15/01	108.3	119.6	11.4	cc226	ls200
5690-010	S-139B	109285	8/15/01	108.1	113.2	5.0 *	cc226	ls200

Limits : Sample Weight = 8 to 12 grams, * = Outside limits

Comments : 010 — Low weight. 100 weight on bag.
As per Chris N., 010 - 9.1 g 5/21/01

Sample weight is reported on a wet weight basis

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2407.D Vial: 37
Acq On : 21 Aug 2001 2:47 Operator: XINGFANG WANG
Sample : S-131,5690-001,M,0.034g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P
Quant Time: Aug 21 03:07:05 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	172601	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	345125	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	325804	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	97866	49.74	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.48%			
41) Toluene-d8	8.89	98	311371	43.41	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 86.82%			
59) Bromofluorobenzene	11.98	95	143712	36.59	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.18%			

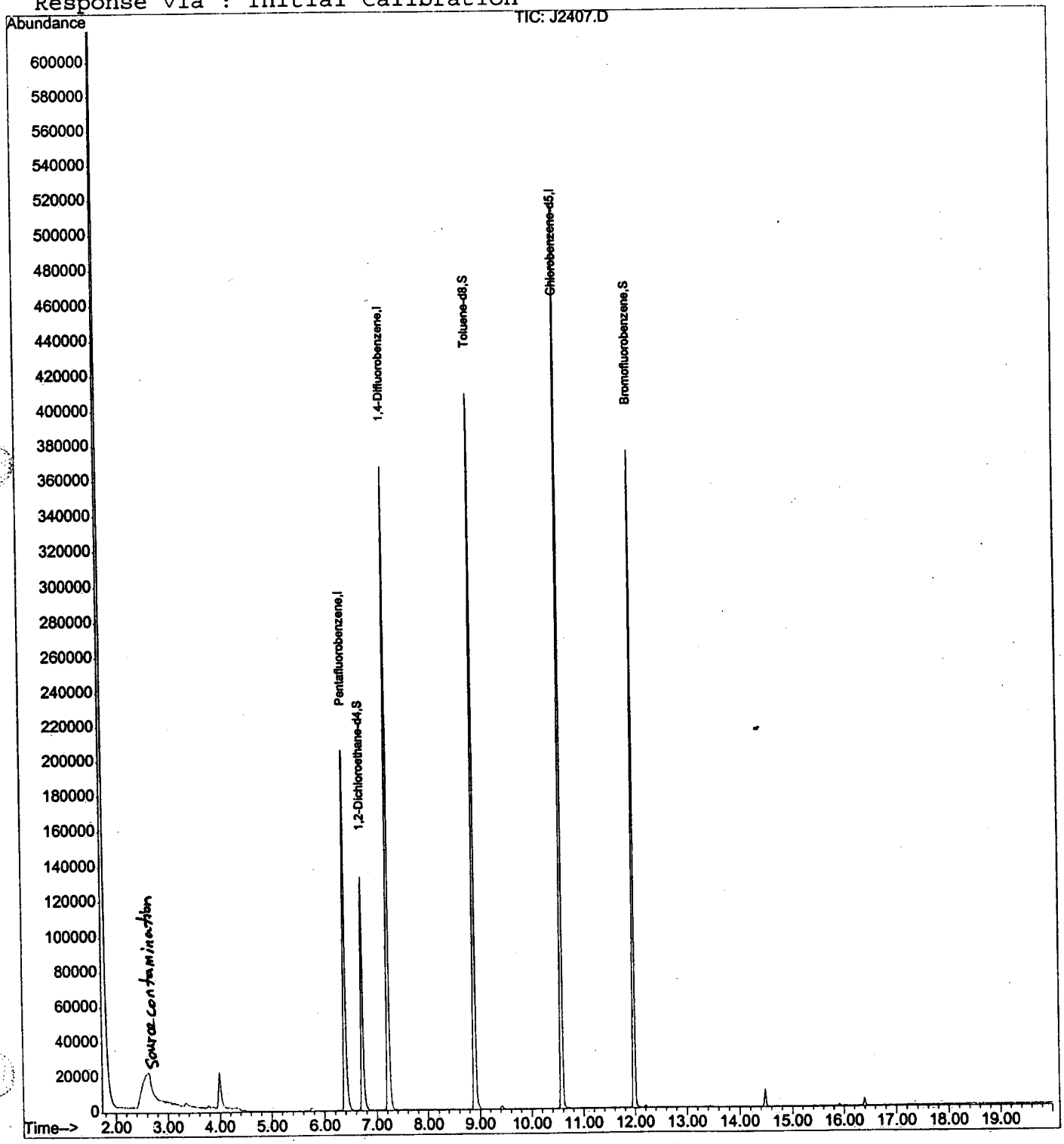
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2407.D Vial: 37
Acq On : 21 Aug 2001 2:47 Operator: XINGFANG WAN
Sample : S-131,5690-001,M,0.034g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:30 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0058

2260

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2407.D Vial: 37
Acq On : 21 Aug 2001 2:47 Operator: XINGFANG WANG
Sample : S-131,5690-001,M,0.034g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

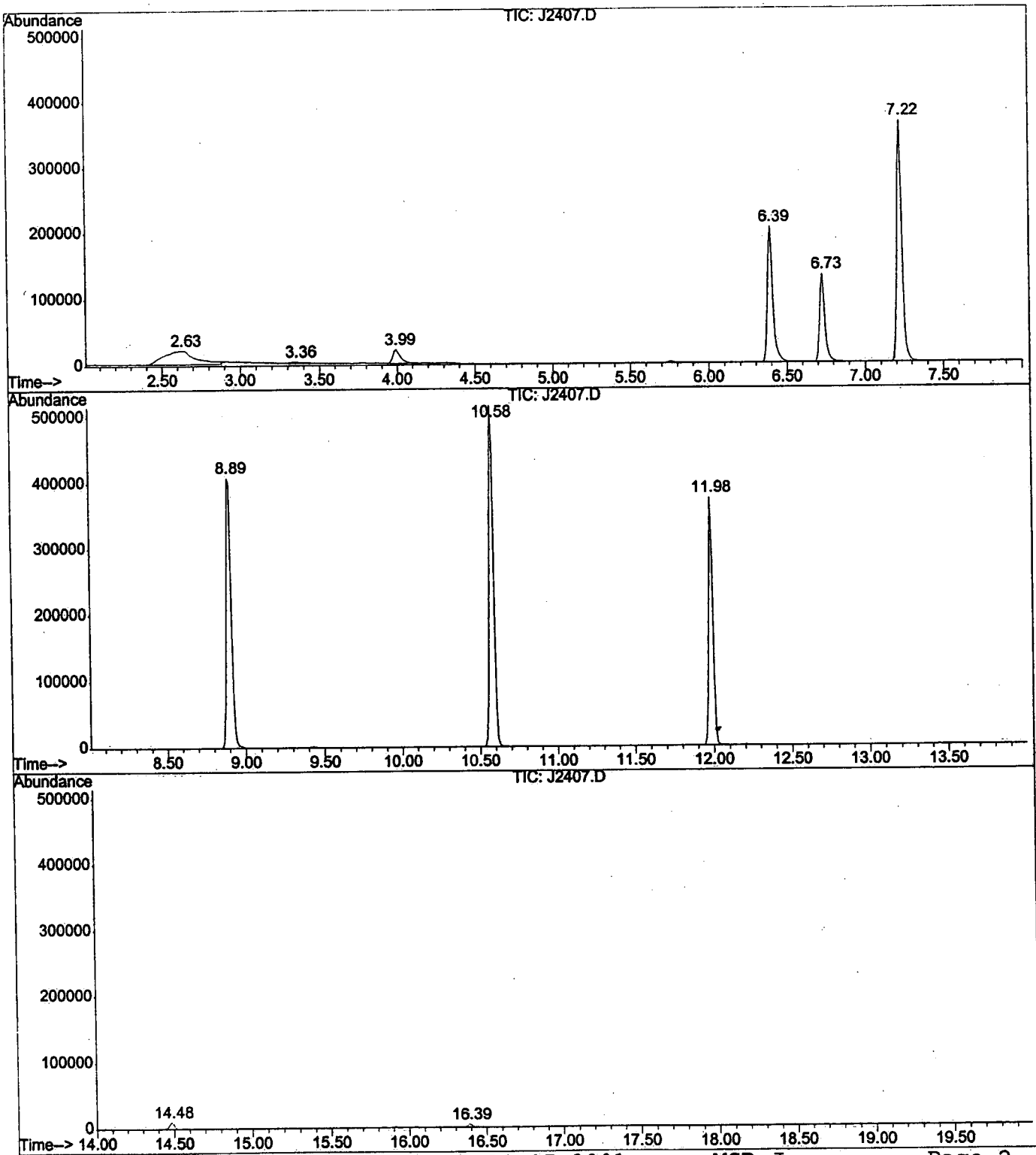
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	114	rBV5	20149	292212	29.01%	6.379%
2	3.355	156	161	173	rVB5	2112	10142	1.01%	0.221%
3	3.993	218	224	239	rVB	20626	70318	6.98%	1.535%
4	6.393	455	461	483	rVV	205643	494671	49.11%	10.798%
5	6.727	487	494	509	rVB	133660	309622	30.74%	6.759%
6	7.223	537	543	562	rBV	367155	802414	79.67%	17.516%
7	8.894	702	708	722	rBV	408808	884823	87.85%	19.315%
8	10.575	867	874	891	rBV	515313	1007215	100.00%	21.987%
9	11.983	1007	1013	1026	rVB	375314	676908	67.21%	14.777%
10	14.484	1252	1260	1266	rBV	10192	22368	2.22%	0.488%
11	16.388	1442	1448	1459	rBV	4650	10254	1.02%	0.224%

Sum of corrected areas: 4580947

File : C:\MSDCHEM\1\DATA\08-20-01\J2407.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 2:47 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-131,5690-001,M,0.034g,16.3
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 37
Quant File :JME0730.RES (RTE Integrator)



0060

22462

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2408.D Vial: 38
Acq On : 21 Aug 2001 3:14 Operator: XINGFANG WANG
Sample : S-132,5690-002,M,0.041g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 03:34:28 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	181388	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	364503	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	347234	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96976	46.90	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.80%			
41) Toluene-d8	8.89	98	306731	40.49	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 80.98%			
59) Bromofluorobenzene	11.98	95	141818	33.88	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 67.76%			

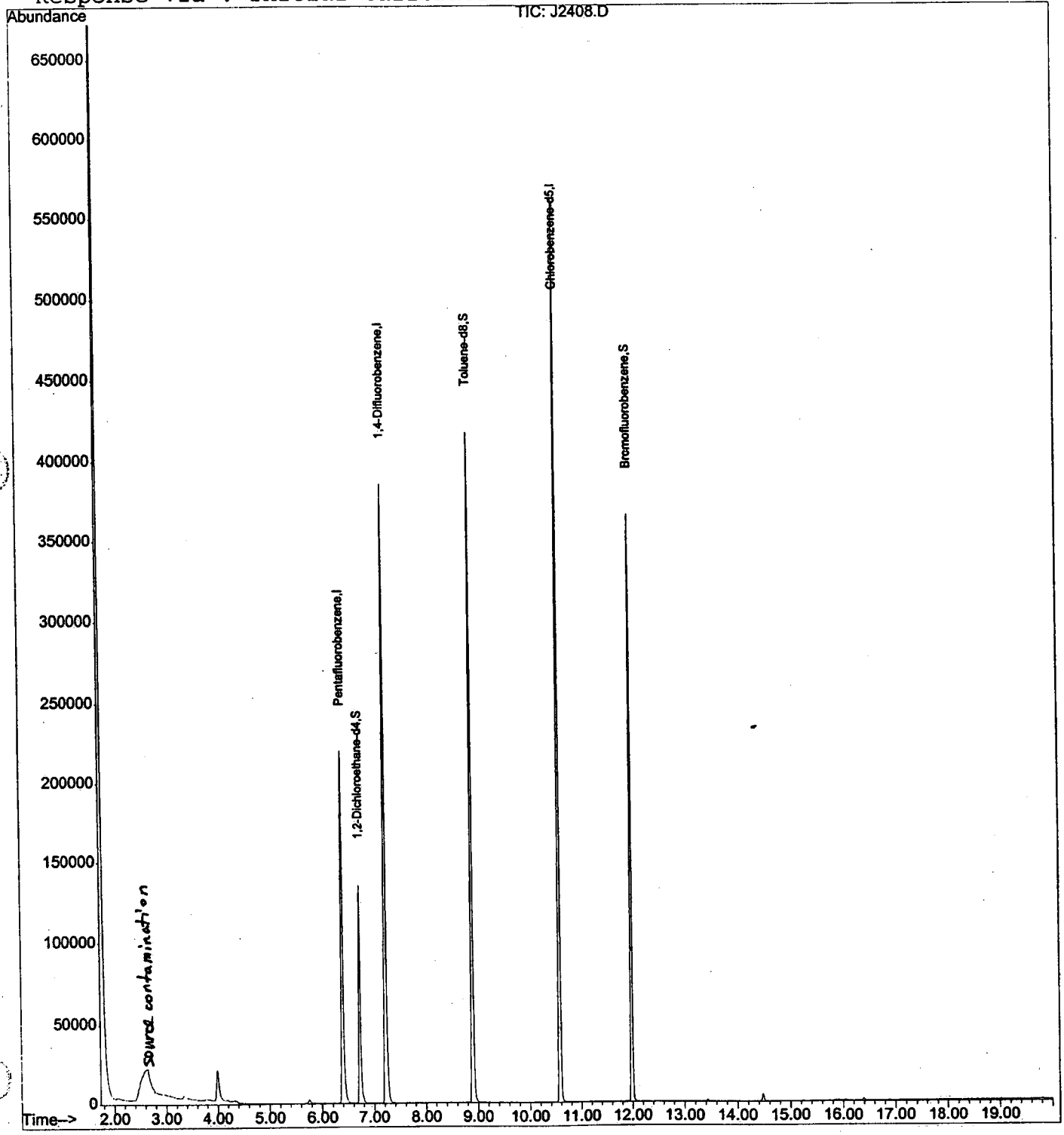
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2408.D Vial: 38
Acq On : 21 Aug 2001 3:14 Operator: XINGFANG WAN
Sample : S-132,5690-002,M,0.041g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:31 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0062

72404

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2408.D Vial: 38
Acq On : 21 Aug 2001 3:14 Operator: XINGFANG WANG
Sample : S-132,5690-002,M,0.041g,14.2 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

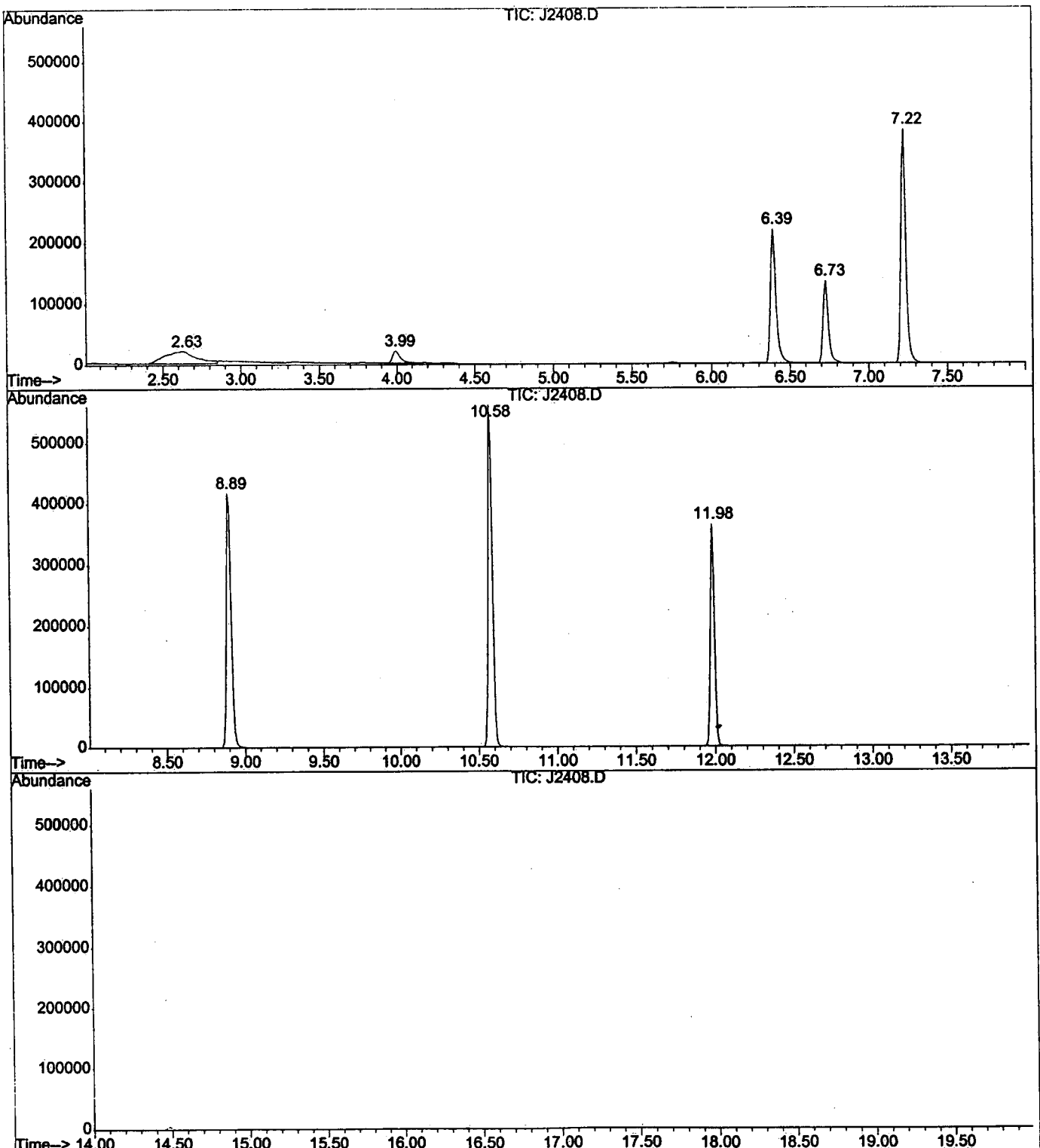
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	111	rBV5	20069	287537	26.74%	6.150%
2	3.993	218	224	240	rVB	19961	70316	6.54%	1.504%
3	6.393	454	461	484	rVB	220095	525933	48.91%	11.250%
4	6.727	484	494	512	rBV	135636	312405	29.05%	6.682%
5	7.224	536	543	556	rBV	385215	851488	79.19%	18.213%
6	8.894	699	708	723	rBV	417374	880877	81.92%	18.842%
7	10.575	867	874	900	rBV	560816	1075280	100.00%	23.000%
8	11.983	1004	1013	1026	rVB	365622	671211	62.42%	14.357%

Sum of corrected areas: 4675047

77405

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2408.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 3:14 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-132,5690-002,M,0.041g,14.2
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 38
Quant File :JME0730.RES (RTE Integrator)



0064

2246

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2409.D Vial: 39
Acq On : 21 Aug 2001 3:41 Operator: XINGFANG WANG
Sample : S-133,5690-003,M,0.033g,15.9 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 04:01:56 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

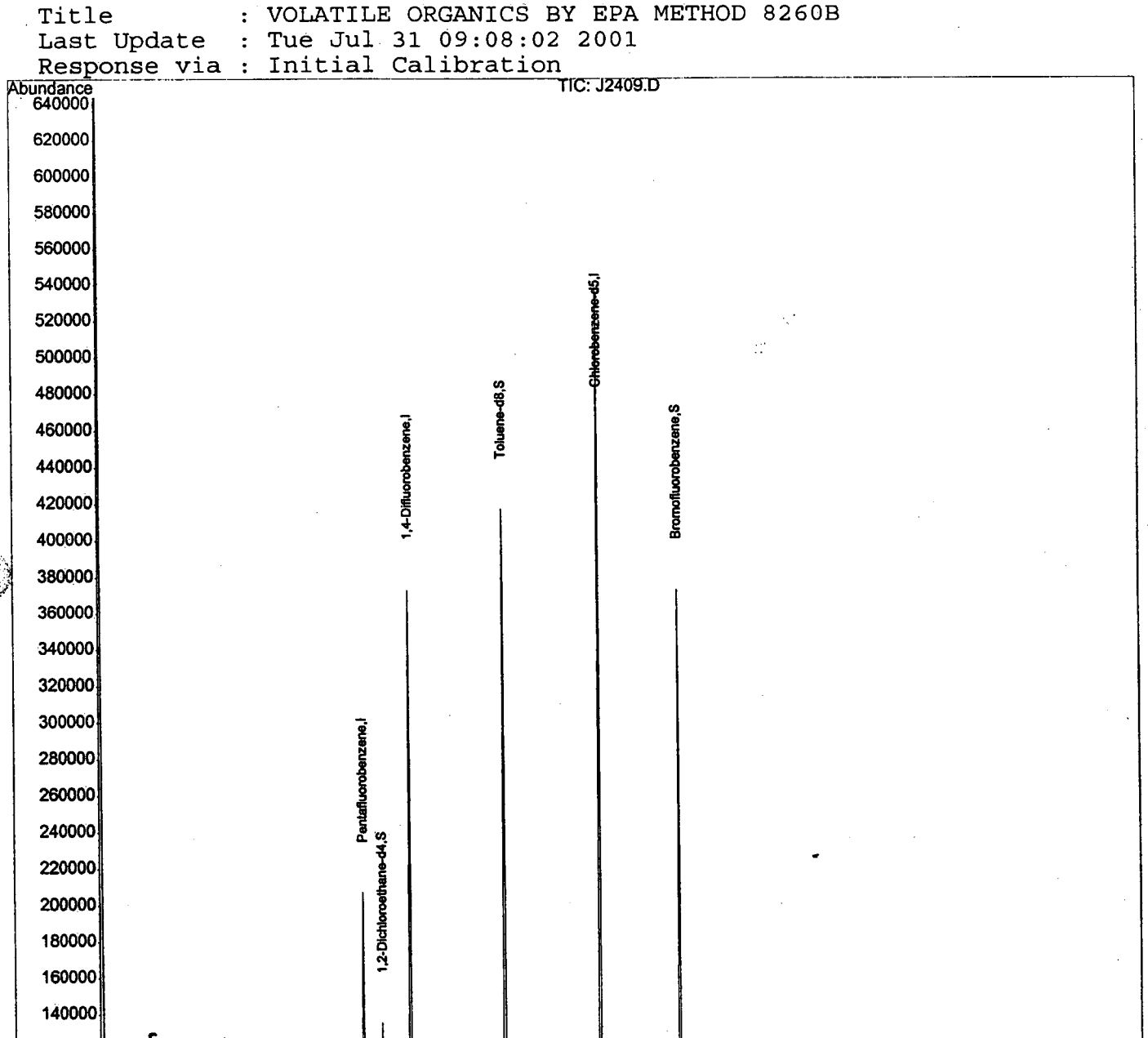
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	173901	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	346450	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	329997	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	99510	50.20	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.40%			
41) Toluene-d8	8.89	98	312436	43.40	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 86.80%			
59) Bromofluorobenzene	11.98	95	144491	36.33	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 72.66%			
Target Compounds						Qvalue
32) Benzene	6.80	78	9834	1.10	UG	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2409.D Vial: 39
Acq On : 21 Aug 2001 3:41 Operator: XINGFANG WAN
Sample : S-133,5690-003,M,0.033g,15.9 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:32 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



J2409.D JME0730.M Tue Aug 21 09:32:33 2001 MSD_J Page 2

0066

22466

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2409.D Vial: 39
Acq On : 21 Aug 2001 3:41 Operator: XINGFANG WANG
Sample : S-133,5690-003,M,0.033g,15.9 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

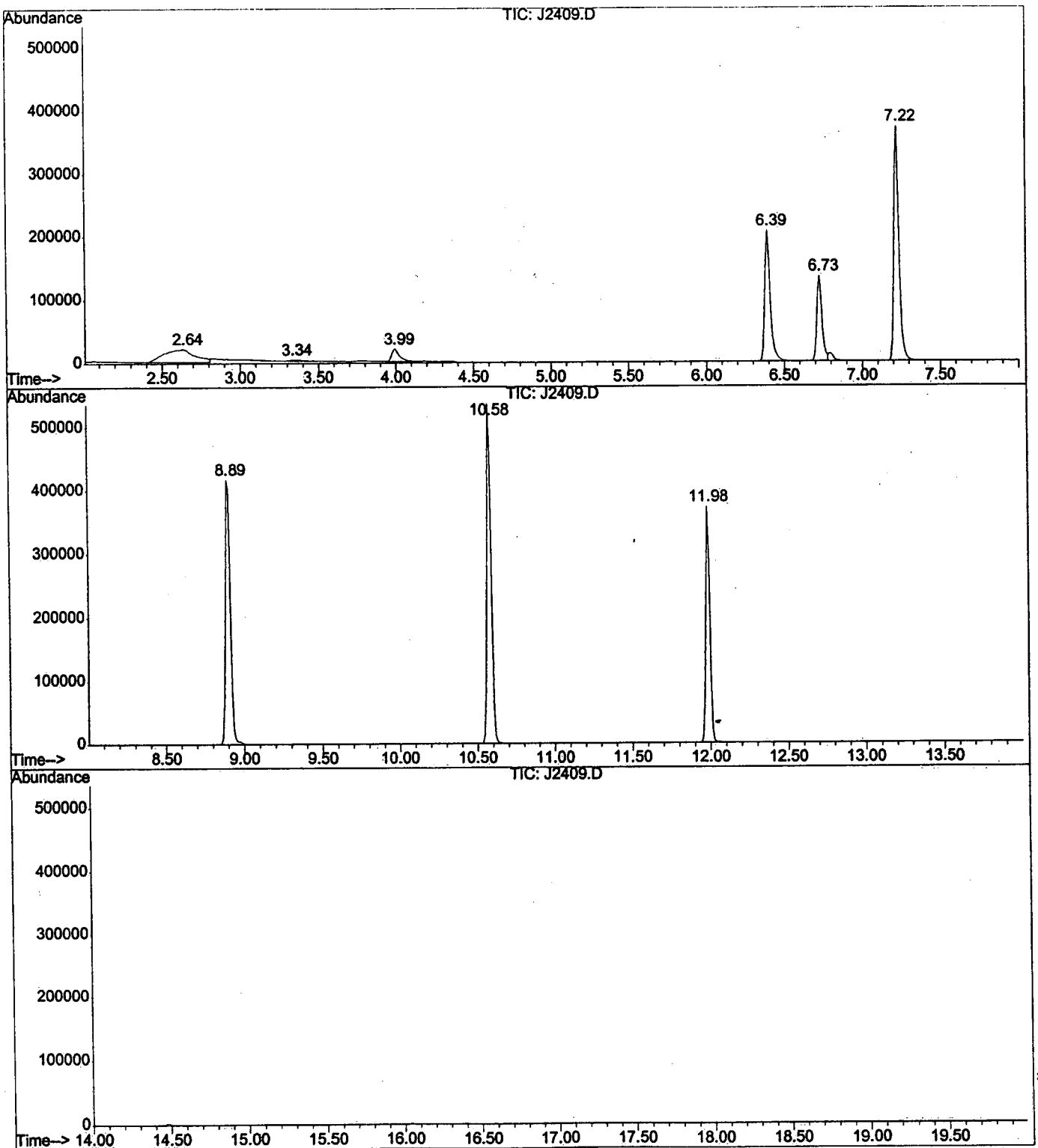
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.636	67	90	107	rBV5	20581	284507	27.71%	6.194%
2	3.335	156	159	174	rVB4	2258	11329	1.10%	0.247%
3	3.993	218	224	239	rVB	20258	72481	7.06%	1.578%
4	6.393	453	461	477	rBV	207204	498151	48.51%	10.845%
5	6.727	486	494	499	rBV	135266	306643	29.86%	6.676%
6	7.224	535	543	565	rBV	373124	811547	79.03%	17.667%
7	8.894	702	708	723	rBV	417225	900723	87.72%	19.609%
8	10.575	867	874	887	rBV	536504	1026846	100.00%	22.355%
9	11.983	1007	1013	1028	rVB	373141	681235	66.34%	14.831%

Sum of corrected areas: 4593462

22569

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2409.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 3:41 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-133,5690-003,M,0.033g,15.9
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 39
Quant File :JME0730.RES (RTE Integrator)



00AR

2290

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D Vial: 40
Acq On : 21 Aug 2001 4:09 Operator: XINGFANG WANG
Sample : S-134,5690-004,M,0.035g,16.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 04:29:21 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

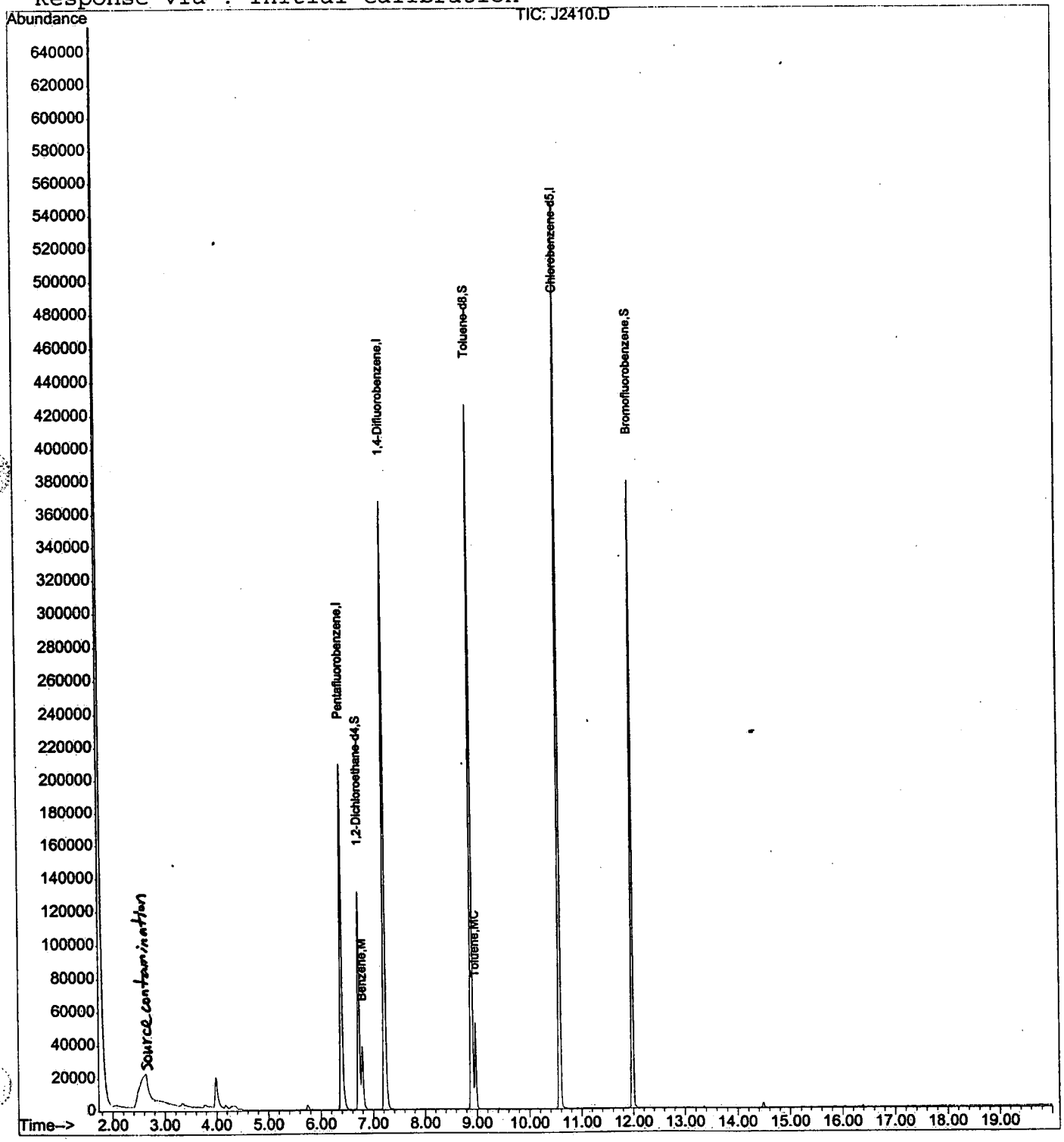
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	174145	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	350740	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	333182	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96443	48.58	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 97.16%			
41) Toluene-d8	8.89	98	312841	42.92	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 85.84%			
59) Bromofluorobenzene	11.98	95	147570	36.75	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.50%			
Target Compounds						Qvalue
32) Benzene	6.80	78	35809	3.94	UG	100
42) Toluene	8.98	92	24586	4.35	UG	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D Vial: 40
Acq On : 21 Aug 2001 4:09 Operator: XINGFANG WAN
Sample : S-134,5690-004,M,0.035g,16.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:34 2001 Quant Results File: JME0730.RE

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0070

2292

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D Vial: 40
Acq On : 21 Aug 2001 4:09 Operator: XINGFANG WANG
Sample : S-134,5690-004,M,0.035g,16.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

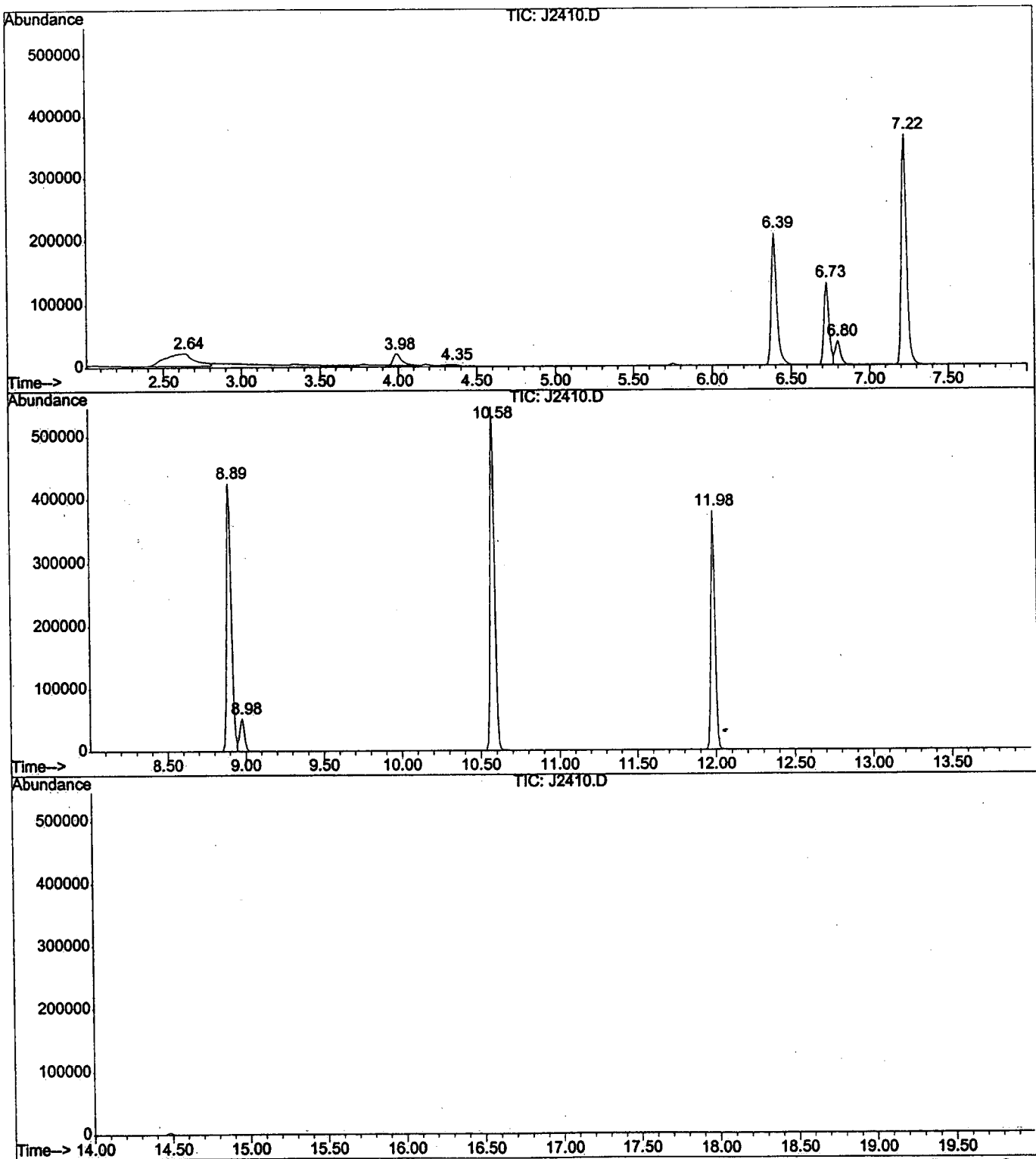
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.636	67	90	107	rBV4	20629	268666	25.90%	5.611%
2	3.983	217	223	239	rVB	18758	71416	6.88%	1.491%
3	4.348	249	259	266	rVB7	2417	16135	1.56%	0.337%
4	6.393	451	461	482	rVB	209465	501137	48.30%	10.465%
5	6.727	488	494	498	rBV	131865	295404	28.47%	6.169%
6	6.798	498	501	515	rVB	38624	92414	8.91%	1.930%
7	7.223	537	543	557	rBV	367994	819360	78.98%	17.111%
8	8.894	700	708	713	rBV	426130	891997	85.98%	18.628%
9	8.975	713	716	725	rVB	52507	107037	10.32%	2.235%
10	10.575	866	874	887	rBV	546850	1037478	100.00%	21.666%
11	11.983	1006	1013	1026	rBV	379875	687510	66.27%	14.357%

Sum of corrected areas: 4788554

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 4:09 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-134,5690-004,M,0.035g,16.5
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 40
Quant File :JME0730.RES (RTE Integrator)



0072

7.2.94

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WANG
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 04:56:48 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	169509	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	344160	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	326185	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96292	49.83	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.66%			
41) Toluene-d8	8.89	98	302458	42.29	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 84.58%			
59) Bromofluorobenzene	11.98	95	138163	35.14	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 70.28%			

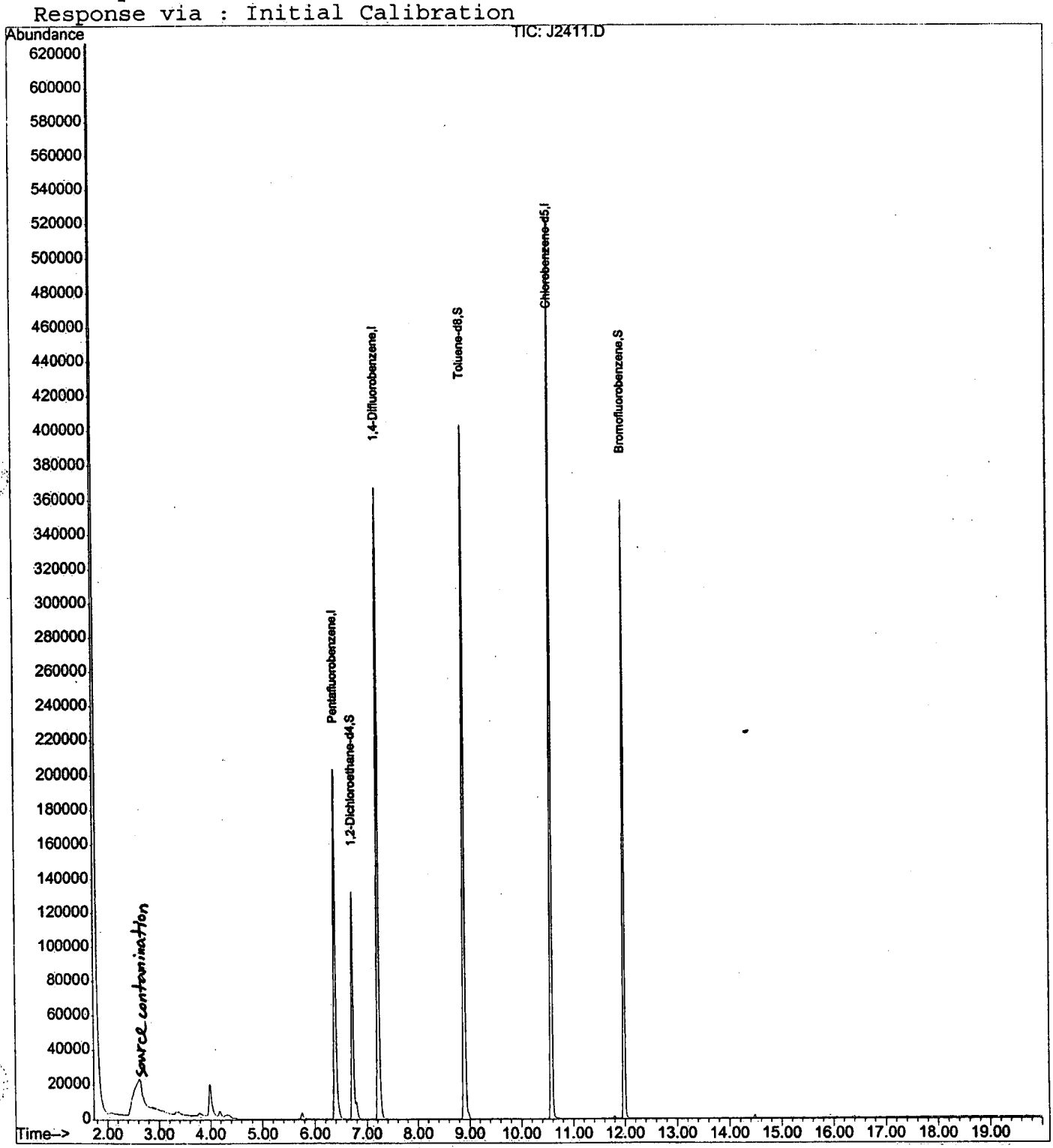
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WAN
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:34 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0074

7.296

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WANG
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	111	rBV4	20946	279518	27.46%	6.151%
2	3.993	218	224	237	rVV	18236	68367	6.72%	1.504%
3	4.176	238	242	250	rVV	3462	11560	1.14%	0.254%
4	4.338	250	258	267	rVB5	1890	12300	1.21%	0.271%
5	5.755	393	398	410	rBV	3560	11160	1.10%	0.246%
6	6.393	455	461	481	rBV	203384	489847	48.13%	10.779%
7	6.727	485	494	512	rBV	132474	320994	31.54%	7.064%
8	7.223	537	543	565	rBV	367450	808312	79.42%	17.787%
9	8.894	697	708	722	rBV	403362	873356	85.81%	19.218%
10	10.575	867	874	887	rBV	522465	1017805	100.00%	22.397%
11	11.983	1007	1013	1024	rBV	359993	651171	63.98%	14.329%

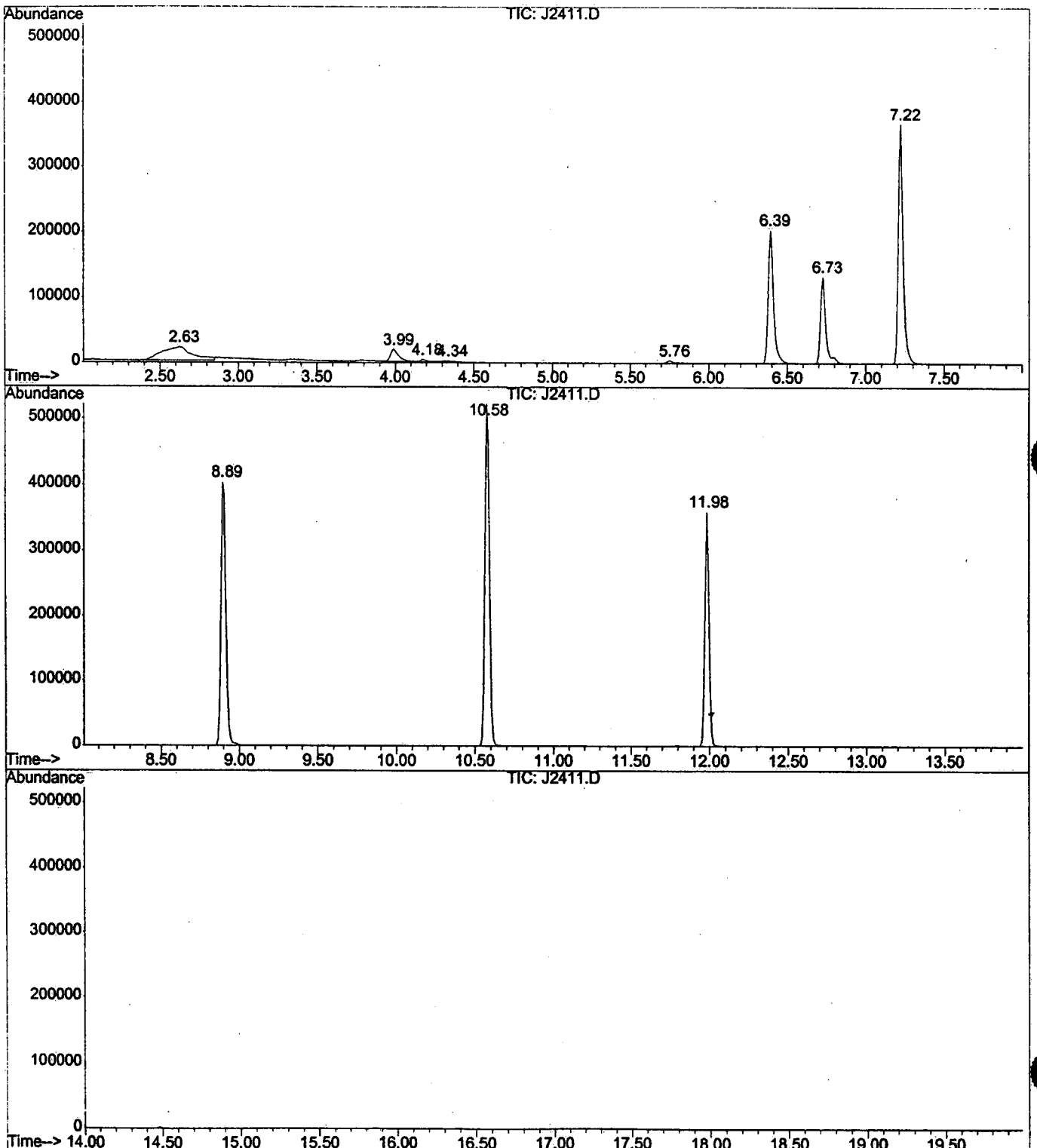
Sum of corrected areas: 4544390

2297

0075

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 4:36 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-135,5690-005,M,0.04g,19.7
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 41
Quant File :JME0730.RES (RTE Integrator)

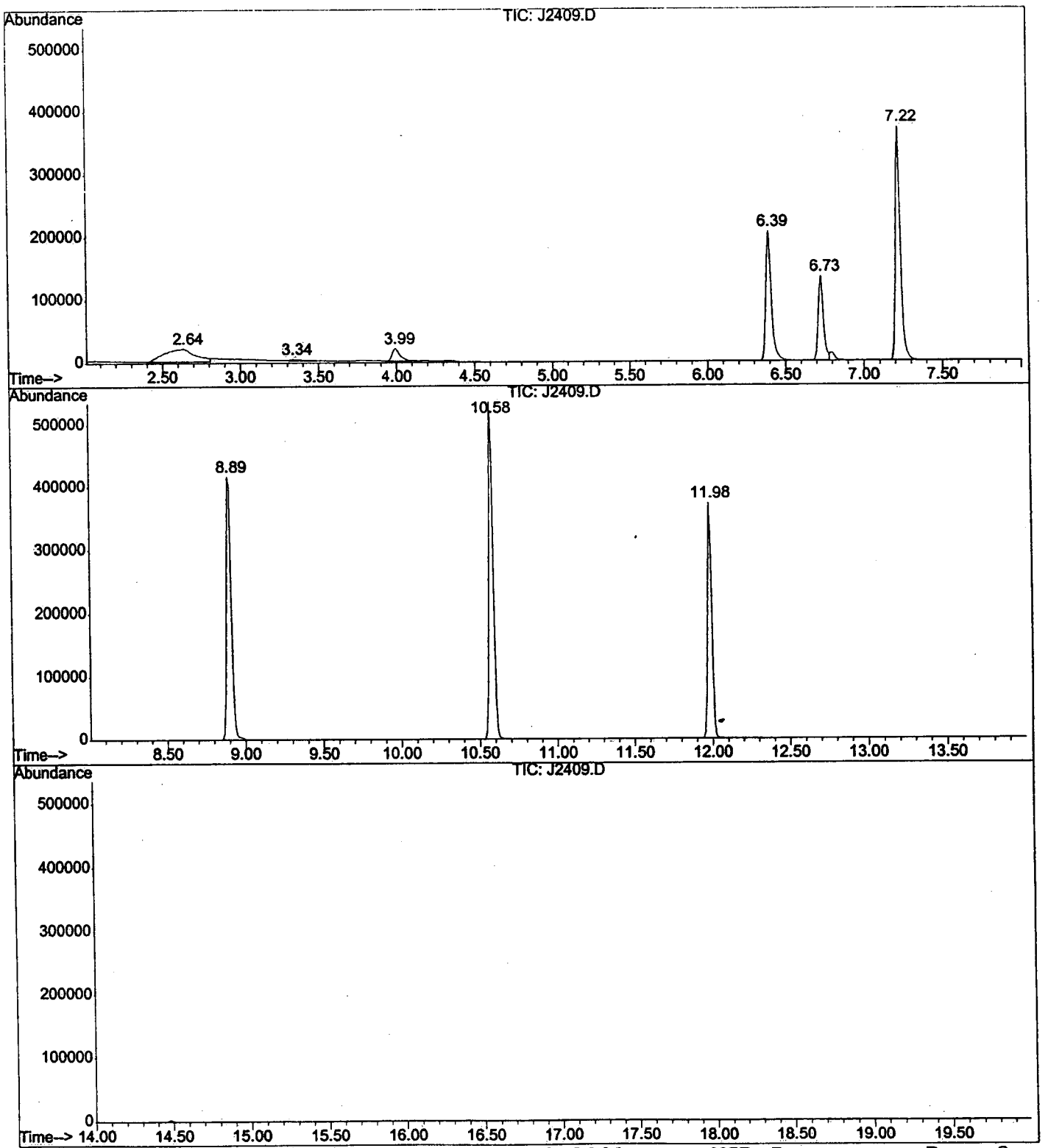


22948

0076

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2409.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 3:41 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-133,5690-003,M,0.033g,15.9
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 39
Quant File :JME0730.RES (RTE Integrator)



00AR

2299

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D Vial: 40
Acq On : 21 Aug 2001 4:09 Operator: XINGFANG WANG
Sample : S-134,5690-004,M,0.035g,16.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P
Quant Time: Aug 21 04:29:21 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	174145	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	350740	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	333182	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96443	48.58	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 97.16%			
41) Toluene-d8	8.89	98	312841	42.92	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 85.84%			
59) Bromofluorobenzene	11.98	95	147570	36.75	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.50%			
Target Compounds						Qvalue
32) Benzene	6.80	78	35809	3.94	UG	100
42) Toluene	8.98	92	24586	4.35	UG	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D Vial: 40
Acq On : 21 Aug 2001 4:09 Operator: XINGFANG WANG
Sample : S-134,5690-004,M,0.035g,16.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

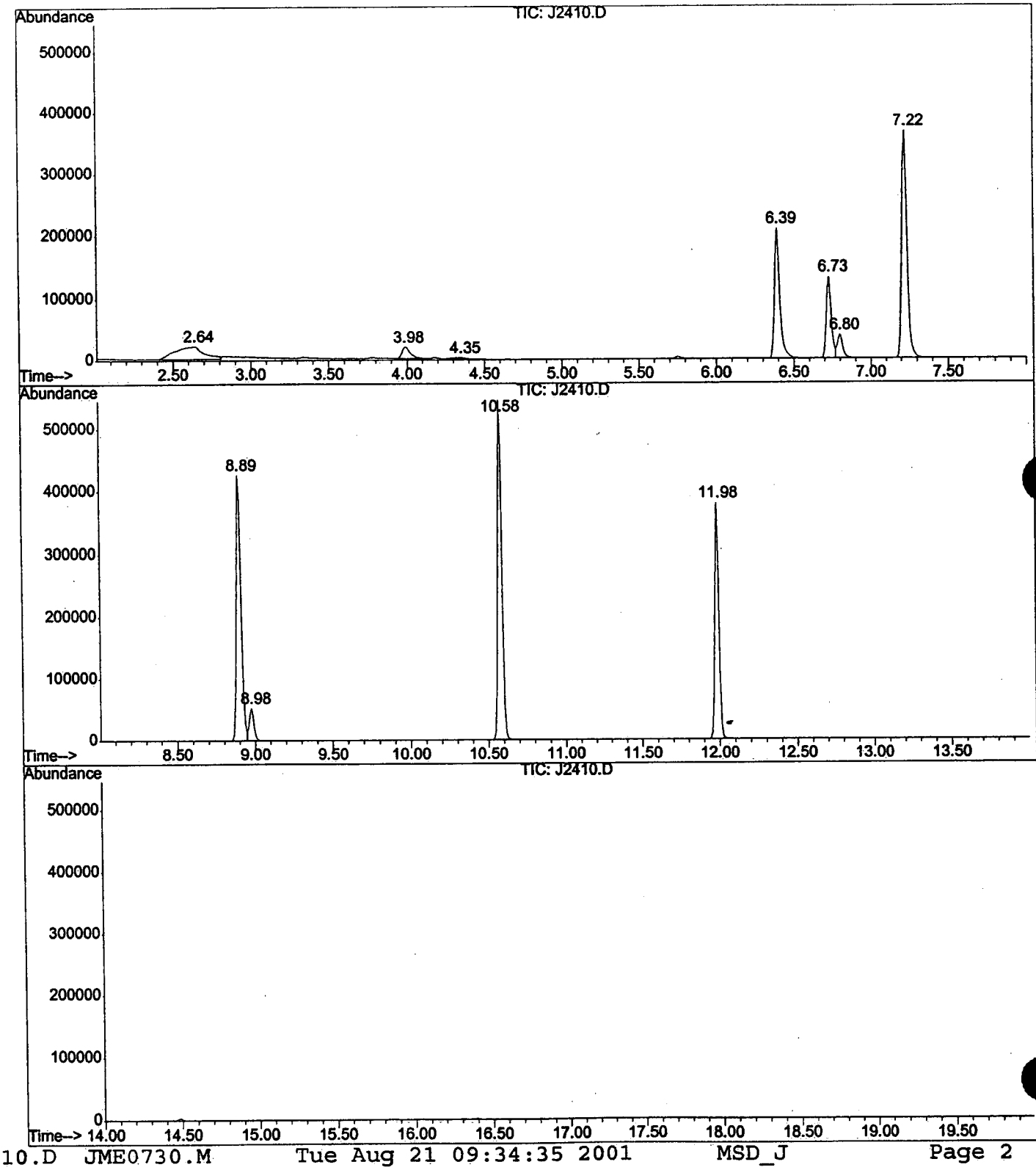
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.636	67	90	107	rBV4	20629	268666	25.90%	5.611%
2	3.983	217	223	239	rVB	18758	71416	6.88%	1.491%
3	4.348	249	259	266	rVB7	2417	16135	1.56%	0.337%
4	6.393	451	461	482	rVB	209465	501137	48.30%	10.465%
5	6.727	488	494	498	rBV	131865	295404	28.47%	6.169%
6	6.798	498	501	515	rVB	38624	92414	8.91%	1.930%
7	7.223	537	543	557	rBV	367994	819360	78.98%	17.111%
8	8.894	700	708	713	rBV	426130	891997	85.98%	18.628%
9	8.975	713	716	725	rVB	52507	107037	10.32%	2.235%
10	10.575	866	874	887	rBV	546850	1037478	100.00%	21.666%
11	11.983	1006	1013	1026	rBV	379875	687510	66.27%	14.357%

Sum of corrected areas: 4788554

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2410.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 4:09 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-134,5690-004,M,0.035g,16.5
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 40
Quant File :JME0730.RES (RTE Integrator)



0072

73093

Quantitation Report (Q...

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WANG
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 04:56:48 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	169509	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	344160	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	326185	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96292	49.83	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 99.66%			
41) Toluene-d8	8.89	98	302458	42.29	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 84.58%			
59) Bromofluorobenzene	11.98	95	138163	35.14	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 70.28%			

Target Compounds Qvalue

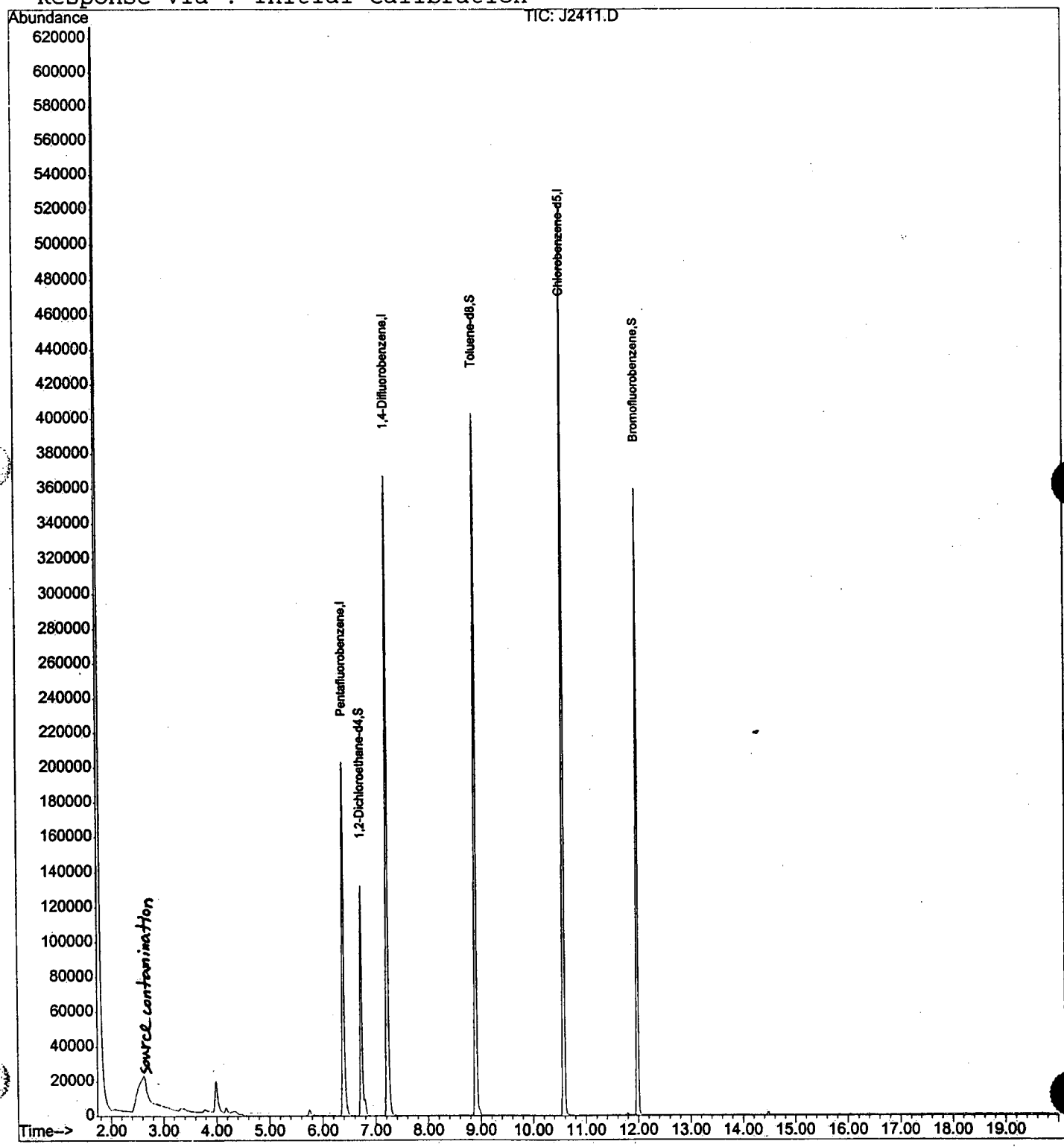
(#) = qualifier out of range (m) = manual integration
J2411.D JME0730.M Tue Aug 21 09:34:59 2001 MSD_J Page 1

0073

2304

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WAN
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:34 2001 Quant Results File: JME0730.

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



Data File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D Vial: 41
Acq On : 21 Aug 2001 4:36 Operator: XINGFANG WANG
Sample : S-135,5690-005,M,0.04g,19.7 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

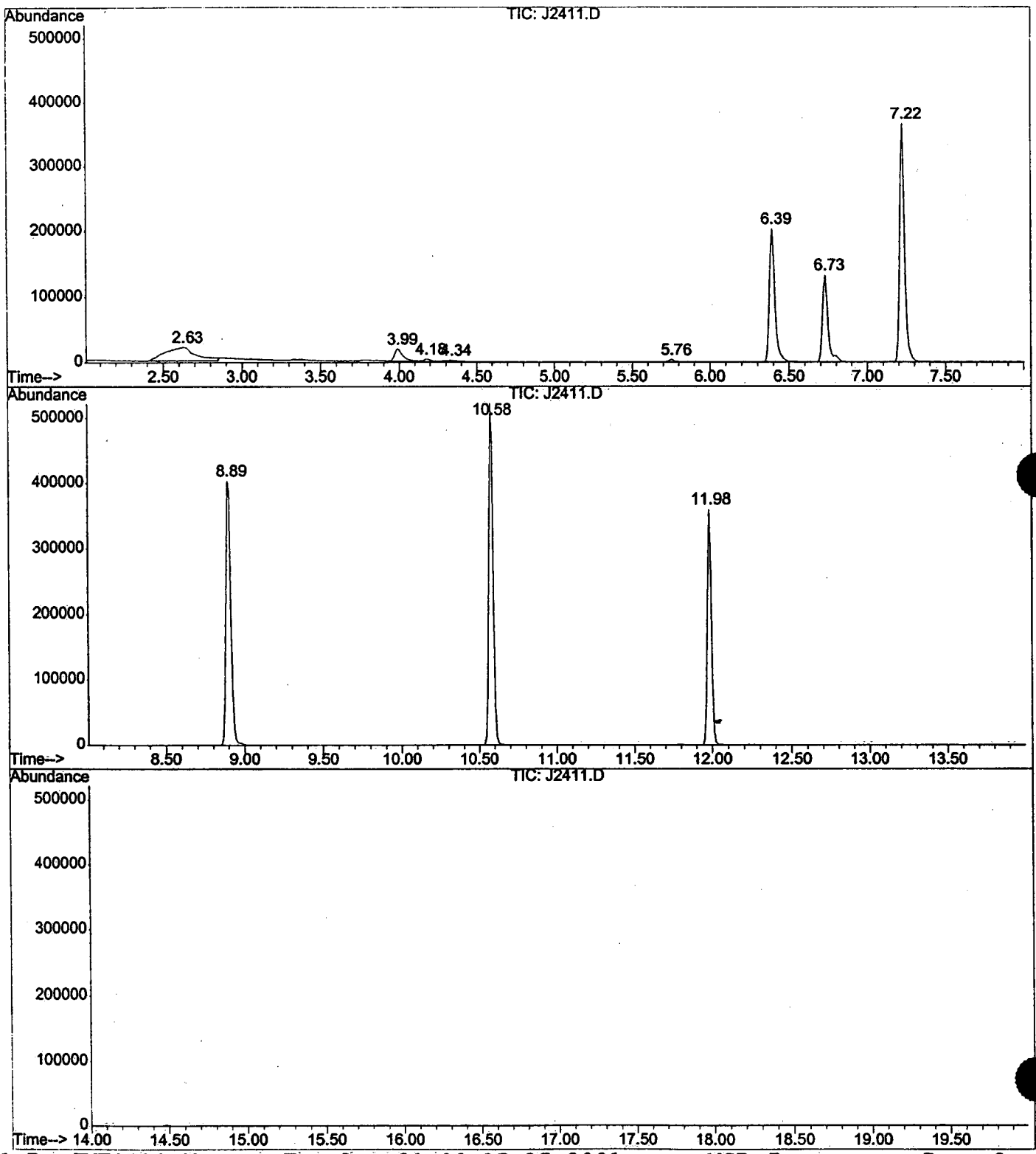
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	111	rBV4	20946	279518	27.46%	6.151%
2	3.993	218	224	237	rVV	18236	68367	6.72%	1.504%
3	4.176	238	242	250	rVV	3462	11560	1.14%	0.254%
4	4.338	250	258	267	rVB5	1890	12300	1.21%	0.271%
5	5.755	393	398	410	rBV	3560	11160	1.10%	0.246%
6	6.393	455	461	481	rBV	203384	489847	48.13%	10.779%
7	6.727	485	494	512	rBV	132474	320994	31.54%	7.064%
8	7.223	537	543	565	rBV	367450	808312	79.42%	17.787%
9	8.894	697	708	722	rBV	403362	873356	85.81%	19.218%
10	10.575	867	874	887	rBV	522465	1017805	100.00%	22.397%
11	11.983	1007	1013	1024	rBV	359993	651171	63.98%	14.329%

Sum of corrected areas: 4544390

0075

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2411.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 4:36 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-135,5690-005,M,0.04g,19.7
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 41
Quant File :JME0730.RES (RTE Integrator)



3207

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2412.D Vial: 42
Acq On : 21 Aug 2001 5:04 Operator: XINGFANG WANG
Sample : S-136,5690-006,M,0.04g,16.1 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 05:24:08 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	167801	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	337520	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	323994	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	99883	52.22	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 104.44%			
41) Toluene-d8	8.89	98	307916	43.90	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 87.80%			
59) Bromofluorobenzene	11.98	95	144255	36.94	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.88%			
Target Compounds						Qvalue
42) Toluene	8.98	92	5529	1.02	UG	100

(#) = qualifier out of range (m) = manual integration

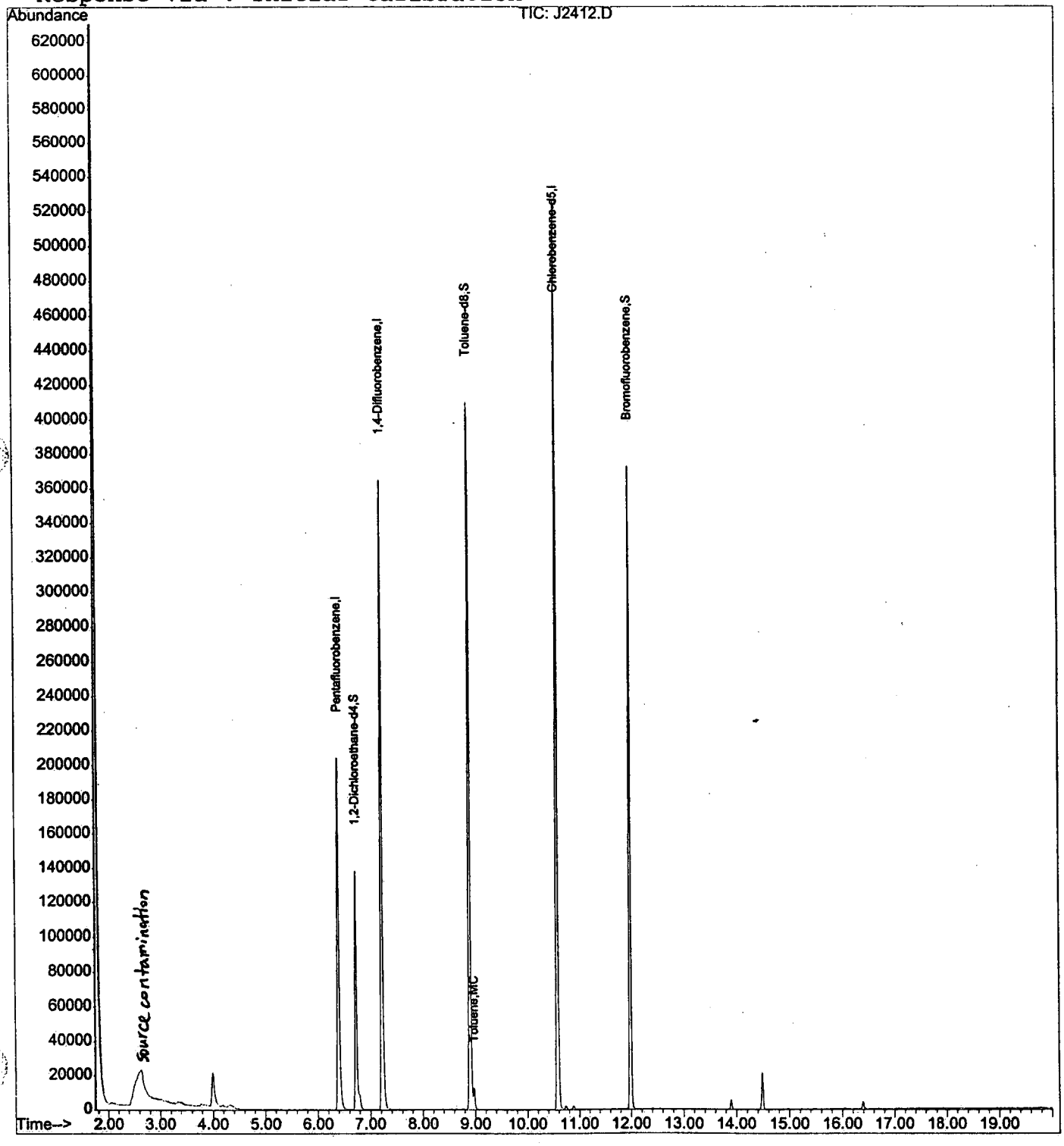
0077

2.3048

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2412.D Vial: 42
Acq On : 21 Aug 2001 5:04 Operator: XINGFANG WAN
Sample : S-136,5690-006,M,0.04g,16.1 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:35 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0079

2309

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2412.D Vial: 42
Acq On : 21 Aug 2001 5:04 Operator: XINGFANG WANG
Sample : S-136,5690-006,M,0.04g,16.1 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.636	68	90	110	rBV4	20653	277144	26.99%	5.975%
2	3.993	218	224	239	rVB	20055	72968	7.11%	1.573%
3	4.317	251	256	270	rVB8	2736	16678	1.62%	0.360%
4	6.393	452	461	483	rVB	204289	486161	47.34%	10.482%
5	6.727	487	494	513	rBV	138379	328839	32.02%	7.090%
6	7.223	536	543	557	rBV	365078	796480	77.56%	17.172%
7	8.894	697	708	714	rBV	410115	883475	86.03%	19.048%
8	8.975	714	716	725	rVB	12832	23703	2.31%	0.511%
9	10.575	864	874	887	rBV	525618	1026960	100.00%	22.141%
10	11.983	1006	1013	1024	rBV	373169	672519	65.49%	14.499%
11	13.897	1195	1202	1206	rVB	6058	10679	1.04%	0.230%
12	14.484	1253	1260	1269	rVB	21625	42622	4.15%	0.919%

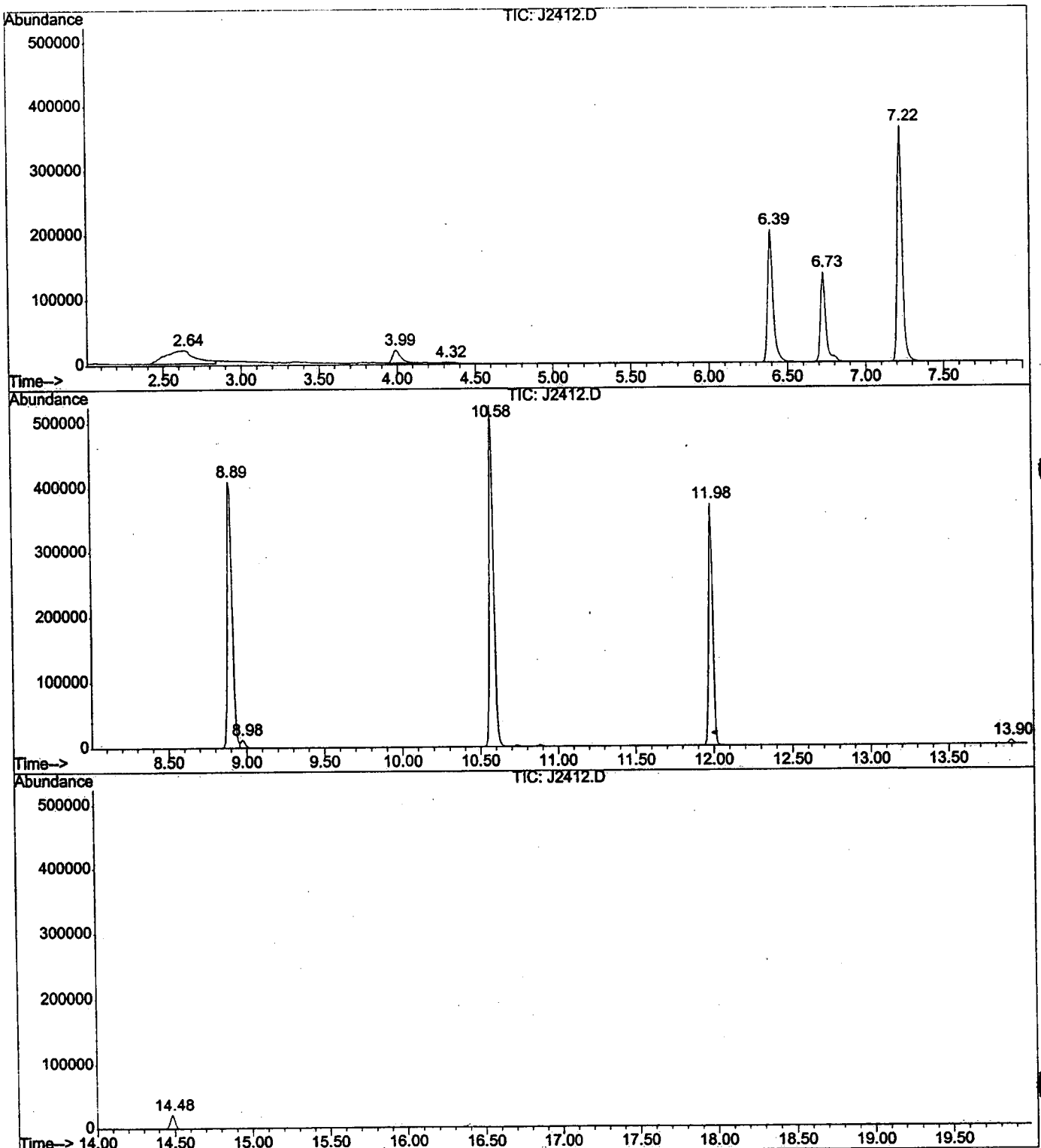
Sum of corrected areas: 4638228

0079

7210

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2412.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 5:04 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-136,5690-006,M,0.04g,16.1
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 42
Quant File :JME0730.RES (RTE Integrator)



0080

2311

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2413.D Vial: 43
Acq On : 21 Aug 2001 5:31 Operator: XINGFANG WANG
Sample : S-137,5690-007,M,0.036g,12.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P
Quant Time: Aug 21 05:51:55 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	168866	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	343314	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	326258	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	96904	50.34	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 100.68%			
41) Toluene-d8	8.89	98	307702	43.13	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 86.26%			
59) Bromofluorobenzene	11.98	95	143555	36.50	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.00%			

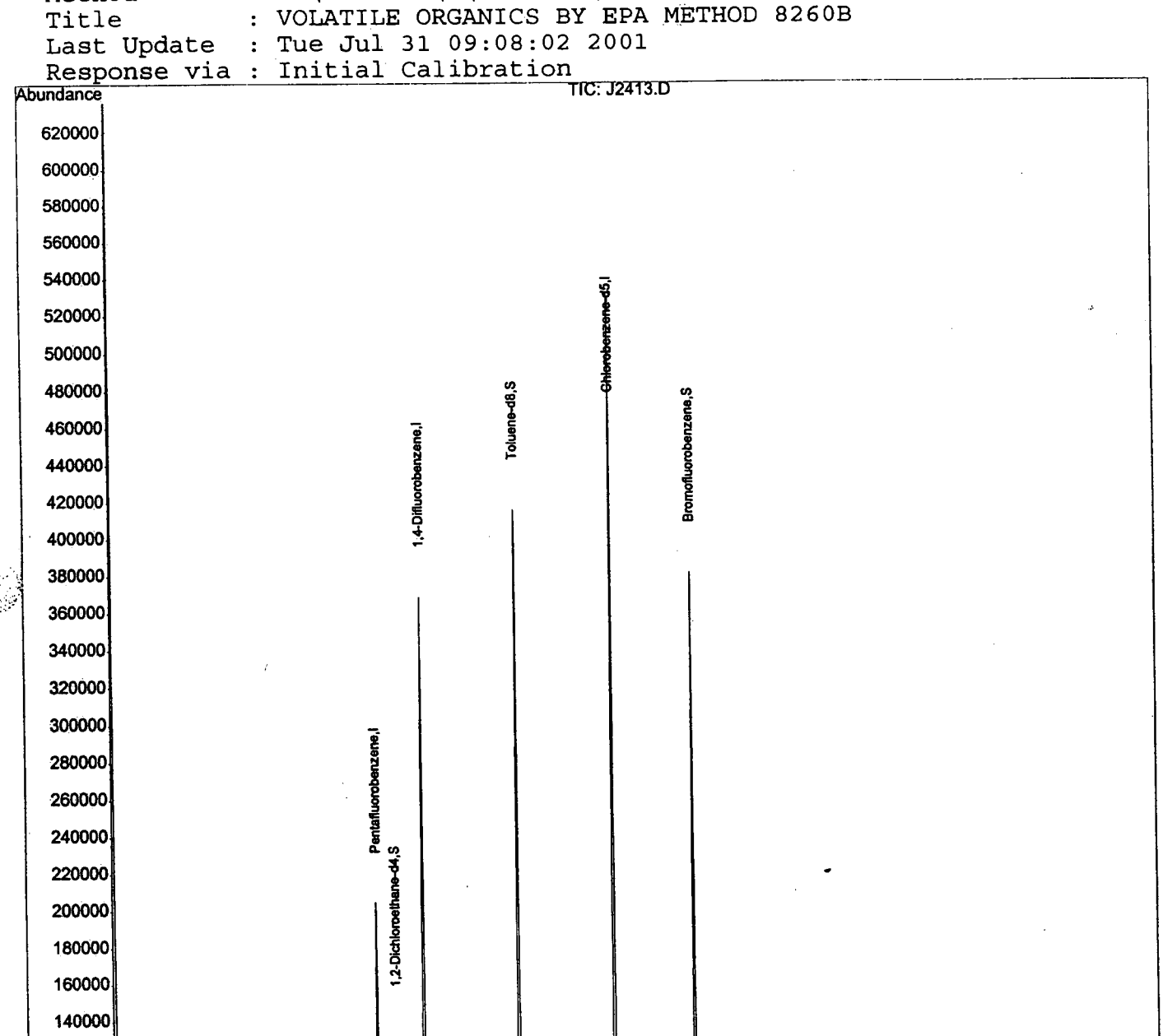
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2413.D Vial: 43
Acq On : 21 Aug 2001 5:31 Operator: XINGFANG WAN
Sample : S-137,5690-007,M,0.036g,12.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:36 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0082

2313

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2413.D
Acq On : 21 Aug 2001 5:31
Sample : S-137,5690-007,M,0.036g,12.3
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
RTE Integration Params: LSCINT.P

Vial: 43
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.616	66	88	112	rBV4	20105	282143	27.54%	6.130%
2	3.335	154	159	174	rVB6	2092	12585	1.23%	0.273%
3	3.983	217	223	236	rVB	19208	64683	6.31%	1.405%
4	4.327	251	257	268	rVB5	2632	15819	1.54%	0.344%
5	6.393	455	461	480	rBV	204100	488024	47.64%	10.602%
6	6.727	488	494	516	rVB	131257	311466	30.40%	6.767%
7	7.223	535	543	570	rVB	368138	810395	79.10%	17.606%
8	8.894	702	708	723	rBV	415286	879058	85.80%	19.098%
9	10.575	867	874	895	rVB	530856	1024501	100.00%	22.258%
10	11.983	1007	1013	1025	rVB	380876	674899	65.88%	14.662%
11	14.484	1254	1260	1267	rBV	19410	39370	3.84%	0.855%

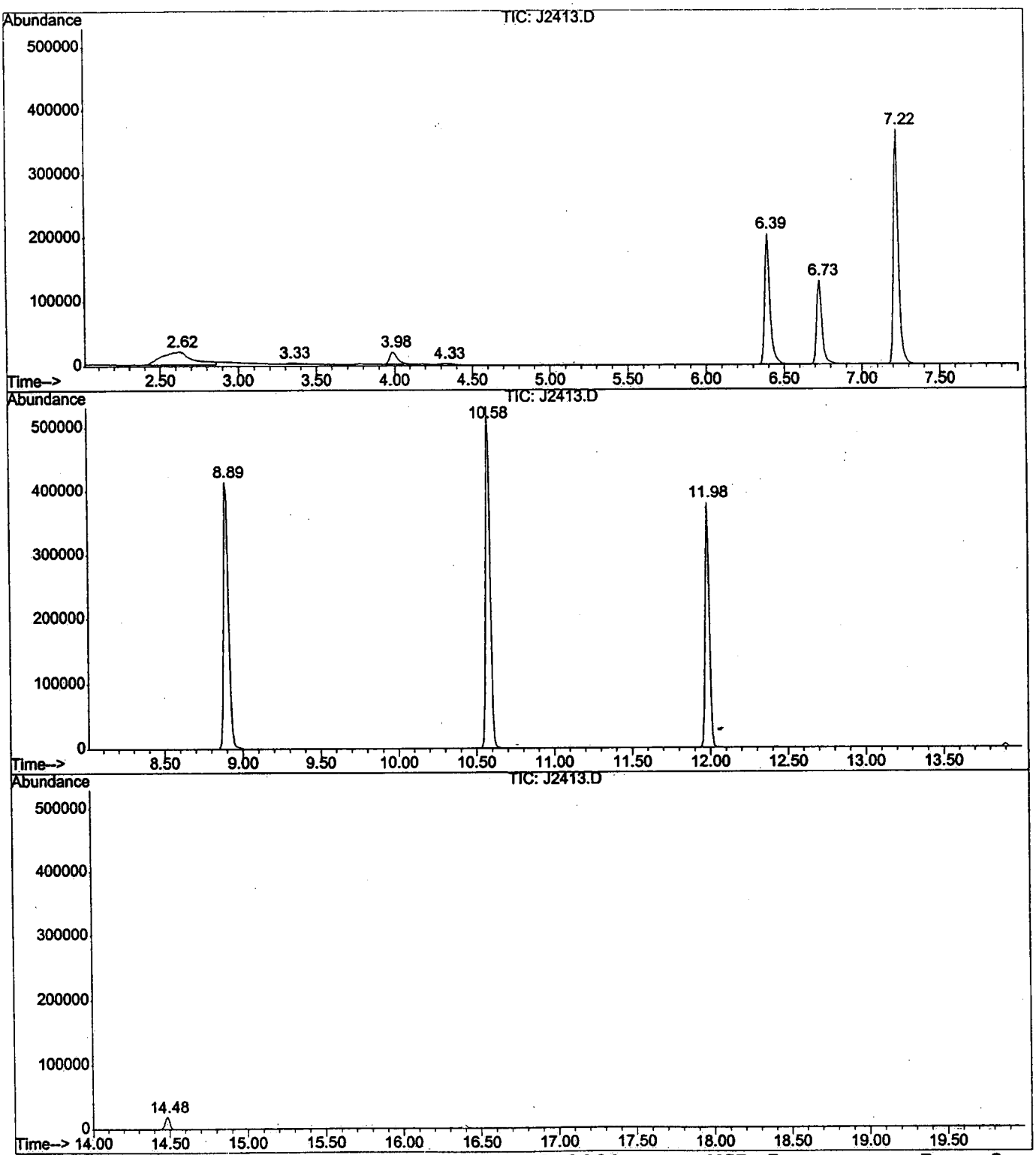
Sum of corrected areas: 4602943

0083

2314

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2413.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 5:31 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-137,5690-007,M,0.036g,12.3
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 43
Quant File :JME0730.RES (RTE Integrator)



0084

2315

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2414.D Vial: 44
Acq On : 21 Aug 2001 5:59 Operator: XINGFANG WANG
Sample : S-138,5690-008,M,0.037g,16.9 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 06:19:41 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	165620	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	338068	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	322367	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	98081	51.95	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 103.90%			
41) Toluene-d8	8.89	98	303560	43.21	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 86.42%			
59) Bromofluorobenzene	11.98	95	142748	36.74	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 73.48%			
Target Compounds						Qvalue
32) Benzene	6.80	78	749655	85.61	UG	100

(#) = qualifier out of range (m) = manual integration

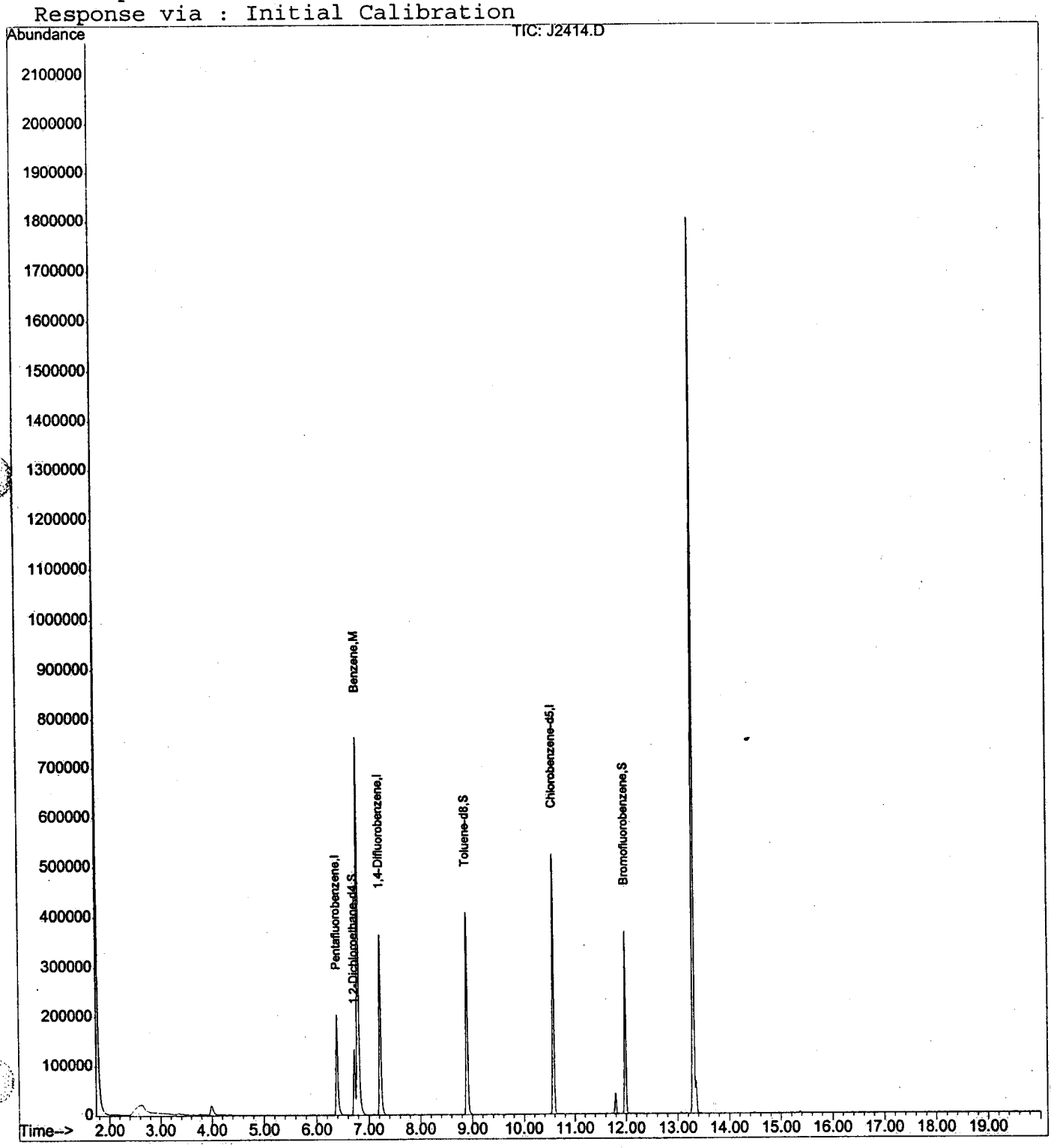
0085

2316

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2414.D Vial: 44
Acq On : 21 Aug 2001 5:59 Operator: XINGFANG WAN
Sample : S-138,5690-008,M,0.037g,16.9 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:38 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0082

2317

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2414.D
Acq On : 21 Aug 2001 5:59
Sample : S-138,5690-008,M,0.037g,16.9
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
MS Integration Params: LSCINT.P

Vial: 44
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

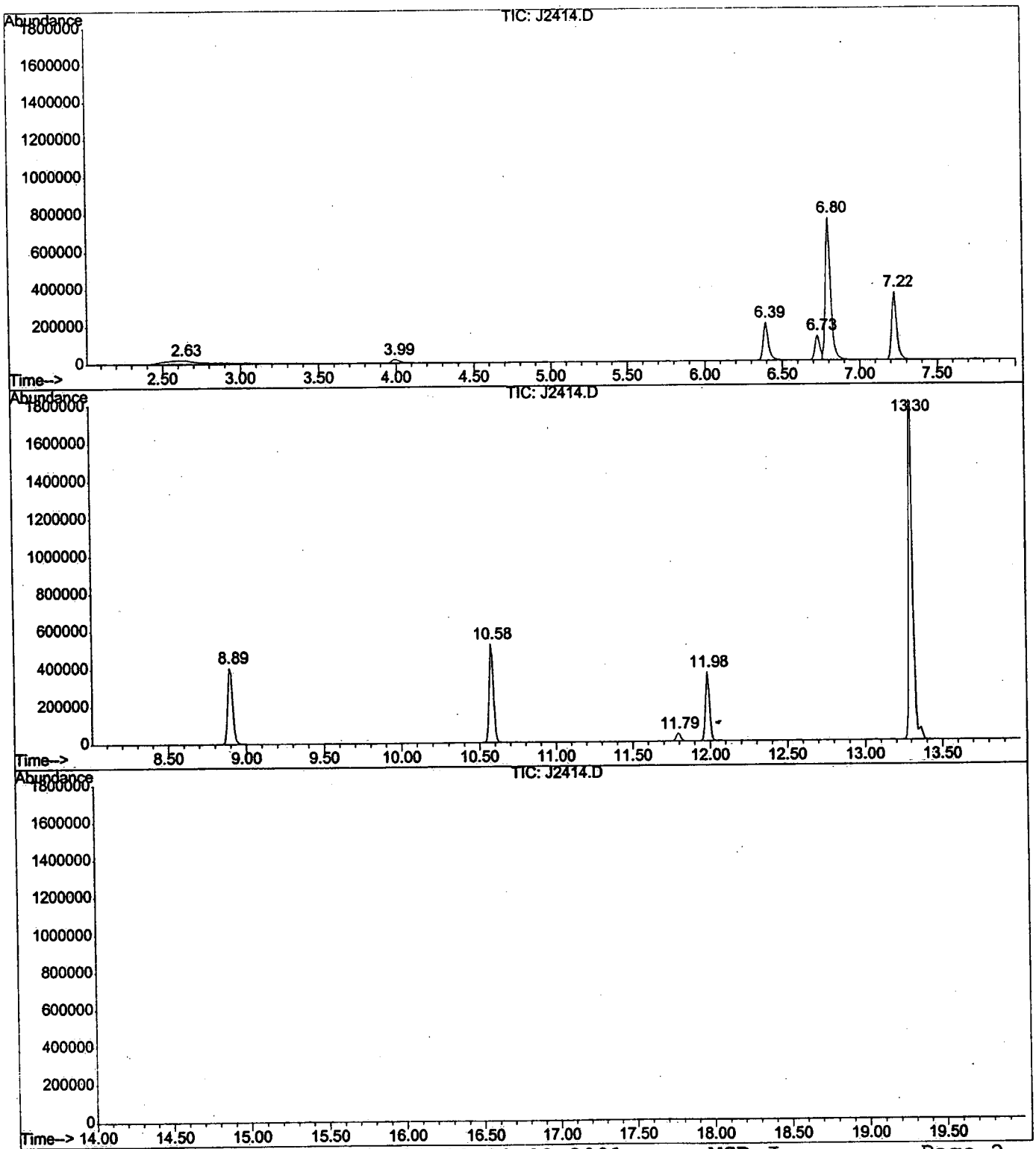
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	108	rBV4	20672	287042	8.16%	2.918%
2	3.993	218	224	239	rVB	19226	68273	1.94%	0.694%
3	6.393	454	461	478	rBV	204087	479437	13.64%	4.873%
4	6.727	488	494	497	rBV	134152	296503	8.43%	3.014%
5	6.798	497	501	526	rVB	763332	1764596	50.19%	17.937%
6	7.224	535	543	557	rBV	365653	797430	22.68%	8.106%
7	8.894	698	708	725	rBV	408952	870349	24.76%	8.847%
8	10.575	864	874	888	rBV	525631	1005259	28.59%	10.218%
9	11.791	988	994	1003	rVB	42226	82796	2.36%	0.842%
10	11.983	1007	1013	1028	rVB	369845	670344	19.07%	6.814%
11	13.299	1135	1143	1164	rVB	1806505	3515638	100.00%	35.737%

Sum of corrected areas: 9837667

0087

23146

File : C:\MSDCHEM\1\DATA\08-20-01\J2414.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 5:59 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-138,5690-008,M,0.037g,16.9
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 44
Quant File :JME0730.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2414.D
Acq On : 21 Aug 2001 5:59
Sample : S-138,5690-008,M,0.037g,16.9
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
IS Integration Params: LSCINT.P

Vial: 44
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

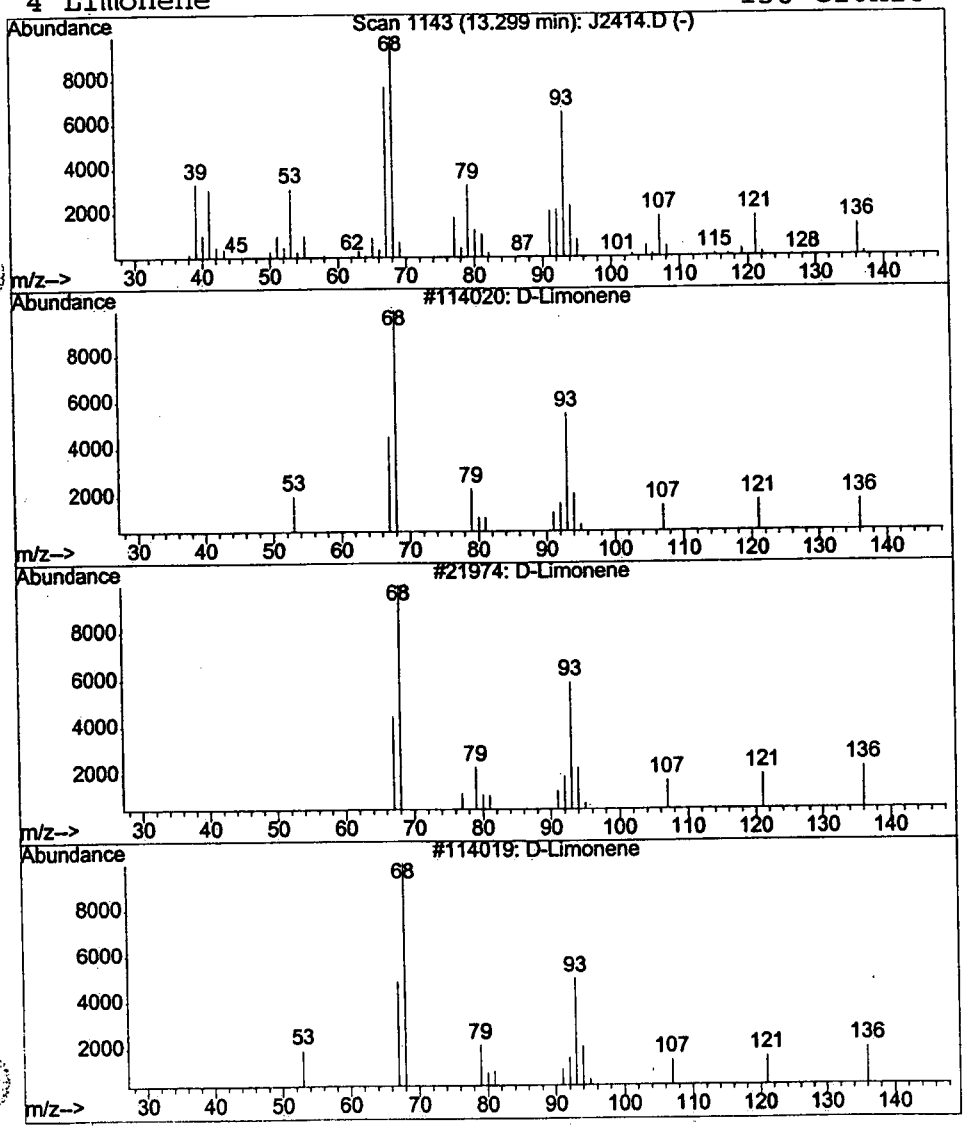
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

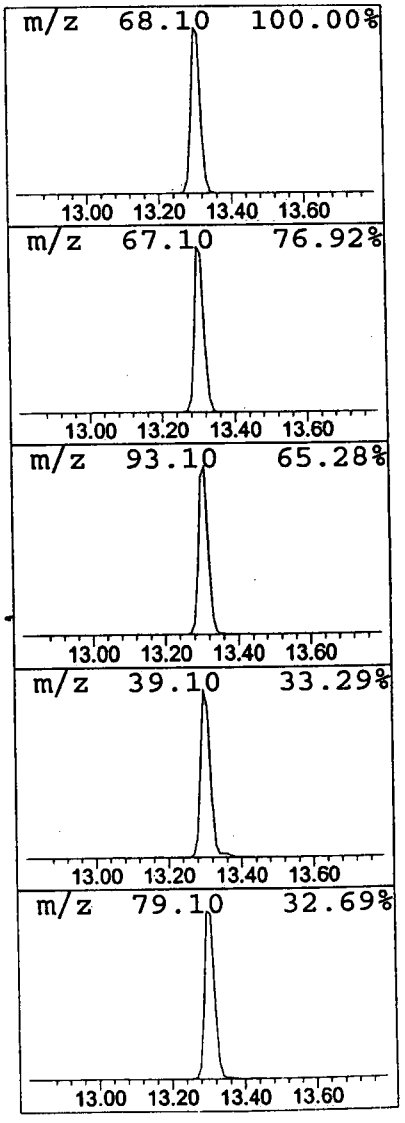
****

Peak Number 1 Unknown — Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.30	174.86 UG	3515640	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	93
2	D-Limonene	136	C10H16	005989-27-5	93
3	D-Limonene	136	C10H16	005989-27-5	93
4	Limonene	136	C10H16	000138-86-3	91





0089

2320

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D Vial: 45
Acq On : 21 Aug 2001 6:27 Operator: XINGFANG WANG
Sample : S-139A,5690-009,M,0.045g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 06:47:04 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

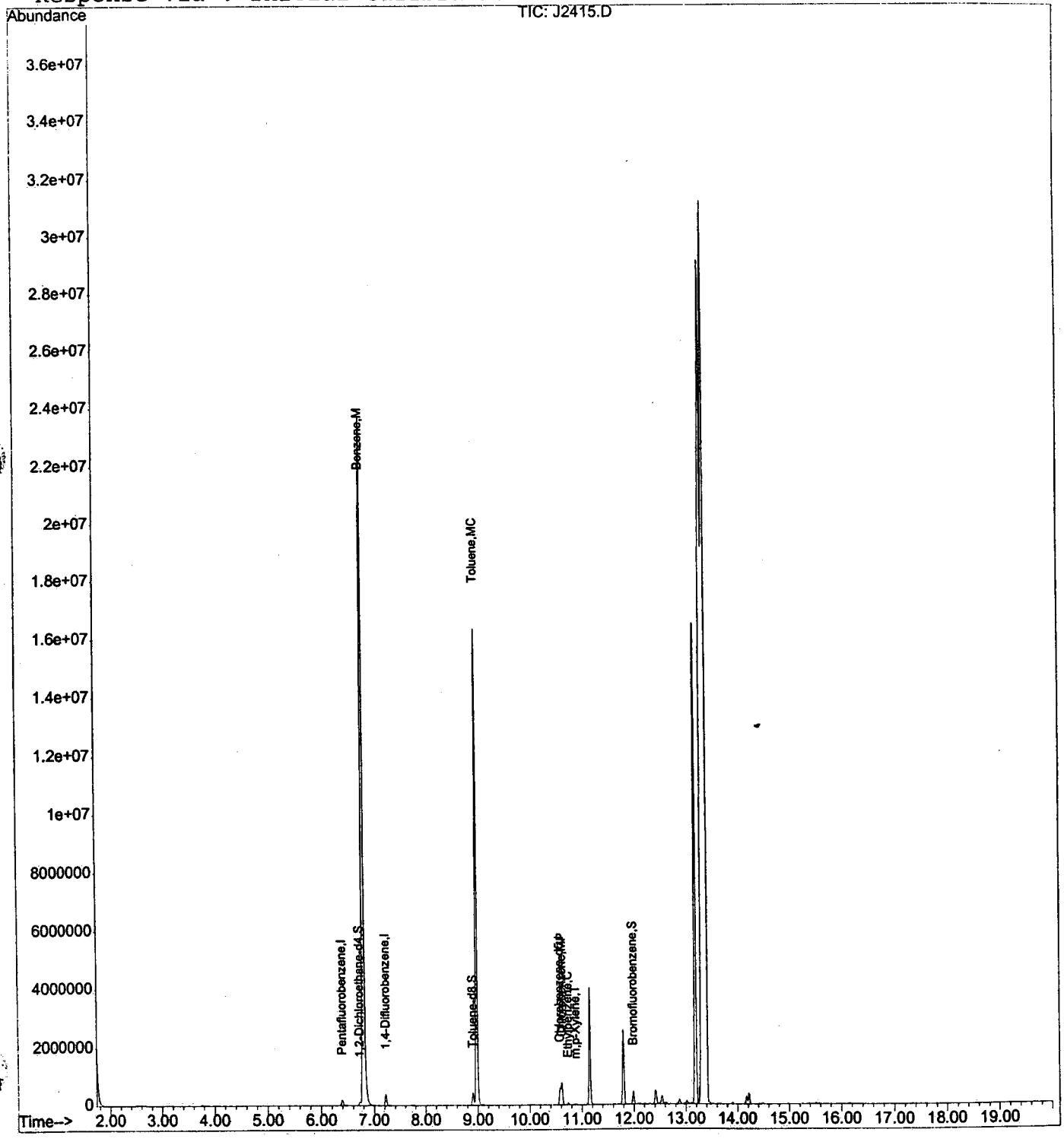
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	167955	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	360851	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	362221	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	99025	51.72	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 103.44%			
41) Toluene-d8	8.90	98	321046	42.81	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 85.62%			
59) Bromofluorobenzene	11.98	95	180064	41.24	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 82.48%			
Target Compounds						Qvalue
32) Benzene	6.79	78	24636335	2635.77	UG	# 91
42) Toluene	8.98	92	7314987	1258.40	UG	99
51) Chlorobenzene	10.62	112	459200	60.31	UG	# 74
53) Ethylbenzene	10.74	91	54907	4.63	UG	99
54) m,p-Xylene	10.88	106	9771	1.97	UG	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D Vial: 45
Acq On : 21 Aug 2001 6:27 Operator: XINGFANG WAN
Sample : S-139A,5690-009,M,0.045g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:39 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0091

2322

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Acq On : 21 Aug 2001 6:27
Sample : S-139A,5690-009,M,0.045g,15.5
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial: 45
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00
S Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0
Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.798	489	501	527	rBV2	23735250	62134336	59.21%	19.130%
2	8.975	712	716	735	rVB	16380147	30078842	28.66%	9.261%
3	10.616	868	878	884	rBV2	771673	2577775	2.46%	0.794%
4	11.152	919	931	939	rBV	4038176	7363690	7.02%	2.267%
5	11.790	986	994	1003	rBV2	2594063	5151536	4.91%	1.586%
6	12.408	1048	1055	1061	rBV2	491417	1097236	1.05%	0.338%
7	13.188	1125	1132	1137	rBV	16534438	32007316	30.50%	9.854%
8	13.330	1137	1146	1149	rVV	29167795	104936391	100.00%	32.308%
9	13.390	1149	1152	1162	rVB2	31236265	79456181	75.72%	24.463%

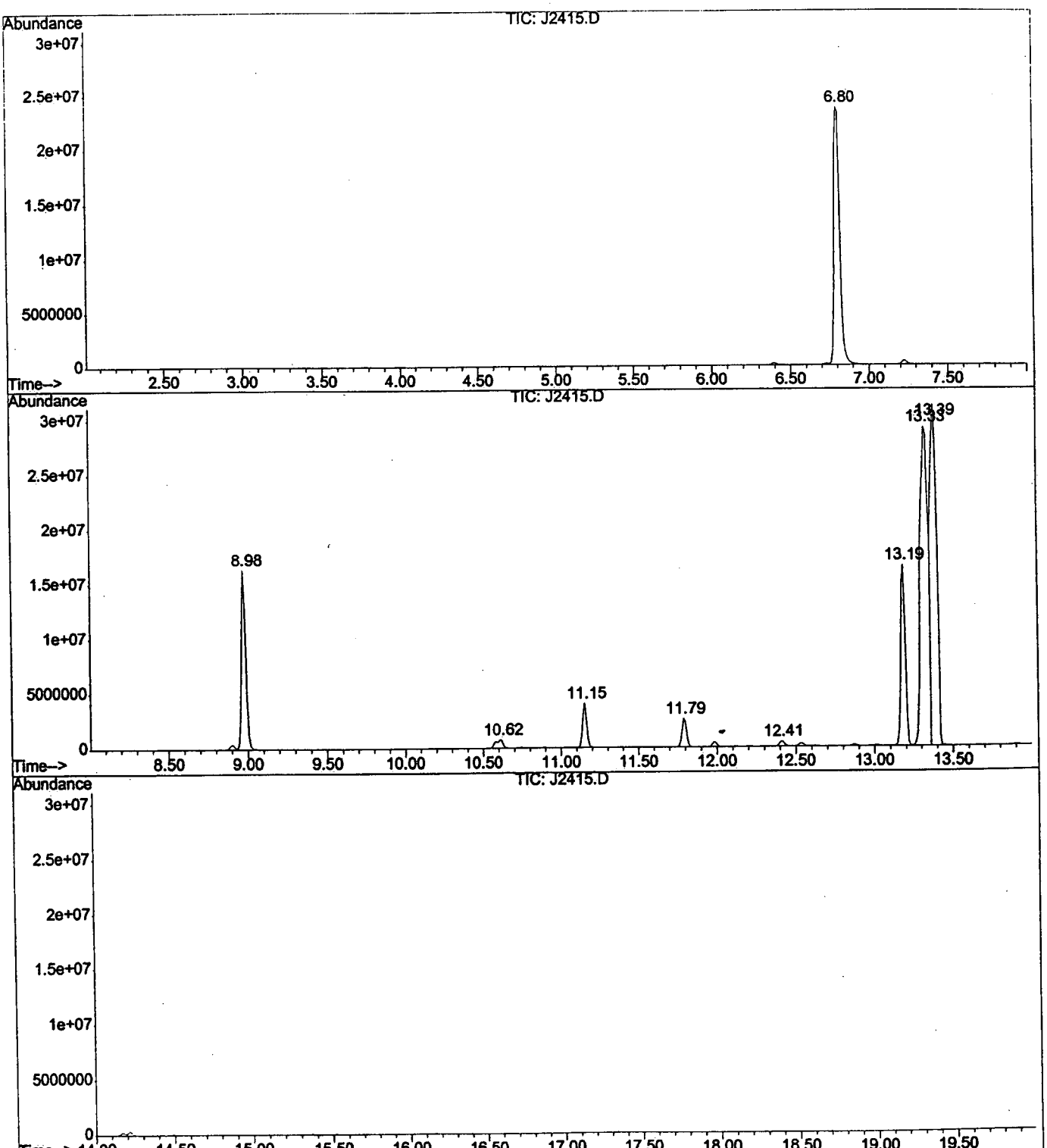
Sum of corrected areas: 324803303

0099

2323

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 6:27 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-139A,5690-009,M,0.045g,15.5
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 45
Quant File :JME0730.RES (RTE Integrator)



0093

7324

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Acq On : 21 Aug 2001 6:27
Sample : S-139A,5690-009,M,0.045g,15.5
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
S Integration Params: LSCINT.P

Vial: 45
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

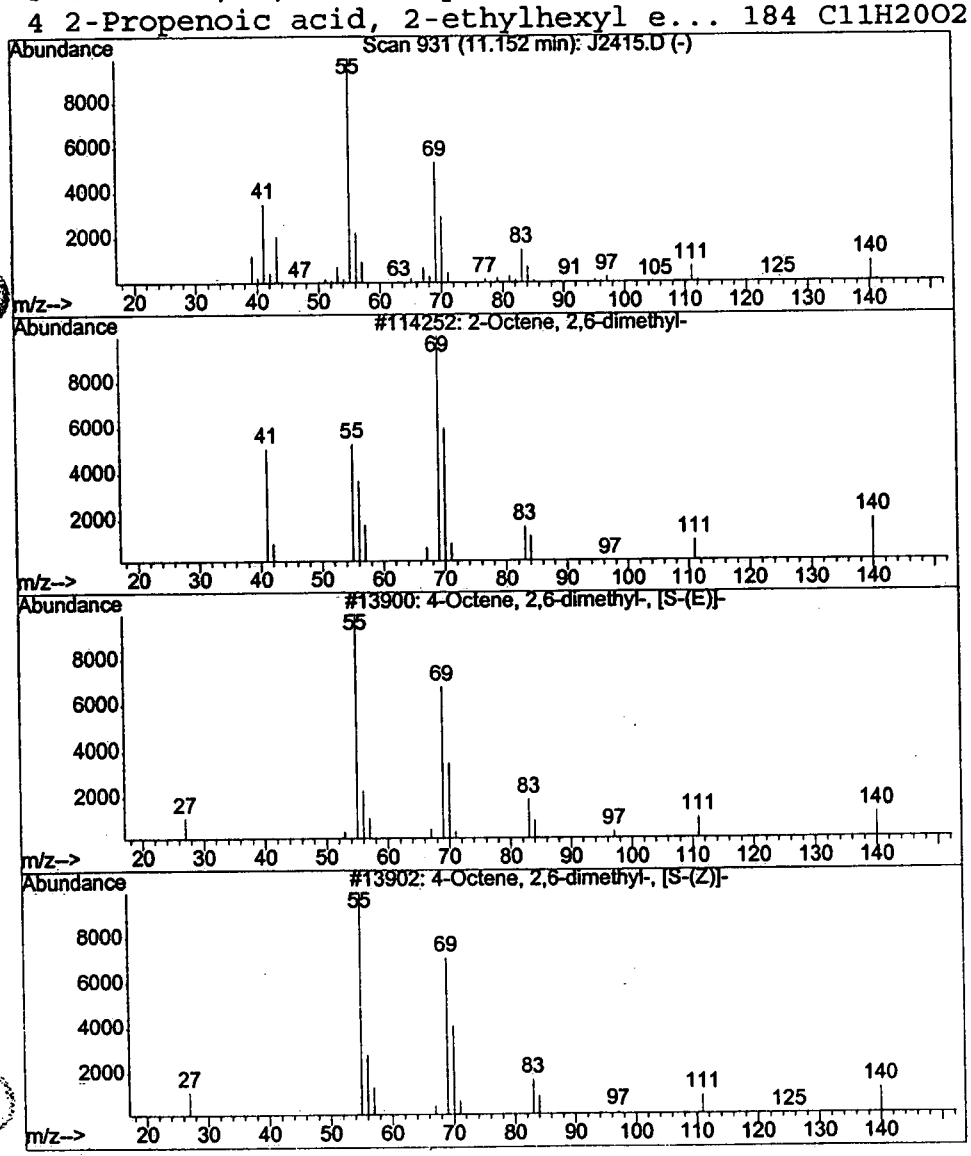
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

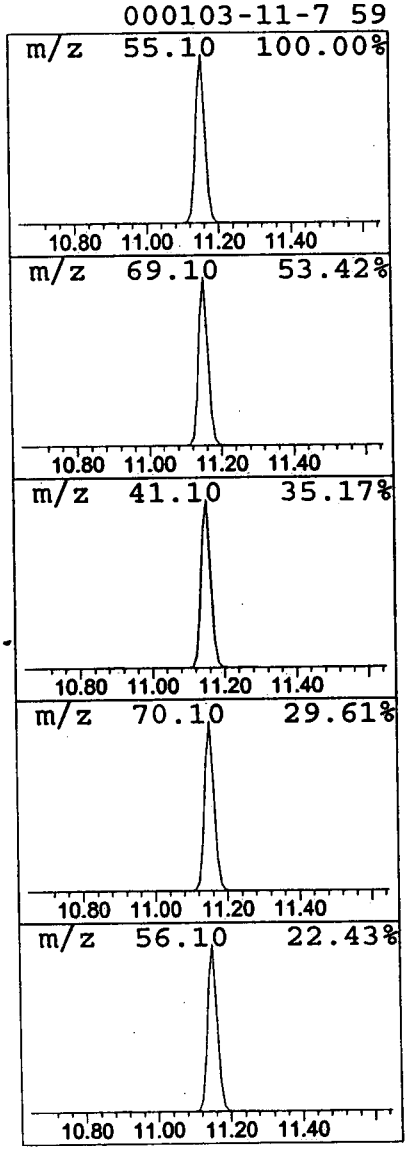
****

Peak Number 1 Unknown aliphatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.15	142.83 UG	7363690	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octene, 2,6-dimethyl-	140	C10H20	004057-42-5	87
2	4-Octene, 2,6-dimethyl-, [S-(E)]-	140	C10H20	062960-76-3	87
3	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140	C10H20	062960-77-4	87
4	2-Propenoic acid, 2-ethylhexyl e...	184	C11H20O2	000103-11-7	59





2325

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D Vial: 45
Acq On : 21 Aug 2001 6:27 Operator: XINGFANG WANG
Sample : S-139A,5690-009,M,0.045g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

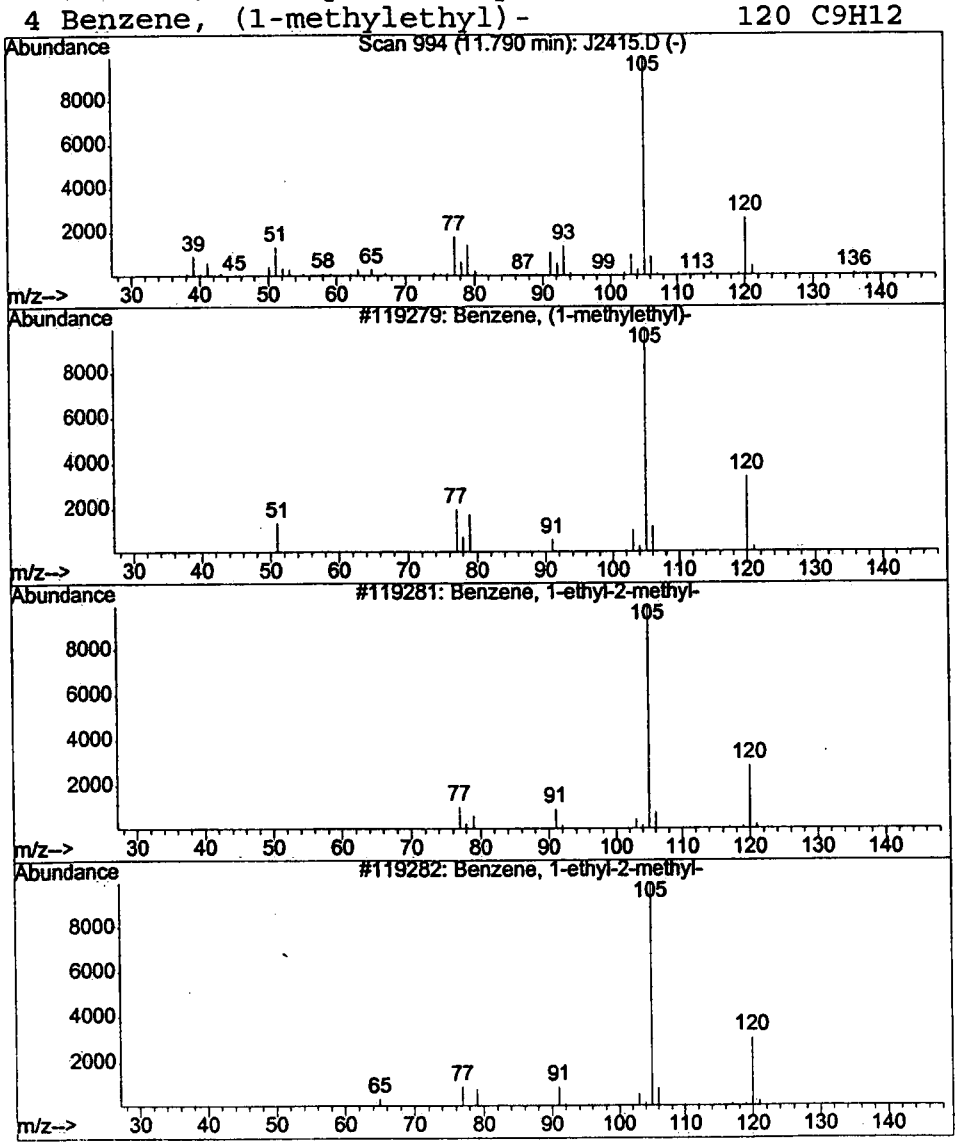
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

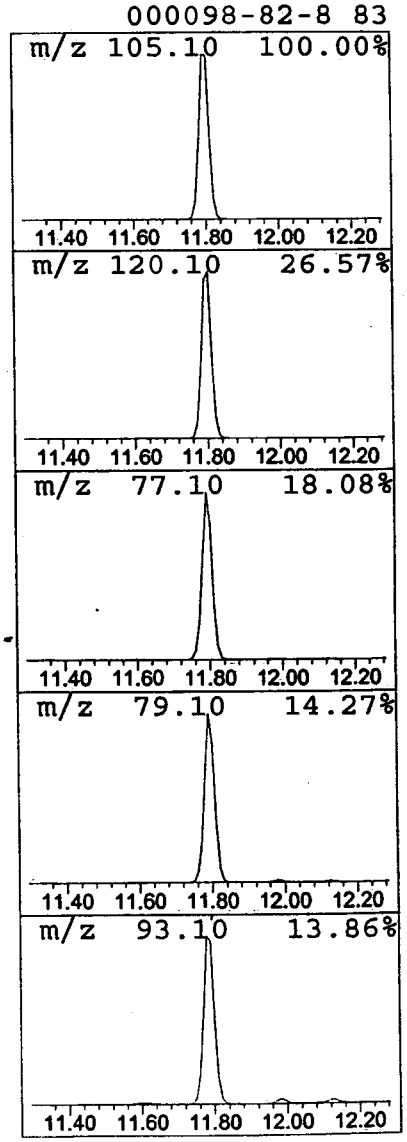
****

Peak Number 2 Substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.79	99.92 UG	5151540	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	93
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	90
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	83
4	Benzene, (1-methylethyl)-	120	C9H12	000098-82-8	83





0095

7326

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Acq On : 21 Aug 2001 6:27
Sample : S-139A,5690-009,M,0.045g,15.5
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
S Integration Params: LSCINT.P

Vial: 45
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

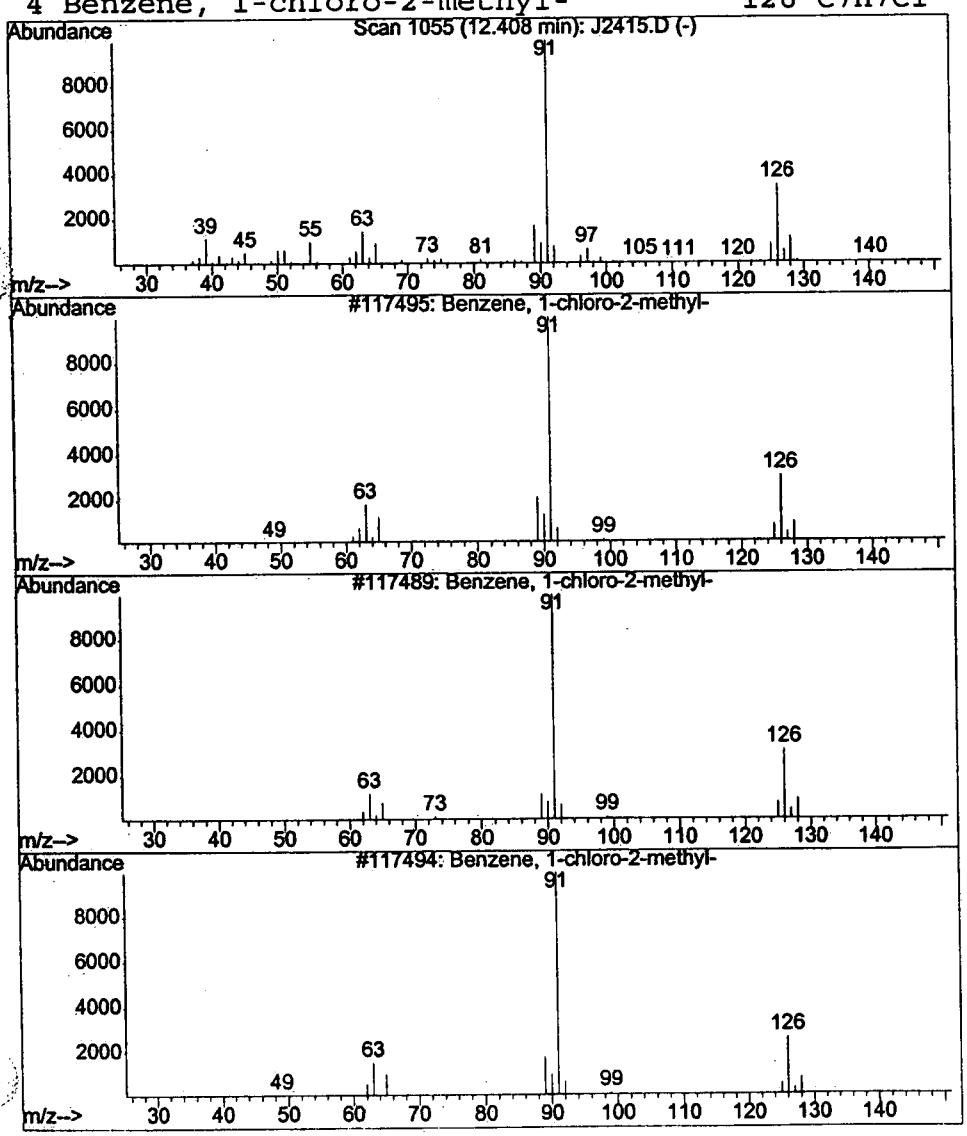
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

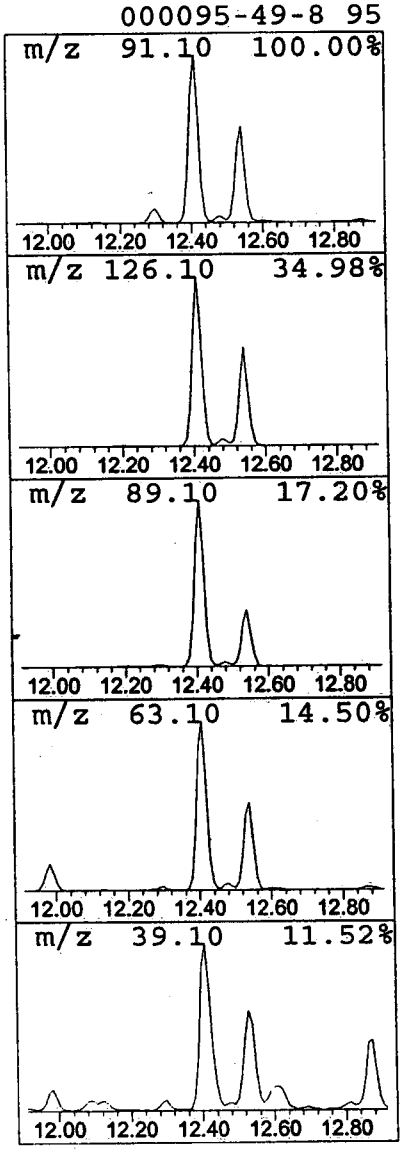
****

Peak Number 3 Substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.41	21.28 UG	1097240	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	97
2	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	97
3	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	96
4	Benzene, 1-chloro-2-methyl-	126	C7H7Cl	000095-49-8	95





2327

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Acq On : 21 Aug 2001 6:27
Sample : S-139A,5690-009,M,0.045g,15.5
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
MS Integration Params: LSCINT.P

Vial: 45
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

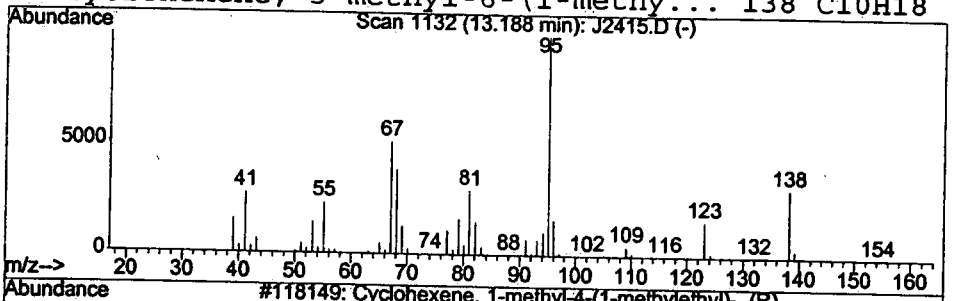
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

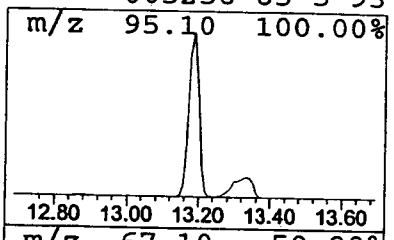
****

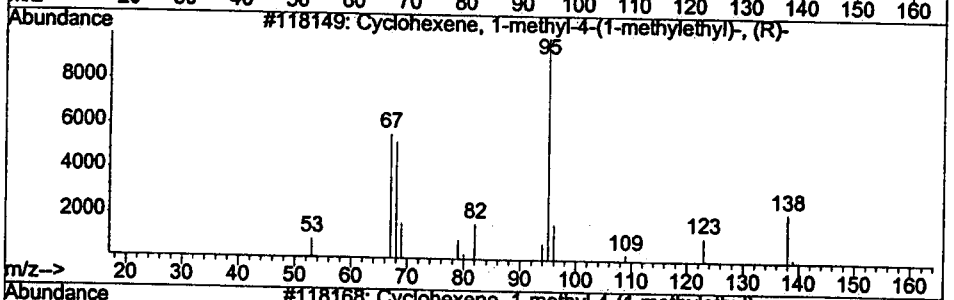
Peak Number 4 Unknown cyclic hydrocarbon Concentration Rank 3

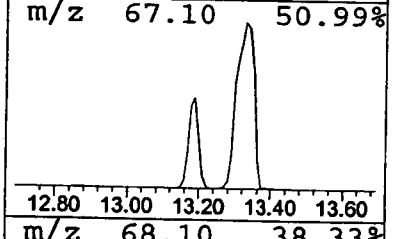
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.19	620.83 UG	32007300	Chlorobenzene-d5	10.58

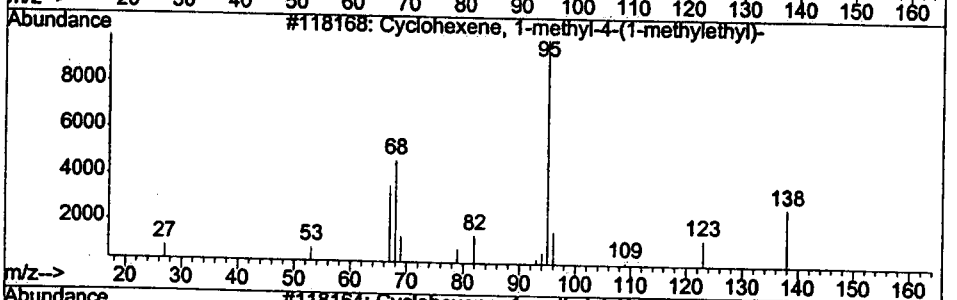
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	001195-31-9	97
2	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	005502-88-5	94
3	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	005502-88-5	93
4	Cyclohexene, 3-methyl-6-(1-methy...	138	C10H18	005256-65-5	93

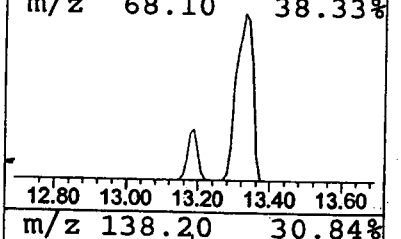


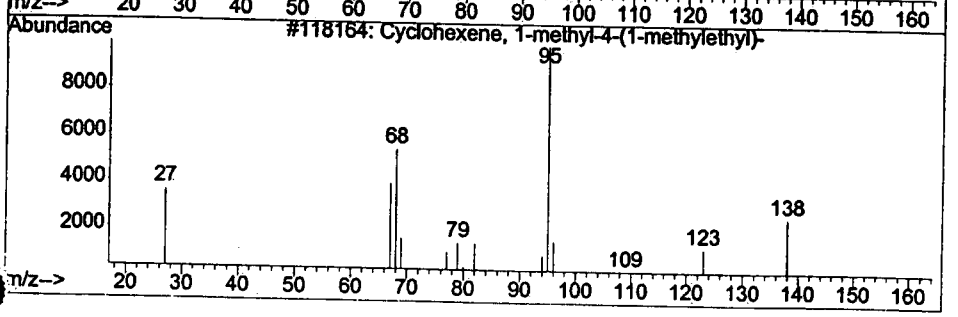


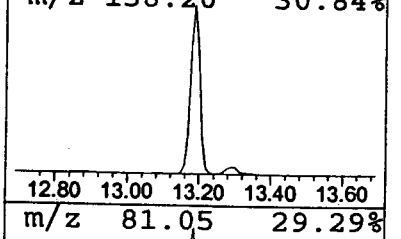


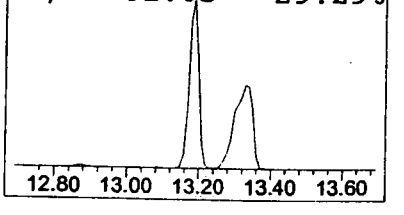












0097

23246

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D Vial: 45
Acq On : 21 Aug 2001 6:27 Operator: XINGFANG WANG
Sample : S-139A,5690-009,M,0.045g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

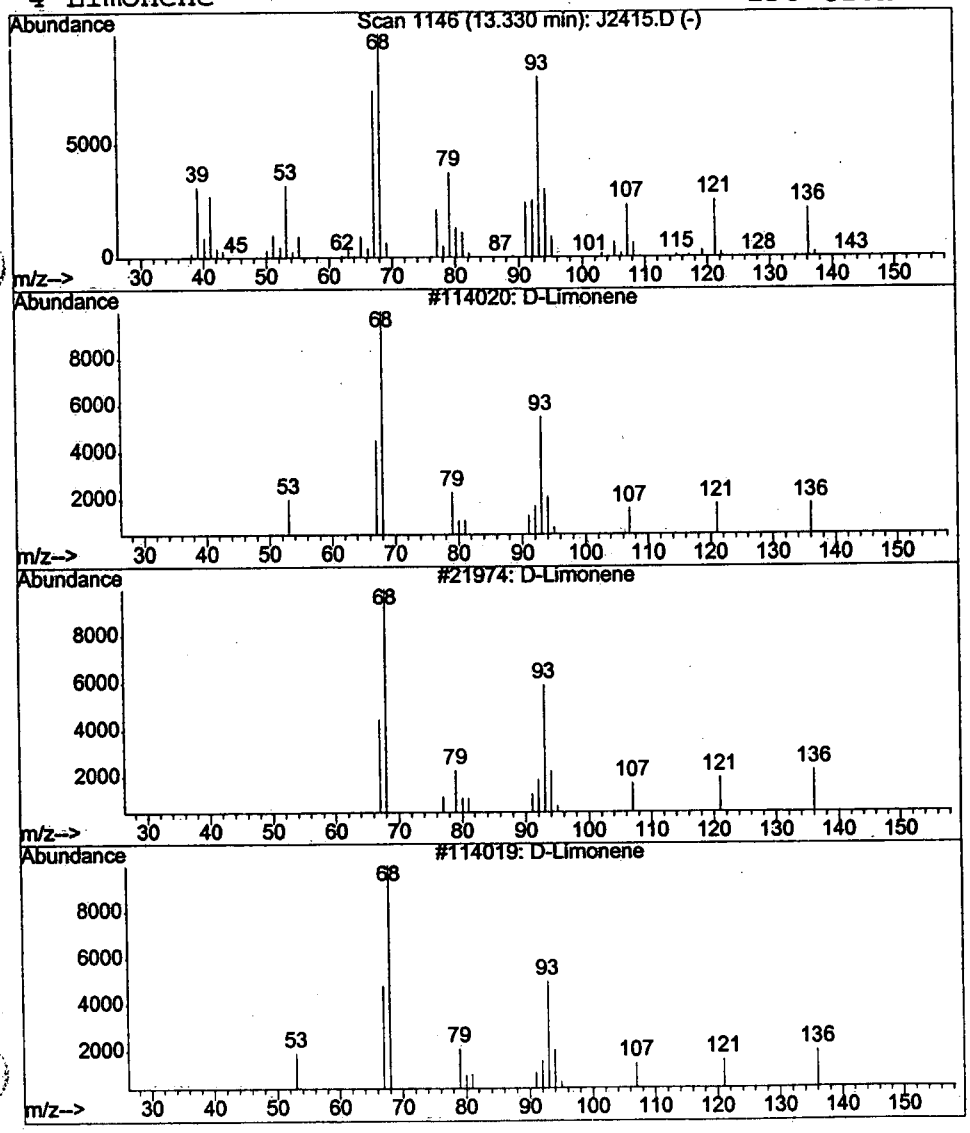
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

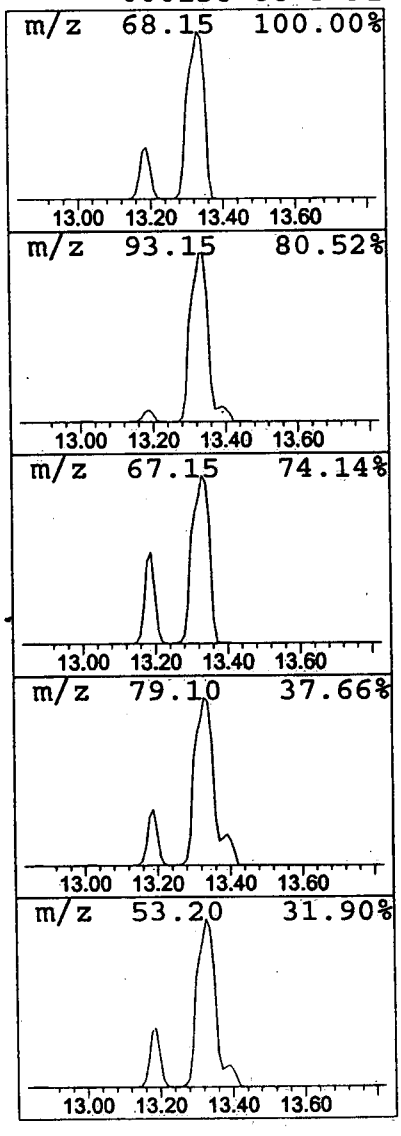
****

Peak Number 5 Unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.33	2035.41 UG	104936000	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	D-Limonene	136	C10H16	005989-27-5	94
3	D-Limonene	136	C10H16	005989-27-5	93
4	Limonene	136	C10H16	000138-86-3	91





2329

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2415.D
Acq On : 21 Aug 2001 6:27
Sample : S-139A,5690-009,M,0.045g,15.5
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
MS Integration Params: LSCINT.P

Vial: 45
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

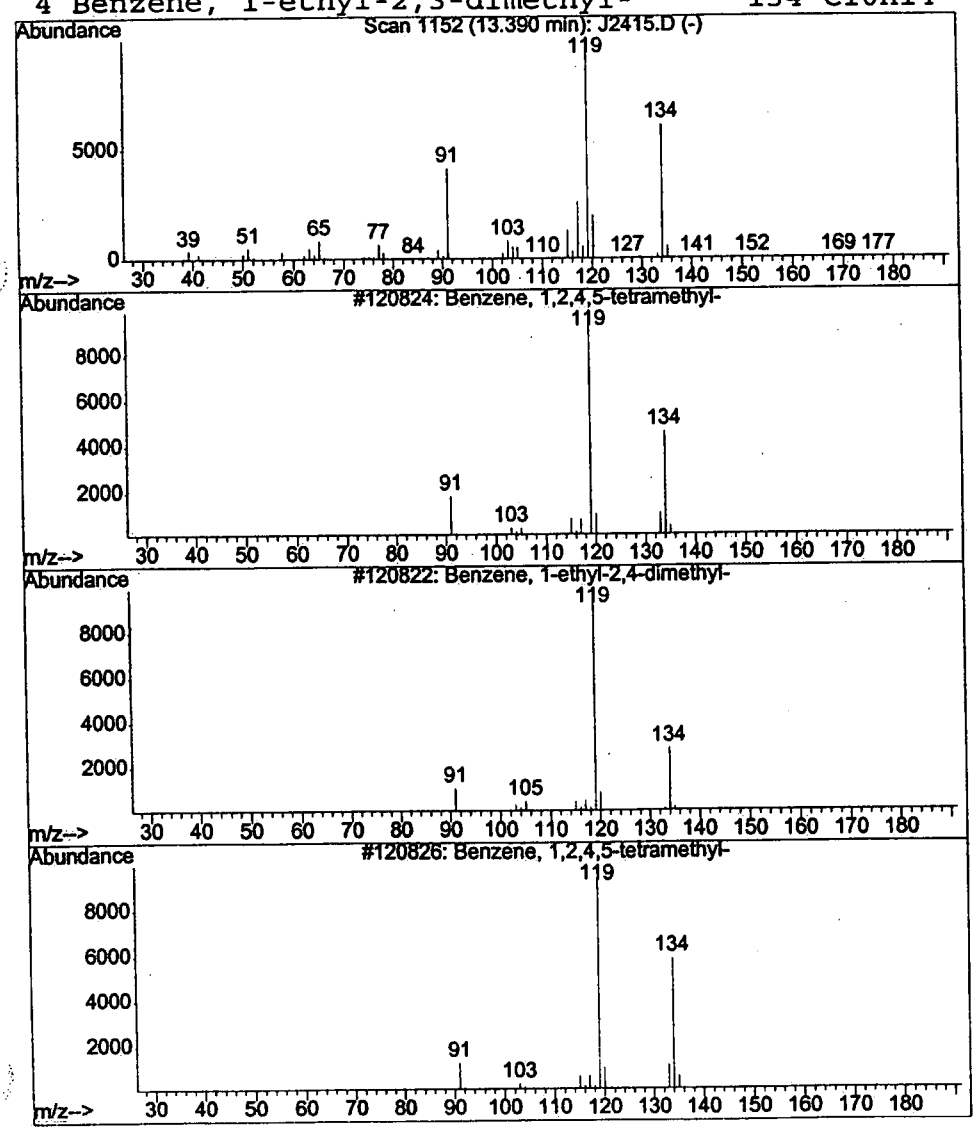
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

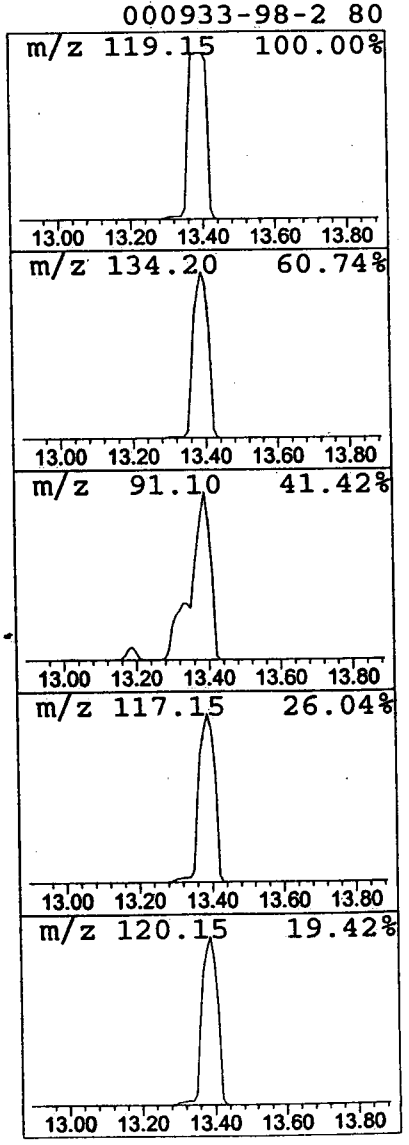
****

Peak Number 6 Substituted benzene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.39	1541.18 UG	79456200	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	87
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	83
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	81
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	80





0099

2330

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2445.D Vial: 22
Acq On : 21 Aug 2001 20:59 Operator: XINGFANG WANG
Sample : S-139A,5690-009DIL,M,0.002g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,2 Multiplr: 1.00
IS Integration Params: LSCINT.P
Quant Time: Aug 21 21:19:41 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

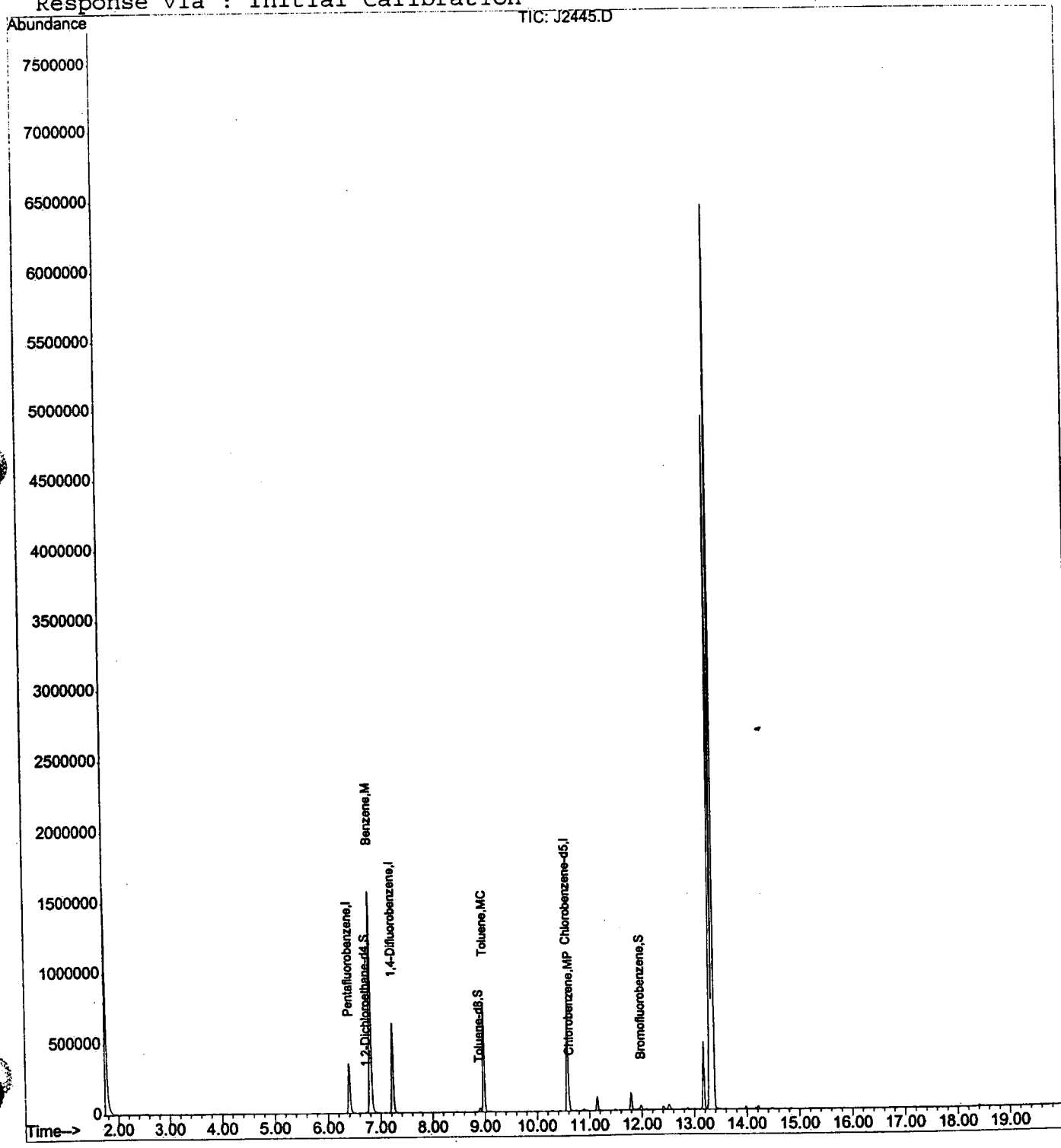
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	6.39	168	312932	50.00	UG		0.00
31) 1,4-Difluorobenzene	7.22	114	600709	50.00	UG		0.00
50) Chlorobenzene-d5	10.58	117	559584	50.00	UG		0.00
System Monitoring Compounds							
30) 1,2-Dichloroethane-d4	6.73	65	7594	2.13	UG		0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 4.26%#				
41) Toluene-d8	8.89	98	23510	1.88	UG		0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 3.76%#				
59) Bromofluorobenzene	11.98	95	12952	1.92	UG		0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 3.84%#				
Target Compounds							Qvalue
32) Benzene	6.80	78	1599626	102.80	UG		100
42) Toluene	8.98	92	369823	38.22	UG		99
51) Chlorobenzene	10.62	112	31679	2.69	UG	#	74

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2445.D Vial: 22
Acq On : 21 Aug 2001 20:59 Operator: XINGFANG WAN
Sample : S-139A,5690-009DIL,M,0.002g,15.5 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,2 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 22 9:50 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0101

2332

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WANG
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P
Quant Time: Aug 21 07:14:55 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	189811	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	388353	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	366170	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	102564	47.40	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 94.80%			
41) Toluene-d8	8.89	98	336371	41.68	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 83.36%			
59) Bromofluorobenzene	11.98	95	159689	36.18	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 72.36%			
Target Compounds						Qvalue
32) Benzene	6.80	78	3029858	301.20	UG	100
42) Toluene	8.98	92	267062	42.69	UG	99

(#) = qualifier out of range (m) = manual integration

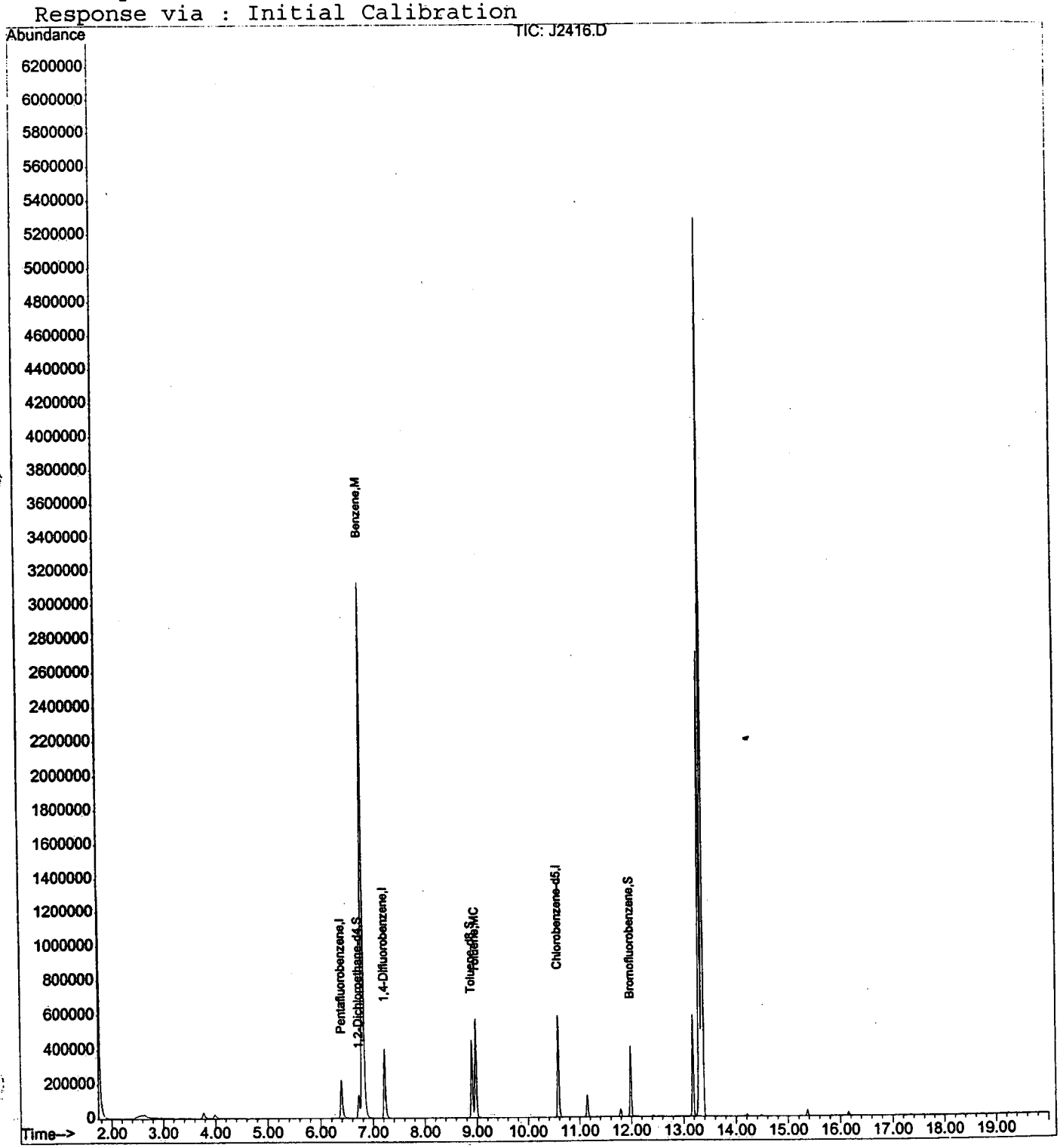
0109

7333

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WAN
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:41 2001 Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0103

2334

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WANG
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
S Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

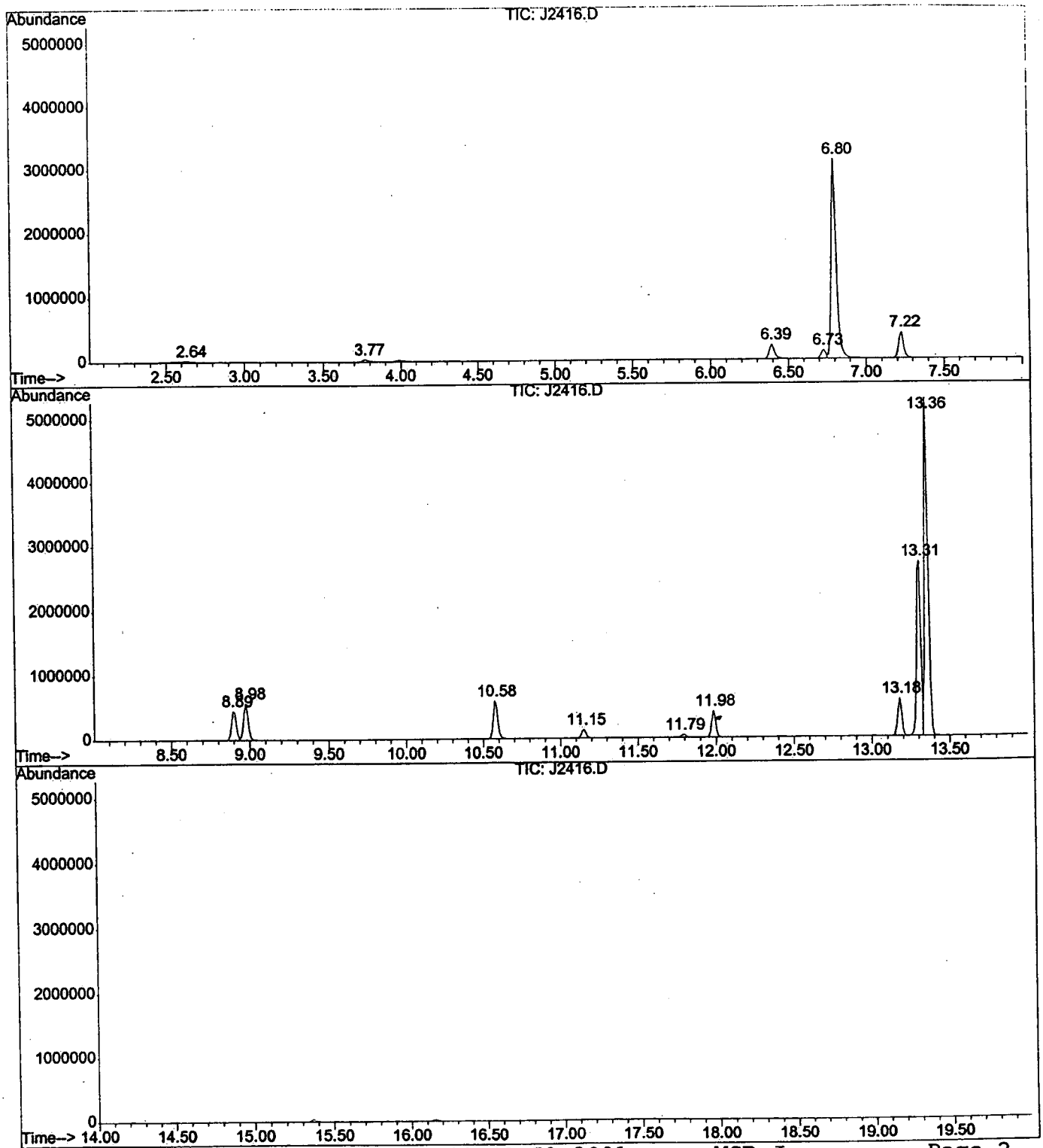
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.636	66	90	104	rBV3	22234	276935	3.23%	0.979%
2	3.770	197	202	218	rBV	35217	110392	1.29%	0.390%
3	6.393	455	461	478	rVB	225403	543439	6.33%	1.921%
4	6.727	487	494	496	rBV	139370	292072	3.40%	1.033%
5	6.798	496	501	525	rVB	3130019	6980227	81.37%	24.679%
6	7.223	536	543	556	rBV	406485	900840	10.50%	3.185%
7	8.894	699	708	712	rBV	452380	947484	11.04%	3.350%
8	8.975	712	716	734	rVB	572930	1139722	13.29%	4.030%
9	10.575	866	874	887	rBV	587849	1163940	13.57%	4.115%
10	11.152	923	931	939	rBV	130763	251181	2.93%	0.888%
11	11.790	988	994	1004	rBV2	44118	91032	1.06%	0.322%
12	11.983	1005	1013	1021	rBV	412164	739207	8.62%	2.614%
13	13.178	1123	1131	1137	rBV	588283	1036401	12.08%	3.664%
14	13.309	1137	1144	1146	rVV	2713210	5232033	60.99%	18.498%
15	13.360	1146	1149	1166	rVB	5285008	8578842	100.00%	30.331%

Sum of corrected areas: 28283747

File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 6:54 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: S-139B,5690-010,M,0.02g,16.3
Misc Info : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
Vial Number: 46
Quant File :JME0730.RES (RTE Integrator)



0105

2336

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D
Acq On : 21 Aug 2001 6:54
Sample : S-139B,5690-010,M,0.02g,16.3
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
S Integration Params: LSCINT.P

Vial: 46
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

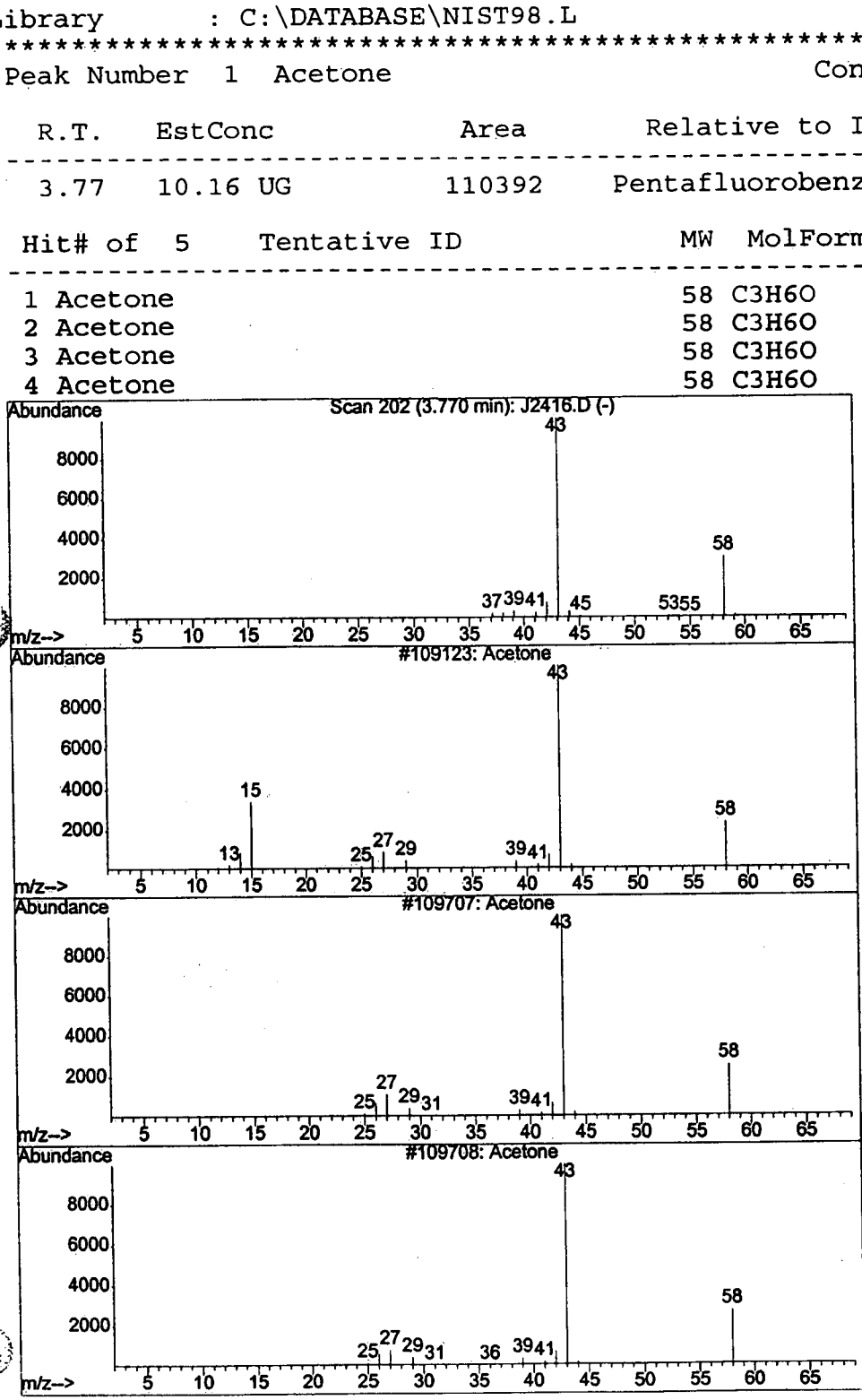
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

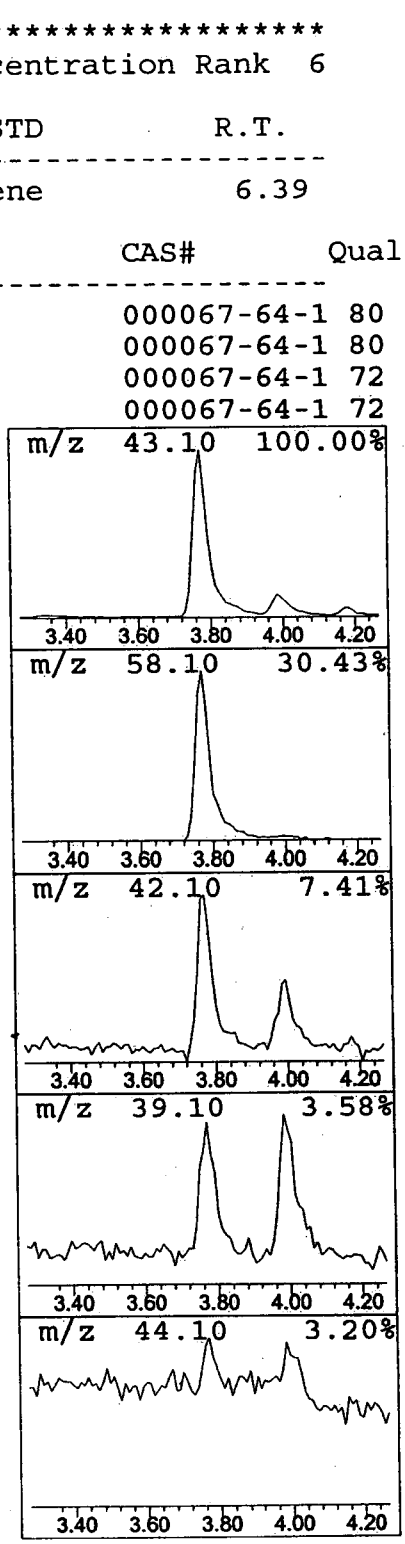
****

Peak Number 1 Acetone — Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.77	10.16 UG	110392	Pentafluorobenzene	6.39

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetone	58	C3H6O	000067-64-1	80
2	Acetone	58	C3H6O	000067-64-1	80
3	Acetone	58	C3H6O	000067-64-1	72
4	Acetone	58	C3H6O	000067-64-1	72





0106

7337

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D
Acq On : 21 Aug 2001 6:54
Sample : S-139B,5690-010,M,0.02g,16.3
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1
IS Integration Params: LSCINT.P

Vial: 46
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

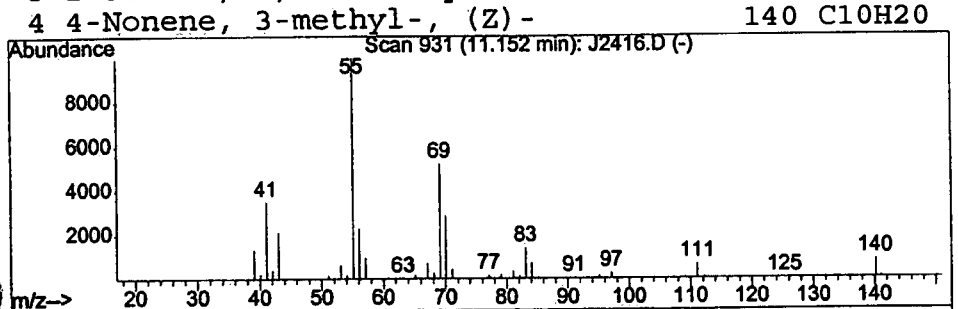
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

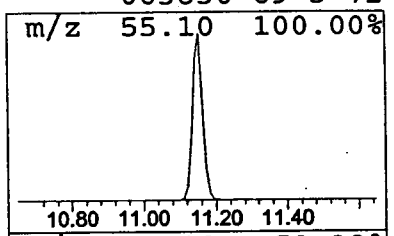
****

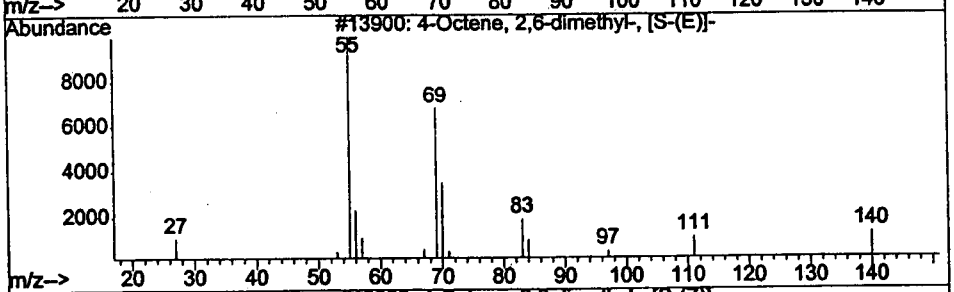
Peak Number 2 Unknown aliphatic Concentration Rank 5

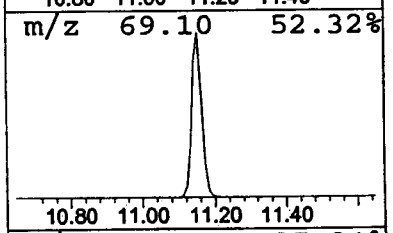
R.T.	EstConc	Area	Relative to ISTD	R.T.
11.15	10.79 UG	251181	Chlorobenzene-d5	10.58

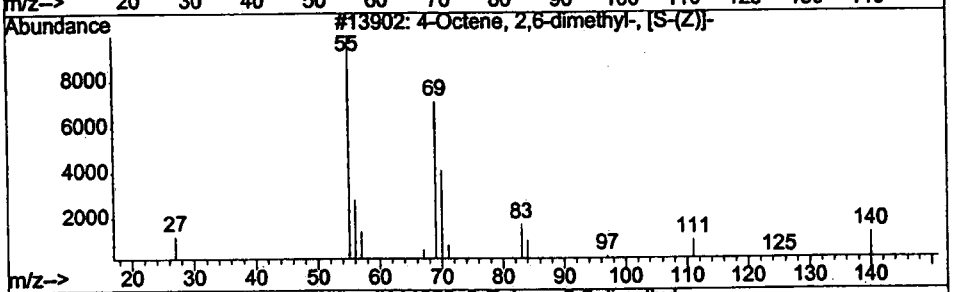
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Octene, 2,6-dimethyl-, [S-(E)]-	140	C10H20	062960-76-3	91
2	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140	C10H20	062960-77-4	87
3	2-Octene, 2,6-dimethyl-	140	C10H20	004057-42-5	74
4	4-Nonene, 3-methyl-, (Z)-	140	C10H20	063830-69-3	72

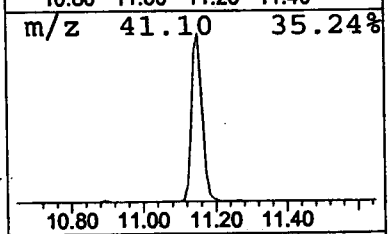


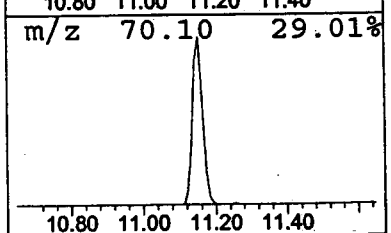


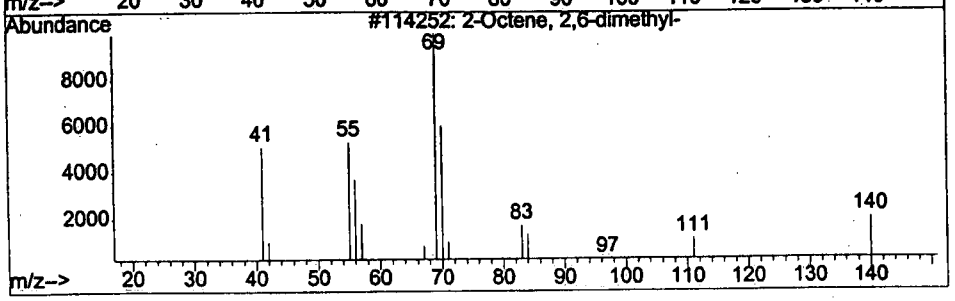


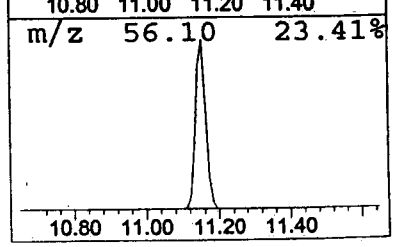












0107

73346

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WANG
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
IS Integration Params: LSCINT.P

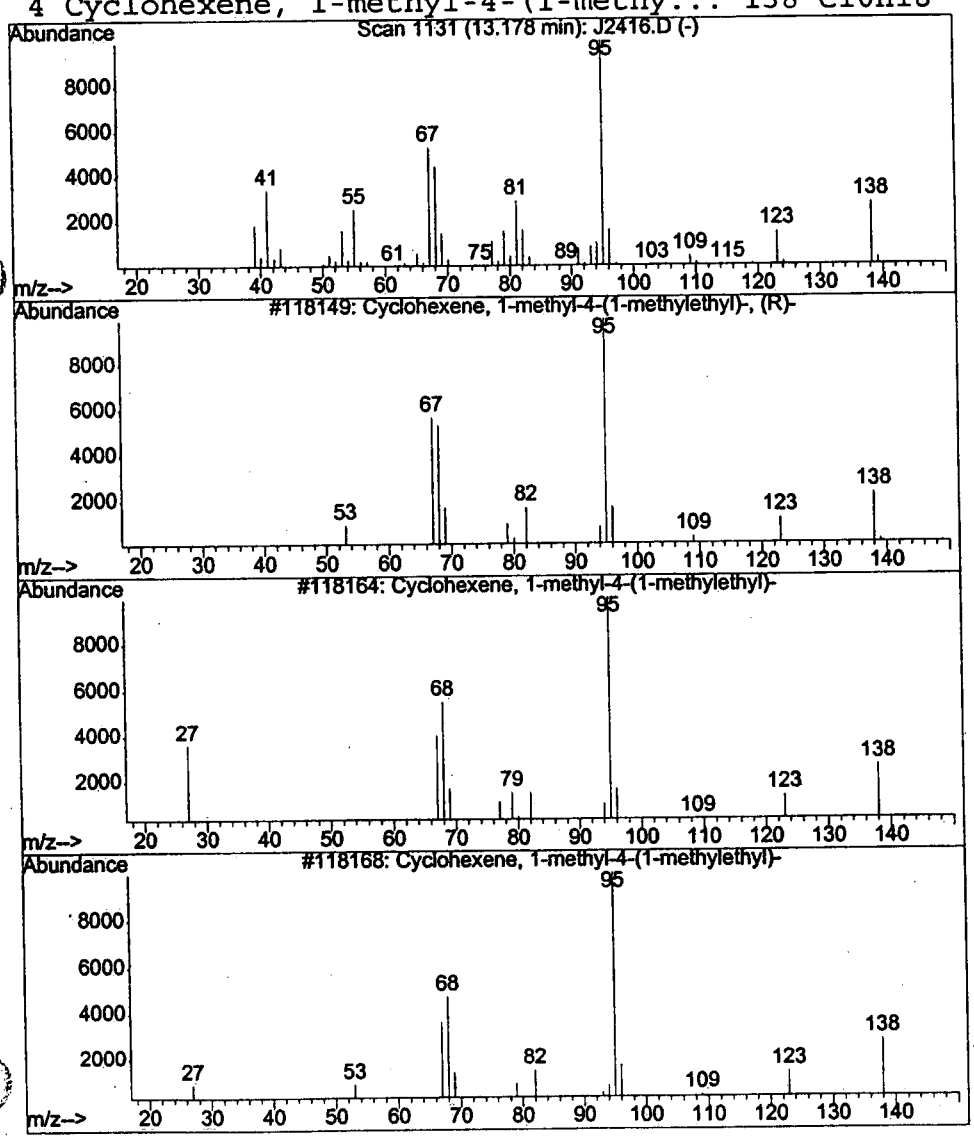
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

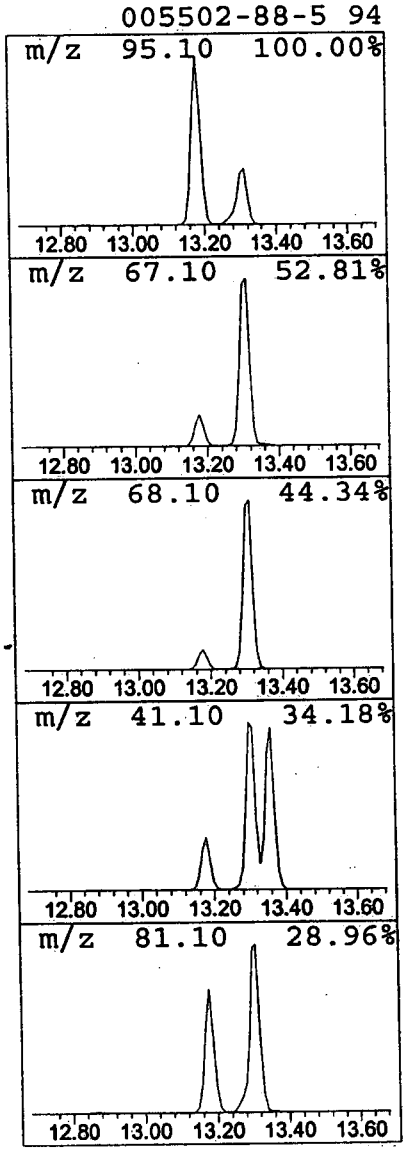
****

Peak Number 3 Unknown cyclic hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.18	44.52 UG	1036400	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	001195-31-9	96
2	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	005502-88-5	96
3	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	005502-88-5	95
4	Cyclohexene, 1-methyl-4-(1-methy...	138	C10H18	005502-88-5	94





0102

2339

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WANG
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
LS Integration Params: LSCINT.P

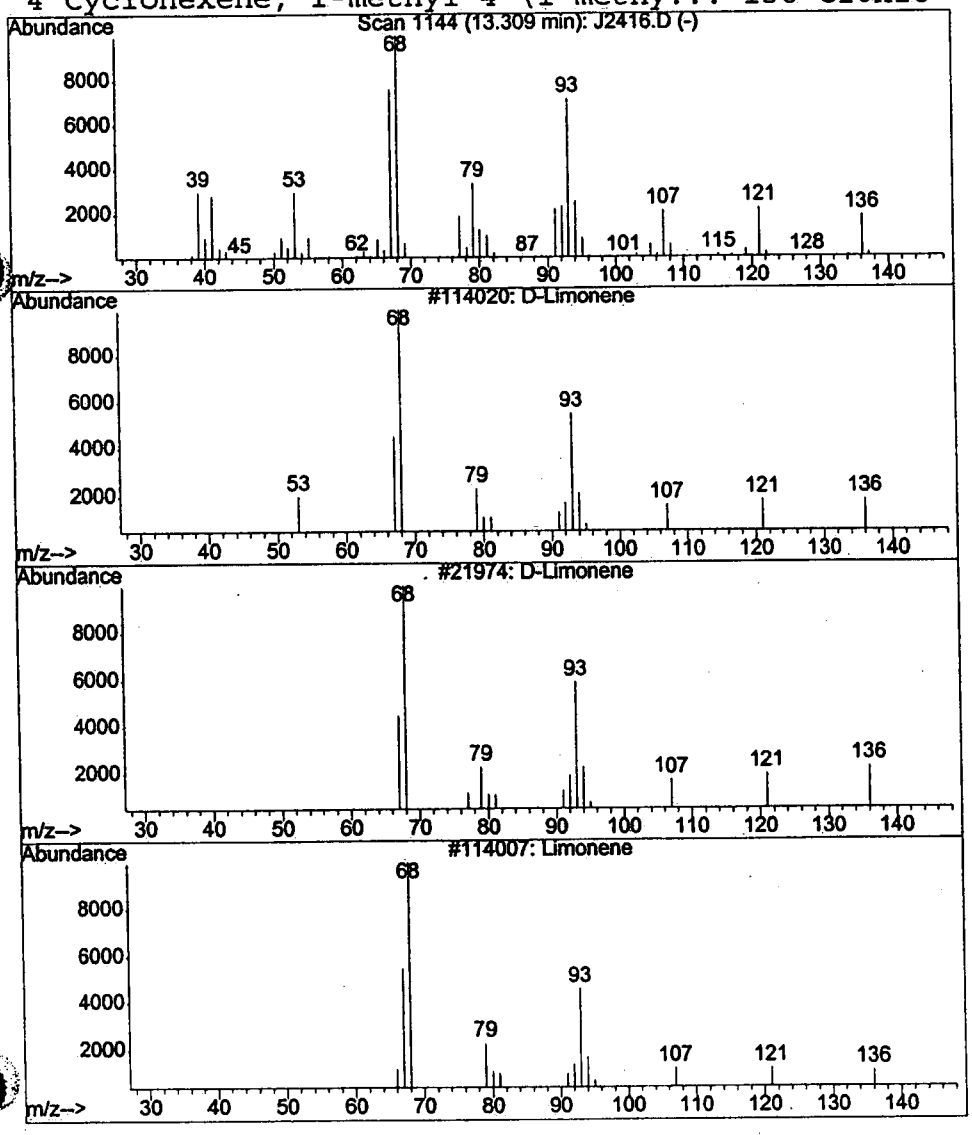
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

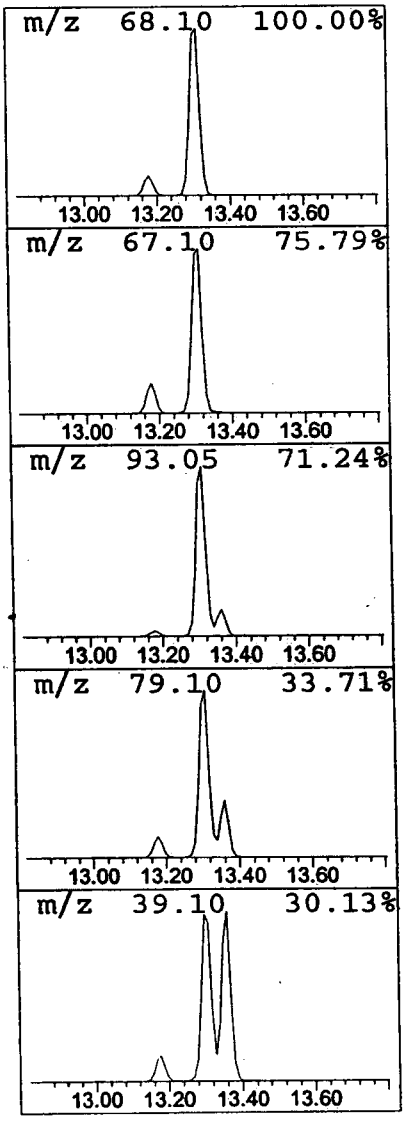
****

Peak Number 4 Unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.31	224.76 UG	5232030	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	D-Limonene	136	C10H16	005989-27-5	94
2	D-Limonene	136	C10H16	005989-27-5	93
3	Limonene	136	C10H16	000138-86-3	90
4	Cyclohexene, 1-methyl-4-(1-methy...	136	C10H16	005989-54-8	90





2340

Library Search Compound Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2416.D Vial: 46
Acq On : 21 Aug 2001 6:54 Operator: XINGFANG WANG
Sample : S-139B,5690-010,M,0.02g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,1 Multiplr: 1.00
MS Integration Params: LSCINT.P

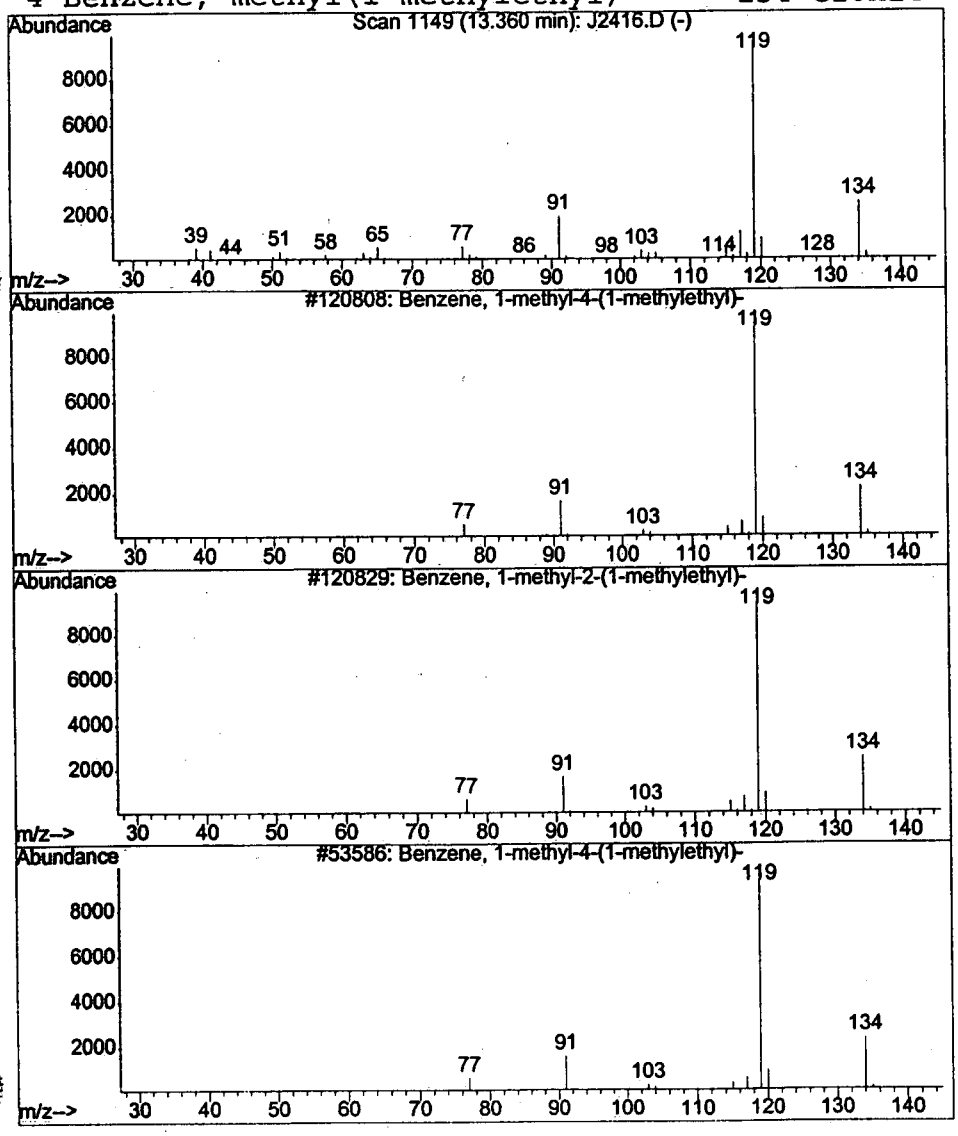
Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Library : C:\DATABASE\NIST98.L

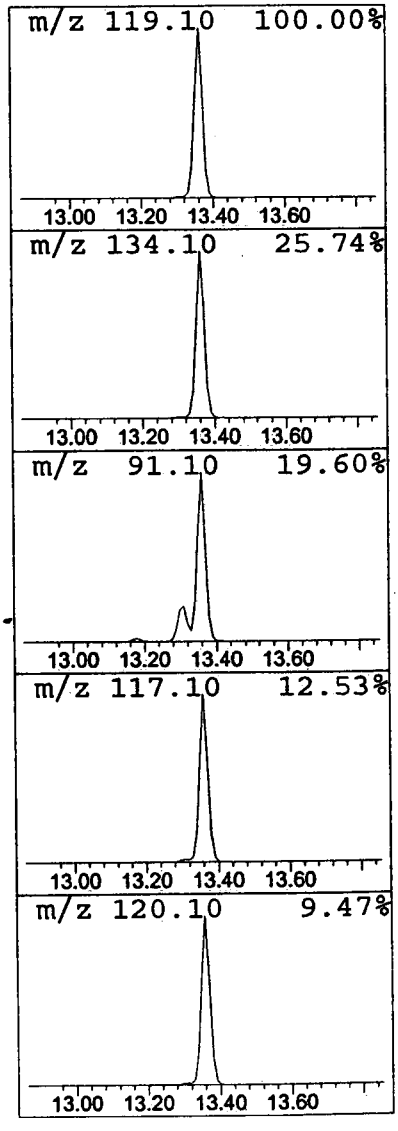
****

Peak Number 5 Substituted benzene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.36	368.53 UG	8578840	Chlorobenzene-d5	10.58

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	94
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	94
4	Benzene, methyl(1-methylethyl)-	134	C10H14	025155-15-1	94





0110

2341

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2446.D Vial: 23
Acq On : 21 Aug 2001 21:27 Operator: XINGFANG WANG
Sample : S-139B,5690-010DIL,M,0.007g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,5 Multiplr: 1.00
RTE Integration Params: LSCINT.P
Quant Time: Aug 21 21:47:10 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	314489	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	604861	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	562273	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	31019	8.65	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 17.30%#			
41) Toluene-d8	8.90	98	96375	7.67	UG	0.01
Spiked Amount 50.000	Range 39 - 137		Recovery = 15.34%#			
59) Bromofluorobenzene	11.98	95	46133	6.81	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 13.62%#			
Target Compounds						Qvalue
32) Benzene	6.80	78	715010	45.64	UG	100
42) Toluene	8.98	92	65621	6.73	UG	99

(#) = qualifier out of range (m) = manual integration

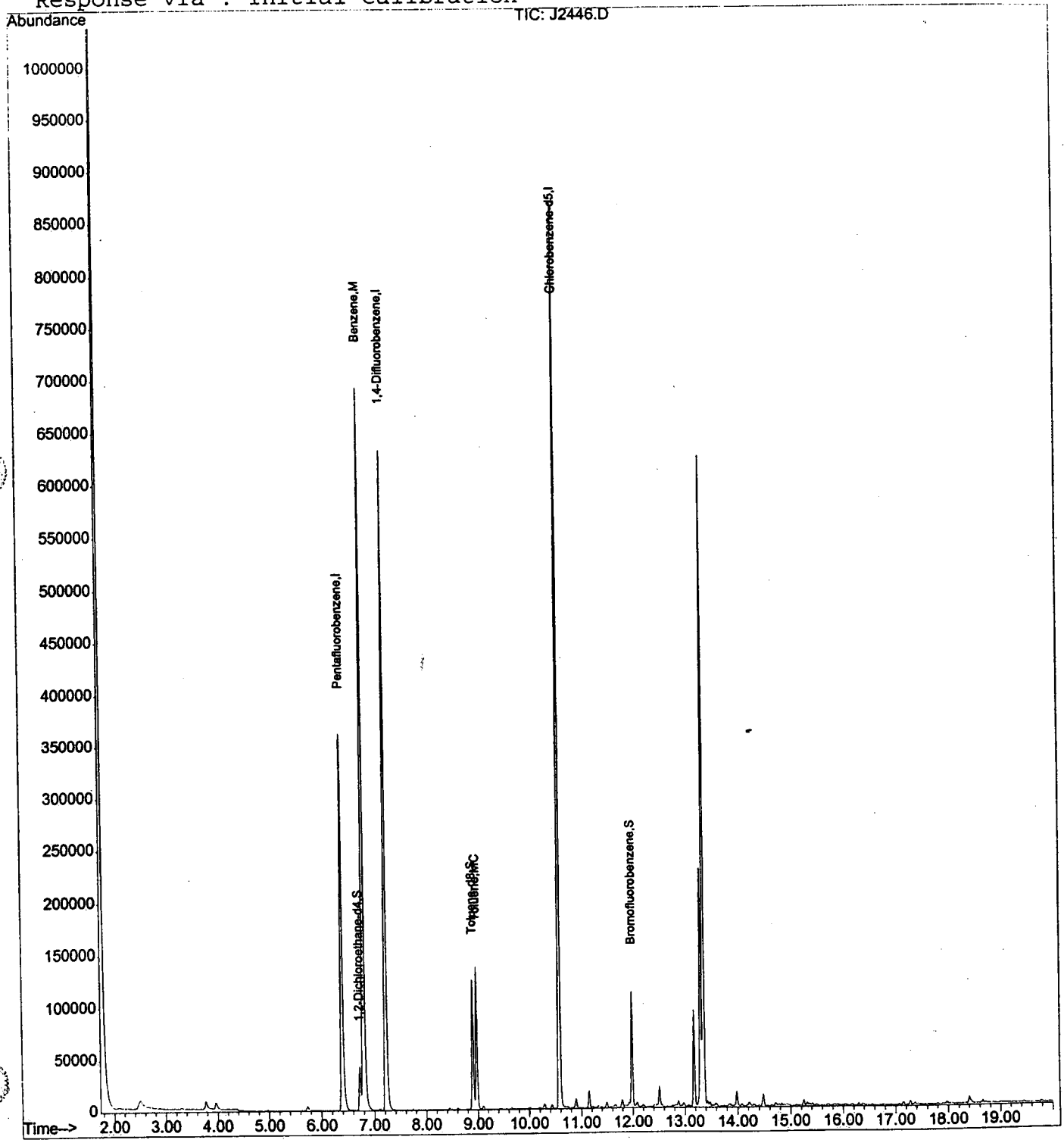
0111

7242

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2446.D Vial: 23
Acq On : 21 Aug 2001 21:27 Operator: XINGFANG WAN
Sample : S-139B,5690-010DIL,M,0.007g,16.3 Inst : MSD_J
Misc : ENVTACT/ORBIS_-_NEWARK,8/16/01,8/17/01,5 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 22 9:59 2001 Quant Results File: JME0730.RE

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0112

2343

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2403.D Vial: 33
Acq On : 21 Aug 2001 00:57 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 01:17:14 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	204980	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	419479	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	382387	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	137211	58.72	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 117.44%			
41) Toluene-d8	8.89	98	441367	50.63	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.26%			
59) Bromofluorobenzene	11.98	95	193571	42.00	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 84.00%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
J2403.D JME0730.M Tue Aug 21 09:06:31 2001 MSD_J Page 1

2344

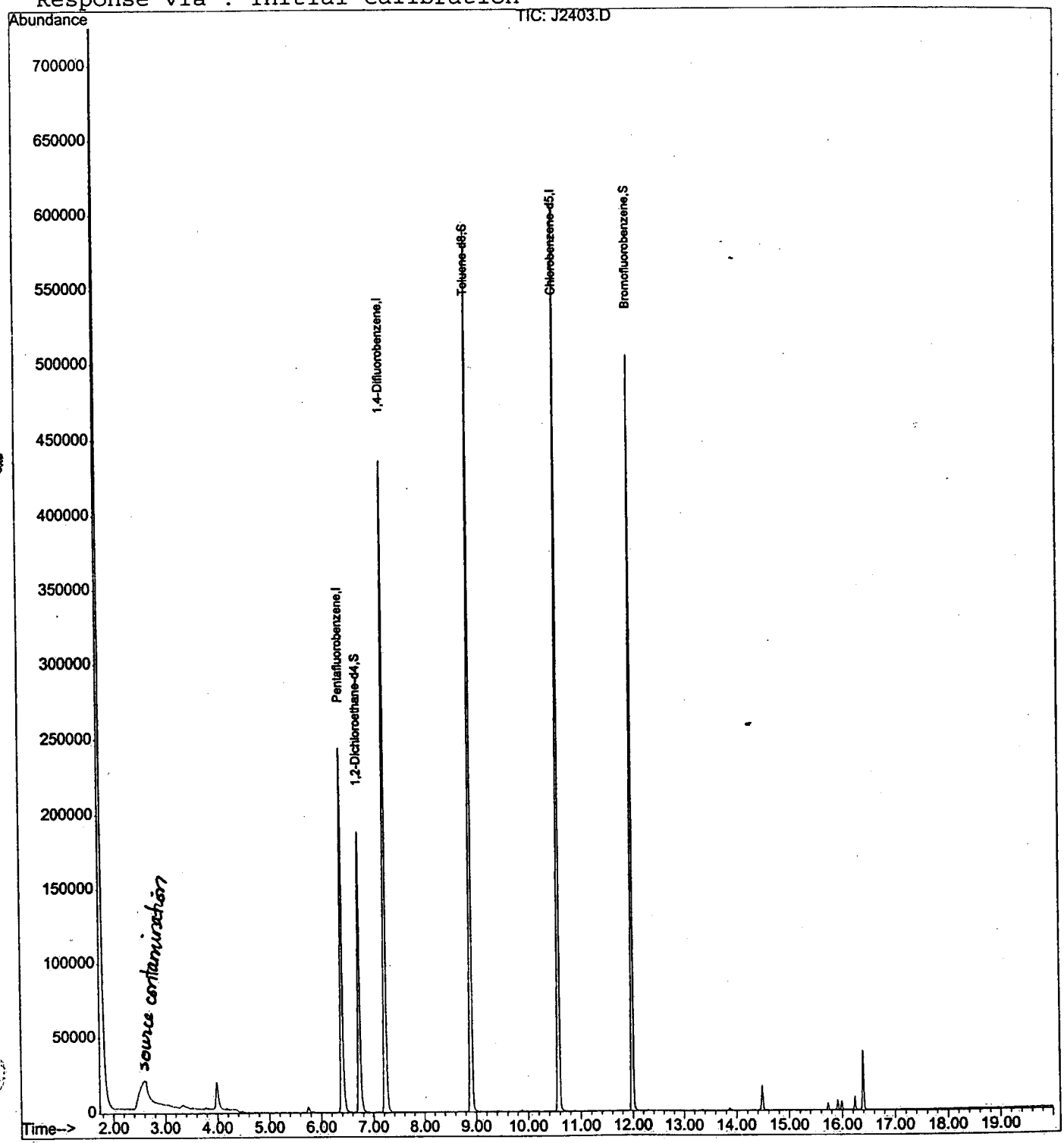
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2403.D
Acq On : 21 Aug 2001 00:57
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
MS Integration Params: LSCINT.P
Quant Time: Aug 21 9:06 2001

Vial: 33
Operator: XINGFANG WAN
Inst : MSD_J
Multiplr: 1.00

Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0114

7345

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-20-01\J2403.D Vial: 33
Acq On : 21 Aug 2001 00:57 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.596	66	86	107	rBV5	18825	246115	19.72%	4.288%
2	3.983	217	223	238	rVB	18404	63748	5.11%	1.111%
3	6.393	455	461	481	rVB	244070	580814	46.53%	10.120%
4	6.727	488	494	511	rVB	188418	432852	34.68%	7.542%
5	7.223	536	543	566	rVB	436411	974529	78.08%	16.980%
6	8.894	701	708	727	rBV	591262	1248145	100.00%	21.748%
7	10.575	867	874	888	rBV	605521	1172579	93.95%	20.431%
8	11.983	1004	1013	1028	rVB	505086	902187	72.28%	15.720%
9	14.484	1252	1260	1266	rBV	16702	32682	2.62%	0.569%
10	16.236	1429	1433	1437	rBV	9195	13266	1.06%	0.231%
11	16.388	1443	1448	1454	rBV	39563	72216	5.79%	1.258%

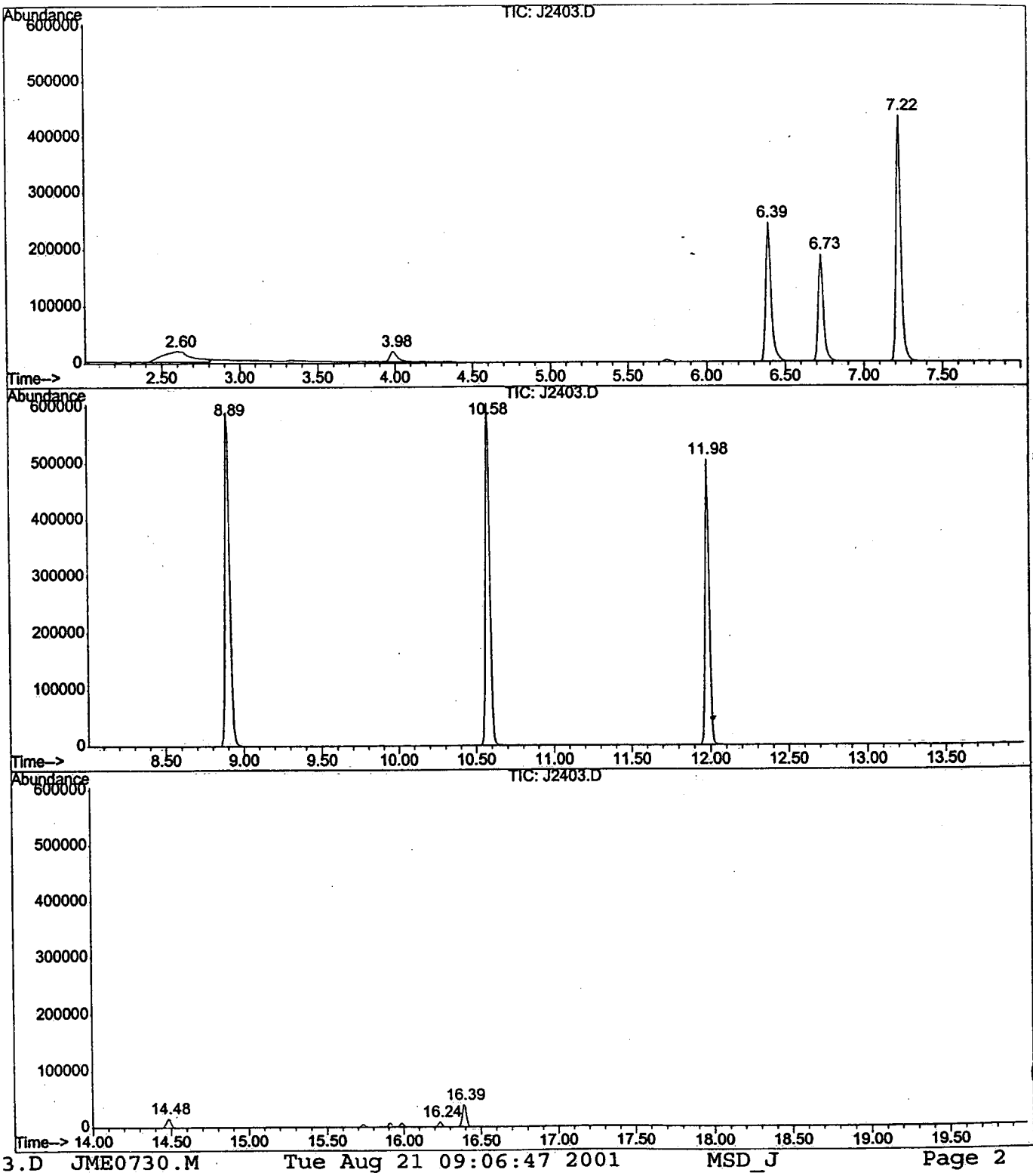
Sum of corrected areas: 5739133

0115

2346

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-20-01\J2403.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 00:57 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: N/A,METHOD-BLK,S,0.1g,0
Misc Info :
Vial Number: 33
Quant File :JME0730.RES (RTE Integrator)



0116

2347

Quantitation Report (QT/LSC Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2429.D Vial: 6
Acq On : 21 Aug 2001 13:36 Operator: XINGFANG WANG
Sample : N/A,METHOD-BLK,S,0.1g,0 Inst : MSD_J
Misc : Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Aug 21 13:56:57 2001 Quant Results File: JME0730.RES

Quant Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration
DataAcq Meth : JME0730

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.39	168	158905	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.22	114	329535	50.00	UG	0.00
50) Chlorobenzene-d5	10.58	117	305241	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.73	65	112723	62.23	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 124.46%			
41) Toluene-d8	8.89	98	347977	50.81	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 101.62%			
59) Bromofluorobenzene	11.98	95	151728	41.24	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 82.48%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

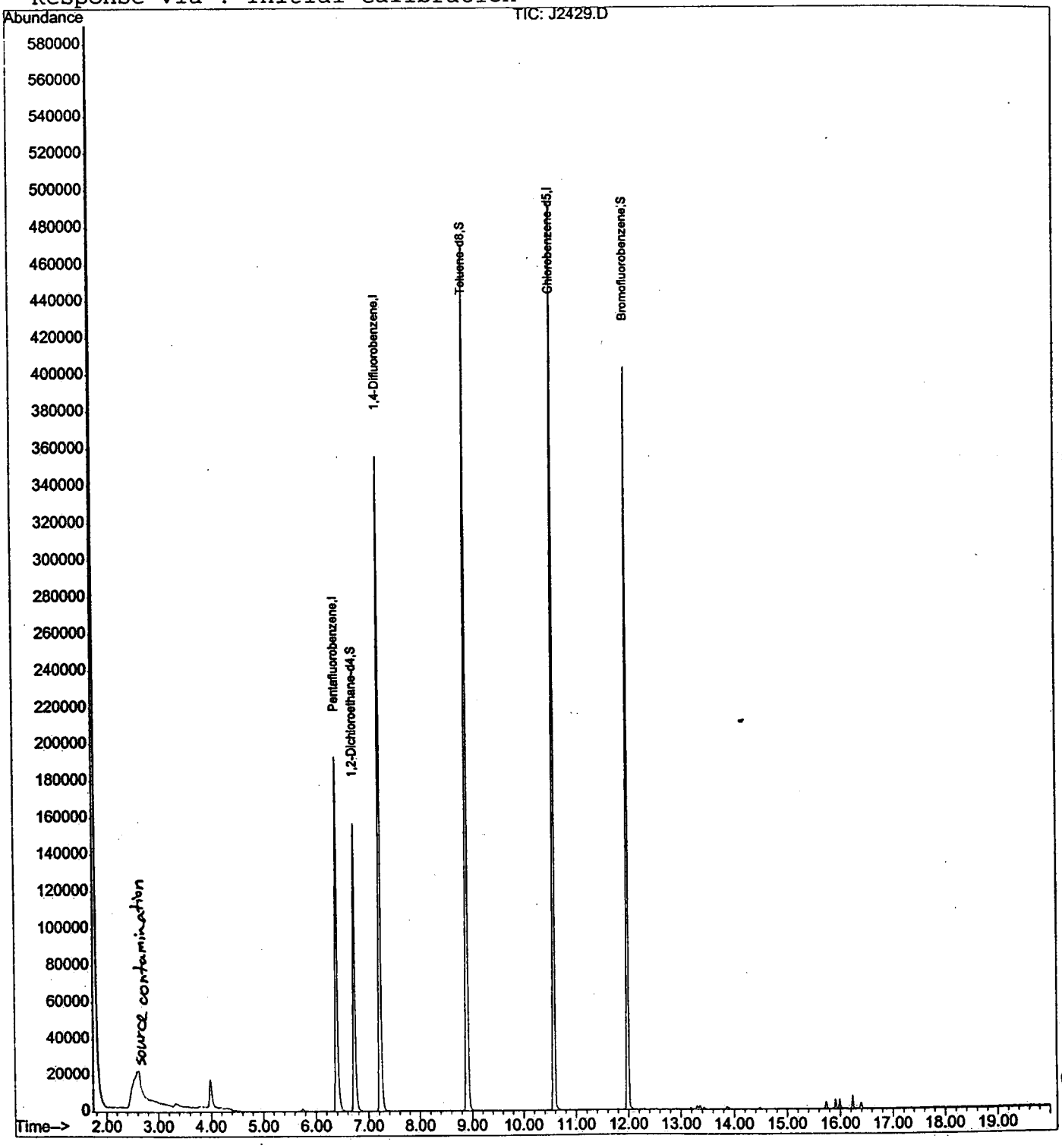
Quantitation Report (QT/LSC Reviewed)

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2429.D
Acq On : 21 Aug 2001 13:36
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
MS Integration Params: LSCINT.P
Quant Time: Aug 21 13:57 2001

Vial: 6
Operator: XINGFANG WAN
Inst : MSD_J
Multiplr: 1.00

Quant Results File: JME0730.RES

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Tue Jul 31 09:08:02 2001
Response via : Initial Calibration



0118

2349

LSC Area Percent Report

Data File : C:\MSDCHEM\1\DATA\08-21-01\J2429.D
Acq On : 21 Aug 2001 13:36
Sample : N/A,METHOD-BLK,S,0.1g,0
Misc :
MS Integration Params: LSCINT.P

Vial: 6
Operator: XINGFANG WANG
Inst : MSD_J
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\JME0730.M (RTE Integrator)
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Smoothing : ON
Filtering: 5
Sampling : 1
Min Area: 1 % of largest Peak
Start Thrs: 0.2
Max Peaks: 100
Stop Thrs : 0
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.626	67	89	109	rBV4	20134	259051	26.00%	5.648%
2	3.335	154	159	173	rVB7	1844	10403	1.04%	0.227%
3	3.983	217	223	233	rVB	15641	48614	4.88%	1.060%
4	6.393	453	461	482	rBV	193012	457311	45.90%	9.971%
5	6.727	488	494	511	rVB	156836	353811	35.51%	7.714%
6	7.223	536	543	557	rBV	355675	775832	77.87%	16.916%
7	8.894	698	708	726	rBV	469186	996321	100.00%	21.723%
8	10.575	868	874	888	rBV	492136	952180	95.57%	20.761%
9	11.983	1006	1013	1025	rBV	403332	722242	72.49%	15.747%
10	16.236	1428	1433	1438	rBV	7531	10631	1.07%	0.232%

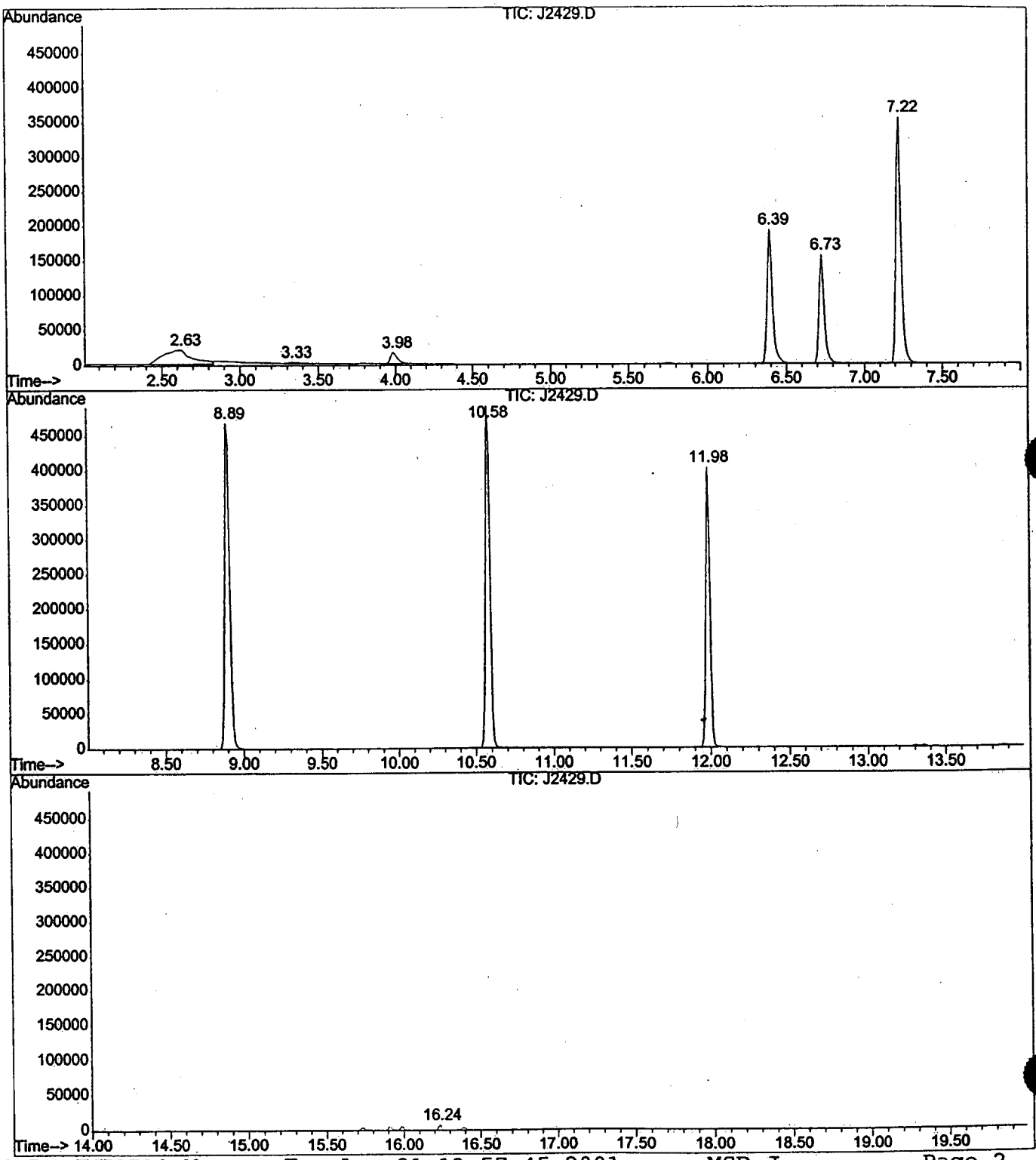
Sum of corrected areas: 4586396

0119

2350

LSC Report - Integrated Chromatogram

File : C:\MSDCHEM\1\DATA\08-21-01\J2429.D
Operator : XINGFANG WANG
Acquired : 21 Aug 2001 13:36 using AcqMethod JME0730
Instrument : MSD_J
Sample Name: N/A,METHOD-BLK,S,0.1g,0
Misc Info :
Vial Number: 6
Quant File :JME0730.RES (RTE Integrator)



0120

2351

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

BLANK RESULTS SUMMARY

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	INITIAL CALIBRATION	CONTINUING CALIBRATION 1	CONTINUING CALIBRATION 2	INST. MDL	REAGENT BLANK	MDL	IDL
Arsenic	ND	ND	ND	0.001	ND	1.00	
Copper	ND	ND	ND	0.002	ND	2.00	
Lead	ND	ND	ND	0.0005	ND	0.500	
Zinc	ND	ND	ND	0.002	ND	2.00	

This QC Blank applies to the following samples:

5676-001~005; 5688-001~020
5690-003~005; 5701-003~004
5713-005~009

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Concentration/Units: ppb (µg/L)

ANALYTE	INITIAL CALIBRATION			CONTINUING CALIBRATION					MDL	IDL
	TRUE	FOUND	%R (1)	TRUE	FOUND	%R (1)	FOUND	%R (1)		
Arsenic	20.0	20.1	101	20.0	19.7	98.5	19.6	98.0	1.00	
Copper	50.0	51.6	103	50.0	51.5	103	50.7	101	2.00	
Lead	10.0	10.4	104	10.0	9.97	99.7	10.4	104	0.500	
Zinc	40.0	44.0	110	40.0	43.2	108	43.5	109	2.00	

(1) Control Limits: Mercury 80-120, Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Matrix: Aqueous Concentration/Units: ppb(ug/L)

ANALYTE / MASS	INITIAL			FINAL		
	SOL A	SOL AB	%R	SOL A	SOL AB	%R
Arsenic / 75	0.30	8.71	84.1	0.27	8.37	81.1
Copper / 65	3.86	14.2	103.4	3.61	13.7	100.9
Zinc / 66	8.47	17.5	90.3	7.56	16.0	84.4

TRUE VALUE SOLN. B = 10 ppb

THERE ARE NO CONTROL LIMITS FOR SOLUTION AB

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SPIKE SAMPLE RECOVERY

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Matrix: Soil

Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Arsenic	56.7	9.77	104	45.2					70-130
Copper	59.9	13.8	102	45.2					70-130
Lead	63.3	13.3	111	45.2	69.5	13.1	107	52.8	70-130
Zinc	77.0	29.9	104	45.2					70-130

SSR = Spike Sample Result
SA = Spike Added

SR = Sample Result
%R = Percent Recovery

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 5688-020

QC Sample 1 for following samples:
5676-001-005; 5688-001-020
5690-003-005; 5701-003-004
5713-005-009

QC Sample 2 5676-005

QC Sample 2 for following samples:
5676-001-005; 5688-001-020
5690-003-005; 5701-003-004
5713-005-009

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

DUPLICATE SAMPLE RECOVERY

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Arsenic	20	9.77	10.2	4.31				
Copper	20	13.8	14.4	4.26				
Lead	20	13.3	12.6	5.41	20	13.1	12.8	2.32
Zinc	20	29.9	31.2	4.26				

S1 = Sample 1
D1 = Duplicate 1

S2 = Sample 2
D2 = Duplicate 2

NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 1 5688-020

QC Sample 1 for following samples:
5676-001~005; 5688-001~020
5690-003~005; 5701-003~004
5713-005~009

QC Sample 2 5676-005

QC Sample 2 for following samples:
5676-001~005; 5688-001~020
5690-003~005; 5701-003~004
5713-005~009

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

ANALYTE	AQUEOUS (ug/L)			SOLID (mg/kg)			
	TRUE	FOUND	%R(1)	TRUE	FOUND	LIMITS	%R(2)
Arsenic				36.2	38.2	26.9-45.4	106
Copper				63.7	60.9	52.2-75.2	95.6
Lead				52.4	54.0	37.3-67.6	103
Zinc				151	137	117-185	90.7

(1) Control Limits = 90-110%
(2)Manufacture's Recomended Limits

Aqueous LCS Source: MV Laboratories

Solid LCS Source: Environmental Resource Associates; PriorityPollutnT/CLP Inorganics Soils

INTEGRATED ANALYTICAL LABORATORIES

METALS QUALITY CONTROL

SERIAL DILUTIONS & POST SPIKES

Lab Case Number: E01- 5676, 5688, 5690, 5701, 5713

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Arsenic	9.77	10.1	3.32			
Copper	13.8			57.1	45.2	95.8
Lead	13.3	13.1	1.52			
Zinc	29.9	32.2	7.41			

SR = Sample Result
SDR = Sample Dilution Result

SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75-125% Recovery

QC Sample : 5688-020

QC Sample for following samples:

5676-001~005; 5688-001~020
5690-003~005; 5701-003~004
5713-005~009

7354

Phone # (973) 361-
Fax # (973) 989-5288

INTEGRATED ANALY[illegible]L LABORATORIES
CHAIN OF CUSTODY

Franklin Rd
Randolph, NJ 07869

CLIENT & PROJECT

Company Name:	ENVIROTACTICS Inc
Address:	7517 Hwy 35 Bld D
	Ste 202 Manasquan
	NJ 08736
Telephone #:	732-292-0100
Fax #:	732-292-2808
Project Name:	ORBIS-NEWARK
Project Manager:	Chris Neuffer
Reference ID#:	444 PO#:

REPORTING

Fax to:	732/292-2808
Fax #:	Chris Neuffer
Report to:	
Address:	
Invoice to:	
Address:	

Turnaround Time

Conditional / TPHC
24 hr* 48 hr 72 hr 1 wk NA Other:

Verbal/Fax
24 hr* 48 hr* 72 hr* 1 wk* (2 wk) Other: 2wk

Hard Copy
72 hr* 1 wk* 2 wk* (3 wk) Other: 3wk

*Prior to sample arrival, Lab notification is required.

Report Format

Results Only
(Reduced)
Regulatory
SRP Disk** (dbf) or wk1
Other:

ANALYTICAL PARAMETERS / PRESERVATIVES

** Circle format required

Preservatives: 1. HCL 3. HNO_3 2. NaOH 4. H_2SO_4 (5. MeOH) 6. Other

COOLER TEMP. 5 °C

SAMPLE INFORMATION

SAMPLE MATRIX: W - Waste, SL - Sludge, A - Aqueous, O - Oil, X - Other, S - Soil, GW - Groundwater, SOL - Solid

Sample ID	Sample Description	Sampling Date	Sampling Time	am	pm	Matrix	# of Containers	Lab ID	VOA+10	Arsenic	Lead	Comments
S-131		8/16/01	10:00	X		S	2	01	✓			109283
S-132			11:50	X		S	2	2	✓			298
S-133			12:20		X	S	2	3	✓	✓	✓	297
S-134			1:40		X	S	2	4	✓	✓	✓	292
S-135			2:10		X	S	2	5	✓	✓	✓	291
S-136			2:40		X	S	2	6	✓			9286
S-137			3:05		X	S	2	7	✓			290
S-138			3:45		X	S	2	8	✓			296
S-139A			4:10		X	S	2	9	✓			295
S-139B			4:25		X	S	2	10	✓			285

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Concentrations Expected: LOW MED HIGH

Known Hazard: yes no
Describe:

CUSTODY LOG

	Signature	Date	Time		Signature
Relinquished by:	B. Ullmer	8/17/01	10:00am	Received by:	Jim Lovell
Relinquished by:	Jim Lovell	8/17/01	1700	Received by:	Paul Canisto
Relinquished by:				Received by:	
Relinquished by:				Received by:	
Relinquished by:				Received by:	

Comments:

Lab Case # 5690
HAZSITE

PAGE: 1 OF 1

LAB COPIES - [illegible] & YELLOW; CLIENT COPY - PINK

5690

CHAIN OF CUSTODY

Case No.: E01-5690 P.O. #: _____
Project : ORBIS - NEWARK - 444
Client/Project: ENVTACT/ORBIS - NEWARK

Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736

Date Received: 08/17/01
Time Received: 17:00
Report Format: Reduced

Verbal Due: Aug 31
Report Due: Sep 10

# of Containers	2	2	2	2	2	2
IAL ID #	5690-001	5690-002	5690-003	5690-004	5690-005	5690-006
Client ID #	S-131	S-132	S-133	S-134	S-135	S-136
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	08/16/01	08/16/01	08/16/01	08/16/01	08/16/01	08/16/01
Sample Time	10:00	11:50	12:20	13:40	14:10	14:40
Methanol Kit	√	√	√	√	√	√
Balance Rent	√					
VO + 10, PP MP	√	√	√	√	√	√
Pb-Lead			√	√	√	
As-Arsenic			√	√	√	
6000 Series			√			
% Solids	√	√	√	√	√	√
Electronic Del.	√					

Comments:

7260

CHAIN OF CUSTODY

Case No.: E01-5690
Project : ORBIS - NEWARK - 444
Client/Project: ENVTACT/ORBIS - NEWARK
Client Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan, NJ 08736
Date Received: 08/17/01
Time Received: 17:00
Report Format: Reduced

P.O. #: _____

Billing Address:
Envirotactics Inc.
2517 Route 35
Building D, Suite 20
Manasquan, NJ 08736
Verbal Due: Aug 31
Report Due: Sep 10

# of Containers	2	2	2	2
IAL ID #	5690-007	5690-008	5690-009	5690-010
Client ID #	S-137	S-138	S-139A	S-139B
Matrix	Soil	Soil	Soil	Soil
Sample Date	08/16/01	08/16/01	08/16/01	08/16/01
Sample Time	15:05	15:45	16:10	16:25
Methanol Kit	√	√	√	√
VO + 10, PP MP	√	√	√	√
% Solids	√	√	√	√

Comments:

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: 5690 CLIENT: Envirotactics

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

CHAIN OF CUSTODY: COMPLETE / INCOMPLETE Comments:

Sample Bottles Intact: ✓ Comments:
Sample Labels Intact/ Correct: ✓
Sufficient Sample Volume: ✓
Correct bottles/ preservative: ✓
Samples received in holding time/ prep time: ✓
Headspace/ bubbles in voa samples: (✓)
Samples to be subcontracted: (✓)

Preserved Sample pH checked: (✓)
(Excluding voa samples)

KEY
✓ = YES
✗ = NO
(✓) = N/A

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL edc DATE 8-17-01

CORRECTIVE ACTION REQUIRED: YES [ ] (SEE BELOW) NO [ ]

CLIENT NOTIFIED: YES [ ] Date/ Time: NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE [ ]

REV 10/00

0129

2362

Integrated Analytical Laboratories, LLC.

Laboratory Custody Chronicle

Case No : E01-5690
Client : Envirotactics Inc.
Project : ORBIS - NEWARK - 444

	GC/MS V		EXTRACT DATE	EXTRACT TIME	EXTRACT INITIAL	ANALYSIS DATE	ANALYSIS TIME	ANALYSIS INITIAL
Methanol Kit	5690-001	S				8/20		NA
	5690-002	S						
	5690-003	S						
	5690-004	S						
	5690-005	S						
	5690-006	S						
	5690-007	S						
	5690-008	S						
	5690-009	S						
	5690-010	S						
Balance Rent	5690-001	S						
VO + 10, PP MP	5690-001	S						
	5690-002	S						
	5690-003	S						
	5690-004	S						
	5690-005	S						
	5690-006	S						
	5690-007	S						
	5690-008	S						
	5690-009	S						
	5690-010	S						
	METALS							
Pb-Lead	5690-003	S	8/20/01		JK	8/21	8AM	JK
	5690-004	S						
	5690-005	S						
As-Arsenic	5690-003	S						
	5690-004	S						
	5690-005	S						
6000 Series	5690-003	S						
	WETCHEM							
% Solids	5690-001	S	8/20	1000	KC			
	5690-002	S						
	5690-003	S						
	5690-004	S						
	5690-005	S						
	5690-006	S						
	5690-007	S						
	5690-008	S						
	5690-009	S						
	5690-010	S						
	AIR							
Electronic Del.	5690-001	S	—			—		

REVIEW & APPROVAL: [signature]
REMARKS :

Integrated Analytical Laboratories, LLC.

273 Franklin Road
Randolph, N.J. 07869

Phone: 973 361-4252
Fax: 973 989-5288

ANALYTICAL DATA REPORT

for

Envirotactics Inc.
2517 Route 35
Building D, Suite 202
Manasquan,NJ 08736

Project: ORBIS - 444
Lab Case Number: E02-0533
Date Report Prepared: February 4, 2002

CLIENT SAMPLE ID	LABORATORY SAMPLE ID
S-140A	0533-001
S-140B	0533-002
S-141A	0533-003
S-141B	0533-004
S-142A	0533-005
S-142B	0533-006
S-143A	0533-007
S-143B	0533-008
S-144A	0533-009
S-144B	0533-010
TRIP BLANK	0533-011

All required protocols were followed during analyses. These data have been reviewed and accepted by

Michael H. Leftin, Ph.D.
Laboratory Director

The liability of Integrated Analytical Laboratories, LLC. is limited to the actual cost of the analyses performed.

IAL is a NELAC Certified Lab # 14751 and maintains certification in Connecticut # PH-0699, New York # 11402 and Florida # E87670

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

MATRIX QUALIFIERS

A - Indicates the sample is an Aqueous matrix.

O - Indicates the sample is an Oil matrix.

S - Indicates the sample is a Soil, Sludge or Sediment matrix.

X - Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

DATA QUALIFIERS

B - Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.

C - Common Laboratory Contaminant.

D - The compound was reported from the Diluted analysis.

D.F. - Dilution Factor.

E - Estimated concentration, reported results are outside the calibrated range of the instrument.

J - Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.

MDL - Method Detection Limit.

MI - Indicates compound concentration could not be determined due to Matrix Interferences.

NA - Not Applicable.

ND - Indicates the compound was analyzed for but Not Detected at the MDL.

REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

0001

7366

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received eleven (11) soil sample(s) from Envirotactics Inc. (Project: ORBIS - 444) on January 23, 2002 for the analysis of:

(11) Volatiles + 10
(2) Total Petroleum Hydrocarbons

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

2/4/02
Date

0002

7367

INTEGRATED ANALYTICAL LABORATORIES, LLC.

LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E02-0533

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	✓
2.	Table of Contents.	✓
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	✓
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	✓
5.	Document bound, paginated and legible.	✓
6.	Chain of Custody.	✓
7.	Methodology Summary.	✓
8.	Laboratory Chronicle and Holding Time Check.	✓
9.	Results submitted on a dry weight basis (if applicable).	✓
10.	Method Detection Limits.	✓
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	✓
12.	NonConformance Summary.	✓

QC Reviewed by

2/4/02
Date

0003

2364

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC/MS VOLATILE ANALYSIS

Lab Case Number: E02- 533

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. GC/MS Tuning Specifications: a. BFB Passed		✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series, 12 hours for 8000 series and 8 hours for 500 series.		✓
4. GC/MS Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis for 600 series, 12 hours for 8000 series		✓
5. GC/MS Calibration Requirements: a. Calibration Check Compounds		✓
b. System Performance Check Compounds		✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
7. Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)		✓
If not met, were the calculations checked and the results qualified as "estimated"?		N/A
8. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)		✓
9. Internal Standard Area/Retention Time Shift meet criteria		✓
10. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		N/A
11. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓
12. Sample Dilution Performed		✓

High Target Compounds	High Nontarget Compounds	Matrix Interference	Other
	.		

13. Comments:

Organics Manager

1/29/02
Date

rev 01/02

0004

7-369

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
PHC ANALYSIS

Lab Case Number: E02 - 0533

	No	Yes
1. Blank contamination If yes, list the sample and the concentration in each blank:	✓	
2. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)		✓
3. IR spectra submitted for all standards, blanks & samples (as required).		✓
4. Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.		NA
5. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓
6. Analysis Holding Time Met If not met, list number of days exceeded for each sample:		✓

Additional Comments:

Dept. Supervisor

1/24/02
Date

0005

3370

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: Envirotactics Inc.
Project: ORBIS - 444
Lab Case No.: E02-0533

Lab ID:	0533-001			0533-002			0533-003			0533-004		
Client ID:	S-140A			S-140B			S-141A			S-141B		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	1/22/2002			1/22/2002			1/22/2002			1/22/2002		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	3020		682	22200		1760	1020		755	5680		800
Toluene	2160		682	3310		1760	ND		755	ND		800
Chlorobenzene	109000	D	3260	50400		1760	291		755	ND		800
1,4-Dichlorobenzene	457	J	682	ND		1760	ND		755	ND		800
TOTAL VO's:	114637	J		75910			1311			5680		
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	114637	J		75910			1311			5680		

Lab ID:	0533-005			0533-006			0533-007			0533-008		
Client ID:	S-142A			S-142B			S-143A			S-143B		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date:	1/22/2002			1/22/2002			1/22/2002			1/22/2002		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)												
Benzene	113000	D	3560	211000	D	7240	60900		1600	10500		1550
Trichloroethene	ND		713	ND		743	3670		1600	ND		1550
Toluene	510	J	713	806		743	1660000	D	71900	46600		1550
Chlorobenzene	ND		713	ND		743	626		1600	389	J	1550
Ethylbenzene	ND		713	ND		743	1840		1600	ND		1550
Total Xylenes	ND		713	ND		743	3450		1600	ND		1550
1,3-Dichlorobenzene	ND		713	ND		743	3920		1600	ND		1550
1,4-Dichlorobenzene	ND		713	ND		743	18100		1600	ND		1550
1,2-Dichlorobenzene	ND		713	ND		743	184000	D	71900	ND		1550
TOTAL VO's:	113510	J		211806			1936506			57489	J	
TOTAL TIC's:	1040			ND			115900			ND		
TOTAL VO's & TIC's:	114550	J		211806			2052406			57489	J	

Lab ID:	0533-009			0533-010			0533-011		
Client ID:	S-144A			S-144B			TRIP BLANK		
Matrix:	Soil			Soil			Soil		
Sampled Date:	1/22/2002			1/22/2002			1/22/2002		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)									
Benzene	1360		686	1460		840	ND		625
Toluene	274	J	686	185	J	840	ND		625
TOTAL VO's:	1634	J		1645	J		ND		
TOTAL TIC's:	ND			ND			ND		
TOTAL VO's & TIC's:	1634	J		1645	J		ND		
General Analytical									
Total Petroleum Hydrocarbons (ppm)	ND		25.0	ND		25.0	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL
D = The compound was reported from the Diluted analysis
All qualifiers on individual Volatiles are carried down through summation.

0006

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-001
Client ID: S-140A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4233.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.7

Compound	Concentration	Q	MDL
Chloromethane	ND		682
Vinyl Chloride	ND		682
Bromomethane	ND		682
Chloroethane	ND		682
Trichlorofluoromethane	ND		682 UJ
Acrolein	~~ND~~ R		~~1360~~
1,1-Dichloroethene	ND		682
Methylene Chloride	ND		682
Acrylonitrile	~~ND~~ R		~~1360~~
trans-1,2-Dichloroethene	ND		682
1,1-Dichloroethane	ND		682
Chloroform	ND		682
1,1,1-Trichloroethane	ND		682
Carbon Tetrachloride	ND		682 UJ
1,2-Dichloroethane(EDC)	ND		682
Benzene	3020		682
Trichloroethene	ND		682
1,2-Dichloropropane	ND		682
Bromodichloromethane	ND		682
2-Chloroethylvinyl Ether	ND		682
cis-1,3-Dichloropropene	ND		682
Toluene	2160		682
trans-1,3-Dichloropropene	ND		682
1,1,2-Trichloroethane	ND		682
Tetrachloroethene	ND		682
Dibromochloromethane	ND		682
Chlorobenzene	~~106000~~ 109000 *	~~E~~	682
Ethylbenzene	ND		682
Total Xylenes	ND		682
Bromoform	ND		682
1,1,2,2-Tetrachloroethane	ND		682
1,3-Dichlorobenzene	ND		682
1,4-Dichlorobenzene	457	J	682
1,2-Dichlorobenzene	ND		682
Total Target Compounds:	111637	JE	

* FROM 1:5 DILUTION

UUUV

2372

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTACT/ORBIS

Lab ID: 533-001DIL
Client ID: S-140A
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4276.D

GC/MS Column: DB-624
Sample wt/vol: 0.009g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 14.7

Compound	Concentration	Q	MDL
Chloromethane	ND		3260
Vinyl Chloride	ND		3260
Bromomethane	ND		3260
Chloroethane	ND		3260
Trichlorofluoromethane	ND		3260
Acrolein	~~ND~~	R	~~6510~~
1,1-Dichloroethene	ND		3260
Methylene Chloride	ND		3260
Acrylonitrile	~~ND~~	R	~~6510~~
trans-1,2-Dichloroethene	ND		3260
1,1-Dichloroethane	ND		3260
Chloroform	ND		3260
1,1,1-Trichloroethane	ND		3260
Carbon Tetrachloride	ND		3260
1,2-Dichloroethane(EDC)	ND		3260
Benzene	2900		3260
Trichloroethene	ND		3260
1,2-Dichloropropane	ND		3260
Bromodichloromethane	ND		3260
2-Chloroethylvinyl Ether	ND		3260
cis-1,3-Dichloropropene	ND		3260
Toluene	2030		3260
trans-1,3-Dichloropropene	ND		3260
1,1,2-Trichloroethane	ND		3260
Tetrachloroethene	ND		3260
Dibromochloromethane	ND		3260
Chlorobenzene	109000		3260
Ethylbenzene	ND		3260
Total Xylenes	ND		3260
Bromoform	ND		3260
1,1,2,2-Tetrachloroethane	ND		3260
1,3-Dichlorobenzene	ND		3260
1,4-Dichlorobenzene	ND		3260
1,2-Dichlorobenzene	ND		3260

Total Target Compounds: 113930

0008

7373

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-001
Client ID: S-140A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4233.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 14.7

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

7374

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-002
Client ID: S-140B
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4280.D

GC/MS Column: DB-624
Sample wt/vol: 0.017g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 16.5

Compound	Concentration	Q	MDL
Chloromethane	ND		1760
Vinyl Chloride	ND		1760
Bromomethane	ND		1760
Chloroethane	ND		1760
Trichlorofluoromethane	ND		1760
Acrolein	~~ND~~	R	~~3520~~
1,1-Dichloroethene	ND		1760
Methylene Chloride	ND		1760
Acrylonitrile	~~ND~~	R	~~3520~~
trans-1,2-Dichloroethene	ND		1760
1,1-Dichloroethane	ND		1760
Chloroform	ND		1760
1,1,1-Trichloroethane	ND		1760
Carbon Tetrachloride	ND		1760
1,2-Dichloroethane(EDC)	ND		1760
Benzene	22200		1760
Trichloroethene	ND		1760
1,2-Dichloropropane	ND		1760
Bromodichloromethane	ND		1760
2-Chloroethylvinyl Ether	ND		1760
cis-1,3-Dichloropropene	ND		1760
Toluene	3310		1760
trans-1,3-Dichloropropene	ND		1760
1,1,2-Trichloroethane	ND		1760
Tetrachloroethene	ND		1760
Dibromochloromethane	ND		1760
Chlorobenzene	50400		1760
Ethylbenzene	ND		1760
Total Xylenes	ND		1760
Bromoform	ND		1760
1,1,2,2-Tetrachloroethane	ND		1760
1,3-Dichlorobenzene	ND		1760
1,4-Dichlorobenzene	ND		1760
1,2-Dichlorobenzene	ND		1760

Total Target Compounds: 75910

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-002
Client ID: S-140B
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4280.D

GC/MS Column: DB-624
Sample wt/vol: 0.017g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 16.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-003
Client ID: S-141A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4235.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.9

Compound	Concentration	Q	MDL
Chloromethane	ND		755
Vinyl Chloride	ND		755
Bromomethane	ND		755
Chloroethane	ND		755
Trichlorofluoromethane	ND		755 UJ
Acrolein	~~ND~~ R		~~1510~~
1,1-Dichloroethene	ND		755
Methylene Chloride	ND		755
Acrylonitrile	~~ND~~ R		~~1510~~
trans-1,2-Dichloroethene	ND		755
1,1-Dichloroethane	ND		755
Chloroform	ND		755
1,1,1-Trichloroethane	ND		755
Carbon Tetrachloride	ND		755 UJ
1,2-Dichloroethane(EDC)	ND		755
Benzene	1020		755
Trichloroethene	ND		755
1,2-Dichloropropane	ND		755
Bromodichloromethane	ND		755
2-Chloroethylvinyl Ether	ND		755
cis-1,3-Dichloropropene	ND		755
Toluene	ND		755
trans-1,3-Dichloropropene	ND		755
1,1,2-Trichloroethane	ND		755
Tetrachloroethene	ND		755
Dibromochloromethane	ND		755
Chlorobenzene	291		755
Ethylbenzene	ND		755
Total Xylenes	ND		755
Bromoform	ND		755
1,1,2,2-Tetrachloroethane	ND		755
1,3-Dichlorobenzene	ND		755
1,4-Dichlorobenzene	ND		755
1,2-Dichlorobenzene	ND		755

Total Target Compounds: 1311

0012

2307

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-003
Client ID: S-141A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4235.D

GC/MS Column: DB-624
Sample wt/vol: 0.038g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.9

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

7376

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-004
Client ID: S-141B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4236.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.2

Compound	Concentration	Q	MDL
Chloromethane	ND		800
Vinyl Chloride	ND		800
Bromomethane	ND		800
Chloroethane	ND		800
Trichlorofluoromethane	ND		800 UJ
Acrolein	~~ND~~	R	~~1600~~
1,1-Dichloroethene	ND		800
Methylene Chloride	ND		800
Acrylonitrile	~~ND~~	R	~~1600~~
trans-1,2-Dichloroethene	ND		800
1,1-Dichloroethane	ND		800
Chloroform	ND		800
1,1,1-Trichloroethane	ND		800
Carbon Tetrachloride	ND		800 UJ
1,2-Dichloroethane(EDC)	ND		800
Benzene	5680		800
Trichloroethene	ND		800
1,2-Dichloropropane	ND		800
Bromodichloromethane	ND		800
2-Chloroethylvinyl Ether	ND		800
cis-1,3-Dichloropropene	ND		800
Toluene	ND		800
trans-1,3-Dichloropropene	ND		800
1,1,2-Trichloroethane	ND		800
Tetrachloroethene	ND		800
Dibromochloromethane	ND		800
Chlorobenzene	ND		800
Ethylbenzene	ND		800
Total Xylenes	ND		800
Bromoform	ND		800
1,1,2,2-Tetrachloroethane	ND		800
1,3-Dichlorobenzene	ND		800
1,4-Dichlorobenzene	ND		800
1,2-Dichlorobenzene	ND		800

Total Target Compounds: 5680

0014

2379

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-004
Client ID: S-141B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4236.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.2

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

0015

2360

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-005
Client ID: S-142A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4237.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.3

Compound	Concentration	Q	MDL
Chloromethane	ND		713
Vinyl Chloride	ND		713
Bromomethane	ND		713
Chloroethane	ND		713
Trichlorofluoromethane	ND		713 UJ
Acrolein	~~ND~~ R		~~1430~~
1,1-Dichloroethene	ND		713
Methylene Chloride	ND		713
Acrylonitrile	~~ND~~ R		~~1430~~
trans-1,2-Dichloroethene	ND		713
1,1-Dichloroethane	ND		713
Chloroform	ND		713
1,1,1-Trichloroethane	ND		713
Carbon Tetrachloride	ND		713 UJ
1,2-Dichloroethane(EDC)	ND		713
Benzene	~~109000~~ 113000*	~~E~~	713
Trichloroethene	ND		713
1,2-Dichloropropane	ND		713
Bromodichloromethane	ND		713
2-Chloroethylvinyl Ether	ND		713
cis-1,3-Dichloropropene	ND		713
Toluene	510	J	713
trans-1,3-Dichloropropene	ND		713
1,1,2-Trichloroethane	ND		713
Tetrachloroethene	ND		713
Dibromochloromethane	ND		713
Chlorobenzene	ND		713
Ethylbenzene	ND		713
Total Xylenes	ND		713
Bromoform	ND		713
1,1,2,2-Tetrachloroethane	ND		713
1,3-Dichlorobenzene	ND		713
1,4-Dichlorobenzene	ND		713
1,2-Dichlorobenzene	ND		713
Total Target Compounds:	109510	JE	

*FROM 1:5 DILUTION

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

USE ORIGINAL DATA

Client/Project: ENVTACT/ORBIS

Lab ID: 533-005DIL
Client ID: S-142A
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4278.D

GC/MS Column: DB-624
Sample wt/vol: 0.008g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 5
% Moisture: 12.3

Compound	Concentration	Q	MDL
Chloromethane	ND		3560
Vinyl Chloride	ND		3560
Bromomethane	ND		3560
Chloroethane	ND		3560
Trichlorofluoromethane	ND		3560
Acrolein	~~ND~~	R	~~7130~~
1,1-Dichloroethene	ND		3560
Methylene Chloride	ND		3560
Acrylonitrile	~~ND~~	R	~~7130~~
trans-1,2-Dichloroethene	ND		3560
1,1-Dichloroethane	ND		3560
Chloroform	ND		3560
1,1,1-Trichloroethane	ND		3560
Carbon Tetrachloride	ND		3560
1,2-Dichloroethane(EDC)	ND		3560
Benzene	113000		3560
Trichloroethene	ND		3560
1,2-Dichloropropane	ND		3560
Bromodichloromethane	ND		3560
2-Chloroethylvinyl Ether	ND		3560
cis-1,3-Dichloropropene	ND		3560
Toluene	ND		3560
trans-1,3-Dichloropropene	ND		3560
1,1,2-Trichloroethane	ND		3560
Tetrachloroethene	ND		3560
Dibromochloromethane	ND		3560
Chlorobenzene	ND		3560
Ethylbenzene	ND		3560
Total Xylenes	ND		3560
Bromoform	ND		3560
1,1,2,2-Tetrachloroethane	ND		3560
1,3-Dichlorobenzene	ND		3560
1,4-Dichlorobenzene	ND		3560
1,2-Dichlorobenzene	ND		3560

Total Target Compounds: 113000

0001Y

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-005
Client ID: S-142A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Date File: I4237.D

GC/MS Column: DB-624
Sample wt/vol: 0.040g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 12.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown	1040	11.59

Total TICs = 1040

7393

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-006
Client ID: S-142B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4238.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.7

Compound	Concentration	Q	MDL
Chloromethane	ND		743
Vinyl Chloride	ND		743
Bromomethane	ND		743
Chloroethane	ND		743
Trichlorofluoromethane	ND		743 UJ
Acrolein	~~ND~~ R		~~1490~~
1,1-Dichloroethene	ND		743
Methylene Chloride	ND		743
Acrylonitrile	~~ND~~ R		~~1490~~
trans-1,2-Dichloroethene	ND		743
1,1-Dichloroethane	ND		743
Chloroform	ND		743
1,1,1-Trichloroethane	ND		743
Carbon Tetrachloride	ND		743 UJ
1,2-Dichloroethane(EDC)	ND		743
Benzene	~~199000~~ 211000*	~~E~~	743
Trichloroethene	ND		743
1,2-Dichloropropane	ND		743
Bromodichloromethane	ND		743
2-Chloroethylvinyl Ether	ND		743
cis-1,3-Dichloropropene	ND		743
Toluene	806		743
trans-1,3-Dichloropropene	ND		743
1,1,2-Trichloroethane	ND		743
Tetrachloroethene	ND		743
Dibromochloromethane	ND		743
Chlorobenzene	ND		743
Ethylbenzene	ND		743
Total Xylenes	ND		743
Bromoform	ND		743
1,1,2,2-Tetrachloroethane	ND		743
1,3-Dichlorobenzene	ND		743
1,4-Dichlorobenzene	ND		743
1,2-Dichlorobenzene	ND		743

*FROM 1:10 DILUTION

Total Target Compounds: 199806 E

0019

23504

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS USE ORIGINAL DATA

Lab ID: 533-006DIL
Client ID: S-142B
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4279.D

GC/MS Column: DB-624
Sample wt/vol: 0.004g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 10
% Moisture: 13.7

Compound	Concentration	Q	MDL
Chloromethane	ND		7240
Vinyl Chloride	ND		7240
Bromomethane	ND		7240
Chloroethane	ND		7240
Trichlorofluoromethane	ND		7240
Acrolein	~~ND~~	R	~~14500~~
1,1-Dichloroethene	ND		7240
Methylene Chloride	ND		7240
Acrylonitrile	~~ND~~	R	~~14500~~
trans-1,2-Dichloroethene	ND		7240
1,1-Dichloroethane	ND		7240
Chloroform	ND		7240
1,1,1-Trichloroethane	ND		7240
Carbon Tetrachloride	ND		7240
1,2-Dichloroethane(EDC)	ND		7240
Benzene	211000		7240
Trichloroethene	ND		7240
1,2-Dichloropropane	ND		7240
Bromodichloromethane	ND		7240
2-Chloroethylvinyl Ether	ND		7240
cis-1,3-Dichloropropene	ND		7240
Toluene	ND		7240
trans-1,3-Dichloropropene	ND		7240
1,1,2-Trichloroethane	ND		7240
Tetrachloroethene	ND		7240
Dibromochloromethane	ND		7240
Chlorobenzene	ND		7240
Ethylbenzene	ND		7240
Total Xylenes	ND		7240
Bromoform	ND		7240
1,1,2,2-Tetrachloroethane	ND		7240
1,3-Dichlorobenzene	ND		7240
1,4-Dichlorobenzene	ND		7240
1,2-Dichlorobenzene	ND		7240

Total Target Compounds: 211000

0020

23965

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-006
Client ID: S-142B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4238.D

GC/MS Column: DB-624
Sample wt/vol: 0.039g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 13.7

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

0021

7346

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-007
Client ID: S-143A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4242.D

GC/MS Column: DB-624
Sample wt/vol: 0.018g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 2
% Moisture: 13.1

Compound	Concentration	Q	MDL
Chloromethane	ND		1600
Vinyl Chloride	ND		1600
Bromomethane	ND		1600
Chloroethane	ND		1600
Trichlorofluoromethane	ND		1600 UJ
Acrolein	~~ND~~ R		~~3200~~
1,1-Dichloroethene	ND		1600
Methylene Chloride	ND		1600
Acrylonitrile	~~ND~~ R		~~3200~~
trans-1,2-Dichloroethene	ND		1600
1,1-Dichloroethane	ND		1600
Chloroform	ND		1600
1,1,1-Trichloroethane	ND		1600
Carbon Tetrachloride	ND		1600 UJ
1,2-Dichloroethane(EDC)	ND		1600
Benzene	60900		1600
Trichloroethene	3670		1600
1,2-Dichloropropane	ND		1600
Bromodichloromethane	ND		1600
2-Chloroethylvinyl Ether	ND		1600
cis-1,3-Dichloropropene	ND		1600
Toluene	1660000* ~~1600000~~	~~E~~	1600
trans-1,3-Dichloropropene	ND		1600
1,1,2-Trichloroethane	ND		1600
Tetrachloroethene	ND		1600
Dibromochloromethane	ND		1600
Chlorobenzene	626		1600
Ethylbenzene	1840		1600
Total Xylenes	3450		1600
Bromoform	ND		1600
1,1,2,2-Tetrachloroethane	ND		1600
1,3-Dichlorobenzene	3920		1600
1,4-Dichlorobenzene	18100		1600
1,2-Dichlorobenzene	184000* 239000	~~E~~	1600

*FROM 1:100 DILUTION

Total Target Compounds: 1931506 E

0022

7367

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

USE ORIGINAL DATA

Lab ID: 533-007DIL
Client ID: S-143A
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4277.D

GC/MS Column: DB-624
Sample wt/vol: 0.0004g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 100
% Moisture: 13.1

Compound	Concentration	Q	MDL
Chloromethane	ND		71900
Vinyl Chloride	ND		71900
Bromomethane	ND		71900
Chloroethane	ND		71900
Trichlorofluoromethane	ND		71900
Acrolein	~~ND~~	R	~~144000~~
1,1-Dichloroethene	ND		71900
Methylene Chloride	ND		71900
Acrylonitrile	~~ND~~	R	~~144000~~
trans-1,2-Dichloroethene	ND		71900
1,1-Dichloroethane	ND		71900
Chloroform	ND		71900
1,1,1-Trichloroethane	ND		71900
Carbon Tetrachloride	ND		71900
1,2-Dichloroethane(EDC)	ND		71900
Benzene	58600		71900
Trichloroethene	ND		71900
1,2-Dichloropropane	ND		71900
Bromodichloromethane	ND		71900
2-Chloroethylvinyl Ether	ND		71900
cis-1,3-Dichloropropene	ND		71900
Toluene	1660000		71900
trans-1,3-Dichloropropene	ND		71900
1,1,2-Trichloroethane	ND		71900
Tetrachloroethene	ND		71900
Dibromochloromethane	ND		71900
Chlorobenzene	ND		71900
Ethylbenzene	ND		71900
Total Xylenes	ND		71900
Bromoform	ND		71900
1,1,2,2-Tetrachloroethane	ND		71900
1,3-Dichlorobenzene	ND		71900
1,4-Dichlorobenzene	ND		71900
1,2-Dichlorobenzene	184000		71900

Total Target Compounds: 1902600

0023

23568

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-007
Client ID: S-143A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Date File: I4242.D

GC/MS Column: DB-624
Sample wt/vol: 0.018g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 13.1

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown alkane	20300	10.64
	Unknown alkane	57600	11.59
	Unknown alkane	17400	18.06
	Substituted benzene	20600	20.07

Total TICs = 115900

23809

0024

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-008
Client ID: S-143B
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4281.D

GC/MS Column: DB-624
Sample wt/vol: 0.019g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 2
% Moisture: 15

Compound	Concentration	Q	MDL
Chloromethane	ND		1550
Vinyl Chloride	ND		1550
Bromomethane	ND		1550
Chloroethane	ND		1550
Trichlorofluoromethane	ND		1550
Acrolein	~~ND~~ R		~~3100~~
1,1-Dichloroethene	ND		1550
Methylene Chloride	ND		1550
Acrylonitrile	~~ND~~ R		~~3100~~
trans-1,2-Dichloroethene	ND		1550
1,1-Dichloroethane	ND		1550
Chloroform	ND		1550
1,1,1-Trichloroethane	ND		1550
Carbon Tetrachloride	ND		1550
1,2-Dichloroethane(EDC)	ND		1550
Benzene	10500		1550
Trichloroethene	ND		1550
1,2-Dichloropropane	ND		1550
Bromodichloromethane	ND		1550
2-Chloroethylvinyl Ether	ND		1550
cis-1,3-Dichloropropene	ND		1550
Toluene	46600		1550
trans-1,3-Dichloropropene	ND		1550
1,1,2-Trichloroethane	ND		1550
Tetrachloroethene	ND		1550
Dibromochloromethane	ND		1550
Chlorobenzene	389	J	1550
Ethylbenzene	ND		1550
Total Xylenes	ND		1550
Bromoform	ND		1550
1,1,2,2-Tetrachloroethane	ND		1550
1,3-Dichlorobenzene	ND		1550
1,4-Dichlorobenzene	ND		1550
1,2-Dichlorobenzene	ND		1550
Total Target Compounds:	57489	J	

0025

2390

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-008
Client ID: S-143B
Date Received: 01/23/2002
Date Analyzed: 01/25/2002
Data file: I4281.D

GC/MS Column: DB-624
Sample wt/vol: 0.019g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 2
% Moisture: 15

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-009
Client ID: S-144A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4241.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.2

Compound	Concentration	Q	MDL
Chloromethane	ND		686
Vinyl Chloride	ND		686
Bromomethane	ND		686
Chloroethane	ND		686
Trichlorofluoromethane	ND		686 UJ
Acrolein	~~ND~~ R		~~1370~~
1,1-Dichloroethene	ND		686
Methylene Chloride	ND		686
Acrylonitrile	~~ND~~ R		~~1370~~
trans-1,2-Dichloroethene	ND		686
1,1-Dichloroethane	ND		686
Chloroform	ND		686
1,1,1-Trichloroethane	ND		686
Carbon Tetrachloride	ND		686 UJ
1,2-Dichloroethane(EDC)	ND		686
Benzene	1360		686
Trichloroethene	ND		686
1,2-Dichloropropane	ND		686
Bromodichloromethane	ND		686
2-Chloroethylvinyl Ether	ND		686
cis-1,3-Dichloropropene	ND		686
Toluene	274	J	686
trans-1,3-Dichloropropene	ND		686
1,1,2-Trichloroethane	ND		686
Tetrachloroethene	ND		686
Dibromochloromethane	ND		686
Chlorobenzene	ND		686
Ethylbenzene	ND		686
Total Xylenes	ND		686
Bromoform	ND		686
1,1,2,2-Tetrachloroethane	ND		686
1,3-Dichlorobenzene	ND		686
1,4-Dichlorobenzene	ND		686
1,2-Dichlorobenzene	ND		686
Total Target Compounds:	1634	J	

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-009
Client ID: S-144A
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4241.D

GC/MS Column: DB-624
Sample wt/vol: 0.043g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 15.2

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-010
Client ID: S-144B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4239.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.3

Compound	Concentration	Q	MDL
Chloromethane	ND		840
Vinyl Chloride	ND		840
Bromomethane	ND		840
Chloroethane	ND		840
Trichlorofluoromethane	ND		840 UJ
Acrolein	~~ND~~ R		~~1680~~
1,1-Dichloroethene	ND		840
Methylene Chloride	ND		840
Acrylonitrile	~~ND~~ R		~~1680~~
trans-1,2-Dichloroethene	ND		840
1,1-Dichloroethane	ND		840
Chloroform	ND		840
1,1,1-Trichloroethane	ND		840
Carbon Tetrachloride	ND		840 UJ
1,2-Dichloroethane(EDC)	ND		840
Benzene	1460		840
Trichloroethene	ND		840
1,2-Dichloropropane	ND		840
Bromodichloromethane	ND		840
2-Chloroethylvinyl Ether	ND		840
cis-1,3-Dichloropropene	ND		840
Toluene	185	J	840
trans-1,3-Dichloropropene	ND		840
1,1,2-Trichloroethane	ND		840
Tetrachloroethene	ND		840
Dibromochloromethane	ND		840
Chlorobenzene	ND		840
Ethylbenzene	ND		840
Total Xylenes	ND		840
Bromoform	ND		840
1,1,2,2-Tetrachloroethane	ND		840
1,3-Dichlorobenzene	ND		840
1,4-Dichlorobenzene	ND		840
1,2-Dichlorobenzene	ND		840
Total Target Compounds:	1645	J	

0029

23914

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-010
Client ID: S-144B
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4239.D

GC/MS Column: DB-624
Sample wt/vol: 0.036g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 17.3

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Client/Project: ENVTACT/ORBIS

Lab ID: 533-011
Client ID: TRIP_BLANK
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4232.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-µg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0

Compound	Concentration	Q	MDL
Chloromethane	ND		625
Vinyl Chloride	ND		625
Bromomethane	ND		625
Chloroethane	ND		625
Trichlorofluoromethane	ND		625 UJ
Acrolein	~~ND~~ R		~~1250~~
1,1-Dichloroethene	ND		625
Methylene Chloride	ND		625
Acrylonitrile	~~ND~~ R		~~1250~~
trans-1,2-Dichloroethene	ND		625
1,1-Dichloroethane	ND		625
Chloroform	ND		625
1,1,1-Trichloroethane	ND		625
Carbon Tetrachloride	ND		625 UJ
1,2-Dichloroethane(EDC)	ND		625
Benzene	ND		625
Trichloroethene	ND		625
1,2-Dichloropropane	ND		625
Bromodichloromethane	ND		625
2-Chloroethylvinyl Ether	ND		625
cis-1,3-Dichloropropene	ND		625
Toluene	ND		625
trans-1,3-Dichloropropene	ND		625
1,1,2-Trichloroethane	ND		625
Tetrachloroethene	ND		625
Dibromochloromethane	ND		625
Chlorobenzene	ND		625
Ethylbenzene	ND		625
Total Xylenes	ND		625
Bromoform	ND		625
1,1,2,2-Tetrachloroethane	ND		625
1,3-Dichlorobenzene	ND		625
1,4-Dichlorobenzene	ND		625
1,2-Dichlorobenzene	ND		625

Total Target Compounds: 0

00037

2396

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Client/Project: ENVTACT/ORBIS

Lab ID: 533-011
Client ID: TRIP_BLANK
Date Received: 01/23/2002
Date Analyzed: 01/24/2002
Data file: I4232.D

GC/MS Column: DB-624
Sample wt/vol: 0.04g
Matrix-Units: Soil-μg/Kg (ppb)
Dilution Factor: 1
% Moisture: 0

CAS #	Compound	Estimated Concentration	Retention Time

No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: ENVTACT/ORBIS

Date Received: 1/23/02

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	% Solid	Date Analyzed
0533-009	S-144A	ND		1	Soil-mg/kg	25.0	84.8	01/24/2002
0533-010	S-144B	ND		1	Soil-mg/kg	25.0	82.7	01/24/2002

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METHODOLOGY SUMMARY

Analytical Parameter	Aqueous Samples Method #	Soil/Other Samples Method #
Volatiles + 10	NA	EPA 8260B
Total Petroleum Hydrocarbons	NA	EPA 418.1 M

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I3700.D BFB Injection Date: 01/03/2002

Inst ID: MSD_I BFB Injection Time: 13:22

m/z	Ion Abudance Criteria	%Relative Abundance
50	15 - 40.0% of mass 95	39.9
75	30.0 - 60.0% of mass 95	58.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Great than 50.0% of mass 95	66.9
175	5.0 - 9.0% of mass 174	4.9 - (7.3)1
176	95.0 - 101.0% of mass 174	66.0 (98.6)1
177	5.0 - 9.0% of mass 176	5.7 (8.6)2
	1-Value is % mass 174	2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I3701.D	01/03/2002	13:37
200	200_PPB_STD	I3702.D	01/03/2002	14:10
150	150_PPB_STD	I3703.D	01/03/2002	14:44
50	50_PPB_STD	I3704.D	01/03/2002	15:17
20	20_PPB_STD	I3705.D	01/03/2002	15:51
N/A	Method_BlK	I3707.D	01/03/2002	16:58
LCS	BLK_SPK	I3708.D	01/03/2002	17:32
B-1_6-6.5	8994-001	I3709.D	01/03/2002	18:06
B-4B_9.5-10	8994-006DIL	I3710.D	01/03/2002	18:40
A1-010202-F2	012-001	I3712.D	01/03/2002	19:47
A1-010202-W3	012-002	I3713.D	01/03/2002	20:20
A1-010202-W4	012-003	I3714.D	01/03/2002	20:54
MS	012-003MS	I3715.D	01/03/2002	21:27
MSD	012-003MSD	I3716.D	01/03/2002	22:00
TB	9085-007	I3718.D	01/03/2002	23:06
LAW-02	9085-002	I3719.D	01/03/2002	23:40

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: I4225.D BFB Injection Date: 01/24/2002

Inst ID: MSD I BFB Injection Time: 12:40

m/z	Ion Abudance Criteria	%Relative Abundance	
50	15 - 40.0% of mass 95	38.2	
75	30.0 - 60.0% of mass 95	59.9	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	5.2	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	Great than 50.0% of mass 95	57.7	
175	5.0 - 9.0% of mass 174	5.0	(8.6)1
176	95.0 - 101.0% of mass 174	55.0	(95.3)1
177	5.0 - 9.0% of mass 176	4.2	(7.7)2
	1-Value is % mass 174	2-Value is % mass 176	

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
100	100_PPB_STD	I4227.D	01/24/2002	13:27
N/A	Method_BlK	I4230.D	01/24/2002	15:07
LCS	BLK_SPK	I4231.D	01/24/2002	15:40
TRIP_BLANK	533-011	I4232.D	01/24/2002	16:13
S-140A	533-001	I4233.D	01/24/2002	16:53
S-141A	533-003	I4235.D	01/24/2002	18:00
S-141B	533-004	I4236.D	01/24/2002	18:34
S-142A	533-005	I4237.D	01/24/2002	19:07
S-142B	533-006	I4238.D	01/24/2002	19:41
S-144B	533-010	I4239.D	01/24/2002	20:14
S-144A	533-009	I4241.D	01/24/2002	21:21
S-143A	533-007	I4242.D	01/24/2002	21:54
MS	533-009MS	I4243.D	01/24/2002	22:27
MSD	533-009MSD	I4244.D	01/24/2002	23:00
SB-52C_13.4-14	536-001	I4245.D	01/24/2002	23:33
SB-52D_19-19.6	536-002	I4246.D	01/25/2002	0:06