

Appendix A.6
Focussed Remedial Investigation Report
Volume 1 of 6

299 Main Street Site
Westbury, New York
(Site Code 1-30-043S)

December 1999

❖ Impact Environmental Consulting, Inc. • 1 Village Plaza Park • New York • 11754
516.269.8800 • fax 516.269.1599



DATA PACKAGE FOR VOLATILE ORGANICS

**PROJECT NAME: # 1-30-0435
PROJECT # 98-335, WESTBURY**

**IMPACT ENVIRONMENTAL
1 VILLAGE PLAZA
KING PARK NY 11754
916-269-8800**

**CHEMTECH PROJECT
ATTENTION**

**13649ASP
KEVIN KLEAKA**

CASE NARRATIVE-VOLATILE ORGANICS**Impact Environmental****Project Name: # 1-30-0435****Project # 98-335, Westbury****Chemtech Project # 13649LP****A. Number of Samples and Date of Receipt**

17 Soil samples were delivered to the laboratory intact on 10/01/99.

B. Parameters

Test requested was Volatile Organics. This data package contains results for Volatile Organics.

C. Analytical Techniques:

Samples were analyzed for Volatile Organics according Method 8260B. The analyses were performed on instruments VOA5, using GC column RTX624 which is 75 meters, 0.53mm ID, 3.0mm df (crossbond 6% cyanopropylphenyl-94%) dimethylpolysiloxane. The Purge Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

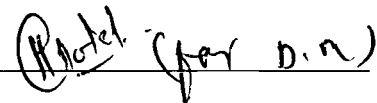
D. QA/ QC Samples:

The Surrogate Recoveries for each sample are found in Form II-A. Initial Calibration of Single Component Analytes results are found on Form 6 D & E. The Matrix Spike and Matrix Spike Duplicate were analyzed and are reported on Form 3F.

System Monitoring Compound recoveries were acceptable. MS/MSD recoveries and RPDs met requirements. Internal Standard Areas met requirements and Retention Times met criteria. Calibrations met requirements. Blank analyses did not indicate the presence of contamination.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature

Name: Divyajit Mehta

Date:

10/15/99Title: Lab Manager

000001

COVER PAGE

Lab Name: Chemtech Consulting Group
Lab Code: CHEM Project No.: 13649ASP

Client: IMPACT ENVIRONMENTAL
Project Name: # 1-30-0435

Client Sample No.	Lab Sample ID
GP-002-SS45	86338
GP-003-SS10	86339
GP-003-SS15	86340
GP-003-SS30	86341
GP-003-SS45	86342
GP-004-SS10	86343
GP-004-SS15	86344
GP-004-SS30	86345
GP-001-SS10	86346
GP-001-SS15	86347
GP-001-SS30	86348
GP-001-SS45	86349
GP-001-SS60	86350
GP-002-SS10	86351
GP-002-SS15	86352
GP-002-SS30	86353
GP-004-SS45	86354

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: _____

Name: DIVYAJIT MEHTA

Date : _____

Title: LAB DIRECTOR

000002

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH CONSULTING GROUP

II

VOLATILES

DATA

000004

CHEMTECH CONSULTING GROUP

VOLATILES

QC DATA

000005

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS45Level: (low/med) LOW

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	93	87	108	100	
02	BLKSPK	93	91	106	102	
03	GP-002-SS45	93	89	108	103	
04	GP-003-SS10	92	90	108	104	
05	GP-003-SS15	96	94	108	101	
06	GP-003-SS30	99	96	109	112	
07	GP-003-SS45	91	89	108	98	
08	GP-004-SS10	95	95	107	109	
09	VBLK02	100	101	109	112	
10	GP-004-SS15	99	99	111	110	
11	GP-004-SS30	104	104	111	112	
12	GP-001-SS10	95	98	106	98	
13	GP-001-SS15	99	102	109	109	
14	GP-001-SS30	96	101	109	100	
15	GP-001-SS45	99	103	108	106	
16	GP-001-SS60	99	104	107	109	
17	GP-002-SS10	100	101	109	108	
18	GP-002-SS15	102	101	113	110	
19	GP-002-SS30	97	100	110	97	
20	GP-004-SS45	105	103	112	113	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (DBFM) = Dibromofluoromethane

SMC2 (DCE) = 1,2-Dichloroethane-d4

SMC3 (TOL) = Toluene-d8

SMC4 (BFB) = 4-Bromofluorobenzene

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

QC LIMITS

(80-120)

(80-120)

(81-117)

(74-121)

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 12729NJ

Site: _____

Location: _____

Group: _____

Matrix Spike - Sample No.: GP-002-SS45Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Benzene	57	0	55	96	(66-142)
Trichloroethene	57	0	47	82	(62-137)
Toluene	57	0	54	95	(59-139)
Chlorobenzene	57	0	52	91	(60-133)

* Values outside of QC limits

Spike Recovery: 0 out of 4 outside limits

Comments: _____

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: EVERCLEAR ENVIRONMENTAL INC.,
 Project No.: 12729NJ Site: _____ Location: COLORITE RIDGEFIELD Group: _____
 Matrix Spike - Sample No.: X-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	57	0	58	102	(59-172)
Benzene	57	0	59	104	(66-142)
Trichloroethene	57	0	47	82	(62-137)
Toluene	57	0	57	100	(59-139)
Chlorobenzene	57	0	55	96	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	QC RPD	LIMITS REC.
1,1-Dichloroethene	57	63	111	8	22	(59-172)
Benzene	57	63	111	7	21	(66-142)
Trichloroethene	57	52	91	10	24	(62-137)
Toluene	57	59	104	3	21	(59-139)
Chlorobenzene	57	59	104	7	21	(60-133)

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Comments: _____

000008

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CHEMTECHContract: IMPACTProject No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SSLab File ID: P19000.DLab Sample ID: VBLK01Date Analyzed: 10/4/99Time Analyzed: 2235GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) YInstrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLKSPK	BLKSPK	P19002.D	0005
02	GP-002-SS45	O86338	P19008.D	0436
03	GP-003-SS10	O86339	P19009.D	0521
04	GP-003-SS15	O86340	P19010.D	0607
05	GP-003-SS30	O86341	P19011.D	0652
06	GP-003-SS45	O86342	P19012.D	0737
07	GP-004-SS10	O86343	P19013.D	0822
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH Contract: IMPACT

Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS

Lab File ID: P19017.D Lab Sample ID: VBLK02

Date Analyzed: 10/5/99 Time Analyzed: 1115

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-004-SS15	O86344	P19020.D	1332
02	GP-004-SS30	O86345	P19021.D	1418
03	GP-001-SS10	O86346	P19022.D	1503
04	GP-001-SS15	O86347	P19023.D	1549
05	GP-001-SS30	O86348	P19024.D	1635
06	GP-001-SS45	O86349	P19025.D	1720
07	GP-001-SS60	O86350	P19026.D	1806
08	GP-002-SS10	O86351	P19027.D	1851
09	GP-002-SS15	O86352	P19028.D	1936
10	GP-002-SS30	O86353	P19029.D	2021
11	GP-004-SS45	O86354	P19030.D	2106
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS4
 Lab File ID: P18789.D BFB Injection Date: 9/13/99
 Instrument ID: VOA 2 BFB Injection Time: 1841
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.1
75	30.0 - 60.0% of mass 95	58.9
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	0.0 (0.0)1
174	Greater than 50.0% of mass 95	81.2
175	5.0 - 9.0% of mass 174	6.3 (7.8)1
176	Greater than 95% but less than 101% of mass 174	80.2 (98.7)1
177	5.0 - 9.0% of mass 176	5.0 (6.2)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	P18791.D	9/13/99	2005
02	VSTD200	VSTD200	P18792.D	9/13/99	2049
03	VSTD100	VSTD100	P18793.D	9/13/99	2134
04	VSTD020	VSTD020	P18794.D	9/13/99	2218
05	VSTD005	VSTD005	P18795.D	9/13/99	2303
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS4
 Lab File ID: P18997.D BFB Injection Date: 10/4/99
 Instrument ID: VOA 2 BFB Injection Time: 2026
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.0
75	30.0 - 66.0% of mass 95	59.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	81.3
175	4.0 - 9.0% of mass 174	6.3 (7.7)1
176	93.0 - 101.0% of mass 174	79.9 (98.3)1
177	5.0 - 9.0% of mass 176	5.1 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5002	P18998.D	10/4/99	2105
02	VBLK01	VBLK01	P19000.D	10/4/99	2235
03	BLKSPK	BLKSPK	P19002.D	10/5/99	0005
04	GP-002-SS45	O86338	P19008.D	10/5/99	0436
05	GP-003-SS10	O86339	P19009.D	10/5/99	0521
06	GP-003-SS15	O86340	P19010.D	10/5/99	0607
07	GP-003-SS30	O86341	P19011.D	10/5/99	0652
08	GP-003-SS45	O86342	P19012.D	10/5/99	0737
09	GP-004-SS10	O86343	P19013.D	10/5/99	0822
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS4
 Lab File ID: P19014.D BFB Injection Date: 10/5/99
 Instrument ID: VOA 2 BFB Injection Time: 0907
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.6
75	30.0 - 66.0% of mass 95	59.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	99.8
175	4.0 - 9.0% of mass 174	7.3 (7.4)1
176	93.0 - 101.0% of mass 174	98.4 (98.6)1
177	5.0 - 9.0% of mass 176	6.3 (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:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5003	P19015.D	10/5/99	0943
02	VBLK02	VBLK02	P19017.D	10/5/99	1115
03	GP-004-SS15	O86344	P19020.D	10/5/99	1332
04	GP-004-SS30	O86345	P19021.D	10/5/99	1418
05	GP-001-SS10	O86346	P19022.D	10/5/99	1503
06	GP-001-SS15	O86347	P19023.D	10/5/99	1549
07	GP-001-SS30	O86348	P19024.D	10/5/99	1635
08	GP-001-SS45	O86349	P19025.D	10/5/99	1720
09	GP-001-SS60	O86350	P19026.D	10/5/99	1806
10	GP-002-SS10	O86351	P19027.D	10/5/99	1851
11	GP-002-SS15	O86352	P19028.D	10/5/99	1936
12	GP-002-SS30	O86353	P19029.D	10/5/99	2021
13	GP-004-SS45	O86354	P19030.D	10/5/99	2106
14					
15					
16					
17					
18					
19					
20					
21					
22					

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS4
 Lab File ID (Standard): P18998.D Date Analyzed: 10/4/99
 Instrument ID: VOA 2 Time Analyzed: 2105
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) Y

	IS1 (FB) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	1510248	9.26	1766938	16.32	1236065	22.56
UPPER LIMIT	3020496	9.76	3533876	16.82	2472130	23.06
LOWER LIMIT	755124	8.76	883469	15.82	618033	22.06
SAMPLE NO.						
01 VBLK01	1398396	9.26	1644908	16.31	1155850	22.57
02 BLKSPK	1275035	9.25	1480237	16.32	1084304	22.58
03 GP-002-SS45	1466823	9.27	1755883	16.33	1275421	22.58
04 GP-003-SS10	1371576	9.26	1644059	16.32	1191741	22.58
05 GP-003-SS15	1257875	9.27	1552183	16.32	1118675	22.59
06 GP-003-SS30	1160987	9.28	1460448	16.35	1081458	22.60
07 GP-003-SS45	1274965	9.30	1483739	16.38	1024198	22.64
08 GP-004-SS10	1132095	9.28	1387341	16.37	1010877	22.64
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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 Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS4
 Lab File ID (Standard): P19015.D Date Analyzed: 10/5/99
 Instrument ID: VOA 2 Time Analyzed: 0943
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) Y

	IS1 (FB) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	1051215	9.29	1199847	16.38	898868	22.64
UPPER LIMIT	2102430	9.79	2399694	16.88	1797736	23.14
LOWER LIMIT	525608	8.79	599924	15.88	449434	22.14
SAMPLE NO.						
01 VBLK02	984521	9.28	1233708	16.37	912869	22.63
02 GP-004-SS15	1002816	9.29	1252132	16.39	877699	22.64
03 GP-004-SS30	904042	9.29	1148778	16.37	817277	22.63
04 GP-001-SS10	980357	9.29	1116574	16.38	777553	22.63
05 GP-001-SS15	893995	9.28	1084473	16.37	758293	22.63
06 GP-001-SS30	943870	9.29	1092984	16.38	784119	22.64
07 GP-001-SS45	838897	9.28	1012681	16.37	728676	22.64
08 GP-001-SS60	839750	9.28	1001785	16.36	720911	22.63
09 GP-002-SS10	892429	9.28	1135609	16.36	806947	22.63
10 GP-002-SS15	856861	9.28	1049289	16.36	778554	22.63
11 GP-002-SS30	902010	9.28	1054700	16.36	706181	22.63
12 GP-004-SS45	844190	9.28	1080337	16.37	802408	22.64
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

CHEMTECH CONSULTING GROUP

VOLATILES
SAMPLE DATA

000016

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-002-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86338

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19008.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

75-71-8	Dichlorodifluoromethane	5.2	U
74-87-3	Chloromethane	5.2	U
75-01-4	Vinyl Chloride	5.2	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
75-69-4	Trichlorofluoromethane	5.2	U
75-09-2	Methylene Chloride	5.2	U
75-34-4	1,1-Dichloroethane	5.2	U
590-20-7	2,2-Dichloropropane	5.2	U
74-97-5	Bromochloromethane	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
56-23-5	Carbon Tetrachloride	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
71-43-2	Benzene	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
74-95-3	Dibromomethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
108-88-3	Toluene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
124-48-1	Dibromochloromethane	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
108-90-7	Chlorobenzene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
100-41-4	Ethylbenzene	5.2	U
100-42-5	Styrene	5.2	U
75-25-2	Bromoform	5.2	U
98-82-8	isopropylbenzene	5.2	U
108-86-1	Bromobenzene	5.2	U

SAMPLE NO.

GP-002-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86338

Sample wt/vol:

5.0

(g/mL)

G

Lab File ID: P19008.D

Level: (low/med)

LOW

Date Received: 10/1/99

% Moisture: not dec.

3

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Concentration Units:

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-002-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86338
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19008.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 3 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	30.47	7.5	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000019

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19008.D
 Acq Time : 5 Oct 99 4:36 am
 Sample : 13649ASP-86338
 Misc : 5G/5ML
 Quant Time: Oct 5 19:38 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.27	96	1466823	50.00	ug/L	0.14
42) Chlorobenzene-d5	16.33	117	1755883	50.00	ug/L	0.13
56) 1,4-dichlorobenzene-d4	22.58	152	1275421	50.00	ug/L	0.13
System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.98	113	1193003	46.26	ug/L	92.53%
29) 1,2-Dichlorethane-d4	8.68	65	860311	44.41	ug/L	88.81%
37) Toluene-d8	12.76	98	1610653	53.97	ug/L	107.95%
41) 4-Bromofluorobenzene	19.47	95	1517571	51.39	ug/L	102.78%
Target Compounds						Qvalue
✓ 107 Acetone	3.90	43	31658	9.44	ug/L	89
76) naphthalene	28.80	128	74776	2.00	ug/L	99

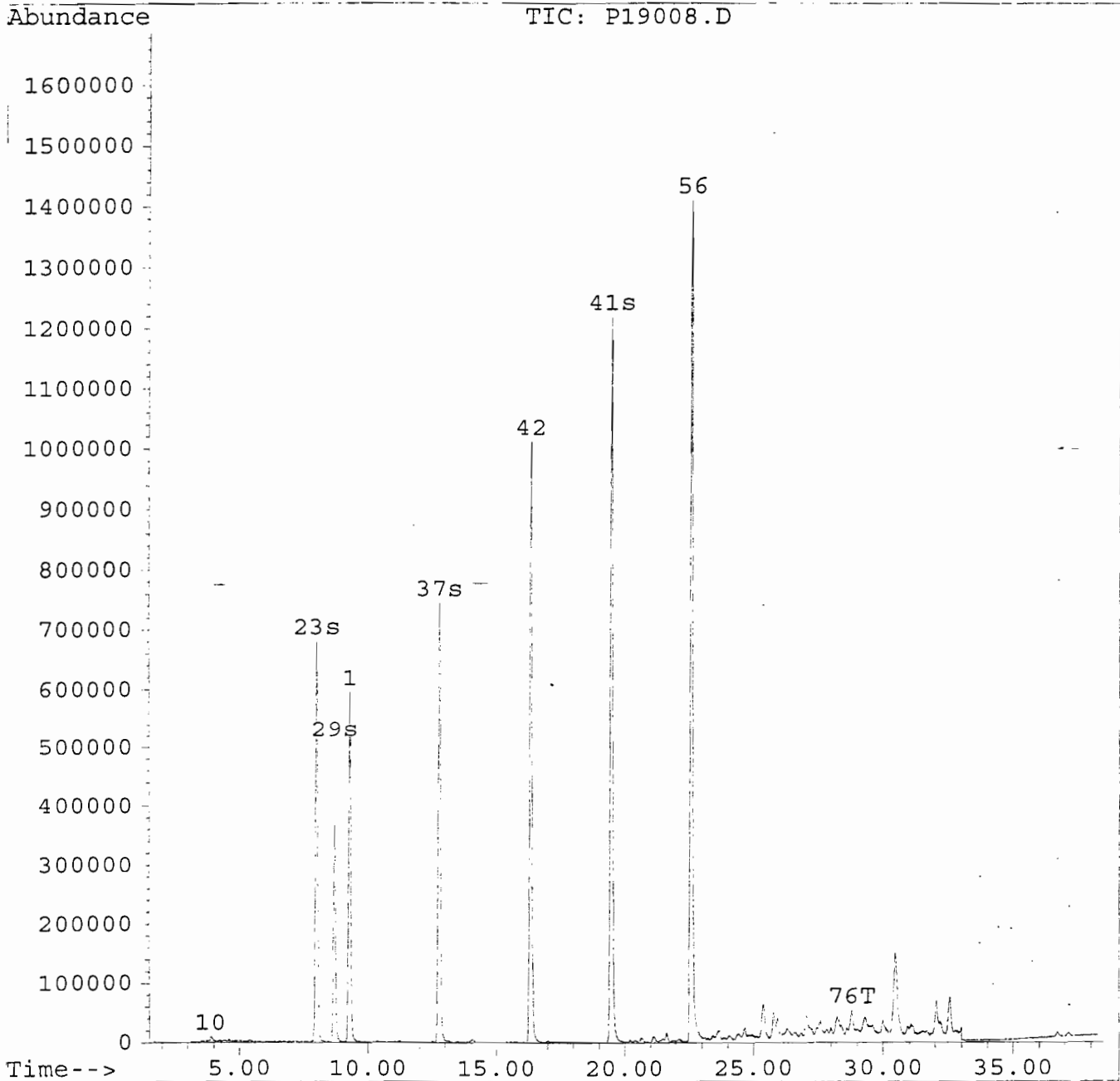
000020

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19008.D
Acq Time : 5 Oct 99 4:36 am
Sample : 13649ASP-86338
Misc : 5G/5ML
Quant Time: Oct 5 19:38 1999

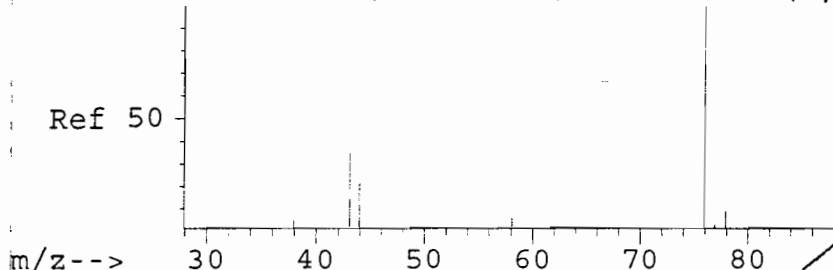
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000021

AbundanceScan 253 (3.810 min): P18791.D (-,



#10

Acetone

Concen: 9.44 ug/L

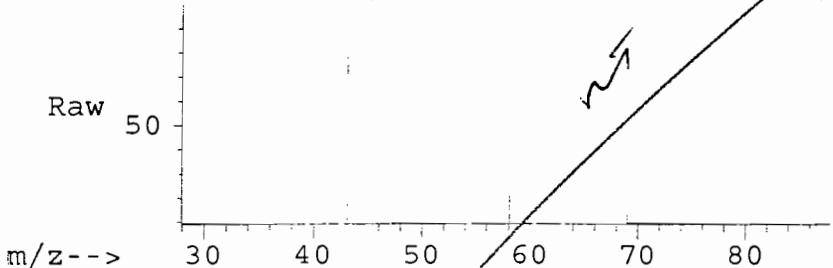
RT: 3.90 min Scan# 275

Delta R.T. 0.09 min

Lab File: P19008.D

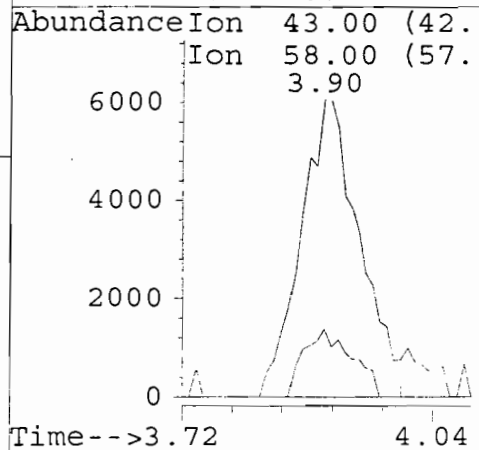
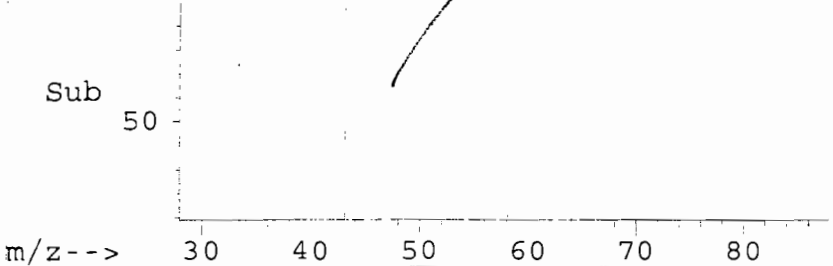
Acq: 5 Oct 99 4:36 am

AbundanceScan 275 (3.899 min): P19008.D (*)

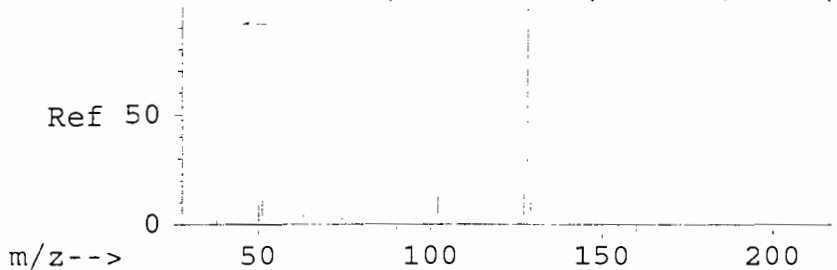


Tgt Ion:	43	Resp:	31658
Ion	Ratio	Lower	Upper
43	100		
58	18.7	0.0	28.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 275 (3.899 min): P19008.D (-,



AbundanceScan 2992 (28.671 min): P18791.D (



#76

naphthalene

Concen: 2.00 ug/L

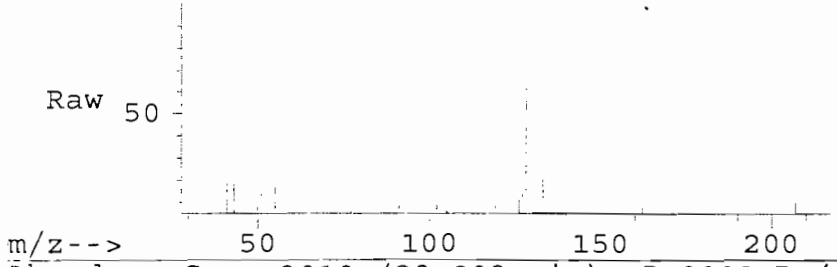
RT: 28.80 min Scan# 3019

Delta R.T. 0.13 min

Lab File: P19008.D

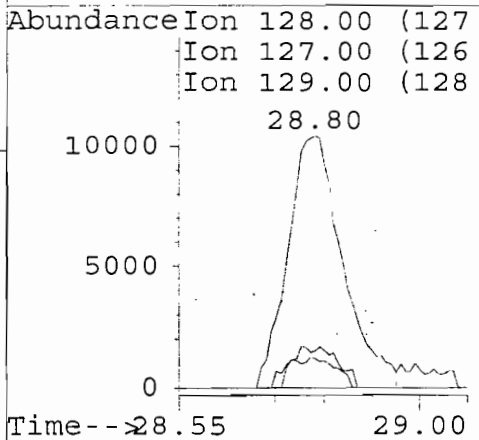
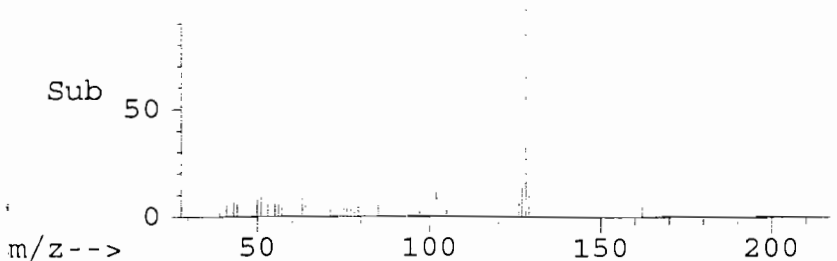
Acq: 5 Oct 99 4:36 am

AbundanceScan 3019 (28.803 min): P19008.D (



Tgt Ion:	128	Resp:	74776
Ion	Ratio	Lower	Upper
128	100		
127	14.3	10.1	18.6
129	11.4	7.8	14.4
0	0.0	0.0	0.0

AbundanceScan 3019 (28.803 min): P19008.D (



000022

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19008.D
Acq Time : 5 Oct 99 4:36 am
Sample : 13649ASP-86338
Misc : 5G/5ML

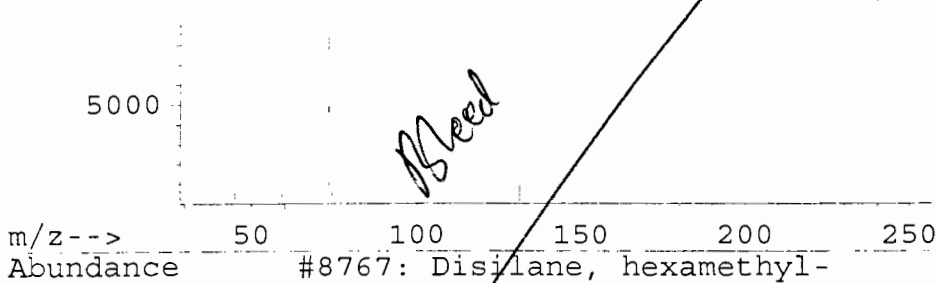
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

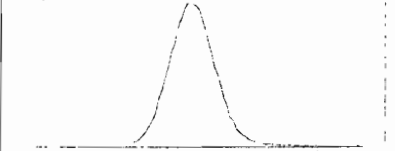
R.T.	Conc	Area	Relative to ISTD	R.T.
30.47	7.27 ug/L	1339803	1,4-dichlorobenzene-d4	22.58

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Disilane, hexamethyl-	8767	001450-14-2	47
2	Disilane, pentamethyl-	5731	000812-15-7	38
3	Silane, trimethyl(1-methyl-1-propen	5010	010111-13-4	35
4	3,6,9,12-Tetraoxa-2,13-disilatetrad	72595	062185-58-4	33
5	Silane, (2-ethoxyethoxy)trimethyl-	12830	016654-45-8	33

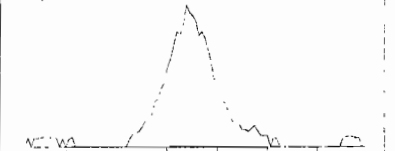
Abundance Scan 3202 (30.468 min): P19008.D (-,*)



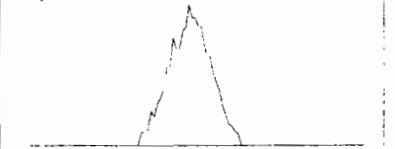
m/z 73.05 100.00%



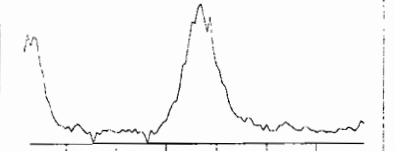
m/z 147.10 13.36%



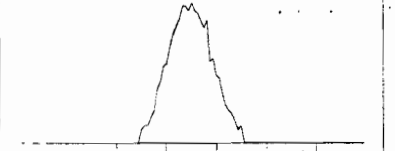
m/z 45.05 9.55%



m/z 131.05 9.47%

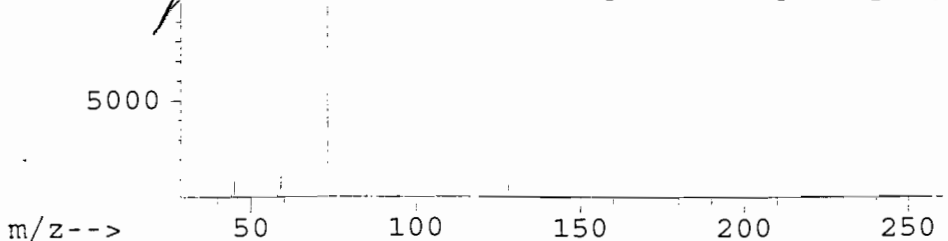


m/z 74.05 8.43%



m/z--> 50 100 150 200 250

Abundance #5010: Silane, trimethyl(1-methyl-1-prop



30.11 30.83

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-003-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86339

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19009.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

SAMPLE NO.

GP-003-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86339

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19009.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
---------	----------	-----------------	-------	---

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-003-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86339
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19009.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 2 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19009.D
 Acq Time : 5 Oct 99 5:21 am
 Sample : 13649ASP-86339
 Misc : 5G/5ML
 Quant Time: Oct 5 19:39 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1371576	50.00	ug/L	0.13
42) Chlorobenzene-d5	16.32	117	1644059	50.00	ug/L	0.13
56) 1,4-dichlorobenzene-d4	22.58	152	1191741	50.00	ug/L	0.13

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	1113738	46.19	ug/L	92.38%
29) 1,2-Dichlorethane-d4	8.68	65	817080	45.10	ug/L	90.21%
37) Toluene-d8	12.77	98	1502353	53.84	ug/L	107.68%
41) 4-Bromofluorobenzene	19.47	95	1435717	51.99	ug/L	103.99%

Target Compounds	Qvalue

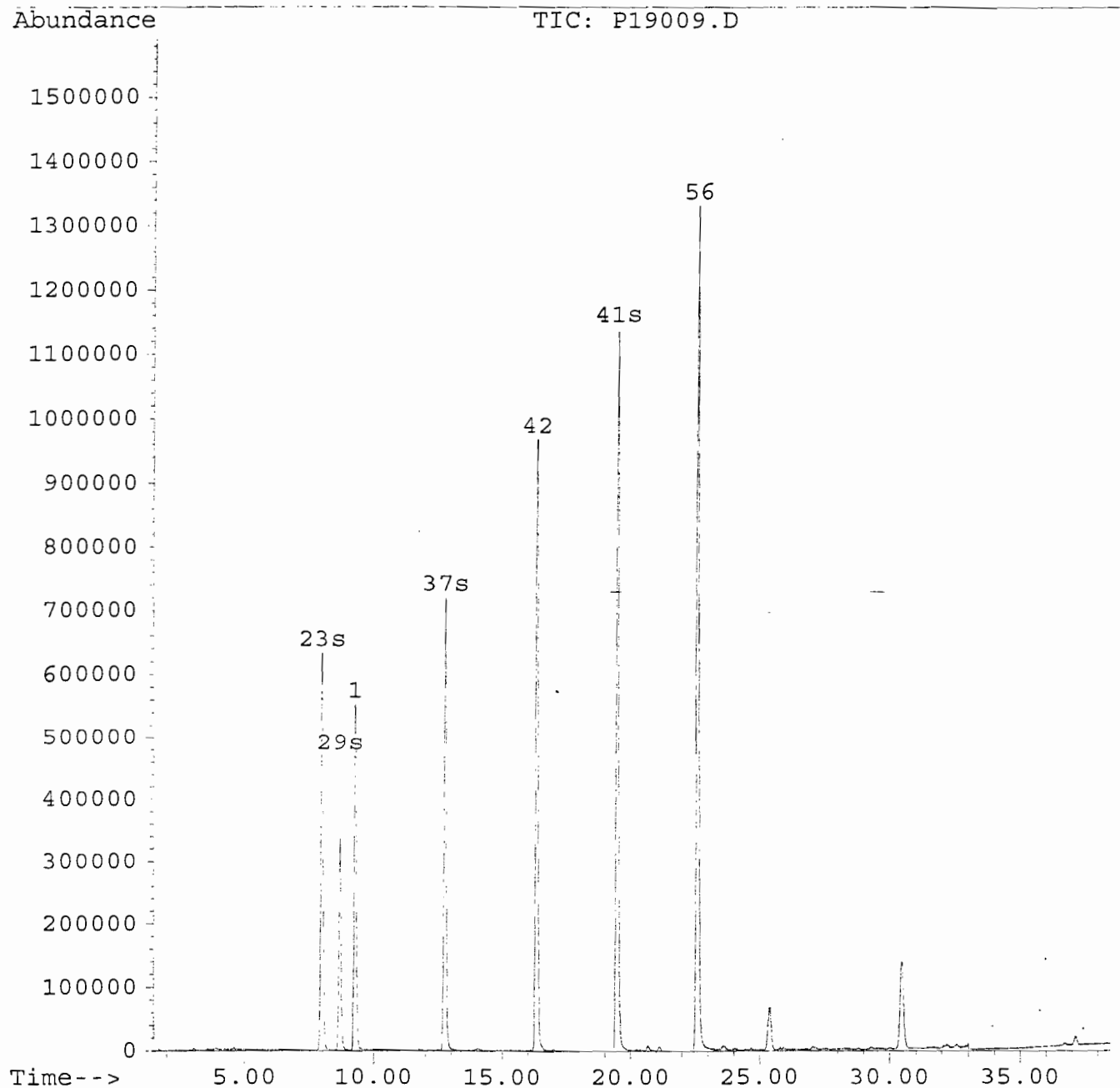
000027

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19009.D
Acq Time : 5 Oct 99 5:21 am
Sample : 13649ASP-86339
Misc : 5G/5ML
Quant Time: Oct 5 19:39 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000028

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19009.D
Acq Time : 5 Oct 99 5:21 am
Sample : 13649ASP-86339
Misc : 5G/5ML

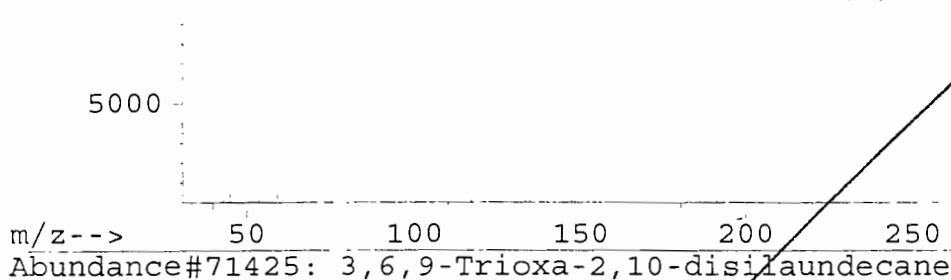
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

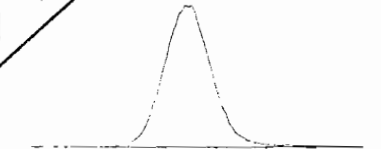
R.T.	Conc	Area	Relative to ISTD	R.T.
30.48	7.54 ug/L	1290202	1,4-dichlorobenzene-d4	22.58

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	36
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	36
3	Ethanedioic acid, bis(trimethylsilyl-	71006	018294-04-7	23
4	Silane, butyltrimethyl-	5492	001000-49-3	9
5	3,6,9,12-Tetraoxa-2,13-disilatetrad	72595	062185-58-4	9

Abundance Scan 3203 (30.475 min): P19009.D (-,*)

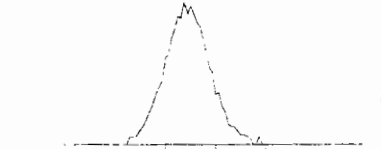


m/z 73.05 100.00%



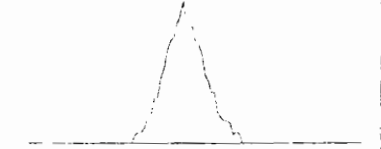
30.11 30.84

m/z 147.10 12.36%



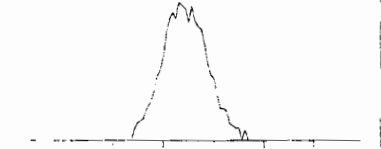
30.11 30.84

m/z 74.05 8.30%



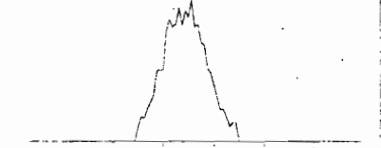
30.11 30.84

m/z 45.05 7.94%



30.11 30.84

m/z 59.05 5.29%



30.11 30.84

m/z--> 50 100 150 200 250
Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane

m/z--> 50 100 150 200 250
Abundance#71424: 3,6,9-Trioxa-2,10-disilaundecane

m/z--> 50 100 150 200 250
Abundance#71006: Ethanedioic acid, bis(trimethylsilyl-

m/z--> 50 100 150 200 250

000029

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-003-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86340

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19010.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 4

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

GP-003-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86340

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19010.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 4

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-003-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86340
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19010.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 4 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	23.54	11	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19010.D
 Acq Time : 5 Oct 99 6:07 am
 Sample : 13649ASP-86340
 Misc : 5G/5ML
 Quant Time: Oct 5 19:39 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.27	96	1257875	50.00	ug/L	0.14
42) Chlorobenzene-d5	16.32	117	1552183	50.00	ug/L	0.12
56) 1,4-dichlorobenzene-d4	22.59	152	1118675	50.00	ug/L	0.14

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	1058558	47.87	ug/L	95.74%
29) 1,2-Dichlorethane-d4	8.67	65	781756	47.06	ug/L	94.11%
37) Toluene-d8	12.77	98	1384079	54.09	ug/L	108.17%
41) 4-Bromofluorobenzene	19.46	95	1278353	50.48	ug/L	100.96%

Target Compounds Qvalue

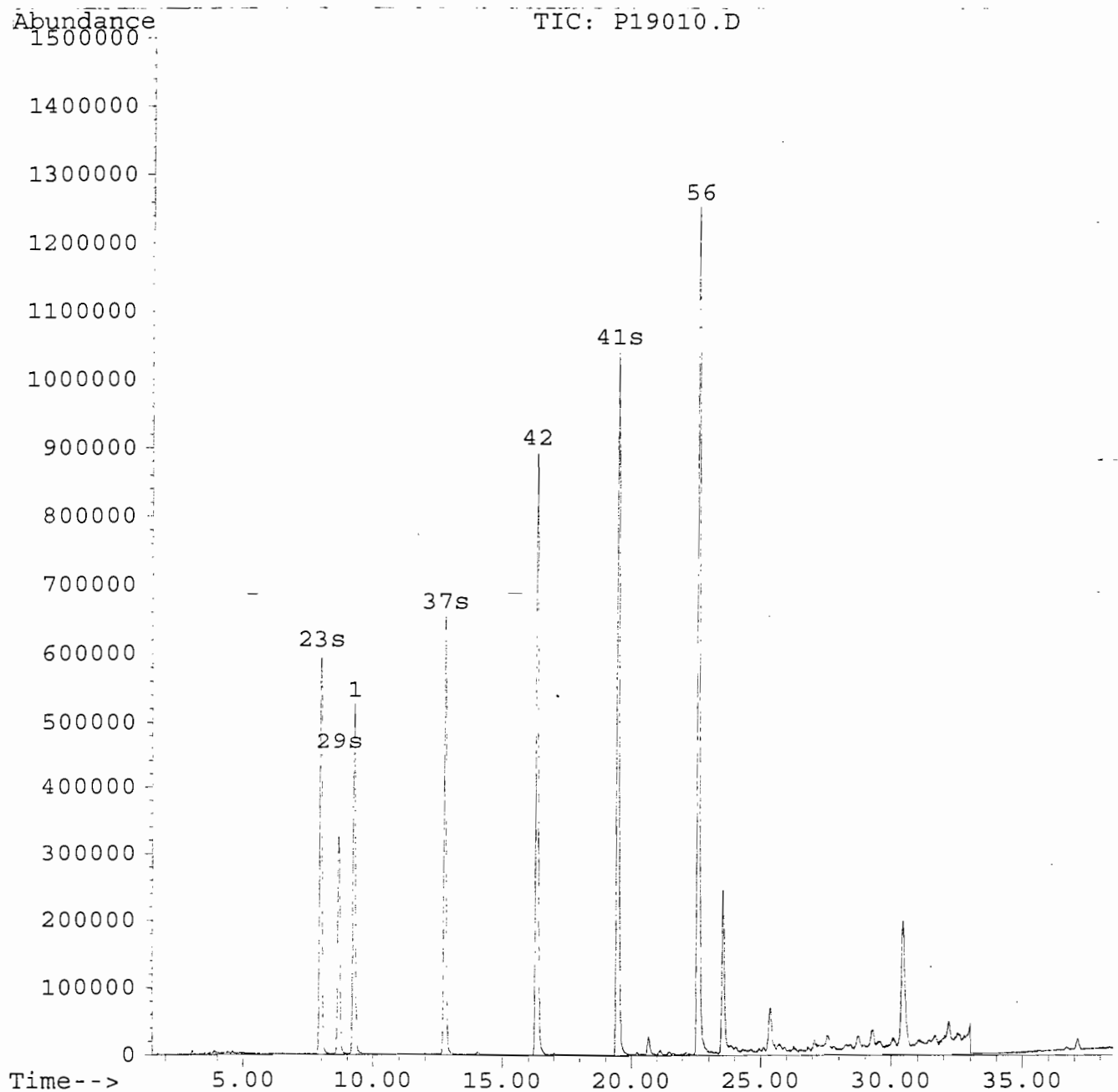
000033

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19010.D
Acq Time : 5 Oct 99 6:07 am
Sample : 13649ASP-86340
Misc : 5G/5ML
Quant Time: Oct 5 19:39 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000034

Library Search Compound Report

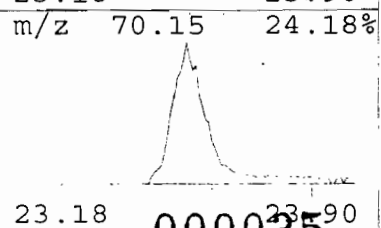
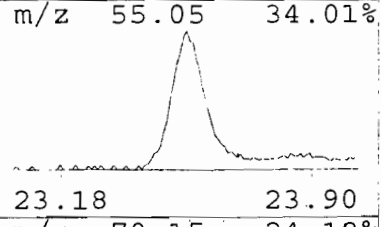
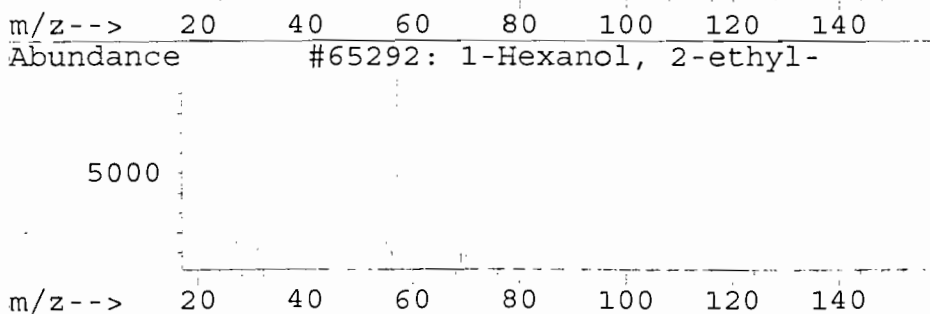
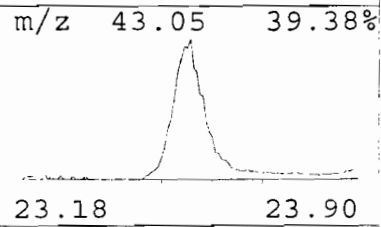
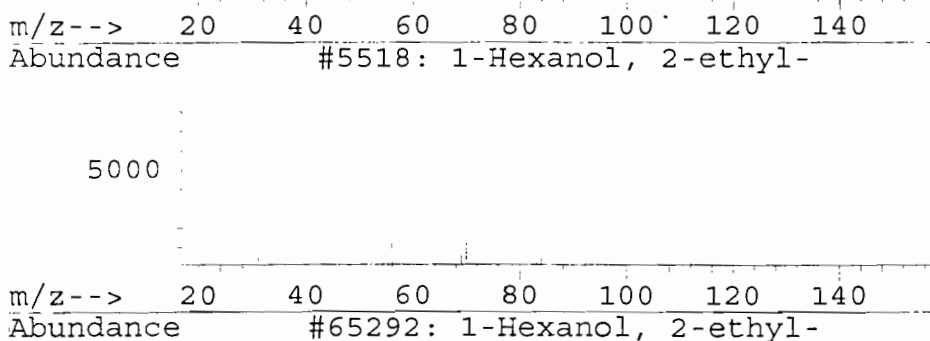
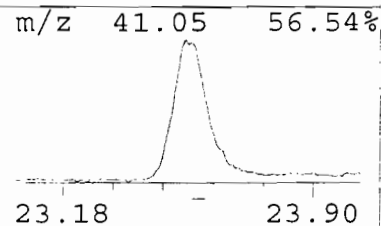
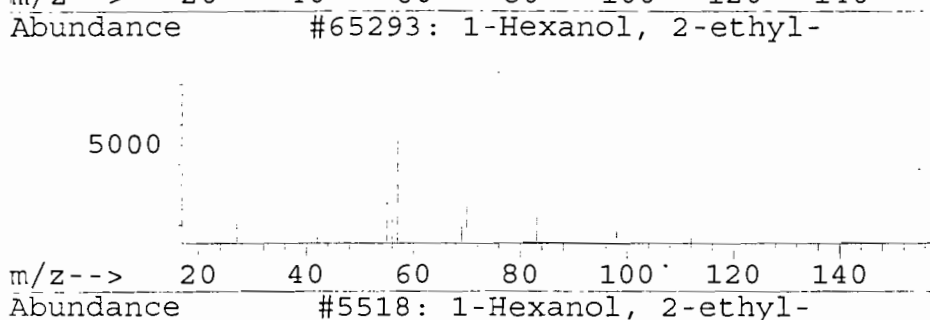
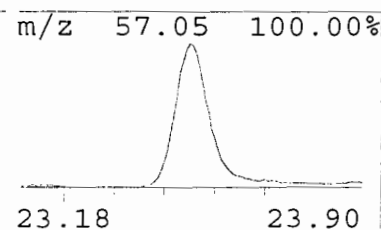
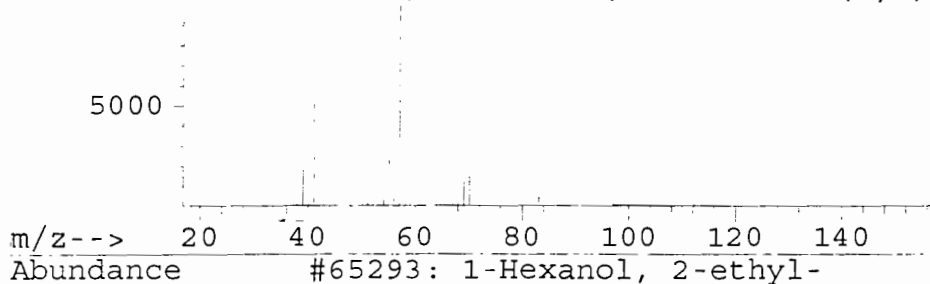
Data File : F:\HPCHEM\1\DATA\V2100499\P19010.D
Acq Time : 5 Oct 99 6:07 am
Sample : 13649ASP-86340
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.54	10.48 ug/L	1693666	1,4-dichlorobenzene-d4	22.59	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-		65293	000104-76-7	78
2	1-Hexanol, 2-ethyl-		5518	000104-76-7	78
3	1-Hexanol, 2-ethyl-		65292	000104-76-7	72
4	1-Hexanol, 2-ethyl-		65290	000104-76-7	72
5	1-Hexanol, 2-ethyl-		65294	000104-76-7	64

Abundance Scan 2440 (23.540 min): P19010.D (-,*)



000035

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-003-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86341

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19011.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		-U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

SAMPLE NO.

GP-003-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86341

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19011.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-003-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86341
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19011.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 3 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	23.56	20	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19011.D
 Acq Time : 5 Oct 99 6:52 am
 Sample : 13649ASP-86341
 Misc : 5G/5ML
 Quant Time: Oct 14 11:08 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	1160987	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.35	117	1460448	50.00	ug/L	0.15
56) 1,4-dichlorobenzene-d4	22.60	152	1081458	50.00	ug/L	0.15

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	8.00	113	1010190	49.49	ug/L	98.99%
29) 1,2-Dichlorethane-d4	8.68	65	733600	47.84	ug/L	95.68%
37) Toluene-d8	12.78	98	1286604	54.47	ug/L	108.94%
41) 4-Bromofluorobenzene	19.49	95	1311682	56.12	ug/L	112.24%

Target Compounds	Qvalue

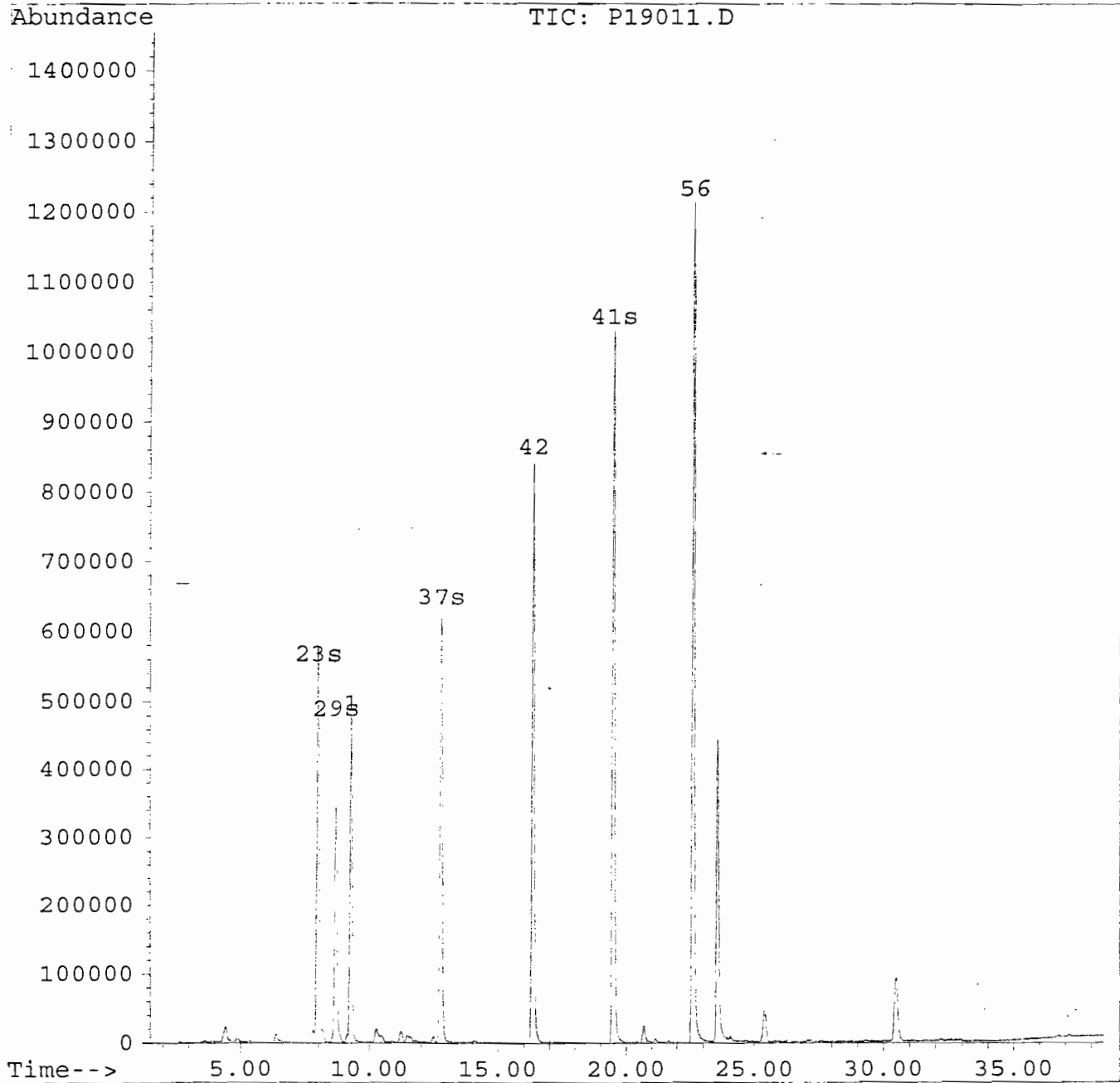
000039

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19011.D
Acq Time : 5 Oct 99 6:52 am
Sample : 13649ASP-86341
Misc : 5G/5ML
Quant Time: Oct 14 11:08 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000040

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19011.D
Acq Time : 5 Oct 99 6:52 am
Sample : 13649ASP-86341
Misc : 5G/5ML

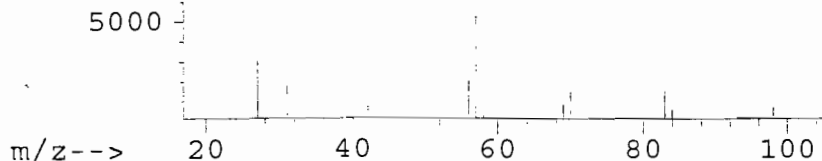
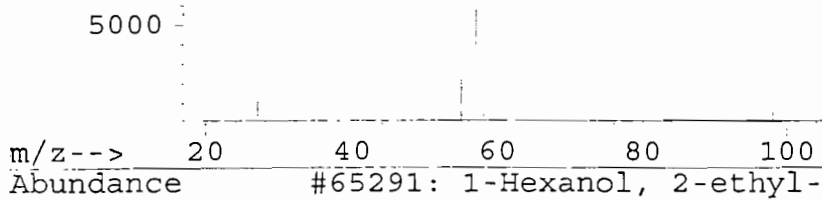
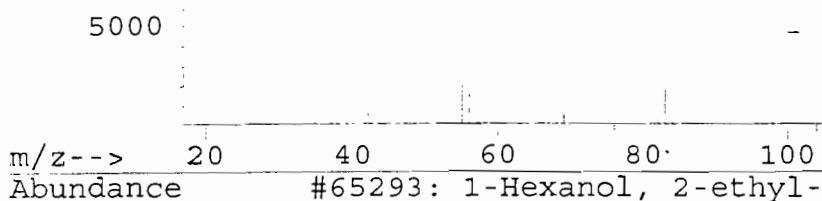
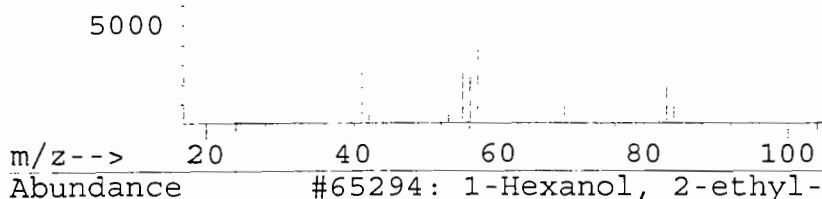
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.56	19.06 ug/L	2961490	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	65294	000104-76-7	78
2	1-Hexanol, 2-ethyl-	65293	000104-76-7	78
3	1-Hexanol, 2-ethyl-	65291	000104-76-7	64
4	1-Hexanol, 2-ethyl-	5518	000104-76-7	64
5	1-Hexanol, 2-ethyl-	65290	000104-76-7	53

Abundance Scan 2445 (23.563 min): P19011.D (-,*)



m/z 57.05 100.00%

23.20 23.92
m/z 41.05 58.61%

23.20 23.92
m/z 43.05 35.48%

23.20 23.92
m/z 55.05 29.81%

23.20 23.92
m/z 56.05 23.28%

000041

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19011.D
Acq Time : 5 Oct 99 6:52 am
Sample : 13649ASP-86341
Misc : 5G/5ML

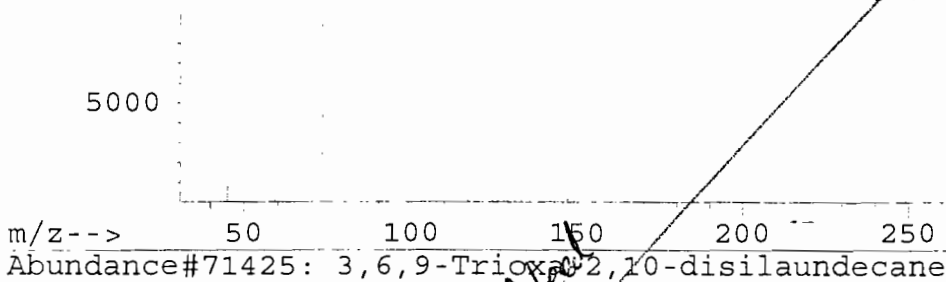
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

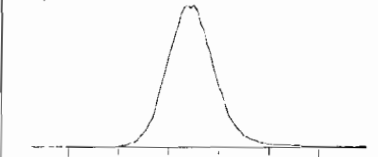
R.T.	Conc	Area	Relative to ISTD	R.T.
30.49	5.58 ug/L	867251	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	36
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	33
3	Ethanedioic acid, bis(trimethylsilyl)	71005	018294-04-7	23
4	Butanoic acid, 2-methyl-3-[(trimeth	36153	055557-17-0	9
5	Pentanoic acid, 2-[(trimethylsilyl)	36156	055887-46-2	9

Abundance Scan 3208 (30.494 min): P19011.D (-,*)

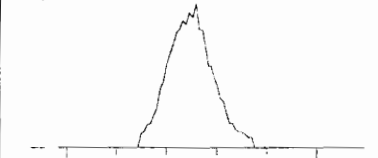


m/z 73.05 100.00%



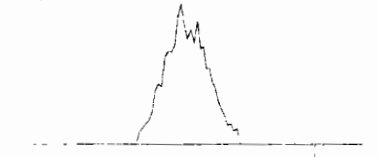
30.13 30.85

m/z 147.10 11.82%



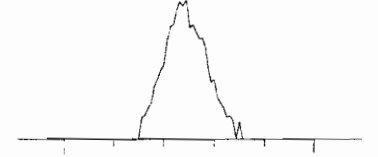
30.13 30.85

m/z 45.05 8.67%



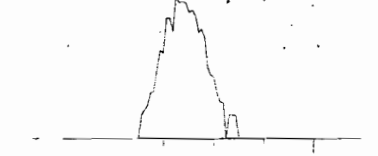
30.13 30.85

m/z 74.05 7.06%



30.13 30.85

m/z 59.05 5.17%



30.13 30.85

000042

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-003-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86342

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19012.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 1

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-003-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86342
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19012.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 1 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19012.D
 Acq Time : 5 Oct 99 7:37 am
 Sample : 13649ASP-86342
 Misc : 5G/5ML
 Quant Time: Oct 14 11:07 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.30	96	1274965	50.00	ug/L	0.17
42) Chlorobenzene-d5	16.38	117	1483739	50.00	ug/L	0.18
56) 1,4-dichlorobenzene-d4	22.64	152	1024198	50.00	ug/L	0.19

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	8.00	113	1021925	45.59	ug/L	91.19%
29) 1,2-Dichlorethane-d4	8.70	65	752706	44.70	ug/L	89.40%
37) Toluene-d8	12.80	98	1399234	53.94	ug/L	107.89%
41) 4-Bromofluorobenzene	19.53	95	1251671	48.76	ug/L	97.53%

Target Compounds Qvalue

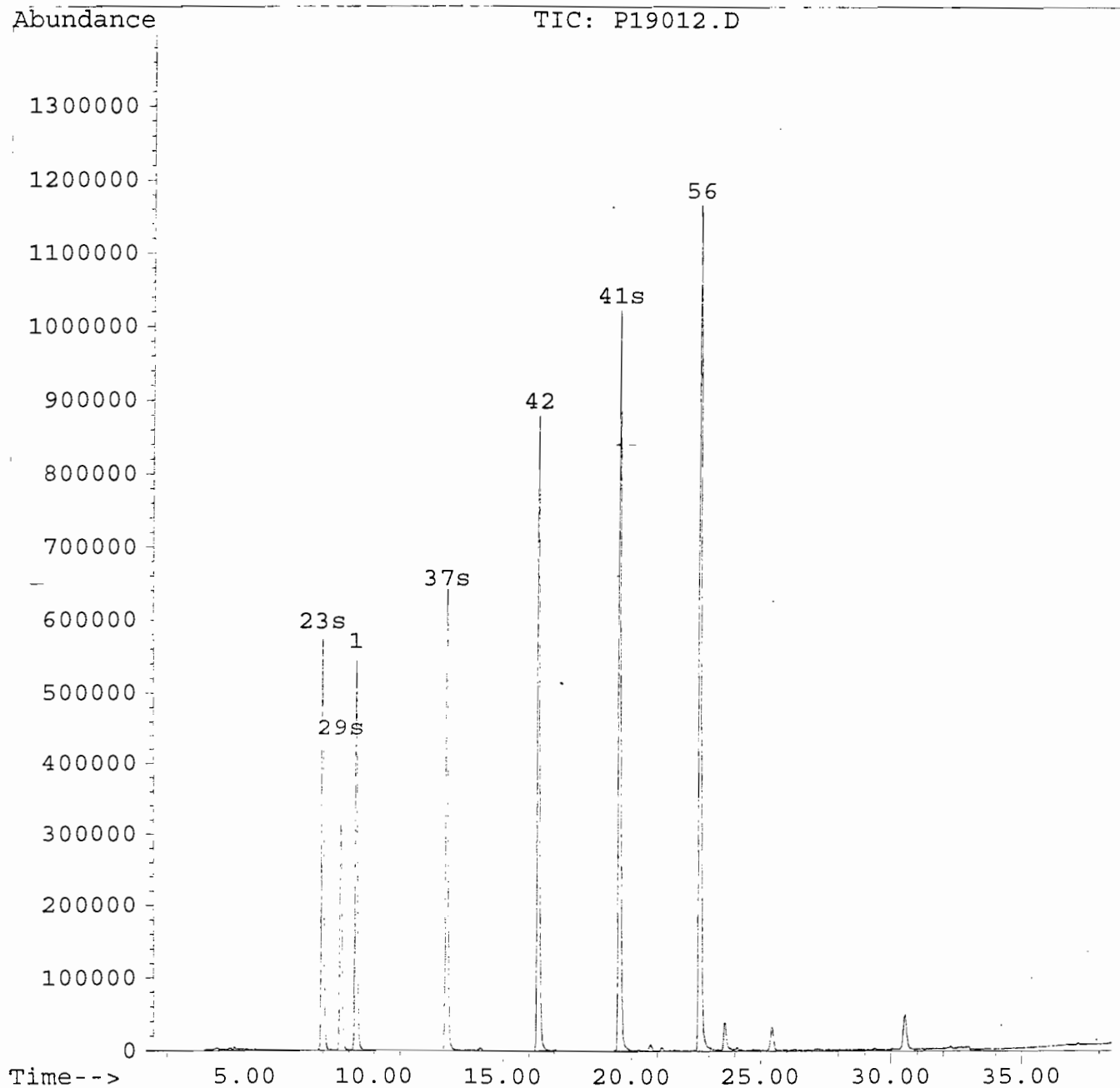
000046

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19012.D
Acq Time : 5 Oct 99 7:37 am
Sample : 13649ASP-86342
Misc : 5G/5ML
Quant Time: Oct 14 11:07 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000047

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19012.D
Acq Time : 5 Oct 99 7:37 am
Sample : 13649ASP-86342
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000048

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-004-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86343

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19013.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/Kg

Q

75-71-8	Dichlorodifluoromethane	5.2	U
74-87-3	Chloromethane	5.2	U
75-01-4	Vinyl Chloride	5.2	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
75-69-4	Trichlorofluoromethane	5.2	U
75-09-2	Methylene Chloride	5.2	U
75-34-4	1,1-Dichloroethane	5.2	U
590-20-7	2,2-Dichloropropane	5.2	U
74-97-5	Bromochloromethane	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
56-23-5	Carbon Tetrachloride	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
71-43-2	Benzene	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
74-95-3	Dibromomethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
108-88-3	Toluene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
124-48-1	Dibromochloromethane	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
108-90-7	Chlorobenzene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
100-41-4	Ethylbenzene	5.2	U
100-42-5	Styrene	5.2	U
75-25-2	Bromoform	5.2	U
98-82-8	isopropylbenzene	5.2	U
108-86-1	Bromobenzene	5.2	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-004-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86343
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19013.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 3 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000051

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19013.D
 Acq Time : 5 Oct 99 8:22 am
 Sample : 13649ASP-86343
 Misc : 5G/5ML
 Quant Time: Oct 14 11:09 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	1132095	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.37	117	1387341	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.64	152	1010877	50.00	ug/L	0.19

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	944424	47.45	ug/L	94.91%
29) 1,2-Dichlorethane-d4	8.69	65	709845	47.47	ug/L	94.95%
37) Toluene-d8	12.80	98	1236288	53.68	ug/L	107.35%
41) 4-Bromofluorobenzene	19.52	95	1246100	54.67	ug/L	109.35%

Target Compounds Qvalue

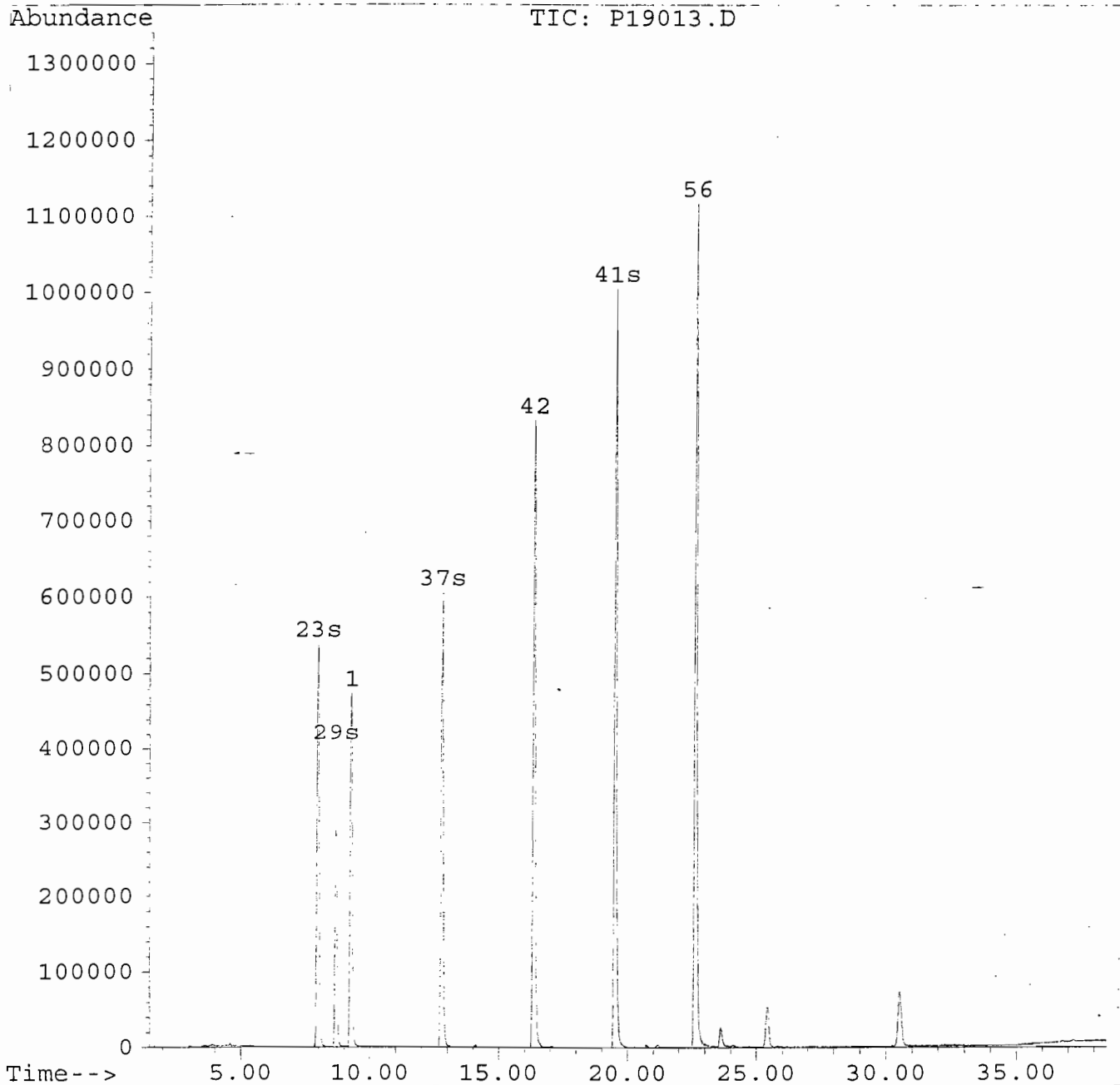
000052

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19013.D
Acq Time : 5 Oct 99 8:22 am
Sample : 13649ASP-86343
Misc : 5G/5ML
Quant Time: Oct 14 11:09 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000053

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19013.D
Acq Time : 5 Oct 99 8:22 am
Sample : 13649ASP-86343
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000054

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-004-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86344

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19020.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

SAMPLE NO.

GP-004-SS15

Contract: IMPACT ENVIRONMENTAL

Group: GP-002-SS

Lab Sample ID: O86344

Lab File ID: P19020.D

Date Received: 10/1/99

Date Analyzed: 10/5/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

. ug/Kg

Q

Page 2 of 2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-004-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
Matrix: (soil/water) SOIL Lab Sample ID: O86344
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19020.D
Level: (low/med) LOW Date Received: 10/1/99
% Moisture: not dec. 3 Date Analyzed: 10/5/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000057

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19020.D
 Acq Time : 5 Oct 99 1:32 pm
 Sample : 13649ASP-86344
 Misc : 5G/5ML
 Quant Time: Oct 7 13:25 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.29	96	1002816	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.39	117	1252132	50.00	ug/L	0.19
56) 1,4-dichlorobenzene-d4	22.64	152	877699	50.00	ug/L	0.19

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.99	113	869097	49.30	ug/L	98.60%
29) 1,2-Dichlorethane-d4	8.69	65	658234	49.70	ug/L	99.40%
37) Toluene-d8	12.80	98	1130581	55.42	ug/L	110.83%
41) 4-Bromofluorobenzene	19.52	95	1107201	54.84	ug/L	109.68%

Target Compounds

Qvalue

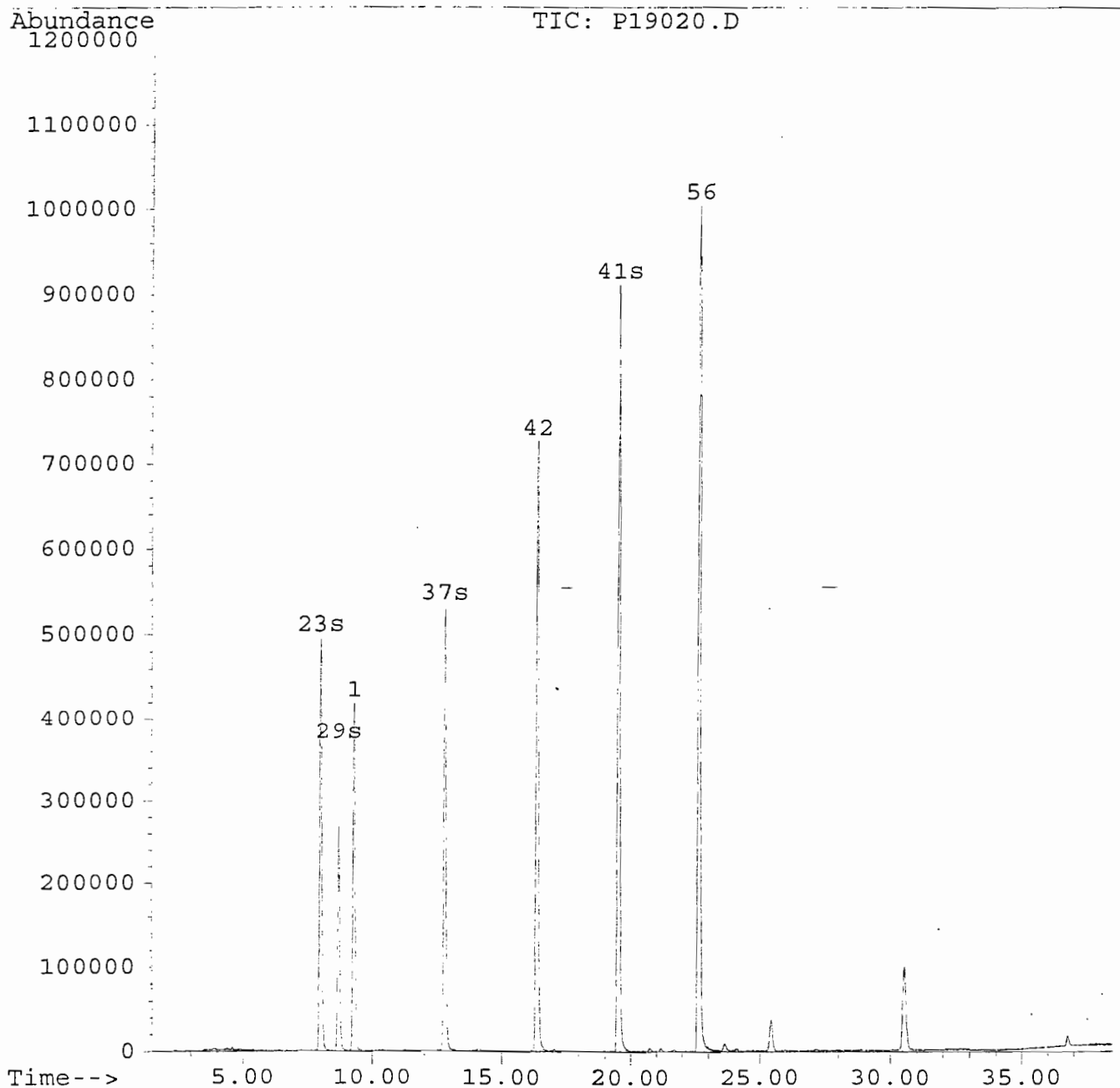
000058

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19020.D
Acq Time : 5 Oct 99 1:32 pm
Sample : 13649ASP-86344
Misc : 5G/5ML
Quant Time: Oct 7 13:25 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000059

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19020.D
Acq Time : 5 Oct 99 1:32 pm
Sample : 13649ASP-86344
Misc : 5G/5ML

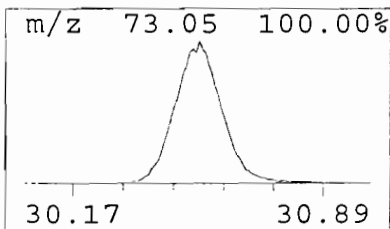
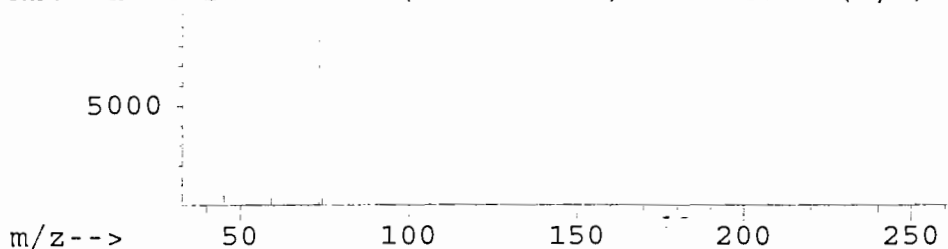
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

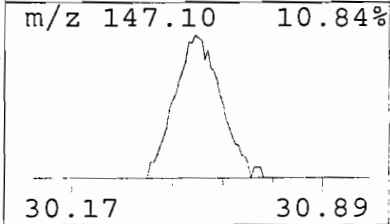
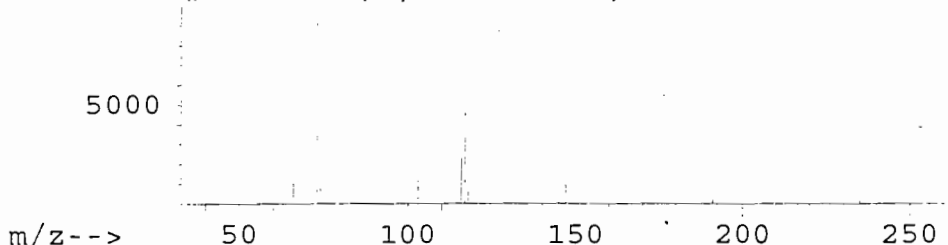
R.T.	Conc	Area	Relative to ISTD	R.T.
30.53	7.01 ug/L	904639	1,4-dichlorobenzene-d4	22.64

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
3	Ethanedioic acid, bis(trimethylsily	71005	018294-04-7	28
4	Ethanedioic acid, bis(trimethylsily	30580	018294-04-7	9
5	Undecanoic acid, 11-fluoro-, trimet	38798	026305-97-5	9

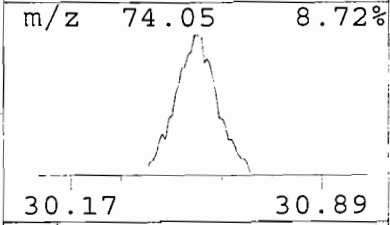
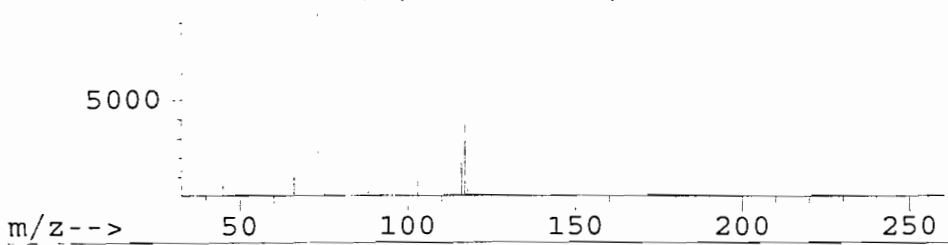
Abundance Scan 3209 (30.529 min): P19020.D (-,*)



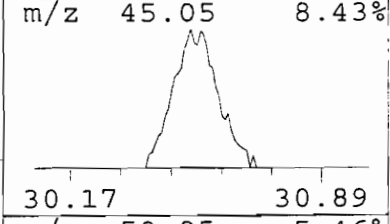
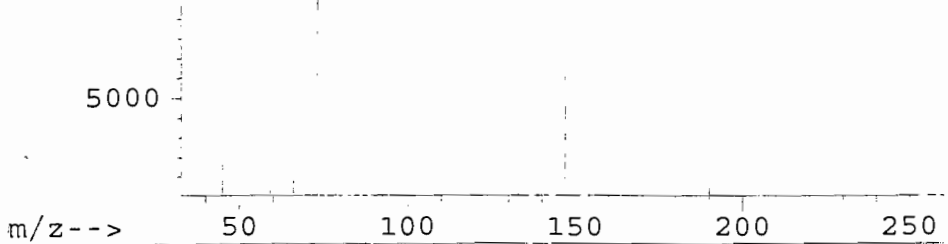
Abundance#71424: 3,6,9-Trioxa-2,10-disilaundecane



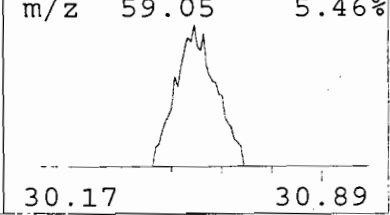
Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane



Abundance#71005: Ethanedioic acid, bis(trimethylsily



m/z--> 50 100 150 200 250



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-004-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86345

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19021.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

SAMPLE NO.

GP-004-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86345

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19021.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

000062

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-004-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
Matrix: (soil/water) SOIL Lab Sample ID: O86345
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19021.D
Level: (low/med) LOW Date Received: 10/1/99
% Moisture: not dec. 2 Date Analyzed: 10/5/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000063

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19021.D
 Acq Time : 5 Oct 99 2:18 pm
 Sample : 13649ASP-86345
 Misc : 5G/5ML
 Quant Time: Oct 7 13:25 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.29	96	904042	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.37	117	1148778	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.63	152	817277	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.99	113	825978	51.97	ug/L	103.94%
29) 1,2-Dichlorethane-d4	8.69	65	621084	52.02	ug/L	104.03%
37) Toluene-d8	12.80	98	1023766	55.66	ug/L	111.33%
41) 4-Bromofluorobenzene	19.52	95	1022154	56.16	ug/L	112.32%

Target Compounds Qvalue

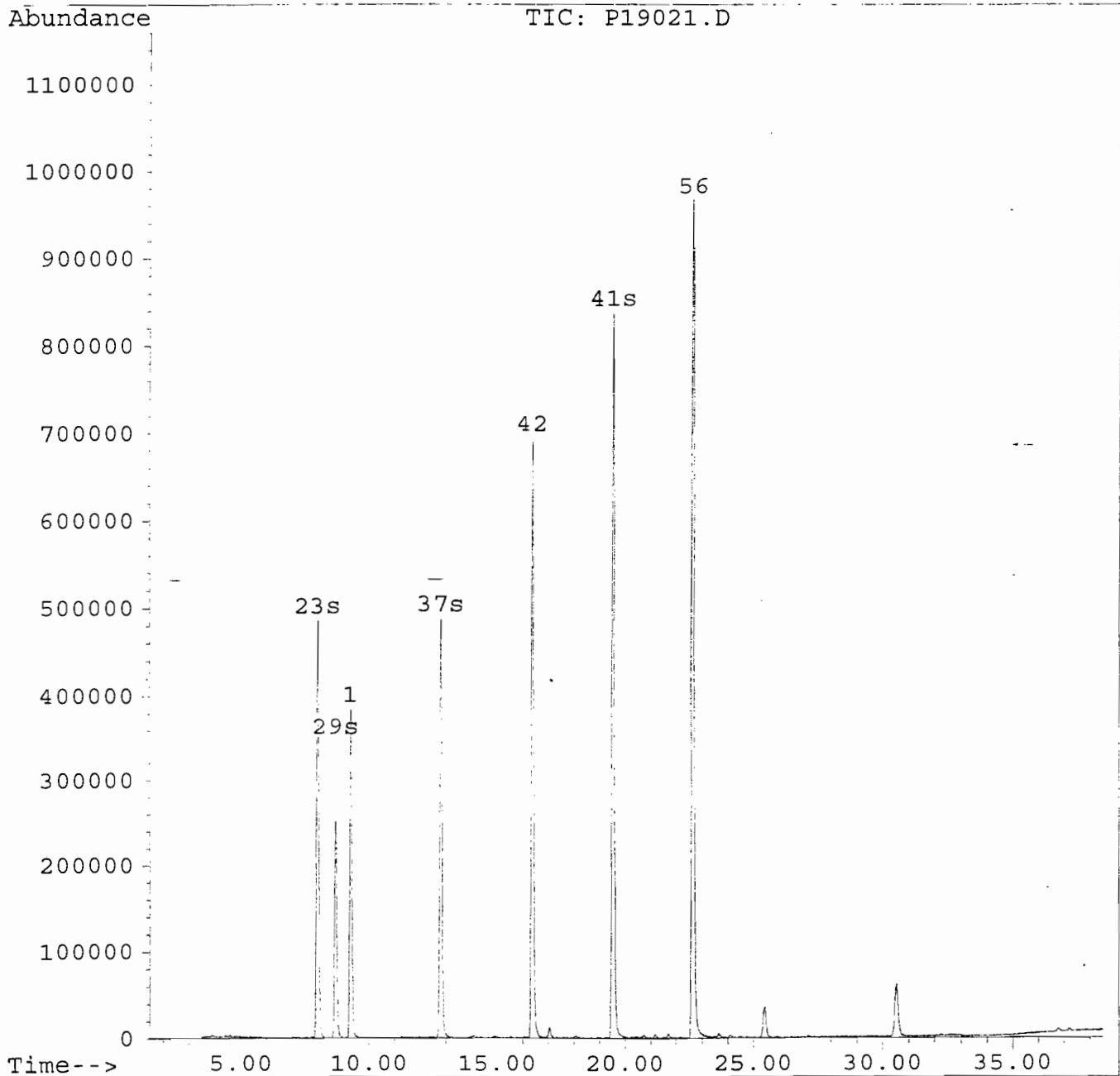
000064

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19021.D
Acq Time : 5 Oct 99 2:18 pm
Sample : 13649ASP-86345
Misc : 5G/5ML
Quant Time: Oct 7 13:25 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000065

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19021.D
Acq Time : 5 Oct 99 2:18 pm
Sample : 13649ASP-86345
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000066

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-001-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86346

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19022.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

SAMPLE NO.

GP-001-SS10

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-002-SS

Lab Sample ID: O86346

Lab File ID: P19022.D

Date Received: 10/1/99

Date Analyzed: 10/5/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/Kg

Q

000068

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-001-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86346
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19022.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 2 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000069

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19022.D
 Acq Time : 5 Oct 99 3:03 pm
 Sample : 13649ASP-86346
 Misc : 5G/5ML
 Quant Time: Oct 7 13:25 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.29	96	980357	50.00	ug/L	0.17
42) Chlorobenzene-d5	16.38	117	1116574	50.00	ug/L	0.18
56) 1,4-dichlorobenzene-d4	22.63	152	777553	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.99	113	817715	47.45	ug/L	94.89%
29) 1,2-Dichlorethane-d4	8.69	65	632180	48.82	ug/L	97.65%
37) Toluene-d8	12.80	98	1061904	53.24	ug/L	106.48%
41) 4-Bromofluorobenzene	19.52	95	970382	49.17	ug/L	98.33%

Target Compounds Qvalue

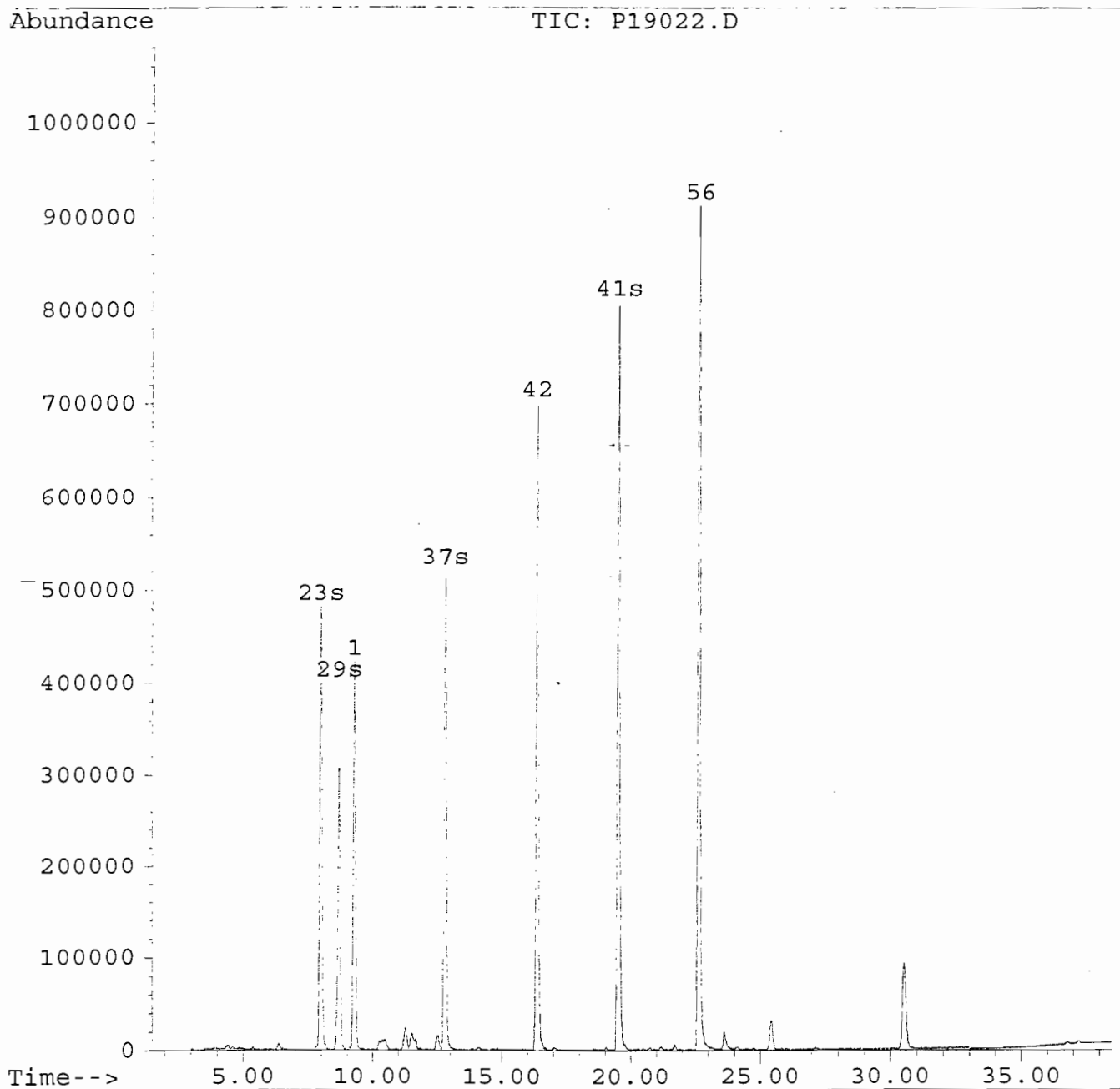
000070

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19022.D
Acq Time : 5 Oct 99 3:03 pm
Sample : 13649ASP-86346
Misc : 5G/5ML
Quant Time: Oct 7 13:25 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000071

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19022.D
Acq Time : 5 Oct 99 3:03 pm
Sample : 13649ASP-86346
Misc : 5G/5ML

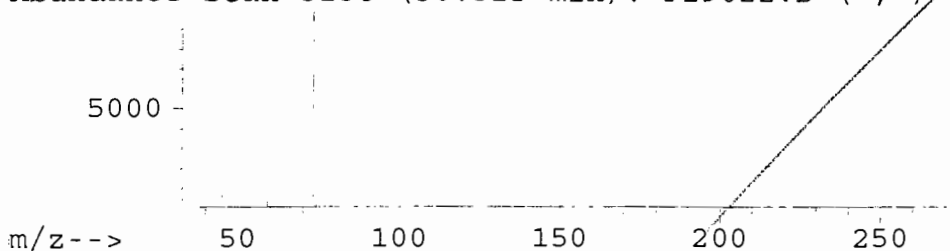
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

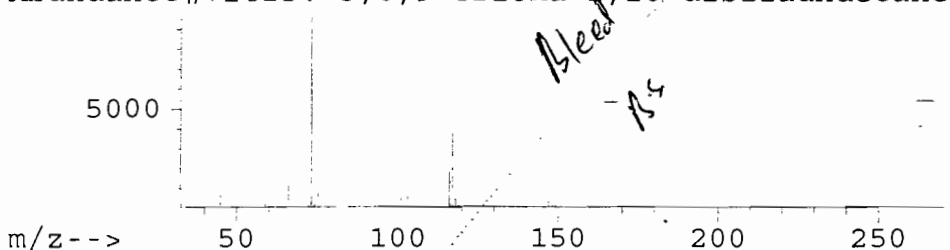
R.T.	Conc	Area	Relative to ISTD	R.T.
30.52	7.51 ug/L	870488	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	28
3	Butanoic acid, 2,2-dimethyl-3-[(tri	38745	055530-56-8	9
4	Ethanedioic acid, bis(trimethylsily	30580	018294-04-7	9
5	3,6,9,12-Tetraoxa-2,13-disilatetrad	72595	062185-58-4	9

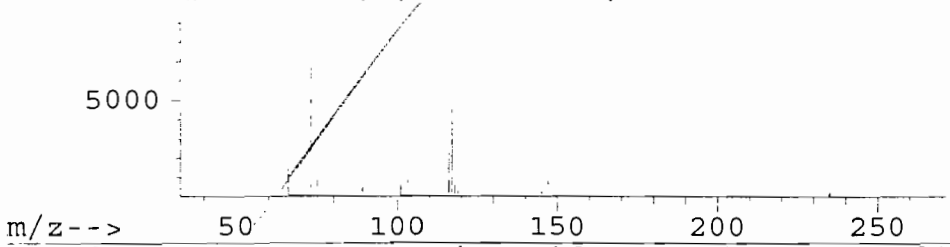
Abundance Scan 3238 (30.525 min): P19022.D (-,*)



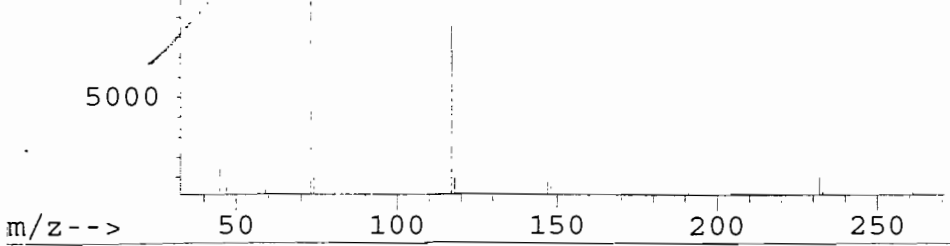
m/z--> 50 100 150 200 250
Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane



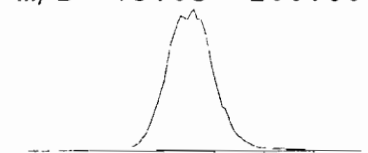
m/z--> 50 100 150 200 250
Abundance#71424: 3,6,9-Trioxa-2,10-disilaundecane



m/z--> 50 100 150 200 250
Abundance#38745: Butanoic acid, 2,2-dimethyl-3-[(tri



m/z 73.05 100.00%



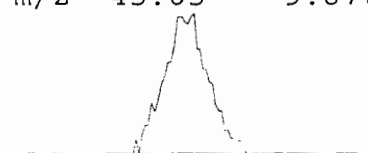
30.16 30.88

m/z 147.10 12.11%



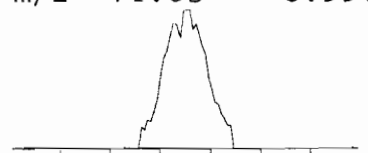
30.16 30.88

m/z 45.05 9.87%



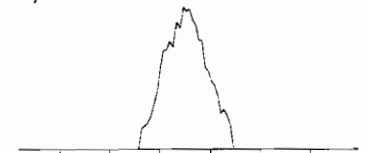
30.16 30.88

m/z 74.05 8.99%



30.16 30.88

m/z 59.05 6.03%



30.16 30.88

000072

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-001-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86347

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19023.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

1A

GP-001-SS15

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-002-SS

Lab Sample ID: O86347

Lab File ID: P19023.D

Date Received: 10/1/99

Date Analyzed: 10/5/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

(ug/L or ug/Kg)

ug/Kg

Q

~~000074~~

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-001-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86347
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19023.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 2 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	23.59	8.5	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000075

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19023.D
 Acq Time : 5 Oct 99 3:49 pm
 Sample : 13649ASP-86347
 Misc : 5G/5ML
 Quant Time: Oct 7 14:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.28	96	893995	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.37	117	1084473	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.63	152	758293	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.99	113	776691	49.42	ug/L	98.84%
29) 1,2-Dichlorethane-d4	8.68	65	601985	50.98	ug/L	101.97%
37) Toluene-d8	12.81	98	994214	54.66	ug/L	109.33%
41) 4-Bromofluorobenzene	19.52	95	981492	54.53	ug/L	109.07%

Target Compounds

Qvalue

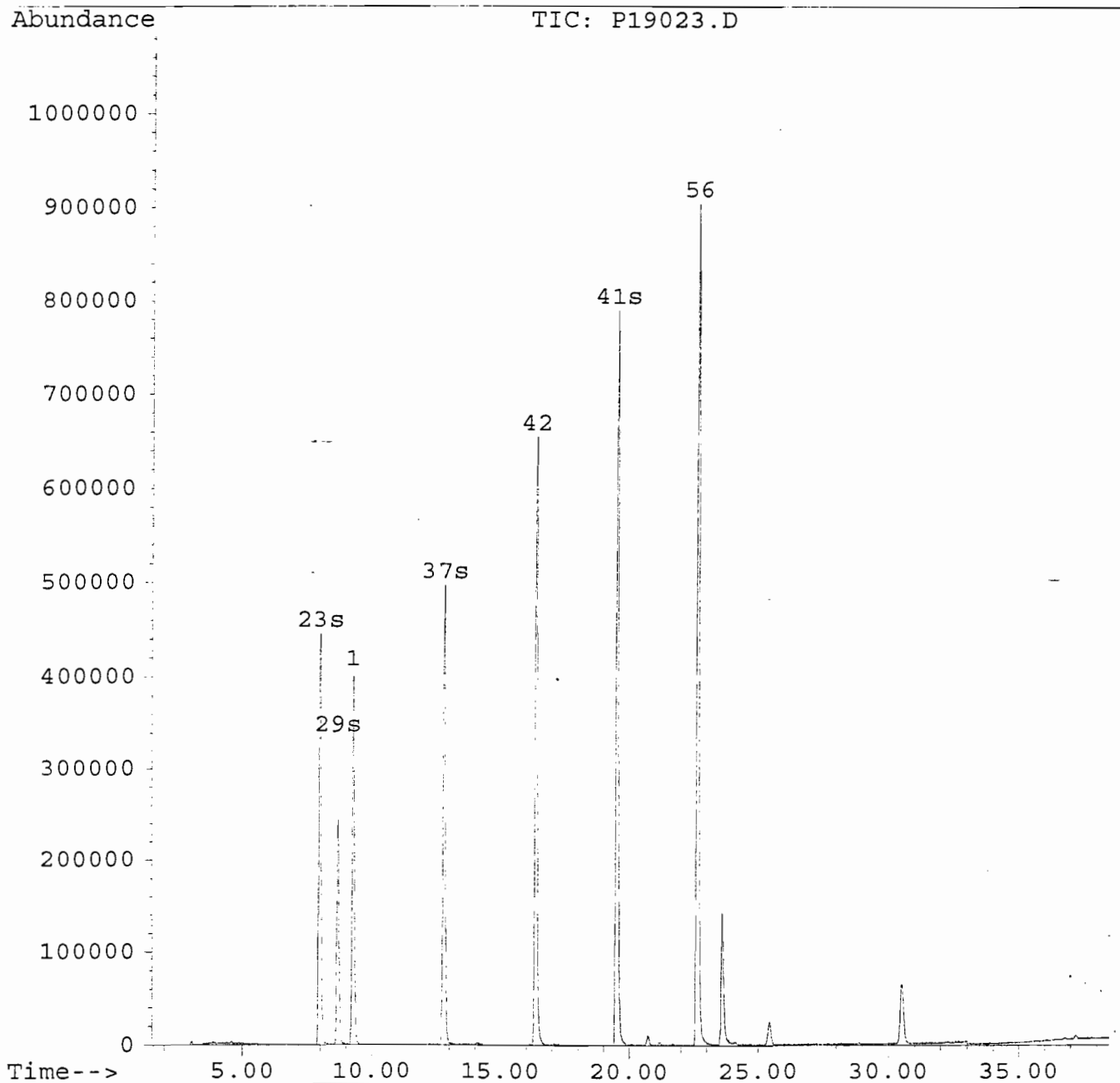
000076

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19023.D
Acq Time : 5 Oct 99 3:49 pm
Sample : 13649ASP-86347
Misc : 5G/5ML
Quant Time: Oct 7 14:23 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000077

Library Search Compound Report

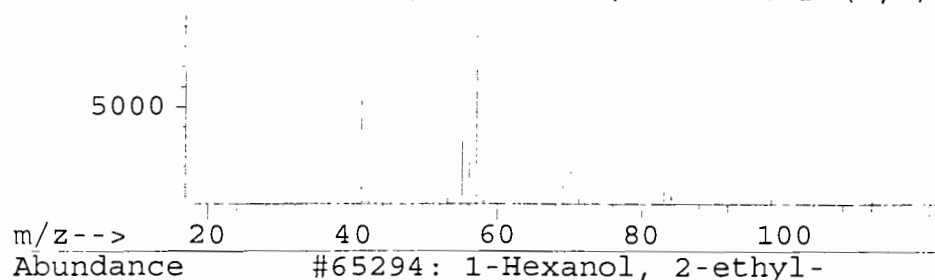
Data File : F:\HPCHEM\1\DATA\V2100499\P19023.D
Acq Time : 5 Oct 99 3:49 pm
Sample : 13649ASP-86347
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

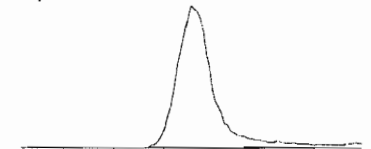
Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.59	8.38 ug/L	966963	1,4-dichlorobenzene-d4	22.63	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-		65294	000104-76-7	78
2	1-Hexanol, 2-ethyl-		65293	000104-76-7	78
3	1-Hexanol, 2-ethyl-		5518	000104-76-7	78
4	1-Hexanol, 2-ethyl-		65292	000104-76-7	72
5	1-Hexanol, 2-ethyl-		65289	000104-76-7	72

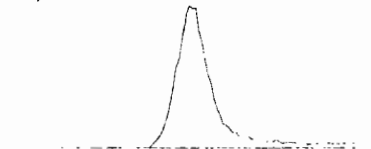
Abundance Scan 2447 (23.594 min): P19023.D (-,*)



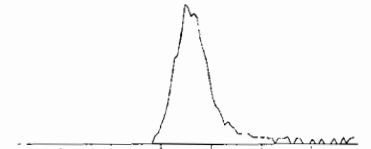
m/z 57.05 100.00%



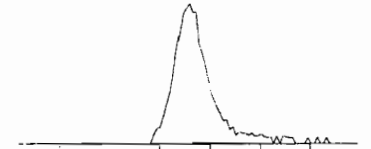
m/z 41.05 66.86%



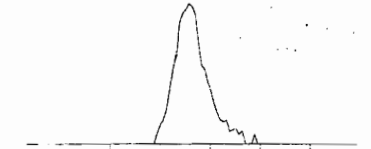
m/z 43.05 38.98%



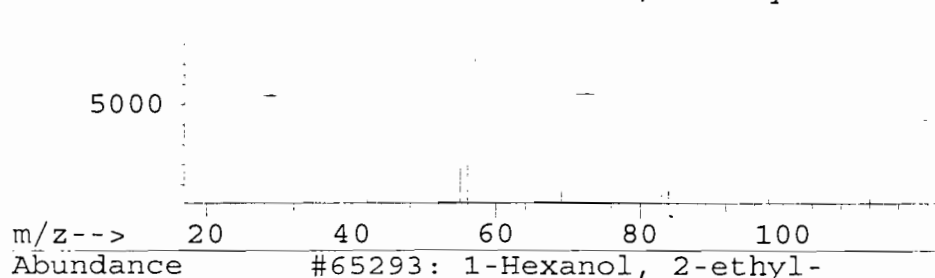
m/z 55.05 33.81%



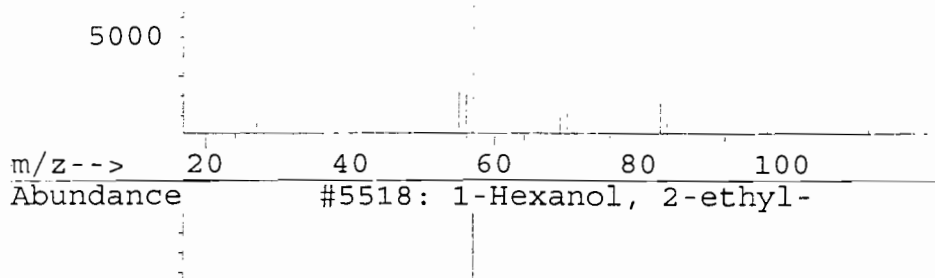
m/z 56.05 22.97%



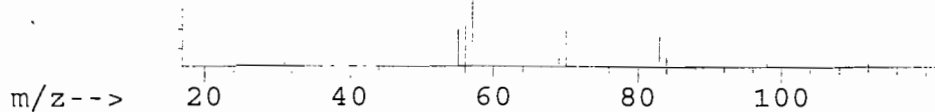
m/z--> 20 40 60 80 100
Abundance #65293: 1-Hexanol, 2-ethyl-



m/z--> 20 40 60 80 100
Abundance #5518: 1-Hexanol, 2-ethyl-



m/z--> 20 40 60 80 100
Abundance #56.05: 1-Hexanol, 2-ethyl-



m/z--> 20 40 60 80 100
Abundance #56.05: 1-Hexanol, 2-ethyl-

000078

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19023.D
Acq Time : 5 Oct 99 3:49 pm
Sample : 13649ASP-86347
Misc : 5G/5ML

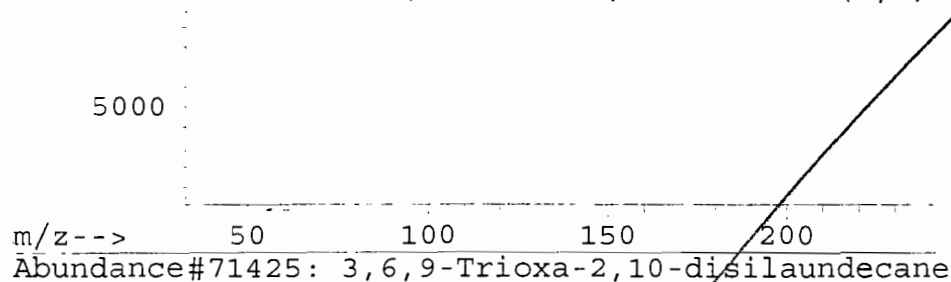
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

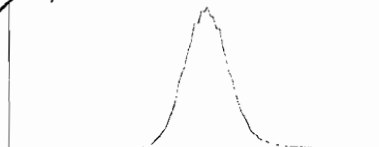
R.T.	Conc	Area	Relative to ISTD	R.T.
30.51	5.07 ug/L	585567	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	36
3	3,6,9,12-Tetraoxa-2,13-disilatetrad	72595	062185-58-4	9
4	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	9
5	3,6,9-Trioxa-2,10-disilaundecane, 2	33793	016654-74-3	9

Abundance Scan 3208 (30.507 min): P19023.D (-,*)



m/z 73.05 100.00%



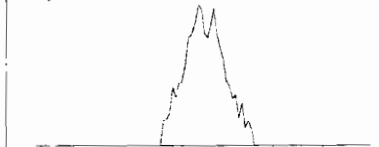
30.15 30.87

m/z 147.10 10.81%



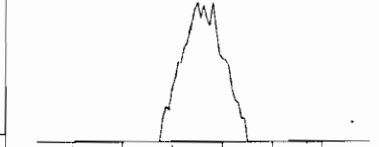
30.15 30.87

m/z 45.05 10.51%



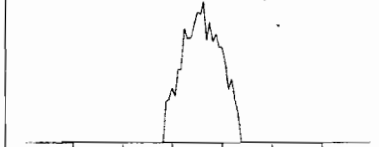
30.15 30.87

m/z 74.05 8.62%



30.15 30.87

m/z 59.05 5.86%



30.15 30.87

000079

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-001-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86348

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19024.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 5

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

75-71-8	Dichlorodifluoromethane	5.3	U
74-87-3	Chloromethane	5.3	U
75-01-4	Vinyl Chloride	5.3	U
74-83-9	Bromomethane	5.3	U
75-00-3	Chloroethane	5.3	U
75-69-4	Trichlorofluoromethane	5.3	U
75-09-2	Methylene Chloride	5.3	U
75-34-4	1,1-Dichloroethane	5.3	U
590-20-7	2,2-Dichloropropane	5.3	U
74-97-5	Bromochloromethane	5.3	U
67-66-3	Chloroform	5.3	U
71-55-6	1,1,1-Trichloroethane	5.3	U
56-23-5	Carbon Tetrachloride	5.3	U
563-58-6	1,1-Dichloropropene	5.3	U
71-43-2	Benzene	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
79-01-6	Trichloroethene	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
74-95-3	Dibromomethane	5.3	U
75-27-4	Bromodichloromethane	5.3	U
108-88-3	Toluene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
127-18-4	Tetrachloroethene	5.3	U
142-28-9	1,3-Dichloropropane	5.3	U
124-48-1	Dibromochloromethane	5.3	U
106-93-4	1,2-Dibromoethane	5.3	U
108-90-7	Chlorobenzene	5.3	U
630-20-6	1,1,1,2-Tetrachloroethane	5.3	U
100-41-4	Ethylbenzene	5.3	U
100-42-5	Styrene	5.3	U
75-25-2	Bromoform	5.3	U
98-82-8	isopropylbenzene	5.3	U
108-86-1	Bromobenzene	5.3	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-001-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
Matrix: (soil/water) SOIL Lab Sample ID: O86348
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19024.D
Level: (low/med) LOW Date Received: 10/1/99
% Moisture: not dec. 5 Date Analyzed: 10/5/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19024.D
 Acq Time : 5 Oct 99 4:35 pm
 Sample : 13649ASP-86348
 Misc : 5G/5ML
 Quant Time: Oct 14 11:13 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.29	96	943870	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.38	117	1092984	50.00	ug/L	0.18
56) 1,4-dichlorobenzene-d4	22.64	152	784119	50.00	ug/L	0.19

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.99	113	793639	47.83	ug/L	95.66%
29) 1,2-Dichlorethane-d4	8.69	65	627265	50.32	ug/L	100.63%
37) Toluene-d8	12.80	98	1047035	54.53	ug/L	109.05%
41) 4-Bromofluorobenzene	19.52	95	950810	50.04	ug/L	100.07%

Target Compounds	Qvalue
------------------	--------

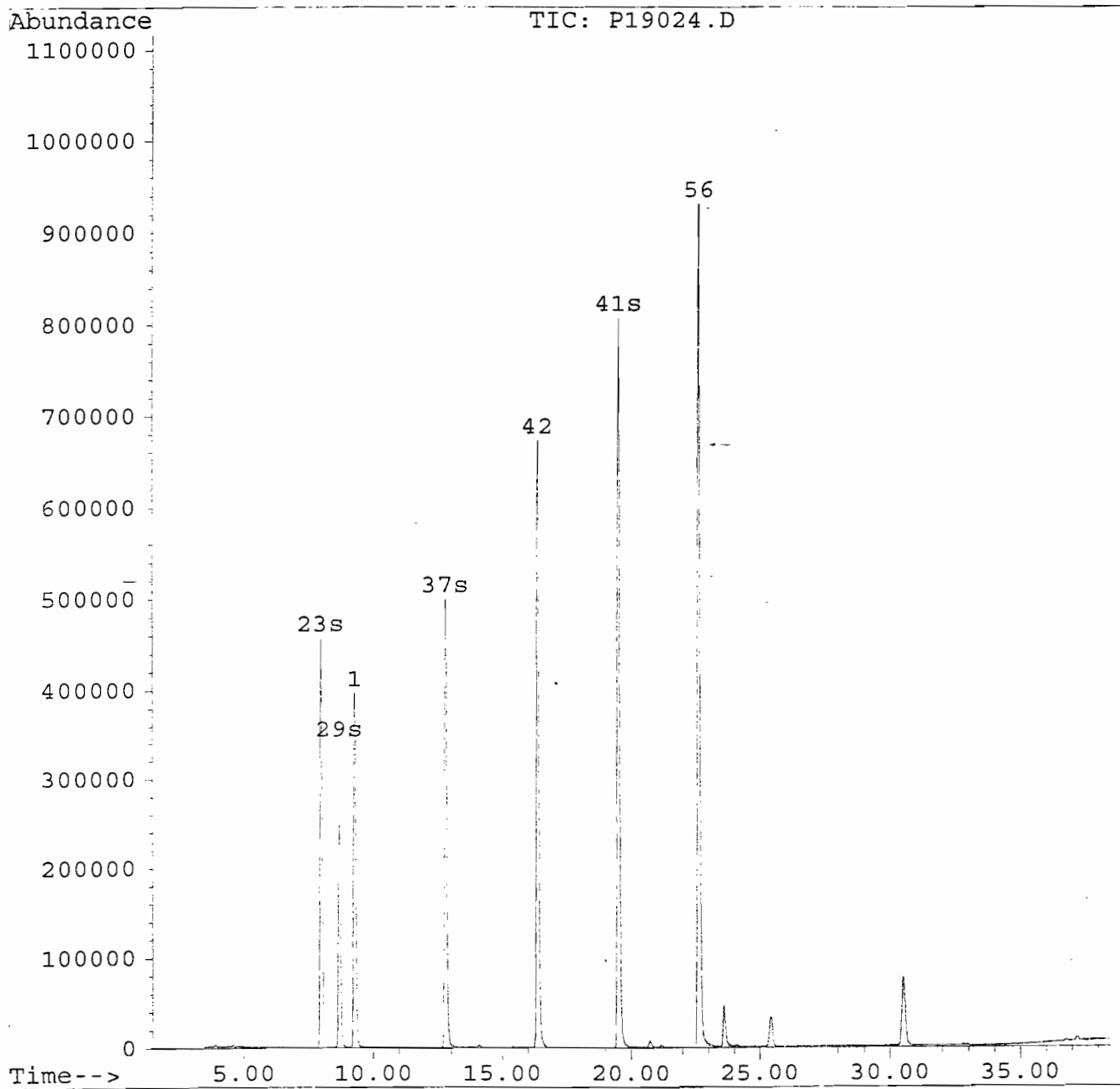
000083

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19024.D
Acq Time : 5 Oct 99 4:35 pm
Sample : 13649ASP-86348
Misc : 5G/5ML
Quant Time: Oct 14 11:13 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000084

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19024.D
Acq Time : 5 Oct 99 4:35 pm
Sample : 13649ASP-86348
Misc : 5G/5ML

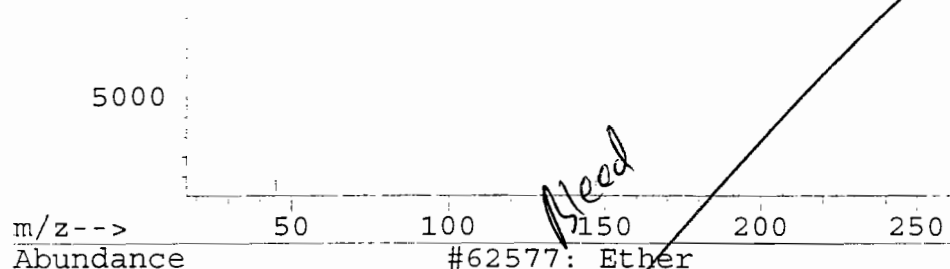
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.51	6.03 ug/L	703222	1,4-dichlorobenzene-d4	22.64

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ether	62577	000060-29-7	4
2	Silane, trimethyl(2-phenylethoxy)-	69402	014629-58-4	4
3	Ethanedioic acid, bis(trimethylsilyl	30580	018294-04-7	4
4	Acetaldehyde, O-methyloxime	289	033581-43-0	4
5	D-Ribonic acid, 5-deoxy-2,3-bis-O-(	38706	062338-19-6	4

Abundance Scan 3209 (30.513 min): P19024.D (-,*)

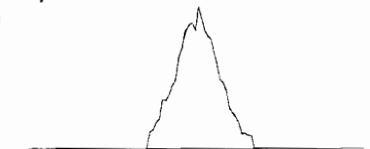


m/z 73.05 100.00%



30.15 30.87

m/z 147.10 10.64%



30.15 30.87

m/z 45.05 10.32%



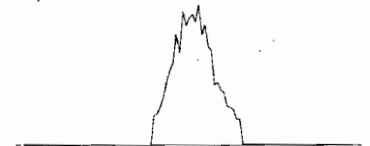
30.15 30.87

m/z 74.05 9.13%

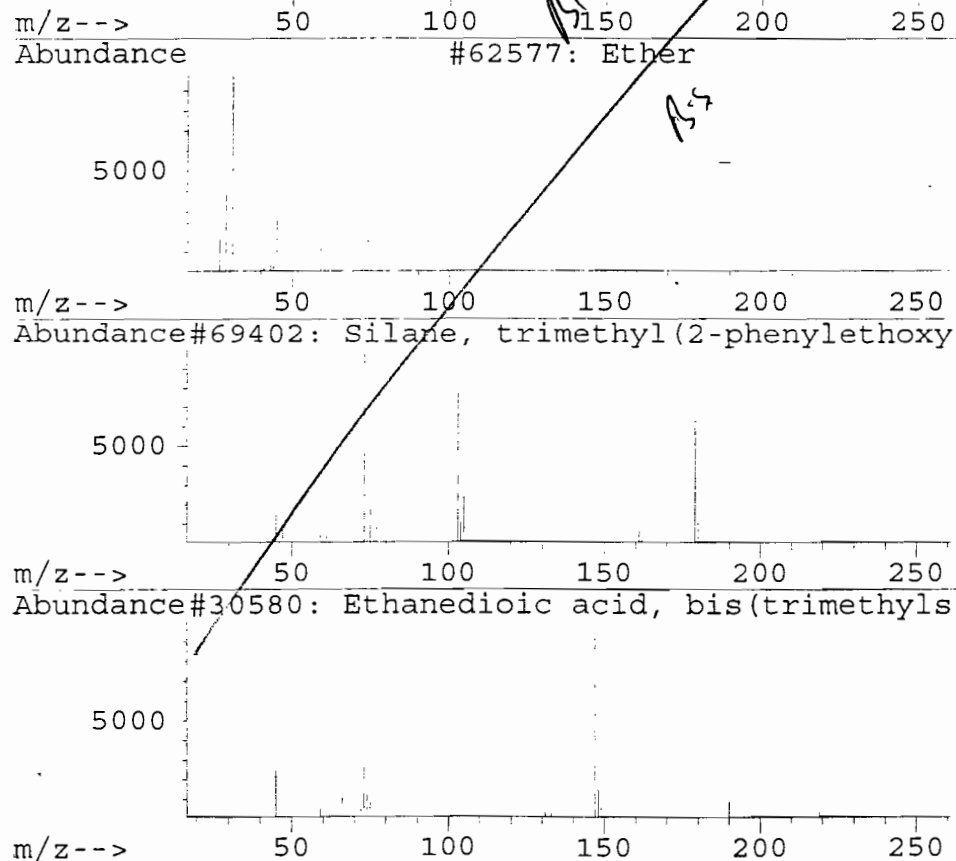


30.15 30.87

m/z 59.05 5.66%



30.15 30.87



000085

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-001-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86349

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19025.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

GP-001-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86349

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19025.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

[illegible]

000087

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-001-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86349
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19025.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 2 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000088

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19025.D
 Acq Time : 5 Oct 99 5:20 pm
 Sample : 13649ASP-86349
 Misc : 5G/5ML
 Quant Time: Oct 7 13:26 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	838897	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.37	117	1012681	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.64	152	728676	50.00	ug/L	0.19

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.99	113	729390	49.46	ug/L	98.91%
29) 1,2-Dichlorethane-d4	8.69	65	570686	51.51	ug/L	103.01%
37) Toluene-d8	12.79	98	918864	53.84	ug/L	107.68%
41) 4-Bromofluorobenzene	19.52	95	896765	53.10	ug/L	106.20%

Target Compounds	Qvalue
------------------	--------

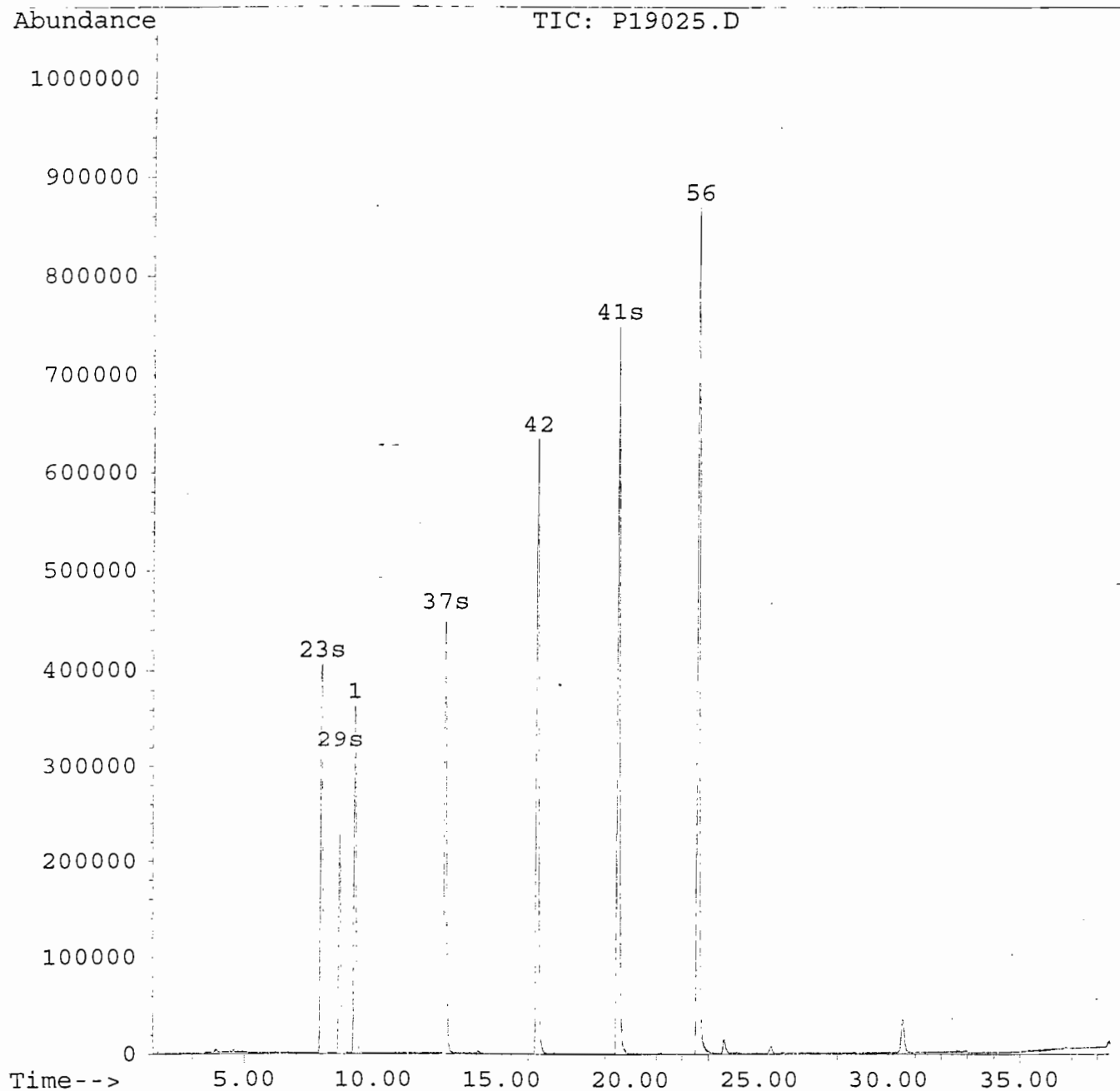
000089

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19025.D
Acq Time : 5 Oct 99 5:20 pm
Sample : 13649ASP-86349
Misc : 5G/5ML
Quant Time: Oct 7 13:26 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000090

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19025.D
Acq Time : 5 Oct 99 5:20 pm
Sample : 13649ASP-86349
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000091

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-001-SS60

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86350

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19026.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 14

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/Kg</u>	
75-71-8	Dichlorodifluoromethane	5.8		U
74-87-3	Chloromethane	5.8		U
75-01-4	Vinyl Chloride	5.8		U
74-83-9	Bromomethane	5.8		U
75-00-3	Chloroethane	5.8		U
75-69-4	Trichlorofluoromethane	5.8		U
75-09-2	Methylene Chloride	5.8		U
75-34-4	1,1-Dichloroethane	5.8		U
590-20-7	2,2-Dichloropropane	5.8		U
74-97-5	Bromochloromethane	5.8		U
67-66-3	Chloroform	5.8		U
71-55-6	1,1,1-Trichloroethane	5.8		U
56-23-5	Carbon Tetrachloride	5.8		U
563-58-6	1,1-Dichloropropene	5.8		U
71-43-2	Benzene	5.8		U
107-06-2	1,2-Dichloroethane	5.8		U
79-01-6	Trichloroethene	5.8		U
78-87-5	1,2-Dichloropropane	5.8		U
74-95-3	Dibromomethane	5.8		U
75-27-4	Bromodichloromethane	5.8		U
108-88-3	Toluene	5.8		U
79-00-5	1,1,2-Trichloroethane	5.8		U
127-18-4	Tetrachloroethene	5.8		U
142-28-9	1,3-Dichloropropane	5.8		U
124-48-1	Dibromochloromethane	5.8		U
106-93-4	1,2-Dibromoethane	5.8		U
108-90-7	Chlorobenzene	5.8		U
630-20-6	1,1,1,2-Tetrachloroethane	5.8		U
100-41-4	Ethylbenzene	5.8		U
100-42-5	Styrene	5.8		U
75-25-2	Bromoform	5.8		U
98-82-8	isopropylbenzene	5.8		U
108-86-1	Bromobenzene	5.8		U

000092

SAMPLE NO.

GP-001-SS60

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86350

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19026.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 14

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

000093

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-001-SS60

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86350
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19026.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 14 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	23.61	8.4	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000094

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19026.D
 Acq Time : 5 Oct 99 6:06 pm
 Sample : 13649ASP-86350
 Misc : 5G/5ML
 Quant Time: Oct 7 13:26 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	839750	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.36	117	1001785	50.00	ug/L	0.16
56) 1,4-dichlorobenzene-d4	22.63	152	720911	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	732264	49.60	ug/L	99.20%
29) 1,2-Dichlorethane-d4	8.70	65	574743	51.82	ug/L	103.64%
37) Toluene-d8	12.80	98	916605	53.65	ug/L	107.30%
41) 4-Bromofluorobenzene	19.52	95	918308	54.32	ug/L	108.64%

Target Compounds Qvalue

000095

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19026.D
Acq Time : 5 Oct 99 6:06 pm
Sample : 13649ASP-86350
Misc : 5G/5ML

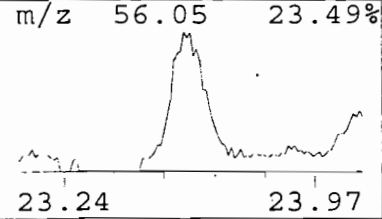
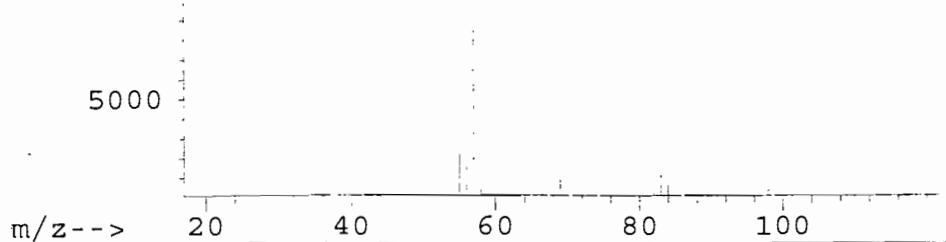
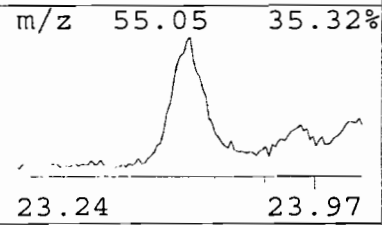
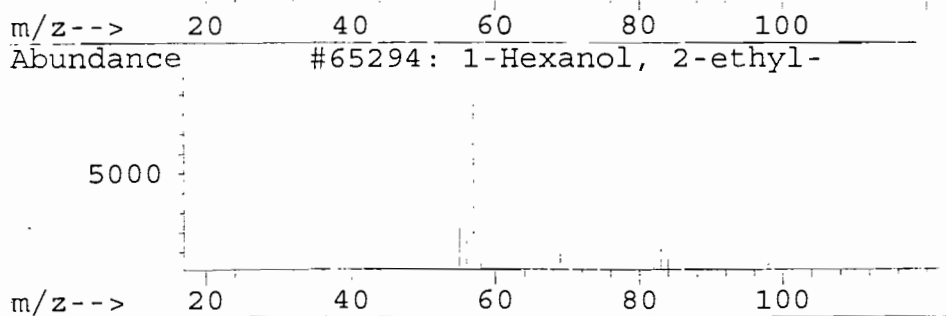
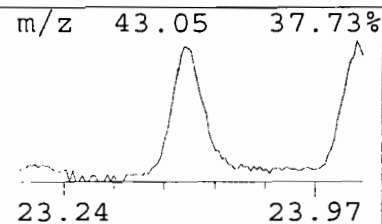
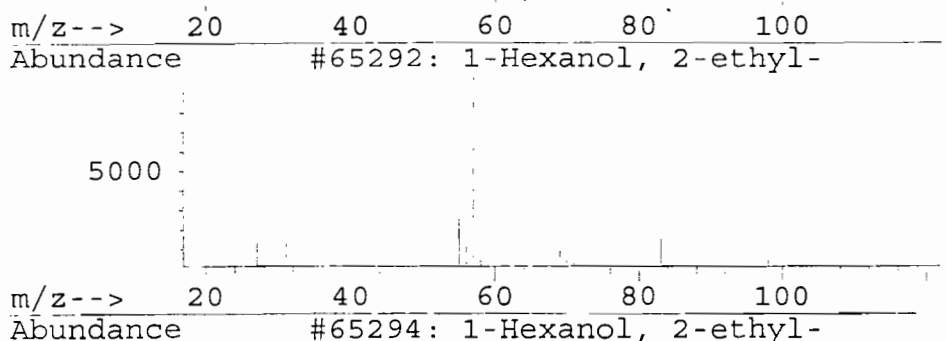
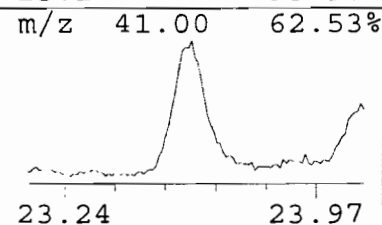
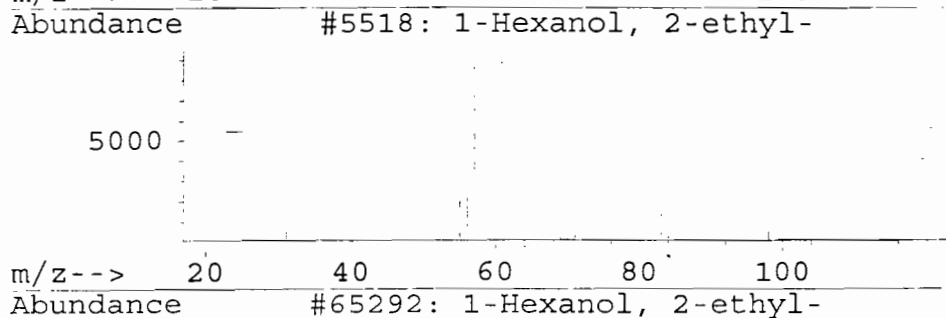
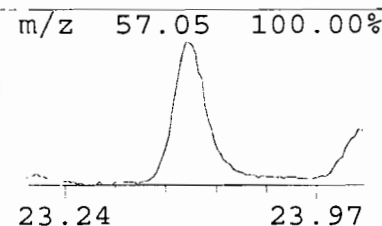
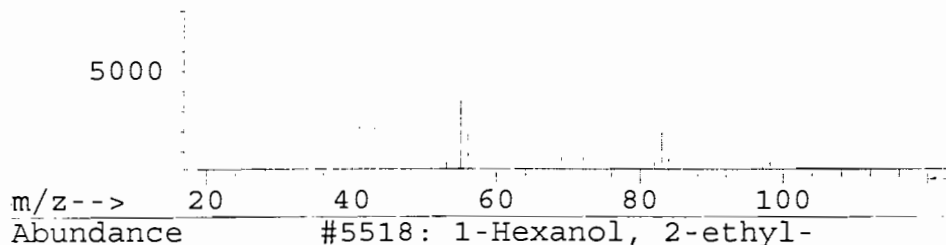
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.61	7.24 ug/L	811168	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	5518	000104-76-7	78
2	1-Hexanol, 2-ethyl-	65292	000104-76-7	72
3	1-Hexanol, 2-ethyl-	65294	000104-76-7	64
4	1-Hexanol, 2-ethyl-	65293	000104-76-7	64
5	1-Hexanol, 2-ethyl-	65291	000104-76-7	64

Abundance Scan 2445 (23.606 min): P19026.D (-,*)



000097

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19026.D
Acq Time : 5 Oct 99 6:06 pm
Sample : 13649ASP-86350
Misc : 5G/5ML

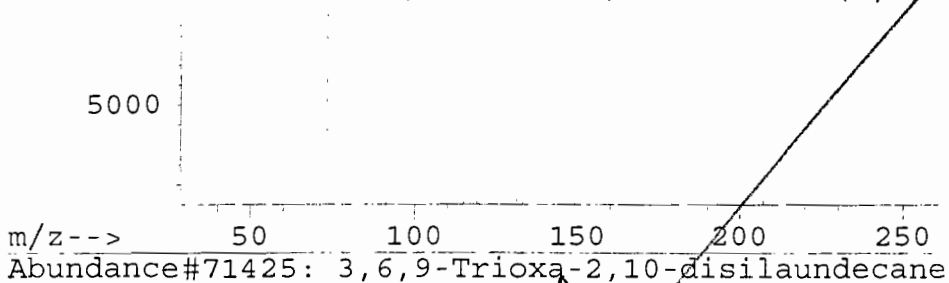
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

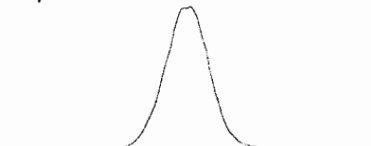
R.T.	Conc	Area	Relative to ISTD	R.T.
30.53	13.72 ug/L	1537794	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
2	Butanoic acid, 3-methyl-2-[(trimeth	71782	055124-92-0	28
3	Ethanedioic acid, bis(trimethylsily	71005	018294-04-7	25
4	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	25
5	Benzeneacetic acid, trimethylsilyl	70090	002078-18-4	9

Abundance Scan 3204 (30.527 min): P19026.D (-,*)

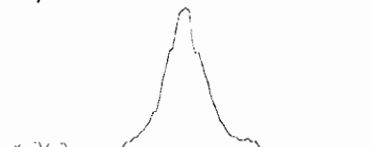


m/z 73.05 100.00%



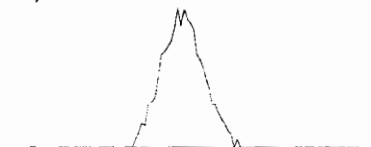
30.16 30.89

m/z 147.10 13.15%



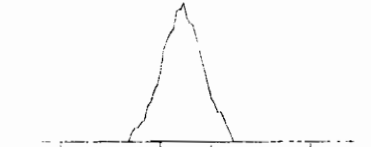
30.16 30.89

m/z 45.05 8.96%



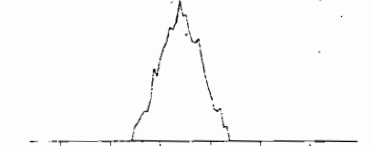
30.16 30.89

m/z 74.05 8.18%

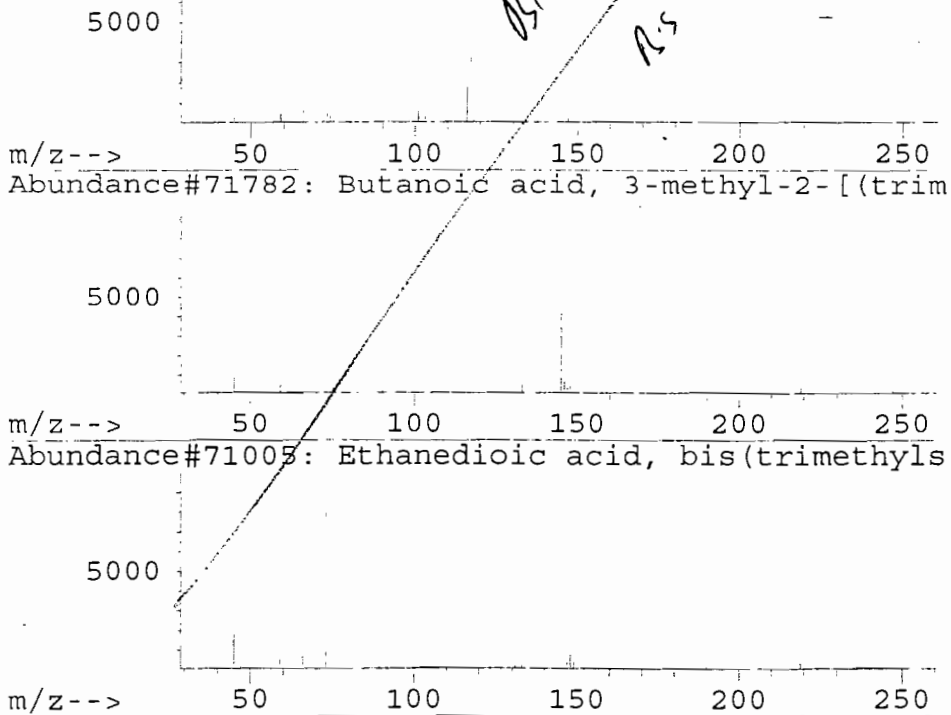


30.16 30.89

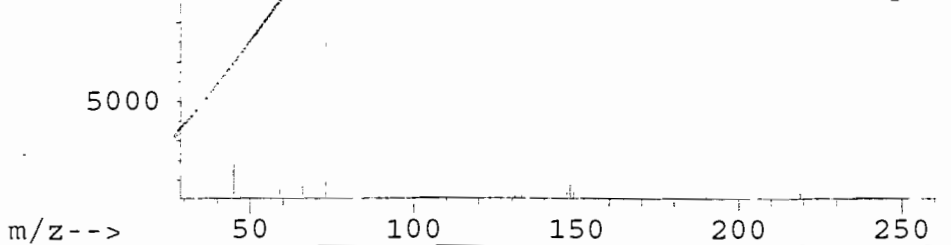
m/z 59.05 5.70%



30.16 30.89



m/z--> 50 100 150 200 250
Abundance#71005: Ethanedioic acid, bis(trimethyls



m/z--> 50 100 150 200 250

000098

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-002-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP Site: _____ Location: _____ Group: GP-002-SS

Matrix: (soil/water) SOIL Lab Sample ID: O86351

Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19027.D

Level: (low/med) LOW Date Received: 10/1/99

% Moisture: not dec. 3 Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

SAMPLE NO.

GP-002-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86351

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19027.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 3

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
---------	----------	-----------------	-------	---

[illegible]

000100

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-002-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86351
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19027.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 3 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	20.72	9.1	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19027.D
 Acq Time : 5 Oct 99 6:51 pm
 Sample : 13649ASP-86351
 Misc : 5G/5ML
 Quant Time: Oct 7 13:27 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	892429	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.36	117	1135609	50.00	ug/L	0.16
56) 1,4-dichlorobenzene-d4	22.63	152	806947	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	786294	50.12	ug/L	100.24%
29) 1,2-Dichlorethane-d4	8.68	65	596320	50.59	ug/L	101.18%
37) Toluene-d8	12.79	98	991653	54.62	ug/L	109.24%
41) 4-Bromofluorobenzene	19.52	95	971993	54.10	ug/L	108.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
10) Acetone	3.90	43	25704	12.59	ug/L	99

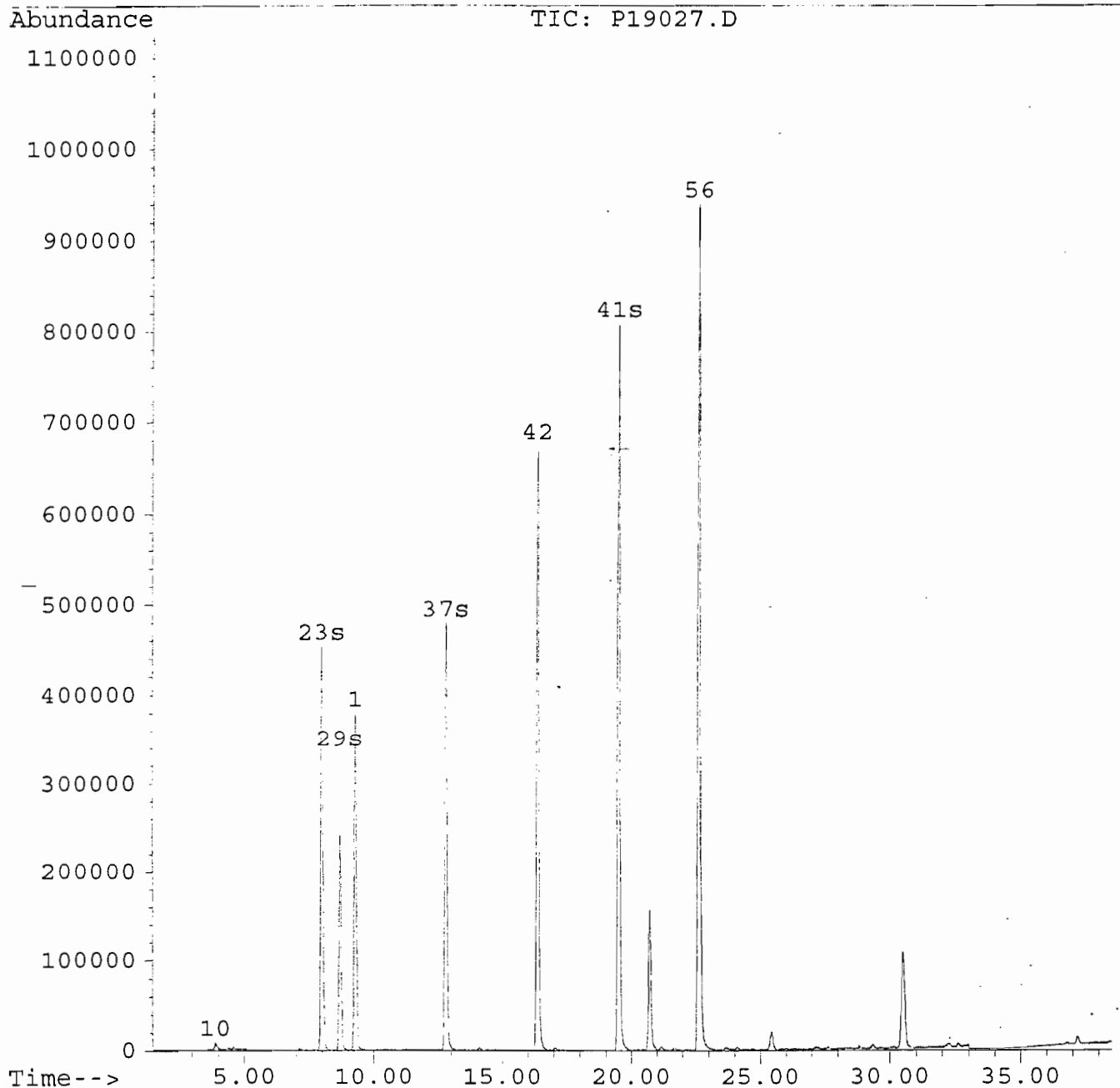
000102

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19027.D
Acq Time : 5 Oct 99 6:51 pm
Sample : 13649ASP-86351
Misc : 5G/5ML
Quant Time: Oct 7 13:27 1999

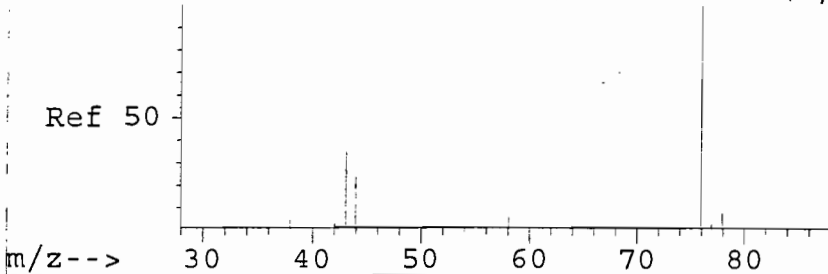
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration

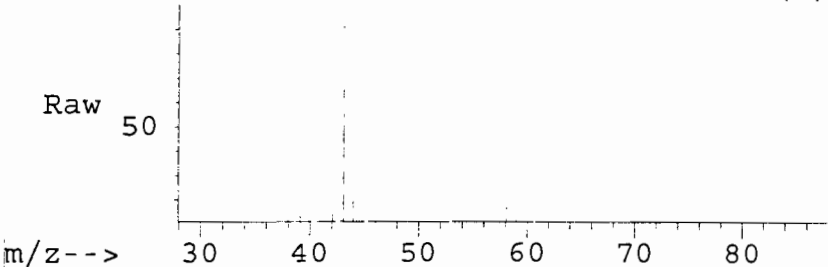


000103

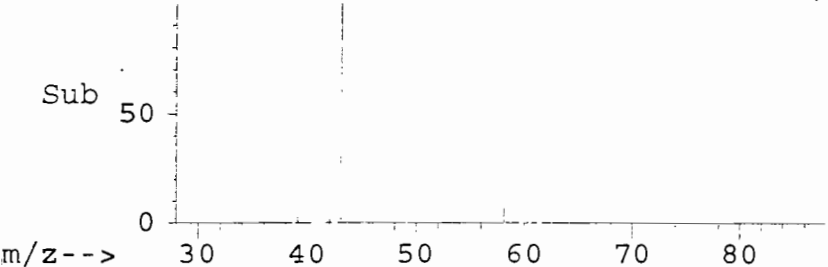
AbundanceScan 253 (3.810 min): P18791.D (-,



AbundanceScan 275 (3.896 min): P19027.D (*)



AbundanceScan 275 (3.896 min): P19027.D (-,



#10

Acetone

Concen: 12.59 ug/L

RT: 3.90 min Scan# 275

Delta R.T. 0.09 min

Lab File: P19027.D

Acq: 5 Oct 99 6:51 pm

Tgt Ion:43 Resp: 25704

Ion Ratio Lower Upper

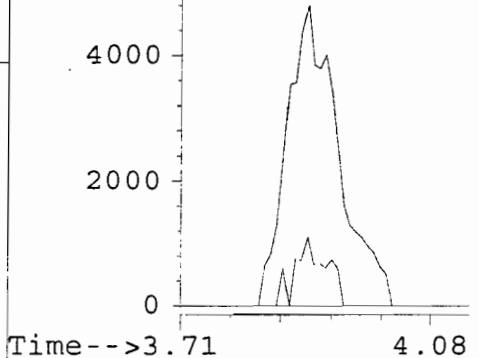
43 100

58 13.8 0.0 28.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.
Ion 58.00 (57.
3.90



000104

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19027.D
 Acq Time : 5 Oct 99 6:51 pm
 Sample : 13649ASP-86351
 Misc : 5G/5ML

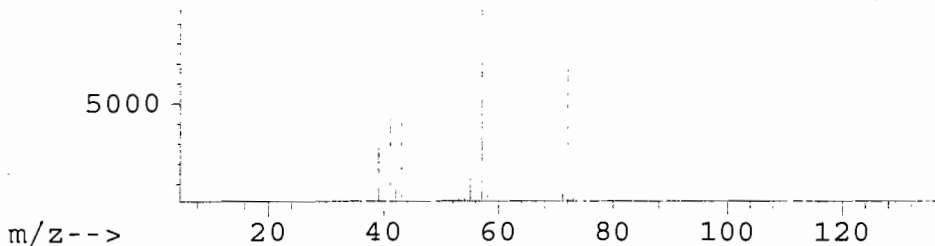
Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Library : C:\DATABASE\NBS75K.L

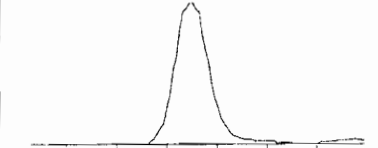
R.T.	Conc	Area	Relative to ISTD	R.T.
20.72	8.80 ug/L	1043807	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal, 2-ethyl-	65087	000123-05-7	78
2	1,3-Cyclobutanediol, 2,2,4,4-tetram	8406	003010-96-6	64
3	1-Propene, 3-methoxy-	62509	000627-40-7	59
4	Hexanal, 2-ethyl-	65086	000123-05-7	50
5	1,3-Cyclobutanediol, 2,2,4,4-tetram	66315	003010-96-6	50

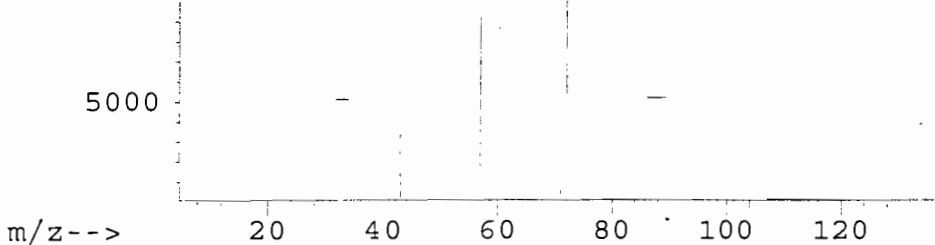
Abundance Scan 2132 (20.719 min): P19027.D (-,*)



m/z 57.05 100.00%



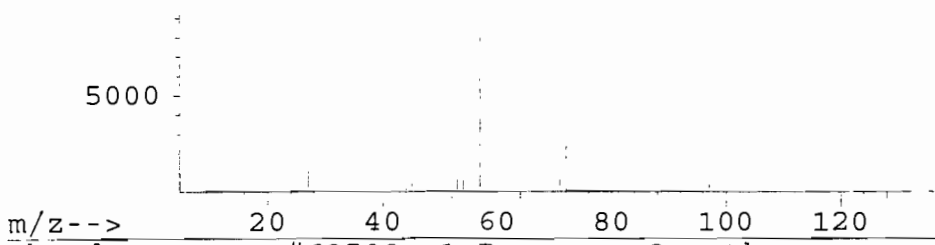
Abundance #65087: Hexanal, 2-ethyl-



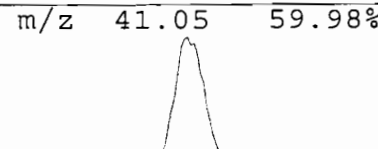
m/z 72.05 80.46%



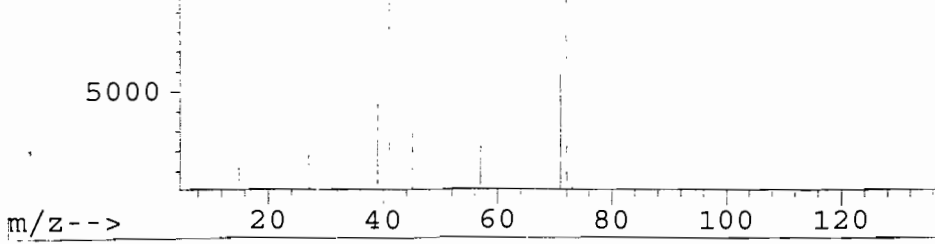
Abundance #8406: 1,3-Cyclobutanediol, 2,2,4,4-tetr



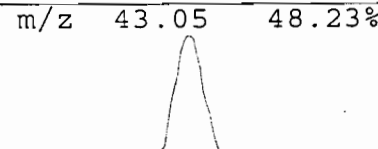
m/z 41.05 59.98%



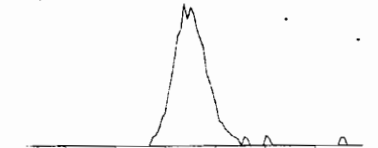
Abundance #62509: 1-Propene, 3-methoxy-



m/z 43.05 48.23%



m/z 39.05 28.40%



000105

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-002-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86352

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19028.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

75-71-8	Dichlorodifluoromethane	5.1	U
74-87-3	Chloromethane	5.1	U
75-01-4	Vinyl Chloride	5.1	U
74-83-9	Bromomethane	5.1	U
75-00-3	Chloroethane	5.1	U
75-69-4	Trichlorofluoromethane	5.1	U
75-09-2	Methylene Chloride	5.1	U
75-34-4	1,1-Dichloroethane	5.1	U
590-20-7	2,2-Dichloropropane	5.1	U
74-97-5	Bromochloromethane	5.1	U
67-66-3	Chloroform	5.1	U
71-55-6	1,1,1-Trichloroethane	5.1	U
56-23-5	Carbon Tetrachloride	5.1	U
563-58-6	1,1-Dichloropropene	5.1	U
71-43-2	Benzene	5.1	U
107-06-2	1,2-Dichloroethane	5.1	U
79-01-6	Trichloroethene	5.1	U
78-87-5	1,2-Dichloropropane	5.1	U
74-95-3	Dibromomethane	5.1	U
75-27-4	Bromodichloromethane	5.1	U
108-88-3	Toluene	5.1	U
79-00-5	1,1,2-Trichloroethane	5.1	U
127-18-4	Tetrachloroethene	5.1	U
142-28-9	1,3-Dichloropropane	5.1	U
124-48-1	Dibromochloromethane	5.1	U
106-93-4	1,2-Dibromoethane	5.1	U
108-90-7	Chlorobenzene	5.1	U
630-20-6	1,1,1,2-Tetrachloroethane	5.1	U
100-41-4	Ethylbenzene	5.1	U
100-42-5	Styrene	5.1	U
75-25-2	Bromoform	5.1	U
98-82-8	isopropylbenzene	5.1	U
108-86-1	Bromobenzene	5.1	U

SAMPLE NO.

GP-002-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86352

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19028.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 2

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
---------	----------	-----------------	-------	---

[illegible]

000107

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-002-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86352
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19028.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 2 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000108

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19028.D
 Acq Time : 5 Oct 99 7:36 pm
 Sample : 13649ASP-86352
 Misc : 5G/5ML
 Quant Time: Oct 7 13:27 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.28	96	856861	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.36	117	1049289	50.00	ug/L	0.16
56) 1,4-dichlorobenzene-d4	22.63	152	778554	50.00	ug/L	0.17

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	770547	51.15	ug/L	102.31%
29) 1,2-Dichlorethane-d4	8.69	65	572381	50.58	ug/L	101.15%
37) Toluene-d8	12.79	98	983679	56.43	ug/L	112.86%
41) 4-Bromofluorobenzene	19.51	95	950010	55.07	ug/L	110.14%

Target Compounds Qvalue

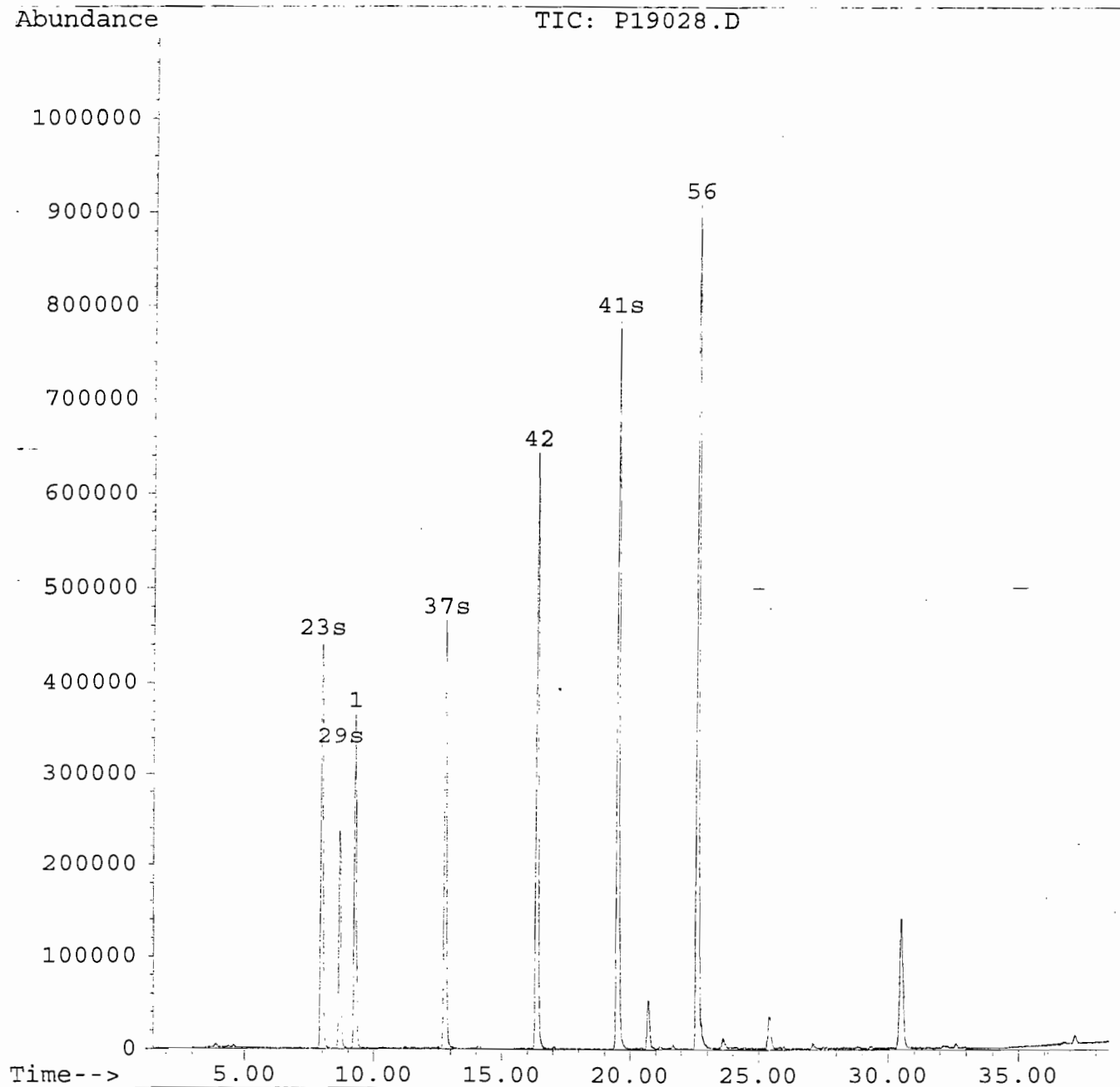
000109

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19028.D
Acq Time : 5 Oct 99 7:36 pm
Sample : 13649ASP-86352
Misc : 5G/5ML
Quant Time: Oct 7 13:27 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000110

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19028.D
Acq Time : 5 Oct 99 7:36 pm
Sample : 13649ASP-86352
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.51	10.68 ug/L	1227611	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethanedioic acid, bis(trimethylsily	30580	018294-04-7	45
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
3	Ethanedioic acid, bis(trimethylsily	71005	018294-04-7	37
4	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	25
5	Pentonic acid, 5-deoxy-2,3-bis-O-(t	38700	074742-33-9	9

Abundance Scan 3213 (30.515 min): P19028.D (-,*)

5000

m/z--> 50 100 150 200 250

Abundance#30580: Ethanedioic acid, bis(trimethyls

5000

m/z--> 50 100 150 200 250

Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane

5000

m/z--> 50 100 150 200 250

Abundance#71005: Ethanedioic acid, bis(trimethyls

5000

m/z--> 50 100 150 200 250

m/z 73.00 100.00%

30.15 30.88

m/z 147.10 12.73%

30.15 30.88

m/z 45.05 9.68%

30.15 30.88

m/z 74.05 8.01%

30.15 30.88

m/z 59.05 5.93%

30.15 30.88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-002-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86353

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19029.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 4

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/Kg</u>	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

SAMPLE NO.

Contract: IMPACT ENVIRONMENTAL

Group: GP-002-SS

Soil Aliquot Volume: (uL)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-002-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86353
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19029.D
 Level: (low/med) LOW Date Received: 10/1/99
 % Moisture: not dec. 4 Date Analyzed: 10/5/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 2 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	11.27	5.8	J
2.	Unknown	11.51	5.4	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000114

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19029.D
 Acq Time : 5 Oct 99 8:21 pm
 Sample : 13649ASP-86353
 Misc : 5G/5ML
 Quant Time: Oct 7 13:27 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.28	96	902010	50.00	ug/L	0.15
42) Chlorobenzene-d5	16.36	117	1054700	50.00	ug/L	0.16
56) 1,4-dichlorobenzene-d4	22.63	152	706181	50.00	ug/L	0.18
System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.98	113	768194	48.44	ug/L	96.89%
29) 1,2-Dichlorethane-d4	8.68	65	593258	49.80	ug/L	99.60%
37) Toluene-d8	12.78	98	1008412	54.95	ug/L	109.90%
41) 4-Bromofluorobenzene	19.51	95	879634	48.44	ug/L	96.88%

Target Compounds Qvalue

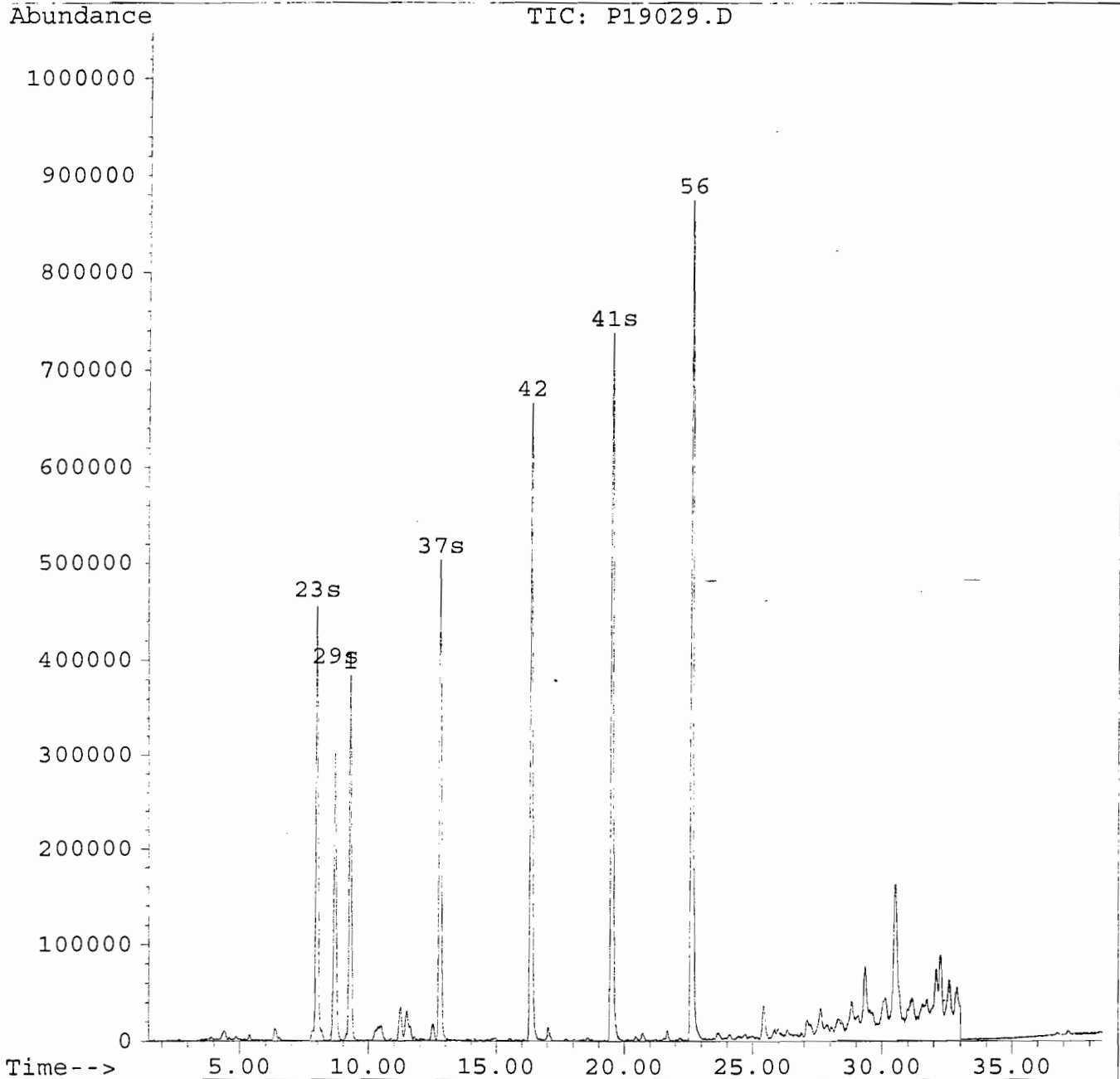
000115

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19029.D
Acq Time : 5 Oct 99 8:21 pm
Sample : 13649ASP-86353
Misc : 5G/5ML
Quant Time: Oct 7 13:27 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000116

Library Search Compound Report

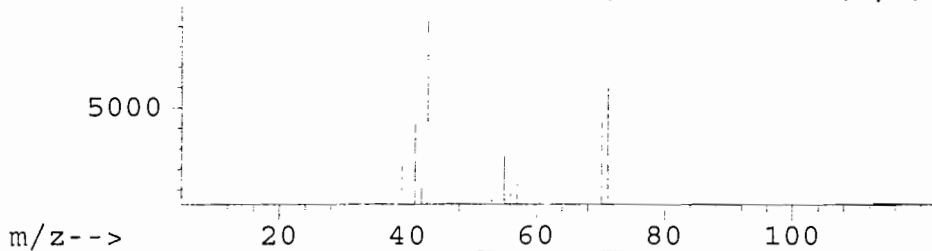
Data File : F:\HPCHEM\1\DATA\V2100499\P19029.D
Acq Time : 5 Oct 99 8:21 pm
Sample : 13649ASP-86353
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

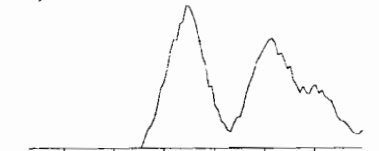
Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
11.27	5.61 ug/L	265299	Fluorobenzene	9.28	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-		3100	000565-75-3	78
2	Pentane, 3-ethyl-		1595	000617-78-7	74
3	Pentane, 2,3,4-trimethyl-		64228	000565-75-3	43
4	1-Hexene, 4,5-dimethyl-		64019	016106-59-5	38
5	Butane, 1-chloro-3-methyl-		63665	000107-84-6	9

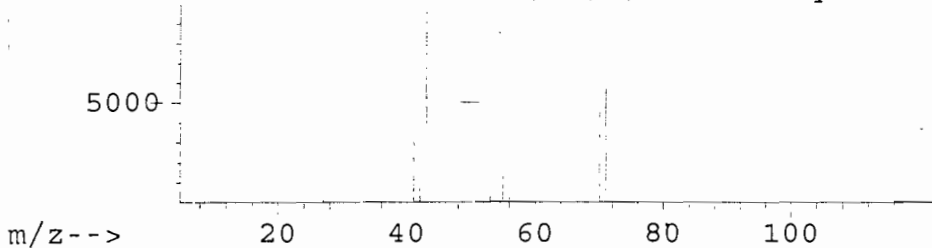
Abundance Scan 1087 (11.270 min): P19029.D (-,*)



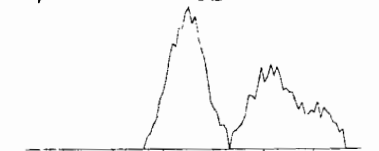
m/z 43.05 100.00%



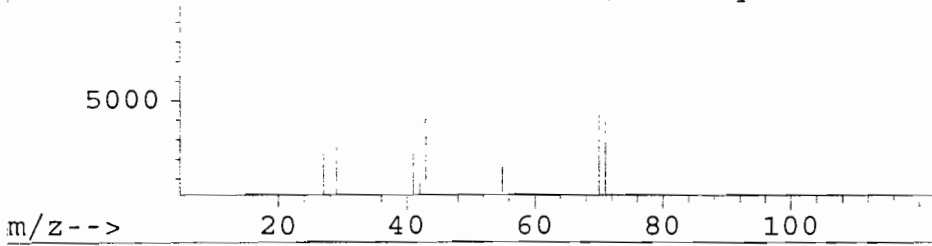
Abundance #3100: Pentane, 2,3,4-trimethyl-



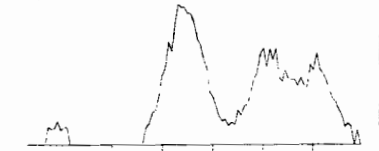
m/z 71.15 59.97%



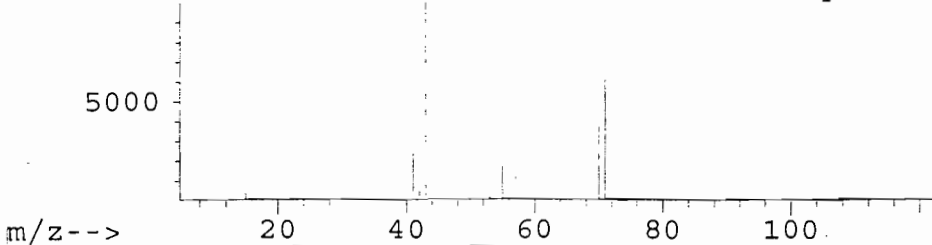
Abundance #1595: Pentane, 3-ethyl-



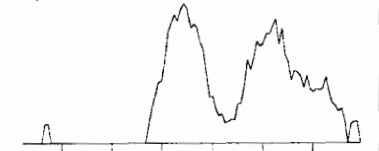
m/z 70.15 43.48%



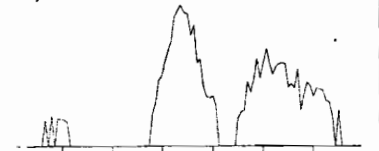
Abundance #64228: Pentane, 2,3,4-trimethyl-



m/z 41.05 41.93%



m/z 55.05 26.93%



000117

Library Search Compound Report

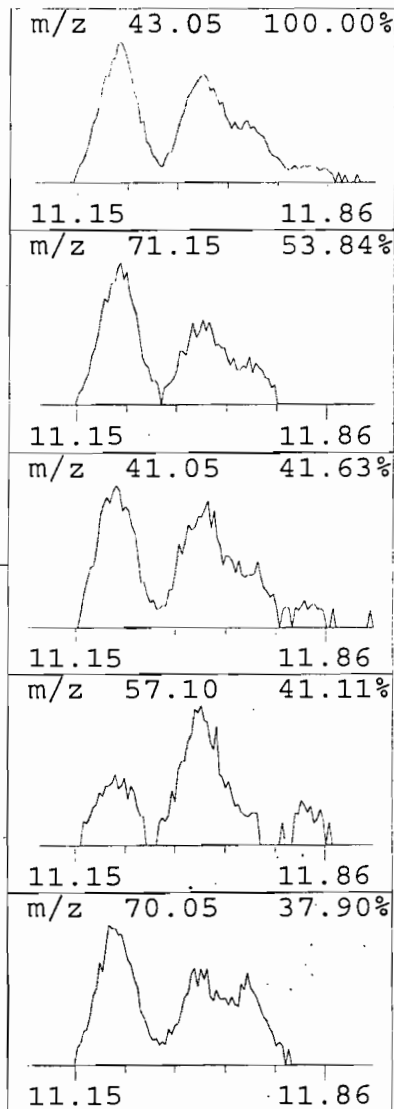
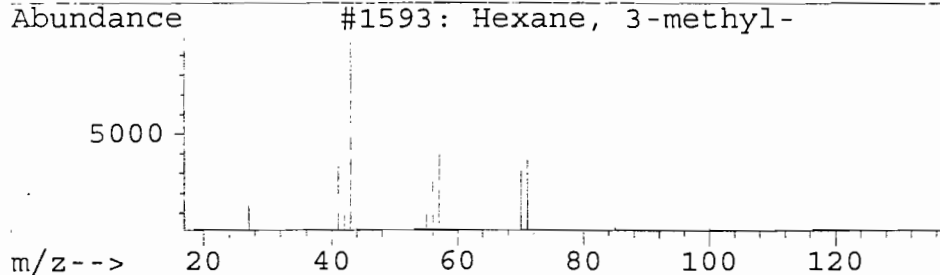
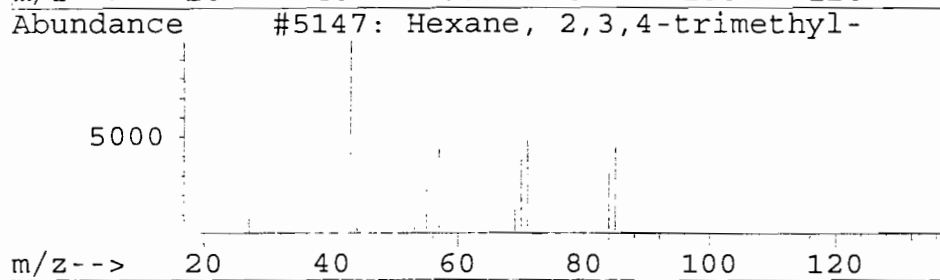
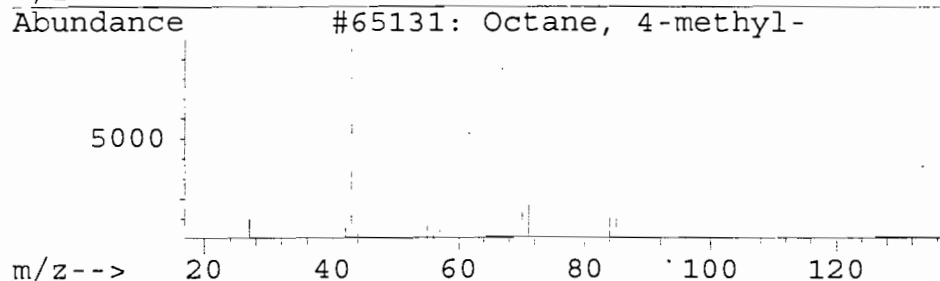
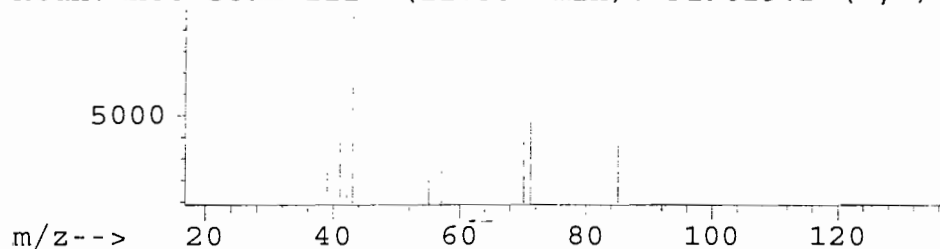
Data File : F:\HPCHEM\1\DATA\V2100499\P19029.D
Acq Time : 5 Oct 99 8:21 pm
Sample : 13649ASP-86353
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
11.51	5.18 ug/L	244727	Fluorobenzene	9.28	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Octane, 4-methyl-		65131	002216-34-4	83
2	Hexane, 2,3,4-trimethyl-		5147	000921-47-1	78
3	Hexane, 3-methyl-		1593	000589-34-4	64
4	1-Hexene, 4,5-dimethyl-		64019	016106-59-5	38
5	Pentane, 2,3,4-trimethyl-		3100	000565-75-3	38

Abundance Scan 1113 (11.506 min): P19029.D (-,*)



000118

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19029.D
Acq Time : 5 Oct 99 8:21 pm
Sample : 13649ASP-86353
Misc : 5G/5ML

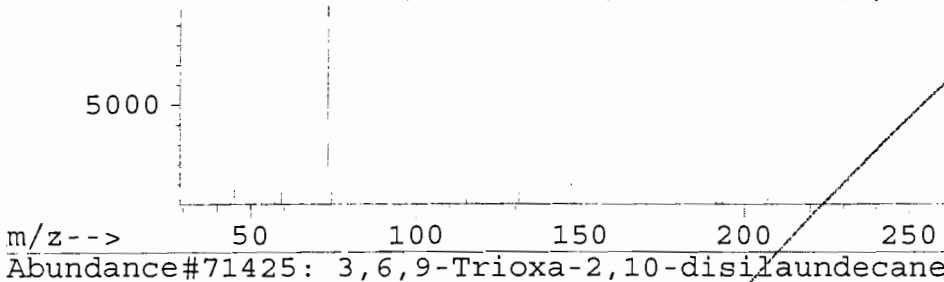
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

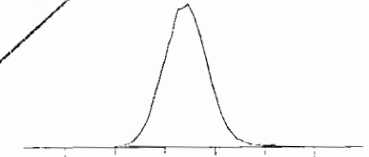
R.T.	Conc	Area	Relative to ISTD	R.T.
30.53	13.54 ug/L	1489218	1,4-dichlorobenzene-d4	22.63

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	42
2	Disilane, pentamethyl-	5731	000812-15-7	37
3	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	37
4	3,6,9,12-Tetraoxa-2,13-disilatetrad	72595	062185-58-4	36
5	Butanoic acid, 2,2-dimethyl-3-[(tri	38745	055530-56-8	25

Abundance Scan 3206 (30.527 min): P19029.D (-,*)



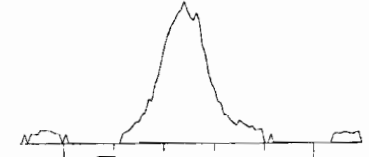
m/z 73.05 100.00%



30.16 30.89

m/z--> 50 100 150 200 250
Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane

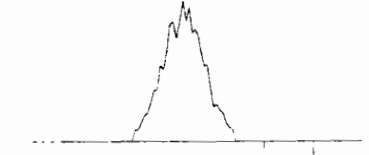
m/z 147.10 10.76%



30.16 30.89

m/z--> 50 100 150 200 250
Abundance #5731: Disilane, pentamethyl-

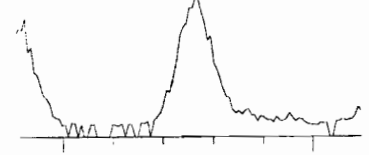
m/z 45.05 10.18%



30.16 30.89

m/z--> 50 100 150 200 250
Abundance#71424: 3,6,9-Trioxa-2,10-disilaundecane

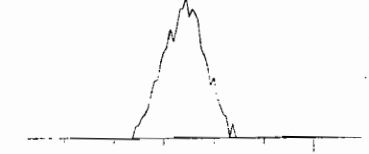
m/z 131.05 8.32%



30.16 30.89

m/z--> 50 100 150 200 250

m/z 74.05 8.28%



30.16 30.89

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-004-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86354

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19030.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 4

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

SAMPLE NO.

GP-004-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86354

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19030.D

Level: (low/med) LOW

Date Received: 10/1/99

% Moisture: not dec. 4

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg) ug/Kg

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-004-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
Matrix: (soil/water) SOIL Lab Sample ID: O86354
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19030.D
Level: (low/med) LOW Date Received: 10/1/99
% Moisture: not dec. 4 Date Analyzed: 10/5/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units: _____
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19030.D
 Acq Time : 5 Oct 99 9:06 pm
 Sample : 13649ASP-86354
 Misc : 5G/5ML
 Quant Time: Oct 7 13:27 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.28	96	844190	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.37	117	1080337	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.64	152	802408	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.98	113	775467	52.25	ug/L	104.50%
29) 1,2-Dichlorethane-d4	8.69	65	576483	51.70	ug/L	103.41%
37) Toluene-d8	12.80	98	963502	56.10	ug/L	112.20%
41) 4-Bromofluorobenzene	19.51	95	956540	56.28	ug/L	112.56%

Target Compounds Qvalue

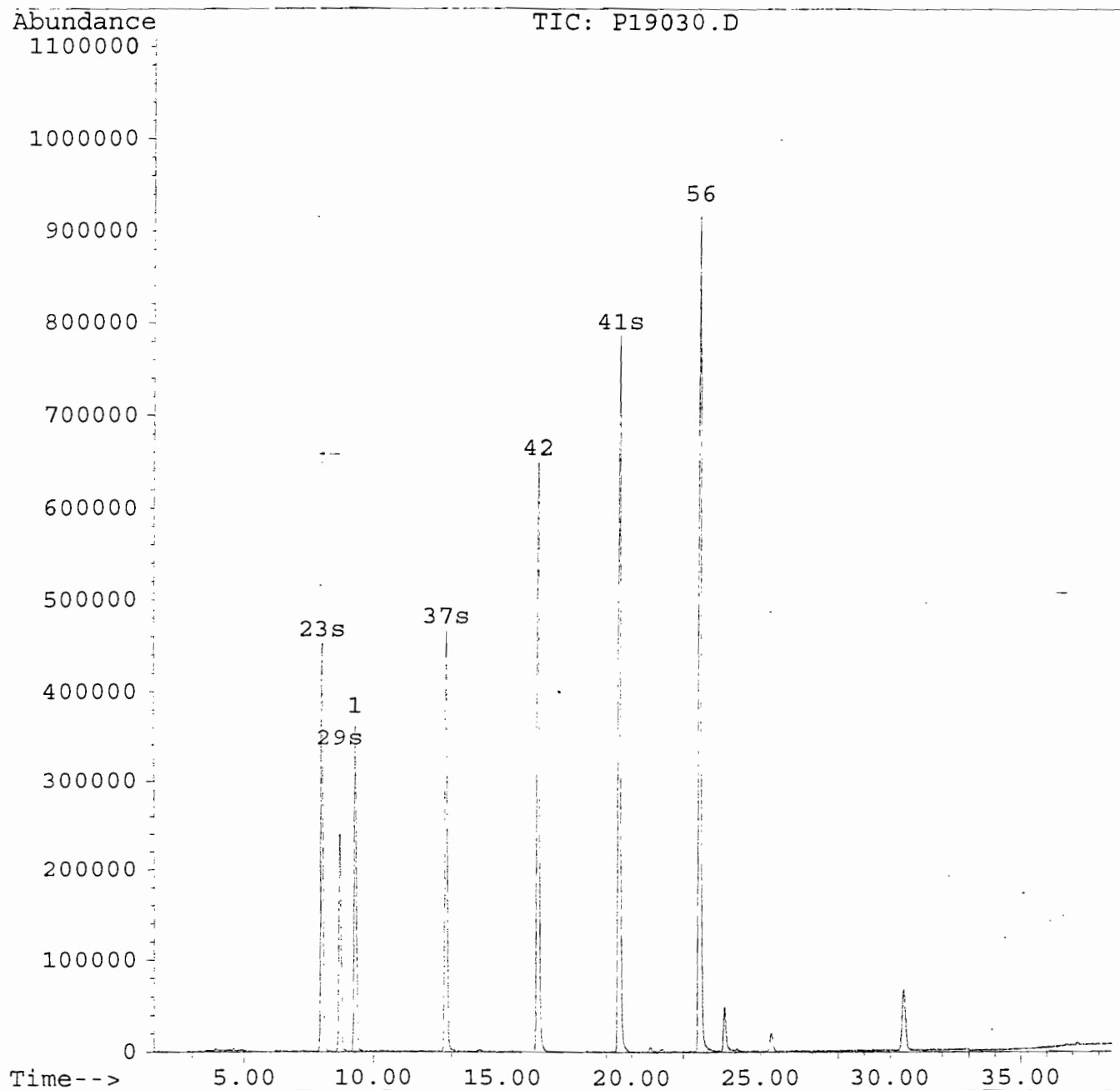
000123

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19030.D
Acq Time : 5 Oct 99 9:06 pm
Sample : 13649ASP-86354
Misc : 5G/5ML
Quant Time: Oct 7 13:27 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000124

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19030.D
Acq Time : 5 Oct 99 9:06 pm
Sample : 13649ASP-86354
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000125

CHEMTECH CONSULTING GROUP

VOLATILES CALIBRATION DATA

000126

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SSInstrument ID: VOA 2Calibration Date(s): 9/13/99 9/13/99Heated Purge: (Y/N) YCalibration Times: 2005 2303GC Column RTX624ID: 0.53 (mm)

Lab File ID: RRF005 = P18795.D RRF20 = P18794.D
 RRF50 = P18791.D RRF100 = P18793.D RRF200 = P18792.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.562	0.551	0.605	0.607	0.634	0.592	5.8
Chloromethane *	0.210	0.201	0.229	0.225	0.233	0.219	6.1 *
Vinyl Chloride	0.178	0.183	0.211	0.220	0.242	0.207	12.9
Bromomethane	0.229	0.219	0.230	0.245	0.252	0.235	5.6
Chloroethane	0.104	0.101	0.104	0.112	0.125	0.109	9.0
Trichlorofluoromethane	0.928	0.927	1.016	1.059	0.854	0.957	8.5
Methylene Chloride	0.275	0.245	0.245	0.271	0.291	0.265	7.7
1,1-Dichloroethane *	0.704	0.719	0.753	0.802	0.869	0.770	8.7 *
2,2-Dichloropropane	0.685	0.709	0.749	0.752	0.742	0.728	4.1
Bromochloromethane	0.353	0.381	0.382	0.419	0.435	0.394	8.3
Chloroform	0.898	0.976	1.025	1.082	1.132	1.023	8.9
1,1,1-Trichloroethane	0.927	0.998	1.101	1.152	1.202	1.076	10.4
Carbon Tetrachloride	0.498	0.541	0.534	0.609	0.622	0.561	9.4
1,1-Dichloropropene	0.494	0.523	0.585	0.620	0.647	0.574	11.2
Benzene	0.708	0.734	0.777	0.813	0.845	0.775	7.2
1,2-Dichloroethane	0.652	0.692	0.694	0.740	0.767	0.709	6.3
Trichloroethene	0.444	0.451	0.491	0.512	0.534	0.486	8.0
1,2-Dichloropropane	0.324	0.309	0.353	0.391	0.414	0.358	12.3
Dibromomethane	0.341	0.392	0.406	0.416	0.433	0.397	8.8
Bromodichloromethane	0.753	0.902	0.994	1.087	1.140	0.975	15.8
Toluene	1.075	1.144	1.065	1.053	1.019	1.071	4.3
1,1,2-Trichloroethane	0.293	0.301	0.305	0.324	0.335	0.312	5.5
Tetrachloroethene	0.455	0.478	0.475	0.478	0.459	0.469	2.4
1,3-Dichloropropane	0.407	0.449	0.463	0.488	0.493	0.460	7.6
Dibromochloromethane	0.457	0.571	0.630	0.706	0.713	0.615	17.3
1,2-Dibromoethane	0.446	0.506	0.515	0.541	0.529	0.507	7.2
Chlorobenzene *	0.763	0.764	0.790	0.794	0.742	0.771	2.8 *
1,1,1,2-Tetrachloroethane	0.368	0.405	0.432	0.474	0.475	0.431	10.7
Ethylbenzene	1.336	1.268	1.318	1.313	1.274	1.302	2.3
Styrene	0.669	0.722	0.780	0.771	0.756	0.740	6.1
Bromoform *	0.377	0.507	0.550	0.607	0.572	0.523	17.0 *
isopropylbenzene	1.882	1.883	1.945	2.077	2.102	1.978	5.3
Bromobenzene	1.351	1.337	1.346	1.479	1.449	1.393	4.8
1,1,2,2-Tetrachloroethane *	0.757	0.794	0.785	0.882	0.861	0.816	6.5 *
1,2,3-Trichloropropane	0.586	0.611	0.558	0.626	0.628	0.602	4.9
n-Propylbenzene	0.932	0.719	0.729	0.764	0.789	0.787	10.9

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site:

Location:

Group: GP-002-SS

Instrument ID: VOA 2

Calibration Date(s): 9/13/99 9/13/99

Heated Purge: (Y/N) Y

Calibration Times: 2005 2303

GC Column RTX624

ID: 0.53 (mm)

Lab File ID:		RRF005 = P18795.D		RRF20 = P18794.D			
RRF50 = P18791.D		RRF100 = P18793.D		RRF200 = P18792.D			
COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
2-Chlorotoluene	0.470	0.496	0.535	0.540	0.507	0.510	5.7
4-Chlorotoluene	0.469	0.498	0.508	0.533	0.532	0.508	5.2
1,3,5-Trimethylbenzene	2.377	1.801	1.851	1.929	1.973	1.986	11.5
tert-Butylbenzene	1.649	1.578	1.744	1.812	1.883	1.733	7.1
1,2,4-Trimethylbenzene	2.770	1.932	1.851	1.943	1.965	2.092	18.2
sec-Butylbenzene	2.267	2.277	2.344	2.427	2.457	2.354	3.7
1,3-Dichlorobenzene	1.172	1.206	1.221	1.235	1.235	1.213	2.2
4-Isopropyltoluene	2.451	2.071	2.195	2.237	2.233	2.237	6.1
1,4-Dichlorobenzene	1.208	1.258	1.214	1.237	1.262	1.236	2.0
1,2-Dichlorobenzene	1.135	1.176	1.248	1.239	1.226	1.205	4.0
n-Butylbenzene	2.150	1.968	2.151	2.153	2.158	2.116	3.9
1,2-Dibromo-3-chloropropane	0.322	0.269	0.281	0.332	0.339	0.309	10.3
1,2,4-Trichlorobenzene	0.880	0.940	1.029	1.091	1.104	1.009	9.6
Hexachlorobutadiene	0.693	0.761	0.822	0.844	0.834	0.791	8.0
Naphthalene	1.393	1.459	1.413	1.562	1.484	1.462	4.5
1,2,3-Trichlorobenzene	0.860	0.914	0.985	1.022	0.957	0.947	6.6
		-		-			
Dibromofluoromethane	0.826	0.858	0.869	0.895	0.947	0.879	5.1
Toluene-d8	1.020	0.992	1.003	1.053	1.018	1.017	2.3
4-Bromofluorobenzene	1.031	0.976	1.007	0.996	1.022	1.007	2.1

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report voa2

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Initial Calibration

Calibration Files

50 =P18791.D 5 =P18795.D 20 =P18794.D
 100 =P18793.D 200 =P18792.D

Compound		50	5	20	100	200	Avg	%RSD
-----ISTD-----								
1)	Fluorobenzene	0.605	0.562	0.551	0.607	0.634	0.592	5.84
2) T	dichlorodifluoromethane	0.229	0.210	0.201	0.225	0.233	0.219	6.14#
3) P	chloromethane	0.211	0.178	0.183	0.220	0.242	0.207	12.87
4) C	vinyl chloride	0.230	0.229	0.219	0.245	0.252	0.235	5.57
5) T	bromomethane	0.104	0.104	0.101	0.112	0.125	0.109	8.98
6) T	chloroethane	0.012	0.011	0.012	0.013	0.014	0.012	11.01
7)	Acrolein	1.016	0.928	0.927	1.058	0.854	0.957	8.46
8) T	trichlorofluoromethane	0.563	0.519	0.522	0.613	0.667	0.577	10.98
9) C	1,1-dichloroethene	0.106	0.123	0.108	0.111	0.123	0.114	7.07
10)	Acetone	0.611	0.518	0.545	0.676	0.736	0.617	14.65
11)	Carbon Disulfide	0.245	0.275	0.245	0.271	0.291	0.265	7.67
12) T	methylene chloride	0.450	0.413	0.422	0.498	0.531	0.463	10.87
13) T	trans-1,2-dichloroethene	0.028	0.026	0.031	0.032	0.035	0.030	11.81
14)	TBA	0.721	0.635	0.687	0.788	0.847	0.736	11.35
15)	MTBE	0.029	0.024	0.029	0.033	0.035	0.030	14.31
16)	Acrylonitrile	0.753	0.704	0.719	0.802	0.869	0.770	8.73#
17) P	1,1-dichloroethane	0.749	0.685	0.709	0.752	0.742	0.728	4.05
18) T	2,2-dichloropropane	0.608	0.557	0.589	0.656	0.681	0.618	8.13
19) T	cis-1,2-dichloroethene	0.382	0.353	0.381	0.419	0.435	0.394	8.33
20) T	bromochloromethane	1.025	0.898	0.976	1.082	1.132	1.023	8.92
21) C	chloroform	1.101	0.927	0.998	1.152	1.202	1.076	10.44
22) T	1,1,1-trichloroethane	0.869	0.826	0.858	0.895	0.947	0.879	5.15
23) S	Dibromofluoromethane	0.680	0.584	0.686	0.758	0.795	0.701	11.64
24)	Vinyl Acetate	0.125	0.097	0.118	0.139	0.152	0.126	16.47
25)	2-Butanone	0.534	0.498	0.541	0.609	0.622	0.561	9.39
26) T	carbon tetrachloride	0.585	0.494	0.523	0.620	0.647	0.574	11.21
27) T	1,1-dichloropropene	0.777	0.708	0.734	0.813	0.845	0.775	7.19
28) T	benzene	0.653	0.608	0.649	0.676	0.716	0.660	5.97
29) S	1,2-Dichloroethane-d4	0.694	0.652	0.692	0.740	0.767	0.709	6.32
30) T	1,2-dichloroethane	0.491	0.444	0.451	0.512	0.534	0.486	8.01
31) T	trichloroethene	0.353	0.324	0.309	0.391	0.414	0.358	12.32
32) C	1,2-dichloropropane	0.406	0.341	0.391	0.416	0.433	0.397	8.79
33) T	dibromomethane	0.994	0.753	0.902	1.087	1.140	0.975	15.76
34) T	bromodichloromethane	0.131	0.265	0.139	0.135	0.132	0.161	36.59
35)	2-Chloroethyl Vinyl Ether	0.581	0.462	0.545	0.622	0.634	0.569	12.18
36) T	cis-1,3-dichloropropene	1.003	1.020	0.992	1.053	1.018	1.017	2.25
37) S	Toluene-d8	1.065	1.075	1.144	1.053	1.019	1.071	4.30
38) C	toluene	0.556	0.437	0.518	0.603	0.626	0.548	13.65
39) T	trans-1,3-dichloropropene	0.305	0.293	0.301	0.324	0.335	0.312	5.54
40) T	1,1,2-trichloroethane	1.007	1.031	0.976	0.996	1.022	1.007	2.14
41) S	4-Bromofluorobenzene	-----ISTD-----						
42)	Chlorobenzene-d5							

000129

Response Factor Report voa2

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Initial Calibration

Calibration Files

50 =P18791.D 5 =P18795.D 20 =P18794.D
 100 =P18793.D 200 =P18792.D

	Compound	50	5	20	100	200	Avg	%RSD
43)	4-Methyl-2-Pentanone	0.190	0.261	0.233	0.226	0.233	0.229	11.14
44) T	tetrachloroethene	0.475	0.455	0.478	0.478	0.459	0.469	2.36
45) T	1,3-dichloropropane	0.463	0.407	0.449	0.487	0.493	0.460	7.56
46) T	dibromochloromethane	0.630	0.457	0.571	0.706	0.713	0.615	17.25
47) T	1,2-dibromoethane	0.515	0.446	0.506	0.541	0.529	0.507	7.25
48)	2-Hexanone	0.170	0.188	0.160	0.199	0.219	0.187	12.47
49) P	chlorobenzene	0.790	0.763	0.764	0.794	0.742	0.771	2.83#
50) T	1,1,1,2-tetrachloroethane	0.432	0.368	0.405	0.474	0.475	0.431	10.65
51) C	ethylbenzene	1.318	1.336	1.267	1.313	1.273	1.302	2.29
52) T	m&p-xylenes	0.433	0.685	0.465	0.441	0.415	0.488	22.87
53) T	o-xylene	1.279	1.642	1.199	1.241	1.199	1.312	14.29
54) T	styrene	0.780	0.669	0.722	0.771	0.756	0.740	6.14
55) P	bromoform	0.550	0.377	0.507	0.607	0.572	0.523	17.03#
56)	1,4-dichlorobenzene-d4	-----ISTD-----						
57) T	isopropylbenzene	1.945	1.882	1.883	2.077	2.102	1.978	5.33
58) T	bromobenzene	1.346	1.351	1.337	1.479	1.449	1.393	4.77
59) P	1,1,2,2-tetrachloroethane	0.785	0.757	0.794	0.882	0.861	0.816	6.50#
60)	1,2,3-trichloropropane	0.558	0.586	0.611	0.626	0.628	0.602	4.91
61) T	n-propylbenzene	0.729	0.932	0.719	0.764	0.789	0.787	10.89
62) T	2-chlorotoluene	0.535	0.470	0.496	0.540	0.506	0.510	5.68
63) T	4-chlorotoluene	0.508	0.469	0.498	0.533	0.532	0.508	5.21
64) T	1,3,5-trimethylbenzene	1.851	2.377	1.801	1.929	1.973	1.986	11.50
65) T	tert-butylbenzene	1.743	1.648	1.578	1.812	1.883	1.733	7.07
66) T	1,2,4-trimethylbenzene	1.851	2.770	1.932	1.943	1.965	2.092	18.23
67) T	sec-butylbenzene	2.344	2.267	2.277	2.427	2.457	2.354	3.66
68) T	1,3-dichlorobenzene	1.221	1.172	1.206	1.235	1.235	1.213	2.17
69) T	4-isopropyltoluene	2.195	2.451	2.071	2.237	2.233	2.237	6.12
70) T	1,4-dichlorobenzene	1.214	1.208	1.258	1.237	1.262	1.236	1.99
71) T	1,2-dichlorobenzene	1.248	1.135	1.176	1.239	1.226	1.205	4.00
72) T	n-butylbenzene	2.151	2.150	1.968	2.153	2.158	2.116	3.91
73) T	1,2-dibromo-3-chloropropa	0.281	0.322	0.269	0.332	0.339	0.309	10.26
74) T	1,2,4-trichlorobenzene	1.029	0.880	0.940	1.091	1.104	1.009	9.63
75) T	hexachlorobutadiene	0.822	0.693	0.761	0.844	0.834	0.791	8.02
76) T	naphthalene	1.413	1.393	1.459	1.562	1.483	1.462	4.55
77) T	1,2,3-trichlorobenzene	0.985	0.860	0.914	1.022	0.957	0.947	6.62

000130

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18791.D
 Acq Time : 13 Sep 99 8:05 pm
 Sample : 50PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:45 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.14	96	1131343	50.00	ug/L	0.01
42) Chlorobenzene-d5	16.22	117	1260395	50.00	ug/L	0.02
56) 1,4-dichlorobenzene-d4	22.49	152	982349	50.00	ug/L	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.84	113	983376	50.00	ug/L	100.00%
29) 1,2-Dichloroethane-d4	8.55	65	739279	50.00	ug/L	100.00%
37) Toluene-d8	12.65	98	1135238	50.00	ug/L	100.00%
41) 4-Bromofluorobenzene	19.37	95	1139710	50.00	ug/L	100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	-1.68	85	684450	50.00	ug/L	100
3) chloromethane	1.90	50	258667	50.00	ug/L	95
4) vinyl chloride	2.02	62	238690	50.00	ug/L	95
5) bromomethane	2.42	94	259795	50.00	ug/L	89
6) chloroethane	2.55	64	117644	50.00	ug/L	96
7) Acrolein	3.56	56	130986	500.00	ug/L	100
8) trichlorofluoromethane	2.83	101	1149528	50.00	ug/L	99
9) 1,1-dichloroethene	3.57	61	637256	50.00	ug/L	99
10) Acetone	3.81	43	120481	50.00	ug/L	93
11) Carbon Disulfide	3.86	76	691165	50.00	ug/L	98
12) methylene chloride	4.47	84	276648	50.00	ug/L	92
13) trans-1,2-dichloroethene	4.88	61	508917	50.00	ug/L	94
14) TBA	4.86	59	311354	500.00	ug/L	96
15) MTBE	4.88	73	815984	50.00	ug/L	99
16) Acrylonitrile	5.06	53	332131	500.00	ug/L	97
17) 1,1-dichloroethane	5.72	63	851957	50.00	ug/L	99
18) 2,2-dichloropropane	6.77	77	847459	50.00	ug/L	98
19) cis-1,2-dichloroethene	6.86	61	687705	50.00	ug/L	99
20) bromochloromethane	7.32	49	431665	50.00	ug/L	97
21) chloroform	7.53	83	1159812	50.00	ug/L	96
22) 1,1,1-trichloroethane	7.74	97	1245772	50.00	ug/L	98
24) Vinyl Acetate	5.86	43	769422	50.00	ug/L	99
25) 2-Butanone	7.00	43	141249	50.00	ug/L	99
26) carbon tetrachloride	7.98	117	604587	50.00	ug/L	92
27) 1,1-dichloropropene	8.08	75	661611	50.00	ug/L	91
28) benzene	8.48	78	878521	50.00	ug/L	99
30) 1,2-dichloroethane	8.72	62	784852	50.00	ug/L	99
31) trichloroethene	9.90	130	555717	50.00	ug/L	99
32) 1,2-dichloropropane	10.49	63	399437	50.00	ug/L	94
33) dibromomethane	10.75	174	459656	50.00	ug/L	96
34) bromodichloromethane	11.14	83	1124516	50.00	ug/L	91
35) 2-Chloroethyl Vinyl Ether	12.80	63	148334	50.00	ug/L	93
36) cis-1,3-dichloropropene	12.19	75	657442	50.00	ug/L	98

(#) = qualifier out of range (m) = manual integration
 P18791.D V20914CS.M Mon Sep 20 14:16:54 1999

VOA3

Page 1

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18791.D
Acq Time : 13 Sep 99 8:05 pm
Sample : 50PPB ICC
Misc : 5G/5ML
Quant Time: Sep 15 12:45 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Single Level Calibration

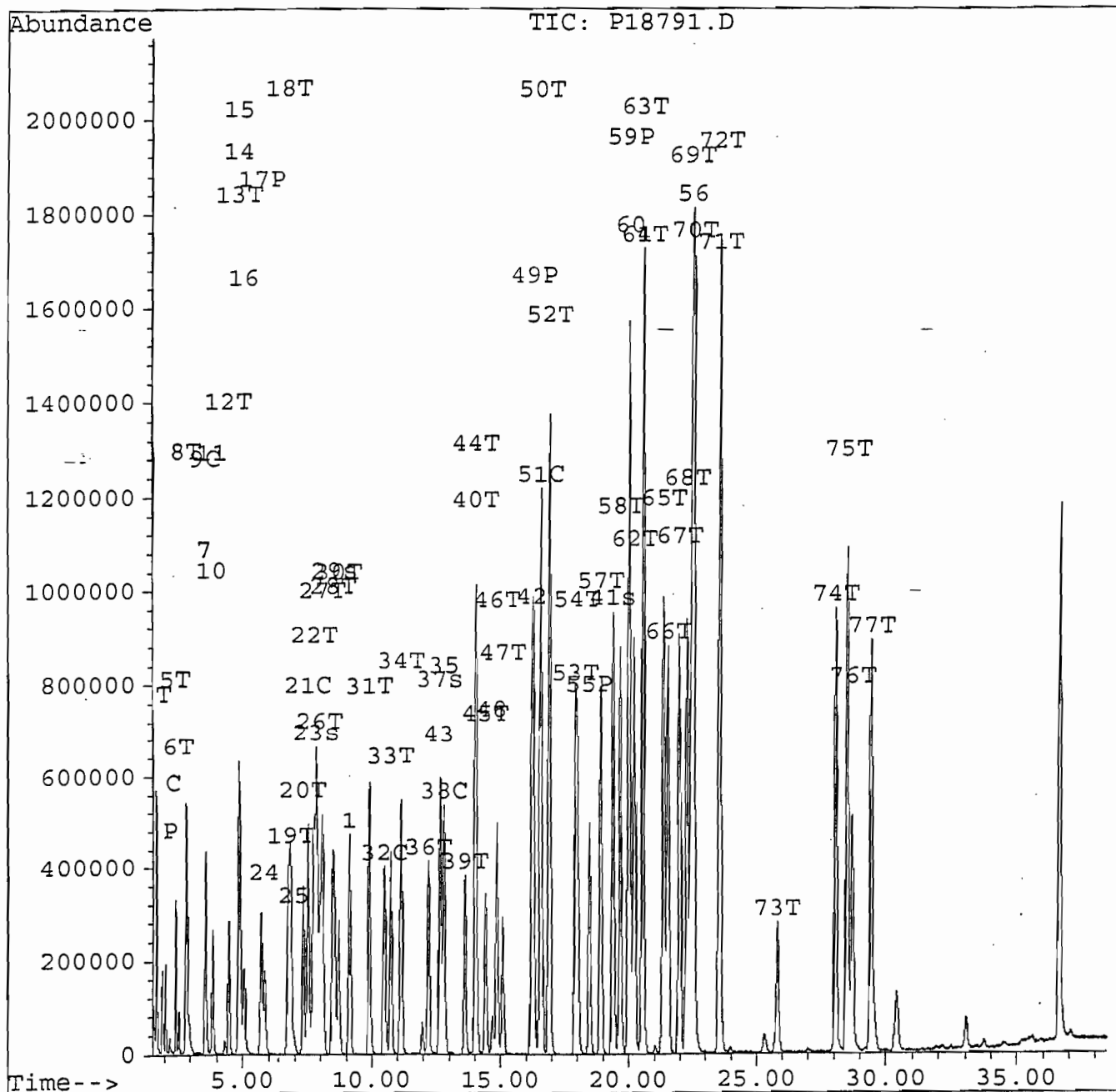
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.80	91	1204446	50.00	ug/L	95
39) trans-1,3-dichloropropene	13.60	75	629390	50.00	ug/L	98
40) 1,1,2-trichloroethane	14.01	97	345100	50.00	ug/L	87
43) 4-Methyl-2-Pentanone	12.61	43	239301	50.00	ug/L	98
44) tetrachloroethene	14.02	166	598263	50.00	ug/L	95
45) 1,3-dichloropropane	14.41	76	582991	50.00	ug/L	95
46) dibromochloromethane	14.85	129	793761	50.00	ug/L	99
47) 1,2-dibromoethane	15.08	107	648570	50.00	ug/L	95
48) 2-Hexanone	14.67	43	214119	50.00	ug/L	97
49) chlorobenzene	16.29	112	996246	50.00	ug/L	100
50) 1,1,1,2-tetrachloroethane	16.58	133	544632	50.00	ug/L	98
51) ethylbenzene	16.57	91	1661211	50.00	ug/L	100
52) m&p-xylenes	16.90	106	1091299	100.00	ug/L	90
53) o-xylene	17.90	91	1611575	50.00	ug/L	97
54) styrene	18.00	104	982987	50.00	ug/L	98
55) bromoform	18.46	173	693176	50.00	ug/L	99
57) isopropylbenzene	18.90	105	1910752	50.00	ug/L	99
58) bromobenzene	19.66	77	1322361	50.00	ug/L	98
59) 1,1,2,2-tetrachloroethane	20.00	83	771452	50.00	ug/L	98
60) 1,2,3-trichloropropane	20.05	75	548408	50.00	ug/L	98
61) n-propylbenzene	20.55	120	716561	50.00	ug/L	70
62) 2-chlorotoluene	20.21	126	525896	50.00	ug/L	91
63) 4-chlorotoluene	20.54	126	498823	50.00	ug/L	93
64) 1,3,5-trimethylbenzene	20.54	105	1818099	50.00	ug/L	94
65) tert-butylbenzene	21.36	119	1712700	50.00	ug/L	98
66) 1,2,4-trimethylbenzene	21.54	105	1817936	50.00	ug/L	97
67) sec-butylbenzene	21.97	105	2303022	50.00	ug/L	99
68) 1,3-dichlorobenzene	22.26	146	1198998	50.00	ug/L	97
69) 4-isopropyltoluene	22.43	119	2155801	50.00	ug/L	99
70) 1,4-dichlorobenzene	22.54	146	1192485	50.00	ug/L	98
71) 1,2-dichlorobenzene	23.54	146	1226278	50.00	ug/L	98
72) n-butylbenzene	23.57	91	2112608	50.00	ug/L	99
73) 1,2-dibromo-3-chloropropan	25.81	75	275952	50.00	ug/L	94
74) 1,2,4-trichlorobenzene	28.05	180	1011031	50.00	ug/L	97
75) hexachlorobutadiene	28.50	225	807282	50.00	ug/L	98
76) naphthalene	28.70	128	1388430	50.00	ug/L	99
77) 1,2,3-trichlorobenzene	29.42	180	967135	50.00	ug/L	92

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18791.D
 Acq Time : 13 Sep 99 8:05 pm
 Sample : 50PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:45 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



000133

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18792.D
 Acq Time : 13 Sep 99 8:49 pm
 Sample : 200PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:46 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.13	96	1056805	50.00	ug/L	0.00
42) Chlorobenzene-d5	16.23	117	1236714	50.00	ug/L	0.03
56) 1,4-dichlorobenzene-d4	22.50	152	836114	50.00	ug/L	0.05

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.85	113	1000421	54.45	ug/L	108.91%
29) 1,2-Dichlorethane-d4	8.56	65	756540	54.78	ug/L	109.55%
37) Toluene-d8	12.64	98	1076258	50.75	ug/L	101.49%
41) 4-Bromofluorobenzene	19.38	95	1080428	50.74	ug/L	101.48%

Target Compounds						Qvalue
2) dichlorodifluoromethane	1.68	85	2680141	209.60	ug/L	100
3) chloromethane	1.90	50	983614	203.54	ug/L	98
4) vinyl chloride	2.02	62	1024810	229.82	ug/L	98
5) bromomethane	2.42	94	1063552	219.13	ug/L	91
6) chloroethane	2.54	64	529521	240.93	ug/L	95
7) Acrolein	3.58	56	592863	2422.70	ug/L	99
8) trichlorofluoromethane	2.81	101	3609950	168.09	ug/L	98
9) 1,1-dichloroethene	3.56	61	2821025	236.95	ug/L	98
10) Acetone	3.87	43	520944	231.44	ug/L	92
11) Carbon Disulfide	3.84	76	3111678	240.98	ug/L	98
12) methylene chloride	4.47	84	1231952	238.36	ug/L	99
13) trans-1,2-dichloroethene	4.87	61	2244972	236.12	ug/L	95
14) TBA	4.96	59	1495765	2571.45	ug/L	97
15) MTBE	4.93	73	3581705	234.95	ug/L	99
16) Acrylonitrile	5.09	53	1500475	2418.18	ug/L	98
17) 1,1-dichloroethane	5.73	63	3675212	230.91	ug/L	99
18) 2,2-dichloropropane	6.78	77	3137659	198.18	ug/L	98
19) cis-1,2-dichloroethene	6.86	61	2878522	224.05	ug/L	98
20) bromochloromethane	7.32	49	1839629	228.11	ug/L	98
21) chloroform	7.53	83	4786118	220.88	ug/L	99
22) 1,1,1-trichloroethane	7.74	97	5081577	218.34	ug/L	99
24) Vinyl Acetate	5.87	43	3362253	233.90	ug/L	98
25) 2-Butanone	7.02	43	640433	242.69	ug/L	98
26) carbon tetrachloride	7.99	117	2630988	232.93	ug/L	95
27) 1,1-dichloropropene	8.08	75	2734482	221.23	ug/L	94
28) benzene	8.48	78	3570320	217.53	ug/L	100
30) 1,2-dichloroethane	8.71	62	3242641	221.15	ug/L	100
31) trichloroethene	9.91	130	2258367	217.53	ug/L	99
32) 1,2-dichloropropane	10.49	63	1749872	234.49	ug/L	96
33) dibromomethane	10.74	174	1829360	213.03	ug/L	99
34) bromodichloromethane	11.14	83	4817935	229.33	ug/L	94
35) 2-Chloroethyl Vinyl Ether	12.80	63	556738	200.90	ug/L	97
36) cis-1,3-dichloropropene	12.18	75	2680378	218.23	ug/L	94

(#) = qualifier out of range (m) = manual integration
 P18792.D V20914CS.M Mon Sep 20 14:17:42 1999

000134

VOA3

Page 1

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18792.D
 Acq Time : 13 Sep 99 8:49 pm
 Sample : 200PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:46 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.80	91	4305883	191.36	ug/L	100
39) trans-1,3-dichloropropene	13.61	75	2645436	224.98	ug/L	99
40) 1,1,2-trichloroethane	14.01	97	1414589	219.41	ug/L	100
43) 4-Methyl-2-Pentanone	12.61	43	1153505	245.63	ug/L	98
44) tetrachloroethene	14.02	166	2270359	193.38	ug/L	97
45) 1,3-dichloropropane	14.40	76	2439377	213.22	ug/L	92
46) dibromochloromethane	14.86	129	3527785	226.47	ug/L	98
47) 1,2-dibromoethane	15.09	107	2616617	205.58	ug/L	96
48) 2-Hexanone	14.66	43	1081090	257.28	ug/L	97
49) chlorobenzene	16.29	112	3668843	187.66	ug/L	97
50) 1,1,1,2-tetrachloroethane	16.58	133	2350052	219.88	ug/L	96
51) ethylbenzene	16.57	91	6299575	193.24	ug/L	99
52) m&p-xylenes	16.90	106	4108699	383.71	ug/L	98
53) o-xylene	17.91	91	5933140	187.60	ug/L	97
54) styrene	18.00	104	3740889	193.93	ug/L	99
55) bromoform	18.46	173	2831247	208.13	ug/L	93
57) isopropylbenzene	18.90	105	7028765	216.10	ug/L	99
58) bromobenzene	19.67	77	4847076	215.33	ug/L	98
59) 1,1,2,2-tetrachloroethane	20.00	83	2878133	219.17	ug/L	99
60) 1,2,3-trichloropropane	20.04	75	2100957	225.05	ug/L	100
61) n-propylbenzene	20.56	120	2639969	216.43	ug/L	75
62) 2-chlorotoluene	20.22	126	1693807	189.21	ug/L	95
63) 4-chlorotoluene	20.56	126	1779532	209.57	ug/L	97
64) 1,3,5-trimethylbenzene	20.56	105	6599056	213.22	ug/L	93
65) tert-butylbenzene	21.38	119	6297585	216.00	ug/L	87
66) 1,2,4-trimethylbenzene	21.54	105	6570690	212.33	ug/L	95
67) sec-butylbenzene	21.99	105	8216892	209.59	ug/L	99
68) 1,3-dichlorobenzene	22.27	146	4128993	202.30	ug/L	98
69) 4-isopropyltoluene	22.43	119	7468586	203.52	ug/L	99
70) 1,4-dichlorobenzene	22.56	146	4220297	207.90	ug/L	99
71) 1,2-dichlorobenzene	23.54	146	4099301	196.38	ug/L	87
72) n-butylbenzene	23.56	91	7216187	200.66	ug/L	97
73) 1,2-dibromo-3-chloropropan	25.82	75	1133109	241.22	ug/L	98
74) 1,2,4-trichlorobenzene	28.06	180	3693214	214.59	ug/L	91
75) hexachlorobutadiene	28.51	225	2789629	203.00	ug/L	94
76) naphthalene	28.70	128	4961475	209.92	ug/L	99
77) 1,2,3-trichlorobenzene	29.43	180	3199781	194.36	ug/L	98

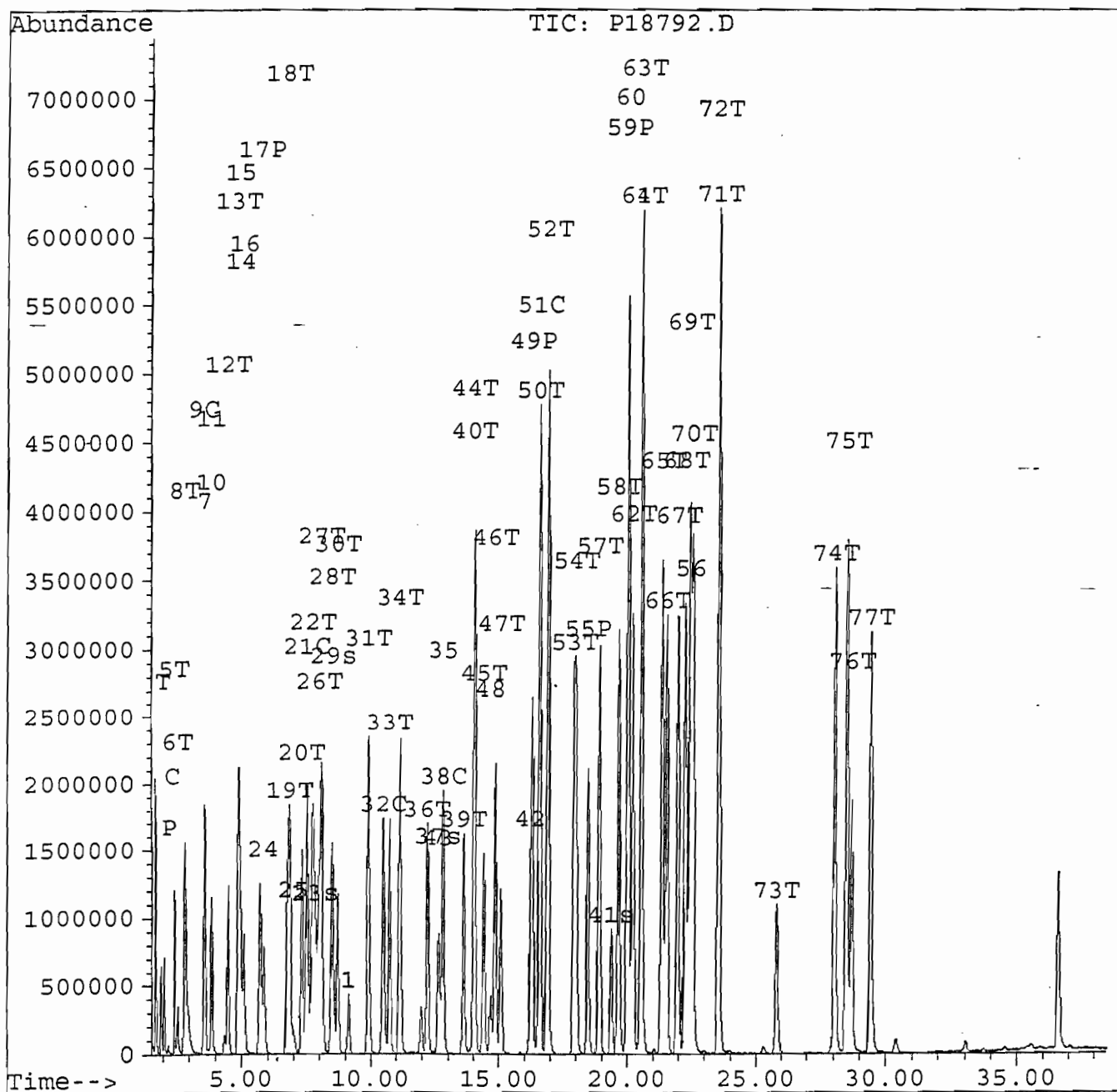
000135

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18792.D
 Acq Time : 13 Sep 99 8:49 pm
 Sample : 200PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:46 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



000136

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.13	96	1102768	50.00	ug/L	0.00
42) Chlorobenzene-d5	16.22	117	1228142	50.00	ug/L	0.02
56) 1,4-dichlorobenzene-d4	22.51	152	883999	50.00	ug/L	0.06

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.85	113	987356	51.50	ug/L	103.01%
29) 1,2-Dichloroethane-d4	8.55	65	744961	51.69	ug/L	103.38%
37) Toluene-d8	12.65	98	1160970	52.46	ug/L	104.92%
41) 4-Bromofluorobenzene	19.37	95	1098835	49.46	ug/L	98.91%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.69	85	1338645	100.32	ug/L	100
3) chloromethane	1.91	50	495498	98.26	ug/L	97
4) vinyl chloride	2.03	62	484924	104.21	ug/L	98
5) bromomethane	2.42	94	539864	106.59	ug/L	92
6) chloroethane	2.55	64	247556	107.94	ug/L	96
7) Acrolein	3.56	56	291530	1141.66	ug/L	100
8) trichlorofluoromethane	2.82	101	2334460	104.17	ug/L	100
9) 1,1-dichloroethene	3.57	61	1351797	108.81	ug/L	99
10) Acetone	3.83	43	245684	104.60	ug/L	94
11) Carbon Disulfide	3.86	76	1491992	110.73	ug/L	98
12) methylene chloride	4.48	84	596787	110.66	ug/L	91
13) trans-1,2-dichloroethene	4.86	61	1097475	110.62	ug/L	94
14) TBA	4.89	59	706358	1163.73	ug/L	90
15) MTBE	4.90	73	1737443	109.22	ug/L	99
16) Acrylonitrile	5.07	53	727455	1123.51	ug/L	99
17) 1,1-dichloroethane	5.73	63	1768480	106.48	ug/L	99
18) 2,2-dichloropropane	6.78	77	1659426	100.44	ug/L	98
19) cis-1,2-dichloroethene	6.86	61	1446673	107.91	ug/L	98
20) bromochloromethane	7.32	49	924517	109.86	ug/L	97
21) chloroform	7.52	83	2386636	105.55	ug/L	94
22) 1,1,1-trichloroethane	7.73	97	2541046	104.63	ug/L	97
24) Vinyl Acetate	5.87	43	1671448	111.43	ug/L	98
25) 2-Butanone	7.00	43	306386	111.27	ug/L	100
26) carbon tetrachloride	7.99	117	1342509	113.90	ug/L	88
27) 1,1-dichloropropene	8.08	75	1368225	106.08	ug/L	94
28) benzene	8.48	78	1792950	104.69	ug/L	99
30) 1,2-dichloroethane	8.71	62	1631501	106.63	ug/L	100
31) trichloroethene	9.90	130	1129906	104.30	ug/L	97
32) 1,2-dichloropropane	10.47	63	861595	110.65	ug/L	94
33) dibromomethane	10.73	174	916509	102.28	ug/L	94
34) bromodichloromethane	11.14	83	2396600	109.32	ug/L	93
35) 2-Chloroethyl Vinyl Ether	12.80	63	297545	102.89	ug/L	95
36) cis-1,3-dichloropropene	12.19	75	1372648	107.10	ug/L	98

000137

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.80	91	2322938	98.93	ug/L	98
39) trans-1,3-dichloropropene	13.61	75	1330355	108.42	ug/L	99
40) 1,1,2-trichloroethane	14.00	97	715244	106.31	ug/L	88
43) 4-Methyl-2-Pentanone	12.61	43	555873	119.20	ug/L	98
44) tetrachloroethene	14.02	166	1174092	100.70	ug/L	95
45) 1,3-dichloropropane	14.40	76	1197412	105.39	ug/L	93
46) dibromochloromethane	14.85	129	1733900	112.09	ug/L	99
47) 1,2-dibromoethane	15.07	107	1328305	105.09	ug/L	99
48) 2-Hexanone	14.67	43	488699	117.12	ug/L	97
49) chlorobenzene	16.29	112	1951148	100.50	ug/L	99
50) 1,1,1,2-tetrachloroethane	16.58	133	1163616	109.63	ug/L	99
51) ethylbenzene	16.58	91	3224222	99.59	ug/L	100
52) m&p-xylenes	16.88	106	2164896	203.59	ug/L	88
53) o-xylene	17.90	91	3048105	97.05	ug/L	97
54) styrene	18.00	104	1894635	98.90	ug/L	97
55) bromoform	18.46	173	1490560	110.34	ug/L	99
57) isopropylbenzene	18.89	105	3671500	106.76	ug/L	100
58) bromobenzene	19.66	77	2615192	109.88	ug/L	97
59) 1,1,2,2-tetrachloroethane	19.98	83	1558574	112.25	ug/L m	90
60) 1,2,3-trichloropropane	20.04	75	1106891	112.15	ug/L m	93
61) n-propylbenzene	20.55	120	1350538	104.72	ug/L	64
62) 2-chlorotoluene	20.21	126	954242	100.82	ug/L	97
63) 4-chlorotoluene	20.55	126	941490	104.87	ug/L	95
64) 1,3,5-trimethylbenzene	20.55	105	3409670	104.20	ug/L	94
65) tert-butylbenzene	21.36	119	3203029	103.91	ug/L	98
66) 1,2,4-trimethylbenzene	21.55	105	3435531	105.00	ug/L	99
67) sec-butylbenzene	21.97	105	4291726	103.54	ug/L	99
68) 1,3-dichlorobenzene	22.26	146	2183588	101.19	ug/L	98
69) 4-isopropyltoluene	22.43	119	3954939	101.93	ug/L	98
70) 1,4-dichlorobenzene	22.54	146	2186839	101.89	ug/L	90
71) 1,2-dichlorobenzene	23.55	146	2190932	99.27	ug/L	86
72) n-butylbenzene	23.57	91	3807092	100.13	ug/L	97
73) 1,2-dibromo-3-chloropropan	25.81	75	587629	118.32	ug/L	93
74) 1,2,4-trichlorobenzene	28.06	180	1929658	106.05	ug/L	97
75) hexachlorobutadiene	28.50	225	1491749	102.67	ug/L	98
76) naphthalene	28.70	128	2762209	110.54	ug/L	98
77) 1,2,3-trichlorobenzene	29.41	180	1806127	103.76	ug/L m	95

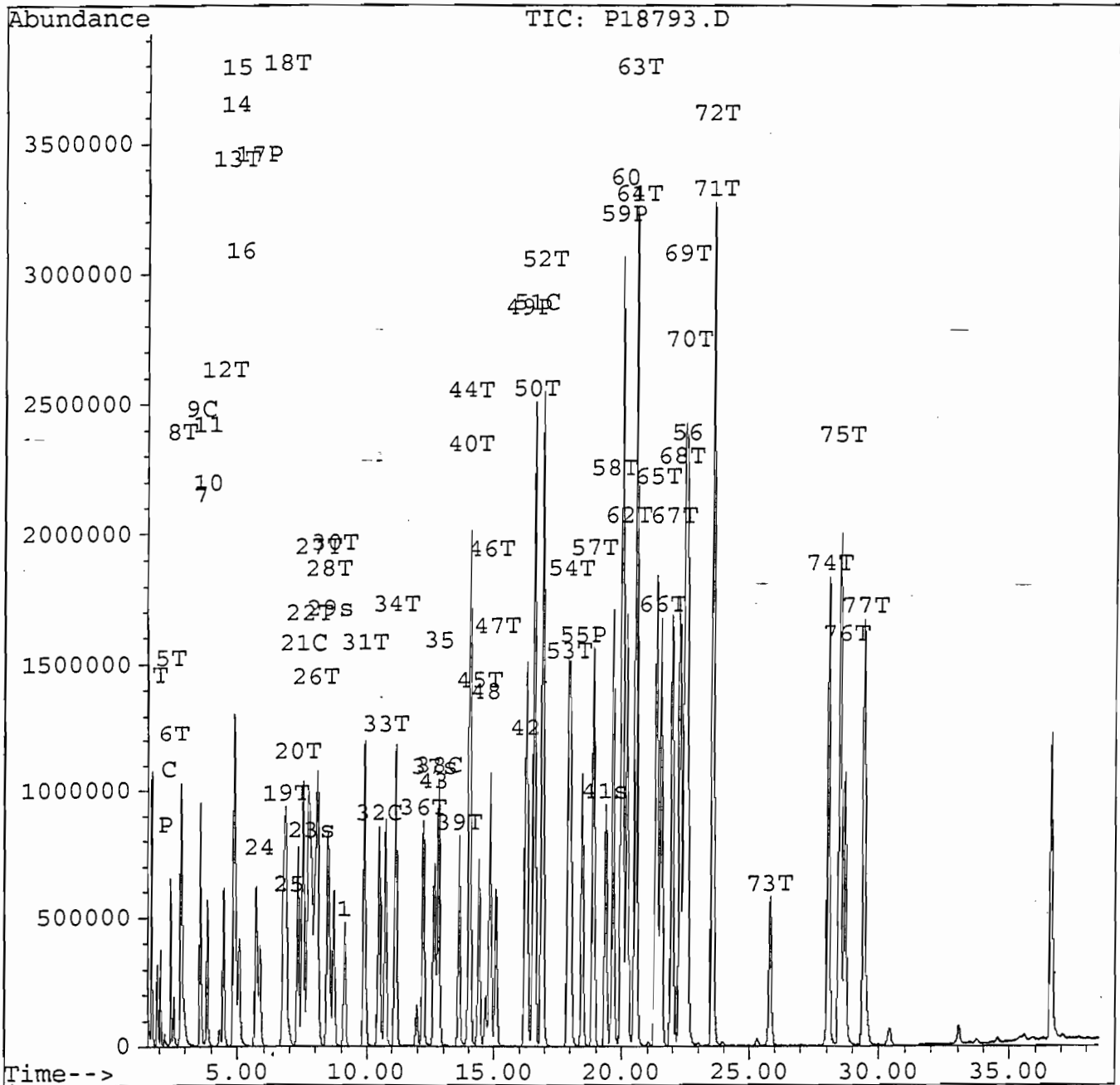
000138

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



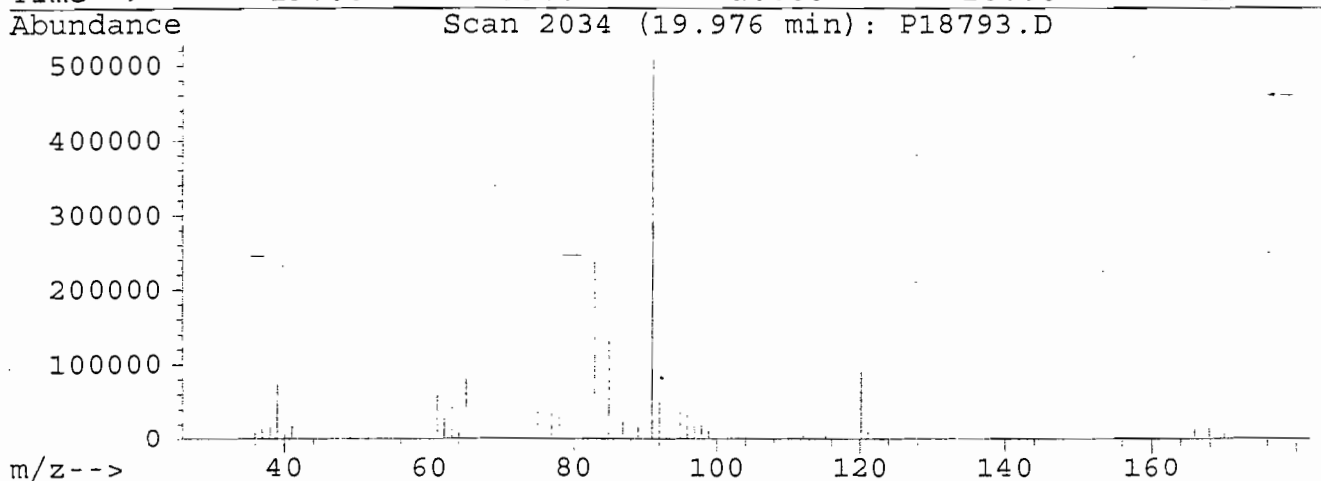
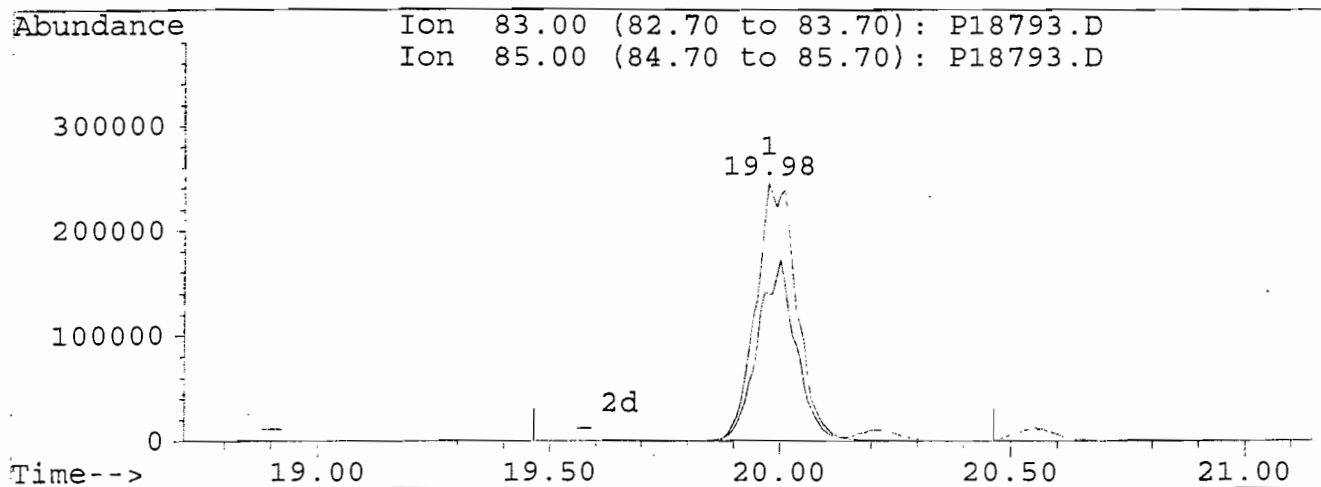
000139

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18793.D

(59) 1,1,2,2-tetrachloroethane (P)

19.98min 112.25ug/L m

response 1558574

Ion	Exp%	Act%
83.00	100	100
85.00	65.00	57.07
0.00	0.00	0.00
0.00	0.00	0.00

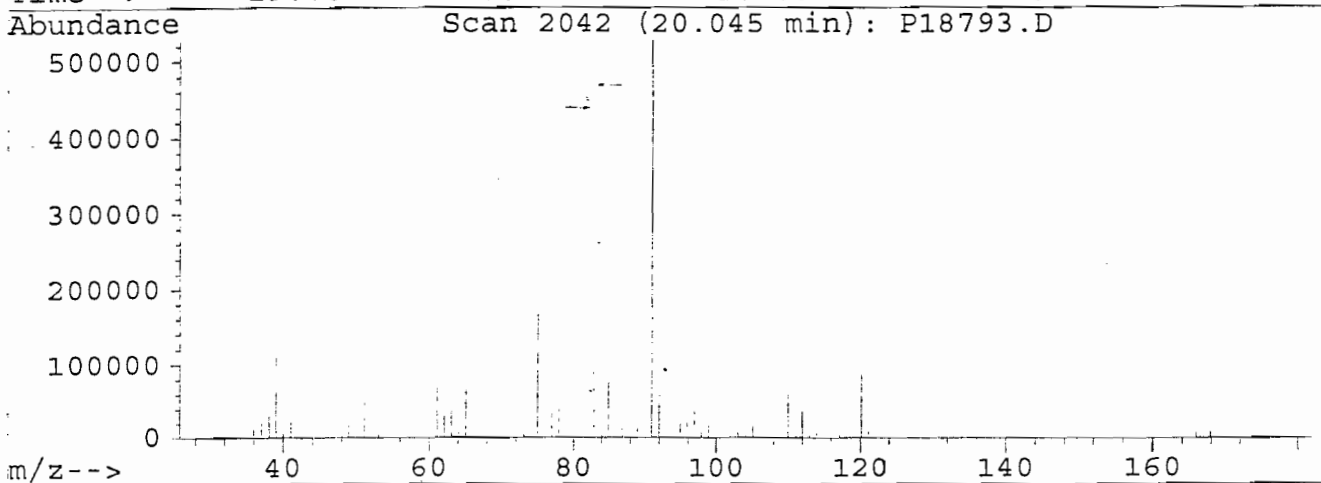
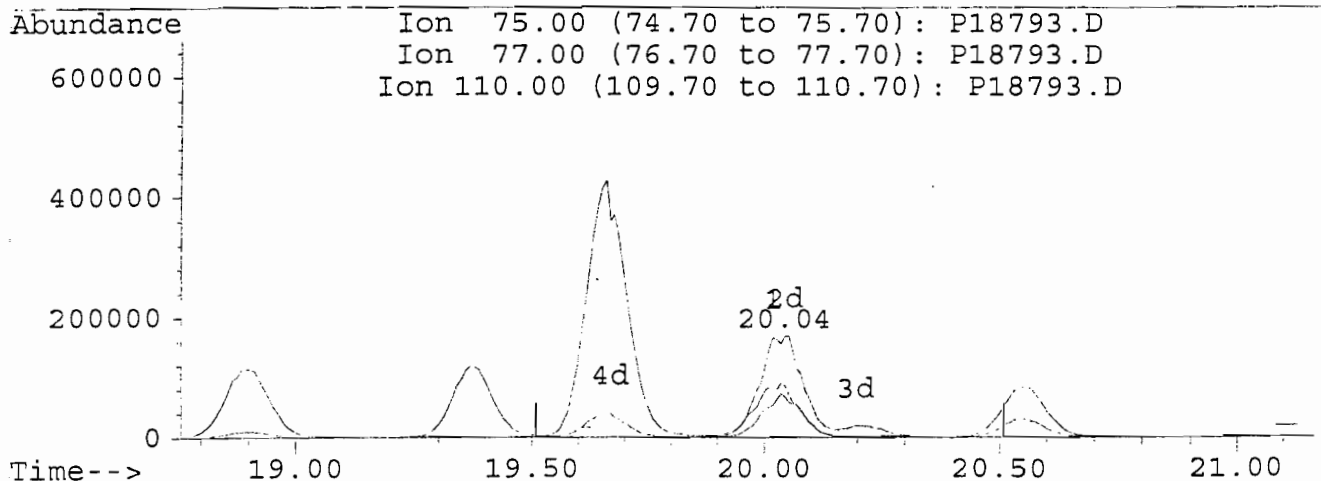
000140

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18793.D

(60) 1,2,3-trichloropropane

20.04min 112.15ug/L m

response 1106891

Ion	Exp%	Act%
75.00	100	100
77.00	50.30	50.52
110.00	40.80	39.80
0.00	0.00	0.00

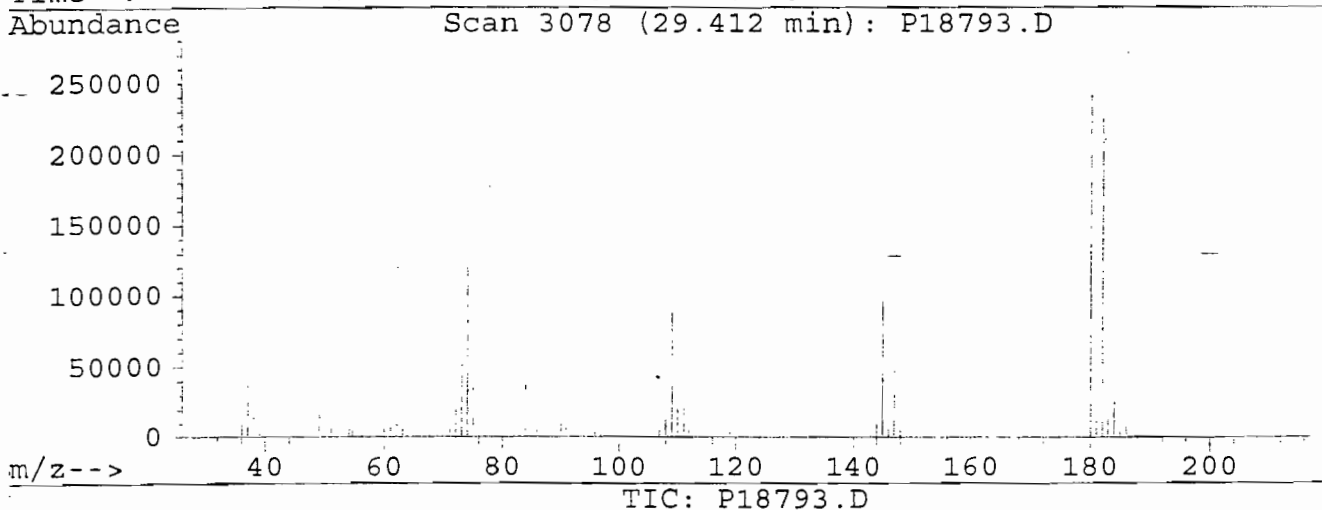
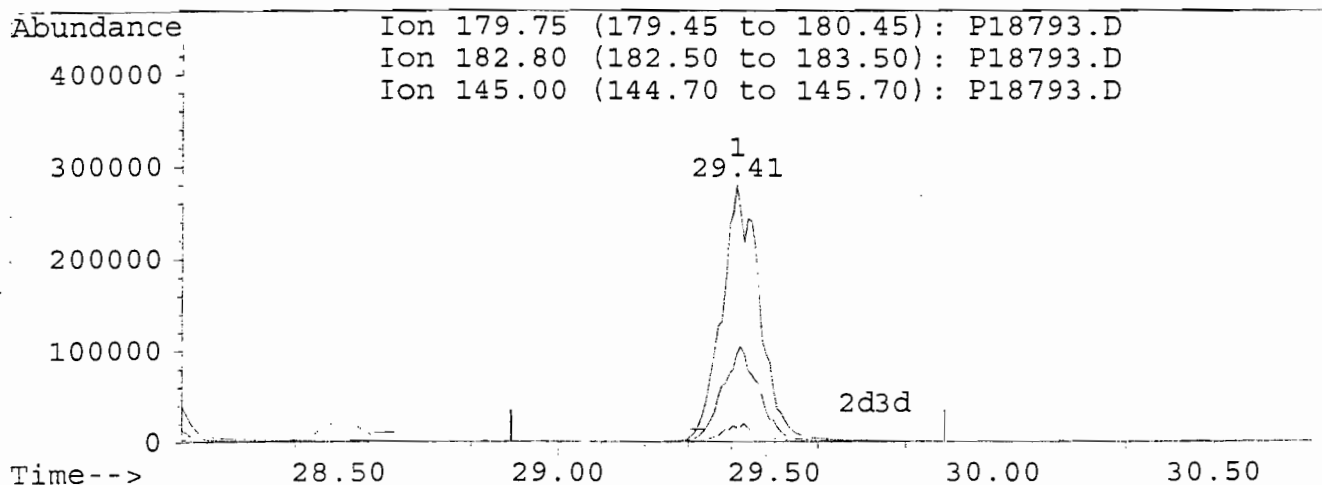
000141

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18793.D
 Acq Time : 13 Sep 99 9:34 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:50 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



(77) 1,2,3-trichlorobenzene (T)

29.41min 103.76ug/L m

response 1806127

Ion	Exp%	Act%
179.75	100	100
182.80	6.50	5.36
145.00	37.00	34.11
0.00	0.00	0.00

000142

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18794.D
 Acq Time : 13 Sep 99 10:18 pm
 Sample : 20PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:52 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.14	96	1089336	50.00	ug/L	0.01
42) Chlorobenzene-d5	16.23	117	1198029	50.00	ug/L	0.03
56) 1,4-dichlorobenzene-d4	22.49	152	912033	50.00	ug/L	0.04

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.85	113	934335	49.34	ug/L	98.68%
29) 1,2-Dichloroethane-d4	8.55	65	706761	49.64	ug/L	99.29%
37) Toluene-d8	12.65	98	1080491	49.42	ug/L	98.85%
41) 4-Bromofluorobenzene	19.38	95	1063393	48.45	ug/L	96.90%

Target Compounds						Qvalue
2) dichlorodifluoromethane	1.69	85	239968	18.21	ug/L	100
3) chloromethane	1.91	50	87555	17.58	ug/L	99
4) vinyl chloride	2.03	62	79916	17.39	ug/L	98
5) bromomethane	2.42	94	95557	19.10	ug/L	91
6) chloroethane	2.56	64	44118	19.47	ug/L	91
7) Acrolein	3.55	56	50502	200.21	ug/L	100
8) trichlorofluoromethane	2.85	101	403731	18.24	ug/L	97
9) 1,1-dichloroethene	3.58	61	227474	18.54	ug/L	98
10) Acetone	3.81	43	47003	20.26	ug/L	99
11) Carbon Disulfide	3.86	76	237608	17.85	ug/L	98
12) methylene chloride	4.47	84	106707	20.03	ug/L	97
13) trans-1,2-dichloroethene	4.87	61	184087	18.78	ug/L	93
14) TBA	4.83	59	134567	224.43	ug/L	69
15) MTBE	4.90	73	299563	19.06	ug/L	98
16) Acrylonitrile	5.06	53	126483	197.75	ug/L	99
17) 1,1-dichloroethane	5.72	63	313450	19.11	ug/L	99
18) 2,2-dichloropropane	6.77	77	309053	18.94	ug/L	96
19) cis-1,2-dichloroethene	6.87	61	256639	19.38	ug/L	100
20) bromochloromethane	7.33	49	166056	19.98	ug/L	98
21) chloroform	7.53	83	425370	19.05	ug/L	99
22) 1,1,1-trichloroethane	7.74	97	435024	18.13	ug/L	96
24) Vinyl Acetate	5.87	43	298747	20.16	ug/L	99
25) 2-Butanone	7.00	43	51414	18.90	ug/L	96
26) carbon tetrachloride	7.97	117	235770	20.25	ug/L	95
27) 1,1-dichloropropene	8.08	75	227971	17.89	ug/L	94
28) benzene	8.48	78	319916	18.91	ug/L	96
30) 1,2-dichloroethane	8.70	62	301595	19.95	ug/L	96
31) trichloroethene	9.91	130	196315	18.34	ug/L	99
32) 1,2-dichloropropane	10.48	63	134640	17.50	ug/L	97
33) dibromomethane	10.74	174	170582	19.27	ug/L	97
34) bromodichloromethane	11.13	83	393027	18.15	ug/L	97
35) 2-Chloroethyl Vinyl Ether	12.81	63	60755	21.27	ug/L	96
36) cis-1,3-dichloropropene	12.18	75	237450	18.76	ug/L	96

000143

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18794.D
Acq Time : 13 Sep 99 10:18 pm
Sample : 20PPB ICC
Misc : 5G/5ML
Quant Time: Sep 15 12:52 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.80	91	498638	21.50	ug/L	98
39) trans-1,3-dichloropropene	13.62	75	225780	18.63	ug/L	98
40) 1,1,2-trichloroethane	14.01	97	131230	19.75	ug/L	97
43) 4-Methyl-2-Pentanone	12.61	43	111613	24.53	ug/L	95
44) tetrachloroethene	14.03	166	229059	20.14	ug/L	98
45) 1,3-dichloropropane	14.40	76	215150	19.41	ug/L	94
46) dibromochloromethane	14.85	129	273469	18.12	ug/L	88
47) 1,2-dibromoethane	15.08	107	242272	19.65	ug/L	99
48) 2-Hexanone	14.67	43	76541	18.80	ug/L	98
49) chlorobenzene	16.28	112	366135	19.33	ug/L	96
50) 1,1,1,2-tetrachloroethane	16.58	133	194070	18.74	ug/L	99
51) ethylbenzene	16.57	91	607397	19.23	ug/L	99
52) m&p-xylenes	16.89	106	445363	42.93	ug/L	99
53) o-xylene	17.89	91	574362	18.75	ug/L	91
54) styrene	18.01	104	345852	18.51	ug/L	97
55) bromoform	18.46	173	242941	18.44	ug/L	95
57) isopropylbenzene	18.89	105	686793	19.36	ug/L	99
58) bromobenzene	19.66	77	487852	19.87	ug/L	97
59) 1,1,2,2-tetrachloroethane	19.99	83	289481	20.21	ug/L	96
60) 1,2,3-trichloropropane	20.04	75	222769	21.88	ug/L	96
61) n-propylbenzene	20.55	120	262262	19.71	ug/L	70
62) 2-chlorotoluene	20.21	126	181101	18.55	ug/L	92
63) 4-chlorotoluene	20.56	126	181752	19.62	ug/L	96
64) 1,3,5-trimethylbenzene	20.56	105	657042	19.46	ug/L	95
65) tert-butylbenzene	21.36	119	575550	18.10	ug/L	89
66) 1,2,4-trimethylbenzene	21.54	105	704830	20.88	ug/L	98
67) sec-butylbenzene	21.97	105	830524	19.42	ug/L	99
68) 1,3-dichlorobenzene	22.26	146	439817	19.76	ug/L	96
69) 4-isopropyltoluene	22.43	119	755543	18.87	ug/L	99
70) 1,4-dichlorobenzene	22.55	146	458970	20.73	ug/L	98
71) 1,2-dichlorobenzene	23.55	146	429004	18.84	ug/L	85
72) n-butylbenzene	23.57	91	718060	18.30	ug/L	97
73) 1,2-dibromo-3-chloropropan	25.82	75	98026	19.13	ug/L	97
74) 1,2,4-trichlorobenzene	28.06	180	342809	18.26	ug/L	99
75) hexachlorobutadiene	28.51	225	277722	18.53	ug/L	97
76) naphthalene	28.70	128	532092	20.64	ug/L	99
77) 1,2,3-trichlorobenzene	29.42	180	333462	18.57	ug/L	98

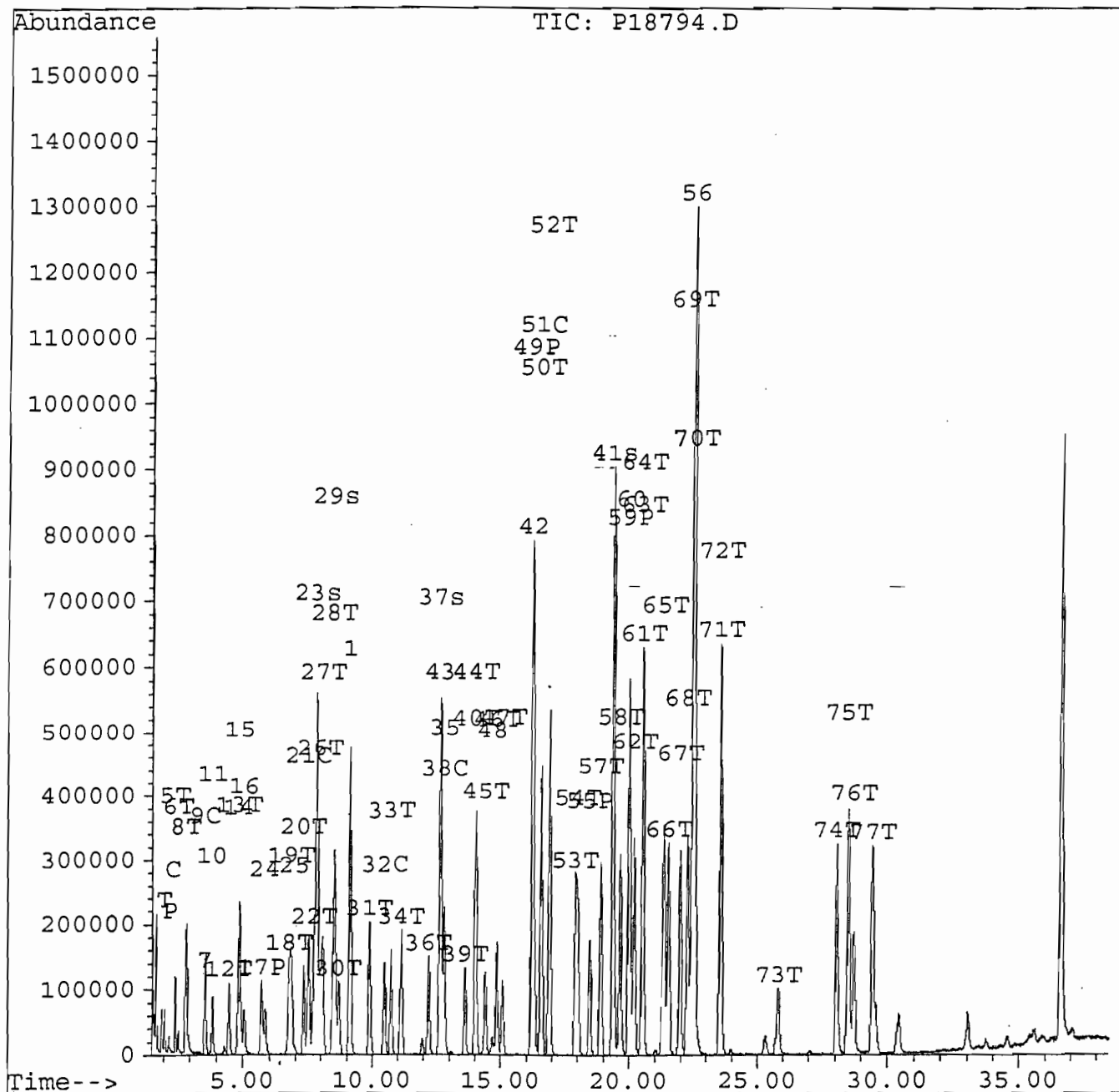
000144

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18794.D
 Acq Time : 13 Sep 99 10:18 pm
 Sample : 20PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:52 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



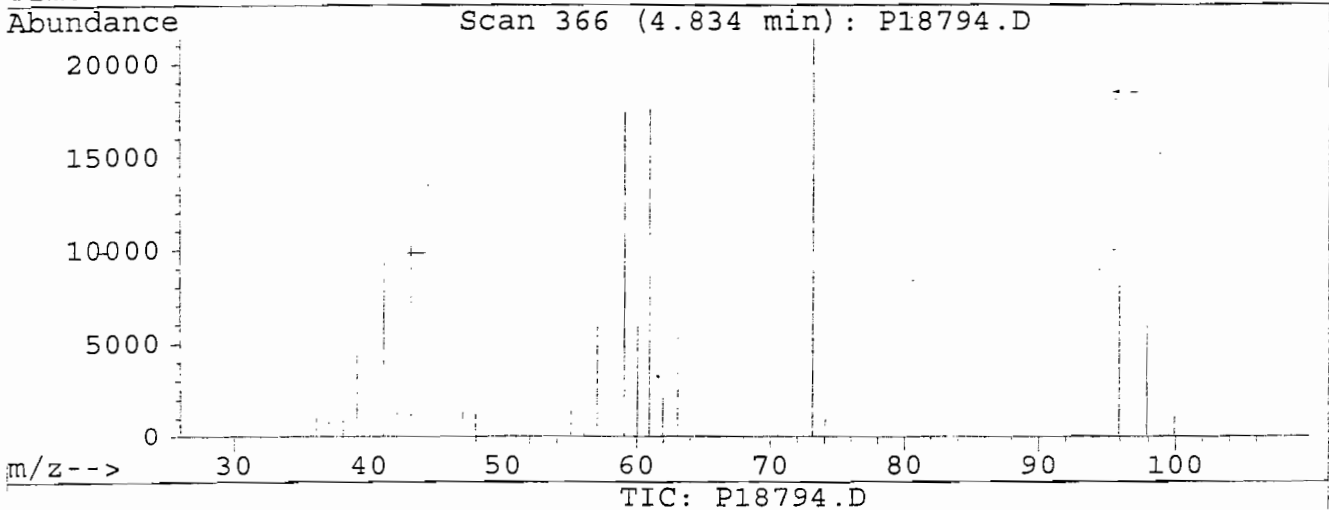
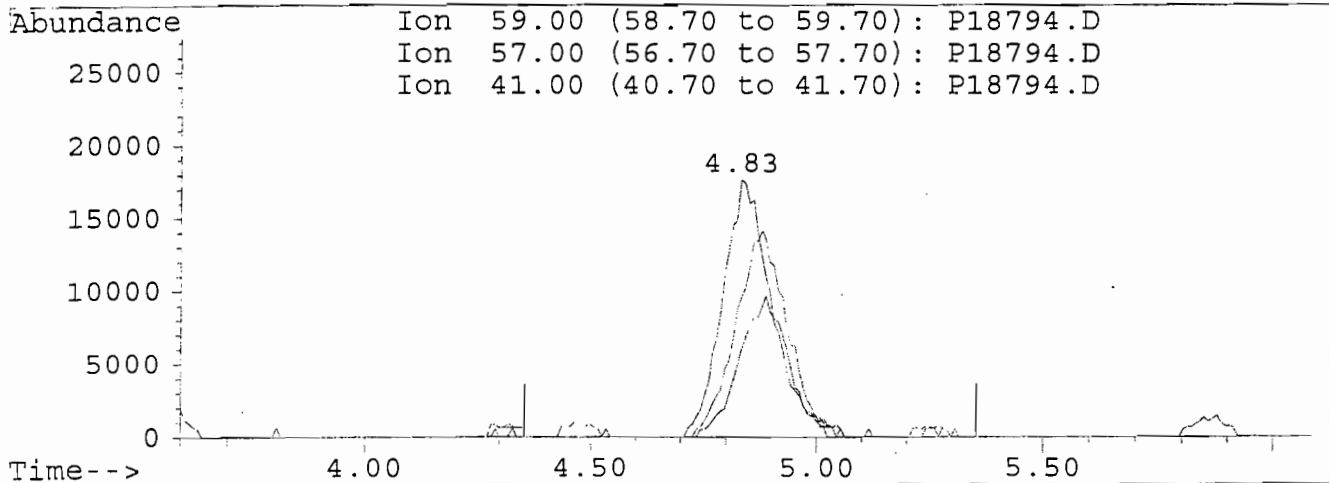
000145

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18794.D
 Acq Time : 13 Sep 99 10:18 pm
 Sample : 20PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 12:52 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



(14) TBA

4.83min 224.43ug/L m

response 134567

Ion	Exp%	Act%
59.00	100	100
57.00	54.20	33.59
41.00	82.70	53.93
0.00	0.00	0.00

000146

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.14	96	1076640	50.00	ug/L	0.01
42) Chlorobenzene-d5	16.22	117	1211822	50.00	ug/L	0.02
56) 1,4-dichlorobenzene-d4	22.49	152	898327	50.00	ug/L	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.85	113	889403	47.52	ug/L	95.04%
29) 1,2-Dichlorethane-d4	8.54	65	654836	46.54	ug/L	93.08%
37) Toluene-d8	12.65	98	1097739	50.80	ug/L	101.61%
41) 4-Bromofluorobenzene	19.37	95	1109711	51.16	ug/L	102.32%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.69	85	60473	4.64	ug/L	99
3) chloromethane	1.91	50	22574	4.59	ug/L	99
4) vinyl chloride	2.03	62	19160	4.22	ug/L	94
5) bromomethane	2.43	94	24628	4.98	ug/L	88
6) chloroethane	2.55	64	11191	5.00	ug/L	85
7) Acrolein	3.55	56	11564	46.38	ug/L	100
8) trichlorofluoromethane	2.85	101	99885	4.57	ug/L	98
9) 1,1-dichloroethene	3.58	61	55857	4.61	ug/L	96
10) Acetone	3.81	43	13212	5.76	ug/L m	65
11) Carbon Disulfide	3.86	76	55757	4.24	ug/L	91
12) methylene chloride	4.49	84	29641	5.63	ug/L	96
13) trans-1,2-dichloroethene	4.87	61	44497	4.59	ug/L m	93
14) TBA	4.83	59	28460	48.03	ug/L m	69
15) MTBE	4.89	73	68339	4.40	ug/L m	96
16) Acrylonitrile	5.06	53	25981	41.10	ug/L	97
17) 1,1-dichloroethane	5.73	63	75841	4.68	ug/L	97
18) 2,2-dichloropropane	6.79	77	73704	4.57	ug/L m	100
19) cis-1,2-dichloroethene	6.86	61	59936	4.58	ug/L	94
20) bromochloromethane	7.33	49	38038	4.63	ug/L	98
21) chloroform	7.53	83	96657	4.38	ug/L	99
22) 1,1,1-trichloroethane	7.74	97	99836	4.21	ug/L	90
24) Vinyl Acetate	5.85	43	62841	4.29	ug/L	93
25) 2-Butanone	6.99	43	10442	3.88	ug/L m	61
26) carbon tetrachloride	8.00	117	53636	4.66	ug/L	97
27) 1,1-dichloropropene	8.10	75	53185	4.22	ug/L	87
28) benzene	8.46	78	76225	4.56	ug/L	97
30) 1,2-dichloroethane	8.70	62	70245	4.70	ug/L	98
31) trichloroethene	9.91	130	47797	4.52	ug/L	98
32) 1,2-dichloropropane	10.47	63	34866	4.59	ug/L m	98
33) dibromomethane	10.75	174	36707	4.20	ug/L	85
34) bromodichloromethane	11.13	83	81093	3.79	ug/L	97
35) 2-Chloroethyl Vinyl Ether	12.79	63	28575	10.12	ug/L m	93
36) cis-1,3-dichloropropene	12.18	75	49766	3.98	ug/L	96

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.80	91	115741	5.05	ug/L m	94
39) trans-1,3-dichloropropene	13.60	75	47039	3.93	ug/L	99
40) 1,1,2-trichloroethane	14.02	97	31544	4.80	ug/L	94
43) 4-Methyl-2-Pentanone	12.62	43	31633	6.87	ug/L m	73
44) tetrachloroethene	14.03	166	55143	4.79	ug/L	94
45) 1,3-dichloropropane	14.42	76	49267	4.39	ug/L	98
46) dibromochloromethane	14.84	129	55371	3.63	ug/L	89
47) 1,2-dibromoethane	15.09	107	54048	4.33	ug/L	90
48) 2-Hexanone	14.68	43	22757	5.53	ug/L m	82
49) chlorobenzene	16.28	112	92432	4.82	ug/L	100
50) 1,1,1,2-tetrachloroethane	16.57	133	44585	4.26	ug/L	83
51) ethylbenzene	16.56	91	161949	5.07	ug/L	96
52) m&p-xylenes	16.89	106	165931	15.81	ug/L m	92
53) o-xylene	17.91	91	198988	6.42	ug/L m	97
54) styrene	18.01	104	81034	4.29	ug/L	91
55) bromoform	18.45	173	45717	3.43	ug/L	97
57) isopropylbenzene	18.89	105	169043	4.84	ug/L	99
58) bromobenzene	19.68	77	121399	5.02	ug/L	92
59) 1,1,2,2-tetrachloroethane	20.00	83	67979	4.82	ug/L	87
60) 1,2,3-trichloropropane	20.03	75	52672	5.25	ug/L	97
61) n-propylbenzene	20.55	120	83681	6.39	ug/L	81
62) 2-chlorotoluene	20.21	126	42184	4.39	ug/L	91
63) 4-chlorotoluene	20.56	126	42126	4.62	ug/L	98
64) 1,3,5-trimethylbenzene	20.54	105	213491	6.42	ug/L	95
65) tert-butylbenzene	21.36	119	148088	4.73	ug/L	96
66) 1,2,4-trimethylbenzene	21.54	105	248824	7.48	ug/L m	97
67) sec-butylbenzene	21.98	105	203651	4.83	ug/L	97
68) 1,3-dichlorobenzene	22.26	146	105242	4.80	ug/L	97
69) 4-isopropyltoluene	22.43	119	220136	5.58	ug/L	93
70) 1,4-dichlorobenzene	22.55	146	108528	4.98	ug/L	87
71) 1,2-dichlorobenzene	23.54	146	101924	4.54	ug/L	90
72) n-butylbenzene	23.56	91	193176	5.00	ug/L m	90
73) 1,2-dibromo-3-chloropropan	25.83	75	28901	5.73	ug/L m	93
74) 1,2,4-trichlorobenzene	28.05	180	79035	4.27	ug/L	95
75) hexachlorobutadiene	28.52	225	62248	4.22	ug/L	97
76) naphthalene	28.72	128	125108	4.93	ug/L	100
77) 1,2,3-trichlorobenzene	29.42	180	77245	4.37	ug/L	98

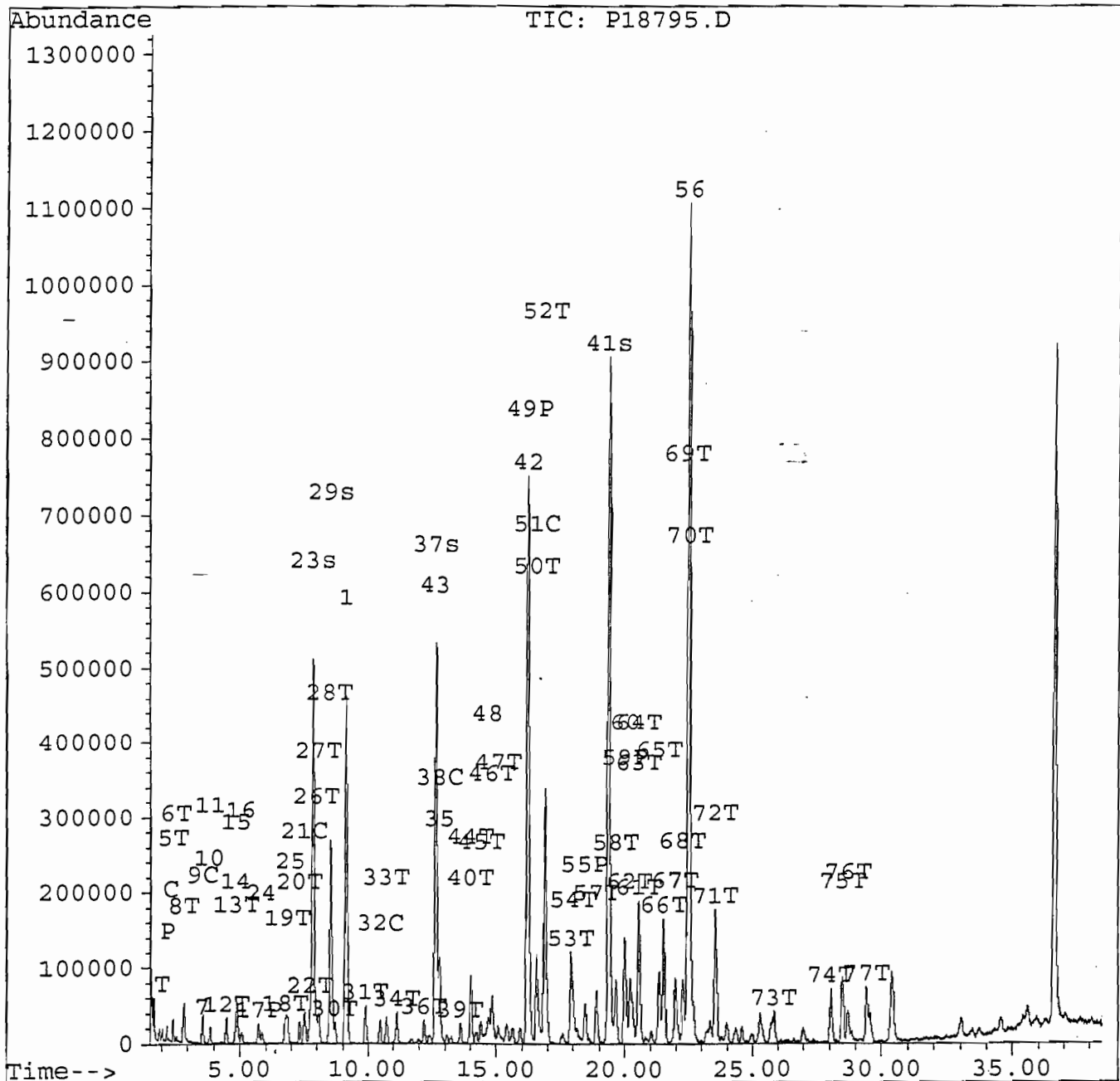
000148

Quantitation Report

Data File : G:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



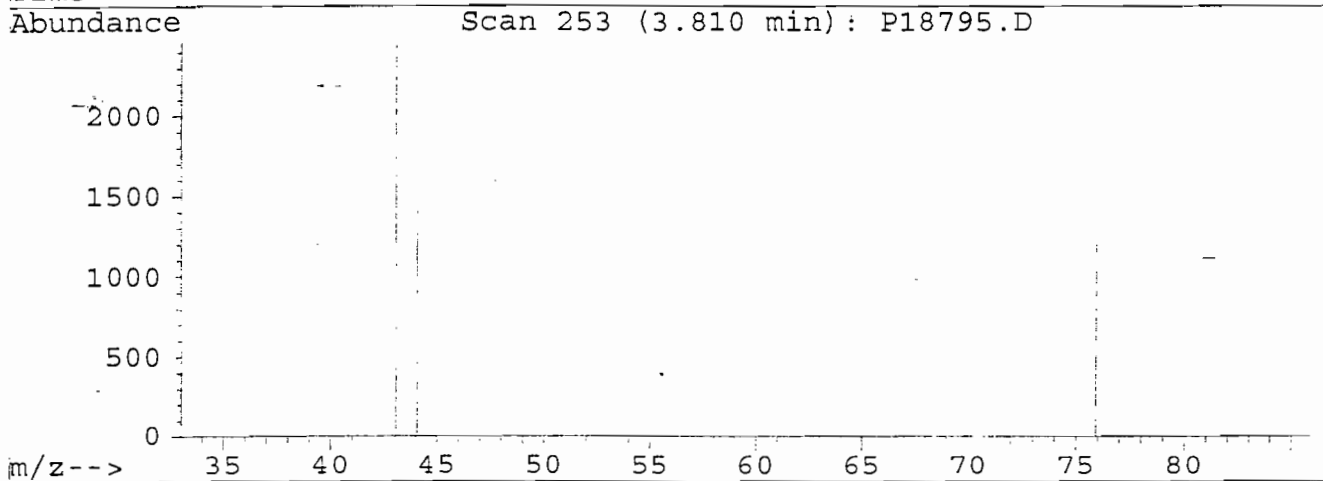
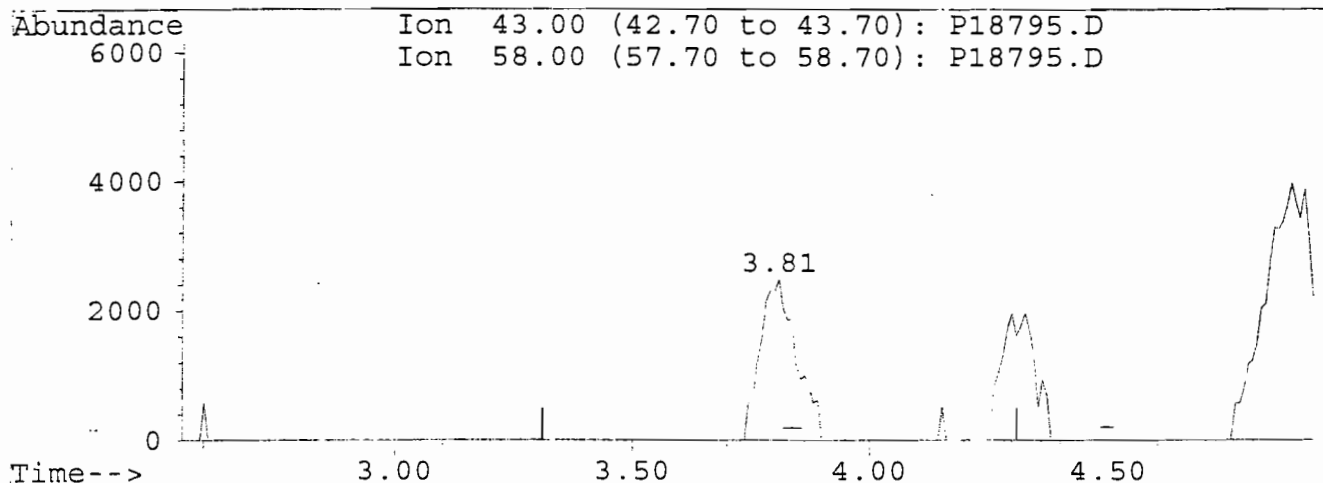
000149

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(10) Acetone

3.81min 5.76ug/L m

response 13212

Ion	Exp%	Act%
43.00	100	100
58.00	14.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

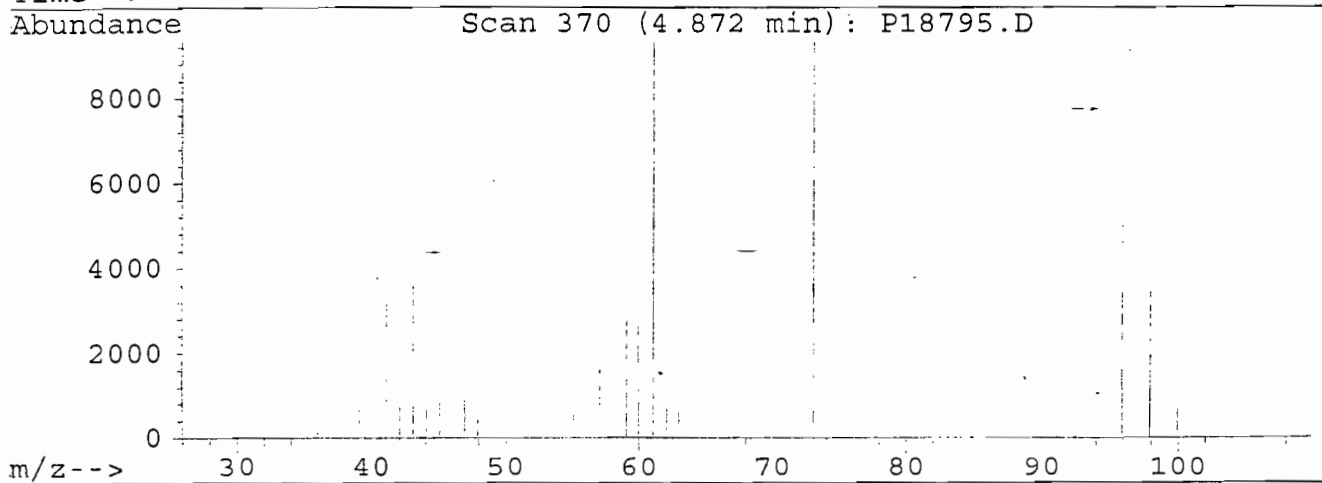
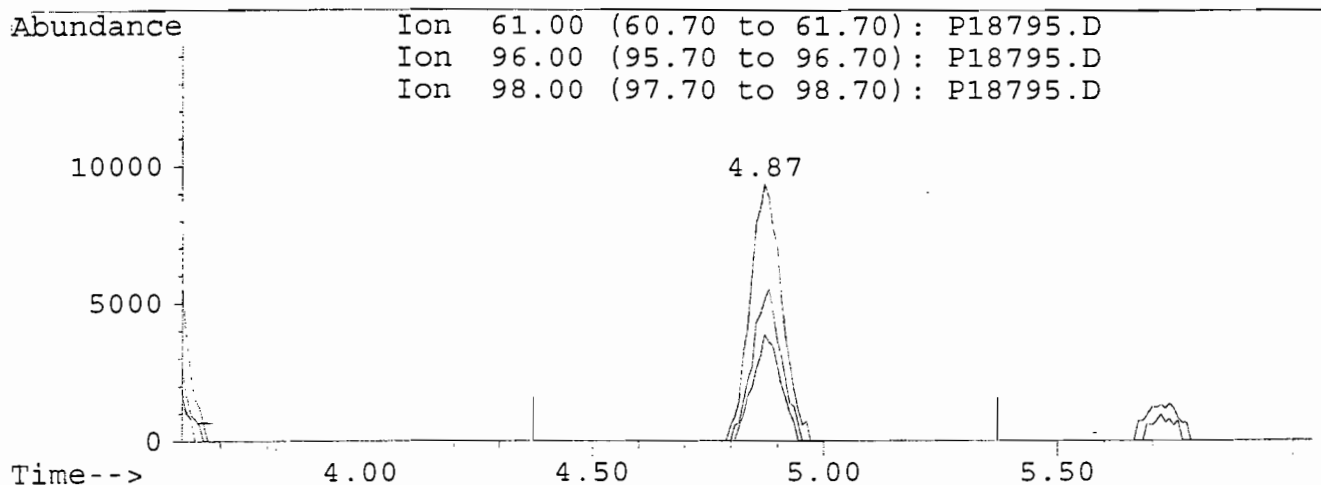
000150

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(13) trans-1,2-dichloroethene (T)

4.87min 4.59ug/L m

response 44497

Ion	Exp%	Act%
61.00	100	100
96.00	54.80	54.55
98.00	30.70	41.31
0.00	0.00	0.00

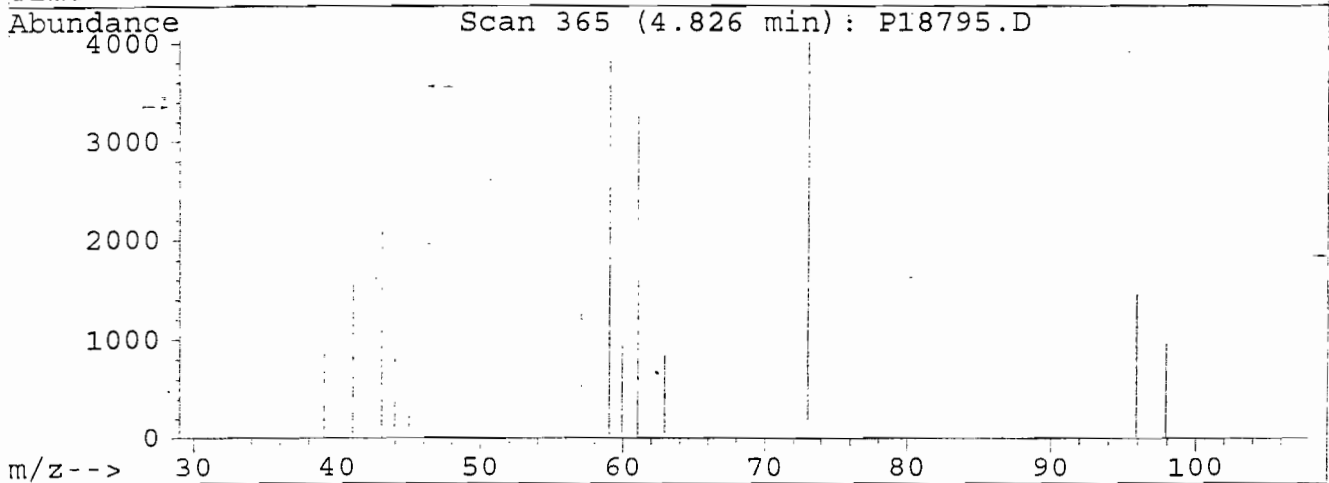
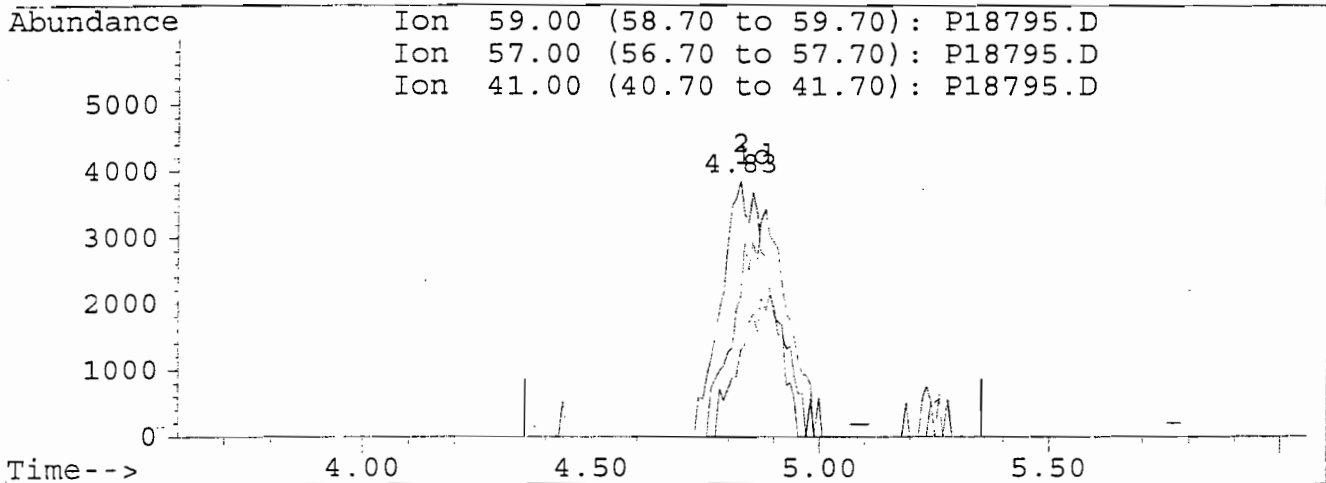
000151

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(14) TBA

4.83min 48.03ug/L m

response 28460

Ion	Exp%	Act%
59.00	100	100
57.00	54.20	33.35
41.00	82.70	54.33
0.00	0.00	0.00

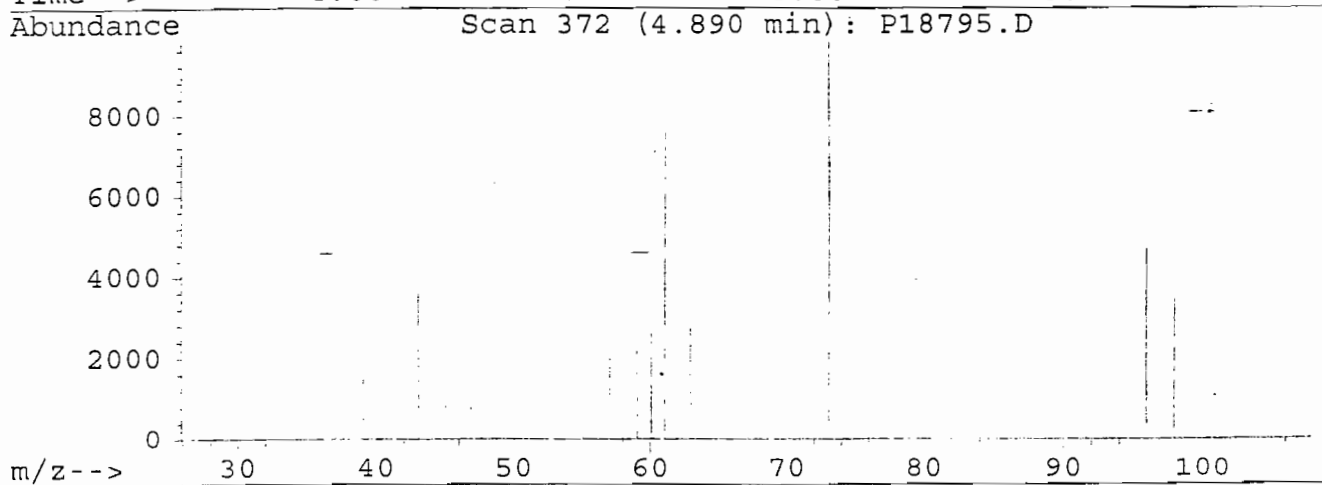
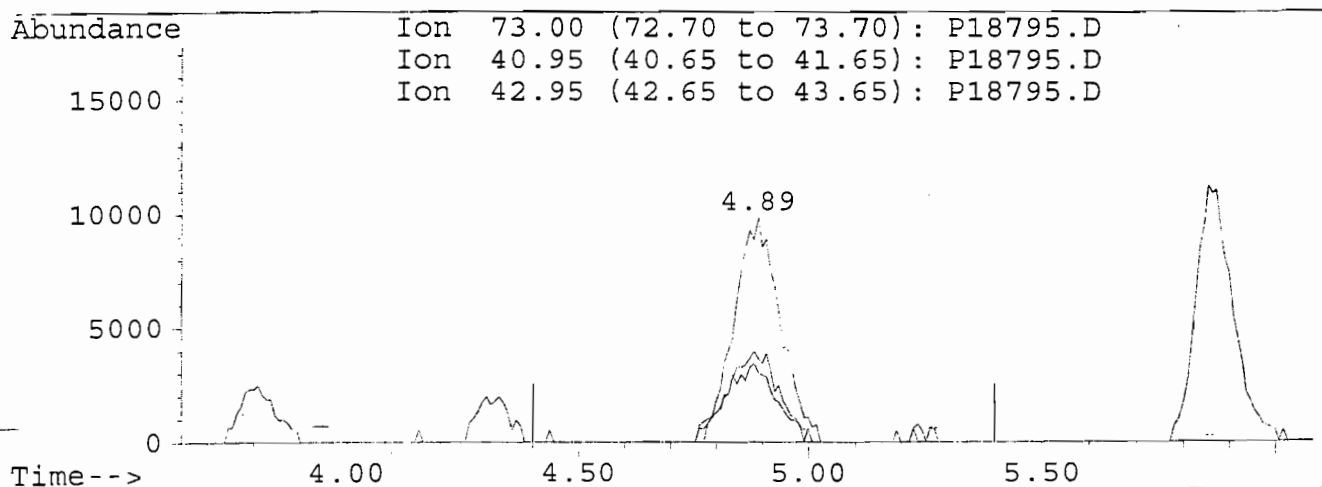
000152

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(15) MTBE

4.89min 4.40ug/L m

response 68339

Ion	Exp%	Act%
73.00	100	100
40.95	34.90	30.80
42.95	43.50	36.96
0.00	0.00	0.00

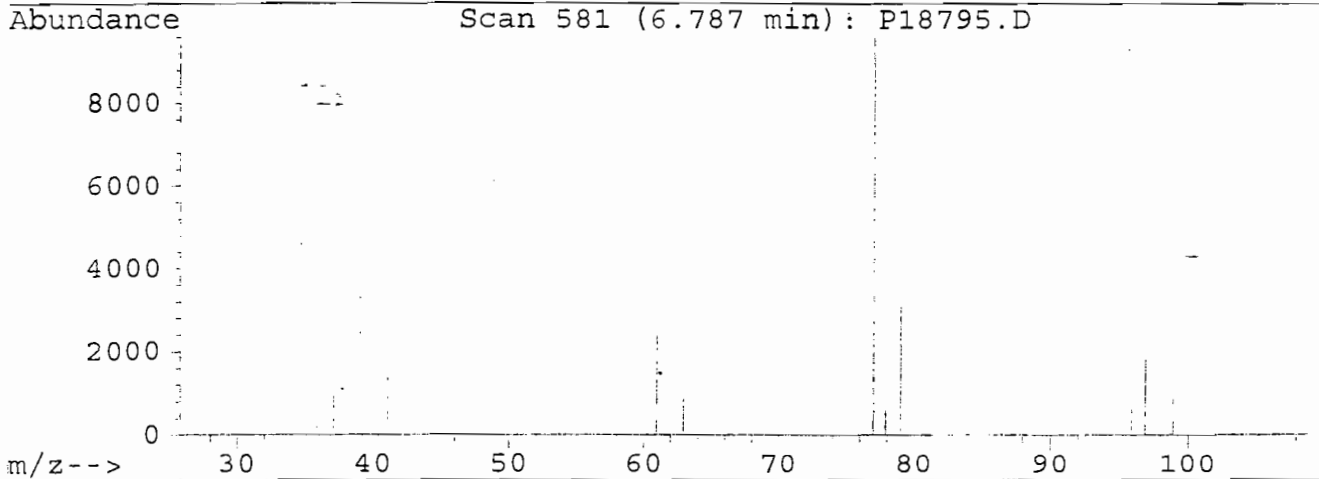
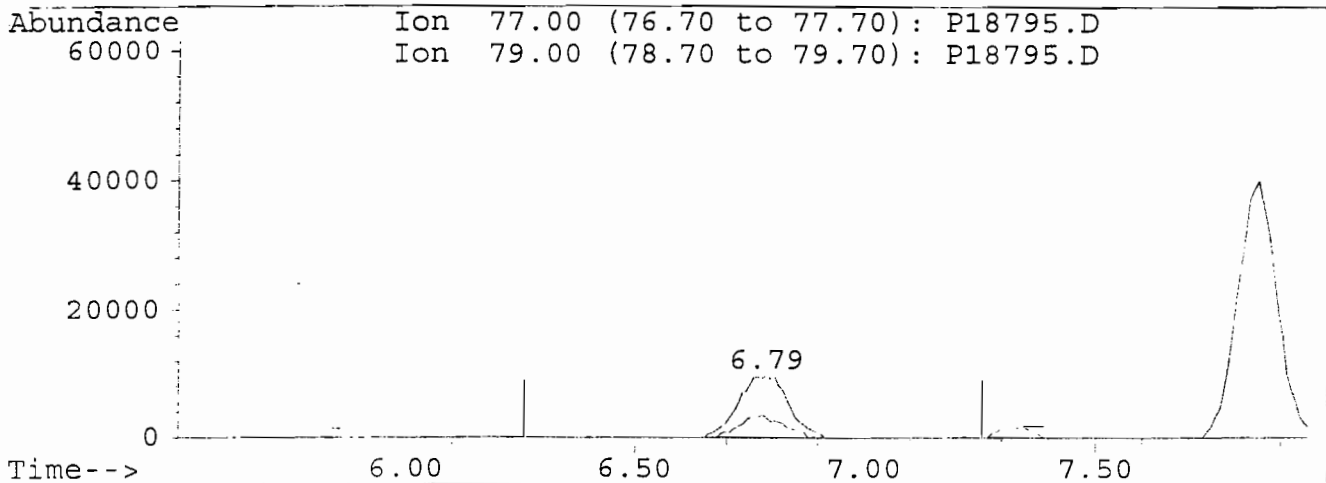
000153

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(18) 2,2-dichloropropane (T)

6.79min 4.57ug/L m

response 73704

Ion	Exp%	Act%
77.00	100	100
79.00	33.70	32.03
0.00	0.00	0.00
0.00	0.00	0.00

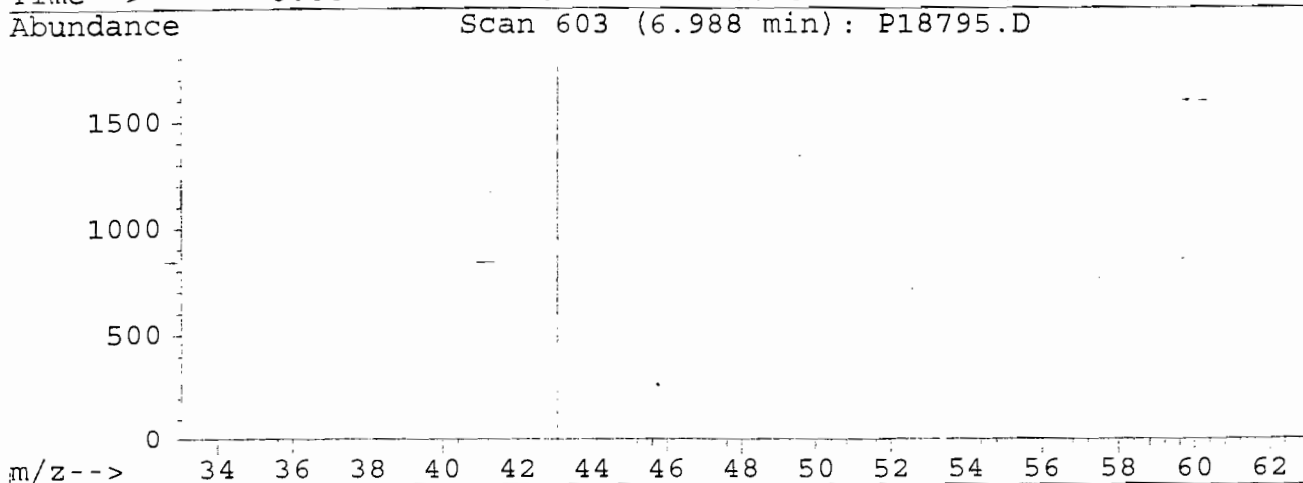
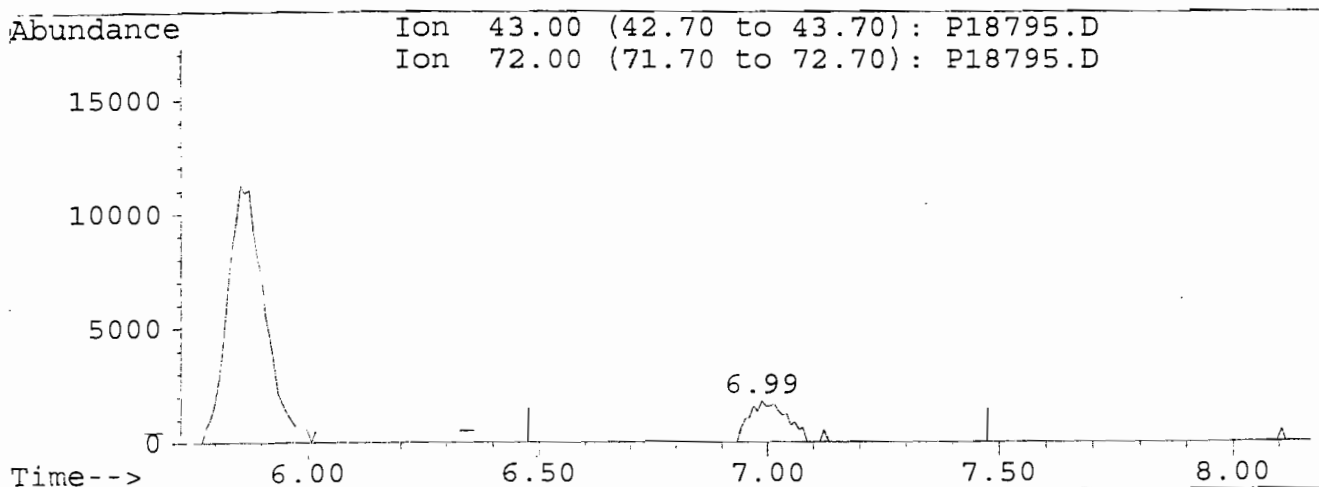
000154

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(25) 2-Butanone
 6.99min 3.88ug/L m
 response 10442

Ion	Exp%	Act%
43.00	100	100
72.00	17.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

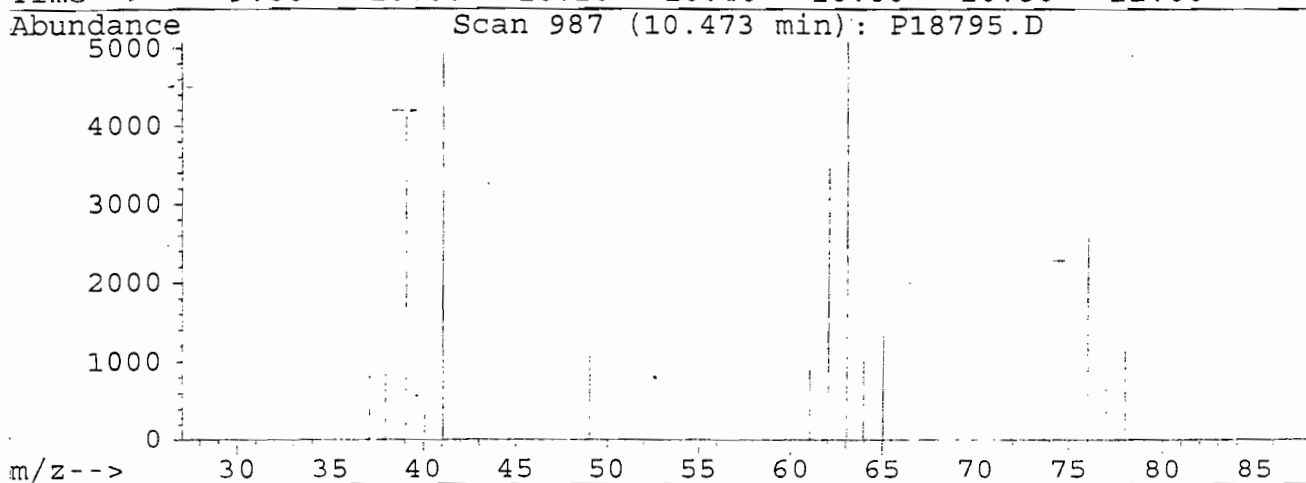
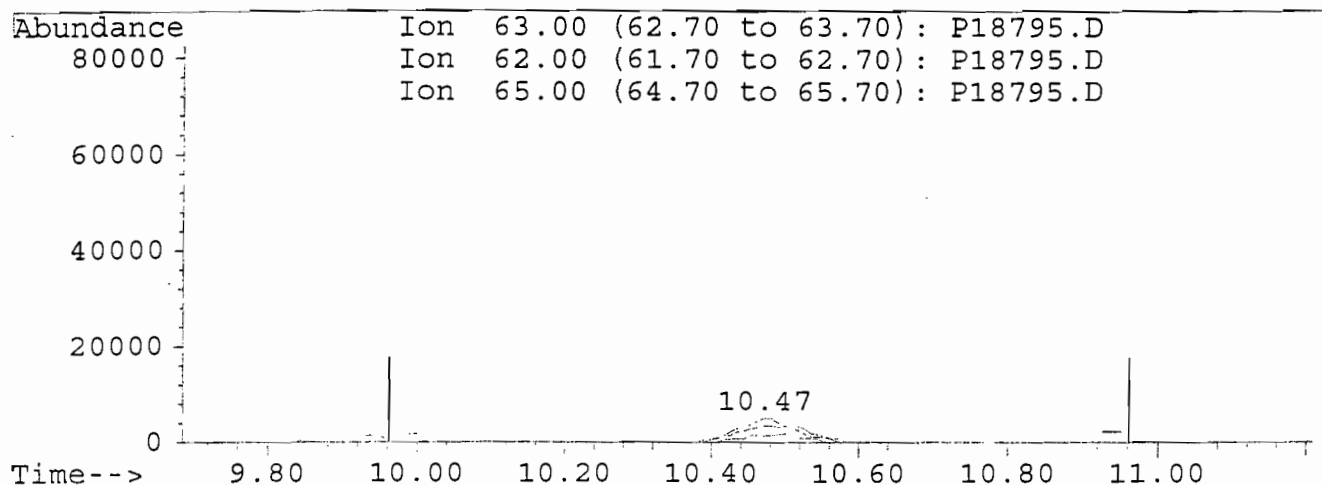
000155

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(32) 1,2-dichloropropane (C)

10.47min 4.59ug/L m

response 34866

Ion	Exp%	Act%
63.00	100	100
62.00	67.80	67.89
65.00	28.60	25.93
0.00	0.00	0.00

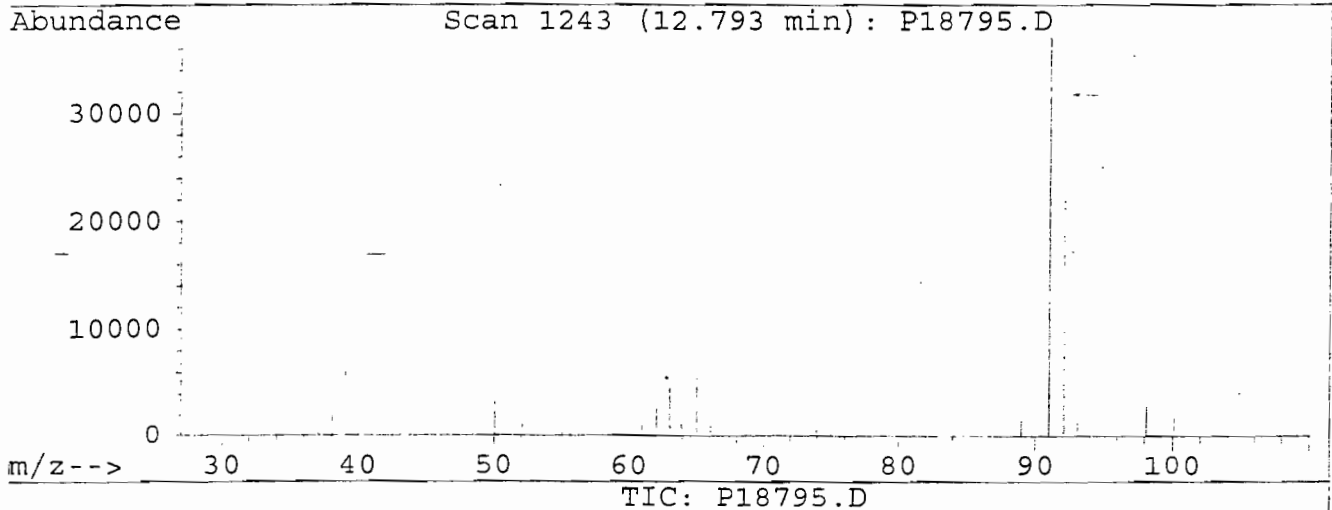
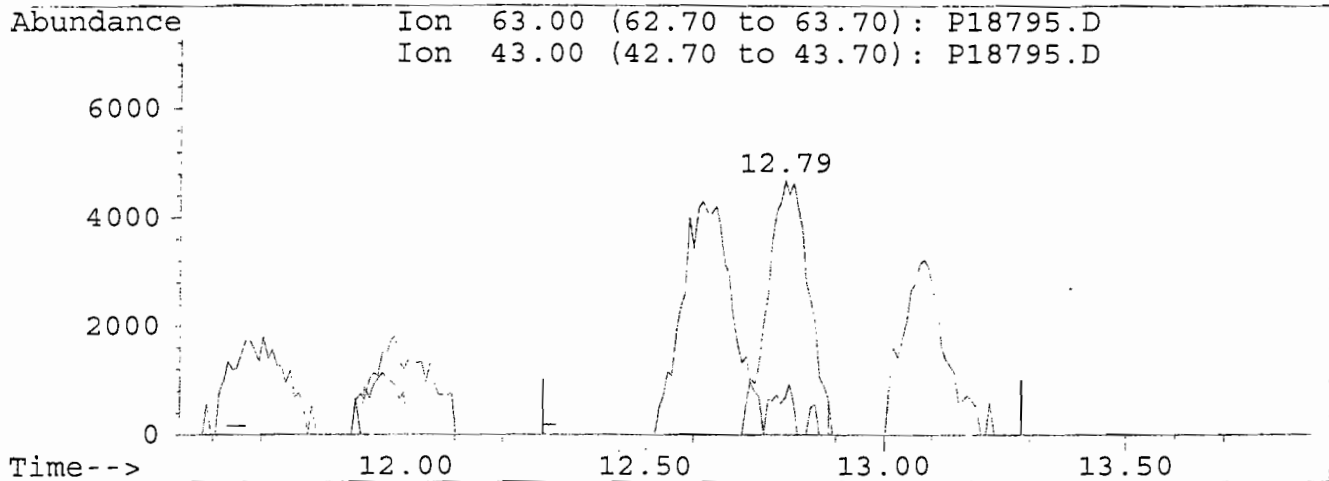
000156

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



(35) 2-Chloroethyl Vinyl Ether

12.79min 10.12ug/L m

response 28575

Ion	Exp%	Act%
63.00	100	100
43.00	6.90	14.67
0.00	0.00	0.00
0.00	0.00	0.00

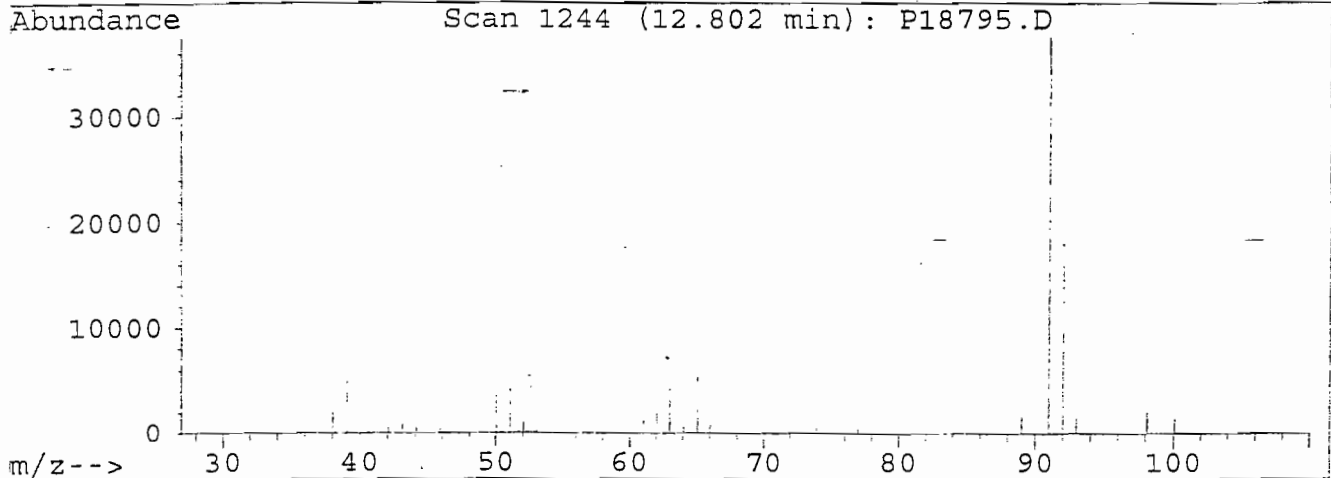
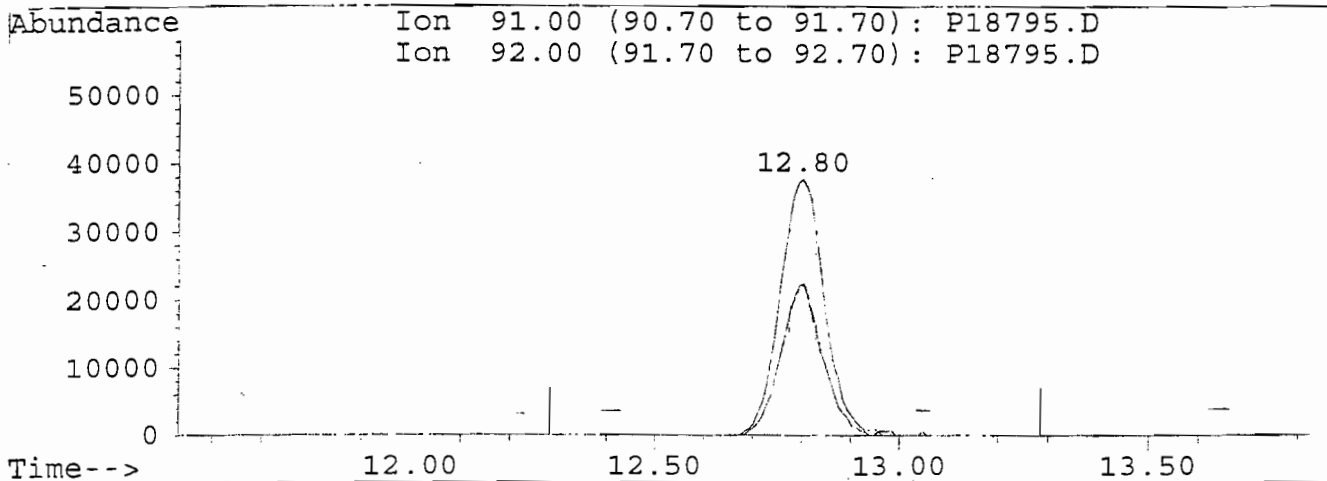
000157

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(38) toluene (C)

12.80min 5.05ug/L m

response 115741

Ion	Exp%	Act%
91.00	100	100
92.00	54.50	58.68
0.00	0.00	0.00
0.00	0.00	0.00

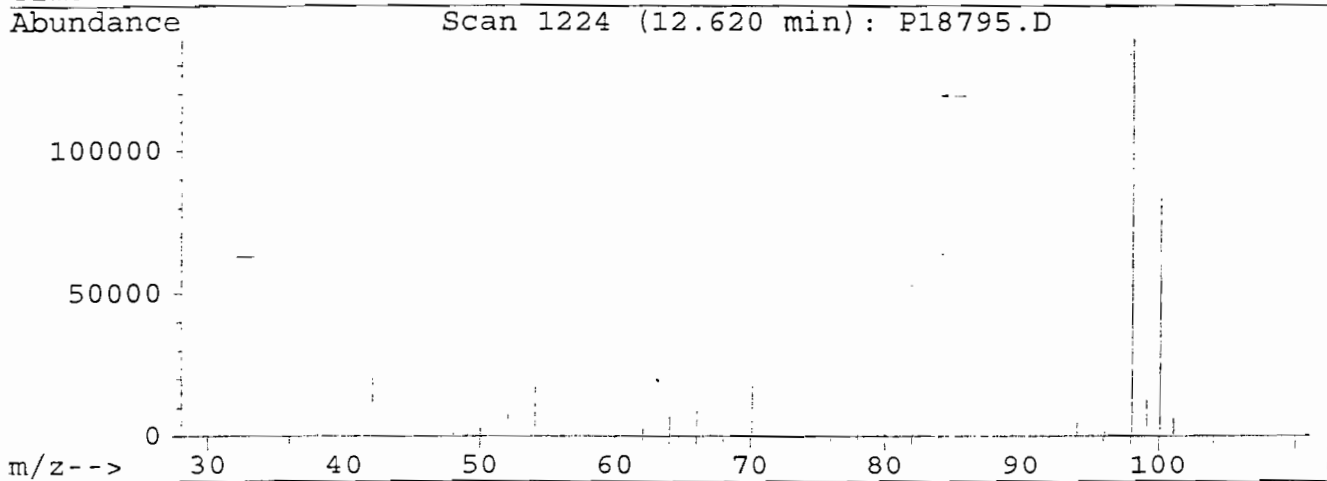
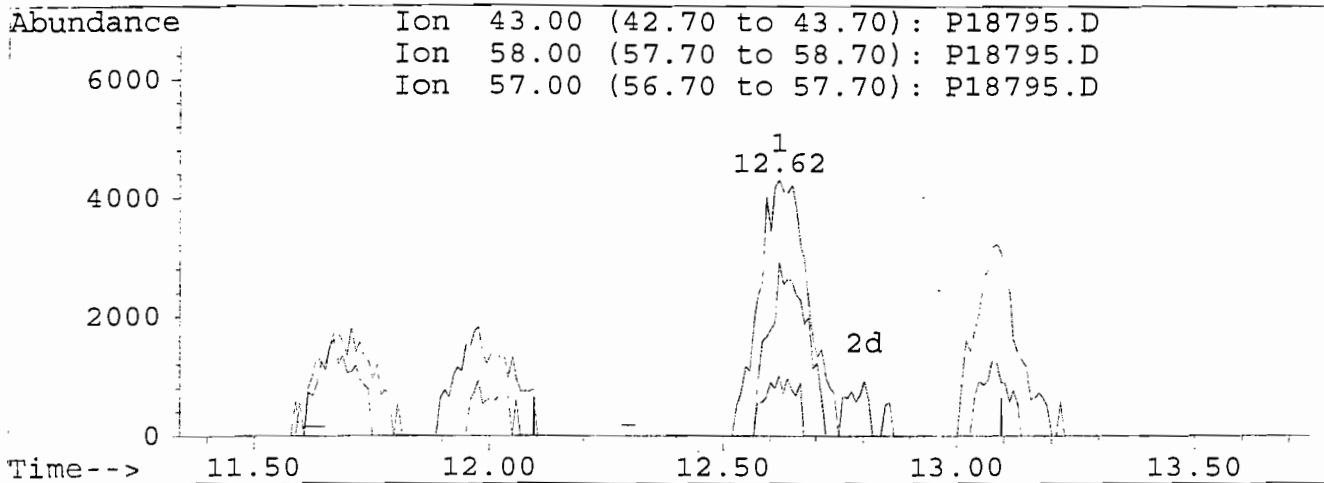
000158

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(43) 4-Methyl-2-Pentanone

12.62min 6.87ug/L m

response 31633

Ion	Exp%	Act%
43.00	100	100
58.00	32.80	67.77
57.00	22.10	23.39
0.00	0.00	0.00

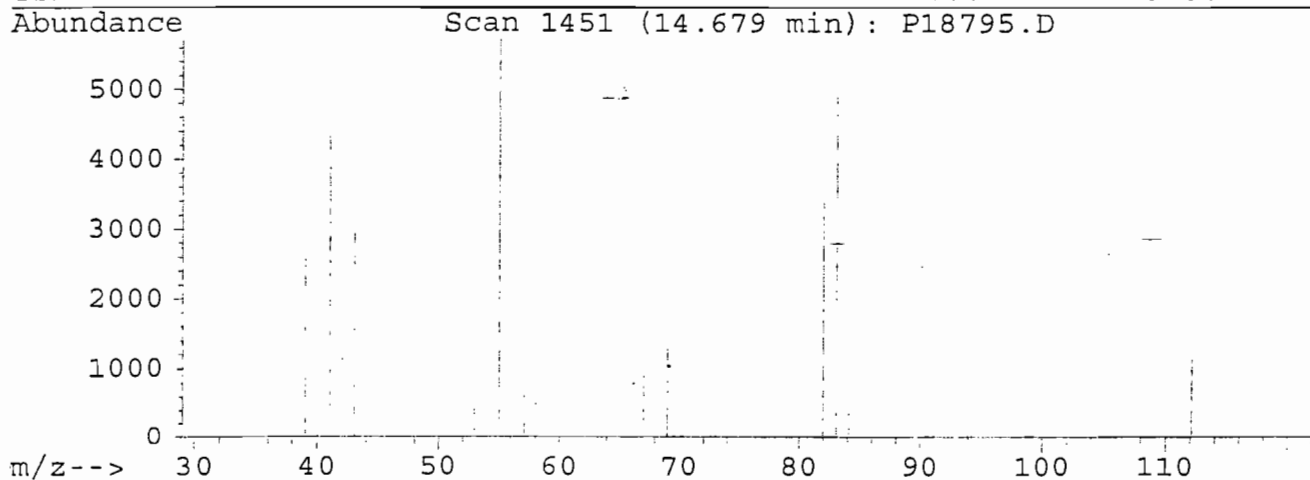
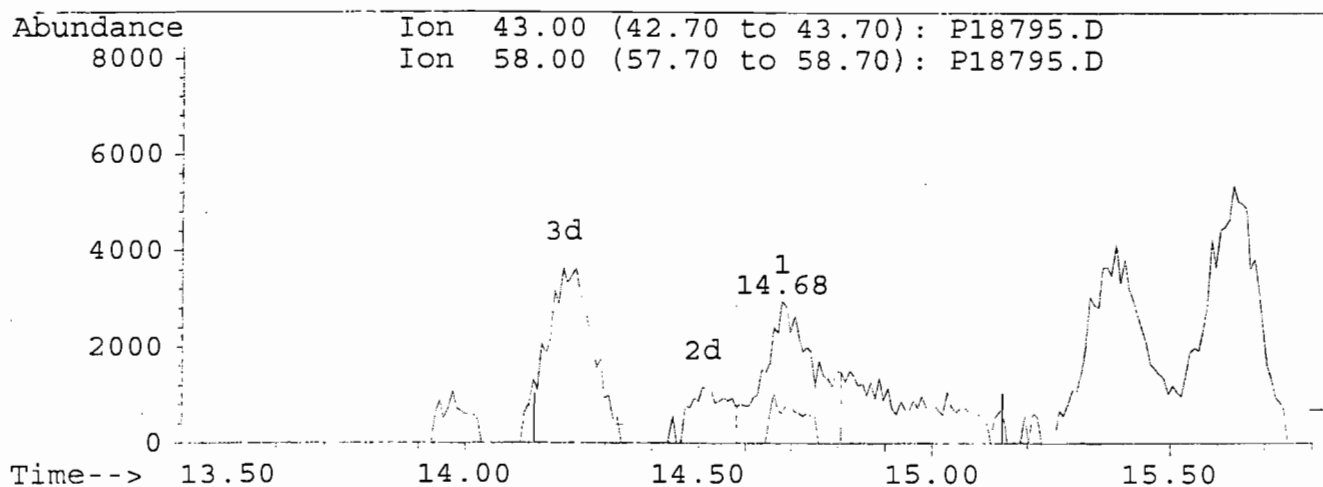
000159

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(48) 2-Hexanone
 14.68min 5.53ug/L m
 response 22757

Ion	Exp%	Act%
43.00	100	100
58.00	38.40	21.13
0.00	0.00	0.00
0.00	0.00	0.00

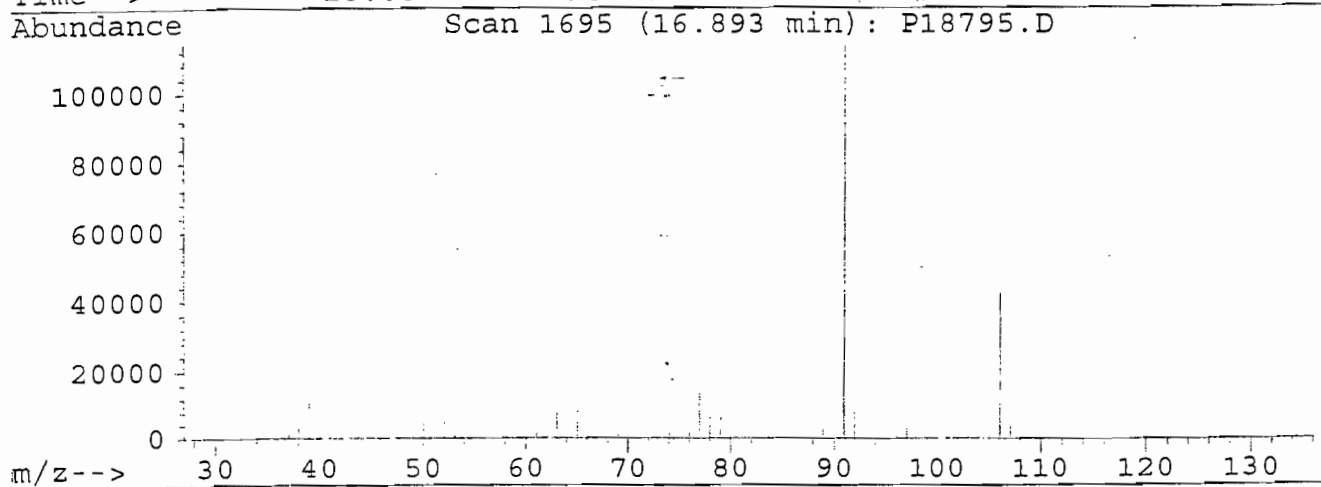
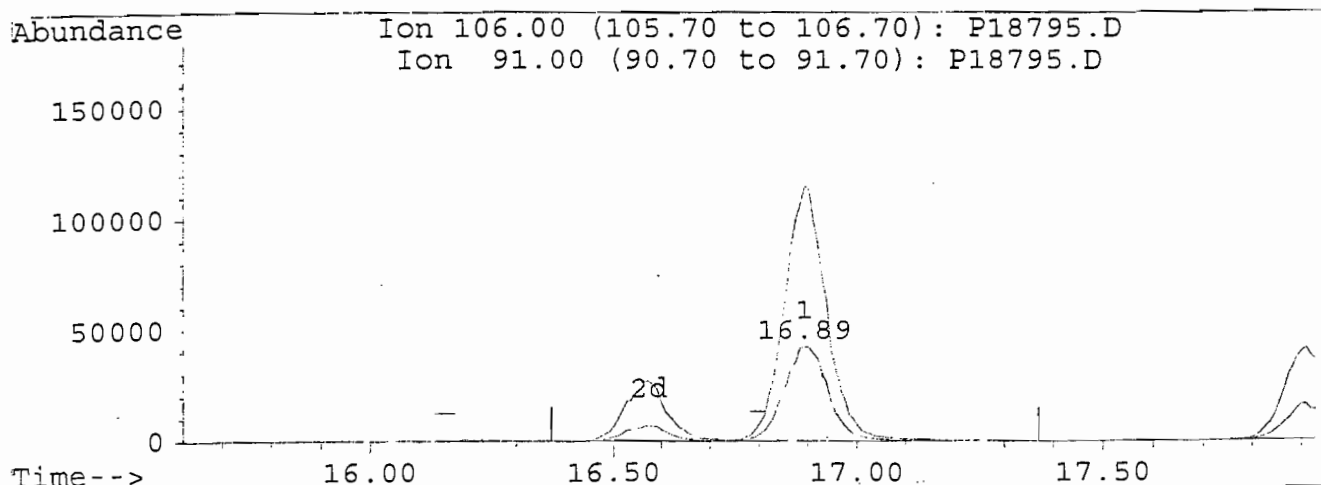
000160

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(52) m&p-xylenes (T)
 16.89min 15.81ug/L m
 response 165931

Ion	Exp%	Act%
106.00	100	100
91.00	257.40	272.08
0.00	0.00	0.00
0.00	0.00	0.00

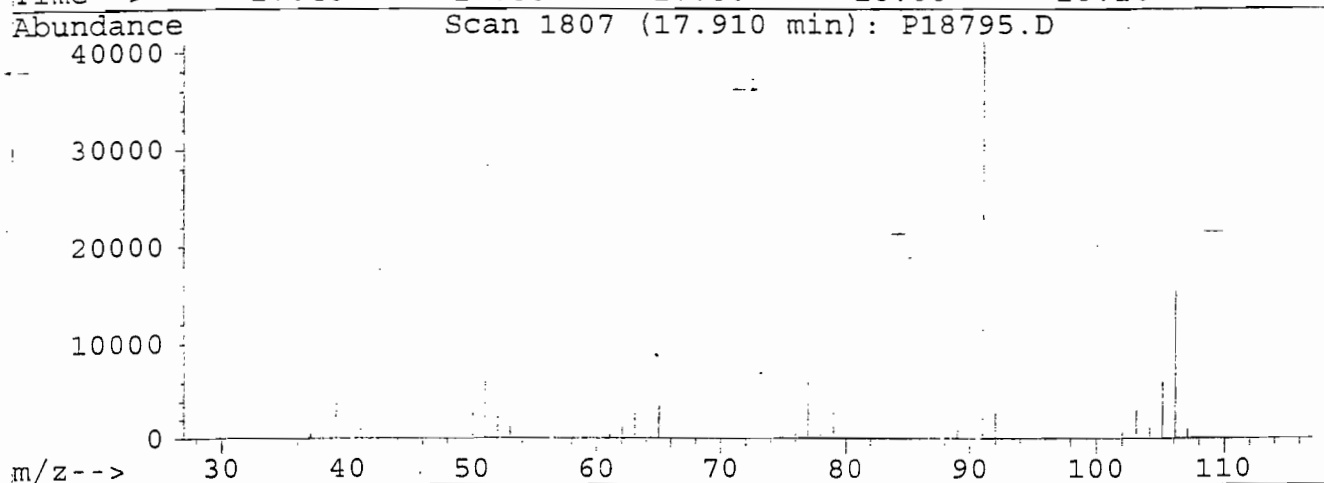
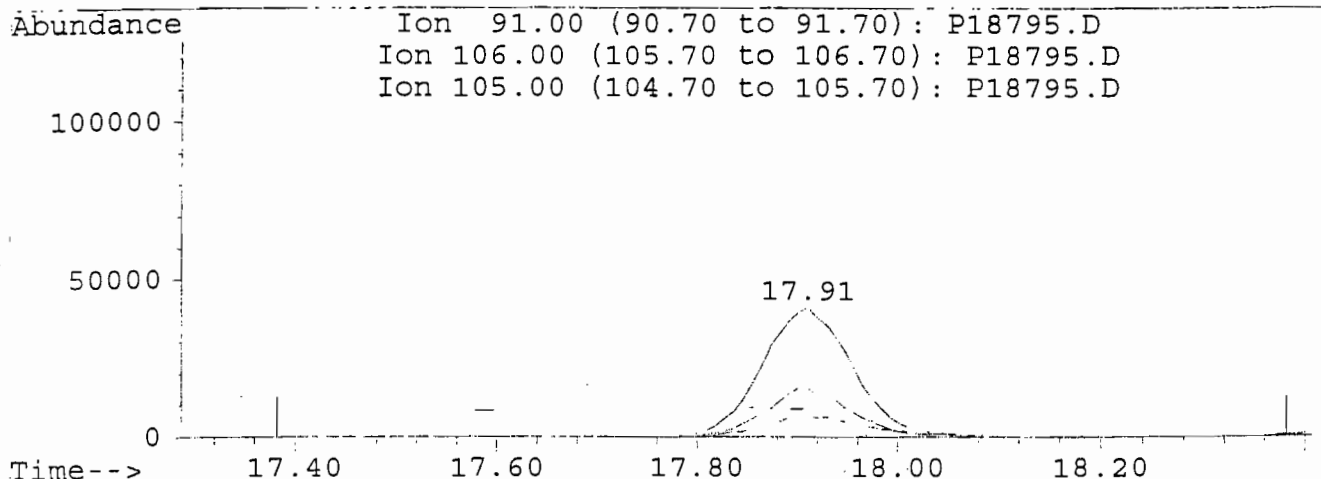
000161

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(53) o-xylene (T)

17.91min 6.42ug/L m

response 198988

Ion	Exp%	Act%
91.00	100	100
106.00	35.40	37.65
105.00	14.20	15.15
0.00	0.00	0.00

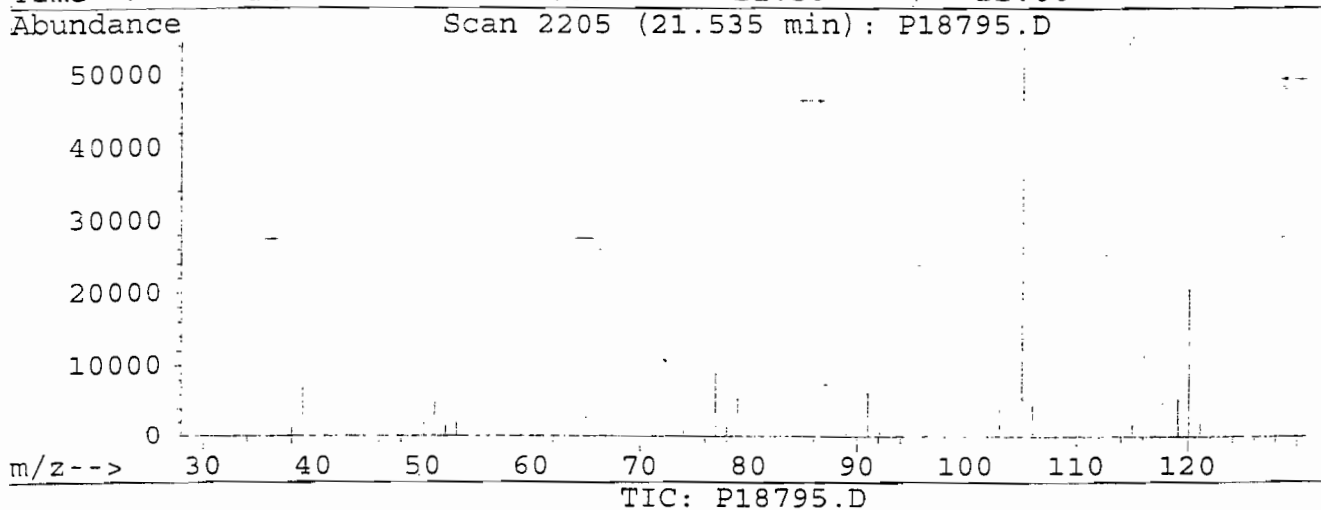
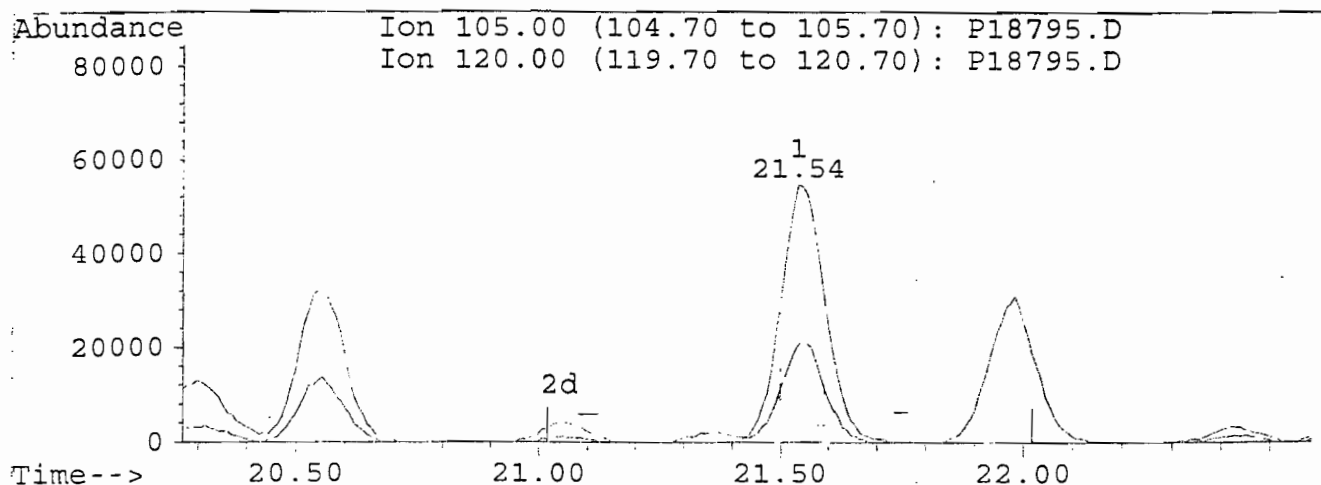
000162

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



(66) 1,2,4-trimethylbenzene (T)

21.54min 7.48ug/L m

response 248824

Ion	Exp%	Act%
105.00	100	100
120.00	35.90	37.68
0.00	0.00	0.00
0.00	0.00	0.00

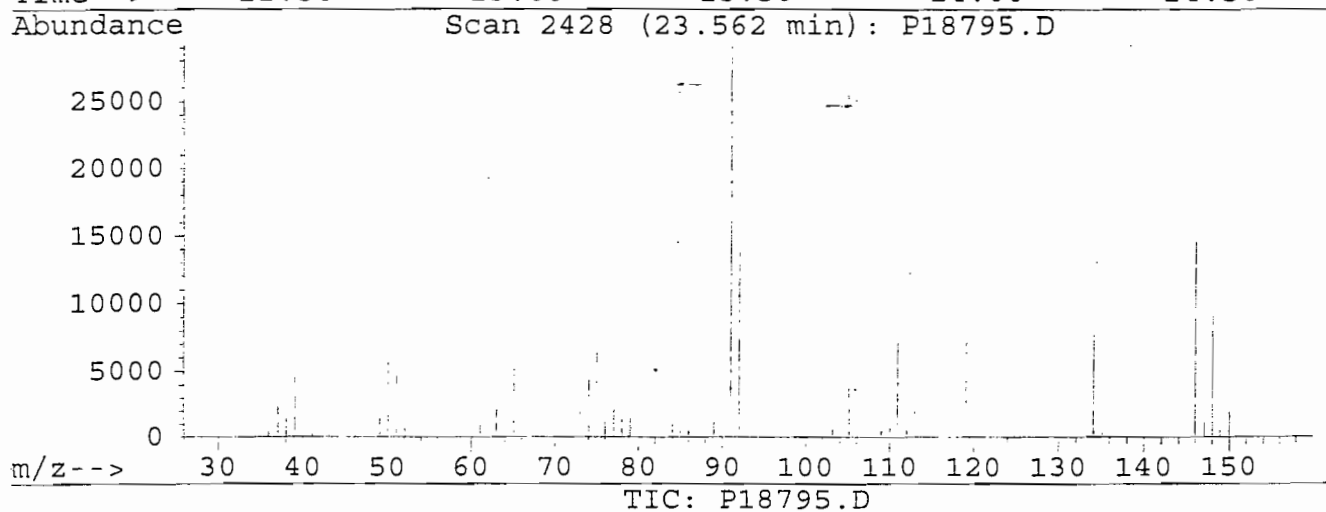
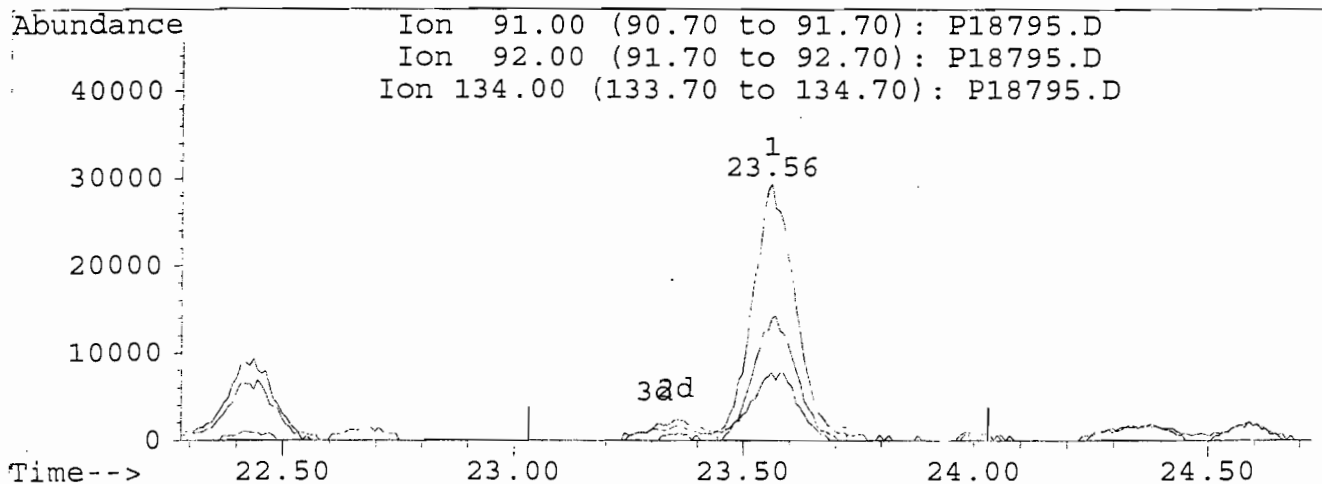
000163

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



(72) n-butylbenzene (T)

23.56min 5.00ug/L m

response 193176

Ion	Exp%	Act%
91.00	100	100
92.00	52.80	47.68
134.00	17.80	26.39
0.00	0.00	0.00

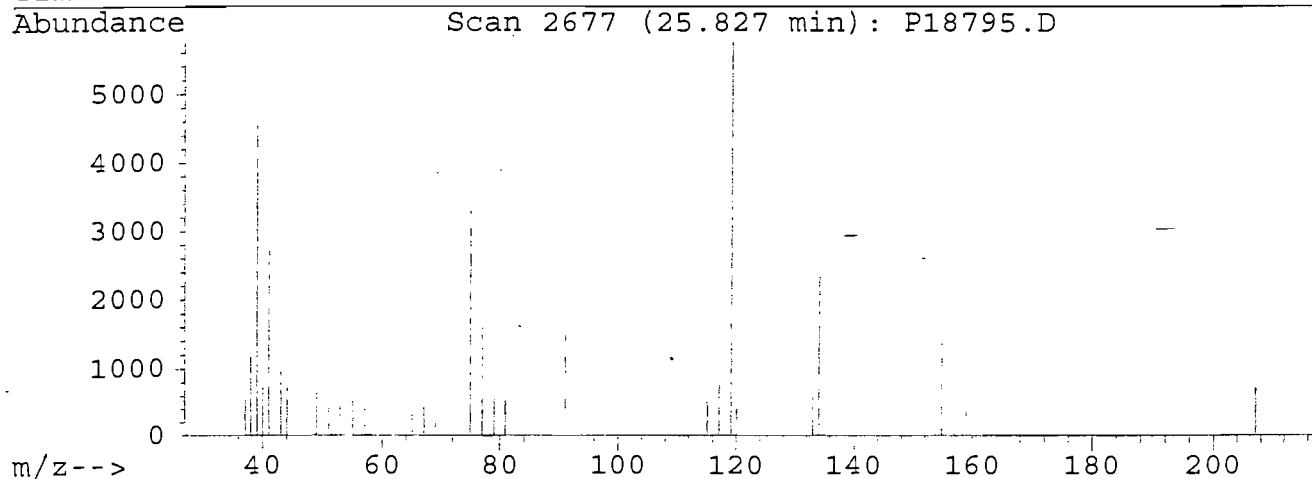
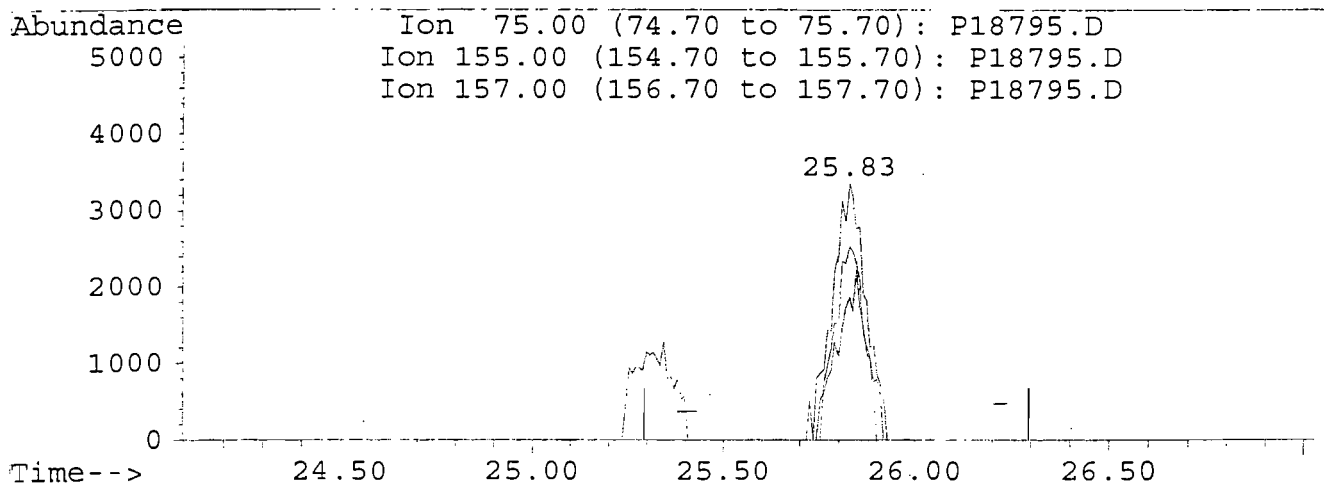
000164

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2091399\P18795.D
 Acq Time : 13 Sep 99 11:03 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Sep 15 13:23 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Single Level Calibration



TIC: P18795.D

(73) 1,2-dibromo-3-chloropropane (T)

25.83min 5.73ug/L m

response 28901

Ion	Exp%	Act%
75.00	100	100
155.00	63.30	55.71
157.00	78.90	75.44
0.00	0.00	0.00

000165

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No. 13649ASP Site: _____ Location: _____ Group: GP-002-SS4

Instrument ID: VOA 2 Calibration Date: 10/4/99 Time: 2105

Lab File ID: P18998.D Init. Calib. Date(s): 9/13/99 9/13/99

Heated Purge: (Y/N) Y Init. Calib. Times: 2005 2303

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.592	0.244		58.8	
Chloromethane	0.219	0.153	0.300	30.1	
Vinyl Chloride	0.207	0.177		14.5	25.0
Bromomethane	0.235	0.197		16.2	
Chloroethane	0.109	0.100		8.3	
Trichlorofluoromethane	0.957	0.890		7.0	
Methylene Chloride	0.265	0.247		6.8	
1,1-Dichloroethane	0.770	0.707	0.300	8.2	
2,2-Dichloropropane	0.728	0.745		-2.3	
Bromochloromethane	0.394	0.388		1.5	
Chloroform	1.023	1.003		2.0	25.0
1,1,1-Trichloroethane	1.076	0.977		9.2	
Carbon Tetrachloride	0.561	0.519		7.5	
1,1-Dichloropropene	0.574	0.571		0.5	
Benzene	0.775	0.812		-4.8	
1,2-Dichloroethane	0.709	0.636		10.3	
Trichloroethene	0.486	0.529		-8.8	
1,2-Dichloropropane	0.358	0.373		-4.2	25.0
Dibromomethane	0.397	0.415		-4.5	
Bromodichloromethane	0.975	0.956		1.9	
Toluene	1.071	1.111		-3.7	25.0
1,1,2-Trichloroethane	0.312	0.364		-16.7	
Tetrachloroethene	0.469	0.534		-13.9	
1,3-Dichloropropane	0.460	0.473		-2.8	
Dibromochloromethane	0.615	0.660		-7.3	
1,2-Dibromoethane	0.507	0.527		-3.9	
Chlorobenzene	0.771	0.852	0.300	-10.5	
1,1,1,2-Tetrachloroethane	0.431	0.482		-11.8	
Ethylbenzene	1.302	1.473		-13.1	25.0
Styrene	0.740	0.827		-11.8	
Bromoform	0.523	0.562	0.250	-7.5	
isopropylbenzene	1.978	2.350		-18.8	
Bromobenzene	1.393	1.464		-5.1	
1,1,2,2-Tetrachloroethane	0.816	0.942	0.300	-15.4	
1,2,3-Trichloropropane	0.602	0.656		-9.0	
n-Propylbenzene	0.787	0.903		-14.7	

All other compounds must meet a minimum RRF of 0.010.

000166

7A

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No. 13649ASP

Site:

Location:

Group: GP-002-SS4

Instrument ID: VOA 2

Calibration Date: 10/4/99

Time: 2105

Lab File ID: P18998.D

Init. Calib. Date(s): 9/13/99 9/13/99

Init. Calib. Times: 2005 2303

GC Column: RTX624

ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
2-Chlorotoluene	0.510	0.595		-16.7	
4-Chlorotoluene	0.508	0.611		-20.3	
1,3,5-Trimethylbenzene	1.986	2.093		-5.4	
tert-Butylbenzene	1.733	1.994		-15.1	
1,2,4-Trimethylbenzene	2.092	2.089		0.1	
sec-Butylbenzene	2.354	2.782		-18.2	
1,3-Dichlorobenzene	1.213	1.349		-11.2	
4-Isopropyltoluene	2.237	2.515		-12.4	
1,4-Dichlorobenzene	1.236	1.377		-11.4	
1,2-Dichlorobenzene	1.205	1.346		-11.7	
n-Butylbenzene	2.116	2.454		-16.0	
1,2-Dibromo-3-chloropropane	0.309	0.294		4.9	
1,2,4-Trichlorobenzene	1.009	1.129		-11.9	
Hexachlorobutadiene	0.791	0.862		-9.0	
Naphthalene	1.462	1.623		-11.0	
1,2,3-Trichlorobenzene	0.947	1.020		-7.7	
Dibromofluoromethane	0.879	0.825		6.1	
Toluene-d8	1.017	1.046		-2.9	
4-Bromofluorobenzene	1.007	1.039		-3.2	

000167

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1510248	50.00	ug/L	0.13
42) Chlorobenzene-d5	16.32	117	1766938	50.00	ug/L	0.12
56) 1,4-dichlorobenzene-d4	22.56	152	1236065	50.00	ug/L	0.11

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	7.97	113	1246575	46.95	ug/L	93.90%
29) 1,2-Dichlorethane-d4	8.68	65	892502	44.74	ug/L	89.49%
37) Toluene-d8	12.76	98	1579394	51.40	ug/L	102.81%
41) 4-Bromofluorobenzene	19.45	95	1568833	51.60	ug/L	103.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.73	85	368384	20.61	ug/L	98
3) chloromethane	1.96	50	231453	34.94	ug/L	96
4) vinyl chloride	2.08	62	266619	42.66	ug/L	99
5) bromomethane	2.48	94	297765	41.98	ug/L	92
6) chloroethane	2.60	64	151225	45.79	ug/L	95
7) Acrolein	3.64	56	185429	501.95	ug/L	98
8) trichlorofluoromethane	2.90	101	1344738	46.54	ug/L	99
9) 1,1-dichloroethene	3.67	61	740861	42.52	ug/L	90
10) Acetone	3.91	43	172839	50.04	ug/L	88
11) Carbon Disulfide	3.96	76	929325	49.84	ug/L	91
12) methylene chloride	4.58	84	372530	46.48	ug/L	84
13) trans-1,2-dichloroethene	4.98	61	702964	50.28	ug/L m	85
14) TBA	4.97	59	461918	502.23	ug/L	87
15) MTBE	5.01	73	1044716	47.01	ug/L	96
16) Acrylonitrile	5.18	53	466893	511.85	ug/L	98
17) 1,1-dichloroethane	5.85	63	1068425	45.96	ug/L	98
18) 2,2-dichloropropane	6.90	77	1124432	51.17	ug/L	96
19) cis-1,2-dichloroethene	6.98	61	934582	50.06	ug/L	99
20) bromochloromethane	7.45	49	585227	49.17	ug/L	90
21) chloroform	7.64	83	1514938	49.04	ug/L	100
22) 1,1,1-trichloroethane	7.86	97	1475735	45.40	ug/L	98
24) Vinyl Acetate	5.98	43	980370	46.33	ug/L	95
25) 2-Butanone	7.11	43	201636	52.96	ug/L	95
26) carbon tetrachloride	8.11	117	783114	46.22	ug/L m	99
27) 1,1-dichloropropene	8.21	75	862841	49.78	ug/L	96
28) benzene	8.59	78	1226465	52.38	ug/L	97
30) 1,2-dichloroethane	8.83	62	960019	44.83	ug/L	99
31) trichloroethene	10.03	130	799537	54.42	ug/L m	87
32) 1,2-dichloropropane	10.60	63	563498	52.10	ug/L	95
33) dibromomethane	10.87	174	626498	52.19	ug/L	94
34) bromodichloromethane	11.26	83	1443271	49.00	ug/L	98
35) 2-Chloroethyl Vinyl Ether	12.90	63	186296	46.58	ug/L m	1
36) cis-1,3-dichloropropene	12.30	75	894047	52.02	ug/L	98

(#) = qualifier out of range (m) = manual integration
 P18998.D V20914CS.M Tue Oct 05 15:28:49 1999

VOA5

Page 1

000168

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	12.91	91	1677618	51.85	ug/L	96
39) trans-1,3-dichloropropene	13.71	75	859061	51.89	ug/L	98
40) 1,1,2-trichloroethane	14.10	97	549909	58.42	ug/L	96
43) 4-Methyl-2-Pentanone	12.72	43	378978	46.90	ug/L	94
44) tetrachloroethene	14.14	166	943827	56.96	ug/L	99
45) 1,3-dichloropropane	14.51	76	835226	51.41	ug/L	95
46) dibromochloromethane	14.95	129	1165396	49.26	ug/L	100
47) 1,2-dibromoethane	15.18	107	930338	51.91	ug/L	99
48) 2-Hexanone	14.76	43	330527	50.02	ug/L	92
49) chlorobenzene	16.37	112	1505058	55.26	ug/L	96
50) 1,1,1,2-tetrachloroethane	16.68	133	851883	55.96	ug/L	85
51) ethylbenzene	16.65	91	2602406	56.58	ug/L	99
52) m&p-xylenes	16.98	106	1773784	114.96	ug/L	94
53) o-xylene	18.00	91	2359079	50.88	ug/L	94
54) styrene	18.09	104	1461090	55.90	ug/L	95
55) bromoform	18.55	173	993162	53.77	ug/L	99
57) isopropylbenzene	18.98	105	2904974	59.42	ug/L	98
58) bromobenzene	19.75	77	1810030	52.57	ug/L	94
59) 1,1,2,2-tetrachloroethane	20.07	83	1164386	57.75	ug/L	98
60) 1,2,3-trichloropropane	20.11	75	811446	54.53	ug/L	98
61) n-propylbenzene	20.63	120	1115939	57.39	ug/L	79
62) 2-chlorotoluene	20.30	126	735329	58.38	ug/L	88
63) 4-chlorotoluene	20.64	126	755782	60.19	ug/L	84
64) 1,3,5-trimethylbenzene	20.63	105	2587155	52.70	ug/L	99
65) tert-butylbenzene	21.45	119	2464498	57.53	ug/L	96
66) 1,2,4-trimethylbenzene	21.62	105	2582750	53.56	ug/L	92
67) sec-butylbenzene	22.06	105	3438515	59.08	ug/L	98
68) 1,3-dichlorobenzene	22.34	146	1667461	55.59	ug/L	90
69) 4-isopropyltoluene	22.51	119	3108637	56.21	ug/L	90
70) 1,4-dichlorobenzene	22.64	146	1701893	55.71	ug/L	87
71) 1,2-dichlorobenzene	23.62	146	1663129	55.84	ug/L m	28
72) n-butylbenzene	23.64	91	3033230	57.98	ug/L	95
73) 1,2-dibromo-3-chloropropan	25.89	75	363849	47.71	ug/L	89
74) 1,2,4-trichlorobenzene	28.13	180	1395310	55.94	ug/L	96
75) hexachlorobutadiene	28.58	225	1064983	54.48	ug/L	94
76) naphthalene	28.78	128	2006095	55.50	ug/L m	98
77) 1,2,3-trichlorobenzene	29.49	180	1260751	53.83	ug/L	100

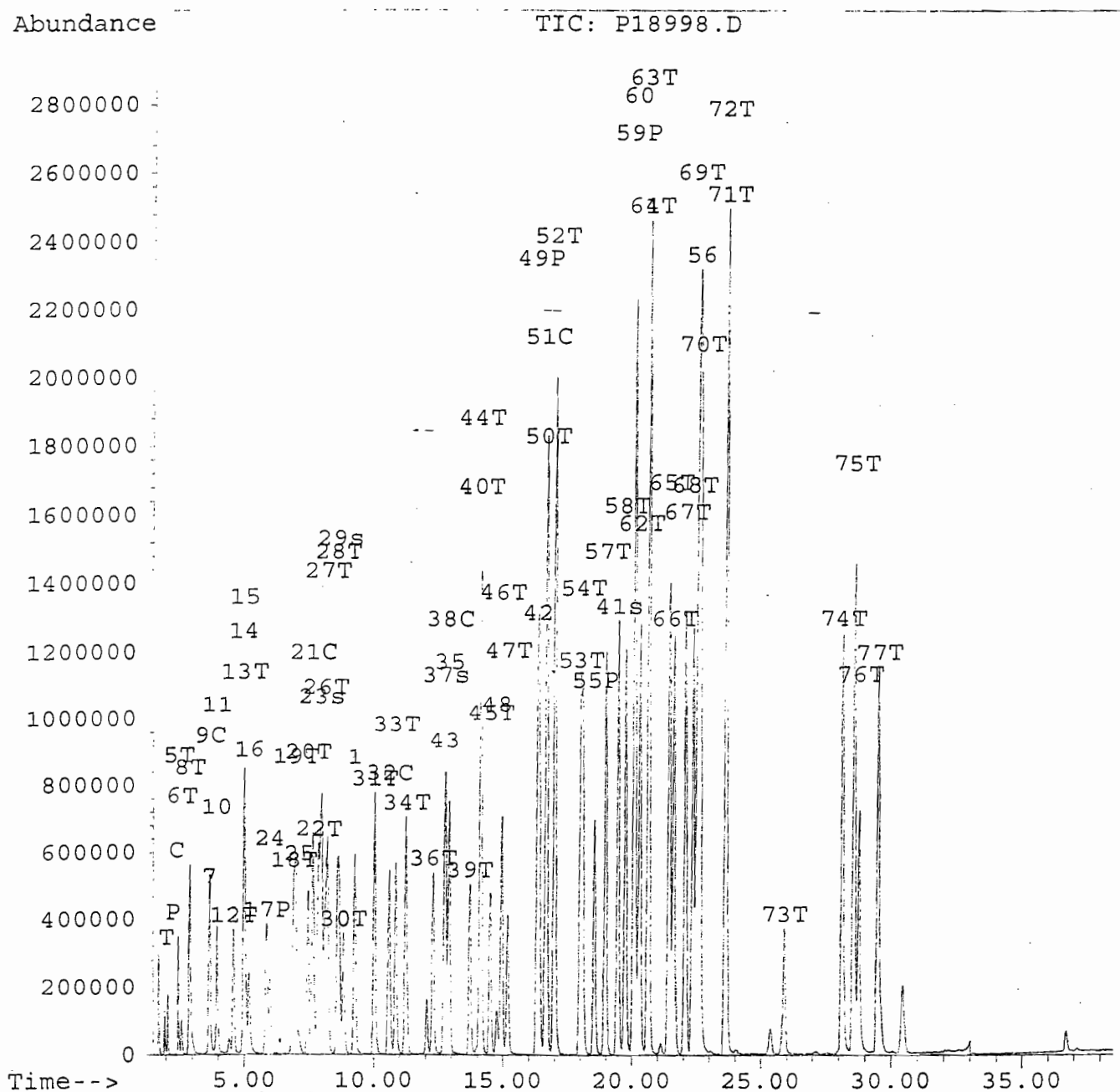
000169

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



000170

Evaluate Continuing Calibration Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	133	0.13
2 T	dichlorodifluoromethane	0.592	0.244	58.8#	54	0.05
3 P	chloromethane	0.219	0.153	30.1#	89	0.06
4 C	vinyl chloride	0.207	0.177	14.7#	112	0.06
5 T	bromomethane	0.235	0.197	16.0	115	0.07
6 T	chloroethane	0.109	0.100	8.4	129	0.06
7	Acrolein	0.012	0.012	-0.4	142	0.10
8 T	trichlorofluoromethane	0.957	0.890	6.9	117	0.08
9 C	1,1-dichloroethene	0.577	0.491	15.0#	116	0.10
10	Acetone	0.114	0.114	-0.1	143	0.10
11	Carbon Disulfide	0.617	0.615	0.3	134	0.10
12 T	methylene chloride	0.265	0.247	7.0	135	0.11
13 T	trans-1,2-dichloroethene	0.463	0.465	-0.6	138	0.11
14	TBA	0.030	0.031	-0.4	148	0.12
15	MTBE	0.736	0.692	6.0	128	0.11
16	Acrylonitrile	0.030	0.031	-2.4	141	0.14
17 P	1,1-dichloroethane	0.770	0.707	8.1	125	0.14
18 T	2,2-dichloropropane	0.728	0.745	-2.3	133	0.15
19 T	cis-1,2-dichloroethene	0.618	0.619	-0.1	136	0.14
20 T	bromochloromethane	0.394	0.388	1.7	136	0.14
21 C	chloroform	1.023	1.003	1.9#	131	0.13
22 T	1,1,1-trichloroethane	1.076	0.977	9.2	118	0.14
23 s	Dibromofluoromethane	0.879	0.825	6.1	127	0.14
24	Vinyl Acetate	0.701	0.649	7.3	127	0.14
25	2-Butanone	0.126	0.134	-5.9	143	0.14
26 T	carbon tetrachloride	0.561	0.519	7.6	130	0.14
27 T	1,1-dichloropropene	0.574	0.571	0.4	130	0.12
28 T	benzene	0.775	0.812	-4.8	140	0.15
29 s	1,2-Dichlorethane-d4	0.660	0.591	10.5	121	0.14
30 T	1,2-dichloroethane	0.709	0.636	10.3	122	0.13
31 T	trichloroethene	0.486	0.529	-8.8	144	0.14
32 C	1,2-dichloropropane	0.358	0.373	-4.2#	141	0.14
33 T	dibromomethane	0.397	0.415	-4.4	136	0.14
34 T	bromodichloromethane	0.975	0.956	2.0	128	0.13
35	2-Chloroethyl Vinyl Ether	0.161	0.123	23.1#	126	0.12
36 T	cis-1,3-dichloropropene	0.569	0.592	-4.0	136	0.13
37 s	Toluene-d8	1.017	1.046	-2.8	139	0.13
38 C	toluene	1.071	1.111	-3.7#	139	0.13
39 T	trans-1,3-dichloropropene	0.548	0.569	-3.8	136	0.11
40 T	1,1,2-trichloroethane	0.312	0.364	-16.8	159	0.11
41 s	4-Bromofluorobenzene	1.007	1.039	-3.2	138	0.10

000171

(#) = Out of Range

P18998.D V20914CS.M

Tue Oct 05 15:29:07 1999

VOA5

Page 1

Evaluate Continuing Calibration Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
43	4-Methyl-2-Pentanone	0.229	0.214	6.2	158	0.12
44 T	tetrachloroethene	0.469	0.534	-13.9	158	0.14
45 T	1,3-dichloropropane	0.460	0.473	-2.8	143	0.13
46 T	dibromochloromethane	0.615	0.660	-7.2	147	0.13
47 T	1,2-dibromoethane	0.507	0.527	-3.8	143	0.12
48	2-Hexanone	0.187	0.187	-0.0	154	0.12
49 P	chlorobenzene	0.771	0.852	-10.5	151	0.10
50 T	1,1,1,2-tetrachloroethane	0.431	0.482	-11.9	156	0.13
51 C	ethylbenzene	1.302	1.473	-13.2#	157	0.12
52 T	m&p-xylenes	0.488	0.502	-2.9	163	0.11
53 T	o-xylene	1.312	1.335	-1.8	146	0.12
54 T	styrene	0.740	0.827	-11.8	149	0.11
55 P	bromoform	0.523	0.562	-7.5	143	0.12
56	1,4-dichlorobenzene-d4	1.000	1.000	0.0	126	0.11
57 T	isopropylbenzene	1.978	2.350	-18.8	152	0.11
58 T	bromobenzene	1.393	1.464	-5.1	137	0.12
59 P	1,1,2,2-tetrachloroethane	0.816	0.942	-15.5	151	0.11
60	1,2,3-trichloropropane	0.602	0.656	-9.1	148	0.10
61 T	n-propylbenzene	0.787	0.903	-14.8	156	0.10
62 T	2-chlorotoluene	0.510	0.595	-16.8	140	0.12
63 T	4-chlorotoluene	0.508	0.611	-20.4#	152	0.12
64 T	1,3,5-trimethylbenzene	1.986	2.093	-5.4	142	0.10
65 T	tert-butylbenzene	1.733	1.994	-15.1	144	0.11
66 T	1,2,4-trimethylbenzene	2.092	2.089	0.1	142	0.11
67 T	sec-butylbenzene	2.354	2.782	-18.2	149	0.11
68 T	1,3-dichlorobenzene	1.213	1.349	-11.2	139	0.12
69 T	4-isopropyltoluene	2.237	2.515	-12.4	144	0.11
70 T	1,4-dichlorobenzene	1.236	1.377	-11.4	143	0.12
71 T	1,2-dichlorobenzene	1.205	1.346	-11.7	136	0.12
72 T	n-butylbenzene	2.116	2.454	-16.0	144	0.11
73 T	1,2-dibromo-3-chloropropane	0.309	0.294	4.6	132	0.09
74 T	1,2,4-trichlorobenzene	1.009	1.129	-11.9	138	0.10
75 T	hexachlorobutadiene	0.791	0.862	-9.0	132	0.10
76 T	naphthalene	1.462	1.623	-11.0	144	0.11
77 T	1,2,3-trichlorobenzene	0.947	1.020	-7.7	130	0.10

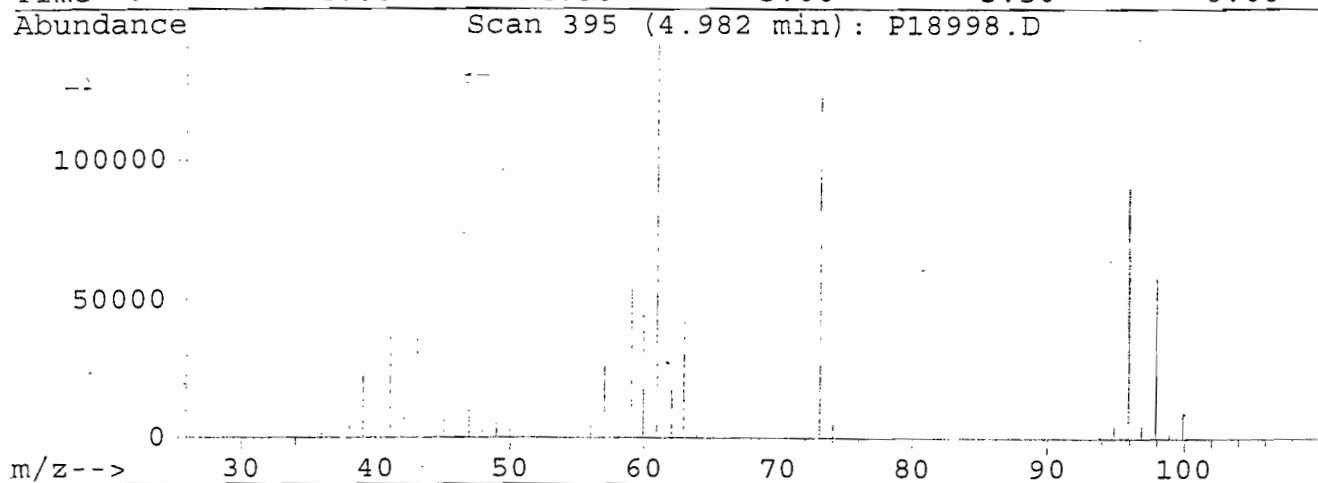
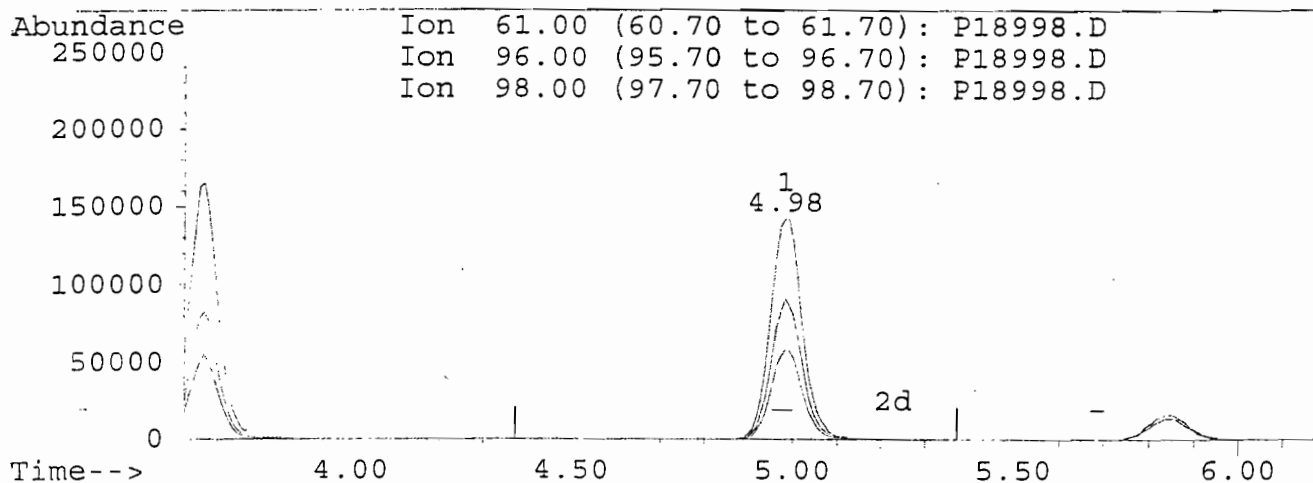
000172

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



TIC: P18998.D

(13) trans-1,2-dichloroethene (T)

4.98min 50.28ug/L m

response 702964

Ion	Exp%	Act%
61.00	100	100
96.00	54.80	63.95
98.00	30.70	40.88
0.00	0.00	0.00

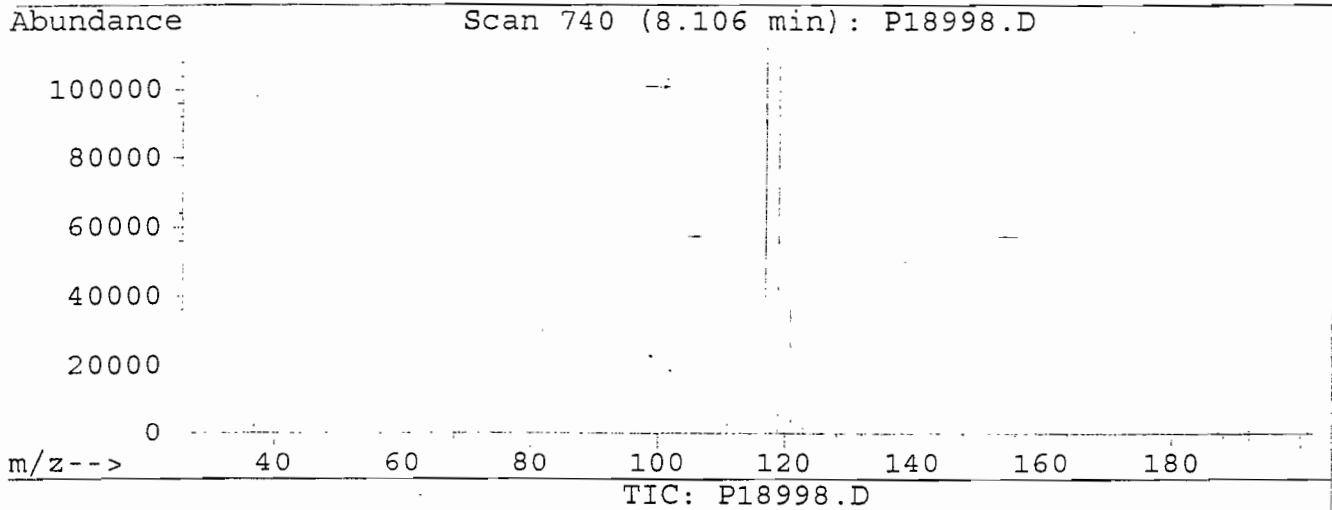
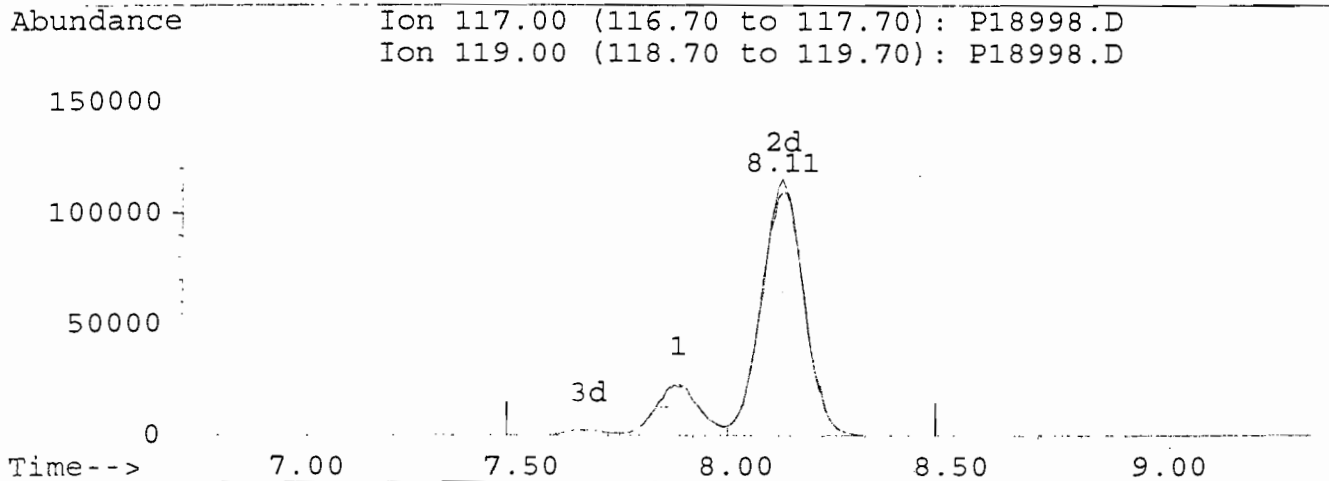
000173

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



(26) carbon tetrachloride (T)

8.11min 46.22ug/L m

response 783114

Ion	Exp%	Act%
117.00	100	100
119.00	92.40	94.47
0.00	0.00	0.00
0.00	0.00	0.00

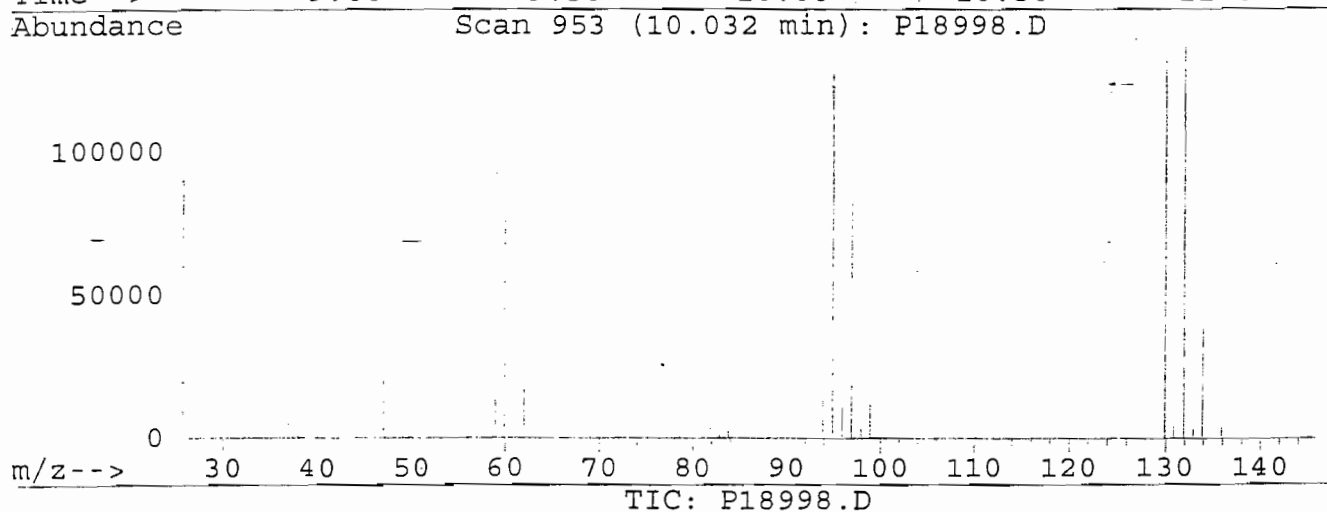
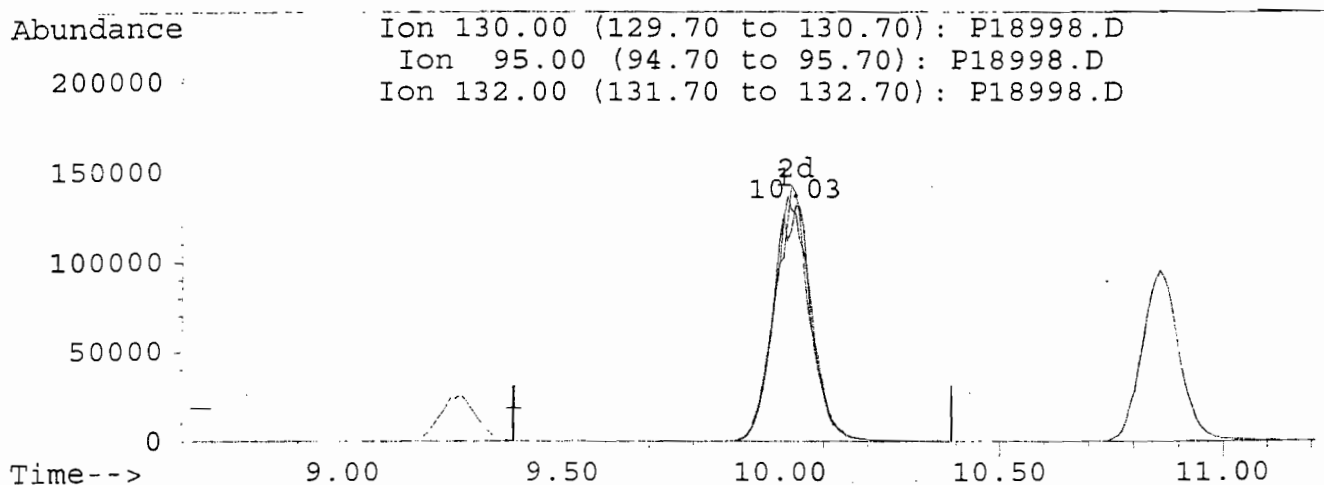
000174

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



(31) trichloroethene (T)

10.03min 54.42ug/L m

response 799537

Ion	Exp%	Act%
130.00	100	100
95.00	107.90	96.57
132.00	97.10	105.02
0.00	0.00	0.00

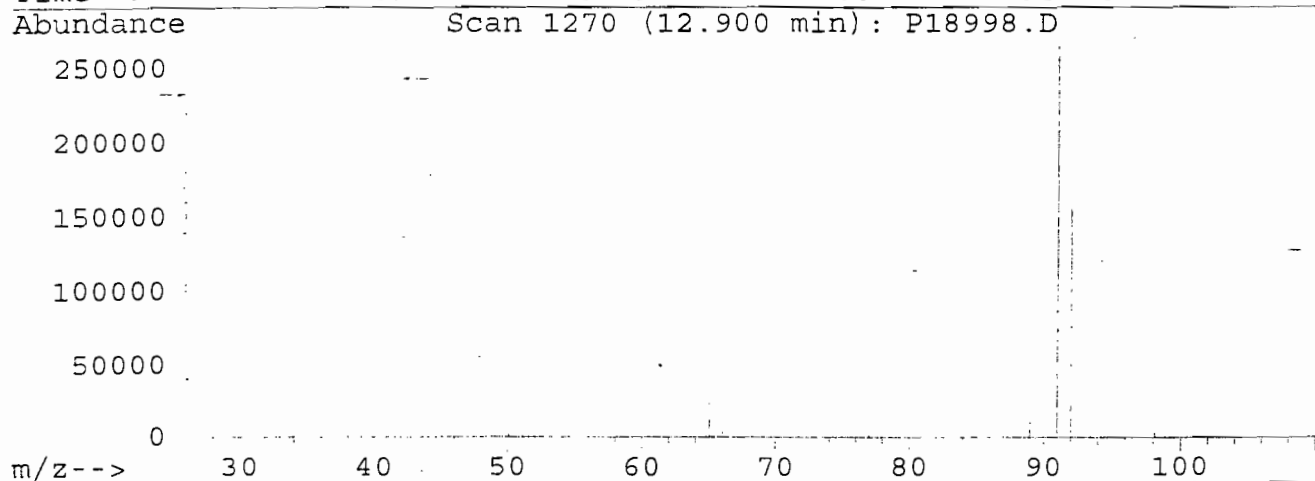
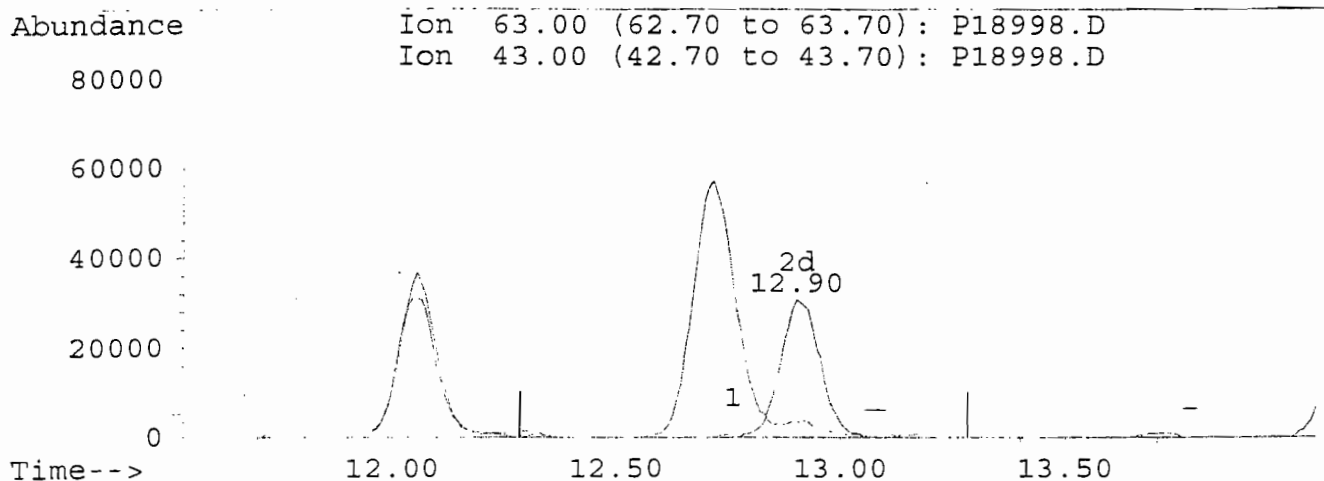
000175

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



TIC: P18998.D

(35) 2-Chloroethyl Vinyl Ether

12.90min 46.58ug/L m

response 186296

Ion	Exp%	Act%
63.00	100	100
43.00	6.90	11.28
0.00	0.00	0.00
0.00	0.00	0.00

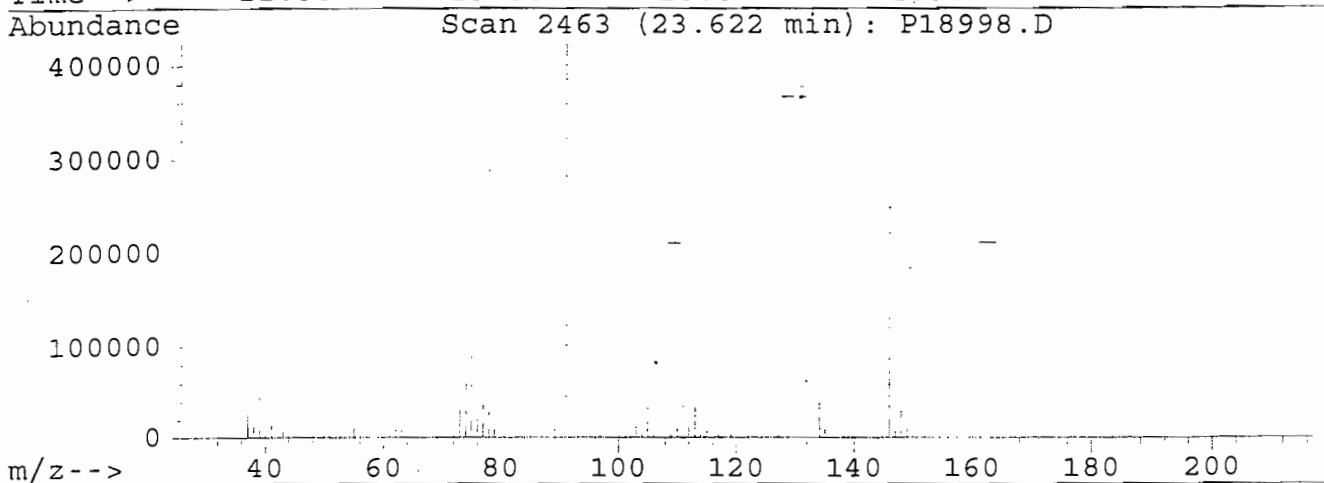
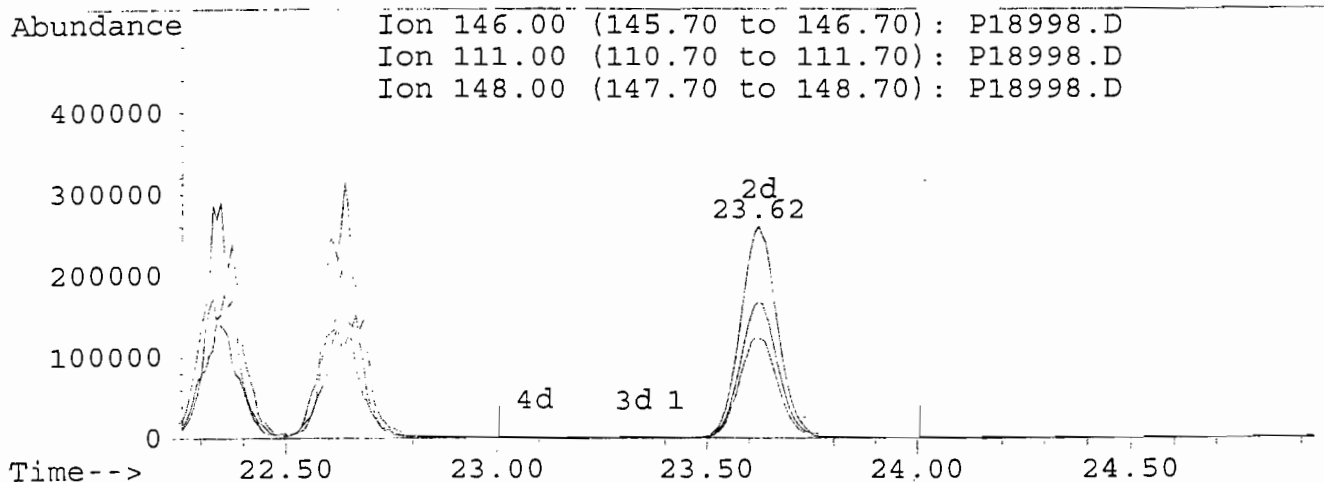
000176

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



TIC: P18998.D

(71) 1,2-dichlorobenzene (T)

23.62min 55.84ug/L m

response 1663129

Ion	Exp%	Act%
146.00	100	100
111.00	44.80	46.83
148.00	53.20	64.13
0.00	0.00	0.00

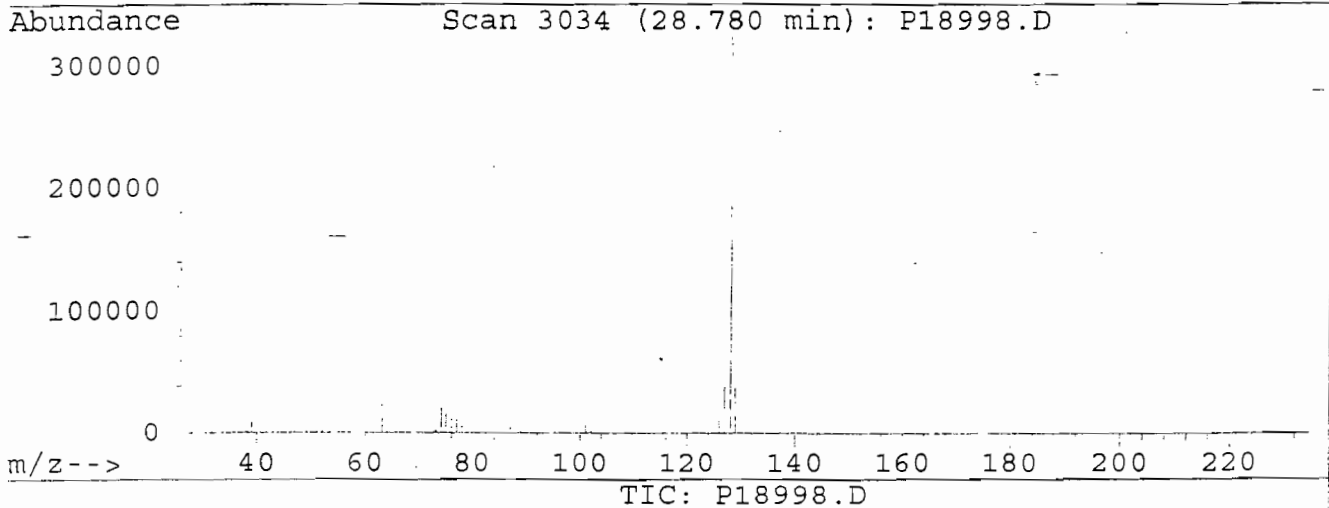
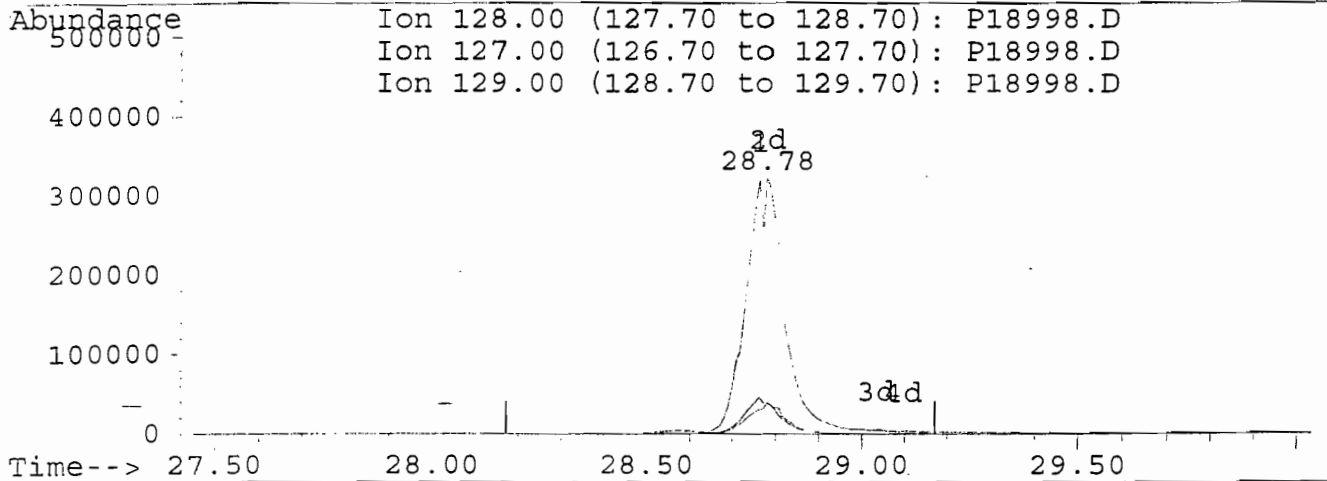
000177

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P18998.D
 Acq Time : 4 Oct 99 9:05 pm
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 5 15:28 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



(76) naphthalene (T)
 28.78min 55.50ug/L m
 response 2006095

Ion	Exp%	Act%
128.00	100	100
127.00	14.30	12.17
129.00	11.00	11.81
0.00	0.00	0.00

000178

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No. 13649ASP Site: _____ Location: _____ Group: GP-002-SS4

Instrument ID: VOA 2 Calibration Date: 10/5/99 Time: 0943

Lab File ID: P19015.D Init. Calib. Date(s): 9/13/99 9/13/99

Heated Purge: (Y/N) Y Init. Calib. Times: 2005 2303

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.592	0.261		55.9	
Chloromethane	0.219	0.180	0.300	17.8	
Vinyl Chloride	0.207	0.198		4.3	25.0
Bromomethane	0.235	0.213		9.4	
Chloroethane	0.109	0.109		0.0	
Trichlorofluoromethane	0.957	1.016		-6.2	
Methylene Chloride	0.265	0.261		1.5	
1,1-Dichloroethane	0.770	0.807	0.300	-4.8	
2,2-Dichloropropane	0.728	0.731		-0.4	
Bromochloromethane	0.394	0.441		-11.9	
Chloroform	1.023	1.119		-9.4	25.0
1,1,1-Trichloroethane	1.076	1.083		-0.7	
Carbon Tetrachloride	0.561	0.559		0.4	
1,1-Dichloropropene	0.574	0.603		-5.1	
Benzene	0.775	0.846		-9.2	
1,2-Dichloroethane	0.709	0.764		-7.8	
Trichloroethene	0.486	0.521		-7.2	
1,2-Dichloropropane	0.358	0.411		-14.8	25.0
Dibromomethane	0.397	0.419		-5.5	
Bromodichloromethane	0.975	1.047		-7.4	
Toluene	1.071	1.166		-8.9	25.0
1,1,2-Trichloroethane	0.312	0.362		-16.0	
Tetrachloroethene	0.469	0.504		-7.5	
1,3-Dichloropropane	0.460	0.512		-11.3	
Dibromochloromethane	0.615	0.700		-13.8	
1,2-Dibromoethane	0.507	0.542		-6.9	
Chlorobenzene	0.771	0.852	0.300	-10.5	
1,1,1,2-Tetrachloroethane	0.431	0.505		-17.2	
Ethylbenzene	1.302	1.424		-9.4	25.0
Styrene	0.740	0.790		-6.8	
Bromoform	0.523	0.566	0.250	-8.2	
isopropylbenzene	1.978	2.221		-12.3	
Bromobenzene	1.393	1.470		-5.5	
1,1,2,2-Tetrachloroethane	0.816	0.903	0.300	-10.7	
1,2,3-Trichloropropane	0.602	0.640		-6.3	
n-Propylbenzene	0.787	0.806		-2.4	

All other compounds must meet a minimum RRF of 0.010.

000179

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
2-Chlorotoluene	0.510	0.536		-5.1	
4-Chlorotoluene	0.508	0.549		-8.1	
1,3,5-Trimethylbenzene	1.986	1.986		0.0	
tert-Butylbenzene	1.733	1.913		-10.4	
1,2,4-Trimethylbenzene	2.092	1.992		4.8	
sec-Butylbenzene	2.354	2.624		-11.5	
1,3-Dichlorobenzene	1.213	1.214		-0.1	
4-Isopropyltoluene	2.237	2.227		0.4	
1,4-Dichlorobenzene	1.236	1.273		-3.0	
1,2-Dichlorobenzene	1.205	1.268		-5.2	
n-Butylbenzene	2.116	2.151		-1.7	
1,2-Dibromo-3-chloropropane	0.309	0.323		-4.5	
1,2,4-Trichlorobenzene	1.009	1.020		-1.1	
Hexachlorobutadiene	0.791	0.795		-0.5	
Naphthalene	1.462	1.629		-11.4	
1,2,3-Trichlorobenzene	0.947	0.942		0.5	
Dibromofluoromethane	0.879	0.903		-2.7	
Toluene-d8	1.017	1.110		-9.1	
4-Bromofluorobenzene	1.007	1.030		-2.3	

000180

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19015.D
 Acq Time : 5 Oct 99 9:43 am
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 7 13:19 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.29	96	1051215	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.38	117	1199847	50.00	ug/L	0.18
56) 1,4-dichlorobenzene-d4	22.64	152	898868	50.00	ug/L	0.19

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.99	113	948940	51.35	ug/L	102.70%
29) 1,2-Dichlorethane-d4	8.69	65	723168	52.09	ug/L	104.17%
37) Toluene-d8	12.80	98	1166454	54.54	ug/L	109.08%
41) 4-Bromofluorobenzene	19.51	95	1082781	51.16	ug/L	102.33%

Target Compounds						Qvalue
2) dichlorodifluoromethane	1.73	85	273960	22.02	ug/L	98
3) chloromethane	1.96	50	188811	40.95	ug/L	98
4) vinyl chloride	2.08	62	208494	47.92	ug/L	100
5) bromomethane	2.49	94	223581	45.29	ug/L	90
6) chloroethane	2.61	64	114182	49.67	ug/L	92
7) Acrolein	3.65	56	137371	534.24	ug/L	99
8) trichlorofluoromethane	2.91	101	1068103	53.11	ug/L	98
9) 1,1-dichloroethene	3.68	61	604138	49.81	ug/L	96
10) Acetone	3.92	43	75313	31.33	ug/L	94
11) Carbon Disulfide	3.96	76	621876	47.91	ug/L	97
12) methylene chloride	4.59	84	274007	49.12	ug/L	95
13) trans-1,2-dichloroethene	4.99	61	510325	52.44	ug/L	94
14) TBA	4.99	59	352033	549.89	ug/L	97
15) MTBE	5.01	73	787295	50.90	ug/L	98
16) Acrylonitrile	5.19	53	358189	564.15	ug/L	97
17) 1,1-dichloroethane	5.85	63	848337	52.43	ug/L	98
18) 2,2-dichloropropane	6.91	77	768077	50.22	ug/L	99
19) cis-1,2-dichloroethene	7.00	61	716997	55.18	ug/L	87
20) bromochloromethane	7.47	49	463857	55.99	ug/L	95
21) chloroform	7.67	83	1176062	54.70	ug/L	98
22) 1,1,1-trichloroethane	7.89	97	1138026	50.30	ug/L	100
24) Vinyl Acetate	6.00	43	791719	53.76	ug/L	99
25) 2-Butanone	7.13	43	123285	46.52	ug/L	98
26) carbon tetrachloride	8.13	117	587853	49.85	ug/L m	92
27) 1,1-dichloropropene	8.23	75	634338	52.58	ug/L	94
28) benzene	8.62	78	889648	54.58	ug/L	98
30) 1,2-dichloroethane	8.86	62	803365	53.89	ug/L	100
31) trichloroethene	10.05	130	547900	53.57	ug/L	90
32) 1,2-dichloropropane	10.64	63	432508	57.45	ug/L	93
33) dibromomethane	10.89	174	440179	52.68	ug/L	98
34) bromodichloromethane	11.29	83	1100519	53.68	ug/L	95
36) cis-1,3-dichloropropene	12.34	75	635903	53.16	ug/L	100
38) toluene	12.93	91	1225644	54.42	ug/L	96

000181

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19015.D
 Acq Time : 5 Oct 99 9:43 am
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 7 13:19 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	trans-1,3-dichloropropene	13.75	75	614452	53.32	ug/L	98
40)	1,1,2-trichloroethane	14.16	97	380232	58.04	ug/L	98
43)	4-Methyl-2-Pentanone	12.75	43	294197	53.62	ug/L	98
44)	tetrachloroethene	14.19	166	605229	53.78	ug/L	99
45)	1,3-dichloropropane	14.55	76	614718	55.72	ug/L	94
46)	dibromochloromethane	15.00	129	839926	52.04	ug/L	97
47)	1,2-dibromoethane	15.23	107	649805	53.39	ug/L	97
48)	2-Hexanone	14.81	43	215597	48.05	ug/L	96
49)	chlorobenzene	16.43	112	1022264	55.28	ug/L	99
50)	1,1,1,2-tetrachloroethane	16.72	133	606034	58.63	ug/L	97
51)	ethylbenzene	16.71	91	1708086	54.69	ug/L	100
52)	m&p-xylenes	17.04	106	1131854	107.59	ug/L	98
53)	o-xylene	18.06	91	1591749	50.56	ug/L	96
54)	styrene	18.14	104	948326	53.43	ug/L	97
55)	bromoform	18.61	173	678854	54.12	ug/L	99
57)	isopropylbenzene	19.03	105	1996753	56.17	ug/L m	95
58)	bromobenzene	19.80	77	1321775	52.79	ug/L m	98
59)	1,1,2,2-tetrachloroethane	20.13	83	811819	55.37	ug/L m	99
60)	1,2,3-trichloropropane	20.17	75	574871	53.13	ug/L m	99
61)	n-propylbenzene	20.69	120	724605	51.24	ug/L m	80
62)	2-chlorotoluene	20.35	126	481599	52.58	ug/L m	97
63)	4-chlorotoluene	20.69	126	493101	54.00	ug/L m	84
64)	1,3,5-trimethylbenzene	20.69	105	1785349	50.01	ug/L m	96
65)	tert-butylbenzene	21.51	119	1719942	55.21	ug/L m	99
66)	1,2,4-trimethylbenzene	21.68	105	1790250	51.07	ug/L m	99
67)	sec-butylbenzene	22.11	105	2358562	55.72	ug/L m	98
68)	1,3-dichlorobenzene	22.38	146	1091064	50.01	ug/L m	87
69)	4-isopropyltoluene	22.56	119	2001861	49.77	ug/L m	92
70)	1,4-dichlorobenzene	22.69	146	1144273	51.51	ug/L m	87
71)	1,2-dichlorobenzene	23.69	146	1139927	52.63	ug/L m	88
72)	n-butylbenzene	23.70	91	1933822	50.84	ug/L m	98
73)	1,2-dibromo-3-chloropropan	25.96	75	290703	52.42	ug/L m	99
74)	1,2,4-trichlorobenzene	28.19	180	917144	50.57	ug/L m	87
75)	hexachlorobutadiene	28.64	225	715028	50.30	ug/L m	93
76)	naphthalene	28.85	128	1464286	55.71	ug/L m	98
77)	1,2,3-trichlorobenzene	29.57	180	847072	49.74	ug/L m	99

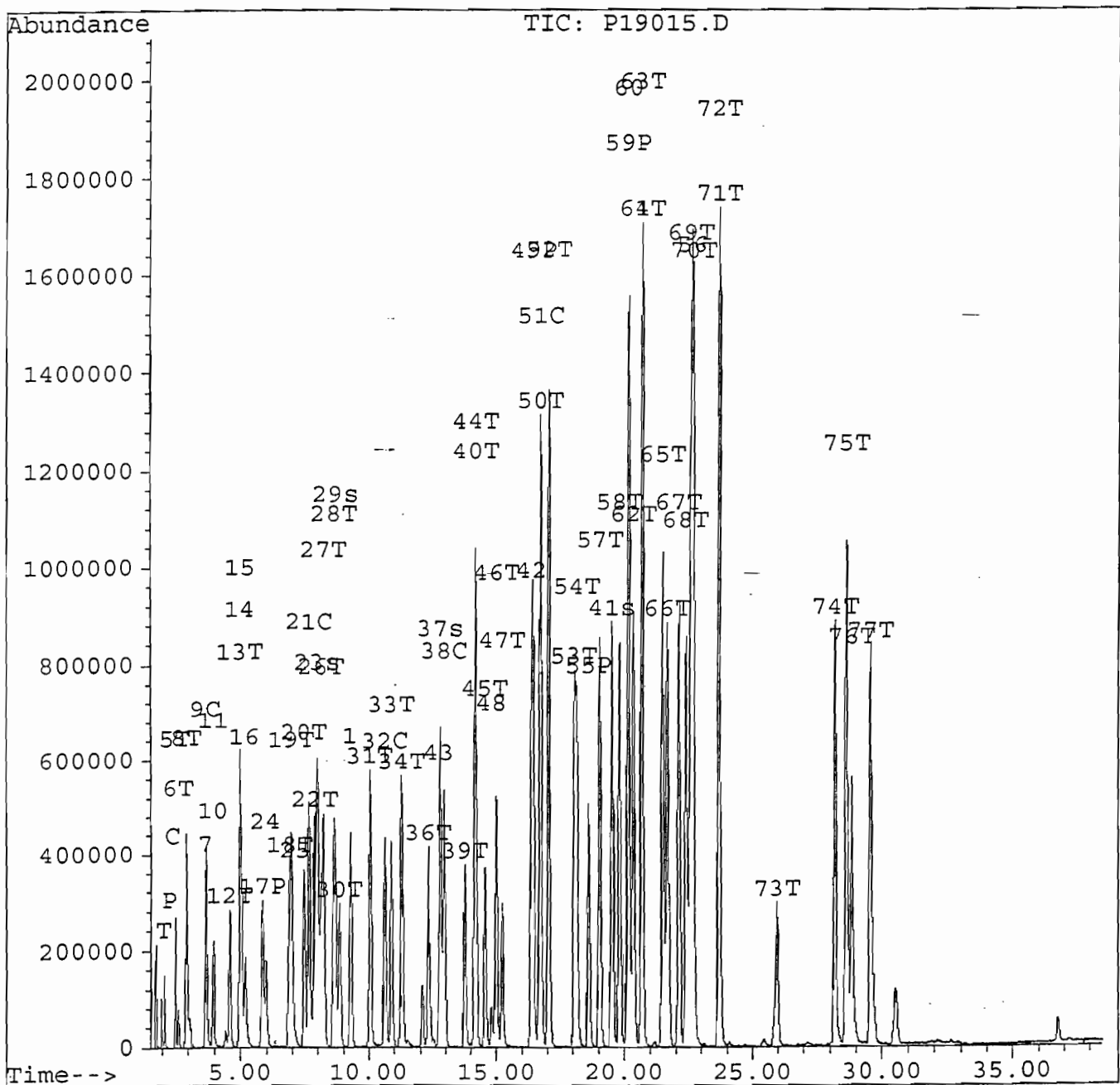
000182

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19015.D
 Acq Time : 5 Oct 99 9:43 am
 Sample : 50PPB CCC
 Misc : 5G/5ML
 Quant Time: Oct 7 13:19 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration



000183

Evaluate Continuing Calibration Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19015.D
 Acq Time : 5 Oct 99 9:43 am
 Sample : 50PPB CCC
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRFF	%Dev	Area%	Dev(Min)
1	Fluorobenzene	1.000	1.000	0.0	93	0.16
2 T	dichlorodifluoromethane	0.592	0.261	56.0#	40#	0.05
3 P	chloromethane	0.219	0.180	18.1	73	0.06
4 C	vinyl chloride	0.207	0.198	4.2#	87	0.06
5 T	bromomethane	0.235	0.213	9.4	86	0.07
6 T	chloroethane	0.109	0.109	0.7	97	0.07
7	Acrolein	0.012	0.013	-6.8	105	0.10
8 T	trichlorofluoromethane	0.957	1.016	-6.2	93	0.08
9 C	1,1-dichloroethene	0.577	0.575	0.4#	95	0.10
10	Acetone	0.114	0.072	37.3#	63	0.11
11	Carbon Disulfide	0.617	0.592	4.2	90	0.10
12 T	methylene chloride	0.265	0.261	1.8	99	0.12
13 T	trans-1,2-dichloroethene	0.463	0.485	-4.9	100	0.12
14	TBA	0.030	0.033	-10.0	113	0.14
15	MTBE	0.736	0.749	-1.8	96	0.11
16	Acrylonitrile	0.030	0.034	-12.8	108	0.15
17 P	1,1-dichloroethane	0.770	0.807	-4.9	100	0.14
18 T	2,2-dichloropropane	0.728	0.731	-0.4	91	0.16
19 T	cis-1,2-dichloroethene	0.618	0.682	-10.4	104	0.16
20 T	bromochloromethane	0.394	0.441	-12.0	107	0.16
21 C	chloroform	1.023	1.119	-9.4#	101	0.16
22 T	1,1,1-trichloroethane	1.076	1.083	-0.6	91	0.16
23 S	Dibromofluoromethane	0.879	0.903	-2.7	96	0.16
24	Vinyl Acetate	0.701	0.753	-7.5	103	0.16
25	2-Butanone	0.126	0.117	7.0	87	0.16
26 T	carbon tetrachloride	0.561	0.559	0.3	97	0.16
27 T	1,1-dichloropropene	0.574	0.603	-5.2	96	0.15
28 T	benzene	0.775	0.846	-9.2	101	0.18
29 S	1,2-Dichlorethane-d4	0.660	0.688	-4.2	98	0.16
30 T	1,2-dichloroethane	0.709	0.764	-7.8	102	0.16
31 T	trichloroethene	0.486	0.521	-7.1	99	0.16
32 C	1,2-dichloropropane	0.358	0.411	-14.9#	108	0.17
33 T	dibromomethane	0.397	0.419	-5.4	96	0.16
34 T	bromodichloromethane	0.975	1.047	-7.4	98	0.16
35	2-Chloroethyl Vinyl Ether	0.161	0.145	9.6	103	0.17
36 T	cis-1,3-dichloropropene	0.569	0.605	-6.3	97	0.17
37 S	Toluene-d8	1.017	1.110	-9.1	103	0.17
38 C	toluene	1.071	1.166	-8.8#	102	0.15
39 T	trans-1,3-dichloropropene	0.548	0.585	-6.6	98	0.16
40 T	1,1,2-trichloroethane	0.312	0.362	-16.1	110	0.17
41 S	4-Bromofluorobenzene	1.007	1.030	-2.3	95	0.16

42-----Chlorobenzene-d5-----1.000--1.000-----0.0-----9500018--

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19015.D
 Acq Time : 5 Oct 99 9:43 am
 Sample : 50PPB CCC
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
43	4-Methyl-2-Pentanone	0.229	0.245	-7.2	123	0.15
44 T	tetrachloroethene	0.469	0.504	-7.6	101	0.19
45 T	1,3-dichloropropane	0.460	0.512	-11.4	105	0.17
46 T	dibromochloromethane	0.615	0.700	-13.8	106	0.18
47 T	1,2-dibromoethane	0.507	0.542	-6.8	100	0.17
48	2-Hexanone	0.187	0.180	3.9	101	0.17
49 P	chlorobenzene	0.771	0.852	-10.6	103	0.17
50 T	1,1,1,2-tetrachloroethane	0.431	0.505	-17.3	111	0.16
51 C	ethylbenzene	1.302	1.424	-9.4#	103	0.17
52 T	m&p-xylenes	0.488	0.472	3.3	104	0.17
53 T	o-xylene	1.312	1.327	-1.1	99	0.17
54 T	styrene	0.740	0.790	-6.9	96	0.16
55 P	bromoform	0.523	0.566	-8.2	98	0.17
56	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.19
57 T	isopropylbenzene	1.978	2.221	-12.3	105	0.16
58 T	bromobenzene	1.393	1.470	-5.6	100	0.17
59 P	1,1,2,2-tetrachloroethane	0.816	0.903	-10.7	105	0.16
60	1,2,3-trichloropropane	0.602	0.640	-6.3	105	0.16
61 T	n-propylbenzene	0.787	0.806	-2.5	101	0.16
62 T	2-chlorotoluene	0.510	0.536	-5.2	92	0.17
63 T	4-chlorotoluene	0.508	0.549	-8.0	99	0.18
64 T	1,3,5-trimethylbenzene	1.986	1.986	-0.0	98	0.17
65 T	tert-butylbenzene	1.733	1.913	-10.4	100	0.17
66 T	1,2,4-trimethylbenzene	2.092	1.992	4.8	98	0.17
67 T	sec-butylbenzene	2.354	2.624	-11.4	102	0.17
68 T	1,3-dichlorobenzene	1.213	1.214	-0.0	91	0.15
69 T	4-isopropyltoluene	2.237	2.227	0.5	93	0.16
70 T	1,4-dichlorobenzene	1.236	1.273	-3.0	96	0.17
71 T	1,2-dichlorobenzene	1.205	1.268	-5.3	93	0.19
72 T	n-butylbenzene	2.116	2.151	-1.7	92	0.17
73 T	1,2-dibromo-3-chloropropane	0.309	0.323	-4.8	105	0.16
74 T	1,2,4-trichlorobenzene	1.009	1.020	-1.1	91	0.16
75 T	hexachlorobutadiene	0.791	0.795	-0.6	89	0.16
76 T	naphthalene	1.462	1.629	-11.4	105	0.18
77 T	1,2,3-trichlorobenzene	0.947	0.942	0.5	88	0.18

000185

CHEMTECH CONSULTING GROUP

VOLATILES
RAW QC DATA

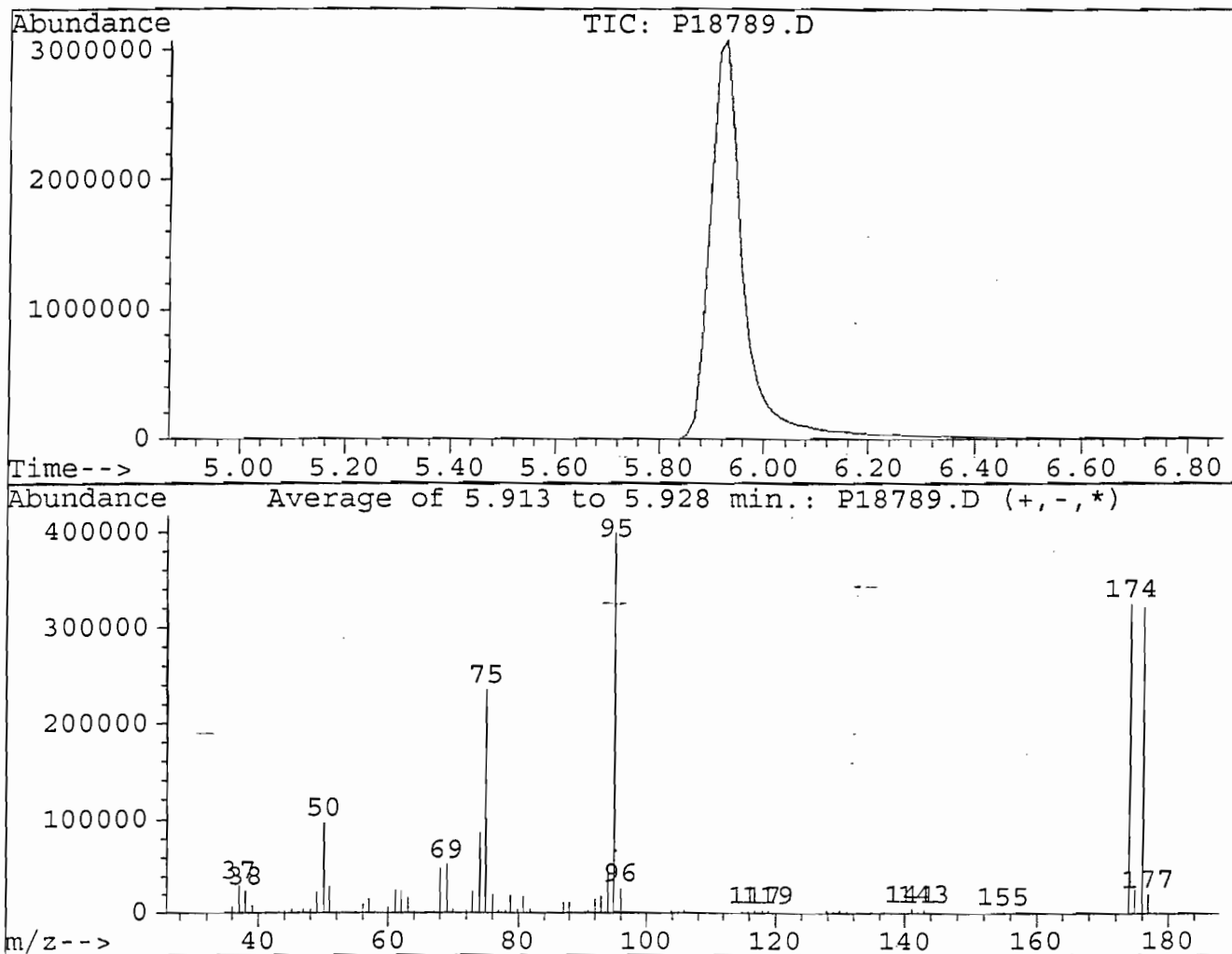
000186

BFB

Data File : G:\HPCHEM\1\DATA\V2091399\P18789.D
 Acq Time : 13 Sep 99 6:41 pm
 Sample : BFB TUNE CHECK
 Misc : 5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : G:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA



Peak Apex is scan: 121

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.1	95973	PASS
75	95	30	60	58.9	234712	PASS
95	95	100	100	100.0	398568	PASS
96	95	5	9	6.7	26506	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	81.2	323800	PASS
175	174	5	9	7.8	25107	PASS
176	174	95	101	98.7	319549	PASS
177	176	5	9	6.2	19870	PASS

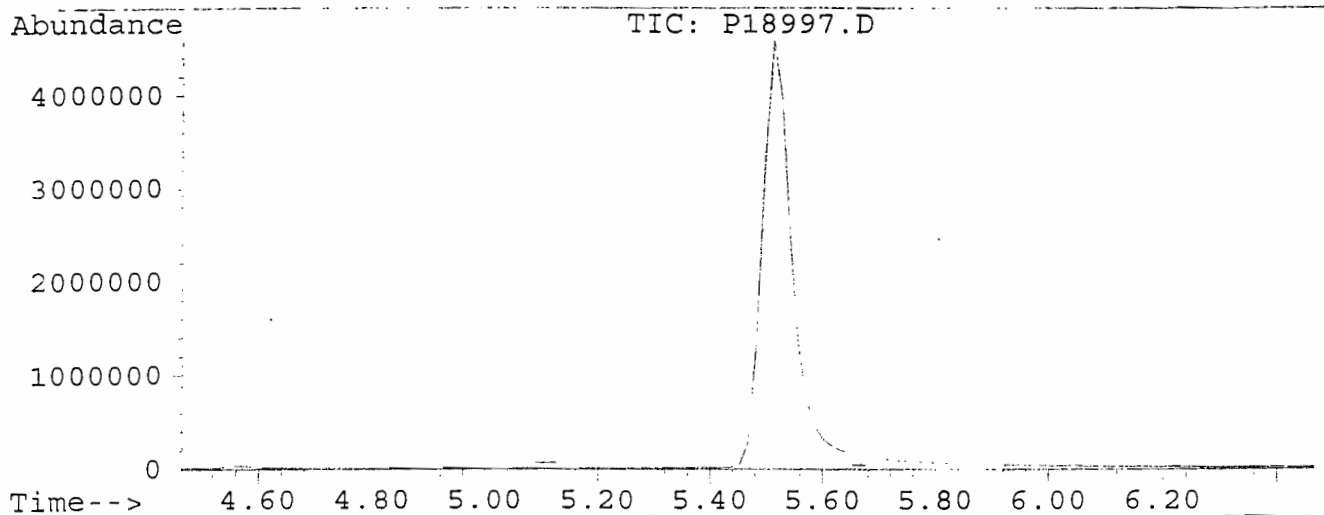
BFB

A-1 V-ly

Data File : F:\HPCHEM\1\DATA\V2100499\P18997.D
Acq Time : 4 Oct 99 8:26 pm
Sample : BFB TUNE CHECK
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA



Peak Apex is scan: 95

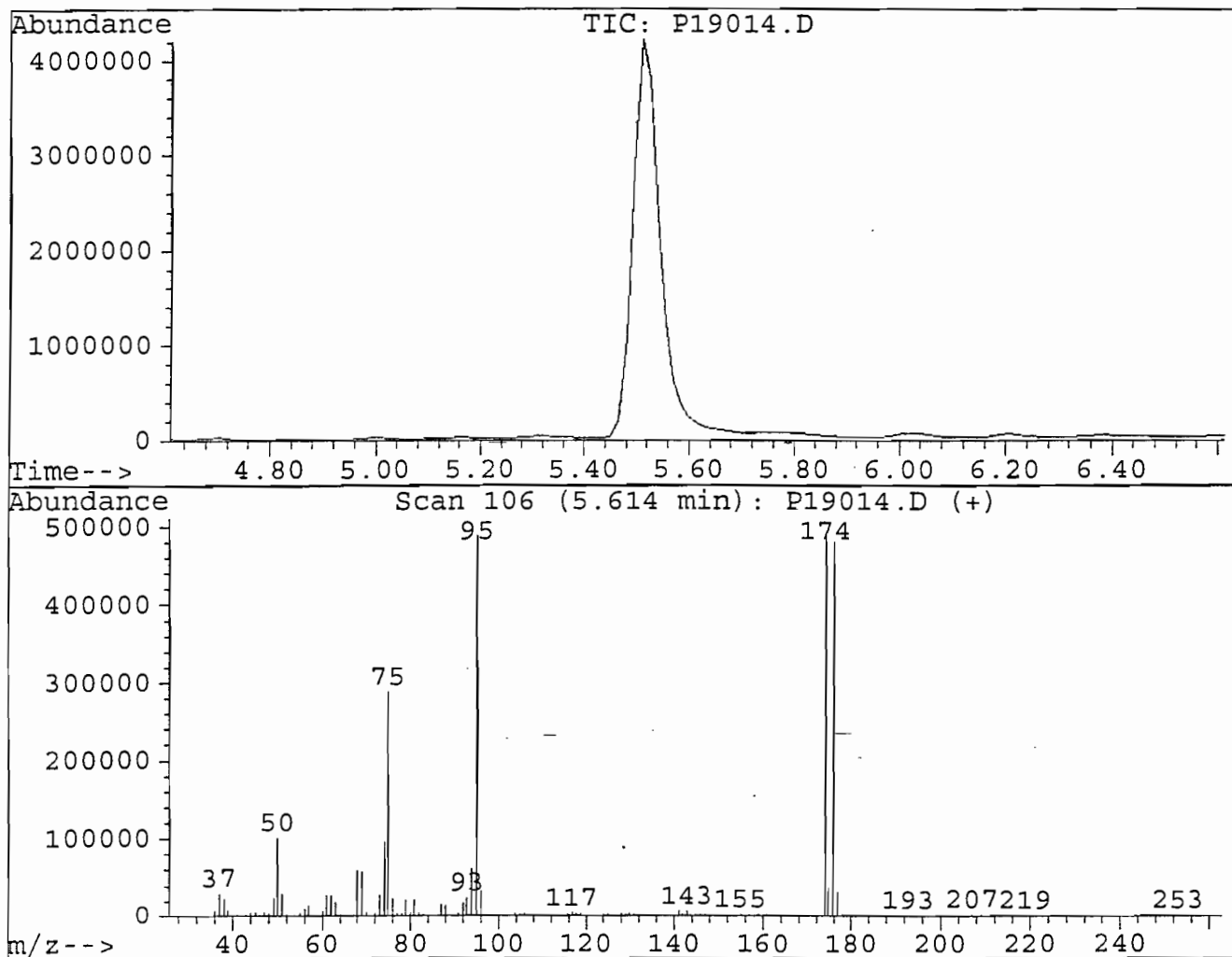
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	165768	PASS
75	95	30	60	59.6	429216	PASS
95	95	100	100	100.0	720616	PASS
96	95	5	9	6.8	48799	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	81.3	585704	PASS
175	174	5	9	7.7	45235	PASS
176	174	95	101	98.3	575736	PASS
177	176	5	9	6.3	36552	PASS

BFB

Data File : I:\HPCHEM\1\DATA\V2100499\P19014.D
 Acq Time : 5 Oct 99 9:07 am
 Sample : BFB TUNE CHECK
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA



Peak Apex is scan: 106

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	100378	PASS
75	95	30	60	59.1	288072	PASS
95	95	100	100	100.0	487792	PASS
96	95	5	9	6.5	31775	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	99.8	486876	PASS
175	174	5	9	7.4	35851	PASS
176	174	95	101	98.6	479871	PASS
177	176	5	9	6.4	30891	PASS

000189

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBK01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: VBK01

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19000.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 10/4/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-09-2	Methylene Chloride	5	U
75-34-4	1,1-Dichloroethane	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-Dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U

SAMPLE NO.

VBLK01

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-002-SS

Lab Sample ID: VBLK01

Lab File ID: P19000.D

Date Received:

Date Analyzed: 10/4/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

FORM I VOA

000191

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
 Matrix: (soil/water) SOIL Lab Sample ID: VBLK01
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19000.D
 Level: (low/med) LOW Date Received: _____
 % Moisture: not dec. 0 Date Analyzed: 10/4/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19000.D
 Acq Time : 4 Oct 99 10:35 pm
 Sample : PRO BLK
 Misc : 5G/5ML
 Quant Time: Oct 5 15:34 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.26	96	1398396	50.00	ug/L	0.14
42) Chlorobenzene-d5	16.31	117	1644908	50.00	ug/L	0.11
56) 1,4-dichlorobenzene-d4	22.57	152	1155850	50.00	ug/L	0.12
System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.97	113	1139230	46.34	ug/L	92.68%
29) 1,2-Dichlorethane-d4	8.67	65	800371	43.34	ug/L	86.67%
37) Toluene-d8	12.76	98	1540873	54.16	ug/L	108.32%
41) 4-Bromofluorobenzene	19.45	95	1406463	49.96	ug/L	99.92%

Target Compounds

Qvalue

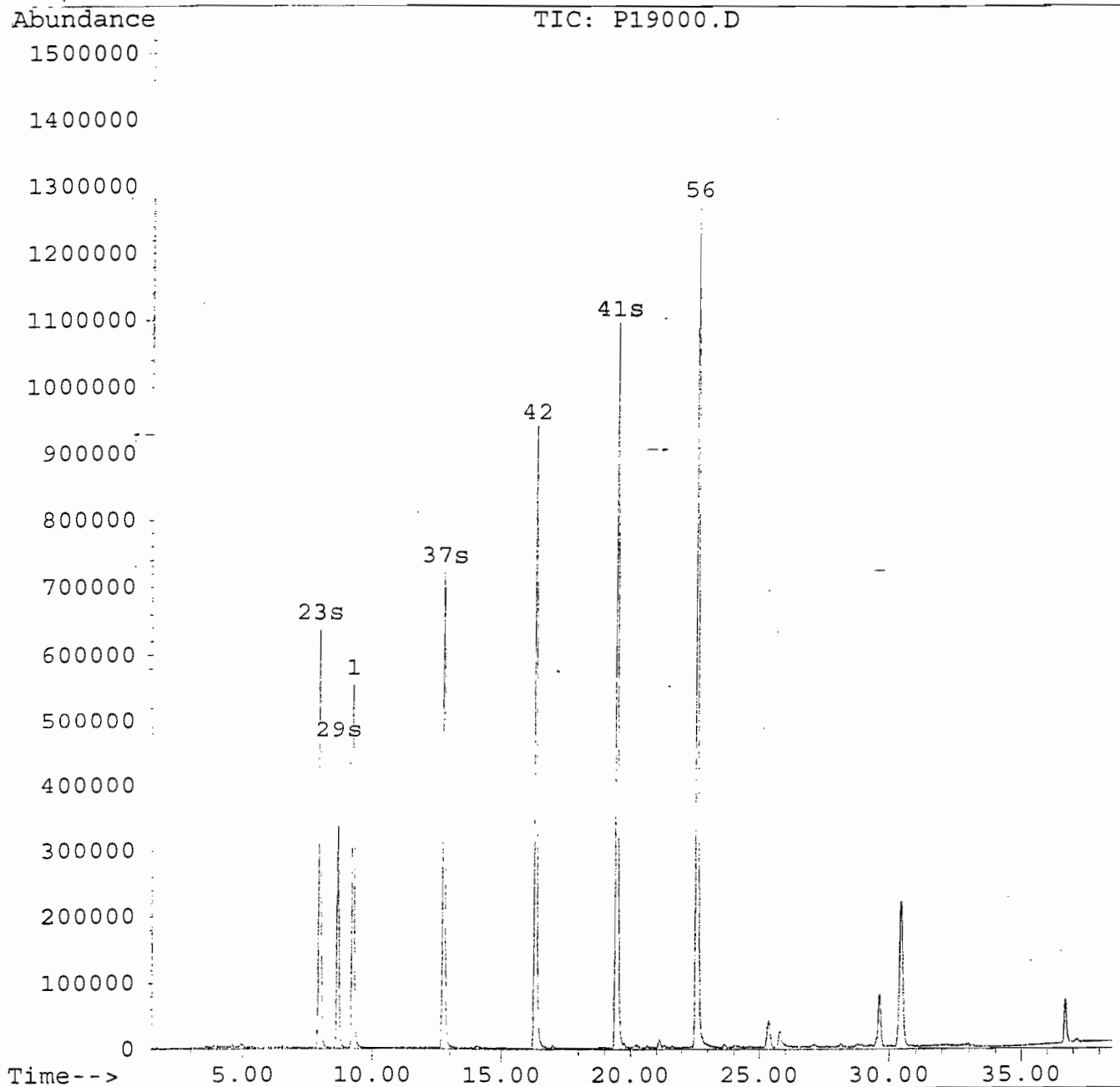
000193

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19000.D
Acq Time : 4 Oct 99 10:35 pm
Sample : PRO BLK
Misc : 5G/5ML
Quant Time: Oct 5 15:34 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000194

Library Search Compound Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19000.D
Acq Time : 4 Oct 99 10:35 pm
Sample : PRO BLK
Misc : 5G/5ML

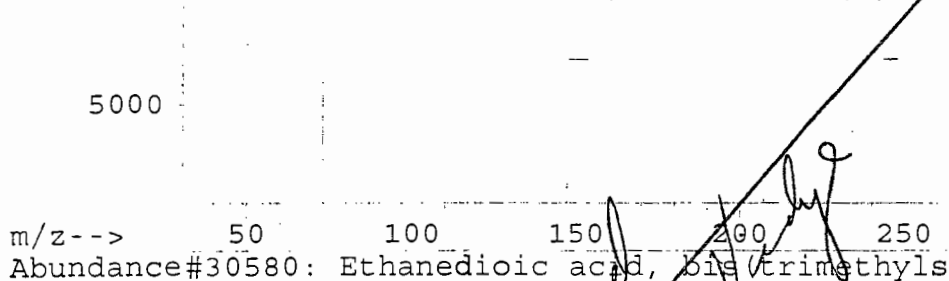
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

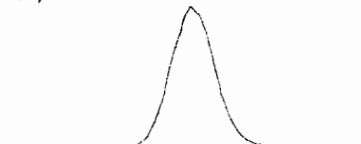
R.T.	Conc	Area	Relative to ISTD	R.T.
30.44	12.05 ug/L	2012409	1,4-dichlorobenzene-d4	22.57

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethanedioic acid, bis(trimethylsilyl)	30580	018294-04-7	38
2	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
3	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	25
4	Butane, 2-methyl-1,4-bis(trimethylsilyl)	33397	000000-00-0	9
5	Pentonic acid, 5-deoxy-2,3-bis-O-(t)	38700	074742-33-9	9

Abundance Scan 3200 (30.440 min): P19000.D (-,*)

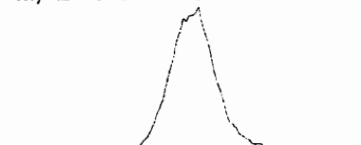


m/z 73.05 100.00%



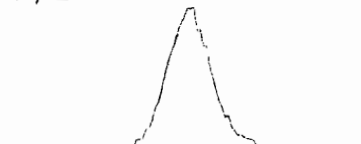
30.08 30.80

m/z 147.10 11.20%



30.08 30.80

m/z 45.05 9.30%



30.08 30.80

m/z 74.05 7.74%



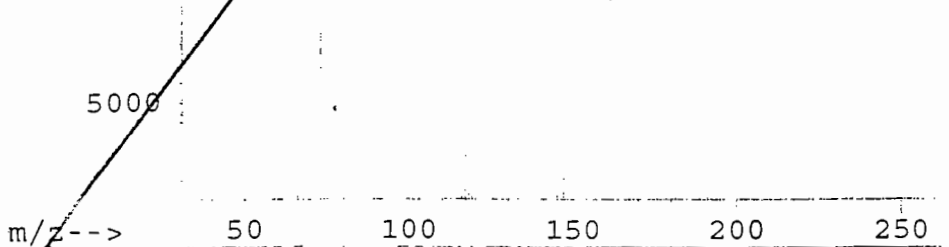
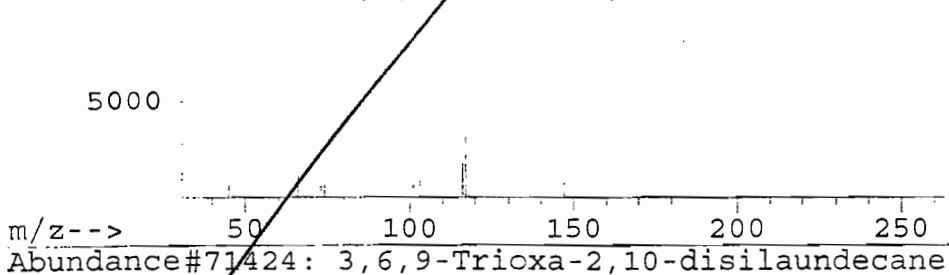
30.08 30.80

m/z 59.05 5.25%



30.08 30.80

m/z--> 50 100 150 200 250
Abundance#71425: 3,6,9-Trioxa-2,10-disilaundecane



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19017.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 10/5/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/Kg Q

75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-09-2	Methylene Chloride	5	U
75-34-4	1,1-Dichloroethane	5	U
590-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
563-58-6	1,1-Dichloropropene	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
108-88-3	Toluene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19017.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1364 Site: _____ Location: _____ Group: GP-002-S
Matrix: (soil/water) SOIL Lab Sample ID: VBLK02
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19017.D
Level: (low/med) LOW Date Received: _____
% Moisture: not dec. 0 Date Analyzed: 10/5/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000198

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19017.D
 Acq Time : 5 Oct 99 11:15 am
 Sample : PRO BLK
 Misc : 5G/5ML
 Quant Time: Oct 7 13:21 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.28	96	984521	50.00	ug/L	0.16
42) Chlorobenzene-d5	16.37	117	1233708	50.00	ug/L	0.17
56) 1,4-dichlorobenzene-d4	22.63	152	912869	50.00	ug/L	0.18

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	8.00	113	867045	50.10	ug/L	100.19%
29) 1,2-Dichlorethane-d4	8.70	65	654245	50.31	ug/L	100.63%
37) Toluene-d8	12.80	98	1087385	54.29	ug/L	108.58%
41) 4-Bromofluorobenzene	19.52	95	1108247	55.91	ug/L	111.83%

Target Compounds	Qvalue

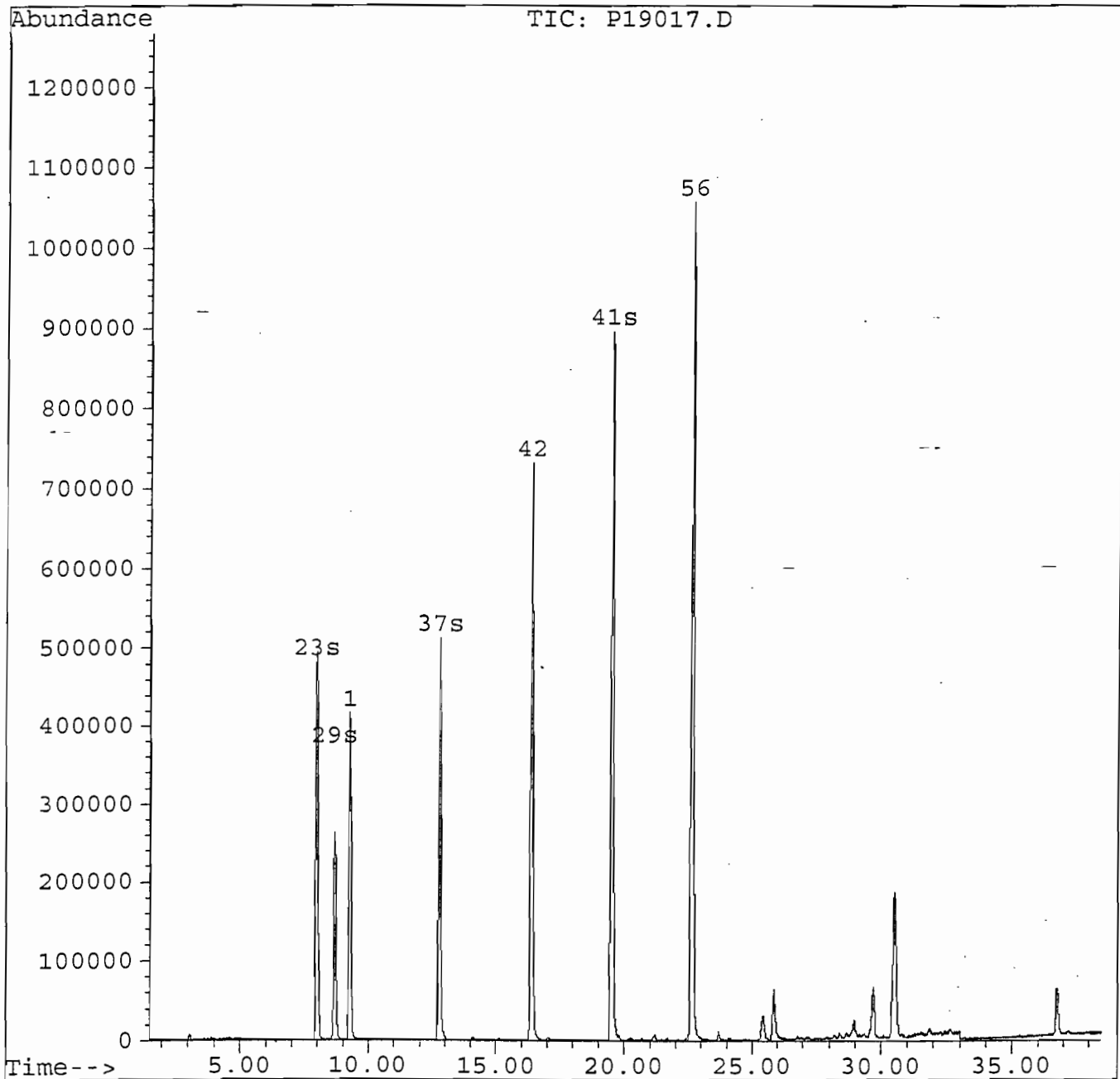
000199

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19017.D
Acq Time : 5 Oct 99 11:15 am
Sample : PRO BLK
Misc : 5G/5ML
Quant Time: Oct 7 13:21 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000200

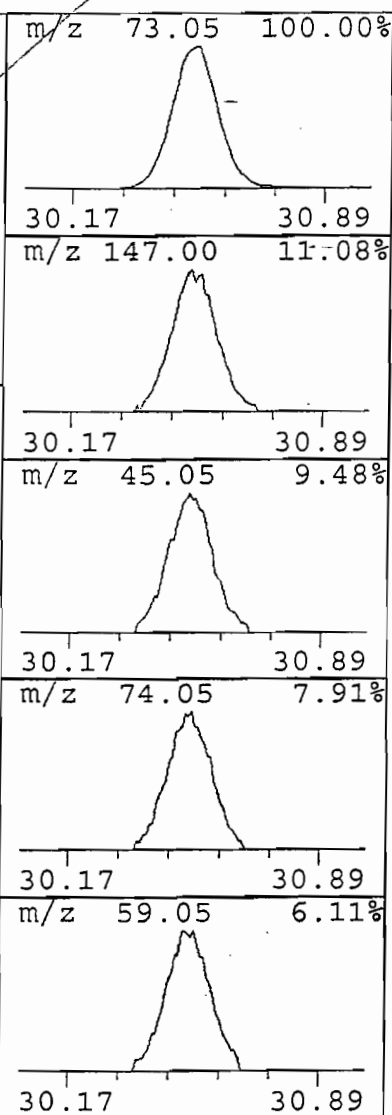
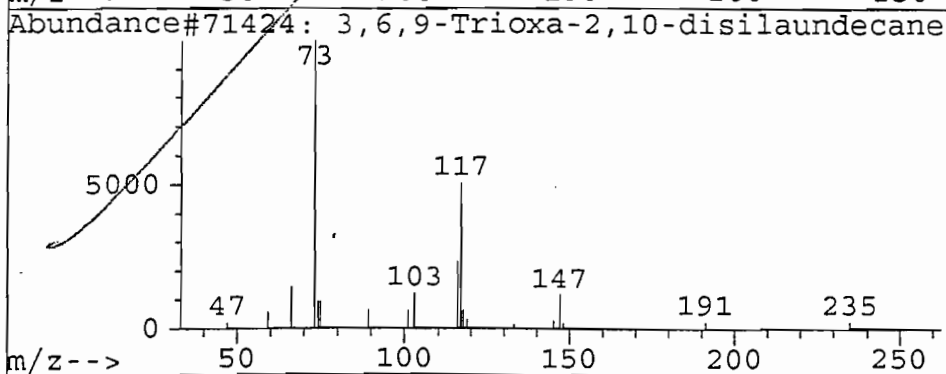
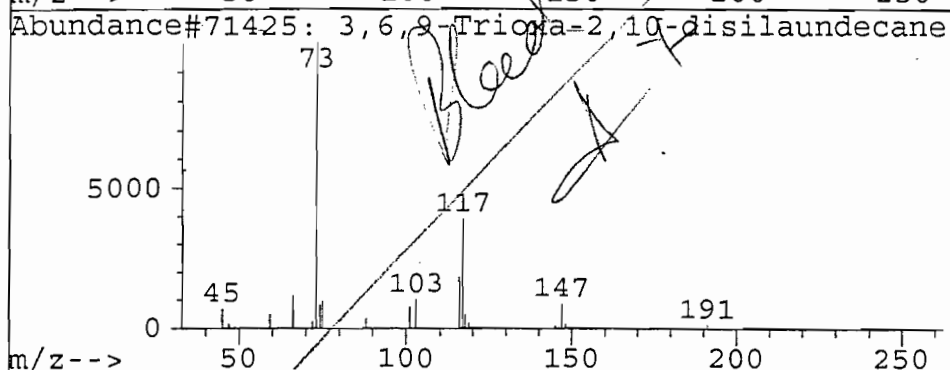
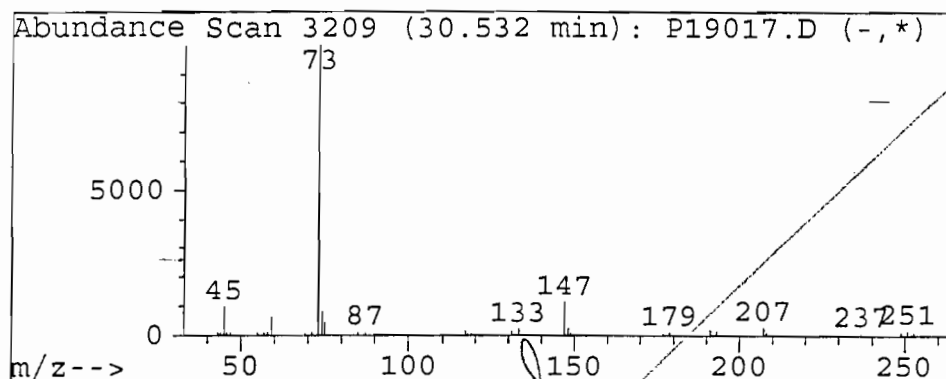
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100499\P19017.D
Acq Time : 5 Oct 99 11:15 am
Sample : PRO BLK
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.53	12.07 ug/L	1661478	1,4-dichlorobenzene-d4	22.63	
Hit# of	2	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane,	2	71425	016654-74-3	38
2	3,6,9-Trioxa-2,10-disilaundecane,	2	71424	016654-74-3/	25



000201

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

BLKSPK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13649ASP

Site: _____

Location: _____

Group: GP-002-SS

Matrix: (soil/water) SOIL

Lab Sample ID: BLKSPK

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19002.D

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. 0

Date Analyzed: 10/5/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/Kg</u>	
75-71-8	Dichlorodifluoromethane	5		U
74-87-3	Chloromethane	5		U
75-01-4	Vinyl Chloride	5		U
74-83-9	Bromomethane	5		U
75-00-3	Chloroethane	5		U
75-69-4	Trichlorofluoromethane	5		U
75-09-2	Methylene Chloride	5		U
75-34-4	1,1-Dichloroethane	5		U
590-20-7	2,2-Dichloropropane	5		U
74-97-5	Bromochloromethane	5		U
67-66-3	Chloroform	5		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
563-58-6	1,1-Dichloropropene	5		U
71-43-2	Benzene	55		
107-06-2	1,2-Dichloroethane	5		U
79-01-6	Trichloroethene	47		
78-87-5	1,2-Dichloropropane	5		U
74-95-3	Dibromomethane	5		U
75-27-4	Bromodichloromethane	5		U
108-88-3	Toluene	54		
79-00-5	1,1,2-Trichloroethane	5		U
127-18-4	Tetrachloroethene	5		U
142-28-9	1,3-Dichloropropane	5		U
124-48-1	Dibromochloromethane	5		U
106-93-4	1,2-Dibromoethane	5		U
108-90-7	Chlorobenzene	52		
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U

SAMPLE NO.

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19002.D
 Acq Time : 5 Oct 99 12:05 am
 Sample : BLK SPK
 Misc : 5G/5ML
 Quant Time: Oct 5 15:37 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
 Title : VOA
 Last Update : Wed Sep 15 13:33:10 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.25	96	1275035	50.00	ug/L	0.12
42) Chlorobenzene-d5	16.32	117	1480237	50.00	ug/L	0.12
56) 1,4-dichlorobenzene-d4	22.58	152	1084304	50.00	ug/L	0.13
System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	7.97	113	1046830	46.70	ug/L	93.40%
29) 1,2-Dichlorethane-d4	8.67	65	767934	45.60	ug/L	91.20%
37) Toluene-d8	12.78	98	1371498	52.87	ug/L	105.74%
41) 4-Bromofluorobenzene	19.47	95	1307365	50.93	ug/L	101.86%
Target Compounds						Qvalue
9) 1,1-dichloroethene	3.67	61	724295	49.24	ug/L	99
28) benzene	8.60	78	1096555	55.47	ug/L	96
31) trichloroethene	10.03	130	579522	46.72	ug/L	99
38) toluene	12.90	91	1487081	54.44	ug/L	98
49) chlorobenzene	16.39	112	1190617	52.19	ug/L	100

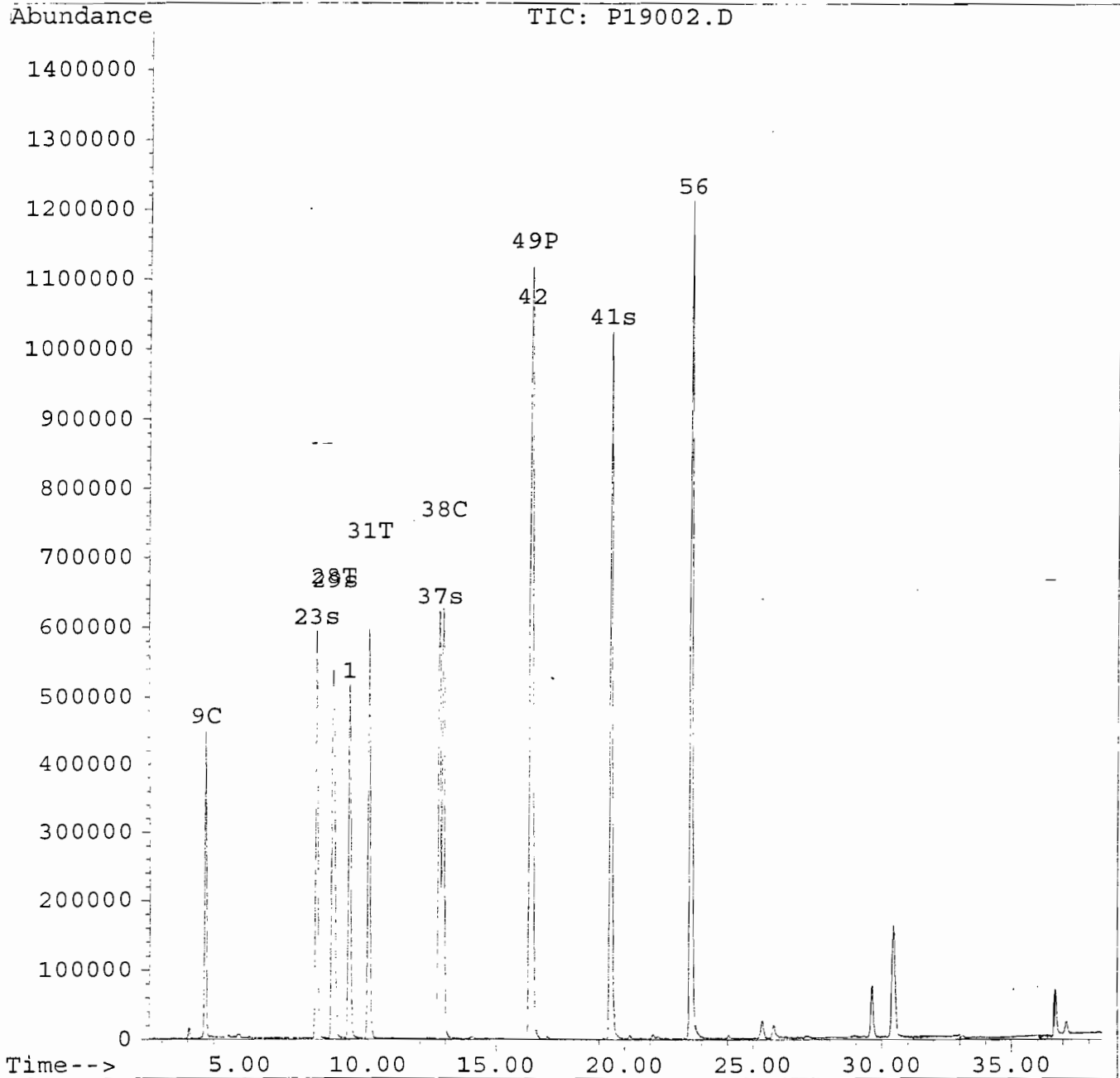
000204

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V2100499\P19002.D
Acq Time : 5 Oct 99 12:05 am
Sample : BLK SPK
Misc : 5G/5ML
Quant Time: Oct 5 15:37 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : F:\HPCHEM\1\METHODS\V20914CS.M
Title : VOA
Last Update : Wed Sep 15 13:33:10 1999
Response via : Multiple Level Calibration



000205

CHEMTECH CONSULTING GROUP

MISCELLANEOUS DATA

000206

Start Date: 9/13/99 End Date: 9/14/99 Analyst Amit Review By: JF

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
CCC	—	Spike Std.	V1021
Surrogate Stds.	V1063	FSD	V1062
QC Check Std.	—	BFB	1038
Initial Calibration Stds.	V1060, V1061	METH	V20914 CSM

1131343
1260395
982349

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	P18789			OK 6:41pm
2	50 PPB JCL	P18790			ng
3	50 PPB JCL	P18791	P260		OK
4	200 PPB JCL	-P18792		V20914 CSM	OK
5	100 PPB JCL	P18793			OK
6	20 PPB JCL	P18794			OK
7	5 PPB JCL	P18795			OK
8	PRO BIK	P18796		Sgr	NG
9	PRO BIK	P18797		Sgr.	OK
10	BIK SPR	P18798			OK
11	13329 NJ -84115	P18799		Sgr	OK
12	13355 NJ -84305	P18800		Sgr	RE METH
13					
14					
15					
16					
17					
18					
19					
20					

Start Date: 10/1/99 End Date: 10/5/99 Analyst: A. J. Review By: A. J.

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
CCC	V1060 V1061	Spike Std.	V1073
Surrogate Stds.	V1071	• Isd	V1070
QC Check Std.	_____	BFB	V1072
Initial Calibration Stds.	_____	Meth	U20914CW.M

1051215
1199847
898868

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	P19014			ok 9:07am
2	SOPPB CCC	P19015	8260%		ok
3	SOPPB CCC	P19016			not needed
4	PRO BLANK	P19017			ok
5	PRO BLANK	P19018			ok
6	BLANK SPIKE	P19019			NG
7	1364FASP- 86344	P19020			ok
8	86345	P19021			ok
9	86346	P19022			ok
10	86347	P19023			ok
11	86348	P19024			ok
12	86349	P19025			ok
13	86350	P19026			ok
14	86351	P19027			ok
15	86352	P19028			ok
16	86353	P19029			ok
17	86354	P19030			ok
18					
19					
20					

Start Date: 10/4/99 End Date: 10/5/99 Analyst Amit Review By: Amit

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
CCC	V1060, V1061	Spike Std.	V1073
Surrogate Stds.	V1071	Ud	V1070
QC Check Std.	—	BFB	V1072
Initial Calibration Stds.	—	Meth	V20914CS.M

1510248
1766938
1236065

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	P18997			ok 8:26pm
2	SOPPB CCC	P18998	8260/5	Sg	ok
3	SOPPB CCC	P18999			ok (not needed)
4	Pro Blank	P19000			ok
5	Pro Blank	P19001			ok
6	Blank Spike	P19002			ok
7	13666NJ-86581	P19003			ok RE Meth
8	86582	P19004			Pos Carrier RE
9	86583	P19005			ok
10	86584	P19006			ok RE 1:10
11	Clean Up Blank	P19007			ok
12	13649ASP-86338	P19008			ok
13	86339	P19009			ok
14	86340	P19010			ok
15	86341	P19011			ok
16	86342	P19012			ok
17	86343	P19013			ok 8:22am
18					
19					
20					

000209

SHIPPING AND RECEIVING DOCUMENTATION

000210

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental
ADDRESS: 1 Village Plaza
CITY: Kings Park STATE: NY ZIP: 11754
ATTENTION: Kevin Klecka
PHONE: 516.269.8800 FAX: 516.269-1599

PROJECT INFORMATION

PROJECT NAME: # 1-30-0435
PROJECT NO.: 98-335, Westbury
PROJECT MANAGER: Richard Parrish
LOCATION: 299 Main St., Westbury, NY
PHONE: --- FAX: ---

BILLING INFORMATION

BILL TO: client PO #: ---
ADDRESS: ---
CITY: --- STATE: --- ZIP: ---
ATTENTION: --- PHONE: ---
ANALYSIS: ---

DATA TURNAROUND INFORMATION

FAX: --- DAYS: ---
HARD COPY: --- DAYS: ---
EDD: --- DAYS: ---
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY
☐ RESULTS + QC
☐ NJ REDUCED
☐ NJ CLP
☐ EDD FORMAT: ---
☐ USEPACLP
☒ NYS ASP "B"
☐ NYS ASP "A"
☐ EDD

CHEMTECH SAMPLE ID

1. 335-GP-001-SS10
2. 335-GP-001-SS15
3. 335-GP-001-SS30
4. 335-GP-001-SS45
5. 335-GP-001-SS60
6. 335-GP-002-SS10
7. 335-GP-002-SS15
8. 335-GP-002-SS30

SAMPLE IDENTIFICATION

SAMPLE MATRIX

S
S
S
S
S
S
S
S

SAMPLE TYPE

X
X
X
X
X
X
X
X

SAMPLE COLLECTION

DATE
9/30
9/30
9/30
9/30
9/30
9/30
9/30

TIME

9:47
9:57
10:16
11:00
12:05
2:29
2:48
3:13

OF BOTTLES

1
1
1
1
1
1
1
1

TEMPERATURE

4°C
1
2
3
4
5
6
7
8
9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

ANALYSIS

1 2 3 4 5 6 7 8 9

COMMENTS

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

PRESERVATIVES

1 2 3 4 5 6 7 8 9

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental

ADDRESS: 1 Village Plaza

CITY: Kings Park STATE: NY ZIP: 11754

ATTENTION: Kevin Klecka

PHONE: (516) 269-8800 FAX: (516) 269-1999

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: _____ DAYS *

* TO BE APPROVED BY CHEMTECH

** NORMAL TURNAROUND TIME - 14 DAYS

PROJECT INFORMATION

PROJECT NAME: #1-30-0435

PROJECT NO.: 98-335, Westbury

PROJECT MANAGER: Richard Parrish

LOCATION: 299 Main St. Westbury, NY

PHONE: _____ FAX: _____

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: _____

BILLING INFORMATION

BILL TO: Client PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

ANALYSIS

1	2	3	4	5	6	7	8	9
* AIFS Target list attached (fax)								

CHEMTECH
SAMPLE
ID

SAMPLE IDENTIFICATION

1. 335-GP-004-SS45

000212

SAMPLE
MATRIX

SAMPLE
TYPE

COM
GRAB

DATE

TIME

10/1/99 12:52

OF BOTTLES

1

40C

1

PRESERVATIVES

← Specify Preservatives
A - HCl B - HNO₃
C - H₂SO₄ D - NaOH
E - ICE F - Other

COMMENTS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:

1. Kevin Klecka DATE/TIME: 10/1/99 1:13

RELINQUISHED BY:

2. DATE/TIME:

RELINQUISHED BY:

3. DATE/TIME: 10/1/99 1:50

RECEIVED BY:

1. Kevin Klecka

RECEIVED BY:

2. Richard Parrish

RECEIVED FOR LAB BY:

3. Richard Parrish

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler

Comments:
* AIFS Target list attached. (fax)

Page _____ of _____

Shipment Complete: Yes _____ No _____

DATA PACKAGE FOR VOLATILE ORGANICS

**PROJECT NAME: # 1-30-0435
PROJECT # 98-335, WESTBURY**

**IMPACT ENVIRONMENTAL
1 VILLAGE PLAZA
KING PARK NY 11754
916-269-8800**

**CHEMTECH PROJECT
ATTENTION**

**13701ASP
KEVIN KLEAKA**

CASE NARRATIVE-VOLATILE ORGANICS**Impact Environmental****Project Name: # 1-30-0435****Project # 98-335, Westbury****Chemtech Project # 13701ASP****A. Number of Samples and Date of Receipt**

14 Soil samples and 1 Trip Blank were delivered to the laboratory intact on 10/06/99.

B. Parameters

Test requested was Volatile Organics. This data package contains results for Volatile Organics.

C. Analytical Techniques:

Samples were analyzed for Volatile Organics according Method 8260B. The analyses were performed on instruments VOA5, using GC column RTX624 which is 75 meters, 0.53mm ID, 3.0mm df (crossbond 6% cyanopropylphenyl-94%) dimethylpolysiloxane. The Purge Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

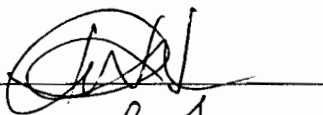
D. QA/ QC Samples:

The Surrogate Recoveries for each sample are found in Form II-A. Initial Calibration of Single Component Analytes results are found on Form 6 D & E. The Matrix Spike and Matrix Spike Duplicate were analyzed and are reported on Form 3F.

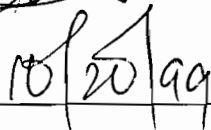
System Monitoring Compound recoveries were acceptable. MS/MSD recoveries and RPDs met requirements. Internal Standard Areas met requirements and Retention Times met criteria. Calibrations met requirements. Blank analyses did not indicate the presence of contamination.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature

Name: Divyajit Mehta

Date:

Title: Lab Manager**000001**

COVER PAGE

Lab Name: Chemtech Consulting Group

Client: IMPACT ENVIRONMENTAL

Lab Code: CHEM Project No.: 13701ASP

Project Name: # 1-30-0435

Client Sample No.	Lab Sample ID
GP-005-SS10	86830
GP-005-SS15	86831
GP-005-SS30	86832
GP-005-SS45	86833
GP-006-SS10	86834
GP-006-SS15	86835
GP-006-SS30	86836
GP-006-SS45	86837
GP-007-SS10	86838
GP-007-SS15	86839
GP-007-SS30	86840
GP-007-SS45	86841
GP-008-SS10	86842
GP-008-SS15	86843
TRIP BLANK	86844

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: _____

Name: DIVYAJIT MEHTA

Date : _____

Title: LAB DIRECTOR

000002

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH CONSULTING GROUP



VOLATILES

DATA

000506

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS10Level: (low/med) MED

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	108	105	106	104	
02	GP-008-SS15	102	98	105	109	
03	VBLK02	105	101	103	101	
04	GP-008-SS10	109	108	108	110	
05	GP-008-SS10DL	98 D	98 D	100 D	96 D	
06	VBLK03	104	104	103	104	
07	GP-008-SS15DL	106 D	102 D	109 D	108 D	
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

SMC1 (DBFM) = Dibromofluoromethane
 SMC2 (DCE) = 1,2-Dichloroethane-d4
 SMC3 (TOL) = Toluene-d8
 SMC4 (BFB) = 4-Bromofluorobenzene
 # Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

QC LIMITS

(80-120)

(80-120)

(81-117)

(74-121)

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS10

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	97	84	103	93	
02	TRIP BLANK	99	81	110	97	
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (DBFM) = Dibromofluoromethane
 SMC2 (DCE) = 1,2-Dichlorethane-d4
 SMC3 (TOL) = Toluene-d8
 SMC4 (BFB) = 4-Bromofluorobenzene
 # Column to be used to flag recovery values

(86-118)
 (80-120)
 (88-110)
 (86-115)

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS10Level: (low/med) LOW

	SAMPLE NO.	SMC1 (DBFM) #	SMC2 (DCE) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBLK01	94	92	101	96	
02	BLKSPK	93	91	100	92	
03	GP-005-SS10	90	90	102	90	
04	GP-005-SS15	93	94	101	89	
05	GP-005-SS30	89	89	99	87	
06	GP-005-SS45	94	96	100	96	
07	GP-006-SS10	92	94	101	96	
08	GP-006-SS15	96	102	102	102	
09	GP-006-SS30	96	100	98	96	
10	VBLK02	102	107	109	106	
11	GP-007-SS15	88	98	99	89	
12	GP-007-SS30	94	102	103	98	
13	GP-007-SS45	97	104	104	101	
14	VBLK03	96	100	95	88	
15	GP-006-SS45	92	89	99	89	
16	GP-007-SS10	93	98	108	94	
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (DBFM) = Dibromofluoromethane

(80-120)

SMC2 (DCE) = 1,2-Dichlorethane-d4

(80-120)

SMC3 (TOL) = Toluene-d8

(81-117)

SMC4 (BFB) = 4-Bromofluorobenzene

(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No.: 13701ASP Site: _____ Location: _____ Group: _____
Matrix Spike - Sample No.: BLKSPK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	57	0	58	102	(59-172)
Benzene	57	0	56	99	(66-142)
Trichloroethene	57	0	48	84	(62-137)
Toluene	57	0	56	97	(59-139)
Chlorobenzene	57	0	54	94	(60-133)

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Comments: _____

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECHContract: EARTH ENGINEERING INCProject No.: 12779NJ

Site: _____

Location: _____

Group: S-1Matrix Spike - Sample No.: S-12Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	4100	0	4500	110	(59-172)
Benzene	4100	0	4600	112	(66-142)
Trichloroethene	4100	0	4000	98	(62-137)
Toluene	4100	0	4500	110	(59-139)
Chlorobenzene	4100	0	4200	102	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	QC RPD	LIMITS REC.
1,1-Dichloroethene	4100	4800	117	6	22	(59-172)
Benzene	4100	5100	124	10	21	(66-142)
Trichloroethene	4100	4500	110	12	24	(62-137)
Toluene	4100	5000	122	11	21	(59-139)
Chlorobenzene	4100	4700	115	11	21	(60-133)

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Comments: _____

000010

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECHContract: EVERCLEAR ENVIRONMENTAL INC.,Project No.: 12729NJ

Site: _____

Location: COLORITE RIDGEFIELD Group: _____Matrix Spike - Sample No.: X-1Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	57	0	58	102	(59-172)
Benzene	57	0	59	104	(66-142)
Trichloroethene	57	0	47	82	(62-137)
Toluene	57	0	57	100	(59-139)
Chlorobenzene	57	0	55	96	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	QC RPD	LIMITS REC.
1,1-Dichloroethene	57	63	111	8	22	(59-172)
Benzene	57	63	111	7	21	(66-142)
Trichloroethene	57	52	91	10	24	(62-137)
Toluene	57	59	104	3	21	(59-139)
Chlorobenzene	57	59	104	7	21	(60-133)

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Comments: _____

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH

Contract: IMPACT

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Lab File ID: M12986.D

Lab Sample ID: VBLK01

Date Analyzed: '10/10/99

Time Analyzed: 1448

GC Column: RTX624

ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: VOA 3

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-008-SS15	O86843	M12991.D	1836
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

VBLK02

Lab Name: CHEMTECHContract: IMPACTProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SSLab File ID: M13003.DLab Sample ID: VBLK02Date Analyzed: '10/11/99Time Analyzed: 0929GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) NInstrument ID: VOA 3

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-008-SS10	O86842	M13008.D	1433
02	GP-008-SS10DL	O86842DL	M13011.D	1704
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBK03

Lab Name: CHEMTECH

Contract: IMPACT

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Lab File ID: M13045.D

Lab Sample ID: VBK03

Date Analyzed: '10/13/99

Time Analyzed: 0006

GC Column: RTX624

ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: VOA 3

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-008-SS15DL	O86843DL	M13051.D	0438
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CHEMTECHContract: IMPACTProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SSLab File ID: M12939.DLab Sample ID: VBLK01Date Analyzed: 10/8/99Time Analyzed: 0854GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) NInstrument ID: VOA 3

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TRIP BLANK	O86844	M12947.D	1541
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CHEMTECHContract: IMPACTProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SSLab File ID: P19102.DLab Sample ID: VBLK01Date Analyzed: 10/8/99Time Analyzed: 1233GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) YInstrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLKSPK	BLKSPK	P19103.D	1318
02	GP-005-SS10	O86830	P19110.D	1828
03	GP-005-SS15	O86831	P19111.D	1913
04	GP-005-SS30	O86832	P19112.D	1958
05	GP-005-SS45	O86833	P19113.D	2042
06	GP-006-SS10	O86834	P19114.D	2126
07	GP-006-SS15	O86835	P19115.D	2210
08	GP-006-SS30	O86836	P19116.D	2254
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH

Contract: IMPACT

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Lab File ID: P19119.D

Lab Sample ID: VBLK02

Date Analyzed: 10/9/99

Time Analyzed: 0057

GC Column: RTX624

ID: 0.53 (mm)

Heated Purge: (Y/N) Y

Instrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-007-SS15	O86839	P19123.D	0353
02	GP-007-SS30	O86840	P19124.D	0437
03	GP-007-SS45	O86841	P19125.D	0521
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBK03

Lab Name: CHEMTECH Contract: IMPACT

Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS

Lab File ID: P19154.D Lab Sample ID: VBK03

Date Analyzed: 10/11/99 Time Analyzed: 1838

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOA 2

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GP-006-SS45	O86837	P19156.D	2056
02	GP-007-SS10	O86838	P19157.D	2140
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID: M12953.D BFB Injection Date: 10/9/99
 Instrument ID: VOA 3 BFB Injection Time: 0804
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.6
75	30.0 - 66.0% of mass 95	46.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.1 (0.1)1
174	50.0 - 120.0% of mass 95	81.3
175	4.0 - 9.0% of mass 174	5.6 (6.9)1
176	93.0 - 101.0% of mass 174	79.8 (98.2)1
177	5.0 - 9.0% of mass 176	4.9 (6.1)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD200	VSTD200	M12954.D	10/9/99	0832
02	VSTD100	VSTD100	M12955.D	10/9/99	0917
03	VSTD050	VSTD050	M12956.D	10/9/99	1002
04	VSTD020	VSTD020	M12957.D	10/9/99	1049
05	VSTD005	VSTD005	M12959.D	10/9/99	1235
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: M12984.DBFB Injection Date: 10/10/99Instrument ID: VOA 3BFB Injection Time: 1335GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.5
75	30.0 - 66.0% of mass 95	47.2
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	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.9
175	4.0 - 9.0% of mass 174	5.9 (7.3)1
176	93.0 - 101.0% of mass 174	77.5 (97.1)1
177	5.0 - 9.0% of mass 176	4.6 (5.9)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5002	M12985.D	10/10/99	1403
02	VBLK01	VBLK01	M12986.D	10/10/99	1448
03	GP-008-SS15	O86843	M12991.D	10/10/99	1836
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID: M13001.D BFB Injection Date: 10/11/99
 Instrument ID: VOA 3 BFB Injection Time: 0747
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.0
75	30.0 - 66.0% of mass 95	48.8
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	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.4
175	4.0 - 9.0% of mass 174	5.7 (7.2)1
176	93.0 - 101.0% of mass 174	76.5 (96.3)1
177	5.0 - 9.0% of mass 176	4.8 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5003	M13002.D	10/11/99	0815
02	VBLK02	VBLK02	M13003.D	10/11/99	0929
03	GP-008-SS10	O86842	M13008.D	10/11/99	1433
04	GP-008-SS10D	O86842DL	M13011.D	10/11/99	1704
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: M13038.DBFB Injection Date: 10/12/99Instrument ID: VOA 3BFB Injection Time: 1903GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.3
75	30.0 - 66.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	75.9
175	4.0 - 9.0% of mass 174	5.8 (7.7)1
176	93.0 - 101.0% of mass 174	76.3 (100.5)1
177	5.0 - 9.0% of mass 176	4.8 (6.2)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5004	M13039.D	10/12/99	1931
02	VBLK03	VBLK03	M13045.D	10/13/99	0006
03	GP-008-SS15D	O86843DL	M13051.D	10/13/99	0438
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: M12459.DBFB Injection Date: 9/16/99Instrument ID: VOA 3BFB Injection Time: 0744GC Column: RTX624 ID: 0.53 (mm)Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.3
75	30.0 - 66.0% of mass 95	51.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	74.4
175	4.0 - 9.0% of mass 174	5.7 (7.6)1
176	93.0 - 101.0% of mass 174	72.2 (97.0)1
177	5.0 - 9.0% of mass 176	3.7 (5.2)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	M12461.D	9/16/99	0811
02	VSTD200	VSTD200	M12462.D	9/16/99	0906
03	VSTD100	VSTD100	M12463.D	9/16/99	0952
04	VSTD020	VSTD020	M12464.D	9/16/99	1039
05	VSTD005	VSTD005	M12466.D	9/16/99	1307
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID: M12937.D BFB Injection Date: 10/8/99
 Instrument ID: VOA 3 BFB Injection Time: 0718
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.7
75	30.0 - 66.0% of mass 95	47.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	76.9
175	4.0 - 9.0% of mass 174	5.3 (6.9)1
176	93.0 - 101.0% of mass 174	76.3 (99.2)1
177	5.0 - 9.0% of mass 176	4.8 (6.2)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5002	M12938.D	10/8/99	0746
02	VBLK01	VBLK01	M12939.D	10/8/99	0854
03	TRIP BLANK	O86844	M12947.D	10/8/99	1541
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: P19048.DBFB Injection Date: 10/6/99Instrument ID: VOA 2BFB Injection Time: 1715GC Column: RTX624 ID: 0.53 (mm)Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.1
75	30.0 - 66.0% of mass 95	58.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	99.4
175	4.0 - 9.0% of mass 174	7.4 (7.4)1
176	93.0 - 101.0% of mass 174	98.5 (99.1)1
177	5.0 - 9.0% of mass 176	6.4 (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:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	P19049.D	10/6/99	1753
02	VSTD200	VSTD200	P19051.D	10/6/99	1923
03	VSTD100	VSTD100	P19052.D	10/6/99	2007
04	VSTD020	VSTD020	P19053.D	10/6/99	2051
05	VSTD005	VSTD005	P19054.D	10/6/99	2135
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

000025

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: P19100.DBFB Injection Date: 10/8/99Instrument ID: VOA 2BFB Injection Time: 1111GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.1
75	30.0 - 66.0% of mass 95	59.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	89.2
175	4.0 - 9.0% of mass 174	6.3 (7.1)1
176	93.0 - 101.0% of mass 174	89.7 (100.6)1
177	5.0 - 9.0% of mass 176	5.7 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5002	P19101.D	10/8/99	1149
02	VBLK01	VBLK01	P19102.D	10/8/99	1233
03	BLKSPK	BLKSPK	P19103.D	10/8/99	1318
04	GP-005-SS10	O86830	P19110.D	10/8/99	1828
05	GP-005-SS15	O86831	P19111.D	10/8/99	1913
06	GP-005-SS30	O86832	P19112.D	10/8/99	1958
07	GP-005-SS45	O86833	P19113.D	10/8/99	2042
08	GP-006-SS10	O86834	P19114.D	10/8/99	2126
09	GP-006-SS15	O86835	P19115.D	10/8/99	2210
10	GP-006-SS30	O86836	P19116.D	10/8/99	2254
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

000026

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID: P19117.D BFB Injection Date: 10/8/99
 Instrument ID: VOA 2 BFB Injection Time: 2335
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.2
75	30.0 - 66.0% of mass 95	57.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	98.3
175	4.0 - 9.0% of mass 174	8.3 (8.4)1
176	93.0 - 101.0% of mass 174	97.4 (99.1)1
177	5.0 - 9.0% of mass 176	6.7 (6.9)2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5003	P19118.D	10/9/99	0013
02	VBLK02	VBLK02	P19119.D	10/9/99	0057
03	GP-007-SS15	O86839	P19123.D	10/9/99	0353
04	GP-007-SS30	O86840	P19124.D	10/9/99	0437
05	GP-007-SS45	O86841	P19125.D	10/9/99	0521
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

000027

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID: P19151.DBFB Injection Date: 10/11/99Instrument ID: VOA 2BFB Injection Time: 1631GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.3
75	30.0 - 66.0% of mass 95	59.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	89.2
175	4.0 - 9.0% of mass 174	6.8 (7.6)1
176	93.0 - 101.0% of mass 174	89.4 (100.2)1
177	5.0 - 9.0% of mass 176	5.9 (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:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD5004	P19152.D	10/11/99	1710
02	VBLK03	VBLK03	P19154.D	10/11/99	1838
03	GP-006-SS45	O86837	P19156.D	10/11/99	2056
04	GP-007-SS10	O86838	P19157.D	10/11/99	2140
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID (Standard): M12985.DDate Analyzed: 10/10/99Instrument ID: VOA 3Time Analyzed: 1403GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (FB) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	2115126	14.14	1788981	20.48	772206	25.21
UPPER LIMIT	4230252	14.64	3577962	20.98	1544412	25.71
LOWER LIMIT	1057563	13.64	894491	19.98	386103	24.71
SAMPLE NO.						
01 VBLK01	2020386	14.13	1736420	20.48	792828	25.21
02 GP-008-SS15	2197576	14.07	1899933	20.43	705026	25.17
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000029

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID (Standard): M13002.D Date Analyzed: 10/11/99
 Instrument ID: VOA 3 Time Analyzed: 0815
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) N

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2163422	14.12	1831867	20.48	832856	25.21
UPPER LIMIT	4326844	14.62	3663734	20.98	1665712	25.71
LOWER LIMIT	1081711	13.62	915934	19.98	416428	24.71
SAMPLE NO.						
01 VBLK02	2095252	14.13	1749204	20.47	812059	25.21
02 GP-008-SS10	1985757	14.10	1682253	20.46	653578	25.21
03 GP-008-SS10DL	2194649	14.11	1875461	20.46	854504	25.19
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000030

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Lab File ID (Standard): M13039.DDate Analyzed: 10/12/99Instrument ID: VOA 3Time Analyzed: 1931GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2128207	14.06	1767032	20.37	838782	25.09
UPPER LIMIT	4256414	14.56	3534064	20.87	1677564	25.59
LOWER LIMIT	1064104	13.56	883516	19.87	419391	24.59
SAMPLE NO.						
01 VBLK03	1929318	14.08	1723942	20.39	755751	25.11
02 GP-008-SS15DL	2064800	14.08	1737499	20.43	775031	25.16
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000031

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID (Standard): M12938.D Date Analyzed: 10/8/99
 Instrument ID: VOA 3 Time Analyzed: 0746
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) N

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2181875	14.08	1748135	20.43	773639	25.16
UPPER LIMIT	4363750	14.58	3496270	20.93	1547278	25.66
LOWER LIMIT	1090938	13.58	874068	19.93	386820	24.66
SAMPLE NO.						
01 VBLK01	1856252	14.09	1544937	20.43	686703	25.17
02 TRIP BLANK	2011056	14.08	1593469	20.42	756978	25.16
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000032

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID (Standard): P19101.D Date Analyzed: 10/8/99
 Instrument ID: VOA 2 Time Analyzed: 1149
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) Y

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1071382	9.26	1121445	16.34	833409	22.59
UPPER LIMIT	2142764	9.76	2242890	16.84	1666818	23.09
LOWER LIMIT	535691	8.76	560723	15.84	416705	22.09
SAMPLE NO.						
01 VBLK01	1145972	9.25	1186195	16.33	869347	22.59
02 BLKSPK	1096593	9.26	1099566	16.33	780714	22.59
03 GP-005-SS10	1098714	9.27	1121646	16.34	688300	22.60
04 GP-005-SS15	1026702	9.26	1003704	16.34	655742	22.61
05 GP-005-SS30	1094449	9.26	1063930	16.34	733026	22.60
06 GP-005-SS45	943067	9.24	974542	16.33	712991	22.59
07 GP-006-SS10	929798	9.24	961700	16.33	686983	22.59
08 GP-006-SS15	810202	9.26	864775	16.33	604382	22.60
09 GP-006-SS30	811953	9.25	813813	16.34	588217	22.59
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000033

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID (Standard): P19118.D Date Analyzed: 10/9/99
 Instrument ID: VOA 2 Time Analyzed: 0013
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) Y

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	903894	9.27	963475	16.33	675476	22.60
UPPER LIMIT	1807788	9.77	1926950	16.83	1350952	23.10
LOWER LIMIT	451947	8.77	481738	15.83	337738	22.10
SAMPLE NO.						
01 VBLK02	823714	9.25	919279	16.33	684259	22.60
02 GP-007-SS15	832454	9.26	794976	16.33	530668	22.59
03 GP-007-SS30	744636	9.26	763728	16.34	518234	22.61
04 GP-007-SS45	732407	9.24	774336	16.34	535851	22.59
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000034

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Lab File ID (Standard): P19152.D Date Analyzed: 10/11/99
 Instrument ID: VOA 2 Time Analyzed: 1710
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge (Y/N) Y

	IS1 (FB)		IS2 (CBZ)		IS3 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1379612	9.27	1443870	16.35	961810	22.63
UPPER LIMIT	2759224	9.77	2887740	16.85	1923620	23.13
LOWER LIMIT	689806	8.77	721935	15.85	480905	22.13
SAMPLE NO.						
01 VBLK03	1152921	9.26	1264915	16.34	848397	22.60
02 GP-006-SS45	1213231	9.27	1253237	16.35	893016	22.61
03 GP-007-SS10	1077877	9.26	1148238	16.34	730727	22.61
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FB) = Fluorobenzene

IS2 (CBZ) = Chlorobenzene-d5

IS3 (DCB) = 1,4-Dichlorobenzene-d4

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.

000035

CHEMTECH CONSULTING GROUP

VOLATILES

SAMPLE DATA

000036

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-005-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86830

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19110.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 7

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
			Q
75-71-8	Dichlorodifluoromethane	5.4	U
74-87-3	Chloromethane	5.4	U
75-01-4	Vinyl Chloride	5.4	U
74-83-9	Bromomethane	5.4	U
75-00-3	Chloroethane	5.4	U
75-69-4	Trichlorofluoromethane	5.4	U
75-09-2	Methylene Chloride	5.4	U
75-34-4	1,1-Dichloroethane	5.4	U
590-20-7	2,2-Dichloropropane	5.4	U
74-97-5	Bromochloromethane	5.4	U
67-66-3	Chloroform	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	U
56-23-5	Carbon Tetrachloride	5.4	U
563-58-6	1,1-Dichloropropene	5.4	U
71-43-2	Benzene	5.4	U
107-06-2	1,2-Dichloroethane	5.4	U
79-01-6	Trichloroethene	5.4	U
78-87-5	1,2-Dichloropropane	5.4	U
74-95-3	Dibromomethane	5.4	U
75-27-4	Bromodichloromethane	5.4	U
108-88-3	Toluene	5.4	U
79-00-5	1,1,2-Trichloroethane	5.4	U
127-18-4	Tetrachloroethene	5.4	U
142-28-9	1,3-Dichloropropane	5.4	U
124-48-1	Dibromochloromethane	5.4	U
106-93-4	1,2-Dibromoethane	5.4	U
108-90-7	Chlorobenzene	5.4	U
630-20-6	1,1,1,2-Tetrachloroethane	5.4	U
100-41-4	Ethylbenzene	5.4	U
100-42-5	Styrene	5.4	U
75-25-2	Bromoform	5.4	U
98-82-8	isopropylbenzene	5.4	U
108-86-1	Bromobenzene	5.4	U

GP-005-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86830

Sample wt/vol:

5.0

(g/mL)

G

Lab File ID: P19110.D

Level: (low/med)

LOW

Date Received: 10/6/99

% Moisture: not dec.

7

Date Analyzed: 10/8/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Concentration Units:

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-005-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86830
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19110.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 6.63 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 3 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	26.29	5.5	J
2.	Unknown	31.39	8.8	J
3.	Unknown	31.97	5.7	J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000039

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
 Acq Time : 8 Oct 99 6:28 pm
 Sample : 13701ASP-86830
 Misc : 5G/5ML
 Quant Time: Oct 10 12:32 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.27	96	1098714	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.34	117	1121646	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.60	152	688300	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.96	113	823360	44.98	ug/L	89.96%
30) 1,2-Dichlorethane-d4	8.67	65	649062	45.12	ug/L	90.25%
38) Toluene-d8	12.77	98	1089312	50.83	ug/L	101.66%
42) 4-Bromofluorobenzene	19.49	95	991133	45.05	ug/L	90.11%

Target Compounds Qvalue

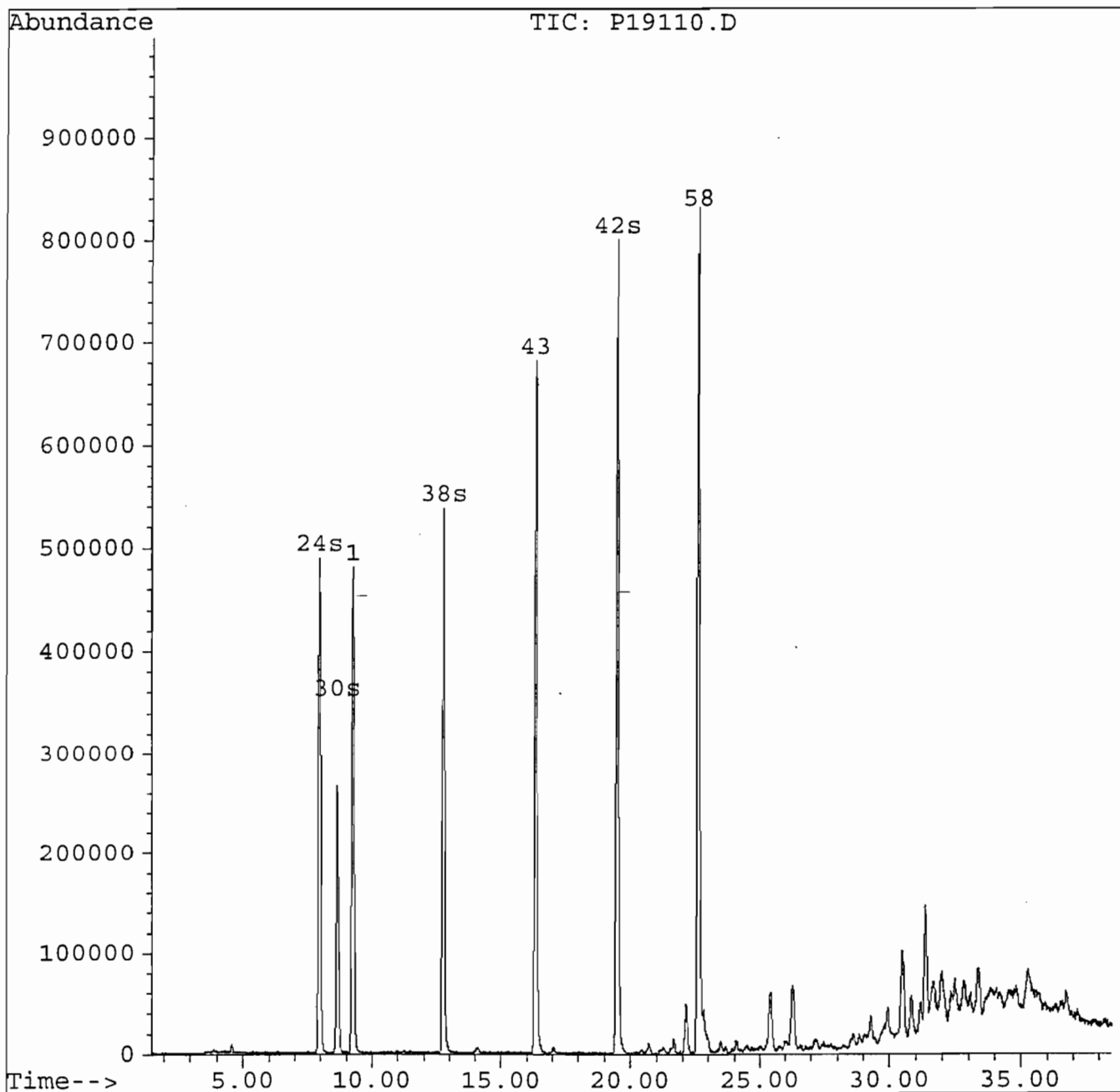
000040

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
Acq Time : 8 Oct 99 6:28 pm
Sample : 13701ASP-86830
Misc : 5G/5ML
Quant Time: Oct 10 12:32 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000041

Library Search Compound Report

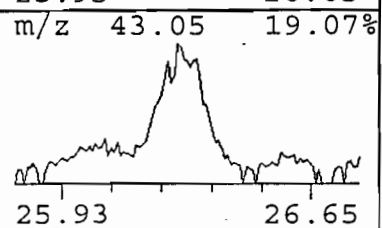
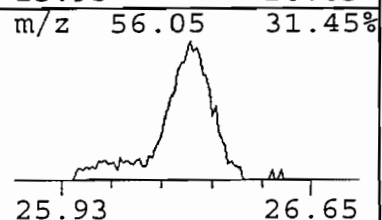
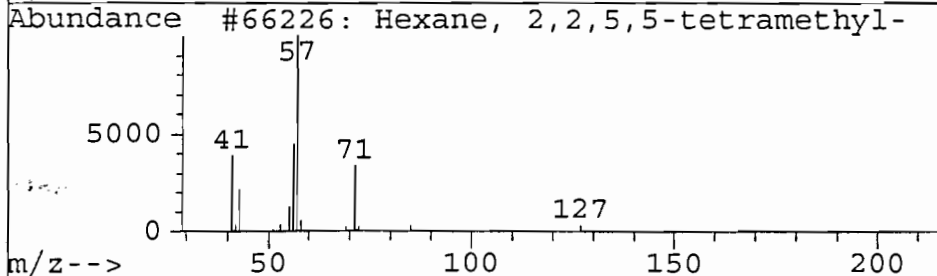
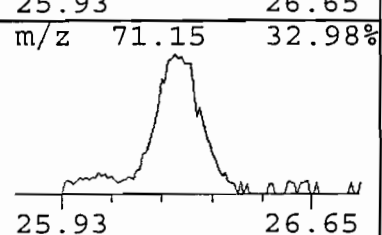
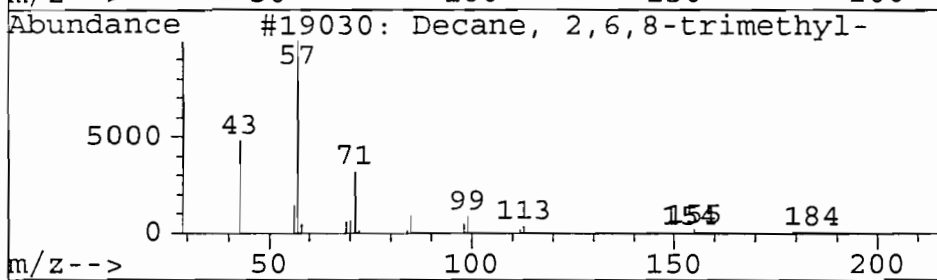
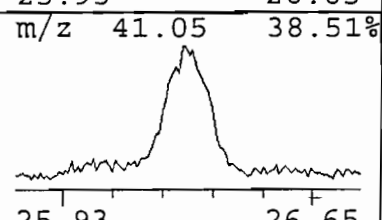
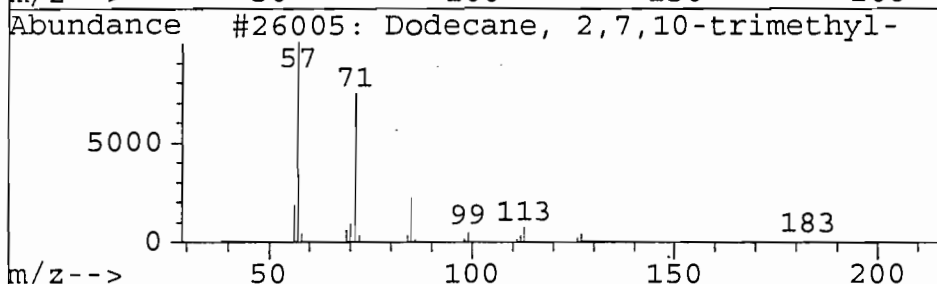
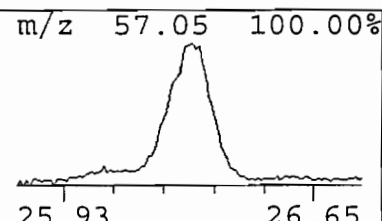
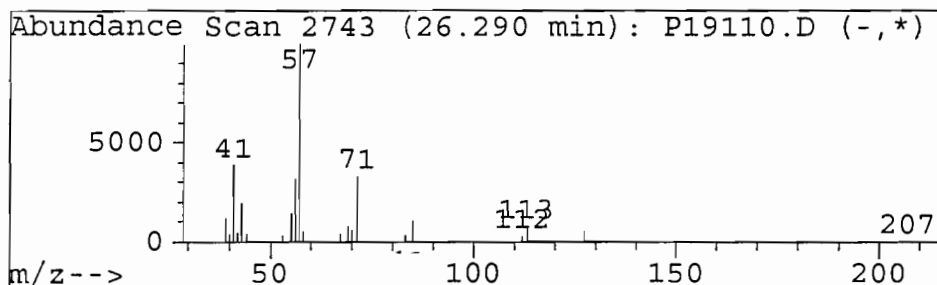
Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
Acq Time : 8 Oct 99 6:28 pm
Sample : 13701ASP-86830
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.29	5.16 ug/L	558984	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane, 2,7,10-trimethyl-	26005	074645-98-0	50
2	Decane, 2,6,8-trimethyl-	19030	062108-26-3	42
3	Hexane, 2,2,5,5-tetramethyl-	66226	001071-81-4	42
4	Decane, 2,6,7-trimethyl-	19027	062108-25-2	38
5	Octadecane, 2,2,4,15,17,17-hexameth	60724	055470-97-8	38



000042

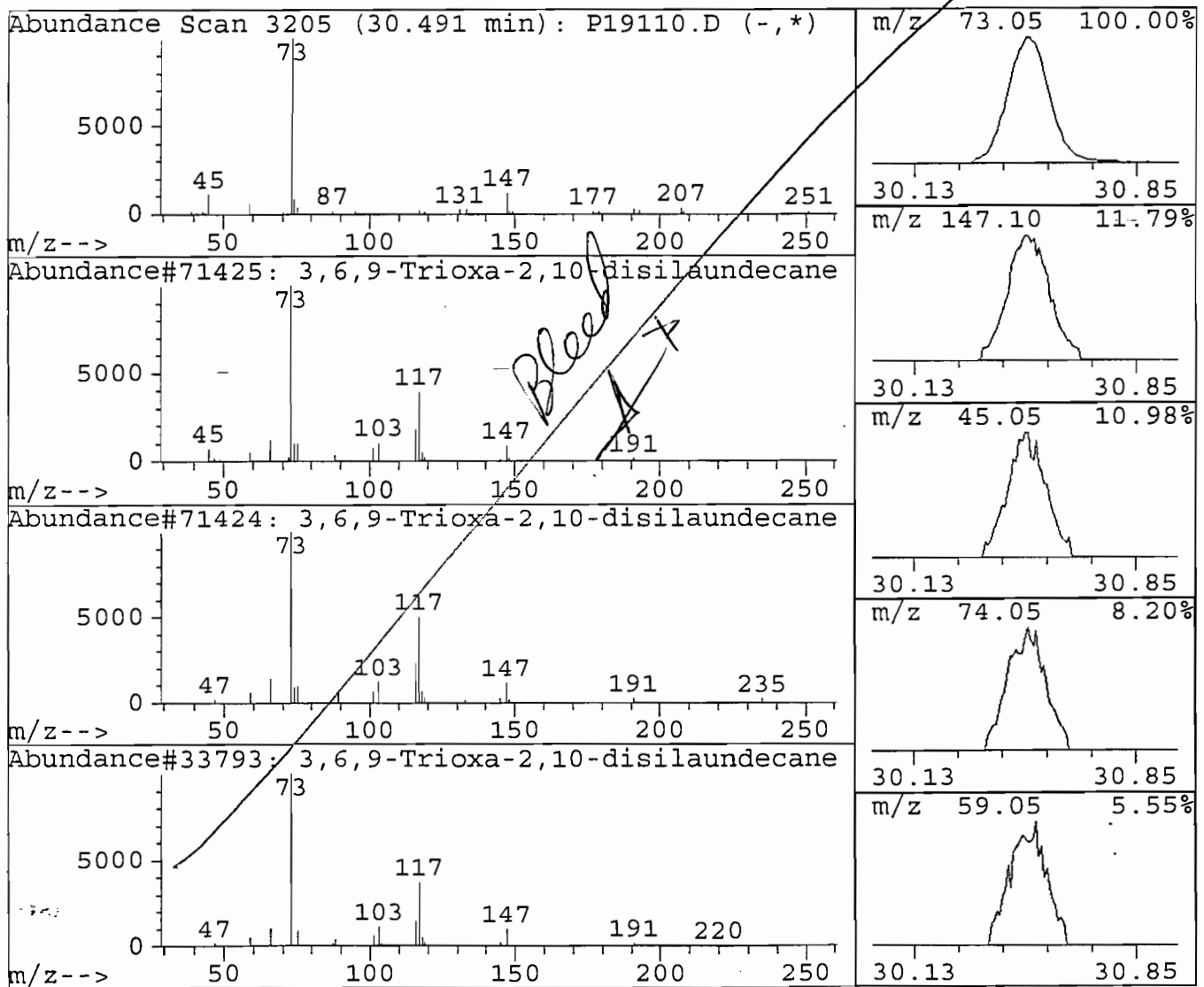
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
Acq Time : 8 Oct 99 6:28 pm
Sample : 13701ASP-86830
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.49	7.09 ug/L	768615	1,4-dichlorobenzene-d4	22.60	
Hit# of	4	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane,	2	71425	016654-74-3	50
2	3,6,9-Trioxa-2,10-disilaundecane,	2	71424	016654-74-3	28
3	3,6,9-Trioxa-2,10-disilaundecane,	2	33793	016654-74-3	28
4	Ethanedioic acid, bis(trimethylsily		71006	018294-04-7	25



000043

Library Search Compound Report

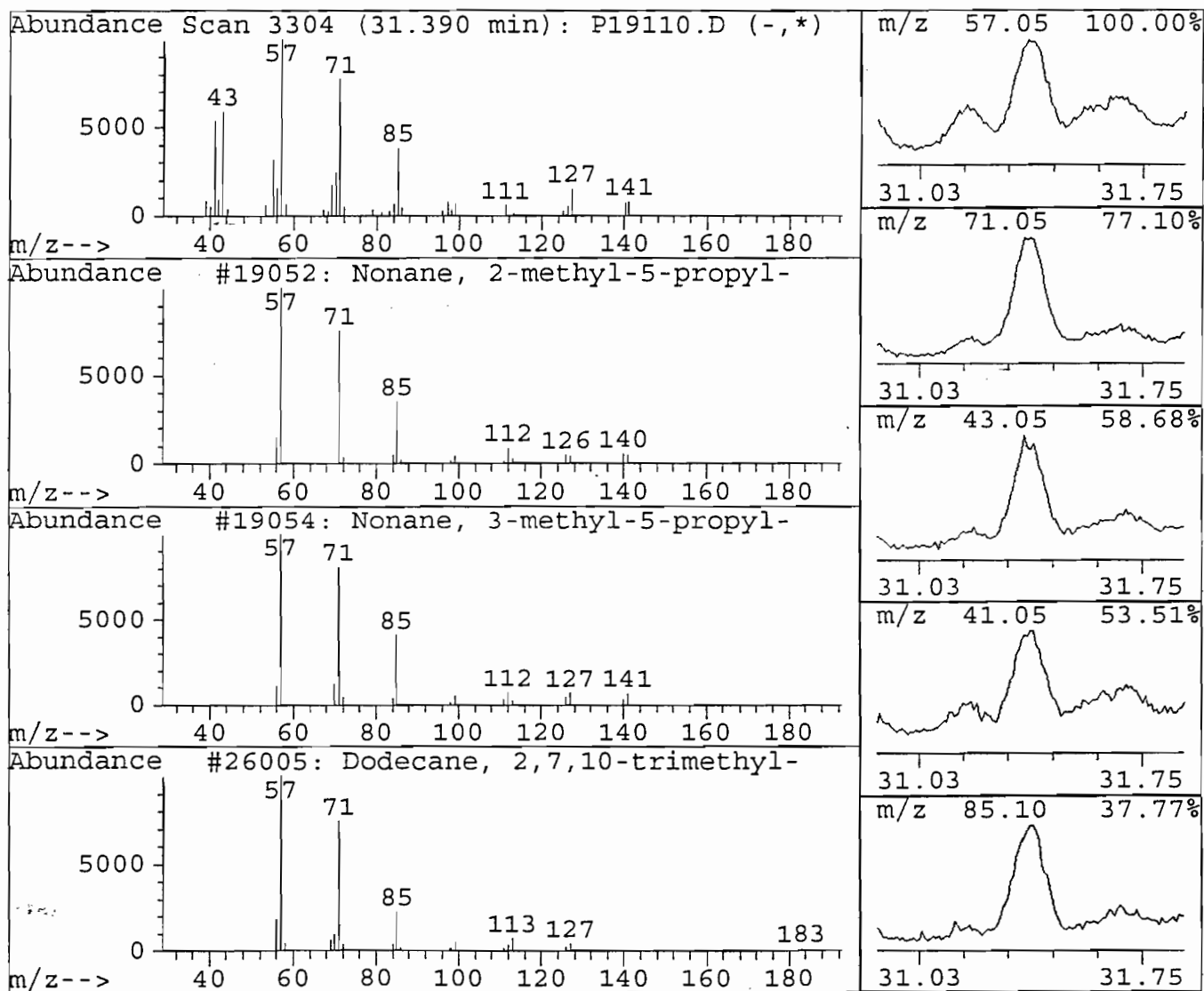
Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
Acq Time : 8 Oct 99 6:28 pm
Sample : 13701ASP-86830
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.39	8.20 ug/L	888329	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 2-methyl-5-propyl-	19052	031081-17-1	80
2	Nonane, 3-methyl-5-propyl-	19054	031081-18-2	78
3	Dodecane, 2,7,10-trimethyl-	26005	074645-98-0	64
4	Heptadecane, 2,6-dimethyl-	37466	054105-67-8	59
5	Decane, 3-methyl-	11604	013151-34-3	59



000C44

Library Search Compound Report

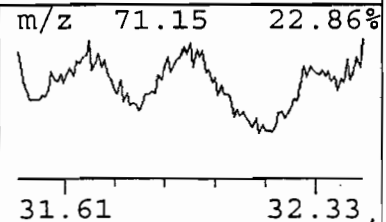
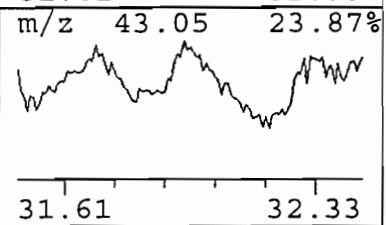
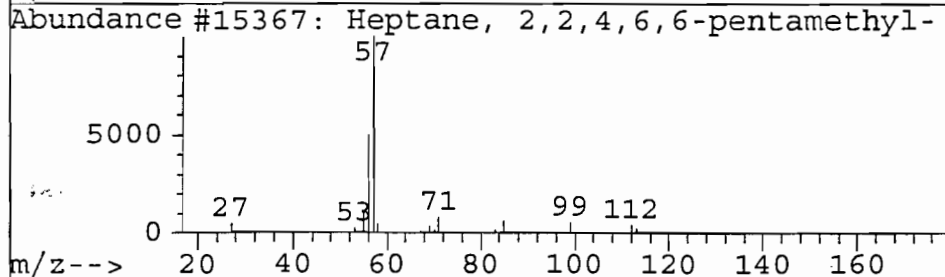
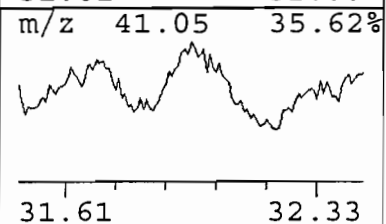
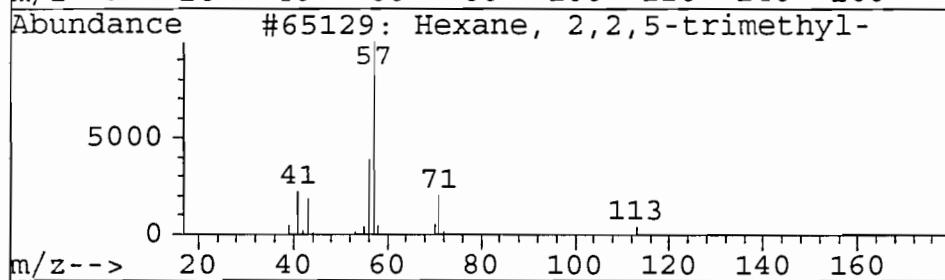
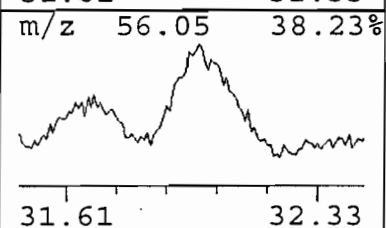
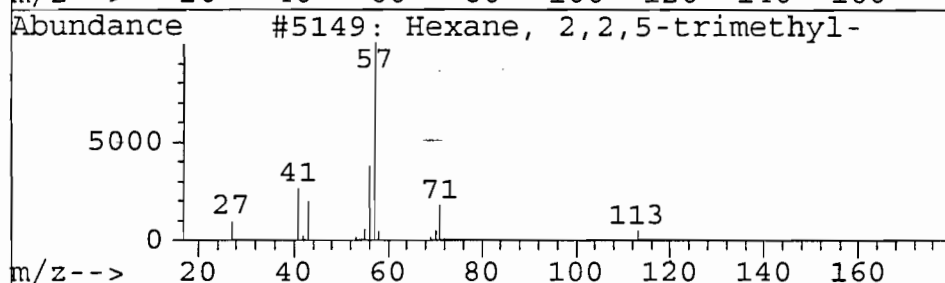
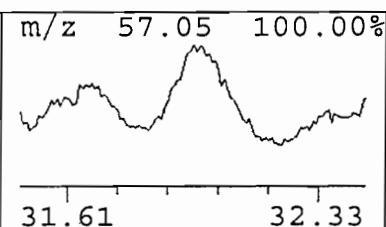
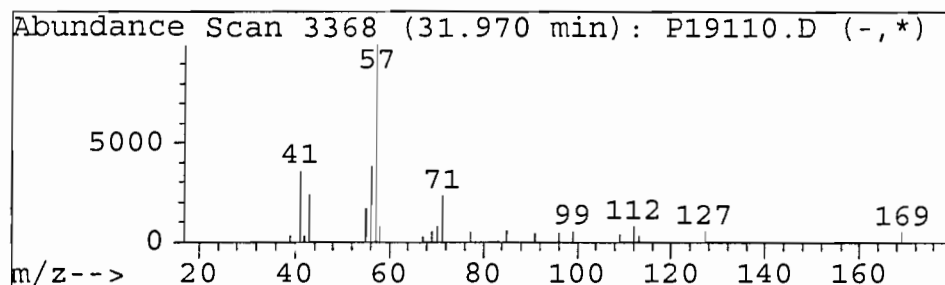
Data File : I:\HPCHEM\1\DATA\V2100899\P19110.D
Acq Time : 8 Oct 99 6:28 pm
Sample : 13701ASP-86830
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.97	5.31 ug/L	575005	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2,2,5-trimethyl-	5149	003522-94-9	53
2	Hexane, 2,2,5-trimethyl-	65129	003522-94-9	53
3	Heptane, 2,2,4,6,6-pentamethyl-	15367	013475-82-6	50
4	Undecane, 2,5-dimethyl-	69031	017301-22-3	47
5	Hexane, 2,2,5-trimethyl-	65127	003522-94-9	42



000C45

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-005-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86831

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19111.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 6

Date Analyzed: 10/8/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.3		U
74-87-3	Chloromethane	5.3		U
75-01-4	Vinyl Chloride	5.3		U
74-83-9	Bromomethane	5.3		U
75-00-3	Chloroethane	5.3		U
75-69-4	Trichlorofluoromethane	5.3		U
75-09-2	Methylene Chloride	5.3		U
75-34-4	1,1-Dichloroethane	5.3		U
590-20-7	2,2-Dichloropropane	5.3		U
74-97-5	Bromochloromethane	5.3		U
67-66-3	Chloroform	5.3		U
71-55-6	1,1,1-Trichloroethane	5.3		U
56-23-5	Carbon Tetrachloride	5.3		U
563-58-6	1,1-Dichloropropene	5.3		U
71-43-2	Benzene	5.3		U
107-06-2	1,2-Dichloroethane	5.3		U
79-01-6	Trichloroethene	5.3		U
78-87-5	1,2-Dichloropropane	5.3		U
74-95-3	Dibromomethane	5.3		U
75-27-4	Bromodichloromethane	5.3		U
108-88-3	Toluene	5.3		U
79-00-5	1,1,2-Trichloroethane	5.3		U
127-18-4	Tetrachloroethene	5.3		U
142-28-9	1,3-Dichloropropane	5.3		U
124-48-1	Dibromochloromethane	5.3		U
106-93-4	1,2-Dibromoethane	5.3		U
108-90-7	Chlorobenzene	5.3		U
630-20-6	1,1,1,2-Tetrachloroethane	5.3		U
100-41-4	Ethylbenzene	5.3		U
100-42-5	Styrene	5.3		U
75-25-2	Bromoform	5.3		U
98-82-8	isopropylbenzene	5.3		U
108-86-1	Bromobenzene	5.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-005-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86831
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19111.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 5.79 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 10 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	22.14	140	J
2.	Unknown	22.82	140	J
3.	Unknown	23.47	23	J
4.	Unknown	25.27	28	J
5.	Unknown	26.04	22	J
6.	Unknown	26.27	140	J
7.	Unknown	29.28	28	J
8.	Unknown	31.39	41	J
9.	Unknown	31.69	27	J
10.	Unknown	31.97	26	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000048

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
 Acq Time : 8 Oct 99 7:13 pm
 Sample : 13701ASP-86831
 Misc : 5G/5ML
 Quant Time: Oct 10 12:32 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1026702	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.34	117	1003704	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.61	152	655742	50.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.96	113	798593	46.68	ug/L	93.37%
30) 1,2-Dichlorethane-d4	8.67	65	632167	47.03	ug/L	94.06%
38) Toluene-d8	12.76	98	1006388	50.26	ug/L	100.51%
42) 4-Bromofluorobenzene	19.49	95	918454	44.68	ug/L	89.36%

Target Compounds	Qvalue

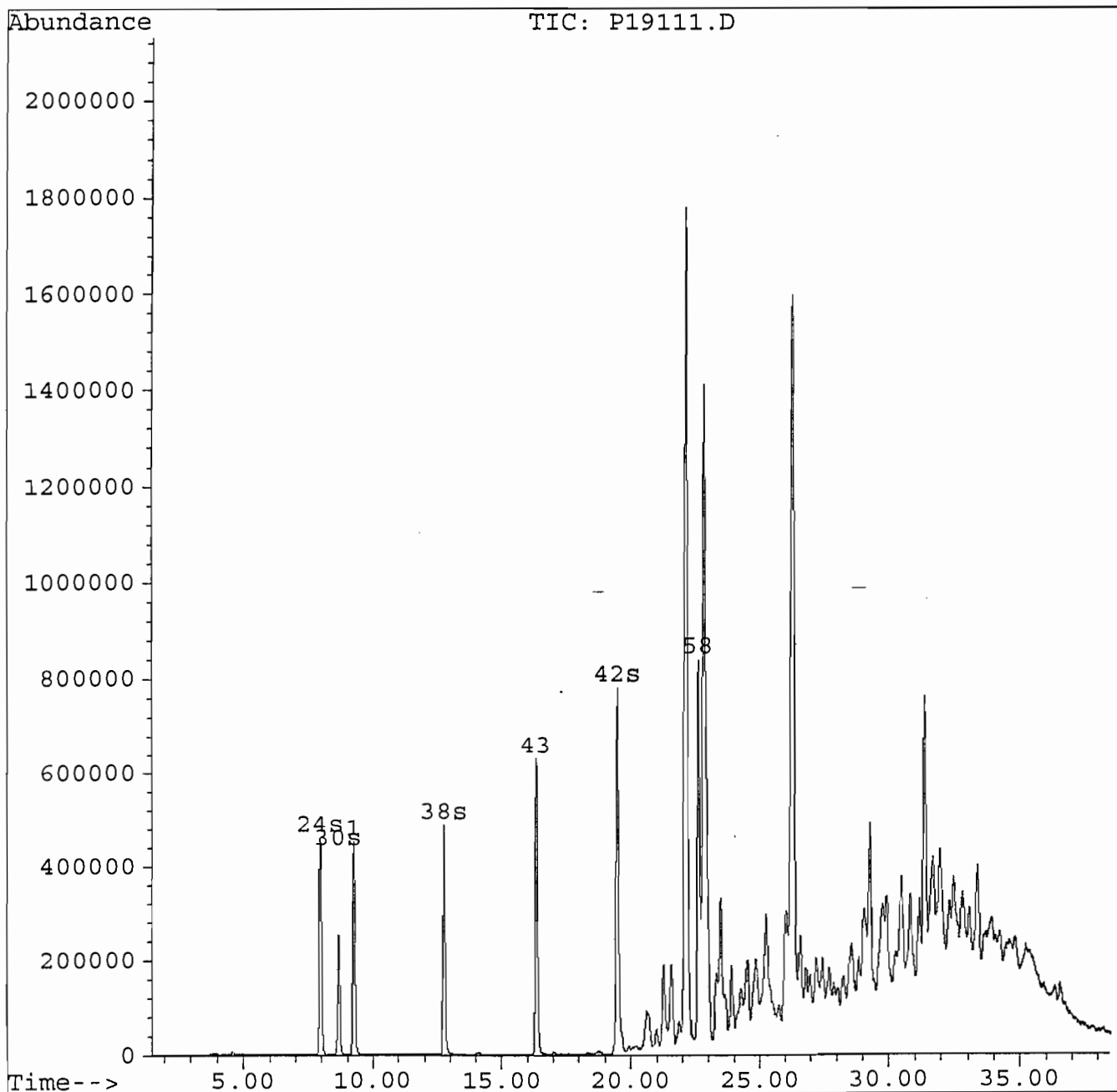
000049

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML
Quant Time: Oct 10 12:32 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000050

Library Search Compound Report

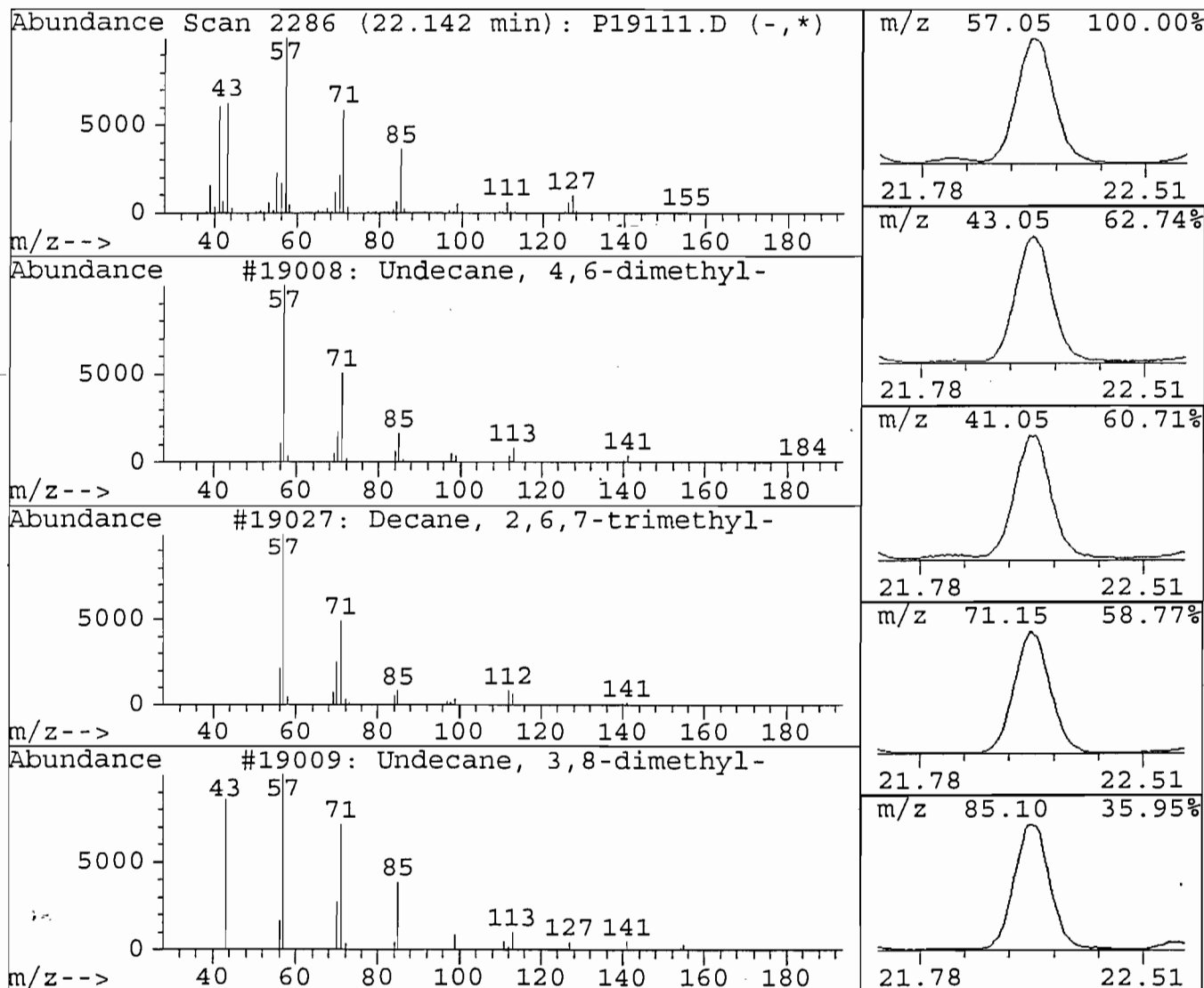
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.14	131.48 ug/L	14323135	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane, 4,6-dimethyl-	19008	017312-82-2	59
2	Decane, 2,6,7-trimethyl-	19027	062108-25-2	53
3	Undecane, 3,8-dimethyl-	19009	017301-30-3	53
4	Undecane, 2,8-dimethyl-	18991	017301-25-6	53
5	Tetratetracontane	74745	007098-22-8	53



000051

Library Search Compound Report

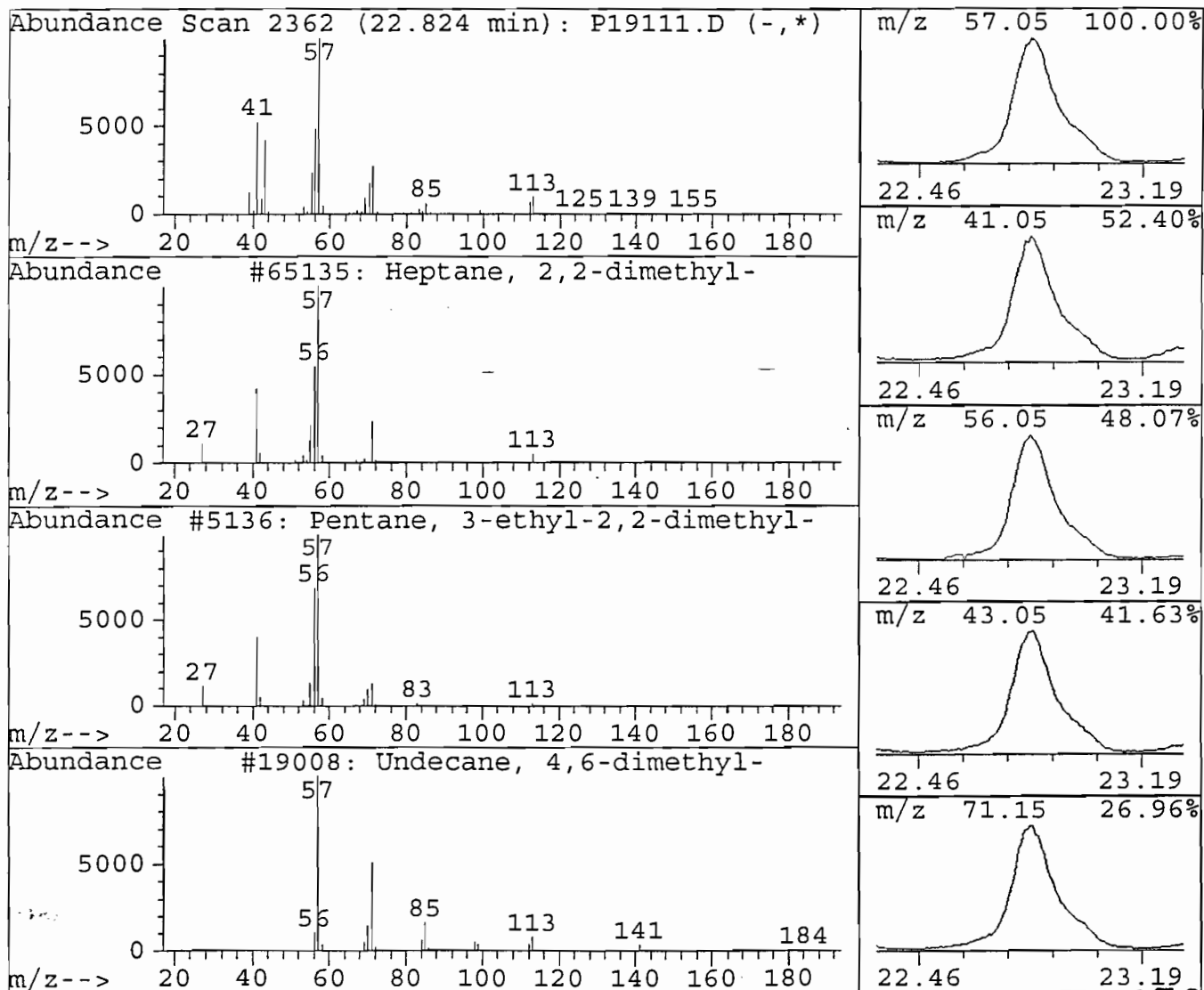
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.82	127.49 ug/L	13887680	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,2-dimethyl-	65135	001071-26-7	59
2	Pentane, 3-ethyl-2,2-dimethyl-	5136	016747-32-3	59
3	Undecane, 4,6-dimethyl-	19008	017312-82-2	47
4	Undecane, 3,6-dimethyl-	19000	017301-28-9	47
5	Undecane, 2,5-dimethyl-	19056	017301-22-3	47



000052

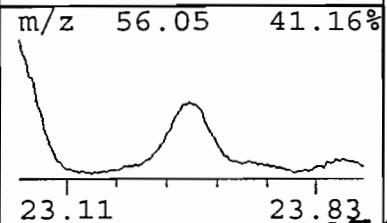
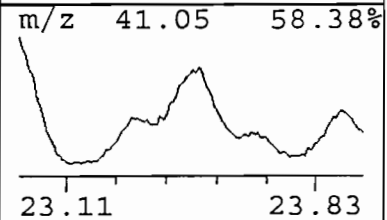
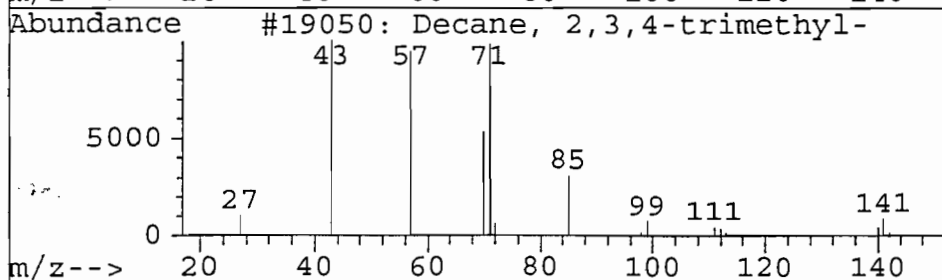
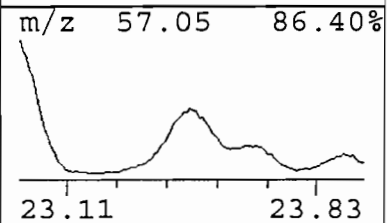
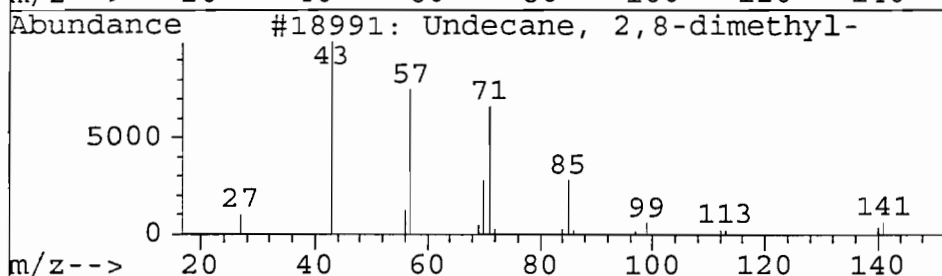
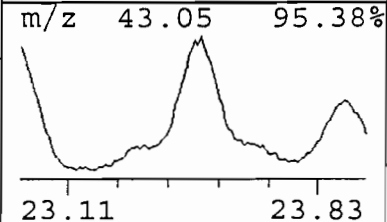
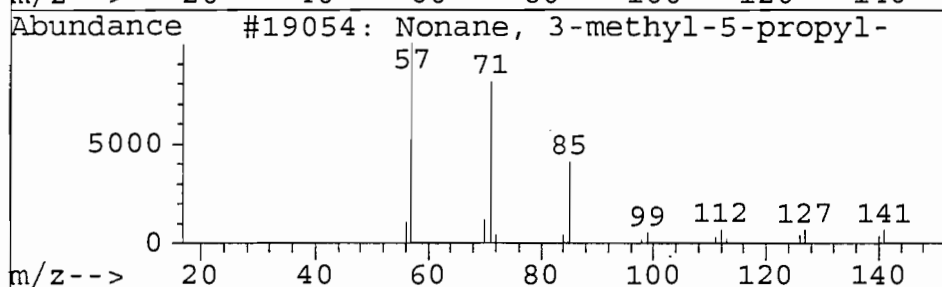
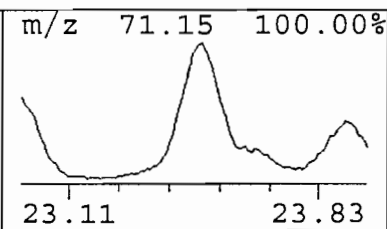
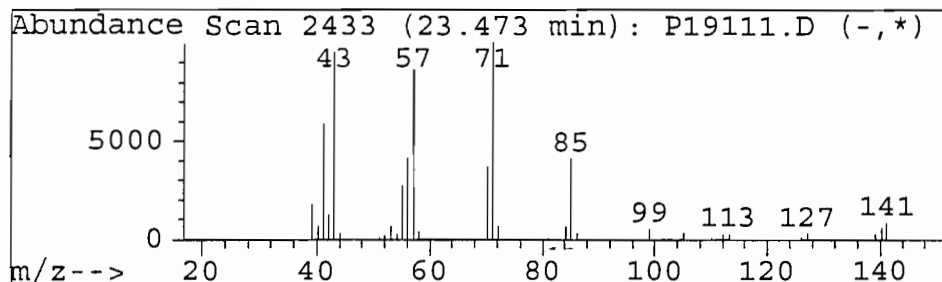
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
23.47	21.31 ug/L	2320882	1,4-dichlorobenzene-d4	22.61	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Nonane, 3-methyl-5-propyl-		19054	031081-18-2	64
2	Undecane, 2,8-dimethyl-		18991	017301-25-6	59
3	Decane, 2,3,4-trimethyl-		19050	062238-15-7	53
4	Nonane, 5-butyl-		19037	017312-63-9	53
5	Nonane, 5-butyl-		69028	017312-63-9	53



000053

Library Search Compound Report

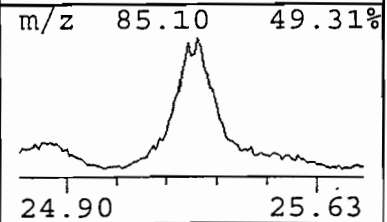
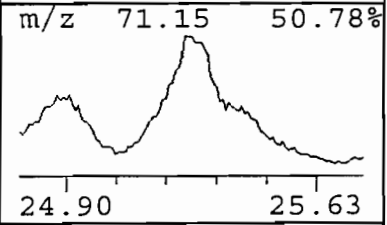
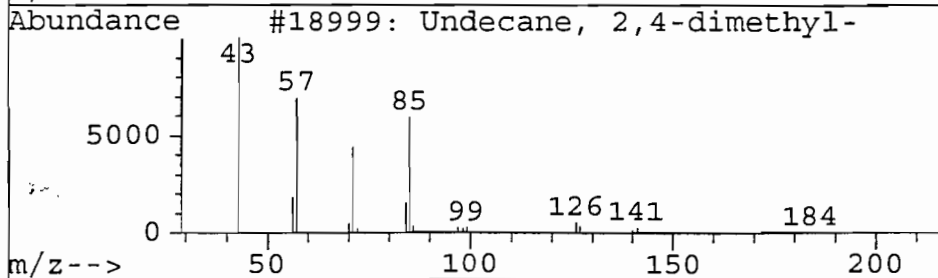
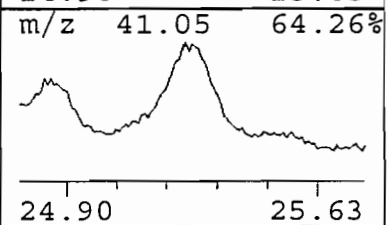
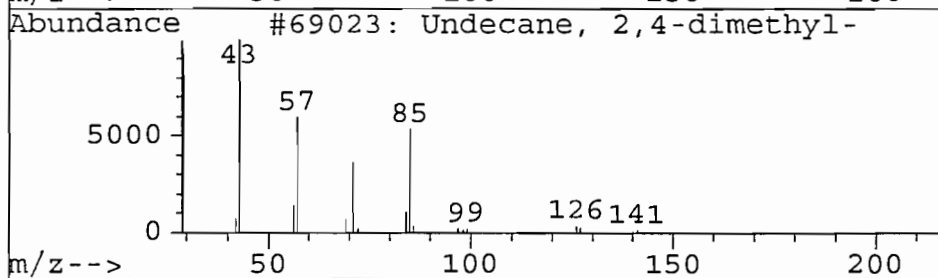
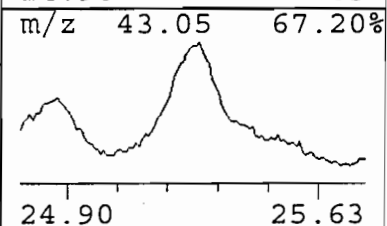
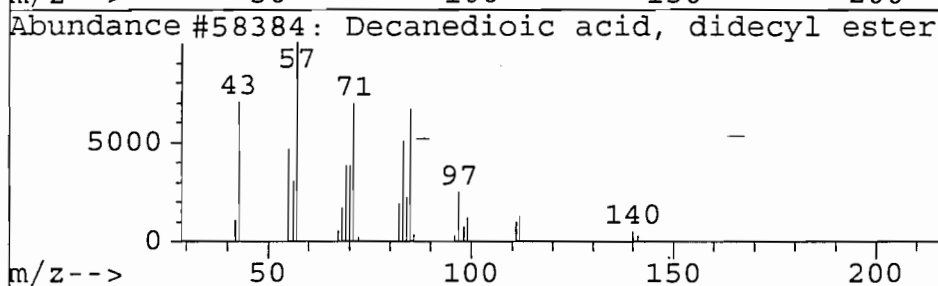
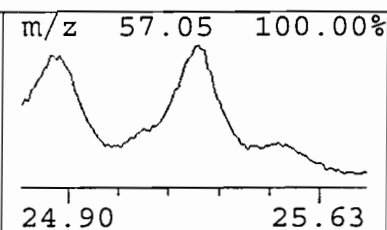
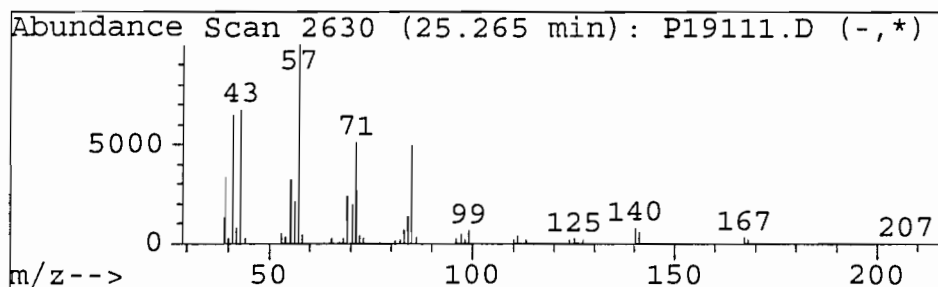
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.27	26.37 ug/L	2872256	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decanedioic acid, didecyl ester	58384	002432-89-5	72
2	Undecane, 2,4-dimethyl-	69023	017312-80-0	64
3	Undecane, 2,4-dimethyl-	18999	017312-80-0	59
4	Nonane	65142	000111-84-2	59
5	Nonane	65143	000111-84-2	53



000054

Library Search Compound Report

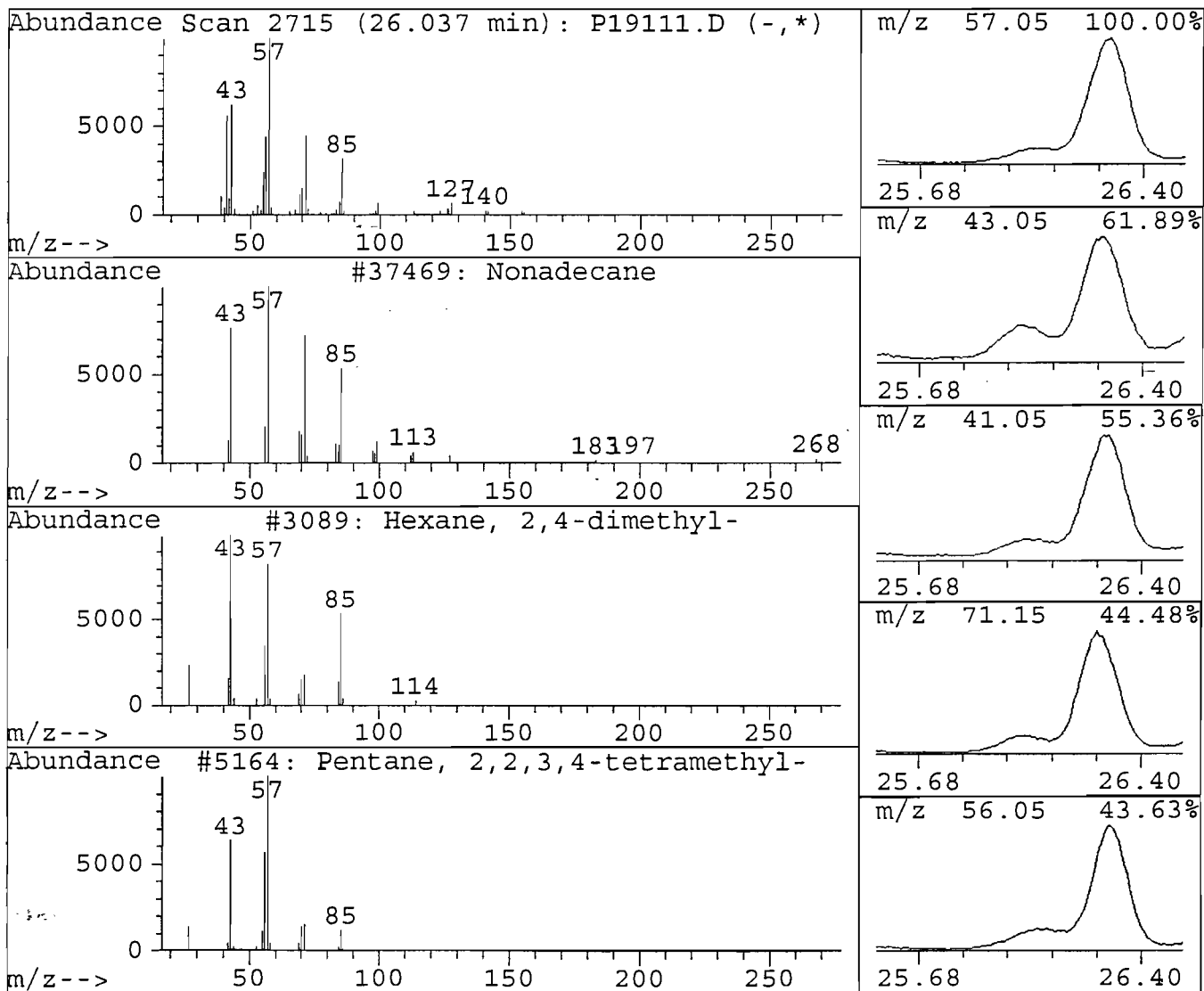
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.04	21.01 ug/L	2289020	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonadecane	37469	000629-92-5	53
2	Hexane, 2,4-dimethyl-	3089	000589-43-5	53
3	Pentane, 2,2,3,4-tetramethyl-	5164	001186-53-4	53
4	Undecane, 3-methyl-	15362	001002-43-3	53
5	Decane, 2,4-dimethyl-	15360	002801-84-5	50



000055

Library Search Compound Report

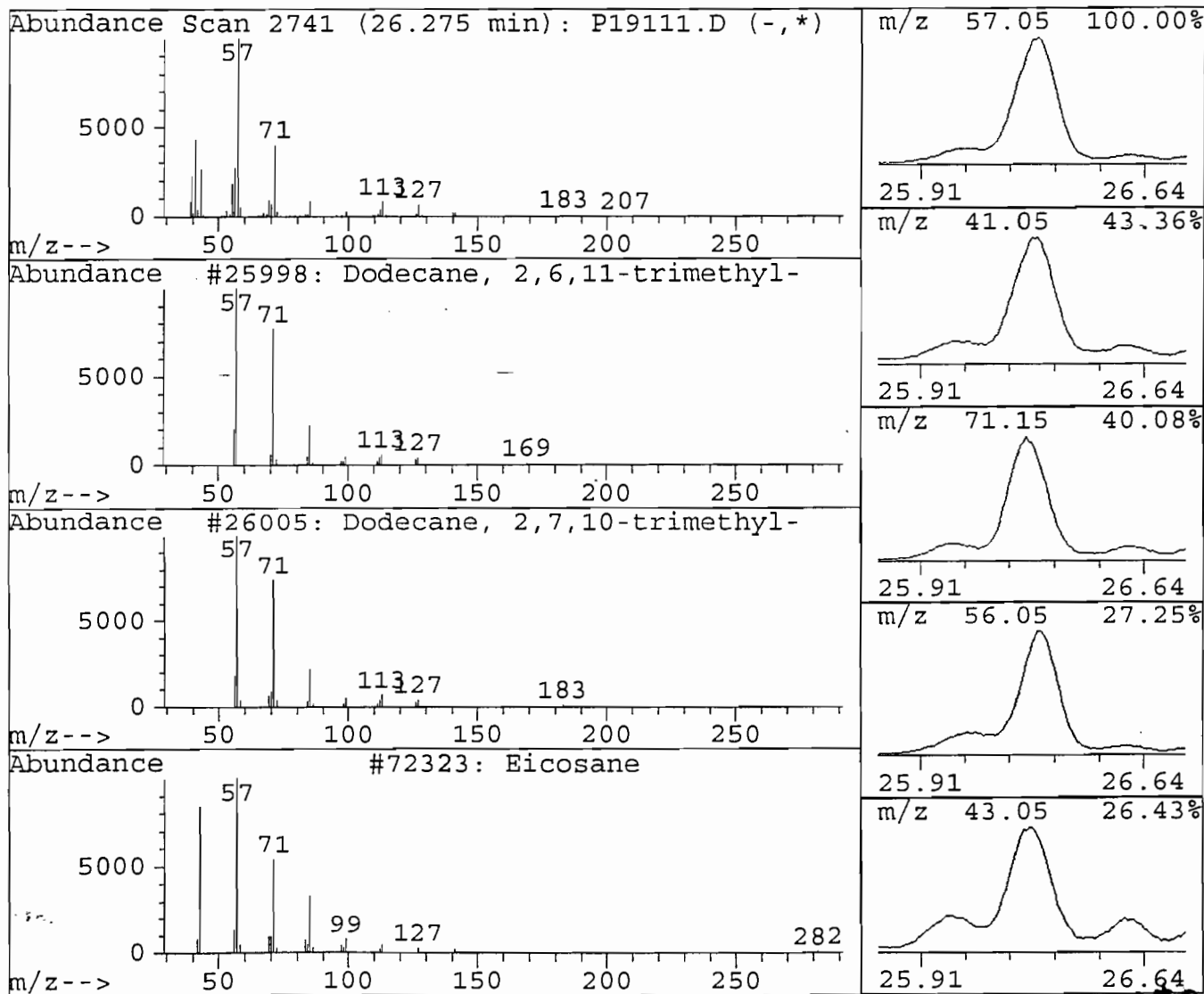
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.27	132.16 ug/L	14396725	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane, 2,6,11-trimethyl-	25998	031295-56-4	64
2	Dodecane, 2,7,10-trimethyl-	26005	074645-98-0	64
3	Eicosane	72323	000112-95-8	59
4	Octane, 2,6-dimethyl-	66227	002051-30-1	56
5	Nonane, 3-methyl-	66200	005911-04-6	50



000056

Library Search Compound Report

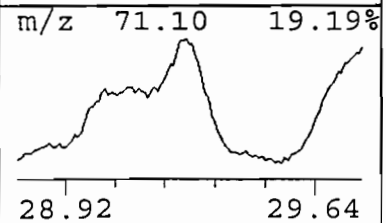
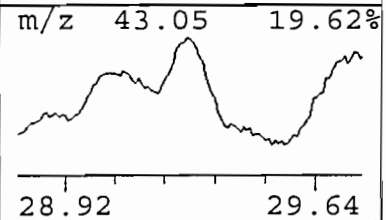
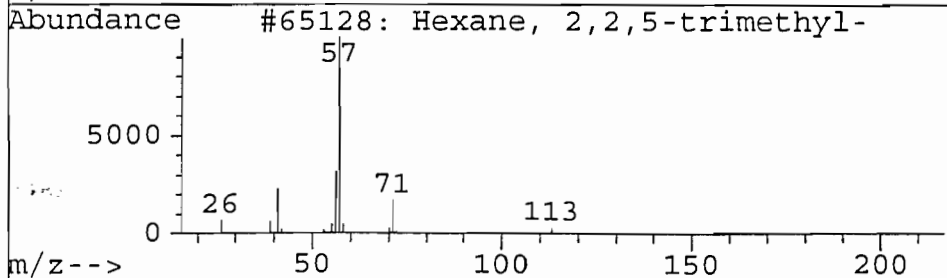
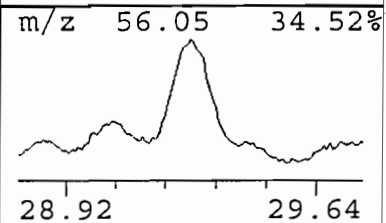
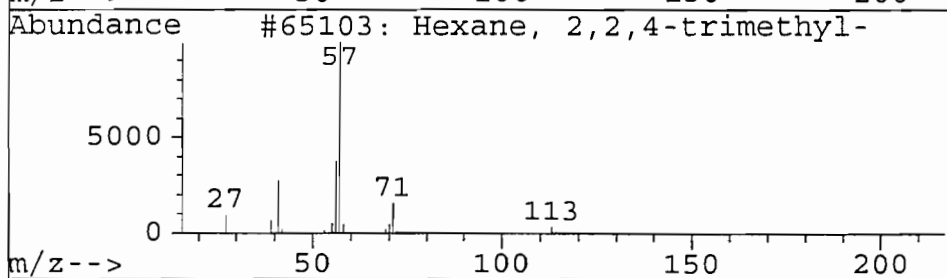
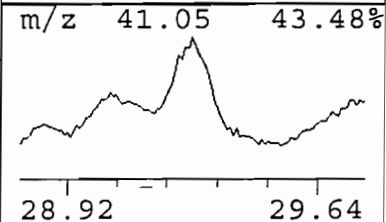
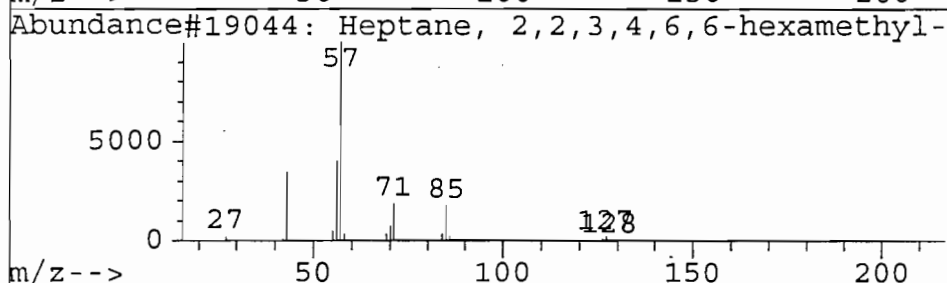
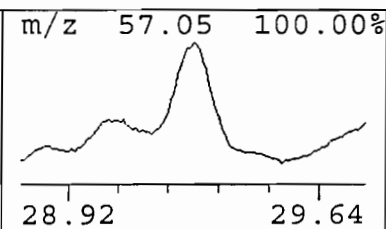
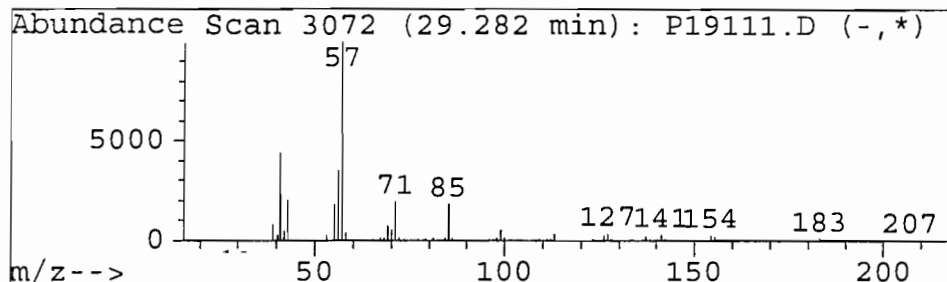
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.28	26.25 ug/L	2859177	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,2,3,4,6,6-hexamethyl-	19044	062108-32-1	59
2	Hexane, 2,2,4-trimethyl-	65103	016747-26-5	50
3	Hexane, 2,2,5-trimethyl-	65128	003522-94-9	50
4	Hexane, 2,2,5-trimethyl-	65127	003522-94-9	50
5	Pentane, 2,2,3,4-tetramethyl-	5164	001186-53-4	50



000057

Library Search Compound Report

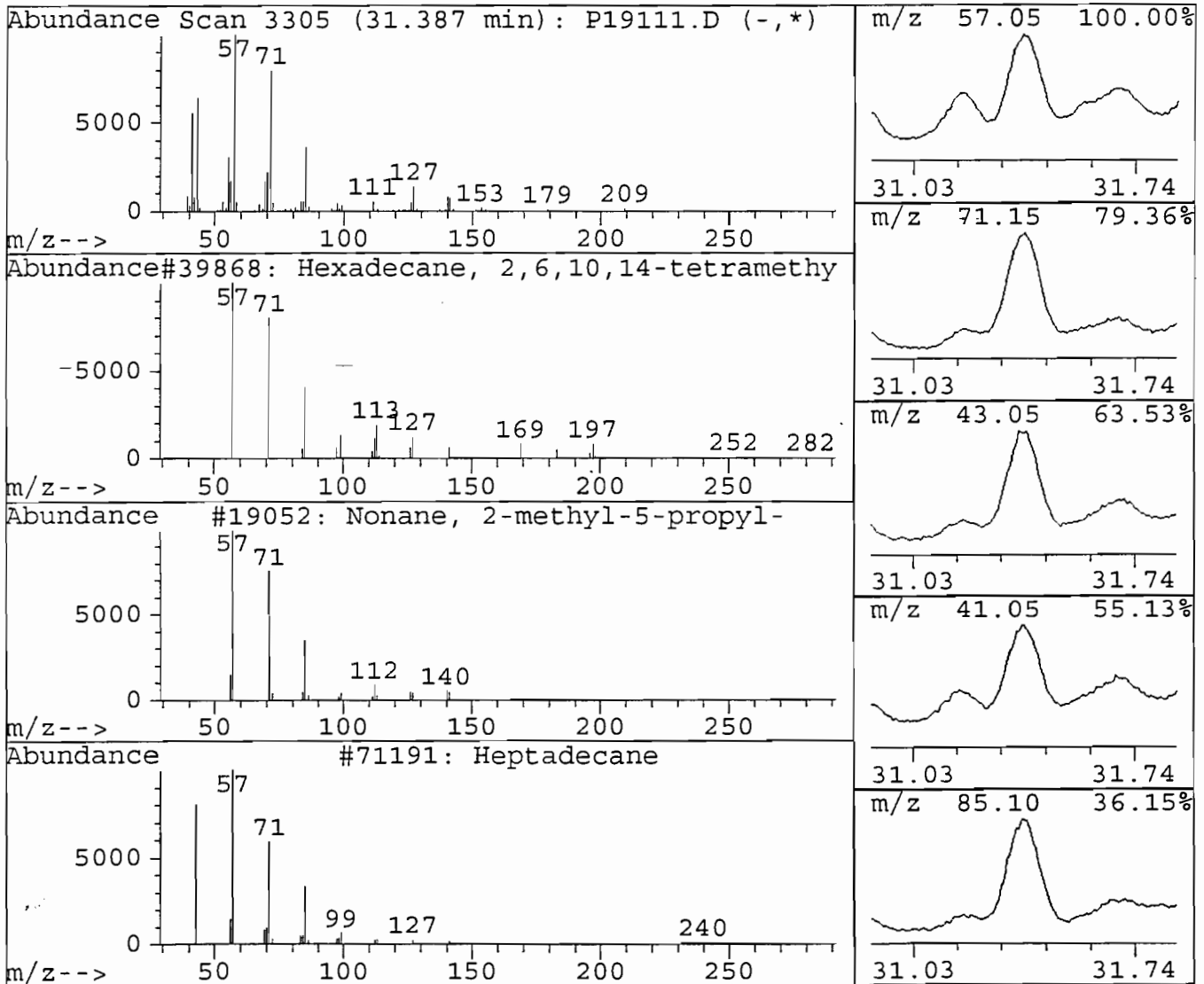
Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.39	38.94 ug/L	4241572	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	39868	000638-36-8	72
2	Nonane, 2-methyl-5-propyl-	19052	031081-17-1	72
3	Heptadecane	71191	000629-78-7	64
4	Nonane, 5-methyl-5-propyl-	19057	017312-75-3	64
5	Nonane, 5-(2-methylpropyl)-	19015	062185-53-9	64



000058

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

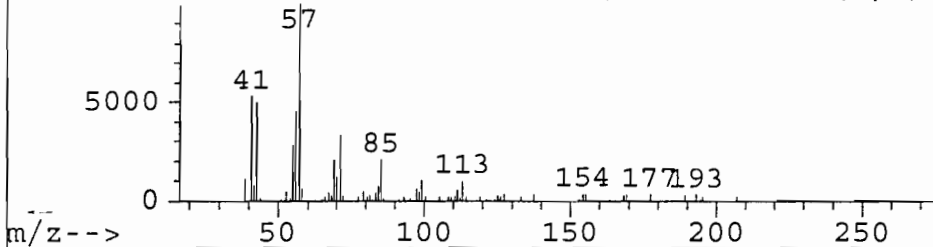
Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

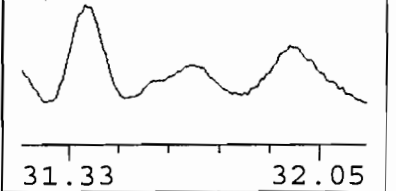
R.T.	Conc	Area	Relative to ISTD	R.T.
31.69	25.79 ug/L	2809366	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,2,8-trimethyl-	19012	062238-01-1	64
2	Octadecane, 6-methyl-	37465	010544-96-4	47
3	Octane, 2,4,6-trimethyl-	11606	062016-37-9	47
4	Hexane, 2,2,5,5-tetramethyl-	66226	001071-81-4	47
5	Decane, 2,5,9-trimethyl-	19017	062108-22-9	43

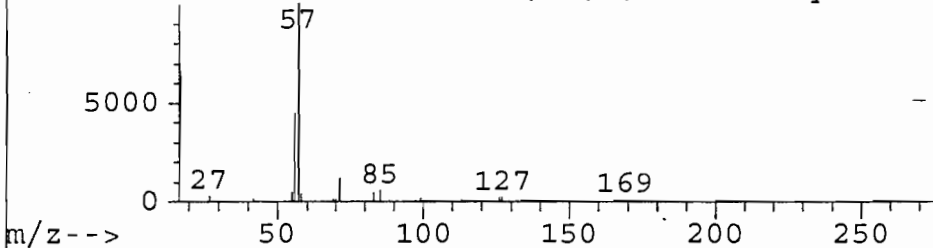
Abundance Scan 3339 (31.693 min): P19111.D (-,*)



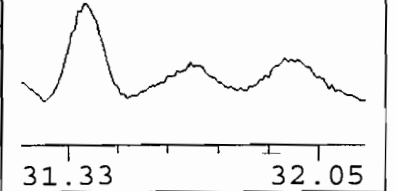
m/z 57.05 100.00%



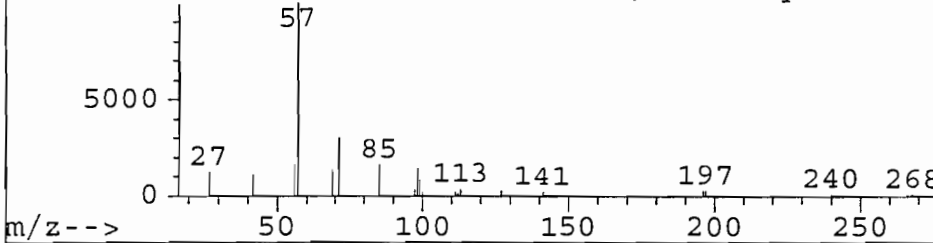
Abundance #19012: Decane, 2,2,8-trimethyl-



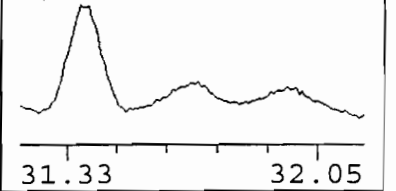
m/z 41.05 52.74%



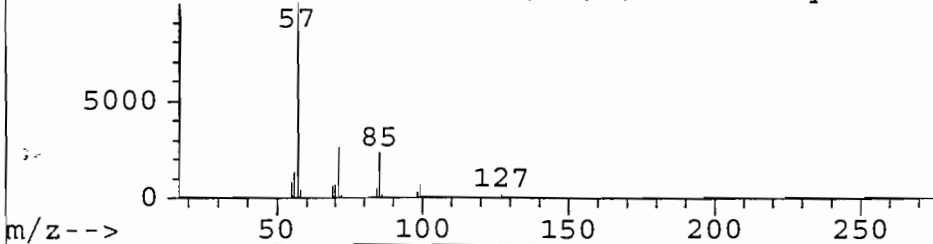
Abundance #37465: Octadecane, 6-methyl-



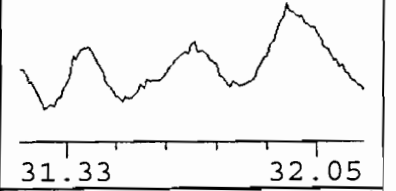
m/z 43.05 49.24%



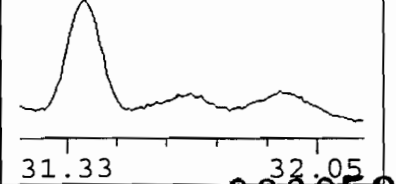
Abundance #11606: Octane, 2,4,6-trimethyl-



m/z 56.05 44.82%



m/z 71.15 33.01%



000059

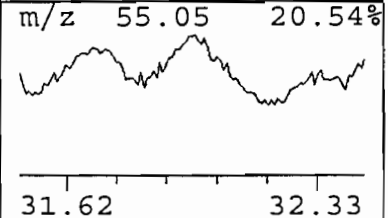
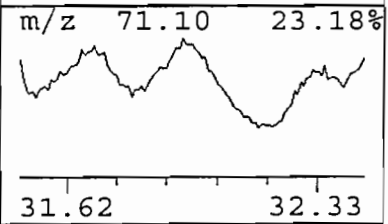
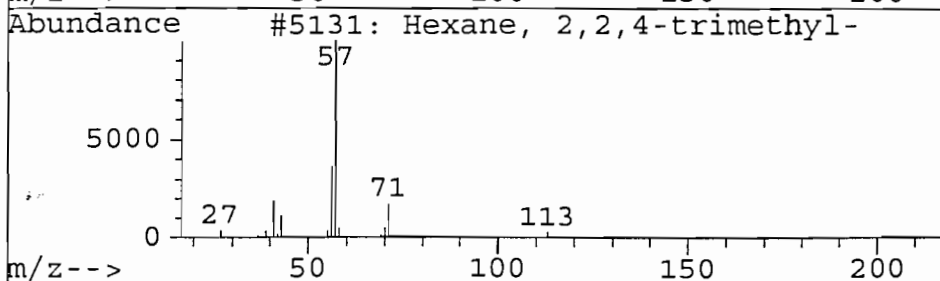
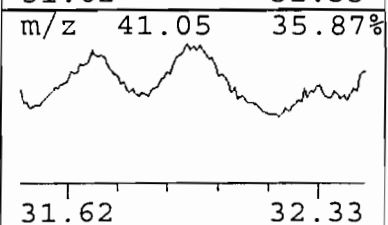
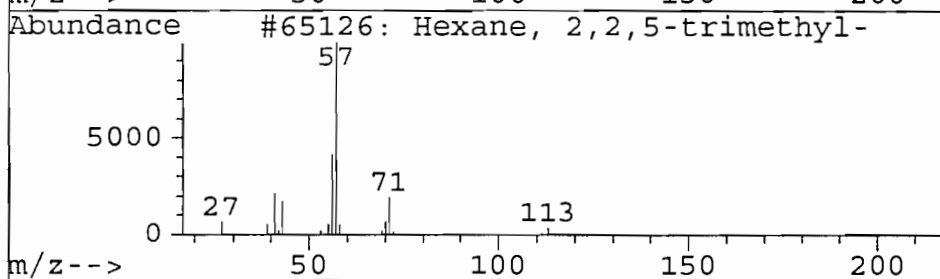
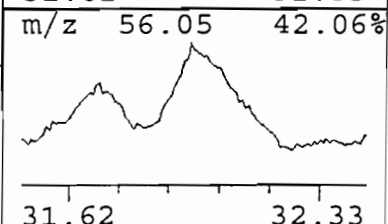
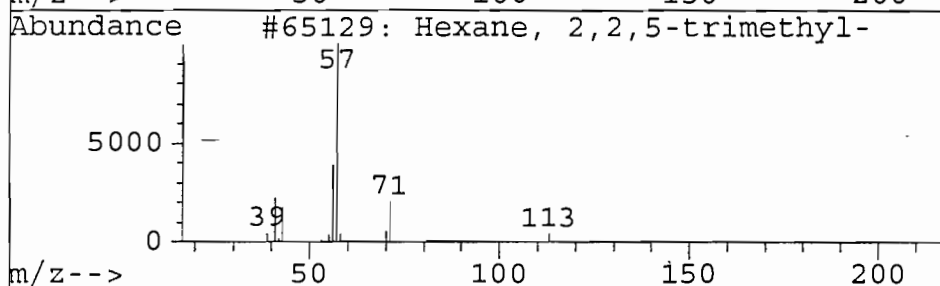
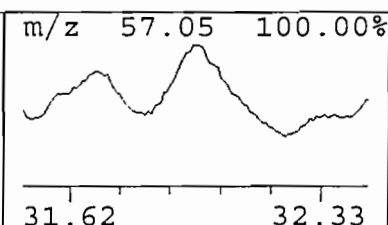
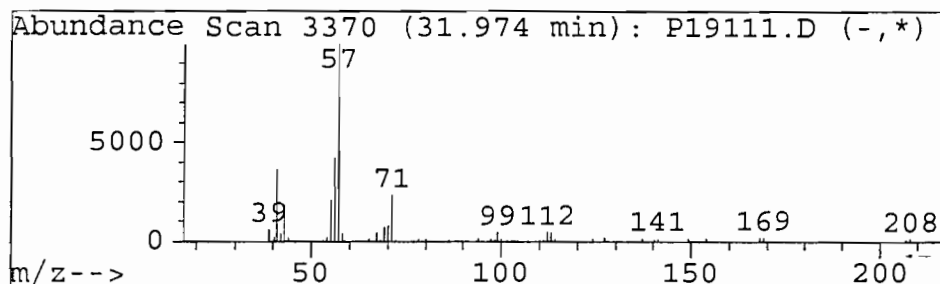
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19111.D
Acq Time : 8 Oct 99 7:13 pm
Sample : 13701ASP-86831
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
31.97	24.85 ug/L	2706655	1,4-dichlorobenzene-d4	22.61	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Hexane, 2,2,5-trimethyl-		65129	003522-94-9	64
2	Hexane, 2,2,5-trimethyl-		65126	003522-94-9	64
3	Hexane, 2,2,4-trimethyl-		5131	016747-26-5	59
4	Hexane, 2,2,5,5-tetramethyl-		66226	001071-81-4	59
5	Hexane, 2,2,5-trimethyl-		65127	003522-94-9	50



000060

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-005-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86832

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19112.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 4

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/Kg
			Q
75-71-8	Dichlorodifluoromethane	5.2	U
74-87-3	Chloromethane	5.2	U
75-01-4	Vinyl Chloride	5.2	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
75-69-4	Trichlorofluoromethane	5.2	U
75-09-2	Methylene Chloride	5.2	U
75-34-4	1,1-Dichloroethane	5.2	U
590-20-7	2,2-Dichloropropane	5.2	U
74-97-5	Bromochloromethane	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
56-23-5	Carbon Tetrachloride	5.2	U
563-58-6	1,1-Dichloropropene	5.2	U
71-43-2	Benzene	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
79-01-6	Trichloroethene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
74-95-3	Dibromomethane	5.2	U
75-27-4	Bromodichloromethane	5.2	U
108-88-3	Toluene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
127-18-4	Tetrachloroethene	5.2	U
142-28-9	1,3-Dichloropropane	5.2	U
124-48-1	Dibromochloromethane	5.2	U
106-93-4	1,2-Dibromoethane	5.2	U
108-90-7	Chlorobenzene	5.2	U
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U
100-41-4	Ethylbenzene	5.2	U
100-42-5	Styrene	5.2	U
75-25-2	Bromoform	5.2	U
98-82-8	isopropylbenzene	5.2	U
108-86-1	Bromobenzene	5.2	U

-1A-

GP-005-SS30

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-005-SS

SOIL

Lab Sample ID: O86832

5.0

(g/mL)

G

Lab File ID: P19112.D

LOW

Date Received: 10/6/99

4

Date Analyzed: 10/8/99

ID: 0.53 (mm)

Dilution Factor: 1.0

(uL)

Soil Aliquot Volume:

(uL)

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-005-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86832
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19112.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 3.74 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19112.D
 Acq Time : 8 Oct 99 7:58 pm
 Sample : 13701ASP-86832
 Misc : 5G/5ML
 Quant Time: Oct 10 12:32 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1094449	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.34	117	1063930	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.60	152	733026	50.00	ug/L	0.01

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.96	113	807034	44.26	ug/L	88.52%
30) 1,2-Dichlorethane-d4	8.67	65	640638	44.71	ug/L	89.42%
38) Toluene-d8	12.77	98	1054724	49.41	ug/L	98.82%
42) 4-Bromofluorobenzene	19.49	95	953172	43.50	ug/L	86.99%

Target Compounds

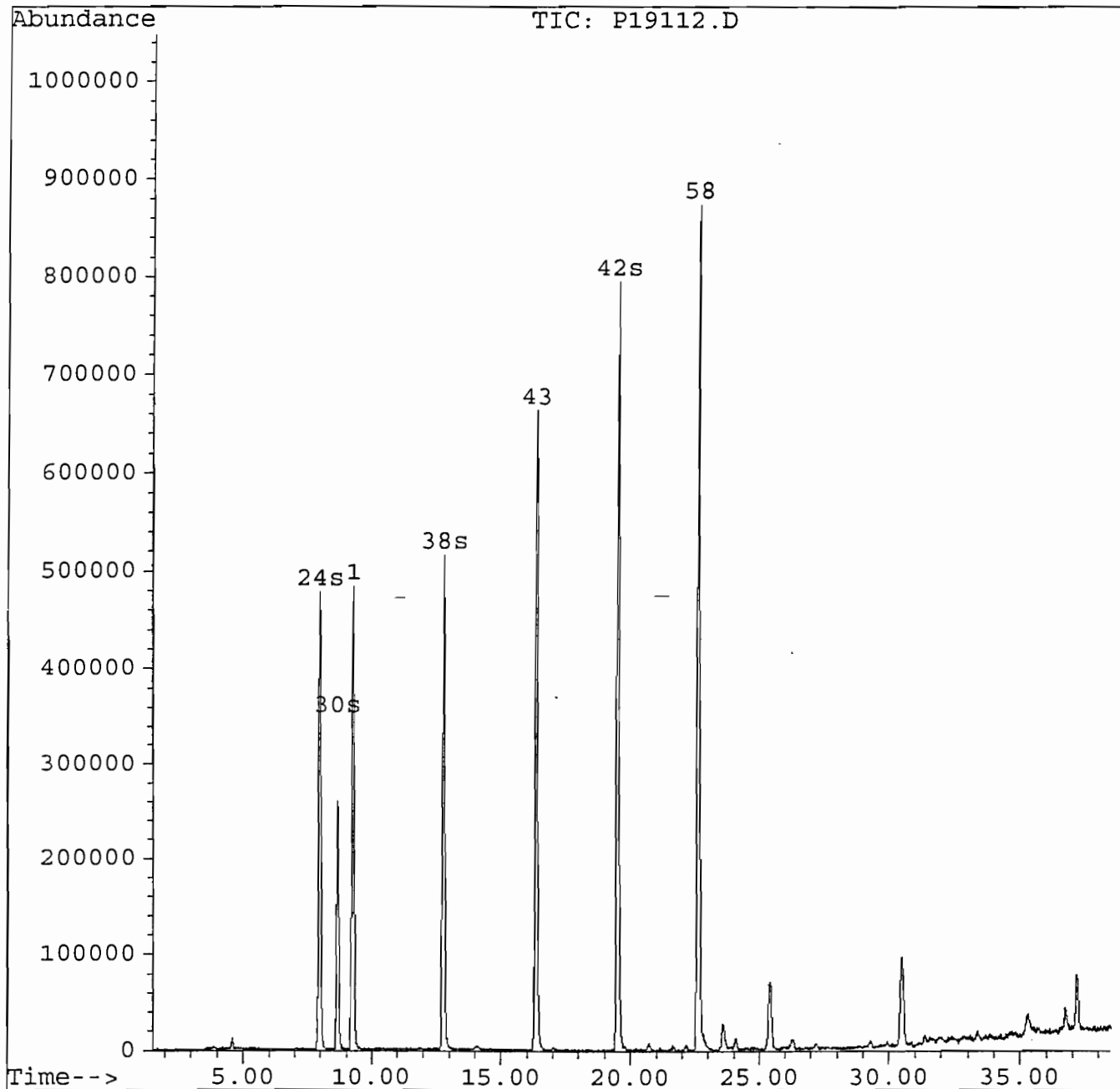
Qvalue

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19112.D
Acq Time : 8 Oct 99 7:58 pm
Sample : 13701ASP-86832
Misc : 5G/5ML
Quant Time: Oct 10 12:32 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000065

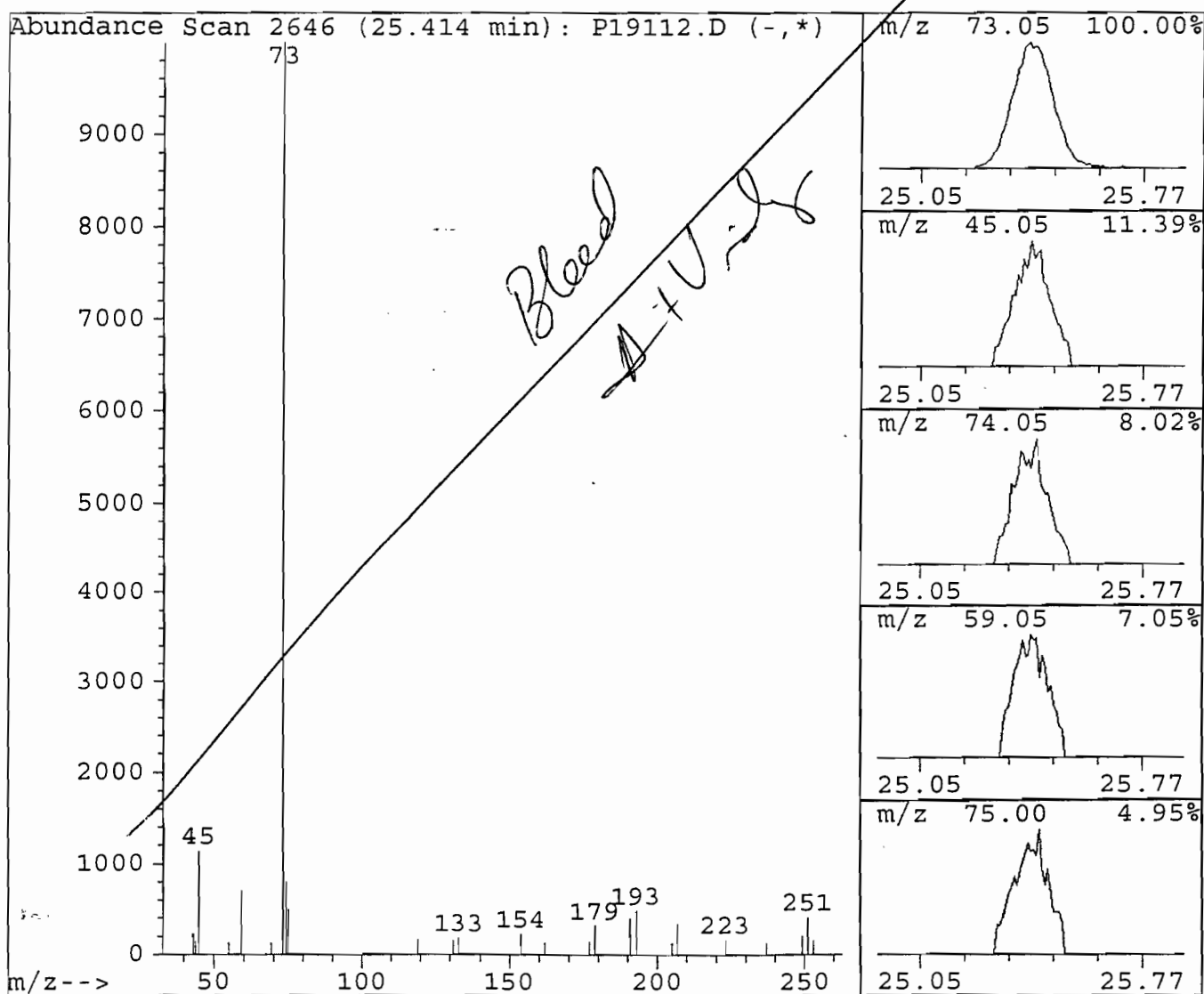
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19112.D
Acq Time : 8 Oct 99 7:58 pm
Sample : 13701ASP-86832
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
25.41	5.65 ug/L	633363	1,4-dichlorobenzene-d4	22.60	
Hit# of	0	Tentative ID	Ref#	CAS#	Qual
1	Unknown		0	000000-00-0	0



000066

Library Search Compound Report

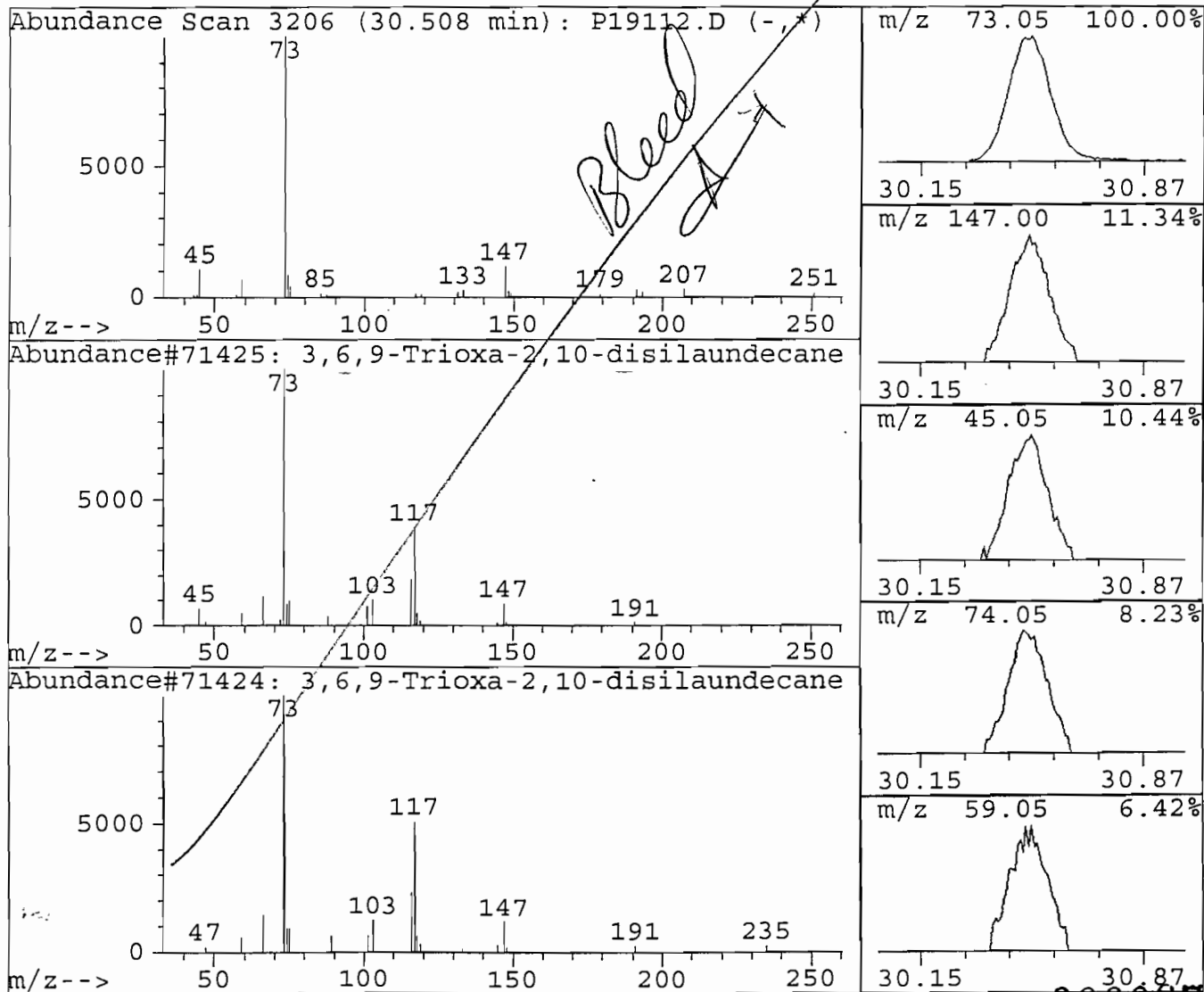
Data File : I:\HPCHEM\1\DATA\V2100899\P19112.D
Acq Time : 8 Oct 99 7:58 pm
Sample : 13701ASP-86832
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.51	7.71 ug/L	863530	1,4-dichlorobenzene-d4	22.60

Hit#	of	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane,	2	71425	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane,	2	71424	016654-74-3	33



- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-005-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86833

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19113.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-005-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86833
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19113.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 3.45 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 6 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 111-84-2	Nonane	17.08	5.5	J
2. 622-96-8	Benzene, 1-ethyl-4-methyl-	20.41	9	J
3. 1074-43-7	Benzene, 1-methyl-3-propyl-	23.45	6.5	J
4. 1120-21-4	Undecane	24.05	11	J
5. 934-74-7	Benzene, 1-ethyl-3,5-dimethy	24.47	5.7	J
6. 99-87-6	Benzene, 1-methyl-4-(1-methy	27.08	9.7	J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000070

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
 Acq Time : 8 Oct 99 8:42 pm
 Sample : 13701ASP-86833
 Misc : 5G/5ML
 Quant Time: Oct 10 12:32 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.24	96	943067	50.00	ug/L	-0.02
43) Chlorobenzene-d5	16.33	117	974542	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	712991	50.00	ug/L	0.00
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.95	113	736886	46.90	ug/L	93.80%
30) 1,2-Dichlorethane-d4	8.65	65	590004	47.79	ug/L	95.58%
38) Toluene-d8	12.75	98	916271	49.81	ug/L	99.63%
42) 4-Bromofluorobenzene	19.48	95	906102	47.99	ug/L	95.97%
Target Compounds						Qvalue
FM-501 chlorobenzene	16.39	112	54883	3.48	ug/L	97
54) m&p-xylenes	17.01	106	39304	4.31	ug/L	93
66) 1,3,5-trimethylbenzene	20.66	105	318371	11.30	ug/L	99
68) 1,2,4-trimethylbenzene	21.65	105	791900	27.01	ug/L	100
70) 1,3-dichlorobenzene	22.37	146	37129	2.01	ug/L	87
72) 1,4-dichlorobenzene	22.66	146	103376	5.51	ug/L	95
73) 1,2-dichlorobenzene	23.65	146	94781	5.34	ug/L	96
78) naphthalene	28.82	128	64055	2.79	ug/L	100

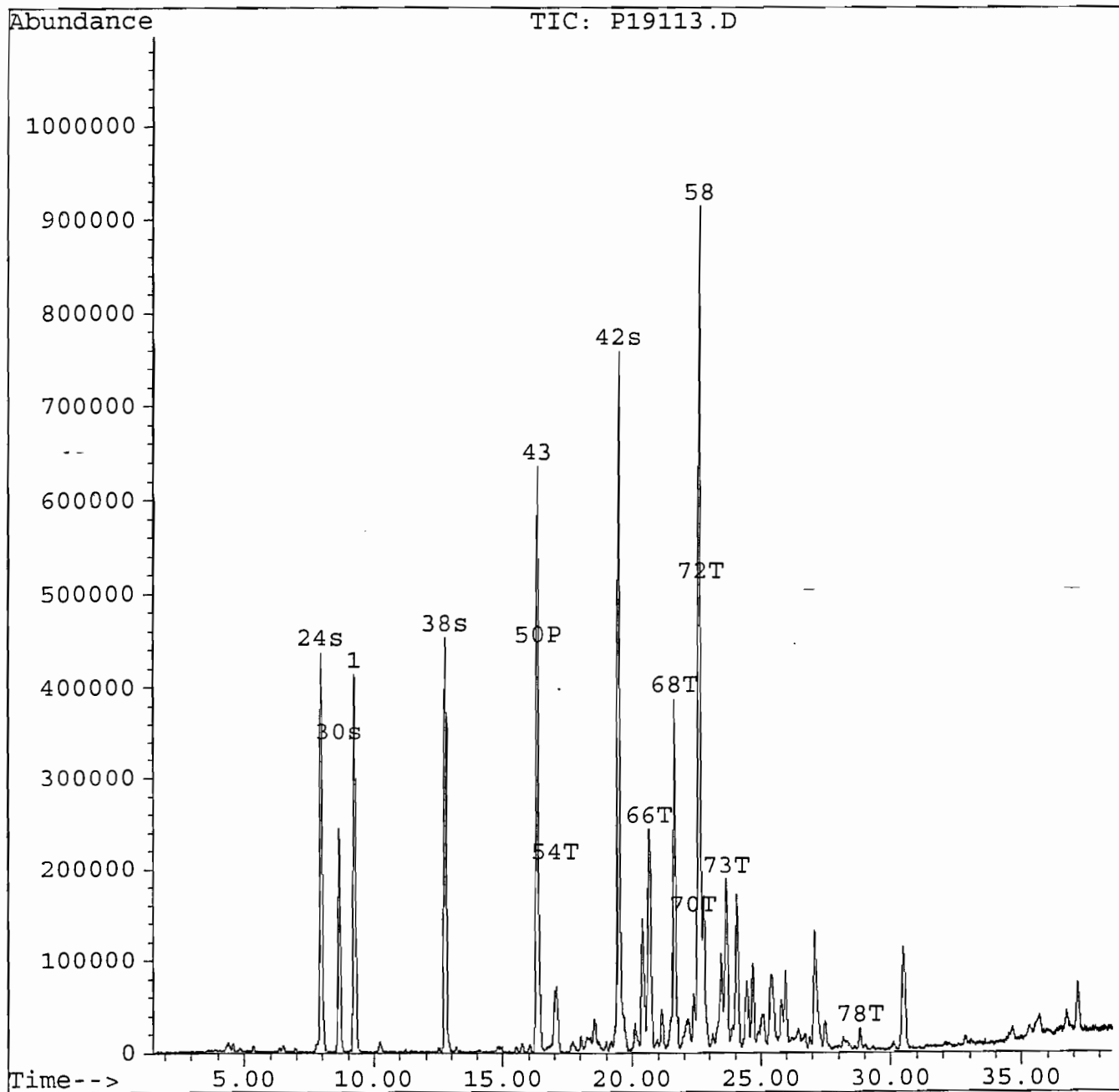
000071

Quantitation Report

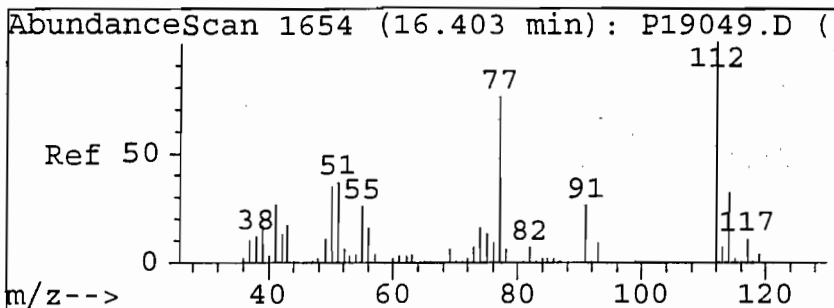
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML
Quant Time: Oct 10 12:32 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration

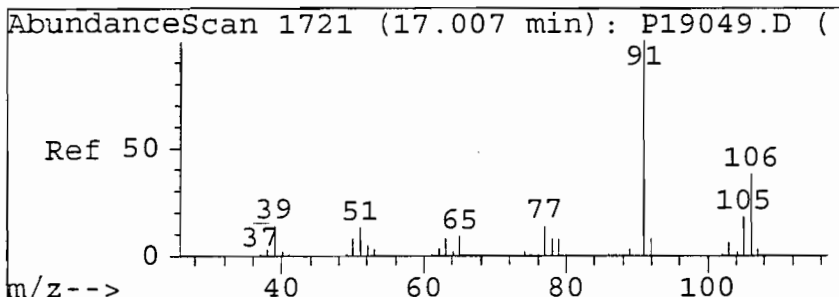
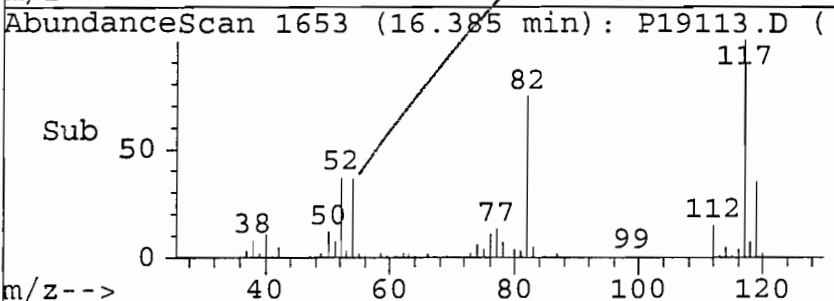
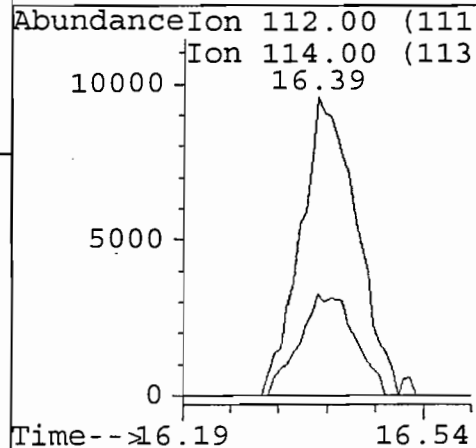
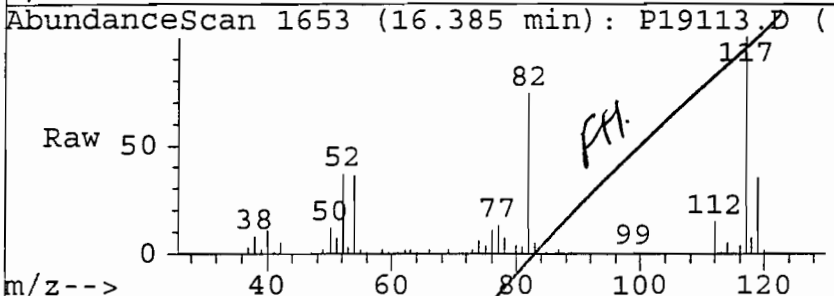


000072



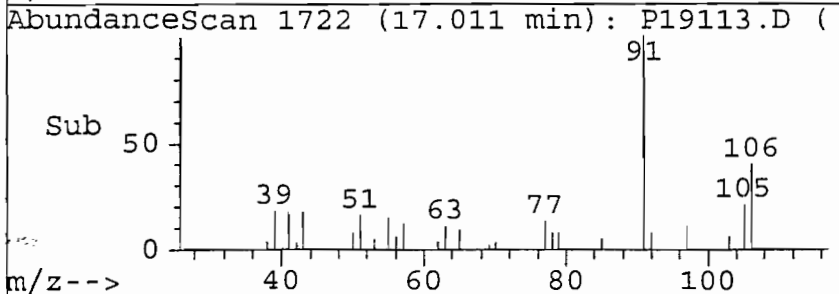
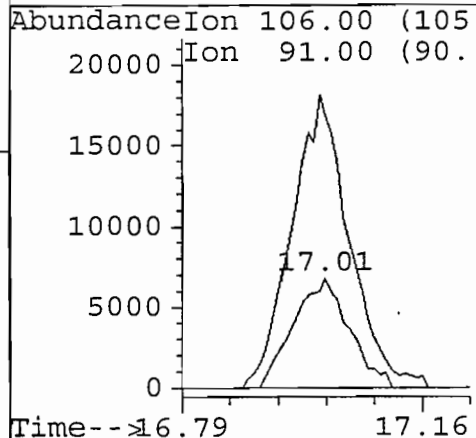
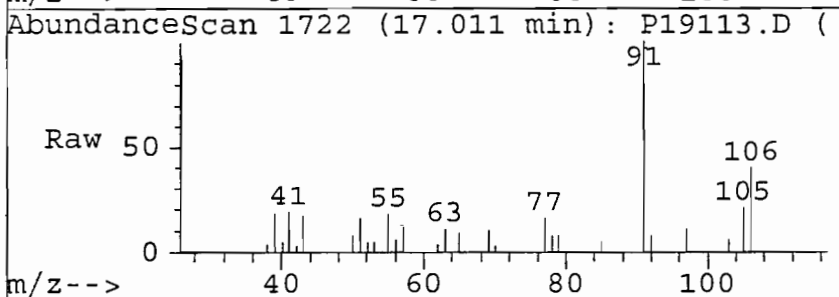
#50
chlorobenzene
Concen: 3.48 ug/L
RT: 16.39 min Scan# 1653
Delta R.T. -0.02 min
Lab File: P19113.D
Acq: 8 Oct 99 8:42 pm

Tgt Ion:	112	Resp:	54883
Ion Ratio	Lower	Upper	
112	100		
114	34.1	22.5	41.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



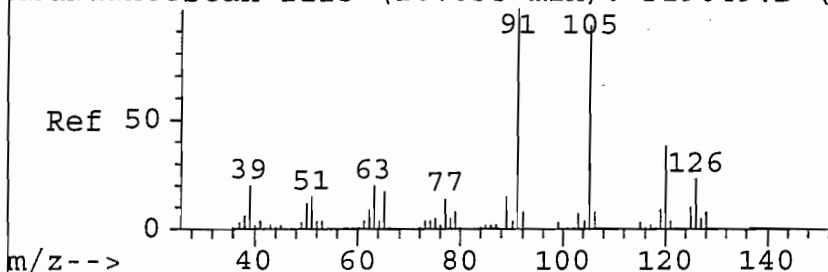
#54
m&p-xylenes
Concen: 4.31 ug/L
RT: 17.01 min Scan# 1722
Delta R.T. 0.00 min
Lab File: P19113.D
Acq: 8 Oct 99 8:42 pm

Tgt Ion:	106	Resp:	39304
Ion Ratio	Lower	Upper	
106	100		
91	249.6	183.6	341.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000073

AbundanceScan 2125 (20.658 min): P19049.D (



#66

1,3,5-trimethylbenzene

Concen: 11.30 ug/L

RT: 20.66 min Scan# 2123

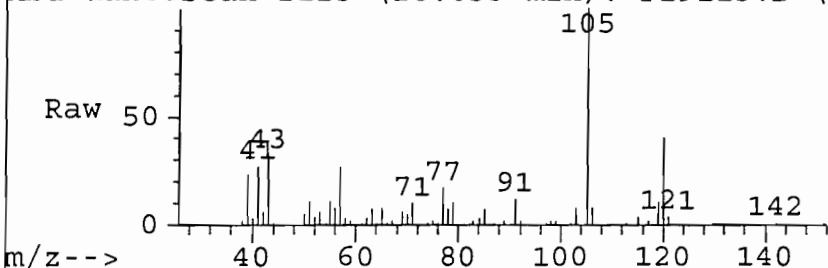
Delta R.T. -0.00 min

Lab File: P19113.D

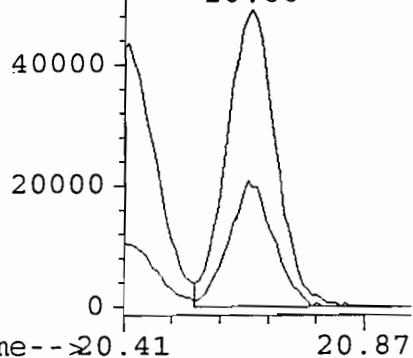
Acq: 8 Oct 99 8:42 pm

Tgt Ion:	105	Resp:	318371
Ion Ratio	Lower	Upper	
105	100		
120	40.2	28.6	53.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

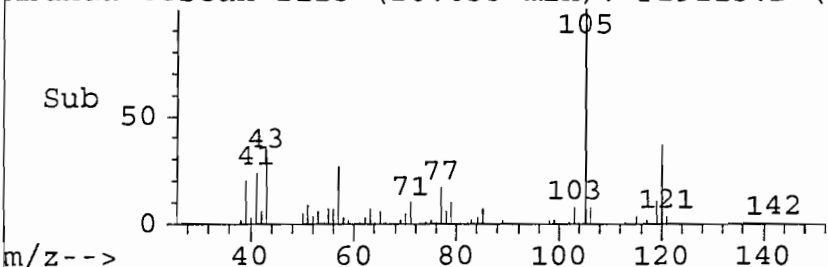
AbundanceScan 2123 (20.655 min): P19113.D (



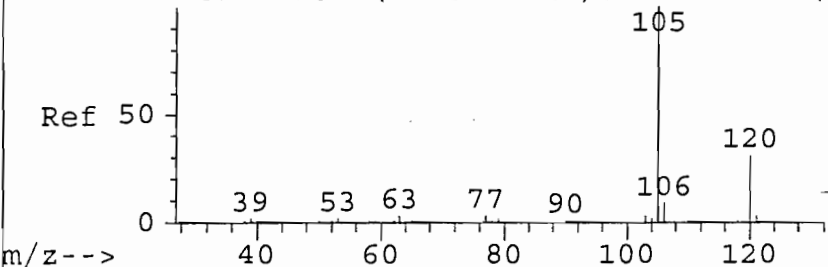
AbundanceIon 105.00 (104
Ion 120.00 (119
20.66



AbundanceScan 2123 (20.655 min): P19113.D (



AbundanceScan 2233 (21.642 min): P19049.D (



#68

1,2,4-trimethylbenzene

Concen: 27.01 ug/L

RT: 21.65 min Scan# 2232

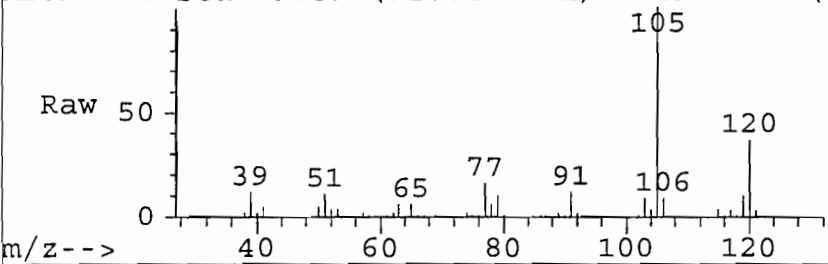
Delta R.T. 0.01 min

Lab File: P19113.D

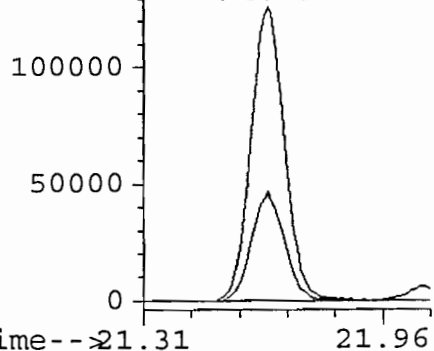
Acq: 8 Oct 99 8:42 pm

Tgt Ion:	105	Resp:	791900
Ion Ratio	Lower	Upper	
105	100		
120	36.9	26.0	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

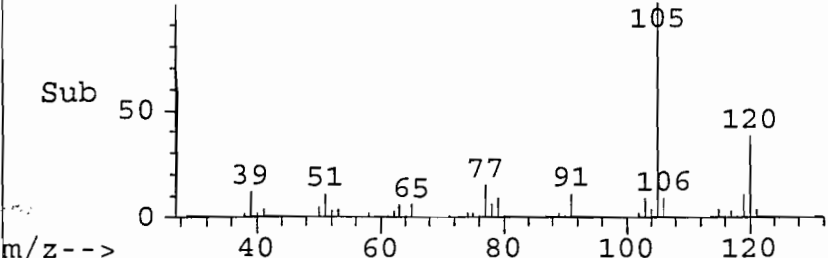
AbundanceScan 2232 (21.647 min): P19113.D (



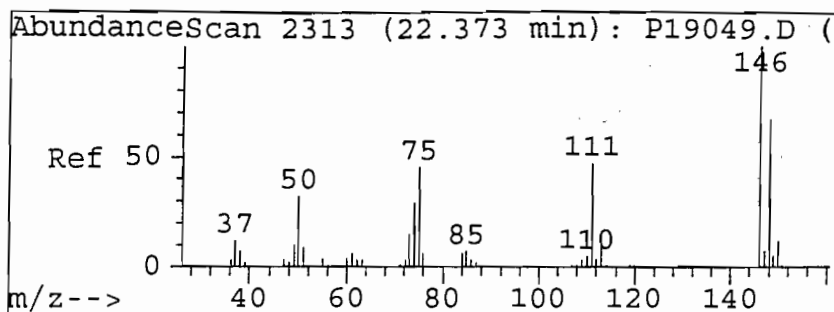
AbundanceIon 105.00 (104
Ion 120.00 (119
21.65



AbundanceScan 2232 (21.647 min): P19113.D (

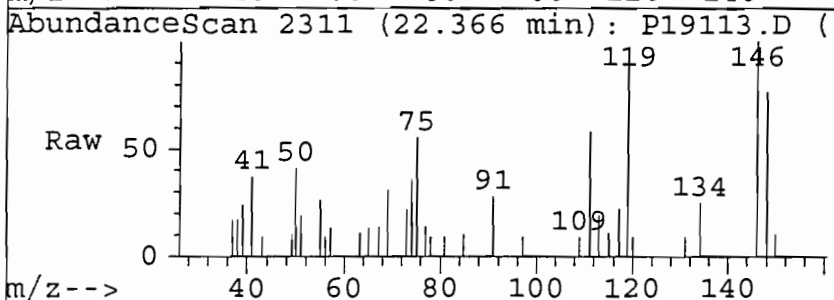


000074

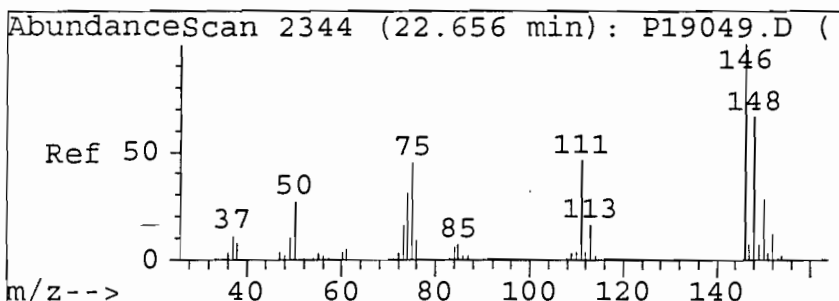
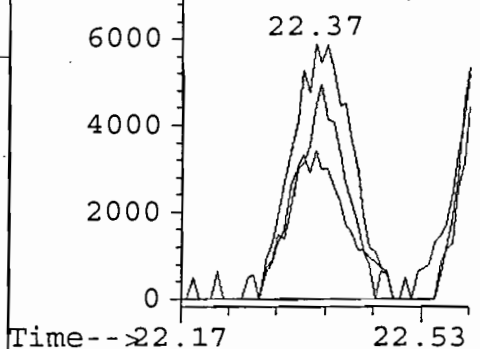
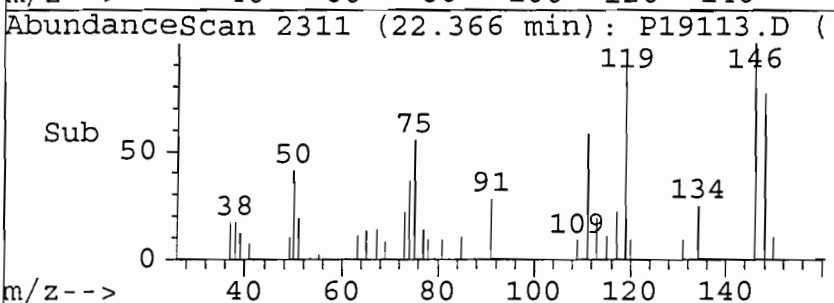


#70
1,3-dichlorobenzene
Concen: 2.01 ug/L
RT: 22.37 min Scan# 2311
Delta R.T. -0.01 min
Lab File: P19113.D
Acq: 8 Oct 99 8:42 pm

Tgt Ion:146 Resp: 37129
Ion Ratio Lower Upper
146 100
111 57.7 33.2 61.7
148 76.4 46.8 86.8
0 0.0 0.0 0.0

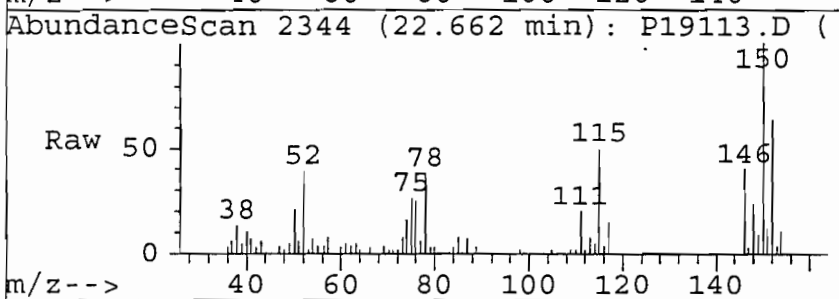


AbundanceIon 146.00 (145
8000 Ion 111.00 (110
Ion 148.00 (147

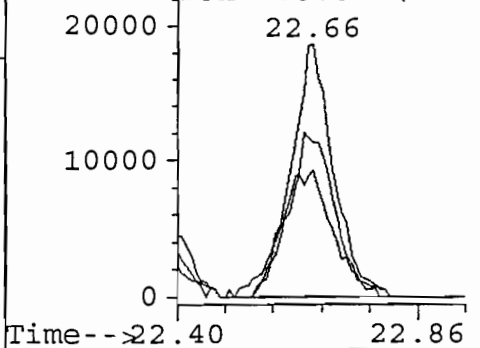
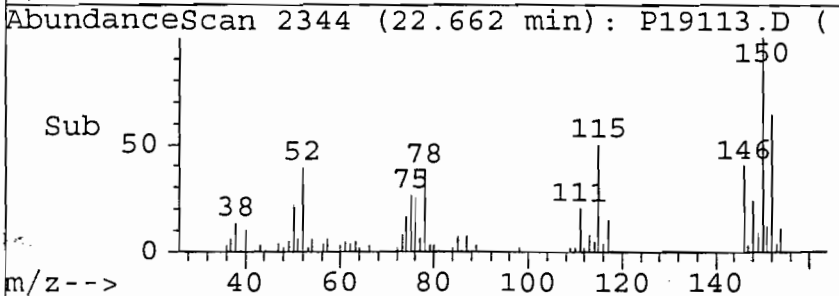


#72
1,4-dichlorobenzene
Concen: 5.51 ug/L
RT: 22.66 min Scan# 2344
Delta R.T. 0.01 min
Lab File: P19113.D
Acq: 8 Oct 99 8:42 pm

Tgt Ion:146 Resp: 103376
Ion Ratio Lower Upper
146 100
111 49.8 32.8 60.8
148 61.0 46.1 85.7
0 0.0 0.0 0.0

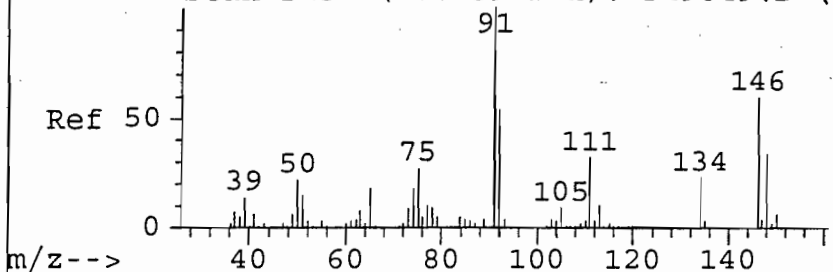


AbundanceIon 146.00 (145
20000 Ion 111.00 (110
Ion 148.00 (147



000075

AbundanceScan 2454 (23.659 min): P19049.D (



#73

1,2-dichlorobenzene

Concen: 5.34 ug/L

RT: 23.65 min Scan# 2453

Delta R.T. -0.00 min

Lab File: P19113.D

Acq: 8 Oct 99 8:42 pm

Tgt Ion:146 Resp: 94781

Ion Ratio Lower Upper

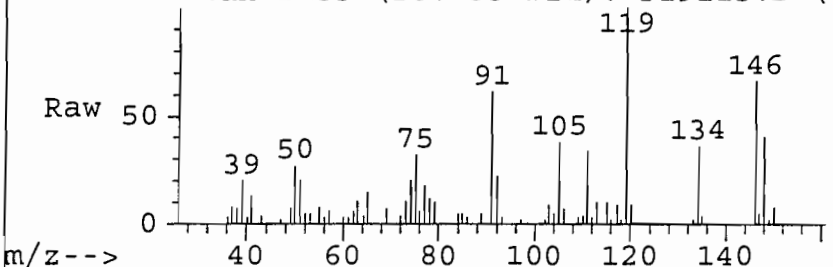
146 100

111 51.8 38.3 71.1

148 61.1 40.5 75.3

0 0.0 0.0 0.0

AbundanceScan 2453 (23.655 min): P19113.D (



AbundanceIon 146.00 (145

20000 Ion 111.00 (110

Ion 148.00 (147

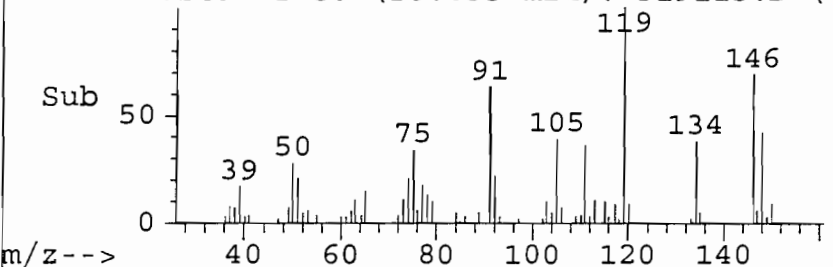
15000 23.65

10000

5000

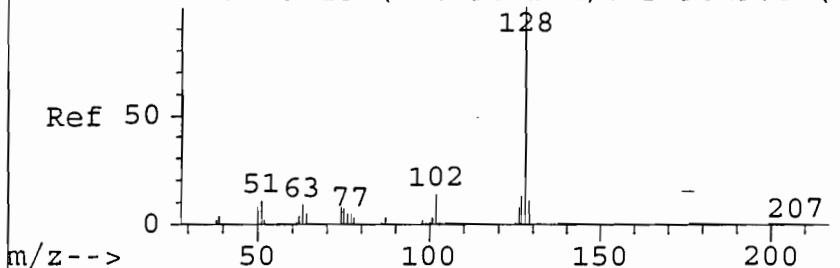
0

AbundanceScan 2453 (23.655 min): P19113.D (



Time-->23.41 23.84

AbundanceScan 3018 (28.798 min): P19049.D (



#78

naphthalene

Concen: 2.79 ug/L

RT: 28.82 min Scan# 3021

Delta R.T. 0.03 min

Lab File: P19113.D

Acq: 8 Oct 99 8:42 pm

Tgt Ion:128 Resp: 64055

Ion Ratio Lower Upper

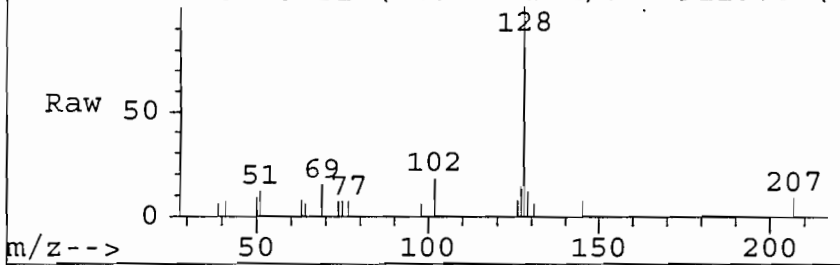
128 100

127 13.2 9.4 17.4

129 11.5 8.1 15.1

0 0.0 0.0 0.0

AbundanceScan 3021 (28.825 min): P19113.D (



AbundanceIon 128.00 (127

Ion 127.00 (126

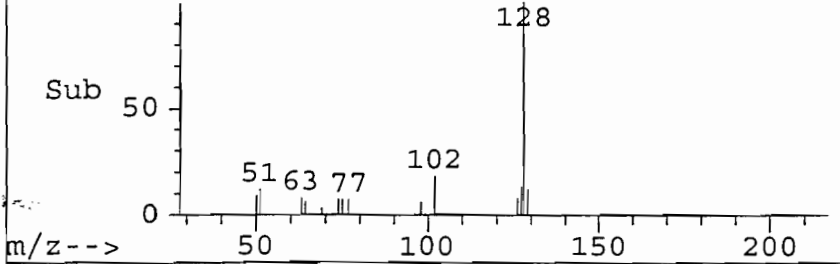
Ion 129.00 (128

10000 28.82

5000

0

AbundanceScan 3021 (28.825 min): P19113.D (



Time-->28.58 28.97

000076

Library Search Compound Report

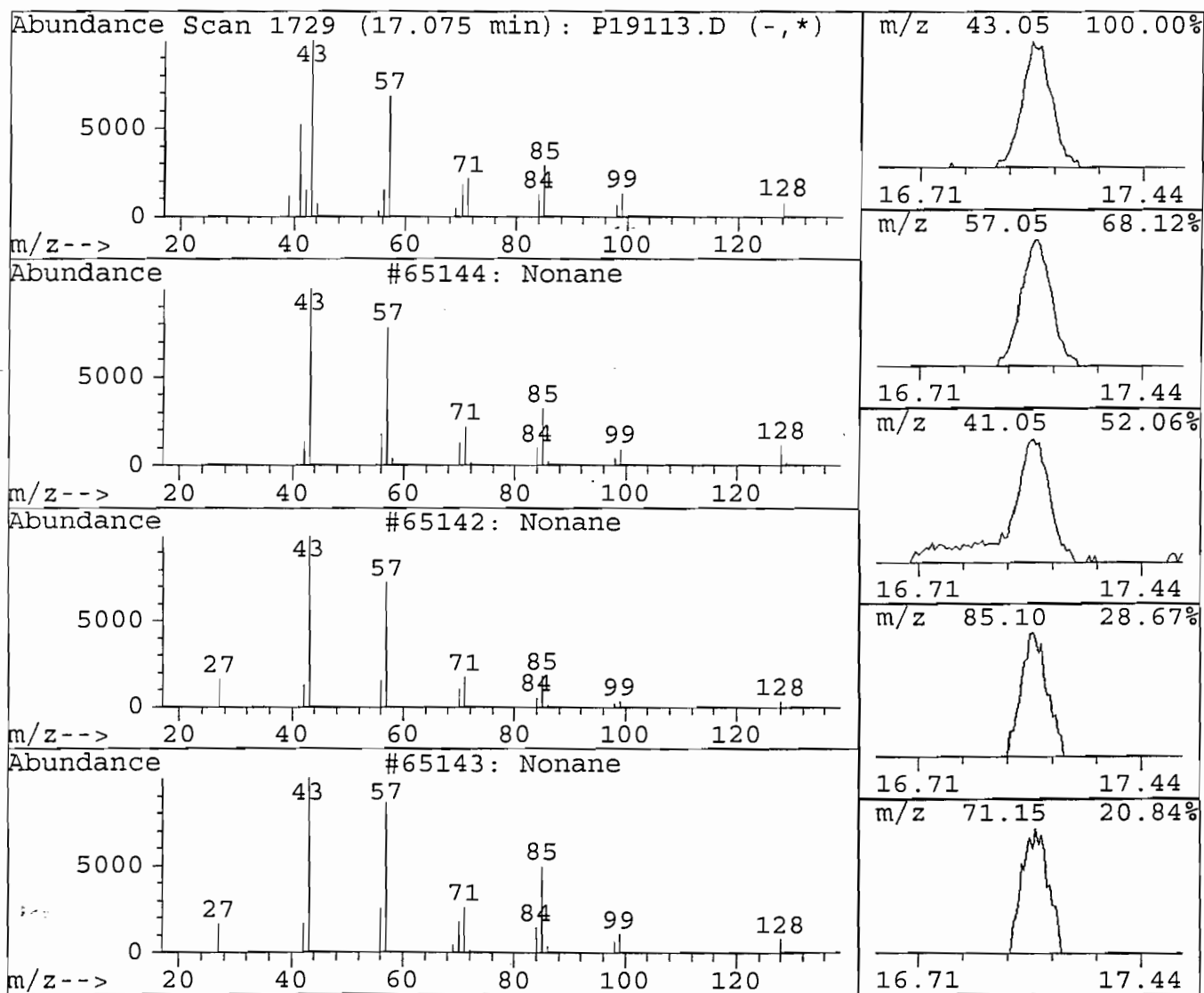
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
17.07	5.32 ug/L	422251	Chlorobenzene-d5	16.33

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	65144	000111-84-2	91
2	Nonane	65142	000111-84-2	90
3	Nonane	65143	000111-84-2	87
4	Nonane	5163	000111-84-2	86
5	Nonane	65145	000111-84-2	86



000077

Library Search Compound Report

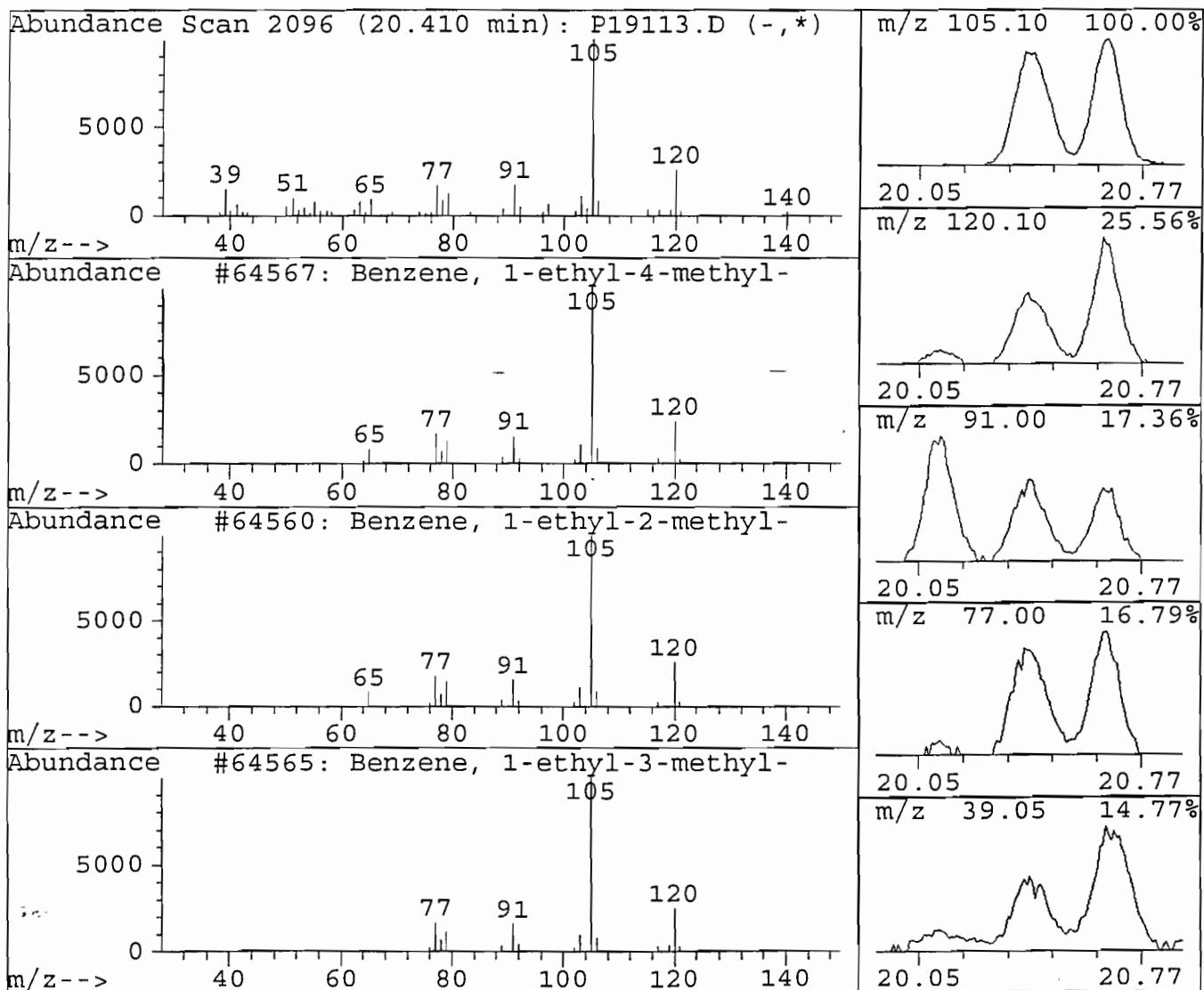
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.41	8.71 ug/L	1063487	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-4-methyl-	64567	000622-96-8	95
2	Benzene, 1-ethyl-2-methyl-	64560	000611-14-3	95
3	Benzene, 1-ethyl-3-methyl-	64565	000620-14-4	95
4	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	91
5	Benzene, 1-ethyl-3-methyl-	64562	000620-14-4	91



000078

Library Search Compound Report

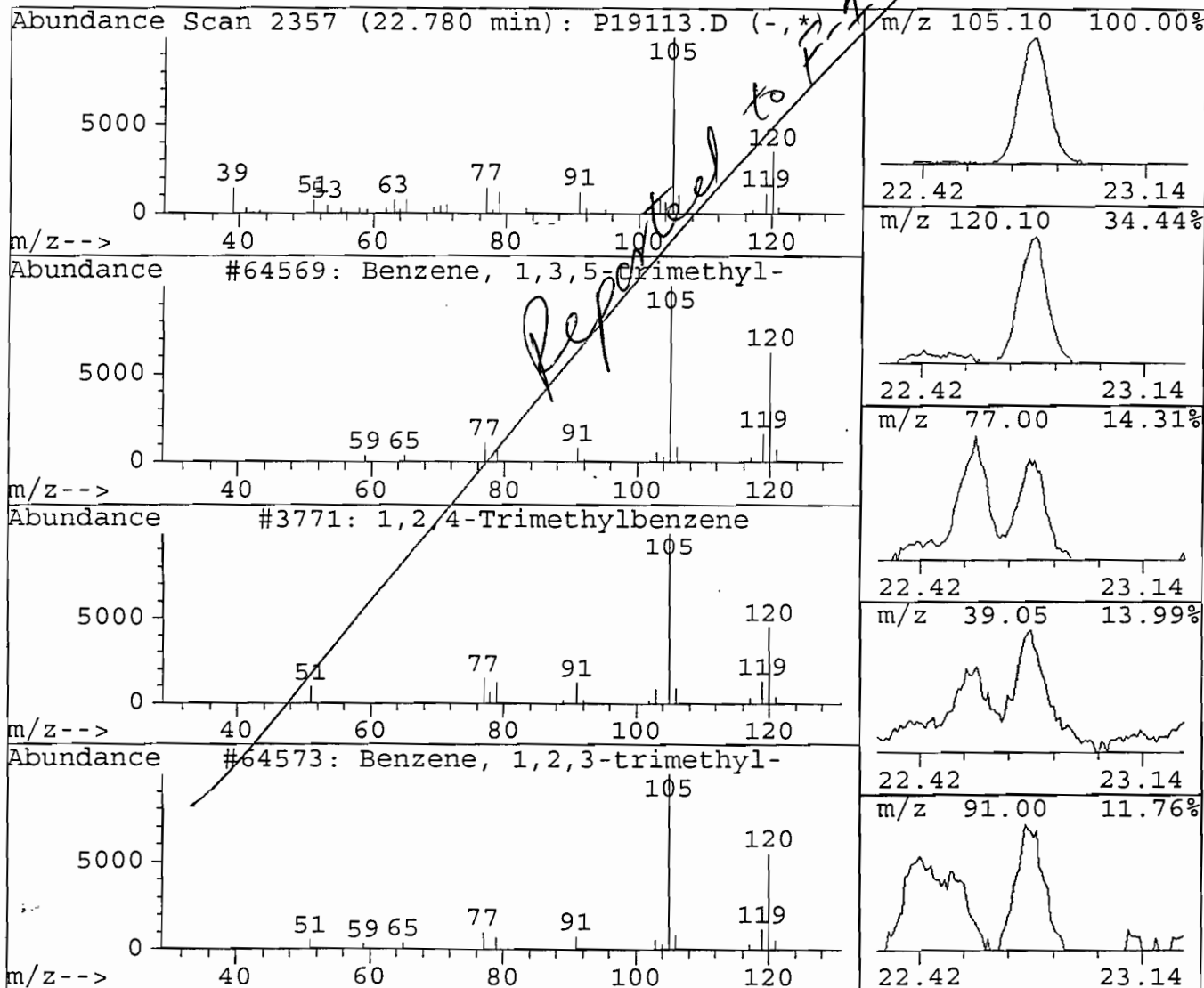
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.78	9.27 ug/L	1132328	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	91
2	1,2,4-Trimethylbenzene	3771	000095-36-3	91
3	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	91
4	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	91
5	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	91



000079

Library Search Compound Report

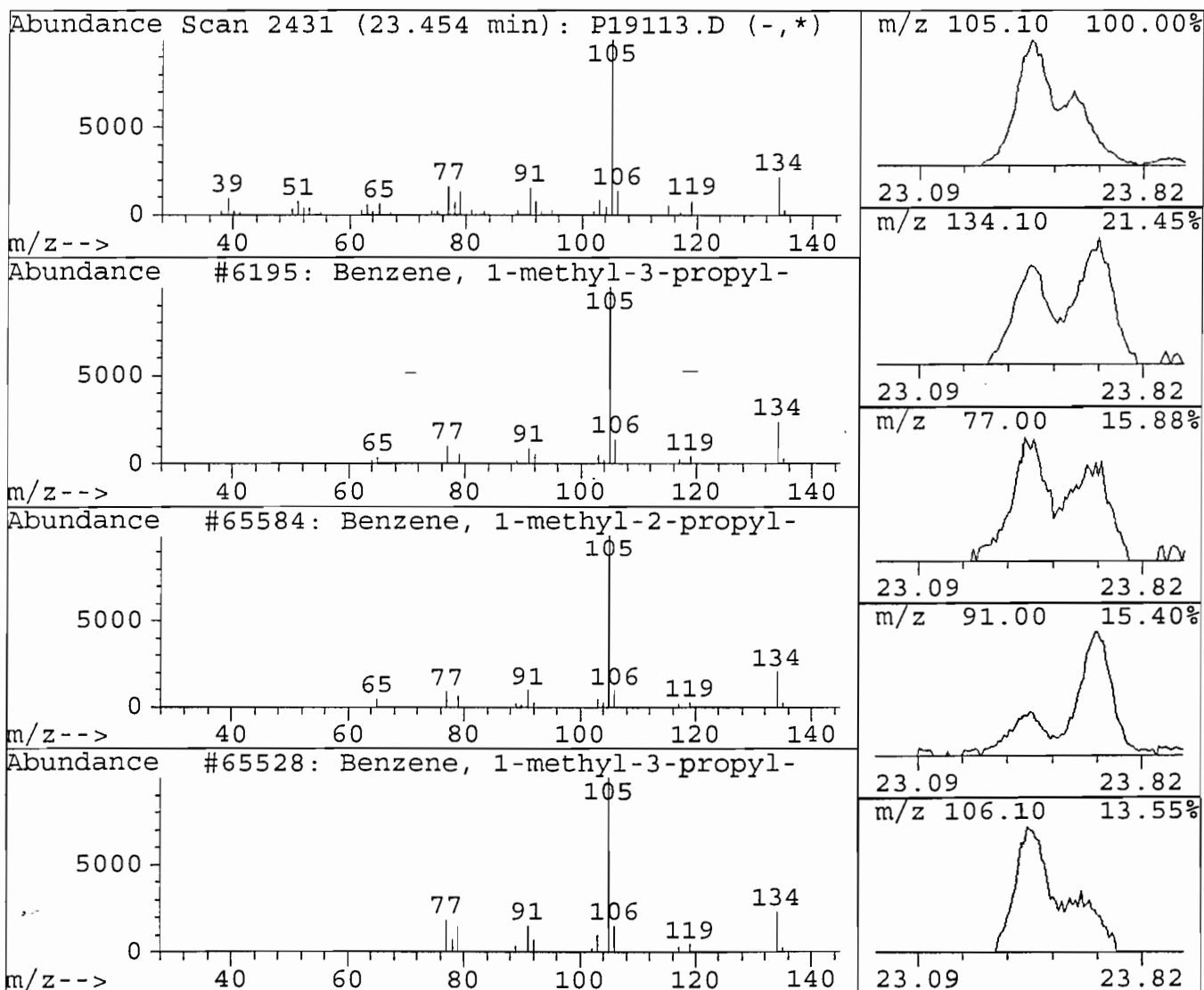
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.45	6.29 ug/L	767889	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	6195	001074-43-7	91
2	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	91
3	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	90
4	Benzene, (1-methylpropyl)-	65543	000135-98-8	90
5	Benzene, (1-methylpropyl)-	65542	000135-98-8	90



000080

Library Search Compound Report

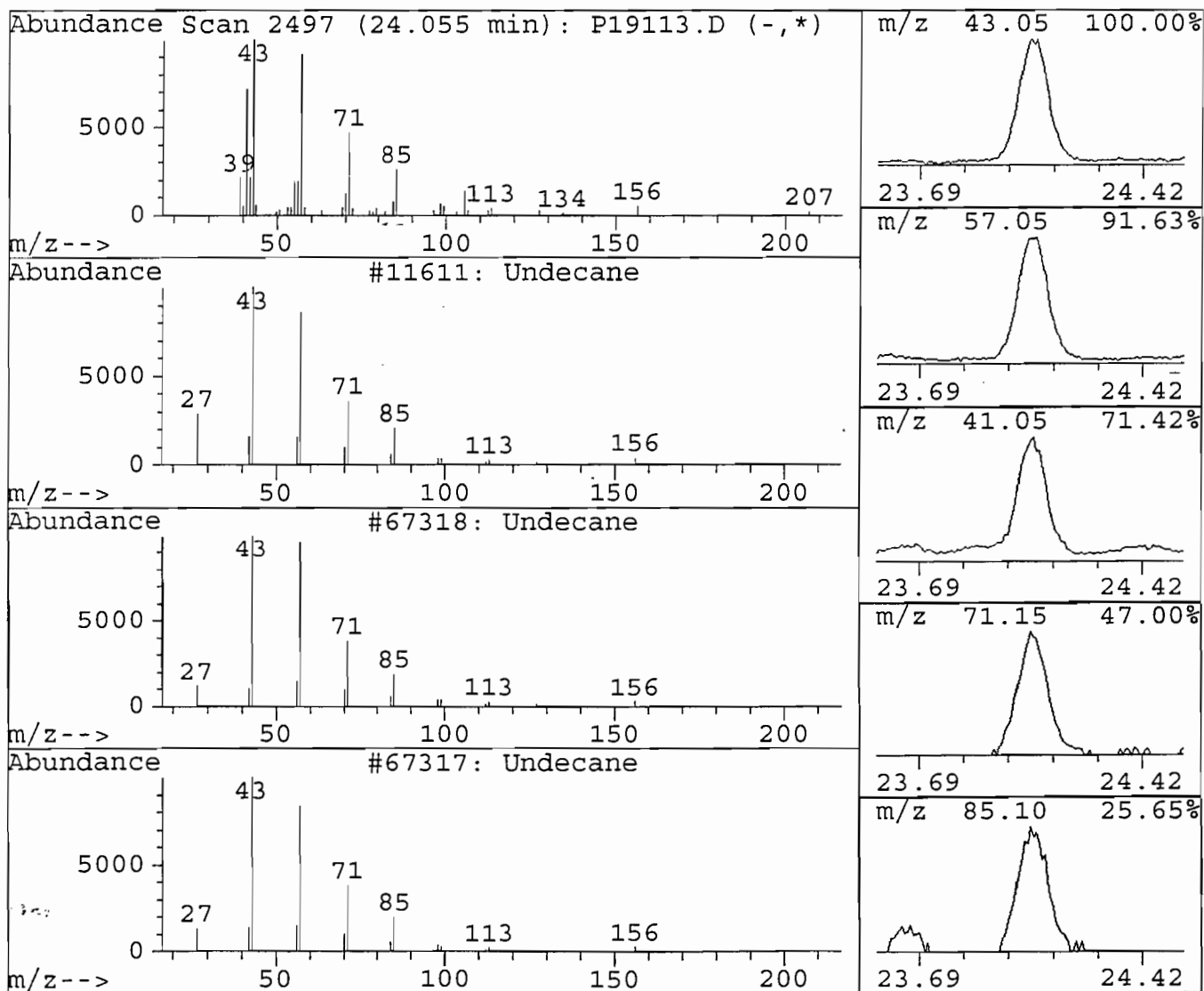
Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.05	10.48 ug/L	1279170	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	11611	001120-21-4	95
2	Undecane	67318	001120-21-4	93
3	Undecane	67317	001120-21-4	87
4	Undecane	67319	001120-21-4	87
5	Dodecane	68251	000112-40-3	86



000081

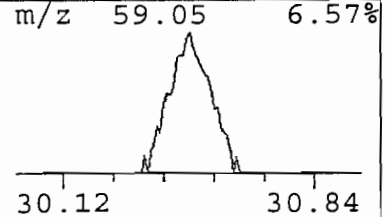
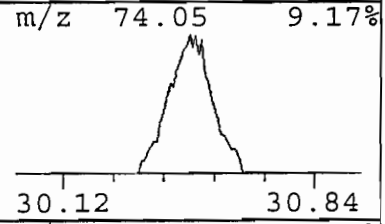
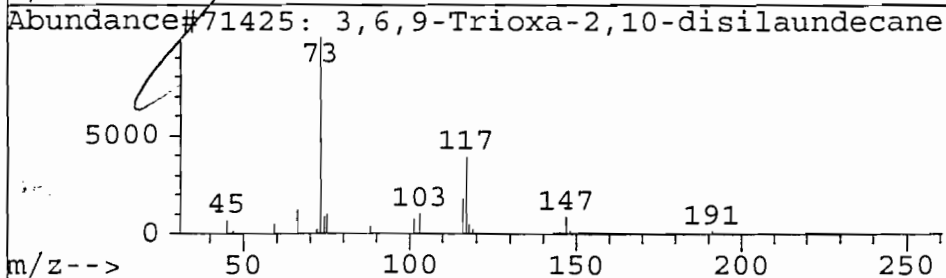
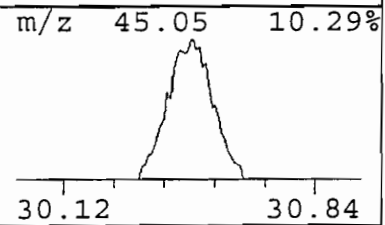
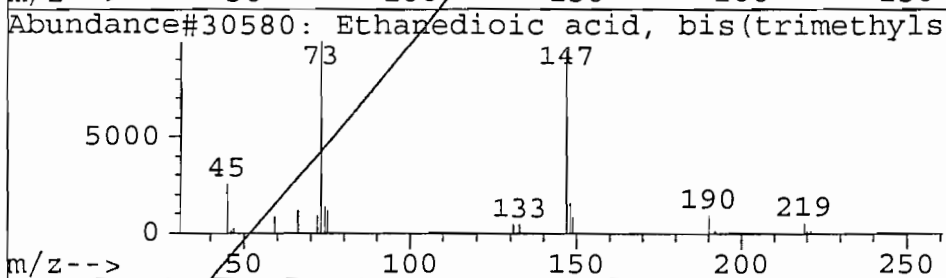
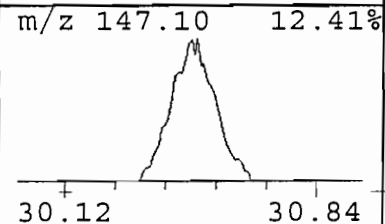
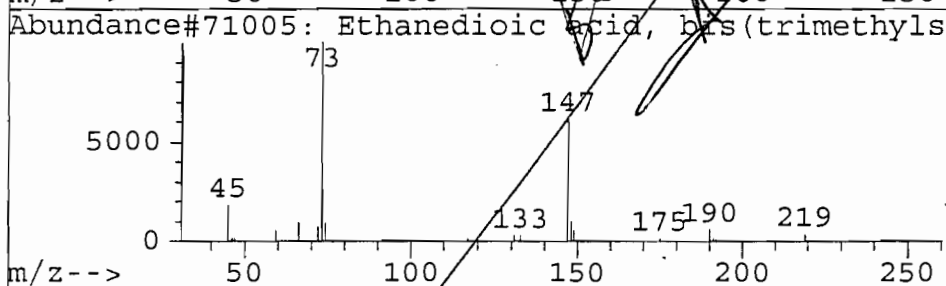
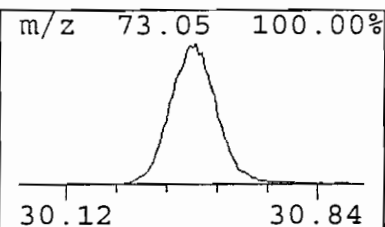
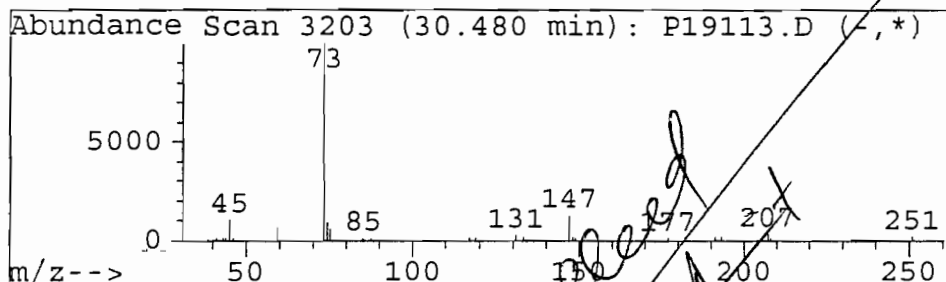
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19113.D
Acq Time : 8 Oct 99 8:42 pm
Sample : 13701ASP-86833
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.48	8.52 ug/L	1040096	1,4-dichlorobenzene-d4	22.59	
Hit# of	8	Tentative ID	Ref#	CAS#	Qual
1		Ethanedioic acid, bis(trimethylsilyl)	71005	018294-04-7	40
2		Ethanedioic acid, bis(trimethylsilyl)	30580	018294-04-7	40
3		3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	39
4		Pentonic acid, 5-deoxy-2,3-bis-O-(t	38700	074742-33-9	33
5		D-Ribonic acid, 5-deoxy-2,3-bis-O-(	38706	062338-19-6	33



000085

-1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-006-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86834

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19114.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 4

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-006-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
Matrix: (soil/water) SOIL Lab Sample ID: O86834
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19114.D
Level: (low/med) LOW Date Received: 10/6/99
% Moisture: not dec. 3.72 Date Analyzed: 10/8/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19114.D
 Acq Time : 8 Oct 99 9:26 pm
 Sample : 13701ASP-86834
 Misc : 5G/5ML
 Quant Time: Oct 10 12:33 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.24	96	929798	50.00	ug/L	-0.02
43) Chlorobenzene-d5	16.33	117	961700	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	686983	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.95	113	709312	45.79	ug/L	91.57%
30) 1,2-Dichlorethane-d4	8.65	65	572280	47.01	ug/L	94.03%
38) Toluene-d8	12.75	98	916658	50.55	ug/L	101.09%
42) 4-Bromofluorobenzene	19.47	95	895811	48.12	ug/L	96.24%

Target Compounds

Qvalue

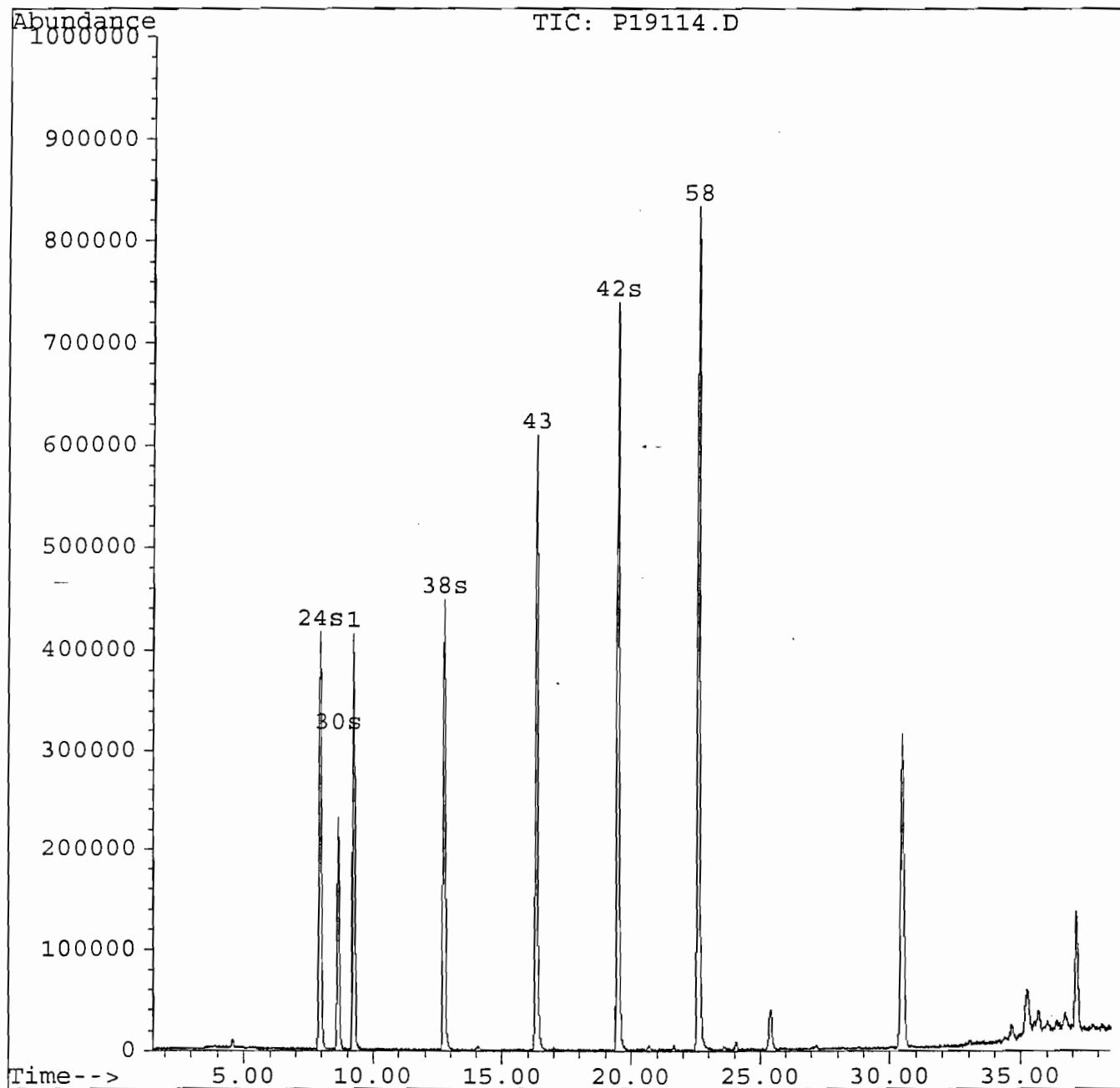
000089

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19114.D
Acq Time : 8 Oct 99 9:26 pm
Sample : 13701ASP-86834
Misc : 5G/5ML
Quant Time: Oct 10 12:33 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000090

Library Search Compound Report

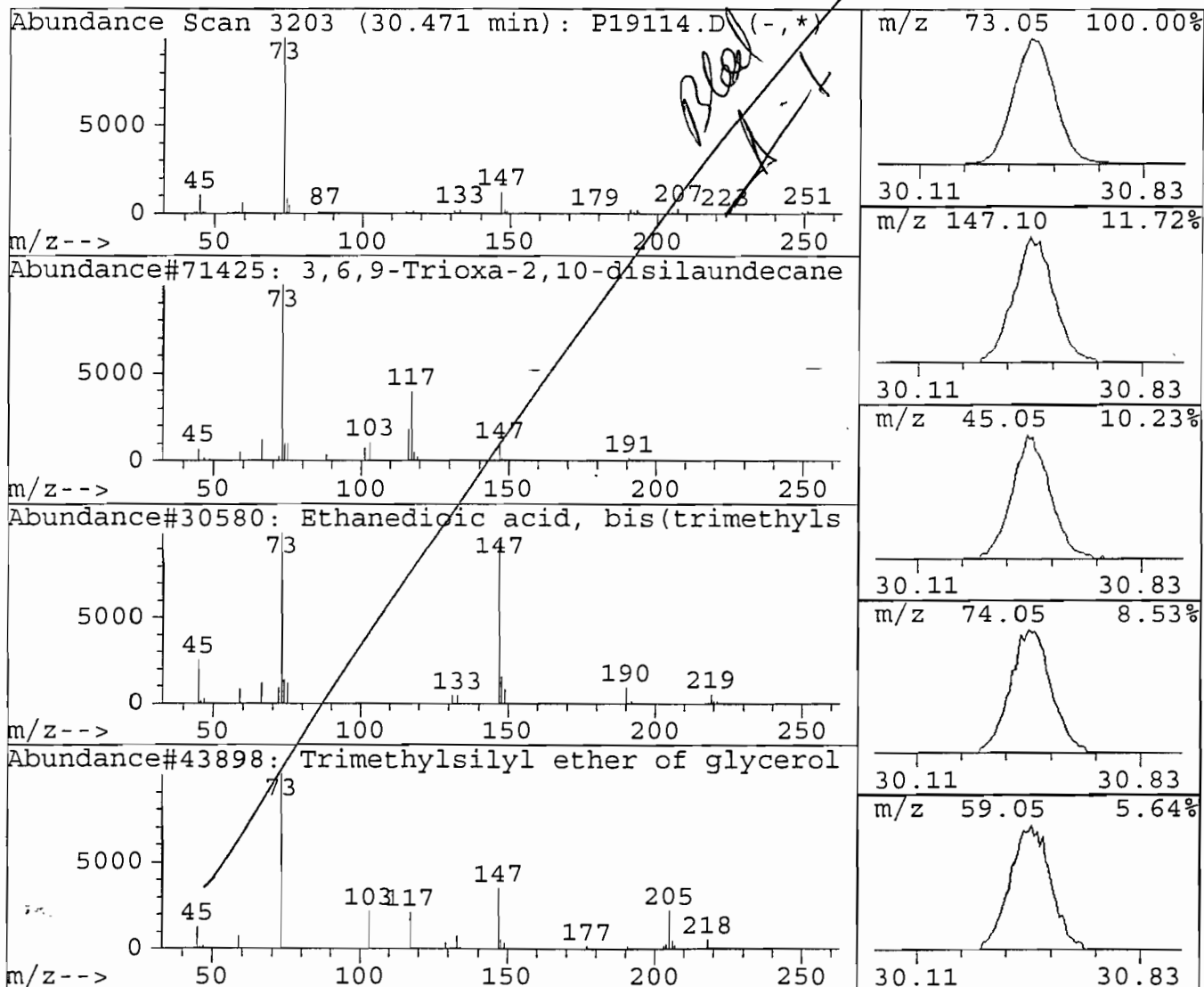
Data File : I:\HPCHEM\1\DATA\V2100899\P19114.D
Acq Time : 8 Oct 99 9:26 pm
Sample : 13701ASP-86834
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.47	27.11 ug/L	2889264	1,4-dichlorobenzene-d4	22.59

Hit#	of	5	Tentative ID	Ref#	CAS#	Qual
1			3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
2			Ethanedioic acid, bis(trimethylsilyl	30580	018294-04-7	37
3			Trimethylsilyl ether of glycerol	43898	006787-10-6	25
4			3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	25
5			Butanoic acid, 2-methyl-3-[(trimeth	36153	055557-17-0	8



000091

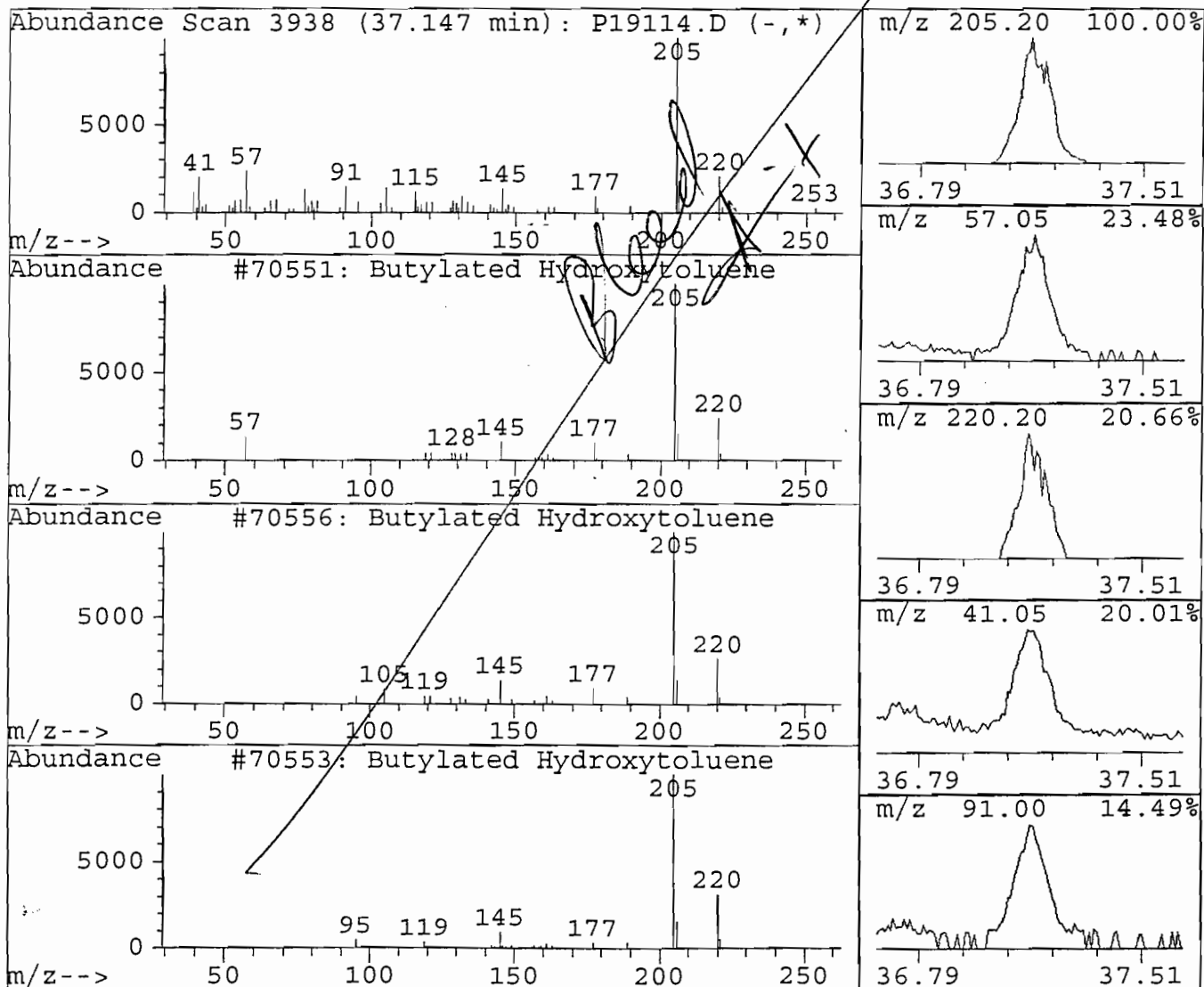
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19114.D
Acq Time : 8 Oct 99 9:26 pm
Sample : 13701ASP-86834
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
37.15	7.94 ug/L	845861	1,4-dichlorobenzene-d4	22.59	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Butylated Hydroxytoluene		70551	000128-37-0	96
2	Butylated Hydroxytoluene		70556	000128-37-0	95
3	Butylated Hydroxytoluene		70553	000128-37-0	94
4	Butylated Hydroxytoluene		70550	000128-37-0	94
5	Butylated Hydroxytoluene		27705	000128-37-0	91



000092

-1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-006-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86835

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19115.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-006-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86835
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19115.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 2.7 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19115.D
 Acq Time : 8 Oct 99 10:10 pm
 Sample : 13701ASP-86835
 Misc : 5G/5ML
 Quant Time: Oct 10 12:33 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	810202	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.33	117	864775	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.60	152	604382	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.96	113	650289	48.17	ug/L	96.35%
30) 1,2-Dichlorethane-d4	8.66	65	542383	51.13	ug/L	102.27%
38) Toluene-d8	12.76	98	802744	50.80	ug/L	101.60%
42) 4-Bromofluorobenzene	19.47	95	831102	51.23	ug/L	102.47%

Target Compounds	Qvalue

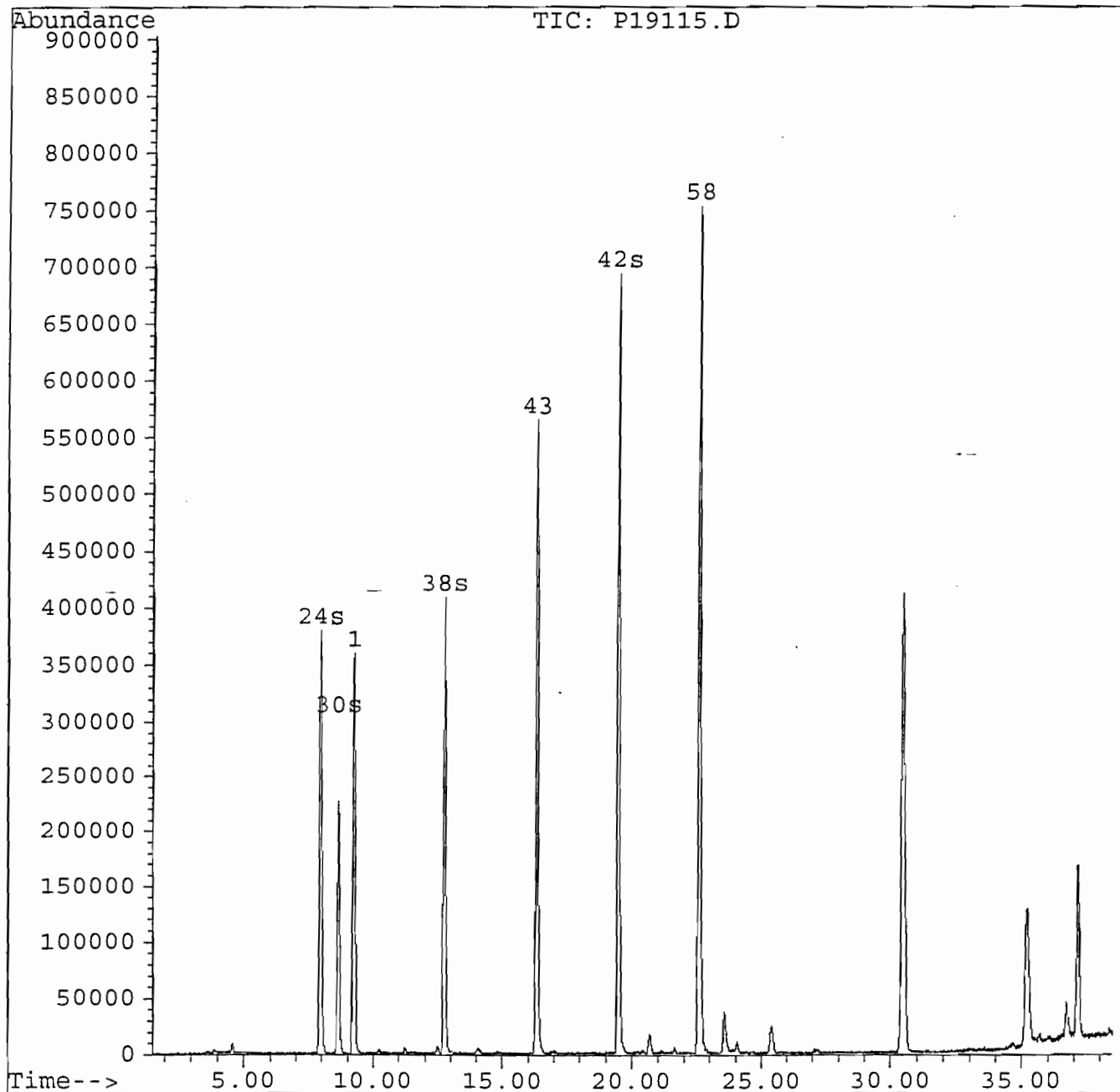
000096

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19115.D
Acq Time : 8 Oct 99 10:10 pm
Sample : 13701ASP-86835
Misc : 5G/5ML
Quant Time: Oct 10 12:33 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000097

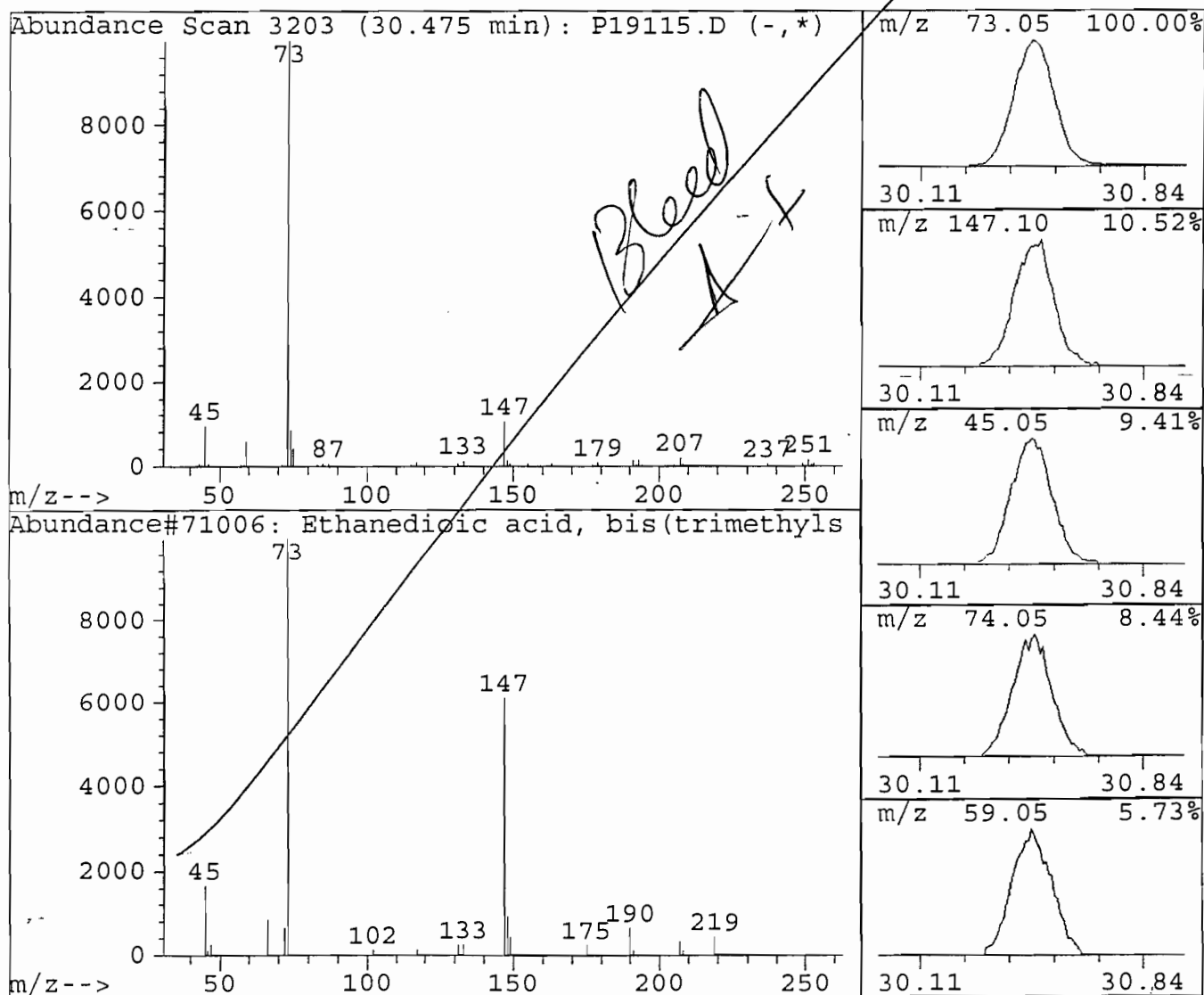
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19115.D
Acq Time : 8 Oct 99 10:10 pm
Sample : 13701ASP-86835
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.48	39.29 ug/L	3720574	1,4-dichlorobenzene-d4	22.60	
Hit# of	1	Tentative ID	Ref#	CAS#	Qual
1	Ethanedioic acid, bis(trimethylsilyl	71006	018294-04-7	12	



000098

Library Search Compound Report

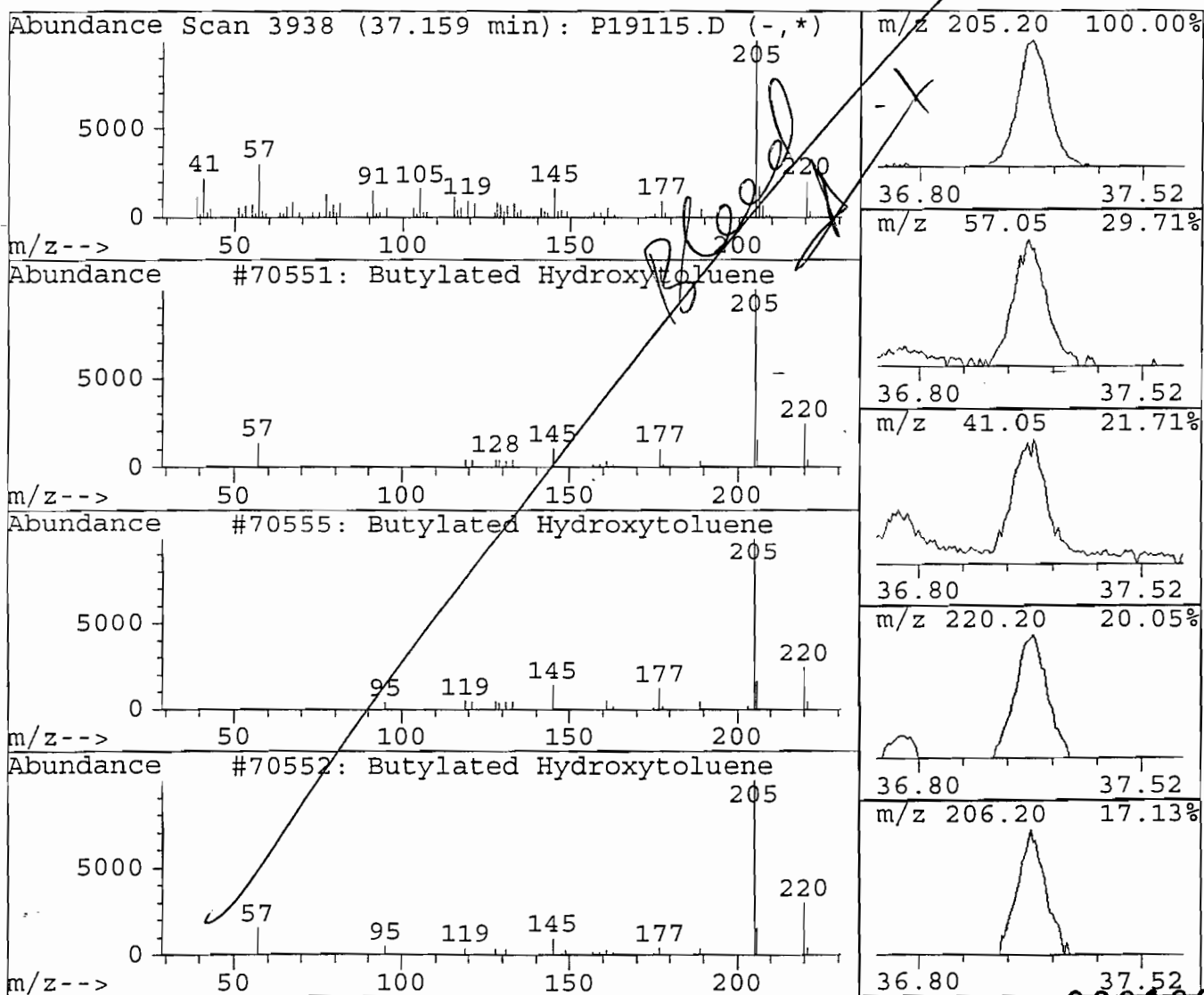
Data File : I:\HPCHEM\1\DATA\V2100899\P19115.D
Acq Time : 8 Oct 99 10:10 pm
Sample : 13701ASP-86835
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.16	11.54 ug/L	1092436	1,4-dichlorobenzene-d4	22.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butylated Hydroxytoluene	70551	000128-37-0	96
2	Butylated Hydroxytoluene	70555	000128-37-0	96
3	Butylated Hydroxytoluene	70552	000128-37-0	95
4	Butylated Hydroxytoluene	27705	000128-37-0	95
5	Butylated Hydroxytoluene	70553	000128-37-0	93



000100

-1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-006-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86836

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19116.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 2

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

GP-006-SS30

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86836

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19116.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 2

Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-006-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86836
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19116.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 2.35 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 6 Concentration Units:
 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 104-76-7	1-Hexanol, 2-ethyl-	23.56	16	J
2.	Decahydro-4,4,8,9,10-pentame	33.05	13	J
3.	Unknown	34.63	11	J
4.	Decahydro-9-ethyl-4,4,8,10-t	36.67	7.3	J
5.	Unknown	37.47	7.2	J
6.	Unknown	38.06	11	J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000103

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
 Acq Time : 8 Oct 99 10:54 pm
 Sample : 13701ASP-86836
 Misc : 5G/5ML
 Quant Time: Oct 10 12:33 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.25	96	811953	50.00	ug/L	-0.01
43) Chlorobenzene-d5	16.34	117	813813	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	588217	50.00	ug/L	0.00
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.97	113	646958	47.82	ug/L	95.65%
30) 1,2-Dichlorethane-d4	8.66	65	533575	50.20	ug/L	100.39%
38) Toluene-d8	12.76	98	774342	48.90	ug/L	97.79%
42) 4-Bromofluorobenzene	19.48	95	777262	47.81	ug/L	95.62%

Target Compounds Qvalue

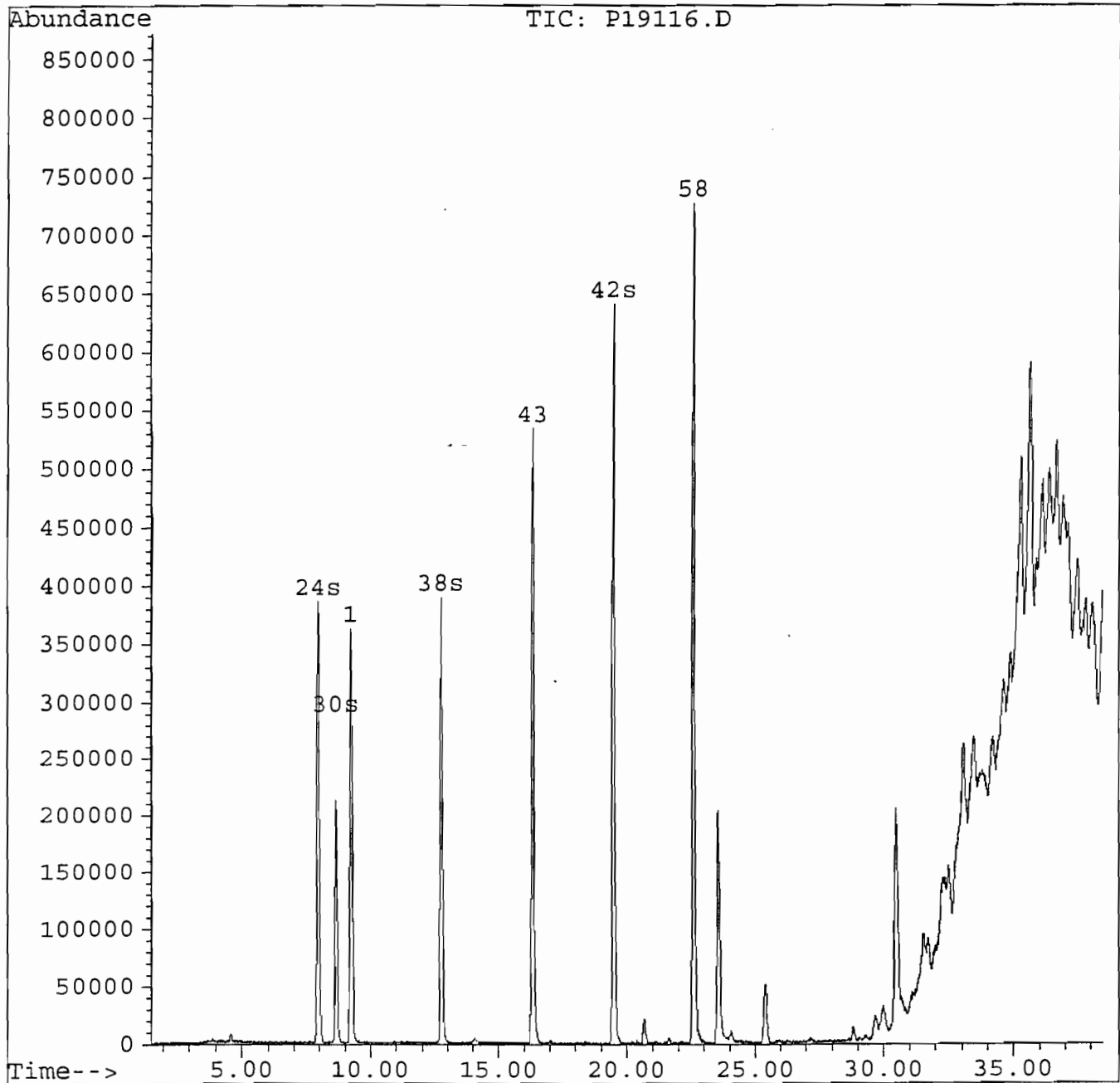
000104

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML
Quant Time: Oct 10 12:33 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000105

Library Search Compound Report

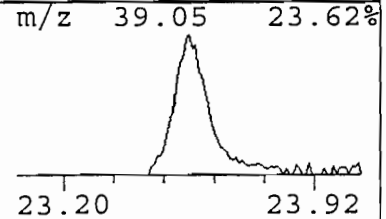
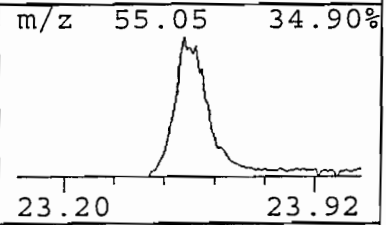
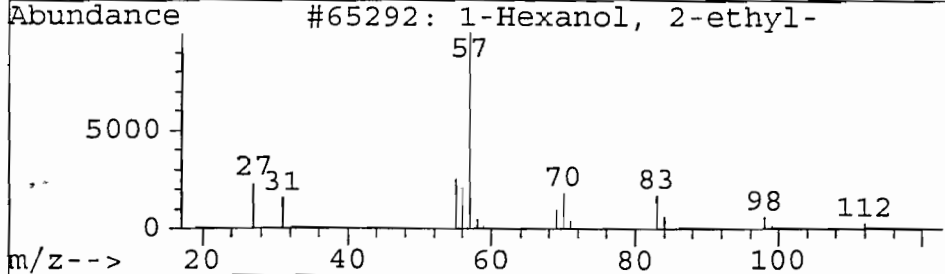
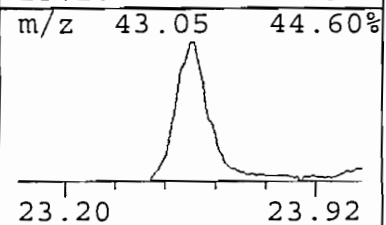
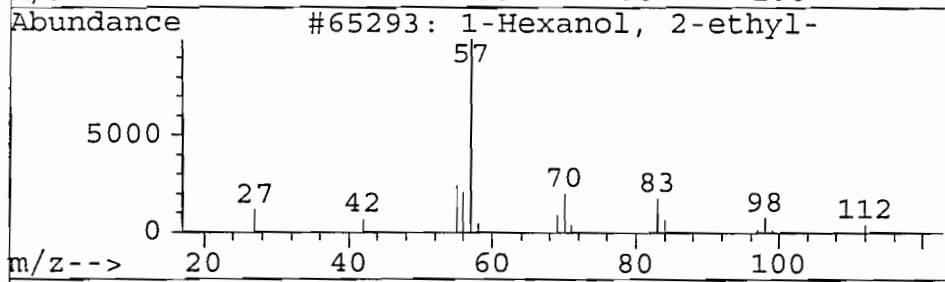
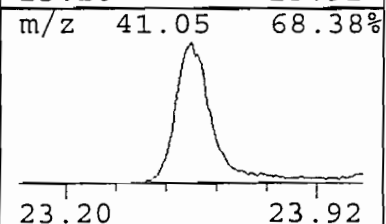
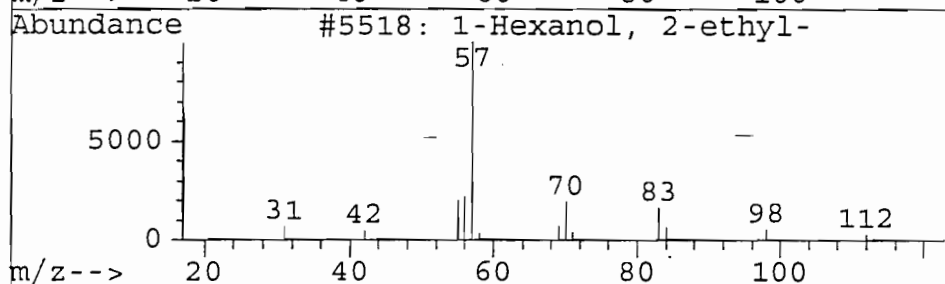
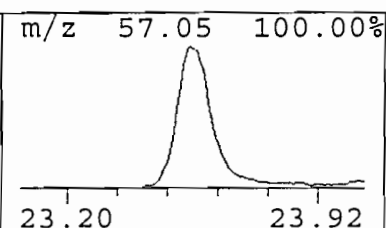
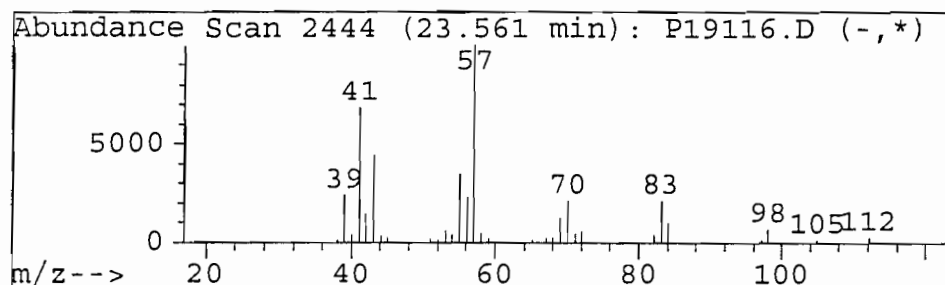
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.56	15.56 ug/L	1444912	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	5518	000104-76-7	78
2	1-Hexanol, 2-ethyl-	65293	000104-76-7	78
3	1-Hexanol, 2-ethyl-	65292	000104-76-7	72
4	1-Hexanol, 2-ethyl-	65289	000104-76-7	72
5	1-Hexanol, 2-ethyl-	65290	000104-76-7	56



000106

Library Search Compound Report

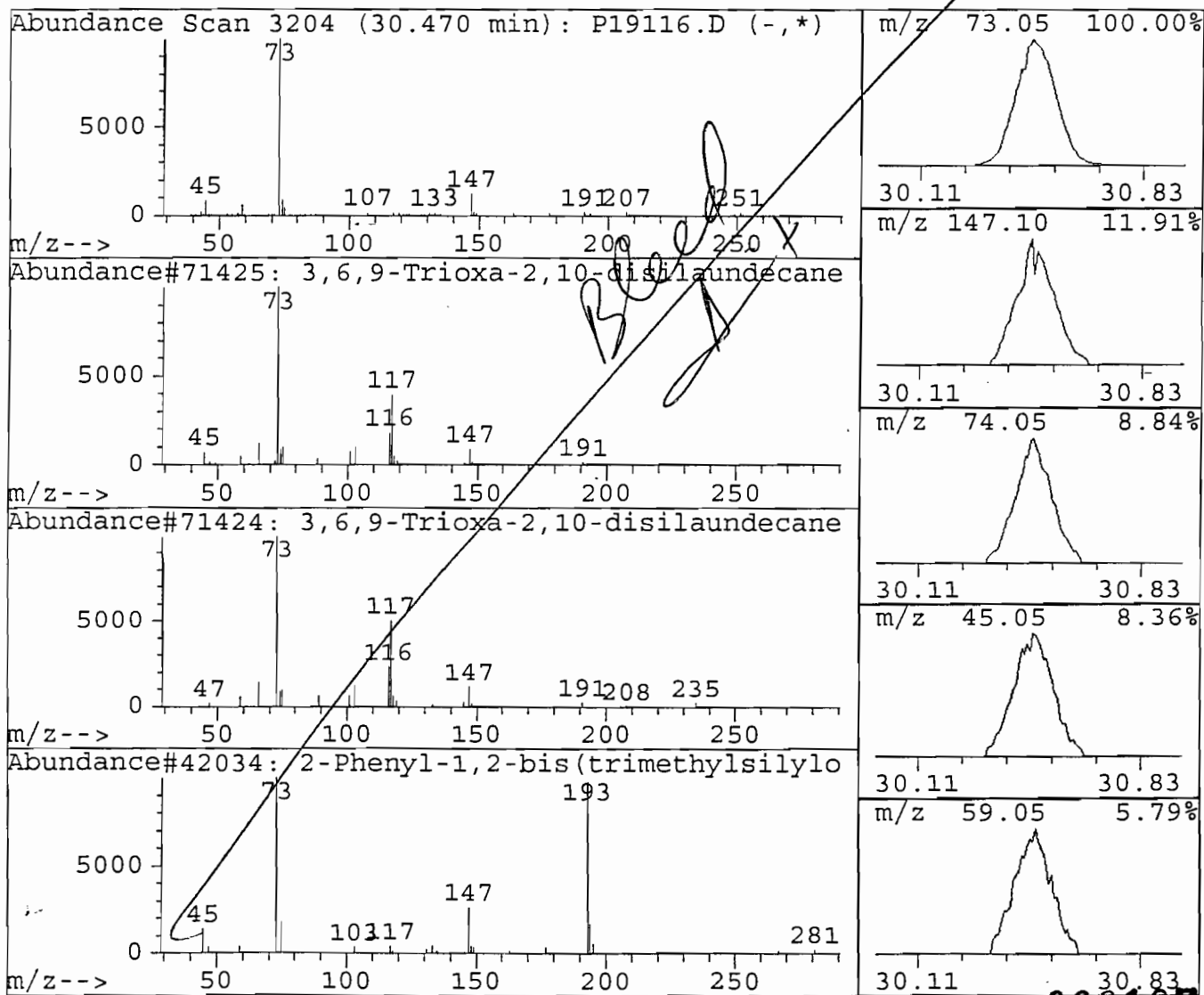
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.47	20.80 ug/L	1930547	1,4-dichlorobenzene-d4	22.59

Hit#	of	Tentative ID	Ref#	CAS#	Qual
1	3	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	33
2	3	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	33
3	2	Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	25



000107

Library Search Compound Report

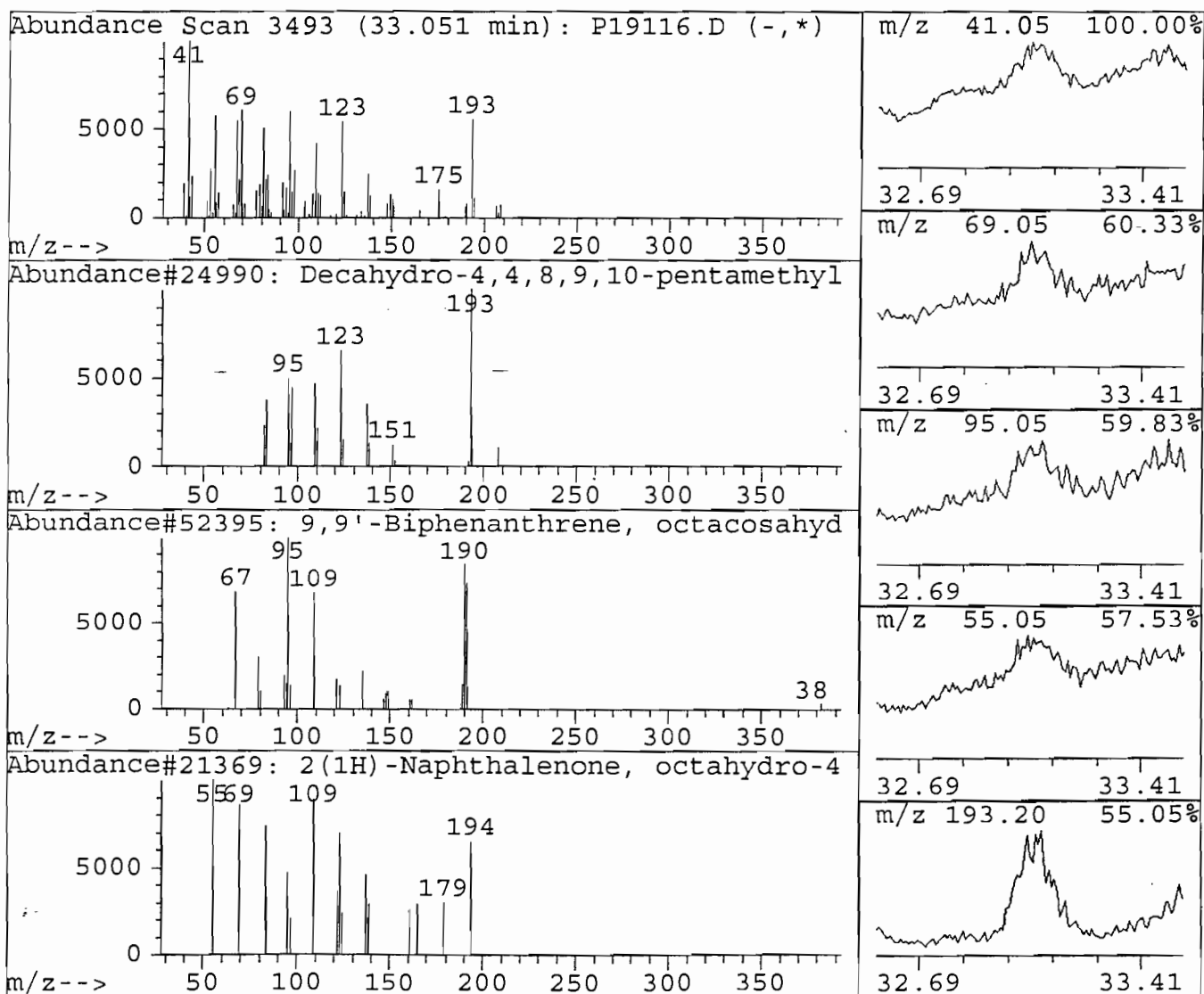
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
33.05	13.16 ug/L	1221919	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethylnap	24990	000000-00-0	95
2	9,9'-Biphenanthrene, octacosahydro-	52395	055334-18-4	35
3	2(1H)-Naphthalenone, octahydro-4a,7	21369	054699-31-9	35
4	Bicyclo[2.2.1]heptane, 2,2,3-trimet	7066	020536-41-8	30
5	Bicyclo[2.2.1]heptane, 2,2,3-trimet	7063	020536-40-7	30



Library Search Compound Report

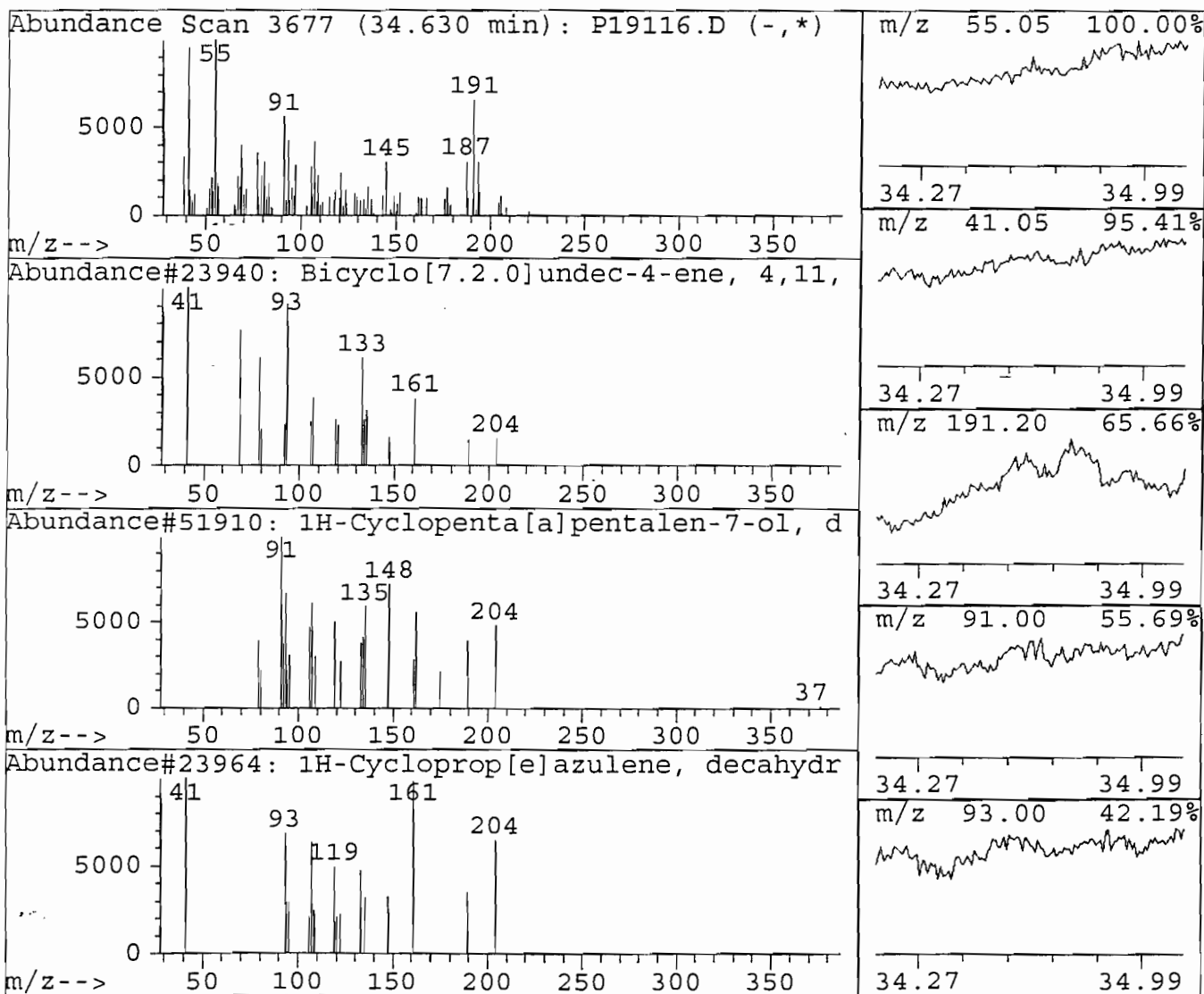
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
34.63	11.00 ug/L	1021377	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Bicyclo[7.2.0]undec-4-ene, 4,11,11-	23940	000118-65-0	15
2	1H-Cyclopenta[a]pentalen-7-ol, deca	51910	058003-47-7	12
3	1H-Cycloprop[e]azulene, decahydro-1	23964	000489-39-4	12
4	Naphthalene, decahydro-4a-methyl-1-	69938	017066-67-0	10
5	Borane, methylidynetris[diethyl-	27613	057387-94-7	10



000109

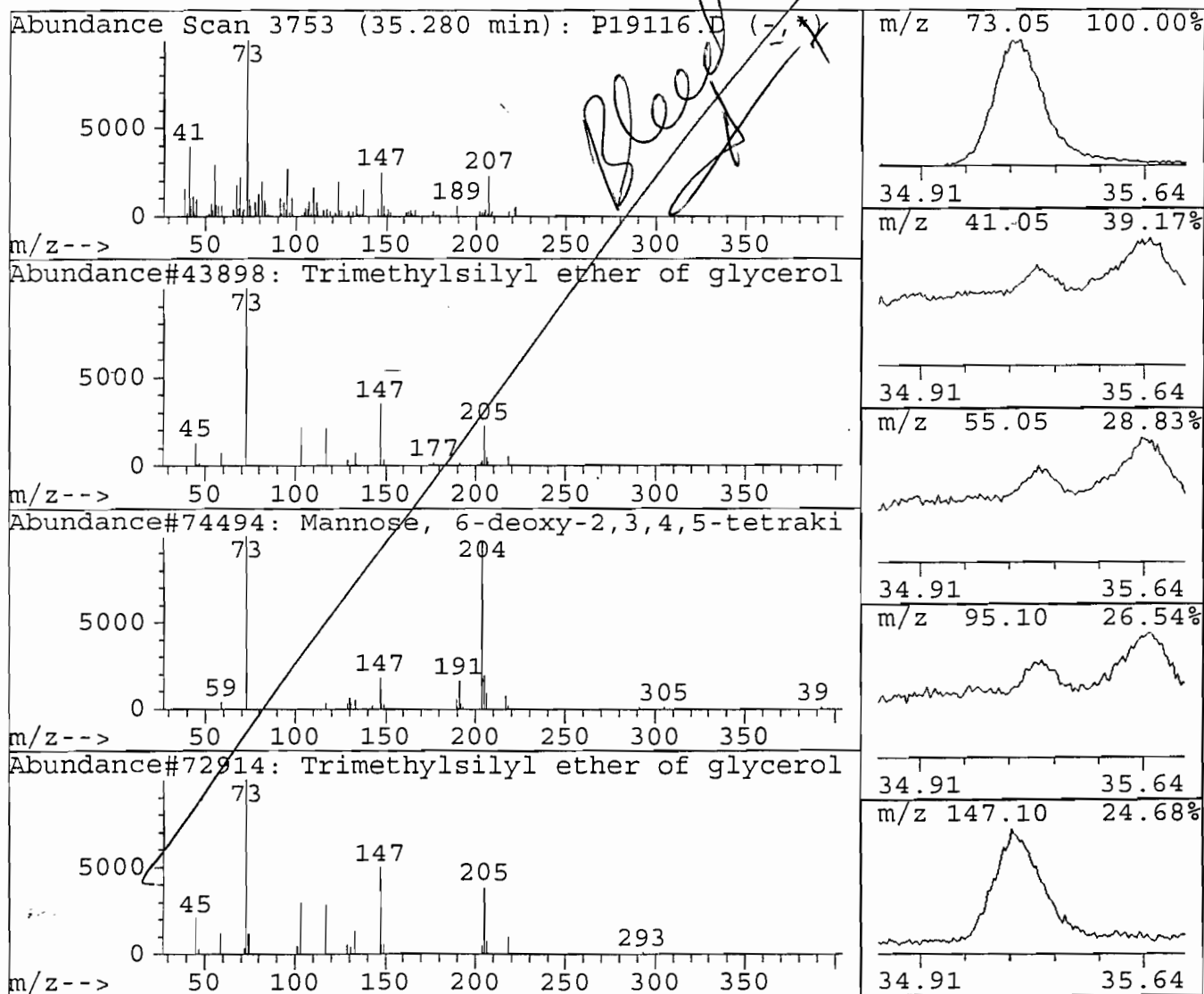
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.28	23.08 ug/L	2142546	1,4-dichlorobenzene-d4	22.59
Hit# of 13	Tentative ID	Ref#	CAS#	Qual
1	Trimethylsilyl ether of glycerol	43898	006787-10-6	10
2	Mannose, 6-deoxy-2,3,4,5-tetrakis-O	74494	019127-15-2	10
3	Trimethylsilyl ether of glycerol	72914	006787-10-6	9
4	Trimethylsilyl ether of glycerol	72911	006787-10-6	9
5	D-Xylopyranose, 1,2,3,4-tetrakis-O-	56372	055555-45-8	9



000110

Library Search Compound Report

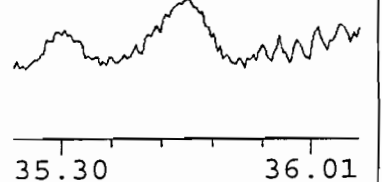
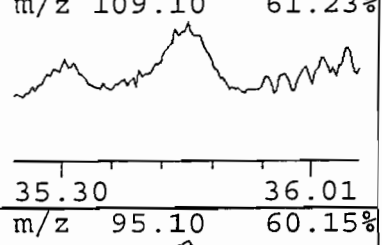
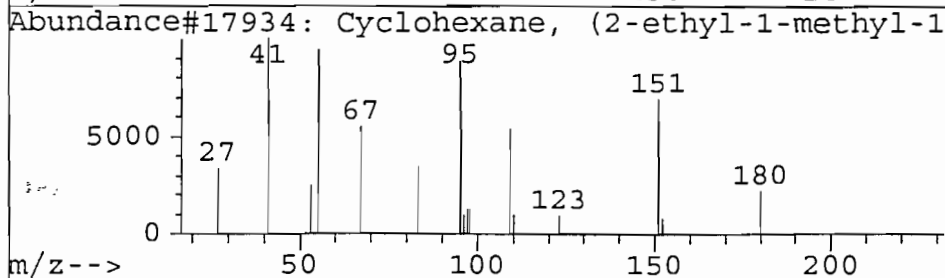
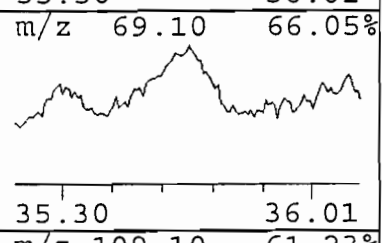
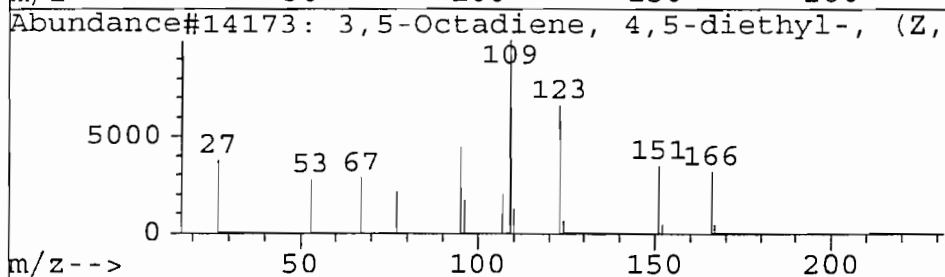
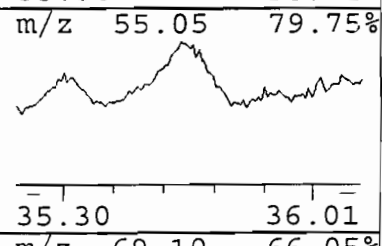
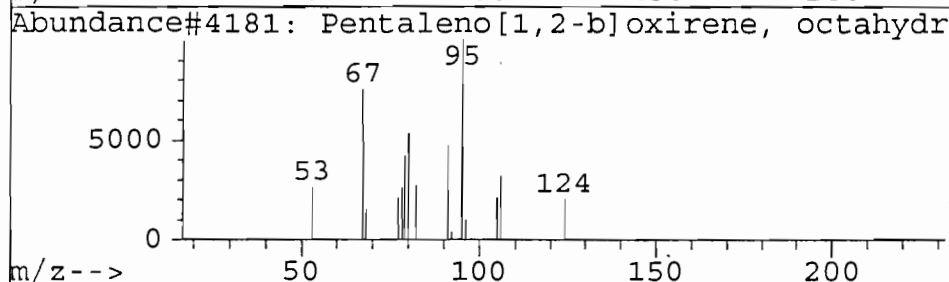
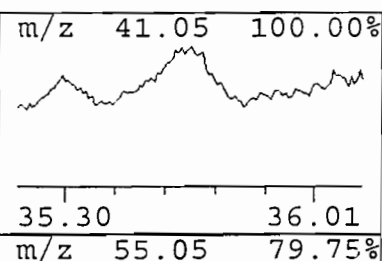
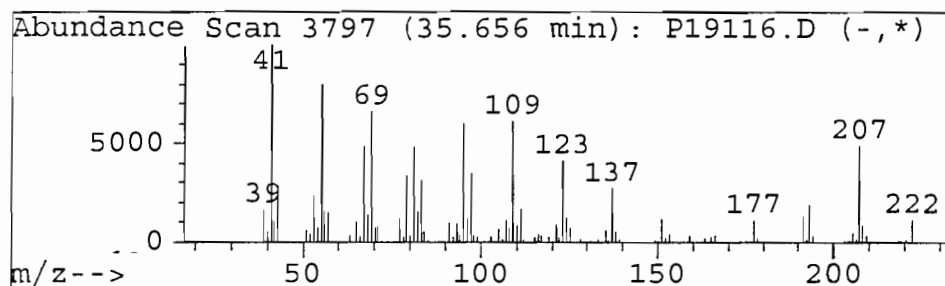
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.66	24.68 ug/L	2290969	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentaleno[1,2-b]oxirene, octahydro-	4181	055449-70-2	35
2	3,5-Octadiene, 4,5-diethyl-, (Z,Z)-	14173	021293-03-8	30
3	Cyclohexane, (2-ethyl-1-methyl-1-bu	17934	074810-42-7	27
4	1-Naphthalenol, decahydro-4a-methyl	28194	030951-17-8	22
5	Cyclopropane, 1,1-dimethyl-2-(2-met	4277	033422-32-1	18



000111

Library Search Compound Report

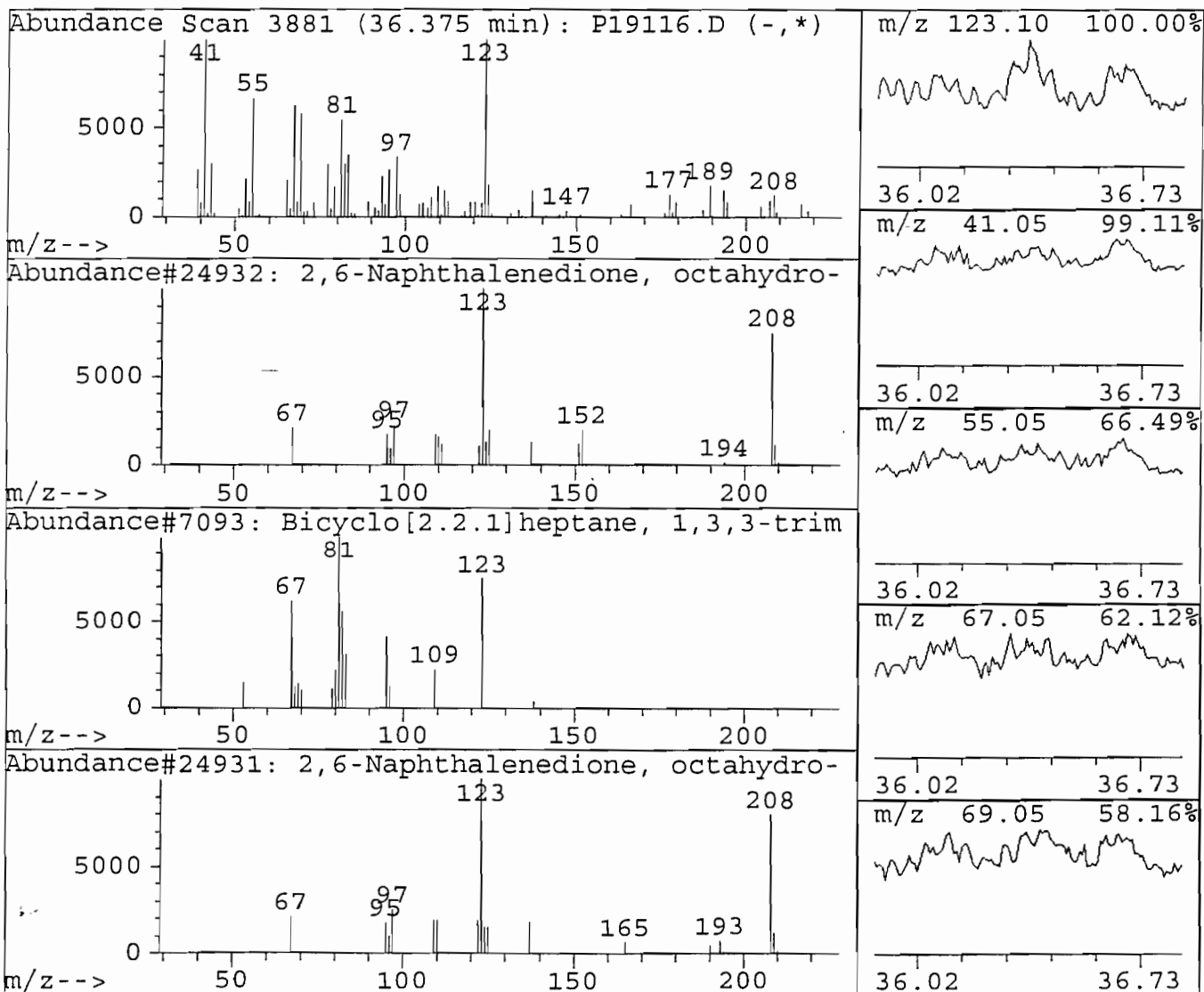
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
36.37	7.42 ug/L	688777	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,6-Naphthalenedione, octahydro-1,1	24932	057289-17-5	74
2	Bicyclo[2.2.1]heptane, 1,3,3-trimet	7093	006248-88-0	40
3	2,6-Naphthalenedione, octahydro-1,1	24931	057289-16-4	38
4	Bicyclo[2.2.2]octane, 1-bromo-4-met	23240	000697-40-5	32
5	1-Cyclohexene-1-carboxaldehyde, 2,6	10355	000432-25-7	25



000112

Library Search Compound Report

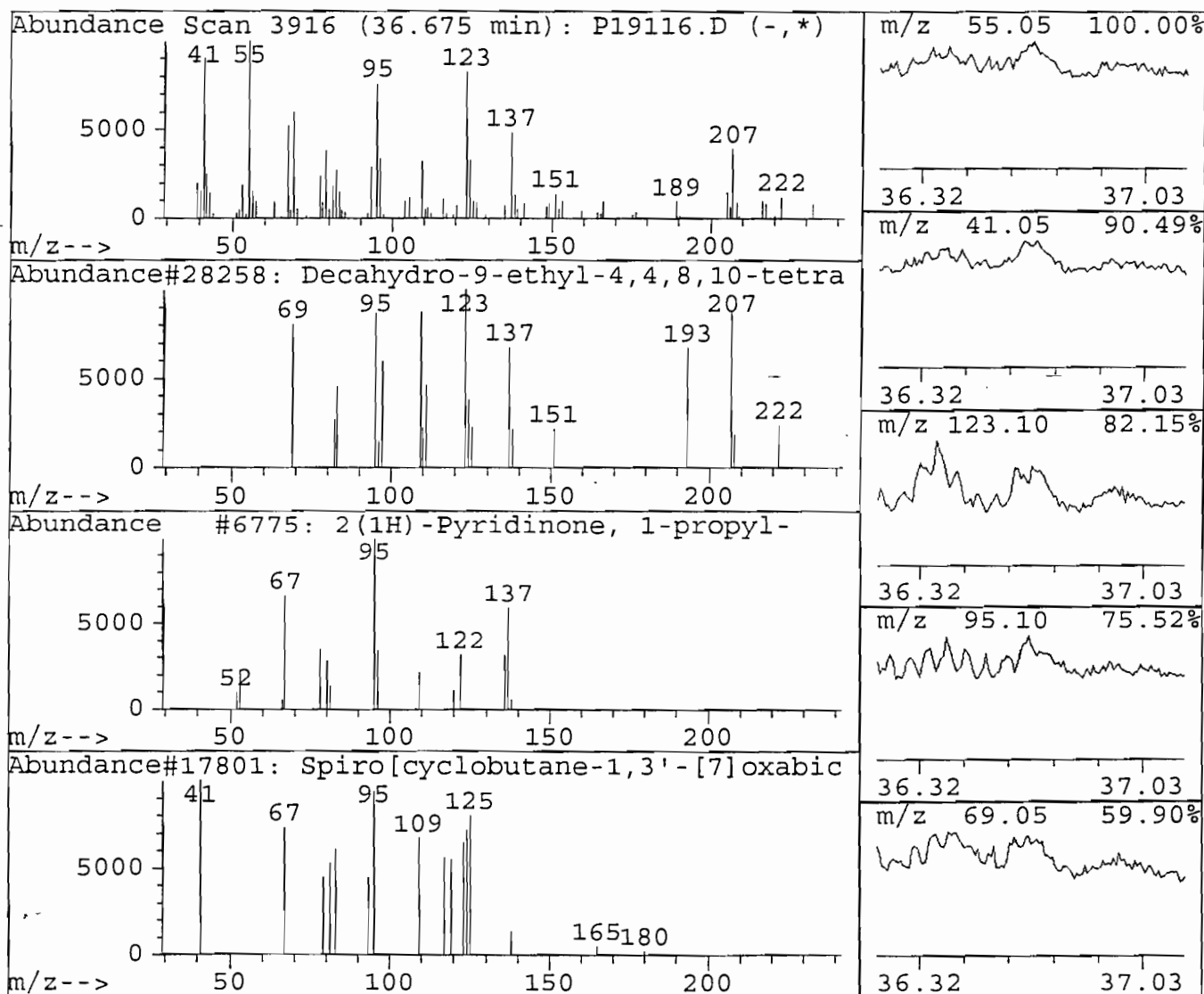
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
36.67	7.15 ug/L	663604	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decahydro-9-ethyl-4,4,8,10-tetramet	28258	000000-00-0	89
2	2(1H)-Pyridinone, 1-propyl-	6775	019006-63-4	38
3	Spiro[cyclobutane-1,3'-[7]oxabicycl	17801	075314-18-0	38
4	Ethylidenecycloheptane	4252	010494-87-8	35
5	3,5-Octadiene, 4,5-diethyl-, (E,Z)-	14171	021293-02-7	35



000113

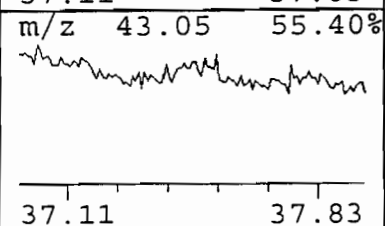
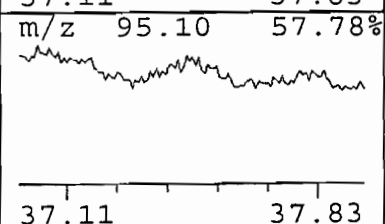
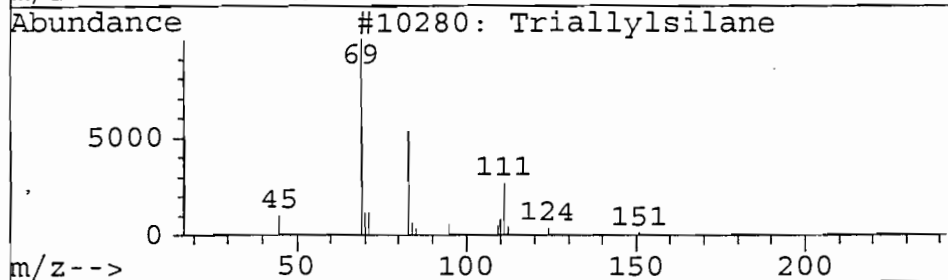
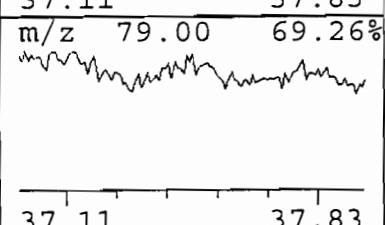
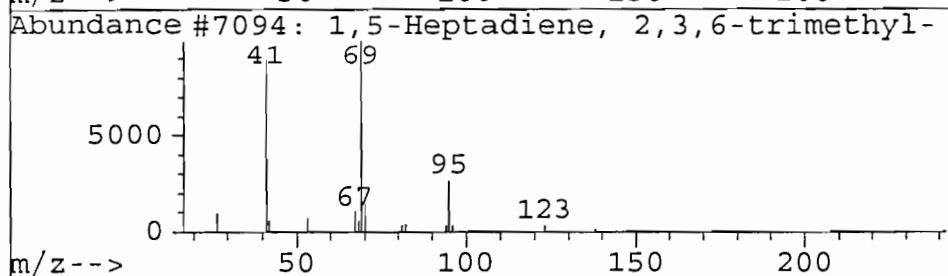
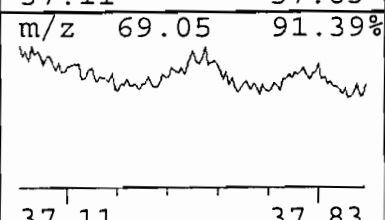
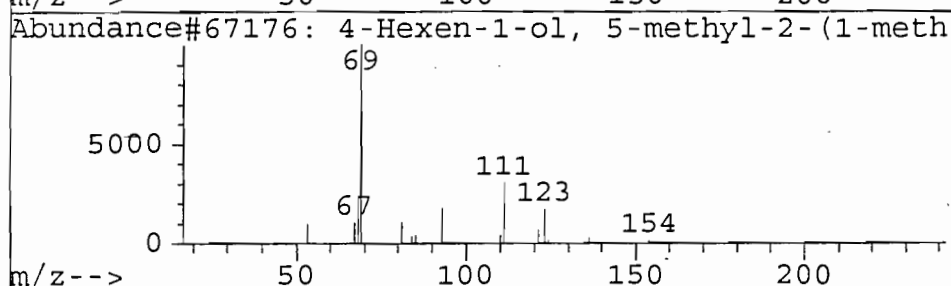
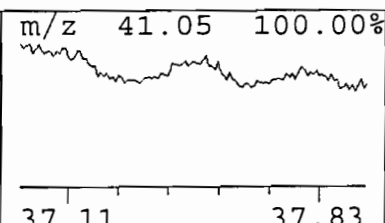
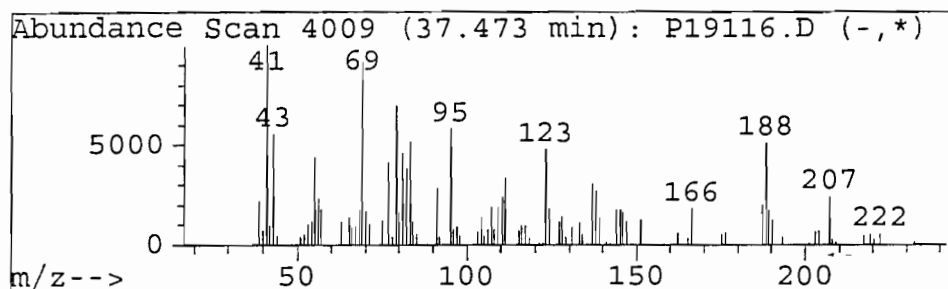
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
37.47	7.07 ug/L	655959	1,4-dichlorobenzene-d4	22.59	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	4-Hexen-1-ol, 5-methyl-2-(1-methyle		67176	000498-16-8	27
2	1,5-Heptadiene, 2,3,6-trimethyl-		7094	033501-88-1	27
3	Triallylsilane		10280	000000-00-0	22
4	5,9-Dimethyl-2-(1-methylethylidene)		28226	069239-69-6	15
5	6-Octen-1-ol, 3,7-dimethyl-		67311	000106-22-9	12



000114

Library Search Compound Report

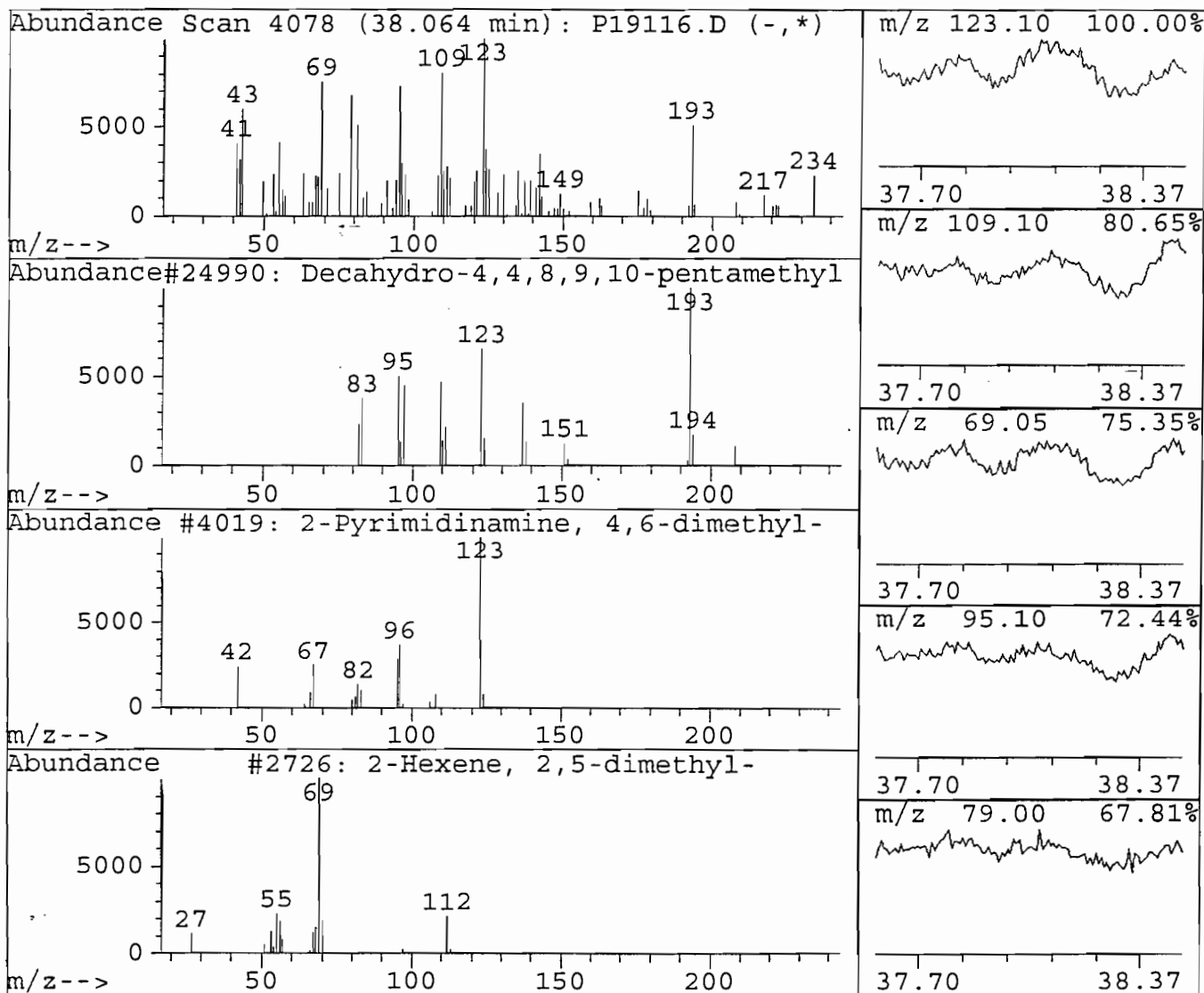
Data File : I:\HPCHEM\1\DATA\V2100899\P19116.D
Acq Time : 8 Oct 99 10:54 pm
Sample : 13701ASP-86836
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
38.06	10.98 ug/L	1019607	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethylnap	24990	000000-00-0	37
2	2-Pyrimidinamine, 4,6-dimethyl-	4019	000767-15-7	11
3	2-Hexene, 2,5-dimethyl-	2726	003404-78-2	10
4	2-Pyrimidinamine, 4,6-dimethyl-	64724	000767-15-7	10
5	Benzenamine, 3-methoxy-	4032	000536-90-3	10



000115

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-006-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86837

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19156.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 4

Date Analyzed: 10/11/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

GP-006-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86837

Sample wt/vol:

5.0

(g/mL)

G

Lab File ID: P19156.D

Level: (low/med)

LOW

Date Received: 10/6/99

% Moisture: not dec.

4

Date Analyzed: 10/11/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Concentration Units:

(ug/L or ug/Kg)

ug/Kg

0

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-006-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86837
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19156.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 4.1 Date Analyzed: 10/11/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000118

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19156.D
 Acq Time : 11 Oct 99 8:56 pm
 Sample : 13701ASP-86837
 Misc : 5G/5ML
 Quant Time: Oct 19 9:08 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.27	96	1213231	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.35	117	1253237	50.00	ug/L	0.02
58) 1,4-dichlorobenzene-d4	22.61	152	893016	50.00	ug/L	0.01
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.97	113	926294	45.82	ug/L	91.65%
30) 1,2-Dichlorethane-d4	8.68	65	706001	44.45	ug/L	88.90%
38) Toluene-d8	12.77	98	1166781	49.31	ug/L	98.62%
42) 4-Bromofluorobenzene	19.50	95	1082896	44.58	ug/L	89.16%

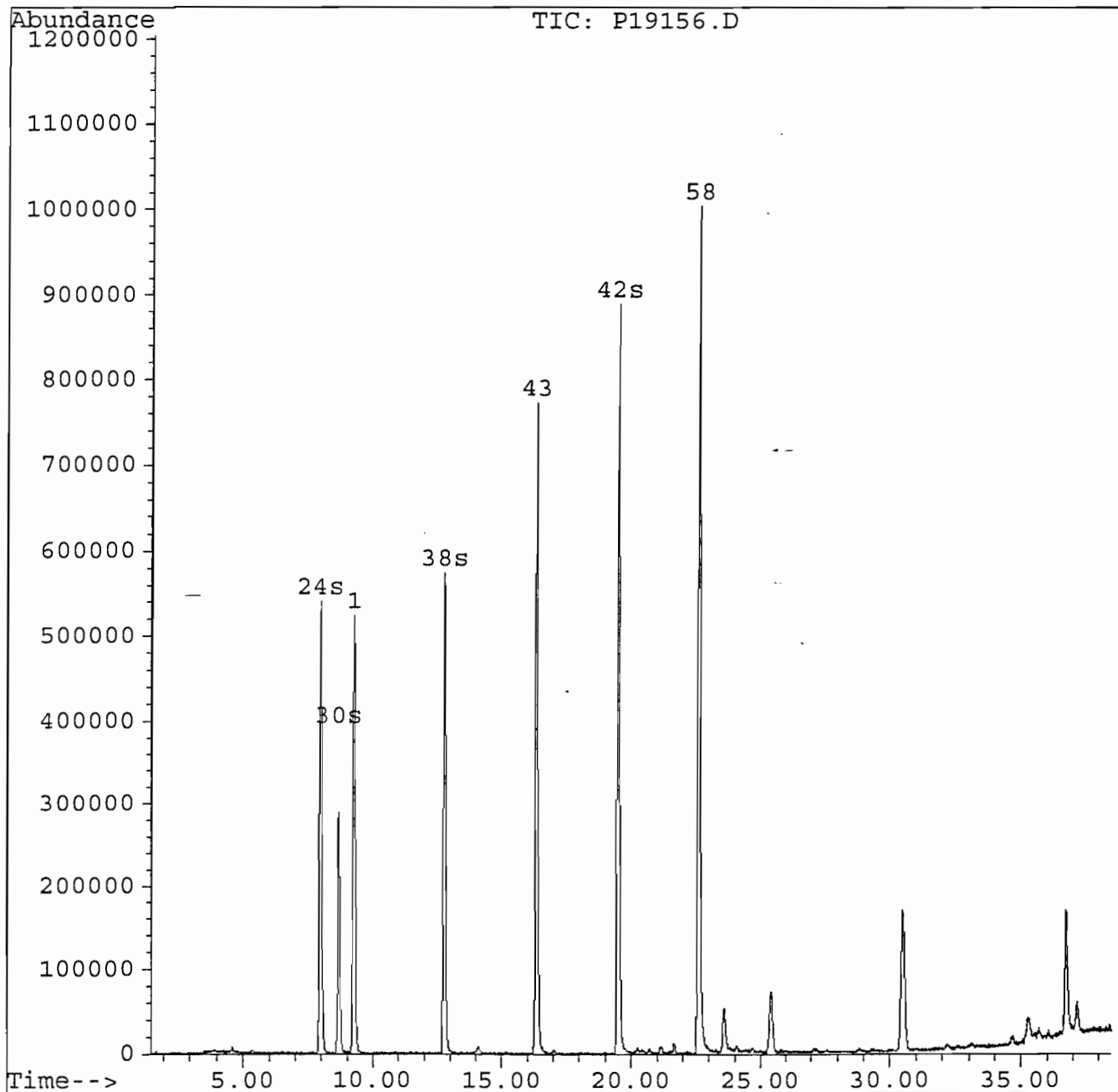
Target Compounds Qvalue

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19156.D
Acq Time : 11 Oct 99 8:56 pm
Sample : 13701ASP-86837
Misc : 5G/5ML
Quant Time: Oct 19 9:08 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000120

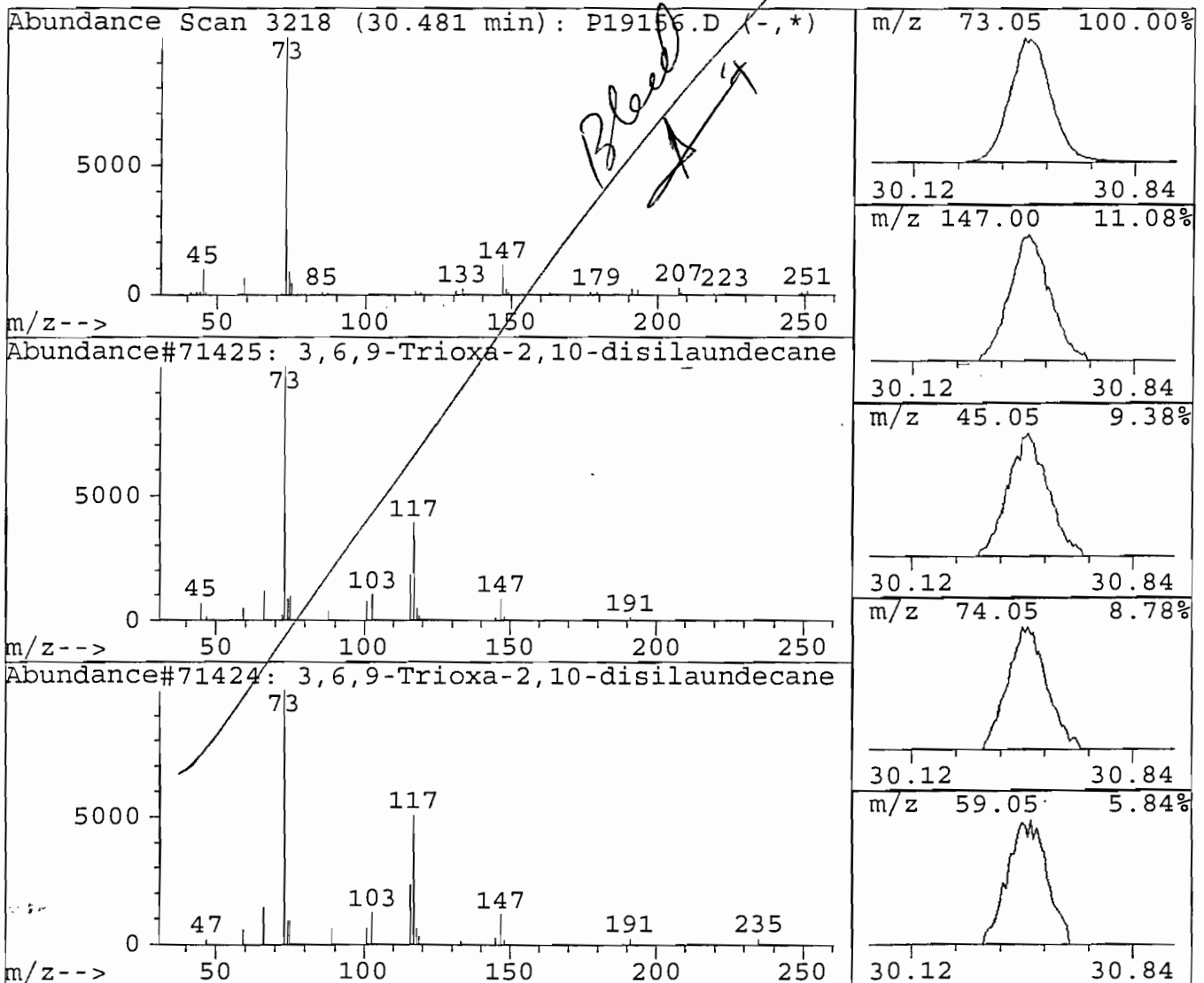
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19156.D
 Acq Time : 11 Oct 99 8:56 pm
 Sample : 13701ASP-86837
 Misc : 5G/5ML

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.48	12.15 ug/L	1559865	1,4-dichlorobenzene-d4	22.61	
Hit# of	2	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane,	2	71425	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane,	2	71424	016654-74-3	28



000121

Library Search Compound Report

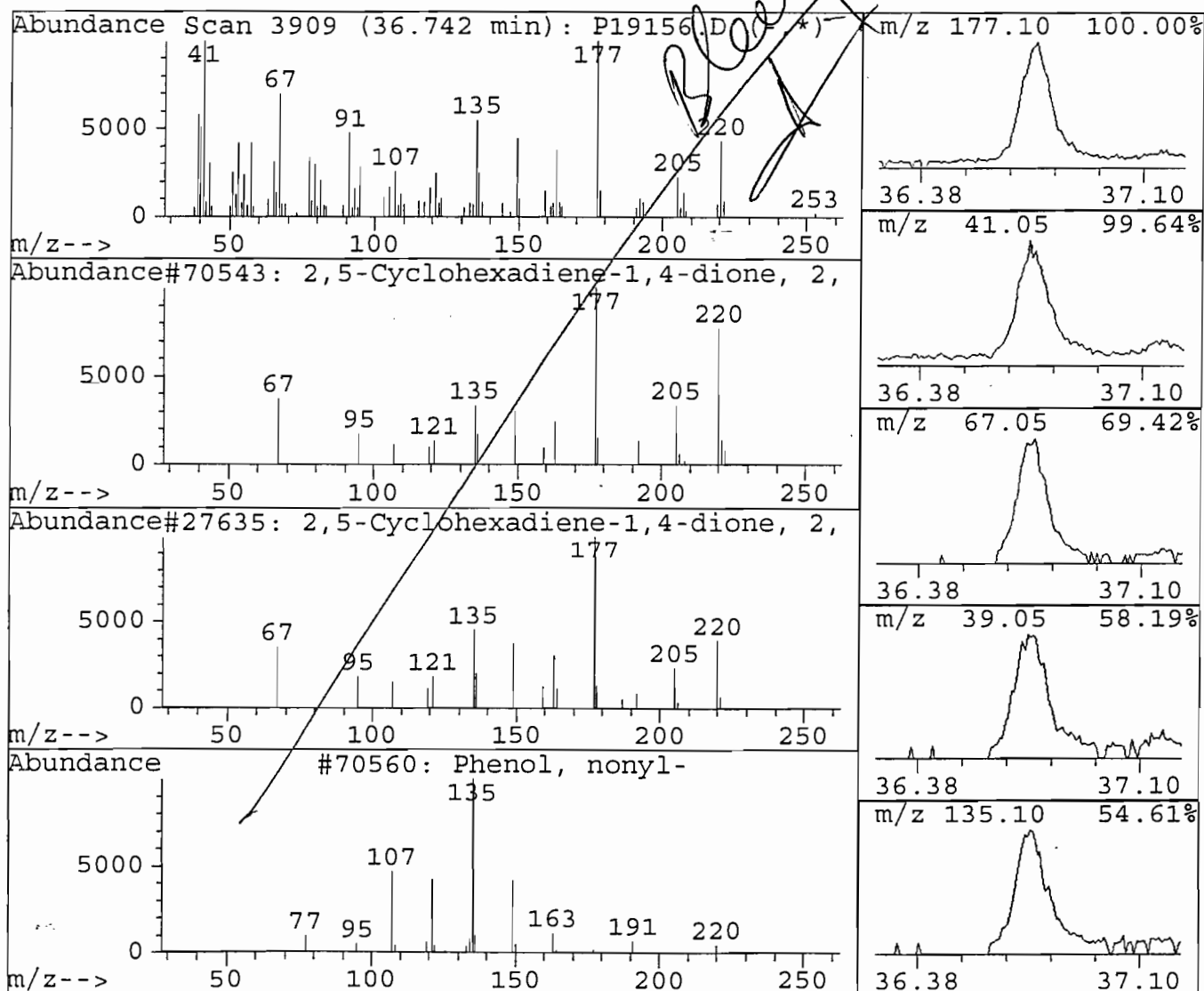
Data File : I:\HPCHEM\1\DATA\V2101199\P19156.D
Acq Time : 11 Oct 99 8:56 pm
Sample : 13701ASP-86837
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
36.74	8.72 ug/L	1119139	1,4-dichlorobenzene-d4	22.61

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,5-Cyclohexadiene-1,4-dione, 2,6-b	70543	000719-22-2	97
2	2,5-Cyclohexadiene-1,4-dione, 2,6-b	27635	000719-22-2	95
3	Phenol, nonyl-	70560	025154-52-3	46
4	1,4-Benzenediamine, N,N'-bis(1-meth	20786	004251-01-8	43
5	Cyclohexanol, 5-methyl-2-(1-methyle	67153	000089-79-2	25



000122

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-007-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86838

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19157.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/11/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	5.2		U
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

GP-007-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86838

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19157.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/11/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.

Compound

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-007-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
Matrix: (soil/water) SOIL Lab Sample ID: O86838
Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19157.D
Level: (low/med) LOW Date Received: 10/6/99
% Moisture: not dec. 3.02 Date Analyzed: 10/11/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000125

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19157.D
 Acq Time : 11 Oct 99 9:40 pm
 Sample : 13701ASP-86838
 Misc : 5G/5ML
 Quant Time: Oct 19 9:09 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1077877	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.34	117	1148238	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.61	152	730727	50.00	ug/L	0.01
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.96	113	837959	46.66	ug/L	93.32%
30) 1,2-Dichlorethane-d4	8.66	65	689372	48.85	ug/L	97.71%
38) Toluene-d8	12.76	98	1137175	54.09	ug/L	108.18%
42) 4-Bromofluorobenzene	19.49	95	1009684	46.78	ug/L	93.57%

Target Compounds

Qvalue

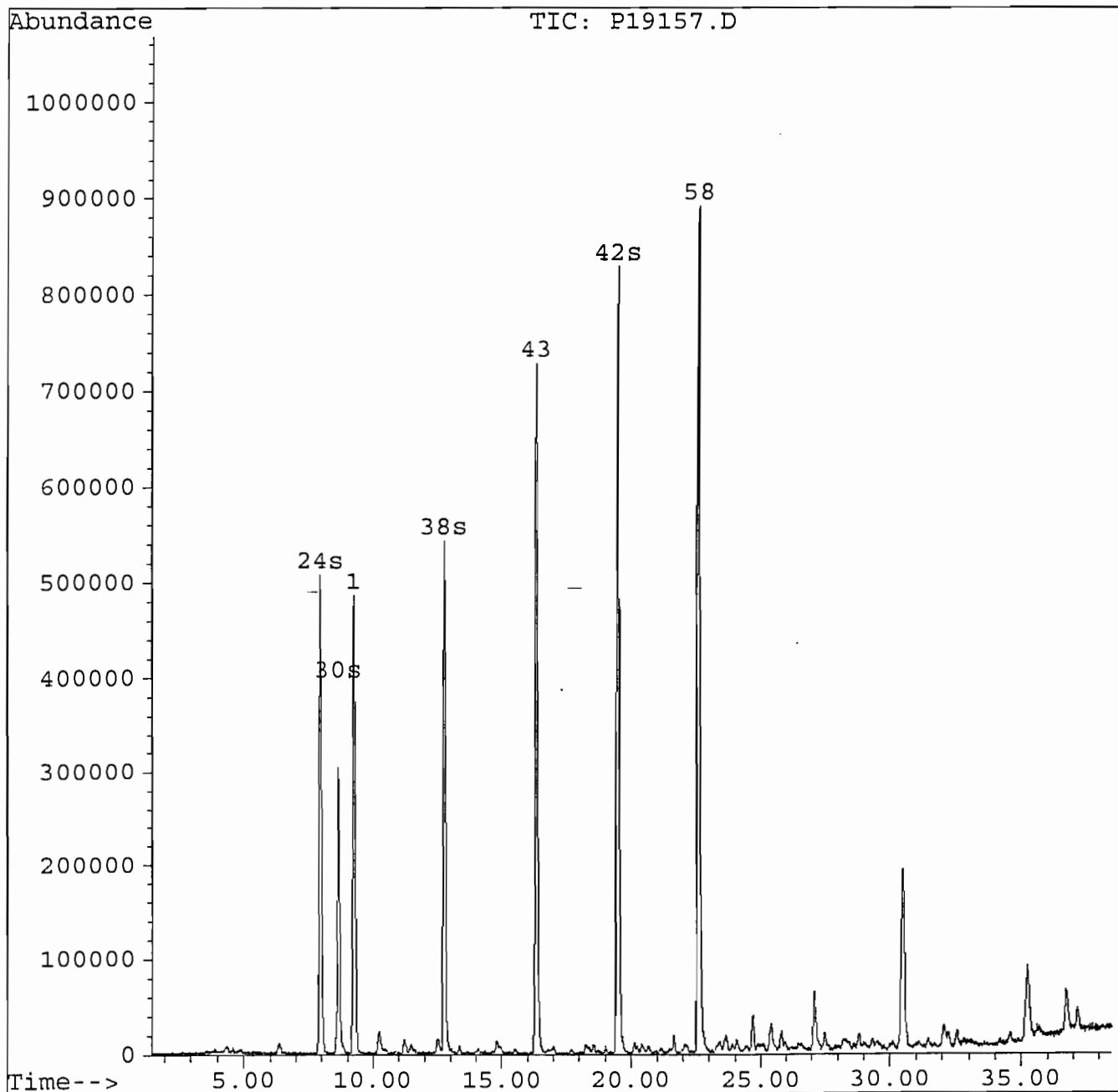
000126

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19157.D
Acq Time : 11 Oct 99 9:40 pm
Sample : 13701ASP-86838
Misc : 5G/5ML
Quant Time: Oct 19 9:09 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000127

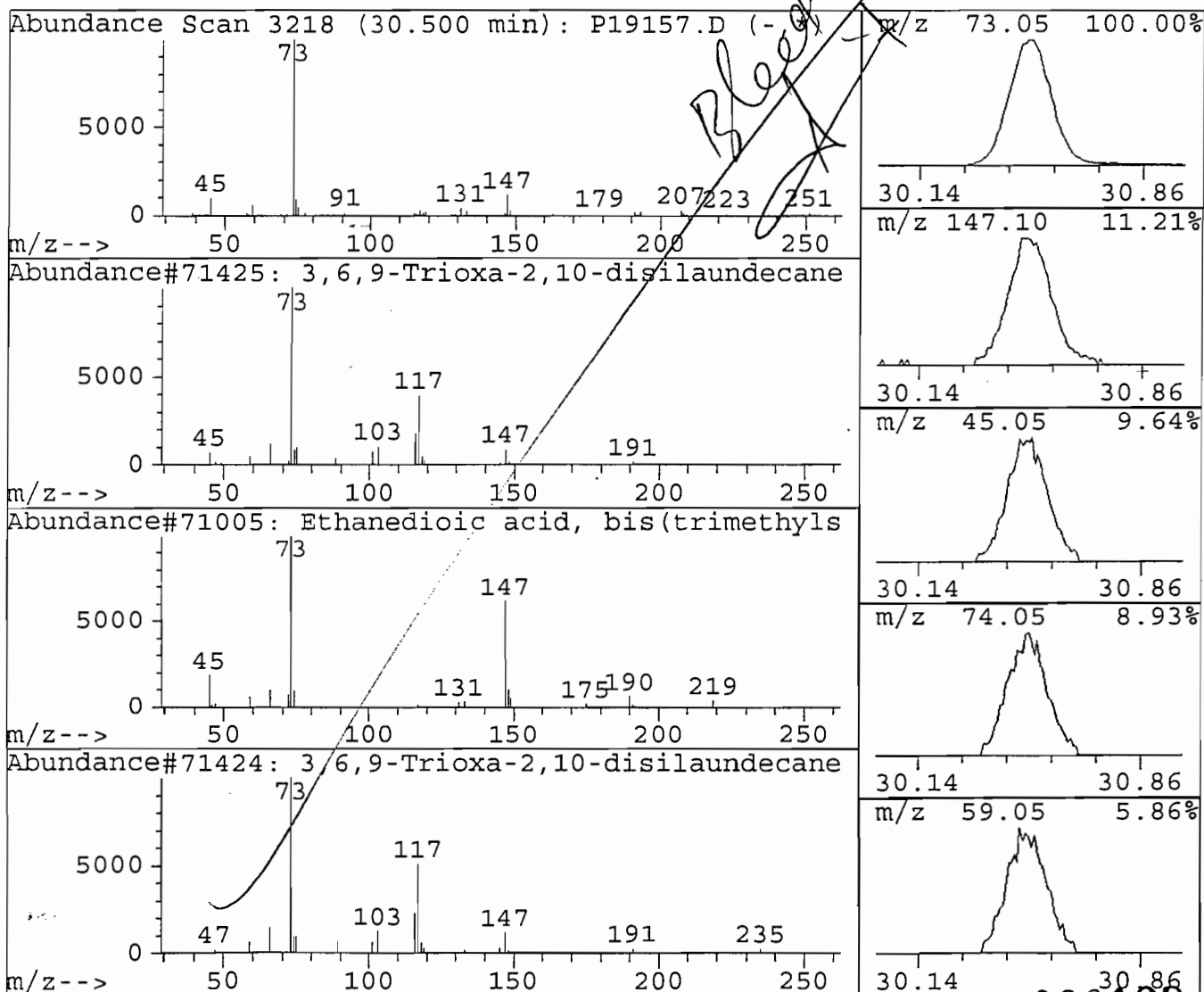
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2101199\P19157.D
Acq Time : 11 Oct 99 9:40 pm
Sample : 13701ASP-86838
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.50	15.83 ug/L	1806633	1,4-dichlorobenzene-d4	22.61	
Hit# of	5	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane, 2		71425	016654-74-3	42
2	Ethanedioic acid, bis(trimethylsilyl)		71005	018294-04-7	25
3	3,6,9-Trioxa-2,10-disilaundecane, 2		71424	016654-74-3	25
4	Methanol, (trimethylsilyl)-, acetat		8760	002917-65-9	25
5	Disilane, hexamethyl-		8767	001450-14-2	12



000128

Library Search Compound Report

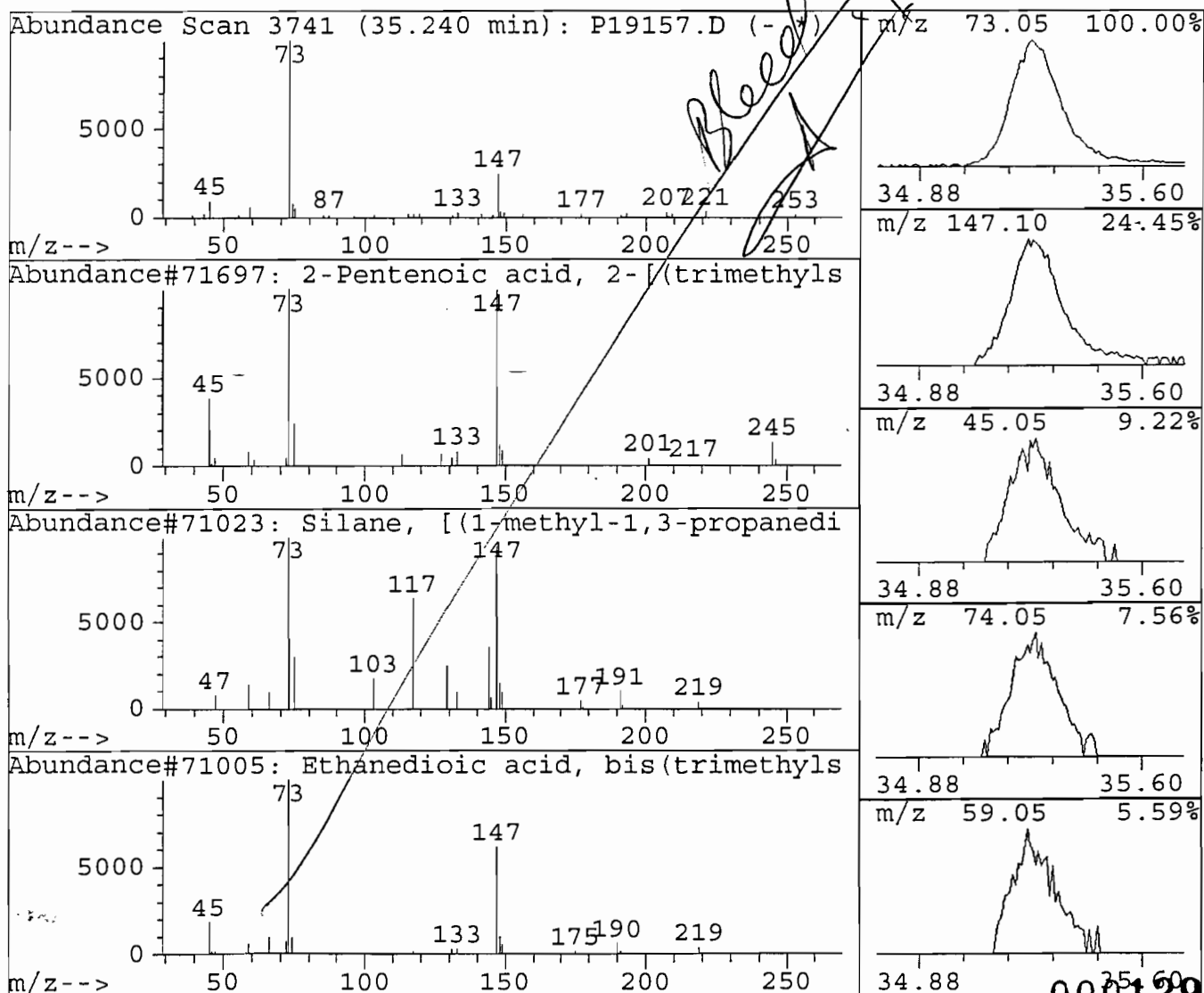
Data File : I:\HPCHEM\1\DATA\V2101199\P19157.D
Acq Time : 11 Oct 99 9:40 pm
Sample : 13701ASP-86838
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.24	7.63 ug/L	871049	1,4-dichlorobenzene-d4	22.61

Hit#	of	Tentative ID	Ref#	CAS#	Qual
1	2-Pentenoic acid, 2-[(trimethylsilyl	71697	055045-17-5	38	
2	Silane, [(1-methyl-1,3-propanediyl)	71023	056771-47-2	17	
3	Ethanedioic acid, bis(trimethylsilyl	71005	018294-04-7	10	



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-007-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86839

Sample wt/vol:

5.0

(g/mL)

G

Lab File ID: P19123.D

Level: (low/med)

LOW

Date Received: 10/6/99

% Moisture: not dec.

3

Date Analyzed: 10/9/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-007-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86839
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19123.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 2.68 Date Analyzed: 10/9/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000132

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19123.D
 Acq Time : 9 Oct 99 3:53 am
 Sample : 13701ASP-86839
 Misc : 5G/5ML
 Quant Time: Oct 10 12:34 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	832454	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.33	117	794976	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	530668	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.97	113	610304	44.00	ug/L	88.01%
30) 1,2-Dichlorethane-d4	8.65	65	532201	48.83	ug/L	97.67%
38) Toluene-d8	12.77	98	801371	49.36	ug/L	98.71%
42) 4-Bromofluorobenzene	19.48	95	744430	44.66	ug/L	89.33%

Target Compounds

Qvalue

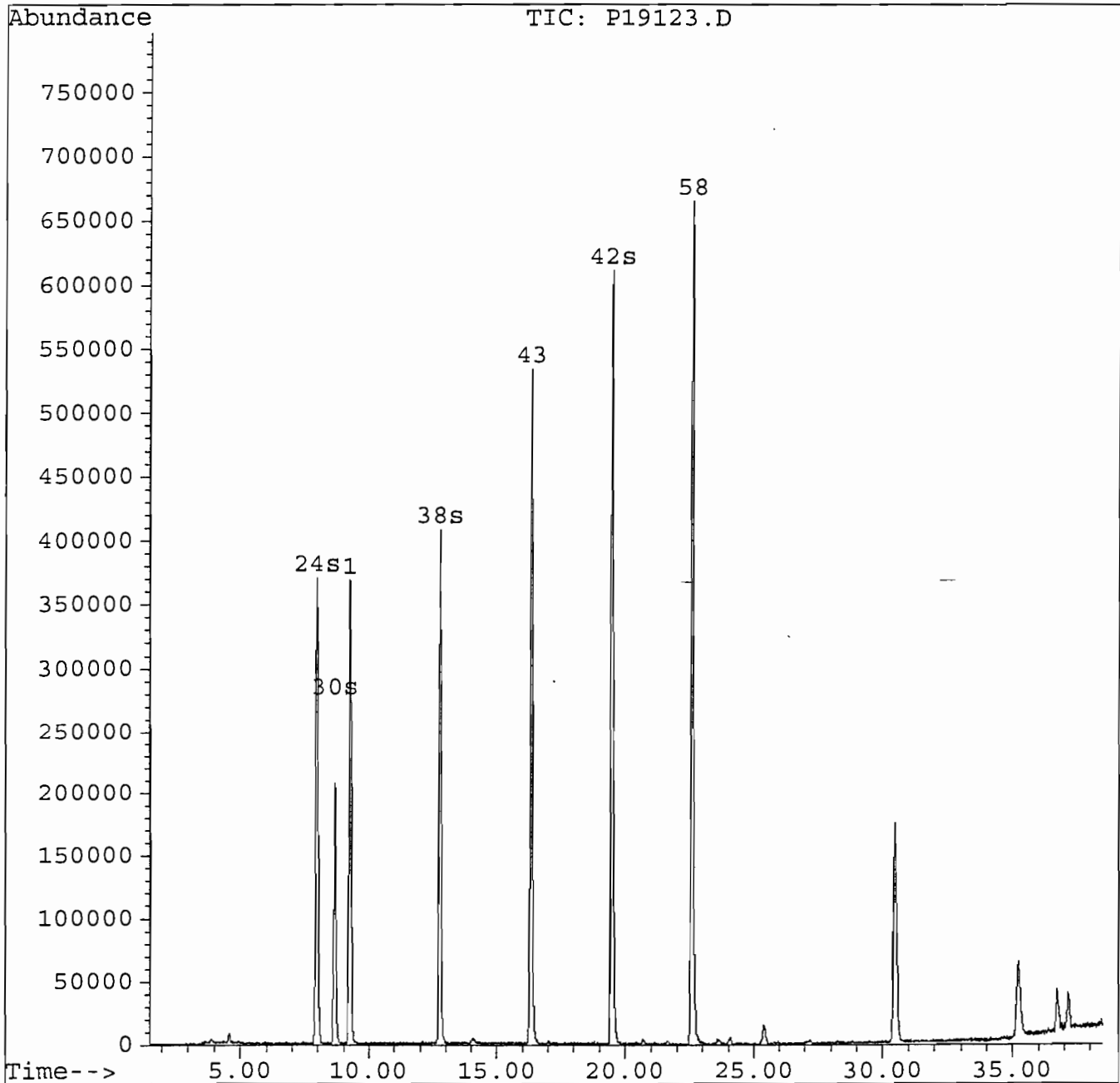
000133

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19123.D
Acq Time : 9 Oct 99 3:53 am
Sample : 13701ASP-86839
Misc : 5G/5ML
Quant Time: Oct 10 12:34 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000134

Library Search Compound Report

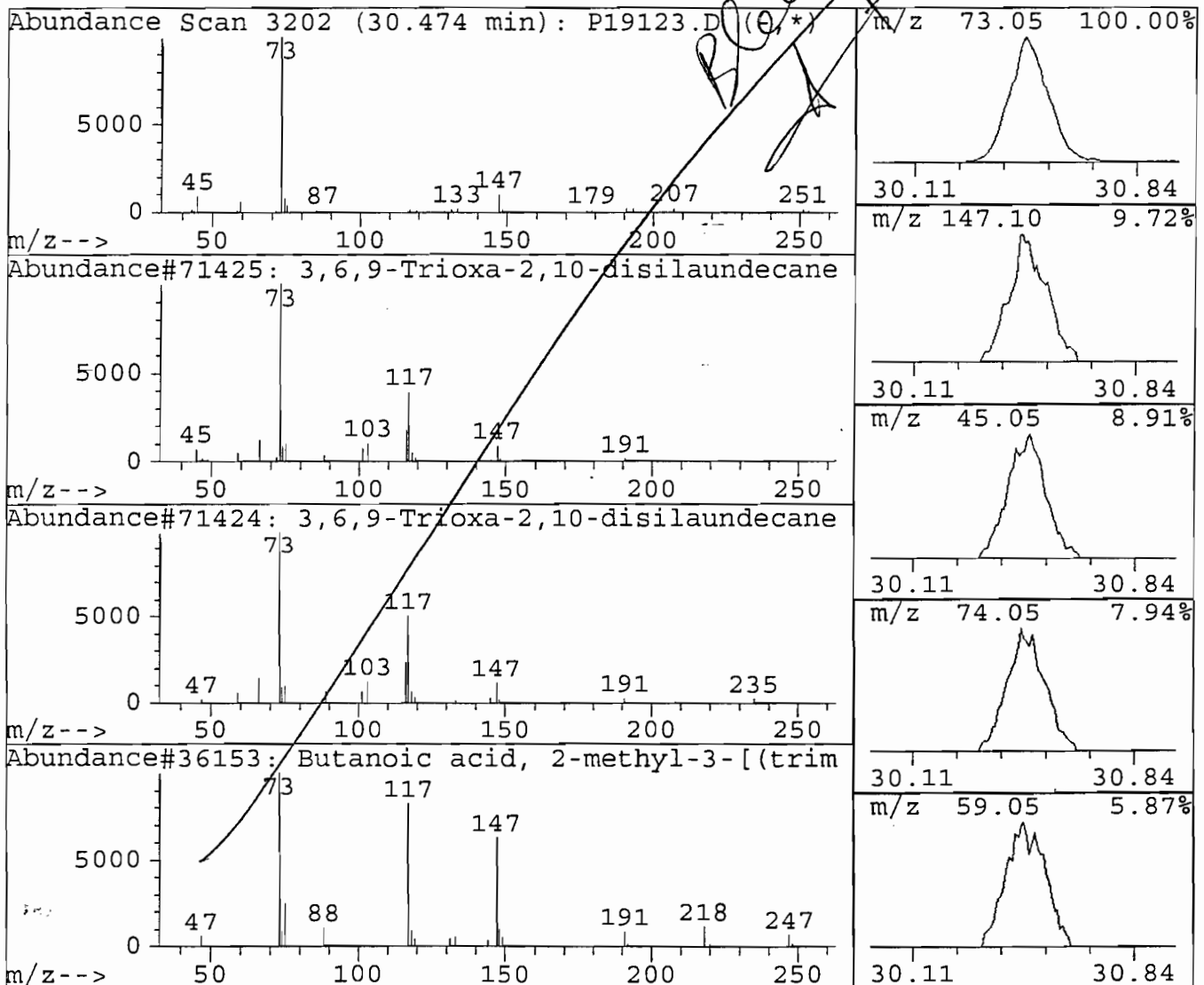
Data File : I:\HPCHEM\1\DATA\V2100899\P19123.D
Acq Time : 9 Oct 99 3:53 am
Sample : 13701ASP-86839
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.47	17.71 ug/L	1515144	1,4-dichlorobenzene-d4	22.59

Hit#	of	Tentative ID	Ref#	CAS#	Qual
1	3	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
2	3	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	38
3	3	Butanoic acid, 2-methyl-3-[(trimeth	36153	055557-17-0	17



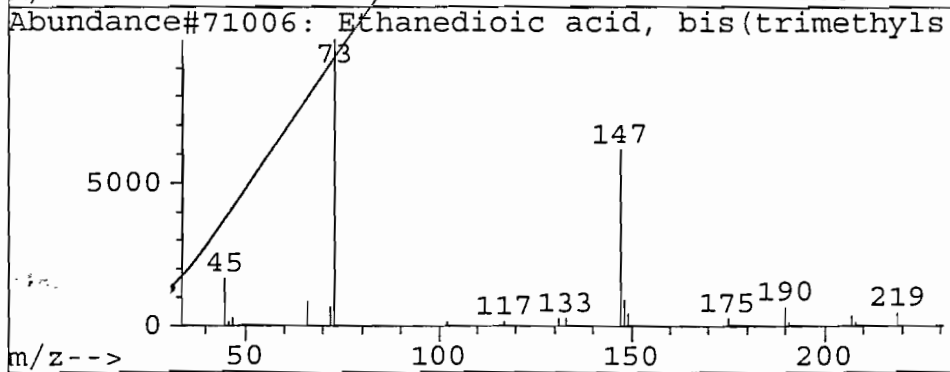
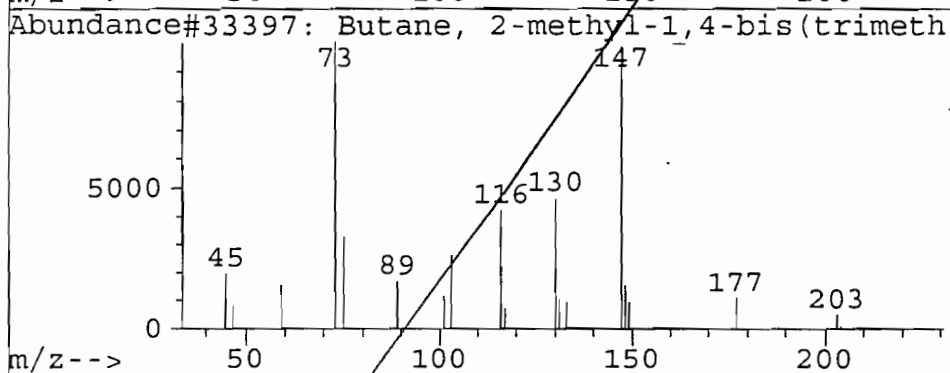
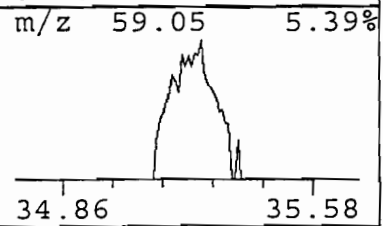
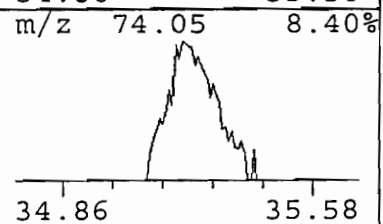
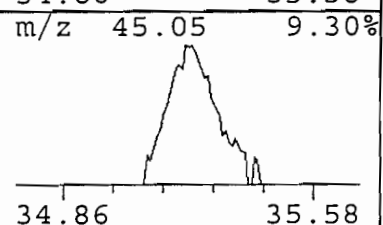
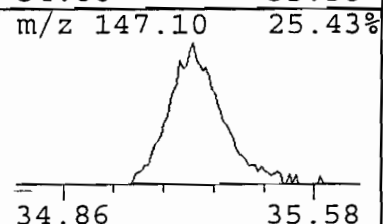
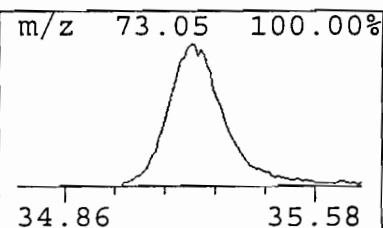
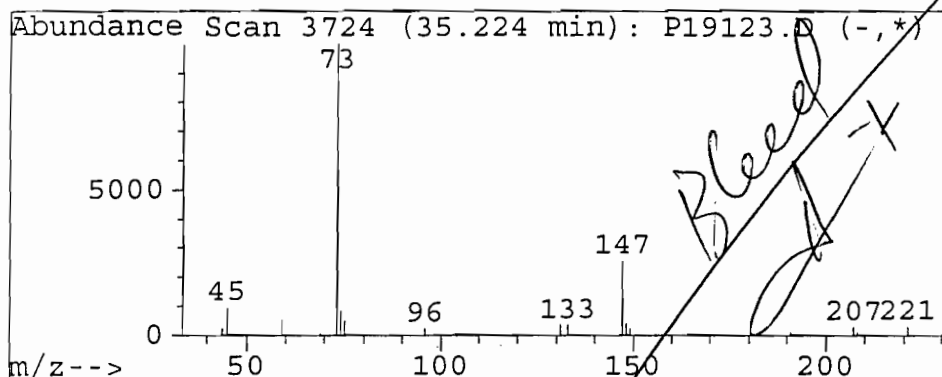
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19123.D
Acq Time : 9 Oct 99 3:53 am
Sample : 13701ASP-86839
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
35.22	7.60 ug/L	649656	1,4-dichlorobenzene-d4	22.59	
Hit# of	2	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methyl-1,4-bis(trimethylsilyl)-	33397	000000-00-0	43	
2	Ethanedioic acid, bis(trimethylsilyl)-	71006	018294-04-7	36	



000136

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-007-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86840

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19124.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/9/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
75-71-8	Dichlorodifluoromethane	5.1		U
74-87-3	Chloromethane	5.1		U
75-01-4	Vinyl Chloride	5.1		U
74-83-9	Bromomethane	5.1		U
75-00-3	Chloroethane	5.1		U
75-69-4	Trichlorofluoromethane	5.1		U
75-09-2	Methylene Chloride	5.1		U
75-34-4	1,1-Dichloroethane	5.1		U
590-20-7	2,2-Dichloropropane	5.1		U
74-97-5	Bromochloromethane	5.1		U
67-66-3	Chloroform	5.1		U
71-55-6	1,1,1-Trichloroethane	5.1		U
56-23-5	Carbon Tetrachloride	5.1		U
563-58-6	1,1-Dichloropropene	5.1		U
71-43-2	Benzene	5.1		U
107-06-2	1,2-Dichloroethane	5.1		U
79-01-6	Trichloroethene	5.1		U
78-87-5	1,2-Dichloropropane	5.1		U
74-95-3	Dibromomethane	5.1		U
75-27-4	Bromodichloromethane	5.1		U
108-88-3	Toluene	5.1		U
79-00-5	1,1,2-Trichloroethane	5.1		U
127-18-4	Tetrachloroethene	5.1		U
142-28-9	1,3-Dichloropropane	5.1		U
124-48-1	Dibromochloromethane	5.1		U
106-93-4	1,2-Dibromoethane	5.1		U
108-90-7	Chlorobenzene	5.1		U
630-20-6	1,1,1,2-Tetrachloroethane	5.1		U
100-41-4	Ethylbenzene	5.1		U
100-42-5	Styrene	5.1		U
75-25-2	Bromoform	5.1		U
98-82-8	isopropylbenzene	5.1		U
108-86-1	Bromobenzene	5.1		U

GP-007-SS30

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86840

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19124.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/9/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
---------	----------	-----------------	-------	---

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-007-SS30

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86840
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19124.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 2.71 Date Analyzed: 10/9/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000139

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19124.D
 Acq Time : 9 Oct 99 4:37 am
 Sample : 13701ASP-86840
 Misc : 5G/5ML
 Quant Time: Oct 10 12:34 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	744636	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.34	117	763728	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.61	152	518234	50.00	ug/L	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.95	113	584450	47.11	ug/L	94.22%
30) 1,2-Dichlorethane-d4	8.64	65	497674	51.05	ug/L	102.10%
38) Toluene-d8	12.76	98	748989	51.57	ug/L	103.14%
42) 4-Bromofluorobenzene	19.48	95	733769	49.22	ug/L	98.43%

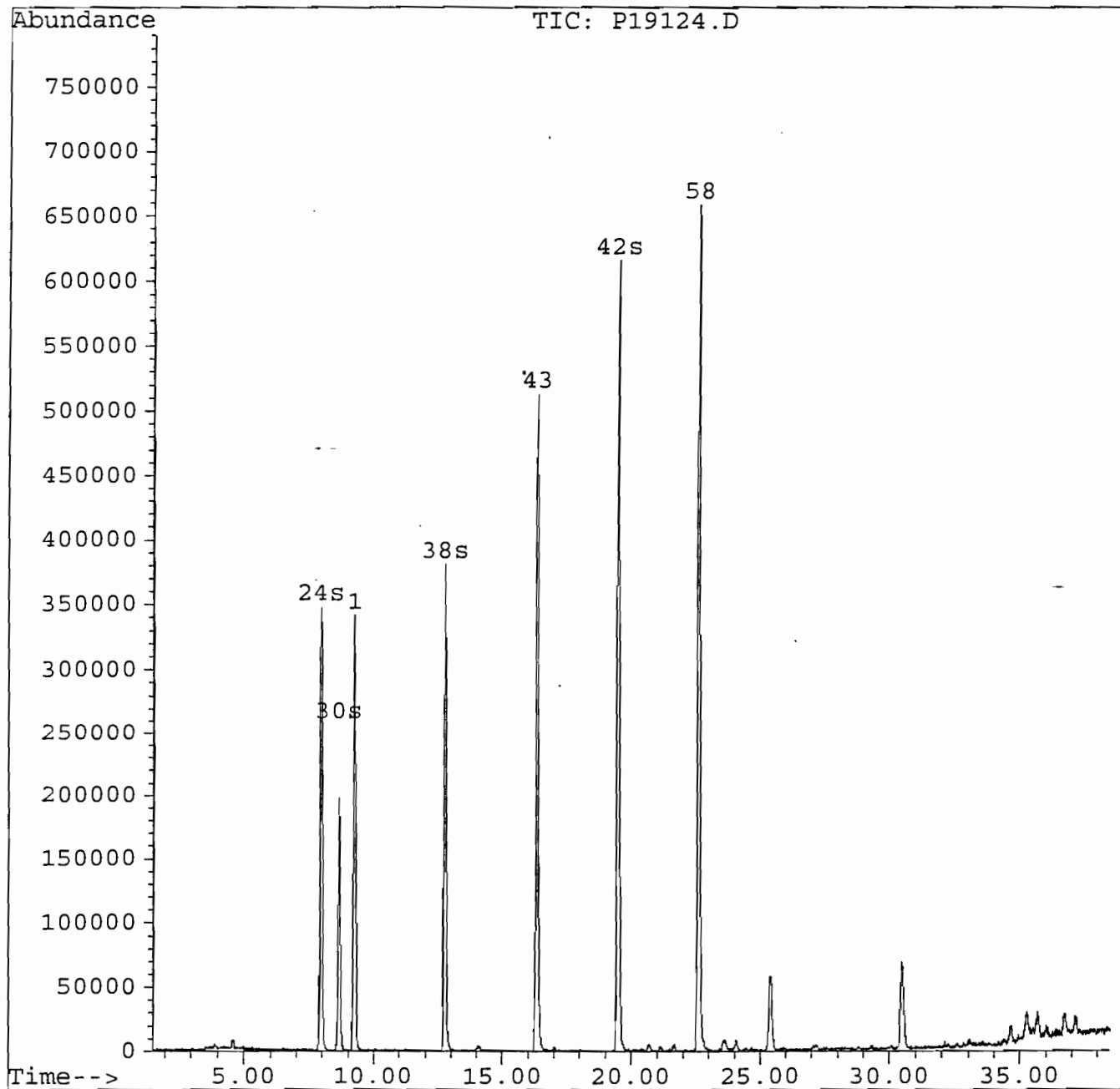
Target Compounds Qvalue

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19124.D
Acq Time : 9 Oct 99 4:37 am
Sample : 13701ASP-86840
Misc : 5G/5ML
Quant Time: Oct 10 12:34 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000141

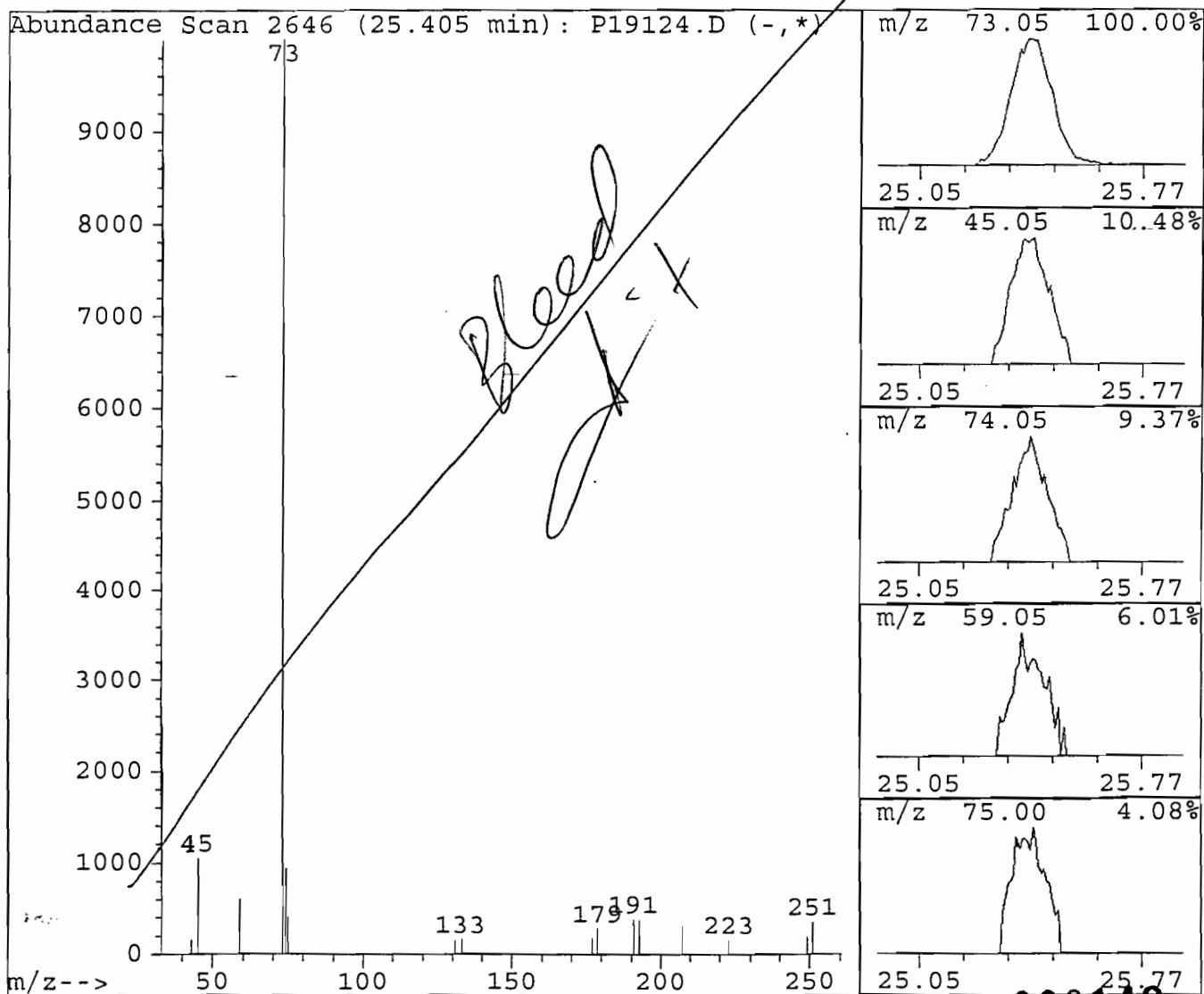
Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19124.D
Acq Time : 9 Oct 99 4:37 am
Sample : 13701ASP-86840
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
25.41	6.23 ug/L	517828	1,4-dichlorobenzene-d4	22.61	
Hit# of	0	Tentative ID	Ref#	CAS#	Qual
1	Unknown		0	000000-00-0	0



Library Search Compound Report

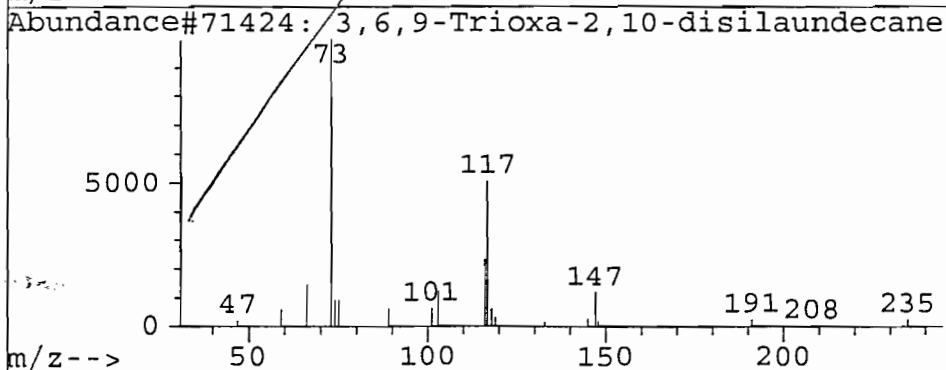
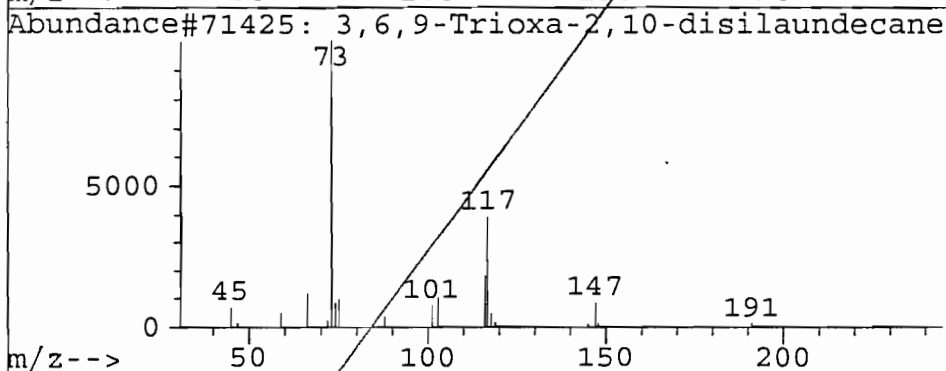
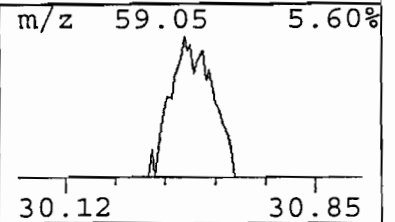
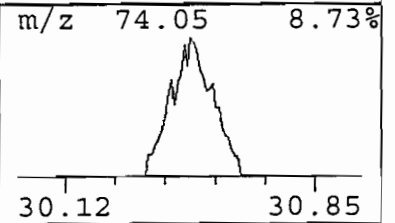
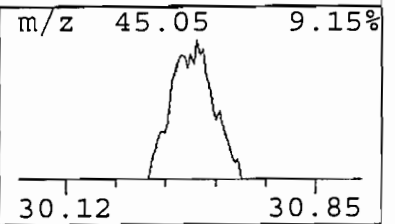
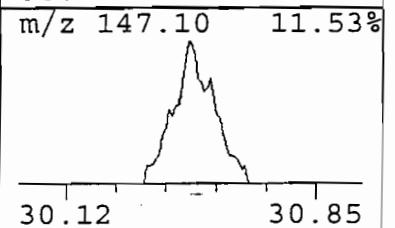
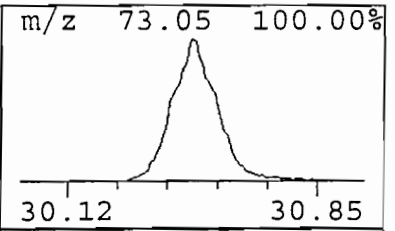
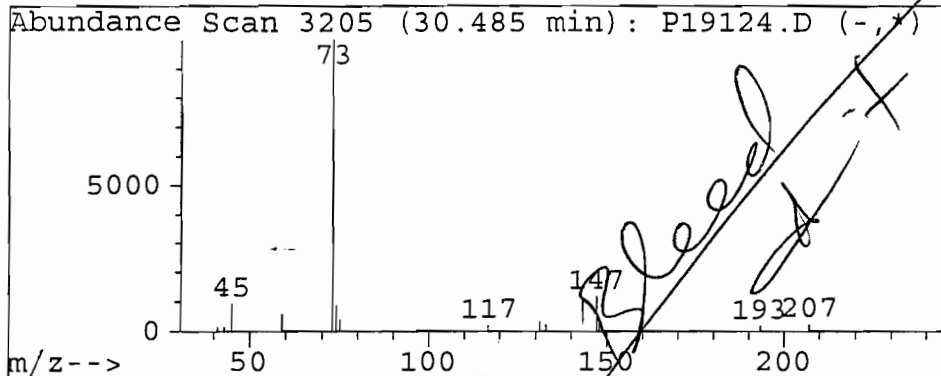
Data File : I:\HPCHEM\1\DATA\V2100899\P19124.D
Acq Time : 9 Oct 99 4:37 am
Sample : 13701ASP-86840
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.49	7.13 ug/L	592903	1,4-dichlorobenzene-d4	22.61

Hit#	of	Tentative ID	Ref#	CAS#	Qual
1	3,6,9-Trioxa-2,10-disilaundecane,	2	71425	016654-74-3	39
2	3,6,9-Trioxa-2,10-disilaundecane,	2	71424	016654-74-3	33



000143

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-007-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86841

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19125.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/9/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/Kg</u>	
75-71-8	Dichlorodifluoromethane	5.2		U
74-87-3	Chloromethane	5.2		U
75-01-4	Vinyl Chloride	5.2		U
74-83-9	Bromomethane	5.2		U
75-00-3	Chloroethane	5.2		U
75-69-4	Trichlorofluoromethane	5.2		U
75-09-2	Methylene Chloride	2.1		J
75-34-4	1,1-Dichloroethane	5.2		U
590-20-7	2,2-Dichloropropane	5.2		U
74-97-5	Bromochloromethane	5.2		U
67-66-3	Chloroform	5.2		U
71-55-6	1,1,1-Trichloroethane	5.2		U
56-23-5	Carbon Tetrachloride	5.2		U
563-58-6	1,1-Dichloropropene	5.2		U
71-43-2	Benzene	5.2		U
107-06-2	1,2-Dichloroethane	5.2		U
79-01-6	Trichloroethene	5.2		U
78-87-5	1,2-Dichloropropane	5.2		U
74-95-3	Dibromomethane	5.2		U
75-27-4	Bromodichloromethane	5.2		U
108-88-3	Toluene	5.2		U
79-00-5	1,1,2-Trichloroethane	5.2		U
127-18-4	Tetrachloroethene	5.2		U
142-28-9	1,3-Dichloropropane	5.2		U
124-48-1	Dibromochloromethane	5.2		U
106-93-4	1,2-Dibromoethane	5.2		U
108-90-7	Chlorobenzene	5.2		U
630-20-6	1,1,1,2-Tetrachloroethane	5.2		U
100-41-4	Ethylbenzene	5.2		U
100-42-5	Styrene	5.2		U
75-25-2	Bromoform	5.2		U
98-82-8	isopropylbenzene	5.2		U
108-86-1	Bromobenzene	5.2		U

GP-007-SS45

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86841

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P19125.D

Level: (low/med) LOW

Date Received: 10/6/99

% Moisture:	not dec.	3
-------------	----------	---

Date Analyzed: 10/9/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-007-SS45

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86841
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: P19125.D
 Level: (low/med) LOW Date Received: 10/6/99
 % Moisture: not dec. 3.04 Date Analyzed: 10/9/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100899\P19125.D
 Acq Time : 9 Oct 99 5:21 am
 Sample : 13701ASP-86841
 Misc : 5G/5ML
 Quant Time: Oct 10 12:34 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.24	96	732407	50.00	ug/L	-0.02
43) Chlorobenzene-d5	16.34	117	774336	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	535851	50.00	ug/L	0.00
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.94	113	593235	48.61	ug/L	97.23%
30) 1,2-Dichlorethane-d4	8.67	65	496349	51.77	ug/L	103.53%
38) Toluene-d8	12.76	98	740311	51.82	ug/L	103.65%
42) 4-Bromofluorobenzene	19.48	95	739489	50.43	ug/L	100.85%
Target Compounds						Qvalue
13) methylene chloride	4.59	84	7153	2.08	ug/L	75

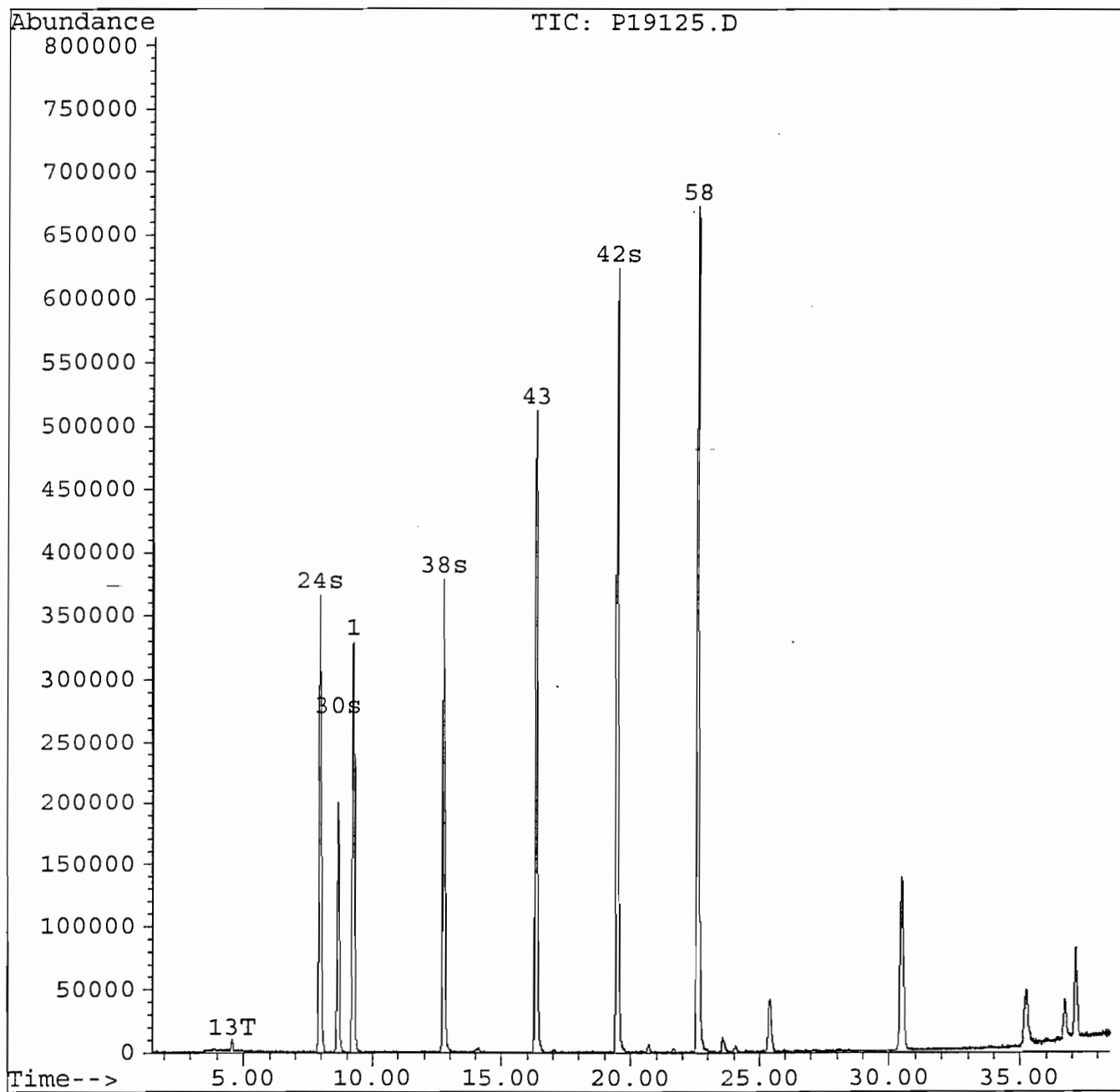
000147

Quantitation Report

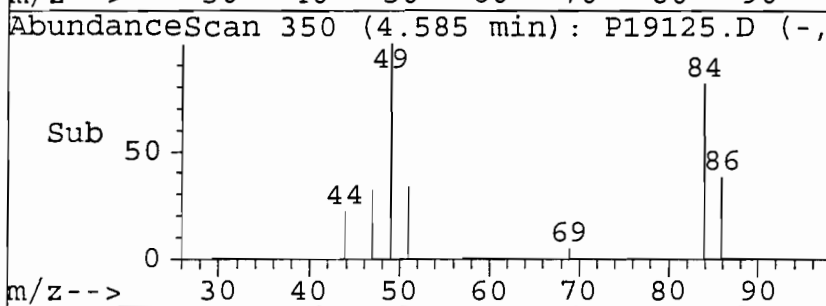
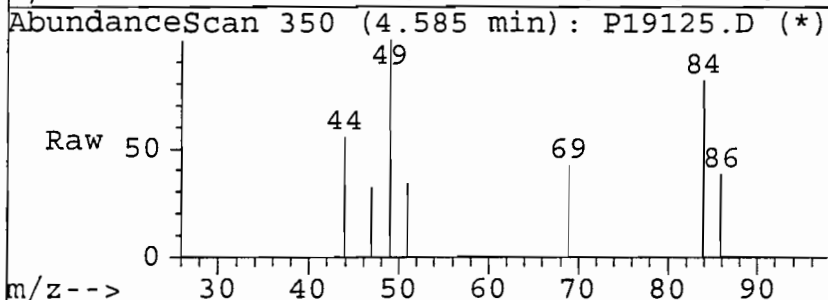
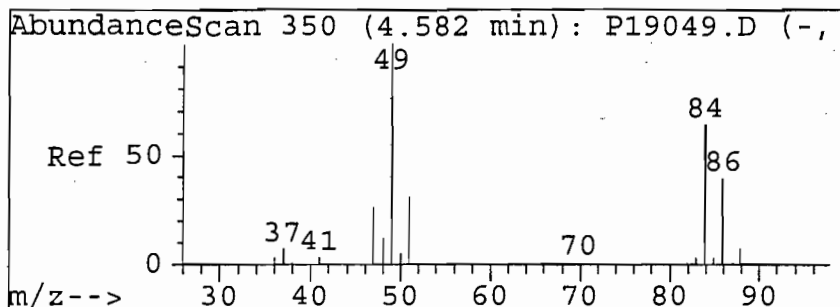
Data File : I:\HPCHEM\1\DATA\V2100899\P19125.D
Acq Time : 9 Oct 99 5:21 am
Sample : 13701ASP-86841
Misc : 5G/5ML
Quant Time: Oct 10 12:34 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Multiple Level Calibration



000148



#13

methylene chloride

Concen: 2.08 ug/L

RT: 4.59 min Scan# 350

Delta R.T. 0.00 min

Lab File: P19125.D

Acq: 9 Oct 99 5:21 am

Tgt Ion:84 Resp: 7153

Ion Ratio Lower Upper

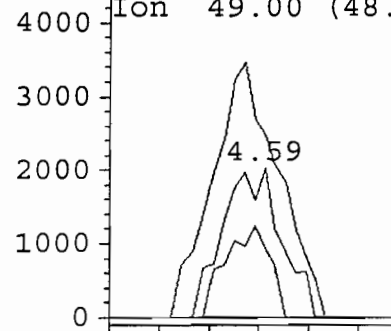
84 100

86 46.4 43.3 80.3

49 122.8 110.4 205.0

0 0.0 0.0 0.0

AbundanceIon 84.00 (83.
Ion 86.00 (85.
Ion 49.00 (48.



Time-->4.45 4.67

000149

Library Search Compound Report

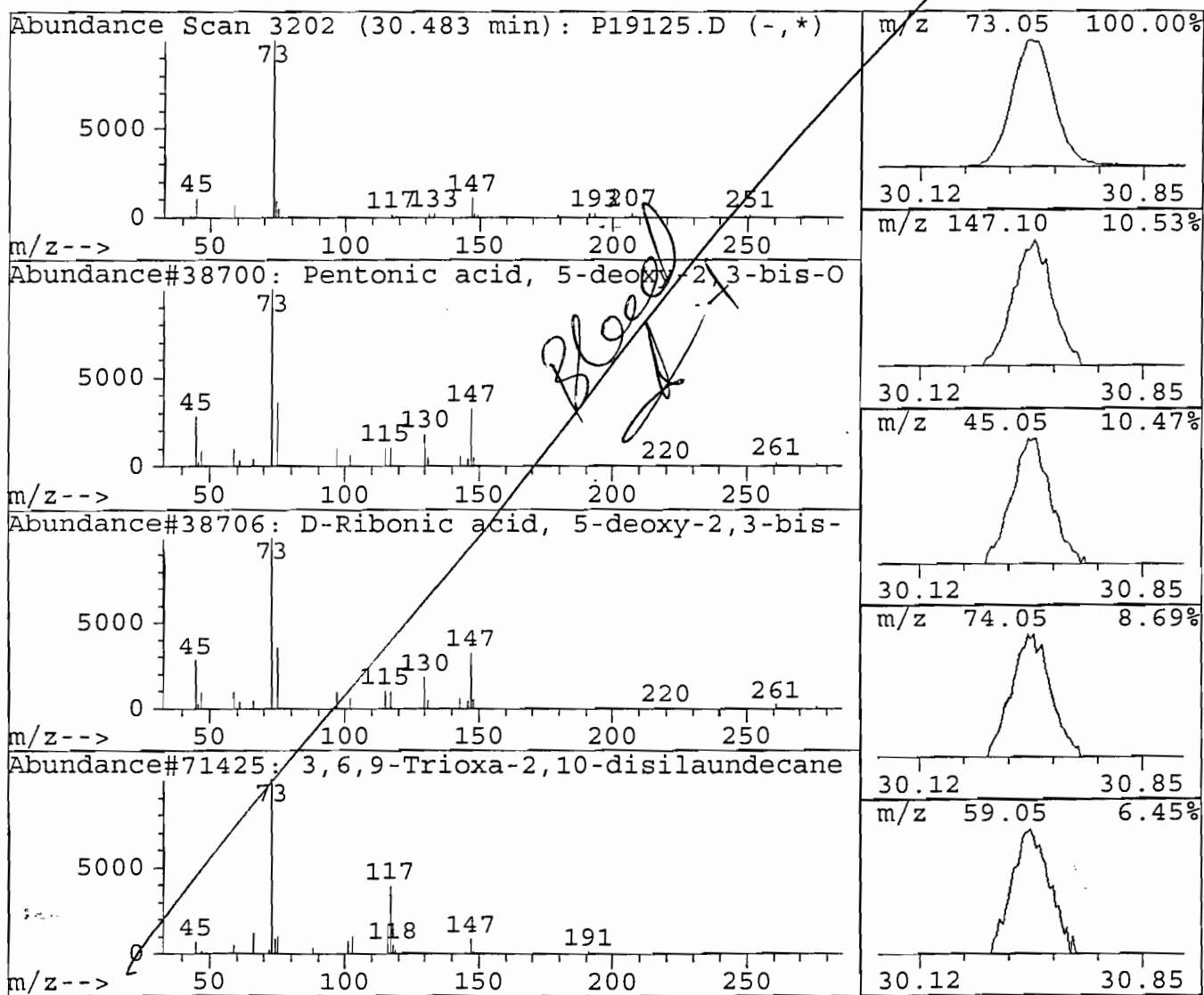
Data File : I:\HPCHEM\1\DATA\V2100899\P19125.D
Acq Time : 9 Oct 99 5:21 am
Sample : 13701ASP-86841
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.48	14.45 ug/L	1235680	1,4-dichlorobenzene-d4	22.59

Hit# of 5	Tentative ID	Ref#	CAS#	Qual
1	Pentonic acid, 5-deoxy-2,3-bis-O-(t	38700	074742-33-9	38
2	D-Ribonic acid, 5-deoxy-2,3-bis-O-(	38706	062338-19-6	38
3	3,6,9-Trioxa-2,10-disilaundecane, 2	71425	016654-74-3	38
4	3,6,9-Trioxa-2,10-disilaundecane, 2	71424	016654-74-3	25
5	Ethanedioic acid, bis(trimethylsily	71006	018294-04-7	12



000150

Library Search Compound Report

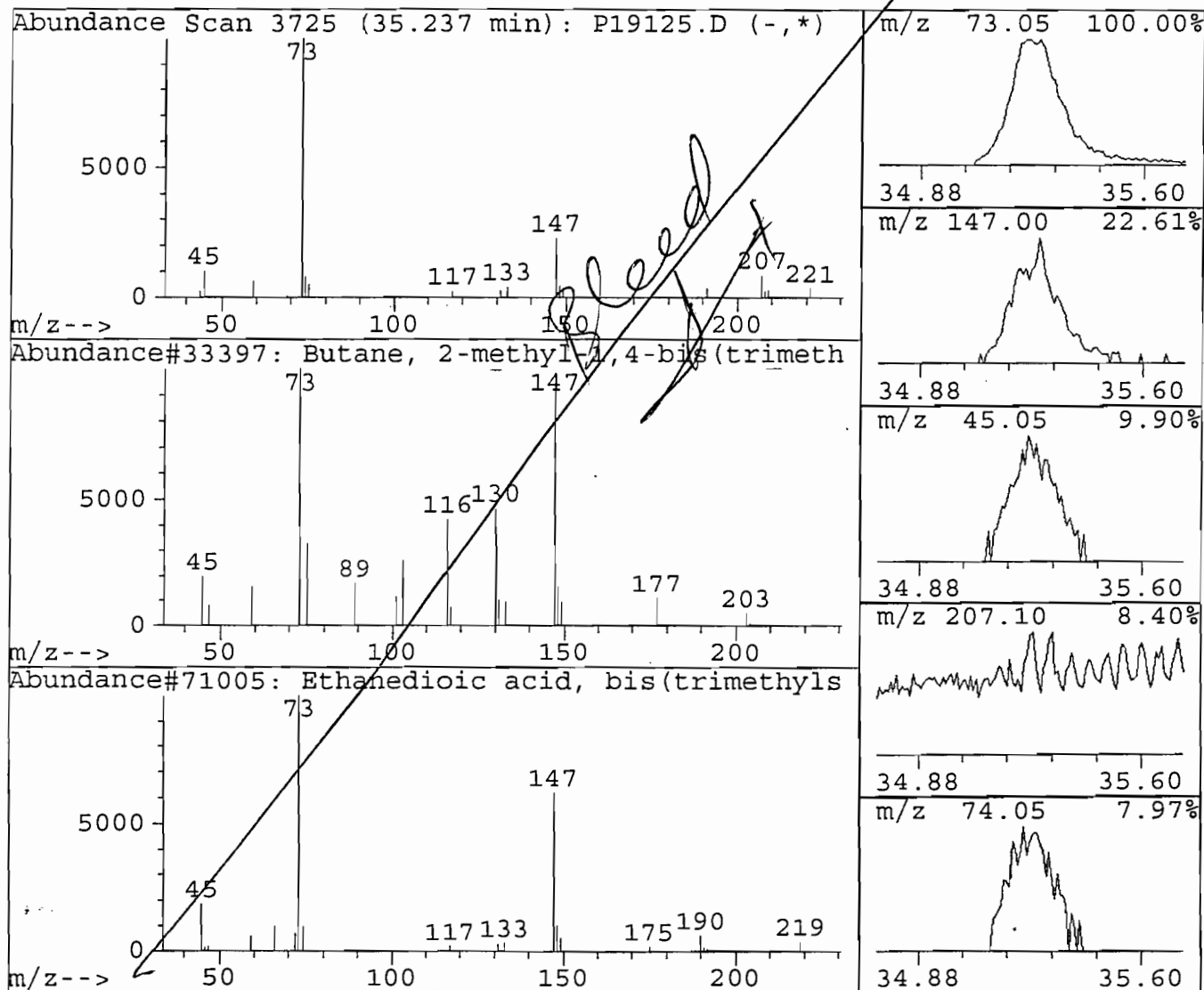
Data File : I:\HPCHEM\1\DATA\V2100899\P19125.D
Acq Time : 9 Oct 99 5:21 am
Sample : 13701ASP-86841
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.24	5.76 ug/L	492886	1,4-dichlorobenzene-d4	22.59

Hit# of	2	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methyl-1,4-bis(trimethylsilyl)-	33397	000000-00-0	28	
2	Ethanedioic acid, bis(trimethylsilyl)-	71005	018294-04-7	10	



000151

Library Search Compound Report

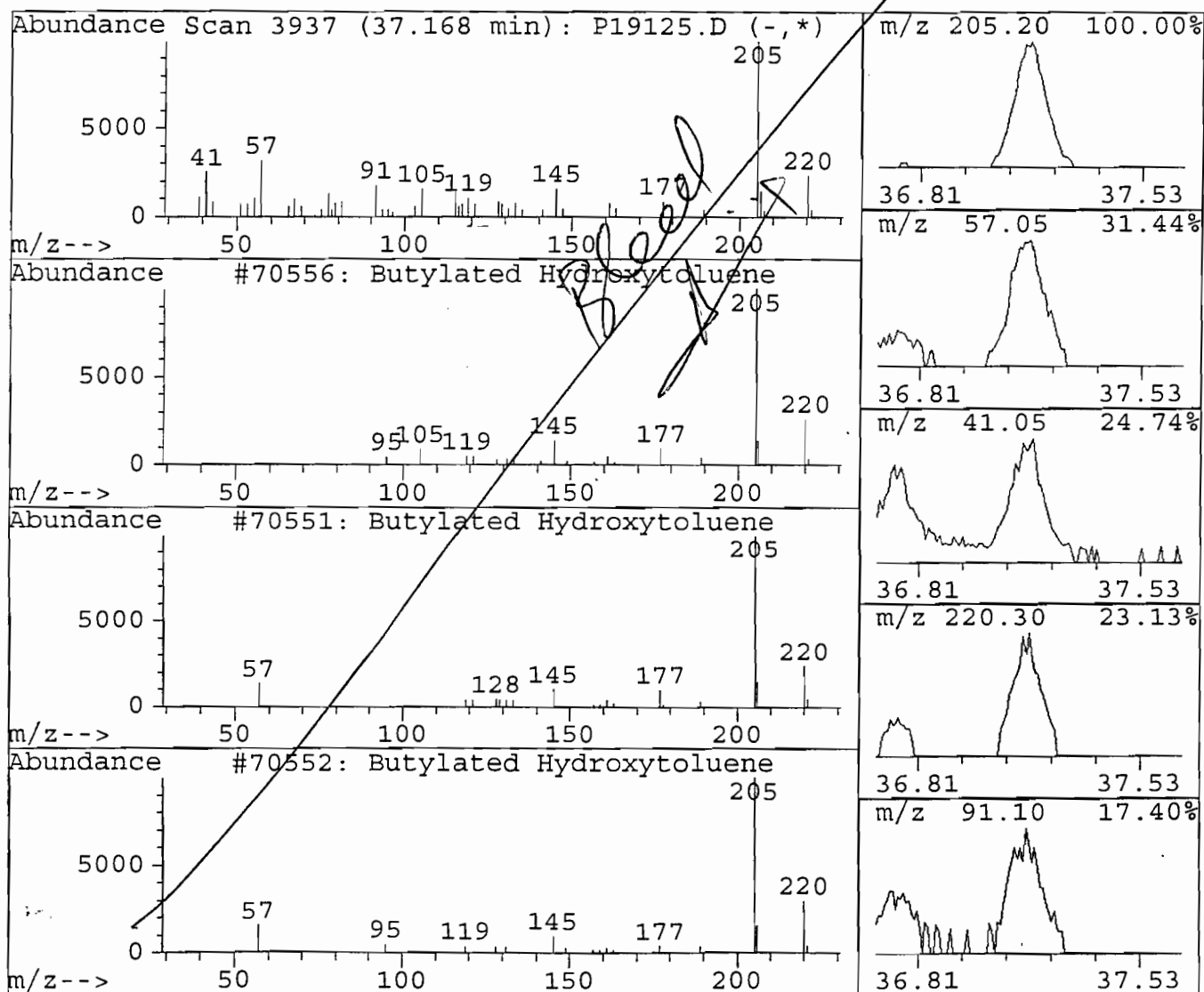
Data File : I:\HPCHEM\1\DATA\V2100899\P19125.D
Acq Time : 9 Oct 99 5:21 am
Sample : 13701ASP-86841
Misc : 5G/5ML

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.17	5.82 ug/L	498048	1,4-dichlorobenzene-d4	22.59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butylated Hydroxytoluene	70556	000128-37-0	95
2	Butylated Hydroxytoluene	70551	000128-37-0	95
3	Butylated Hydroxytoluene	70552	000128-37-0	91
4	Butylated Hydroxytoluene	27705	000128-37-0	91
5	Butylated Hydroxytoluene	70553	000128-37-0	91



000152

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-008-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86842

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: M13008.D

Level: (low/med) MED

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/11/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	640		U
74-87-3	Chloromethane	640		U
75-01-4	Vinyl Chloride	640		U
74-83-9	Bromomethane	640		U
75-00-3	Chloroethane	640		U
75-69-4	Trichlorofluoromethane	640		U
75-09-2	Methylene Chloride	640		U
75-34-4	1,1-Dichloroethane	640		U
590-20-7	2,2-Dichloropropane	640		U
74-97-5	Bromochloromethane	640		U
67-66-3	Chloroform	640		U
71-55-6	1,1,1-Trichloroethane	640		U
56-23-5	Carbon Tetrachloride	640		U
563-58-6	1,1-Dichloropropene	640		U
71-43-2	Benzene	640		U
107-06-2	1,2-Dichloroethane	640		U
79-01-6	Trichloroethene	640		U
78-87-5	1,2-Dichloropropane	640		U
74-95-3	Dibromomethane	640		U
75-27-4	Bromodichloromethane	640		U
108-88-3	Toluene	640		U
79-00-5	1,1,2-Trichloroethane	640		U
127-18-4	Tetrachloroethene	640		U
142-28-9	1,3-Dichloropropane	640		U
124-48-1	Dibromochloromethane	640		U
106-93-4	1,2-Dibromoethane	640		U
108-90-7	Chlorobenzene	640		U
630-20-6	1,1,1,2-Tetrachloroethane	640		U
100-41-4	Ethylbenzene	640		U
100-42-5	Styrene	640		U
75-25-2	Bromoform	640		U
98-82-8	isopropylbenzene	640		U
108-86-1	Bromobenzene	640		U

GP-008-SS10

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86842

Sample wt/vol:

4.0

(g/mL)

G

Lab File ID: M13008.D

Level: (low/med)

MED

Date Received: 10/6/99

% Moisture: not dec.

3

Date Analyzed: 10/11/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

000154

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-008-SS10

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86842
 Sample wt/vol: 4.0 (g/mL) G Lab File ID: M13008.D
 Level: (low/med) MED Date Received: 10/6/99
 % Moisture: not dec. 3 Date Analyzed: 10/11/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 111-84-2	Nonane	20.15	3200	J
2.	Unknown	21.87	7200	J
3. 5911-04-6	Nonane, 3-methyl-	22.16	3100	J
4. 611-14-3	Benzene, 1-ethyl-2-methyl-	24.04	3700	J
5. 1074-43-7	Benzene, 1-methyl-3-propyl-	25.45	6500	J
6. 527-84-4	Benzene, 1-methyl-2-(1-methy	26.23	3300	J
7. 933-98-2	Benzene, 1-ethyl-2,3-dimethy	26.41	6300	J
8. 527-53-7	Benzene, 1,2,3,5-tetramethyl	27.22	4600	J
9. 527-84-4	Benzene, 1-methyl-2-(1-methy	27.39	5700	J
10. 2039-89-6	Benzene, 2-ethenyl-1,4-dimet	28.29	3300	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000155

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
 Acq Time : 11 Oct 99 2:33 pm
 Sample : 13701ASP-86842
 Misc : 5MLS 4GR/10MLS MEOH
 Quant Time: Oct 11 19:20 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

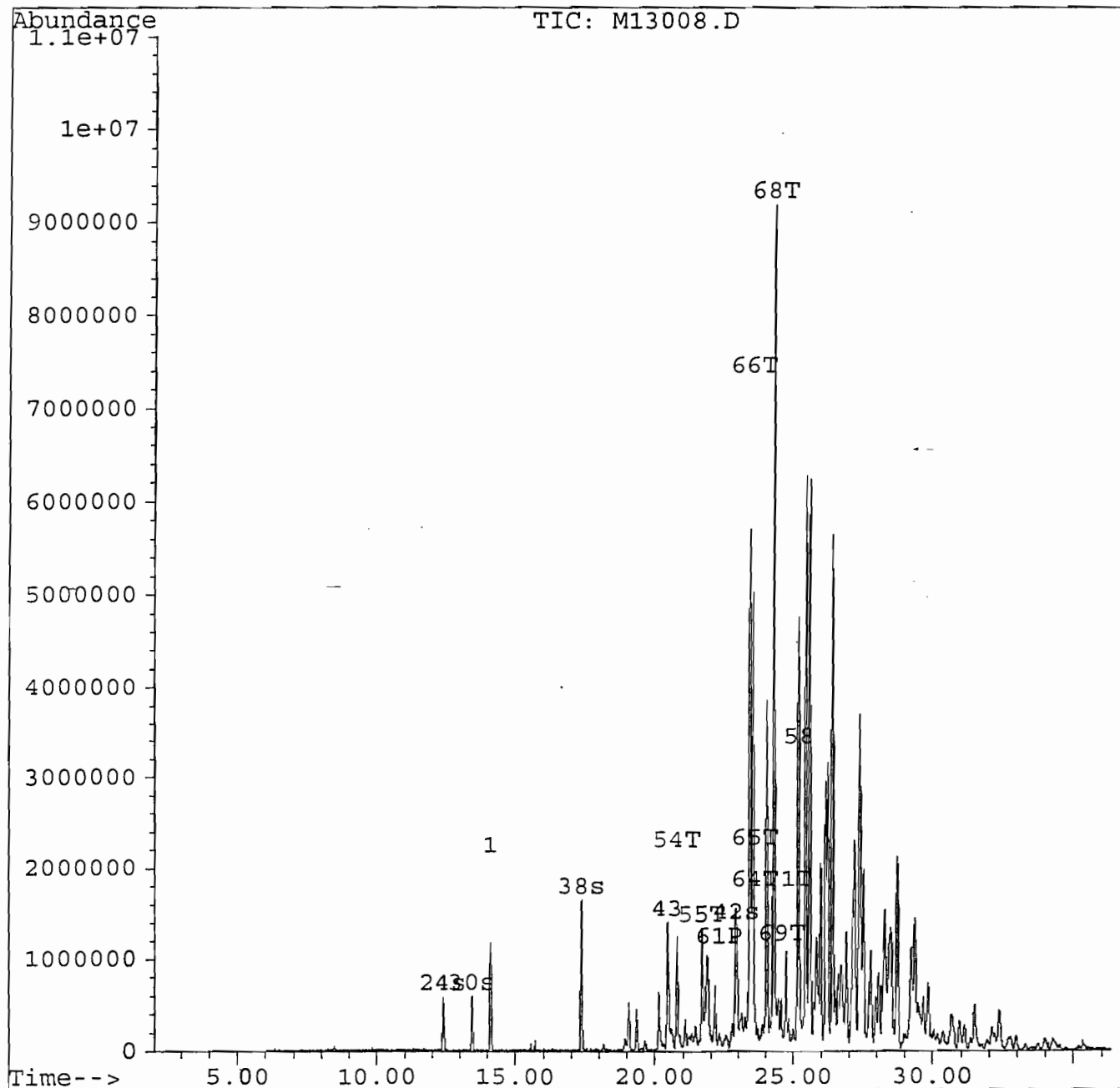
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.10	96	1985757	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.46	117	1682253	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.21	152	653578	50.00	ug/L	0.03
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	12.40	113	674467	54.61	ug/L	109.21%
30) 1,2-Dichlorethane-d4	13.44	65	748340	53.76	ug/L	107.51%
38) Toluene-d8	17.37	98	2096318	54.19	ug/L	108.38%
42) 4-Bromofluorobenzene	22.95	95	902029	55.15	ug/L	110.30%
Target Compounds						Qvalue
54) m&p-xylenes	20.78	106	687771	37.66	ug/L	99
55) o-xylene	21.68	91	1664960	39.41	ug/L	94
PH-61 1,1,2,2-tetrachloroethane	22.30	83	40012	3.08	ug/L	88
64) 2-chlorotoluene	23.62	126	32852	3.32	ug/L	100
65) 4-chlorotoluene	23.62	126	32852	3.19	ug/L	90
66) 1,3,5-trimethylbenzene	23.53	105	5861270	164.39	ug/L	98
68) 1,2,4-trimethylbenzene	24.28	105	10583110	309.42	ug/L	97
69) sec-butylbenzene	24.60	105	106443	2.42	ug/L	92
71) 4-isopropyltoluene	24.83	119	287421	7.36	ug/L	97

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH
Quant Time: Oct 11 19:20 1999

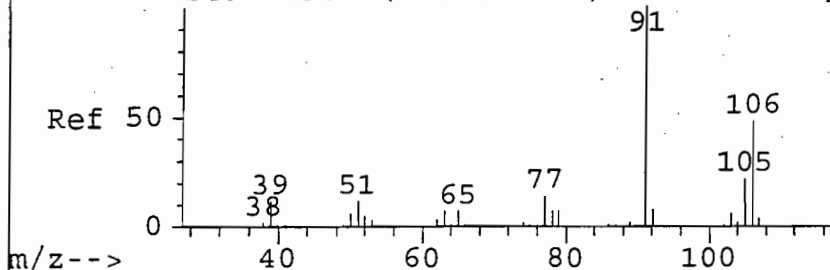
Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration



000157

AbundanceScan 2960 (20.765 min): M12956.D (



#54

m&p-xylenes

Concen: 37.66 ug/L

RT: 20.78 min Scan# 2969

Delta R.T. 0.02 min

Lab File: M13008.D

Acq: 11 Oct 99 2:33 pm

Tgt Ion:106 Resp: 687771

Ion Ratio Lower Upper

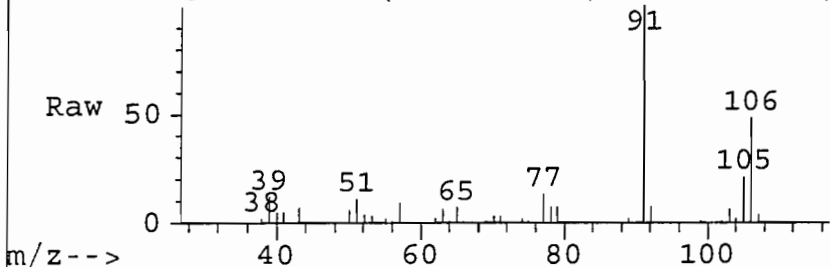
106 100

91 207.3 146.7 272.4

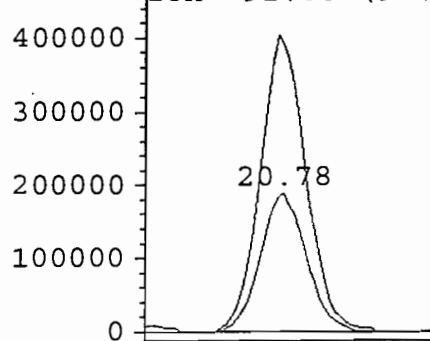
0 0.0 0.0 0.0

0 0.0 0.0 0.0

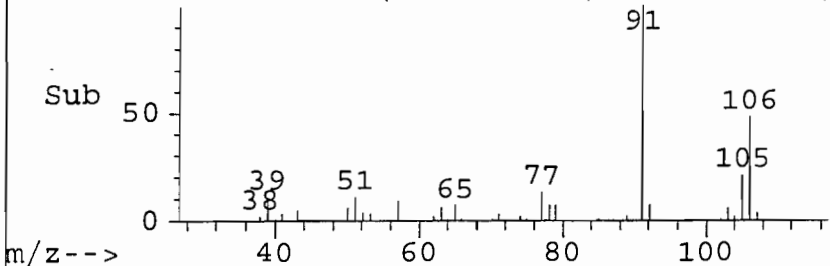
AbundanceScan 2969 (20.783 min): M13008.D (



AbundanceIon 106.00 (105
Ion 91.00 (90.

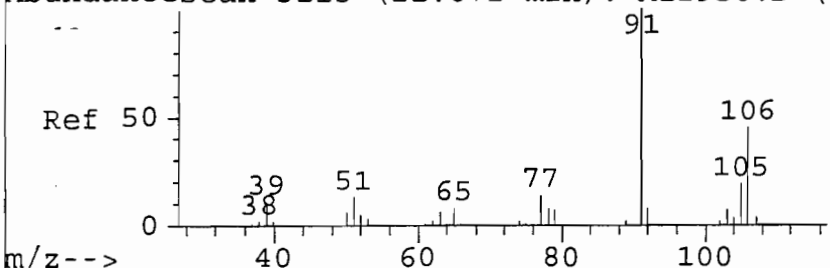


AbundanceScan 2969 (20.783 min): M13008.D (



Time-->20.62 20.90

AbundanceScan 3113 (21.672 min): M12956.D (



#55

o-xylene

Concen: 39.41 ug/L

RT: 21.68 min Scan# 3121

Delta R.T. 0.01 min

Lab File: M13008.D

Acq: 11 Oct 99 2:33 pm

Tgt Ion:91 Resp: 1664960

Ion Ratio Lower Upper

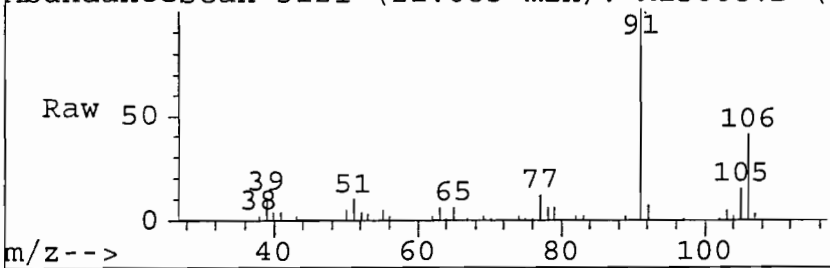
91 100

106 41.3 31.3 58.1

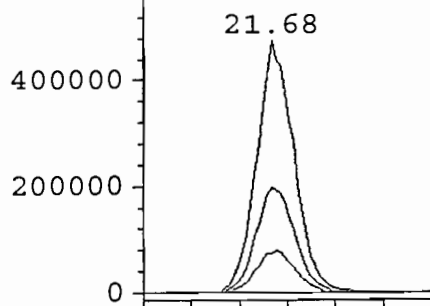
105 15.3 12.9 24.0

0 0.0 0.0 0.0

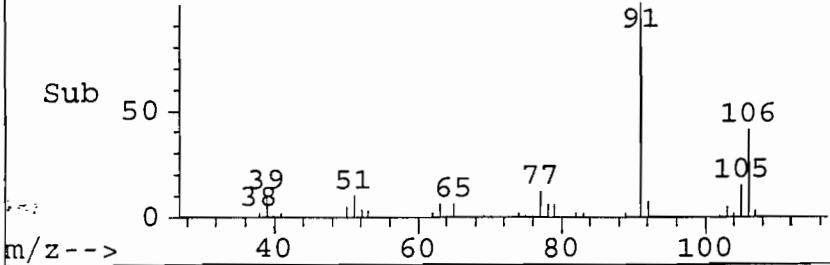
AbundanceScan 3121 (21.683 min): M13008.D (



AbundanceIon 91.00 (90.
Ion 106.00 (105
Ion 105.00 (104



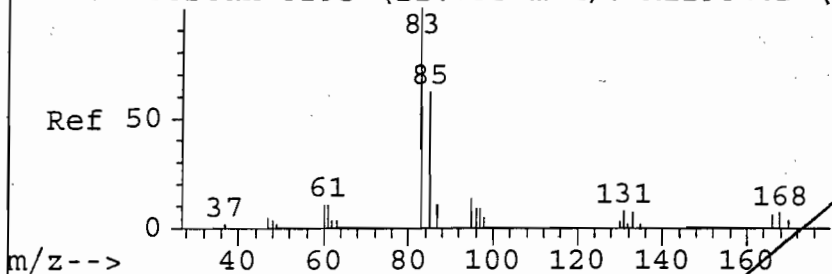
AbundanceScan 3121 (21.683 min): M13008.D (



Time-->21.51 21.84

000158

AbundanceScan 3293 (22.735 min): M12956.D (



#61

1,1,2,2-tetrachloroethane

Concen: 3.08 ug/L

RT: 22.30 min Scan# 3226

Delta R.T. -0.43 min

Lab File: M13008.D

Acq: 11 Oct 99 2:33 pm

Tgt Ion:83 Resp: 40012

Ion Ratio Lower Upper

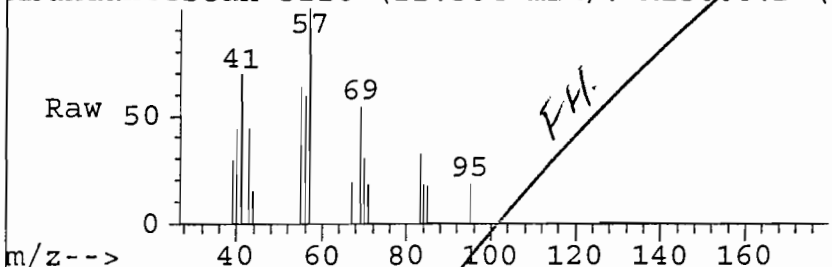
83 100

85 52.2 43.1 80.1

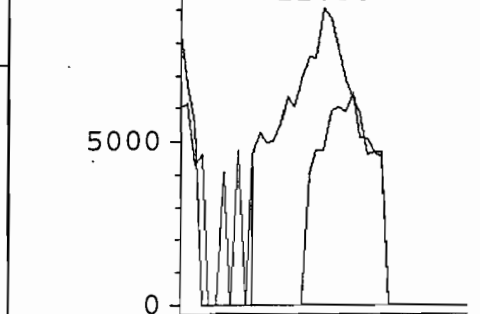
0 0.0 0.0 0.0

0 0.0 0.0 0.0

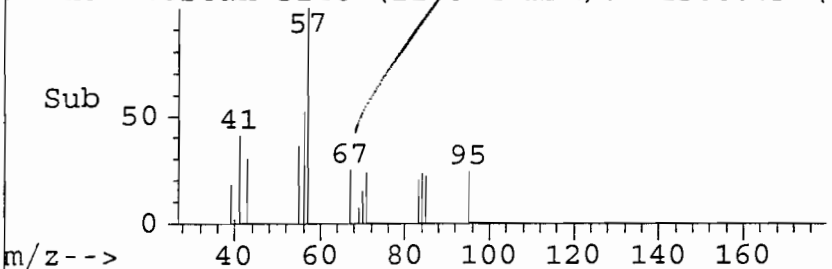
AbundanceScan 3226 (22.304 min): M13008.D (



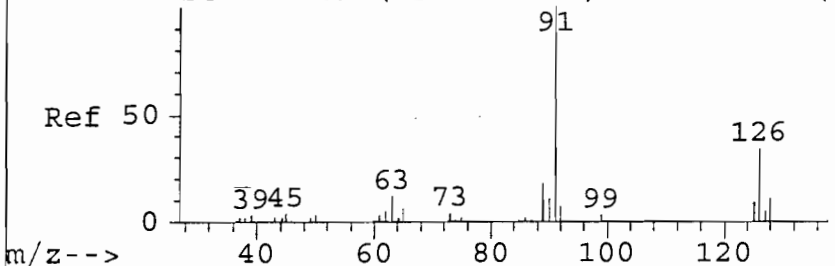
AbundanceIon 83.00 (82.
10000 Ion 85.00 (84.
22.30



AbundanceScan 3226 (22.304 min): M13008.D (



AbundanceScan 3439 (23.601 min): M12956.D (



#64

2-chlorotoluene

Concen: 3.32 ug/L

RT: 23.62 min Scan# 3447

Delta R.T. 0.01 min

Lab File: M13008.D

Acq: 11 Oct 99 2:33 pm

Tgt Ion:126 Resp: 32852

Ion Ratio Lower Upper

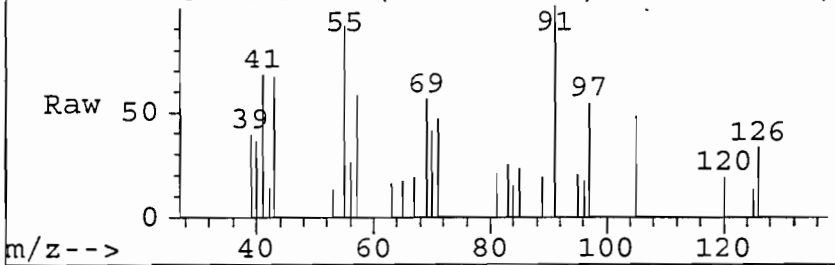
126 100

63 48.5 17.0 80.0

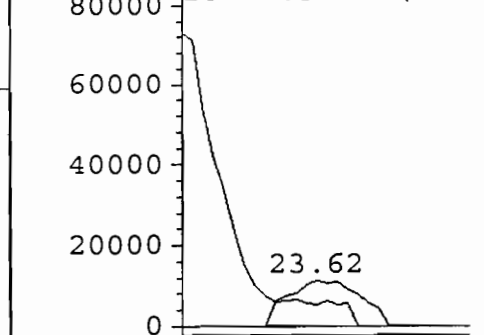
0 0.0 0.0 0.0

0 0.0 0.0 0.0

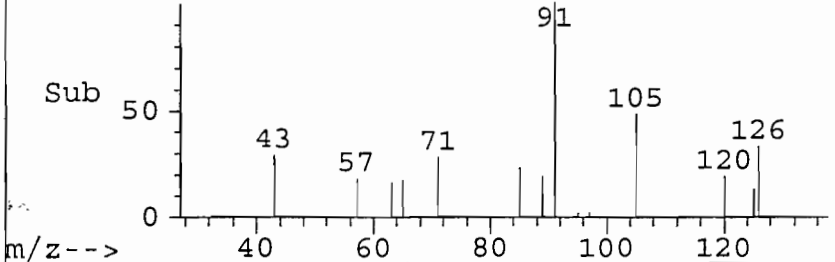
AbundanceScan 3447 (23.616 min): M13008.D (



AbundanceIon 126.00 (125
80000 Ion 63.00 (62.

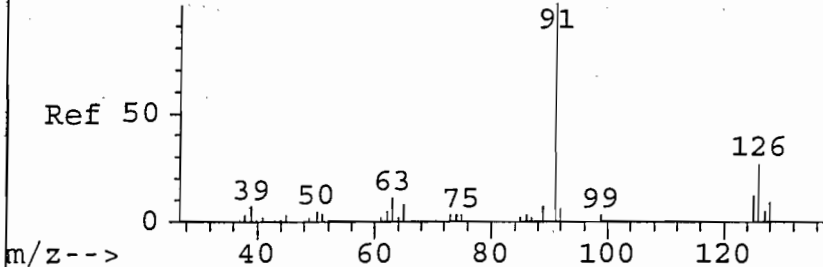


AbundanceScan 3447 (23.616 min): M13008.D (



000159

AbundanceScan 3453 (23.682 min): M12956.D (



#65

4-chlorotoluene

Concen: 3.19 ug/L

RT: 23.62 min Scan# 3447

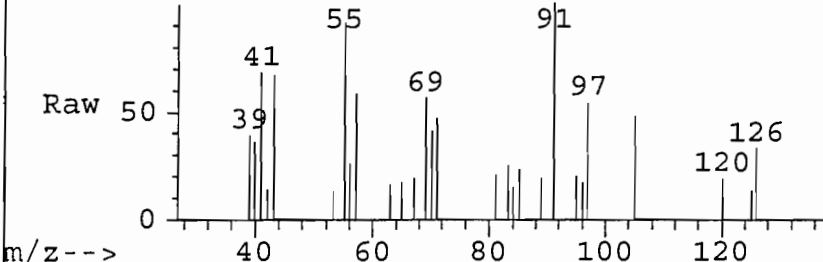
Delta R.T. -0.07 min

Lab File: M13008.D

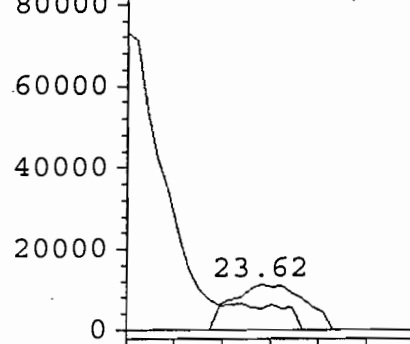
Acq: 11 Oct 99 2:33 pm

Tgt Ion:	126	Resp:	32852
Ion	Ratio	Lower	Upper
126	100		
63	48.5	29.3	54.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

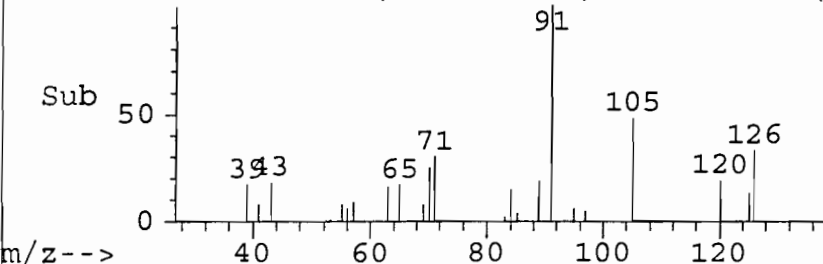
AbundanceScan 3447 (23.616 min): M13008.D (



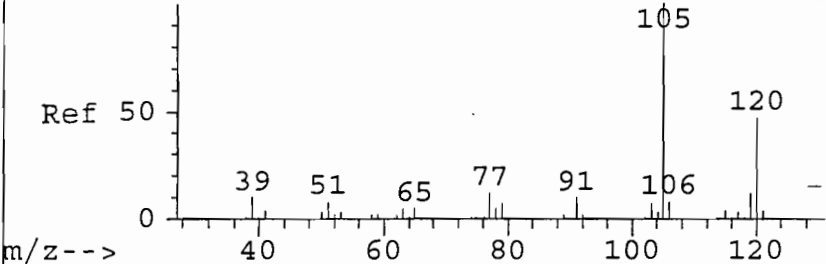
AbundanceIon 126.00 (125
Ion 63.00 (62.



AbundanceScan 3447 (23.616 min): M13008.D (



AbundanceScan 3424 (23.513 min): M12956.D (



#66

1,3,5-trimethylbenzene

Concen: 164.39 ug/L

RT: 23.53 min Scan# 3433

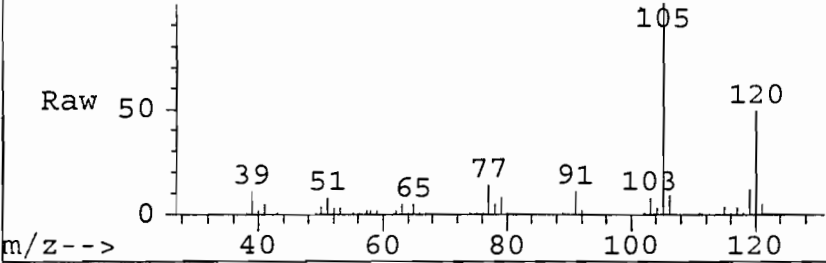
Delta R.T. 0.02 min

Lab File: M13008.D

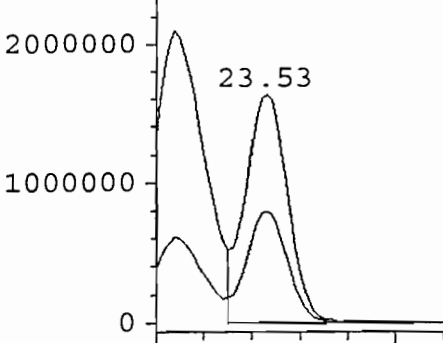
Acq: 11 Oct 99 2:33 pm

Tgt Ion:	105	Resp:	5861270
Ion	Ratio	Lower	Upper
105	100		
120	48.7	33.2	61.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

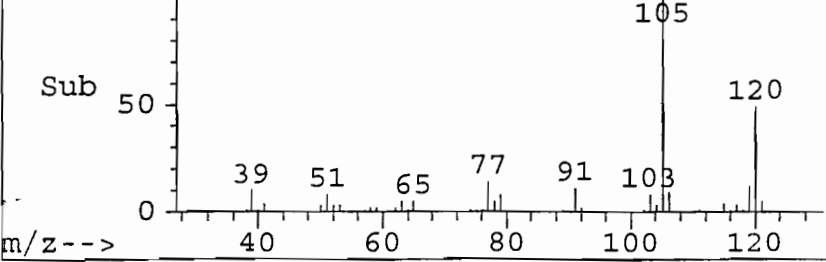
AbundanceScan 3433 (23.532 min): M13008.D (



AbundanceIon 105.00 (104
Ion 120.00 (119

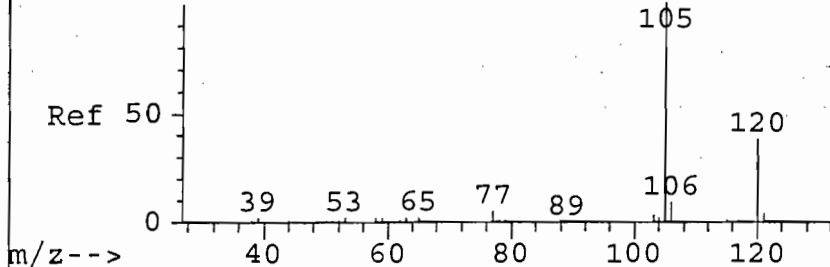


AbundanceScan 3433 (23.532 min): M13008.D (



000160

AbundanceScan 3551 (24.261 min): M12956.D (

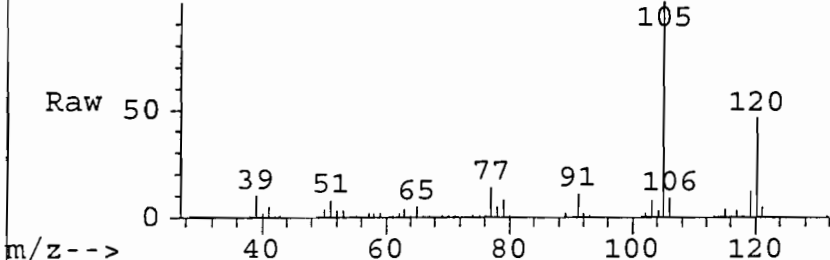


#68

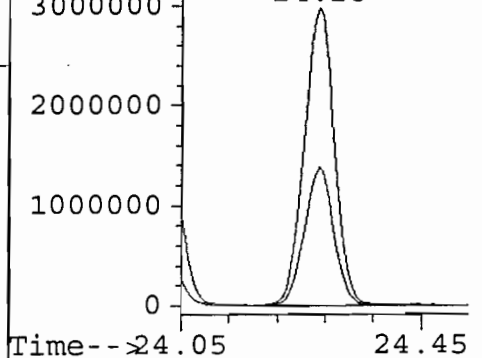
1,2,4-trimethylbenzene
Concen: 309.42 ug/L
RT: 24.28 min Scan# 3559
Delta R.T. 0.02 min
Lab File: M13008.D
Acq: 11 Oct 99 2:33 pm

Tgt Ion:105 Resp:10583110
Ion Ratio Lower Upper
105 100
120 46.5 31.2 58.0
0 0.0 0.0 0.0
0 0.0 0.0 0.0

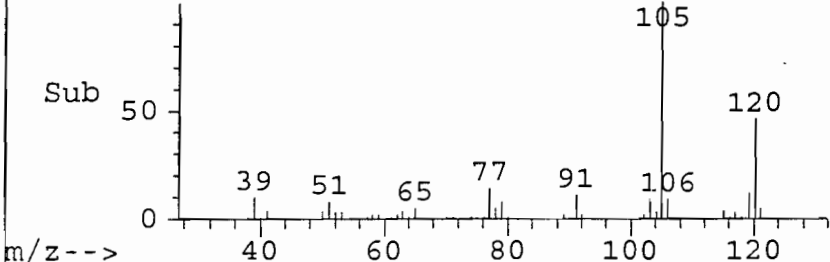
AbundanceScan 3559 (24.282 min): M13008.D (



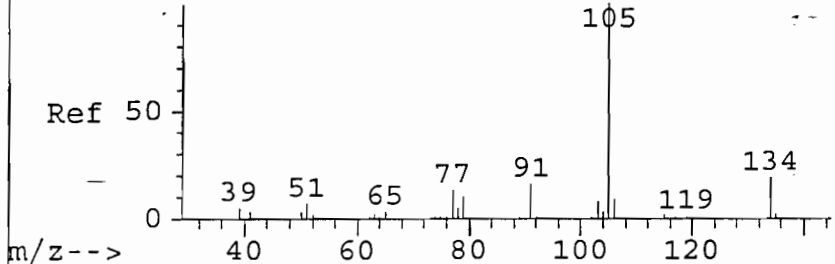
AbundanceIon 105.00 (104)
Ion 120.00 (119)
24.28



AbundanceScan 3559 (24.282 min): M13008.D (



AbundanceScan 3604 (24.572 min): M12956.D (

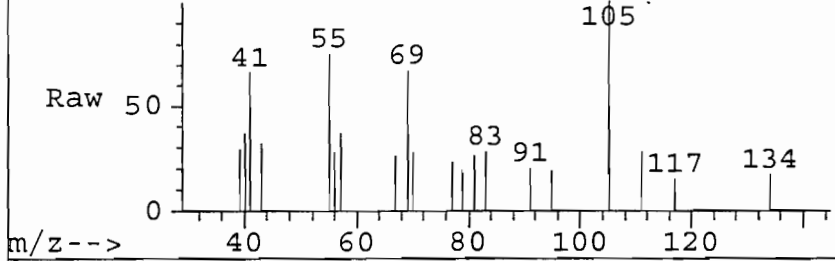


#69

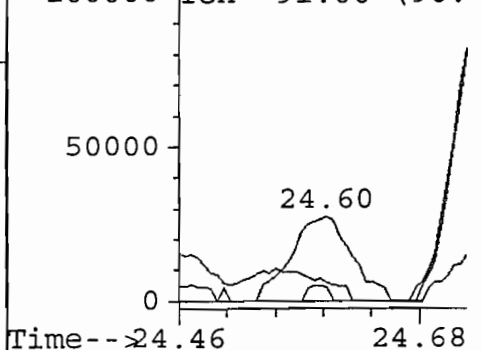
sec-butylbenzene
Concen: 2.42 ug/L
RT: 24.60 min Scan# 3612
Delta R.T. 0.02 min
Lab File: M13008.D
Acq: 11 Oct 99 2:33 pm

Tgt Ion:105 Resp: 106443
Ion Ratio Lower Upper
105 100
134 16.7 13.4 25.0
91 20.1 11.1 20.5
0 0.0 0.0 0.0

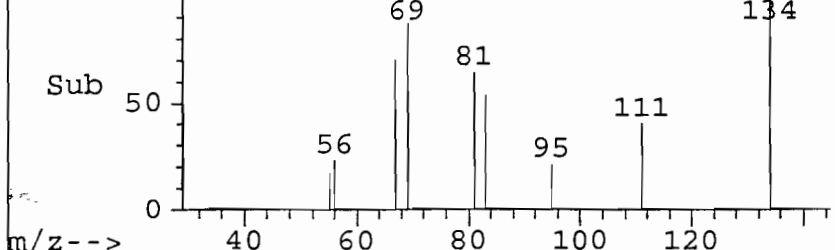
AbundanceScan 3612 (24.596 min): M13008.D (



AbundanceIon 105.00 (104)
Ion 134.00 (133)
Ion 91.00 (90.)

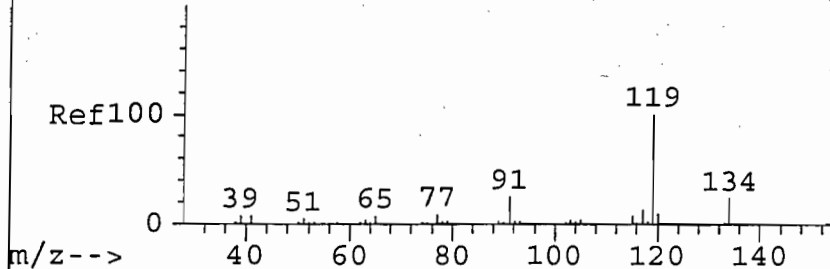


AbundanceScan 3612 (24.596 min): M13008.D (

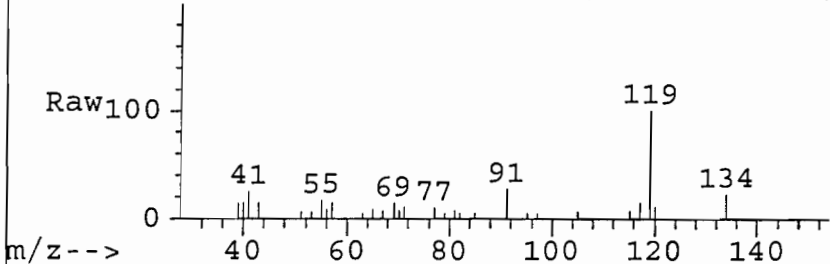


000161

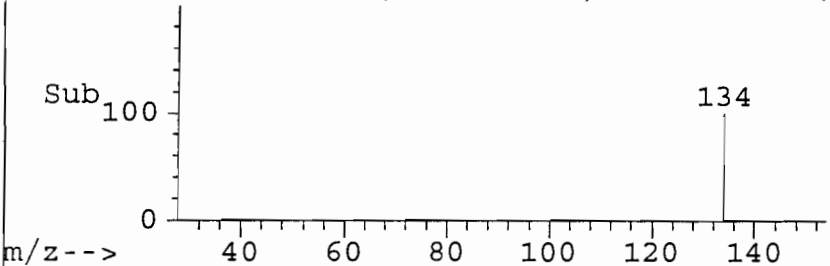
AbundanceScan 3644 (24.810 min): M12956.D (



AbundanceScan 3652 (24.833 min): M13008.D (



AbundanceScan 3652 (24.833 min): M13008.D (



#71

4-isopropyltoluene

Concen: 7.36 ug/L

RT: 24.83 min Scan# 3652

Delta R.T. 0.02 min

Lab File: M13008.D

Acq: 11 Oct 99 2:33 pm

Tgt Ion:119 Resp: 287421

Ion Ratio Lower Upper

119 100

134 22.9 16.7 31.1

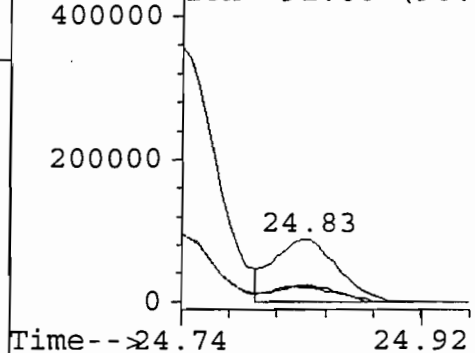
91 26.6 17.2 32.0

0 0.0 0.0 0.0

AbundanceIon 119.00 (118

Ion 134.00 (133

Ion 91.00 (90.



000162

Library Search Compound Report

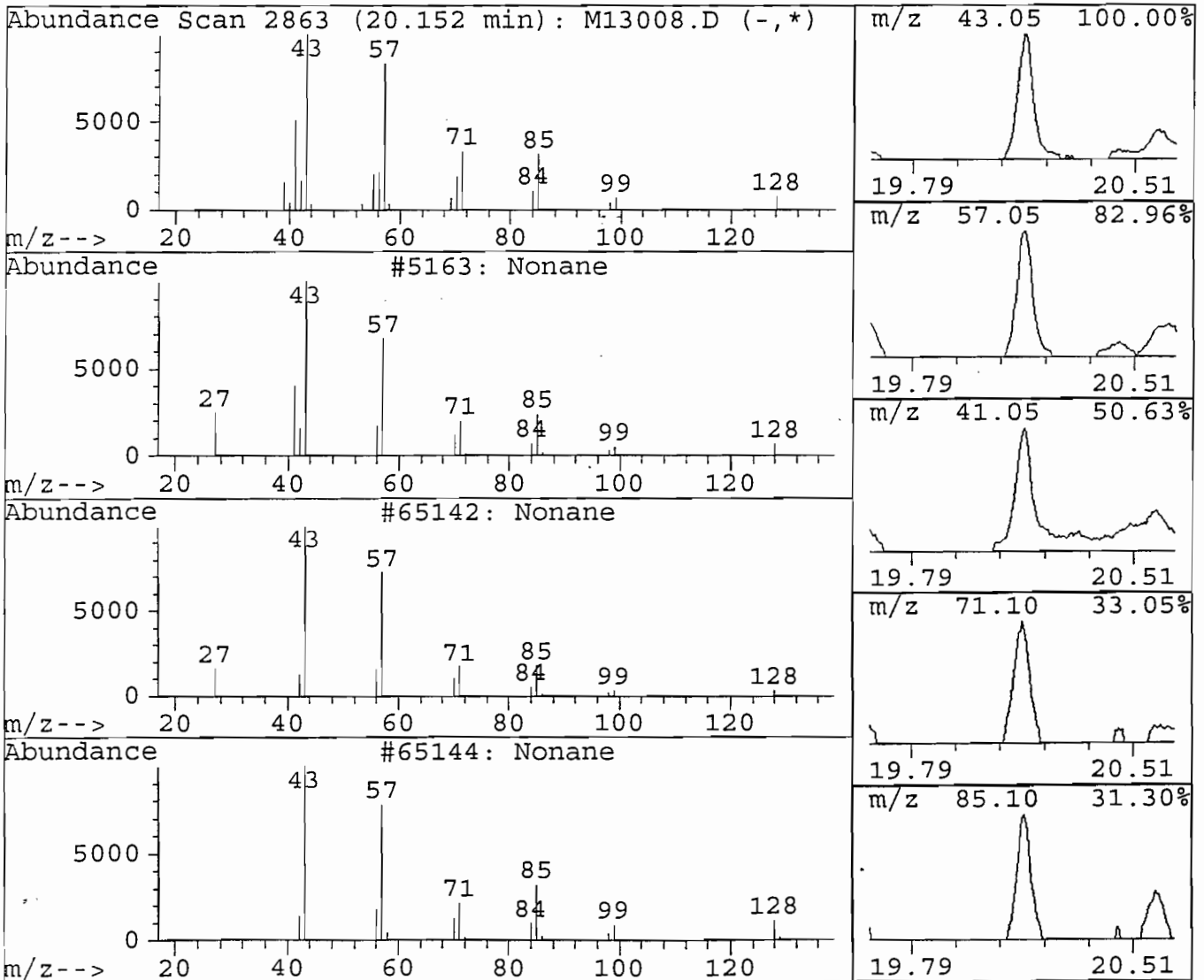
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
 Acq Time : 11 Oct 99 2:33 pm
 Sample : 13701ASP-86842
 Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.15	25.04 ug/L	2756816	Chlorobenzene-d5	20.46

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	5163	000111-84-2	91
2	Nonane	65142	000111-84-2	91
3	Nonane	65144	000111-84-2	91
4	Nonane	65145	000111-84-2	90
5	Nonane	65143	000111-84-2	83



000163

Library Search Compound Report

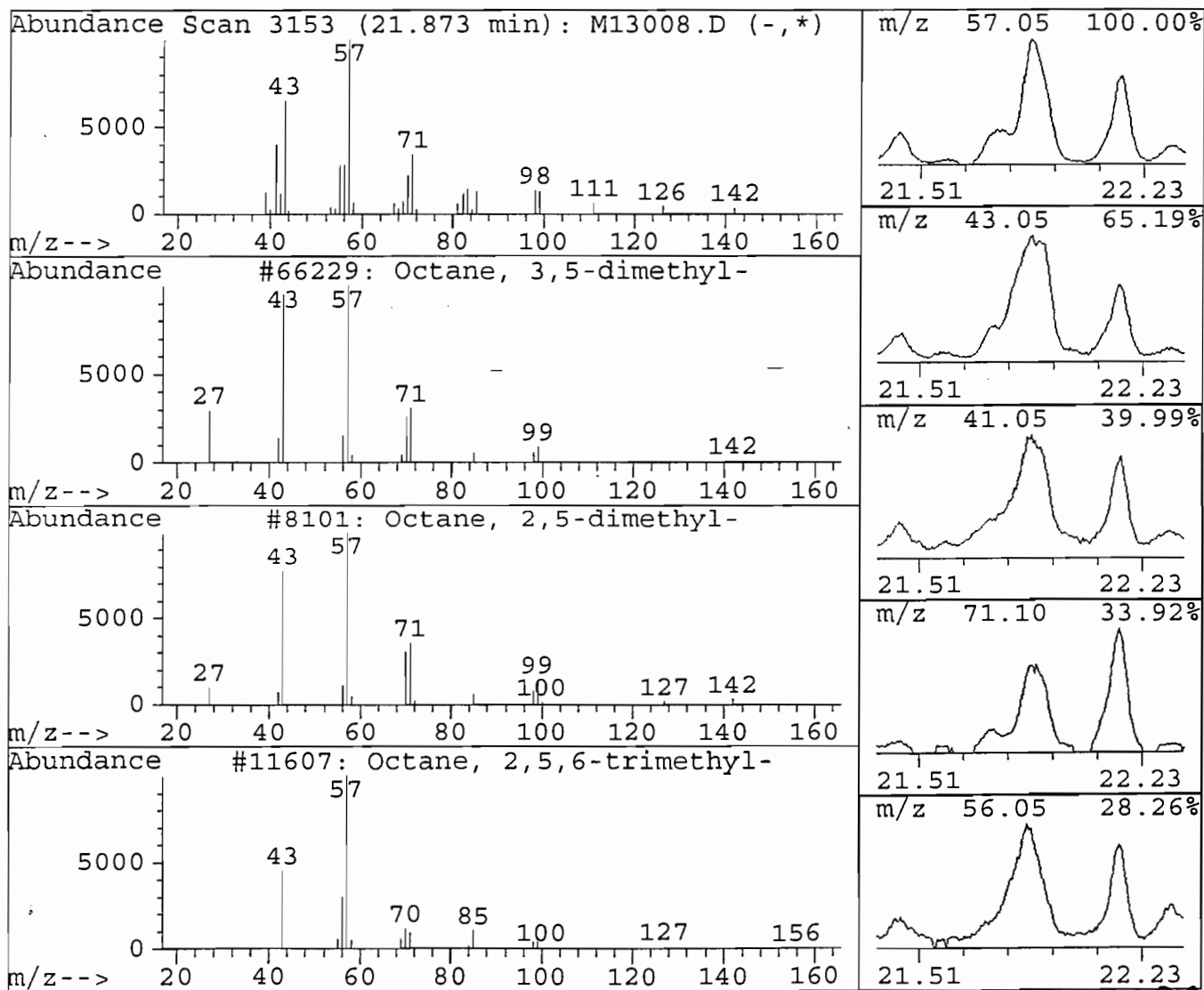
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.87	56.18 ug/L	6184249	Chlorobenzene-d5	20.46

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 3,5-dimethyl-	66229	015869-93-9	53
2	Octane, 2,5-dimethyl-	8101	015869-89-3	52
3	Octane, 2,5,6-trimethyl-	11607	062016-14-2	50
4	Undecane, 3,5-dimethyl-	19003	017312-81-1	47
5	Nonane, 2-methyl-	8093	000871-83-0	47



000164

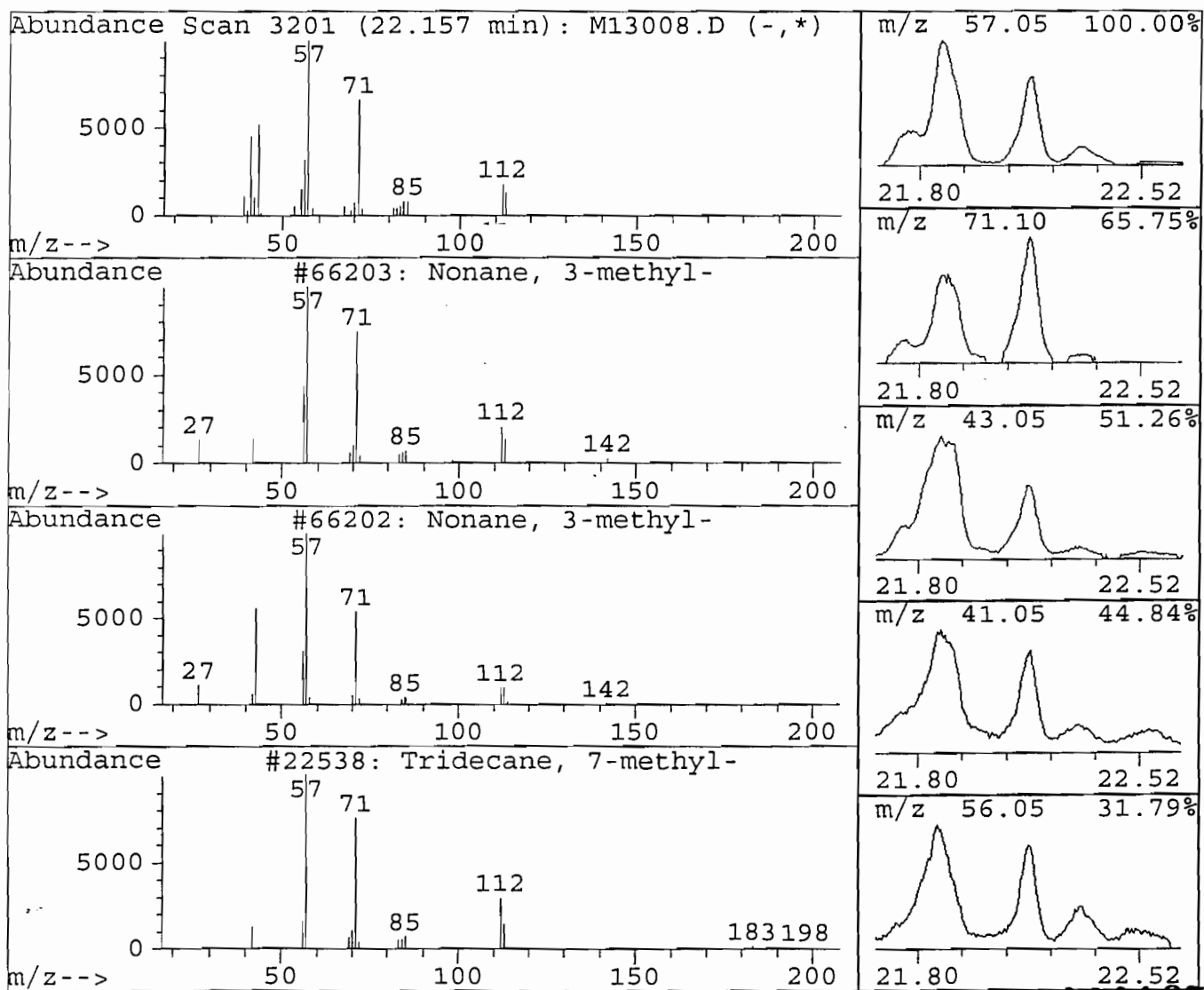
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
22.16	24.18 ug/L	2662094	Chlorobenzene-d5	20.46	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Nonane, 3-methyl-		66203	005911-04-6	90
2	Nonane, 3-methyl-		66202	005911-04-6	78
3	Tridecane, 7-methyl-		22538	026730-14-3	78
4	Nonane, 3-methyl-		66200	005911-04-6	78
5	Octane, 3,6-dimethyl-		8109	015869-94-0	72



000165

Library Search Compound Report

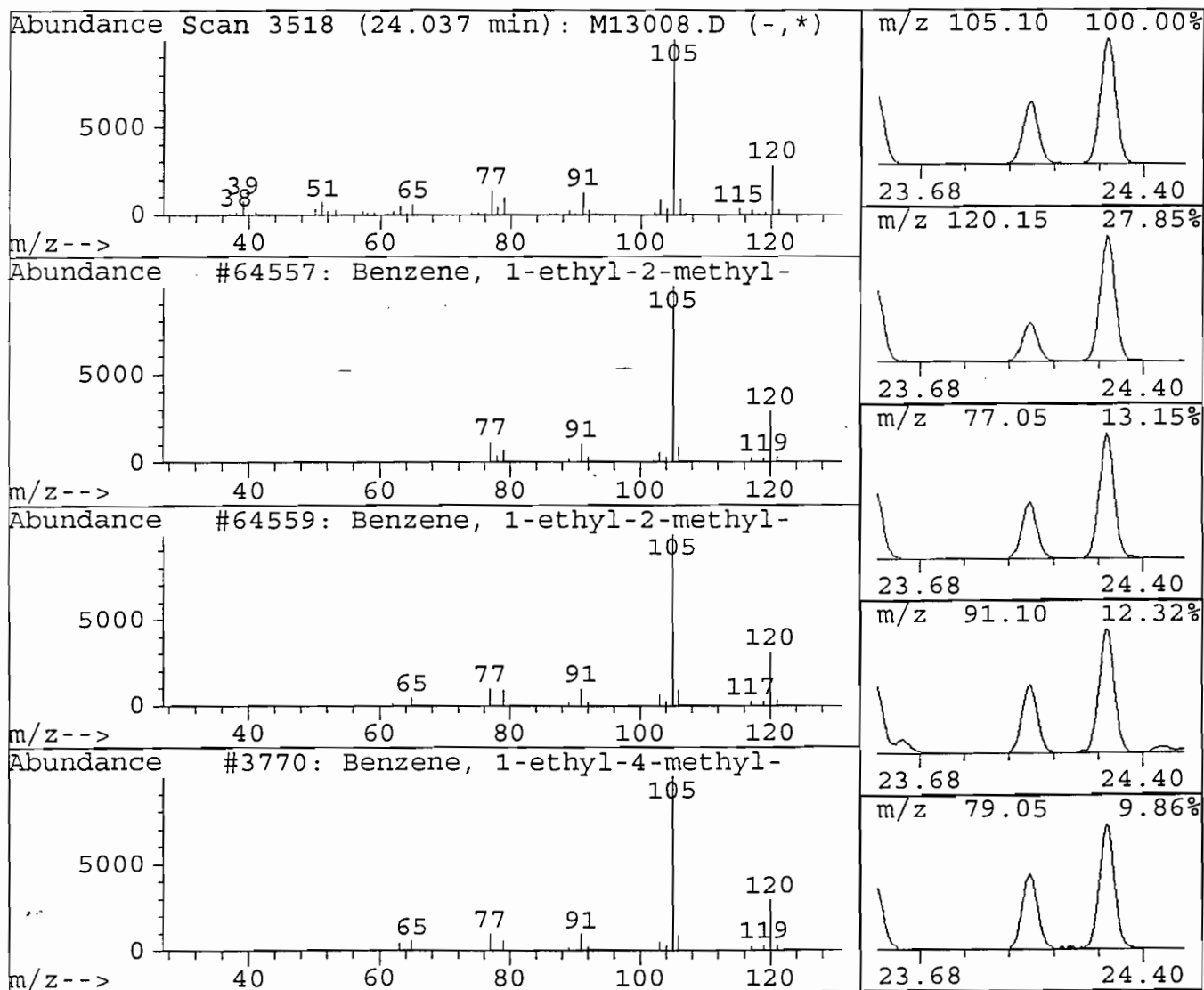
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.04	28.62 ug/L	12724661	1,4-dichlorobenzene-d4	25.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	94
2	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	94
3	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
4	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	94
5	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	91



000166

Library Search Compound Report

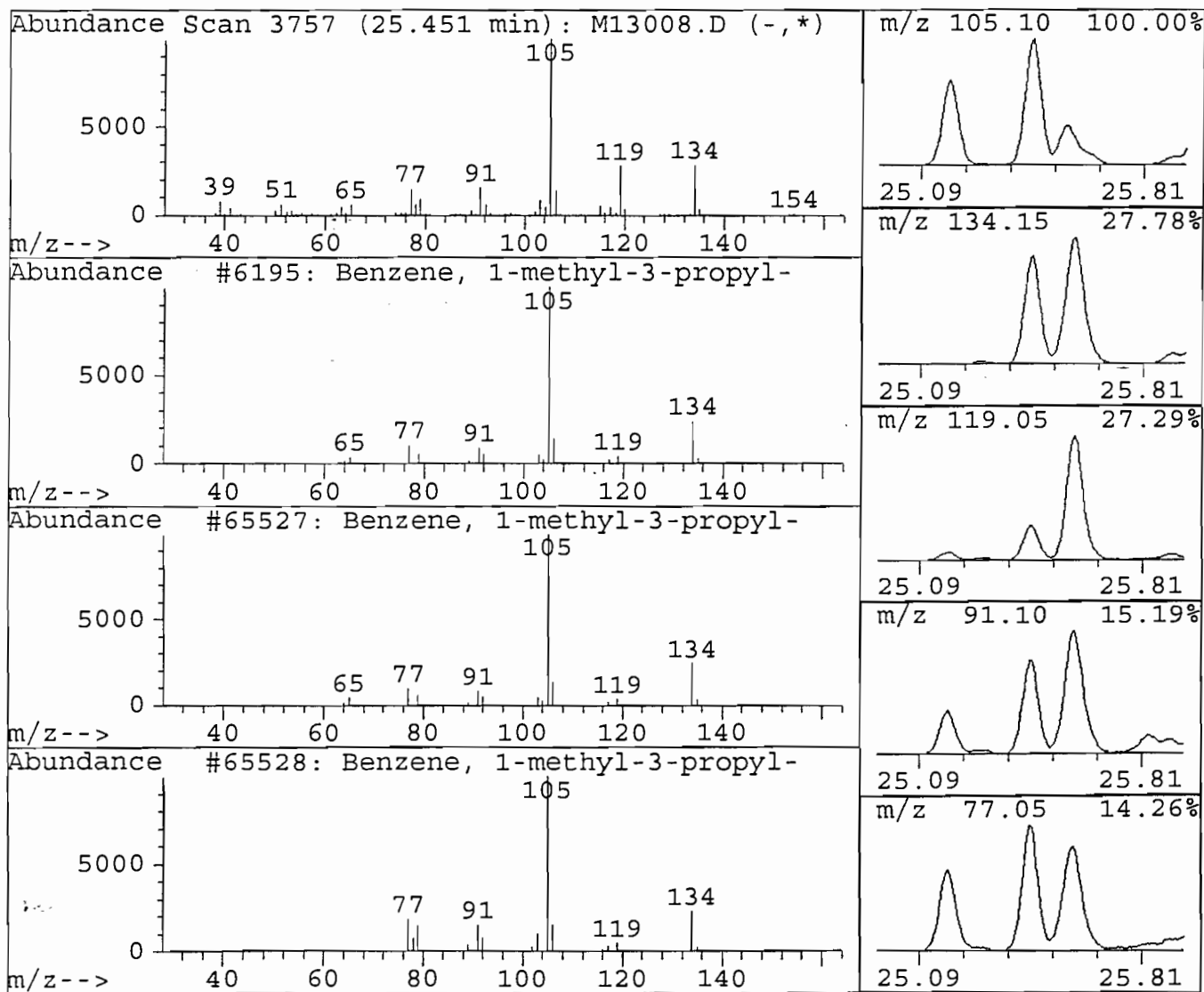
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.45	50.29 ug/L	22362281	1,4-dichlorobenzene-d4	25.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	6195	001074-43-7	87
2	Benzene, 1-methyl-3-propyl-	65527	001074-43-7	87
3	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	81
4	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	81
5	Benzene, (1-methylpropyl)-	65544	000135-98-8	76



000167

Library Search Compound Report

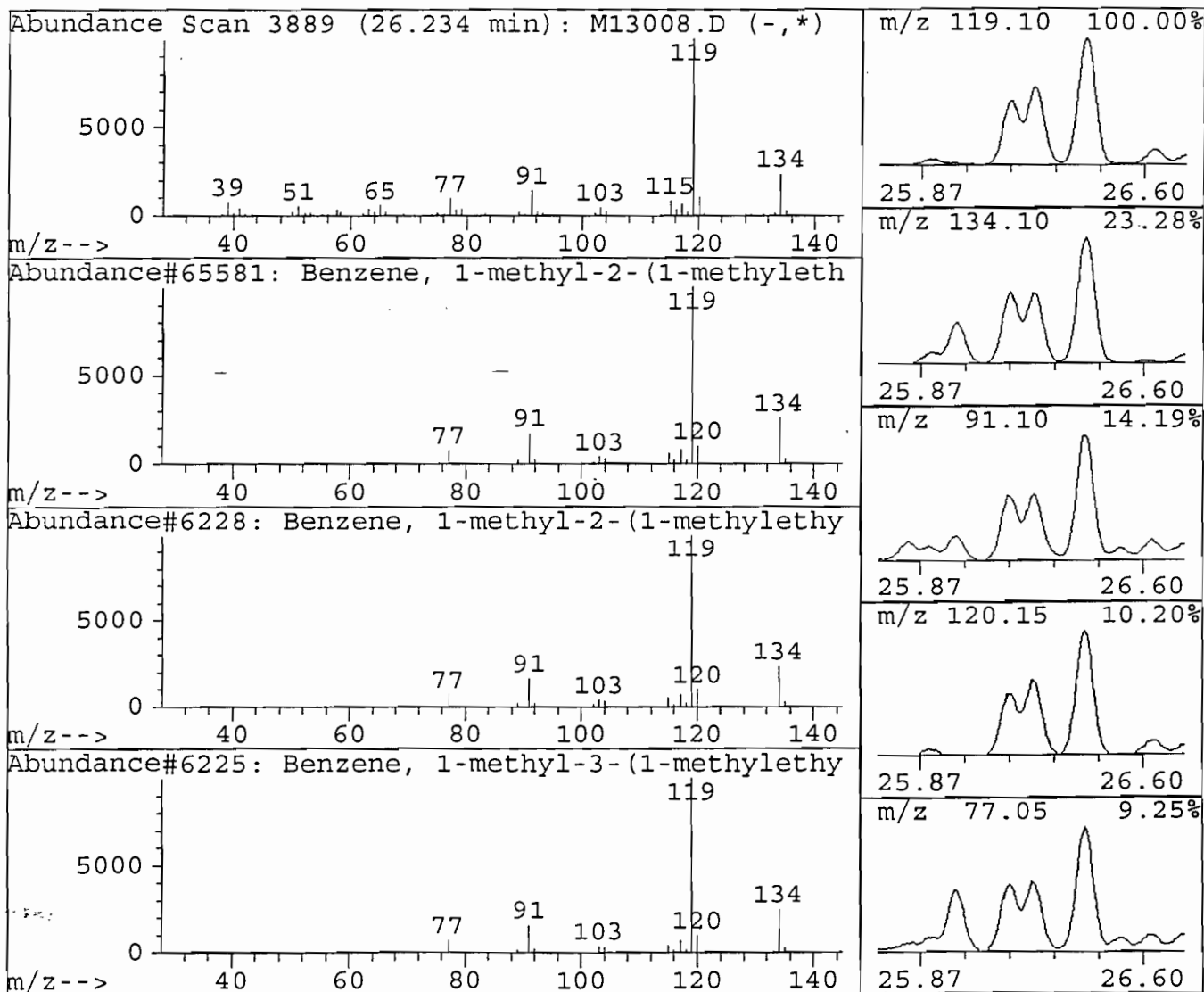
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.23	25.81 ug/L	11476194	1,4-dichlorobenzene-d4	25.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	97
2	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	95
3	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	94
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	94
5	Benzene, 1-methyl-4-(1-methylethyl)	65534	000099-87-6	94



000168

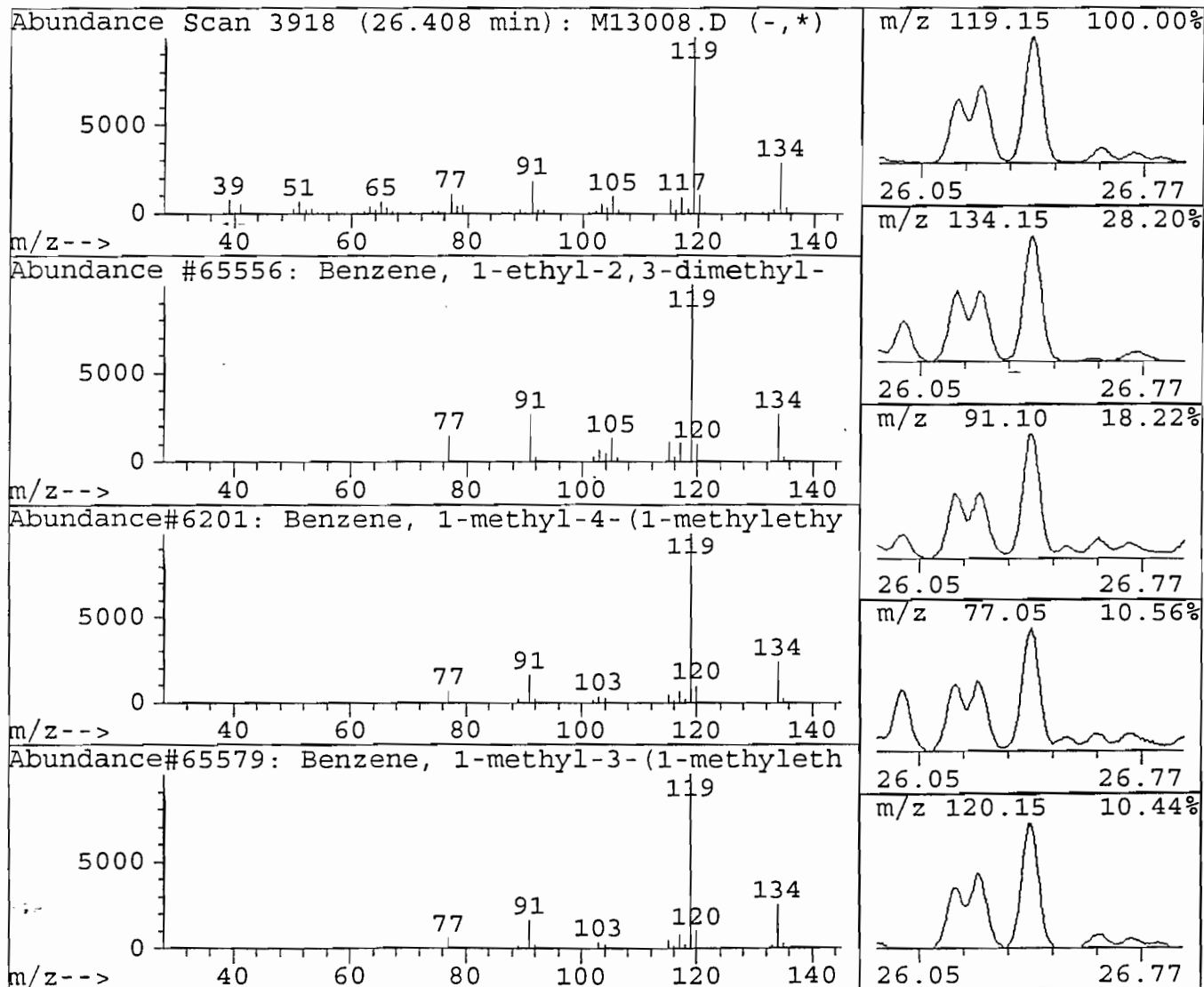
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.41	49.14 ug/L	21851549	1,4-dichlorobenzene-d4	25.21	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-		65556	000933-98-2	96
2	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	95
3	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	95
4	Benzene, 1-methyl-2-(1-methylethyl)		65581	000527-84-4	95
5	Benzene, 1-methyl-3-(1-methylethyl)		6225	000535-77-3	95



000169

Library Search Compound Report

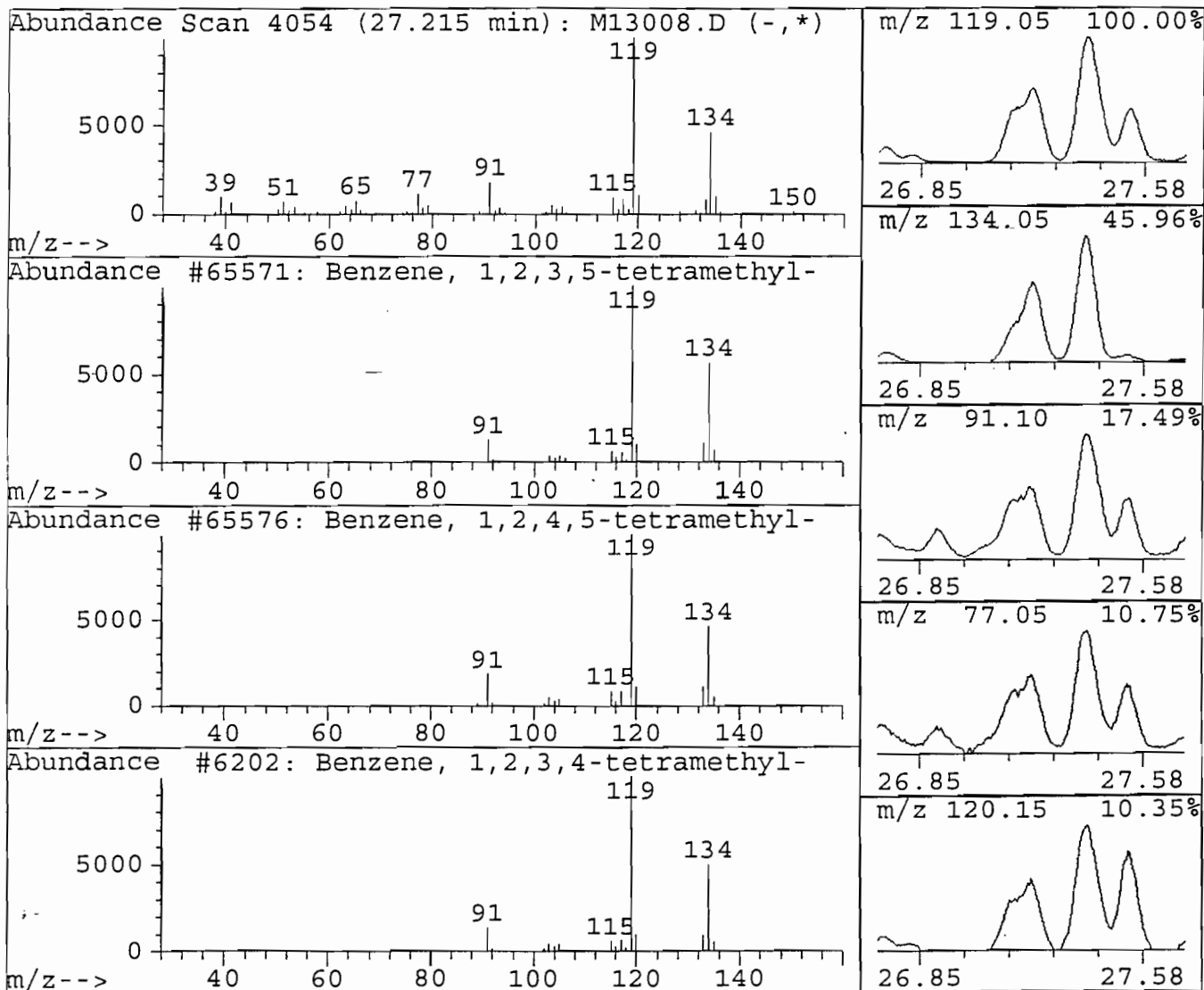
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.21	36.05 ug/L	16027737	1,4-dichlorobenzene-d4	25.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	65571	000527-53-7	94
2	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	94
3	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	94
4	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	94
5	Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	94



000170

Library Search Compound Report

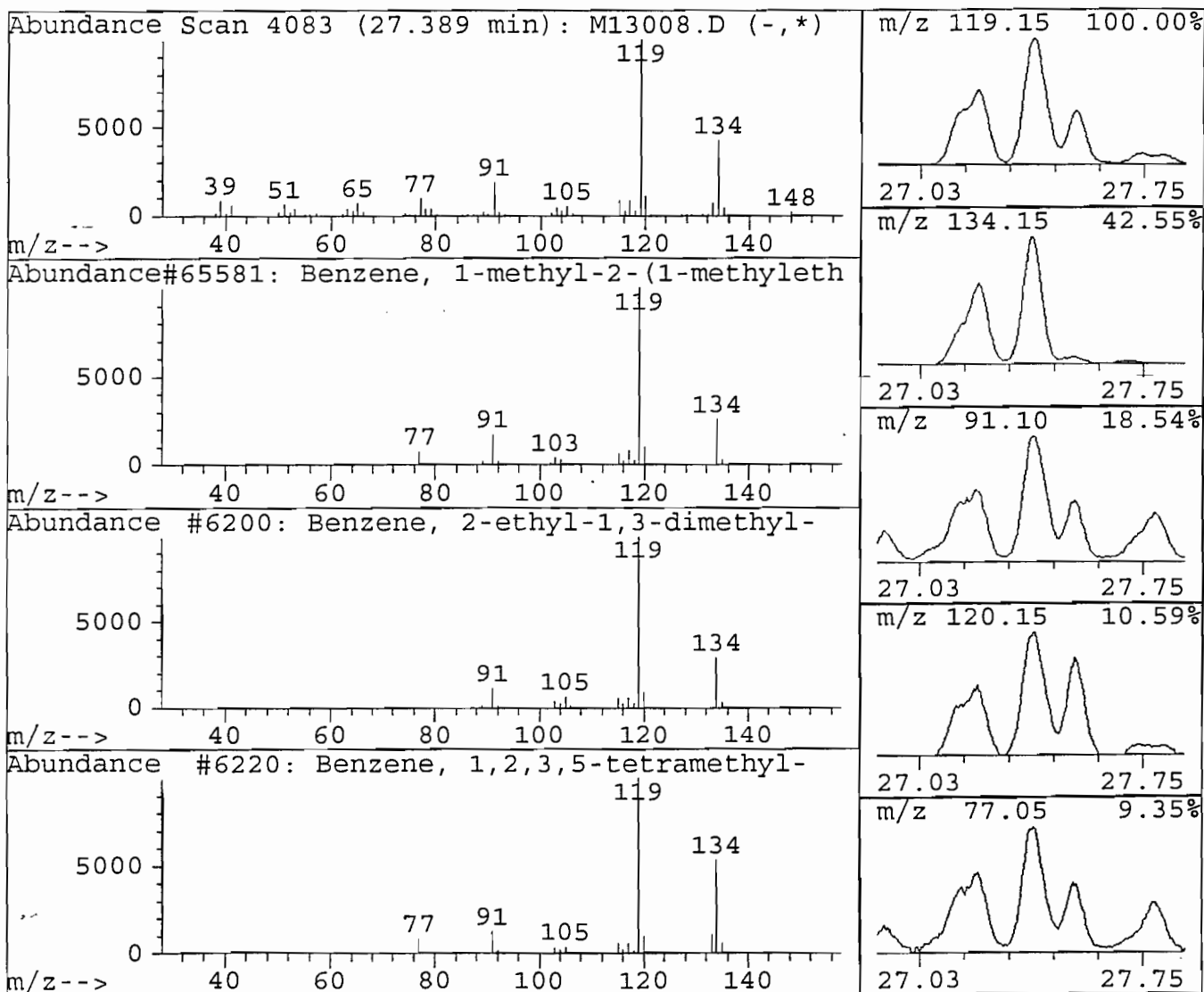
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.39	43.99 ug/L	19560974	1,4-dichlorobenzene-d4	25.21

Hit#	of 20	Tentative ID	Ref#	CAS#	Qual
1		Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
2		Benzene, 2-ethyl-1,3-dimethyl-	6200	002870-04-4	95
3		Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	95
4		Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	94
5		Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	94



000171

Library Search Compound Report

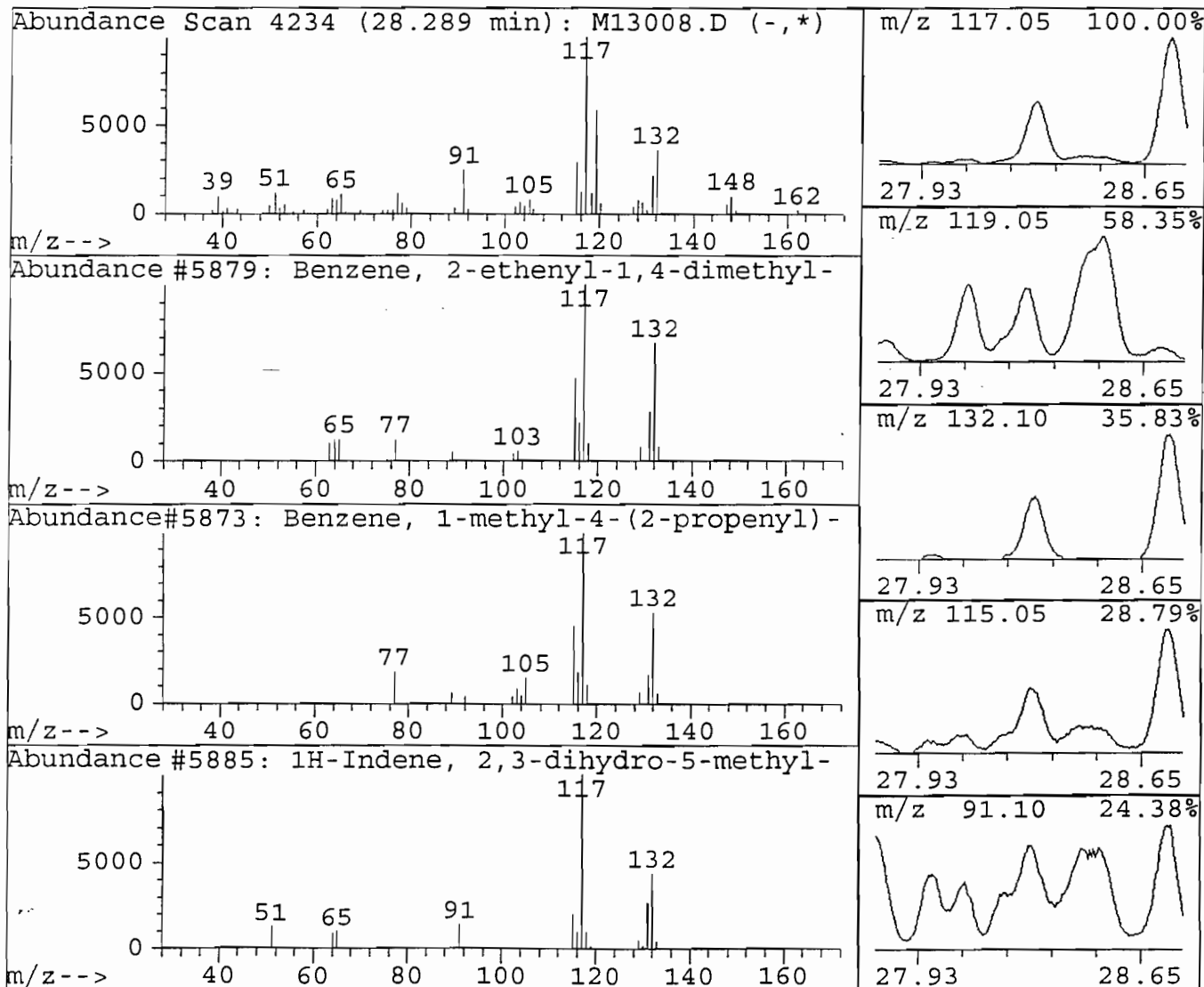
Data File : D:\HPCHEM\3\DATA\V3101199\M13008.D
Acq Time : 11 Oct 99 2:33 pm
Sample : 13701ASP-86842
Misc : 5MLS 4GR/10MLS MEOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.29	25.68 ug/L	11418085	1,4-dichlorobenzene-d4	25.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	5879	002039-89-6	90
2	Benzene, 1-methyl-4-(2-propenyl)-	5873	003333-13-9	86
3	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	70
4	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	70
5	Benzene, 2-ethenyl-1,3-dimethyl-	5883	002039-90-9	70



000172

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-008-SS10DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86842DL

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: M13011.D

Level: (low/med) MED

Date Received: 10/6/99

% Moisture: not dec. 3

Date Analyzed: 10/11/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	6400		UD
74-87-3	Chloromethane	6400		UD
75-01-4	Vinyl Chloride	6400		UD
74-83-9	Bromomethane	6400		UD
75-00-3	Chloroethane	6400		UD
75-69-4	Trichlorofluoromethane	6400		UD
75-09-2	Methylene Chloride	6400		UD
75-34-4	1,1-Dichloroethane	6400		UD
590-20-7	2,2-Dichloropropane	6400		UD
74-97-5	Bromochloromethane	6400		UD
67-66-3	Chloroform	6400		UD
71-55-6	1,1,1-Trichloroethane	6400		UD
56-23-5	Carbon Tetrachloride	6400		UD
563-58-6	1,1-Dichloropropene	6400		UD
71-43-2	Benzene	6400		UD
107-06-2	1,2-Dichloroethane	6400		UD
79-01-6	Trichloroethene	6400		UD
78-87-5	1,2-Dichloropropane	6400		UD
74-95-3	Dibromomethane	6400		UD
75-27-4	Bromodichloromethane	6400		UD
108-88-3	Toluene	6400		UD
79-00-5	1,1,2-Trichloroethane	6400		UD
127-18-4	Tetrachloroethene	6400		UD
142-28-9	1,3-Dichloropropane	6400		UD
124-48-1	Dibromochloromethane	6400		UD
106-93-4	1,2-Dibromoethane	6400		UD
108-90-7	Chlorobenzene	6400		UD
630-20-6	1,1,1,2-Tetrachloroethane	6400		UD
100-41-4	Ethylbenzene	6400		UD
100-42-5	Styrene	6400		UD
75-25-2	Bromoform	6400		UD
98-82-8	isopropylbenzene	6400		UD
108-86-1	Bromobenzene	6400		UD

GP-008-SS10DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water)

SOIL

Lab Sample ID: O86842DL

Sample wt/vol:

4.0

(g/mL) G

Lab File ID: M13011.D

Level: (low/med)

MED

Date Received: 10/6/99

% Moisture: not dec.

3

Date Analyzed: 10/11/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume:

10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

(ug/L or ug/Kg)

 $\mu\text{g/Kg}$

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-008-SS10DL

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
Matrix: (soil/water) SOIL Lab Sample ID: O86842DL
Sample wt/vol: 4.0 (g/mL) G Lab File ID: M13011.D
Level: (low/med) MED Date Received: 10/6/99
% Moisture: not dec. 3 Date Analyzed: 10/11/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 10.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	21.86	23800	J
2. 2051-30-1	Octane, 2,6-dimethyl-	22.15	9200	J
3. 611-14-3	Benzene, 1-ethyl-2-methyl-	24.02	9500	J
4.	Unknown	25.44	22100	J
5. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	26.15	8800	J
6. 527-84-4	Benzene, 1-methyl-2-(1-methy	26.22	10600	J
7. 99-87-6	Benzene, 1-methyl-4-(1-methy	26.39	20500	J
8. 488-23-3	Benzene, 1,2,3,4-tetramethyl	27.20	12200	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	27.37	19500	J
10. 874-35-1	1H-Indene, 2,3-dihydro-5-met	28.71	7400	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000175

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
 Acq Time : 11 Oct 99 5:04 pm
 Sample : 13701ASP-86842 10 X DIL
 Misc : 5MLS 4GR/10MLS MEOH
 Quant Time: Oct 11 19:21 1999

Operator: AV
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

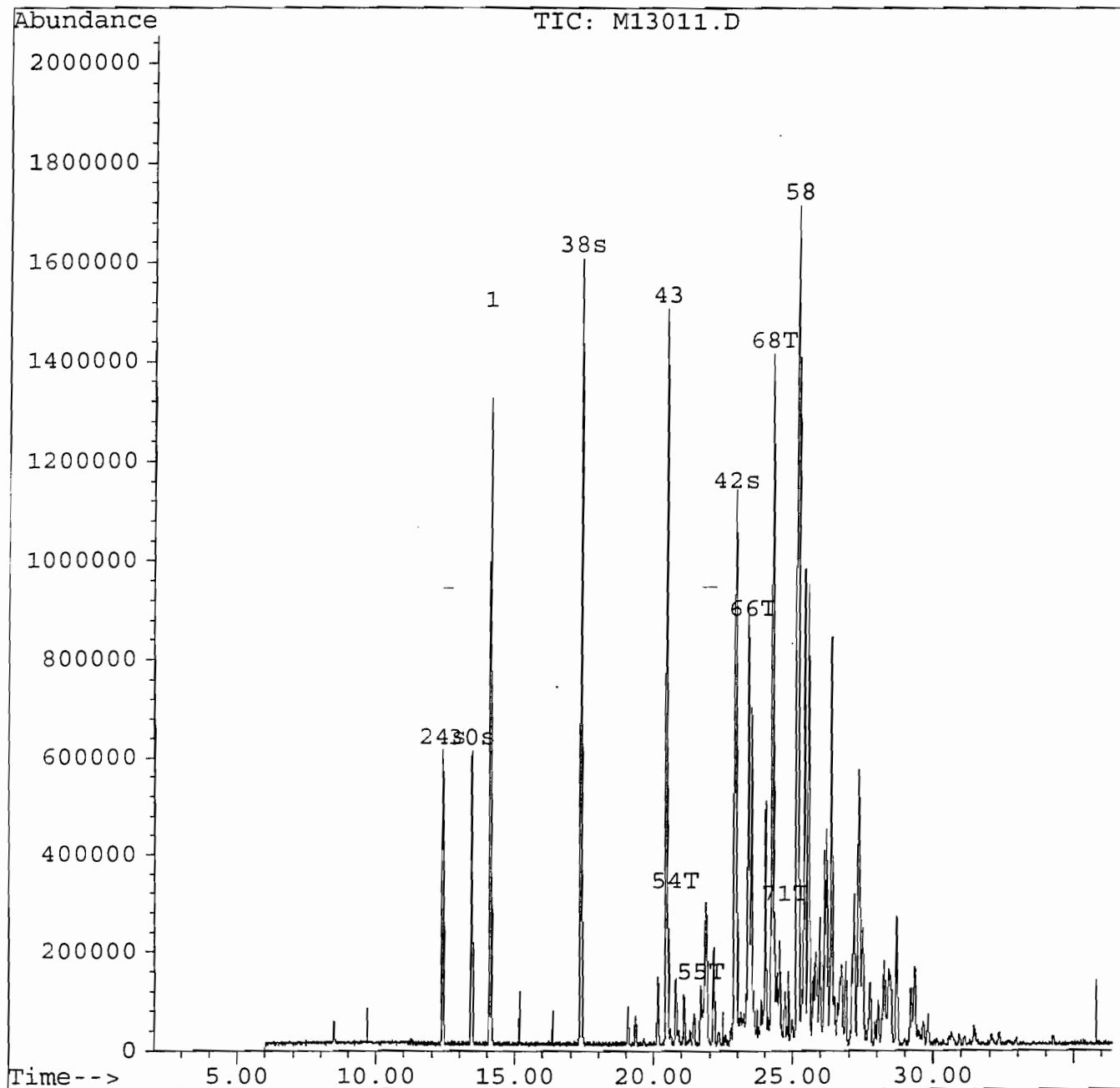
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.11	96	2194649	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.46	117	1875461	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.19	152	854504	50.00	ug/L	0.00
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	12.40	113	671931	49.22	ug/L	98.45%
30) 1,2-Dichlorethane-d4	13.45	65	755221	49.09	ug/L	98.17%
38) Toluene-d8	17.37	98	2128903	49.79	ug/L	99.58%
42) 4-Bromofluorobenzene	22.94	95	868979	48.07	ug/L	96.14%
Target Compounds						Qvalue
54) m&p-xylenes	20.78	106	79151	3.89	ug/L	89
55) o-xylene	21.67	91	197199	4.19	ug/L	93
66) 1,3,5-trimethylbenzene	23.52	105	799448	17.15	ug/L	99
68) 1,2,4-trimethylbenzene	24.27	105	1593152	35.63	ug/L	99
71) 4-isopropyltoluene	24.73	119	157655	3.09	ug/L	98

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH
Quant Time: Oct 11 19:21 1999

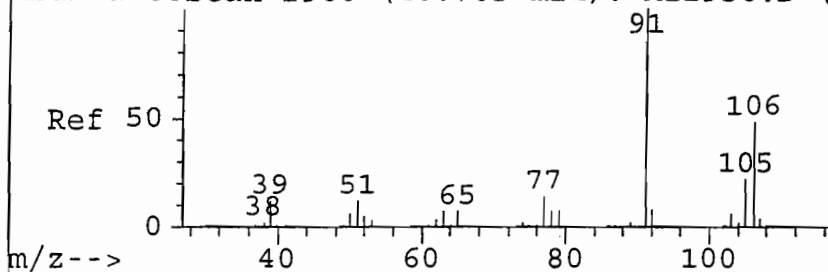
Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration



000177

AbundanceScan 2960 (20.765 min): M12956.D (



#54

m&p-xylenes

Concen: 3.89 ug/L

RT: 20.78 min Scan# 2960

Delta R.T. 0.01 min

Lab File: M13011.D

Acq: 11 Oct 99 5:04 pm

Tgt Ion:106 Resp: 79151

Ion Ratio Lower Upper

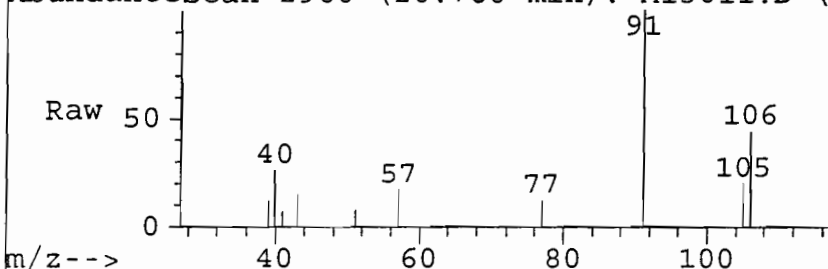
106 100

91 226.3 146.7 272.4

0 0.0 0.0 0.0

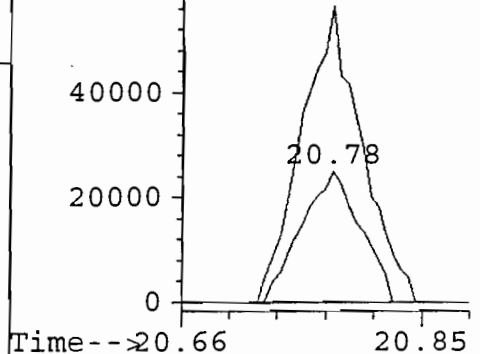
0 0.0 0.0 0.0

AbundanceScan 2960 (20.780 min): M13011.D (

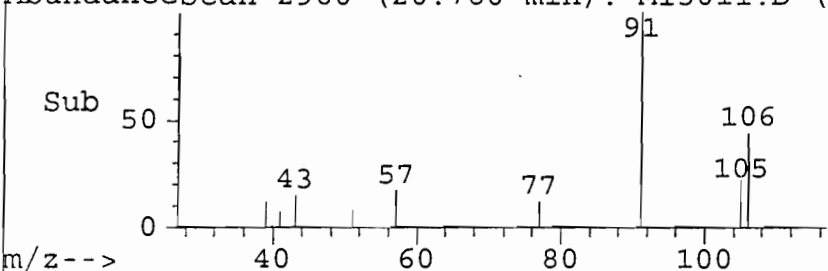


AbundanceIon 106.00 (105

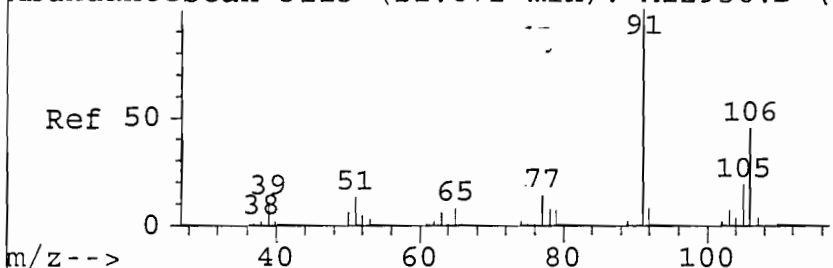
Ion 91.00 (90.



AbundanceScan 2960 (20.780 min): M13011.D (



AbundanceScan 3113 (21.672 min): M12956.D (



#55

o-xylene

Concen: 4.19 ug/L

RT: 21.67 min Scan# 3111

Delta R.T. 0.00 min

Lab File: M13011.D

Acq: 11 Oct 99 5:04 pm

Tgt Ion:91 Resp: 197199

Ion Ratio Lower Upper

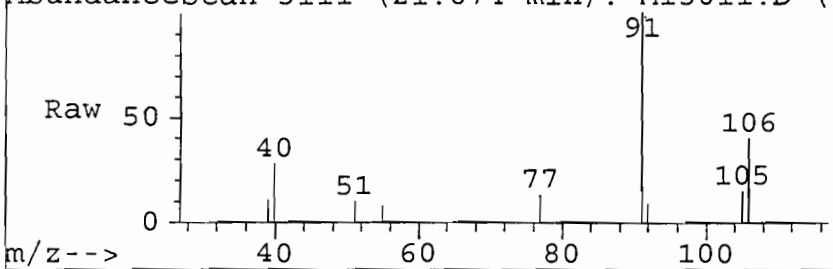
91 100

106 40.2 31.3 58.1

105 15.4 12.9 24.0

0 0.0 0.0 0.0

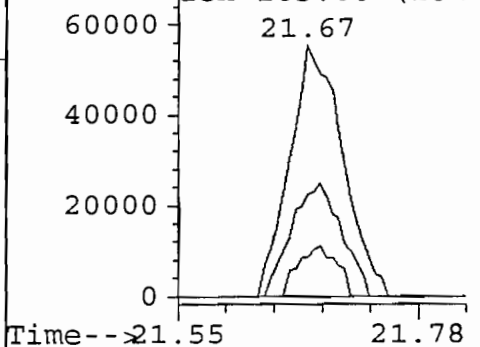
AbundanceScan 3111 (21.674 min): M13011.D (



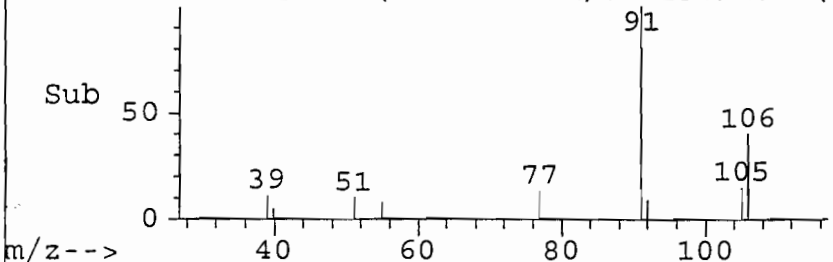
AbundanceIon 91.00 (90.

Ion 106.00 (105

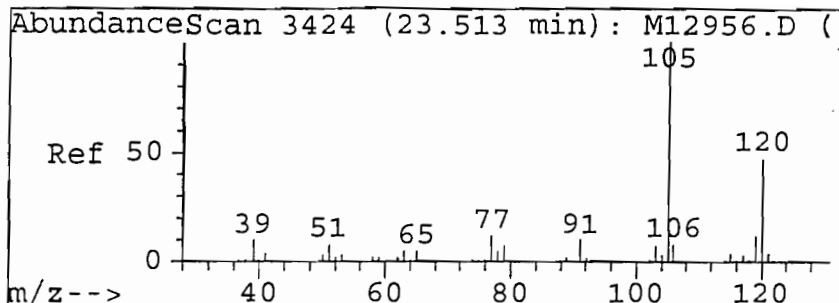
Ion 105.00 (104



AbundanceScan 3111 (21.674 min): M13011.D (

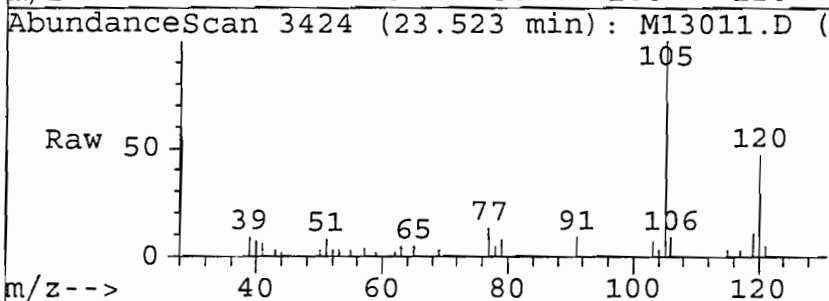


000178



#66
1,3,5-trimethylbenzene
Concen: 17.15 ug/L
RT: 23.52 min Scan# 3424
Delta R.T. 0.01 min
Lab File: M13011.D
Acq: 11 Oct 99 5:04 pm

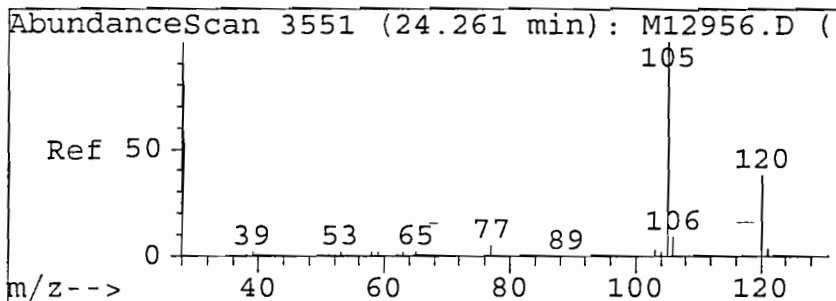
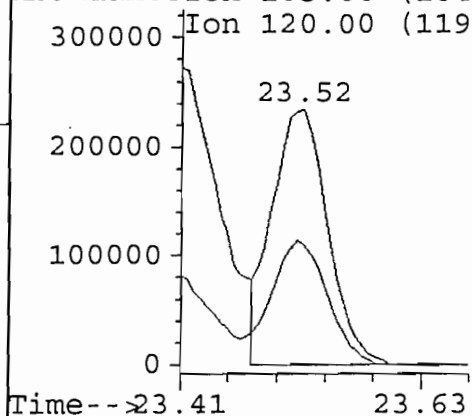
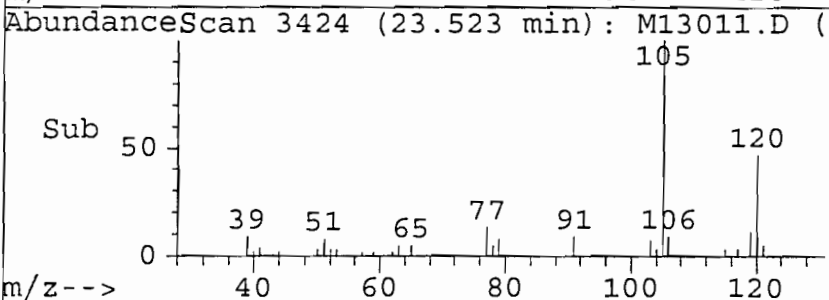
Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.7	33.2	61.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0



AbundanceIon 105.00 (104

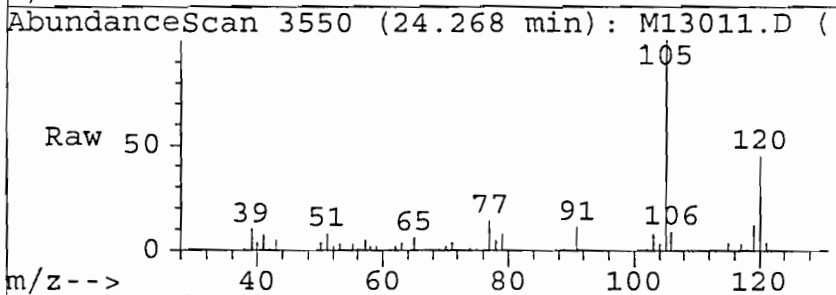
Ion 120.00 (119

23.52



#68
1,2,4-trimethylbenzene
Concen: 35.63 ug/L
RT: 24.27 min Scan# 3550
Delta R.T. 0.01 min
Lab File: M13011.D
Acq: 11 Oct 99 5:04 pm

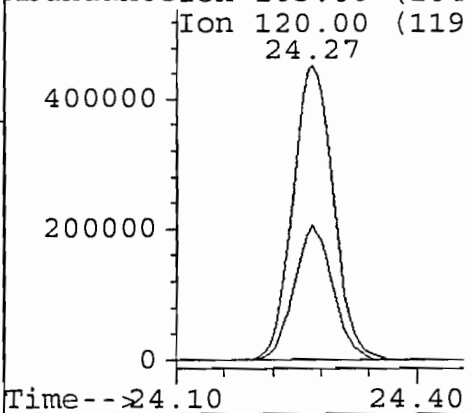
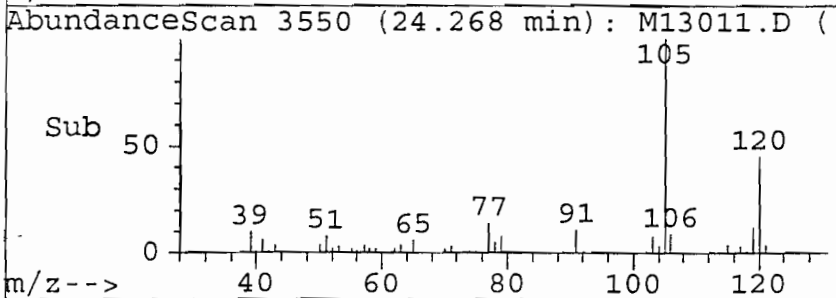
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.4	31.2	58.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



AbundanceIon 105.00 (104

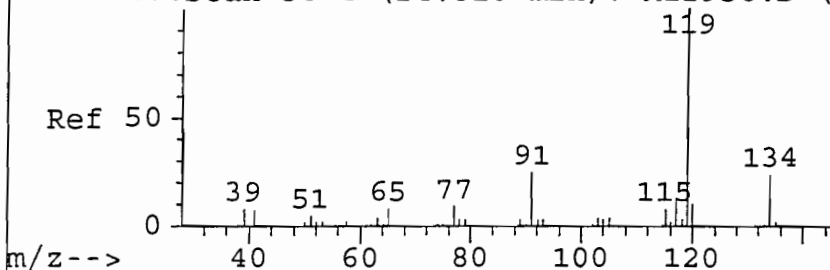
Ion 120.00 (119

24.27



000179

AbundanceScan 3644 (24.810 min): M12956.D (



#71

4-isopropyltoluene

Concen: 3.09 ug/L

RT: 24.73 min Scan# 3628

Delta R.T. -0.08 min

Lab File: M13011.D

Acq: 11 Oct 99 5:04 pm

Tgt Ion: 119 Resp: 157655

Ion Ratio Lower Upper

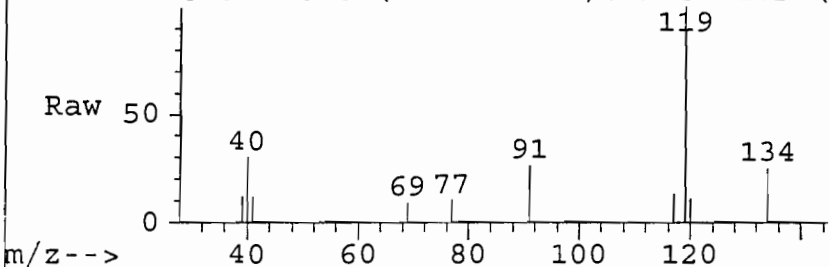
119 100

134 24.6 16.7 31.1

91 25.6 17.2 32.0

0 0.0 0.0 0.0

AbundanceScan 3628 (24.728 min): M13011.D (



AbundanceIon 119.00 (118

Ion 134.00 (133

Ion 91.00 (90.

24.73

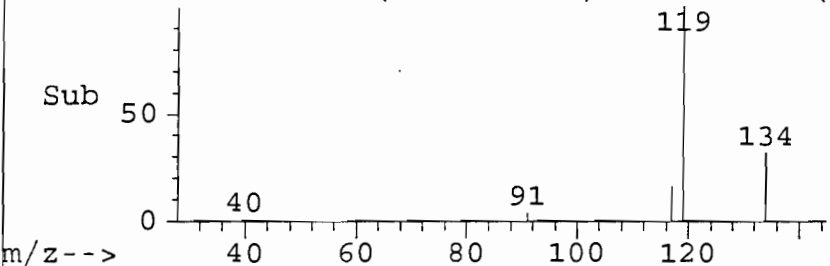
40000

20000

0

Time-->24.62 24.80

AbundanceScan 3628 (24.728 min): M13011.D (



000180

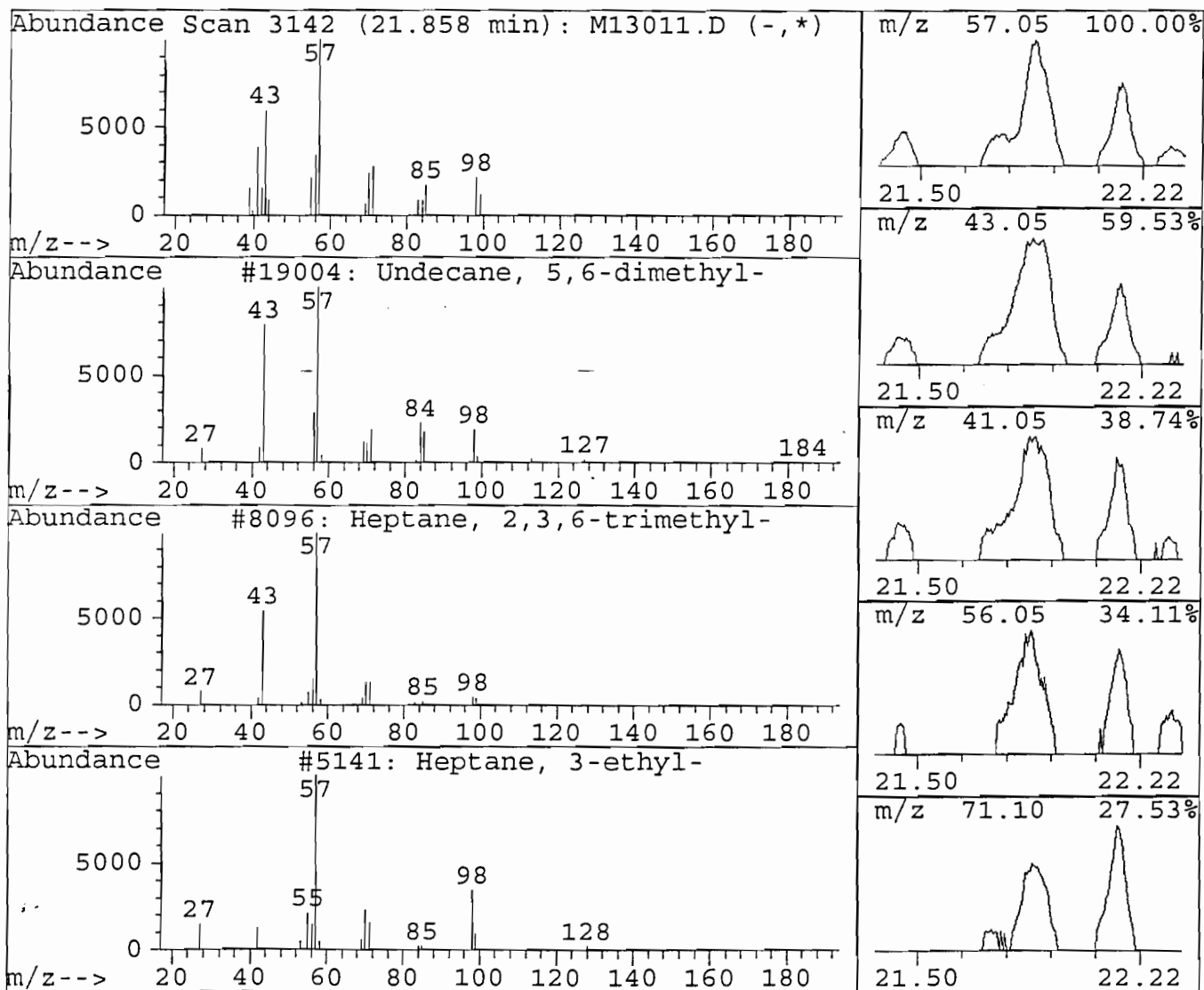
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
21.86	18.48 ug/L	2001840	Chlorobenzene-d5	20.46	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Undecane, 5,6-dimethyl-		19004	017615-91-7	45
2	Heptane, 2,3,6-trimethyl-		8096	004032-93-3	42
3	Heptane, 3-ethyl-		5141	015869-80-4	42
4	Heptane, 3-ethyl-		65116	015869-80-4	40
5	Heptane, 3-ethyl-2-methyl-		66211	014676-29-0	40



000181

Library Search Compound Report

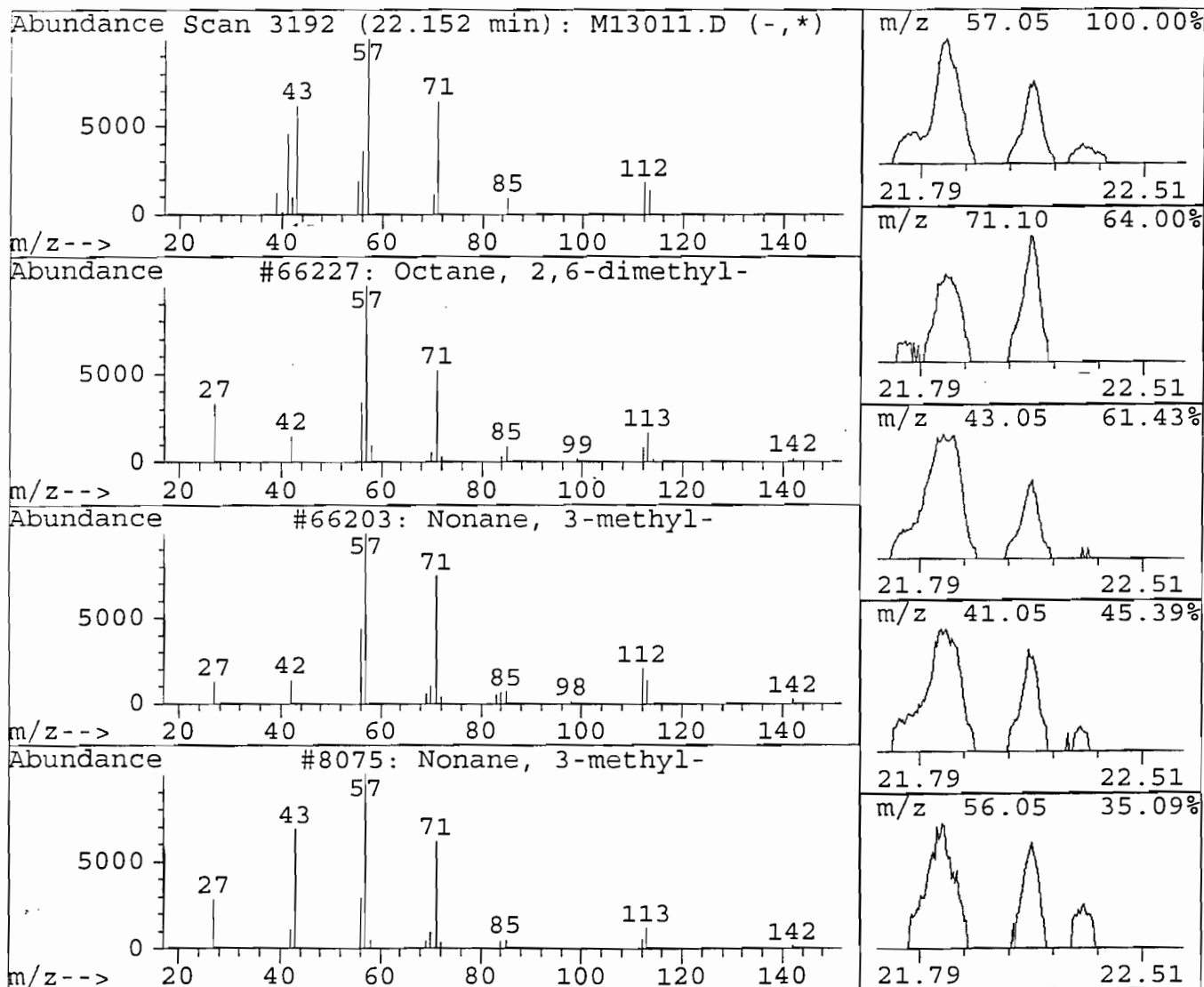
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.15	7.15 ug/L	774380	Chlorobenzene-d5	20.46

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 2,6-dimethyl-	66227	002051-30-1	83
2	Nonane, 3-methyl-	66203	005911-04-6	83
3	Nonane, 3-methyl-	8075	005911-04-6	83
4	Nonane, 3-methyl-	66202	005911-04-6	74
5	Nonane, 3-methyl-	66200	005911-04-6	74



Library Search Compound Report

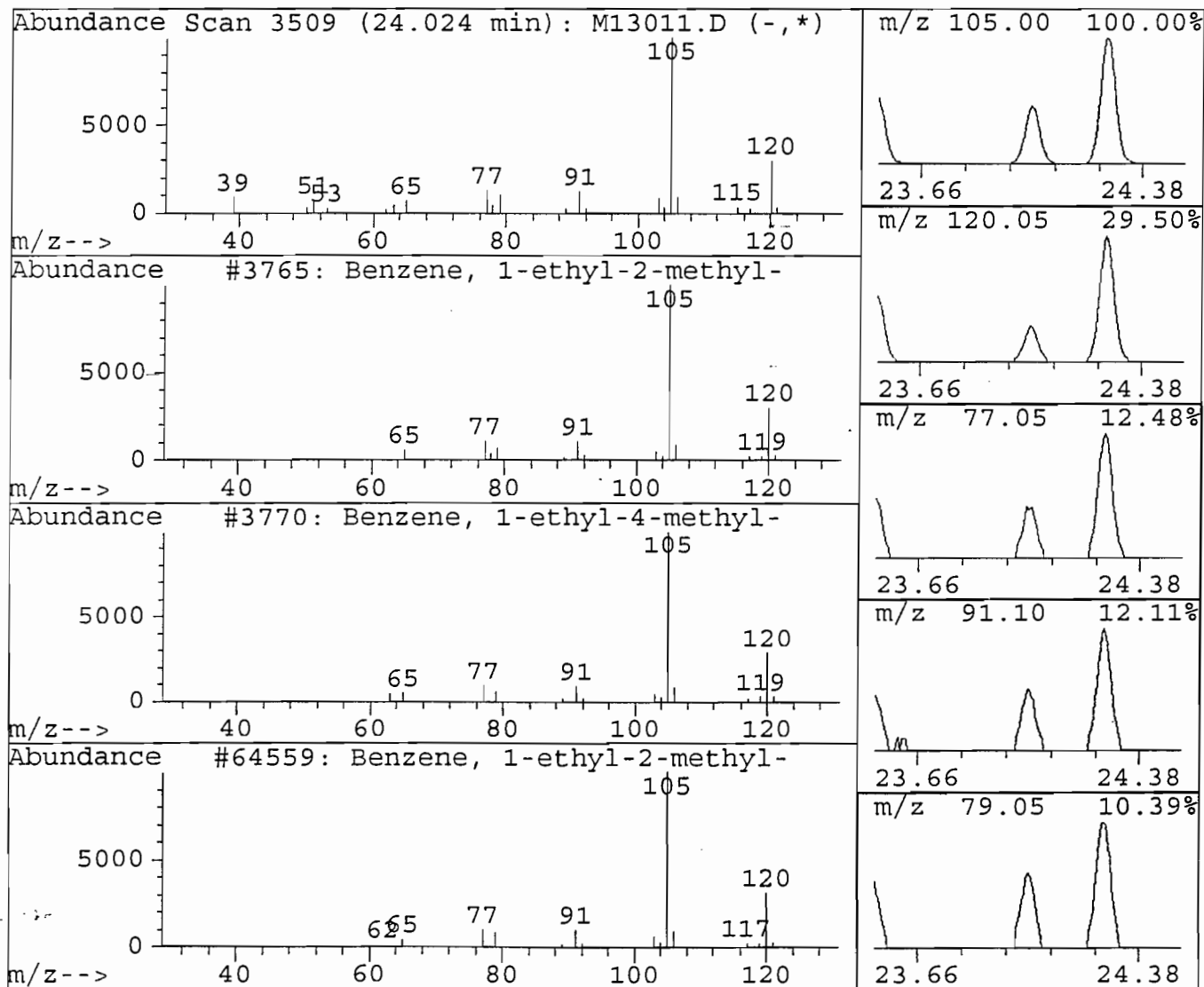
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.02	7.41 ug/L	1483513	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	94
2	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
3	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	94
4	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	91
5	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	91



000183

Library Search Compound Report

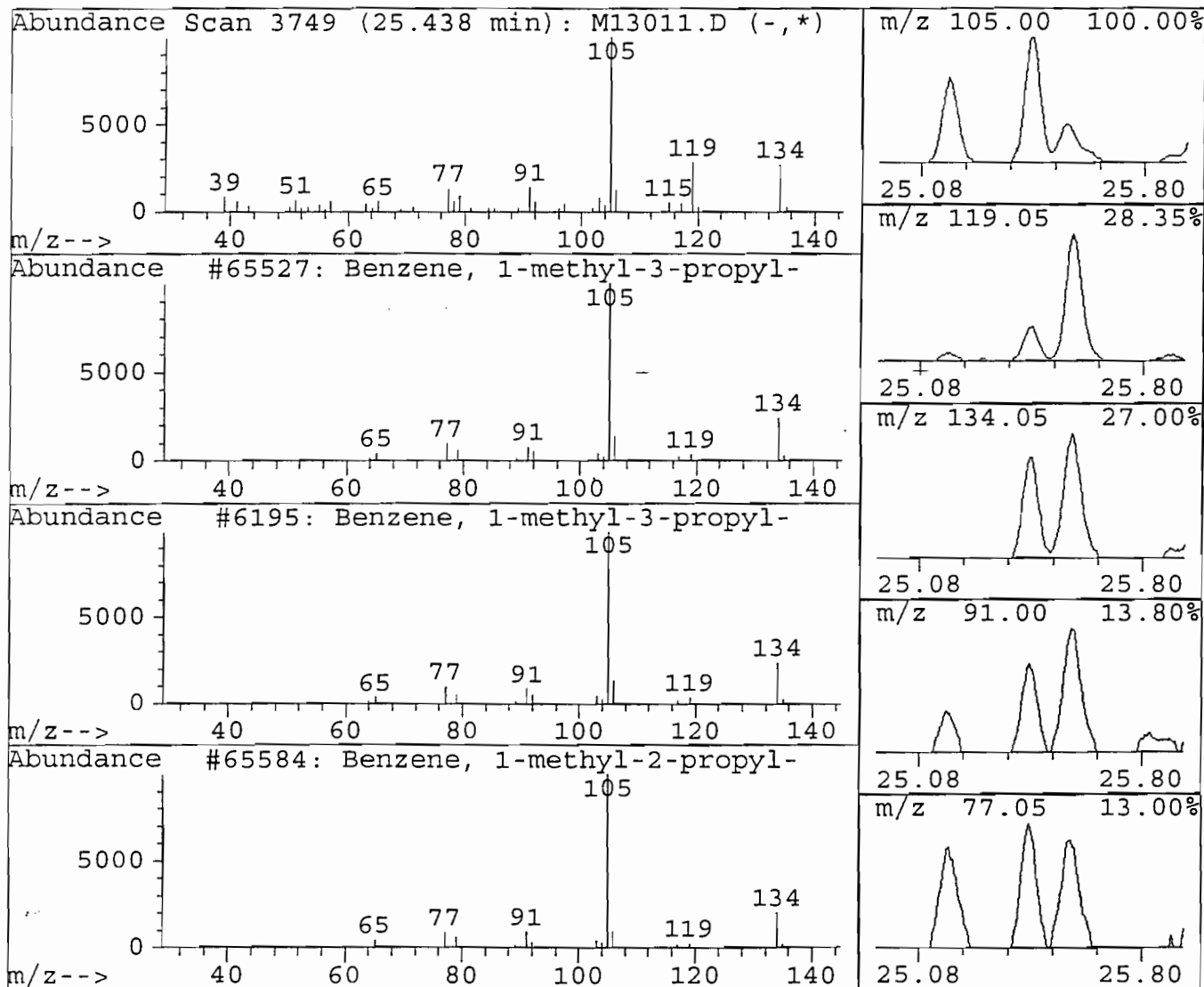
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.44	17.13 ug/L	3429805	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	65527	001074-43-7	76
2	Benzene, 1-methyl-3-propyl-	6195	001074-43-7	76
3	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	76
4	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	76
5	Benzene, diethyl-	6197	025340-17-4	72



000184

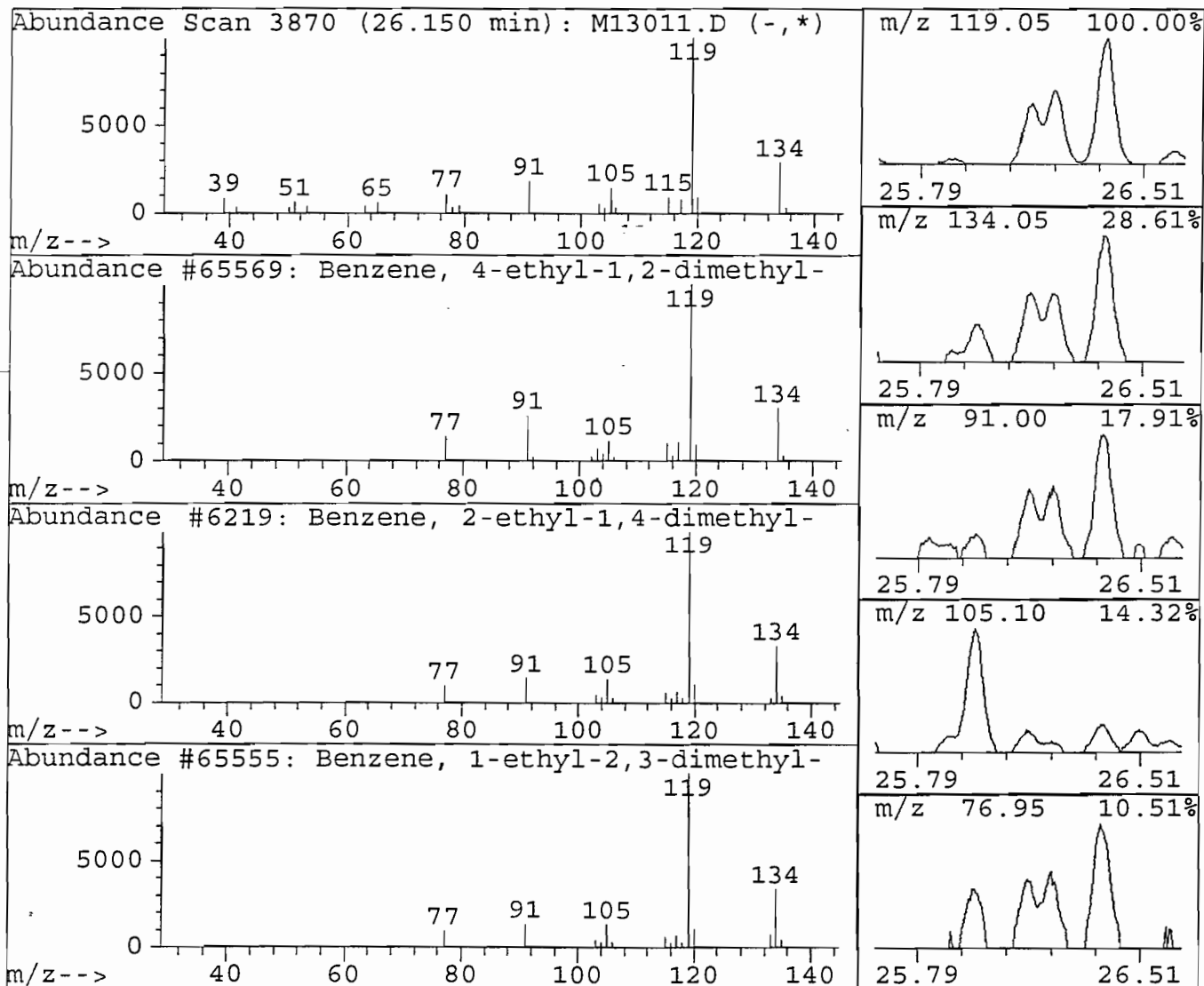
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.15	6.85 ug/L	1371295	1,4-dichlorobenzene-d4	25.19	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-		65569	000934-80-5	94
2	Benzene, 2-ethyl-1,4-dimethyl-		6219	001758-88-9	91
3	Benzene, 1-ethyl-2,3-dimethyl-		65555	000933-98-2	91
4	Benzene, 1-ethyl-2,3-dimethyl-		6211	000933-98-2	91
5	Benzene, 2-ethyl-1,4-dimethyl-		65570	001758-88-9	91



000185

Library Search Compound Report

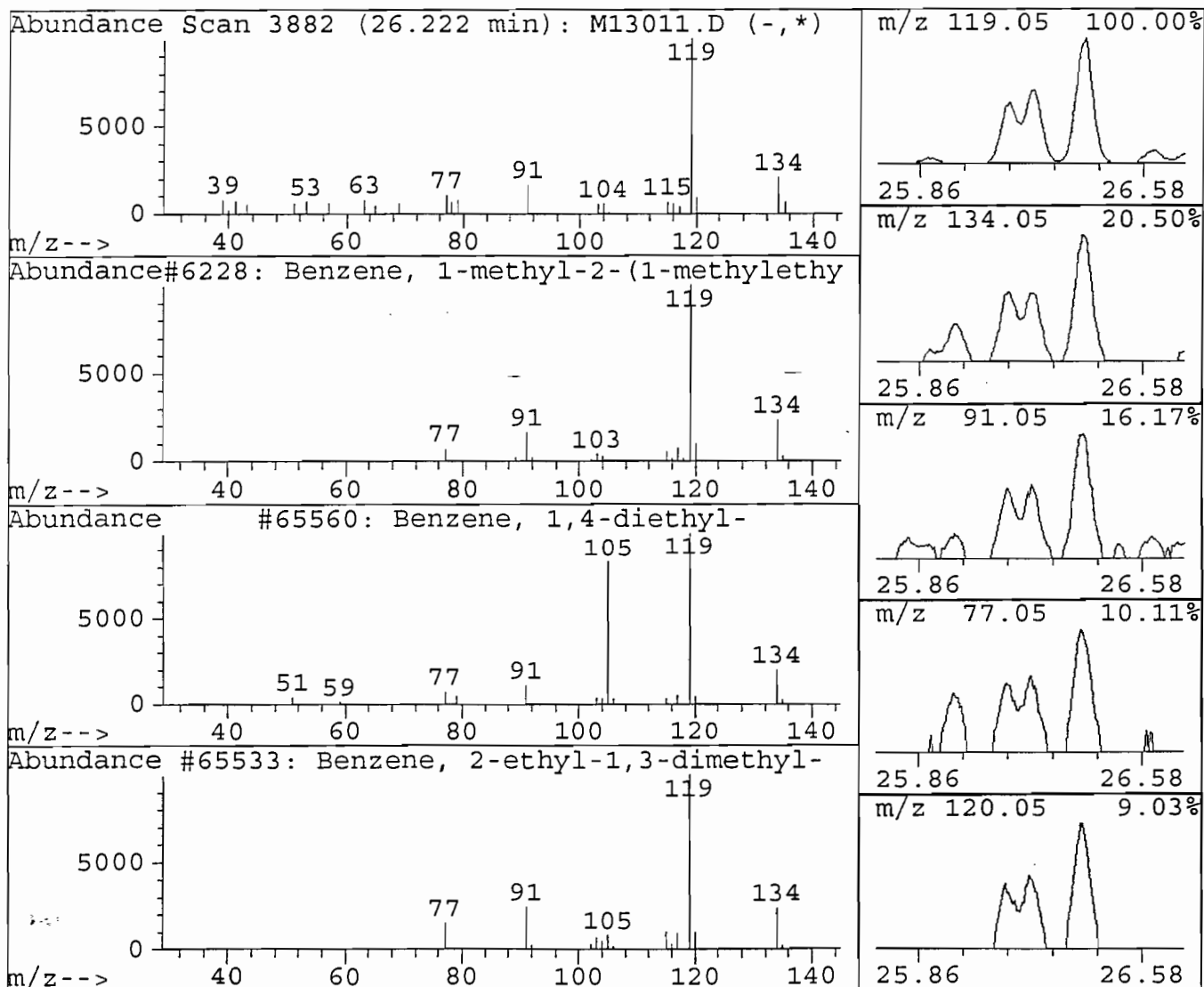
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.22	8.25 ug/L	1652164	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	86
2	Benzene, 1,4-diethyl-	65560	000105-05-5	86
3	Benzene, 2-ethyl-1,3-dimethyl-	65533	002870-04-4	86
4	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	83
5	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	83



000186

Library Search Compound Report

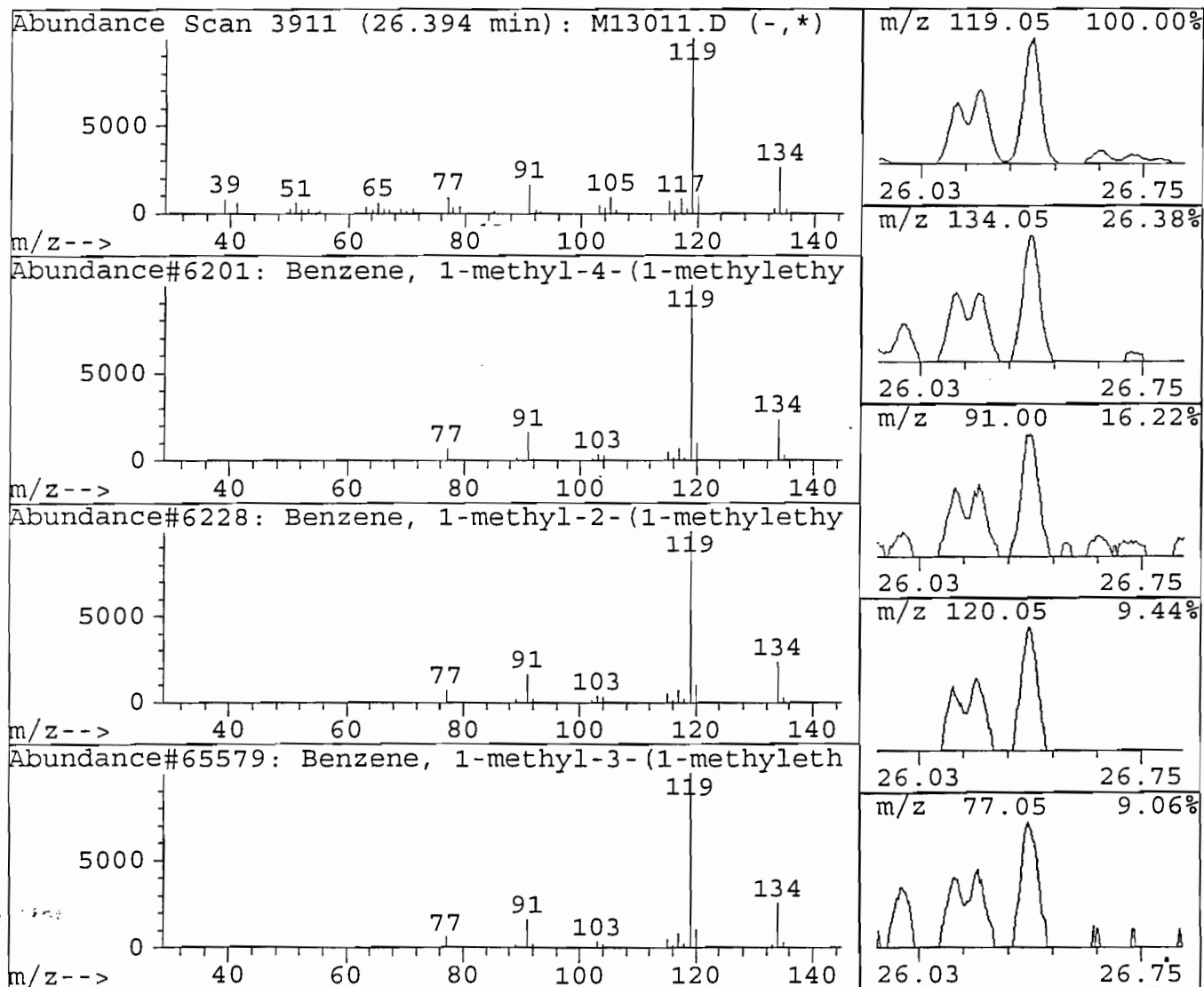
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.39	15.89 ug/L	3182148	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	94
2	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	94
3	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	94
4	Benzene, methyl(1-methylethyl)-	6208	025155-15-1	94
5	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	94



000187

Library Search Compound Report

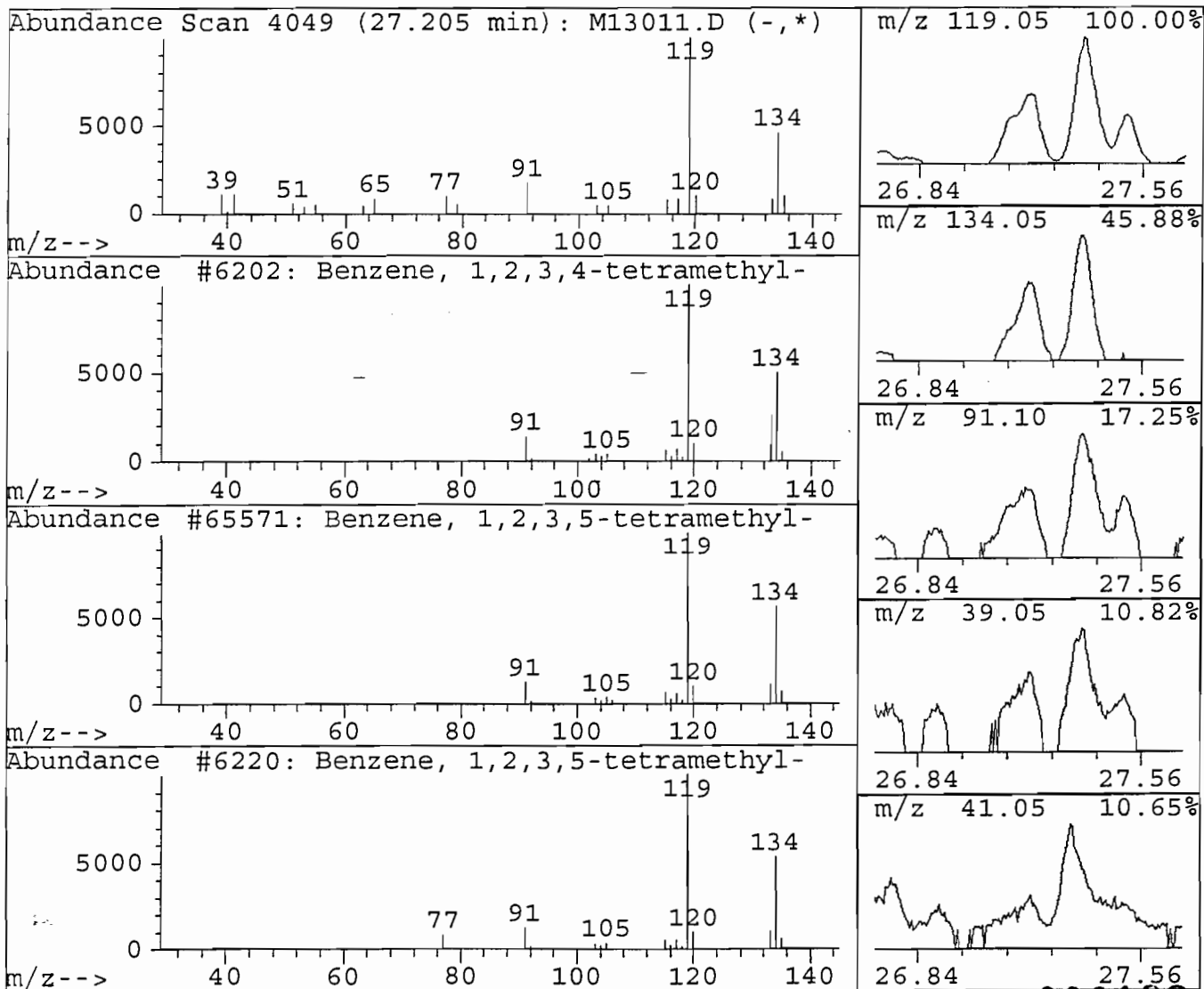
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.20	9.49 ug/L	1900799	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	91
2	Benzene, 1,2,3,5-tetramethyl-	65571	000527-53-7	91
3	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	91
4	Benzene, 1,2,3,4-tetramethyl-	65540	000488-23-3	91
5	Benzene, 1-methyl-4-(1-methylethyl)	65536	000099-87-6	91



000188

Library Search Compound Report

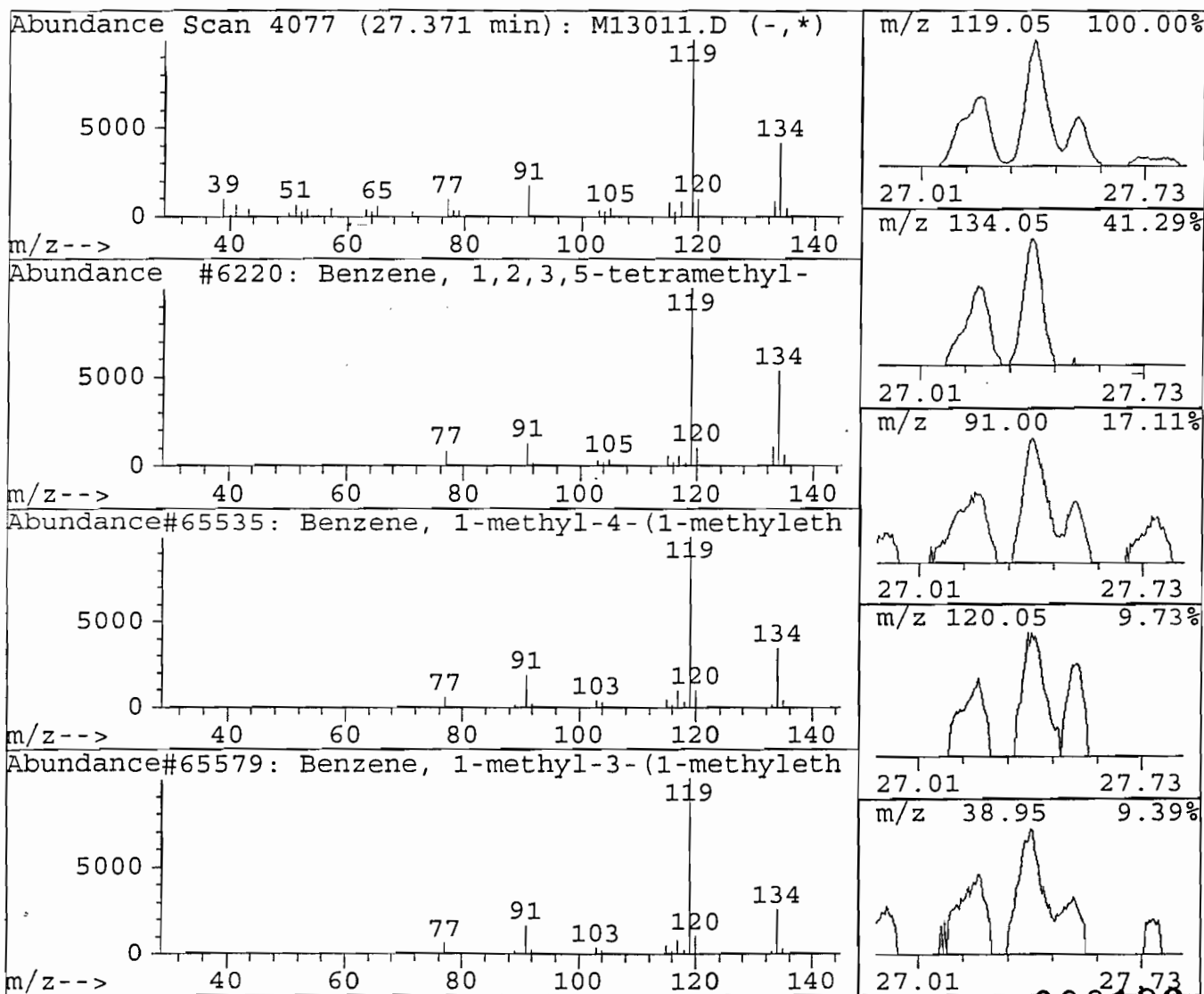
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.37	15.12 ug/L	3027473	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	91
2	Benzene, 1-methyl-4-(1-methylethyl)	65535	000099-87-6	91
3	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	91
4	Benzene, 1,2,4,5-tetramethyl-	6222	000095-93-2	91
5	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	91



000189

Library Search Compound Report

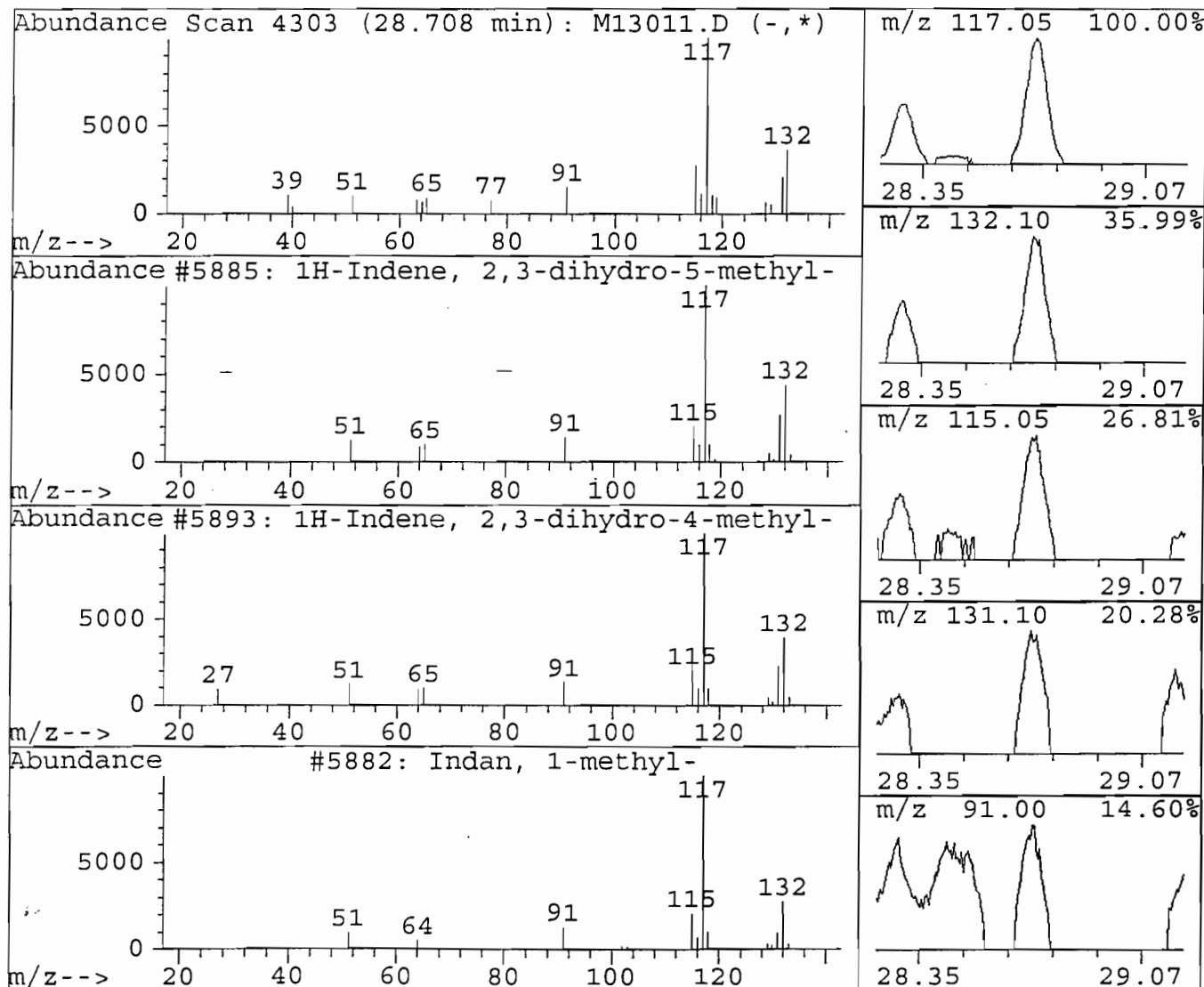
Data File : D:\HPCHEM\3\DATA\V3101199\M13011.D
Acq Time : 11 Oct 99 5:04 pm
Sample : 13701ASP-86842 10 X DIL
Misc : 5MLS 4GR/10MLS MEOH

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.71	5.73 ug/L	1146568	1,4-dichlorobenzene-d4	25.19

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	91
2	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	91
3	Indan, 1-methyl-	5882	000767-58-8	90
4	2,3-Dihydro-1-methylindene	5901	027133-93-3	83
5	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	74



000190

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-008-SS15

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86843

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: M12991.D

Level: (low/med) MED

Date Received: 10/6/99

% Moisture: not dec. 2

Date Analyzed: 10/10/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	640		U
74-87-3	Chloromethane	640		U
75-01-4	Vinyl Chloride	640		U
74-83-9	Bromomethane	640		U
75-00-3	Chloroethane	640		U
75-69-4	Trichlorofluoromethane	640		U
75-09-2	Methylene Chloride	640		U
75-34-4	1,1-Dichloroethane	640		U
590-20-7	2,2-Dichloropropane	640		U
74-97-5	Bromochloromethane	640		U
67-66-3	Chloroform	640		U
71-55-6	1,1,1-Trichloroethane	640		U
56-23-5	Carbon Tetrachloride	640		U
563-58-6	1,1-Dichloropropene	640		U
71-43-2	Benzene	640		U
107-06-2	1,2-Dichloroethane	640		U
79-01-6	Trichloroethene	640		U
78-87-5	1,2-Dichloropropane	640		U
74-95-3	Dibromomethane	640		U
75-27-4	Bromodichloromethane	640		U
108-88-3	Toluene	640		U
79-00-5	1,1,2-Trichloroethane	640		U
127-18-4	Tetrachloroethene	640		U
142-28-9	1,3-Dichloropropane	640		U
124-48-1	Dibromochloromethane	640		U
106-93-4	1,2-Dibromoethane	640		U
108-90-7	Chlorobenzene	640		U
630-20-6	1,1,1,2-Tetrachloroethane	640		U
100-41-4	Ethylbenzene	640		U
100-42-5	Styrene	640		U
75-25-2	Bromoform	640		U
98-82-8	isopropylbenzene	640		U
108-86-1	Bromobenzene	640		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-008-SS15

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) SOIL Lab Sample ID: O86843
 Sample wt/vol: 4.0 (g/mL) G Lab File ID: M12991.D
 Level: (low/med) MED Date Received: 10/6/99
 % Moisture: not dec. 2.09 Date Analyzed: 10/10/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 2216-34-4	Octane, 4-methyl-	19.03	8300	J
2. 2216-33-3	Octane, 3-methyl-	19.30	6400	J
3. 111-84-2	Nonane	20.12	10100	J
4.	Unknown	21.83	13300	J
5. 5911-04-6	Nonane, 3-methyl-	22.12	4800	J
6. 611-14-3	Benzene, 1-ethyl-2-methyl-	24.00	4500	J
7. 1074-43-7	Benzene, 1-methyl-3-propyl-	25.41	6800	J
8. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	26.37	5600	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	27.17	4100	J
10. 874-41-9	Benzene, 1-ethyl-2,4-dimethy	27.35	4300	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000193

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
 Acq Time : 10 Oct 99 6:36 pm
 Sample : 13701ASP-86843
 Misc : 100uL/5MLS 4G/10mL MeOH
 Quant Time: Oct 19 10:13 1999

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.07	96	2197576	50.00	ug/L	-0.03
43) Chlorobenzene-d5	20.43	117	1899933	50.00	ug/L	-0.03
58) 1,4-dichlorobenzene-d4	25.17	152	705026	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.37	113	700399	51.24	ug/L	102.48%
30) 1,2-Dichlorethane-d4	13.42	65	757571	49.17	ug/L	98.35%
38) Toluene-d8	17.33	98	2239764	52.32	ug/L	104.63%
42) 4-Bromofluorobenzene	22.92	95	983272	54.32	ug/L	108.65%

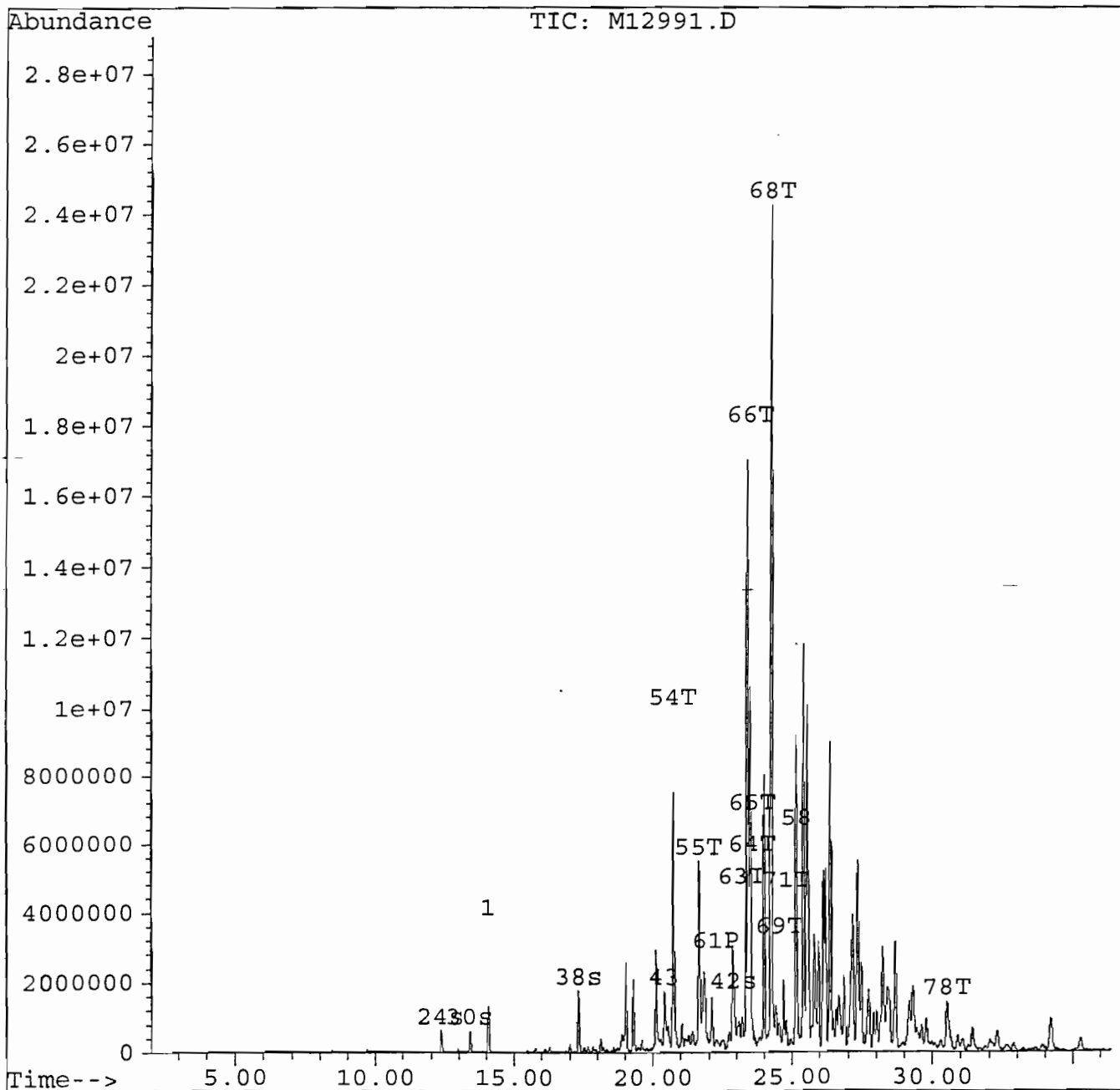
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
54) m&p-xylenes	20.74	106	4602175	223.12	ug/L	96
55) o-xylene	21.65	91	7405837	155.21	ug/L	98
FH 61 1,1,2,2-tetrachloroethane	22.26	83	40828	2.91	ug/L	86
63) n-propylbenzene	23.20	120	108825	9.41	ug/L	94
64) 2-chlorotoluene	23.58	126	107123	10.02	ug/L	100
65) 4-chlorotoluene	23.58	126	107123	9.66	ug/L	89
66) 1,3,5-trimethylbenzene	23.50	105	12278696	319.24	ug/L	95
68) 1,2,4-trimethylbenzene	24.26	105	28445950	770.99	ug/L m	71
69) sec-butylbenzene	24.55	105	747247	15.73	ug/L	99
71) 4-isopropyltoluene	24.79	119	852995	20.24	ug/L	99
78) naphthalene	30.53	128	3642648	123.54	ug/L	98

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH
Quant Time: Oct 19 10:13 1999

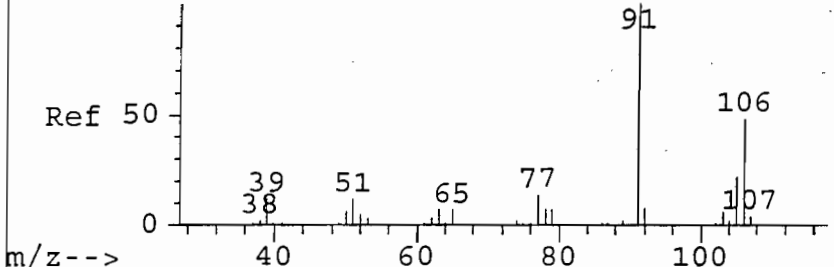
Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration



000195

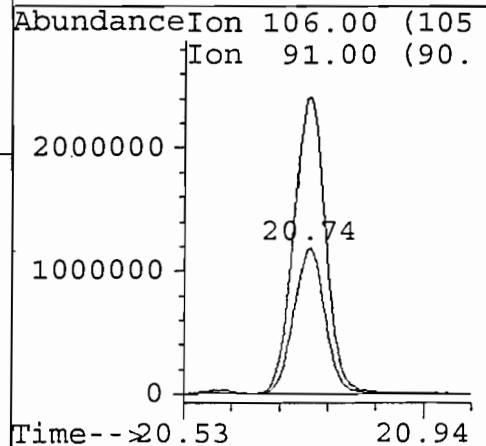
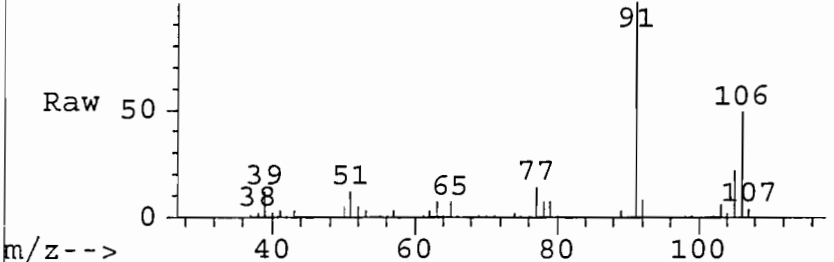
AbundanceScan 2960 (20.765 min): M12956.D (



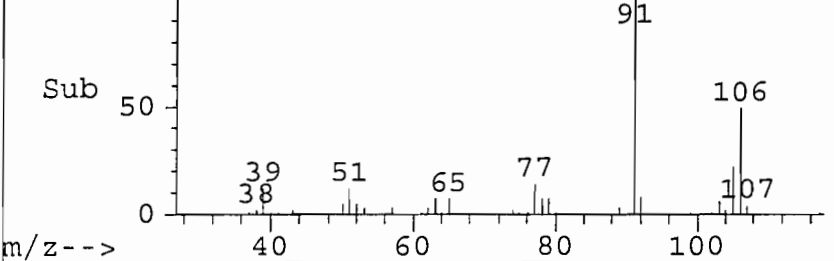
#54
m&p-xylenes
Concen: 223.12 ug/L
RT: 20.74 min Scan# 2960
Delta R.T. -0.02 min
Lab File: M12991.D
Acq: 10 Oct 99 6:36 pm

Tgt Ion:	106	Resp:	4602175
Ion	Ratio	Lower	Upper
106	100		
91	202.7	146.7	272.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

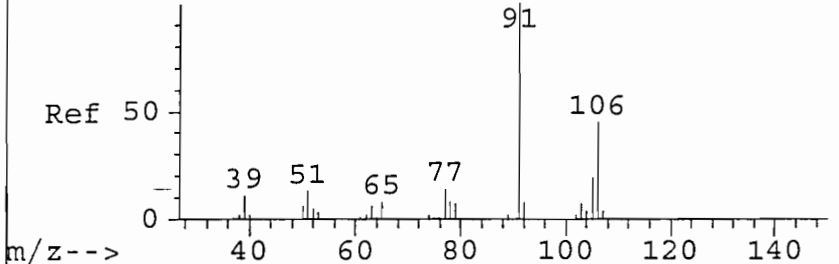
AbundanceScan 2960 (20.742 min): M12991.D (



AbundanceScan 2960 (20.742 min): M12991.D (



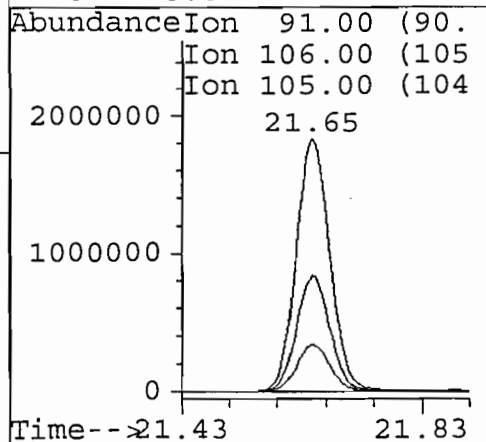
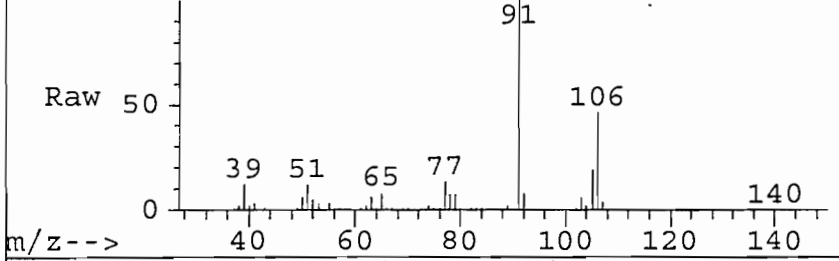
AbundanceScan 3113 (21.672 min): M12956.D (



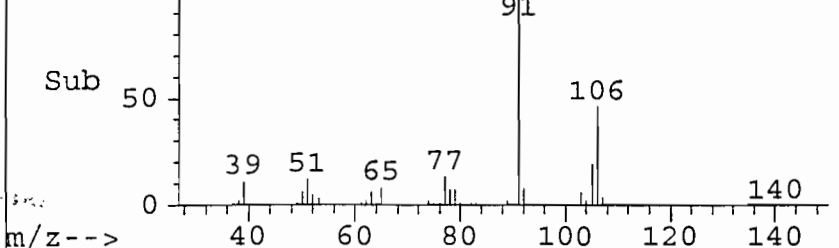
#55
o-xylene
Concen: 155.21 ug/L
RT: 21.65 min Scan# 3114
Delta R.T. -0.03 min
Lab File: M12991.D
Acq: 10 Oct 99 6:36 pm

Tgt Ion:	91	Resp:	7405837
Ion	Ratio	Lower	Upper
91	100		
106	46.1	31.3	58.1
105	18.6	12.9	24.0
0	0.0	0.0	0.0

AbundanceScan 3114 (21.646 min): M12991.D (

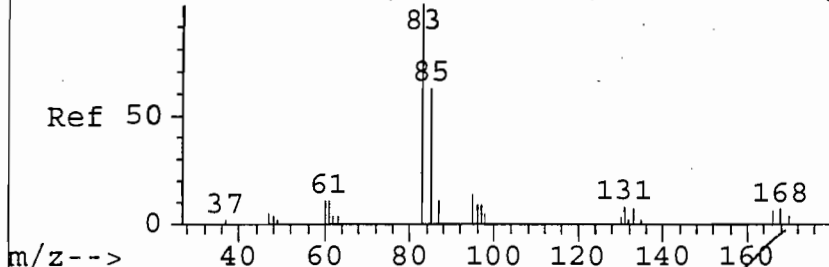


AbundanceScan 3114 (21.646 min): M12991.D (



000196

AbundanceScan 3293 (22.735 min): M12956.D (



#61

1,1,2,2-tetrachloroethane

Concen: 2.91 ug/L

RT: 22.26 min Scan# 3219

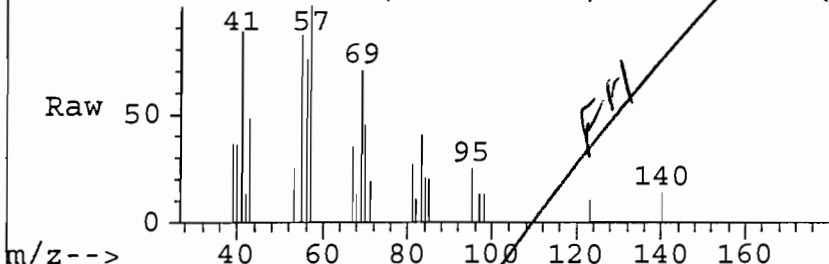
Delta R.T. -0.48 min

Lab File: M12991.D

Acq: 10 Oct 99 6:36 pm

Tgt Ion:	83	Resp:	40828
Ion Ratio	Lower	Upper	
83	100		
85	51.2	43.1	80.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

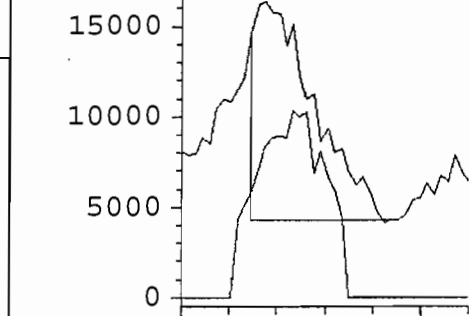
AbundanceScan 3219 (22.258 min): M12991.D (



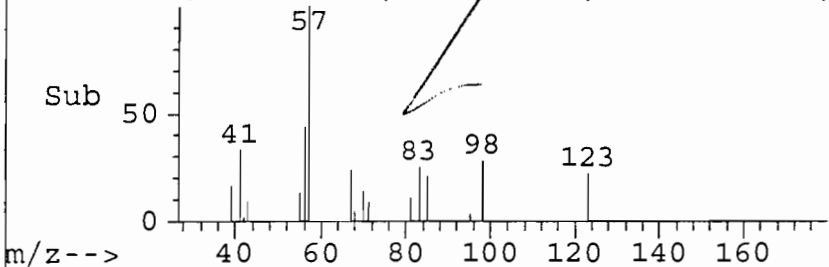
AbundanceIon 83.00 (82.

Ion 85.00 (84.

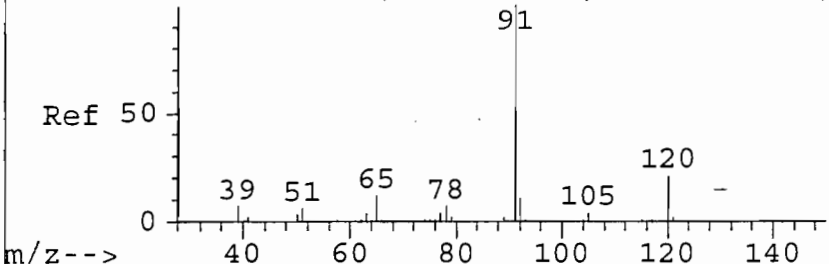
22.26



AbundanceScan 3219 (22.258 min): M12991.D (



AbundanceScan 3373 (23.210 min): M12956.D (



#63

n-propylbenzene

Concen: 9.41 ug/L

RT: 23.20 min Scan# 3380

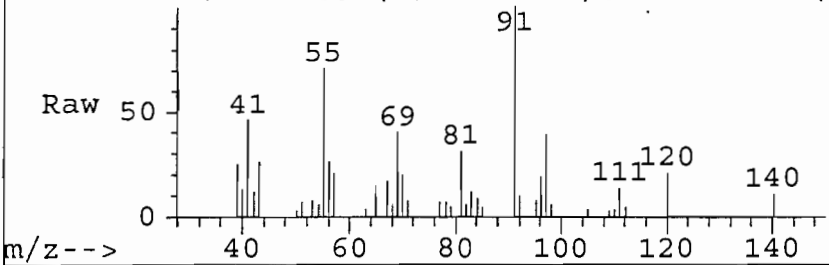
Delta R.T. -0.01 min

Lab File: M12991.D

Acq: 10 Oct 99 6:36 pm

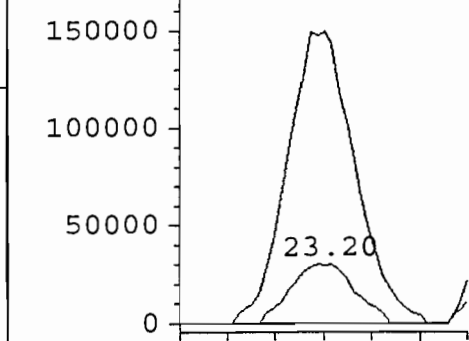
Tgt Ion:	120	Resp:	108825
Ion Ratio	Lower	Upper	
120	100		
91	470.3	340.6	632.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 3380 (23.201 min): M12991.D (

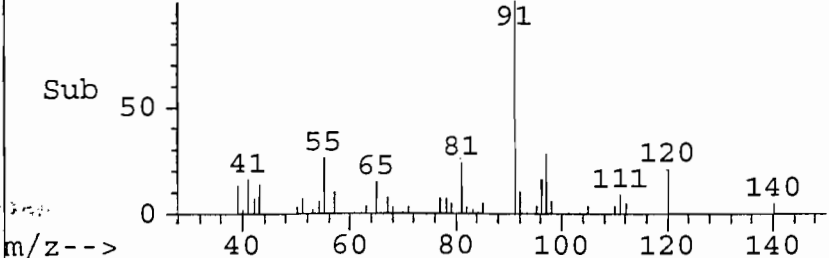


AbundanceIon 120.00 (119

Ion 91.00 (90.

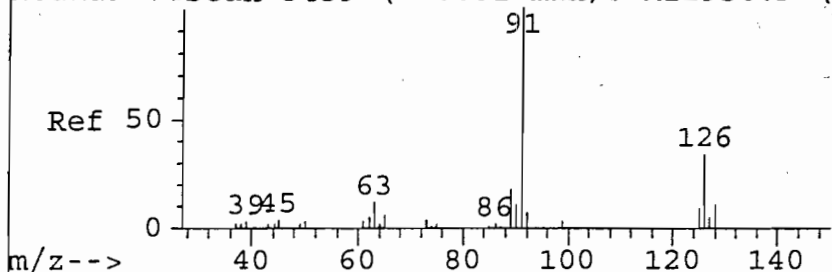


AbundanceScan 3380 (23.201 min): M12991.D (



000197

AbundanceScan 3439 (23.601 min): M12956.D (



#64

2-chlorotoluene

Concen: 10.02 ug/L

RT: 23.58 min Scan# 3449

Delta R.T. -0.02 min

Lab File: M12991.D

Acq: 10 Oct 99 6:36 pm

Tgt Ion:126 Resp: 107123

Ion Ratio Lower Upper

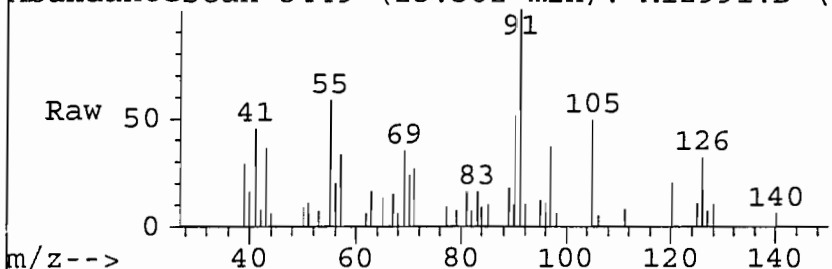
126 100

63 48.7 17.0 80.0

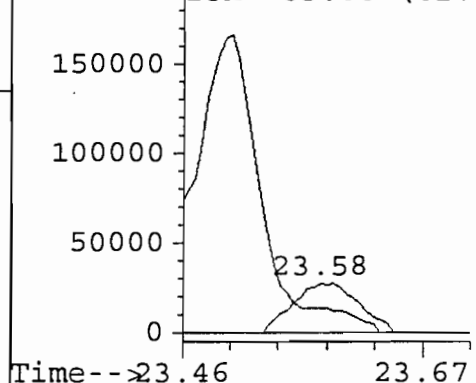
0 0.0 0.0 0.0

0 0.0 0.0 0.0

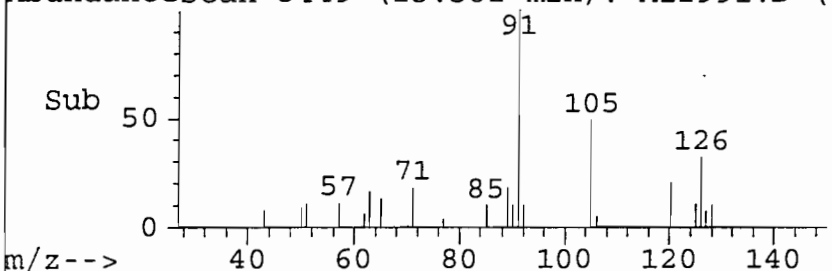
AbundanceScan 3449 (23.582 min): M12991.D (



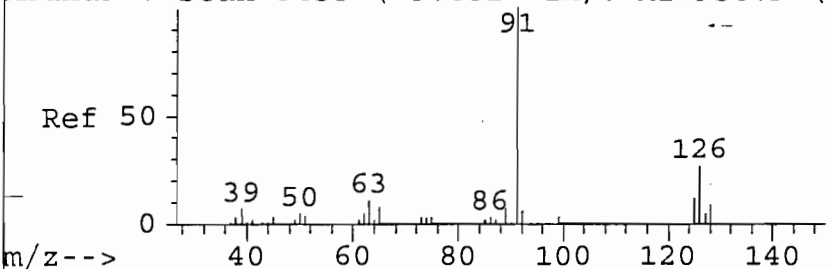
AbundanceIon 126.00 (125
Ion 63.00 (62.



AbundanceScan 3449 (23.582 min): M12991.D (



AbundanceScan 3453 (23.682 min): M12956.D (



#65

4-chlorotoluene

Concen: 9.66 ug/L

RT: 23.58 min Scan# 3449

Delta R.T. -0.10 min

Lab File: M12991.D

Acq: 10 Oct 99 6:36 pm

Tgt Ion:126 Resp: 107123

Ion Ratio Lower Upper

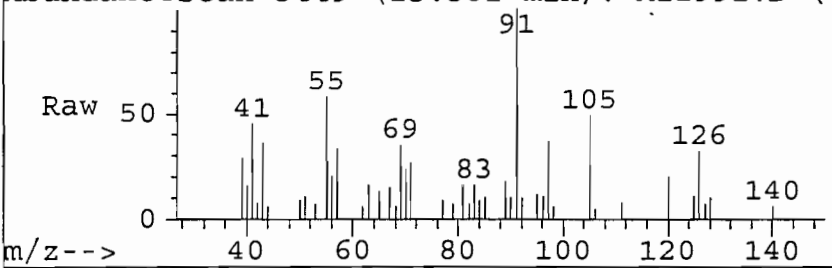
126 100

63 48.7 29.3 54.5

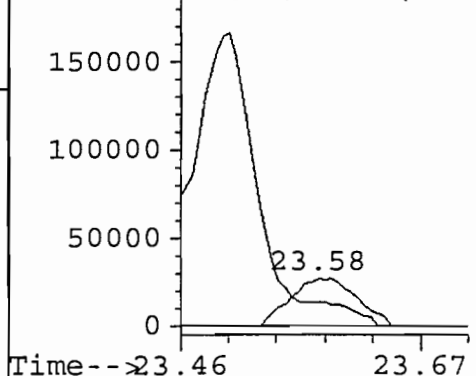
0 0.0 0.0 0.0

0 0.0 0.0 0.0

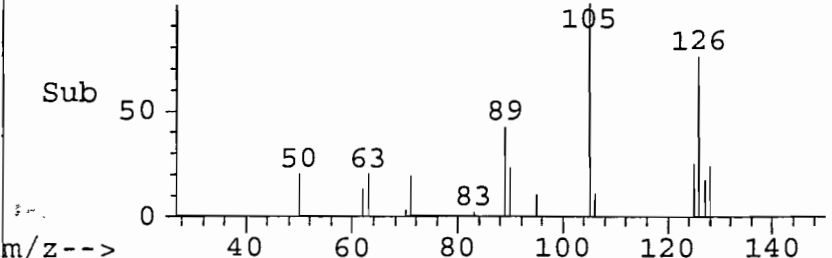
AbundanceScan 3449 (23.582 min): M12991.D (



AbundanceIon 126.00 (125
Ion 63.00 (62.

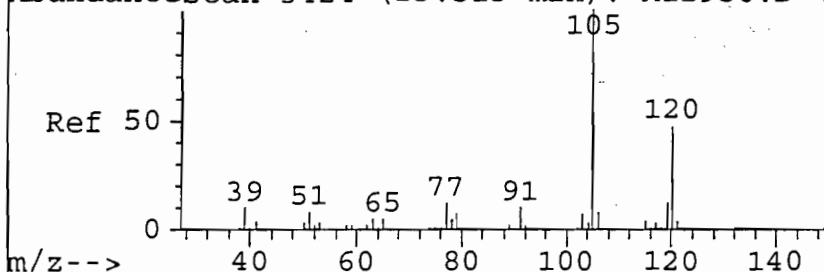


AbundanceScan 3449 (23.582 min): M12991.D (



00.198

AbundanceScan 3424 (23.513 min): M12956.D (

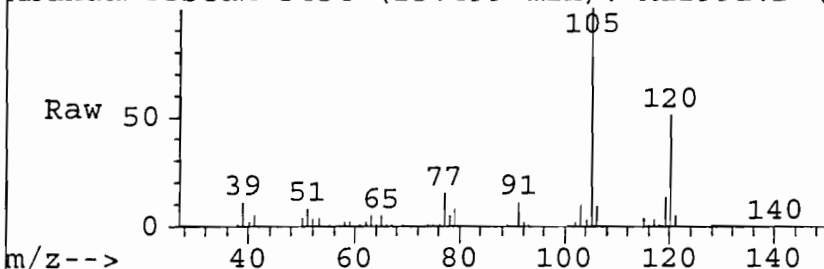


#66

1,3,5-trimethylbenzene
Concen: 319.24 ug/L
RT: 23.50 min Scan# 3434
Delta R.T. -0.01 min
Lab File: M12991.D
Acq: 10 Oct 99 6:36 pm

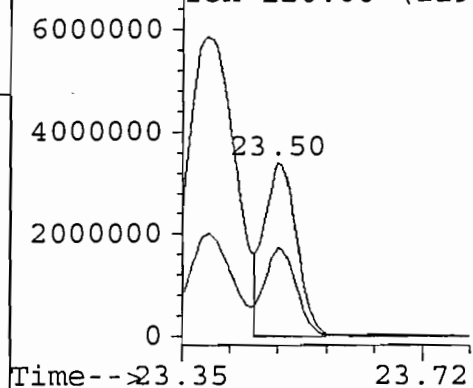
Tgt Ion:	105	Resp:	12278696
Ion Ratio	Lower	Upper	
105	100		
120	51.0	33.2	61.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 3434 (23.499 min): M12991.D (

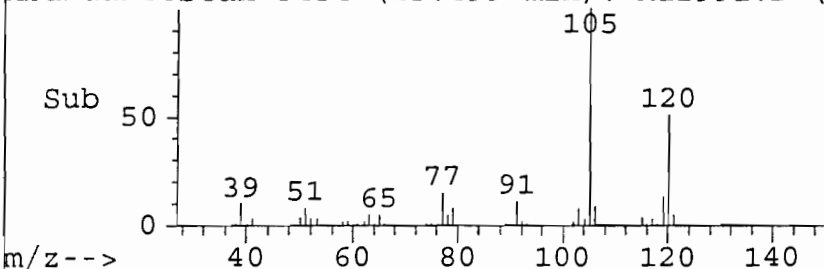


AbundanceIon 105.00 (104

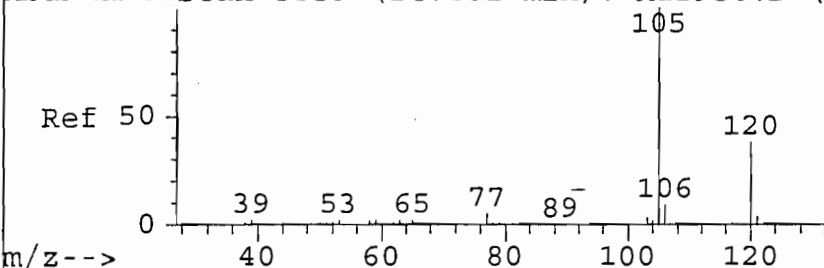
Ion 120.00 (119



AbundanceScan 3434 (23.499 min): M12991.D (



AbundanceScan 3551 (24.261 min): M12956.D (

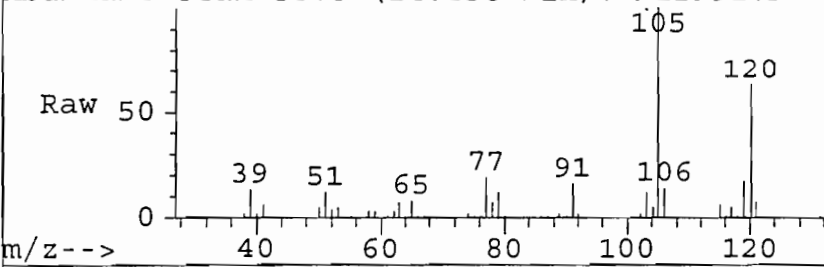


#68

1,2,4-trimethylbenzene
Concen: 770.99 ug/L m
RT: 24.26 min Scan# 3575
Delta R.T. -0.00 min
Lab File: M12991.D
Acq: 10 Oct 99 6:36 pm

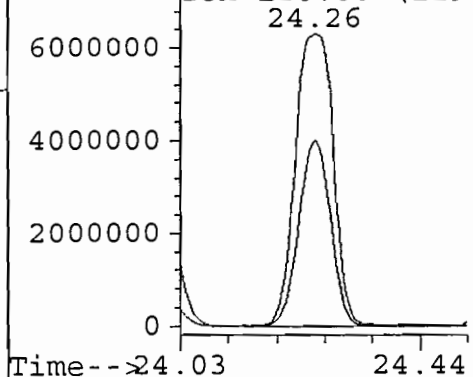
Tgt Ion:	105	Resp:	28445950
Ion Ratio	Lower	Upper	
105	100		
120	38.5	31.2	58.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 3575 (24.258 min): M12991.D -

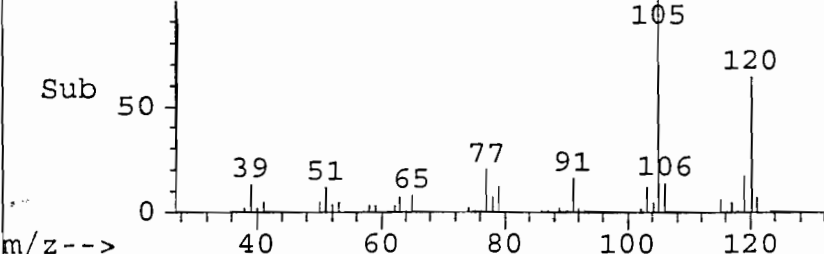


AbundanceIon 105.00 (104

Ion 120.00 (119

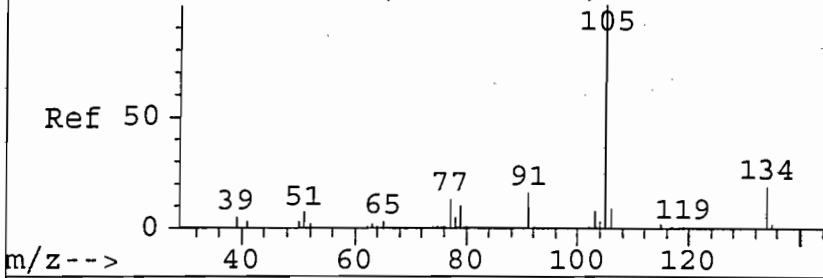


AbundanceScan 3575 (24.258 min): M12991.D -



000199

AbundanceScan 3604 (24.572 min): M12956.D (



#69

sec-butylbenzene

Concen: 15.73 ug/L

RT: 24.55 min Scan# 3633

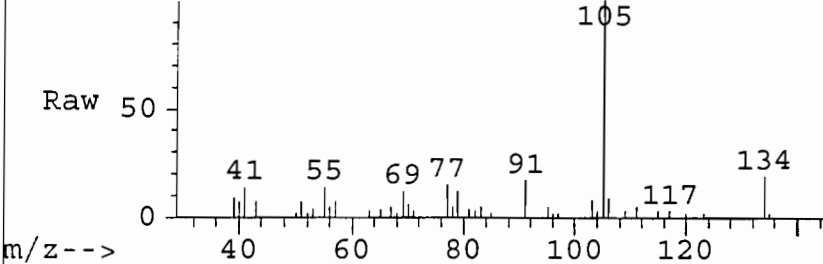
Delta R.T. -0.02 min

Lab File: M12991.D

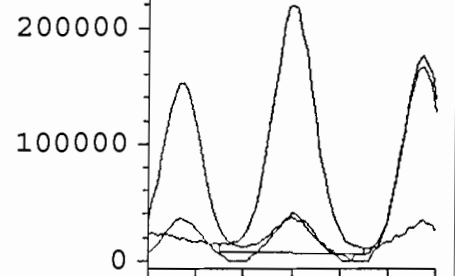
Acq: 10 Oct 99 6:36 pm

Tgt Ion:	105	Resp:	747247
Ion	Ratio	Lower	Upper
105	100		
134	19.0	13.4	25.0
91	16.7	11.1	20.5
0	0.0	0.0	0.0

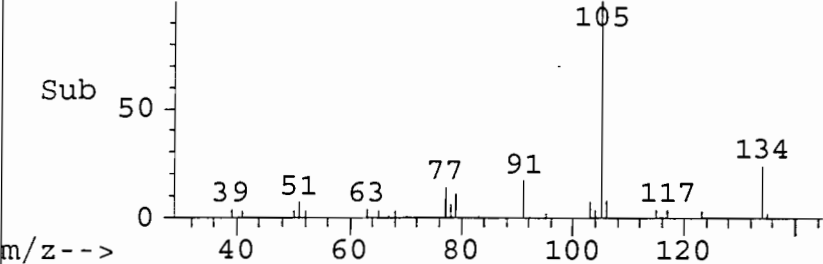
AbundanceScan 3633 (24.554 min): M12991.D (



AbundanceIon 105.00 (104
300000 Ion 134.00 (133
Ion 91.00 (90.
24.55

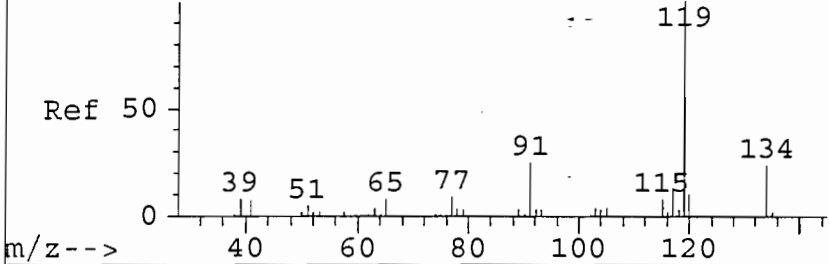


AbundanceScan 3633 (24.554 min): M12991.D (



Time-->24.39 24.66

AbundanceScan 3644 (24.810 min): M12956.D (



#71

4-isopropyltoluene

Concen: 20.24 ug/L

RT: 24.79 min Scan# 3680

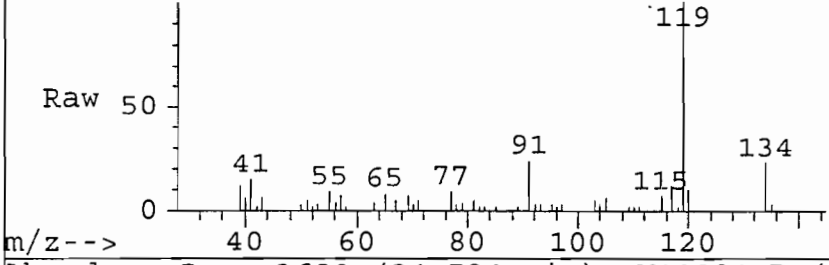
Delta R.T. -0.02 min

Lab File: M12991.D

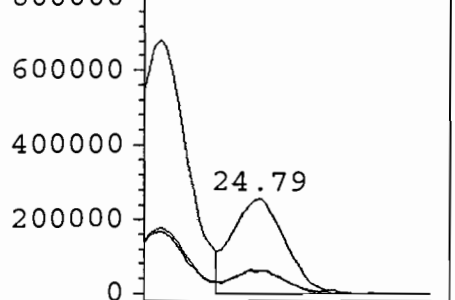
Acq: 10 Oct 99 6:36 pm

Tgt Ion:	119	Resp:	852995
Ion	Ratio	Lower	Upper
119	100		
134	23.3	16.7	31.1
91	24.0	17.2	32.0
0	0.0	0.0	0.0

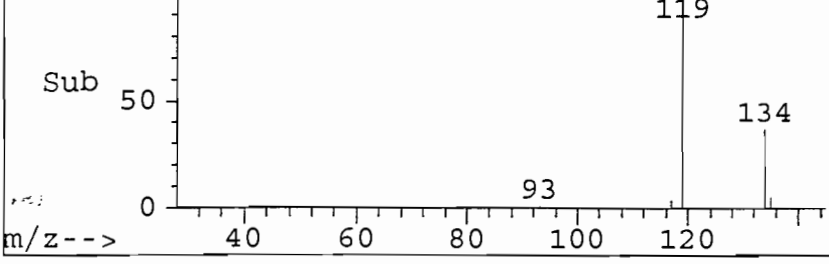
AbundanceScan 3680 (24.794 min): M12991.D (



AbundanceIon 119.00 (118
800000 Ion 134.00 (133
Ion 91.00 (90.



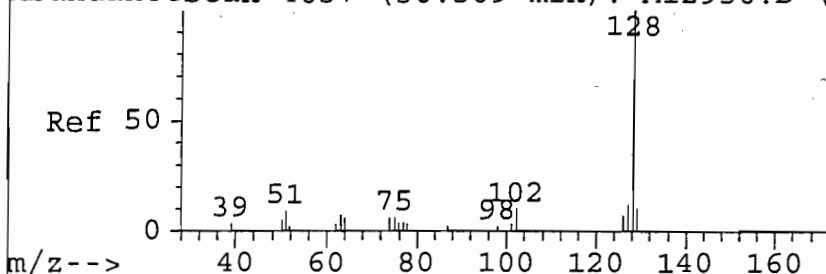
AbundanceScan 3680 (24.794 min): M12991.D (



Time-->24.69 24.91

000200

AbundanceScan 4637 (30.569 min): M12956.D (



#78

naphthalene

Concen: 123.54 ug/L

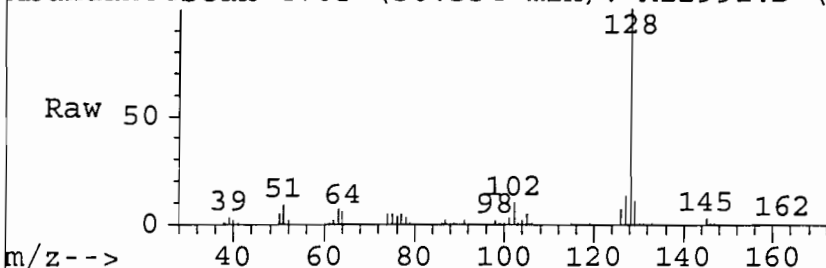
RT: 30.53 min Scan# 4703

Delta R.T. -0.03 min

Lab File: M12991.D

Acq: 10 Oct 99 6:36 pm

AbundanceScan 4703 (30.534 min): M12991.D (



Tgt Ion:128 Resp: 3642648

Ion Ratio Lower Upper

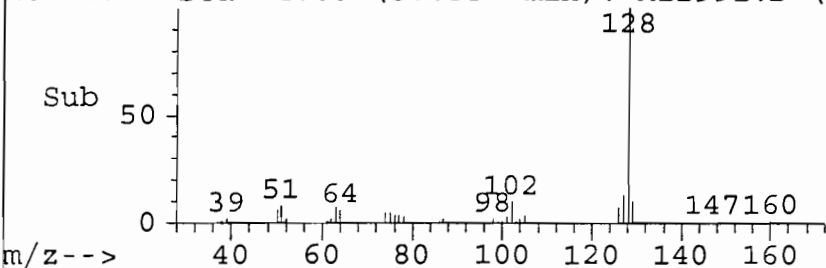
128 100

127 12.5 8.6 16.0

129 11.0 7.0 13.0

0 0.0 0.0 0.0

AbundanceScan 4703 (30.534 min): M12991.D (



AbundanceIon 128.00 (127

800000 Ion 127.00 (126

Ion 129.00 (128

30.53

600000

400000

200000

0

Time-->30.25 30.76

000201

Library Search Compound Report

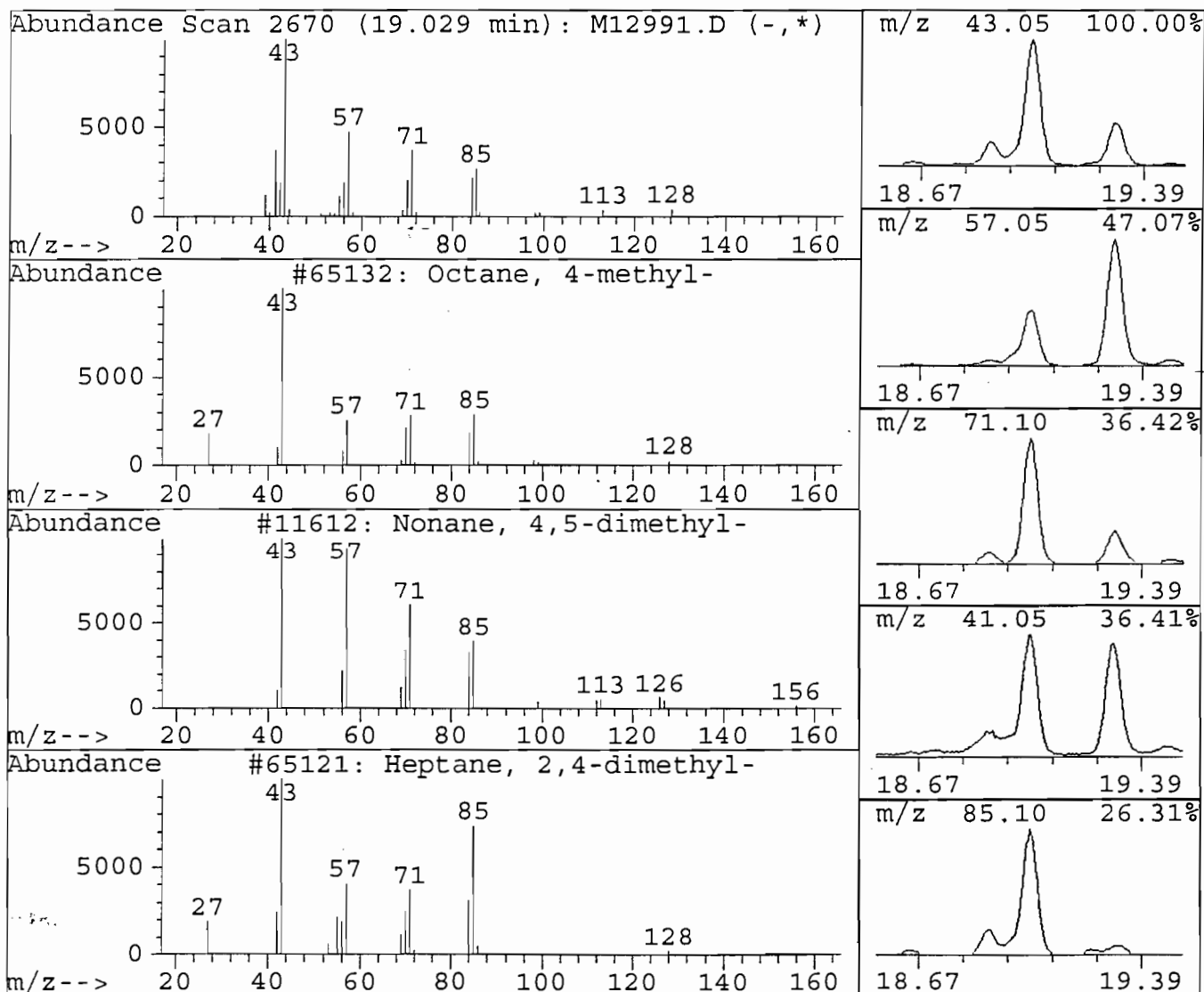
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.03	65.16 ug/L	9713135	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 4-methyl-	65132	002216-34-4	90
2	Nonane, 4,5-dimethyl-	11612	017302-23-7	72
3	Heptane, 2,4-dimethyl-	65121	002213-23-2	72
4	Hexane, 2,3,4-trimethyl-	65123	000921-47-1	64
5	Octane, 4-methyl-	5151	002216-34-4	64



000202

Library Search Compound Report

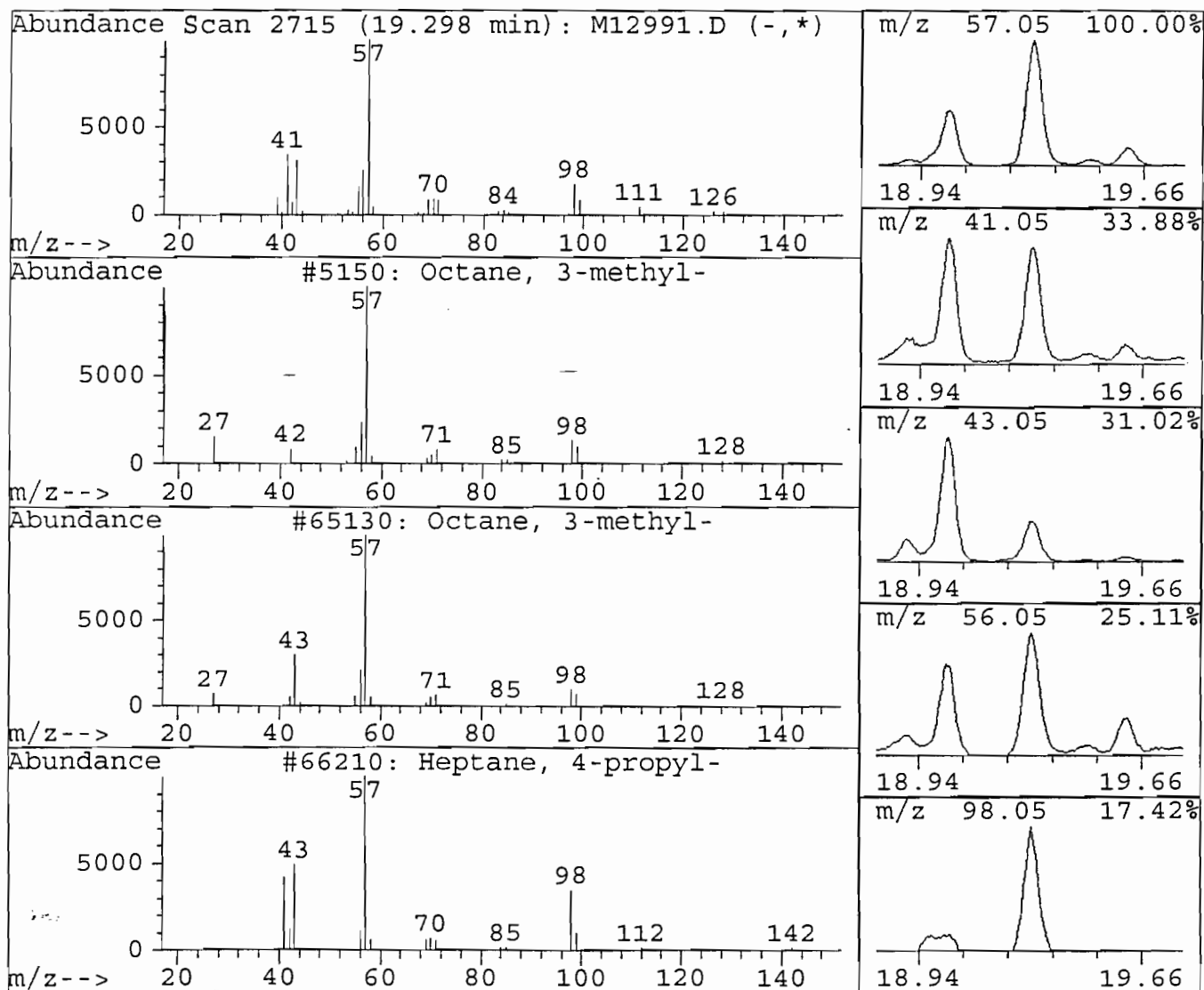
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.30	50.18 ug/L	7479842	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 3-methyl-	5150	002216-33-3	87
2	Octane, 3-methyl-	65130	002216-33-3	80
3	Heptane, 4-propyl-	66210	003178-29-8	53
4	Decane, 2,5-dimethyl-	68262	017312-50-4	50
5	Heptane, 4-(1-methylethyl)-	8084	052896-87-4	50



000203

Library Search Compound Report

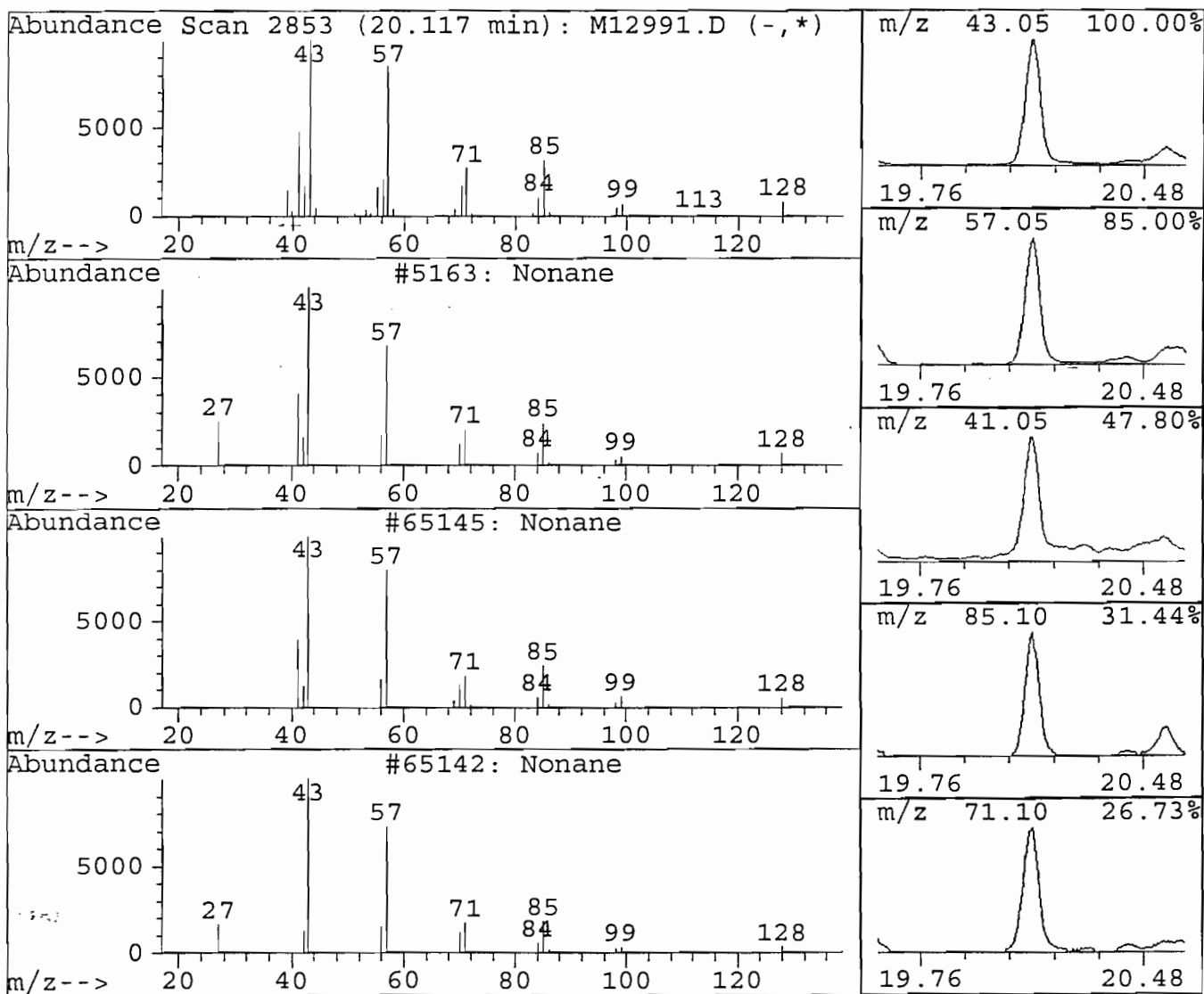
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.12	79.16 ug/L	11800007	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	5163	000111-84-2	97
2	Nonane	65145	000111-84-2	91
3	Nonane	65142	000111-84-2	91
4	Nonane	65144	000111-84-2	91
5	Nonane	65143	000111-84-2	64



000204

Library Search Compound Report

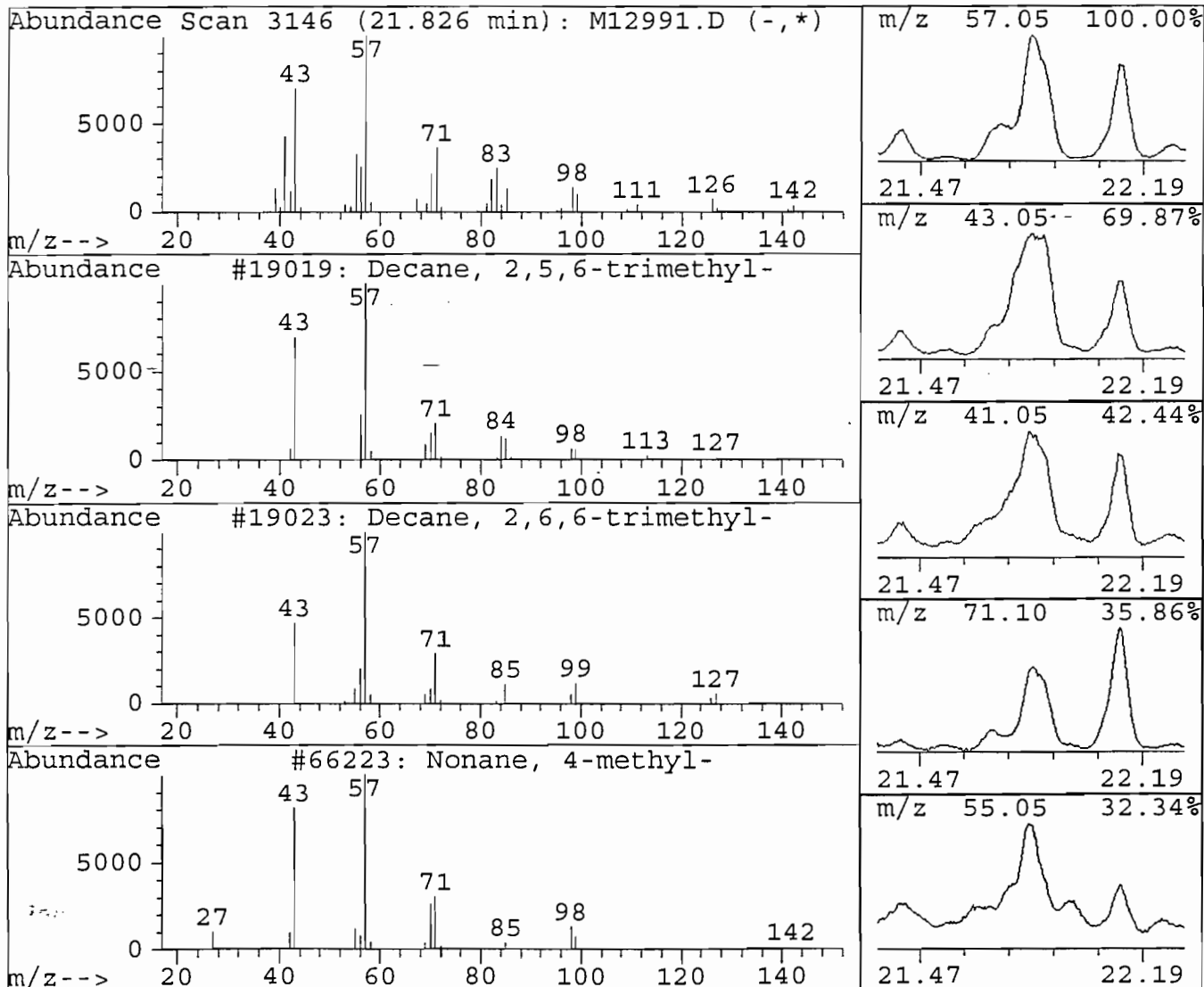
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.83	104.16 ug/L	15527456	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,5,6-trimethyl-	19019	062108-23-0	59
2	Decane, 2,6,6-trimethyl-	19023	062108-24-1	50
3	Nonane, 4-methyl-	66223	017301-94-9	47
4	Tetracontane, 3,5,24-trimethyl-	60914	055162-61-3	47
5	Nonane, 4-methyl-	66224	017301-94-9	43



000205

Library Search Compound Report

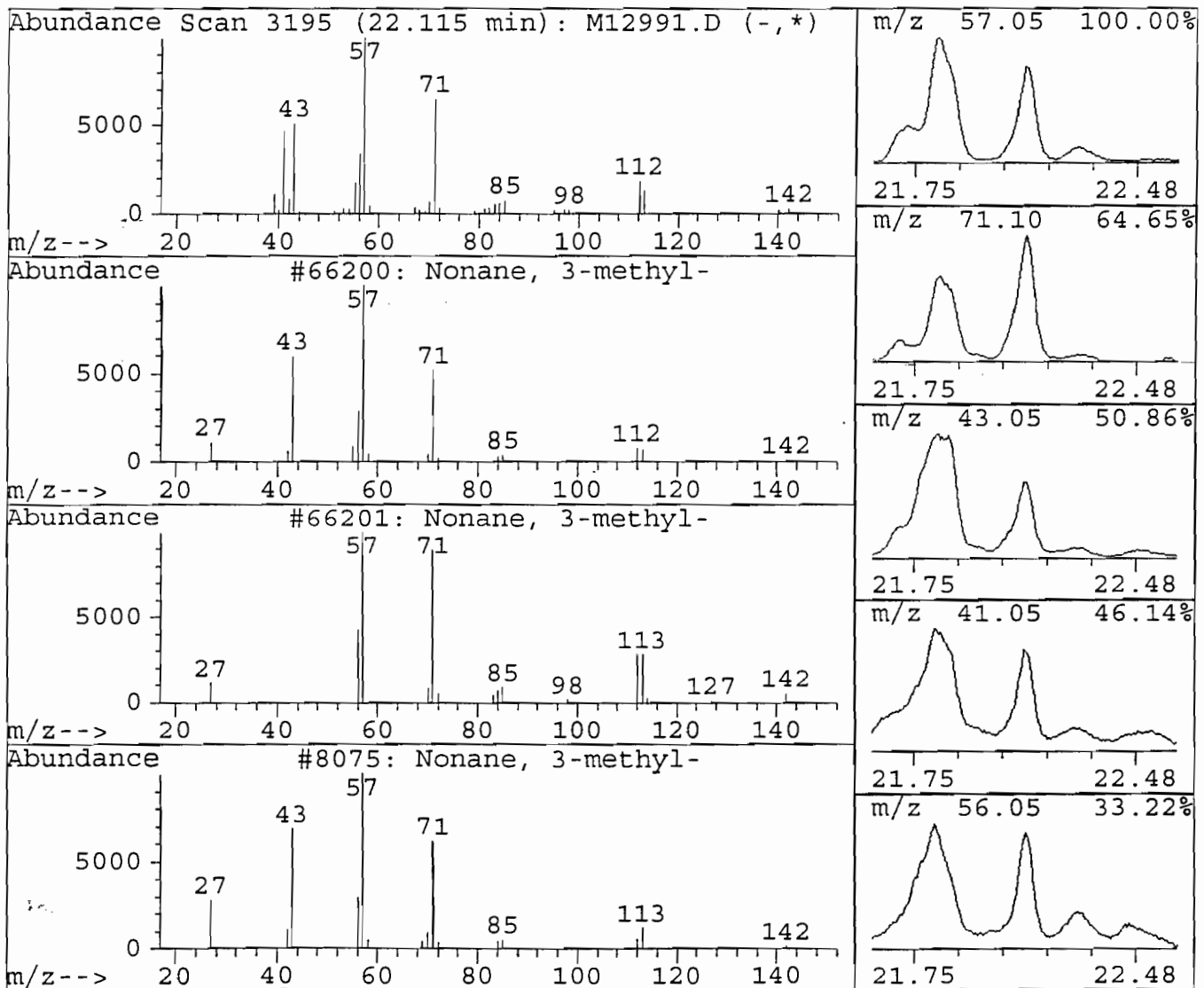
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.12	37.50 ug/L	5590147	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 3-methyl-	66200	005911-04-6	91
2	Nonane, 3-methyl-	66201	005911-04-6	91
3	Nonane, 3-methyl-	8075	005911-04-6	87
4	Nonane, 3-methyl-	66203	005911-04-6	87
5	Nonane, 3-methyl-	66202	005911-04-6	78



000206

Library Search Compound Report

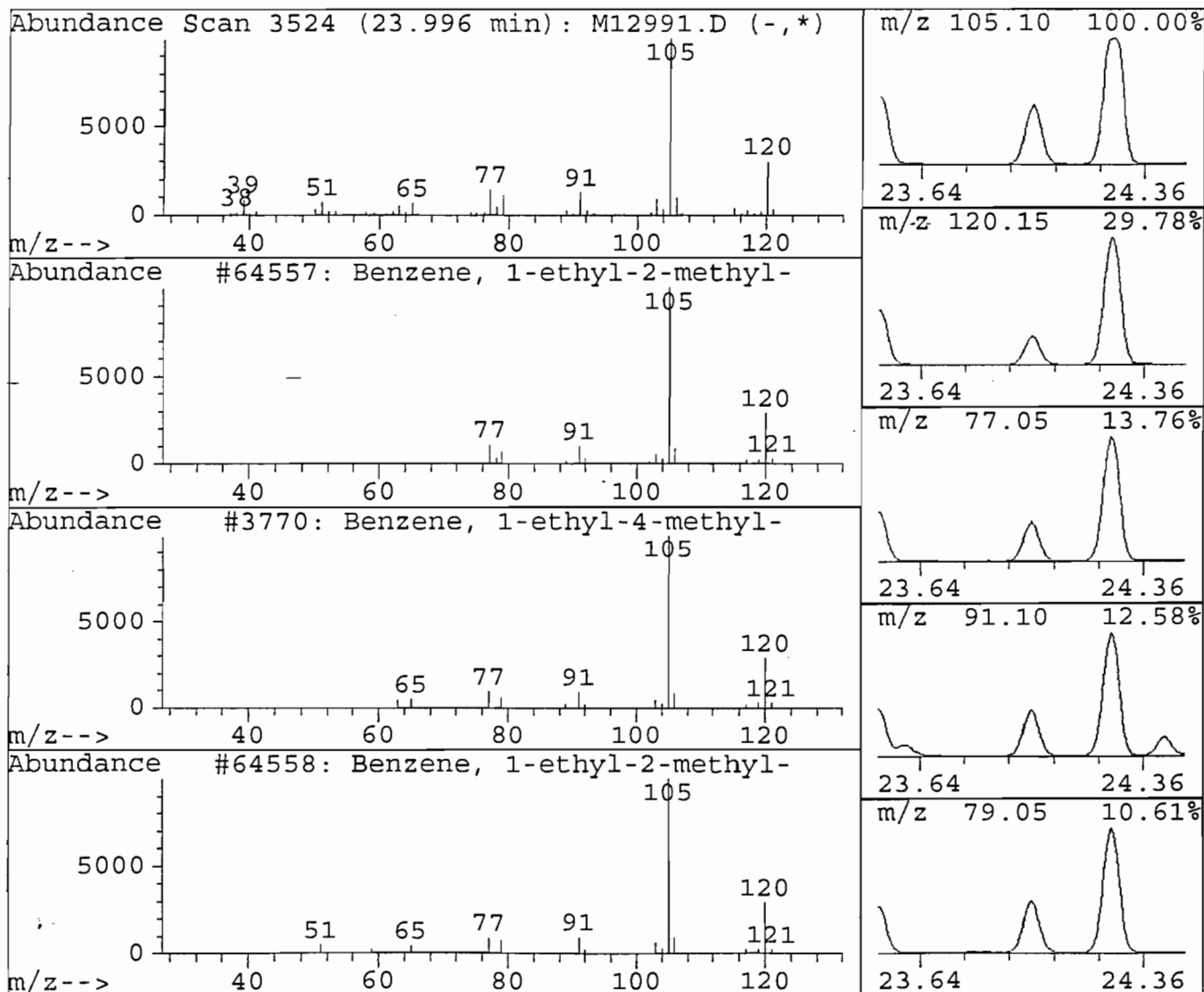
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.00	34.94 ug/L	27619617	1,4-dichlorobenzene-d4	25.17

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
2	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	94
4	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	94
5	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	94



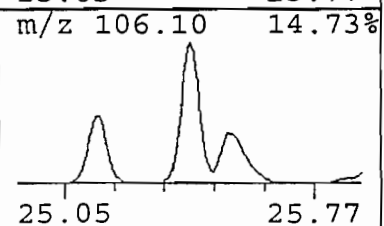
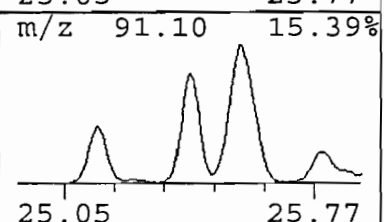
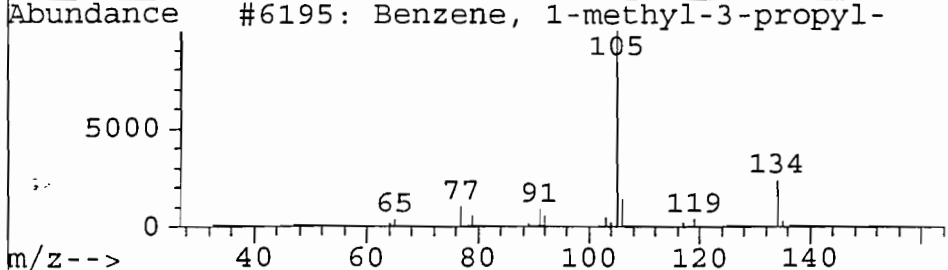
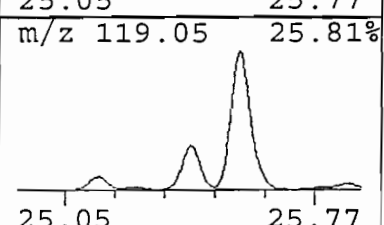
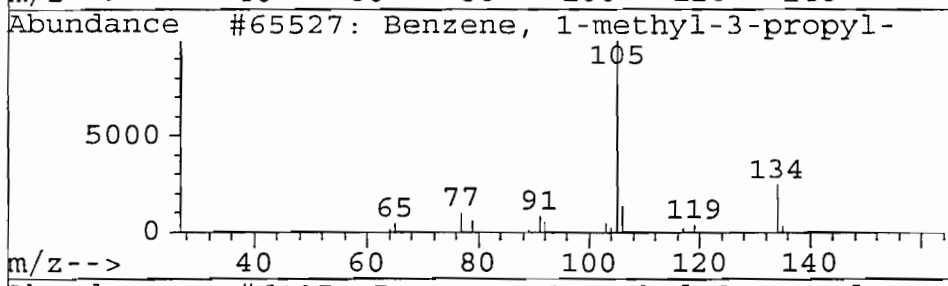
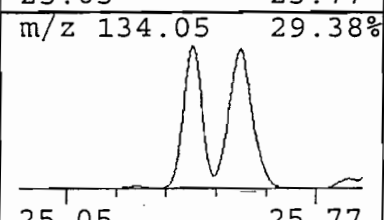
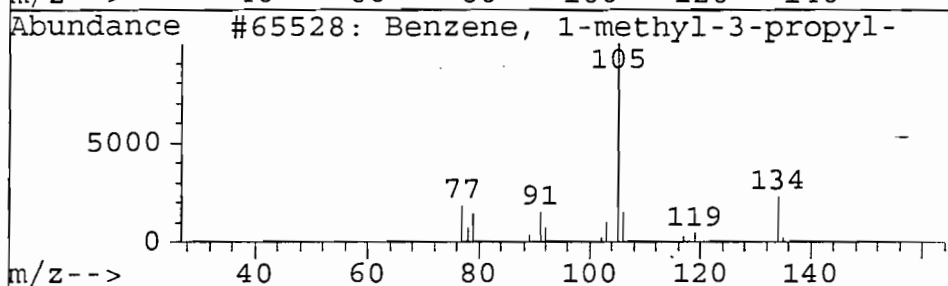
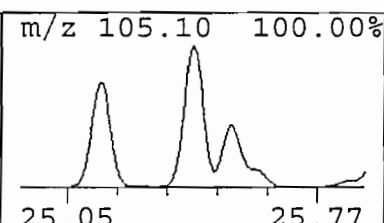
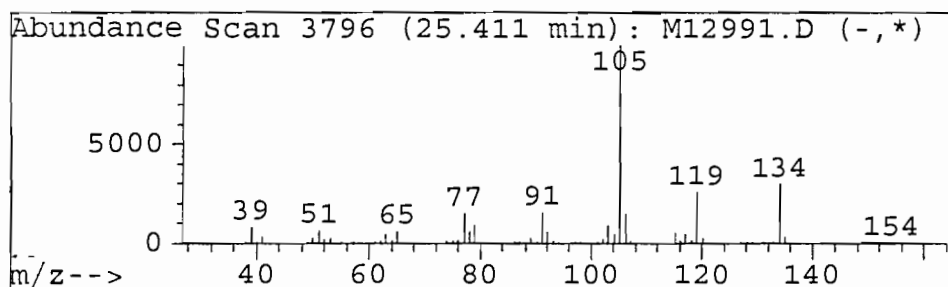
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
25.41	53.40 ug/L	42209385	1,4-dichlorobenzene-d4	25.17	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-		65528	001074-43-7	90
2	Benzene, 1-methyl-3-propyl-		65527	001074-43-7	87
3	Benzene, 1-methyl-3-propyl-		6195	001074-43-7	87
4	Benzene, (1-methylpropyl)-		65544	000135-98-8	76
5	Benzene, 1-methyl-2-propyl-		65584	001074-17-5	64



000208

Library Search Compound Report

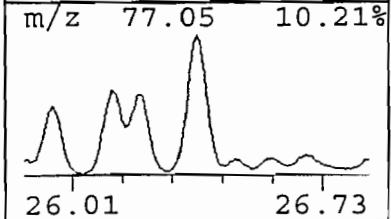
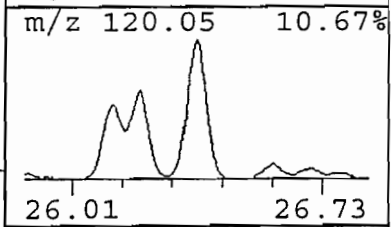
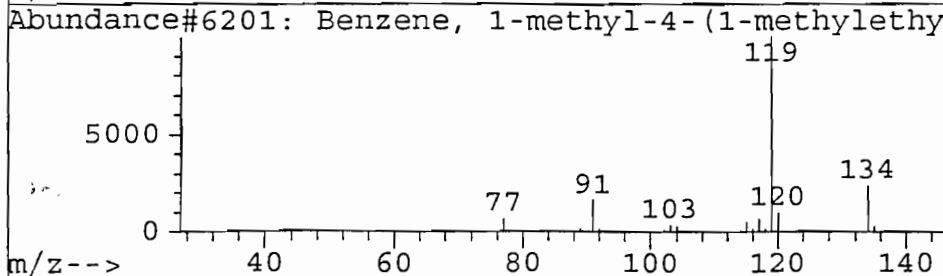
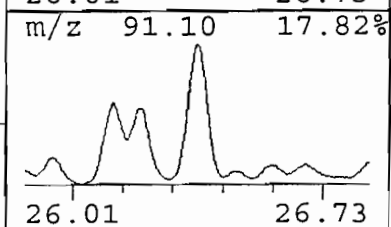
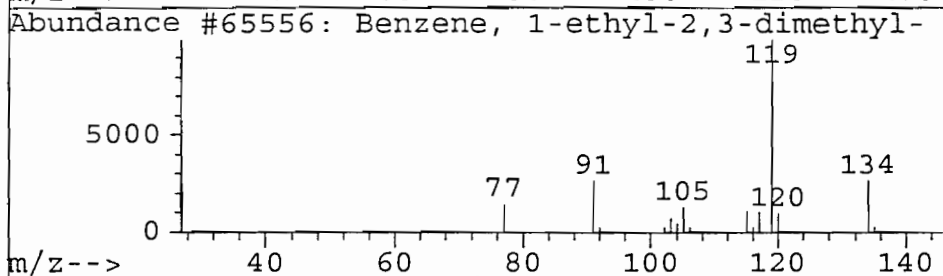
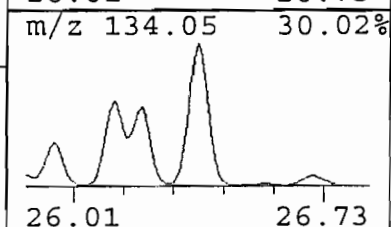
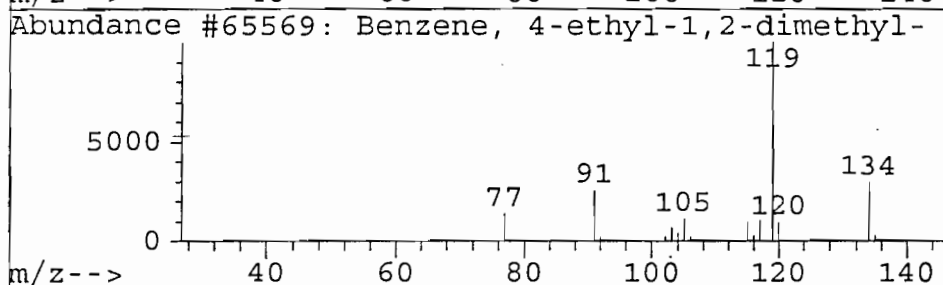
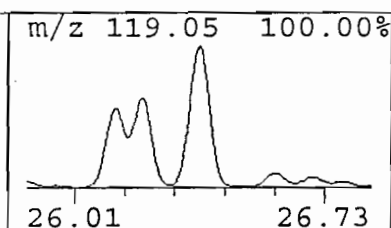
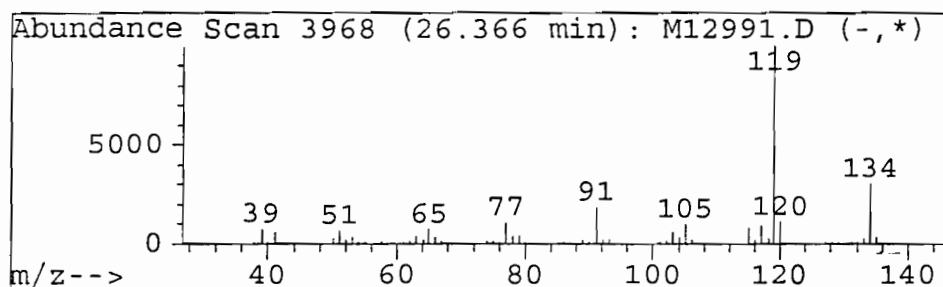
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.37	44.02 ug/L	34792375	1,4-dichlorobenzene-d4	25.17

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	96
2	Benzene, 1-ethyl-2,3-dimethyl-	65556	000933-98-2	96
3	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	95
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	95
5	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	95



000209

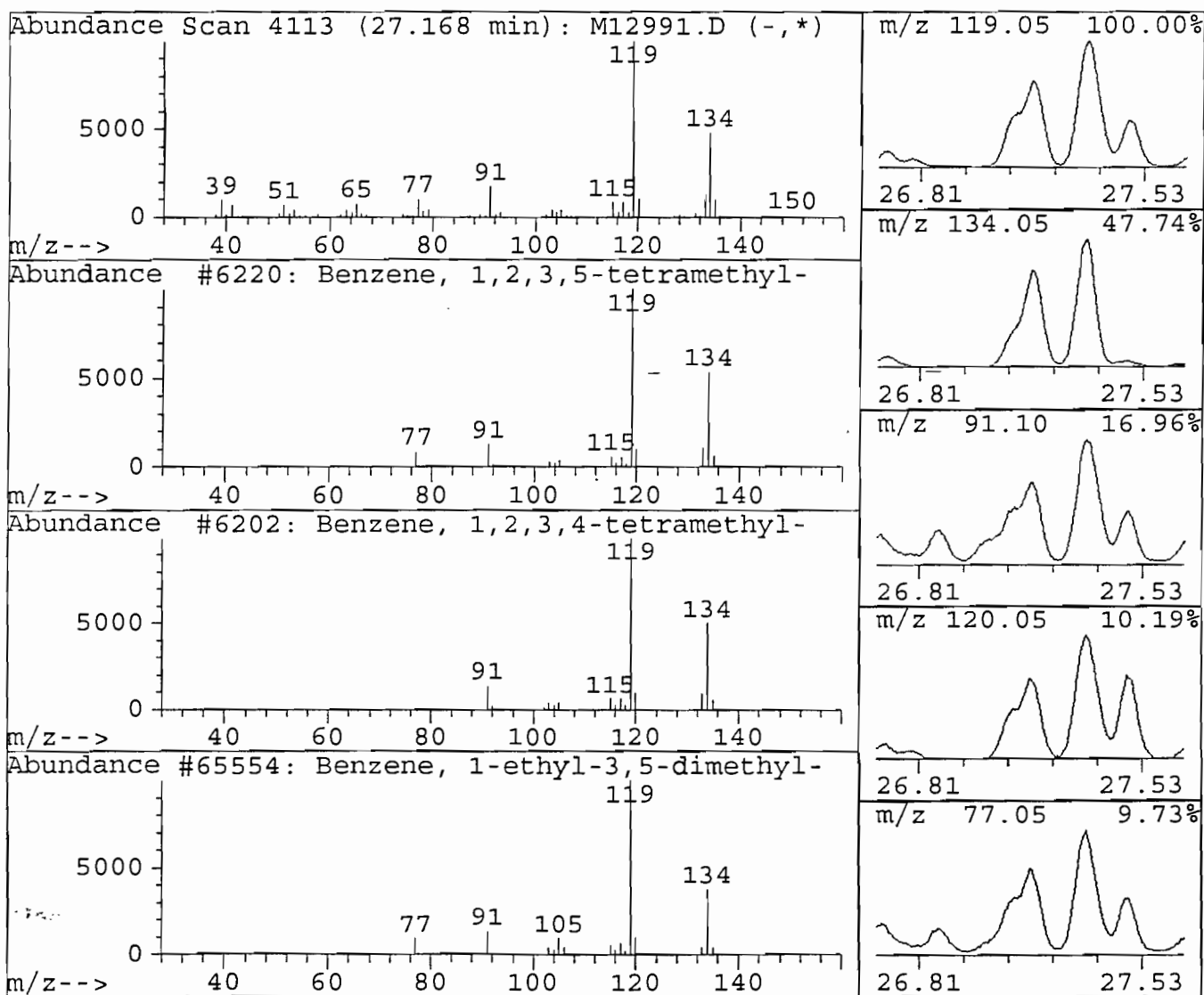
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.17	31.91 ug/L	25218840	1,4-dichlorobenzene-d4	25.17	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-		6220	000527-53-7	95
2	Benzene, 1,2,3,4-tetramethyl-		6202	000488-23-3	94
3	Benzene, 1-ethyl-3,5-dimethyl-		65554	000934-74-7	94
4	Benzene, 1,2,3,4-tetramethyl-		65541	000488-23-3	93
5	Benzene, 1,2,3,5-tetramethyl-		65571	000527-53-7	93



000210

Library Search Compound Report

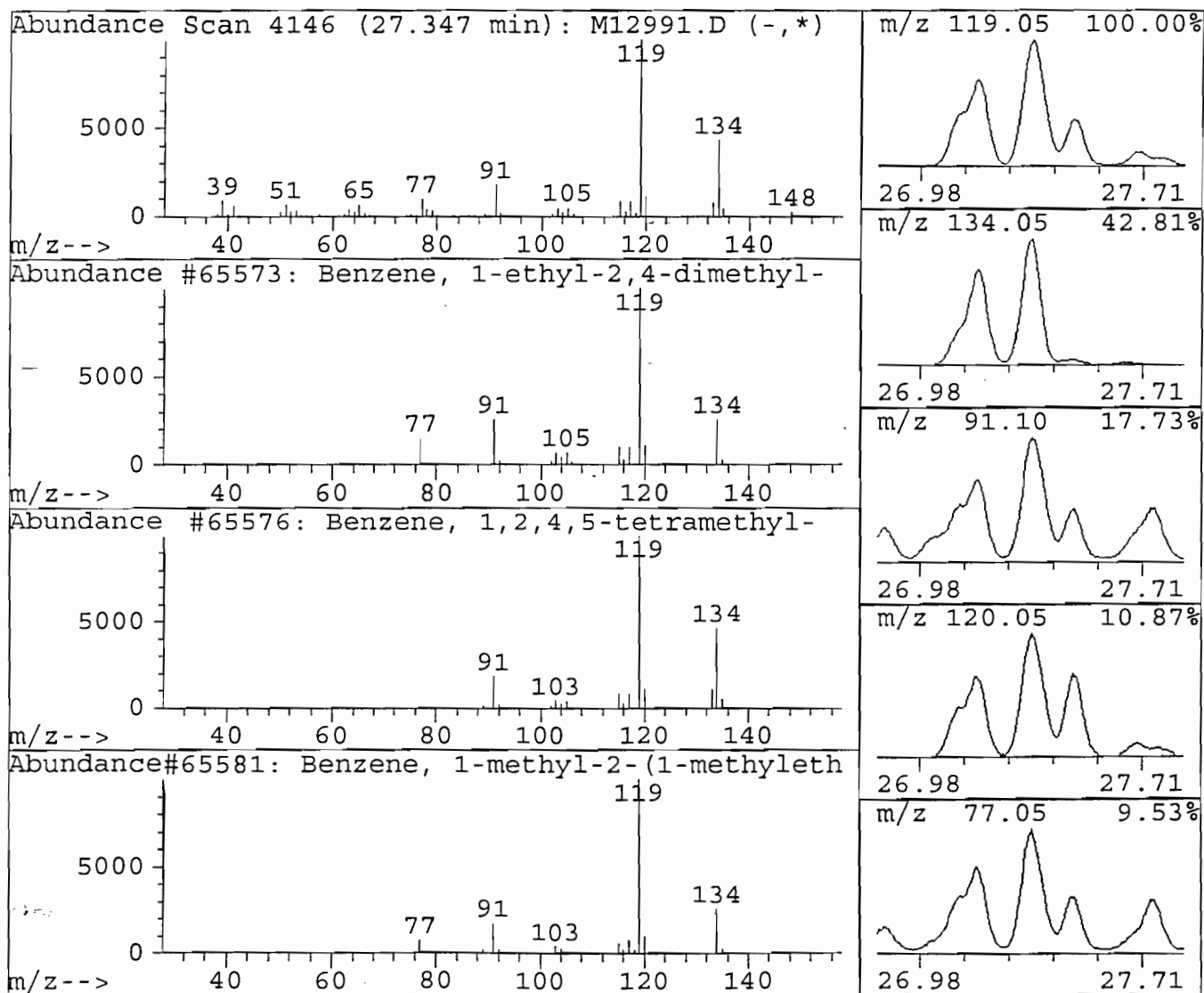
Data File : D:\HPCHEM\3\DATA\V3101099\M12991.D
Acq Time : 10 Oct 99 6:36 pm
Sample : 13701ASP-86843
Misc : 100uL/5MLS 4G/10mL MeOH

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.35	33.87 ug/L	26766537	1,4-dichlorobenzene-d4	25.17

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	95
2	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	95
3	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
4	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	95
5	Benzene, 1-methyl-4-(1-methylethyl)	65535	000099-87-6	94



000211

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

GP-008-SS15DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86843DL

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: M13051.D

Level: (low/med) MED

Date Received: 10/6/99

% Moisture: not dec. 2

Date Analyzed: 10/13/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
75-71-8	Dichlorodifluoromethane	6400		UD
74-87-3	Chloromethane	6400		UD
75-01-4	Vinyl Chloride	6400		UD
74-83-9	Bromomethane	6400		UD
75-00-3	Chloroethane	6400		UD
75-69-4	Trichlorofluoromethane	6400		UD
75-09-2	Methylene Chloride	6400		UD
75-34-4	1,1-Dichloroethane	6400		UD
590-20-7	2,2-Dichloropropane	6400		UD
74-97-5	Bromochloromethane	6400		UD
67-66-3	Chloroform	6400		UD
71-55-6	1,1,1-Trichloroethane	6400		UD
56-23-5	Carbon Tetrachloride	6400		UD
563-58-6	1,1-Dichloropropene-	6400		UD
71-43-2	Benzene	6400		UD
107-06-2	1,2-Dichloroethane	6400		UD
79-01-6	Trichloroethene	6400		UD
78-87-5	1,2-Dichloropropane	6400		UD
74-95-3	Dibromomethane	6400		UD
75-27-4	Bromodichloromethane	6400		UD
108-88-3	Toluene	6400		UD
79-00-5	1,1,2-Trichloroethane	6400		UD
127-18-4	Tetrachloroethene	6400		UD
142-28-9	1,3-Dichloropropane	6400		UD
124-48-1	Dibromochloromethane	6400		UD
106-93-4	1,2-Dibromoethane	6400		UD
108-90-7	Chlorobenzene	6400		UD
630-20-6	1,1,1,2-Tetrachloroethane	6400		UD
100-41-4	Ethylbenzene	6400		UD
100-42-5	Styrene	6400		UD
75-25-2	Bromoform	6400		UD
98-82-8	isopropylbenzene	6400		UD
108-86-1	Bromobenzene	6400		UD

GP-008-SS15DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) SOIL

Lab Sample ID: O86843DL

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: M13051.D

Level: (low/med) MED

Date Received: 10/6/99

% Moisture: not dec. 2

Date Analyzed: 10/13/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
---------	----------	-----------------	-------	---

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

GP-008-SS15DL

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
Matrix: (soil/water) SOIL Lab Sample ID: O86843DL
Sample wt/vol: 4.0 (g/mL) G Lab File ID: M13051.D
Level: (low/med) MED Date Received: 10/6/99
% Moisture: not dec. 2.09 Date Analyzed: 10/13/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 10.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 111-84-2	Nonane	20.12	16600	J
2.	Unknown	21.83	37600	J
3. 5911-04-6	Nonane, 3-methyl-	22.12	16000	J
4. 622-96-8	Benzene, 1-ethyl-4-methyl-	23.99	19600	J
5. 1074-43-7	Benzene, 1-methyl-3-propyl-	25.40	33500	J
6. 933-98-2	Benzene, 1-ethyl-2,3-dimethy	26.11	14400	J
7. 527-84-4	Benzene, 1-methyl-2-(1-methy	26.35	27500	J
8. 527-53-7	Benzene, 1,2,3,5-tetramethyl	27.17	18800	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	27.33	24400	J
10. 2039-89-6	Benzene, 2-ethenyl-1,4-dimet	28.24	13700	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000214

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
 Acq Time : 13 Oct 99 4:38 am
 Sample : 13701ASP-86843 1:10 DIL
 Misc : 5MLS 4G/10mL MeOH
 Quant Time: Oct 19 10:09 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.08	96	2064800	50.00	ug/L	-0.02
43) Chlorobenzene-d5	20.43	117	1737499	50.00	ug/L	-0.03
58) 1,4-dichlorobenzene-d4	25.16	152	775031	50.00	ug/L	-0.02
System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	12.38	113	677677	52.77	ug/L	105.53%
30) 1,2-Dichlorethane-d4	13.42	65	735287	50.80	ug/L	101.59%
38) Toluene-d8	17.33	98	2181682	54.24	ug/L	108.47%
42) 4-Bromofluorobenzene	22.91	95	914034	53.74	ug/L	107.49%
Target Compounds						Qvalue
54) m&p-xylenes	20.75	106	478225	25.35	ug/L	97
55) o-xylene	21.65	91	792565	18.16	ug/L	95
66) 1,3,5-trimethylbenzene	23.49	105	1465278	34.66	ug/L	100
68) 1,2,4-trimethylbenzene	24.24	105	4929887	121.55	ug/L	100
71) 4-isopropyltoluene	24.79	119	93642	2.02	ug/L	94
78) naphthalene	30.53	128	607859	18.75	ug/L	97

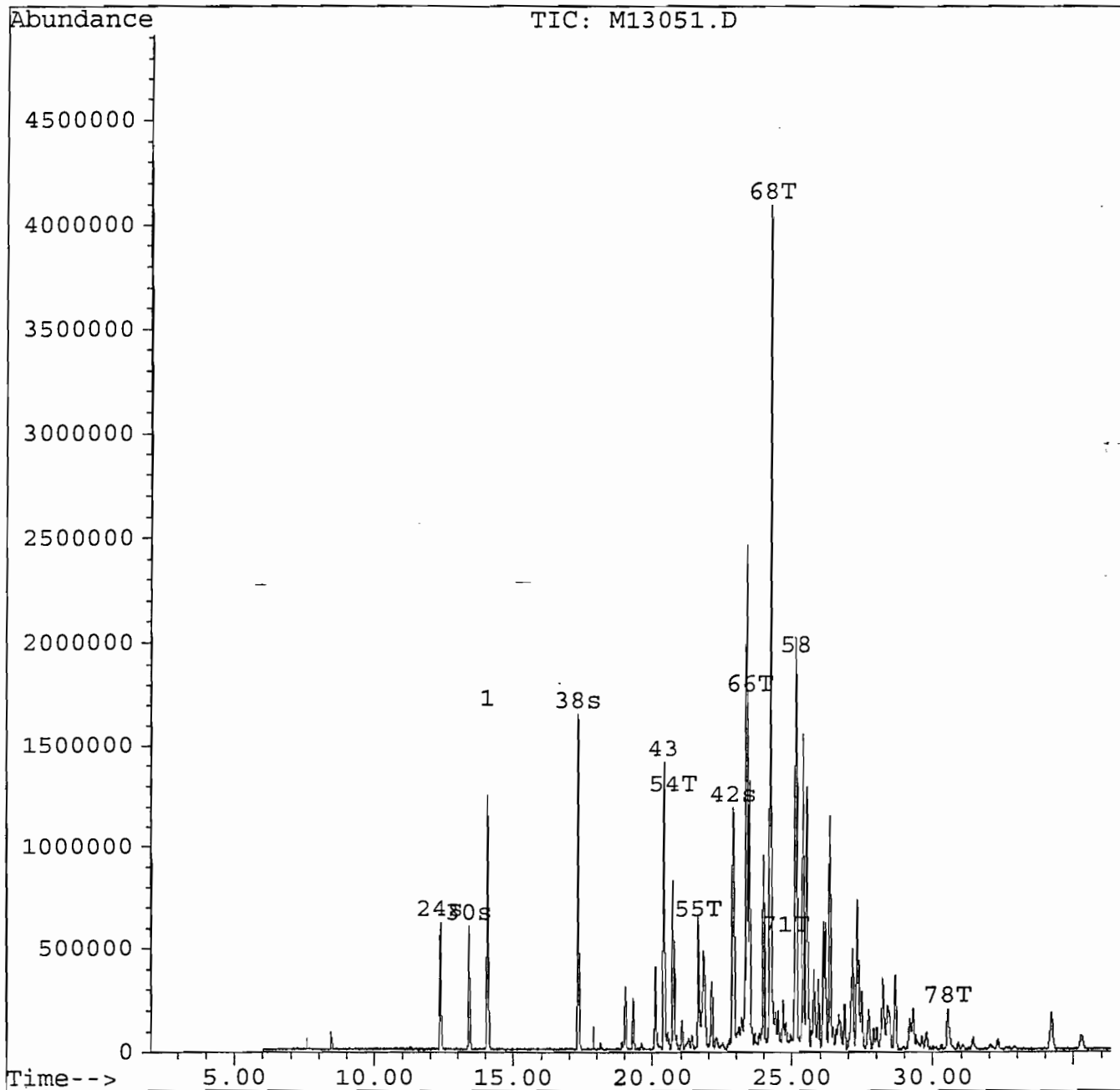
-----000215-----

Quantitation Report

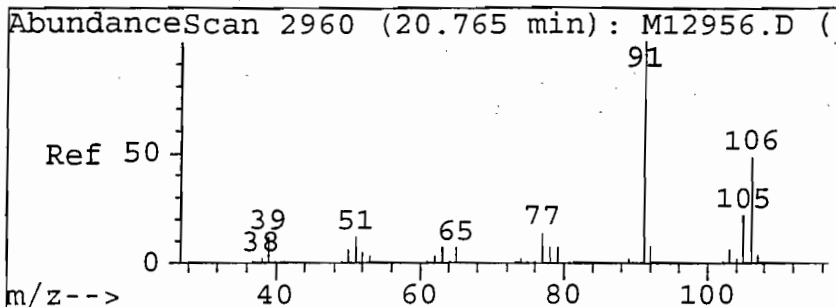
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH
Quant Time: Oct 19 10:09 1999

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration

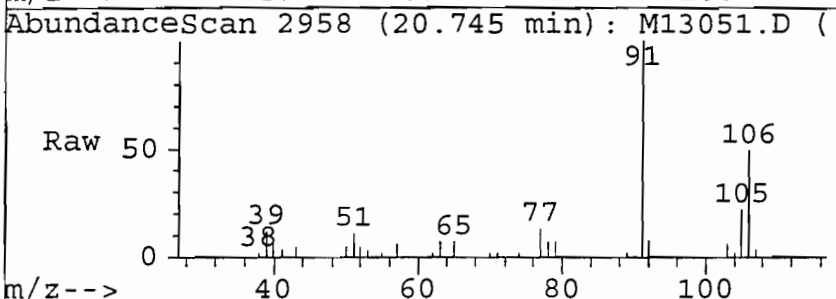


000216

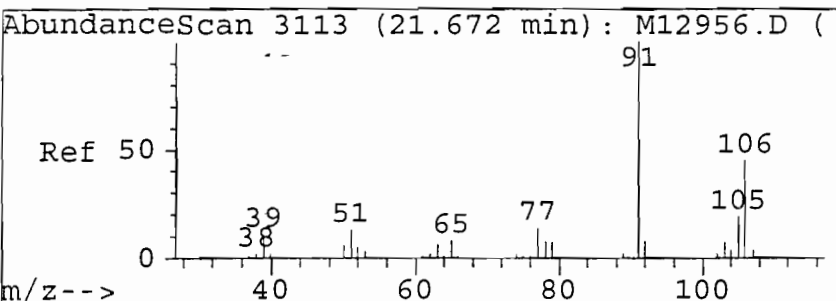
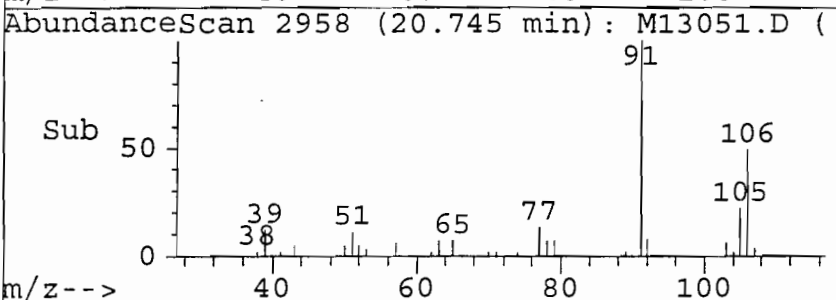
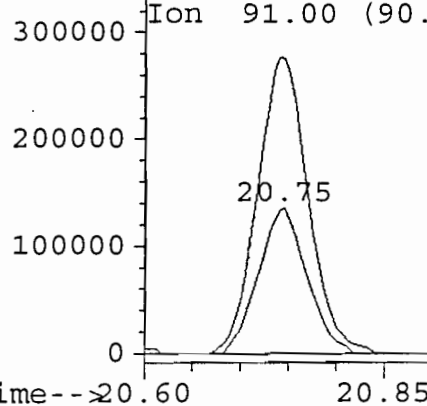


#54
m&p-xylenes
Concen: 25.35 ug/L
RT: 20.75 min Scan# 2958
Delta R.T. -0.02 min
Lab File: M13051.D
Acq: 13 Oct 99 4:38 am

Tgt Ion:106 Resp: 478225
Ion Ratio Lower Upper
106 100
91 204.6 146.7 272.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0

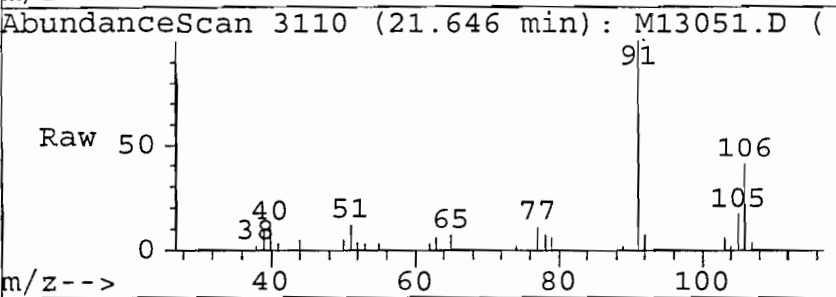


AbundanceIon 106.00 (105
Ion 91.00 (90.

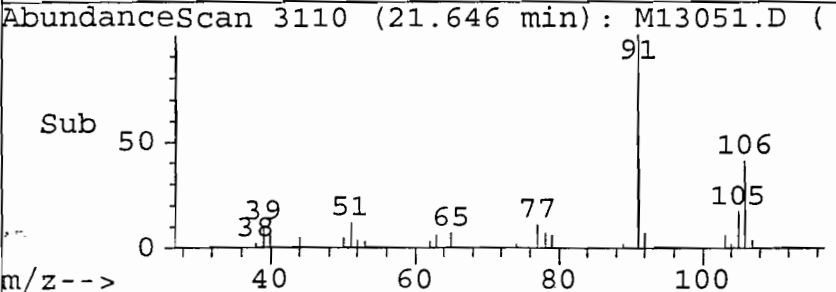
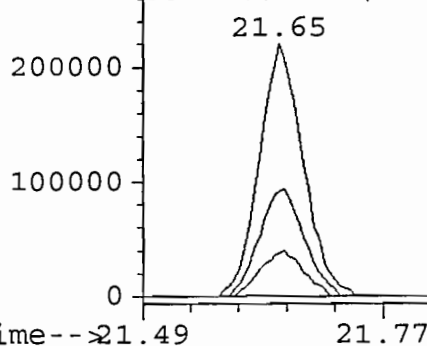


#55
o-xylene
Concen: 18.16 ug/L
RT: 21.65 min Scan# 3110
Delta R.T. -0.03 min
Lab File: M13051.D
Acq: 13 Oct 99 - 4:38 am

Tgt Ion:91 Resp: 792565
Ion Ratio Lower Upper
91 100
106 41.2 31.3 58.1
105 16.9 12.9 24.0
0 0.0 0.0 0.0

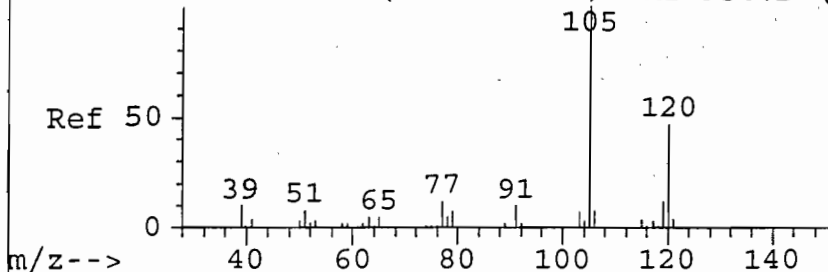


AbundanceIon 91.00 (90.
Ion 106.00 (105
Ion 105.00 (104



000217

AbundanceScan 3424 (23.513 min): M12956.D (



#66

1,3,5-trimethylbenzene

Concen: 34.66 ug/L

RT: 23.49 min Scan# 3423

Delta R.T. -0.03 min

Lab File: M13051.D

Acq: 13 Oct 99 4:38 am

Tgt Ion:105 Resp: 1465278

Ion Ratio Lower Upper

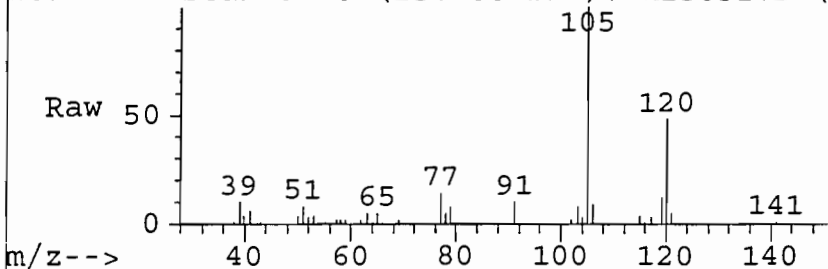
105 100

120 47.7 33.2 61.7

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 3423 (23.488 min): M13051.D (



AbundanceIon 105.00 (104

Ion 120.00 (119

1000000

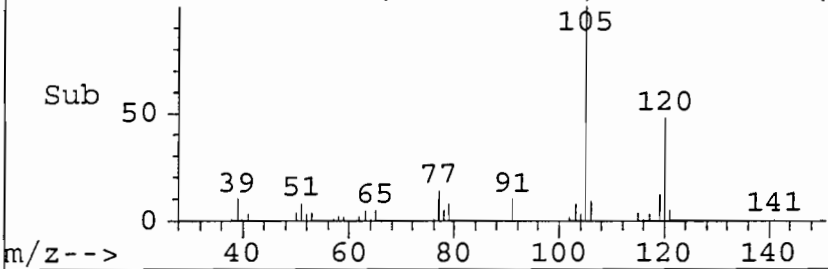
500000

23.49

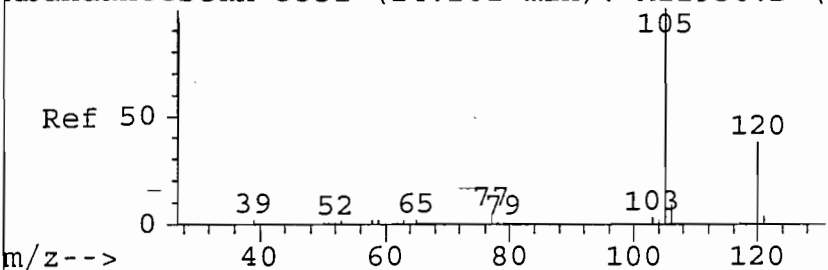
0

Time-->23.38 23.63

AbundanceScan 3423 (23.488 min): M13051.D (



AbundanceScan 3551 (24.261 min): M12956.D (



#68

1,2,4-trimethylbenzene

Concen: 121.55 ug/L

RT: 24.24 min Scan# 3551

Delta R.T. -0.02 min

Lab File: M13051.D

Acq: 13 Oct 99 4:38 am

Tgt Ion:105 Resp: 4929887

Ion Ratio Lower Upper

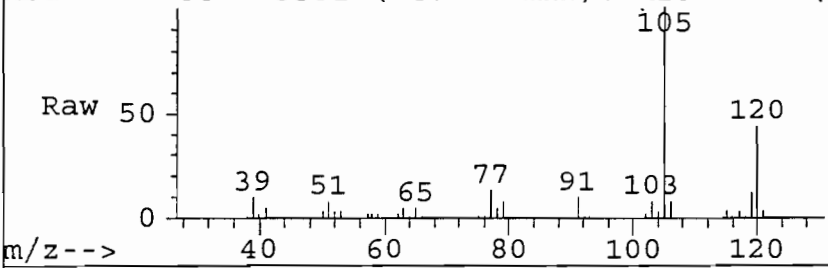
105 100

120 44.4 31.2 58.0

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 3551 (24.238 min): M13051.D (



AbundanceIon 105.00 (104

Ion 120.00 (119

1500000

1000000

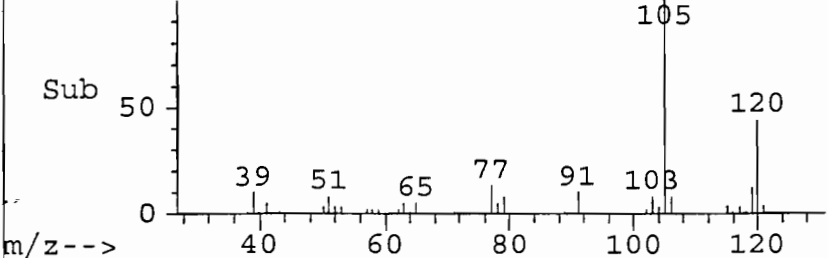
500000

24.24

0

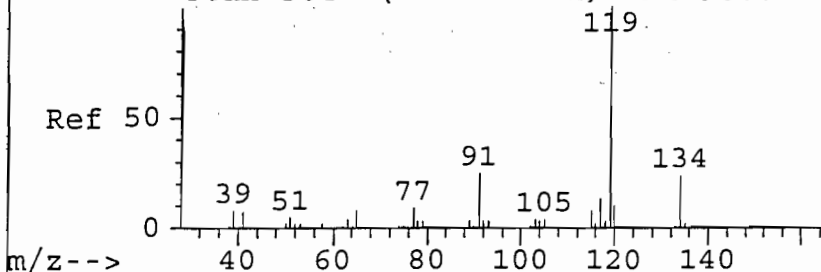
Time-->24.04 24.42

AbundanceScan 3551 (24.238 min): M13051.D (



000218

AbundanceScan 3644 (24.810 min): M12956.D (



#71

4-isopropyltoluene

Concen: 2.02 ug/L

RT: 24.79 min Scan# 3645

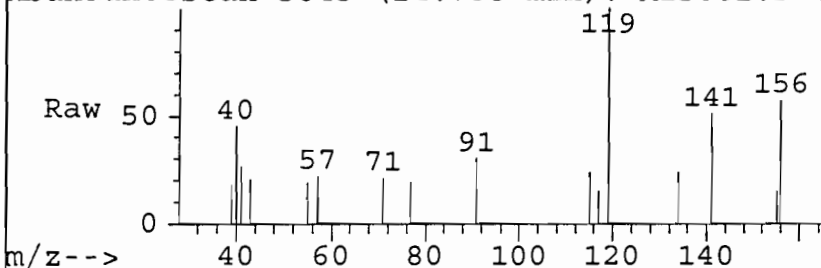
Delta R.T. -0.02 min

Lab File: M13051.D

Acq: 13 Oct 99 4:38 am

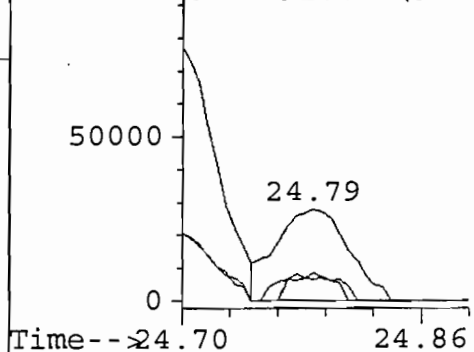
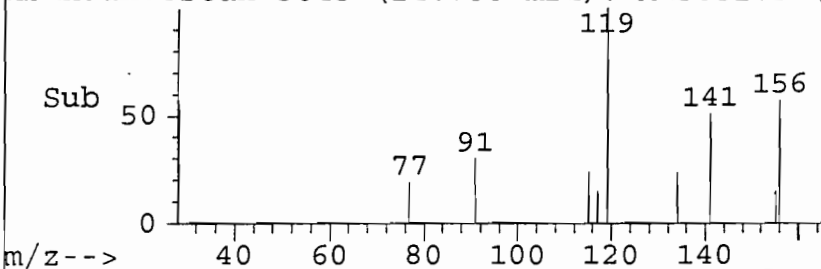
Tgt Ion:119	Resp:	93642
Ion Ratio	Lower	Upper
119 100		
134 23.8	16.7	31.1
91 30.5	17.2	32.0
0 0.0	0.0	0.0

AbundanceScan 3645 (24.788 min): M13051.D (

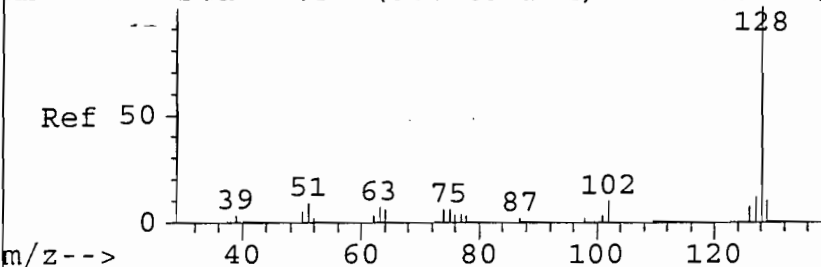


Abundance	Ion 119.00	(118
100000	Ion 134.00	(133
	Ion 91.00	(90.

AbundanceScan 3645 (24.788 min): M13051.D (



AbundanceScan 4637 (30.569 min): M12956.D (



#78

naphthalene

Concen: 18.75 ug/L

RT: 30.53 min Scan# 4619

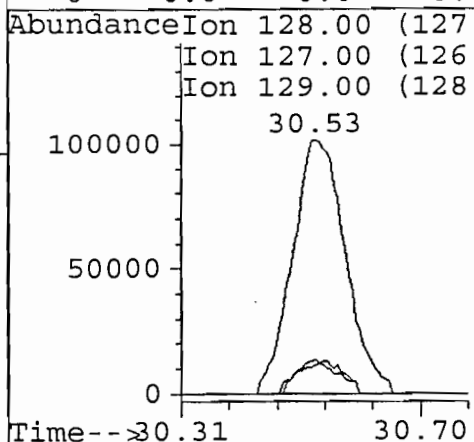
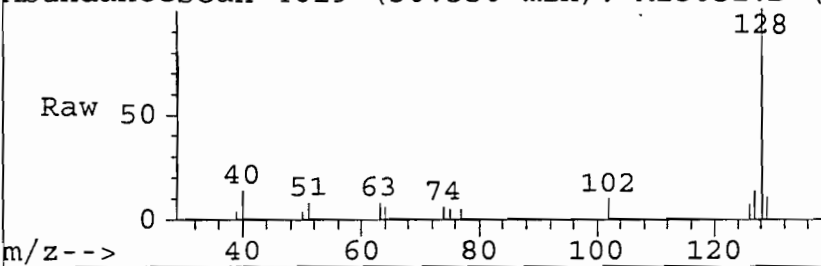
Delta R.T. -0.04 min

Lab File: M13051.D

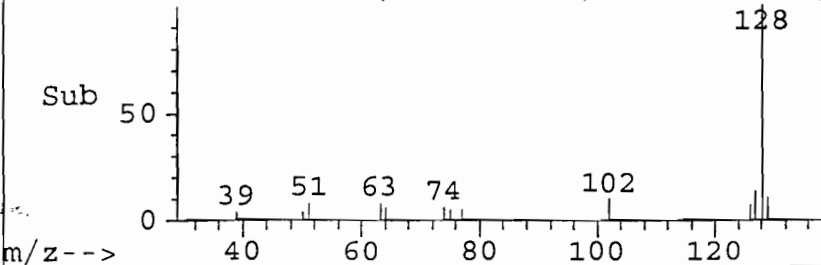
Acq: 13 Oct 99 4:38 am

Tgt. Ion:128	Resp:	607859
Ion Ratio	Lower	Upper
128 100		
127 13.7	8.6	16.0
129 11.3	7.0	13.0
0 0.0	0.0	0.0

AbundanceScan 4619 (30.530 min): M13051.D (



AbundanceScan 4619 (30.530 min): M13051.D (



000219

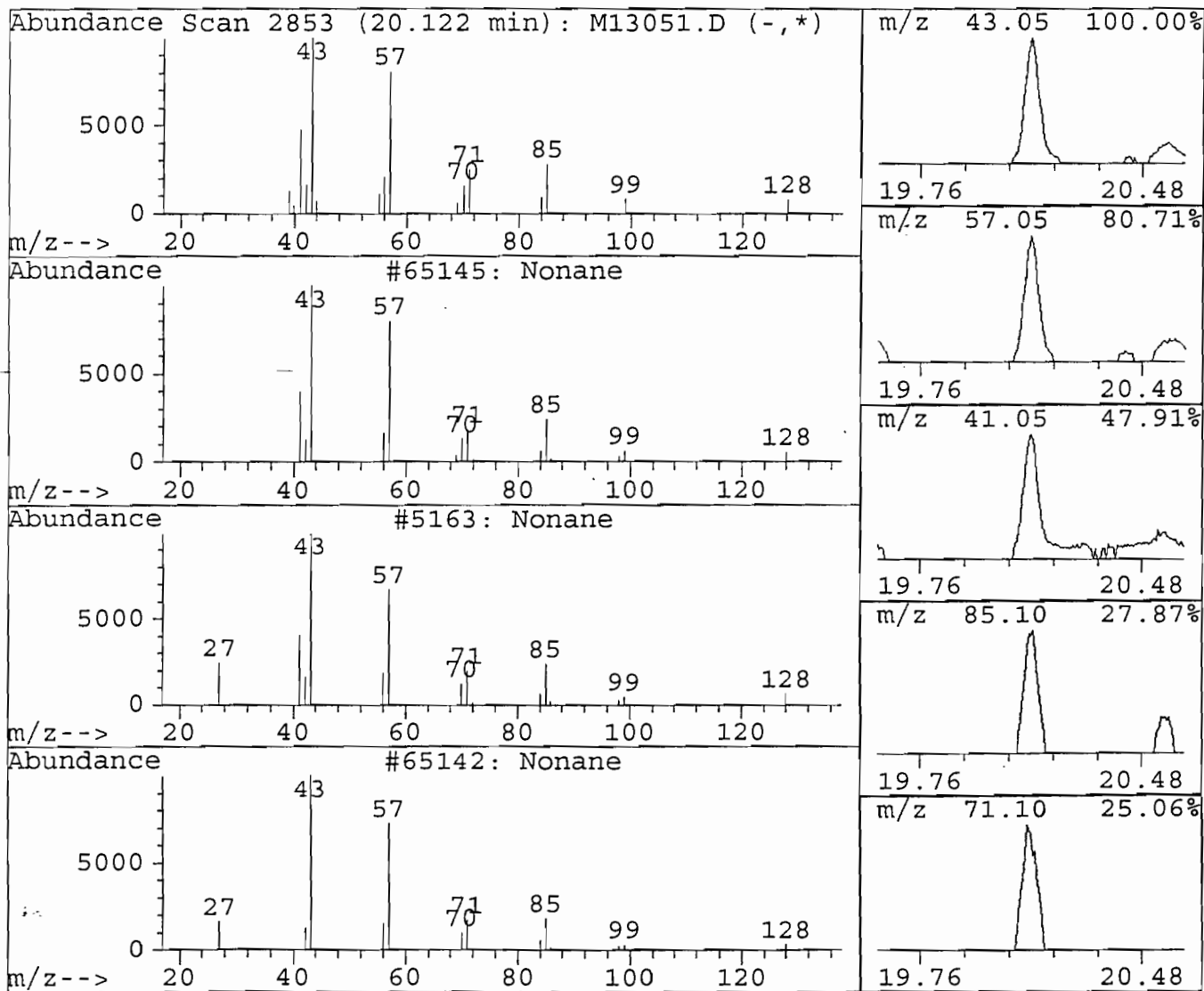
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD		R.T.
20.12	12.97 ug/L	1357345	Chlorobenzene-d5		20.43
Hit# of 20		Tentative ID	Ref#	CAS#	Qual
1	Nonane		65145	000111-84-2	94
2	Nonane		5163	000111-84-2	91
3	Nonane		65142	000111-84-2	91
4	Nonane		65144	000111-84-2	91
5	Octane		64208	000111-65-9	64



Library Search Compound Report

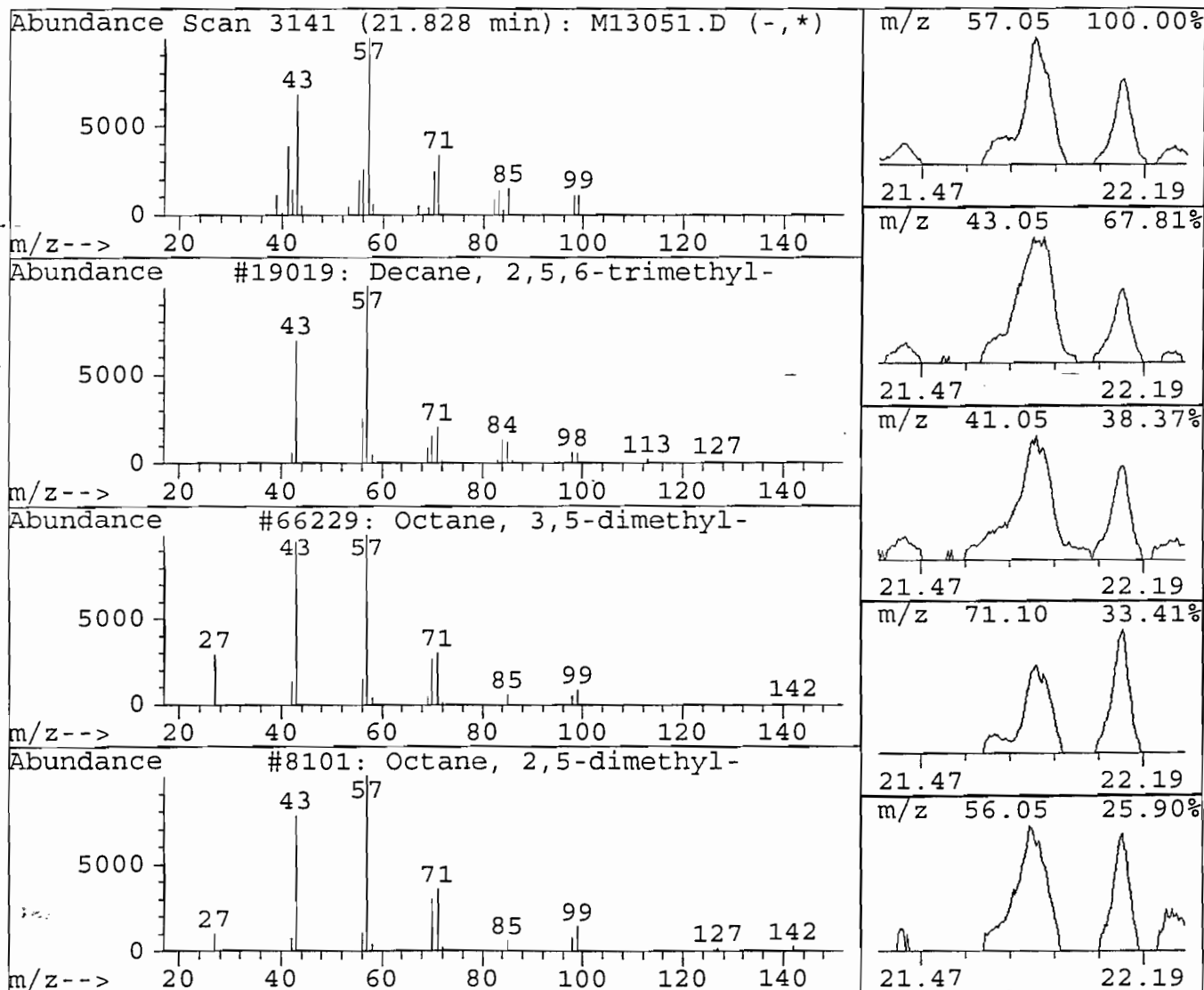
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.83	29.44 ug/L	3079803	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,5,6-trimethyl-	19019	062108-23-0	64
2	Octane, 3,5-dimethyl-	66229	015869-93-9	59
3	Octane, 2,5-dimethyl-	8101	015869-89-3	53
4	Nonane, 4-methyl-	66223	017301-94-9	53
5	Octane, 2,3-dimethyl-	66214	007146-60-3	53



Library Search Compound Report

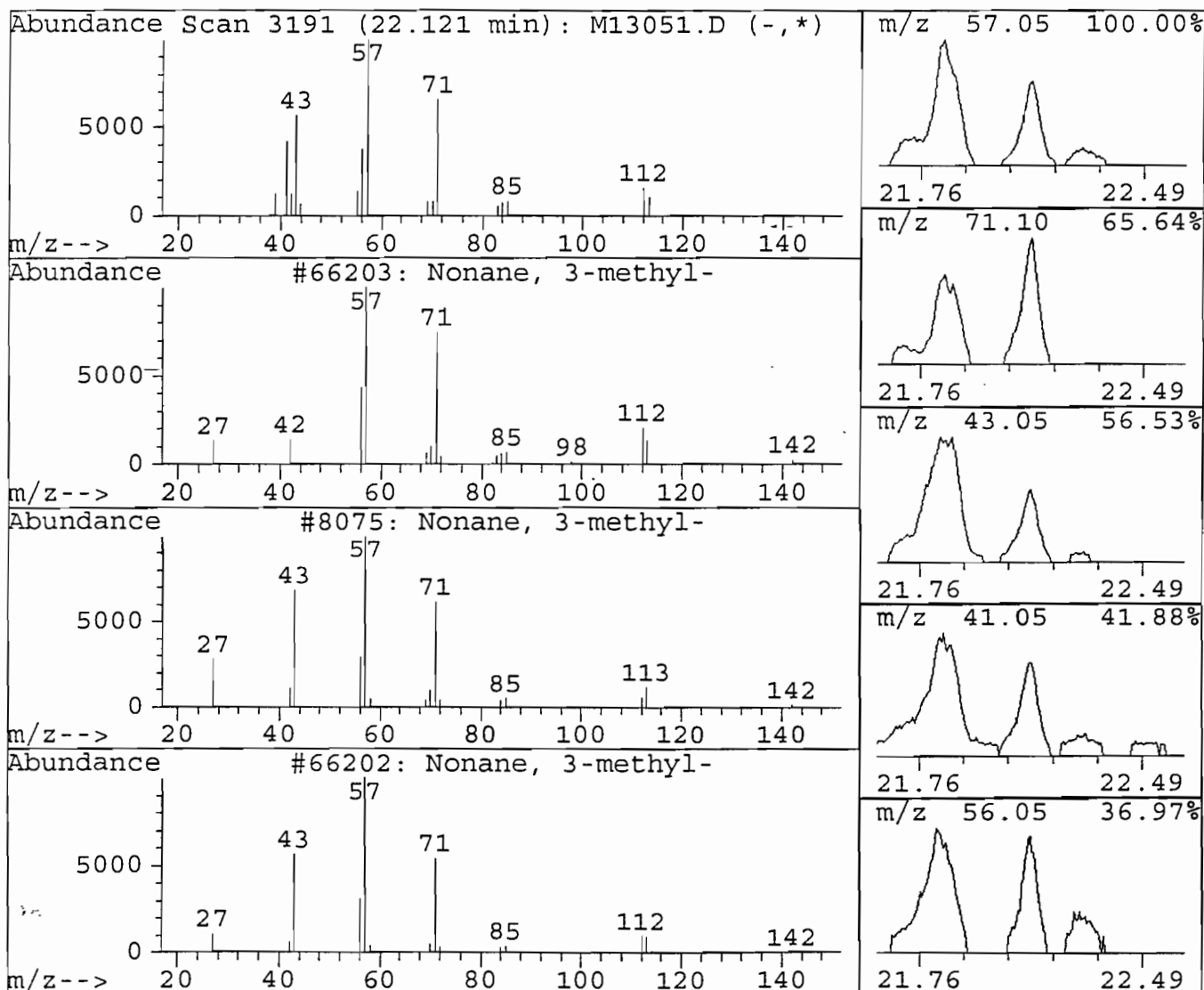
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.12	12.53 ug/L	1310645	Chlorobenzene-d5	20.43

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 3-methyl-	66203	005911-04-6	90
2	Nonane, 3-methyl-	8075	005911-04-6	78
3	Nonane, 3-methyl-	66202	005911-04-6	78
4	Octane, 3,6-dimethyl-	8109	015869-94-0	72
5	Nonane, 3-methyl-	66200	005911-04-6	72



000222

Library Search Compound Report

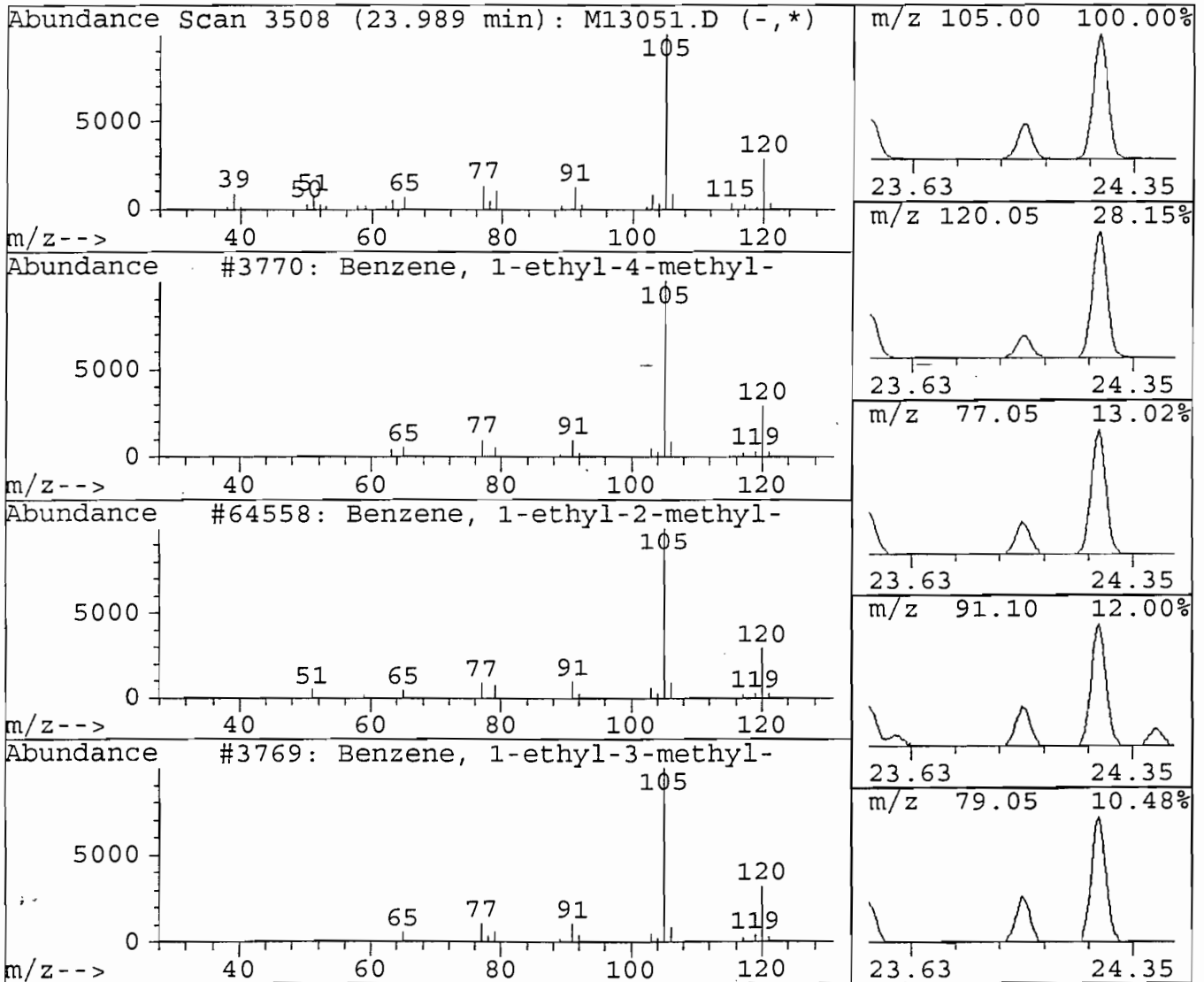
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.99	15.36 ug/L	2989917	1,4-dichlorobenzene-d4	25.16

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
2	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	91
3	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	91
4	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	91
5	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	91



000223

Library Search Compound Report

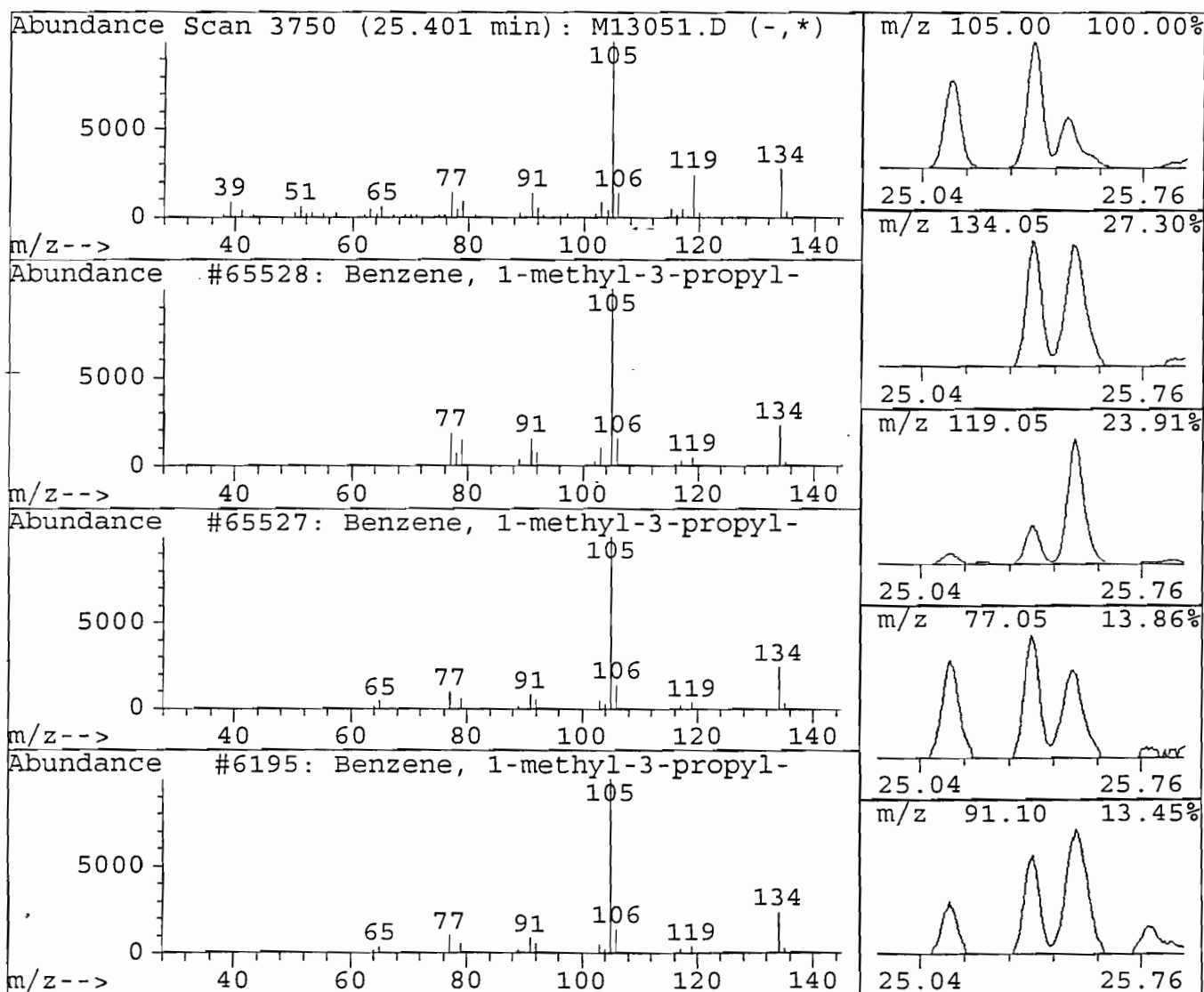
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.40	26.28 ug/L	5113957	1,4-dichlorobenzene-d4	25.16

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	90
2	Benzene, 1-methyl-3-propyl-	65527	001074-43-7	87
3	Benzene, 1-methyl-3-propyl-	6195	001074-43-7	87
4	Benzene, (1-methylpropyl)-	65544	000135-98-8	81
5	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	81



000224

Library Search Compound Report

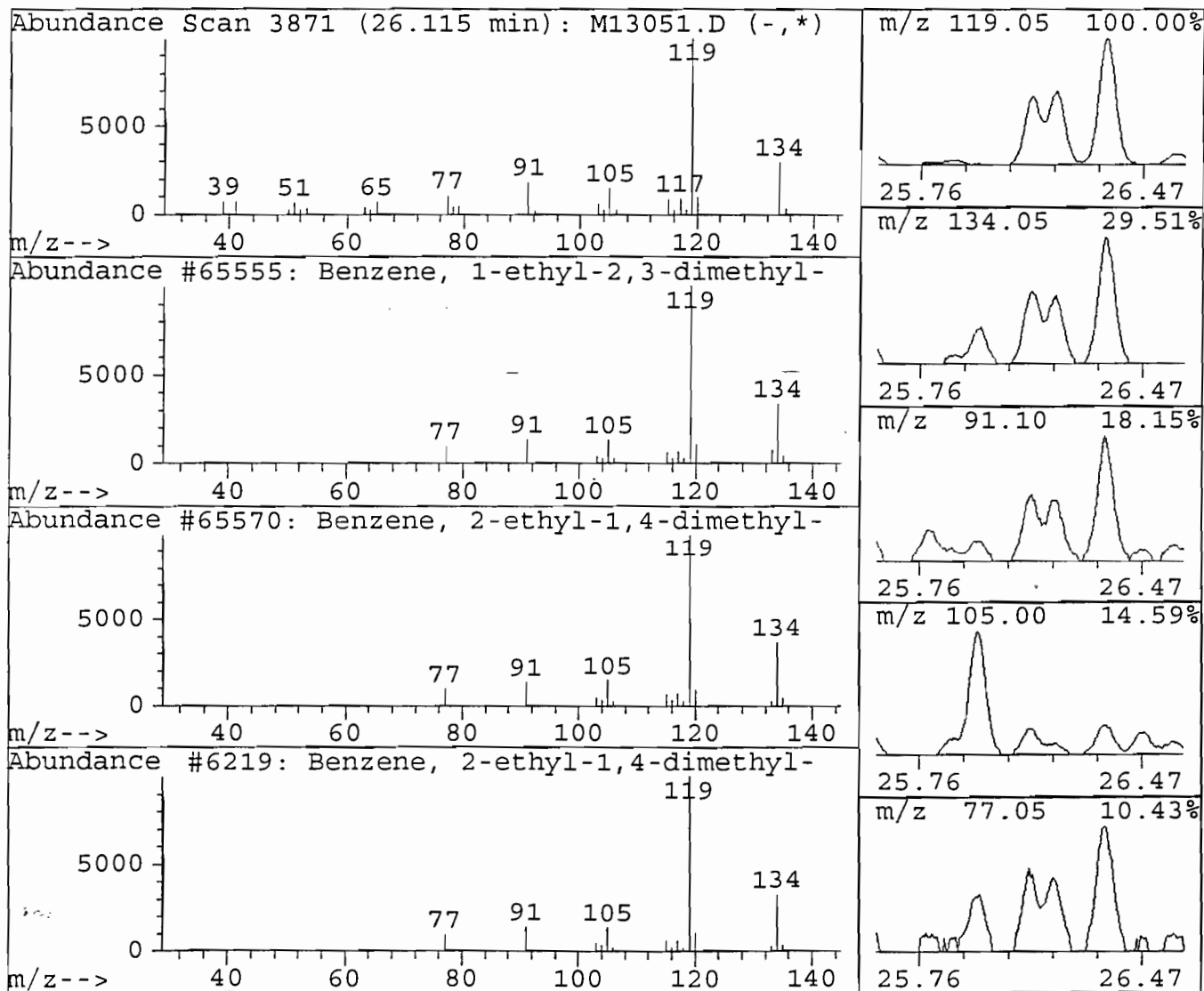
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.11	11.26 ug/L	2191136	1,4-dichlorobenzene-d4	25.16

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	65555	000933-98-2	95
2	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	94
3	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	94
4	Benzene, 1-ethyl-2,3-dimethyl-	65556	000933-98-2	94
5	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	93



000225

Library Search Compound Report

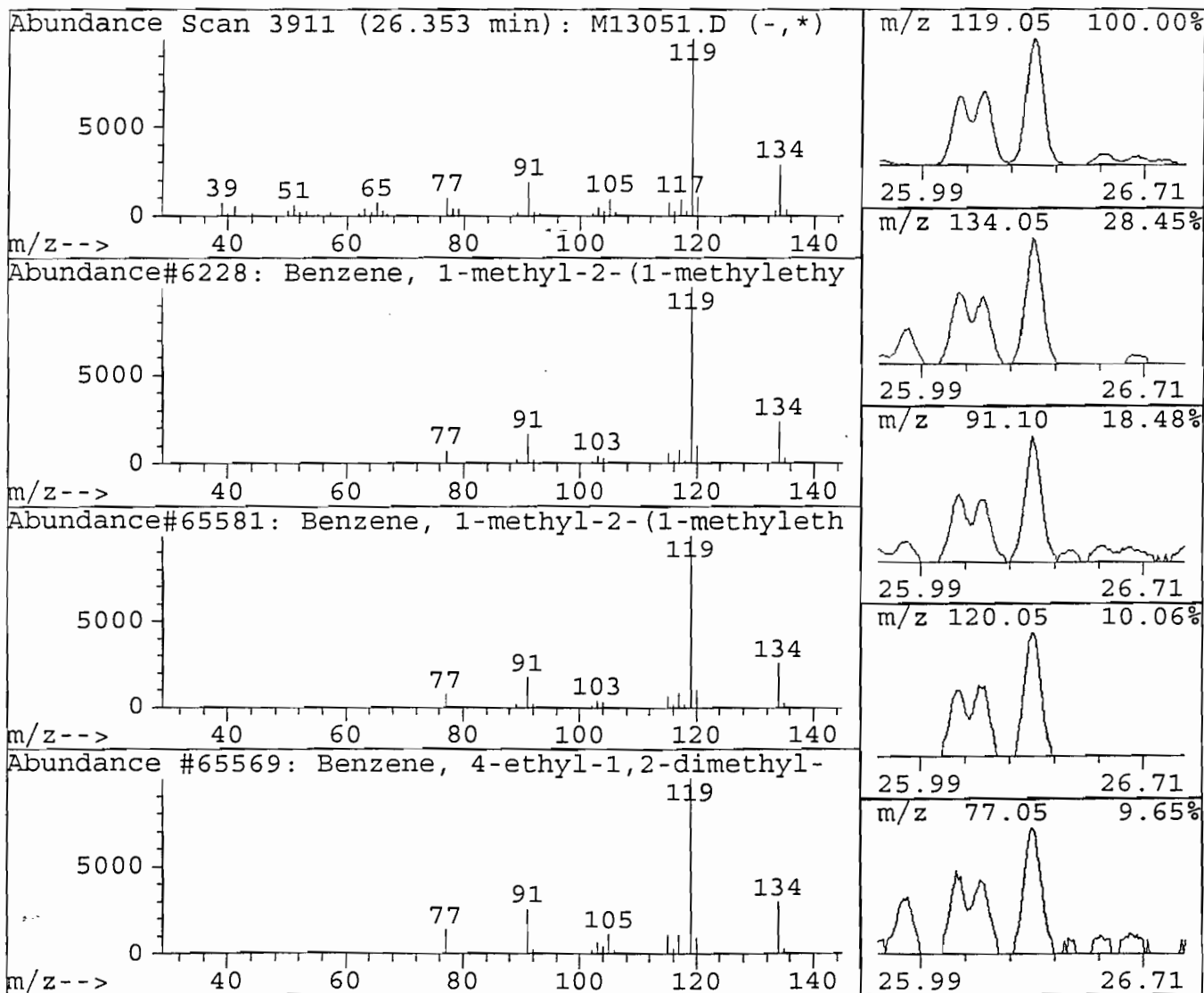
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.35	21.54 ug/L	4192549	1,4-dichlorobenzene-d4	25.16

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	95
2	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
3	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	95
4	Benzene, 1-ethyl-2,3-dimethyl-	65556	000933-98-2	95
5	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	94



Library Search Compound Report

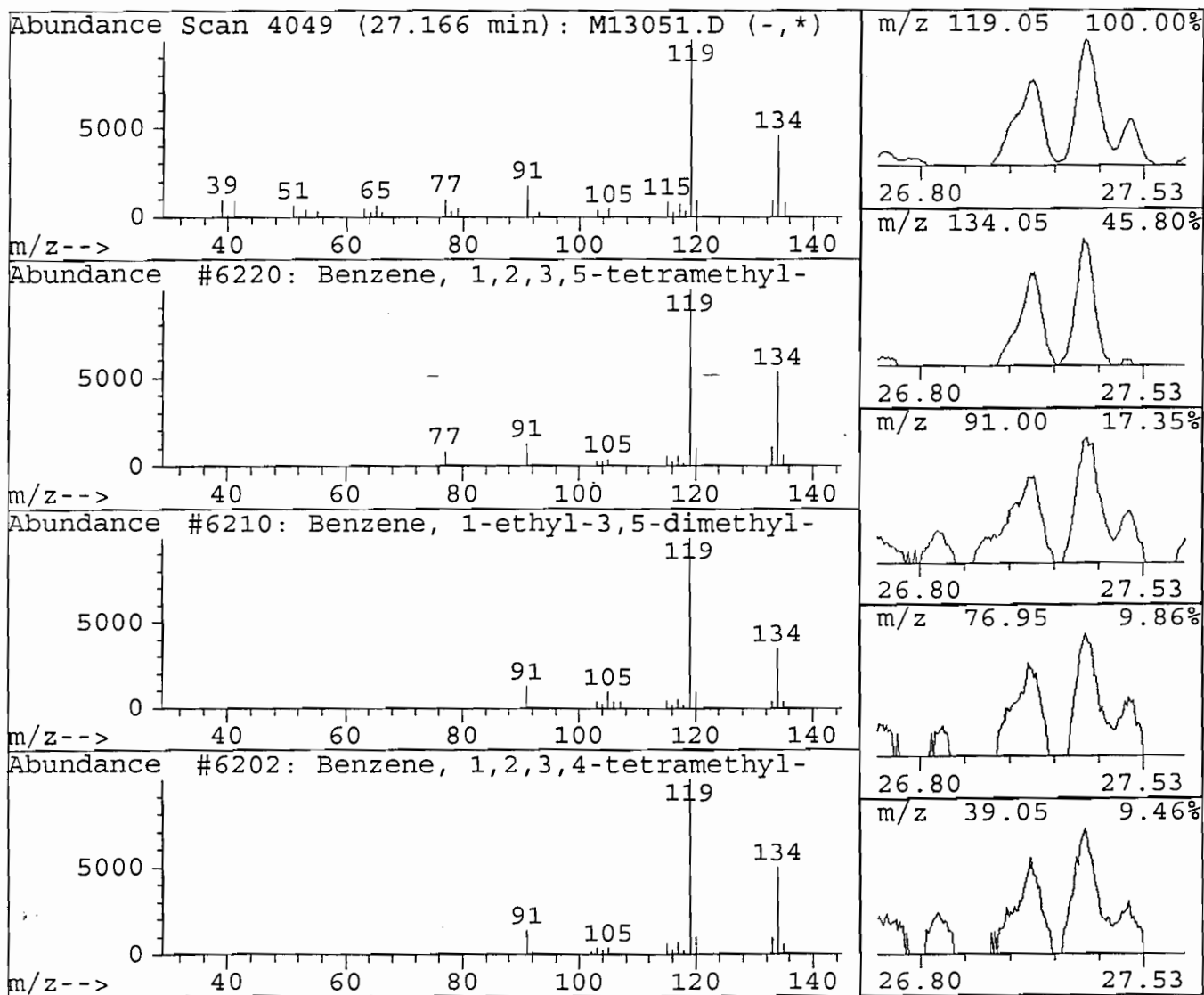
Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.17	14.74 ug/L	2869155	1,4-dichlorobenzene-d4	25.16

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	94
2	Benzene, 1-ethyl-3,5-dimethyl-	6210	000934-74-7	91
3	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	91
4	Benzene, 1-ethyl-2,4-dimethyl-	65573	000874-41-9	91
5	Benzene, 1,2,4,5-tetramethyl-	65574	000095-93-2	91



000227

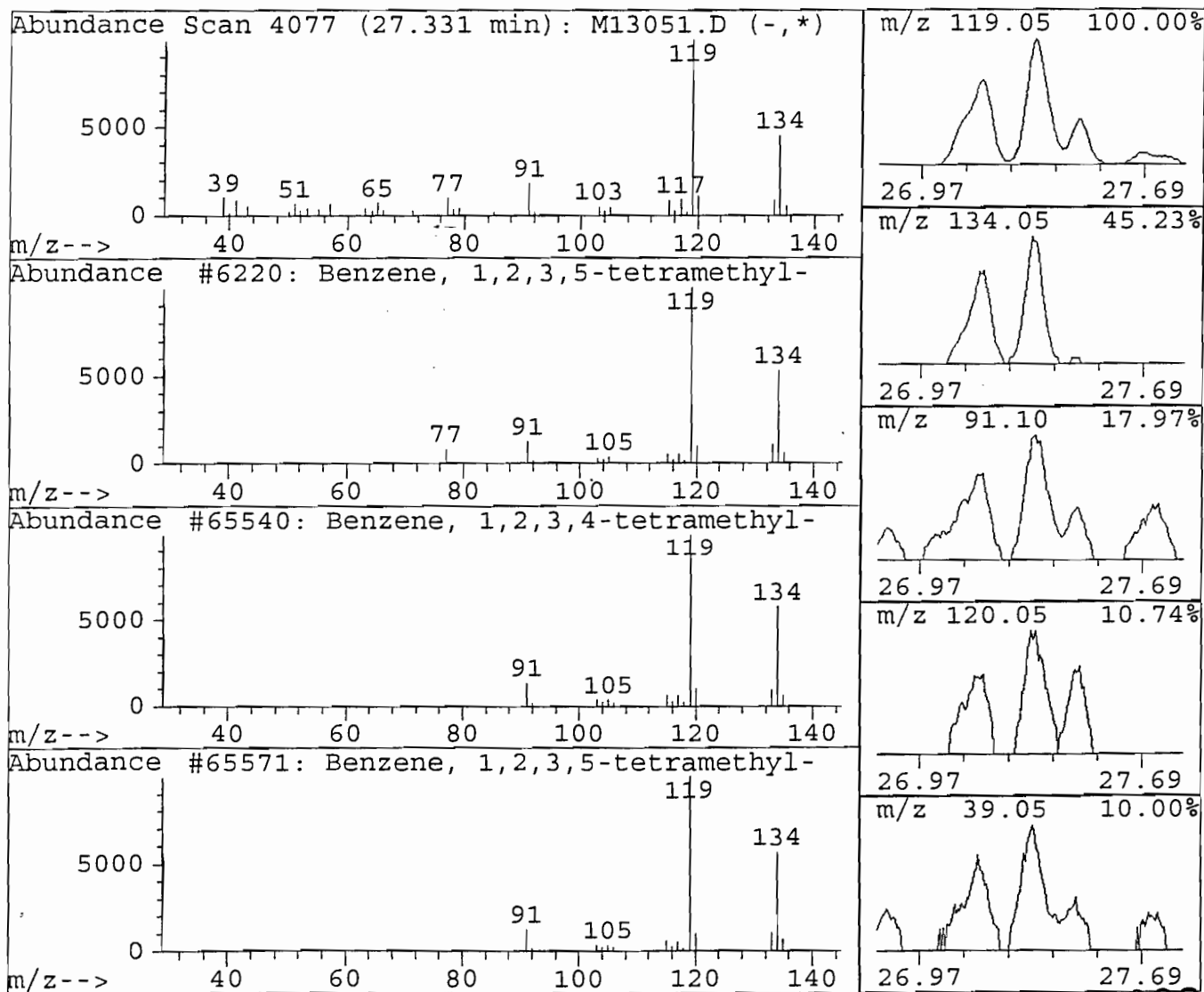
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.33	19.13 ug/L	3722717	1,4-dichlorobenzene-d4	25.16	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-		6220	000527-53-7	96
2	Benzene, 1,2,3,4-tetramethyl-		65540	000488-23-3	94
3	Benzene, 1,2,3,5-tetramethyl-		65571	000527-53-7	94
4	Benzene, 1,2,4,5-tetramethyl-		65575	000095-93-2	94
5	Benzene, 1,2,3,4-tetramethyl-		6202	000488-23-3	94



000228

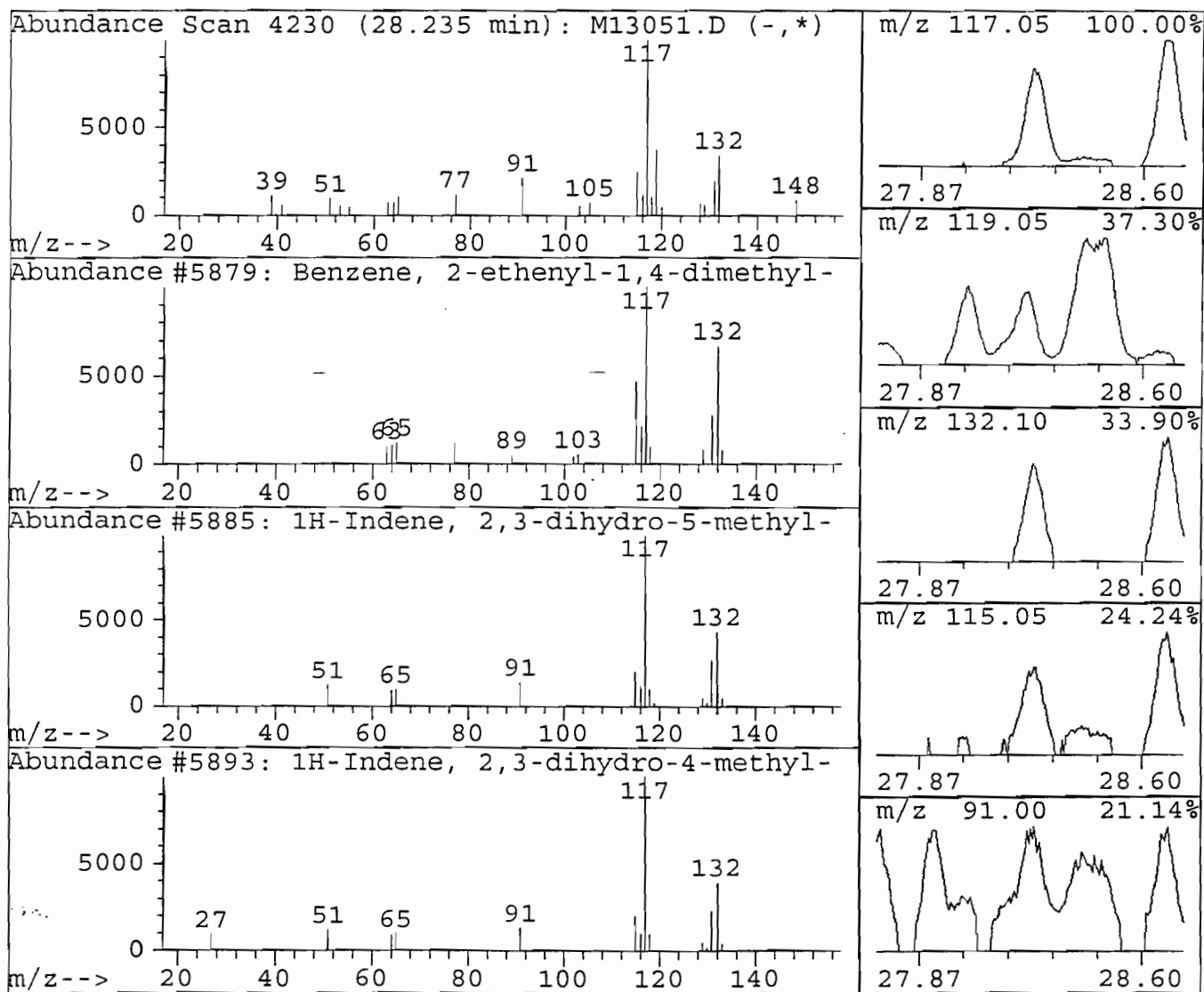
Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13051.D
Acq Time : 13 Oct 99 4:38 am
Sample : 13701ASP-86843 1:10 DIL
Misc : 5MLS 4G/10mL MeOH

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
28.24	10.74 ug/L	2090647	1,4-dichlorobenzene-d4	25.16	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-		5879	002039-89-6	91
2	1H-Indene, 2,3-dihydro-5-methyl-		5885	000874-35-1	87
3	1H-Indene, 2,3-dihydro-4-methyl-		5893	000824-22-6	81
4	Benzene, 1-methyl-2-(2-propenyl)-		65419	001587-04-8	74
5	Indan, 1-methyl-		5882	000767-58-8	72



000229

- 1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIP BLANK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP Site: _____ Location: _____ Group: GP-005-SS

Matrix: (soil/water) WATER Lab Sample ID: O86844

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M12947.D

Level: (low/med) _____ Date Received: 10/6/99

% Moisture: not dec. 100 Date Analyzed: 10/8/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane	5		U
74-87-3	Chloromethane	5		U
75-01-4	Vinyl Chloride	5		U
74-83-9	Bromomethane	5		U
75-00-3	Chloroethane	5		U
75-69-4	Trichlorofluoromethane	5		U
75-09-2	Methylene Chloride	5		U
75-34-4	1,1-Dichloroethane	5		U
590-20-7	2,2-Dichloropropane	5		U
74-97-5	Bromochloromethane	5		U
67-66-3	Chloroform	5		U
71-55-6	1,1,1-Trichloroethane	5		U
56-23-5	Carbon Tetrachloride	5		U
563-58-6	1,1-Dichloropropene	5		U
71-43-2	Benzene	5		U
107-06-2	1,2-Dichloroethane	5		U
79-01-6	Trichloroethene	5		U
78-87-5	1,2-Dichloropropane	5		U
74-95-3	Dibromomethane	5		U
75-27-4	Bromodichloromethane	5		U
108-88-3	Toluene	5		U
79-00-5	1,1,2-Trichloroethane	5		U
127-18-4	Tetrachloroethene	5		U
142-28-9	1,3-Dichloropropane	5		U
124-48-1	Dibromochloromethane	5		U
106-93-4	1,2-Dibromoethane	5		U
108-90-7	Chlorobenzene	5		U
630-20-6	1,1,1,2-Tetrachloroethane	5		U
100-41-4	Ethylbenzene	5		U
100-42-5	Styrene	5		U
75-25-2	Bromoform	5		U
98-82-8	isopropylbenzene	5		U
108-86-1	Bromobenzene	5		U

TRIP BLANK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Matrix: (soil/water) WATER

Lab Sample ID: O86844

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M12947.D

Level: (low/med)

Date Received: 10/6/99

% Moisture:	not dec.	100
-------------	----------	-----

Date Analyzed: 10/8/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg)

ug/L

Q

[illegible]

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TRIP BLANK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 1370 Site: _____ Location: _____ Group: GP-005-S
 Matrix: (soil/water) WATER Lab Sample ID: O86844
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: M12947.D
 Level: (low/med) _____ Date Received: 10/6/99
 % Moisture: not dec. 100 Date Analyzed: 10/8/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000232

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12947.D
 Acq Time : 8 Oct 99 3:41 pm
 Sample : 13701ASP-86844
 Misc : 5MLS
 Quant Time: Oct 8 17:11 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.08	96	2011056	50.00	ug/L	-0.03
42) Chlorobenzene-d5	20.42	117	1593469	50.00	ug/L	-0.06
56) 1,4-dichlorobenzene-d4	25.16	152	756978	50.00	ug/L	-0.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	12.37	113	698978	49.53	ug/L	99.06%
29) 1,2-Dichlorethane-d4	13.41	65	780946	40.48	ug/L	80.95%
37) Toluene-d8	17.32	98	2260670	55.14	ug/L	110.27%
41) 4-Bromofluorobenzene	22.90	95	931362	48.45	ug/L	96.89%

Target Compounds Qvalue

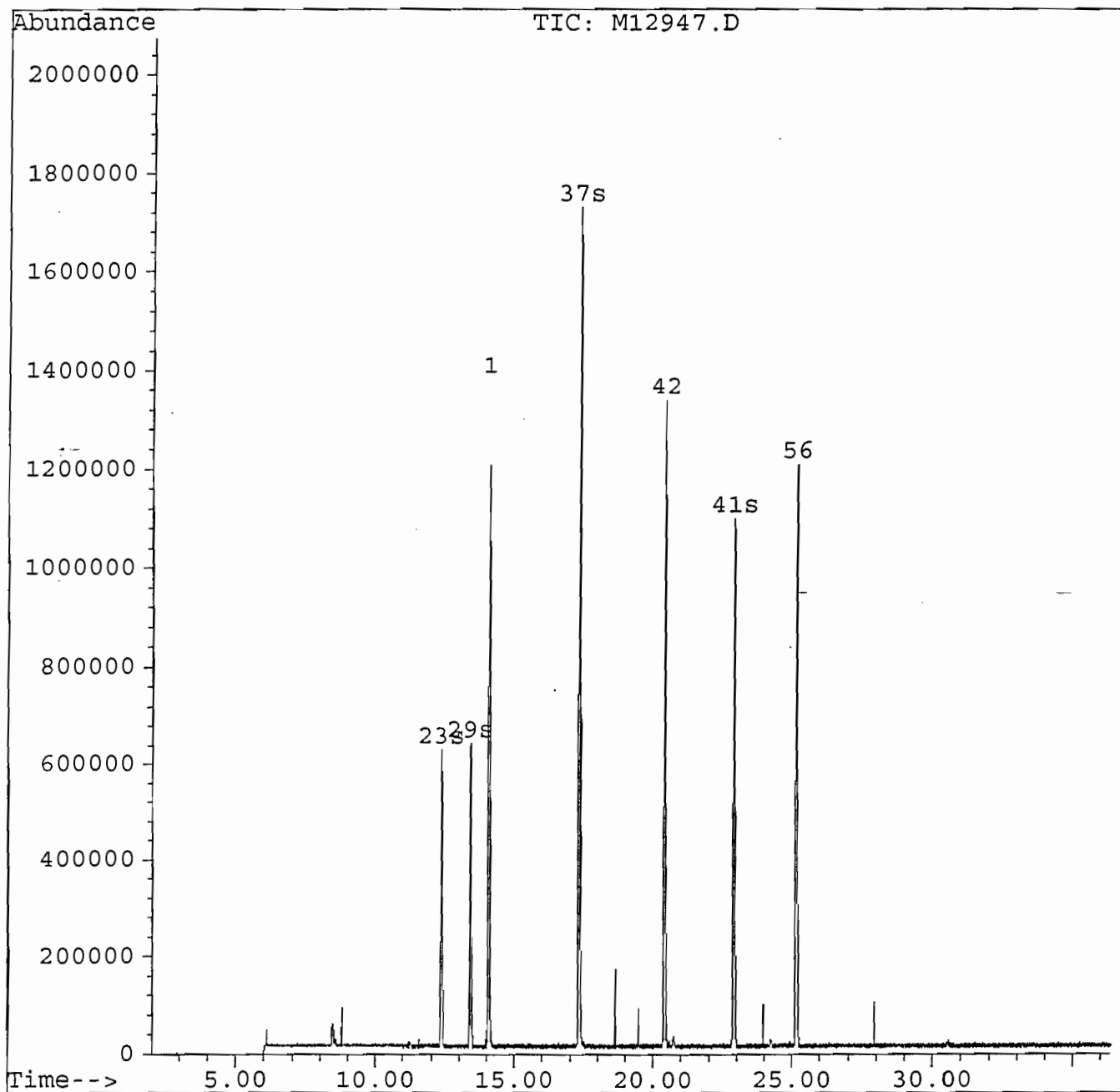
000233

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12947.D
Acq Time : 8 Oct 99 3:41 pm
Sample : 13701ASP-86844
Misc : 5MLS
Quant Time: Oct 8 17:11 1999

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
Title : VOA
Last Update : Thu Sep 16 14:22:43 1999
Response via : Multiple Level Calibration



Library Search Compound Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12947.D
Acq Time : 8 Oct 99 3:41 pm
Sample : 13701ASP-86844
Misc : 5MLS

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
Title : VOA
Library : NBS75K.L

No Library Search Compounds Detected

000235

CHEMTECH CONSULTING GROUP

VOLATILES
CALIBRATION DATA

000236

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SS

Instrument ID: VOA 3

Calibration Date(s): 10/9/99 10/9/99

Heated Purge: (Y/N) N

Calibration Times: 0832 1235

GC Column RTX624

ID: 0.53 (mm)

Lab File ID: RRF005 = M12959.D RRF20 = M12957.D
RRF50 = M12956.D RRF100 = M12955.D RRF200 = M12954.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.248	0.272	0.287	0.296	0.327	0.286	10.3
Chloromethane *	0.342	0.374	0.407	0.426	0.465	0.403	11.8 *
Vinyl Chloride	0.297	0.306	0.302	0.307	0.323	0.307	3.2
Bromomethane	0.237	0.253	0.238	0.200	0.112	0.208	27.4
Chloroethane	0.197	0.200	0.220	0.193	0.117	0.185	21.3
Trichlorofluoromethane	0.455	0.466	0.448	0.415	0.418	0.441	5.2
Methylene Chloride	0.271	0.304	0.301	0.317	0.317	0.302	6.2
1,1-Dichloroethane *	0.533	0.593	0.550	0.557	0.571	0.561	4.0 *
2,2-Dichloropropane	0.444	0.459	0.451	0.469	0.482	0.461	3.3
Bromochloromethane	0.285	0.319	0.309	0.316	0.312	0.308	4.4
Chloroform	0.557	0.603	0.573	0.587	0.594	0.583	3.1
1,1,1-Trichloroethane	0.436	0.475	0.474	0.484	0.487	0.471	4.4
Carbon Tetrachloride	0.380	0.412	0.403	0.411	0.422	0.405	3.9
1,1-Dichloropropene	0.390	0.415	0.405	0.411	0.411	0.406	2.4
Benzene	1.131	1.171	1.109	1.066	1.021	1.100	5.3
1,2-Dichloroethane	0.434	0.452	0.457	0.462	0.457	0.452	2.4
Trichloroethene	0.305	0.351	0.330	0.336	0.333	0.331	5.1
1,2-Dichloropropane	0.291	0.332	0.318	0.318	0.317	0.315	4.8
Dibromomethane	0.192	0.227	0.234	0.231	0.236	0.224	8.2
Bromodichloromethane	0.459	0.490	0.480	0.485	0.485	0.480	2.6
Toluene	1.291	1.251	1.183	1.167	1.126	1.204	5.5
1,1,2-Trichloroethane	0.259	0.282	0.277	0.278	0.278	0.275	3.3
Tetrachloroethene	0.397	0.394	0.382	0.375	0.380	0.385	2.4
1,3-Dichloropropane	0.638	0.617	0.616	0.596	0.591	0.612	3.1
Dibromochloromethane	0.411	0.423	0.421	0.420	0.426	0.420	1.4
1,2-Dibromoethane	0.355	0.367	0.372	0.363	0.360	0.363	1.8
Chlorobenzene *	0.973	0.925	0.906	0.892	0.876	0.914	4.1 *
1,1,1,2-Tetrachloroethane	0.325	0.341	0.336	0.308	0.321	0.326	4.0
Ethylbenzene	1.747	1.735	1.643	1.451	1.414	1.598	9.8
Styrene	1.024	0.992	1.003	0.931	0.904	0.971	5.3
Bromoform *	0.266	0.277	0.282	0.279	0.261	0.273	3.3 *
isopropylbenzene	3.374	3.483	3.381	3.292	3.407	3.387	2.0
Bromobenzene	1.534	1.556	1.501	1.470	1.416	1.495	3.7
1,1,2,2-Tetrachloroethane *	0.999	1.016	1.027	1.015	0.918	0.995	4.4 *
1,2,3-Trichloropropane	0.716	0.733	0.728	0.734	0.658	0.713	4.5
n-Propylbenzene	0.794	0.845	0.838	0.829	0.817	0.825	2.4

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

ID: 0.53 (mm)

3/90

Response Factor Report voa3

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:23:48 1999
 Response via : Initial Calibration

Calibration Files

50 =M12956.D 200 =M12954.D 100 =M12955.D
 20 =M12957.D 5 =M12959.D

Compound		50	200	100	20	5	Avg	%RSD
		-----ISTD-----						
1)	Fluorobenzene							
2) T	dichlorodifluoromethane	0.287	0.327	0.296	0.272	0.247	0.286	10.31
3) P	chloromethane	0.407	0.465	0.426	0.374	0.342	0.403	11.78#
4) C	vinyl chloride	0.302	0.323	0.307	0.306	0.297	0.307	3.17
5) T	bromomethane	0.238	0.112	0.200	0.253	0.237	0.208	27.37
6) T	chloroethane	0.219	0.117	0.193	0.200	0.197	0.185	21.29
7)	Acrolein	0.040	0.040	0.041	0.039	0.039	0.040	2.41
8) T	trichlorofluoromethane	0.448	0.418	0.415	0.466	0.455	0.441	5.17
9) C	1,1-dichloroethene	0.412	0.433	0.410	0.415	0.393	0.413	3.40
10)	Acetone	0.143	0.164	0.162	0.137	0.278	0.177	32.63
11)	Carbon Disulfide	0.940	0.951	0.947	0.982	0.932	0.950	1.98
12)	Iodo Methane	0.497	0.551	0.511	0.473	0.429	0.492	9.23
13) T	methylene chloride	0.301	0.317	0.317	0.304	0.271	0.302	6.23
14) T	trans-1,2-dichloroethene	0.409	0.424	0.424	0.437	0.400	0.419	3.44
15)	TBA	0.021	0.021	0.022	0.019	0.014	0.019	17.50
16)	MTBE	0.814	0.826	0.824	0.804	0.780	0.810	2.31
17)	Acrylonitrile	0.102	0.101	0.105	0.101	0.098	0.102	2.32
18) P	1,1-dichloroethane	0.550	0.571	0.557	0.593	0.533	0.561	4.02#
19) T	2,2-dichloropropane	0.451	0.482	0.469	0.459	0.443	0.461	3.29
20) T	cis-1,2-dichloroethene	0.457	0.450	0.473	0.478	0.435	0.459	3.76
21) T	bromochloromethane	0.309	0.312	0.316	0.319	0.285	0.308	4.38
22) C	chloroform	0.573	0.594	0.587	0.603	0.557	0.583	3.07
23) T	1,1,1-trichloroethane	0.474	0.487	0.484	0.475	0.436	0.471	4.36
24) S	Dibromofluoromethane	0.328	0.322	0.324	0.316	0.266	0.311	8.20
25)	Vinyl Acetate	0.970	0.989	0.992	1.023	0.945	0.984	2.95
26)	2-Butanone	0.186	0.180	0.197	0.171	0.220	0.191	9.91
27) T	carbon tetrachloride	0.403	0.422	0.411	0.412	0.380	0.405	3.90
28) T	1,1-dichloropropene	0.404	0.410	0.411	0.415	0.390	0.406	2.39
29) T	benzene	1.109	1.021	1.066	1.171	1.131	1.100	5.27
30) S	1,2-Dichloroethane-d4	0.360	0.363	0.365	0.362	0.302	0.351	7.68
31) T	1,2-dichloroethane	0.457	0.457	0.462	0.452	0.434	0.452	2.36
32) T	trichloroethene	0.330	0.332	0.336	0.351	0.305	0.331	5.06
33) C	1,2-dichloropropane	0.318	0.317	0.318	0.332	0.291	0.315	4.78
34) T	dibromomethane	0.234	0.236	0.231	0.227	0.191	0.224	8.23
35) T	bromodichloromethane	0.480	0.485	0.485	0.490	0.459	0.480	2.56
36)	2-Chloroethyl Vinyl Ether	0.188	0.199	0.197	0.176	0.152	0.183	10.57
37) T	cis-1,3-dichloropropene	0.528	0.538	0.539	0.553	0.509	0.533	2.98
38) S	Toluene-d8	1.022	0.966	0.974	1.014	0.895	0.974	5.16
39) C	toluene	1.183	1.126	1.167	1.251	1.291	1.204	5.51
40) T	trans-1,3-dichloropropene	0.484	0.497	0.489	0.484	0.456	0.482	3.20
41) T	1,1,2-trichloroethane	0.277	0.277	0.278	0.282	0.259	0.275	3.28
42) S	4-Bromofluorobenzene	0.431	0.392	0.412	0.442	0.382	0.412	6.17
43)	Chlorobenzene-d5	-----ISTD-----						

Response Factor Report voa3

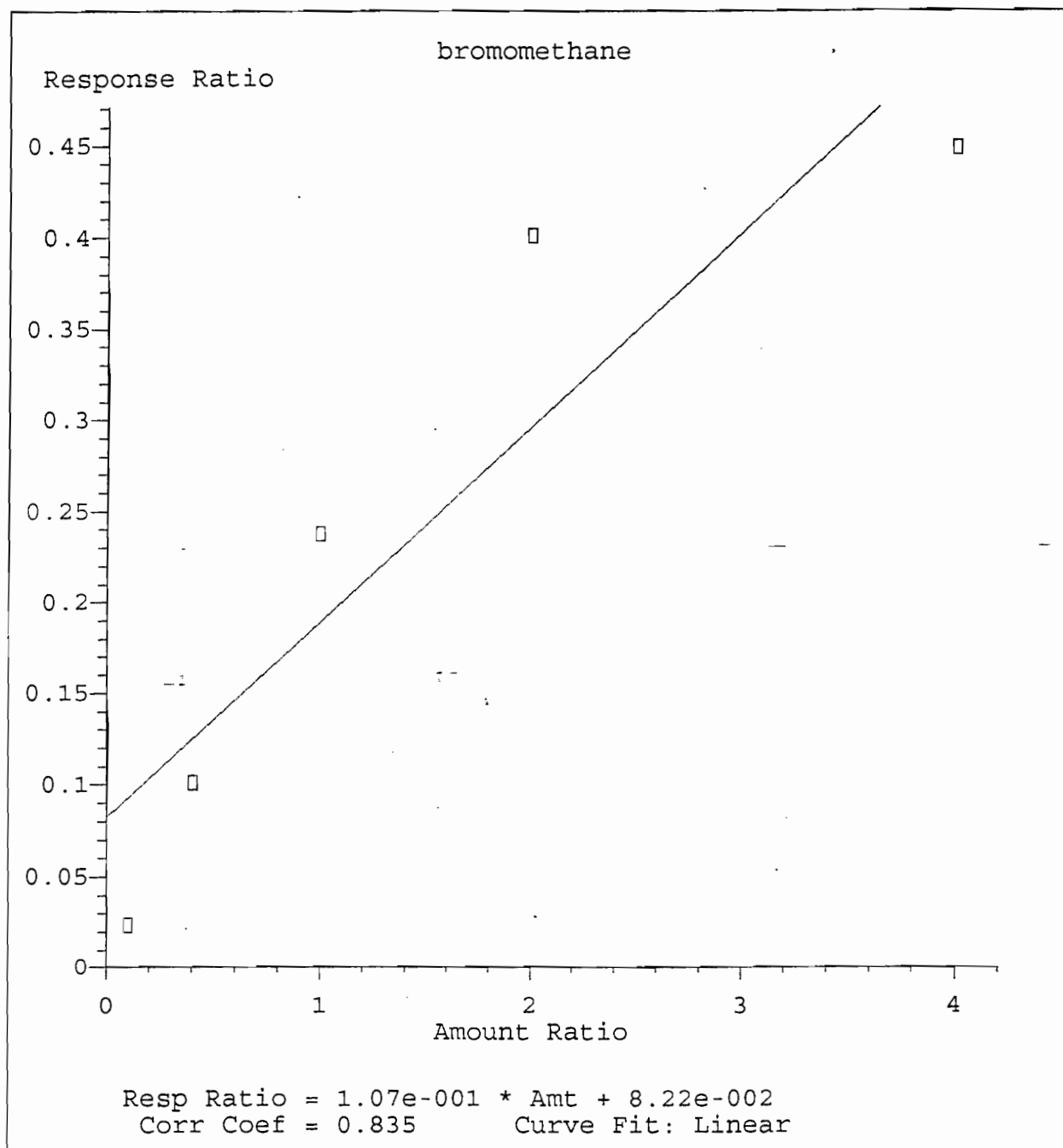
Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:23:48 1999
 Response via : Initial Calibration

Calibration Files

50 =M12956.D 200 =M12954.D 100 =M12955.D
 20 =M12957.D 5 =M12959.D

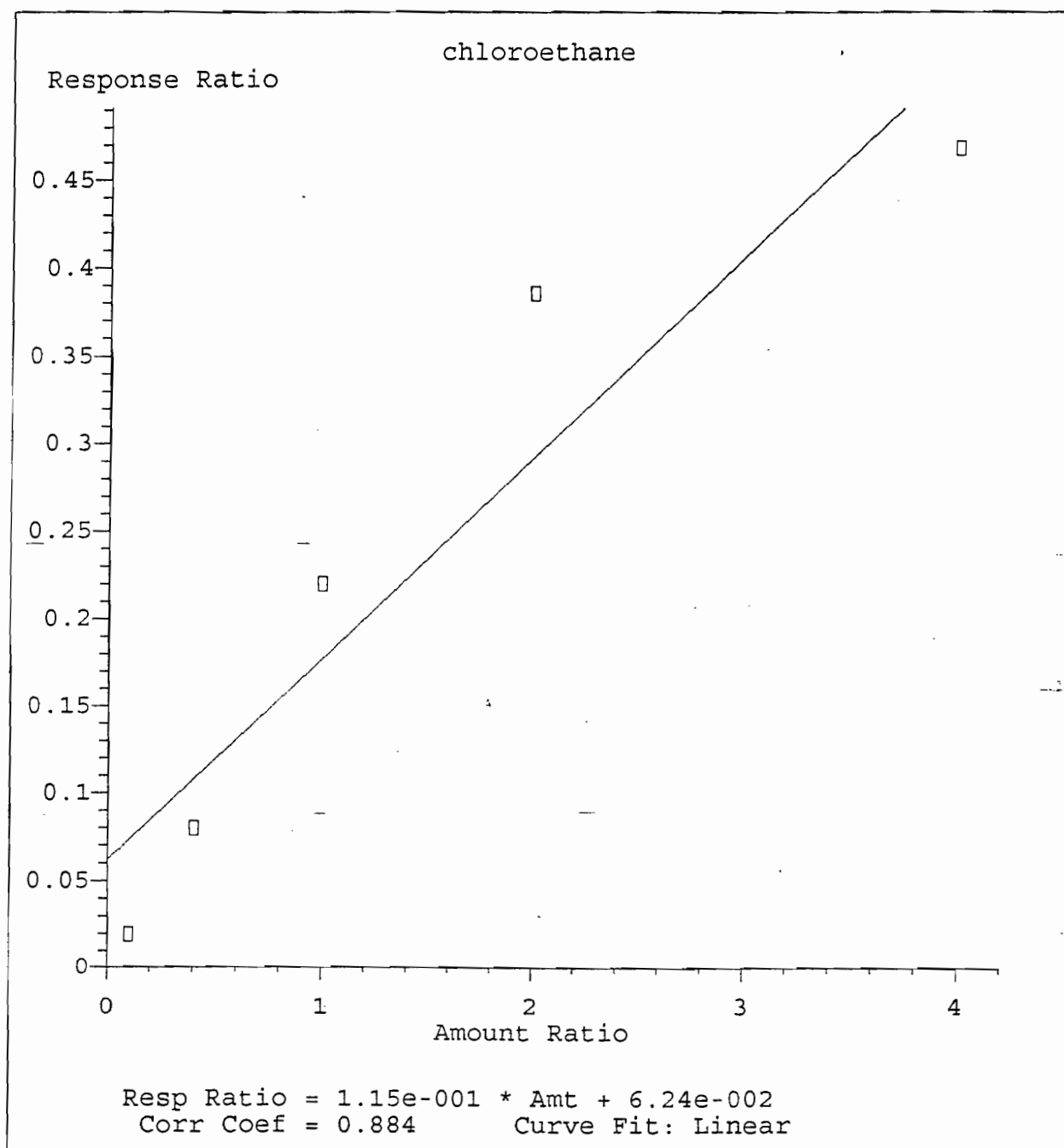
Compound	50	200	100	20	5	Avg	%RSD
44) 4-Methyl-2-Pentanone	0.365	0.289	0.361	0.323	0.303	0.328	10.36
45) T tetrachloroethene	0.381	0.380	0.375	0.394	0.396	0.385	2.44
46) T 1,3-dichloropropane	0.616	0.591	0.596	0.617	0.638	0.612	3.07
47) T dibromochloromethane	0.421	0.426	0.420	0.423	0.411	0.420	1.39
48) T 1,2-dibromoethane	0.372	0.360	0.363	0.367	0.355	0.363	1.81
49) 2-Hexanone	0.266	0.268	0.283	0.203	0.139	0.232	25.95
50) P chlorobenzene	0.905	0.876	0.892	0.925	0.973	0.914	4.09#
51) 1-Chlorohexane	0.605	0.569	0.571	0.627	0.616	0.598	4.42
52) T 1,1,1,2-tetrachloroethane	0.336	0.321	0.308	0.341	0.325	0.326	4.01
53) C ethylbenzene	1.643	1.414	1.451	1.735	1.747	1.598	9.81
54) T m&p-xylenes	0.555	0.488	0.506	0.565	0.601	0.543	8.40
55) T o-xylene	1.255	1.140	1.207	1.309	1.368	1.256	7.04
56) T styrene	1.003	0.904	0.931	0.992	1.024	0.971	5.27
57) P bromoform	0.282	0.261	0.279	0.277	0.266	0.273	3.29#
58) 1,4-dichlorobenzene-d4	-----ISTD-----						
59) T isopropylbenzene	3.381	3.407	3.292	3.483	3.373	3.387	2.03
60) T bromobenzene	1.501	1.416	1.470	1.556	1.534	1.495	3.69
61) P 1,1,2,2-tetrachloroethane	1.027	0.918	1.015	1.015	0.999	0.995	4.44#
62) 1,2,3-trichloropropane	0.728	0.658	0.734	0.733	0.715	0.713	4.49
63) T n-propylbenzene	0.838	0.817	0.829	0.845	0.794	0.825	2.44
64) T 2-chlorotoluene	0.789	0.685	0.732	0.793	0.791	0.758	6.39
65) T 4-chlorotoluene	0.778	0.785	0.776	0.820	0.774	0.787	2.44
66) T 1,3,5-trimethylbenzene	2.672	2.579	2.685	2.841	2.861	2.728	4.40
67) T tert-butylbenzene	2.385	2.559	2.335	2.482	2.769	2.506	6.82
68) T 1,2,4-trimethylbenzene	2.804	2.607	2.600	2.820	2.834	2.733	4.34
69) T sec-butylbenzene	3.407	3.183	3.245	3.495	3.511	3.368	4.39
70) T 1,3-dichlorobenzene	1.576	1.432	1.510	1.622	1.563	1.541	4.71
71) T 4-isopropyltoluene	2.915	2.893	2.853	3.058	3.222	2.988	5.09
72) T 1,4-dichlorobenzene	1.603	1.517	1.580	1.659	1.633	1.598	3.40
73) T 1,2-dichlorobenzene	1.540	1.391	1.457	1.533	1.486	1.482	4.13
74) T n-butylbenzene	2.740	2.693	2.756	2.907	2.968	2.813	4.20
75) T 1,2-dibromo-3-chloropropa	0.157	0.158	0.166	0.132	0.175	0.157	10.14
76) T 1,2,4-trichlorobenzene	1.048	1.165	1.090	1.066	0.958	1.065	7.03
77) T hexachlorobutadiene	0.530	0.563	0.538	0.516	0.467	0.523	6.74
78) T naphthalene	2.092	1.962	2.085	2.264	2.053	2.091	5.24
79) T 1,2,3-trichlorobenzene	0.911	0.956	0.914	0.907	0.856	0.909	3.90

000240



Method Name: D:\HPCHEM\3\METHODS\V31009CW.M
Calibration Table Last Updated: Sat Oct 09 13:27:32 1999

000241



Method Name: D:\HPCHEM\3\METHODS\V31009CW.M
Calibration Table Last Updated: Sat Oct 09 13:25:34 1999

000242

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12954.D
 Acq Time : 9 Oct 99 8:32 am
 Sample : 200 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:04 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.09	96	1903300	50.00	ug/L	-0.02
43) Chlorobenzene-d5	20.45	117	1642878	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.19	152	691708	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	12.38	113	2449880	196.49	ug/L	392.99%
30) 1,2-Dichloroethane-d4	13.42	65	2764536	201.47	ug/L	402.94%
38) Toluene-d8	17.35	98	7352218	189.05	ug/L	378.11%
42) 4-Bromofluorobenzene	22.94	95	2981787	181.58	ug/L	363.16%

Target Compounds						Qvalue
2) dichlorodifluoromethane	3.46	85	2491100	228.35	ug/L	98
3) chloromethane	4.01	50	3540749	228.38	ug/L	97
4) vinyl chloride	4.13	62	2457774	213.75	ug/L	99
5) bromomethane	5.00	94	854007	94.41	ug/L	97
6) chloroethane	5.17	64	891670	106.73	ug/L m	96
7) Acrolein	6.97	56	3042013	2006.54	ug/L	100
8) trichlorofluoromethane	5.76	101	3183243	186.62	ug/L	99
9) 1,1-dichloroethene	7.32	61	3294579	209.95	ug/L	94
10) Acetone	7.23	43	1249007	229.44	ug/L	94
11) Carbon Disulfide	8.47	76	7238749	202.27	ug/L	100
12) Iodo Methane	8.05	142	4194438	221.59	ug/L	98
13) methylene chloride	8.53	84	2414305	210.77	ug/L	99
14) trans-1,2-dichloroethene	9.22	61	3229023	207.46	ug/L	99
15) TBA	8.42	59	1633441	2079.38	ug/L m	61
16) MTBE	9.00	73	6288893	202.86	ug/L	99
17) Acrylonitrile	8.92	53	7700273	1979.49	ug/L	100
18) 1,1-dichloroethane	10.21	63	4346828	207.46	ug/L	97
19) 2,2-dichloropropane	11.46	77	3669646	213.88	ug/L	99
20) cis-1,2-dichloroethene	11.56	61	3424642	196.72	ug/L	98
21) bromochloromethane	12.25	49	2378013	202.29	ug/L	98
22) chloroform	11.92	83	4521741	207.22	ug/L	97
23) 1,1,1-trichloroethane	12.75	97	3706008	205.55	ug/L	98
25) Vinyl Acetate	10.27	43	7529314	203.82	ug/L	99
26) 2-Butanone	11.26	43	1373157	194.08	ug/L	98
27) carbon tetrachloride	13.30	117	3212183	209.53	ug/L	97
28) 1,1-dichloropropene	13.08	75	3124866	202.96	ug/L	99
29) benzene	13.65	78	7774178	184.12	ug/L	99
31) 1,2-dichloroethane	13.62	62	3479210	200.09	ug/L	99
32) trichloroethene	14.91	130	2531154	201.48	ug/L	98
33) 1,2-dichloropropane	15.27	63	2416539	199.67	ug/L	98
34) dibromomethane	15.87	174	1797435	202.03	ug/L	98
35) bromodichloromethane	15.75	83	3693010	202.13	ug/L	100
36) 2-Chloroethyl Vinyl Ether	16.34	63	1514029	211.18	ug/L	98

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

000243

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12954.D
 Acq Time : 9 Oct 99 8:32 am
 Sample : 200 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:04 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

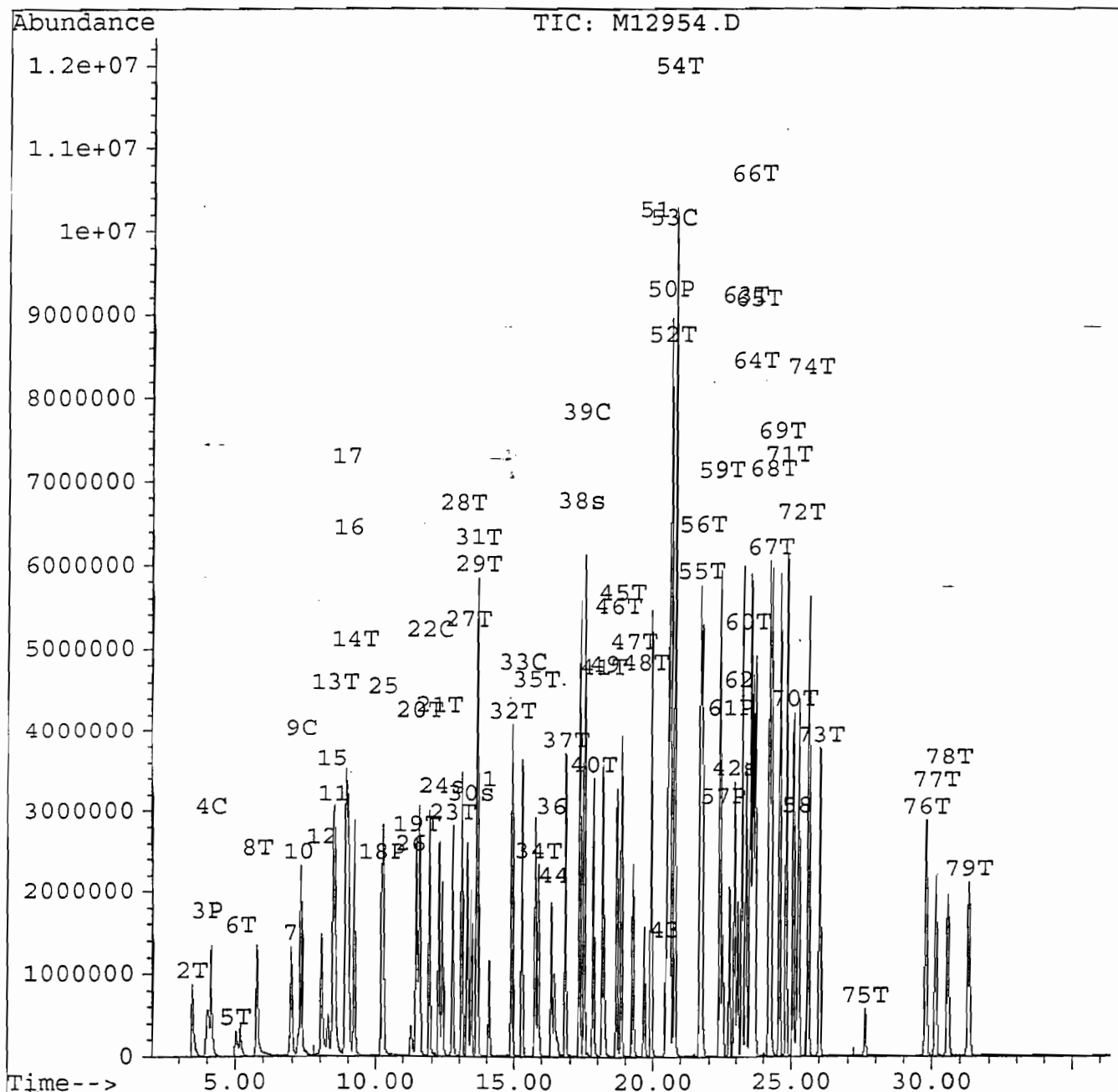
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.84	75	4092696	203.53	ug/L	97
39) toluene	17.51	91	8575587	190.43	ug/L	99
40) trans-1,3-dichloropropene	17.84	75	3780432	205.29	ug/L	99
41) 1,1,2-trichloroethane	18.18	97	2112654	200.67	ug/L	95
44) 4-Methyl-2-Pentanone	16.45	43	1899221	158.55	ug/L	96
45) tetrachloroethene	18.85	166	2496850	199.19	ug/L	99
46) 1,3-dichloropropane	18.69	76	3882371	191.90	ug/L	100
47) dibromochloromethane	19.26	129	2800559	202.44	ug/L	98
48) 1,2-dibromoethane	19.68	107	2366688	193.49	ug/L	95
49) 2-Hexanone	18.24	43	1758592	201.32	ug/L	99
50) chlorobenzene	20.53	112	5756825	193.49	ug/L	98
51) 1-Chlorohexane	19.94	91	3738584	187.92	ug/L	99
52) 1,1,1,2-tetrachloroethane	20.59	133	2109595	191.14	ug/L	99
53) ethylbenzene	20.61	91	9291842	172.15	ug/L	97
54) m&p-xylenes	20.77	106	6413781	351.58	ug/L	95
55) o-xylene	21.67	91	7488867	181.55	ug/L	99
56) styrene	21.74	104	5938683	180.16	ug/L	99
57) bromoform	22.51	173	1717768	185.31	ug/L	100
59) isopropylbenzene	22.39	105	9425809	201.52	ug/L	98
60) bromobenzene	23.36	77	3917834	188.65	ug/L	98
61) 1,1,2,2-tetrachloroethane	22.76	83	2539894	178.71	ug/L	96
62) 1,2,3-trichloropropane	23.06	75	1819389	180.75	ug/L	96
63) n-propylbenzene	23.22	120	2259949	194.85	ug/L	91
64) 2-chlorotoluene	23.61	126	1894925	173.56	ug/L	97
65) 4-chlorotoluene	23.69	126	2172653	201.78	ug/L	96
66) 1,3,5-trimethylbenzene	23.52	105	7135734	193.03	ug/L	97
67) tert-butylbenzene	24.20	119	7080854	214.63	ug/L	99
68) 1,2,4-trimethylbenzene	24.27	105	7212414	185.94	ug/L	98
69) sec-butylbenzene	24.58	105	8807846	186.88	ug/L	98
70) 1,3-dichlorobenzene	25.06	146	3963151	181.75	ug/L	99
71) 4-isopropyltoluene	24.81	119	8005258	198.52	ug/L	98
72) 1,4-dichlorobenzene	25.26	146	4197744	189.29	ug/L	98
73) 1,2-dichlorobenzene	26.01	146	3849046	180.62	ug/L	98
74) n-butylbenzene	25.60	91	7451529	196.57	ug/L	95
75) 1,2-dibromo-3-chloropropan	27.63	75	437146	201.85	ug/L	98
76) 1,2,4-trichlorobenzene	29.79	180	3223039	222.25	ug/L	97
77) hexachlorobutadiene	30.13	225	1556387	212.08	ug/L	97
78) naphthalene	30.57	128	5428522	187.54	ug/L	97
79) 1,2,3-trichlorobenzene	31.29	180	2645573	209.92	ug/L	97

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12954.D
 Acq Time : 9 Oct 99 8:32 am
 Sample : 200 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:04 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



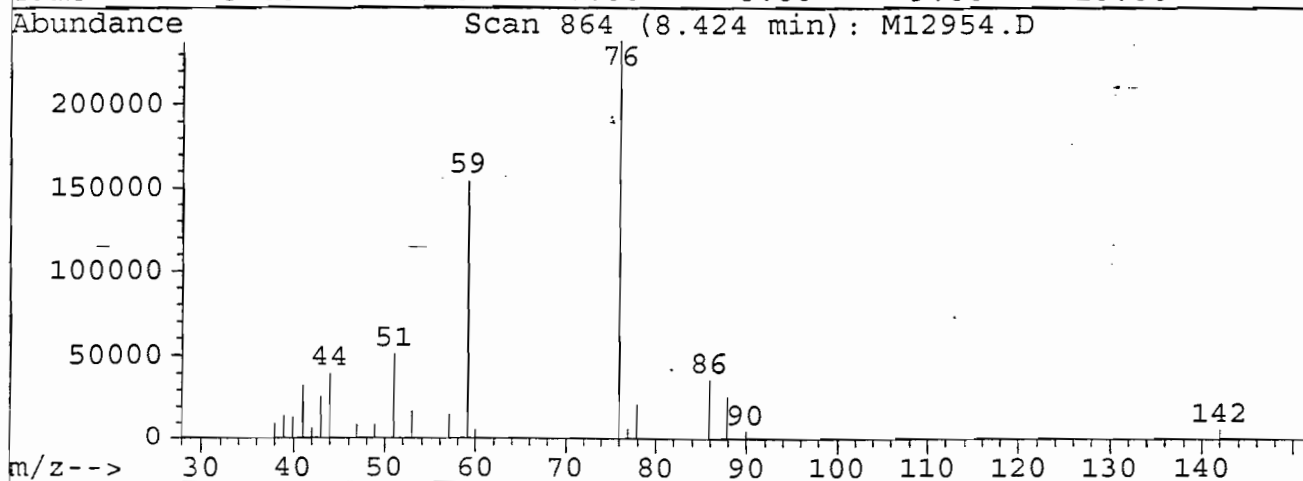
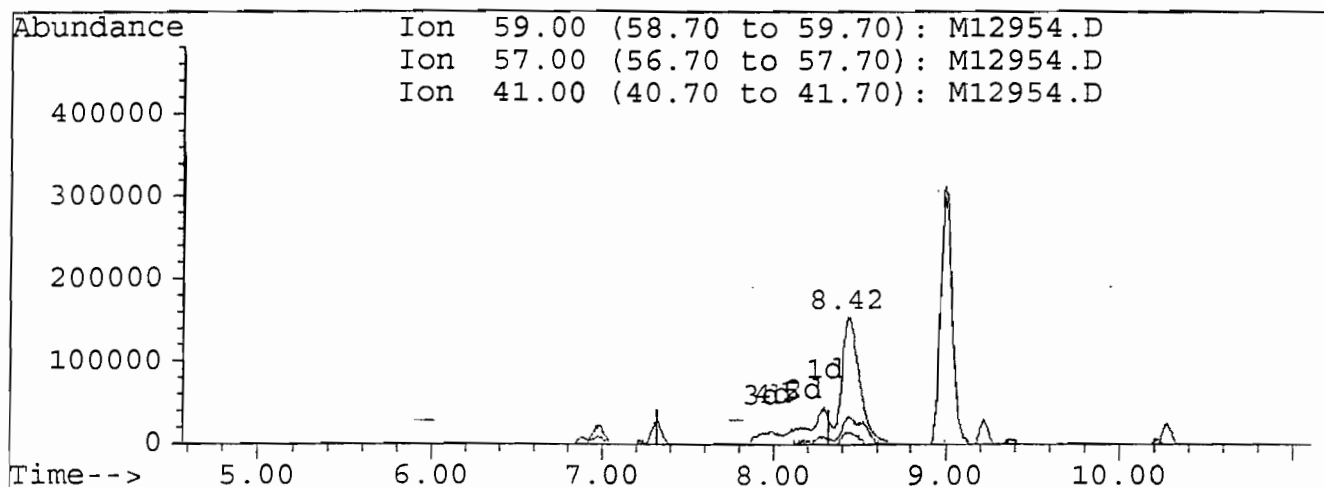
000245

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12954.D
 Acq Time : 9 Oct 99 8:32 am
 Sample : 200 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:04 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12954.D

(15) TBA

8.42min 2079.38ug/L m

response 1633441

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	9.20
41.00	20.60	20.70
0.00	0.00	0.00

000246

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12955.D
 Acq Time : 9 Oct 99 9:17 am
 Sample : 100 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:08 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.11	96	2034665	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.46	117	1763980	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.19	152	750397	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	12.40	113	1318836	98.95	ug/L	197.90%
30) 1,2-Dichlorethane-d4	13.44	65	1484370	101.19	ug/L	202.39%
38) Toluene-d8	17.36	98	3965441	95.38	ug/L	190.77%
42) 4-Bromofluorobenzene	22.93	95	1678001	95.59	ug/L	191.17%

Target Compounds						Qvalue
2) dichlorodifluoromethane	3.50	85	1203188	103.17	ug/L	100
3) chloromethane	4.02	50	1735316	104.70	ug/L	100
4) vinyl chloride	4.17	62	1248604	101.58	ug/L	100
5) bromomethane	5.06	94	815381	84.32	ug/L	99
6) chloroethane	5.25	64	784503	87.84	ug/L	98
7) Acrolein	7.00	56	1663688	1026.53	ug/L	100
8) trichlorofluoromethane	5.86	101	1689106	92.63	ug/L	100
9) 1,1-dichloroethene	7.38	61	1669921	99.55	ug/L	97
10) Acetone	7.22	43	659187	113.27	ug/L	95
11) Carbon Disulfide	8.53	76	3853718	100.73	ug/L	100
12) Iodo Methane	8.10	142	2078220	102.70	ug/L	100
13) methylene chloride	8.57	84	1289321	105.29	ug/L	100
14) trans-1,2-dichloroethene	9.26	61	1725700	103.71	ug/L	98
15) TBA	8.20	59	897239	1068.44	ug/L m	87
16) MTBE	9.00	73	3351522	101.13	ug/L	99
17) Acrylonitrile	8.92	53	4263940	1025.35	ug/L	100
18) 1,1-dichloroethane	10.25	63	2266798	101.20	ug/L	98
19) 2,2-dichloropropane	11.49	77	1907809	104.02	ug/L	98
20) cis-1,2-dichloroethene	11.59	61	1924608	103.42	ug/L	99
21) bromochloromethane	12.28	49	1285335	102.28	ug/L	94
22) chloroform	11.93	83	2387734	102.36	ug/L	97
23) 1,1,1-trichloroethane	12.79	97	1969182	102.17	ug/L	95
25) Vinyl Acetate	10.29	43	4037018	102.23	ug/L	99
26) 2-Butanone	11.26	43	803378	106.22	ug/L	99
27) carbon tetrachloride	13.32	117	1671798	102.01	ug/L	95
28) 1,1-dichloropropene	13.11	75	1670619	101.50	ug/L	98
29) benzene	13.67	78	4339325	96.14	ug/L	100
31) 1,2-dichloroethane	13.63	62	1878652	101.06	ug/L	99
32) trichloroethene	14.92	130	1367319	101.81	ug/L	99
33) 1,2-dichloropropane	15.28	63	1295011	100.10	ug/L	99
34) dibromomethane	15.88	174	939498	98.78	ug/L	99
35) bromodichloromethane	15.76	83	1974386	101.09	ug/L	98
36) 2-Chloroethyl Vinyl Ether	16.35	63	803037	104.78	ug/L	98

(#) = qualifier out of range (m) = manual integration
 M12955.D V31009CW.M Sat Oct 09 12:09:13 1999

VOA3

Page 1

000247

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12955.D
 Acq Time : 9 Oct 99 9:17 am
 Sample : 100 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:08 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.85	75	2192721	102.01	ug/L	96
39) toluene	17.52	91	4750698	98.68	ug/L	97
40) trans-1,3-dichloropropene	17.85	75	1991220	101.15	ug/L	98
41) 1,1,2-trichloroethane	18.18	97	1133003	100.67	ug/L	96
44) 4-Methyl-2-Pentanone	16.43	43	1274072	99.06	ug/L	97
45) tetrachloroethene	18.85	166	1321299	98.17	ug/L	97
46) 1,3-dichloropropane	18.69	76	2103790	96.85	ug/L	99
47) dibromochloromethane	19.26	129	1480879	99.69	ug/L	99
48) 1,2-dibromoethane	19.68	107	1279989	97.46	ug/L	97
49) 2-Hexanone	18.18	43	997845	106.39	ug/L	99
50) chlorobenzene	20.53	112	3145689	98.47	ug/L	98
51) 1-Chlorohexane	19.94	91	2015464	94.35	ug/L	98
52) 1,1,1,2-tetrachloroethane	20.60	133	1086208	91.66	ug/L	100
53) ethylbenzene	20.61	91	5120586	88.36	ug/L	99
54) m&p-xylenes	20.77	106	3569379	182.23	ug/L	99
55) o-xylene	21.67	91	4257439	96.13	ug/L	100
56) styrene	21.73	104	3283045	92.76	ug/L	99
57) bromoform	22.48	173	985589	99.03	ug/L	98
59) isopropylbenzene	22.39	105	4940762	97.37	ug/L	98
60) bromobenzene	23.36	77	2205709	97.90	ug/L	100
61) 1,1,2,2-tetrachloroethane	22.74	83	1523552	98.82	ug/L	97
62) 1,2,3-trichloropropane	23.05	75	1101258	100.85	ug/L	97
63) n-propylbenzene	23.21	120	1243578	98.83	ug/L	96
64) 2-chlorotoluene	23.60	126	1097980	92.70	ug/L	98
65) 4-chlorotoluene	23.68	126	1164365	99.68	ug/L	99
66) 1,3,5-trimethylbenzene	23.52	105	4030072	100.49	ug/L	99
67) tert-butylbenzene	24.19	119	3503800	97.90	ug/L	99
68) 1,2,4-trimethylbenzene	24.26	105	3902812	92.75	ug/L	99
69) sec-butylbenzene	24.57	105	4869531	95.24	ug/L	99
70) 1,3-dichlorobenzene	25.05	146	2265702	95.78	ug/L	99
71) 4-isopropyltoluene	24.81	119	4281282	97.87	ug/L	98
72) 1,4-dichlorobenzene	25.25	146	2371219	98.56	ug/L	100
73) 1,2-dichlorobenzene	25.99	146	2186791	94.59	ug/L	98
74) n-butylbenzene	25.59	91	4136137	100.58	ug/L	100
75) 1,2-dibromo-3-chloropropan	27.63	75	249505	106.20	ug/L	99
76) 1,2,4-trichlorobenzene	29.79	180	1636042	103.99	ug/L	99
77) hexachlorobutadiene	30.14	225	807222	101.39	ug/L	97
78) naphthalene	30.57	128	3128419	99.62	ug/L	98
79) 1,2,3-trichlorobenzene	31.29	180	1372093	100.36	ug/L	98

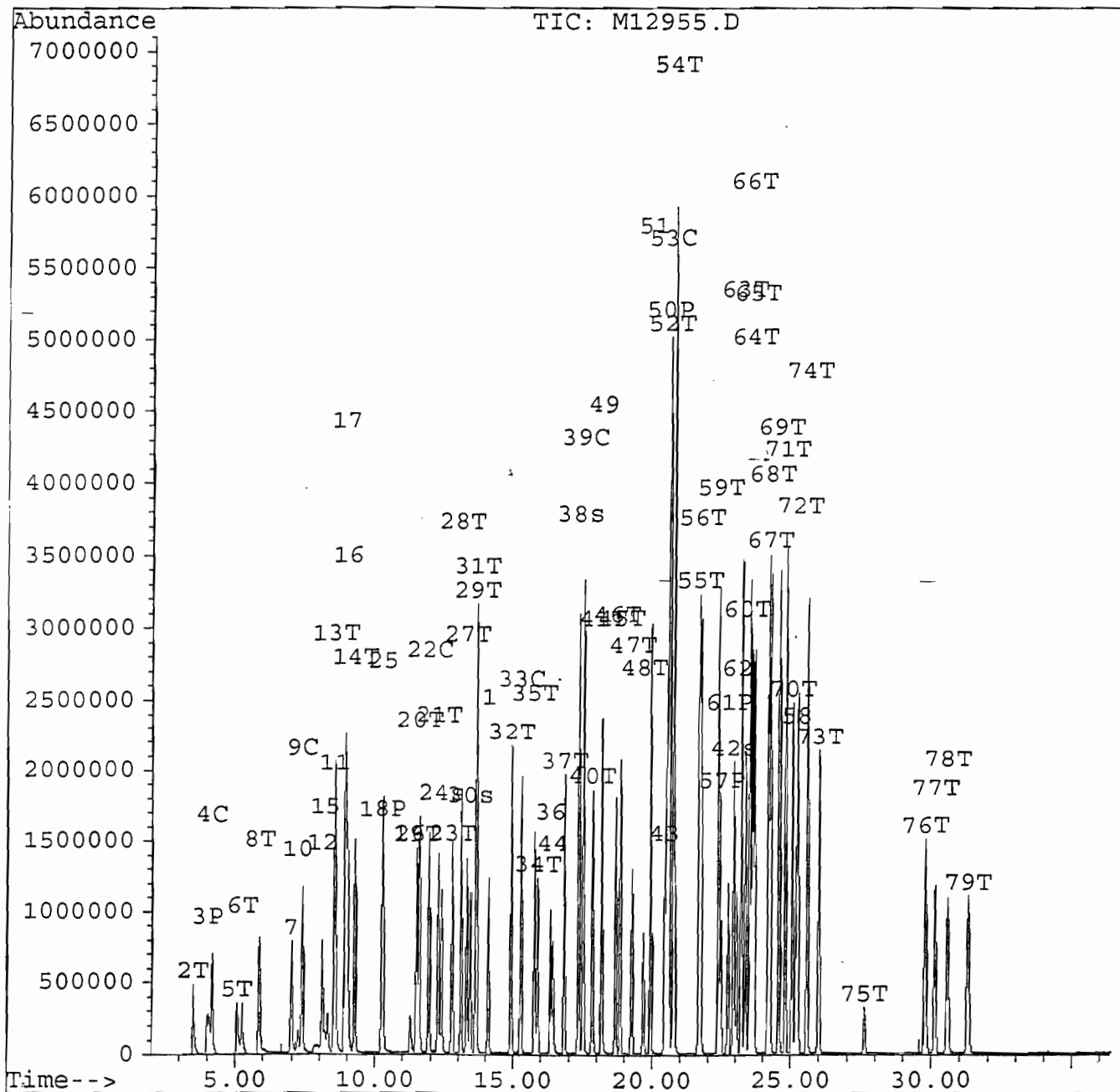
000248

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12955.D
 Acq Time : 9 Oct 99 9:17 am
 Sample : 100 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:08 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



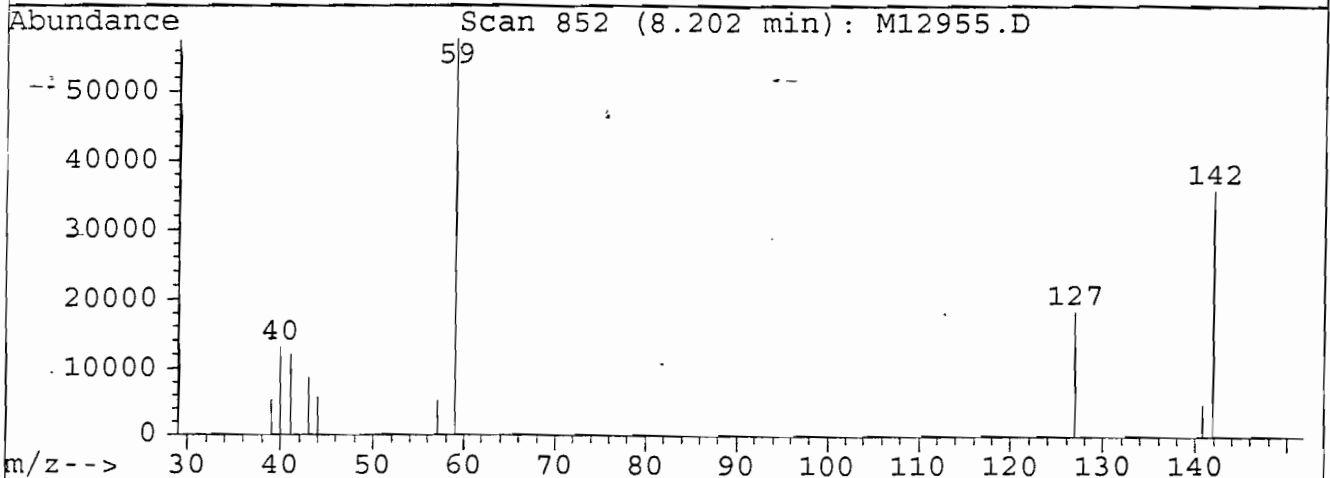
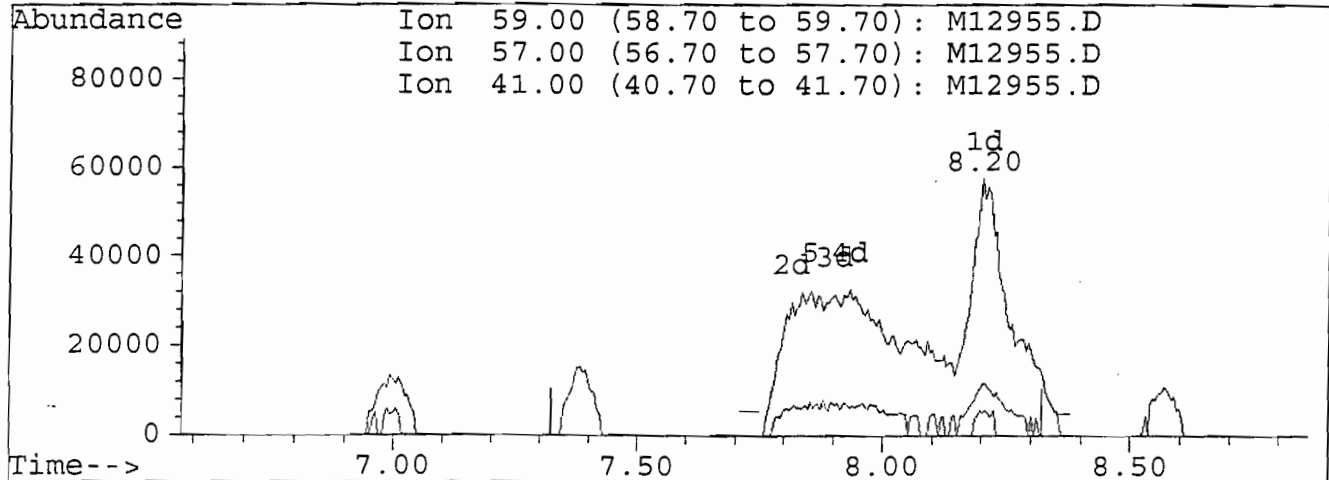
000249

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12955.D
 Acq Time : 9 Oct 99 9:17 am
 Sample : 100 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:08 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12955.D

(15) TBA

8.20min 1068.44ug/L m

response 897239

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	9.01
41.00	20.60	20.54
0.00	0.00	0.00

000250

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12956.D
 Acq Time : 9 Oct 99 10:02 am
 Sample : 50 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 11:46 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.10	96	2018190	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.45	117	1680493	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.18	152	736615	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.40	113	661026	50.00	ug/L	100.00%
30) 1,2-Dichlorethane-d4	13.44	65	727499	50.00	ug/L	100.00%
38) Toluene-d8	17.36	98	2061848	50.00	ug/L	100.00%
42) 4-Bromofluorobenzene	22.93	95	870630	50.00	ug/L	100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.50	85	578378	50.00	ug/L	100
3) chloromethane	4.03	50	821965	50.00	ug/L	100
4) vinyl chloride	4.18	62	609612	50.00	ug/L	100
5) bromomethane	5.09	94	479574	50.00	ug/L	100
6) chloroethane	5.27	64	442937	50.00	ug/L	100
7) Acrolein	6.98	56	803781	500.00	ug/L	100
8) trichlorofluoromethane	5.88	101	904364	50.00	ug/L	100
9) 1,1-dichloroethene	7.40	61	831960	50.00	ug/L	100
10) Acetone	7.19	43	288612	50.00	ug/L	100
11) Carbon Disulfide	8.55	76	1897407	50.00	ug/L	100
12) Iodo Methane	8.11	142	1003564	50.00	ug/L	100
13) methylene chloride	8.57	84	607308	50.00	ug/L	100
14) trans-1,2-dichloroethene	9.27	61	825216	50.00	ug/L	100
15) TBA	7.82	59	416421	499.93	ug/L m	61
16) MTBE	9.00	73	1643609	50.00	ug/L	100
17) Acrylonitrile	8.91	53	2062427	500.00	ug/L	100
18) 1,1-dichloroethane	10.25	63	1110847	50.00	ug/L	100
19) 2,2-dichloropropane	11.50	77	909649	50.00	ug/L	100
20) cis-1,2-dichloroethene	11.59	61	922986	50.00	ug/L	100
21) bromochloromethane	12.28	49	623248	50.00	ug/L	100
22) chloroform	11.94	83	1156930	50.00	ug/L	100
23) 1,1,1-trichloroethane	12.78	97	955892	50.00	ug/L	100
25) Vinyl Acetate	10.28	43	1958579	50.00	ug/L	100
26) 2-Butanone	11.25	43	375108	50.00	ug/L	100
27) carbon tetrachloride	13.32	117	812791	50.00	ug/L	100
28) 1,1-dichloropropene	13.11	75	816277	50.00	ug/L	100
29) benzene	13.67	78	2238612	50.00	ug/L	100
31) 1,2-dichloroethane	13.63	62	921906	50.00	ug/L	100
32) trichloroethene	14.93	130	666064	50.00	ug/L	100
33) 1,2-dichloropropane	15.28	63	641648	50.00	ug/L	100
34) dibromomethane	15.88	174	471687	50.00	ug/L	100
35) bromodichloromethane	15.77	83	968677	50.00	ug/L	100
36) 2-Chloroethyl Vinyl Ether	16.35	63	380102	50.00	ug/L	100

000251

(#) = qualifier out of range (m) = manual integration
 M12956.D V31009CW.M Sat Oct 09 11:46:45 1999

VOA3

Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12956.D
 Acq Time : 9 Oct 99 10:02 am
 Sample : 50 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 11:46 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

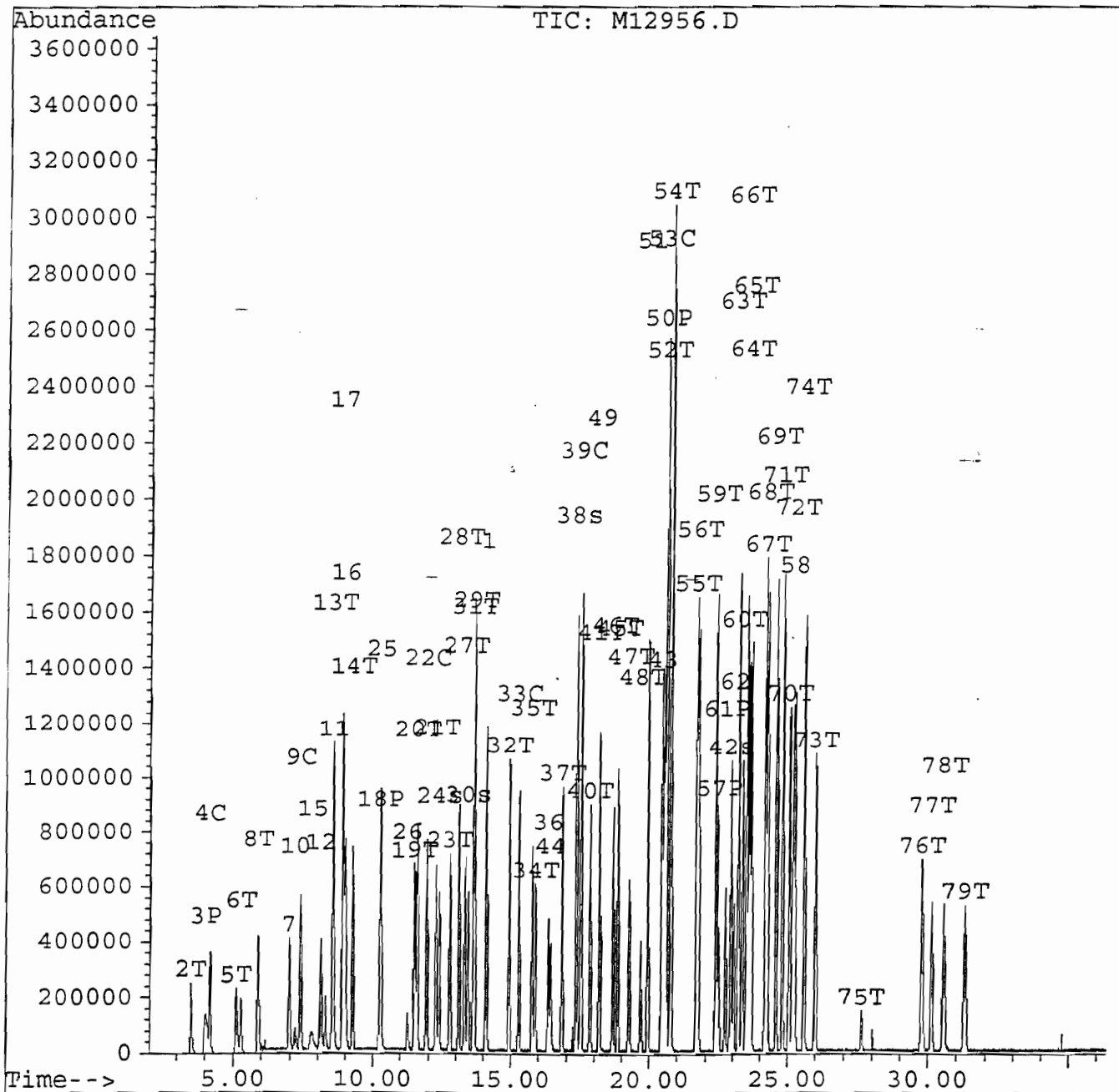
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.84	75	1066104	50.00	ug/L	100
39) toluene	17.52	91	2387530	50.00	ug/L	100
40) trans-1,3-dichloropropene	17.85	75	976341	50.00	ug/L	100
41) 1,1,2-trichloroethane	18.18	97	558187	50.00	ug/L	100
44) 4-Methyl-2-Pentanone	16.42	43	612644	50.00	ug/L	100
45) tetrachloroethene	18.86	166	641087	50.00	ug/L	100
46) 1,3-dichloropropane	18.68	76	1034705	50.00	ug/L	100
47) dibromochloromethane	19.26	129	707555	50.00	ug/L	100
48) 1,2-dibromoethane	19.68	107	625595	50.00	ug/L	100
49) 2-Hexanone	18.18	43	446755	50.00	ug/L	100
50) chlorobenzene	20.53	112	1521658	50.00	ug/L	100
51) 1-Chlorohexane	19.94	91	1017520	50.00	ug/L	100
52) 1,1,1,2-tetrachloroethane	20.59	133	564476	50.00	ug/L	100
53) ethylbenzene	20.61	91	2760535	50.00	ug/L	100
54) m&p-xylenes	20.77	106	1866060	100.00	ug/L	100
55) o-xylene	21.67	91	2109673	50.00	ug/L	100
56) styrene	21.74	104	1685864	50.00	ug/L	100
57) bromoform	22.48	173	474089	50.00	ug/L	100
59) isopropylbenzene	22.39	105	2490466	50.00	ug/L	100
60) bromobenzene	23.36	77	1105790	50.00	ug/L	100
61) 1,1,2,2-tetrachloroethane	22.73	83	756747	50.00	ug/L	100
62) 1,2,3-trichloropropane	23.04	75	535961	50.00	ug/L	100
63) n-propylbenzene	23.21	120	617575	50.00	ug/L	100
64) 2-chlorotoluene	23.60	126	580568	49.93	ug/L	100
65) 4-chlorotoluene	23.68	126	573325	50.00	ug/L	100
66) 1,3,5-trimethylbenzene	23.51	105	1968351	50.00	ug/L	100
67) tert-butylbenzene	24.19	119	1756645	50.00	ug/L	100
68) 1,2,4-trimethylbenzene	24.26	105	2065384	50.00	ug/L	100
69) sec-butylbenzene	24.57	105	2509584	50.00	ug/L	100
70) 1,3-dichlorobenzene	25.05	146	1161072	50.00	ug/L	100
71) 4-isopropyltoluene	24.81	119	2147163	50.00	ug/L	100
72) 1,4-dichlorobenzene	25.25	146	1180830	50.00	ug/L	100
73) 1,2-dichlorobenzene	26.00	146	1134705	50.00	ug/L	100
74) n-butylbenzene	25.60	91	2018461	50.00	ug/L	100
75) 1,2-dibromo-3-chloropropan	27.62	75	115314	50.00	ug/L	100
76) 1,2,4-trichlorobenzene	29.78	180	772176	50.00	ug/L	100
77) hexachlorobutadiene	30.13	225	390749	50.00	ug/L	100
78) naphthalene	30.57	128	1541290	50.00	ug/L	100
79) 1,2,3-trichlorobenzene	31.29	180	671060	50.00	ug/L	100

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12956.D
 Acq Time : 9 Oct 99 10:02 am
 Sample : 50 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 11:46 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



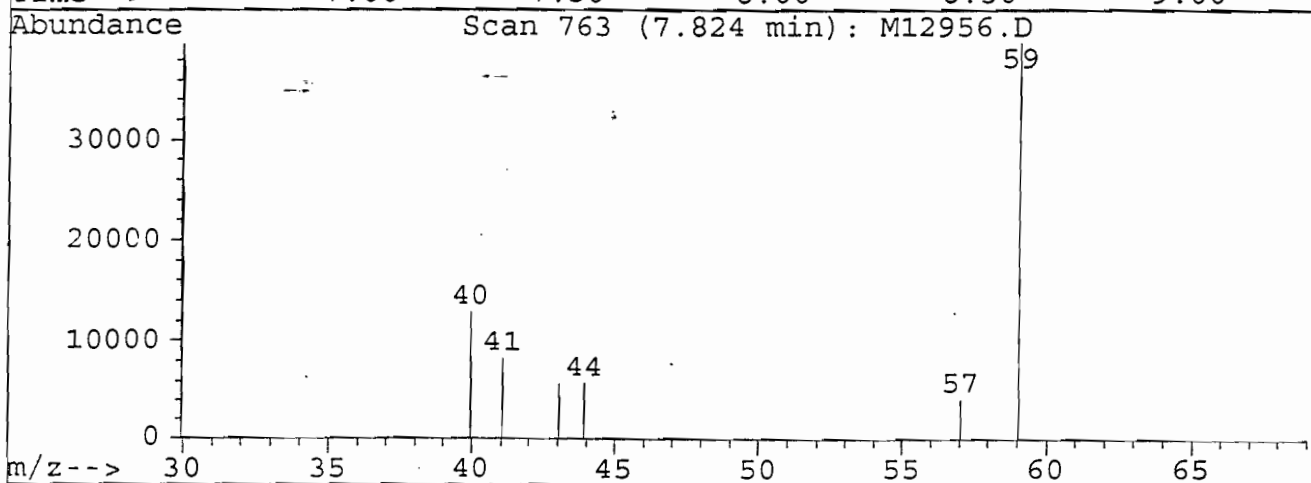
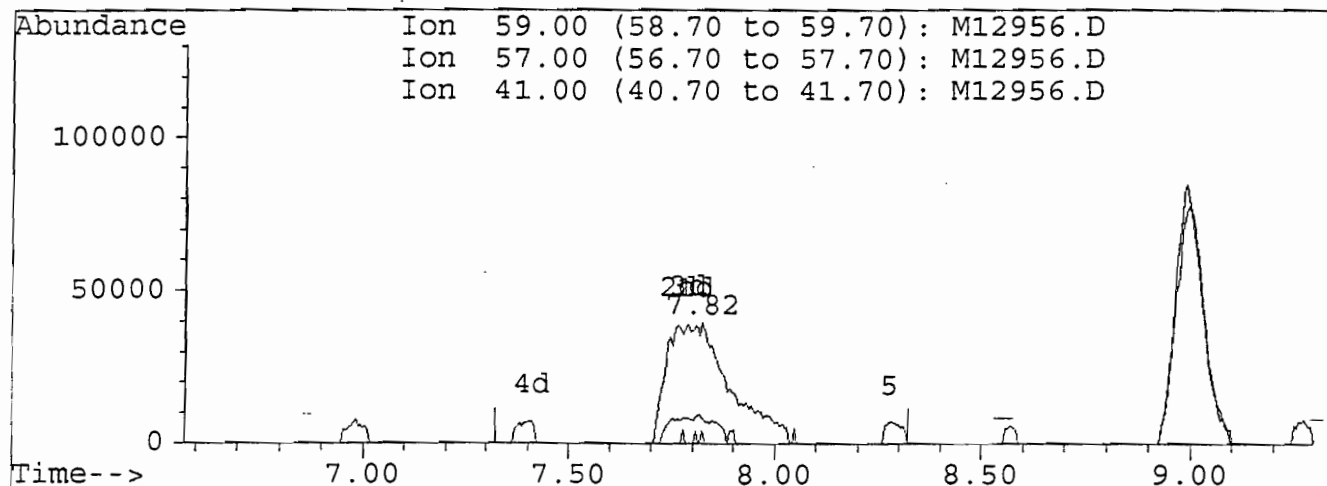
000253

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12956.D
 Acq Time : 9 Oct 99 10:02 am
 Sample : 50 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 11:46 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12956.D

(15) TBA

7.82min 499.93ug/L m
 response 416421

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	10.38
41.00	20.60	20.65
0.00	0.00	0.00

000254

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12957.D
 Acq Time : 9 Oct 99 10:49 am
 Sample : 20 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:12 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.10	96	2139904	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.45	117	1788656	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	25.19	152	783692	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.40	113	270072	19.27	ug/L	38.53%
30) 1,2-Dichlorethane-d4	13.44	65	309675	20.07	ug/L	40.15%
38) Toluene-d8	17.36	98	867519	19.84	ug/L	39.68%
42) 4-Bromofluorobenzene	22.92	95	378169	20.48	ug/L	40.97%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.50	85	232757	18.98	ug/L	99
3) chloromethane	4.02	50	320445	18.38	ug/L	95
4) vinyl chloride	4.18	62	261808	20.25	ug/L	98
5) bromomethane	5.11	94	216213	21.26	ug/L	95
6) chloroethane	5.29	64	171152	18.22	ug/L	99
7) Acrolein	6.98	56	332244	194.92	ug/L	99
8) trichlorofluoromethane	5.90	101	398949	20.80	ug/L	98
9) 1,1-dichloroethene	7.40	61	355507	20.15	ug/L	98
10) Acetone	7.18	43	117257	19.16	ug/L	92
11) Carbon Disulfide	8.54	76	840249	20.88	ug/L	98
12) Iodo Methane -	8.12	142	404581	19.01	ug/L	99
13) methylene chloride	8.57	84	259864	20.18	ug/L	96
14) trans-1,2-dichloroethene	9.28	61	373916	21.37	ug/L	98
15) TBA	7.74	59	160061	181.23	ug/L	m 90
16) MTBE	8.99	73	688317	19.75	ug/L	99
17) Acrylonitrile	8.90	53	868513	198.58	ug/L	97
18) 1,1-dichloroethane	10.26	63	507407	21.54	ug/L	96
19) 2,2-dichloropropane	11.50	77	393264	20.39	ug/L	99
20) cis-1,2-dichloroethene	11.59	61	409054	20.90	ug/L	94
21) bromochloromethane	12.28	49	273367	20.68	ug/L	99
22) chloroform	11.93	83	515906	21.03	ug/L	99
23) 1,1,1-trichloroethane	12.78	97	406244	20.04	ug/L	98
25) Vinyl Acetate	10.29	43	875897	21.09	ug/L	99
26) 2-Butanone	11.26	43	146075	18.36	ug/L	90
27) carbon tetrachloride	13.32	117	352646	20.46	ug/L	91
28) 1,1-dichloropropene	13.11	75	354861	20.50	ug/L	99
29) benzene	13.67	78	1002252	21.11	ug/L	96
31) 1,2-dichloroethane	13.64	62	386513	19.77	ug/L	97
32) trichloroethene	14.93	130	300818	21.30	ug/L	98
33) 1,2-dichloropropane	15.29	63	284270	20.89	ug/L	97
34) dibromomethane	15.88	174	194638	19.46	ug/L	95
35) bromodichloromethane	15.76	83	419798	20.44	ug/L	99
36) 2-Chloroethyl Vinyl Ether	16.35	63	150704	18.70	ug/L	100

(#) = qualifier out of range (m) = manual integration
 M12957.D V31009CW.M Sat Oct 09 12:13:26 1999

000255
 VOA3 Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12957.D
 Acq Time : 9 Oct 99 10:49 am
 Sample : 20 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:12 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

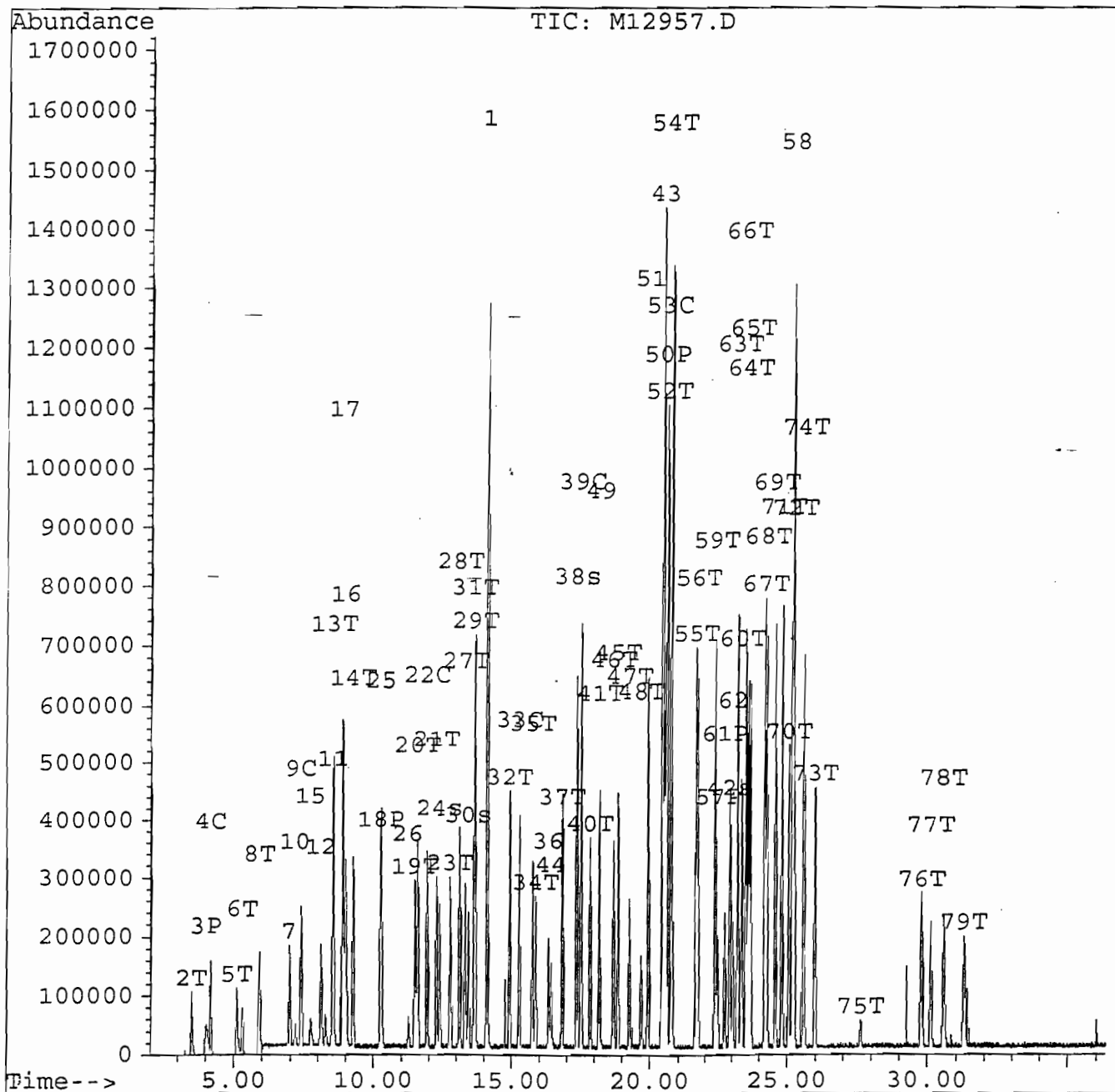
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.84	75	472958	20.92	ug/L	97
39) toluene	17.52	91	1071183	21.16	ug/L	98
40) trans-1,3-dichloropropene	17.84	75	414308	20.01	ug/L	99
41) 1,1,2-trichloroethane	18.18	97	241242	20.38	ug/L	97
44) 4-Methyl-2-Pentanone	16.43	43	231137	17.72	ug/L	94
45) tetrachloroethene	18.85	166	281637	20.64	ug/L	96
46) 1,3-dichloropropane	18.69	76	441536	20.05	ug/L	100
47) dibromochloromethane	19.27	129	302645	20.09	ug/L	99
48) 1,2-dibromoethane	19.69	107	262625	19.72	ug/L	97
49) 2-Hexanone	18.19	43	144926	15.24	ug/L	96
50) chlorobenzene	20.53	112	661535	20.42	ug/L	99
51) 1-Chlorohexane	19.93	91	448846	20.72	ug/L	98
52) 1,1,1,2-tetrachloroethane	20.60	133	244141	20.32	ug/L	99
53) ethylbenzene	20.61	91	1241433	21.13	ug/L	100
54) m&p-xylenes	20.76	106	807790	40.67	ug/L	99
55) o-xylene	21.67	91	936267	20.85	ug/L	99
56) styrene	21.73	104	709639	19.77	ug/L	96
57) bromoform	22.49	173	198227	19.64	ug/L	96
59) isopropylbenzene	22.38	105	1091938	20.61	ug/L	99
60) bromobenzene	23.36	77	487771	20.73	ug/L	99
61) 1,1,2,2-tetrachloroethane	22.73	83	318332	19.77	ug/L	98
62) 1,2,3-trichloropropane	23.03	75	229668	20.14	ug/L	98
63) n-propylbenzene	23.21	120	264986	20.17	ug/L	97
64) 2-chlorotoluene	23.60	126	248658	20.10	ug/L	100
65) 4-chlorotoluene	23.68	126	257125	21.08	ug/L	100
66) 1,3,5-trimethylbenzene	23.51	105	890501	21.26	ug/L	97
67) tert-butylbenzene	24.18	119	778154	20.82	ug/L	96
68) 1,2,4-trimethylbenzene	24.26	105	883992	20.11	ug/L	99
69) sec-butylbenzene	24.57	105	1095541	20.52	ug/L	99
70) 1,3-dichlorobenzene	25.05	146	508510	20.58	ug/L	98
71) 4-isopropyltoluene	24.81	119	958624	20.98	ug/L	99
72) 1,4-dichlorobenzene	25.25	146	520044	20.70	ug/L	98
73) 1,2-dichlorobenzene	25.99	146	480662	19.91	ug/L	98
74) n-butylbenzene	25.59	91	911368	21.22	ug/L	94
75) 1,2-dibromo-3-chloropropan	27.63	75	41362	16.86	ug/L	96
76) 1,2,4-trichlorobenzene	29.79	180	334240	20.34	ug/L	99
77) hexachlorobutadiene	30.13	225	161901	19.47	ug/L	97
78) naphthalene	30.56	128	709742	21.64	ug/L	99
79) 1,2,3-trichlorobenzene	31.29	180	284363	19.91	ug/L m	96

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12957.D
 Acq Time : 9 Oct 99 10:49 am
 Sample : 20 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:12 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



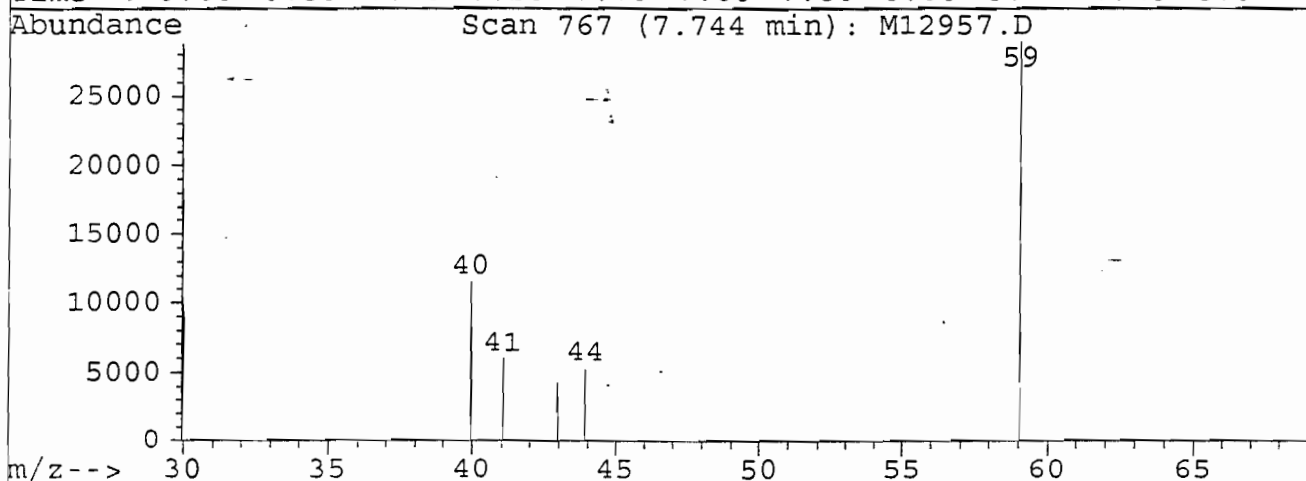
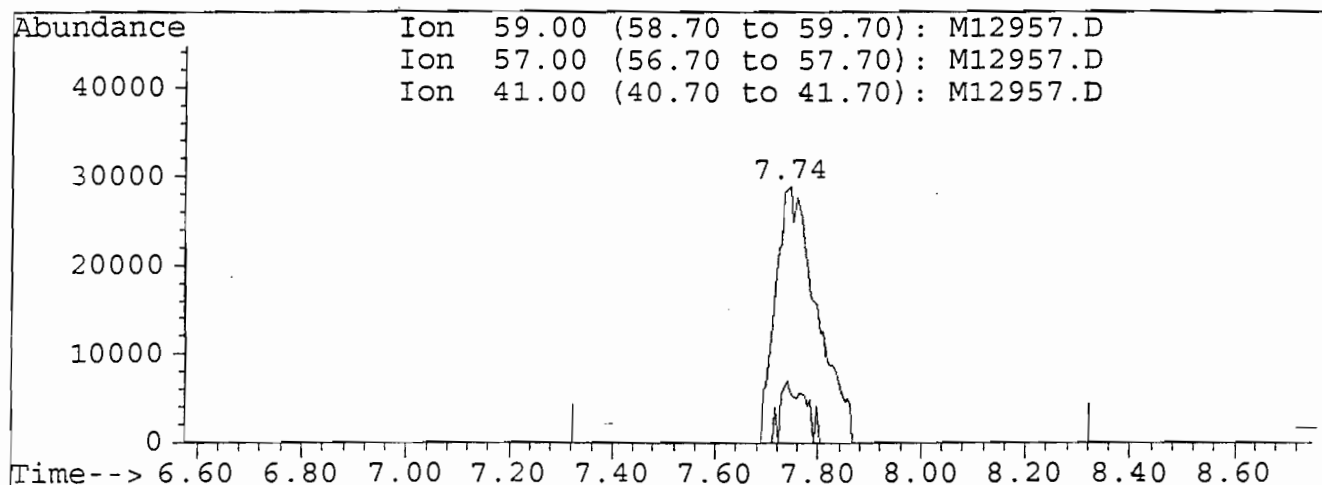
000257

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12957.D
 Acq Time : 9 Oct 99 10:49 am
 Sample : 20 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:12 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12957.D

(15) TBA
 7.74min 181.23ug/L m
 response 160061

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	0.00
41.00	20.60	20.39
0.00	0.00	0.00

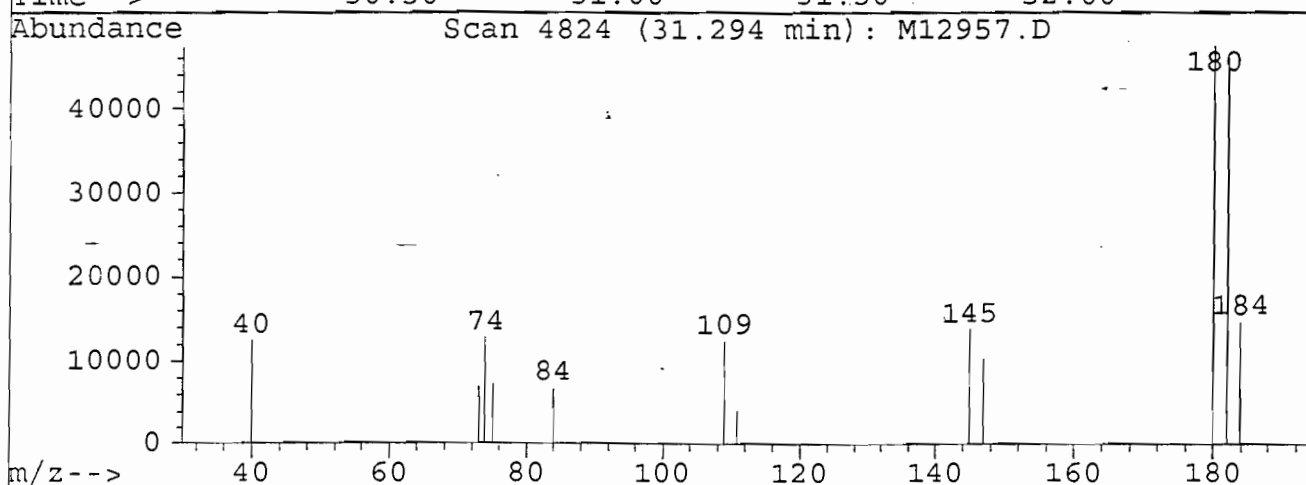
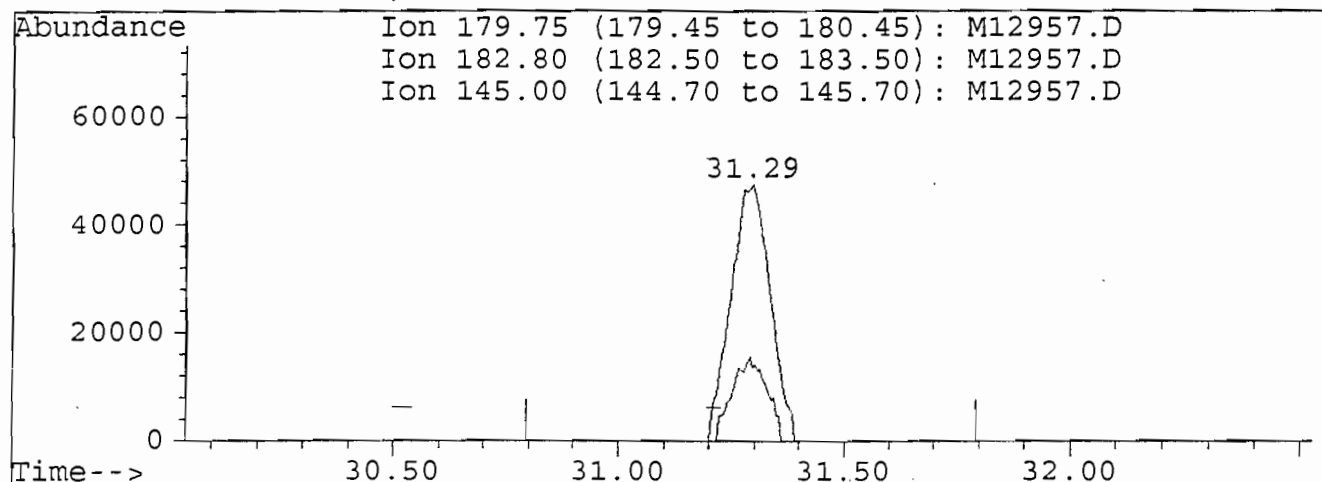
000258

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12957.D
 Acq Time : 9 Oct 99 10:49 am
 Sample : 20 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 12:12 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12957.D

(79) 1,2,3-trichlorobenzene (T)

31.29min 19.91ug/L m

response 284363

Ion	Exp%	Act%
179.75	100	100
182.80	5.60	0.00
145.00	29.90	28.73
0.00	0.00	0.00

000259

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.10	96	2241534	50.00	ug/L	0.00
43) Chlorobenzene-d5	20.44	117	1811208	50.00	ug/L	-0.01
58) 1,4-dichlorobenzene-d4	25.17	152	843471	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.39	113	59639	4.06	ug/L	8.12%
30) 1,2-Dichlorethane-d4	13.44	65	67795	4.20	ug/L	8.39%
38) Toluene-d8	17.35	98	200644	4.38	ug/L	8.76%
42) 4-Bromofluorobenzene	22.92	95	85615	4.43	ug/L	8.85%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.48	85	55470	4.32	ug/L	100
3) chloromethane	3.99	50	76558	4.19	ug/L	99
4) vinyl chloride	4.16	62	66556	4.91	ug/L	96
5) bromomethane	5.10	94	53184	4.99	ug/L	98
6) chloroethane	5.29	64	44100	4.48	ug/L	100
7) Acrolein	6.97	56	86310	48.34	ug/L	98
8) trichlorofluoromethane	5.90	101	102053	5.08	ug/L	96
9) 1,1-dichloroethene	7.39	61	88177	4.77	ug/L	93
10) Acetone	7.17	43	62266	9.71	ug/L m	55
11) Carbon Disulfide	8.54	76	209004	4.96	ug/L	89
12) Iodo Methane	8.10	142	96062	4.31	ug/L m	88
13) methylene chloride	8.57	84	60738	4.50	ug/L	88
14) trans-1,2-dichloroethene	9.26	61	89680	4.89	ug/L	94
15) TBA	7.73	59	30714	33.20	ug/L m	61
16) MTBE	9.00	73	174819	4.79	ug/L	95
17) Acrylonitrile	8.90	53	220106	48.04	ug/L	98
18) 1,1-dichloroethane	10.25	63	119416	4.84	ug/L	97
19) 2,2-dichloropropane	11.49	77	99409	4.92	ug/L	98
20) cis-1,2-dichloroethene	11.59	61	97607	4.76	ug/L	92
21) bromochloromethane	12.27	49	63932	4.62	ug/L	94
22) chloroform	11.93	83	124916	4.86	ug/L	99
23) 1,1,1-trichloroethane	12.78	97	97653	4.60	ug/L	98
25) Vinyl Acetate	10.29	43	211736	4.87	ug/L	89
26) 2-Butanone	11.25	43	49291	5.92	ug/L m	59
27) carbon tetrachloride	13.31	117	85159	4.72	ug/L	87
28) 1,1-dichloropropene	13.11	75	87398	4.82	ug/L	96
29) benzene	13.67	78	253606	5.10	ug/L	97
31) 1,2-dichloroethane	13.63	62	97350	4.75	ug/L	98
32) trichloroethene	14.93	130	68375	4.62	ug/L	89
33) 1,2-dichloropropane	15.28	63	65161	4.57	ug/L	96
34) dibromomethane	15.88	174	42921	4.10	ug/L	90
35) bromodichloromethane	15.76	83	102884	4.78	ug/L	96
36) 2-Chloroethyl Vinyl Ether	16.35	63	34088	4.04	ug/L	97

(#) = qualifier out of range (m) = manual integration
 M12959.D V31009CW.M Sat Oct 09 13:22:16 1999

000260

VOA3 Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

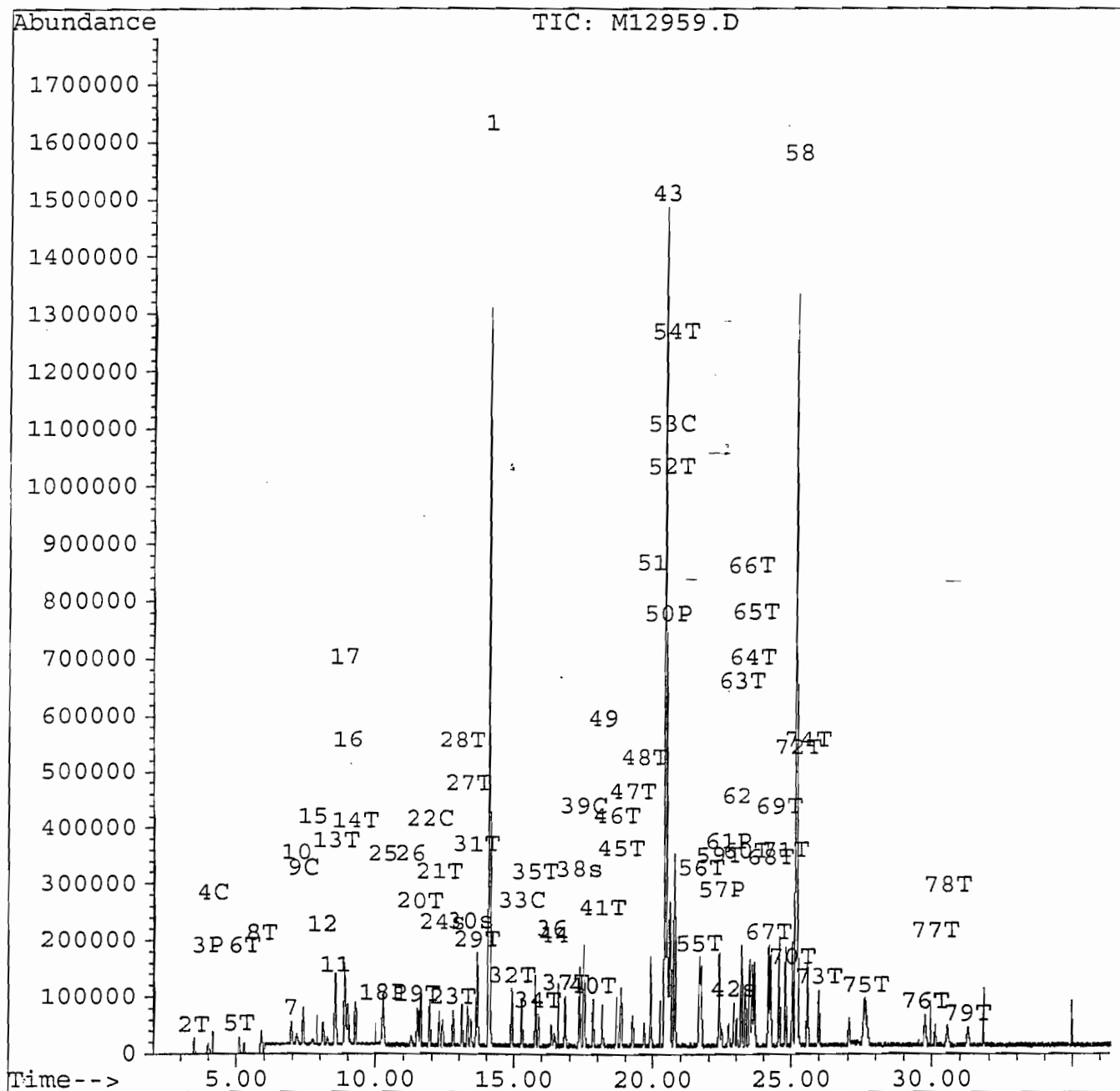
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.84	75	114206	4.82	ug/L	96
39) toluene	17.52	91	289385	5.46	ug/L	95
40) trans-1,3-dichloropropene	17.85	75	102212	4.71	ug/L	97
41) 1,1,2-trichloroethane	18.17	97	58048	4.68	ug/L	94
44) 4-Methyl-2-Pentanone	16.44	43	54831	4.15	ug/L m	61
45) tetrachloroethene	18.84	166	71806	5.20	ug/L	94
46) 1,3-dichloropropane	18.68	76	115548	5.18	ug/L	92
47) dibromochloromethane	19.26	129	74373	4.88	ug/L	97
48) 1,2-dibromoethane	19.68	107	64305	4.77	ug/L	96
49) 2-Hexanone	18.21	43	25237	2.62	ug/L m	45
50) chlorobenzene	20.52	112	176188	5.37	ug/L	98
51) 1-Chlorohexane	19.93	91	111515	5.08	ug/L	98
52) 1,1,1,2-tetrachloroethane	20.59	133	58804	4.83	ug/L	97
53) ethylbenzene	20.60	91	316414	5.32	ug/L	95
54) m&p-xylenes	20.75	106	217536	10.82	ug/L	98
55) o-xylene	21.65	91	247787	5.45	ug/L	92
56) styrene	21.72	104	185541	5.11	ug/L	93
57) bromoform	22.47	173	48192	4.72	ug/L	97
59) isopropylbenzene	22.38	105	284543	4.99	ug/L	96
60) bromobenzene	23.34	77	129373	5.11	ug/L	95
61) 1,1,2,2-tetrachloroethane	22.73	83	84294	4.86	ug/L	96
62) 1,2,3-trichloropropane	23.03	75	60350	4.92	ug/L	97
63) n-propylbenzene	23.20	120	66990	4.74	ug/L	92
64) 2-chlorotoluene	23.59	126	66757	5.01	ug/L	94
65) 4-chlorotoluene	23.67	126	65304	4.97	ug/L	90
66) 1,3,5-trimethylbenzene	23.50	105	241336	5.35	ug/L	95
67) tert-butylbenzene	24.17	119	233576	5.81	ug/L	97
68) 1,2,4-trimethylbenzene	24.25	105	239071	5.05	ug/L	97
69) sec-butylbenzene	24.56	105	296131	5.15	ug/L	99
70) 1,3-dichlorobenzene	25.04	146	131818	4.96	ug/L	98
71) 4-isopropyltoluene	24.79	119	271802	5.53	ug/L	98
72) 1,4-dichlorobenzene	25.23	146	137701	5.09	ug/L	93
73) 1,2-dichlorobenzene	25.99	146	125352	4.82	ug/L	97
74) n-butylbenzene	25.57	91	250330	5.42	ug/L	95
75) 1,2-dibromo-3-chloropropan	27.63	75	14719	5.57	ug/L	99
76) 1,2,4-trichlorobenzene	29.76	180	80771	4.57	ug/L	97
77) hexachlorobutadiene	30.11	225	39426	4.41	ug/L	96
78) naphthalene	30.54	128	173141	4.91	ug/L m	71
79) 1,2,3-trichlorobenzene	31.25	180	72238	4.70	ug/L m	51

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration

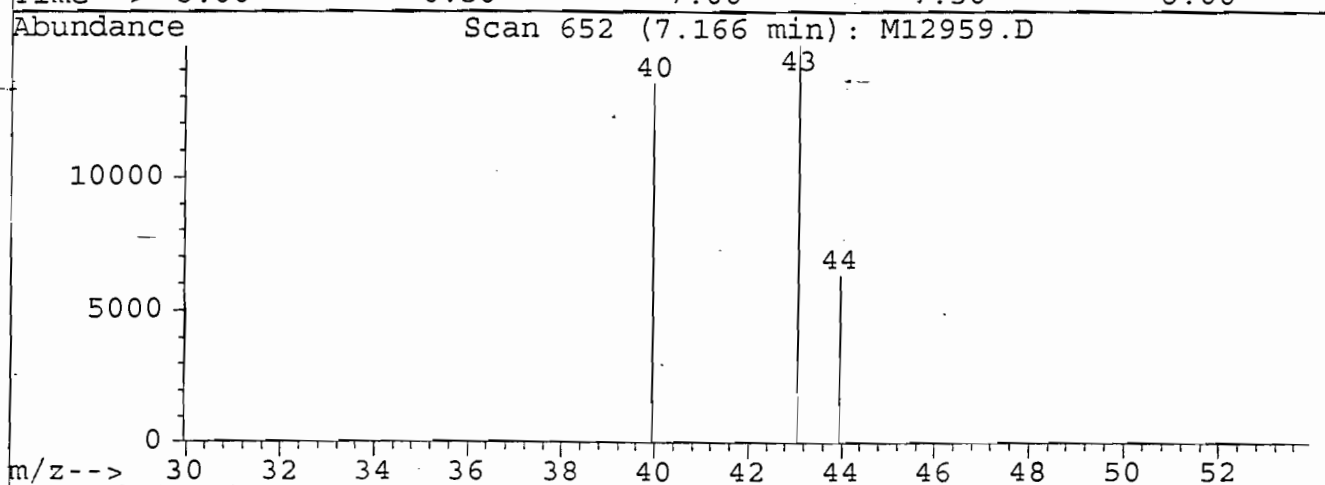
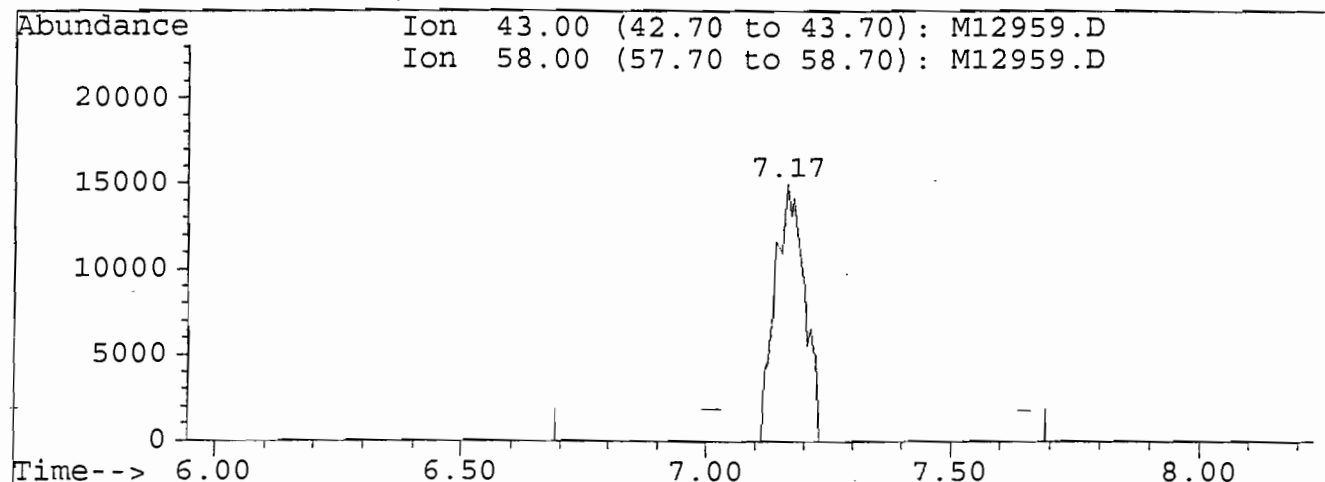


Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:19 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(10) Acetone
 7.17min 9.71ug/L m
 response 62266

Ion	Exp%	Act%
43.00	100	100
58.00	21.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

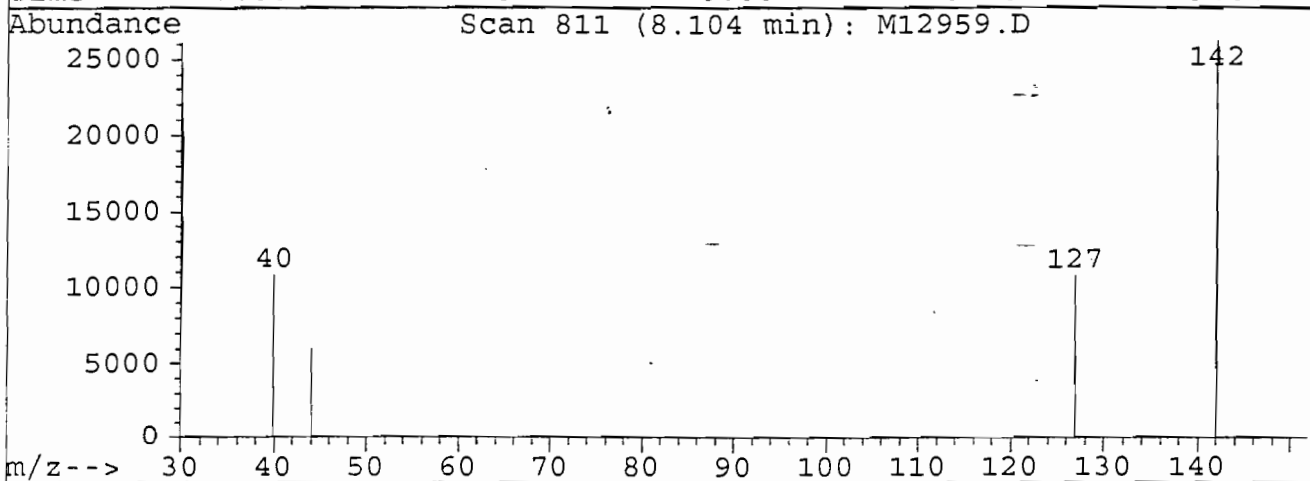
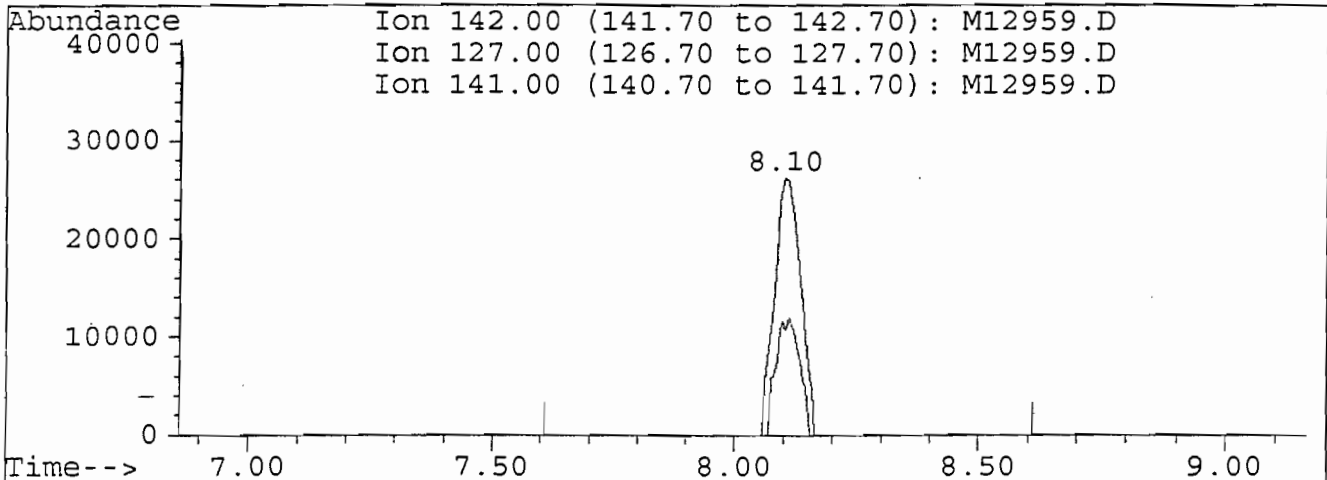
000263

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:19 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(12) Iodo Methane
 8.10min 4.31ug/L m
 response 96062

Ion	Exp%	Act%
142.00	100	100
127.00	45.70	40.84
141.00	13.20	0.00
0.00	0.00	0.00

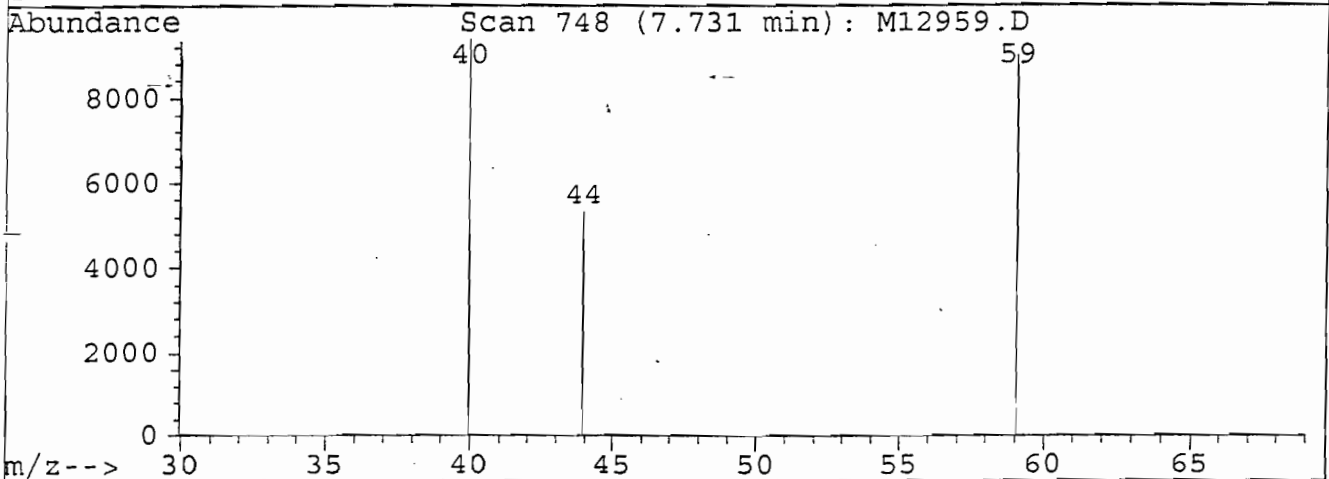
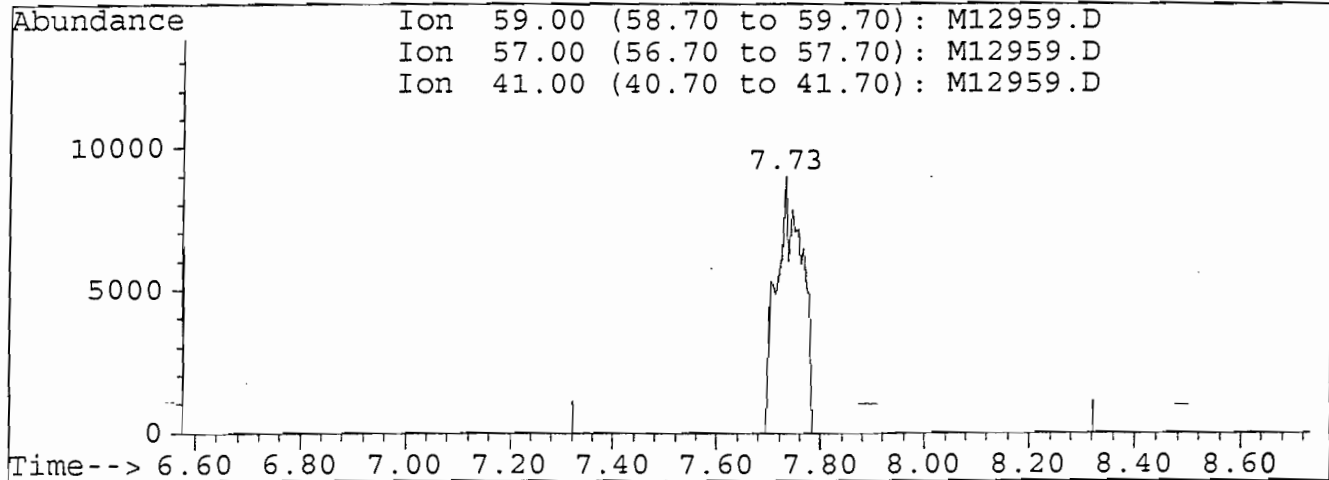
000264

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:19 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(15) TBA

7.73min 33.20ug/L m

response 30714

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	0.00
41.00	20.60	0.00
0.00	0.00	0.00

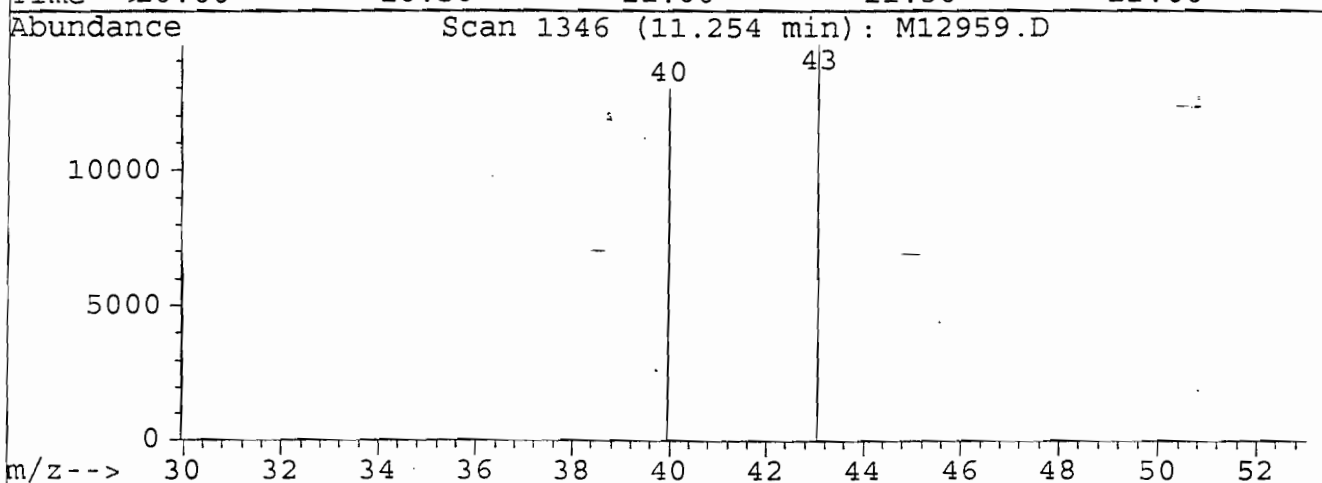
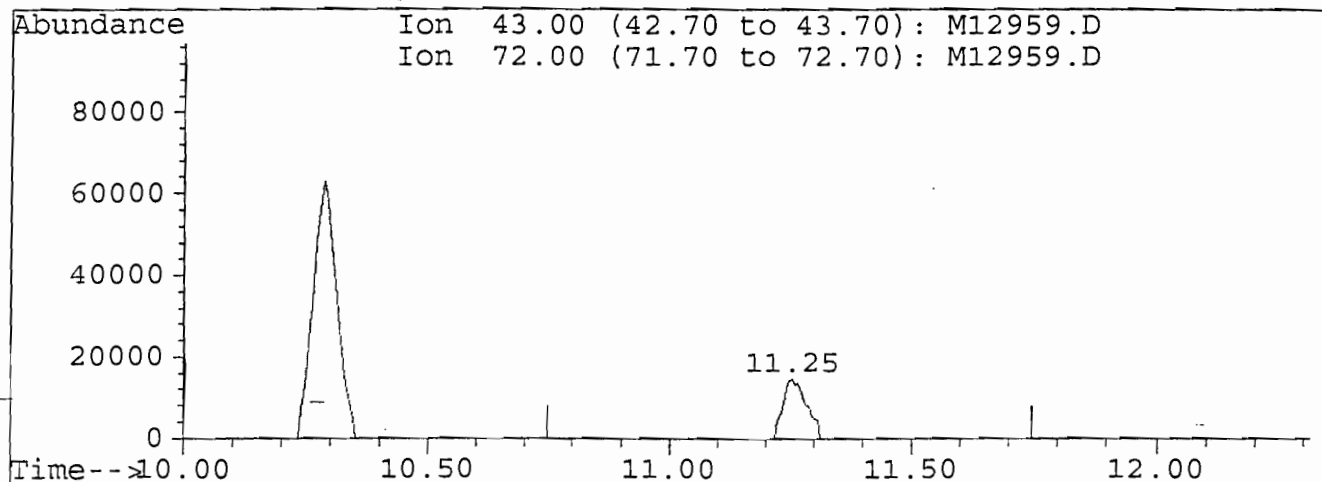
000265

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:20 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(26) 2-Butanone
 11.25min 5.92ug/L m
 response 49291

Ion	Exp%	Act%
43.00	100	100
72.00	18.30	0.00
0.00	0.00	0.00
0.00	0.00	0.00

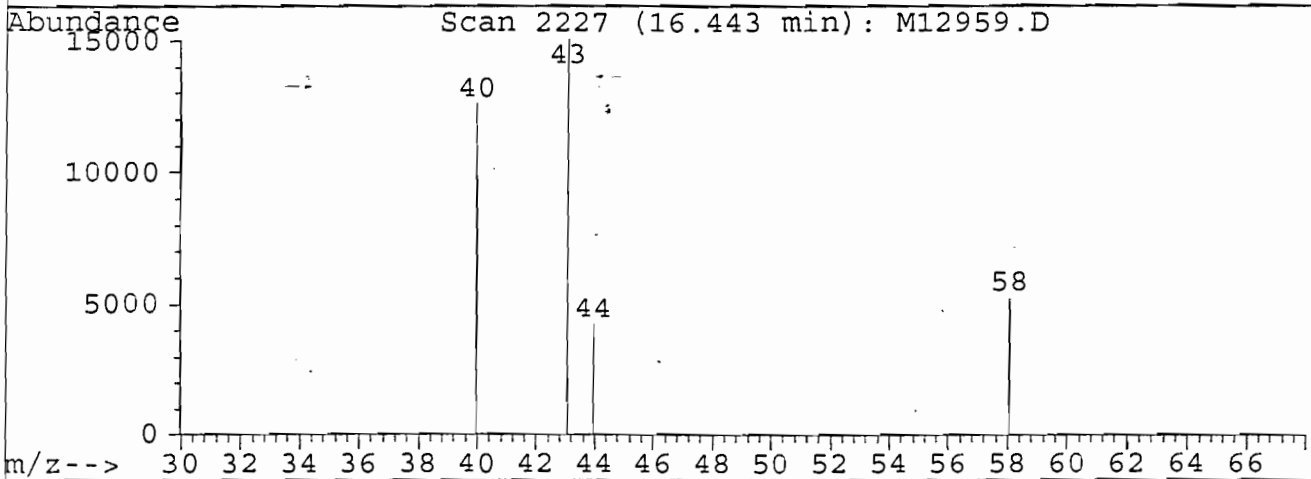
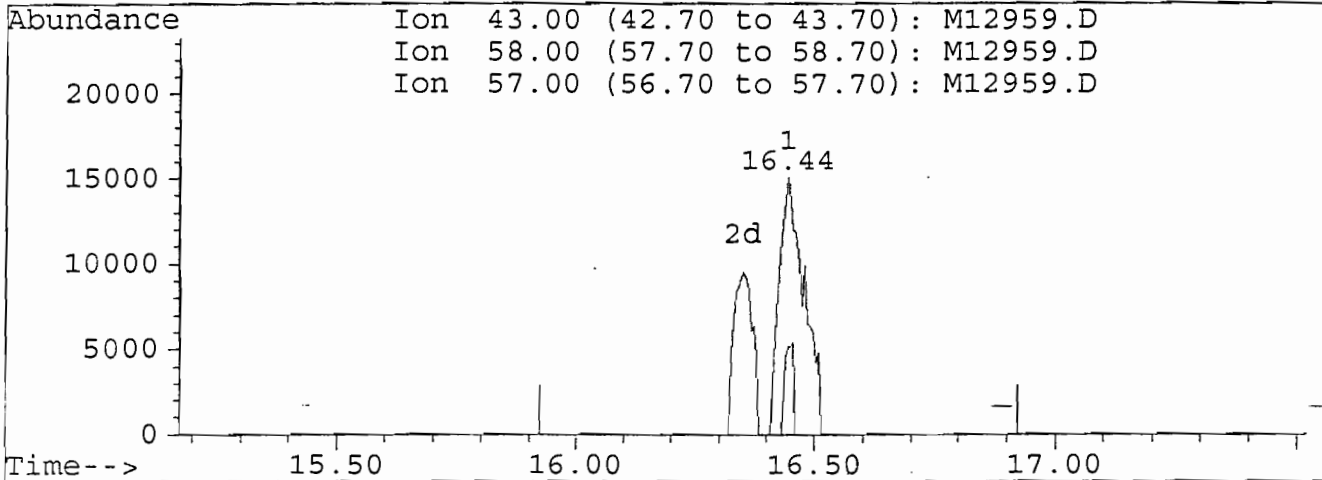
000266

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:20 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(44) 4-Methyl-2-Pentanone

16.44min 4.15ug/L m

response 54831

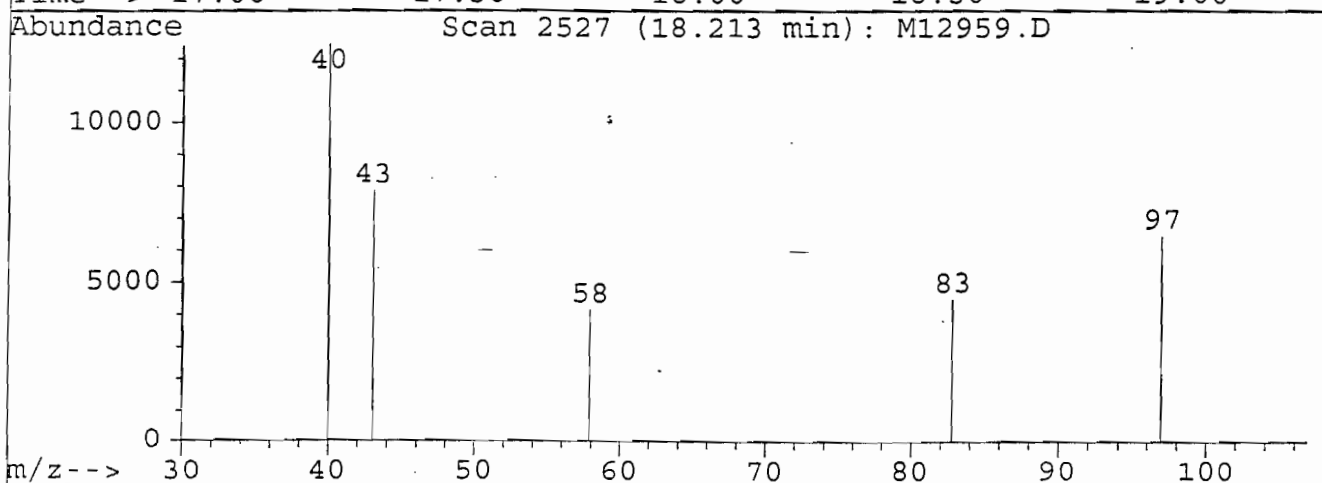
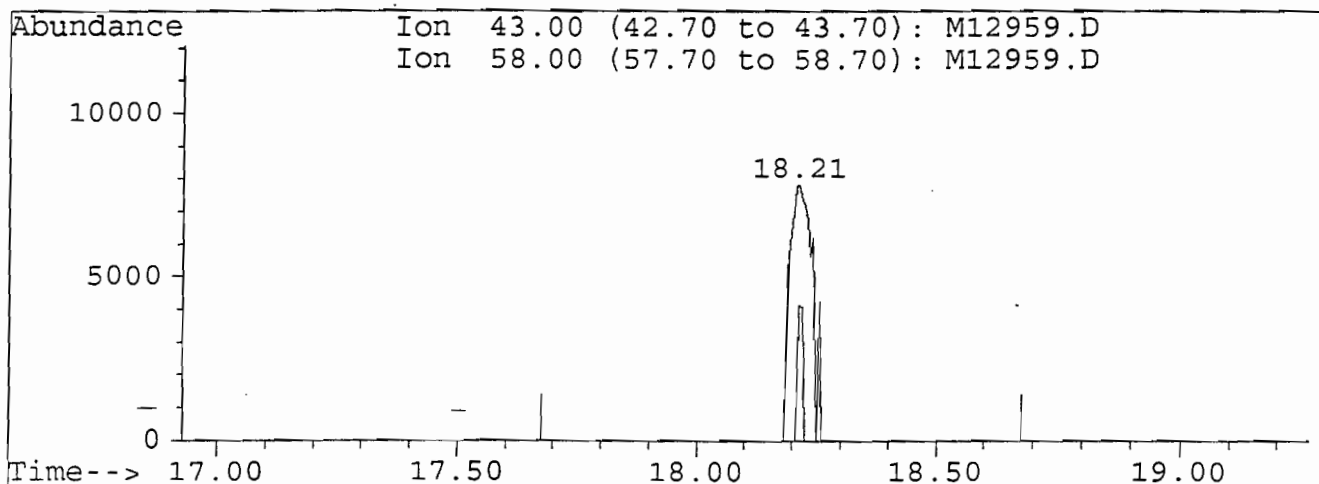
Ion	Exp%	Act%
43.00	100	100
58.00	33.60	34.24
57.00	20.60	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(49) 2-Hexanone
 18.21min 2.62ug/L m
 response 25237

Ion	Exp%	Act%
43.00	100	100
58.00	48.80	52.65
0.00	0.00	0.00
0.00	0.00	0.00

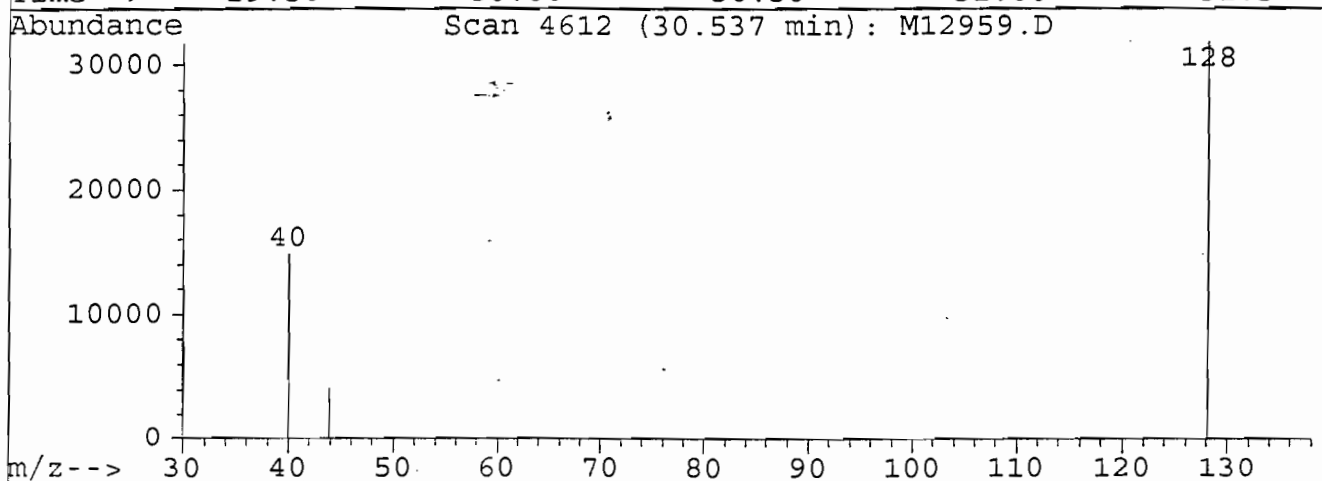
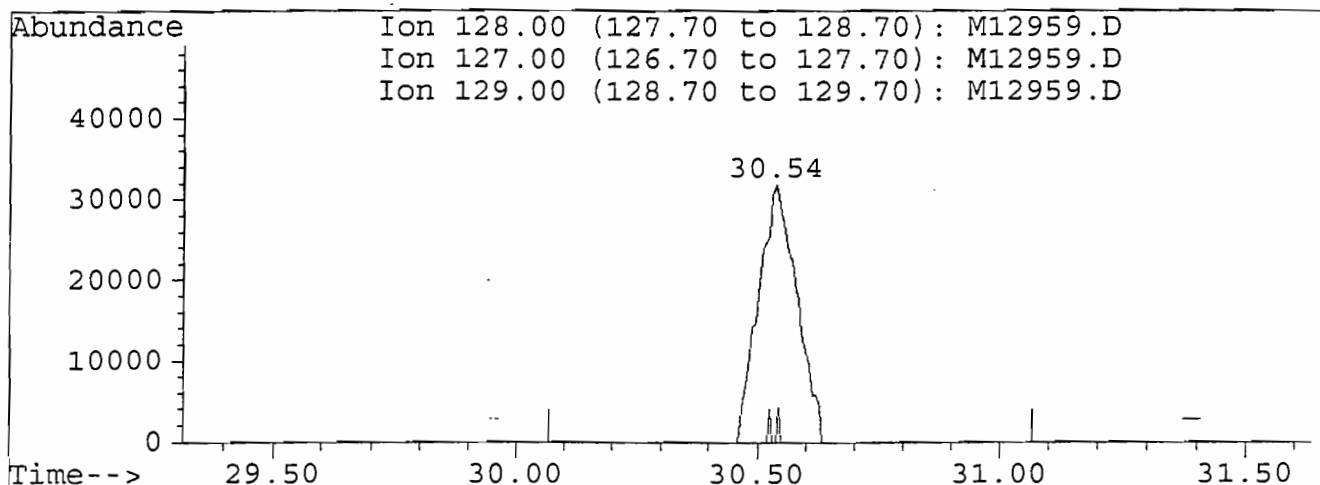
000268

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(78) naphthalene (T)

30.54min 4.91ug/L m

response 173141

Ion	Exp%	Act%
128.00	100	100
127.00	12.30	0.00
129.00	10.00	0.00
0.00	0.00	0.00

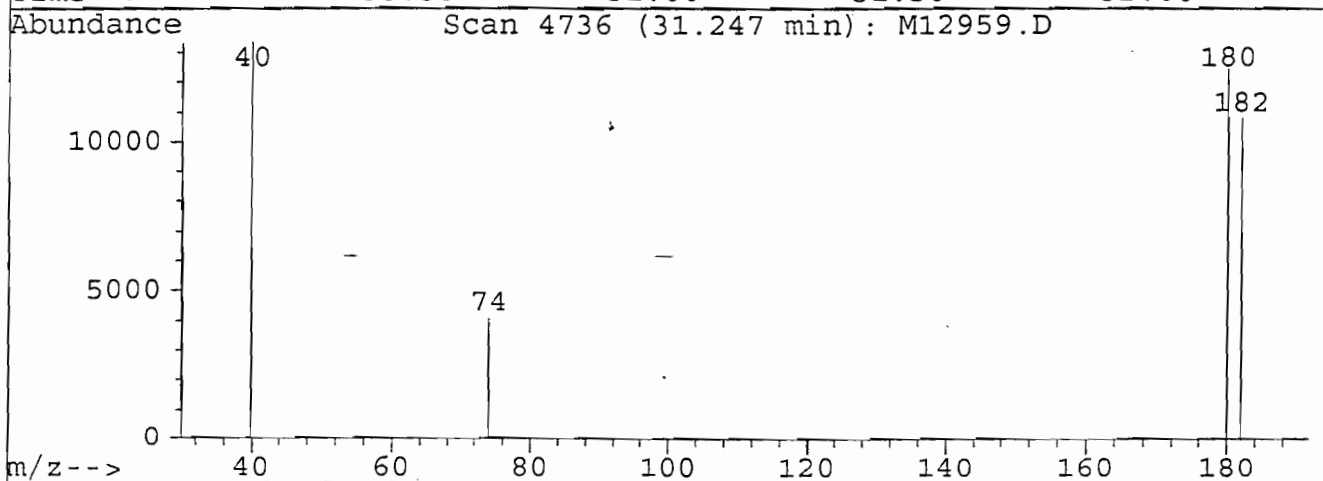
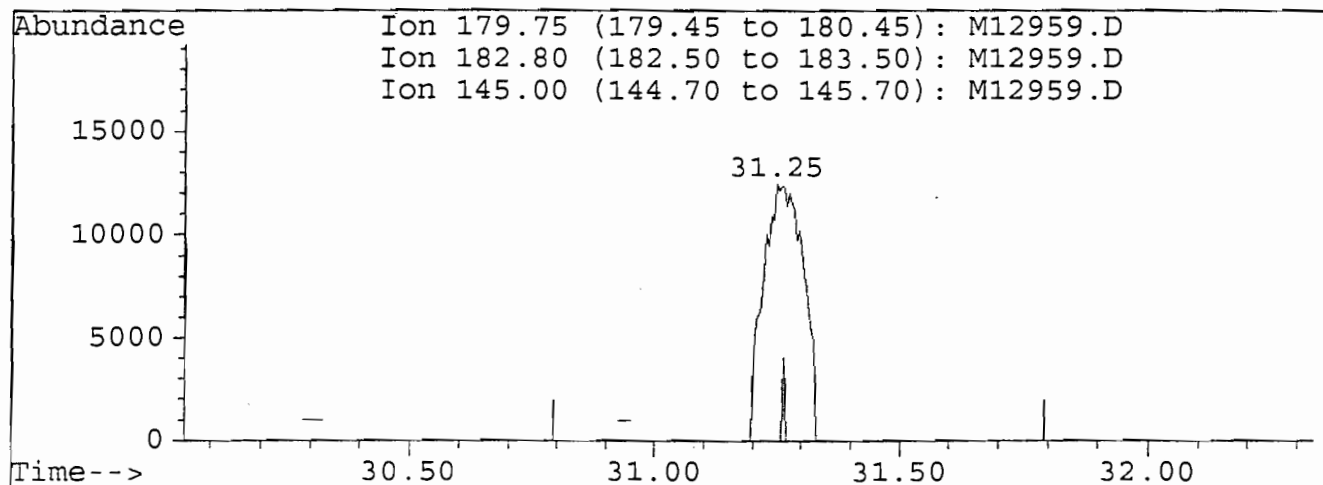
000269

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100999\M12959.D
 Acq Time : 9 Oct 99 12:35 pm
 Sample : 5 PPB ICC
 Misc : 5MLS
 Quant Time: Oct 9 13:21 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 11:41:15 1999
 Response via : Single Level Calibration



TIC: M12959.D

(79) 1,2,3-trichlorobenzene (T)

31.25min 4.70ug/L m

response 72238

Ion	Exp%	Act%
179.75	100	100
182.80	5.60	0.00
145.00	29.90	0.00
0.00	0.00	0.00

000270

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. 13701ASP Site: _____ Location: _____ Group: GP-005-SS1
 Instrument ID: VOA 3 Calibration Date: 10/10/99 Time: 1403
 Lab File ID: M12985.D Init. Calib. Date(s): 10/9/99 10/9/99
 Heated Purge: (Y/N) N Init. Calib. Times: 0832 1235
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.286	0.298		-4.2	
Chloromethane	0.403	0.443	0.300	-9.9	
Vinyl Chloride	0.307	0.322		-4.9	25.0
Bromomethane	0.208	0.236		-13.5	
Chloroethane	0.185	0.229		-23.8	
Trichlorofluoromethane	0.441	0.455		-3.2	
Methylene Chloride	0.302	0.350		-15.9	
1,1-Dichloroethane	0.561	0.576	0.300	-2.7	
2,2-Dichloropropane	0.461	0.446		3.3	
Bromochloromethane	0.308	0.321		-4.2	
Chloroform	0.583	0.606		-3.9	25.0
1,1,1-Trichloroethane	0.471	0.477		-1.3	
Carbon Tetrachloride	0.405	0.404		0.2	
1,1-Dichloropropene	0.406	0.424		-4.4	
Benzene	1.100	1.184		-7.6	
1,2-Dichloroethane	0.452	0.464		-2.7	
Trichloroethene	0.331	0.343		-3.6	
1,2-Dichloropropane	0.315	0.333		-5.7	25.0
Dibromomethane	0.224	0.240		-7.1	
Bromodichloromethane	0.480	0.494		-2.9	
Toluene	1.204	1.224		-1.7	25.0
1,1,2-Trichloroethane	0.275	0.291		-5.8	
Tetrachloroethene	0.385	0.383		0.5	
1,3-Dichloropropane	0.612	0.637		-4.1	
Dibromochloromethane	0.420	0.427		-1.7	
1,2-Dibromoethane	0.363	0.385		-6.1	
Chlorobenzene	0.914	0.931	0.300	-1.9	
1,1,1,2-Tetrachloroethane	0.326	0.343		-5.2	
Ethylbenzene	1.598	1.649		-3.2	25.0
Styrene	0.971	1.011		-4.1	
Bromoform	0.273	0.286	0.250	-4.8	
isopropylbenzene	3.387	3.449		-1.8	
Bromobenzene	1.495	1.516		-1.4	
1,1,2,2-Tetrachloroethane	0.995	1.032	0.300	-3.7	
1,2,3-Trichloropropane	0.713	0.734		-2.9	
n-Propylbenzene	0.825	0.858		-4.0	

All other compounds must meet a minimum RRF of 0.010.

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
 Acq Time : 10 Oct 99 2:03 pm
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 11 14:08 1999

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.14	96	2115126	50.00	ug/L	0.03
43) Chlorobenzene-d5	20.48	117	1788981	50.00	ug/L	0.03
58) 1,4-dichlorobenzene-d4	25.21	152	772206	50.00	ug/L	0.03
System Monitoring Compounds						
						%Recovery
24) Dibromofluoromethane	12.43	113	695596	52.87	ug/L	105.75%
30) 1,2-Dichlorethane-d4	13.47	65	747392	50.40	ug/L	100.81%
38) Toluene-d8	17.38	98	2177725	52.85	ug/L	105.70%
42) 4-Bromofluorobenzene	22.96	95	904073	51.89	ug/L	103.79%
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	3.51	85	629648	52.09	ug/L	98
3) chloromethane	4.04	50	936555	54.94	ug/L	98
4) vinyl chloride	4.19	62	681693	52.51	ug/L	100
5) bromomethane	5.10	94	498116	71.78	ug/L	95
6) chloroethane	5.28	64	484089	72.49	ug/L	97
7) Acrolein	7.00	56	917551	547.77	ug/L	100
8) trichlorofluoromethane	5.91	101	963182	51.68	ug/L	97
9) 1,1-dichloroethene	7.41	61	978076	56.01	ug/L	98
10) Acetone	7.21	43	290128	38.80	ug/L	93
11) Carbon Disulfide	8.57	76	2237797	55.66	ug/L	99
12) Iodo Methane	8.14	142	1206469	57.96	ug/L	98
13) methylene chloride	8.59	84	740416	57.98	ug/L	96
14) trans-1,2-dichloroethene	9.29	61	973080	54.93	ug/L	96
15) TBA	7.81	59	462979	566.82	ug/L	m 61
16) MTBE	9.02	73	1865339	54.46	ug/L	99
17) Acrylonitrile	8.93	53	2485992	578.67	ug/L	99
18) 1,1-dichloroethane	10.28	63	1219206	51.39	ug/L	99
19) 2,2-dichloropropane	11.52	77	944107	48.42	ug/L	99
20) cis-1,2-dichloroethene	11.62	61	992416	51.15	ug/L	98
21) bromochloromethane	12.30	49	679298	52.08	ug/L	98
22) chloroform	11.96	83	1282648	52.03	ug/L	100
23) 1,1,1-trichloroethane	12.80	97	1008838	50.64	ug/L	96
25) Vinyl Acetate	10.31	43	2051169	49.28	ug/L	99
26) 2-Butanone	11.27	43	368682	45.67	ug/L	99
27) carbon tetrachloride	13.35	117	854741	49.83	ug/L	90
28) 1,1-dichloropropene	13.14	75	895949	52.17	ug/L	99
29) benzene	13.70	78	2503266	53.81	ug/L	99
31) 1,2-dichloroethane	13.66	62	981466	51.30	ug/L	99
32) trichloroethene	14.96	130	725426	51.81	ug/L	96
33) 1,2-dichloropropane	15.31	63	704394	52.81	ug/L	98
34) dibromomethane	15.91	174	506866	53.51	ug/L	100
35) bromodichloromethane	15.79	83	1044696	51.46	ug/L	100
36) 2-Chloroethyl Vinyl Ether	16.38	63	421173	54.54	ug/L	100

(#) = qualifier out of range (m) = manual integration
 M12985.D V31009CW.M Mon Oct 11 14:08:44 1999

000273

VOA3

Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
Acq Time : 10 Oct 99 2:03 pm
Sample : 50 PPB CCC
Misc : 5MLS
Quant Time: Oct 11 14:08 1999

Operator: BS
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.87	75	1185769	52.56	ug/L	98
39) toluene	17.55	91	2588639	50.83	ug/L	97
40) trans-1,3-dichloropropene	17.87	75	1055488	51.77	ug/L	99
41) 1,1,2-trichloroethane	18.21	97	616404	53.05	ug/L	94
44) 4-Methyl-2-Pentanone	16.45	43	651807	55.52	ug/L	98
45) tetrachloroethene	18.89	166	684306	49.65	ug/L	98
46) 1,3-dichloropropane	18.71	76	1139396	52.07	ug/L	98
47) dibromochloromethane	19.30	129	764716	50.87	ug/L	100
48) 1,2-dibromoethane	19.71	107	689114	52.99	ug/L	95
49) 2-Hexanone	18.20	43	456004	55.02	ug/L	99
50) chlorobenzene	20.56	112	1665763	50.93	ug/L	99
51) 1-Chlorohexane	19.97	91	1125158	52.61	ug/L	98
52) 1,1,1,2-tetrachloroethane	20.63	133	614359	52.65	ug/L	97
53) ethylbenzene	20.64	91	2949386	51.58	ug/L	100
54) m&p-xylenes	20.79	106	1999443	102.95	ug/L	98
55) o-xylene	21.69	91	2292616	51.03	ug/L	94
56) styrene	21.76	104	1809494	52.10	ug/L	95
57) bromoform	22.51	173	511890	52.37	ug/L	98
59) isopropylbenzene	22.41	105	2663406	50.91	ug/L	99
60) bromobenzene	23.39	77	1170972	50.70	ug/L	98
61) 1,1,2,2-tetrachloroethane	22.76	83	797053	51.86	ug/L	96
62) 1,2,3-trichloropropane	23.07	75	566828	51.44	ug/L	99
63) n-propylbenzene	23.24	120	662295	52.28	ug/L	93
64) 2-chlorotoluene	23.63	126	617876	52.77	ug/L	95
65) 4-chlorotoluene	23.71	126	617185	50.79	ug/L	99
66) 1,3,5-trimethylbenzene	23.53	105	2184530	51.86	ug/L	99
67) tert-butylbenzene	24.21	119	2076332	53.65	ug/L	96
68) 1,2,4-trimethylbenzene	24.28	105	2072605	51.29	ug/L	98
69) sec-butylbenzene	24.60	105	2670503	51.34	ug/L	99
70) 1,3-dichlorobenzene	25.08	146	1206440	50.70	ug/L	99
71) 4-isopropyltoluene	24.83	119	2310071	50.05	ug/L	99
72) 1,4-dichlorobenzene	25.27	146	1253823	50.79	ug/L	98
73) 1,2-dichlorobenzene	26.02	146	1141941	49.90	ug/L	97
74) n-butylbenzene	25.62	91	2119585	48.79	ug/L	91
75) 1,2-dibromo-3-chloropropan	27.66	75	114880	47.24	ug/L	96
76) 1,2,4-trichlorobenzene	29.83	180	801185	48.69	ug/L	99
77) hexachlorobutadiene	30.18	225	392591	48.61	ug/L	99
78) naphthalene	30.61	128	1544344	47.82	ug/L	99
79) 1,2,3-trichlorobenzene	31.34	180	671468	47.83	ug/L	97

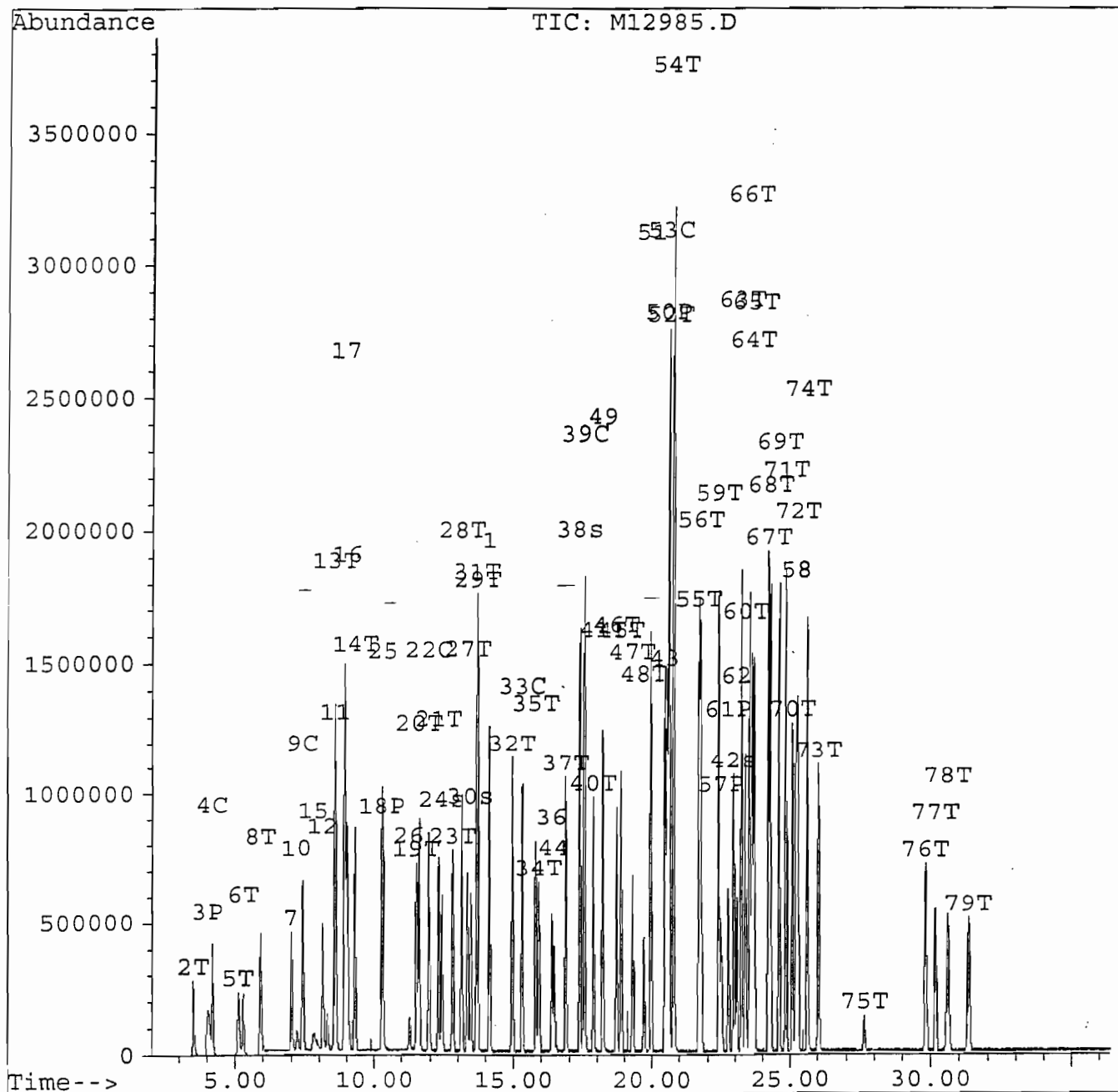
000274

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
 Acq Time : 10 Oct 99 2:03 pm
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 11 14:08 1999

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration



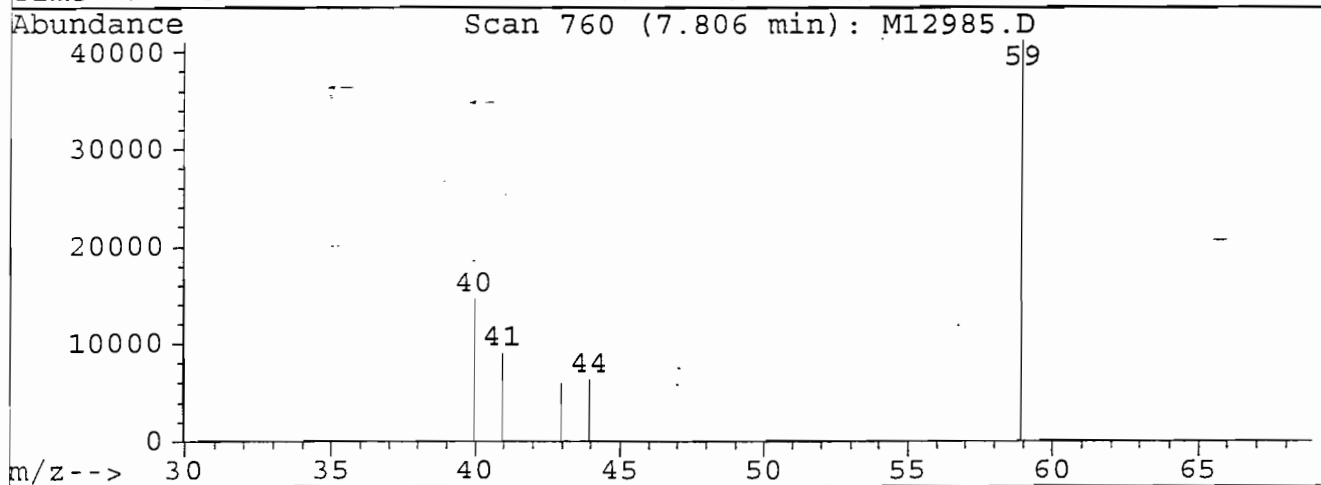
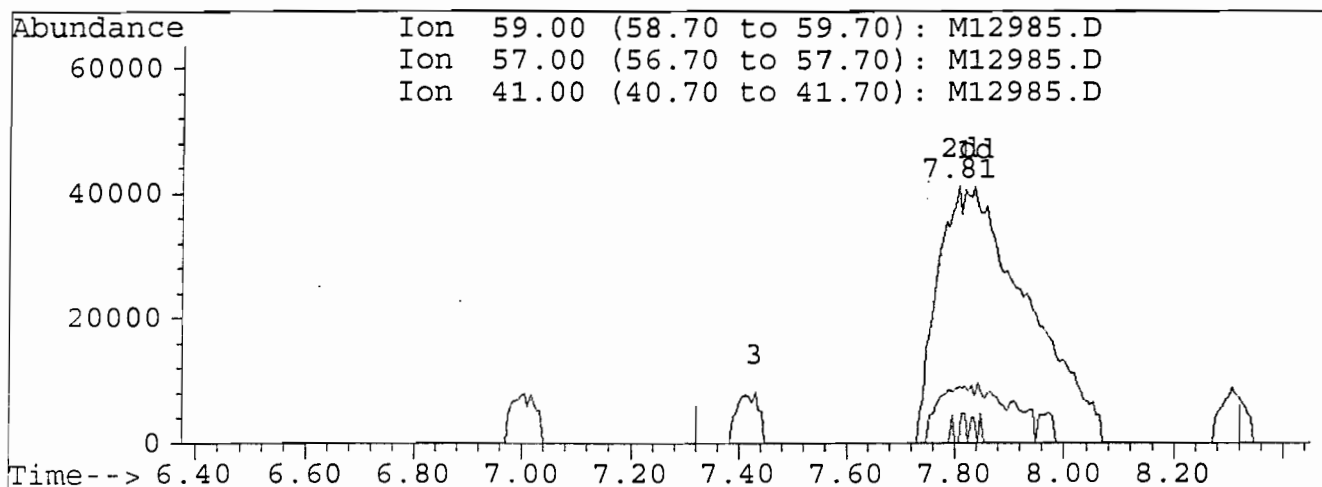
000275

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
 Acq Time : 10 Oct 99 2:03 pm
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 11 14:08 1999

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration



TIC: M12985.D

(15) TBA

7.81min 566.82ug/L m

response 462979

Ion	Exp%	Act%
59.00	100	100
57.00	10.40	0.00
41.00	20.60	21.78
0.00	0.00	0.00

000276

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
 Acq Time : 10 Oct 99 2:03 pm
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	105	0.03
2 T	dichlorodifluoromethane	0.286	0.298	-4.2	109	0.00
3 P	chloromethane	0.403	0.443	-9.9	114	0.00
4 C	vinyl chloride	0.307	0.322	-5.0#	112	0.00
5 T	bromomethane	0.208	0.236	-13.2	104	0.00
6 T	chloroethane	0.185	0.229	-23.6#	109	0.01
7	Acrolein	0.040	0.043	-9.6	114	0.02
8 T	trichlorofluoromethane	0.441	0.455	-3.4	107	0.03
9 C	1,1-dichloroethene	0.413	0.462	-12.0#	118	0.01
10	Acetone	0.177	0.137	22.4#	101	0.02
11	Carbon Disulfide	0.950	1.058	-11.3	118	0.02
12	Iodo Methane	0.492	0.570	-15.9	120	0.02
13 T	methylene chloride	0.302	0.350	-16.0	122	0.02
14 T	trans-1,2-dichloroethene	0.419	0.460	-9.9	118	0.02
15	TBA	0.019	0.022	-13.4	111	-0.02
16	MTBE	0.810	0.882	-8.9	113	0.02
17	Acrylonitrile	0.102	0.118	-15.7	121	0.02
18 P	1,1-dichloroethane	0.561	0.576	-2.8	110	0.02
19 T	2,2-dichloropropane	0.461	0.446	3.2	104	0.02
20 T	cis-1,2-dichloroethene	0.459	0.469	-2.3	108	0.03
21 T	bromochloromethane	0.308	0.321	-4.2	109	0.02
22 C	chloroform	0.583	0.606	-4.1#	111	0.02
23 T	1,1,1-trichloroethane	0.471	0.477	-1.3	106	0.03
24 S	Dibromofluoromethane	0.311	0.329	-5.7	105	0.03
25	Vinyl Acetate	0.984	0.970	1.4	105	0.03
26	2-Butanone	0.191	0.174	8.7	98	0.03
27 T	carbon tetrachloride	0.405	0.404	0.3	105	0.03
28 T	1,1-dichloropropene	0.406	0.424	-4.3	110	0.03
29 T	benzene	1.100	1.184	-7.6	112	0.02
30 S	1,2-Dichlorethane-d4	0.351	0.353	-0.8	103	0.03
31 T	1,2-dichloroethane	0.452	0.464	-2.6	106	0.03
32 T	trichloroethene	0.331	0.343	-3.6	109	0.03
33 C	1,2-dichloropropane	0.315	0.333	-5.6#	110	0.02
34 T	dibromomethane	0.224	0.240	-7.0	107	0.03
35 T	bromodichloromethane	0.480	0.494	-2.9	108	0.03
36	2-Chloroethyl Vinyl Ether	0.183	0.199	-9.1	111	0.03
37 T	cis-1,3-dichloropropene	0.533	0.561	-5.1	111	0.03
38 S	Toluene-d8	0.974	1.030	-5.7	106	0.02
39 C	toluene	1.204	1.224	-1.7#	108	0.03
40 T	trans-1,3-dichloropropene	0.482	0.499	-3.5	108	0.03
41 T	1,1,2-trichloroethane	0.275	0.291	-6.1	110	0.03
42 S	4-Bromofluorobenzene	0.412	0.427	-3.8	104	0.03

(#) = Out of Range

M12985.D V31009CW.M

Mon Oct 11 14:09:03 1999

VOA3

Page 1

000277

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101099\M12985.D
 Acq Time : 10 Oct 99 2:03 pm
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: BS
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
43	Chlorobenzene-d5	1.000	1.000	0.0	106	0.03
44	4-Methyl-2-Pentanone	0.328	0.364	-11.0	106	0.03
45 T	tetrachloroethene	0.385	0.383	0.7	107	0.03
46 T	1,3-dichloropropane	0.612	0.637	-4.1	110	0.03
47 T	dibromochloromethane	0.420	0.427	-1.7	108	0.03
48 T	1,2-dibromoethane	0.363	0.385	-6.0	110	0.03
49	2-Hexanone	0.232	0.255	-10.0	102	0.03
50 P	chlorobenzene	0.914	0.931	-1.9	109	0.03
51	1-Chlorohexane	0.598	0.629	-5.2	111	0.03
52 T	1,1,1,2-tetrachloroethane	0.326	0.343	-5.3	109	0.03
53 C	ethylbenzene	1.598	1.649	-3.2#	107	0.03
54 T	m&p-xylenes	0.543	0.559	-2.9	107	0.03
55 T	o-xylene	1.256	1.282	-2.1	109	0.02
56 T	styrene	0.971	1.011	-4.2	107	0.03
57 P	bromoform	0.273	0.286	-4.7	108	0.03
58	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.03
59 T	isopropylbenzene	3.387	3.449	-1.8	107	0.03
60 T	bromobenzene	1.495	1.516	-1.4	106	0.03
61 P	1,1,2,2-tetrachloroethane	0.995	1.032	-3.7	105	0.03
62	1,2,3-trichloropropane	0.713	0.734	-2.9	106	0.03
63 T	n-propylbenzene	0.825	0.858	-4.0	107	0.03
64 T	2-chlorotoluene	0.758	0.800	-5.5	106	0.03
65 T	4-chlorotoluene	0.787	0.799	-1.6	108	0.02
66 T	1,3,5-trimethylbenzene	2.728	2.829	-3.7	111	0.02
67 T	tert-butylbenzene	2.506	2.689	-7.3	118	0.03
68 T	1,2,4-trimethylbenzene	2.733	2.684	1.8	100	0.02
69 T	sec-butylbenzene	3.368	3.458	-2.7	106	0.03
70 T	1,3-dichlorobenzene	1.541	1.562	-1.4	104	0.03
71 T	4-isopropyltoluene	2.988	2.992	-0.1	108	0.02
72 T	1,4-dichlorobenzene	1.598	1.624	-1.6	106	0.02
73 T	1,2-dichlorobenzene	1.482	1.479	0.2	101	0.02
74 T	n-butylbenzene	2.813	2.745	2.4	105	0.02
75 T	1,2-dibromo-3-chloropropane	0.157	0.149	5.5	100	0.03
76 T	1,2,4-trichlorobenzene	1.065	1.038	2.6	104	0.04
77 T	hexachlorobutadiene	0.523	0.508	2.8	100	0.05
78 T	naphthalene	2.091	2.000	4.4	100	0.04
79 T	1,2,3-trichlorobenzene	0.909	0.870	4.3	100	0.04

000278

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No. 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Instrument ID: VOA 3Calibration Date: 10/11/99Time: 0815Lab File ID: M13002.DInit. Calib. Date(s): 10/9/99 10/9/99Heated Purge: (Y/N) NInit. Calib. Times: 0832 1235GC Column: RTX624ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.286	0.297		-3.8	
Chloromethane	0.403	0.413	0.300	-2.5	
Vinyl Chloride	0.307	0.333		-8.5	25.0
Bromomethane	0.208	0.211		-1.4	
Chloroethane	0.185	0.222		-20.0	
Trichlorofluoromethane	0.441	0.458		-3.9	
Methylene Chloride	0.302	0.325		-7.6	
1,1-Dichloroethane	0.561	0.569	0.300	-1.4	
2,2-Dichloropropane	0.461	0.479		-3.9	
Bromochloromethane	0.308	0.313		-1.6	
Chloroform	0.583	0.604		-3.6	25.0
1,1,1-Trichloroethane	0.471	0.527		-11.9	
Carbon Tetrachloride	0.405	0.420		-3.7	
1,1-Dichloropropene	0.406	0.439		-8.1	
Benzene	1.100	1.149		-4.5	
1,2-Dichloroethane	0.452	0.484		-7.1	
Trichloroethene	0.331	0.355		-7.3	
1,2-Dichloropropane	0.315	0.322		-2.2	25.0
Dibromomethane	0.224	0.241		-7.6	
Bromodichloromethane	0.480	0.492		-2.5	
Toluene	1.204	1.224		-1.7	25.0
1,1,2-Trichloroethane	0.275	0.294		-6.9	
Tetrachloroethene	0.385	0.412		-7.0	
1,3-Dichloropropane	0.612	0.630		-2.9	
Dibromochloromethane	0.420	0.412		1.9	
1,2-Dibromoethane	0.363	0.382		-5.2	
Chlorobenzene	0.914	0.945	0.300	-3.4	
1,1,1,2-Tetrachloroethane	0.326	0.334		-2.5	
Ethylbenzene	1.598	1.609		-0.7	25.0
Styrene	0.971	1.009		-3.9	
Bromoform	0.273	0.282	0.250	-3.3	
isopropylbenzene	3.387	3.328		1.7	
Bromobenzene	1.495	1.426		4.6	
1,1,2,2-Tetrachloroethane	0.995	0.971	0.300	2.4	
1,2,3-Trichloropropane	0.713	0.688		3.5	
n-Propylbenzene	0.825	0.827		-0.2	

All other compounds must meet a minimum RRF of 0.010.

000279

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13002.D
 Acq Time : 11 Oct 99 8:15 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 11 9:10 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.12	96	2163422	50.00	ug/L	0.02
43) Chlorobenzene-d5	20.48	117	1831867	50.00	ug/L	0.02
58) 1,4-dichlorobenzene-d4	25.21	152	832856	50.00	ug/L	0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.41	113	708785	52.67	ug/L	105.34%
30) 1,2-Dichlorethane-d4	13.46	65	789064	52.03	ug/L	104.05%
38) Toluene-d8	17.38	98	2228100	52.86	ug/L	105.73%
42) 4-Bromofluorobenzene	22.95	95	945967	53.09	ug/L	106.17%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.49	85	642512	51.96	ug/L	96
3) chloromethane	4.02	50	892823	51.21	ug/L	99
4) vinyl chloride	4.17	62	719650	54.19	ug/L	99
5) bromomethane	5.08	94	456856	60.39	ug/L	95
6) chloroethane	5.27	64	479536	69.35	ug/L	97
7) Acrolein	6.98	56	867812	506.51	ug/L	100
8) trichlorofluoromethane	5.88	101	990362	51.96	ug/L	98
9) 1,1-dichloroethene	7.40	61	954204	53.42	ug/L	98
10) Acetone	7.19	43	363117	47.48	ug/L	95
11) Carbon Disulfide	8.55	76	2153195	52.36	ug/L	97
12) Iodo Methane	8.12	142	1184839	55.65	ug/L	100
13) methylene chloride	8.57	84	702503	53.78	ug/L	97
14) trans-1,2-dichloroethene	9.28	61	930368	51.34	ug/L	97
15) TBA	7.79	59	452546	541.68	ug/L m	61
16) MTBE	9.00	73	1752502	50.03	ug/L	99
17) Acrylonitrile	8.91	53	2380024	541.63	ug/L	99
18) 1,1-dichloroethane	10.26	63	1230389	50.71	ug/L	99
19) 2,2-dichloropropane	11.51	77	1035924	51.95	ug/L	100
20) cis-1,2-dichloroethene	11.60	61	1037024	52.25	ug/L	99
21) bromochloromethane	12.29	49	677883	50.81	ug/L	97
22) chloroform	11.94	83	1306821	51.82	ug/L	98
23) 1,1,1-trichloroethane	12.80	97	1140187	55.96	ug/L	96
25) Vinyl Acetate	10.29	43	2083114	48.93	ug/L	100
26) 2-Butanone	11.26	43	419673	50.82	ug/L	98
27) carbon tetrachloride	13.33	117	908198	51.77	ug/L	94
28) 1,1-dichloropropene	13.13	75	948689	54.01	ug/L	98
29) benzene	13.68	78	2486588	52.25	ug/L	99
31) 1,2-dichloroethane	13.65	62	1047123	53.51	ug/L	99
32) trichloroethene	14.94	130	768286	53.64	ug/L	97
33) 1,2-dichloropropane	15.30	63	697530	51.13	ug/L	98
34) dibromomethane	15.89	174	521715	53.85	ug/L	99
35) bromodichloromethane	15.78	83	1065470	51.31	ug/L	100
36) 2-Chloroethyl Vinyl Ether	16.37	63	418719	53.02	ug/L	98

000281

(#) = qualifier out of range (m) = manual integration
 M13002.D V31009CW.M Mon Oct 11 10:31:53 1999

VOA3

Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13002.D
Acq Time : 11 Oct 99 8:15 am
Sample : 50 PPB CCC
Misc : 5MLS
Quant Time: Oct 11 9:10 1999

Operator: JJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	16.86	75	1220489	52.89	ug/L	98
39) toluene	17.54	91	2648229	50.84	ug/L	99
40) trans-1,3-dichloropropene	17.87	75	1056156	50.65	ug/L	99
41) 1,1,2-trichloroethane	18.20	97	636842	53.59	ug/L	99
44) 4-Methyl-2-Pentanone	16.45	43	676864	56.31	ug/L	100
45) tetrachloroethene	18.88	166	755545	53.53	ug/L	100
46) 1,3-dichloropropane	18.71	76	1154633	51.53	ug/L	99
47) dibromochloromethane	19.29	129	755416	49.08	ug/L	95
48) 1,2-dibromoethane	19.71	107	699007	52.49	ug/L	96
49) 2-Hexanone	18.19	43	514046	60.57	ug/L	100
50) chlorobenzene	20.56	112	1731490	51.70	ug/L	99
51) 1-Chlorohexane	19.96	91	1143286	52.21	ug/L	98
52) 1,1,1,2-tetrachloroethane	20.62	133	611867	51.21	ug/L	99
53) ethylbenzene	20.63	91	2947440	50.34	ug/L	99
54) m&p-xylenes	20.79	106	2046547	102.91	ug/L	96
55) o-xylene	21.70	91	2297858	49.95	ug/L	99
56) styrene	21.76	104	1848433	51.97	ug/L	98
57) bromoform	22.51	173	516520	51.60	ug/L	98
59) isopropylbenzene	22.41	105	2771510	49.12	ug/L	99
60) bromobenzene	23.38	77	1187795	47.69	ug/L	98
61) 1,1,2,2-tetrachloroethane	22.76	83	808370	48.77	ug/L	96
62) 1,2,3-trichloropropane	23.07	75	572753	48.20	ug/L	96
63) n-propylbenzene	23.24	120	688745	50.41	ug/L	96
64) 2-chlorotoluene	23.62	126	618329	48.97	ug/L	99
65) 4-chlorotoluene	23.70	126	630363	48.10	ug/L	95
66) 1,3,5-trimethylbenzene	23.53	105	2197856	48.37	ug/L	98
67) tert-butylbenzene	24.21	119	2002664	47.98	ug/L	100
68) 1,2,4-trimethylbenzene	24.28	105	2227015	51.10	ug/L	99
69) sec-butylbenzene	24.59	105	2807440	50.04	ug/L	98
70) 1,3-dichlorobenzene	25.07	146	1292545	50.37	ug/L	98
71) 4-isopropyltoluene	24.84	119	2452947	49.28	ug/L	98
72) 1,4-dichlorobenzene	25.27	146	1281668	48.14	ug/L	98
73) 1,2-dichlorobenzene	26.02	146	1191393	48.27	ug/L	99
74) n-butylbenzene	25.62	91	2223760	47.46	ug/L	94
75) 1,2-dibromo-3-chloropropan	27.66	75	114160	43.53	ug/L	94
76) 1,2,4-trichlorobenzene	29.83	180	876156	49.37	ug/L	99
77) hexachlorobutadiene	30.17	225	440460	50.56	ug/L	98
78) naphthalene	30.60	128	1561636	44.83	ug/L	98
79) 1,2,3-trichlorobenzene	31.33	180	727895	48.07	ug/L	97

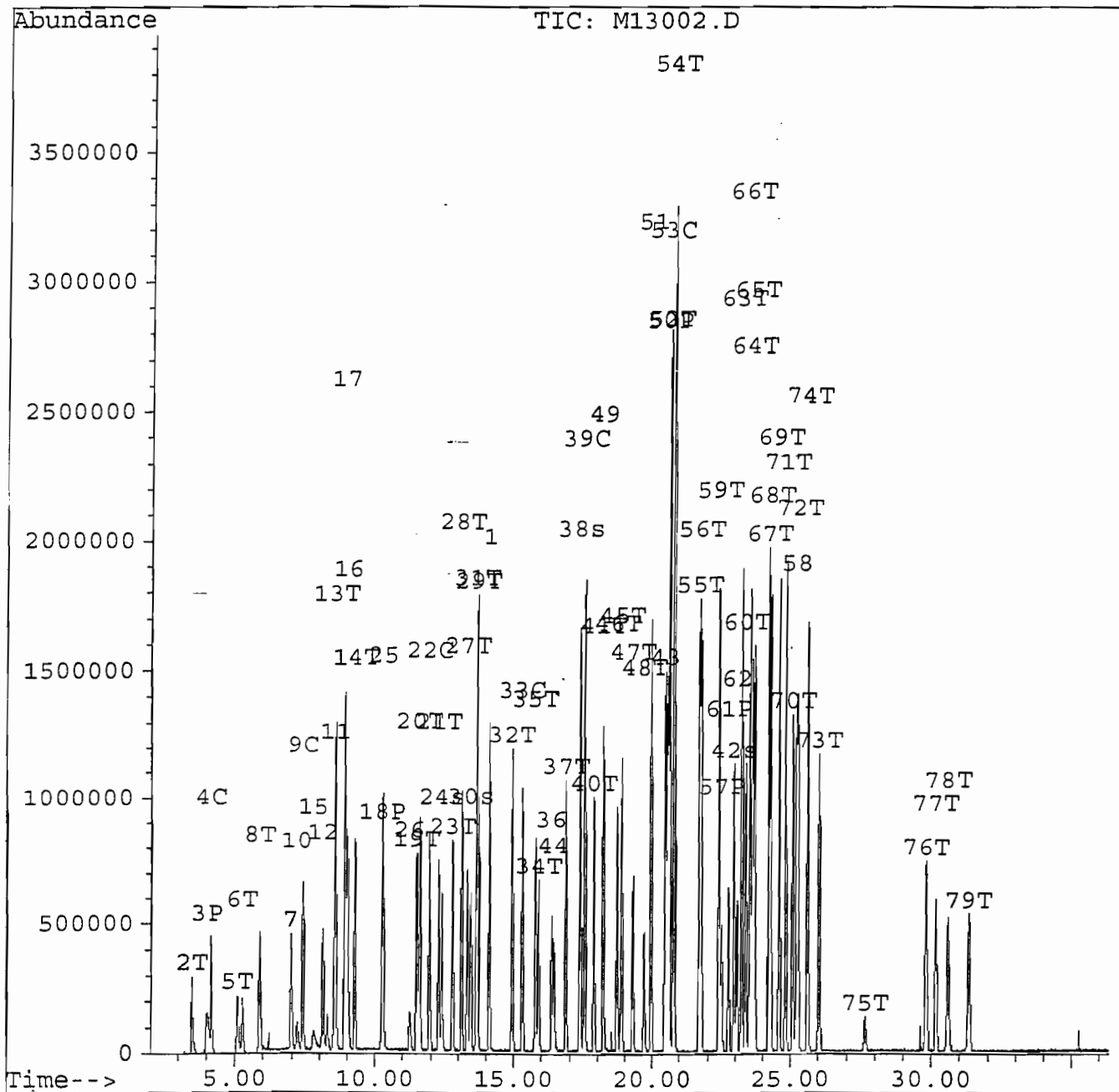
000282

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13002.D
 Acq Time : 11 Oct 99 8:15 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 11 9:10 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration



000283

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13002.D
 Acq Time : 11 Oct 99 8:15 am
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1	Fluorobenzene	1.000	1.000	0.0	107	0.02
2 T	dichlorodifluoromethane	0.286	0.297	-3.9	111	-0.02
3 P	chloromethane	0.403	0.413	-2.4	109	-0.02
4 C	vinyl chloride	0.307	0.333	-8.4#	118	-0.01
5 T	bromomethane	0.208	0.211	-1.5	95	-0.01
6 T	chloroethane	0.185	0.222	-19.7	108	0.00
7	Acrolein	0.040	0.040	-1.3	108	0.00
8 T	trichlorofluoromethane	0.441	0.458	-3.9	110	0.00
9 C	1,1-dichloroethene	0.413	0.441	-6.8#	115	0.00
10	Acetone	0.177	0.168	5.0	126	0.00
11	Carbon Disulfide	0.950	0.995	-4.7	113	0.00
12	Iodo Methane	0.492	0.548	-11.3	118	0.01
13 T	methylene chloride	0.302	0.325	-7.6	116	0.00
14 T	trans-1,2-dichloroethene	0.419	0.430	-2.7	113	0.00
15	TBA	0.019	0.021	-8.3	109	-0.04
16	MTBE	0.810	0.810	-0.1	107	0.00
17	Acrylonitrile	0.102	0.110	-8.3	115	0.00
18 P	1,1-dichloroethane	0.561	0.569	-1.4	111	0.00
19 T	2,2-dichloropropane	0.461	0.479	-3.9	114	0.00
20 T	cis-1,2-dichloroethene	0.459	0.479	-4.5	112	0.01
21 T	bromochloromethane	0.308	0.313	-1.6	109	0.00
22 C	chloroform	0.583	0.604	-3.6#	113	0.00
23 T	1,1,1-trichloroethane	0.471	0.527	-11.9	119	0.02
24 s	Dibromofluoromethane	0.311	0.328	-5.3	107	0.01
25	Vinyl Acetate	0.984	0.963	2.1	106	0.00
26	2-Butanone	0.191	0.194	-1.6	112	0.00
27 T	carbon tetrachloride	0.405	0.420	-3.5	112	0.01
28 T	1,1-dichloropropene	0.406	0.439	-8.0	116	0.02
29 T	benzene	1.100	1.149	-4.5	111	0.00
30 s	1,2-Dichlorethane-d4	0.351	0.365	-4.1	108	0.02
31 T	1,2-dichloroethane	0.452	0.484	-7.0	114	0.02
32 T	trichloroethene	0.331	0.355	-7.3	115	0.02
33 C	1,2-dichloropropane	0.315	0.322	-2.3#	109	0.02
34 T	dibromomethane	0.224	0.241	-7.7	111	0.01
35 T	bromodichloromethane	0.480	0.492	-2.6	110	0.02
36	2-Chloroethyl Vinyl Ether	0.183	0.194	-6.0	110	0.02
37 T	cis-1,3-dichloropropene	0.533	0.564	-5.8	114	0.02
38 s	Toluene-d8	0.974	1.030	-5.7	108	0.02
39 C	toluene	1.204	1.224	-1.7#	111	0.02
40 T	trans-1,3-dichloropropene	0.482	0.488	-1.3	108	0.03
41 T	1,1,2-trichloroethane	0.275	0.294	-7.2	114	0.02
42 s	4-Bromofluorobenzene	0.412	0.437	-6.2	109	0.02

(#) = Out of Range

M13002.D V31009CW.M

Mon Oct 11 10:32:21 1999

VOA3

Page 1

000284-

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101199\M13002.D
 Acq Time : 11 Oct 99 8:15 am
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
43	Chlorobenzene-d5	1.000	1.000	0.0	109	0.02
44	4-Methyl-2-Pentanone	0.328	0.369	-12.6	110	0.02
45 T	tetrachloroethene	0.385	0.412	-7.1	118	0.02
46 T	1,3-dichloropropane	0.612	0.630	-3.1	112	0.03
47 T	dibromochloromethane	0.420	0.412	1.8	107	0.02
48 T	1,2-dibromoethane	0.363	0.382	-5.0	112	0.03
49	2-Hexanone	0.232	0.281	-21.1#	115	0.02
50 P	chlorobenzene	0.914	0.945	-3.4	114	0.03
51	1-Chlorohexane	0.598	0.624	-4.4	112	0.02
52 T	1,1,1,2-tetrachloroethane	0.326	0.334	-2.4	108	0.03
53 C	ethylbenzene	1.598	1.609	-0.7#	107	0.02
54 T	m&p-xylenes	0.543	0.559	-2.9	110	0.02
55 T	o-xylene	1.256	1.254	0.1	109	0.02
56 T	styrene	0.971	1.009	-3.9	110	0.03
57 P	bromoform	0.273	0.282	-3.2	109	0.03
58	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.03
59 T	isopropylbenzene	3.387	3.328	1.8	111	0.03
60 T	bromobenzene	1.495	1.426	4.6	107	0.03
61 P	1,1,2,2-tetrachloroethane	0.995	0.971	2.5	107	0.02
62	1,2,3-trichloropropane	0.713	0.688	3.6	107	0.03
63 T	n-propylbenzene	0.825	0.827	-0.3	112	0.03
64 T	2-chlorotoluene	0.758	0.742	2.1	106	0.02
65 T	4-chlorotoluene	0.787	0.757	3.8	110	0.02
66 T	1,3,5-trimethylbenzene	2.728	2.639	3.3	112	0.02
67 T	tert-butylbenzene	2.506	2.405	4.0	114	0.02
68 T	1,2,4-trimethylbenzene	2.733	2.674	2.2	108	0.02
69 T	sec-butylbenzene	3.368	3.371	-0.1	112	0.02
70 T	1,3-dichlorobenzene	1.541	1.552	-0.7	111	0.02
71 T	4-isopropyltoluene	2.988	2.945	1.4	114	0.03
72 T	1,4-dichlorobenzene	1.598	1.539	3.7	109	0.02
73 T	1,2-dichlorobenzene	1.482	1.430	3.5	105	0.02
74 T	n-butylbenzene	2.813	2.670	5.1	110	0.02
75 T	1,2-dibromo-3-chloropropane	0.157	0.137	12.9	99	0.04
76 T	1,2,4-trichlorobenzene	1.065	1.052	1.3	113	0.04
77 T	hexachlorobutadiene	0.523	0.529	-1.1	113	0.04
78 T	naphthalene	2.091	1.875	10.3	101	0.03
79 T	1,2,3-trichlorobenzene	0.909	0.874	3.9	108	0.04

000285

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No. 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Instrument ID: VOA 3Calibration Date: 10/12/99Time: 1931Lab File ID: M13039.DInit. Calib. Date(s): 10/9/99 10/9/99Heated Purge: (Y/N) NInit. Calib. Times: 0832 1235GC Column: RTX624ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.286	0.300		-4.9	
Chloromethane	0.403	0.430	0.300	-6.7	
Vinyl Chloride	0.307	0.332		-8.1	25.0
Bromomethane	0.208	0.243		-16.8	
Chloroethane	0.185	0.219		-18.4	
Trichlorofluoromethane	0.441	0.465		-5.4	
Methylene Chloride	0.302	0.351		-16.2	
1,1-Dichloroethane	0.561	0.610	0.300	-8.7	
2,2-Dichloropropane	0.461	0.519		-12.6	
Bromochloromethane	0.308	0.325		-5.5	
Chloroform	0.583	0.632		-8.4	25.0
1,1,1-Trichloroethane	0.471	0.504		-7.0	
Carbon Tetrachloride	0.405	0.432		-6.7	
1,1-Dichloropropene	0.406	0.440		-8.4	
Benzene	1.100	1.242		-12.9	
1,2-Dichloroethane	0.452	0.505		-11.7	
Trichloroethene	0.331	0.361		-9.1	
1,2-Dichloropropane	0.315	0.342		-8.6	25.0
Dibromomethane	0.224	0.244		-8.9	
Bromodichloromethane	0.480	0.511		-6.5	
Toluene	1.204	1.268		-5.3	25.0
1,1,2-Trichloroethane	0.275	0.291		-5.8	
Tetrachloroethene	0.385	0.406		-5.5	
1,3-Dichloropropane	0.612	0.683		-11.6	
Dibromochloromethane	0.420	0.443		-5.5	
1,2-Dibromoethane	0.363	0.396		-9.1	
Chlorobenzene	0.914	1.001	0.300	-9.5	
1,1,1,2-Tetrachloroethane	0.326	0.357		-9.5	
Ethylbenzene	1.598	1.725		-7.9	25.0
Styrene	0.971	1.031		-6.2	
Bromoform	0.273	0.287	0.250	-5.1	
isopropylbenzene	3.387	3.416		-0.9	
Bromobenzene	1.495	1.468		1.8	
1,1,2,2-Tetrachloroethane	0.995	0.973	0.300	2.2	
1,2,3-Trichloropropane	0.713	0.724		-1.5	
n-Propylbenzene	0.825	0.848		-2.8	

All other compounds must meet a minimum RRF of 0.010.

000286

Contract: IMPACT ENVIRONMENTAL

Project No. 13701ASP

Site:

Location:

Group: GP-005-SS1

Instrument ID: VOA 3

Calibration Date: '10/12/99

Time: 1931

Lab File ID: M13039.D

Init. Calib. Date(s): 10/9/99 10/9/99

Heated Purge: (Y/N) N

Init. Calib. Times: 0832 1235

GC Column: RTX624

ID: 0.53 (mm)

COMPOUND	R _{RF}	R _{RF} 50	MIN R _{RF}	%D	MAX %D
2-Chlorotoluene	0.758	0.777		-2.5	
4-Chlorotoluene	0.787	0.777		1.3	
1,3,5-Trimethylbenzene	2.728	2.650		2.9	
tert-Butylbenzene	2.506	2.528		-0.9	
1,2,4-Trimethylbenzene	2.733	2.620		4.1	
sec-Butylbenzene	3.368	3.344		0.7	
1,3-Dichlorobenzene	1.541	1.499		2.7	
4-Isopropyltoluene	2.988	2.876		3.7	
1,4-Dichlorobenzene	1.598	1.545		3.3	
1,2-Dichlorobenzene	1.482	1.444		2.6	
n-Butylbenzene	2.813	2.746		2.4	
1,2-Dibromo-3-chloropropane	0.157	0.149		5.1	
1,2,4-Trichlorobenzene	1.065	1.036		2.7	
Hexachlorobutadiene	0.523	0.549		-5.0	
Naphthalene	2.091	1.877		10.2	
1,2,3-Trichlorobenzene	0.909	0.846		6.9	
Dibromofluoromethane	0.311	0.336		-8.0	
Toluene-d8	0.974	1.044		-7.2	
4-Bromofluorobenzene	0.412	0.455		-10.4	

All other compounds must meet a minimum RRF of 0.010.

000287

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13039.D
 Acq Time : 12 Oct 99 7:31 pm
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 12 20:05 1999

Operator: AV
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.06	96	2128207	50.00	ug/L	-0.05
43) Chlorobenzene-d5	20.37	117	1767032	50.00	ug/L	-0.08
58) 1,4-dichlorobenzene-d4	25.09	152	838782	50.00	ug/L	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	12.35	113	714969	54.01	ug/L	108.02%
30) 1,2-Dichlorethane-d4	13.39	65	765736	51.32	ug/L	102.65%
38) Toluene-d8	17.29	98	2222294	53.60	ug/L	107.20%
42) 4-Bromofluorobenzene	22.85	95	968136	55.23	ug/L	110.46%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.49	85	638034	52.45	ug/L	94
3) chloromethane	4.02	50	914412	53.32	ug/L	99
4) vinyl chloride	4.17	62	706664	54.10	ug/L	99
5) bromomethane	5.09	94	516119	75.07	ug/L	97
6) chloroethane	5.26	64	466315	68.24	ug/L	100
7) Acrolein	6.97	56	879293	521.70	ug/L	99
8) trichlorofluoromethane	5.87	101	988797	52.73	ug/L	98
9) 1,1-dichloroethene	7.38	61	974401	55.46	ug/L	99
10) Acetone	7.18	43	352105	46.80	ug/L	94
11) Carbon Disulfide	8.53	76	2253601	55.71	ug/L	99
12) Iodo Methane	8.10	142	1222543	58.38	ug/L	99
13) methylene chloride	8.55	84	747326	58.16	ug/L	98
14) trans-1,2-dichloroethene	9.24	61	983121	55.15	ug/L	100
16) MTBE	8.97	73	1804625	52.37	ug/L	99
17) Acrylonitrile	8.88	53	2397434	554.62	ug/L	99
18) 1,1-dichloroethane	10.22	63	1297311	54.35	ug/L	97
19) 2,2-dichloropropane	11.46	77	1104223	56.29	ug/L	97
20) cis-1,2-dichloroethene	11.55	61	1076459	55.14	ug/L	97
21) bromochloromethane	12.24	49	691749	52.71	ug/L	98
22) chloroform	11.90	83	1344954	54.22	ug/L	100
23) 1,1,1-trichloroethane	12.74	97	1073242	53.54	ug/L	98
25) Vinyl Acetate	10.26	43	2224694	53.12	ug/L	100
26) 2-Butanone	11.21	43	430487	53.00	ug/L	99
27) carbon tetrachloride	13.27	117	920380	53.33	ug/L	97
28) 1,1-dichloropropene	13.06	75	935946	54.16	ug/L	99
29) benzene	13.62	78	2642238	56.44	ug/L	98
31) 1,2-dichloroethane	13.58	62	1075252	55.86	ug/L	99
32) trichloroethene	14.87	130	767364	54.47	ug/L	96
33) 1,2-dichloropropane	15.22	63	727443	54.21	ug/L	98
34) dibromomethane	15.81	174	518455	54.40	ug/L	99
35) bromodichloromethane	15.70	83	1088194	53.27	ug/L	99
36) 2-Chloroethyl Vinyl Ether	16.28	63	439506	56.57	ug/L	100
37) cis-1,3-dichloropropene	16.78	75	1196770	52.72	ug/L	99

(#) = qualifier out of range (m) = manual integration
 M13039.D V31009CW.M Tue Oct 12 20:06:56 1999

000288
 VOA3 Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13039.D
Acq Time : 12 Oct 99 7:31 pm
Sample : 50 PPB CCC
Misc : 5MLS
Quant Time: Oct 12 20:05 1999

Operator: AV
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
Title : VOA
Last Update : Sat Oct 09 13:27:42 1999
Response via : Multiple Level Calibration

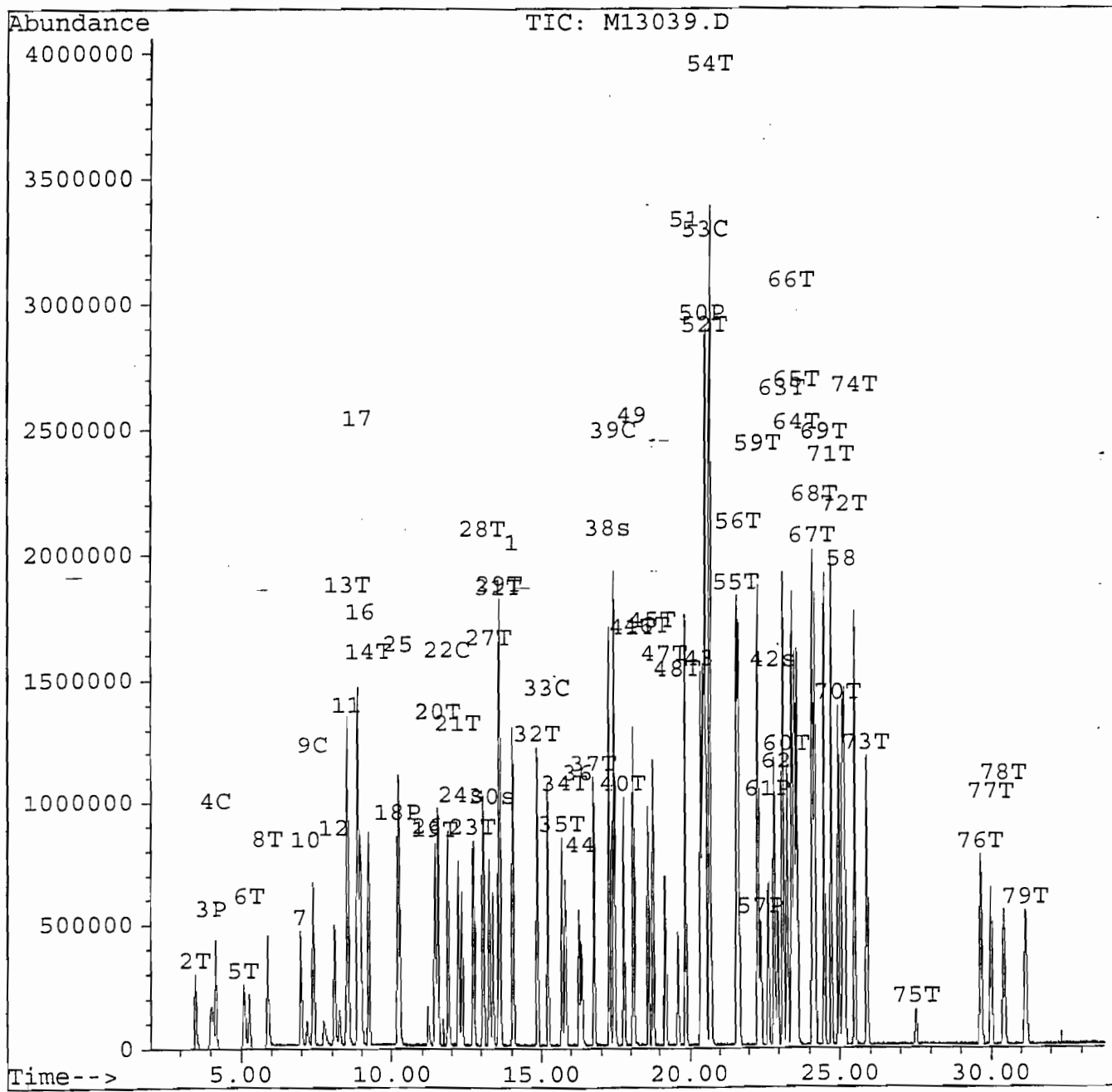
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) toluene	17.45	91	2699394	52.68 ug/L	98
40) trans-1,3-dichloropropene	17.77	75	1110111	54.12 ug/L	97
41) 1,1,2-trichloroethane	18.11	97	619643	53.00 ug/L	100
44) 4-Methyl-2-Pentanone	16.36	43	654411	56.44 ug/L	99
45) tetrachloroethene	18.78	166	716934	52.66 ug/L	98
46) 1,3-dichloropropane	18.62	76	1207658	55.87 ug/L	99
47) dibromochloromethane	19.19	129	782572	52.71 ug/L	96
48) 1,2-dibromoethane	19.61	107	700170	54.51 ug/L	97
49) 2-Hexanone	18.10	43	496813	60.69 ug/L	100
50) chlorobenzene	20.45	112	1769253	54.77 ug/L	99
51) 1-Chlorohexane	19.86	91	1195006	56.57 ug/L	99
52) 1,1,1,2-tetrachloroethane	20.52	133	630039	54.66 ug/L	98
53) ethylbenzene	20.53	91	3047915	53.97 ug/L	100
54) m&p-xylenes	20.68	106	2091032	109.00 ug/L	97
55) o-xylene	21.59	91	2394880	53.97 ug/L	100
56) styrene	21.65	104	1821787	53.10 ug/L	97
57) bromoform	22.39	173	507505	52.56 ug/L	97
59) isopropylbenzene	22.30	105	2865170	50.42 ug/L	100
60) bromobenzene	23.27	77	1231288	49.08 ug/L	96
61) 1,1,2,2-tetrachloroethane	22.64	83	816346	48.90 ug/L	97
62) 1,2,3-trichloropropane	22.95	75	607661	50.77 ug/L	97
63) n-propylbenzene	23.13	120	711139	51.68 ug/L	98
64) 2-chlorotoluene	23.60	126	651633	51.24 ug/L	89
65) 4-chlorotoluene	23.60	126	651633	49.37 ug/L	98
66) 1,3,5-trimethylbenzene	23.43	105	2222552	48.57 ug/L	99
67) tert-butylbenzene	24.10	119	2120025	50.43 ug/L	98
68) 1,2,4-trimethylbenzene	24.17	105	2197718	50.07 ug/L	99
69) sec-butylbenzene	24.49	105	2804528	49.64 ug/L	99
70) 1,3-dichlorobenzene	24.97	146	1257318	48.65 ug/L	99
71) 4-isopropyltoluene	24.72	119	2412326	48.12 ug/L	99
72) 1,4-dichlorobenzene	25.16	146	1296332	48.35 ug/L	98
73) 1,2-dichlorobenzene	25.90	146	1210845	48.72 ug/L	99
74) n-butylbenzene	25.50	91	2303493	48.82 ug/L	96
75) 1,2-dibromo-3-chloropropan	27.52	75	124709	47.22 ug/L	97
76) 1,2,4-trichlorobenzene	29.66	180	868790	48.61 ug/L	99
77) hexachlorobutadiene	30.00	225	460169	52.45 ug/L	99
78) naphthalene	30.42	128	1574407	44.88 ug/L	98
79) 1,2,3-trichlorobenzene	31.15	180	709312	46.52 ug/L	98

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13039.D
 Acq Time : 12 Oct 99 7:31 pm
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 12 20:05 1999

Operator: AV
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration



000290

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13039.D
 Acq Time : 12 Oct 99 7:31 pm
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: AV
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	Fluorobenzene	1.000	1.000	0.0	105	-0.05
2 T	dichlorodifluoromethane	0.286	0.300	-4.9	110	-0.01
3 P	chloromethane	0.403	0.430	-6.6	111	0.00
4 C	vinyl chloride	0.307	0.332	-8.2#	116	0.00
5 T	bromomethane	0.208	0.243	-16.6	108	0.00
6 T	chloroethane	0.185	0.219	-18.3	105	0.00
7	Acrolein	0.040	0.041	-4.3	109	-0.02
8 T	trichlorofluoromethane	0.441	0.465	-5.5	109	0.00
9 C	1,1-dichloroethene	0.413	0.458	-10.9#	117	-0.02
10	Acetone	0.177	0.165	6.4	122	-0.02
11	Carbon Disulfide	0.950	1.059	-11.4	119	-0.02
12	Iodo Methane	0.492	0.574	-16.8	122	-0.02
13 T	methylene chloride	0.302	0.351	-16.3	123	-0.02
14 T	trans-1,2-dichloroethene	0.419	0.462	-10.3	119	-0.03
15	TBA	0.019	0.001	93.9#	6#	0.44
16	MTBE	0.810	0.848	-4.7	110	-0.02
17	Acrylonitrile	0.102	0.113	-10.9	116	-0.03
18 P	1,1-dichloroethane	0.561	0.610	-8.7	117	-0.04
19 T	2,2-dichloropropane	0.461	0.519	-12.6	121	-0.04
20 T	cis-1,2-dichloroethene	0.459	0.506	-10.3	117	-0.04
21 T	bromochloromethane	0.308	0.325	-5.4	111	-0.04
22 C	chloroform	0.583	0.632	-8.4#	116	-0.04
23 T	1,1,1-trichloroethane	0.471	0.504	-7.1	112	-0.04
24 s	Dibromofluoromethane	0.311	0.336	-8.0	108	-0.04
25	Vinyl Acetate	0.984	1.045	-6.2	114	-0.03
26	2-Butanone	0.191	0.202	-6.0	115	-0.04
27 T	carbon tetrachloride	0.405	0.432	-6.7	113	-0.05
28 T	1,1-dichloropropene	0.406	0.440	-8.3	115	-0.05
29 T	benzene	1.100	1.242	-12.9	118	-0.05
30 s	1,2-Dichlorethane-d4	0.351	0.360	-2.6	105	-0.05
31 T	1,2-dichloroethane	0.452	0.505	-11.7	117	-0.05
32 T	trichloroethene	0.331	0.361	-8.9	115	-0.05
33 C	1,2-dichloropropane	0.315	0.342	-8.4#	113	-0.06
34 T	dibromomethane	0.224	0.244	-8.8	110	-0.07
35 T	bromodichloromethane	0.480	0.511	-6.5	112	-0.06
36	2-Chloroethyl Vinyl Ether	0.183	0.207	-13.1	116	-0.07
37 T	cis-1,3-dichloropropene	0.533	0.562	-5.4	112	-0.07
38 s	Toluene-d8	0.974	1.044	-7.2	108	-0.07
39 C	toluene	1.204	1.268	-5.4#	113	-0.07
40 T	trans-1,3-dichloropropene	0.482	0.522	-8.2	114	-0.07
41 T	1,1,2-trichloroethane	0.275	0.291	-6.0	111	-0.08
42 s	4-Bromofluorobenzene	0.412	0.455	-10.5	111	-0.08

(#) = Out of Range

M13039.D V31009CW.M

Tue Oct 12 20:07:19 1999

VOA3

000291

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3101299\M13039.D
 Acq Time : 12 Oct 99 7:31 pm
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: AV
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V31009CW.M
 Title : VOA
 Last Update : Sat Oct 09 13:27:42 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
43	Chlorobenzene-d5	1.000	1.000	0.0	105	-0.08
44	4-Methyl-2-Pentanone	0.328	0.370	-12.9	107	-0.06
45 T	tetrachloroethene	0.385	0.406	-5.3	112	-0.07
46 T	1,3-dichloropropane	0.612	0.683	-11.7	117	-0.07
47 T	dibromochloromethane	0.420	0.443	-5.4	111	-0.08
48 T	1,2-dibromoethane	0.363	0.396	-9.0	112	-0.07
49	2-Hexanone	0.232	0.281	-21.4#	111	-0.08
50 P	chlorobenzene	0.914	1.001	-9.5	116	-0.08
51	1-Chlorohexane	0.598	0.676	-13.1	117	-0.08
52 T	1,1,1,2-tetrachloroethane	0.326	0.357	-9.3	112	-0.08
53 C	ethylbenzene	1.598	1.725	-7.9#	110	-0.08
54 T	m&p-xylenes	0.543	0.592	-9.0	112	-0.08
55 T	o-xylene	1.256	1.355	-7.9	114	-0.08
56 T	styrene	0.971	1.031	-6.2	108	-0.08
57 P	bromoform	0.273	0.287	-5.1	107	-0.09
58	1,4-dichlorobenzene-d4	1.000	1.000	0.0	114	-0.09
59 T	isopropylbenzene	3.387	3.416	-0.8	115	-0.09
60 T	bromobenzene	1.495	1.468	1.8	111	-0.09
61 P	1,1,2,2-tetrachloroethane	0.995	0.973	2.2	108	-0.09
62	1,2,3-trichloropropane	0.713	0.724	-1.5	113	-0.09
63 T	n-propylbenzene	0.825	0.848	-2.8	115	-0.08
64 T	2-chlorotoluene	0.758	0.777	-2.5	112	0.00
65 T	4-chlorotoluene	0.787	0.777	1.3	114	-0.08
66 T	1,3,5-trimethylbenzene	2.728	2.650	2.9	113	-0.09
67 T	tert-butylbenzene	2.506	2.528	-0.9	121	-0.08
68 T	1,2,4-trimethylbenzene	2.733	2.620	4.1	106	-0.09
69 T	sec-butylbenzene	3.368	3.344	0.7	112	-0.08
70 T	1,3-dichlorobenzene	1.541	1.499	2.7	108	-0.09
71 T	4-isopropyltoluene	2.988	2.876	3.8	112	-0.09
72 T	1,4-dichlorobenzene	1.598	1.545	3.3	110	-0.09
73 T	1,2-dichlorobenzene	1.482	1.444	2.6	107	-0.10
74 T	n-butylbenzene	2.813	2.746	2.4	114	-0.10
75 T	1,2-dibromo-3-chloropropane	0.157	0.149	5.6	108	-0.10
76 T	1,2,4-trichlorobenzene	1.065	1.036	2.8	113	-0.12
77 T	hexachlorobutadiene	0.523	0.549	-4.9	118	-0.13
78 T	naphthalene	2.091	1.877	10.2	102	-0.14
79 T	1,2,3-trichlorobenzene	0.909	0.846	7.0	106	-0.15

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SSInstrument ID: VOA 3Calibration Date(s): 9/16/99 9/16/99Heated Purge: (Y/N) NCalibration Times: 0811 1307GC Column RTX624ID: 0.53 (mm)

Lab File ID: RRF005 = M12466.D RRF20 = M12464.D
 RRF50 = M12461.D RRF100 = M12463.D RRF200 = M12462.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.447	0.549	0.541	0.523	0.532	0.518	7.9
Chloromethane *	0.360	0.426	0.425	0.423	0.436	0.414	7.4 *
Vinyl Chloride	0.321	0.362	0.362	0.349	0.349	0.349	4.8
Bromomethane	0.222	0.243	0.224	0.202	0.220	0.222	6.6
Chloroethane	0.182	0.209	0.207	0.183	0.193	0.195	6.5
Trichlorofluoromethane	0.603	0.683	0.628	0.556	0.548	0.604	9.2
Methylene Chloride	0.288	0.299	0.305	0.290	0.292	0.295	2.4
1,1-Dichloroethane *	0.600	0.661	0.631	0.618	0.610	0.624	3.8 *
2,2-Dichloropropane	0.627	0.658	0.641	0.616	0.617	0.631	2.8
Bromochloromethane	0.239	0.320	0.310	0.303	0.298	0.294	10.8
Chloroform	0.681	0.725	0.680	0.657	0.647	0.678	4.4
1,1,1-Trichloroethane	0.624	0.643	0.624	0.621	0.594	0.621	2.8
Carbon Tetrachloride	0.514	0.561	0.562	0.550	0.542	0.546	3.6
1,1-Dichloropropene	0.393	0.462	0.451	0.437	0.429	0.434	6.1
Benzene	1.089	1.143	1.080	1.027	0.992	1.066	5.5
1,2-Dichloroethane	0.659	0.680	0.664	0.630	0.615	0.649	4.1
Trichloroethene	0.313	0.364	0.356	0.343	0.342	0.344	5.6
1,2-Dichloropropane	0.286	0.305	0.300	0.295	0.291	0.295	2.5
Dibromomethane	0.168	0.250	0.250	0.247	0.244	0.232	15.4
Bromodichloromethane	0.556	0.596	0.573	0.553	0.540	0.564	3.8
Toluene	1.249	1.268	1.192	1.139	1.130	1.196	5.2
1,1,2-Trichloroethane	0.226	0.299	0.276	0.281	0.272	0.271	10.0
Tetrachloroethene	0.892	0.430	0.398	0.390	0.384	0.499	44.2
1,3-Dichloropropane	0.563	0.607	0.573	0.564	0.545	0.570	4.0
Dibromochloromethane	0.412	0.495	0.473	0.467	0.452	0.460	6.7
1,2-Dibromoethane	0.334	0.390	0.370	0.363	0.339	0.359	6.5
Chlorobenzene *	0.924	0.992	0.927	0.849	0.884	0.915	5.8 *
1,1,1,2-Tetrachloroethane	0.303	0.384	0.353	0.364	0.349	0.351	8.5
Ethylbenzene	1.794	1.819	1.652	1.628	1.533	1.685	7.1
Styrene	0.943	1.015	0.949	0.940	0.892	0.948	4.6
Bromoform *	0.237	0.322	0.316	0.318	0.291	0.297	11.9 *
isopropylbenzene	3.772	3.832	3.566	3.438	3.570	3.636	4.5
Bromobenzene	1.562	1.686	1.576	1.550	1.585	1.592	3.4
1,1,2,2-Tetrachloroethane *	0.917	1.005	0.907	0.878	0.831	0.907	7.1 *
1,2,3-Trichloropropane	0.634	0.794	0.711	0.710	0.664	0.702	8.6
n-Propylbenzene	0.716	0.888	0.837	0.837	0.867	0.829	8.0

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Contract: IMPACT ENVIRONMENTAL

Project No.: 13701ASP

Site:

Location:

Group: GP-005-SS

Instrument ID: VOA 3

Calibration Date(s): 9/16/99 9/16/99

Heated Purge: (Y/N) N

Calibration Times: 0811 1307

GC Column RTX624

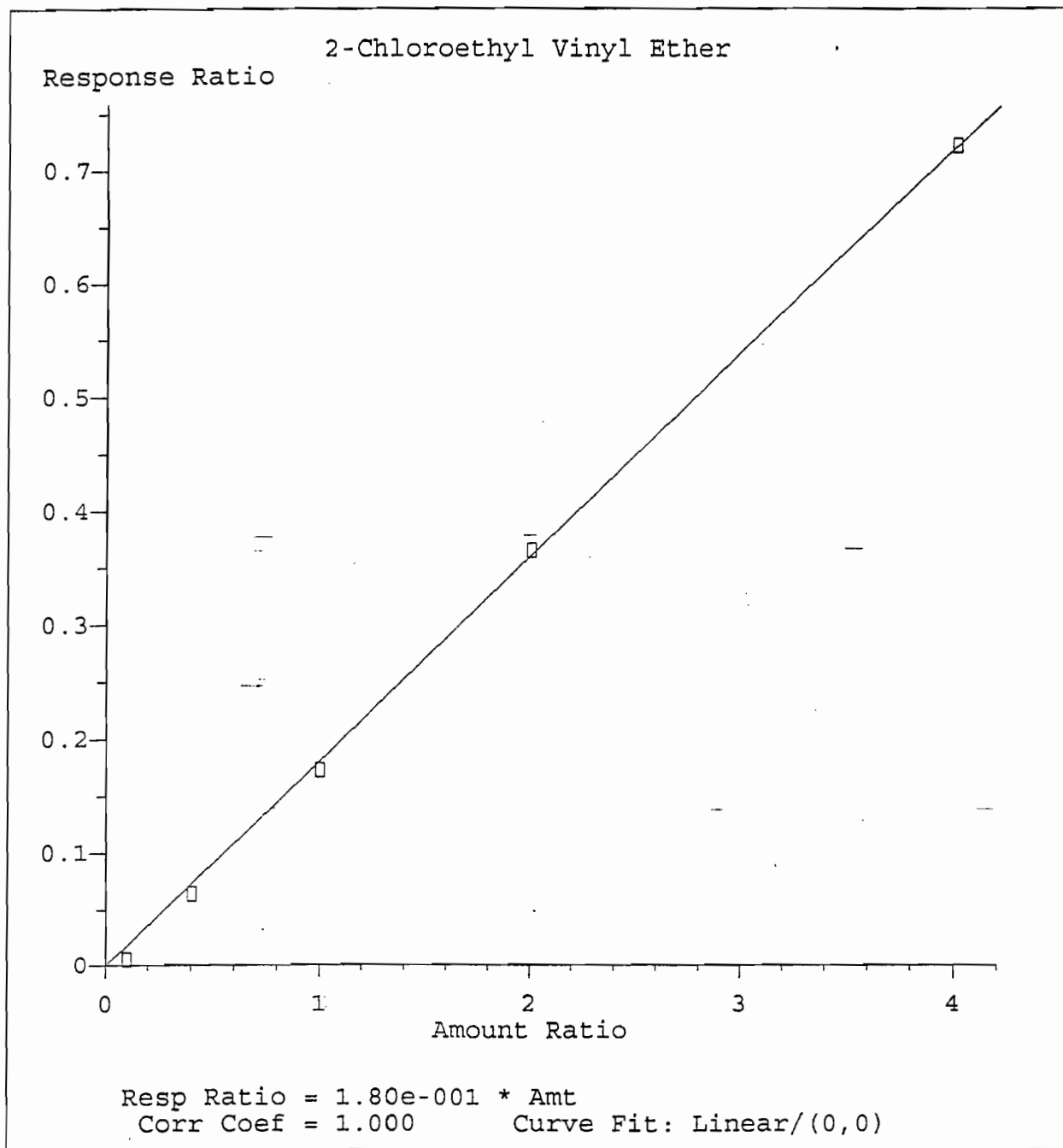
ID: 0.53 (mm)

Lab File ID:	RRF005 = M12466.D	RRF20 = M12464.D
RRF50 = M12461.D	RRF100 = M12463.D	RRF200 = M12462.D

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
2-Chlorotoluene	0.801	0.842	0.770	0.753	0.762	0.786	4.6
4-Chlorotoluene	0.706	0.833	0.815	0.775	0.771	0.780	6.3
1,3,5-Trimethylbenzene	3.160	3.270	3.018	2.882	2.882	3.042	5.6
tert-Butylbenzene	2.737	2.840	2.825	2.487	2.713	2.720	5.2
1,2,4-Trimethylbenzene	3.150	3.338	2.964	2.894	2.834	3.036	6.8
sec-Butylbenzene	3.833	3.928	3.626	3.426	3.391	3.641	6.6
1,3-Dichlorobenzene	1.585	1.748	1.602	1.575	1.546	1.611	4.9
4-Isopropyltoluene	3.429	3.565	3.204	3.178	3.053	3.286	6.3
1,4-Dichlorobenzene	1.679	1.788	1.649	1.615	1.575	1.661	4.8
1,2-Dichlorobenzene	1.419	1.646	1.506	1.482	1.473	1.505	5.6
n-Butylbenzene	2.947	3.242	2.901	2.887	2.903	2.976	5.1
1,2-Dibromo-3-chloropropane	0.153	0.138	0.167	0.191	0.181	0.166	12.8
1,2,4-Trichlorobenzene	0.951	1.223	1.062	1.180	1.234	1.130	10.7
Hexachlorobutadiene	0.277	0.661	0.599	0.604	0.670	0.562	28.9
Naphthalene	2.338	2.541	1.904	2.301	2.093	2.235	10.9
1,2,3-Trichlorobenzene	0.766	1.106	0.904	1.012	1.037	0.965	13.8
Dibromofluoromethane	0.301	0.368	0.365	0.378	0.343	0.351	8.7
Toluene-d8	1.000	1.055	1.028	1.065	0.950	1.019	4.5
4-Bromofluorobenzene	0.432	0.507	0.515	0.495	0.441	0.478	8.1

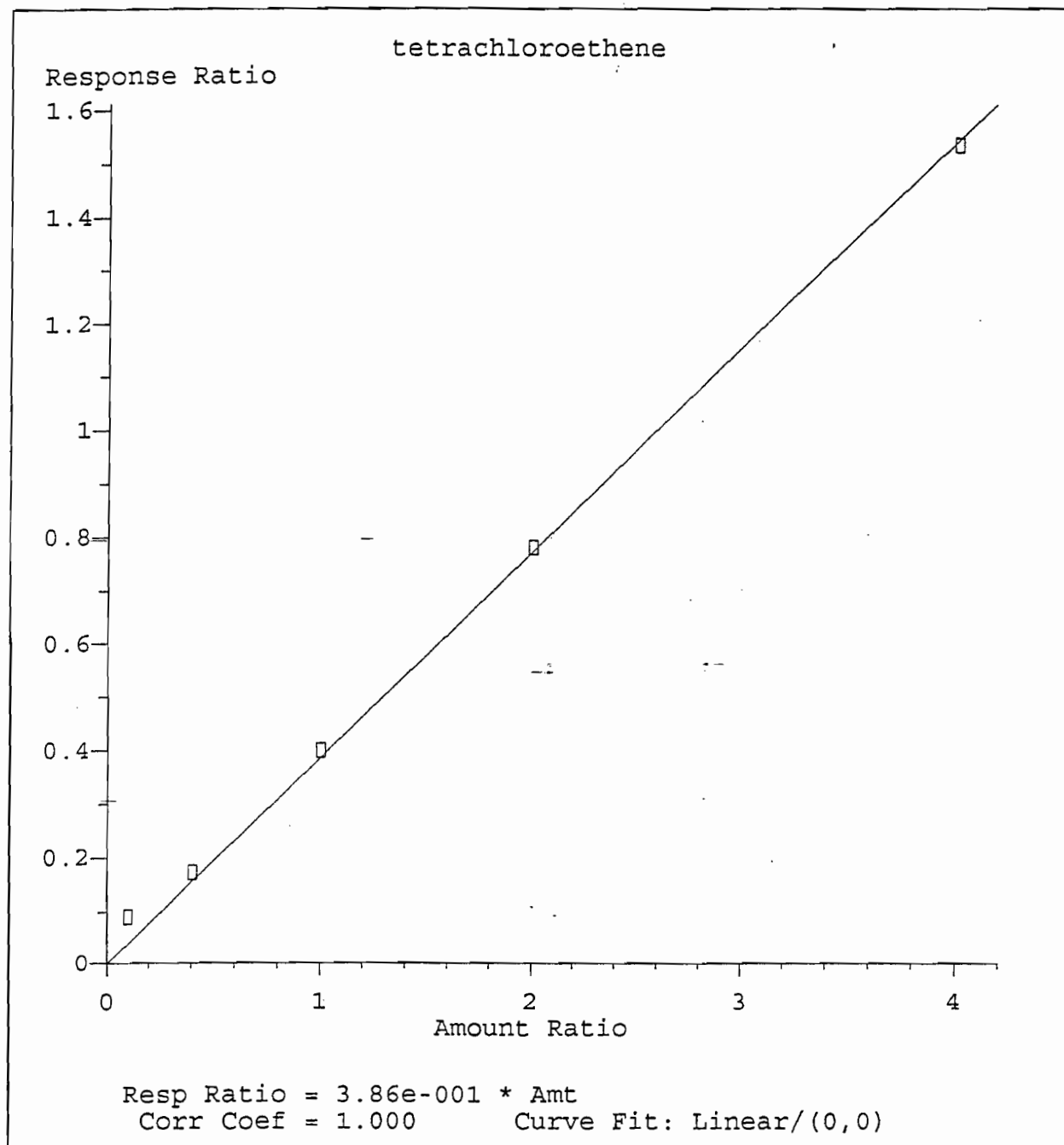
* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.



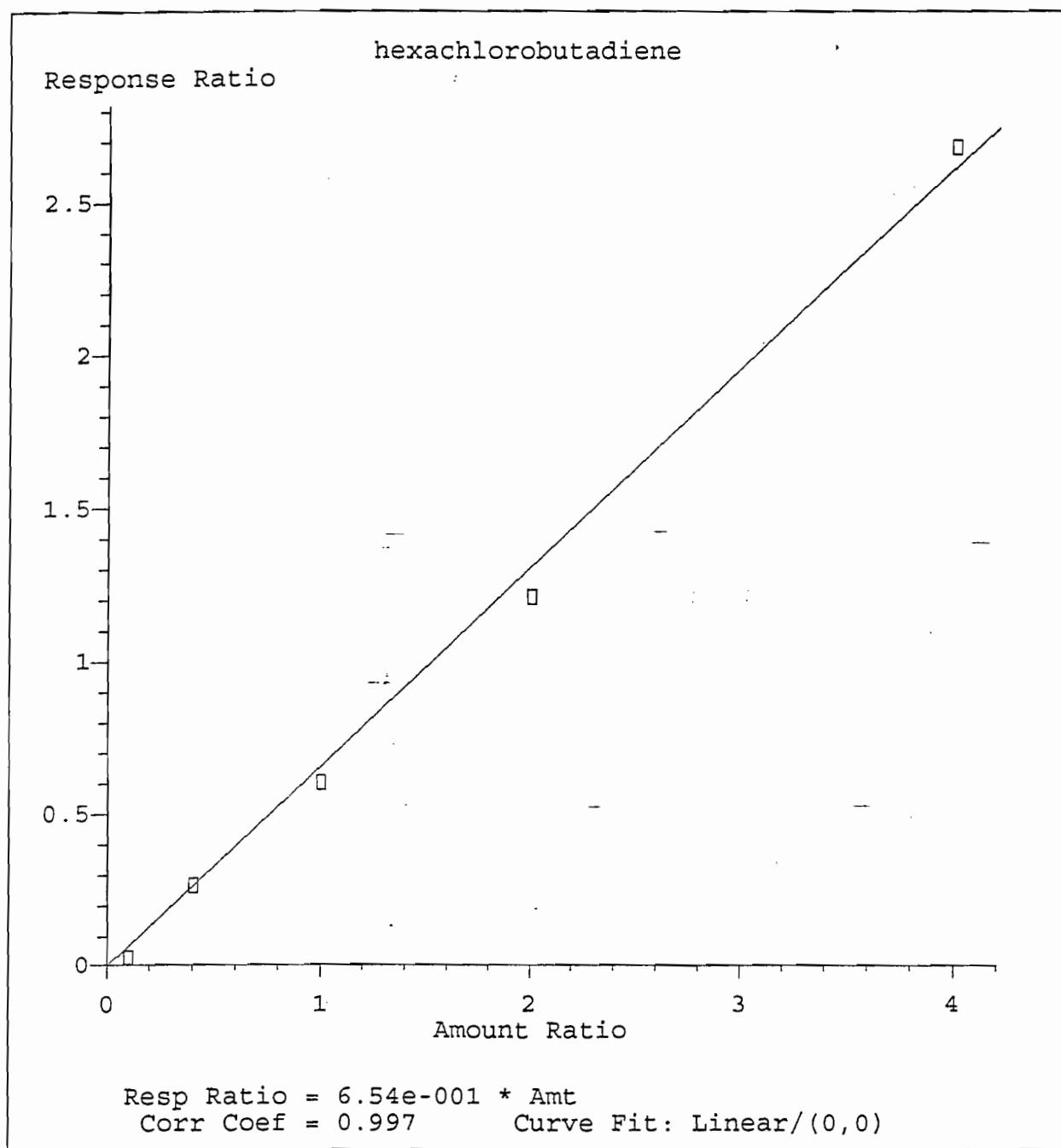
Method Name: D:\HPCHEM\3\METHODS\V30916CW.M
Calibration Table Last Updated: Thu Sep 16 14:22:43 1999

000295



Method Name: D:\HPCHEM\3\METHODS\V30916CW.M
Calibration Table Last Updated: Thu Sep 16 14:22:43 1999

000296



Method Name: D:\HPCHEM\3\METHODS\V30916CW.M
Calibration Table Last Updated: Thu Sep 16 14:22:43 1999

000297

Response Factor Report voa3

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Initial Calibration

Calibration Files
 50 =M12461.D 200 =M12462.D 100 =M12463.D
 20 =M12464.D 5 =M12466.D

Compound		50	200	100	20	5	Avg	%RSD
-----ISTD-----								
1)	Fluorobenzene	0.541	0.532	0.523	0.548	0.447	0.518	7.92
2) T	dichlorodifluoromethane	0.424	0.436	0.423	0.426	0.360	0.414	7.38#
3) P	chloromethane	0.362	0.349	0.349	0.362	0.321	0.349	4.85
4) C	vinyl chloride	0.224	0.219	0.202	0.243	0.221	0.222	6.57
5) T	bromomethane	0.207	0.193	0.183	0.209	0.182	0.195	6.52
6) T	chloroethane	0.037	0.036	0.038	0.040	0.038	0.038	4.40
7)	Acrolein	0.628	0.548	0.556	0.683	0.603	0.604	9.19
8) T	trichlorofluoromethane	0.531	0.507	0.511	0.553	0.508	0.522	3.82
9) C	1,1-dichloroethene	0.245	0.206	0.238	0.293	0.634	0.323	54.57
10)	Acetone	1.008	0.962	0.959	1.028	1.029	0.997	3.47
11)	Carbon Disulfide	0.305	0.292	0.290	0.299	0.288	0.295	2.40
12) T	methylene chloride	0.495	0.477	0.471	0.519	0.498	0.492	3.85
13) T	trans-1,2-dichloroethene	0.024	0.021	0.025	0.025	0.020	0.023	10.29
14)	TBA	0.871	0.813	0.849	0.906	0.883	0.864	4.07
15)	MTBE	0.091	0.084	0.091	0.097	0.090	0.091	5.18
16)	Acrylonitrile	0.631	0.610	0.618	0.661	0.600	0.624	3.78#
17) P	1,1-dichloroethane	0.641	0.617	0.616	0.658	0.626	0.631	2.81
18) T	2,2-dichloropropane	0.515	0.491	0.501	0.528	0.468	0.501	4.59
19) T	cis-1,2-dichloroethene	0.310	0.298	0.303	0.320	0.239	0.294	10.81
20) T	bromochloromethane	0.680	0.647	0.657	0.725	0.681	0.678	4.42
21) C	chloroform	0.624	0.594	0.621	0.643	0.624	0.621	2.80
22) T	1,1,1-trichloroethane	0.365	0.342	0.378	0.368	0.301	0.351	8.70
23) S	Dibromofluoromethane	1.117	1.073	1.108	1.186	1.313	1.159	8.23
24)	Vinyl Acetate	0.220	0.192	0.226	0.241	0.647	0.305	62.85
25)	2-Butanone	0.562	0.542	0.550	0.561	0.514	0.546	3.62
26) T	carbon tetrachloride	0.451	0.429	0.437	0.462	0.393	0.434	6.14
27) T	1,1-dichloropropene	1.080	0.992	1.027	1.143	1.089	1.066	5.46
28) T	benzene	0.502	0.458	0.510	0.499	0.430	0.480	7.20
29) S	1,2-Dichloroethane-d4	0.664	0.615	0.630	0.680	0.659	0.649	4.08
30) T	1,2-dichloroethane	0.356	0.342	0.343	0.364	0.313	0.344	5.62
31) T	trichloroethene	0.300	0.291	0.295	0.305	0.285	0.295	2.52
32) C	1,2-dichloropropane	0.250	0.244	0.247	0.250	0.168	0.232	15.41
33) T	dibromomethane	0.573	0.540	0.553	0.596	0.556	0.564	3.83
34) T	bromodichloromethane	0.172	0.180	0.182	0.159	0.052	0.149	37.04
35)	2-Chloroethyl Vinyl Ether	0.566	0.546	0.552	0.597	0.576	0.567	3.59
36) T	cis-1,3-dichloropropene	1.028	0.950	1.065	1.054	1.000	1.019	4.52
37) S	Toluene-d8	1.192	1.130	1.139	1.268	1.249	1.196	5.20
38) C	toluene	0.571	0.547	0.562	0.569	0.559	0.561	1.68
39) T	trans-1,3-dichloropropene	0.276	0.272	0.281	0.299	0.226	0.271	9.97
40) T	1,1,2-trichloroethane	0.515	0.441	0.495	0.507	0.432	0.478	8.14
41) S	4-Bromofluorobenzene	-----ISTD-----						
42)	Chlorobenzene-d5							

000298

Response Factor Report voa3

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Initial Calibration

Calibration Files

50 =M12461.D 200 =M12462.D 100 =M12463.D
 20 =M12464.D 5 =M12466.D

Compound	50	200	100	20	5	Avg	%RSD
43) 4-Methyl-2-Pentanone	0.360	0.325	0.343	0.393	0.211	0.326	21.13
44) T tetrachloroethene	0.398	0.384	0.390	0.430	0.892	0.499	44.21
45) T 1,3-dichloropropane	0.572	0.545	0.564	0.607	0.563	0.570	4.04
46) T dibromochloromethane	0.473	0.452	0.467	0.495	0.412	0.460	6.73
47) T 1,2-dibromoethane	0.370	0.339	0.363	0.390	0.334	0.359	6.45
48) 2-Hexanone	0.299	0.265	0.304	0.321	0.692	0.376	47.30
49) P chlorobenzene	0.927	0.884	0.849	0.992	0.924	0.915	5.84#
50) T 1,1,1,2-tetrachloroethane	0.352	0.349	0.364	0.384	0.303	0.351	8.52
51) C ethylbenzene	1.652	1.533	1.628	1.819	1.794	1.685	7.09
52) T m&p-xylenes	0.560	0.525	0.546	0.617	0.600	0.570	6.71
53) T o-xylene	1.331	1.231	1.263	1.500	1.437	1.352	8.46
54) T styrene	0.949	0.892	0.940	1.015	0.943	0.948	4.64
55) P bromoform	0.316	0.291	0.318	0.321	0.237	0.297	11.92#
56) 1,4-dichlorobenzene-d4	-----ISTD-----						
57) T isopropylbenzene	3.566	3.570	3.438	3.832	3.772	3.636	4.46
58) T bromobenzene	1.576	1.585	1.550	1.686	1.562	1.592	3.40
59) P 1,1,2,2-tetrachloroethane	0.907	0.831	0.877	1.005	0.917	0.907	7.05#
60) 1,2,3-trichloropropane	0.711	0.664	0.710	0.793	0.634	0.702	8.58
61) T n-propylbenzene	0.837	0.867	0.837	0.888	0.716	0.829	8.04
62) T 2-chlorotoluene	0.770	0.762	0.753	0.842	0.801	0.786	4.63
63) T 4-chlorotoluene	0.815	0.771	0.775	0.833	0.706	0.780	6.30
64) T 1,3,5-trimethylbenzene	3.018	2.882	2.882	3.270	3.159	3.042	5.63
65) T tert-butylbenzene	2.825	2.713	2.486	2.840	2.737	2.720	5.20
66) T 1,2,4-trimethylbenzene	2.964	2.834	2.894	3.338	3.150	3.036	6.80
67) T sec-butylbenzene	3.626	3.391	3.426	3.928	3.833	3.641	6.56
68) T 1,3-dichlorobenzene	1.602	1.546	1.575	1.748	1.585	1.611	4.91
69) T 4-isopropyltoluene	3.204	3.053	3.178	3.565	3.429	3.286	6.29
70) T 1,4-dichlorobenzene	1.648	1.575	1.615	1.787	1.679	1.661	4.85
71) T 1,2-dichlorobenzene	1.506	1.473	1.482	1.646	1.419	1.505	5.64
72) T n-butylbenzene	2.901	2.903	2.887	3.242	2.947	2.976	5.05
73) T 1,2-dibromo-3-chloropropa	0.167	0.181	0.190	0.138	0.152	0.166	12.82
74) T 1,2,4-trichlorobenzene	1.062	1.234	1.180	1.223	0.951	1.130	10.72
75) T hexachlorobutadiene	0.599	0.670	0.604	0.661	0.277	0.562	28.93
76) T naphthalene	1.904	2.093	2.301	2.541	2.338	2.235	10.91
77) T 1,2,3-trichlorobenzene	0.904	1.037	1.012	1.106	0.766	0.965	13.77

000299

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12461.D
 Acq Time : 16 Sep 99 8:11 am
 Sample : 50 PPB CCC
 Misc : 5ML
 Quant Time: Sep 16 12:41 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.10	96	888206	50.00	ug/L	0.00
42) Chlorobenzene-d5	20.48	117	793195	50.00	ug/L	0.00
56) 1,4-dichlorobenzene-d4	25.22	152	346868	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	12.38	113	324125	50.00	ug/L	100.00%
29) 1,2-Dichlorethane-d4	13.44	65	446187	50.00	ug/L	100.00%
37) Toluene-d8	17.38	98	912704	50.00	ug/L	100.00%
41) 4-Bromofluorobenzene	22.97	95	457296	50.00	ug/L	100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.37	85	480369	50.00	ug/L	100
3) chloromethane	3.87	50	377036	50.00	ug/L	100
4) vinyl chloride	4.05	62	321927	50.00	ug/L	100
5) bromomethane	4.97	94	199284	50.00	ug/L	100
6) chloroethane	5.15	64	183439	50.00	ug/L	100
7) Acrolein	6.88	56	332455	500.00	ug/L	100
8) trichlorofluoromethane	5.78	101	557997	50.00	ug/L	100
9) 1,1-dichloroethene	7.30	61	471740	50.00	ug/L	100
10) Acetone	7.08	43	217529	50.00	ug/L	100
11) Carbon Disulfide	8.47	76	895353	50.00	ug/L	100
12) methylene chloride	8.49	84	270784	50.00	ug/L	100
13) trans-1,2-dichloroethene	9.21	61	439850	50.00	ug/L	100
14) TBA	7.67	59	212750	498.55	ug/L m	76
15) MTBE	8.93	73	773634	50.24	ug/L	96
16) Acrylonitrile	8.83	53	804900	500.00	ug/L	100
17) 1,1-dichloroethane	10.20	63	560722	50.00	ug/L	100
18) 2,2-dichloropropane	11.46	77	569354	50.00	ug/L	100
19) cis-1,2-dichloroethene	11.57	61	457135	50.00	ug/L	100
20) bromochloromethane	12.26	49	274986	50.00	ug/L	100
21) chloroform	11.91	83	603626	50.00	ug/L	100
22) 1,1,1-trichloroethane	12.77	97	554248	50.00	ug/L	100
24) Vinyl Acetate	10.25	43	991973	50.00	ug/L	100
25) 2-Butanone	11.22	43	195382	50.00	ug/L	100
26) carbon tetrachloride	13.31	117	499549	50.00	ug/L	100
27) 1,1-dichloropropene	13.10	75	400572	50.00	ug/L	100
28) benzene	13.67	78	959445	50.00	ug/L	100
30) 1,2-dichloroethane	13.63	62	589847	50.00	ug/L	100
31) trichloroethene	14.93	130	316335	50.00	ug/L	100
32) 1,2-dichloropropane	15.29	63	266484	50.00	ug/L	100
33) dibromomethane	15.89	174	221931	50.00	ug/L	100
34) bromodichloromethane	15.77	83	508781	50.00	ug/L	100
35) 2-Chloroethyl Vinyl Ether	16.37	63	152658	50.00	ug/L	100
36) cis-1,3-dichloropropene	16.87	75	502351	50.00	ug/L	100

000300

(#) = qualifier out of range (m) = manual integration
 M12461.D V30916CW.M Mon Sep 20 16:00:52 1999

VOA3

Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12461.D
 Acq Time : 16 Sep 99 8:11 am
 Sample : 50 PPB CCC
 Misc : 5ML
 Quant Time: Sep 16 12:41 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	17.55	91	1059104	50.00	ug/L	100
39) trans-1,3-dichloropropene	17.87	75	507039	50.00	ug/L	100
40) 1,1,2-trichloroethane	18.21	97	245009	50.00	ug/L	100
43) 4-Methyl-2-Pentanone	16.44	43	285857	50.00	ug/L	100
44) tetrachloroethene	18.88	166	315938	50.00	ug/L	100
45) 1,3-dichloropropane	18.71	76	454096	50.00	ug/L	100
46) dibromochloromethane	19.29	129	374966	50.00	ug/L	100
47) 1,2-dibromoethane	19.71	107	293203	50.00	ug/L	100
48) 2-Hexanone	18.20	43	236989	50.00	ug/L	100
49) chlorobenzene	20.56	112	735318	50.00	ug/L	100
50) 1,1,1,2-tetrachloroethane	20.63	133	279582	49.84	ug/L	100
51) ethylbenzene	20.63	91	1310439	50.00	ug/L	100
52) m&p-xylenes	20.79	106	888751	100.00	ug/L	100
53) o-xylene	21.70	91	1055374	50.00	ug/L	100
54) styrene	21.77	104	752931	50.00	ug/L	100
55) bromoform	22.52	173	250323	50.00	ug/L	100
57) isopropylbenzene	22.42	105	1236950	50.00	ug/L	100
58) bromobenzene	23.40	77	546818	50.00	ug/L	100
59) 1,1,2,2-tetrachloroethane	22.77	83	314711	50.00	ug/L	100
60) 1,2,3-trichloropropane	23.08	75	246574	50.00	ug/L	100
61) n-propylbenzene	23.25	120	290273	50.00	ug/L	100
62) 2-chlorotoluene	23.64	126	267115	50.00	ug/L	100
63) 4-chlorotoluene	23.71	126	282852	50.00	ug/L	100
64) 1,3,5-trimethylbenzene	23.54	105	1046940	50.00	ug/L	100
65) tert-butylbenzene	24.23	119	979772	50.00	ug/L	100
66) 1,2,4-trimethylbenzene	24.29	105	1027994	50.00	ug/L	100
67) sec-butylbenzene	24.60	105	1257879	50.00	ug/L	100
68) 1,3-dichlorobenzene	25.09	146	555605	50.00	ug/L	100
69) 4-isopropyltoluene	24.84	119	1111381	50.00	ug/L	100
70) 1,4-dichlorobenzene	25.29	146	571805	50.00	ug/L	100
71) 1,2-dichlorobenzene	26.04	146	522290	50.00	ug/L	100
72) n-butylbenzene	25.63	91	1006360	50.00	ug/L	100
73) 1,2-dibromo-3-chloropropan	27.67	75	57839	50.00	ug/L	100
74) 1,2,4-trichlorobenzene	29.84	180	368341	50.00	ug/L	100
75) hexachlorobutadiene	30.19	225	207684	50.00	ug/L	100
76) naphthalene	30.61	128	660566	50.00	ug/L	100
77) 1,2,3-trichlorobenzene	31.35	180	313432	50.07	ug/L	100

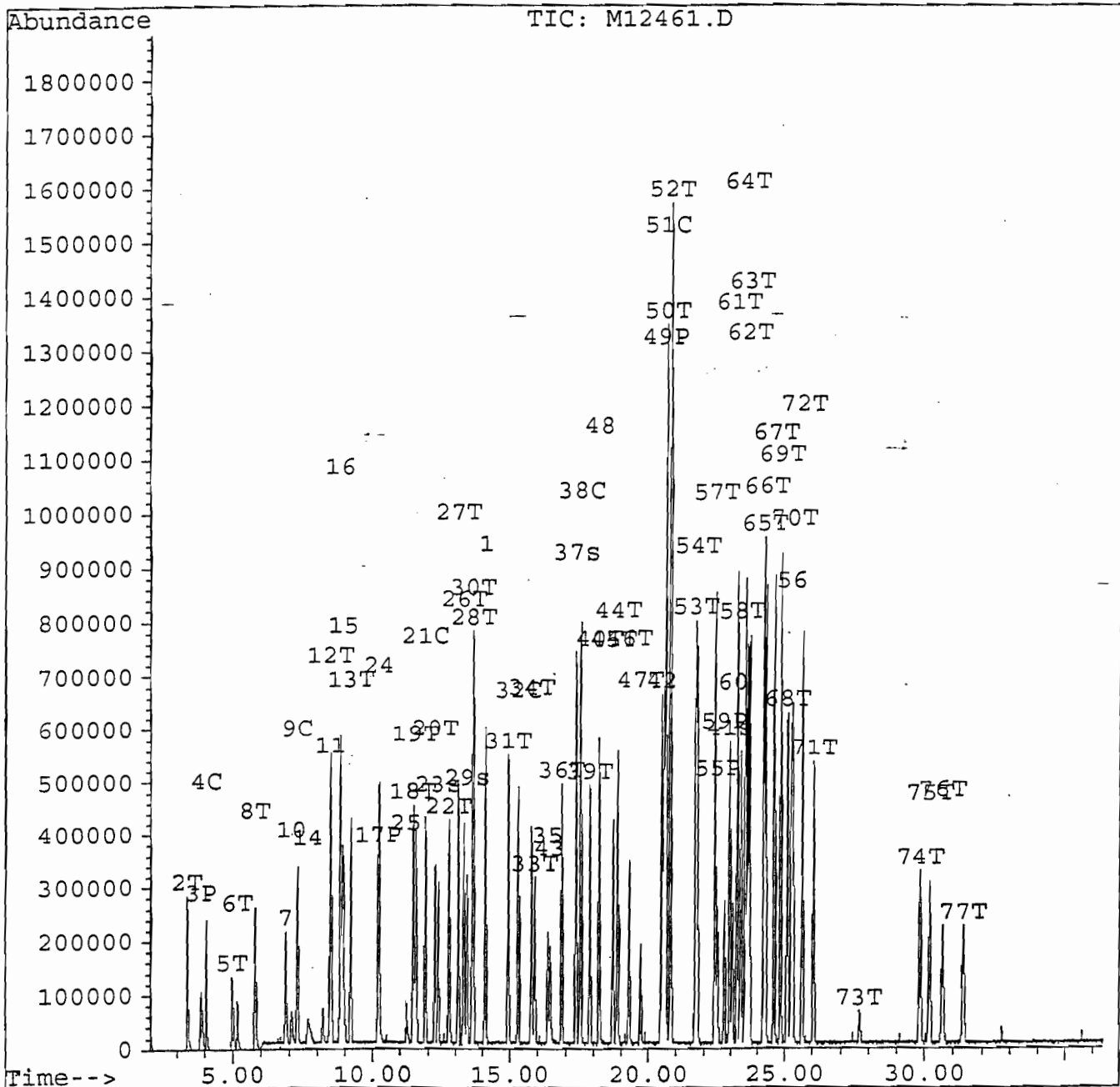
000301

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12461.D
 Acq Time : 16 Sep 99 8:11 am
 Sample : 50 PPB CCC
 Misc : 5ML
 Quant Time: Sep 16 12:41 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



000302

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12461.D

Acq Time : 16 Sep 99 8:11 am

Sample : 50 PPB CCC

Misc : 5ML

Quant Time: Sep 16 12:41 1999

Operator: AVJJ

Inst : voa3

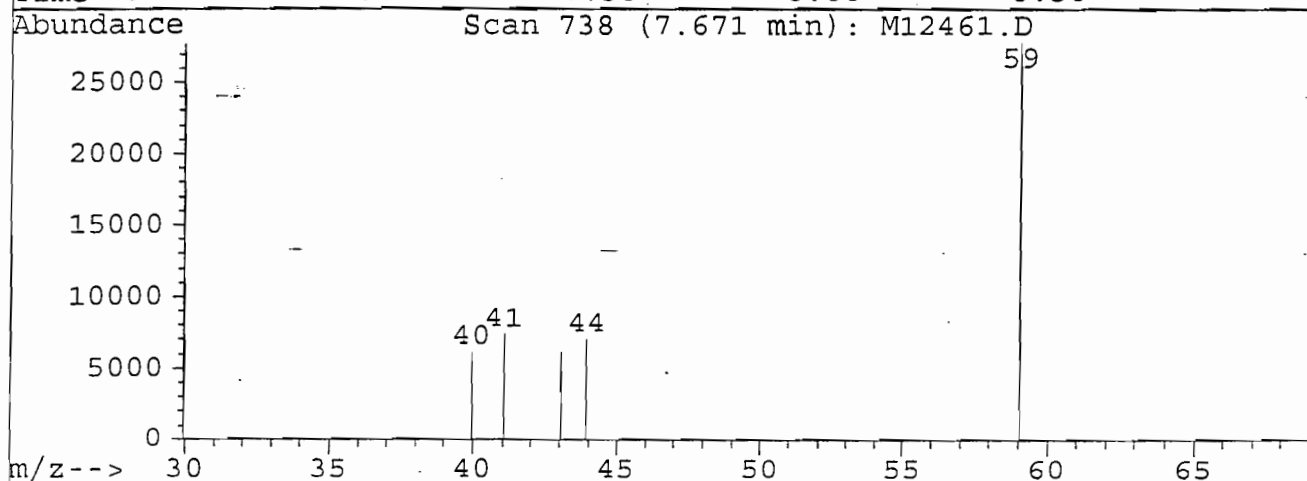
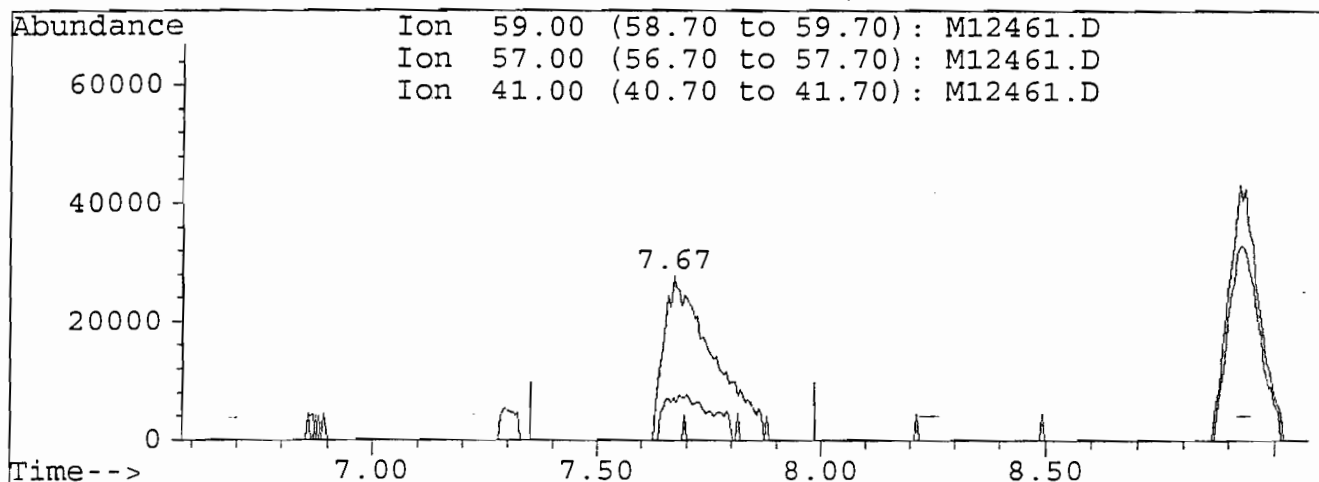
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M

Title : VOA

Last Update : Thu Sep 16 14:22:43 1999

Response via : Single Level Calibration



TIC: M12461.D

(14) TBA

7.67min 498.55ug/L m

response 212750

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	0.00
41.00	26.20	26.18
0.00	0.00	0.00

000303

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.10	96	806452	50.00	ug/L	0.00
42) Chlorobenzene-d5	20.49	117	725051	50.00	ug/L	0.00
56) 1,4-dichlorobenzene-d4	25.23	152	297482	50.00	ug/L	0.01

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	12.38	113	1104791	187.70	ug/L	375.41%
29) 1,2-Dichlorethane-d4	13.43	65	1477816	182.39	ug/L	364.79%
37) Toluene-d8	17.38	98	3065551	184.96	ug/L	369.93%
41) 4-Bromofluorobenzene	22.97	95	1422276	171.27	ug/L	342.55%

Target Compounds						Qvalue
2) dichlorodifluoromethane	3.35	85	1715525	196.67	ug/L	96
3) chloromethane	3.85	50	1405329	205.26	ug/L	100
4) vinyl chloride	4.03	62	1125055	192.45	ug/L	99
5) bromomethane	4.90	94	707954	195.63	ug/L m	99
6) chloroethane	5.09	64	622752	186.95	ug/L m	99
7) Acrolein	6.89	56	1152374	1908.82	ug/L	99
8) trichlorofluoromethane	5.71	101	1767454	174.43	ug/L m	96
9) 1,1-dichloroethene	7.27	61	1634284	190.78	ug/L	94
10) Acetone	7.12	43	665937	168.59	ug/L	94
11) Carbon Disulfide	8.44	76	3103964	190.91	ug/L	99
12) methylene chloride	8.48	84	940675	191.30	ug/L	97
13) trans-1,2-dichloroethene	9.19	61	1537669	192.51	ug/L	98
14) TBA	8.10	59	663379	1717.11	ug/L m	57
15) MTBE	8.94	73	2623666	186.76	ug/L	97
16) Acrylonitrile	8.86	53	2701787	1848.48	ug/L	99
17) 1,1-dichloroethane	10.20	63	1968238	193.30	ug/L	99
18) 2,2-dichloropropane	11.46	77	1988971	192.38	ug/L	98
19) cis-1,2-dichloroethene	11.55	61	1583722	190.78	ug/L	99
20) bromochloromethane	12.25	49	962285	192.71	ug/L	98
21) chloroform	11.91	83	2087173	190.41	ug/L	96
22) 1,1,1-trichloroethane	12.76	97	1917103	190.48	ug/L	98
24) Vinyl Acetate	10.24	43	3459933	192.08	ug/L	99
25) 2-Butanone	11.23	43	620098	174.78	ug/L	92
26) carbon tetrachloride	13.30	117	1749491	192.86	ug/L	99
27) 1,1-dichloropropene	13.09	75	1382479	190.06	ug/L	98
28) benzene	13.66	78	3200371	183.69	ug/L	99
30) 1,2-dichloroethane	13.63	62	1983591	185.19	ug/L	98
31) trichloroethene	14.92	130	1104152	192.21	ug/L	97
32) 1,2-dichloropropane	15.29	63	940002	194.25	ug/L	98
33) dibromomethane	15.89	174	786186	195.08	ug/L	97
34) bromodichloromethane	15.77	83	1742827	188.64	ug/L	99
35) 2-Chloroethyl Vinyl Ether	16.37	63	582182	210.01	ug/L	94
36) cis-1,3-dichloropropene	16.86	75	1761752	193.13	ug/L	98

000304

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
Acq Time : 16 Sep 99 9:06 am
Sample : 200 PPB ICC
Misc : 5ML
Quant Time: Sep 16 14:14 1999

Operator: AVJJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
Title : VOA
Last Update : Thu Sep 16 14:22:43 1999
Response via : Single Level Calibration

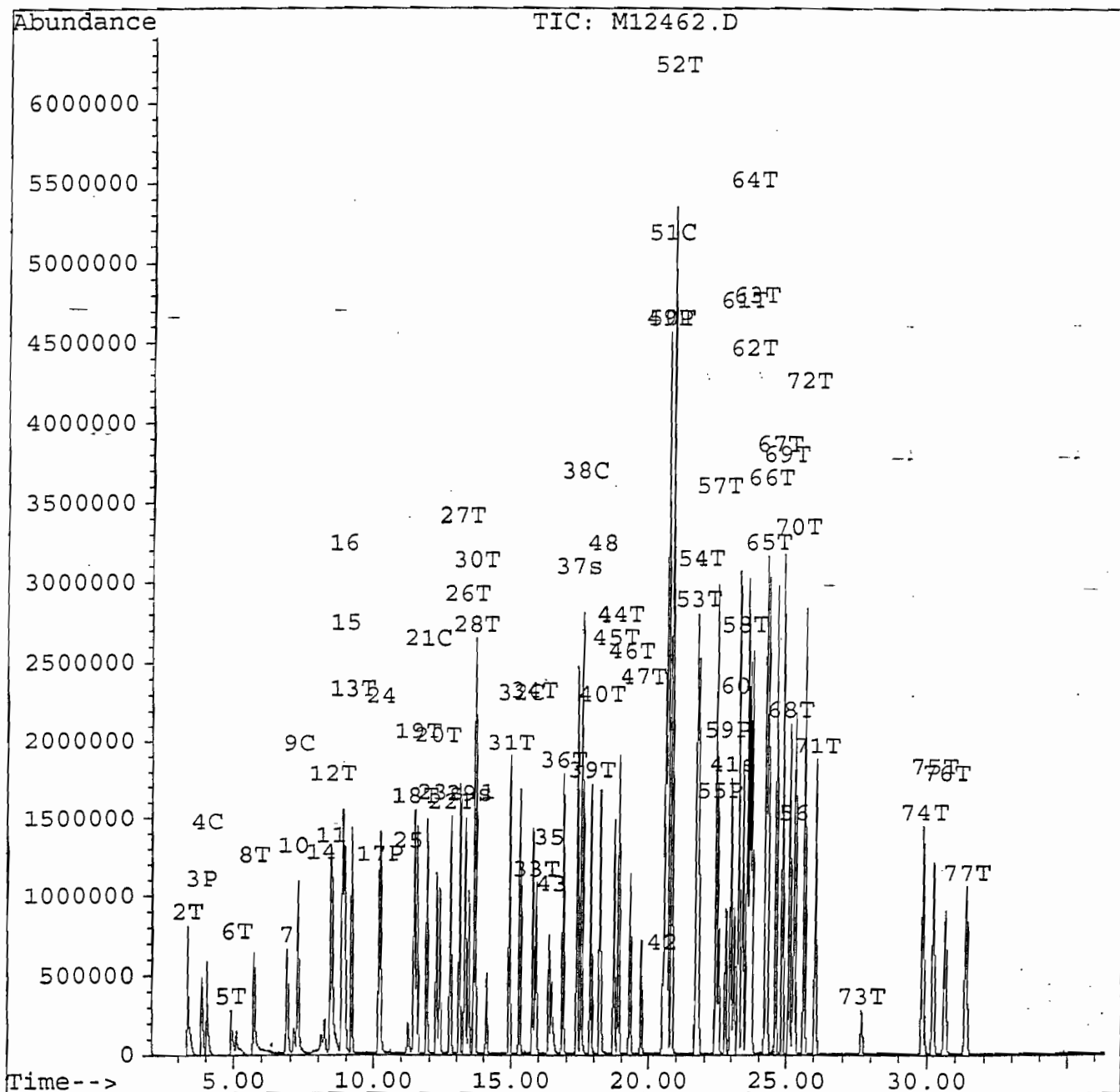
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	17.54	91	3646272	189.59	ug/L	100
39) trans-1,3-dichloropropene	17.87	75	1764377	191.63	ug/L	97
40) 1,1,2-trichloroethane	18.21	97	878778	197.52	ug/L	98
43) 4-Methyl-2-Pentanone	16.46	43	942609	180.37	ug/L	96
44) tetrachloroethene	18.89	166	1112730	192.65	ug/L	97
45) 1,3-dichloropropane	18.72	76	1579655	190.28	ug/L	97
46) dibromochloromethane	19.30	129	1311634	191.34	ug/L	100
47) 1,2-dibromoethane	19.72	107	984405	183.65	ug/L	96
48) 2-Hexanone	18.24	43	768546	177.39	ug/L	93
49) chlorobenzene	20.57	112	2562644	190.63	ug/L	98
50) 1,1,1,2-tetrachloroethane	20.64	133	1012855	198.16	ug/L	94
51) ethylbenzene	20.65	91	4447205	185.63	ug/L	98
52) m&p-xylenes	20.80	106	3044967	374.81	ug/L	98
53) o-xylene	21.71	91	3570084	185.03	ug/L	99
54) styrene	21.77	104	2587552	187.98	ug/L	97
55) bromoform	22.54	173	845042	184.65	ug/L m	100
57) isopropylbenzene	22.43	105	4247776	200.21	ug/L	99
58) bromobenzene	23.41	77	1885575	201.04	ug/L	98
59) 1,1,2,2-tetrachloroethane	22.79	83	988331	183.09	ug/L	96
60) 1,2,3-trichloropropane	23.09	75	790135	186.82	ug/L	97
61) n-propylbenzene	23.25	120	1031582	207.19	ug/L	92
62) 2-chlorotoluene	23.64	126	907223	198.01	ug/L	100
63) 4-chlorotoluene	23.72	126	917962	189.21	ug/L	90
64) 1,3,5-trimethylbenzene	23.56	105	3429003	190.95	ug/L	100
65) tert-butylbenzene	24.23	119	3228749	192.12	ug/L	97
66) 1,2,4-trimethylbenzene	24.30	105	3372657	191.27	ug/L	99
67) sec-butylbenzene	24.61	105	4035083	187.02	ug/L	98
68) 1,3-dichlorobenzene	25.10	146	1840023	193.08	ug/L	96
69) 4-isopropyltoluene	24.85	119	3633153	190.59	ug/L	99
70) 1,4-dichlorobenzene	25.30	146	1874431	191.12	ug/L	98
71) 1,2-dichlorobenzene	26.05	146	1753121	195.69	ug/L	99
72) n-butylbenzene	25.63	91	3453943	200.09	ug/L	100
73) 1,2-dibromo-3-chloropropan	27.68	75	215513	217.23	ug/L	90
74) 1,2,4-trichlorobenzene	29.85	180	1467830	232.33	ug/L	95
75) hexachlorobutadiene	30.20	225	797598	223.90	ug/L	97
76) naphthalene	30.63	128	2490252	219.79	ug/L	99
77) 1,2,3-trichlorobenzene	31.36	180	1233701	229.48	ug/L m	94

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



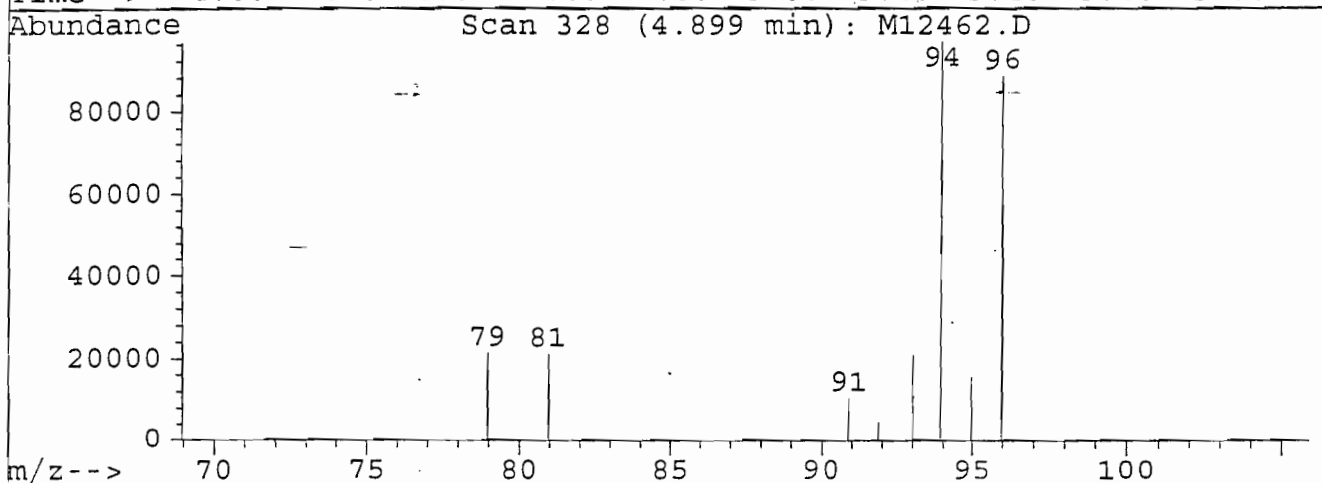
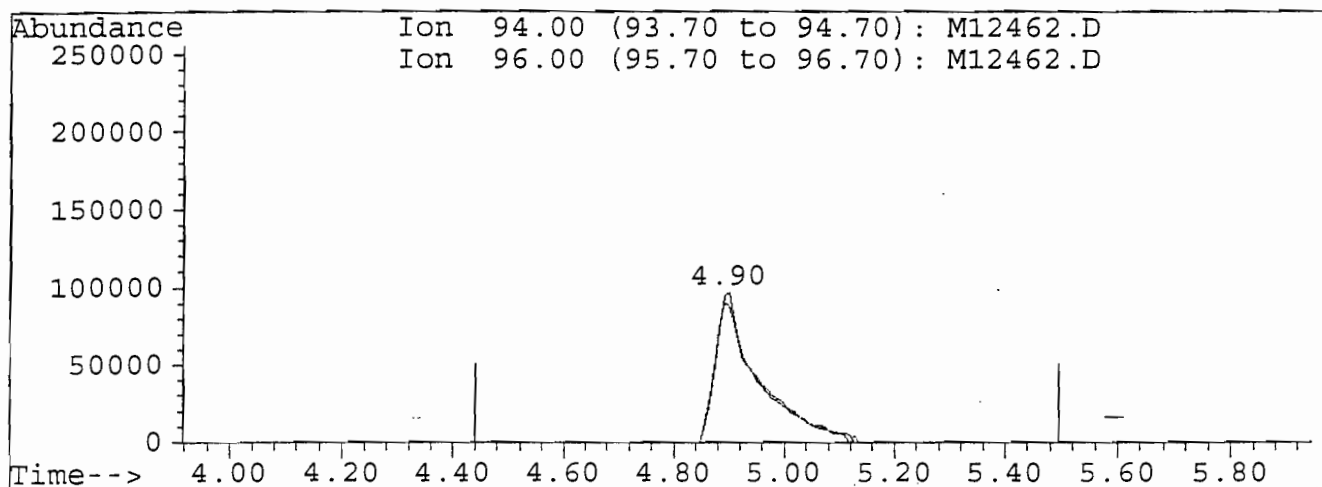
000306

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(5) bromomethane (T)
 4.90min 195.63ug/L m
 response 707954

Ion	Exp%	Act%
94.00	100	100
96.00	92.40	91.19
0.00	0.00	0.00
0.00	0.00	0.00

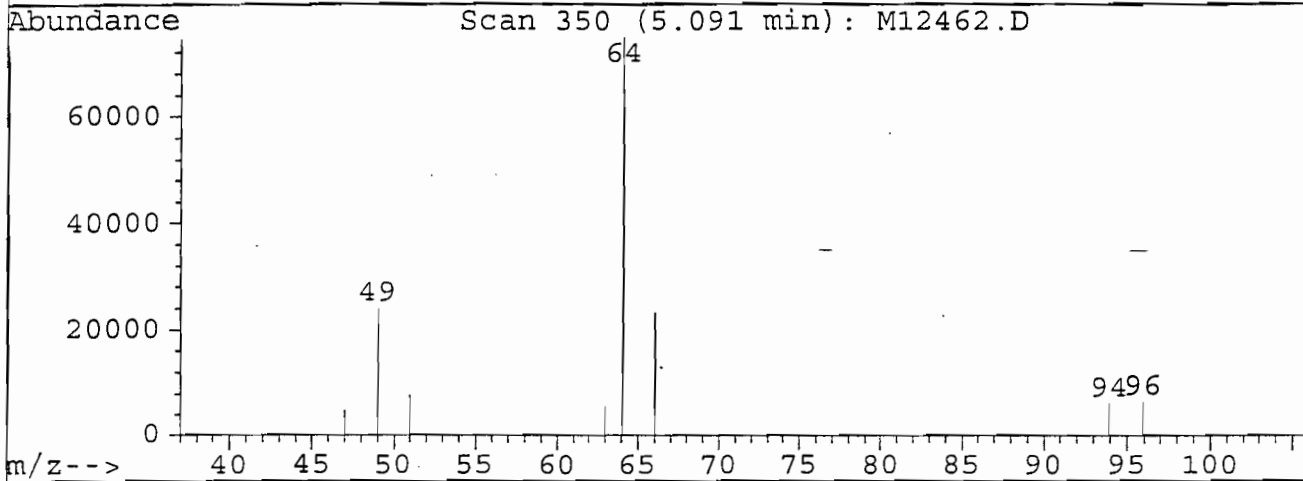
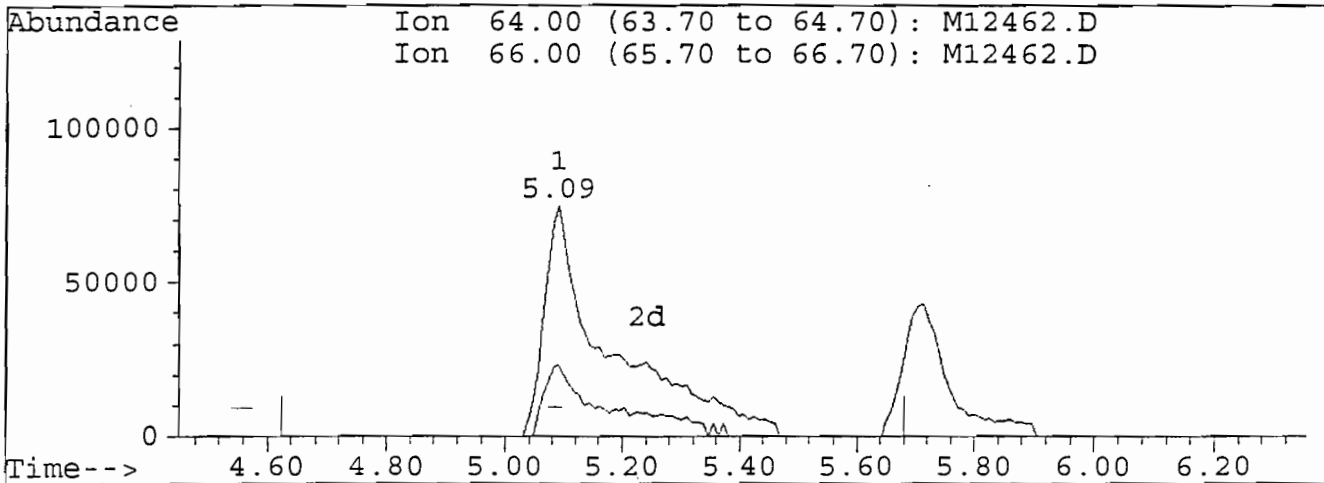
000307

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(6) chloroethane (T)
 5.09min 186.95ug/L m
 response 622752

Ion	Exp%	Act%
64.00	100	100
66.00	30.30	30.79
0.00	0.00	0.00
0.00	0.00	0.00

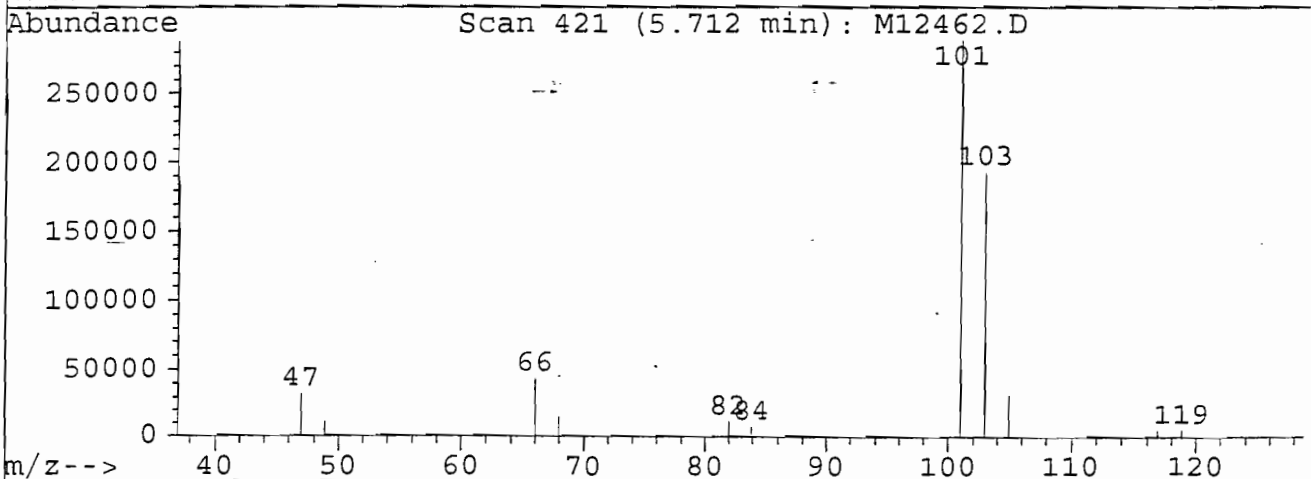
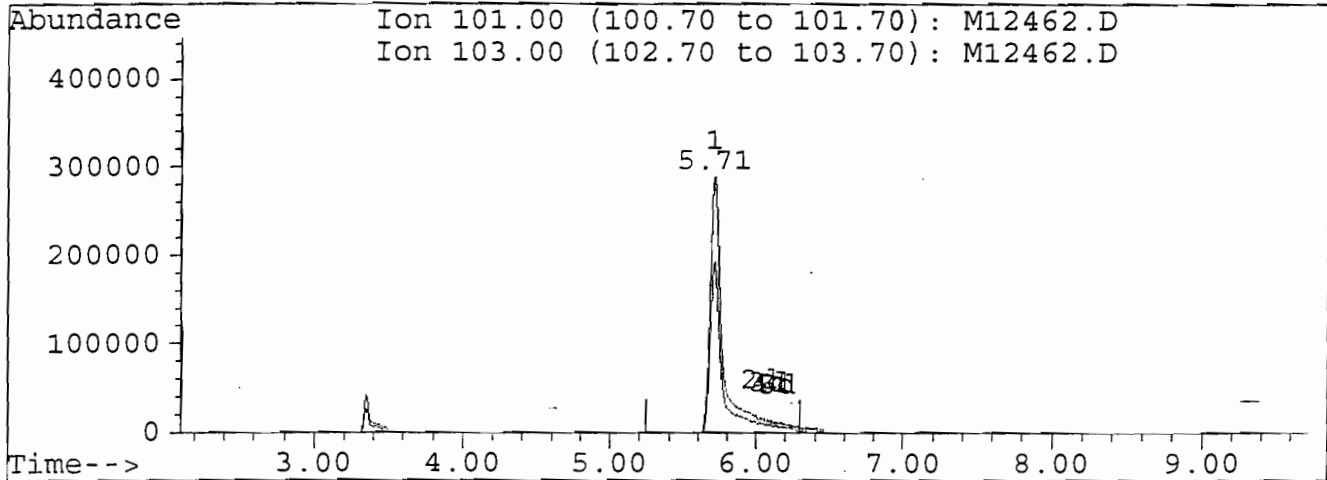
000308

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(8) trichlorofluoromethane (T)

5.71min 174.43ug/L m

response 1767454

Ion	Exp%	Act%
101.00	100	100
103.00	63.70	66.59
0.00	0.00	0.00
0.00	0.00	0.00

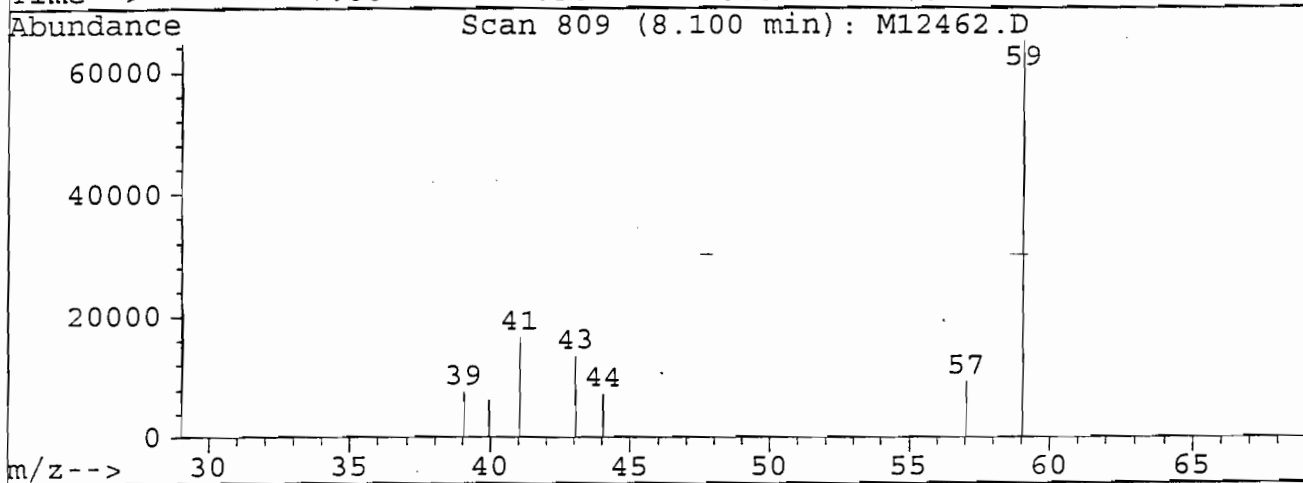
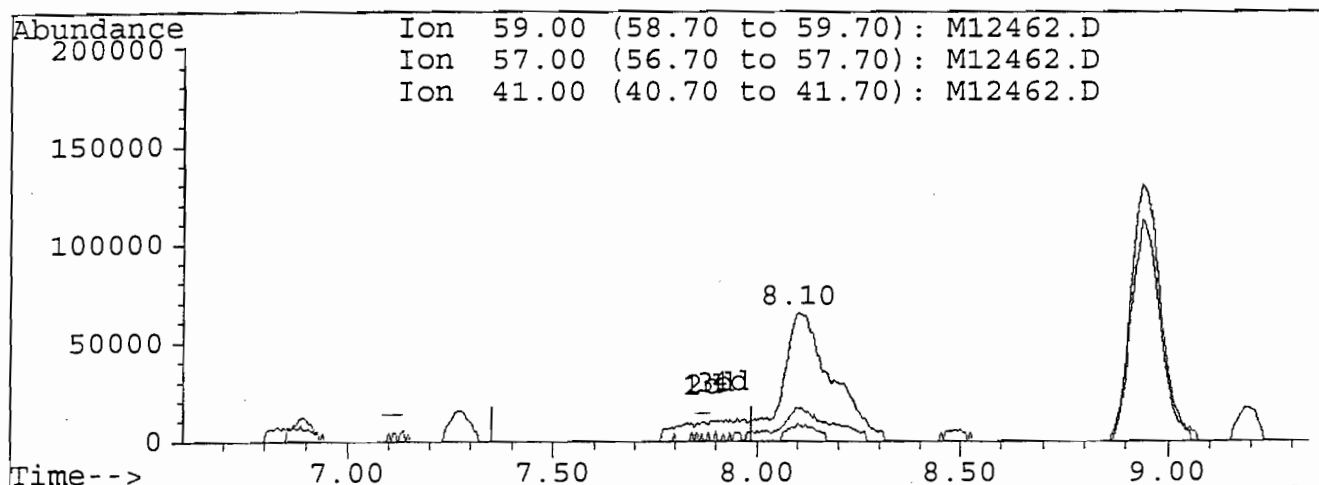
000309

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(14) TBA

8.10min 1717.11ug/L m

response 663379

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	13.95
41.00	26.20	25.39
0.00	0.00	0.00

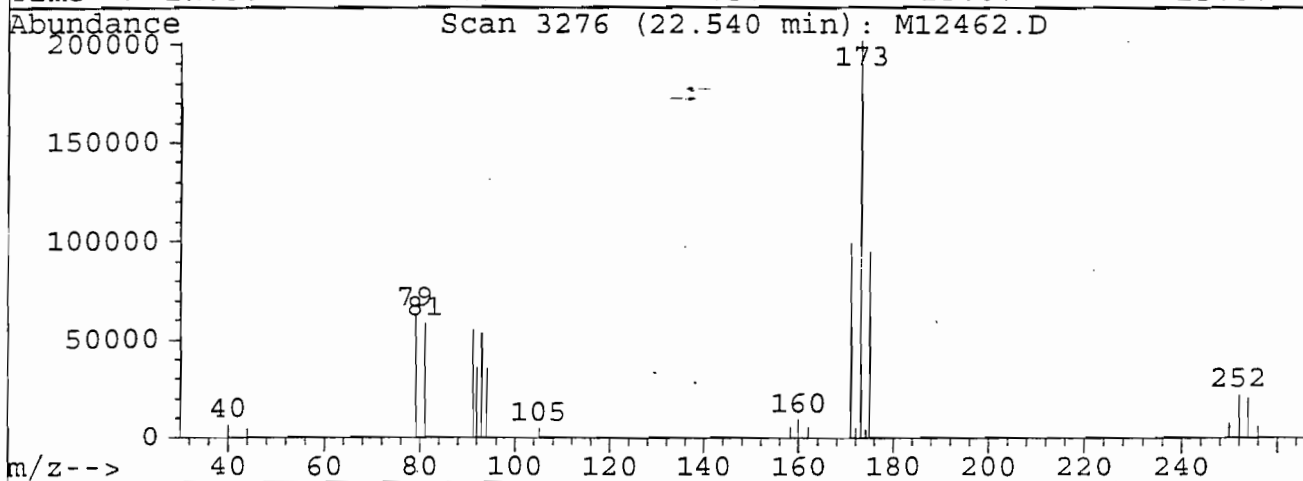
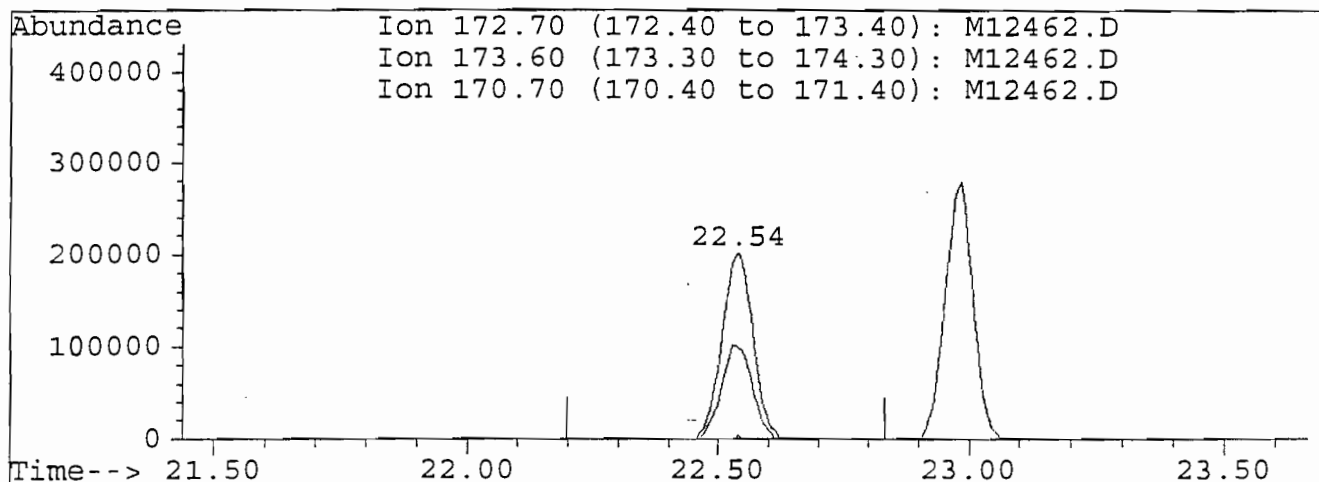
000310

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(55) bromoform (P)

22.54min 184.65ug/L m

response 845042

Ion	Exp%	Act%
172.70	100	100
173.60	0.00	1.99
170.70	49.40	49.15
0.00	0.00	0.00

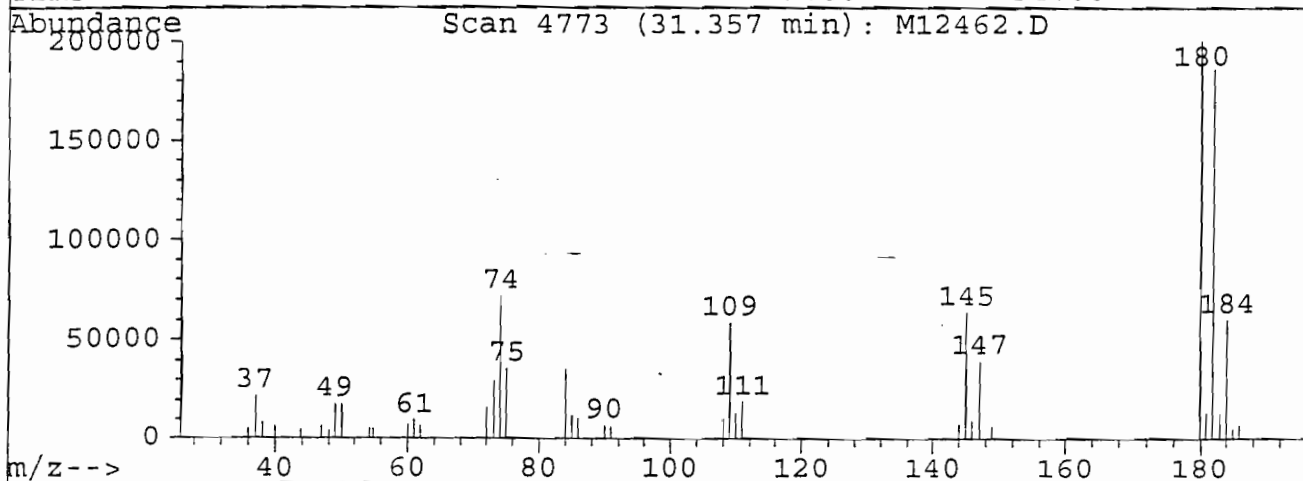
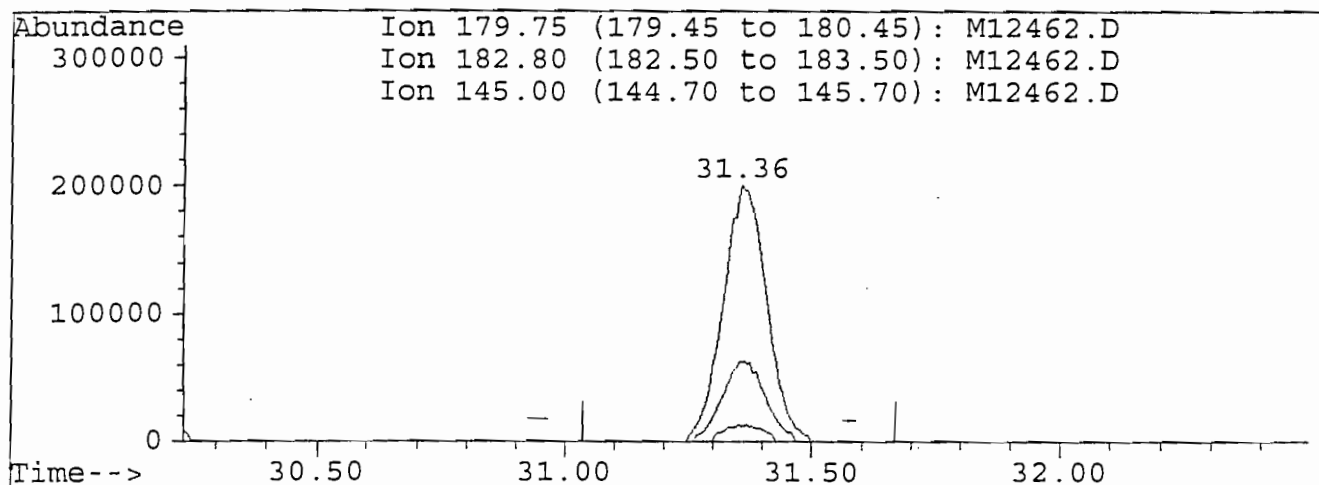
000311

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12462.D
 Acq Time : 16 Sep 99 9:06 am
 Sample : 200 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:14 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12462.D

(77) 1,2,3-trichlorobenzene (T)

31.36min 229.48ug/L m

response 1233701

Ion	Exp%	Act%
179.75	100	100
182.80	0.00	6.06
145.00	28.20	31.41
0.00	0.00	0.00

000312

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12463.D
 Acq Time : 16 Sep 99 9:52 am
 Sample : 100 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:22 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.11	96	824475	50.00	ug/L	0.01
42) Chlorobenzene-d5	20.49	117	741164	50.00	ug/L	0.00
56) 1,4-dichlorobenzene-d4	25.23	152	319915	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	12.39	113	622698	103.48	ug/L	206.97%
29) 1,2-Dichlorethane-d4	13.44	65	840820	101.51	ug/L	203.01%
37) Toluene-d8	17.38	98	1755370	103.60	ug/L	207.19%
41) 4-Bromofluorobenzene	22.98	95	816722	96.20	ug/L	192.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.37	85	863086	96.78	ug/L	98
3) chloromethane	3.87	50	697003	99.58	ug/L	100
4) vinyl chloride	4.05	62	575675	96.32	ug/L	99
5) bromomethane	4.95	94	333211	90.06	ug/L	99
6) chloroethane	5.14	64	301358	88.49	ug/L	97
7) Acrolein	6.91	56	631161	1022.62	ug/L	100
8) trichlorofluoromethane	5.76	101	916551	88.48	ug/L	100
9) 1,1-dichloroethene	7.31	61	843328	96.29	ug/L	96
10) Acetone	7.13	43	392781	97.26	ug/L	94
11) Carbon Disulfide	8.47	76	1581354	95.14	ug/L	99
12) methylene chloride	8.51	84	478256	95.14	ug/L	97
13) trans-1,2-dichloroethene	9.21	61	776568	95.10	ug/L	96
14) TBA	7.76	59	418057	1058.45	ug/L m	63
15) MTBE	8.95	73	1399856	97.47	ug/L	97
16) Acrylonitrile	8.86	53	1507643	1008.93	ug/L	99
17) 1,1-dichloroethane	10.21	63	1019361	97.92	ug/L	99
18) 2,2-dichloropropane	11.47	77	1015397	96.06	ug/L	97
19) cis-1,2-dichloroethene	11.57	61	826102	97.34	ug/L	100
20) bromochloromethane	12.27	49	499120	97.77	ug/L	95
21) chloroform	11.92	83	1083369	96.68	ug/L	98
22) 1,1,1-trichloroethane	12.77	97	1023635	99.48	ug/L	99
24) Vinyl Acetate	10.26	43	1826555	99.18	ug/L	99
25) 2-Butanone	11.23	43	372291	102.64	ug/L	95
26) carbon tetrachloride	13.32	117	906870	97.79	ug/L	99
27) 1,1-dichloropropene	13.11	75	720028	96.82	ug/L	98
28) benzene	13.67	78	1693144	95.06	ug/L	100
30) 1,2-dichloroethane	13.64	62	1038207	94.81	ug/L	98
31) trichloroethene	14.94	130	565802	96.34	ug/L	97
32) 1,2-dichloropropane	15.30	63	486979	98.43	ug/L	99
33) dibromomethane	15.89	174	407651	98.94	ug/L	90
34) bromodichloromethane	15.78	83	911457	96.50	ug/L	96
35) 2-Chloroethyl Vinyl Ether	16.36	63	300876	106.16	ug/L	97
36) cis-1,3-dichloropropene	16.87	75	909714	97.54	ug/L	96

(#) = qualifier out of range (m) = manual integration
 M12463.D V30916CW.M Mon Sep 20 15:56:16 1999

VOA3

Page 1

000313

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12463.D
Acq Time : 16 Sep 99 9:52 am
Sample : 100 PPB ICC
Misc : 5ML
Quant Time: Sep 16 13:22 1999

Operator: AVJJ
Inst : voa3
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
Title : VOA
Last Update : Thu Sep 16 14:22:43 1999
Response via : Single Level Calibration

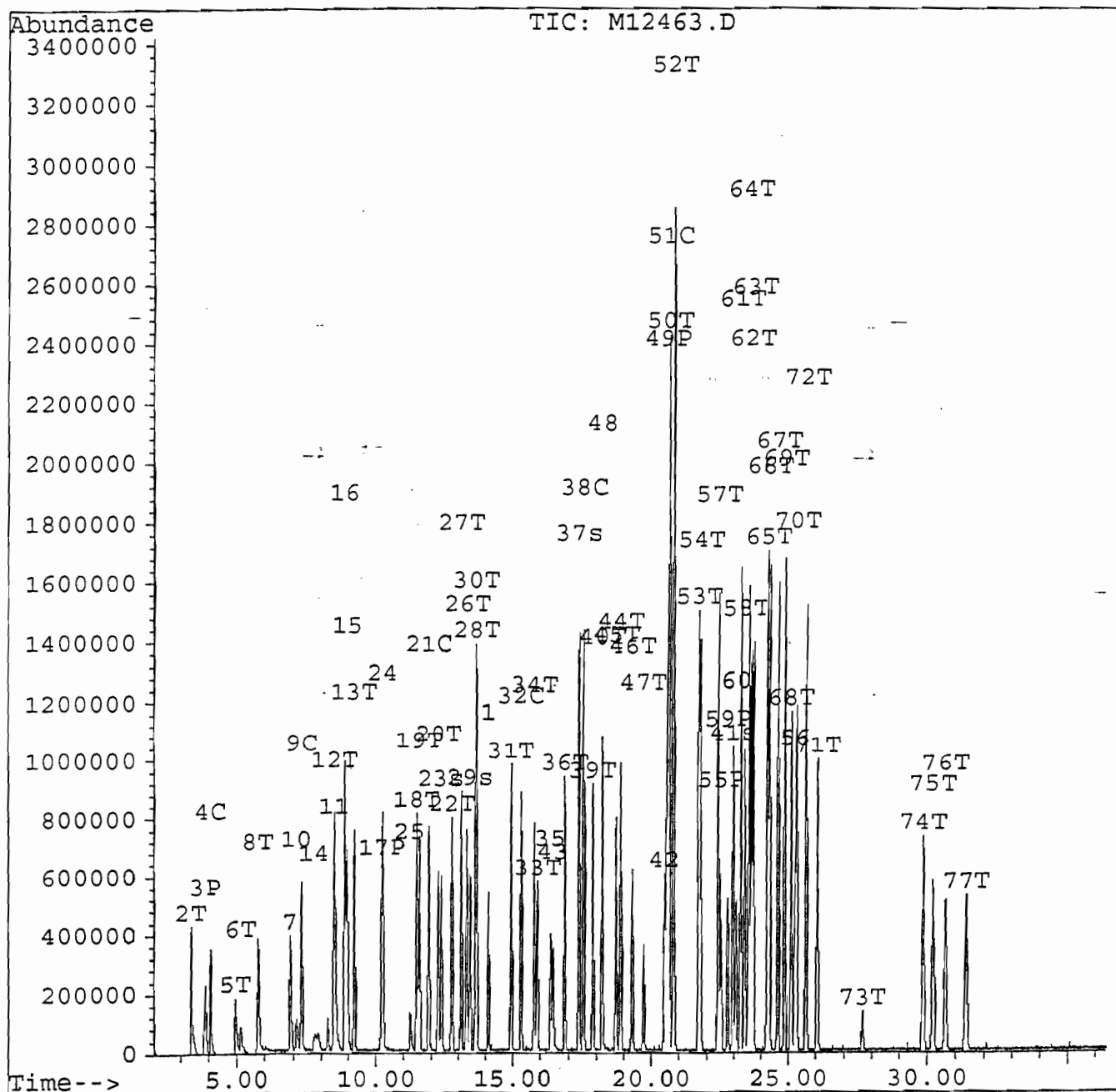
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	17.54	91	1877971	95.51	ug/L	89
39) trans-1,3-dichloropropene	17.87	75	926453	98.42	ug/L	97
40) 1,1,2-trichloroethane	18.21	97	463013	101.79	ug/L	100
43) 4-Methyl-2-Pentanone	16.46	43	507794	95.05	ug/L	94
44) tetrachloroethene	18.89	166	578304	97.95	ug/L	98
45) 1,3-dichloropropane	18.71	76	836178	98.53	ug/L	98
46) dibromochloromethane	19.30	129	692403	98.81	ug/L	96
47) 1,2-dibromoethane	19.71	107	538564	98.29	ug/L	93
48) 2-Hexanone	18.21	43	449993	101.60	ug/L	93
49) chlorobenzene	20.57	112	1258768	91.60	ug/L	100
50) 1,1,1,2-tetrachloroethane	20.64	133	539494	103.26	ug/L	96
51) ethylbenzene -	20.65	91	2413663	98.56	ug/L	98
52) m&p-xylenes	20.79	106	1618941	194.95	ug/L	98
53) o-xylene	21.71	91	1871601	94.89	ug/L	99
54) styrene	21.77	104	1392757	98.98	ug/L	100
55) bromoform	22.52	173	470849	100.65	ug/L	97
57) isopropylbenzene	22.42	105	2199901	96.42	ug/L	99
58) bromobenzene	23.40	77	992011	98.35	ug/L	97
59) 1,1,2,2-tetrachloroethane	22.78	83	561430	96.71	ug/L	95
60) 1,2,3-trichloropropane	23.08	75	454034	99.83	ug/L	96
61) n-propylbenzene	23.25	120	535264	99.97	ug/L	99
62) 2-chlorotoluene -	23.64	126	481546	97.73	ug/L	97
63) 4-chlorotoluene	23.72	126	495986	95.06	ug/L	95
64) 1,3,5-trimethylbenzene	23.55	105	1844060	95.49	ug/L	100
65) tert-butylbenzene	24.22	119	1590922	88.03	ug/L	98
66) 1,2,4-trimethylbenzene	24.29	105	1851759	97.65	ug/L	100
67) sec-butylbenzene	24.61	105	2191869	94.47	ug/L	98
68) 1,3-dichlorobenzene	25.10	146	1007626	98.32	ug/L	99
69) 4-isopropyltoluene	24.85	119	2033119	99.17	ug/L	97
70) 1,4-dichlorobenzene	25.29	146	1033490	97.98	ug/L	99
71) 1,2-dichlorobenzene	26.04	146	948056	98.41	ug/L	99
72) n-butylbenzene	25.63	91	1847401	99.52	ug/L	99
73) 1,2-dibromo-3-chloropropan	27.68	75	121861	114.22	ug/L	93
74) 1,2,4-trichlorobenzene	29.86	180	754760	111.09	ug/L	94
75) hexachlorobutadiene	30.20	225	386557	100.90	ug/L	95
76) naphthalene	30.62	128	1472342	120.83	ug/L	98
77) 1,2,3-trichlorobenzene	31.36	180	647287	111.96	ug/L m	91

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12463.D
 Acq Time : 16 Sep 99 9:52 am
 Sample : 100 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:22 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



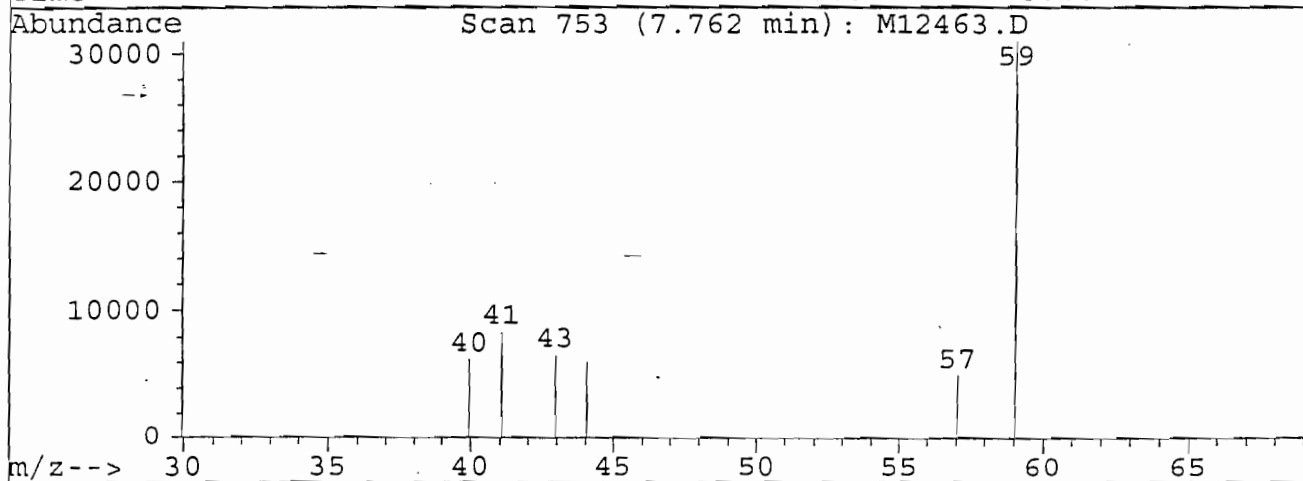
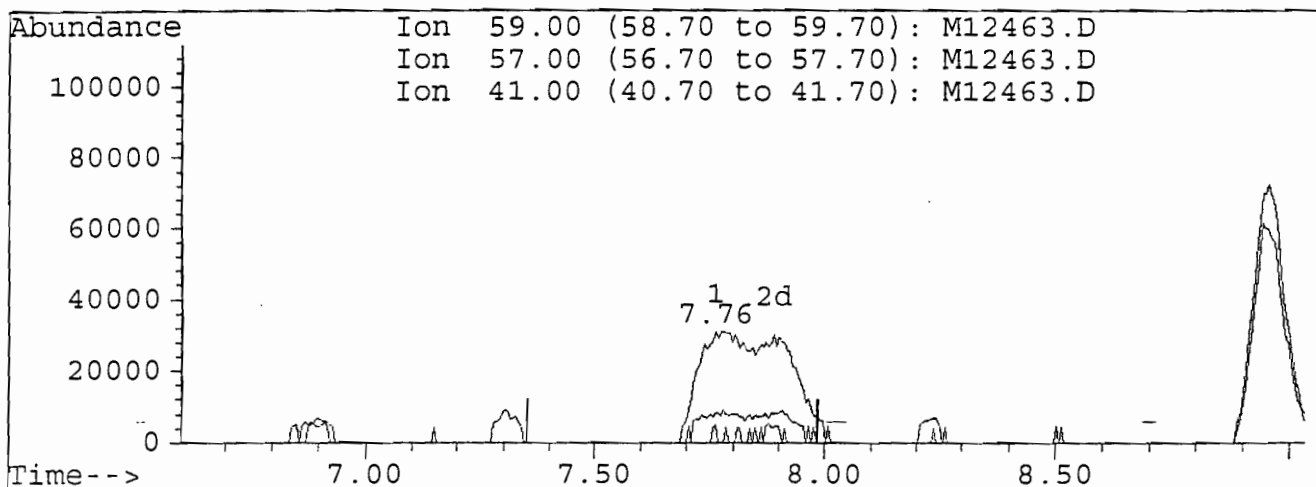
000315

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12463.D
 Acq Time : 16 Sep 99 9:52 am
 Sample : 100 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:22 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12463.D

(14) TBA

7.76min 1058.45ug/L m

response 418057

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	15.66
41.00	26.20	26.75
0.00	0.00	0.00

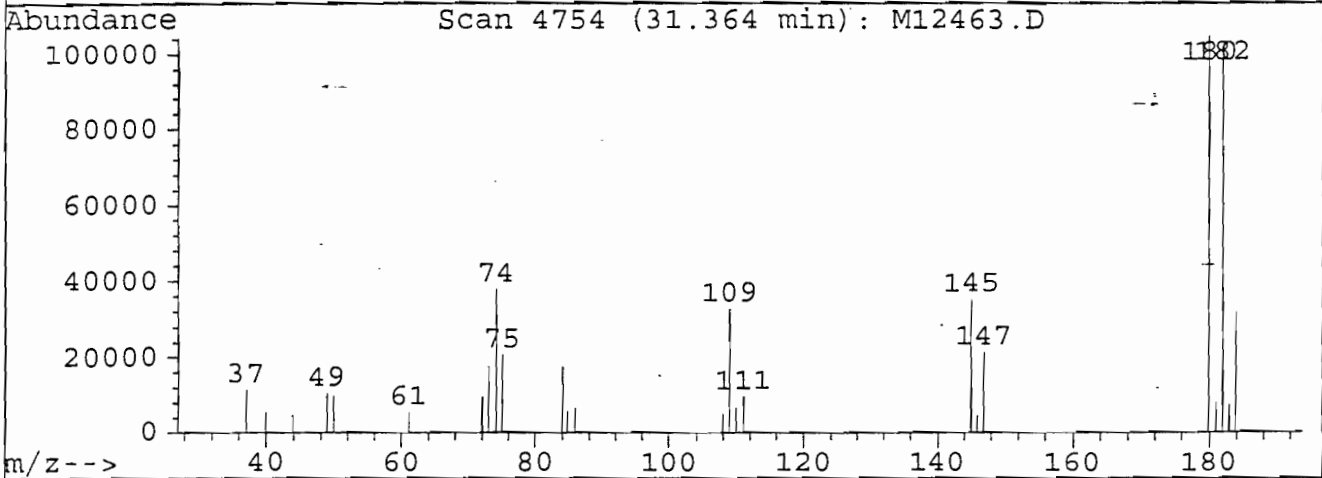
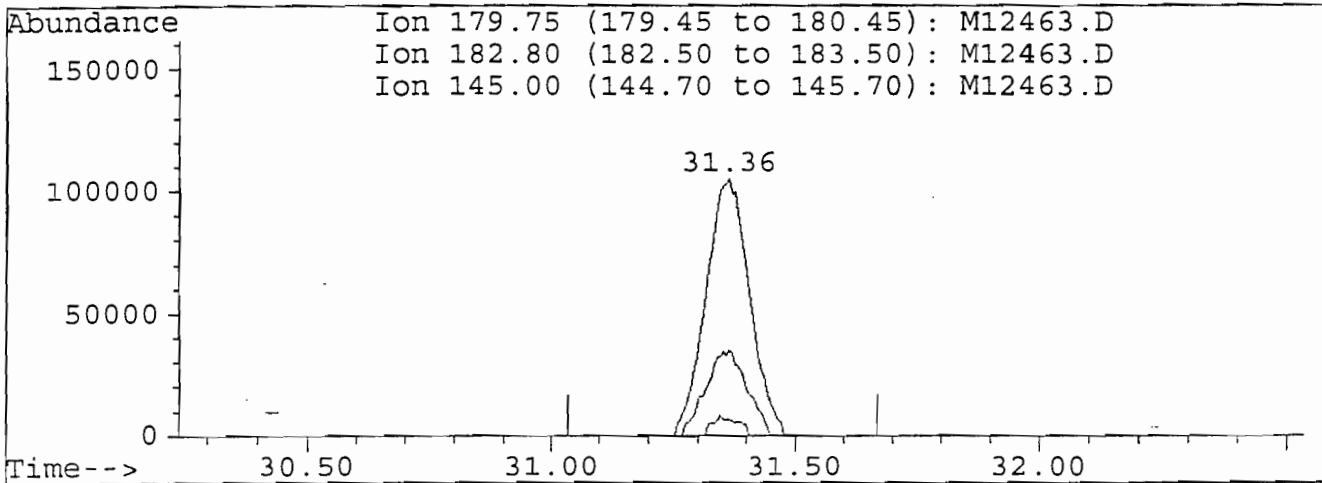
000316

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12463.D
 Acq Time : 16 Sep 99 9:52 am
 Sample : 100 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:22 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12463.D

(77) 1,2,3-trichlorobenzene (T)

31.36min 111.96ug/L m

response 647287

Ion	Exp%	Act%
179.75	100	100
182.80	0.00	6.61
145.00	28.20	33.19
0.00	0.00	0.00

000317

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.12	96	811419	50.00	ug/L	0.02
42) Chlorobenzene-d5	20.49	117	706185	50.00	ug/L	0.01
56) 1,4-dichlorobenzene-d4	25.23	152	320446	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	12.39	113	119404	20.16	ug/L	40.33%
29) 1,2-Dichlorethane-d4	13.45	65	161827	19.85	ug/L	39.70%
37) Toluene-d8	17.40	98	342242	20.52	ug/L	41.05%
41) 4-Bromofluorobenzene	22.98	95	164635	19.70	ug/L	39.41%

Target Compounds						Qvalue
2) dichlorodifluoromethane	3.38	85	178025	20.28	ug/L	96
3) chloromethane	3.89	50	138387	20.09	ug/L	96
4) vinyl chloride	4.07	62	117522	19.98	ug/L	100
5) bromomethane	5.00	94	78884	21.66	ug/L	97
6) chloroethane	5.19	64	67819	20.23	ug/L	96
7) Acrolein	6.90	56	130984	215.64	ug/L	97
8) trichlorofluoromethane	5.80	101	221741	21.75	ug/L	99
9) 1,1-dichloroethene	7.32	61	179535	20.83	ug/L	92
10) Acetone	7.09	43	95233	23.96	ug/L	92
11) Carbon Disulfide	8.50	76	333616	20.39	ug/L	97
12) methylene chloride	8.51	84	97102	19.63	ug/L	93
13) trans-1,2-dichloroethene	9.22	61	168346	20.95	ug/L	94
14) TBA	7.68	59	81000	208.38	ug/L m	81
15) MTBE	8.95	73	293897	20.79	ug/L	92
16) Acrylonitrile	8.85	53	314590	213.92	ug/L	99
17) 1,1-dichloroethane	10.23	63	214651	20.95	ug/L	97
18) 2,2-dichloropropane	11.48	77	213406	20.51	ug/L	96
19) cis-1,2-dichloroethene	11.58	61	171373	20.52	ug/L	96
20) bromochloromethane	12.28	49	103952	20.69	ug/L	91
21) chloroform	11.92	83	235207	21.33	ug/L	97
22) 1,1,1-trichloroethane	12.79	97	208650	20.60	ug/L	99
24) Vinyl Acetate	10.26	43	384923	21.24	ug/L	97
25) 2-Butanone	11.25	43	78085	21.87	ug/L m	70
26) carbon tetrachloride	13.33	117	181926	19.93	ug/L	92
27) 1,1-dichloropropene	13.12	75	150044	20.50	ug/L	97
28) benzene	13.69	78	370846	21.15	ug/L	98
30) 1,2-dichloroethane	13.64	62	220614	20.47	ug/L	98
31) trichloroethene	14.95	130	118189	20.45	ug/L	95
32) 1,2-dichloropropane	15.31	63	98887	20.31	ug/L	94
33) dibromomethane	15.90	174	81109	20.00	ug/L	93
34) bromodichloromethane	15.79	83	193498	20.82	ug/L	100
35) 2-Chloroethyl Vinyl Ether	16.37	63	51687	18.53	ug/L	86
36) cis-1,3-dichloropropene	16.88	75	193798	21.11	ug/L	98

000318

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	17.55	91	411409	21.26	ug/L	91
39) trans-1,3-dichloropropene	17.89	75	184532	19.92	ug/L	93
40) 1,1,2-trichloroethane	18.22	97	96902	21.65	ug/L	99
43) 4-Methyl-2-Pentanone	16.46	43	110929	21.79	ug/L	83
44) tetrachloroethene	18.89	166	121433	21.59	ug/L	93
45) 1,3-dichloropropane	18.72	76	171522	21.21	ug/L	97
46) dibromochloromethane	19.30	129	139851	20.95	ug/L	98
47) 1,2-dibromoethane	19.73	107	110273	21.12	ug/L	89
48) 2-Hexanone	18.22	43	90725	21.50	ug/L	83
49) chlorobenzene	20.57	112	280154	21.40	ug/L	96
50) 1,1,1,2-tetrachloroethane	20.64	133	108589	21.81	ug/L	89
51) ethylbenzene	20.65	91	513820	22.02	ug/L	97
52) m&p-xylenes	20.81	106	348676	44.07	ug/L	98
53) o-xylene	21.72	91	423816	22.55	ug/L	100
54) styrene	21.78	104	286771	21.39	ug/L	97
55) bromoform	22.53	173	90806	20.37	ug/L	93
57) isopropylbenzene	22.43	105	491210	21.49	ug/L	99
58) bromobenzene	23.40	77	216097	21.39	ug/L	93
59) 1,1,2,2-tetrachloroethane	22.78	83	128788	22.15	ug/L	95
60) 1,2,3-trichloropropane	23.09	75	101704	22.32	ug/L	98
61) n-propylbenzene	23.26	120	113866	21.23	ug/L	95
62) 2-chlorotoluene	23.65	126	107951	21.87	ug/L	95
63) 4-chlorotoluene	23.72	126	106711	20.42	ug/L	93
64) 1,3,5-trimethylbenzene	23.55	105	419097	21.67	ug/L	93
65) tert-butylbenzene	24.24	119	364016	20.11	ug/L	98
66) 1,2,4-trimethylbenzene	24.31	105	427895	22.53	ug/L	97
67) sec-butylbenzene	24.62	105	503529	21.67	ug/L	97
68) 1,3-dichlorobenzene	25.10	146	224052	21.83	ug/L	97
69) 4-isopropyltoluene	24.86	119	456937	22.25	ug/L	97
70) 1,4-dichlorobenzene	25.30	146	229115	21.69	ug/L	100
71) 1,2-dichlorobenzene	26.05	146	210981	21.86	ug/L	95
72) n-butylbenzene	25.64	91	415557	22.35	ug/L	98
73) 1,2-dibromo-3-chloropropan	27.69	75	17660	16.53	ug/L m	84
74) 1,2,4-trichlorobenzene	29.87	180	156759	23.03	ug/L	91
75) hexachlorobutadiene	30.21	225	84694	22.07	ug/L	96
76) naphthalene	30.65	128	325657	26.68	ug/L	98
77) 1,2,3-trichlorobenzene	31.36	180	141798	24.49	ug/L	98

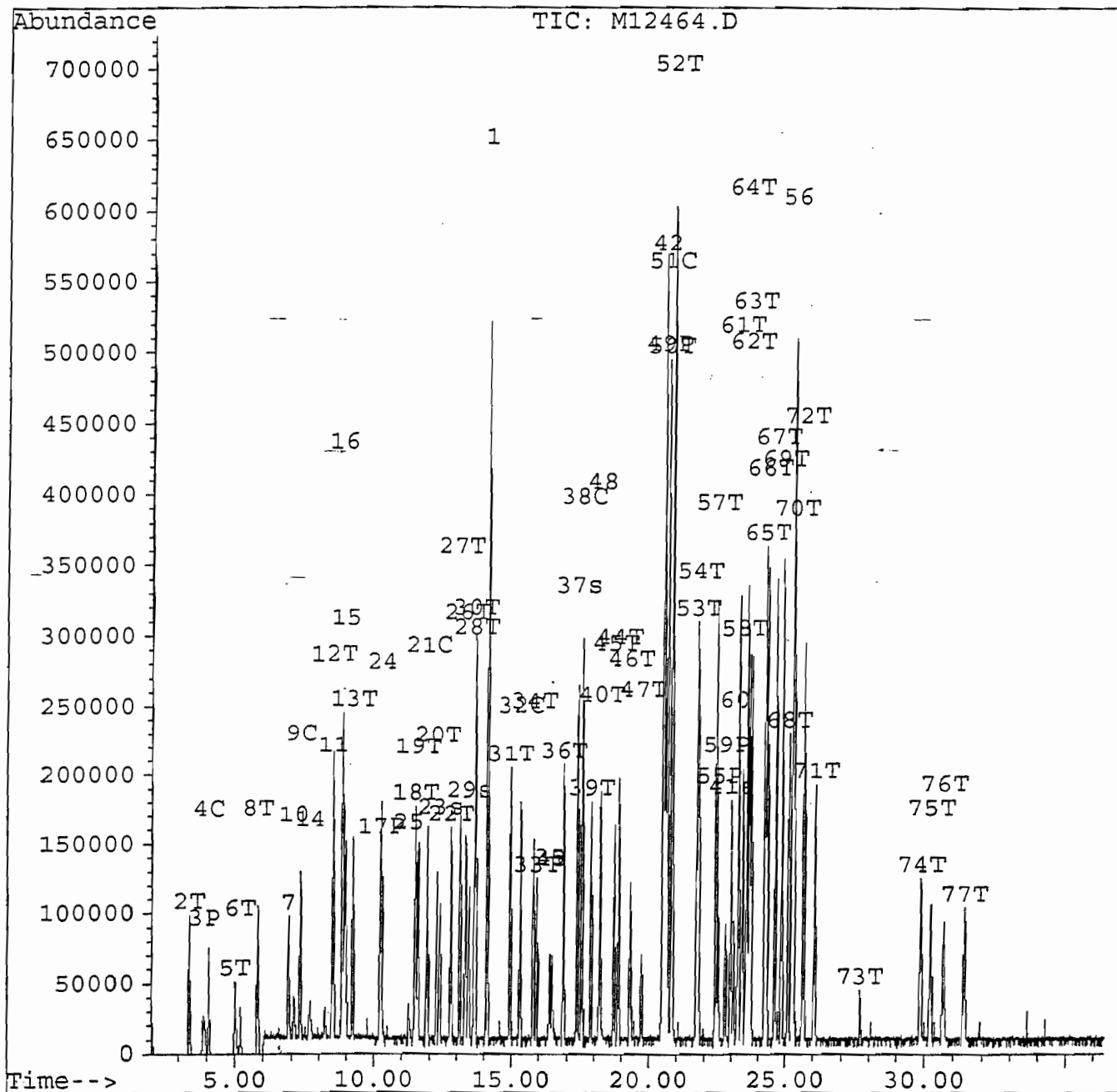
000319

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



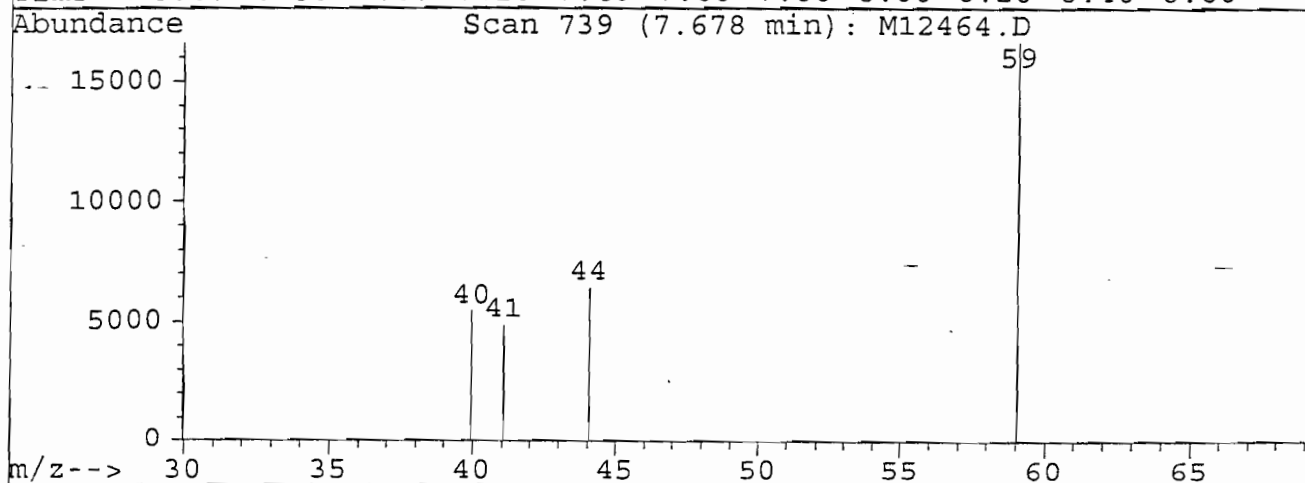
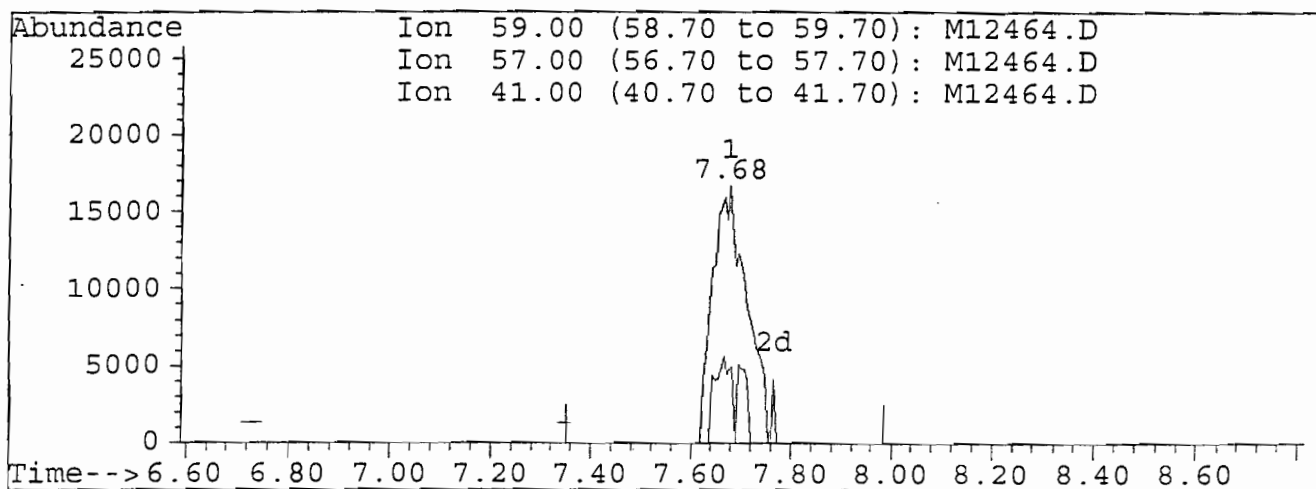
000320

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12464.D

(14) TBA
 7.68min 208.38ug/L m
 response 81000

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	0.00
41.00	26.20	28.94
0.00	0.00	0.00

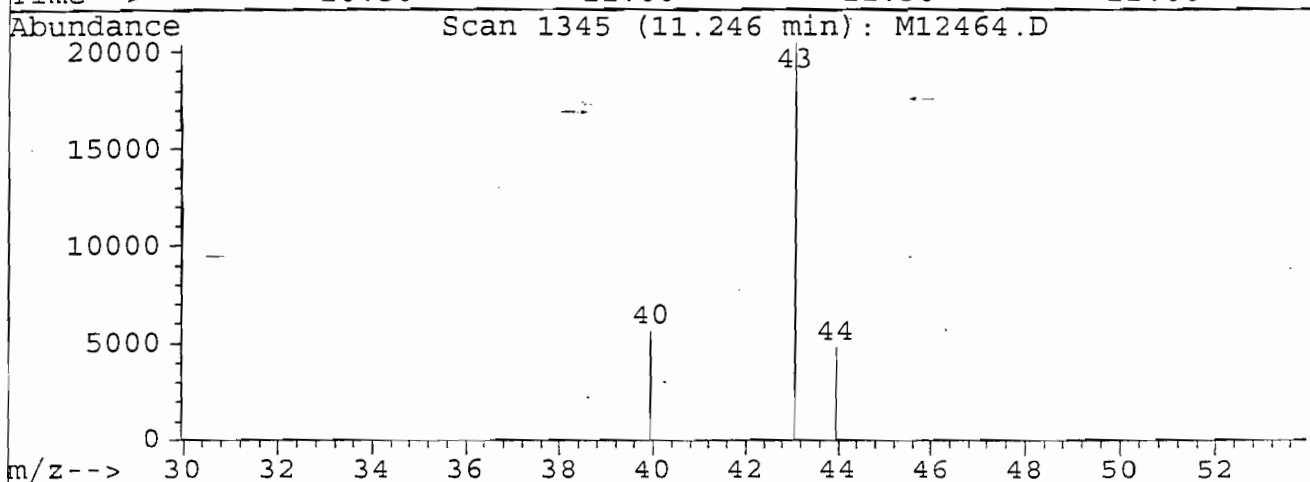
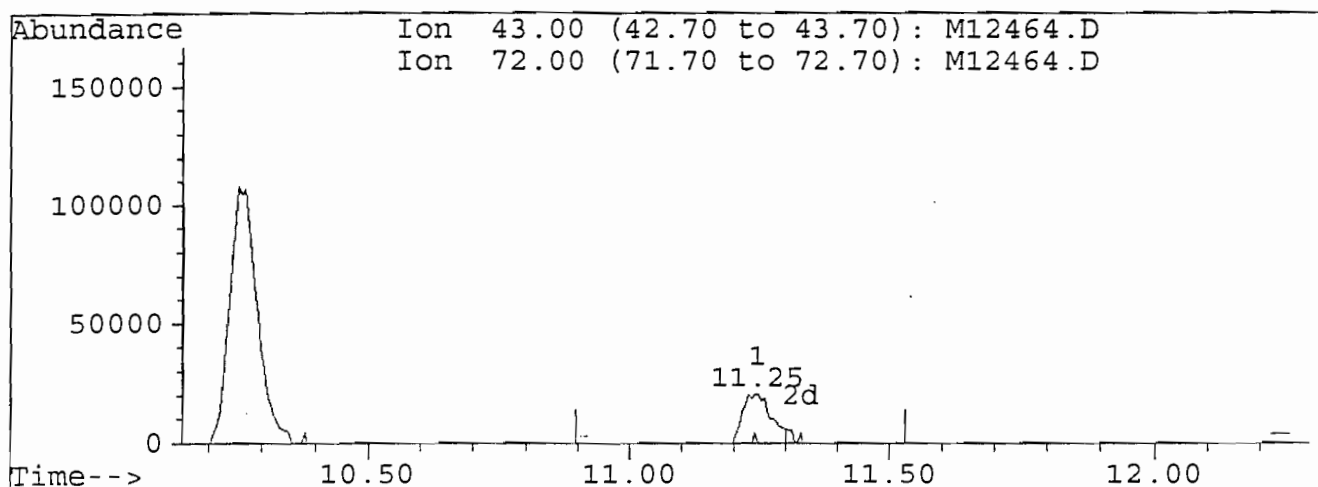
000321

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12464.D

(25) 2-Butanone
 11.25min 21.87ug/L m
 response 78085

Ion	Exp%	Act%
43.00	100	100
72.00	13.90	0.00
0.00	0.00	0.00
0.00	0.00	0.00

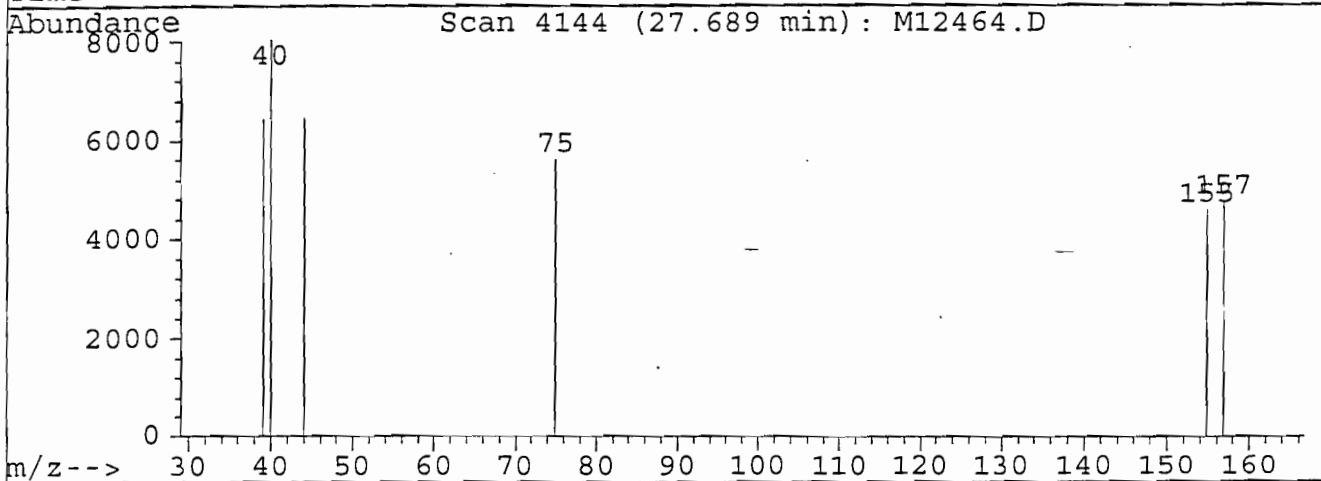
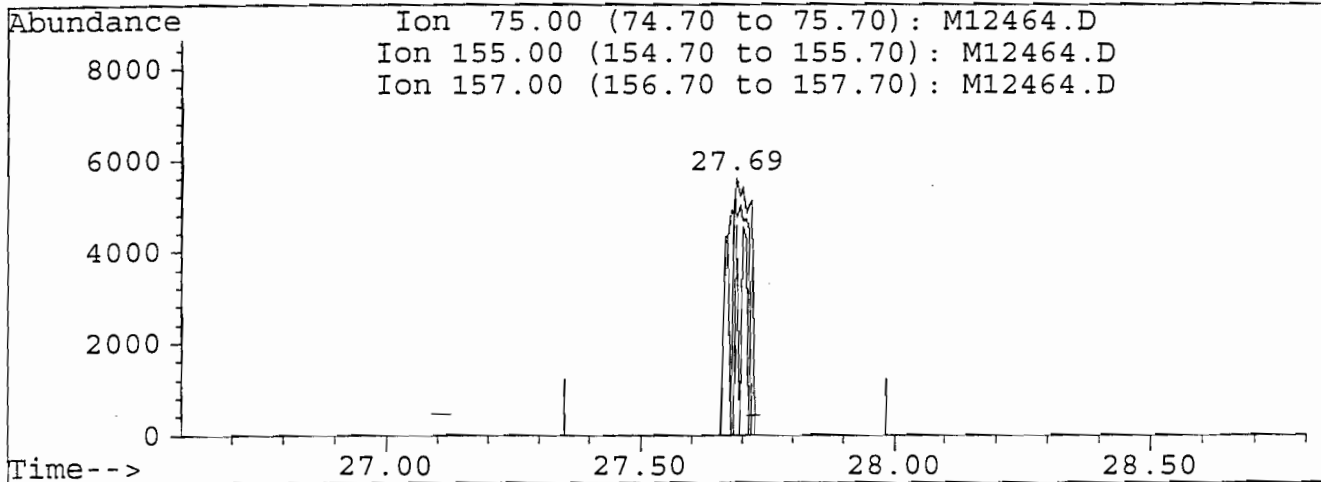
000322

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12464.D
 Acq Time : 16 Sep 99 10:39 am
 Sample : 20 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 13:24 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12464.D

(73) 1,2-dibromo-3-chloropropane (T)

27.69min 16.53ug/L m

response 17660

Ion	Exp%	Act%
75.00	100	100
155.00	61.60	81.47
157.00	94.10	84.50
0.00	0.00	0.00

000323

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	14.13	96	856899	50.00	ug/L	0.03
42) Chlorobenzene-d5	20.51	117	744914	50.00	ug/L	0.03
56) 1,4-dichlorobenzene-d4	25.25	152	337066	50.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
23) Dibromofluoromethane	12.41	113	25824	4.13	ug/L	8.26%
29) 1,2-Dichloroethane-d4	13.45	65	36804	4.27	ug/L	8.55%
37) Toluene-d8	17.40	98	85702	4.87	ug/L	9.73%
41) 4-Bromofluorobenzene	22.99	95	36978	4.19	ug/L	8.38%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	3.38	85	38287	4.13	ug/L	98
3) chloromethane	3.88	50	30839	4.24	ug/L m	42
4) vinyl chloride	4.07	62	27497	4.43	ug/L	97
5) bromomethane	5.01	94	18979	4.94	ug/L m	97
6) chloroethane	5.19	64	15610	4.41	ug/L m	44
7) Acrolein	6.90	56	32782	51.10	ug/L	92
8) trichlorofluoromethane	5.80	101	51706	4.80	ug/L	90
9) 1,1-dichloroethene	7.32	61	43557	4.79	ug/L m	72
10) Acetone	7.10	43	54345	12.95	ug/L m	64
11) Carbon Disulfide	8.50	76	88212	5.11	ug/L	89
12) methylene chloride	8.53	84	24680	4.72	ug/L	92
13) trans-1,2-dichloroethene	9.23	61	42646	5.02	ug/L	92
14) TBA	7.69	59	17548	42.75	ug/L m	49
15) MTBE	8.96	73	75701	5.07	ug/L m	58
16) Acrylonitrile	8.86	53	77017	49.59	ug/L	97
17) 1,1-dichloroethane	10.23	63	51445	4.75	ug/L m	88
18) 2,2-dichloropropane	11.50	77	53681	4.89	ug/L	93
19) cis-1,2-dichloroethene	11.58	61	40096	4.55	ug/L	89
20) bromochloromethane	12.28	49	20491	3.86	ug/L	95
21) chloroform	11.94	83	58370	5.01	ug/L	100
22) 1,1,1-trichloroethane	12.79	97	53498	5.00	ug/L	96
24) Vinyl Acetate	10.27	43	112544	5.88	ug/L m	77
25) 2-Butanone	11.24	43	55400	14.70	ug/L m	66
26) carbon tetrachloride	13.34	117	44007	4.57	ug/L	92
27) 1,1-dichloropropene	13.13	75	33634	4.35	ug/L m	44
28) benzene	13.70	78	93287	5.04	ug/L	99
30) 1,2-dichloroethane	13.66	62	56440	4.96	ug/L	93
31) trichloroethene	14.96	130	26854	4.40	ug/L	99
32) 1,2-dichloropropane	15.32	63	24464	4.76	ug/L m	79
33) dibromomethane	15.91	174	14396	3.36	ug/L	93
34) bromodichloromethane	15.80	83	47633	4.85	ug/L	96
36) cis-1,3-dichloropropene	16.89	75	49345	5.09	ug/L m	79
38) toluene	17.56	91	106991	5.24	ug/L	98

000324

(#) = qualifier out of range (m) = manual integration
 M12466.D V30916CW.M Mon Sep 20 15:58:30 1999

VOA3

Page 1

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration

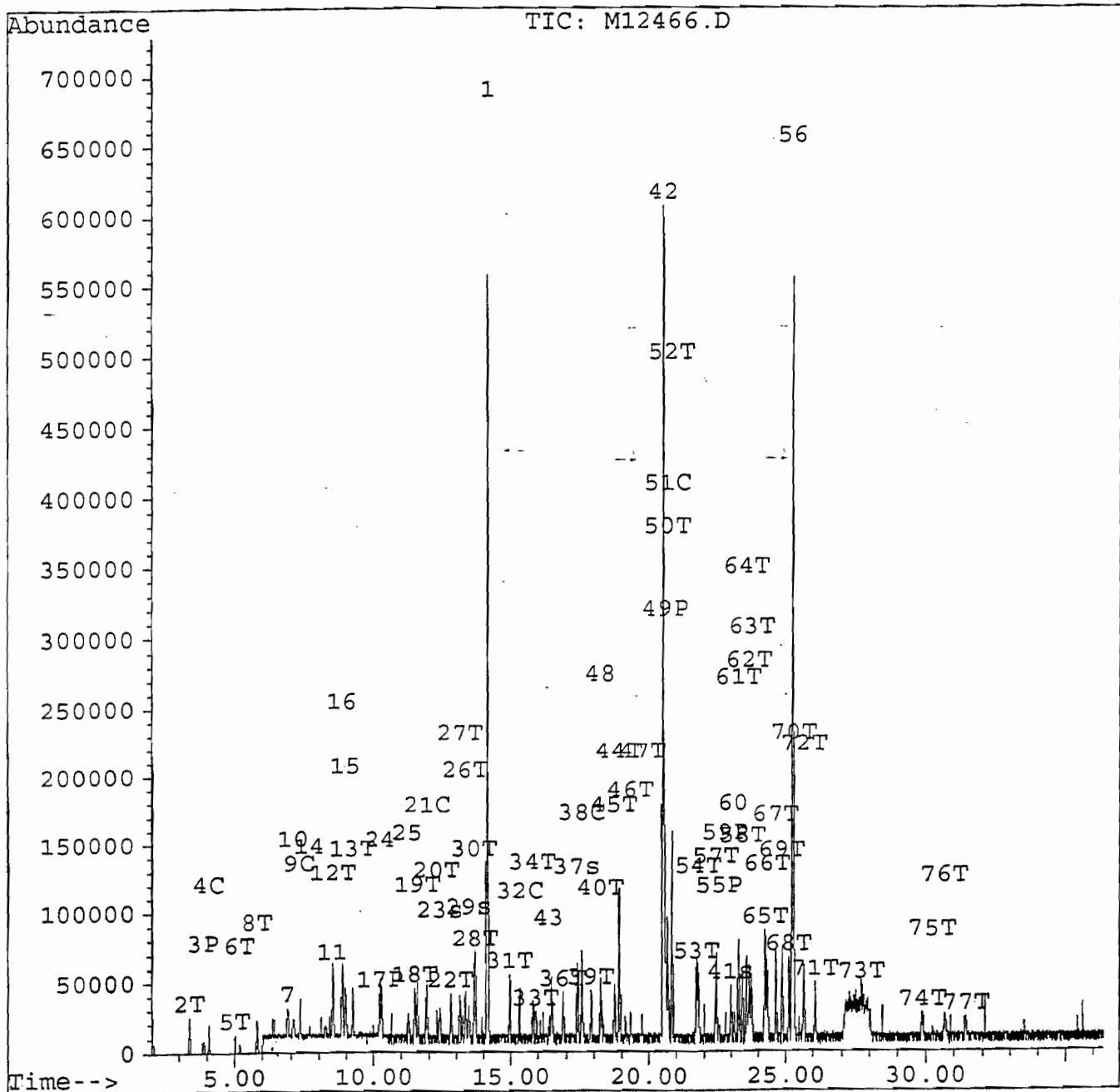
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) trans-1,3-dichloropropene	17.90	75	47883	4.89	ug/L m	81
40) 1,1,2-trichloroethane	18.22	97	19356	4.09	ug/L	91
43) 4-Methyl-2-Pentanone	16.39	43	15749	2.93	ug/L m	43
44) tetrachloroethene	18.90	166	66444	11.20	ug/L	86
45) 1,3-dichloropropane	18.74	76	41926	4.92	ug/L	97
46) dibromochloromethane	19.32	129	30672	4.36	ug/L	96
47) 1,2-dibromoethane	19.75	107	24845	4.51	ug/L	99
48) 2-Hexanone	18.25	43	51577	11.59	ug/L	71
49) chlorobenzene	20.59	112	68804	4.98	ug/L	93
50) 1,1,1,2-tetrachloroethane	20.66	133	22588	4.30	ug/L	96
51) ethylbenzene	20.66	91	133621	5.43	ug/L	93
52) m&p-xylenes	20.82	106	89454	10.72	ug/L	92
53) o-xylene	21.72	91	107035	5.40	ug/L	91
54) styrene	21.79	104	70266	4.97	ug/L	91
55) bromoform	22.56	173	17653	3.75	ug/L m	28
57) isopropylbenzene	22.46	105	127127	5.29	ug/L	96
58) bromobenzene	23.43	77	52659	4.96	ug/L	98
59) 1,1,2,2-tetrachloroethane	22.80	83	30917	5.05	ug/L	100
60) 1,2,3-trichloropropane	23.10	75	21383	4.46	ug/L m	37
61) n-propylbenzene	23.28	120	24148	4.28	ug/L	95
62) 2-chlorotoluene	23.67	126	26992	5.20	ug/L m	21
63) 4-chlorotoluene	23.74	126	23783	4.33	ug/L	99
64) 1,3,5-trimethylbenzene	23.57	105	106495	5.23	ug/L	97
65) tert-butylbenzene	24.24	119	92254	4.84	ug/L	96
66) 1,2,4-trimethylbenzene	24.32	105	106167	5.31	ug/L	93
67) sec-butylbenzene	24.64	105	129181	5.28	ug/L	97
68) 1,3-dichlorobenzene	25.11	146	53419	4.95	ug/L	94
69) 4-isopropyltoluene	24.87	119	115590	5.35	ug/L	98
70) 1,4-dichlorobenzene	25.31	146	56579	5.09	ug/L	97
71) 1,2-dichlorobenzene	26.06	146	47824	4.71	ug/L	93
72) n-butylbenzene	25.66	91	99325	5.08	ug/L	88
73) 1,2-dibromo-3-chloropropan	27.73	75	5139	4.57	ug/L m	61
74) 1,2,4-trichlorobenzene	29.89	180	32040	4.48	ug/L m	85
75) hexachlorobutadiene	30.23	225	9337	2.31	ug/L m	18
76) naphthalene	30.67	128	78794	6.14	ug/L m	70
77) 1,2,3-trichlorobenzene	31.42	180	25823	4.24	ug/L m	47

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



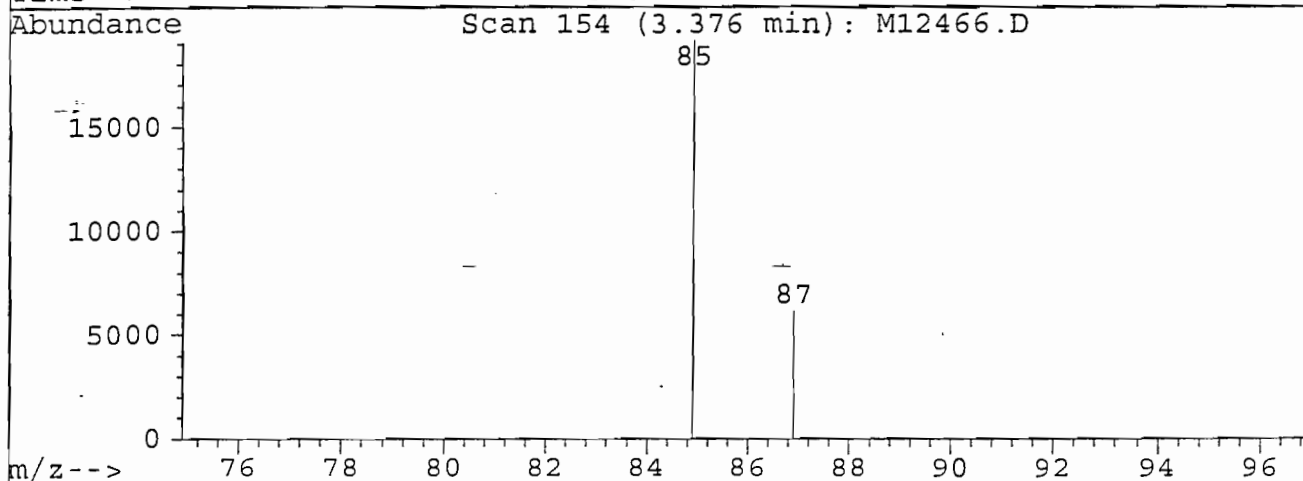
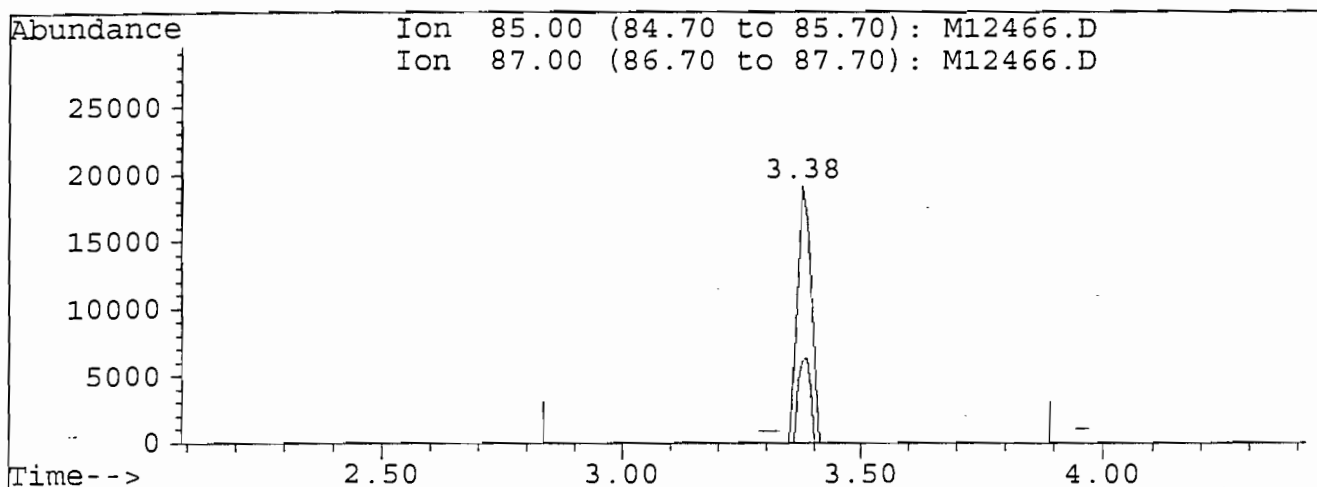
000326

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(2) dichlorodifluoromethane (T)

3.38min 4.13ug/L

response 38287

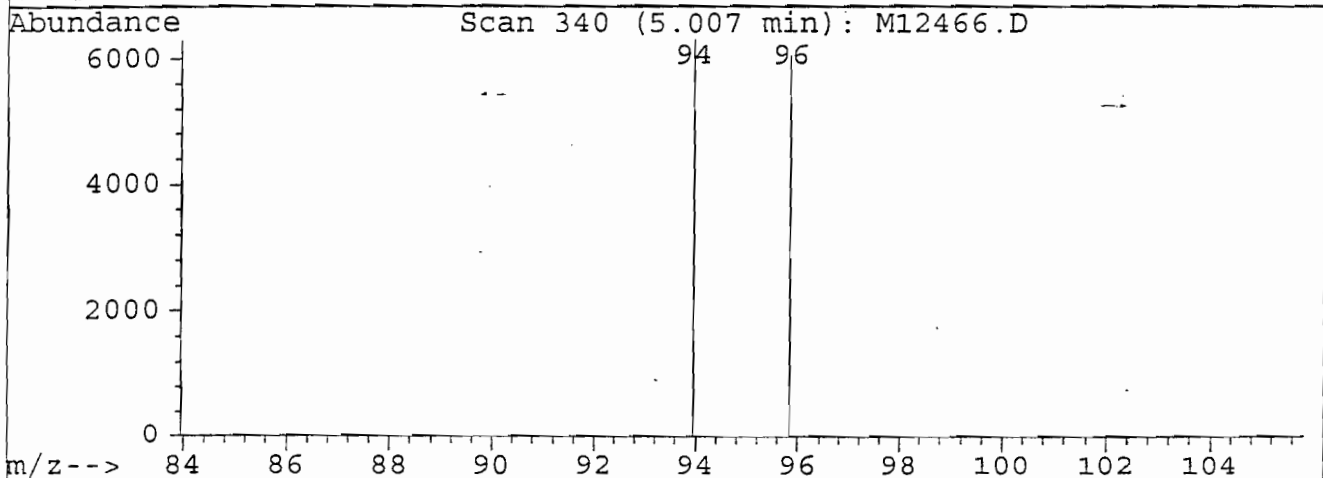
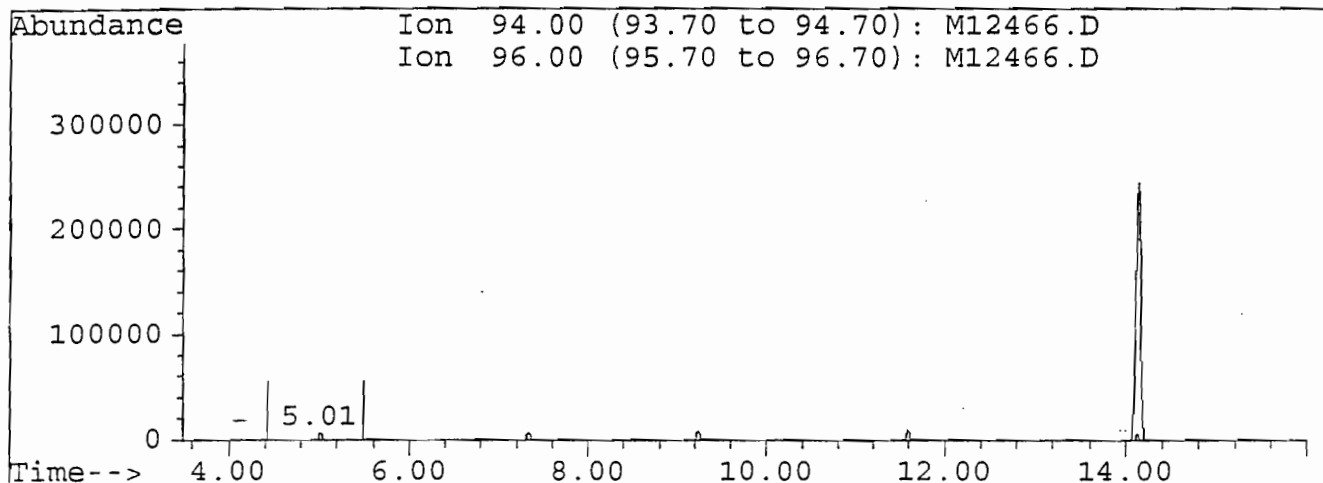
Ion	Exp%	Act%
85.00	100	100
87.00	31.10	32.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(5) bromomethane (T)

5.01min 4.94ug/L m

response 18979

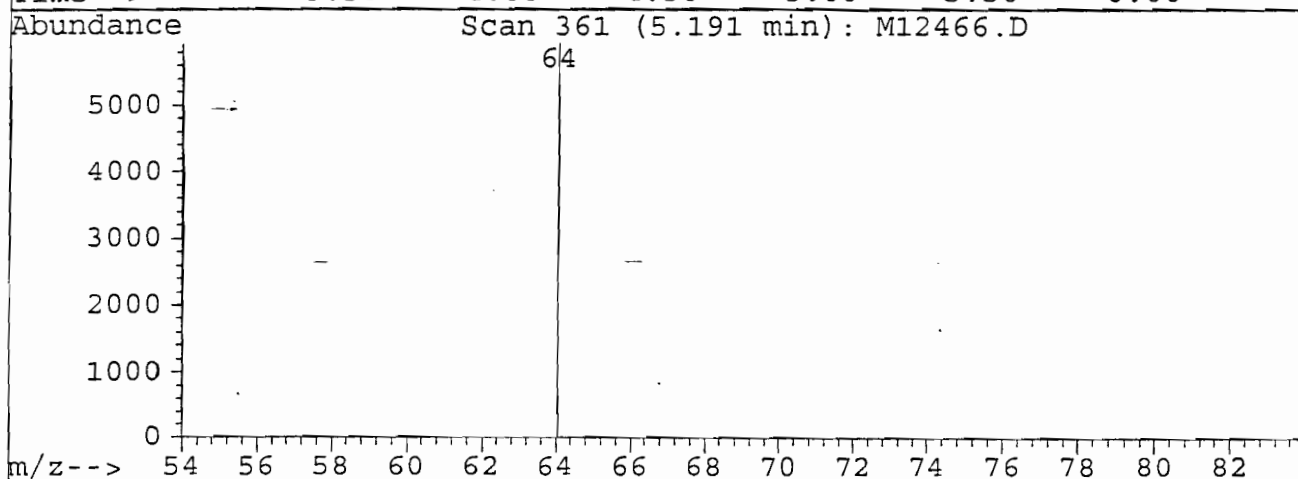
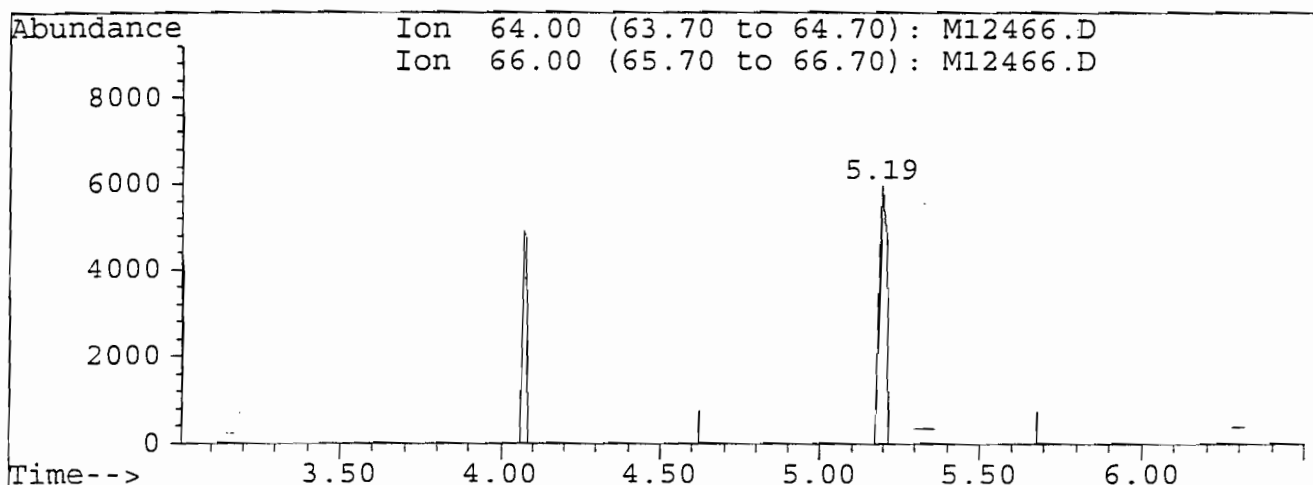
Ion	Exp%	Act%
94.00	100	100
96.00	92.40	95.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(6) chloroethane (T)

5.19min 4.41ug/L m

response 15610

Ion	Exp%	Act%
64.00	100	100
66.00	30.30	0.00
0.00	0.00	0.00
0.00	0.00	0.00

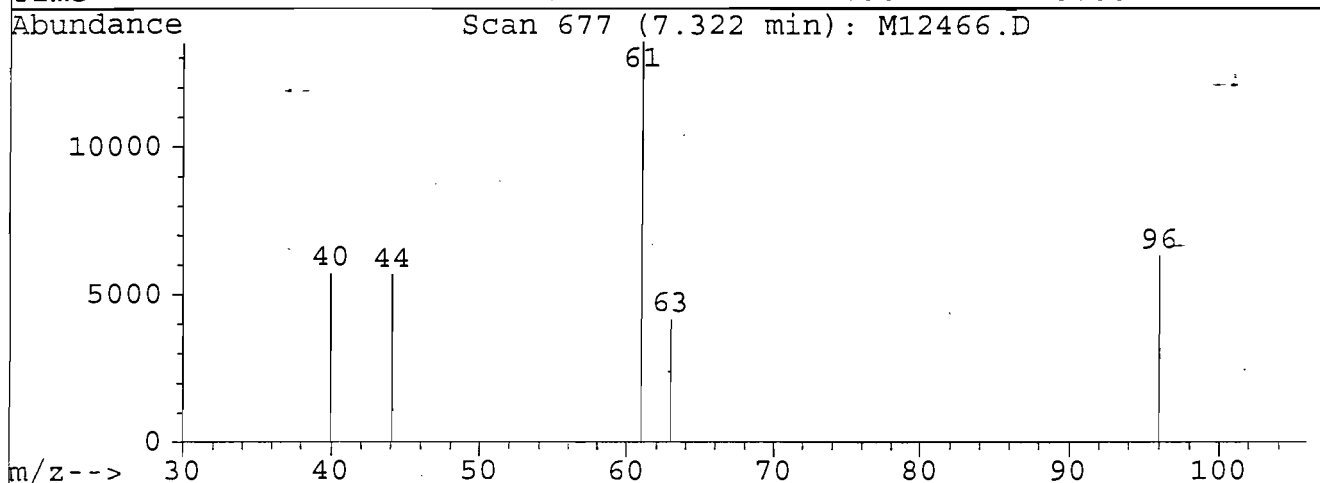
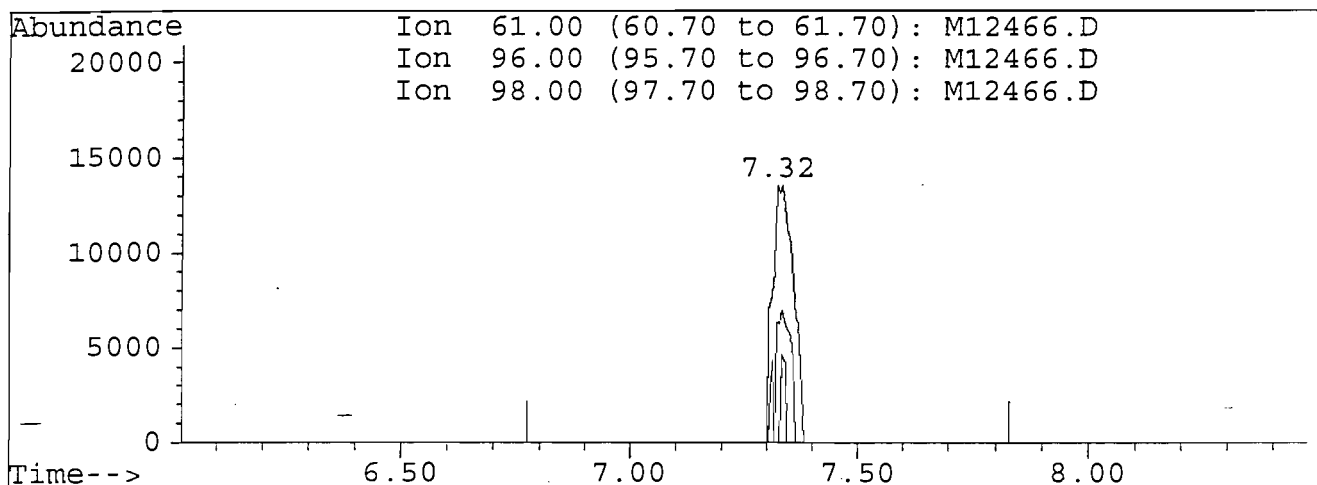
000329

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(9) 1,1-dichloroethene (C)

7.32min 4.79ug/L m

response 43557

Ion	Exp%	Act%
61.00	100	100
96.00	52.10	46.49
98.00	34.30	0.00
0.00	0.00	0.00

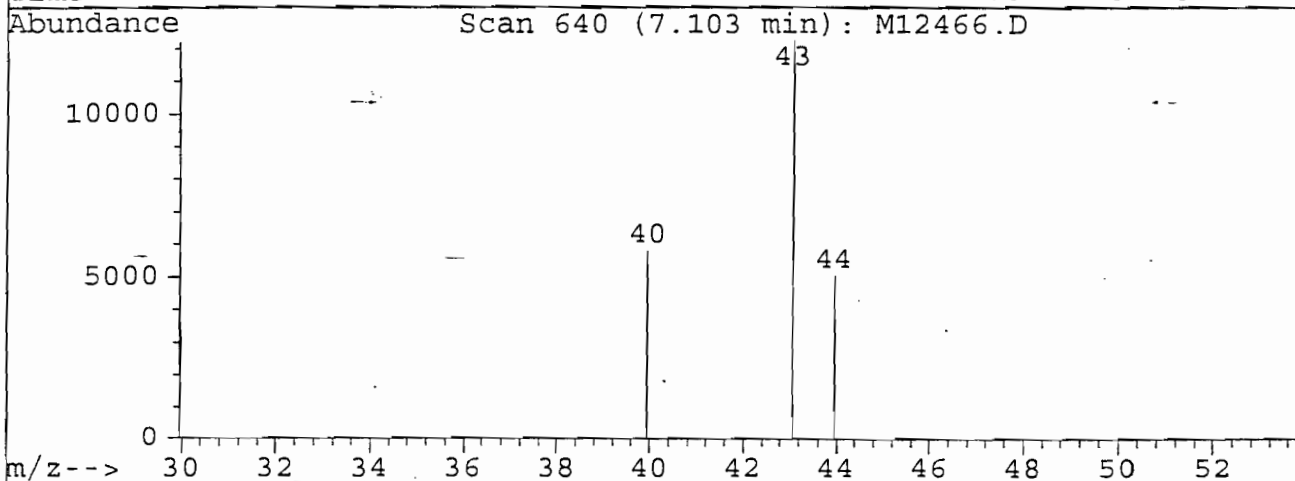
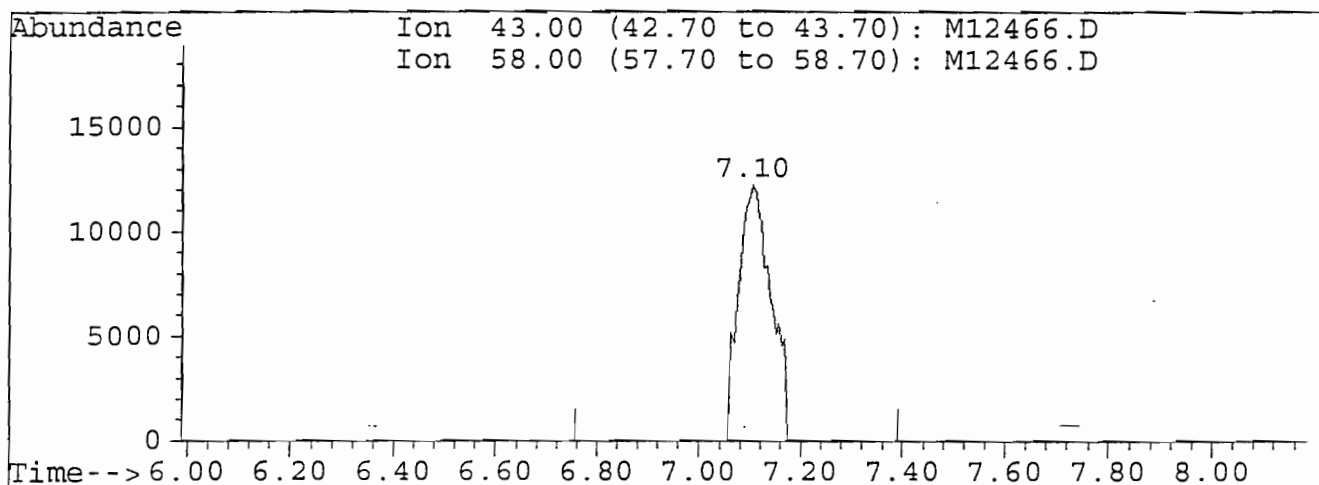
000330

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(10) Acetone
 7.10min 12.95ug/L m
 response 54345

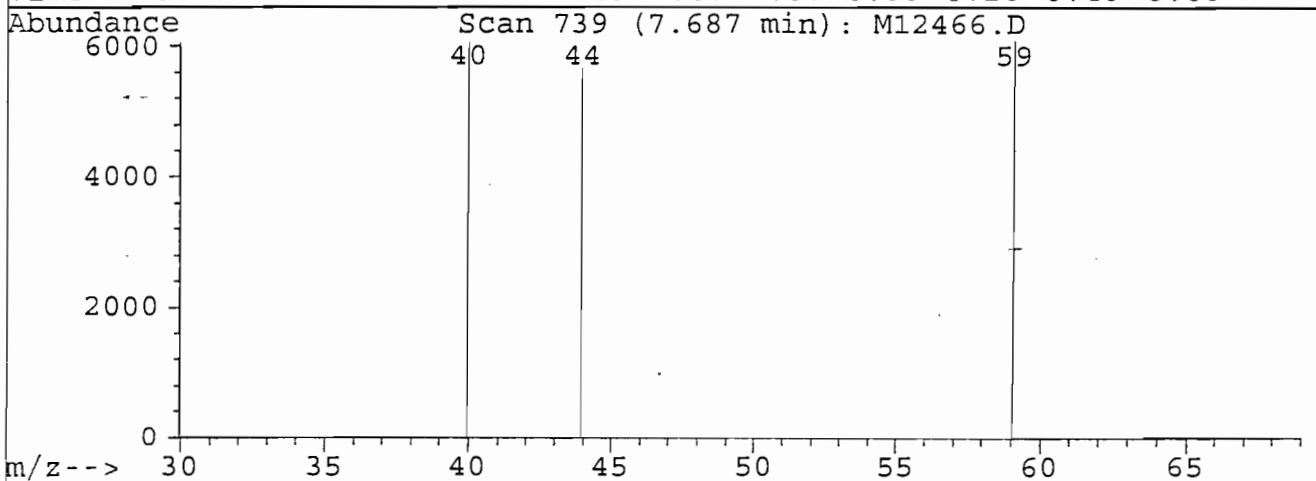
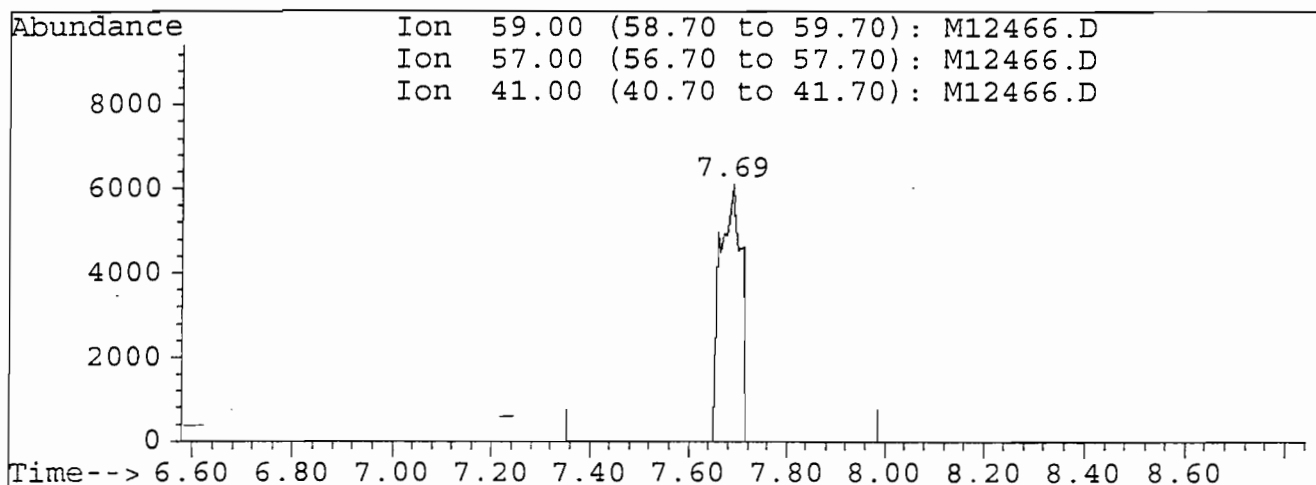
Ion	Exp%	Act%
43.00	100	100
58.00	15.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(14) TBA

7.69min 42.75ug/L m

response 17548

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	0.00
41.00	26.20	0.00
0.00	0.00	0.00

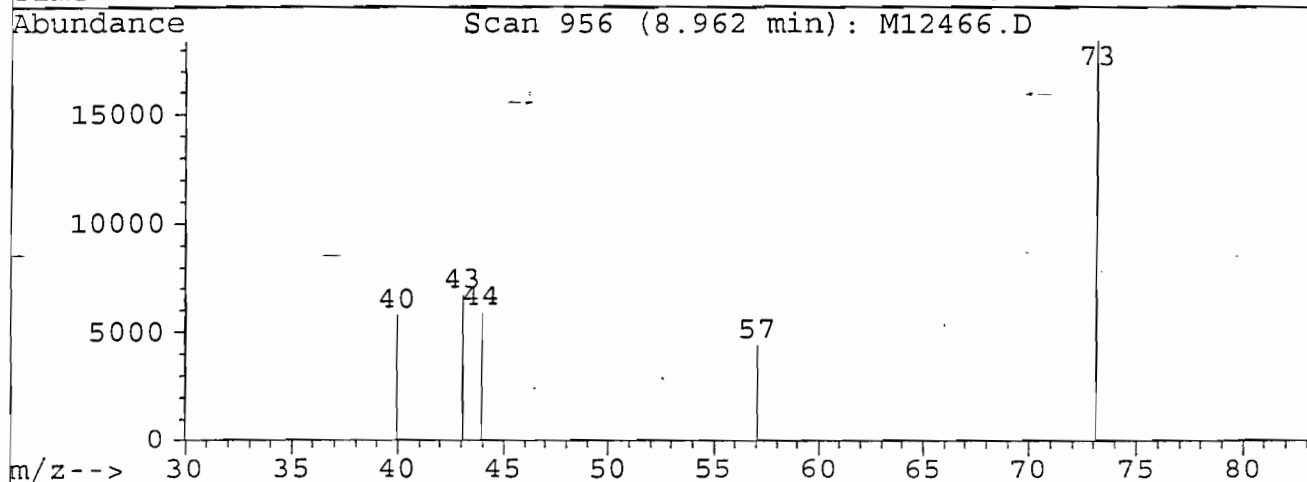
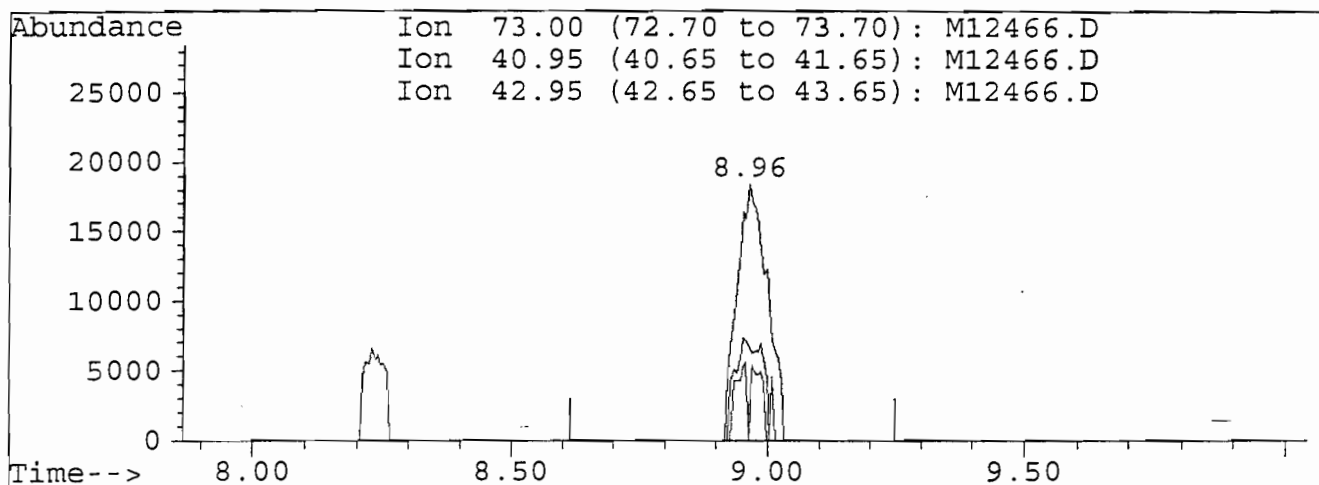
000332

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(15) MTBE

8.96min 5.07ug/L m

response 75701

Ion	Exp%	Act%
73.00	100	100
40.95	25.30	0.00
42.95	28.90	36.37
0.00	0.00	0.00

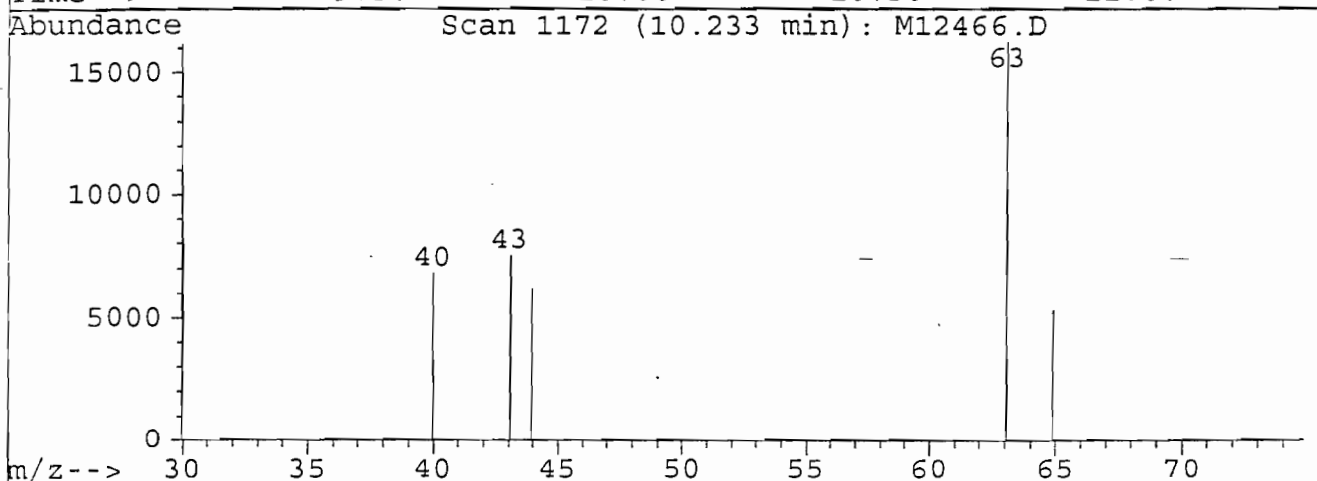
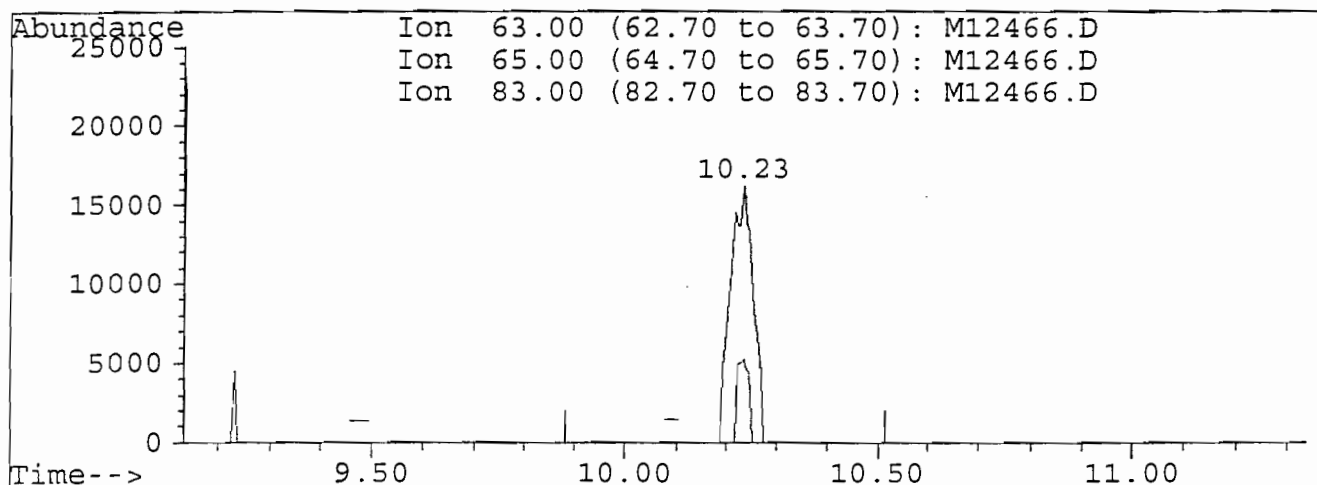
000333

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(17) 1,1-dichloroethane (P)

10.23min 4.75ug/L m

response 51445

Ion	Exp%	Act%
63.00	100	100
65.00	31.10	32.44
83.00	13.80	0.00
0.00	0.00	0.00

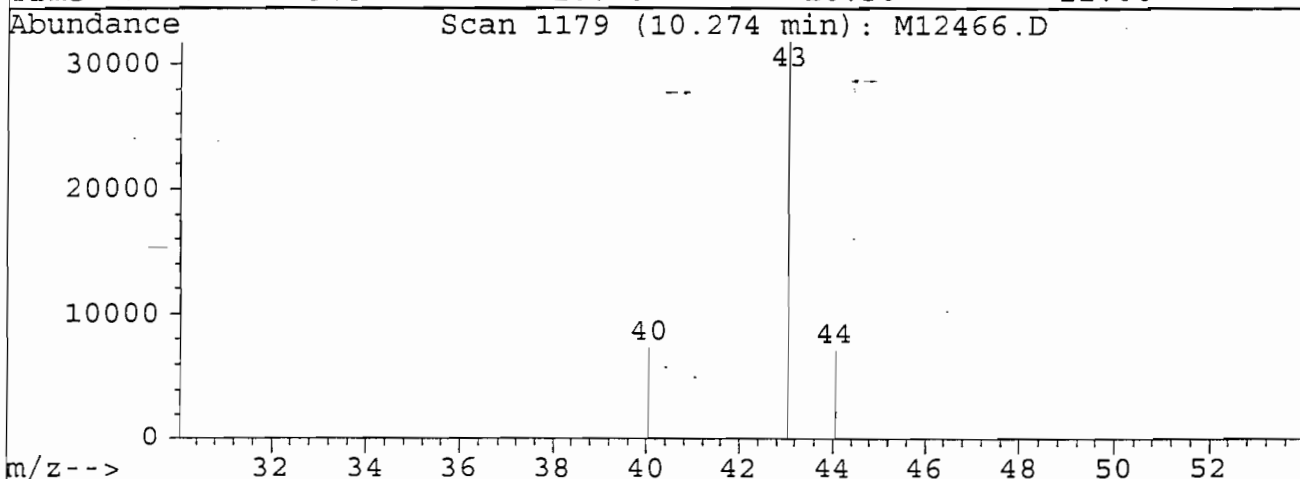
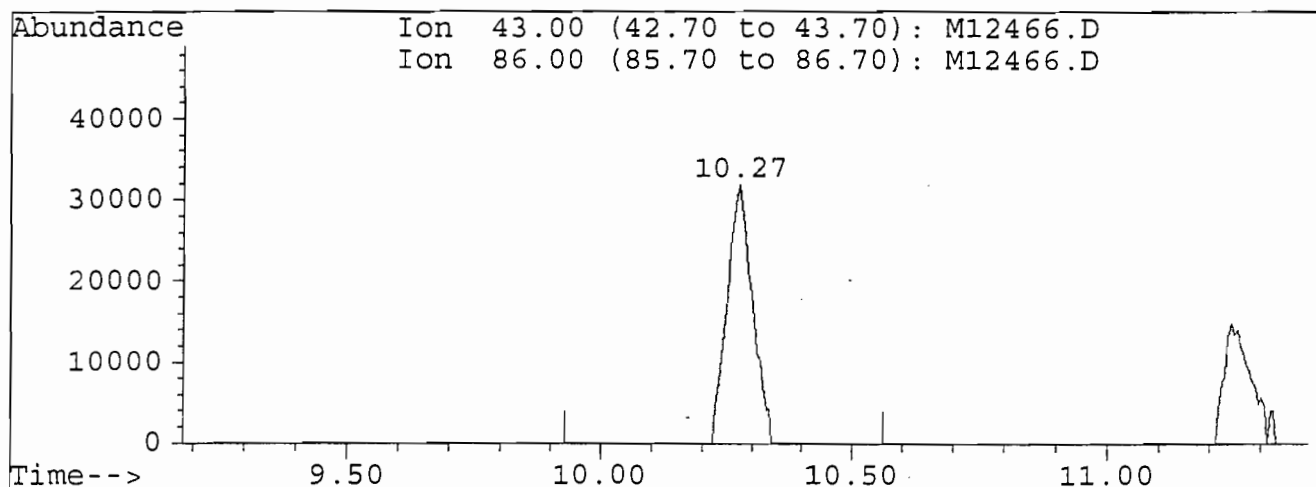
000334

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(24) Vinyl Acetate
 10.27min 5.88ug/L m
 response 112544

Ion	Exp%	Act%
43.00	100	100
86.00	8.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

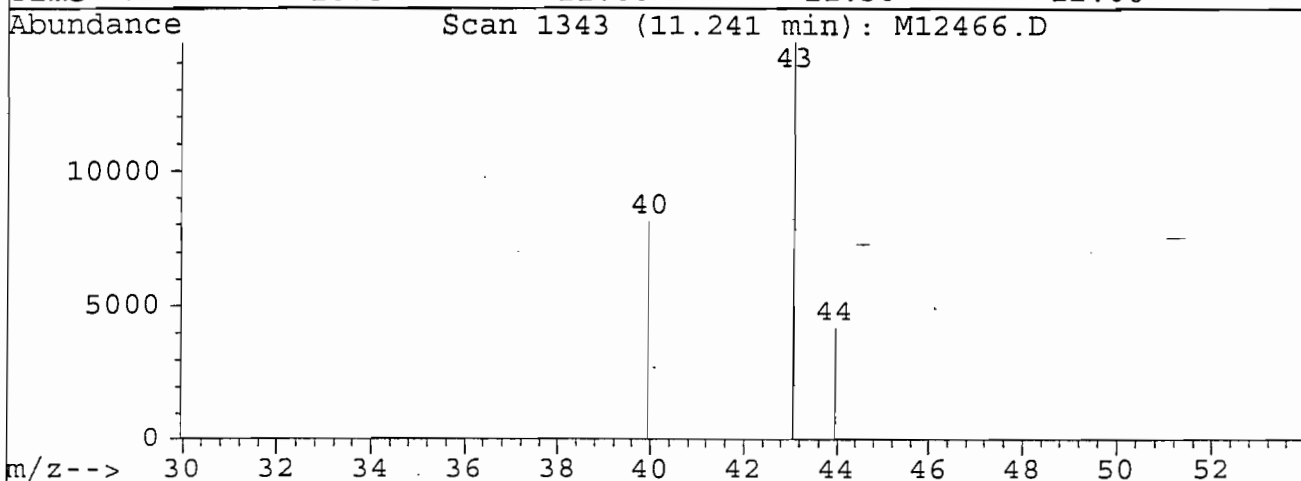
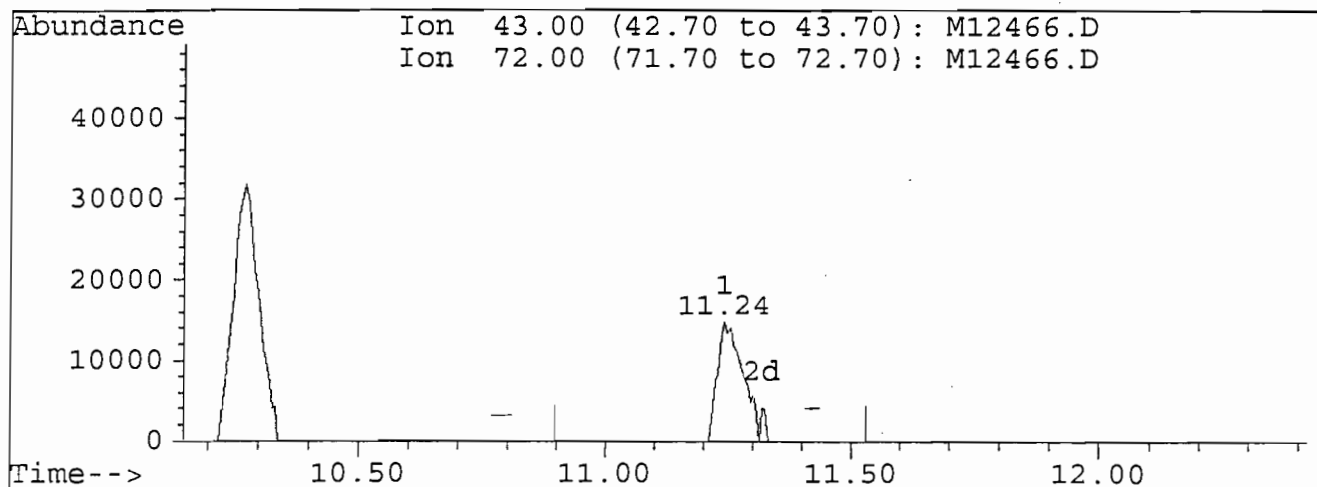
000335

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(25) 2-Butanone
 11.24min 14.70ug/L m
 response 55400

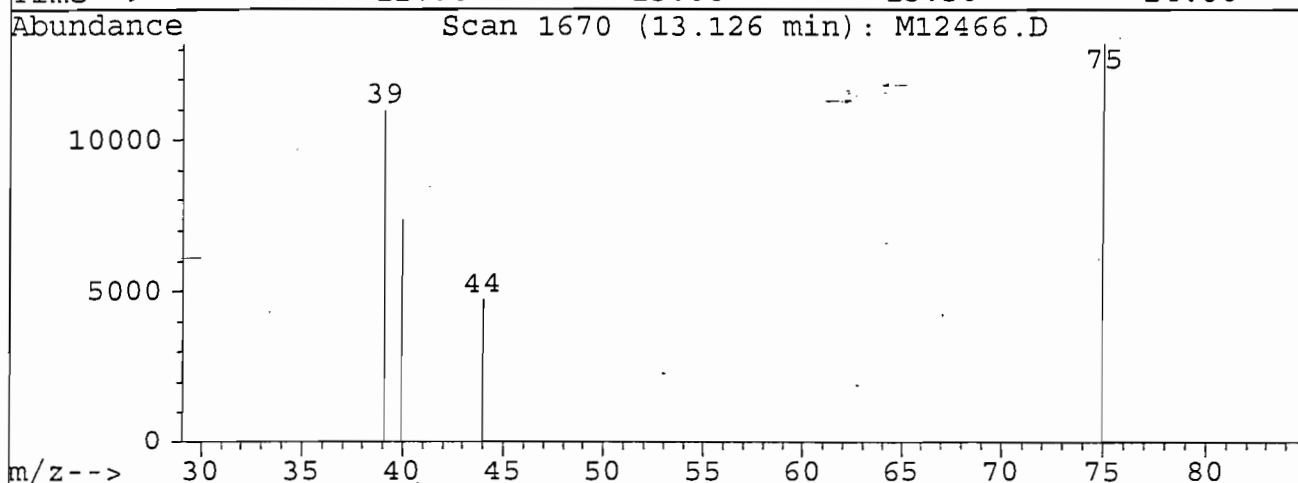
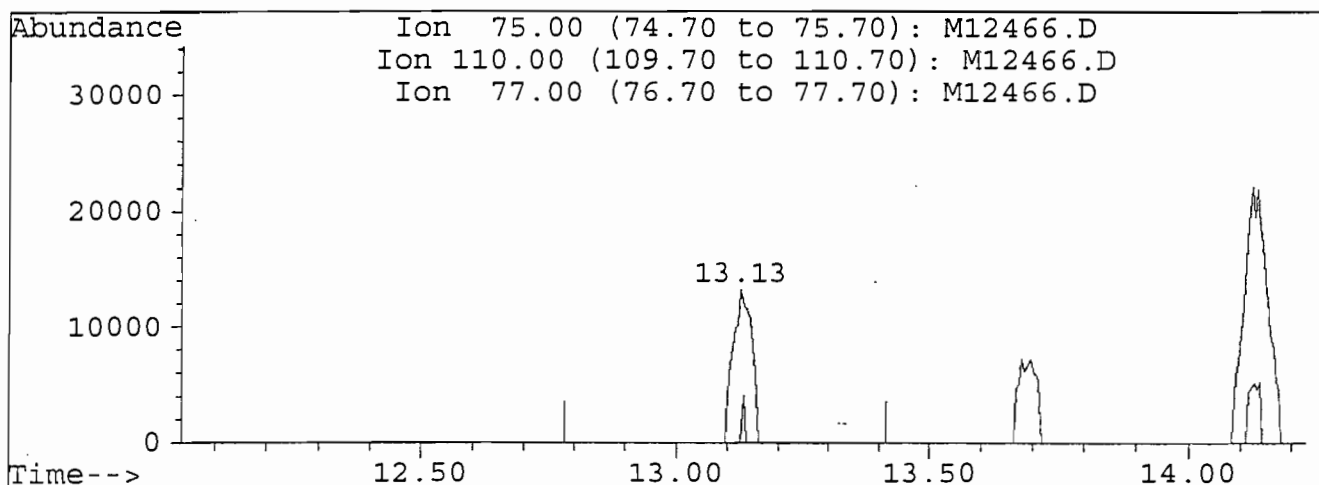
Ion	Exp%	Act%
43.00	100	100
72.00	13.90	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(27) 1,1-dichloropropene (T)

13.13min 4.35ug/L m

response 33634

Ion	Exp%	Act%
75.00	100	100
110.00	31.30	0.00
77.00	30.00	0.00
0.00	0.00	0.00

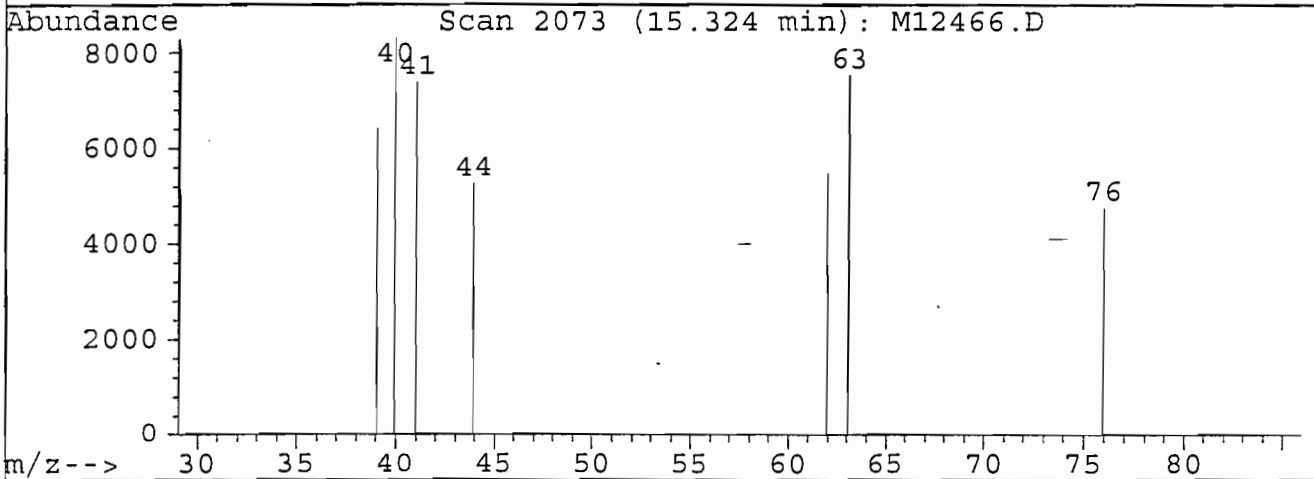
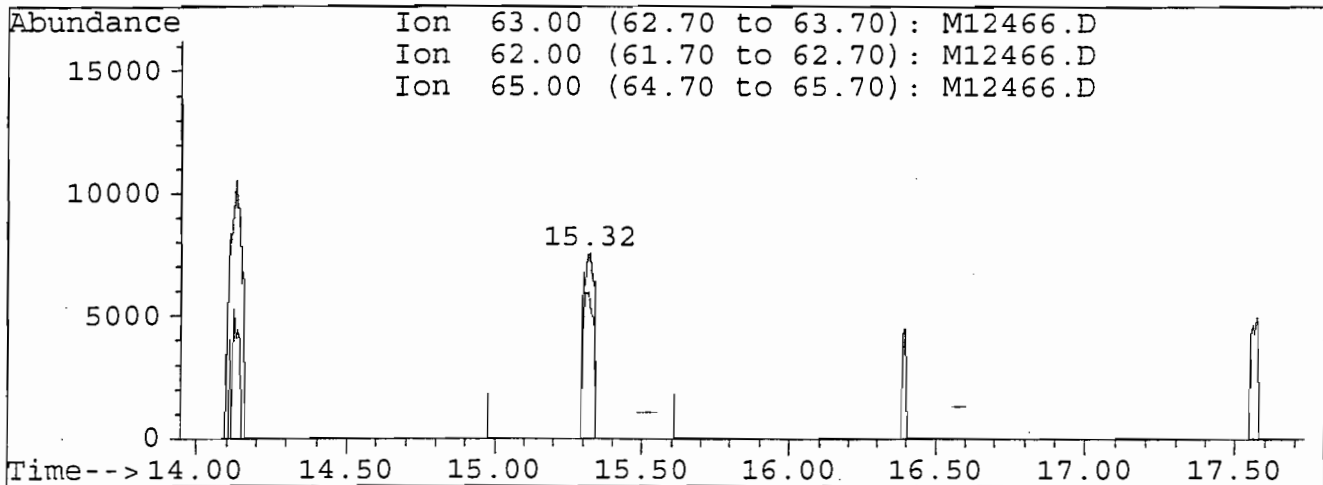
000337

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(32) 1,2-dichloropropane (C)

15.32min 4.76ug/L m

response 24464

Ion	Exp%	Act%
63.00	100	100
62.00	77.10	72.77
65.00	33.20	0.00
0.00	0.00	0.00

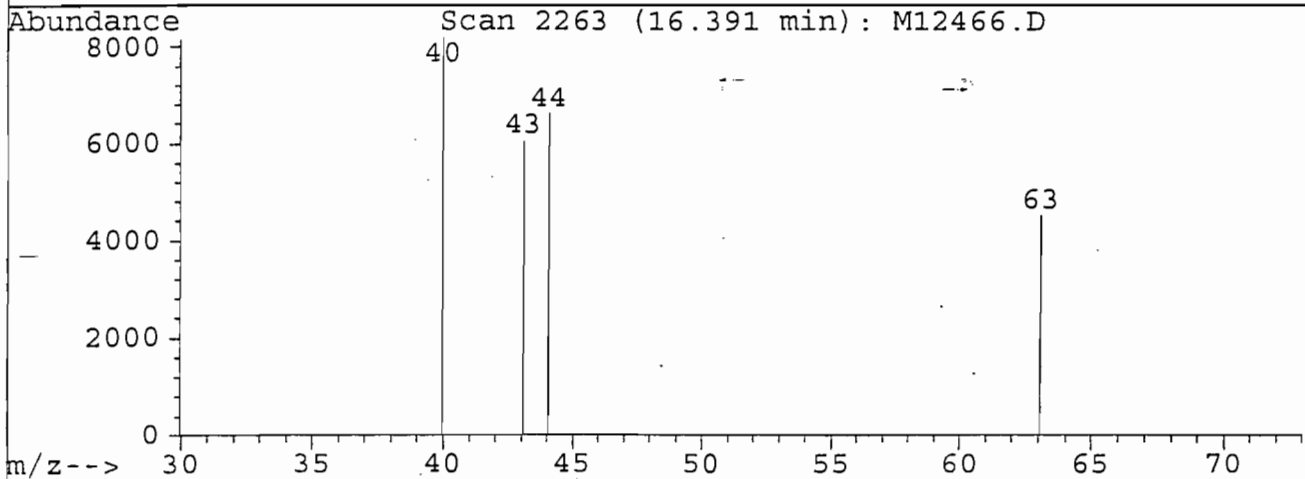
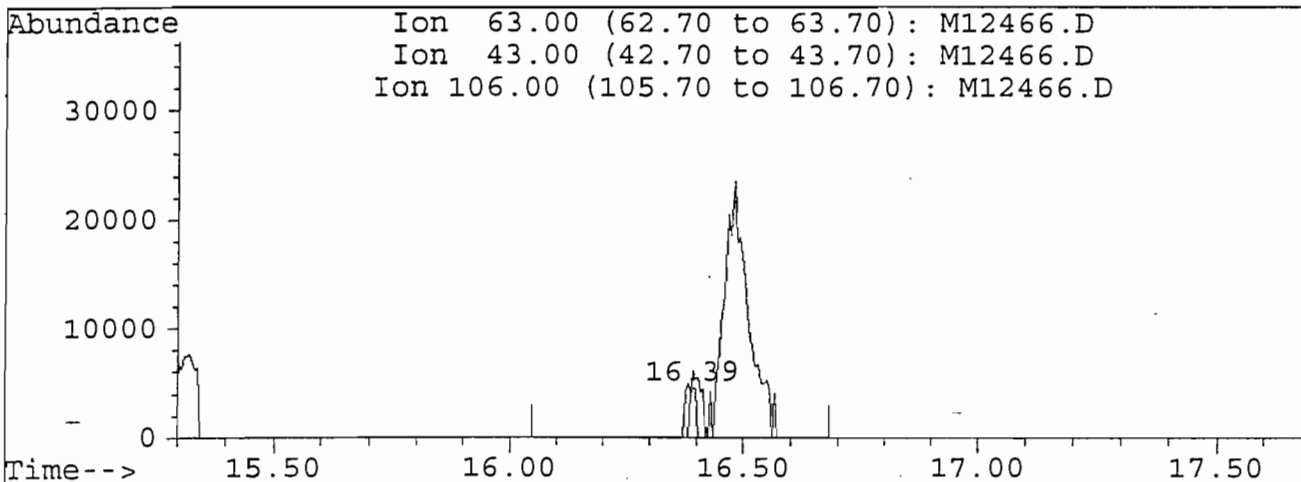
000338

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(35) 2-Chloroethyl Vinyl Ether

16.39min 1.50ug/L m

response 4430

Ion	Exp%	Act%
63.00	100	100
43.00	91.80	134.27
106.00	25.50	0.00
0.00	0.00	0.00

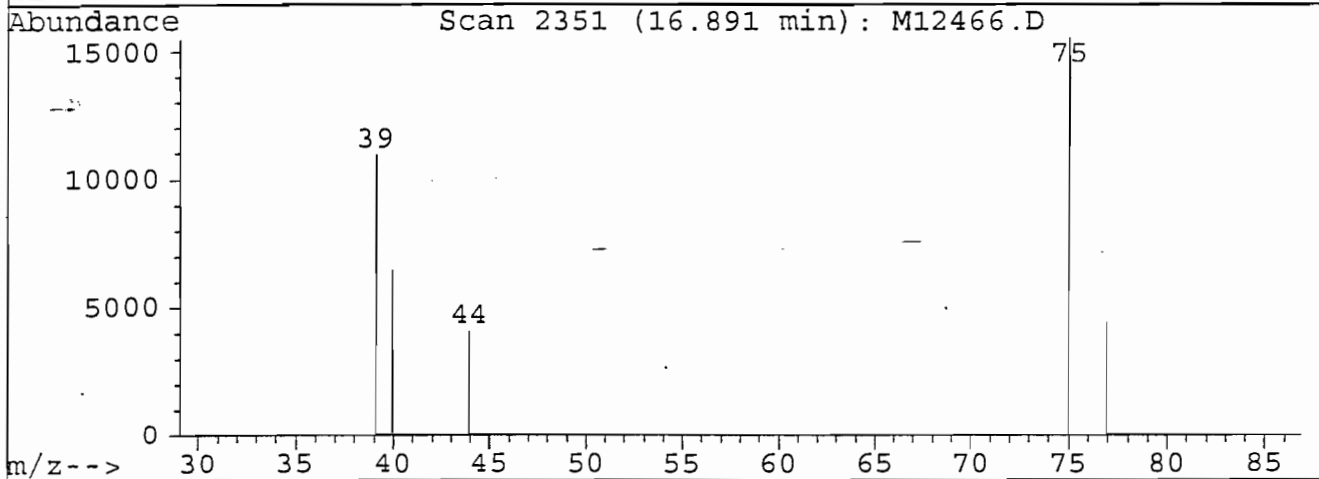
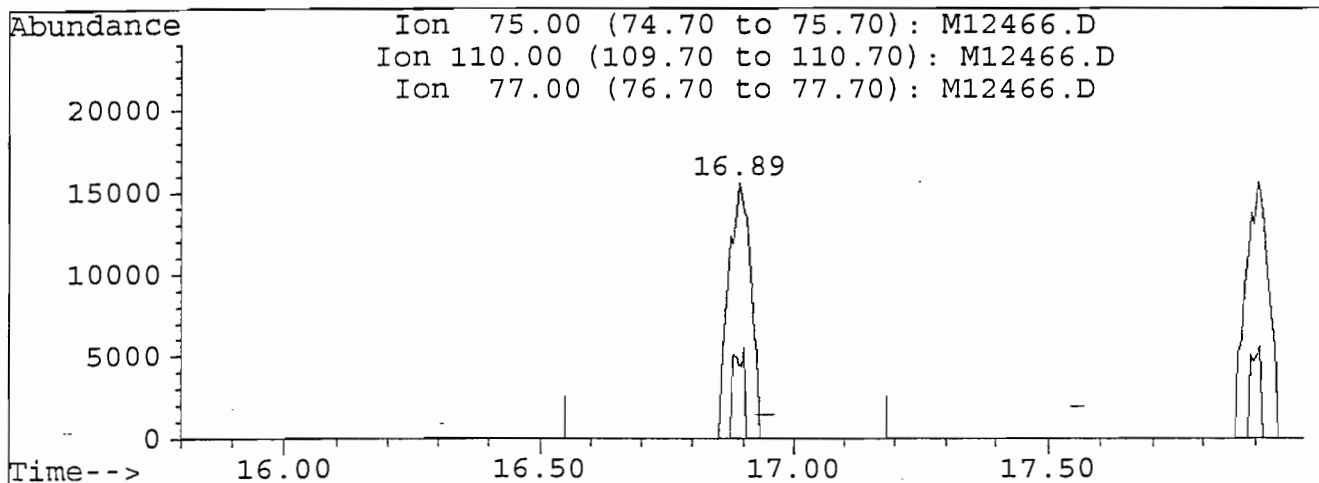
000339

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(36) cis-1,3-dichloropropene (T)

16.89min 5.09ug/L m

response 49345

Ion	Exp%	Act%
75.00	100	100
110.00	21.30	0.00
77.00	30.90	28.23
0.00	0.00	0.00

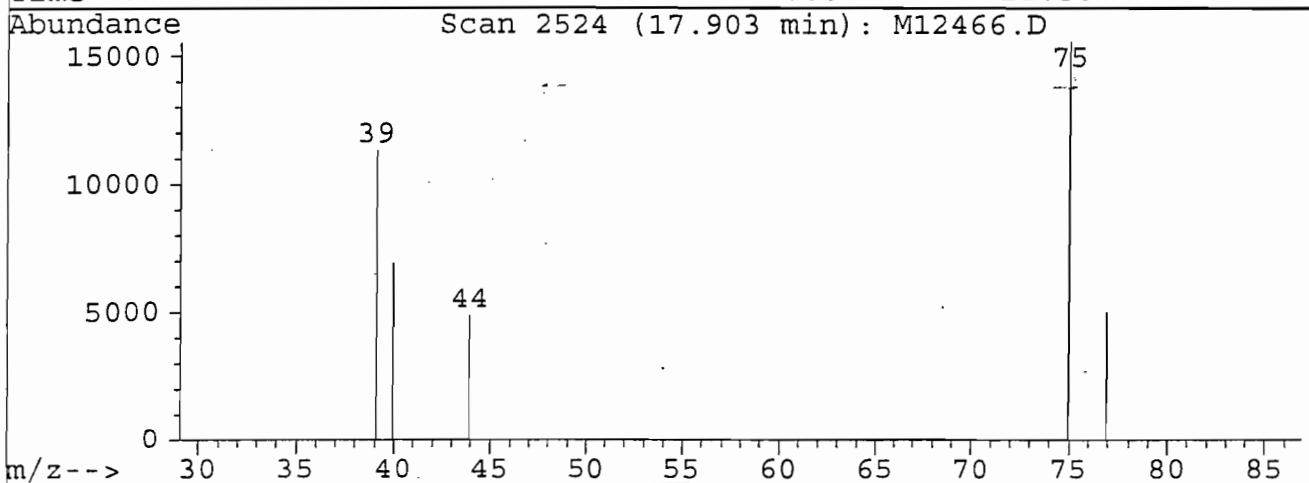
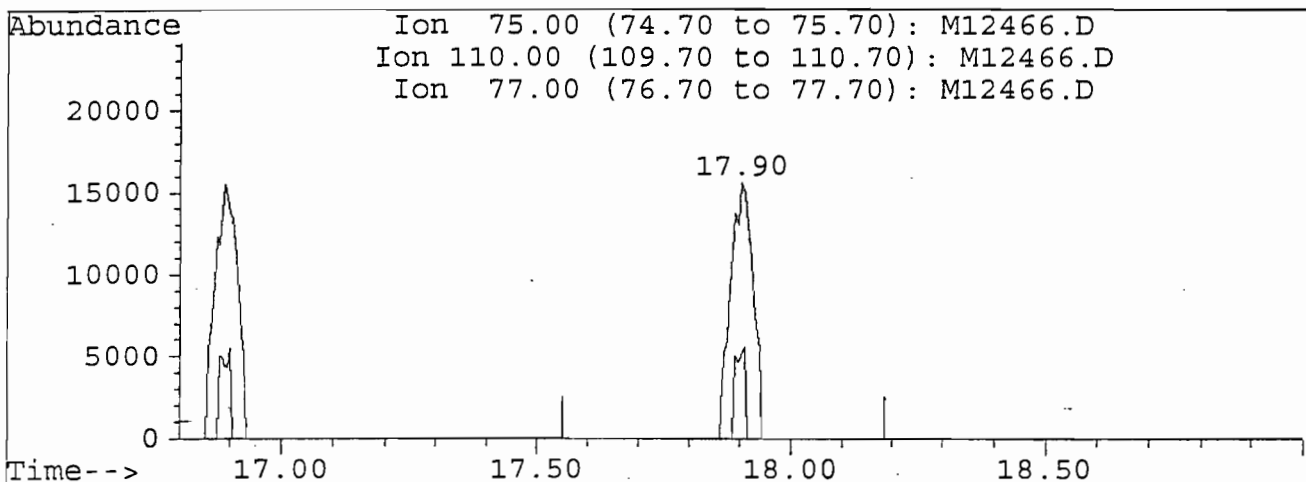
000340

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(39) trans-1,3-dichloropropene (T)

17.90min 4.89ug/L m

response 47883

Ion	Exp%	Act%
75.00	100	100
110.00	19.50	0.00
77.00	30.00	32.05
0.00	0.00	0.00

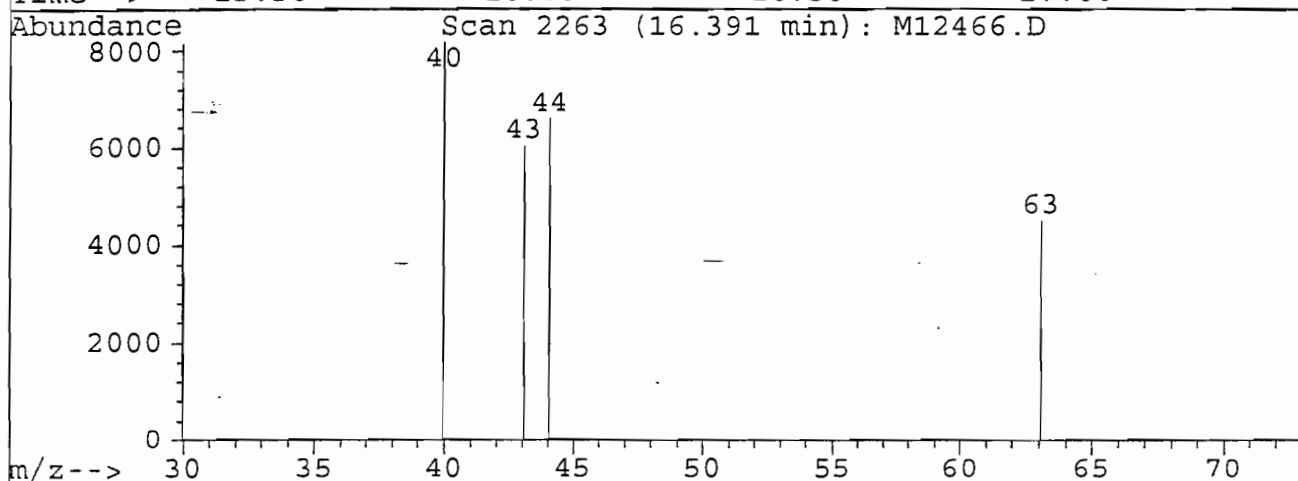
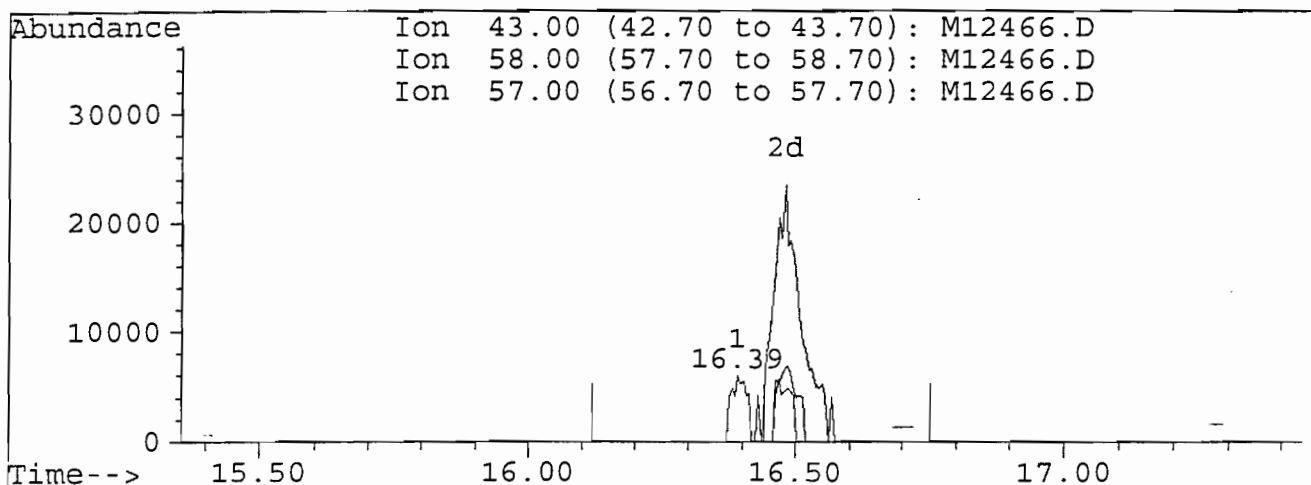
000341

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(43) 4-Methyl-2-Pentanone

16.39min 2.93ug/L m

response 15749

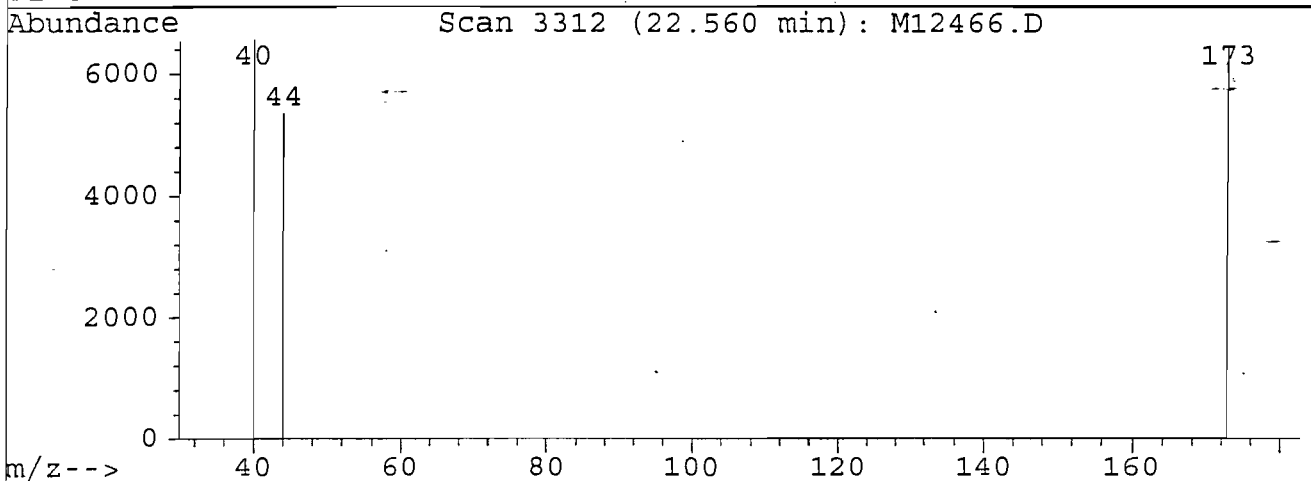
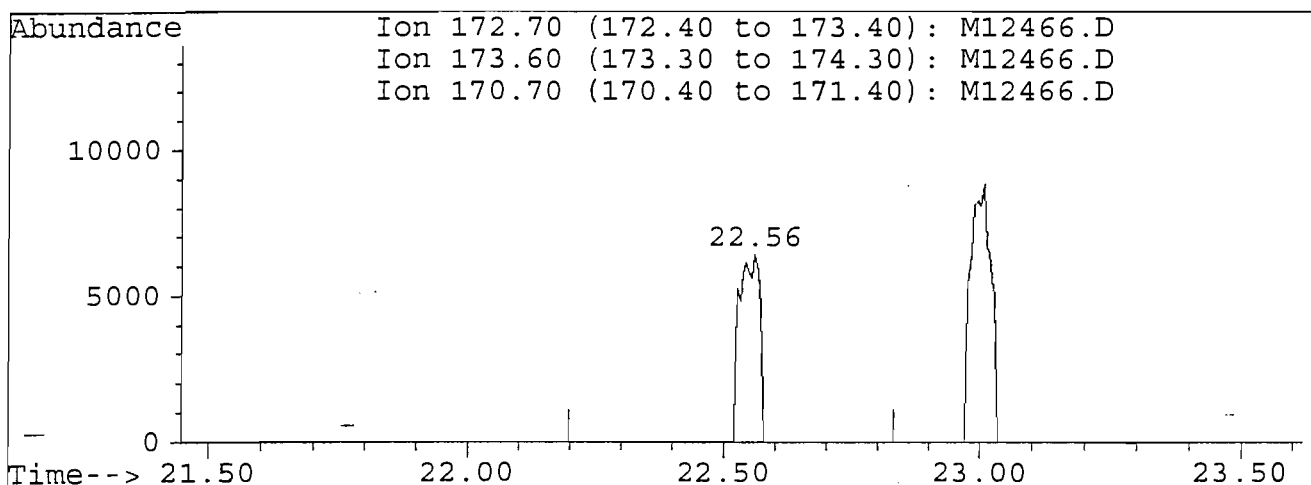
Ion	Exp%	Act%
43.00	100	100
58.00	29.80	0.00
57.00	22.50	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(55) bromoform (P)
 22.56min 3.75ug/L m
 response 17653

Ion	Exp%	Act%
172.70	100	100
173.60	0.00	0.00
170.70	49.40	0.00
0.00	0.00	0.00

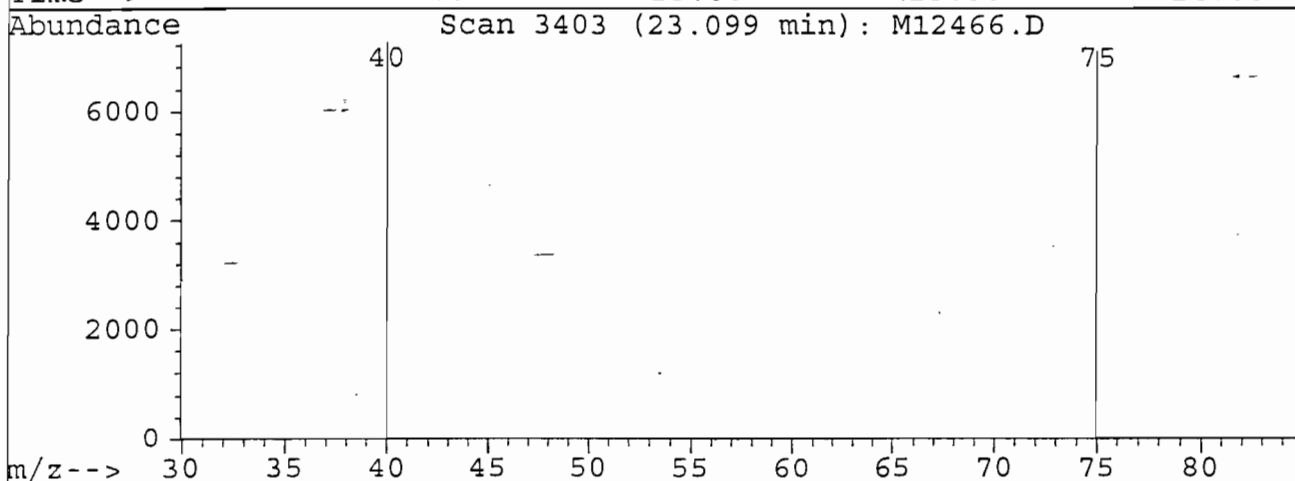
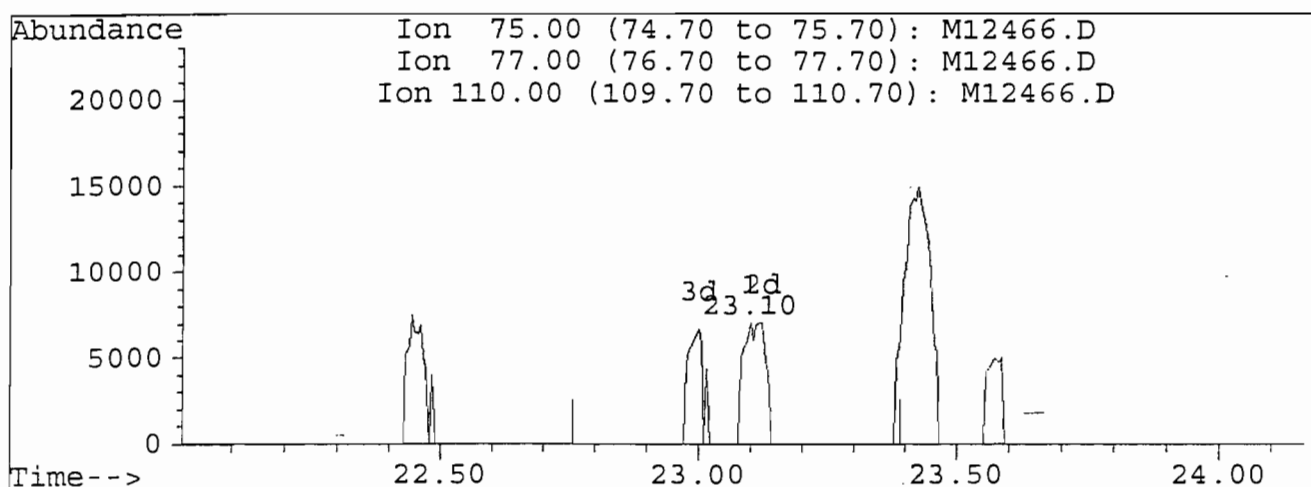
000343

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(60) 1,2,3-trichloropropane

23.10min 4.46ug/L m

response 21383

Ion	Exp%	Act%
75.00	100	100
77.00	28.00	0.00
110.00	45.70	0.00
0.00	0.00	0.00

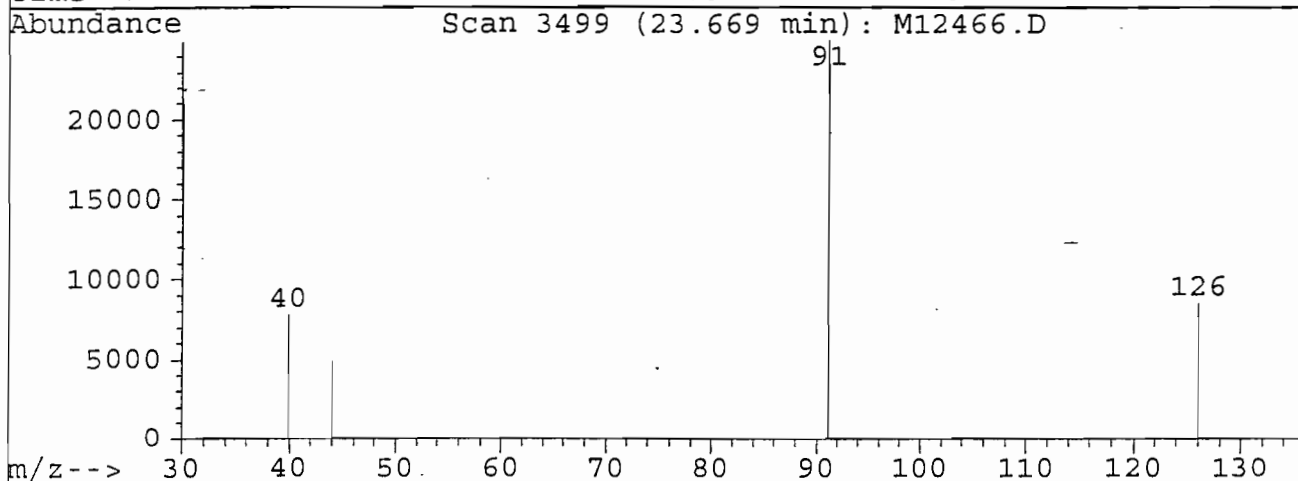
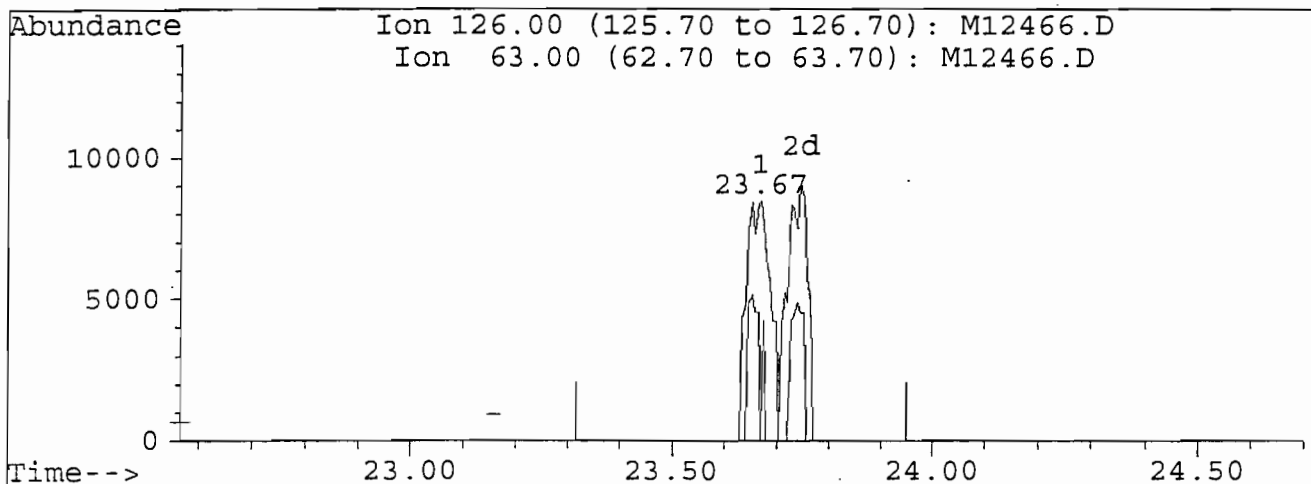
000344

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(62) 2-chlorotoluene (T)

23.67min 5.20ug/L m

response 26992

Ion	Exp%	Act%
126.00	100	100
63.00	60.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

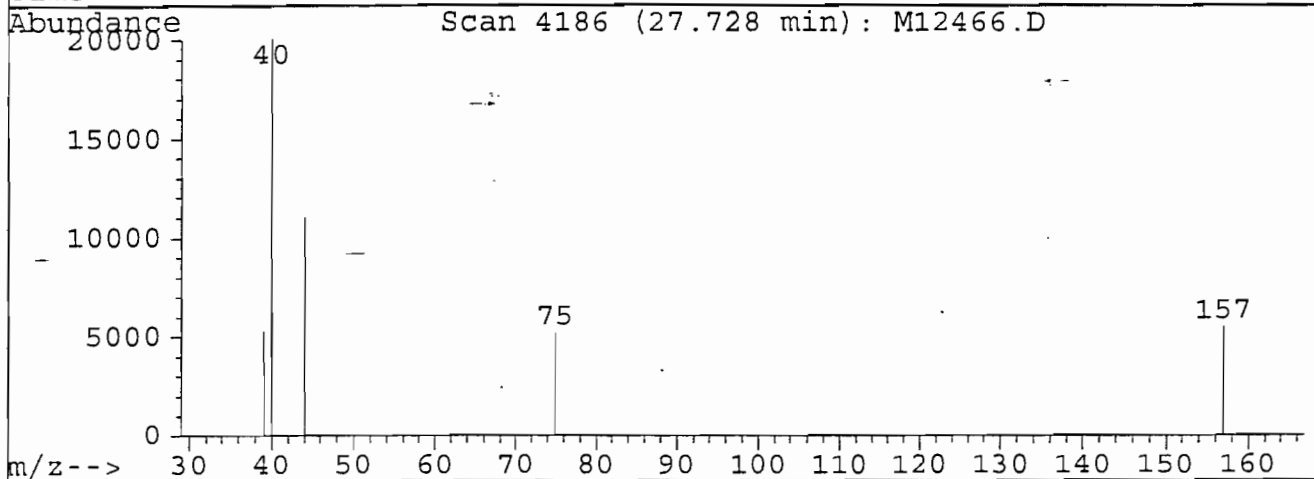
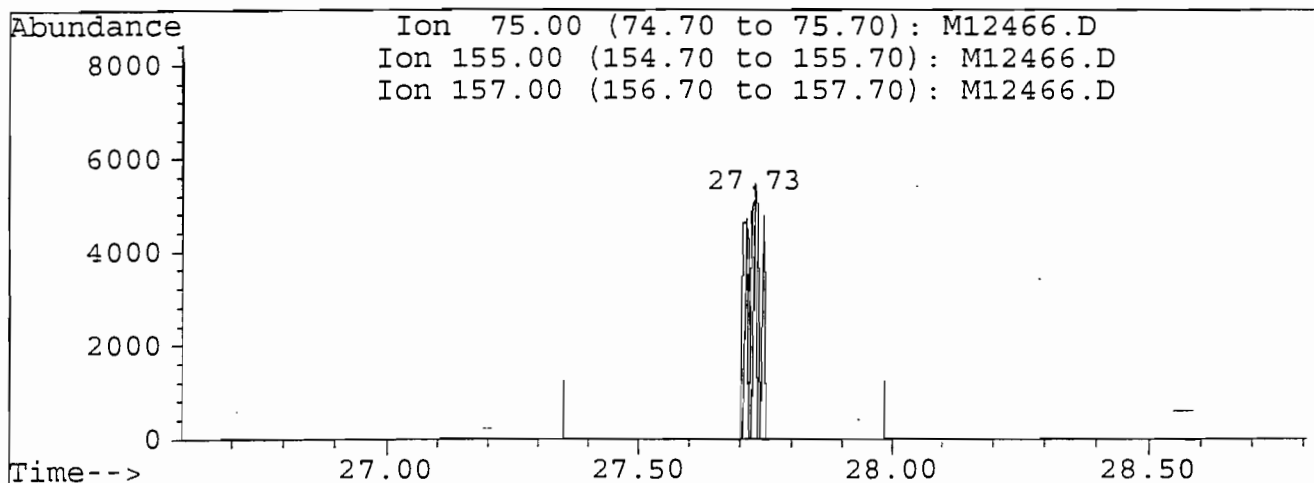
000345

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(73) 1,2-dibromo-3-chloropropane (T)

27.73min 4.57ug/L m

response 5139

Ion	Exp%	Act%
75.00	100	100
155.00	61.60	0.00
157.00	94.10	105.77
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D

Acq Time : 16 Sep 99 1:07 pm

Sample : 5 PPB ICC

Misc : 5ML

Quant Time: Sep 16 14:20 1999

Operator: AVJJ

Inst : voa3

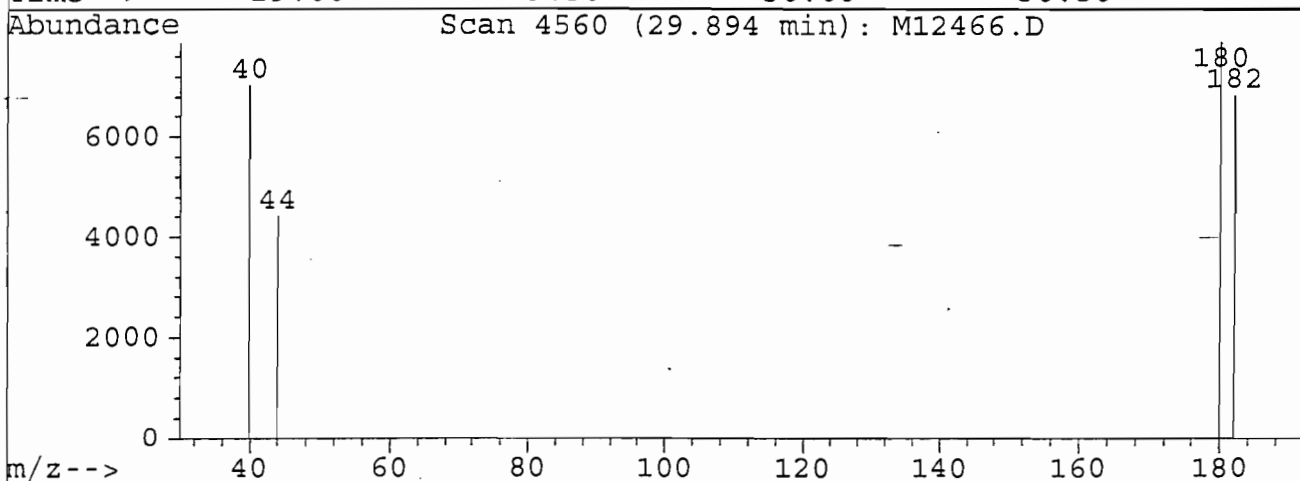
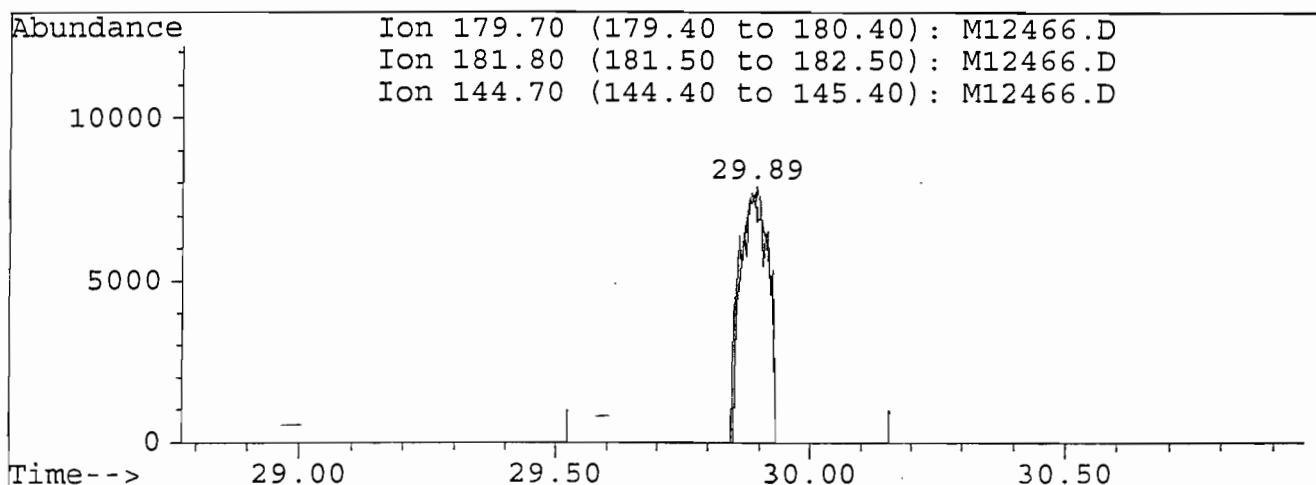
Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M

Title : VOA

Last Update : Thu Sep 16 14:22:43 1999

Response via : Single Level Calibration



TIC: M12466.D

(74) 1,2,4-trichlorobenzene (T)

29.89min 4.48ug/L m

response 32040

Ion	Exp%	Act%
179.70	100	100
181.80	88.30	86.55
144.70	28.70	0.00
0.00	0.00	0.00

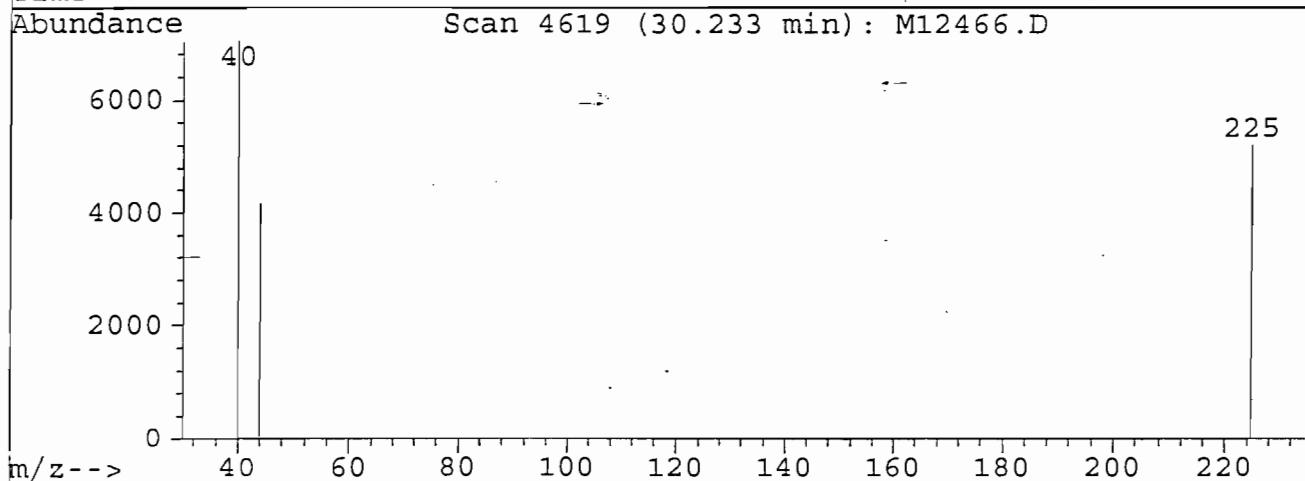
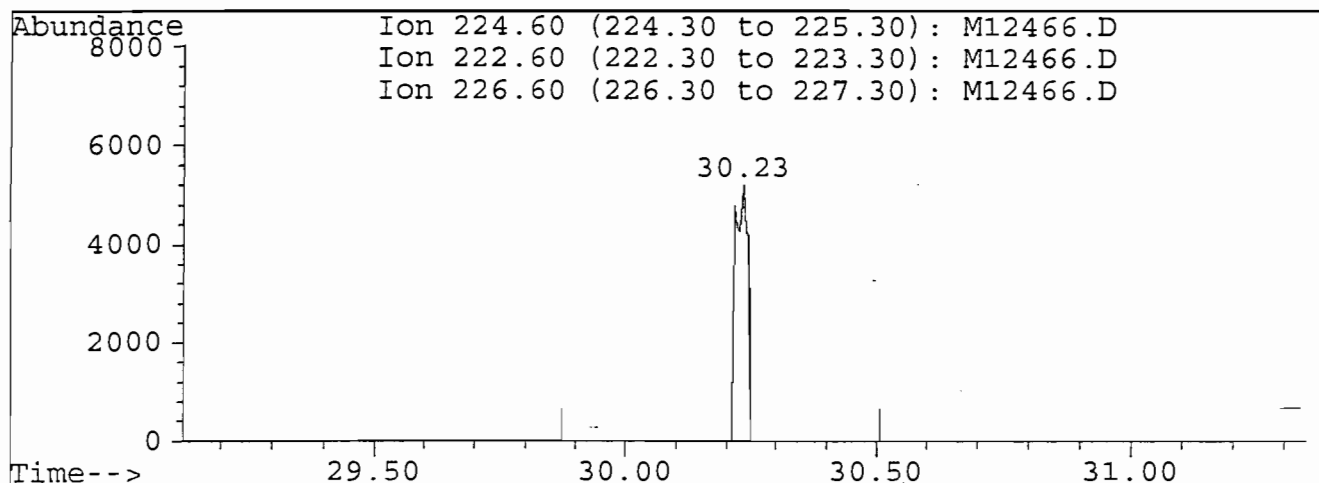
000347

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(75) hexachlorobutadiene (T)

30.23min 2.31ug/L m

response 9337

Ion	Exp%	Act%
224.60	100	100
222.60	62.40	0.00
226.60	66.50	0.00
0.00	0.00	0.00

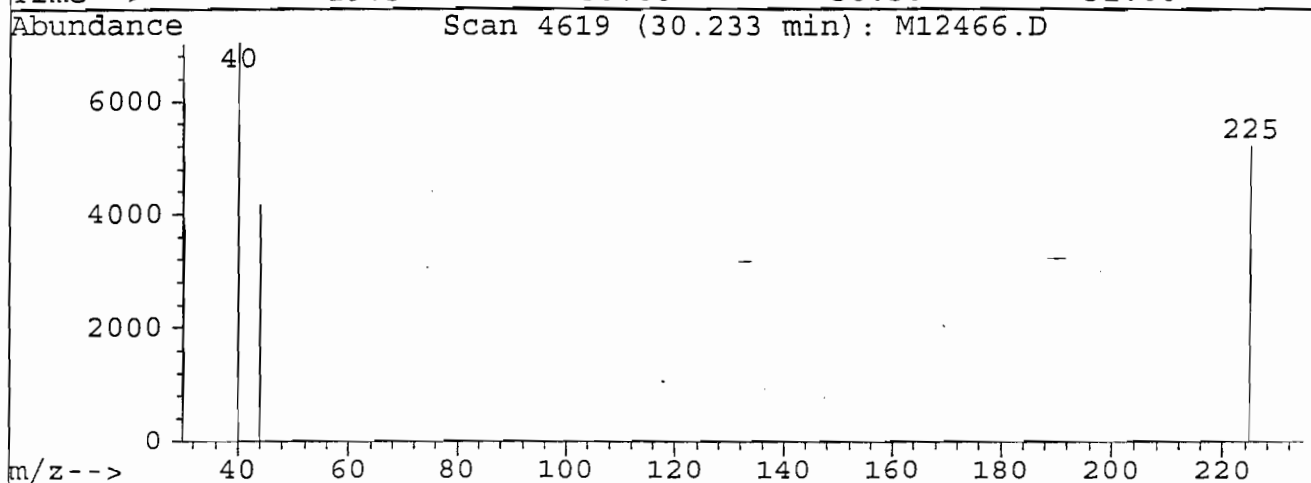
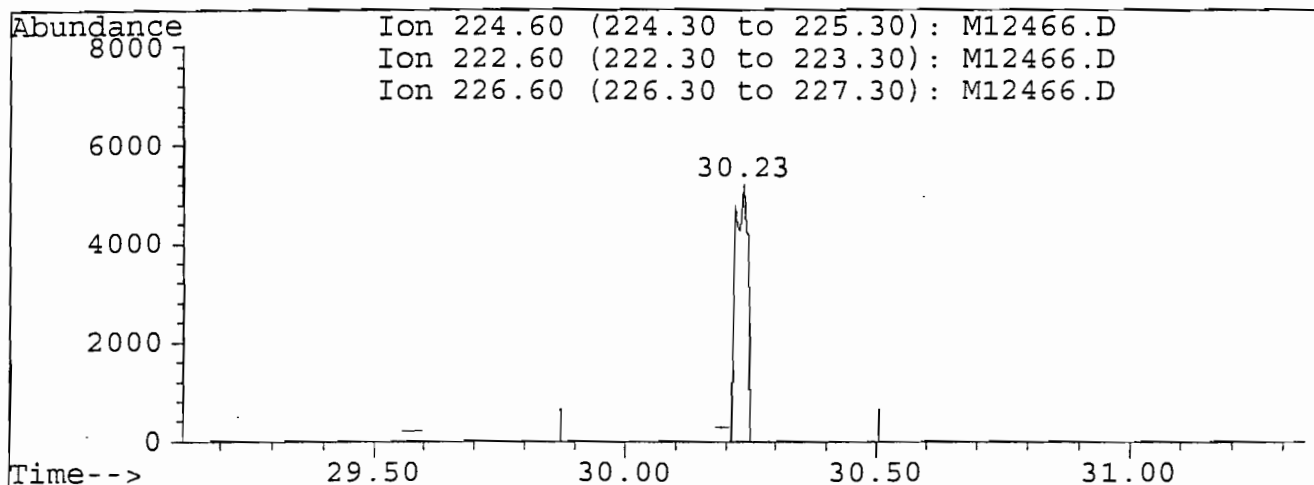
000348

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(75) hexachlorobutadiene (T)

30.23min 2.31ug/L m

response 9337

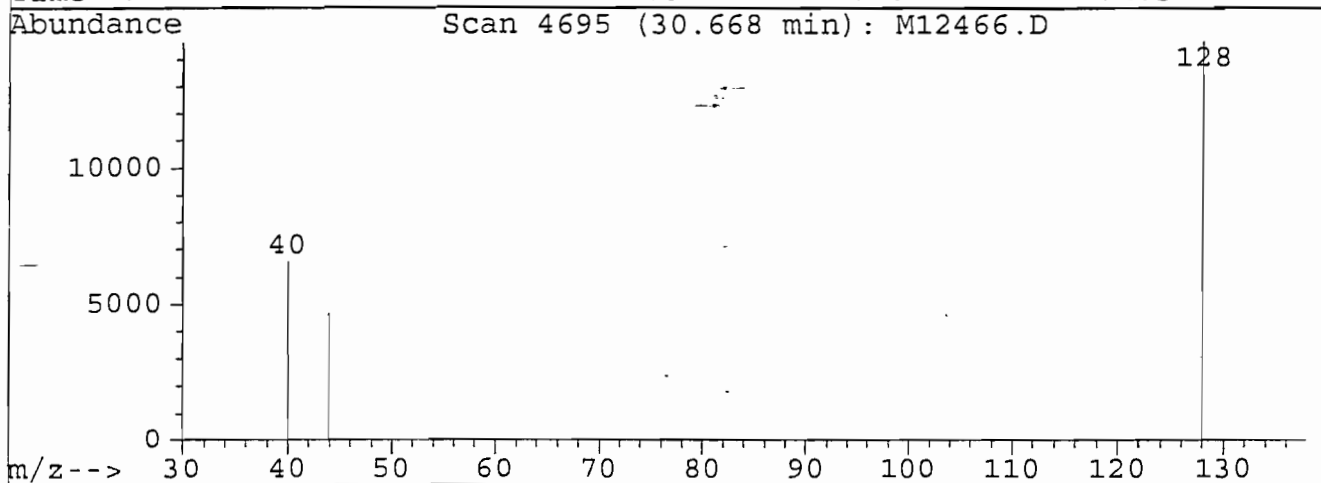
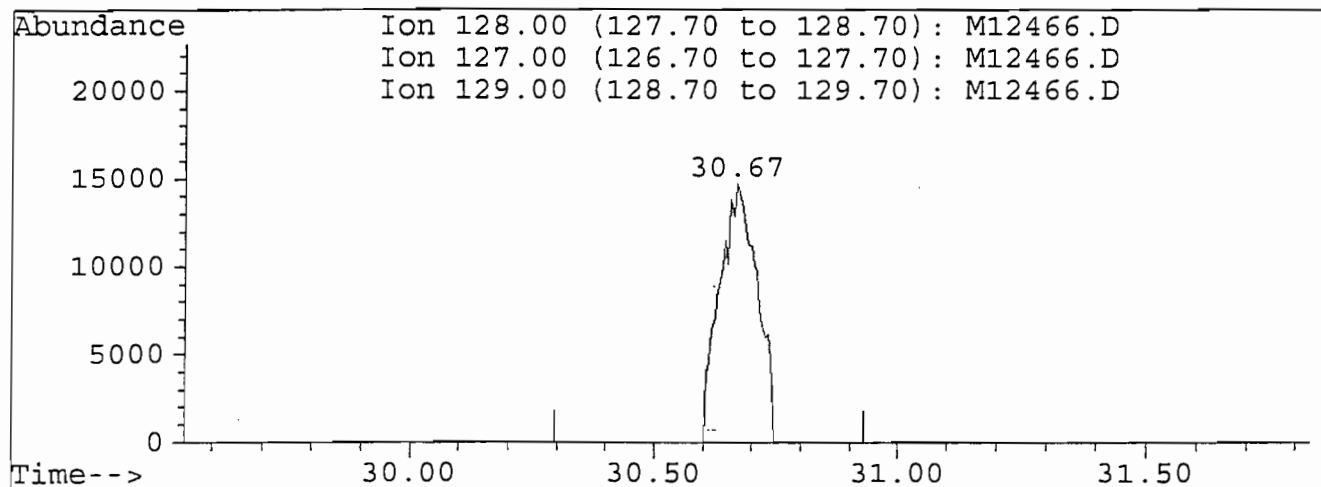
Ion	Exp%	Act%
224.60	100	100
222.60	62.40	0.00
226.60	66.50	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(76) naphthalene (T)
 30.67min 6.14ug/L m
 response 78794

Ion	Exp%	Act%
128.00	100	100
127.00	12.20	0.00
129.00	10.30	0.00
0.00	0.00	0.00

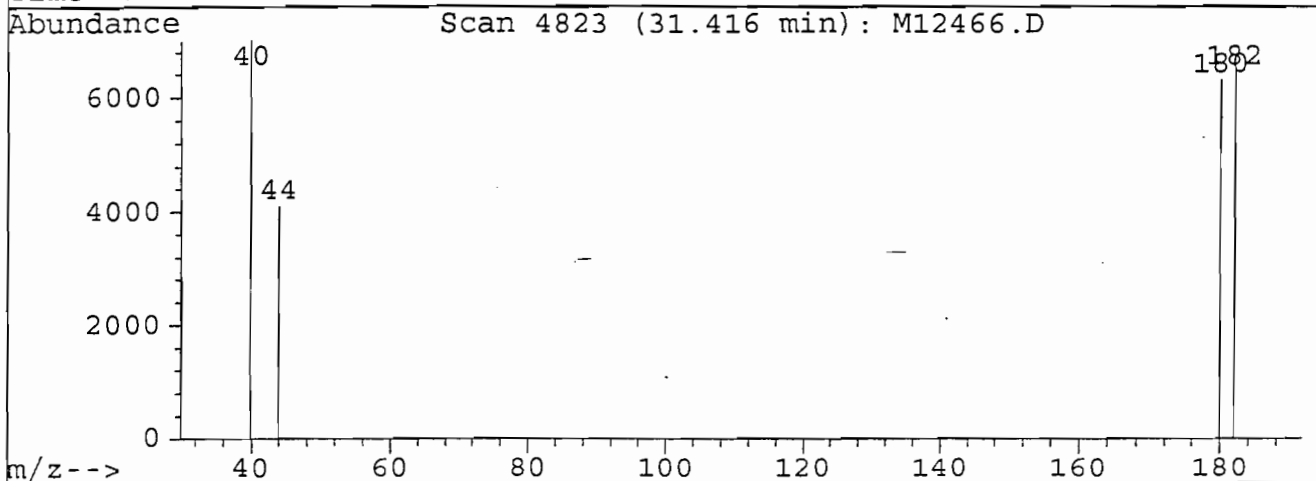
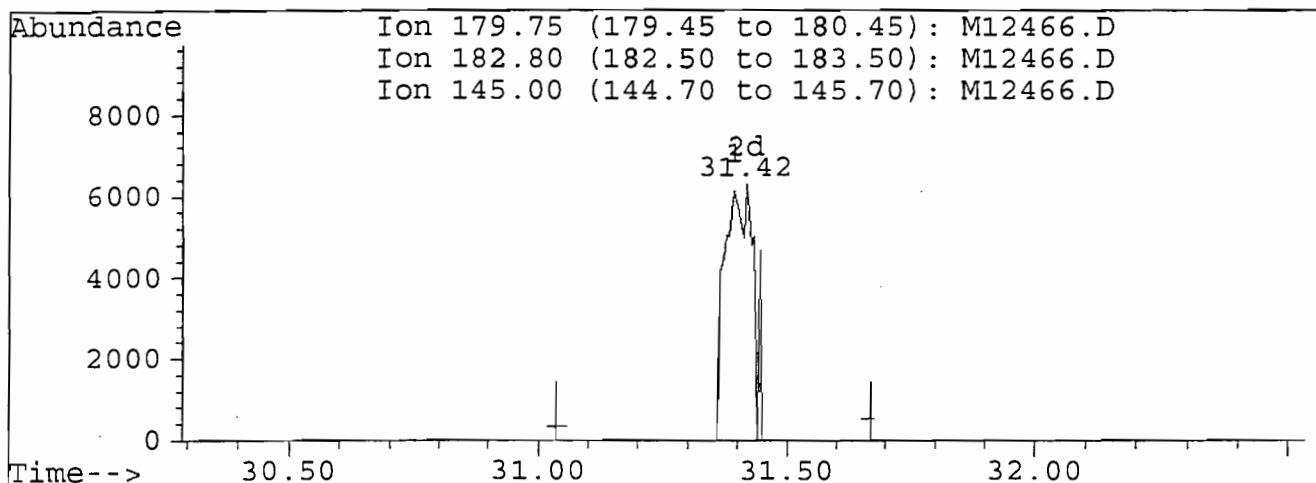
000350

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3091699\M12466.D
 Acq Time : 16 Sep 99 1:07 pm
 Sample : 5 PPB ICC
 Misc : 5ML
 Quant Time: Sep 16 14:20 1999

Operator: AVJJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Single Level Calibration



TIC: M12466.D

(77) 1,2,3-trichlorobenzene (T)

31.42min 4.24ug/L m

response 25823

Ion	Exp%	Act%
179.75	100	100
182.80	0.00	0.00
145.00	28.20	0.00
0.00	0.00	0.00

000351

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No. 13701ASP

Site: _____

Location: _____

Group: GP-005-SS1Instrument ID: VOA 3Calibration Date: 10/8/99Time: 0746Lab File ID: M12938.DInit. Calib. Date(s): 9/16/99 9/16/99Heated Purge: (Y/N) NInit. Calib. Times: 0811 1307GC Column: RTX624ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.518	0.149		71.2	
Chloromethane	0.414	0.345	0.300	16.7	
Vinyl Chloride	0.349	0.299		14.3	25.0
Bromomethane	0.222	0.224		-0.9	
Chloroethane	0.195	0.231		-18.5	
Trichlorofluoromethane	0.604	0.511		15.4	
Methylene Chloride	0.295	0.298		-1.0	
1,1-Dichloroethane	0.624	0.549	0.300	12.0	
2,2-Dichloropropane	0.631	0.474		24.9	
Bromochloromethane	0.294	0.316		-7.5	
Chloroform	0.678	0.615		9.3	25.0
1,1,1-Trichloroethane	0.621	0.479		22.9	
Carbon Tetrachloride	0.546	0.405		25.8	
1,1-Dichloropropene	0.434	0.419		3.5	
Benzene	1.066	1.112		-4.3	
1,2-Dichloroethane	0.649	0.474		27.0	
Trichloroethene	0.344	0.349		-1.5	
1,2-Dichloropropane	0.295	0.349		-18.3	25.0
Dibromomethane	0.232	0.237		-2.2	
Bromodichloromethane	0.564	0.502		11.0	
Toluene	1.196	1.283		-7.3	25.0
1,1,2-Trichloroethane	0.271	0.309		-14.0	
Tetrachloroethene	0.499	0.426		14.6	
1,3-Dichloropropane	0.570	0.713		-25.1	
Dibromochloromethane	0.460	0.487		-5.9	
1,2-Dibromoethane	0.359	0.421		-17.3	
Chlorobenzene	0.915	1.078	0.300	-17.8	
1,1,1,2-Tetrachloroethane	0.351	0.392		-11.7	
Ethylbenzene	1.685	1.890		-12.2	25.0
Styrene	0.948	1.212		-27.8	
Bromoform	0.297	0.323	0.250	-8.8	
isopropylbenzene	3.636	4.071		-12.0	
Bromobenzene	1.592	1.785		-12.1	
1,1,2,2-Tetrachloroethane	0.907	1.151	0.300	-26.9	
1,2,3-Trichloropropane	0.702	0.818		-16.5	
n-Propylbenzene	0.829	1.000		-20.6	

All other compounds must meet a minimum RRF of 0.010.

000352

Contract: IMPACT ENVIRONMENTAL

Group: GP-005-SS1

Time: 0746

Init. Calib. Date(s): 9/16/99 9/16/99

Init. Calib. Times: 0811 1307

ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
2-Chlorotoluene	0.786	0.940		-19.6	
4-Chlorotoluene	0.780	0.940		-20.5	
1,3,5-Trimethylbenzene	3.042	3.185		-4.7	
tert-Butylbenzene	2.720	2.869		-5.5	
1,2,4-Trimethylbenzene	3.036	3.173		-4.5	
sec-Butylbenzene	3.641	4.096		-12.5	
1,3-Dichlorobenzene	1.611	1.745		-8.3	
4-Isopropyltoluene	3.286	3.466		-5.5	
1,4-Dichlorobenzene	1.661	1.800		-8.4	
1,2-Dichlorobenzene	1.505	1.651		-9.7	
n-Butylbenzene	2.976	3.312		-11.3	
1,2-Dibromo-3-chloropropane	0.166	0.169		-1.8	
1,2,4-Trichlorobenzene	1.130	1.182		-4.6	
Hexachlorobutadiene	0.562	0.631		-12.3	
Naphthalene	2.235	2.242		-0.3	
1,2,3-Trichlorobenzene	0.965	0.997		-3.3	
Dibromofluoromethane	0.351	0.339		3.4	
Toluene-d8	1.019	1.056		-3.6	
4-Bromofluorobenzene	0.478	0.447		6.5	

All other compounds must meet a minimum RRF of 0.010.

000353

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.08	96	2181875	50.00	ug/L	-0.02
42) Chlorobenzene-d5	20.43	117	1748135	50.00	ug/L	-0.05
56) 1,4-dichlorobenzene-d4	25.16	152	773639	50.00	ug/L	-0.06
System Monitoring Compounds						%Recovery
23) Dibromofluoromethane	12.38	113	739958	48.33	ug/L	96.66%
29) 1,2-Dichlorethane-d4	13.42	65	791864	37.83	ug/L	75.66%
37) Toluene-d8	17.33	98	2304621	51.81	ug/L	103.61%
41) 4-Bromofluorobenzene	22.91	95	976066	46.80	ug/L	93.59%
Target Compounds						Qvalue
2) dichlorodifluoromethane	3.50	85	324113	14.33	ug/L	100
3) chloromethane	4.03	50	753522	41.73	ug/L	98
4) vinyl chloride	4.17	62	651401	42.81	ug/L	99
5) bromomethane	5.08	94	488381	50.39	ug/L	100
6) chloroethane	5.26	64	504072	59.33	ug/L	96
7) Acrolein	6.97	56	691315	416.81	ug/L	94
8) trichlorofluoromethane	5.87	101	1115023	42.32	ug/L	100
9) 1,1-dichloroethene	7.38	61	1087625	47.74	ug/L m	96
10) Acetone	7.19	43	318099	22.54	ug/L m	81
11) Carbon Disulfide	8.52	76	1751018	40.23	ug/L	88
12) methylene chloride	8.55	84	649945	50.53	ug/L	91
13) trans-1,2-dichloroethene	9.25	61	900864	41.97	ug/L	99
14) TBA	7.79	59	485952	482.90	ug/L m	51
15) MTBE	8.98	73	1331801	35.31	ug/L	95
16) Acrylonitrile	8.89	53	2017051	510.62	ug/L	97
17) 1,1-dichloroethane	10.23	63	1197744	43.97	ug/L	99
18) 2,2-dichloropropane	11.47	77	1033640	37.51	ug/L	99
19) cis-1,2-dichloroethene	11.57	61	1045286	47.86	ug/L	96
20) bromochloromethane	12.26	49	690327	53.81	ug/L	93
21) chloroform	11.91	83	1342167	45.37	ug/L	100
22) 1,1,1-trichloroethane	12.76	97	1044053	38.51	ug/L	99
24) Vinyl Acetate	10.27	43	1917131	37.90	ug/L	97
25) 2-Butanone	11.23	43	410309	30.83	ug/L	87
26) carbon tetrachloride	13.30	117	884315	37.13	ug/L	98
27) 1,1-dichloropropene	13.09	75	913613	48.22	ug/L	99
28) benzene	13.65	78	2426021	52.15	ug/L	99
30) 1,2-dichloroethane	13.61	62	1033843	36.48	ug/L	99
31) trichloroethene	14.90	130	761980	50.79	ug/L	97
32) 1,2-dichloropropane	15.26	63	760656	59.01	ug/L	98
33) dibromomethane	15.85	174	516106	51.04	ug/L	89
34) bromodichloromethane	15.74	83	1094774	44.52	ug/L	92
35) 2-Chloroethyl Vinyl Ether	16.32	63	449338	57.13	ug/L	86
36) cis-1,3-dichloropropene	16.83	75	1282098	51.79	ug/L	98

000354

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) toluene	17.49	91	2799094	53.65	ug/L	94
39) trans-1,3-dichloropropene	17.82	75	1170494	47.78	ug/L	95
40) 1,1,2-trichloroethane	18.16	97	674660	57.11	ug/L	96
43) 4-Methyl-2-Pentanone	16.41	43	723329	63.38	ug/L	94
44) tetrachloroethene	18.83	166	743981	55.10	ug/L	97
45) 1,3-dichloropropane	18.66	76	1245807	62.48	ug/L	94
46) dibromochloromethane	19.24	129	851598	52.98	ug/L	99
47) 1,2-dibromoethane	19.66	107	735096	58.52	ug/L	94
48) 2-Hexanone	18.16	43	541811	41.19	ug/L	89
49) chlorobenzene	20.50	112	1884693	58.91	ug/L	98
50) 1,1,1,2-tetrachloroethane	20.58	133	685467	55.91	ug/L	99
51) ethylbenzene	20.59	91	3304584	56.08	ug/L	97
52) m&p-xylenes	20.74	106	2269705	113.94	ug/L	91
53) o-xylene	21.65	91	2603983	55.08	ug/L	94
54) styrene	21.71	104	2118503	63.92	ug/L	91
55) bromoform	22.47	173	564486	54.43	ug/L	99
57) isopropylbenzene	22.37	105	3149452	55.99	ug/L	96
58) bromobenzene	23.33	77	1381304	56.08	ug/L	96
59) 1,1,2,2-tetrachloroethane	22.71	83	890786	63.44	ug/L	97
60) 1,2,3-trichloropropane	23.02	75	633054	58.24	ug/L	93
61) n-propylbenzene	23.19	120	773569	60.31	ug/L	95
62) 2-chlorotoluene	23.66	126	727234	59.83	ug/L	77
63) 4-chlorotoluene	23.66	126	727234	60.25	ug/L	91
64) 1,3,5-trimethylbenzene	23.49	105	2463994	52.35	ug/L	98
65) tert-butylbenzene	24.17	119	2219537	52.73	ug/L	94
66) 1,2,4-trimethylbenzene	24.24	105	2454800	52.26	ug/L	98
67) sec-butylbenzene	24.55	105	3168969	56.25	ug/L	97
68) 1,3-dichlorobenzene	25.03	146	1349858	54.15	ug/L	96
69) 4-isopropyltoluene	24.79	119	2681402	52.74	ug/L	94
70) 1,4-dichlorobenzene	25.23	146	1392554	54.18	ug/L	95
71) 1,2-dichlorobenzene	25.97	146	1277206	54.84	ug/L	96
72) n-butylbenzene	25.57	91	2562527	55.65	ug/L	98
73) 1,2-dibromo-3-chloropropan	27.61	75	131023	51.10	ug/L m	83
74) 1,2,4-trichlorobenzene	29.75	180	914078	52.29	ug/L	94
75) hexachlorobutadiene	30.10	225	488036	48.22	ug/L	97
76) naphthalene	30.53	128	1734465	50.15	ug/L	97
77) 1,2,3-trichlorobenzene	31.26	180	771005	51.64	ug/L m	98

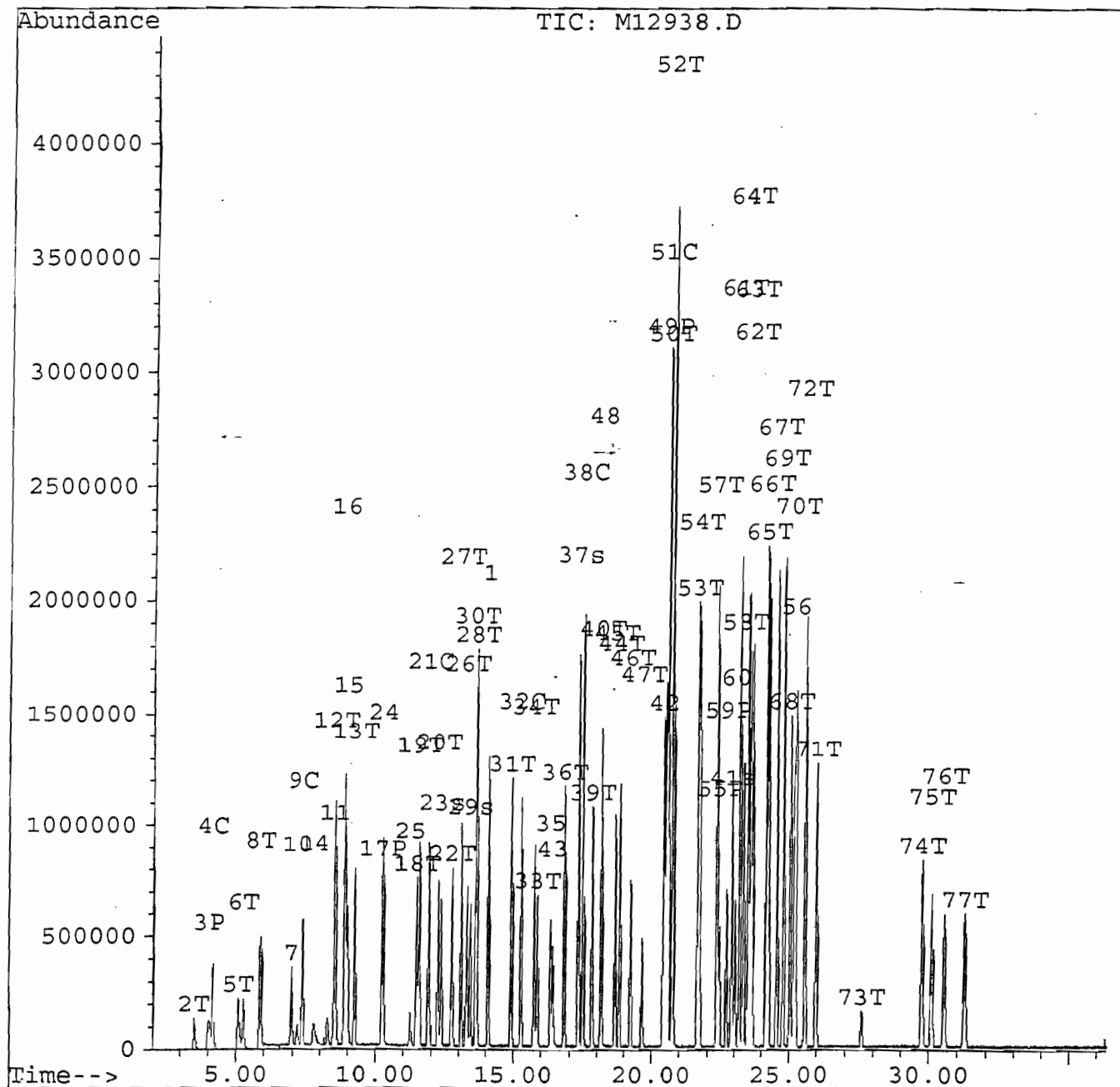
000355

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



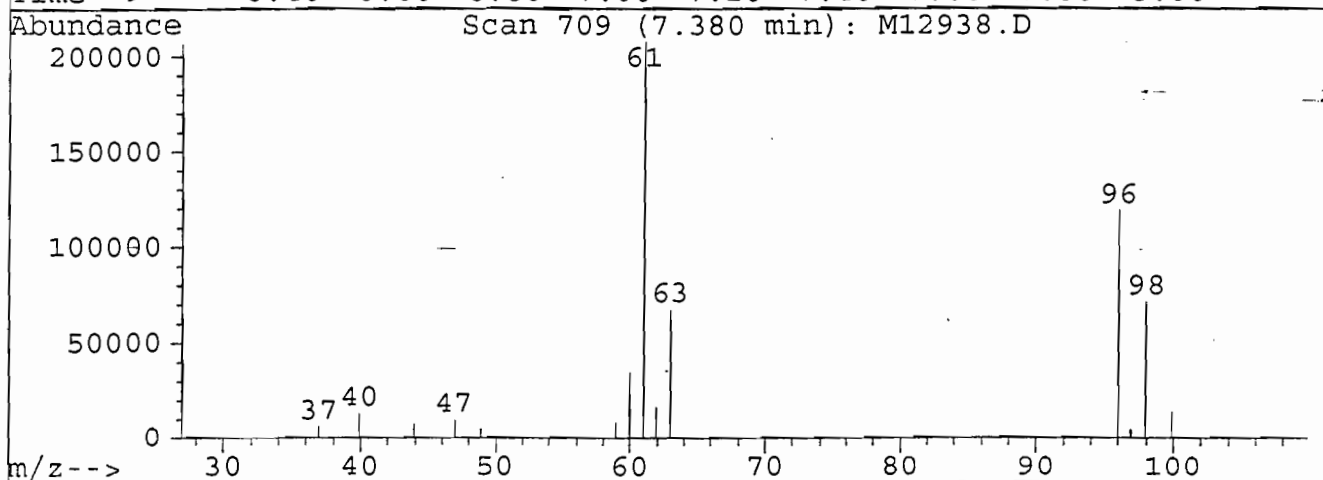
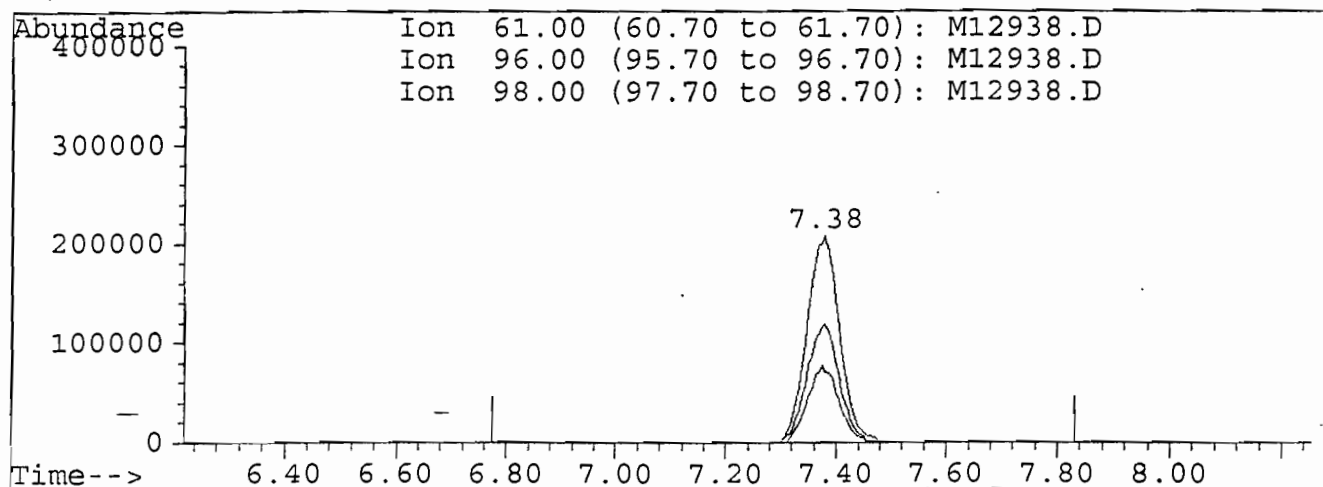
000356

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



TIC: M12938.D

(9) 1,1-dichloroethene (C)

7.38min 47.74ug/L m

response 1087625

Ion	Exp%	Act%
61.00	100	100
96.00	52.10	57.06
98.00	34.30	33.99
0.00	0.00	0.00

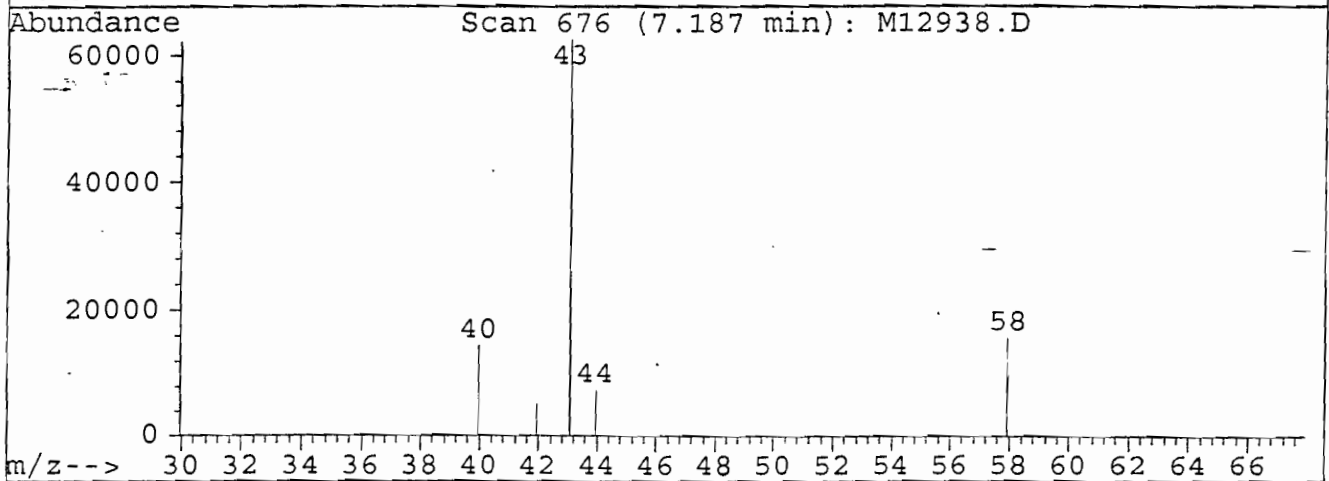
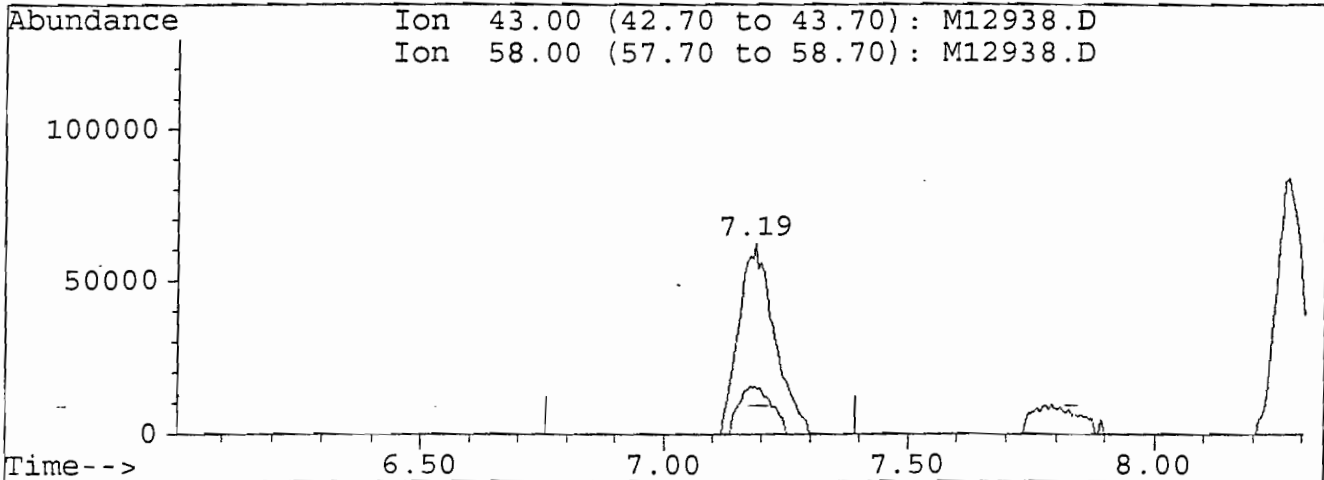
000357

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



TIC: M12938.D

(10) Acetone

7.19min 22.54ug/L m

response 318099

Ion	Exp%	Act%
43.00	100	100
58.00	15.20	24.71
0.00	0.00	0.00
0.00	0.00	0.00

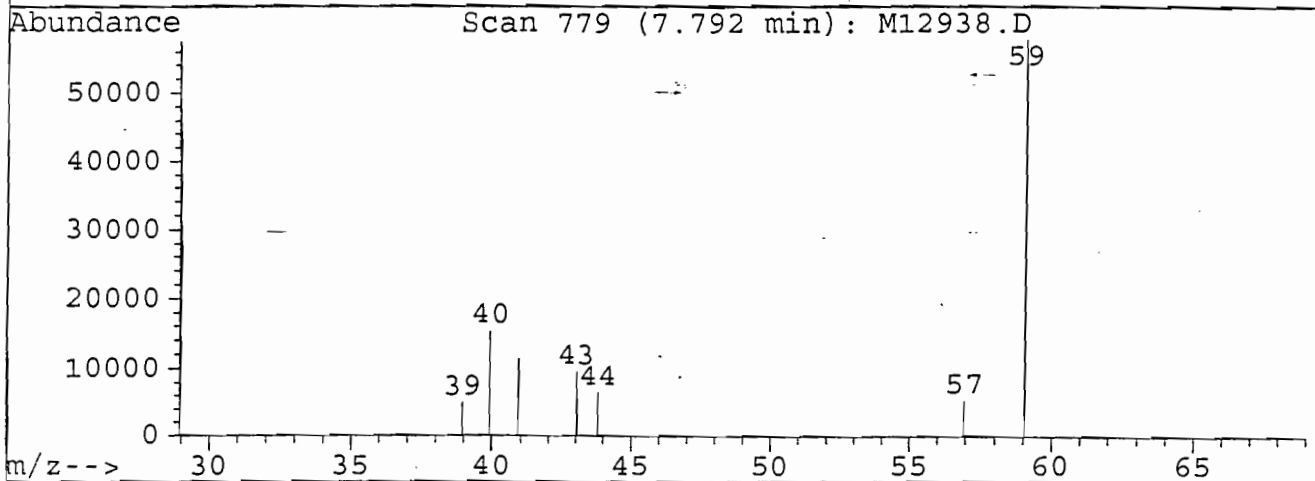
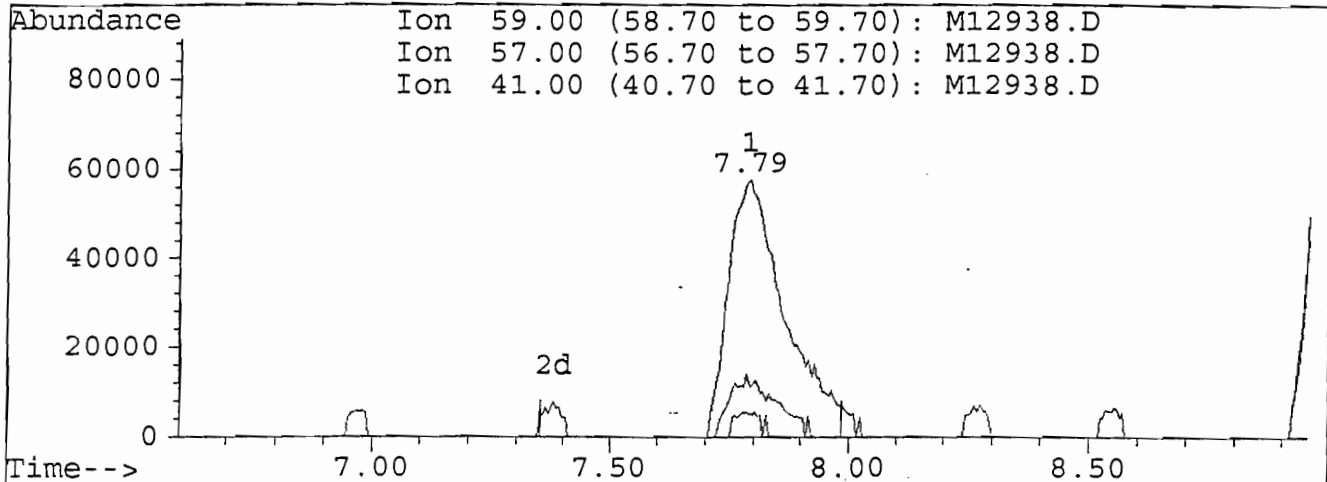
000358

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



TIC: M12938.D

(14) TBA

7.79min 482.90ug/L m

response 485952

Ion	Exp%	Act%
59.00	100	100
57.00	0.00	9.09
41.00	26.20	19.55
0.00	0.00	0.00

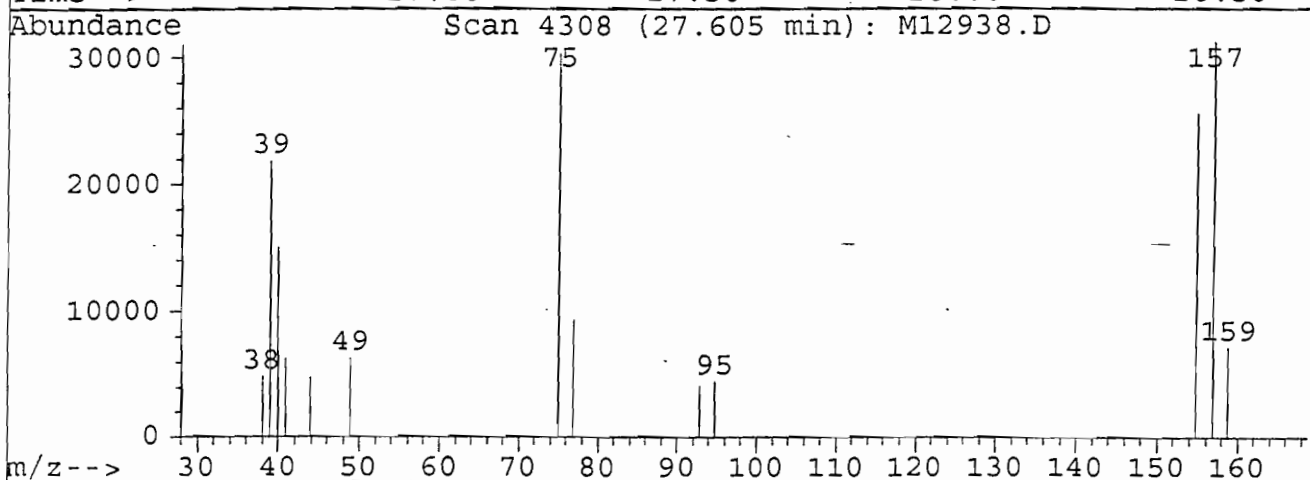
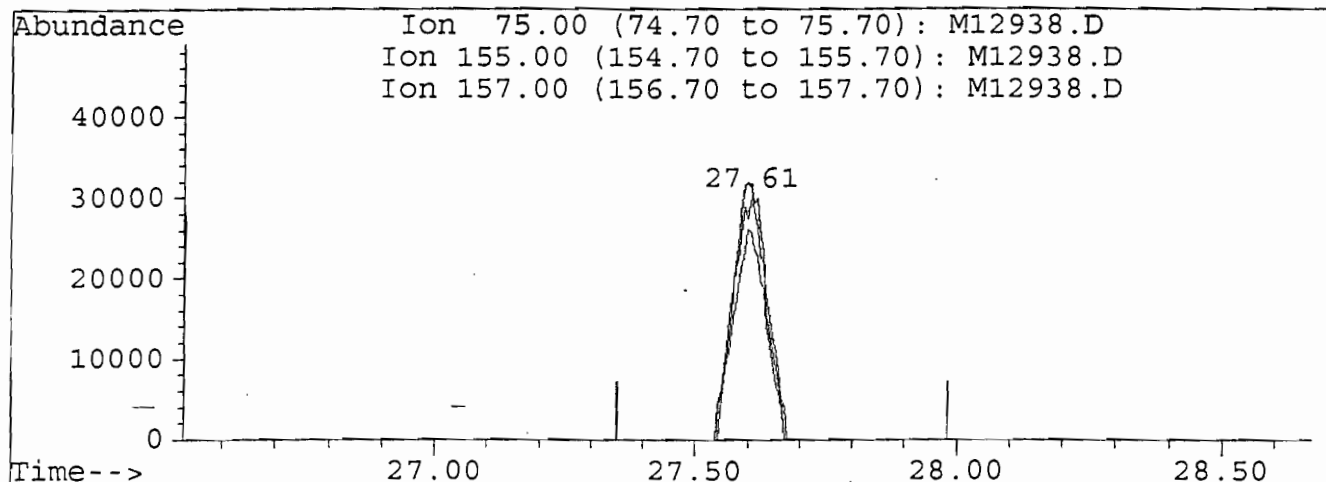
000359

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



TIC: M12938.D

(73) 1,2-dibromo-3-chloropropane (T)

27.61min 51.10ug/L m

response 131023

Ion	Exp%	Act%
75.00	100	100
155.00	61.60	84.45
157.00	94.10	103.04
0.00	0.00	0.00

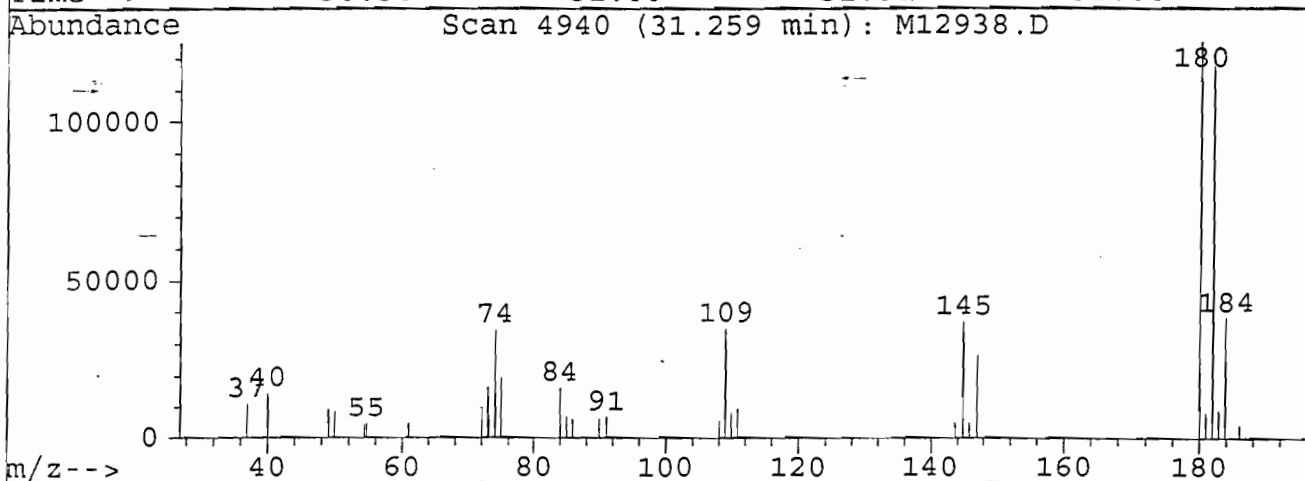
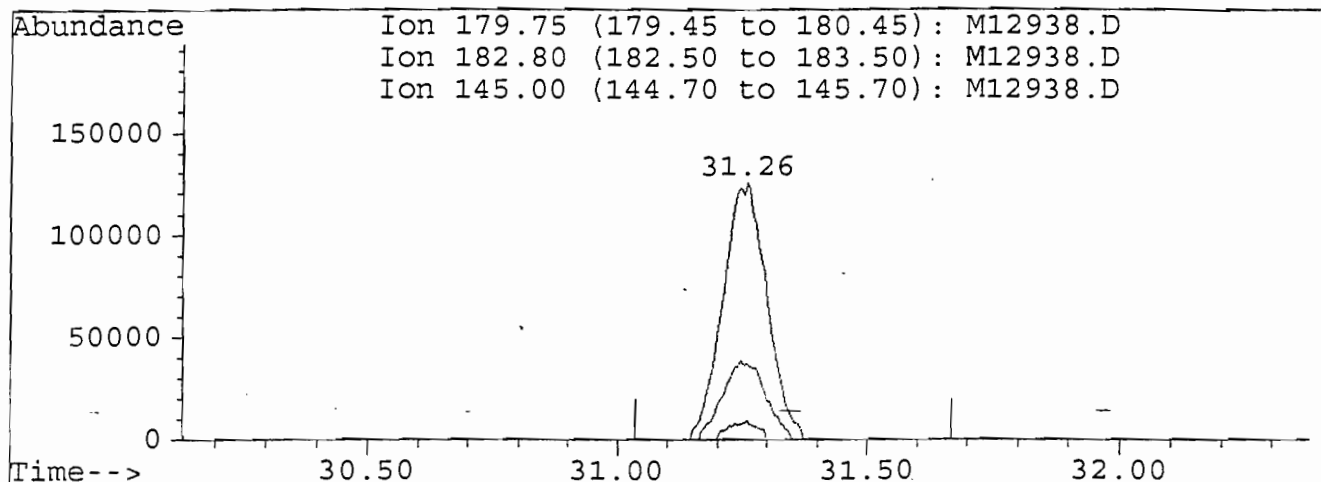
000360

Quantitation Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 8 8:30 1999

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration



TIC: M12938.D

(77) 1,2,3-trichlorobenzene (T)

31.26min 51.64ug/L m

response 771005

Ion	Exp%	Act%
179.75	100	100
182.80	0.00	7.16
145.00	28.20	29.22
0.00	0.00	0.00

000361

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 250%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	Fluorobenzene	1.000	1.000	0.0	246	-0.02
2 T	dichlorodifluoromethane	0.518	0.149	71.3#	67	0.14
3 P	chloromethane	0.414	0.345	16.5	200	0.17
4 C	vinyl chloride	0.349	0.299	14.4#	202	0.12
5 T	bromomethane	0.222	0.224	-0.8	245	0.11
6 T	chloroethane	0.195	0.231	-18.7	275#	0.11
7	Acrolein	0.038	0.032	16.6	208	0.09
8 T	trichlorofluoromethane	0.604	0.511	15.4	200	0.09
9 C	1,1-dichloroethene	0.522	0.498	4.5#	231	0.08
10	Acetone	0.323	0.146	54.9#	146	0.11
11	Carbon Disulfide	0.997	0.803	19.5	196	0.04
12 T	methylene chloride	0.295	0.298	-1.1	240	0.06
13 T	trans-1,2-dichloroethene	0.492	0.413	16.1	205	0.04
14	TBA	0.023	0.022	3.4	228	0.12
15	MTBE	0.864	0.610	29.4#	172	0.05
16	Acrylonitrile	0.091	0.092	-2.1	251#	0.06
17 P	1,1-dichloroethane	0.624	0.549	12.1	214	0.03
18 T	2,2-dichloropropane	0.631	0.474	25.0	182	0.00
19 T	cis-1,2-dichloroethene	0.501	0.479	4.3	229	0.00
20 T	bromochloromethane	0.294	0.316	-7.6	251#	0.00
21 C	chloroform	0.678	0.615	9.3#	222	0.00
22 T	1,1,1-trichloroethane	0.621	0.479	23.0	188	-0.01
23 S	Dibromofluoromethane	0.351	0.339	3.3	228	0.00
24	Vinyl Acetate	1.159	0.879	24.2	193	0.03
25	2-Butanone	0.305	0.188	38.3#	210	0.02
26 T	carbon tetrachloride	0.546	0.405	25.7#	177	-0.01
27 T	1,1-dichloropropene	0.434	0.419	3.6	228	-0.01
28 T	benzene	1.066	1.112	-4.3	253#	-0.02
29 S	1,2-Dichlorethane-d4	0.480	0.363	24.3	177	-0.02
30 T	1,2-dichloroethane	0.649	0.474	27.0#	175	-0.01
31 T	trichloroethene	0.344	0.349	-1.6	241	-0.02
32 C	1,2-dichloropropane	0.295	0.349	-18.0#	285#	-0.03
33 T	dibromomethane	0.232	0.237	-2.1	233	-0.04
34 T	bromodichloromethane	0.564	0.502	11.0	215	-0.02
35	2-Chloroethyl Vinyl Ether	0.149	0.206	-38.1#	294#	-0.04
36 T	cis-1,3-dichloropropene	0.567	0.588	-3.6	255#	-0.04
37 S	Toluene-d8	1.019	1.056	-3.6	253#	-0.04
38 C	toluene	1.196	1.283	-7.3#	264#	-0.05
39 T	trans-1,3-dichloropropene	0.561	0.536	4.4	231	-0.04
40 T	1,1,2-trichloroethane	0.271	0.309	-14.2	275#	-0.05
41 S	4-Bromofluorobenzene	0.478	0.447	6.4	213	-0.06

42-----Chlorobenzene-d5-----1.000--1.000-----0.0-----220-----0.05--

(#) = Out of Range

000362

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\3\DATA\V3100899\M12938.D
 Acq Time : 8 Oct 99 7:46 am
 Sample : 50 PPB CCC
 Misc : 5MLS

Operator: JJ
 Inst : voa3
 Multiplr: 1.00

Method : D:\HPCHEM\3\METHODS\V30916CW.M
 Title : VOA
 Last Update : Thu Sep 16 14:22:43 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 250%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
43	4-Methyl-2-Pentanone	0.326	0.414	-26.8#	253#	-0.03
44 T	tetrachloroethene	0.499	0.426	14.7	235	-0.05
45 T	1,3-dichloropropane	0.570	0.713	-25.0	274#	-0.05
46 T	dibromochloromethane	0.460	0.487	-6.0	227	-0.05
47 T	1,2-dibromoethane	0.359	0.421	-17.0	251#	-0.05
48	2-Hexanone	0.376	0.310	17.6	229	-0.05
49 P	chlorobenzene	0.915	1.078	-17.8	256#	-0.05
50 T	1,1,1,2-tetrachloroethane	0.351	0.392	-11.8	245	-0.05
51 C	ethylbenzene	1.685	1.890	-12.2#	252#	-0.04
52 T	m&p-xylenes	0.570	0.649	-13.9	255#	-0.05
53 T	o-xylene	1.352	1.490	-10.2	247	-0.05
54 T	styrene	0.948	1.212	-27.8#	281#	-0.06
55 P	bromoform	0.297	0.323	-8.9	226	-0.05
56	1,4-dichlorobenzene-d4	1.000	1.000	0.0	223	-0.06
57 T	isopropylbenzene	3.636	4.071	-12.0	255#	-0.06
58 T	bromobenzene	1.592	1.785	-12.2	253#	-0.06
59 P	1,1,2,2-tetrachloroethane	0.907	1.151	-26.9#	283#	-0.05
60	1,2,3-trichloropropane	0.702	0.818	-16.5	257#	-0.05
61 T	n-propylbenzene	0.829	1.000	-20.6	266#	-0.06
62 T	2-chlorotoluene	0.786	0.940	-19.7	272#	0.02
63 T	4-chlorotoluene	0.780	0.940	-20.5	257#	-0.06
64 T	1,3,5-trimethylbenzene	3.042	3.185	-4.7	235	-0.05
65 T	tert-butylbenzene	2.720	2.869	-5.5	227	-0.06
66 T	1,2,4-trimethylbenzene	3.036	3.173	-4.5	239	-0.05
67 T	sec-butylbenzene	3.641	4.096	-12.5	252#	-0.05
68 T	1,3-dichlorobenzene	1.611	1.745	-8.3	243	-0.06
69 T	4-isopropyltoluene	3.286	3.466	-5.5	241	-0.05
70 T	1,4-dichlorobenzene	1.661	1.800	-8.4	244	-0.06
71 T	1,2-dichlorobenzene	1.505	1.651	-9.7	245	-0.06
72 T	n-butylbenzene	2.976	3.312	-11.3	255#	-0.05
73 T	1,2-dibromo-3-chloropropane	0.166	0.169	-2.2	227	-0.06
74 T	1,2,4-trichlorobenzene	1.130	1.182	-4.6	248	-0.09
75 T	hexachlorobutadiene	0.562	0.631	-12.2	235	-0.09
76 T	naphthalene	2.235	2.242	-0.3	263#	-0.08
77 T	1,2,3-trichlorobenzene	0.965	0.997	-3.3	246	-0.10

000363

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13701ASP

Site: _____

Location: _____

Group: GP-005-SSInstrument ID: VOA 2Calibration Date(s): 10/6/99 10/6/99Heated Purge: (Y/N) YCalibration Times: 1753 2135GC Column RTX624ID: 0.53 (mm)

Lab File ID:	RRF005 = P19054.D	RRF20 = P19053.D					
RRF50 = P19049.D	RRF100 = P19052.D	RRF200 = P19051.D					
COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.454	0.473	0.390	0.421	0.410	0.430	7.8
Chloromethane *	0.236	0.267	0.198	0.227	0.222	0.230	10.9 *
Vinyl Chloride	0.218	0.232	0.196	0.225	0.224	0.219	6.4
Bromomethane	0.277	0.286	0.210	0.240	0.225	0.247	13.3
Chloroethane	0.129	0.133	0.097	0.104	0.100	0.113	15.3
Trichlorofluoromethane	1.197	1.222	0.985	1.088	0.833	1.065	15.1
Methylene Chloride	0.264	0.243	0.220	0.235	0.212	0.235	8.6
1,1-Dichloroethane *	0.740	0.811	0.684	0.736	0.679	0.730	7.3 *
2,2-Dichloropropane	0.758	0.854	0.740	0.766	0.649	0.753	9.7
Bromochloromethane	0.383	0.429	0.373	0.393	0.354	0.386	7.2
Chloroform	0.997	1.128	0.947	1.019	0.895	0.997	8.8
1,1,1-Trichloroethane	0.981	1.149	1.025	1.086	0.989	1.046	6.8
Carbon Tetrachloride	0.542	0.636	0.561	0.623	0.540	0.580	7.9
1,1-Dichloropropene	0.547	0.634	0.562	0.605	0.534	0.576	7.2
Benzene	0.791	0.833	0.788	0.812	0.733	0.792	4.7
1,2-Dichloroethane	0.732	0.815	0.660	0.732	0.645	0.717	9.5
Trichloroethene	0.432	0.501	0.466	0.497	0.449	0.469	6.4
1,2-Dichloropropane	0.322	0.381	0.342	0.391	0.365	0.360	7.8
Dibromomethane	0.359	0.431	0.377	0.395	-0.361	0.384	7.7
Bromodichloromethane	0.802	1.010	0.898	1.027	0.979	0.943	9.9
Toluene	1.059	1.069	0.959	0.987	0.845	0.984	9.2
1,1,2-Trichloroethane	0.281	0.295	0.297	0.312	0.278	0.293	4.8
Tetrachloroethene	0.496	0.507	0.533	0.536	0.447	0.504	7.2
1,3-Dichloropropane	0.451	0.481	0.470	0.521	0.497	0.484	5.5
Dibromochloromethane	0.758	0.583	0.656	0.734	0.706	0.687	10.1
1,2-Dibromoethane	0.479	0.535	0.504	0.559	0.537	0.523	6.0
Chlorobenzene *	0.865	0.867	0.784	0.805	0.731	0.810	7.1 *
1,1,1,2-Tetrachloroethane	0.402	0.425	0.490	0.511	0.466	0.459	9.9
Ethylbenzene	1.450	1.436	1.334	1.362	1.245	1.365	6.1
Styrene	0.731	0.856	0.728	0.824	0.754	0.778	7.5
Bromoform *	0.396	0.523	0.561	0.616	0.612	0.542	16.6 *
isopropylbenzene	2.149	2.110	2.168	2.181	2.174	2.157	1.3
Bromobenzene	1.530	1.450	1.499	1.487	1.437	1.481	2.6
1,1,2,2-Tetrachloroethane *	0.848	0.806	0.884	0.892	0.851	0.856	4.0 *
1,2,3-Trichloropropane	0.681	0.591	0.631	0.657	0.640	0.640	5.2
n-Propylbenzene	1.430	0.777	0.836	0.813	0.794	0.930	30.2

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Contract: IMPACT ENVIRONMENTAL

Group: GP-005-SS

10/6/99

Calibration Times: 1753 2135

ID: 0.53 (mm)

COMPOUND	RRF005	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
2-Chlorotoluene	0.529	0.535	0.541	0.542	0.517	0.533	1.9
4-Chlorotoluene	0.542	0.540	0.547	0.562	0.540	0.546	1.7
1,3,5-Trimethylbenzene	1.768	1.961	2.053	2.037	2.060	1.976	6.2
tert-Butylbenzene	1.953	1.867	1.896	1.887	1.933	1.907	1.8
1,2,4-Trimethylbenzene	3.268	2.045	1.990	2.038	2.064	2.281	24.2
sec-Butylbenzene	2.547	2.568	2.509	2.643	2.524	2.558	2.1
1,3-Dichlorobenzene	1.361	1.301	1.289	1.283	1.250	1.297	3.1
4-Isopropyltoluene	2.564	2.319	2.315	2.311	2.264	2.355	5.1
1,4-Dichlorobenzene	1.351	1.386	1.271	1.305	1.263	1.315	4.0
1,2-Dichlorobenzene	1.247	1.242	1.241	1.265	1.228	1.244	1.1
n-Butylbenzene	2.904	2.200	2.233	2.304	2.259	2.380	12.4
1,2-Dibromo-3-chloropropane	0.276	0.281	0.301	0.342	0.360	0.312	11.9
1,2,4-Trichlorobenzene	1.069	1.009	1.054	1.125	1.152	1.082	5.3
Hexachlorobutadiene	0.827	0.894	0.871	0.891	0.904	0.877	3.5
Naphthalene	1.852	1.517	1.493	1.573	1.613	1.610	8.9
1,2,3-Trichlorobenzene	0.975	0.942	0.946	0.943	1.020	0.965	3.5
Dibromofluoromethane	0.818	0.929	0.794	0.860	0.764	0.833	7.7
Toluene-d8	1.012	1.053	0.956	0.991	0.864	0.975	7.3
4-Bromofluorobenzene	1.024	1.188	0.916	0.970	0.907	1.001	11.4

3/90

Response Factor Report voa2

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Initial Calibration

Calibration Files

50 =P19049.D 200 =P19051.D 100 =P19052.D
 20 =P19053.D 5 =P19054.D

Compound		50	200	100	20	5	Avg	%RSD
-----ISTD-----								
1)	Fluorobenzene	0.390	0.410	0.421	0.473	0.454	0.430	7.83
2) T	dichlorodifluoromethane	0.198	0.222	0.227	0.267	0.236	0.230	10.92#
3) P	chloromethane	0.196	0.224	0.225	0.232	0.218	0.219	6.44
4) C	vinyl chloride	0.210	0.225	0.240	0.285	0.277	0.247	13.32
5) T	bromomethane	0.097	0.100	0.104	0.133	0.129	0.113	15.25
6) T	chloroethane	0.012	0.012	0.013	0.013	0.012	0.012	5.37
7)	Acrolein	0.985	0.833	1.088	1.222	1.197	1.065	15.05
8) T	trichlorofluoromethane	0.503	0.484	0.549	0.574	0.535	0.529	6.81
9) C	1,1-dichloroethene	0.120	0.074	0.065	0.082	0.107	0.090	25.79
10)	Acetone	0.553	0.511	0.582	0.578	0.511	0.547	6.34
11)	Carbon Disulfide	0.754	0.731	0.806	0.819	0.693	0.761	6.89
12)	Iodo Methane	0.220	0.212	0.235	0.243	0.264	0.235	8.58
13) T	methylene chloride	0.453	0.412	0.477	0.482	0.422	0.449	7.03
14) T	trans-1,2-dichloroethene	0.030	0.032	0.032	0.033	0.038	0.033	9.33
15)	TBA	0.897	0.807	0.918	0.909	0.816	0.869	6.14
16)	MTBE	0.034	0.032	0.036	0.036	0.032	0.034	6.26
17)	Acrylonitrile	0.684	0.679	0.736	0.811	0.740	0.730	7.30#
18) P	1,1-dichloroethane	0.740	0.649	0.766	0.854	0.758	0.753	9.73
19) T	2,2-dichloropropane	0.597	0.546	0.633	0.691	0.635	0.621	8.62
20) T	cis-1,2-dichloroethene	0.373	0.354	0.392	0.429	0.383	0.386	7.19
21) T	bromochloromethane	0.947	0.894	1.019	1.128	0.997	0.997	8.80
22) C	chloroform	1.025	0.989	1.086	1.149	0.981	1.046	6.78
23) T	1,1,1-trichloroethane	0.794	0.764	0.860	0.929	0.818	0.833	7.72
24) S	Dibromofluoromethane	0.720	0.686	0.785	0.786	0.670	0.730	7.44
25)	Vinyl Acetate	0.148	0.120	0.116	0.115	0.132	0.126	11.05
26)	2-Butanone	0.561	0.540	0.623	0.636	0.542	0.580	7.91
27) T	carbon tetrachloride	0.562	0.534	0.605	0.634	0.547	0.576	7.25
28) T	1,1-dichloropropene	0.788	0.733	0.812	0.833	0.791	0.792	4.70
29) T	benzene	0.623	0.612	0.658	0.744	0.635	0.655	8.10
30) S	1,2-Dichlorethane-d4	0.660	0.645	0.732	0.815	0.732	0.717	9.51
31) T	1,2-dichloroethane	0.466	0.449	0.497	0.501	0.432	0.469	6.40
32) T	trichloroethene	0.342	0.365	0.391	0.381	0.322	0.360	7.81
33) C	1,2-dichloropropane	0.377	0.361	0.395	0.431	0.359	0.384	7.69
34) T	dibromomethane	0.898	0.979	1.027	1.010	0.802	0.943	9.89
35) T	bromodichloromethane	0.123	0.112	0.130	0.133	0.135	0.127	7.61
36)	2-Chloroethyl Vinyl Ether	0.530	0.549	0.596	0.609	0.485	0.554	9.12
37) T	cis-1,3-dichloropropene	0.956	0.864	0.991	1.053	1.012	0.975	7.34
38) S	Toluene-d8	0.959	0.845	0.987	1.069	1.059	0.984	9.20
39) C	toluene	0.510	0.540	0.579	0.582	0.471	0.536	8.73
40) T	trans-1,3-dichloropropene	0.297	0.278	0.312	0.295	0.281	0.293	4.76
41) T	1,1,2-trichloroethane	0.916	0.907	0.970	1.188	1.024	1.001	11.43
42) S	4-Bromofluorobenzene							
43)	Chlorobenzene-d5	-----ISTD-----						

000366

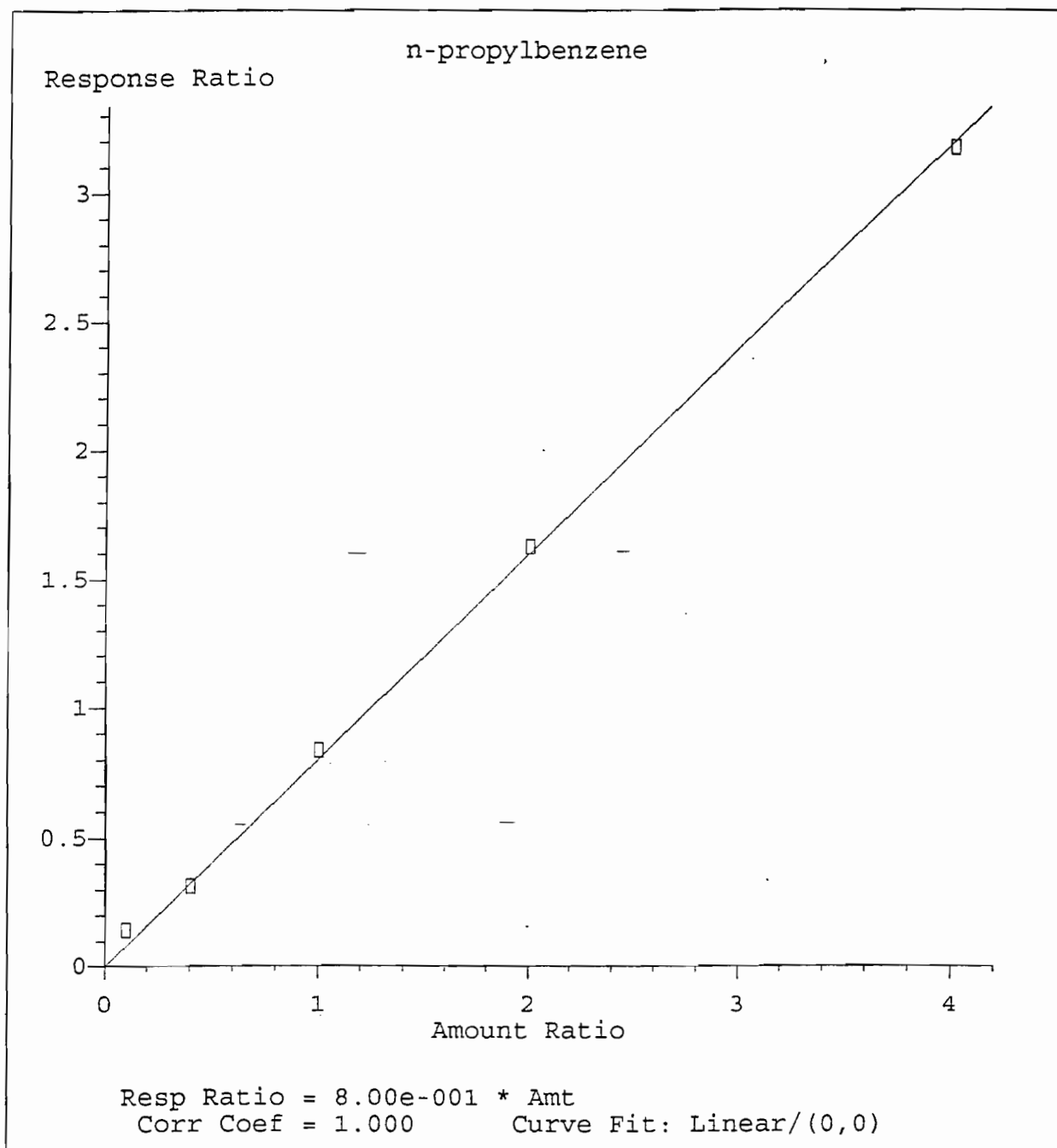
Response Factor Report voa2

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Initial Calibration

Calibration Files

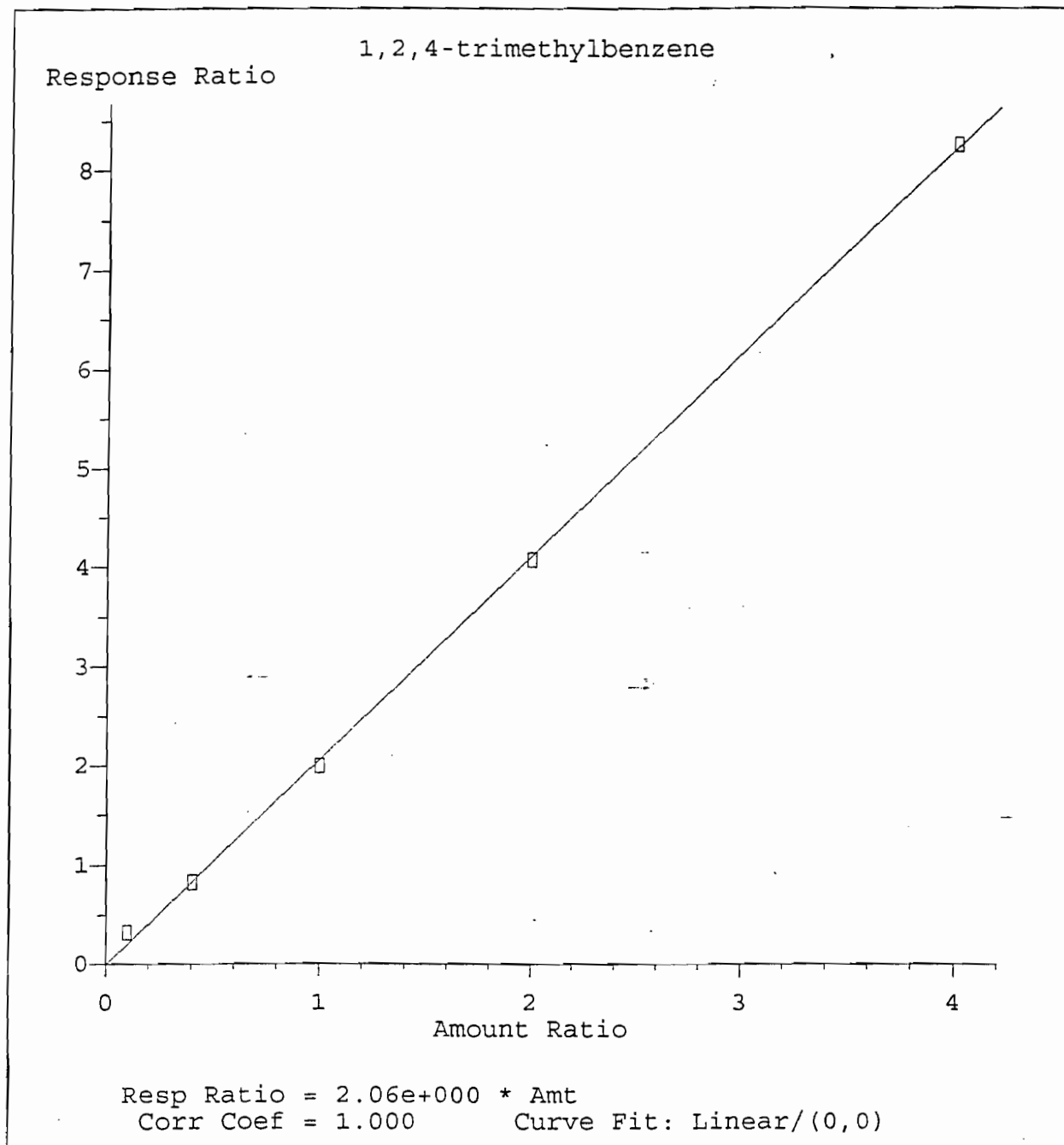
50 =P19049.D 200 =P19051.D 100 =P19052.D
 20 =P19053.D 5 =P19054.D

Compound	50	200	100	20	5	Avg	%RSD
44) 4-Methyl-2-Pentanone	0.252	0.243	0.262	0.242	0.351	0.270	17.07
45) T tetrachloroethene	0.533	0.447	0.536	0.507	0.496	0.504	7.17
46) T 1,3-dichloropropane	0.470	0.497	0.521	0.481	0.451	0.484	5.50
47) T dibromochloromethane	0.656	0.706	0.734	0.583	0.758	0.687	10.14
48) T 1,2-dibromoethane	0.504	0.537	0.559	0.535	0.479	0.523	5.99
49) 2-Hexanone	0.217	0.212	0.197	0.156	0.171	0.191	13.76
50) P chlorobenzene	0.784	0.731	0.805	0.867	0.864	0.810	7.07#
51) 1-Chlorohexane	0.456	0.417	0.466	0.475	0.460	0.455	4.85
52) T 1,1,1,2-tetrachloroethane	0.489	0.466	0.511	0.425	0.402	0.459	9.87
53) C ethylbenzene	1.334	1.245	1.362	1.436	1.450	1.365	6.08
54) T m&p-xylenes	0.438	0.423	0.480	0.502	0.495	0.468	7.52
55) T o-xylene	1.235	1.251	1.327	1.462	1.483	1.352	8.58
56) T styrene	0.728	0.754	0.824	0.856	0.731	0.778	7.47
57) P bromoform	0.561	0.612	0.616	0.523	0.396	0.542	16.62#
58) 1,4-dichlorobenzene-d4	-----ISTD-----						
59) T isopropylbenzene	2.168	2.174	2.181	2.110	2.149	2.156	1.31
60) T bromobenzene	1.498	1.437	1.487	1.450	1.530	1.481	2.55
61) P 1,1,2,2-tetrachloroethane	0.884	0.851	0.892	0.806	0.848	0.856	4.01#
62) 1,2,3-trichloropropane	0.631	0.640	0.657	0.591	0.681	0.640	5.22
63) T n-propylbenzene	0.836	0.794	0.813	0.777	1.430	0.930	30.16
64) T 2-chlorotoluene	0.541	0.517	0.541	0.535	0.529	0.533	1.87
65) T 4-chlorotoluene	0.547	0.540	0.562	0.540	0.542	0.546	1.68
66) T 1,3,5-trimethylbenzene	2.053	2.060	2.037	1.961	1.768	1.976	6.21
67) T tert-butylbenzene	1.896	1.933	1.887	1.867	1.953	1.907	1.84
68) T 1,2,4-trimethylbenzene	1.990	2.064	2.038	2.045	3.268	2.281	24.21
69) T sec-butylbenzene	2.509	2.524	2.643	2.568	2.547	2.558	2.05
70) T 1,3-dichlorobenzene	1.289	1.250	1.283	1.301	1.361	1.297	3.14
71) T 4-isopropyltoluene	2.315	2.263	2.311	2.319	2.564	2.355	5.06
72) T 1,4-dichlorobenzene	1.270	1.263	1.305	1.386	1.351	1.315	4.02
73) T 1,2-dichlorobenzene	1.241	1.227	1.265	1.242	1.247	1.244	1.08
74) T n-butylbenzene	2.233	2.259	2.304	2.200	2.904	2.380	12.41
75) T 1,2-dibromo-3-chloropropa	0.301	0.360	0.341	0.281	0.276	0.312	11.94
76) T 1,2,4-trichlorobenzene	1.054	1.152	1.125	1.008	1.069	1.082	5.27
77) T hexachlorobutadiene	0.871	0.904	0.891	0.894	0.827	0.877	3.46
78) T naphthalene	1.493	1.613	1.573	1.517	1.852	1.610	8.91
79) T 1,2,3-trichlorobenzene	0.946	1.020	0.943	0.942	0.975	0.965	3.48



Method Name: I:\HPCHEM\1\METHODS\V21006CS.M
Calibration Table Last Updated: Thu Oct 07 12:17:46 1999

000368



Method Name: I:\HPCHEM\1\METHODS\V21006CS.M
Calibration Table Last Updated: Thu Oct 07 12:18:32 1999

000369

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19049.D
 Acq Time : 6 Oct 99 5:53 pm
 Sample : 50PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 11:56 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.26	96	1148289	50.00	ug/L	0.00
43) Chlorobenzene-d5	16.33	117	1165750	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	798958	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.97	113	912061	50.00	ug/L	100.00%
30) 1,2-Dichlorethane-d4	8.67	65	715315	50.00	ug/L	100.00%
38) Toluene-d8	12.76	98	1097980	50.00	ug/L	100.00%
42) 4-Bromofluorobenzene	19.48	95	1052170	50.00	ug/L	100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.73	85	447926	50.00	ug/L	100
3) chloromethane	1.95	50	227311	50.00	ug/L	100
4) vinyl chloride	2.07	62	224498	50.00	ug/L	100
5) bromomethane	2.47	94	240595	50.00	ug/L	100
6) chloroethane	2.60	64	110867	50.00	ug/L	100
7) Acrolein	3.64	56	140677	500.00	ug/L	100
8) trichlorofluoromethane	2.90	101	1130865	50.00	ug/L	100
9) 1,1-dichloroethene	3.66	61	577581	50.00	ug/L	100
10) Acetone	3.90	43	137649	50.00	ug/L	100
11) Carbon Disulfide	3.95	76	635258	50.00	ug/L	100
12) Iodo Methane	3.91	142	865693	50.00	ug/L	100
13) methylene chloride	4.58	84	252701	50.00	ug/L	100
14) trans-1,2-dichloroethene	4.97	61	520029	50.00	ug/L	100
15) TBA	4.96	59	345045	500.00	ug/L	100
16) MTBE	5.01	73	1030296	50.00	ug/L	100
17) Acrylonitrile	5.16	53	387805	500.00	ug/L	100
18) 1,1-dichloroethane	5.83	63	785448	50.00	ug/L	100
19) 2,2-dichloropropane	6.89	77	849624	50.00	ug/L	100
20) cis-1,2-dichloroethene	6.98	61	685832	50.00	ug/L	100
21) bromochloromethane	7.45	49	428603	50.00	ug/L	100
22) chloroform	7.64	83	1087118	50.00	ug/L	100
23) 1,1,1-trichloroethane	7.86	97	1176692	50.00	ug/L	100
25) Vinyl Acetate	5.97	43	826581	50.00	ug/L	100
26) 2-Butanone	7.10	43	170015	50.00	ug/L	100
27) carbon tetrachloride	8.10	117	644091	50.00	ug/L	100
28) 1,1-dichloropropene	8.18	75	644885	50.00	ug/L	100
29) benzene	8.60	78	904978	50.00	ug/L	100
31) 1,2-dichloroethane	8.82	62	758278	50.00	ug/L	100
32) trichloroethene	10.03	130	534952	50.00	ug/L	100
33) 1,2-dichloropropane	10.60	63	392751	50.00	ug/L	100
34) dibromomethane	10.86	174	432824	50.00	ug/L	100
35) bromodichloromethane	11.25	83	1031054	50.00	ug/L	100
36) 2-Chloroethyl Vinyl Ether	12.92	63	140712	50.00	ug/L	100

(#) = qualifier out of range (m) = manual integration
 P19049.D V21006CS.M Thu Oct 07 12:28:47 1999

VOA3

Page 1

000370

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19049.D
 Acq Time : 6 Oct 99 5:53 pm
 Sample : 50PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 11:56 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

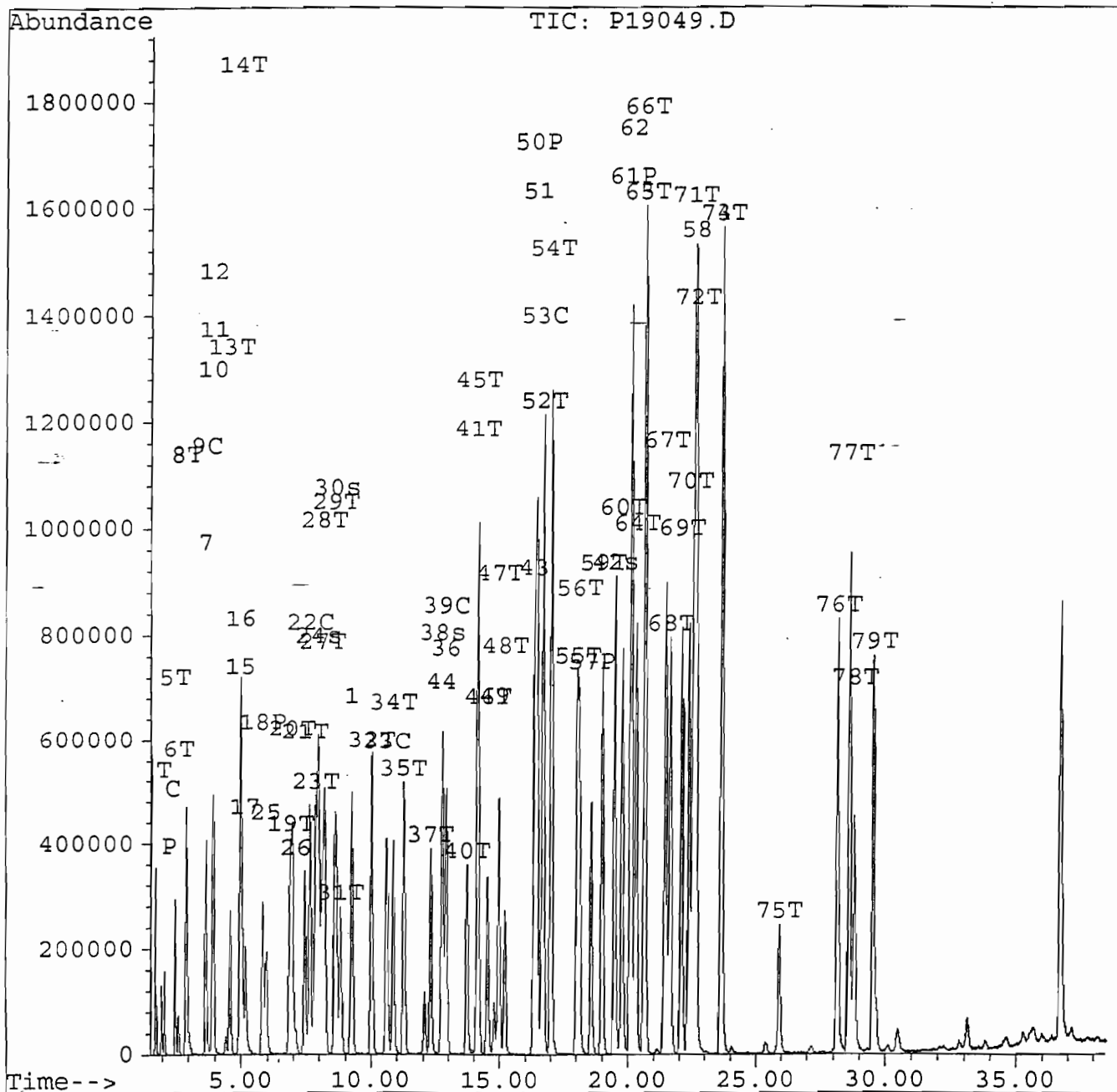
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	12.30	75	609135	50.00	ug/L	100
39) toluene	12.93	91	1101041	50.00	ug/L	100
40) trans-1,3-dichloropropene	13.72	75	585865	50.00	ug/L	100
41) 1,1,2-trichloroethane	14.12	97	341453	50.00	ug/L	100
44) 4-Methyl-2-Pentanone	12.73	43	293883	50.00	ug/L	100
45) tetrachloroethene	14.15	166	620928	50.00	ug/L	100
46) 1,3-dichloropropane	14.51	76	548001	50.00	ug/L	100
47) dibromochloromethane	14.96	129	764865	50.00	ug/L	100
48) 1,2-dibromoethane	15.19	107	588044	50.00	ug/L	100
49) 2-Hexanone	14.78	43	253299	50.00	ug/L	100
50) chlorobenzene	16.40	112	913644	50.00	ug/L	100
51) 1-Chlorohexane	16.46	91	532074	50.00	ug/L	100
52) 1,1,1,2-tetrachloroethane	16.69	133	570609	50.00	ug/L	100
53) ethylbenzene	16.67	91	1554847	50.00	ug/L	100
54) m&p-xylenes	17.01	106	1021816	100.00	ug/L	100
55) o-xylene	18.02	91	1439526	50.00	ug/L	100
56) styrene	18.11	104	848124	50.00	ug/L	100
57) bromoform	18.57	173	653423	50.00	ug/L	100
59) isopropylbenzene	19.00	105	1732273	50.00	ug/L	100
60) bromobenzene	19.77	77	1197229	50.00	ug/L	100
61) 1,1,2,2-tetrachloroethane	20.09	83	706560	50.00	ug/L	100
62) 1,2,3-trichloropropane	20.14	75	504175	50.00	ug/L	100
63) n-propylbenzene	20.65	120	667764	50.00	ug/L	100
64) 2-chlorotoluene	20.31	126	432178	50.00	ug/L	100
65) 4-chlorotoluene	20.66	126	436963	50.00	ug/L	100
66) 1,3,5-trimethylbenzene	20.66	105	1640050	50.00	ug/L	100
67) tert-butylbenzene	21.47	119	1514444	50.00	ug/L	100
68) 1,2,4-trimethylbenzene	21.64	105	1589882	50.00	ug/L	100
69) sec-butylbenzene	22.08	105	2004513	50.00	ug/L	100
70) 1,3-dichlorobenzene	22.37	146	1029529	50.00	ug/L	100
71) 4-isopropyltoluene	22.53	119	1849785	50.00	ug/L	100
72) 1,4-dichlorobenzene	22.66	146	1015048	50.00	ug/L	100
73) 1,2-dichlorobenzene	23.66	146	991849	50.00	ug/L	100
74) n-butylbenzene	23.66	91	1783911	50.00	ug/L	100
75) 1,2-dibromo-3-chloropropan	25.93	75	240278	50.00	ug/L	100
76) 1,2,4-trichlorobenzene	28.15	180	842149	50.00	ug/L	100
77) hexachlorobutadiene	28.61	225	695536	50.00	ug/L	100
78) naphthalene	28.80	128	1193149	50.00	ug/L	100
79) 1,2,3-trichlorobenzene	29.53	180	755518	50.00	ug/L	100

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19049.D
 Acq Time : 6 Oct 99 5:53 pm
 Sample : 50PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 11:56 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration



Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19051.D
 Acq Time : 6 Oct 99 7:23 pm
 Sample : 200PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:14 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	9.24	96	988101	50.00	ug/L	-0.02
43) Chlorobenzene-d5	16.32	117	973341	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.59	152	660407	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.96	113	754830	48.09	ug/L	96.18%
30) 1,2-Dichlorethane-d4	8.65	65	604779	49.13	ug/L	98.25%
38) Toluene-d8	12.75	98	853418	45.16	ug/L	90.33%
42) 4-Bromofluorobenzene	19.47	95	896299	49.50	ug/L	99.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.72	85	1618728	209.98	ug/L m	99
3) chloromethane	1.94	50	876033	223.93	ug/L m	100
4) vinyl chloride	2.07	62	883463	228.66	ug/L m	98
5) bromomethane	2.47	94	887357	214.30	ug/L m	74
6) chloroethane	2.59	64	396791	207.96	ug/L m	96
7) Acrolein	3.66	56	458002	1891.75	ug/L m	100
8) trichlorofluoromethane	2.88	101	3293258	169.21	ug/L m	96
9) 1,1-dichloroethene	3.64	61	1912784	192.43	ug/L m	98
10) Acetone	3.94	43	290816	122.76	ug/L m	98
11) Carbon Disulfide	3.92	76	2020066	184.77	ug/L m	99
12) Iodo Methane	3.89	142	2889332	193.93	ug/L m	97
13) methylene chloride	4.56	84	839022	192.92	ug/L m	98
14) trans-1,2-dichloroethene	4.96	61	1628736	181.99	ug/L m	98
15) TBA	5.05	59	1277686	2151.63	ug/L m	95
16) MTBE	5.00	73	3190721	179.95	ug/L m	95
17) Acrylonitrile	5.19	53	1247606	1869.32	ug/L m	96
18) 1,1-dichloroethane	5.83	63	2684912	198.62	ug/L m	96
19) 2,2-dichloropropane	6.88	77	2563316	175.31	ug/L m	94
20) cis-1,2-dichloroethene	6.97	61	2158845	182.90	ug/L m	98
21) bromochloromethane	7.43	49	1399667	189.75	ug/L m	97
22) chloroform	7.63	83	3535348	188.96	ug/L m	97
23) 1,1,1-trichloroethane	7.85	97	3909417	193.05	ug/L m	97
25) Vinyl Acetate	5.97	43	2711383	190.60	ug/L m	100
26) 2-Butanone	7.12	43	473252	161.74	ug/L m	99
27) carbon tetrachloride	8.09	117	2134317	192.54	ug/L m	97
28) 1,1-dichloropropene	8.19	75	2110029	190.12	ug/L m	94
29) benzene	8.58	78	2898564	186.11	ug/L m	99
31) 1,2-dichloroethane	8.82	62	2547365	195.20	ug/L m	100
32) trichloroethene	10.01	130	1775120	192.81	ug/L m	97
33) 1,2-dichloropropane	10.59	63	1443058	213.49	ug/L m	99
34) dibromomethane	10.85	174	1425216	191.33	ug/L m	95
35) bromodichloromethane	11.25	83	3870512	218.13	ug/L m	98
36) 2-Chloroethyl Vinyl Ether	12.90	63	441272	182.22	ug/L m	89

(#) = qualifier out of range (m) = manual integration
 P19051.D V21006CS.M Thu Oct 07 12:30:14 1999

000373
 VOA3 Page 1

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19051.D
Acq Time : 6 Oct 99 7:23 pm
Sample : 200PPB ICC
Misc : 5G/5ML
Quant Time: Oct 7 12:14 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Single Level Calibration

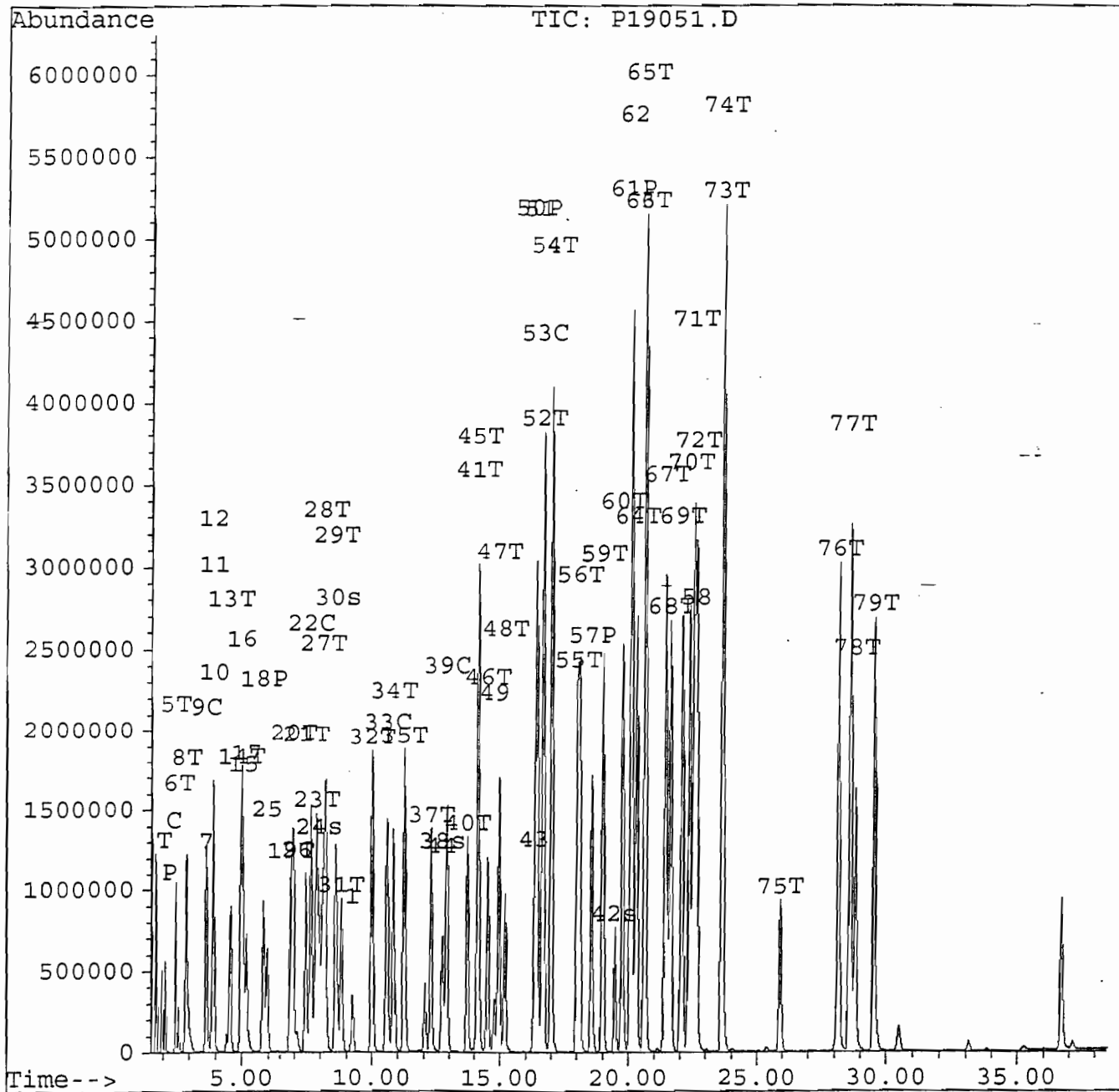
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	12.28	75	2169868	206.99	ug/L m	95
39) toluene	12.90	91	3339792	176.25	ug/L m	98
40) trans-1,3-dichloropropene	13.71	75	2133233	211.57	ug/L m	98
41) 1,1,2-trichloroethane	14.11	97	1096991	186.68	ug/L m	97
44) 4-Methyl-2-Pentanone	12.71	43	945054	192.57	ug/L	97
45) tetrachloroethene	14.14	166	1738566	167.67	ug/L	97
46) 1,3-dichloropropane	14.51	76	1935547	211.51	ug/L	99
47) dibromochloromethane	14.95	129	2747951	215.15	ug/L	92
48) 1,2-dibromoethane	15.19	107	2090776	212.92	ug/L	97
49) 2-Hexanone	14.77	43	823530	194.70	ug/L	99
50) chlorobenzene	16.39	112	2847411	186.63	ug/L	98
51) 1-Chlorohexane	16.45	91	1625290	182.92	ug/L	100
52) 1,1,1,2-tetrachloroethane	16.68	133	1814479	190.42	ug/L	99
53) ethylbenzene	16.67	91	4846740	186.67	ug/L	100
54) m&p-xylenes	17.00	106	3295317	386.25	ug/L	98
55) o-xylene	18.01	91	4871819	202.67	ug/L	97
56) styrene	18.10	104	2934540	207.20	ug/L	92
57) bromoform	18.56	173	2383379	218.43	ug/L	97
59) isopropylbenzene	19.00	105	5742834	200.54	ug/L	99
60) bromobenzene	19.76	77	3794833	191.73	ug/L	99
61) 1,1,2,2-tetrachloroethane	20.08	83	2248415	192.49	ug/L	95
62) 1,2,3-trichloropropane	20.13	75	1690253	202.79	ug/L	99
63) n-propylbenzene	20.65	120	2097660	190.02	ug/L	69
64) 2-chlorotoluene	20.31	126	1366757	191.30	ug/L	91
65) 4-chlorotoluene	20.65	126	1427219	197.57	ug/L	92
66) 1,3,5-trimethylbenzene	20.64	105	5442508	200.74	ug/L	96
67) tert-butylbenzene	21.45	119	5106569	203.97	ug/L m	91
68) 1,2,4-trimethylbenzene	21.64	105	5453231	207.48	ug/L	97
69) sec-butylbenzene	22.07	105	6667300	201.20	ug/L	99
70) 1,3-dichlorobenzene	22.36	146	3301007	193.95	ug/L	97
71) 4-isopropyltoluene	22.53	119	5979204	195.53	ug/L	97
72) 1,4-dichlorobenzene	22.65	146	3336806	198.85	ug/L	97
73) 1,2-dichlorobenzene	23.64	146	3242491	197.75	ug/L	94
74) n-butylbenzene	23.66	91	5967774	202.36	ug/L	99
75) 1,2-dibromo-3-chloropropan	25.92	75	950971	239.41	ug/L	94
76) 1,2,4-trichlorobenzene	28.15	180	3042121	218.51	ug/L	99
77) hexachlorobutadiene	28.61	225	2387480	207.64	ug/L	99
78) naphthalene	28.79	128	4261429	216.04	ug/L	98
79) 1,2,3-trichlorobenzene	29.51	180	2694376	215.72	ug/L	98

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19051.D
 Acq Time : 6 Oct 99 7:23 pm
 Sample : 200PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:14 1999

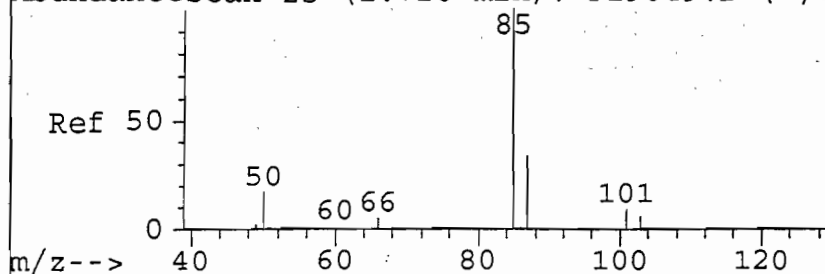
Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

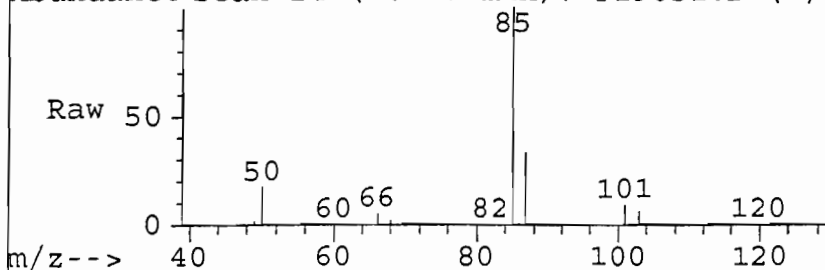


000375

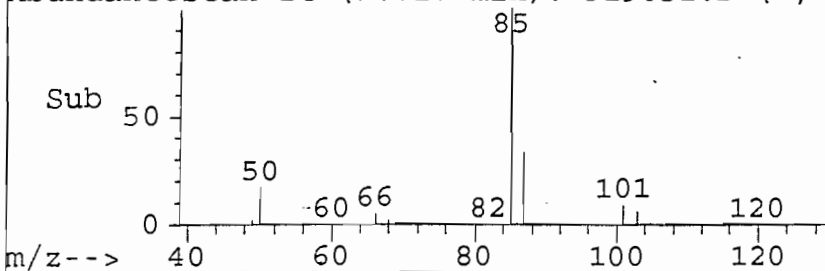
AbundanceScan 25 (1.726 min): P19049.D (-, *



AbundanceScan 24 (1.717 min): P19051.D (*)

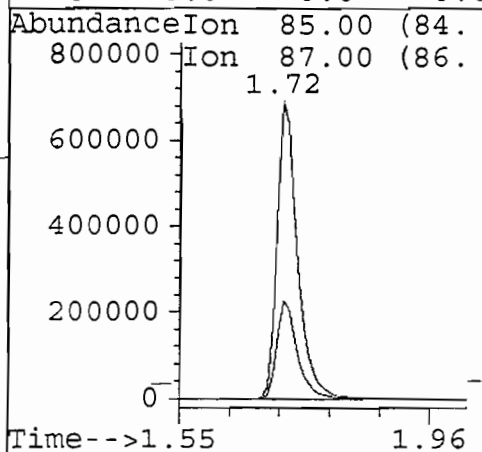


AbundanceScan 24 (1.717 min): P19051.D (-, *



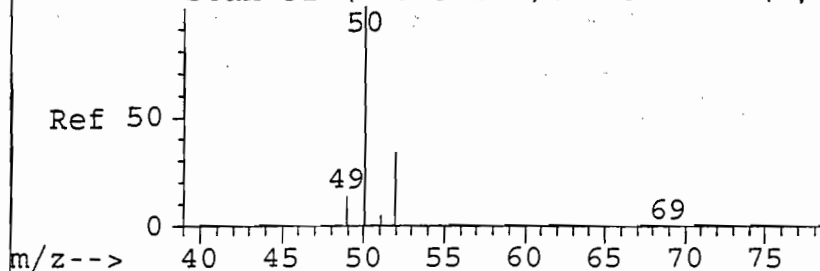
#2
dichlorodifluoromethane
Concen: 209.98 ug/L m
RT: 1.72 min Scan# 24
Delta R.T. -0.01 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

Tgt Ion	85	Resp	1618728
Ion Ratio	100		
87	32.8	23.5	43.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000376

AbundanceScan 51 (1.949 min): P19049.D (-,*



#3

chloromethane

Concen: 223.93 ug/L m

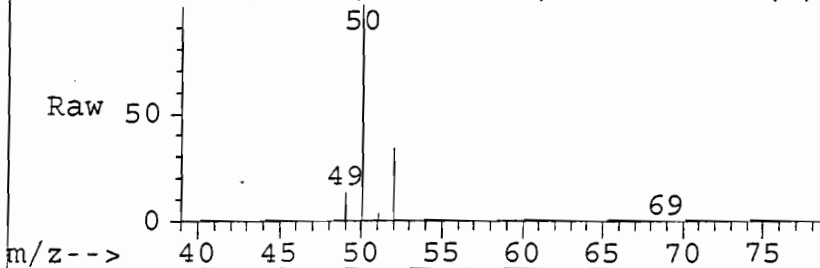
RT: 1.94 min Scan# 50

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 50 (1.941 min): P19051.D (*)



Tgt Ion:50 Resp: 876033

Ion Ratio Lower Upper

50 100

52 34.3 23.9 44.5

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 50.00 (49.

Ion 52.00 (51.

1.94

300000

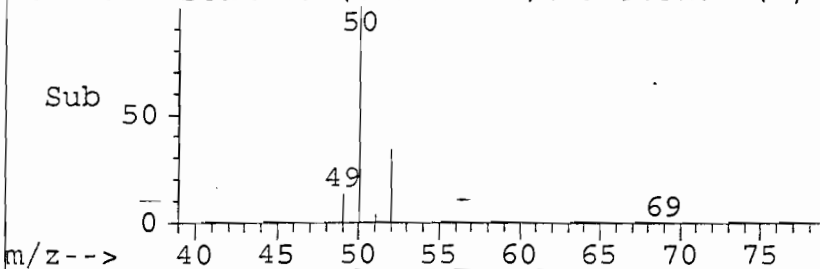
200000

100000

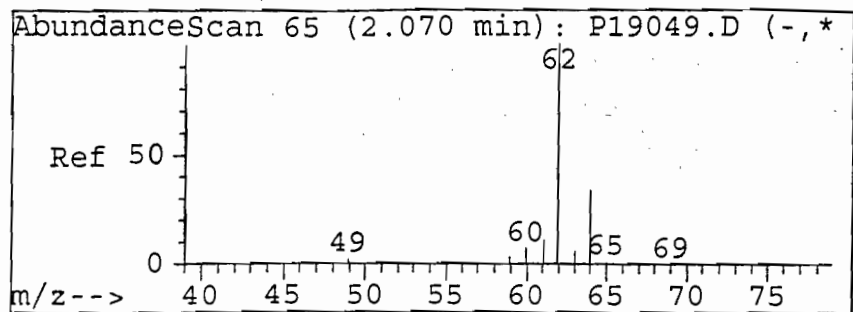
0

Time-->1.76 2.20

AbundanceScan 50 (1.941 min): P19051.D (-,*

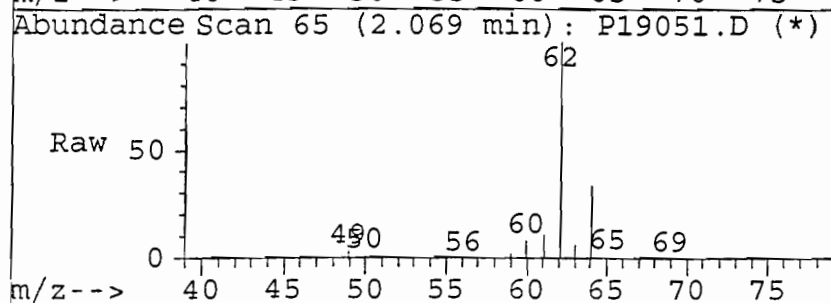


000377

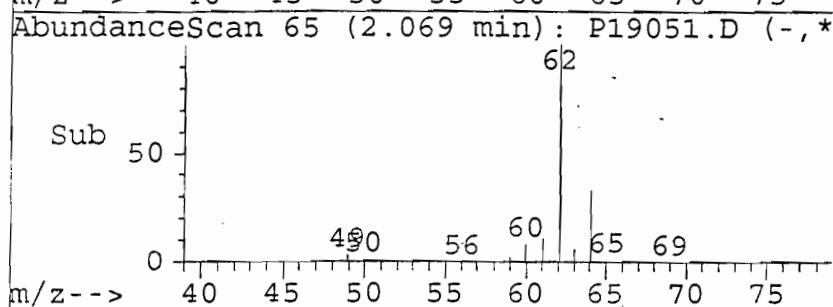
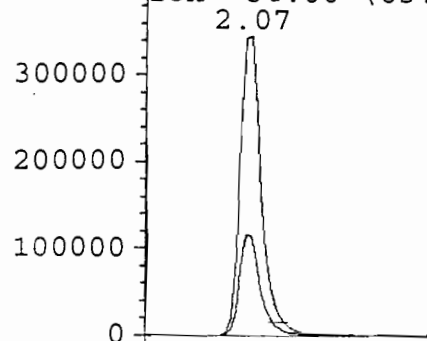


#4
vinyl chloride
Concen: 228.66 ug/L m
RT: 2.07 min Scan# 65
Delta R.T. -0.00 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

Tgt Ion:62 Resp: 883463
Ion Ratio Lower Upper
62 100
64 33.1 23.8 44.2
0 0.0 0.0 0.0
0 0.0 0.0 0.0



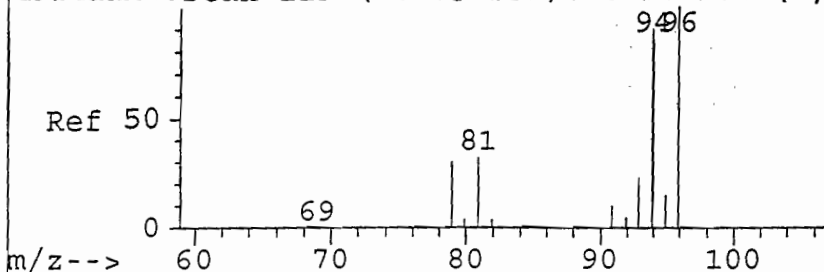
AbundanceIon 62.00 (61.
400000 Ion 64.00 (63.



Time-->1.88 2.33

000378

AbundanceScan 112 (2.475 min): P19049.D (-,



#5

bromomethane

Concen: 214.30 ug/L m

RT: 2.47 min Scan# 112

Delta R.T. -0.00 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 94 Resp: 887357

Ion Ratio Lower Upper

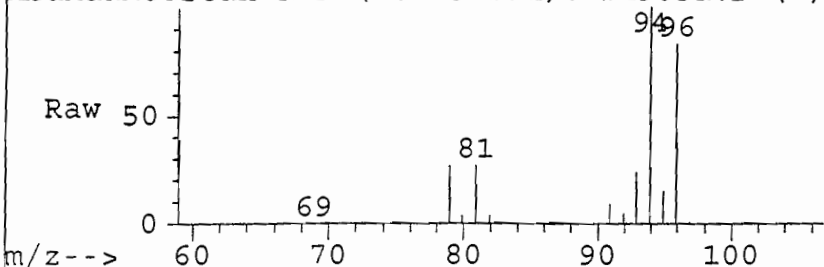
94 100

96 83.2 77.8 144.6

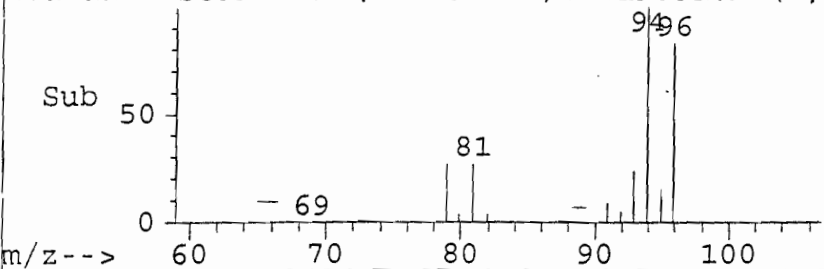
0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 112 (2.473 min): P19051.D (*)



AbundanceScan 112 (2.473 min): P19051.D (-,



AbundanceIon 94.00 (93.

400000 Ion 96.00 (95.

2.47

300000

200000

100000

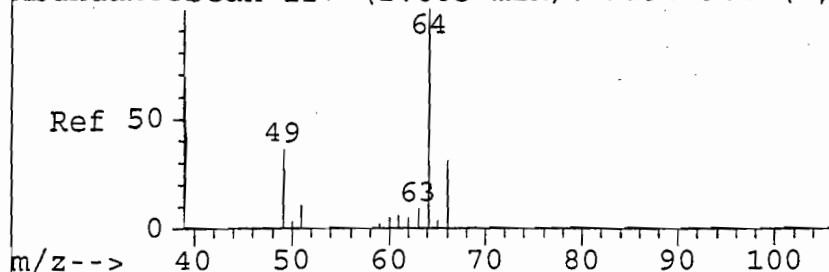
0

Time-->2.28

2.71

000379

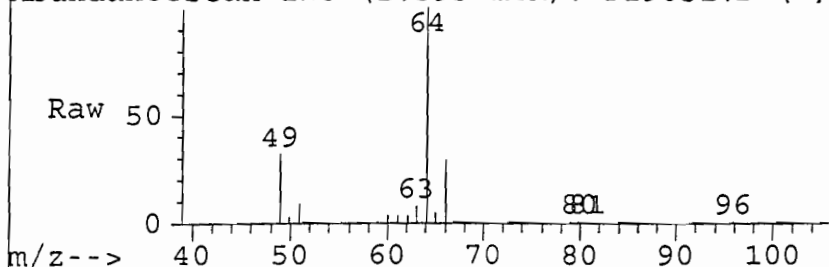
AbundanceScan 127 (2.605 min): P19049.D (-,



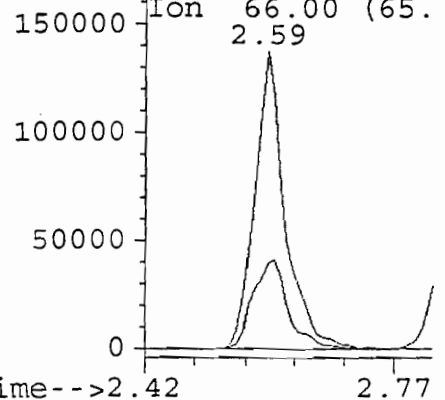
#6
chloroethane
Concen: 207.96 ug/L m
RT: 2.59 min Scan# 126
Delta R.T. -0.01 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

Tgt Ion	Ratio	Lower	Upper
64	100		
66	28.6	21.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

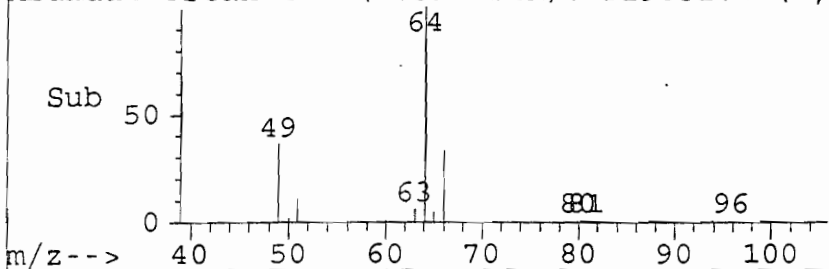
AbundanceScan 126 (2.593 min): P19051.D (*)



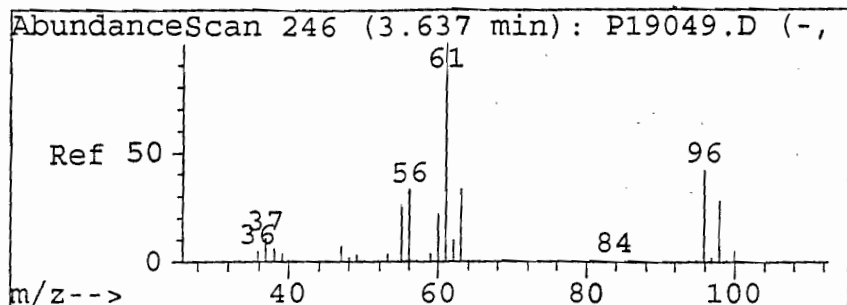
AbundanceIon 64.00 (63.
Ion 66.00 (65.



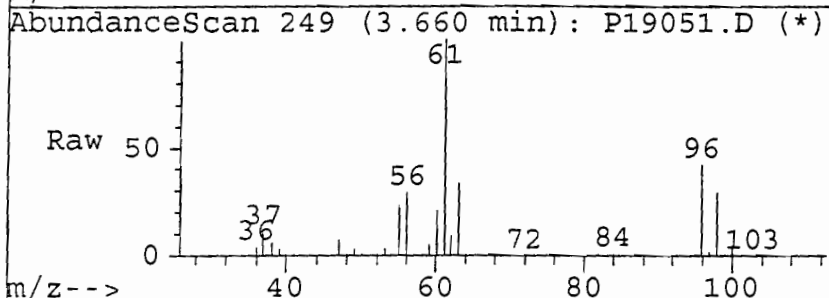
AbundanceScan 126 (2.593 min): P19051.D (-,



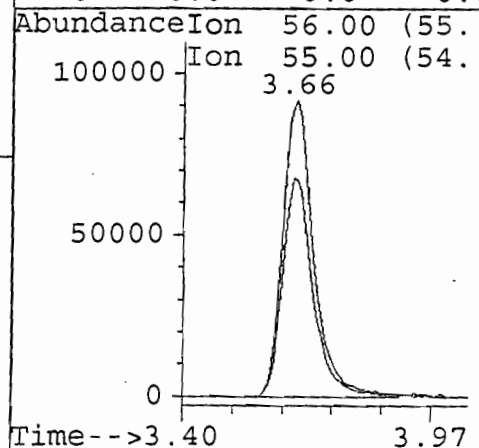
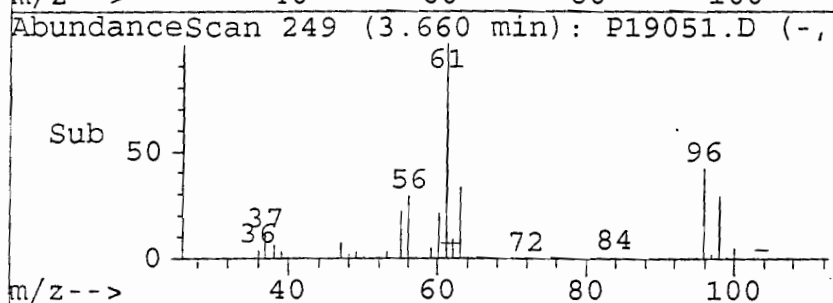
00C380



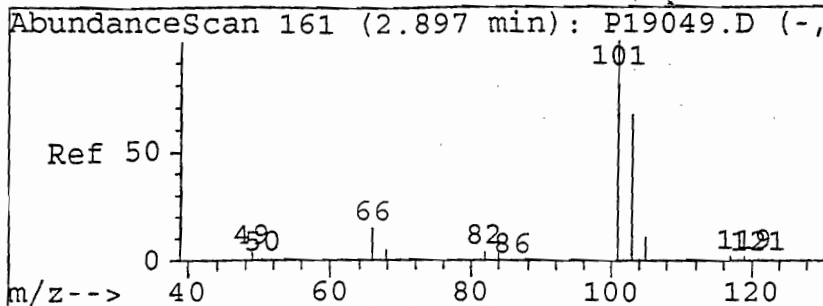
#7
 Acrolein
 Concen: 1891.75 ug/L m
 RT: 3.66 min Scan# 249
 Delta R.T. 0.02 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm



Tgt Ion:56 Resp: 458002
 Ion Ratio Lower Upper
 56 100
 55 72.7 36.5 109.5
 0 0.0 0.0 0.0
 0 0.0 0.0 0.0



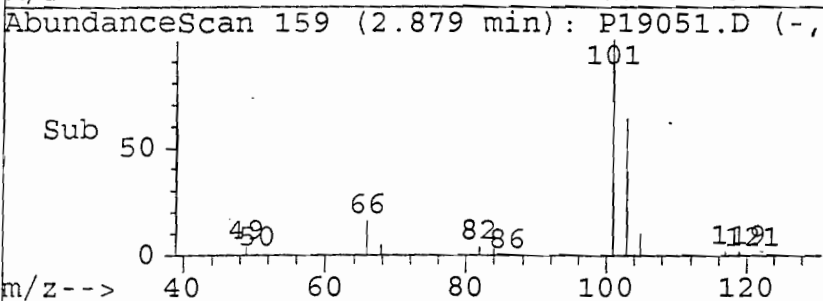
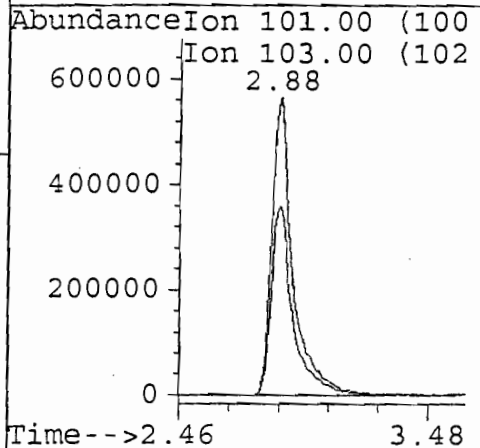
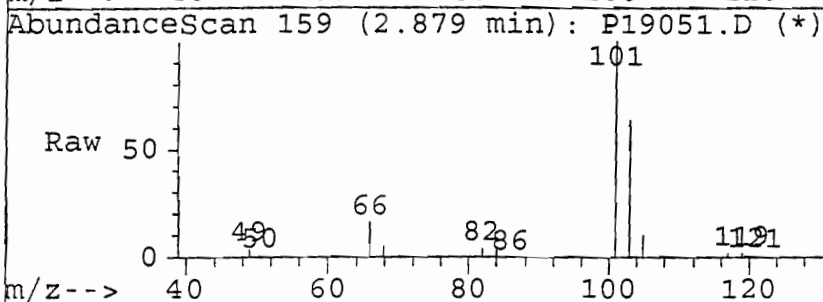
000381



#8
 trichlorofluoromethane
 Concen: 169.21 ug/L m
 RT: 2.88 min Scan# 159
 Delta R.T. -0.02 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

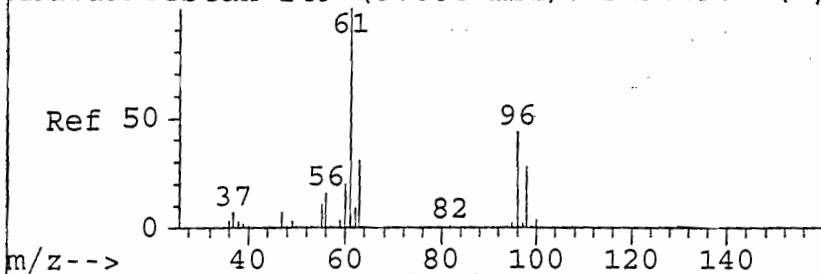
Tgt Ion:101 Resp: 3293258

Ion	Ratio	Lower	Upper
101	100		
103	62.9	46.3	85.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000382

AbundanceScan 249 (3.664 min): P19049.D (-,



#9

1,1-dichloroethene

Concen: 192.43 ug/L m

RT: 3.64 min Scan# 247

Delta R.T. -0.02 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion:61 Resp: 1912784

Ion Ratio Lower Upper

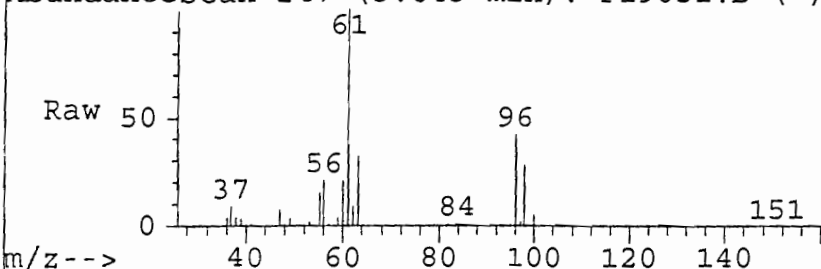
61 100

96 41.7 30.1 55.9

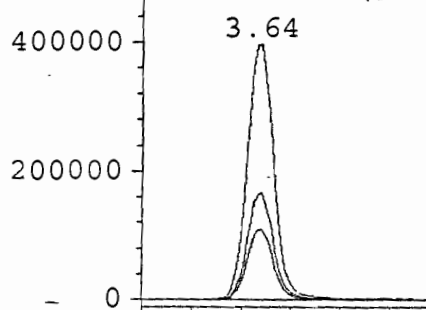
98 27.5 19.8 36.8

0 0.0 0.0 0.0

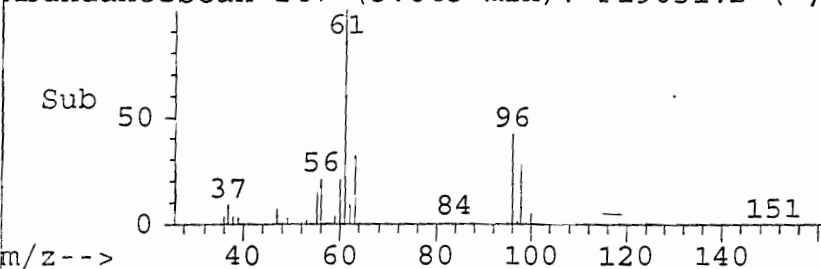
AbundanceScan 247 (3.643 min): P19051.D (*)



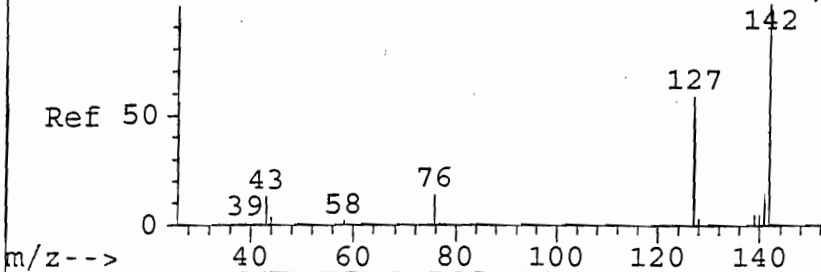
AbundanceIon 61.00 (60.
Ion 96.00 (95.
Ion 98.00 (97.



AbundanceScan 247 (3.643 min): P19051.D (-,



AbundanceScan 275 (3.901 min): P19049.D (-,



#10

Acetone

Concen: 122.76 ug/L m

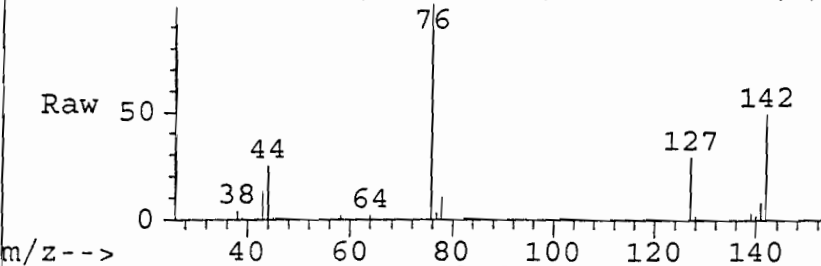
RT: 3.94 min Scan# 280

Delta R.T. 0.04 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 280 (3.942 min): P19051.D (*)



Tgt Ion:43 Resp: 290816

Ion Ratio Lower Upper

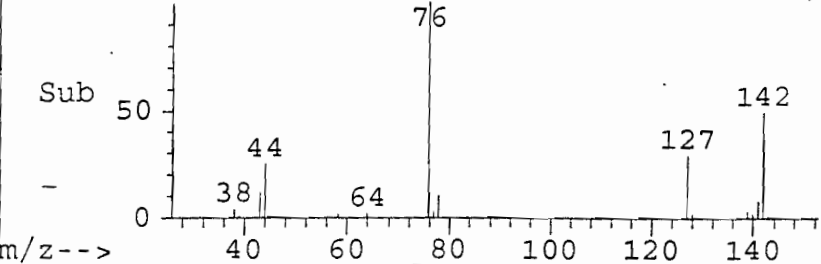
43 100

58 17.7 0.0 34.0

0 0.0 0.0 0.0

0 0.0 0.0 0.0

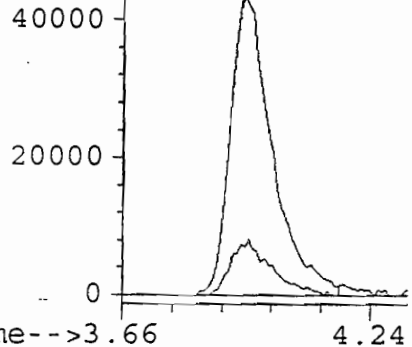
AbundanceScan 280 (3.942 min): P19051.D (-,

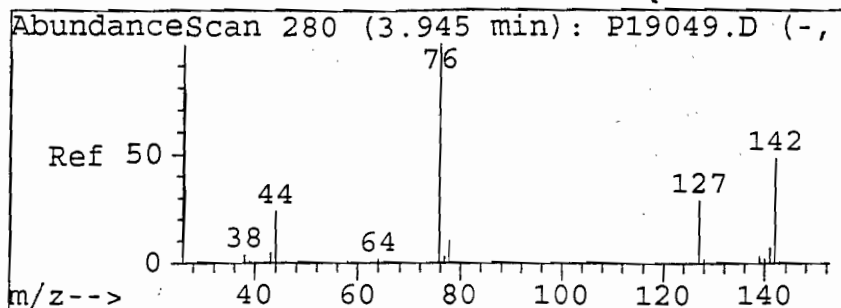


AbundanceIon 43.00 (42.

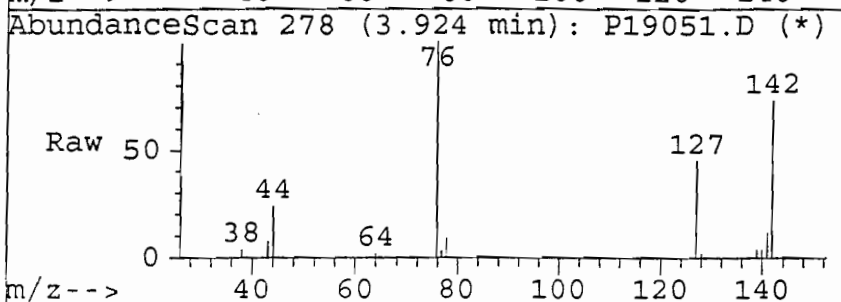
Ion 58.00 (57.

3.94

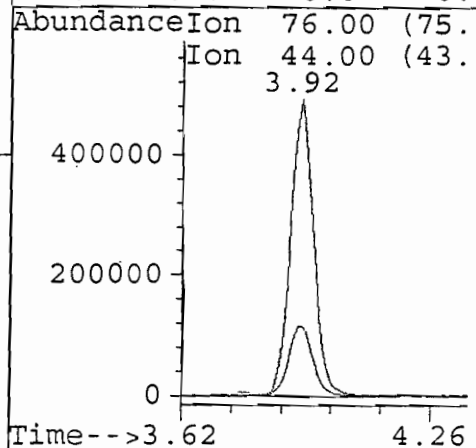
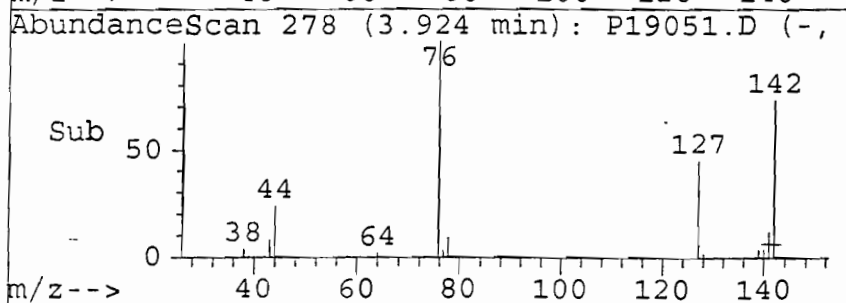




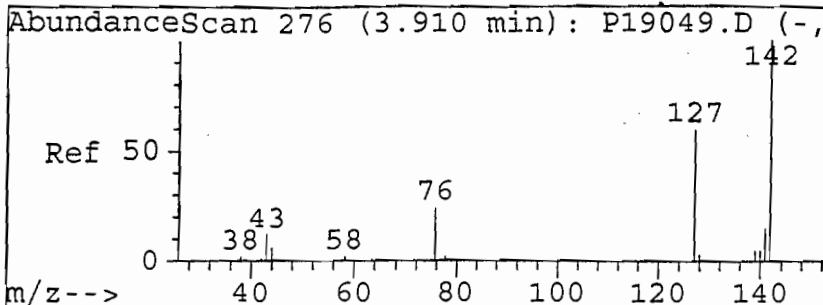
#11
Carbon Disulfide
Concen: 184.77 ug/L m
RT: 3.92 min Scan# 278
Delta R.T. -0.02 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm



Tgt Ion: 76 Resp: 2020066
Ion Ratio Lower Upper
76 100
44 24.6 12.0 36.1
0 0.0 0.0 0.0
0 0.0 0.0 0.0

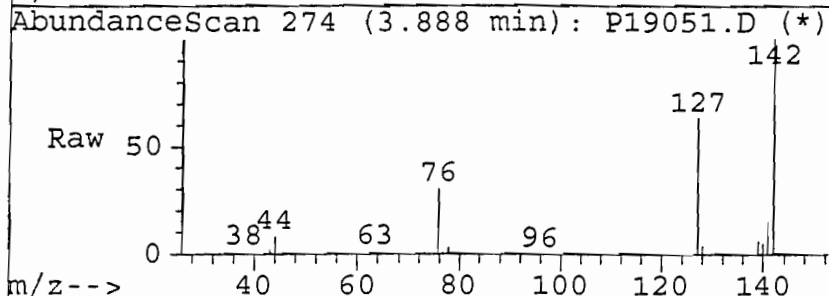


000385

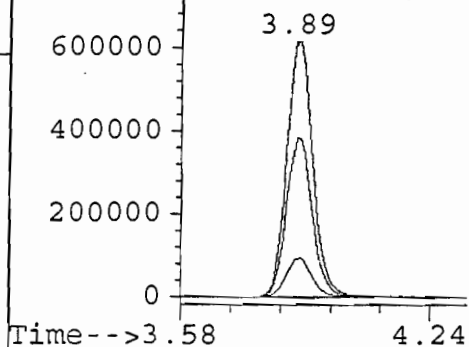
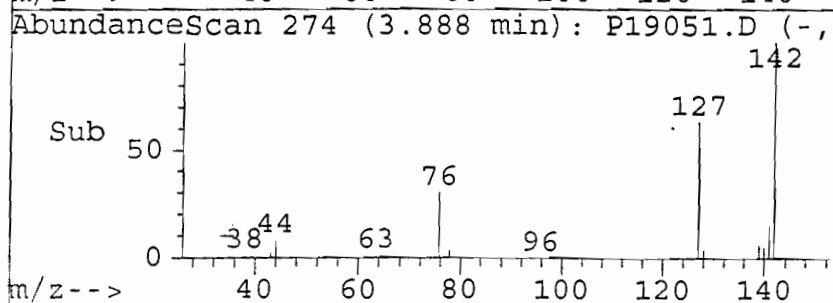


#12
Iodo Methane
Concen: 193.93 ug/L m
RT: 3.89 min Scan# 274
Delta R.T. -0.02 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

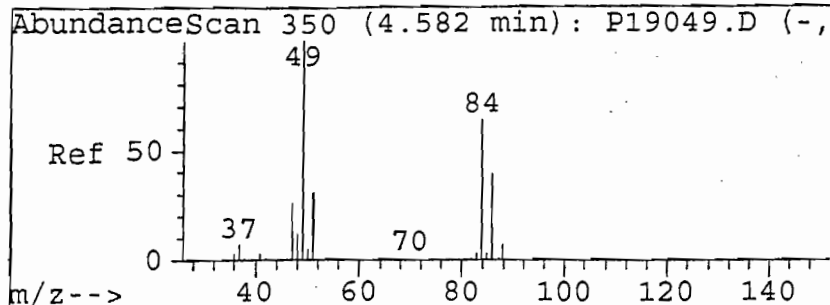
Tgt Ion:	142	Resp:	2889332
Ion	Ratio	Lower	Upper
142	100		
127	62.2	29.5	88.6
141	15.3	12.2	18.2
0	0.0	0.0	0.0



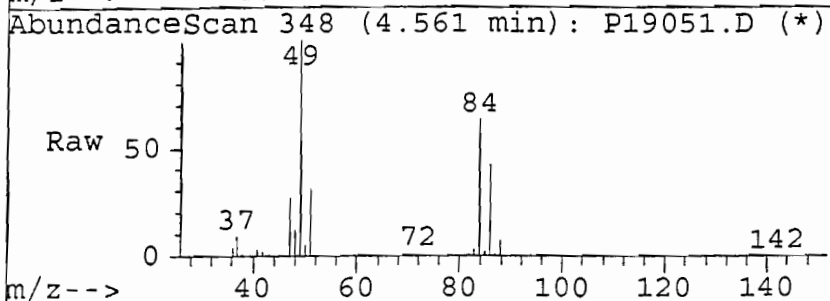
Abundance	Ion	142.00	(141
800000	Ion	127.00	(126
	Ion	141.00	(140



000386

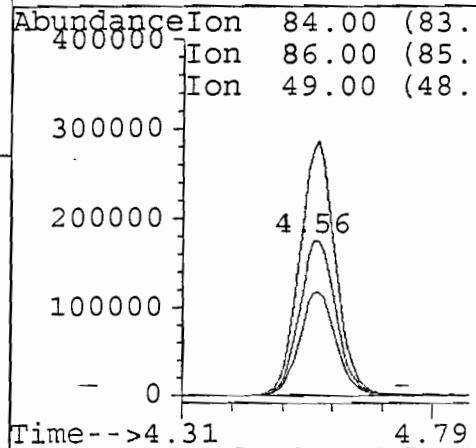
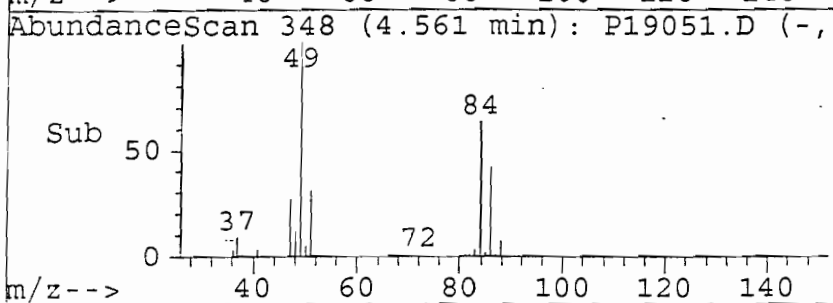


#13
 methylene chloride
 Concen: 192.92 ug/L m
 RT: 4.56 min Scan# 348
 Delta R.T. -0.02 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm



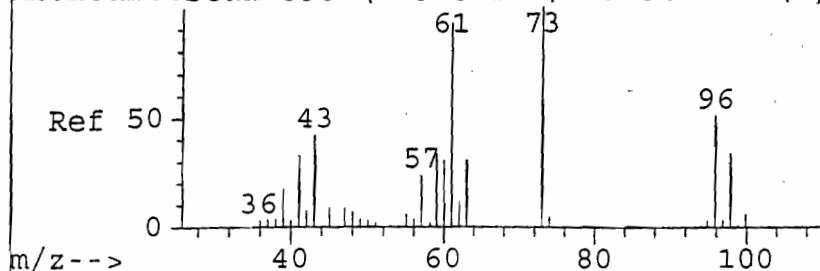
Tgt Ion:84 Resp: 839022

Ion	Ratio	Lower	Upper
84	100		
86	66.4	43.3	80.3
49	158.1	110.4	205.0
0	0.0	0.0	0.0

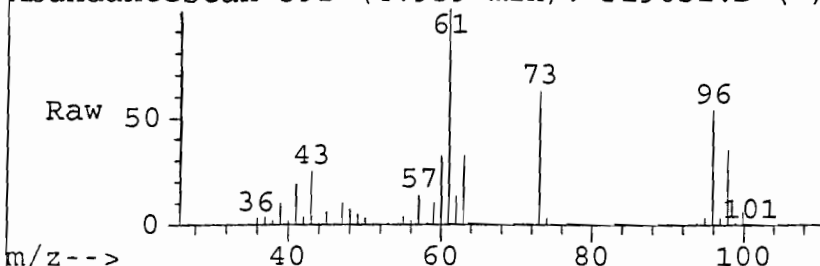


000387

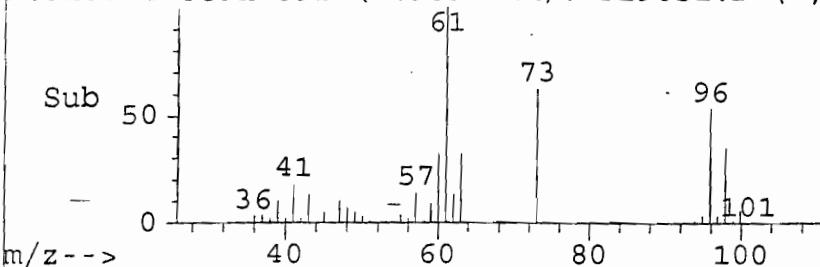
AbundanceScan 393 (4.973 min): P19049.D (-,



AbundanceScan 392 (4.959 min): P19051.D (*),



AbundanceScan 392 (4.959 min): P19051.D (-,



#14

trans-1,2-dichloroethene

Concen: 181.99 ug/L m

RT: 4.96 min Scan# 392

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion:61 Resp: 1628736

Ion Ratio Lower Upper

61 100

96 53.0 38.4 71.4

98 34.7 25.2 46.8

0 0.0 0.0 0.0

AbundanceIon 61.00 (60.

Ion 96.00 (95.

Ion 98.00 (97.

400000

300000

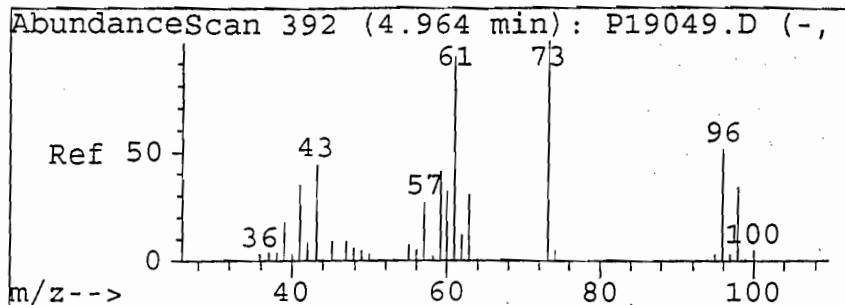
200000

100000

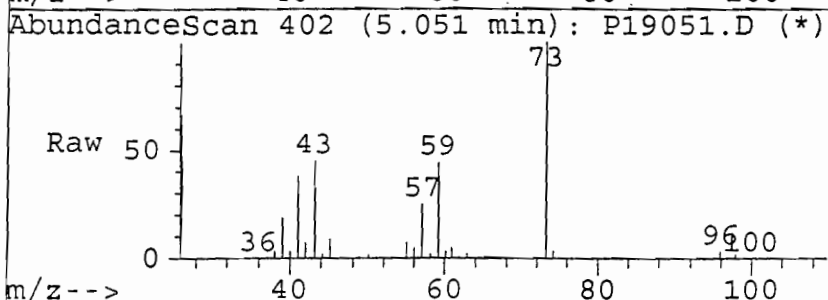
0

Time-->4.66 5.26

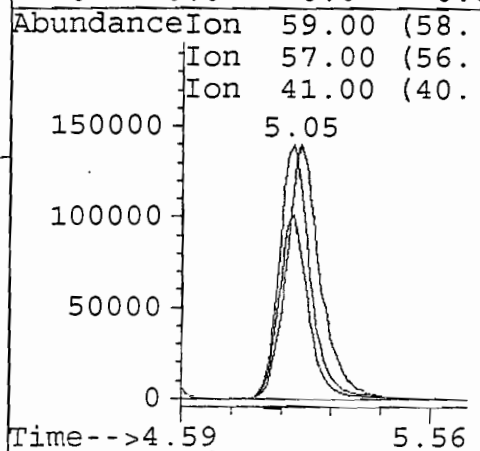
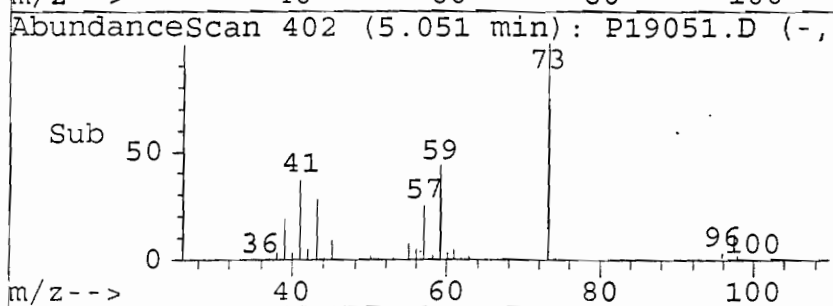
000388



#15
TBA
Concen: 2151.63 ug/L m
RT: 5.05 min Scan# 402
Delta R.T. 0.09 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

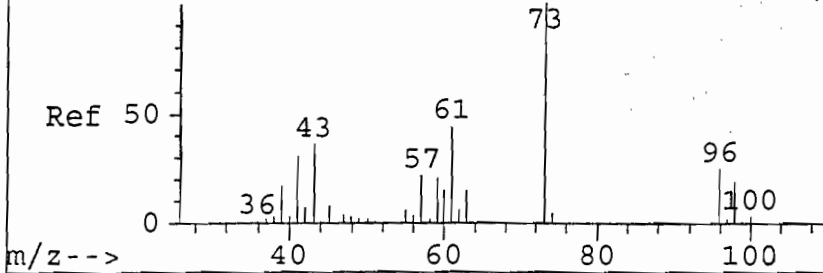


Tgt Ion:59 Resp: 1277686
Ion Ratio Lower Upper
59 100
57 56.6 45.1 83.7
41 84.5 59.6 110.8
0 0.0 0.0 0.0



000389

AbundanceScan 397 (5.009 min): P19049.D (-,



#16

MTBE

Concen: 179.95 ug/L m

RT: 5.00 min Scan# 397

Delta R.T. -0.00 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 73 Resp: 3190721

Ion Ratio Lower Upper

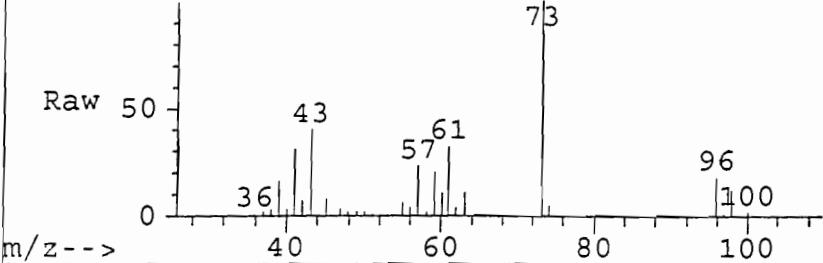
73 100

41 36.4 16.9 50.6

43 44.0 20.2 60.6

0 0.0 0.0 0.0

AbundanceScan 397 (5.005 min): P19051.D (*)



AbundanceIon 73.00 (72.

600000 Ion 40.95 (40.

Ion 42.95 (42.

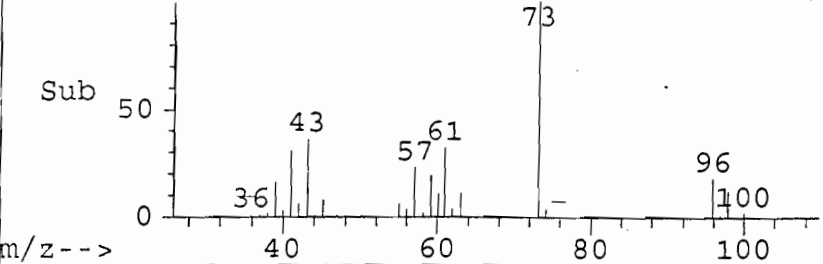
5.00

400000

200000

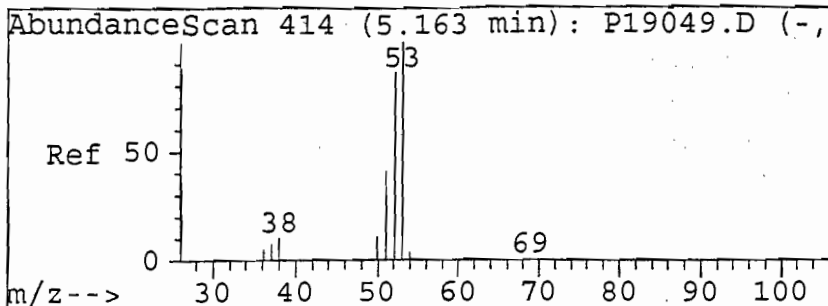
0

AbundanceScan 397 (5.005 min): P19051.D (-,

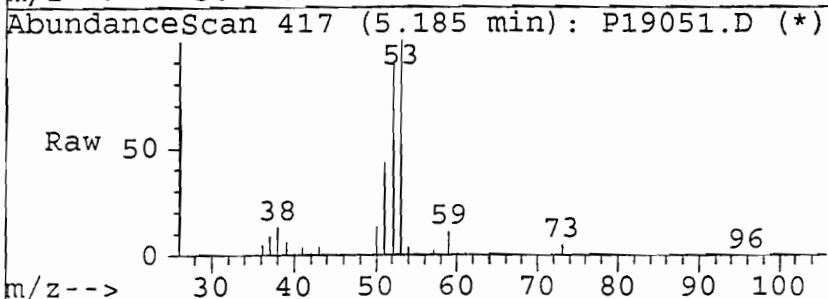


Time-->4.56 5.50

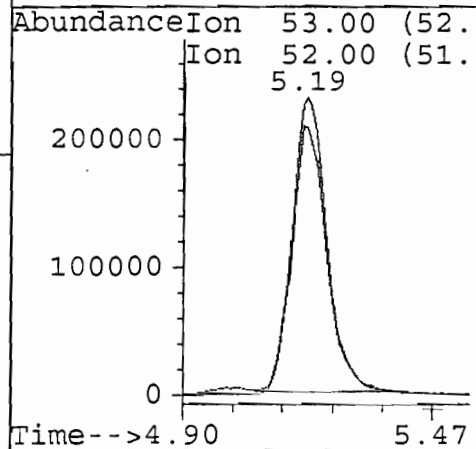
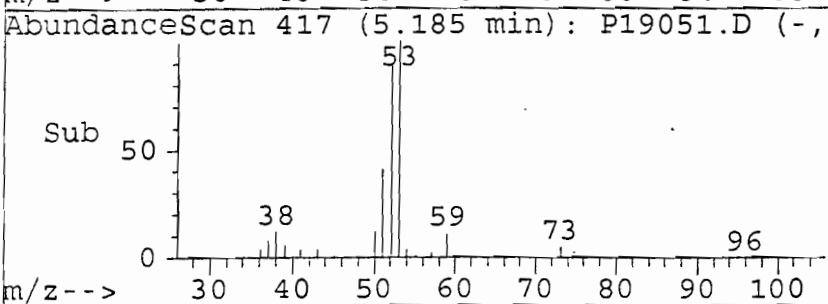
000390

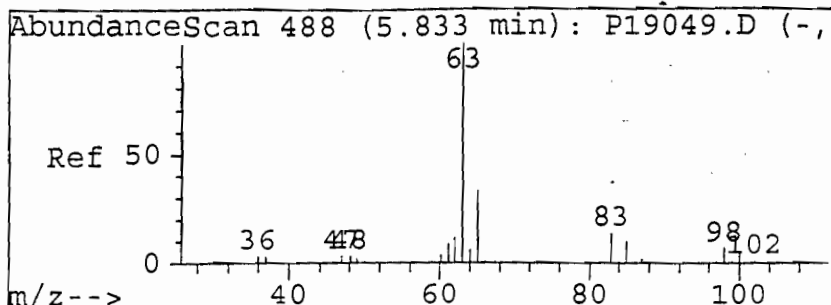


#17
 Acrylonitrile
 Concen: 1869.32 ug/L m
 RT: 5.19 min Scan# 417
 Delta R.T. 0.02 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

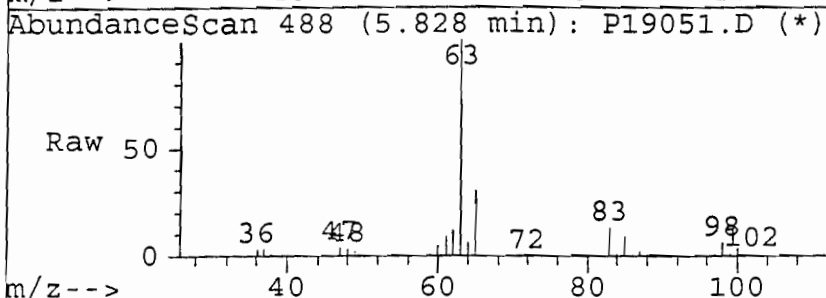


Tgt Ion:53 Resp: 1247606
 Ion Ratio Lower Upper
 53 100
 52 93.7 44.8 134.3
 0 0.0 0.0 0.0
 0 0.0 0.0 0.0

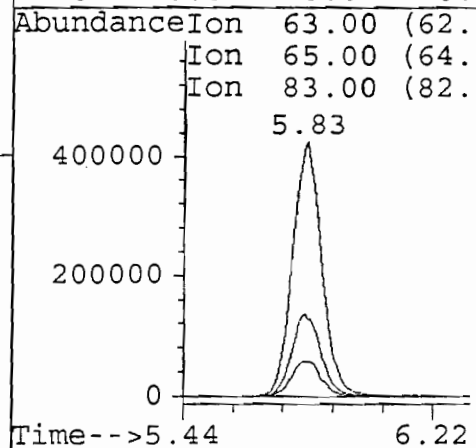
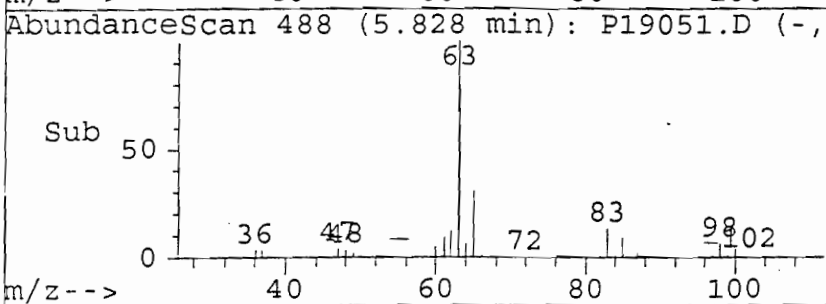




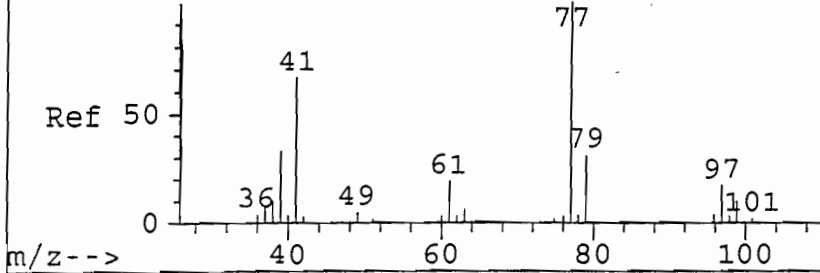
#18
 1,1-dichloroethane
 Concen: 198.62 ug/L m
 RT: 5.83 min Scan# 488
 Delta R.T. -0.00 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm



Tgt Ion	Resp	Lower	Upper
63	100		
65	30.1	23.0	42.8
83	13.2	9.9	18.3
0	0.0	0.0	0.0



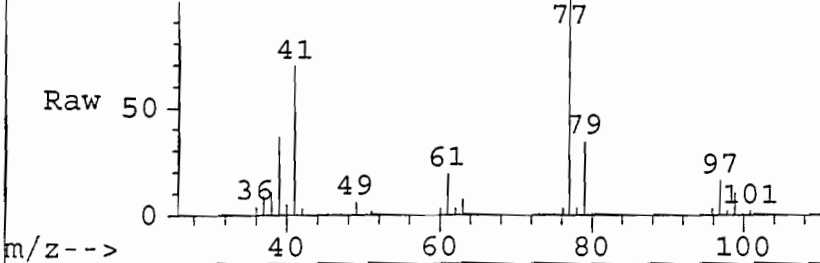
AbundanceScan 605 (6.894 min): P19049.D (-,



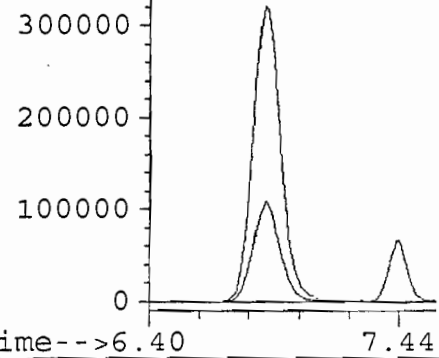
#19
2,2-dichloropropane
Concen: 175.31 ug/L m
RT: 6.88 min Scan# 604
Delta R.T. -0.02 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

Tgt Ion: 77 Resp: 2563316
Ion Ratio Lower Upper
77 100
79 33.9 21.5 39.9
0 0.0 0.0 0.0
0 0.0 0.0 0.0

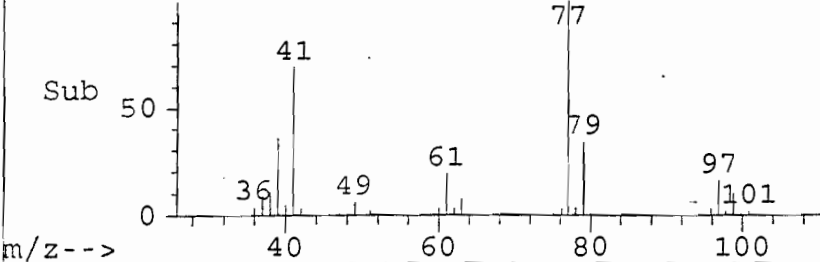
AbundanceScan 604 (6.877 min): P19051.D (*)



AbundanceIon 77.00 (76.
Ion 79.00 (78.
6.88

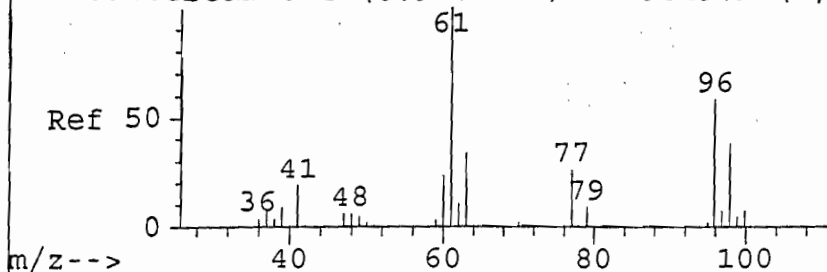


AbundanceScan 604 (6.877 min): P19051.D (-,

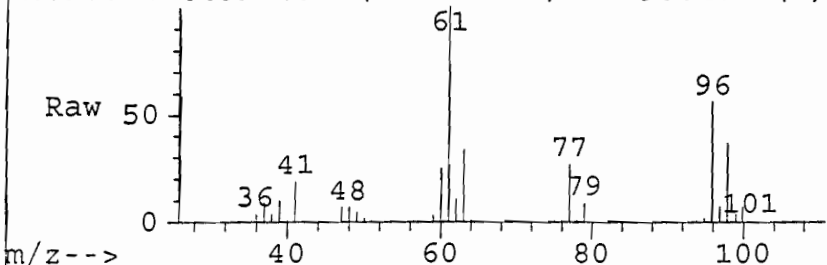


000393

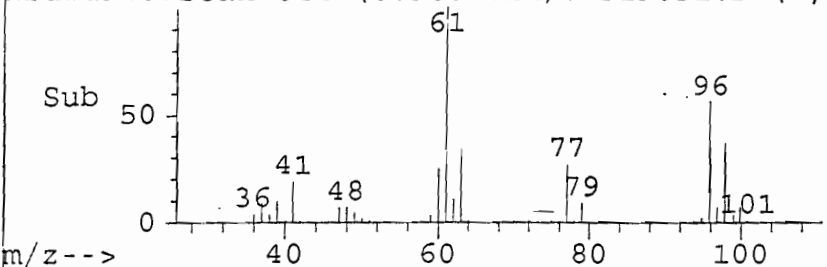
AbundanceScan 614 (6.976 min): P19049.D (-,



AbundanceScan 614 (6.965 min): P19051.D (*),



AbundanceScan 614 (6.965 min): P19051.D (-,



#20

cis-1,2-dichloroethene

Concen: 182.90 ug/L m

RT: 6.97 min Scan# 614

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion:61 Resp: 2158845

Ion Ratio Lower Upper

61 100

96 56.3 40.2 74.7

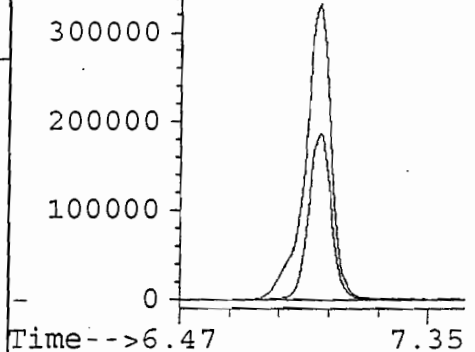
0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 61.00 (60.

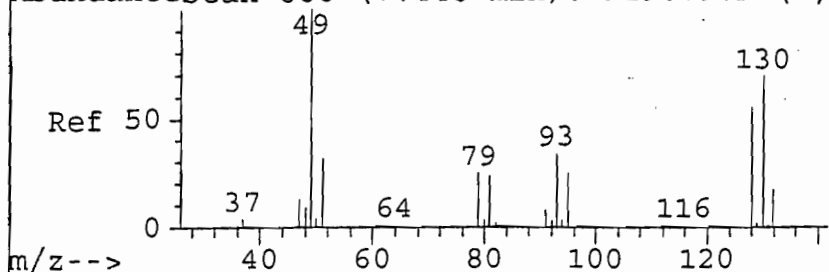
Ion 96.00 (95.

6.97



000394

AbundanceScan 666 (7.446 min): P19049.D (-,



#21

bromochloromethane

Concen: 189.75 ug/L m

RT: 7.43 min Scan# 665

Delta R.T. -0.02 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 49 Resp: 1399667

Ion Ratio Lower Upper

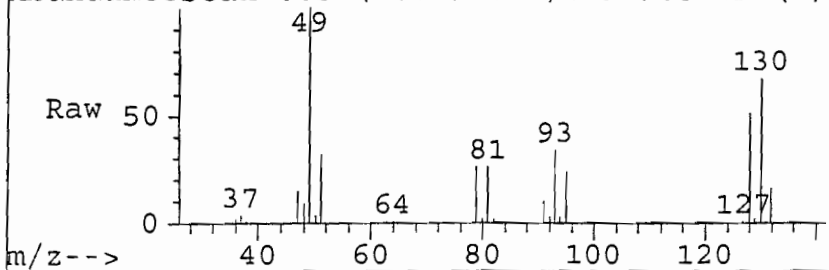
49 100

128 50.9 38.4 71.4

130 67.2 48.0 89.2

0 0.0 0.0 0.0

AbundanceScan 665 (7.429 min): P19051.D (*)



AbundanceIon 49.00 (48.

Ion 127.65 (127

Ion 129.75 (129

300000

7.43

200000

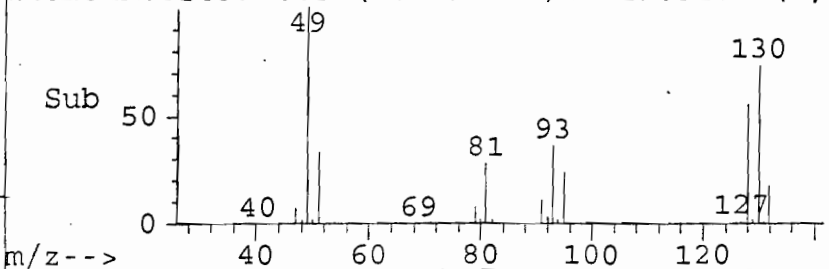
100000

0

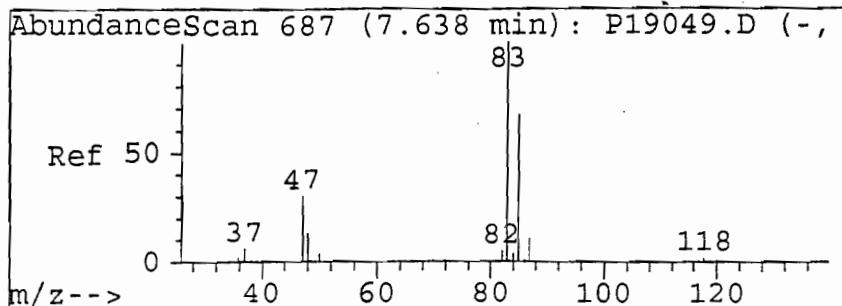
Time-->7.16

7.60

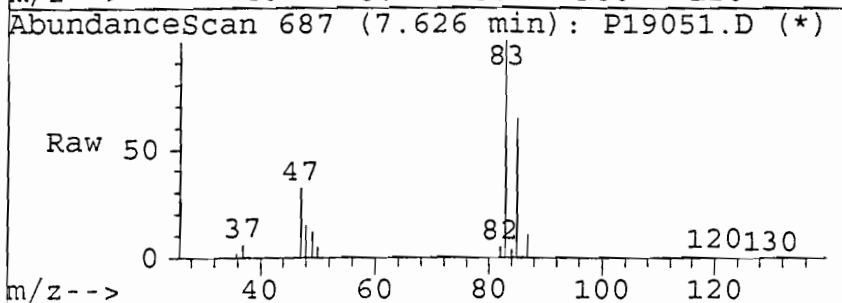
AbundanceScan 665 (7.429 min): P19051.D (-,



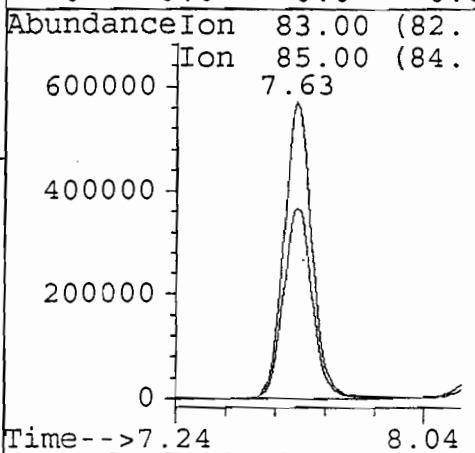
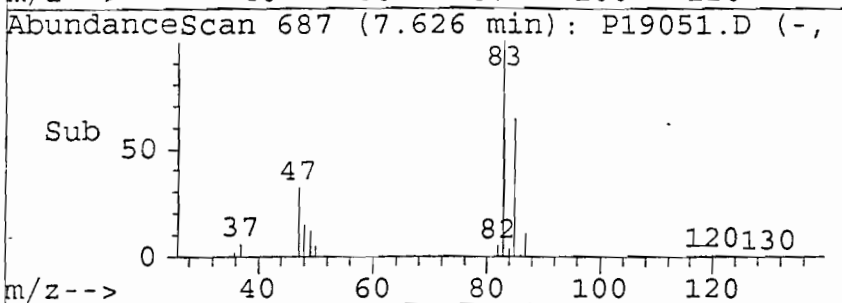
000395



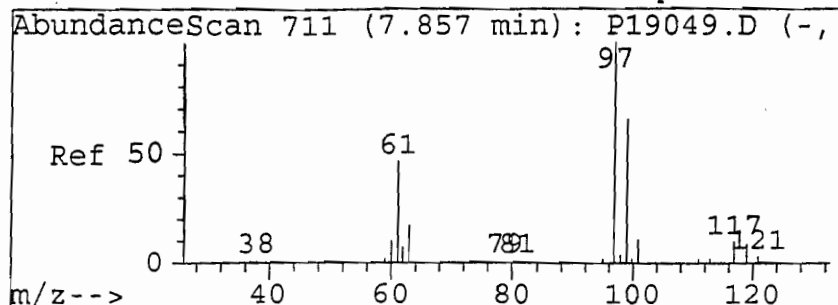
#22
 chloroform
 Concen: 188.96 ug/L m
 RT: 7.63 min Scan# 687
 Delta R.T. -0.01 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm



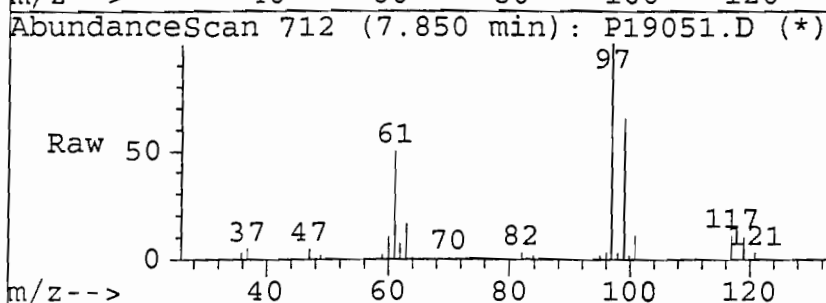
Tgt Ion:83 Resp: 3535348
 Ion Ratio Lower Upper
 83 100
 85 64.0 46.6 86.6
 0 0.0 0.0 0.0
 0 0.0 0.0 0.0



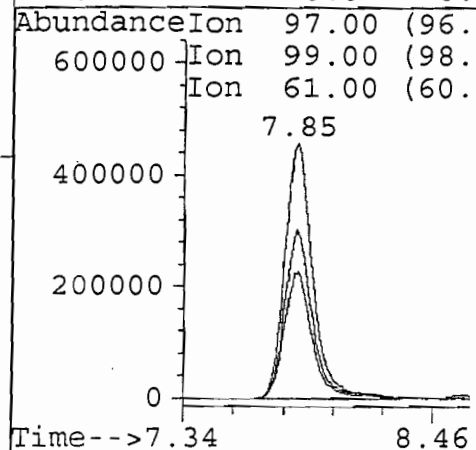
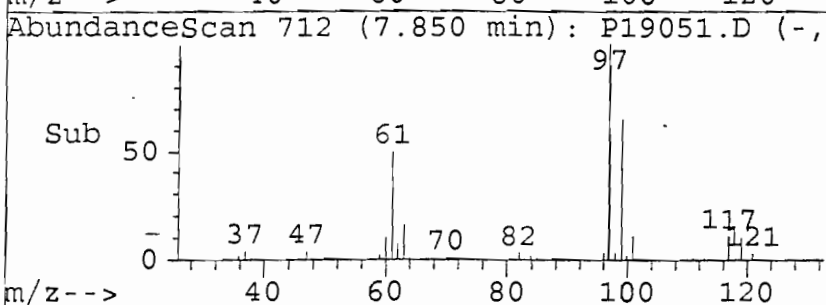
000396



#23
 1,1,1-trichloroethane
 Concen: 193.05 ug/L m
 RT: 7.85 min Scan# 712
 Delta R.T. -0.01 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

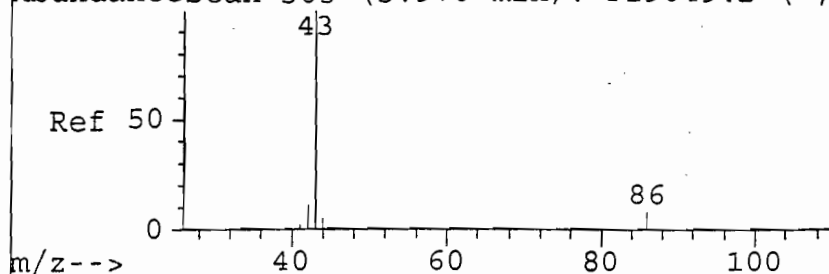


Tgt Ion	Ratio	Lower	Upper
97	100		
99	64.8	45.3	84.1
61	50.1	32.4	60.2
0	0.0	0.0	0.0



000397

AbundanceScan 503 (5.970 min): P19049.D (-,



#25

Vinyl Acetate

Concen: 190.60 ug/L m

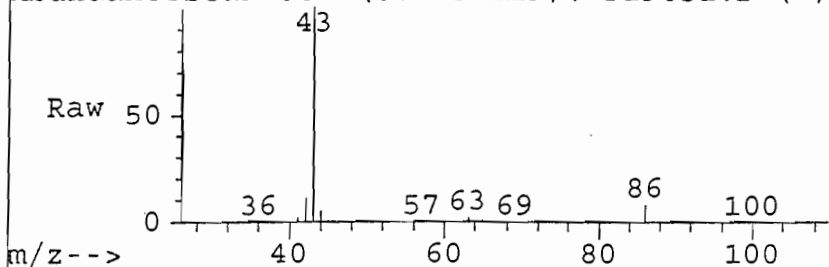
RT: 5.97 min Scan# 504

Delta R.T. 0.00 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 504 (5.973 min): P19051.D (*)



Tgt Ion: 43 Resp: 2711383

Ion Ratio Lower Upper

43 100

86 7.8 4.0 11.9

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.

Ion 86.00 (85.

5.97

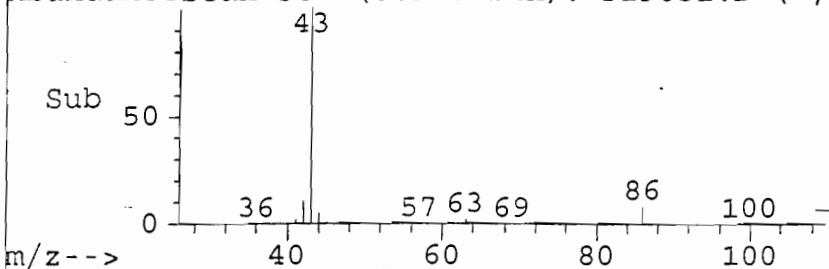
400000

200000

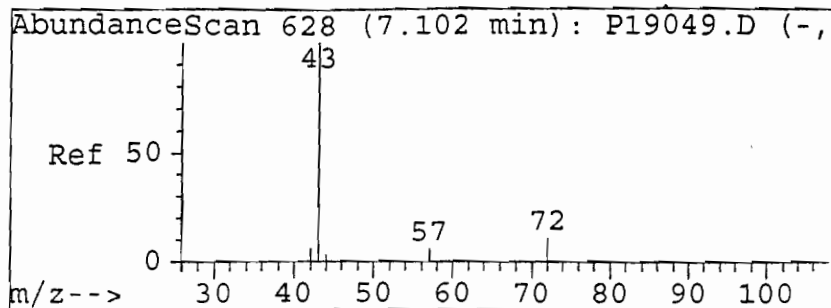
0

Time-->5.55 6.52

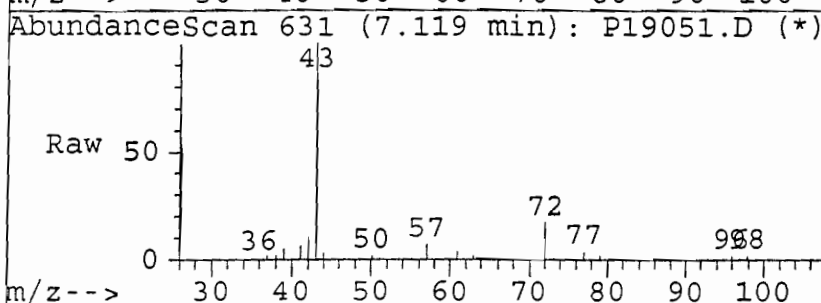
AbundanceScan 504 (5.973 min): P19051.D (-,



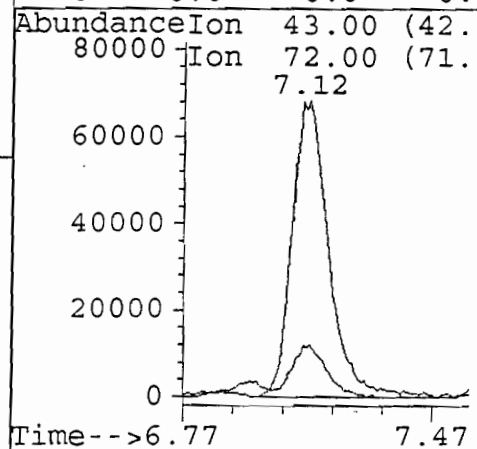
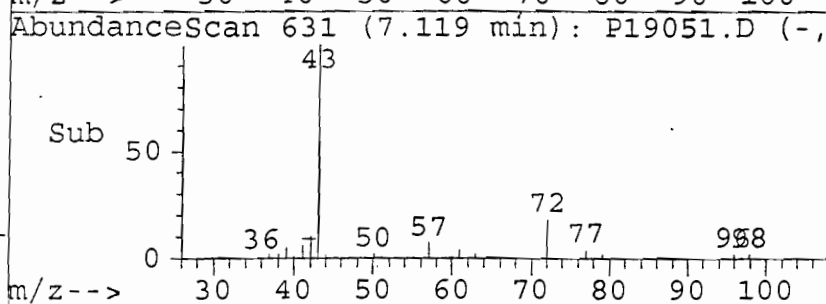
000398



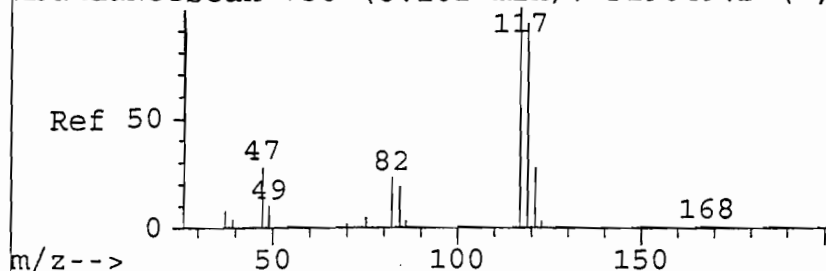
#26
 2-Butanone
 Concen: 161.74 ug/L m
 RT: 7.12 min Scan# 631
 Delta R.T. 0.02 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm



Tgt Ion:43 Resp: 473252
 Ion Ratio Lower Upper
 43 100
 72 16.8 8.2 24.5
 0 0.0 0.0 0.0
 0 0.0 0.0 0.0



AbundanceScan 738 (8.102 min): P19049.D (-,



#27

carbon tetrachloride

Concen: 192.54 ug/L m

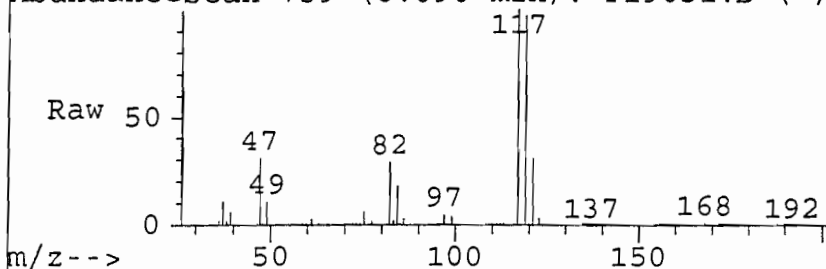
RT: 8.09 min Scan# 739

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 739 (8.090 min): P19051.D (*)



Tgt Ion:117 Resp: 2134317

Ion Ratio Lower Upper

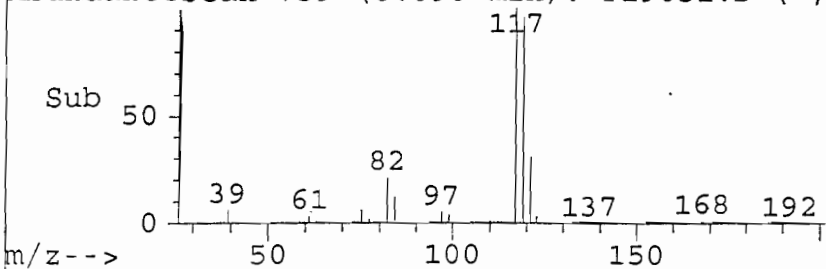
117 100

119 96.5 65.6 121.8

0 0.0 0.0 0.0

0 0.0 0.0 0.0

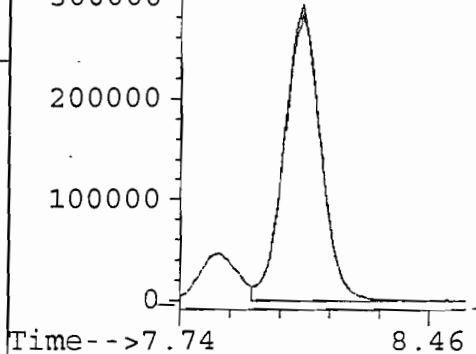
AbundanceScan 739 (8.090 min): P19051.D (-,



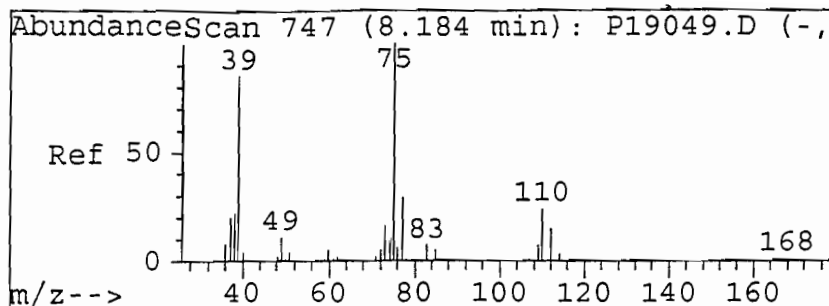
AbundanceIon 117.00 (116

Ion 119.00 (118

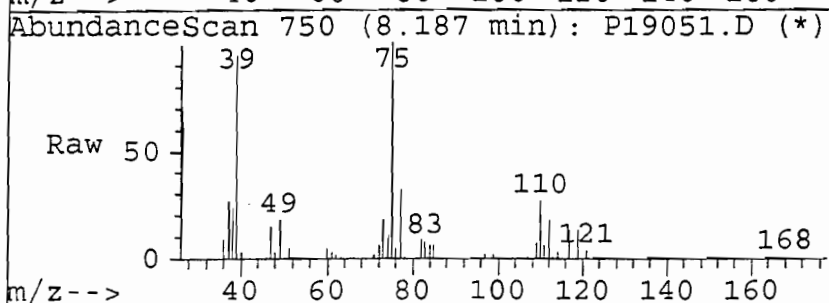
8.09



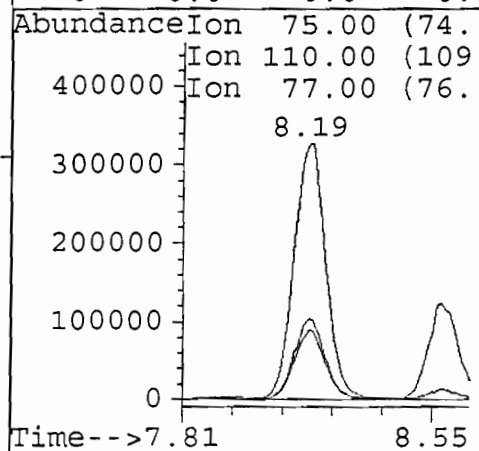
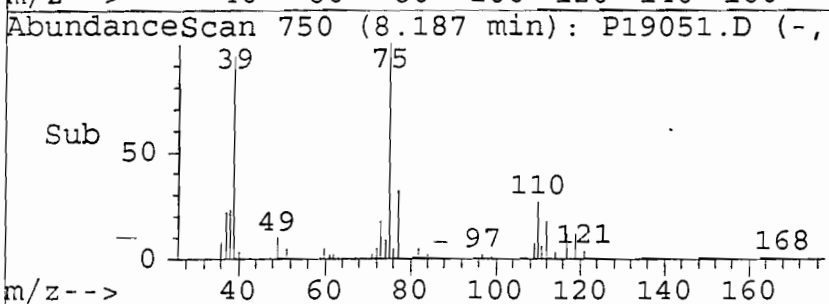
000400

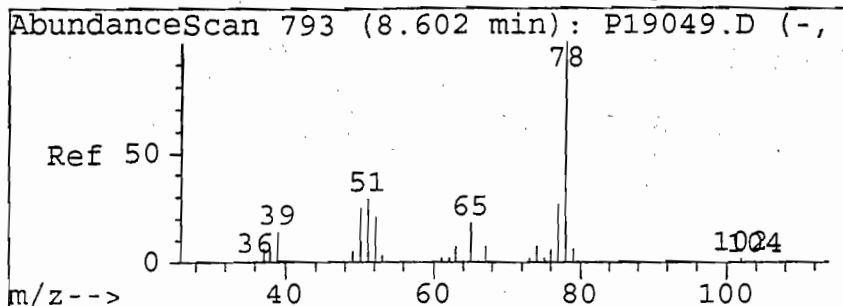


#28
 1,1-dichloropropene
 Concen: 190.12 ug/L m
 RT: 8.19 min Scan# 750
 Delta R.T. 0.00 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

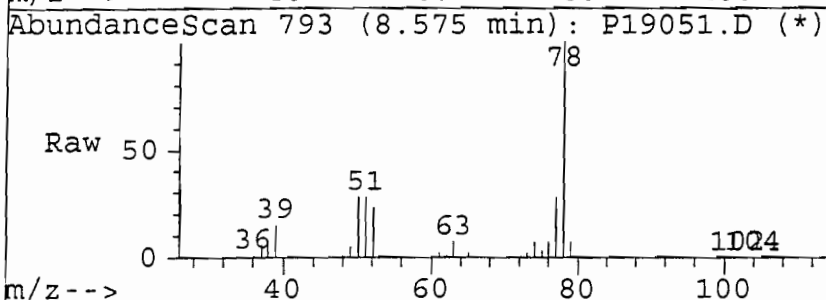


Tgt Ion:75 Resp: 2110029
 Ion Ratio Lower Upper
 75 100
 110 27.3 16.8 31.2
 77 31.9 20.0 37.2
 0 0.0 0.0 0.0

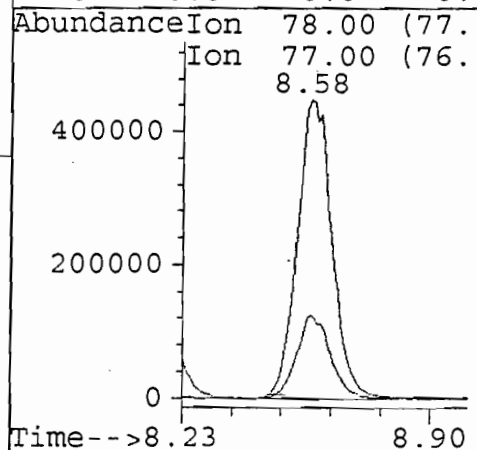
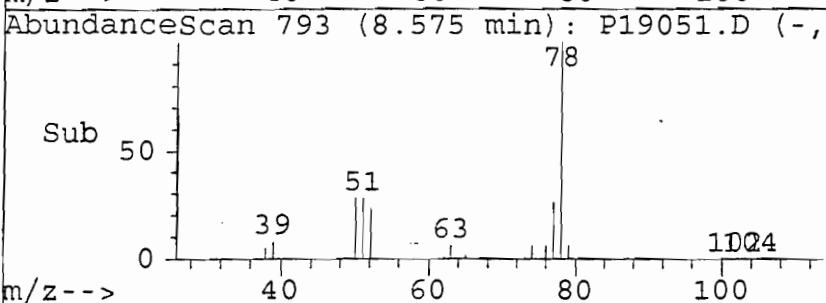




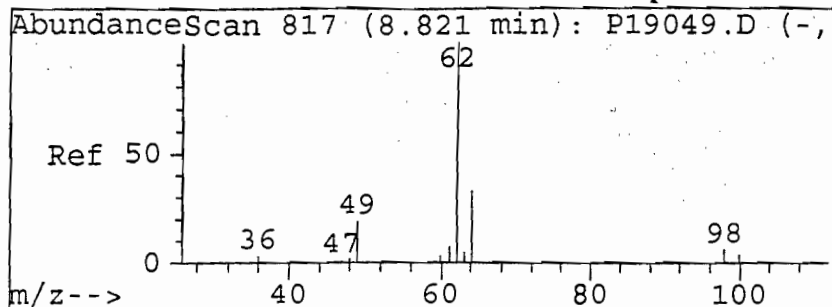
#29
benzene
Concen: 186.11 ug/L m
RT: 8.58 min Scan# 793
Delta R.T. -0.03 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm



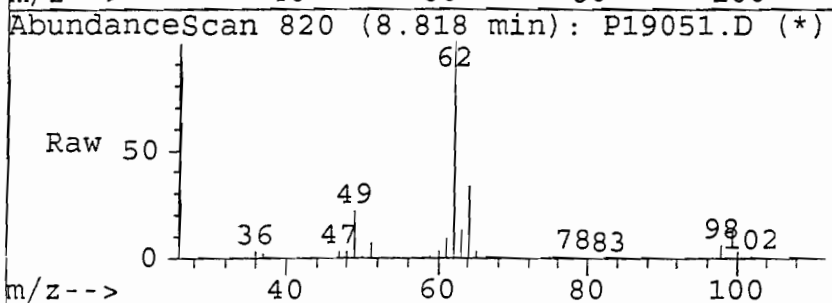
Tgt Ion: 78 Resp: 2898564
Ion Ratio Lower Upper
78 100
77 27.8 19.2 35.6
0 0.0 0.0 0.0
0 0.0 0.0 0.0



000402

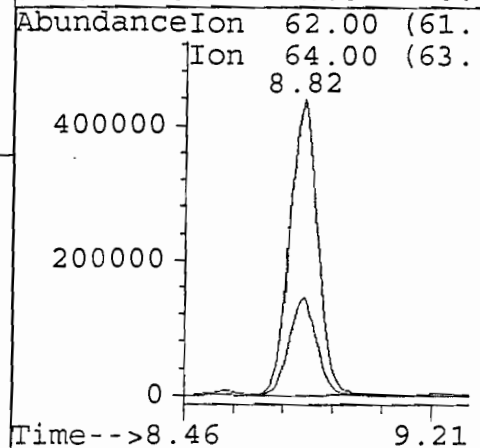
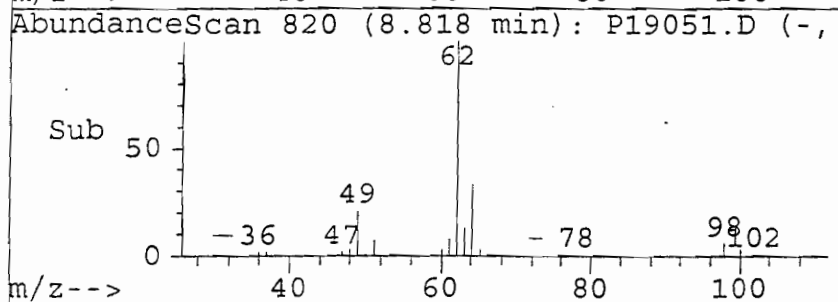


#31
 1,2-dichloroethane
 Concen: 195.20 ug/L m
 RT: 8.82 min Scan# 820
 Delta R.T. -0.00 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

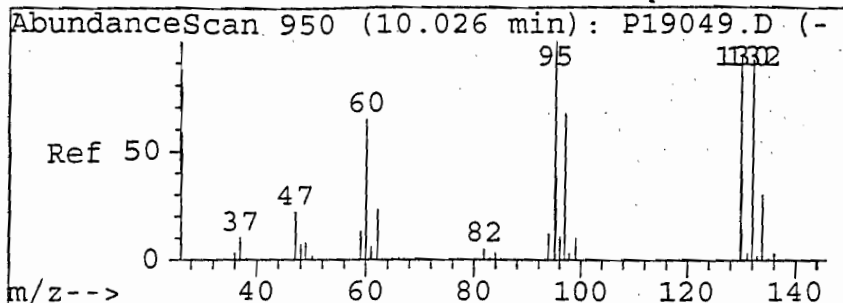


Tgt Ion:62 Resp: 2547365

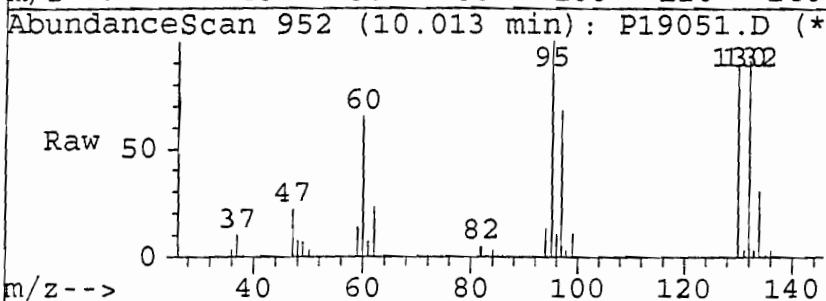
Ion	Ratio	Lower	Upper
62	100		
64	32.8	23.0	42.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



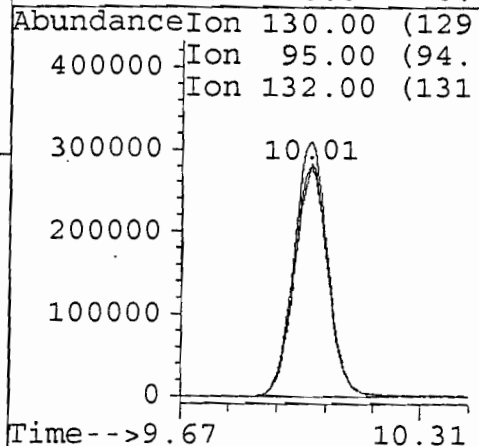
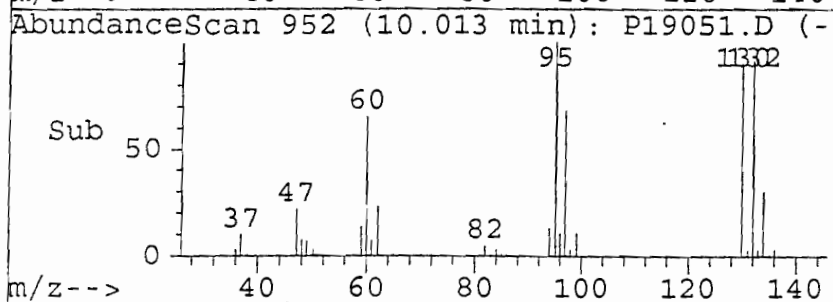
000403



#32
 trichloroethene
 Concen: 192.81 ug/L m
 RT: 10.01 min Scan# 952
 Delta R.T. -0.01 min
 Lab File: P19051.D
 Acq: 6 Oct 99 7:23 pm

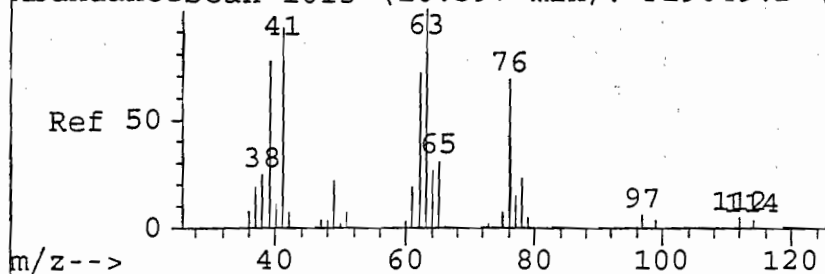


Tgt Ion:	130	Resp:	1775120
Ion	Ratio	Lower	Upper
130	100		
95	110.8	75.7	140.7
132	101.4	68.9	127.9
0	0.0	0.0	0.0

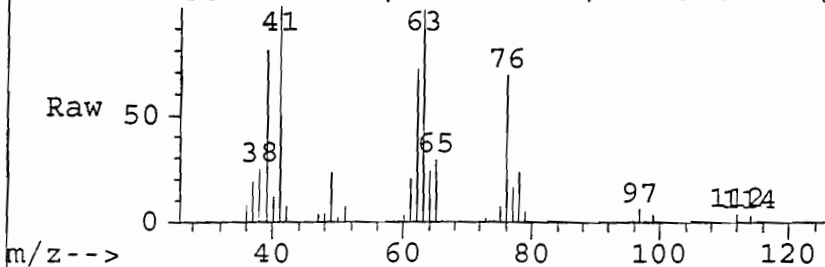


000404

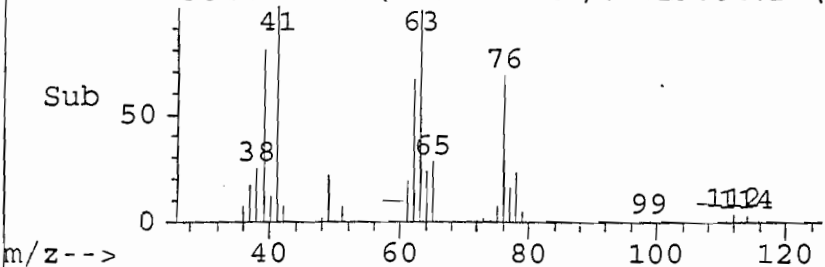
AbundanceScan 1013 (10.597 min): P19049.D (



AbundanceScan 1016 (10.594 min): P19051.D (



AbundanceScan 1016 (10.594 min): P19051.D (



#33

1,2-dichloropropane

Concen: 213.49 ug/L m

RT: 10.59 min Scan# 1016

Delta R.T. -0.00 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 63 Resp: 1443058

Ion Ratio Lower Upper

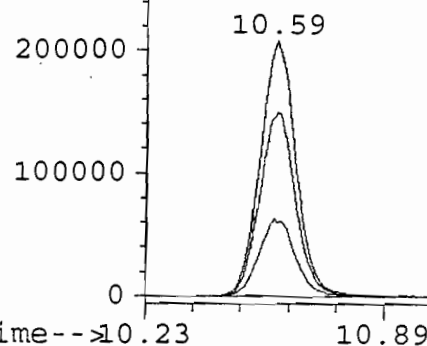
63 100

62 71.8 50.0 92.8

65 29.1 21.6 40.2

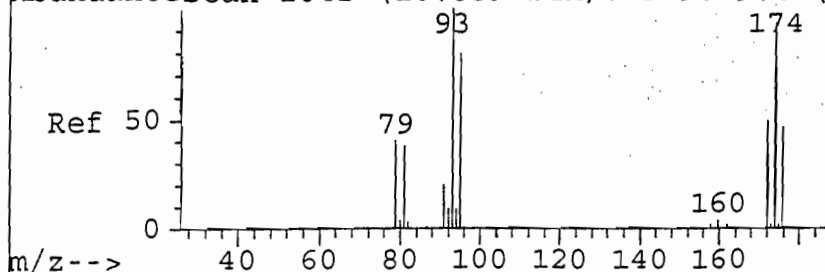
0 0.0 0.0 0.0

AbundanceIon 63.00 (62.
Ion 62.00 (61.
Ion 65.00 (64.

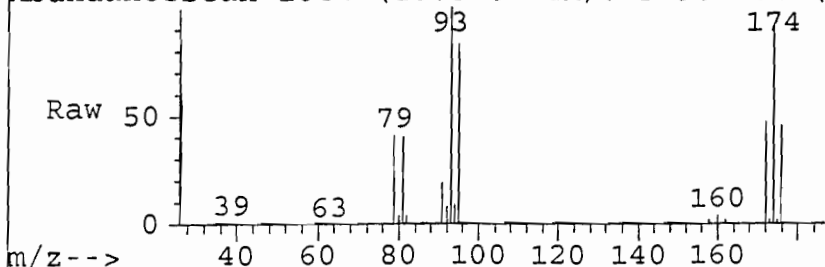


000405

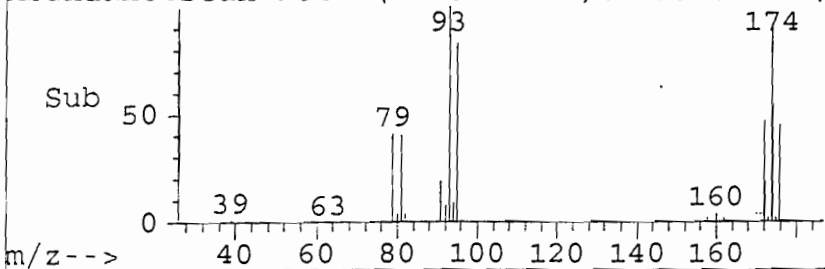
AbundanceScan 1042 (10.859 min): P19049.D (



AbundanceScan 1044 (10.846 min): P19051.D (



AbundanceScan 1044 (10.846 min): P19051.D (



#34

dibromomethane

Concen: 191.33 ug/L m

RT: 10.85 min Scan# 1044

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 173.6 Resp: 1425216

Ion Ratio Lower Upper

174 100

93 110.5 75.1 139.5

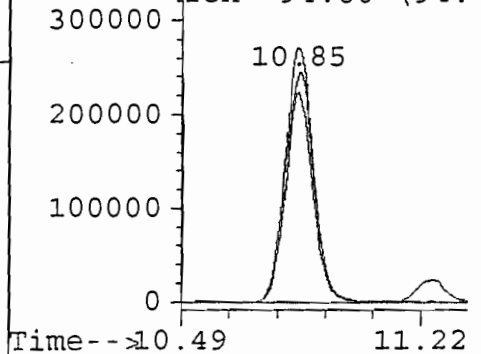
95 91.7 59.5 110.5

0 0.0 0.0 0.0

AbundanceIon 173.60 (173

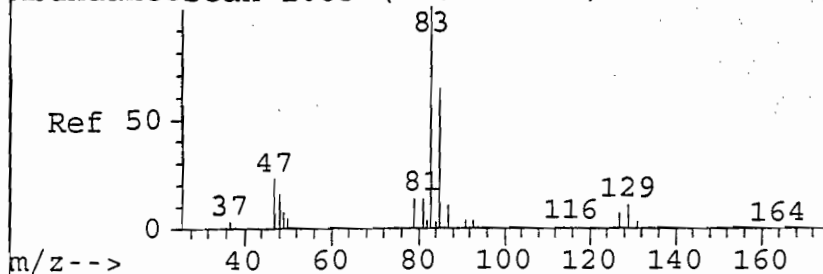
Ion 92.70 (92.

Ion 94.80 (94.

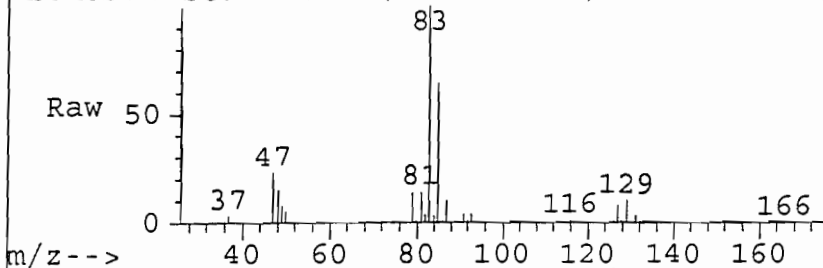


000406

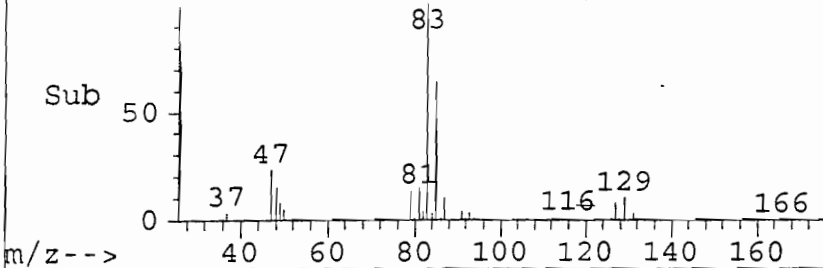
AbundanceScan 1085 (11.247 min): P19049.D (



AbundanceScan 1089 (11.251 min): P19051.D (



AbundanceScan 1089 (11.251 min): P19051.D (



#35

bromodichloromethane

Concen: 218.13 ug/L m

RT: 11.25 min Scan# 1089

Delta R.T. 0.00 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

Tgt Ion: 83 Resp: 3870512

Ion Ratio Lower Upper

83 100

85 64.0 43.8 81.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 83.00 (82.

Ion 85.00 (84.

11.25

600000

400000

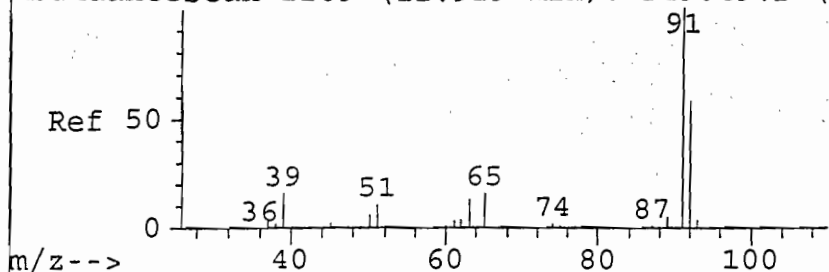
200000

0

Time--> 10.80 11.77

000407

AbundanceScan 1269 (12.919 min): P19049.D (



#36

2-Chloroethyl Vinyl Ether

Concen: 182.22 ug/L m

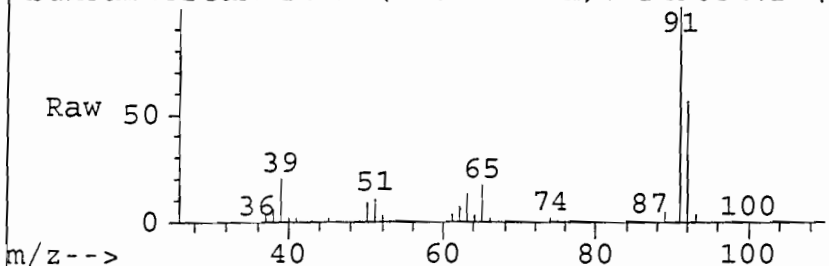
RT: 12.90 min Scan# 1272

Delta R.T. -0.01 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 1272 (12.904 min): P19051.D (

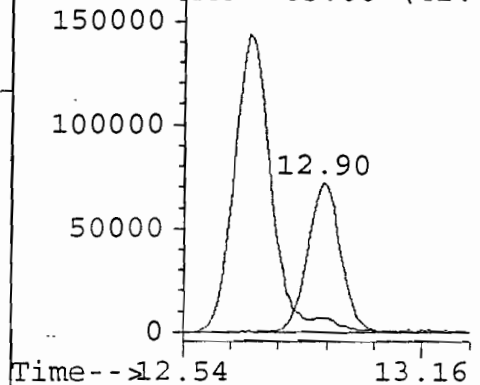


Tgt Ion: 63 Resp: 441272

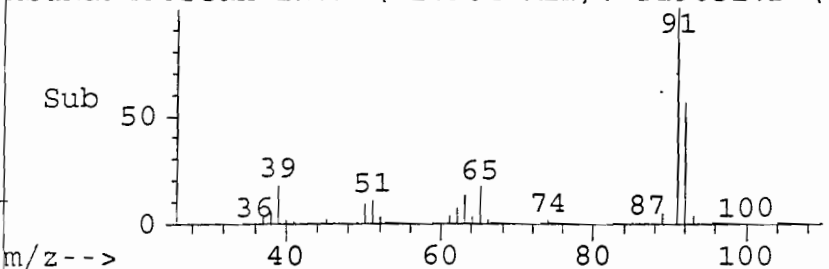
Ion Ratio Lower Upper

63	100		
43	8.6	2.5	7.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceIon 63.00 (62.
Ion 43.00 (42.

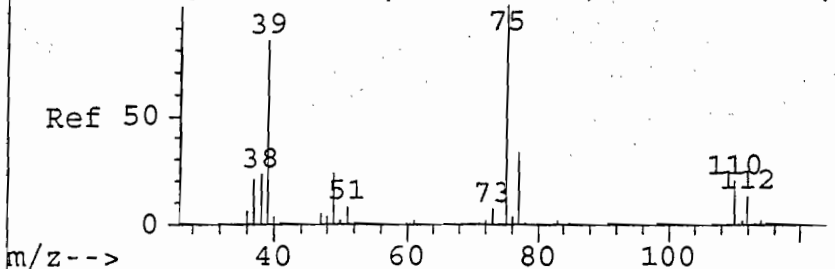


AbundanceScan 1272 (12.904 min): P19051.D (

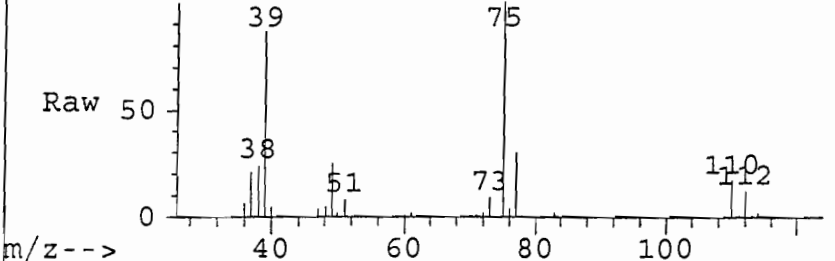


000408

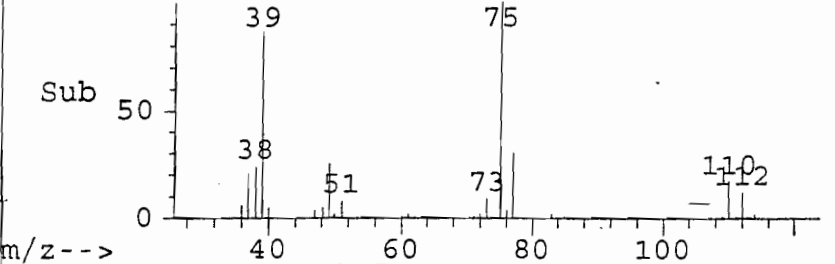
AbundanceScan 1201 (12.300 min): P19049.D (



AbundanceScan 1203 (12.283 min): P19051.D (



AbundanceScan 1203 (12.283 min): P19051.D (

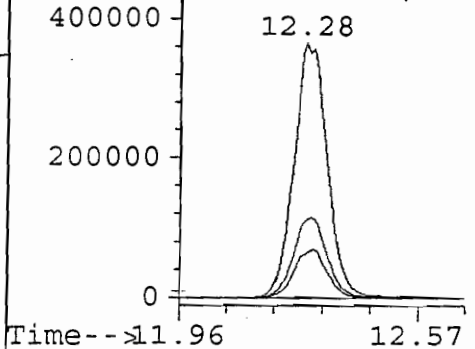


#37

cis-1,3-dichloropropene
Concen: 206.99 ug/L m
RT: 12.28 min Scan# 1203
Delta R.T. -0.02 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

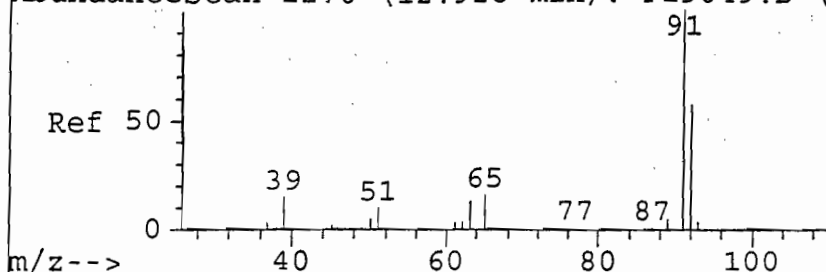
Tgt Ion:	75	Resp:	2169868
Ion	Ratio	Lower	Upper
75	100		
110	17.5	14.3	26.6
77	30.3	22.9	42.5
0	0.0	0.0	0.0

AbundanceIon 75.00 (74.
Ion 110.00 (109
Ion 77.00 (76.



000409

AbundanceScan 1270 (12.928 min): P19049.D (



#39

toluene

Concen: 176.25 ug/L m

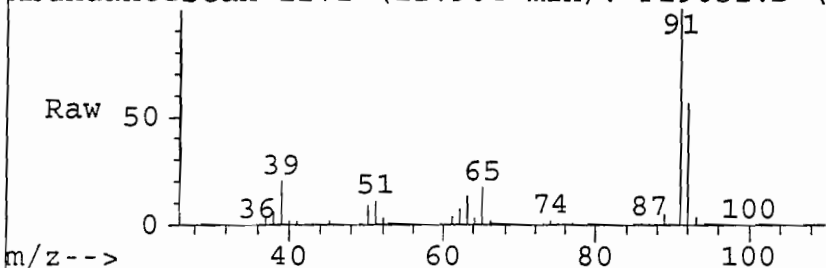
RT: 12.90 min Scan# 1272

Delta R.T. -0.02 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 1272 (12.904 min): P19051.D (



Tgt Ion: 91 Resp: 3339792

Ion Ratio Lower Upper

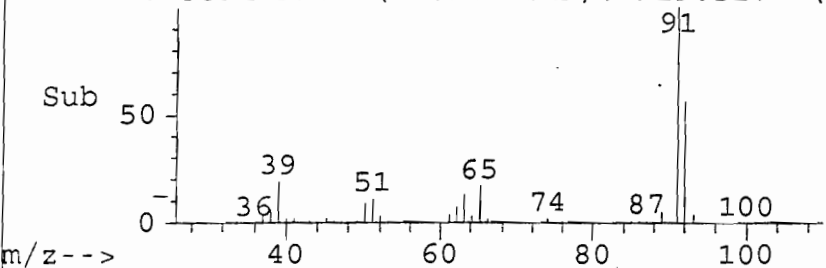
91 100

92 55.9 40.2 74.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1272 (12.904 min): P19051.D (



AbundanceIon 91.00 (90.

600000 Ion 92.00 (91.

12.90

400000

200000

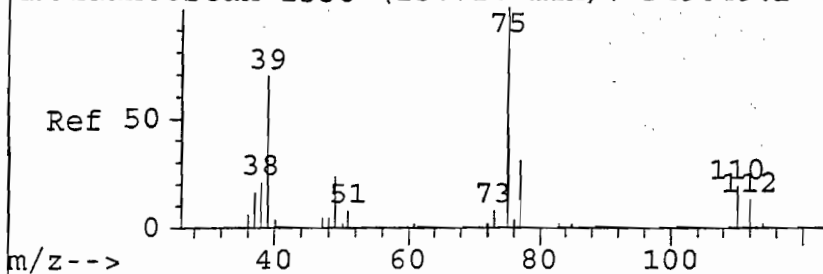
0

Time-->12.54

13.23

000410

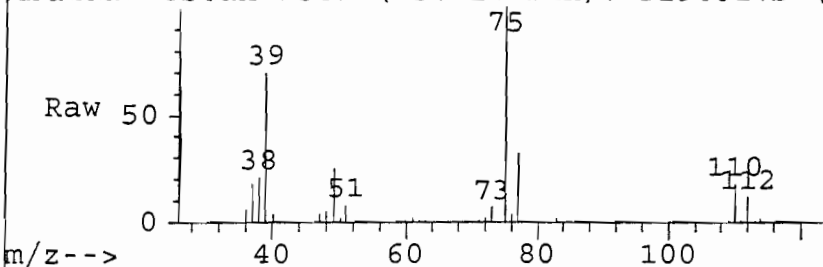
AbundanceScan 1358 (13.724 min): P19049.D (



#40
trans-1,3-dichloropropene
Concen: 211.57 ug/L m
RT: 13.71 min Scan# 1361
Delta R.T. -0.01 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

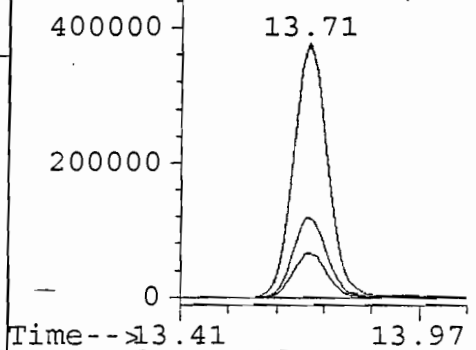
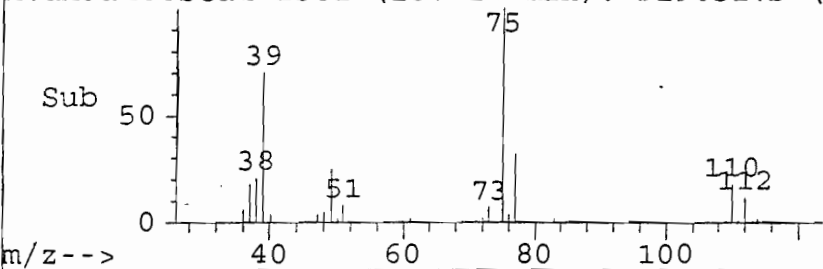
Tgt Ion: 75 Resp: 2133233
Ion Ratio Lower Upper
75 100
110 17.5 13.2 24.4
77 31.5 21.7 40.3
0 0.0 0.0 0.0

AbundanceScan 1361 (13.710 min): P19051.D (



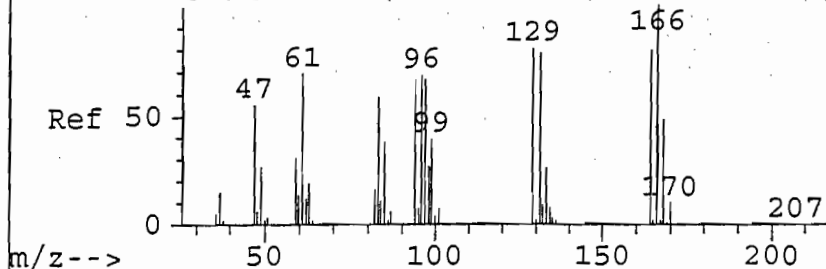
AbundanceIon 75.00 (74.
Ion 110.00 (109
Ion 77.00 (76.

AbundanceScan 1361 (13.710 min): P19051.D (

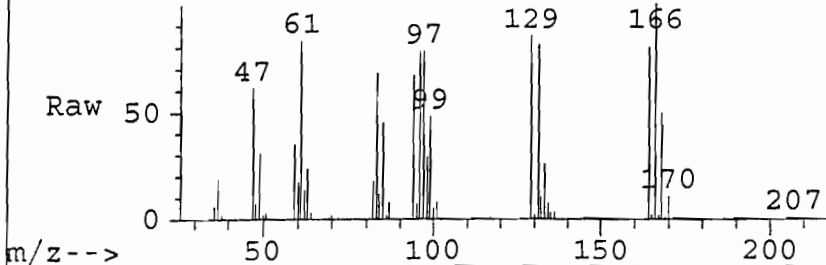


000411

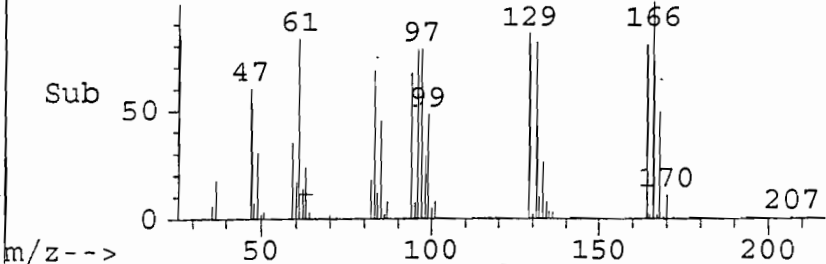
AbundanceScan 1402 (14.123 min): P19049.D (



AbundanceScan 1405 (14.109 min): P19051.D (



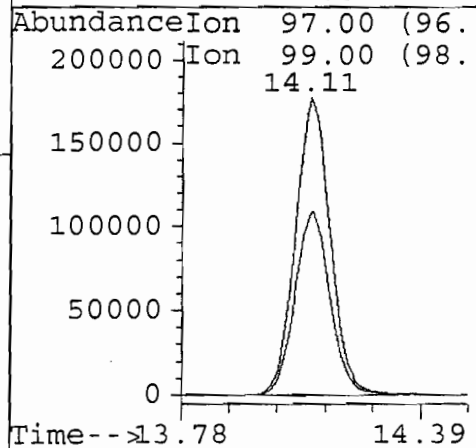
AbundanceScan 1405 (14.109 min): P19051.D (



#41

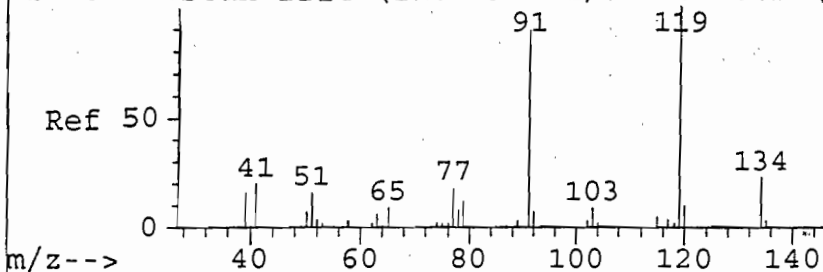
1,1,2-trichloroethane
Concen: 186.68 ug/L m
RT: 14.11 min Scan# 1405
Delta R.T. -0.01 min
Lab File: P19051.D
Acq: 6 Oct 99 7:23 pm

Tgt Ion:97	Resp: 1096991
Ion Ratio	Lower Upper
97 100	
99 61.1	41.4 77.0
0 0.0	0.0 0.0
0 0.0	0.0 0.0



000412

AbundanceScan 2214 (21.469 min): P19049.D (



#67

tert-butylbenzene

Concen: 203.97 ug/L m

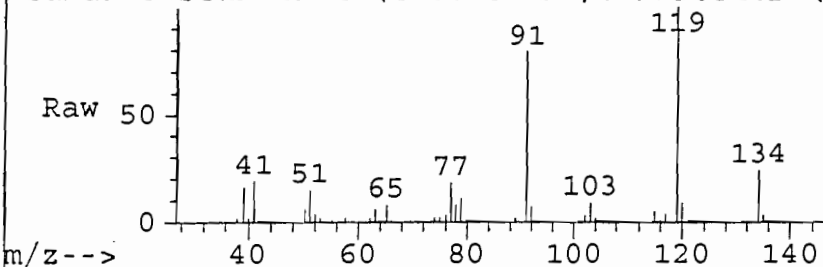
RT: 21.45 min Scan# 2221

Delta R.T. -0.02 min

Lab File: P19051.D

Acq: 6 Oct 99 7:23 pm

AbundanceScan 2221 (21.446 min): P19051.D (



Tgt Ion:119 Resp: 5106569

Ion Ratio Lower Upper

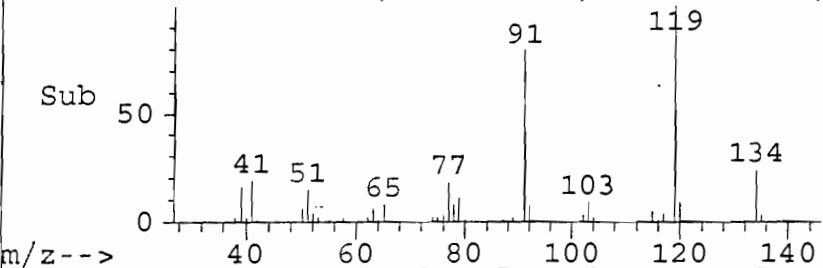
119 100

91 79.0 62.2 115.4

134 24.0 16.4 30.4

0 0.0 0.0 0.0

AbundanceScan 2221 (21.446 min): P19051.D (



AbundanceIon 119.00 (118

1000000 Ion 91.00 (90.

Ion 134.00 (133

21.45

500000

0

Time-->21.19 21.61

000413

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19052.D
 Acq Time : 6 Oct 99 8:07 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:02 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.24	96	1012065	50.00	ug/L	-0.02
43) Chlorobenzene-d5	16.32	117	1021234	50.00	ug/L	-0.01
58) 1,4-dichlorobenzene-d4	22.58	152	732833	50.00	ug/L	0.00

System Monitoring Compounds						%Recovery
24) Dibromofluoromethane	7.96	113	870329	54.13	ug/L	108.27%
30) 1,2-Dichlorethane-d4	8.65	65	666179	52.83	ug/L	105.67%
38) Toluene-d8	12.75	98	1002685	51.81	ug/L	103.61%
42) 4-Bromofluorobenzene	19.47	95	982140	52.95	ug/L	105.91%

Target Compounds						Qvalue
2) dichlorodifluoromethane	1.73	85	852647	107.99	ug/L	99
3) chloromethane	1.94	50	459691	114.73	ug/L	95
4) vinyl chloride	2.07	62	456274	115.30	ug/L	100
5) bromomethane	2.47	94	485991	114.59	ug/L	88
6) chloroethane	2.59	64	209579	107.24	ug/L	91
7) Acrolein	3.63	56	262303	1057.77	ug/L	99
8) trichlorofluoromethane	2.88	101	2202471	110.49	ug/L	100
9) 1,1-dichloroethene	3.65	61	1111300	109.15	ug/L	98
10) Acetone	3.91	43	131622	54.25	ug/L	97
11) Carbon Disulfide	3.94	76	1177701	105.17	ug/L	100
12) Iodo Methane	3.90	142	1631132	106.89	ug/L	97
13) methylene chloride	4.58	84	474831	106.60	ug/L	94
14) trans-1,2-dichloroethene	4.97	61	966129	105.40	ug/L	94
15) TBA	4.98	59	642064	1055.64	ug/L	94
16) MTBE	4.98	73	1858251	102.32	ug/L	98
17) Acrylonitrile	5.17	53	724917	1060.44	ug/L	97
18) 1,1-dichloroethane	5.83	63	1490317	107.64	ug/L	99
19) 2,2-dichloropropane	6.88	77	1550321	103.52	ug/L	97
20) cis-1,2-dichloroethene	6.96	61	1282242	106.06	ug/L	94
21) bromochloromethane	7.43	49	794371	105.14	ug/L	98
22) chloroform	7.63	83	2062443	107.63	ug/L	98
23) 1,1,1-trichloroethane	7.85	97	2197681	105.95	ug/L	97
25) Vinyl Acetate	5.96	43	1588621	109.03	ug/L	99
26) 2-Butanone	7.10	43	234075	78.11	ug/L	100
27) carbon tetrachloride	8.08	117	1261566	111.12	ug/L	98
28) 1,1-dichloropropene	8.19	75	1224253	107.70	ug/L	92
29) benzene	8.59	78	1644383	103.08	ug/L	99
31) 1,2-dichloroethane	8.82	62	1481621	110.85	ug/L	99
32) trichloroethene	10.01	130	1005489	106.63	ug/L	98
33) 1,2-dichloropropane	10.59	63	791258	114.29	ug/L	100
34) dibromomethane	10.86	174	798846	104.70	ug/L	96
35) bromodichloromethane	11.25	83	2078504	114.36	ug/L	100
36) 2-Chloroethyl Vinyl Ether	12.90	63	263691	106.31	ug/L	93

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19052.D
 Acq Time : 6 Oct 99 8:07 pm
 Sample : 100PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:02 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	12.29	75	1207291	112.44	ug/L	99
39) toluene	12.91	91	1997408	102.91	ug/L	97
40) trans-1,3-dichloropropene	13.70	75	1171678	113.45	ug/L	97
41) 1,1,2-trichloroethane	14.13	97	632427	105.07	ug/L	96
44) 4-Methyl-2-Pentanone	12.72	43	534557	103.82	ug/L	97
45) tetrachloroethene	14.14	166	1094509	100.61	ug/L	90
46) 1,3-dichloropropane	14.51	76	1063471	110.76	ug/L	95
47) dibromochloromethane	14.95	129	1499309	111.88	ug/L	95
48) 1,2-dibromoethane	15.19	107	1140978	110.74	ug/L	95
49) 2-Hexanone	14.76	43	401938	90.57	ug/L	98
50) chlorobenzene	16.39	112	1644097	102.71	ug/L	99
51) 1-Chlorohexane	16.44	91	952493	102.17	ug/L	100
52) 1,1,1,2-tetrachloroethane	16.68	133	1044466	104.47	ug/L	97
53) ethylbenzene	16.67	91	2781521	102.10	ug/L	99
54) m&p-xylenes	16.99	106	1960420	219.01	ug/L	93
55) o-xylene	18.01	91	2709872	107.44	ug/L	99
56) styrene	18.10	104	1682969	113.26	ug/L	94
57) bromoform	18.56	173	1258711	109.95	ug/L	98
59) isopropylbenzene	18.99	105	3196167	100.58	ug/L	99
60) bromobenzene	19.75	77	2180052	99.26	ug/L	97
61) 1,1,2,2-tetrachloroethane	20.09	83	1307643	100.89	ug/L	98
62) 1,2,3-trichloropropane	20.13	75	963376	104.16	ug/L	97
63) n-propylbenzene	20.63	120	1191669	97.28	ug/L m	96
64) 2-chlorotoluene	20.31	126	793623	100.10	ug/L	98
65) 4-chlorotoluene	20.64	126	823541	102.74	ug/L	95
66) 1,3,5-trimethylbenzene	20.66	105	2985109	99.22	ug/L m	92
67) tert-butylbenzene	21.46	119	2765990	99.56	ug/L	98
68) 1,2,4-trimethylbenzene	21.64	105	2987562	102.43	ug/L	96
69) sec-butylbenzene	22.07	105	3873570	105.34	ug/L	98
70) 1,3-dichlorobenzene	22.36	146	1879857	99.53	ug/L	98
71) 4-isopropyltoluene	22.52	119	3387514	99.83	ug/L	98
72) 1,4-dichlorobenzene	22.64	146	1912157	102.69	ug/L	98
73) 1,2-dichlorobenzene	23.64	146	1853336	101.86	ug/L	91
74) n-butylbenzene	23.64	91	3376795	103.19	ug/L	92
75) 1,2-dibromo-3-chloropropan	25.91	75	500523	113.55	ug/L	91
76) 1,2,4-trichlorobenzene	28.15	180	1648357	106.70	ug/L	97
77) hexachlorobutadiene	28.59	225	1306154	102.37	ug/L	97
78) naphthalene	28.79	128	2305612	105.34	ug/L	99
79) 1,2,3-trichlorobenzene	29.51	180	1382158	99.72	ug/L	89

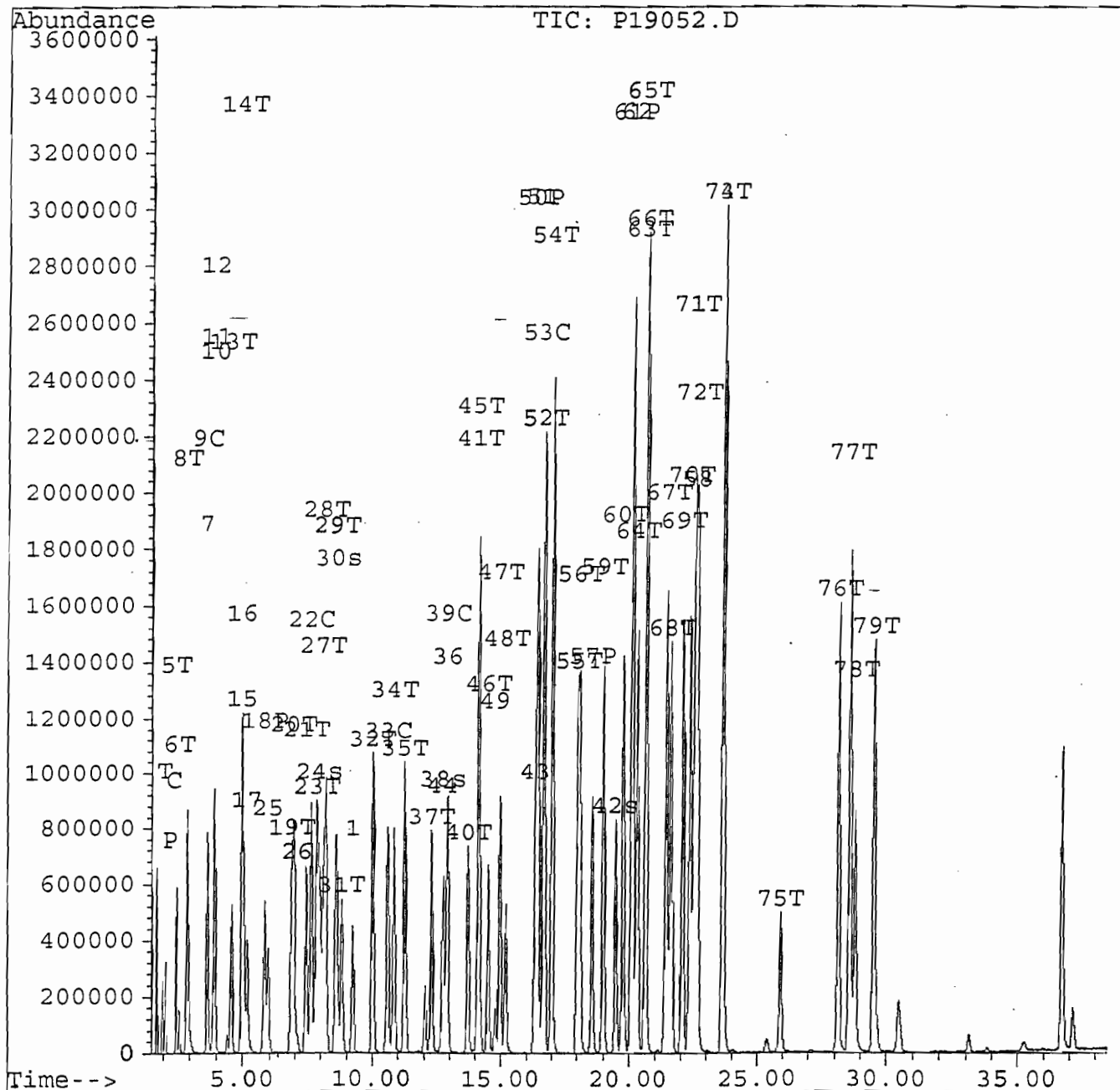
000415

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19052.D
Acq Time : 6 Oct 99 8:07 pm
Sample : 100PPB ICC
Misc : 5G/5ML
Quant Time: Oct 7 12:02 1999

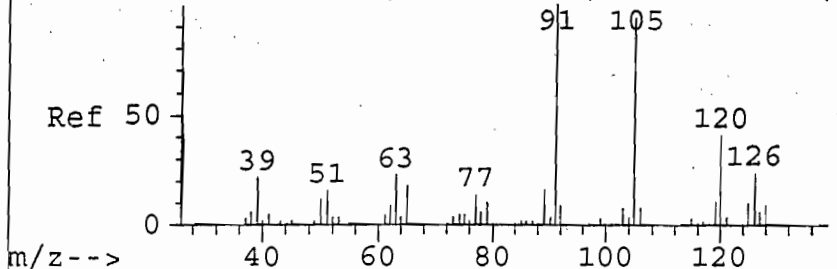
Operator: AV
Inst : voa2
Multiplr: 1.00

```
Method       : I:\HPCHEM\1\METHODS\V21006CS.M
Title        : VOA
Last Update   : Thu Oct 07 12:18:47 1999
Response via  : Single Level Calibration
```

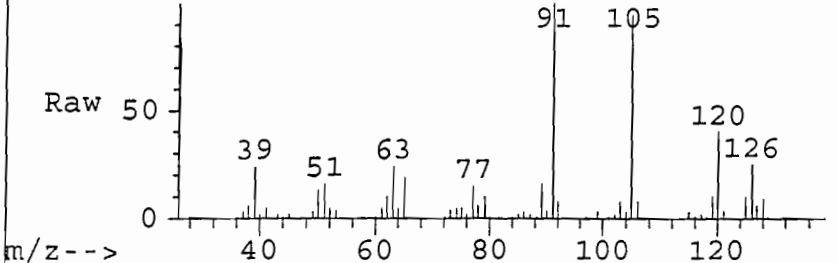


000416

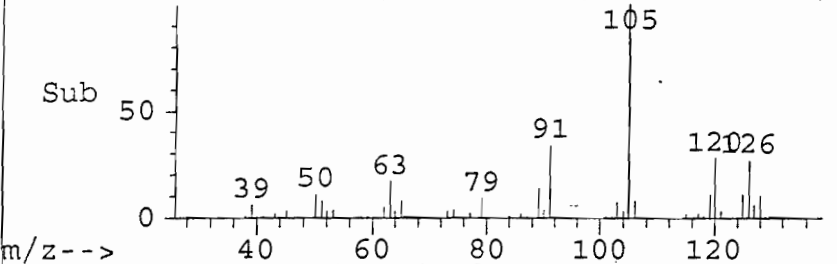
AbundanceScan 2124 (20.648 min): P19049.D (



AbundanceScan 2130 (20.631 min): P19052.D (



AbundanceScan 2130 (20.631 min): P19052.D (



#63

n-propylbenzene

Concen: 97.28 ug/L m

RT: 20.63 min Scan# 2130

Delta R.T. -0.02 min

Lab File: P19052.D

Acq: 6 Oct 99 8:07 pm

Tgt Ion:120 Resp: 1191669

Ion Ratio Lower Upper

120 100

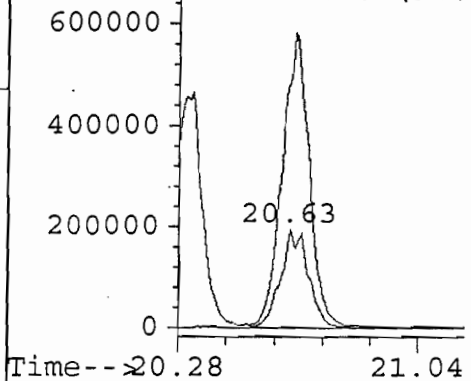
91 249.2 170.7 316.9

0 0.0 0.0 0.0

0 0.0 0.0 0.0

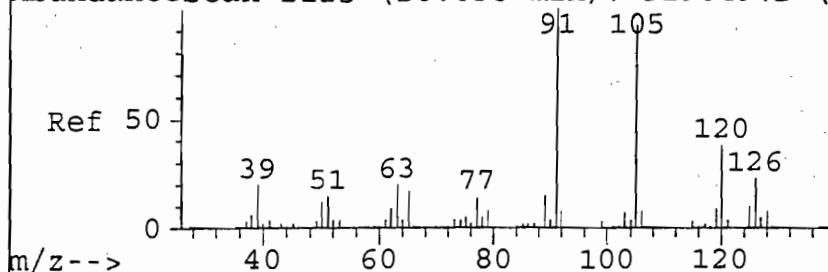
AbundanceIon 120.00 (119

Ion 91.00 (90.

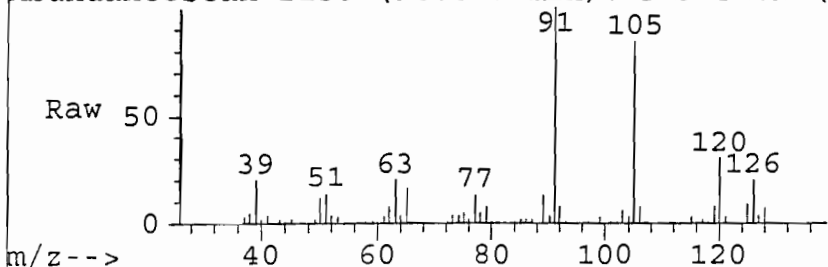


000417

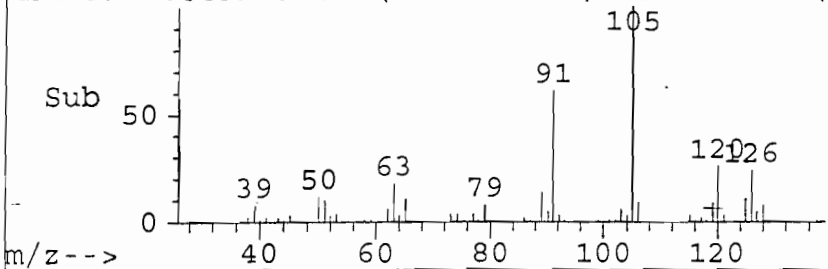
AbundanceScan 2125 (20.658 min): P19049.D (



AbundanceScan 2133 (20.657 min): P19052.D (



AbundanceScan 2133 (20.657 min): P19052.D (



#66

1,3,5-trimethylbenzene

Concen: 99.22 ug/L m

RT: 20.66 min Scan# 2133

Delta R.T. -0.00 min

Lab File: P19052.D

Acq: 6 Oct 99 8:07 pm

Tgt Ion:105 Resp: 2985109

Ion Ratio Lower Upper

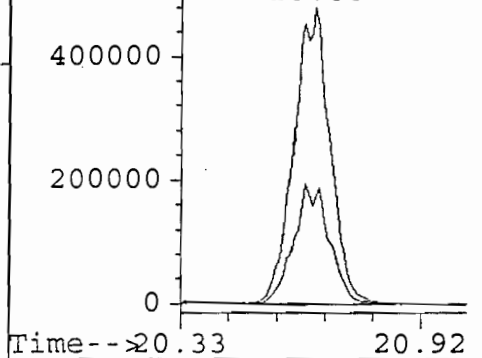
105 100

120 35.5 28.6 53.0

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 105.00 (104
Ion 120.00 (119
20.66



000418

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19053.D
 Acq Time : 6 Oct 99 8:51 pm
 Sample : 20PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:01 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.24	96	826982	50.00	ug/L	-0.03
43) Chlorobenzene-d5	16.34	117	920924	50.00	ug/L	0.00
58) 1,4-dichlorobenzene-d4	22.57	152	767847	50.00	ug/L	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
24) Dibromofluoromethane	7.95	113	768632	58.51	ug/L	117.02%
30) 1,2-Dichloroethane-d4	8.65	65	615500	59.74	ug/L	119.48%
38) Toluene-d8	12.75	98	871046	55.08	ug/L	110.15%
42) 4-Bromofluorobenzene	19.47	95	982457	64.83	ug/L	129.65%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) dichlorodifluoromethane	1.73	85	156473	24.25	ug/L	100
3) chloromethane	1.94	50	88365	26.99	ug/L	100
4) vinyl chloride	2.07	62	76891	23.78	ug/L	97
5) bromomethane	2.47	94	94426	27.25	ug/L	88
6) chloroethane	2.60	64	44116	27.63	ug/L	90
7) Acrolein	3.63	56	44052	217.40	ug/L	99
8) trichlorofluoromethane	2.90	101	404307	24.82	ug/L	97
9) 1,1-dichloroethene	3.65	61	189981	22.84	ug/L	97
10) Acetone	3.88	43	27257	13.75	ug/L	85
11) Carbon Disulfide	3.93	76	191190	20.89	ug/L	97
12) Iodo-Methane	3.92	142	271039	21.74	ug/L	98
13) methylene chloride	4.56	84	80436	22.10	ug/L	98
14) trans-1,2-dichloroethene	4.96	61	159460	21.29	ug/L	97
15) TBA	4.93	59	109396	220.12	ug/L m	75
16) MTBE	4.98	73	300577	20.25	ug/L	96
17) Acrylonitrile	5.15	53	119846	214.55	ug/L	99
18) 1,1-dichloroethane	5.82	63	268259	23.71	ug/L	98
19) 2,2-dichloropropane	6.88	77	282488	23.08	ug/L	98
20) cis-1,2-dichloroethene	6.96	61	228696	23.15	ug/L	96
21) bromochloromethane	7.42	49	141932	22.99	ug/L	91
22) chloroform	7.63	83	373265	23.84	ug/L	100
23) 1,1,1-trichloroethane	7.84	97	380076	22.43	ug/L	95
25) Vinyl Acetate	5.95	43	260145	21.85	ug/L	97
26) 2-Butanone	7.09	43	38201	15.60	ug/L	92
27) carbon tetrachloride	8.10	117	210377	22.68	ug/L	96
28) 1,1-dichloropropene	8.19	75	209648	22.57	ug/L	95
29) benzene	8.58	78	275530	21.14	ug/L	98
31) 1,2-dichloroethane	8.82	62	269704	24.69	ug/L	97
32) trichloroethene	10.02	130	165748	21.51	ug/L	94
33) 1,2-dichloropropane	10.59	63	125993	22.27	ug/L	91
34) dibromomethane	10.85	174	142412	22.84	ug/L	90
35) bromodichloromethane	11.25	83	334026	22.49	ug/L	97
36) 2-Chloroethyl Vinyl Ether	12.91	63	43943	21.68	ug/L m	87

(#) = qualifier out of range (m) = manual integration
 P19053.D V21006CS.M Thu Oct 07 12:32:24 1999

000419

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19053.D
Acq Time : 6 Oct 99 8:51 pm
Sample : 20PPB ICC
Misc : 5G/5ML
Quant Time: Oct 7 12:01 1999

Operator: AV
Inst : voa2
Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
Title : VOA
Last Update : Thu Oct 07 12:18:47 1999
Response via : Single Level Calibration

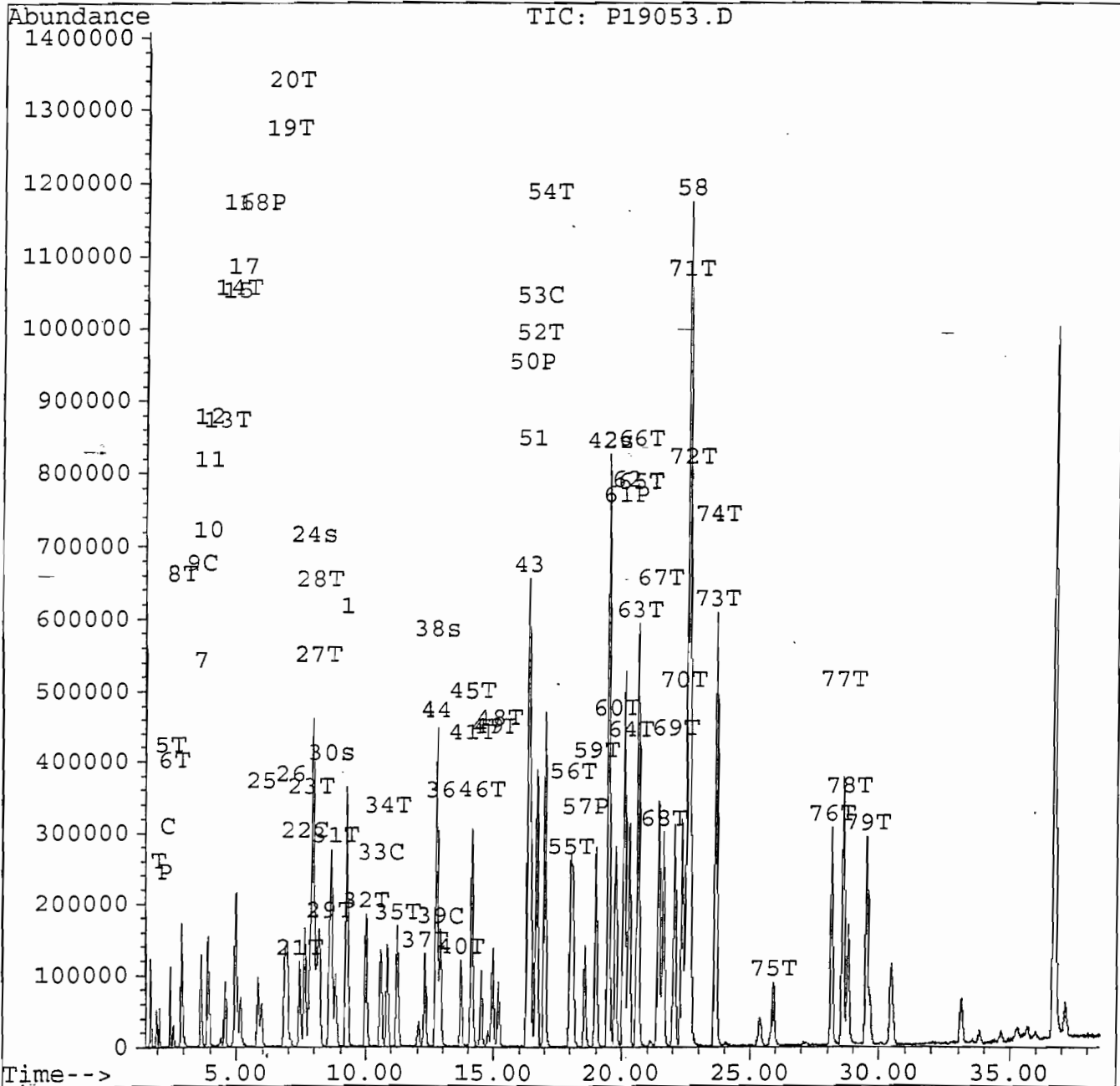
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	12.29	75	201523	22.97	ug/L	98
39) toluene	12.91	91	353619	22.30	ug/L	95
40) trans-1,3-dichloropropene	13.72	75	192402	22.80	ug/L	98
41) 1,1,2-trichloroethane	14.12	97	97452	19.81	ug/L	94
44) 4-Methyl-2-Pentanone	12.71	43	89095	19.19	ug/L	86
45) tetrachloroethene	14.14	166	186813	19.04	ug/L	97
46) 1,3-dichloropropane	14.50	76	177273	20.47	ug/L	100
47) dibromochloromethane	14.95	129	214678	17.76	ug/L	99
48) 1,2-dibromoethane	15.18	107	197136	21.22	ug/L	94
49) 2-Hexanone	14.78	43	57573	14.39	ug/L	69
50) chlorobenzene	16.39	112	319391	22.13	ug/L	97
51) 1-Chlorohexane	16.45	91	174798	20.79	ug/L	96
52) 1,1,1,2-tetrachloroethane	16.67	133	156458	17.35	ug/L	89
53) ethylbenzene	16.66	91	528813	21.53	ug/L	95
54) m&p-xylenes	17.01	106	370002	45.84	ug/L	87
55) o-xylene	18.00	91	538397	23.67	ug/L	98
56) styrene	18.10	104	315320	23.53	ug/L	91
57) bromoform	18.56	173	192756	18.67	ug/L	99
59) isopropylbenzene	18.99	105	648156	19.47	ug/L	99
60) bromobenzene	19.76	77	445357	19.35	ug/L	94
61) 1,1,2,2-tetrachloroethane	20.08	83	247532	18.23	ug/L	81
62) 1,2,3-trichloropropane	20.13	75	181576	18.74	ug/L	97
63) n-propylbenzene	20.65	120	238605	18.59	ug/L	67
64) 2-chlorotoluene	20.32	126	164259	19.77	ug/L	98
65) 4-chlorotoluene	20.65	126	165793	19.74	ug/L	96
66) 1,3,5-trimethylbenzene	20.64	105	602273	19.11	ug/L	95
67) tert-butylbenzene	21.45	119	573320	19.70	ug/L	98
68) 1,2,4-trimethylbenzene	21.64	105	628112	20.55	ug/L	99
69) sec-butylbenzene	22.06	105	788664	20.47	ug/L	99
70) 1,3-dichlorobenzene	22.36	146	399625	20.19	ug/L	98
71) 4-isopropyltoluene	22.53	119	712351	20.04	ug/L	96
72) 1,4-dichlorobenzene	22.65	146	425798	21.82	ug/L	92
73) 1,2-dichlorobenzene	23.64	146	381316	20.00	ug/L	92
74) n-butylbenzene	23.65	91	675835	19.71	ug/L	98
75) 1,2-dibromo-3-chloropropan	25.92	75	86408	18.71	ug/L	89
76) 1,2,4-trichlorobenzene	28.15	180	309747	19.14	ug/L	98
77) hexachlorobutadiene	28.60	225	274446	20.53	ug/L	97
78) naphthalene	28.80	128	466056	20.32	ug/L	98
79) 1,2,3-trichlorobenzene	29.51	180	289280	19.92	ug/L	100

Quantitation Report

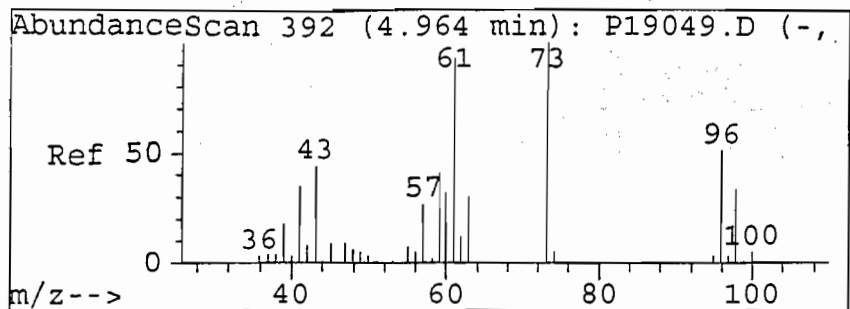
Data File : I:\HPCHEM\1\DATA\V2100699\P19053.D
 Acq Time : 6 Oct 99 8:51 pm
 Sample : 20PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:01 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

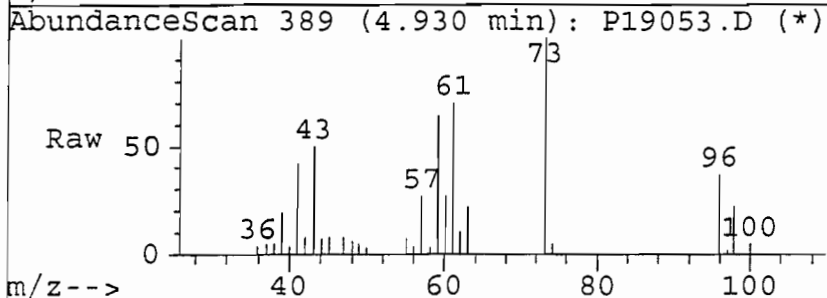
Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration



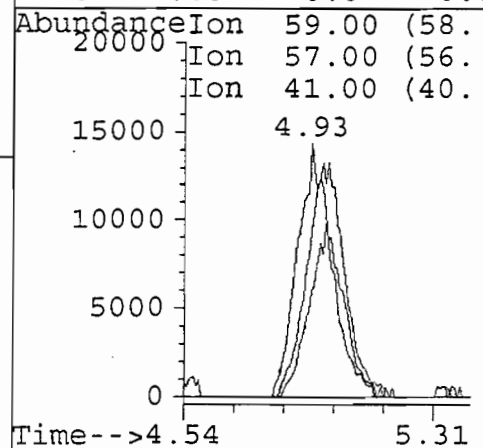
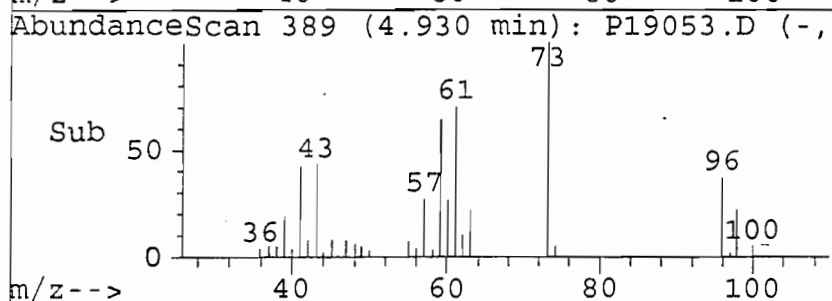
000421



#15
TBA
Concen: 220.12 ug/L m
RT: 4.93 min Scan# 389
Delta R.T. -0.03 min
Lab File: P19053.D
Acq: 6 Oct 99 8:51 pm

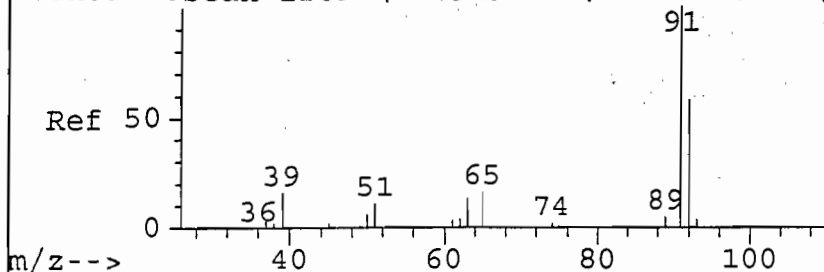


Tgt Ion	Resp	109396
Ion	Ratio	Lower Upper
59	100	
57	42.0	45.1 83.7#
41	65.3	59.6 110.8
0	0.0	0.0 0.0



000422

AbundanceScan 1269 (12.919 min): P19049.D (



#36

2-Chloroethyl Vinyl Ether

Concen: 21.68 ug/L m

RT: 12.91 min Scan# 1271

Delta R.T. -0.01 min

Lab File: P19053.D

Acq: 6 Oct 99 8:51 pm

Tgt Ion: 63 Resp: 43943

Ion Ratio Lower Upper

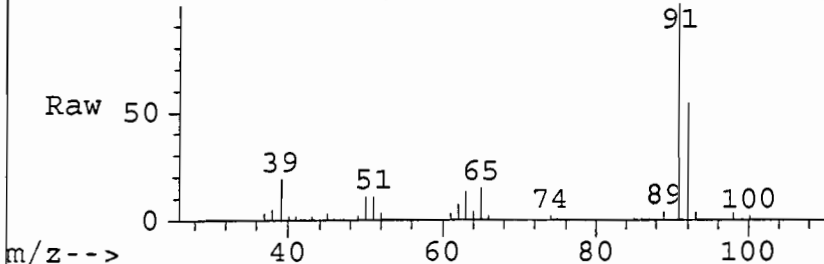
63 100

43 11.8 2.5 7.5#

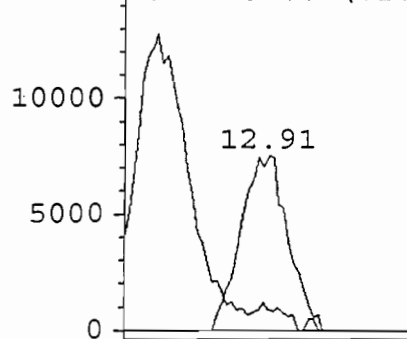
0 0.0 0.0 0.0

0 0.0 0.0 0.0

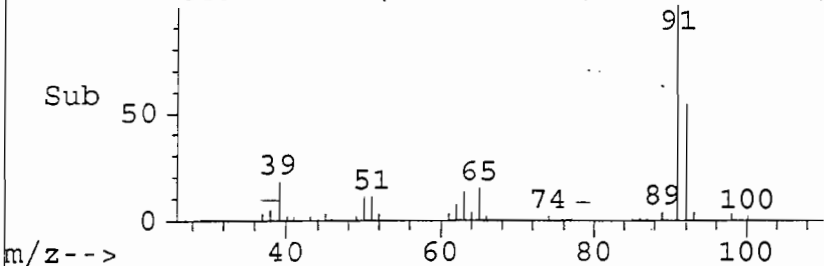
AbundanceScan 1271 (12.910 min): P19053.D (



AbundanceIon 63.00 (62.
15000 Ion 43.00 (42.



AbundanceScan 1271 (12.910 min): P19053.D (



000423

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19054.D
 Acq Time : 6 Oct 99 9:35 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:13 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.25	96	953518	50.00	ug/L	-0.01
43) Chlorobenzene-d5	16.30	117	1033013	50.00	ug/L	-0.03
58) 1,4-dichlorobenzene-d4	22.58	152	762249	50.00	ug/L	-0.01
System Monitoring Compounds						
						%Recovery
24) Dibromofluoromethane	7.96	113	779680	51.47	ug/L	102.95%
30) 1,2-Dichlorethane-d4	8.65	65	605872	51.00	ug/L	102.00%
38) Toluene-d8	12.75	98	965112	52.93	ug/L	105.85%
42) 4-Bromofluorobenzene	19.47	95	976181	55.86	ug/L	111.73%
Target Compounds						
						Qvalue
2) dichlorodifluoromethane	1.73	85	43304	5.82	ug/L	99
3) chloromethane	1.95	50	22534	5.97	ug/L	92
4) vinyl chloride	2.07	62	20808	5.58	ug/L	99
5) bromomethane	2.48	94	26422	6.61	ug/L	85
6) chloroethane	2.61	64	12268	6.66	ug/L	97
7) Acrolein	3.64	56	11756	50.32	ug/L	97
8) trichlorofluoromethane	2.91	101	114122	6.08	ug/L	94
9) 1,1-dichloroethene	3.65	61	51013	5.32	ug/L	95
10) Acetone	3.88	43	10215	4.47	ug/L m	61
11) Carbon Disulfide	3.94	76	48705	4.62	ug/L	88
12) Iodo Methane	3.90	142	66075	4.60	ug/L	98
13) methylene chloride	4.57	84	25136	5.99	ug/L	97
14) trans-1,2-dichloroethene	4.97	61	40263	4.66	ug/L	93
15) TBA	4.92	59	36448	63.60	ug/L m	62
16) MTBE	4.98	73	77794	4.55	ug/L m	81
17) Acrylonitrile	5.17	53	30559	47.45	ug/L	99
18) 1,1-dichloroethane	5.82	63	70534	5.41	ug/L	99
19) 2,2-dichloropropane	6.89	77	72238	5.12	ug/L	91
20) cis-1,2-dichloroethene	6.97	61	60502	5.31	ug/L	89
21) bromochloromethane	7.44	49	36475	5.12	ug/L	97
22) chloroform	7.61	83	95105	5.27	ug/L	100
23) 1,1,1-trichloroethane	7.85	97	93521	4.79	ug/L	92
25) Vinyl Acetate	5.96	43	63925	4.66	ug/L m	92
26) 2-Butanone	7.10	43	12567	4.45	ug/L m	62
27) carbon tetrachloride	8.09	117	51665	4.83	ug/L	100
28) 1,1-dichloropropene	8.20	75	52179	4.87	ug/L	96
29) benzene	8.58	78	75409	5.02	ug/L	91
31) 1,2-dichloroethane	8.81	62	69777	5.54	ug/L	100
32) trichloroethene	10.00	130	41152	4.63	ug/L	95
33) 1,2-dichloropropane	10.60	63	30726	4.71	ug/L	93
34) dibromomethane	10.85	174	34242	4.76	ug/L	93
35) bromodichloromethane	11.24	83	76453	4.46	ug/L	100
36) 2-Chloroethyl Vinyl Ether	12.89	63	12917	5.53	ug/L m	87

(#) = qualifier out of range (m) = manual integration
 P19054.D V21006CS.M Thu Oct 07 12:33:26 1999

000424

VOA3

Page 1

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V2100699\P19054.D
 Acq Time : 6 Oct 99 9:35 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:13 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration

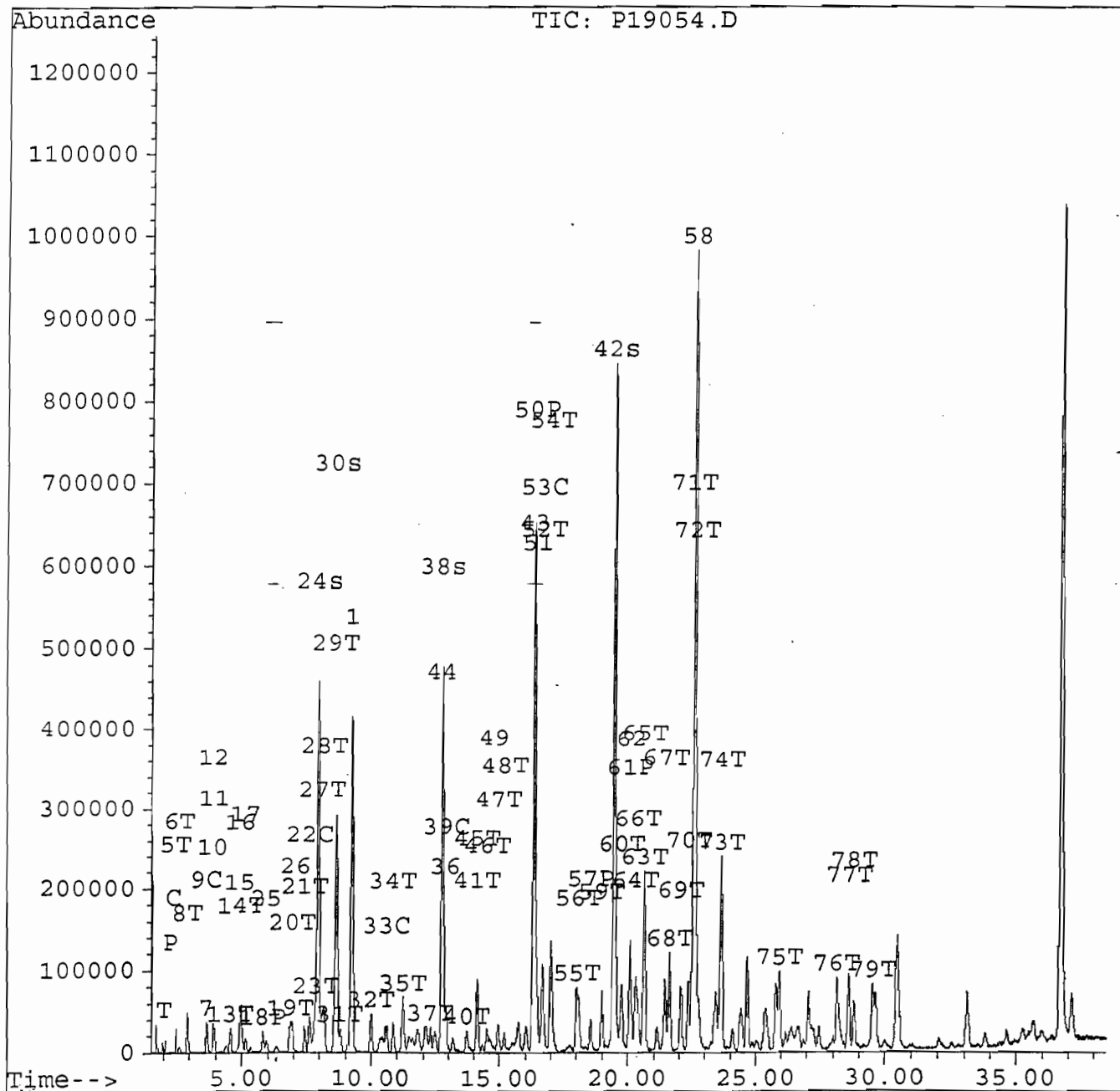
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) cis-1,3-dichloropropene	12.29	75	46235	4.57	ug/L	95
39) toluene	12.91	91	100931	5.52	ug/L	98
40) trans-1,3-dichloropropene	13.73	75	44953	4.62	ug/L	98
41) 1,1,2-trichloroethane	14.13	97	26810	4.73	ug/L	98
44) 4-Methyl-2-Pentanone	12.71	43	36261	6.96	ug/L m	55
45) tetrachloroethene	14.13	166	51246	4.66	ug/L	93
46) 1,3-dichloropropane	14.51	76	46547	4.79	ug/L	99
47) dibromochloromethane	14.93	129	78302	5.78	ug/L m	99
48) 1,2-dibromoethane	15.19	107	49449	4.74	ug/L	99
49) 2-Hexanone	14.78	43	17657	3.93	ug/L	73
50) chlorobenzene	16.38	112	89300	5.51	ug/L	95
51) 1-Chlorohexane	16.43	91	47507	5.04	ug/L	79
52) 1,1,1,2-tetrachloroethane	16.68	133	41479	4.10	ug/L	95
53) ethylbenzene	16.67	91	149770	5.44	ug/L	100
54) m&p-xylenes	17.00	106	102309	11.30	ug/L	97
55) o-xylene	18.02	91	153238	6.01	ug/L	97
56) styrene	18.09	104	75511	5.02	ug/L	88
57) bromoform	18.57	173	40912	3.53	ug/L	92
59) isopropylbenzene	18.98	105	163827	4.96	ug/L	96
60) bromobenzene	19.76	77	116655	5.11	ug/L	97
61) 1,1,2,2-tetrachloroethane	20.08	83	64624	4.79	ug/L	100
62) 1,2,3-trichloropropane	20.14	75	51926	5.40	ug/L	95
63) n-propylbenzene	20.64	120	109016	8.56	ug/L m	66
64) 2-chlorotoluene	20.30	126	40319	4.89	ug/L	95
65) 4-chlorotoluene	20.65	126	41336	4.96	ug/L	92
66) 1,3,5-trimethylbenzene	20.40	105	134758	4.31	ug/L m	96
67) tert-butylbenzene	21.47	119	148837	5.15	ug/L	97
68) 1,2,4-trimethylbenzene	21.63	105	249093	8.21	ug/L m	100
69) sec-butylbenzene	22.09	105	194126	5.08	ug/L	96
70) 1,3-dichlorobenzene	22.37	146	103747	5.28	ug/L	94
71) 4-isopropyltoluene	22.52	119	195423	5.54	ug/L	94
72) 1,4-dichlorobenzene	22.64	146	103003	5.32	ug/L	96
73) 1,2-dichlorobenzene	23.64	146	95075	5.02	ug/L	91
74) n-butylbenzene	23.65	91	221376	6.50	ug/L m	82
75) 1,2-dibromo-3-chloropropan	25.94	75	21024	4.59	ug/L m	69
76) 1,2,4-trichlorobenzene	28.14	180	81498	5.07	ug/L m	75
77) hexachlorobutadiene	28.60	225	63069	4.75	ug/L	90
78) naphthalene	28.79	128	141195	6.20	ug/L m	98
79) 1,2,3-trichlorobenzene	29.52	180	74328	5.16	ug/L	93

Quantitation Report

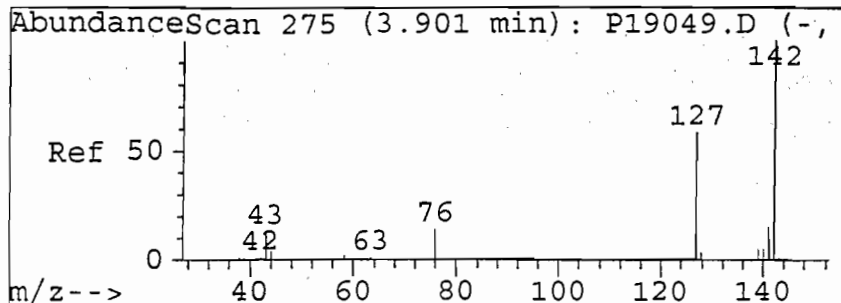
Data File : I:\HPCHEM\1\DATA\V2100699\P19054.D
 Acq Time : 6 Oct 99 9:35 pm
 Sample : 5PPB ICC
 Misc : 5G/5ML
 Quant Time: Oct 7 12:13 1999

Operator: AV
 Inst : voa2
 Multiplr: 1.00

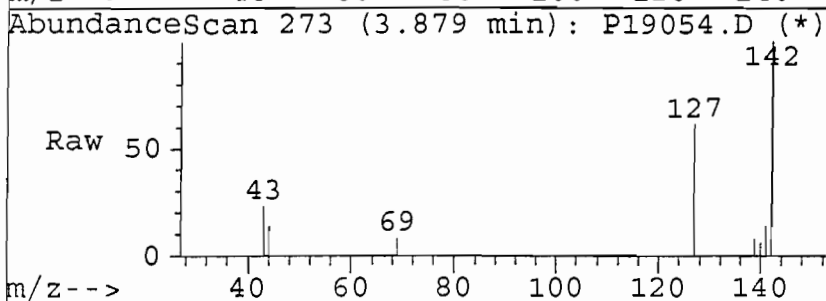
Method : I:\HPCHEM\1\METHODS\V21006CS.M
 Title : VOA
 Last Update : Thu Oct 07 12:18:47 1999
 Response via : Single Level Calibration



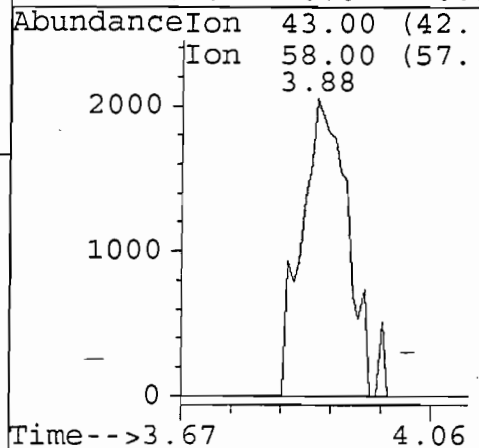
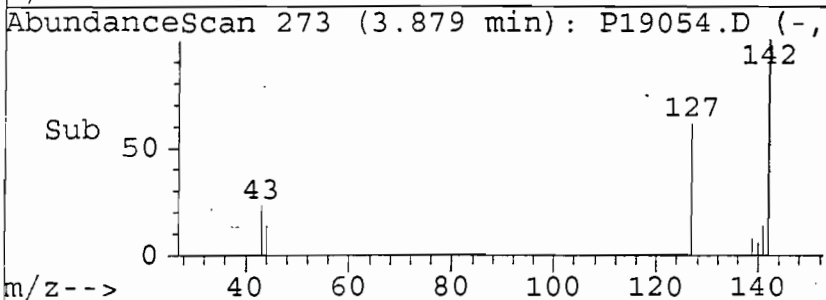
000426



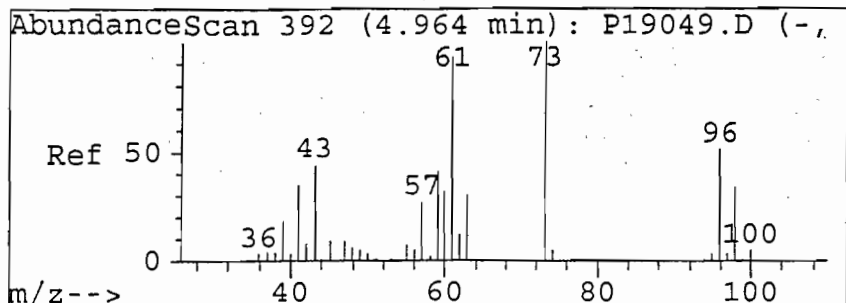
#10
 Acetone
 Concen: 4.47 ug/L m
 RT: 3.88 min Scan# 273
 Delta R.T. -0.02 min
 Lab File: P19054.D
 Acq: 6 Oct 99 9:35 pm



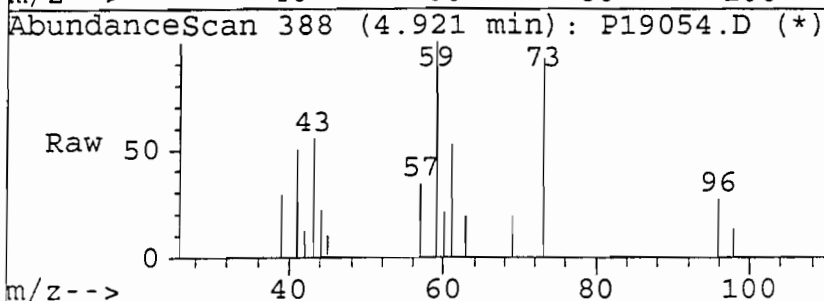
Tgt Ion:	43	Resp:	10215
Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	34.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



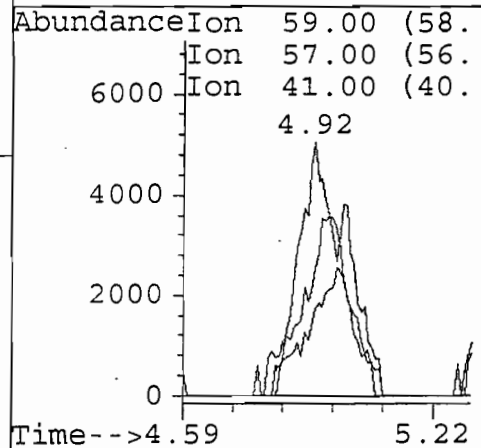
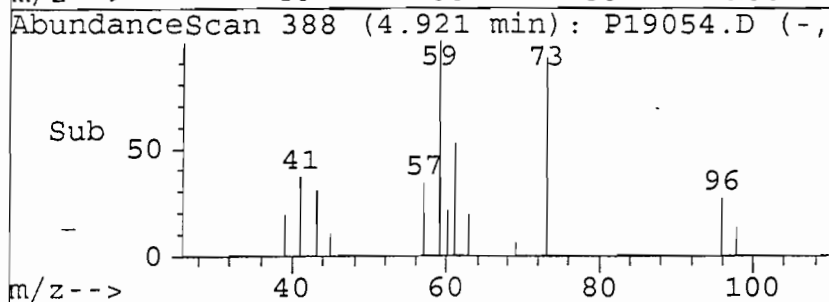
000427



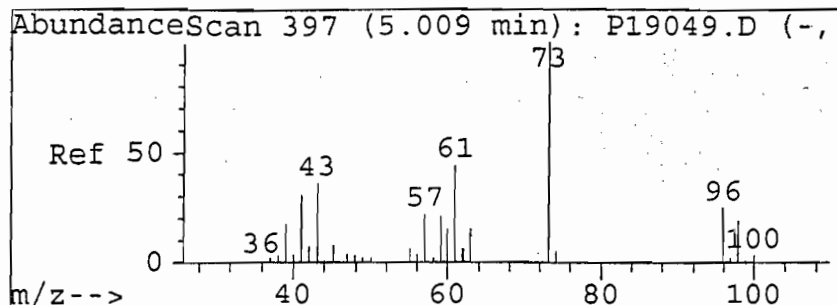
#15
TBA
Concen: 63.60 ug/L m
RT: 4.92 min Scan# 388
Delta R.T. -0.04 min
Lab File: P19054.D
Acq: 6 Oct 99 9:35 pm



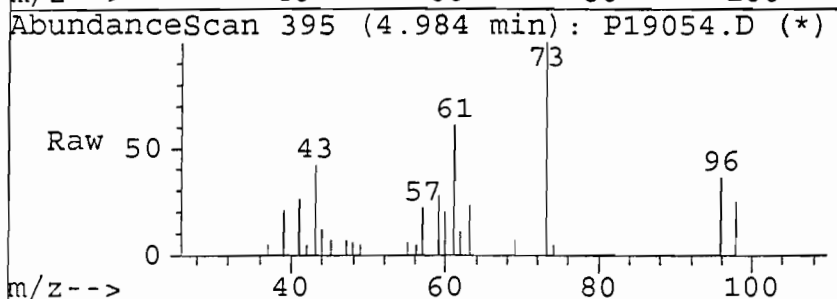
Tgt Ion:59 Resp: 36448
Ion Ratio Lower Upper
59 100
57 34.3 45.1 83.7#
41 50.5 59.6 110.8#
0 0.0 0.0 0.0



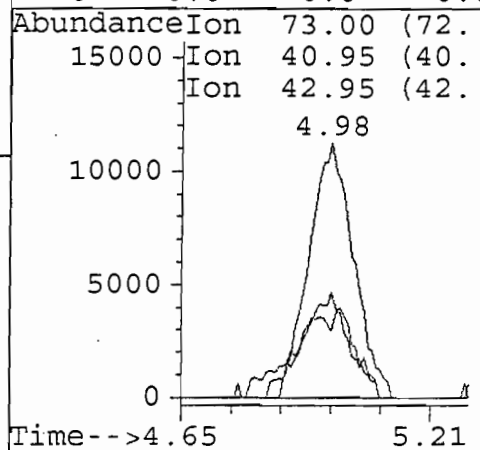
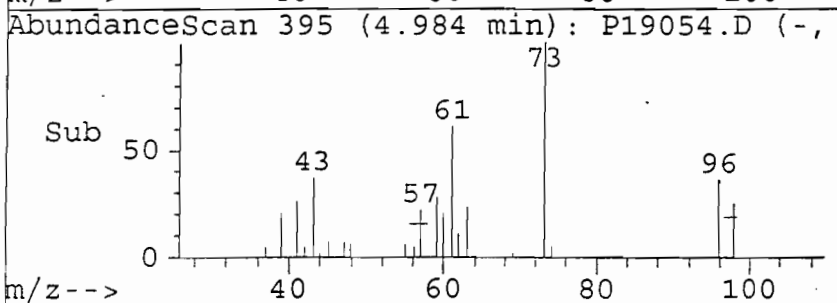
000428



#16
 MTBE
 Concen: 4.55 ug/L m
 RT: 4.98 min Scan# 395
 Delta R.T. -0.03 min
 Lab File: P19054.D.,
 Acq: 6 Oct 99 9:35 pm

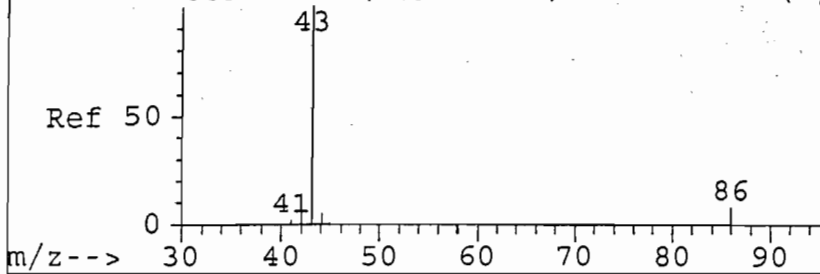


Tgt Ion	Ratio	Lower	Upper
73	100		
41	26.5	16.9	50.6
43	41.5	20.2	60.6
0	0.0	0.0	0.0

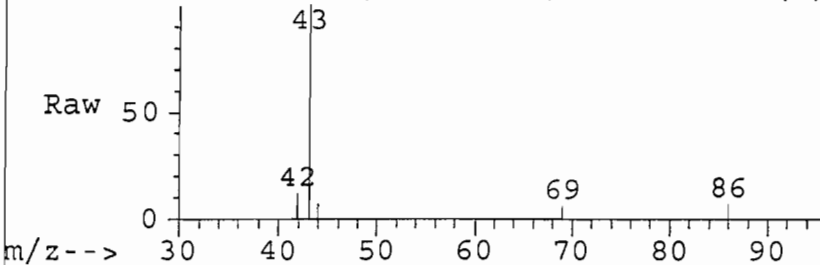


000429

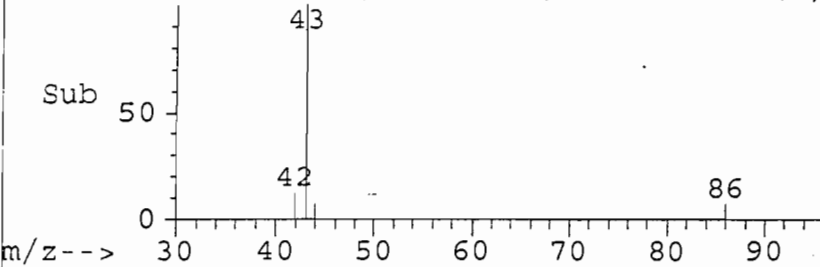
AbundanceScan 503 (5.970 min): P19049.D (-,



AbundanceScan 503 (5.964 min): P19054.D (*)



AbundanceScan 503 (5.964 min): P19054.D (-,



#25

Vinyl Acetate

Concen: 4.66 ug/L m

RT: 5.96 min Scan# 503

Delta R.T. -0.01 min

Lab File: P19054.D

Acq: 6 Oct 99 9:35 pm

Tgt Ion:43 Resp: 63925

Ion Ratio Lower Upper

43 100

86 7.5 4.0 11.9

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.

Ion 86.00 (85.

5.96

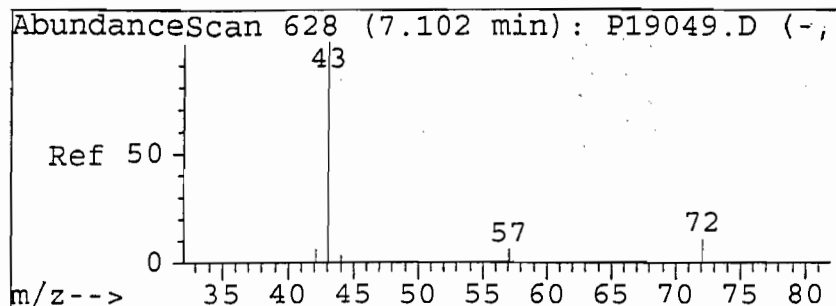
10000

5000

0

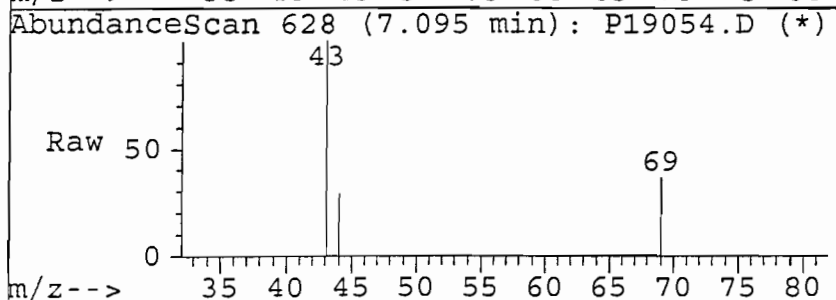
Time-->5.71 6.19

000430

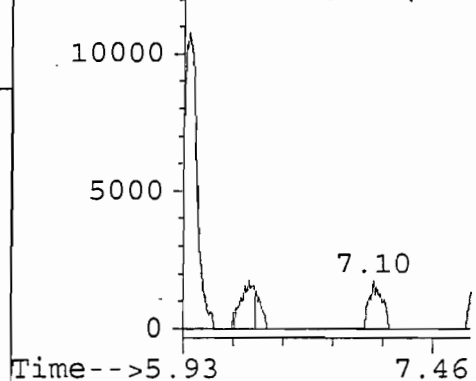
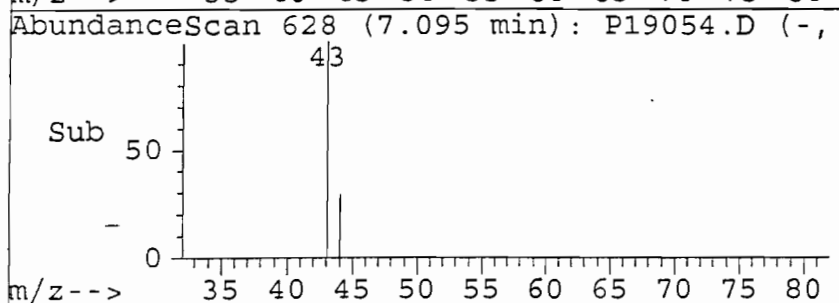


#26
 2-Butanone
 Concen: 4.45 ug/L m
 RT: 7.10 min Scan# 628
 Delta R.T. -0.01 min
 Lab File: P19054.D
 Acq: 6 Oct 99 9:35 pm

Tgt Ion:	43	Resp:	12567
Ion	Ratio	Lower	Upper
43	100		
72	0.0	8.2	24.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

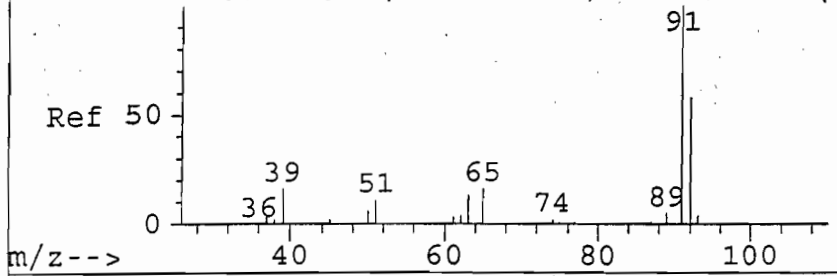


AbundanceIon 43.00 (42.
 Ion 72.00 (71.

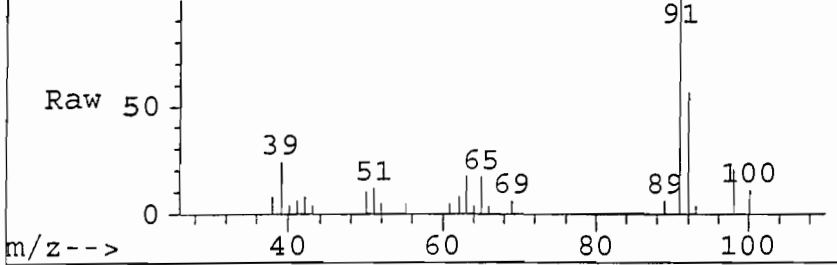


000431

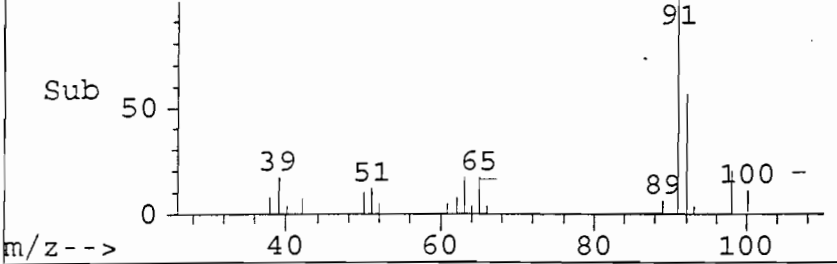
AbundanceScan 1269 (12.919 min): P19049.D (



AbundanceScan 1268 (12.893 min): P19054.D (



AbundanceScan 1268 (12.893 min): P19054.D (



#36

2-Chloroethyl Vinyl Ether

Concen: 5.53 ug/L m

RT: 12.89 min Scan# 1268

Delta R.T. -0.02 min

Lab File: P19054.D

Acq: 6 Oct 99 9:35 pm

Tgt Ion:63 Resp: 12917

Ion Ratio Lower Upper

63 100

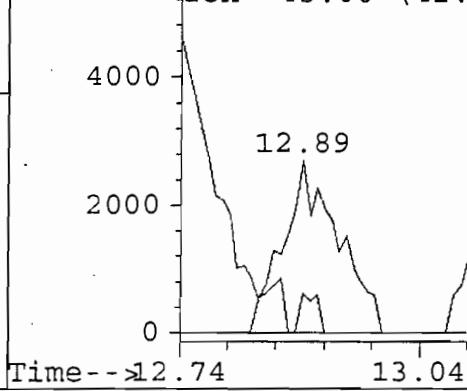
43 22.6 2.5 7.5#

0 0.0 0.0 0.0

0 0.0 0.0 0.0

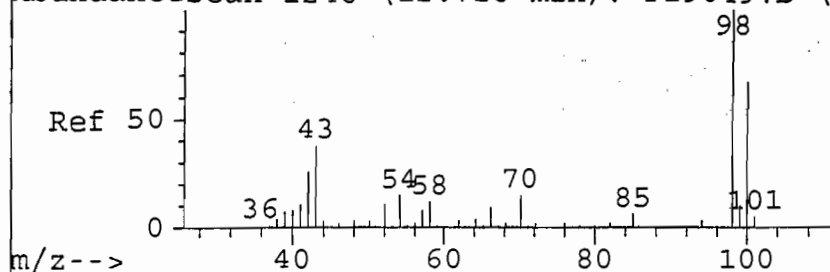
AbundanceIon 63.00 (62.

Ion 43.00 (42.

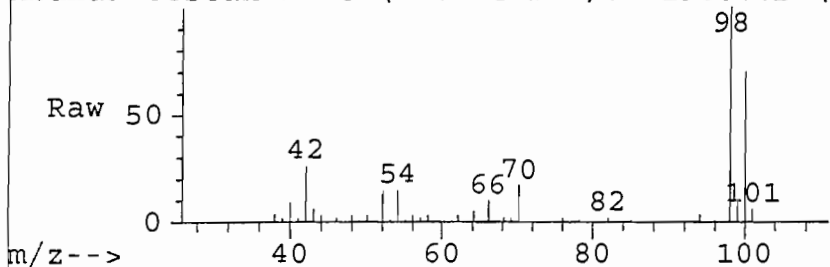


000432

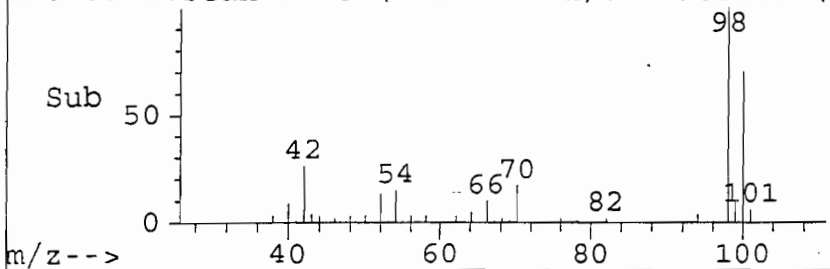
AbundanceScan 1248 (12.728 min): P19049.D (



AbundanceScan 1248 (12.712 min): P19054.D (



AbundanceScan 1248 (12.712 min): P19054.D (



#44

4-Methyl-2-Pentanone

Concen: 6.96 ug/L m

RT: 12.71 min Scan# 1248

Delta R.T. -0.02 min

Lab File: P19054.D

Acq: 6 Oct 99 9:35 pm

Tgt Ion:43 Resp: 36261

Ion Ratio Lower Upper

43 100

58 43.4 17.0 50.9

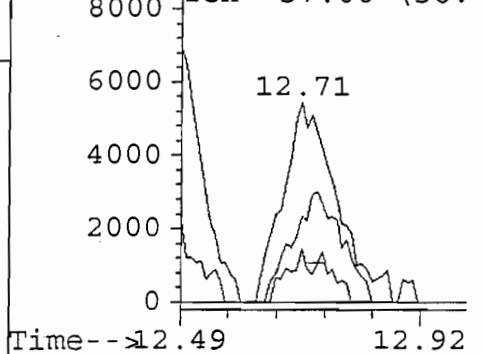
57 26.8 11.2 33.5

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.

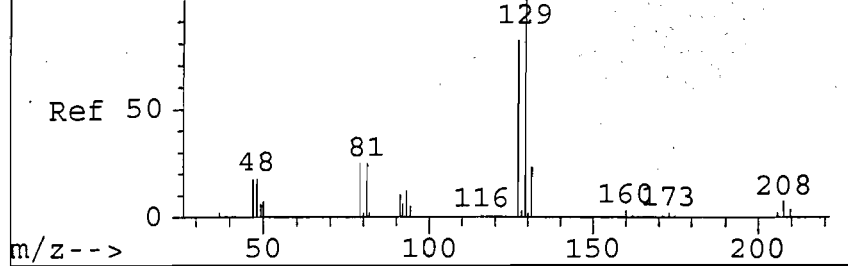
Ion 58.00 (57.

Ion 57.00 (56.



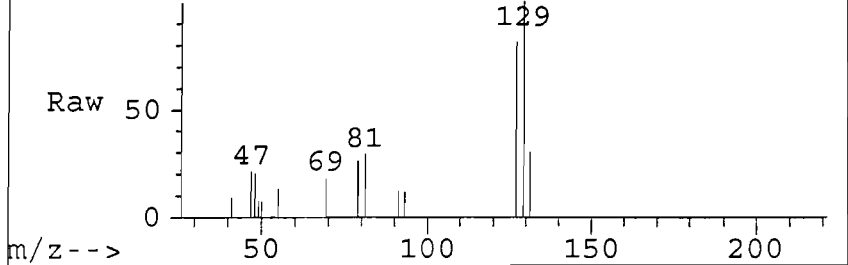
000433

AbundanceScan 1494 (14.957 min): P19049.D (



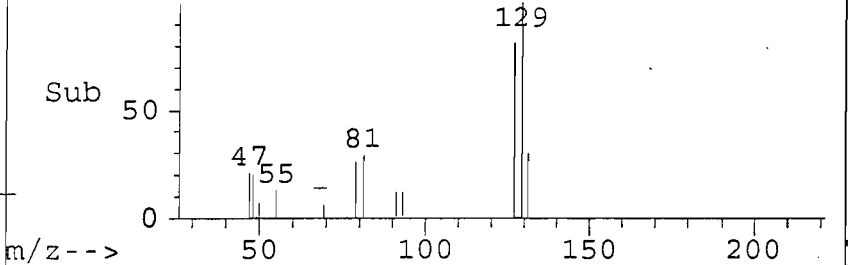
#47
dibromochloromethane
Concen: 5.78 ug/L m
RT: 14.93 min Scan# 1493
Delta R.T. -0.02 min
Lab File: P19054.D
Acq: 6 Oct 99 9:35 pm

AbundanceScan 1493 (14.934 min): P19054.D (



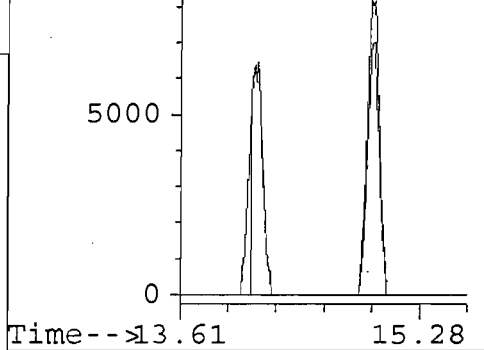
Tgt Ion:	128.75	Resp:	78302
Ion	Ratio	Lower	Upper
129	100		
127	81.3	56.4	104.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 1493 (14.934 min): P19054.D (



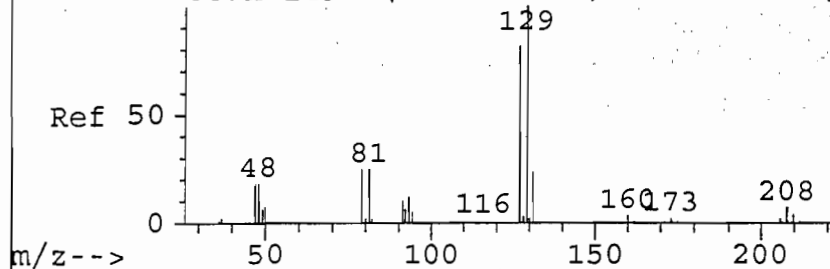
AbundanceIon 128.75 (128

Ion 126.70 (126
14.93



000434

AbundanceScan 1494 (14.957 min): P19049.D (



#47

dibromochloromethane

Concen: 5.78 ug/L m

RT: 14.93 min Scan# 1493

Delta R.T. -0.02 min

Lab File: P19054.D

Acq: 6 Oct 99 9:35 pm

Tgt Ion:128.75 Resp: 78302

Ion Ratio Lower Upper

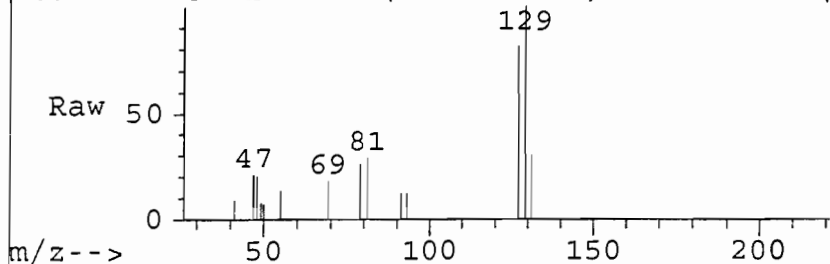
129 100

127 81.3 56.4 104.7

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1493 (14.934 min): P19054.D (

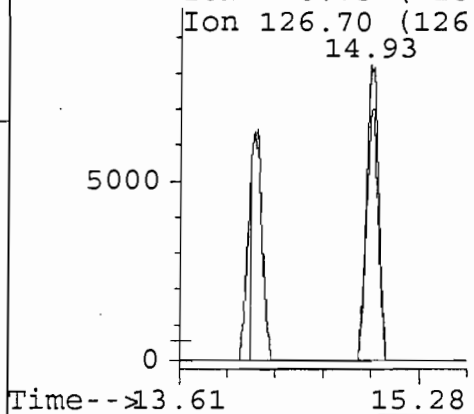
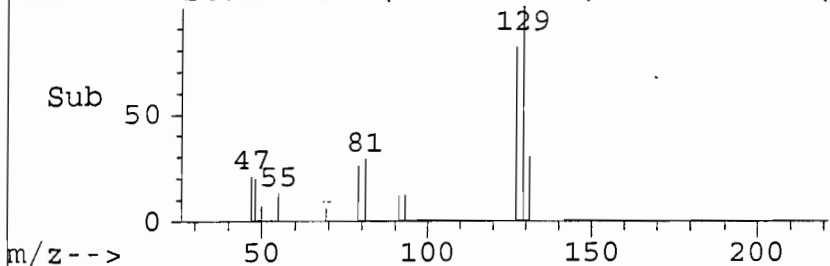


AbundanceIon 128.75 (128

Ion 126.70 (126

14.93

AbundanceScan 1493 (14.934 min): P19054.D (



000435